



Air Toxics

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

Page 1 of 1

Project Manager Michael Ferris

Collected by: (Print and Sign) Teresa Thoury

Company MO DNR

Address PO Box 176 City Jefferson State MO Zip 65102

Phone (573) 526-3918 Fax _____

Project Info:

P.O. # 355400007

Project # _____

Project Name Budgeton Landfill

Turn Around Time:

Normal

Push

Lab Use Only
Pressurized by: _____

Date: _____

Pressurization Gas: _____

specify N₂ He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analytes Requested	Canister Pressure/Vacuum		
						Initial	Final	Receipt Final (psi)
O1A	D1 (153580)	33922	9/10/15	08:59-14:53	TO-15	-28	-6	
O2A	D2 (153581)	94302	9/10/15	09:15-14:40	TO-15	-29	-6	
O3A	U1 (153583)	34209	9/10/15	01:57-15:07	TO-15	-30	-6.5	
	EastPoint vacuum	4222	9/10/15		Do not analyze	0		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time	Notes:
<u>[Signature]</u>	09/17/15 11:05	<u>[Signature]</u>	9/17/15 11:05	Shipped via UPS
<u>[Signature]</u>	9/17/15 0830	<u>[Signature]</u>	9/23/15 1155	Tracking # 1Z0127880343009658

Lab Use Only

Shipper Name UPS Air Bill # _____ Temp (°C) N/A Condition Good Custody Seals Intact? Yes No None Work Order # **1509401**

10/5/2015

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

Jefferson City MO 65109

Project Name: Bridgeton Landfill

Project #:

Workorder #: 1509401

Dear Mr. Dennis Schroeder

The following report includes the data for the above referenced project for sample(s) received on 9/23/2015 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 Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free 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 #: 1509401

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 Landfill
DATE RECEIVED:	09/23/2015	CONTACT:	Brian Whittaker
DATE COMPLETED:	10/05/2015		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	D1 (153580)	Modified TO-15	6.9 "Hg	5 psi
02A	D2 (153581)	Modified TO-15	5.9 "Hg	5 psi
03A	U1 (153583)	Modified TO-15	5.9 "Hg	4.8 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: 10/05/15

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
 TX NELAP - T104704343-14-7, UT NELAP CA009332014-5, VA NELAP - 460197, WA NELAP - C935
 Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
 Accreditation number: CA300005, Effective date: 10/18/2014, Expiration date: 10/17/2015.

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# 1509401

Three 6 Liter Summa Canister (100% Certified) samples were received on September 23, 2015. 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 (153580)

Lab ID#: 1509401-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.42	0.86	2.1
Freon 11	0.17	0.29	0.98	1.6
Ethanol	0.87	19	1.6	35
Acetone	0.87	6.4	2.1	15
2-Propanol	0.87	0.94	2.1	2.3
Toluene	0.17	0.59	0.66	2.2

Client Sample ID: D2 (153581)

Lab ID#: 1509401-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.43	0.82	2.1
Freon 11	0.17	0.32	0.94	1.8
Ethanol	0.84	4.4	1.6	8.4
Acetone	0.84	3.2	2.0	7.6
Methylene Chloride	0.33	0.46	1.2	1.6
Benzene	0.17	0.22	0.53	0.69
Toluene	0.17	0.19	0.63	0.71

Client Sample ID: U1 (153583)

Lab ID#: 1509401-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.41	0.82	2.0
Freon 11	0.16	0.19	0.93	1.0
Ethanol	0.82	2.8	1.6	5.4
Acetone	0.82	5.0	2.0	12



Air Toxics

Client Sample ID: D1 (153580)

Lab ID#: 1509401-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e092812	Date of Collection:	9/10/15 2:53:00 PM
Dil. Factor:	1.74	Date of Analysis:	9/28/15 01:55 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.42	0.86	2.1
Freon 114	0.17	Not Detected	1.2	Not Detected
Chloromethane	0.87	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	0.87	Not Detected	3.4	Not Detected
Chloroethane	0.87	Not Detected	2.3	Not Detected
Freon 11	0.17	0.29	0.98	1.6
Ethanol	0.87	19	1.6	35
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.69	Not Detected
Acetone	0.87	6.4	2.1	15
2-Propanol	0.87	0.94	2.1	2.3
Carbon Disulfide	0.87	Not Detected	2.7	Not Detected
3-Chloropropene	0.87	Not Detected	2.7	Not Detected
Methylene Chloride	0.35	Not Detected	1.2	Not Detected
Methyl tert-butyl ether	0.17	Not Detected	0.63	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.69	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)	0.87	Not Detected	2.6	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.69	Not Detected
Tetrahydrofuran	0.87	Not Detected	2.6	Not Detected
Chloroform	0.17	Not Detected	0.85	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.95	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	0.87	Not Detected	4.1	Not Detected
Benzene	0.17	Not Detected	0.56	Not Detected
1,2-Dichloroethane	0.17	Not Detected	0.70	Not Detected
Heptane	0.17	Not Detected	0.71	Not Detected
Trichloroethene	0.17	Not Detected	0.94	Not Detected
1,2-Dichloropropane	0.17	Not Detected	0.80	Not Detected
1,4-Dioxane	0.17	Not Detected	0.63	Not Detected
Bromodichloromethane	0.17	Not Detected	1.2	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.79	Not Detected
4-Methyl-2-pentanone	0.17	Not Detected	0.71	Not Detected
Toluene	0.17	0.59	0.66	2.2
trans-1,3-Dichloropropene	0.17	Not Detected	0.79	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.95	Not Detected
Tetrachloroethene	0.17	Not Detected	1.2	Not Detected
2-Hexanone	0.87	Not Detected	3.6	Not Detected



Air Toxics

Client Sample ID: D1 (153580)

Lab ID#: 1509401-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e092812	Date of Collection:	9/10/15 2:53:00 PM
Dil. Factor:	1.74	Date of Analysis:	9/28/15 01:55 PM

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	Not Detected	0.76	Not Detected
m,p-Xylene	0.17	Not Detected	0.76	Not Detected
o-Xylene	0.17	Not Detected	0.76	Not Detected
Styrene	0.17	Not Detected	0.74	Not Detected
Bromoform	0.17	Not Detected	1.8	Not Detected
Cumene	0.17	Not Detected	0.86	Not Detected
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.2	Not Detected
Propylbenzene	0.17	Not Detected	0.86	Not Detected
4-Ethyltoluene	0.17	Not Detected	0.86	Not Detected
1,3,5-Trimethylbenzene	0.17	Not Detected	0.86	Not Detected
1,2,4-Trimethylbenzene	0.17	Not Detected	0.86	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	0.87	Not Detected	6.4	Not Detected
Hexachlorobutadiene	0.87	Not Detected	9.3	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	95	70-130



Air Toxics

Client Sample ID: D2 (153581)

Lab ID#: 1509401-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e092813	Date of Collection:	9/10/15 2:40:00 PM
Dil. Factor:	1.67	Date of Analysis:	9/28/15 02:36 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.43	0.82	2.1
Freon 114	0.17	Not Detected	1.2	Not Detected
Chloromethane	0.84	Not Detected	1.7	Not Detected
Vinyl Chloride	0.17	Not Detected	0.43	Not Detected
1,3-Butadiene	0.17	Not Detected	0.37	Not Detected
Bromomethane	0.84	Not Detected	3.2	Not Detected
Chloroethane	0.84	Not Detected	2.2	Not Detected
Freon 11	0.17	0.32	0.94	1.8
Ethanol	0.84	4.4	1.6	8.4
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.66	Not Detected
Acetone	0.84	3.2	2.0	7.6
2-Propanol	0.84	Not Detected	2.0	Not Detected
Carbon Disulfide	0.84	Not Detected	2.6	Not Detected
3-Chloropropene	0.84	Not Detected	2.6	Not Detected
Methylene Chloride	0.33	0.46	1.2	1.6
Methyl tert-butyl ether	0.17	Not Detected	0.60	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.66	Not Detected
Hexane	0.17	Not Detected	0.59	Not Detected
1,1-Dichloroethane	0.17	Not Detected	0.68	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.84	Not Detected	2.5	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.66	Not Detected
Tetrahydrofuran	0.84	Not Detected	2.5	Not Detected
Chloroform	0.17	Not Detected	0.82	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.91	Not Detected
Cyclohexane	0.17	Not Detected	0.57	Not Detected
Carbon Tetrachloride	0.17	Not Detected	1.0	Not Detected
2,2,4-Trimethylpentane	0.84	Not Detected	3.9	Not Detected
Benzene	0.17	0.22	0.53	0.69
1,2-Dichloroethane	0.17	Not Detected	0.68	Not Detected
Heptane	0.17	Not Detected	0.68	Not Detected
Trichloroethene	0.17	Not Detected	0.90	Not Detected
1,2-Dichloropropane	0.17	Not Detected	0.77	Not Detected
1,4-Dioxane	0.17	Not Detected	0.60	Not Detected
Bromodichloromethane	0.17	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.76	Not Detected
4-Methyl-2-pentanone	0.17	Not Detected	0.68	Not Detected
Toluene	0.17	0.19	0.63	0.71
trans-1,3-Dichloropropene	0.17	Not Detected	0.76	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.91	Not Detected
Tetrachloroethene	0.17	Not Detected	1.1	Not Detected
2-Hexanone	0.84	Not Detected	3.4	Not Detected



Client Sample ID: D2 (153581)

Lab ID#: 1509401-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e092813	Date of Collection:	9/10/15 2:40:00 PM
Dil. Factor:	1.67	Date of Analysis:	9/28/15 02:36 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.17	Not Detected	1.4	Not Detected
1,2-Dibromoethane (EDB)	0.17	Not Detected	1.3	Not Detected
Chlorobenzene	0.17	Not Detected	0.77	Not Detected
Ethyl Benzene	0.17	Not Detected	0.72	Not Detected
m,p-Xylene	0.17	Not Detected	0.72	Not Detected
o-Xylene	0.17	Not Detected	0.72	Not Detected
Styrene	0.17	Not Detected	0.71	Not Detected
Bromoform	0.17	Not Detected	1.7	Not Detected
Cumene	0.17	Not Detected	0.82	Not Detected
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.1	Not Detected
Propylbenzene	0.17	Not Detected	0.82	Not Detected
4-Ethyltoluene	0.17	Not Detected	0.82	Not Detected
1,3,5-Trimethylbenzene	0.17	Not Detected	0.82	Not Detected
1,2,4-Trimethylbenzene	0.17	Not Detected	0.82	Not Detected
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
alpha-Chlorotoluene	0.17	Not Detected	0.86	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.84	Not Detected	6.2	Not Detected
Hexachlorobutadiene	0.84	Not Detected	8.9	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	96	70-130



Air Toxics

Client Sample ID: U1 (153583)

Lab ID#: 1509401-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e092814	Date of Collection:	9/10/15 3:07:00 PM
Dil. Factor:	1.65	Date of Analysis:	9/28/15 03:20 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.41	0.82	2.0
Freon 114	0.16	Not Detected	1.2	Not Detected
Chloromethane	0.82	Not Detected	1.7	Not Detected
Vinyl Chloride	0.16	Not Detected	0.42	Not Detected
1,3-Butadiene	0.16	Not Detected	0.36	Not Detected
Bromomethane	0.82	Not Detected	3.2	Not Detected
Chloroethane	0.82	Not Detected	2.2	Not Detected
Freon 11	0.16	0.19	0.93	1.0
Ethanol	0.82	2.8	1.6	5.4
Freon 113	0.16	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Acetone	0.82	5.0	2.0	12
2-Propanol	0.82	Not Detected	2.0	Not Detected
Carbon Disulfide	0.82	Not Detected	2.6	Not Detected
3-Chloropropene	0.82	Not Detected	2.6	Not Detected
Methylene Chloride	0.33	Not Detected	1.1	Not Detected
Methyl tert-butyl ether	0.16	Not Detected	0.59	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Hexane	0.16	Not Detected	0.58	Not Detected
1,1-Dichloroethane	0.16	Not Detected	0.67	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.82	Not Detected	2.4	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Tetrahydrofuran	0.82	Not Detected	2.4	Not Detected
Chloroform	0.16	Not Detected	0.80	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.90	Not Detected
Cyclohexane	0.16	Not Detected	0.57	Not Detected
Carbon Tetrachloride	0.16	Not Detected	1.0	Not Detected
2,2,4-Trimethylpentane	0.82	Not Detected	3.8	Not Detected
Benzene	0.16	Not Detected	0.53	Not Detected
1,2-Dichloroethane	0.16	Not Detected	0.67	Not Detected
Heptane	0.16	Not Detected	0.68	Not Detected
Trichloroethene	0.16	Not Detected	0.89	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.76	Not Detected
1,4-Dioxane	0.16	Not Detected	0.59	Not Detected
Bromodichloromethane	0.16	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.75	Not Detected
4-Methyl-2-pentanone	0.16	Not Detected	0.68	Not Detected
Toluene	0.16	Not Detected	0.62	Not Detected
trans-1,3-Dichloropropene	0.16	Not Detected	0.75	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.90	Not Detected
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
2-Hexanone	0.82	Not Detected	3.4	Not Detected



Client Sample ID: U1 (153583)

Lab ID#: 1509401-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e092814	Date of Collection:	9/10/15 3:07:00 PM
Dil. Factor:	1.65	Date of Analysis:	9/28/15 03:20 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.16	Not Detected	1.4	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.3	Not Detected
Chlorobenzene	0.16	Not Detected	0.76	Not Detected
Ethyl Benzene	0.16	Not Detected	0.72	Not Detected
m,p-Xylene	0.16	Not Detected	0.72	Not Detected
o-Xylene	0.16	Not Detected	0.72	Not Detected
Styrene	0.16	Not Detected	0.70	Not Detected
Bromoform	0.16	Not Detected	1.7	Not Detected
Cumene	0.16	Not Detected	0.81	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
Propylbenzene	0.16	Not Detected	0.81	Not Detected
4-Ethyltoluene	0.16	Not Detected	0.81	Not Detected
1,3,5-Trimethylbenzene	0.16	Not Detected	0.81	Not Detected
1,2,4-Trimethylbenzene	0.16	Not Detected	0.81	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
alpha-Chlorotoluene	0.16	Not Detected	0.85	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,2,4-Trichlorobenzene	0.82	Not Detected	6.1	Not Detected
Hexachlorobutadiene	0.82	Not Detected	8.8	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	96	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1509401-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e092808	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	9/28/15 10:49 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#: 1509401-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e092808	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	9/28/15 10:49 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	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	102	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	94	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1509401-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e092803	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/28/15 07:16 AM

Compound	%Recovery
Freon 12	90
Freon 114	90
Chloromethane	87
Vinyl Chloride	83
1,3-Butadiene	85
Bromomethane	88
Chloroethane	92
Freon 11	94
Ethanol	83
Freon 113	87
1,1-Dichloroethene	92
Acetone	85
2-Propanol	90
Carbon Disulfide	88
3-Chloropropene	84
Methylene Chloride	85
Methyl tert-butyl ether	95
trans-1,2-Dichloroethene	82
Hexane	94
1,1-Dichloroethane	93
2-Butanone (Methyl Ethyl Ketone)	88
cis-1,2-Dichloroethene	94
Tetrahydrofuran	88
Chloroform	93
1,1,1-Trichloroethane	99
Cyclohexane	94
Carbon Tetrachloride	95
2,2,4-Trimethylpentane	97
Benzene	84
1,2-Dichloroethane	89
Heptane	92
Trichloroethene	80
1,2-Dichloropropane	79
1,4-Dioxane	86
Bromodichloromethane	82
cis-1,3-Dichloropropene	83
4-Methyl-2-pentanone	83
Toluene	85
trans-1,3-Dichloropropene	87
1,1,2-Trichloroethane	85
Tetrachloroethene	86
2-Hexanone	89



Air Toxics

Client Sample ID: CCV

Lab ID#: 1509401-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e092803	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/28/15 07:16 AM

Compound	%Recovery
Dibromochloromethane	90
1,2-Dibromoethane (EDB)	91
Chlorobenzene	90
Ethyl Benzene	94
m,p-Xylene	94
o-Xylene	93
Styrene	101
Bromoform	94
Cumene	99
1,1,2,2-Tetrachloroethane	83
Propylbenzene	94
4-Ethyltoluene	97
1,3,5-Trimethylbenzene	98
1,2,4-Trimethylbenzene	89
1,3-Dichlorobenzene	94
1,4-Dichlorobenzene	93
alpha-Chlorotoluene	90
1,2-Dichlorobenzene	94
1,2,4-Trichlorobenzene	79
Hexachlorobutadiene	82

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1509401-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e092804	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	9/28/15 07:59 AM

Compound	%Recovery	Method Limits
Freon 12	118	70-130
Freon 114	120	70-130
Chloromethane	116	70-130
Vinyl Chloride	110	70-130
1,3-Butadiene	105	70-130
Bromomethane	112	70-130
Chloroethane	120	70-130
Freon 11	119	70-130
Ethanol	108	70-130
Freon 113	128	70-130
1,1-Dichloroethene	115	70-130
Acetone	97	70-130
2-Propanol	118	70-130
Carbon Disulfide	89	70-130
3-Chloropropene	102	70-130
Methylene Chloride	103	70-130
Methyl tert-butyl ether	113	70-130
trans-1,2-Dichloroethene	95	70-130
Hexane	122	70-130
1,1-Dichloroethane	111	70-130
2-Butanone (Methyl Ethyl Ketone)	112	70-130
cis-1,2-Dichloroethene	128	70-130
Tetrahydrofuran	110	70-130
Chloroform	110	70-130
1,1,1-Trichloroethane	121	70-130
Cyclohexane	123	70-130
Carbon Tetrachloride	118	70-130
2,2,4-Trimethylpentane	108	70-130
Benzene	108	70-130
1,2-Dichloroethane	110	70-130
Heptane	122	70-130
Trichloroethene	108	70-130
1,2-Dichloropropane	104	70-130
1,4-Dioxane	112	70-130
Bromodichloromethane	110	70-130
cis-1,3-Dichloropropene	98	70-130
4-Methyl-2-pentanone	114	70-130
Toluene	115	70-130
trans-1,3-Dichloropropene	105	70-130
1,1,2-Trichloroethane	99	70-130
Tetrachloroethene	108	70-130
2-Hexanone	117	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1509401-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e092804	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/28/15 07:59 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	110	70-130
1,2-Dibromoethane (EDB)	109	70-130
Chlorobenzene	108	70-130
Ethyl Benzene	115	70-130
m,p-Xylene	120	70-130
o-Xylene	113	70-130
Styrene	123	70-130
Bromoform	114	70-130
Cumene	118	70-130
1,1,2,2-Tetrachloroethane	99	70-130
Propylbenzene	118	70-130
4-Ethyltoluene	118	70-130
1,3,5-Trimethylbenzene	124	70-130
1,2,4-Trimethylbenzene	112	70-130
1,3-Dichlorobenzene	114	70-130
1,4-Dichlorobenzene	118	70-130
alpha-Chlorotoluene	111	70-130
1,2-Dichlorobenzene	117	70-130
1,2,4-Trichlorobenzene	100	70-130
Hexachlorobutadiene	102	70-130

Container Type: NA - Not Applicable

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



Air Toxics

Client Sample ID: LCS D

Lab ID#: 1509401-06AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e092805	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	9/28/15 08:41 AM

Compound	%Recovery	Method Limits
Freon 12	109	70-130
Freon 114	111	70-130
Chloromethane	106	70-130
Vinyl Chloride	104	70-130
1,3-Butadiene	100	70-130
Bromomethane	104	70-130
Chloroethane	113	70-130
Freon 11	112	70-130
Ethanol	109	70-130
Freon 113	102	70-130
1,1-Dichloroethene	104	70-130
Acetone	94	70-130
2-Propanol	110	70-130
Carbon Disulfide	85	70-130
3-Chloropropene	99	70-130
Methylene Chloride	100	70-130
Methyl tert-butyl ether	106	70-130
trans-1,2-Dichloroethene	93	70-130
Hexane	112	70-130
1,1-Dichloroethane	107	70-130
2-Butanone (Methyl Ethyl Ketone)	107	70-130
cis-1,2-Dichloroethene	119	70-130
Tetrahydrofuran	106	70-130
Chloroform	108	70-130
1,1,1-Trichloroethane	115	70-130
Cyclohexane	113	70-130
Carbon Tetrachloride	113	70-130
2,2,4-Trimethylpentane	105	70-130
Benzene	104	70-130
1,2-Dichloroethane	109	70-130
Heptane	116	70-130
Trichloroethene	108	70-130
1,2-Dichloropropane	101	70-130
1,4-Dioxane	105	70-130
Bromodichloromethane	105	70-130
cis-1,3-Dichloropropene	97	70-130
4-Methyl-2-pentanone	110	70-130
Toluene	110	70-130
trans-1,3-Dichloropropene	109	70-130
1,1,2-Trichloroethane	96	70-130
Tetrachloroethene	107	70-130
2-Hexanone	119	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1509401-06AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e092805	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	9/28/15 08:41 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	111	70-130
1,2-Dibromoethane (EDB)	112	70-130
Chlorobenzene	106	70-130
Ethyl Benzene	118	70-130
m,p-Xylene	119	70-130
o-Xylene	115	70-130
Styrene	128	70-130
Bromoform	115	70-130
Cumene	119	70-130
1,1,2,2-Tetrachloroethane	101	70-130
Propylbenzene	121	70-130
4-Ethyltoluene	119	70-130
1,3,5-Trimethylbenzene	121	70-130
1,2,4-Trimethylbenzene	114	70-130
1,3-Dichlorobenzene	115	70-130
1,4-Dichlorobenzene	118	70-130
alpha-Chlorotoluene	114	70-130
1,2-Dichlorobenzene	118	70-130
1,2,4-Trichlorobenzene	114	70-130
Hexachlorobutadiene	105	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	103	70-130