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3/12/2018
Mr. Curt Lueckenhoff
Missouri Dept. of Natural Resources
2710 West Main

Jefferson City MO 65109

Project Name: Bridgeton Landfill
Project #:
Workorder #: 1802528

Dear Mr. Curt Lueckenhoff

The following report includes the data for the above referenced project for sample(s) received on 2/27/2018 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 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

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WORK ORDER #: 1802528

Work Order Summary

CLIENT:	Mr. Curt Lueckenhoff 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:	573-526-3363	**P.O. #**	3ESP180645
FAX:	573-526-3350	**PROJECT #**	Bridgeton Landfill
DATE RECEIVED:	02/27/2018	**CONTACT:**	Brian Whittaker
DATE COMPLETED:	03/12/2018		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	D1 (180987)	Modified TO-15	4.7 "Hg	5.1 psi
02A	U1 (180988)	Modified TO-15	4.5 "Hg	5.1 psi
03A	Lab Blank	Modified TO-15	NA	NA
04A	CCV	Modified TO-15	NA	NA
05A	LCS	Modified TO-15	NA	NA
05AA	LCSD	Modified TO-15	NA	NA

CERTIFIED BY: Heidi Hayes DATE: 03/12/18

Technical Director

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-16-11, UT NELAP CA0093332016-7, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2016, Expiration date: 10/17/2017.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

LABORATORY NARRATIVE
Modified TO-15
Missouri Dept. of Natural Resources
Workorder# 1802528

Two 6 Liter Summa Canister (100% Certified) samples were received on February 27, 2018. 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.

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: D1 (180987)

Lab ID#: 1802528-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.48	0.79	2.4
Freon 11	0.16	0.21	0.90	1.2
Ethanol	0.80	2.7	1.5	5.0
Acetone	0.80	1.0	1.9	2.5
2-Propanol	0.80	3.1	2.0	7.7
Benzene	0.16	0.20	0.51	0.63
Heptane	0.16	0.18	0.66	0.73

Client Sample ID: U1 (180988)

Lab ID#: 1802528-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.46	0.78	2.3
Freon 11	0.16	0.23	0.89	1.3
Ethanol	0.79	1.7	1.5	3.3
Acetone	0.79	3.2	1.9	7.7
2-Propanol	0.79	1.4	1.9	3.4
Methylene Chloride	0.32	0.63	1.1	2.2
2-Butanone (Methyl Ethyl Ketone)	0.79	0.86	2.3	2.5
Benzene	0.16	0.16	0.50	0.50
Heptane	0.16	0.22	0.65	0.90
Toluene	0.16	0.84	0.60	3.2

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Client Sample ID: D1 (180987)

Lab ID#: 1802528-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20022808**	**Date of Collection:**	**2/21/18 1:10:00 PM**
Dil. Factor:	**1.60**	**Date of Analysis:**	**2/28/18 01:36 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.48	0.79	2.4
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.80	Not Detected	1.6	Not Detected
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	0.21	0.90	1.2
Ethanol	0.80	2.7	1.5	5.0
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Acetone	0.80	1.0	1.9	2.5
2-Propanol	0.80	3.1	2.0	7.7
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	0.63	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 UJ	0.78	Not Detected UJ
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	0.20	0.51	0.63
1,2-Dichloroethane	0.16	Not Detected	0.65	Not Detected
Heptane	0.16	0.18	0.66	0.73
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	0.60	Not Detected
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

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Client Sample ID: D1 (180987)

Lab ID#: 1802528-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20022808**	**Date of Collection:**	**2/21/18 1:10:00 PM**
Dil. Factor:	**1.60**	**Date of Analysis:**	**2/28/18 01:36 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

UJ = Analyte associated with low bias in the CCV.

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	103	70-130

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Client Sample ID: U1 (180988)

Lab ID#: 1802528-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20022809**	**Date of Collection:**	**2/21/18 1:25:00 PM**
Dil. Factor:	**1.58**	**Date of Analysis:**	**2/28/18 02:17 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.46	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	0.23	0.89	1.3
Ethanol	0.79	1.7	1.5	3.3
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Acetone	0.79	3.2	1.9	7.7
2-Propanol	0.79	1.4	1.9	3.4
Carbon Disulfide	0.79	Not Detected	2.5	Not Detected
3-Chloropropene	0.79	Not Detected	2.5	Not Detected
Methylene Chloride	0.32	0.63	1.1	2.2
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	0.86	2.3	2.5
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 UJ	0.77	Not Detected UJ
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	0.16	0.50	0.50
1,2-Dichloroethane	0.16	Not Detected	0.64	Not Detected
Heptane	0.16	0.22	0.65	0.90
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	0.84	0.60	3.2
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

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Client Sample ID: U1 (180988)

Lab ID#: 1802528-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20022809**	**Date of Collection:**	**2/21/18 1:25:00 PM**
Dil. Factor:	**1.58**	**Date of Analysis:**	**2/28/18 02:17 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	0.73	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	5.9	Not Detected
Hexachlorobutadiene	0.79	Not Detected	8.4	Not Detected

UJ = Analyte associated with low bias in the CCV.

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	85	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1802528-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20022806**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/28/18 11:32 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 UJ	0.49	Not Detected UJ
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#: 1802528-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20022806**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/28/18 11:32 AM**	

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

UJ = Analyte associated with low bias in the CCV.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	88	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	103	70-130

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Client Sample ID: CCV

Lab ID#: 1802528-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20022802**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/28/18 08:47 AM**	

Compound	%Recovery
Freon 12	97
Freon 114	107
Chloromethane	87
Vinyl Chloride	95
1,3-Butadiene	85
Bromomethane	115
Chloroethane	98
Freon 11	102
Ethanol	84
Freon 113	102
1,1-Dichloroethene	99
Acetone	91
2-Propanol	78
Carbon Disulfide	98
3-Chloropropene	104
Methylene Chloride	96
Methyl tert-butyl ether	91
trans-1,2-Dichloroethene	99
Hexane	84
1,1-Dichloroethane	89
2-Butanone (Methyl Ethyl Ketone)	93
cis-1,2-Dichloroethene	95
Tetrahydrofuran	80
Chloroform	65 Q
1,1,1-Trichloroethane	96
Cyclohexane	93
Carbon Tetrachloride	94
2,2,4-Trimethylpentane	88
Benzene	104
1,2-Dichloroethane	96
Heptane	91
Trichloroethene	122
1,2-Dichloropropane	100
1,4-Dioxane	106
Bromodichloromethane	98
cis-1,3-Dichloropropene	104
4-Methyl-2-pentanone	86
Toluene	105
trans-1,3-Dichloropropene	94
1,1,2-Trichloroethane	102
Tetrachloroethene	111
2-Hexanone	86

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Client Sample ID: CCV

Lab ID#: 1802528-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20022802**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/28/18 08:47 AM**	

Compound	%Recovery
Dibromochloromethane	106
1,2-Dibromoethane (EDB)	102
Chlorobenzene	106
Ethyl Benzene	103
m,p-Xylene	100
o-Xylene	101
Styrene	98
Bromoform	107
Cumene	101
1,1,2,2-Tetrachloroethane	87
Propylbenzene	100
4-Ethyltoluene	102
1,3,5-Trimethylbenzene	98
1,2,4-Trimethylbenzene	97
1,3-Dichlorobenzene	103
1,4-Dichlorobenzene	101
alpha-Chlorotoluene	92
1,2-Dichlorobenzene	101
1,2,4-Trichlorobenzene	119
Hexachlorobutadiene	111

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	84	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	106	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1802528-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20022803**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/28/18 09:28 AM**	

Compound	%Recovery	Method Limits
Freon 12	103	70-130
Freon 114	115	70-130
Chloromethane	89	70-130
Vinyl Chloride	99	70-130
1,3-Butadiene	88	70-130
Bromomethane	123	70-130
Chloroethane	106	70-130
Freon 11	109	70-130
Ethanol	92	70-130
Freon 113	104	70-130
1,1-Dichloroethene	103	70-130
Acetone	90	70-130
2-Propanol	85	70-130
Carbon Disulfide	88	70-130
3-Chloropropene	109	70-130
Methylene Chloride	96	70-130
Methyl tert-butyl ether	95	70-130
trans-1,2-Dichloroethene	88	70-130
Hexane	89	70-130
1,1-Dichloroethane	93	70-130
2-Butanone (Methyl Ethyl Ketone)	96	70-130
cis-1,2-Dichloroethene	110	70-130
Tetrahydrofuran	84	70-130
Chloroform	71	70-130
1,1,1-Trichloroethane	100	70-130
Cyclohexane	96	70-130
Carbon Tetrachloride	109	70-130
2,2,4-Trimethylpentane	93	70-130
Benzene	109	70-130
1,2-Dichloroethane	107	70-130
Heptane	99	70-130
Trichloroethene	120	70-130
1,2-Dichloropropane	105	70-130
1,4-Dioxane	110	70-130
Bromodichloromethane	107	70-130
cis-1,3-Dichloropropene	103	70-130
4-Methyl-2-pentanone	92	70-130
Toluene	111	70-130
trans-1,3-Dichloropropene	102	70-130
1,1,2-Trichloroethane	111	70-130
Tetrachloroethene	115	70-130
2-Hexanone	92	70-130

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Client Sample ID: LCS

Lab ID#: 1802528-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20022803**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/28/18 09:28 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	115	70-130
1,2-Dibromoethane (EDB)	111	70-130
Chlorobenzene	111	70-130
Ethyl Benzene	107	70-130
m,p-Xylene	105	70-130
o-Xylene	106	70-130
Styrene	105	70-130
Bromoform	122	70-130
Cumene	107	70-130
1,1,2,2-Tetrachloroethane	106	70-130
Propylbenzene	106	70-130
4-Ethyltoluene	108	70-130
1,3,5-Trimethylbenzene	102	70-130
1,2,4-Trimethylbenzene	102	70-130
1,3-Dichlorobenzene	106	70-130
1,4-Dichlorobenzene	105	70-130
alpha-Chlorotoluene	118	70-130
1,2-Dichlorobenzene	104	70-130
1,2,4-Trichlorobenzene	97	70-130
Hexachlorobutadiene	82	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	83	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	104	70-130

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Client Sample ID: LCSD

Lab ID#: 1802528-05AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20022804**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/28/18 10:09 AM**	

Compound	%Recovery	Method Limits
Freon 12	97	70-130
Freon 114	111	70-130
Chloromethane	86	70-130
Vinyl Chloride	96	70-130
1,3-Butadiene	83	70-130
Bromomethane	121	70-130
Chloroethane	101	70-130
Freon 11	104	70-130
Ethanol	86	70-130
Freon 113	100	70-130
1,1-Dichloroethene	102	70-130
Acetone	86	70-130
2-Propanol	82	70-130
Carbon Disulfide	84	70-130
3-Chloropropene	104	70-130
Methylene Chloride	94	70-130
Methyl tert-butyl ether	91	70-130
trans-1,2-Dichloroethene	85	70-130
Hexane	85	70-130
1,1-Dichloroethane	88	70-130
2-Butanone (Methyl Ethyl Ketone)	92	70-130
cis-1,2-Dichloroethene	104	70-130
Tetrahydrofuran	82	70-130
Chloroform	87	70-130
1,1,1-Trichloroethane	95	70-130
Cyclohexane	92	70-130
Carbon Tetrachloride	104	70-130
2,2,4-Trimethylpentane	94	70-130
Benzene	115	70-130
1,2-Dichloroethane	113	70-130
Heptane	103	70-130
Trichloroethene	120	70-130
1,2-Dichloropropane	106	70-130
1,4-Dioxane	109	70-130
Bromodichloromethane	109	70-130
cis-1,3-Dichloropropene	105	70-130
4-Methyl-2-pentanone	93	70-130
Toluene	112	70-130
trans-1,3-Dichloropropene	102	70-130
1,1,2-Trichloroethane	112	70-130
Tetrachloroethene	119	70-130
2-Hexanone	94	70-130

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Client Sample ID: LCSD

Lab ID#: 1802528-05AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20022804**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 2/28/18 10:09 AM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	117	70-130
1,2-Dibromoethane (EDB)	112	70-130
Chlorobenzene	114	70-130
Ethyl Benzene	110	70-130
m,p-Xylene	107	70-130
o-Xylene	108	70-130
Styrene	105	70-130
Bromoform	121	70-130
Cumene	108	70-130
1,1,2,2-Tetrachloroethane	107	70-130
Propylbenzene	108	70-130
4-Ethyltoluene	110	70-130
1,3,5-Trimethylbenzene	104	70-130
1,2,4-Trimethylbenzene	104	70-130
1,3-Dichlorobenzene	109	70-130
1,4-Dichlorobenzene	106	70-130
alpha-Chlorotoluene	119	70-130
1,2-Dichlorobenzene	105	70-130
1,2,4-Trichlorobenzene	100	70-130
Hexachlorobutadiene	85	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	78	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	104	70-130