



**CHAIN-OF-CUSTODY RECORD**

**Sample Transportation Notice**

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 POLSON, CA 95638-6719  
 (916) 585-1000 FAX (916) 995-1020

Page 1 of 1

Project Manager: Michael Paris  
 Collected by: Orin and Sara Leckie Causton John Byrne  
 Company: AD DNR Email: alexand.paris@dnr.ca.gov  
 Address: P.O. Box 176 City: Jefferson City State: MO Zip: 65102  
 Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Project Info:  
 P.O. # 3E5P0400057  
 Project # \_\_\_\_\_  
 Project Name: Barkleton LF  
 Turn Around Time: \_\_\_\_\_  
 Normal  Rush  
 Pressure: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Pressure: \_\_\_\_\_  
 Date: \_\_\_\_\_

Lab ID	Field Sample ID (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Initial	Final	Pressure/Volume
03A	U1 (1411004)	33942	6/5/14	1003-1445	T0-15	30	-7	
03A	U2 (1411005)	33226	6/5/14	1032-1455	T0-15	-29	-5	
03B	D1 (1411006)	34374	6/5/14	1045-1531	T0-15	-23	-7	
04A	D2 (1411007)	33481	6/5/14	1045-1543	T0-15	-30	-5	

Requested by: (signature) [Signature] Date/Time 6/10/14 1252  
 Relinquished by: (signature) [Signature] Date/Time 6/10/14 1635  
 Relinquished by: (signature) [Signature] Date/Time 6/15/14 1700  
 Received by: (signature) [Signature] Date/Time 6/15/14 1252  
 Notes: Shipped via UPS Tracking # 1356723330549495724

Shipper Name: UPS Air Bill # \_\_\_\_\_  
 Temp (C): 14 Temp (F): 57  
 Cancel on: Good  
 Custody Seals Intact?  Yes  No  None  
 Work Order # 1406284

7/8/2014

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

Jefferson City MO 65109

Project Name: Bridgeton Landfill

Project #:

Workorder #: 1406407

Dear Mr. Dennis Schroeder

The following report includes the data for the above referenced project for sample(s) received on 6/23/2014 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 #: 1406407**

Work Order Summary

<b>CLIENT:</b>	Mr. Dennis Schroeder Missouri Dept. of Natural Resources 2710 West Main Jefferson City, MO 65109	<b>BILL TO:</b>	Accounts Payable Missouri Dept. of Natural Resources P.O Box 176 Jefferson City, MO 65102
<b>PHONE:</b>	573-526-4428	<b>P.O. #</b>	3ESP400007
<b>FAX:</b>	573-526-3350	<b>PROJECT #</b>	Bridgeton Landfill
<b>DATE RECEIVED:</b>	06/23/2014	<b>CONTACT:</b>	Brian Whittaker
<b>DATE COMPLETED:</b>	07/08/2014		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	D1 (1411008)	Modified TO-15	3.7 "Hg	5 psi
02A	D2 (1411009)	Modified TO-15	4.5 "Hg	4.9 psi
03A	U1 (1411010)	Modified TO-15	4.9 "Hg	5 psi
04A	U2 (1411011)	Modified TO-15	5.1 "Hg	5 psi
05A	Lab Blank	Modified TO-15	NA	NA
06A	CCV	Modified TO-15	NA	NA
07A	LCS	Modified TO-15	NA	NA
07AA	LCSD	Modified TO-15	NA	NA

CERTIFIED BY:   
 \_\_\_\_\_  
 Technical Director

DATE: 07/08/14

Certification numbers: AZ Licensure AZ0775, CA NELAP - 12282CA, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-13-6, UT NELAP CA009332013-4, VA NELAP - 460197, WA NELAP - C935  
 Name of Accrediting Agency: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)  
 Accreditation number: CA300005, Effective date: 10/18/2013, Expiration date: 10/17/2014.

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# 1406407**

Four 6 Liter Summa Canister (100% Certified) samples were received on June 23, 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**

The Chain of Custody was missing method information. EAT proceeded with the analysis as per the original contract or verbal agreement.

Sample collection date was not provided on the Chain of Custody (COC) for samples D1 (1411008), D2 (1411009), U1 (1411010) and U2 (1411011). The sampling date was taken from the tags.

**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.

**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 (1411008)**

**Lab ID#: 1406407-01A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.59	0.76	2.9
Freon 11	0.15	0.25	0.86	1.4
Ethanol	0.76	3.2	1.4	5.9
Acetone	0.76	4.5	1.8	11
2-Butanone (Methyl Ethyl Ketone)	0.76	0.87	2.2	2.6

**Client Sample ID: D2 (1411009)**

**Lab ID#: 1406407-02A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.69	0.78	3.4
Freon 11	0.16	0.26	0.88	1.4
Ethanol	0.78	3.7	1.5	7.0
Acetone	0.78	3.6	1.9	8.6
2-Propanol	0.78	0.81	1.9	2.0
Benzene	0.16	0.68	0.50	2.2

**Client Sample ID: U1 (1411010)**

**Lab ID#: 1406407-03A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.63	0.79	3.1
Chloromethane	0.80	1.1	1.6	2.3
Freon 11	0.16	0.26	0.90	1.5
Ethanol	0.80	6.3	1.5	12
Acetone	0.80	5.3	1.9	12
2-Propanol	0.80	5.6	2.0	14
Carbon Disulfide	0.80	1.3	2.5	3.9
Toluene	0.16	0.98	0.60	3.7

**Client Sample ID: U2 (1411011)**

**Lab ID#: 1406407-04A**

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

**Client Sample ID: U2 (1411011)**

**Lab ID#: 1406407-04A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Freon 12	0.16	0.61	0.80	3.0
Freon 11	0.16	0.26	0.90	1.5
Ethanol	0.80	2.5	1.5	4.7
Acetone	0.80	4.5	1.9	11



Air Toxics

Client Sample ID: D1 (1411008)

Lab ID#: 1406407-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c070312	Date of Collection:	6/13/14
Dil. Factor:	1.53	Date of Analysis:	7/3/14 05:59 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.59	0.76	2.9
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	0.25	0.86	1.4
Ethanol	0.76	3.2	1.4	5.9
Freon 113	0.15	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.15	Not Detected	0.61	Not Detected
Acetone	0.76	4.5	1.8	11
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	0.31	Not Detected	1.1	Not Detected
Methyl tert-butyl ether	0.15	Not Detected	0.55	Not Detected
trans-1,2-Dichloroethene	0.15	Not Detected	0.61	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	0.61	Not Detected
Tetrahydrofuran	0.76	Not Detected	2.2	Not Detected
Chloroform	0.15	Not Detected	0.75	Not Detected
1,1,1-Trichloroethane	0.15	Not Detected	0.83	Not Detected
Cyclohexane	0.15	Not Detected	0.53	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	Not Detected	0.49	Not Detected
1,2-Dichloroethane	0.15	Not Detected	0.62	Not Detected
Heptane	0.15	Not Detected	0.63	Not Detected
Trichloroethene	0.15	Not Detected	0.82	Not Detected
1,2-Dichloropropane	0.15	Not Detected	0.71	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	0.63	Not Detected
Toluene	0.15	Not Detected	0.58	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: D1 (1411008)

Lab ID#: 1406407-01A

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>c070312</b>	<b>Date of Collection:</b> 6/13/14
<b>Dil. Factor:</b>	<b>1.53</b>	<b>Date of Analysis:</b> 7/3/14 05:59 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	0.92	Not Detected
1,4-Dichlorobenzene	0.15	Not Detected	0.92	Not Detected
alpha-Chlorotoluene	0.15	Not Detected	0.79	Not Detected
1,2-Dichlorobenzene	0.15	Not Detected	0.92	Not Detected
1,2,4-Trichlorobenzene	0.76	Not Detected	5.7	Not Detected
Hexachlorobutadiene	0.76	Not Detected	8.2	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: D2 (1411009)

Lab ID#: 1406407-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c070313	Date of Collection:	6/13/14
Dil. Factor:	1.57	Date of Analysis:	7/3/14 07:13 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.69	0.78	3.4
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.78	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	0.78	Not Detected	3.0	Not Detected
Chloroethane	0.78	Not Detected	2.1	Not Detected
Freon 11	0.16	0.26	0.88	1.4
Ethanol	0.78	3.7	1.5	7.0
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.62	Not Detected
Acetone	0.78	3.6	1.9	8.6
2-Propanol	0.78	0.81	1.9	2.0
Carbon Disulfide	0.78	Not Detected	2.4	Not Detected
3-Chloropropene	0.78	Not Detected	2.4	Not Detected
Methylene Chloride	0.31	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	0.62	Not Detected
Hexane	0.16	Not Detected	0.55	Not Detected
1,1-Dichloroethane	0.16	Not Detected	0.64	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.78	Not Detected	2.3	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.62	Not Detected
Tetrahydrofuran	0.78	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	0.78	Not Detected	3.7	Not Detected
Benzene	0.16	0.68	0.50	2.2
1,2-Dichloroethane	0.16	Not Detected	0.64	Not Detected
Heptane	0.16	Not Detected	0.64	Not Detected
Trichloroethene	0.16	Not Detected	0.84	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.72	Not Detected
1,4-Dioxane	0.16	Not Detected	0.56	Not Detected
Bromodichloromethane	0.16	Not Detected	1.0	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.71	Not Detected
4-Methyl-2-pentanone	0.16	Not Detected	0.64	Not Detected
Toluene	0.16	Not Detected	0.59	Not Detected
trans-1,3-Dichloropropene	0.16	Not Detected	0.71	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	0.78	Not Detected	3.2	Not Detected



Air Toxics

Client Sample ID: D2 (1411009)

Lab ID#: 1406407-02A

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>c070313</b>	<b>Date of Collection:</b> 6/13/14
<b>Dil. Factor:</b>	<b>1.57</b>	<b>Date of Analysis:</b> 7/3/14 07:13 PM

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	0.72	Not Detected
Ethyl Benzene	0.16	Not Detected	0.68	Not Detected
m,p-Xylene	0.16	Not Detected	0.68	Not Detected
o-Xylene	0.16	Not Detected	0.68	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	0.77	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
Propylbenzene	0.16	Not Detected	0.77	Not Detected
4-Ethyltoluene	0.16	Not Detected	0.77	Not Detected
1,3,5-Trimethylbenzene	0.16	Not Detected	0.77	Not Detected
1,2,4-Trimethylbenzene	0.16	Not Detected	0.77	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.94	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.94	Not Detected
alpha-Chlorotoluene	0.16	Not Detected	0.81	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.94	Not Detected
1,2,4-Trichlorobenzene	0.78	Not Detected	5.8	Not Detected
Hexachlorobutadiene	0.78	Not Detected	8.4	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	126	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	103	70-130



Air Toxics

Client Sample ID: U1 (1411010)

Lab ID#: 1406407-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c070314	Date of Collection:	6/13/14
Dil. Factor:	1.60	Date of Analysis:	7/3/14 08:14 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.63	0.79	3.1
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.80	1.1	1.6	2.3
Vinyl Chloride	0.16	Not Detected	0.41	Not Detected
1,3-Butadiene	0.16	Not Detected	0.35	Not Detected
Bromomethane	0.80	Not Detected	3.1	Not Detected
Chloroethane	0.80	Not Detected	2.1	Not Detected
Freon 11	0.16	0.26	0.90	1.5
Ethanol	0.80	6.3	1.5	12
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Acetone	0.80	5.3	1.9	12
2-Propanol	0.80	5.6	2.0	14
Carbon Disulfide	0.80	1.3	2.5	3.9
3-Chloropropene	0.80	Not Detected	2.5	Not Detected
Methylene Chloride	0.32	Not Detected	1.1	Not Detected
Methyl tert-butyl ether	0.16	Not Detected	0.58	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Hexane	0.16	Not Detected	0.56	Not Detected
1,1-Dichloroethane	0.16	Not Detected	0.65	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.80	Not Detected	2.4	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Tetrahydrofuran	0.80	Not Detected	2.4	Not Detected
Chloroform	0.16	Not Detected	0.78	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.87	Not Detected
Cyclohexane	0.16	Not Detected	0.55	Not Detected
Carbon Tetrachloride	0.16	Not Detected	1.0	Not Detected
2,2,4-Trimethylpentane	0.80	Not Detected	3.7	Not Detected
Benzene	0.16	Not Detected	0.51	Not Detected
1,2-Dichloroethane	0.16	Not Detected	0.65	Not Detected
Heptane	0.16	Not Detected	0.66	Not Detected
Trichloroethene	0.16	Not Detected	0.86	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.74	Not Detected
1,4-Dioxane	0.16	Not Detected	0.58	Not Detected
Bromodichloromethane	0.16	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.73	Not Detected
4-Methyl-2-pentanone	0.16	Not Detected	0.66	Not Detected
Toluene	0.16	0.98	0.60	3.7
trans-1,3-Dichloropropene	0.16	Not Detected	0.73	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.87	Not Detected
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
2-Hexanone	0.80	Not Detected	3.3	Not Detected



Client Sample ID: U1 (1411010)

Lab ID#: 1406407-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c070314	Date of Collection:	6/13/14
Dil. Factor:	1.60	Date of Analysis:	7/3/14 08:14 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	0.69	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	0.68	Not Detected
Bromoform	0.16	Not Detected	1.6	Not Detected
Cumene	0.16	Not Detected	0.79	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
Propylbenzene	0.16	Not Detected	0.79	Not Detected
4-Ethyltoluene	0.16	Not Detected	0.79	Not Detected
1,3,5-Trimethylbenzene	0.16	Not Detected	0.79	Not Detected
1,2,4-Trimethylbenzene	0.16	Not Detected	0.79	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.96	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.96	Not Detected
alpha-Chlorotoluene	0.16	Not Detected	0.83	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.96	Not Detected
1,2,4-Trichlorobenzene	0.80	Not Detected	5.9	Not Detected
Hexachlorobutadiene	0.80	Not Detected	8.5	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	119	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	100	70-130



Air Toxics

Client Sample ID: U2 (1411011)

Lab ID#: 1406407-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c070315	Date of Collection:	6/13/14
Dil. Factor:	1.61	Date of Analysis:	7/3/14 09:12 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.61	0.80	3.0
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.80	Not Detected	1.7	Not Detected
Vinyl Chloride	0.16	Not Detected	0.41	Not Detected
1,3-Butadiene	0.16	Not Detected	0.36	Not Detected
Bromomethane	0.80	Not Detected	3.1	Not Detected
Chloroethane	0.80	Not Detected	2.1	Not Detected
Freon 11	0.16	0.26	0.90	1.5
Ethanol	0.80	2.5	1.5	4.7
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Acetone	0.80	4.5	1.9	11
2-Propanol	0.80	Not Detected	2.0	Not Detected
Carbon Disulfide	0.80	Not Detected	2.5	Not Detected
3-Chloropropene	0.80	Not Detected	2.5	Not Detected
Methylene Chloride	0.32	Not Detected	1.1	Not Detected
Methyl tert-butyl ether	0.16	Not Detected	0.58	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Hexane	0.16	Not Detected	0.57	Not Detected
1,1-Dichloroethane	0.16	Not Detected	0.65	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.80	Not Detected	2.4	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Tetrahydrofuran	0.80	Not Detected	2.4	Not Detected
Chloroform	0.16	Not Detected	0.79	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Cyclohexane	0.16	Not Detected	0.55	Not Detected
Carbon Tetrachloride	0.16	Not Detected	1.0	Not Detected
2,2,4-Trimethylpentane	0.80	Not Detected	3.8	Not Detected
Benzene	0.16	Not Detected	0.51	Not Detected
1,2-Dichloroethane	0.16	Not Detected	0.65	Not Detected
Heptane	0.16	Not Detected	0.66	Not Detected
Trichloroethene	0.16	Not Detected	0.86	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.74	Not Detected
1,4-Dioxane	0.16	Not Detected	0.58	Not Detected
Bromodichloromethane	0.16	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.73	Not Detected
4-Methyl-2-pentanone	0.16	Not Detected	0.66	Not Detected
Toluene	0.16	Not Detected	0.61	Not Detected
trans-1,3-Dichloropropene	0.16	Not Detected	0.73	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
2-Hexanone	0.80	Not Detected	3.3	Not Detected



Client Sample ID: U2 (1411011)

Lab ID#: 1406407-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c070315	Date of Collection:	6/13/14
Dil. Factor:	1.61	Date of Analysis:	7/3/14 09:12 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.16	Not Detected	1.4	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.74	Not Detected
Ethyl Benzene	0.16	Not Detected	0.70	Not Detected
m,p-Xylene	0.16	Not Detected	0.70	Not Detected
o-Xylene	0.16	Not Detected	0.70	Not Detected
Styrene	0.16	Not Detected	0.68	Not Detected
Bromoform	0.16	Not Detected	1.7	Not Detected
Cumene	0.16	Not Detected	0.79	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
Propylbenzene	0.16	Not Detected	0.79	Not Detected
4-Ethyltoluene	0.16	Not Detected	0.79	Not Detected
1,3,5-Trimethylbenzene	0.16	Not Detected	0.79	Not Detected
1,2,4-Trimethylbenzene	0.16	Not Detected	0.79	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
alpha-Chlorotoluene	0.16	Not Detected	0.83	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,2,4-Trichlorobenzene	0.80	Not Detected	6.0	Not Detected
Hexachlorobutadiene	0.80	Not Detected	8.6	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	96	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1406407-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c070307	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	7/3/14 01:55 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#: 1406407-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c070307	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	7/3/14 01:55 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	106	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1406407-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c070303	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/3/14 09:49 AM

Compound	%Recovery
Freon 12	110
Freon 114	102
Chloromethane	87
Vinyl Chloride	102
1,3-Butadiene	98
Bromomethane	107
Chloroethane	99
Freon 11	108
Ethanol	80
Freon 113	99
1,1-Dichloroethene	98
Acetone	91
2-Propanol	99
Carbon Disulfide	99
3-Chloropropene	98
Methylene Chloride	86
Methyl tert-butyl ether	102
trans-1,2-Dichloroethene	94
Hexane	94
1,1-Dichloroethane	99
2-Butanone (Methyl Ethyl Ketone)	100
cis-1,2-Dichloroethene	96
Tetrahydrofuran	103
Chloroform	105
1,1,1-Trichloroethane	110
Cyclohexane	96
Carbon Tetrachloride	110
2,2,4-Trimethylpentane	99
Benzene	106
1,2-Dichloroethane	121
Heptane	107
Trichloroethene	97
1,2-Dichloropropane	102
1,4-Dioxane	96
Bromodichloromethane	118
cis-1,3-Dichloropropene	112
4-Methyl-2-pentanone	114
Toluene	104
trans-1,3-Dichloropropene	104
1,1,2-Trichloroethane	99
Tetrachloroethene	100
2-Hexanone	104



Air Toxics

Client Sample ID: CCV

Lab ID#: 1406407-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c070303	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/3/14 09:49 AM

Compound	%Recovery
Dibromochloromethane	121
1,2-Dibromoethane (EDB)	107
Chlorobenzene	98
Ethyl Benzene	104
m,p-Xylene	106
o-Xylene	108
Styrene	107
Bromoform	117
Cumene	108
1,1,2,2-Tetrachloroethane	113
Propylbenzene	107
4-Ethyltoluene	98
1,3,5-Trimethylbenzene	106
1,2,4-Trimethylbenzene	96
1,3-Dichlorobenzene	102
1,4-Dichlorobenzene	104
alpha-Chlorotoluene	132 Q
1,2-Dichlorobenzene	105
1,2,4-Trichlorobenzene	94
Hexachlorobutadiene	100

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	108	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	106	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1406407-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c070304	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/3/14 10:35 AM

Compound	%Recovery	Method Limits
Freon 12	110	70-130
Freon 114	103	70-130
Chloromethane	90	70-130
Vinyl Chloride	100	70-130
1,3-Butadiene	101	70-130
Bromomethane	106	70-130
Chloroethane	101	70-130
Freon 11	105	70-130
Ethanol	85	70-130
Freon 113	113	70-130
1,1-Dichloroethene	109	70-130
Acetone	95	70-130
2-Propanol	94	70-130
Carbon Disulfide	87	70-130
3-Chloropropene	106	70-130
Methylene Chloride	94	70-130
Methyl tert-butyl ether	97	70-130
trans-1,2-Dichloroethene	82	70-130
Hexane	94	70-130
1,1-Dichloroethane	99	70-130
2-Butanone (Methyl Ethyl Ketone)	98	70-130
cis-1,2-Dichloroethene	107	70-130
Tetrahydrofuran	103	70-130
Chloroform	102	70-130
1,1,1-Trichloroethane	105	70-130
Cyclohexane	97	70-130
Carbon Tetrachloride	117	70-130
2,2,4-Trimethylpentane	93	70-130
Benzene	103	70-130
1,2-Dichloroethane	114	70-130
Heptane	110	70-130
Trichloroethene	94	70-130
1,2-Dichloropropane	102	70-130
1,4-Dioxane	95	70-130
Bromodichloromethane	115	70-130
cis-1,3-Dichloropropene	113	70-130
4-Methyl-2-pentanone	115	70-130
Toluene	100	70-130
trans-1,3-Dichloropropene	98	70-130
1,1,2-Trichloroethane	93	70-130
Tetrachloroethene	98	70-130
2-Hexanone	105	70-130

Client Sample ID: LCS

Lab ID#: 1406407-07A

**MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>c070304</b>	<b>Date of Collection:</b> NA
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis:</b> 7/3/14 10:35 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	122	70-130
1,2-Dibromoethane (EDB)	104	70-130
Chlorobenzene	95	70-130
Ethyl Benzene	100	70-130
m,p-Xylene	107	70-130
o-Xylene	103	70-130
Styrene	107	70-130
Bromoform	116	70-130
Cumene	107	70-130
1,1,2,2-Tetrachloroethane	106	70-130
Propylbenzene	106	70-130
4-Ethyltoluene	99	70-130
1,3,5-Trimethylbenzene	102	70-130
1,2,4-Trimethylbenzene	90	70-130
1,3-Dichlorobenzene	100	70-130
1,4-Dichlorobenzene	100	70-130
alpha-Chlorotoluene	138 Q	70-130
1,2-Dichlorobenzene	105	70-130
1,2,4-Trichlorobenzene	101	70-130
Hexachlorobutadiene	108	70-130

Q = Exceeds Quality Control limits.

**Container Type: NA - Not Applicable**

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



Air Toxics

Client Sample ID: LCS D

Lab ID#: 1406407-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c070305	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	7/3/14 11:24 AM

Compound	%Recovery	Method Limits
Freon 12	113	70-130
Freon 114	110	70-130
Chloromethane	92	70-130
Vinyl Chloride	106	70-130
1,3-Butadiene	105	70-130
Bromomethane	113	70-130
Chloroethane	108	70-130
Freon 11	108	70-130
Ethanol	97	70-130
Freon 113	116	70-130
1,1-Dichloroethene	112	70-130
Acetone	100	70-130
2-Propanol	100	70-130
Carbon Disulfide	95	70-130
3-Chloropropene	108	70-130
Methylene Chloride	100	70-130
Methyl tert-butyl ether	101	70-130
trans-1,2-Dichloroethene	86	70-130
Hexane	100	70-130
1,1-Dichloroethane	103	70-130
2-Butanone (Methyl Ethyl Ketone)	104	70-130
cis-1,2-Dichloroethene	106	70-130
Tetrahydrofuran	108	70-130
Chloroform	107	70-130
1,1,1-Trichloroethane	111	70-130
Cyclohexane	102	70-130
Carbon Tetrachloride	121	70-130
2,2,4-Trimethylpentane	99	70-130
Benzene	103	70-130
1,2-Dichloroethane	117	70-130
Heptane	113	70-130
Trichloroethene	94	70-130
1,2-Dichloropropane	104	70-130
1,4-Dioxane	97	70-130
Bromodichloromethane	117	70-130
cis-1,3-Dichloropropene	113	70-130
4-Methyl-2-pentanone	114	70-130
Toluene	99	70-130
trans-1,3-Dichloropropene	101	70-130
1,1,2-Trichloroethane	100	70-130
Tetrachloroethene	98	70-130
2-Hexanone	107	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1406407-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	c070305	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/3/14 11:24 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	127	70-130
1,2-Dibromoethane (EDB)	107	70-130
Chlorobenzene	97	70-130
Ethyl Benzene	102	70-130
m,p-Xylene	104	70-130
o-Xylene	102	70-130
Styrene	105	70-130
Bromoform	122	70-130
Cumene	107	70-130
1,1,2,2-Tetrachloroethane	110	70-130
Propylbenzene	107	70-130
4-Ethyltoluene	98	70-130
1,3,5-Trimethylbenzene	103	70-130
1,2,4-Trimethylbenzene	91	70-130
1,3-Dichlorobenzene	97	70-130
1,4-Dichlorobenzene	97	70-130
alpha-Chlorotoluene	134 Q	70-130
1,2-Dichlorobenzene	102	70-130
1,2,4-Trichlorobenzene	98	70-130
Hexachlorobutadiene	100	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	101	70-130
4-Bromofluorobenzene	108	70-130