

## **Detterman, Mark, Env. Health**

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**From:** Sami Malaeb [s.malaeb@comcast.net]  
**Sent:** Sunday, January 18, 2015 11:42 AM  
**To:** Detterman, Mark, Env. Health  
**Subject:** RE: 2145 35th Ave, Oakland (Chevron 9-8861; RO2945)  
**Attachments:** Summary of Soil Gas Sampling Results (SG1, SG2, and SG3).pdf; Figure 2 Locations of Drilled and Proposed Soil Gas Sampling Locations (Jan 15).pdf; TO 3 1501029B\_d.pdf; TO 17 1501007\_d.pdf; TO-15 GC MS 1501029A\_d.pdf; ASTM 1946 1501029C\_d.pdf

Hi Mark:

I obtained the soil gas lab results for the subject site late Friday. I summarized the results in the attached table. Also, I attached a copy of the lab results and a figure. Based on these analytical findings, we conclude the following:

1. Naphthalene was not detected and confirmed by TO-17 to be well below the risk level of 93 µg/m<sup>3</sup> in all three locations.
2. Both Benzene and Ethylbenzene exceeded the risk levels of 85 µg/m<sup>3</sup> and 1,100 µg/m<sup>3</sup> respectively in SG-3 near the south corner of the site.
3. No exceedances in SG-1 and SG-2, except, I need to talk to the lab to see if they can find out whether the detection of benzene could be proved to be <85 µg/m<sup>3</sup>.
4. No 2-propanol (Trace compound) was detected so the manifold and probes were tight.

At this point I suggest collecting one more soil gas sample near the wall of the Apartment building (SG-4). Please see the attached figure. I plan to analyze the sample only for:

Benzene and Ethylbenzene, and Isobutyl Alcohol (the trace compound) by TO-15 and for the atmospheric compounds by ASTM Method D-1946 (Oxygen, Nitrogen, Methane, and Carbon Dioxide).

I will call you on Monday to discuss this email.

Thanks,

Sami Malaeb, P.E., QSP/QSD

TEL: (925) 858-9608

Email: s.malaeb@comcast.net

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

**Sent:** Wednesday, January 14, 2015 11:14 AM

**To:** 'Sami Malaeb'

**Subject:** RE: 2145 35th Ave, Oakland (Chevron 9-8861; RO2945)

Sami,

Thanks for the update on the site. The extension request appears appropriate. Please use this email to document ACEH concurrence; however, to minimize costs, I have kept the two reports as originally requested as a single report submittal with a March 16 date. If you think it warranted, please keep me advised as to the vapor results prior to report submittal.

Best,

*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](mailto:mark.detterman@acgov.org)

PDF copies of case files can be downloaded at:

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

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**From:** Sami Malaeb [<mailto:s.malaeb@comcast.net>]  
**Sent:** Wednesday, January 14, 2015 10:59 AM  
**To:** Detterman, Mark, Env. Health  
**Subject:** RE: 2145 35th Ave, Oakland (Chevron 9-8861; RO2945)

Hi Mark:

I am writing this email to request further extension of time to submit the soil gas sampling and interim remedial action reports for the subject site. Due to the rainy weather in December 2014 and encountering wet soil, we were not able to conduct the soil gas survey until first week of January 2015. We expect the lab results for the soil gas sampling by no later than 21<sup>st</sup> of this month. We expect to complete the interim remedial action (shallow soil excavation and disposal for lead impacted areas) by mid February or earlier.

We request to extend the time for the report submittal as follows:

Soil gas sampling report by February 27, 2015.

Interim Remedial Action Report by March 17, 2015.

Your help and cooperation are greatly appreciated.

Thanks,

Sami Malaeb, P.E., QSP/QSD  
TEL: (925) 858-9608  
Email: [s.malaeb@comcast.net](mailto:s.malaeb@comcast.net)

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**From:** Detterman, Mark, Env. Health [<mailto:Mark.Detterman@acgov.org>]  
**Sent:** Wednesday, November 05, 2014 9:43 AM  
**To:** 'Sami Malaeb'  
**Subject:** RE: 2145 35th Ave, Oakland (Chevron 9-8861; RO2945)

Hi Sami,

I have been wondering about the status of this site; thanks for confirming my suspicion. Please use this email to document ACEH concurrence with the requested submittal extension. I have updated Geotracker with a January 23, 2015 submittal date.

*Mark Detterman*

Table: Summary of Soil Gas Sampling Results for Samples Collected on January 02, 2015

Sample ID	Benzene ( $\mu\text{g}/\text{m}^3$ )	Ethylbenzene ( $\mu\text{g}/\text{m}^3$ )	Naphthalene ( $\mu\text{g}/\text{m}^3$ )	Oxygen %
SG-1	ND<390	ND<520	<5.0 *	1.8
SG-2	ND<3.9	ND<5.2	<5.0 *	12
SG-3	5,700	11,000	<5.0 *	1.9
Low Threat UST Closure Risk Levels**	<85	<1,100	<93	<4%

\*Confirmed by TO-17

\*\*Appendix 4 (Page 1 of 2)

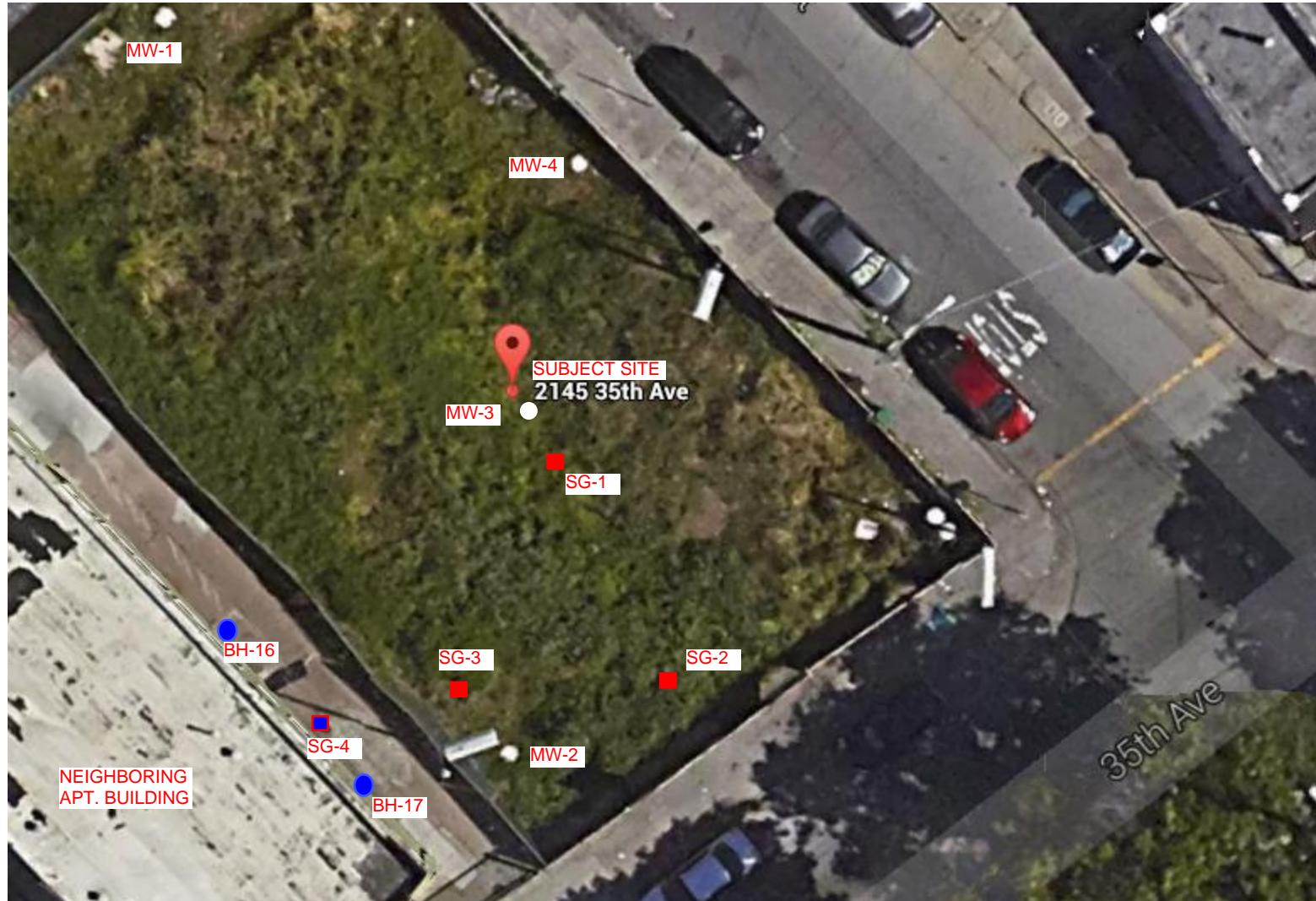


Figure 3 – Approximate Locations of Drilled and Proposed Soil Gas Sampling Locations

Approximate Scale :  
1 inch = 20 feet



■ Already Sampled  
Soil Gas Locations

■ Proposed Soil Gas  
Sampling Location

● Drilled soil borings

1/16/2015  
Mr. Ross Tinline  
SVC Environmental, Inc.  
11 Kenton Ave

San Carlos CA 94070

Project Name: Salisbury  
Project #:  
Workorder #: 1501029B

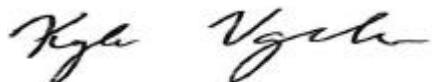
Dear Mr. Ross Tinline

The following report includes the data for the above referenced project for sample(s) received on 1/5/2015 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: Kyle Vagadori at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Kyle Vagadori  
Project Manager

**A Eurofins Lancaster Laboratories Company**

## WORK ORDER #: 1501029B

## Work Order Summary

<b>CLIENT:</b>	Mr. Ross Tinline SVC Environmental, Inc. 11 Kenton Ave San Carlos, CA 94070	<b>BILL TO:</b>	Mr. Ross Tinline SVC Environmental, Inc. 11 Kenton Ave San Carlos, CA 94070
<b>PHONE:</b>	650-218-3766	<b>P.O. #</b>	2145 35th Avenue Oakland
<b>FAX:</b>		<b>PROJECT #</b>	Salisbury
<b>DATE RECEIVED:</b>	01/05/2015	<b>CONTACT:</b>	Kyle Vagadori
<b>DATE COMPLETED:</b>	01/16/2015		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	SG-3	Modified TO-3	5.0 "Hg	15 psi
02A	SG-2	Modified TO-3	4.5 "Hg	15.5 psi
03A	SG-1	Modified TO-3	5.0 "Hg	15 psi
04A	SG-1R	Modified TO-3	5.0 "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: 01/16/15

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,  
TX NELAP - T104704343-14-7, UT NELAP CA009332014-5, VA NELAP - 460197, WA NELAP - C935  
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)

Accreditation number: CA300005, Effective date: 10/18/2014, Expiration date: 10/17/2015.

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-3  
SVC Environmental, Inc.  
Workorder# 1501029B**

Four 1 Liter Summa Canister samples were received on January 05, 2015. The laboratory performed analysis for volatile organic compounds in air via modified EPA Method TO-3 using gas chromatography with flame ionization detection. The TPH results are calculated using the response of Gasoline. A molecular weight of 100 is used to convert the TPH ppmv result to ug/L. 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.

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

<b><i>Requirement</i></b>	<b><i>TO-3</i></b>	<b><i>ATL Modifications</i></b>
Daily Calibration Standard Frequency	Prior to sample analysis and every 4 - 6 hrs	Prior to sample analysis and after the analytical batch </= 20 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**

According to the Chain of Custody (COC), samples SG-3, SG-2, SG-1 and SG-1R were collected on 1/2/14. However, the date on the sample tags for SG-3 and SG-2 reflects a collection date of 1/2/15. Therefore the date on the sample tags was used to calculate the sample holding time.

#### **Analytical Notes**

The recovery of surrogate Fluorobenzene in samples SG-3, SG-1 and SG-1R was outside control limits due to high level hydrocarbon matrix interference. Data is reported as qualified.

### **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



Air Toxics

## Summary of Detected Compounds MODIFIED EPA METHOD TO-3 GC/FID

**Client Sample ID: SG-3****Lab ID#: 1501029B-01A**

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	24	99	14000	55000

**Client Sample ID: SG-2****Lab ID#: 1501029B-02A**

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.060	0.25	1.1	4.6

**Client Sample ID: SG-1****Lab ID#: 1501029B-03A**

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.48	2.0	330	1300

**Client Sample ID: SG-1R****Lab ID#: 1501029B-04A**

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.48	2.0	360	1500



Air Toxics

Client Sample ID: SG-3

Lab ID#: 1501029B-01A

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

File Name:	d011316	Date of Collection:	1/2/15 11:23:00 AM	
Dil. Factor:	968	Date of Analysis:	1/13/15 07:53 PM	
Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	24	99	14000	55000

Q = Exceeds Quality Control limits, due to matrix effects. Matrix effects confirmed by re-analysis.

**Container Type: 1 Liter Summa Canister**

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	155 Q	75-150



Air Toxics

Client Sample ID: SG-2

Lab ID#: 1501029B-02A

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

File Name:	d011312	Date of Collection:	1/2/15 12:09:00 PM	
Dil. Factor:	2.42	Date of Analysis:	1/13/15 04:18 PM	
Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.060	0.25	1.1	4.6
<b>Container Type: 1 Liter Summa Canister</b>				
Surrogates	%Recovery	Method Limits		
Fluorobenzene (FID)	98	75-150		



Air Toxics

Client Sample ID: SG-1

Lab ID#: 1501029B-03A

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

File Name:	d011313	Date of Collection:	1/2/15 1:05:00 PM	
Dil. Factor:	19.4	Date of Analysis:	1/13/15 05:09 PM	
Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.48	2.0	330	1300

Q = Exceeds Quality Control limits, possibly due to matrix effects.

**Container Type: 1 Liter Summa Canister**

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	159 Q	75-150



Air Toxics

Client Sample ID: SG-1R

Lab ID#: 1501029B-04A

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

File Name:	d011314	Date of Collection:	1/2/15 1:18:00 PM	
Dil. Factor:	19.4	Date of Analysis:	1/13/15 05:55 PM	
Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.48	2.0	360	1500

Q = Exceeds Quality Control limits, possibly due to matrix effects.

**Container Type: 1 Liter Summa Canister**

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	174 Q	75-150



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1501029B-05A

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

File Name:	d011303	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	1/13/15 09:24 AM

Compound	Rpt. Limit (ppmv)	Rpt. Limit (ug/L)	Amount (ppmv)	Amount (ug/L)
TPH (Gasoline Range)	0.025	0.10	Not Detected	Not Detected

**Container Type: NA - Not Applicable**

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	95	75-150



Air Toxics

Client Sample ID: LCS

Lab ID#: 1501029B-06A

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

File Name:	d011302	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	1/13/15 08:28 AM

Compound	%Recovery	Method Limits
TPH (Gasoline Range)	82	75-125

**Container Type: NA - Not Applicable**

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	112	75-150



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1501029B-06AA

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

File Name:	d011317	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	1/13/15 08:58 PM

Compound	%Recovery	Method Limits
TPH (Gasoline Range)	94	75-125

**Container Type: NA - Not Applicable**

Surrogates	%Recovery	Method Limits
Fluorobenzene (FID)	92	75-150

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**Sample Transportation Notice**

Relinquishing signature on this document indicates that samples 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 is a jurisdictional agreement to hold harmless, forever and indemnify Air Toxics Limited against any claim, demand, or action, at 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 95830-4749  
(916) 985-1000 FAX (916) 985-1020

Page 3 of 1

Project Manager Ross Schaefer  
Collected by (Print and Sign) Ross Schaefer 12/14/03  
Company SVC Environmental Email ross@svcenv.com  
Address 11 Kestrel Avenue, San Leandro, CA Zip 94570  
Phone (408) 216-3265 Fax

Project Info:	2145 35th Avenue	Turn Around Time:	24-48 hr
P.O. #:	Rockwood	Prescribed by:	
Project #:		Normal Date:	
Project Name:	Salisbury	UJ Rush Presaturation Gas:	
		Specify N <sub>2</sub> He	

Lab ID	Field Sample ID (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum		
						Initial	Final	Except
SG-3		34519	1-2-04	11:51	123	TO15	for VOCs	-29.93 -9.77
SG-2		33735	1-2-04	12:03	1209	Including	Ammonia	-29.91 -4.90
SG-1		36383	1-2-04	12:56	1305	TO3 for TPH	-29.74 -5.88	
SG-1 R		37317	1-2-04	13:18	1318	ASTM D1944 for	-28.75 -5.00	
						Drygas, Nitrogen, CO <sub>2</sub>		
						and Methane		

Relinquished by (Signature): Ross Schaefer Date/Time 12/14/03 Received by (signature): Date/Time 12/14/03 Notes:  
T. E. 12/14/03 Global IP  
 Relinquished by (signature): Date/Time Ross Schaefer 12/14/03 TO 613778840  
 Relinquished by (signature): Date/Time    
 Relinquished by (signature): Date/Time

Lab. #: 12 Chipper Name: Air 814 Temp (C): 21.2 Condition: Good Crayon Seal intact: Yes Work Order #: 151023  
 Date: 12/14/03

1/14/2015

Mr. Ross Tinline  
SVC Environmental, Inc.  
11 Kenton Ave

San Carlos CA 94070

Project Name: Salisbury

Project #:  
Workorder #: 1501029A

Dear Mr. Ross Tinline

The following report includes the data for the above referenced project for sample(s) received on 1/5/2015 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: Kyle Vagadori at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Kyle Vagadori

Project Manager

A Eurofins Lancaster Laboratories Company

**WORK ORDER #:** 1501029A

## Work Order Summary

**CLIENT:** Mr. Ross Tinline  
SVC Environmental, Inc.  
11 Kenton Ave  
San Carlos, CA 94070

**BILL TO:** Mr. Ross Tinline  
SVC Environmental, Inc.  
11 Kenton Ave  
San Carlos, CA 94070

**PHONE:** 650-218-3766

**P.O. #:** 2145 35th Avenue Oakland

**FAX:**

**PROJECT #:** Salisbury

**DATE RECEIVED:** 01/05/2015

**CONTACT:** Kyle Vagadori

**DATE COMPLETED:** 01/14/2015

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	SG-3	TO-15	5.0 "Hgn	15 psi
02A	SG-2	TO-15	4.5 "Hg	15.5psi
03A	SG-1	TO-15	5.0 "Hg	15 psi
04A	SG-1R	TO-15	5.0 "Hg	15 psi
05A	Lab Blank	TO-15	NA	NA
05B	Lab Blank	TO-15	NA	NA
06A	CCV	TO-15	NA	NA
06B	CCV	TO-15	NA	NA
07A	LCS	TO-15	NA	NA
07AA	LCSD	TO-15	NA	NA
07B	LCS	TO-15	NA	NA
07BB	LCSD	TO-15	NA	NA

CERTIFIED BY:



DATE: 01/14/15

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,  
TX NELAP - T104704343-14-7, UT NELAP CA009332014-5, VA NELAP - 460197, WA NELAP - C935  
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)

Accreditation number: CA300005, Effective date: 10/18/2014, Expiration date: 10/17/2015.

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

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

**LABORATORY NARRATIVE  
EPA Method TO-15  
SVC Environmental, Inc.  
Workorder# 1501029A**

Four 1 Liter Summa Canister samples were received on January 05, 2015. 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**

According to the Chain of Custody (COC), samples SG-3, SG-2, SG-1 and SG-1R were collected on 1/2/14. However, the date on the sample tags for SG-3 and SG-2 reflects a collection date of 1/2/15. Therefore the date on the sample tags was used to calculate the sample holding time.

### **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.

Dilution was performed on samples SG-3, SG-1, and SG-1R due to the presence of high level target species.

Due to the linear calibration range of the instrument, the reporting limit for 1,2,4-Trichlorobenzene and Hexachlorobutadiene on instrument MSD-14 was raised from 20 ppbv to 50 ppbv.

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.

### **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



Air Toxics

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

**Client Sample ID: SG-3****Lab ID#: 1501029A-01A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexane	1200	18000	4300	63000
Cyclohexane	1200	12000	4200	43000
2,2,4-Trimethylpentane	1200	2300000 E	5600	11000000 E
Benzene	1200	1800	3900	5700
Heptane	1200	25000	5000	100000
Ethyl Benzene	1200	2500	5200	11000
TPH ref. to Gasoline (MW=100)	48000	7800000	200000	32000000

**Client Sample ID: SG-2****Lab ID#: 1501029A-02A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexane	1.2	1.5	4.3	5.1
2,2,4-Trimethylpentane	1.2	190	5.6	880
Heptane	1.2	2.2	5.0	8.8
TPH ref. to Gasoline (MW=100)	120	940	490	3800

**Client Sample ID: SG-1****Lab ID#: 1501029A-03A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexane	120	1000	430	3600
Cyclohexane	120	650	420	2200
2,2,4-Trimethylpentane	120	50000	560	230000
Heptane	120	1100	500	4500
TPH ref. to Gasoline (MW=100)	4800	170000	20000	690000

**Client Sample ID: SG-1R****Lab ID#: 1501029A-04A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Hexane	120	1100	430	4000



Air Toxics

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

**Client Sample ID: SG-1R**

**Lab ID#: 1501029A-04A**

Cyclohexane	120	740	420	2500
2,2,4-Trimethylpentane	120	57000	560	270000
Heptane	120	1400	500	5900
TPH ref. to Gasoline (MW=100)	4800	200000	20000	810000



Air Toxics

Client Sample ID: SG-3

Lab ID#: 1501029A-01A

EPA METHOD TO-15 GC/MS

File Name:	14010822	Date of Collection:	1/2/15 11:23:00 AM	
Dil. Factor:	242	Date of Analysis:	1/8/15 08:09 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1200	Not Detected	6000	Not Detected
Freon 114	1200	Not Detected	8400	Not Detected
Chloromethane	4800	Not Detected	10000	Not Detected
Vinyl Chloride	1200	Not Detected	3100	Not Detected
1,3-Butadiene	1200	Not Detected	2700	Not Detected
Bromomethane	1200	Not Detected	4700	Not Detected
Chloroethane	4800	Not Detected	13000	Not Detected
Freon 11	1200	Not Detected	6800	Not Detected
Ethanol	4800	Not Detected	9100	Not Detected
Freon 113	1200	Not Detected	9300	Not Detected
1,1-Dichloroethene	1200	Not Detected	4800	Not Detected
Acetone	4800	Not Detected	11000	Not Detected
2-Propanol	4800	Not Detected	12000	Not Detected
Carbon Disulfide	1200	Not Detected	3800	Not Detected
3-Chloropropene	4800	Not Detected	15000	Not Detected
Methylene Chloride	1200	Not Detected	4200	Not Detected
Methyl tert-butyl ether	1200	Not Detected	4400	Not Detected
trans-1,2-Dichloroethene	1200	Not Detected	4800	Not Detected
Hexane	1200	18000	4300	63000
1,1-Dichloroethane	1200	Not Detected	4900	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4800	Not Detected	14000	Not Detected
cis-1,2-Dichloroethene	1200	Not Detected	4800	Not Detected
Tetrahydrofuran	1200	Not Detected	3600	Not Detected
Chloroform	1200	Not Detected	5900	Not Detected
1,1,1-Trichloroethane	1200	Not Detected	6600	Not Detected
Cyclohexane	1200	12000	4200	43000
Carbon Tetrachloride	1200	Not Detected	7600	Not Detected
2,2,4-Trimethylpentane	1200	2300000 E	5600	11000000 E
Benzene	1200	1800	3900	5700
1,2-Dichloroethane	1200	Not Detected	4900	Not Detected
Heptane	1200	25000	5000	100000
Trichloroethene	1200	Not Detected	6500	Not Detected
1,2-Dichloropropane	1200	Not Detected	5600	Not Detected
1,4-Dioxane	4800	Not Detected	17000	Not Detected
Bromodichloromethane	1200	Not Detected	8100	Not Detected
cis-1,3-Dichloropropene	1200	Not Detected	5500	Not Detected
4-Methyl-2-pentanone	1200	Not Detected	5000	Not Detected
Toluene	1200	Not Detected	4600	Not Detected
trans-1,3-Dichloropropene	1200	Not Detected	5500	Not Detected
1,1,2-Trichloroethane	1200	Not Detected	6600	Not Detected
Tetrachloroethene	1200	Not Detected	8200	Not Detected
2-Hexanone	4800	Not Detected	20000	Not Detected



Air Toxics

Client Sample ID: SG-3

Lab ID#: 1501029A-01A

EPA METHOD TO-15 GC/MS

<b>File Name:</b>	<b>14010822</b>	<b>Date of Collection: 1/2/15 11:23:00 AM</b>		
<b>Dil. Factor:</b>	<b>242</b>	<b>Date of Analysis: 1/8/15 08:09 PM</b>		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1200	Not Detected	10000	Not Detected
1,2-Dibromoethane (EDB)	1200	Not Detected	9300	Not Detected
Chlorobenzene	1200	Not Detected	5600	Not Detected
Ethyl Benzene	1200	2500	5200	11000
m,p-Xylene	1200	Not Detected	5200	Not Detected
o-Xylene	1200	Not Detected	5200	Not Detected
Styrene	1200	Not Detected	5200	Not Detected
Bromoform	1200	Not Detected	12000	Not Detected
Cumene	1200	Not Detected	5900	Not Detected
1,1,2,2-Tetrachloroethane	1200	Not Detected	8300	Not Detected
Propylbenzene	1200	Not Detected	5900	Not Detected
4-Ethyltoluene	1200	Not Detected	5900	Not Detected
1,3,5-Trimethylbenzene	1200	Not Detected	5900	Not Detected
1,2,4-Trimethylbenzene	1200	Not Detected	5900	Not Detected
1,3-Dichlorobenzene	1200	Not Detected	7300	Not Detected
1,4-Dichlorobenzene	1200	Not Detected	7300	Not Detected
alpha-Chlorotoluene	1200	Not Detected	6300	Not Detected
1,2-Dichlorobenzene	1200	Not Detected	7300	Not Detected
1,2,4-Trichlorobenzene	12000	Not Detected	90000	Not Detected
Hexachlorobutadiene	12000	Not Detected	130000	Not Detected
Naphthalene	4800	Not Detected	25000	Not Detected
TPH ref. to Gasoline (MW=100)	48000	7800000	2000000	32000000

E = Exceeds instrument calibration range.

**Container Type: 1 Liter Summa Canister**

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	90	70-130



Air Toxics

Client Sample ID: SG-2

Lab ID#: 1501029A-02A

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

File Name:	j010816	Date of Collection: 1/2/15 12:09:00 PM		
Dil. Factor:	2.42	Date of Analysis: 1/8/15 07:35 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.0	Not Detected
Freon 114	1.2	Not Detected	8.4	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
<u>1,3-Butadiene</u>	<u>1.2</u>	<u>Not Detected</u>	<u>2.7</u>	<u>Not Detected</u>
Bromomethane	12	Not Detected	47	Not Detected
Chloroethane	4.8	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	6.8	Not Detected
Ethanol	4.8	Not Detected	9.1	Not Detected
Freon 113	1.2	Not Detected	9.3	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Acetone	12	Not Detected	29	Not Detected
2-Propanol	4.8	Not Detected	12	Not Detected
Carbon Disulfide	4.8	Not Detected	15	Not Detected
3-Chloropropene	4.8	Not Detected	15	Not Detected
Methylene Chloride	12	Not Detected	42	Not Detected
Methyl tert-butyl ether	1.2	Not Detected	4.4	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Hexane	1.2	1.5	4.3	5.1
1,1-Dichloroethane	1.2	Not Detected	4.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.8	Not Detected	14	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Tetrahydrofuran	1.2	Not Detected	3.6	Not Detected
Chloroform	1.2	Not Detected	5.9	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Cyclohexane	1.2	Not Detected	4.2	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.6	Not Detected
2,2,4-Trimethylpentane	1.2	190	5.6	880
Benzene	1.2	Not Detected	3.9	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.9	Not Detected
Heptane	1.2	2.2	5.0	8.8
Trichloroethene	1.2	Not Detected	6.5	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.6	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
Bromodichloromethane	1.2	Not Detected	8.1	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
Toluene	1.2	Not Detected	4.6	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Tetrachloroethene	1.2	Not Detected	8.2	Not Detected
2-Hexanone	4.8	Not Detected	20	Not Detected



Air Toxics

Client Sample ID: SG-2

Lab ID#: 1501029A-02A

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

<b>File Name:</b>	j010816	<b>Date of Collection:</b> 1/2/15 12:09:00 PM		
<b>Dil. Factor:</b>	2.42	<b>Date of Analysis:</b> 1/8/15 07:35 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	1.2	Not Detected	10	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.3	Not Detected
Chlorobenzene	1.2	Not Detected	5.6	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	Not Detected	5.2	Not Detected
o-Xylene	1.2	Not Detected	5.2	Not Detected
Styrene	1.2	Not Detected	5.2	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
Cumene	1.2	Not Detected	5.9	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.3	Not Detected
Propylbenzene	1.2	Not Detected	5.9	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.9	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.3	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected	36	Not Detected
Hexachlorobutadiene	4.8	Not Detected	52	Not Detected
Naphthalene	4.8	Not Detected	25	Not Detected
TPH ref. to Gasoline (MW=100)	120	940	490	3800

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	93	70-130
1,2-Dichloroethane-d4	105	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: SG-1

Lab ID#: 1501029A-03A

EPA METHOD TO-15 GC/MS

File Name:	14010823	Date of Collection: 1/2/15 1:05:00 PM		
Dil. Factor:	24.2	Date of Analysis: 1/8/15 08:41 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	120	Not Detected	600	Not Detected
Freon 114	120	Not Detected	840	Not Detected
Chloromethane	480	Not Detected	1000	Not Detected
Vinyl Chloride	120	Not Detected	310	Not Detected
<u>1,3-Butadiene</u>	<u>120</u>	<u>Not Detected</u>	<u>270</u>	<u>Not Detected</u>
Bromomethane	120	Not Detected	470	Not Detected
Chloroethane	480	Not Detected	1300	Not Detected
Freon 11	120	Not Detected	680	Not Detected
Ethanol	480	Not Detected	910	Not Detected
Freon 113	120	Not Detected	930	Not Detected
1,1-Dichloroethene	120	Not Detected	480	Not Detected
Acetone	480	Not Detected	1100	Not Detected
2-Propanol	480	Not Detected	1200	Not Detected
Carbon Disulfide	120	Not Detected	380	Not Detected
3-Chloropropene	480	Not Detected	1500	Not Detected
Methylene Chloride	120	Not Detected	420	Not Detected
Methyl tert-butyl ether	120	Not Detected	440	Not Detected
trans-1,2-Dichloroethene	120	Not Detected	480	Not Detected
Hexane	120	1000	430	3600
1,1-Dichloroethane	120	Not Detected	490	Not Detected
2-Butanone (Methyl Ethyl Ketone)	480	Not Detected	1400	Not Detected
cis-1,2-Dichloroethene	120	Not Detected	480	Not Detected
Tetrahydrofuran	120	Not Detected	360	Not Detected
Chloroform	120	Not Detected	590	Not Detected
1,1,1-Trichloroethane	120	Not Detected	660	Not Detected
Cyclohexane	120	650	420	2200
Carbon Tetrachloride	120	Not Detected	760	Not Detected
2,2,4-Trimethylpentane	120	50000	560	230000
Benzene	120	Not Detected	390	Not Detected
1,2-Dichloroethane	120	Not Detected	490	Not Detected
Heptane	120	1100	500	4500
Trichloroethene	120	Not Detected	650	Not Detected
1,2-Dichloropropane	120	Not Detected	560	Not Detected
1,4-Dioxane	480	Not Detected	1700	Not Detected
Bromodichloromethane	120	Not Detected	810	Not Detected
cis-1,3-Dichloropropene	120	Not Detected	550	Not Detected
4-Methyl-2-pentanone	120	Not Detected	500	Not Detected
Toluene	120	Not Detected	460	Not Detected
trans-1,3-Dichloropropene	120	Not Detected	550	Not Detected
1,1,2-Trichloroethane	120	Not Detected	660	Not Detected
Tetrachloroethene	120	Not Detected	820	Not Detected
2-Hexanone	480	Not Detected	2000	Not Detected



Air Toxics

Client Sample ID: SG-1

Lab ID#: 1501029A-03A

EPA METHOD TO-15 GC/MS

<b>File Name:</b>	<b>14010823</b>	<b>Date of Collection: 1/2/15 1:05:00 PM</b>		
<b>Dil. Factor:</b>	<b>24.2</b>	<b>Date of Analysis: 1/8/15 08:41 PM</b>		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	120	Not Detected	1000	Not Detected
1,2-Dibromoethane (EDB)	120	Not Detected	930	Not Detected
Chlorobenzene	120	Not Detected	560	Not Detected
Ethyl Benzene	120	Not Detected	520	Not Detected
m,p-Xylene	120	Not Detected	520	Not Detected
o-Xylene	120	Not Detected	520	Not Detected
Styrene	120	Not Detected	520	Not Detected
Bromoform	120	Not Detected	1200	Not Detected
Cumene	120	Not Detected	590	Not Detected
1,1,2,2-Tetrachloroethane	120	Not Detected	830	Not Detected
Propylbenzene	120	Not Detected	590	Not Detected
4-Ethyltoluene	120	Not Detected	590	Not Detected
1,3,5-Trimethylbenzene	120	Not Detected	590	Not Detected
1,2,4-Trimethylbenzene	120	Not Detected	590	Not Detected
1,3-Dichlorobenzene	120	Not Detected	730	Not Detected
1,4-Dichlorobenzene	120	Not Detected	730	Not Detected
alpha-Chlorotoluene	120	Not Detected	630	Not Detected
1,2-Dichlorobenzene	120	Not Detected	730	Not Detected
1,2,4-Trichlorobenzene	1200	Not Detected	9000	Not Detected
Hexachlorobutadiene	1200	Not Detected	13000	Not Detected
Naphthalene	480	Not Detected	2500	Not Detected
TPH ref. to Gasoline (MW=100)	4800	170000	20000	690000

**Container Type: 1 Liter Summa Canister**

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	88	70-130



Air Toxics

Client Sample ID: SG-1R

Lab ID#: 1501029A-04A

EPA METHOD TO-15 GC/MS

File Name:	14010824	Date of Collection: 1/2/15 1:18:00 PM		
Dil. Factor:	24.2	Date of Analysis: 1/8/15 09:06 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	120	Not Detected	600	Not Detected
Freon 114	120	Not Detected	840	Not Detected
Chloromethane	480	Not Detected	1000	Not Detected
Vinyl Chloride	120	Not Detected	310	Not Detected
<u>1,3-Butadiene</u>	<u>120</u>	<u>Not Detected</u>	<u>270</u>	<u>Not Detected</u>
Bromomethane	120	Not Detected	470	Not Detected
Chloroethane	480	Not Detected	1300	Not Detected
Freon 11	120	Not Detected	680	Not Detected
Ethanol	480	Not Detected	910	Not Detected
Freon 113	120	Not Detected	930	Not Detected
1,1-Dichloroethene	120	Not Detected	480	Not Detected
Acetone	480	Not Detected	1100	Not Detected
2-Propanol	480	Not Detected	1200	Not Detected
Carbon Disulfide	120	Not Detected	380	Not Detected
3-Chloropropene	480	Not Detected	1500	Not Detected
Methylene Chloride	120	Not Detected	420	Not Detected
Methyl tert-butyl ether	120	Not Detected	440	Not Detected
trans-1,2-Dichloroethene	120	Not Detected	480	Not Detected
Hexane	120	1100	430	4000
1,1-Dichloroethane	120	Not Detected	490	Not Detected
2-Butanone (Methyl Ethyl Ketone)	480	Not Detected	1400	Not Detected
cis-1,2-Dichloroethene	120	Not Detected	480	Not Detected
Tetrahydrofuran	120	Not Detected	360	Not Detected
Chloroform	120	Not Detected	590	Not Detected
1,1,1-Trichloroethane	120	Not Detected	660	Not Detected
Cyclohexane	120	740	420	2500
Carbon Tetrachloride	120	Not Detected	760	Not Detected
2,2,4-Trimethylpentane	120	57000	560	270000
Benzene	120	Not Detected	390	Not Detected
1,2-Dichloroethane	120	Not Detected	490	Not Detected
Heptane	120	1400	500	5900
Trichloroethene	120	Not Detected	650	Not Detected
1,2-Dichloropropane	120	Not Detected	560	Not Detected
1,4-Dioxane	480	Not Detected	1700	Not Detected
Bromodichloromethane	120	Not Detected	810	Not Detected
cis-1,3-Dichloropropene	120	Not Detected	550	Not Detected
4-Methyl-2-pentanone	120	Not Detected	500	Not Detected
Toluene	120	Not Detected	460	Not Detected
trans-1,3-Dichloropropene	120	Not Detected	550	Not Detected
1,1,2-Trichloroethane	120	Not Detected	660	Not Detected
Tetrachloroethene	120	Not Detected	820	Not Detected
2-Hexanone	480	Not Detected	2000	Not Detected



Air Toxics

Client Sample ID: SG-1R

Lab ID#: 1501029A-04A

EPA METHOD TO-15 GC/MS

<b>File Name:</b>	<b>14010824</b>	<b>Date of Collection: 1/2/15 1:18:00 PM</b>		
<b>Dil. Factor:</b>	<b>24.2</b>	<b>Date of Analysis: 1/8/15 09:06 PM</b>		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	120	Not Detected	1000	Not Detected
1,2-Dibromoethane (EDB)	120	Not Detected	930	Not Detected
Chlorobenzene	120	Not Detected	560	Not Detected
Ethyl Benzene	120	Not Detected	520	Not Detected
m,p-Xylene	120	Not Detected	520	Not Detected
o-Xylene	120	Not Detected	520	Not Detected
Styrene	120	Not Detected	520	Not Detected
Bromoform	120	Not Detected	1200	Not Detected
Cumene	120	Not Detected	590	Not Detected
1,1,2,2-Tetrachloroethane	120	Not Detected	830	Not Detected
Propylbenzene	120	Not Detected	590	Not Detected
4-Ethyltoluene	120	Not Detected	590	Not Detected
1,3,5-Trimethylbenzene	120	Not Detected	590	Not Detected
1,2,4-Trimethylbenzene	120	Not Detected	590	Not Detected
1,3-Dichlorobenzene	120	Not Detected	730	Not Detected
1,4-Dichlorobenzene	120	Not Detected	730	Not Detected
alpha-Chlorotoluene	120	Not Detected	630	Not Detected
1,2-Dichlorobenzene	120	Not Detected	730	Not Detected
1,2,4-Trichlorobenzene	1200	Not Detected	9000	Not Detected
Hexachlorobutadiene	1200	Not Detected	13000	Not Detected
Naphthalene	480	Not Detected	2500	Not Detected
TPH ref. to Gasoline (MW=100)	4800	200000	20000	810000

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	88	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1501029A-05A

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

File Name:	j010808	Date of Collection: NA		
Dil. Factor:	1.00	Date of Analysis: 1/8/15 02:15 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
<u>1,3-Butadiene</u>	<u>0.50</u>	<u>Not Detected</u>	<u>1.1</u>	<u>Not Detected</u>
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1501029A-05A

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

<b>File Name:</b>	j010808	<b>Date of Collection:</b> NA		
<b>Dil. Factor:</b>	1.00	<b>Date of Analysis:</b> 1/8/15 02:15 PM		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	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
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
Naphthalene	2.0	Not Detected	10	Not Detected
TPH ref. to Gasoline (MW=100)	50	Not Detected	200	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	94	70-130
1,2-Dichloroethane-d4	104	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1501029A-05B

EPA METHOD TO-15 GC/MS

File Name:	14010809	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	1/8/15 01:06 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	5.0	Not Detected	25	Not Detected
Freon 114	5.0	Not Detected	35	Not Detected
Chloromethane	20	Not Detected	41	Not Detected
Vinyl Chloride	5.0	Not Detected	13	Not Detected
<u>1,3-Butadiene</u>	<u>5.0</u>	<u>Not Detected</u>	<u>11</u>	<u>Not Detected</u>
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	20	Not Detected	53	Not Detected
Freon 11	5.0	Not Detected	28	Not Detected
Ethanol	20	Not Detected	38	Not Detected
Freon 113	5.0	Not Detected	38	Not Detected
1,1-Dichloroethene	5.0	Not Detected	20	Not Detected
Acetone	20	Not Detected	48	Not Detected
2-Propanol	20	Not Detected	49	Not Detected
Carbon Disulfide	5.0	Not Detected	16	Not Detected
3-Chloropropene	20	Not Detected	63	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected
trans-1,2-Dichloroethene	5.0	Not Detected	20	Not Detected
Hexane	5.0	Not Detected	18	Not Detected
1,1-Dichloroethane	5.0	Not Detected	20	Not Detected
2-Butanone (Methyl Ethyl Ketone)	20	Not Detected	59	Not Detected
cis-1,2-Dichloroethene	5.0	Not Detected	20	Not Detected
Tetrahydrofuran	5.0	Not Detected	15	Not Detected
Chloroform	5.0	Not Detected	24	Not Detected
1,1,1-Trichloroethane	5.0	Not Detected	27	Not Detected
Cyclohexane	5.0	Not Detected	17	Not Detected
Carbon Tetrachloride	5.0	Not Detected	31	Not Detected
2,2,4-Trimethylpentane	5.0	Not Detected	23	Not Detected
Benzene	5.0	Not Detected	16	Not Detected
1,2-Dichloroethane	5.0	Not Detected	20	Not Detected
Heptane	5.0	Not Detected	20	Not Detected
Trichloroethene	5.0	Not Detected	27	Not Detected
1,2-Dichloropropane	5.0	Not Detected	23	Not Detected
1,4-Dioxane	20	Not Detected	72	Not Detected
Bromodichloromethane	5.0	Not Detected	34	Not Detected
cis-1,3-Dichloropropene	5.0	Not Detected	23	Not Detected
4-Methyl-2-pentanone	5.0	Not Detected	20	Not Detected
Toluene	5.0	Not Detected	19	Not Detected
trans-1,3-Dichloropropene	5.0	Not Detected	23	Not Detected
1,1,2-Trichloroethane	5.0	Not Detected	27	Not Detected
Tetrachloroethene	5.0	Not Detected	34	Not Detected
2-Hexanone	20	Not Detected	82	Not Detected



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1501029A-05B

EPA METHOD TO-15 GC/MS

<b>File Name:</b>	<b>14010809</b>	<b>Date of Collection: NA</b>		
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 1/8/15 01:06 PM</b>		
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	5.0	Not Detected	42	Not Detected
1,2-Dibromoethane (EDB)	5.0	Not Detected	38	Not Detected
Chlorobenzene	5.0	Not Detected	23	Not Detected
Ethyl Benzene	5.0	Not Detected	22	Not Detected
m,p-Xylene	5.0	Not Detected	22	Not Detected
o-Xylene	5.0	Not Detected	22	Not Detected
Styrene	5.0	Not Detected	21	Not Detected
Bromoform	5.0	Not Detected	52	Not Detected
Cumene	5.0	Not Detected	24	Not Detected
1,1,2,2-Tetrachloroethane	5.0	Not Detected	34	Not Detected
Propylbenzene	5.0	Not Detected	24	Not Detected
4-Ethyltoluene	5.0	Not Detected	24	Not Detected
1,3,5-Trimethylbenzene	5.0	Not Detected	24	Not Detected
1,2,4-Trimethylbenzene	5.0	Not Detected	24	Not Detected
1,3-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,4-Dichlorobenzene	5.0	Not Detected	30	Not Detected
alpha-Chlorotoluene	5.0	Not Detected	26	Not Detected
1,2-Dichlorobenzene	5.0	Not Detected	30	Not Detected
1,2,4-Trichlorobenzene	50	Not Detected	370	Not Detected
Hexachlorobutadiene	50	Not Detected	530	Not Detected
Naphthalene	20	Not Detected	100	Not Detected
TPH ref. to Gasoline (MW=100)	200	Not Detected	820	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	90	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1501029A-06A

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

File Name:	j010802	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	1/8/15 10:40 AM

Compound	%Recovery
Freon 12	95
Freon 114	97
Chloromethane	96
Vinyl Chloride	110
<u>1,3-Butadiene</u>	106
Bromomethane	99
Chloroethane	107
Freon 11	101
Ethanol	106
Freon 113	93
1,1-Dichloroethene	105
Acetone	101
2-Propanol	108
Carbon Disulfide	104
3-Chloropropene	108
Methylene Chloride	105
Methyl tert-butyl ether	101
trans-1,2-Dichloroethene	93
Hexane	101
1,1-Dichloroethane	98
2-Butanone (Methyl Ethyl Ketone)	103
cis-1,2-Dichloroethene	89
Tetrahydrofuran	109
Chloroform	100
1,1,1-Trichloroethane	97
Cyclohexane	100
Carbon Tetrachloride	101
2,2,4-Trimethylpentane	100
Benzene	92
1,2-Dichloroethane	92
Heptane	90
Trichloroethene	114
1,2-Dichloropropane	87
1,4-Dioxane	104
Bromodichloromethane	87
cis-1,3-Dichloropropene	85
4-Methyl-2-pentanone	88
Toluene	80
trans-1,3-Dichloropropene	86
1,1,2-Trichloroethane	88
Tetrachloroethene	88
2-Hexanone	108



Air Toxics

Client Sample ID: CCV

Lab ID#: 1501029A-06A

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

File Name:	j010802	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	1/8/15 10:40 AM

Compound	%Recovery
Dibromochloromethane	87
1,2-Dibromoethane (EDB)	92
Chlorobenzene	93
Ethyl Benzene	101
m,p-Xylene	100
o-Xylene	103
Styrene	110
Bromoform	97
Cumene	105
1,1,2,2-Tetrachloroethane	78
Propylbenzene	108
4-Ethyltoluene	112
1,3,5-Trimethylbenzene	107
1,2,4-Trimethylbenzene	117
1,3-Dichlorobenzene	113
1,4-Dichlorobenzene	114
alpha-Chlorotoluene	94
1,2-Dichlorobenzene	111
1,2,4-Trichlorobenzene	118
Hexachlorobutadiene	124
Naphthalene	118
TPH ref. to Gasoline (MW=100)	100

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	92	70-130
1,2-Dichloroethane-d4	107	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1501029A-06B

EPA METHOD TO-15 GC/MS

File Name:	14010805	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/8/15 11:12 AM

Compound	%Recovery
Freon 12	103
Freon 114	93
Chloromethane	102
Vinyl Chloride	94
<u>1,3-Butadiene</u>	94
Bromomethane	81
Chloroethane	70
Freon 11	94
Ethanol	80
Freon 113	89
1,1-Dichloroethene	85
Acetone	82
2-Propanol	77
Carbon Disulfide	89
<u>3-Chloropropene</u>	94
Methylene Chloride	75
Methyl tert-butyl ether	71
trans-1,2-Dichloroethene	88
Hexane	86
1,1-Dichloroethane	86
2-Butanone (Methyl Ethyl Ketone)	90
cis-1,2-Dichloroethene	89
Tetrahydrofuran	76
Chloroform	89
<u>1,1,1-Trichloroethane</u>	91
Cyclohexane	92
Carbon Tetrachloride	95
2,2,4-Trimethylpentane	90
Benzene	86
<u>1,2-Dichloroethane</u>	94
Heptane	96
Trichloroethene	92
1,2-Dichloropropane	86
1,4-Dioxane	98
Bromodichloromethane	92
cis-1,3-Dichloropropene	88
4-Methyl-2-pentanone	90
Toluene	94
trans-1,3-Dichloropropene	85
<u>1,1,2-Trichloroethane</u>	87
Tetrachloroethene	90
2-Hexanone	82



Air Toxics

Client Sample ID: CCV

Lab ID#: 1501029A-06B

EPA METHOD TO-15 GC/MS

File Name:	14010805	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	1/8/15 11:12 AM

Compound	%Recovery
Dibromochloromethane	93
1,2-Dibromoethane (EDB)	92
Chlorobenzene	93
Ethyl Benzene	96
m,p-Xylene	100
o-Xylene	95
Styrene	95
Bromoform	84
Cumene	100
1,1,2,2-Tetrachloroethane	93
Propylbenzene	101
4-Ethyltoluene	103
1,3,5-Trimethylbenzene	103
1,2,4-Trimethylbenzene	104
1,3-Dichlorobenzene	100
1,4-Dichlorobenzene	100
alpha-Chlorotoluene	99
1,2-Dichlorobenzene	101
1,2,4-Trichlorobenzene	90
Hexachlorobutadiene	103
Naphthalene	99
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	100	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1501029A-07A

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

File Name:	j010803	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	1/8/15 11:07 AM
Compound	%Recovery	Method	Limits
Freon 12	90	70-130	
Freon 114	88	70-130	
Chloromethane	87	70-130	
Vinyl Chloride	101	70-130	
<u>1,3-Butadiene</u>	92	70-130	
Bromomethane	90	70-130	
Chloroethane	95	70-130	
Freon 11	90	70-130	
Ethanol	107	70-130	
Freon 113	88	70-130	
1,1-Dichloroethene	97	70-130	
Acetone	88	70-130	
2-Propanol	105	70-130	
Carbon Disulfide	87	70-130	
3-Chloropropene	95	70-130	
Methylene Chloride	98	70-130	
Methyl tert-butyl ether	90	70-130	
trans-1,2-Dichloroethene	81	70-130	
Hexane	90	70-130	
1,1-Dichloroethane	89	70-130	
2-Butanone (Methyl Ethyl Ketone)	91	70-130	
cis-1,2-Dichloroethene	85	70-130	
Tetrahydrofuran	100	70-130	
Chloroform	92	70-130	
1,1,1-Trichloroethane	88	70-130	
Cyclohexane	90	70-130	
Carbon Tetrachloride	92	70-130	
2,2,4-Trimethylpentane	87	70-130	
Benzene	90	70-130	
1,2-Dichloroethane	96	70-130	
Heptane	84	70-130	
Trichloroethene	88	70-130	
1,2-Dichloropropane	86	70-130	
1,4-Dioxane	104	70-130	
Bromodichloromethane	87	70-130	
cis-1,3-Dichloropropene	90	70-130	
4-Methyl-2-pentanone	86	70-130	
Toluene	82	70-130	
trans-1,3-Dichloropropene	81	70-130	
1,1,2-Trichloroethane	82	70-130	
Tetrachloroethene	84	70-130	
2-Hexanone	104	70-130	



Air Toxics

Client Sample ID: LCS

Lab ID#: 1501029A-07A

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

<b>File Name:</b>	j010803	<b>Date of Collection:</b> NA
<b>Dil. Factor:</b>	1.00	<b>Date of Analysis:</b> 1/8/15 11:07 AM
Compound	%Recovery	Method Limits
Dibromochloromethane	85	70-130
1,2-Dibromoethane (EDB)	90	70-130
Chlorobenzene	89	70-130
Ethyl Benzene	96	70-130
m,p-Xylene	98	70-130
o-Xylene	99	70-130
Styrene	111	70-130
Bromoform	96	70-130
Cumene	102	70-130
1,1,2,2-Tetrachloroethane	103	70-130
Propylbenzene	108	70-130
4-Ethyltoluene	108	70-130
1,3,5-Trimethylbenzene	115	70-130
1,2,4-Trimethylbenzene	120	70-130
1,3-Dichlorobenzene	110	70-130
1,4-Dichlorobenzene	109	70-130
alpha-Chlorotoluene	171 Q	70-130
1,2-Dichlorobenzene	110	70-130
1,2,4-Trichlorobenzene	137 Q	70-130
Hexachlorobutadiene	134 Q	70-130
Naphthalene	88	60-140
TPH ref. to Gasoline (MW=100)	Not Spiked	

Q = Exceeds Quality Control limits.

**Container Type:** NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	94	70-130
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	99	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1501029A-07AA

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

File Name:	j010804	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	1/8/15 11:34 AM
Compound	%Recovery	Method	Limits
Freon 12	92	70-130	
Freon 114	90	70-130	
Chloromethane	88	70-130	
Vinyl Chloride	103	70-130	
<u>1,3-Butadiene</u>	96	70-130	
Bromomethane	93	70-130	
Chloroethane	91	70-130	
Freon 11	92	70-130	
Ethanol	109	70-130	
Freon 113	90	70-130	
1,1-Dichloroethene	102	70-130	
Acetone	92	70-130	
2-Propanol	105	70-130	
Carbon Disulfide	91	70-130	
3-Chloropropene	100	70-130	
Methylene Chloride	97	70-130	
Methyl tert-butyl ether	91	70-130	
trans-1,2-Dichloroethene	83	70-130	
Hexane	92	70-130	
1,1-Dichloroethane	92	70-130	
2-Butanone (Methyl Ethyl Ketone)	92	70-130	
cis-1,2-Dichloroethene	88	70-130	
Tetrahydrofuran	101	70-130	
Chloroform	93	70-130	
1,1,1-Trichloroethane	90	70-130	
Cyclohexane	93	70-130	
Carbon Tetrachloride	94	70-130	
2,2,4-Trimethylpentane	90	70-130	
Benzene	92	70-130	
1,2-Dichloroethane	94	70-130	
Heptane	84	70-130	
Trichloroethene	89	70-130	
1,2-Dichloropropane	90	70-130	
1,4-Dioxane	107	70-130	
Bromodichloromethane	88	70-130	
cis-1,3-Dichloropropene	91	70-130	
4-Methyl-2-pentanone	87	70-130	
Toluene	80	70-130	
trans-1,3-Dichloropropene	82	70-130	
1,1,2-Trichloroethane	84	70-130	
Tetrachloroethene	85	70-130	
2-Hexanone	105	70-130	



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1501029A-07AA

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

<b>File Name:</b>	j010804	<b>Date of Collection:</b> NA
<b>Dil. Factor:</b>	1.00	<b>Date of Analysis:</b> 1/8/15 11:34 AM
Compound	%Recovery	Method Limits
Dibromochloromethane	84	70-130
1,2-Dibromoethane (EDB)	90	70-130
Chlorobenzene	90	70-130
Ethyl Benzene	100	70-130
m,p-Xylene	102	70-130
o-Xylene	102	70-130
Styrene	112	70-130
Bromoform	96	70-130
Cumene	104	70-130
1,1,2,2-Tetrachloroethane	104	70-130
Propylbenzene	109	70-130
4-Ethyltoluene	109	70-130
1,3,5-Trimethylbenzene	124	70-130
1,2,4-Trimethylbenzene	121	70-130
1,3-Dichlorobenzene	111	70-130
1,4-Dichlorobenzene	112	70-130
alpha-Chlorotoluene	174 Q	70-130
1,2-Dichlorobenzene	110	70-130
1,2,4-Trichlorobenzene	134 Q	70-130
Hexachlorobutadiene	133 Q	70-130
Naphthalene	90	60-140
TPH ref. to Gasoline (MW=100)	Not Spiked	

Q = Exceeds Quality Control limits.

**Container Type: NA - Not Applicable**

Surrogates	%Recovery	Method Limits
Toluene-d8	93	70-130
1,2-Dichloroethane-d4	102	70-130
4-Bromofluorobenzene	100	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1501029A-07B

EPA METHOD TO-15 GC/MS

File Name:	14010806	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	1/8/15 11:35 AM
Compound	%Recovery	Method	Limits
Freon 12	113	70-130	
Freon 114	102	70-130	
Chloromethane	99	70-130	
Vinyl Chloride	107	70-130	
<u>1,3-Butadiene</u>	99	70-130	
Bromomethane	98	70-130	
Chloroethane	76	70-130	
Freon 11	102	70-130	
Ethanol	105	70-130	
Freon 113	101	70-130	
1,1-Dichloroethene	99	70-130	
Acetone	94	70-130	
2-Propanol	88	70-130	
Carbon Disulfide	88	70-130	
<u>3-Chloropropene</u>	102	70-130	
Methylene Chloride	90	70-130	
Methyl tert-butyl ether	80	70-130	
trans-1,2-Dichloroethene	94	70-130	
Hexane	92	70-130	
1,1-Dichloroethane	92	70-130	
2-Butanone (Methyl Ethyl Ketone)	100	70-130	
cis-1,2-Dichloroethene	95	70-130	
Tetrahydrofuran	85	70-130	
Chloroform	98	70-130	
<u>1,1,1-Trichloroethane</u>	98	70-130	
Cyclohexane	98	70-130	
Carbon Tetrachloride	105	70-130	
2,2,4-Trimethylpentane	97	70-130	
Benzene	93	70-130	
<u>1,2-Dichloroethane</u>	97	70-130	
Heptane	97	70-130	
Trichloroethene	98	70-130	
1,2-Dichloropropane	91	70-130	
1,4-Dioxane	100	70-130	
Bromodichloromethane	99	70-130	
cis-1,3-Dichloropropene	96	70-130	
4-Methyl-2-pentanone	96	70-130	
Toluene	98	70-130	
trans-1,3-Dichloropropene	89	70-130	
<u>1,1,2-Trichloroethane</u>	95	70-130	
Tetrachloroethene	94	70-130	
2-Hexanone	92	70-130	



Air Toxics

Client Sample ID: LCS

Lab ID#: 1501029A-07B

EPA METHOD TO-15 GC/MS

<b>File Name:</b>	<b>14010806</b>	<b>Date of Collection:</b> NA
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis:</b> 1/8/15 11:35 AM
<b>Compound</b>	<b>%Recovery</b>	<b>Method Limits</b>
Dibromochloromethane	99	70-130
1,2-Dibromoethane (EDB)	99	70-130
Chlorobenzene	96	70-130
Ethyl Benzene	102	70-130
m,p-Xylene	108	70-130
o-Xylene	101	70-130
Styrene	109	70-130
Bromoform	93	70-130
Cumene	108	70-130
1,1,2,2-Tetrachloroethane	97	70-130
Propylbenzene	107	70-130
4-Ethyltoluene	114	70-130
1,3,5-Trimethylbenzene	119	70-130
1,2,4-Trimethylbenzene	118	70-130
1,3-Dichlorobenzene	107	70-130
1,4-Dichlorobenzene	108	70-130
alpha-Chlorotoluene	170 Q	70-130
1,2-Dichlorobenzene	108	70-130
1,2,4-Trichlorobenzene	118	70-130
Hexachlorobutadiene	132 Q	70-130
Naphthalene	58 Q	60-140
TPH ref. to Gasoline (MW=100)	Not Spiked	

Q = Exceeds Quality Control limits.

**Container Type: NA - Not Applicable**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1501029A-07BB

EPA METHOD TO-15 GC/MS

File Name:	14010807	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	1/8/15 12:14 PM
Compound	%Recovery	Method	Limits
Freon 12	104	70-130	
Freon 114	93	70-130	
Chloromethane	91	70-130	
Vinyl Chloride	97	70-130	
<u>1,3-Butadiene</u>	92	70-130	
Bromomethane	86	70-130	
Chloroethane	69 Q	70-130	
Freon 11	97	70-130	
Ethanol	96	70-130	
Freon 113	95	70-130	
1,1-Dichloroethene	92	70-130	
Acetone	86	70-130	
2-Propanol	82	70-130	
Carbon Disulfide	84	70-130	
3-Chloropropene	99	70-130	
Methylene Chloride	82	70-130	
Methyl tert-butyl ether	77	70-130	
trans-1,2-Dichloroethene	92	70-130	
Hexane	82	70-130	
1,1-Dichloroethane	91	70-130	
2-Butanone (Methyl Ethyl Ketone)	92	70-130	
cis-1,2-Dichloroethene	89	70-130	
Tetrahydrofuran	79	70-130	
Chloroform	92	70-130	
1,1,1-Trichloroethane	92	70-130	
Cyclohexane	92	70-130	
Carbon Tetrachloride	102	70-130	
2,2,4-Trimethylpentane	92	70-130	
Benzene	91	70-130	
1,2-Dichloroethane	100	70-130	
Heptane	100	70-130	
Trichloroethene	98	70-130	
1,2-Dichloropropane	94	70-130	
1,4-Dioxane	99	70-130	
Bromodichloromethane	100	70-130	
cis-1,3-Dichloropropene	96	70-130	
4-Methyl-2-pentanone	93	70-130	
Toluene	98	70-130	
trans-1,3-Dichloropropene	86	70-130	
1,1,2-Trichloroethane	93	70-130	
Tetrachloroethene	92	70-130	
2-Hexanone	91	70-130	



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1501029A-07BB

EPA METHOD TO-15 GC/MS

<b>File Name:</b>	<b>14010807</b>	<b>Date of Collection:</b> NA
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis:</b> 1/8/15 12:14 PM
<b>Compound</b>	<b>%Recovery</b>	<b>Method Limits</b>
Dibromochloromethane	99	70-130
1,2-Dibromoethane (EDB)	98	70-130
Chlorobenzene	95	70-130
Ethyl Benzene	101	70-130
m,p-Xylene	106	70-130
o-Xylene	101	70-130
Styrene	110	70-130
Bromoform	92	70-130
Cumene	105	70-130
1,1,2,2-Tetrachloroethane	92	70-130
Propylbenzene	106	70-130
4-Ethyltoluene	112	70-130
1,3,5-Trimethylbenzene	119	70-130
1,2,4-Trimethylbenzene	116	70-130
1,3-Dichlorobenzene	104	70-130
1,4-Dichlorobenzene	106	70-130
alpha-Chlorotoluene	167 Q	70-130
1,2-Dichlorobenzene	108	70-130
1,2,4-Trichlorobenzene	108	70-130
Hexachlorobutadiene	121	70-130
Naphthalene	57 Q	60-140
TPH ref. to Gasoline (MW=100)	Not Spiked	

Q = Exceeds Quality Control limits.

**Container Type: NA - Not Applicable**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	96	70-130

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## Sample Transportation Notice

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FOLSOM, CA 95830-4749

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Page 1 of 1

Project Manager Ross Shulke  
 Collected by: (Print and Sign) Ross Shulke  
 Company SVC Environmental Email Ross@SVCenv.com  
 Address 11 Kesten Avenue, City, San Leandro, State, CA, Zip, 94670  
 Phone 450 216 3768 Fax

Project Info: 2145 35th Avenue Turn Around 48 hrs  
 P.O. # Pekin Pre-Submited by   
 Project #  Date   
 Project Name Salisbury Presurization Gas N2 He  
 Canister Pressure/Vacuum N2  
 Initial  Final  Except  Notes

Lab ID	Field Sample ID. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Carriker Pressure/Vacuum
SG-3		34519	1-2-14	11:57	for VOCs -29.93	-4.77
SG-2		33735	1-2-14	12:03	Including <del>methane</del> -29.91	-4.90
SG-1		36383	1-2-14	12:56	30.3 for TPH	-5.88
SG-1 R		37317	1-2-14	13:18	ASTM D1944 for Oxygen, Nitrogen, CO <sub>2</sub> and Methane	-5.00

Relinquished by: (Signature) Ross Shulke Received by: (signature) Tony E. Notes: Global IP  
 Date/Time 1-2-14 Date/Time 1-2-14 Date/Time 1-6-14  
 Relinquished by: (signature) Ross Shulke Received by: (signature) Tony E. Notes: TO 613776840  
 Date/Time 1-5-14 Date/Time 1-6-14

Shipper Name John Shulke Temp (C) 0 Condition Crushy Seats intact Work Order # 151023  
 Lab PC Date 1/5/14 Time 10:24 Qty 1 (None)

1/16/2015  
Mr. Ross Tinline  
SVC Environmental, Inc.  
11 Kenton Ave

San Carlos CA 94070

Project Name: Salisbury  
Project #:  
Workorder #: 1501007

Dear Mr. Ross Tinline

The following report includes the data for the above referenced project for sample(s) received on 1/5/2015 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: Kyle Vagadori at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Kyle Vagadori  
Project Manager

**A Eurofins Lancaster Laboratories Company**

**WORK ORDER #:** 1501007

## Work Order Summary

<b>CLIENT:</b>	Mr. Ross Tinline SVC Environmental, Inc. 11 Kenton Ave San Carlos, CA 94070	<b>BILL TO:</b>	Mr. Ross Tinline SVC Environmental, Inc. 11 Kenton Ave San Carlos, CA 94070
<b>PHONE:</b>	650-218-3766	<b>P.O. #</b>	2145 35th Ave Oakland CA
<b>FAX:</b>		<b>PROJECT #</b>	Salisbury
<b>DATE RECEIVED:</b>	01/05/2015	<b>CONTACT:</b>	Kyle Vagadori
<b>DATE COMPLETED:</b>	01/16/2015		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
01A	SG-3	Modified TO-17 VI
02A	SG-2	Modified TO-17 VI
03A	SG-1	Modified TO-17 VI
04A	SG-1R	Modified TO-17 VI
05A	TRIP Blank	Modified TO-17 VI
06A	Lab Blank	Modified TO-17 VI
07A	CCV	Modified TO-17 VI
08A	LCS	Modified TO-17 VI
08AA	LCSD	Modified TO-17 VI

CERTIFIED BY:



DATE: 01/16/15

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,  
TX NELAP - T104704343-14-7, UT NELAP CA009332014-5, VA NELAP - 460197, WA NELAP - C935  
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)

Accreditation number: CA300005, Effective date: 10/18/2014, Expiration date: 10/17/2015.

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)**  
**SVC Environmental, Inc.**  
**Workorder# 1501007**

Five TO-17 VI Tube samples were received on January 05, 2015. 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.

<b>Requirement</b>	<b>TO-17</b>	<b>ATL Modifications</b>
Initial Calibration	%RSD</=30% with 2 allowed out up to 40%	VOC list: %RSD</=30% with 2 allowed out up to 40% SVOC list: %RSD</=30% with 2 allowed out up to 40%
Daily Calibration	%D for each target compound within +/-30%.	Fluorene, Phenanthrene, Anthracene, Fluoranthene, and Pyrene within +/-40%D
Audit Accuracy	70-130%	Second source recovery limits for Fluorene, Phenanthrene, Anthracene, Fluoranthene, and Pyrene = 60-140%.
Distributed Volume Pairs	Collection of distributed volume pairs required for monitoring ambient air to insure high quality.	If the client is sampling well characterized air or has verified performance through previous sampling or distributed pairs, single tube sampling may be appropriate. Distributed volume pairs may not be practical or useful for soil vapor collection due to
Analytical Precision	</=20% RPD	<30% RPD for Fluorene, Phenanthrene, Anthracene, Fluoranthene, and Pyrene.

### **Receiving Notes**

A Temperature Blank was included with the shipment. Temperature was measured and was not within  $4\pm2$  °C. Coolant in the form of blue ice was present. Analysis proceeded.

### **Analytical Notes**

A sampling volume of 0.200 L was used to convert ng to ug/m<sup>3</sup> for the associated TRIP Blank and Lab Blank.

### **Definition of Data Qualifying Flags**

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

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

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

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

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

N - The identification is based on presumptive evidence.

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

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue



Air Toxics

## **Summary of Detected Compounds EPA METHOD TO-17**

**Client Sample ID: SG-3**

**Lab ID#: 1501007-01A**

No Detections Were Found.

**Client Sample ID: SG-2**

**Lab ID#: 1501007-02A**

No Detections Were Found.

**Client Sample ID: SG-1**

**Lab ID#: 1501007-03A**

No Detections Were Found.

**Client Sample ID: SG-1R**

**Lab ID#: 1501007-04A**

No Detections Were Found.

**Client Sample ID: TRIP Blank**

**Lab ID#: 1501007-05A**

No Detections Were Found.



Air Toxics

**Client Sample ID: SG-3****Lab ID#: 1501007-01A****EPA METHOD TO-17**

File Name:	6010923	Date of Extraction:	N/A	Date of Collection:	1/2/15 11:35:00 AM
Dil. Factor:	1.00			Date of Analysis:	1/9/15 02:47 PM

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	5.0	Not Detected	Not Detected

**Air Sample Volume(L): 0.200****Container Type: TO-17 VI Tube**

Surrogates	%Recovery	Method Limits
Naphthalene-d8	121	50-150



Air Toxics

**Client Sample ID: SG-2****Lab ID#: 1501007-02A****EPA METHOD TO-17**

File Name:	6010924	Date of Extraction:	N/A	Date of Collection:	1/2/15 12:21:00 PM
Dil. Factor:	1.00			Date of Analysis:	1/9/15 03:24 PM

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	5.0	Not Detected	Not Detected

**Air Sample Volume(L): 0.200****Container Type: TO-17 VI Tube**

Surrogates	%Recovery	Method Limits
Naphthalene-d8	90	50-150



Air Toxics

**Client Sample ID: SG-1****Lab ID#: 1501007-03A****EPA METHOD TO-17**

File Name:	6010925	Date of Extraction:	N/A	Date of Collection:	1/2/15 1:29:00 PM
Dil. Factor:	1.00			Date of Analysis:	1/9/15 04:01 PM

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
Naphthalene	1.0	5.0	Not Detected	Not Detected

**Air Sample Volume(L): 0.200****Container Type: TO-17 VI Tube**

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



Air Toxics

**Client Sample ID: SG-1R****Lab ID#: 1501007-04A****EPA METHOD TO-17**

File Name:	6010926	Date of Extraction:	N/A	Date of Collection:	1/2/15 1:37:00 PM
Dil. Factor:	1.00			Date of Analysis:	1/9/15 04:38 PM
Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)	
Naphthalene	1.0	5.0	Not Detected	Not Detected	

**Air Sample Volume(L): 0.200****Container Type: TO-17 VI Tube**

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



Air Toxics

**Client Sample ID: TRIP Blank****Lab ID#: 1501007-05A****EPA METHOD TO-17**

File Name:	6010922	Date of Extraction:	N/A	Date of Collection:	1/2/15 1:45:00 PM
Dil. Factor:	1.00			Date of Analysis:	1/9/15 02:11 PM
Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)	
Naphthalene	1.0	5.0	Not Detected	Not Detected	

**Air Sample Volume(L): 0.200****Container Type: TO-17 VI Tube**

Surrogates	%Recovery	Method Limits
Naphthalene-d8	105	50-150



Air Toxics

**Client Sample ID: Lab Blank****Lab ID#: 1501007-06A****EPA METHOD TO-17**

File Name:	6010921	Date of Extraction:	NA	Date of Collection:	NA
Dil. Factor:	1.00			Date of Analysis:	1/9/15 12:09 PM
Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)	
Naphthalene	1.0	5.0	Not Detected	Not Detected	
<b>Air Sample Volume(L): 0.200</b>				<b>Method Limits</b>	
Surrogates	<b>%Recovery</b>				
Naphthalene-d8	121			50-150	



Air Toxics

**Client Sample ID: CCV****Lab ID#: 1501007-07A****EPA METHOD TO-17**

File Name:	6010920a	Date of Extraction:	NA	Date of Collection:	NA
Dil. Factor:	1.00			Date of Analysis:	1/9/15 11:32 AM

Compound	%Recovery
Naphthalene	86

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

Surrogates	%Recovery	Method Limits
Naphthalene-d8	131	50-150



Air Toxics

**Client Sample ID: LCS****Lab ID#: 1501007-08A****EPA METHOD TO-17**

File Name:	6010915	Date of Extraction:	NA	Date of Collection:	NA
Dil. Factor:	1.00			Date of Analysis:	1/9/15 02:06 AM

Compound	%Recovery	Method Limits
Naphthalene	74	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#: 1501007-08AA

EPA METHOD TO-17

File Name:	6010916	Date of Extraction:	NA	Date of Collection:	NA
Dil. Factor:	1.00			Date of Analysis:	1/9/15 02:45 AM

Compound	%Recovery	Method Limits
Naphthalene	74	70-130

Air Sample Volume(L): 1.00

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Naphthalene-d8	102	50-150


**AIR  
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CHAIN-OF-CUSTODY RECORD**

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Page 1 of 1

Project Manager <u>Ross Tolle</u>		Collected by: (Print and Sign) <u>Ross Tolle</u>		Company <u>SVC Environmental Inc</u>		Address <u>11 Kester Ave San Carlos CA</u>		Phone <u>650 218 3766</u>		Fax <u></u>			
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	Turn Around Time:	Reporting Units:		
OIA	SG-3	G0187352	1-2-15	11:32	11:35	200mL	200mL	200mL	Indoor Air	<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> ppmv		
OIA	SG-2	G0154148	1-2-15	12:18	12:21				Outdoor Air	<input type="checkbox"/> ppbv	<input checked="" type="checkbox"/> µg/m3		
OIA	SG-1	G0147389	1-2-15	13:26	13:29				Soil Vapor	<input checked="" type="checkbox"/>	<input type="checkbox"/> mg/m3		
OIA	SG-1R	G0139919	1-2-15	13:34	13:37				Other	<input type="checkbox"/>	<input type="checkbox"/>		
OIA	TRIP Blank	G0153078	1-2-15	13:44	13:45					<input type="checkbox"/>	<input type="checkbox"/>		
										<input type="checkbox"/>	<input type="checkbox"/>		
										<input type="checkbox"/>	<input type="checkbox"/>		
										<input type="checkbox"/>	<input type="checkbox"/>		
										<input type="checkbox"/>	<input type="checkbox"/>		
										<input type="checkbox"/>	<input type="checkbox"/>		
										<input type="checkbox"/>	<input type="checkbox"/>		
										<input type="checkbox"/>	<input type="checkbox"/>		
Relinquished by: (signature) <u>Heidi</u> Date/Time <u>1-2-14 1630</u>		Received by: (signature) <u>FedEx</u> Date/Time <u>1-2-14 1630</u>		Notes: TO17 for Naphthalene only									
Relinquished by: (signature) Date/Time		Received by: (signature) Date/Time		Global ID <u>TO6197884</u>									
Relinquished by: (signature) Date/Time		Received by: (signature) Date/Time											
Lab Use Only	Shipper Name <u>Heidi</u>	Air Bill # <u>114</u>	Temp (°C) <u>11°</u>	Condition <u>as received</u>	Custody Seals Intact? <u>Yes</u>	No <u>None</u>	Work Order # <u>1561007</u>						

1/16/2015  
Mr. Ross Tinline  
SVC Environmental, Inc.  
11 Kenton Ave

San Carlos CA 94070

Project Name: Salisbury  
Project #:  
Workorder #: 1501029C

Dear Mr. Ross Tinline

The following report includes the data for the above referenced project for sample(s) received on 1/5/2015 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: Kyle Vagadori at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Kyle Vagadori  
Project Manager

**A Eurofins Lancaster Laboratories Company**

**WORK ORDER #:** 1501029C

## Work Order Summary

<b>CLIENT:</b>	Mr. Ross Tinline SVC Environmental, Inc. 11 Kenton Ave San Carlos, CA 94070	<b>BILL TO:</b>	Mr. Ross Tinline SVC Environmental, Inc. 11 Kenton Ave San Carlos, CA 94070
<b>PHONE:</b>	650-218-3766	<b>P.O. #</b>	2145 35th Avenue Oakland
<b>FAX:</b>		<b>PROJECT #</b>	Salisbury
<b>DATE RECEIVED:</b>	01/05/2015	<b>CONTACT:</b>	Kyle Vagadori
<b>DATE COMPLETED:</b>	01/16/2015		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	SG-3	Modified ASTM D-1946	5.0 "Hg	15 psi
02A	SG-2	Modified ASTM D-1946	4.5 "Hg	15.5 psi
03A	SG-1	Modified ASTM D-1946	5.0 "Hg	15 psi
04A	SG-1R	Modified ASTM D-1946	5.0 "Hg	15 psi
05A	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: 01/16/15

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,  
 TX NELAP - T104704343-14-7, UT NELAP CA009332014-5, VA NELAP - 460197, WA NELAP - C935  
 Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)

Accreditation number: CA300005, Effective date: 10/18/2014, Expiration date: 10/17/2015.

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**  
**SVC Environmental, Inc.**  
**Workorder# 1501029C**

Four 1 Liter Summa Canister samples were received on January 05, 2015. 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.

<b>Requirement</b>	<b>ASTM D-1946</b>	<b>ATL Modifications</b>
Calibration	A single point calibration is performed using a reference standard closely matching the composition of the unknown.	A minimum of 5-point calibration curve is performed. Quantitation is based on average Response Factor.
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 >/= 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**

According to the Chain of Custody (COC), samples SG-3, SG-2, SG-1 and SG-1R were collected on 1/2/14. However, the date on the sample tags for SG-3 and SG-2 reflects a collection date of 1/2/15. Therefore the date on the sample tags was used to calculate the sample holding time.

### **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: SG-3**

**Lab ID#: 1501029C-01A**

<b>Compound</b>	<b>Rpt. Limit (%)</b>	<b>Amount (%)</b>
Oxygen	0.24	1.9
Nitrogen	0.24	88
Methane	0.00024	0.43
Carbon Dioxide	0.024	9.0

**Client Sample ID: SG-2**

**Lab ID#: 1501029C-02A**

<b>Compound</b>	<b>Rpt. Limit (%)</b>	<b>Amount (%)</b>
Oxygen	0.24	12
Nitrogen	0.24	84
Carbon Dioxide	0.024	3.5

**Client Sample ID: SG-1**

**Lab ID#: 1501029C-03A**

<b>Compound</b>	<b>Rpt. Limit (%)</b>	<b>Amount (%)</b>
Oxygen	0.24	1.8
Nitrogen	0.24	95
Methane	0.00024	0.028
Carbon Dioxide	0.024	3.5

**Client Sample ID: SG-1R**

**Lab ID#: 1501029C-04A**

<b>Compound</b>	<b>Rpt. Limit (%)</b>	<b>Amount (%)</b>
Oxygen	0.24	1.6
Nitrogen	0.24	95
Methane	0.00024	0.032
Carbon Dioxide	0.024	3.7



Air Toxics

Client Sample ID: SG-3

Lab ID#: 1501029C-01A

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

File Name:	9011212	Date of Collection:	1/2/15 11:23:00 AM
Dil. Factor:	2.42	Date of Analysis:	1/12/15 03:19 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.24	1.9
Nitrogen	0.24	88
Methane	0.00024	0.43
Carbon Dioxide	0.024	9.0

Container Type: 1 Liter Summa Canister



Air Toxics

Client Sample ID: SG-2

Lab ID#: 1501029C-02A

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

File Name:	9011217	Date of Collection:	1/2/15 12:09:00 PM
Dil. Factor:	2.42	Date of Analysis:	1/12/15 07:17 PM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.24	12	
Nitrogen	0.24	84	
Methane	0.00024	Not Detected	
Carbon Dioxide	0.024	3.5	

Container Type: 1 Liter Summa Canister



Air Toxics

Client Sample ID: SG-1

Lab ID#: 1501029C-03A

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

File Name:	9011215	Date of Collection:	1/2/15 1:05:00 PM
Dil. Factor:	2.42	Date of Analysis:	1/12/15 05:31 PM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.24	1.8	
Nitrogen	0.24	95	
Methane	0.00024	0.028	
Carbon Dioxide	0.024	3.5	

Container Type: 1 Liter Summa Canister



Air Toxics

Client Sample ID: SG-1R

Lab ID#: 1501029C-04A

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

File Name:	9011216	Date of Collection:	1/2/15 1:18:00 PM
Dil. Factor:	2.42	Date of Analysis:	1/12/15 05:52 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.24	1.6
Nitrogen	0.24	95
Methane	0.00024	0.032
Carbon Dioxide	0.024	3.7

Container Type: 1 Liter Summa Canister



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1501029C-05A

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

File Name:	9011207	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	1/12/15 11:19 AM
Compound	Rpt. Limit (%)	Amount (%)	
Oxygen	0.10	Not Detected	
Nitrogen	0.10	Not Detected	
Methane	0.00010	Not Detected	
Carbon Dioxide	0.010	Not Detected	

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCS

Lab ID#: 1501029C-06A

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

File Name:	9011203	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	1/12/15 08:46 AM
Compound	%Recovery	Method	Limits
Oxygen	90	85-115	
Nitrogen	95	85-115	
Methane	88	85-115	
Carbon Dioxide	93	85-115	

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1501029C-06AA

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

File Name:	9011204	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	1/12/15 09:15 AM
Compound	%Recovery	Method	Limits
Oxygen	90	85-115	
Nitrogen	95	85-115	
Methane	89	85-115	
Carbon Dioxide	93	85-115	

Container Type: NA - Not Applicable

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## Sample Transportation Notice

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

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

Page 1 of 1

Project Manager Ross Turke  
Collected by: (Print and Sign) Ross Turke  
Company SNC Environmental Email ross.tox@sncenv.com  
Address 11 Kerton Ave City San Carlos State CA Zip 94070  
Phone 650 218 3766 Fax

Project Info: P.O. # Project #	Turn Around Time: <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush specify _____	Lab Use Only Pressurized by: Date: Pressurization Gas: N <sub>2</sub> He
Project Name <u>Salisbury</u>	Canister Pressure/Vacuum	
	Initial	Final

Lab ID	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Notes:
SGA	SG-3	36518	1-2-14	1115-1123	T015 for VOCs -29.90	-4.77
SGA	SG-2	33735	1-2-14	1203-1209	including naphthalene-27.91	-4.90
SGA	SG-1	36383	1-2-14	1258-1305	T03 for TPH -29.74	-5.88
SGA	SG-1 R	37317	1-2-14	1311-1318	ASTM D1946 for	-29.75
					Oxygen, Nitrogen, CO <sub>2</sub>	
					and Methane	

Relinquished by: (Signature) Ross Turke Date/Time 1-2-14 1630 Received by: (signature) Date/Time 1-2-14 1630

Relinquished by (signature) Date/Time JES 1-2-14 Received by: (signature) Date/Time 1-5-15 1300

Relinquished by: (signature) Date/Time 1-2-14 Received by: (signature) Date/Time 1-5-15 1300

Lab Use Only	Shipper Name <u>PetEx</u>	Air Bill # <u>N/A</u>	Temp (°C) <u>0</u>	Condition <u>Dry</u>	Custody Seals Intact? <u>Yes</u>	Work Order # <u>1501029</u>
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