

4/9/2016

Mr. Curt Lueckenhoff
Missouri Dept. of Natural Resources
2710 West Main

Jefferson City MO 65109

Project Name: Bridgeton Landfill

Project #:

Workorder #: 1604079

Dear Mr. Curt Lueckenhoff

The following report includes the data for the above referenced project for sample(s) received on 4/4/2016 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 #: 1604079

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. #	33SP160729
FAX:	573-526-3350	PROJECT #	Bridgeton Landfill
DATE RECEIVED:	04/04/2016	CONTACT:	Brian Whittaker
DATE COMPLETED:	04/09/2016		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	D1 (162218)	Modified TO-15	5.0 "Hg	5 psi
02A	D2 (162219)	Modified TO-15	6.0 "Hg	5 psi
03A	U1 (162220)	Modified TO-15	5.5 "Hg	5 psi
04A	U2 (162221)	Modified TO-15	5.0 "Hg	5 psi
05A	Lab Blank	Modified TO-15	NA	NA
05B	Lab Blank	Modified TO-15	NA	NA
06A	CCV	Modified TO-15	NA	NA
06B	CCV	Modified TO-15	NA	NA
07A	LCS	Modified TO-15	NA	NA
07AA	LCSD	Modified TO-15	NA	NA
07B	LCS	Modified TO-15	NA	NA
07BB	LCSD	Modified TO-15	NA	NA

CERTIFIED BY: 

 Technical Director

DATE: 04/09/16

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# 1604079

Four 6 Liter Summa Canister (100% Certified) samples were received on April 04, 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.

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 (162218)

Lab ID#: 1604079-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.41	0.80	2.0
Freon 11	0.16	0.17	0.90	0.94
Ethanol	0.80	1.7	1.5	3.2
Acetone	0.80	2.2	1.9	5.3
Benzene	0.16	0.16	0.51	0.51
Toluene	0.16	0.18	0.61	0.66

Client Sample ID: D2 (162219)

Lab ID#: 1604079-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.41	0.83	2.0
Freon 11	0.17	0.21	0.94	1.2
Ethanol	0.84	2.5	1.6	4.7
Acetone	0.84	3.8	2.0	9.0
2-Propanol	0.84	4.1	2.1	10
2-Butanone (Methyl Ethyl Ketone)	0.84	1.2	2.5	3.5
Benzene	0.17	0.89	0.54	2.8
Trichloroethene	0.17	0.18	0.90	0.94
Toluene	0.17	0.32	0.63	1.2
m,p-Xylene	0.17	0.26	0.73	1.1

Client Sample ID: U1 (162220)

Lab ID#: 1604079-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.40	0.81	2.0
Freon 11	0.16	0.21	0.92	1.2
Ethanol	0.82	2.0	1.5	3.8
Acetone	0.82	2.3	1.9	5.4
Hexane	0.16	0.17	0.58	0.60

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

Client Sample ID: U2 (162221)

Lab ID#: 1604079-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.44	0.80	2.2
Freon 11	0.16	0.20	0.90	1.1
Ethanol	0.80	1.6	1.5	3.0
Acetone	0.80	2.0	1.9	4.7



Air Toxics

Client Sample ID: D1 (162218)

Lab ID#: 1604079-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e040620	Date of Collection:	3/29/16 1:20:00 PM
Dil. Factor:	1.61	Date of Analysis:	4/7/16 08:00 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.41	0.80	2.0
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.80	Not Detected	1.7	Not Detected
Vinyl Chloride	0.16	Not Detected	0.41	Not Detected
1,3-Butadiene	0.16	Not Detected	0.36	Not Detected
Bromomethane	0.80	Not Detected	3.1	Not Detected
Chloroethane	0.80	Not Detected	2.1	Not Detected
Freon 11	0.16	0.17	0.90	0.94
Ethanol	0.80	1.7	1.5	3.2
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Acetone	0.80	2.2	1.9	5.3
2-Propanol	0.80	Not Detected	2.0	Not Detected
Carbon Disulfide	0.80	Not Detected	2.5	Not Detected
3-Chloropropene	0.80	Not Detected	2.5	Not Detected
Methylene Chloride	0.32	Not Detected	1.1	Not Detected
Methyl tert-butyl ether	0.16	Not Detected	0.58	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Hexane	0.16	Not Detected	0.57	Not Detected
1,1-Dichloroethane	0.16	Not Detected	0.65	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.80	Not Detected	2.4	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Tetrahydrofuran	0.80	Not Detected	2.4	Not Detected
Chloroform	0.16	Not Detected	0.79	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Cyclohexane	0.16	Not Detected	0.55	Not Detected
Carbon Tetrachloride	0.16	Not Detected	1.0	Not Detected
2,2,4-Trimethylpentane	0.80	Not Detected	3.8	Not Detected
Benzene	0.16	0.16	0.51	0.51
1,2-Dichloroethane	0.16	Not Detected	0.65	Not Detected
Heptane	0.16	Not Detected	0.66	Not Detected
Trichloroethene	0.16	Not Detected	0.86	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.74	Not Detected
1,4-Dioxane	0.16	Not Detected	0.58	Not Detected
Bromodichloromethane	0.16	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.73	Not Detected
4-Methyl-2-pentanone	0.16	Not Detected	0.66	Not Detected
Toluene	0.16	0.18	0.61	0.66
trans-1,3-Dichloropropene	0.16	Not Detected	0.73	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
2-Hexanone	0.80	Not Detected	3.3	Not Detected



Client Sample ID: D1 (162218)

Lab ID#: 1604079-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e040620	Date of Collection:	3/29/16 1:20:00 PM
Dil. Factor:	1.61	Date of Analysis:	4/7/16 08:00 AM

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	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.74	Not Detected
Ethyl Benzene	0.16	Not Detected	0.70	Not Detected
m,p-Xylene	0.16	Not Detected	0.70	Not Detected
o-Xylene	0.16	Not Detected	0.70	Not Detected
Styrene	0.16	Not Detected	0.68	Not Detected
Bromoform	0.16	Not Detected	1.7	Not Detected
Cumene	0.16	Not Detected	0.79	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
Propylbenzene	0.16	Not Detected	0.79	Not Detected
4-Ethyltoluene	0.16	Not Detected	0.79	Not Detected
1,3,5-Trimethylbenzene	0.16	Not Detected	0.79	Not Detected
1,2,4-Trimethylbenzene	0.16	Not Detected	0.79	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
alpha-Chlorotoluene	0.16	Not Detected	0.83	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,2,4-Trichlorobenzene	0.80	Not Detected	6.0	Not Detected
Hexachlorobutadiene	0.80	Not Detected	8.6	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	99	70-130



Air Toxics

Client Sample ID: D2 (162219)

Lab ID#: 1604079-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e040713	Date of Collection:	3/29/16 1:30:00 PM
Dil. Factor:	1.68	Date of Analysis:	4/7/16 08:55 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.41	0.83	2.0
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	3.3	Not Detected
Chloroethane	0.84	Not Detected	2.2	Not Detected
Freon 11	0.17	0.21	0.94	1.2
Ethanol	0.84	2.5	1.6	4.7
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Acetone	0.84	3.8	2.0	9.0
2-Propanol	0.84	4.1	2.1	10
Carbon Disulfide	0.84	Not Detected	2.6	Not Detected
3-Chloropropene	0.84	Not Detected	2.6	Not Detected
Methylene Chloride	0.34	Not Detected	1.2	Not Detected
Methyl tert-butyl ether	0.17	Not Detected	0.60	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.67	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	1.2	2.5	3.5
cis-1,2-Dichloroethene	0.17	Not Detected	0.67	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	0.92	Not Detected
Cyclohexane	0.17	Not Detected	0.58	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	0.89	0.54	2.8
1,2-Dichloroethane	0.17	Not Detected	0.68	Not Detected
Heptane	0.17	Not Detected	0.69	Not Detected
Trichloroethene	0.17	0.18	0.90	0.94
1,2-Dichloropropane	0.17	Not Detected	0.78	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	0.69	Not Detected
Toluene	0.17	0.32	0.63	1.2
trans-1,3-Dichloropropene	0.17	Not Detected	0.76	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.92	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 (162219)

Lab ID#: 1604079-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e040713	Date of Collection: 3/29/16 1:30:00 PM
Dil. Factor:	1.68	Date of Analysis: 4/7/16 08:55 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	0.73	Not Detected
m,p-Xylene	0.17	0.26	0.73	1.1
o-Xylene	0.17	Not Detected	0.73	Not Detected
Styrene	0.17	Not Detected	0.72	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	1.2	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	0.87	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	9.0	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: U1 (162220)

Lab ID#: 1604079-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e040714	Date of Collection:	3/29/16 2:10:00 PM
Dil. Factor:	1.64	Date of Analysis:	4/7/16 09:37 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.40	0.81	2.0
Freon 114	0.16	Not Detected	1.1	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	0.21	0.92	1.2
Ethanol	0.82	2.0	1.5	3.8
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Acetone	0.82	2.3	1.9	5.4
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	0.17	0.58	0.60
1,1-Dichloroethane	0.16	Not Detected	0.66	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	0.89	Not Detected
Cyclohexane	0.16	Not Detected	0.56	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	0.52	Not Detected
1,2-Dichloroethane	0.16	Not Detected	0.66	Not Detected
Heptane	0.16	Not Detected	0.67	Not Detected
Trichloroethene	0.16	Not Detected	0.88	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	0.74	Not Detected
4-Methyl-2-pentanone	0.16	Not Detected	0.67	Not Detected
Toluene	0.16	Not Detected	0.62	Not Detected
trans-1,3-Dichloropropene	0.16	Not Detected	0.74	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.89	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 (162220)

Lab ID#: 1604079-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e040714	Date of Collection: 3/29/16 2:10:00 PM
Dil. Factor:	1.64	Date of Analysis: 4/7/16 09:37 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	0.71	Not Detected
m,p-Xylene	0.16	Not Detected	0.71	Not Detected
o-Xylene	0.16	Not Detected	0.71	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	8.7	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	100	70-130



Air Toxics

Client Sample ID: U2 (162221)

Lab ID#: 1604079-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e040715	Date of Collection:	3/29/16 2:25:00 PM
Dil. Factor:	1.61	Date of Analysis:	4/7/16 10:22 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.44	0.80	2.2
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.80	Not Detected	1.7	Not Detected
Vinyl Chloride	0.16	Not Detected	0.41	Not Detected
1,3-Butadiene	0.16	Not Detected	0.36	Not Detected
Bromomethane	0.80	Not Detected	3.1	Not Detected
Chloroethane	0.80	Not Detected	2.1	Not Detected
Freon 11	0.16	0.20	0.90	1.1
Ethanol	0.80	1.6	1.5	3.0
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Acetone	0.80	2.0	1.9	4.7
2-Propanol	0.80	Not Detected	2.0	Not Detected
Carbon Disulfide	0.80	Not Detected	2.5	Not Detected
3-Chloropropene	0.80	Not Detected	2.5	Not Detected
Methylene Chloride	0.32	Not Detected	1.1	Not Detected
Methyl tert-butyl ether	0.16	Not Detected	0.58	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Hexane	0.16	Not Detected	0.57	Not Detected
1,1-Dichloroethane	0.16	Not Detected	0.65	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.80	Not Detected	2.4	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Tetrahydrofuran	0.80	Not Detected	2.4	Not Detected
Chloroform	0.16	Not Detected	0.79	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Cyclohexane	0.16	Not Detected	0.55	Not Detected
Carbon Tetrachloride	0.16	Not Detected	1.0	Not Detected
2,2,4-Trimethylpentane	0.80	Not Detected	3.8	Not Detected
Benzene	0.16	Not Detected	0.51	Not Detected
1,2-Dichloroethane	0.16	Not Detected	0.65	Not Detected
Heptane	0.16	Not Detected	0.66	Not Detected
Trichloroethene	0.16	Not Detected	0.86	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.74	Not Detected
1,4-Dioxane	0.16	Not Detected	0.58	Not Detected
Bromodichloromethane	0.16	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.73	Not Detected
4-Methyl-2-pentanone	0.16	Not Detected	0.66	Not Detected
Toluene	0.16	Not Detected	0.61	Not Detected
trans-1,3-Dichloropropene	0.16	Not Detected	0.73	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
2-Hexanone	0.80	Not Detected	3.3	Not Detected



Client Sample ID: U2 (162221)

Lab ID#: 1604079-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e040715	Date of Collection:	3/29/16 2:25:00 PM
Dil. Factor:	1.61	Date of Analysis:	4/7/16 10:22 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	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.74	Not Detected
Ethyl Benzene	0.16	Not Detected	0.70	Not Detected
m,p-Xylene	0.16	Not Detected	0.70	Not Detected
o-Xylene	0.16	Not Detected	0.70	Not Detected
Styrene	0.16	Not Detected	0.68	Not Detected
Bromoform	0.16	Not Detected	1.7	Not Detected
Cumene	0.16	Not Detected	0.79	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
Propylbenzene	0.16	Not Detected	0.79	Not Detected
4-Ethyltoluene	0.16	Not Detected	0.79	Not Detected
1,3,5-Trimethylbenzene	0.16	Not Detected	0.79	Not Detected
1,2,4-Trimethylbenzene	0.16	Not Detected	0.79	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
alpha-Chlorotoluene	0.16	Not Detected	0.83	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,2,4-Trichlorobenzene	0.80	Not Detected	6.0	Not Detected
Hexachlorobutadiene	0.80	Not Detected	8.6	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1604079-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e040606	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	4/6/16 01:26 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#: 1604079-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e040606	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/6/16 01:26 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	101	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	99	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1604079-05B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e040707	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	4/7/16 02:58 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#: 1604079-05B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e040707	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/7/16 02:58 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	97	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	103	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1604079-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e040602	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/6/16 09:59 AM

Compound	%Recovery
Freon 12	119
Freon 114	118
Chloromethane	117
Vinyl Chloride	120
1,3-Butadiene	112
Bromomethane	117
Chloroethane	126
Freon 11	114
Ethanol	125
Freon 113	124
1,1-Dichloroethene	115
Acetone	106
2-Propanol	116
Carbon Disulfide	115
3-Chloropropene	124
Methylene Chloride	113
Methyl tert-butyl ether	120
trans-1,2-Dichloroethene	121
Hexane	118
1,1-Dichloroethane	115
2-Butanone (Methyl Ethyl Ketone)	114
cis-1,2-Dichloroethene	111
Tetrahydrofuran	119
Chloroform	115
1,1,1-Trichloroethane	115
Cyclohexane	122
Carbon Tetrachloride	123
2,2,4-Trimethylpentane	100
Benzene	109
1,2-Dichloroethane	112
Heptane	112
Trichloroethene	117
1,2-Dichloropropane	112
1,4-Dioxane	112
Bromodichloromethane	118
cis-1,3-Dichloropropene	116
4-Methyl-2-pentanone	113
Toluene	114
trans-1,3-Dichloropropene	120
1,1,2-Trichloroethane	112
Tetrachloroethene	121
2-Hexanone	116

Client Sample ID: CCV

Lab ID#: 1604079-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e040602	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/6/16 09:59 AM

Compound	%Recovery
Dibromochloromethane	122
1,2-Dibromoethane (EDB)	121
Chlorobenzene	116
Ethyl Benzene	117
m,p-Xylene	124
o-Xylene	125
Styrene	125
Bromoform	128
Cumene	123
1,1,2,2-Tetrachloroethane	114
Propylbenzene	120
4-Ethyltoluene	118
1,3,5-Trimethylbenzene	120
1,2,4-Trimethylbenzene	113
1,3-Dichlorobenzene	113
1,4-Dichlorobenzene	116
alpha-Chlorotoluene	125
1,2-Dichlorobenzene	118
1,2,4-Trichlorobenzene	111
Hexachlorobutadiene	118

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1604079-06B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e040702	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/7/16 11:15 AM

Compound	%Recovery
Freon 12	122
Freon 114	120
Chloromethane	115
Vinyl Chloride	117
1,3-Butadiene	114
Bromomethane	118
Chloroethane	120
Freon 11	115
Ethanol	124
Freon 113	108
1,1-Dichloroethene	112
Acetone	107
2-Propanol	113
Carbon Disulfide	114
3-Chloropropene	122
Methylene Chloride	114
Methyl tert-butyl ether	120
trans-1,2-Dichloroethene	112
Hexane	121
1,1-Dichloroethane	115
2-Butanone (Methyl Ethyl Ketone)	117
cis-1,2-Dichloroethene	120
Tetrahydrofuran	123
Chloroform	115
1,1,1-Trichloroethane	115
Cyclohexane	125
Carbon Tetrachloride	124
2,2,4-Trimethylpentane	115
Benzene	109
1,2-Dichloroethane	113
Heptane	114
Trichloroethene	118
1,2-Dichloropropane	111
1,4-Dioxane	114
Bromodichloromethane	119
cis-1,3-Dichloropropene	118
4-Methyl-2-pentanone	113
Toluene	115
trans-1,3-Dichloropropene	117
1,1,2-Trichloroethane	105
Tetrachloroethene	118
2-Hexanone	110

Client Sample ID: CCV

Lab ID#: 1604079-06B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e040702	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/7/16 11:15 AM

Compound	%Recovery
Dibromochloromethane	117
1,2-Dibromoethane (EDB)	117
Chlorobenzene	114
Ethyl Benzene	115
m,p-Xylene	116
o-Xylene	123
Styrene	118
Bromoform	122
Cumene	117
1,1,2,2-Tetrachloroethane	109
Propylbenzene	115
4-Ethyltoluene	111
1,3,5-Trimethylbenzene	116
1,2,4-Trimethylbenzene	108
1,3-Dichlorobenzene	106
1,4-Dichlorobenzene	110
alpha-Chlorotoluene	116
1,2-Dichlorobenzene	109
1,2,4-Trichlorobenzene	104
Hexachlorobutadiene	110

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	94	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1604079-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e040603	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/6/16 10:46 AM

Compound	%Recovery	Method Limits
Freon 12	99	70-130
Freon 114	102	70-130
Chloromethane	91	70-130
Vinyl Chloride	96	70-130
1,3-Butadiene	92	70-130
Bromomethane	99	70-130
Chloroethane	101	70-130
Freon 11	94	70-130
Ethanol	106	70-130
Freon 113	102	70-130
1,1-Dichloroethene	92	70-130
Acetone	88	70-130
2-Propanol	103	70-130
Carbon Disulfide	84	70-130
3-Chloropropene	92	70-130
Methylene Chloride	89	70-130
Methyl tert-butyl ether	96	70-130
trans-1,2-Dichloroethene	97	70-130
Hexane	98	70-130
1,1-Dichloroethane	97	70-130
2-Butanone (Methyl Ethyl Ketone)	94	70-130
cis-1,2-Dichloroethene	94	70-130
Tetrahydrofuran	101	70-130
Chloroform	95	70-130
1,1,1-Trichloroethane	95	70-130
Cyclohexane	101	70-130
Carbon Tetrachloride	103	70-130
2,2,4-Trimethylpentane	79	70-130
Benzene	92	70-130
1,2-Dichloroethane	94	70-130
Heptane	98	70-130
Trichloroethene	102	70-130
1,2-Dichloropropane	94	70-130
1,4-Dioxane	98	70-130
Bromodichloromethane	103	70-130
cis-1,3-Dichloropropene	97	70-130
4-Methyl-2-pentanone	101	70-130
Toluene	99	70-130
trans-1,3-Dichloropropene	101	70-130
1,1,2-Trichloroethane	96	70-130
Tetrachloroethene	104	70-130
2-Hexanone	104	70-130

Client Sample ID: LCS

Lab ID#: 1604079-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e040603	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/6/16 10:46 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	103	70-130
1,2-Dibromoethane (EDB)	103	70-130
Chlorobenzene	100	70-130
Ethyl Benzene	101	70-130
m,p-Xylene	102	70-130
o-Xylene	110	70-130
Styrene	108	70-130
Bromoform	107	70-130
Cumene	103	70-130
1,1,2,2-Tetrachloroethane	99	70-130
Propylbenzene	105	70-130
4-Ethyltoluene	102	70-130
1,3,5-Trimethylbenzene	103	70-130
1,2,4-Trimethylbenzene	102	70-130
1,3-Dichlorobenzene	97	70-130
1,4-Dichlorobenzene	99	70-130
alpha-Chlorotoluene	104	70-130
1,2-Dichlorobenzene	99	70-130
1,2,4-Trichlorobenzene	105	70-130
Hexachlorobutadiene	109	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	103	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1604079-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e040604	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/6/16 11:35 AM

Compound	%Recovery	Method Limits
Freon 12	80	70-130
Freon 114	84	70-130
Chloromethane	75	70-130
Vinyl Chloride	80	70-130
1,3-Butadiene	76	70-130
Bromomethane	81	70-130
Chloroethane	88	70-130
Freon 11	78	70-130
Ethanol	87	70-130
Freon 113	83	70-130
1,1-Dichloroethene	78	70-130
Acetone	71	70-130
2-Propanol	82	70-130
Carbon Disulfide	66 Q	70-130
3-Chloropropene	76	70-130
Methylene Chloride	75	70-130
Methyl tert-butyl ether	80	70-130
trans-1,2-Dichloroethene	83	70-130
Hexane	80	70-130
1,1-Dichloroethane	78	70-130
2-Butanone (Methyl Ethyl Ketone)	80	70-130
cis-1,2-Dichloroethene	77	70-130
Tetrahydrofuran	79	70-130
Chloroform	75	70-130
1,1,1-Trichloroethane	76	70-130
Cyclohexane	82	70-130
Carbon Tetrachloride	84	70-130
2,2,4-Trimethylpentane	63 Q	70-130
Benzene	94	70-130
1,2-Dichloroethane	94	70-130
Heptane	93	70-130
Trichloroethene	98	70-130
1,2-Dichloropropane	94	70-130
1,4-Dioxane	97	70-130
Bromodichloromethane	102	70-130
cis-1,3-Dichloropropene	91	70-130
4-Methyl-2-pentanone	97	70-130
Toluene	96	70-130
trans-1,3-Dichloropropene	95	70-130
1,1,2-Trichloroethane	92	70-130
Tetrachloroethene	100	70-130
2-Hexanone	100	70-130

Client Sample ID: LCSD

Lab ID#: 1604079-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e040604	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/6/16 11:35 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	102	70-130
1,2-Dibromoethane (EDB)	99	70-130
Chlorobenzene	97	70-130
Ethyl Benzene	97	70-130
m,p-Xylene	100	70-130
o-Xylene	107	70-130
Styrene	102	70-130
Bromoform	104	70-130
Cumene	101	70-130
1,1,2,2-Tetrachloroethane	95	70-130
Propylbenzene	101	70-130
4-Ethyltoluene	97	70-130
1,3,5-Trimethylbenzene	96	70-130
1,2,4-Trimethylbenzene	94	70-130
1,3-Dichlorobenzene	93	70-130
1,4-Dichlorobenzene	95	70-130
alpha-Chlorotoluene	102	70-130
1,2-Dichlorobenzene	96	70-130
1,2,4-Trichlorobenzene	96	70-130
Hexachlorobutadiene	98	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	77	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	99	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1604079-07B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e040703	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/7/16 11:58 AM

Compound	%Recovery	Method Limits
Freon 12	108	70-130
Freon 114	111	70-130
Chloromethane	104	70-130
Vinyl Chloride	108	70-130
1,3-Butadiene	99	70-130
Bromomethane	106	70-130
Chloroethane	111	70-130
Freon 11	106	70-130
Ethanol	114	70-130
Freon 113	113	70-130
1,1-Dichloroethene	101	70-130
Acetone	95	70-130
2-Propanol	110	70-130
Carbon Disulfide	89	70-130
3-Chloropropene	98	70-130
Methylene Chloride	100	70-130
Methyl tert-butyl ether	104	70-130
trans-1,2-Dichloroethene	103	70-130
Hexane	103	70-130
1,1-Dichloroethane	100	70-130
2-Butanone (Methyl Ethyl Ketone)	108	70-130
cis-1,2-Dichloroethene	100	70-130
Tetrahydrofuran	107	70-130
Chloroform	102	70-130
1,1,1-Trichloroethane	103	70-130
Cyclohexane	107	70-130
Carbon Tetrachloride	111	70-130
2,2,4-Trimethylpentane	90	70-130
Benzene	94	70-130
1,2-Dichloroethane	98	70-130
Heptane	94	70-130
Trichloroethene	101	70-130
1,2-Dichloropropane	96	70-130
1,4-Dioxane	96	70-130
Bromodichloromethane	104	70-130
cis-1,3-Dichloropropene	92	70-130
4-Methyl-2-pentanone	98	70-130
Toluene	97	70-130
trans-1,3-Dichloropropene	102	70-130
1,1,2-Trichloroethane	93	70-130
Tetrachloroethene	103	70-130
2-Hexanone	102	70-130

Client Sample ID: LCS

Lab ID#: 1604079-07B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e040703	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/7/16 11:58 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	104	70-130
1,2-Dibromoethane (EDB)	102	70-130
Chlorobenzene	100	70-130
Ethyl Benzene	100	70-130
m,p-Xylene	104	70-130
o-Xylene	108	70-130
Styrene	104	70-130
Bromoform	108	70-130
Cumene	105	70-130
1,1,2,2-Tetrachloroethane	96	70-130
Propylbenzene	104	70-130
4-Ethyltoluene	100	70-130
1,3,5-Trimethylbenzene	104	70-130
1,2,4-Trimethylbenzene	100	70-130
1,3-Dichlorobenzene	99	70-130
1,4-Dichlorobenzene	97	70-130
alpha-Chlorotoluene	103	70-130
1,2-Dichlorobenzene	98	70-130
1,2,4-Trichlorobenzene	97	70-130
Hexachlorobutadiene	96	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: LCS D

Lab ID#: 1604079-07BB

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e040705	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/7/16 01:08 PM

Compound	%Recovery	Method Limits
Freon 12	101	70-130
Freon 114	105	70-130
Chloromethane	97	70-130
Vinyl Chloride	96	70-130
1,3-Butadiene	95	70-130
Bromomethane	98	70-130
Chloroethane	111	70-130
Freon 11	99	70-130
Ethanol	104	70-130
Freon 113	105	70-130
1,1-Dichloroethene	97	70-130
Acetone	95	70-130
2-Propanol	105	70-130
Carbon Disulfide	83	70-130
3-Chloropropene	90	70-130
Methylene Chloride	93	70-130
Methyl tert-butyl ether	98	70-130
trans-1,2-Dichloroethene	102	70-130
Hexane	104	70-130
1,1-Dichloroethane	96	70-130
2-Butanone (Methyl Ethyl Ketone)	97	70-130
cis-1,2-Dichloroethene	99	70-130
Tetrahydrofuran	102	70-130
Chloroform	97	70-130
1,1,1-Trichloroethane	98	70-130
Cyclohexane	102	70-130
Carbon Tetrachloride	101	70-130
2,2,4-Trimethylpentane	89	70-130
Benzene	92	70-130
1,2-Dichloroethane	95	70-130
Heptane	95	70-130
Trichloroethene	100	70-130
1,2-Dichloropropane	94	70-130
1,4-Dioxane	95	70-130
Bromodichloromethane	104	70-130
cis-1,3-Dichloropropene	94	70-130
4-Methyl-2-pentanone	98	70-130
Toluene	98	70-130
trans-1,3-Dichloropropene	101	70-130
1,1,2-Trichloroethane	92	70-130
Tetrachloroethene	104	70-130
2-Hexanone	102	70-130

Client Sample ID: LCSD

Lab ID#: 1604079-07BB

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e040705	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/7/16 01:08 PM

Compound	%Recovery	Method Limits
Dibromochloromethane	102	70-130
1,2-Dibromoethane (EDB)	100	70-130
Chlorobenzene	100	70-130
Ethyl Benzene	101	70-130
m,p-Xylene	104	70-130
o-Xylene	110	70-130
Styrene	107	70-130
Bromoform	108	70-130
Cumene	108	70-130
1,1,2,2-Tetrachloroethane	98	70-130
Propylbenzene	104	70-130
4-Ethyltoluene	99	70-130
1,3,5-Trimethylbenzene	103	70-130
1,2,4-Trimethylbenzene	98	70-130
1,3-Dichlorobenzene	97	70-130
1,4-Dichlorobenzene	100	70-130
alpha-Chlorotoluene	108	70-130
1,2-Dichlorobenzene	101	70-130
1,2,4-Trichlorobenzene	105	70-130
Hexachlorobutadiene	119	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	105	70-130