

1/19/2016

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

Jefferson City MO 65109

Project Name: Bridgeton Landfill

Project #:

Workorder #: 1601098

Dear Mr. Dennis Schroeder

The following report includes the data for the above referenced project for sample(s) received on 1/11/2016 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 #: 1601098

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. #	3ESP160487
FAX:	573-526-3350	PROJECT #	Bridgeton Landfill
DATE RECEIVED:	01/11/2016	CONTACT:	Brian Whittaker
DATE COMPLETED:	01/19/2016		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	D1 (154691)	Modified TO-15	3.9 "Hg	4.8 psi
02A	D2 (154690)	Modified TO-15	4.3 "Hg	4.8 psi
03A	U1 (154689)	Modified TO-15	3.7 "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: 01/19/16

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# 1601098

Three 6 Liter Summa Canister (100% Certified) samples were received on January 11, 2016. 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 (154691)

Lab ID#: 1601098-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.50	0.75	2.5
Freon 11	0.15	0.23	0.85	1.3
Ethanol	0.76	1.6	1.4	3.1
Acetone	0.76	1.4	1.8	3.3
Methylene Chloride	0.30	0.35	1.0	1.2
Hexane	0.15	0.49	0.54	1.7
Benzene	0.15	0.22	0.48	0.71
Heptane	0.15	0.31	0.62	1.3
Toluene	0.15	0.29	0.57	1.1

Client Sample ID: D2 (154690)

Lab ID#: 1601098-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.45	0.77	2.2
Freon 11	0.16	0.22	0.87	1.2
Ethanol	0.78	1.6	1.5	3.0
Acetone	0.78	1.6	1.8	3.9
Benzene	0.16	0.20	0.50	0.65
Toluene	0.16	0.22	0.58	0.81

Client Sample ID: U1 (154689)

Lab ID#: 1601098-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.48	0.75	2.4
Freon 11	0.15	0.23	0.85	1.3
Ethanol	0.76	1.9	1.4	3.6
Acetone	0.76	4.2	1.8	10
Hexane	0.15	0.21	0.54	0.73
Benzene	0.15	0.20	0.48	0.65
Heptane	0.15	0.18	0.62	0.75
Toluene	0.15	0.36	0.57	1.4

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

Client Sample ID: U1 (154689)

Lab ID#: 1601098-03A



Air Toxics

Client Sample ID: D1 (154691)

Lab ID#: 1601098-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20011308	Date of Collection:	1/5/16 1:47:00 PM
Dil. Factor:	1.52	Date of Analysis:	1/13/16 02:39 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.50	0.75	2.5
Freon 114	0.15	Not Detected	1.1	Not Detected
Chloromethane	0.76	Not Detected	1.6	Not Detected
Vinyl Chloride	0.15	Not Detected	0.39	Not Detected
1,3-Butadiene	0.15	Not Detected	0.34	Not Detected
Bromomethane	0.76	Not Detected	3.0	Not Detected
Chloroethane	0.76	Not Detected	2.0	Not Detected
Freon 11	0.15	0.23	0.85	1.3
Ethanol	0.76	1.6	1.4	3.1
Freon 113	0.15	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.15	Not Detected	0.60	Not Detected
Acetone	0.76	1.4	1.8	3.3
2-Propanol	0.76	Not Detected	1.9	Not Detected
Carbon Disulfide	0.76	Not Detected	2.4	Not Detected
3-Chloropropene	0.76	Not Detected	2.4	Not Detected
Methylene Chloride	0.30	0.35	1.0	1.2
Methyl tert-butyl ether	0.15	Not Detected	0.55	Not Detected
trans-1,2-Dichloroethene	0.15	Not Detected	0.60	Not Detected
Hexane	0.15	0.49	0.54	1.7
1,1-Dichloroethane	0.15	Not Detected	0.62	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.76	Not Detected	2.2	Not Detected
cis-1,2-Dichloroethene	0.15	Not Detected	0.60	Not Detected
Tetrahydrofuran	0.76	Not Detected	2.2	Not Detected
Chloroform	0.15	Not Detected	0.74	Not Detected
1,1,1-Trichloroethane	0.15	Not Detected	0.83	Not Detected
Cyclohexane	0.15	Not Detected	0.52	Not Detected
Carbon Tetrachloride	0.15	Not Detected	0.96	Not Detected
2,2,4-Trimethylpentane	0.76	Not Detected	3.6	Not Detected
Benzene	0.15	0.22	0.48	0.71
1,2-Dichloroethane	0.15	Not Detected	0.62	Not Detected
Heptane	0.15	0.31	0.62	1.3
Trichloroethene	0.15	Not Detected	0.82	Not Detected
1,2-Dichloropropane	0.15	Not Detected	0.70	Not Detected
1,4-Dioxane	0.15	Not Detected	0.55	Not Detected
Bromodichloromethane	0.15	Not Detected	1.0	Not Detected
cis-1,3-Dichloropropene	0.15	Not Detected	0.69	Not Detected
4-Methyl-2-pentanone	0.15	Not Detected	0.62	Not Detected
Toluene	0.15	0.29	0.57	1.1
trans-1,3-Dichloropropene	0.15	Not Detected	0.69	Not Detected
1,1,2-Trichloroethane	0.15	Not Detected	0.83	Not Detected
Tetrachloroethene	0.15	Not Detected	1.0	Not Detected
2-Hexanone	0.76	Not Detected	3.1	Not Detected



Air Toxics

Client Sample ID: D1 (154691)

Lab ID#: 1601098-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20011308	Date of Collection:	1/5/16 1:47:00 PM
Dil. Factor:	1.52	Date of Analysis:	1/13/16 02:39 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.15	Not Detected	1.3	Not Detected
1,2-Dibromoethane (EDB)	0.15	Not Detected	1.2	Not Detected
Chlorobenzene	0.15	Not Detected	0.70	Not Detected
Ethyl Benzene	0.15	Not Detected	0.66	Not Detected
m,p-Xylene	0.15	Not Detected	0.66	Not Detected
o-Xylene	0.15	Not Detected	0.66	Not Detected
Styrene	0.15	Not Detected	0.65	Not Detected
Bromoform	0.15	Not Detected	1.6	Not Detected
Cumene	0.15	Not Detected	0.75	Not Detected
1,1,2,2-Tetrachloroethane	0.15	Not Detected	1.0	Not Detected
Propylbenzene	0.15	Not Detected	0.75	Not Detected
4-Ethyltoluene	0.15	Not Detected	0.75	Not Detected
1,3,5-Trimethylbenzene	0.15	Not Detected	0.75	Not Detected
1,2,4-Trimethylbenzene	0.15	Not Detected	0.75	Not Detected
1,3-Dichlorobenzene	0.15	Not Detected	0.91	Not Detected
1,4-Dichlorobenzene	0.15	Not Detected	0.91	Not Detected
alpha-Chlorotoluene	0.15	Not Detected	0.79	Not Detected
1,2-Dichlorobenzene	0.15	Not Detected	0.91	Not Detected
1,2,4-Trichlorobenzene	0.76	Not Detected	5.6	Not Detected
Hexachlorobutadiene	0.76	Not Detected	8.1	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	92	70-130



Air Toxics

Client Sample ID: D2 (154690)

Lab ID#: 1601098-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20011309	Date of Collection:	1/5/16 1:11:00 PM
Dil. Factor:	1.55	Date of Analysis:	1/13/16 03:17 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.45	0.77	2.2
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.78	Not Detected	1.6	Not Detected
Vinyl Chloride	0.16	Not Detected	0.40	Not Detected
1,3-Butadiene	0.16	Not Detected	0.34	Not Detected
Bromomethane	0.78	Not Detected	3.0	Not Detected
Chloroethane	0.78	Not Detected	2.0	Not Detected
Freon 11	0.16	0.22	0.87	1.2
Ethanol	0.78	1.6	1.5	3.0
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.61	Not Detected
Acetone	0.78	1.6	1.8	3.9
2-Propanol	0.78	Not Detected	1.9	Not Detected
Carbon Disulfide	0.78	Not Detected	2.4	Not Detected
3-Chloropropene	0.78	Not Detected	2.4	Not Detected
Methylene Chloride	0.31	Not Detected	1.1	Not Detected
Methyl tert-butyl ether	0.16	Not Detected	0.56	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.61	Not Detected
Hexane	0.16	Not Detected	0.55	Not Detected
1,1-Dichloroethane	0.16	Not Detected	0.63	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.78	Not Detected	2.3	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.61	Not Detected
Tetrahydrofuran	0.78	Not Detected	2.3	Not Detected
Chloroform	0.16	Not Detected	0.76	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.84	Not Detected
Cyclohexane	0.16	Not Detected	0.53	Not Detected
Carbon Tetrachloride	0.16	Not Detected	0.98	Not Detected
2,2,4-Trimethylpentane	0.78	Not Detected	3.6	Not Detected
Benzene	0.16	0.20	0.50	0.65
1,2-Dichloroethane	0.16	Not Detected	0.63	Not Detected
Heptane	0.16	Not Detected	0.64	Not Detected
Trichloroethene	0.16	Not Detected	0.83	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.72	Not Detected
1,4-Dioxane	0.16	Not Detected	0.56	Not Detected
Bromodichloromethane	0.16	Not Detected	1.0	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.70	Not Detected
4-Methyl-2-pentanone	0.16	Not Detected	0.63	Not Detected
Toluene	0.16	0.22	0.58	0.81
trans-1,3-Dichloropropene	0.16	Not Detected	0.70	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.84	Not Detected
Tetrachloroethene	0.16	Not Detected	1.0	Not Detected
2-Hexanone	0.78	Not Detected	3.2	Not Detected

Client Sample ID: D2 (154690)

Lab ID#: 1601098-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20011309	Date of Collection:	1/5/16 1:11:00 PM
Dil. Factor:	1.55	Date of Analysis:	1/13/16 03:17 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.16	Not Detected	1.3	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.71	Not Detected
Ethyl Benzene	0.16	Not Detected	0.67	Not Detected
m,p-Xylene	0.16	Not Detected	0.67	Not Detected
o-Xylene	0.16	Not Detected	0.67	Not Detected
Styrene	0.16	Not Detected	0.66	Not Detected
Bromoform	0.16	Not Detected	1.6	Not Detected
Cumene	0.16	Not Detected	0.76	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
Propylbenzene	0.16	Not Detected	0.76	Not Detected
4-Ethyltoluene	0.16	Not Detected	0.76	Not Detected
1,3,5-Trimethylbenzene	0.16	Not Detected	0.76	Not Detected
1,2,4-Trimethylbenzene	0.16	Not Detected	0.76	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.93	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.93	Not Detected
alpha-Chlorotoluene	0.16	Not Detected	0.80	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.93	Not Detected
1,2,4-Trichlorobenzene	0.78	Not Detected	5.8	Not Detected
Hexachlorobutadiene	0.78	Not Detected	8.3	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	93	70-130

Client Sample ID: U1 (154689)

Lab ID#: 1601098-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20011310	Date of Collection:	1/5/16 2:02:00 PM
Dil. Factor:	1.52	Date of Analysis:	1/13/16 03:55 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.48	0.75	2.4
Freon 114	0.15	Not Detected	1.1	Not Detected
Chloromethane	0.76	Not Detected	1.6	Not Detected
Vinyl Chloride	0.15	Not Detected	0.39	Not Detected
1,3-Butadiene	0.15	Not Detected	0.34	Not Detected
Bromomethane	0.76	Not Detected	3.0	Not Detected
Chloroethane	0.76	Not Detected	2.0	Not Detected
Freon 11	0.15	0.23	0.85	1.3
Ethanol	0.76	1.9	1.4	3.6
Freon 113	0.15	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.15	Not Detected	0.60	Not Detected
Acetone	0.76	4.2	1.8	10
2-Propanol	0.76	Not Detected	1.9	Not Detected
Carbon Disulfide	0.76	Not Detected	2.4	Not Detected
3-Chloropropene	0.76	Not Detected	2.4	Not Detected
Methylene Chloride	0.30	Not Detected	1.0	Not Detected
Methyl tert-butyl ether	0.15	Not Detected	0.55	Not Detected
trans-1,2-Dichloroethene	0.15	Not Detected	0.60	Not Detected
Hexane	0.15	0.21	0.54	0.73
1,1-Dichloroethane	0.15	Not Detected	0.62	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.76	Not Detected	2.2	Not Detected
cis-1,2-Dichloroethene	0.15	Not Detected	0.60	Not Detected
Tetrahydrofuran	0.76	Not Detected	2.2	Not Detected
Chloroform	0.15	Not Detected	0.74	Not Detected
1,1,1-Trichloroethane	0.15	Not Detected	0.83	Not Detected
Cyclohexane	0.15	Not Detected	0.52	Not Detected
Carbon Tetrachloride	0.15	Not Detected	0.96	Not Detected
2,2,4-Trimethylpentane	0.76	Not Detected	3.6	Not Detected
Benzene	0.15	0.20	0.48	0.65
1,2-Dichloroethane	0.15	Not Detected	0.62	Not Detected
Heptane	0.15	0.18	0.62	0.75
Trichloroethene	0.15	Not Detected	0.82	Not Detected
1,2-Dichloropropane	0.15	Not Detected	0.70	Not Detected
1,4-Dioxane	0.15	Not Detected	0.55	Not Detected
Bromodichloromethane	0.15	Not Detected	1.0	Not Detected
cis-1,3-Dichloropropene	0.15	Not Detected	0.69	Not Detected
4-Methyl-2-pentanone	0.15	Not Detected	0.62	Not Detected
Toluene	0.15	0.36	0.57	1.4
trans-1,3-Dichloropropene	0.15	Not Detected	0.69	Not Detected
1,1,2-Trichloroethane	0.15	Not Detected	0.83	Not Detected
Tetrachloroethene	0.15	Not Detected	1.0	Not Detected
2-Hexanone	0.76	Not Detected	3.1	Not Detected

Client Sample ID: U1 (154689)

Lab ID#: 1601098-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20011310	Date of Collection:	1/5/16 2:02:00 PM
Dil. Factor:	1.52	Date of Analysis:	1/13/16 03:55 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.15	Not Detected	1.3	Not Detected
1,2-Dibromoethane (EDB)	0.15	Not Detected	1.2	Not Detected
Chlorobenzene	0.15	Not Detected	0.70	Not Detected
Ethyl Benzene	0.15	Not Detected	0.66	Not Detected
m,p-Xylene	0.15	Not Detected	0.66	Not Detected
o-Xylene	0.15	Not Detected	0.66	Not Detected
Styrene	0.15	Not Detected	0.65	Not Detected
Bromoform	0.15	Not Detected	1.6	Not Detected
Cumene	0.15	Not Detected	0.75	Not Detected
1,1,2,2-Tetrachloroethane	0.15	Not Detected	1.0	Not Detected
Propylbenzene	0.15	Not Detected	0.75	Not Detected
4-Ethyltoluene	0.15	Not Detected	0.75	Not Detected
1,3,5-Trimethylbenzene	0.15	Not Detected	0.75	Not Detected
1,2,4-Trimethylbenzene	0.15	Not Detected	0.75	Not Detected
1,3-Dichlorobenzene	0.15	Not Detected	0.91	Not Detected
1,4-Dichlorobenzene	0.15	Not Detected	0.91	Not Detected
alpha-Chlorotoluene	0.15	Not Detected	0.79	Not Detected
1,2-Dichlorobenzene	0.15	Not Detected	0.91	Not Detected
1,2,4-Trichlorobenzene	0.76	Not Detected	5.6	Not Detected
Hexachlorobutadiene	0.76	Not Detected	8.1	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	96	70-130

Client Sample ID: Lab Blank

Lab ID#: 1601098-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20011307	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/13/16 01:18 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#: 1601098-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20011307	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/13/16 01:18 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	104	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	96	70-130

Client Sample ID: CCV

Lab ID#: 1601098-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20011302	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/13/16 09:16 AM

Compound	%Recovery
Freon 12	101
Freon 114	105
Chloromethane	97
Vinyl Chloride	104
1,3-Butadiene	104
Bromomethane	133 Q
Chloroethane	107
Freon 11	104
Ethanol	98
Freon 113	100
1,1-Dichloroethene	110
Acetone	103
2-Propanol	100
Carbon Disulfide	108
3-Chloropropene	109
Methylene Chloride	104
Methyl tert-butyl ether	113
trans-1,2-Dichloroethene	103
Hexane	113
1,1-Dichloroethane	102
2-Butanone (Methyl Ethyl Ketone)	108
cis-1,2-Dichloroethene	108
Tetrahydrofuran	109
Chloroform	102
1,1,1-Trichloroethane	103
Cyclohexane	112
Carbon Tetrachloride	114
2,2,4-Trimethylpentane	112
Benzene	103
1,2-Dichloroethane	100
Heptane	108
Trichloroethene	107
1,2-Dichloropropane	105
1,4-Dioxane	115
Bromodichloromethane	108
cis-1,3-Dichloropropene	115
4-Methyl-2-pentanone	120
Toluene	108
trans-1,3-Dichloropropene	118
1,1,2-Trichloroethane	104
Tetrachloroethene	106
2-Hexanone	116



Air Toxics

Client Sample ID: CCV

Lab ID#: 1601098-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20011302	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/13/16 09:16 AM

Compound	%Recovery
Dibromochloromethane	114
1,2-Dibromoethane (EDB)	109
Chlorobenzene	105
Ethyl Benzene	110
m,p-Xylene	108
o-Xylene	111
Styrene	111
Bromoform	114
Cumene	107
1,1,2,2-Tetrachloroethane	104
Propylbenzene	98
4-Ethyltoluene	97
1,3,5-Trimethylbenzene	103
1,2,4-Trimethylbenzene	106
1,3-Dichlorobenzene	93
1,4-Dichlorobenzene	90
alpha-Chlorotoluene	122
1,2-Dichlorobenzene	94
1,2,4-Trichlorobenzene	75
Hexachlorobutadiene	72

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	99	70-130

Client Sample ID: LCS

Lab ID#: 1601098-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name: 20011303

Date of Collection: NA

Dil. Factor: 1.00

Date of Analysis: 1/13/16 10:01 AM

Compound	%Recovery	Method Limits
Freon 12	101	70-130
Freon 114	110	70-130
Chloromethane	93	70-130
Vinyl Chloride	104	70-130
1,3-Butadiene	99	70-130
Bromomethane	139 Q	70-130
Chloroethane	103	70-130
Freon 11	104	70-130
Ethanol	107	70-130
Freon 113	99	70-130
1,1-Dichloroethene	108	70-130
Acetone	99	70-130
2-Propanol	96	70-130
Carbon Disulfide	94	70-130
3-Chloropropene	101	70-130
Methylene Chloride	102	70-130
Methyl tert-butyl ether	106	70-130
trans-1,2-Dichloroethene	106	70-130
Hexane	104	70-130
1,1-Dichloroethane	100	70-130
2-Butanone (Methyl Ethyl Ketone)	103	70-130
cis-1,2-Dichloroethene	104	70-130
Tetrahydrofuran	104	70-130
Chloroform	100	70-130
1,1,1-Trichloroethane	98	70-130
Cyclohexane	107	70-130
Carbon Tetrachloride	69 Q	70-130
2,2,4-Trimethylpentane	107	70-130
Benzene	98	70-130
1,2-Dichloroethane	96	70-130
Heptane	103	70-130
Trichloroethene	101	70-130
1,2-Dichloropropane	98	70-130
1,4-Dioxane	101	70-130
Bromodichloromethane	108	70-130
cis-1,3-Dichloropropene	98	70-130
4-Methyl-2-pentanone	105	70-130
Toluene	101	70-130
trans-1,3-Dichloropropene	110	70-130
1,1,2-Trichloroethane	101	70-130
Tetrachloroethene	106	70-130
2-Hexanone	104	70-130

Client Sample ID: LCS

Lab ID#: 1601098-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20011303	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/13/16 10:01 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	107	70-130
1,2-Dibromoethane (EDB)	106	70-130
Chlorobenzene	103	70-130
Ethyl Benzene	108	70-130
m,p-Xylene	110	70-130
o-Xylene	115	70-130
Styrene	104	70-130
Bromoform	110	70-130
Cumene	109	70-130
1,1,2,2-Tetrachloroethane	102	70-130
Propylbenzene	101	70-130
4-Ethyltoluene	97	70-130
1,3,5-Trimethylbenzene	103	70-130
1,2,4-Trimethylbenzene	104	70-130
1,3-Dichlorobenzene	97	70-130
1,4-Dichlorobenzene	94	70-130
alpha-Chlorotoluene	125	70-130
1,2-Dichlorobenzene	98	70-130
1,2,4-Trichlorobenzene	104	70-130
Hexachlorobutadiene	99	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	100	70-130

Client Sample ID: LCSD

Lab ID#: 1601098-06AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20011304	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/13/16 10:49 AM

Compound	%Recovery	Method Limits
Freon 12	100	70-130
Freon 114	110	70-130
Chloromethane	95	70-130
Vinyl Chloride	103	70-130
1,3-Butadiene	100	70-130
Bromomethane	138 Q	70-130
Chloroethane	108	70-130
Freon 11	104	70-130
Ethanol	107	70-130
Freon 113	98	70-130
1,1-Dichloroethene	106	70-130
Acetone	104	70-130
2-Propanol	97	70-130
Carbon Disulfide	95	70-130
3-Chloropropene	101	70-130
Methylene Chloride	102	70-130
Methyl tert-butyl ether	107	70-130
trans-1,2-Dichloroethene	106	70-130
Hexane	107	70-130
1,1-Dichloroethane	100	70-130
2-Butanone (Methyl Ethyl Ketone)	100	70-130
cis-1,2-Dichloroethene	105	70-130
Tetrahydrofuran	103	70-130
Chloroform	101	70-130
1,1,1-Trichloroethane	100	70-130
Cyclohexane	108	70-130
Carbon Tetrachloride	71	70-130
2,2,4-Trimethylpentane	105	70-130
Benzene	96	70-130
1,2-Dichloroethane	95	70-130
Heptane	101	70-130
Trichloroethene	100	70-130
1,2-Dichloropropane	98	70-130
1,4-Dioxane	97	70-130
Bromodichloromethane	106	70-130
cis-1,3-Dichloropropene	98	70-130
4-Methyl-2-pentanone	105	70-130
Toluene	99	70-130
trans-1,3-Dichloropropene	108	70-130
1,1,2-Trichloroethane	99	70-130
Tetrachloroethene	102	70-130
2-Hexanone	105	70-130

Client Sample ID: LCSD

Lab ID#: 1601098-06AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20011304	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/13/16 10:49 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	107	70-130
1,2-Dibromoethane (EDB)	105	70-130
Chlorobenzene	101	70-130
Ethyl Benzene	105	70-130
m,p-Xylene	104	70-130
o-Xylene	111	70-130
Styrene	100	70-130
Bromoform	109	70-130
Cumene	106	70-130
1,1,2,2-Tetrachloroethane	100	70-130
Propylbenzene	97	70-130
4-Ethyltoluene	94	70-130
1,3,5-Trimethylbenzene	98	70-130
1,2,4-Trimethylbenzene	102	70-130
1,3-Dichlorobenzene	92	70-130
1,4-Dichlorobenzene	89	70-130
alpha-Chlorotoluene	121	70-130
1,2-Dichlorobenzene	93	70-130
1,2,4-Trichlorobenzene	101	70-130
Hexachlorobutadiene	94	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	97	70-130