

10/15/2016
Mr. Curt Lueckenhoff
Missouri Dept. of Natural Resources
2710 West Main

Jefferson City MO 65109

Project Name: Bridgeton Landfill
Project #:
Workorder #: 1610193

Dear Mr. Curt Lueckenhoff

The following report includes the data for the above referenced project for sample(s) received on 10/10/2016 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 #: 1610193

Work Order Summary

CLIENT:	Mr. Curt Lueckenhoff 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:	573-526-3363	P.O. #	3ESP170206
FAX:	573-526-3350	PROJECT #	Bridgeton Landfill
DATE RECEIVED:	10/10/2016	CONTACT:	Brian Whittaker
DATE COMPLETED:	10/15/2016		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	D1 (163470)	Modified TO-15	6.5 "Hg	5 psi
02A	D2 (163471)	Modified TO-15	7.0 "Hg	5 psi
03A	U1 (163472)	Modified TO-15	7.0 "Hg	5 psi
04A	U2 (163473)	Modified TO-15	6.5 "Hg	5 psi
05A	Lab Blank	Modified TO-15	NA	NA
06A	CCV	Modified TO-15	NA	NA
07A	LCS	Modified TO-15	NA	NA
07AA	LCSD	Modified TO-15	NA	NA

CERTIFIED BY: 

 Technical Director

DATE: 10/15/16

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
 TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
 Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
 Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.

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# 1610193

Four 6 Liter Summa Canister (100% Certified) samples were received on October 10, 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 EATL 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 (163470)

Lab ID#: 1610193-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.64	0.84	3.1
Freon 11	0.17	0.27	0.96	1.5
Ethanol	0.86	20	1.6	38
Acetone	0.86	7.5	2.0	18
2-Propanol	0.86	2.3	2.1	5.6
Methylene Chloride	0.34	0.48	1.2	1.7
2-Butanone (Methyl Ethyl Ketone)	0.86	0.93	2.5	2.8
Toluene	0.17	0.46	0.64	1.7

Client Sample ID: D2 (163471)

Lab ID#: 1610193-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.52	0.86	2.6
Freon 11	0.18	0.26	0.98	1.4
Ethanol	0.88	6.3	1.6	12
Acetone	0.88	5.5	2.1	13
Methylene Chloride	0.35	0.38	1.2	1.3
Toluene	0.18	0.35	0.66	1.3

Client Sample ID: U1 (163472)

Lab ID#: 1610193-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.58	0.86	2.8
Freon 11	0.18	0.24	0.98	1.3
Ethanol	0.88	4.2	1.6	8.0
Acetone	0.88	5.5	2.1	13
Methylene Chloride	0.35	0.43	1.2	1.5
Toluene	0.18	0.23	0.66	0.86

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

Client Sample ID: U2 (163473)

Lab ID#: 1610193-04A

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	0.24	0.96	1.3
Ethanol	0.86	5.4	1.6	10
Acetone	0.86	5.1	2.0	12
Methylene Chloride	0.34	0.49	1.2	1.7
Hexane	0.17	0.25	0.60	0.89
Heptane	0.17	0.20	0.70	0.82
Toluene	0.17	0.22	0.64	0.81



Air Toxics

Client Sample ID: D1 (163470)

Lab ID#: 1610193-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20101219	Date of Collection:	10/4/16 1:20:00 PM
Dil. Factor:	1.71	Date of Analysis:	10/13/16 07:06 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.64	0.84	3.1
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	0.27	0.96	1.5
Ethanol	0.86	20	1.6	38
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Acetone	0.86	7.5	2.0	18
2-Propanol	0.86	2.3	2.1	5.6
Carbon Disulfide	0.86	Not Detected	2.7	Not Detected
3-Chloropropene	0.86	Not Detected	2.7	Not Detected
Methylene Chloride	0.34	0.48	1.2	1.7
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	0.93	2.5	2.8
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	0.46	0.64	1.7
trans-1,3-Dichloropropene	0.17	Not Detected	0.78	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.93	Not Detected
Tetrachloroethene	0.17	Not Detected	1.2	Not Detected
2-Hexanone	0.86	Not Detected	3.5	Not Detected

Client Sample ID: D1 (163470)

Lab ID#: 1610193-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20101219	Date of Collection:	10/4/16 1:20:00 PM
Dil. Factor:	1.71	Date of Analysis:	10/13/16 07:06 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.17	Not Detected	1.4	Not Detected
1,2-Dibromoethane (EDB)	0.17	Not Detected	1.3	Not Detected
Chlorobenzene	0.17	Not Detected	0.79	Not Detected
Ethyl Benzene	0.17	Not Detected	0.74	Not Detected
m,p-Xylene	0.17	Not Detected	0.74	Not Detected
o-Xylene	0.17	Not Detected	0.74	Not Detected
Styrene	0.17	Not Detected	0.73	Not Detected
Bromoform	0.17	Not Detected	1.8	Not Detected
Cumene	0.17	Not Detected	0.84	Not Detected
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.2	Not Detected
Propylbenzene	0.17	Not Detected	0.84	Not Detected
4-Ethyltoluene	0.17	Not Detected	0.84	Not Detected
1,3,5-Trimethylbenzene	0.17	Not Detected	0.84	Not Detected
1,2,4-Trimethylbenzene	0.17	Not Detected	0.84	Not Detected
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
alpha-Chlorotoluene	0.17	Not Detected	0.88	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.86	Not Detected	6.3	Not Detected
Hexachlorobutadiene	0.86	Not Detected	9.1	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	96	70-130



Air Toxics

Client Sample ID: D2 (163471)

Lab ID#: 1610193-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20101220	Date of Collection:	10/4/16 1:30:00 PM
Dil. Factor:	1.75	Date of Analysis:	10/13/16 07:44 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.52	0.86	2.6
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	0.26	0.98	1.4
Ethanol	0.88	6.3	1.6	12
Freon 113	0.18	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Acetone	0.88	5.5	2.1	13
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	0.38	1.2	1.3
Methyl tert-butyl ether	0.18	Not Detected	0.63	Not Detected
trans-1,2-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Hexane	0.18	Not Detected	0.62	Not Detected
1,1-Dichloroethane	0.18	Not Detected	0.71	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.88	Not Detected	2.6	Not Detected
cis-1,2-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Tetrahydrofuran	0.88	Not Detected	2.6	Not Detected
Chloroform	0.18	Not Detected	0.85	Not Detected
1,1,1-Trichloroethane	0.18	Not Detected	0.95	Not Detected
Cyclohexane	0.18	Not Detected	0.60	Not Detected
Carbon Tetrachloride	0.18	Not Detected	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	0.35	0.66	1.3
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: D2 (163471)

Lab ID#: 1610193-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20101220	Date of Collection:	10/4/16 1:30:00 PM
Dil. Factor:	1.75	Date of Analysis:	10/13/16 07:44 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	6.5	Not Detected
Hexachlorobutadiene	0.88	Not Detected	9.3	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	96	70-130



Air Toxics

Client Sample ID: U1 (163472)

Lab ID#: 1610193-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20101221	Date of Collection:	10/4/16 1:40:00 PM
Dil. Factor:	1.75	Date of Analysis:	10/13/16 08:23 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.58	0.86	2.8
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	0.24	0.98	1.3
Ethanol	0.88	4.2	1.6	8.0
Freon 113	0.18	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Acetone	0.88	5.5	2.1	13
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	0.43	1.2	1.5
Methyl tert-butyl ether	0.18	Not Detected	0.63	Not Detected
trans-1,2-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Hexane	0.18	Not Detected	0.62	Not Detected
1,1-Dichloroethane	0.18	Not Detected	0.71	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.88	Not Detected	2.6	Not Detected
cis-1,2-Dichloroethene	0.18	Not Detected	0.69	Not Detected
Tetrahydrofuran	0.88	Not Detected	2.6	Not Detected
Chloroform	0.18	Not Detected	0.85	Not Detected
1,1,1-Trichloroethane	0.18	Not Detected	0.95	Not Detected
Cyclohexane	0.18	Not Detected	0.60	Not Detected
Carbon Tetrachloride	0.18	Not Detected	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	0.23	0.66	0.86
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 (163472)

Lab ID#: 1610193-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20101221	Date of Collection:	10/4/16 1:40:00 PM
Dil. Factor:	1.75	Date of Analysis:	10/13/16 08:23 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	6.5	Not Detected
Hexachlorobutadiene	0.88	Not Detected	9.3	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	96	70-130



Air Toxics

Client Sample ID: U2 (163473)

Lab ID#: 1610193-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20101222	Date of Collection:	10/4/16 1:50:00 PM
Dil. Factor:	1.71	Date of Analysis:	10/13/16 09:01 AM

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	0.24	0.96	1.3
Ethanol	0.86	5.4	1.6	10
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.68	Not Detected
Acetone	0.86	5.1	2.0	12
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	0.49	1.2	1.7
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	0.25	0.60	0.89
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	0.20	0.70	0.82
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	0.22	0.64	0.81
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: U2 (163473)

Lab ID#: 1610193-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20101222	Date of Collection:	10/4/16 1:50:00 PM
Dil. Factor:	1.71	Date of Analysis:	10/13/16 09:01 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.17	Not Detected	1.4	Not Detected
1,2-Dibromoethane (EDB)	0.17	Not Detected	1.3	Not Detected
Chlorobenzene	0.17	Not Detected	0.79	Not Detected
Ethyl Benzene	0.17	Not Detected	0.74	Not Detected
m,p-Xylene	0.17	Not Detected	0.74	Not Detected
o-Xylene	0.17	Not Detected	0.74	Not Detected
Styrene	0.17	Not Detected	0.73	Not Detected
Bromoform	0.17	Not Detected	1.8	Not Detected
Cumene	0.17	Not Detected	0.84	Not Detected
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.2	Not Detected
Propylbenzene	0.17	Not Detected	0.84	Not Detected
4-Ethyltoluene	0.17	Not Detected	0.84	Not Detected
1,3,5-Trimethylbenzene	0.17	Not Detected	0.84	Not Detected
1,2,4-Trimethylbenzene	0.17	Not Detected	0.84	Not Detected
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
alpha-Chlorotoluene	0.17	Not Detected	0.88	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.86	Not Detected	6.3	Not Detected
Hexachlorobutadiene	0.86	Not Detected	9.1	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	93	70-130
4-Bromofluorobenzene	95	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1610193-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20101211	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	10/12/16 02:19 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#: 1610193-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20101211	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	10/12/16 02:19 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	114	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	88	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1610193-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20101206	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/12/16 10:34 AM

Compound	%Recovery
Freon 12	110
Freon 114	98
Chloromethane	104
Vinyl Chloride	104
1,3-Butadiene	104
Bromomethane	118
Chloroethane	99
Freon 11	98
Ethanol	94
Freon 113	90
1,1-Dichloroethene	89
Acetone	93
2-Propanol	91
Carbon Disulfide	100
3-Chloropropene	99
Methylene Chloride	92
Methyl tert-butyl ether	95
trans-1,2-Dichloroethene	94
Hexane	95
1,1-Dichloroethane	100
2-Butanone (Methyl Ethyl Ketone)	98
cis-1,2-Dichloroethene	94
Tetrahydrofuran	100
Chloroform	100
1,1,1-Trichloroethane	99
Cyclohexane	93
Carbon Tetrachloride	117
2,2,4-Trimethylpentane	99
Benzene	105
1,2-Dichloroethane	116
Heptane	113
Trichloroethene	101
1,2-Dichloropropane	109
1,4-Dioxane	102
Bromodichloromethane	118
cis-1,3-Dichloropropene	110
4-Methyl-2-pentanone	122
Toluene	106
trans-1,3-Dichloropropene	116
1,1,2-Trichloroethane	104
Tetrachloroethene	100
2-Hexanone	113



Air Toxics

Client Sample ID: CCV

Lab ID#: 1610193-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20101206	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/12/16 10:34 AM

Compound	%Recovery
Dibromochloromethane	122
1,2-Dibromoethane (EDB)	108
Chlorobenzene	104
Ethyl Benzene	108
m,p-Xylene	106
o-Xylene	105
Styrene	112
Bromoform	124
Cumene	112
1,1,2,2-Tetrachloroethane	116
Propylbenzene	105
4-Ethyltoluene	97
1,3,5-Trimethylbenzene	112
1,2,4-Trimethylbenzene	106
1,3-Dichlorobenzene	98
1,4-Dichlorobenzene	92
alpha-Chlorotoluene	126
1,2-Dichlorobenzene	98
1,2,4-Trichlorobenzene	78
Hexachlorobutadiene	74

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	100	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1610193-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20101207	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/12/16 11:23 AM

Compound	%Recovery	Method Limits
Freon 12	102	70-130
Freon 114	95	70-130
Chloromethane	95	70-130
Vinyl Chloride	96	70-130
1,3-Butadiene	93	70-130
Bromomethane	105	70-130
Chloroethane	92	70-130
Freon 11	94	70-130
Ethanol	91	70-130
Freon 113	82	70-130
1,1-Dichloroethene	82	70-130
Acetone	86	70-130
2-Propanol	89	70-130
Carbon Disulfide	81	70-130
3-Chloropropene	84	70-130
Methylene Chloride	83	70-130
Methyl tert-butyl ether	83	70-130
trans-1,2-Dichloroethene	87	70-130
Hexane	88	70-130
1,1-Dichloroethane	89	70-130
2-Butanone (Methyl Ethyl Ketone)	88	70-130
cis-1,2-Dichloroethene	83	70-130
Tetrahydrofuran	92	70-130
Chloroform	92	70-130
1,1,1-Trichloroethane	92	70-130
Cyclohexane	86	70-130
Carbon Tetrachloride	106	70-130
2,2,4-Trimethylpentane	92	70-130
Benzene	98	70-130
1,2-Dichloroethane	104	70-130
Heptane	104	70-130
Trichloroethene	95	70-130
1,2-Dichloropropane	101	70-130
1,4-Dioxane	94	70-130
Bromodichloromethane	112	70-130
cis-1,3-Dichloropropene	94	70-130
4-Methyl-2-pentanone	119	70-130
Toluene	98	70-130
trans-1,3-Dichloropropene	106	70-130
1,1,2-Trichloroethane	97	70-130
Tetrachloroethene	94	70-130
2-Hexanone	107	70-130

Client Sample ID: LCS

Lab ID#: 1610193-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20101207	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/12/16 11:23 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	114	70-130
1,2-Dibromoethane (EDB)	101	70-130
Chlorobenzene	96	70-130
Ethyl Benzene	99	70-130
m,p-Xylene	98	70-130
o-Xylene	99	70-130
Styrene	104	70-130
Bromoform	123	70-130
Cumene	103	70-130
1,1,2,2-Tetrachloroethane	110	70-130
Propylbenzene	102	70-130
4-Ethyltoluene	89	70-130
1,3,5-Trimethylbenzene	104	70-130
1,2,4-Trimethylbenzene	96	70-130
1,3-Dichlorobenzene	92	70-130
1,4-Dichlorobenzene	86	70-130
alpha-Chlorotoluene	119	70-130
1,2-Dichlorobenzene	92	70-130
1,2,4-Trichlorobenzene	77	70-130
Hexachlorobutadiene	76	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: LCS D

Lab ID#: 1610193-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20101208	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	10/12/16 12:02 PM

Compound	%Recovery	Method Limits
Freon 12	102	70-130
Freon 114	94	70-130
Chloromethane	98	70-130
Vinyl Chloride	97	70-130
1,3-Butadiene	93	70-130
Bromomethane	108	70-130
Chloroethane	96	70-130
Freon 11	95	70-130
Ethanol	95	70-130
Freon 113	83	70-130
1,1-Dichloroethene	84	70-130
Acetone	88	70-130
2-Propanol	91	70-130
Carbon Disulfide	83	70-130
3-Chloropropene	85	70-130
Methylene Chloride	86	70-130
Methyl tert-butyl ether	85	70-130
trans-1,2-Dichloroethene	88	70-130
Hexane	90	70-130
1,1-Dichloroethane	92	70-130
2-Butanone (Methyl Ethyl Ketone)	90	70-130
cis-1,2-Dichloroethene	85	70-130
Tetrahydrofuran	94	70-130
Chloroform	94	70-130
1,1,1-Trichloroethane	93	70-130
Cyclohexane	88	70-130
Carbon Tetrachloride	106	70-130
2,2,4-Trimethylpentane	93	70-130
Benzene	96	70-130
1,2-Dichloroethane	103	70-130
Heptane	103	70-130
Trichloroethene	92	70-130
1,2-Dichloropropane	100	70-130
1,4-Dioxane	92	70-130
Bromodichloromethane	110	70-130
cis-1,3-Dichloropropene	92	70-130
4-Methyl-2-pentanone	119	70-130
Toluene	97	70-130
trans-1,3-Dichloropropene	104	70-130
1,1,2-Trichloroethane	94	70-130
Tetrachloroethene	90	70-130
2-Hexanone	105	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1610193-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20101208	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/12/16 12:02 PM

Compound	%Recovery	Method Limits
Dibromochloromethane	112	70-130
1,2-Dibromoethane (EDB)	100	70-130
Chlorobenzene	94	70-130
Ethyl Benzene	97	70-130
m,p-Xylene	96	70-130
o-Xylene	96	70-130
Styrene	102	70-130
Bromoform	122	70-130
Cumene	101	70-130
1,1,2,2-Tetrachloroethane	109	70-130
Propylbenzene	98	70-130
4-Ethyltoluene	87	70-130
1,3,5-Trimethylbenzene	97	70-130
1,2,4-Trimethylbenzene	91	70-130
1,3-Dichlorobenzene	89	70-130
1,4-Dichlorobenzene	83	70-130
alpha-Chlorotoluene	117	70-130
1,2-Dichlorobenzene	89	70-130
1,2,4-Trichlorobenzene	76	70-130
Hexachlorobutadiene	73	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	100	70-130