



Air Toxics

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(916) 985-1000 FAX (916) 985-1020

Page 1 of 1

Project Manager Michael Paris

Collected by: (Print and Sign) Fedric Canigan

Company MO DNR Email michael.paris@dnr.mo.gov

Address PO Box 176 City Jefferson City State MO Zip 65102

Phone (573) 522-3918 Fax

Project Info:

P.O. # 385400007

Project #

Project Name Bridgeton LE

Turn Around Time:

Normal

Push

Lab Use Only Pressurized by:

Date:

Pressurization Gas:

N2 He

Lab I.D. Field Sample I.D. (Location)

Can #

Date of Collection

Time of Collection

Analyses Requested

Canister Pressure/Vacuum

Initial Final Receipt Final (psi)

O1A D1 (1411001)

31422

5/29/14

1015-1427

TD-15

-30

-65

O2A D2 (1411002)

34500

5/29/14

1023-1438

TD-15

-30

-7

O3A U1 (1411003)

610012

5/29/14

1047-1503

TD-15

-30

-7

Relinquished by: (signature)

Date/Time

Received by: (signature)

Date/Time

Notes:

Relinquished by: (signature)

Date/Time

Received by: (signature)

Date/Time

Relinquished by: (signature)

Date/Time

Received by: (signature)

Date/Time

Relinquished by: (signature)

Date/Time

Received by: (signature)

Date/Time

Skipped via UPS.
Tracking #: 1Z10727880343793784

Lab Use Only

Shipper Name

Air Bill #

Temp (°C)

Condition

Custody Seals Intact?

Work Order #

UPS

NA

Good

Yes

No

None

1406044

6/16/2014

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

Jefferson City MO 65109

Project Name: Bridgeton LF

Project #:

Workorder #: 1406011

Dear Mr. Dennis Schroeder

The following report includes the data for the above referenced project for sample(s) received on 6/2/2014 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 #: 1406011

Work Order Summary

CLIENT:	Mr. Dennis Schroeder Missouri Dept. of Natural Resources 2710 West Main Jefferson City, MO 65109	BILL TO:	Accounts Payable Missouri Dept. of Natural Resources P.O Box 176 Jefferson City, MO 65102
PHONE:	573-526-4428	P.O. #	3ESP400007
FAX:	573-526-3350	PROJECT #	Bridgeton LF
DATE RECEIVED:	06/02/2014	CONTACT:	Brian Whittaker
DATE COMPLETED:	06/16/2014		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	D1 (1410826)	Modified TO-15	6.5 "Hg	5 psi
02A	D2 (1410827)	Modified TO-15	7.5 "Hg	5 psi
03A	U1 (1410828)	Modified TO-15	7.0 "Hg	5 psi
04A	U2 (1410829)	Modified TO-15	8.5 "Hg	5 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: 06/16/14

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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LABORATORY NARRATIVE
Modified TO-15
Missouri Dept. of Natural Resources
Workorder# 1406011

Four 6 Liter Summa Canister (100% Certified) samples were received on June 02, 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

The Relative Percent Difference (RPD) of the LCS/LCSD exceeded the acceptance limit for 1,2,4-Trichlorobenzene.

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 (1410826)

Lab ID#: 1406011-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.45	0.84	2.2
Freon 11	0.17	0.22	0.96	1.2
Ethanol	0.86	1.2	1.6	2.4
Acetone	0.86	6.8	2.0	16
2-Propanol	0.86	130 E	2.1	320 E
Benzene	0.17	0.23	0.55	0.74

Client Sample ID: D2 (1410827)

Lab ID#: 1406011-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.43	0.88	2.1
Freon 11	0.18	0.19	1.0	1.1
Ethanol	0.90	2.1	1.7	4.0
Acetone	0.90	3.1	2.1	7.4
Hexane	0.18	0.18	0.63	0.63

Client Sample ID: U1 (1410828)

Lab ID#: 1406011-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.45	0.86	2.2
Freon 11	0.18	0.18	0.98	1.0
Ethanol	0.88	1.4	1.6	2.6
Acetone	0.88	3.6	2.1	8.6

Client Sample ID: U2 (1410829)

Lab ID#: 1406011-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.19	0.48	0.92	2.4
Freon 11	0.19	0.19	1.0	1.1

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

Client Sample ID: U2 (1410829)

Lab ID#: 1406011-04A

Ethanol	0.94	2.4	1.8	4.4
Acetone	0.94	5.9	2.2	14
Toluene	0.19	1.0	0.70	3.8

Client Sample ID: D1 (1410826)

Lab ID#: 1406011-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v061608	Date of Collection:	5/22/14 4:27:00 PM
Dil. Factor:	1.71	Date of Analysis:	6/16/14 02:21 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.45	0.84	2.2
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	0.22	0.96	1.2
Ethanol	0.86	1.2	1.6	2.4
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Acetone	0.86	6.8	2.0	16
2-Propanol	0.86	130 E	2.1	320 E
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 UJ	1.1	Not Detected UJ
2,2,4-Trimethylpentane	0.86	Not Detected	4.0	Not Detected
Benzene	0.17	0.23	0.55	0.74
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	Not Detected	0.64	Not Detected
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: D1 (1410826)

Lab ID#: 1406011-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v061608	Date of Collection:	5/22/14 4:27:00 PM
Dil. Factor:	1.71	Date of Analysis:	6/16/14 02:21 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

E = Exceeds instrument calibration range.

UJ = Analyte 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	91	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	96	70-130



Air Toxics

Client Sample ID: D2 (1410827)

Lab ID#: 1406011-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v061609	Date of Collection:	5/22/14 4:39:00 PM
Dil. Factor:	1.79	Date of Analysis:	6/16/14 03:04 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.43	0.88	2.1
Freon 114	0.18	Not Detected	1.2	Not Detected
Chloromethane	0.90	Not Detected	1.8	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	0.19	1.0	1.1
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	0.71	Not Detected
Acetone	0.90	3.1	2.1	7.4
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	0.64	Not Detected
trans-1,2-Dichloroethene	0.18	Not Detected	0.71	Not Detected
Hexane	0.18	0.18	0.63	0.63
1,1-Dichloroethane	0.18	Not Detected	0.72	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.90	Not Detected	2.6	Not Detected
cis-1,2-Dichloroethene	0.18	Not Detected	0.71	Not Detected
Tetrahydrofuran	0.90	Not Detected	2.6	Not Detected
Chloroform	0.18	Not Detected	0.87	Not Detected
1,1,1-Trichloroethane	0.18	Not Detected	0.98	Not Detected
Cyclohexane	0.18	Not Detected	0.62	Not Detected
Carbon Tetrachloride	0.18	Not Detected UJ	1.1	Not Detected UJ
2,2,4-Trimethylpentane	0.90	Not Detected	4.2	Not Detected
Benzene	0.18	Not Detected	0.57	Not Detected
1,2-Dichloroethane	0.18	Not Detected	0.72	Not Detected
Heptane	0.18	Not Detected	0.73	Not Detected
Trichloroethene	0.18	Not Detected	0.96	Not Detected
1,2-Dichloropropane	0.18	Not Detected	0.83	Not Detected
1,4-Dioxane	0.18	Not Detected	0.64	Not Detected
Bromodichloromethane	0.18	Not Detected	1.2	Not Detected
cis-1,3-Dichloropropene	0.18	Not Detected	0.81	Not Detected
4-Methyl-2-pentanone	0.18	Not Detected	0.73	Not Detected
Toluene	0.18	Not Detected	0.67	Not Detected
trans-1,3-Dichloropropene	0.18	Not Detected	0.81	Not Detected
1,1,2-Trichloroethane	0.18	Not Detected	0.98	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: D2 (1410827)

Lab ID#: 1406011-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v061609	Date of Collection:	5/22/14 4:39:00 PM
Dil. Factor:	1.79	Date of Analysis:	6/16/14 03:04 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	0.82	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	0.76	Not Detected
Bromoform	0.18	Not Detected	1.8	Not Detected
Cumene	0.18	Not Detected	0.88	Not Detected
1,1,2,2-Tetrachloroethane	0.18	Not Detected	1.2	Not Detected
Propylbenzene	0.18	Not Detected	0.88	Not Detected
4-Ethyltoluene	0.18	Not Detected	0.88	Not Detected
1,3,5-Trimethylbenzene	0.18	Not Detected	0.88	Not Detected
1,2,4-Trimethylbenzene	0.18	Not Detected	0.88	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	0.93	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,2,4-Trichlorobenzene	0.90	Not Detected	6.6	Not Detected
Hexachlorobutadiene	0.90	Not Detected	9.5	Not Detected

UJ = Analyte 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	94	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: U1 (1410828)

Lab ID#: 1406011-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v061610	Date of Collection:	5/22/14 4:55:00 PM
Dil. Factor:	1.75	Date of Analysis:	6/16/14 03:46 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.45	0.86	2.2
Freon 114	0.18	Not Detected	1.2	Not Detected
Chloromethane	0.88	Not Detected	1.8	Not Detected
Vinyl Chloride	0.18	Not Detected	0.45	Not Detected
1,3-Butadiene	0.18	Not Detected	0.39	Not Detected
Bromomethane	0.88	Not Detected	3.4	Not Detected
Chloroethane	0.88	Not Detected	2.3	Not Detected
Freon 11	0.18	0.18	0.98	1.0
Ethanol	0.88	1.4	1.6	2.6
Freon 113	0.18	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Acetone	0.88	3.6	2.1	8.6
2-Propanol	0.88	Not Detected	2.2	Not Detected
Carbon Disulfide	0.88	Not Detected	2.7	Not Detected
3-Chloropropene	0.88	Not Detected	2.7	Not Detected
Methylene Chloride	0.35	Not Detected	1.2	Not Detected
Methyl tert-butyl ether	0.18	Not Detected	0.63	Not Detected
trans-1,2-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Hexane	0.18	Not Detected	0.62	Not Detected
1,1-Dichloroethane	0.18	Not Detected	0.71	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.88	Not Detected	2.6	Not Detected
cis-1,2-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Tetrahydrofuran	0.88	Not Detected	2.6	Not Detected
Chloroform	0.18	Not Detected	0.85	Not Detected
1,1,1-Trichloroethane	0.18	Not Detected	0.95	Not Detected
Cyclohexane	0.18	Not Detected	0.60	Not Detected
Carbon Tetrachloride	0.18	Not Detected UJ	1.1	Not Detected UJ
2,2,4-Trimethylpentane	0.88	Not Detected	4.1	Not Detected
Benzene	0.18	Not Detected	0.56	Not Detected
1,2-Dichloroethane	0.18	Not Detected	0.71	Not Detected
Heptane	0.18	Not Detected	0.72	Not Detected
Trichloroethene	0.18	Not Detected	0.94	Not Detected
1,2-Dichloropropane	0.18	Not Detected	0.81	Not Detected
1,4-Dioxane	0.18	Not Detected	0.63	Not Detected
Bromodichloromethane	0.18	Not Detected	1.2	Not Detected
cis-1,3-Dichloropropene	0.18	Not Detected	0.79	Not Detected
4-Methyl-2-pentanone	0.18	Not Detected	0.72	Not Detected
Toluene	0.18	Not Detected	0.66	Not Detected
trans-1,3-Dichloropropene	0.18	Not Detected	0.79	Not Detected
1,1,2-Trichloroethane	0.18	Not Detected	0.95	Not Detected
Tetrachloroethene	0.18	Not Detected	1.2	Not Detected
2-Hexanone	0.88	Not Detected	3.6	Not Detected



Air Toxics

Client Sample ID: U1 (1410828)

Lab ID#: 1406011-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v061610	Date of Collection:	5/22/14 4:55:00 PM
Dil. Factor:	1.75	Date of Analysis:	6/16/14 03:46 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	1.3	Not Detected
Chlorobenzene	0.18	Not Detected	0.80	Not Detected
Ethyl Benzene	0.18	Not Detected	0.76	Not Detected
m,p-Xylene	0.18	Not Detected	0.76	Not Detected
o-Xylene	0.18	Not Detected	0.76	Not Detected
Styrene	0.18	Not Detected	0.74	Not Detected
Bromoform	0.18	Not Detected	1.8	Not Detected
Cumene	0.18	Not Detected	0.86	Not Detected
1,1,2,2-Tetrachloroethane	0.18	Not Detected	1.2	Not Detected
Propylbenzene	0.18	Not Detected	0.86	Not Detected
4-Ethyltoluene	0.18	Not Detected	0.86	Not Detected
1,3,5-Trimethylbenzene	0.18	Not Detected	0.86	Not Detected
1,2,4-Trimethylbenzene	0.18	Not Detected	0.86	Not Detected
1,3-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
alpha-Chlorotoluene	0.18	Not Detected	0.90	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.88	Not Detected	6.5	Not Detected
Hexachlorobutadiene	0.88	Not Detected	9.3	Not Detected

UJ = Analyte 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	93	70-130
Toluene-d8	93	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: U2 (1410829)

Lab ID#: 1406011-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v061611	Date of Collection:	5/22/14 5:03:00 PM
Dil. Factor:	1.87	Date of Analysis:	6/16/14 04:32 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.19	0.48	0.92	2.4
Freon 114	0.19	Not Detected	1.3	Not Detected
Chloromethane	0.94	Not Detected	1.9	Not Detected
Vinyl Chloride	0.19	Not Detected	0.48	Not Detected
1,3-Butadiene	0.19	Not Detected	0.41	Not Detected
Bromomethane	0.94	Not Detected	3.6	Not Detected
Chloroethane	0.94	Not Detected	2.5	Not Detected
Freon 11	0.19	0.19	1.0	1.1
Ethanol	0.94	2.4	1.8	4.4
Freon 113	0.19	Not Detected	1.4	Not Detected
1,1-Dichloroethene	0.19	Not Detected	0.74	Not Detected
Acetone	0.94	5.9	2.2	14
2-Propanol	0.94	Not Detected	2.3	Not Detected
Carbon Disulfide	0.94	Not Detected	2.9	Not Detected
3-Chloropropene	0.94	Not Detected	2.9	Not Detected
Methylene Chloride	0.37	Not Detected	1.3	Not Detected
Methyl tert-butyl ether	0.19	Not Detected	0.67	Not Detected
trans-1,2-Dichloroethene	0.19	Not Detected	0.74	Not Detected
Hexane	0.19	Not Detected	0.66	Not Detected
1,1-Dichloroethane	0.19	Not Detected	0.76	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.94	Not Detected	2.8	Not Detected
cis-1,2-Dichloroethene	0.19	Not Detected	0.74	Not Detected
Tetrahydrofuran	0.94	Not Detected	2.8	Not Detected
Chloroform	0.19	Not Detected	0.91	Not Detected
1,1,1-Trichloroethane	0.19	Not Detected	1.0	Not Detected
Cyclohexane	0.19	Not Detected	0.64	Not Detected
Carbon Tetrachloride	0.19	Not Detected UJ	1.2	Not Detected UJ
2,2,4-Trimethylpentane	0.94	Not Detected	4.4	Not Detected
Benzene	0.19	Not Detected	0.60	Not Detected
1,2-Dichloroethane	0.19	Not Detected	0.76	Not Detected
Heptane	0.19	Not Detected	0.77	Not Detected
Trichloroethene	0.19	Not Detected	1.0	Not Detected
1,2-Dichloropropane	0.19	Not Detected	0.86	Not Detected
1,4-Dioxane	0.19	Not Detected	0.67	Not Detected
Bromodichloromethane	0.19	Not Detected	1.2	Not Detected
cis-1,3-Dichloropropene	0.19	Not Detected	0.85	Not Detected
4-Methyl-2-pentanone	0.19	Not Detected	0.77	Not Detected
Toluene	0.19	1.0	0.70	3.8
trans-1,3-Dichloropropene	0.19	Not Detected	0.85	Not Detected
1,1,2-Trichloroethane	0.19	Not Detected	1.0	Not Detected
Tetrachloroethene	0.19	Not Detected	1.3	Not Detected
2-Hexanone	0.94	Not Detected	3.8	Not Detected

Client Sample ID: U2 (1410829)

Lab ID#: 1406011-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v061611	Date of Collection:	5/22/14 5:03:00 PM
Dil. Factor:	1.87	Date of Analysis:	6/16/14 04:32 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.19	Not Detected	1.6	Not Detected
1,2-Dibromoethane (EDB)	0.19	Not Detected	1.4	Not Detected
Chlorobenzene	0.19	Not Detected	0.86	Not Detected
Ethyl Benzene	0.19	Not Detected	0.81	Not Detected
m,p-Xylene	0.19	Not Detected	0.81	Not Detected
o-Xylene	0.19	Not Detected	0.81	Not Detected
Styrene	0.19	Not Detected	0.80	Not Detected
Bromoform	0.19	Not Detected	1.9	Not Detected
Cumene	0.19	Not Detected	0.92	Not Detected
1,1,2,2-Tetrachloroethane	0.19	Not Detected	1.3	Not Detected
Propylbenzene	0.19	Not Detected	0.92	Not Detected
4-Ethyltoluene	0.19	Not Detected	0.92	Not Detected
1,3,5-Trimethylbenzene	0.19	Not Detected	0.92	Not Detected
1,2,4-Trimethylbenzene	0.19	Not Detected	0.92	Not Detected
1,3-Dichlorobenzene	0.19	Not Detected	1.1	Not Detected
1,4-Dichlorobenzene	0.19	Not Detected	1.1	Not Detected
alpha-Chlorotoluene	0.19	Not Detected	0.97	Not Detected
1,2-Dichlorobenzene	0.19	Not Detected	1.1	Not Detected
1,2,4-Trichlorobenzene	0.94	Not Detected	6.9	Not Detected
Hexachlorobutadiene	0.94	Not Detected	10	Not Detected

UJ = Analyte 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	94	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1406011-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v061606	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	6/16/14 12:29 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 UJ	0.63	Not Detected UJ
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#: 1406011-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v061606	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/16/14 12:29 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	3.7	Not Detected
Hexachlorobutadiene	0.50	Not Detected	5.3	Not Detected

UJ = Analyte associated with low bias in the CCV and/or LCS.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	81	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	89	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1406011-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v061602	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/16/14 08:55 AM

Compound	%Recovery
Freon 12	84
Freon 114	90
Chloromethane	81
Vinyl Chloride	80
1,3-Butadiene	77
Bromomethane	97
Chloroethane	88
Freon 11	86
Ethanol	80
Freon 113	94
1,1-Dichloroethene	92
Acetone	79
2-Propanol	83
Carbon Disulfide	89
3-Chloropropene	83
Methylene Chloride	87
Methyl tert-butyl ether	87
trans-1,2-Dichloroethene	95
Hexane	81
1,1-Dichloroethane	84
2-Butanone (Methyl Ethyl Ketone)	90
cis-1,2-Dichloroethene	89
Tetrahydrofuran	81
Chloroform	88
1,1,1-Trichloroethane	87
Cyclohexane	87
Carbon Tetrachloride	60 Q
2,2,4-Trimethylpentane	83
Benzene	87
1,2-Dichloroethane	80
Heptane	80
Trichloroethene	94
1,2-Dichloropropane	82
1,4-Dioxane	87
Bromodichloromethane	85
cis-1,3-Dichloropropene	89
4-Methyl-2-pentanone	84
Toluene	89
trans-1,3-Dichloropropene	88
1,1,2-Trichloroethane	89
Tetrachloroethene	97
2-Hexanone	76

Client Sample ID: CCV

Lab ID#: 1406011-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v061602	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/16/14 08:55 AM

Compound	%Recovery
Dibromochloromethane	102
1,2-Dibromoethane (EDB)	95
Chlorobenzene	92
Ethyl Benzene	94
m,p-Xylene	97
o-Xylene	98
Styrene	97
Bromoform	103
Cumene	94
1,1,2,2-Tetrachloroethane	90
Propylbenzene	94
4-Ethyltoluene	101
1,3,5-Trimethylbenzene	94
1,2,4-Trimethylbenzene	103
1,3-Dichlorobenzene	105
1,4-Dichlorobenzene	100
alpha-Chlorotoluene	85
1,2-Dichlorobenzene	98
1,2,4-Trichlorobenzene	118
Hexachlorobutadiene	101

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	107	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1406011-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v061604	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/16/14 11:03 AM

Compound	%Recovery	Method Limits
Freon 12	88	70-130
Freon 114	100	70-130
Chloromethane	83	70-130
Vinyl Chloride	86	70-130
1,3-Butadiene	81	70-130
Bromomethane	88	70-130
Chloroethane	84	70-130
Freon 11	85	70-130
Ethanol	80	70-130
Freon 113	106	70-130
1,1-Dichloroethene	100	70-130
Acetone	80	70-130
2-Propanol	86	70-130
Carbon Disulfide	82	70-130
3-Chloropropene	87	70-130
Methylene Chloride	96	70-130
Methyl tert-butyl ether	86	70-130
trans-1,2-Dichloroethene	81	70-130
Hexane	80	70-130
1,1-Dichloroethane	85	70-130
2-Butanone (Methyl Ethyl Ketone)	87	70-130
cis-1,2-Dichloroethene	102	70-130
Tetrahydrofuran	82	70-130
Chloroform	89	70-130
1,1,1-Trichloroethane	87	70-130
Cyclohexane	89	70-130
Carbon Tetrachloride	96	70-130
2,2,4-Trimethylpentane	81	70-130
Benzene	90	70-130
1,2-Dichloroethane	89	70-130
Heptane	85	70-130
Trichloroethene	98	70-130
1,2-Dichloropropane	85	70-130
1,4-Dioxane	92	70-130
Bromodichloromethane	96	70-130
cis-1,3-Dichloropropene	99	70-130
4-Methyl-2-pentanone	89	70-130
Toluene	88	70-130
trans-1,3-Dichloropropene	91	70-130
1,1,2-Trichloroethane	92	70-130
Tetrachloroethene	102	70-130
2-Hexanone	87	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1406011-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v061604	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/16/14 11:03 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	117	70-130
1,2-Dibromoethane (EDB)	99	70-130
Chlorobenzene	90	70-130
Ethyl Benzene	93	70-130
m,p-Xylene	89	70-130
o-Xylene	90	70-130
Styrene	92	70-130
Bromoform	116	70-130
Cumene	95	70-130
1,1,2,2-Tetrachloroethane	86	70-130
Propylbenzene	93	70-130
4-Ethyltoluene	102	70-130
1,3,5-Trimethylbenzene	80	70-130
1,2,4-Trimethylbenzene	90	70-130
1,3-Dichlorobenzene	93	70-130
1,4-Dichlorobenzene	91	70-130
alpha-Chlorotoluene	86	70-130
1,2-Dichlorobenzene	88	70-130
1,2,4-Trichlorobenzene	81	70-130
Hexachlorobutadiene	99	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	86	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	105	70-130

Client Sample ID: LCSD

Lab ID#: 1406011-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v061605	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/16/14 11:43 AM

Compound	%Recovery	Method Limits
Freon 12	84	70-130
Freon 114	95	70-130
Chloromethane	79	70-130
Vinyl Chloride	83	70-130
1,3-Butadiene	76	70-130
Bromomethane	91	70-130
Chloroethane	82	70-130
Freon 11	83	70-130
Ethanol	81	70-130
Freon 113	105	70-130
1,1-Dichloroethene	99	70-130
Acetone	74	70-130
2-Propanol	79	70-130
Carbon Disulfide	79	70-130
3-Chloropropene	86	70-130
Methylene Chloride	91	70-130
Methyl tert-butyl ether	83	70-130
trans-1,2-Dichloroethene	76	70-130
Hexane	78	70-130
1,1-Dichloroethane	82	70-130
2-Butanone (Methyl Ethyl Ketone)	84	70-130
cis-1,2-Dichloroethene	96	70-130
Tetrahydrofuran	78	70-130
Chloroform	85	70-130
1,1,1-Trichloroethane	83	70-130
Cyclohexane	86	70-130
Carbon Tetrachloride	93	70-130
2,2,4-Trimethylpentane	79	70-130
Benzene	90	70-130
1,2-Dichloroethane	88	70-130
Heptane	86	70-130
Trichloroethene	97	70-130
1,2-Dichloropropane	84	70-130
1,4-Dioxane	90	70-130
Bromodichloromethane	93	70-130
cis-1,3-Dichloropropene	94	70-130
4-Methyl-2-pentanone	88	70-130
Toluene	91	70-130
trans-1,3-Dichloropropene	86	70-130
1,1,2-Trichloroethane	87	70-130
Tetrachloroethene	100	70-130
2-Hexanone	83	70-130

Client Sample ID: LCSD

Lab ID#: 1406011-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v061605	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 6/16/14 11:43 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	107	70-130
1,2-Dibromoethane (EDB)	93	70-130
Chlorobenzene	90	70-130
Ethyl Benzene	93	70-130
m,p-Xylene	94	70-130
o-Xylene	96	70-130
Styrene	95	70-130
Bromoform	112	70-130
Cumene	96	70-130
1,1,2,2-Tetrachloroethane	84	70-130
Propylbenzene	96	70-130
4-Ethyltoluene	106	70-130
1,3,5-Trimethylbenzene	93	70-130
1,2,4-Trimethylbenzene	100	70-130
1,3-Dichlorobenzene	101	70-130
1,4-Dichlorobenzene	98	70-130
alpha-Chlorotoluene	91	70-130
1,2-Dichlorobenzene	95	70-130
1,2,4-Trichlorobenzene	109	70-130
Hexachlorobutadiene	102	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	85	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	110	70-130