

1/11/2017

Mr. Curt Lueckenhoff
Missouri Dept. of Natural Resources
2710 West Main

Jefferson City MO 65109

Project Name: Bridgeton Landfill

Project #:

Workorder #: 1612476

Dear Mr. Curt Lueckenhoff

The following report includes the data for the above referenced project for sample(s) received on 12/28/2016 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

WORK ORDER #: 1612476

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. #	3ESP170511
FAX:	573-526-3350	PROJECT #	Bridgeton Landfill
DATE RECEIVED:	12/28/2016	CONTACT:	Brian Whittaker
DATE COMPLETED:	01/11/2017		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	D1 (163940)	Modified TO-15	5.3 "Hg	5.1 psi
02A	D2 (163941)	Modified TO-15	5.5 "Hg	5.4 psi
03A	U1 (163942)	Modified TO-15	5.3 "Hg	5 psi
04A	U2 (163943)	Modified TO-15	6.3 "Hg	5 psi
05A	Lab Blank	Modified TO-15	NA	NA
05B	Lab Blank	Modified TO-15	NA	NA
06A	CCV	Modified TO-15	NA	NA
06B	CCV	Modified TO-15	NA	NA
07A	LCS	Modified TO-15	NA	NA
07AA	LCSD	Modified TO-15	NA	NA
07B	LCS	Modified TO-15	NA	NA
07BB	LCSD	Modified TO-15	NA	NA

CERTIFIED BY: 

 Technical Director

DATE: 01/11/17

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

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LABORATORY NARRATIVE
Modified TO-15
Missouri Dept. of Natural Resources
Workorder# 1612476

Four 6 Liter Summa Canister (100% Certified) samples were received on December 28, 2016. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode.

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

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

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

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

All Quality Control Limit exceedances and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

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

Client Sample ID: D1 (163940)

Lab ID#: 1612476-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.48	0.81	2.4
Freon 11	0.16	0.50	0.92	2.8
Ethanol	0.82	4.2	1.5	8.0
Acetone	0.82	3.0	1.9	7.0
2-Propanol	0.82	0.98	2.0	2.4
Hexane	0.16	0.32	0.58	1.1
Benzene	0.16	0.39	0.52	1.2
Heptane	0.16	0.19	0.67	0.78
Toluene	0.16	0.55	0.62	2.1
m,p-Xylene	0.16	0.23	0.71	0.99

Client Sample ID: D2 (163941)

Lab ID#: 1612476-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.49	0.83	2.4
Freon 11	0.17	0.32	0.94	1.8
Ethanol	0.84	3.0	1.6	5.7
Acetone	0.84	4.8	2.0	11
Hexane	0.17	0.19	0.59	0.67
2-Butanone (Methyl Ethyl Ketone)	0.84	0.90	2.5	2.6
Benzene	0.17	0.33	0.54	1.0
Toluene	0.17	0.38	0.63	1.4

Client Sample ID: U1 (163942)

Lab ID#: 1612476-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.48	0.81	2.4
Freon 11	0.16	0.32	0.92	1.8
Ethanol	0.82	3.7	1.5	7.0
Acetone	0.82	3.2	1.9	7.6
Hexane	0.16	0.26	0.57	0.91

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

Client Sample ID: U1 (163942)

Lab ID#: 1612476-03A

Benzene	0.16	0.29	0.52	0.92
Heptane	0.16	0.16 J	0.67	0.64 J
Toluene	0.16	0.36	0.61	1.4

Client Sample ID: U2 (163943)

Lab ID#: 1612476-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.47	0.84	2.3
Freon 11	0.17	0.34	0.96	1.9
Ethanol	0.85	2.4	1.6	4.4
Acetone	0.85	2.7	2.0	6.3
Hexane	0.17	0.21	0.60	0.74
Benzene	0.17	0.30	0.54	0.95
Toluene	0.17	0.37	0.64	1.4



Air Toxics

Client Sample ID: D1 (163940)

Lab ID#: 1612476-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20010321	Date of Collection:	12/21/16 12:50:00 P
Dil. Factor:	1.64	Date of Analysis:	1/3/17 10:40 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.48	0.81	2.4
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.82	Not Detected	1.7	Not Detected
Vinyl Chloride	0.16	Not Detected	0.42	Not Detected
1,3-Butadiene	0.16	Not Detected	0.36	Not Detected
Bromomethane	0.82	Not Detected	3.2	Not Detected
Chloroethane	0.82	Not Detected	2.2	Not Detected
Freon 11	0.16	0.50	0.92	2.8
Ethanol	0.82	4.2	1.5	8.0
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Acetone	0.82	3.0	1.9	7.0
2-Propanol	0.82	0.98	2.0	2.4
Carbon Disulfide	0.82	Not Detected	2.6	Not Detected
3-Chloropropene	0.82	Not Detected	2.6	Not Detected
Methylene Chloride	0.33	Not Detected	1.1	Not Detected
Methyl tert-butyl ether	0.16	Not Detected	0.59	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Hexane	0.16	0.32	0.58	1.1
1,1-Dichloroethane	0.16	Not Detected	0.66	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.82	Not Detected	2.4	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Tetrahydrofuran	0.82	Not Detected	2.4	Not Detected
Chloroform	0.16	Not Detected	0.80	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.89	Not Detected
Cyclohexane	0.16	Not Detected	0.56	Not Detected
Carbon Tetrachloride	0.16	Not Detected	1.0	Not Detected
2,2,4-Trimethylpentane	0.82	Not Detected	3.8	Not Detected
Benzene	0.16	0.39	0.52	1.2
1,2-Dichloroethane	0.16	Not Detected	0.66	Not Detected
Heptane	0.16	0.19	0.67	0.78
Trichloroethene	0.16	Not Detected	0.88	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.76	Not Detected
1,4-Dioxane	0.16	Not Detected	0.59	Not Detected
Bromodichloromethane	0.16	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.74	Not Detected
4-Methyl-2-pentanone	0.16	Not Detected	0.67	Not Detected
Toluene	0.16	0.55	0.62	2.1
trans-1,3-Dichloropropene	0.16	Not Detected	0.74	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.89	Not Detected
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
2-Hexanone	0.82	Not Detected	3.4	Not Detected



Client Sample ID: D1 (163940)

Lab ID#: 1612476-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20010321	Date of Collection:	12/21/16 12:50:00 P
Dil. Factor:	1.64	Date of Analysis:	1/3/17 10:40 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	1.3	Not Detected
Chlorobenzene	0.16	Not Detected	0.76	Not Detected
Ethyl Benzene	0.16	Not Detected	0.71	Not Detected
m,p-Xylene	0.16	0.23	0.71	0.99
o-Xylene	0.16	Not Detected	0.71	Not Detected
Styrene	0.16	Not Detected	0.70	Not Detected
Bromoform	0.16	Not Detected	1.7	Not Detected
Cumene	0.16	Not Detected	0.81	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
Propylbenzene	0.16	Not Detected	0.81	Not Detected
4-Ethyltoluene	0.16	Not Detected	0.81	Not Detected
1,3,5-Trimethylbenzene	0.16	Not Detected	0.81	Not Detected
1,2,4-Trimethylbenzene	0.16	Not Detected	0.81	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
alpha-Chlorotoluene	0.16	Not Detected	0.85	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.99	Not Detected
1,2,4-Trichlorobenzene	0.82	Not Detected	6.1	Not Detected
Hexachlorobutadiene	0.82	Not Detected	8.7	Not Detected

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: D2 (163941)

Lab ID#: 1612476-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20010408	Date of Collection:	12/21/16 12:45:00 P
Dil. Factor:	1.68	Date of Analysis:	1/4/17 12:06 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.49	0.83	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	0.32	0.94	1.8
Ethanol	0.84	3.0	1.6	5.7
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Acetone	0.84	4.8	2.0	11
2-Propanol	0.84	Not Detected	2.1	Not Detected
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	0.60	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Hexane	0.17	0.19	0.59	0.67
1,1-Dichloroethane	0.17	Not Detected	0.68	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.84	0.90	2.5	2.6
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	Not Detected	0.58	Not Detected
Carbon Tetrachloride	0.17	Not Detected	1.0	Not Detected
2,2,4-Trimethylpentane	0.84	Not Detected	3.9	Not Detected
Benzene	0.17	0.33	0.54	1.0
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	0.90	Not Detected
1,2-Dichloropropane	0.17	Not Detected	0.78	Not Detected
1,4-Dioxane	0.17	Not Detected	0.60	Not Detected
Bromodichloromethane	0.17	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.76	Not Detected
4-Methyl-2-pentanone	0.17	Not Detected	0.69	Not Detected
Toluene	0.17	0.38	0.63	1.4
trans-1,3-Dichloropropene	0.17	Not Detected	0.76	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	3.4	Not Detected

Client Sample ID: D2 (163941)

Lab ID#: 1612476-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20010408	Date of Collection:	12/21/16 12:45:00 P
Dil. Factor:	1.68	Date of Analysis:	1/4/17 12:06 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	0.77	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	0.82	Not Detected
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.2	Not Detected
Propylbenzene	0.17	Not Detected	0.82	Not Detected
4-Ethyltoluene	0.17	Not Detected	0.82	Not Detected
1,3,5-Trimethylbenzene	0.17	Not Detected	0.82	Not Detected
1,2,4-Trimethylbenzene	0.17	Not Detected	0.82	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	6.2	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	102	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: U1 (163942)

Lab ID#: 1612476-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20010409	Date of Collection:	12/21/16 1:15:00 PM
Dil. Factor:	1.63	Date of Analysis:	1/4/17 12:46 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.48	0.81	2.4
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.82	Not Detected	1.7	Not Detected
Vinyl Chloride	0.16	Not Detected	0.42	Not Detected
1,3-Butadiene	0.16	Not Detected	0.36	Not Detected
Bromomethane	0.82	Not Detected	3.2	Not Detected
Chloroethane	0.82	Not Detected	2.2	Not Detected
Freon 11	0.16	0.32	0.92	1.8
Ethanol	0.82	3.7	1.5	7.0
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Acetone	0.82	3.2	1.9	7.6
2-Propanol	0.82	Not Detected	2.0	Not Detected
Carbon Disulfide	0.82	Not Detected	2.5	Not Detected
3-Chloropropene	0.82	Not Detected	2.6	Not Detected
Methylene Chloride	0.33	Not Detected	1.1	Not Detected
Methyl tert-butyl ether	0.16	Not Detected	0.59	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Hexane	0.16	0.26	0.57	0.91
1,1-Dichloroethane	0.16	Not Detected	0.66	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.82	Not Detected	2.4	Not Detected
cis-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected
Tetrahydrofuran	0.82	Not Detected	2.4	Not Detected
Chloroform	0.16	Not Detected	0.80	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.89	Not Detected
Cyclohexane	0.16	Not Detected	0.56	Not Detected
Carbon Tetrachloride	0.16	Not Detected	1.0	Not Detected
2,2,4-Trimethylpentane	0.82	Not Detected	3.8	Not Detected
Benzene	0.16	0.29	0.52	0.92
1,2-Dichloroethane	0.16	Not Detected	0.66	Not Detected
Heptane	0.16	0.16 J	0.67	0.64 J
Trichloroethene	0.16	Not Detected	0.88	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.75	Not Detected
1,4-Dioxane	0.16	Not Detected	0.59	Not Detected
Bromodichloromethane	0.16	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.74	Not Detected
4-Methyl-2-pentanone	0.16	Not Detected	0.67	Not Detected
Toluene	0.16	0.36	0.61	1.4
trans-1,3-Dichloropropene	0.16	Not Detected	0.74	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.89	Not Detected
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
2-Hexanone	0.82	Not Detected	3.3	Not Detected

Client Sample ID: U1 (163942)

Lab ID#: 1612476-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20010409	Date of Collection:	12/21/16 1:15:00 PM
Dil. Factor:	1.63	Date of Analysis:	1/4/17 12:46 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	0.75	Not Detected
Ethyl Benzene	0.16	Not Detected	0.71	Not Detected
m,p-Xylene	0.16	Not Detected	0.71	Not Detected
o-Xylene	0.16	Not Detected	0.71	Not Detected
Styrene	0.16	Not Detected	0.69	Not Detected
Bromoform	0.16	Not Detected	1.7	Not Detected
Cumene	0.16	Not Detected	0.80	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
Propylbenzene	0.16	Not Detected	0.80	Not Detected
4-Ethyltoluene	0.16	Not Detected	0.80	Not Detected
1,3,5-Trimethylbenzene	0.16	Not Detected	0.80	Not Detected
1,2,4-Trimethylbenzene	0.16	Not Detected	0.80	Not Detected
1,3-Dichlorobenzene	0.16	Not Detected	0.98	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.98	Not Detected
alpha-Chlorotoluene	0.16	Not Detected	0.84	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.98	Not Detected
1,2,4-Trichlorobenzene	0.82	Not Detected	6.0	Not Detected
Hexachlorobutadiene	0.82	Not Detected	8.7	Not Detected

J = Estimated value.

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

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	96	70-130



Air Toxics

Client Sample ID: U2 (163943)

Lab ID#: 1612476-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20010410	Date of Collection:	12/21/16 1:16:00 PM
Dil. Factor:	1.70	Date of Analysis:	1/4/17 01:26 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.47	0.84	2.3
Freon 114	0.17	Not Detected	1.2	Not Detected
Chloromethane	0.85	Not Detected	1.8	Not Detected
Vinyl Chloride	0.17	Not Detected	0.43	Not Detected
1,3-Butadiene	0.17	Not Detected	0.38	Not Detected
Bromomethane	0.85	Not Detected	3.3	Not Detected
Chloroethane	0.85	Not Detected	2.2	Not Detected
Freon 11	0.17	0.34	0.96	1.9
Ethanol	0.85	2.4	1.6	4.4
Freon 113	0.17	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Acetone	0.85	2.7	2.0	6.3
2-Propanol	0.85	Not Detected	2.1	Not Detected
Carbon Disulfide	0.85	Not Detected	2.6	Not Detected
3-Chloropropene	0.85	Not Detected	2.7	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	0.21	0.60	0.74
1,1-Dichloroethane	0.17	Not Detected	0.69	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.85	Not Detected	2.5	Not Detected
cis-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Tetrahydrofuran	0.85	Not Detected	2.5	Not Detected
Chloroform	0.17	Not Detected	0.83	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.93	Not Detected
Cyclohexane	0.17	Not Detected	0.58	Not Detected
Carbon Tetrachloride	0.17	Not Detected	1.1	Not Detected
2,2,4-Trimethylpentane	0.85	Not Detected	4.0	Not Detected
Benzene	0.17	0.30	0.54	0.95
1,2-Dichloroethane	0.17	Not Detected	0.69	Not Detected
Heptane	0.17	Not Detected	0.70	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	0.70	Not Detected
Toluene	0.17	0.37	0.64	1.4
trans-1,3-Dichloropropene	0.17	Not Detected	0.77	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.93	Not Detected
Tetrachloroethene	0.17	Not Detected	1.2	Not Detected
2-Hexanone	0.85	Not Detected	3.5	Not Detected



Client Sample ID: U2 (163943)

Lab ID#: 1612476-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20010410	Date of Collection:	12/21/16 1:16:00 PM
Dil. Factor:	1.70	Date of Analysis:	1/4/17 01:26 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	0.74	Not Detected
m,p-Xylene	0.17	Not Detected	0.74	Not Detected
o-Xylene	0.17	Not Detected	0.74	Not Detected
Styrene	0.17	Not Detected	0.72	Not Detected
Bromoform	0.17	Not Detected	1.8	Not Detected
Cumene	0.17	Not Detected	0.84	Not Detected
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.2	Not Detected
Propylbenzene	0.17	Not Detected	0.84	Not Detected
4-Ethyltoluene	0.17	Not Detected	0.84	Not Detected
1,3,5-Trimethylbenzene	0.17	Not Detected	0.84	Not Detected
1,2,4-Trimethylbenzene	0.17	Not Detected	0.84	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	0.88	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.85	Not Detected	6.3	Not Detected
Hexachlorobutadiene	0.85	Not Detected	9.1	Not Detected

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

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



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1612476-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20010306	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	1/3/17 10:58 AM

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

Client Sample ID: Lab Blank

Lab ID#: 1612476-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20010306	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	1/3/17 10:58 AM

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

Container Type: NA - Not Applicable

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



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1612476-05B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20010407	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	1/4/17 11:11 AM

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

Client Sample ID: Lab Blank

Lab ID#: 1612476-05B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20010407	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/4/17 11:11 AM

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

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	99	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1612476-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20010302	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/3/17 07:55 AM

Compound	%Recovery
Freon 12	95
Freon 114	96
Chloromethane	92
Vinyl Chloride	97
1,3-Butadiene	97
Bromomethane	106
Chloroethane	95
Freon 11	95
Ethanol	87
Freon 113	97
1,1-Dichloroethene	100
Acetone	92
2-Propanol	99
Carbon Disulfide	104
3-Chloropropene	100
Methylene Chloride	90
Methyl tert-butyl ether	111
trans-1,2-Dichloroethene	100
Hexane	103
1,1-Dichloroethane	97
2-Butanone (Methyl Ethyl Ketone)	102
cis-1,2-Dichloroethene	102
Tetrahydrofuran	100
Chloroform	98
1,1,1-Trichloroethane	100
Cyclohexane	105
Carbon Tetrachloride	102
2,2,4-Trimethylpentane	102
Benzene	93
1,2-Dichloroethane	95
Heptane	96
Trichloroethene	100
1,2-Dichloropropane	97
1,4-Dioxane	101
Bromodichloromethane	104
cis-1,3-Dichloropropene	108
4-Methyl-2-pentanone	103
Toluene	99
trans-1,3-Dichloropropene	111
1,1,2-Trichloroethane	102
Tetrachloroethene	106
2-Hexanone	110

Client Sample ID: CCV

Lab ID#: 1612476-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20010302	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/3/17 07:55 AM

Compound	%Recovery
Dibromochloromethane	114
1,2-Dibromoethane (EDB)	108
Chlorobenzene	103
Ethyl Benzene	112
m,p-Xylene	114
o-Xylene	116
Styrene	114
Bromoform	118
Cumene	115
1,1,2,2-Tetrachloroethane	101
Propylbenzene	104
4-Ethyltoluene	103
1,3,5-Trimethylbenzene	108
1,2,4-Trimethylbenzene	105
1,3-Dichlorobenzene	100
1,4-Dichlorobenzene	95
alpha-Chlorotoluene	123
1,2-Dichlorobenzene	99
1,2,4-Trichlorobenzene	106
Hexachlorobutadiene	100

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1612476-06B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20010402	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/4/17 07:39 AM

Compound	%Recovery
Freon 12	96
Freon 114	95
Chloromethane	93
Vinyl Chloride	96
1,3-Butadiene	98
Bromomethane	107
Chloroethane	107
Freon 11	96
Ethanol	85
Freon 113	97
1,1-Dichloroethene	99
Acetone	91
2-Propanol	97
Carbon Disulfide	103
3-Chloropropene	93
Methylene Chloride	90
Methyl tert-butyl ether	109
trans-1,2-Dichloroethene	99
Hexane	103
1,1-Dichloroethane	97
2-Butanone (Methyl Ethyl Ketone)	102
cis-1,2-Dichloroethene	101
Tetrahydrofuran	102
Chloroform	97
1,1,1-Trichloroethane	100
Cyclohexane	105
Carbon Tetrachloride	100
2,2,4-Trimethylpentane	103
Benzene	95
1,2-Dichloroethane	96
Heptane	100
Trichloroethene	100
1,2-Dichloropropane	98
1,4-Dioxane	102
Bromodichloromethane	101
cis-1,3-Dichloropropene	110
4-Methyl-2-pentanone	106
Toluene	100
trans-1,3-Dichloropropene	106
1,1,2-Trichloroethane	100
Tetrachloroethene	101
2-Hexanone	106

Client Sample ID: CCV

Lab ID#: 1612476-06B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20010402	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/4/17 07:39 AM

Compound	%Recovery
Dibromochloromethane	110
1,2-Dibromoethane (EDB)	104
Chlorobenzene	99
Ethyl Benzene	107
m,p-Xylene	107
o-Xylene	109
Styrene	108
Bromoform	111
Cumene	110
1,1,2,2-Tetrachloroethane	99
Propylbenzene	97
4-Ethyltoluene	94
1,3,5-Trimethylbenzene	98
1,2,4-Trimethylbenzene	96
1,3-Dichlorobenzene	93
1,4-Dichlorobenzene	89
alpha-Chlorotoluene	115
1,2-Dichlorobenzene	93
1,2,4-Trichlorobenzene	97
Hexachlorobutadiene	93

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	104	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1612476-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20010303	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	1/3/17 08:43 AM

Compound	%Recovery	Method Limits
Freon 12	99	70-130
Freon 114	99	70-130
Chloromethane	96	70-130
Vinyl Chloride	102	70-130
1,3-Butadiene	97	70-130
Bromomethane	108	70-130
Chloroethane	100	70-130
Freon 11	98	70-130
Ethanol	80	70-130
Freon 113	98	70-130
1,1-Dichloroethene	100	70-130
Acetone	92	70-130
2-Propanol	106	70-130
Carbon Disulfide	108	70-130
3-Chloropropene	124	70-130
Methylene Chloride	92	70-130
Methyl tert-butyl ether	114	70-130
trans-1,2-Dichloroethene	112	70-130
Hexane	107	70-130
1,1-Dichloroethane	98	70-130
2-Butanone (Methyl Ethyl Ketone)	109	70-130
cis-1,2-Dichloroethene	97	70-130
Tetrahydrofuran	108	70-130
Chloroform	99	70-130
1,1,1-Trichloroethane	102	70-130
Cyclohexane	108	70-130
Carbon Tetrachloride	73	70-130
2,2,4-Trimethylpentane	106	70-130
Benzene	95	70-130
1,2-Dichloroethane	95	70-130
Heptane	101	70-130
Trichloroethene	103	70-130
1,2-Dichloropropane	98	70-130
1,4-Dioxane	114	70-130
Bromodichloromethane	104	70-130
cis-1,3-Dichloropropene	116	70-130
4-Methyl-2-pentanone	118	70-130
Toluene	101	70-130
trans-1,3-Dichloropropene	114	70-130
1,1,2-Trichloroethane	104	70-130
Tetrachloroethene	104	70-130
2-Hexanone	131 Q	70-130

Client Sample ID: LCS

Lab ID#: 1612476-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20010303	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/3/17 08:43 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	112	70-130
1,2-Dibromoethane (EDB)	107	70-130
Chlorobenzene	103	70-130
Ethyl Benzene	112	70-130
m,p-Xylene	113	70-130
o-Xylene	117	70-130
Styrene	118	70-130
Bromoform	117	70-130
Cumene	114	70-130
1,1,2,2-Tetrachloroethane	101	70-130
Propylbenzene	104	70-130
4-Ethyltoluene	104	70-130
1,3,5-Trimethylbenzene	108	70-130
1,2,4-Trimethylbenzene	105	70-130
1,3-Dichlorobenzene	98	70-130
1,4-Dichlorobenzene	96	70-130
alpha-Chlorotoluene	125	70-130
1,2-Dichlorobenzene	97	70-130
1,2,4-Trichlorobenzene	100	70-130
Hexachlorobutadiene	95	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	100	70-130



Air Toxics

Client Sample ID: LCS D

Lab ID#: 1612476-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20010304	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	1/3/17 09:30 AM

Compound	%Recovery	Method Limits
Freon 12	98	70-130
Freon 114	98	70-130
Chloromethane	95	70-130
Vinyl Chloride	100	70-130
1,3-Butadiene	96	70-130
Bromomethane	110	70-130
Chloroethane	102	70-130
Freon 11	98	70-130
Ethanol	81	70-130
Freon 113	98	70-130
1,1-Dichloroethene	100	70-130
Acetone	92	70-130
2-Propanol	106	70-130
Carbon Disulfide	107	70-130
3-Chloropropene	123	70-130
Methylene Chloride	91	70-130
Methyl tert-butyl ether	113	70-130
trans-1,2-Dichloroethene	111	70-130
Hexane	106	70-130
1,1-Dichloroethane	98	70-130
2-Butanone (Methyl Ethyl Ketone)	108	70-130
cis-1,2-Dichloroethene	97	70-130
Tetrahydrofuran	108	70-130
Chloroform	98	70-130
1,1,1-Trichloroethane	102	70-130
Cyclohexane	108	70-130
Carbon Tetrachloride	74	70-130
2,2,4-Trimethylpentane	106	70-130
Benzene	94	70-130
1,2-Dichloroethane	94	70-130
Heptane	102	70-130
Trichloroethene	101	70-130
1,2-Dichloropropane	98	70-130
1,4-Dioxane	116	70-130
Bromodichloromethane	104	70-130
cis-1,3-Dichloropropene	116	70-130
4-Methyl-2-pentanone	118	70-130
Toluene	100	70-130
trans-1,3-Dichloropropene	115	70-130
1,1,2-Trichloroethane	103	70-130
Tetrachloroethene	104	70-130
2-Hexanone	132 Q	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1612476-07AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20010304	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/3/17 09:30 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	112	70-130
1,2-Dibromoethane (EDB)	108	70-130
Chlorobenzene	103	70-130
Ethyl Benzene	112	70-130
m,p-Xylene	114	70-130
o-Xylene	115	70-130
Styrene	117	70-130
Bromoform	117	70-130
Cumene	113	70-130
1,1,2,2-Tetrachloroethane	101	70-130
Propylbenzene	102	70-130
4-Ethyltoluene	103	70-130
1,3,5-Trimethylbenzene	108	70-130
1,2,4-Trimethylbenzene	106	70-130
1,3-Dichlorobenzene	98	70-130
1,4-Dichlorobenzene	94	70-130
alpha-Chlorotoluene	124	70-130
1,2-Dichlorobenzene	97	70-130
1,2,4-Trichlorobenzene	106	70-130
Hexachlorobutadiene	96	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	102	70-130



Client Sample ID: LCS

Lab ID#: 1612476-07B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20010403	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	1/4/17 08:24 AM

Compound	%Recovery	Method Limits
Freon 12	99	70-130
Freon 114	98	70-130
Chloromethane	98	70-130
Vinyl Chloride	101	70-130
1,3-Butadiene	97	70-130
Bromomethane	111	70-130
Chloroethane	110	70-130
Freon 11	98	70-130
Ethanol	80	70-130
Freon 113	97	70-130
1,1-Dichloroethene	101	70-130
Acetone	92	70-130
2-Propanol	104	70-130
Carbon Disulfide	107	70-130
3-Chloropropene	119	70-130
Methylene Chloride	91	70-130
Methyl tert-butyl ether	112	70-130
trans-1,2-Dichloroethene	110	70-130
Hexane	107	70-130
1,1-Dichloroethane	98	70-130
2-Butanone (Methyl Ethyl Ketone)	108	70-130
cis-1,2-Dichloroethene	96	70-130
Tetrahydrofuran	108	70-130
Chloroform	98	70-130
1,1,1-Trichloroethane	102	70-130
Cyclohexane	109	70-130
Carbon Tetrachloride	71	70-130
2,2,4-Trimethylpentane	106	70-130
Benzene	97	70-130
1,2-Dichloroethane	97	70-130
Heptane	106	70-130
Trichloroethene	103	70-130
1,2-Dichloropropane	100	70-130
1,4-Dioxane	117	70-130
Bromodichloromethane	102	70-130
cis-1,3-Dichloropropene	120	70-130
4-Methyl-2-pentanone	122	70-130
Toluene	102	70-130
trans-1,3-Dichloropropene	113	70-130
1,1,2-Trichloroethane	102	70-130
Tetrachloroethene	102	70-130
2-Hexanone	131 Q	70-130

Client Sample ID: LCS

Lab ID#: 1612476-07B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20010403	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/4/17 08:24 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	109	70-130
1,2-Dibromoethane (EDB)	105	70-130
Chlorobenzene	100	70-130
Ethyl Benzene	110	70-130
m,p-Xylene	110	70-130
o-Xylene	114	70-130
Styrene	114	70-130
Bromoform	114	70-130
Cumene	112	70-130
1,1,2,2-Tetrachloroethane	101	70-130
Propylbenzene	104	70-130
4-Ethyltoluene	105	70-130
1,3,5-Trimethylbenzene	106	70-130
1,2,4-Trimethylbenzene	103	70-130
1,3-Dichlorobenzene	97	70-130
1,4-Dichlorobenzene	95	70-130
alpha-Chlorotoluene	124	70-130
1,2-Dichlorobenzene	97	70-130
1,2,4-Trichlorobenzene	102	70-130
Hexachlorobutadiene	97	70-130

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	104	70-130



Air Toxics

Client Sample ID: LCS D

Lab ID#: 1612476-07BB

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20010404	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	1/4/17 09:10 AM

Compound	%Recovery	Method Limits
Freon 12	99	70-130
Freon 114	99	70-130
Chloromethane	98	70-130
Vinyl Chloride	102	70-130
1,3-Butadiene	97	70-130
Bromomethane	111	70-130
Chloroethane	111	70-130
Freon 11	98	70-130
Ethanol	80	70-130
Freon 113	98	70-130
1,1-Dichloroethene	101	70-130
Acetone	94	70-130
2-Propanol	106	70-130
Carbon Disulfide	108	70-130
3-Chloropropene	120	70-130
Methylene Chloride	92	70-130
Methyl tert-butyl ether	113	70-130
trans-1,2-Dichloroethene	112	70-130
Hexane	108	70-130
1,1-Dichloroethane	99	70-130
2-Butanone (Methyl Ethyl Ketone)	109	70-130
cis-1,2-Dichloroethene	97	70-130
Tetrahydrofuran	109	70-130
Chloroform	100	70-130
1,1,1-Trichloroethane	102	70-130
Cyclohexane	109	70-130
Carbon Tetrachloride	72	70-130
2,2,4-Trimethylpentane	107	70-130
Benzene	95	70-130
1,2-Dichloroethane	96	70-130
Heptane	103	70-130
Trichloroethene	102	70-130
1,2-Dichloropropane	99	70-130
1,4-Dioxane	115	70-130
Bromodichloromethane	104	70-130
cis-1,3-Dichloropropene	117	70-130
4-Methyl-2-pentanone	120	70-130
Toluene	100	70-130
trans-1,3-Dichloropropene	114	70-130
1,1,2-Trichloroethane	102	70-130
Tetrachloroethene	101	70-130
2-Hexanone	129	70-130

Client Sample ID: LCSD

Lab ID#: 1612476-07BB

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	20010404	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 1/4/17 09:10 AM

Compound	%Recovery	Method Limits
Dibromochloromethane	110	70-130
1,2-Dibromoethane (EDB)	106	70-130
Chlorobenzene	101	70-130
Ethyl Benzene	109	70-130
m,p-Xylene	108	70-130
o-Xylene	111	70-130
Styrene	113	70-130
Bromoform	113	70-130
Cumene	110	70-130
1,1,2,2-Tetrachloroethane	100	70-130
Propylbenzene	99	70-130
4-Ethyltoluene	99	70-130
1,3,5-Trimethylbenzene	102	70-130
1,2,4-Trimethylbenzene	101	70-130
1,3-Dichlorobenzene	94	70-130
1,4-Dichlorobenzene	91	70-130
alpha-Chlorotoluene	121	70-130
1,2-Dichlorobenzene	95	70-130
1,2,4-Trichlorobenzene	103	70-130
Hexachlorobutadiene	95	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	104	70-130