

3/12/2016
Mr. Dennis Schroeder
Missouri Dept. of Natural Resources
2710 West Main

Jefferson City MO 65109

Project Name: Bridgeton Landfill
Project #:
Workorder #: 1603043

Dear Mr. Dennis Schroeder

The following report includes the data for the above referenced project for sample(s) received on 3/2/2016 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 #: 1603043

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. #	3ESP160625
FAX:	573-526-3350	PROJECT #	Bridgeton Landfill
DATE RECEIVED:	03/02/2016	CONTACT:	Brian Whittaker
DATE COMPLETED:	03/12/2016		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	D1 (160360)	Modified TO-15	5.3 "Hg	4.9 psi
02A	D2 (160361)	Modified TO-15	3.5 "Hg	5.1 psi
03A	U1 (160362)	Modified TO-15	3.3 "Hg	5 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: 03/12/16

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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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE
Modified TO-15
Missouri Dept. of Natural Resources
Workorder# 1603043**

One 6 Liter Summa Canister (SIM Certified Calscience) and two 6 Liter Summa Canister (100% Certified) samples were received on March 02, 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	$\leq 30\%$ RSD with 2 compounds allowed out to <math>< 40\%</math> RSD	$\leq 30\%$ RSD with 4 compounds allowed out to <math>< 40\%</math> 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 (160360)

Lab ID#: 1603043-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.50	0.80	2.5
Freon 11	0.16	0.25	0.91	1.4
Acetone	0.81	1.4	1.9	3.3
2-Propanol	0.81	1.0	2.0	2.5
Hexane	0.16	0.39	0.57	1.4
Benzene	0.16	0.17	0.52	0.53
Heptane	0.16	0.20	0.66	0.84
Toluene	0.16	0.17	0.61	0.64

Client Sample ID: D2 (160361)

Lab ID#: 1603043-02A

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	0.26	0.85	1.5
Ethanol	0.76	1.4	1.4	2.6
Acetone	0.76	3.2	1.8	7.6
2-Butanone (Methyl Ethyl Ketone)	0.76	0.87	2.2	2.6
Benzene	0.15	0.17	0.48	0.55

Client Sample ID: U1 (160362)

Lab ID#: 1603043-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.50	0.74	2.5
Freon 11	0.15	0.23	0.84	1.3
Ethanol	0.75	1.6	1.4	3.0
Acetone	0.75	3.6	1.8	8.5
2-Butanone (Methyl Ethyl Ketone)	0.75	1.1	2.2	3.2



Air Toxics

Client Sample ID: D1 (160360)

Lab ID#: 1603043-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a030906	Date of Collection:	2/25/16 12:30:00 PM
Dil. Factor:	1.62	Date of Analysis:	3/9/16 02:30 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.50	0.80	2.5
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.81	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	0.81	Not Detected	3.1	Not Detected
Chloroethane	0.81	Not Detected	2.1	Not Detected
Freon 11	0.16	0.25	0.91	1.4
Ethanol	0.81	Not Detected	1.5	Not Detected
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Acetone	0.81	1.4	1.9	3.3
2-Propanol	0.81	1.0	2.0	2.5
Carbon Disulfide	0.81	Not Detected	2.5	Not Detected
3-Chloropropene	0.81	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	0.39	0.57	1.4
1,1-Dichloroethane	0.16	Not Detected	0.66	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.81	Not Detected	2.4	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Tetrahydrofuran	0.81	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	0.56	Not Detected
Carbon Tetrachloride	0.16	Not Detected	1.0	Not Detected
2,2,4-Trimethylpentane	0.81	Not Detected	3.8	Not Detected
Benzene	0.16	0.17	0.52	0.53
1,2-Dichloroethane	0.16	Not Detected	0.66	Not Detected
Heptane	0.16	0.20	0.66	0.84
Trichloroethene	0.16	Not Detected	0.87	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.75	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	0.74	Not Detected
4-Methyl-2-pentanone	0.16	Not Detected	0.66	Not Detected
Toluene	0.16	0.17	0.61	0.64
trans-1,3-Dichloropropene	0.16	Not Detected	0.74	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	0.81	Not Detected	3.3	Not Detected



Air Toxics

Client Sample ID: D1 (160360)

Lab ID#: 1603043-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a030906	Date of Collection: 2/25/16 12:30:00 PM
Dil. Factor:	1.62	Date of Analysis: 3/9/16 02:30 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	0.69	Not Detected
Bromoform	0.16	Not Detected	1.7	Not Detected
Cumene	0.16	Not Detected	0.80	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
Propylbenzene	0.16	Not Detected	0.80	Not Detected
4-Ethyltoluene	0.16	Not Detected	0.80	Not Detected
1,3,5-Trimethylbenzene	0.16	Not Detected	0.80	Not Detected
1,2,4-Trimethylbenzene	0.16	Not Detected	0.80	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	0.84	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,2,4-Trichlorobenzene	0.81	Not Detected	6.0	Not Detected
Hexachlorobutadiene	0.81	Not Detected	8.6	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified Calscience)

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



Air Toxics

Client Sample ID: D2 (160361)

Lab ID#: 1603043-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a030907	Date of Collection:	2/25/16 1:50:00 PM
Dil. Factor:	1.52	Date of Analysis:	3/9/16 03:01 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	0.26	0.85	1.5
Ethanol	0.76	1.4	1.4	2.6
Freon 113	0.15	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.15	Not Detected	0.60	Not Detected
Acetone	0.76	3.2	1.8	7.6
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	Not Detected	0.54	Not Detected
1,1-Dichloroethane	0.15	Not Detected	0.62	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.76	0.87	2.2	2.6
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	0.17	0.48	0.55
1,2-Dichloroethane	0.15	Not Detected	0.62	Not Detected
Heptane	0.15	Not Detected	0.62	Not Detected
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	Not Detected	0.57	Not Detected
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: D2 (160361)

Lab ID#: 1603043-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a030907	Date of Collection:	2/25/16 1:50:00 PM
Dil. Factor:	1.52	Date of Analysis:	3/9/16 03:01 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	103	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	97	70-130



Air Toxics

Client Sample ID: U1 (160362)

Lab ID#: 1603043-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a030908	Date of Collection:	2/25/16 2:15:00 PM
Dil. Factor:	1.50	Date of Analysis:	3/9/16 03:32 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.50	0.74	2.5
Freon 114	0.15	Not Detected	1.0	Not Detected
Chloromethane	0.75	Not Detected	1.5	Not Detected
Vinyl Chloride	0.15	Not Detected	0.38	Not Detected
1,3-Butadiene	0.15	Not Detected	0.33	Not Detected
Bromomethane	0.75	Not Detected	2.9	Not Detected
Chloroethane	0.75	Not Detected	2.0	Not Detected
Freon 11	0.15	0.23	0.84	1.3
Ethanol	0.75	1.6	1.4	3.0
Freon 113	0.15	Not Detected	1.1	Not Detected
1,1-Dichloroethene	0.15	Not Detected	0.59	Not Detected
Acetone	0.75	3.6	1.8	8.5
2-Propanol	0.75	Not Detected	1.8	Not Detected
Carbon Disulfide	0.75	Not Detected	2.3	Not Detected
3-Chloropropene	0.75	Not Detected	2.3	Not Detected
Methylene Chloride	0.30	Not Detected	1.0	Not Detected
Methyl tert-butyl ether	0.15	Not Detected	0.54	Not Detected
trans-1,2-Dichloroethene	0.15	Not Detected	0.59	Not Detected
Hexane	0.15	Not Detected	0.53	Not Detected
1,1-Dichloroethane	0.15	Not Detected	0.61	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.75	1.1	2.2	3.2
cis-1,2-Dichloroethene	0.15	Not Detected	0.59	Not Detected
Tetrahydrofuran	0.75	Not Detected	2.2	Not Detected
Chloroform	0.15	Not Detected	0.73	Not Detected
1,1,1-Trichloroethane	0.15	Not Detected	0.82	Not Detected
Cyclohexane	0.15	Not Detected	0.52	Not Detected
Carbon Tetrachloride	0.15	Not Detected	0.94	Not Detected
2,2,4-Trimethylpentane	0.75	Not Detected	3.5	Not Detected
Benzene	0.15	Not Detected	0.48	Not Detected
1,2-Dichloroethane	0.15	Not Detected	0.61	Not Detected
Heptane	0.15	Not Detected	0.61	Not Detected
Trichloroethene	0.15	Not Detected	0.81	Not Detected
1,2-Dichloropropane	0.15	Not Detected	0.69	Not Detected
1,4-Dioxane	0.15	Not Detected	0.54	Not Detected
Bromodichloromethane	0.15	Not Detected	1.0	Not Detected
cis-1,3-Dichloropropene	0.15	Not Detected	0.68	Not Detected
4-Methyl-2-pentanone	0.15	Not Detected	0.61	Not Detected
Toluene	0.15	Not Detected	0.56	Not Detected
trans-1,3-Dichloropropene	0.15	Not Detected	0.68	Not Detected
1,1,2-Trichloroethane	0.15	Not Detected	0.82	Not Detected
Tetrachloroethene	0.15	Not Detected	1.0	Not Detected
2-Hexanone	0.75	Not Detected	3.1	Not Detected



Client Sample ID: U1 (160362)

Lab ID#: 1603043-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a030908	Date of Collection:	2/25/16 2:15:00 PM
Dil. Factor:	1.50	Date of Analysis:	3/9/16 03:32 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	0.69	Not Detected
Ethyl Benzene	0.15	Not Detected	0.65	Not Detected
m,p-Xylene	0.15	Not Detected	0.65	Not Detected
o-Xylene	0.15	Not Detected	0.65	Not Detected
Styrene	0.15	Not Detected	0.64	Not Detected
Bromoform	0.15	Not Detected	1.6	Not Detected
Cumene	0.15	Not Detected	0.74	Not Detected
1,1,2,2-Tetrachloroethane	0.15	Not Detected	1.0	Not Detected
Propylbenzene	0.15	Not Detected	0.74	Not Detected
4-Ethyltoluene	0.15	Not Detected	0.74	Not Detected
1,3,5-Trimethylbenzene	0.15	Not Detected	0.74	Not Detected
1,2,4-Trimethylbenzene	0.15	Not Detected	0.74	Not Detected
1,3-Dichlorobenzene	0.15	Not Detected	0.90	Not Detected
1,4-Dichlorobenzene	0.15	Not Detected	0.90	Not Detected
alpha-Chlorotoluene	0.15	Not Detected	0.78	Not Detected
1,2-Dichlorobenzene	0.15	Not Detected	0.90	Not Detected
1,2,4-Trichlorobenzene	0.75	Not Detected	5.6	Not Detected
Hexachlorobutadiene	0.75	Not Detected	8.0	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	96	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1603043-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a030905	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	3/9/16 01:16 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#: 1603043-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a030905	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	3/9/16 01:16 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	105	70-130
Toluene-d8	108	70-130
4-Bromofluorobenzene	95	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1603043-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a030902	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/9/16 11:38 AM

Compound	%Recovery
Freon 12	98
Freon 114	106
Chloromethane	107
Vinyl Chloride	91
1,3-Butadiene	96
Bromomethane	94
Chloroethane	88
Freon 11	101
Ethanol	88
Freon 113	103
1,1-Dichloroethene	93
Acetone	99
2-Propanol	103
Carbon Disulfide	95
3-Chloropropene	90
Methylene Chloride	92
Methyl tert-butyl ether	99
trans-1,2-Dichloroethene	96
Hexane	95
1,1-Dichloroethane	99
2-Butanone (Methyl Ethyl Ketone)	96
cis-1,2-Dichloroethene	99
Tetrahydrofuran	98
Chloroform	98
1,1,1-Trichloroethane	103
Cyclohexane	100
Carbon Tetrachloride	111
2,2,4-Trimethylpentane	99
Benzene	100
1,2-Dichloroethane	101
Heptane	111
Trichloroethene	103
1,2-Dichloropropane	102
1,4-Dioxane	108
Bromodichloromethane	101
cis-1,3-Dichloropropene	108
4-Methyl-2-pentanone	105
Toluene	106
trans-1,3-Dichloropropene	108
1,1,2-Trichloroethane	103
Tetrachloroethene	107
2-Hexanone	103

Client Sample ID: CCV

Lab ID#: 1603043-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a030902	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/9/16 11:38 AM

Compound	%Recovery
Dibromochloromethane	108
1,2-Dibromoethane (EDB)	104
Chlorobenzene	105
Ethyl Benzene	106
m,p-Xylene	106
o-Xylene	110
Styrene	107
Bromoform	110
Cumene	112
1,1,2,2-Tetrachloroethane	110
Propylbenzene	108
4-Ethyltoluene	107
1,3,5-Trimethylbenzene	116
1,2,4-Trimethylbenzene	109
1,3-Dichlorobenzene	105
1,4-Dichlorobenzene	106
alpha-Chlorotoluene	107
1,2-Dichlorobenzene	106
1,2,4-Trichlorobenzene	107
Hexachlorobutadiene	107

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1603043-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a030903	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/9/16 12:04 PM

Compound	%Recovery	Method Limits
Freon 12	101	70-130
Freon 114	111	70-130
Chloromethane	92	70-130
Vinyl Chloride	98	70-130
1,3-Butadiene	93	70-130
Bromomethane	95	70-130
Chloroethane	97	70-130
Freon 11	102	70-130
Ethanol	102	70-130
Freon 113	97	70-130
1,1-Dichloroethene	99	70-130
Acetone	97	70-130
2-Propanol	107	70-130
Carbon Disulfide	82	70-130
3-Chloropropene	89	70-130
Methylene Chloride	88	70-130
Methyl tert-butyl ether	95	70-130
trans-1,2-Dichloroethene	95	70-130
Hexane	94	70-130
1,1-Dichloroethane	99	70-130
2-Butanone (Methyl Ethyl Ketone)	95	70-130
cis-1,2-Dichloroethene	99	70-130
Tetrahydrofuran	96	70-130
Chloroform	97	70-130
1,1,1-Trichloroethane	97	70-130
Cyclohexane	99	70-130
Carbon Tetrachloride	95	70-130
2,2,4-Trimethylpentane	106	70-130
Benzene	98	70-130
1,2-Dichloroethane	98	70-130
Heptane	108	70-130
Trichloroethene	97	70-130
1,2-Dichloropropane	98	70-130
1,4-Dioxane	107	70-130
Bromodichloromethane	102	70-130
cis-1,3-Dichloropropene	96	70-130
4-Methyl-2-pentanone	103	70-130
Toluene	100	70-130
trans-1,3-Dichloropropene	104	70-130
1,1,2-Trichloroethane	102	70-130
Tetrachloroethene	104	70-130
2-Hexanone	111	70-130

Client Sample ID: LCS

Lab ID#: 1603043-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a030903	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/9/16 12:04 PM

Compound	%Recovery	Method Limits
Dibromochloromethane	106	70-130
1,2-Dibromoethane (EDB)	103	70-130
Chlorobenzene	105	70-130
Ethyl Benzene	105	70-130
m,p-Xylene	106	70-130
o-Xylene	106	70-130
Styrene	108	70-130
Bromoform	108	70-130
Cumene	109	70-130
1,1,2,2-Tetrachloroethane	109	70-130
Propylbenzene	110	70-130
4-Ethyltoluene	106	70-130
1,3,5-Trimethylbenzene	112	70-130
1,2,4-Trimethylbenzene	108	70-130
1,3-Dichlorobenzene	105	70-130
1,4-Dichlorobenzene	107	70-130
alpha-Chlorotoluene	113	70-130
1,2-Dichlorobenzene	107	70-130
1,2,4-Trichlorobenzene	116	70-130
Hexachlorobutadiene	114	70-130

Container Type: NA - Not Applicable

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

Client Sample ID: LCS D

Lab ID#: 1603043-06AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a030904	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/9/16 12:30 PM

Compound	%Recovery	Method Limits
Freon 12	99	70-130
Freon 114	107	70-130
Chloromethane	100	70-130
Vinyl Chloride	95	70-130
1,3-Butadiene	88	70-130
Bromomethane	92	70-130
Chloroethane	94	70-130
Freon 11	100	70-130
Ethanol	97	70-130
Freon 113	97	70-130
1,1-Dichloroethene	92	70-130
Acetone	95	70-130
2-Propanol	103	70-130
Carbon Disulfide	82	70-130
3-Chloropropene	80	70-130
Methylene Chloride	90	70-130
Methyl tert-butyl ether	94	70-130
trans-1,2-Dichloroethene	96	70-130
Hexane	94	70-130
1,1-Dichloroethane	97	70-130
2-Butanone (Methyl Ethyl Ketone)	97	70-130
cis-1,2-Dichloroethene	100	70-130
Tetrahydrofuran	95	70-130
Chloroform	97	70-130
1,1,1-Trichloroethane	97	70-130
Cyclohexane	97	70-130
Carbon Tetrachloride	93	70-130
2,2,4-Trimethylpentane	101	70-130
Benzene	95	70-130
1,2-Dichloroethane	94	70-130
Heptane	99	70-130
Trichloroethene	95	70-130
1,2-Dichloropropane	94	70-130
1,4-Dioxane	105	70-130
Bromodichloromethane	99	70-130
cis-1,3-Dichloropropene	94	70-130
4-Methyl-2-pentanone	100	70-130
Toluene	99	70-130
trans-1,3-Dichloropropene	105	70-130
1,1,2-Trichloroethane	100	70-130
Tetrachloroethene	103	70-130
2-Hexanone	109	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1603043-06AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a030904	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 3/9/16 12:30 PM

Compound	%Recovery	Method Limits
Dibromochloromethane	102	70-130
1,2-Dibromoethane (EDB)	101	70-130
Chlorobenzene	100	70-130
Ethyl Benzene	103	70-130
m,p-Xylene	101	70-130
o-Xylene	105	70-130
Styrene	107	70-130
Bromoform	108	70-130
Cumene	106	70-130
1,1,2,2-Tetrachloroethane	107	70-130
Propylbenzene	108	70-130
4-Ethyltoluene	108	70-130
1,3,5-Trimethylbenzene	106	70-130
1,2,4-Trimethylbenzene	107	70-130
1,3-Dichlorobenzene	103	70-130
1,4-Dichlorobenzene	106	70-130
alpha-Chlorotoluene	109	70-130
1,2-Dichlorobenzene	106	70-130
1,2,4-Trichlorobenzene	115	70-130
Hexachlorobutadiene	114	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	100	70-130