**Carryl MacLeod**
Project Manager
Marketing Business Unit

**Chevron Environmental Management Company**
6001 Bollinger Canyon Road
San Ramon, CA 94583
Tel (925) 842-3201
CMacLeod@chevron.com

September 27, 2016

**RECEIVED**
*By Alameda County Environmental Health 1:29 pm, Sep 28, 2016*

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 *Off-Site Vapor Intrusion Assessment Report* for former Chevron-branded service station 90517, located at 3900 Piedmont Avenue, Oakland, California (Case #: RO0000138). 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) 827-3876, or travis.flora@stantec.com.

Sincerely,

Carryl MacLeod

**Carryl MacLeod**
Project Manager

**Off-Site Vapor Intrusion Assessment Report**

Former Chevron-branded Service Station 90517
3900 Piedmont Avenue
Oakland, California
Case #: RO0000138


**Prepared for:**
Chevron Environmental Management Company
6001 Bollinger Canyon Road
San Ramon, CA 94583

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

September 27, 2016

**OFF-SITE VAPOR INTRUSION ASSESSMENT REPORT**
3900 Piedmont Avenue, Oakland, CA
September 27, 2016

# Sign-off Sheet

This document entitled *Off-Site Vapor Intrusion Assessment Report* was prepared by Stantec Consulting Services Inc. ("Stantec") for the account of Chevron Environmental Management Company (the "Client"). The material in it reflects Stantec's professional judgment in light of the scope, schedule and other limitations stated in the document and in the contract between Stantec and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. In preparing the document, Stantec did not verify information supplied to it by others. Any use which a third party makes of this document is the responsibility of such third party. Such third party agrees that Stantec shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions taken based on this document.

Prepared by _____
(signature)

**Travis L. Flora**
Senior Project Manager

Reviewed by _____
(signature)

**Patrick H. Vaughan, MS, CEM,**
Principal-National SME, Vapor Intrusion

Reviewed by _____
(signature)

**Dorota Runyan, P.E.**
Senior Engineer

REGISTERED PROFESSIONAL ENGINEER
DOROTA A. RUNYAN
No. C067883
Exp. 6/17
CIVIL
STATE OF CALIFORNIA

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## TABLES



## FIGURES



## APPENDICES

# 1.0 Introduction

On behalf of Chevron Environmental Management Company (Chevron), Stantec Consulting Services Inc. (Stantec) is pleased to submit this Off-Site *Vapor Intrusion Assessment Report* for Chevron 90517 (Case #: RO0000138), which was located at 3900 Piedmont Avenue, Oakland, California (Site; shown on **Figure 1**).

This report describes the results of the off-Site crawl space and outdoor ambient air sampling conducted by Stantec on July 21, 2016, at 3891 Piedmont Avenue, Oakland, California. Stantec collected crawl space samples on May 16, 2016; however, those results are not detailed in this evaluation because although there were no detections of any constituents of concern in the May 16 crawl space sample, the laboratory reporting limits were greater than the respective environmental screening levels (ESLs), so they could not be used for evaluation.

Stantec was unable to execute the full scope of work on Site due to access issues, as described in detail in a letter from Chevron submitted to Alameda County Environmental Health (ACEH) on June 10, 2016 (**Appendix A**). The original scope of work was proposed in Stantec's *Site Conceptual Model and Data Gap Work Plan*, dated March 21, 2014; however, modifications were provided by ACEH in their letter dated May 6, 2014 (included in **Appendix B**). Additional modifications followed, including the addition of proposed soil borings down-gradient of the Site in Piedmont Avenue and changing the proposed off-Site vapor probe to a crawl space air sample because there was inadequate space to install a vapor probe at the intended location, and the City of Oakland would not allow installation of a vapor probe in the sidewalk. Multiple extensions for the report deliverable were approved by ACEH due to permitting and access issues. Related ACEH correspondence is included in **Appendix B**.

Soil borings B-7 and B-8 (shown on **Figure 2**) were attempted on February 1, 2016; however, soil samples could not be recovered from the fill material encountered at each location. Multiple attempts were made, including attempting a second B-7 location, approximately 5 feet northeast from the initial location. The fill material began to undercut the road, so work was stopped and the holes were backfilled and patched. No soil samples were collected from B-7 or B-8; therefore, no additional detail is provided in this report.

The following sections focus on the off-Site crawl space and outdoor ambient air sampling.

# 2.0 Off-Site Vapor Intrusion Assessment

## 2.1 Health and Safety Plan

Stantec utilized 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 outlines potential hazards Stantec personnel and subcontractors expect to be encountered during the field activities. Job safety analyses (JSAs) for tasks to be performed by Stantec personnel (e.g., driving, 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 address potential 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.

## 2.2 Crawl Space and Outdoor Ambient Air Sample Collection

An access agreement was established with the owner of the off-Site, down-gradient property located at 3891 Piedmont Avenue, Oakland, California prior to accessing the property. Notification was sent to the owner and tenant prior to sampling. Access was limited to the air sampling only from outside the building through a hatch. The tenant confirmed that there is no basement. The crawl space consists of an earthen floor with posts and beams supporting the first floor and approximately 3-foot high brick sidewalls.

Since access to the crawl space was limited, approximately 10 feet of Teflon® tubing was used to reach the approximate mid-point of the crawl space. The tubing was placed within a length of polyvinyl chloride (PVC) pipe to prevent curling or kinking of the tubing. The crawl space air was first sampled for analysis by United States Environmental Protection Agency (US EPA) Method TO-17 in laboratory-supplied, batch-certified sorbent tubes. Prior to sampling, 120 milliliters (mL) of the Teflon® tubing was purged using a syringe. After purging, the sorbent tube was connected to the Teflon® tubing, and approximately 3,360 mL of crawl space air was drawn through the sorbent tube using a gas-tight syringe. A secondary sorbent tube was then collected drawing approximately 1,260 mL of crawl space air. The purpose of collecting two different volumes was to help the laboratory lower the laboratory reporting limits (LRLs) below the respective Regional Water Quality Control Board – San Francisco Bay Region (RWQCB) commercial ESLs.

For analysis by US EPA Method TO-15, the crawl space air sample was collected in a laboratory-supplied individually-certified 6-Liter Summa canister. The canister was connected to a flow regulator calibrated to reduce air flow to approximately 11.5 milliliters per minute (mL/min) and a particulate filter. Prior to sampling, approximately 50 mL of the Teflon® tubing was purged using a syringe. After purging, the 6-Liter Summa canister with flow controller was connected to the Teflon® tubing, and the Summa canister valve was opened. Stantec ensured that residual vacuum was left in the canister at the cessation of sampling.

One outdoor ambient air sample was collected at the same time as the crawl space air sample. For analysis by US EPA Method TO-17, a batch certified sorbent tube was used to draw approximately 3,360 mL of ambient air using a gas-tight syringe. A secondary sorbent tube sample was then collected drawing approximately 1,020 mL of ambient air. The purpose of collecting two different volumes was to help the laboratory lower the LRLs below the respective RWQCB commercial ESLs. For analysis by US EPA Method TO-15, the outdoor ambient air sample was collected in a 6-Liter individually-certified Summa canister. The canister was connected to a flow regulator calibrated to deliver a flow rate of approximately 11.5 ml/min and a particulate filter. The Summa canister was placed approximately 3 feet above grade at a location determined at the onset of sampling to be in an up-wind position relative to the building and protected from the elements.

The crawl space air sample was submitted to Eurofins Air Toxics to be analyzed for total petroleum hydrocarbons as diesel range organics (TPH-DRO) and naphthalene by US EPA Method TO-17; and for total petroleum hydrocarbons as gasoline range organics (TPH-GRO); benzene, toluene, ethylbenzene, and total xylenes (BTEX compounds); and naphthalene by US EPA Method TO-15.

The ambient outdoor air sample was submitted to Eurofins Air Toxics to be analyzed for TPH-DRO and naphthalene by US EPA Method TO-17; and for TPH-GRO, BTEX compounds and naphthalene by US EPA Method TO-15.

## 2.3 Crawl Space and Outdoor Ambient Air Sample Results

The crawl space and ambient outdoor ambient air sample analytical results are summarized in **Table 1.** Certified laboratory analysis reports and chain-of-custody documentation are included in **Appendix C**. The US EPA assumes zero attenuation from the crawl space to indoor air, so the results are compared to RWQCB commercial ESLs for indoor air.

TPH-DRO and naphthalene analyzed by US EPA Method TO-17 and TPH-GRO analyzed by US EPA Method TO-15 were not detected above their respective LRLs in both the crawl space and the outdoor ambient air samples. The LRLs were below the respective RWQCB commercial ESLs for indoor air. The constituents of concern detected above their respective LRLs in the US EPA Method TO-15 analysis did not exceed their respective RWQCB ESLs. According to the Department of Toxic Substances Control's (DTSC) July 2015, *Advisory – Active Soil Gas Investigations*, US EPA Method TO-17 is the preferred analytical method to confirm naphthalene concentrations, so results from US EPA Method TO-17 are used for this evaluation. In general, compounds detected in the crawl space sample were somewhat higher than in the outdoor ambient air sample, which is likely the result of diminished air flow in the crawl space; although, crawl space vents are present, which allow fresh air to circulate beneath the building.

# 3.0 Conclusions and Recommendations

As reported in Stantec's March 21, 2014, *Site Conceptual Model and Data Gap Work Plan*, the soil sample collected at 6 feet below ground surface (bgs) from borehole MW-4, which is closest to the off-site property, down-gradient of the Site, had no concentrations of TPH-GRO, BTEX compounds, or methyl *tertiary*-butyl ether above LRLs. Furthermore, as reported in Stantec's March 14, 2016, *First Quarter 2016 Annual Groundwater Monitoring Report*, the most recent depth-to-groundwater (DTW) at groundwater monitoring well MW-2 was 5.40 feet bgs, while DTW at monitoring well MW-4 was 9.30 feet bgs. With approximately 4 feet difference in groundwater elevation between wells MW-2 and MW-4, and assuming the groundwater elevation continues to drop down-gradient, the DTW at the off-site property is likely greater than 10 feet bgs, so there is a vertical separation of over 10 feet from groundwater off Site.

Results of the off-Site crawl space and outdoor ambient air sampling demonstrate that human health is protected. Off-Site conditions satisfy petroleum vapor intrusion to indoor air criteria b of the State Water Resources Control Board's Low-Threat Underground Storage Tank Case Closure Policy, effective August 17, 2012, under Resolution No. 2012-0016. Further evaluation of vapor intrusion off Site is not recommended.

# Tables

**Table 1**

**Off-Site Crawl Space and Outdoor Ambient Air Sample Analytical Results**

3900 Piedmont Avenue

Oakland, California

| | | US EPA Method TO-17 | | | | US EPA Method TO-15 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sample ID** | **Date Collected** | **TPH-DRO (1L sample) (µg/m³)** | **Naphthalene (1L sample) (µg/m³)** | **TPH-DRO (3.3L sample) (µg/m³)** | **Naphthalene (3.3L sample) (µg/m³)** | **TPH-GRO (µg/m³)** | **Benzene (µg/m³)** | **Toluene (µg/m³)** | **Ethylbenzene (µg/m³)** | **Total Xylenes[1] (µg/m³)** | **Naphthalene (µg/m³)** |
| **CS-1** | 7/21/2016 | <1000 | <1.0 | <300 | <0.30 | <62 | **0.32** | **1.6** | **0.40** | **2.32** | **0.53** |
| **OA-1** | 7/21/2016 | <1000 | <1.0 | <300 | <0.30 | <63 | **0.25** | **0.88** | **0.20** | **0.98** | **0.16 J** |
| ***Indoor Air ESLs [2]*** | | ***570*** | ***0.36*** | ***570*** | ***0.36*** | ***2,500*** | ***0.42*** | ***1,300*** | ***4.9*** | ***440*** | ***0.36*** |

**Notes:**

(1) Total xylenes is the sum of ortho-, meta-, and para-xylenes.

(2) California Regional Water Quality Control Board, San Francisco Bay Region, "Update to Environmental Screening Levels." February 22, 2016. Commercial/Industrial Direct Exposure Human Health Risk Levels (Table IA-1).

J = estimated value

**Bold** font denotes a detected concentration. **Bold/Blue** denotes a concentration that exceeds its respective ESL.

**Abbreviations:**

ESLs = Environmental Screening Levels

L = liter

(µg/m3) = micrograms per cubic meter

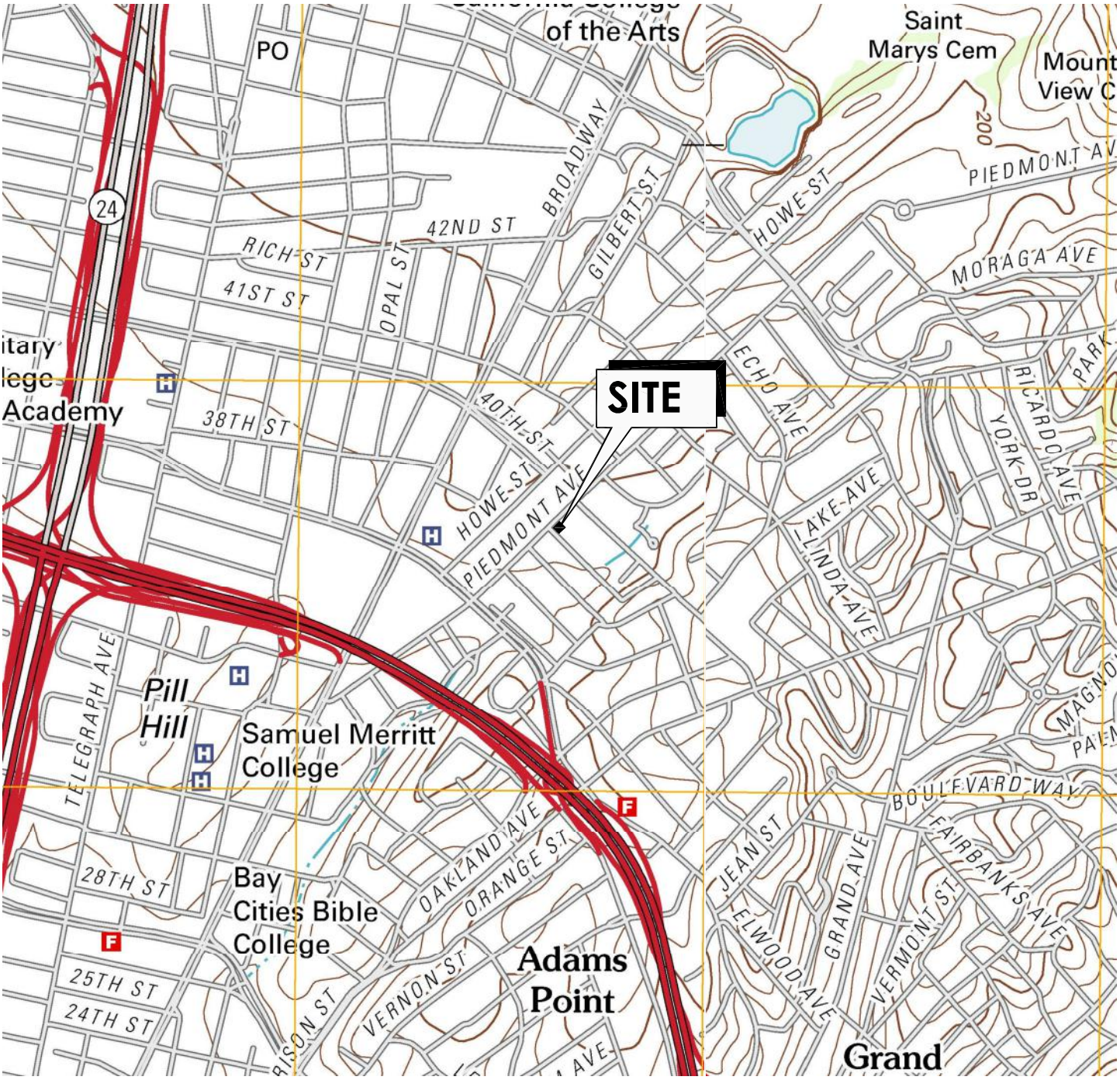
TPH-DRO = total petroleum hydrocarbons as diesel range organics ($C_{10}$-$C_{22}$ reported as total purgeable petroleum hydrocarbons)

TPH-GRO = total petroleum hydrocarbons as gasoline range organics

US EPA = United States Environmental Protection Agency

< = compound was not detected at or above the detection limit shown.

# Figures




REFERENCE: USGS 7.5 MINUTE QUADRANGLE;
OAKLAND WEST, CALIFORNIA; 2012 AND OAKLAND EAST, CALIFORNIA; 2012

Stantec
15575 Los Gatos Blvd, Building C
Los Gatos, CA 95032
PHONE: (408) 356-6124 FAX: (408) 356-6138

| FOR: | | | | FIGURE: |
|---|---|---|---|---|
| FORMER CHEVRON-BRANDED SERVICE STATION 90517<br>3900 PIEDMONT AVENUE<br>OAKLAND, CALIFORNIA | | SITE LOCATION MAP | | 1 |
| JOB NUMBER: 211602403 | DRAWN BY: JRO | CHECKED BY: MRK | APPROVED BY: TLF | DATE: 02/21/14 |

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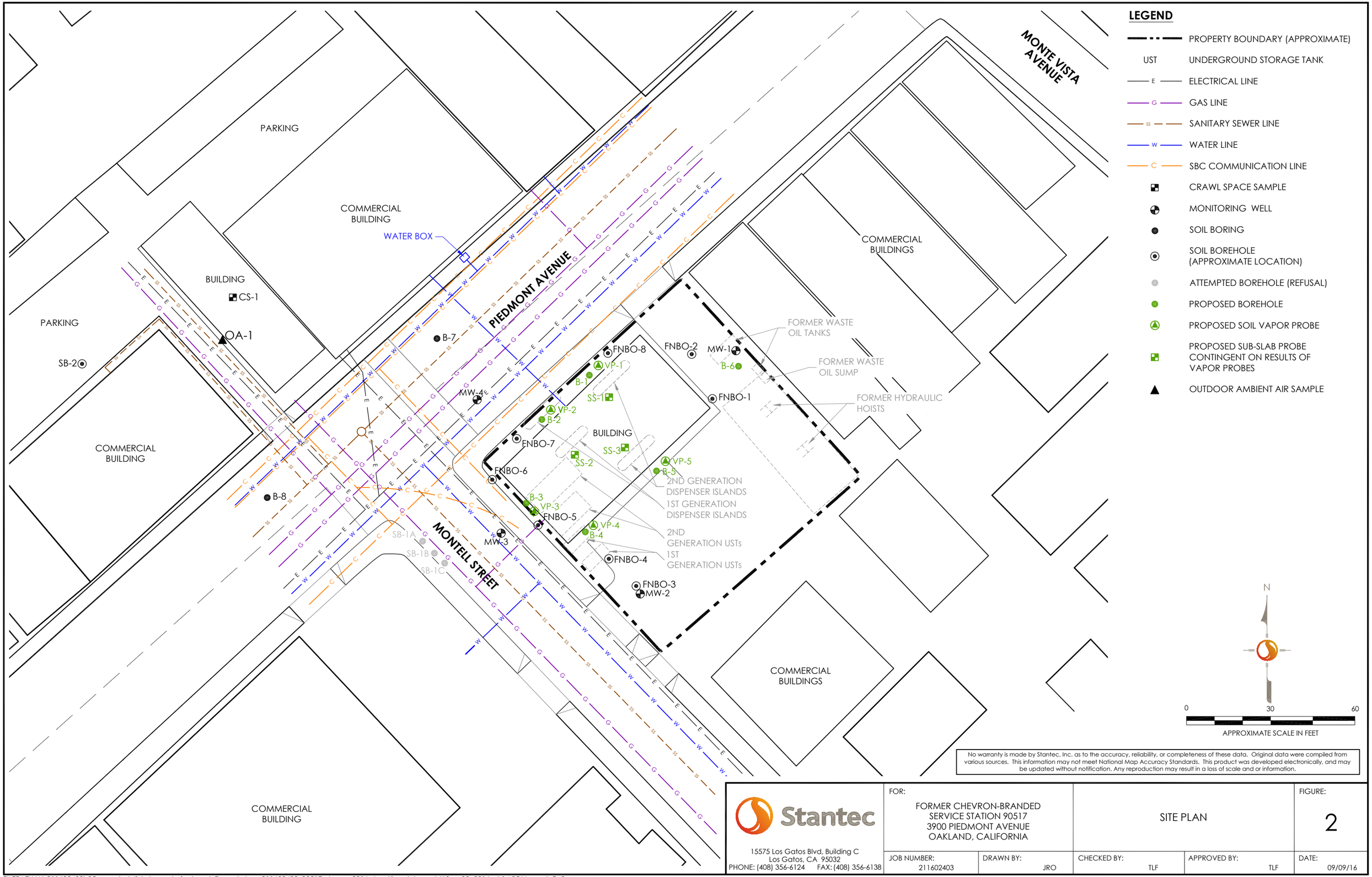


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| FOR: | | | FIGURE: |
|---|---|---|---|
| FORMER CHEVRON-BRANDED SERVICE STATION 90517<br>3900 PIEDMONT AVENUE<br>OAKLAND, CALIFORNIA | | SITE PLAN | 2 |
| JOB NUMBER: 211602403 | DRAWN BY: JRO | CHECKED BY: TLF | APPROVED BY: TLF | DATE: 09/09/16 |

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## Appendix A

Chevron Letter Dated June 10, 2016

**Carryl MacLeod**
Project Manager
Marketing Business Unit

**Chevron Environmental Management Company**
6101 Bollinger Canyon Road
San Ramon, CA 94583
Tel (925) 790-6506
cmacleod@chevron.com

June 10, 2016

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

Re: Fuel Leak Case No. RO0000138
Chevron 90517, 3900 Piedmont Ave, Oakland, CA (the "Property")

Dear Mr. Detterman:

This letter is intended to serve as a chronology of events of Chevron Environmental Management Company's ("CEMC") effort to access the Property to conduct environmental work directed by Alameda County Department of Environmental Health ("ACDEH"). As you know, CEMC entered into a Site Access Agreement ("Agreement") with the owners of the Property, Neil & Diane Goodhue Trs & E M Plant 3rd Tr, on December 11, 2006 which granted CEMC access to the Property to perform environmental assessment and monitoring activities.

On January 13, 2016, Stantec, on behalf of CEMC, sent a Notification of Proposed Field Work Activities of ACDEH-directed work to Owner (specifically, Neil and Diane Goodhue, as listed in the "Notices" section of the Agreement) and Owner's tenant, SOL Performance Training (owned by Tammara Moore) ("Tenant") (Attachment A). Both notifications were sent via overnight mail and delivered on January 14, 2016.

After the notifications were sent out and no objections were received from either the Owner or Tenant, Stantec conducted the utility locate activities at all locations on and offsite without incident on January 26, 2016. On February 1, 2016, Stantec began field activities on offsite locations on Piedmont Avenue in front of the Property. On February 2, 2016, Stantec accessed the Property to begin concrete coring at several locations at the back of the onsite building. During this process, Tenant (specifically, Ms. Moore) requested Stantec and its subcontractor to stop work immediately and remove all equipment and personnel from the Property, threatening to call authorities even after it was explained that CEMC had a valid access agreement with the Owner and had provided appropriate notifications to both Owner and Tenant weeks prior.

After being ordered by Ms. Moore to vacate the Property, Stantec and its subcontractor left quickly and notified CEMC. Due to the Ms. Moore's insistence that those performing the work on behalf of CEMC vacate the Property immediately, the subcontractor did not have time to appropriately drum the debris/soil from the concrete coring activities and subsequently left the debris in a bucket on site.

Per the Agreement, Alexis Coulter of CEMC notified Owner's attorney Eric Starr to inform him of the Tenant's refusal of access. Ms. Coulter explained to Mr. Starr that waste was left at the

Property and requested that he inform his client that Stantec needed to return to the Property to complete the agency-directed work and to properly contain the waste left on the Property. Mr. Starr advised Ms. Coulter to call the Owner directly and provided her with Ted Plant's contact information (Mr. Plant owns the Property along with the Goodhues). Ms. Coulter contacted Mr. Plant to inform him of the Tenant's actions and again requested access to return to the Property to complete the work. Mr. Plant directed Ms. Coulter to contact the Tenant directly, which she did. Ms. Coulter spoke with an employee of the Tenant's business who communicated CEMC's desire to return to the Property to properly store the waste to Ms. Moore. Ms. Moore then provided her consent (via her employee) for CEMC to return to the Property to properly store the waste.

The work was then rescheduled for February 22, 2016. On February 3, 2016, CEMC again provided notice of its intent to access the Property via email to Mr. Plant. Additional notification and work schedule was provided to Owner and Tenant on February 15, 2016. In this notification, CEMC also requested that Mr. Plant inform the Tenant of the rescheduled work and to provide confirmation to CEMC prior to February 17th from the Tenant of her acceptance of the new date of access (February 22nd). Beginning on February 3rd, CEMC worked with Mr. Plant and the Tenant to address their numerous concerns about the work, including potential noise, onsite parking, and timing of field activities.

On February 17, 2016, the Tenant identified storage of waste onsite as another concern that she requested be addressed prior to the commencement of any work on the Property. On February 19, 2016, CEMC canceled the February 22, 2016 scheduled work while determining available options to address the Tenant's concern regarding the storage of waste. CEMC notified ACDEH by phone that the work was canceled and that we were working to resolve the issues.

Due to the fact that we would likely generate waste that may potentially be hazardous, we therefore needed to abide by Title 22 California Code of Regulations Section 66262.11 and by Title 40 Code of Federal Regulations Section 262.11 in handling any waste that was generated. As we did not know whether the soil and/or water encountered during the proposed work would be hazardous until it is properly profiled, more time was needed to determine a safe and appropriate handling of the waste prior to being profiled and accepted at a waste disposal facility.

The work was then rescheduled for May 10, 2016. On April 13, 2016, CEMC again provided notice to Mr. Plant of its intended access and assured him that the accommodations requested by his Tenant regarding noise, onsite parking, and timing of the work were properly addressed by CEMC. CEMC again requested confirmation from Mr. Plant that the proposed schedule and accommodations were acceptable to both he and the Tenant.

After hearing nothing from Mr. Plant, CEMC followed up with him on April 22, 2016. Mr. Plant responded, telling CEMC that he gave notice to his Tenant of the proposed schedule but had not heard anything.

On April 22, 2016, Stantec submitted via Geotracker a Request for Extension of Subsurface Investigation Report which provided an update on the delay of completing the work, along with a brief statement that the Tenant had requested that the work conducted on February 2nd be discontinued. Stantec also provided notification to ACDEH of the rescheduled May 10, 2016 start date.

On April 25, 2016, CEMC requested written confirmation from Mr. Plant that the Tenant had accepted the new schedule and accommodations.

On April 28, 2016, due to a lack of response from Mr. Plant, CEMC canceled the work scheduled for May 10th and provided notification to ACDEH that the work was canceled as we did not receive confirmation from either Mr. Plant or the Tenant that the Tenant had agreed to CEMC's planned access to the Property to conduct the work.

On April 29, 2016, ACDEH submitted a Site Access Request to the Owner (Attachment B). ACDEH's letter stated "If you or your tenant continue to deny access or do not respond by the date specified below, then this Agency will hold you legally responsible for the investigation required by ACDEH. You will then be required to undertake the investigation at your own expense".

On May 2, 2016, CEMC received an email from Mr. Plant which included an email he received from the Tenant's employee, Kris Bailey, in which Ms. Bailey asks if CEMC had completed their work. CEMC then rescheduled the work yet again for May 10, 2016 and requested confirmation from Mr. Plant by end of the day that the Tenant understood the work had not occurred but would occur on May10th and that the Tenant would not deny CEMC access to the Property at that time.

On May 3, 2016, CEMC notified ACDEH that the work would need to be rescheduled yet again as no further communication or confirmation was received from either Mr. Plant or the Tenant.

On May 4, 2016, ACDEH regulator Mark Detterman inquired with Mr. Plant by email as to whether there was an update or if ACDEH could "authorize Chevron and their consultants to proceed". Mr. Plant responded, indicating that he, as landlord, had provided notice to the Tenant, but did not receive any authorization from the Tenant allowing the work to proceed.

On May 5, 2016, CEMC canceled the work scheduled for May 10th as no confirmation had been received by the end of May 4th from either the Tenant or Owner as was requested by CEMC. Soon after, CEMC was copied on an email dated May 5, 2016from ACDEH Program Manager Dilan Roe in which she proposed a meeting or conference call between all of the parties to discuss the project. At that time, CEMC noticed that within that email thread was an email from the Tenant's employee Ms. Bailey to Mr. Plant dated May 4, 2016 that confirmed the May 10th 2016 work and schedule, along with several complaints from the Tenant to ACDEH about the scheduled work. Within hours of receiving this new information (the Tenant's confirmation that the work scheduled for May 10th could go forward), CEMC rescheduled the driller, field crew, permit inspector and waste hauler to begin the work on May 10th and notified Mr. Plant, the Tenant, and ACDEH by email that we were set to begin work on May 10th. Soon after, the Tenant responded by email stating that they now had patients scheduled during the time the work was scheduled to occur but that they were open to having a conference call between all of the parties. After receiving this information, I called ACDEH for assistance in proceeding with the work.

On May 6, 2016, I spoke with Mr. Detterman of ACDEH and informed him that the work would be done with hand augers to collect soil samples and install soil vapor probes. The only time the drill rig would be operating on the Property would be on Thursday, May 12, 2016 in the afternoon beginning at 4pm to conduct concrete coring as previously worked out with the Tenant due to their concerns.

On May 6, 2016, Mr. Detterman notified me that he had left a voice message for Tenant's representative, Ms. Bailey.

On May 9, 2016, Stantec picked up the street parking permit and posted No Parking signs along Piedmont Avenue and Montell Street in order to park all work vehicles off-site as requested by the Tenant. CEMC provided notification to Owner, Tenant and ACDEH of the planned work to begin the following morning, May 10th. I then received an update from Mr. Detterman that the Tenant would only permit the work to be performed on a Friday after 1pm. After hearing this news, CEMC notified all parties that the work was canceled and that the drums that were still on site would be removed on May 10th.

On May 10, 2016, Stantec coordinated the removal of the drums that were onsite.

It is CEMC's opinion that every effort was made to coordinate with both Owner and Tenant to conduct the agency-directed work at the Property in accordance with the Agreement. CEMC addressed every concern raised by the Tenant and spent significant time and effort to reschedule the work several times and had to do so with very little assistance from the Owner, despite the owner's obligation to communicate with the Tenant.

Per the ACDEH letter addressed to the Owner dated April 29, 2016, ACDEH stated "this Agency will hold you legally responsible for the investigation required by ACDEH. You will then be required to undertake the investigation at your own expense." Since CEMC was not able to conduct the work due to the Tenant's refusal to grant access (despite the fact that the Agreement between the CEMC and Owner is still in effect), CEMC requests that the property owners be required to complete the agency-directed work

If you have any further questions, please do not hesitate to contact me at (925) 842-3201, or cmacleod@chevron.com.

Sincerely,

Carryl MacLeod

**Carryl MacLeod**
Project Manager

Attachments

cc
Geotracker
Neil and Diane Goodhue Trust
EM Plant 3rd Trust
Alexis Coulter, CEMC (via email)
Susan Snyder, CEMC (via email)

# Attachment

Stantec

January 13, 2016

**Attention:** **Neil and Diane Goodhue**
300 Hillside Avenue
Piedmont, California 94611-4014

**Manager of SOL Performance Training**
3900 Piedmont Avenue
Oakland, California 94611

**Reference:** **Notification of Proposed Fieldwork Activities**
3900 Piedmont Avenue, Oakland, California

Dear Mr. and Ms. Goodhue:

On behalf of Chevron Environmental Management Company (EMC), Stantec Consulting Services Inc. (Stantec) will be accessing your property located at the above-referenced address (the "Property") to perform Agency-directed environmental work. Environmental work will include the installation of soil vapor probes as well as the collection of soil and soil vapor samples.

Stantec and its subcontractors will be on the Property the following dates to complete this work: **January 26, 2016** to perform utility locating activities, and **February 1 - 5, 2016** to perform drilling and sampling activities. The scheduled fieldwork will occur during normal business hours. The equipment used for the work will include utility locating equipment, limited access drill rig, and support vehicles. Traffic control equipment will also be used to establish an exclusion zone to protect workers and the public while the activities are occurring on the Property. Waste generated during the site assessment activities will be stored on site pending pickup and disposal.

Please contact me if you have any questions about this work.

Regards,

**Stantec Consulting Services Inc.**

Belinda Espino
Project Scientist
408-827-3529
belinda.espino@stantec.com

cc: Carryl MacLeod, EMC – Electronic Copy (cmacleod@chevron.com)
Eric Starr, Esq., 1 California Street, #300, San Francisco, California 94111

**Flora, Travis**

**From:** trackingupdates@fedex.com
**Sent:** Thursday, January 14, 2016 10:58
**To:** Flora, Travis
**Subject:** FedEx Shipment 775412570848 Delivered

# Your package has been delivered

## Tracking # 775412570848

Ship date:
Wed, 1/13/2016

**Belinda Espino**
Stantec Consulting Services Inc.
Los Gatos, CA 95032
US

Delivered

Delivery date:
Thu, 1/14/2016 10:54 am

**Neil and Diane Goodhue**
300 Hillside Ave
PIEDMONT, CA 94611
US

## Shipment Facts

Our records indicate that the following package has been delivered.

| | |
|---|---|
| **Tracking number:** | 775412570848 |
| **Status:** | Delivered: 01/14/2016 10:54 AM Signed for By: Signature not required |
| **Reference:** | 211602403.711.0201 |
| **Signed for by:** | Signature not required |
| **Delivery location:** | PIEDMONT, CA |
| **Delivered to:** | Residence |
| **Service type:** | FedEx Standard Overnight |
| **Packaging type:** | FedEx Envelope |
| **Number of pieces:** | 1 |
| **Weight:** | 0.50 lb. |
| **Special handling/Services:** | Deliver Weekday |
| | Residential Delivery |

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Thank you for your business.

**Flora, Travis**

**From:** trackingupdates@fedex.com
**Sent:** Thursday, January 14, 2016 11:19
**To:** Flora, Travis
**Subject:** FedEx Shipment 775412629876 Delivered

# Your package has been delivered

## Tracking # 775412629876

Ship date:
Wed, 1/13/2016

**Belinda Espino**
Stantec Consulting Services Inc.
Los Gatos, CA 95032
US

Delivered

Delivery date:
Thu, 1/14/2016 11:14 am

**Manager of SOL Performance Training**
SOL Performance Training
3900 Piedmont Ave
OAKLAND, CA 94611
US

## Shipment Facts

Our records indicate that the following package has been delivered.

| | |
|---|---|
| **Tracking number:** | 775412629876 |
| **Status:** | Delivered: 01/14/2016 11:14 AM Signed for By: Signature not required |
| **Reference:** | 211602403.711.0201 |
| **Signed for by:** | Signature not required |
| **Delivery location:** | OAKLAND, CA |
| **Delivered to:** | Residence |
| **Service type:** | FedEx Standard Overnight |
| **Packaging type:** | FedEx Envelope |
| **Number of pieces:** | 1 |
| **Weight:** | 0.50 lb. |
| **Special handling/Services:** | Deliver Weekday |
| | Residential Delivery |

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Thank you for your business.

ALAMEDA COUNTY
**HEALTH CARE SERVICES**
AGENCY
REBECCA GEBHART, Acting Director

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

April 29, 2016

Neil & Diane Goodhue
300 Hillside Avenue
Piedmont, CA 94611
(Sent via electronic mail to: goodhueproperty@aol.com)
(Sent via electronic mail to: dcgoodhue@aol.com)

Neil & Diane Goodhue
and Edward Plant 3rd,
300 Hillside Avenue
Piedmont, CA 94611

Neil & Diane Goodhue
and Edward Plant 3rd,
Trust and Trustees
19 Mallorca Way
San Francisco, CA 94123
(Sent via electronic mail to: tplant@edwardplantcompany.com)

Subject: **Site Access Request**; Fuel Leak Case No. RO0000138; Global ID # T0600102248; Chevron #9-0517 / Homestead Federal Savings, 3900 Piedmont Avenue, Oakland CA 94610

Dear Mr. and Mrs. Goodhue, and Mr. Plant:

Alameda County Department of Environmental Health (ACDEH) understands that Ms. Carryl MacLeod of the Chevron Environmental Management Company, (CEMC; a Responsible Party for the subject fuel release case) and her consultant, Mr. Travis Flora with Stantec, have requested access to your property at 3900 Piedmont Avenue in Oakland to investigate the extent of residual contamination that has the potential to be of concern to site occupants. This work has been required by ACDEH. It is the understanding of ACDEH that an access agreement has been signed; however, Ms. MacLeod and Mr. Flora have informed ACDEH that the terms of access continue to be elusive. The purpose of this letter is to advise you in your decision to allow access.

In the past when your property was a gasoline service station, a petroleum hydrocarbon release occurred at the property and is known to have contaminated the soil, groundwater, and likely soil vapor beneath the site and vicinity. As a lead responsible party, CEMC is required to investigate the extent of the release(s) and to clean up the contamination to levels that are considered safe. For this reason ACDEH has required the CEMC and their consultant Stantec to investigate the presence of any residual contamination, and they have consequently requested access to undertake the investigation beneath your property.

ACDEH encourages you to work with Ms. MacLeod and Mr. Flora, and agree upon the terms necessary to allow them access to your property. If you or your tenant continue to deny access or do not respond by the date specified below, then this Agency will hold you legally responsible for the investigation required by ACDEH. You will then be required to undertake the investigation at your own expense. Since the costs for such investigations are often high, allowing access is clearly more reasonable.

Please also be aware that it appears our records have not been updated lately, and that the State of California considers all property owners who simply own a contaminated site to be Responsible Parties. Normally these changes are captured near the closure of a case, which this investigation is attempting to move the site towards. However to reflect changes in property ownership, and the apparent reluctance to allow access, ACDEH will shortly update our records and will be issuing you a *Notice of Responsibility* that notifies you of your responsibility to investigate and clean up your properly as a Responsible Party. The CEMC has provided the lead in this effort until now. Please understand that this is a standard procedure required of ACDEH by the state. It is also intended to clarify your legal responsibility.

Please reconsider the request for access and the terms of access to your property and respond to ACDEH within 10 working days from the date of this letter (**April 29, 2016**) with your decision.

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

Sincerely,

Digitally signed by Mark Detterman
DN: cn=Mark Detterman, o=ACEH, ou=ACEH, email=mark.detterman@acgov.org, c=US
Date: 2016.04.29 12:11:03 -07'00'

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

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

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

Travis Flora, Stantec Consulting Services, Inc, 15575 Los Gatos Blvd, Bldg C, Los Gatos, CA 95032 (Sent via electronic mail to: Travis.Flora@Stantec.com)

Dilan Roe, ACDEH, (Sent via electronic mail to dilan.roe@acgov.org)
Mark Detterman, ACDEH, (Sent via electronic mail to mark.detterman@acgov.org)
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 visit the SWRCB 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 ftp://alcoftp1.acgov.org
      (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
   b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
   c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
   d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
   e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.

3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
   a) Send email to 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.

# Appendix B

Alameda County Department of Environmental Health Correspondence

## Flora, Travis

**From:** Detterman, Mark, Env. Health <Mark.Detterman@acgov.org>
**Sent:** Friday, May 09, 2014 9:45 AM
**To:** MacLeod, Carryl G; 'Fischer, Alexis N'
**Cc:** Flora, Travis; Roe, Dilan, Env. Health
**Subject:** RO138; Chevron 9-0517 / Homestead Federal Savings; Meeting Followup and Report Submittal Extension

**Follow Up Flag:** Follow up
**Flag Status:** Flagged

Carryl and Alexis,
Based on the discussions in the meeting held at ACEH on May 8, 2014, ACEH is in agreement that an extension of the submittal of the final report to September 5, 2014 is appropriate. This is expected to allow inclusion of indoor and outdoor air sampling, if required. Should indoor and outdoor air sampling be required, a work plan addendum to refine this scope of work, as discussed in the May 6, 2014 directive letter, would require an extension to August 1, 2014. These dates will be updated in 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*

ALAMEDA COUNTY
**HEALTH CARE SERVICES**
AGENCY
ALEX BRISCOE, Agency Director

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

May 6, 2014

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

Ms. Leslie Riasanovsky
Unknown Address

Neil & Diane Goodhue
300 Hillside Avenue
Piedmont, CA 94611

Subject: Modified Work Plan Approval; Fuel Leak Case No. RO0000138; Global ID # T0600102248; Chevron #9-0517 / Homestead Federal Savings, 3900 Piedmont Avenue, Oakland CA 94610

Dear Mesdames MacLeod, Riasanovsky, and Mr. & Mrs. Goodhue:

Alameda County Environmental Health Department (ACEH) staff has reviewed the case file, including the *First Quarter 2014 Groundwater Monitoring Report,* and the *Site Conceptual Model and Data Gap Work Plan,* both dated March 21, 2014. The reports were prepared and submitted on your behalf by Stantec Consulting Services Inc. (Stantec). Thank you for submitting the documents.

ACEH has previously evaluated the data and recommendations in case files, and reviewed the site with respect to 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), the Media-Specific Criteria for Groundwater, the Media-Specific Criteria for Vapor Intrusion to Indoor Air, and potentially the Direct Contact and Outdoor Air Exposure Criteria (see Geotracker for a copy of the LTCP checklist). ACEH's determination is based on insufficient data and analysis to support groundwater plume delineation coupled with a lack of knowledge of vicinity water supply well locations and potential other sensitive receptors, lack of understanding of the potential for vapor intrusion into existing onsite buildings, and the lack of sufficient shallow soil samples proximal to a number of the former UST-related structures. The referenced work plan was generated as a result of this LTCP review. For more details please see the directive letter dated December 18, 2013.

Based on ACEH staff review of the work plan addendum the proposed scope of work is conditionally approved for implementation provided that the technical comments below are incorporated during the proposed field investigation. Submittal of a 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 technical comments below is proposed. We request that you address the following technical comments, perform the proposed work, and send us the reports described below. Please provide 72-hour advance written notification to this office (e-mail preferred to: mark.detterman@acgov.org) prior to the start of field activities.

## TECHNICAL COMMENTS

1. **Soil Vapor Data Collection Clarifications –** The referenced vapor work plan proposes a series of actions with which ACEH is in general agreement with; however, ACEH requests several modifications to the approach. Please submit a report by the date specified below.

    a. **Chevron Vapor Sampling Technical Protocols –** Because the Chevron Technical Protocols are proprietary and were not disclosed with the referenced work plan, ACEH requests that a copy be forwarded for review by the date identified below.

b. **Installation Depth of Soil Vapor Wells –** The work plan proposes to install the vapor wells to a depth of 5.5 feet below grade surface (bgs); however, the LTCP states that soil vapor is to be collected at existing buildings five feet below the depth of the foundation. Consequently, ACEH requests that the depth of the vapor wells be modified to ensure this detail is observed. Provided the depth of the foundations (onsite and offsite) can be documented which will justify the depth of well installation in the requested report, further communication of the well depth is not required.

c. **Use of Dry Bentonite in Vapor Wells –** ACEH requests the use of hydrated bentonite in vapor well construction procedures. Recent ACEH experience indicates that the sole use of dry bentonite, and subsequent (insufficient) in-place hydration, can significantly skew vapor data due to generator exhaust gases that can be in the vicinity. ACEH is not opposed to a thin layer of dry bentonite immediately above the well sand interval; however, seeks to clarify that hydrated bentonite above the dry bentonite is the preferred, and requested, well construction method.

d. **Naphthalene Analytical Testing Methods –** Vapor samples are proposed to be analyzed by TO-15 for naphthalene. Please note that Department of Toxic Substance Control (DTSC) documents recommend that TO-17 should be used to confirm TO-15 sampling results (Appendix E, *Active Soil Gas Investigations Advisory,* dated April 30, 2012). In part this appears to be related to lower naphthalene concentrations when Nylaflow tubing is used to sample soil vapor. Therefore ACEH requests that TO-17 be used to confirm naphthalene results by TO-15.

e. **Helium Tracer Shroud Concentrations –** A tracer gas is proposed to be used during vapor sampling, and while analysis for helium in the vapor sample is proposed, proposed analysis for shroud helium concentrations was not found. The referenced DTSC document recommends that shroud concentrations are to be determined in order to determine the magnitude of a leak into the vapor sample concentrations, if any. The document also provides an acceptable leak magnitude (Appendix C).

f. **Not Approved - Contingency Indoor Air Sampling –** A contingency sampling plan for sub-slab, indoor and outdoor air was provided in the referenced work plan. While ACEH is in general agreement with the generalized plan, because indoor sampling locations and a copy of the indoor air pre-sampling survey were not provided, ACEH does not include approval of this scope of work with this letter.

   The work plan proposed conducting a pre-sampling survey 24 hours prior to indoor air and under normal HVAC operations. Because of the potential for consumer products to complicate the interpretation of indoor air vapor samples, ACEH will request a longer advanced warning and interview period. DTSC also recommends (*Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air*, dated October 2011) that the sample duration for indoor air events should be a 24-hour period. In accordance with U.S. EPA Region 9 document (*EPA Region 9 Guidelines and Supplemental Information Needed for Vapor Intrusion Evaluations at the South Bay National Priorities List (NPL) Sites*, December 3, 2013), because HVAC operations can significantly affect sample results, ACEH will request collection of the indoor air vapor samples under worst-case conditions, such as a non-operational HVAC system and with doors and windows closed. Additional 8-hour sampling events can be conducted at that time.

   Should this contingency be required, please submit proposed indoor and outdoor air sampling locations, and a copy of the indoor air pre-sampling survey form to ACEH by the date identified below, as a work plan addendum.

2. **Well Survey –** Principally to clarify, ACEH requests that the proposed well survey utilize both Department of Water Resources (DWR) and Alameda County Public Works Agency (ACPWA) well databases as they are sufficiently different to warrant review of both.

3. **Sensitive Receptor Survey –** Principally to clarify, and because of the difficulty in defining the length of the groundwater plume downgradient of the site, ACEH has requested that a sensitive receptor

survey be conducted. ACEH requests that the technical justification papers of the LTCP be used to estimate the likely maximum length of the groundwater plume, and determine if sensitive receptors lie within that area. As previously requested this is to include basements or other underground structures and sensitive populations.

## 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 the following specified file naming convention and schedule:

- **June 6, 2014 –** Chevron Vapor Sampling Technical Protocols (via electronic mail)

- **June 27, 2014 –** Work Plan Addendum (Indoor and Outdoor Sampling Locations and Indoor Air Pre-Sampling Survey Form, if required)
  File to be named: RO138_WP_ADEND_R_yyyy-mm-dd
- **July 25, 2014 –** Subsurface Investigation
  File to be named: RO138_SWI_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: http://www.acgov.org/aceh/index.htm. 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.

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

Sincerely,

Digitally signed by Mark E. Detterman
DN: cn=Mark E. Detterman, o, ou, email, c=US
Date: 2014.05.06 15:19:13 -07'00'

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

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

cc: Travis Flora, Stantec Consulting Services, Inc, 15575 Los Gatos Blvd, Bldg C, Los Gatos, CA 95032 (sent via electronic mail to: Travis.Flora@Stantec.com)

Dilan Roe (sent via electronic mail to dilan.roe@acgov.org)
Mark Detterman (sent via electronic mail to mark.detterman@acgov.org)
Electronic File, GeoTracker

# Attachment 1

## Responsible Party(ies) Legal Requirements/Obligations

REPORT/DATA REQUESTS

These reports/data are being requested pursuant to Division 7 of the California Water Code (Water Quality), Chapter 6.7 of Division 20 of the California Health and Safety Code (Underground Storage of Hazardous Substances), and Chapter 16 of Division 3 of Title 23 of the California Code of Regulations (Underground Storage Tank Regulations).

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (Local Oversight Program [LOP] for unauthorized releases from petroleum Underground Storage Tanks [USTs], and Site Cleanup Program [SCP] for unauthorized releases of non-petroleum hazardous substances) require submission of reports in electronic format pursuant to Chapter 3 of Division 7, Sections 13195 and 13197.5 of the California Water Code, and Chapter 30, Articles 1 and 2, Sections 3890 to 3895 of Division 3 of Title 23 of the California Code of Regulations (23 CCR). Instructions for submission of electronic documents to the ACEH FTP site are provided on the attached "Electronic Report Upload Instructions."

Submission of reports to the ACEH FTP site is in addition to requirements for electronic submittal of information (ESI) to the State Water Resources Control Board's (SWRCB) Geotracker website. In April 2001, the SWRCB adopted 23 CCR, Division 3, Chapter 16, Article 12, Sections 2729 and 2729.1 (Electronic Submission of Laboratory Data for UST Reports). Article 12 required electronic submittal of analytical laboratory data submitted in a report to a regulatory agency (effective September 1, 2001), and surveyed locations (latitude, longitude and elevation) of groundwater monitoring wells (effective January 1, 2002) in Electronic Deliverable Format (EDF) to Geotracker. Article 12 was subsequently repealed in 2004 and replaced with Article 30 (Electronic Submittal of Information) which expanded the ESI requirements to include electronic submittal of any report or data required by a regulatory agency from a cleanup site. The expanded ESI submittal requirements for petroleum UST sites subject to the requirements of 23 CCR, Division, 3, Chapter 16, Article 11, became effective December 16, 2004. All other electronic submittals required pursuant to Chapter 30 became effective January 1, 2005. Please visit the SWRCB 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

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UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, late 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

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| Alameda County Environmental Cleanup Oversight Programs (LOP and SCP) | **REVISION DATE:** July 25, 2012 |
|---|---|
| | **ISSUE DATE:** July 5, 2005 |
| | **PREVIOUS REVISIONS:** October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010 |
| **SECTION:** Miscellaneous Administrative Topics & Procedures | **SUBJECT:** Electronic Report Upload (ftp) Instructions |

The Alameda County Environmental Cleanup Oversight Programs (petroleum UST and SCP) 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 ftp://alcoftp1.acgov.org
      (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
   b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
   c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
   d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
   e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.

3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
   a) Send email to 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.

## Espino, Belinda

**From:** Flora, Travis
**Sent:** Wednesday, August 27, 2014 9:21 AM
**To:** Espino, Belinda
**Subject:** FW: Chevron 90517, 3900 Piedmont Avenue, Oakland, CA (Case #: RO0000138)

FYI

---

**From:** Detterman, Mark, Env. Health [mailto:Mark.Detterman@acgov.org]
**Sent:** Tuesday, August 26, 2014 16:51
**To:** Flora, Travis
**Cc:** MacLeod, Carryl G
**Subject:** RE: Chevron 90517, 3900 Piedmont Avenue, Oakland, CA (Case #: RO0000138)

Travis,
The two proposed bore locations (B-7 and B-8) are not well located as replacements to VP-6, which was located downgradient (per the rose diagram) of well MW-4. The location of bore B-7 appears appropriate to characterize the downgradient of extent of groundwater from other onsite proposed bores should data generated by them be elevated; however, well MW-4 contains the highest known concentrations at the site. Is it not possible to place a bore outboard of VP-6 in the street by the manhole? If not, another suitable location for a replacement for VP-6 is necessary. Does the building have a crawl space?

Otherwise, ACEH is in agreement with the request for an extension to November 26th due to permitting factors at the city of Oakland. I've updated Geotracker with this revised date until we resolve this issue.

*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*

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**From:** Flora, Travis [mailto:Travis.Flora@stantec.com]
**Sent:** Thursday, August 21, 2014 3:22 PM
**To:** Detterman, Mark, Env. Health
**Cc:** MacLeod, Carryl G
**Subject:** Chevron 90517, 3900 Piedmont Avenue, Oakland, CA (Case #: RO0000138)

Hi Mark,
As requested, a copy of the extension request for RO0138 is attached. This extension request is due to the delays associated with Oakland encroachment permitting. We also discuss the proposed change in scope of work, adding two soil borings in the street in lieu of an off-site vapor probe, because the City will not allow work in the sidewalk.

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.**

## Flora, Travis

**From:** Detterman, Mark, Env. Health <Mark.Detterman@acgov.org>
**Sent:** Tuesday, January 20, 2015 16:36
**To:** Flora, Travis
**Cc:** 'Coulter, Alexis N'; 'MacLeod, Carryl G'
**Subject:** RE: Extension Approval; Chevron 90517 (RO138)

**Follow Up Flag:** Follow up
**Flag Status:** Flagged

Travis,
I've updated Geotracker with an April 3, 2015 submittal date.

*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*

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**From:** Flora, Travis [mailto:Travis.Flora@stantec.com]
**Sent:** Thursday, January 15, 2015 2:28 PM
**To:** Detterman, Mark, Env. Health
**Cc:** 'Coulter, Alexis N'; 'MacLeod, Carryl G'; dehloptoxic, Env. Health
**Subject:** RE: Extension Approval; Chevron 90517 (RO138)

Hi Mark,
Due to continued Oakland permitting delays, I just submitted the attached extension request to GeoTracker and the ACEH FTP for site RO138.

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

**From:** Detterman, Mark, Env. Health [mailto:Mark.Detterman@acgov.org]
**Sent:** Friday, November 14, 2014 09:35
**To:** 'MacLeod, Carryl G'
**Cc:** Flora, Travis; 'Coulter, Alexis N'
**Subject:** Extension Approval; Chevron 90517 (RO138)

Please use this email as approval of the requested extension.

*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:** Tuesday, March 17, 2015 13:35
**To:** Flora, Travis
**Cc:** MacLeod, Carryl G
**Subject:** RE: RO138 - Chevron 90517 Oakland - Request for Extension

Travis,
Hopefully we'll see some progress shortly! In the mean time, please use this email 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*

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**From:** Flora, Travis [mailto:Travis.Flora@stantec.com]
**Sent:** Monday, March 16, 2015 9:20 AM
**To:** Detterman, Mark, Env. Health; dehloptoxic, Env. Health
**Subject:** RO138 - Chevron 90517 Oakland - Request for Extension

Hi Mark,
The attached extension request for RO138 was uploaded to GeoTracker.

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

## Flora, Travis

**From:** Detterman, Mark, Env. Health <Mark.Detterman@acgov.org>
**Sent:** Monday, July 06, 2015 13:51
**To:** Flora, Travis; MacLeod, Carryl G
**Subject:** RE: Chevron 90517; RO138; Extension Request

**Follow Up Flag:** Follow up
**Flag Status:** Flagged

Travis,
Please use this email to document ACEH agreement with an extension to October 31, 2015 due to the difficulty in obtaining offsite access prior to field work.
Good luck,

*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*

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**From:** Flora, Travis [mailto:Travis.Flora@stantec.com]
**Sent:** Friday, June 26, 2015 1:31 PM
**To:** Detterman, Mark, Env. Health
**Cc:** dehloptoxic, Env. Health
**Subject:** RE: Chevron 90517; RO138; Extension Request

Hi Mark,
The attached extension request for Chevron 90517 – RO138 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

Please consider the environment before printing this email.

## Flora, Travis

**From:** Detterman, Mark, Env. Health <Mark.Detterman@acgov.org>
**Sent:** Monday, October 26, 2015 17:22
**To:** Flora, Travis; 'MacLeod, Carryl G'
**Subject:** FW: RO0000138 (Chevron 90517) Oakland, Extension Approval
**Attachments:** RO0000138_CORRES_2015-10-16.pdf

**Follow Up Flag:** Follow up
**Flag Status:** Flagged

Carryl and Travis,
Please use this email to document ACEH acceptance of the requested extension for the subject site. Please be aware that you will encounter the city of Oakland holiday prohibition on public right of way encroachments between November 1 and January 2, 2016. Good luck with the permitting.

*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*

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**From:** Espino, Belinda [mailto:Belinda.Espino@stantec.com]
**Sent:** Friday, October 16, 2015 3:54 PM
**To:** Detterman, Mark, Env. Health
**Cc:** Flora, Travis; MacLeod, Carryl G; dehloptoxic, Env. Health
**Subject:** RO0000138 (Chevron 90517) Oakland,

Hi Mr. Detterman,

The attached extension request for RO0000138 (Chevron 90517) Oakland, CA was uploaded to GeoTracker and the ACEH FTP site.

Thank you,

**Belinda Espino**
Project Scientist/Wildlife Biologist
Stantec
15575 Los Gatos Boulevard Building C Los Gatos CA 95032-2569
Phone: (408) 827-3529
Cell: (408) 596-0640
belinda.espino@stantec.com

Stantec

## Flora, Travis

**From:** Detterman, Mark, Env. Health <Mark.Detterman@acgov.org>
**Sent:** Monday, February 01, 2016 10:02
**To:** Flora, Travis
**Cc:** 'MacLeod, Carryl G'
**Subject:** RE: RO0000138_CORRES_2016-01-29
**Attachments:** RO0000138_CORRES_2016-01-29.pdf

**Follow Up Flag:** Follow up
**Flag Status:** Flagged

Hi Travis, Carryl,
Per your request, ACEH has extended the due date until April 29th. It will be great to resolve these impediments and determine how the site should move forward.
Regards,

*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*

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**From:** Flora, Travis [mailto:Travis.Flora@stantec.com]
**Sent:** Friday, January 29, 2016 5:42 PM
**To:** Detterman, Mark, Env. Health
**Cc:** dehloptoxic, Env. Health
**Subject:** RO0000138_CORRES_2016-01-29

Hi Mark,
Please see attached extension request that was uploaded to GeoTracker and the ACEH FTP site.

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

# Appendix C

Certified Laboratory Analysis Reports and Chain-of-Custody Documents

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5/31/2016
Mr. Travis Flora
Stantec Consulting Corporation
15575 Los Gatos Boulevard
Building C
Los Gatos CA 95032

Project Name: 90517
Project #: 211602403
Workorder #: 1605309

Dear Mr. Travis Flora

The following report includes the data for the above referenced project for sample(s) received on 5/17/2016 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-17 VI are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

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

Regards,

Kyle Vagadori

Project Manager

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# WORK ORDER #: 1605309

Work Order Summary

| | | | |
|---|---|---|---|
| **CLIENT:** | Mr. Travis Flora<br>Stantec Consulting Corporation<br>15575 Los Gatos Boulevard<br>Building C<br>Los Gatos, CA 95032 | **BILL TO:** | Accounts Payable<br>Chevron U.S.A. Inc.<br>6001 Bollinger Canyon Road<br>L4310<br>San Ramon, CA 94583 |
| **PHONE:** | 408-356-6124 | **P.O. #** | SO 0015188937 |
| **FAX:** | 408-356-6138 | **PROJECT #** | 211602403 90517 |
| **DATE RECEIVED:** | 05/17/2016 | **CONTACT:** | Kyle Vagadori |
| **DATE COMPLETED:** | 05/31/2016 | | |

| FRACTION # | NAME | TEST |
|---|---|---|
| 01A | CS-1 | Modified TO-17 VI |
| 02A | Lab Blank | Modified TO-17 VI |
| 03A | CCV | Modified TO-17 VI |
| 04A | LCS | Modified TO-17 VI |
| 04AA | LCSD | Modified TO-17 VI |

CERTIFIED BY:  DATE: 05/31/16

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards



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

**LABORATORY NARRATIVE**
**Modified EPA Method TO-17 (VI Tubes)**
**Stantec Consulting Corporation**
**Workorder# 1605309**

One TO-17 VI Tube sample was received on May 17, 2016. The laboratory performed the analysis via modified EPA Method TO-17 using GC/MS in the full scan mode. TO-17 'VI' sorbent tubes are thermally desorbed onto a secondary trap. The trap is thermally desorbed to elute the components into the GC/MS system for compound separation and detection.

A modification that may be applied to EPA Method TO-17 at the client's discretion is the requirement to transport sorbent tubes at 4 deg C. Laboratory studies demonstrate a high level of stability for VOCs on the TO-17 'VI' tube at room temperature for periods of up to 14 days. Tubes can be shipped to and from the field site at ambient conditions as long as the 14-day sample hold time is upheld. Trip blanks and field surrogate spikes are used as additional control measures to monitor recovery and background contribution during tube transport.

Since the TO-17 VI application significantly extends the scope of target compounds addressed in EPA Method TO-15 and TO-17, the laboratory has implemented several method modifications outlined in the table below. Specific project requirements may over-ride the laboratory modifications.

| ***Requirement*** | ***TO-17*** | ***ATL Modifications*** |
|---|---|---|
| Initial Calibration | %RSD</=30% with 2 allowed out up to 40% | VOC list: %RSD</=30% with 2 allowed out up to 40%<br>SVOC list: %RSD</=30% with 2 allowed out up to 40% |
| Daily Calibration | %D for each target compound within +/-30%. | Fluorene, Phenanthrene, Anthracene, Fluoranthene, and Pyrene within +/-40%D |
| Audit Accuracy | 70-130% | Second source recovery limits for Fluorene, Phenanthrene, Anthracene, Fluoranthene, and Pyrene = 60-140%. |
| Distributed Volume Pairs | Collection of distributed volume pairs required for monitoring ambient air to insure high quality. | If site is well-characterized or performance previously verified, single tube sampling may be appropriate. Distributed pairs may be impractical for soil gas collection due to configuration and volume constraints. |
| Analytical Precision | </=20% RPD | <30% RPD for Fluorene, Phenanthrene, Anthracene, Fluoranthene, and Pyrene. |

## Receiving Notes

There were no receiving discrepancies.

## Analytical Notes

The reported CCV and LCS for each daily batch may be derived from more than one analytical file due to the client's request for non-standard compounds.

Sampling volume was supplied by the client. A sampling volume of 0.060 L was used to convert ng to ug/m3 for the associated Lab Blank.

**Definition of Data Qualifying Flags**

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

B - Compound present in blank (subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

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

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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# Summary of Detected Compounds
# EPA METHOD TO-17

**Client Sample ID: CS-1**

**Lab ID#: 1605309-01A**

No Detections Were Found.

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**Client Sample ID: CS-1**
**Lab ID#: 1605309-01A**
**EPA METHOD TO-17**

| | | | |
|---|---|---|---|
| **File Name:** | **6051814** | **Date of Extraction: NA** | **Date of Collection: 5/16/16 11:11:00 AM** |
| **Dil. Factor:** | **1.00** | | **Date of Analysis: 5/18/16 06:52 PM** |

| Compound | Rpt. Limit (ng) | Rpt. Limit (ug/m3) | Amount (ng) | Amount (ug/m3) |
|---|---|---|---|---|
| Naphthalene | 1.0 | 17 | Not Detected | Not Detected |
| TPH (Diesel Range C10-C22) | 1000 | 17000 | Not Detected | Not Detected |

**Air Sample Volume(L): 0.0600**
**Container Type: TO-17 VI Tube**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Naphthalene-d8 | 85 | 50-150 |

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**Client Sample ID: Lab Blank**

**Lab ID#: 1605309-02A**

**EPA METHOD TO-17**

| | | | |
|---|---|---|---|
| **File Name:** | **6051806** | **Date of Extraction: NA** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | | **Date of Analysis: 5/18/16 12:50 PM** |

| Compound | Rpt. Limit (ng) | Rpt. Limit (ug/m3) | Amount (ng) | Amount (ug/m3) |
|---|---|---|---|---|
| Naphthalene | 1.0 | 17 | Not Detected | Not Detected |
| TPH (Diesel Range C10-C22) | 1000 | 17000 | Not Detected | Not Detected |

**Air Sample Volume(L): 0.0600**

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Naphthalene-d8 | 84 | 50-150 |

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**Client Sample ID: CCV**
**Lab ID#: 1605309-03A**
**EPA METHOD TO-17**

| | | | |
|---|---|---|---|
| **File Name:** | **6051803** | **Date of Extraction: NA** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | | **Date of Analysis: 5/18/16 10:50 AM** |

| Compound | %Recovery |
|---|---|
| Naphthalene | 84 |
| TPH (Diesel Range C10-C22) | 112 |

**Air Sample Volume(L): 1.00**
**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Naphthalene-d8 | 78 | 50-150 |

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**Client Sample ID: LCS**
**Lab ID#: 1605309-04A**
**EPA METHOD TO-17**

| | | | |
|---|---|---|---|
| **File Name:** | **6051804** | **Date of Extraction: NA** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | | **Date of Analysis: 5/18/16 11:30 AM** |

| Compound | %Recovery | Method Limits |
|---|---|---|
| Naphthalene | 90 | 70-130 |
| TPH (Diesel Range C10-C22) | Not Spiked | 60-140 |

**Air Sample Volume(L): 1.00**
**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Naphthalene-d8 | 83 | 50-150 |

eurofins | Air Toxics

**Client Sample ID: LCSD**
**Lab ID#: 1605309-04AA**
**EPA METHOD TO-17**

| | | | |
|---|---|---|---|
| **File Name:** | **6051805** | **Date of Extraction: NA** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | | **Date of Analysis: 5/18/16 12:10 PM** |

| Compound | %Recovery | Method Limits |
|---|---|---|
| Naphthalene | 90 | 70-130 |
| TPH (Diesel Range C10-C22) | Not Spiked | 60-140 |

**Air Sample Volume(L): 1.00**
**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Naphthalene-d8 | 84 | 50-150 |

**TO-17 SAMPLE COLLECTION**

# Air Toxics LTD.

## CHAIN-OF-CUSTODY RECORD

**Sample Transportation Notice**
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922.

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

Page _____ of _____

Project Manager Travis Flora
Collected by: (Print and Sign) Devon Owens / [signature]
Company Stantec Email Travis.Flora@Stantec.com
Address 15575 Los Gatos Blvd City Los Gatos State CA Zip 95032
Phone _____ Fax _____

**Project Info:**
P.O. # _____
Project # 2116024103
Project Name 90517

**Turn Around Time:**
☒ Normal
☐ Rush
_____ specify

**Reporting Units:**
☐ ppmv
☐ ppbv
☐ µg/m3
☐ mg/m3

| Lab I.D. | Field Sample I.D. (Location) | Engraved or Stamped Tube # | Date of Collection (mm/dd/yy) | Start Time (hr : min) | End Time (hr : min) | Pre-Test Flow Rate | Post-Test Flow Rate | Volume | Indoor/Outdoor % RH | Indoor/Outdoor Temp | Indoor Air | Outdoor Air | Soil Vapor | Other ( ) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01A | CS-1 | 60143492 | 5-16-16 | 11:11 | 11:11 | | | 60mL | | | ☐ | ☒ | ☐ | ☐ |
| | | | | | | | | | | | ☐ | ☐ | ☐ | ☐ |
| | | | | | | | | | | | ☐ | ☐ | ☐ | ☐ |
| | | | | | | | | | | | ☐ | ☐ | ☐ | ☐ |
| | | | | | | | | | | | ☐ | ☐ | ☐ | ☐ |
| | | | | | | | | | | | ☐ | ☐ | ☐ | ☐ |
| | | | | | | | | | | | ☐ | ☐ | ☐ | ☐ |
| | | | | | | | | | | | ☐ | ☐ | ☐ | ☐ |
| | | | | | | | | | | | ☐ | ☐ | ☐ | ☐ |
| | | | | | | | | | | | ☐ | ☐ | ☐ | ☐ |

Relinquished by: (signature) [signature] Date/Time 5/16/16 1500
Relinquished by: (signature) Date/Time
Relinquished by: (signature) Date/Time

Received by: (signature) FedEx Date/Time 5/16/16 1500
Received by: (signature) Andrea Livingston EATL Date/Time 5/17/16 1025
Received by: (signature) Date/Time

Notes:
TO-17 + DRO

| Lab Use Only | Shipper Name | Air Bill # | Temp (°C) | Condition | Custody Seals Intact? | Work Order # |
|---|---|---|---|---|---|---|
| | Fed Ex | | 3.4°C | Good | Yes No ~~None~~ | 1605309 |

eurofins | Air Toxics

6/1/2016
Mr. Travis Flora
Stantec Consulting Corporation
15575 Los Gatos Boulevard
Building C
Los Gatos CA 95032

Project Name: 90517
Project #: 211602403
Workorder #: 1605329A

Dear Mr. Travis Flora

The following report includes the data for the above referenced project for sample(s) received on 5/17/2016 at Air Toxics Ltd.

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

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

Regards,

Kyle Vagadori

Project Manager

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# WORK ORDER #: 1605329A

Work Order Summary

| | | | |
|---|---|---|---|
| **CLIENT:** | Mr. Travis Flora<br>Stantec Consulting Corporation<br>15575 Los Gatos Boulevard<br>Building C<br>Los Gatos, CA 95032 | **BILL TO:** | Accounts Payable<br>Chevron U.S.A. Inc.<br>6001 Bollinger Canyon Road<br>L4310<br>San Ramon, CA 94583 |
| **PHONE:** | 408-356-6124 | **P.O. #** | SO 0015188937 |
| **FAX:** | 408-356-6138 | **PROJECT #** | 211602403 90517 |
| **DATE RECEIVED:** | 05/17/2016 | **CONTACT:** | Kyle Vagadori |
| **DATE COMPLETED:** | 06/01/2016 | | |

| FRACTION # | NAME | TEST | RECEIPT VAC./PRES. | FINAL PRESSURE |
|---|---|---|---|---|
| 01A | CS-1 | TO-15 | 4.9 "Hg | 14.9 psi |
| 02A | Lab Blank | TO-15 | NA | NA |
| 03A | CCV | TO-15 | NA | NA |
| 04A | LCS | TO-15 | NA | NA |
| 04AA | LCSD | TO-15 | NA | NA |

CERTIFIED BY:  DATE: 06/01/16

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards



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

**LABORATORY NARRATIVE**
**EPA Method TO-15**
**Stantec Consulting Corporation**
**Workorder# 1605329A**

One 1 Liter Summa Canister sample was received on May 17, 2016. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

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

## Receiving Notes

There were no receiving discrepancies.

## Analytical Notes

A single point calibration for TPH referenced to Gasoline was performed for each daily analytical batch. Recovery is reported as 100% in the associated results for each CCV.

## Definition of Data Qualifying Flags

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

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

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

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

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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

**Client Sample ID: CS-1**

**Lab ID#: 1605329A-01A**

No Detections Were Found.

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**Client Sample ID: CS-1**

**Lab ID#: 1605329A-01A**

**EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **a052120** | **Date of Collection: 5/16/16 11:24:00 AM** | |
| **Dil. Factor:** | **2.41** | **Date of Analysis: 5/21/16 10:28 PM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Benzene | 1.2 | Not Detected | 3.8 | Not Detected |
| Ethyl Benzene | 1.2 | Not Detected | 5.2 | Not Detected |
| Toluene | 1.2 | Not Detected | 4.5 | Not Detected |
| m,p-Xylene | 1.2 | Not Detected | 5.2 | Not Detected |
| o-Xylene | 1.2 | Not Detected | 5.2 | Not Detected |
| Methyl tert-butyl ether | 1.2 | Not Detected | 4.3 | Not Detected |
| Naphthalene | 2.4 | Not Detected | 13 | Not Detected |
| TPH ref. to Gasoline (MW=100) | 120 | Not Detected | 490 | Not Detected |

**Container Type: 1 Liter Summa Canister**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 96 | 70-130 |
| Toluene-d8 | 103 | 70-130 |
| 4-Bromofluorobenzene | 97 | 70-130 |

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**Client Sample ID: Lab Blank**

**Lab ID#: 1605329A-02A**

**EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **a052107** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 5/21/16 10:28 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Benzene | 0.50 | Not Detected | 1.6 | Not Detected |
| Ethyl Benzene | 0.50 | Not Detected | 2.2 | Not Detected |
| Toluene | 0.50 | Not Detected | 1.9 | Not Detected |
| m,p-Xylene | 0.50 | Not Detected | 2.2 | Not Detected |
| o-Xylene | 0.50 | Not Detected | 2.2 | Not Detected |
| Methyl tert-butyl ether | 0.50 | Not Detected | 1.8 | Not Detected |
| Naphthalene | 1.0 | Not Detected | 5.2 | Not Detected |
| TPH ref. to Gasoline (MW=100) | 50 | Not Detected | 200 | Not Detected |

**Container Type: NA - Not Applicable**

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

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**Client Sample ID: CCV**

**Lab ID#: 1605329A-03A**

**EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **a052105** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 5/21/16 09:11 AM** | |

| Compound | %Recovery |
|---|---|
| Benzene | 120 |
| Ethyl Benzene | 116 |
| Toluene | 114 |
| m,p-Xylene | 118 |
| o-Xylene | 118 |
| Methyl tert-butyl ether | 122 |
| Naphthalene | 96 |
| TPH ref. to Gasoline (MW=100) | 100 |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 98 | 70-130 |
| Toluene-d8 | 103 | 70-130 |
| 4-Bromofluorobenzene | 99 | 70-130 |

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**Client Sample ID: LCS**

**Lab ID#: 1605329A-04A**

**EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **a052103** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 5/21/16 08:15 AM** | |

| Compound | %Recovery | Method Limits |
|---|---|---|
| Benzene | 115 | 70-130 |
| Ethyl Benzene | 114 | 70-130 |
| Toluene | 111 | 70-130 |
| m,p-Xylene | 116 | 70-130 |
| o-Xylene | 117 | 70-130 |
| Methyl tert-butyl ether | 117 | 70-130 |
| Naphthalene | 87 | 60-140 |
| TPH ref. to Gasoline (MW=100) | Not Spiked | |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 96 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 97 | 70-130 |

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**Client Sample ID: LCSD**

**Lab ID#: 1605329A-04AA**

**EPA METHOD TO-15 GC/MS FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **a052104** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 5/21/16 08:41 AM** | |

| Compound | %Recovery | Method Limits |
|---|---|---|
| Benzene | 114 | 70-130 |
| Ethyl Benzene | 114 | 70-130 |
| Toluene | 109 | 70-130 |
| m,p-Xylene | 115 | 70-130 |
| o-Xylene | 116 | 70-130 |
| Methyl tert-butyl ether | 115 | 70-130 |
| Naphthalene | 94 | 60-140 |
| TPH ref. to Gasoline (MW=100) | Not Spiked | |

**Container Type: NA - Not Applicable**

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

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**Sample Transportation Notice**
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020



Project Manager Travis.Flora@stantec.com
**Collected by:** (Print and Sign) Devon Owens
Company Stantec Email
Address 15575 Los Gatos Blvd City Los Gatos State CA Zip 95032
Phone Fax

**Project Info:**
P.O. #
Project # 216024037
Project Name 90517

**Turn Around Time:**
☑ Normal
☐ Rush
specify

*Lab Use Only*
Pressurized by:
Date:
Pressurization Gas: $N_2$ He

| Lab I.D. | Field Sample I.D. (Location) | Can # | Date of Collection | Time of Collection | Analyses Requested | Canister Pressure/Vacuum Initial | Final | Receipt | Final (psi) |
|---|---|---|---|---|---|---|---|---|---|
| 01A | CS-1 | 35681 | 5-16-16 | 1116/1124 | Full Scan TO15, Naphthalene GRO, BTEX | -30 | -5 | | |
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Relinquished by: (signature) Date/Time: 5-16-16 1500
Received by: (signature) Date/Time: FedEx 5/16/16 1500
Relinquished by: (signature) Date/Time:
Received by: (signature) Date/Time: EATL 5/17/16 1025
Relinquished by: (signature) Date/Time:
Received by: (signature) Date/Time:

**Notes:**

**Lab Use Only**

| Shipper Name | Air Bill # | Temp (°C) | Condition | Custody Seals Intact? | Work Order # |
|---|---|---|---|---|---|
| FedEx | | NA | Good | Yes No (None) | 1605329 |

Form 1293 rev.11

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8/5/2016
Mr. Devon Owens
Stantec Consulting Corporation
15575 Los Gatos Boulevard
Building C
Los Gatos CA 95032

Project Name: Chevron 90517
Project #: 211602403
Workorder #: 1607380

Dear Mr. Devon Owens

The following report includes the data for the above referenced project for sample(s) received on 7/23/2016 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-17 VI are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

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

Regards,

Kyle Vagadori

Project Manager

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# WORK ORDER #: 1607380

Work Order Summary

| | | | |
|---|---|---|---|
| **CLIENT:** | Mr. Devon Owens<br>Stantec Consulting Corporation<br>15575 Los Gatos Boulevard<br>Building C<br>Los Gatos, CA 95032 | **BILL TO:** | Accounts Payable<br>Chevron U.S.A. Inc.<br>6001 Bollinger Canyon Road<br>L4310<br>San Ramon, CA 94583 |
| **PHONE:** | 408-356-6124 | **P.O. #** | NWENV009051700801 |
| **FAX:** | 408-356-6138 | **PROJECT #** | 211602403 Chevron 90517 |
| **DATE RECEIVED:** | 07/23/2016 | **CONTACT:** | Kyle Vagadori |
| **DATE COMPLETED:** | 08/05/2016 | | |

| FRACTION # | NAME | TEST |
|---|---|---|
| 01A | CS-1 (3.3L) | Modified TO-17 VI |
| 02A | CS-1 (1L) | Modified TO-17 VI |
| 03A | OA-1 (3.3L) | Modified TO-17 VI |
| 04A | OA-1 (1L) | Modified TO-17 VI |
| 05A | Lab Blank | Modified TO-17 VI |
| 06A | CCV | Modified TO-17 VI |
| 07A | LCS | Modified TO-17 VI |
| 07AA | LCSD | Modified TO-17 VI |

CERTIFIED BY:  DATE: 08/05/16

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards



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(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE**
**Modified EPA Method TO-17 (VI Tubes)**
**Stantec Consulting Corporation**
**Workorder# 1607380**

Four TO-17 VI Tube samples were received on July 23, 2016. The laboratory performed the analysis via modified EPA Method TO-17 using GC/MS in the full scan mode. TO-17 'VI' sorbent tubes are thermally desorbed onto a secondary trap. The trap is thermally desorbed to elute the components into the GC/MS system for compound separation and detection.

A modification that may be applied to EPA Method TO-17 at the client's discretion is the requirement to transport sorbent tubes at 4 deg C. Laboratory studies demonstrate a high level of stability for VOCs on the TO-17 'VI' tube at room temperature for periods of up to 14 days. Tubes can be shipped to and from the field site at ambient conditions as long as the 14-day sample hold time is upheld. Trip blanks and field surrogate spikes are used as additional control measures to monitor recovery and background contribution during tube transport.

Since the TO-17 VI application significantly extends the scope of target compounds addressed in EPA Method TO-15 and TO-17, the laboratory has implemented several method modifications outlined in the table below. Specific project requirements may over-ride the laboratory modifications.

| ***Requirement*** | ***TO-17*** | ***ATL Modifications*** |
|---|---|---|
| Initial Calibration | %RSD</=30% with 2 allowed out up to 40% | VOC list: %RSD</=30% with 2 allowed out up to 40%<br>SVOC list: %RSD</=30% with 2 allowed out up to 40% |
| Daily Calibration | %D for each target compound within +/-30%. | Fluorene, Phenanthrene, Anthracene, Fluoranthene, and Pyrene within +/-40%D |
| Audit Accuracy | 70-130% | Second source recovery limits for Fluorene, Phenanthrene, Anthracene, Fluoranthene, and Pyrene = 60-140%. |
| Distributed Volume Pairs | Collection of distributed volume pairs required for monitoring ambient air to insure high quality. | If site is well-characterized or performance previously verified, single tube sampling may be appropriate. Distributed pairs may be impractical for soil gas collection due to configuration and volume constraints. |
| Analytical Precision | </=20% RPD | <30% RPD for Fluorene, Phenanthrene, Anthracene, Fluoranthene, and Pyrene. |

## Receiving Notes

A Temperature Blank was included with the shipment. Temperature was measured and was not within 4±2 °C. Coolant in the form of blue ice was present. Analysis proceeded.

## Analytical Notes

Sampling volume was supplied by the client. A sampling volume of 3.30 L was used to convert ng to ug/m3 for the associated Lab Blank.

The reported CCV and LCS for each daily batch may be derived from more than one analytical file due to the client's request for non-standard compounds.

**Definition of Data Qualifying Flags**

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

B - Compound present in blank (subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

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

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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# Summary of Detected Compounds
# EPA METHOD TO-17

**Client Sample ID: CS-1 (3.3L)**

**Lab ID#: 1607380-01A**

No Detections Were Found.

**Client Sample ID: CS-1 (1L)**

**Lab ID#: 1607380-02A**

No Detections Were Found.

**Client Sample ID: OA-1 (3.3L)**

**Lab ID#: 1607380-03A**

No Detections Were Found.

**Client Sample ID: OA-1 (1L)**

**Lab ID#: 1607380-04A**

No Detections Were Found.

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**Client Sample ID: CS-1 (3.3L)**

**Lab ID#: 1607380-01A**

**EPA METHOD TO-17**

| | | | |
|---|---|---|---|
| **File Name:** | **6080115** | **Date of Extraction: NA** | **Date of Collection: 7/21/16 8:03:00 AM** |
| **Dil. Factor:** | **1.00** | | **Date of Analysis: 8/1/16 08:18 PM** |

| Compound | Rpt. Limit (ng) | Rpt. Limit (ug/m3) | Amount (ng) | Amount (ug/m3) |
|---|---|---|---|---|
| Naphthalene | 1.0 | 0.30 | Not Detected | Not Detected |
| TPH (Diesel Range C10-C22) | 1000 | 300 | Not Detected | Not Detected |

**Air Sample Volume(L): 3.30**
**Container Type: TO-17 VI Tube**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Naphthalene-d8 | 119 | 50-150 |

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**Client Sample ID: CS-1 (1L)**

**Lab ID#: 1607380-02A**

**EPA METHOD TO-17**

| | | | |
|---|---|---|---|
| **File Name:** | **6080113** | **Date of Extraction: NA** | **Date of Collection: 7/21/16 8:18:00 AM** |
| **Dil. Factor:** | **1.00** | | **Date of Analysis: 8/1/16 06:59 PM** |

| Compound | Rpt. Limit (ng) | Rpt. Limit (ug/m3) | Amount (ng) | Amount (ug/m3) |
|---|---|---|---|---|
| Naphthalene | 1.0 | 1.0 | Not Detected | Not Detected |
| TPH (Diesel Range C10-C22) | 1000 | 1000 | Not Detected | Not Detected |

**Air Sample Volume(L): 1.00**
**Container Type: TO-17 VI Tube**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Naphthalene-d8 | 120 | 50-150 |

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**Client Sample ID: OA-1 (3.3L)**

**Lab ID#: 1607380-03A**

**EPA METHOD TO-17**

| | | | |
|---|---|---|---|
| **File Name:** | **6080116** | **Date of Extraction: NA** | **Date of Collection: 7/21/16 8:35:00 AM** |
| **Dil. Factor:** | **1.00** | | **Date of Analysis: 8/1/16 08:58 PM** |

| Compound | Rpt. Limit (ng) | Rpt. Limit (ug/m3) | Amount (ng) | Amount (ug/m3) |
|---|---|---|---|---|
| Naphthalene | 1.0 | 0.30 | Not Detected | Not Detected |
| TPH (Diesel Range C10-C22) | 1000 | 300 | Not Detected | Not Detected |

**Air Sample Volume(L): 3.30**
**Container Type: TO-17 VI Tube**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Naphthalene-d8 | 82 | 50-150 |

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**Client Sample ID: OA-1 (1L)**

**Lab ID#: 1607380-04A**

**EPA METHOD TO-17**

| | | | |
|---|---|---|---|
| **File Name:** | **6080114** | **Date of Extraction: NA** | **Date of Collection: 7/21/16 8:46:00 AM** |
| **Dil. Factor:** | **1.00** | | **Date of Analysis: 8/1/16 07:39 PM** |

| Compound | Rpt. Limit (ng) | Rpt. Limit (ug/m3) | Amount (ng) | Amount (ug/m3) |
|---|---|---|---|---|
| Naphthalene | 1.0 | 1.0 | Not Detected | Not Detected |
| TPH (Diesel Range C10-C22) | 1000 | 1000 | Not Detected | Not Detected |

**Air Sample Volume(L): 1.00**
**Container Type: TO-17 VI Tube**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Naphthalene-d8 | 119 | 50-150 |

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**Client Sample ID: Lab Blank**

**Lab ID#: 1607380-05A**

**EPA METHOD TO-17**

| | | | |
|---|---|---|---|
| **File Name:** | **6080107** | **Date of Extraction: NA** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | | **Date of Analysis: 8/1/16 01:50 PM** |

| Compound | Rpt. Limit (ng) | Rpt. Limit (ug/m3) | Amount (ng) | Amount (ug/m3) |
|---|---|---|---|---|
| Naphthalene | 1.0 | 0.30 | Not Detected | Not Detected |
| TPH (Diesel Range C10-C22) | 1000 | 300 | Not Detected | Not Detected |

**Air Sample Volume(L): 3.30**

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Naphthalene-d8 | 123 | 50-150 |

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**Client Sample ID: CCV**
**Lab ID#: 1607380-06A**
**EPA METHOD TO-17**

| | | | |
|---|---|---|---|
| **File Name:** | **6080103** | **Date of Extraction: NA** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | | **Date of Analysis: 8/1/16 10:32 AM** |

| Compound | %Recovery |
|---|---|
| Naphthalene | 102 |
| TPH (Diesel Range C10-C22) | 118 |

**Air Sample Volume(L): 1.00**
**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Naphthalene-d8 | 127 | 50-150 |

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**Client Sample ID: LCS**
**Lab ID#: 1607380-07A**
**EPA METHOD TO-17**

| | | | |
|---|---|---|---|
| **File Name:** | **6080104** | **Date of Extraction: NA** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | | **Date of Analysis: 8/1/16 11:51 AM** |

| Compound | %Recovery | Method Limits |
|---|---|---|
| Naphthalene | 107 | 70-130 |
| TPH (Diesel Range C10-C22) | Not Spiked | 60-140 |

**Air Sample Volume(L): 1.00**
**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Naphthalene-d8 | 127 | 50-150 |

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**Client Sample ID: LCSD**
**Lab ID#: 1607380-07AA**
**EPA METHOD TO-17**

| | | | |
|---|---|---|---|
| **File Name:** | **6080105** | **Date of Extraction: NA** | **Date of Collection: NA** |
| **Dil. Factor:** | **1.00** | | **Date of Analysis: 8/1/16 12:31 PM** |

| Compound | %Recovery | Method Limits |
|---|---|---|
| Naphthalene | 110 | 70-130 |
| TPH (Diesel Range C10-C22) | Not Spiked | 60-140 |

**Air Sample Volume(L): 1.00**
**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| Naphthalene-d8 | 129 | 50-150 |

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8/5/2016
Mr. Devon Owens
Stantec Consulting Corporation
15575 Los Gatos Boulevard
Building C
Los Gatos CA 95032

Project Name: Chevron 90517
Project #: 211602403
Workorder #: 1607434

Dear Mr. Devon Owens

The following report includes the data for the above referenced project for sample(s) received on 7/23/2016 at Air Toxics Ltd.

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

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

Regards,

Kyle Vagadori

Project Manager

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# WORK ORDER #: 1607434

Work Order Summary

| | | | |
|---|---|---|---|
| **CLIENT:** | Mr. Devon Owens<br>Stantec Consulting Corporation<br>15575 Los Gatos Boulevard<br>Building C<br>Los Gatos, CA 95032 | **BILL TO:** | Accounts Payable<br>Chevron U.S.A. Inc.<br>6001 Bollinger Canyon Road<br>L4310<br>San Ramon, CA 94583 |
| **PHONE:** | 408-356-6124 | **P.O. #** | NWENV009051700801 |
| **FAX:** | 408-356-6138 | **PROJECT #** | 211602403 Chevron 90517 |
| **DATE RECEIVED:** | 07/23/2016 | **CONTACT:** | Kyle Vagadori |
| **DATE COMPLETED:** | 08/05/2016 | | |

| FRACTION # | NAME | TEST | RECEIPT VAC./PRES. | FINAL PRESSURE |
|---|---|---|---|---|
| 01A | CS-1 | Modified TO-15 | 3.9 "Hg | 4.9 psi |
| 01B | CS-1 | Modified TO-15 | 3.9 "Hg | 4.9 psi |
| 02A | OA-1 | Modified TO-15 | 4.3 "Hg | 4.8 psi |
| 02B | OA-1 | Modified TO-15 | 4.3 "Hg | 4.8 psi |
| 03A | Lab Blank | Modified TO-15 | NA | NA |
| 03B | Lab Blank | Modified TO-15 | NA | NA |
| 04A | CCV | Modified TO-15 | NA | NA |
| 04B | CCV | Modified TO-15 | NA | NA |
| 05A | LCS | Modified TO-15 | NA | NA |
| 05AA | LCSD | Modified TO-15 | NA | NA |
| 05B | LCS | Modified TO-15 | NA | NA |
| 05BB | LCSD | Modified TO-15 | NA | NA |

CERTIFIED BY: Heidi Mayo DATE: 08/05/16

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards



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(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE**
**Modified TO-15 Full Scan/SIM**
**Stantec Consulting Corporation**
**Workorder# 1607434**

Two 6 Liter Summa Canister (SIM Certified) samples were received on July 23, 2016. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the Full Scan and SIM acquisition modes. The method involves concentrating up to 1.0 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

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

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

| ***Requirement*** | ***TO-15*** | ***ATL Modifications*** |
|---|---|---|
| ICAL %RSD acceptance criteria | </=30% RSD with 2 compounds allowed out to < 40% RSD | For Full Scan:<br>30% RSD with 4 compounds allowed out to < 40% RSD<br><br>For SIM:<br>Project specific; default criteria is </=30% RSD with 10% of compounds allowed out to < 40% RSD |
| Daily Calibration | +- 30% Difference | For Full Scan:<br></= 30% Difference with four allowed out up to </=40%.; flag and narrate outliers<br><br>For SIM:<br>Project specific; default criteria is </= 30% Difference with 10% of compounds allowed out up to </=40%.; flag and narrate outliers |
| Blank and standards | Zero air | Nitrogen |
| Method Detection Limit | Follow 40CFR Pt.136 App. B | The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases |

## Receiving Notes

There were no receiving discrepancies.

## Analytical Notes

As per project specific client request the laboratory has reported estimated values for Naphthalene and Benzene that are below the Reporting Limit but greater than the Method Detection Limit. Results are reported as qualified with high probability for false positive.

A single point calibration for TPH referenced to Gasoline was performed for each daily analytical batch. Recovery is reported as 100% in the associated results for each CCV.

The results for each sample in this report were acquired from two separate data files originating from the same analytical run. The two data files have the same base file name and are differentiated with a "sim" extension on the SIM data file.

**Definition of Data Qualifying Flags**

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

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

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

CN - See case narrative explanation

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

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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

**Client Sample ID: CS-1**

**Lab ID#: 1607434-01A**

No Detections Were Found.

**Client Sample ID: CS-1**

**Lab ID#: 1607434-01B**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Benzene | 0.076 | 0.10 | 0.24 | 0.32 |
| Toluene | 0.031 | 0.44 | 0.12 | 1.6 |
| Ethyl Benzene | 0.031 | 0.092 | 0.13 | 0.40 |
| m,p-Xylene | 0.061 | 0.46 | 0.26 | 2.0 |
| o-Xylene | 0.031 | 0.075 | 0.13 | 0.32 |
| Naphthalene | 0.076 | 0.10 | 0.40 | 0.53 |

**Client Sample ID: OA-1**

**Lab ID#: 1607434-02A**

No Detections Were Found.

**Client Sample ID: OA-1**

**Lab ID#: 1607434-02B**

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Benzene | 0.078 | 0.078 | 0.25 | 0.25 |
| Toluene | 0.031 | 0.23 | 0.12 | 0.88 |
| Ethyl Benzene | 0.031 | 0.045 | 0.13 | 0.20 |
| m,p-Xylene | 0.062 | 0.17 | 0.27 | 0.74 |
| o-Xylene | 0.031 | 0.054 | 0.13 | 0.24 |
| Naphthalene | 0.078 | 0.030 J | 0.41 | 0.16 J |

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**Client Sample ID: CS-1**

**Lab ID#: 1607434-01A**

**MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **v072719** | **Date of Collection: 7/21/16 3:30:00 PM** | |
| **Dil. Factor:** | **1.53** | **Date of Analysis: 7/27/16 09:02 PM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| TPH ref. to Gasoline (MW=100) | 15 | Not Detected | 62 | Not Detected |

**Container Type: 6 Liter Summa Canister (SIM Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 101 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 90 | 70-130 |

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**Client Sample ID: CS-1**

**Lab ID#: 1607434-01B**

**MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **v072719sim** | **Date of Collection: 7/21/16 3:30:00 PM** | |
| **Dil. Factor:** | **1.53** | **Date of Analysis: 7/27/16 09:02 PM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Benzene | 0.076 | 0.10 | 0.24 | 0.32 |
| Toluene | 0.031 | 0.44 | 0.12 | 1.6 |
| Ethyl Benzene | 0.031 | 0.092 | 0.13 | 0.40 |
| m,p-Xylene | 0.061 | 0.46 | 0.26 | 2.0 |
| o-Xylene | 0.031 | 0.075 | 0.13 | 0.32 |
| Naphthalene | 0.076 | 0.10 | 0.40 | 0.53 |

**Container Type: 6 Liter Summa Canister (SIM Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 106 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 90 | 70-130 |

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**Client Sample ID: OA-1**

**Lab ID#: 1607434-02A**

**MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **v072720** | **Date of Collection: 7/21/16 3:15:00 PM** | |
| **Dil. Factor:** | **1.55** | **Date of Analysis: 7/27/16 09:48 PM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| TPH ref. to Gasoline (MW=100) | 16 | Not Detected | 63 | Not Detected |

**Container Type: 6 Liter Summa Canister (SIM Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 99 | 70-130 |
| Toluene-d8 | 97 | 70-130 |
| 4-Bromofluorobenzene | 92 | 70-130 |

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**Client Sample ID: OA-1**

**Lab ID#: 1607434-02B**

**MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **v072720sim** | **Date of Collection: 7/21/16 3:15:00 PM** | |
| **Dil. Factor:** | **1.55** | **Date of Analysis: 7/27/16 09:48 PM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Benzene | 0.078 | 0.078 | 0.25 | 0.25 |
| Toluene | 0.031 | 0.23 | 0.12 | 0.88 |
| Ethyl Benzene | 0.031 | 0.045 | 0.13 | 0.20 |
| m,p-Xylene | 0.062 | 0.17 | 0.27 | 0.74 |
| o-Xylene | 0.031 | 0.054 | 0.13 | 0.24 |
| Naphthalene | 0.078 | 0.030 J | 0.41 | 0.16 J |

J = Estimated value.

**Container Type: 6 Liter Summa Canister (SIM Certified)**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 106 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 93 | 70-130 |

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**Client Sample ID: Lab Blank**

**Lab ID#: 1607434-03A**

**MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **v072707** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 7/27/16 11:59 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| TPH ref. to Gasoline (MW=100) | 10 | Not Detected | 41 | Not Detected |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 102 | 70-130 |
| Toluene-d8 | 96 | 70-130 |
| 4-Bromofluorobenzene | 92 | 70-130 |

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**Client Sample ID: Lab Blank**

**Lab ID#: 1607434-03B**

**MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **v072707sima** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 7/27/16 11:59 AM** | |

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (ug/m3) | Amount (ug/m3) |
|---|---|---|---|---|
| Benzene | 0.050 | 0.0041 J | 0.16 | 0.013 J |
| Toluene | 0.020 | Not Detected | 0.075 | Not Detected |
| Ethyl Benzene | 0.020 | Not Detected | 0.087 | Not Detected |
| m,p-Xylene | 0.040 | Not Detected | 0.17 | Not Detected |
| o-Xylene | 0.020 | Not Detected | 0.087 | Not Detected |
| Naphthalene | 0.050 | 0.011 J | 0.26 | 0.059 J |

J = Estimated value.

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 104 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 95 | 70-130 |

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**Client Sample ID: CCV**

**Lab ID#: 1607434-04A**

**MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **v072702** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 7/27/16 08:47 AM** | |

| **Compound** | **%Recovery** |
|---|---|
| TPH ref. to Gasoline (MW=100) | 100 |

**Container Type: NA - Not Applicable**

| **Surrogates** | **%Recovery** | **Method Limits** |
|---|---|---|
| 1,2-Dichloroethane-d4 | 102 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 96 | 70-130 |

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**Client Sample ID: CCV**

**Lab ID#: 1607434-04B**

**MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **v072702sim** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 7/27/16 08:47 AM** | |

| Compound | %Recovery |
|---|---|
| Benzene | 82 |
| Toluene | 97 |
| Ethyl Benzene | 102 |
| m,p-Xylene | 103 |
| o-Xylene | 107 |
| Naphthalene | 85 |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 102 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 99 | 70-130 |

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**Client Sample ID: LCS**

**Lab ID#: 1607434-05A**

**MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **v072703** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 7/27/16 09:22 AM** | |

| Compound | %Recovery | Method Limits |
|---|---|---|
| TPH ref. to Gasoline (MW=100) | Not Spiked | |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 99 | 70-130 |
| Toluene-d8 | 98 | 70-130 |
| 4-Bromofluorobenzene | 96 | 70-130 |

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**Client Sample ID: LCSD**

**Lab ID#: 1607434-05AA**

**MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **v072704** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 7/27/16 09:57 AM** | |

| Compound | %Recovery | Method Limits |
|---|---|---|
| TPH ref. to Gasoline (MW=100) | Not Spiked | |

**Container Type: NA - Not Applicable**

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

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**Client Sample ID: LCS**

**Lab ID#: 1607434-05B**

**MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **v072703sim** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 7/27/16 09:22 AM** | |

| Compound | %Recovery | Method Limits |
|---|---|---|
| Benzene | 80 | 70-130 |
| Toluene | 92 | 70-130 |
| Ethyl Benzene | 97 | 70-130 |
| m,p-Xylene | 95 | 70-130 |
| o-Xylene | 99 | 70-130 |
| Naphthalene | 91 | 60-140 |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 102 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 98 | 70-130 |

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**Client Sample ID: LCSD**

**Lab ID#: 1607434-05BB**

**MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN**

| | | | |
|---|---|---|---|
| **File Name:** | **v072704sim** | **Date of Collection: NA** | |
| **Dil. Factor:** | **1.00** | **Date of Analysis: 7/27/16 09:57 AM** | |

| Compound | %Recovery | Method Limits |
|---|---|---|
| Benzene | 80 | 70-130 |
| Toluene | 92 | 70-130 |
| Ethyl Benzene | 97 | 70-130 |
| m,p-Xylene | 95 | 70-130 |
| o-Xylene | 101 | 70-130 |
| Naphthalene | 93 | 60-140 |

**Container Type: NA - Not Applicable**

| Surrogates | %Recovery | Method Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 102 | 70-130 |
| Toluene-d8 | 99 | 70-130 |
| 4-Bromofluorobenzene | 98 | 70-130 |

**TO-17 SAMPLE COLLECTION**

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## CHAIN-OF-CUSTODY RECORD

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Page 1 of 1

Project Manager: TRAVIS FLORA
Collected by: (Print and Sign) SUCHEON SUNG
Company: STANTEC CONSULTING Email: TRAVIS.FLORA@STANTEC.com
Address: 15575 LOS GATOS BLVD., #C City: LOS GATOS State: CA Zip: 95032
Phone: 408-356-6124 Fax: 408-356-6138

**Project Info:**
P.O. #:
Project #: 2116024.03
Project Name: CITEPOW 90517

**Turn Around Time:** ☒ Normal ☐ Rush (specify)

**Reporting Units:** ☐ ppmv ☐ ppbv ☐ µg/m3 ☐ mg/m3

| Lab I.D. | Field Sample I.D. (Location) | Engraved or Stamped Tube # | Date of Collection (mm/dd/yy) | Start Time (hr:min) | End Time (hr:min) | Pre-Test Flow Rate | Post-Test Flow Rate | Volume | Indoor/Outdoor % RH | Indoor/Outdoor Temp | Indoor Air | Outdoor Air | Soil Vapor | Other (CRAWLSPACE) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01A | CS-1 (3.3L) | 60125595 | 07/21/16 | 07:55 | 08:03 | — | — | 3.3L | | | ☐ | ☐ | ☐ | ☒ |
| 02A | CS-1 (1L) | 60145512 | 07/21/16 | 08:15 | 08:18 | — | — | 1L | | | ☐ | ☐ | ☐ | ☒ |
| 03A | OA-1 (3.3L) | 60143688 | 07/21/16 | 08:32 | 08:35 | — | — | 3.3L | | | ☐ | ☒ | ☐ | ☐ |
| 04A | OA-1 (1L) | 60145501 | 07/21/16 | 08:45 | 08:46 | — | — | 1L | | | ☐ | ☒ | ☐ | ☐ |
| | | | | | | | | | | | ☐ | ☐ | ☐ | ☐ |
| | | | | | | | | | | | ☐ | ☐ | ☐ | ☐ |
| | | | | | | | | | | | ☐ | ☐ | ☐ | ☐ |
| | | | | | | | | | | | ☐ | ☐ | ☐ | ☐ |
| | | | | | | | | | | | ☐ | ☐ | ☐ | ☐ |
| | | | | | | | | | | | ☐ | ☐ | ☐ | ☐ |

| Relinquished by: (signature) | Date/Time | Received by: (signature) | Date/Time |
|---|---|---|---|
| [signature] | 7/22/16 1200 | Andrea Ungvarsky EATL | 7/23/16 0905 |
| Relinquished by: (signature) | Date/Time | Received by: (signature) | Date/Time |
| Relinquished by: (signature) | Date/Time | Received by: (signature) | Date/Time |

Notes:
TO-17 SIM +DRO

| Lab Use Only | Shipper Name | Air Bill # | Temp (°C) | Condition | Custody Seals Intact? | Work Order # |
|---|---|---|---|---|---|---|
| | Fed Ex | | 10.8°C | SDR | Yes No (None) | 1607380 |

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Project Manager TRAVIS FLORA TF

Collected by: (Print and Sign) SUCHITRA SUNE

Company SENTEK CONSULTING Email TRAVIS.FLORA@SIM2.COM

Address 15575 LOS GATOS BLVD #C City LOS GATOS State CA Zip 95032

Phone 408-358-6124 Fax 408-358-6135

**Project Info:**
P.O. #
Project # 211602403
Project Name CHEVRON 90517

**Turn Around Time:**
☒ Normal
☐ Rush
specify

*Lab Use Only*
Pressurized by:
Date:
Pressurization Gas: $N_2$ He

| Lab I.D. | Field Sample I.D. (Location) | Can # | Date of Collection | Time of Collection | Analyses Requested | Canister Pressure/Vacuum Initial | Final | Receipt | Final (psi) |
|---|---|---|---|---|---|---|---|---|---|
| 01A | CS-1 | 30838 | 7-21-16 | 1530 | *TO-15 SIM TF | -27 | -2 | | |
| 02A | OA-1 | 6L1202 | 7-21-16 | 1515 | *TO-15 SIM TF | -30 | -3 | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
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| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Relinquished by: (signature) Date/Time 7/22/16 1200
Received by: (signature) Date/Time 7/23/16 EATL 0905

Relinquished by: (signature) Date/Time
Received by: (signature) Date/Time

Relinquished by: (signature) Date/Time
Received by: (signature) Date/Time

**Notes:**
* TPH-GRO, TPH-DRO (TF), BTEX, & NAPHTHALENE

| Lab Use Only | Shipper Name | Air Bill # | Temp (°C) | Condition | Custody Seals Intact? | Work Order # |
|---|---|---|---|---|---|---|
| | Fed Ex | | NA | Good | Yes No (None) | 160743A |

REVISED COC VV 7/28/16

Form 1293 rev.11

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180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020



Project Manager TRAVIS FLORA

**Collected by:** (Print and Sign) SUCHITRA SUNG

Company SANTEC CONSULTING Email TRAVIS.FLORA@SIM2.COM

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**Project Info:**
P.O. #
Project # 211602403
Project Name CITEWON 90517

**Turn Around Time:**
☒ Normal
☐ Rush
specify

*Lab Use Only*
Pressurized by:
Date:
Pressurization Gas: $N_2$ He

| Lab I.D. | Field Sample I.D. (Location) | Can # | Date of Collection | Time of Collection | Analyses Requested | Canister Pressure/Vacuum Initial | Final | Receipt | Final (psi) |
|---|---|---|---|---|---|---|---|---|---|
| 01A | CS-1 | 30838 | 7-21-16 | 1530 | *TO-17 SIM | -27 | -2 | | |
| 02A | OA-1 | 6L1202 | 7-21-16 | 1515 | *TO-17 SIM | -30 | -3 | | |
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Relinquished by: (signature) Date/Time 7/22/16 1200
Received by: (signature) Date/Time 7/23/16 0905 EATL

Relinquished by: (signature) Date/Time
Received by: (signature) Date/Time

Relinquished by: (signature) Date/Time
Received by: (signature) Date/Time

**Notes:**
* TPH-GRO, TPH-DRO, BTEX, & NAPTHALENE

| Lab Use Only | Shipper Name | Air Bill # | Temp (°C) | Condition | Custody Seals Intact? | Work Order # |
|---|---|---|---|---|---|---|
| | Fed Ex | | NA | Good | Yes No (None) | 1607434 |

Form 1293 rev.11