

3/7/2018

Mr. Gustan Taylor  
Arcadis U.S., Inc.  
28550 Cabot Dr.  
Suite 500  
Novi MI 48377

Project Name: FORD LTP  
Project #: MI001386.0001.00002  
Workorder #: 1802456

Dear Mr. Gustan Taylor

The following report includes the data for the above referenced project for sample(s) received on 2/22/2018 at Air Toxics Ltd.

The data and associated QC analyzed by 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: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Ausha Scott  
Project Manager

**WORK ORDER #: 1802456**

Work Order Summary

**CLIENT:** Mr. Gustan Taylor  
 Arcadis U.S., Inc.  
 28550 Cabot Dr.  
 Suite 500  
 Novi, MI 48377

**BILL TO:** Accounts Payable  
 Arcadis U.S., Inc.  
 630 Plaza Drive  
 Suite 600  
 Highlands Ranch, CO 80129

**PHONE:** 248.994.2294

**P.O. #** MI001386.0001\_AT\_WA08

**FAX:**

**PROJECT #** MI001386.0001.00002 FORD LTP

**DATE RECEIVED:** 02/22/2018

**CONTACT:** Ausha Scott

**DATE COMPLETED:** 03/07/2018

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	SVMP-2S-4.5 (021918)	TO-15	1 "Hg	15 psi
02A	SVMP-2D-8.5 (021918)	TO-15	1 "Hg	15 psi
03A	SVMP-3S-3.5 (021918)	TO-15	2 "Hg	15 psi
04A	SVMP-3D-7.0 (021918)	TO-15	4 "Hg	15 psi
05A	SVMP-08-3.5 (022018)	TO-15	4 "Hg	15 psi
06A	SVMP-09-4.0 (022018)	TO-15	5 "Hg	15 psi
07A	SVMP-10-3.0 (022018)	TO-15	4.5 "Hg	15 psi
08A	SVMP-12-3.5 (022018)	TO-15	4.5 "Hg	15 psi
09A	SVMP-22-3.0 (022018)	TO-15	4.5 "Hg	15 psi
10A	SVMP-25S-3.0 (022118)	TO-15	3 "Hg	15 psi
11A	SVMP-25D-6.0 (022118)	TO-15	3 "Hg	15 psi
12A	SVMP-26-4.0 (022118)	TO-15	2.5 "Hg	15 psi
13A	SVMP-28-3.0 (022118)	TO-15	2 "Hg	15 psi
14A	SVMP-27-4.5 (022118)	TO-15	3 "Hg	15 psi
15A	Lab Blank	TO-15	NA	NA
15B	Lab Blank	TO-15	NA	NA
16A	CCV	TO-15	NA	NA
16B	CCV	TO-15	NA	NA
17A	LCS	TO-15	NA	NA
17AA	LCS	TO-15	NA	NA
17B	LCS	TO-15	NA	NA
17BB	LCS	TO-15	NA	NA

CERTIFIED BY: 

DATE: 03/07/18

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

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**LABORATORY NARRATIVE  
EPA Method TO-15  
Arcadis U.S., Inc.  
Workorder# 1802456**

Fourteen 1 Liter Summa Canister samples were received on February 22, 2018. The laboratory performed analysis via 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.

**Receiving Notes**

There was a difference (greater than or equal to 5.0" Hg) between the measured canister receipt vacuum and that which was reported on the Chain of Custody (COC) for sample SVMP-2D-8.5 (021918). A leak test indicated that the valve was functioning properly.

**Analytical Notes**

Dilution was performed on samples SVMP-2S-4.5 (021918) and SVMP-2D-8.5 (021918) due to the presence of high level non-target species.

**Definition of Data Qualifying Flags**

Ten 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.

M - Reported value may be biased due to apparent matrix interferences.

CN - See Case Narrative.

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 EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: SVMP-2S-4.5 (021918)**

**Lab ID#: 1802456-01A**

No Detections Were Found.

**Client Sample ID: SVMP-2D-8.5 (021918)**

**Lab ID#: 1802456-02A**

No Detections Were Found.

**Client Sample ID: SVMP-3S-3.5 (021918)**

**Lab ID#: 1802456-03A**

No Detections Were Found.

**Client Sample ID: SVMP-3D-7.0 (021918)**

**Lab ID#: 1802456-04A**

No Detections Were Found.

**Client Sample ID: SVMP-08-3.5 (022018)**

**Lab ID#: 1802456-05A**

No Detections Were Found.

**Client Sample ID: SVMP-09-4.0 (022018)**

**Lab ID#: 1802456-06A**

No Detections Were Found.

**Client Sample ID: SVMP-10-3.0 (022018)**

**Lab ID#: 1802456-07A**

No Detections Were Found.

**Client Sample ID: SVMP-12-3.5 (022018)**

**Lab ID#: 1802456-08A**

No Detections Were Found.

**Client Sample ID: SVMP-22-3.0 (022018)**

**Lab ID#: 1802456-09A**

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

**Client Sample ID: SVMP-22-3.0 (022018)**

**Lab ID#: 1802456-09A**

No Detections Were Found.

**Client Sample ID: SVMP-25S-3.0 (022118)**

**Lab ID#: 1802456-10A**

No Detections Were Found.

**Client Sample ID: SVMP-25D-6.0 (022118)**

**Lab ID#: 1802456-11A**

No Detections Were Found.

**Client Sample ID: SVMP-26-4.0 (022118)**

**Lab ID#: 1802456-12A**

No Detections Were Found.

**Client Sample ID: SVMP-28-3.0 (022118)**

**Lab ID#: 1802456-13A**

No Detections Were Found.

**Client Sample ID: SVMP-27-4.5 (022118)**

**Lab ID#: 1802456-14A**

No Detections Were Found.



Air Toxics

Client Sample ID: SVMP-2S-4.5 (021918)

Lab ID#: 1802456-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17022620	Date of Collection:	2/19/18 9:45:00 AM
Dil. Factor:	4.18	Date of Analysis:	2/26/18 10:20 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	2.1	Not Detected	5.3	Not Detected
1,1-Dichloroethene	2.1	Not Detected	8.3	Not Detected
cis-1,2-Dichloroethene	2.1	Not Detected	8.3	Not Detected
Trichloroethene	2.1	Not Detected	11	Not Detected
trans-1,2-Dichloroethene	2.1	Not Detected	8.3	Not Detected
Tetrachloroethene	2.1	Not Detected	14	Not Detected
1,4-Dioxane	8.4	Not Detected	30	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	84	70-130



Air Toxics

Client Sample ID: SVMP-2D-8.5 (021918)

Lab ID#: 1802456-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17022614	Date of Collection:	2/19/18 11:00:00 AM
Dil. Factor:	4.18	Date of Analysis:	2/26/18 05:37 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	2.1	Not Detected	5.3	Not Detected
1,1-Dichloroethene	2.1	Not Detected	8.3	Not Detected
cis-1,2-Dichloroethene	2.1	Not Detected	8.3	Not Detected
Trichloroethene	2.1	Not Detected	11	Not Detected
trans-1,2-Dichloroethene	2.1	Not Detected	8.3	Not Detected
Tetrachloroethene	2.1	Not Detected	14	Not Detected
1,4-Dioxane	8.4	Not Detected	30	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	105	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	89	70-130



Air Toxics

Client Sample ID: SVMP-3S-3.5 (021918)

Lab ID#: 1802456-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17022621	Date of Collection:	2/19/18 12:14:00 PM
Dil. Factor:	2.16	Date of Analysis:	2/26/18 10:49 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.1	Not Detected	2.8	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.3	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.3	Not Detected
Trichloroethene	1.1	Not Detected	5.8	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.3	Not Detected
Tetrachloroethene	1.1	Not Detected	7.3	Not Detected
1,4-Dioxane	4.3	Not Detected	16	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	106	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	91	70-130





Air Toxics

Client Sample ID: SVMP-3D-7.0 (021918)

Lab ID#: 1802456-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17022622	Date of Collection:	2/19/18 2:47:00 PM
Dil. Factor:	2.33	Date of Analysis:	2/26/18 11:17 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Trichloroethene	1.2	Not Detected	6.3	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Tetrachloroethene	1.2	Not Detected	7.9	Not Detected
1,4-Dioxane	4.7	Not Detected	17	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	106	70-130
1,2-Dichloroethane-d4	99	70-130
4-Bromofluorobenzene	91	70-130



Air Toxics

Client Sample ID: SVMP-08-3.5 (022018)

Lab ID#: 1802456-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17022623	Date of Collection:	2/20/18 9:28:00 AM	
Dil. Factor:	2.33	Date of Analysis:	2/26/18 11:46 PM	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Trichloroethene	1.2	Not Detected	6.3	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Tetrachloroethene	1.2	Not Detected	7.9	Not Detected
1,4-Dioxane	4.7	Not Detected	17	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	107	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	90	70-130



Air Toxics

Client Sample ID: SVMP-09-4.0 (022018)

Lab ID#: 1802456-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022521	Date of Collection:	2/20/18 10:34:00 AM
Dil. Factor:	2.42	Date of Analysis:	2/26/18 12:10 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	Not Detected	6.5	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Tetrachloroethene	1.2	Not Detected	8.2	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	90	70-130
4-Bromofluorobenzene	89	70-130



Air Toxics

Client Sample ID: SVMP-10-3.0 (022018)

Lab ID#: 1802456-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022520	Date of Collection:	2/20/18 11:37:00 AM
Dil. Factor:	2.38	Date of Analysis:	2/25/18 11:44 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.7	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Trichloroethene	1.2	Not Detected	6.4	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Tetrachloroethene	1.2	Not Detected	8.1	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	90	70-130
4-Bromofluorobenzene	92	70-130



Air Toxics

Client Sample ID: SVMP-12-3.5 (022018)

Lab ID#: 1802456-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022519	Date of Collection:	2/20/18 1:04:00 PM
Dil. Factor:	2.38	Date of Analysis:	2/25/18 11:17 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.7	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Trichloroethene	1.2	Not Detected	6.4	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Tetrachloroethene	1.2	Not Detected	8.1	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	90	70-130
4-Bromofluorobenzene	92	70-130



Air Toxics

Client Sample ID: SVMP-22-3.0 (022018)

Lab ID#: 1802456-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022518	Date of Collection:	2/20/18 4:14:00 PM
Dil. Factor:	2.38	Date of Analysis:	2/25/18 10:51 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.7	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Trichloroethene	1.2	Not Detected	6.4	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Tetrachloroethene	1.2	Not Detected	8.1	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	105	70-130
1,2-Dichloroethane-d4	87	70-130
4-Bromofluorobenzene	92	70-130



Air Toxics

Client Sample ID: SVMP-25S-3.0 (022118)

Lab ID#: 1802456-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022517	Date of Collection:	2/21/18 9:11:00 AM	
Dil. Factor:	2.24	Date of Analysis:	2/25/18 10:25 PM	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.1	Not Detected	2.9	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.4	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Trichloroethene	1.1	Not Detected	6.0	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Tetrachloroethene	1.1	Not Detected	7.6	Not Detected
1,4-Dioxane	4.5	Not Detected	16	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	89	70-130
4-Bromofluorobenzene	92	70-130



Air Toxics

Client Sample ID: SVMP-25D-6.0 (022118)

Lab ID#: 1802456-11A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022516	Date of Collection:	2/21/18 10:05:00 AM
Dil. Factor:	2.24	Date of Analysis:	2/25/18 09:58 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.1	Not Detected	2.9	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.4	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Trichloroethene	1.1	Not Detected	6.0	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Tetrachloroethene	1.1	Not Detected	7.6	Not Detected
1,4-Dioxane	4.5	Not Detected	16	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	89	70-130
4-Bromofluorobenzene	94	70-130





Air Toxics

Client Sample ID: SVMP-26-4.0 (022118)

Lab ID#: 1802456-12A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022514	Date of Collection:	2/21/18 11:11:00 AM
Dil. Factor:	2.20	Date of Analysis:	2/25/18 08:58 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.1	Not Detected	2.8	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.4	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Trichloroethene	1.1	Not Detected	5.9	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Tetrachloroethene	1.1	Not Detected	7.5	Not Detected
1,4-Dioxane	4.4	Not Detected	16	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	87	70-130
4-Bromofluorobenzene	92	70-130



Air Toxics

Client Sample ID: SVMP-28-3.0 (022118)

Lab ID#: 1802456-13A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022512	Date of Collection:	2/21/18 12:41:00 PM
Dil. Factor:	2.16	Date of Analysis:	2/25/18 07:55 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.1	Not Detected	2.8	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.3	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.3	Not Detected
Trichloroethene	1.1	Not Detected	5.8	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.3	Not Detected
Tetrachloroethene	1.1	Not Detected	7.3	Not Detected
1,4-Dioxane	4.3	Not Detected	16	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	89	70-130
4-Bromofluorobenzene	92	70-130



Air Toxics

Client Sample ID: SVMP-27-4.5 (022118)

Lab ID#: 1802456-14A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022511	Date of Collection:	2/21/18 1:53:00 PM
Dil. Factor:	2.24	Date of Analysis:	2/25/18 07:29 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.1	Not Detected	2.9	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.4	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Trichloroethene	1.1	Not Detected	6.0	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Tetrachloroethene	1.1	Not Detected	7.6	Not Detected
1,4-Dioxane	4.5	Not Detected	16	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	89	70-130
4-Bromofluorobenzene	94	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1802456-15A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022507	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	2/25/18 05:05 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	90	70-130
4-Bromofluorobenzene	96	70-130



Client Sample ID: Lab Blank

Lab ID#: 1802456-15B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17022607	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	2/26/18 01:06 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	92	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1802456-16A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022502	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/25/18 02:33 PM

Compound	%Recovery
Vinyl Chloride	129
1,1-Dichloroethene	103
cis-1,2-Dichloroethene	93
Trichloroethene	109
trans-1,2-Dichloroethene	100
Tetrachloroethene	105
1,4-Dioxane	98

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	94	70-130
4-Bromofluorobenzene	98	70-130

Client Sample ID: CCV

Lab ID#: 1802456-16B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17022602	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/26/18 09:07 AM

Compound	%Recovery
Vinyl Chloride	117
1,1-Dichloroethene	97
cis-1,2-Dichloroethene	101
Trichloroethene	116
trans-1,2-Dichloroethene	100
Tetrachloroethene	106
1,4-Dioxane	114

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	120	70-130
1,2-Dichloroethane-d4	107	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1802456-17A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022503	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/25/18 02:57 PM

Compound	%Recovery	Method Limits
Vinyl Chloride	127	70-130
1,1-Dichloroethene	101	70-130
cis-1,2-Dichloroethene	98	70-130
Trichloroethene	105	70-130
trans-1,2-Dichloroethene	82	70-130
Tetrachloroethene	101	70-130
1,4-Dioxane	99	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	93	70-130
4-Bromofluorobenzene	98	70-130





Air Toxics

Client Sample ID: LCSD

Lab ID#: 1802456-17AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p022504	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/25/18 03:22 PM

Compound	%Recovery	Method Limits
Vinyl Chloride	130	70-130
1,1-Dichloroethene	103	70-130
cis-1,2-Dichloroethene	101	70-130
Trichloroethene	106	70-130
trans-1,2-Dichloroethene	85	70-130
Tetrachloroethene	102	70-130
1,4-Dioxane	100	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	94	70-130
4-Bromofluorobenzene	99	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1802456-17B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17022603	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/26/18 09:34 AM

Compound	%Recovery	Method Limits
Vinyl Chloride	103	70-130
1,1-Dichloroethene	91	70-130
cis-1,2-Dichloroethene	103	70-130
Trichloroethene	112	70-130
trans-1,2-Dichloroethene	82	70-130
Tetrachloroethene	104	70-130
1,4-Dioxane	108	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	111	70-130
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	105	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1802456-17BB

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17022604	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/26/18 10:00 AM

Compound	%Recovery	Method Limits
Vinyl Chloride	107	70-130
1,1-Dichloroethene	94	70-130
cis-1,2-Dichloroethene	107	70-130
Trichloroethene	111	70-130
trans-1,2-Dichloroethene	84	70-130
Tetrachloroethene	107	70-130
1,4-Dioxane	109	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	109	70-130
1,2-Dichloroethane-d4	102	70-130
4-Bromofluorobenzene	106	70-130