



Air Toxics

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Page 1 of 1

Project Manager Michael Perris

Collected by: (Print and Sign) Aaron J. Lewis

Company MD DMR Email Michael.Perris@eurofins.com

Address PO Box 176 City Folsom State CA Zip 95702

Phone (549) 526 3918 Fax \_\_\_\_\_

Project Info:  
P.O. # 951400007  
Project # \_\_\_\_\_  
Project Name Bridges Lock 11

Turn Around Time:  
 Normal  
 Rush  
Lab Use Only  
Pressurized by: \_\_\_\_\_  
Date: \_\_\_\_\_  
Pressurization Gas: \_\_\_\_\_  
N<sub>2</sub> He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum		
						Initial	Final	Receipt (ps)
01A	D, (1411879)	5553	9/24/14	11:00-11:35	TD-15	-30	-55	
02A	D, (1411880)	14888	9/24/14	11:20-11:24	TD-15	-28	-4	
03A	W, (1412001)	39566	9/29/14	11:20-11:20	TD-15	-30	-6	
04A	W, (1412002)	12009	9/29/14	11:40-11:40	TD-15	-30	-6	
Relinquished by: (signature) _____ Date/Time <u>9/25/14 12:30</u> Received by: (signature) <u>Michael Perris</u> Date/Time <u>9/25/14 12:30</u> Relinquished by: (signature) <u>Michael Perris</u> Date/Time <u>9/25/14 14:00</u> Received by: (signature) <u>John's</u> Date/Time <u>9/25/14 10:55 AM</u> Notes: <u>Shipped via UPS. Tracking # 1Z61278803492411310</u>								

Lab Use Only

Shipper Name UPS Air Bill # \_\_\_\_\_ Temp (°C) N/A Condition Good Custody Seals Intact?  Yes  No  None Work Order # 1409535

10/11/2014  
Mr. Dennis Schroeder  
Missouri Dept. of Natural Resources  
2710 West Main

Jefferson City MO 65109

Project Name: Bridgeton Landfill  
Project #:  
Workorder #: 1409535

Dear Mr. Dennis Schroeder

The following report includes the data for the above referenced project for sample(s) received on 9/30/2014 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: Brian Whittaker at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Brian Whittaker  
Project Manager

**WORK ORDER #: 1409535**

Work Order Summary

<b>CLIENT:</b>	Mr. Dennis Schroeder Missouri Dept. of Natural Resources 2710 West Main Jefferson City, MO 65109	<b>BILL TO:</b>	Accounts Payable Missouri Dept. of Natural Resources P.O Box 176 Jefferson City, MO 65102
<b>PHONE:</b>	573-526-4428	<b>P.O. #</b>	3ESP4000007
<b>FAX:</b>	573-526-3350	<b>PROJECT #</b>	Bridgeton Landfill
<b>DATE RECEIVED:</b>	09/30/2014	<b>CONTACT:</b>	Brian Whittaker
<b>DATE COMPLETED:</b>	10/11/2014		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	D1 (1411879)	Modified TO-15	6.5 "Hg	5 psi
02A	D2 (1411880)	Modified TO-15	6.5 "Hg	5 psi
03A	U1 (1412001)	Modified TO-15	6.0 "Hg	5 psi
04A	U2 (1412002)	Modified TO-15	6.0 "Hg	6.6 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:   
 \_\_\_\_\_  
 Technical Director

DATE: 10/11/14

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,  
 TX NELAP - T104704434-13-6, UT NELAP CA009332014-5, VA NELAP - 460197, WA NELAP - C935  
 Name of Accrediting Agency: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)  
 Accreditation number: CA300005, Effective date: 10/18/2013, Expiration date: 10/17/2014.

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

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563  
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**LABORATORY NARRATIVE**  
**Modified TO-15**  
**Missouri Dept. of Natural Resources**  
**Workorder# 1409535**

Four 6 Liter Summa Canister (100% Certified) samples were received on September 30, 2014. 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.

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

<i>Requirement</i>	<i>TO-15</i>	<i>ATL Modifications</i>
Initial Calibration	</=30% RSD with 2 compounds allowed out to < 40% RSD	</=30% RSD with 4 compounds allowed out to < 40% RSD
Blank and standards	Zero Air	UHP Nitrogen provides a higher purity gas matrix than zero air

**Receiving Notes**

The Chain of Custody (COC) information for samples U1 (1412001) and U2 (1412002) did not match the entries on the sample tags with regard to sample identification. Therefore the information on the COC was used to process and report the samples.

**Analytical Notes**

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

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

**Client Sample ID: D1 (1411879)**

**Lab ID#: 1409535-01A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.54	0.84	2.7
Freon 11	0.17	0.23	0.96	1.3
Ethanol	0.86	2.9	1.6	5.5
Acetone	0.86	3.8	2.0	9.1
Hexane	0.17	0.25	0.60	0.87
Toluene	0.17	0.35	0.64	1.3

**Client Sample ID: D2 (1411880)**

**Lab ID#: 1409535-02A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.55	0.84	2.7
Freon 11	0.17	0.24	0.96	1.3
Ethanol	0.86	2.9	1.6	5.4
Acetone	0.86	3.5	2.0	8.3
Toluene	0.17	0.28	0.64	1.0

**Client Sample ID: U1 (1412001)**

**Lab ID#: 1409535-03A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.53	0.83	2.6
Freon 11	0.17	0.24	0.94	1.3
Ethanol	0.84	2.6	1.6	4.8
Acetone	0.84	6.9	2.0	16
Toluene	0.17	0.22	0.63	0.84

**Client Sample ID: U2 (1412002)**

**Lab ID#: 1409535-04A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.55	0.90	2.7

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

**Client Sample ID: U2 (1412002)**

**Lab ID#: 1409535-04A**

Freon 11	0.18	0.24	1.0	1.3
Ethanol	0.90	2.1	1.7	4.0
Acetone	0.90	3.5	2.1	8.2
Toluene	0.18	0.22	0.68	0.82



Air Toxics

Client Sample ID: D1 (1411879)

Lab ID#: 1409535-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v100207	Date of Collection:	9/24/14 3:35:00 PM
Dil. Factor:	1.71	Date of Analysis:	10/2/14 12:08 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.54	0.84	2.7
Freon 114	0.17	Not Detected	1.2	Not Detected
Chloromethane	0.86	Not Detected	1.8	Not Detected
Vinyl Chloride	0.17	Not Detected	0.44	Not Detected
1,3-Butadiene	0.17	Not Detected	0.38	Not Detected
Bromomethane	0.86	Not Detected	3.3	Not Detected
Chloroethane	0.86	Not Detected	2.2	Not Detected
Freon 11	0.17	0.23	0.96	1.3
Ethanol	0.86	2.9	1.6	5.5
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Acetone	0.86	3.8	2.0	9.1
2-Propanol	0.86	Not Detected	2.1	Not Detected
Carbon Disulfide	0.86	Not Detected	2.7	Not Detected
3-Chloropropene	0.86	Not Detected	2.7	Not Detected
Methylene Chloride	0.34	Not Detected	1.2	Not Detected
Methyl tert-butyl ether	0.17	Not Detected	0.62	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Hexane	0.17	0.25	0.60	0.87
1,1-Dichloroethane	0.17	Not Detected	0.69	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.86	Not Detected	2.5	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Tetrahydrofuran	0.86	Not Detected	2.5	Not Detected
Chloroform	0.17	Not Detected	0.83	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.93	Not Detected
Cyclohexane	0.17	Not Detected	0.59	Not Detected
Carbon Tetrachloride	0.17	Not Detected	1.1	Not Detected
2,2,4-Trimethylpentane	0.86	Not Detected	4.0	Not Detected
Benzene	0.17	Not Detected	0.55	Not Detected
1,2-Dichloroethane	0.17	Not Detected	0.69	Not Detected
Heptane	0.17	Not Detected	0.70	Not Detected
Trichloroethene	0.17	Not Detected	0.92	Not Detected
1,2-Dichloropropane	0.17	Not Detected	0.79	Not Detected
1,4-Dioxane	0.17	Not Detected	0.62	Not Detected
Bromodichloromethane	0.17	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.78	Not Detected
4-Methyl-2-pentanone	0.17	Not Detected	0.70	Not Detected
Toluene	0.17	0.35	0.64	1.3
trans-1,3-Dichloropropene	0.17	Not Detected	0.78	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.93	Not Detected
Tetrachloroethene	0.17	Not Detected	1.2	Not Detected
2-Hexanone	0.86	Not Detected	3.5	Not Detected





Air Toxics

Client Sample ID: D1 (1411879)

Lab ID#: 1409535-01A

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

File Name:	v100207	Date of Collection:	9/24/14 3:35:00 PM
Dil. Factor:	1.71	Date of Analysis:	10/2/14 12:08 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.17	Not Detected	1.4	Not Detected
1,2-Dibromoethane (EDB)	0.17	Not Detected	1.3	Not Detected
Chlorobenzene	0.17	Not Detected	0.79	Not Detected
Ethyl Benzene	0.17	Not Detected	0.74	Not Detected
m,p-Xylene	0.17	Not Detected	0.74	Not Detected
o-Xylene	0.17	Not Detected	0.74	Not Detected
Styrene	0.17	Not Detected	0.73	Not Detected
Bromoform	0.17	Not Detected	1.8	Not Detected
Cumene	0.17	Not Detected	0.84	Not Detected
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.2	Not Detected
Propylbenzene	0.17	Not Detected	0.84	Not Detected
4-Ethyltoluene	0.17	Not Detected	0.84	Not Detected
1,3,5-Trimethylbenzene	0.17	Not Detected	0.84	Not Detected
1,2,4-Trimethylbenzene	0.17	Not Detected	0.84	Not Detected
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
alpha-Chlorotoluene	0.17	Not Detected	0.88	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.86	Not Detected	6.3	Not Detected
Hexachlorobutadiene	0.86	Not Detected	9.1	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	93	70-130



Air Toxics

Client Sample ID: D2 (1411880)

Lab ID#: 1409535-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v100208	Date of Collection:	9/24/14 3:26:00 PM
Dil. Factor:	1.71	Date of Analysis:	10/2/14 01:36 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.55	0.84	2.7
Freon 114	0.17	Not Detected	1.2	Not Detected
Chloromethane	0.86	Not Detected	1.8	Not Detected
Vinyl Chloride	0.17	Not Detected	0.44	Not Detected
1,3-Butadiene	0.17	Not Detected	0.38	Not Detected
Bromomethane	0.86	Not Detected	3.3	Not Detected
Chloroethane	0.86	Not Detected	2.2	Not Detected
Freon 11	0.17	0.24	0.96	1.3
Ethanol	0.86	2.9	1.6	5.4
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Acetone	0.86	3.5	2.0	8.3
2-Propanol	0.86	Not Detected	2.1	Not Detected
Carbon Disulfide	0.86	Not Detected	2.7	Not Detected
3-Chloropropene	0.86	Not Detected	2.7	Not Detected
Methylene Chloride	0.34	Not Detected	1.2	Not Detected
Methyl tert-butyl ether	0.17	Not Detected	0.62	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Hexane	0.17	Not Detected	0.60	Not Detected
1,1-Dichloroethane	0.17	Not Detected	0.69	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.86	Not Detected	2.5	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Tetrahydrofuran	0.86	Not Detected	2.5	Not Detected
Chloroform	0.17	Not Detected	0.83	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.93	Not Detected
Cyclohexane	0.17	Not Detected	0.59	Not Detected
Carbon Tetrachloride	0.17	Not Detected	1.1	Not Detected
2,2,4-Trimethylpentane	0.86	Not Detected	4.0	Not Detected
Benzene	0.17	Not Detected	0.55	Not Detected
1,2-Dichloroethane	0.17	Not Detected	0.69	Not Detected
Heptane	0.17	Not Detected	0.70	Not Detected
Trichloroethene	0.17	Not Detected	0.92	Not Detected
1,2-Dichloropropane	0.17	Not Detected	0.79	Not Detected
1,4-Dioxane	0.17	Not Detected	0.62	Not Detected
Bromodichloromethane	0.17	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.78	Not Detected
4-Methyl-2-pentanone	0.17	Not Detected	0.70	Not Detected
Toluene	0.17	0.28	0.64	1.0
trans-1,3-Dichloropropene	0.17	Not Detected	0.78	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.93	Not Detected
Tetrachloroethene	0.17	Not Detected	1.2	Not Detected
2-Hexanone	0.86	Not Detected	3.5	Not Detected



Client Sample ID: D2 (1411880)

Lab ID#: 1409535-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v100208	Date of Collection:	9/24/14 3:26:00 PM
Dil. Factor:	1.71	Date of Analysis:	10/2/14 01:36 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.17	Not Detected	1.4	Not Detected
1,2-Dibromoethane (EDB)	0.17	Not Detected	1.3	Not Detected
Chlorobenzene	0.17	Not Detected	0.79	Not Detected
Ethyl Benzene	0.17	Not Detected	0.74	Not Detected
m,p-Xylene	0.17	Not Detected	0.74	Not Detected
o-Xylene	0.17	Not Detected	0.74	Not Detected
Styrene	0.17	Not Detected	0.73	Not Detected
Bromoform	0.17	Not Detected	1.8	Not Detected
Cumene	0.17	Not Detected	0.84	Not Detected
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.2	Not Detected
Propylbenzene	0.17	Not Detected	0.84	Not Detected
4-Ethyltoluene	0.17	Not Detected	0.84	Not Detected
1,3,5-Trimethylbenzene	0.17	Not Detected	0.84	Not Detected
1,2,4-Trimethylbenzene	0.17	Not Detected	0.84	Not Detected
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
alpha-Chlorotoluene	0.17	Not Detected	0.88	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.86	Not Detected	6.3	Not Detected
Hexachlorobutadiene	0.86	Not Detected	9.1	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	96	70-130



Air Toxics

Client Sample ID: U1 (1412001)

Lab ID#: 1409535-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v100209	Date of Collection:	9/24/14 4:01:00 PM
Dil. Factor:	1.68	Date of Analysis:	10/2/14 02:12 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.53	0.83	2.6
Freon 114	0.17	Not Detected	1.2	Not Detected
Chloromethane	0.84	Not Detected	1.7	Not Detected
Vinyl Chloride	0.17	Not Detected	0.43	Not Detected
1,3-Butadiene	0.17	Not Detected	0.37	Not Detected
Bromomethane	0.84	Not Detected	3.3	Not Detected
Chloroethane	0.84	Not Detected	2.2	Not Detected
Freon 11	0.17	0.24	0.94	1.3
Ethanol	0.84	2.6	1.6	4.8
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Acetone	0.84	6.9	2.0	16
2-Propanol	0.84	Not Detected	2.1	Not Detected
Carbon Disulfide	0.84	Not Detected	2.6	Not Detected
3-Chloropropene	0.84	Not Detected	2.6	Not Detected
Methylene Chloride	0.34	Not Detected	1.2	Not Detected
Methyl tert-butyl ether	0.17	Not Detected	0.60	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Hexane	0.17	Not Detected	0.59	Not Detected
1,1-Dichloroethane	0.17	Not Detected	0.68	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.84	Not Detected	2.5	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Tetrahydrofuran	0.84	Not Detected	2.5	Not Detected
Chloroform	0.17	Not Detected	0.82	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.92	Not Detected
Cyclohexane	0.17	Not Detected	0.58	Not Detected
Carbon Tetrachloride	0.17	Not Detected	1.0	Not Detected
2,2,4-Trimethylpentane	0.84	Not Detected	3.9	Not Detected
Benzene	0.17	Not Detected	0.54	Not Detected
1,2-Dichloroethane	0.17	Not Detected	0.68	Not Detected
Heptane	0.17	Not Detected	0.69	Not Detected
Trichloroethene	0.17	Not Detected	0.90	Not Detected
1,2-Dichloropropane	0.17	Not Detected	0.78	Not Detected
1,4-Dioxane	0.17	Not Detected	0.60	Not Detected
Bromodichloromethane	0.17	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.76	Not Detected
4-Methyl-2-pentanone	0.17	Not Detected	0.69	Not Detected
Toluene	0.17	0.22	0.63	0.84
trans-1,3-Dichloropropene	0.17	Not Detected	0.76	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.92	Not Detected
Tetrachloroethene	0.17	Not Detected	1.1	Not Detected
2-Hexanone	0.84	Not Detected	3.4	Not Detected



Client Sample ID: U1 (1412001)

Lab ID#: 1409535-03A

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

<b>File Name:</b>	<b>v100209</b>	<b>Date of Collection:</b> 9/24/14 4:01:00 PM
<b>Dil. Factor:</b>	<b>1.68</b>	<b>Date of Analysis:</b> 10/2/14 02:12 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.17	Not Detected	1.4	Not Detected
1,2-Dibromoethane (EDB)	0.17	Not Detected	1.3	Not Detected
Chlorobenzene	0.17	Not Detected	0.77	Not Detected
Ethyl Benzene	0.17	Not Detected	0.73	Not Detected
m,p-Xylene	0.17	Not Detected	0.73	Not Detected
o-Xylene	0.17	Not Detected	0.73	Not Detected
Styrene	0.17	Not Detected	0.72	Not Detected
Bromoform	0.17	Not Detected	1.7	Not Detected
Cumene	0.17	Not Detected	0.82	Not Detected
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.2	Not Detected
Propylbenzene	0.17	Not Detected	0.82	Not Detected
4-Ethyltoluene	0.17	Not Detected	0.82	Not Detected
1,3,5-Trimethylbenzene	0.17	Not Detected	0.82	Not Detected
1,2,4-Trimethylbenzene	0.17	Not Detected	0.82	Not Detected
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
alpha-Chlorotoluene	0.17	Not Detected	0.87	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.84	Not Detected	6.2	Not Detected
Hexachlorobutadiene	0.84	Not Detected	9.0	Not Detected

**Container Type: 6 Liter Summa Canister (100% Certified)**

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	97	70-130



Air Toxics

Client Sample ID: U2 (1412002)

Lab ID#: 1409535-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v100210	Date of Collection:	9/24/14 4:20:00 PM
Dil. Factor:	1.81	Date of Analysis:	10/2/14 02:48 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.55	0.90	2.7
Freon 114	0.18	Not Detected	1.3	Not Detected
Chloromethane	0.90	Not Detected	1.9	Not Detected
Vinyl Chloride	0.18	Not Detected	0.46	Not Detected
1,3-Butadiene	0.18	Not Detected	0.40	Not Detected
Bromomethane	0.90	Not Detected	3.5	Not Detected
Chloroethane	0.90	Not Detected	2.4	Not Detected
Freon 11	0.18	0.24	1.0	1.3
Ethanol	0.90	2.1	1.7	4.0
Freon 113	0.18	Not Detected	1.4	Not Detected
1,1-Dichloroethene	0.18	Not Detected	0.72	Not Detected
Acetone	0.90	3.5	2.1	8.2
2-Propanol	0.90	Not Detected	2.2	Not Detected
Carbon Disulfide	0.90	Not Detected	2.8	Not Detected
3-Chloropropene	0.90	Not Detected	2.8	Not Detected
Methylene Chloride	0.36	Not Detected	1.2	Not Detected
Methyl tert-butyl ether	0.18	Not Detected	0.65	Not Detected
trans-1,2-Dichloroethene	0.18	Not Detected	0.72	Not Detected
Hexane	0.18	Not Detected	0.64	Not Detected
1,1-Dichloroethane	0.18	Not Detected	0.73	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.90	Not Detected	2.7	Not Detected
cis-1,2-Dichloroethene	0.18	Not Detected	0.72	Not Detected
Tetrahydrofuran	0.90	Not Detected	2.7	Not Detected
Chloroform	0.18	Not Detected	0.88	Not Detected
1,1,1-Trichloroethane	0.18	Not Detected	0.99	Not Detected
Cyclohexane	0.18	Not Detected	0.62	Not Detected
Carbon Tetrachloride	0.18	Not Detected	1.1	Not Detected
2,2,4-Trimethylpentane	0.90	Not Detected	4.2	Not Detected
Benzene	0.18	Not Detected	0.58	Not Detected
1,2-Dichloroethane	0.18	Not Detected	0.73	Not Detected
Heptane	0.18	Not Detected	0.74	Not Detected
Trichloroethene	0.18	Not Detected	0.97	Not Detected
1,2-Dichloropropane	0.18	Not Detected	0.84	Not Detected
1,4-Dioxane	0.18	Not Detected	0.65	Not Detected
Bromodichloromethane	0.18	Not Detected	1.2	Not Detected
cis-1,3-Dichloropropene	0.18	Not Detected	0.82	Not Detected
4-Methyl-2-pentanone	0.18	Not Detected	0.74	Not Detected
Toluene	0.18	0.22	0.68	0.82
trans-1,3-Dichloropropene	0.18	Not Detected	0.82	Not Detected
1,1,2-Trichloroethane	0.18	Not Detected	0.99	Not Detected
Tetrachloroethene	0.18	Not Detected	1.2	Not Detected
2-Hexanone	0.90	Not Detected	3.7	Not Detected



Air Toxics

Client Sample ID: U2 (1412002)

Lab ID#: 1409535-04A

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

<b>File Name:</b>	<b>v100210</b>	<b>Date of Collection:</b> 9/24/14 4:20:00 PM
<b>Dil. Factor:</b>	<b>1.81</b>	<b>Date of Analysis:</b> 10/2/14 02:48 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.18	Not Detected	1.5	Not Detected
1,2-Dibromoethane (EDB)	0.18	Not Detected	1.4	Not Detected
Chlorobenzene	0.18	Not Detected	0.83	Not Detected
Ethyl Benzene	0.18	Not Detected	0.78	Not Detected
m,p-Xylene	0.18	Not Detected	0.78	Not Detected
o-Xylene	0.18	Not Detected	0.78	Not Detected
Styrene	0.18	Not Detected	0.77	Not Detected
Bromoform	0.18	Not Detected	1.9	Not Detected
Cumene	0.18	Not Detected	0.89	Not Detected
1,1,2,2-Tetrachloroethane	0.18	Not Detected	1.2	Not Detected
Propylbenzene	0.18	Not Detected	0.89	Not Detected
4-Ethyltoluene	0.18	Not Detected	0.89	Not Detected
1,3,5-Trimethylbenzene	0.18	Not Detected	0.89	Not Detected
1,2,4-Trimethylbenzene	0.18	Not Detected	0.89	Not Detected
1,3-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,4-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
alpha-Chlorotoluene	0.18	Not Detected	0.94	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,2,4-Trichlorobenzene	0.90	Not Detected	6.7	Not Detected
Hexachlorobutadiene	0.90	Not Detected	9.6	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	92	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1409535-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v100206	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	10/2/14 11:19 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.10	Not Detected	0.49	Not Detected
Freon 114	0.10	Not Detected	0.70	Not Detected
Chloromethane	0.50	Not Detected	1.0	Not Detected
Vinyl Chloride	0.10	Not Detected	0.26	Not Detected
1,3-Butadiene	0.10	Not Detected	0.22	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Chloroethane	0.50	Not Detected	1.3	Not Detected
Freon 11	0.10	Not Detected	0.56	Not Detected
Ethanol	0.50	Not Detected	0.94	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
1,1-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Acetone	0.50	Not Detected	1.2	Not Detected
2-Propanol	0.50	Not Detected	1.2	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
3-Chloropropene	0.50	Not Detected	1.6	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
Methyl tert-butyl ether	0.10	Not Detected	0.36	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Hexane	0.10	Not Detected	0.35	Not Detected
1,1-Dichloroethane	0.10	Not Detected	0.40	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.10	Not Detected	0.49	Not Detected
1,1,1-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Cyclohexane	0.10	Not Detected	0.34	Not Detected
Carbon Tetrachloride	0.10	Not Detected	0.63	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.10	Not Detected	0.32	Not Detected
1,2-Dichloroethane	0.10	Not Detected	0.40	Not Detected
Heptane	0.10	Not Detected	0.41	Not Detected
Trichloroethene	0.10	Not Detected	0.54	Not Detected
1,2-Dichloropropane	0.10	Not Detected	0.46	Not Detected
1,4-Dioxane	0.10	Not Detected	0.36	Not Detected
Bromodichloromethane	0.10	Not Detected	0.67	Not Detected
cis-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
4-Methyl-2-pentanone	0.10	Not Detected	0.41	Not Detected
Toluene	0.10	Not Detected	0.38	Not Detected
trans-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
1,1,2-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Tetrachloroethene	0.10	Not Detected	0.68	Not Detected
2-Hexanone	0.50	Not Detected	2.0	Not Detected



Client Sample ID: Lab Blank

Lab ID#: 1409535-05A

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

<b>File Name:</b>	<b>v100206</b>	<b>Date of Collection:</b> NA
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis:</b> 10/2/14 11:19 AM

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Dibromochloromethane	0.10	Not Detected	0.85	Not Detected
1,2-Dibromoethane (EDB)	0.10	Not Detected	0.77	Not Detected
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Ethyl Benzene	0.10	Not Detected	0.43	Not Detected
m,p-Xylene	0.10	Not Detected	0.43	Not Detected
o-Xylene	0.10	Not Detected	0.43	Not Detected
Styrene	0.10	Not Detected	0.42	Not Detected
Bromoform	0.10	Not Detected	1.0	Not Detected
Cumene	0.10	Not Detected	0.49	Not Detected
1,1,2,2-Tetrachloroethane	0.10	Not Detected	0.69	Not Detected
Propylbenzene	0.10	Not Detected	0.49	Not Detected
4-Ethyltoluene	0.10	Not Detected	0.49	Not Detected
1,3,5-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,2,4-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
alpha-Chlorotoluene	0.10	Not Detected	0.52	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2,4-Trichlorobenzene	0.50	Not Detected	3.7	Not Detected
Hexachlorobutadiene	0.50	Not Detected	5.3	Not Detected

Container Type: NA - Not Applicable

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	96	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1409535-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v100202	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/2/14 08:27 AM

Compound	%Recovery
Freon 12	110
Freon 114	100
Chloromethane	108
Vinyl Chloride	108
1,3-Butadiene	111
Bromomethane	106
Chloroethane	106
Freon 11	107
Ethanol	114
Freon 113	103
1,1-Dichloroethene	102
Acetone	95
2-Propanol	115
Carbon Disulfide	108
3-Chloropropene	110
Methylene Chloride	104
Methyl tert-butyl ether	108
trans-1,2-Dichloroethene	106
Hexane	109
1,1-Dichloroethane	111
2-Butanone (Methyl Ethyl Ketone)	109
cis-1,2-Dichloroethene	103
Tetrahydrofuran	116
Chloroform	106
1,1,1-Trichloroethane	106
Cyclohexane	107
Carbon Tetrachloride	101
2,2,4-Trimethylpentane	107
Benzene	100
1,2-Dichloroethane	107
Heptane	107
Trichloroethene	96
1,2-Dichloropropane	101
1,4-Dioxane	105
Bromodichloromethane	104
cis-1,3-Dichloropropene	106
4-Methyl-2-pentanone	114
Toluene	101
trans-1,3-Dichloropropene	104
1,1,2-Trichloroethane	96
Tetrachloroethene	92
2-Hexanone	99



Air Toxics

Client Sample ID: CCV

Lab ID#: 1409535-06A

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

File Name:	v100202	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/2/14 08:27 AM

Compound	%Recovery
Dibromochloromethane	104
1,2-Dibromoethane (EDB)	106
Chlorobenzene	98
Ethyl Benzene	100
m,p-Xylene	103
o-Xylene	105
Styrene	109
Bromoform	101
Cumene	103
1,1,2,2-Tetrachloroethane	101
Propylbenzene	105
4-Ethyltoluene	104
1,3,5-Trimethylbenzene	97
1,2,4-Trimethylbenzene	98
1,3-Dichlorobenzene	94
1,4-Dichlorobenzene	93
alpha-Chlorotoluene	102
1,2-Dichlorobenzene	94
1,2,4-Trichlorobenzene	87
Hexachlorobutadiene	89

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1409535-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v100203	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	10/2/14 09:10 AM

Compound	%Recovery	Method Limits
Freon 12	126	70-130
Freon 114	116	70-130
Chloromethane	125	70-130
Vinyl Chloride	125	70-130
1,3-Butadiene	131 Q	70-130
Bromomethane	123	70-130
Chloroethane	122	70-130
Freon 11	122	70-130
Ethanol	135 Q	70-130
Freon 113	131 Q	70-130
1,1-Dichloroethene	132 Q	70-130
Acetone	109	70-130
2-Propanol	130	70-130
Carbon Disulfide	110	70-130
3-Chloropropene	125	70-130
Methylene Chloride	129	70-130
Methyl tert-butyl ether	124	70-130
trans-1,2-Dichloroethene	105	70-130
Hexane	125	70-130
1,1-Dichloroethane	127	70-130
2-Butanone (Methyl Ethyl Ketone)	126	70-130
cis-1,2-Dichloroethene	132 Q	70-130
Tetrahydrofuran	132 Q	70-130
Chloroform	122	70-130
1,1,1-Trichloroethane	119	70-130
Cyclohexane	124	70-130
Carbon Tetrachloride	129	70-130
2,2,4-Trimethylpentane	122	70-130
Benzene	113	70-130
1,2-Dichloroethane	118	70-130
Heptane	123	70-130
Trichloroethene	108	70-130
1,2-Dichloropropane	113	70-130
1,4-Dioxane	120	70-130
Bromodichloromethane	120	70-130
cis-1,3-Dichloropropene	121	70-130
4-Methyl-2-pentanone	130	70-130
Toluene	111	70-130
trans-1,3-Dichloropropene	107	70-130
1,1,2-Trichloroethane	102	70-130
Tetrachloroethene	104	70-130
2-Hexanone	115	70-130

Client Sample ID: LCS

Lab ID#: 1409535-07A

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

File Name:	v100203	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/2/14 09:10 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	116	70-130
1,2-Dibromoethane (EDB)	113	70-130
Chlorobenzene	106	70-130
Ethyl Benzene	105	70-130
m,p-Xylene	106	70-130
o-Xylene	108	70-130
Styrene	112	70-130
Bromoform	111	70-130
Cumene	111	70-130
1,1,2,2-Tetrachloroethane	108	70-130
Propylbenzene	114	70-130
4-Ethyltoluene	109	70-130
1,3,5-Trimethylbenzene	102	70-130
1,2,4-Trimethylbenzene	102	70-130
1,3-Dichlorobenzene	96	70-130
1,4-Dichlorobenzene	94	70-130
alpha-Chlorotoluene	120	70-130
1,2-Dichlorobenzene	95	70-130
1,2,4-Trichlorobenzene	86	70-130
Hexachlorobutadiene	86	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	99	70-130



Air Toxics

Client Sample ID: LCS D

Lab ID#: 1409535-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v100204	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	10/2/14 09:51 AM

Compound	%Recovery	Method Limits
Freon 12	125	70-130
Freon 114	113	70-130
Chloromethane	122	70-130
Vinyl Chloride	124	70-130
1,3-Butadiene	128	70-130
Bromomethane	123	70-130
Chloroethane	124	70-130
Freon 11	121	70-130
Ethanol	138 Q	70-130
Freon 113	130	70-130
1,1-Dichloroethene	128	70-130
Acetone	108	70-130
2-Propanol	130	70-130
Carbon Disulfide	109	70-130
3-Chloropropene	122	70-130
Methylene Chloride	126	70-130
Methyl tert-butyl ether	122	70-130
trans-1,2-Dichloroethene	100	70-130
Hexane	125	70-130
1,1-Dichloroethane	125	70-130
2-Butanone (Methyl Ethyl Ketone)	119	70-130
cis-1,2-Dichloroethene	128	70-130
Tetrahydrofuran	132 Q	70-130
Chloroform	122	70-130
1,1,1-Trichloroethane	118	70-130
Cyclohexane	122	70-130
Carbon Tetrachloride	126	70-130
2,2,4-Trimethylpentane	123	70-130
Benzene	112	70-130
1,2-Dichloroethane	116	70-130
Heptane	122	70-130
Trichloroethene	105	70-130
1,2-Dichloropropane	112	70-130
1,4-Dioxane	117	70-130
Bromodichloromethane	119	70-130
cis-1,3-Dichloropropene	120	70-130
4-Methyl-2-pentanone	128	70-130
Toluene	111	70-130
trans-1,3-Dichloropropene	108	70-130
1,1,2-Trichloroethane	104	70-130
Tetrachloroethene	104	70-130
2-Hexanone	117	70-130

Client Sample ID: LCSD

Lab ID#: 1409535-07AA

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

File Name:	v100204	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/2/14 09:51 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	116	70-130
1,2-Dibromoethane (EDB)	114	70-130
Chlorobenzene	106	70-130
Ethyl Benzene	105	70-130
m,p-Xylene	106	70-130
o-Xylene	108	70-130
Styrene	111	70-130
Bromoform	114	70-130
Cumene	112	70-130
1,1,2,2-Tetrachloroethane	109	70-130
Propylbenzene	113	70-130
4-Ethyltoluene	110	70-130
1,3,5-Trimethylbenzene	104	70-130
1,2,4-Trimethylbenzene	105	70-130
1,3-Dichlorobenzene	96	70-130
1,4-Dichlorobenzene	96	70-130
alpha-Chlorotoluene	120	70-130
1,2-Dichlorobenzene	97	70-130
1,2,4-Trichlorobenzene	92	70-130
Hexachlorobutadiene	93	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	99	70-130