



Air Toxics

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

Page 1 of 1

Project Manager Miles peris

Collected by: (Print and Sign) Wesley Simmons

Company Geoquip

Address 20820 176

Phone 533 536-3718

Email ack@geoquip.com

City TC State NO Zip 6702

Project Info:

P.O. # YESP1000007

Project # _____

Project Name Anderson High Rill

Turn Around Time:

Normal

Rush

Lab Use Only

Pressurized by: _____

Date: _____

Pressurization Gas: _____

Initial Final Receipt Final (psf)

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum				
						Initial	Final	Receipt	Final (psf)	
01A	A (1412265)	13661	11/12/14	16:30 W5 16:10	TD	15	-30	-5		
02A	B (1412266)	3724	11/12/14	16:31 16:21	TD	15	-30	-4		
03A	A (1412267)	2393	11/12/14	16:50 16:46	TD	15	-30	-4		
04A	W (1412268)	34742	11/12/14	16:58 16:57	TD	15	-30	-4.5		

Relinquished by: (signature) _____ Date/Time _____

Received by: (signature) _____ Date/Time _____

Notes:

Shipped via UPS.
Tracking # 1Z072FS30343741197

Relinquished by: (signature) _____ Date/Time _____

Received by: (signature) _____ Date/Time _____

Lab Use Only

Shipper Name URS Air Bill # _____ Temp (°C) NA Condition Good Custody Seals Intact? Yes No None Work Order # 1411423

12/9/2014

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

Jefferson City MO 65109

Project Name: Bridgeton landfill

Project #:

Workorder #: 1411429

Dear Mr. Dennis Schroeder

The following report includes the data for the above referenced project for sample(s) received on 11/25/2014 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 Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact 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 #: 1411429

Work Order Summary

CLIENT:	Mr. Dennis Schroeder Missouri Dept. of Natural Resources 2710 West Main Jefferson City, MO 65109	BILL TO:	Accounts Payable Missouri Dept. of Natural Resources P.O Box 176 Jefferson City, MO 65102
PHONE:	573-526-4428	P.O. #	3ESP4000007
FAX:	573-526-3350	PROJECT #	Bridgeton landfill
DATE RECEIVED:	11/25/2014	CONTACT:	Brian Whittaker
DATE COMPLETED:	12/09/2014		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	D1 (1412265)	Modified TO-15	2.2 "Hg	5 psi
02A	D2 (1412266)	Modified TO-15	1.8 "Hg	5.2 psi
03A	U1 (1412267)	Modified TO-15	1.8 "Hg	5 psi
04A	U2 (1412268)	Modified TO-15	2 "Hg	5.2 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: 12/09/14

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

Eurofins Air Toxics Inc. certifies that the test results contained in this report meet all requirements of the NELAC standards

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**LABORATORY NARRATIVE
Modified TO-15
Missouri Dept. of Natural Resources
Workorder# 1411429**

Four 6 Liter Summa Canister (100% Certified) samples were received on November 25, 2014. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

<i>Requirement</i>	<i>TO-15</i>	<i>ATL Modifications</i>
Initial Calibration	</=30% RSD with 2 compounds allowed out to < 40% RSD	</=30% RSD with 4 compounds allowed out to < 40% RSD
Blank and standards	Zero Air	UHP Nitrogen provides a higher purity gas matrix than zero air

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

All Quality Control Limit exceedances and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page. Target compound non-detects in the samples that are associated with high bias in QC analyses have not been flagged.

Due to the linear calibration range of the instrument, the reporting limit for Freon 12 and alpha-Chlorotoluene on instrument MSD-V and for 1,4-Dioxane on instrument MSD-E was raised from 0.10 ppbv to 0.50 ppbv.

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 (1412265)

Lab ID#: 1411429-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	0.14	0.17	0.81	0.94
Ethanol	0.72	0.85 J	1.4	1.6 J
Acetone	0.72	0.87	1.7	2.1
Benzene	0.14	0.26	0.46	0.82

Client Sample ID: D2 (1412266)

Lab ID#: 1411429-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	0.14	0.19	0.81	1.1
Ethanol	0.72	0.93 J	1.4	1.7 J
Acetone	0.72	0.96	1.7	2.3

Client Sample ID: U1 (1412267)

Lab ID#: 1411429-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.14	0.38	0.71	1.8
Freon 11	0.14	0.17	0.80	0.95
Ethanol	0.72	2.4	1.3	4.4
Acetone	0.72	1.0	1.7	2.5
Toluene	0.14	0.60	0.54	2.2

Client Sample ID: U2 (1412268)

Lab ID#: 1411429-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	0.14	0.19	0.81	1.1
Ethanol	0.72	0.74 J	1.4	1.4 J
Acetone	0.72	1.3	1.7	3.1
Toluene	0.14	0.38	0.55	1.4



Air Toxics

Client Sample ID: D1 (1412265)

Lab ID#: 1411429-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v112812	Date of Collection:	11/12/14 4:10:00 PM
Dil. Factor:	1.45	Date of Analysis:	11/28/14 03:24 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.72	Not Detected	3.6	Not Detected
Freon 114	0.14	Not Detected	1.0	Not Detected
Chloromethane	0.72	Not Detected	1.5	Not Detected
Vinyl Chloride	0.14	Not Detected	0.37	Not Detected
1,3-Butadiene	0.14	Not Detected	0.32	Not Detected
Bromomethane	0.72	Not Detected	2.8	Not Detected
Chloroethane	0.72	Not Detected	1.9	Not Detected
Freon 11	0.14	0.17	0.81	0.94
Ethanol	0.72	0.85 J	1.4	1.6 J
Freon 113	0.14	Not Detected	1.1	Not Detected
1,1-Dichloroethene	0.14	Not Detected	0.57	Not Detected
Acetone	0.72	0.87	1.7	2.1
2-Propanol	0.72	Not Detected	1.8	Not Detected
Carbon Disulfide	0.72	Not Detected	2.2	Not Detected
3-Chloropropene	0.72	Not Detected	2.3	Not Detected
Methylene Chloride	0.29	Not Detected	1.0	Not Detected
Methyl tert-butyl ether	0.14	Not Detected	0.52	Not Detected
trans-1,2-Dichloroethene	0.14	Not Detected	0.57	Not Detected
Hexane	0.14	Not Detected	0.51	Not Detected
1,1-Dichloroethane	0.14	Not Detected	0.59	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.72	Not Detected	2.1	Not Detected
cis-1,2-Dichloroethene	0.14	Not Detected	0.57	Not Detected
Tetrahydrofuran	0.72	Not Detected	2.1	Not Detected
Chloroform	0.14	Not Detected	0.71	Not Detected
1,1,1-Trichloroethane	0.14	Not Detected	0.79	Not Detected
Cyclohexane	0.14	Not Detected	0.50	Not Detected
Carbon Tetrachloride	0.14	Not Detected	0.91	Not Detected
2,2,4-Trimethylpentane	0.72	Not Detected	3.4	Not Detected
Benzene	0.14	0.26	0.46	0.82
1,2-Dichloroethane	0.14	Not Detected	0.59	Not Detected
Heptane	0.14	Not Detected	0.59	Not Detected
Trichloroethene	0.14	Not Detected	0.78	Not Detected
1,2-Dichloropropane	0.14	Not Detected	0.67	Not Detected
1,4-Dioxane	0.14	Not Detected	0.52	Not Detected
Bromodichloromethane	0.14	Not Detected	0.97	Not Detected
cis-1,3-Dichloropropene	0.14	Not Detected	0.66	Not Detected
4-Methyl-2-pentanone	0.14	Not Detected	0.59	Not Detected
Toluene	0.14	Not Detected	0.55	Not Detected
trans-1,3-Dichloropropene	0.14	Not Detected	0.66	Not Detected
1,1,2-Trichloroethane	0.14	Not Detected	0.79	Not Detected
Tetrachloroethene	0.14	Not Detected	0.98	Not Detected
2-Hexanone	0.72	Not Detected	3.0	Not Detected



Client Sample ID: D1 (1412265)

Lab ID#: 1411429-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v112812	Date of Collection:	11/12/14 4:10:00 PM
Dil. Factor:	1.45	Date of Analysis:	11/28/14 03:24 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.14	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.14	Not Detected	1.1	Not Detected
Chlorobenzene	0.14	Not Detected	0.67	Not Detected
Ethyl Benzene	0.14	Not Detected	0.63	Not Detected
m,p-Xylene	0.14	Not Detected	0.63	Not Detected
o-Xylene	0.14	Not Detected	0.63	Not Detected
Styrene	0.14	Not Detected	0.62	Not Detected
Bromoform	0.14	Not Detected	1.5	Not Detected
Cumene	0.14	Not Detected	0.71	Not Detected
1,1,2,2-Tetrachloroethane	0.14	Not Detected	1.0	Not Detected
Propylbenzene	0.14	Not Detected	0.71	Not Detected
4-Ethyltoluene	0.14	Not Detected	0.71	Not Detected
1,3,5-Trimethylbenzene	0.14	Not Detected	0.71	Not Detected
1,2,4-Trimethylbenzene	0.14	Not Detected	0.71	Not Detected
1,3-Dichlorobenzene	0.14	Not Detected	0.87	Not Detected
1,4-Dichlorobenzene	0.14	Not Detected	0.87	Not Detected
alpha-Chlorotoluene	0.72	Not Detected	3.8	Not Detected
1,2-Dichlorobenzene	0.14	Not Detected	0.87	Not Detected
1,2,4-Trichlorobenzene	0.72	Not Detected	5.4	Not Detected
Hexachlorobutadiene	0.72	Not Detected	7.7	Not Detected

J = Estimated value due to bias in the CCV.

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	94	70-130



Air Toxics

Client Sample ID: D2 (1412266)

Lab ID#: 1411429-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v112813	Date of Collection:	11/12/14 4:21:00 PM
Dil. Factor:	1.44	Date of Analysis:	11/28/14 04:13 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.72	Not Detected	3.6	Not Detected
Freon 114	0.14	Not Detected	1.0	Not Detected
Chloromethane	0.72	Not Detected	1.5	Not Detected
Vinyl Chloride	0.14	Not Detected	0.37	Not Detected
1,3-Butadiene	0.14	Not Detected	0.32	Not Detected
Bromomethane	0.72	Not Detected	2.8	Not Detected
Chloroethane	0.72	Not Detected	1.9	Not Detected
Freon 11	0.14	0.19	0.81	1.1
Ethanol	0.72	0.93 J	1.4	1.7 J
Freon 113	0.14	Not Detected	1.1	Not Detected
1,1-Dichloroethene	0.14	Not Detected	0.57	Not Detected
Acetone	0.72	0.96	1.7	2.3
2-Propanol	0.72	Not Detected	1.8	Not Detected
Carbon Disulfide	0.72	Not Detected	2.2	Not Detected
3-Chloropropene	0.72	Not Detected	2.2	Not Detected
Methylene Chloride	0.29	Not Detected	1.0	Not Detected
Methyl tert-butyl ether	0.14	Not Detected	0.52	Not Detected
trans-1,2-Dichloroethene	0.14	Not Detected	0.57	Not Detected
Hexane	0.14	Not Detected	0.51	Not Detected
1,1-Dichloroethane	0.14	Not Detected	0.58	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.72	Not Detected	2.1	Not Detected
cis-1,2-Dichloroethene	0.14	Not Detected	0.57	Not Detected
Tetrahydrofuran	0.72	Not Detected	2.1	Not Detected
Chloroform	0.14	Not Detected	0.70	Not Detected
1,1,1-Trichloroethane	0.14	Not Detected	0.78	Not Detected
Cyclohexane	0.14	Not Detected	0.50	Not Detected
Carbon Tetrachloride	0.14	Not Detected	0.91	Not Detected
2,2,4-Trimethylpentane	0.72	Not Detected	3.4	Not Detected
Benzene	0.14	Not Detected	0.46	Not Detected
1,2-Dichloroethane	0.14	Not Detected	0.58	Not Detected
Heptane	0.14	Not Detected	0.59	Not Detected
Trichloroethene	0.14	Not Detected	0.77	Not Detected
1,2-Dichloropropane	0.14	Not Detected	0.66	Not Detected
1,4-Dioxane	0.14	Not Detected	0.52	Not Detected
Bromodichloromethane	0.14	Not Detected	0.96	Not Detected
cis-1,3-Dichloropropene	0.14	Not Detected	0.65	Not Detected
4-Methyl-2-pentanone	0.14	Not Detected	0.59	Not Detected
Toluene	0.14	Not Detected	0.54	Not Detected
trans-1,3-Dichloropropene	0.14	Not Detected	0.65	Not Detected
1,1,2-Trichloroethane	0.14	Not Detected	0.78	Not Detected
Tetrachloroethene	0.14	Not Detected	0.98	Not Detected
2-Hexanone	0.72	Not Detected	2.9	Not Detected

Client Sample ID: D2 (1412266)

Lab ID#: 1411429-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v112813	Date of Collection:	11/12/14 4:21:00 PM
Dil. Factor:	1.44	Date of Analysis:	11/28/14 04:13 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.14	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.14	Not Detected	1.1	Not Detected
Chlorobenzene	0.14	Not Detected	0.66	Not Detected
Ethyl Benzene	0.14	Not Detected	0.62	Not Detected
m,p-Xylene	0.14	Not Detected	0.62	Not Detected
o-Xylene	0.14	Not Detected	0.62	Not Detected
Styrene	0.14	Not Detected	0.61	Not Detected
Bromoform	0.14	Not Detected	1.5	Not Detected
Cumene	0.14	Not Detected	0.71	Not Detected
1,1,2,2-Tetrachloroethane	0.14	Not Detected	0.99	Not Detected
Propylbenzene	0.14	Not Detected	0.71	Not Detected
4-Ethyltoluene	0.14	Not Detected	0.71	Not Detected
1,3,5-Trimethylbenzene	0.14	Not Detected	0.71	Not Detected
1,2,4-Trimethylbenzene	0.14	Not Detected	0.71	Not Detected
1,3-Dichlorobenzene	0.14	Not Detected	0.86	Not Detected
1,4-Dichlorobenzene	0.14	Not Detected	0.86	Not Detected
alpha-Chlorotoluene	0.72	Not Detected	3.7	Not Detected
1,2-Dichlorobenzene	0.14	Not Detected	0.86	Not Detected
1,2,4-Trichlorobenzene	0.72	Not Detected	5.3	Not Detected
Hexachlorobutadiene	0.72	Not Detected	7.7	Not Detected

J = Estimated value due to bias in the CCV.

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	88	70-130



Air Toxics

Client Sample ID: U1 (1412267)

Lab ID#: 1411429-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e112822	Date of Collection:	11/12/14 4:46:00 PM
Dil. Factor:	1.43	Date of Analysis:	11/28/14 10:32 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.14	0.38	0.71	1.8
Freon 114	0.14	Not Detected	1.0	Not Detected
Chloromethane	0.72	Not Detected	1.5	Not Detected
Vinyl Chloride	0.14	Not Detected	0.36	Not Detected
1,3-Butadiene	0.14	Not Detected	0.32	Not Detected
Bromomethane	0.72	Not Detected	2.8	Not Detected
Chloroethane	0.72	Not Detected	1.9	Not Detected
Freon 11	0.14	0.17	0.80	0.95
Ethanol	0.72	2.4	1.3	4.4
Freon 113	0.14	Not Detected	1.1	Not Detected
1,1-Dichloroethene	0.14	Not Detected	0.57	Not Detected
Acetone	0.72	1.0	1.7	2.5
2-Propanol	0.72	Not Detected	1.8	Not Detected
Carbon Disulfide	0.72	Not Detected	2.2	Not Detected
3-Chloropropene	0.72	Not Detected	2.2	Not Detected
Methylene Chloride	0.29	Not Detected	0.99	Not Detected
Methyl tert-butyl ether	0.14	Not Detected	0.52	Not Detected
trans-1,2-Dichloroethene	0.14	Not Detected	0.57	Not Detected
Hexane	0.14	Not Detected	0.50	Not Detected
1,1-Dichloroethane	0.14	Not Detected	0.58	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.72	Not Detected	2.1	Not Detected
cis-1,2-Dichloroethene	0.14	Not Detected	0.57	Not Detected
Tetrahydrofuran	0.72	Not Detected	2.1	Not Detected
Chloroform	0.14	Not Detected	0.70	Not Detected
1,1,1-Trichloroethane	0.14	Not Detected	0.78	Not Detected
Cyclohexane	0.14	Not Detected	0.49	Not Detected
Carbon Tetrachloride	0.14	Not Detected	0.90	Not Detected
2,2,4-Trimethylpentane	0.72	Not Detected	3.3	Not Detected
Benzene	0.14	Not Detected	0.46	Not Detected
1,2-Dichloroethane	0.14	Not Detected	0.58	Not Detected
Heptane	0.14	Not Detected	0.59	Not Detected
Trichloroethene	0.14	Not Detected	0.77	Not Detected
1,2-Dichloropropane	0.14	Not Detected	0.66	Not Detected
1,4-Dioxane	0.72	Not Detected	2.6	Not Detected
Bromodichloromethane	0.14	Not Detected	0.96	Not Detected
cis-1,3-Dichloropropene	0.14	Not Detected	0.65	Not Detected
4-Methyl-2-pentanone	0.14	Not Detected	0.58	Not Detected
Toluene	0.14	0.60	0.54	2.2
trans-1,3-Dichloropropene	0.14	Not Detected	0.65	Not Detected
1,1,2-Trichloroethane	0.14	Not Detected	0.78	Not Detected
Tetrachloroethene	0.14	Not Detected	0.97	Not Detected
2-Hexanone	0.72	Not Detected	2.9	Not Detected



Client Sample ID: U1 (1412267)

Lab ID#: 1411429-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e112822	Date of Collection: 11/12/14 4:46:00 PM
Dil. Factor:	1.43	Date of Analysis: 11/28/14 10:32 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.14	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.14	Not Detected	1.1	Not Detected
Chlorobenzene	0.14	Not Detected	0.66	Not Detected
Ethyl Benzene	0.14	Not Detected	0.62	Not Detected
m,p-Xylene	0.14	Not Detected	0.62	Not Detected
o-Xylene	0.14	Not Detected	0.62	Not Detected
Styrene	0.14	Not Detected	0.61	Not Detected
Bromoform	0.14	Not Detected	1.5	Not Detected
Cumene	0.14	Not Detected	0.70	Not Detected
1,1,2,2-Tetrachloroethane	0.14	Not Detected	0.98	Not Detected
Propylbenzene	0.14	Not Detected	0.70	Not Detected
4-Ethyltoluene	0.14	Not Detected	0.70	Not Detected
1,3,5-Trimethylbenzene	0.14	Not Detected	0.70	Not Detected
1,2,4-Trimethylbenzene	0.14	Not Detected	0.70	Not Detected
1,3-Dichlorobenzene	0.14	Not Detected	0.86	Not Detected
1,4-Dichlorobenzene	0.14	Not Detected	0.86	Not Detected
alpha-Chlorotoluene	0.14	Not Detected	0.74	Not Detected
1,2-Dichlorobenzene	0.14	Not Detected	0.86	Not Detected
1,2,4-Trichlorobenzene	0.72	Not Detected	5.3	Not Detected
Hexachlorobutadiene	0.72	Not Detected	7.6	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	96	70-130



Air Toxics

Client Sample ID: U2 (1412268)

Lab ID#: 1411429-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v112815	Date of Collection:	11/12/14 4:59:00 PM
Dil. Factor:	1.45	Date of Analysis:	11/28/14 05:52 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.72	Not Detected	3.6	Not Detected
Freon 114	0.14	Not Detected	1.0	Not Detected
Chloromethane	0.72	Not Detected	1.5	Not Detected
Vinyl Chloride	0.14	Not Detected	0.37	Not Detected
1,3-Butadiene	0.14	Not Detected	0.32	Not Detected
Bromomethane	0.72	Not Detected	2.8	Not Detected
Chloroethane	0.72	Not Detected	1.9	Not Detected
Freon 11	0.14	0.19	0.81	1.1
Ethanol	0.72	0.74 J	1.4	1.4 J
Freon 113	0.14	Not Detected	1.1	Not Detected
1,1-Dichloroethene	0.14	Not Detected	0.57	Not Detected
Acetone	0.72	1.3	1.7	3.1
2-Propanol	0.72	Not Detected	1.8	Not Detected
Carbon Disulfide	0.72	Not Detected	2.2	Not Detected
3-Chloropropene	0.72	Not Detected	2.3	Not Detected
Methylene Chloride	0.29	Not Detected	1.0	Not Detected
Methyl tert-butyl ether	0.14	Not Detected	0.52	Not Detected
trans-1,2-Dichloroethene	0.14	Not Detected	0.57	Not Detected
Hexane	0.14	Not Detected	0.51	Not Detected
1,1-Dichloroethane	0.14	Not Detected	0.59	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.72	Not Detected	2.1	Not Detected
cis-1,2-Dichloroethene	0.14	Not Detected	0.57	Not Detected
Tetrahydrofuran	0.72	Not Detected	2.1	Not Detected
Chloroform	0.14	Not Detected	0.71	Not Detected
1,1,1-Trichloroethane	0.14	Not Detected	0.79	Not Detected
Cyclohexane	0.14	Not Detected	0.50	Not Detected
Carbon Tetrachloride	0.14	Not Detected	0.91	Not Detected
2,2,4-Trimethylpentane	0.72	Not Detected	3.4	Not Detected
Benzene	0.14	Not Detected	0.46	Not Detected
1,2-Dichloroethane	0.14	Not Detected	0.59	Not Detected
Heptane	0.14	Not Detected	0.59	Not Detected
Trichloroethene	0.14	Not Detected	0.78	Not Detected
1,2-Dichloropropane	0.14	Not Detected	0.67	Not Detected
1,4-Dioxane	0.14	Not Detected	0.52	Not Detected
Bromodichloromethane	0.14	Not Detected	0.97	Not Detected
cis-1,3-Dichloropropene	0.14	Not Detected	0.66	Not Detected
4-Methyl-2-pentanone	0.14	Not Detected	0.59	Not Detected
Toluene	0.14	0.38	0.55	1.4
trans-1,3-Dichloropropene	0.14	Not Detected	0.66	Not Detected
1,1,2-Trichloroethane	0.14	Not Detected	0.79	Not Detected
Tetrachloroethene	0.14	Not Detected	0.98	Not Detected
2-Hexanone	0.72	Not Detected	3.0	Not Detected



Client Sample ID: U2 (1412268)

Lab ID#: 1411429-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v112815	Date of Collection:	11/12/14 4:59:00 PM
Dil. Factor:	1.45	Date of Analysis:	11/28/14 05:52 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.14	Not Detected	1.2	Not Detected
1,2-Dibromoethane (EDB)	0.14	Not Detected	1.1	Not Detected
Chlorobenzene	0.14	Not Detected	0.67	Not Detected
Ethyl Benzene	0.14	Not Detected	0.63	Not Detected
m,p-Xylene	0.14	Not Detected	0.63	Not Detected
o-Xylene	0.14	Not Detected	0.63	Not Detected
Styrene	0.14	Not Detected	0.62	Not Detected
Bromoform	0.14	Not Detected	1.5	Not Detected
Cumene	0.14	Not Detected	0.71	Not Detected
1,1,2,2-Tetrachloroethane	0.14	Not Detected	1.0	Not Detected
Propylbenzene	0.14	Not Detected	0.71	Not Detected
4-Ethyltoluene	0.14	Not Detected	0.71	Not Detected
1,3,5-Trimethylbenzene	0.14	Not Detected	0.71	Not Detected
1,2,4-Trimethylbenzene	0.14	Not Detected	0.71	Not Detected
1,3-Dichlorobenzene	0.14	Not Detected	0.87	Not Detected
1,4-Dichlorobenzene	0.14	Not Detected	0.87	Not Detected
alpha-Chlorotoluene	0.72	Not Detected	3.8	Not Detected
1,2-Dichlorobenzene	0.14	Not Detected	0.87	Not Detected
1,2,4-Trichlorobenzene	0.72	Not Detected	5.4	Not Detected
Hexachlorobutadiene	0.72	Not Detected	7.7	Not Detected

J = Estimated value due to bias in the CCV.

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	80	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1411429-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v112807	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	11/28/14 09:21 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	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#: 1411429-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v112807	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	11/28/14 09:21 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.10	Not Detected	0.85	Not Detected
1,2-Dibromoethane (EDB)	0.10	Not Detected	0.77	Not Detected
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Ethyl Benzene	0.10	Not Detected	0.43	Not Detected
m,p-Xylene	0.10	Not Detected	0.43	Not Detected
o-Xylene	0.10	Not Detected	0.43	Not Detected
Styrene	0.10	Not Detected	0.42	Not Detected
Bromoform	0.10	Not Detected	1.0	Not Detected
Cumene	0.10	Not Detected	0.49	Not Detected
1,1,2,2-Tetrachloroethane	0.10	Not Detected	0.69	Not Detected
Propylbenzene	0.10	Not Detected	0.49	Not Detected
4-Ethyltoluene	0.10	Not Detected	0.49	Not Detected
1,3,5-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,2,4-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	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	96	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	83	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1411429-05B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e112807	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	11/28/14 09:52 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.10	Not Detected	0.49	Not Detected
Freon 114	0.10	Not Detected	0.70	Not Detected
Chloromethane	0.50	Not Detected	1.0	Not Detected
Vinyl Chloride	0.10	Not Detected	0.26	Not Detected
1,3-Butadiene	0.10	Not Detected	0.22	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Chloroethane	0.50	Not Detected	1.3	Not Detected
Freon 11	0.10	Not Detected	0.56	Not Detected
Ethanol	0.50	Not Detected	0.94	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
1,1-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Acetone	0.50	Not Detected	1.2	Not Detected
2-Propanol	0.50	Not Detected	1.2	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
3-Chloropropene	0.50	Not Detected	1.6	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
Methyl tert-butyl ether	0.10	Not Detected	0.36	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Hexane	0.10	Not Detected	0.35	Not Detected
1,1-Dichloroethane	0.10	Not Detected	0.40	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.10	Not Detected	0.49	Not Detected
1,1,1-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Cyclohexane	0.10	Not Detected	0.34	Not Detected
Carbon Tetrachloride	0.10	Not Detected	0.63	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.10	Not Detected	0.32	Not Detected
1,2-Dichloroethane	0.10	Not Detected	0.40	Not Detected
Heptane	0.10	Not Detected	0.41	Not Detected
Trichloroethene	0.10	Not Detected	0.54	Not Detected
1,2-Dichloropropane	0.10	Not Detected	0.46	Not Detected
1,4-Dioxane	0.50	Not Detected	1.8	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#: 1411429-05B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e112807	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	11/28/14 09:52 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.10	Not Detected	0.85	Not Detected
1,2-Dibromoethane (EDB)	0.10	Not Detected	0.77	Not Detected
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Ethyl Benzene	0.10	Not Detected	0.43	Not Detected
m,p-Xylene	0.10	Not Detected	0.43	Not Detected
o-Xylene	0.10	Not Detected	0.43	Not Detected
Styrene	0.10	Not Detected	0.42	Not Detected
Bromoform	0.10	Not Detected	1.0	Not Detected
Cumene	0.10	Not Detected	0.49	Not Detected
1,1,2,2-Tetrachloroethane	0.10	Not Detected	0.69	Not Detected
Propylbenzene	0.10	Not Detected	0.49	Not Detected
4-Ethyltoluene	0.10	Not Detected	0.49	Not Detected
1,3,5-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,2,4-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
alpha-Chlorotoluene	0.10	Not Detected	0.52	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2,4-Trichlorobenzene	0.50	Not Detected	3.7	Not Detected
Hexachlorobutadiene	0.50	Not Detected	5.3	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	95	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1411429-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v112804	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/28/14 07:08 AM

Compound	%Recovery
Freon 12	99
Freon 114	95
Chloromethane	102
Vinyl Chloride	108
1,3-Butadiene	108
Bromomethane	108
Chloroethane	106
Freon 11	95
Ethanol	140 Q
Freon 113	92
1,1-Dichloroethene	98
Acetone	104
2-Propanol	107
Carbon Disulfide	108
3-Chloropropene	110
Methylene Chloride	102
Methyl tert-butyl ether	103
trans-1,2-Dichloroethene	107
Hexane	102
1,1-Dichloroethane	99
2-Butanone (Methyl Ethyl Ketone)	105
cis-1,2-Dichloroethene	102
Tetrahydrofuran	104
Chloroform	97
1,1,1-Trichloroethane	94
Cyclohexane	101
Carbon Tetrachloride	94
2,2,4-Trimethylpentane	102
Benzene	103
1,2-Dichloroethane	95
Heptane	107
Trichloroethene	98
1,2-Dichloropropane	107
1,4-Dioxane	102
Bromodichloromethane	102
cis-1,3-Dichloropropene	111
4-Methyl-2-pentanone	108
Toluene	104
trans-1,3-Dichloropropene	113
1,1,2-Trichloroethane	110
Tetrachloroethene	108
2-Hexanone	110

Client Sample ID: CCV

Lab ID#: 1411429-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v112804	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/28/14 07:08 AM

Compound	%Recovery
Dibromochloromethane	102
1,2-Dibromoethane (EDB)	110
Chlorobenzene	109
Ethyl Benzene	117
m,p-Xylene	116
o-Xylene	123
Styrene	114
Bromoform	108
Cumene	118
1,1,2,2-Tetrachloroethane	112
Propylbenzene	124
4-Ethyltoluene	119
1,3,5-Trimethylbenzene	134 Q
1,2,4-Trimethylbenzene	146 Q
1,3-Dichlorobenzene	121
1,4-Dichlorobenzene	115
alpha-Chlorotoluene	116
1,2-Dichlorobenzene	118
1,2,4-Trichlorobenzene	136 Q
Hexachlorobutadiene	124

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	104	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1411429-06B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e112802	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/28/14 05:33 AM

Compound	%Recovery
Freon 12	86
Freon 114	85
Chloromethane	81
Vinyl Chloride	87
1,3-Butadiene	90
Bromomethane	81
Chloroethane	84
Freon 11	82
Ethanol	78
Freon 113	85
1,1-Dichloroethene	94
Acetone	80
2-Propanol	90
Carbon Disulfide	109
3-Chloropropene	92
Methylene Chloride	84
Methyl tert-butyl ether	98
trans-1,2-Dichloroethene	92
Hexane	99
1,1-Dichloroethane	86
2-Butanone (Methyl Ethyl Ketone)	88
cis-1,2-Dichloroethene	89
Tetrahydrofuran	94
Chloroform	83
1,1,1-Trichloroethane	86
Cyclohexane	98
Carbon Tetrachloride	83
2,2,4-Trimethylpentane	94
Benzene	82
1,2-Dichloroethane	83
Heptane	94
Trichloroethene	85
1,2-Dichloropropane	82
1,4-Dioxane	92
Bromodichloromethane	81
cis-1,3-Dichloropropene	88
4-Methyl-2-pentanone	94
Toluene	86
trans-1,3-Dichloropropene	90
1,1,2-Trichloroethane	83
Tetrachloroethene	85
2-Hexanone	98

Client Sample ID: CCV

Lab ID#: 1411429-06B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e112802	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/28/14 05:33 AM

Compound	%Recovery
Dibromochloromethane	90
1,2-Dibromoethane (EDB)	87
Chlorobenzene	85
Ethyl Benzene	96
m,p-Xylene	98
o-Xylene	102
Styrene	100
Bromoform	86
Cumene	103
1,1,2,2-Tetrachloroethane	79
Propylbenzene	92
4-Ethyltoluene	95
1,3,5-Trimethylbenzene	97
1,2,4-Trimethylbenzene	100
1,3-Dichlorobenzene	87
1,4-Dichlorobenzene	86
alpha-Chlorotoluene	87
1,2-Dichlorobenzene	87
1,2,4-Trichlorobenzene	83
Hexachlorobutadiene	79

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1411429-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v112805	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	11/28/14 07:52 AM

Compound	%Recovery	Method Limits
Freon 12	101	70-130
Freon 114	97	70-130
Chloromethane	104	70-130
Vinyl Chloride	112	70-130
1,3-Butadiene	106	70-130
Bromomethane	111	70-130
Chloroethane	111	70-130
Freon 11	98	70-130
Ethanol	152 Q	70-130
Freon 113	97	70-130
1,1-Dichloroethene	108	70-130
Acetone	104	70-130
2-Propanol	119	70-130
Carbon Disulfide	105	70-130
3-Chloropropene	104	70-130
Methylene Chloride	108	70-130
Methyl tert-butyl ether	101	70-130
trans-1,2-Dichloroethene	104	70-130
Hexane	103	70-130
1,1-Dichloroethane	102	70-130
2-Butanone (Methyl Ethyl Ketone)	112	70-130
cis-1,2-Dichloroethene	107	70-130
Tetrahydrofuran	109	70-130
Chloroform	99	70-130
1,1,1-Trichloroethane	96	70-130
Cyclohexane	102	70-130
Carbon Tetrachloride	65 Q	70-130
2,2,4-Trimethylpentane	99	70-130
Benzene	102	70-130
1,2-Dichloroethane	96	70-130
Heptane	104	70-130
Trichloroethene	96	70-130
1,2-Dichloropropane	103	70-130
1,4-Dioxane	106	70-130
Bromodichloromethane	98	70-130
cis-1,3-Dichloropropene	114	70-130
4-Methyl-2-pentanone	110	70-130
Toluene	101	70-130
trans-1,3-Dichloropropene	106	70-130
1,1,2-Trichloroethane	104	70-130
Tetrachloroethene	103	70-130
2-Hexanone	111	70-130

Client Sample ID: LCS

Lab ID#: 1411429-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v112805	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/28/14 07:52 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	97	70-130
1,2-Dibromoethane (EDB)	105	70-130
Chlorobenzene	105	70-130
Ethyl Benzene	109	70-130
m,p-Xylene	111	70-130
o-Xylene	116	70-130
Styrene	118	70-130
Bromoform	100	70-130
Cumene	115	70-130
1,1,2,2-Tetrachloroethane	106	70-130
Propylbenzene	124	70-130
4-Ethyltoluene	121	70-130
1,3,5-Trimethylbenzene	147 Q	70-130
1,2,4-Trimethylbenzene	155 Q	70-130
1,3-Dichlorobenzene	117	70-130
1,4-Dichlorobenzene	112	70-130
alpha-Chlorotoluene	180 Q	70-130
1,2-Dichlorobenzene	121	70-130
1,2,4-Trichlorobenzene	136 Q	70-130
Hexachlorobutadiene	119	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	96	70-130



Air Toxics

Client Sample ID: LCS D

Lab ID#: 1411429-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v112806	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	11/28/14 08:27 AM

Compound	%Recovery	Method Limits
Freon 12	99	70-130
Freon 114	94	70-130
Chloromethane	103	70-130
Vinyl Chloride	111	70-130
1,3-Butadiene	104	70-130
Bromomethane	106	70-130
Chloroethane	107	70-130
Freon 11	96	70-130
Ethanol	144 Q	70-130
Freon 113	96	70-130
1,1-Dichloroethene	100	70-130
Acetone	100	70-130
2-Propanol	114	70-130
Carbon Disulfide	100	70-130
3-Chloropropene	99	70-130
Methylene Chloride	104	70-130
Methyl tert-butyl ether	99	70-130
trans-1,2-Dichloroethene	97	70-130
Hexane	100	70-130
1,1-Dichloroethane	100	70-130
2-Butanone (Methyl Ethyl Ketone)	107	70-130
cis-1,2-Dichloroethene	102	70-130
Tetrahydrofuran	105	70-130
Chloroform	96	70-130
1,1,1-Trichloroethane	92	70-130
Cyclohexane	98	70-130
Carbon Tetrachloride	59 Q	70-130
2,2,4-Trimethylpentane	96	70-130
Benzene	101	70-130
1,2-Dichloroethane	95	70-130
Heptane	100	70-130
Trichloroethene	96	70-130
1,2-Dichloropropane	104	70-130
1,4-Dioxane	106	70-130
Bromodichloromethane	96	70-130
cis-1,3-Dichloropropene	113	70-130
4-Methyl-2-pentanone	108	70-130
Toluene	100	70-130
trans-1,3-Dichloropropene	101	70-130
1,1,2-Trichloroethane	105	70-130
Tetrachloroethene	102	70-130
2-Hexanone	111	70-130

Client Sample ID: LCSD

Lab ID#: 1411429-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	v112806	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/28/14 08:27 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	95	70-130
1,2-Dibromoethane (EDB)	102	70-130
Chlorobenzene	101	70-130
Ethyl Benzene	104	70-130
m,p-Xylene	110	70-130
o-Xylene	115	70-130
Styrene	115	70-130
Bromoform	98	70-130
Cumene	113	70-130
1,1,2,2-Tetrachloroethane	109	70-130
Propylbenzene	119	70-130
4-Ethyltoluene	119	70-130
1,3,5-Trimethylbenzene	142 Q	70-130
1,2,4-Trimethylbenzene	151 Q	70-130
1,3-Dichlorobenzene	113	70-130
1,4-Dichlorobenzene	110	70-130
alpha-Chlorotoluene	173 Q	70-130
1,2-Dichlorobenzene	114	70-130
1,2,4-Trichlorobenzene	132 Q	70-130
Hexachlorobutadiene	114	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	97	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1411429-07B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e112803	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/28/14 06:20 AM

Compound	%Recovery	Method Limits
Freon 12	95	70-130
Freon 114	93	70-130
Chloromethane	92	70-130
Vinyl Chloride	98	70-130
1,3-Butadiene	97	70-130
Bromomethane	75	70-130
Chloroethane	96	70-130
Freon 11	92	70-130
Ethanol	100	70-130
Freon 113	98	70-130
1,1-Dichloroethene	106	70-130
Acetone	91	70-130
2-Propanol	110	70-130
Carbon Disulfide	87	70-130
3-Chloropropene	96	70-130
Methylene Chloride	96	70-130
Methyl tert-butyl ether	105	70-130
trans-1,2-Dichloroethene	96	70-130
Hexane	110	70-130
1,1-Dichloroethane	93	70-130
2-Butanone (Methyl Ethyl Ketone)	98	70-130
cis-1,2-Dichloroethene	101	70-130
Tetrahydrofuran	107	70-130
Chloroform	93	70-130
1,1,1-Trichloroethane	97	70-130
Cyclohexane	110	70-130
Carbon Tetrachloride	92	70-130
2,2,4-Trimethylpentane	102	70-130
Benzene	91	70-130
1,2-Dichloroethane	91	70-130
Heptane	102	70-130
Trichloroethene	96	70-130
1,2-Dichloropropane	91	70-130
1,4-Dioxane	105	70-130
Bromodichloromethane	91	70-130
cis-1,3-Dichloropropene	106	70-130
4-Methyl-2-pentanone	114	70-130
Toluene	96	70-130
trans-1,3-Dichloropropene	95	70-130
1,1,2-Trichloroethane	89	70-130
Tetrachloroethene	93	70-130
2-Hexanone	115	70-130

Client Sample ID: LCS

Lab ID#: 1411429-07B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e112803	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/28/14 06:20 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	96	70-130
1,2-Dibromoethane (EDB)	96	70-130
Chlorobenzene	91	70-130
Ethyl Benzene	103	70-130
m,p-Xylene	107	70-130
o-Xylene	113	70-130
Styrene	117	70-130
Bromoform	93	70-130
Cumene	112	70-130
1,1,2,2-Tetrachloroethane	85	70-130
Propylbenzene	102	70-130
4-Ethyltoluene	106	70-130
1,3,5-Trimethylbenzene	121	70-130
1,2,4-Trimethylbenzene	123	70-130
1,3-Dichlorobenzene	102	70-130
1,4-Dichlorobenzene	102	70-130
alpha-Chlorotoluene	168 Q	70-130
1,2-Dichlorobenzene	108	70-130
1,2,4-Trichlorobenzene	150 Q	70-130
Hexachlorobutadiene	143 Q	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	101	70-130



Client Sample ID: LCS D

Lab ID#: 1411429-07BB

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e112804	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	11/28/14 07:39 AM

Compound	%Recovery	Method Limits
Freon 12	99	70-130
Freon 114	94	70-130
Chloromethane	94	70-130
Vinyl Chloride	101	70-130
1,3-Butadiene	93	70-130
Bromomethane	90	70-130
Chloroethane	98	70-130
Freon 11	89	70-130
Ethanol	104	70-130
Freon 113	87	70-130
1,1-Dichloroethene	96	70-130
Acetone	88	70-130
2-Propanol	110	70-130
Carbon Disulfide	82	70-130
3-Chloropropene	94	70-130
Methylene Chloride	96	70-130
Methyl tert-butyl ether	101	70-130
trans-1,2-Dichloroethene	94	70-130
Hexane	107	70-130
1,1-Dichloroethane	91	70-130
2-Butanone (Methyl Ethyl Ketone)	97	70-130
cis-1,2-Dichloroethene	97	70-130
Tetrahydrofuran	100	70-130
Chloroform	91	70-130
1,1,1-Trichloroethane	94	70-130
Cyclohexane	106	70-130
Carbon Tetrachloride	91	70-130
2,2,4-Trimethylpentane	102	70-130
Benzene	88	70-130
1,2-Dichloroethane	90	70-130
Heptane	102	70-130
Trichloroethene	92	70-130
1,2-Dichloropropane	88	70-130
1,4-Dioxane	102	70-130
Bromodichloromethane	87	70-130
cis-1,3-Dichloropropene	101	70-130
4-Methyl-2-pentanone	108	70-130
Toluene	95	70-130
trans-1,3-Dichloropropene	89	70-130
1,1,2-Trichloroethane	83	70-130
Tetrachloroethene	90	70-130
2-Hexanone	108	70-130

Client Sample ID: LCSD

Lab ID#: 1411429-07BB

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e112804	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/28/14 07:39 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	91	70-130
1,2-Dibromoethane (EDB)	91	70-130
Chlorobenzene	90	70-130
Ethyl Benzene	104	70-130
m,p-Xylene	107	70-130
o-Xylene	111	70-130
Styrene	117	70-130
Bromoform	90	70-130
Cumene	110	70-130
1,1,2,2-Tetrachloroethane	86	70-130
Propylbenzene	103	70-130
4-Ethyltoluene	112	70-130
1,3,5-Trimethylbenzene	127	70-130
1,2,4-Trimethylbenzene	132 Q	70-130
1,3-Dichlorobenzene	107	70-130
1,4-Dichlorobenzene	108	70-130
alpha-Chlorotoluene	178 Q	70-130
1,2-Dichlorobenzene	116	70-130
1,2,4-Trichlorobenzene	191 Q	70-130
Hexachlorobutadiene	165 Q	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	100	70-130