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TRANSMITTAL

DATE: February 14, 2014 REFERENCE NO.: 311973
 PROJECT NAME: Chevron 90121
 TO: Mr. Mark Detterman ACEH RO#0284
Alameda County Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

RECEIVED

By Alameda County Environmental Health at 2:39 pm, Feb 18, 2014

Please find enclosed: Draft Final
 Originals Other
 Prints
 Sent via: Mail Same Day Courier
 Overnight Courier Other Alameda County FTP Upload and GeoTracker

QUANTITY	DESCRIPTION
1	Subsurface Investigation Report

As Requested For Review and Comment
 For Your Use

COMMENTS:

Please contact Nathan Lee at (925)849-1003 or nlee@croworld.com with any questions or comments regarding the contents of this report.

Copy to: Mr. Brian A. Waite (Chevron)
Diocese of Oakland
Michael E. Delehunt Foley & Lardner
William Spencer, FWS Highland LLC

Completed by: Nathan Lee
 [Please Print]

Signed: *Nathan Lee*

Filing: **Correspondence File**



Brian A. Waite, P.G.
Project Manager
Marketing Business Unit

**Chevron Environmental
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Tel (925) 790-6486
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Alameda County Health Care Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: Chevron Service Station No. 90121
3026 Lakeshore Avenue
Oakland, CA

I have reviewed the attached report entitled *Subsurface Investigation Report*

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

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

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Sincerely,

Brian A. Waite

Brian A. Waite, P.G.
Project Manager

I Digitally signed by Brian A. Waite
DN: cn=Brian A. Waite, o=Chevron Environmental Management Company, ou,
email=bwaite@chevron.com, c=US
Date: 2014.02.14 13:55:05 -08'00'

Attachment: *Subsurface Investigation Report*



SUBSURFACE INVESTIGATION REPORT

**FORMER CHEVRON SERVICE STATION 90121
3026 LAKESHORE AVENUE
OAKLAND, CALIFORNIA**

Prepared for:

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

**Prepared by:
Conestoga-Rovers
& Associates**

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**FEBRUARY 14, 2014
REF. NO. 311973 (20)**



SUBSURFACE INVESTIGATION REPORT

FORMER CHEVRON SERVICE STATION 90121
3026 LAKESHORE AVENUE
OAKLAND, CALIFORNIA

Nathan Lee



Nathan S. Lee, PG 8684

FEBRUARY 14, 2014
REF. NO. 311973 (20)

Prepared by:
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Section 1.0 Introduction

Conestoga-Rovers & Associates (CRA) prepared this *Subsurface Investigation Report* for the site referenced above (Figure 1) on behalf of Chevron Environmental Management Company (CEMC). CRA performed the site investigation as outlined in CRA's May 15, 2011 *Sensitive Receptor and Preferential Pathway Survey, Response to Regulatory Comments, and Work Plan for Additional Assessment*, and Alameda County Environmental Health (ACEH) requested additional soil borings and sub-slab probe locations in a June 6, 2011 letter (Appendix A). CRA submitted the April 30, 2013 *Work Plan Addendum for Additional Assessment* and ACEH was in general agreement with the proposed vapor intrusion work plan, as noted in a July 3, 2013 correspondence (Appendix A). CRA submitted the July 26, 2013 *Work Plan Addendum to the Addendum for Additional Assessment*, and was approved by ACEH in a September 12, 2013 correspondence (Appendix A). ACEH approved extension requests for the *Subsurface Investigation Report* to be submitted by February 7, 2014. The primary objectives were to assess downgradient delineation and to investigate potential vapor intrusion into buildings at 3008 and 3014 Lakeshore Avenue and assess potential risks associated with vapor intrusion. Presented below are the site background, site geology, description of the methods, investigation results, and CRA's conclusions and recommendations.

Section 2.0 Site Background

2.1 Site Description

The site is currently a vacant lot on the southern corner of Lakeshore Avenue and MacArthur Boulevard in Oakland, California (Figure 1) and utilized by the current owner as a parking lot. A retail service station was operated onsite from 1933 to 2009. The service station was demolished in August 2010 with the removal of all site facilities, including one building, one kiosk, three dispenser islands, four 10,000-gallon gasoline underground storage tanks (USTs), and product piping (Figure 2). The property was sold to FWS Highland LLC in 2011. Surrounding land use is a mixture of commercial and residential.

A review of Sanborn Maps and city records produced by EDR indicates that a service station and automobile repair shop was formerly located at 3000 Lakeshore Avenue, which is at the corner of Lakeshore Avenue and Beacon Street (Figure 2). The service station operated from approximately 1933 to 1957 when the service station was replaced by an office building.

2.2 Previous Environmental Work

The site has been an open environmental case since 1990 under ACEH jurisdiction (Fuel Leak Case Number RO0000284 and GeoTracker Global ID T0600100328). Prior to this investigation, 22 monitoring wells have been installed (13 of which have been destroyed) and nine soil borings advanced. Remedial

activities have consisted of at least five fueling facility upgrades, some of which included remedial excavation, and light non-aqueous phase liquid (LNAPL) recovery. A summary of previous environmental investigation and remediation is included in Appendix B.

2.3 Site Geology

The site is situated at the western edge of the Piedmont Hills and is approximately 7 feet above mean sea level (ft-amsl) with relatively flat topography. Sediments in the vicinity consist of Holocene-age estuarine deposits comprised of organic clay and silty clay (Bay Mud); overlying Holocene-age alluvial sand and silt, and Pleistocene-age interbedded clay, silt, sand, and gravel.¹ Sediments encountered at the site consist of clays interbedded with silt, silty sand, fine sand, and gravel layers to the total depth explored of 35 feet below grade (fbg).

2.4 Site Hydrogeology

The site is located in the Santa Clara Valley Groundwater Basin, East Bay Plain Sub Basin. Groundwater in this region has been designated for potential beneficial agricultural, municipal, and industrial uses.² The average historical groundwater elevation has ranged from approximately 2 to 14 feet below grade (fbg) and flows predominantly to the southwest. The nearest surface water body is Lake Merritt, approximately 900 feet to the southwest.

Section 3.0 Subsurface Investigation and Crawl Space, Indoor, Ambient Air, and Sub-Slab Vapor Investigation

The investigation objectives were to assess hydrocarbon downgradient delineation, and assess any vapor intrusion risk to the adjacent properties. Field activities are summarized below.

3.1 Site-Specific Health and Safety Plan

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

3.2 Permits

CRA obtained drilling permits W2013-0885 and W2013-0886 from Alameda County Public Works Agency. CRA also obtained the traffic control plan permit TSD-13-0177, obstruction permit OB131009, and excavation permit X1302754 from the City of Oakland Public Works Agency and The City of Oakland

¹ *California's Groundwater Bulletin 118*; The State of California Department of Water Resources Agency, February 27, 2004

² *Table 2-2 Existing and Potential Beneficial Uses in Groundwater in Identified Basins, Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basins*; California Regional Water Quality Control Board – San Francisco Bay Region, January 18, 2007.

Department of Planning, Building and Neighborhood Preservation. All permits are included in Appendix C.

3.3 Drilling Company

Vapor Tech Services (VTS) of Hayward, California (C57 license #916085) performed the soil boring advancement and sub-slab vapor installation.

3.4 Drilling Dates

Drilling took place on November 11 through 13, 2013 for the soil borings and sub-slab vapor probes.

3.5 CRA Personnel

CRA personnel Elizabeth Austin, Margareta Wolf, and Oliver Yan managed the drilling under the supervision of California Professional Geologist Nathan Lee (PG 8486).

3.6 Utility Clearance

Prior to drilling, CRA contacted Underground Service Alert to mark existing underground utilities near the proposed well locations. CRA contracted Norcal Geophysical Consultants, Inc. (Norcal) of Cotati, California to verify underground utility locations near the proposed boring and sub-slab vapor locations. Norcal used electronic line location equipment and ground penetrating radar (GPR) to determine utilities in the area. Each boring location was hand cleared using a hand auger to ensure no underground utilities existed beneath each location.

3.7 Soil Boring

VTS advanced borings B-1 through B-7 using a 3-inch diameter hand auger to the maximum depth of 27.5 fbg. After each boring was completed VTS tremied the borings with Portland Type I/II cement. Boring logs are included in Appendix D. Soil boring locations are shown in Figure 2. CRA's standard field procedures for Soil Borings are presented in Appendix E.

3.8 Soil Sampling

Soil samples were collected from all borings at approximately 3 foot intervals to approximately 9 fbg, at the bottom of the borings, and at different depths based on field screening using a photo ionization detector (PID) and visual observations. Soil samples were collected from the hand auger bucket using 6-inch steel or brass tubes. Soil was logged according to the ASTM D2488-06 Unified Soil Classification System and screened using a PID. Samples collected for analyses were capped with Teflon[®] tape and plastic end caps. All samples were properly sealed, labeled, preserved on ice, logged on

Chain-of-Custody (COC) forms, and released to Eurofins Lancaster Laboratories (Lancaster) of Lancaster, Pennsylvania for analysis.

3.9 Groundwater Sampling

CRA collected grab groundwater samples from borings B-1 through B-7 at first encountered groundwater using disposable bailers. Grab groundwater samples were collected at the following depths B-1 at 12 fbg, B-2 at 9 fbg, B-3 at 8 fbg, B-4 at 25 fbg, B-5 at 20 fbg, B-6 at 11 fbg, and B-7 at 6 fbg. The samples were decanted into appropriate laboratory provided sampling containers, labeled, capped, logged on COC forms, preserved on ice, and released to Lancaster for analysis.

3.10 Sub-Slab Vapor Probe Construction

Sub-slab probes SSVP-1, SSVP-2, and SSVP-3 were installed at the 3014 Lakeshore Avenue property based on Department of Toxic Substances Control California Environmental Protection Agency's October 2011 *Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance)*. A rotary-hammer drill equipped with a 2-inch diameter drill bit to create a 2-inch deep "outer" hole that partially penetrated the concrete slab. A small portable vacuum cleaner was used to remove cutting from the hole. Removal of cuttings in this manner from the non-penetrated slab does not compromise soil vapor because there is lack of pneumatic communication between sub-slab material and the vacuum cleaner.

A smaller diameter 1-inch "inner" hole was advanced through the remaining concrete slab into the sub-slab material using a rotary hammer to an approximate depth of 10 inches below grade.

The sub-slab probes were constructed using stainless-steel tubing and stainless steel compression fittings. Stainless-steel ensures that the construction materials are not a source of volatile organic compounds. The vapor probe was installed at approximately 10 inches below surface. Monterey #2/12 sand was used to fill the annular space from the bottom of the hole to approximately 1.5 inches above the probe. Then 2 inches of hydrated bentonite seal was placed above the sand pack. Quick drying Portland cement slurry was used to fill the hole above the bentonite to approximately 1-inch below the slab surface. The probe is capped with a stainless-steel plug and made flush with the slab surface to prevent interference from the office atmosphere. Sub-slab probe locations are shown on Figure 2.

3.11 Crawl Space, Indoor, and Ambient Air and Sub-Slab Vapor Sampling

Air sampling began on November 14, 2013 and concluded on November 15, 2013. Sampling of sub-slab probes SSVP-1, SSVP-2, and SSVP-3 were conducted on November 15, 2013.

Prior to air sampling, Building Survey and Building Chemical Screening forms were completed for the properties at 3008 Lakeshore Avenue and 3014 Lakeshore Avenue, Oakland, California and included in Appendix F.

At 3014 Lakeshore Avenue 5 indoor air samples were collected (IA-1 in the front office, IA-2 in the office cubicle area, IA-3 in the back office, IA-4 in the basement, and IA-5 in the office annex's main room), one crawl space sample was collected at 3014 Lakeshore Avenue (CS-1 in the office annex's crawl space), and one outdoor air sample was collected from the upwind location (OA-1) between the main building and annex office building.

At 3008 Lakeshore Avenue one indoor sample was collected (A-6 located in the buildings front within the first floor office space). One crawl space sample was collected at 3008 Lakeshore Avenue (CS-2). One outdoor up upwind air sample was collected (OA-2) located in the parking lots southeast corner.

The various sample locations for both properties are shown on Figure 2.

A "shut-in" test was performed prior to collection of air and sub-slab vapor samples. This test was performed by sealing all openings to ambient air, opening canister to establish a vacuum inside the sampling train and waiting to ensure the vacuum remained stable for 10 minutes. The "shut-in" test reduces the potential for ambient air to infiltrate into the sample.

After the "shut-in" test was completed, the crawl space, indoor air and ambient air samples were collected in certified 6 liter Summa™ canisters, in accordance with the DTSC *Vapor Intrusion Guidance* by using flow limiters set at 3.46 through 3.56 milliliters per minute (mL/min) to allow the desired sampled volume in approximately 24 hours.

Sub-slab vapor probes SSVP-1, SSVP-2, and SSVP-3 (Figure 2) were sampled after the "shut-in" test was completed. Prior to sampling the sub-slab vapor probes were connected to the sampling train and approximately three probe volumes of stagnant air were purged. After purging, the 1 liter sample Summa™ canister valve was opened to allow the canister vacuum to draw soil vapor through the flow controller at a flow rate of 167 mL/min and into the sample canister until a negative pressure of approximately 5-inches of mercury was observed on the vacuum gauge.

Leak testing was performed during sampling by using laboratory grade helium to determine if ambient air was entering the Summa™ canisters during sampling. A shroud was used to surround the vapor sampling equipment and the connections between the sampling equipment and the vapor probe tubing. A helium detector was also placed inside the shroud to quantify helium concentrations inside the shroud. An atmosphere of approximately 40 percent helium was created and maintained for the duration of vapor sampling.

All air sampling locations at 3014 Lakeshore Avenue, except CS-1 and IA-5, were sampled spasicicly for naphthalene simultaneously using sorbent tubes

Indoor and outdoor air sorbent tube samples were collected using a low flow air pump, calibrated at 10 mL/min. A mass flow controller was used to ensure that the pump's flow rate is relatively constant. The sorbent tube was stabilized during sample collection using a stand that places the tube vertically, and facilitates a uniform and reliable flow through the tube during sampling. The tube and stand were connected to the mass flow controller, which then connects to the air pump using tygon tubing and fittings. A 24-hour sorbent tube sample was collected simultaneously as the ambient air samples collected with Summa™ canisters. Initial flow rate, temperature, humidity, and final flow rate were recorded for each sorbent tube sample to properly calculate sample concentrations.

Sorbent tube samples were also collected from sub-slab vapor probes SSV-1, SSV-2, and SSV-3. The sampling train consisted of a sorbent tube attached to the sub-slab probe using unions and fittings. A disposable syringe is then attached to the sorbent tube to allow for vapor to be pulled through the sorbent tube. The syringe pulls the air into the sorbet tube until the desired volume has been collected. Approximately 200 milliliters of vapor was collected for each sub-slab sorbent tube sample.

All samples were labeled, logged on a COC, Summa™ canister samples were stored at ambient temperature, sorbent tubes were capped and preserved in ice, and shipped to Eurofins Air Toxics, Inc. (EATI) of Folsom, California for analysis.

3.12 Chemical Analyses

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

- Total petroleum hydrocarbons as motor oil (TPHmo) with silica gel cleanup by Environmental Protection Agency (EPA) Method 8015
- Total petroleum hydrocarbons as diesel (TPHd) with silica gel cleanup by EPA Method 8015
- Total petroleum hydrocarbons as gasoline (TPHg) by EPA Method 8015
- Benzene, toluene, ethylbenzene and xylenes (BTEX), methyl tertiary butyl ether (MTBE), di isopropyl ether (DIPE), ethyl tertiary butyl ether (ETBE), tertiary amyl methyl ether (TAME), tertiary butyl alcohol (TBA), and naphthalene by EPA Method 8260B.

Air and soil vapor samples were analyzed by EATI for the following constituents:

- TPHg, BTEX, MTBE, and naphthalene by modified EPA method TO-15 (GC/MS SIM) for the indoor, crawl space and ambient air samples and EPA Method TO-15 (GC/MS) Full Scan for the sub-slab vapor probes
- Air Phase Hydrocarbon (APH) Fractions (Sp) Aromatics C8-C12 and APH Fractions (Sp) Aliphatics C5-C12 by Modified TO-15 GC/MS Full Scan

- Naphthalene by Modified EPA Method TO-17
- Oxygen (O₂), carbon dioxide (CO₂), methane (CH₄), nitrogen (N₂) and helium by ASTM D-1946 (GC/TCD)

The laboratory analytical reports are included in Appendix G.

3.13 Waste Disposal

Soil cuttings, construction debris, and rinse water were stored onsite in sealed and labeled Department of Transportation (DOT) approved 55-gallon drums. All generated waste will be profiled and disposed of at a CEMC approved disposal facility after all waste profiling has been completed.

Section 4.0 Subsurface Investigation Results

The investigation results for soil, groundwater, air, and sub-slab vapor sampling are summarized in the following sections.

4.1 Soil Analytical Results

Current soil analytical results are presented in Table 1. The laboratory analytical report for soil is included in Appendix G. Soil analytical results are summarized in Table 4.1 below.

Table 4.1 Soil Analytical Results									
		<i>TPH_{mo}</i> <i>w/</i> <i>Silica</i> <i>Gel</i>	<i>TPH_d</i> <i>w/</i> <i>Silica</i> <i>Gel</i>	<i>TPHg</i>	<i>Benzene</i>	<i>Toluene</i>	<i>Ethylbenzene</i>	<i>Xylene</i>	<i>MTBE</i>
<i>LTCP – Commercial – 0 to 5 fbg¹</i>		<i>NE</i>	<i>NE</i>	<i>NE</i>	<i>8.2</i>	<i>NE</i>	<i>89</i>	<i>NE</i>	<i>NE</i>
<i>LTCP – Commercial – Outdoor Air – 5 to 10 fbg¹</i>		<i>NE</i>	<i>NE</i>	<i>NE</i>	<i>12</i>	<i>NE</i>	<i>134</i>	<i>NE</i>	<i>NE</i>
<i>LTCP – Utility Worker – 0 to 10 fbg¹</i>		<i>NE</i>	<i>NE</i>	<i>NE</i>	<i>14</i>	<i>NE</i>	<i>314</i>	<i>NE</i>	<i>NE</i>
<i>Sample ID</i>	<i>Depth</i>	<i>All results reported in milligrams per kilogram (mg/kg)</i>							
B-1	3	38	14	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005
B-1	6	<9.9	<3.9	<1.0	<0.0005	<0.001	<0.001	0.001	<0.0005
B-1	9	40	11	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005
B-1	9.5	<9.9	27	220	<0.025	<0.051	<0.051	<0.051	<0.025
B-1	12.5	<9.9	<4.0	<1	<0.0005	<0.001	<0.001	<0.001	<0.0005
B-1	14.5	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005
B-2	3	<10	<4.0	<1.0	<0.0005	<0.0009	<0.0009	<0.0009	<0.0005
B-2	6	<9.9	<4.0	<1	<0.0005	<0.001	<0.001	<0.001	<0.0005
B-2	9	<10	<4.0	<1.0	<0.0005	<0.0009	<0.0009	<0.0009	0.0006

B-2	13	<9.9	<3.9	<1	<0.0005	<0.001	<0.001	<0.001	0.28
B-3	3	<10	<4.0	2.1	<0.0005	<0.001	<0.001	<0.001	<0.0005
B-3	5	110	920	1,300	<0.024	<0.048	<0.048	<0.048	<0.024
B-3	7.5	<9.9	14	58	0.0008	0.002	0.002	0.011	0.017
B-3	9	<10	7.9	5.6	0.002	0.001	0.002	0.005	0.088
B-3	11	<9.9	<4.0	2.9	0.001	<0.001	<0.001	<0.001	0.071
B-4	3	870	330	<41	0.0007	<0.001	<0.001	<0.001	<0.0005
B-4	6	700	190	<9.8	<0.0005	<0.001	<0.001	<0.001	<0.0005
B-4	9	<10	<4.0	<1	<0.0005	<0.001	<0.001	<0.001	<0.0005
B-4	15	<10	<4.0	<1	<0.0005	<0.001	<0.001	<0.001	<0.0005
B-4	20	<10	<4.0	<1	<0.0005	<0.001	<0.001	<0.001	<0.0005
B-4	25	<10	<4.0	<1.1	<0.0005	<0.001	<0.001	<0.001	<0.0005
B-4	27.5	<10	<4.0	<1	<0.0005	<0.001	<0.001	<0.001	<0.0005
B-5	3	27	5.2	<1	<0.0005	<0.0009	<0.0009	<0.0009	<0.0005
B-5	6	140	33	<1	<0.0005	<0.001	<0.001	<0.001	<0.0005
B-5	9	17	<4.0	<1	<0.0005	<0.001	<0.001	<0.001	<0.0005
B-5	24	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005
B-6	3	46	11	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005
B-6	6	<10	<4.0	<1	<0.0005	<0.001	<0.001	<0.001	<0.0005
B-6	9	<10	<4.0	<1	<0.0005	<0.001	<0.001	<0.001	<0.0005
B-6	15	<10	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005
B-7	3	19	21	86	<0.025	<0.049	<0.049	<0.049	<0.025
B-7	6	<10	79	2,600	0.058	<0.10	<0.10	0.13	<0.050
B-7	6.75	16	130	130	<0.024	<0.048	<0.048	<0.048	<0.024
B-7	7.5	<10	5.9	22	0.0009	<0.001	<0.001	0.002	<0.0005
B-7	10	<10	20	8.0	0.004	<0.001	0.004	0.022	<0.0005
Notes:									
1. <i>Low-Threat Underground Storage Tank Case Closure Policy Criteria (LTCP)</i> , California State Water Resources Control Board (SWRCB), August 2012 – Low-Threat Underground Storage Tank Policy.									
NE Not established									

Hydrocarbon concentrations in soil onsite are mainly observed in boring B-3, limited in extent and concentrations decrease with depth. Hydrocarbon concentrations observed in offsite borings B-4 and B-5 at 3008 Lakeshore Avenue are limited in extent to the fill material observed in the borings, and concentrations decreases with depth at approximately 9 fbg. Elevated hydrocarbon concentrations were observed in boring B-7 on Beacon Street, downgradient of 3000 Lakeshore Avenue at depths between 3 to 7.5 fbg. Light non-aqueous phase liquid (LNAPL) was observed in B-7 between approximately 4 to 6.5 fbg. The source of petroleum hydrocarbons in B-7 appears to be the former service station located at 3000 Lakeshore Avenue.

4.2 Groundwater Analytical Results

Grab-groundwater dissolved hydrocarbon concentrations analytical results are presented in Table 2. The laboratory analytical report for groundwater is included in Appendix G. Grab-groundwater analytical results are summarized in Table 4.2 below.

Table 4.2 Grab-Groundwater Analytical Results									
		TPHmo w/ Silica Gel	TPHd w/ Silica Gel	TPHg	Benzene	Toluene	Ethylbenzene	Xylene	MTBE
ESL – Groundwater is a Potential Drinking water Resource¹		100	100	100	1	40	30	20	5
Sample ID	Depth	All results reported in micrograms per liter (µg/L)							
B-1	12.5	<40	95	120	<0.5	<0.5	<0.5	<0.5	<0.5
B-2	9	260	200	140	<0.5	<0.5	<0.5	<0.5	2,000
B-3	8	380	--	920	<5	<5	<5	<5	96
B-4	25	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
B-5	20	<41	<160	<50	<0.5	<0.5	<0.5	<0.5	<0.5
B-6	11	<41	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
B-7	6	<400	2,800	2,500	3	<3	<3	<3	<3
Notes:									
1. Environmental Screening Level (ESL) for groundwater is a current or potential drinking water resource – Commercial/ Industrial Land Use (Table F1-A) from <i>Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater</i> prepared by the California Regional Water Quality Control Board – San Francisco Bay Region, Interim Final November 2007, revised May 2008 (Revised May 2013)									
bold Concentrations exceed applicable ESLs									
-- Not analyzed									

4.3 Crawl Space, Indoor Air, and Ambient Air Analytical Results

Complete air and soil vapor results are included as Tables 3 and 4. The laboratory analytical reports are included in Appendix G. Crawl space, indoor, and ambient air analytical results are summarized in Table 4.3 below.

Table 4.3 Crawl Space, Indoor, and Ambient Air Hydrocarbon Analytical Results									
	TPHg	Benzene	Toluene	Ethylbenzene	m,p-Xylene	o-Xylene	MTBE	Naphthalene	
Ambient Air and Indoor Air ESLs – Commercial/ Industrial³	1,200	0.42	1,300	0.97	440	440	47	0.36	
Sample ID	All results reported in micrograms per cubic meter (µg/m ³)								
CS-1	120	0.79	2.0	0.39	1.4	0.49	<0.61	<4.4/--	
CS-2	94	0.93	2.7	0.57	2.1	0.71	<0.62	<4.5/--	
IA-1	150	0.80	2.8	0.78	2.9	1.2	<0.61	<4.4/0.24	
IA-2	230	0.86	5.0	0.77	3.0	1.1	<0.55	<4.0/0.098	
IA-3	160	0.79	2.8	0.68	2.6	1.0	<0.60	<4.4/0.12	
IA-4	150	0.87	2.1	0.36	1.1	0.34	<0.58	<4.2/0.055	
IA-5	130	0.80	3.2	0.56	2.0	0.78	<0.51	<3.7/--	
IA-6	410	0.82	2.4	0.53	2.0	0.70	<0.64	<4.7/--	
OA-1	65	1.0	2.7	0.51	1.8	0.62	<0.54	<3.9/0.057	
OA-1 DUP	110	<1.4	3.7	<0.78	2.5	0.84	<3.2	<24/--	

Table 4.3 Crawl Space, Indoor, and Ambient Air Hydrocarbon Analytical Results								
	TPHg	Benzene	Toluene	Ethylbenzene	m,p-Xylene	o-Xylene	MTBE	Naphthalene
Ambient Air and Indoor Air ESLs – Commercial/Industrial³	1,200	0.42	1,300	0.97	440	440	47	0.36
Sample ID	All results reported in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$)							
OA-2	90	0.88	2.9	0.64	2.4	0.85	<0.59	<4.3/--
Notes:								
bold Concentrations exceed applicable ESLs								
-- Not analyzed								
x/x Naphthalene by EPA Method TO-15/Naphthalene by EPA Method TO-17 (VI Tubes)								

No aromatic (carcinogenic) and aliphatic (non-carcinogenic) hydrocarbons were detected in the APH Fraction analysis. APH Fraction analytical data is presented in Table 4, and summarized in Table 4.4 below.

Table 4.4 Crawl Space, Indoor, and Ambient Air APH Fractionation Analytical Results						
	C5-C6 Aliphatic Hydrocarbons	>C6-C8 Aliphatic Hydrocarbons	>C8- C10 Aliphatic Hydrocarbons	>C10-C12 Aliphatic Hydrocarbons	>C8-C10 Aromatic Hydrocarbons	>C10-C12 Aromatic Hydrocarbons
Sample ID	All results reported in $\mu\text{g}/\text{m}^3$					
CS-1	<55	<69	<98	<120	<83	<93
CS-2	<55	<70	<100	<120	<84	<94
IA-1	<55	<69	<98	<120	<83	<93
IA-2	<49	<62	<88	<100	<75	<83
IA-3	<54	<68	<97	<120	<82	<92
IA-4	<52	<66	<94	<110	<80	<89
IA-5	<46	<58	<82	<98	<69	<77
IA-6	<58	<73	<100	<120	<88	<98
OA-1	<48	<61	<87	<100	<74	<82
OA-1 DUP	<290	<370	<530	<630	<440	<500
OA-2	<53	<67	<95	<110	<81	<90

4.4 Sub-Slab Analytical Results

The Complete sub-slab vapor analytical results are included in Tables 3 and 4, and summarized in Table 4.5 below. Laboratory analytical report is included in Appendix G.

Table 4.5 Sub-Slab Vapor Hydrocarbon Analytical Results									
	TPHg	Benzene	Toluene	Ethylbenzene	m,p-Xylene	o-Xylene	MTBE	Naphthalene	
LTCP Soil Gas Criteria – Commercial¹									
	NE	280	NE	3,600	NE	NE	NE	310	
Sample ID	Depth	All results reported in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$)							
SSVP-1	0.7	1,700	26	140	27	91	37	<4.2	<24/<2.5
SSVP-2	0.7	300	7.3	<4.5	<5.1	<5.1	<5.1	5.2	<25/<2.5
SSVP-3	0.7	2,300	22	10	17	32	<5.2	<4.3	<25/12
Notes:									
1. Low-Threat Underground Storage Tank Case Closure Policy – Soil Gas Criteria No Bioattenuation Zone, California State Water Resources Control Board, August 2012									
x/x Naphthalene by EPA Method TO-15/Naphthalene by EPA Method TO-17 (VI Tubes)									

Aromatic (carcinogenic) and aliphatic (non-carcinogenic) hydrocarbons APH Fraction analytical data for SSVP-1 and SSVP-3 is presented in Table 4, and summarized in Table 4.6 below.

Table 4.6 Sub-Slab Vapor APH Fractionation Analytical Results						
	C5-C6 Aliphatic Hydrocarbons	>C6-C8 Aliphatic Hydrocarbons	>C8- C10 Aliphatic Hydrocarbons	>C10-C12 Aliphatic Hydrocarbons	>C8-C10 Aromatic Hydrocarbons	>C10-C12 Aromatic Hydrocarbons
Sample ID	All results reported in $\mu\text{g}/\text{m}^3$					
SSVP-1	<75	<95	<130	190	200	<130
SSVP-2	<77	<97	<140	<160	<120	<130
SSVP-3	290	590	<140	570	<120	<130

No helium was detected in samples SSVP-1 and SSVP-2 indicating that no ambient air entered the canisters during the sampling process. Helium was reported in the sample SSVP-3 at a concentration of 0.22 percent volume. Due to the low percentage of helium, and the high percentage of helium within the sampling shroud (40 percent) it is unlikely that a high amount of ambient air entered the sample train and SSVP-3 results are valid.

4.5 Crawl Space, Indoor and Ambient Air, and Sub-Slab Vapor Data Interpretation

Indoor air samples may measure BTEX and other petroleum hydrocarbon compounds within the concentration ranges commonly seen as background values measured at sites where no subsurface petroleum hydrocarbon contamination is present. There are many sources of background contamination inside buildings. Materials and substances commonly found in commercial and residential settings, such as paints, paint thinners, gasoline-powered machinery, building materials, cleaning products, dry cleaned clothing, and cigarette smoke, contain volatile organic compounds (VOCs) that may be detected by indoor air testing. Table 4.7 presents a summary of BTEX background indoor air concentrations based on the post-1990 studies evaluated in the U.S. Environmental

Protection Agency (USEPA)'s *Background Indoor Air Concentrations of Volatile Organic Compounds in North American Residences (1990-2005): A compilation of Statistics for Assessing Vapor Intrusion*, June 2011.

<i>Chemical of Concern</i>	<i>Number of Studies</i>	<i>Number of Samples</i>	<i>Range % Detect</i>	<i>Total % Detects</i>	<i>RL Range ($\mu\text{g}/\text{m}^3$)</i>	<i>Range of 50th % ($\mu\text{g}/\text{m}^3$)</i>	<i>Range of 75th % ($\mu\text{g}/\text{m}^3$)</i>	<i>Range of 90th % ($\mu\text{g}/\text{m}^3$)</i>
Benzene	14	2,615	31-100	91.1	0.05 – 1.6	<RL – 4.7	1.9 – 7.0	5.2 – 15
Toluene	12	2,065	86-100	96.4	0.03 – 1.9	4.8 – 24	12 – 41	25 – 77
Ethylbenzene	10	1,484	26-100	85.7	0.01 – 2.2	1 – 3.7	2 – 5.6	4.8 – 13
m,p – Xylene	10	1,920	52-100	92.9	0.4 – 2.2	1.5 – 14	4.6 – 21	12 – 56
o – Xylene	12	2,004	31-100	89.0	0.11 – 2.2	1.1 – 3.6	2.4 – 6.2	5.5 – 16

Notes:
 1. USEPA, *Table ES-1 Ranges of Summary Statistics for Background Indoor Air Concentrations of Common VOCs Measured in North American Residences between 1990 and 2005, Background Indoor Air Concentrations of Volatile Organic Compounds in North American Residences (1990-2005): A compilation of Statistics Assessing Vapor Intrusion*, June 2011
 RL Reporting limit

For example, the range of normal background concentrations for benzene spans the 1.41 to 14.1 $\mu\text{g}/\text{m}^3$ range representing 10^{-5} to 10^{-4} incremental risk values published as part of the California Human Health Screening Levels (CHHSLs) by California EPA. Table 4.8 lists the Office of Environmental Health Hazard Assessment (OEHHA) hazard quotient concentration values of 1 and excess cancer risk concentrations of 10^{-6} .

<i>Chemical</i>	<i>Indoor Air Human Health Screening ($\mu\text{g}/\text{m}^3$)¹</i>	
	<i>Residential Land Use</i>	<i>Commercial/Industrial Land Use Only</i>
Benzene	8.40 E-02	1.41 E-01
Carbon Tetrachloride	5.79 E-02	9.73 E-02
1,2-Dichloroethane	1.16 E-01	1.95 E-01
cis-1,2-Dichloroethylene	3.65 E+01	5.11 E+01
trans-1,2-Dichloroethylene	7.30 E+01	1.02 E+02
Ethylbenzene	0.97 E+00 ²	1.60 E+00 ²
Mercury, elemental	9.40 E-02	1.31 E-01
Methyl tertiary-Butyl Ether	9.35 E+00	1.57 E+01
Naphthalene	7.20 E-02	1.20 E-01
Tetrachloroethylene	4.12 E-01	6.93 E-01
Tetraethyl Lead	3.65 E-04	5.11 E-04
Toluene	3.13 E+02	4.38 E+02

Table 4.8 California Human Health Screening Levels for Indoor Air and Soil Gas		
Chemical	Indoor Air Human Health Screening ($\mu\text{g}/\text{m}^3$)¹	
	Residential Land Use	Commercial/Industrial Land Use Only
1,1,1-Trichloroethane	2.29 E+03	3.21 E+03
Trichloroethylene	1.22 E+00	2.04 E+00
Vinyl Chloride	3.11 E-02	5.24 E-02
m-Xylene	7.30 E+02 ³	1.02 E+02 ³
o-Xylene	7.30 E+02 ³	1.02 E+02 ³
p-Xylene	7.30 E+02 ³	1.02 E+02 ³
<p>Notes:</p> <ul style="list-style-type: none"> • Reference: Appendix 1, OEHHA Target Indoor Air Concentrations and Soil-Gas Screening Numbers for Existing Building under Residential and Industrial/Commercial land uses • Commercial/industrial properties should be evaluated using both residential and commercial/industrial CHHSLs. A deed restriction that prohibits use of the property for sensitive purposes may be required at sites that are evaluated and/or remediated under a commercial/industrial land use scenario only. • Calculation of cumulative risk may be required at sites where multiple contaminants with similar health effects are present • Carcinogens: CHSSLs based on target cancer risk of 10^{-6}. Cal/EPA cancer slope factors used when available • Noncarcinogens: CHHSLs based on target hazard quotient of 1.0 • Soil Gas: Screening levels based on soil gas data collected <1.5 meters (five feet) below a building foundation or the ground surface. Intended for evaluation of potential vapor intrusion into buildings and subsequent impacts to indoor-air. Soil gas data should be collected and evaluated at all sites with significant areas of VOC-impacted soil. Screening levels also apply to sites that overlie plumes of VOC-impacted groundwater. <ol style="list-style-type: none"> 1. "Residential Land Use" screening levels generally considered adequate for other sensitive uses (e.g., day-care centers, hospitals, etc.) 2. Calculation of a screening number for the chemical outlined in OEHHA draft report, <i>California Human Health Screening Levels for Ethylbenzene</i>, November 2009 3. Representative Screening Numbers for mixed xylenes. The representative value for mixed xylene is based on the calculated lowest one amongst the three isomers. 		

As a result, it is not possible to interpret whether vapor intrusion is occurring by simply comparing indoor air concentration against the most conservative screening values, since these values do not account for background concentrations. Instead, indoor concentrations must be compared to both outdoor air and crawl space vapor concentrations to determine whether external or indoor sources are contributing to indoor air concentrations. A clear indication of active vapor intrusion would be a combination of indoor and outdoor air samples where indoor air contained significantly greater concentrations of petroleum hydrocarbon VOCs (e.g., BTEX) than outdoor air, and also contained significant lower concentrations of petroleum hydrocarbon VOCs than crawl space air.

Indoor air, outdoor air, and crawlspace concentrations will be evaluated in accordance with the above protocols. Criteria indicative of vapor intrusion should be:

1. Indoor air benzene concentrations significantly higher than outdoor air.
2. Indoor air benzene concentrations significantly higher than the range of normal background (rather than indoor air 10^{-6} standard values presented in OEHHA Table 4.8 above, which are within the lower range of normal background).
3. Crawl space and/or sub-slab benzene concentrations significantly higher than indoor air.

Any other combination of concentrations, and concentration ratios, will likely indicate either an indoor or outdoor background source rather than vapor intrusion to the building.

This information is gathered from DTSC's October 2011 *Vapor Intrusion Guidance*.

Section 5.0 Conclusions and Recommendations

5.1 Conclusions

Based on this investigation, the following conclusions can be made:

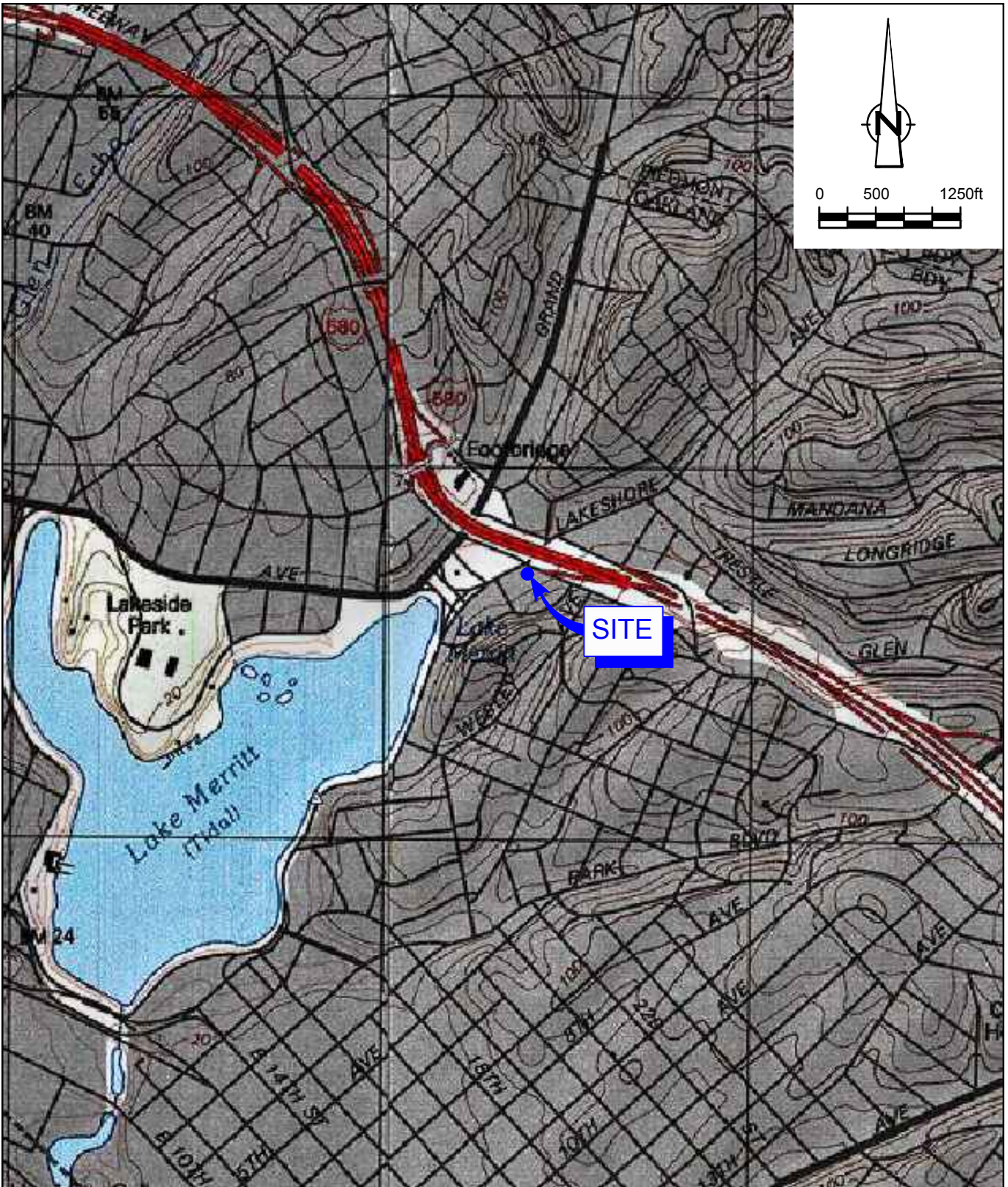
- Hydrocarbon concentrations observed in soil at 3026 Lakeshore Avenue are limited in extent and concentrations decrease with depth. The highest hydrocarbon concentrations in soil were located in samples collected onsite and from samples collected from boring B-7 on Beacon Street in close proximity to monitoring well MW-6. Also LNAPL was observed in soil between 4 to 6.5 fbg in boring B-7. It appears that hydrocarbon concentrations in soil are localized to 3026 Lakeshore Avenue and in the offsite area adjacent to 3000 Lakeshore Avenue in the proximity of boring B-7.
- No hydrocarbon concentrations in soil exceed the *State Water Control Board Resolution No. 2012-0016, Low-Threat Underground Storage Policy (LTP)* exposure rates for direct exposure and utility worker.
- Grab-groundwater concentrations show that dissolved hydrocarbon concentrations are relatively localized to at 3026 Lakeshore Avenue as no dissolved hydrocarbons were detected in any offsite grab-groundwater samples, except the sample collected at offsite boring B-7, adjacent to 3000 Lakeshore Avenue.
- It appears that there is an additional source in the area of 3000 Lakeshore Avenue based on the hydrocarbon soil concentrations, the dissolved hydrocarbons concentrations detected in MW-6, and the presence of LNAPL in offsite boring B-7. Sanborn Maps and city records produced by EDR show that a service station and automobile repair shop were formerly located at 3000 Lakeshore Avenue and operated from approximately 1933 to 1957.
- Indoor ambient air hydrocarbon concentrations detected were below ESLs except for benzene. However the indoor benzene concentrations are similar to both outdoor and crawl space ambient

air. The detected outside and crawl space ambient air concentrations likely have a significant contribution from vehicle emissions from the heavily traveled Lakeshore Avenue and Interstate 580. If a vapor intrusion pathway existed, the benzene and other hydrocarbon concentrations in both the indoor and crawl space air would be higher than the concentrations in outside air. Here, indoor air benzene and other hydrocarbon concentrations are similar to both crawl space and outdoor air concentrations. Therefore, the factors used to confirm that the source of vapor intrusion is from a sub-surface hydrocarbon source have not been met, and the concentrations detected in indoor air are likely due to sources other than sub-surface hydrocarbons.

5.2 Recommendations

CRA recommends conducting an additional round of sampling to evaluate sub-slab soil gas, crawl space air, indoor air, and outdoor (ambient) air to confirm the results described in this report. CRA would propose to conduct this sampling event in the spring of 2014.

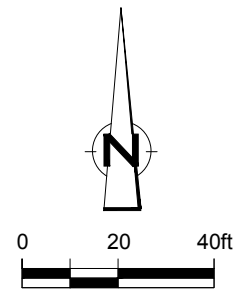
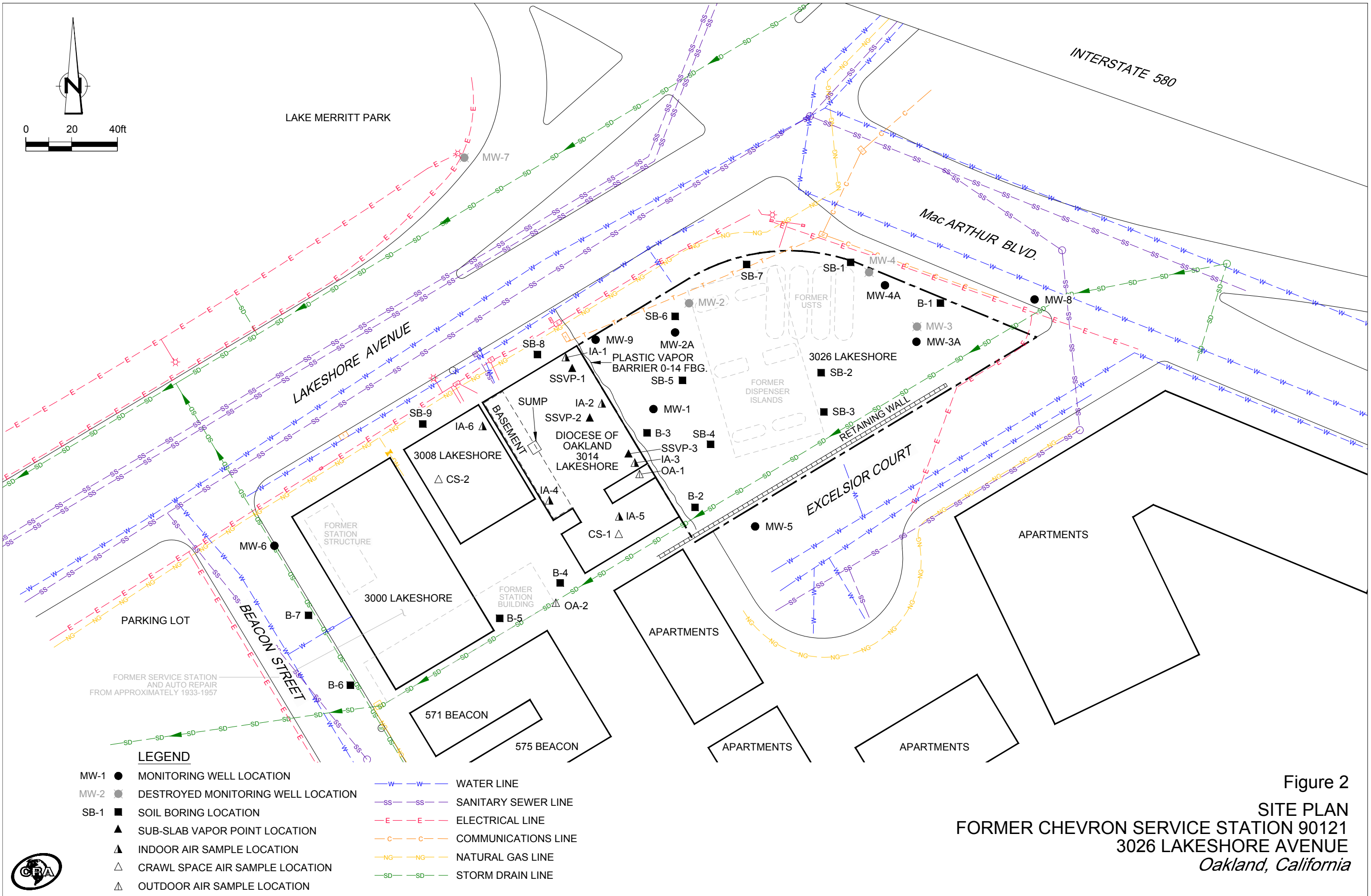
Figures



SOURCE: TOPO! MAPS, 1993

Figure 1
 VICINITY MAP
 CHEVRON SERVICE STATION 90121
 3026 LAKESHORE AVENUE
 Oakland, California





LEGEND

- | | | | |
|--------|------------------------------------|---------|---------------------|
| MW-1 ● | MONITORING WELL LOCATION | —W—W— | WATER LINE |
| MW-2 ● | DESTROYED MONITORING WELL LOCATION | —SS—SS— | SANITARY SEWER LINE |
| SB-1 ■ | SOIL BORING LOCATION | —E—E— | ELECTRICAL LINE |
| ▲ | SUB-SLAB VAPOR POINT LOCATION | —C—C— | COMMUNICATIONS LINE |
| ▲ | INDOOR AIR SAMPLE LOCATION | —NG—NG— | NATURAL GAS LINE |
| △ | CRAWL SPACE AIR SAMPLE LOCATION | —SD—SD— | STORM DRAIN LINE |
| △ | OUTDOOR AIR SAMPLE LOCATION | | |

Figure 2
SITE PLAN
FORMER CHEVRON SERVICE STATION 90121
3026 LAKESHORE AVENUE
Oakland, California



Tables

TABLE 1
SOIL ANALYTICAL RESULTS - HYDROCARBONS
FORMER CHEVRON SERVICE STATION 90121
3026 LAKESHORE AVENUE
OAKLAND, CALIFORNIA

Sample ID	Date	Sample Depth (fbg)	TPHmo w/ Silica Gel	TPHd w/ Silica Gel	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	DIPE	TAME	TBA	ETBE	Naphthalene
			Concentrations reported in milligrams per kilogram (mg/kg)												
<i>LTC - Commercial - 0 to 5 fbg^a</i>			NE	NE	NE	8.2	NE	89	NE	NE	NE	NE	NE	NE	45
<i>LTC - Commercial - Outdoor Air - 5 to 10 fbg^a</i>			NE	NE	NE	12	NE	134	NE	NE	NE	NE	NE	NE	45
<i>LTC - Utility Worker - 0 to 10 fbg^a</i>			NE	NE	NE	14	NE	314	NE	NE	NE	NE	NE	NE	219
B-1	11/11/13	3	38 ^{b,c}	14 ^b	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	<0.001	<0.021	<0.001	<0.001
B-1	11/11/13	6	<9.9 ^{b,c}	<3.9 ^b	<1.0	<0.0005	<0.001	<0.001	0.001	<0.0005	<0.001	<0.001	<0.020	<0.001	<0.001
B-1	11/11/13	9	40 ^{b,c}	11 ^b	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	<0.001	<0.020	<0.001	<0.001
B-1	11/11/13	9.5	<9.9 ^{b,c}	27 ^d	220	<0.025 ^e	<0.051 ^e	<0.051 ^e	<0.051 ^e	<0.025 ^e	<0.051 ^e	<0.051 ^e	<1.0 ^e	<0.051 ^e	<0.051 ^e
B-1	11/11/13	12.5	<9.9 ^{b,c,f}	<4.0 ^b	<1	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	<0.001	<0.021	<0.001	<0.001
B-1	11/11/13	14.5	<10 ^{b,c,f}	<4.0 ^{b,f}	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	<0.001	<0.019	<0.001	<0.001
B-2	11/11/13	3	<10 ^{b,c}	<4.0 ^b	<1.0	<0.0005	<0.0009	<0.0009	<0.0009	<0.0005	<0.0009	<0.0009	<0.019	<0.0009	<0.0009
B-2	11/11/13	6	<9.9 ^{b,c}	<4.0 ^b	<1	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	<0.001	<0.020	<0.001	<0.001
B-2	11/11/13	9	<10 ^{b,c}	<4.0 ^b	<1.0	<0.0005	<0.0009	<0.0009	<0.0009	0.006	<0.0009	<0.0009	<0.018	<0.0009	<0.0009
B-2	11/11/13	13	<9.9 ^{b,c}	<3.9 ^b	<1	<0.0005	<0.001	<0.001	<0.001	0.28	<0.001	<0.001	0.17	0.004	<0.001
B-3	11/11/13	3	<10 ^{b,c}	<4.0 ^b	2.1	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	<0.001	<0.020	<0.001	<0.001
B-3	11/11/13	5	110 ^{c,d,g}	920 ^b	1,300	<0.024 ^e	<0.048 ^e	<0.048 ^e	<0.048 ^e	<0.024 ^e	<0.048 ^e	<0.048 ^e	<0.95 ^e	<0.048 ^e	<0.048 ^e
B-3	11/11/13	7.5	<9.9 ^{b,c,f}	14 ^{d,f}	58	0.0008	0.002	0.002	0.011	0.017	<0.001	<0.001	0.061	<0.001	0.002
B-3	11/11/13	9	<10 ^{b,c}	7.9 ^b	5.6	0.002	0.001	0.002	0.005	0.088	<0.001	<0.001	0.29	0.001	0.006
B-3	11/11/13	11	<9.9 ^{b,c}	<4.0 ^b	2.9	0.001 ^h	<0.001 ^h	<0.001 ^h	<0.001 ^h	0.071 ^h	<0.001 ^h	<0.001 ^h	0.49 ^h	0.001 ^h	<0.001 ^h
B-4	11/12/13	3	870 ^{c,j}	330 ^{d,g}	<41 ⁱ	0.0007 ^h	<0.001 ^h	<0.001 ^h	<0.001 ^h	<0.0005 ^h	<0.001 ^h	<0.001 ^h	<0.021 ^h	<0.001 ^h	0.005 ^h
B-4	11/13/13	6	700 ^{b,c}	190 ^b	<9.8 ⁱ	<0.0005 ^h	<0.001 ^h	<0.001 ^h	<0.001 ^h	<0.0005 ^h	<0.001 ^h	<0.001 ^h	<0.021 ^h	<0.001 ^h	<0.001 ^h
B-4	11/13/13	9	<10 ^{b,c}	<4.0 ^b	<1	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	<0.001	<0.020	<0.001	<0.001
B-4	11/13/13	15	<10 ^{b,c}	<4.0 ^b	<1	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	<0.001	<0.019	<0.001	<0.001
B-4	11/13/13	20	<10 ^{b,c}	<4.0 ^b	<1	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	<0.001	<0.020	<0.001	<0.001
B-4	11/13/13	25	<10 ^{b,c}	<4.0 ^b	<1.1	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	<0.001	<0.021	<0.001	<0.001
B-4	11/13/13	27.5	<10 ^{b,c}	<4.0 ^b	<1	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	<0.001	<0.020	<0.001	<0.001
B-5	11/12/13	3	27 ^{b,c}	5.2 ^b	<1	<0.0005	<0.0009	<0.0009	<0.0009	<0.0005	<0.0009	<0.0009	<0.019	<0.0009	<0.0009
B-5	11/12/13	6	140 ^{b,c}	33 ^b	<1	<0.0005 ^h	<0.001 ^h	<0.001 ^h	<0.001 ^h	<0.0005 ^h	<0.001 ^h	<0.001 ^h	<0.019 ^h	<0.001 ^h	<0.001 ^h
B-5	11/12/13	9	17 ^{b,c}	<4.0 ^b	<1	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	<0.001	<0.020	<0.001	<0.001
B-5	11/13/13	24	<10 ^{b,c}	<4.0 ^b	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	<0.001	<0.020	<0.001	<0.001
B-6	11/13/13	3	46 ^{b,c}	11 ^{b,f}	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	<0.001	<0.020	<0.001	<0.001
B-6	11/12/13	6	<10 ^{b,c}	<4.0 ^b	<1	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	<0.001	<0.020	<0.001	<0.001
B-6	11/12/13	9	<10 ^{b,c}	<4.0 ^b	<1	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	<0.001	<0.020	<0.001	<0.001
B-6	11/12/13	15	<10 ^{b,c}	<4.0 ^b	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.001	<0.001	<0.021	<0.001	<0.001
B-7	11/12/13	3	19 ^{b,c}	21 ^b	86	<0.025 ^e	<0.049 ^e	<0.049 ^e	<0.049	<0.025 ^e	<0.049 ^e	<0.049 ^e	<0.98 ^e	<0.049 ^e	0.14 ^e
B-7	11/12/13	6	<10 ^{b,c}	79 ^d	2,600	0.058 ^e	<0.10 ^e	<0.10 ^e	0.13 ^e	<0.050 ^e	<0.10 ^e	<0.10 ^e	<2.0 ^e	<0.10 ^e	0.24 ^e
B-7	11/12/13	6.75	16 ^{c,d}	130 ^d	130	<0.024 ^e	<0.048 ^e	<0.048 ^e	<0.048 ^e	<0.024 ^e	<0.048 ^e	<0.048 ^e	<0.96 ^e	<0.048 ^e	0.053 ^e

TABLE 1
SOIL ANALYTICAL RESULTS - HYDROCARBONS
FORMER CHEVRON SERVICE STATION 90121
3026 LAKESHORE AVENUE
OAKLAND, CALIFORNIA

Sample ID	Date	Sample Depth (fbg)	TPHmo w/ Silica Gel	TPHd w/ Silica Gel	TPHg	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	DIPE	TAME	TBA	ETBE	Naphthalene
			Concentrations reported in milligrams per kilogram (mg/kg)												
<i>LTC - Commercial - 0 to 5 fbg^a</i>			NE	NE	NE	8.2	NE	89	NE	NE	NE	NE	NE	NE	45
<i>LTC - Commercial - Outdoor Air - 5 to 10 fbg^a</i>			NE	NE	NE	12	NE	134	NE	NE	NE	NE	NE	NE	45
<i>LTC - Utility Worker - 0 to 10 fbg^a</i>			NE	NE	NE	14	NE	314	NE	NE	NE	NE	NE	NE	219
B-7	11/12/13	7.5	<10 ^{b,c}	5.9 ^d	22	0.0009	<0.001	<0.001	0.002	<0.0005	<0.001	<0.001	<0.020	<0.001	0.008
B-7	11/12/13	10	<10 ^{b,c}	20 ^b	8.0	0.004	<0.001	0.004	0.022	<0.0005	<0.001	<0.001	<0.020	<0.001	0.002

Notes/Abbreviations:

Total petroleum hydrocarbons as motor oil (TPHmo) and diesel (TPHd) by modified EPA Method 8015B

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

Benzene, toluene, ethylbenzene, total xylenes, methyl tertiary butyl ether (MTBE), di-isopropyl ether (DIPE), t-amyl methyl ether (TAME), t-butyl alcohol (TBA), ethyl t-butyl ether (ETBE), and naphthalene by EPA Method 8026B

fbg = Feet below grade

NE = Not established

a = Low-threat underground storage tank case closure policy criteria - California State Water Resources Control Board (SWRCB), August 2012, Low-Threat Underground Storage Tank Policy.

b = The reverse surrogate, capric acid, is present at <1%

c = TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetraoctane) normal hydrocarbons.

d = Due to the presence of fuel in the sample extract, capric acid recovery can not be determined

e = Reporting limits were raised due to interference from the sample matrix

f = The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC summary. The following corrective action was taken: The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial. Similar results were obtained in both trials.

g = The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram

h = The recovery for the sample internal standard is outside the QC acceptance limits. The following corrective action was taken: The sample was re-analyzed and the QC is again outside of the acceptance limits, indicating a matrix effect. The data is reported from the initial trial.

i = Reporting limits were raised due to sample foaming

j = Due to the dilution of the sample extract, capric acid recovery can not be determined

TABLE 2
GRAB-GROUNDWATER ANALYTICAL RESULTS
FORMER CHEVRON SERVICE STATION 90121
3026 LAKESHORE AVENUE
OAKLAND, CALIFORNIA

Sample ID	Date	Depth (fbg)	TPHmo w/ Silica Gel	TPHd w/ Silica Gel	TPHg	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	TBA	DIPE	ETBE	TAME	Naphthalene
			Concentrations reported in micrograms per liter (mg/L)												
ESL - Residential Land Use			100	100	100	1	40	30	20	5	12	NE	NE	NE	NE
B-1	11/11/13	12.5	<40 ^{a, b, c}	95^{b, c}	120	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.5	<1
B-2	11/11/13	9	260^{a, b, c}	200^{b, c, d}	140^e	<0.5 ^f	<0.5 ^f	<0.5 ^f	<0.5 ^f	2,000^f	1,100^f	<0.5 ^f	36 ^f	7 ^f	<1 ^f
B-3	11/11/13	8	380^{a, b, c}	-- ^g	920^{f, h}	<5 ^{f, h}	<5 ^{f, h}	<5 ^{f, h}	<5 ^{f, h}	96^{f, h}	1,400^{f, h}	<5 ^{f, h}	6 ^{f, h}	<5 ^{f, h}	<10 ^{f, h}
B-4	11/13/13	25	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.5	<1
B-5	11/13/13	20	<41 ^{a, b, c}	<160 ^{b, c, d}	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.5	<1
B-6	11/12/13	11	<41 ^{a, b, c}	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<0.5	<0.5	<0.5	<1
B-7 ^c	11/12/13	6	<400 ^{a, b, c, d}	2,800^{b, c}	2,500ⁱ	3^{f, g}	<3 ^{f, g}	<3 ^{f, g}	<3 ^{f, g}	<3 ^{f, g}	38^{f, g}	<3 ^{f, g}	<3 ^{f, g}	<3 ^{f, g}	<5 ^{f, g}

Notes:

Total petroleum hydrocarbons as motor oil (TPHmo), diesel (TPHd) and gasoline (TPHg) by EPA Method 8015B

Benzene, toluene, ethylbenzene and total xylenes by EPA Method 8260B

Methyl tertiary butyl ether (MTBE) and naphthalene by EPA Method 8260B

fbg = feet below grade

Environmental Screening Level (ESL) for groundwater is a current or potential drinking water source from *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater* prepared by the California Regional Water Quality Control Board - San Francisco Bay Region, Interim Final November 2007, revised May 2008 (Revised May 2013)

--- = not analyzed or not applicable

NE = not established

bold = concentrations exceeds applicable ESL

a = TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons

b = The reverse surrogate, capric acid, is present at <1%

c = The holding time was not met. This sample was submitted to the laboratory outside the holding time.

d = Reporting limits were raised due to interference from the sample matrix

e = A preserved vial was submitted for analysis. However, the pH at the time of analysis was 8

f = A preserved vial was submitted for analysis. However, the pH at the time of analysis was 7

g = Insufficient groundwater for sampling

h = Reporting limits were raised due to sample foaming

i = A preserved vial was submitted for analysis. However, the pH at the time of analysis was 4

TABLE 3

CUMULATIVE AIR AND SOIL GAS ANALYTICAL DATA
 FORMER CHEVRON STATION 90121
 3026 LAKESHORE AVENUE,
 OAKLAND, CALIFORNIA

Sample ID	Date	Sample Depth (fbg)	TPHg ($\mu\text{g}/\text{m}^3$)	Benzene ($\mu\text{g}/\text{m}^3$)	Toluene ($\mu\text{g}/\text{m}^3$)	Ethyl- benzene ($\mu\text{g}/\text{m}^3$)	m,p- Xylene ($\mu\text{g}/\text{m}^3$)	o-Xylene ($\mu\text{g}/\text{m}^3$)	MTBE ($\mu\text{g}/\text{m}^3$)	Naphthalene by TO-15 ($\mu\text{g}/\text{m}^3$)	Naphthalene by TO-17 ($\mu\text{g}/\text{m}^3$)	Oxygen (% Vol)	N ₂ (% Vol)	CO ₂ (% Vol)	Methane (% Vol)	He (% Vol)
<i>ESL Table E-3 Ambient and Indoor Air Screening Levels, Lowest Commercial/Industrial^a</i>			2,500	0.42	1,300	0.97	440	440	47	0.36	0.36	NE	NE	NE	NE	NE
<i>LTCP Soil Gas Criteria - Commercial^b</i>			NE	280	NE	3,600	NE	NE	NE	310	310	NE	NE	NE	NE	NE
CS-1	11/14/13	--	120	0.79	2.0	0.39	1.4	0.49	<0.61	<4.4	--	21	79	0.048	0.00092	<0.084
CS-2	11/14/14	--	94	0.93	2.7	0.57	2.1	0.71	<0.62	<4.5	--	21	79	0.045	0.00057	<0.086
IA-1	11/14/13	--	150	0.80	2.8	0.78	2.9	1.2	<0.61	<4.4	0.24	21	79	0.061	0.0013	<0.084
IA-2	11/14/13	--	230	0.86	5.0	0.77	3.0	1.1	<0.55	<4.0	0.098	21	79	0.063	0.0013	<0.076
IA-3	11/14/13	--	160	0.79	2.8	0.68	2.6	1.0	<0.60	<4.4	0.12	21	79	0.060	0.0013	<0.084
IA-4	11/14/13	--	150	0.87	2.1	0.36	1.1	0.34	<0.58	<4.2	0.055	21	79	0.047	0.0027	<0.081
IA-5	11/14/13	--	130	0.80	3.2	0.56	2.0	0.78	<0.51	<3.7	--	21	79	0.051	0.0010	<0.070
IA-6	11/14/13	--	410	0.82	2.4	0.53	2.0	0.70	<0.64	<4.7	--	21	79	0.046	0.00035	<0.089
OA-1	11/14/13	--	65	1.0	2.7	0.51	1.8	0.62	<0.54	<3.9	0.057	21	79	0.045	0.00024	<0.075
OA-1 DUP ^c	11/14/13	--	110	<1.4	3.7	<0.78	2.5	0.84	<3.2	<24	--	21	79	<0.090	<0.00090	<0.45
OA-2	11/14/13	--	90	0.88	2.9	0.64	2.4	0.85	<0.59	<4.3	--	21	79	0.042	0.00022	<0.082
SSVP-1	11/15/13	0.7	1,700	26	140	27	91	37	<4.2	<24	<2.5	20	80	0.39	<0.00023	<0.12
SSVP-2	11/15/13	0.7	300	7.3	<4.5	<5.1	<5.1	<5.1	5.2	<25	<2.5	18	80	1.9	<0.00024	<0.12
SSVP-3	11/15/13	0.7	2,300	22	10	17	32	<5.2	<4.3	<25	12	19	80	0.34	<0.00024	0.22

Abbreviations/Notes:

TABLE 3

CUMULATIVE AIR AND SOIL GAS ANALYTICAL DATA
 FORMER CHEVRON STATION 90121
 3026 LAKESHORE AVENUE,
 OAKLAND, CALIFORNIA

Sample ID	Date	Sample Depth (fbg)	TPHg ($\mu\text{g}/\text{m}^3$)	Benzene ($\mu\text{g}/\text{m}^3$)	Toluene ($\mu\text{g}/\text{m}^3$)	Ethyl- benzene ($\mu\text{g}/\text{m}^3$)	m,p- Xylene ($\mu\text{g}/\text{m}^3$)	o-Xylene ($\mu\text{g}/\text{m}^3$)	MTBE ($\mu\text{g}/\text{m}^3$)	Naphthalene by TO-15 ($\mu\text{g}/\text{m}^3$)	Naphthalene by TO-17 ($\mu\text{g}/\text{m}^3$)	Oxygen (% Vol)	N ₂ (% Vol)	CO ₂ (% Vol)	Methane (% Vol)	He (% Vol)
ESL Table E-3 Ambient and Indoor Air Screening Levels, Lowest Commercial/Industrial^a			2,500	0.42	1,300	0.97	440	440	47	0.36	0.36	NE	NE	NE	NE	NE
LTCP Soil Gas Criteria - Commercial^b			NE	280	NE	3,600	NE	NE	NE	310	310	NE	NE	NE	NE	NE

Total petroleum hydrocarbons as gasoline (TPHg) by EPA Method TO-15 or EPA Method TO-15 SIM

Benzene, toluene, ethylbenzene, xylenes (BTEX), and methyl tertiary butyl ether (MTBE) by EPA Method TO-15 or EPA Method TO-15 SIM

Naphthalene by EPA Method TO-15 or EPA Method TO-15 SIM or EPA Method TO-17 (VI Tubes)

Oxygen, nitrogen (N₂), carbon dioxide (CO₂), methane, and helium (He) by ASTM D-1946.

fbg = Feet below grade.

Micrograms per cubic meter ($\mu\text{g}/\text{m}^3$).

Percent Volume (%).

<X = Not detected above stated laboratory method detection limit x.

-- = not analyzed or not applicable.

a = Environmental Screening Levels (ESLs) for shallow soil gas from Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater prepared by the California Regional Water Quality Control Board, San Francisco Bay Region Interim Final November 2007, revised May 2008, revised May 2013, Table E-3.

b = Low-Threat Underground Storage Tank Case Closure Policy - Soil Gas Criteria No Bioattenuation Zone - prepared by the California State Water Resources Control Board, August 17, 2012.

c = Sample OA-1 DUP was received with significant vacuum remaining in the canister. The residual canister vacuum resulted in elevated reporting limits.

Bold = Concentration exceeds applicable ESL.

TABLE 4

**ALIPHATIC AND AROMATIC HYDROCARBON ANALYTICAL DATA
FORMER CHEVRON STATION 90121
3026 LAKESHORE AVENUE,
OAKLAND, CALIFORNIA**

Location	Date	Depth	C5-C6	>C6-C8	>C8-C10	>C10-C12	>C8-C10	>C10-C12
			Aliphatic Hydrocarbons	Aliphatic Hydrocarbons	Aliphatic Hydrocarbons	Aliphatic Hydrocarbons	Aromatic Hydrocarbons	Aromatic Hydrocarbons
Units	(fbg)	Concentrations in $\mu\text{g}/\text{m}^3$						
Shallow Soil Gas Criteria ^a								
Commercial/Industrial			NE	NE	NE	NE	NE	NE
Residential			NE	NE	NE	NE	NE	NE
CS-1	11/14/2013	--	<55	<69	<98	<120	<83	<93
CS-2	11/14/2013	--	<55	<70	<100	<120	<84	<94
IA-1	11/14/2013	--	<55	<69	<98	<120	<83	<93
IA-2	11/14/2013	--	<49	<62	<88	<100	<75	<83
IA-3	11/14/2013	--	<54	<68	<97	<120	<82	<92
IA-4	11/14/2013	--	<52	<66	<94	<110	<80	<89
IA-5	11/14/2013	--	<46	<58	<82	<98	<69	<77
IA-6	11/14/2013	--	<58	<73	<100	<120	<88	<98
OA-1	11/14/2013	--	<48	<61	<87	<100	<74	<82
OA-1 DUP ^b	11/14/2013	--	<290	<370	<530	<630	<440	<500
OA-2	11/14/2013	--	<53	<67	<95	<110	<81	<90
SSVP-1	11/15/2013	0.7	<75	<95	<130	190	200	<130
SSVP-2	11/15/2013	0.7	<77	<97	<140	<160	<120	<130
SSVP-3	11/15/2013	0.7	290	590	<140	570	<120	<130

Notes:

Aliphatic and Aromatic Hydrocarbon analyses by EPA Method TO-15 GC/MS Full Scan.

fbg = Feet below grade.

 mg/m^3 = Micrograms per cubic meter^a = Low-Threat Underground Storage Tank Case Closure Policy - Soil Gas Criteria No Bioattenuation Zone - prepared by the California^b = Sample OA-1 DUP was received with significant vacuum remaining in the canister. The residual canister vacuum resulted in elevated reporting limits.

State Water Resources Board, August 17, 2012

NE = Not Established

<x = Not detected at reporting limit x.

-- = Not analyzed/not applicable.

Appendix A

Regulatory Correspondences



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

June 6, 2011

Mr. Dave Patton
Chevron Products Company
6011 Bollinger Canyon Road
San Ramon, CA 94583
(sent via electronic mail to drpatten@chevron.com)

Subject: Request for Work Plan Addendum; Fuel Leak Case No. RO0000284 and Geotracker Global ID T0600100328, Chevron #9-0121; 3026 Lakeshore Avenue, Oakland, CA 94610

Dear Mr. Patton:

Alameda County Environmental Health (ACEH) staff has reviewed the case file including the *Sensitive Receptor and Preferential Pathway Survey, Response to Regulatory Comments, and Work Plan for Additional Assessment* and the *First Semi-Annual 2011 Groundwater Monitoring and Sampling Report*, both dated May 15, 2011. Both reports were submitted on your behalf by Conestoga-Rovers & Associates (CRA). Thank you for their submittal. Based on ACEH staff review of the case file, we request that you address the following technical comments and send us the reports described below.

TECHNICAL COMMENTS

- 1. Groundwater Rose Diagrams, Contaminant Plume Location, and Soil Bore Investigation** – Thank you for the addition of the rose diagrams to site groundwater monitoring reports. The diagram depicts a generalized southwestern flow direction over time at the site; however, ACEH must make an important distinction to clarify the presumed location of the downgradient groundwater plume. A review of gradient maps suggests two differing flow paths are present at the site and vicinity. Site specific data indicates that the southwestern flow direction is a local vicinity flow direction that does not account for the installation of a Visqueen plastic barrier (arguably reported as impermeable) in close proximity to the western property line of the site. If impermeable, groundwater will be forced towards the north to northwest, or to the south around the barrier. A review of groundwater flow which is limited to the onsite flow pattern (and thus excludes data from well MW-6) indicates a consistent north to northwest flow towards Lakeshore Avenue through time, and thus towards utility corridors located in the street, from the southern or southeastern property line. In this view ACEH believes groundwater elevation data from well MW-6 is more representative of offsite areas including beneath Lakeshore Avenue, once the influence of plastic barrier is passed by. The depth to groundwater in MW-6 in comparison to onsite wells also appears to reflect the effects of a somewhat intact plastic barrier. This view may again in part be supported by the recently requested addition of TPHmo analysis, wherein higher TPHmo concentrations appear to bypass the main portion of the site (for example see analytical data from well MW-1 and the Sump), and might selectively increase downgradient as seen in data from grab groundwater samples collected in soil bores SB-8 and SB-9 (it is understood these maybe biased high; however, the downgradient bore SB-9 contained significantly higher concentrations than SB-8). Additionally, in this view TPHmo concentrations detected in MW-6 would help define the lateral extent of the downgradient expression of this analyte. Consequently,

ACEH believes it warranted that additional effort to define a groundwater plume along Lakeshore Avenue, and to evaluate the utility conduits in Lakeshore Avenue as preferential pathways is appropriate. It is reasonable that a plume in this location could exploit the multiple sanitary sewer lines or the northern storm drain line which directly discharges to Lake Merritt. As a consequence, ACEH requests inclusion of an additional phase of investigation along Lakeshore Avenue and receipt of a revised bore location map (Figure 2) to document the location of additional soil bores prior to implementation of the installation of this proposed task at the site and vicinity. If wells are contemplated, please include well installation details / protocols in a work plan addendum.

2. **Vapor Intrusion Investigation** – Thank you for the vapor intrusion investigation work plan. It is understood that site access is currently being discussed and that probe placement is pending location scouting. ACEH is in general agreement with the proposed investigation, with the following notes and modifications requested:
 - a. **DTSC Guidelines** – It is understood that the sub-slab probe installation procedure will follow the 2005 Region 8 EPA Guidelines. In addition please ensure the 2004 *Interim Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air* (including February 2005 revision) and the 2010 DTSC *Advisory – Active Soil Gas Investigation* are employed for the sub-slab probe installations. Because helium is proposed for use as a tracer, this is in addition requested to include use of a shroud to ensure retention of the tracer gas around the sampling train and a gloved entry in to the shroud to assist in that goal, consistent with these guidelines.
 - b. **Indoor and Outdoor Sampling Protocols** – ACEH notes that both 8-hour breathing zone indoor and outdoor samples are proposed to be collected in the work plan; however, use of a “Household Products” review of consumer products that have the potential to impact indoor air contaminants was not proposed. This recommendation is contained in DTSC guidelines. Please incorporate use a “Household Products” inventory in the undertaking, and in the final report, consistent with DTSC guidelines. Please ensure that DTSC ambient air sampling protocols are used.
 - c. **Risk Determination Factors** – DTSC guidelines also recommend a minimum of two indoor sampling events prior to generation of a final risk determination. Use of the default 100 fold attenuation factor (0.01) should be evaluated and justified, consistent with DTSC guidelines and trend.
 - d. **Vapor Intrusion Work Plan Addendum** – If changes other than those noted above are proposed, please incorporate them into a work plan addendum; otherwise a minimum submittal of a site vicinity plan with sub-slab probe locations and locations of sub-slab utilities is appropriate.
3. **General Comments** – The location of utility laterals appears to be a work-in-progress; in particular the location of the sanitary sewer line from the former restrooms at the subject site does not appear to be located, and may affect onsite contaminant flows. Please attempt to locate site utility laterals that lead to utility mains.

TECHNICAL REPORT REQUEST

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

- **July 15, 2011** – Updated Figures (soil bore and sub-slab locations) / Work Plan Addendum
- **August 26, 2011** – Soil and Groundwater Investigation Report with Vapor Intrusion Study
- **September 16, 2011** – Updated SCM

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.

Mr. Dave Patton
RO0000284
June 6, 2011, Page 3

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

Sincerely,



Digitally signed by Mark E.
Detterman
DN: cn=Mark E. Detterman, o, ou,
email, c=US
Date: 2011.06.06 09:51:27 -07'00'

Mark E. Detterman, P.G., C.E.G.
Senior Hazardous Materials Specialist

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

cc: Nathan Lee, Connestoga-Rovers & Associates, Inc., 5900 Hollis Street, Suite A, Emeryville, CA 94608
(sent via electronic mail to nlee@crawlworld.com)

Donna Drogos (sent via electronic mail to donna.drogos@acgov.org)
Mark Detterman (sent via electronic mail to mark.detterman@acgov.org)
Electronic file, GeoTracker

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: July 20, 2010
	ISSUE DATE: July 5, 2005
	PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010
SECTION: Miscellaneous Administrative Topics & Procedures	SUBJECT: Electronic Report Upload (ftp) Instructions

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

REQUIREMENTS

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as a **single portable document format (PDF) with no password protection.**
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **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.

Detterman, Mark, Env. Health

From: Detterman, Mark, Env. Health
Sent: Wednesday, July 03, 2013 4:08 PM
To: 'Espino Devine, Catalina'; Lee, Nathan
Cc: Roe, Dilan, Env. Health
Subject: Fuel Leak Case No, RO0000284; Chevron 9-0121; 3026 Lakeshore Ave, Oakland

Catalina and Nate,

This email is a followup to our July 2nd conference call in regards to this site. ACEH is in general agreement with the proposed vapor intrusion work at the two adjacent buildings downgradient of the subject site. CRA will be submitting a revised work plan by July 26th, including a revised Figure 2 to depict the basement configuration of the Diocese of Oakland building and the requested addition of an indoor air sample in the basement in order to be protective of the somewhat "confined" air space in the basement due to the consistent presence of hydrocarbon contamination in the dewatering elevator sump in the basement. A previously approved work plan was discussed briefly for a soil bore investigation has been pending offsite access and approval of a work plan based on an understanding of the layout and construction styles of the offsite buildings for the vapor intrusion evaluation. The intent has never been to couple the two phases of work. Should it ease scheduling, ACEH wishes to clearly state that the two phases have not been coupled and one can proceed before another.

ACEH will provide an expedited two week turn around on the work plan review. We discussed the required observance of all DTSC guidelines for vapor at the site, in particular the appropriate analytical methodology for the collection of naphthalene (TO-15 and TO-17) as discussed in Appendix E of the DTSC vapor guidance (April 2012). ACEH understands that the work plan will also include additional data collection requested by the Diocese's environmental consultant.

We also discussed the generation of a Site Management Plan (SMP) for the Diocese building, in particular for the basement. A date has not yet been assigned for this deliverable, as it is anticipated to incorporate the results of the vapor intrusion investigation. As you are aware ACEH will provide a due date with the presumed approval of the work plan addendum.

In attempting to begin to identify a path to closure for the site, we also discussed the planned future use of the subject site which is owned by a third party. An onsite vapor investigation might be required since the subject site no longer is an active service station, but the timing was not identified due to the unknown future plans for the site (paved parking lot vs. a building with a basement).

Please note that in our LTCP review, the Direct Contact Criteria appears to require evaluation (however, this was not discussed in the conference call); however, that these comments have been largely limited to our relatively brief discussions and may not address all data gaps at the site.

Hopefully this captures the important elements of the discussion concerning this site.

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>

Lee, Nathan

From: Roe, Dilan, Env. Health [Dilan.Roe@acgov.org]
Sent: Thursday, September 12, 2013 6:31 PM
To: Espino Devine, Catalina; Lee, Nathan
Cc: Detterman, Mark, Env. Health
Subject: Work Plan Addendum Approval (Fuel Leak Case No. RO0000284, Chevron 9-0121; 3026 Lakeshore Ave, Oakland)

Catalina and Nate,

This email is in followup to our September 12, 2013 meeting and the Alameda County Environmental Health (ACEH) review of the July 26, 2013 *Work Plan Addendum to the Addendum for Additional Assessment*, generated by Conestoga-Rovers & Associates (CRA). ACEH is in general agreement with the proposed vapor intrusion work at the three adjacent buildings downgradient of the subject site.

Based on ACEH staff review of the referenced work plan addendum, the proposed scope of work is conditionally approved for implementation provided that the technical comments below are incorporated during the proposed work. We request that you address the following technical comments, perform the proposed work, and send us the report 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. **Site Investigation Report** - Please submit the results of the field investigation in a site investigation report by the date specified below.
2. **Site Management Plan** – As discussed in the July 3, 2013 directive letter, the generation of a Site Management Plan for the currently unoccupied Diocese building, especially focusing on the basement, appears warranted to mitigate potential risk to future occupants that may be associated with the detection of TPH and BTEX compounds in elevator sump water in the basement. ACEH understands that the proposed vapor sampling will begin to inform the need for a SMP; however, to expedite the generation a SMP, ACEH has established the submittal date listed below for the SMP or an alternative evaluation of the need for one based on the data to be generated.

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 and the ACEH ftp website, in accordance with Attachment 1 and the specified file naming convention below, according to the following schedule:

- **November 15, 2013** – Second Semi-Annual 2013 Groundwater Monitoring Report
File to be named: RO284_GWM_R_yyyy-mm-dd
- **November 22, 2013** – Site Investigation Report
File to be named: RO284_SWI_R_yyyy-mm-dd
- **December 6, 2013** – Site Management Plan
File to be named: RO284_SITE_MANAGE_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 is not listed on the first page of this letter, or in the list of cc's listed below, ACEH is requesting your email address to help expedite communications and to help lower overall costs.

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

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>

Appendix B

Summary of Environmental Investigation and Remediation

SUMMARY OF ENVIRONMENTAL INVESTIGATION AND REMEDIATION

Former Chevron Service Station 90121

3026 Lakeshore Avenue

Oakland, California

1967 Source Leak

In July 1967, a 2,000-gallon inventory loss was discovered. The steel underground storage tanks (USTs) were removed and replaced with new USTs double wrapped in asphalt. A 32-inch long gash was observed in one of the removed tanks. This information was reported in Pacific Environmental Group, Inc.'s (PEG) October 4, 1993 *Remedial Feasibility Study*.

Prior to 1981 Monitoring Well Installation

Six monitoring wells were installed between late the late 1970's and 1981 and used as recovery wells to recover light non aqueous-phase liquids (LNAPL). Installation dates and well construction logs were unavailable. This information was reported in PEG's October 4, 1993 *Remedial Feasibility Study*.

1980 Tank Replacement

A tank tightness test indicated that one of the USTs may have had a leak and was subsequently replaced with a fiberglass UST. An undocumented quantity of soil was removed from the site during UST replacement. A plastic impermeable barrier extending to approximately 14 to 16 feet below grade (fbg) was installed along the southwestern property line. This information was reported in PEG's October 4, 1993 *Remedial Feasibility Study*.

1981 Monitoring Well Installation

Four additional 8-inch diameter monitoring wells were installed in July 1981. In August 1981, a pump test was performed to determine groundwater draw down and production rates. Additional information is available in Groundwater Technology, Inc.'s (GTI) *Considerations on Retrieval of Product from Groundwater*. The report is not dated.

1984 Station Rebuild and UST Abandonment

In 1984, the station was torn down and completely rebuilt. During renovation two USTs, approximately 500 to 1,000 gallons, were discovered beneath the sidewalk. The USTs were abandoned in place by filling them with grout. Approximately 740 cubic yards of soil related to the site redevelopment were over-excavated and disposed of offsite. This information was reported in PEG's October 4, 1993 *Remedial Feasibility Study*.

1984 Basement Inspections

The building tenants at 3014 Lakeshore Avenue complained of petroleum odors in the building. No odor or sheen was noted in the basement. A letter was sent to the property owner by Chevron stating that Chevron had been monitoring the basement during the two previous years (1982 and 1983) and did not find any evidence of hydrocarbons. This information was reported in PEG's October 4, 1993 *Remedial Feasibility Study*.

1990 UST Repair

A hole created by repetitive tank volume gauging with a stick was discovered in the unleaded gasoline UST. The hole was repaired and the UST was put back in service. This information was reported in PEG's October 4, 1993 *Remedial Feasibility Study*.

1991 Monitoring Well Destruction

In March 1991 six monitoring wells were destroyed and in April 1991 two monitoring wells were destroyed. Additional information available in GTI's April 25, 1991 *Destruction of Five Groundwater Monitoring Wells and Three Groundwater Extraction Wells*.

1991 Monitoring Well Installation

On August 7 and 13, 1991 monitoring wells MW-1 through MW-4 were installed. Additional information is available in GTI's October 18, 1991 *Well Installation Report*.

1992 Monitoring Well Installation and Destruction

In June 1992, offsite monitoring wells MW-5 through MW-8 were installed and onsite well MW-1 was destroyed. Additional information is available in GTI's July 31, 1992 *Environmental Assessment Report*.

1993 Feasibility Study

In October 1993, PEG completed a remedial feasibility study and recommended natural attenuation as the cleanup method. Additional information is available in PEG's October 4, 1993 *Remedial Feasibility Study*.

1996 Product Piping and Dispenser Replacement

In September 1996, the product piping and dispensers were replaced. Soil samples were collected from beneath the dispensers and product piping at depths ranging from 2 to 3 fbg. Approximately 100 cubic yards of soil was removed and disposed of offsite. Additional information is available in Touchstone Development's November 1, 1996 *Product Piping Removal and Soil Sampling Report*.

1996 Well Destruction

In October 1996 one well was destroyed. Additional information is available in RRM Engineering Contracting Firm's October 2, 1996 *Well 1S/3W25R80 Abandonment Document Letter*.

1999 Well Installation

In April 1999, onsite monitoring well MW-9 was installed, and ¾-inch diameter wells MW-2 through MW-4 were destroyed and replaced with 2-inch diameter wells MW-2A through MW-4A. Additional information is available in Gettler-Ryan's May 26, 1999 *Monitoring Well Destruction and Installation Report*.

2001 Site Conceptual Model

In October 2001, Delta Environmental Consultants, Inc. (Delta) completed a site conceptual model and recommended further offsite, downgradient delineation of dissolved hydrocarbons by installing additional monitoring wells to the southwest. Additional information is available in Delta's October 15, 2001 *Site Conceptual Model*.

2006 Offsite Borings

In August 2006, Cambria Environmental Technology, Inc. (Cambria) supervised the advancement of offsite borings SB-8 and SB-9 as part of the ongoing site assessment. Boring SB-10 was not advanced due to refusal and boring SB-11 was not advanced due to its location on the opposite side of a newly installed culvert. Additional information is available in Cambria's October 20, 2006 *Additional Subsurface Investigation Report*.

2007 Offsite Sump Sampling

In May 2007, CRA collected a single grab-groundwater sample from the sump located downgradient in the Diocese of Oakland office building basement. CRA agreed with ACEH to add sump monitoring to the semi-annual groundwater monitoring and sampling schedule once an access agreement was in place to allow regularly scheduled sump sampling. Additional information is available in CRA's July 12, 2007 *Offsite Sampling Report*.

2010 Station Demolition and Fueling Facilities Removal

On August 10, 2010, CRA observed Musco Excavators, Inc. remove the USTs and associated fuel piping. CRA collected soil samples EX-1 through EX-6 beneath the former USTs at 9.5 fbg, P-1 through P-14 beneath the former product piping at 4 and 6 fbg, and soil stockpile samples SS-1 through SS-3. Groundwater sample GW-1 was collected from the UST excavation. Additional information is available in CRA's September 9, 2010 *Underground Storage Tank Removal and Soil Sampling Report*.

Appendix C

Permits

Alameda County Public Works Agency - Water Resources Well Permit



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

Application Approved on: 10/28/2013 By jamesy

Permit Numbers: W2013-0885
Permits Valid from 11/12/2013 to 11/13/2013

Application Id: 1381772422534
Site Location: 3026 Lakeshore Avenue
Project Start Date: 11/12/2013
Assigned Inspector: Contact Steve Miller at (510) 670-5517 or stevem@acpwa.org

City of Project Site:Oakland

Completion Date:11/13/2013

Applicant: Conestoga-Rovers & Associates - Oliver Yan
5900 Hollis Street, Suite A, Emeryville, CA 94608
Property Owner: Highland LLC FWS
99 South Hill Drive, Brisbane, CA 94005
Client: EMC Chevron
6101 Bollinger Canyon Road, San Ramon, CA 94583

Phone: 510-420-3372

Phone: --

Phone: --

Receipt Number: WR2013-0404 Total Due: \$265.00
Total Amount Paid: \$265.00
Payer Name : Conestog-Rovers & Associates Paid By: CHECK PAID IN FULL

Works Requesting Permits:

Borehole(s) for Investigation-Environmental/Monitorinig Study - 3 Boreholes

Driller: Vapor Tech Services - Lic #: 916085 - Method: Hand

Work Total: \$265.00

Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2013-0885	10/28/2013	02/10/2014	3	3.00 in.	10.00 ft

Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.
2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.
3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
4. Applicant shall contact Steve Miller for an inspection time at (510) 670-5517 or email to stevem@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
5. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.

Alameda County Public Works Agency - Water Resources Well Permit

6. NOTE:

Under California laws, the owner/operator are responsible for reporting the contamination to the governmental regulatory agencies under Section 25295(a). The owner/operator is liable for civil penalties under Section 25299(a)(4) and criminal penalties under Section 25299(d) for failure to report a leak. The owner/operator is liable for civil penalties under Section 25299(b)(4) for knowing failure to ensure compliance with the law by the operator. These penalty provisions do not apply to a potential buyer.

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

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

Alameda County Public Works Agency - Water Resources Well Permit



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

Application Approved on: 10/28/2013 By jamesy

Permit Numbers: W2013-0886
Permits Valid from 11/12/2013 to 11/13/2013

Application Id: 1381773436432
Site Location: 3008 Lakeshore Avenue
Project Start Date: 11/12/2013
Assigned Inspector: Contact Steve Miller at (510) 670-5517 or stevem@acpwa.org

City of Project Site:Oakland

Completion Date:11/13/2013

Applicant: Conestoga-Rovers & Associates - Oliver Yan
5900 Hollis Street, Oakland, CA 94608
Phone: 510-420-3327
Property Owner: Nissan Saidan
3008 Lakeshore Avenue, Oakland, CA 94610
Phone: --
Client: EMC Chevron
6101 Bollinger Canyon Road, San Ramon, CA 94583
Phone: --
Contact: Oliver Yan
Phone: 510-420-3372
Cell: 916-919-0467

Receipt Number: WR2013-0405 Total Due: \$265.00
Total Amount Paid: \$265.00
Payer Name : Conestoga-Rovers & Associates Paid By: CHECK PAID IN FULL

Works Requesting Permits:

Borehole(s) for Investigation-Environmental/Monitoring Study - 4 Boreholes
Driller: Vapor Tech Services - Lic #: 916085 - Method: Hand

Work Total: \$265.00

Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2013-0886	10/28/2013	02/10/2014	4	3.00 in.	10.00 ft

Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.
2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.
3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
4. Applicant shall contact Steve Miller for an inspection time at (510) 670-5517 or email to stevem@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
5. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit

Alameda County Public Works Agency - Water Resources Well Permit

application on site shall result in a fine of \$500.00.

6. NOTE:

Under California laws, the owner/operator are responsible for reporting the contamination to the governmental regulatory agencies under Section 25295(a). The owner/operator is liable for civil penalties under Section 25299(a)(4) and criminal penalties under Section 25299(d) for failure to report a leak. The owner/operator is liable for civil penalties under Section 25299(b)(4) for knowing failure to ensure compliance with the law by the operator. These penalty provisions do not apply to a potential buyer.

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

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

Applications for which no permit is issued within 180 days shall expire by limitation. No refund more than 180 days after expiration or final.

Appl# X1302754 Job Site 3026 LAKESHORE AV Parcel# 023 -0418-001-00

Descr Soil boring(s) on Beacon St. Permit Issued 10/21/13

No impact on traffic lane allowed.

Call PWA INSPECTION prior to start: 510-238-3651. 4th FLOOR.

Work Type EXCAVATION-PRIVATE P Non-Metered

USA # Util Co. Job # 90121 Acctg#:
 Util Fund #:

	Applcmt	Phone#	Lic#	--License Classes--
Owner CHEVRON USA, INC		() 555-5555		
Contractor VAPOR TECH SERVICES	X	(415) 378-0415	916085	C57
Arch/Engr				
Agent CRA; OLIVER YAN		(916) 919-0467		
Applic Addr 1348 66TH ST, BERKELEY CA, 94702				

\$436.05 FEES TO BE PAID AT ISSUANCE	00
\$71.00 Applic	\$309.00 Permit
\$0.00 Process	\$36.10 Rec Mgmt
\$0.00 Gen Plan	\$0.00 Invstg
\$0.00 Other	\$19.95 Tech Enh

JOB SITE

PWA INSPECTIONS
© OAKLAND.NET.COM

Permit Issued By  Date: 10/21/13


Inspection Routing:
 Inits Date

_____	_____	FLD-CHK/Pre-Con
_____	_____	Excavation/Anchor Installation
_____	_____	Sidewalk repair mark-out
_____	_____	Concrete repair
_____	_____	Finalled

ADDRESS:

DIST:

CITY OF OAKLAND

PAID
 10/21/13 

Applications for which no permit is issued within 180 days shall expire by limitation. No refund more than 180 days after expiration or final.

Permit No. X1302754 Parcel #: 023 -0418-001-00
Project Address: 3026 LAKESHORE AV

Page 2 of 2

Licensed Contractors' Declaration

I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect.

Construction Lending Agency Declaration

I hereby affirm under penalty of perjury that there is a construction-lending agency for the performance of the work for which this permit is issued, as provided by Section 3097 of the Business and Professions Code. N/A under Lender implies No Lending Agency.

Lender _____ Address _____

Workers' Compensation Declaration

I hereby affirm under penalty of perjury one of the following declarations:

I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

CARRIER: _____ POLICY NO. _____

I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions.

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS, IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3707 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

Hazardous Materials Declaration

I hereby affirm that the intended occupancy WILL WILL NOT use, handle or store any hazardous, or acutely hazardous, materials. (Checking "WILL" acknowledges that Sections 25505, 25533, & 25534 of the Health & Safety Code, as well as filing instructions, were made available to you.)

I HEREBY CERTIFY THE FOLLOWING: That I have read this document; that the above information is correct; and that I have truthfully affirmed all applicable declarations contained in this document. I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection. I am fully authorized by the owner and to perform the work authorized by this permit.

PRINT NAME _____ Signature Contractor, or Agent _____ Date _____

DISP. ADDRESS:

Applications for which no permit is issued within 180 days shall expire by limitation. No refund more than 180 days after expiration or final.

Appl# OB131009 Job Site 3026 LAKESHORE AV Parcel# 023 -0418-001-00

Reserve parking for construction vehicle(s) related to Permit Issued 10/21/13
X1302754. One space NO FEE. Post 72 hours prior.
Soil boring(s) on Beacon St. Phase 1 Oct 31: No Fee.

Nbr of days: 4 Linear feet: 75
Effective: 11/11/13 Expiration: 11/13/13

SHORT TERM NON-METERED

	Applcmt	Phone#	Lic#	--License Classes--
Owner CHEVRON USA, INC		() 555-5555		
Contractor VAPOR TECH SERVICES	X	(415) 378-0415	916085	C57
Arch/Engr				
Agent CRA; OLIVER YAN		(916) 919-0467		
Applic Addr 1348 66TH ST, BERKELEY CA, 94702				

\$319.01 FEES TO BE PAID AT FILING	\$.00 FEES TO BE PAID AT ISSUANCE	00
\$71.00 Applic	\$207.00 Permit	
\$.00 Process	\$26.41 Rec Mgmt	13
\$.00 Gen Plan	\$.00 Invstg	
\$.00 Other	\$14.60 Tech Enh	

JOB SITE

TCP needs to be approved by Transportation Services every 30 days or whenever deviated from the previously approved plan.

ADDRESS:
DISP:

Applicant: _____

Issued by: _____ *JD*

CITY OF OAKLAND

PAID
10/21/13 *mb*

SPECIAL PROVISION 7-10.1 TRAFFIC REQUIREMENTS

Project Name: _____
 Project Number: TSD-13-0177_____
 Reviewed By: B.Chang *B.Chang*
 Date: 10/18/2013_____
 Permit good from 10/18/2013_____
 or 11/18/2013_____

ADD NEW SUBSECTION TO READ:
SP 7-10.1.4 Vehicular Traffic

Attention is directed to Section 7-10. Public Convenience and Safety, of the City of Oakland Standard Specification for Public Works Construction, 2006 Edition (Include this paragraph for p-jobs, excavation permits or obstruction permits.)

The Contractor shall conduct its work in such a manner as to provide public convenience and safety and according to the provisions in this subsection. The provisions shall not be modified or altered without written approval from the Engineer.

Standard traffic control devices shall be placed at the construction zone according to the latest edition of the Work Area Traffic Control Handbook or Manual on Uniform Traffic Control Devices (MUTCD), Chapter 6 – "Traffic Controls for Construction and Maintenance Work Zone," or as directed by the Engineer.

All trenches and excavations in any public street or roadway shall be back filled and opened to traffic, or covered with suitable steel plates securely placed and opened to traffic at all times except during actual construction operations unless otherwise permitted by the Engineer.

Each section of work shall be completed or temporarily paved and open to traffic in not more than 5 days after commencing work unless otherwise permitted in writing by the Engineer.

Where construction encroaches into the sidewalk area, a minimum of 5 ½ feet of unobstructed sidewalk shall be maintained at all times for pedestrian use. Pedestrian barricades, shelter, and detour signs per Caltrans standards may be required.

The contractor shall conduct its operation in such a manner as to leave the following traffic lanes unobstructed and in a condition satisfactory for vehicular travel during the Obstruction Period. At all times traffic lanes will be restricted and opened to travel. Emergency access shall be provided at all times.

Street Name Limits	Obstruction Period	North Bound	South Bound	East Bound	West Bound
Beacon St between Boden Ave and Lakeshore Ave	Mon. – Fri. 9am – 4pm	N/A	N/A	N/A	100ft NO PARKING

Coordinate all work dates and locations with City of Oakland Right-Of-Way Inspection team.
 Shoulder Closure not to affect Vehicle and Pedestrian Movement.

The Contractor Shall Also include all check item:

1. Design a construction traffic control plan and submit (2) copies to the Engineer for approval prior to starting any work.
2. Replace all signs, pavement markings, and traffic detector loops damaged or removed due to construction within 3 days of completion of work or the final pavement lift.
3. Provide advance notice to Oakland Police at (510) 777-3333 (24-hrs) and Oakland Fire at (510) 238-3331 (2-rhs) when a single lane of traffic or less is provided on any street.
4. Provide 72-hour advance notice to AC Transit at (510) 891-4909 when affecting a bus stop.
5. For Caltrans roadways, ramps, or maintained facilities, the Contractor shall obtain appropriate permits and notify the Traffic Management Center 24 hours in advance of any work.
6. Flagger control is required. Certified Flagger is required.
7. Pedestrian walkway by K-rail, Canopy or Plywood is required. (See detour plan)
8. Pedestrian traffic shall be maintained and guided through the project at all times.
9. Provide advance notice to Business and Residence within 72-hours.
10. Allow all traffic movement at intersection.

Nothing specified herein shall prohibit emergency work and/or repair necessary to ensure public health and safety.

APPLICATION FOR TRAFFIC CONTROL PLAN

TSD13-0177

Transportation Services Fee: \$123/hour
(Check or Money Order Only)



City of Oakland

Public Works Agency
Transportation Services Division

- Check the box that apply:
- New Application (Utility, Excavation)
 - Renewal Application
 - New Development w/ Mgmt Plan
 - City of Oakland Project

Please Read the Following Statements Below:

1. Processing time for a Traffic Control Application is a minimum of 10 business days.
2. Traffic Control review is scheduled **only** on **Tuesdays** and **Thursdays** from 8:30am thru 11:30am by appointment only.
3. A scheduled **appointment** by phone or email with a TSD staff member is necessary to discuss any and all traffic control application and plans.
4. Please **call ahead** to confirm that the traffic control application is ready for pickup @ 510-238-3467.
5. Businesses and residences adjacent to the work area must be provided **72 hour advance notice**.
6. A **completed** traffic control application may be faxed to (510) 238-7415.
7. **Incomplete** traffic control applications will not be processed and returned to applicant immediately.
8. The initial approval for a traffic control plan is 1 month, the renewal submittal may be approved up to 3 months.
9. The traffic control provision dates cannot be changed or extended if work has already commenced.
10. After receiving TSD approval of the traffic control application, contractor shall proceed to the Permit Center to "**Obstruction**" obtain an obstruction permit.

Contact Person: Yan, Oliver Phone: (510)420-3372 or cell phone (916)919-0467

Name of Company: Consestoga-Rovers & Associates Fax: (510)420-9170

Address of Company: 5900 Hollis Street, Emeryville, CA

Describe type of work to be performed: Advance two soil borings on the Beacon Street by hand auger to approximately 10ft. Once the borings are completed, repair street per City of Oakland requirements.

Location of work: 3026 Lakeshore Avenue Between* Beacon Street And* Lakeshore Avenue

Work date (s): 10/31/13 & 11/12 to 11/13/13 Mon-Fri Sat-Sun Work Hours: 8am to 4pm

Please Follow these Steps in Order to Complete a Traffic Control Plan:

- A. **Drawing Area:** The full width of all streets adjacent to the site **MUST** be included in the drawing. Include the entire block in which your work is located for every street that is adjacent to your site.
- B. **Include Street Names, Direction of Traffic on the Street, and North Arrow**
- C. **Show Existing Number of Lanes in all Directions** (with any pavement arrows)
- D. **Check the Box(s) that Apply:** All checked items **MUST** be shown on the drawing
 - Lane Closure
 - Street Closures (must provide detour plan)
 - Use of Median
 - Use Parking Lane
 - Sidewalk Closure (Partial ~ 5 ft) (must provide pedestrian walk way)
- E. **Show All Dimensions** of street widths (curb to curb), lane widths, sidewalk widths, and work area dimension.
(Note: Traffic Control Application / Plans missing the above information will not be accepted or processed.)
- F. **Show the Name and Locations** of all advanced warning devices, flaggers, delineators, warning and construction signs to be used.

RENEWAL PROCESS: Resubmit a completed Traffic Control Application, with the old approved plan (with the necessary modifications / changes to the plans).

FOR HELP in preparing a traffic control plan, see Temporary Traffic Control Pocket Reference Guide 2007, Work Area Traffic Control Handbook 2006, or the California Manual on Uniform Traffic Control (MUTCD) 2003, Chapter 6.
http://www.dot.ca.gov/hq/traffops/signtech/mutcdsupp/ca_mutcd.htm
For City website: <http://www.oaklandpw.com/Page548.aspx>

* Name the streets that are the boundaries of your work area.

Lakeshore Avenue →

→ Beacon Street

15 FT

Work Area
80 ft x 8 ft

Post
NO PARKING
72-HOURS
ADVANCE

Work Hours
9:00 am - 3:00 pm
24 Hour Contact
Mike Franceschi
(916) 606-7514

Staging Area
3026 Lakeshore Ave
Oakland

LEGEND
C24 Shoulder Work Ahead
C30A Shoulder Closed

C30A Shoulder Closed

16 FT 16 FT

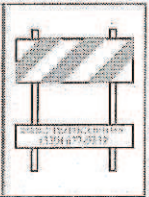
32 FT

C24 Shoulder Work Ahead

Traffic Speed MPH	Taper Length Each Lane			Cone Spacing		Sign Spacing
	Merging	Shifting	Shoulder	Taper	Tangent	
25 MPH	125 FT	63 FT	42 FT	25 FT	30 FT	150 FT
30 MPH	180 FT	90 FT	60 FT	30 FT	60 FT	200 FT
35 MPH	245 FT	123 FT	82 FT	35 FT	70 FT	250 FT
40 MPH	320 FT	160 FT	107 FT	40 FT	80 FT	350 FT
45 MPH	540 FT	270 FT	180 FT	45 FT	90 FT	550 FT
50 MPH	600 FT	300 FT	200 FT	50 FT	100 FT	600 FT
65 + MPH	660 FT	330 FT	220 FT	50 FT	100 FT	1000 FT

Approved *Bert Chang* 10/18/2013
 Transportation Services Division
 CITY OF OAKLAND
 TSD13-0177

DIRECT TRAFFIC CONTROL
 PO BOX 1822
 DIAMOND SPRINGS C.A 95619
 PHONE (530) 677-9239
 FAX (530) 672-1185
 MOBILE: (916) 606-7514
 LDTC@SBCGLOBAL.NET



All drawings not to scale



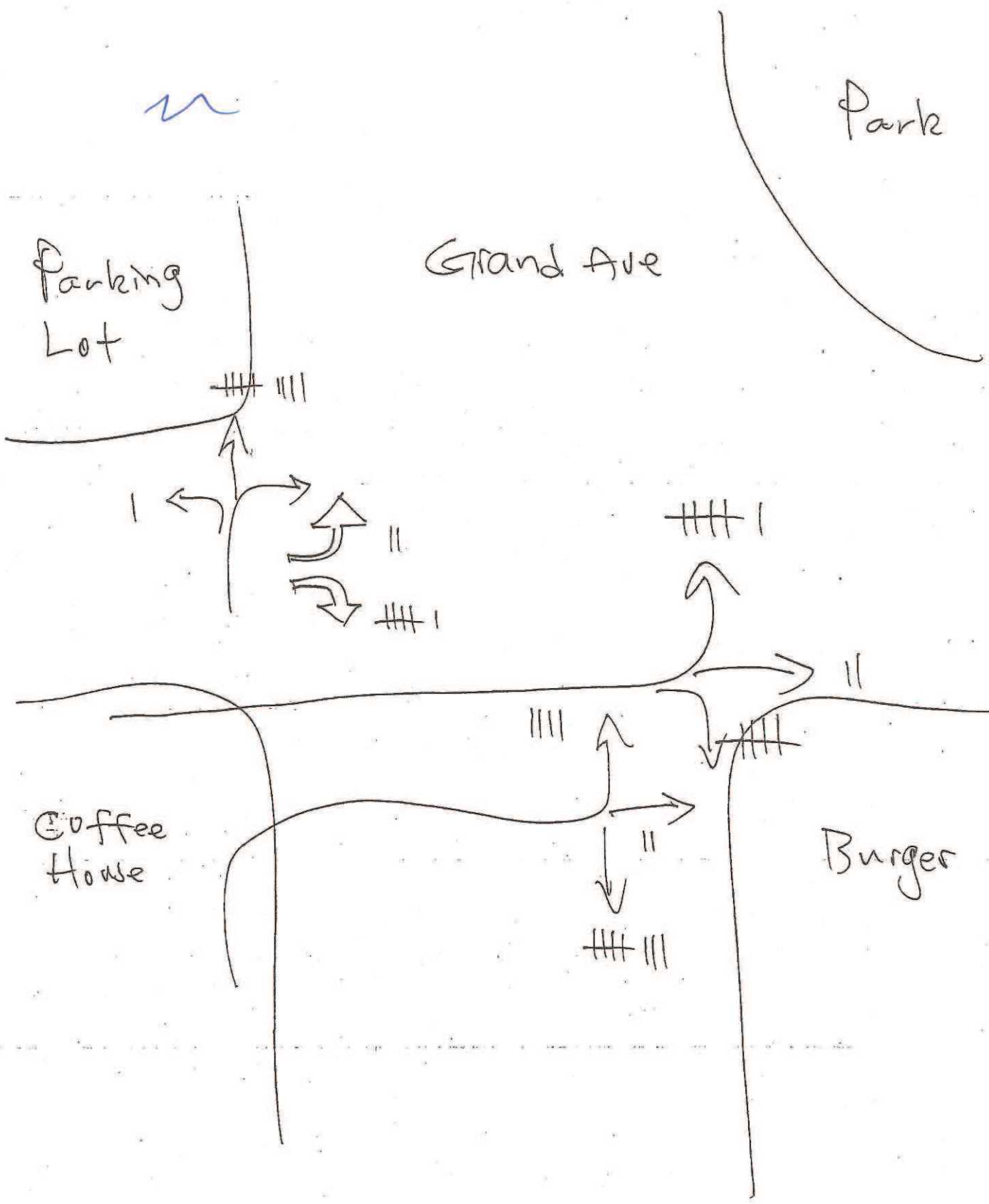
LEGEND

	RT DELIMITOR & SEAL
	24\"/>
	C18
	36\"/>
	48\"/>
	60\"/>

CONESTOGA ROVERS & ASSOCIATES
 3900 Hollis Street Suite A
 Emeryville CA 94608

TRAFFIC CONTROL SITE MAP

DRAWN BY	DATE	PROJECT NUMBER
B. Franceschi	10-14-2013	311973



Parking Lot

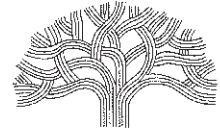
Grand Ave

Park

Coffee House

Burger

CITY OF OAKLAND



Public Works Agency • 250 Frank H. Ogawa Plaza • Suite 4344 • Oakland, California 94612-2033
 Transportation Services Division

Office (510) 238-3466
 FAX (510) 238-7415
 TDD (510) 839-6451

Traffic Engineering Services Analysis Fee Invoice

Date: October 18, 2013

TSD Invoice # : 13-0177

To: Oliver Yan
 Company: Conestoga Rovers
 Address: 5900 Hollis St, Emeryville CA
 Phone: 510-420-3372

Created/Received By: Bert Chang

Location	Description of Work	Project Name / Permit #	# of Hours *
3026 Lakeshore Ave	Walk In TCP Review		1
Total Hours			1
TSD Service Rate			\$ 123.00
Total Fee			\$ 123.00

* - minimum 1 hour service

FOR CITY USE ONLY	
Cost Center No.	W045
Organization No.	30265
Account No.	45119
Fund No.	1750

Cc: Rosalie

Appendix D

Boring Logs

Boring/Well Log Legend

KEY TO SYMBOLS/ABBREVIATIONS

- First encountered groundwater
- Static groundwater
- Soils logged by hand-auger or air-knife cuttings
- Soils logged by drill cuttings or disturbed sample
- Undisturbed soil sample interval
- Soil sample retained for submittal to analytical laboratory
- No recovery within interval
- Hydropunch screen interval

- PID = Photo-ionization detector or organic vapor meter reading in parts per million (ppm)
- fbg = Feet below grade
- Blow Counts = Number of blows required to drive a California-modified split-spoon sampler using a 140-pound hammer falling freely 30 inches, recorded per 6-inch interval of a total 18-inch sample interval
- (10YR 4/4) = Soil color according to Munsell Soil Color Charts
- msl = Mean sea level
- Soils logged according to the USCS.

UNIFIED SOILS CLASSIFICATION SYSTEM (USCS) SUMMARY

Major Divisions		Graphic	Group Symbol	Typical Description
Coarse-Grained Soils (>50% Sands and/or Gravels)	Gravel and Gravelly Soils		GW	Well-graded gravels, gravel-sand mixtures, little or no fines
			GP	Poorly-graded gravels, gravel-sand mixtures, little or no fines
		Gravels with Fines (≥15% fines)	GM	Silty gravels, gravel-sand-silt mixtures
			GC	Clayey gravels, gravel-sand-clay mixtures
	Sand and Sandy Soils	Clean Sands (≤5% fines)	SW	Well-graded sands, gravelly sands, little or no fines
			SP	Poorly-graded sands, gravelly sand, little or no fines
Sands with Fines (≥15% fines)			SM	Silty sands, sand-silt mixtures
	SC	Clayey sands, sand-clay mixtures		
Fine-Grained Soils (>50% Silts and/or Clays)	Silts and Clays		ML	Inorganic silts, very fine sands, silty or clayey fine sands, clayey silts with slight plasticity
			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
			OL	Organic silts and organic silty clays of low plasticity
	Silts and Clays		MH	Inorganic silts, micaceous or diatomaceous fine sand or silty soils
			CH	Inorganic clays of high plasticity
			OH	Organic clays of medium to high plasticity, organic silts
Highly Organic Soils			PT	Peat, humus, swamp soils with high organic contents





Conestoga-Rovers & Associates
 5900 Hollis Street, Suite A
 Emeryville, CA 94608
 Telephone: 510-420-0700
 Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Chevron EMC	BORING/WELL NAME	B-1
JOB/SITE NAME	90121 Oakland	DRILLING STARTED	11-Nov-13
LOCATION	3026 Lakeshore Avenue, Oakland, CA	DRILLING COMPLETED	11-Nov-13
PROJECT NUMBER	311973	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Vapor Tech Servies C-57, #916085	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Hand Auger	TOP OF CASING ELEVATION	NA
BORING DIAMETER	3-inch	SCREENED INTERVALS	NA
LOGGED BY	O. Yan	DEPTH TO WATER (First Encountered)	12.00 fbg (11-Nov-13)
REVIEWED BY	N. Lee PG# 8486	DEPTH TO WATER (Static)	NA
REMARKS	Located on northeast corner of the site		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
0.0		B-1 @ 3					FILL: Gray brown; dry; cobbles, pea gravel, fine sand, clay; low plasticity.	3.0	
0.0		B-1 @ 6		5	CL	CLAY: Brown; dry; low plasticity; trace fine sand. @ 5 fbg: Grayish brown.	6.0		
0.0		B-1 @ 6			ML	Gravelly SILT: Dark brown; dry; small gravel; low plasticity. @ 7.5 fbg: Small to medium angular gravel	8.0		
0.0		B-1 @ 9			CL	CLAY: Dark brown; moist; medium plasticity; trace fine gravel.	9.0		
43.6		B-1 @ 9.5		10	CL	CLAY with gravel: Dark brown; moist; shell fragments; medium plasticity. @ 9.5 fbg: Greenish gray.	10.0		
0.0		B-1 @ 12.5			ML	SILT with sand: Greenish gray; moist; fine sand; medium plasticity. @ 12.5 fbg: Wet.			
0.0		B-1 @ 15		15		@ 14 fbg: Greenish gray/brown, mottled.	15.0	Bottom of Boring @ 15 fbg	

WELL LOG (PID) I:\CHEVRON\3119-1\311973-13167A9-1311973-BORING LOGS.GPJ DEFAULT.GDT 2/4/14



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 Emeryville, CA 94608
 Telephone: 510-420-0700
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BORING / WELL LOG

CLIENT NAME	Chevron EMC	BORING/WELL NAME	B-2
JOB/SITE NAME	90121 Oakland	DRILLING STARTED	11-Nov-13
LOCATION	3026 Lakeshore Avenue, Oakland, CA	DRILLING COMPLETED	11-Nov-13
PROJECT NUMBER	311973	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Vapor Tech Servies C-57, #916085	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Hand Auger	TOP OF CASING ELEVATION	NA
BORING DIAMETER	3-inch	SCREENED INTERVALS	NA
LOGGED BY	O. Yan	DEPTH TO WATER (First Encountered)	9.00 fbg (11-Nov-13)
REVIEWED BY	N. Lee PG# 8486	DEPTH TO WATER (Static)	NA
REMARKS	Located on southwest corner of site		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							FILL: Gray; dry; fine to medium sand, fine to coarse gravel up to 2-3 inches, angular to subangular; concrete debris.	2.5	
0.0		B-2 @ 3			CL		CLAY: Dark brown; dry; mottled; low to medium plasticity; trace sand.		
				5			SILT: Yellowish/greenish brown; dry; low plasticity; trace fine sand.	5.0	
0.0		B-2 @ 6			ML			7.0	
0.4							CLAY: Dark brownish gray; moist; medium to high plasticity.		
0.1		B-2 @ 9			CL		@ 9 fbg: Wet.		
				10				10.5	
0.1		B-2 @ 13			CL		CLAY with sand: Dark brownish gray; wet; fine sand; shell fragments; low to medium plasticity.		
								13.0	Bottom of Boring @ 13 fbg

WELL LOG (PID) I:\CHEVRON\3119-1\311973~13167A9~1311973~BORING LOGS.GPJ DEFAULT.GDT 2/4/14



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BORING / WELL LOG

CLIENT NAME	Chevron EMC	BORING/WELL NAME	B-3
JOB/SITE NAME	90121 Oakland	DRILLING STARTED	11-Nov-13
LOCATION	3026 Lakeshore Avenue, Oakland, CA	DRILLING COMPLETED	11-Nov-13
PROJECT NUMBER	311973	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Vapor Tech Servies C-57, #916085	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Hand Auger	TOP OF CASING ELEVATION	NA
BORING DIAMETER	3-inch	SCREENED INTERVALS	NA
LOGGED BY	O. Yan	DEPTH TO WATER (First Encountered)	8.00 fbg (11-Nov-13)
REVIEWED BY	N. Lee PG# 8486	DEPTH TO WATER (Static)	NA
REMARKS	Located on the southwest boundary of site		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							FILL: Moderate brown; dry; fine to medium sand, fine to coarse gravel.	2.0	
0.0		B-3 @ 3			ML		SILT with sand: Moderate brown; dry; fine sand; low plasticity.	4.0	
422.7		B-3 @ 5		5	ML		Sandy SILT with gravel: Moderate brown; dry; low plasticity; fine gravel.	6.5	
0.5		B-3 @ 7.5					CLAY: Dark brownish gray; moist; medium to high plasticity.	▽	
0.7		B-3 @ 9			CL		@ 8 fbg: Wet.		
0.6		B-3 @ 11		10				11.0	Bottom of Boring @ 11 fbg

WELL LOG (PID) I:\CHEVRON\3119-1\311973-1\311973-BORING LOGS.GPJ DEFAULT.GDT 2/4/14



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BORING / WELL LOG

CLIENT NAME	Chevron EMC	BORING/WELL NAME	B-4
JOB/SITE NAME	90121 Oakland	DRILLING STARTED	12-Nov-13
LOCATION	3026 Lakeshore Avenue, Oakland, CA	DRILLING COMPLETED	13-Nov-13
PROJECT NUMBER	311973	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Vapor Tech Servies C-57, #916085	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Hand Auger	TOP OF CASING ELEVATION	NA
BORING DIAMETER	3-inch	SCREENED INTERVALS	NA
LOGGED BY	O. Yan	DEPTH TO WATER (First Encountered)	26.50 fbg (13-Nov-13) ▼
REVIEWED BY	N. Lee PG# 8486	DEPTH TO WATER (Static)	NA ▼
REMARKS	Located on parking lot at 3008 Lakeshore Avenue		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
				0.0			Asphalt	0.5	<p>Concrete Cap</p>
		B-4 @ 3		5			FILL: Dark brown, grayish brown; dry; sandy silt, fine to medium sand, gravels up to 2-inches, angular; very compact.		
		B-4 @ 6		0.1					
		B-4 @ 9		0.0			CLAY: Brown; dry; fine sand; low plasticity.	8.0	
				10			@ 11 fbg: Grayish brown.		
				15			@ 12 fbg: Moist; medium to high plasticity.		
				15			@ 13 fbg: Shell fragments.		
		B-4 @ 15		0.0			@ 15 fbg: Low to medium plasticity.		Portland Type I/II
				20	CL		@ 18 fbg: Light brown with black mottling.		

WELL LOG (PID) I:\CHEVRON\3119-1\311973-13167A9-1311973-BORING LOGS.GPJ DEFAULT.GDT 2/4/14

Continued Next Page



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BORING / WELL LOG

CLIENT NAME	<u>Chevron EMC</u>	BORING/WELL NAME	<u>B-4</u>
JOB/SITE NAME	<u>90121 Oakland</u>	DRILLING STARTED	<u>12-Nov-13</u>
LOCATION	<u>3026 Lakeshore Avenue, Oakland, CA</u>	DRILLING COMPLETED	<u>13-Nov-13</u>

Continued from Previous Page

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
0.0		B-4 @ 20					<p>CLAY: Light brown with black mottling; moist; low to medium plasticity; fine sand, shell fragments. @ 20.5 fbg: Fine sand; fine gravel.</p> <p>@ 23.5 fbg: Dry.</p>		
0.0		B-4 @ 25		25	ML		<p>SILT with sand and gravel: Light brown; wet; fine sand; fine gravel; low plasticity.</p>	26.0	
0.0		B-4 @ 27.5			CL		<p>CLAY: Light brown; moist; low to medium plasticity.</p>	27.5 28.0	
									Bottom of Boring @ 27.5 fbg

WELL LOG (PID) I:\CHEVRON\3119-1\311973~1\311973-BORING LOGS.GPJ DEFAULT.GDT 2/4/14



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 5900 Hollis Street, Suite A
 Emeryville, CA 94608
 Telephone: 510-420-0700
 Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Chevron EMC	BORING/WELL NAME	B-5
JOB/SITE NAME	90121 Oakland	DRILLING STARTED	12-Nov-13
LOCATION	3026 Lakeshore Avenue, Oakland, CA	DRILLING COMPLETED	13-Nov-13
PROJECT NUMBER	311973	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Vapor Tech Servies C-57, #916085	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Hand Auger	TOP OF CASING ELEVATION	NA
BORING DIAMETER	3-inch	SCREENED INTERVALS	NA
LOGGED BY	O. Yan	DEPTH TO WATER (First Encountered)	22.00 fbg (13-Nov-13) ▾
REVIEWED BY	N. Lee PG# 8486	DEPTH TO WATER (Static)	NA ▾
REMARKS	Located on parking lot at 3008 Lakeshore Avenue		

WELL LOG (PID) I:\CHEVRON\3119-1\311973-13167A9-1311973-BORING LOGS.GPJ DEFAULT.GDT 2/4/14

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
				0.5		Asphalt		0.5	Concrete Cap
0.3		B-5 @ 3		5		FILL: Dark brown/grayish brown; dry; fine to medium sand; fine to coarse gravel, subangular.			
0.7		B-5 @ 6				Sandy CLAY with gravel: Light grayish brown; dry; fine sand, fine gravel; low plasticity.		7.0	
0.5		B-5 @ 9		10	CL	@ 8.5 fbg: Medium to high plasticity.			
				12.0	CL	CLAY with sand: Light gray; moist; coarse sand; low plasticity.			Portland Type I/II
				15	CL	CLAY with gravel: Light gray; dry; shell fragments; low plasticity.			
				17.0	CL	CLAY: Gray; dry; low plasticity.			
				20	CL				

Continued Next Page



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 Emeryville, CA 94608
 Telephone: 510-420-0700
 Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	<u>Chevron EMC</u>	BORING/WELL NAME	<u>B-5</u>
JOB/SITE NAME	<u>90121 Oakland</u>	DRILLING STARTED	<u>12-Nov-13</u>
LOCATION	<u>3026 Lakeshore Avenue, Oakland, CA</u>	DRILLING COMPLETED	<u>13-Nov-13</u>

Continued from Previous Page

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
0.3		B-5 @ 24					CLAY: Gray; dry; low plasticity.		
							@ 21 fbg: Shell fragments.	21.5	
				ML			Sandy SILT: Brown; wet; low plasticity; fine to medium sand, coarse gravel, shell fragments.	23.5	
				CL		CLAY: Gray; moist; low plasticity	24.0		
									Bottom of Boring @ 24 fbg

WELL LOG (PID) I:\CHEVRON\3119--\311973~1\3167A9~1\311973-BORING LOGS.GPJ DEFAULT.GDT 2/4/14



Conestoga-Rovers & Associates
 5900 Hollis Street, Suite A
 Emeryville, CA 94608
 Telephone: 510-420-0700
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BORING / WELL LOG

CLIENT NAME	Chevron EMC	BORING/WELL NAME	B-6
JOB/SITE NAME	90121 Oakland	DRILLING STARTED	12-Nov-13
LOCATION	3026 Lakeshore Avenue, Oakland, CA	DRILLING COMPLETED	12-Nov-13
PROJECT NUMBER	311973	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Vapor Tech Servies C-57, #916085	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Hand Auger	TOP OF CASING ELEVATION	NA
BORING DIAMETER	3-inch	SCREENED INTERVALS	NA
LOGGED BY	O. Yan	DEPTH TO WATER (First Encountered)	11.00 fbg (12-Nov-13)
REVIEWED BY	N. Lee PG# 8486	DEPTH TO WATER (Static)	NA
REMARKS	Located on parking lane of Beacon Street		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
				0.3			Asphalt	0.3	
				1.0			FILL: Roadbase fill; grayish brown; dry; coarse gravel, angular. CLAY: Grayish brown; dry; low to medium plasticity; fine sand.	1.0	
0.0		B-6 @ 3		5	CL			5.0	
				6.0	ML		Sandy SILT: Moderate brown; moist; fine to medium sand; low plasticity. CLAY: Greenish brown; moist; medium plasticity.	6.0	
0.0		B-6 @ 6		10	CL			10.0	
				11.0			@ 11 fbg: Wet.	11.0	
0.0		B-6 @ 9		13.5	ML		Sandy SILT: Greenish brown; wet; fine sand; low plasticity.	13.5	
				15.0				15.0	
0.0		B-6 @ 15							

WELL LOG (PID) I:\CHEVRON\3119-1\311973~13167A9~1311973-BORING LOGS.GPJ DEFAULT.GDT 2/4/14



Conestoga-Rovers & Associates
 5900 Hollis Street, Suite A
 Emeryville, CA 94608
 Telephone: 510-420-0700
 Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Chevron EMC	BORING/WELL NAME	B-7
JOB/SITE NAME	90121 Oakland	DRILLING STARTED	12-Nov-13
LOCATION	3026 Lakeshore Avenue, Oakland, CA	DRILLING COMPLETED	12-Nov-13
PROJECT NUMBER	311973	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Vapor Tech Servies C-57, #916085	GROUND SURFACE ELEVATION	NA
DRILLING METHOD	Hand Auger	TOP OF CASING ELEVATION	NA
BORING DIAMETER	3-inch	SCREENED INTERVALS	NA
LOGGED BY	O. Yan	DEPTH TO WATER (First Encountered)	6.00 fbg (12-Nov-13)
REVIEWED BY	N. Lee PG# 8486	DEPTH TO WATER (Static)	NA
REMARKS	Located on parking lane of Beacon Street		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
				0.3			Asphalt	0.3	
				1.0			FILL: Roadbase; gray; dry; gravel up to 1.5-inches diameter.	1.0	
							CLAY: Dark brown; dry; low plasticity; fine sand.		
28.2		B-7 @ 3		5	CL		Sandy CLAY: Dark brown; moist; fine sand; fine gravel; low to medium plasticity.	3.5	
94.5		B-7 @ 6			CL		@ 6 fbg: Dark brownish gray; wet; fine to medium sand	6.00	Portland Type I/II
103.5		B-7 @ 6.75							
39.8		B-7 @ 7.5							
7.3		B-7 @ 7.5							
							CLAY: Dark brownish gray; wet; low to medium plasticity.	8.0	
12.8		B-7 @ 10		10	CL			11.0	Bottom of Boring @ 11 fbg

WELL LOG (PID) I:\CHEVRON\3119-1\311973-1\311973-BORING LOGS.GPJ DEFAULT.GDT 2/4/14

Appendix E

Standard Field Procedures

STANDARD FIELD PROCEDURES FOR SOIL BORINGS

This document presents standard field methods for drilling and sampling soil borings and installing, developing and sampling groundwater monitoring wells. These procedures are designed to comply with Federal, State and local regulatory guidelines. Specific field procedures are summarized below.

SOIL BORINGS

Objectives

Soil samples are collected to characterize subsurface lithology, assess whether the soils exhibit obvious hydrocarbon or other compound vapor or staining, and to collect samples for analysis at a State-certified laboratory. All borings are logged using the ASTM D2488-06 Unified Soil Classification System by a trained geologist working under the supervision of a California Professional Geologist (PG).

Soil Boring and Sampling

Prior to drilling, the first 8 feet of the boring are cleared using an air or water knife and vacuum extraction or hand auger. This minimizes the potential for impacting utilities. Soil borings are typically drilled using hollow-stem augers or direct-push technologies such as the Geoprobe®. Soil samples are collected at least every five ft to characterize the subsurface sediments and for possible chemical analysis. Additional soil samples are collected near the water table and at lithologic changes. Samples are collected using lined split-barrel or equivalent samplers driven into undisturbed sediments at the bottom of the borehole.

Drilling and sampling equipment is steam-cleaned prior to drilling and between borings to prevent cross-contamination. Sampling equipment is washed between samples with trisodium phosphate or an equivalent EPA-approved detergent.

Sample Analysis

Sampling tubes chosen for analysis are trimmed of excess soil and capped with Teflon tape and plastic end caps. Soil samples are labeled and stored at or below 4° C on either crushed or dry ice, depending upon local regulations. Samples are transported under chain-of-custody to a State-certified analytic laboratory.

Field Screening

One of the remaining tubes is partially emptied leaving about one-third of the soil in the tube. The tube is capped with plastic end caps and set aside to allow hydrocarbons to volatilize from the soil. After ten to fifteen minutes, a portable volatile vapor analyzer measures volatile hydrocarbon vapor concentrations in the tube headspace, extracting the vapor through a slit in the cap. Volatile vapor analyzer measurements are used along with the field observations, odors, stratigraphy and groundwater depth to select soil samples for analysis.

Water Sampling

Water samples, if they are collected from the boring, are either collected using a driven Hydropunch® type sampler or are collected from the open borehole using bailers. The groundwater samples are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labeled, placed in protective foam sleeves, stored on crushed ice at or below 4°C, and transported under chain-of-custody to the laboratory. Laboratory-supplied trip blanks accompany the samples and are analyzed to check for cross-contamination. An equipment blank may be analyzed if non-dedicated sampling equipment is used.

Grouting

If the borings are not completed as wells, the borings are filled to the ground surface with cement grout poured or pumped through a tremie pipe.

Waste Handling and Disposal

Soil cuttings from drilling activities are usually stockpiled onsite and covered by plastic sheeting. At least three individual soil samples are collected from the stockpiles and composited at the analytic laboratory. The composite sample is analyzed for the same constituents analyzed in the borehole samples in addition to any analytes required by the receiving disposal facility. Soil cuttings are transported by licensed waste haulers and disposed in secure, licensed facilities based on the composite analytic results.

Groundwater removed during development and sampling is typically stored onsite in sealed 55-gallon drums. Each drum is labeled with the drum number, date of generation, suspected contents, generator identification and consultant contact. Upon receipt of analytic results, the water is either pumped out using a vacuum truck for transport to a licensed waste treatment/disposal facility or the individual drums are picked up and transported to the waste facility where the drum contents are removed and appropriately disposed.

Appendix F

Building Survey Form

APPENDIX L - BUILDING SURVEY FORM

Preparer's Name: OLIVER YAN Date/Time Prepared: 11/11/13 @ 14:50
Affiliation: CONESTOGA-ROVERS & ASSOCIATES Phone Number: (510) 420-3372

Occupant Information

Occupant Name: THE ROMAN CATHOLIC BISHOP OF OAKLAND (VACANT) Interviewed: Yes No
Mailing Address: 3014 LAKE SHORE AVENUE
City: OAKLAND State: CALIFORNIA Zip Code: 94610
Phone: N/A Email: N/A

Owner/Landlord Information (Check if same as occupant)

Occupant Name: THE ROMAN CATHOLIC BISHOP OF OAKLAND Interviewed: Yes No
Mailing Address: 2121 HARRISON STREET, SUITE 100
City: OAKLAND State: CALIFORNIA Zip Code: 94612
Phone: N/A Email: N/A

Building Type (Check appropriate boxes)

- Residential Residential Duplex Apartment Building Mobile Home Commercial (office)
 Commercial (warehouse) Industrial Strip Mall Split Level Church School

Building Characteristics

Approximate Building Age (years): DON'T KNOW Number of Stories: 2
Approximate Building Area (square feet): _____ Number of Elevators: 0

Foundation Type (Check appropriate boxes)

- Slab-on-Grade Crawl Space Basement

Basement Characteristics (Check appropriate boxes)

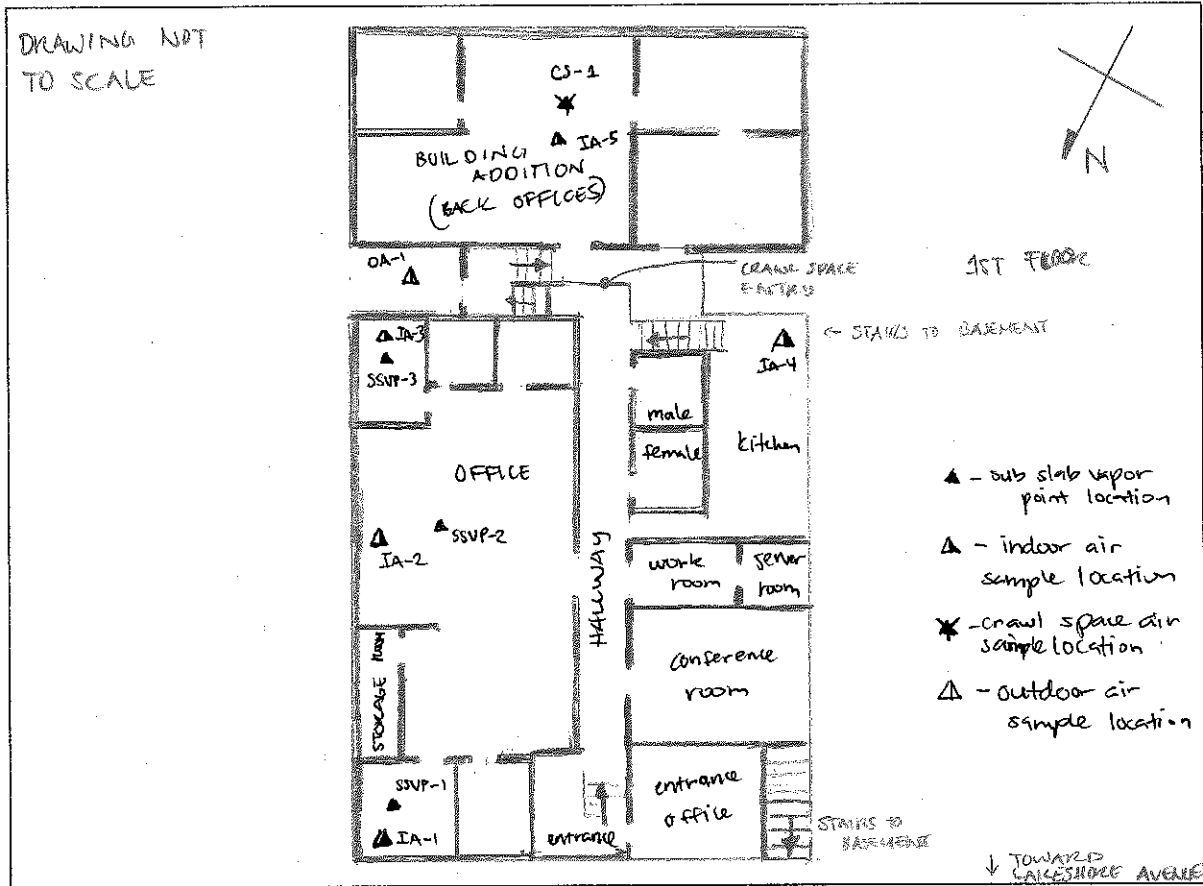
- Dirt Floor Sealed Wet Surfaces Sump Pump Concrete Cracks Floor Drains

Factors Influencing Indoor Air Quality

- | | |
|--|---|
| Is there an attached garage? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Is there smoking in the building? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Is there new carpet or furniture? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Describe: _____ |
| Have clothes or drapes been recently dry cleaned? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Describe: _____ |
| Has painting or staining been done with the last six months? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Describe: _____ |
| Has the building been recently remodeled? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Describe: _____ |
| Has the building ever had a fire? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Is there a hobby or craft area in the building? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Describe: _____ |
| Is gun cleaner stored in the building? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Is there a fuel oil tank on the property? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Is there a septic tank on the property? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Has the building been fumigated or sprayed for pests recently? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Describe: _____ |
| Do any building occupants use solvents at work? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Describe: _____ |

Sampling Locations

Draw the general floor plan of the building and denote locations of sample collection. Indicate locations of doors, windows, indoor air contaminant sources and field instrument readings.



Primary Type of Energy Used (Check appropriate boxes)

- Natural Gas Fuel Oil Propane Electricity Wood Kerosene

Meteorological Conditions

Describe the general weather conditions during the indoor air sampling event.

SUNNY WITH PARTLY OVERCAST SKIES ~ 70° F

General Comments

Provide any other information that may be of importance in understanding the indoor air quality of this building.

BUILDING HAS BEEN UNOCCUPIED FOR AT LEAST 3 YEARS ACCORDING TO DIOCESE CONSULTANT. OFFICE IS QUITE HUMID AND COLD INSIDE. OFFICES ARE CARPETED THROUGHOUT. OFFICE FURNITURE STILL IN PLACE.

APPENDIX M - BUILDING SCREENING FORM

Occupant of Building VACANT (THE ROMAN CATHOLIC BISHOP OF OAKLAND)

Address 3004 LAKEVIEW AVENUE

City OAKLAND

Field Investigator OLIVER YAN Date 11/11/13

Field Instrument Reading	Measurement Location (Ambient Air, Foundation Opening, or Consumer Product)	If Consumer Product, Potential Volatile Ingredients
0.0 ppm	Entry Way / Entry way office	No chemicals ; just mail
0.0 ppm	Conference Room	Dry erase marker (1)
0.0 ppm	Hallway Cabinet → none	no chemicals
0.0 ppm	Hallway	Fire extinguisher
0.0 ppm	Hallway bathroom → male	clair's autumn leaves air freshener
0.0 ppm	Hallway bathroom → female	none → just tissue paper
0.0 ppm	Building addition - back offices	NONE
0.0 ppm	Kitchen	fire extinguisher (2)
0.0 ppm	Kitchen	ant and roach killer (BLACK FLAG)
0.0 ppm	Kitchen - Cabinets	none
0.0 ppm	Workrooms	fire extinguisher
0.0 ppm	Work room closet → server room	NONE
0.0 ppm	Second floor	No chemicals
0.0 ppm	Second floor bathroom	clair's autumn leaves air freshener
0.0 ppm	Second floor	2 printers
0.0 ppm	Second floor	fire extinguisher
0.0 ppm	Second floor back offices	NONE

Comments:
server room inside work room looks like the servers are on.

APPENDIX M – BUILDING SCREENING FORM

Occupant of Building Vacant (The Roman Catholic Bishop of Oakland)

Address 3014 Lakeshore Avenue

City Oakland

Field Investigator OLIVER YAN Date 11/11/13

Field Instrument Reading	Measurement Location (Ambient Air, Foundation Opening, or Consumer Product)	If Consumer Product, Potential Volatile Ingredients
0.0 ppm	Crawl space	fire extinguisher
0.0 ppm	Basement	NO chemicals LIGHT BULBS
0.0 ppm	Basement	water noted on the floor

Comments:
 Basement → some sort of cardboard box i water pooling @ basement
 floor; crawl space → partially covered w/ Visqueen or plastic
 material.

APPENDIX L - BUILDING SURVEY FORM

Preparer's Name: OLIVER YAN Date/Time Prepared: 11/12/13 @ 10:35am
Affiliation: CONESTOGA-ROVERS & ASSOCIATES Phone Number: (510) 420-0700

Occupant Information

Occupant Name: NISSAN AND CAROL H. SAIDIAN TRUSTEES Interviewed: Yes No
Mailing Address: 3008 LAKEHORE AVENUE
City: OAKLAND State: CALIFORNIA Zip Code: 94610
Phone: _____ Email: _____

Owner/Landlord Information (Check if same as occupant)

Occupant Name: _____ Interviewed: Yes No
Mailing Address: _____
City: _____ State: _____ Zip Code: _____
Phone: _____ Email: _____

Building Type (Check appropriate boxes)

Residential Residential Duplex Apartment Building Mobile Home Commercial (office)
 Commercial (warehouse) Industrial Strip Mall Split Level Church School

↳ TOP FLOORS (2ND AND 3RD) ↳ FIRST FLOOR

Building Characteristics

Approximate Building Age (years): > 60 YEARS Number of Stories: 3 FLOORS
Approximate Building Area (square feet): UNKNOWN Number of Elevators: NONE

Foundation Type (Check appropriate boxes)

Slab-on-Grade Crawl Space Basement

Basement Characteristics (Check appropriate boxes)

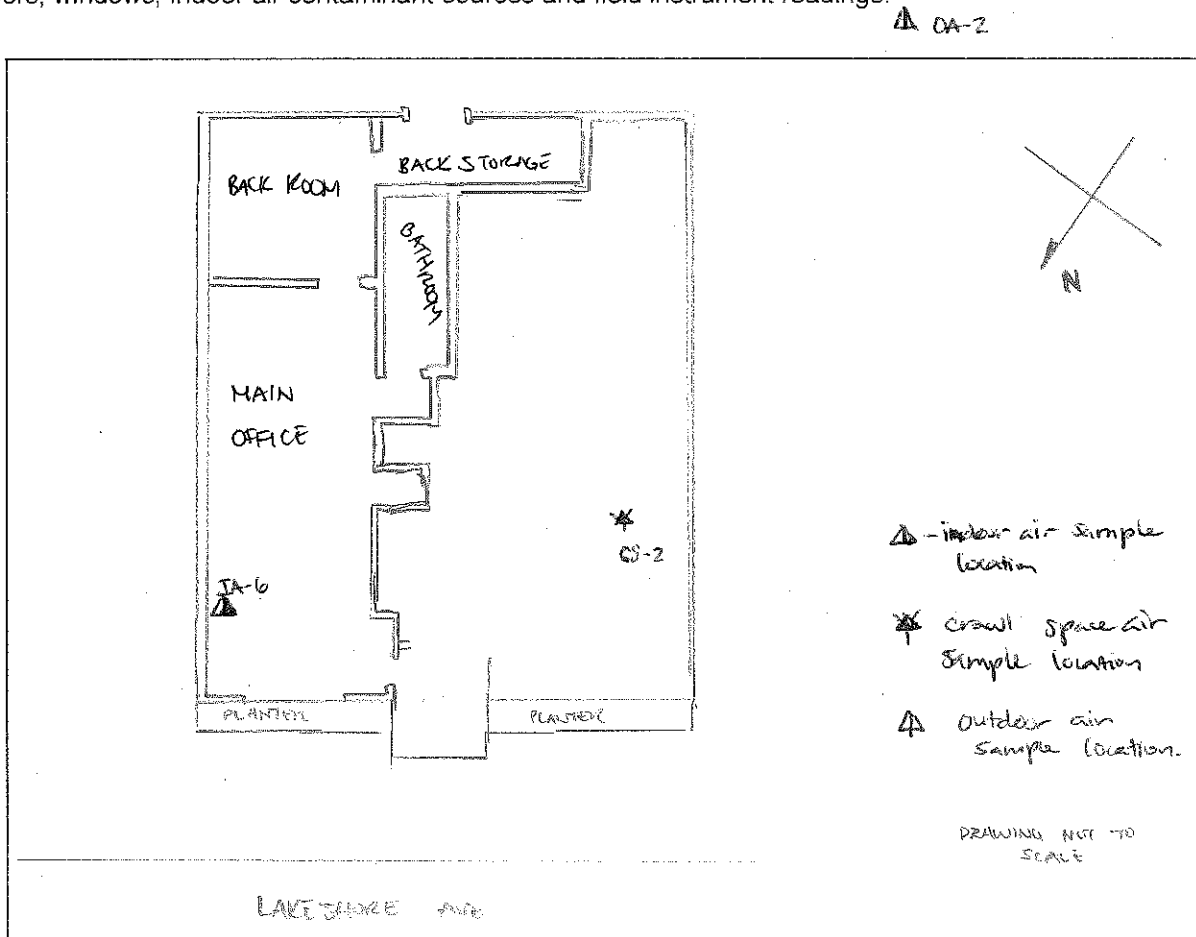
Dirt Floor Sealed Wet Surfaces Sump Pump Concrete Cracks Floor Drains

Factors Influencing Indoor Air Quality

Is there an attached garage?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Is there smoking in the building?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Is there new carpet or furniture?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Describe: <u>owner</u>
Have clothes or drapes been recently dry cleaned?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Describe: <u>owner</u>
Has painting or staining been done with the last six months?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Describe: <u>owner</u>
Has the building been recently remodeled?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Describe: <u>owner</u>
Has the building ever had a fire?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Is there a hobby or craft area in the building?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Describe: _____
Is gun cleaner stored in the building?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Is there a fuel oil tank on the property?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Is there a septic tank on the property?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Has the building been fumigated or sprayed for pests recently?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Describe: <u>owner</u>
Do any building occupants use solvents at work?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Describe: <u>owner -> NO</u>

Sampling Locations

Draw the general floor plan of the building and denote locations of sample collection. Indicate locations of doors, windows, indoor air contaminant sources and field instrument readings.



Primary Type of Energy Used (Check appropriate boxes)

Natural Gas Fuel Oil Propane Electricity Wood Kerosene

Meteorological Conditions

Describe the general weather conditions during the indoor air sampling event.

OVERCAST; LOW 60'S → SUN IS OUT; HUMIDITY ~ 50%

General Comments

Provide any other information that may be of importance in understanding the indoor air quality of this building.

OFFICES ON THE FIRST FLOOR; APARTMENT BUILDINGS ON THE SECOND AND THIRD FLOORS. CRAWL SPACE AREA BELOW THE 1ST FLOOR APPROXIMATELY 2.5 FEET HIGH. FIRST FLOOR OFFICE IS ONE LONG ROOM WITH A BACK ROOM, BATHROOM, AND BACK AREA FOR STORAGE.

APPENDIX M – BUILDING SCREENING FORM

Occupant of Building NISSAN AND CAROL M. SAIDIAN TRUSTEES

Address 3008 LAKESHORE AVENUE

City OAKLAND

Field Investigator OLIVER JAN Date 11/12/13

Field Instrument Reading	Measurement Location (Ambient Air, Foundation Opening, or Consumer Product)	If Consumer Product, Potential Volatile Ingredients
0.0 ppm	MAIN OFFICE	CVS Hand sanitizer
0.0 ppm	"	TRADER JOE'S FACE LOTION W/ ALOE
0.0 ppm	"	Garnier Fructis hair spray
0.0 ppm	BACK ROOM	Fire Extinguisher
0.0 ppm	"	Aveeno positively radiant face cream
0.0 ppm	"	4 bottles of wine
0.0 ppm	BACK STORAGE	Liquid Plumber ↓ Drain clog
0.0 ppm	"	Loreal Shampoo
0.0 ppm	"	Glidden Paint (2 cans)
0.0 ppm	"	Lysol disinfecting wipes
0.0 ppm	"	Spotshot foam carpet cleaner
0.0 ppm	"	Triple Strike grass weed root (3 bottles)
0.0 ppm	"	Ant, Roach Killer (35g) Walgreens
0.0 ppm	"	Rockite → anchoring cement
0.0 ppm	"	Resolve cleaner Triple action (2 bottles)
0.0 ppm	"	BEHR Paint (test cans – 6 total)
0.0 ppm	Bathrooms	Walgreens disinfecting spray

Comments:

Back storage room has exit to outside; has screen door and wood door; wood door remains open w/ screen door letting air in from the outside.

APPENDIX M – BUILDING SCREENING FORM

Occupant of Building NISJAN AND CAROL H. JAIDIAN TRUSTEES

Address 3008 LAKESHORE AVENUE

City OAKLAND,

Field Investigator OLIVER JAN Date 11/12/13

Field Instrument Reading	Measurement Location (Ambient Air, Foundation Opening, or Consumer Product)	If Consumer Product, Potential Volatile Ingredients
0.0 ppm	Bathroom	Cvs foam handsoaps
0.0 ppm	"	Colgate toothpaste (3 tubes)
0.0 ppm	"	DOVE body wash (2 bottles)
0.0 ppm	"	Herbal essence shampoo
0.0 ppm	"	Noxzema face wash
0.0 ppm	"	Neutrogena Face wash
0.0 ppm	"	Windex
0.0 ppm	"	Clorox (comet powder)
0.0 ppm	"	Mr. Clean disinfectant cleanser
0.0 ppm	"	Listerine mouth wash

Comments:

Appendix G

Laboratory Reports

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

December 13, 2013

Project: 90121

Submittal Date: 11/20/2013

Group Number: 1435443

PO Number: 0015119899

Release Number: HOPKINS/WAITE

State of Sample Origin: CA

<u>Client Sample Description</u>	<u>Lancaster Labs (LL) #</u>
B-1-S-3.0-131111 Grab Soil	7285595
B-1-S-6.0-131111 Grab Soil	7285596
B-1-S-9.0-131111 Grab Soil	7285597
B-1-S-9.5-131111 Grab Soil	7285598
B-1-S-12.5-131111 Grab Soil	7285599
B-1-S-14.5-131111 Grab Soil	7285600
B-2-S-3.0-131111 Grab Soil	7285601
B-2-S-6.0-131111 Grab Soil	7285602
B-2-S-9.0-131111 Grab Soil	7285603
B-2-S-13.0-131111 Grab Soil	7285604
B-3-S-3.0-131111 Grab Soil	7285605
B-3-S-5.0-131111 Grab Soil	7285606
B-3-S-7.5-131111 Grab Soil	7285607
B-3-S-11.0-131111 Grab Soil	7285608
B-3-S-9.0-131111 Grab Soil	7285609
B-4-S-3.0-131112 Grab Soil	7285610
B-4-S-6.0-131113 Grab Soil	7285611
B-4-S-9.0-131113 Grab Soil	7285612
B-4-S-15-131113 Grab Soil	7285613
B-4-S-25-131113 Grab Soil	7285614
B-4-S-27.5-131113 Grab Soil	7285615
B-5-S-3.0-131112 Grab Soil	7285616
B-5-S-6.0-131112 Grab Soil	7285617
B-5-S-9.0-131112 Grab Soil	7285618
B-5-S-24.0-131113 Grab Soil	7285619
B-4-S-20.0-131113 Grab Soil	7285620
B-6-S-3.0-131112 Grab Soil	7285621
B-6-S-6.0-131112 Grab Soil	7285622
B-6-S-9.0-131112 Grab Soil	7285623
B-6-S-15.0-131112 Grab Soil	7285624
B-7-S-3-131112 Grab Soil	7285625

B-7-S-6-131112 Grab Soil	7285626
B-7-S-6.75-131112 Grab Soil	7285627
B-7-S-7.5-131112 Grab Soil	7285628
B-7-S-10-131112 Grab Soil	7285629

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

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

Respectfully Submitted,



Natalie R. Luciano
Senior Specialist

(717) 556-7258

Sample Description: B-1-S-3.0-131111 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-1

LL Sample # SW 7285595
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/11/2013 11:05 by OV

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B mg/kg						
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	0.005	1.07
10237	Benzene	71-43-2	N.D.	0.0005	0.005	1.07
10237	t-Butyl alcohol	75-65-0	N.D.	0.021	0.11	1.07
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.001	0.005	1.07
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1.07
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	0.005	1.07
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.005	1.07
10237	Naphthalene	91-20-3	N.D.	0.001	0.005	1.07
10237	Toluene	108-88-3	N.D.	0.001	0.005	1.07
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1.07

GC Volatiles SW-846 8015B modified mg/kg						
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1.0	1.0	25.03

GC Petroleum SW-846 8015B mg/kg						
Hydrocarbons w/Si						
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	14	4.0	12	1
The reverse surrogate, capric acid, is present at <1%.						

GC Petroleum SW-846 8015B modified mg/kg						
Hydrocarbons w/Si						
12159	Motor Oil C16-C36 w/Si Gel	n.a.	38	10	30	1
12159	Total TPH w/Si Gel	n.a.	38	10	30	1
TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.						
The reverse surrogate, capric acid, is present at <1%.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/5 Oxys/Naph 8260	SW-846 8260B	1	B133271AA	11/23/2013 06:45	Stephanie A Selis	1.07
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 11:00	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201332533202	11/21/2013 10:58	Larry E Bevins	n.a.

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

Sample Description: B-1-S-3.0-131111 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-1

LL Sample # SW 7285595
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/11/2013 11:05 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 09:44	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	13326A31A	11/23/2013 01:48	Laura M Krieger	25.03
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 09:45	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	133260030A	12/03/2013 01:04	Glorines Suarez-Rivera	1
12159	TPH Fuels soils w/Si Gel	SW-846 8015B modified	1	133260029A	12/03/2013 18:41	Heather E Williams	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	133260030A	11/23/2013 09:00	Katheryne V Sponheimer	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	133260029A	11/23/2013 09:00	Katheryne V Sponheimer	1

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

Sample Description: B-1-S-6.0-131111 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-1

LL Sample # SW 7285596
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/11/2013 11:15 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B						
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	0.005	1
10237	Benzene	71-43-2	N.D.	0.0005	0.005	1
10237	t-Butyl alcohol	75-65-0	N.D.	0.020	0.10	1
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.001	0.005	1
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	0.005	1
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.005	1
10237	Naphthalene	91-20-3	N.D.	0.001	0.005	1
10237	Toluene	108-88-3	N.D.	0.001	0.005	1
10237	Xylene (Total)	1330-20-7	0.001	0.001	0.005	1
GC Volatiles SW-846 8015B modified						
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1.0	1.0	25.43
GC Petroleum SW-846 8015B						
Hydrocarbons w/Si						
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	3.9	12	1
The reverse surrogate, capric acid, is present at <1%.						
GC Petroleum SW-846 8015B modified						
Hydrocarbons w/Si						
12159	Motor Oil C16-C36 w/Si Gel	n.a.	N.D.	9.9	30	1
12159	Total TPH w/Si Gel	n.a.	N.D.	9.9	30	1
TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.						
The reverse surrogate, capric acid, is present at <1%.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/5 Oxys/Naph	8260	1	B133271AA	11/23/2013 07:08	Stephanie A Selis	1
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 10:59	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201332533202	11/21/2013 10:59	Larry E Bevins	n.a.

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

Sample Description: B-1-S-6.0-131111 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-1

LL Sample # SW 7285596
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/11/2013 11:15 by OV

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 10:14	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	13326A31A	11/23/2013 02:24	Laura M Krieger	25.43
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 10:15	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	133260030A	12/02/2013 21:20	Glorines Suarez-Rivera	1
12159	TPH Fuels soils w/Si Gel	SW-846 8015B modified	1	133260029A	12/03/2013 19:46	Heather E Williams	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	133260030A	11/23/2013 09:00	Katheryne V Sponheimer	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	133260029A	11/23/2013 09:00	Katheryne V Sponheimer	1

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

Sample Description: B-1-S-9.0-131111 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-1

LL Sample # SW 7285597
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/11/2013 11:50 by OV

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B						
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	0.005	0.99
10237	Benzene	71-43-2	N.D.	0.0005	0.005	0.99
10237	t-Butyl alcohol	75-65-0	N.D.	0.020	0.099	0.99
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.001	0.005	0.99
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	0.99
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	0.005	0.99
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.005	0.99
10237	Naphthalene	91-20-3	N.D.	0.001	0.005	0.99
10237	Toluene	108-88-3	N.D.	0.001	0.005	0.99
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	0.99

GC Volatiles SW-846 8015B modified		mg/kg	mg/kg	mg/kg		
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1.0	1.0	25.43

GC Petroleum SW-846 8015B		mg/kg	mg/kg	mg/kg		
Hydrocarbons w/Si						
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	11	4.0	12	1
The reverse surrogate, capric acid, is present at <1%.						

GC Petroleum SW-846 8015B modified		mg/kg	mg/kg	mg/kg		
Hydrocarbons w/Si						
12159	Motor Oil C16-C36 w/Si Gel	n.a.	40	10	30	1
12159	Total TPH w/Si Gel	n.a.	40	10	30	1
TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.						
The reverse surrogate, capric acid, is present at <1%.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/5 Oxys/Naph	8260	1	B133271AA	11/23/2013 07:30	Stephanie A Selis	0.99
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 10:59	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201332533202	11/21/2013 10:59	Larry E Bevins	n.a.

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

Sample Description: B-1-S-9.0-131111 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-1

LL Sample # SW 7285597
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/11/2013 11:50 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK03

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 10:19	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	13326A31A	11/23/2013 03:00	Laura M Krieger	25.43
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 10:19	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	133260030A	12/03/2013 02:11	Glorines Suarez-Rivera	1
12159	TPH Fuels soils w/Si Gel	SW-846 8015B modified	1	133260029A	12/03/2013 20:07	Heather E Williams	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	133260030A	11/23/2013 09:00	Katheryne V Sponheimer	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	133260029A	11/23/2013 09:00	Katheryne V Sponheimer	1

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

Sample Description: B-1-S-9.5-131111 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-1

LL Sample # SW 7285598
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/11/2013 12:00 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B			mg/kg	mg/kg	mg/kg	
10237	t-Amyl methyl ether	994-05-8	N.D.	0.051	0.25	50.51
10237	Benzene	71-43-2	N.D.	0.025	0.25	50.51
10237	t-Butyl alcohol	75-65-0	N.D.	1.0	5.1	50.51
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.051	0.25	50.51
10237	Ethylbenzene	100-41-4	N.D.	0.051	0.25	50.51
10237	di-Isopropyl ether	108-20-3	N.D.	0.051	0.25	50.51
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.025	0.25	50.51
10237	Naphthalene	91-20-3	N.D.	0.051	0.25	50.51
10237	Toluene	108-88-3	N.D.	0.051	0.25	50.51
10237	Xylene (Total)	1330-20-7	N.D.	0.051	0.25	50.51

Reporting limits were raised due to interference from the sample matrix.

GC Volatiles SW-846 8015B modified	mg/kg	mg/kg	mg/kg	
01725 TPH-GRO N. CA soil C6-C12	n.a.	220	19	482.63

GC Petroleum SW-846 8015B	mg/kg	mg/kg	mg/kg	
Hydrocarbons w/Si				
02222 TPH-DRO soil C10-C28 w/Si Gel	n.a.	27	4.0	1

Due to the presence of fuel in the sample extract, capric acid recovery can not be determined.

GC Petroleum SW-846 8015B modified	mg/kg	mg/kg	mg/kg	
Hydrocarbons w/Si				
12159 Motor Oil C16-C36 w/Si Gel	n.a.	N.D.	9.9	1
12159 Total TPH w/Si Gel	n.a.	N.D.	9.9	1

TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons. The reverse surrogate, capric acid, is present at <1%.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/5 Oxys/Naph 8260	SW-846 8260B	1	Q133281AA	11/24/2013 17:33	Sarah A Guill	50.51
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 11:00	Larry E Bevins	n.a.

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

Sample Description: B-1-S-9.5-131111 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-1

LL Sample # SW 7285598
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/11/2013 12:00 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK04

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201332533202	11/21/2013 10:59	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 10:23	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	13326A31A	11/23/2013 10:53	Marie D Beamenderfer	482.63
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 10:23	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	133260030A	12/02/2013 21:42	Glorines Suarez-Rivera	1
12159	TPH Fuels soils w/Si Gel	SW-846 8015B modified	1	133260029A	12/03/2013 20:29	Heather E Williams	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	133260030A	11/23/2013 09:00	Katheryne V Sponheimer	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	133260029A	11/23/2013 09:00	Katheryne V Sponheimer	1

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

Sample Description: B-1-S-12.5-131111 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-1

LL Sample # SW 7285599
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/11/2013 12:20 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B						
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	0.005	1.04
10237	Benzene	71-43-2	N.D.	0.0005	0.005	1.04
10237	t-Butyl alcohol	75-65-0	N.D.	0.021	0.10	1.04
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.001	0.005	1.04
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1.04
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	0.005	1.04
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.005	1.04
10237	Naphthalene	91-20-3	N.D.	0.001	0.005	1.04
10237	Toluene	108-88-3	N.D.	0.001	0.005	1.04
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1.04

GC Volatiles SW-846 8015B modified		mg/kg	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1	24.61

GC Petroleum SW-846 8015B		mg/kg	mg/kg	mg/kg	
Hydrocarbons w/Si					
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.0	12
The reverse surrogate, capric acid, is present at <1%.					

GC Petroleum SW-846 8015B modified		mg/kg	mg/kg	mg/kg	
Hydrocarbons w/Si					
12159	Motor Oil C16-C36 w/Si Gel	n.a.	N.D.	9.9	30
12159	Total TPH w/Si Gel	n.a.	N.D.	9.9	30

TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons. The reverse surrogate, capric acid, is present at <1%. The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial. Similar results were obtained in both trials.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial# Batch#	Analysis Date and Time	Analyst	Dilution Factor
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*=This limit was used in the evaluation of the final result

Sample Description: B-1-S-12.5-131111 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-1

LL Sample # SW 7285599
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/11/2013 12:20 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310

Submitted: 11/20/2013 16:05

San Ramon CA 94583

Reported: 12/13/2013 15:13

LOK05

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/5 Oxys/Naph 8260	SW-846 8260B	1	B133271AA	11/23/2013 07:53	Stephanie A Selis	1.04
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 10:59	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201332533202	11/21/2013 11:00	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 10:27	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	13326A31A	11/23/2013 03:37	Laura M Krieger	24.61
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 10:28	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	133260030A	12/02/2013 19:29	Glorines Suarez-Rivera	1
12159	TPH Fuels soils w/Si Gel	SW-846 8015B modified	1	133260029A	12/03/2013 20:50	Heather E Williams	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	133260030A	11/23/2013 09:00	Katheryne V Sponheimer	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	133260029A	11/23/2013 09:00	Katheryne V Sponheimer	1

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

Sample Description: B-1-S-14.5-131111 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-1

LL Sample # SW 7285600
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/11/2013 12:27 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B mg/kg						
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	0.005	0.97
10237	Benzene	71-43-2	N.D.	0.0005	0.005	0.97
10237	t-Butyl alcohol	75-65-0	N.D.	0.019	0.097	0.97
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.001	0.005	0.97
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	0.97
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	0.005	0.97
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.005	0.97
10237	Naphthalene	91-20-3	N.D.	0.001	0.005	0.97
10237	Toluene	108-88-3	N.D.	0.001	0.005	0.97
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	0.97

GC Volatiles SW-846 8015B modified mg/kg						
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1.0	1.0	25.2

GC Petroleum SW-846 8015B mg/kg						
Hydrocarbons w/Si						
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.0	12	1
<p>The reverse surrogate, capric acid, is present at <1%.</p> <p>The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:</p> <p>The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial. Similar results were obtained in both trials.</p>						

GC Petroleum SW-846 8015B modified mg/kg						
Hydrocarbons w/Si						
12159	Motor Oil C16-C36 w/Si Gel	n.a.	N.D.	10	30	1
12159	Total TPH w/Si Gel	n.a.	N.D.	10	30	1
<p>TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.</p> <p>The reverse surrogate, capric acid, is present at <1%.</p> <p>The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:</p> <p>The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial. Similar results were obtained in both trials.</p>						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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

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

Sample Description: B-1-S-14.5-131111 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-1

LL Sample # SW 7285600
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/11/2013 12:27 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK06

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/5 Oxys/Naph 8260	SW-846 8260B	1	B133271AA	11/23/2013 08:15	Stephanie A Selis	0.97
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 11:00	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201332533202	11/21/2013 11:00	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 10:31	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	13326A31A	11/23/2013 04:13	Laura M Krieger	25.2
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 10:32	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	133260030A	12/02/2013 22:05	Glorines Suarez-Rivera	1
12159	TPH Fuels soils w/Si Gel	SW-846 8015B modified	1	133260029A	12/03/2013 21:12	Heather E Williams	1
11210	DRO by 8015 Microwave w/SG	SW-846 3546	1	133260030A	11/23/2013 09:00	Katheryne V Sponheimer	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	133260029A	11/23/2013 09:00	Katheryne V Sponheimer	1

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

Sample Description: B-2-S-3.0-131111 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-2

LL Sample # SW 7285601
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/11/2013 08:15 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B						
10237	t-Amyl methyl ether	994-05-8	N.D.	0.0009	0.005	0.95
10237	Benzene	71-43-2	N.D.	0.0005	0.005	0.95
10237	t-Butyl alcohol	75-65-0	N.D.	0.019	0.095	0.95
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.0009	0.005	0.95
10237	Ethylbenzene	100-41-4	N.D.	0.0009	0.005	0.95
10237	di-Isopropyl ether	108-20-3	N.D.	0.0009	0.005	0.95
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.005	0.95
10237	Naphthalene	91-20-3	N.D.	0.0009	0.005	0.95
10237	Toluene	108-88-3	N.D.	0.0009	0.005	0.95
10237	Xylene (Total)	1330-20-7	N.D.	0.0009	0.005	0.95
GC Volatiles SW-846 8015B modified						
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1.0	1.0	25.64
GC Petroleum SW-846 8015B						
Hydrocarbons w/Si						
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.0	12	1
The reverse surrogate, capric acid, is present at <1%.						
GC Petroleum SW-846 8015B modified						
Hydrocarbons w/Si						
12159	Motor Oil C16-C36 w/Si Gel	n.a.	N.D.	10	30	1
12159	Total TPH w/Si Gel	n.a.	N.D.	10	30	1
TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.						
The reverse surrogate, capric acid, is present at <1%.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/5 Oxys/Naph	8260	1	B133271AA	11/23/2013 08:37	Stephanie A Selis	0.95
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 10:58	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201332533202	11/21/2013 10:58	Larry E Bevins	n.a.

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

Sample Description: B-2-S-3.0-131111 Grab Soil
 Facility# 90121 CRAW
 3026 Lakeshore-Oakland T0600100328 B-2

LL Sample # SW 7285601
 LL Group # 1435443
 Account # 10880

Project Name: 90121

Collected: 11/11/2013 08:15 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK07

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 10:36	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	13326A31A	11/23/2013 04:50	Laura M Krieger	25.64
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 10:37	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	133260030A	12/02/2013 19:51	Glorines Suarez-Rivera	1
12159	TPH Fuels soils w/Si Gel	SW-846 8015B modified	1	133260029A	12/03/2013 21:34	Heather E Williams	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	133260030A	11/23/2013 09:00	Katheryne V Sponheimer	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	133260029A	11/23/2013 09:00	Katheryne V Sponheimer	1

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

Sample Description: B-2-S-6.0-131111 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-2

LL Sample # SW 7285602
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/11/2013 08:25 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B						
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	0.005	1
10237	Benzene	71-43-2	N.D.	0.0005	0.005	1
10237	t-Butyl alcohol	75-65-0	N.D.	0.020	0.10	1
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.001	0.005	1
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	0.005	1
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.005	1
10237	Naphthalene	91-20-3	N.D.	0.001	0.005	1
10237	Toluene	108-88-3	N.D.	0.001	0.005	1
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1

GC Volatiles	SW-846 8015B modified	mg/kg	mg/kg	mg/kg		
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1	1	24.41

GC Petroleum Hydrocarbons w/Si	SW-846 8015B	mg/kg	mg/kg	mg/kg		
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.0	12	1
The reverse surrogate, capric acid, is present at <1%.						

GC Petroleum Hydrocarbons w/Si	SW-846 8015B modified	mg/kg	mg/kg	mg/kg		
12159	Motor Oil C16-C36 w/Si Gel	n.a.	N.D.	9.9	30	1
12159	Total TPH w/Si Gel	n.a.	N.D.	9.9	30	1
TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.						
The reverse surrogate, capric acid, is present at <1%.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/5 Oxys/Naph 8260	SW-846 8260B	1	B133271AA	11/23/2013 09:00	Stephanie A Selis	1
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 10:59	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201332533202	11/21/2013 10:59	Larry E Bevins	n.a.

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

Sample Description: B-2-S-6.0-131111 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-2

LL Sample # SW 7285602
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/11/2013 08:25 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK08

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 10:40	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	13326A31A	11/23/2013 05:26	Laura M Krieger	24.41
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 10:41	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	133260030A	12/02/2013 20:13	Glorines Suarez-Rivera	1
12159	TPH Fuels soils w/Si Gel	SW-846 8015B modified	1	133260029A	12/03/2013 21:55	Heather E Williams	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	133260030A	11/23/2013 09:00	Katheryne V Sponheimer	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	133260029A	11/23/2013 09:00	Katheryne V Sponheimer	1

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

Sample Description: B-2-S-9.0-131111 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-2

LL Sample # SW 7285603
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/11/2013 08:50 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310

Submitted: 11/20/2013 16:05

San Ramon CA 94583

Reported: 12/13/2013 15:13

LOK09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B						
10237	t-Amyl methyl ether	994-05-8	N.D.	0.0009	0.005	0.91
10237	Benzene	71-43-2	N.D.	0.0005	0.005	0.91
10237	t-Butyl alcohol	75-65-0	N.D.	0.018	0.091	0.91
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.0009	0.005	0.91
10237	Ethylbenzene	100-41-4	N.D.	0.0009	0.005	0.91
10237	di-Isopropyl ether	108-20-3	N.D.	0.0009	0.005	0.91
10237	Methyl Tertiary Butyl Ether	1634-04-4	0.006	0.0005	0.005	0.91
10237	Naphthalene	91-20-3	N.D.	0.0009	0.005	0.91
10237	Toluene	108-88-3	N.D.	0.0009	0.005	0.91
10237	Xylene (Total)	1330-20-7	N.D.	0.0009	0.005	0.91

GC Volatiles SW-846 8015B modified		mg/kg	mg/kg	mg/kg		
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1.0	1.0	25.69

GC Petroleum SW-846 8015B		mg/kg	mg/kg	mg/kg		
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.0	12	1
The reverse surrogate, capric acid, is present at <1%.						

GC Petroleum SW-846 8015B modified		mg/kg	mg/kg	mg/kg		
Hydrocarbons w/Si						
12159	Motor Oil C16-C36 w/Si Gel	n.a.	N.D.	10	30	1
12159	Total TPH w/Si Gel	n.a.	N.D.	10	30	1
TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.						
The reverse surrogate, capric acid, is present at <1%.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/5 Oxys/Naph	8260	1	B133271AA	11/23/2013 09:22	Stephanie A Selis	0.91
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 10:59	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201332533202	11/21/2013 10:59	Larry E Bevins	n.a.

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

Sample Description: B-2-S-9.0-131111 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-2

LL Sample # SW 7285603
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/11/2013 08:50 by OV

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK09

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 10:44	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	13326A31A	11/23/2013 08:28	Marie D Beamenderfer	25.69
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 10:45	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	133260030A	12/02/2013 20:35	Glorines Suarez-Rivera	1
12159	TPH Fuels soils w/Si Gel	SW-846 8015B modified	1	133260029A	12/03/2013 22:17	Heather E Williams	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	133260030A	11/23/2013 09:00	Katheryne V Sponheimer	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	133260029A	11/23/2013 09:00	Katheryne V Sponheimer	1

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

Sample Description: B-2-S-13.0-131111 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-2

LL Sample # SW 7285604
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/11/2013 10:15 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B						
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	0.005	0.97
10237	Benzene	71-43-2	N.D.	0.0005	0.005	0.97
10237	t-Butyl alcohol	75-65-0	0.17	0.019	0.097	0.97
10237	Ethyl t-butyl ether	637-92-3	0.004	0.001	0.005	0.97
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	0.97
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	0.005	0.97
10237	Methyl Tertiary Butyl Ether	1634-04-4	0.28	0.0005	0.005	0.97
10237	Naphthalene	91-20-3	N.D.	0.001	0.005	0.97
10237	Toluene	108-88-3	N.D.	0.001	0.005	0.97
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	0.97
GC Volatiles SW-846 8015B modified						
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1	1	24.88
GC Petroleum SW-846 8015B						
Hydrocarbons w/Si						
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	3.9	12	1
The reverse surrogate, capric acid, is present at <1%.						
GC Petroleum SW-846 8015B modified						
Hydrocarbons w/Si						
12159	Motor Oil C16-C36 w/Si Gel	n.a.	N.D.	9.9	30	1
12159	Total TPH w/Si Gel	n.a.	N.D.	9.9	30	1
TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.						
The reverse surrogate, capric acid, is present at <1%.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/5 Oxys/Naph 8260	SW-846 8260B	1	B133271AA	11/23/2013 09:45	Stephanie A Selis	0.97
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 10:59	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201332533202	11/21/2013 10:59	Larry E Bevins	n.a.

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

Sample Description: B-2-S-13.0-131111 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-2

LL Sample # SW 7285604
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/11/2013 10:15 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK10

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 10:49	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	13326A31A	11/23/2013 09:04	Marie D Beamenderfer	24.88
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 10:49	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	133260030A	12/02/2013 20:58	Glorines Suarez-Rivera	1
12159	TPH Fuels soils w/Si Gel	SW-846 8015B modified	1	133260029A	12/03/2013 22:39	Heather E Williams	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	133260030A	11/23/2013 09:00	Katheryne V Sponheimer	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	133260029A	11/23/2013 09:00	Katheryne V Sponheimer	1

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

Sample Description: B-3-S-3.0-131111 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-3

LL Sample # SW 7285605
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/11/2013 09:20 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B						
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	0.005	0.99
10237	Benzene	71-43-2	N.D.	0.0005	0.005	0.99
10237	t-Butyl alcohol	75-65-0	N.D.	0.020	0.099	0.99
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.001	0.005	0.99
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	0.99
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	0.005	0.99
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.005	0.99
10237	Naphthalene	91-20-3	N.D.	0.001	0.005	0.99
10237	Toluene	108-88-3	N.D.	0.001	0.005	0.99
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	0.99

GC Volatiles SW-846 8015B modified		mg/kg	mg/kg	mg/kg
01725	TPH-GRO N. CA soil C6-C12	n.a.	2.1	1.0
				1.0
				26.15

GC Petroleum SW-846 8015B		mg/kg	mg/kg	mg/kg
Hydrocarbons w/Si				
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.0
	The reverse surrogate, capric acid, is present at <1%.			

GC Petroleum SW-846 8015B modified		mg/kg	mg/kg	mg/kg
Hydrocarbons w/Si				
12159	Motor Oil C16-C36 w/Si Gel	n.a.	N.D.	10
12159	Total TPH w/Si Gel	n.a.	N.D.	10
	TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.			
	The reverse surrogate, capric acid, is present at <1%.			

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/5 Oxys/Naph	8260	1	B133271AA	11/23/2013 10:08	Stephanie A Selis	0.99
00374	GC/MS - Bulk Soil Prep	SW-846 5035A	1	201332533202	11/21/2013 10:59	Larry E Bevins	n.a.
		Modified					
00374	GC/MS - Bulk Soil Prep	SW-846 5035A	2	201332533202	11/21/2013 10:59	Larry E Bevins	n.a.
		Modified					

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

Sample Description: B-3-S-3.0-131111 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-3

LL Sample # SW 7285605
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/11/2013 09:20 by OV

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK11

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 10:53	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	13326A16A	11/23/2013 14:17	Laura M Krieger	26.15
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 10:54	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	133260030A	12/03/2013 01:48	Glorines Suarez-Rivera	1
12159	TPH Fuels soils w/Si Gel	SW-846 8015B modified	1	133260029A	12/03/2013 23:00	Heather E Williams	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	133260030A	11/23/2013 09:00	Katheryne V Sponheimer	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	133260029A	11/23/2013 09:00	Katheryne V Sponheimer	1

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

Sample Description: B-3-S-5.0-131111 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-3

LL Sample # SW 7285606
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/11/2013 09:25 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles			mg/kg	mg/kg	mg/kg	
10237	t-Amyl methyl ether	994-05-8	N.D.	0.048	0.24	47.53
10237	Benzene	71-43-2	N.D.	0.024	0.24	47.53
10237	t-Butyl alcohol	75-65-0	N.D.	0.95	4.8	47.53
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.048	0.24	47.53
10237	Ethylbenzene	100-41-4	N.D.	0.048	0.24	47.53
10237	di-Isopropyl ether	108-20-3	N.D.	0.048	0.24	47.53
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.024	0.24	47.53
10237	Naphthalene	91-20-3	N.D.	0.048	0.24	47.53
10237	Toluene	108-88-3	N.D.	0.048	0.24	47.53
10237	Xylene (Total)	1330-20-7	N.D.	0.048	0.24	47.53

Reporting limits were raised due to interference from the sample matrix.

GC Volatiles	SW-846 8015B modified	mg/kg	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	1,300	200	5025.13

GC Petroleum Hydrocarbons w/Si	SW-846 8015B	mg/kg	mg/kg	mg/kg	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	920	20	5

The reverse surrogate, capric acid, is present at <1%.

GC Petroleum Hydrocarbons w/Si	SW-846 8015B modified	mg/kg	mg/kg	mg/kg	
12159	Motor Oil C16-C36 w/Si Gel	n.a.	110	9.9	1
12159	Total TPH w/Si Gel	n.a.	110	9.9	1

TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons. Due to the presence of fuel in the sample extract, capric acid recovery can not be determined.

The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/5 Oxys/Naph 8260	SW-846 8260B	1	Q133281AA	11/24/2013 17:56	Sarah A Guill	47.53

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

Sample Description: B-3-S-5.0-131111 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-3

LL Sample # SW 7285606
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/11/2013 09:25 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK12

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 10:59	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201332533202	11/21/2013 10:59	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 10:58	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	13326A16A	11/23/2013 23:20	Marie D Beamenderfer	5025.13
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 10:58	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	133260030A	12/04/2013 20:04	Glorines Suarez-Rivera	5
12159	TPH Fuels soils w/Si Gel	SW-846 8015B modified	1	133260029A	12/03/2013 23:21	Heather E Williams	1
11210	DRO by 8015 Microwave w/SG	SW-846 3546	1	133260030A	11/23/2013 09:00	Katheryne V Sponheimer	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	133260029A	11/23/2013 09:00	Katheryne V Sponheimer	1

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

Sample Description: B-3-S-7.5-131111 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-3

LL Sample # SW 7285607
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/11/2013 09:35 by OV

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B mg/kg						
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	0.005	0.99
10237	Benzene	71-43-2	0.0008	0.0005	0.005	0.99
10237	t-Butyl alcohol	75-65-0	0.061	0.020	0.099	0.99
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.001	0.005	0.99
10237	Ethylbenzene	100-41-4	0.002	0.001	0.005	0.99
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	0.005	0.99
10237	Methyl Tertiary Butyl Ether	1634-04-4	0.017	0.0005	0.005	0.99
10237	Naphthalene	91-20-3	0.002	0.001	0.005	0.99
10237	Toluene	108-88-3	0.002	0.001	0.005	0.99
10237	Xylene (Total)	1330-20-7	0.011	0.001	0.005	0.99

GC Volatiles SW-846 8015B modified mg/kg						
01725	TPH-GRO N. CA soil C6-C12	n.a.	58	20	20	494.56

GC Petroleum SW-846 8015B mg/kg						
Hydrocarbons w/Si						
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	14	3.9	12	1
Due to the presence of fuel in the sample extract, capric acid recovery can not be determined.						
The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:						
The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial. Similar results were obtained in both trials.						

GC Petroleum SW-846 8015B modified mg/kg						
Hydrocarbons w/Si						
12159	Motor Oil C16-C36 w/Si Gel	n.a.	N.D.	9.9	30	1
12159	Total TPH w/Si Gel	n.a.	N.D.	9.9	30	1
TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.						
The reverse surrogate, capric acid, is present at <1%.						
The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:						
The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial. Similar results were obtained in both trials.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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

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

Sample Description: B-3-S-7.5-131111 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-3

LL Sample # SW 7285607
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/11/2013 09:35 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK13

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/5 Oxys/Naph 8260	SW-846 8260B	1	B133271AA	11/23/2013 12:00	Stephanie A Selis	0.99
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 12:04	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201332533202	11/21/2013 12:03	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 11:06	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	13326A16A	11/23/2013 23:58	Marie D Beamenderfer	494.56
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 11:06	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	133260030A	12/02/2013 22:27	Glorines Suarez-Rivera	1
12159	TPH Fuels soils w/Si Gel	SW-846 8015B modified	1	133260029A	12/03/2013 23:43	Heather E Williams	1
11210	DRO by 8015 Microwave w/SG	SW-846 3546	1	133260030A	11/23/2013 09:00	Katheryne V Sponheimer	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	133260029A	11/23/2013 09:00	Katheryne V Sponheimer	1

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

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Sample Description: B-3-S-11.0-131111 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-3

LL Sample # SW 7285608
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/11/2013 09:55 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK14

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B			mg/kg	mg/kg	mg/kg	
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	0.005	1
10237	Benzene	71-43-2	0.001	0.0005	0.005	1
10237	t-Butyl alcohol	75-65-0	0.49	0.020	0.10	1
10237	Ethyl t-butyl ether	637-92-3	0.001	0.001	0.005	1
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	0.005	1
10237	Methyl Tertiary Butyl Ether	1634-04-4	0.071	0.0005	0.005	1
10237	Naphthalene	91-20-3	N.D.	0.001	0.005	1
10237	Toluene	108-88-3	N.D.	0.001	0.005	1
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1

The recovery for the sample internal standard is outside the QC acceptance limits. The following corrective action was taken: The sample was re-analyzed and the QC is again outside of the acceptance limits, indicating a matrix effect. The data is reported from the initial trial.

GC Volatiles	SW-846 8015B modified	mg/kg	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	2.9	1	24.34

GC Petroleum Hydrocarbons w/Si	SW-846 8015B	mg/kg	mg/kg	mg/kg	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.0	12
The reverse surrogate, capric acid, is present at <1%.					

GC Petroleum Hydrocarbons w/Si	SW-846 8015B modified	mg/kg	mg/kg	mg/kg	
12159	Motor Oil C16-C36 w/Si Gel	n.a.	N.D.	9.9	30
12159	Total TPH w/Si Gel	n.a.	N.D.	9.9	30

TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons. The reverse surrogate, capric acid, is present at <1%.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor		
10237	BTEX/5 Oxys/Naph	8260	SW-846	8260B	1	B133271AA	11/23/2013 11:16	Stephanie A Selis	1

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

Sample Description: B-3-S-11.0-131111 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-3

LL Sample # SW 7285608
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/11/2013 09:55 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK14

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 12:03	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201332533202	11/21/2013 12:04	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 11:11	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	13326A16A	11/23/2013 14:55	Laura M Krieger	24.34
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 11:12	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	133260030A	12/02/2013 22:49	Glorines Suarez-Rivera	1
12159	TPH Fuels soils w/Si Gel	SW-846 8015B modified	1	133260029A	12/04/2013 00:04	Heather E Williams	1
11210	DRO by 8015 Microwave w/SG	SW-846 3546	1	133260030A	11/23/2013 09:00	Katheryne V Sponheimer	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	133260029A	11/23/2013 09:00	Katheryne V Sponheimer	1

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

Sample Description: B-3-S-9.0-131111 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-3

LL Sample # SW 7285609
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/11/2013 09:50 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK15

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B						
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	0.005	1
10237	Benzene	71-43-2	0.002	0.0005	0.005	1
10237	t-Butyl alcohol	75-65-0	0.29	0.020	0.10	1
10237	Ethyl t-butyl ether	637-92-3	0.001	0.001	0.005	1
10237	Ethylbenzene	100-41-4	0.002	0.001	0.005	1
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	0.005	1
10237	Methyl Tertiary Butyl Ether	1634-04-4	0.088	0.0005	0.005	1
10237	Naphthalene	91-20-3	0.006	0.001	0.005	1
10237	Toluene	108-88-3	0.001	0.001	0.005	1
10237	Xylene (Total)	1330-20-7	0.005	0.001	0.005	1

GC Volatiles SW-846 8015B modified		mg/kg	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	5.6	4.1	102.88

GC Petroleum SW-846 8015B		mg/kg	mg/kg	mg/kg	
Hydrocarbons w/Si					
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	7.9	4.0	12
The reverse surrogate, capric acid, is present at <1%.					

GC Petroleum SW-846 8015B modified		mg/kg	mg/kg	mg/kg	
Hydrocarbons w/Si					
12159	Motor Oil C16-C36 w/Si Gel	n.a.	N.D.	10	30
12159	Total TPH w/Si Gel	n.a.	N.D.	10	30
TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.					
The reverse surrogate, capric acid, is present at <1%.					

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/5 Oxys/Naph	8260	1	B133271AA	11/23/2013 11:38	Stephanie A Selis	1
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 12:04	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201332533202	11/21/2013 12:05	Larry E Bevins	n.a.

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

Sample Description: B-3-S-9.0-131111 Grab Soil
 Facility# 90121 CRAW
 3026 Lakeshore-Oakland T0600100328 B-3

LL Sample # SW 7285609
 LL Group # 1435443
 Account # 10880

Project Name: 90121

Collected: 11/11/2013 09:50 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
 San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK15

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 11:16	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	13326A16A	11/24/2013 00:36	Marie D Beamenderfer	102.88
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 11:17	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	133260030A	12/02/2013 23:12	Glorines Suarez-Rivera	1
12159	TPH Fuels soils w/Si Gel	SW-846 8015B modified	1	133260029A	12/04/2013 00:26	Heather E Williams	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	133260030A	11/23/2013 09:00	Katheryne V Sponheimer	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	133260029A	11/23/2013 09:00	Katheryne V Sponheimer	1

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

Sample Description: B-4-S-3.0-131112 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-4

LL Sample # SW 7285610
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/12/2013 13:55 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK16

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B			mg/kg	mg/kg	mg/kg	
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	0.005	1.05
10237	Benzene	71-43-2	0.0007	0.0005	0.005	1.05
10237	t-Butyl alcohol	75-65-0	N.D.	0.021	0.10	1.05
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.001	0.005	1.05
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1.05
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	0.005	1.05
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.005	1.05
10237	Naphthalene	91-20-3	0.005	0.001	0.005	1.05
10237	Toluene	108-88-3	N.D.	0.001	0.005	1.05
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1.05

The recovery for the sample internal standard is outside the QC acceptance limits. The following corrective action was taken: The sample was re-analyzed and the QC is again outside of the acceptance limits, indicating a matrix effect. The data is reported from the initial trial.

GC Volatiles SW-846 8015B modified			mg/kg	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	41	41	1013.17
Reporting limits were raised due to sample foaming.						

GC Petroleum SW-846 8015B			mg/kg	mg/kg	mg/kg	
Hydrocarbons w/Si						
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	330	4.0	12	1
Due to the presence of fuel in the sample extract, capric acid recovery can not be determined.						

The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.

GC Petroleum SW-846 8015B modified			mg/kg	mg/kg	mg/kg	
Hydrocarbons w/Si						
12159	Motor Oil C16-C36 w/Si Gel	n.a.	870	20	60	2
12159	Total TPH w/Si Gel	n.a.	870	20	60	2

TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons. Due to the dilution of the sample extract, capric acid recovery can not be determined.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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

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

Sample Description: B-4-S-3.0-131112 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-4

LL Sample # SW 7285610
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/12/2013 13:55 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK16

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/5 Oxys/Naph 8260	SW-846 8260B	1	B133272AA	11/23/2013 16:48	Andrea E Lando	1.05
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 12:04	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201332533202	11/21/2013 12:04	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 11:22	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	13329A16A	11/25/2013 18:28	Laura M Krieger	1013.17
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 11:23	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	133260030A	12/03/2013 03:18	Glorines Suarez-Rivera	1
12159	TPH Fuels soils w/Si Gel	SW-846 8015B modified	1	133260029A	12/04/2013 20:47	Heather E Williams	2
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	133260030A	11/23/2013 09:00	Katheryne V Sponheimer	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	133260029A	11/23/2013 09:00	Katheryne V Sponheimer	1

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

Sample Description: B-4-S-6.0-131113 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-4

LL Sample # SW 7285611
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/13/2013 12:50 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK17

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B mg/kg						
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	0.005	1.04
10237	Benzene	71-43-2	N.D.	0.0005	0.005	1.04
10237	t-Butyl alcohol	75-65-0	N.D.	0.021	0.10	1.04
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.001	0.005	1.04
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1.04
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	0.005	1.04
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.005	1.04
10237	Naphthalene	91-20-3	N.D.	0.001	0.005	1.04
10237	Toluene	108-88-3	N.D.	0.001	0.005	1.04
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1.04

The recovery for the sample internal standard is outside the QC acceptance limits. The following corrective action was taken: The sample was re-analyzed and the QC is again outside of the acceptance limits, indicating a matrix effect. The data is reported from the initial trial.

GC Volatiles SW-846 8015B modified mg/kg						
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	9.8	9.8	243.9
Reporting limits were raised due to sample foaming.						

GC Petroleum SW-846 8015B mg/kg						
Hydrocarbons w/Si						
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	190	4.0	12	1
The reverse surrogate, capric acid, is present at <1%.						

GC Petroleum SW-846 8015B modified mg/kg						
Hydrocarbons w/Si						
12159	Motor Oil C16-C36 w/Si Gel	n.a.	700	20	60	2
12159	Total TPH w/Si Gel	n.a.	700	20	60	2
TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons. The reverse surrogate, capric acid, is present at <1%.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/5 Oxys/Naph 8260	SW-846 8260B	1	B133272AA	11/23/2013 17:11	Andrea E Lando	1.04

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

Sample Description: B-4-S-6.0-131113 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-4

LL Sample # SW 7285611
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/13/2013 12:50 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK17

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 12:04	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201332533202	11/21/2013 12:04	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 11:27	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	13329A16A	11/25/2013 19:06	Laura M Krieger	243.9
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 11:28	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	133270030A	12/02/2013 22:05	Glorines Suarez-Rivera	1
12159	TPH Fuels soils w/Si Gel	SW-846 8015B modified	1	133270031A	12/04/2013 03:19	Heather E Williams	2
11210	DRO by 8015 Microwave w/SG	SW-846 3546	1	133270030A	11/25/2013 09:30	David S Schrum	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	133270031A	11/25/2013 09:30	David S Schrum	1

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

Sample Description: B-4-S-9.0-131113 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-4

LL Sample # SW 7285612
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/13/2013 14:20 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK18

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B						
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	0.005	1
10237	Benzene	71-43-2	N.D.	0.0005	0.005	1
10237	t-Butyl alcohol	75-65-0	N.D.	0.020	0.10	1
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.001	0.005	1
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	0.005	1
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.005	1
10237	Naphthalene	91-20-3	N.D.	0.001	0.005	1
10237	Toluene	108-88-3	N.D.	0.001	0.005	1
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1

GC Volatiles SW-846 8015B modified		mg/kg	mg/kg	mg/kg		
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1	1	24.9

GC Petroleum SW-846 8015B		mg/kg	mg/kg	mg/kg		
Hydrocarbons w/Si						
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.0	12	1
The reverse surrogate, capric acid, is present at <1%.						

GC Petroleum SW-846 8015B modified		mg/kg	mg/kg	mg/kg		
Hydrocarbons w/Si						
12159	Motor Oil C16-C36 w/Si Gel	n.a.	N.D.	10	30	1
12159	Total TPH w/Si Gel	n.a.	N.D.	10	30	1
TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.						
The reverse surrogate, capric acid, is present at <1%.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/5 Oxys/Naph	8260	1	B133272AA	11/23/2013 22:50	Andrea E Lando	1
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 12:04	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201332533202	11/21/2013 12:04	Larry E Bevins	n.a.

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

Sample Description: B-4-S-9.0-131113 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-4

LL Sample # SW 7285612
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/13/2013 14:20 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK18

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 11:31	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	13326A16A	11/23/2013 15:59	Laura M Krieger	24.9
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 11:32	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	133270030A	12/02/2013 16:25	Glorines Suarez-Rivera	1
12159	TPH Fuels soils w/Si Gel	SW-846 8015B modified	1	133270031A	12/02/2013 20:56	Heather E Williams	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	133270030A	11/25/2013 09:30	David S Schrum	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	133270031A	11/25/2013 09:30	David S Schrum	1

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

Sample Description: B-4-S-15-131113 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-4

LL Sample # SW 7285613
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/13/2013 14:53 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK19

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B						
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	0.005	0.97
10237	Benzene	71-43-2	N.D.	0.0005	0.005	0.97
10237	t-Butyl alcohol	75-65-0	N.D.	0.019	0.097	0.97
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.001	0.005	0.97
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	0.97
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	0.005	0.97
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.005	0.97
10237	Naphthalene	91-20-3	N.D.	0.001	0.005	0.97
10237	Toluene	108-88-3	N.D.	0.001	0.005	0.97
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	0.97
GC Volatiles SW-846 8015B modified						
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1	1	23.81
GC Petroleum SW-846 8015B						
Hydrocarbons w/Si						
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.0	12	1
The reverse surrogate, capric acid, is present at <1%.						
GC Petroleum SW-846 8015B modified						
Hydrocarbons w/Si						
12159	Motor Oil C16-C36 w/Si Gel	n.a.	N.D.	10	30	1
12159	Total TPH w/Si Gel	n.a.	N.D.	10	30	1
TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.						
The reverse surrogate, capric acid, is present at <1%.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/5 Oxys/Naph	8260	1	B133272AA	11/23/2013 23:12	Andrea E Lando	0.97
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 12:04	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201332533202	11/21/2013 12:04	Larry E Bevins	n.a.

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

Sample Description: B-4-S-15-131113 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-4

LL Sample # SW 7285613
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/13/2013 14:53 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK19

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 11:36	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	13326A16A	11/23/2013 16:36	Laura M Krieger	23.81
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 11:36	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	133270030A	12/02/2013 16:45	Glorines Suarez-Rivera	1
12159	TPH Fuels soils w/Si Gel	SW-846 8015B modified	1	133270031A	12/02/2013 21:17	Heather E Williams	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	133270030A	11/25/2013 09:30	David S Schrum	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	133270031A	11/25/2013 09:30	David S Schrum	1

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

Sample Description: B-4-S-25-131113 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-4

LL Sample # SW 7285614
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/13/2013 16:00 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310

Submitted: 11/20/2013 16:05

San Ramon CA 94583

Reported: 12/13/2013 15:13

LOK20

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B						
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	0.005	1.05
10237	Benzene	71-43-2	N.D.	0.0005	0.005	1.05
10237	t-Butyl alcohol	75-65-0	N.D.	0.021	0.10	1.05
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.001	0.005	1.05
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1.05
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	0.005	1.05
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.005	1.05
10237	Naphthalene	91-20-3	N.D.	0.001	0.005	1.05
10237	Toluene	108-88-3	N.D.	0.001	0.005	1.05
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1.05

GC Volatiles SW-846 8015B modified						
			mg/kg	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1.1	1.1	26.26

GC Petroleum SW-846 8015B						
			mg/kg	mg/kg	mg/kg	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.0	12	1
The reverse surrogate, capric acid, is present at <1%.						

GC Petroleum SW-846 8015B modified						
			mg/kg	mg/kg	mg/kg	
12159	Motor Oil C16-C36 w/Si Gel	n.a.	N.D.	10	30	1
12159	Total TPH w/Si Gel	n.a.	N.D.	10	30	1
TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.						
The reverse surrogate, capric acid, is present at <1%.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/5 Oxys/Naph 8260	SW-846 8260B	1	B133272AA	11/23/2013 17:33	Andrea E Lando	1.05
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 12:04	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201332533202	11/21/2013 12:05	Larry E Bevins	n.a.

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

Sample Description: B-4-S-25-131113 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-4

LL Sample # SW 7285614
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/13/2013 16:00 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK20

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	3	201332533202	11/21/2013 12:03	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	4	201332533202	11/21/2013 12:03	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	5	201332533202	11/21/2013 12:03	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	6	201332533202	11/21/2013 12:03	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 11:44	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	2	201332533202	11/21/2013 11:45	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	3	201332533202	11/21/2013 11:45	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	13326A16A	11/23/2013 17:52	Laura M Krieger	26.26
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 11:47	Larry E Bevins	n.a.
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	2	201332533202	11/21/2013 11:49	Larry E Bevins	n.a.
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	3	201332533202	11/21/2013 11:49	Larry E Bevins	n.a.
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	4	201332533202	11/21/2013 11:48	Larry E Bevins	n.a.
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	5	201332533202	11/21/2013 11:48	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	133270030A	12/02/2013 17:07	Glorines Suarez-Rivera	1
12159	TPH Fuels soils w/Si Gel	SW-846 8015B modified	1	133270031A	12/02/2013 21:38	Heather E Williams	1
11210	DRO by 8015 Microwave w/SG	SW-846 3546	1	133270030A	11/25/2013 09:30	David S Schrum	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	133270031A	11/25/2013 09:30	David S Schrum	1

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

Sample Description: B-4-S-27.5-131113 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-4

LL Sample # SW 7285615
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/13/2013 16:30 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK21

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B						
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	0.005	1.02
10237	Benzene	71-43-2	N.D.	0.0005	0.005	1.02
10237	t-Butyl alcohol	75-65-0	N.D.	0.020	0.10	1.02
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.001	0.005	1.02
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1.02
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	0.005	1.02
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.005	1.02
10237	Naphthalene	91-20-3	N.D.	0.001	0.005	1.02
10237	Toluene	108-88-3	N.D.	0.001	0.005	1.02
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1.02

GC Volatiles	SW-846 8015B modified	mg/kg	mg/kg	mg/kg		
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1	1	24.78

GC Petroleum Hydrocarbons w/Si	SW-846 8015B	mg/kg	mg/kg	mg/kg		
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.0	12	1
The reverse surrogate, capric acid, is present at <1%.						

GC Petroleum Hydrocarbons w/Si	SW-846 8015B modified	mg/kg	mg/kg	mg/kg		
12159	Motor Oil C16-C36 w/Si Gel	n.a.	N.D.	10	30	1
12159	Total TPH w/Si Gel	n.a.	N.D.	10	30	1
TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.						
The reverse surrogate, capric acid, is present at <1%.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/5 Oxys/Naph	8260	1	B133272AA	11/23/2013 18:42	Andrea E Lando	1.02
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 12:04	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201332533202	11/21/2013 12:05	Larry E Bevins	n.a.

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

Sample Description: B-4-S-27.5-131113 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-4

LL Sample # SW 7285615
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/13/2013 16:30 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK21

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 11:54	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	13326A16A	11/23/2013 17:14	Laura M Krieger	24.78
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 11:54	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	133270030A	12/02/2013 17:59	Glorines Suarez-Rivera	1
12159	TPH Fuels soils w/Si Gel	SW-846 8015B modified	1	133270031A	12/02/2013 22:00	Heather E Williams	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	133270030A	11/25/2013 09:30	David S Schrum	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	133270031A	11/25/2013 09:30	David S Schrum	1

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

Sample Description: B-5-S-3.0-131112 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-5

LL Sample # SW 7285616
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/12/2013 12:10 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK22

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B			mg/kg	mg/kg	mg/kg	
10237	t-Amyl methyl ether	994-05-8	N.D.	0.0009	0.005	0.94
10237	Benzene	71-43-2	N.D.	0.0005	0.005	0.94
10237	t-Butyl alcohol	75-65-0	N.D.	0.019	0.094	0.94
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.0009	0.005	0.94
10237	Ethylbenzene	100-41-4	N.D.	0.0009	0.005	0.94
10237	di-Isopropyl ether	108-20-3	N.D.	0.0009	0.005	0.94
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.005	0.94
10237	Naphthalene	91-20-3	N.D.	0.0009	0.005	0.94
10237	Toluene	108-88-3	N.D.	0.0009	0.005	0.94
10237	Xylene (Total)	1330-20-7	N.D.	0.0009	0.005	0.94

GC Volatiles SW-846 8015B modified			mg/kg	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1	1	24.53

GC Petroleum SW-846 8015B			mg/kg	mg/kg	mg/kg	
Hydrocarbons w/Si						
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	5.2	4.0	12	1
The reverse surrogate, capric acid, is present at <1%.						

GC Petroleum SW-846 8015B modified			mg/kg	mg/kg	mg/kg	
Hydrocarbons w/Si						
12159	Motor Oil C16-C36 w/Si Gel	n.a.	27	9.9	30	1
12159	Total TPH w/Si Gel	n.a.	27	9.9	30	1
TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.						
The reverse surrogate, capric acid, is present at <1%.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/5 Oxys/Naph 8260	SW-846 8260B	1	B133271AA	11/23/2013 10:30	Stephanie A Selis	0.94
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 12:04	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201332533202	11/21/2013 12:05	Larry E Bevins	n.a.

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

Sample Description: B-5-S-3.0-131112 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-5

LL Sample # SW 7285616
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/12/2013 12:10 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK22

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 11:59	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	13326A16A	11/23/2013 20:23	Marie D Beamenderfer	24.53
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 12:00	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	133260030A	12/03/2013 00:19	Glorines Suarez-Rivera	1
12159	TPH Fuels soils w/Si Gel	SW-846 8015B modified	1	133260029A	12/04/2013 00:48	Heather E Williams	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	133260030A	11/23/2013 09:00	Katheryne V Sponheimer	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	133260029A	11/23/2013 09:00	Katheryne V Sponheimer	1

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

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

Sample Description: B-5-S-6.0-131112 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-5

LL Sample # SW 7285617
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/12/2013 14:40 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK23

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B			mg/kg	mg/kg	mg/kg	
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	0.005	0.96
10237	Benzene	71-43-2	N.D.	0.0005	0.005	0.96
10237	t-Butyl alcohol	75-65-0	N.D.	0.019	0.096	0.96
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.001	0.005	0.96
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	0.96
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	0.005	0.96
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.005	0.96
10237	Naphthalene	91-20-3	N.D.	0.001	0.005	0.96
10237	Toluene	108-88-3	N.D.	0.001	0.005	0.96
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	0.96

The recovery for the sample internal standard is outside the QC acceptance limits. The following corrective action was taken: The sample was re-analyzed and the QC is again outside of the acceptance limits, indicating a matrix effect. The data is reported from the initial trial.

GC Volatiles	SW-846 8015B modified	mg/kg	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1	24.25

GC Petroleum Hydrocarbons w/Si	SW-846 8015B	mg/kg	mg/kg	mg/kg		
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	33	4.0	12	1

The reverse surrogate, capric acid, is present at <1%.

GC Petroleum Hydrocarbons w/Si	SW-846 8015B modified	mg/kg	mg/kg	mg/kg		
12159	Motor Oil C16-C36 w/Si Gel	n.a.	140	10	30	1
12159	Total TPH w/Si Gel	n.a.	140	10	30	1

TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons. The reverse surrogate, capric acid, is present at <1%.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor		
10237	BTEX/5 Oxys/Naph	8260	SW-846	8260B	1	B133271AA	11/23/2013 10:53	Stephanie A Selis	0.96

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

Sample Description: B-5-S-6.0-131112 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-5

LL Sample # SW 7285617
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/12/2013 14:40 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK23

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 15:15	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201332533202	11/21/2013 15:15	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 14:02	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	13329A16A	11/25/2013 19:44	Laura M Krieger	24.25
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 14:03	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	133260030A	12/03/2013 02:33	Glorines Suarez-Rivera	1
12159	TPH Fuels soils w/Si Gel	SW-846 8015B modified	1	133260029A	12/04/2013 01:09	Heather E Williams	1
11210	DRO by 8015 Microwave w/SG	SW-846 3546	1	133260030A	11/23/2013 09:00	Katheryne V Sponheimer	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	133260029A	11/23/2013 09:00	Katheryne V Sponheimer	1

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

Sample Description: B-5-S-9.0-131112 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-5

LL Sample # SW 7285618
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/12/2013 17:05 by OV

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK24

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B						
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	0.005	1.01
10237	Benzene	71-43-2	N.D.	0.0005	0.005	1.01
10237	t-Butyl alcohol	75-65-0	N.D.	0.020	0.10	1.01
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.001	0.005	1.01
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1.01
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	0.005	1.01
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.005	1.01
10237	Naphthalene	91-20-3	N.D.	0.001	0.005	1.01
10237	Toluene	108-88-3	N.D.	0.001	0.005	1.01
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1.01
GC Volatiles SW-846 8015B modified						
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1	1	24.95
GC Petroleum SW-846 8015B						
Hydrocarbons w/Si						
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.0	12	1
The reverse surrogate, capric acid, is present at <1%.						
GC Petroleum SW-846 8015B modified						
Hydrocarbons w/Si						
12159	Motor Oil C16-C36 w/Si Gel	n.a.	17	10	30	1
12159	Total TPH w/Si Gel	n.a.	17	10	30	1
TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.						
The reverse surrogate, capric acid, is present at <1%.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/5 Oxys/Naph 8260	SW-846 8260B	1	B133272AA	11/23/2013 19:28	Andrea E Lando	1.01
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 15:15	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201332533202	11/21/2013 15:15	Larry E Bevins	n.a.

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

Sample Description: B-5-S-9.0-131112 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-5

LL Sample # SW 7285618
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/12/2013 17:05 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK24

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 14:07	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	13329A16A	11/25/2013 20:21	Laura M Krieger	24.95
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 14:07	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	133260030A	12/02/2013 23:34	Glorines Suarez-Rivera	1
12159	TPH Fuels soils w/Si Gel	SW-846 8015B modified	1	133260029A	12/04/2013 01:31	Heather E Williams	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	133260030A	11/23/2013 09:00	Katheryne V Sponheimer	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	133260029A	11/23/2013 09:00	Katheryne V Sponheimer	1

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

Sample Description: B-5-S-24.0-131113 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-5

LL Sample # SW 7285619
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/13/2013 10:30 by OV

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK25

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B						
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	0.005	0.99
10237	Benzene	71-43-2	N.D.	0.0005	0.005	0.99
10237	t-Butyl alcohol	75-65-0	N.D.	0.020	0.099	0.99
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.001	0.005	0.99
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	0.99
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	0.005	0.99
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.005	0.99
10237	Naphthalene	91-20-3	N.D.	0.001	0.005	0.99
10237	Toluene	108-88-3	N.D.	0.001	0.005	0.99
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	0.99
GC Volatiles SW-846 8015B modified						
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1.0	1.0	25.72
GC Petroleum SW-846 8015B						
Hydrocarbons w/Si						
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.0	12	1
The reverse surrogate, capric acid, is present at <1%.						
GC Petroleum SW-846 8015B modified						
Hydrocarbons w/Si						
12159	Motor Oil C16-C36 w/Si Gel	n.a.	N.D.	10	30	1
12159	Total TPH w/Si Gel	n.a.	N.D.	10	30	1
TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.						
The reverse surrogate, capric acid, is present at <1%.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/5 Oxys/Naph	8260	1	B133272AA	11/23/2013 19:50	Andrea E Lando	0.99
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 15:15	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201332533202	11/21/2013 15:15	Larry E Bevins	n.a.

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

Sample Description: B-5-S-24.0-131113 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-5

LL Sample # SW 7285619
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/13/2013 10:30 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK25

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 14:11	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	13326A16A	11/23/2013 21:01	Marie D Beamenderfer	25.72
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 14:11	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	133270030A	12/02/2013 18:22	Glorines Suarez-Rivera	1
12159	TPH Fuels soils w/Si Gel	SW-846 8015B modified	1	133270031A	12/02/2013 22:21	Heather E Williams	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	133270030A	11/25/2013 09:30	David S Schrum	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	133270031A	11/25/2013 09:30	David S Schrum	1

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

Sample Description: B-4-S-20.0-131113 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-4

LL Sample # SW 7285620
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/13/2013 15:15 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK26

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B						
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	0.005	1.02
10237	Benzene	71-43-2	N.D.	0.0005	0.005	1.02
10237	t-Butyl alcohol	75-65-0	N.D.	0.020	0.10	1.02
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.001	0.005	1.02
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1.02
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	0.005	1.02
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.005	1.02
10237	Naphthalene	91-20-3	N.D.	0.001	0.005	1.02
10237	Toluene	108-88-3	N.D.	0.001	0.005	1.02
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1.02

GC Volatiles	SW-846 8015B modified	mg/kg	mg/kg	mg/kg		
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1	1	24.61

GC Petroleum Hydrocarbons w/Si	SW-846 8015B	mg/kg	mg/kg	mg/kg		
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.0	12	1
The reverse surrogate, capric acid, is present at <1%.						

GC Petroleum Hydrocarbons w/Si	SW-846 8015B modified	mg/kg	mg/kg	mg/kg		
12159	Motor Oil C16-C36 w/Si Gel	n.a.	N.D.	10	30	1
12159	Total TPH w/Si Gel	n.a.	N.D.	10	30	1
TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.						
The reverse surrogate, capric acid, is present at <1%.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/5 Oxys/Naph	8260	1	B133272AA	11/23/2013 20:13	Andrea E Lando	1.02
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 15:15	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201332533202	11/21/2013 15:15	Larry E Bevins	n.a.

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

Sample Description: B-4-S-20.0-131113 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-4

LL Sample # SW 7285620
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/13/2013 15:15 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK26

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 14:15	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	13326A16A	11/23/2013 21:39	Marie D Beamenderfer	24.61
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 14:15	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	133270030A	12/02/2013 18:44	Glorines Suarez-Rivera	1
12159	TPH Fuels soils w/Si Gel	SW-846 8015B modified	1	133270031A	12/02/2013 22:43	Heather E Williams	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	133270030A	11/25/2013 09:30	David S Schrum	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	133270031A	11/25/2013 09:30	David S Schrum	1

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

Sample Description: B-6-S-3.0-131112 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-6

LL Sample # SW 7285621
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/12/2013 09:05 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK27

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B mg/kg						
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	0.005	0.99
10237	Benzene	71-43-2	N.D.	0.0005	0.005	0.99
10237	t-Butyl alcohol	75-65-0	N.D.	0.020	0.099	0.99
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.001	0.005	0.99
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	0.99
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	0.005	0.99
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.005	0.99
10237	Naphthalene	91-20-3	N.D.	0.001	0.005	0.99
10237	Toluene	108-88-3	N.D.	0.001	0.005	0.99
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	0.99

GC Volatiles SW-846 8015B modified mg/kg						
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1.0	1.0	25.72

GC Petroleum SW-846 8015B mg/kg						
Hydrocarbons w/Si						
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	11	4.0	12	1
The reverse surrogate, capric acid, is present at <1%.						
The recovery for the sample surrogate(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:						
The sample was re-extracted outside the method required holding time and the QC is compliant. All results are reported from the first trial. Similar results were obtained in both trials.						

GC Petroleum SW-846 8015B modified mg/kg						
Hydrocarbons w/Si						
12159	Motor Oil C16-C36 w/Si Gel	n.a.	46	9.9	30	1
12159	Total TPH w/Si Gel	n.a.	46	9.9	30	1
TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.						
The reverse surrogate, capric acid, is present at <1%.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial# Batch#	Analysis Date and Time	Analyst	Dilution Factor
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*=This limit was used in the evaluation of the final result

Sample Description: B-6-S-3.0-131112 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-6

LL Sample # SW 7285621
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/12/2013 09:05 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK27

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/5 Oxys/Naph 8260	SW-846 8260B	1	B133272AA	11/23/2013 20:35	Andrea E Lando	0.99
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 15:15	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201332533202	11/21/2013 15:15	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 14:19	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	13329A16A	11/25/2013 20:59	Laura M Krieger	25.72
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 14:19	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	2	133260030A	12/02/2013 23:57	Glorines Suarez-Rivera	1
12159	TPH Fuels soils w/Si Gel	SW-846 8015B modified	1	133260029A	12/04/2013 01:52	Heather E Williams	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	133260030A	11/23/2013 09:00	Katheryne V Sponheimer	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	133260029A	11/23/2013 09:00	Katheryne V Sponheimer	1

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

Sample Description: B-6-S-6.0-131112 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-6

LL Sample # SW 7285622
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/12/2013 09:15 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK28

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B						
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	0.005	0.98
10237	Benzene	71-43-2	N.D.	0.0005	0.005	0.98
10237	t-Butyl alcohol	75-65-0	N.D.	0.020	0.098	0.98
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.001	0.005	0.98
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	0.98
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	0.005	0.98
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.005	0.98
10237	Naphthalene	91-20-3	N.D.	0.001	0.005	0.98
10237	Toluene	108-88-3	N.D.	0.001	0.005	0.98
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	0.98

GC Volatiles	SW-846 8015B modified	mg/kg	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1	24.61

GC Petroleum Hydrocarbons w/Si	SW-846 8015B	mg/kg	mg/kg	mg/kg	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.0	12
The reverse surrogate, capric acid, is present at <1%.					

GC Petroleum Hydrocarbons w/Si	SW-846 8015B modified	mg/kg	mg/kg	mg/kg	
12159	Motor Oil C16-C36 w/Si Gel	n.a.	N.D.	10	30
12159	Total TPH w/Si Gel	n.a.	N.D.	10	30
TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.					
The reverse surrogate, capric acid, is present at <1%.					

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/5 Oxys/Naph 8260	SW-846 8260B	1	B133272AA	11/23/2013 20:57	Andrea E Lando	0.98
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 15:15	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201332533202	11/21/2013 15:15	Larry E Bevins	n.a.

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

Sample Description: B-6-S-6.0-131112 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-6

LL Sample # SW 7285622
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/12/2013 09:15 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK28

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 14:23	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	13329A16A	11/25/2013 21:37	Laura M Krieger	24.61
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 14:24	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	133270030A	12/02/2013 19:06	Glorines Suarez-Rivera	1
12159	TPH Fuels soils w/Si Gel	SW-846 8015B modified	1	133270031A	12/02/2013 23:05	Heather E Williams	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	133270030A	11/25/2013 09:30	David S Schrum	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	133270031A	11/25/2013 09:30	David S Schrum	1

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

Sample Description: B-6-S-9.0-131112 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-6

LL Sample # SW 7285623
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/12/2013 09:23 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK29

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B			mg/kg	mg/kg	mg/kg	
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	0.005	1.02
10237	Benzene	71-43-2	N.D.	0.0005	0.005	1.02
10237	t-Butyl alcohol	75-65-0	N.D.	0.020	0.10	1.02
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.001	0.005	1.02
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1.02
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	0.005	1.02
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.005	1.02
10237	Naphthalene	91-20-3	N.D.	0.001	0.005	1.02
10237	Toluene	108-88-3	N.D.	0.001	0.005	1.02
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1.02

GC Volatiles SW-846 8015B modified	mg/kg	mg/kg	mg/kg
01725 TPH-GRO N. CA soil C6-C12 n.a.	N.D.	1	1
			23.95

GC Petroleum Hydrocarbons w/Si SW-846 8015B	mg/kg	mg/kg	mg/kg
02222 TPH-DRO soil C10-C28 w/Si Gel n.a.	N.D.	4.0	12
The reverse surrogate, capric acid, is present at <1%.			

GC Petroleum Hydrocarbons w/Si SW-846 8015B modified	mg/kg	mg/kg	mg/kg
12159 Motor Oil C16-C36 w/Si Gel n.a.	N.D.	10	30
12159 Total TPH w/Si Gel n.a.	N.D.	10	30
TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.			
The reverse surrogate, capric acid, is present at <1%.			

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/5 Oxys/Naph 8260	SW-846 8260B	1	B133272AA	11/23/2013 23:35	Andrea E Lando	1.02
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 15:15	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201332533202	11/21/2013 15:16	Larry E Bevins	n.a.

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

Sample Description: B-6-S-9.0-131112 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-6

LL Sample # SW 7285623
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/12/2013 09:23 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK29

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 14:31	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	13329A16A	11/25/2013 22:15	Laura M Krieger	23.95
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 14:31	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	133270030A	12/02/2013 19:29	Glorines Suarez-Rivera	1
12159	TPH Fuels soils w/Si Gel	SW-846 8015B modified	1	133270031A	12/02/2013 23:26	Heather E Williams	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	133270030A	11/25/2013 09:30	David S Schrum	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	133270031A	11/25/2013 09:30	David S Schrum	1

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

Sample Description: B-6-S-15.0-131112 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-6

LL Sample # SW 7285624
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/12/2013 09:45 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK30

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B						
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	0.005	1.04
10237	Benzene	71-43-2	N.D.	0.0005	0.005	1.04
10237	t-Butyl alcohol	75-65-0	N.D.	0.021	0.10	1.04
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.001	0.005	1.04
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1.04
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	0.005	1.04
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.005	1.04
10237	Naphthalene	91-20-3	N.D.	0.001	0.005	1.04
10237	Toluene	108-88-3	N.D.	0.001	0.005	1.04
10237	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1.04

GC Volatiles SW-846 8015B modified						
			mg/kg	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1.0	1.0	25.35

GC Petroleum SW-846 8015B						
Hydrocarbons w/Si						
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.0	12	1
The reverse surrogate, capric acid, is present at <1%.						

GC Petroleum SW-846 8015B modified						
Hydrocarbons w/Si						
12159	Motor Oil C16-C36 w/Si Gel	n.a.	N.D.	10	30	1
12159	Total TPH w/Si Gel	n.a.	N.D.	10	30	1
TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.						
The reverse surrogate, capric acid, is present at <1%.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/5 Oxys/Naph 8260	SW-846 8260B	1	B133272AA	11/23/2013 21:20	Andrea E Lando	1.04
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 15:15	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201332533202	11/21/2013 15:15	Larry E Bevins	n.a.

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

Sample Description: B-6-S-15.0-131112 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-6

LL Sample # SW 7285624
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/12/2013 09:45 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK30

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 14:35	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	13329A16A	11/26/2013 00:46	Laura M Krieger	25.35
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 14:36	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	133270030A	12/02/2013 19:51	Glorines Suarez-Rivera	1
12159	TPH Fuels soils w/Si Gel	SW-846 8015B modified	1	133270031A	12/02/2013 23:48	Heather E Williams	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	133270030A	11/25/2013 09:30	David S Schrum	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	133270031A	11/25/2013 09:30	David S Schrum	1

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

Sample Description: B-7-S-3-131112 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-7

LL Sample # SW 7285625
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/12/2013 09:20 by OV

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK31

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B			mg/kg	mg/kg	mg/kg	
10237	t-Amyl methyl ether	994-05-8	N.D.	0.049	0.25	49.02
10237	Benzene	71-43-2	N.D.	0.025	0.25	49.02
10237	t-Butyl alcohol	75-65-0	N.D.	0.98	4.9	49.02
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.049	0.25	49.02
10237	Ethylbenzene	100-41-4	N.D.	0.049	0.25	49.02
10237	di-Isopropyl ether	108-20-3	N.D.	0.049	0.25	49.02
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.025	0.25	49.02
10237	Naphthalene	91-20-3	0.14	0.049	0.25	49.02
10237	Toluene	108-88-3	N.D.	0.049	0.25	49.02
10237	Xylene (Total)	1330-20-7	N.D.	0.049	0.25	49.02

Reporting limits were raised due to interference from the sample matrix.

GC Volatiles SW-846 8015B modified	mg/kg	mg/kg	mg/kg	
01725 TPH-GRO N. CA soil C6-C12	n.a.	86	10	254.58

GC Petroleum SW-846 8015B	mg/kg	mg/kg	mg/kg	
02222 TPH-DRO soil C10-C28 w/Si Gel	n.a.	21	4.0	1

The reverse surrogate, capric acid, is present at <1%.

GC Petroleum SW-846 8015B modified	mg/kg	mg/kg	mg/kg	
12159 Motor Oil C16-C36 w/Si Gel	n.a.	19	10	30
12159 Total TPH w/Si Gel	n.a.	19	10	30

TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.
The reverse surrogate, capric acid, is present at <1%.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/5 Oxys/Naph 8260	SW-846 8260B	1	Q133281AA	11/24/2013 17:10	Sarah A Guill	49.02
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 15:15	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201332533202	11/21/2013 15:14	Larry E Bevins	n.a.

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

Sample Description: B-7-S-3-131112 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-7

LL Sample # SW 7285625
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/12/2013 09:20 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK31

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 14:40	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	13329A16A	11/26/2013 05:10	Laura M Krieger	254.58
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 14:41	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	133270030A	12/02/2013 21:20	Glorines Suarez-Rivera	1
12159	TPH Fuels soils w/Si Gel	SW-846 8015B modified	1	133270031A	12/03/2013 00:10	Heather E Williams	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	133270030A	11/25/2013 09:30	David S Schrum	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	133270031A	11/25/2013 09:30	David S Schrum	1

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

Sample Description: B-7-S-6-131112 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-7

LL Sample # SW 7285626
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/12/2013 09:35 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK32

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B			mg/kg	mg/kg	mg/kg	
10237	t-Amyl methyl ether	994-05-8	N.D.	0.10	0.50	99.6
10237	Benzene	71-43-2	0.058	0.050	0.50	99.6
10237	t-Butyl alcohol	75-65-0	N.D.	2.0	10	99.6
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.10	0.50	99.6
10237	Ethylbenzene	100-41-4	N.D.	0.10	0.50	99.6
10237	di-Isopropyl ether	108-20-3	N.D.	0.10	0.50	99.6
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.050	0.50	99.6
10237	Naphthalene	91-20-3	0.24	0.10	0.50	99.6
10237	Toluene	108-88-3	N.D.	0.10	0.50	99.6
10237	Xylene (Total)	1330-20-7	0.13	0.10	0.50	99.6

Reporting limits were raised due to interference from the sample matrix.

GC Volatiles SW-846 8015B modified	mg/kg	mg/kg	mg/kg	
01725 TPH-GRO N. CA soil C6-C12	n.a.	2,600	100	2566.74

GC Petroleum SW-846 8015B modified	mg/kg	mg/kg	mg/kg	
02222 TPH-DRO soil C10-C28 w/Si Gel	n.a.	79	4.0	1

Due to the presence of fuel in the sample extract, capric acid recovery can not be determined.

GC Petroleum SW-846 8015B modified	mg/kg	mg/kg	mg/kg	
12159 Motor Oil C16-C36 w/Si Gel	n.a.	N.D.	10	1
12159 Total TPH w/Si Gel	n.a.	N.D.	10	1

TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons. The reverse surrogate, capric acid, is present at <1%.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/5 Oxys/Naph 8260	SW-846 8260B	1	Q133281AA	11/24/2013 18:43	Sarah A Guill	99.6
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 15:15	Larry E Bevins	n.a.

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

Sample Description: B-7-S-6-131112 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-7

LL Sample # SW 7285626
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/12/2013 09:35 by OV

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK32

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201332533202	11/21/2013 15:14	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 14:45	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	13329A16A	11/26/2013 05:48	Laura M Krieger	2566.74
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 14:45	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	133270030A	12/02/2013 20:13	Glorines Suarez-Rivera	1
12159	TPH Fuels soils w/Si Gel	SW-846 8015B modified	1	133270031A	12/03/2013 00:31	Heather E Williams	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	133270030A	11/25/2013 09:30	David S Schrum	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	133270031A	11/25/2013 09:30	David S Schrum	1

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

Sample Description: B-7-S-6.75-131112 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-7

LL Sample # SW 7285627
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/12/2013 09:45 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK33

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B			mg/kg	mg/kg	mg/kg	
10237	t-Amyl methyl ether	994-05-8	N.D.	0.048	0.24	47.89
10237	Benzene	71-43-2	N.D.	0.024	0.24	47.89
10237	t-Butyl alcohol	75-65-0	N.D.	0.96	4.8	47.89
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.048	0.24	47.89
10237	Ethylbenzene	100-41-4	N.D.	0.048	0.24	47.89
10237	di-Isopropyl ether	108-20-3	N.D.	0.048	0.24	47.89
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.024	0.24	47.89
10237	Naphthalene	91-20-3	0.053	0.048	0.24	47.89
10237	Toluene	108-88-3	N.D.	0.048	0.24	47.89
10237	Xylene (Total)	1330-20-7	N.D.	0.048	0.24	47.89

Reporting limits were raised due to interference from the sample matrix.

GC Volatiles	SW-846 8015B modified	mg/kg	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C6-C12	n.a.	130	20	504.54

GC Petroleum	SW-846 8015B	mg/kg	mg/kg	mg/kg	
Hydrocarbons w/Si					
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	130	4.0	12
Due to the presence of fuel in the sample extract, capric acid recovery can not be determined.					

GC Petroleum	SW-846 8015B modified	mg/kg	mg/kg	mg/kg	
Hydrocarbons w/Si					
12159	Motor Oil C16-C36 w/Si Gel	n.a.	16	10	30
12159	Total TPH w/Si Gel	n.a.	16	10	30
TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.					
Due to the presence of fuel in the sample extract, capric acid recovery can not be determined.					

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/5 Oxys/Naph 8260	SW-846 8260B	1	Q133281AA	11/24/2013 18:20	Sarah A Guill	47.89
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 15:16	Larry E Bevins	n.a.

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

Sample Description: B-7-S-6.75-131112 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-7

LL Sample # SW 7285627
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/12/2013 09:45 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK33

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201332533202	11/21/2013 15:14	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 14:50	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	13329A16A	11/26/2013 06:26	Laura M Krieger	504.54
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 14:50	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	133270030A	12/02/2013 21:42	Glorines Suarez-Rivera	1
12159	TPH Fuels soils w/Si Gel	SW-846 8015B modified	1	133270031A	12/03/2013 00:53	Heather E Williams	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	133270030A	11/25/2013 09:30	David S Schrum	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	133270031A	11/25/2013 09:30	David S Schrum	1

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

Sample Description: B-7-S-7.5-131112 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-7

LL Sample # SW 7285628
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/12/2013 10:00 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK34

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B						
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	0.005	1
10237	Benzene	71-43-2	0.0009	0.0005	0.005	1
10237	t-Butyl alcohol	75-65-0	N.D.	0.020	0.10	1
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.001	0.005	1
10237	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	0.005	1
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.005	1
10237	Naphthalene	91-20-3	0.008	0.001	0.005	1
10237	Toluene	108-88-3	N.D.	0.001	0.005	1
10237	Xylene (Total)	1330-20-7	0.002	0.001	0.005	1
GC Volatiles SW-846 8015B modified						
01725	TPH-GRO N. CA soil C6-C12	n.a.	22	4.1	4.1	102.88
GC Petroleum SW-846 8015B						
Hydrocarbons w/Si						
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	5.9	4.0	12	1
Due to the presence of fuel in the sample extract, capric acid recovery can not be determined.						
GC Petroleum SW-846 8015B modified						
Hydrocarbons w/Si						
12159	Motor Oil C16-C36 w/Si Gel	n.a.	N.D.	10	30	1
12159	Total TPH w/Si Gel	n.a.	N.D.	10	30	1
TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons. The reverse surrogate, capric acid, is present at <1%.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/5 Oxys/Naph	8260	1	B133272AA	11/24/2013 00:43	Andrea E Lando	1
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 15:14	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201332533202	11/21/2013 15:14	Larry E Bevins	n.a.

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

Sample Description: B-7-S-7.5-131112 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-7

LL Sample # SW 7285628
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/12/2013 10:00 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK34

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 14:54	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	13329A16A	11/26/2013 07:04	Laura M Krieger	102.88
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 14:55	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	133270030A	12/02/2013 20:35	Glorines Suarez-Rivera	1
12159	TPH Fuels soils w/Si Gel	SW-846 8015B modified	1	133270031A	12/03/2013 01:15	Heather E Williams	1
11210	DRO by 8015 Microwave w/ SG	SW-846 3546	1	133270030A	11/25/2013 09:30	David S Schrum	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	133270031A	11/25/2013 09:30	David S Schrum	1

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

Sample Description: B-7-S-10-131112 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-7

LL Sample # SW 7285629
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/12/2013 10:15 by OV

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK35

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B						
10237	t-Amyl methyl ether	994-05-8	N.D.	0.001	0.005	1
10237	Benzene	71-43-2	0.004	0.0005	0.005	1
10237	t-Butyl alcohol	75-65-0	N.D.	0.020	0.10	1
10237	Ethyl t-butyl ether	637-92-3	N.D.	0.001	0.005	1
10237	Ethylbenzene	100-41-4	0.004	0.001	0.005	1
10237	di-Isopropyl ether	108-20-3	N.D.	0.001	0.005	1
10237	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.005	1
10237	Naphthalene	91-20-3	0.002	0.001	0.005	1
10237	Toluene	108-88-3	N.D.	0.001	0.005	1
10237	Xylene (Total)	1330-20-7	0.022	0.001	0.005	1
GC Volatiles SW-846 8015B modified						
01725	TPH-GRO N. CA soil C6-C12	n.a.	8.0	1.9	1.9	48.26
GC Petroleum SW-846 8015B						
Hydrocarbons w/Si						
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	20	4.0	12	1
The reverse surrogate, capric acid, is present at <1%.						
GC Petroleum SW-846 8015B modified						
Hydrocarbons w/Si						
12159	Motor Oil C16-C36 w/Si Gel	n.a.	N.D.	10	30	1
12159	Total TPH w/Si Gel	n.a.	N.D.	10	30	1
TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.						
The reverse surrogate, capric acid, is present at <1%.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	BTEX/5 Oxys/Naph 8260	SW-846 8260B	1	B133272AA	11/23/2013 23:58	Andrea E Lando	1
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 15:14	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	2	201332533202	11/21/2013 15:14	Larry E Bevins	n.a.

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

Sample Description: B-7-S-10-131112 Grab Soil
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-7

LL Sample # SW 7285629
LL Group # 1435443
Account # 10880

Project Name: 90121

Collected: 11/12/2013 10:15 by OV

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/13/2013 15:13

LOK35

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	3	201332533202	11/21/2013 15:14	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	4	201332533202	11/21/2013 15:14	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	5	201332533202	11/21/2013 15:14	Larry E Bevins	n.a.
00374	GC/MS - Bulk Soil Prep	SW-846 5035A Modified	6	201332533202	11/21/2013 15:14	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 15:05	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	2	201332533202	11/21/2013 15:06	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5035A Modified	3	201332533202	11/21/2013 15:06	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	13329A16A	11/25/2013 17:12	Laura M Krieger	48.26
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201332533202	11/21/2013 15:08	Larry E Bevins	n.a.
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	2	201332533202	11/21/2013 15:09	Larry E Bevins	n.a.
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	3	201332533202	11/21/2013 15:11	Larry E Bevins	n.a.
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	4	201332533202	11/21/2013 15:13	Larry E Bevins	n.a.
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	5	201332533202	11/21/2013 15:12	Larry E Bevins	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	133270030A	12/02/2013 20:58	Glorines Suarez-Rivera	1
12159	TPH Fuels soils w/Si Gel	SW-846 8015B modified	1	133270031A	12/03/2013 01:36	Heather E Williams	1
11210	DRO by 8015 Microwave w/SG	SW-846 3546	1	133270030A	11/25/2013 09:30	David S Schrum	1
11218	TPH Fuels Soils Extraction	SW-846 3550B	1	133270031A	11/25/2013 09:30	David S Schrum	1

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

Quality Control Summary

Client Name: ChevronTexaco
Reported: 12/13/13 at 03:13 PM

Group Number: 1435443

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

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

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: B133271AA	Sample number(s): 7285595-7285597, 7285599-7285605, 7285607-7285609, 7285616-7285617								
t-Amyl methyl ether	N.D.	0.001	0.005	mg/kg	92	91	63-130	0	30
Benzene	N.D.	0.0005	0.005	mg/kg	99	97	80-120	2	30
t-Butyl alcohol	N.D.	0.020	0.10	mg/kg	103	99	60-149	5	30
Ethyl t-butyl ether	N.D.	0.001	0.005	mg/kg	92	91	64-124	0	30
Ethylbenzene	N.D.	0.001	0.005	mg/kg	100	97	80-120	3	30
di-Isopropyl ether	N.D.	0.001	0.005	mg/kg	99	96	68-128	3	30
Methyl Tertiary Butyl Ether	N.D.	0.0005	0.005	mg/kg	106	104	69-126	2	30
Naphthalene	N.D.	0.001	0.005	mg/kg	95	95	59-123	0	30
Toluene	N.D.	0.001	0.005	mg/kg	100	97	80-120	3	30
Xylene (Total)	N.D.	0.001	0.005	mg/kg	102	97	80-120	4	30
Batch number: B133272AA	Sample number(s): 7285610-7285615, 7285618-7285624, 7285628-7285629								
t-Amyl methyl ether	N.D.	0.001	0.005	mg/kg	97		63-130		
Benzene	N.D.	0.0005	0.005	mg/kg	98		80-120		
t-Butyl alcohol	N.D.	0.020	0.10	mg/kg	97		60-149		
Ethyl t-butyl ether	N.D.	0.001	0.005	mg/kg	97		64-124		
Ethylbenzene	N.D.	0.001	0.005	mg/kg	100		80-120		
di-Isopropyl ether	N.D.	0.001	0.005	mg/kg	103		68-128		
Methyl Tertiary Butyl Ether	N.D.	0.0005	0.005	mg/kg	115		69-126		
Naphthalene	N.D.	0.001	0.005	mg/kg	102		59-123		
Toluene	N.D.	0.001	0.005	mg/kg	101		80-120		
Xylene (Total)	N.D.	0.001	0.005	mg/kg	100		80-120		
Batch number: Q133281AA	Sample number(s): 7285598, 7285606, 7285625-7285627								
t-Amyl methyl ether	N.D.	0.050	0.25	mg/kg	103	100	63-130	3	30
Benzene	N.D.	0.025	0.25	mg/kg	108	104	80-120	3	30
t-Butyl alcohol	N.D.	1.0	5.0	mg/kg	97	92	60-149	5	30
Ethyl t-butyl ether	N.D.	0.050	0.25	mg/kg	100	98	64-124	3	30
Ethylbenzene	N.D.	0.050	0.25	mg/kg	92	89	80-120	3	30
di-Isopropyl ether	N.D.	0.050	0.25	mg/kg	99	95	68-128	4	30
Methyl Tertiary Butyl Ether	N.D.	0.025	0.25	mg/kg	107	105	69-126	2	30
Naphthalene	N.D.	0.050	0.25	mg/kg	85	86	59-123	1	30
Toluene	N.D.	0.050	0.25	mg/kg	95	93	80-120	3	30
Xylene (Total)	N.D.	0.050	0.25	mg/kg	94	91	80-120	3	30
Batch number: 13326A16A	Sample number(s): 7285605-7285609, 7285612-7285616, 7285619-7285620								
TPH-GRO N. CA soil C6-C12	N.D.	1.0	1.0	mg/kg	107		67-119		
Batch number: 13326A31A	Sample number(s): 7285595-7285604								
TPH-GRO N. CA soil C6-C12	N.D.	1.0	1.0	mg/kg	100		67-119		
Batch number: 13329A16A	Sample number(s): 7285610-7285611, 7285617-7285618, 7285621-7285629								

*- Outside of specification

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

Quality Control Summary

Client Name: ChevronTexaco

Group Number: 1435443

Reported: 12/13/13 at 03:13 PM

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
TPH-GRO N. CA soil C6-C12	N.D.	1.0	1.0	mg/kg	114		67-119		
Batch number: 133260029A	Sample number(s): 7285595-7285610,7285616-7285618,7285621								
Motor Oil C16-C36 w/Si Gel	N.D.	10.	30	mg/kg					
Total TPH w/Si Gel	N.D.	10.	30	mg/kg	84		53-123		
Batch number: 133260030A	Sample number(s): 7285595-7285610,7285616-7285618,7285621								
TPH-DRO soil C10-C28 w/Si Gel	N.D.	4.0	12	mg/kg	85		59-120		
Batch number: 133270030A	Sample number(s): 7285611-7285615,7285619-7285620,7285622-7285629								
TPH-DRO soil C10-C28 w/Si Gel	N.D.	4.0	12	mg/kg	74		59-120		
Batch number: 133270031A	Sample number(s): 7285611-7285615,7285619-7285620,7285622-7285629								
Motor Oil C16-C36 w/Si Gel	N.D.	10.	30	mg/kg					
Total TPH w/Si Gel	N.D.	10.	30	mg/kg	82		53-123		

Sample Matrix Quality Control

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

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: B133271AA	Sample number(s): 7285595-7285597,7285599-7285605,7285607-7285609,7285616-7285617 BKG: P286348								
t-Amyl methyl ether						N.D.	N.D.	0 (1)	30
Benzene						N.D.	N.D.	0 (1)	30
t-Butyl alcohol						N.D.	N.D.	0 (1)	30
Ethyl t-butyl ether						N.D.	N.D.	0 (1)	30
Ethylbenzene						N.D.	N.D.	0 (1)	30
Methyl Tertiary Butyl Ether						N.D.	N.D.	0 (1)	30
Naphthalene						N.D.	N.D.	0 (1)	30
Toluene						N.D.	N.D.	0 (1)	30
Batch number: B133272AA	Sample number(s): 7285610-7285615,7285618-7285624,7285628-7285629 UNSPK: 7285614								
t-Amyl methyl ether	84	75	50-132	11	30				
Benzene	102	94	55-143	8	30				
t-Butyl alcohol	293*	114	47-153	88*	30				
Ethyl t-butyl ether	87	79	58-124	10	30				
Ethylbenzene	105	85	44-141	20	30				
di-Isopropyl ether	97	89	59-133	8	30				
Methyl Tertiary Butyl Ether	88	84	55-129	3	30				
Naphthalene	68	57	10-138	18	30				
Toluene	105	93	50-146	12	30				
Xylene (Total)	104	85	44-136	20	30				
Batch number: 13326A16A	Sample number(s): 7285605-7285609,7285612-7285616,7285619-7285620 UNSPK: 7285614								
TPH-GRO N. CA soil C6-C12	106	128*	39-118	18	30				
Batch number: 13326A31A	Sample number(s): 7285595-7285604 UNSPK: P280480								
TPH-GRO N. CA soil C6-C12	105	113	39-118	12	30				
Batch number: 13329A16A	Sample number(s): 7285610-7285611,7285617-7285618,7285621-7285629 UNSPK: 7285629								

*- Outside of specification

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Quality Control Summary

Client Name: ChevronTexaco
Reported: 12/13/13 at 03:13 PM

Group Number: 1435443

Sample Matrix Quality Control

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

<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup</u> <u>RPD</u> <u>Max</u>
TPH-GRO N. CA soil C6-C12	117	461*	39-118	96*	30				
Batch number: 133260029A	Sample number(s): 7285595-7285610,7285616-7285618,7285621 UNSPK: 7285595 BKG: 7285595								
Motor Oil C16-C36 w/Si Gel						38	18	70* (1)	20
Total TPH w/Si Gel	75		10-168			38	18	70* (1)	20
Batch number: 133260030A	Sample number(s): 7285595-7285610,7285616-7285618,7285621 UNSPK: 7285595 BKG: 7285595								
TPH-DRO soil C10-C28 w/Si Gel	92		30-159			14	35	87* (1)	20
Batch number: 133270030A	Sample number(s): 7285611-7285615,7285619-7285620,7285622-7285629 UNSPK: 7285611 BKG: 7285611								
TPH-DRO soil C10-C28 w/Si Gel	73		30-159			190	180	8	20
Batch number: 133270031A	Sample number(s): 7285611-7285615,7285619-7285620,7285622-7285629 UNSPK: 7285611 BKG: 7285611								
Motor Oil C16-C36 w/Si Gel						700	680	3	20
Total TPH w/Si Gel	-310 (2)		10-168			700	680	3	20

Surrogate Quality Control

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

Analysis Name: 8260 Ext. Soil Master w/GRO
Batch number: B133271AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7285595	106	106	99	94
7285596	106	104	105	86
7285597	105	101	101	94
7285599	105	100	97	97
7285600	106	102	101	93
7285601	108	105	101	91
7285602	107	104	101	91
7285603	107	102	100	90
7285604	107	101	100	97
7285605	108	100	102	88
7285607	102	107	105	99
7285608	102	95	102	96
7285609	101	96	99	98
7285616	110	105	101	85
7285617	110	107	105	80
Blank	106	108	95	93
DUP	106	100	98	93
LCS	102	102	100	104
LCSD	100	100	100	104

*- Outside of specification

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Quality Control Summary

Client Name: ChevronTexaco
Reported: 12/13/13 at 03:13 PM

Group Number: 1435443

Surrogate Quality Control

Limits:	50-141	54-135	52-141	50-131
Analysis Name: 8260 Ext. Soil Master w/GRO				
Batch number: B133272AA				
	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7285610	105	107	111	72
7285611	103	102	113	73
7285612	104	102	99	90
7285613	108	119	98	94
7285614	102	108	96	94
7285615	101	99	100	92
7285618	103	103	100	92
7285619	102	100	100	91
7285620	109	120	97	96
7285621	106	107	97	92
7285622	106	103	101	91
7285623	105	102	98	92
7285624	105	101	99	92
7285628	99	98	138	97
7285629	103	105	109	115
Blank	102	101	98	93
LCS	99	104	100	102
MS	100	107	105	104
MSD	102	109	102	103

Limits:	50-141	54-135	52-141	50-131
Analysis Name: 8260 Ext. Soil Master w/GRO				
Batch number: Q133281AA				
	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7285598	91	92	82	94
7285606	99	101	98	218*
7285625	91	93	81	76
7285626	77	84	132	134*
7285627	83	84	75	70
Blank	88	92	76	70
LCS	101	101	86	84
LCSD	85	86	73	68

Limits:	50-141	54-135	52-141	50-131
Analysis Name: TPH-GRO N. CA soil C6-C12				
Batch number: 13326A16A				
	Trifluorotoluene-F			
7285605	92			
7285606	185*			
7285607	105			
7285608	77			
7285609	92			
7285612	91			
7285613	90			
7285614	93			

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Quality Control Summary

Client Name: ChevronTexaco
Reported: 12/13/13 at 03:13 PM

Group Number: 1435443

Surrogate Quality Control

7285615	90
7285616	99
7285619	91
7285620	93
Blank	104
LCS	105
MS	94
MSD	96

Limits: 50-142

Analysis Name: TPH-GRO N. CA soil C6-C12
Batch number: 13326A31A
Trifluorotoluene-F

7285595	81
7285596	79
7285597	79
7285598	93
7285599	78
7285600	73
7285601	82
7285602	77
7285603	79
7285604	73
Blank	95
LCS	93
MS	82
MSD	86

Limits: 50-142

Analysis Name: TPH-GRO N. CA soil C6-C12
Batch number: 13329A16A
Trifluorotoluene-F

7285610	123
7285611	109
7285617	101
7285618	89
7285621	93
7285622	90
7285623	92
7285624	97
7285625	100
7285626	144*
7285627	94
7285628	83
7285629	74
Blank	101
LCS	109
MS	81
MSD	76

Limits: 50-142

*- Outside of specification

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Quality Control Summary

Client Name: ChevronTexaco
Reported: 12/13/13 at 03:13 PM

Group Number: 1435443

Surrogate Quality Control

Analysis Name: TPH Fuels soils w/Si Gel
Batch number: 133260029A

	Chlorobenzene	Orthoterphenyl
7285595	78	72
7285596	79	56
7285597	83	60
7285598	97	61
7285599	69	46*
7285600	77	39*
7285601	86	82
7285602	86	57
7285603	82	54
7285604	84	63
7285605	82	53
7285606	136*	113
7285607	81	44*
7285608	85	57
7285609	70	59
7285610	91	135*
7285616	86	95
7285617	97	115
7285618	85	68
7285621	86	85
Blank	83	96
DUP	85	66
LCS	85	96
MS	85	78

Limits: 46-131 51-127

Analysis Name: TPH-DRO soil C10-C28 w/Si Gel
Batch number: 133260030A

	Orthoterphenyl
7285595	83
7285596	61
7285597	60
7285598	60
7285599	52
7285600	41*
7285601	80
7285602	55
7285603	53
7285604	59
7285605	57
7285606	115
7285607	44*
7285608	60
7285609	56
7285610	137*
7285616	92
7285617	98
7285618	66
7285621	0*
Blank	105

*- Outside of specification

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Quality Control Summary

Client Name: ChevronTexaco
Reported: 12/13/13 at 03:13 PM

Group Number: 1435443

Surrogate Quality Control

DUP 68
LCS 98
MS 87

Limits: 52-136

Analysis Name: TPH-DRO soil C10-C28 w/Si Gel
Batch number: 133270030A
Orthoterphenyl

7285611	88
7285612	82
7285613	86
7285614	84
7285615	86
7285619	85
7285620	78
7285622	73
7285623	83
7285624	81
7285625	83
7285626	83
7285627	80
7285628	82
7285629	76
Blank	111
DUP	92
LCS	82
MS	90

Limits: 52-136

Analysis Name: TPH Fuels soils w/Si Gel
Batch number: 133270031A
Chlorobenzene Orthoterphenyl

	Chlorobenzene	Orthoterphenyl
7285611	78	90
7285612	72	64
7285613	75	66
7285614	84	76
7285615	84	76
7285619	72	67
7285620	75	68
7285622	82	72
7285623	89	78
7285624	73	65
7285625	94	78
7285626	64	79
7285627	82	71
7285628	80	70
7285629	102	66
Blank	74	73
DUP	73	93
LCS	114	91
MS	76	80

*- Outside of specification

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Quality Control Summary

Client Name: ChevronTexaco
Reported: 12/13/13 at 03:13 PM

Group Number: 1435443

Surrogate Quality Control

Limits: 46-131 51-127

*- Outside of specification

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Chevron California Region Analysis Request/Chain of Custody



Lancaster Laboratories

11913-03 Acct. # 10880
 GLOBAL ID: T0600100328

For Lancaster Laboratories use only
 Group # 1435443 Sample # 7285595-629
 Instructions on reverse side correspond with circled numbers.

1 Client Information				4 Matrix				5 Analyses Requested										6 Remarks	
Facility # <u>Chevron 9021</u>		WBS <u>07.11</u>		<input type="checkbox"/> Sediment <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Air		Total Number of Containers BTEX + MTBE 8021 <input type="checkbox"/> 8260 TPH GRO 8015 <input checked="" type="checkbox"/> 8260 TPH 8015 MOD DRO AND W/ SILICA GEL Silica Gel Cleanup 8260 Full Scan 4 Oxygenates TAHE, TBA Total Lead Dissolved Lead												SCR #: _____ <input type="checkbox"/> Results in Dry Weight <input type="checkbox"/> J value reporting needed <input type="checkbox"/> Must meet lowest detection limits possible for 8260 compounds <input type="checkbox"/> 8021 MTBE Confirmation <input type="checkbox"/> Confirm highest hit by 8260 <input type="checkbox"/> Confirm all hits by 8260 <input type="checkbox"/> Run _____ oxy's on highest hit <input type="checkbox"/> Run _____ oxy's on all hits	
Site Address <u>3026 Lakeshore Ave, Oakland, CA</u>																			
Chevron PM <u>Catalina Espino Devine</u>		Lead Consultant <u>CRA</u>																	
Consultant/Office <u>Emeryville, CA</u>																			
Consultant Project Mgr. <u>Nathan Lee</u>																			
Consultant Phone # <u>(425) 849-1003</u>																			
Sampler <u>O.VAN / G.WOLF / E.AUSTIN</u>				3 Composite															
2 Sample Identification		Collected		Grab	Soil	Water	Oil	Total	BTEX + MTBE	TPH GRO	TPH 8015 MOD DRO AND W/ SILICA GEL	8260 Full Scan	Total Lead	Dissolved Lead					
Date	Time																		
B-1 @ 3.0'	11/11/13	1105	X	X				1	X	X	X		X						email results to: <u>NLEE@Craworld.com</u>
B-1 @ 6.0'	11/11/13	1115	X	X			07	1	X	X	X		X						
B-1 @ 9.0'	11/11/13	1150	X	X				1	X	X	X		X						
B-1 @ 9.5'	11/11/13	1200	X	X				1	X	X	X		X						
B-1 @ 12.5'	11/11/13	1220	X	X				1	X	X	X		X						
B-1 @ 14.5'	11/11/13	1227	X	X				1	X	X	X		X						
B-2 @ 3.0'	11/11/13	0815	X	X				1	X	X	X		X						
B-2 @ 6.0'	11/11/13	0825	X	X				1	X	X	X		X						
B-2 @ 9.0'	11/11/13	0850	X	X				1	X	X	X		X						
B-2 @ 13.0'	11/11/13	1015	X	X				1	X	X	X		X						
B-3 @ 3.0'	11/11/13	0920	X	X				1	X	X	X		X						
B-3 @ 5.0'	11/11/13	0925	X	X				1	X	X	X		X						
B-3 @ 7.5'	11/11/13	0935	X	X				1	X	X	X		X						
7 Turnaround Time Requested (TAT) (please circle) Standard 5 day 4 day 72 hour 48 hour 24 hour				Relinquished by <u>[Signature]</u>		Date <u>11/15/13</u> Time <u>1500</u>		Received by <u>CRA SECURE LOGSTION</u>		Date <u>11/15/13</u> Time <u>1500</u>		9 Temperature Upon Receipt <u>0.2-17 °C</u>		Custody Seals Intact? <u>Yes</u> No					
				Relinquished by <u>[Signature]</u>		Date <u>11/19/13</u> Time <u>12pm</u>		Received by <u>[Signature]</u>		Date <u>11/19/13</u> Time <u>1200</u>									
8 Data Package Options (please circle if required) Type I - Full Type VI (Raw Data)				Relinquished by Commercial Carrier: <u>UPS</u> <u>[Signature]</u> FedEx _____ Other _____				Date <u>11/19/13</u> Time <u>1630</u>		Received by <u>SWA</u> <u>[Signature]</u>		Date <u>11/20/13</u> Time <u>1605</u>		Temperature Upon Receipt <u>0.2-17 °C</u>		Custody Seals Intact? <u>Yes</u> No			

Chevron California Region Analysis Request/Chain of Custody



Lancaster Laboratories

11/19/13-03 ⁵⁰⁰ Acct. # 10880
 GLOBAL ID: TC600100328

For Lancaster Laboratories use only
 Group # 1433443 Sample # 7285595-629
 Instructions on reverse side correspond with circled numbers.

1 Client Information			4 Matrix		5 Analyses Requested										SCR #: _____								
Facility # <u>Chevron 90121</u> WBS <u>07-11</u>			<input type="checkbox"/> Sediment <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Air <input type="checkbox"/> Oil <input checked="" type="checkbox"/> Composite		Total Number of Containers BTEX + MTBE 8021 <input type="checkbox"/> 8260 <input checked="" type="checkbox"/> NAPHTHALENE TPH GRO 8015 <input checked="" type="checkbox"/> 8260 <input type="checkbox"/> TPH 8015 MOD DRO AND TPA MOD OIL W/ SILICA GEL CLEANUP W/ SILICA GEL Silica Gel Cleanup 8260 Full Scan 4 Oxygenates DIPE, ETBE, TAHE, TBA Total Lead Method Dissolved Lead Method										<input type="checkbox"/> Results in Dry Weight <input type="checkbox"/> J value reporting needed <input type="checkbox"/> Must meet lowest detection limits possible for 8260 compounds <input type="checkbox"/> 8021 MTBE Confirmation <input type="checkbox"/> Confirm highest hit by 8260 <input type="checkbox"/> Confirm all hits by 8260 <input type="checkbox"/> Run _____ oxy's on highest hit <input type="checkbox"/> Run _____ oxy's on all hits								
Site Address <u>3026 Lake shore Ave, Oakland, CA</u>																							
Chevron PM <u>Catalina Espino Devine</u> Lead Consultant <u>CRA</u>																							
Consultant/Office <u>Emeryville, CA</u>																							
Consultant Project Mgr. <u>Nathan Lee</u>																							
Consultant Phone # <u>(925)849-1003</u>																							
Sampler <u>O-YAN/G. WOLF/AUSTIN</u>																							
2 Sample Identification		3 Collected		Grab	Composite	Soil	Water	Oil	Total Number of Containers	BTEX + MTBE 8021	NAPHTHALENE	TPH GRO 8015	TPH 8015 MOD DRO AND TPA MOD OIL W/ SILICA GEL CLEANUP W/ SILICA GEL	Silica Gel Cleanup	8260 Full Scan	4	Oxygenates	DIPE, ETBE, TAHE, TBA	Total Lead Method	Dissolved Lead Method	6 Remarks		
Date	Time	Grab	Composite																		Soil	Water	Oil
<u>B-3 @ 11.0'</u>	<u>11/11/13</u>	<u>0955</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<u>1</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>					email results to: nlee@crawford.com 11/15/13		
<u>B-3 @ 9.0'</u>	<u>11/11/13</u>	<u>0950</u>																					
<u>B-4 @ 3.0'</u>	<u>11/12/13</u>	<u>1355</u>																					
<u>B-4 @ 6.0'</u>	<u>11/13/13</u>	<u>1250</u>																					
<u>B-4 @ 9.0'</u>	<u>11/13/13</u>	<u>1420</u>																					
<u>B-4 @ 15'</u>	<u>11/13/13</u>	<u>1453</u>																					
<u>B-4 @ 25'</u>	<u>11/13/13</u>	<u>1600</u>																					
<u>B-4 @ 27.5'</u>	<u>11/13/13</u>	<u>1630</u>																					
<u>B-5 @ 3.0'</u>	<u>11/12/13</u>	<u>1710</u>																					
<u>B-5 @ 6.0'</u>	<u>11/12/13</u>	<u>1740</u>																					
<u>B-5 @ 9.0'</u>	<u>11/12/13</u>	<u>1705</u>																					
<u>B-5 @ 20.0'</u>	<u>11/13/13</u>	<u>1515</u>																					
<u>B-5 @ 24.0'</u>	<u>11/13/13</u>	<u>1030</u>																					
7 Turnaround Time Requested (TAT) (please circle) Standard 5 day 4 day 72 hour 48 hour 24 hour			Relinquished by <u>[Signature]</u> Date <u>11/15/13</u> Time <u>1500</u>		Received by <u>CRA SECURE LOCATION</u> Date <u>11/15/13</u> Time <u>1500</u>																		
			Relinquished by <u>[Signature]</u> Date <u>11/19/13</u> Time <u>12pm</u>		Received by <u>[Signature]</u> Date <u>11/19/13</u> Time <u>1200</u>																		
8 Data Package Options (please circle if required) Type I - Full Type VI (Raw Data)			Relinquished by Commercial Carrier: <u>UPS</u> Date <u>11/19/13</u> Time <u>1430</u>		Received by <u>[Signature]</u> Date <u>11/20/13</u> Time <u>1605</u>																		
			Temperature Upon Receipt <u>0.2-1.7</u> °C		Custody Seals Intact? <u>Yes</u> No																		

Chevron California Region Analysis Request/Chain of Custody



Lancaster Laboratories

111713-03 ⁴⁰⁰⁵ Aect. # 10880
 GLOBAL ID: T0600100328

For Lancaster Laboratories use only
 Group # 1435443 Sample # 7785595-629
 Instructions on reverse side correspond with circled numbers.

1 Client Information			4 Matrix				5 Analyses Requested														
Facility # <u>Chevron 9021</u>		WBS <u>07.11</u>		Sediment <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/>	Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Air <input type="checkbox"/>	Water <input type="checkbox"/>	Oil <input type="checkbox"/>	Total Number of Containers	BTEX + MTBE 8021 <input type="checkbox"/> 8260 <input checked="" type="checkbox"/> NAPHTHALENE TPH GRO 8015 <input checked="" type="checkbox"/> 8260 <input type="checkbox"/> TPH 8015 MOD DRO AND TPH MASTIC OIL W/ SILICA GEL Silica Gel Cleanup 8260 Full Scan 4 Oxygenates <u>PIPE, ETBE, TAME, ETBE</u> Total Lead Method Dissolved Lead Method												
Site Address <u>3026 Lakeshore Ave, Oakland, CA</u>																					
Chevron PM <u>Catalina Espino Devine</u>		Lead Consultant <u>CRA</u>																			
Consultant/Office <u>Emeryville, CA</u>																					
Consultant Project Mgr. <u>Nathan Lee</u>																					
Consultant Phone # <u>(925) 879-1003</u>																					
Sampler <u>JYAN/G.WOLF/E.AUSTIN</u>			3 Composite	Soil <input checked="" type="checkbox"/>	Water	Oil	Total Number of Containers														
2 Sample Identification		Collected		Grab	Composite	Soil	Water	Oil	Total Number of Containers	BTEX + MTBE 8021 <input type="checkbox"/> 8260 <input checked="" type="checkbox"/>	NAPHTHALENE	TPH GRO 8015 <input checked="" type="checkbox"/> 8260 <input type="checkbox"/>	TPH 8015 MOD DRO AND TPH MASTIC OIL W/ SILICA GEL	Silica Gel Cleanup	8260 Full Scan	4 Oxygenates <u>PIPE, ETBE, TAME, ETBE</u>	Total Lead Method	Dissolved Lead Method	6 Remarks		
Date	Time																				
<u>B-4 @ 20.5'</u>	<u>11/13/13</u>	<u>1515</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<u>1</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>				Email results to <u>nlee@craworld.com</u>	
<u>B-6 @ 3.0'</u>	<u>11/12/13</u>	<u>0905</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<u>1</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>					
<u>B-6 @ 6.0'</u>	<u>11/12/13</u>	<u>0915</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<u>1</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>					
<u>B-6 @ 9.0'</u>	<u>11/12/13</u>	<u>0923</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<u>1</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>					
<u>B-6 @ 15.0'</u>	<u>11/12/13</u>	<u>0945</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<u>1</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>					
<u>B-7 @ 3'</u>	<u>11/12/13</u>	<u>0920</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<u>1</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>					
<u>B-7 @ 6'</u>	<u>11/12/13</u>	<u>0935</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<u>1</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>					
<u>B-7 @ 6'9"</u>	<u>11/12/13</u>	<u>0945</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<u>1</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>					
<u>B-7 @ 7.5'</u>	<u>11/12/13</u>	<u>1000</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<u>1</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>					
<u>B-7 @ 10'</u>	<u>11/12/13</u>	<u>1015</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<u>1</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>					

SCR #: _____

- Results in Dry Weight
- J value reporting needed
- Must meet lowest detection limits possible for 8260 compounds
- 8021 MTBE Confirmation
- Confirm highest hit by 8260
- Confirm all hits by 8260
- Run _____ oxy's on highest hit
- Run _____ oxy's on all hits

7 Turnaround Time Requested (TAT) (please circle)			Relinquished by <u>[Signature]</u>		Date <u>11/15/13</u>	Time <u>1500</u>	Received by <u>CRA SECURE LOCATION</u>		Date <u>11/15/13</u>	Time <u>1500</u>	9
Standard 5 day 4 day 72 hour 48 hour 24 hour			Relinquished by <u>[Signature]</u>		Date <u>11/19/13</u>	Time <u>12pm</u>	Received by <u>[Signature]</u>		Date <u>11/19/13</u>	Time <u>1200</u>	
8 Data Package Options (please circle if required)			Relinquished by Commercial Carrier: <u>UPS</u>		Date <u>11/19/13</u>	Time <u>1630</u>	Received by <u>SLWA</u>		Date <u>11/20/13</u>	Time <u>1605</u>	
			Type I - Full Type VI (Raw Data)		Temperature Upon Receipt <u>0.2 - 1.7</u> °C		Custody Seals Intact? <u>Yes</u>				

Explanation of Symbols and Abbreviations

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

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

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

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

Data Qualifiers:

C – result confirmed by reanalysis.

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

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

Inorganic Qualifiers

A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but \geq IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>$ 25%	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA $<$ 0.995

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

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

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

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

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

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

December 12, 2013

Project: 90121

Submittal Date: 11/20/2013

Group Number: 1435425

PO Number: 0015119899

Release Number: HOPKINS/WAITE

State of Sample Origin: CA

Client Sample Description

B-1-W-12.5-131111 Grab Groundwater
B-2-W-9-131111 Grab Groundwater
B-3-W-8-131111 Grab Groundwater
B-4-W-25-131113 Grab Groundwater
B-5-W-20-131113 Grab Groundwater
B-6-W-11-131112 Grab Groundwater
B-7-W-6-131112 Grab Groundwater

Lancaster Labs (LL)

7285498
7285499
7285500
7285501
7285502
7285503
7285504

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

ELECTRONIC COPY TO
ELECTRONIC COPY TO

Chevron
CRA

Attn: CRA EDD

Attn: Nathan Lee

Respectfully Submitted,



Natalie R. Luciano
Senior Specialist

(717) 556-7258

Sample Description: B-1-W-12.5-131111 Grab Groundwater
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-1

LL Sample # WW 7285498
LL Group # 1435425
Account # 10880

Project Name: 90121

Collected: 11/11/2013 14:00 by OY

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/12/2013 11:12

LAOB1

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B						
10943	t-Amyl methyl ether	994-05-8	N.D.	0.5	1	1
10943	Benzene	71-43-2	N.D.	0.5	1	1
10943	t-Butyl alcohol	75-65-0	N.D.	2	5	1
10943	Ethyl t-butyl ether	637-92-3	N.D.	0.5	1	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1	1
10943	di-Isopropyl ether	108-20-3	N.D.	0.5	1	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1	1
10943	Naphthalene	91-20-3	N.D.	1	4	1
10943	Toluene	108-88-3	N.D.	0.5	1	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1	1
GC Volatiles SW-846 8015B						
01728	TPH-GRO N. CA water C6-C12	n.a.	120	50	100	1
GC Petroleum SW-846 8015B						
Hydrocarbons w/Si						
02216	TPH-DRO water C10-C28 w/Si Gel	n.a.	95	50	99	1
The reverse surrogate, capric acid, is present at <1%. The holding time was not met. The sample was submitted to the laboratory outside of the holding time.						
GC Petroleum SW-846 8015B modified						
Hydrocarbons w/Si						
10006	Motor Oil C16-C36 w/Si Gel	n.a.	N.D.	40	120	1
10006	Total TPH w/Si Gel	n.a.	N.D.	40	120	1
TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons. The reverse surrogate, capric acid, is present at <1%. The holding time was not met. The sample was submitted to the laboratory outside of the holding time.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA
Trip blank vials were not received by the laboratory for this sample group.

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/5 Oxys/Naph	SW-846 8260B	1	F133272AA	11/23/2013 08:16	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F133272AA	11/23/2013 08:16	Anita M Dale	1

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

Sample Description: B-1-W-12.5-131111 Grab Groundwater
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-1

LL Sample # WW 7285498
LL Group # 1435425
Account # 10880

Project Name: 90121

Collected: 11/11/2013 14:00 by OY

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/12/2013 11:12

LAOB1

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	13325A20A	11/22/2013 00:56	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13325A20A	11/22/2013 00:56	Marie D Beamenderfer	1
02216	TPH-DRO water C10-C28 w/Si Gel	SW-846 8015B	1	133260016A	12/03/2013 20:20	Christine E Dolman	1
10006	TPH Fuels water w/Si Gel	SW-846 8015B modified	1	133380010A	12/09/2013 22:42	Heather E Williams	1
11172	DRO by 8015 w/ Silica Gel Ext	SW-846 3510C	1	133260016A	11/23/2013 07:20	Roman Kuropatkin	1
11195	TPH w/ Silica Gel Waters Ext.	SW-846 3510C	2	133380010A	12/05/2013 02:30	Sherry L Morrow	1

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

Sample Description: B-2-W-9-131111 Grab Groundwater
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-2

LL Sample # WW 7285499
LL Group # 1435425
Account # 10880

Project Name: 90121

Collected: 11/11/2013 12:30 by OY

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/12/2013 11:12

LAOB2

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B			ug/l	ug/l	ug/l	
10943	t-Amyl methyl ether	994-05-8	7	0.5	1	1
10943	Benzene	71-43-2	N.D.	0.5	1	1
10943	t-Butyl alcohol	75-65-0	1,100	20	50	10
10943	Ethyl t-butyl ether	637-92-3	36	0.5	1	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1	1
10943	di-Isopropyl ether	108-20-3	N.D.	0.5	1	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	2,000	5	10	10
10943	Naphthalene	91-20-3	N.D.	1	4	1
10943	Toluene	108-88-3	N.D.	0.5	1	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1	1

A preserved vial was submitted for analysis. However, the pH at the time of analysis was 7.

GC Volatiles SW-846 8015B			ug/l	ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	140	50	100	1
A preserved vial was submitted for analysis. However, the pH at the time of analysis was 8.						

GC Petroleum SW-846 8015B			ug/l	ug/l	ug/l	
Hydrocarbons w/Si						
02216	TPH-DRO water C10-C28 w/Si Gel	n.a.	200	160	500	1
The reverse surrogate, capric acid, is present at <1%.						
The holding time was not met. The sample was submitted to the laboratory outside of the holding time.						
Reporting limits were raised due to interference from the sample matrix.						

GC Petroleum SW-846 8015B modified			ug/l	ug/l	ug/l	
Hydrocarbons w/Si						
10006	Motor Oil C16-C36 w/Si Gel	n.a.	260	41	120	1
10006	Total TPH w/Si Gel	n.a.	260	41	120	1
TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.						
The reverse surrogate, capric acid, is present at <1%.						
The holding time was not met. The sample was submitted to the laboratory outside of the holding time.						

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA
Trip blank vials were not received by the laboratory for this sample group.

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

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

Sample Description: B-2-W-9-131111 Grab Groundwater
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-2

LL Sample # WW 7285499
LL Group # 1435425
Account # 10880

Project Name: 90121

Collected: 11/11/2013 12:30 by OY

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/12/2013 11:12

LAOB2

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/5 Oxys/Naph	SW-846 8260B	1	F133272AA	11/23/2013 08:38	Anita M Dale	1
10943	BTEX/5 Oxys/Naph	SW-846 8260B	1	F133282AA	11/25/2013 02:15	Brett W Kenyon	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F133272AA	11/23/2013 08:38	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	2	F133282AA	11/25/2013 02:15	Brett W Kenyon	10
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	13325A20A	11/22/2013 02:24	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13325A20A	11/22/2013 02:24	Marie D Beamenderfer	1
02216	TPH-DRO water C10-C28 w/Si Gel	SW-846 8015B	1	133260016A	12/03/2013 21:50	Christine E Dolman	1
10006	TPH Fuels water w/Si Gel	SW-846 8015B modified	1	133250006A	12/03/2013 12:03	Heather E Williams	1
11172	DRO by 8015 w/ Silica Gel Ext	SW-846 3510C	1	133260016A	11/23/2013 07:20	Roman Kuropatkin	1
11195	TPH w/ Silica Gel Waters Ext.	SW-846 3510C	1	133250006A	11/21/2013 15:45	Seth A Farrier	1

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

Sample Description: B-3-W-8-131111 Grab Groundwater
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-3

LL Sample # WW 7285500
LL Group # 1435425
Account # 10880

Project Name: 90121

Collected: 11/11/2013 13:00 by OY

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/12/2013 11:12

LAOB3

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B			ug/l	ug/l	ug/l	
10943	t-Amyl methyl ether	994-05-8	N.D.	5	10	10
10943	Benzene	71-43-2	N.D.	5	10	10
10943	t-Butyl alcohol	75-65-0	1,400	20	50	10
10943	Ethyl t-butyl ether	637-92-3	6	5	10	10
10943	Ethylbenzene	100-41-4	N.D.	5	10	10
10943	di-Isopropyl ether	108-20-3	N.D.	5	10	10
10943	Methyl Tertiary Butyl Ether	1634-04-4	96	5	10	10
10943	Naphthalene	91-20-3	N.D.	10	40	10
10943	Toluene	108-88-3	N.D.	5	10	10
10943	Xylene (Total)	1330-20-7	N.D.	5	10	10

A preserved vial was submitted for analysis. However, the pH at the time of analysis was 7.

Reporting limits were raised due to sample foaming.

GC Volatiles SW-846 8015B	ug/l	ug/l	ug/l	
01728 TPH-GRO N. CA water C6-C12 n.a.	920	250	500	5

Reporting limits were raised due to sample foaming.

GC Petroleum SW-846 8015B modified	ug/l	ug/l	ug/l	
Hydrocarbons w/Si				
10006 Motor Oil C16-C36 w/Si Gel n.a.	380	39	120	1
10006 Total TPH w/Si Gel n.a.	380	39	120	1

TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.

The reverse surrogate, capric acid, is present at <1%.
The holding time was not met. The sample was submitted to the laboratory outside of the holding time.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA
Trip blank vials were not received by the laboratory for this sample group.

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

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

Sample Description: B-3-W-8-131111 Grab Groundwater
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-3

LL Sample # WW 7285500
LL Group # 1435425
Account # 10880

Project Name: 90121

Collected: 11/11/2013 13:00 by OY

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/12/2013 11:12

LAOB3

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/5 Oxys/Naph	SW-846 8260B	1	F133272AA	11/23/2013 09:00	Anita M Dale	10
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F133272AA	11/23/2013 09:00	Anita M Dale	10
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	13325A20A	11/22/2013 09:12	Marie D Beamenderfer	5
01146	GC VOA Water Prep	SW-846 5030B	1	13325A20A	11/22/2013 09:12	Marie D Beamenderfer	5
10006	TPH Fuels water w/Si Gel	SW-846 8015B modified	1	133250006A	12/03/2013 12:24	Heather E Williams	1
11195	TPH w/ Silica Gel Waters Ext.	SW-846 3510C	1	133250006A	11/21/2013 15:45	Seth A Farrier	1

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

Sample Description: B-4-W-25-131113 Grab Groundwater
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-4

LL Sample # WW 7285501
LL Group # 1435425
Account # 10880

Project Name: 90121

Collected: 11/13/2013 16:50 by OY

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/12/2013 11:12

LAOB4

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B			ug/l	ug/l	ug/l	
10943	t-Amyl methyl ether	994-05-8	N.D.	0.5	1	1
10943	Benzene	71-43-2	N.D.	0.5	1	1
10943	t-Butyl alcohol	75-65-0	N.D.	2	5	1
10943	Ethyl t-butyl ether	637-92-3	N.D.	0.5	1	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1	1
10943	di-Isopropyl ether	108-20-3	N.D.	0.5	1	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1	1
10943	Naphthalene	91-20-3	N.D.	1	4	1
10943	Toluene	108-88-3	N.D.	0.5	1	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1	1
GC Volatiles SW-846 8015B			ug/l	ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	100	1

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA
Trip blank vials were not received by the laboratory for this sample group.

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/5 Oxys/Naph	SW-846 8260B	1	F133272AA	11/23/2013 09:43	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F133272AA	11/23/2013 09:43	Anita M Dale	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	13325A20A	11/22/2013 09:34	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13325A20A	11/22/2013 09:34	Marie D Beamenderfer	1

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

Sample Description: B-5-W-20-131113 Grab Groundwater
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-5

LL Sample # WW 7285502
LL Group # 1435425
Account # 10880

Project Name: 90121

Collected: 11/13/2013 11:20 by OY

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/12/2013 11:12

LAOB5

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B			ug/l	ug/l	ug/l	
10943	t-Amyl methyl ether	994-05-8	N.D.	0.5	1	1
10943	Benzene	71-43-2	N.D.	0.5	1	1
10943	t-Butyl alcohol	75-65-0	N.D.	2	5	1
10943	Ethyl t-butyl ether	637-92-3	N.D.	0.5	1	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1	1
10943	di-Isopropyl ether	108-20-3	N.D.	0.5	1	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1	1
10943	Naphthalene	91-20-3	N.D.	1	4	1
10943	Toluene	108-88-3	N.D.	0.5	1	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1	1

GC Volatiles SW-846 8015B			ug/l	ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	100	1

GC Petroleum SW-846 8015B			ug/l	ug/l	ug/l	
02216	TPH-DRO water C10-C28 w/Si Gel	n.a.	N.D.	160	500	1
The reverse surrogate, capric acid, is present at <1%.						
The holding time was not met. The sample was submitted to the laboratory outside of the holding time.						
Reporting limits were raised due to interference from the sample matrix.						

GC Petroleum SW-846 8015B modified			ug/l	ug/l	ug/l	
10006	Motor Oil C16-C36 w/Si Gel	n.a.	N.D.	41	120	1
10006	Total TPH w/Si Gel	n.a.	N.D.	41	120	1

TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons.
The reverse surrogate, capric acid, is present at <1%.
The holding time was not met. The sample was submitted to the laboratory outside of the holding time.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA
Trip blank vials were not received by the laboratory for this sample group.

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/5 Oxys/Naph	SW-846 8260B	1	F133272AA	11/23/2013 10:05	Anita M Dale	1

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

Sample Description: B-5-W-20-131113 Grab Groundwater
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-5

LL Sample # WW 7285502
LL Group # 1435425
Account # 10880

Project Name: 90121

Collected: 11/13/2013 11:20 by OY

ChevronTexaco

6001 Bollinger Canyon Rd L4310

Submitted: 11/20/2013 16:05

San Ramon CA 94583

Reported: 12/12/2013 11:12

LAOB5

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F133272AA	11/23/2013 10:05	Anita M Dale	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	13325A20A	11/22/2013 10:13	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13325A20A	11/22/2013 10:13	Marie D Beamenderfer	1
02216	TPH-DRO water C10-C28 w/Si Gel	SW-846 8015B	1	133260016A	12/03/2013 20:42	Christine E Dolman	1
10006	TPH Fuels water w/Si Gel	SW-846 8015B modified	1	133250006A	12/03/2013 12:46	Heather E Williams	1
11172	DRO by 8015 w/ Silica Gel Ext	SW-846 3510C	1	133260016A	11/23/2013 07:20	Roman Kuropatkin	1
11195	TPH w/ Silica Gel Waters Ext.	SW-846 3510C	1	133250006A	11/21/2013 15:45	Seth A Farrier	1

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

Sample Description: B-6-W-11-131112 Grab Groundwater
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-6

LL Sample # WW 7285503
LL Group # 1435425
Account # 10880

Project Name: 90121

Collected: 11/12/2013 11:30 by OY

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/12/2013 11:12

LAOB6

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B			ug/l	ug/l	ug/l	
10943	t-Amyl methyl ether	994-05-8	N.D.	0.5	1	1
10943	Benzene	71-43-2	N.D.	0.5	1	1
10943	t-Butyl alcohol	75-65-0	N.D.	2	5	1
10943	Ethyl t-butyl ether	637-92-3	N.D.	0.5	1	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1	1
10943	di-Isopropyl ether	108-20-3	N.D.	0.5	1	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1	1
10943	Naphthalene	91-20-3	N.D.	1	4	1
10943	Toluene	108-88-3	N.D.	0.5	1	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1	1
GC Volatiles SW-846 8015B			ug/l	ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	100	1
GC Petroleum SW-846 8015B modified			ug/l	ug/l	ug/l	
Hydrocarbons w/Si						
10006	Motor Oil C16-C36 w/Si Gel	n.a.	N.D.	41	120	1
10006	Total TPH w/Si Gel	n.a.	N.D.	41	120	1

TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons. The reverse surrogate, capric acid, is present at <1%. The holding time was not met. The sample was submitted to the laboratory outside of the holding time.

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA
Trip blank vials were not received by the laboratory for this sample group.

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/5 Oxys/Naph	SW-846 8260B	1	F133272AA	11/23/2013 10:27	Anita M Dale	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F133272AA	11/23/2013 10:27	Anita M Dale	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	13325A20A	11/22/2013 02:46	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13325A20A	11/22/2013 02:46	Marie D Beamenderfer	1
10006	TPH Fuels water w/Si Gel	SW-846 8015B modified	1	133250006A	12/03/2013 13:08	Heather E Williams	1

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

Sample Description: B-6-W-11-131112 Grab Groundwater
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-6

LL Sample # WW 7285503
LL Group # 1435425
Account # 10880

Project Name: 90121

Collected: 11/12/2013 11:30 by OY

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/12/2013 11:12

LAOB6

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11195	TPH w/ Silica Gel Waters Ext.	SW-846 3510C	1	133250006A	11/21/2013 15:45	Seth A Farrier	1

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

Sample Description: B-7-W-6-131112 Grab Groundwater
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-7

LL Sample # WW 7285504
LL Group # 1435425
Account # 10880

Project Name: 90121

Collected: 11/12/2013 10:35 by OY

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/12/2013 11:12

LAOB7

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles SW-846 8260B			ug/l	ug/l	ug/l	
10943	t-Amyl methyl ether	994-05-8	N.D.	3	5	5
10943	Benzene	71-43-2	3	3	5	5
10943	t-Butyl alcohol	75-65-0	38	10	25	5
10943	Ethyl t-butyl ether	637-92-3	N.D.	3	5	5
10943	Ethylbenzene	100-41-4	N.D.	3	5	5
10943	di-Isopropyl ether	108-20-3	N.D.	3	5	5
10943	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	3	5	5
10943	Naphthalene	91-20-3	N.D.	5	20	5
10943	Toluene	108-88-3	N.D.	3	5	5
10943	Xylene (Total)	1330-20-7	N.D.	3	5	5

A preserved vial was submitted for analysis. However, the pH at the time of analysis was 7.

Reporting limits were raised due to sample foaming.

GC Volatiles SW-846 8015B			ug/l	ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	2,500	50	100	1
A preserved vial was submitted for analysis. However, the pH at the time of analysis was 4.						

GC Petroleum SW-846 8015B			ug/l	ug/l	ug/l	
Hydrocarbons w/Si						
02216	TPH-DRO water C10-C28 w/Si Gel	n.a.	2,800	160	500	1
The reverse surrogate, capric acid, is present at <1%. The holding time was not met. The sample was submitted to the laboratory outside of the holding time.						

GC Petroleum SW-846 8015B modified			ug/l	ug/l	ug/l	
Hydrocarbons w/Si						
10006	Motor Oil C16-C36 w/Si Gel	n.a.	N.D.	400	1,200	1
10006	Total TPH w/Si Gel	n.a.	N.D.	400	1,200	1

TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons. The reverse surrogate, capric acid, is present at <1%. The holding time was not met. The sample was submitted to the laboratory outside of the holding time. Reporting limits were raised due to interference from the sample matrix.

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

Sample Description: B-7-W-6-131112 Grab Groundwater
Facility# 90121 CRAW
3026 Lakeshore-Oakland T0600100328 B-7

LL Sample # WW 7285504
LL Group # 1435425
Account # 10880

Project Name: 90121

Collected: 11/12/2013 10:35 by OY

ChevronTexaco

6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Submitted: 11/20/2013 16:05

Reported: 12/12/2013 11:12

LAOB7

General Sample Comments

CA ELAP Lab Certification No. 2792; CA NELAP Lab Certification No. 10276CA
Trip blank vials were not received by the laboratory for this sample group.

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

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/5 Oxys/Naph	SW-846 8260B	1	F133272AA	11/23/2013 10:48	Anita M Dale	5
01163	GC/MS VOA Water Prep	SW-846 5030B	1	F133272AA	11/23/2013 10:48	Anita M Dale	5
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	13325A20A	11/22/2013 10:38	Marie D Beamenderfer	1
01146	GC VOA Water Prep	SW-846 5030B	1	13325A20A	11/22/2013 10:38	Marie D Beamenderfer	1
02216	TPH-DRO water C10-C28 w/Si Gel	SW-846 8015B	1	133260016A	12/03/2013 22:13	Christine E Dolman	1
10006	TPH Fuels water w/Si Gel	SW-846 8015B modified	1	133380010A	12/09/2013 23:04	Heather E Williams	1
11172	DRO by 8015 w/ Silica Gel Ext	SW-846 3510C	1	133260016A	11/23/2013 07:20	Roman Kuropatkin	1
11195	TPH w/ Silica Gel Waters Ext.	SW-846 3510C	2	133380010A	12/05/2013 02:30	Sherry L Morrow	1

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

Quality Control Summary

Client Name: ChevronTexaco
Reported: 12/12/13 at 11:12 AM

Group Number: 1435425

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

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

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL**</u>	<u>Blank LOQ</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: F133272AA	Sample number(s): 7285498-7285504								
t-Amyl methyl ether	N.D.	0.5	1	ug/l	89		75-120		
Benzene	N.D.	0.5	1	ug/l	92		78-120		
t-Butyl alcohol	N.D.	2.	5	ug/l	83		75-120		
Ethyl t-butyl ether	N.D.	0.5	1	ug/l	90		74-120		
Ethylbenzene	N.D.	0.5	1	ug/l	92		79-120		
di-Isopropyl ether	N.D.	0.5	1	ug/l	96		65-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	1	ug/l	91		75-120		
Naphthalene	N.D.	1.	4	ug/l	80		47-126		
Toluene	N.D.	0.5	1	ug/l	91		80-120		
Xylene (Total)	N.D.	0.5	1	ug/l	90		80-120		
Batch number: F133282AA	Sample number(s): 7285499								
t-Butyl alcohol	N.D.	2.	5	ug/l	82		75-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	1	ug/l	90		75-120		
Batch number: 13325A20A	Sample number(s): 7285498-7285504								
TPH-GRO N. CA water C6-C12	N.D.	50.	100	ug/l	114	110	75-135	4	30
Batch number: 133250006A	Sample number(s): 7285499-7285500, 7285502-7285503								
Motor Oil C16-C36 w/Si Gel	N.D.	40.	120	ug/l					
Total TPH w/Si Gel	N.D.	40.	120	ug/l	54	61	52-120	13	20
Batch number: 133260016A	Sample number(s): 7285498-7285499, 7285502, 7285504								
TPH-DRO water C10-C28 w/Si Gel	N.D.	32.	100	ug/l	73	72	43-120	2	20
Batch number: 133380010A	Sample number(s): 7285498, 7285504								
Motor Oil C16-C36 w/Si Gel	N.D.	40.	120	ug/l					
Total TPH w/Si Gel	N.D.	40.	120	ug/l	85	81	52-120	5	20

Sample Matrix Quality Control

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

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: F133272AA	Sample number(s): 7285498-7285504 UNSPK: P283591								
t-Amyl methyl ether	93	88	65-117	5	30				
Benzene	98	96	72-134	2	30				
t-Butyl alcohol	85	81	67-119	4	30				

*- Outside of specification

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

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ChevronTexaco
Reported: 12/12/13 at 11:12 AM

Group Number: 1435425

Sample Matrix Quality Control

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

<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
Ethyl t-butyl ether	93	91	74-122	1	30				
Ethylbenzene	98	95	71-134	3	30				
di-Isopropyl ether	98	97	70-129	1	30				
Methyl Tertiary Butyl Ether	91	90	72-126	1	30				
Naphthalene	78	78	52-125	0	30				
Toluene	98	95	80-125	4	30				
Xylene (Total)	98	94	79-125	4	30				

Batch number: F133282AA Sample number(s): 7285499 UNSPK: P279422
t-Butyl alcohol 82 82 67-119 1 30
Methyl Tertiary Butyl Ether 91 91 72-126 1 30

Surrogate Quality Control

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

Analysis Name: UST VOCs by 8260B - Water
Batch number: F133272AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7285498	101	101	98	96
7285499	101	100	101	98
7285500	100	98	100	97
7285501	100	100	100	96
7285502	101	101	101	97
7285503	102	100	102	95
7285504	101	100	99	106
Blank	102	99	102	96
LCS	100	105	101	99
MS	99	101	102	100
MSD	100	101	102	98
Limits:	80-116	77-113	80-113	78-113

Analysis Name: TPH-GRO N. CA water C6-C12
Batch number: 13325A20A

	Trifluorotoluene-F
7285498	82
7285499	83
7285500	78
7285501	86
7285502	153*
7285503	82
7285504	80
Blank	80
LCS	89
LCSD	81

*- Outside of specification

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

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ChevronTexaco
Reported: 12/12/13 at 11:12 AM

Group Number: 1435425

Surrogate Quality Control

Limits: 63-135

Analysis Name: TPH Fuels water w/Si Gel
Batch number: 133250006A

	Chlorobenzene	Orthoterphenyl
7285499	71	56
7285500	74	51
7285502	64	45
7285503	78	68
Blank	49	46
LCS	75	63
LCSD	64	70

Limits: 29-107 43-114

Analysis Name: TPH-DRO water C10-C28 w/Si Gel
Batch number: 133260016A

	Orthoterphenyl
7285498	61
7285499	70
7285502	63
7285504	60
Blank	78
LCS	82
LCSD	76

Limits: 46-131

Analysis Name: TPH Fuels water w/Si Gel
Batch number: 133380010A

	Chlorobenzene	Orthoterphenyl
7285498	71	56
7285504	102	72
Blank	69	73
LCS	79	88
LCSD	68	84

Limits: 29-107 43-114

*- Outside of specification

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

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Explanation of Symbols and Abbreviations

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

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

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

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

Data Qualifiers:

C – result confirmed by reanalysis.

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

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

Inorganic Qualifiers

A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but \geq IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>$ 25%	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA $<$ 0.995

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

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

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

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

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12/4/2013
Mr. Oliver Yan
Conestoga-Rovers Associates (CRA)
5900 Hollis Street
Suite A
Emeryville CA 94608

Project Name: CHEVRON 90121
Project #: 311973
Workorder #: 1311357A

Dear Mr. Oliver Yan

The following report includes the data for the above referenced project for sample(s) received on 11/19/2013 at Air Toxics Ltd.

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

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

Regards,



Kelly Buettner
Project Manager

WORK ORDER #: 1311357A

Work Order Summary

CLIENT:	Mr. Oliver Yan Conestoga-Rovers Associates (CRA) 5900 Hollis Street Suite A Emeryville, CA 94608	BILL TO:	Mr. Oliver Yan Conestoga-Rovers Associates (CRA) 5900 Hollis Street Suite A Emeryville, CA 94608
PHONE:	510-420-0700	P.O. #	4063566
FAX:	510-420-9170	PROJECT #	311973 CHEVRON 90121
DATE RECEIVED:	11/19/2013	CONTACT:	Kelly Buettner
DATE COMPLETED:	12/04/2013		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	CS-1	Modified TO-15	6.1 "Hg	5.1 psi
01B	CS-1	Modified TO-15	6.1 "Hg	5.1 psi
02A	CS-2	Modified TO-15	6.1 "Hg	5.3 psi
02B	CS-2	Modified TO-15	6.1 "Hg	5.3 psi
03A	IA-1	Modified TO-15	5.7 "Hg	5.4 psi
03B	IA-1	Modified TO-15	5.7 "Hg	5.4 psi
04A	IA-2	Modified TO-15	3.5 "Hg	5.1 psi
04B	IA-2	Modified TO-15	3.5 "Hg	5.1 psi
05A	IA-3	Modified TO-15	6.1 "Hg	4.8 psi
05B	IA-3	Modified TO-15	6.1 "Hg	4.8 psi
06A	IA-4	Modified TO-15	5.1 "Hg	5.1 psi
06B	IA-4	Modified TO-15	5.1 "Hg	5.1 psi
07A	IA-5	Modified TO-15	1.4 "Hg	5.1 psi
07B	IA-5	Modified TO-15	1.4 "Hg	5.1 psi
08A	IA-6	Modified TO-15	7.6 "Hg	4.9 psi
08B	IA-6	Modified TO-15	7.6 "Hg	4.9 psi
09A	OA-1	Modified TO-15	2.8 "Hg	5.2 psi
09B	OA-1	Modified TO-15	2.8 "Hg	5.2 psi
10A	OA-1 DUP	Modified TO-15	25.5 "Hg	5.2 psi
10B	OA-1 DUP	Modified TO-15	25.5 "Hg	5.2 psi
11A	OA-2	Modified TO-15	5.3 "Hg	5.2 psi
11B	OA-2	Modified TO-15	5.3 "Hg	5.2 psi
16A	TRIP BLANK (6L)	Modified TO-15	29.8 "Hg	5 psi

Continued on next page

WORK ORDER #: 1311357A

Work Order Summary

CLIENT:	Mr. Oliver Yan Conestoga-Rovers Associates (CRA) 5900 Hollis Street Suite A Emeryville, CA 94608	BILL TO:	Mr. Oliver Yan Conestoga-Rovers Associates (CRA) 5900 Hollis Street Suite A Emeryville, CA 94608
PHONE:	510-420-0700	P.O. #	4063566
FAX:	510-420-9170	PROJECT #	311973 CHEVRON 90121
DATE RECEIVED:	11/19/2013	CONTACT:	Kelly Buettner
DATE COMPLETED:	12/04/2013		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
16B	TRIP BLANK (6L)	Modified TO-15	29.8 "Hg	5 psi
17A	Lab Blank	Modified TO-15	NA	NA
17B	Lab Blank	Modified TO-15	NA	NA
17C	Lab Blank	Modified TO-15	NA	NA
17D	Lab Blank	Modified TO-15	NA	NA
18A	CCV	Modified TO-15	NA	NA
18B	CCV	Modified TO-15	NA	NA
18C	CCV	Modified TO-15	NA	NA
18D	CCV	Modified TO-15	NA	NA
19A	LCS	Modified TO-15	NA	NA
19AA	LCSD	Modified TO-15	NA	NA
19B	LCS	Modified TO-15	NA	NA
19BB	LCSD	Modified TO-15	NA	NA
19C	LCS	Modified TO-15	NA	NA
19CC	LCSD	Modified TO-15	NA	NA
19D	LCS	Modified TO-15	NA	NA
19DD	LCSD	Modified TO-15	NA	NA

CERTIFIED BY: 
 Technical Director

DATE: 12/04/13

Certification numbers: AZ Licensure AZ0775, CA NELAP - 12282CA, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-13-6, UT NELAP CA009332013-4, VA NELAP - 460197, WA NELAP - C935
 Name of Accrediting Agency: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
 Accreditation number: CA300005, Effective date: 10/18/2013, Expiration date: 10/17/2014.

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

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563
 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020



LABORATORY NARRATIVE
Modified TO-15 Full Scan/SIM
Conestoga-Rovers Associates (CRA)
Workorder# 1311357A

Eleven 6 Liter Summa Canister (SIM Certified) and one 6 Liter Summa Canister samples were received on November 19, 2013. 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 ATL modifications.

<i>Requirement</i>	<i>TO-15</i>	<i>ATL Modifications</i>
ICAL %RSD acceptance criteria	$\leq 30\%$ RSD with 2 compounds allowed out to <math>< 40\%</math> RSD	For Full Scan: 30% RSD with 4 compounds allowed out to <math>< 40\%</math> RSD For SIM: Project specific; default criteria is $\leq 30\%$ RSD with 10% of compounds allowed out to <math>< 40\%</math> RSD
Daily Calibration	+/- 30% Difference	For Full Scan: $\leq 30\%$ Difference with four allowed out up to $\leq 40\%$; flag and narrate outliers For SIM: Project specific; default criteria is $\leq 30\%$ Difference with 10% of compounds allowed out up to $\leq 40\%$; 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

Sample OA-1 DUP was received with significant vacuum remaining in the canister. The residual canister vacuum resulted in elevated reporting limits.

Analytical Notes

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.

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.

All Quality Control Limit exceedances and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page.

The Summa canister used for sample TRIP BLANK (6L) was not individually certified for the requested SIM reporting limits, but the cleaning process did pass process certification at a 10% rate of frequency at 0.2 ppbv for all compounds with the exception of Naphthalene which was 0.8 ppbv. Concentrations that are below the level at which the canister was certified may be false positives.

Definition of Data Qualifying Flags

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

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

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

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

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

N - The identification is based on presumptive evidence.

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

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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

Client Sample ID: CS-1

Lab ID#: 1311357A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH ref. to Gasoline (MW=100)	17	29	69	120

Client Sample ID: CS-1

Lab ID#: 1311357A-01B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	0.084	0.25	0.27	0.79
Toluene	0.034	0.52	0.13	2.0
Ethyl Benzene	0.034	0.091	0.15	0.39
m,p-Xylene	0.068	0.34	0.29	1.4
o-Xylene	0.034	0.11	0.15	0.49

Client Sample ID: CS-2

Lab ID#: 1311357A-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH ref. to Gasoline (MW=100)	17	23	70	94

Client Sample ID: CS-2

Lab ID#: 1311357A-02B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	0.086	0.29	0.27	0.93
Toluene	0.034	0.72	0.13	2.7
Ethyl Benzene	0.034	0.13	0.15	0.57
m,p-Xylene	0.068	0.48	0.30	2.1
o-Xylene	0.034	0.16	0.15	0.71

Client Sample ID: IA-1

Lab ID#: 1311357A-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: IA-1

Lab ID#: 1311357A-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH ref. to Gasoline (MW=100)	17	36	69	150

Client Sample ID: IA-1

Lab ID#: 1311357A-03B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	0.084	0.25	0.27	0.80
Toluene	0.034	0.76	0.13	2.8
Ethyl Benzene	0.034	0.18	0.15	0.78
m,p-Xylene	0.068	0.67	0.29	2.9
o-Xylene	0.034	0.27	0.15	1.2

Client Sample ID: IA-2

Lab ID#: 1311357A-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH ref. to Gasoline (MW=100)	15	56	62	230

Client Sample ID: IA-2

Lab ID#: 1311357A-04B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	0.076	0.27	0.24	0.86
Toluene	0.030	1.3	0.11	5.0
Ethyl Benzene	0.030	0.18	0.13	0.77
m,p-Xylene	0.061	0.70	0.26	3.0
o-Xylene	0.030	0.26	0.13	1.1

Client Sample ID: IA-3

Lab ID#: 1311357A-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
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Summary of Detected Compounds MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: IA-3

Lab ID#: 1311357A-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH ref. to Gasoline (MW=100)	17	39	68	160

Client Sample ID: IA-3

Lab ID#: 1311357A-05B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	0.084	0.25	0.27	0.79
Toluene	0.033	0.74	0.12	2.8
Ethyl Benzene	0.033	0.16	0.14	0.68
m,p-Xylene	0.067	0.60	0.29	2.6
o-Xylene	0.033	0.24	0.14	1.0

Client Sample ID: IA-4

Lab ID#: 1311357A-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH ref. to Gasoline (MW=100)	16	37	66	150

Client Sample ID: IA-4

Lab ID#: 1311357A-06B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	0.081	0.27	0.26	0.87
Toluene	0.032	0.55	0.12	2.1
Ethyl Benzene	0.032	0.083	0.14	0.36
m,p-Xylene	0.065	0.25	0.28	1.1
o-Xylene	0.032	0.078	0.14	0.34

Client Sample ID: IA-5

Lab ID#: 1311357A-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: IA-5

Lab ID#: 1311357A-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH ref. to Gasoline (MW=100)	14	33	58	130

Client Sample ID: IA-5

Lab ID#: 1311357A-07B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	0.070	0.25	0.22	0.80
Toluene	0.028	0.85	0.11	3.2
Ethyl Benzene	0.028	0.13	0.12	0.56
m,p-Xylene	0.056	0.46	0.24	2.0
o-Xylene	0.028	0.18	0.12	0.78

Client Sample ID: IA-6

Lab ID#: 1311357A-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH ref. to Gasoline (MW=100)	18	100	73	410

Client Sample ID: IA-6

Lab ID#: 1311357A-08B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	0.089	0.26	0.28	0.82
Toluene	0.036	0.64	0.13	2.4
Ethyl Benzene	0.036	0.12	0.15	0.53
m,p-Xylene	0.071	0.45	0.31	2.0
o-Xylene	0.036	0.16	0.15	0.70

Client Sample ID: OA-1

Lab ID#: 1311357A-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: OA-1

Lab ID#: 1311357A-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH ref. to Gasoline (MW=100)	15	16	61	65

Client Sample ID: OA-1

Lab ID#: 1311357A-09B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	0.075	0.33	0.24	1.0
Toluene	0.030	0.72	0.11	2.7
Ethyl Benzene	0.030	0.12	0.13	0.51
m,p-Xylene	0.060	0.42	0.26	1.8
o-Xylene	0.030	0.14	0.13	0.62

Client Sample ID: OA-1 DUP

Lab ID#: 1311357A-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH ref. to Gasoline (MW=100)	90	27	370	110

Client Sample ID: OA-1 DUP

Lab ID#: 1311357A-10B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Toluene	0.18	0.98	0.68	3.7
m,p-Xylene	0.36	0.57	1.6	2.5
o-Xylene	0.18	0.19	0.78	0.84

Client Sample ID: OA-2

Lab ID#: 1311357A-11A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH ref. to Gasoline (MW=100)	16	22	67	90

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

Client Sample ID: OA-2

Lab ID#: 1311357A-11B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	0.082	0.28	0.26	0.88
Toluene	0.033	0.78	0.12	2.9
Ethyl Benzene	0.033	0.15	0.14	0.64
m,p-Xylene	0.066	0.55	0.28	2.4
o-Xylene	0.033	0.20	0.14	0.85

Client Sample ID: TRIP BLANK (6L)

Lab ID#: 1311357A-16A

No Detections Were Found.

Client Sample ID: TRIP BLANK (6L)

Lab ID#: 1311357A-16B

No Detections Were Found.



Air Toxics

Client Sample ID: CS-1

Lab ID#: 1311357A-01A

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

File Name:	v112707	Date of Collection:	11/14/13 9:32:00 AM
Dil. Factor:	1.69	Date of Analysis:	11/27/13 03:58 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH ref. to Gasoline (MW=100)	17	29	69	120

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	95	70-130



Air Toxics

Client Sample ID: CS-1

Lab ID#: 1311357A-01B

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

File Name:	v112707sim	Date of Collection:	11/14/13 9:32:00 AM
Dil. Factor:	1.69	Date of Analysis:	11/27/13 03:58 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	0.17	Not Detected	0.61	Not Detected
Benzene	0.084	0.25	0.27	0.79
Toluene	0.034	0.52	0.13	2.0
Ethyl Benzene	0.034	0.091	0.15	0.39
m,p-Xylene	0.068	0.34	0.29	1.4
o-Xylene	0.034	0.11	0.15	0.49
Naphthalene	0.84	Not Detected	4.4	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: CS-2

Lab ID#: 1311357A-02A

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

File Name:	v112708	Date of Collection:	11/14/13 9:45:00 AM
Dil. Factor:	1.71	Date of Analysis:	11/27/13 04:53 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH ref. to Gasoline (MW=100)	17	23	70	94

Container Type: 6 Liter Summa Canister (SIM Certified)

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



Air Toxics

Client Sample ID: CS-2

Lab ID#: 1311357A-02B

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

File Name:	v112708sim	Date of Collection:	11/14/13 9:45:00 AM
Dil. Factor:	1.71	Date of Analysis:	11/27/13 04:53 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	0.17	Not Detected	0.62	Not Detected
Benzene	0.086	0.29	0.27	0.93
Toluene	0.034	0.72	0.13	2.7
Ethyl Benzene	0.034	0.13	0.15	0.57
m,p-Xylene	0.068	0.48	0.30	2.1
o-Xylene	0.034	0.16	0.15	0.71
Naphthalene	0.86	Not Detected	4.5	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	96	70-130



Air Toxics

Client Sample ID: IA-1

Lab ID#: 1311357A-03A

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

File Name:	v112709	Date of Collection:	11/14/13 10:32:00 A
Dil. Factor:	1.69	Date of Analysis:	11/27/13 05:35 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH ref. to Gasoline (MW=100)	17	36	69	150

Container Type: 6 Liter Summa Canister (SIM Certified)

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



Air Toxics

Client Sample ID: IA-1

Lab ID#: 1311357A-03B

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

File Name:	v112709sim	Date of Collection:	11/14/13 10:32:00 A
Dil. Factor:	1.69	Date of Analysis:	11/27/13 05:35 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	0.17	Not Detected	0.61	Not Detected
Benzene	0.084	0.25	0.27	0.80
Toluene	0.034	0.76	0.13	2.8
Ethyl Benzene	0.034	0.18	0.15	0.78
m,p-Xylene	0.068	0.67	0.29	2.9
o-Xylene	0.034	0.27	0.15	1.2
Naphthalene	0.84	Not Detected	4.4	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	97	70-130



Air Toxics

Client Sample ID: IA-2

Lab ID#: 1311357A-04A

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

File Name:	v112710	Date of Collection:	11/14/13 12:20:00 P
Dil. Factor:	1.52	Date of Analysis:	11/27/13 07:04 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH ref. to Gasoline (MW=100)	15	56	62	230

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	100	70-130



Air Toxics

Client Sample ID: IA-2

Lab ID#: 1311357A-04B

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

File Name:	v112710sim	Date of Collection:	11/14/13 12:20:00 P
Dil. Factor:	1.52	Date of Analysis:	11/27/13 07:04 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	0.15	Not Detected	0.55	Not Detected
Benzene	0.076	0.27	0.24	0.86
Toluene	0.030	1.3	0.11	5.0
Ethyl Benzene	0.030	0.18	0.13	0.77
m,p-Xylene	0.061	0.70	0.26	3.0
o-Xylene	0.030	0.26	0.13	1.1
Naphthalene	0.76	Not Detected	4.0	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: IA-3

Lab ID#: 1311357A-05A

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

File Name:	v112711	Date of Collection:	11/14/13 11:04:00 A
Dil. Factor:	1.67	Date of Analysis:	11/27/13 08:07 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH ref. to Gasoline (MW=100)	17	39	68	160

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	103	70-130



Air Toxics

Client Sample ID: IA-3

Lab ID#: 1311357A-05B

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

File Name:	v112711sim	Date of Collection:	11/14/13 11:04:00 A
Dil. Factor:	1.67	Date of Analysis:	11/27/13 08:07 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	0.17	Not Detected	0.60	Not Detected
Benzene	0.084	0.25	0.27	0.79
Toluene	0.033	0.74	0.12	2.8
Ethyl Benzene	0.033	0.16	0.14	0.68
m,p-Xylene	0.067	0.60	0.29	2.6
o-Xylene	0.033	0.24	0.14	1.0
Naphthalene	0.84	Not Detected	4.4	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

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



Air Toxics

Client Sample ID: IA-4

Lab ID#: 1311357A-06A

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

File Name:	v112712	Date of Collection:	11/14/13 1:30:00 PM	
Dil. Factor:	1.62	Date of Analysis:	11/27/13 08:46 PM	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH ref. to Gasoline (MW=100)	16	37	66	150

Container Type: 6 Liter Summa Canister (SIM Certified)

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



Air Toxics

Client Sample ID: IA-4

Lab ID#: 1311357A-06B

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

File Name:	v112712sim	Date of Collection:	11/14/13 1:30:00 PM
Dil. Factor:	1.62	Date of Analysis:	11/27/13 08:46 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	0.16	Not Detected	0.58	Not Detected
Benzene	0.081	0.27	0.26	0.87
Toluene	0.032	0.55	0.12	2.1
Ethyl Benzene	0.032	0.083	0.14	0.36
m,p-Xylene	0.065	0.25	0.28	1.1
o-Xylene	0.032	0.078	0.14	0.34
Naphthalene	0.81	Not Detected	4.2	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: IA-5

Lab ID#: 1311357A-07A

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

File Name:	v112713	Date of Collection:	11/14/13 12:05:00 P	
Dil. Factor:	1.41	Date of Analysis:	11/27/13 09:40 PM	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH ref. to Gasoline (MW=100)	14	33	58	130

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	95	70-130



Air Toxics

Client Sample ID: IA-5

Lab ID#: 1311357A-07B

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

File Name:	v112713sim	Date of Collection:	11/14/13 12:05:00 P
Dil. Factor:	1.41	Date of Analysis:	11/27/13 09:40 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	0.14	Not Detected	0.51	Not Detected
Benzene	0.070	0.25	0.22	0.80
Toluene	0.028	0.85	0.11	3.2
Ethyl Benzene	0.028	0.13	0.12	0.56
m,p-Xylene	0.056	0.46	0.24	2.0
o-Xylene	0.028	0.18	0.12	0.78
Naphthalene	0.70	Not Detected	3.7	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

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



Air Toxics

Client Sample ID: IA-6

Lab ID#: 1311357A-08A

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

File Name:	v112714	Date of Collection:	11/14/13 11:45:00 A
Dil. Factor:	1.78	Date of Analysis:	11/27/13 10:15 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH ref. to Gasoline (MW=100)	18	100	73	410

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: IA-6

Lab ID#: 1311357A-08B

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

File Name:	v112714sim	Date of Collection:	11/14/13 11:45:00 A
Dil. Factor:	1.78	Date of Analysis:	11/27/13 10:15 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	0.18	Not Detected	0.64	Not Detected
Benzene	0.089	0.26	0.28	0.82
Toluene	0.036	0.64	0.13	2.4
Ethyl Benzene	0.036	0.12	0.15	0.53
m,p-Xylene	0.071	0.45	0.31	2.0
o-Xylene	0.036	0.16	0.15	0.70
Naphthalene	0.89	Not Detected	4.7	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: OA-1

Lab ID#: 1311357A-09A

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

File Name:	v112715	Date of Collection:	11/14/13 1:51:00 PM
Dil. Factor:	1.50	Date of Analysis:	11/27/13 10:51 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH ref. to Gasoline (MW=100)	15	16	61	65

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	99	70-130



Air Toxics

Client Sample ID: OA-1

Lab ID#: 1311357A-09B

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

File Name:	v112715sim	Date of Collection:	11/14/13 1:51:00 PM
Dil. Factor:	1.50	Date of Analysis:	11/27/13 10:51 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	0.15	Not Detected	0.54	Not Detected
Benzene	0.075	0.33	0.24	1.0
Toluene	0.030	0.72	0.11	2.7
Ethyl Benzene	0.030	0.12	0.13	0.51
m,p-Xylene	0.060	0.42	0.26	1.8
o-Xylene	0.030	0.14	0.13	0.62
Naphthalene	0.75	Not Detected	3.9	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	99	70-130



Air Toxics

Client Sample ID: OA-1 DUP

Lab ID#: 1311357A-10A

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

File Name:	v113009	Date of Collection:	11/14/13 1:51:00 PM	
Dil. Factor:	9.04	Date of Analysis:	11/30/13 03:44 PM	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH ref. to Gasoline (MW=100)	90	27	370	110

Container Type: 6 Liter Summa Canister (SIM Certified)

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



Air Toxics

Client Sample ID: OA-1 DUP

Lab ID#: 1311357A-10B

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

File Name:	v113009sim	Date of Collection:	11/14/13 1:51:00 PM
Dil. Factor:	9.04	Date of Analysis:	11/30/13 03:44 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	0.90	Not Detected	3.2	Not Detected
Benzene	0.45	Not Detected	1.4	Not Detected
Toluene	0.18	0.98	0.68	3.7
Ethyl Benzene	0.18	Not Detected	0.78	Not Detected
m,p-Xylene	0.36	0.57	1.6	2.5
o-Xylene	0.18	0.19	0.78	0.84
Naphthalene	4.5	Not Detected	24	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	99	70-130



Air Toxics

Client Sample ID: OA-2

Lab ID#: 1311357A-11A

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

File Name:	v113010	Date of Collection:	11/14/13 11:55:00 A
Dil. Factor:	1.64	Date of Analysis:	11/30/13 05:11 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH ref. to Gasoline (MW=100)	16	22	67	90

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: OA-2

Lab ID#: 1311357A-11B

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

File Name:	v113010sim	Date of Collection:	11/14/13 11:55:00 A
Dil. Factor:	1.64	Date of Analysis:	11/30/13 05:11 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	0.16	Not Detected	0.59	Not Detected
Benzene	0.082	0.28	0.26	0.88
Toluene	0.033	0.78	0.12	2.9
Ethyl Benzene	0.033	0.15	0.14	0.64
m,p-Xylene	0.066	0.55	0.28	2.4
o-Xylene	0.033	0.20	0.14	0.85
Naphthalene	0.82	Not Detected	4.3	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	100	70-130



Air Toxics

Client Sample ID: TRIP BLANK (6L)

Lab ID#: 1311357A-16A

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

File Name:	v113012	Date of Collection:	11/14/13
Dil. Factor:	1.00	Date of Analysis:	11/30/13 06:21 PM

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: 6 Liter Summa Canister

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



Air Toxics

Client Sample ID: TRIP BLANK (6L)

Lab ID#: 1311357A-16B

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

File Name:	v113012sim	Date of Collection:	11/14/13
Dil. Factor:	1.00	Date of Analysis:	11/30/13 06:21 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	0.10	Not Detected	0.36	Not Detected
Benzene	0.050	Not Detected	0.16	Not Detected
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	0.50	Not Detected	2.6	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1311357A-17A

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

File Name:	v112706	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	11/27/13 02:58 PM

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	97	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	100	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1311357A-17B

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

File Name:	v112706sim	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	11/27/13 02:58 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	0.10	Not Detected	0.36	Not Detected
Benzene	0.050	Not Detected	0.16	Not Detected
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	0.50	Not Detected	2.6	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1311357A-17C

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

File Name:	v113007	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	11/30/13 01:22 PM

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	95	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1311357A-17D

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

File Name:	v113007sim	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	11/30/13 01:22 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	0.10	Not Detected	0.36	Not Detected
Benzene	0.050	Not Detected	0.16	Not Detected
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	0.50	Not Detected	2.6	Not Detected

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



Air Toxics

Client Sample ID: CCV

Lab ID#: 1311357A-18A

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

File Name:	v112702	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/27/13 10:59 AM

Compound	%Recovery
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	97	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1311357A-18B

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

File Name:	v112702sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/27/13 10:59 AM

Compound	%Recovery
Methyl tert-butyl ether	106
Benzene	81
Toluene	95
Ethyl Benzene	99
m,p-Xylene	98
o-Xylene	98
Naphthalene	75

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1311357A-18C

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

File Name:	v113003	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/30/13 10:19 AM

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

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	104	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1311357A-18D

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

File Name:	v113003sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/30/13 10:19 AM

Compound	%Recovery
Methyl tert-butyl ether	99
Benzene	74
Toluene	87
Ethyl Benzene	94
m,p-Xylene	93
o-Xylene	94
Naphthalene	73

Container Type: NA - Not Applicable

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



Air Toxics

Client Sample ID: LCS

Lab ID#: 1311357A-19A

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

File Name:	v112703a	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/27/13 11:46 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	98	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	104	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1311357A-19AA

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

File Name:	v112704	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/27/13 01:26 PM

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	98	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	100	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1311357A-19B

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

File Name:	v112703sima	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/27/13 11:46 AM

Compound	%Recovery	Method Limits
Methyl tert-butyl ether	111	70-130
Benzene	84	70-130
Toluene	98	70-130
Ethyl Benzene	102	70-130
m,p-Xylene	101	70-130
o-Xylene	100	70-130
Naphthalene	52 Q	60-140

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	103	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1311357A-19BB

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

File Name:	v112704sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/27/13 01:26 PM

Compound	%Recovery	Method Limits
Methyl tert-butyl ether	112	70-130
Benzene	86	70-130
Toluene	101	70-130
Ethyl Benzene	104	70-130
m,p-Xylene	103	70-130
o-Xylene	102	70-130
Naphthalene	57 Q	60-140

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1311357A-19C

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

File Name:	v113004	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/30/13 11:03 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	95	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	105	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1311357A-19CC

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

File Name:	v113005	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/30/13 11:48 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	96	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	106	70-130

Client Sample ID: LCS

Lab ID#: 1311357A-19D

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

File Name:	v113004sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/30/13 11:03 AM

Compound	%Recovery	Method Limits
Methyl tert-butyl ether	111	70-130
Benzene	85	70-130
Toluene	99	70-130
Ethyl Benzene	105	70-130
m,p-Xylene	104	70-130
o-Xylene	104	70-130
Naphthalene	63	60-140

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	104	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1311357A-19DD

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

File Name:	v113005sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/30/13 11:48 AM

Compound	%Recovery	Method Limits
Methyl tert-butyl ether	110	70-130
Benzene	83	70-130
Toluene	96	70-130
Ethyl Benzene	102	70-130
m,p-Xylene	102	70-130
o-Xylene	101	70-130
Naphthalene	60	60-140

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	105	70-130

Sample Transportation Notice

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FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Project Manager Nathan Lee (ORA) ; Catalina Espino Devine (CERC)
 Collected by: (Print and Sign) OLIVER YAN
 Company Conestoga-Rovers & Associates Email oan@ORAWORLD.COM
 Address 5900 Hollis St, Suite A City Emeryville State CA Zip 94608
 Phone (510) 420-0760 Fax (510) 420-9170

Project Info:	P.O. # <u>4063566</u>	Turn Around Time: <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush <small>specify</small>	Lab Use Only Pressurized by:
	Project # <u>311973</u>		Date:
Project Name <u>CHEVRON 90121</u>			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	34269	2013/11/14	0932	10-15 (10-15) -TPH/STX/MTBE/NAPHTHALENE; ASTM D-1946 FOR O ₂ , N ₂ , CO ₂ , CH ₄ , H ₂ ; AROMATICS AND ALIPHATICS BY 10-15 APH FULL SCAN	-30	-7		
02A	CS-2	34760	2013/11/14	0945		-30	-7		
03A	IA-1	35149	2013/11/14	1032		-28	-4		
04A	IA-2	33776	2013/11/14	1220	FOR ALL THESE SAMPLES	-30	-5		
05A	IA-3	5592	2013/11/14	1104		-29	-6.5		
06A	IA-4	13844	2013/11/14	1330		-30	-6		
07A	IA-5	33921	2013/11/14	1205		-30	-7		
08A	IA-6	30849	2013/11/14	1145		-30	-8		
09A	OA-1	12676	2013/11/14	1351		-30	-3.5		
10A	OA-1 DUP	5766	2013/11/14	1351		-30	-26		

Relinquished by: (signature) <u>[Signature]</u> Date/Time <u>11/19/13 @ 6:30</u>	Received by: (signature) <u>[Signature]</u> Date/Time <u>11-19-13 13:03</u>	Notes: email results to: <u>NLEE@ORAWORLD.COM</u> refer to <u>550W</u> for additional info → <u>PO - 4063566</u>
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	

Lab Use Only	Shipper Name <u>ATL D/O</u>	Air Bill #	Temp (°C) <u>NA</u>	Condition <u>Good</u>	Custody Seals Intact? Yes No <u>None</u>	Work Order # <u>1311357</u>
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Sample Transportation Notice

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FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Project Manager Nathan Lee (ORA); Catalina Espino Devine (CME)
 Collected by: (Print and Sign) OLIVER YAN
 Company CONESTOGA-ROVERS ASSOCIATES Email OYAN@CRAWORLD.COM
 Address 5900 HOLLIS ST, SUITE A City EMERYVILLE State CA Zip 94608
 Phone (510) 420-0700 Fax (510) 420-9170

Project Info: P.O. # <u>4063566</u> Project # <u>311973</u> Project Name <u>CHEVRON 90121</u>	Turn Around Time: <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush	Lab Use Only Pressurized by: Date: Pressurization Gas: N ₂ He
	specify	

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)
11A	OA-2	33890	2013/11/14	1155	TO-15 → TPH ₃ /BTEX/MTBE/Naphthalene ASTM D-1946 → O ₂ , N ₂ , CO ₂ , CH ₄ , He Aromatics and aliphatics by TO-15 APH Full Scan	-30	-7		
	SSVP-1	35557	2013/11/15	1015	↑ TO-15 → TPH ₃ /BTEX/MTBE/Naphthalene ASTM D-1946 → O ₂ , N ₂ , CO ₂ , CH ₄ , He Aromatics and aliphatics by TO-15 APH Full Scan	-30	-5		
	SSVP-2	9503	2013/11/15	1314	↓ TO-15 → TPH ₃ /BTEX/MTBE/Naphthalene ASTM D-1946 → O ₂ , N ₂ , CO ₂ , CH ₄ , He Aromatics and aliphatics by TO-15 APH Full Scan	-29	-5		
	SSVP-3	22966	2013/11/15	1120	↓ TO-15 → TPH ₃ /BTEX/MTBE/Naphthalene ASTM D-1946 → O ₂ , N ₂ , CO ₂ , CH ₄ , He Aromatics and aliphatics by TO-15 APH Full Scan	-29	-5		
	TRIP BLANK (1L)	2092	2013/11/15		TO-15 → TPH ₃ /BTEX/MTBE/Naphthalene ASTM D-1946 → O ₂ , N ₂ , CO ₂ , CH ₄ , He Aromatics and aliphatics by TO-15 APH Full Scan	-30			
16A	TRIP BLANK (6L)	34400	2013/11/14		TO-15 → TPH ₃ /BTEX/MTBE/Naphthalene ASTM D-1946 → O ₂ , N ₂ , CO ₂ , CH ₄ , He Aromatics and aliphatics by TO-15 APH Full Scan	-30			

Relinquished by: (signature) <u>[Signature]</u> Date/Time <u>11/19/13 @ 6:30</u>	Received by: (signature) <u>[Signature]</u> Date/Time <u>11-19-13 1303</u>	Notes: email results to: <u>NLEE@CRAWORLD.COM</u> refer to <u>SSOW</u> for additional info → <u>PO - 4063566</u>
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	<u>ATL D/O</u>		<u>NA</u>	<u>GOOD</u>	Yes No <u>None</u>	<u>1311357</u>

12/9/2013
Mr. Oliver Yan
Conestoga-Rovers Associates (CRA)
5900 Hollis Street
Suite A
Emeryville CA 94608

Project Name: CHEVRON 90121
Project #: 311973
Workorder #: 1311357B

Dear Mr. Oliver Yan

The following report includes the data for the above referenced project for sample(s) received on 11/19/2013 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 Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Kelly Buettner
Project Manager

WORK ORDER #: 1311357B

Work Order Summary

CLIENT:	Mr. Oliver Yan Conestoga-Rovers Associates (CRA) 5900 Hollis Street Suite A Emeryville, CA 94608	BILL TO:	Mr. Oliver Yan Conestoga-Rovers Associates (CRA) 5900 Hollis Street Suite A Emeryville, CA 94608
PHONE:	510-420-0700	P.O. #	4063566
FAX:	510-420-9170	PROJECT #	311973 CHEVRON 90121
DATE RECEIVED:	11/19/2013	CONTACT:	Kelly Buettner
DATE COMPLETED:	12/09/2013		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
12A	SSVP-1	TO-15	3.9 "Hg	14.9 psi
13A	SSVP-2	TO-15	4.5 "Hg	14.9 psi
14A	SSVP-3	TO-15	4.9 "Hg	15 psi
15A	TRIP BLANK (1L)	TO-15	29.6 "Hg	15.4 psi
16A	Lab Blank	TO-15	NA	NA
17A	CCV	TO-15	NA	NA
18A	LCS	TO-15	NA	NA
18AA	LCSD	TO-15	NA	NA

CERTIFIED BY: 
 Technical Director

DATE: 12/09/13

Certification numbers: AZ Licensure AZ0775, CA NELAP - 12282CA, NJ NELAP - CA016, NY NELAP - 11291,
 TX NELAP - T104704434-13-6, UT NELAP CA009332013-4, VA NELAP - 460197, WA NELAP - C935
 Name of Accrediting Agency: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
 Accreditation number: CA300005, Effective date: 10/18/2013, Expiration date: 10/17/2014.

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

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LABORATORY NARRATIVE
EPA Method TO-15
Conestoga-Rovers Associates (CRA)
Workorder# 1311357B

Three 1 Liter Summa Canister (100% Certified) and one 1 Liter Summa Canister samples were received on November 19, 2013. 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

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

Client Sample ID: SSVP-1

Lab ID#: 1311357B-12A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.2	8.0	3.7	26
Toluene	1.2	38	4.4	140
Ethyl Benzene	1.2	6.3	5.0	27
m,p-Xylene	1.2	21	5.0	91
o-Xylene	1.2	8.6	5.0	37
TPH ref. to Gasoline (MW=100)	58	420	240	1700

Client Sample ID: SSVP-2

Lab ID#: 1311357B-13A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	1.2	1.4	4.3	5.2
Benzene	1.2	2.3	3.8	7.3
TPH ref. to Gasoline (MW=100)	59	73	240	300

Client Sample ID: SSVP-3

Lab ID#: 1311357B-14A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.2	6.9	3.8	22
Toluene	1.2	2.7	4.5	10
Ethyl Benzene	1.2	3.9	5.2	17
m,p-Xylene	1.2	7.3	5.2	32
TPH ref. to Gasoline (MW=100)	60	570	250	2300

Client Sample ID: TRIP BLANK (1L)

Lab ID#: 1311357B-15A

No Detections Were Found.



Air Toxics

Client Sample ID: SSVP-1

Lab ID#: 1311357B-12A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3120618	Date of Collection:	11/15/13 10:15:00 AM
Dil. Factor:	2.31	Date of Analysis:	12/6/13 10:19 PM

Compound	Rot. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	1.2	Not Detected	4.2	Not Detected
Benzene	1.2	8.0	3.7	26
Toluene	1.2	38	4.4	140
Ethyl Benzene	1.2	6.3	5.0	27
m,p-Xylene	1.2	21	5.0	91
o-Xylene	1.2	8.6	5.0	37
Naphthalene	4.6	Not Detected	24	Not Detected
TPH ref. to Gasoline (MW=100)	58	420	240	1700

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

Surrogates	%Recovery	Method Limits
Toluene-d8	97	70-130
1,2-Dichloroethane-d4	94	70-130
4-Bromofluorobenzene	100	70-130



Air Toxics

Client Sample ID: SSVP-2

Lab ID#: 1311357B-13A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3120619	Date of Collection:	11/15/13 1:14:00 PM
Dil. Factor:	2.37	Date of Analysis:	12/7/13 06:58 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	1.2	1.4	4.3	5.2
Benzene	1.2	2.3	3.8	7.3
Toluene	1.2	Not Detected	4.5	Not Detected
Ethyl Benzene	1.2	Not Detected	5.1	Not Detected
m,p-Xylene	1.2	Not Detected	5.1	Not Detected
o-Xylene	1.2	Not Detected	5.1	Not Detected
Naphthalene	4.7	Not Detected	25	Not Detected
TPH ref. to Gasoline (MW=100)	59	73	240	300

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

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	96	70-130



Air Toxics

Client Sample ID: SSVP-3

Lab ID#: 1311357B-14A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3120620	Date of Collection:	11/15/13 11:20:00 AM
Dil. Factor:	2.41	Date of Analysis:	12/7/13 07:47 AM

Compound	Rot. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	1.2	Not Detected	4.3	Not Detected
Benzene	1.2	6.9	3.8	22
Toluene	1.2	2.7	4.5	10
Ethyl Benzene	1.2	3.9	5.2	17
m,p-Xylene	1.2	7.3	5.2	32
o-Xylene	1.2	Not Detected	5.2	Not Detected
Naphthalene	4.8	Not Detected	25	Not Detected
TPH ref. to Gasoline (MW=100)	60	570	250	2300

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

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



Air Toxics

Client Sample ID: TRIP BLANK (1L)

Lab ID#: 1311357B-15A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3120621	Date of Collection:	11/15/13
Dil. Factor:	1.00	Date of Analysis:	12/7/13 08:34 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Naphthalene	2.0	Not Detected	10	Not Detected
TPH ref. to Gasoline (MW=100)	25	Not Detected	100	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	95	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1311357B-16A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3120607	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/6/13 01:25 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Naphthalene	2.0	Not Detected	10	Not Detected
TPH ref. to Gasoline (MW=100)	25	Not Detected	100	Not Detected

Container Type: NA - Not Applicable

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



Air Toxics

Client Sample ID: CCV

Lab ID#: 1311357B-17A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3120602	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/6/13 09:12 AM

Compound	%Recovery
Methyl tert-butyl ether	99
Benzene	95
Toluene	95
Ethyl Benzene	102
m,p-Xylene	103
o-Xylene	104
Naphthalene	94
TPH ref. to Gasoline (MW=100)	100

Container Type: NA - Not Applicable

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



Air Toxics

Client Sample ID: LCS

Lab ID#: 1311357B-18A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3120603	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/6/13 10:17 AM

Compound	%Recovery	Method Limits
Methyl tert-butyl ether	111	70-130
Benzene	105	70-130
Toluene	102	70-130
Ethyl Benzene	109	70-130
m,p-Xylene	112	70-130
o-Xylene	111	70-130
Naphthalene	63	60-140
TPH ref. to Gasoline (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1311357B-18AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3120604	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/6/13 10:35 AM

Compound	%Recovery	Method Limits
Methyl tert-butyl ether	105	70-130
Benzene	102	70-130
Toluene	101	70-130
Ethyl Benzene	108	70-130
m,p-Xylene	111	70-130
o-Xylene	110	70-130
Naphthalene	66	60-140
TPH ref. to Gasoline (MW=100)	Not Spiked	

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	97	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Sample Transportation Notice

The relinquishing signature on this document indicates that samples being shipped in compliance with all applicable local, State, Federal, regional, 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.I. Hotline (800) 467-4922

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FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Page 2 of 2

Project Manager [Signature]
 Collected by: (Print and Sign) [Signature]
 Company [Signature] Email [Signature]
 Address [Signature] City [Signature] State [Signature] Zip [Signature]
 Phone [Signature] Fax [Signature]

Project Info:	Turn Around Time:	Lab Use Only
	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush <small>specify</small>	Prestirized by: Date: Pressurization Gas: N He
P.O. # <u>4062566</u>		
Project # <u>31032</u>		
Project Name <u>[Signature]</u>		

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum			
						Initial	Final	Receipt	Final (psf)
		20070	10/17/03	11:00	...	-30	-5		
		20071	10/17/03	11:05	...	-30	-5		
3A	20072	20072	10/17/03	11:10	...	-30	-5		
4A	20073	20073	10/17/03	11:20	...	-30	-5		
		20074	10/17/03		...	-30			
		20075	10/17/03		...	-30			

Relinquished by: (signature) <u>[Signature]</u> Date/Time <u>10/17/03 12:00</u>	Received by: (signature) <u>[Signature]</u> Date/Time <u>10/17/03 12:00</u>	Notes: will call to notify customer re: 25000 to 250000... PO - 4062566
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	

Lab Use Only	Shipper Name	Air Bill #	Temp. (°C)	Condition	Custody Seals intact?	Work Order #
	<u>[Signature]</u>		<u>10</u>	<u>Good</u>	Yes No None	<u>15307</u>

12/10/2013
Mr. Oliver Yan
Conestoga-Rovers Associates (CRA)
5900 Hollis Street
Suite A
Emeryville CA 94608

Project Name: CHEVRON 90121
Project #: 311973
Workorder #: 1311357C

Dear Mr. Oliver Yan

The following report includes the data for the above referenced project for sample(s) received on 11/19/2013 at Air Toxics Ltd.

The data and associated QC analyzed by Modified ASTM D-1946 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

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

Regards,



Kelly Buettner
Project Manager

WORK ORDER #: 1311357C

Work Order Summary

CLIENT:	Mr. Oliver Yan Conestoga-Rovers Associates (CRA) 5900 Hollis Street Suite A Emeryville, CA 94608	BILL TO:	Mr. Oliver Yan Conestoga-Rovers Associates (CRA) 5900 Hollis Street Suite A Emeryville, CA 94608
PHONE:	510-420-0700	P.O. #	4063566
FAX:	510-420-9170	PROJECT #	311973 CHEVRON 90121
DATE RECEIVED:	11/19/2013	CONTACT:	Kelly Buettner
DATE COMPLETED:	12/10/2013		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	CS-1	Modified ASTM D-1946	6.1 "Hg	5.1 psi
02A	CS-2	Modified ASTM D-1946	6.1 "Hg	5.3 psi
03A	IA-1	Modified ASTM D-1946	5.7 "Hg	5.4 psi
04A	IA-2	Modified ASTM D-1946	3.5 "Hg	5.1 psi
05A	IA-3	Modified ASTM D-1946	6.1 "Hg	4.8 psi
06A	IA-4	Modified ASTM D-1946	5.1 "Hg	5.1 psi
07A	IA-5	Modified ASTM D-1946	1.4 "Hg	5.1 psi
08A	IA-6	Modified ASTM D-1946	7.6 "Hg	4.9 psi
09A	OA-1	Modified ASTM D-1946	2.8 "Hg	5.2 psi
10A	OA-1 DUP	Modified ASTM D-1946	25.5 "Hg	5.2 psi
11A	OA-2	Modified ASTM D-1946	5.3 "Hg	5.2 psi
12A	SSVP-1	Modified ASTM D-1946	3.9 "Hg	14.9 psi
13A	SSVP-2	Modified ASTM D-1946	4.5 "Hg	14.9 psi
14A	SSVP-3	Modified ASTM D-1946	4.9 "Hg	15 psi
15A	TRIP BLANK (1L)	Modified ASTM D-1946	29.6 "Hg	15.4 psi
16A	TRIP BLANK (6L)	Modified ASTM D-1946	29.8 "Hg	5 psi
17A	Lab Blank	Modified ASTM D-1946	NA	NA
17B	Lab Blank	Modified ASTM D-1946	NA	NA
18A	LCS	Modified ASTM D-1946	NA	NA
18AA	LCSD	Modified ASTM D-1946	NA	NA

CERTIFIED BY: 
 Technical Director

DATE: 12/10/13

Certification numbers: AZ Licensure AZ0775, CA NELAP - 12282CA, NJ NELAP - CA016, NY NELAP - 11291,
 TX NELAP - T104704434-13-6, UT NELAP CA009332013-4, VA NELAP - 460197, WA NELAP - C935
 Name of Accrediting Agency: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
 Accreditation number: CA300005, Effective date: 10/18/2013, Expiration date: 10/17/2014.

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

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LABORATORY NARRATIVE
Modified ASTM D-1946
Conestoga-Rovers Associates (CRA)
Workorder# 1311357C

Eleven 6 Liter Summa Canister (SIM Certified), Three 1 Liter Summa Canister (100% Certified), One 1 Liter Summa Canister, and one 6 Liter Summa Canister samples were received on November 19, 2013. The laboratory performed analysis via Modified ASTM Method D-1946 for Methane and fixed gases in air using GC/FID or GC/TCD. The method involves direct injection of 1.0 mL of sample.

On the analytical column employed for this analysis, Oxygen coelutes with Argon. The corresponding peak is quantitated as Oxygen.

Since Nitrogen is used to pressurize samples, the reported Nitrogen values are calculated by adding all the sample components and subtracting from 100%.

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

<i>Requirement</i>	<i>ASTM D-1946</i>	<i>ATL Modifications</i>
Calibration	A single point calibration is performed using a reference standard closely matching the composition of the unknown.	A 3-point calibration curve is performed. Quantitation is based on a daily calibration standard which may or may not resemble the composition of the associated samples.
Reference Standard	The composition of any reference standard must be known to within 0.01 mol % for any component.	The standards used by ATL are blended to a $\geq 95\%$ accuracy.
Sample Injection Volume	Components whose concentrations are in excess of 5 % should not be analyzed by using sample volumes greater than 0.5 mL.	The sample container is connected directly to a fixed volume sample loop of 1.0 mL on the GC. Linear range is defined by the calibration curve. Bags are loaded by vacuum.
Normalization	Normalize the mole percent values by multiplying each value by 100 and dividing by the sum of the original values. The sum of the original values should not differ from 100% by more than 1.0%.	Results are not normalized. The sum of the reported values can differ from 100% by as much as 15%, either due to analytical variability or an unusual sample matrix.
Precision	Precision requirements established at each concentration level.	Duplicates should agree within 25% RPD for detections $> 5 \times$ the RL.

Receiving Notes

Sample OA-1 DUP was received with significant vacuum remaining in the canister. The residual canister vacuum resulted in elevated reporting limits.

Analytical Notes

The reporting limit for Nitrogen was raised from 0.10% to 0.50%.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

B - Compound present in laboratory blank greater than reporting limit.

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 detection limit.

M - Reported value may be biased due to apparent matrix interferences.

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

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: CS-1

Lab ID#: 1311357C-01A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.17	21
Nitrogen	0.84	79
Carbon Dioxide	0.017	0.048
Methane	0.00017	0.00092

Client Sample ID: CS-2

Lab ID#: 1311357C-02A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.17	21
Nitrogen	0.86	79
Carbon Dioxide	0.017	0.045
Methane	0.00017	0.00057

Client Sample ID: IA-1

Lab ID#: 1311357C-03A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.17	21
Nitrogen	0.84	79
Carbon Dioxide	0.017	0.061
Methane	0.00017	0.0013

Client Sample ID: IA-2

Lab ID#: 1311357C-04A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.15	21
Nitrogen	0.76	79
Carbon Dioxide	0.015	0.063
Methane	0.00015	0.0013

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: IA-3

Lab ID#: 1311357C-05A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.17	21
Nitrogen	0.84	79
Carbon Dioxide	0.017	0.060
Methane	0.00017	0.0013

Client Sample ID: IA-4

Lab ID#: 1311357C-06A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.16	21
Nitrogen	0.81	79
Carbon Dioxide	0.016	0.047
Methane	0.00016	0.0027

Client Sample ID: IA-5

Lab ID#: 1311357C-07A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.14	21
Nitrogen	0.70	79
Carbon Dioxide	0.014	0.051
Methane	0.00014	0.0010

Client Sample ID: IA-6

Lab ID#: 1311357C-08A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.18	21
Nitrogen	0.89	79
Carbon Dioxide	0.018	0.046
Methane	0.00018	0.00035

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: OA-1

Lab ID#: 1311357C-09A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.15	21
Nitrogen	0.75	79
Carbon Dioxide	0.015	0.045
Methane	0.00015	0.00024

Client Sample ID: OA-1 DUP

Lab ID#: 1311357C-10A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.90	21
Nitrogen	4.5	79

Client Sample ID: OA-2

Lab ID#: 1311357C-11A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.16	21
Nitrogen	0.82	79
Carbon Dioxide	0.016	0.042
Methane	0.00016	0.00022

Client Sample ID: SSV-1

Lab ID#: 1311357C-12A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.23	20
Nitrogen	1.2	80
Carbon Dioxide	0.023	0.39

Client Sample ID: SSV-2

Lab ID#: 1311357C-13A

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: SSV-2

Lab ID#: 1311357C-13A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.24	18
Nitrogen	1.2	80
Carbon Dioxide	0.024	1.9

Client Sample ID: SSV-3

Lab ID#: 1311357C-14A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.24	19
Nitrogen	1.2	80
Carbon Dioxide	0.024	0.34
Helium	0.12	0.22

Client Sample ID: TRIP BLANK (1L)

Lab ID#: 1311357C-15A

Compound	Rpt. Limit (%)	Amount (%)
Nitrogen	0.50	100

Client Sample ID: TRIP BLANK (6L)

Lab ID#: 1311357C-16A

Compound	Rpt. Limit (%)	Amount (%)
Nitrogen	0.50	100



Air Toxics

Client Sample ID: CS-1

Lab ID#: 1311357C-01A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	10120307	Date of Collection:	11/14/13 9:32:00 AM
Dil. Factor:	1.69	Date of Analysis:	12/3/13 12:37 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.17	21
Nitrogen	0.84	79
Carbon Dioxide	0.017	0.048
Methane	0.00017	0.00092
Helium	0.084	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)



Air Toxics

Client Sample ID: CS-2

Lab ID#: 1311357C-02A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	10120308	Date of Collection:	11/14/13 9:45:00 AM
Dil. Factor:	1.71	Date of Analysis:	12/3/13 01:00 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.17	21
Nitrogen	0.86	79
Carbon Dioxide	0.017	0.045
Methane	0.00017	0.00057
Helium	0.086	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Client Sample ID: IA-1

Lab ID#: 1311357C-03A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	10120309	Date of Collection: 11/14/13 10:32:00 A
Dil. Factor:	1.69	Date of Analysis: 12/3/13 01:39 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.17	21
Nitrogen	0.84	79
Carbon Dioxide	0.017	0.061
Methane	0.00017	0.0013
Helium	0.084	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)



Air Toxics

Client Sample ID: IA-2

Lab ID#: 1311357C-04A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	10120310	Date of Collection:	11/14/13 12:20:00 P
Dil. Factor:	1.52	Date of Analysis:	12/3/13 02:18 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.15	21
Nitrogen	0.76	79
Carbon Dioxide	0.015	0.063
Methane	0.00015	0.0013
Helium	0.076	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Client Sample ID: IA-3

Lab ID#: 1311357C-05A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	10120311	Date of Collection: 11/14/13 11:04:00 A
Dil. Factor:	1.67	Date of Analysis: 12/3/13 02:50 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.17	21
Nitrogen	0.84	79
Carbon Dioxide	0.017	0.060
Methane	0.00017	0.0013
Helium	0.084	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Client Sample ID: IA-4

Lab ID#: 1311357C-06A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	10120312	Date of Collection: 11/14/13 1:30:00 PM
Dil. Factor:	1.62	Date of Analysis: 12/3/13 03:48 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.16	21
Nitrogen	0.81	79
Carbon Dioxide	0.016	0.047
Methane	0.00016	0.0027
Helium	0.081	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)



Air Toxics

Client Sample ID: IA-5

Lab ID#: 1311357C-07A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	10120313	Date of Collection: 11/14/13 12:05:00 P
Dil. Factor:	1.41	Date of Analysis: 12/3/13 04:10 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.14	21
Nitrogen	0.70	79
Carbon Dioxide	0.014	0.051
Methane	0.00014	0.0010
Helium	0.070	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)



Air Toxics

Client Sample ID: IA-6

Lab ID#: 1311357C-08A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	10120314	Date of Collection:	11/14/13 11:45:00 A
Dil. Factor:	1.78	Date of Analysis:	12/3/13 04:50 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.18	21
Nitrogen	0.89	79
Carbon Dioxide	0.018	0.046
Methane	0.00018	0.00035
Helium	0.089	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)



Air Toxics

Client Sample ID: OA-1

Lab ID#: 1311357C-09A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	10120315	Date of Collection:	11/14/13 1:51:00 PM
Dil. Factor:	1.50	Date of Analysis:	12/3/13 05:40 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.15	21
Nitrogen	0.75	79
Carbon Dioxide	0.015	0.045
Methane	0.00015	0.00024
Helium	0.075	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)



Air Toxics

Client Sample ID: OA-1 DUP

Lab ID#: 1311357C-10A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	10120316	Date of Collection:	11/14/13 1:51:00 PM
Dil. Factor:	9.04	Date of Analysis:	12/3/13 06:07 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.90	21
Nitrogen	4.5	79
Carbon Dioxide	0.090	Not Detected
Methane	0.00090	Not Detected
Helium	0.45	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)



Air Toxics

Client Sample ID: OA-2

Lab ID#: 1311357C-11A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	10120318	Date of Collection:	11/14/13 11:55:00 A
Dil. Factor:	1.64	Date of Analysis:	12/3/13 06:56 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.16	21
Nitrogen	0.82	79
Carbon Dioxide	0.016	0.042
Methane	0.00016	0.00022
Helium	0.082	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Client Sample ID: SSVP-1

Lab ID#: 1311357C-12A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	10120319	Date of Collection:	11/15/13 10:15:00 A
Dil. Factor:	2.31	Date of Analysis:	12/3/13 07:21 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.23	20
Nitrogen	1.2	80
Carbon Dioxide	0.023	0.39
Methane	0.00023	Not Detected
Helium	0.12	Not Detected

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



Air Toxics

Client Sample ID: SSVP-2

Lab ID#: 1311357C-13A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	10120320	Date of Collection:	11/15/13 1:14:00 PM
Dil. Factor:	2.37	Date of Analysis:	12/3/13 07:44 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.24	18
Nitrogen	1.2	80
Carbon Dioxide	0.024	1.9
Methane	0.00024	Not Detected
Helium	0.12	Not Detected

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



Air Toxics

Client Sample ID: SSVP-3

Lab ID#: 1311357C-14A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	10120321	Date of Collection:	11/15/13 11:20:00 A
Dil. Factor:	2.41	Date of Analysis:	12/3/13 08:22 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.24	19
Nitrogen	1.2	80
Carbon Dioxide	0.024	0.34
Methane	0.00024	Not Detected
Helium	0.12	0.22

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



Air Toxics

Client Sample ID: TRIP BLANK (1L)

Lab ID#: 1311357C-15A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	10120305	Date of Collection:	11/14/13
Dil. Factor:	1.00	Date of Analysis:	12/3/13 11:32 AM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.10	Not Detected
Nitrogen	0.50	100
Carbon Dioxide	0.010	Not Detected
Methane	0.00010	Not Detected
Helium	0.050	Not Detected

Container Type: 1 Liter Summa Canister



Air Toxics

Client Sample ID: TRIP BLANK (6L)

Lab ID#: 1311357C-16A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	10120306	Date of Collection:	11/14/13
Dil. Factor:	1.00	Date of Analysis:	12/3/13 12:02 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.10	Not Detected
Nitrogen	0.50	100
Carbon Dioxide	0.010	Not Detected
Methane	0.00010	Not Detected
Helium	0.050	Not Detected

Container Type: 6 Liter Summa Canister



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1311357C-17A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	10120304	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/3/13 10:47 AM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.10	Not Detected
Nitrogen	0.50	Not Detected
Carbon Dioxide	0.010	Not Detected
Methane	0.00010	Not Detected

Container Type: NA - Not Applicable

Client Sample ID: Lab Blank

Lab ID#: 1311357C-17B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	10120303c	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/3/13 10:02 AM

Compound	Rpt. Limit (%)	Amount (%)
Helium	0.050	Not Detected

Container Type: NA - Not Applicable

Client Sample ID: LCS

Lab ID#: 1311357C-18A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	10120302	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/3/13 09:41 AM

Compound	%Recovery	Method Limits
Oxygen	100	85-115
Nitrogen	100	85-115
Carbon Dioxide	100	85-115
Methane	101	85-115
Helium	98	85-115

Container Type: NA - Not Applicable

Client Sample ID: LCSD

Lab ID#: 1311357C-18AA

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	10120324	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/3/13 09:34 PM

Compound	%Recovery	Method Limits
Oxygen	100	85-115
Nitrogen	100	85-115
Carbon Dioxide	100	85-115
Methane	101	85-115
Helium	98	85-115

Container Type: NA - Not Applicable



Air Toxics

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 Nathan Lee (CRA) ; Catalina Espino Devine (CRA)
 Collected by: (Print and Sign) OLIVER YAN
 Company Conestoga-Rovers & Associates Email oyn@cranworld.com
 Address 5900 Hollis St, Suite A City Emeryville State CA Zip 94608
 Phone (510) 420-0700 Fax (510) 420-9170

Project Info:	Turn Around Time:	<i>Lab Use Only</i>
P.O. # <u>4063566</u>	<input checked="" type="checkbox"/> Normal	Pressurized by:
Project # <u>311973</u>	<input type="checkbox"/> Rush	Date:
Project Name <u>CHEVRON 90121</u>	<i>specify</i>	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 (psl)	
01A	CS-1	34269	2013/11/14	0932	TO-15 (CO, H ₂ , TPMS, STX, MTBE, NAPHTHALENE, ASTH D-1446 FOR O ₂ , N ₂ , CO ₂ , CH ₄ , H ₂ , AROMATICS AND ALIPHATICS BY TO-15 APH FULL SCAN	-30	-7			
02A	CS-2	34760	2013/11/14	0945		-30	-7			
03A	IA-1	35149	2013/11/14	1032		-28	-4			
04A	IA-2	33776	2013/11/14	1220		FOR ALL THESE SAMPLES	-30	-5		
05A	IA-3	5592	2013/11/14	1104		-29	-6.5			
06A	IA-4	13844	2013/11/14	1330		-30	-6			
07A	IA-5	33921	2013/11/14	1205		-30	-7			
08A	IA-6	30849	2013/11/14	1145		-30	-8			
09A	OA-1	12676	2013/11/14	1351		-30	-3.5			
10A	OA-1 DUP	5766	2013/11/14	1351		-30	-26			

Relinquished by: (signature) <u>[Signature]</u> Date/Time <u>11/19/13 @ 6:30</u>	Received by: (signature) <u>[Signature]</u> Date/Time <u>11-19-13 13:03</u>	Notes: email results to: <u>NLEE@CRANWORLD.COM</u> refer to <u>SSOW</u> for additional info → <u>PO - 4063566</u>
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	<u>ATL D/O</u>		<u>NA</u>	<u>Good</u>	Yes No <u>None</u>	<u>1311357</u>

Sample Transportation Notice

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

Project Manager Nathan Lee (CRA); Catalina Espino Devine (CRA)
 Collected by: (Print and Sign) OLIVER YAN
 Company CONESTOGA-ROVERS ASSOCIATES Email OYAN@CRAWORLD.COM
 Address 5900 BOLLIS ST, SUITE A City EMERYVILLE State CA Zip 94608
 Phone (510) 420-0700 Fax (510) 420-9170

Project Info:
 P.O. # 4063566
 Project # 311973
 Project Name CHEVRON 90121

Turn Around Time:
 Normal
 Rush
specify

Lab Use Only
 Pressurized by:
 Date:
 Pressurization Gas:
 N₂ 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)
11A	OA-2	33890	2013/11/14	1155	TO-15 → TPH _g /BTEX/MTSE/Naphthalene ASTM D-1946 → O ₂ , N ₂ , CO ₂ , CH ₄ , He Aromatics and aliphatics by TO-15	-30	-7		
12A	SSVP-1	35557	2013/11/15	1015	↑ TO-15 → TPH _g /BTEX/MTSE/Naphthalene ASTM D-1946 → O ₂ , N ₂ , CO ₂ , CH ₄ , He Aromatics and aliphatics by TO-15	-30	-5		
13A	SSVP-2	9503	2013/11/15	1314	↓ TO-15 → TPH _g /BTEX/MTSE/Naphthalene ASTM D-1946 → O ₂ , N ₂ , CO ₂ , CH ₄ , He Aromatics and aliphatics by TO-15	-29	-5		
14A	SSVP-3	22966	2013/11/15	1120	↓ TO-15 → TPH _g /BTEX/MTSE/Naphthalene ASTM D-1946 → O ₂ , N ₂ , CO ₂ , CH ₄ , He Aromatics and aliphatics by TO-15	-29	-5		
15A	TRIP BLANK (1L)	2092	2013/11/15		TO-15 → TPH _g /BTEX/MTSE/Naphthalene ASTM D-1946 → O ₂ , N ₂ , CO ₂ , CH ₄ , He	-30			
16A	TRIP BLANK (6L)	34400	2013/11/14		TO-15 → TPH _g /BTEX/MTSE/Naphthalene ASTM D-1946 → O ₂ , N ₂ , CO ₂ , CH ₄ , He	-30			

Relinquished by: (signature) <u>[Signature]</u>	Date/Time <u>11/19/13 @ 6:30</u>	Received by: (signature) <u>[Signature]</u>	Date/Time <u>11-19-13 1303</u>
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Notes:
 email results to: NLEE@CRAWORLD.COM
 refer to SSOW for additional info →
PO - 4063566

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	<u>ATL D/O</u>		<u>NA</u>	<u>GOOD</u>	Yes No <u>None</u>	<u>1311357</u>

12/9/2013
Mr. Oliver Yan
Conestoga-Rovers Associates (CRA)
5900 Hollis Street
Suite A
Emeryville CA 94608

Project Name: CHEVRON 90121
Project #: 311973
Workorder #: 1311357D

Dear Mr. Oliver Yan

The following report includes the data for the above referenced project for sample(s) received on 11/19/2013 at Air Toxics Ltd.

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

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

Regards,



Kelly Buettner
Project Manager

WORK ORDER #: 1311357D

Work Order Summary

CLIENT:	Mr. Oliver Yan Conestoga-Rovers Associates (CRA) 5900 Hollis Street Suite A Emeryville, CA 94608	BILL TO:	Mr. Oliver Yan Conestoga-Rovers Associates (CRA) 5900 Hollis Street Suite A Emeryville, CA 94608
PHONE:	510-420-0700	P.O. #	4063566
FAX:	510-420-9170	PROJECT #	311973 CHEVRON 90121
DATE RECEIVED:	11/19/2013	CONTACT:	Kelly Buettner
DATE COMPLETED:	12/09/2013		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	CS-1	Modified TO-15 APH	6.1 "Hg	5.1 psi
01B	CS-1	Modified TO-15 APH	6.1 "Hg	5.1 psi
02A	CS-2	Modified TO-15 APH	6.1 "Hg	5.3 psi
02B	CS-2	Modified TO-15 APH	6.1 "Hg	5.3 psi
03A	IA-1	Modified TO-15 APH	5.7 "Hg	5.4 psi
03B	IA-1	Modified TO-15 APH	5.7 "Hg	5.4 psi
04A	IA-2	Modified TO-15 APH	3.5 "Hg	5.1 psi
04B	IA-2	Modified TO-15 APH	3.5 "Hg	5.1 psi
05A	IA-3	Modified TO-15 APH	6.1 "Hg	4.8 psi
05B	IA-3	Modified TO-15 APH	6.1 "Hg	4.8 psi
06A	IA-4	Modified TO-15 APH	5.1 "Hg	5.1 psi
06B	IA-4	Modified TO-15 APH	5.1 "Hg	5.1 psi
07A	IA-5	Modified TO-15 APH	1.4 "Hg	5.1 psi
07B	IA-5	Modified TO-15 APH	1.4 "Hg	5.1 psi
08A	IA-6	Modified TO-15 APH	7.6 "Hg	4.9 psi
08B	IA-6	Modified TO-15 APH	7.6 "Hg	4.9 psi
09A	OA-1	Modified TO-15 APH	2.8 "Hg	5.2 psi
09B	OA-1	Modified TO-15 APH	2.8 "Hg	5.2 psi
10A	OA-1 DUP	Modified TO-15 APH	25.5 "Hg	5.2 psi
10B	OA-1 DUP	Modified TO-15 APH	25.5 "Hg	5.2 psi
11A	OA-2	Modified TO-15 APH	5.3 "Hg	5.2 psi
11B	OA-2	Modified TO-15 APH	5.3 "Hg	5.2 psi
12A	Lab Blank	Modified TO-15 APH	NA	NA

Continued on next page

WORK ORDER #: 1311357D

Work Order Summary

CLIENT: Mr. Oliver Yan
Conestoga-Rovers Associates (CRA)
5900 Hollis Street
Suite A
Emeryville, CA 94608

BILL TO: Mr. Oliver Yan
Conestoga-Rovers Associates (CRA)
5900 Hollis Street
Suite A
Emeryville, CA 94608

PHONE: 510-420-0700

FAX: 510-420-9170

DATE RECEIVED: 11/19/2013

DATE COMPLETED: 12/09/2013

P.O. # 4063566

PROJECT # 311973 CHEVRON 90121

CONTACT: Kelly Buettner

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
12B	Lab Blank	Modified TO-15 APH	NA	NA
12C	Lab Blank	Modified TO-15 APH	NA	NA
12D	Lab Blank	Modified TO-15 APH	NA	NA
13A	CCV	Modified TO-15 APH	NA	NA
13B	CCV	Modified TO-15 APH	NA	NA
13C	CCV	Modified TO-15 APH	NA	NA
13D	CCV	Modified TO-15 APH	NA	NA

CERTIFIED BY: _____



Technical Director

DATE: 12/09/13 _____

Certification numbers: AZ Licensure AZ0775, CA NELAP - 12282CA, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-13-6, UT NELAP CA009332013-4, VA NELAP - 460197, WA NELAP - C935

Name of Accrediting Agency: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)

Accreditation number: CA300005, Effective date: 10/18/2013, Expiration date: 10/17/2014.

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

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9562

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



LABORATORY NARRATIVE
Modified TO-15 & VPH Fractions
Conestoga-Rovers Associates (CRA)
Workorder# 1311357D

Eleven 6 Liter Summa Canister (SIM Certified) samples were received on November 19, 2013. The laboratory performed analysis via EPA Method TO-15 and Air Toxics VPH (Volatile Petroleum Hydrocarbon) methods for the Determination of VPH Fractions using GC/MS in the full scan mode. The method involves concentrating up to 0.5 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 method is designed to measure gaseous phase aliphatic and aromatic compounds in ambient air and soil gas collected in stainless steel Summa canisters. Air Toxics VPH method is a hybrid of EPA TO-15, MADEP APH and WSDE VPH methods. Chromatographic peaks were identified via mass spectrum as either aliphatic or aromatic petroleum hydrocarbons and included in the appropriate range as defined by the method. The volatile Aliphatic hydrocarbons are collectively quantified within the C5 to C6 range, C6 to C8 range, C8 to C10 range and the C10 to C12 range. Additionally, the volatile Aromatic hydrocarbons are collectively quantified within the C8 to C10 range and the C10 to C12 range. The Aromatic ranges refer to the equivalent carbon (EC) ranges.

Aliphatic data is calculated from the Total Ion chromatogram which has been reprocessed in a duplicate file differentiated from the original by the addition of an alphanumeric extension. The Aromatic calculation also uses the information contained in the associated Extracted Ion file.

Receiving Notes

Sample OA-1 DUP was received with significant vacuum remaining in the canister. The residual canister vacuum resulted in elevated reporting limits.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

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

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

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

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

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

N - The identification is based on presumptive evidence.

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

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue



Air Toxics

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

Client Sample ID: CS-1

Lab ID#: 1311357D-01A

No Detections Were Found.

Client Sample ID: CS-1

Lab ID#: 1311357D-01B

No Detections Were Found.

Client Sample ID: CS-2

Lab ID#: 1311357D-02A

No Detections Were Found.

Client Sample ID: CS-2

Lab ID#: 1311357D-02B

No Detections Were Found.

Client Sample ID: IA-1

Lab ID#: 1311357D-03A

No Detections Were Found.

Client Sample ID: IA-1

Lab ID#: 1311357D-03B

No Detections Were Found.

Client Sample ID: IA-2

Lab ID#: 1311357D-04A

No Detections Were Found.

Client Sample ID: IA-2

Lab ID#: 1311357D-04B

No Detections Were Found.

Client Sample ID: IA-3

Lab ID#: 1311357D-05A



Air Toxics

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

Client Sample ID: IA-3

Lab ID#: 1311357D-05A

No Detections Were Found.

Client Sample ID: IA-3

Lab ID#: 1311357D-05B

No Detections Were Found.

Client Sample ID: IA-4

Lab ID#: 1311357D-06A

No Detections Were Found.

Client Sample ID: IA-4

Lab ID#: 1311357D-06B

No Detections Were Found.

Client Sample ID: IA-5

Lab ID#: 1311357D-07A

No Detections Were Found.

Client Sample ID: IA-5

Lab ID#: 1311357D-07B

No Detections Were Found.

Client Sample ID: IA-6

Lab ID#: 1311357D-08A

No Detections Were Found.

Client Sample ID: IA-6

Lab ID#: 1311357D-08B

No Detections Were Found.

Client Sample ID: OA-1

Lab ID#: 1311357D-09A



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

Client Sample ID: OA-1

Lab ID#: 1311357D-09A

No Detections Were Found.

Client Sample ID: OA-1

Lab ID#: 1311357D-09B

No Detections Were Found.

Client Sample ID: OA-1 DUP

Lab ID#: 1311357D-10A

No Detections Were Found.

Client Sample ID: OA-1 DUP

Lab ID#: 1311357D-10B

No Detections Were Found.

Client Sample ID: OA-2

Lab ID#: 1311357D-11A

No Detections Were Found.

Client Sample ID: OA-2

Lab ID#: 1311357D-11B

No Detections Were Found.



Air Toxics

Client Sample ID: CS-1

Lab ID#: 1311357D-01A

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	p120507a	Date of Collection:	11/14/13 9:32:00 AM
Dil. Factor:	1.69	Date of Analysis:	12/5/13 12:33 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
C5-C6 Aliphatic Hydrocarbons (ref. to Pentane + Hexane)	17	Not Detected	55	Not Detected
>C6-C8 Aliphatic Hydrocarbons (ref. to Heptane)	17	Not Detected	69	Not Detected
>C8-C10 Aliphatic Hydrocarbons (ref. to Decane)	17	Not Detected	98	Not Detected
>C10-C12 Aliphatic Hydrocarbons (ref. to Dodecane)	17	Not Detected	120	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)



Air Toxics

Client Sample ID: CS-1

Lab ID#: 1311357D-01B

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	p120507c	Date of Collection:	11/14/20 9:32:00 AM
Dil. Factor:	1.69	Date of Analysis:	12/5/13 12:33 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
>C8-C10 Aromatic Hydrocarbons (ref. to 1,2,3-TMB)	17	Not Detected	83	Not Detected
>C10-C12 Aromatic Hydrocarbons (ref. to 1,2,4,5-TMB)	17	Not Detected	93	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)



Air Toxics

Client Sample ID: CS-2

Lab ID#: 1311357D-02A

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	p120508a	Date of Collection:	11/14/20 9:45:00 AM
Dil. Factor:	1.71	Date of Analysis:	12/5/13 01:23 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
C5-C6 Aliphatic Hydrocarbons (ref. to Pentane + Hexane)	17	Not Detected	55	Not Detected
>C6-C8 Aliphatic Hydrocarbons (ref. to Heptane)	17	Not Detected	70	Not Detected
>C8-C10 Aliphatic Hydrocarbons (ref. to Decane)	17	Not Detected	100	Not Detected
>C10-C12 Aliphatic Hydrocarbons (ref. to Dodecane)	17	Not Detected	120	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)



Air Toxics

Client Sample ID: CS-2

Lab ID#: 1311357D-02B

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	p120508c	Date of Collection:	11/14/20 9:45:00 AM
Dil. Factor:	1.71	Date of Analysis:	12/5/13 01:23 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
>C8-C10 Aromatic Hydrocarbons (ref. to 1,2,3-TMB)	17	Not Detected	84	Not Detected
>C10-C12 Aromatic Hydrocarbons (ref. to 1,2,4,5-TMB)	17	Not Detected	94	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)



Air Toxics

Client Sample ID: IA-1

Lab ID#: 1311357D-03A

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	p120509a	Date of Collection:	11/14/20 10:32:00 AM
Dil. Factor:	1.69	Date of Analysis:	12/5/13 02:00 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
C5-C6 Aliphatic Hydrocarbons (ref. to Pentane + Hexane)	17	Not Detected	55	Not Detected
>C6-C8 Aliphatic Hydrocarbons (ref. to Heptane)	17	Not Detected	69	Not Detected
>C8-C10 Aliphatic Hydrocarbons (ref. to Decane)	17	Not Detected	98	Not Detected
>C10-C12 Aliphatic Hydrocarbons (ref. to Dodecane)	17	Not Detected	120	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)



Air Toxics

Client Sample ID: IA-1

Lab ID#: 1311357D-03B

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	p120509c	Date of Collection:	11/14/20 10:32:00 AM
Dil. Factor:	1.69	Date of Analysis:	12/5/13 02:00 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
>C8-C10 Aromatic Hydrocarbons (ref. to 1,2,3-TMB)	17	Not Detected	83	Not Detected
>C10-C12 Aromatic Hydrocarbons (ref. to 1,2,4,5-TMB)	17	Not Detected	93	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)



Air Toxics

Client Sample ID: IA-2

Lab ID#: 1311357D-04A

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	p120510a	Date of Collection:	11/14/20 12:20:00 PM
Dil. Factor:	1.52	Date of Analysis:	12/5/13 02:50 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
C5-C6 Aliphatic Hydrocarbons (ref. to Pentane + Hexane)	15	Not Detected	49	Not Detected
>C6-C8 Aliphatic Hydrocarbons (ref. to Heptane)	15	Not Detected	62	Not Detected
>C8-C10 Aliphatic Hydrocarbons (ref. to Decane)	15	Not Detected	88	Not Detected
>C10-C12 Aliphatic Hydrocarbons (ref. to Dodecane)	15	Not Detected	100	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)



Air Toxics

Client Sample ID: IA-2

Lab ID#: 1311357D-04B

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	p120510c	Date of Collection:	11/14/20 12:20:00 PM
Dil. Factor:	1.52	Date of Analysis:	12/5/13 02:50 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
>C8-C10 Aromatic Hydrocarbons (ref. to 1,2,3-TMB)	15	Not Detected	75	Not Detected
>C10-C12 Aromatic Hydrocarbons (ref. to 1,2,4,5-TMB)	15	Not Detected	83	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)



Air Toxics

Client Sample ID: IA-3

Lab ID#: 1311357D-05A

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	p120519a	Date of Collection:	11/14/13 11:04:00 AM
Dil. Factor:	1.67	Date of Analysis:	12/5/13 09:51 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
C5-C6 Aliphatic Hydrocarbons (ref. to Pentane + Hexane)	17	Not Detected	54	Not Detected
>C6-C8 Aliphatic Hydrocarbons (ref. to Heptane)	17	Not Detected	68	Not Detected
>C8-C10 Aliphatic Hydrocarbons (ref. to Decane)	17	Not Detected	97	Not Detected
>C10-C12 Aliphatic Hydrocarbons (ref. to Dodecane)	17	Not Detected	120	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)



Air Toxics

Client Sample ID: IA-3

Lab ID#: 1311357D-05B

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	p120519c	Date of Collection:	11/14/20 11:04:00 AM
Dil. Factor:	1.67	Date of Analysis:	12/5/13 09:51 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
>C8-C10 Aromatic Hydrocarbons (ref. to 1,2,3-TMB)	17	Not Detected	82	Not Detected
>C10-C12 Aromatic Hydrocarbons (ref. to 1,2,4,5-TMB)	17	Not Detected	92	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)



Air Toxics

Client Sample ID: IA-4

Lab ID#: 1311357D-06A

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	p120520a	Date of Collection:	11/14/20 1:30:00 PM
Dil. Factor:	1.62	Date of Analysis:	12/5/13 10:25 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
C5-C6 Aliphatic Hydrocarbons (ref. to Pentane + Hexane)	16	Not Detected	52	Not Detected
>C6-C8 Aliphatic Hydrocarbons (ref. to Heptane)	16	Not Detected	66	Not Detected
>C8-C10 Aliphatic Hydrocarbons (ref. to Decane)	16	Not Detected	94	Not Detected
>C10-C12 Aliphatic Hydrocarbons (ref. to Dodecane)	16	Not Detected	110	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)



Air Toxics

Client Sample ID: IA-4

Lab ID#: 1311357D-06B

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	p120520c	Date of Collection:	11/14/20 1:30:00 PM
Dil. Factor:	1.62	Date of Analysis:	12/5/13 10:25 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
>C8-C10 Aromatic Hydrocarbons (ref. to 1,2,3-TMB)	16	Not Detected	80	Not Detected
>C10-C12 Aromatic Hydrocarbons (ref. to 1,2,4,5-TMB)	16	Not Detected	89	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)



Air Toxics

Client Sample ID: IA-5

Lab ID#: 1311357D-07A

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	p120521a	Date of Collection:	11/14/20 12:05:00 PM
Dil. Factor:	1.41	Date of Analysis:	12/6/13 06:55 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
C5-C6 Aliphatic Hydrocarbons (ref. to Pentane + Hexane)	14	Not Detected	46	Not Detected
>C6-C8 Aliphatic Hydrocarbons (ref. to Heptane)	14	Not Detected	58	Not Detected
>C8-C10 Aliphatic Hydrocarbons (ref. to Decane)	14	Not Detected	82	Not Detected
>C10-C12 Aliphatic Hydrocarbons (ref. to Dodecane)	14	Not Detected	98	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)



Air Toxics

Client Sample ID: IA-5

Lab ID#: 1311357D-07B

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	p120521c	Date of Collection:	11/14/20 12:05:00 PM
Dil. Factor:	1.41	Date of Analysis:	12/6/13 06:55 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
>C8-C10 Aromatic Hydrocarbons (ref. to 1,2,3-TMB)	14	Not Detected	69	Not Detected
>C10-C12 Aromatic Hydrocarbons (ref. to 1,2,4,5-TMB)	14	Not Detected	77	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)



Air Toxics

Client Sample ID: IA-6

Lab ID#: 1311357D-08A

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	p120522a	Date of Collection:	11/14/20 11:45:00 AM
Dil. Factor:	1.78	Date of Analysis:	12/6/13 07:35 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
C5-C6 Aliphatic Hydrocarbons (ref. to Pentane + Hexane)	18	Not Detected	58	Not Detected
>C6-C8 Aliphatic Hydrocarbons (ref. to Heptane)	18	Not Detected	73	Not Detected
>C8-C10 Aliphatic Hydrocarbons (ref. to Decane)	18	Not Detected	100	Not Detected
>C10-C12 Aliphatic Hydrocarbons (ref. to Dodecane)	18	Not Detected	120	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)



Air Toxics

Client Sample ID: IA-6

Lab ID#: 1311357D-08B

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	p120522c	Date of Collection:	11/14/20 11:45:00 AM
Dil. Factor:	1.78	Date of Analysis:	12/6/13 07:35 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
>C8-C10 Aromatic Hydrocarbons (ref. to 1,2,3-TMB)	18	Not Detected	88	Not Detected
>C10-C12 Aromatic Hydrocarbons (ref. to 1,2,4,5-TMB)	18	Not Detected	98	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)



Air Toxics

Client Sample ID: OA-1

Lab ID#: 1311357D-09A

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	p120611a	Date of Collection:	11/14/13 1:51:00 PM
Dil. Factor:	1.50	Date of Analysis:	12/6/13 04:33 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
C5-C6 Aliphatic Hydrocarbons (ref. to Pentane + Hexane)	15	Not Detected	48	Not Detected
>C6-C8 Aliphatic Hydrocarbons (ref. to Heptane)	15	Not Detected	61	Not Detected
>C8-C10 Aliphatic Hydrocarbons (ref. to Decane)	15	Not Detected	87	Not Detected
>C10-C12 Aliphatic Hydrocarbons (ref. to Dodecane)	15	Not Detected	100	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)



Air Toxics

Client Sample ID: OA-1

Lab ID#: 1311357D-09B

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	p120611c	Date of Collection:	11/14/20 1:51:00 PM
Dil. Factor:	1.50	Date of Analysis:	12/6/13 04:33 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
>C8-C10 Aromatic Hydrocarbons (ref. to 1,2,3-TMB)	15	Not Detected	74	Not Detected
>C10-C12 Aromatic Hydrocarbons (ref. to 1,2,4,5-TMB)	15	Not Detected	82	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)



Air Toxics

Client Sample ID: OA-1 DUP

Lab ID#: 1311357D-10A

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	p120612a	Date of Collection:	11/14/20 1:51:00 PM
Dil. Factor:	9.04	Date of Analysis:	12/6/13 05:18 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
C5-C6 Aliphatic Hydrocarbons (ref. to Pentane + Hexane)	90	Not Detected	290	Not Detected
>C6-C8 Aliphatic Hydrocarbons (ref. to Heptane)	90	Not Detected	370	Not Detected
>C8-C10 Aliphatic Hydrocarbons (ref. to Decane)	90	Not Detected	530	Not Detected
>C10-C12 Aliphatic Hydrocarbons (ref. to Dodecane)	90	Not Detected	630	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)



Air Toxics

Client Sample ID: OA-1 DUP

Lab ID#: 1311357D-10B

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	p120612c	Date of Collection:	11/14/20 1:51:00 PM
Dil. Factor:	9.04	Date of Analysis:	12/6/13 05:18 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
>C8-C10 Aromatic Hydrocarbons (ref. to 1,2,3-TMB)	90	Not Detected	440	Not Detected
>C10-C12 Aromatic Hydrocarbons (ref. to 1,2,4,5-TMB)	90	Not Detected	500	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)



Air Toxics

Client Sample ID: OA-2

Lab ID#: 1311357D-11A

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	p120613a	Date of Collection:	11/14/20 11:55:00 AM
Dil. Factor:	1.64	Date of Analysis:	12/6/13 05:48 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
C5-C6 Aliphatic Hydrocarbons (ref. to Pentane + Hexane)	16	Not Detected	53	Not Detected
>C6-C8 Aliphatic Hydrocarbons (ref. to Heptane)	16	Not Detected	67	Not Detected
>C8-C10 Aliphatic Hydrocarbons (ref. to Decane)	16	Not Detected	95	Not Detected
>C10-C12 Aliphatic Hydrocarbons (ref. to Dodecane)	16	Not Detected	110	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)



Air Toxics

Client Sample ID: OA-2

Lab ID#: 1311357D-11B

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	p120613c	Date of Collection:	11/14/20 11:55:00 AM
Dil. Factor:	1.64	Date of Analysis:	12/6/13 05:48 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
>C8-C10 Aromatic Hydrocarbons (ref. to 1,2,3-TMB)	16	Not Detected	81	Not Detected
>C10-C12 Aromatic Hydrocarbons (ref. to 1,2,4,5-TMB)	16	Not Detected	90	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1311357D-12A

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	p120506a	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/5/13 11:23 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
C5-C6 Aliphatic Hydrocarbons (ref. to Pentane + Hexane)	10	Not Detected	32	Not Detected
>C6-C8 Aliphatic Hydrocarbons (ref. to Heptane)	10	Not Detected	41	Not Detected
>C8-C10 Aliphatic Hydrocarbons (ref. to Decane)	10	Not Detected	58	Not Detected
>C10-C12 Aliphatic Hydrocarbons (ref. to Dodecane)	10	Not Detected	70	Not Detected

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1311357D-12B

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	p120506c	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/5/13 11:23 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
>C8-C10 Aromatic Hydrocarbons (ref. to 1,2,3-TMB)	10	Not Detected	49	Not Detected
>C10-C12 Aromatic Hydrocarbons (ref. to 1,2,4,5-TMB)	10	Not Detected	55	Not Detected

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1311357D-12C

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	p120610a	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/6/13 03:48 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
C5-C6 Aliphatic Hydrocarbons (ref. to Pentane + Hexane)	10	Not Detected	32	Not Detected
>C6-C8 Aliphatic Hydrocarbons (ref. to Heptane)	10	Not Detected	41	Not Detected
>C8-C10 Aliphatic Hydrocarbons (ref. to Decane)	10	Not Detected	58	Not Detected
>C10-C12 Aliphatic Hydrocarbons (ref. to Dodecane)	10	Not Detected	70	Not Detected

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1311357D-12D

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	p120610c	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/6/13 03:48 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
>C8-C10 Aromatic Hydrocarbons (ref. to 1,2,3-TMB)	10	Not Detected	49	Not Detected
>C10-C12 Aromatic Hydrocarbons (ref. to 1,2,4,5-TMB)	10	Not Detected	55	Not Detected

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: CCV

Lab ID#: 1311357D-13A

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	p120505a	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/5/13 10:38 AM

Compound	%Recovery
C5-C6 Aliphatic Hydrocarbons (ref. to Pentane + Hexane)	99
>C6-C8 Aliphatic Hydrocarbons (ref. to Heptane)	96
>C8-C10 Aliphatic Hydrocarbons (ref. to Decane)	97
>C10-C12 Aliphatic Hydrocarbons (ref. to Dodecane)	101

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: CCV

Lab ID#: 1311357D-13B

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	p120505c	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/5/13 10:38 AM

Compound	%Recovery
>C8-C10 Aromatic Hydrocarbons (ref. to 1,2,3-TMB)	106
>C10-C12 Aromatic Hydrocarbons (ref. to 1,2,4,5-TMB)	111

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: CCV

Lab ID#: 1311357D-13C

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	p120609a	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/6/13 02:16 PM

Compound	%Recovery
C5-C6 Aliphatic Hydrocarbons (ref. to Pentane + Hexane)	104
>C6-C8 Aliphatic Hydrocarbons (ref. to Heptane)	101
>C8-C10 Aliphatic Hydrocarbons (ref. to Decane)	104
>C10-C12 Aliphatic Hydrocarbons (ref. to Dodecane)	109

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: CCV

Lab ID#: 1311357D-13D

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	p120609c	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/6/13 02:16 PM

Compound	%Recovery
>C8-C10 Aromatic Hydrocarbons (ref. to 1,2,3-TMB)	110
>C10-C12 Aromatic Hydrocarbons (ref. to 1,2,4,5-TMB)	119

Container Type: NA - Not Applicable



Air Toxics

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.C.T. Hotline (800) 457-4922

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

Page 1 of 2

Project Manager: Nathan Lee (SEA)
Collected by: Oliver Yan
Company: Crowley-Rovers
Address: 5200 Hillcrest, Suite A, City: Emeryville, State: CA, Zip: 94608
Phone: (510) 420-0700 Fax: (510) 420-9170

Project Info: P.O. # 4063566, Project # 311973, Project Name CHEVRON 90121
Turn Around Time: [X] Normal, [] Rush
Lab Use Only: Pressurized/ly, Date, Pressurization Gas: N, He

Table with columns: Lab ID, Field Sample I.D. (Location), Can #, Date of Collection, Time of Collection, Analyses Requested, Canister Pressure/Vacuum (Initial, Final, Receipt, Final). Rows include samples CS-1 through CA-1 DUP.

Relinquished by: (signature) Date/Time 11/19/13 @ 6:30
Received by: (signature) Date/Time 11-19-13 13:03
Notes: email results to: NLEE@CRAWFORD.COM
Refer to 550W for additional info -> PO - 4063566

Lab Use Only table with columns: Shipper Name, Air Bill #, Temp (C), Condition, Custody Seals Intact?, Work Order #. Values: NLE D/O, 6000, Yes, No, None, 1311357



Air Toxics

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. P.O.T. Hotline (800) 467-4922

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FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Page 2 of 2

Project Manager: Nathan Lee (ORA)
Contacted by: OLIVER HAN
Company: ENVIRONMENTAL SOLUTIONS ASSOCIATES
Address: 3900 BOLLAS ST. SUITE A
Phone: (510) 420-0400 Fax: (510) 420-9130

Project Info: P.O. # 4063560, Project # 311973, Project Name: CHANTRY 9012.1
Turn Around Time: Normal
Pressurized by: Date: Pressurization Gas: N2 He

Table with columns: Lab ID, Field Sample ID (Location), Can #, Date of Collection, Time of Collection, Analyses Requested, Canister Pressure/Vacuum (Initial, Final, Repair, Field Use)

Relinquished by: (signature) Date/Time
Received by: (signature) Date/Time
Notes: email results to: NLEE@envworld.com refer to SSOW or additional info -> PO - 4063560

Lab Use Only: Shipper Name: ATL-2/0, Air Entry: N/A, Temp: 14, Condition: Good, Custody Seals Intact? Yes No None, Work Order #: 1311337

12/9/2013
Mr. Oliver Yan
Conestoga-Rovers Associates (CRA)
5900 Hollis Street
Suite A
Emeryville CA 94608

Project Name: CHEVRON 90121
Project #: 311973
Workorder #: 1311357E

Dear Mr. Oliver Yan

The following report includes the data for the above referenced project for sample(s) received on 11/19/2013 at Air Toxics Ltd.

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

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

Regards,



Kelly Buettner
Project Manager

WORK ORDER #: 1311357E

Work Order Summary

CLIENT:	Mr. Oliver Yan Conestoga-Rovers Associates (CRA) 5900 Hollis Street Suite A Emeryville, CA 94608	BILL TO:	Mr. Oliver Yan Conestoga-Rovers Associates (CRA) 5900 Hollis Street Suite A Emeryville, CA 94608
PHONE:	510-420-0700	P.O. #	4063566
FAX:	510-420-9170	PROJECT #	311973 CHEVRON 90121
DATE RECEIVED:	11/19/2013	CONTACT:	Kelly Buettner
DATE COMPLETED:	12/09/2013		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
12A	SSVP-1	Modified TO-15 APH	3.9 "Hg	14.9 psi
12B	SSVP-1	Modified TO-15 APH	3.9 "Hg	14.9 psi
13A	SSVP-2	Modified TO-15 APH	4.5 "Hg	14.9 psi
13B	SSVP-2	Modified TO-15 APH	4.5 "Hg	14.9 psi
14A	SSVP-3	Modified TO-15 APH	4.9 "Hg	15 psi
14B	SSVP-3	Modified TO-15 APH	4.9 "Hg	15 psi
15A	Lab Blank	Modified TO-15 APH	NA	NA
15B	Lab Blank	Modified TO-15 APH	NA	NA
16A	CCV	Modified TO-15 APH	NA	NA
16B	CCV	Modified TO-15 APH	NA	NA

CERTIFIED BY: 
 Technical Director

DATE: 12/09/13

Certification numbers: AZ Licensure AZ0775, CA NELAP - 12282CA, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-13-6, UT NELAP CA009332013-4, VA NELAP - 460197, WA NELAP - C935
 Name of Accrediting Agency: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
 Accreditation number: CA300005, Effective date: 10/18/2013, Expiration date: 10/17/2014.

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

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LABORATORY NARRATIVE
Modified TO-15 & VPH Fractions
Conestoga-Rovers Associates (CRA)
Workorder# 1311357E

Three 1 Liter Summa Canister (100% Certified) samples were received on November 19, 2013. The laboratory performed analysis via EPA Method TO-15 and Air Toxics VPH (Volatile Petroleum Hydrocarbon) methods for the Determination of VPH Fractions using GC/MS in the full scan mode. The method involves concentrating up to 0.5 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 method is designed to measure gaseous phase aliphatic and aromatic compounds in ambient air and soil gas collected in stainless steel Summa canisters. Air Toxics VPH method is a hybrid of EPA TO-15, MADEP APH and WSDE VPH methods. Chromatographic peaks were identified via mass spectrum as either aliphatic or aromatic petroleum hydrocarbons and included in the appropriate range as defined by the method. The volatile Aliphatic hydrocarbons are collectively quantified within the C5 to C6 range, C6 to C8 range, C8 to C10 range and the C10 to C12 range. Additionally, the volatile Aromatic hydrocarbons are collectively quantified within the C8 to C10 range and the C10 to C12 range. The Aromatic ranges refer to the equivalent carbon (EC) ranges.

Aliphatic data is calculated from the Total Ion chromatogram which has been reprocessed in a duplicate file differentiated from the original by the addition of an alphanumeric extension. The Aromatic calculation also uses the information contained in the associated Extracted Ion file.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

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

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

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

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

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

N - The identification is based on presumptive evidence.

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

a-File was requantified

b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

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

Client Sample ID: SSVP-1

Lab ID#: 1311357E-12A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
>C10-C12 Aliphatic Hydrocarbons (ref. to Dodecane)	23	28	160	190

Client Sample ID: SSVP-1

Lab ID#: 1311357E-12B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
>C8-C10 Aromatic Hydrocarbons (ref. to 1,2,3-TMB)	23	41	110	200

Client Sample ID: SSVP-2

Lab ID#: 1311357E-13A

No Detections Were Found.

Client Sample ID: SSVP-2

Lab ID#: 1311357E-13B

No Detections Were Found.

Client Sample ID: SSVP-3

Lab ID#: 1311357E-14A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
C5-C6 Aliphatic Hydrocarbons (ref. to Pentane + Hexane)	24	89	78	290
>C6-C8 Aliphatic Hydrocarbons (ref. to Heptane)	24	140	99	590
>C10-C12 Aliphatic Hydrocarbons (ref. to Dodecane)	24	82	170	570

Client Sample ID: SSVP-3

Lab ID#: 1311357E-14B

No Detections Were Found.



Air Toxics

Client Sample ID: SSVP-1

Lab ID#: 1311357E-12A

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	3120618a	Date of Collection:	11/15/13 10:15:00 AM
Dil. Factor:	2.31	Date of Analysis:	12/6/13 10:19 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
C5-C6 Aliphatic Hydrocarbons (ref. to Pentane + Hexane)	23	Not Detected	75	Not Detected
>C6-C8 Aliphatic Hydrocarbons (ref. to Heptane)	23	Not Detected	95	Not Detected
>C8-C10 Aliphatic Hydrocarbons (ref. to Decane)	23	Not Detected	130	Not Detected
>C10-C12 Aliphatic Hydrocarbons (ref. to Dodecane)	23	28	160	190

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



Air Toxics

Client Sample ID: SSVP-1

Lab ID#: 1311357E-12B

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	3120618c	Date of Collection:	11/15/13 10:15:00 AM
Dil. Factor:	2.31	Date of Analysis:	12/6/13 10:19 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
>C8-C10 Aromatic Hydrocarbons (ref. to 1,2,3-TMB)	23	41	110	200
>C10-C12 Aromatic Hydrocarbons (ref. to 1,2,4,5-TMB)	23	Not Detected	130	Not Detected

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



Air Toxics

Client Sample ID: SSVP-2

Lab ID#: 1311357E-13A

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	3120619a	Date of Collection:	11/15/13 1:14:00 PM
Dil. Factor:	2.37	Date of Analysis:	12/7/13 06:58 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
C5-C6 Aliphatic Hydrocarbons (ref. to Pentane + Hexane)	24	Not Detected	77	Not Detected
>C6-C8 Aliphatic Hydrocarbons (ref. to Heptane)	24	Not Detected	97	Not Detected
>C8-C10 Aliphatic Hydrocarbons (ref. to Decane)	24	Not Detected	140	Not Detected
>C10-C12 Aliphatic Hydrocarbons (ref. to Dodecane)	24	Not Detected	160	Not Detected

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



Air Toxics

Client Sample ID: SSVP-2

Lab ID#: 1311357E-13B

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	3120619c	Date of Collection:	11/15/13 1:14:00 PM
Dil. Factor:	2.37	Date of Analysis:	12/7/13 06:58 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
>C8-C10 Aromatic Hydrocarbons (ref. to 1,2,3-TMB)	24	Not Detected	120	Not Detected
>C10-C12 Aromatic Hydrocarbons (ref. to 1,2,4,5-TMB)	24	Not Detected	130	Not Detected

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



Air Toxics

Client Sample ID: SSVP-3

Lab ID#: 1311357E-14A

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	3120620a	Date of Collection:	11/15/13 11:20:00 AM
Dil. Factor:	2.41	Date of Analysis:	12/7/13 07:47 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
C5-C6 Aliphatic Hydrocarbons (ref. to Pentane + Hexane)	24	89	78	290
>C6-C8 Aliphatic Hydrocarbons (ref. to Heptane)	24	140	99	590
>C8-C10 Aliphatic Hydrocarbons (ref. to Decane)	24	Not Detected	140	Not Detected
>C10-C12 Aliphatic Hydrocarbons (ref. to Dodecane)	24	82	170	570

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



Air Toxics

Client Sample ID: SSVP-3

Lab ID#: 1311357E-14B

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	3120620c	Date of Collection:	11/15/13 11:20:00 AM
Dil. Factor:	2.41	Date of Analysis:	12/7/13 07:47 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
>C8-C10 Aromatic Hydrocarbons (ref. to 1,2,3-TMB)	24	Not Detected	120	Not Detected
>C10-C12 Aromatic Hydrocarbons (ref. to 1,2,4,5-TMB)	24	Not Detected	130	Not Detected

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



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1311357E-15A

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	3120607a	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/6/13 01:25 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
C5-C6 Aliphatic Hydrocarbons (ref. to Pentane + Hexane)	10	Not Detected	32	Not Detected
>C6-C8 Aliphatic Hydrocarbons (ref. to Heptane)	10	Not Detected	41	Not Detected
>C8-C10 Aliphatic Hydrocarbons (ref. to Decane)	10	Not Detected	58	Not Detected
>C10-C12 Aliphatic Hydrocarbons (ref. to Dodecane)	10	Not Detected	70	Not Detected

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1311357E-15B

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	3120607c	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/6/13 01:25 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
>C8-C10 Aromatic Hydrocarbons (ref. to 1,2,3-TMB)	10	Not Detected	49	Not Detected
>C10-C12 Aromatic Hydrocarbons (ref. to 1,2,4,5-TMB)	10	Not Detected	55	Not Detected

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: CCV

Lab ID#: 1311357E-16A

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	3120605a	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/6/13 11:35 AM

Compound	%Recovery
C5-C6 Aliphatic Hydrocarbons (ref. to Pentane + Hexane)	94
>C6-C8 Aliphatic Hydrocarbons (ref. to Heptane)	96
>C8-C10 Aliphatic Hydrocarbons (ref. to Decane)	103
>C10-C12 Aliphatic Hydrocarbons (ref. to Dodecane)	112

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: CCV

Lab ID#: 1311357E-16B

MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	3120605c	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/6/13 11:35 AM

Compound	%Recovery
>C8-C10 Aromatic Hydrocarbons (ref. to 1,2,3-TMB)	111
>C10-C12 Aromatic Hydrocarbons (ref. to 1,2,4,5-TMB)	125

Container Type: NA - Not Applicable



Air Toxics

Sample Transportation Notice

The relinquishing signature on this document indicates that samples being shipped in compliance with all applicable local, State, Federal, regional, 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.I. Hotline (800) 467-4922

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FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Page 2 of 2

Project Manager [Signature]
 Collected by: (Print and Sign) [Signature]
 Company [Signature] Email [Signature]
 Address [Signature] City [Signature] State [Signature] Zip [Signature]
 Phone [Signature] Fax [Signature]

Project Info:	Turn Around Time:	Lab Use Only:
P.O. # <u>4062566</u>	<input checked="" type="checkbox"/> Normal	Prestirized by:
Project # <u>31032</u>	<input checked="" type="checkbox"/> Rush	Date:
Project Name <u>[Signature]</u>	specify	Prestirization Gas:
		N: 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 (psf)
		2570	10/1/00	11:00		-30	-5		
		2571	10/1/00	11:05		-30	-5		
3A	2572	2572	10/1/00	11:10		-30	-5		
4A	2573	2573	10/1/00	11:20		-30	-5		
5A	2574	2574	10/1/00	11:30		-30	-5		
		2575	10/1/00	11:40		-30	-5		

Relinquished by: (signature) <u>[Signature]</u> Date/Time <u>10/1/00</u>	Received by: (signature) <u>[Signature]</u> Date/Time <u>10/1/00</u>	Notes: all cans to be analyzed with the 3500 or equivalent PO - 4062566
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	

Lab Use Only	Shipper Name	Air Bill #	Temp. (°C)	Condition	Custody Seals intact?	Work Order #
	<u>[Signature]</u>		<u>10/1</u>	<u>Good</u>	Yes No None	<u>15307</u>

12/5/2013

Mr. Oliver Yan
Conestoga-Rovers Associates (CRA)
5900 Hollis Street
Suite A
Emeryville CA 94608

Project Name: Chevron 90121
Project #: 311973
Workorder #: 1311355

Dear Mr. Oliver Yan

The following report includes the data for the above referenced project for sample(s) received on 11/19/2013 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 Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Kelly Buettner
Project Manager

WORK ORDER #: 1311355

Work Order Summary

CLIENT: Mr. Oliver Yan
Conestoga-Rovers Associates (CRA)
5900 Hollis Street
Suite A
Emeryville, CA 94608

BILL TO: Mr. Oliver Yan
Conestoga-Rovers Associates (CRA)
5900 Hollis Street
Suite A
Emeryville, CA 94608

PHONE: 510-420-0700

FAX: 510-420-9170

DATE RECEIVED: 11/19/2013

DATE COMPLETED: 12/05/2013

P.O. # 4063566

PROJECT # 311973 Chevron 90121

CONTACT: Kelly Buettner

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
01A	IA-1	Modified TO-17 VI
02A	IA-2	Modified TO-17 VI
03A	IA-3	Modified TO-17 VI
04A	IA-4	Modified TO-17 VI
05A	OA-1	Modified TO-17 VI
06A	SSVP-1	Modified TO-17 VI
07A	SSVP-2	Modified TO-17 VI
08A	SSVP-3	Modified TO-17 VI
09A	Lab Blank	Modified TO-17 VI
09B	Lab Blank	Modified TO-17 VI
10A	CCV	Modified TO-17 VI
10B	CCV	Modified TO-17 VI
11A	LCS	Modified TO-17 VI
11AA	LCS	Modified TO-17 VI
11B	LCS	Modified TO-17 VI
11BB	LCS	Modified TO-17 VI

CERTIFIED BY: _____



Technical Director

DATE: 12/05/13 _____

Certification numbers: AZ Licensure AZ0775, CA NELAP - 12282CA, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-13-6, UT NELAP CA009332013-4, VA NELAP - 460197, WA NELAP - C935
Name of Accrediting Agency: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2013, Expiration date: 10/17/2014.

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

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LABORATORY NARRATIVE
Modified EPA Method TO-17 (VI Tubes)
Conestoga-Rovers Associates (CRA)
Workorder# 1311355

Eight TO-17 VI Tube samples were received on November 19, 2013. 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.

<i>Requirement</i>	<i>TO-17</i>	<i>ATL Modifications</i>
Initial Calibration	%RSD$\leq 30\%$ with 2 allowed out up to 40%	VOC list: %RSD$\leq 30\%$ with 2 allowed out up to 40% SVOC list: %RSD$\leq 30\%$ 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.

Receiving Notes

The Chain of Custody (COC) information for sample IA-3 did not match the information on the tube with regard to tube identification. The client was notified of the discrepancy and the information on the tube was used to process and report the sample.

Analytical Notes

A sampling volume of 14.4 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 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

Summary of Detected Compounds EPA METHOD TO-17

Client Sample ID: IA-1

Lab ID#: 1311355-01A

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	0.036	3.3	0.24

Client Sample ID: IA-2

Lab ID#: 1311355-02A

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	0.035	1.4	0.098

Client Sample ID: IA-3

Lab ID#: 1311355-03A

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	0.036	1.6	0.12

Client Sample ID: IA-4

Lab ID#: 1311355-04A

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	0.035	0.80	0.055

Client Sample ID: OA-1

Lab ID#: 1311355-05A

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	0.035	0.81	0.057

Client Sample ID: SSV-1

Lab ID#: 1311355-06A

No Detections Were Found.

**Summary of Detected Compounds
EPA METHOD TO-17**

Client Sample ID: SSVP-2

Lab ID#: 1311355-07A

No Detections Were Found.

Client Sample ID: SSVP-3

Lab ID#: 1311355-08A

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	2.5	2.3	12



Air Toxics

Client Sample ID: IA-1

Lab ID#: 1311355-01A

EPA METHOD TO-17

File Name:	18120223	Date of Extraction: N/A	Date of Collection: 11/15/13 9:38:00 AM
Dil. Factor:	1.00	Date of Analysis: 12/3/13 04:12 AM	

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	0.036	3.3	0.24

Air Sample Volume(L): 13.8

Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
Naphthalene-d8	92	50-150



Air Toxics

Client Sample ID: IA-2

Lab ID#: 1311355-02A

EPA METHOD TO-17

File Name:	18120224	Date of Extraction: N/A	Date of Collection: 11/15/13 12:24:00 P
Dil. Factor:	1.00	Date of Analysis: 12/3/13 04:54 AM	

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	0.035	1.4	0.098

Air Sample Volume(L): 14.3

Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
Naphthalene-d8	86	50-150



Air Toxics

Client Sample ID: IA-3

Lab ID#: 1311355-03A

EPA METHOD TO-17

File Name:	18120225	Date of Extraction: NA	Date of Collection: 11/15/13 11:04:00 A
Dil. Factor:	1.00	Date of Analysis: 12/3/13 05:35 AM	

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	0.036	1.6	0.12

Air Sample Volume(L): 13.9
Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
Naphthalene-d8	86	50-150



Air Toxics

Client Sample ID: IA-4

Lab ID#: 1311355-04A

EPA METHOD TO-17

File Name:	18120306	Date of Extraction: N/A	Date of Collection: 11/15/13 1:36:00 PM
Dil. Factor:	1.00	Date of Analysis: 12/3/13 03:53 PM	

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	0.035	0.80	0.055

Air Sample Volume(L): 14.4

Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
Naphthalene-d8	66	50-150



Air Toxics

Client Sample ID: OA-1

Lab ID#: 1311355-05A

EPA METHOD TO-17

File Name:	18120227	Date of Extraction: N/A	Date of Collection: 11/15/13 1:54:00 PM
Dil. Factor:	1.00	Date of Analysis: 12/3/13 06:59 AM	

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	0.035	0.81	0.057

Air Sample Volume(L): 14.2

Container Type: TO-17 VI Tube

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



Air Toxics

Client Sample ID: SSVP-1

Lab ID#: 1311355-06A

EPA METHOD TO-17

File Name:	18120228	Date of Extraction: NA	Date of Collection: 11/15/13 10:41:00 A
Dil. Factor:	1.00	Date of Analysis: 12/3/13 07:40 AM	

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	2.5	Not Detected	Not Detected

Air Sample Volume(L): 0.200

Container Type: TO-17 VI Tube

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



Air Toxics

Client Sample ID: SSVP-2

Lab ID#: 1311355-07A

EPA METHOD TO-17

File Name:	18120229	Date of Extraction: NA	Date of Collection: 11/15/13 1:50:00 PM
Dil. Factor:	1.00	Date of Analysis: 12/3/13 08:22 AM	

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	2.5	Not Detected	Not Detected

Air Sample Volume(L): 0.200
Container Type: TO-17 VI Tube

Surrogates	%Recovery	Method Limits
Naphthalene-d8	80	50-150



Air Toxics

Client Sample ID: SSVP-3

Lab ID#: 1311355-08A

EPA METHOD TO-17

File Name:	18120230	Date of Extraction: NA	Date of Collection: 11/15/13 11:45:00 A
Dil. Factor:	1.00	Date of Analysis: 12/3/13 09:04 AM	

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	2.5	2.3	12

Air Sample Volume(L): 0.200

Container Type: TO-17 VI Tube

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



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1311355-09A

EPA METHOD TO-17

File Name:	18120209	Date of Extraction: NA	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/2/13 04:32 PM	

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	0.035	Not Detected	Not Detected

Air Sample Volume(L): 14.4

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Naphthalene-d8	90	50-150



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1311355-09B

EPA METHOD TO-17

File Name:	18120305	Date of Extraction: NA	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/3/13 01:07 PM	

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	0.50	0.035	Not Detected	Not Detected

Air Sample Volume(L): 14.4

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Naphthalene-d8	90	50-150

Client Sample ID: CCV
Lab ID#: 1311355-10A
EPA METHOD TO-17

File Name:	18120202	Date of Extraction: NA	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/2/13 11:16 AM	

Compound	%Recovery
Naphthalene	111

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

Surrogates	%Recovery	Method Limits
Naphthalene-d8	104	50-150

Client Sample ID: CCV
Lab ID#: 1311355-10B
EPA METHOD TO-17

File Name:	18120302	Date of Extraction: NA	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/3/13 11:01 AM	

Compound	%Recovery
Naphthalene	118

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

Surrogates	%Recovery	Method Limits
Naphthalene-d8	122	50-150



Air Toxics

Client Sample ID: LCS

Lab ID#: 1311355-11A

EPA METHOD TO-17

File Name:	18120203	Date of Extraction: NA	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/2/13 12:21 PM	

Compound	%Recovery	Method Limits
Naphthalene	115	70-130

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

Surrogates	%Recovery	Method Limits
Naphthalene-d8	100	50-150



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1311355-11AA

EPA METHOD TO-17

File Name:	18120204	Date of Extraction: NA	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/2/13 01:03 PM	

Compound	%Recovery	Method Limits
Naphthalene	113	70-130

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

Surrogates	%Recovery	Method Limits
Naphthalene-d8	100	50-150



Air Toxics

Client Sample ID: LCS

Lab ID#: 1311355-11B

EPA METHOD TO-17

File Name:	18120303	Date of Extraction: NA	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/3/13 11:43 AM	

Compound	%Recovery	Method Limits
Naphthalene	125	70-130

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

Surrogates	%Recovery	Method Limits
Naphthalene-d8	109	50-150

Client Sample ID: LCSD

Lab ID#: 1311355-11BB

EPA METHOD TO-17

File Name:	18120304	Date of Extraction: NA	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/3/13 12:25 PM	

Compound	%Recovery	Method Limits
Naphthalene	124	70-130

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

Surrogates	%Recovery	Method Limits
Naphthalene-d8	108	50-150

TO-17 SAMPLE COLLECTION



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 Nathan Lee (CRA)
 Collected by: (Print and Sign) OLIVER YAN
 Company CONETOGA-RIVERS ASSOCIATES Email OYAN@CRAWFORD.COM
 Address 5100 HOLLIS ST, SUITE A City EVERYVILLE State CA Zip 94608
 Phone (510) 420-6700 Fax (510) 420-9170

Project Info:		Turn Around Time:	Reporting Units:
P.O. # <u>406 3566</u>	Project # <u>311973</u>	<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> ppmv
Project Name <u>CHEVRON 90121</u>		<input type="checkbox"/> Rush	<input type="checkbox"/> ppbv
		specify _____	<input checked="" type="checkbox"/> µg/m3
			<input type="checkbox"/> 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		Indoor Air	Outdoor Air	Soil Vapor	Other
									% RH	Temp				
01A	IA-1	G0137611	11/14/13	10:32	09:38	~10 sccm	9.89 sccm		76%	62°F	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
02A	IA-2	G0135654	11/14/13	12:20	12:24	~10 sccm	9.86 sccm		77%	63°F	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
03A	IA-3	G0143773	11/14/13	11:04	11:04	~10 sccm	9.37 sccm		77%	62°F	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
04A	IA-4	G0143726	11/14/13	13:30	13:36	~10 sccm	9.87 sccm		80%	62°F	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
05A	OA-1	G0139914	11/14/13	13:51	13:54	~10 sccm	9.70 sccm		75%	62°	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
06A	SSVP-1	G0147712	11/15/13	10:41	-	-	-	200mL	80%	60°F	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
07A	SSVP-2	G0143682	11/15/13	13:50	-	-	-	200mL	80%	62°F	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
08A	SSVP-3	G0145537	11/15/13	11:45 13:50	-	-	-	200mL	78%	62°F	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Relinquished by: (signature) <u>[Signature]</u> Date/Time <u>11/19/13 @ 6:30</u>	Received by: (signature) <u>[Signature]</u> Date/Time <u>11-19-13 1303</u>	Notes: • sccm = mL/min • RUN samples for TO-17, naphthalene only.
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	<u>ATL D/O</u>		<u>5.6°C</u>	<u>Good</u>	Yes No <u>None</u>	<u>1311355</u>