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Project Manager Dan Norris  
 Collected by: (Print and Sign) DAN NORRIS  
 Company Missouri DNR Email dan.norris@dnr.mo.gov  
 Address P.O. Box 176 City Jefferson City State Mo Zip 65101  
 Phone 573-526-3915 Fax \_\_\_\_\_

<b>Project Info:</b> P.O. # _____ Project # _____ Project Name <u>Bridgeton Landfill</u>	<b>Turn Around Time:</b> <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush <small>specify</small>	<small>Lab Use Only</small> Pressurized by: _____ Date: _____ Pressurization Gas: _____ N <sub>2</sub> He
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Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum			
						Initial	Final	Receipt	Final (psi)
	U1 (135063)	4377	1/4/14	0755-1325	TO-15	-30	-3.5		
	U2 (135064)	35283	1/4/14	0801-1304	TO-15	-29.5	-3		
	D1 (135065)	31133	1/4/14	0811-1441	TO-15	-30	-4		
	D2 (135066)	34739	1/4/14	0820-1447	TO-15	-30	-3.75		

Relinquished by: (signature) <u>[Signature]</u> Date/Time <u>1/6/14 1337</u>	Received by: (signature) _____ Date/Time _____	<b>Notes:</b> Shipped via UPS Ground. Tracking # <u>1Z6727880345423447</u>
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	Yes	No	None			

1/22/2014

Mr. Dennis Schroeder  
Missouri Dept. of Natural Resources  
2710 West Main

Jefferson City MO 65109

Project Name: Bridgeton Landfill

Project #:

Workorder #: 1401091

Dear Mr. Dennis Schroeder

The following report includes the data for the above referenced project for sample(s) received on 1/9/2014 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: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Kelly Buettner  
Project Manager

**WORK ORDER #: 1401091**

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>	3ESP1301039
<b>FAX:</b>	573-526-3350	<b>PROJECT #</b>	Bridgeton Landfill
<b>DATE RECEIVED:</b>	01/09/2014	<b>CONTACT:</b>	Kelly Buettner
<b>DATE COMPLETED:</b>	01/20/2014		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	U1 (135063)	Modified TO-15	2.8 "Hg	5.1 psi
02A	U2 (135064)	Modified TO-15	3.3 "Hg	5 psi
03A	D1 (135065)	Modified TO-15	1.2 "Hg	5.1 psi
04A	D2 (135066)	Modified TO-15	2.2 "Hg	5.2 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: 01/22/14

Certification numbers: AZ Licensure AZ0775, CA NELAP - 12282CA, NJ NELAP - CA016, NY NELAP - 11291,  
 TX NELAP - T104704434-13-6, UT NELAP CA009332013-4, VA NELAP - 460197, WA NELAP - C935  
 Name of Accrediting Agency: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)  
 Accreditation number: CA300005, Effective date: 10/18/2013, Expiration date: 10/17/2014.

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

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 180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9562  
 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020



**LABORATORY NARRATIVE**  
**Modified TO-15**  
**Missouri Dept. of Natural Resources**  
**Workorder# 1401091**

Four 6 Liter Summa Canister (100% Certified) samples were received on January 09, 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**

There were no receiving discrepancies.

**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: U1 (135063)**

**Lab ID#: 1401091-01A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.47	0.74	2.3
Freon 11	0.15	0.21	0.84	1.2
Ethanol	0.74	1.4	1.4	2.7
Acetone	0.74	1.2	1.8	2.8

**Client Sample ID: U2 (135064)**

**Lab ID#: 1401091-02A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.41	0.74	2.0
Freon 11	0.15	0.18	0.84	1.0
Ethanol	0.75	1.8	1.4	3.3
Acetone	0.75	1.6	1.8	3.8
Toluene	0.15	0.22	0.56	0.82

**Client Sample ID: D1 (135065)**

**Lab ID#: 1401091-03A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.14	0.42	0.69	2.1
Freon 11	0.14	0.18	0.79	1.0
Ethanol	0.70	3.1	1.3	5.8
Acetone	0.70	2.5	1.7	5.9
Benzene	0.14	0.19	0.45	0.60
Toluene	0.14	0.17	0.53	0.66

**Client Sample ID: D2 (135066)**

**Lab ID#: 1401091-04A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.43	0.72	2.1
Freon 11	0.15	0.18	0.82	1.0

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

**Client Sample ID: D2 (135066)**

**Lab ID#: 1401091-04A**

Ethanol	0.73	1.8	1.4	3.3
Acetone	0.73	1.5	1.7	3.6
Benzene	0.15	0.16	0.47	0.53



Air Toxics

Client Sample ID: U1 (135063)

Lab ID#: 1401091-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c011307	Date of Collection:	1/4/14 1:25:00 PM
Dil. Factor:	1.49	Date of Analysis:	1/13/14 02:31 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.47	0.74	2.3
Freon 114	0.15	Not Detected	1.0	Not Detected
Chloromethane	0.74	Not Detected	1.5	Not Detected
Vinyl Chloride	0.15	Not Detected	0.38	Not Detected
1,3-Butadiene	0.15	Not Detected	0.33	Not Detected
Bromomethane	0.74	Not Detected	2.9	Not Detected
Chloroethane	0.74	Not Detected	2.0	Not Detected
Freon 11	0.15	0.21	0.84	1.2
Ethanol	0.74	1.4	1.4	2.7
Freon 113	0.15	Not Detected	1.1	Not Detected
1,1-Dichloroethene	0.15	Not Detected	0.59	Not Detected
Acetone	0.74	1.2	1.8	2.8
2-Propanol	0.74	Not Detected	1.8	Not Detected
Carbon Disulfide	0.74	Not Detected	2.3	Not Detected
3-Chloropropene	0.74	Not Detected	2.3	Not Detected
Methylene Chloride	0.30	Not Detected	1.0	Not Detected
Methyl tert-butyl ether	0.15	Not Detected	0.54	Not Detected
trans-1,2-Dichloroethene	0.15	Not Detected	0.59	Not Detected
Hexane	0.15	Not Detected	0.52	Not Detected
1,1-Dichloroethane	0.15	Not Detected	0.60	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.74	Not Detected	2.2	Not Detected
cis-1,2-Dichloroethene	0.15	Not Detected	0.59	Not Detected
Tetrahydrofuran	0.74	Not Detected	2.2	Not Detected
Chloroform	0.15	Not Detected	0.73	Not Detected
1,1,1-Trichloroethane	0.15	Not Detected	0.81	Not Detected
Cyclohexane	0.15	Not Detected	0.51	Not Detected
Carbon Tetrachloride	0.15	Not Detected	0.94	Not Detected
2,2,4-Trimethylpentane	0.74	Not Detected	3.5	Not Detected
Benzene	0.15	Not Detected	0.48	Not Detected
1,2-Dichloroethane	0.15	Not Detected	0.60	Not Detected
Heptane	0.15	Not Detected	0.61	Not Detected
Trichloroethene	0.15	Not Detected	0.80	Not Detected
1,2-Dichloropropane	0.15	Not Detected	0.69	Not Detected
1,4-Dioxane	0.15	Not Detected	0.54	Not Detected
Bromodichloromethane	0.15	Not Detected	1.0	Not Detected
cis-1,3-Dichloropropene	0.15	Not Detected	0.68	Not Detected
4-Methyl-2-pentanone	0.15	Not Detected	0.61	Not Detected
Toluene	0.15	Not Detected	0.56	Not Detected
trans-1,3-Dichloropropene	0.15	Not Detected	0.68	Not Detected
1,1,2-Trichloroethane	0.15	Not Detected	0.81	Not Detected
Tetrachloroethene	0.15	Not Detected	1.0	Not Detected
2-Hexanone	0.74	Not Detected	3.0	Not Detected



Client Sample ID: U1 (135063)

Lab ID#: 1401091-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c011307	Date of Collection:	1/4/14 1:25:00 PM
Dil. Factor:	1.49	Date of Analysis:	1/13/14 02:31 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.15	Not Detected	1.3	Not Detected
1,2-Dibromoethane (EDB)	0.15	Not Detected	1.1	Not Detected
Chlorobenzene	0.15	Not Detected	0.68	Not Detected
Ethyl Benzene	0.15	Not Detected	0.65	Not Detected
m,p-Xylene	0.15	Not Detected	0.65	Not Detected
o-Xylene	0.15	Not Detected	0.65	Not Detected
Styrene	0.15	Not Detected	0.63	Not Detected
Bromoform	0.15	Not Detected	1.5	Not Detected
Cumene	0.15	Not Detected	0.73	Not Detected
1,1,2,2-Tetrachloroethane	0.15	Not Detected	1.0	Not Detected
Propylbenzene	0.15	Not Detected	0.73	Not Detected
4-Ethyltoluene	0.15	Not Detected	0.73	Not Detected
1,3,5-Trimethylbenzene	0.15	Not Detected	0.73	Not Detected
1,2,4-Trimethylbenzene	0.15	Not Detected	0.73	Not Detected
1,3-Dichlorobenzene	0.15	Not Detected	0.90	Not Detected
1,4-Dichlorobenzene	0.15	Not Detected	0.90	Not Detected
alpha-Chlorotoluene	0.15	Not Detected	0.77	Not Detected
1,2-Dichlorobenzene	0.15	Not Detected	0.90	Not Detected
1,2,4-Trichlorobenzene	0.74	Not Detected UJ	5.5	Not Detected UJ
Hexachlorobutadiene	0.74	Not Detected UJ	7.9	Not Detected UJ

UJ = Non-detected compound associated with low bias in the CCV and/or LCS.

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	87	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	92	70-130



Air Toxics

Client Sample ID: U2 (135064)

Lab ID#: 1401091-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c011308	Date of Collection:	1/4/14 1:04:00 PM
Dil. Factor:	1.50	Date of Analysis:	1/13/14 03:16 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.41	0.74	2.0
Freon 114	0.15	Not Detected	1.0	Not Detected
Chloromethane	0.75	Not Detected	1.5	Not Detected
Vinyl Chloride	0.15	Not Detected	0.38	Not Detected
1,3-Butadiene	0.15	Not Detected	0.33	Not Detected
Bromomethane	0.75	Not Detected	2.9	Not Detected
Chloroethane	0.75	Not Detected	2.0	Not Detected
Freon 11	0.15	0.18	0.84	1.0
Ethanol	0.75	1.8	1.4	3.3
Freon 113	0.15	Not Detected	1.1	Not Detected
1,1-Dichloroethene	0.15	Not Detected	0.59	Not Detected
Acetone	0.75	1.6	1.8	3.8
2-Propanol	0.75	Not Detected	1.8	Not Detected
Carbon Disulfide	0.75	Not Detected	2.3	Not Detected
3-Chloropropene	0.75	Not Detected	2.3	Not Detected
Methylene Chloride	0.30	Not Detected	1.0	Not Detected
Methyl tert-butyl ether	0.15	Not Detected	0.54	Not Detected
trans-1,2-Dichloroethene	0.15	Not Detected	0.59	Not Detected
Hexane	0.15	Not Detected	0.53	Not Detected
1,1-Dichloroethane	0.15	Not Detected	0.61	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.75	Not Detected	2.2	Not Detected
cis-1,2-Dichloroethene	0.15	Not Detected	0.59	Not Detected
Tetrahydrofuran	0.75	Not Detected	2.2	Not Detected
Chloroform	0.15	Not Detected	0.73	Not Detected
1,1,1-Trichloroethane	0.15	Not Detected	0.82	Not Detected
Cyclohexane	0.15	Not Detected	0.52	Not Detected
Carbon Tetrachloride	0.15	Not Detected	0.94	Not Detected
2,2,4-Trimethylpentane	0.75	Not Detected	3.5	Not Detected
Benzene	0.15	Not Detected	0.48	Not Detected
1,2-Dichloroethane	0.15	Not Detected	0.61	Not Detected
Heptane	0.15	Not Detected	0.61	Not Detected
Trichloroethene	0.15	Not Detected	0.81	Not Detected
1,2-Dichloropropane	0.15	Not Detected	0.69	Not Detected
1,4-Dioxane	0.15	Not Detected	0.54	Not Detected
Bromodichloromethane	0.15	Not Detected	1.0	Not Detected
cis-1,3-Dichloropropene	0.15	Not Detected	0.68	Not Detected
4-Methyl-2-pentanone	0.15	Not Detected	0.61	Not Detected
Toluene	0.15	0.22	0.56	0.82
trans-1,3-Dichloropropene	0.15	Not Detected	0.68	Not Detected
1,1,2-Trichloroethane	0.15	Not Detected	0.82	Not Detected
Tetrachloroethene	0.15	Not Detected	1.0	Not Detected
2-Hexanone	0.75	Not Detected	3.1	Not Detected

Client Sample ID: U2 (135064)

Lab ID#: 1401091-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c011308	Date of Collection:	1/4/14 1:04:00 PM
Dil. Factor:	1.50	Date of Analysis:	1/13/14 03:16 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.15	Not Detected	1.3	Not Detected
1,2-Dibromoethane (EDB)	0.15	Not Detected	1.2	Not Detected
Chlorobenzene	0.15	Not Detected	0.69	Not Detected
Ethyl Benzene	0.15	Not Detected	0.65	Not Detected
m,p-Xylene	0.15	Not Detected	0.65	Not Detected
o-Xylene	0.15	Not Detected	0.65	Not Detected
Styrene	0.15	Not Detected	0.64	Not Detected
Bromoform	0.15	Not Detected	1.6	Not Detected
Cumene	0.15	Not Detected	0.74	Not Detected
1,1,2,2-Tetrachloroethane	0.15	Not Detected	1.0	Not Detected
Propylbenzene	0.15	Not Detected	0.74	Not Detected
4-Ethyltoluene	0.15	Not Detected	0.74	Not Detected
1,3,5-Trimethylbenzene	0.15	Not Detected	0.74	Not Detected
1,2,4-Trimethylbenzene	0.15	Not Detected	0.74	Not Detected
1,3-Dichlorobenzene	0.15	Not Detected	0.90	Not Detected
1,4-Dichlorobenzene	0.15	Not Detected	0.90	Not Detected
alpha-Chlorotoluene	0.15	Not Detected	0.78	Not Detected
1,2-Dichlorobenzene	0.15	Not Detected	0.90	Not Detected
1,2,4-Trichlorobenzene	0.75	Not Detected UJ	5.6	Not Detected UJ
Hexachlorobutadiene	0.75	Not Detected UJ	8.0	Not Detected UJ

UJ = Non-detected compound associated with low bias in the CCV and/or LCS.

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	88	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	94	70-130

Client Sample ID: D1 (135065)

Lab ID#: 1401091-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c011309	Date of Collection:	1/4/14 2:41:00 PM
Dil. Factor:	1.40	Date of Analysis:	1/13/14 04:01 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.14	0.42	0.69	2.1
Freon 114	0.14	Not Detected	0.98	Not Detected
Chloromethane	0.70	Not Detected	1.4	Not Detected
Vinyl Chloride	0.14	Not Detected	0.36	Not Detected
1,3-Butadiene	0.14	Not Detected	0.31	Not Detected
Bromomethane	0.70	Not Detected	2.7	Not Detected
Chloroethane	0.70	Not Detected	1.8	Not Detected
Freon 11	0.14	0.18	0.79	1.0
Ethanol	0.70	3.1	1.3	5.8
Freon 113	0.14	Not Detected	1.1	Not Detected
1,1-Dichloroethene	0.14	Not Detected	0.56	Not Detected
Acetone	0.70	2.5	1.7	5.9
2-Propanol	0.70	Not Detected	1.7	Not Detected
Carbon Disulfide	0.70	Not Detected	2.2	Not Detected
3-Chloropropene	0.70	Not Detected	2.2	Not Detected
Methylene Chloride	0.28	Not Detected	0.97	Not Detected
Methyl tert-butyl ether	0.14	Not Detected	0.50	Not Detected
trans-1,2-Dichloroethene	0.14	Not Detected	0.56	Not Detected
Hexane	0.14	Not Detected	0.49	Not Detected
1,1-Dichloroethane	0.14	Not Detected	0.57	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.70	Not Detected	2.1	Not Detected
cis-1,2-Dichloroethene	0.14	Not Detected	0.56	Not Detected
Tetrahydrofuran	0.70	Not Detected	2.1	Not Detected
Chloroform	0.14	Not Detected	0.68	Not Detected
1,1,1-Trichloroethane	0.14	Not Detected	0.76	Not Detected
Cyclohexane	0.14	Not Detected	0.48	Not Detected
Carbon Tetrachloride	0.14	Not Detected	0.88	Not Detected
2,2,4-Trimethylpentane	0.70	Not Detected	3.3	Not Detected
Benzene	0.14	0.19	0.45	0.60
1,2-Dichloroethane	0.14	Not Detected	0.57	Not Detected
Heptane	0.14	Not Detected	0.57	Not Detected
Trichloroethene	0.14	Not Detected	0.75	Not Detected
1,2-Dichloropropane	0.14	Not Detected	0.65	Not Detected
1,4-Dioxane	0.14	Not Detected	0.50	Not Detected
Bromodichloromethane	0.14	Not Detected	0.94	Not Detected
cis-1,3-Dichloropropene	0.14	Not Detected	0.64	Not Detected
4-Methyl-2-pentanone	0.14	Not Detected	0.57	Not Detected
Toluene	0.14	0.17	0.53	0.66
trans-1,3-Dichloropropene	0.14	Not Detected	0.64	Not Detected
1,1,2-Trichloroethane	0.14	Not Detected	0.76	Not Detected
Tetrachloroethene	0.14	Not Detected	0.95	Not Detected
2-Hexanone	0.70	Not Detected	2.9	Not Detected

Client Sample ID: D1 (135065)

Lab ID#: 1401091-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c011309	Date of Collection:	1/4/14 2:41:00 PM
Dil. Factor:	1.40	Date of Analysis:	1/13/14 04:01 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.14	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.14	Not Detected	1.1	Not Detected
Chlorobenzene	0.14	Not Detected	0.64	Not Detected
Ethyl Benzene	0.14	Not Detected	0.61	Not Detected
m,p-Xylene	0.14	Not Detected	0.61	Not Detected
o-Xylene	0.14	Not Detected	0.61	Not Detected
Styrene	0.14	Not Detected	0.60	Not Detected
Bromoform	0.14	Not Detected	1.4	Not Detected
Cumene	0.14	Not Detected	0.69	Not Detected
1,1,2,2-Tetrachloroethane	0.14	Not Detected	0.96	Not Detected
Propylbenzene	0.14	Not Detected	0.69	Not Detected
4-Ethyltoluene	0.14	Not Detected	0.69	Not Detected
1,3,5-Trimethylbenzene	0.14	Not Detected	0.69	Not Detected
1,2,4-Trimethylbenzene	0.14	Not Detected	0.69	Not Detected
1,3-Dichlorobenzene	0.14	Not Detected	0.84	Not Detected
1,4-Dichlorobenzene	0.14	Not Detected	0.84	Not Detected
alpha-Chlorotoluene	0.14	Not Detected	0.72	Not Detected
1,2-Dichlorobenzene	0.14	Not Detected	0.84	Not Detected
1,2,4-Trichlorobenzene	0.70	Not Detected UJ	5.2	Not Detected UJ
Hexachlorobutadiene	0.70	Not Detected UJ	7.5	Not Detected UJ

UJ = Non-detected compound associated with low bias in the CCV and/or LCS.

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	88	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	97	70-130



Air Toxics

Client Sample ID: D2 (135066)

Lab ID#: 1401091-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c011310	Date of Collection:	1/4/14 2:47:00 PM
Dil. Factor:	1.46	Date of Analysis:	1/13/14 04:52 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.43	0.72	2.1
Freon 114	0.15	Not Detected	1.0	Not Detected
Chloromethane	0.73	Not Detected	1.5	Not Detected
Vinyl Chloride	0.15	Not Detected	0.37	Not Detected
1,3-Butadiene	0.15	Not Detected	0.32	Not Detected
Bromomethane	0.73	Not Detected	2.8	Not Detected
Chloroethane	0.73	Not Detected	1.9	Not Detected
Freon 11	0.15	0.18	0.82	1.0
Ethanol	0.73	1.8	1.4	3.3
Freon 113	0.15	Not Detected	1.1	Not Detected
1,1-Dichloroethene	0.15	Not Detected	0.58	Not Detected
Acetone	0.73	1.5	1.7	3.6
2-Propanol	0.73	Not Detected	1.8	Not Detected
Carbon Disulfide	0.73	Not Detected	2.3	Not Detected
3-Chloropropene	0.73	Not Detected	2.3	Not Detected
Methylene Chloride	0.29	Not Detected	1.0	Not Detected
Methyl tert-butyl ether	0.15	Not Detected	0.53	Not Detected
trans-1,2-Dichloroethene	0.15	Not Detected	0.58	Not Detected
Hexane	0.15	Not Detected	0.51	Not Detected
1,1-Dichloroethane	0.15	Not Detected	0.59	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.73	Not Detected	2.2	Not Detected
cis-1,2-Dichloroethene	0.15	Not Detected	0.58	Not Detected
Tetrahydrofuran	0.73	Not Detected	2.2	Not Detected
Chloroform	0.15	Not Detected	0.71	Not Detected
1,1,1-Trichloroethane	0.15	Not Detected	0.80	Not Detected
Cyclohexane	0.15	Not Detected	0.50	Not Detected
Carbon Tetrachloride	0.15	Not Detected	0.92	Not Detected
2,2,4-Trimethylpentane	0.73	Not Detected	3.4	Not Detected
Benzene	0.15	0.16	0.47	0.53
1,2-Dichloroethane	0.15	Not Detected	0.59	Not Detected
Heptane	0.15	Not Detected	0.60	Not Detected
Trichloroethene	0.15	Not Detected	0.78	Not Detected
1,2-Dichloropropane	0.15	Not Detected	0.67	Not Detected
1,4-Dioxane	0.15	Not Detected	0.53	Not Detected
Bromodichloromethane	0.15	Not Detected	0.98	Not Detected
cis-1,3-Dichloropropene	0.15	Not Detected	0.66	Not Detected
4-Methyl-2-pentanone	0.15	Not Detected	0.60	Not Detected
Toluene	0.15	Not Detected	0.55	Not Detected
trans-1,3-Dichloropropene	0.15	Not Detected	0.66	Not Detected
1,1,2-Trichloroethane	0.15	Not Detected	0.80	Not Detected
Tetrachloroethene	0.15	Not Detected	0.99	Not Detected
2-Hexanone	0.73	Not Detected	3.0	Not Detected

Client Sample ID: D2 (135066)

Lab ID#: 1401091-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c011310	Date of Collection:	1/4/14 2:47:00 PM
Dil. Factor:	1.46	Date of Analysis:	1/13/14 04:52 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.15	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.15	Not Detected	1.1	Not Detected
Chlorobenzene	0.15	Not Detected	0.67	Not Detected
Ethyl Benzene	0.15	Not Detected	0.63	Not Detected
m,p-Xylene	0.15	Not Detected	0.63	Not Detected
o-Xylene	0.15	Not Detected	0.63	Not Detected
Styrene	0.15	Not Detected	0.62	Not Detected
Bromoform	0.15	Not Detected	1.5	Not Detected
Cumene	0.15	Not Detected	0.72	Not Detected
1,1,2,2-Tetrachloroethane	0.15	Not Detected	1.0	Not Detected
Propylbenzene	0.15	Not Detected	0.72	Not Detected
4-Ethyltoluene	0.15	Not Detected	0.72	Not Detected
1,3,5-Trimethylbenzene	0.15	Not Detected	0.72	Not Detected
1,2,4-Trimethylbenzene	0.15	Not Detected	0.72	Not Detected
1,3-Dichlorobenzene	0.15	Not Detected	0.88	Not Detected
1,4-Dichlorobenzene	0.15	Not Detected	0.88	Not Detected
alpha-Chlorotoluene	0.15	Not Detected	0.76	Not Detected
1,2-Dichlorobenzene	0.15	Not Detected	0.88	Not Detected
1,2,4-Trichlorobenzene	0.73	Not Detected UJ	5.4	Not Detected UJ
Hexachlorobutadiene	0.73	Not Detected UJ	7.8	Not Detected UJ

UJ = Non-detected compound associated with low bias in the CCV and/or LCS.

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	87	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	96	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1401091-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c011306	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	1/13/14 01:32 PM

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





Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1401091-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c011306	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/13/14 01:32 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
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 UJ	3.7	Not Detected UJ
Hexachlorobutadiene	0.50	Not Detected UJ	5.3	Not Detected UJ

UJ = Non-detected compound associated with low bias in the CCV and/or LCS.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	87	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	96	70-130

Client Sample ID: CCV

Lab ID#: 1401091-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c011302	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/13/14 09:24 AM

Compound	%Recovery
Freon 12	88
Freon 114	93
Chloromethane	80
Vinyl Chloride	98
1,3-Butadiene	95
Bromomethane	107
Chloroethane	96
Freon 11	87
Ethanol	101
Freon 113	97
1,1-Dichloroethene	92
Acetone	99
2-Propanol	99
Carbon Disulfide	94
3-Chloropropene	105
Methylene Chloride	90
Methyl tert-butyl ether	100
trans-1,2-Dichloroethene	96
Hexane	99
1,1-Dichloroethane	89
2-Butanone (Methyl Ethyl Ketone)	101
cis-1,2-Dichloroethene	94
Tetrahydrofuran	96
Chloroform	90
1,1,1-Trichloroethane	86
Cyclohexane	100
Carbon Tetrachloride	87
2,2,4-Trimethylpentane	95
Benzene	94
1,2-Dichloroethane	88
Heptane	97
Trichloroethene	93
1,2-Dichloropropane	91
1,4-Dioxane	98
Bromodichloromethane	92
cis-1,3-Dichloropropene	98
4-Methyl-2-pentanone	98
Toluene	96
trans-1,3-Dichloropropene	99
1,1,2-Trichloroethane	103
Tetrachloroethene	107
2-Hexanone	104

Client Sample ID: CCV

Lab ID#: 1401091-06A

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

<b>File Name:</b>	<b>c011302</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 1/13/14 09:24 AM</b>

Compound	%Recovery
Dibromochloromethane	104
1,2-Dibromoethane (EDB)	104
Chlorobenzene	103
Ethyl Benzene	107
m,p-Xylene	111
o-Xylene	110
Styrene	116
Bromoform	105
Cumene	103
1,1,2,2-Tetrachloroethane	93
Propylbenzene	97
4-Ethyltoluene	97
1,3,5-Trimethylbenzene	92
1,2,4-Trimethylbenzene	93
1,3-Dichlorobenzene	82
1,4-Dichlorobenzene	98
alpha-Chlorotoluene	107
1,2-Dichlorobenzene	92
1,2,4-Trichlorobenzene	67 Q
Hexachlorobutadiene	61 Q

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	86	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	100	70-130

Client Sample ID: LCS

Lab ID#: 1401091-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c011303	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/13/14 10:17 AM

Compound	%Recovery	Method Limits
Freon 12	86	70-130
Freon 114	95	70-130
Chloromethane	79	70-130
Vinyl Chloride	97	70-130
1,3-Butadiene	94	70-130
Bromomethane	98	70-130
Chloroethane	99	70-130
Freon 11	87	70-130
Ethanol	114	70-130
Freon 113	111	70-130
1,1-Dichloroethene	109	70-130
Acetone	93	70-130
2-Propanol	98	70-130
Carbon Disulfide	90	70-130
3-Chloropropene	108	70-130
Methylene Chloride	102	70-130
Methyl tert-butyl ether	100	70-130
trans-1,2-Dichloroethene	87	70-130
Hexane	102	70-130
1,1-Dichloroethane	94	70-130
2-Butanone (Methyl Ethyl Ketone)	98	70-130
cis-1,2-Dichloroethene	113	70-130
Tetrahydrofuran	97	70-130
Chloroform	93	70-130
1,1,1-Trichloroethane	87	70-130
Cyclohexane	107	70-130
Carbon Tetrachloride	95	70-130
2,2,4-Trimethylpentane	93	70-130
Benzene	100	70-130
1,2-Dichloroethane	92	70-130
Heptane	104	70-130
Trichloroethene	99	70-130
1,2-Dichloropropane	97	70-130
1,4-Dioxane	106	70-130
Bromodichloromethane	99	70-130
cis-1,3-Dichloropropene	108	70-130
4-Methyl-2-pentanone	110	70-130
Toluene	102	70-130
trans-1,3-Dichloropropene	92	70-130
1,1,2-Trichloroethane	102	70-130
Tetrachloroethene	105	70-130
2-Hexanone	108	70-130

Client Sample ID: LCS

Lab ID#: 1401091-07A

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

<b>File Name:</b>	<b>c011303</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 1/13/14 10:17 AM</b>

<b>Compound</b>	<b>%Recovery</b>	<b>Method Limits</b>
Dibromochloromethane	105	70-130
1,2-Dibromoethane (EDB)	101	70-130
Chlorobenzene	98	70-130
Ethyl Benzene	102	70-130
m,p-Xylene	108	70-130
o-Xylene	104	70-130
Styrene	106	70-130
Bromoform	107	70-130
Cumene	97	70-130
1,1,2,2-Tetrachloroethane	89	70-130
Propylbenzene	89	70-130
4-Ethyltoluene	88	70-130
1,3,5-Trimethylbenzene	84	70-130
1,2,4-Trimethylbenzene	82	70-130
1,3-Dichlorobenzene	74	70-130
1,4-Dichlorobenzene	84	70-130
alpha-Chlorotoluene	105	70-130
1,2-Dichlorobenzene	82	70-130
1,2,4-Trichlorobenzene	66 Q	70-130
Hexachlorobutadiene	54 Q	70-130

Q = Exceeds Quality Control limits.

**Container Type: NA - Not Applicable**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	83	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	94	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1401091-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c011304	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/13/14 11:02 AM

Compound	%Recovery	Method Limits
Freon 12	87	70-130
Freon 114	94	70-130
Chloromethane	79	70-130
Vinyl Chloride	96	70-130
1,3-Butadiene	94	70-130
Bromomethane	109	70-130
Chloroethane	98	70-130
Freon 11	89	70-130
Ethanol	103	70-130
Freon 113	116	70-130
1,1-Dichloroethene	111	70-130
Acetone	95	70-130
2-Propanol	98	70-130
Carbon Disulfide	92	70-130
3-Chloropropene	114	70-130
Methylene Chloride	107	70-130
Methyl tert-butyl ether	102	70-130
trans-1,2-Dichloroethene	86	70-130
Hexane	104	70-130
1,1-Dichloroethane	96	70-130
2-Butanone (Methyl Ethyl Ketone)	104	70-130
cis-1,2-Dichloroethene	115	70-130
Tetrahydrofuran	101	70-130
Chloroform	96	70-130
1,1,1-Trichloroethane	90	70-130
Cyclohexane	112	70-130
Carbon Tetrachloride	98	70-130
2,2,4-Trimethylpentane	97	70-130
Benzene	96	70-130
1,2-Dichloroethane	86	70-130
Heptane	100	70-130
Trichloroethene	95	70-130
1,2-Dichloropropane	94	70-130
1,4-Dioxane	101	70-130
Bromodichloromethane	96	70-130
cis-1,3-Dichloropropene	105	70-130
4-Methyl-2-pentanone	104	70-130
Toluene	99	70-130
trans-1,3-Dichloropropene	94	70-130
1,1,2-Trichloroethane	103	70-130
Tetrachloroethene	106	70-130
2-Hexanone	105	70-130

Client Sample ID: LCSD

Lab ID#: 1401091-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c011304	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/13/14 11:02 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	107	70-130
1,2-Dibromoethane (EDB)	104	70-130
Chlorobenzene	101	70-130
Ethyl Benzene	104	70-130
m,p-Xylene	110	70-130
o-Xylene	106	70-130
Styrene	109	70-130
Bromoform	108	70-130
Cumene	102	70-130
1,1,2,2-Tetrachloroethane	91	70-130
Propylbenzene	96	70-130
4-Ethyltoluene	96	70-130
1,3,5-Trimethylbenzene	89	70-130
1,2,4-Trimethylbenzene	88	70-130
1,3-Dichlorobenzene	80	70-130
1,4-Dichlorobenzene	94	70-130
alpha-Chlorotoluene	112	70-130
1,2-Dichlorobenzene	89	70-130
1,2,4-Trichlorobenzene	74	70-130
Hexachlorobutadiene	63 Q	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	84	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	100	70-130