



CHAIN-OF-CUSTODY RECORD

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FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020**

Page 1 of 1

Project Manager Michael Paris
 Collected by: (Print and Sign) Lectric Gungor
 Company MO DND Email michael.paris@airtoxics.com
 Address PO Box 176 City Winters, CA State MO Zip 63102
 Phone _____ Fax _____

Project Info:
 P.O. # _____
 Project # _____
 Project Name Bridgeton LF

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 (ps)
	D1 (149217)	9424	4/30/14	1322-1735	TO-15	-28.5	-8
	V1 (149218)	35134	4/30/14	1349-1749	TO-15	-30	-9

Turn Around Time: Normal Rush specify _____

Relinquished by: (signature) [Signature] Date/Time 5/11/14 1205
 Received by: (signature) [Signature] Date/Time 5/11/14 1205

Relinquished by: (signature) [Signature] Date/Time 5/12/14 1808
 Received by: (signature) [Signature] Date/Time 5/12/14 1808

Relinquished by: (signature) [Signature] Date/Time 5/5/14 1005
 Received by: (signature) [Signature] Date/Time 5/5/14 1005

Notes:
 Shipped via UPS.
 Tracking #: 1Z0A278803493045887

Temp (°C) _____ Condition _____ Custody Seals Intact? Yes No None

Shipper Name _____ Air Bill # _____ Work Order # _____

Lab Use Only

5/23/2014

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

Jefferson City MO 65109

Project Name: Bridgeton LF

Project #:

Workorder #: 1405206

Dear Mr. Dennis Schroeder

The following report includes the data for the above referenced project for sample(s) received on 5/9/2014 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: Brian Whittaker at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Brian Whittaker
Project Manager

WORK ORDER #: 1405206

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. #	3ESP140816
FAX:	573-526-3350	PROJECT #	Bridgeton LF
DATE RECEIVED:	05/09/2014	CONTACT:	Brian Whittaker
DATE COMPLETED:	05/23/2014		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	D1 (149217)	Modified TO-15	7.6 "Hg	5.3 psi
02A	U1 (149218)	Modified TO-15	8.2 "Hg	5.3 psi
03A	Lab Blank	Modified TO-15	NA	NA
04A	CCV	Modified TO-15	NA	NA
05A	LCS	Modified TO-15	NA	NA
05AA	LCSD	Modified TO-15	NA	NA

CERTIFIED BY: 

 Technical Director

DATE: 05/23/14

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# 1405206**

Two 6 Liter Summa Canister (100% Certified) samples were received on May 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

There were no analytical discrepancies.

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 (149217)

Lab ID#: 1405206-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.48	0.90	2.4
Freon 11	0.18	0.21	1.0	1.2
Ethanol	0.91	4.5	1.7	8.5
Acetone	0.91	9.6	2.2	23
Toluene	0.18	0.68	0.68	2.6
m,p-Xylene	0.18	0.20	0.79	0.87

Client Sample ID: U1 (149218)

Lab ID#: 1405206-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.19	0.47	0.92	2.3
Freon 11	0.19	0.20	1.0	1.1
Ethanol	0.94	0.95	1.8	1.8
Acetone	0.94	2.0	2.2	4.7



Air Toxics

Client Sample ID: D1 (149217)

Lab ID#: 1405206-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v052213	Date of Collection:	4/30/14 5:35:00 PM
Dil. Factor:	1.82	Date of Analysis:	5/22/14 07:14 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.48	0.90	2.4
Freon 114	0.18	Not Detected	1.3	Not Detected
Chloromethane	0.91	Not Detected	1.9	Not Detected
Vinyl Chloride	0.18	Not Detected	0.46	Not Detected
1,3-Butadiene	0.18	Not Detected	0.40	Not Detected
Bromomethane	0.91	Not Detected	3.5	Not Detected
Chloroethane	0.91	Not Detected	2.4	Not Detected
Freon 11	0.18	0.21	1.0	1.2
Ethanol	0.91	4.5	1.7	8.5
Freon 113	0.18	Not Detected	1.4	Not Detected
1,1-Dichloroethene	0.18	Not Detected	0.72	Not Detected
Acetone	0.91	9.6	2.2	23
2-Propanol	0.91	Not Detected	2.2	Not Detected
Carbon Disulfide	0.91	Not Detected	2.8	Not Detected
3-Chloropropene	0.91	Not Detected	2.8	Not Detected
Methylene Chloride	0.36	Not Detected	1.3	Not Detected
Methyl tert-butyl ether	0.18	Not Detected	0.66	Not Detected
trans-1,2-Dichloroethene	0.18	Not Detected	0.72	Not Detected
Hexane	0.18	Not Detected	0.64	Not Detected
1,1-Dichloroethane	0.18	Not Detected	0.74	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.91	Not Detected	2.7	Not Detected
cis-1,2-Dichloroethene	0.18	Not Detected	0.72	Not Detected
Tetrahydrofuran	0.91	Not Detected	2.7	Not Detected
Chloroform	0.18	Not Detected	0.89	Not Detected
1,1,1-Trichloroethane	0.18	Not Detected	0.99	Not Detected
Cyclohexane	0.18	Not Detected	0.63	Not Detected
Carbon Tetrachloride	0.18	Not Detected	1.1	Not Detected
2,2,4-Trimethylpentane	0.91	Not Detected	4.2	Not Detected
Benzene	0.18	Not Detected	0.58	Not Detected
1,2-Dichloroethane	0.18	Not Detected	0.74	Not Detected
Heptane	0.18	Not Detected	0.74	Not Detected
Trichloroethene	0.18	Not Detected	0.98	Not Detected
1,2-Dichloropropane	0.18	Not Detected	0.84	Not Detected
1,4-Dioxane	0.18	Not Detected	0.66	Not Detected
Bromodichloromethane	0.18	Not Detected	1.2	Not Detected
cis-1,3-Dichloropropene	0.18	Not Detected	0.83	Not Detected
4-Methyl-2-pentanone	0.18	Not Detected	0.74	Not Detected
Toluene	0.18	0.68	0.68	2.6
trans-1,3-Dichloropropene	0.18	Not Detected	0.83	Not Detected
1,1,2-Trichloroethane	0.18	Not Detected	0.99	Not Detected
Tetrachloroethene	0.18	Not Detected	1.2	Not Detected
2-Hexanone	0.91	Not Detected	3.7	Not Detected



Client Sample ID: D1 (149217)

Lab ID#: 1405206-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v052213	Date of Collection:	4/30/14 5:35:00 PM
Dil. Factor:	1.82	Date of Analysis:	5/22/14 07:14 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.18	Not Detected	1.6	Not Detected
1,2-Dibromoethane (EDB)	0.18	Not Detected	1.4	Not Detected
Chlorobenzene	0.18	Not Detected	0.84	Not Detected
Ethyl Benzene	0.18	Not Detected	0.79	Not Detected
m,p-Xylene	0.18	0.20	0.79	0.87
o-Xylene	0.18	Not Detected	0.79	Not Detected
Styrene	0.18	Not Detected	0.78	Not Detected
Bromoform	0.18	Not Detected	1.9	Not Detected
Cumene	0.18	Not Detected	0.89	Not Detected
1,1,2,2-Tetrachloroethane	0.18	Not Detected	1.2	Not Detected
Propylbenzene	0.18	Not Detected	0.89	Not Detected
4-Ethyltoluene	0.18	Not Detected	0.89	Not Detected
1,3,5-Trimethylbenzene	0.18	Not Detected	0.89	Not Detected
1,2,4-Trimethylbenzene	0.18	Not Detected	0.89	Not Detected
1,3-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,4-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
alpha-Chlorotoluene	0.18	Not Detected	0.94	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,2,4-Trichlorobenzene	0.91	Not Detected	6.8	Not Detected
Hexachlorobutadiene	0.91	Not Detected	9.7	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	89	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	91	70-130



Air Toxics

Client Sample ID: U1 (149218)

Lab ID#: 1405206-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v052214	Date of Collection:	4/30/14 5:49:00 PM
Dil. Factor:	1.87	Date of Analysis:	5/22/14 07:50 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.19	0.47	0.92	2.3
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	0.20	1.0	1.1
Ethanol	0.94	0.95	1.8	1.8
Freon 113	0.19	Not Detected	1.4	Not Detected
1,1-Dichloroethene	0.19	Not Detected	0.74	Not Detected
Acetone	0.94	2.0	2.2	4.7
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	1.2	Not Detected
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	Not Detected	0.70	Not Detected
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: U1 (149218)

Lab ID#: 1405206-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v052214	Date of Collection:	4/30/14 5:49:00 PM
Dil. Factor:	1.87	Date of Analysis:	5/22/14 07:50 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

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	108	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1405206-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v052207	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	5/22/14 02:11 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

Client Sample ID: Lab Blank

Lab ID#: 1405206-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v052207	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 5/22/14 02:11 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

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	83	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	96	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1405206-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v052202	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 5/22/14 09:40 AM

Compound	%Recovery
Freon 12	89
Freon 114	96
Chloromethane	85
Vinyl Chloride	86
1,3-Butadiene	83
Bromomethane	92
Chloroethane	88
Freon 11	93
Ethanol	84
Freon 113	98
1,1-Dichloroethene	96
Acetone	82
2-Propanol	83
Carbon Disulfide	94
3-Chloropropene	91
Methylene Chloride	92
Methyl tert-butyl ether	92
trans-1,2-Dichloroethene	100
Hexane	84
1,1-Dichloroethane	86
2-Butanone (Methyl Ethyl Ketone)	92
cis-1,2-Dichloroethene	95
Tetrahydrofuran	84
Chloroform	95
1,1,1-Trichloroethane	94
Cyclohexane	92
Carbon Tetrachloride	77
2,2,4-Trimethylpentane	85
Benzene	94
1,2-Dichloroethane	90
Heptane	84
Trichloroethene	100
1,2-Dichloropropane	87
1,4-Dioxane	95
Bromodichloromethane	96
cis-1,3-Dichloropropene	94
4-Methyl-2-pentanone	90
Toluene	96
trans-1,3-Dichloropropene	96
1,1,2-Trichloroethane	98
Tetrachloroethene	104
2-Hexanone	87

Client Sample ID: CCV

Lab ID#: 1405206-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v052202	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 5/22/14 09:40 AM

Compound	%Recovery
Dibromochloromethane	111
1,2-Dibromoethane (EDB)	102
Chlorobenzene	98
Ethyl Benzene	101
m,p-Xylene	102
o-Xylene	103
Styrene	103
Bromoform	116
Cumene	103
1,1,2,2-Tetrachloroethane	96
Propylbenzene	101
4-Ethyltoluene	107
1,3,5-Trimethylbenzene	105
1,2,4-Trimethylbenzene	116
1,3-Dichlorobenzene	113
1,4-Dichlorobenzene	109
alpha-Chlorotoluene	96
1,2-Dichlorobenzene	107
1,2,4-Trichlorobenzene	129
Hexachlorobutadiene	116

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	110	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1405206-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v052203	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 5/22/14 10:36 AM

Compound	%Recovery	Method Limits
Freon 12	87	70-130
Freon 114	96	70-130
Chloromethane	82	70-130
Vinyl Chloride	84	70-130
1,3-Butadiene	80	70-130
Bromomethane	95	70-130
Chloroethane	89	70-130
Freon 11	93	70-130
Ethanol	87	70-130
Freon 113	114	70-130
1,1-Dichloroethene	108	70-130
Acetone	87	70-130
2-Propanol	84	70-130
Carbon Disulfide	85	70-130
3-Chloropropene	85	70-130
Methylene Chloride	100	70-130
Methyl tert-butyl ether	89	70-130
trans-1,2-Dichloroethene	82	70-130
Hexane	82	70-130
1,1-Dichloroethane	86	70-130
2-Butanone (Methyl Ethyl Ketone)	93	70-130
cis-1,2-Dichloroethene	108	70-130
Tetrahydrofuran	82	70-130
Chloroform	94	70-130
1,1,1-Trichloroethane	91	70-130
Cyclohexane	92	70-130
Carbon Tetrachloride	73	70-130
2,2,4-Trimethylpentane	85	70-130
Benzene	93	70-130
1,2-Dichloroethane	88	70-130
Heptane	86	70-130
Trichloroethene	100	70-130
1,2-Dichloropropane	86	70-130
1,4-Dioxane	96	70-130
Bromodichloromethane	98	70-130
cis-1,3-Dichloropropene	97	70-130
4-Methyl-2-pentanone	92	70-130
Toluene	94	70-130
trans-1,3-Dichloropropene	86	70-130
1,1,2-Trichloroethane	93	70-130
Tetrachloroethene	106	70-130
2-Hexanone	90	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1405206-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v052203	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 5/22/14 10:36 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	113	70-130
1,2-Dibromoethane (EDB)	101	70-130
Chlorobenzene	96	70-130
Ethyl Benzene	100	70-130
m,p-Xylene	96	70-130
o-Xylene	99	70-130
Styrene	101	70-130
Bromoform	117	70-130
Cumene	100	70-130
1,1,2,2-Tetrachloroethane	94	70-130
Propylbenzene	99	70-130
4-Ethyltoluene	103	70-130
1,3,5-Trimethylbenzene	95	70-130
1,2,4-Trimethylbenzene	103	70-130
1,3-Dichlorobenzene	105	70-130
1,4-Dichlorobenzene	101	70-130
alpha-Chlorotoluene	103	70-130
1,2-Dichlorobenzene	100	70-130
1,2,4-Trichlorobenzene	116	70-130
Hexachlorobutadiene	105	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	88	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	105	70-130

Client Sample ID: LCS D

Lab ID#: 1405206-05AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v052204	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 5/22/14 11:19 AM

Compound	%Recovery	Method Limits
Freon 12	91	70-130
Freon 114	103	70-130
Chloromethane	85	70-130
Vinyl Chloride	88	70-130
1,3-Butadiene	84	70-130
Bromomethane	100	70-130
Chloroethane	91	70-130
Freon 11	96	70-130
Ethanol	89	70-130
Freon 113	118	70-130
1,1-Dichloroethene	108	70-130
Acetone	89	70-130
2-Propanol	87	70-130
Carbon Disulfide	88	70-130
3-Chloropropene	86	70-130
Methylene Chloride	103	70-130
Methyl tert-butyl ether	92	70-130
trans-1,2-Dichloroethene	88	70-130
Hexane	85	70-130
1,1-Dichloroethane	91	70-130
2-Butanone (Methyl Ethyl Ketone)	99	70-130
cis-1,2-Dichloroethene	107	70-130
Tetrahydrofuran	86	70-130
Chloroform	97	70-130
1,1,1-Trichloroethane	93	70-130
Cyclohexane	98	70-130
Carbon Tetrachloride	75	70-130
2,2,4-Trimethylpentane	87	70-130
Benzene	96	70-130
1,2-Dichloroethane	94	70-130
Heptane	90	70-130
Trichloroethene	105	70-130
1,2-Dichloropropane	90	70-130
1,4-Dioxane	102	70-130
Bromodichloromethane	100	70-130
cis-1,3-Dichloropropene	101	70-130
4-Methyl-2-pentanone	95	70-130
Toluene	97	70-130
trans-1,3-Dichloropropene	90	70-130
1,1,2-Trichloroethane	95	70-130
Tetrachloroethene	111	70-130
2-Hexanone	92	70-130

Client Sample ID: LCSD

Lab ID#: 1405206-05AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v052204	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 5/22/14 11:19 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	113	70-130
1,2-Dibromoethane (EDB)	102	70-130
Chlorobenzene	98	70-130
Ethyl Benzene	103	70-130
m,p-Xylene	103	70-130
o-Xylene	104	70-130
Styrene	104	70-130
Bromoform	120	70-130
Cumene	106	70-130
1,1,2,2-Tetrachloroethane	94	70-130
Propylbenzene	104	70-130
4-Ethyltoluene	111	70-130
1,3,5-Trimethylbenzene	104	70-130
1,2,4-Trimethylbenzene	110	70-130
1,3-Dichlorobenzene	112	70-130
1,4-Dichlorobenzene	108	70-130
alpha-Chlorotoluene	107	70-130
1,2-Dichlorobenzene	108	70-130
1,2,4-Trichlorobenzene	123	70-130
Hexachlorobutadiene	118	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	112	70-130