



Air Toxics

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

Project Manager: Michael Penn

Collected by: (Print and Sign) Teresa Young

Company: MCDWIC

Address: PO Box 176

Phone: (533) 526-3418

Project Info:

P.O. # 3E5P160377

Project #

Project Name: Brighton Landfill

Turn Around Time:

Normal

Rush

Pressurized by:

Date:

Pressurization Gas:

N2 He

Lab I.D. Field Sample I.D. (Location)

Can #

Date of Collection

Time of Collection

Analyses Requested

Canister Pressure/Vacuum

Initial Final Receipt Final (ps)

Table with columns: Lab I.D., Field Sample I.D., Can #, Date of Collection, Time of Collection, Analyses Requested, Canister Pressure/Vacuum. Includes handwritten entries for samples D1, D2, V1, V2 and their respective collection details and analysis requests.

Administrative fields including Shipper Name (UPS), Air Bill #, Temp (C), Condition (Good), Custody Seals Intact?, Work Order # (1511431), and Relinquished by/Received by signatures and dates.

12/5/2015
Mr. Dennis Schroeder
Missouri Dept. of Natural Resources
2710 West Main

Jefferson City MO 65109

Project Name: Bridgeton Landfill
Project #:
Workorder #: 1511431

Dear Mr. Dennis Schroeder

The following report includes the data for the above referenced project for sample(s) received on 11/25/2015 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 #: 1511431

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. #	3ESP60000002
FAX:	573-526-3350	PROJECT #	Bridgeton Landfill
DATE RECEIVED:	11/25/2015	CONTACT:	Brian Whittaker
DATE COMPLETED:	12/05/2015		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	D1 (154578)	Modified TO-15	5.5 "Hg	5 psi
02A	D2 (154579)	Modified TO-15	4.5 "Hg	5 psi
03A	U1 (154580)	Modified TO-15	5.5 "Hg	5 psi
04A	U2 (154581)	Modified TO-15	7.0 "Hg	6 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: 12/05/15

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 - 9563
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LABORATORY NARRATIVE
Modified TO-15
Missouri Dept. of Natural Resources
Workorder# 1511431

Three 6 Liter Summa Canister (100% Certified) and one 6 Liter Summa Canister (SIM Certified Calscience) samples were received on November 25, 2015. 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 (154578)

Lab ID#: 1511431-01A

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	0.24	0.92	1.4
Ethanol	0.82	2.8	1.5	5.3
Acetone	0.82	1.8	1.9	4.2

Client Sample ID: D2 (154579)

Lab ID#: 1511431-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.47	0.78	2.3
Freon 11	0.16	0.21	0.89	1.2
Ethanol	0.79	2.4	1.5	4.4
Acetone	0.79	1.5	1.9	3.6

Client Sample ID: U1 (154580)

Lab ID#: 1511431-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.46	0.81	2.3
Freon 11	0.16	0.22	0.92	1.2
Ethanol	0.82	0.81 J	1.5	1.5 J
Acetone	0.82	0.97	1.9	2.3

Client Sample ID: U2 (154581)

Lab ID#: 1511431-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.44	0.90	2.2
Freon 11	0.18	0.22	1.0	1.2
Ethanol	0.92	1.7	1.7	3.2
Acetone	0.92	1.0	2.2	2.5



Air Toxics

Client Sample ID: D1 (154578)

Lab ID#: 1511431-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e120123	Date of Collection:	11/19/15 2:05:00 PM
Dil. Factor:	1.64	Date of Analysis:	12/2/15 06:51 AM

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	0.24	0.92	1.4
Ethanol	0.82	2.8	1.5	5.3
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Acetone	0.82	1.8	1.9	4.2
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	Not Detected	0.58	Not Detected
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: D1 (154578)

Lab ID#: 1511431-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e120123	Date of Collection:	11/19/15 2:05:00 PM
Dil. Factor:	1.64	Date of Analysis:	12/2/15 06:51 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	1.3	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 UJ	6.1	Not Detected UJ
Hexachlorobutadiene	0.82	Not Detected	8.7	Not Detected

UJ = Analyte associated with low bias in the CCV and/or LCS.

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	117	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: D2 (154579)

Lab ID#: 1511431-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e120124	Date of Collection:	11/19/15 2:43:00 PM
Dil. Factor:	1.58	Date of Analysis:	12/2/15 07:35 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.47	0.78	2.3
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.79	Not Detected	1.6	Not Detected
Vinyl Chloride	0.16	Not Detected	0.40	Not Detected
1,3-Butadiene	0.16	Not Detected	0.35	Not Detected
Bromomethane	0.79	Not Detected	3.1	Not Detected
Chloroethane	0.79	Not Detected	2.1	Not Detected
Freon 11	0.16	0.21	0.89	1.2
Ethanol	0.79	2.4	1.5	4.4
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Acetone	0.79	1.5	1.9	3.6
2-Propanol	0.79	Not Detected	1.9	Not Detected
Carbon Disulfide	0.79	Not Detected	2.5	Not Detected
3-Chloropropene	0.79	Not Detected	2.5	Not Detected
Methylene Chloride	0.32	Not Detected	1.1	Not Detected
Methyl tert-butyl ether	0.16	Not Detected	0.57	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Hexane	0.16	Not Detected	0.56	Not Detected
1,1-Dichloroethane	0.16	Not Detected	0.64	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.79	Not Detected	2.3	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Tetrahydrofuran	0.79	Not Detected	2.3	Not Detected
Chloroform	0.16	Not Detected	0.77	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.86	Not Detected
Cyclohexane	0.16	Not Detected	0.54	Not Detected
Carbon Tetrachloride	0.16	Not Detected	0.99	Not Detected
2,2,4-Trimethylpentane	0.79	Not Detected	3.7	Not Detected
Benzene	0.16	Not Detected	0.50	Not Detected
1,2-Dichloroethane	0.16	Not Detected	0.64	Not Detected
Heptane	0.16	Not Detected	0.65	Not Detected
Trichloroethene	0.16	Not Detected	0.85	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.73	Not Detected
1,4-Dioxane	0.16	Not Detected	0.57	Not Detected
Bromodichloromethane	0.16	Not Detected	1.0	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.72	Not Detected
4-Methyl-2-pentanone	0.16	Not Detected	0.65	Not Detected
Toluene	0.16	Not Detected	0.60	Not Detected
trans-1,3-Dichloropropene	0.16	Not Detected	0.72	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.86	Not Detected
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
2-Hexanone	0.79	Not Detected	3.2	Not Detected



Client Sample ID: D2 (154579)

Lab ID#: 1511431-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e120124	Date of Collection:	11/19/15 2:43:00 PM
Dil. Factor:	1.58	Date of Analysis:	12/2/15 07:35 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.16	Not Detected	1.3	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.73	Not Detected
Ethyl Benzene	0.16	Not Detected	0.69	Not Detected
m,p-Xylene	0.16	Not Detected	0.69	Not Detected
o-Xylene	0.16	Not Detected	0.69	Not Detected
Styrene	0.16	Not Detected	0.67	Not Detected
Bromoform	0.16	Not Detected	1.6	Not Detected
Cumene	0.16	Not Detected	0.78	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
Propylbenzene	0.16	Not Detected	0.78	Not Detected
4-Ethyltoluene	0.16	Not Detected	0.78	Not Detected
1,3,5-Trimethylbenzene	0.16	Not Detected	0.78	Not Detected
1,2,4-Trimethylbenzene	0.16	Not Detected	0.78	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.95	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.95	Not Detected
alpha-Chlorotoluene	0.16	Not Detected	0.82	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.95	Not Detected
1,2,4-Trichlorobenzene	0.79	Not Detected UJ	5.9	Not Detected UJ
Hexachlorobutadiene	0.79	Not Detected	8.4	Not Detected

UJ = Analyte associated with low bias in the CCV and/or LCS.

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	116	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: U1 (154580)

Lab ID#: 1511431-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e120125	Date of Collection:	11/19/15 2:25:00 PM
Dil. Factor:	1.64	Date of Analysis:	12/2/15 08:19 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.46	0.81	2.3
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	0.22	0.92	1.2
Ethanol	0.82	0.81 J	1.5	1.5 J
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Acetone	0.82	0.97	1.9	2.3
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	Not Detected	0.58	Not Detected
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 (154580)

Lab ID#: 1511431-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e120125	Date of Collection:	11/19/15 2:25:00 PM
Dil. Factor:	1.64	Date of Analysis:	12/2/15 08:19 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	1.3	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 UJ	6.1	Not Detected UJ
Hexachlorobutadiene	0.82	Not Detected	8.7	Not Detected

J = Estimated value.

UJ = Analyte associated with low bias in the CCV and/or LCS.

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	116	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	104	70-130



Air Toxics

Client Sample ID: U2 (154581)

Lab ID#: 1511431-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e120312	Date of Collection:	11/19/15 2:35:00 PM
Dil. Factor:	1.83	Date of Analysis:	12/3/15 05:47 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.44	0.90	2.2
Freon 114	0.18	Not Detected	1.3	Not Detected
Chloromethane	0.92	Not Detected	1.9	Not Detected
Vinyl Chloride	0.18	Not Detected	0.47	Not Detected
1,3-Butadiene	0.18	Not Detected	0.40	Not Detected
Bromomethane	0.92	Not Detected	3.6	Not Detected
Chloroethane	0.92	Not Detected	2.4	Not Detected
Freon 11	0.18	0.22	1.0	1.2
Ethanol	0.92	1.7	1.7	3.2
Freon 113	0.18	Not Detected	1.4	Not Detected
1,1-Dichloroethene	0.18	Not Detected	0.72	Not Detected
Acetone	0.92	1.0	2.2	2.5
2-Propanol	0.92	Not Detected	2.2	Not Detected
Carbon Disulfide	0.92	Not Detected	2.8	Not Detected
3-Chloropropene	0.92	Not Detected	2.9	Not Detected
Methylene Chloride	0.37	Not Detected	1.3	Not Detected
Methyl tert-butyl ether	0.18	Not Detected	0.66	Not Detected
trans-1,2-Dichloroethene	0.18	Not Detected	0.72	Not Detected
Hexane	0.18	Not Detected	0.64	Not Detected
1,1-Dichloroethane	0.18	Not Detected	0.74	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.92	Not Detected	2.7	Not Detected
cis-1,2-Dichloroethene	0.18	Not Detected	0.72	Not Detected
Tetrahydrofuran	0.92	Not Detected	2.7	Not Detected
Chloroform	0.18	Not Detected	0.89	Not Detected
1,1,1-Trichloroethane	0.18	Not Detected	1.0	Not Detected
Cyclohexane	0.18	Not Detected	0.63	Not Detected
Carbon Tetrachloride	0.18	Not Detected	1.2	Not Detected
2,2,4-Trimethylpentane	0.92	Not Detected	4.3	Not Detected
Benzene	0.18	Not Detected	0.58	Not Detected
1,2-Dichloroethane	0.18	Not Detected	0.74	Not Detected
Heptane	0.18	Not Detected	0.75	Not Detected
Trichloroethene	0.18	Not Detected	0.98	Not Detected
1,2-Dichloropropane	0.18	Not Detected	0.84	Not Detected
1,4-Dioxane	0.18	Not Detected	0.66	Not Detected
Bromodichloromethane	0.18	Not Detected	1.2	Not Detected
cis-1,3-Dichloropropene	0.18	Not Detected	0.83	Not Detected
4-Methyl-2-pentanone	0.18	Not Detected	0.75	Not Detected
Toluene	0.18	Not Detected	0.69	Not Detected
trans-1,3-Dichloropropene	0.18	Not Detected	0.83	Not Detected
1,1,2-Trichloroethane	0.18	Not Detected	1.0	Not Detected
Tetrachloroethene	0.18	Not Detected	1.2	Not Detected
2-Hexanone	0.92	Not Detected	3.7	Not Detected



Client Sample ID: U2 (154581)

Lab ID#: 1511431-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e120312	Date of Collection:	11/19/15 2:35:00 PM
Dil. Factor:	1.83	Date of Analysis:	12/3/15 05:47 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.18	Not Detected	1.6	Not Detected
1,2-Dibromoethane (EDB)	0.18	Not Detected	1.4	Not Detected
Chlorobenzene	0.18	Not Detected	0.84	Not Detected
Ethyl Benzene	0.18	Not Detected	0.79	Not Detected
m,p-Xylene	0.18	Not Detected	0.79	Not Detected
o-Xylene	0.18	Not Detected	0.79	Not Detected
Styrene	0.18	Not Detected	0.78	Not Detected
Bromoform	0.18	Not Detected	1.9	Not Detected
Cumene	0.18	Not Detected	0.90	Not Detected
1,1,2,2-Tetrachloroethane	0.18	Not Detected	1.2	Not Detected
Propylbenzene	0.18	Not Detected	0.90	Not Detected
4-Ethyltoluene	0.18	Not Detected	0.90	Not Detected
1,3,5-Trimethylbenzene	0.18	Not Detected	0.90	Not Detected
1,2,4-Trimethylbenzene	0.18	Not Detected	0.90	Not Detected
1,3-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,4-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
alpha-Chlorotoluene	0.18	Not Detected	0.95	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,2,4-Trichlorobenzene	0.92	Not Detected	6.8	Not Detected
Hexachlorobutadiene	0.92	Not Detected	9.8	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	106	70-130
4-Bromofluorobenzene	101	70-130

Client Sample ID: Lab Blank

Lab ID#: 1511431-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e120106	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/1/15 11:38 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	0.10	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#: 1511431-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e120106	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/1/15 11:38 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 UJ	3.7	Not Detected UJ
Hexachlorobutadiene	0.50	Not Detected	5.3	Not Detected

UJ = Analyte associated with low bias in the CCV and/or LCS.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	109	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1511431-05B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e120306	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/3/15 12:37 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#: 1511431-05B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e120306	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/3/15 12:37 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	120	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1511431-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e120102	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/1/15 08:54 AM

Compound	%Recovery
Freon 12	99
Freon 114	86
Chloromethane	84
Vinyl Chloride	81
1,3-Butadiene	81
Bromomethane	78
Chloroethane	80
Freon 11	91
Ethanol	72
Freon 113	72
1,1-Dichloroethene	76
Acetone	79
2-Propanol	74
Carbon Disulfide	75
3-Chloropropene	70
Methylene Chloride	78
Methyl tert-butyl ether	83
trans-1,2-Dichloroethene	85
Hexane	80
1,1-Dichloroethane	86
2-Butanone (Methyl Ethyl Ketone)	79
cis-1,2-Dichloroethene	81
Tetrahydrofuran	87
Chloroform	89
1,1,1-Trichloroethane	96
Cyclohexane	77
Carbon Tetrachloride	97
2,2,4-Trimethylpentane	79
Benzene	86
1,2-Dichloroethane	103
Heptane	82
Trichloroethene	82
1,2-Dichloropropane	75
1,4-Dioxane	80
Bromodichloromethane	94
cis-1,3-Dichloropropene	81
4-Methyl-2-pentanone	80
Toluene	85
trans-1,3-Dichloropropene	90
1,1,2-Trichloroethane	88
Tetrachloroethene	97
2-Hexanone	82



Air Toxics

Client Sample ID: CCV

Lab ID#: 1511431-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e120102	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/1/15 08:54 AM

Compound	%Recovery
Dibromochloromethane	96
1,2-Dibromoethane (EDB)	97
Chlorobenzene	86
Ethyl Benzene	88
m,p-Xylene	92
o-Xylene	89
Styrene	89
Bromoform	87
Cumene	90
1,1,2,2-Tetrachloroethane	85
Propylbenzene	91
4-Ethyltoluene	86
1,3,5-Trimethylbenzene	99
1,2,4-Trimethylbenzene	82
1,3-Dichlorobenzene	87
1,4-Dichlorobenzene	91
alpha-Chlorotoluene	93
1,2-Dichlorobenzene	89
1,2,4-Trichlorobenzene	66 Q
Hexachlorobutadiene	72

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	116	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	105	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1511431-06B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e120302	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/3/15 09:20 AM

Compound	%Recovery
Freon 12	95
Freon 114	83
Chloromethane	81
Vinyl Chloride	79
1,3-Butadiene	77
Bromomethane	79
Chloroethane	86
Freon 11	90
Ethanol	73
Freon 113	71
1,1-Dichloroethene	70
Acetone	76
2-Propanol	71
Carbon Disulfide	70
3-Chloropropene	70
Methylene Chloride	72
Methyl tert-butyl ether	81
trans-1,2-Dichloroethene	83
Hexane	80
1,1-Dichloroethane	82
2-Butanone (Methyl Ethyl Ketone)	77
cis-1,2-Dichloroethene	78
Tetrahydrofuran	79
Chloroform	86
1,1,1-Trichloroethane	94
Cyclohexane	74
Carbon Tetrachloride	94
2,2,4-Trimethylpentane	74
Benzene	87
1,2-Dichloroethane	105
Heptane	86
Trichloroethene	86
1,2-Dichloropropane	80
1,4-Dioxane	78
Bromodichloromethane	94
cis-1,3-Dichloropropene	83
4-Methyl-2-pentanone	81
Toluene	85
trans-1,3-Dichloropropene	92
1,1,2-Trichloroethane	91
Tetrachloroethene	97
2-Hexanone	82

Client Sample ID: CCV

Lab ID#: 1511431-06B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e120302	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/3/15 09:20 AM

Compound	%Recovery
Dibromochloromethane	101
1,2-Dibromoethane (EDB)	98
Chlorobenzene	88
Ethyl Benzene	90
m,p-Xylene	95
o-Xylene	92
Styrene	89
Bromoform	88
Cumene	90
1,1,2,2-Tetrachloroethane	89
Propylbenzene	91
4-Ethyltoluene	85
1,3,5-Trimethylbenzene	98
1,2,4-Trimethylbenzene	81
1,3-Dichlorobenzene	90
1,4-Dichlorobenzene	92
alpha-Chlorotoluene	93
1,2-Dichlorobenzene	89
1,2,4-Trichlorobenzene	71
Hexachlorobutadiene	74

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	105	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1511431-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e120103	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/1/15 09:35 AM

Compound	%Recovery	Method Limits
Freon 12	115	70-130
Freon 114	105	70-130
Chloromethane	101	70-130
Vinyl Chloride	94	70-130
1,3-Butadiene	88	70-130
Bromomethane	90	70-130
Chloroethane	97	70-130
Freon 11	109	70-130
Ethanol	89	70-130
Freon 113	95	70-130
1,1-Dichloroethene	83	70-130
Acetone	86	70-130
2-Propanol	95	70-130
Carbon Disulfide	72	70-130
3-Chloropropene	84	70-130
Methylene Chloride	86	70-130
Methyl tert-butyl ether	91	70-130
trans-1,2-Dichloroethene	84	70-130
Hexane	94	70-130
1,1-Dichloroethane	94	70-130
2-Butanone (Methyl Ethyl Ketone)	85	70-130
cis-1,2-Dichloroethene	100	70-130
Tetrahydrofuran	92	70-130
Chloroform	102	70-130
1,1,1-Trichloroethane	110	70-130
Cyclohexane	90	70-130
Carbon Tetrachloride	91	70-130
2,2,4-Trimethylpentane	84	70-130
Benzene	103	70-130
1,2-Dichloroethane	124	70-130
Heptane	103	70-130
Trichloroethene	99	70-130
1,2-Dichloropropane	94	70-130
1,4-Dioxane	98	70-130
Bromodichloromethane	117	70-130
cis-1,3-Dichloropropene	91	70-130
4-Methyl-2-pentanone	102	70-130
Toluene	103	70-130
trans-1,3-Dichloropropene	103	70-130
1,1,2-Trichloroethane	103	70-130
Tetrachloroethene	112	70-130
2-Hexanone	109	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1511431-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e120103	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/1/15 09:35 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	113	70-130
1,2-Dibromoethane (EDB)	112	70-130
Chlorobenzene	100	70-130
Ethyl Benzene	102	70-130
m,p-Xylene	109	70-130
o-Xylene	109	70-130
Styrene	113	70-130
Bromoform	111	70-130
Cumene	104	70-130
1,1,2,2-Tetrachloroethane	104	70-130
Propylbenzene	112	70-130
4-Ethyltoluene	100	70-130
1,3,5-Trimethylbenzene	117	70-130
1,2,4-Trimethylbenzene	100	70-130
1,3-Dichlorobenzene	108	70-130
1,4-Dichlorobenzene	110	70-130
alpha-Chlorotoluene	116	70-130
1,2-Dichlorobenzene	106	70-130
1,2,4-Trichlorobenzene	72	70-130
Hexachlorobutadiene	73	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	108	70-130

Client Sample ID: LCS D

Lab ID#: 1511431-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e120104	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/1/15 10:16 AM

Compound	%Recovery	Method Limits
Freon 12	112	70-130
Freon 114	100	70-130
Chloromethane	96	70-130
Vinyl Chloride	94	70-130
1,3-Butadiene	85	70-130
Bromomethane	88	70-130
Chloroethane	100	70-130
Freon 11	108	70-130
Ethanol	88	70-130
Freon 113	82	70-130
1,1-Dichloroethene	85	70-130
Acetone	84	70-130
2-Propanol	92	70-130
Carbon Disulfide	70	70-130
3-Chloropropene	78	70-130
Methylene Chloride	82	70-130
Methyl tert-butyl ether	90	70-130
trans-1,2-Dichloroethene	82	70-130
Hexane	94	70-130
1,1-Dichloroethane	94	70-130
2-Butanone (Methyl Ethyl Ketone)	91	70-130
cis-1,2-Dichloroethene	101	70-130
Tetrahydrofuran	97	70-130
Chloroform	101	70-130
1,1,1-Trichloroethane	107	70-130
Cyclohexane	89	70-130
Carbon Tetrachloride	86	70-130
2,2,4-Trimethylpentane	80	70-130
Benzene	101	70-130
1,2-Dichloroethane	126	70-130
Heptane	102	70-130
Trichloroethene	98	70-130
1,2-Dichloropropane	95	70-130
1,4-Dioxane	100	70-130
Bromodichloromethane	114	70-130
cis-1,3-Dichloropropene	91	70-130
4-Methyl-2-pentanone	98	70-130
Toluene	100	70-130
trans-1,3-Dichloropropene	103	70-130
1,1,2-Trichloroethane	105	70-130
Tetrachloroethene	113	70-130
2-Hexanone	108	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1511431-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e120104	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/1/15 10:16 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	114	70-130
1,2-Dibromoethane (EDB)	112	70-130
Chlorobenzene	103	70-130
Ethyl Benzene	106	70-130
m,p-Xylene	110	70-130
o-Xylene	107	70-130
Styrene	111	70-130
Bromoform	111	70-130
Cumene	105	70-130
1,1,2,2-Tetrachloroethane	104	70-130
Propylbenzene	112	70-130
4-Ethyltoluene	100	70-130
1,3,5-Trimethylbenzene	116	70-130
1,2,4-Trimethylbenzene	100	70-130
1,3-Dichlorobenzene	107	70-130
1,4-Dichlorobenzene	110	70-130
alpha-Chlorotoluene	118	70-130
1,2-Dichlorobenzene	105	70-130
1,2,4-Trichlorobenzene	90	70-130
Hexachlorobutadiene	88	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	106	70-130

Client Sample ID: LCS

Lab ID#: 1511431-07B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e120303	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/3/15 10:04 AM

Compound	%Recovery	Method Limits
Freon 12	113	70-130
Freon 114	101	70-130
Chloromethane	98	70-130
Vinyl Chloride	94	70-130
1,3-Butadiene	87	70-130
Bromomethane	93	70-130
Chloroethane	97	70-130
Freon 11	109	70-130
Ethanol	90	70-130
Freon 113	97	70-130
1,1-Dichloroethene	86	70-130
Acetone	86	70-130
2-Propanol	91	70-130
Carbon Disulfide	70	70-130
3-Chloropropene	80	70-130
Methylene Chloride	86	70-130
Methyl tert-butyl ether	91	70-130
trans-1,2-Dichloroethene	81	70-130
Hexane	92	70-130
1,1-Dichloroethane	92	70-130
2-Butanone (Methyl Ethyl Ketone)	88	70-130
cis-1,2-Dichloroethene	100	70-130
Tetrahydrofuran	97	70-130
Chloroform	100	70-130
1,1,1-Trichloroethane	109	70-130
Cyclohexane	88	70-130
Carbon Tetrachloride	88	70-130
2,2,4-Trimethylpentane	79	70-130
Benzene	101	70-130
1,2-Dichloroethane	123	70-130
Heptane	99	70-130
Trichloroethene	99	70-130
1,2-Dichloropropane	93	70-130
1,4-Dioxane	102	70-130
Bromodichloromethane	116	70-130
cis-1,3-Dichloropropene	90	70-130
4-Methyl-2-pentanone	99	70-130
Toluene	100	70-130
trans-1,3-Dichloropropene	107	70-130
1,1,2-Trichloroethane	108	70-130
Tetrachloroethene	117	70-130
2-Hexanone	113	70-130

Client Sample ID: LCS

Lab ID#: 1511431-07B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e120303	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/3/15 10:04 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	118	70-130
1,2-Dibromoethane (EDB)	116	70-130
Chlorobenzene	104	70-130
Ethyl Benzene	105	70-130
m,p-Xylene	109	70-130
o-Xylene	108	70-130
Styrene	113	70-130
Bromoform	111	70-130
Cumene	107	70-130
1,1,2,2-Tetrachloroethane	104	70-130
Propylbenzene	114	70-130
4-Ethyltoluene	103	70-130
1,3,5-Trimethylbenzene	121	70-130
1,2,4-Trimethylbenzene	105	70-130
1,3-Dichlorobenzene	112	70-130
1,4-Dichlorobenzene	112	70-130
alpha-Chlorotoluene	118	70-130
1,2-Dichlorobenzene	109	70-130
1,2,4-Trichlorobenzene	88	70-130
Hexachlorobutadiene	87	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	105	70-130



Air Toxics

Client Sample ID: LCS D

Lab ID#: 1511431-07BB

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e120304	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/3/15 10:45 AM

Compound	%Recovery	Method Limits
Freon 12	110	70-130
Freon 114	100	70-130
Chloromethane	92	70-130
Vinyl Chloride	91	70-130
1,3-Butadiene	84	70-130
Bromomethane	90	70-130
Chloroethane	93	70-130
Freon 11	105	70-130
Ethanol	81	70-130
Freon 113	78	70-130
1,1-Dichloroethene	79	70-130
Acetone	80	70-130
2-Propanol	86	70-130
Carbon Disulfide	66 Q	70-130
3-Chloropropene	77	70-130
Methylene Chloride	78	70-130
Methyl tert-butyl ether	87	70-130
trans-1,2-Dichloroethene	80	70-130
Hexane	86	70-130
1,1-Dichloroethane	90	70-130
2-Butanone (Methyl Ethyl Ketone)	85	70-130
cis-1,2-Dichloroethene	94	70-130
Tetrahydrofuran	95	70-130
Chloroform	99	70-130
1,1,1-Trichloroethane	105	70-130
Cyclohexane	86	70-130
Carbon Tetrachloride	85	70-130
2,2,4-Trimethylpentane	78	70-130
Benzene	98	70-130
1,2-Dichloroethane	124	70-130
Heptane	103	70-130
Trichloroethene	97	70-130
1,2-Dichloropropane	91	70-130
1,4-Dioxane	97	70-130
Bromodichloromethane	112	70-130
cis-1,3-Dichloropropene	90	70-130
4-Methyl-2-pentanone	97	70-130
Toluene	100	70-130
trans-1,3-Dichloropropene	102	70-130
1,1,2-Trichloroethane	101	70-130
Tetrachloroethene	109	70-130
2-Hexanone	108	70-130

Client Sample ID: LCSD

Lab ID#: 1511431-07BB

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	e120304	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/3/15 10:45 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	113	70-130
1,2-Dibromoethane (EDB)	113	70-130
Chlorobenzene	98	70-130
Ethyl Benzene	106	70-130
m,p-Xylene	104	70-130
o-Xylene	107	70-130
Styrene	110	70-130
Bromoform	106	70-130
Cumene	102	70-130
1,1,2,2-Tetrachloroethane	102	70-130
Propylbenzene	109	70-130
4-Ethyltoluene	96	70-130
1,3,5-Trimethylbenzene	114	70-130
1,2,4-Trimethylbenzene	97	70-130
1,3-Dichlorobenzene	103	70-130
1,4-Dichlorobenzene	106	70-130
alpha-Chlorotoluene	113	70-130
1,2-Dichlorobenzene	102	70-130
1,2,4-Trichlorobenzene	88	70-130
Hexachlorobutadiene	87	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	101	70-130