



**RECEIVED**

9:10 am, Apr 08, 2011  
Alameda County  
Environmental Health

Stacie H. Frerichs  
Team Lead  
Marketing Business Unit

**Chevron Environmental  
Management Company**  
6001 Bollinger Canyon Road  
San Ramon, CA 94583  
Tel (925) 842-9655  
Fax (925) 842-8370

April 5, 2011  
(date)

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

Re: Chevron Facility # 9-5542

Address: 7007 San Ramon Road, Dublin, California

I have reviewed the attached report titled Results of Additional Soil Vapor Sampling Event and dated April 5, 2011.

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

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

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

Sincerely,

Stacie H. Frerichs  
Project Manager

Enclosure: Report



**CONESTOGA-ROVERS  
& ASSOCIATES**

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

April 5, 2011

Reference No. 611969

Mr. Paresh Khatri  
Alameda County Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

Re: Results of Additional Soil Vapor Sampling Event  
Chevron Service Station 9-5542  
7007 San Ramon Road  
Dublin, California  
LOP Case #RO0000206

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Dear Mr. Khatri:

Conestoga-Rovers & Associates (CRA) has prepared this *Results of Additional Soil Vapor Sampling Event* report on behalf of Chevron Environmental Management Company (Chevron) documenting the results of the recent soil vapor sampling at the site referenced above. In a letter dated August 26, 2010 (Attachment A), Alameda County Environmental Health (ACEH) requested an additional soil vapor sampling event at the site to evaluate possible seasonal variations in petroleum hydrocarbon concentrations prior to consideration of case closure. The previous sampling event was performed in October 2009. The details and results of the additional event are presented below.

### **ADDITIONAL SOIL VAPOR SAMPLING**

On March 15, 2011, CRA collected soil vapor samples from soil vapor wells VP-1 through VP-3 in 1-liter Summa™ canisters. A field duplicate sample (DUPE) was also collected from VP-2 at the same time as the original sample. The samples were collected in general accordance with the Department of Toxic Substances Control (DTSC) January 28, 2003 *Advisory-Active Soil Gas Investigations* guidance document. CRA's standard field procedures are included as Attachment B.

In accordance with the DTSC guidance, leak testing was performed during sampling. Helium was used as the leak check compound to evaluate if significant ambient air was entering the canisters during sampling. To perform the leak testing, a plastic shroud was placed over the sampling apparatus and wellhead and was filled with helium during sample collection. The helium concentration within the shroud was monitored using a helium detector and was maintained between 10 and 20 percent.

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The soil vapor samples were kept at ambient temperature and submitted under chain-of-custody to Air Toxics Ltd. in Folsom, California, for analysis. The three soil vapor samples and the duplicate sample were analyzed for total petroleum hydrocarbons as gasoline (TPHg) by EPA Method TO-3, and benzene, toluene, ethylbenzene, and xylenes (BTEX), methyl tertiary butyl ether (MTBE), and 2,2,4-Trimethylpentane (iso-octane) by EPA Method TO-15. To evaluate the data quality, the samples were additionally analyzed for helium (leak check compound), oxygen, methane, and carbon dioxide by ASTM Method D-1946.

### ANALYTICAL RESULTS

The soil vapor sample analytical results from the previous and current event are presented in Table 1. Copies of the laboratory reports and chain-of-custody documentation are included in Attachment C. As mentioned above, a field duplicate sample was collected simultaneously with the original sample from VP-2 to further evaluate data quality. The duplicate sample analytical results are not included in the following discussion, as similar concentrations within an acceptable range were detected in both samples. Please refer to Table 1 or Attachment C for the duplicate sample analytical results.

TPHg was only detected in the samples collected from VP-1 (280 micrograms per cubic meter [ $\mu\text{g}/\text{m}^3$ ]) and VP-2 (250  $\mu\text{g}/\text{m}^3$ ). No BTEX, MTBE, or iso-octane was detected in any of the soil vapor samples. The detected TPHg concentrations were well below the San Francisco Bay Regional Water Quality Control Board (RWQCB) Environmental Screening Level (ESL) of 29,000  $\mu\text{g}/\text{m}^3$  associated with vapor intrusion concerns at commercial/industrial sites.

No helium was detected in any of the samples and the detected oxygen and carbon dioxide concentrations were consistent with subsurface levels. Furthermore, a leak test on the aboveground sampling connections was initially performed by creating a test vacuum using the purge canister. A constant vacuum was maintained for at least 10 minutes prior to sample collection, indicating significant leaks were not occurring. Therefore, the samples appear to be representative of subsurface conditions and the results are assumed to be valid.

### CONCLUSIONS AND RECOMMENDATIONS

As requested by ACEH, CRA collected additional soil vapor samples from wells VP-1 through VP-3 to evaluate potential seasonal variations in petroleum hydrocarbon concentrations. TPHg was only detected in two of the soil vapor samples, and the concentrations (up to 280  $\mu\text{g}/\text{m}^3$ ) were significantly lower than those detected during the previous event and well below the ESL (see Table 1). No BTEX or MTBE was detected in the soil vapor samples.



**CONESTOGA-ROVERS  
& ASSOCIATES**

April 5, 2011

3

Reference No. 611969

Based on the current and previous analytical results, seasonal variation of the detected petroleum hydrocarbon concentrations in soil vapor does occur; however, the detected concentrations during both events did not exceed the ESLs and thus do not pose a significant threat to human health; vapor intrusion does not appear to be a concern at the site. No further investigation appears warranted and we recommend low-risk case closure.

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

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES

James P. Kiernan, P.E.



JK/kw/10  
Encl.

Figure 1            Vicinity Map  
Figure 2            Site Plan

Table 1            Soil Vapor Sample Analytical Results

Attachment A      ACEH Letter Dated August 26, 2010  
Attachment B      Standard Field Procedures and Vapor Sampling Field Data Sheets  
Attachment C      Laboratory Reports

cc:    Ms. Stacie Frerichs, Chevron (electronic copy only)  
      Mr. T.W. Johnson  
      Ms Mary Diamond, See's Candy Shops, Inc.

## FIGURES

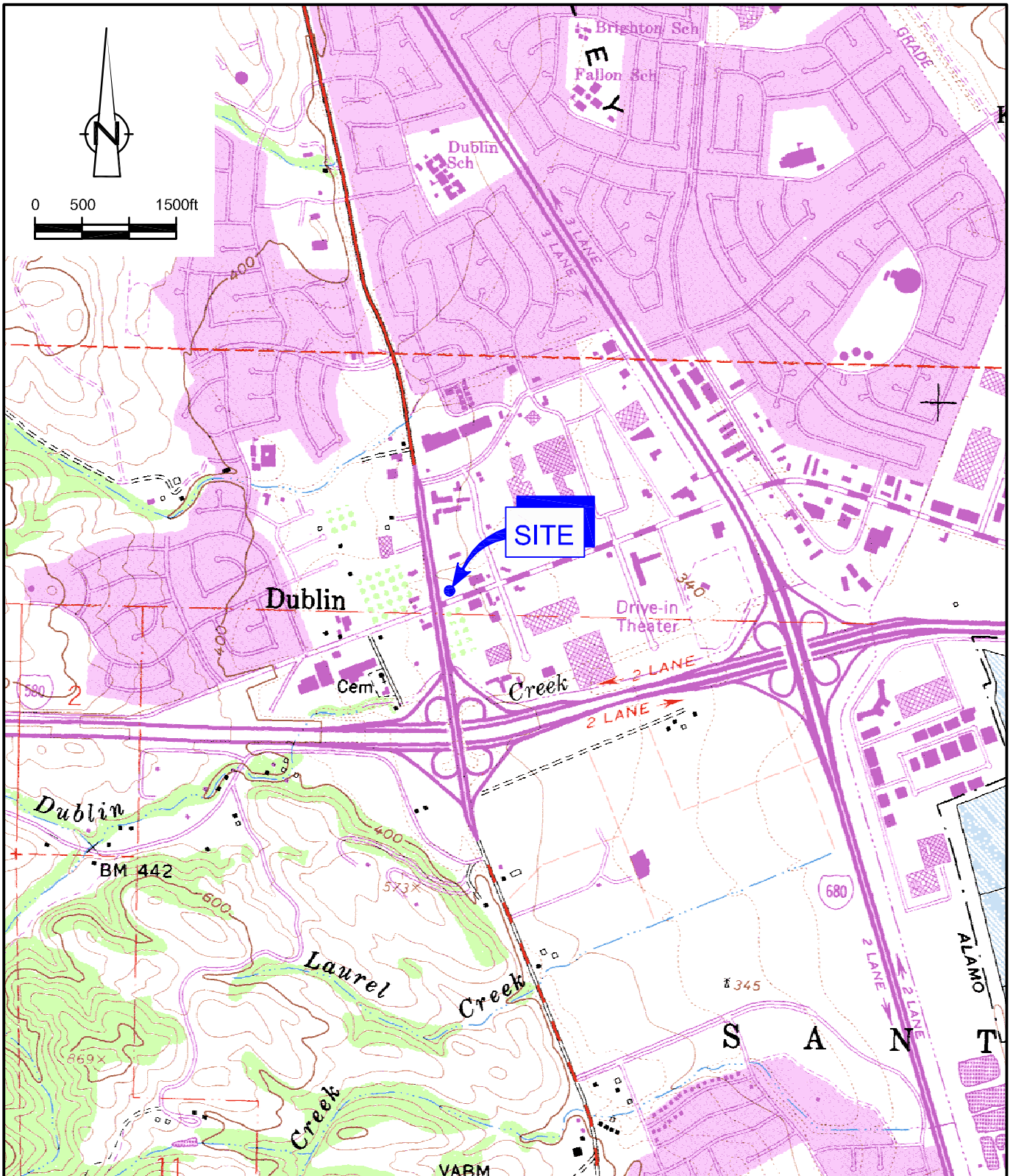
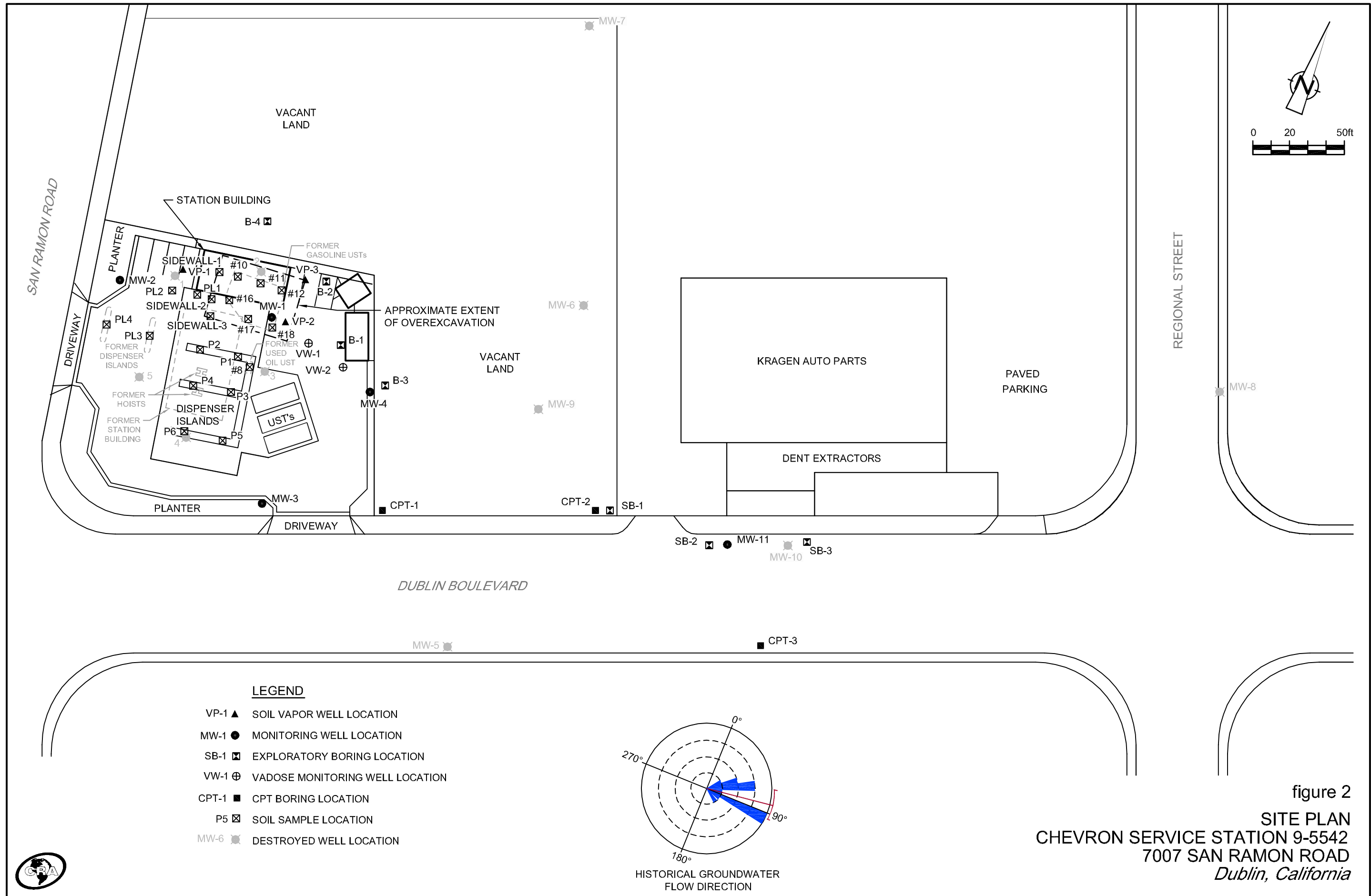


figure 1  
 VICINITY MAP  
 CHEVRON SERVICE STATION 9-5542  
 7007 SAN RAMON ROAD  
 Dublin, California



SOURCE: TOPOI MAPS



**LEGEND**

- VP-1 ▲ SOIL VAPOR WELL LOCATION
- MW-1 ● MONITORING WELL LOCATION
- SB-1 ☒ EXPLORATORY BORING LOCATION
- VW-1 ⊕ VADOSE MONITORING WELL LOCATION
- CPT-1 ■ CPT BORING LOCATION
- P5 ☒ SOIL SAMPLE LOCATION
- MW-6 ☒ DESTROYED WELL LOCATION

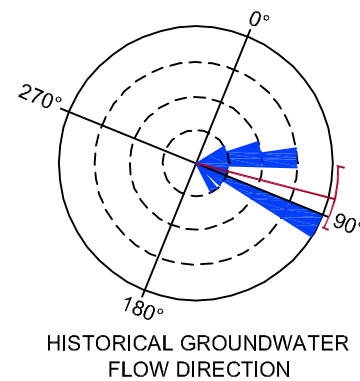


figure 2  
**SITE PLAN**  
 CHEVRON SERVICE STATION 9-5542  
 7007 SAN RAMON ROAD  
 Dublin, California



## TABLE



TABLE 1

SOIL VAPOR SAMPLE ANALYTICAL RESULTS  
 CHEVRON STATION 9-5542  
 7007 SAN RAMON ROAD, DUBLIN, CALIFORNIA

Sample ID	Date Sampled	TPHg	Benzene	Toluene	Ethylbenzene	<i>m,p</i> -Xylenes	<i>o</i> -Xylenes	MTBE	2,2,4-Trimethylpentane	Oxygen	Helium	Carbon Dioxide	Methane
		← Concentrations reported in micrograms per cubic meter (µg/m <sup>3</sup> ) →								← Reported as percent →			
VP-1	10/15/09	1,900	<4.1	24	12	49	13	<4.6	<6.0	8.8	<0.13	8.7	<0.00026
	3/15/11	280	<3.8	<4.5	<5.1	<5.1	<5.1	<4.3	<5.5	9.7	<0.12	7.9	<0.00024
VP-2	10/15/09	22,000	<4.2	13	<5.7	17	5.6 <sup>a</sup>	<4.7	11	17	<0.13	0.83	<0.00026
	3/15/11	250	<3.7	<4.4	<5.0	<5.0	<5.0	<4.2	<5.4	15	<0.12	3.2	<0.00023
VP-3	10/15/09	3,800	16	8.7	<4.9	17	5.2	<4.1	30	14	<0.11	8.3	<0.00023
	3/15/11	<230	<3.6	<4.3	<4.9	<5.0	<5.0	<4.1	<5.3	7.6	<0.11	9.4	<0.00023
Dupe*	10/15/09	23,000	<29	<34	<40	<40	<40	<33	<42	17	<0.14	0.86	<0.00027
DUPE*	3/15/11	540	<3.7	<4.4	<5.0	<5.0	<5.0	<4.2	<5.4	15	<0.12	3.2	<0.00023
Commercial/Industrial ESL		29,000	280	180,000	3,300	58,000 <sup>b</sup>		31,000	NE				

**Notes/Abbreviations:**

TPHg = Total petroleum hydrocarbons as gasoline by EPA Method TO-3

Benzene, toluene, ethylbenzene, and xylenes by EPA Method TO-15

MTBE = Methyl tertiary butyl ether by EPA Method TO-15

Oxygen, helium, carbon dioxide, and methane by ASTM Method D-1946

\* = Field duplicate sample of VP-2

ESL = Environmental Screening Level for shallow soil gas associated with vapor intrusion concerns at commercial/industrial sites-RWQCB May 2008 (Table E)

< = Not detected at or above stated laboratory reporting limit

a = Estimated value

b = ESL is for total xylenes

NE = Not established

ATTACHMENT A

ACEH LETTER DATED AUGUST 26, 2010



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

August 26, 2010

Stacie H. Frerichs (*Sent via E-mail to: [staciehf@chevron.com](mailto:staciehf@chevron.com)*)  
Chevron Environmental Management Company  
6001 Bollinger Canyon Road  
San Ramon, CA 94583

T.W. Johnson  
7007 San Ramon Road  
Dublin, CA 94568-3239

Subject: Soil Vapor Sampling and Groundwater Monitoring for Fuel Leak Case No. RO0000206  
and GeoTracker Global ID T0600100354, Chevron #9-5542, 7007 San Ramon Road,  
Dublin, CA 94568

Dear Ms. Frerichs and Mr. Johnson:

Thank you for the recently submitted document entitled, "Soil Vapor Quality Evaluation, Feasibility Study, and Corrective Action Plan," dated December 2, 2009, which was prepared by Conestoga-Rovers & Associates (CRA) for the subject site. Alameda County Environmental Health (ACEH) staff has reviewed the case file including the above-mentioned report for the above-referenced site. CRA has determined that monitored natural attenuation "appears to be the most cost-effective and technically feasible remedial alternative to achieve the cleanup goals at the site within a reasonable timeframe." To that end, CRA has proposed one additional year of groundwater monitoring.

ACEH generally concurs with CRA's proposed scope of work. However, to adequately evaluate potential subsurface vapor intrusion, ACEH requests that you address the following technical comments, perform the proposed work, and send us the technical reports described below.

#### **TECHNICAL COMMENTS**

1. **Soil Vapor Sampling** – Soil vapor sampling analytical results detected TPH-g and benzene at concentrations of 23,000  $\mu\text{g}/\text{m}^3$  and 16  $\mu\text{g}/\text{m}^3$ , respectively, collected in October 2009. Although the results are below their respective Environmental Screening Levels, it difficult to determine from one sampling event whether the analytical results are representative of subsurface conditions due to possible seasonal or temporal variations. Consequently, due to the uncertainty, it appears that there may be a potential for contaminant vapor intrusion at the site. To alleviate such concerns, an additional round of soil vapor sampling is necessary to

adequately evaluate the potential risk, prior to case closure consideration. It is recommended that soil vapor samples are collected over two seasonal events so that samples collected are adequately representative of actual site conditions. Therefore, please conduct the second soil vapor sampling event in the spring of 2011 and submit a report due by the date specified below

Case closure evaluation will be considered based on the pending additional soil vapor sampling data.

### **NOTIFICATION OF FIELDWORK ACTIVITIES**

Please schedule and complete the fieldwork activities by the date specified below and provide ACEH with at least three (3) business days notification prior to conducting the fieldwork.

### **TECHNICAL REPORT REQUEST**

Please submit technical reports to ACEH (Attention: Paresh Khatri), according to the following schedule:

- **Due within 30 Days of Sampling** – Semi-annual Monitoring Report (3<sup>rd</sup> Quarter 2010)
- **May 31, 2011** – Soil and Water Investigation Report (Soil Vapor Sampling Results)

Thank you for your cooperation. Should you have any questions or concerns regarding this correspondence or your case, please call me at (510) 777-2478 or send me an electronic mail message at [paresh.khatri@acgov.org](mailto:paresh.khatri@acgov.org).

Sincerely,

Paresh C. Khatri  
Hazardous Materials Specialist

Enclosure: Responsible Party(ies) Legal Requirements/Obligations  
ACEH Electronic Report Upload (ftp) Instructions

cc: James P. Kiernan, Conestoga-Rovers & Associates, 10969 Trade Center Drive, Suite 107, Rancho Cordova, CA 95670 (Sent via E-mail to: [jkiernan@craworld.com](mailto:jkiernan@craworld.com))  
Cheryl Dizon (QIC 8021), Zone 7 Water Agency, 100 North Canyons Pkwy, Livermore, CA 94551 (Sent via e-mail to: [cdizon@zone7water.com](mailto:cdizon@zone7water.com))  
Donna Drogos, ACEH (Sent via E-mail to: [donna.drogos@acgov.org](mailto:donna.drogos@acgov.org))  
Paresh Khatri, ACEH (Sent via E-mail to: [paresh.khatri@acgov.org](mailto:paresh.khatri@acgov.org))  
GeoTracker  
File

## 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.swrcb.ca.gov/ust/electronic\\_submittal/report\\_rqmts.shtml](http://www.swrcb.ca.gov/ust/electronic_submittal/report_rqmts.shtml)).

### 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.

<b>Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)</b>	<b>REVISION DATE:</b> July 20, 2010
	<b>ISSUE DATE:</b> July 5, 2005
	<b>PREVIOUS REVISIONS:</b> October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010
<b>SECTION:</b> Miscellaneous Administrative Topics & Procedures	<b>SUBJECT:</b> 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 [dehloptoxic@acgov.org](mailto:dehloptoxic@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.
  - 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 [dehloptoxic@acgov.org](mailto:dehloptoxic@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.

ATTACHMENT B

STANDARD FIELD PROCEDURES AND VAPOR SAMPLING FIELD DATA SHEETS

# Conestoga-Rovers & Associates

## STANDARD FIELD PROCEDURES FOR SOIL VAPOR PROBE INSTALLATION AND SAMPLING

### VAPOR POINT METHODS

This document describes Conestoga-Rovers & Associates' standard field methods for soil vapor sampling. These procedures are designed to comply with Federal, State and local regulatory guidelines. Specific field procedures are summarized below.

#### Objectives

Soil vapor samples are collected and analyzed to assess whether vapor-phase subsurface contaminants pose a threat to human health or the environment.

#### Shallow Soil Vapor Point Installation

The shallow soil vapor point method for soil vapor sampling utilizes a hand auger or drill rig to advance a boring for the installation of a soil vapor sampling point. Once the boring is hand augered to the final depth, a probe, connected with Swagelok fittings to nylon or Teflon tubing of 1/4-inch outer-diameter, is placed within 12-inches of number 2/16 filter sand (Figure A). A 12-inch layer of dry granular bentonite is placed on top of the filter pack. Pre-hydrated granular bentonite is then poured to fill the borehole. The tube is coiled and placed within a wellbox finished flush to the surface. Soil vapor samples will be collected no sooner than 48 hours after installation of the soil vapor points to allow adequate time for representative soil vapors to accumulate. Soil vapor sample collection will not be scheduled until after a minimum of three consecutive precipitation-free days and irrigation onsite has ceased. Figure B shows the soil vapor sampling apparatus. A measured volume of air will be purged from the tubing using a different Summa purge canister. Immediately after purging, soil vapor samples will be collected using the appropriate size Summa canister with attached flow regulator and sediment filter. The soil vapor points will be preserved until they are no longer needed for risk evaluation purposes. At that time, they will be destroyed by extracting the tubing, hand augering to remove the sand and bentonite, and backfilling the boring with neat cement. The boring will be patched with asphalt or concrete, as appropriate.

#### Sampling of Soil Vapor Points

Samples will be collected using a SUMMA™ canister connected to sampling tubing at each vapor point. Prior to collecting soil vapor samples, the initial vacuum of the canisters is measured and recorded on the chain-of-custody. The vacuum of the SUMMA™ canister is used to draw the soil vapor through the flow controller until a negative pressure of approximately 5-inches of Hg is observed on the vacuum gauge and recorded on



# Conestoga-Rovers & Associates

the chain-of-custody. The flow controllers should be set to 100-200 ml/minute. Field duplicates should be collected for every day of sampling and/or for every 10 samples collected.

Prior to sample collection, stagnant air in the sampling apparatus should be removed by purging approximately 3 purge volumes. The purge volume is defined as the amount of air within the probe and tubing.

In accordance with the DTSC Advisory-Active Soil Gas Investigations guidance document, dated January 28, 2003, leak testing needs to be performed during sampling. Helium is recommended, although shaving cream is acceptable.

## **Vapor Sample Storage, Handling, and Transport**

Samples are stored and transported under chain-of-custody to a state-certified analytic laboratory. Samples should never be cooled due to the possibility of condensation within the canister.

# Conestoga-Rovers & Associates

## SOIL VAPOR SAMPLING DATA SHEET

Soil Vapor Sampling Point ID: VP-1      Date: 3/15/11  
 Job/Site Name: 9-5542 DUBLIN      Technician: C. Benedict  
 Project No. 6011969      PM: J. KILGIAN  
 Site Address: 7007 SAN RAMON RD. DUBLIN, CA

### Vapor Sampling Apparatus Pressure Testing

Time	Vacuum Reading	Unit	Comments
938	-27	in/Hg	
948	-27		

### Purge Volume

Calculated Purge Volume: ~ 100 mL

Time	Flow	Volume	PID Reading
948	167 mL/min	~100 mL	

### Sample Collection

Flow Control Orifice Setting: 167 mL/min      Summa Canister ID: 36397  
 Summa Canister Size: 1L      Analysis: \_\_\_\_\_

Time - Begin Sampling	Canister Vacuum	Time - End Sampling	Canister Vacuum
950	-29	1000	-5

Notes: [He] ≈ 16%

# Conestoga-Rovers & Associates

## SOIL VAPOR SAMPLING DATA SHEET

Soil Vapor Sampling Point ID: VP-2/DURE      Date: 3/15/11  
 Job/Site Name: 9-5542 DUBLIN      Technician: C. Benedict  
 Project No. 611969      PM: J. KIERNAN  
 Site Address: 7007 SAN RAMON RD., DUBLIN, CA

### Vapor Sampling Apparatus Pressure Testing

Time	Vacuum Reading	Unit	Comments
1033	-27	"Hg	
1043	-27		

### Purge Volume

Calculated Purge Volume: ~100 mL

Time	Flow	Volume	PID Reading
1044	167 mL/min	~100 mL	

### Sample Collection

Flow Control Orifice Setting: 167 mL/min      Summa Canister ID: 2152/36420  
 Summa Canister Size: 1 L      Analysis: \_\_\_\_\_

Time - Begin Sampling	Canister Vacuum	Time - End Sampling	Canister Vacuum
1055	-30	1110	-5

Notes: [He] ~ 18%

# Conestoga-Rovers & Associates

## SOIL VAPOR SAMPLING DATA SHEET

Soil Vapor Sampling Point ID: VP-3      Date: 3/15/11  
 Job/Site Name: CHEVRON 9-5542      Technician: C. Benedict  
 Project No. 101969      PM: J. KIERWAN  
 Site Address: 7007 SAN RAMON RD. DUBLIN, CA

### Vapor Sampling Apparatus Pressure Testing

Time	Vacuum Reading	Unit	Comments
1007	-27.5	in/Hg	
1017	-27.5		PASS

### Purge Volume

Calculated Purge Volume: ~100 mL

Time	Flow	Volume	PID Reading
1018	167 mL/min	~100 mL	

### Sample Collection

Flow Control Orifice Setting: 167 mL/min      Summa Canister ID: 37360

Summa Canister Size: 1 L      Analysis: \_\_\_\_\_

Time - Begin Sampling	Canister Vacuum	Time - End Sampling	Canister Vacuum
1022	-30	1026	-5

Notes: [He] ~ 15%

ATTACHMENT C  
LABORATORY REPORTS

3/22/2011

Mr. Chris Benedict  
Conestoga-Rovers Associates (CRA)  
10969 Trade Center Dr  
Suite 107  
Rancho Cordova CA 95670

Project Name: Chevron 9-5542  
Project #: 611969  
Workorder #: 1103349B

Dear Mr. Chris Benedict

The following report includes the data for the above referenced project for sample(s) received on 3/16/2011 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-3 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 #: 1103349B**

Work Order Summary

<b>CLIENT:</b>	Mr. Chris Benedict Conestoga-Rovers Associates (CRA) 10969 Trade Center Dr Suite 107 Rancho Cordova, CA 95670	<b>BILL TO:</b>	Mr. Chris Benedict Conestoga-Rovers Associates (CRA) 10969 Trade Center Dr Suite 107 Rancho Cordova, CA 95670
<b>PHONE:</b>	916-889-8925	<b>P.O. #</b>	40-4025462
<b>FAX:</b>	916-889-8999	<b>PROJECT #</b>	611969 Chevron 9-5542
<b>DATE RECEIVED:</b>	03/16/2011	<b>CONTACT:</b>	Kelly Buettner
<b>DATE COMPLETED:</b>	03/22/2011		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	VP-1	Modified TO-3	4.4 "Hg	15 psi
02A	VP-2	Modified TO-3	3.8 "Hg	15 psi
03A	VP-3	Modified TO-3	3.4 "Hg	15 psi
04A	DUPE	Modified TO-3	4.0 "Hg	15 psi
05A	Lab Blank	Modified TO-3	NA	NA
06A	LCS	Modified TO-3	NA	NA
06AA	LCSD	Modified TO-3	NA	NA

CERTIFIED BY: 

DATE: 03/22/11

Laboratory Director

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

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,  
Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/11

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

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

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

**LABORATORY NARRATIVE  
Modified TO-3  
Conestoga-Rovers Associates (CRA)  
Workorder# 1103349B**

Four 1 Liter Summa Canister (100% Certified) samples were received on March 16, 2011. The laboratory performed analysis for volatile organic compounds in air via modified EPA Method TO-3 using gas chromatography with flame ionization detection. The method involves concentrating up to 200 mL of sample. The concentrated aliquot is then dry purged to remove water vapor prior to entering the chromatographic system. The TPH (Gasoline Range) results are calculated using the response factor of Gasoline.

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-3</i>	<i>ATL Modifications</i>
Daily Calibration Standard Frequency	Prior to sample analysis and every 4 - 6 hrs	Prior to sample analysis and after the analytical batch <math>\leq 20</math> samples
Initial Calibration Calculation	4-point calibration using a linear regression model	5-point calibration using average Response Factor
Initial Calibration Frequency	Weekly	When daily calibration standard recovery is outside 75 - 125 %, or upon significant changes to procedure or instrumentation
Moisture Control	Nafion system	Sorbent system
Minimum Detection Limit (MDL)	Calculated using the equation $DL = A + 3.3S$ , where A is intercept of calibration line and S is the standard deviation of at least 3 reps of low level standard	40 CFR Pt. 136 App. B
Preparation of Standards	Levels achieved through dilution of gas mixture	Levels achieved through loading various volumes of the gas mixture

**Receiving Notes**

There were no receiving discrepancies.

**Analytical Notes**

There were no analytical discrepancies.

**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  
MODIFIED EPA METHOD TO-3 GC/FID**

**Client Sample ID: VP-1**

**Lab ID#: 1103349B-01A**

<b>Compound</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
TPH (Gasoline Range)	240	280

**Client Sample ID: VP-2**

**Lab ID#: 1103349B-02A**

<b>Compound</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
TPH (Gasoline Range)	240	250

**Client Sample ID: VP-3**

**Lab ID#: 1103349B-03A**

No Detections Were Found.

**Client Sample ID: DUPE**

**Lab ID#: 1103349B-04A**

<b>Compound</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
TPH (Gasoline Range)	240	540

Client Sample ID: VP-1

Lab ID#: 1103349B-01A

**MODIFIED EPA METHOD TO-3 GC/FID**

File Name:	d031809	Date of Collection:	3/15/11 10:00:00 AM
Dil. Factor:	2.37	Date of Analysis:	3/18/11 03:35 PM

Compound	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH (Gasoline Range)	240	280

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

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	107	75-150

Client Sample ID: VP-2

Lab ID#: 1103349B-02A

**MODIFIED EPA METHOD TO-3 GC/FID**

File Name:	d031810	Date of Collection:	3/15/11 11:10:00 AM
Dil. Factor:	2.31	Date of Analysis:	3/18/11 04:17 PM

Compound	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH (Gasoline Range)	240	250

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

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	104	75-150

Client Sample ID: VP-3

Lab ID#: 1103349B-03A

**MODIFIED EPA METHOD TO-3 GC/FID**

File Name:	d031811	Date of Collection:	3/15/11 10:28:00 AM
Dil. Factor:	2.28	Date of Analysis:	3/18/11 04:55 PM

Compound	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH (Gasoline Range)	230	Not Detected

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

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	106	75-150

**Client Sample ID: DUPE**

**Lab ID#: 1103349B-04A**

**MODIFIED EPA METHOD TO-3 GC/FID**

<b>File Name:</b>	<b>d031812</b>	<b>Date of Collection:</b> 3/15/11
<b>Dil. Factor:</b>	<b>2.33</b>	<b>Date of Analysis:</b> 3/18/11 05:28 PM

<b>Compound</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
TPH (Gasoline Range)	240	540

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

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Fluorobenzene (FID)	105	75-150

Client Sample ID: Lab Blank

Lab ID#: 1103349B-05A

**MODIFIED EPA METHOD TO-3 GC/FID**

<b>File Name:</b>	<b>d031807</b>	<b>Date of Collection:</b> NA
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis:</b> 3/18/11 12:33 PM

<b>Compound</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
TPH (Gasoline Range)	100	Not Detected

Container Type: NA - Not Applicable

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Fluorobenzene (FID)	103	75-150

**Client Sample ID: LCS**

**Lab ID#: 1103349B-06A**

**MODIFIED EPA METHOD TO-3 GC/FID**

<b>File Name:</b>	<b>d031802</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 3/18/11 08:14 AM</b>

<b>Compound</b>	<b>%Recovery</b>
TPH (Gasoline Range)	93

**Container Type: NA - Not Applicable**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Fluorobenzene (FID)	112	75-150





Client Sample ID: LCSD

Lab ID#: 1103349B-06AA

**MODIFIED EPA METHOD TO-3 GC/FID**

File Name:	d031813	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/18/11 08:24 PM

Compound	%Recovery
TPH (Gasoline Range)	89

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	108	75-150

3/23/2011

Mr. Chris Benedict  
Conestoga-Rovers Associates (CRA)  
10969 Trade Center Dr  
Suite 107  
Rancho Cordova CA 95670

Project Name: Chevron 9-5542  
Project #: 611969  
Workorder #: 1103349A

Dear Mr. Chris Benedict

The following report includes the data for the above referenced project for sample(s) received on 3/16/2011 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 #: 1103349A**

Work Order Summary

<b>CLIENT:</b>	Mr. Chris Benedict Conestoga-Rovers Associates (CRA) 10969 Trade Center Dr Suite 107 Rancho Cordova, CA 95670	<b>BILL TO:</b>	Mr. Chris Benedict Conestoga-Rovers Associates (CRA) 10969 Trade Center Dr Suite 107 Rancho Cordova, CA 95670
<b>PHONE:</b>	916-889-8925	<b>P.O. #</b>	40-4025462
<b>FAX:</b>	916-889-8999	<b>PROJECT #</b>	611969 Chevron 9-5542
<b>DATE RECEIVED:</b>	03/16/2011	<b>CONTACT:</b>	Kelly Buettner
<b>DATE COMPLETED:</b>	03/23/2011		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	VP-1	Modified TO-15	4.4 "Hg	15 psi
02A	VP-2	Modified TO-15	3.8 "Hg	15 psi
03A	VP-3	Modified TO-15	3.4 "Hg	15 psi
04A	DUPE	Modified TO-15	4.0 "Hg	15 psi
05A	Lab Blank	Modified TO-15	NA	NA
06A	CCV	Modified TO-15	NA	NA
07A	LCS	Modified TO-15	NA	NA
07AA	LCSD	Modified TO-15	NA	NA

CERTIFIED BY:   
Laboratory Director

DATE: 03/23/11

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,  
 NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719  
 Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,  
 Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/11  
 Air Toxics Ltd. 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 - 95630  
 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE  
EPA Method TO-15  
Conestoga-Rovers Associates (CRA)  
Workorder# 1103349A**

Four 1 Liter Summa Canister (100% Certified) samples were received on March 16, 2011. The laboratory performed analysis via modified 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**

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 and/or LCS.

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: VP-1**

**Lab ID#: 1103349A-01A**

No Detections Were Found.

**Client Sample ID: VP-2**

**Lab ID#: 1103349A-02A**

No Detections Were Found.

**Client Sample ID: VP-3**

**Lab ID#: 1103349A-03A**

No Detections Were Found.

**Client Sample ID: DUPE**

**Lab ID#: 1103349A-04A**

No Detections Were Found.

Client Sample ID: VP-1

Lab ID#: 1103349A-01A

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

<b>File Name:</b>	<b>6031717</b>	<b>Date of Collection:</b> 3/15/11 10:00:00 AM
<b>Dil. Factor:</b>	<b>2.37</b>	<b>Date of Analysis:</b> 3/18/11 07:37 AM

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Methyl tert-butyl ether	1.2	Not Detected	4.3	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
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
2,2,4-Trimethylpentane	1.2	Not Detected	5.5	Not Detected

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

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	119	70-130
4-Bromofluorobenzene	94	70-130

Client Sample ID: VP-2

Lab ID#: 1103349A-02A

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

<b>File Name:</b>	<b>6031718</b>	<b>Date of Collection:</b> 3/15/11 11:10:00 AM
<b>Dil. Factor:</b>	<b>2.31</b>	<b>Date of Analysis:</b> 3/18/11 08:05 AM

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Methyl tert-butyl ether	1.2	Not Detected	4.2	Not Detected
Benzene	1.2	Not Detected	3.7	Not Detected
Toluene	1.2	Not Detected	4.4	Not Detected
Ethyl Benzene	1.2	Not Detected	5.0	Not Detected
m,p-Xylene	1.2	Not Detected	5.0	Not Detected
o-Xylene	1.2	Not Detected	5.0	Not Detected
2,2,4-Trimethylpentane	1.2	Not Detected	5.4	Not Detected

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

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	118	70-130
4-Bromofluorobenzene	95	70-130

Client Sample ID: VP-3

Lab ID#: 1103349A-03A

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

<b>File Name:</b>	<b>6031721</b>	<b>Date of Collection:</b> 3/15/11 10:28:00 AM
<b>Dil. Factor:</b>	<b>2.28</b>	<b>Date of Analysis:</b> 3/18/11 11:02 AM

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Methyl tert-butyl ether	1.1	Not Detected	4.1	Not Detected
Benzene	1.1	Not Detected	3.6	Not Detected
Toluene	1.1	Not Detected	4.3	Not Detected
Ethyl Benzene	1.1	Not Detected	4.9	Not Detected
m,p-Xylene	1.1	Not Detected	5.0	Not Detected
o-Xylene	1.1	Not Detected	5.0	Not Detected
2,2,4-Trimethylpentane	1.1	Not Detected	5.3	Not Detected

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

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	113	70-130
4-Bromofluorobenzene	94	70-130



Client Sample ID: DUPE

Lab ID#: 1103349A-04A

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

<b>File Name:</b>	<b>6031726</b>	<b>Date of Collection:</b> 3/15/11
<b>Dil. Factor:</b>	<b>2.33</b>	<b>Date of Analysis:</b> 3/18/11 01:24 PM

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Methyl tert-butyl ether	1.2	Not Detected	4.2	Not Detected
Benzene	1.2	Not Detected	3.7	Not Detected
Toluene	1.2	Not Detected	4.4	Not Detected
Ethyl Benzene	1.2	Not Detected	5.0	Not Detected
m,p-Xylene	1.2	Not Detected	5.0	Not Detected
o-Xylene	1.2	Not Detected	5.0	Not Detected
2,2,4-Trimethylpentane	1.2	Not Detected	5.4	Not Detected

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

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	118	70-130
4-Bromofluorobenzene	94	70-130

Client Sample ID: Lab Blank

Lab ID#: 1103349A-05A

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

<b>File Name:</b>	<b>6031707</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 3/18/11 12:54 AM</b>

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
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
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected

**Container Type: NA - Not Applicable**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	128	70-130
4-Bromofluorobenzene	89	70-130

Client Sample ID: CCV

Lab ID#: 1103349A-06A

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

File Name:	6031702	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/17/11 10:45 PM

Compound	%Recovery
Methyl tert-butyl ether	107
Benzene	112
Toluene	115
Ethyl Benzene	112
m,p-Xylene	110
o-Xylene	112
2,2,4-Trimethylpentane	106

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	121	70-130
4-Bromofluorobenzene	98	70-130

Client Sample ID: LCS

Lab ID#: 1103349A-07A

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

File Name:	6031703	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/17/11 11:15 PM

Compound	%Recovery
Methyl tert-butyl ether	118
Benzene	117
Toluene	117
Ethyl Benzene	115
m,p-Xylene	113
o-Xylene	114
2,2,4-Trimethylpentane	111

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	105	70-130
1,2-Dichloroethane-d4	123	70-130
4-Bromofluorobenzene	98	70-130

Client Sample ID: LCSD

Lab ID#: 1103349A-07AA

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

<b>File Name:</b>	<b>6031704</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 3/17/11 11:57 PM</b>

<b>Compound</b>	<b>%Recovery</b>
Methyl tert-butyl ether	121
Benzene	113
Toluene	110
Ethyl Benzene	115
m,p-Xylene	115
o-Xylene	116
2,2,4-Trimethylpentane	111

**Container Type: NA - Not Applicable**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	123	70-130
4-Bromofluorobenzene	100	70-130

3/23/2011

Mr. Chris Benedict  
Conestoga-Rovers Associates (CRA)  
10969 Trade Center Dr  
Suite 107  
Rancho Cordova CA 95670

Project Name: Chevron 9-5542  
Project #: 611969  
Workorder #: 1103349C

Dear Mr. Chris Benedict

The following report includes the data for the above referenced project for sample(s) received on 3/16/2011 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 #: 1103349C**

Work Order Summary

<b>CLIENT:</b>	Mr. Chris Benedict Conestoga-Rovers Associates (CRA) 10969 Trade Center Dr Suite 107 Rancho Cordova, CA 95670	<b>BILL TO:</b>	Mr. Chris Benedict Conestoga-Rovers Associates (CRA) 10969 Trade Center Dr Suite 107 Rancho Cordova, CA 95670
<b>PHONE:</b>	916-889-8925	<b>P.O. #</b>	40-4025462
<b>FAX:</b>	916-889-8999	<b>PROJECT #</b>	611969 Chevron 9-5542
<b>DATE RECEIVED:</b>	03/16/2011	<b>CONTACT:</b>	Kelly Buettner
<b>DATE COMPLETED:</b>	03/22/2011		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	VP-1	Modified ASTM D-1946	4.4 "Hg	15 psi
02A	VP-2	Modified ASTM D-1946	3.8 "Hg	15 psi
03A	VP-3	Modified ASTM D-1946	3.4 "Hg	15 psi
04A	DUPE	Modified ASTM D-1946	4.0 "Hg	15 psi
05A	Lab Blank	Modified ASTM D-1946	NA	NA
05B	Lab Blank	Modified ASTM D-1946	NA	NA
06A	LCS	Modified ASTM D-1946	NA	NA
06AA	LCSD	Modified ASTM D-1946	NA	NA

CERTIFIED BY: 

DATE: 03/23/11

Laboratory Director

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

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,  
Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/11

Air Toxics Ltd. 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# 1103349C**

Four 1 Liter Summa Canister (100% Certified) samples were received on March 16, 2011. 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.

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 $> 5 X$ 's the RL.

**Receiving Notes**

There were no receiving discrepancies.



### **Analytical Notes**

There were no analytical discrepancies.

### **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: VP-1**

**Lab ID#: 1103349C-01A**

<b>Compound</b>	<b>Rpt. Limit (%)</b>	<b>Amount (%)</b>
Oxygen	0.24	9.7
Carbon Dioxide	0.024	7.9

**Client Sample ID: VP-2**

**Lab ID#: 1103349C-02A**

<b>Compound</b>	<b>Rpt. Limit (%)</b>	<b>Amount (%)</b>
Oxygen	0.23	15
Carbon Dioxide	0.023	3.2

**Client Sample ID: VP-3**

**Lab ID#: 1103349C-03A**

<b>Compound</b>	<b>Rpt. Limit (%)</b>	<b>Amount (%)</b>
Oxygen	0.23	7.6
Carbon Dioxide	0.023	9.4

**Client Sample ID: DUPE**

**Lab ID#: 1103349C-04A**

<b>Compound</b>	<b>Rpt. Limit (%)</b>	<b>Amount (%)</b>
Oxygen	0.23	15
Carbon Dioxide	0.023	3.2

**Client Sample ID: VP-1**

**Lab ID#: 1103349C-01A**

**NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946**

<b>File Name:</b>	<b>9031815</b>	<b>Date of Collection: 3/15/11 10:00:00 AM</b>
<b>Dil. Factor:</b>	<b>2.37</b>	<b>Date of Analysis: 3/18/11 09:40 AM</b>

<b>Compound</b>	<b>Rpt. Limit (%)</b>	<b>Amount (%)</b>
Oxygen	0.24	9.7
Methane	0.00024	Not Detected
Carbon Dioxide	0.024	7.9
Helium	0.12	Not Detected

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

Client Sample ID: VP-2

Lab ID#: 1103349C-02A

**NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946**

File Name:	9031816	Date of Collection:	3/15/11 11:10:00 AM
Dil. Factor:	2.31	Date of Analysis:	3/18/11 10:04 AM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.23	15
Methane	0.00023	Not Detected
Carbon Dioxide	0.023	3.2
Helium	0.12	Not Detected

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



Client Sample ID: VP-3

Lab ID#: 1103349C-03A

**NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946**

File Name:	9031817	Date of Collection:	3/15/11 10:28:00 AM
Dil. Factor:	2.28	Date of Analysis:	3/18/11 10:35 AM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.23	7.6
Methane	0.00023	Not Detected
Carbon Dioxide	0.023	9.4
Helium	0.11	Not Detected

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



Client Sample ID: DUPE

Lab ID#: 1103349C-04A

**NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946**

File Name:	9031818	Date of Collection:	3/15/11
Dil. Factor:	2.33	Date of Analysis:	3/18/11 11:05 AM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.23	15
Methane	0.00023	Not Detected
Carbon Dioxide	0.023	3.2
Helium	0.12	Not Detected

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

Client Sample ID: Lab Blank

Lab ID#: 1103349C-05A

**NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946**

File Name:	9031807	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	3/18/11 03:54 AM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.10	Not Detected
Methane	0.00010	Not Detected
Carbon Dioxide	0.010	Not Detected

Container Type: NA - Not Applicable



Client Sample ID: Lab Blank

Lab ID#: 1103349C-05B

**NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946**

File Name:	9031806b	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	3/18/11 03:32 AM

Compound	Rpt. Limit (%)	Amount (%)
Helium	0.050	Not Detected

Container Type: NA - Not Applicable





**Client Sample ID: LCS**

**Lab ID#: 1103349C-06A**

**NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946**

<b>File Name:</b>	<b>9031802</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 3/18/11 01:26 AM</b>

<b>Compound</b>	<b>%Recovery</b>
Oxygen	98
Methane	97
Carbon Dioxide	99
Helium	94

**Container Type: NA - Not Applicable**

Client Sample ID: LCSD

Lab ID#: 1103349C-06AA

**NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946**

File Name:	9031833	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/18/11 10:02 PM

<b>Compound</b>	<b>%Recovery</b>
Oxygen	99
Methane	93
Carbon Dioxide	99
Helium	95

Container Type: NA - Not Applicable



**CHAIN-OF-CUSTODY RECORD**

**Sample Transportation Notice**

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

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Page 1 of 1

Project Manager JAMES KIERNAN  
 Collected by: (Print and Sign) CHRIS BENEDET  
 Company CRA Email jkiernan@craworld.com  
 Address 109 CITIZEN CENTER #107 City RANCHO CORDOVA State CA Zip 95670  
 Phone 916 889 8900 Fax 916 889 8999

<b>Project Info:</b> P.O. # _____ Project # <u>611969</u> Project Name <u>CHEVRON 9-5542</u>	<b>Turn Around Time:</b> <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush <small>specify</small>	<small>Lab Use Only</small> Pressurized by: _____ Date: _____ Pressurization Gas: _____ N <sub>2</sub> He
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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	VP-1	36397	3/15/11	1000	TPH <sub>g</sub> by TO-3 BTEX + MTBE by TO-15 H <sub>2</sub> , O <sub>2</sub> , CO <sub>2</sub> , CH <sub>4</sub> by ASTM D1946	-29	-5		
02A	VP-2	2152		1110		-30	-5		
03A	VP-3	37360		1028		-30	-5		
04A	DUPP	36470		—		-30	-5		

Relinquished by: (signature) <u>Chris Benedit</u> Date/Time <u>3/16/11 752</u>	Received by: (signature) <u>B. White</u> Date/Time <u>ATC 3/16/11 0752</u>	<b>Notes:</b> <u>REPORT IN <math>\mu\text{g}/\text{m}^3</math></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>Hand Del.</u>		<u>N/A</u>	<u>Good</u>	Yes No <u>None</u>	<u>1103349</u>