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

Project Manager
Collected by: (Print and Sign) Kirk Mitchell
Company MO DNR Email
Address P.O. Box 176 City Jefferson City State MO Zip 65102
Phone 573 526 3918 Fax

Project Info:
P.O. # 3ESP400007
Project #
Project Name Bridgeton Landfill

Turn Around Time:
☒ Normal
☐ Rush
specify

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 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 (psi)
01A	U1 (152327)	34421	5-24-15	1007-1409	TO-15	-30	-10		
02A	D1 (152328)	34419	5-24-15	1024-1429	TO-15	-30	-8.5		
03A	D2 (152329)	31435	5-24-15	1045-1432	TO-15	-27.5	-7.5		
04A	D3 (152330)	4237	5-24-15	1109-1512	TO-15	-30	-8		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
Kirk Mitchell	5-26-15 1000	Michael Parnes	5/26/15 1000
Michael Parnes	5/26/15 1405	[illegible]	EAR 6/1/15 0955

Notes:
Shipped via UPS
Tracking # 1Z6722880344319946

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	UPS		NA	Good	Yes No None	1506007

Form 1293 rev.11

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6/12/2015
Mr. Dennis Schroeder
Missouri Dept. of Natural Resources
2710 West Main

Jefferson City MO 65109

Project Name: Bridgeton Landfill
Project #:
Workorder #: 1506007

Dear Mr. Dennis Schroeder

The following report includes the data for the above referenced project for sample(s) received on 6/1/2015 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 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

Brian Whittaker

Project Manager

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WORK ORDER #: 1506007

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:	06/01/2015	**CONTACT:**	Brian Whittaker
DATE COMPLETED:	06/12/2015		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	U1 (152327)	Modified TO-15	9.2 "Hg	5 psi
02A	D1 (152328)	Modified TO-15	9 "Hg	5.2 psi
03A	D2 (152329)	Modified TO-15	8 "Hg	4.8 psi
04A	D3 (152330)	Modified TO-15	6.7 "Hg	4.6 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: Heidi Hayes

Technical Director

DATE: 06/12/15

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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LABORATORY NARRATIVE
Modified TO-15 Low Level
Missouri Dept. of Natural Resources
Workorder# 1506007

Four 6 Liter Summa Canister (100% Certified) samples were received on June 01, 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.

Requirement	***TO-15***	***ATL Modifications***
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.

The standard used for the Continuing Calibration Verification analyzed on June 3, 2015 was one day past the expiration date. The compounds were however within method and/or SOP acceptance criteria. Additionally, the Laboratory Control Standard analyzed with the analytical batch was within expiration and met acceptance criteria. A corrective action report #F6AF2A3163 has been issued in response to the finding.

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

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

Client Sample ID: U1 (152327)

Lab ID#: 1506007-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	0.19	0.22	1.1	1.2
Ethanol	0.96	2.7	1.8	5.1
Acetone	0.96	6.2	2.3	15

Client Sample ID: D1 (152328)

Lab ID#: 1506007-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.19	0.50	0.95	2.5
Freon 11	0.19	0.22	1.1	1.3
Ethanol	0.96	4.4	1.8	8.3
Acetone	0.96	8.9	2.3	21
Hexane	0.19	0.19 J	0.68	0.66 J
2-Butanone (Methyl Ethyl Ketone)	0.96	1.1	2.8	3.2
Toluene	0.19	0.72	0.73	2.7

Client Sample ID: D2 (152329)

Lab ID#: 1506007-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.48	0.89	2.4
Freon 11	0.18	0.22	1.0	1.2
Ethanol	0.90	2.8	1.7	5.3
Acetone	0.90	5.3	2.1	12

Client Sample ID: D3 (152330)

Lab ID#: 1506007-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.48	0.84	2.4
Freon 11	0.17	0.23	0.95	1.3
Ethanol	0.84	17	1.6	33

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

Client Sample ID: D3 (152330)

Lab ID#: 1506007-04A

Acetone	0.84	6.7	2.0	16
2-Propanol	0.84	3.3	2.1	8.2
Cyclohexane	0.17	0.63	0.58	2.2
Toluene	0.17	0.35	0.64	1.3

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Client Sample ID: U1 (152327)

Lab ID#: 1506007-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20060308**	**Date of Collection:**	**5/24/15 2:09:00 PM**
Dil. Factor:	**1.93**	**Date of Analysis:**	**6/3/15 03:28 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.19	Not Detected	0.95	Not Detected
Freon 114	0.19	Not Detected	1.3	Not Detected
Chloromethane	0.96	Not Detected	2.0	Not Detected
Vinyl Chloride	0.19	Not Detected	0.49	Not Detected
1,3-Butadiene	0.19	Not Detected	0.43	Not Detected
Bromomethane	0.96	Not Detected	3.7	Not Detected
Chloroethane	0.96	Not Detected	2.5	Not Detected
Freon 11	0.19	0.22	1.1	1.2
Ethanol	0.96	2.7	1.8	5.1
Freon 113	0.19	Not Detected	1.5	Not Detected
1,1-Dichloroethene	0.19	Not Detected	0.76	Not Detected
Acetone	0.96	6.2	2.3	15
2-Propanol	0.96	Not Detected	2.4	Not Detected
Carbon Disulfide	0.96	Not Detected	3.0	Not Detected
3-Chloropropene	0.96	Not Detected	3.0	Not Detected
Methylene Chloride	0.39	Not Detected	1.3	Not Detected
Methyl tert-butyl ether	0.19	Not Detected	0.70	Not Detected
trans-1,2-Dichloroethene	0.19	Not Detected	0.76	Not Detected
Hexane	0.19	Not Detected	0.68	Not Detected
1,1-Dichloroethane	0.19	Not Detected	0.78	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.96	Not Detected	2.8	Not Detected
cis-1,2-Dichloroethene	0.19	Not Detected	0.76	Not Detected
Tetrahydrofuran	0.96	Not Detected	2.8	Not Detected
Chloroform	0.19	Not Detected	0.94	Not Detected
1,1,1-Trichloroethane	0.19	Not Detected	1.0	Not Detected
Cyclohexane	0.19	Not Detected	0.66	Not Detected
Carbon Tetrachloride	0.19	Not Detected	1.2	Not Detected
2,2,4-Trimethylpentane	0.96	Not Detected	4.5	Not Detected
Benzene	0.19	Not Detected	0.62	Not Detected
1,2-Dichloroethane	0.19	Not Detected	0.78	Not Detected
Heptane	0.19	Not Detected	0.79	Not Detected
Trichloroethene	0.19	Not Detected	1.0	Not Detected
1,2-Dichloropropane	0.19	Not Detected	0.89	Not Detected
1,4-Dioxane	0.19	Not Detected	0.70	Not Detected
Bromodichloromethane	0.19	Not Detected	1.3	Not Detected
cis-1,3-Dichloropropene	0.19	Not Detected	0.88	Not Detected
4-Methyl-2-pentanone	0.19	Not Detected	0.79	Not Detected
Toluene	0.19	Not Detected	0.73	Not Detected
trans-1,3-Dichloropropene	0.19	Not Detected	0.88	Not Detected
1,1,2-Trichloroethane	0.19	Not Detected	1.0	Not Detected
Tetrachloroethene	0.19	Not Detected	1.3	Not Detected
2-Hexanone	0.96	Not Detected	4.0	Not Detected

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Client Sample ID: U1 (152327)

Lab ID#: 1506007-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20060308**	**Date of Collection:**	**5/24/15 2:09:00 PM**
Dil. Factor:	**1.93**	**Date of Analysis:**	**6/3/15 03:28 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.19	Not Detected	1.6	Not Detected
1,2-Dibromoethane (EDB)	0.19	Not Detected	1.5	Not Detected
Chlorobenzene	0.19	Not Detected	0.89	Not Detected
Ethyl Benzene	0.19	Not Detected	0.84	Not Detected
m,p-Xylene	0.19	Not Detected	0.84	Not Detected
o-Xylene	0.19	Not Detected	0.84	Not Detected
Styrene	0.19	Not Detected	0.82	Not Detected
Bromoform	0.19	Not Detected	2.0	Not Detected
Cumene	0.19	Not Detected	0.95	Not Detected
1,1,2,2-Tetrachloroethane	0.19	Not Detected	1.3	Not Detected
Propylbenzene	0.19	Not Detected	0.95	Not Detected
4-Ethyltoluene	0.19	Not Detected	0.95	Not Detected
1,3,5-Trimethylbenzene	0.19	Not Detected	0.95	Not Detected
1,2,4-Trimethylbenzene	0.19	Not Detected	0.95	Not Detected
1,3-Dichlorobenzene	0.19	Not Detected	1.2	Not Detected
1,4-Dichlorobenzene	0.19	Not Detected	1.2	Not Detected
alpha-Chlorotoluene	0.19	Not Detected	1.0	Not Detected
1,2-Dichlorobenzene	0.19	Not Detected	1.2	Not Detected
1,2,4-Trichlorobenzene	0.96	Not Detected	7.2	Not Detected
Hexachlorobutadiene	0.96	Not Detected	10	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	97	70-130

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Client Sample ID: D1 (152328)

Lab ID#: 1506007-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20060309**	**Date of Collection:**	**5/24/15 2:29:00 PM**
Dil. Factor:	**1.93**	**Date of Analysis:**	**6/3/15 04:26 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.19	0.50	0.95	2.5
Freon 114	0.19	Not Detected	1.3	Not Detected
Chloromethane	0.96	Not Detected	2.0	Not Detected
Vinyl Chloride	0.19	Not Detected	0.49	Not Detected
1,3-Butadiene	0.19	Not Detected	0.43	Not Detected
Bromomethane	0.96	Not Detected	3.7	Not Detected
Chloroethane	0.96	Not Detected	2.5	Not Detected
Freon 11	0.19	0.22	1.1	1.3
Ethanol	0.96	4.4	1.8	8.3
Freon 113	0.19	Not Detected	1.5	Not Detected
1,1-Dichloroethene	0.19	Not Detected	0.76	Not Detected
Acetone	0.96	8.9	2.3	21
2-Propanol	0.96	Not Detected	2.4	Not Detected
Carbon Disulfide	0.96	Not Detected	3.0	Not Detected
3-Chloropropene	0.96	Not Detected	3.0	Not Detected
Methylene Chloride	0.39	Not Detected	1.3	Not Detected
Methyl tert-butyl ether	0.19	Not Detected	0.70	Not Detected
trans-1,2-Dichloroethene	0.19	Not Detected	0.76	Not Detected
Hexane	0.19	0.19 J	0.68	0.66 J
1,1-Dichloroethane	0.19	Not Detected	0.78	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.96	1.1	2.8	3.2
cis-1,2-Dichloroethene	0.19	Not Detected	0.76	Not Detected
Tetrahydrofuran	0.96	Not Detected	2.8	Not Detected
Chloroform	0.19	Not Detected	0.94	Not Detected
1,1,1-Trichloroethane	0.19	Not Detected	1.0	Not Detected
Cyclohexane	0.19	Not Detected	0.66	Not Detected
Carbon Tetrachloride	0.19	Not Detected	1.2	Not Detected
2,2,4-Trimethylpentane	0.96	Not Detected	4.5	Not Detected
Benzene	0.19	Not Detected	0.62	Not Detected
1,2-Dichloroethane	0.19	Not Detected	0.78	Not Detected
Heptane	0.19	Not Detected	0.79	Not Detected
Trichloroethene	0.19	Not Detected	1.0	Not Detected
1,2-Dichloropropane	0.19	Not Detected	0.89	Not Detected
1,4-Dioxane	0.19	Not Detected	0.70	Not Detected
Bromodichloromethane	0.19	Not Detected	1.3	Not Detected
cis-1,3-Dichloropropene	0.19	Not Detected	0.88	Not Detected
4-Methyl-2-pentanone	0.19	Not Detected	0.79	Not Detected
Toluene	0.19	0.72	0.73	2.7
trans-1,3-Dichloropropene	0.19	Not Detected	0.88	Not Detected
1,1,2-Trichloroethane	0.19	Not Detected	1.0	Not Detected
Tetrachloroethene	0.19	Not Detected	1.3	Not Detected
2-Hexanone	0.96	Not Detected	4.0	Not Detected

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Client Sample ID: D1 (152328)

Lab ID#: 1506007-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20060309**	**Date of Collection:**	**5/24/15 2:29:00 PM**
Dil. Factor:	**1.93**	**Date of Analysis:**	**6/3/15 04:26 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.19	Not Detected	1.6	Not Detected
1,2-Dibromoethane (EDB)	0.19	Not Detected	1.5	Not Detected
Chlorobenzene	0.19	Not Detected	0.89	Not Detected
Ethyl Benzene	0.19	Not Detected	0.84	Not Detected
m,p-Xylene	0.19	Not Detected	0.84	Not Detected
o-Xylene	0.19	Not Detected	0.84	Not Detected
Styrene	0.19	Not Detected	0.82	Not Detected
Bromoform	0.19	Not Detected	2.0	Not Detected
Cumene	0.19	Not Detected	0.95	Not Detected
1,1,2,2-Tetrachloroethane	0.19	Not Detected	1.3	Not Detected
Propylbenzene	0.19	Not Detected	0.95	Not Detected
4-Ethyltoluene	0.19	Not Detected	0.95	Not Detected
1,3,5-Trimethylbenzene	0.19	Not Detected	0.95	Not Detected
1,2,4-Trimethylbenzene	0.19	Not Detected	0.95	Not Detected
1,3-Dichlorobenzene	0.19	Not Detected	1.2	Not Detected
1,4-Dichlorobenzene	0.19	Not Detected	1.2	Not Detected
alpha-Chlorotoluene	0.19	Not Detected	1.0	Not Detected
1,2-Dichlorobenzene	0.19	Not Detected	1.2	Not Detected
1,2,4-Trichlorobenzene	0.96	Not Detected	7.2	Not Detected
Hexachlorobutadiene	0.96	Not Detected	10	Not Detected

J = Estimated value.

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	96	70-130

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Client Sample ID: D2 (152329)

Lab ID#: 1506007-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20060310**	**Date of Collection:**	**5/24/15 2:52:00 PM**
Dil. Factor:	**1.80**	**Date of Analysis:**	**6/3/15 05:48 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.18	0.48	0.89	2.4
Freon 114	0.18	Not Detected	1.2	Not Detected
Chloromethane	0.90	Not Detected	1.8	Not Detected
Vinyl Chloride	0.18	Not Detected	0.46	Not Detected
1,3-Butadiene	0.18	Not Detected	0.40	Not Detected
Bromomethane	0.90	Not Detected	3.5	Not Detected
Chloroethane	0.90	Not Detected	2.4	Not Detected
Freon 11	0.18	0.22	1.0	1.2
Ethanol	0.90	2.8	1.7	5.3
Freon 113	0.18	Not Detected	1.4	Not Detected
1,1-Dichloroethene	0.18	Not Detected	0.71	Not Detected
Acetone	0.90	5.3	2.1	12
2-Propanol	0.90	Not Detected	2.2	Not Detected
Carbon Disulfide	0.90	Not Detected	2.8	Not Detected
3-Chloropropene	0.90	Not Detected	2.8	Not Detected
Methylene Chloride	0.36	Not Detected	1.2	Not Detected
Methyl tert-butyl ether	0.18	Not Detected	0.65	Not Detected
trans-1,2-Dichloroethene	0.18	Not Detected	0.71	Not Detected
Hexane	0.18	Not Detected	0.63	Not Detected
1,1-Dichloroethane	0.18	Not Detected	0.73	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.90	Not Detected	2.6	Not Detected
cis-1,2-Dichloroethene	0.18	Not Detected	0.71	Not Detected
Tetrahydrofuran	0.90	Not Detected	2.6	Not Detected
Chloroform	0.18	Not Detected	0.88	Not Detected
1,1,1-Trichloroethane	0.18	Not Detected	0.98	Not Detected
Cyclohexane	0.18	Not Detected	0.62	Not Detected
Carbon Tetrachloride	0.18	Not Detected	1.1	Not Detected
2,2,4-Trimethylpentane	0.90	Not Detected	4.2	Not Detected
Benzene	0.18	Not Detected	0.58	Not Detected
1,2-Dichloroethane	0.18	Not Detected	0.73	Not Detected
Heptane	0.18	Not Detected	0.74	Not Detected
Trichloroethene	0.18	Not Detected	0.97	Not Detected
1,2-Dichloropropane	0.18	Not Detected	0.83	Not Detected
1,4-Dioxane	0.18	Not Detected	0.65	Not Detected
Bromodichloromethane	0.18	Not Detected	1.2	Not Detected
cis-1,3-Dichloropropene	0.18	Not Detected	0.82	Not Detected
4-Methyl-2-pentanone	0.18	Not Detected	0.74	Not Detected
Toluene	0.18	Not Detected	0.68	Not Detected
trans-1,3-Dichloropropene	0.18	Not Detected	0.82	Not Detected
1,1,2-Trichloroethane	0.18	Not Detected	0.98	Not Detected
Tetrachloroethene	0.18	Not Detected	1.2	Not Detected
2-Hexanone	0.90	Not Detected	3.7	Not Detected

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Client Sample ID: D2 (152329)

Lab ID#: 1506007-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20060310**	**Date of Collection:**	**5/24/15 2:52:00 PM**
Dil. Factor:	**1.80**	**Date of Analysis:**	**6/3/15 05:48 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.18	Not Detected	1.5	Not Detected
1,2-Dibromoethane (EDB)	0.18	Not Detected	1.4	Not Detected
Chlorobenzene	0.18	Not Detected	0.83	Not Detected
Ethyl Benzene	0.18	Not Detected	0.78	Not Detected
m,p-Xylene	0.18	Not Detected	0.78	Not Detected
o-Xylene	0.18	Not Detected	0.78	Not Detected
Styrene	0.18	Not Detected	0.77	Not Detected
Bromoform	0.18	Not Detected	1.9	Not Detected
Cumene	0.18	Not Detected	0.88	Not Detected
1,1,2,2-Tetrachloroethane	0.18	Not Detected	1.2	Not Detected
Propylbenzene	0.18	Not Detected	0.88	Not Detected
4-Ethyltoluene	0.18	Not Detected	0.88	Not Detected
1,3,5-Trimethylbenzene	0.18	Not Detected	0.88	Not Detected
1,2,4-Trimethylbenzene	0.18	Not Detected	0.88	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	0.93	Not Detected
1,2-Dichlorobenzene	0.18	Not Detected	1.1	Not Detected
1,2,4-Trichlorobenzene	0.90	Not Detected	6.7	Not Detected
Hexachlorobutadiene	0.90	Not Detected	9.6	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	95	70-130

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Client Sample ID: D3 (152330)

Lab ID#: 1506007-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20060311**	**Date of Collection:**	**5/24/15 3:12:00 PM**
Dil. Factor:	**1.69**	**Date of Analysis:**	**6/3/15 06:30 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.48	0.84	2.4
Freon 114	0.17	Not Detected	1.2	Not Detected
Chloromethane	0.84	Not Detected	1.7	Not Detected
Vinyl Chloride	0.17	Not Detected	0.43	Not Detected
1,3-Butadiene	0.17	Not Detected	0.37	Not Detected
Bromomethane	0.84	Not Detected	3.3	Not Detected
Chloroethane	0.84	Not Detected	2.2	Not Detected
Freon 11	0.17	0.23	0.95	1.3
Ethanol	0.84	17	1.6	33
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Acetone	0.84	6.7	2.0	16
2-Propanol	0.84	3.3	2.1	8.2
Carbon Disulfide	0.84	Not Detected	2.6	Not Detected
3-Chloropropene	0.84	Not Detected	2.6	Not Detected
Methylene Chloride	0.34	Not Detected	1.2	Not Detected
Methyl tert-butyl ether	0.17	Not Detected	0.61	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Hexane	0.17	Not Detected	0.60	Not Detected
1,1-Dichloroethane	0.17	Not Detected	0.68	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.84	Not Detected	2.5	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Tetrahydrofuran	0.84	Not Detected	2.5	Not Detected
Chloroform	0.17	Not Detected	0.82	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.92	Not Detected
Cyclohexane	0.17	0.63	0.58	2.2
Carbon Tetrachloride	0.17	Not Detected	1.1	Not Detected
2,2,4-Trimethylpentane	0.84	Not Detected	3.9	Not Detected
Benzene	0.17	Not Detected	0.54	Not Detected
1,2-Dichloroethane	0.17	Not Detected	0.68	Not Detected
Heptane	0.17	Not Detected	0.69	Not Detected
Trichloroethene	0.17	Not Detected	0.91	Not Detected
1,2-Dichloropropane	0.17	Not Detected	0.78	Not Detected
1,4-Dioxane	0.17	Not Detected	0.61	Not Detected
Bromodichloromethane	0.17	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.77	Not Detected
4-Methyl-2-pentanone	0.17	Not Detected	0.69	Not Detected
Toluene	0.17	0.35	0.64	1.3
trans-1,3-Dichloropropene	0.17	Not Detected	0.77	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.92	Not Detected
Tetrachloroethene	0.17	Not Detected	1.1	Not Detected
2-Hexanone	0.84	Not Detected	3.5	Not Detected

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Client Sample ID: D3 (152330)

Lab ID#: 1506007-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20060311**	**Date of Collection:**	**5/24/15 3:12:00 PM**
Dil. Factor:	**1.69**	**Date of Analysis:**	**6/3/15 06:30 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.17	Not Detected	1.4	Not Detected
1,2-Dibromoethane (EDB)	0.17	Not Detected	1.3	Not Detected
Chlorobenzene	0.17	Not Detected	0.78	Not Detected
Ethyl Benzene	0.17	Not Detected	0.73	Not Detected
m,p-Xylene	0.17	Not Detected	0.73	Not Detected
o-Xylene	0.17	Not Detected	0.73	Not Detected
Styrene	0.17	Not Detected	0.72	Not Detected
Bromoform	0.17	Not Detected	1.7	Not Detected
Cumene	0.17	Not Detected	0.83	Not Detected
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.2	Not Detected
Propylbenzene	0.17	Not Detected	0.83	Not Detected
4-Ethyltoluene	0.17	Not Detected	0.83	Not Detected
1,3,5-Trimethylbenzene	0.17	Not Detected	0.83	Not Detected
1,2,4-Trimethylbenzene	0.17	Not Detected	0.83	Not Detected
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
alpha-Chlorotoluene	0.17	Not Detected	0.87	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.84	Not Detected	6.3	Not Detected
Hexachlorobutadiene	0.84	Not Detected	9.0	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	98	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1506007-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20060307**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/3/15 02:26 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.10	Not Detected	0.49	Not Detected
Freon 114	0.10	Not Detected	0.70	Not Detected
Chloromethane	0.50	Not Detected	1.0	Not Detected
Vinyl Chloride	0.10	Not Detected	0.26	Not Detected
1,3-Butadiene	0.10	Not Detected	0.22	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Chloroethane	0.50	Not Detected	1.3	Not Detected
Freon 11	0.10	Not Detected	0.56	Not Detected
Ethanol	0.50	Not Detected	0.94	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
1,1-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Acetone	0.50	Not Detected	1.2	Not Detected
2-Propanol	0.50	Not Detected	1.2	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
3-Chloropropene	0.50	Not Detected	1.6	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
Methyl tert-butyl ether	0.10	Not Detected	0.36	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Hexane	0.10	Not Detected	0.35	Not Detected
1,1-Dichloroethane	0.10	Not Detected	0.40	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.10	Not Detected	0.49	Not Detected
1,1,1-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Cyclohexane	0.10	Not Detected	0.34	Not Detected
Carbon Tetrachloride	0.10	Not Detected	0.63	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.10	Not Detected	0.32	Not Detected
1,2-Dichloroethane	0.10	Not Detected	0.40	Not Detected
Heptane	0.10	Not Detected	0.41	Not Detected
Trichloroethene	0.10	Not Detected	0.54	Not Detected
1,2-Dichloropropane	0.10	Not Detected	0.46	Not Detected
1,4-Dioxane	0.10	Not Detected	0.36	Not Detected
Bromodichloromethane	0.10	Not Detected	0.67	Not Detected
cis-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
4-Methyl-2-pentanone	0.10	Not Detected	0.41	Not Detected
Toluene	0.10	Not Detected	0.38	Not Detected
trans-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
1,1,2-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Tetrachloroethene	0.10	Not Detected	0.68	Not Detected
2-Hexanone	0.50	Not Detected	2.0	Not Detected

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Client Sample ID: Lab Blank

Lab ID#: 1506007-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20060307**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/3/15 02:26 PM**	

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

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	95	70-130

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Client Sample ID: CCV

Lab ID#: 1506007-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20060303**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 6/3/15 10:13 AM**

Compound	%Recovery
Freon 12	110
Freon 114	105
Chloromethane	105
Vinyl Chloride	107
1,3-Butadiene	106
Bromomethane	117
Chloroethane	105
Freon 11	108
Ethanol	104
Freon 113	100
1,1-Dichloroethene	106
Acetone	99
2-Propanol	105
Carbon Disulfide	108
3-Chloropropene	110
Methylene Chloride	102
Methyl tert-butyl ether	109
trans-1,2-Dichloroethene	102
Hexane	107
1,1-Dichloroethane	107
2-Butanone (Methyl Ethyl Ketone)	107
cis-1,2-Dichloroethene	105
Tetrahydrofuran	108
Chloroform	105
1,1,1-Trichloroethane	104
Cyclohexane	108
Carbon Tetrachloride	88
2,2,4-Trimethylpentane	138 Q
Benzene	104
1,2-Dichloroethane	105
Heptane	111
Trichloroethene	104
1,2-Dichloropropane	106
1,4-Dioxane	108
Bromodichloromethane	112
cis-1,3-Dichloropropene	107
4-Methyl-2-pentanone	115
Toluene	106
trans-1,3-Dichloropropene	109
1,1,2-Trichloroethane	105
Tetrachloroethene	104
2-Hexanone	108

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Client Sample ID: CCV

Lab ID#: 1506007-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20060303**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 6/3/15 10:13 AM**

Compound	%Recovery
Dibromochloromethane	113
1,2-Dibromoethane (EDB)	111
Chlorobenzene	104
Ethyl Benzene	108
m,p-Xylene	110
o-Xylene	111
Styrene	112
Bromoform	110
Cumene	113
1,1,2,2-Tetrachloroethane	108
Propylbenzene	107
4-Ethyltoluene	105
1,3,5-Trimethylbenzene	105
1,2,4-Trimethylbenzene	100
1,3-Dichlorobenzene	100
1,4-Dichlorobenzene	98
alpha-Chlorotoluene	107
1,2-Dichlorobenzene	98
1,2,4-Trichlorobenzene	72
Hexachlorobutadiene	81

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: LCS

Lab ID#: 1506007-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20060304**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/3/15 11:03 AM**	

Compound	%Recovery	Method Limits
Freon 12	105	70-130
Freon 114	105	70-130
Chloromethane	98	70-130
Vinyl Chloride	105	70-130
1,3-Butadiene	100	70-130
Bromomethane	114	70-130
Chloroethane	102	70-130
Freon 11	106	70-130
Ethanol	109	70-130
Freon 113	95	70-130
1,1-Dichloroethene	100	70-130
Acetone	98	70-130
2-Propanol	106	70-130
Carbon Disulfide	91	70-130
3-Chloropropene	101	70-130
Methylene Chloride	96	70-130
Methyl tert-butyl ether	100	70-130
trans-1,2-Dichloroethene	87	70-130
Hexane	102	70-130
1,1-Dichloroethane	100	70-130
2-Butanone (Methyl Ethyl Ketone)	101	70-130
cis-1,2-Dichloroethene	112	70-130
Tetrahydrofuran	100	70-130
Chloroform	100	70-130
1,1,1-Trichloroethane	100	70-130
Cyclohexane	101	70-130
Carbon Tetrachloride	122	70-130
2,2,4-Trimethylpentane	127	70-130
Benzene	100	70-130
1,2-Dichloroethane	101	70-130
Heptane	107	70-130
Trichloroethene	99	70-130
1,2-Dichloropropane	104	70-130
1,4-Dioxane	111	70-130
Bromodichloromethane	110	70-130
cis-1,3-Dichloropropene	98	70-130
4-Methyl-2-pentanone	114	70-130
Toluene	102	70-130
trans-1,3-Dichloropropene	106	70-130
1,1,2-Trichloroethane	102	70-130
Tetrachloroethene	102	70-130
2-Hexanone	108	70-130

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Client Sample ID: LCS

Lab ID#: 1506007-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20060304**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/3/15 11:03 AM**	

Compound	**%Recovery**	**Method Limits**
Dibromochloromethane	112	70-130
1,2-Dibromoethane (EDB)	108	70-130
Chlorobenzene	101	70-130
Ethyl Benzene	103	70-130
m,p-Xylene	106	70-130
o-Xylene	110	70-130
Styrene	106	70-130
Bromoform	112	70-130
Cumene	106	70-130
1,1,2,2-Tetrachloroethane	106	70-130
Propylbenzene	103	70-130
4-Ethyltoluene	99	70-130
1,3,5-Trimethylbenzene	100	70-130
1,2,4-Trimethylbenzene	96	70-130
1,3-Dichlorobenzene	96	70-130
1,4-Dichlorobenzene	93	70-130
alpha-Chlorotoluene	106	70-130
1,2-Dichlorobenzene	94	70-130
1,2,4-Trichlorobenzene	80	70-130
Hexachlorobutadiene	86	70-130

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	97	70-130

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Client Sample ID: LCSD

Lab ID#: 1506007-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20060305**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/3/15 11:58 AM**	

Compound	%Recovery	Method Limits
Freon 12	105	70-130
Freon 114	104	70-130
Chloromethane	100	70-130
Vinyl Chloride	104	70-130
1,3-Butadiene	98	70-130
Bromomethane	112	70-130
Chloroethane	102	70-130
Freon 11	105	70-130
Ethanol	108	70-130
Freon 113	94	70-130
1,1-Dichloroethene	101	70-130
Acetone	96	70-130
2-Propanol	104	70-130
Carbon Disulfide	90	70-130
3-Chloropropene	96	70-130
Methylene Chloride	95	70-130
Methyl tert-butyl ether	98	70-130
trans-1,2-Dichloroethene	87	70-130
Hexane	102	70-130
1,1-Dichloroethane	98	70-130
2-Butanone (Methyl Ethyl Ketone)	101	70-130
cis-1,2-Dichloroethene	112	70-130
Tetrahydrofuran	102	70-130
Chloroform	97	70-130
1,1,1-Trichloroethane	97	70-130
Cyclohexane	102	70-130
Carbon Tetrachloride	121	70-130
2,2,4-Trimethylpentane	101	70-130
Benzene	99	70-130
1,2-Dichloroethane	101	70-130
Heptane	103	70-130
Trichloroethene	99	70-130
1,2-Dichloropropane	104	70-130
1,4-Dioxane	109	70-130
Bromodichloromethane	109	70-130
cis-1,3-Dichloropropene	98	70-130
4-Methyl-2-pentanone	114	70-130
Toluene	103	70-130
trans-1,3-Dichloropropene	103	70-130
1,1,2-Trichloroethane	101	70-130
Tetrachloroethene	99	70-130
2-Hexanone	106	70-130

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Client Sample ID: LCSD

Lab ID#: 1506007-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20060305**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/3/15 11:58 AM**	

Compound	**%Recovery**	**Method Limits**
Dibromochloromethane	110	70-130
1,2-Dibromoethane (EDB)	105	70-130
Chlorobenzene	99	70-130
Ethyl Benzene	103	70-130
m,p-Xylene	102	70-130
o-Xylene	105	70-130
Styrene	104	70-130
Bromoform	111	70-130
Cumene	103	70-130
1,1,2,2-Tetrachloroethane	104	70-130
Propylbenzene	99	70-130
4-Ethyltoluene	96	70-130
1,3,5-Trimethylbenzene	94	70-130
1,2,4-Trimethylbenzene	90	70-130
1,3-Dichlorobenzene	90	70-130
1,4-Dichlorobenzene	88	70-130
alpha-Chlorotoluene	102	70-130
1,2-Dichlorobenzene	88	70-130
1,2,4-Trichlorobenzene	72	70-130
Hexachlorobutadiene	78	70-130

Container Type: NA - Not Applicable

Surrogates	**%Recovery**	**Method Limits**
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	99	70-130