



Air Toxics

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

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

Page 1 of 1

Project Manager Michael Parris

Collected by: (Print and Sign) Michael Parris

Company No DNR

Address PO Box 176

Phone (573) 526-3415

City Jefferson City State MO Zip 65202

Fax

Project Info:

P.O. # 3E3P400007

Project #

Project Name Bridgeton LF

Turn Around Time:

Normal

Rush

Lab Use Only

Pressurized by:

Date:

Pressurization Gas:

N2 He

Table with columns: 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)), Relinquished by: (signature), Date/Time, Received by: (signature), Date/Time, Notes, Shipper Name, Air Bill #, Temp (C), Condition, Custody Seals Intact?, Work Order #.

8/13/2014
Mr. Dennis Schroeder
Missouri Dept. of Natural Resources
2710 West Main

Jefferson City MO 65109

Project Name: Bridgeton LF
Project #:
Workorder #: 1408016

Dear Mr. Dennis Schroeder

The following report includes the data for the above referenced project for sample(s) received on 8/1/2014 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 #: 1408016

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. #	3ESP4000007
FAX:	573-526-3350	PROJECT #	Bridgeton LF
DATE RECEIVED:	08/01/2014	CONTACT:	Brian Whittaker
DATE COMPLETED:	08/07/2014		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	D1 (1410149)	Modified TO-15	6.9 "Hg	4.9 psi
02A	D2 (1410150)	Modified TO-15	6.7 "Hg	4.8 psi
03A	U1 (1411016)	Modified TO-15	7.1 "Hg	4.9 psi
04A	Lab Blank	Modified TO-15	NA	NA
05A	CCV	Modified TO-15	NA	NA
06A	LCS	Modified TO-15	NA	NA
06AA	LCSD	Modified TO-15	NA	NA

CERTIFIED BY: 

 Technical Director

DATE: 08/13/14

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

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.
 180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563
 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-15
Missouri Dept. of Natural Resources
Workorder# 1408016

Three 6 Liter Summa Canister (100% Certified) samples were received on August 01, 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. Target compound non-detects in the samples that are associated with high bias in QC analyses have not been flagged.

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 (1410149)

Lab ID#: 1408016-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.57	0.86	2.8
Freon 11	0.17	0.22	0.97	1.2
Ethanol	0.86	2.8	1.6	5.3
Acetone	0.86	8.4	2.0	20
2-Propanol	0.86	7.4	2.1	18
2-Butanone (Methyl Ethyl Ketone)	0.86	1.3	2.6	4.0
Heptane	0.17	0.68	0.71	2.8
Toluene	0.17	6.6	0.65	25
Ethyl Benzene	0.17	0.35	0.75	1.5
m,p-Xylene	0.17	1.5	0.75	6.7
o-Xylene	0.17	0.57	0.75	2.5

Client Sample ID: D2 (1410150)

Lab ID#: 1408016-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.56	0.84	2.8
Freon 11	0.17	0.21	0.96	1.2
Ethanol	0.86	3.3	1.6	6.2
Acetone	0.86	6.4	2.0	15
Methylene Chloride	0.34	0.34	1.2	1.2

Client Sample ID: U1 (1411016)

Lab ID#: 1408016-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.56	0.86	2.7
Freon 11	0.18	0.18	0.98	1.0
Ethanol	0.88	6.7	1.6	13
Acetone	0.88	6.5	2.1	16
2-Butanone (Methyl Ethyl Ketone)	0.88	0.94	2.6	2.8



Air Toxics

Client Sample ID: D1 (1410149)

Lab ID#: 1408016-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c080619	Date of Collection:	7/26/14 5:54:00 PM
Dil. Factor:	1.73	Date of Analysis:	8/7/14 06:22 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.57	0.86	2.8
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	3.4	Not Detected
Chloroethane	0.86	Not Detected	2.3	Not Detected
Freon 11	0.17	0.22	0.97	1.2
Ethanol	0.86	2.8	1.6	5.3
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Acetone	0.86	8.4	2.0	20
2-Propanol	0.86	7.4	2.1	18
Carbon Disulfide	0.86	Not Detected	2.7	Not Detected
3-Chloropropene	0.86	Not Detected	2.7	Not Detected
Methylene Chloride	0.35	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	0.61	Not Detected
1,1-Dichloroethane	0.17	Not Detected	0.70	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.86	1.3	2.6	4.0
cis-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Tetrahydrofuran	0.86	Not Detected	2.6	Not Detected
Chloroform	0.17	Not Detected	0.84	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.94	Not Detected
Cyclohexane	0.17	Not Detected	0.60	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	0.70	Not Detected
Heptane	0.17	0.68	0.71	2.8
Trichloroethene	0.17	Not Detected	0.93	Not Detected
1,2-Dichloropropane	0.17	Not Detected	0.80	Not Detected
1,4-Dioxane	0.17	Not Detected	0.62	Not Detected
Bromodichloromethane	0.17	Not Detected	1.2	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.78	Not Detected
4-Methyl-2-pentanone	0.17	Not Detected	0.71	Not Detected
Toluene	0.17	6.6	0.65	25
trans-1,3-Dichloropropene	0.17	Not Detected	0.78	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.94	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 (1410149)

Lab ID#: 1408016-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c080619	Date of Collection:	7/26/14 5:54:00 PM
Dil. Factor:	1.73	Date of Analysis:	8/7/14 06:22 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.17	Not Detected	1.5	Not Detected
1,2-Dibromoethane (EDB)	0.17	Not Detected	1.3	Not Detected
Chlorobenzene	0.17	Not Detected	0.80	Not Detected
Ethyl Benzene	0.17	0.35	0.75	1.5
m,p-Xylene	0.17	1.5	0.75	6.7
o-Xylene	0.17	0.57	0.75	2.5
Styrene	0.17	Not Detected	0.74	Not Detected
Bromoform	0.17	Not Detected	1.8	Not Detected
Cumene	0.17	Not Detected	0.85	Not Detected
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.2	Not Detected
Propylbenzene	0.17	Not Detected	0.85	Not Detected
4-Ethyltoluene	0.17	Not Detected	0.85	Not Detected
1,3,5-Trimethylbenzene	0.17	Not Detected	0.85	Not Detected
1,2,4-Trimethylbenzene	0.17	Not Detected	0.85	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	0.90	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.86	Not Detected UJ	6.4	Not Detected UJ
Hexachlorobutadiene	0.86	Not Detected	9.2	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	110	70-130
Toluene-d8	92	70-130
4-Bromofluorobenzene	97	70-130



Air Toxics

Client Sample ID: D2 (1410150)

Lab ID#: 1408016-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c080618	Date of Collection:	7/26/14 6:36:00 PM
Dil. Factor:	1.71	Date of Analysis:	8/6/14 10:16 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.56	0.84	2.8
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	0.21	0.96	1.2
Ethanol	0.86	3.3	1.6	6.2
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Acetone	0.86	6.4	2.0	15
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	0.34	1.2	1.2
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	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: D2 (1410150)

Lab ID#: 1408016-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c080618	Date of Collection:	7/26/14 6:36:00 PM
Dil. Factor:	1.71	Date of Analysis:	8/6/14 10:16 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 UJ	6.3	Not Detected UJ
Hexachlorobutadiene	0.86	Not Detected	9.1	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	109	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	97	70-130



Air Toxics

Client Sample ID: U1 (1411016)

Lab ID#: 1408016-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c080620	Date of Collection:	7/26/14 6:49:00 PM
Dil. Factor:	1.75	Date of Analysis:	8/7/14 07:12 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.56	0.86	2.7
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	6.7	1.6	13
Freon 113	0.18	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Acetone	0.88	6.5	2.1	16
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	0.94	2.6	2.8
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	1.1	Not Detected
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



Client Sample ID: U1 (1411016)

Lab ID#: 1408016-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c080620	Date of Collection:	7/26/14 6:49:00 PM
Dil. Factor:	1.75	Date of Analysis:	8/7/14 07:12 AM

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 UJ	6.5	Not Detected UJ
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	106	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	104	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1408016-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c080607	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/6/14 11:45 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#: 1408016-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c080607	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/6/14 11:45 AM

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	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	95	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	100	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1408016-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c080603	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/6/14 08:37 AM

Compound	%Recovery
Freon 12	97
Freon 114	108
Chloromethane	76
Vinyl Chloride	88
1,3-Butadiene	88
Bromomethane	109
Chloroethane	103
Freon 11	103
Ethanol	90
Freon 113	105
1,1-Dichloroethene	100
Acetone	92
2-Propanol	107
Carbon Disulfide	104
3-Chloropropene	114
Methylene Chloride	108
Methyl tert-butyl ether	104
trans-1,2-Dichloroethene	112
Hexane	107
1,1-Dichloroethane	104
2-Butanone (Methyl Ethyl Ketone)	111
cis-1,2-Dichloroethene	100
Tetrahydrofuran	110
Chloroform	102
1,1,1-Trichloroethane	108
Cyclohexane	107
Carbon Tetrachloride	130
2,2,4-Trimethylpentane	98
Benzene	98
1,2-Dichloroethane	102
Heptane	100
Trichloroethene	100
1,2-Dichloropropane	98
1,4-Dioxane	102
Bromodichloromethane	103
cis-1,3-Dichloropropene	100
4-Methyl-2-pentanone	100
Toluene	96
trans-1,3-Dichloropropene	106
1,1,2-Trichloroethane	105
Tetrachloroethene	112
2-Hexanone	102



Air Toxics

Client Sample ID: CCV

Lab ID#: 1408016-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c080603	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/6/14 08:37 AM

Compound	%Recovery
Dibromochloromethane	118
1,2-Dibromoethane (EDB)	114
Chlorobenzene	102
Ethyl Benzene	109
m,p-Xylene	102
o-Xylene	107
Styrene	109
Bromoform	120
Cumene	108
1,1,2,2-Tetrachloroethane	108
Propylbenzene	102
4-Ethyltoluene	98
1,3,5-Trimethylbenzene	92
1,2,4-Trimethylbenzene	87
1,3-Dichlorobenzene	95
1,4-Dichlorobenzene	92
alpha-Chlorotoluene	94
1,2-Dichlorobenzene	85
1,2,4-Trichlorobenzene	63 Q
Hexachlorobutadiene	72

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	105	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1408016-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c080604	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/6/14 09:22 AM

Compound	%Recovery	Method Limits
Freon 12	93	70-130
Freon 114	100	70-130
Chloromethane	76	70-130
Vinyl Chloride	85	70-130
1,3-Butadiene	81	70-130
Bromomethane	106	70-130
Chloroethane	91	70-130
Freon 11	92	70-130
Ethanol	87	70-130
Freon 113	104	70-130
1,1-Dichloroethene	103	70-130
Acetone	103	70-130
2-Propanol	86	70-130
Carbon Disulfide	88	70-130
3-Chloropropene	106	70-130
Methylene Chloride	100	70-130
Methyl tert-butyl ether	90	70-130
trans-1,2-Dichloroethene	91	70-130
Hexane	98	70-130
1,1-Dichloroethane	93	70-130
2-Butanone (Methyl Ethyl Ketone)	102	70-130
cis-1,2-Dichloroethene	102	70-130
Tetrahydrofuran	99	70-130
Chloroform	92	70-130
1,1,1-Trichloroethane	97	70-130
Cyclohexane	102	70-130
Carbon Tetrachloride	110	70-130
2,2,4-Trimethylpentane	97	70-130
Benzene	97	70-130
1,2-Dichloroethane	98	70-130
Heptane	100	70-130
Trichloroethene	99	70-130
1,2-Dichloropropane	93	70-130
1,4-Dioxane	93	70-130
Bromodichloromethane	99	70-130
cis-1,3-Dichloropropene	100	70-130
4-Methyl-2-pentanone	92	70-130
Toluene	95	70-130
trans-1,3-Dichloropropene	89	70-130
1,1,2-Trichloroethane	91	70-130
Tetrachloroethene	102	70-130
2-Hexanone	75	70-130

Client Sample ID: LCS

Lab ID#: 1408016-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c080604	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/6/14 09:22 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	106	70-130
1,2-Dibromoethane (EDB)	99	70-130
Chlorobenzene	95	70-130
Ethyl Benzene	99	70-130
m,p-Xylene	96	70-130
o-Xylene	97	70-130
Styrene	102	70-130
Bromoform	112	70-130
Cumene	104	70-130
1,1,2,2-Tetrachloroethane	97	70-130
Propylbenzene	96	70-130
4-Ethyltoluene	95	70-130
1,3,5-Trimethylbenzene	93	70-130
1,2,4-Trimethylbenzene	84	70-130
1,3-Dichlorobenzene	95	70-130
1,4-Dichlorobenzene	92	70-130
alpha-Chlorotoluene	101	70-130
1,2-Dichlorobenzene	87	70-130
1,2,4-Trichlorobenzene	85	70-130
Hexachlorobutadiene	83	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	104	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1408016-06AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c080605	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/6/14 10:06 AM

Compound	%Recovery	Method Limits
Freon 12	86	70-130
Freon 114	94	70-130
Chloromethane	80	70-130
Vinyl Chloride	85	70-130
1,3-Butadiene	81	70-130
Bromomethane	104	70-130
Chloroethane	87	70-130
Freon 11	90	70-130
Ethanol	80	70-130
Freon 113	103	70-130
1,1-Dichloroethene	98	70-130
Acetone	96	70-130
2-Propanol	84	70-130
Carbon Disulfide	86	70-130
3-Chloropropene	97	70-130
Methylene Chloride	104	70-130
Methyl tert-butyl ether	89	70-130
trans-1,2-Dichloroethene	80	70-130
Hexane	97	70-130
1,1-Dichloroethane	95	70-130
2-Butanone (Methyl Ethyl Ketone)	103	70-130
cis-1,2-Dichloroethene	100	70-130
Tetrahydrofuran	96	70-130
Chloroform	91	70-130
1,1,1-Trichloroethane	94	70-130
Cyclohexane	99	70-130
Carbon Tetrachloride	108	70-130
2,2,4-Trimethylpentane	93	70-130
Benzene	94	70-130
1,2-Dichloroethane	93	70-130
Heptane	94	70-130
Trichloroethene	96	70-130
1,2-Dichloropropane	92	70-130
1,4-Dioxane	92	70-130
Bromodichloromethane	99	70-130
cis-1,3-Dichloropropene	99	70-130
4-Methyl-2-pentanone	88	70-130
Toluene	92	70-130
trans-1,3-Dichloropropene	90	70-130
1,1,2-Trichloroethane	91	70-130
Tetrachloroethene	101	70-130
2-Hexanone	80	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1408016-06AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c080605	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/6/14 10:06 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	108	70-130
1,2-Dibromoethane (EDB)	105	70-130
Chlorobenzene	94	70-130
Ethyl Benzene	100	70-130
m,p-Xylene	92	70-130
o-Xylene	90	70-130
Styrene	98	70-130
Bromoform	115	70-130
Cumene	96	70-130
1,1,2,2-Tetrachloroethane	95	70-130
Propylbenzene	86	70-130
4-Ethyltoluene	86	70-130
1,3,5-Trimethylbenzene	82	70-130
1,2,4-Trimethylbenzene	75	70-130
1,3-Dichlorobenzene	85	70-130
1,4-Dichlorobenzene	83	70-130
alpha-Chlorotoluene	94	70-130
1,2-Dichlorobenzene	76	70-130
1,2,4-Trichlorobenzene	79	70-130
Hexachlorobutadiene	75	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	101	70-130