



**To:** Andrew Smith and Kaia Peterson, Washington Department of Ecology (Ecology)

**From:** Patrick Hsieh, Tasya Gray, Dalton, Olmsted, and Fuglevand (DOF)

**CC:** Greg Fink, Katey Potter, Stericycle

**Date:** April 10, 2020

**Subject:** New Office Building Construction – Air Sampling,  
Stericycle Tacoma Facility

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Dalton, Olmsted, and Fuglevand (DOF), prepared this technical memorandum on behalf of Stericycle Environmental Solutions (Stericycle) to describe the second crawlspace air sampling event under the new pre-fabricated office/laboratory building at their Tacoma facility (the modular building). The modular building was constructed in the center of the facility as shown on the attached Figure G1-2P.

Stericycle provided an air sampling plan in DOF's November 15, 2018 technical memorandum that included two rounds of air sampling (one before occupation of the modular building and another in the winter) in the crawlspace between the foundation slab and the modular building floor. The first air sampling event occurred on July 25, 2019. The second event was conducted this past winter in January 2020. Results of the first round of sampling were reported in a technical memorandum prepared by DOF on behalf of Stericycle, submitted to Ecology on August 19, 2019 (DOF, 2019).

### Air Sampling Methods

The second round of air sampling was conducted on January 20, 2020. Four 6-liter selective ion monitoring (SIM) certified Summa canisters and 8-hour SIM certified flow regulators were provided by Eurofins Air Toxics laboratory for use in sample collection. Two air sampling locations were identified under the building, one in the northeast corner and one in the southwest corner (Figure G1-2P). An additional ambient air sampling location was identified along the eastern property line, adjacent to the eastern fence line, due to the prevailing winds coming from the east (Figure G1-2P).

The Summa canisters were placed under the building in the same locations used for the previous sampling event. Sample MODBLD-NE-20200120 was placed under the modular building 19 feet from the northern wall and 11 feet from the eastern wall. The modular building sewer line protrusion in the concrete slab was located 14 feet from the sample location. The Summa canisters for samples MODBLD-SW1-20200120 and MODBLD-SW2-20200120 (DUPLICATE) were placed under the modular building 16 feet from the southern wall and 17 feet from the western wall. The modular building water line protrusion in the concrete slab was located 23 feet from the sample location. The summa canisters were connected using a laboratory supplied stainless steel tee designed for duplicate sample collection. The Summa canister for sample MODBLD-

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AMB1-20200120 was placed upwind, as mentioned above, along the eastern property line. It was placed two feet west of the eastern fence and 23 feet south of the northern fence, bordering the gravel lot (Figure G1-2P). Prior to the start of sample collection the Summa canister identification numbers, flow controller identification numbers, and initial pressures were recorded. Sample collection began around 08:00 for all sample vessels.

Samples were checked after approximately 5.5 hours to observe collection rate and remaining vacuum in each vessel. Subsequently, samples were checked at 6.5 hours, 7.5 hours and 8 hours. These observations were necessary to ensure vacuums in the sample vessels did not drop below -5 inches mercury per analytical laboratory requirements.

All sample vessels were able to collect air for a minimum of 8 hours with the exception of the duplicate sample location in the southwest corner of the crawl space. It was necessary to stop the sample early due to vacuum in sample MODBLD-SW2-20200120 reaching close to -5 inches mercury prior to the full 8-hour period (approximately 7.5 hours after sample collection started). Both samplers were stopped at same time because the location is a field duplicate. All samples were collected in accordance with recommendations found in the Washington State Department of Ecology's Guidance for Evaluating Soil Vapor Intrusion in Washington State: Investigation and Remedial Action (revised April 2018) and recommendations and protocols in Appendix E (Naphthalene Soil Gas Collection) of the July 2015 California Active Soil Gas Investigations guidance document.

Following completion of sample collection, final sample vessel pressures were recorded and vessels were placed back in the shipping boxes and prepared for shipment back to the laboratory. Samples were dropped off to FedEx the same day. Standard chain-of-custody (COC) protocols were followed for shipment of the samples and the COC was filled out in accordance with the approved sample plan. Samples were analyzed for VOCs by United States Environmental Protection Agency (USEPA) Method TO-15 (including naphthalene) and Air Phase Hydrocarbons by EPA Method TO-15.

### Air Sampling Results

Laboratory results and Washington State Department of Ecology Method C Indoor Air Cleanup Levels are summarized in Tables 1 and 2. Previous results were below Method C Indoor Air Cleanup levels with the exception of four compounds that were reported as not detected above the reporting limit, but had a reporting limit slightly above the Method C cleanup level, as summarized in the August 2019 memo (DOF, 2019). The laboratory issued a revised report with estimated results reported down to the method detection limits (Table 1). After reissuing the report all compounds were below the cleanup levels. Laboratory reports are provided in Attachment A.

Table 2 summarizes the laboratory results and cleanup levels from the second sampling event (January 2020) reported down to the method detection limits. Results were equal to or below Method C Indoor Air Cleanups levels with the exception of two compounds that were reported as not detected above the detection limit but had a detection limit slightly above the Method C cleanup level. Laboratory reports are provided in Attachment B.

**References:**

DOF (2019). DOF New Office Building Construction – Crawlspace Air Sampling,  
Stericycle Tacoma Facility

**Attachments:**

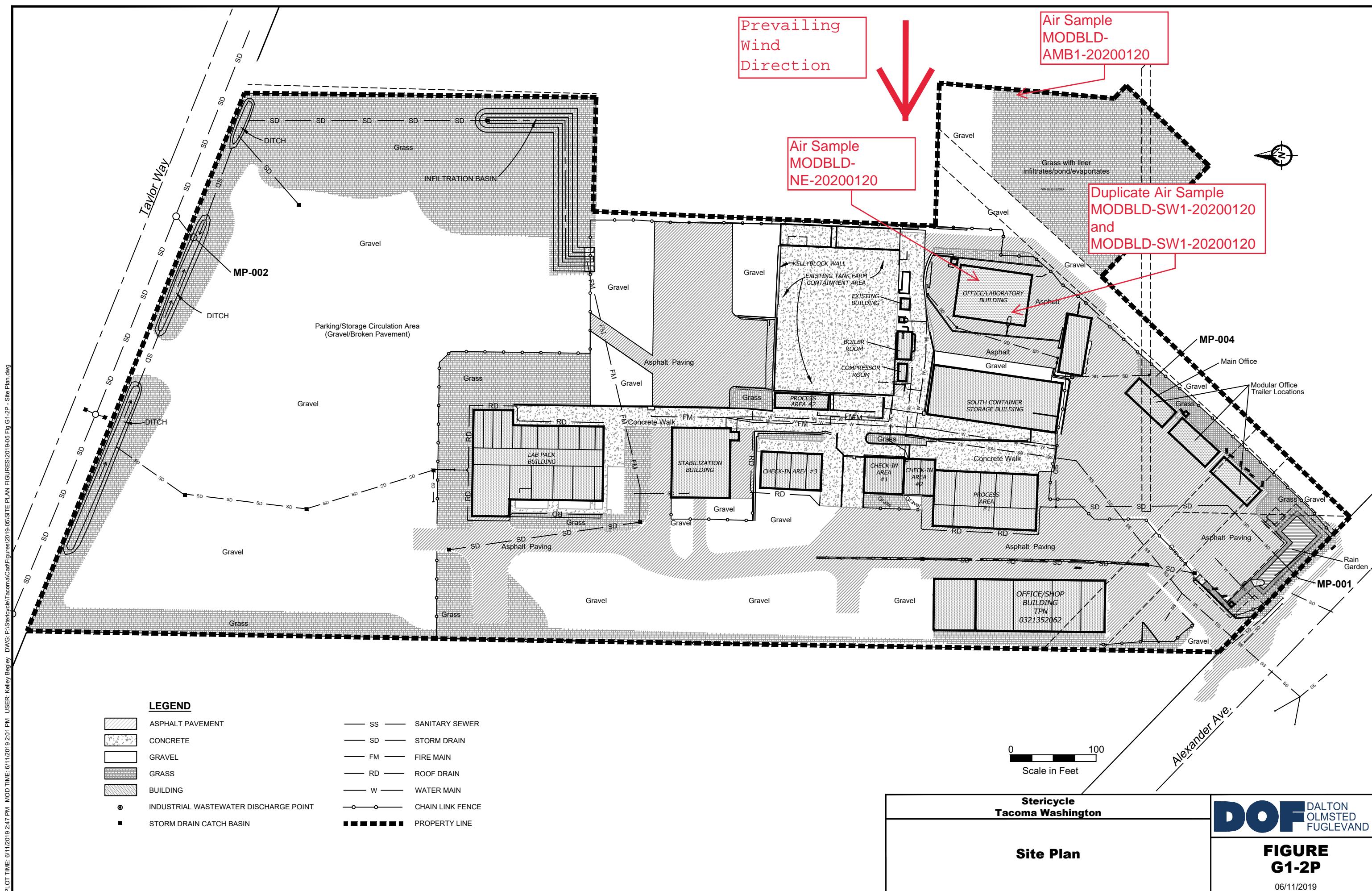
Figure G1-2P - Site Layout and Sample Locations

Table 1 - Sampling Results for July 25, 2019 Sampling Event

Table 2 - Sampling Results for January 20, 2020 Sampling Event

Attachment A – Laboratory Reports for July 25, 2019 Sampling Event

Attachment B – Laboratory Reports for January 20, 2020 Sampling Event



**Table 1 Modular Building Air Sampling Results for July 25, 2019 Sampling Event**  
**Stericycle Tacoma**

Contaminant of Concern	Sample Name				Indoor Air Cleanup Level	
	MOD BLD-NE	MOD BLD-SW1	MOD BLD-SW2	MOD BLD-AMB1	Method C Noncancer ( $\mu\text{g}/\text{m}^3$ )	Method C Cancer ( $\mu\text{g}/\text{m}^3$ )
<b>Volatile Organic Compounds (VOCs)</b>						
1,3-Butadiene	0.090	0.089	0.078	0.091		0.83
Bromomethane	<0.42	<0.42	<0.42	<0.47	5	
Freon 11	1.5	1.4	1.4	1.6	700	
Ethanol	12	7.1	7.7	10		
Freon 113	0.60	0.48	0.51	0.46	5000	
Acetone	54	35	39	15		
2-Propanol	5.7	4.8	5.2	1.5		
Carbon Disulfide	<0.18	<0.18	<0.18	<0.20	700	
3-Chloropropene	<0.37	<0.37	<0.37	<0.41		
Methylene Chloride	9.4	3.7	3.9	0.73	600	
Hexane	1.6	1.1	1.2	1.5	700	
2-Butanone (Methyl Ethyl Ketone)	36	11	13	1.5	5000	
Tetrahydrofuran	13	2.3	2.4	<0.35		
Cyclohexane	0.45	0.35	0.35	0.56		
2,2,4-Trimethylpentane	1.8	1.3	1.4	0.60		
Heptane	1.6	1.2	1.3	1.0		
1,2-Dichloropropane	<0.047	<0.048	<0.047	<0.053	6.8	
1,4-Dioxane	0.25	<0.13	0.30	0.54		
Bromodichloromethane	<0.083	<0.084	<0.083	<0.094	0.68	
cis-1,3-Dichloropropene	<0.086	<0.087	<0.086	<0.097		
4-Methyl-2-pentanone	1.0	1.4	1.4	0.18		
trans-1,3-Dichloropropene	<0.12	<0.13	<0.12	<0.14		
2-Hexanone	<0.48	<0.49	<0.48	<0.54		
Dibromochloromethane	<0.11	<0.11	<0.11	<0.12		
Chlorobenzene	<0.054	<0.055	<0.054	<0.061	50	
Styrene	0.80	0.21	0.24	0.19	1000	
Bromoform	<0.14	<0.14	<0.14	<0.16		23
Cumene	<0.17	<0.17	<0.17	<0.19	400	
Propylbenzene	0.25	<0.20	0.21	<0.22		
4-Ethyltoluene	0.76	0.49	0.56	0.44		
1,3,5-Trimethylbenzene	0.29	0.18	0.23	<0.16		
1,2,4-Trimethylbenzene	0.64	0.36	0.43	0.45	60	
1,3-Dichlorobenzene	<0.22	<0.22	<0.22	<0.24		
alpha-Chlorotoluene	<0.17	<0.18	<0.17	<0.20	0.51	
1,2-Dichlorobenzene	<0.21	<0.21	<0.21	<0.24	200	
1,2,4-Trichlorobenzene	<0.60	<0.62	<0.60	<0.68	2	
Hexachlorobutadiene	<0.96	<0.98	<0.96	<1.1		1.1
1,2-Dichloroethane-d4	106	106	105	107		
Toluene-d8	102	102	104	103		
4-Bromofluorobenzene	107	102	103	100		
Freon 12	2.3	2.3	2.3	2.4	100	
Freon 114	0.086	0.086	0.087	0.084		
Chloromethane	0.83	0.80	0.82	0.87	90	
Vinyl Chloride	<0.0057	<0.0058	<0.0057	<0.0065		2.8
Chloroethane	0.051	0.030	0.043	0.052	10000	
1,1-Dichloroethene	<0.013	<0.013	<0.013	<0.015	200	
trans-1,2-Dichloroethene	0.28	0.12	0.12	<0.011		
Methyl tert-butyl ether	0.026	0.017	0.018	<0.018	96	
1,1-Dichloroethane	<0.0083	<0.0085	<0.0083	<0.0094		16
cis-1,2-Dichloroethene	<0.013	<0.014	<0.013	<0.015		
Chloroform	0.38	0.32	0.32	0.10	1.1	
1,1,1-Trichloroethane	0.076	0.060	0.062	0.020	5000	
Carbon Tetrachloride	0.46	0.45	0.44	0.43		4.2
Benzene	0.79	0.69	0.68	1.6		3.2
1,2-Dichloroethane	0.097	0.080	0.079	0.070		0.96
Trichloroethene	0.059	0.057	0.067	0.049	2	
Toluene	27	18	18	4.1	5000	
1,1,2-Trichloroethane	<0.0040	<0.0041	<0.0040	<0.0046	0.2	
Tetrachloroethene	0.45	0.28	0.48	0.26	40	
1,2-Dibromoethane (EDB)	<0.0077	<0.0079	<0.0077	<0.0087		0.042
Ethyl Benzene	1.2	0.82	0.84	0.68	1000	
Total Xylenes	5.6	3.78	3.93	3.02	100	
m,p-Xylene	4.3	2.9	3.0	2.3		
o-Xylene	1.3	0.88	0.93	0.72		
1,1,2,2-Tetrachloroethane	<0.012	<0.012	<0.012	<0.013		
1,4-Dichlorobenzene	0.039	0.037	0.037	0.038		2.3
Naphthalene	0.14	0.090	0.097	0.14		0.74
1,2-Dichloroethane-d4	97	98	98	99		
Toluene-d8	103	105	104	105		
4-Bromofluorobenzene	114	110	111	106		
<b>Aliphatic Hydrocarbons (APHs)</b>						
C5-C6 Aliphatic Hydrocarbons (ref. to Pentane + Hexane)	<50	<51	<50	<57		
>C6-C8 Aliphatic Hydrocarbons (ref. to Heptane)	<64	<65	<64	<72		
>C8-C10 Aliphatic Hydrocarbons (ref. to Decane)	<90	<92	<90	<100		
>C10-C12 Aliphatic Hydrocarbons (ref. to Dodecane)	<110	<110	<110	<120		
>C8-C10 Aromatic Hydrocarbons	<76	<78	<76	<86		
>C10-C12 Aromatic Hydrocarbons	<85	<87	<85	<96		

Notes:

1) Bold indicates result above the Method C Indoor Air Cleanup Level

**Table 2 Modular Building Air Sampling Results for January 20, 2020 Sampling Event**  
**Stericycle Tacoma**

Contaminant of Concern	Sample Name				Indoor Air Cleanup Level	
	MOD BLD-NE	MOD BLD-SW1	MOD BLD-SW2	MOD BLD-AMB1	Method C Noncancer ( $\mu\text{g}/\text{m}^3$ )	Method C Cancer ( $\mu\text{g}/\text{m}^3$ )
<b>Volatile Organic Compounds (VOCs)</b>						
1,3-Butadiene	0.3	0.39	0.40	0.32		0.83
Bromomethane	<0.54	<0.56	<0.55	<0.55	5	
Freon 11	2.5	3.0	3.0	2.3	700	
Ethanol	29	22	21	4.6		
Freon 113	0.47	0.48	0.47	0.49	5000	
Acetone	45	38	35	18		
2-Propanol	11	11	11	4.8		
Carbon Disulfide	0.73	0.59	0.59	1.9	700	
3-Chloropropene	<0.91	<0.95	<0.92	<0.93		
Methylene Chloride	4.0	3.7	3.4	2.2	600	
Hexane	25	30	22	18	700	
2-Butanone (Methyl Ethyl Ketone)	18	9.1	8.8	9.5	5000	
Tetrahydrofuran	1.4	1.9	1.8	6.2		
Cyclohexane	3.5	3.3	3.4	2.6		
2,2,4-Trimethylpentane	2.6	2.0	2.0	1.5		
Heptane	2.6	2.6	2.5	1.9		
1,2-Dichloropropane	<0.18	<0.18	<0.18	<0.18	6.8	
1,4-Dioxane	<0.31	<0.32	<0.31	<0.31		
Bromodichloromethane	<0.39	<0.40	<0.39	<0.40	0.68	
cis-1,3-Dichloropropene	<0.14	<0.15	<0.15	<0.15		
4-Methyl-2-pentanone	1.2	1.2	1.2	0.68		
trans-1,3-Dichloropropene	<0.17	<0.18	<0.18	<0.18		
2-Hexanone	<0.83	<0.86	<0.84	<0.84		
Dibromochloromethane	<0.41	<0.43	<0.42	<0.42		
Chlorobenzene	<0.19	<0.20	<0.19	<0.20	50	
Styrene	5.6	3.0	3.0	3.7	1000	
Bromoform	<0.39	<0.40	<0.39	<0.40	23	
Cumene	<0.12	<0.13	<0.12	<0.12	400	
Propylbenzene	0.30	0.48	0.39	0.29		
4-Ethyltoluene	1.5	1.7	1.6	1.0		
1,3,5-Trimethylbenzene	0.56	0.71	0.74	0.34		
1,2,4-Trimethylbenzene	0.91	1.4	1.4	0.91	60	
1,3-Dichlorobenzene	<0.33	<0.34	<0.33	<0.34		
alpha-Chlorotoluene	<0.16	<0.17	<0.16	<0.17	0.51	
1,2-Dichlorobenzene	<0.18	<0.18	<0.18	<0.18	200	
1,2,4-Trichlorobenzene	<2.2	<2.2	<2.2	<2.2	2	
Hexachlorobutadiene	<2.9	<3.0	<2.9	<3.0	1.1	
1,2-Dichloroethane-d4	122	125	120	125		
Toluene-d8	103	107	104	103		
4-Bromofluorobenzene	89	92	93	92		
Freon 12	2.3	2.4	2.4	2.3	100	
Freon 114	0.10	0.10	0.11	0.11		
Chloromethane	1.2	1.2	1.1	1.0	90	
Vinyl Chloride	<0.031	<0.032	<0.032	<0.032	2.8	
Chloroethane	0.034	<0.032	<0.032	<0.032	10000	
1,1-Dichloroethene	<0.051	<0.053	<0.051	<0.052	200	
trans-1,2-Dichloroethene	0.21	0.19	0.20	0.12		
Methyl tert-butyl ether	0.11	0.11	0.11	0.085	96	
1,1-Dichloroethane	<0.043	<0.045	<0.044	<0.044	16	
cis-1,2-Dichloroethene	<0.045	<0.046	<0.045	<0.045		
Chloroform	1.1	1.1	1.1	0.33	1.1	
1,1,1-Trichloroethane	<0.052	<0.054	<0.053	<0.053	5000	
Carbon Tetrachloride	0.43	0.45	0.45	0.44	4.2	
Benzene	1.8	2.0	2.0	1.4	3.2	
1,2-Dichloroethane	0.19	0.23	0.20	0.17	0.96	
Trichloroethene	<0.12	<0.12	<0.12	<0.18	2	
Toluene	13	14	14	6.1	5000	
1,1,2-Trichloroethane	<0.053	<0.055	<0.054	<0.054	0.2	
Tetrachloroethene	0.64	0.30	0.31	0.20	40	
1,2-Dibromoethane (EDB)	<0.039	<0.040	<0.039	<0.039	0.042	
Ethyl Benzene	1.2	1.2	1.2	0.75	1000	
Total Xylenes	5.8	6.1	6.1	3.7	100	
m,p-Xylene	4.3	4.4	4.4	2.7		
o-Xylene	1.5	1.7	1.7	1.0		
1,1,2,2-Tetrachloroethane	<0.073	<0.075	<0.074	<0.074		
1,4-Dichlorobenzene	<0.11	<0.11	<0.11	<0.11	2.3	
Naphthalene	<0.071	0.16	0.23	0.16	0.74	
1,2-Dichloroethane-d4	120	120	120	119		
Toluene-d8	104	105	105	104		
4-Bromofluorobenzene	90	90	91	92		
<b>Aliphatic Hydrocarbons (APHs)</b>						
C5-C6 Aliphatic Hydrocarbons (ref. to Pentane + Hexane)	<50	<51	<50	<57		
>C6-C8 Aliphatic Hydrocarbons (ref. to Heptane)	<64	<65	<64	<72		
>C8-C10 Aliphatic Hydrocarbons (ref. to Decane)	<90	<92	<90	<100		
>C10-C12 Aliphatic Hydrocarbons (ref. to Dodecane)	<110	<110	<110	<120		
>C8-C10 Aromatic Hydrocarbons	<76	<78	<76	<86		
>C10-C12 Aromatic Hydrocarbons	<85	<87	<85	<96		

Notes:

1) Bold indicates result above the Method C Indoor Air Cleanup Level

2/25/2020  
Mr. Duane Beery  
Stericycle Environmental Solutions, Inc.  
18000 72nd Ave. S  
Suite 217  
Kent WA 98032

Project Name: Tacoma Mod Building  
Project #:  
Workorder #: 1907637AR1

Dear Mr. Duane Beery

The following report includes the data for the above referenced project for sample(s) received on 7/29/2019 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: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Kelly Buettner  
Project Manager

**WORK ORDER #: 1907637AR1**

## Work Order Summary

<b>CLIENT:</b>	Mr. Duane Beery Stericycle Environmental Solutions, Inc. 18000 72nd Ave. S Suite 217 Kent, WA 98032	<b>BILL TO:</b>	Mr. Duane Beery Stericycle Environmental Solutions, Inc. 18000 72nd Ave. S Suite 217 Kent, WA 98032
<b>PHONE:</b>	425-227-6128	<b>P.O. #</b>	
<b>FAX:</b>		<b>PROJECT #</b>	Tacoma Mod Building
<b>DATE RECEIVED:</b>	07/29/2019	<b>CONTACT:</b>	Kelly Buettner
<b>DATE COMPLETED:</b>	08/05/2019		
<b>DATE REISSUED:</b>	02/25/2020		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	MOD BLD-NE-20190725	Modified TO-15	4.0 "Hg	5 psi
01B	MOD BLD-NE-20190725	Modified TO-15	4.0 "Hg	5 psi
02A	MOD BLD-SW1-20190725	Modified TO-15	4.5 "Hg	5 psi
02B	MOD BLD-SW1-20190725	Modified TO-15	4.5 "Hg	5 psi
03A	MOD BLD-SW2-20190725	Modified TO-15	4.0 "Hg	5 psi
03B	MOD BLD-SW2-20190725	Modified TO-15	4.0 "Hg	5 psi
04A	MOD BLD-AMB1-20190725	Modified TO-15	7.0 "Hg	5 psi
04B	MOD BLD-AMB1-20190725	Modified TO-15	7.0 "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:



DATE: 02/24/20

Technical Director

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP - 209218, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-18-13, UT NELAP – CA009332019-11, VA NELAP - 460197, WA NELAP - C935

Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)

Accreditation number: CA300005-011, Effective date: 10/18/2019, Expiration date: 10/17/2020.

Eurofins Air Toxics, LLC certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, LLC.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630  
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**LABORATORY NARRATIVE  
Modified TO-15 Full Scan/SIM  
Stericycle Environmental Solutions, Inc.  
Workorder# 1907637AR1**

Four 6 Liter Summa Canister (SIM Certified) samples were received on July 29, 2019. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the Full Scan and SIM acquisition modes. The method involves concentrating up to 1.0 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

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.

<b>Requirement</b>	<b>TO-15</b>	<b>ATL Modifications</b>
ICAL %RSD acceptance criteria	</=30% RSD with 2 compounds allowed out to < 40% RSD	For Full Scan: 30% RSD with 4 compounds allowed out to < 40% RSD  For SIM: Project specific; default criteria is </=30% RSD with 10% of compounds allowed out to < 40% RSD
Daily Calibration	+ - 30% Difference	For Full Scan: </= 30% Difference with four allowed out up to </=40%; flag and narrate outliers  For SIM: Project specific; default criteria is </= 30% Difference with 10% of compounds allowed out up to </=40%; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

### **Receiving Notes**

There were no receiving discrepancies.

### **Analytical Notes**

The results for each sample in this report were acquired from two separate data files originating from the same analytical run. The two data files have the same base file name and are differentiated with a "sim" extension on the SIM data file.

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.

Per client request, the workorder was reissued on 2/25/2020 to report estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. Concentrations that are below the level at which the canister was certified may be false positives.

In addition, in this revision, the data is reported using a different format.

#### **Definition of Data Qualifying Flags**

Nine 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.

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

N - The identification is based on presumptive evidence.

CN - See case narrative explanation

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



Air Toxics

## MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Tacoma Mod Building

<b>Client ID:</b>	MOD BLD-NE-20190725	<b>Date/Time Analyzed:</b>	7/31/19 08:18 PM
<b>Lab ID:</b>	1907637AR1-01A	<b>Dilution Factor:</b>	1.55
<b>Date/Time Collected:</b>	7/25/19 02:54 PM	<b>Instrument/Filename:</b>	msd22.i / 22073116R1
<b>Media:</b>	6 Liter Summa Canister (SIM Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2,4-Trichlorobenzene	120-82-1	0.60	2.3	5.8	Not Detected
1,2,4-Trimethylbenzene	95-63-6	0.22	0.38	0.76	0.64 J
1,2-Dichlorobenzene	95-50-1	0.21	0.46	0.93	Not Detected
1,2-Dichloropropane	78-87-5	0.047	0.36	0.72	Not Detected
1,3,5-Trimethylbenzene	108-67-8	0.14	0.38	0.76	0.29 J
1,3-Butadiene	106-99-0	0.071	0.17	0.34	0.090 J
1,3-Dichlorobenzene	541-73-1	0.22	0.46	0.93	Not Detected
1,4-Dioxane	123-91-1	0.13	0.28	0.56	0.25 J
2,2,4-Trimethylpentane	540-84-1	0.16	1.4	3.6	1.8 J
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.38	0.91	2.3	36
2-Hexanone	591-78-6	0.48	1.3	3.2	Not Detected
2-Propanol	67-63-0	0.38	0.76	1.9	5.7 J0
3-Chloropropene	107-05-1	0.37	0.97	2.4	Not Detected
4-Ethyltoluene	622-96-8	0.18	0.38	0.76	0.76 J
4-Methyl-2-pentanone	108-10-1	0.11	0.32	0.63	1.0
Acetone	67-64-1	0.24	0.74	3.7	54
alpha-Chlorotoluene	100-44-7	0.17	0.40	0.80	Not Detected
Bromodichloromethane	75-27-4	0.083	0.52	1.0	Not Detected
Bromoform	75-25-2	0.14	0.80	1.6	Not Detected
Bromomethane	74-83-9	0.42	1.2	3.0	Not Detected
Carbon Disulfide	75-15-0	0.18	0.96	2.4	Not Detected
Chlorobenzene	108-90-7	0.054	0.36	0.71	Not Detected
cis-1,3-Dichloropropene	10061-01-5	0.086	0.35	0.70	Not Detected
Cumene	98-82-8	0.17	0.38	0.76	Not Detected



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma Mod Building

<b>Client ID:</b>	MOD BLD-NE-20190725	<b>Date/Time Analyzed:</b>	7/31/19 08:18 PM
<b>Lab ID:</b>	1907637AR1-01A	<b>Dilution Factor:</b>	1.55
<b>Date/Time Collected:</b>	7/25/19 02:54 PM	<b>Instrument/Filename:</b>	msd22.i / 22073116R1
<b>Media:</b>	6 Liter Summa Canister (SIM Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cyclohexane	110-82-7	0.12	0.27	0.53	0.45 J
Dibromochloromethane	124-48-1	0.11	0.66	1.3	Not Detected
Ethanol	64-17-5	0.46	0.58	1.5	12
Freon 11	75-69-4	0.11	0.44	0.87	1.5
Freon 113	76-13-1	0.11	0.59	1.2	0.60 J
Heptane	142-82-5	0.13	0.32	3.2	1.6 J
Hexachlorobutadiene	87-68-3	0.96	3.3	8.3	Not Detected
Hexane	110-54-3	0.13	0.27	2.7	1.6 J
Methylene Chloride	75-09-2	0.18	0.27	1.1	9.4
Propylbenzene	103-65-1	0.19	0.38	0.76	0.25 J
Styrene	100-42-5	0.16	0.33	0.66	0.80
Tetrahydrofuran	109-99-9	0.31	0.91	2.3	13
trans-1,3-Dichloropropene	10061-02-6	0.12	0.35	0.70	Not Detected

J = Estimated value.

J0 = Estimated value due to bias in the CCV.

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	106
4-Bromofluorobenzene	460-00-4	70-130	107
Toluene-d8	2037-26-5	70-130	102



Air Toxics

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

Tacoma Mod Building

<b>Client ID:</b>	MOD BLD-NE-20190725	<b>Date/Time Analyzed:</b>	7/31/19 08:18 PM
<b>Lab ID:</b>	1907637AR1-01B	<b>Dilution Factor:</b>	1.55
<b>Date/Time Collected:</b>	7/25/19 02:54 PM	<b>Instrument/Filename:</b>	msd22.i / 22073116simR1
<b>Media:</b>	6 Liter Summa Canister (SIM Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.010	0.068	0.17	0.076 J
1,1,2,2-Tetrachloroethane	79-34-5	0.012	0.085	0.21	Not Detected
1,1,2-Trichloroethane	79-00-5	0.0040	0.068	0.17	Not Detected
1,1-Dichloroethane	75-34-3	0.0083	0.050	0.12	Not Detected
1,1-Dichloroethene	75-35-4	0.013	0.049	0.061	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.0077	0.095	0.24	Not Detected
1,2-Dichloroethane	107-06-2	0.0036	0.050	0.12	0.097 J
1,4-Dichlorobenzene	106-46-7	0.020	0.074	0.19	0.039 J
Benzene	71-43-2	0.082	0.099	0.25	0.79
Carbon Tetrachloride	56-23-5	0.024	0.078	0.20	0.46
Chloroethane	75-00-3	0.0074	0.033	0.20	0.051 J
Chloroform	67-66-3	0.013	0.060	0.15	0.38
Chloromethane	74-87-3	0.10	0.26	1.6	0.83 J
cis-1,2-Dichloroethene	156-59-2	0.013	0.049	0.12	Not Detected
Ethyl Benzene	100-41-4	0.012	0.054	0.13	1.2
Freon 114	76-14-2	0.021	0.087	0.22	0.086 J
Freon 12	75-71-8	0.029	0.061	0.15	2.3
m,p-Xylene	108-38-3	0.018	0.054	0.27	4.3
Methyl tert-butyl ether	1634-04-4	0.016	0.045	0.56	0.026 J
Naphthalene	91-20-3	0.048	0.13	0.41	0.14 J
o-Xylene	95-47-6	0.018	0.054	0.13	1.3
Tetrachloroethene	127-18-4	0.0037	0.084	0.21	0.45
Toluene	108-88-3	0.026	0.047	0.29	27
trans-1,2-Dichloroethene	156-60-5	0.0099	0.049	0.61	0.28 J



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma Mod Building

<b>Client ID:</b>	MOD BLD-NE-20190725	<b>Date/Time Analyzed:</b>	7/31/19 08:18 PM
<b>Lab ID:</b>	1907637AR1-01B	<b>Dilution Factor:</b>	1.55
<b>Date/Time Collected:</b>	7/25/19 02:54 PM	<b>Instrument/Filename:</b>	msd22.i / 22073116simR1
<b>Media:</b>	6 Liter Summa Canister (SIM Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	79-01-6	0.016	0.067	0.17	0.059 J
Vinyl Chloride	75-01-4	0.0057	0.032	0.040	Not Detected

J = Estimated value.

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	97
4-Bromofluorobenzene	460-00-4	70-130	114
Toluene-d8	2037-26-5	70-130	103



Air Toxics

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

Tacoma Mod Building

<b>Client ID:</b>	MOD BLD-SW1-20190725	<b>Date/Time Analyzed:</b>	7/31/19 10:07 PM
<b>Lab ID:</b>	1907637AR1-02A	<b>Dilution Factor:</b>	1.58
<b>Date/Time Collected:</b>	7/25/19 02:30 PM	<b>Instrument/Filename:</b>	msd22.i / 22073119R1
<b>Media:</b>	6 Liter Summa Canister (SIM Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2,4-Trichlorobenzene	120-82-1	0.62	2.3	5.9	Not Detected
1,2,4-Trimethylbenzene	95-63-6	0.23	0.39	0.78	0.36 J
1,2-Dichlorobenzene	95-50-1	0.21	0.47	0.95	Not Detected
1,2-Dichloropropane	78-87-5	0.048	0.36	0.73	Not Detected
1,3,5-Trimethylbenzene	108-67-8	0.14	0.39	0.78	0.18 J
1,3-Butadiene	106-99-0	0.072	0.17	0.35	0.089 J
1,3-Dichlorobenzene	541-73-1	0.22	0.47	0.95	Not Detected
1,4-Dioxane	123-91-1	0.13	0.28	0.57	Not Detected
2,2,4-Trimethylpentane	540-84-1	0.16	1.5	3.7	1.3 J
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.39	0.93	2.3	11
2-Hexanone	591-78-6	0.49	1.3	3.2	Not Detected
2-Propanol	67-63-0	0.38	0.78	1.9	4.8 J0
3-Chloropropene	107-05-1	0.37	0.99	2.5	Not Detected
4-Ethyltoluene	622-96-8	0.18	0.39	0.78	0.49 J
4-Methyl-2-pentanone	108-10-1	0.12	0.32	0.65	1.4
Acetone	67-64-1	0.24	0.75	3.8	35
alpha-Chlorotoluene	100-44-7	0.18	0.41	0.82	Not Detected
Bromodichloromethane	75-27-4	0.084	0.53	1.0	Not Detected
Bromoform	75-25-2	0.14	0.82	1.6	Not Detected
Bromomethane	74-83-9	0.42	1.2	3.1	Not Detected
Carbon Disulfide	75-15-0	0.18	0.98	2.5	Not Detected
Chlorobenzene	108-90-7	0.055	0.36	0.73	Not Detected
cis-1,3-Dichloropropene	10061-01-5	0.087	0.36	0.72	Not Detected
Cumene	98-82-8	0.17	0.39	0.78	Not Detected



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma Mod Building

<b>Client ID:</b>	MOD BLD-SW1-20190725	<b>Date/Time Analyzed:</b>	7/31/19 10:07 PM
<b>Lab ID:</b>	1907637AR1-02A	<b>Dilution Factor:</b>	1.58
<b>Date/Time Collected:</b>	7/25/19 02:30 PM	<b>Instrument/Filename:</b>	msd22.i / 22073119R1
<b>Media:</b>	6 Liter Summa Canister (SIM Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cyclohexane	110-82-7	0.12	0.27	0.54	0.35 J
Dibromochloromethane	124-48-1	0.11	0.67	1.3	Not Detected
Ethanol	64-17-5	0.46	0.60	1.5	7.1
Freon 11	75-69-4	0.12	0.44	0.89	1.4
Freon 113	76-13-1	0.11	0.60	1.2	0.48 J
Heptane	142-82-5	0.13	0.32	3.2	1.2 J
Hexachlorobutadiene	87-68-3	0.98	3.4	8.4	Not Detected
Hexane	110-54-3	0.13	0.28	2.8	1.1 J
Methylene Chloride	75-09-2	0.19	0.27	1.1	3.7
Propylbenzene	103-65-1	0.20	0.39	0.78	Not Detected
Styrene	100-42-5	0.16	0.34	0.67	0.21 J
Tetrahydrofuran	109-99-9	0.31	0.93	2.3	2.3
trans-1,3-Dichloropropene	10061-02-6	0.13	0.36	0.72	Not Detected

J = Estimated value.

J0 = Estimated value due to bias in the CCV.

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	106
4-Bromofluorobenzene	460-00-4	70-130	102
Toluene-d8	2037-26-5	70-130	102



Air Toxics

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

Tacoma Mod Building

<b>Client ID:</b>	MOD BLD-SW1-20190725	<b>Date/Time Analyzed:</b>	7/31/19 10:07 PM
<b>Lab ID:</b>	1907637AR1-02B	<b>Dilution Factor:</b>	1.58
<b>Date/Time Collected:</b>	7/25/19 02:30 PM	<b>Instrument/Filename:</b>	msd22.i / 22073119simR1
<b>Media:</b>	6 Liter Summa Canister (SIM Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.010	0.069	0.17	0.060 J
1,1,2,2-Tetrachloroethane	79-34-5	0.012	0.087	0.22	Not Detected
1,1,2-Trichloroethane	79-00-5	0.0041	0.069	0.17	Not Detected
1,1-Dichloroethane	75-34-3	0.0085	0.051	0.13	Not Detected
1,1-Dichloroethene	75-35-4	0.013	0.050	0.063	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.0079	0.097	0.24	Not Detected
1,2-Dichloroethane	107-06-2	0.0037	0.051	0.13	0.080 J
1,4-Dichlorobenzene	106-46-7	0.020	0.076	0.19	0.037 J
Benzene	71-43-2	0.083	0.10	0.25	0.69
Carbon Tetrachloride	56-23-5	0.024	0.080	0.20	0.45
Chloroethane	75-00-3	0.0076	0.033	0.21	0.030 J
Chloroform	67-66-3	0.013	0.062	0.15	0.32
Chloromethane	74-87-3	0.11	0.26	1.6	0.80 J
cis-1,2-Dichloroethene	156-59-2	0.014	0.050	0.12	Not Detected
Ethyl Benzene	100-41-4	0.013	0.055	0.14	0.82
Freon 114	76-14-2	0.021	0.088	0.22	0.086 J
Freon 12	75-71-8	0.030	0.062	0.16	2.3
m,p-Xylene	108-38-3	0.018	0.055	0.27	2.9
Methyl tert-butyl ether	1634-04-4	0.016	0.046	0.57	0.017 J
Naphthalene	91-20-3	0.048	0.13	0.41	0.090 J
o-Xylene	95-47-6	0.018	0.055	0.14	0.88
Tetrachloroethene	127-18-4	0.0038	0.086	0.21	0.28
Toluene	108-88-3	0.026	0.048	0.30	18
trans-1,2-Dichloroethene	156-60-5	0.010	0.050	0.63	0.12 J



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma Mod Building

<b>Client ID:</b>	MOD BLD-SW1-20190725	<b>Date/Time Analyzed:</b>	7/31/19 10:07 PM
<b>Lab ID:</b>	1907637AR1-02B	<b>Dilution Factor:</b>	1.58
<b>Date/Time Collected:</b>	7/25/19 02:30 PM	<b>Instrument/Filename:</b>	msd22.i / 22073119simR1
<b>Media:</b>	6 Liter Summa Canister (SIM Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	79-01-6	0.016	0.068	0.17	0.057 J
Vinyl Chloride	75-01-4	0.0058	0.032	0.040	Not Detected

J = Estimated value.

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	98
4-Bromofluorobenzene	460-00-4	70-130	110
Toluene-d8	2037-26-5	70-130	105



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma Mod Building

<b>Client ID:</b>	MOD BLD-SW2-20190725	<b>Date/Time Analyzed:</b>	7/31/19 08:55 PM
<b>Lab ID:</b>	1907637AR1-03A	<b>Dilution Factor:</b>	1.55
<b>Date/Time Collected:</b>	7/25/19 02:30 PM	<b>Instrument/Filename:</b>	msd22.i / 22073117R1
<b>Media:</b>	6 Liter Summa Canister (SIM Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2,4-Trichlorobenzene	120-82-1	0.60	2.3	5.8	Not Detected
1,2,4-Trimethylbenzene	95-63-6	0.22	0.38	0.76	0.43 J
1,2-Dichlorobenzene	95-50-1	0.21	0.46	0.93	Not Detected
1,2-Dichloropropane	78-87-5	0.047	0.36	0.72	Not Detected
1,3,5-Trimethylbenzene	108-67-8	0.14	0.38	0.76	0.23 J
1,3-Butadiene	106-99-0	0.071	0.17	0.34	0.078 J
1,3-Dichlorobenzene	541-73-1	0.22	0.46	0.93	Not Detected
1,4-Dioxane	123-91-1	0.13	0.28	0.56	0.30 J
2,2,4-Trimethylpentane	540-84-1	0.16	1.4	3.6	1.4 J
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.38	0.91	2.3	13
2-Hexanone	591-78-6	0.48	1.3	3.2	Not Detected
2-Propanol	67-63-0	0.38	0.76	1.9	5.2 J0
3-Chloropropene	107-05-1	0.37	0.97	2.4	Not Detected
4-Ethyltoluene	622-96-8	0.18	0.38	0.76	0.56 J
4-Methyl-2-pentanone	108-10-1	0.11	0.32	0.63	1.4
Acetone	67-64-1	0.24	0.74	3.7	39
alpha-Chlorotoluene	100-44-7	0.17	0.40	0.80	Not Detected
Bromodichloromethane	75-27-4	0.083	0.52	1.0	Not Detected
Bromoform	75-25-2	0.14	0.80	1.6	Not Detected
Bromomethane	74-83-9	0.42	1.2	3.0	Not Detected
Carbon Disulfide	75-15-0	0.18	0.96	2.4	Not Detected
Chlorobenzene	108-90-7	0.054	0.36	0.71	Not Detected
cis-1,3-Dichloropropene	10061-01-5	0.086	0.35	0.70	Not Detected
Cumene	98-82-8	0.17	0.38	0.76	Not Detected



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma Mod Building

<b>Client ID:</b>	MOD BLD-SW2-20190725	<b>Date/Time Analyzed:</b>	7/31/19 08:55 PM
<b>Lab ID:</b>	1907637AR1-03A	<b>Dilution Factor:</b>	1.55
<b>Date/Time Collected:</b>	7/25/19 02:30 PM	<b>Instrument/Filename:</b>	msd22.i / 22073117R1
<b>Media:</b>	6 Liter Summa Canister (SIM Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cyclohexane	110-82-7	0.12	0.27	0.53	0.35 J
Dibromochloromethane	124-48-1	0.11	0.66	1.3	Not Detected
Ethanol	64-17-5	0.46	0.58	1.5	7.7
Freon 11	75-69-4	0.11	0.44	0.87	1.4
Freon 113	76-13-1	0.11	0.59	1.2	0.51 J
Heptane	142-82-5	0.13	0.32	3.2	1.3 J
Hexachlorobutadiene	87-68-3	0.96	3.3	8.3	Not Detected
Hexane	110-54-3	0.13	0.27	2.7	1.2 J
Methylene Chloride	75-09-2	0.18	0.27	1.1	3.9
Propylbenzene	103-65-1	0.19	0.38	0.76	0.21 J
Styrene	100-42-5	0.16	0.33	0.66	0.24 J
Tetrahydrofuran	109-99-9	0.31	0.91	2.3	2.4
trans-1,3-Dichloropropene	10061-02-6	0.12	0.35	0.70	Not Detected

J = Estimated value.

J0 = Estimated value due to bias in the CCV.

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	105
4-Bromofluorobenzene	460-00-4	70-130	103
Toluene-d8	2037-26-5	70-130	104



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma Mod Building

<b>Client ID:</b>	MOD BLD-SW2-20190725	<b>Date/Time Analyzed:</b>	7/31/19 08:55 PM
<b>Lab ID:</b>	1907637AR1-03B	<b>Dilution Factor:</b>	1.55
<b>Date/Time Collected:</b>	7/25/19 02:30 PM	<b>Instrument/Filename:</b>	msd22.i / 22073117simR1
<b>Media:</b>	6 Liter Summa Canister (SIM Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.010	0.068	0.17	0.062 J
1,1,2,2-Tetrachloroethane	79-34-5	0.012	0.085	0.21	Not Detected
1,1,2-Trichloroethane	79-00-5	0.0040	0.068	0.17	Not Detected
1,1-Dichloroethane	75-34-3	0.0083	0.050	0.12	Not Detected
1,1-Dichloroethene	75-35-4	0.013	0.049	0.061	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.0077	0.095	0.24	Not Detected
1,2-Dichloroethane	107-06-2	0.0036	0.050	0.12	0.079 J
1,4-Dichlorobenzene	106-46-7	0.020	0.074	0.19	0.037 J
Benzene	71-43-2	0.082	0.099	0.25	0.68
Carbon Tetrachloride	56-23-5	0.024	0.078	0.20	0.44
Chloroethane	75-00-3	0.0074	0.033	0.20	0.043 J
Chloroform	67-66-3	0.013	0.060	0.15	0.32
Chloromethane	74-87-3	0.10	0.26	1.6	0.82 J
cis-1,2-Dichloroethene	156-59-2	0.013	0.049	0.12	Not Detected
Ethyl Benzene	100-41-4	0.012	0.054	0.13	0.84
Freon 114	76-14-2	0.021	0.087	0.22	0.087 J
Freon 12	75-71-8	0.029	0.061	0.15	2.3
m,p-Xylene	108-38-3	0.018	0.054	0.27	3.0
Methyl tert-butyl ether	1634-04-4	0.016	0.045	0.56	0.018 J
Naphthalene	91-20-3	0.048	0.13	0.41	0.097 J
o-Xylene	95-47-6	0.018	0.054	0.13	0.93
Tetrachloroethene	127-18-4	0.0037	0.084	0.21	0.48
Toluene	108-88-3	0.026	0.047	0.29	18
trans-1,2-Dichloroethene	156-60-5	0.0099	0.049	0.61	0.12 J



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma Mod Building

<b>Client ID:</b>	MOD BLD-SW2-20190725	<b>Date/Time Analyzed:</b>	7/31/19 08:55 PM
<b>Lab ID:</b>	1907637AR1-03B	<b>Dilution Factor:</b>	1.55
<b>Date/Time Collected:</b>	7/25/19 02:30 PM	<b>Instrument/Filename:</b>	msd22.i / 22073117simR1
<b>Media:</b>	6 Liter Summa Canister (SIM Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	79-01-6	0.016	0.067	0.17	0.067 J
Vinyl Chloride	75-01-4	0.0057	0.032	0.040	Not Detected

J = Estimated value.

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	98
4-Bromofluorobenzene	460-00-4	70-130	111
Toluene-d8	2037-26-5	70-130	104



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma Mod Building

<b>Client ID:</b>	MOD BLD-AMB1-20190725	<b>Date/Time Analyzed:</b>	7/31/19 09:31 PM
<b>Lab ID:</b>	1907637AR1-04A	<b>Dilution Factor:</b>	1.75
<b>Date/Time Collected:</b>	7/25/19 03:08 PM	<b>Instrument/Filename:</b>	msd22.i / 22073118R1
<b>Media:</b>	6 Liter Summa Canister (SIM Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2,4-Trichlorobenzene	120-82-1	0.68	2.6	6.5	Not Detected
1,2,4-Trimethylbenzene	95-63-6	0.25	0.43	0.86	0.45 J
1,2-Dichlorobenzene	95-50-1	0.24	0.53	1.0	Not Detected
1,2-Dichloropropane	78-87-5	0.053	0.40	0.81	Not Detected
1,3,5-Trimethylbenzene	108-67-8	0.16	0.43	0.86	Not Detected
1,3-Butadiene	106-99-0	0.080	0.19	0.39	0.091 J
1,3-Dichlorobenzene	541-73-1	0.24	0.53	1.0	Not Detected
1,4-Dioxane	123-91-1	0.15	0.32	0.63	0.54 J
2,2,4-Trimethylpentane	540-84-1	0.18	1.6	4.1	0.60 J
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.43	1.0	2.6	1.5 J
2-Hexanone	591-78-6	0.54	1.4	3.6	Not Detected
2-Propanol	67-63-0	0.43	0.86	2.2	1.5 J
3-Chloropropene	107-05-1	0.41	1.1	2.7	Not Detected
4-Ethyltoluene	622-96-8	0.20	0.43	0.86	0.44 J
4-Methyl-2-pentanone	108-10-1	0.13	0.36	0.72	0.18 J
Acetone	67-64-1	0.27	0.83	4.2	15
alpha-Chlorotoluene	100-44-7	0.20	0.45	0.90	Not Detected
Bromodichloromethane	75-27-4	0.094	0.59	1.2	Not Detected
Bromoform	75-25-2	0.16	0.90	1.8	Not Detected
Bromomethane	74-83-9	0.47	1.4	3.4	Not Detected
Carbon Disulfide	75-15-0	0.20	1.1	2.7	Not Detected
Chlorobenzene	108-90-7	0.061	0.40	0.80	Not Detected
cis-1,3-Dichloropropene	10061-01-5	0.097	0.40	0.79	Not Detected
Cumene	98-82-8	0.19	0.43	0.86	Not Detected



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma Mod Building

<b>Client ID:</b>	MOD BLD-AMB1-20190725	<b>Date/Time Analyzed:</b>	7/31/19 09:31 PM
<b>Lab ID:</b>	1907637AR1-04A	<b>Dilution Factor:</b>	1.75
<b>Date/Time Collected:</b>	7/25/19 03:08 PM	<b>Instrument/Filename:</b>	msd22.i / 22073118R1
<b>Media:</b>	6 Liter Summa Canister (SIM Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cyclohexane	110-82-7	0.13	0.30	0.60	0.56 J
Dibromochloromethane	124-48-1	0.12	0.74	1.5	Not Detected
Ethanol	64-17-5	0.52	0.66	1.6	10
Freon 11	75-69-4	0.13	0.49	0.98	1.6
Freon 113	76-13-1	0.13	0.67	1.3	0.46 J
Heptane	142-82-5	0.15	0.36	3.6	1.0 J
Hexachlorobutadiene	87-68-3	1.1	3.7	9.3	Not Detected
Hexane	110-54-3	0.15	0.31	3.1	1.5 J
Methylene Chloride	75-09-2	0.21	0.30	1.2	0.73 J
Propylbenzene	103-65-1	0.22	0.43	0.86	Not Detected
Styrene	100-42-5	0.18	0.37	0.74	0.19 J
Tetrahydrofuran	109-99-9	0.35	1.0	2.6	Not Detected
trans-1,3-Dichloropropene	10061-02-6	0.14	0.40	0.79	Not Detected

J = Estimated value.

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	107
4-Bromofluorobenzene	460-00-4	70-130	100
Toluene-d8	2037-26-5	70-130	103



Air Toxics

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

Tacoma Mod Building

<b>Client ID:</b>	MOD BLD-AMB1-20190725	<b>Date/Time Analyzed:</b>	7/31/19 09:31 PM
<b>Lab ID:</b>	1907637AR1-04B	<b>Dilution Factor:</b>	1.75
<b>Date/Time Collected:</b>	7/25/19 03:08 PM	<b>Instrument/Filename:</b>	msd22.i / 22073118simR1
<b>Media:</b>	6 Liter Summa Canister (SIM Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.011	0.076	0.19	0.020 J
1,1,2,2-Tetrachloroethane	79-34-5	0.013	0.096	0.24	Not Detected
1,1,2-Trichloroethane	79-00-5	0.0046	0.076	0.19	Not Detected
1,1-Dichloroethane	75-34-3	0.0094	0.057	0.14	Not Detected
1,1-Dichloroethene	75-35-4	0.015	0.056	0.069	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.0087	0.11	0.27	Not Detected
1,2-Dichloroethane	107-06-2	0.0041	0.057	0.14	0.070 J
1,4-Dichlorobenzene	106-46-7	0.022	0.084	0.21	0.038 J
Benzene	71-43-2	0.092	0.11	0.28	1.6
Carbon Tetrachloride	56-23-5	0.027	0.088	0.22	0.43
Chloroethane	75-00-3	0.0084	0.037	0.23	0.052 J
Chloroform	67-66-3	0.014	0.068	0.17	0.10 J
Chloromethane	74-87-3	0.12	0.29	1.8	0.87 J
cis-1,2-Dichloroethene	156-59-2	0.015	0.056	0.14	Not Detected
Ethyl Benzene	100-41-4	0.014	0.061	0.15	0.68
Freon 114	76-14-2	0.023	0.098	0.24	0.084 J
Freon 12	75-71-8	0.033	0.069	0.17	2.4
m,p-Xylene	108-38-3	0.020	0.061	0.30	2.3
Methyl tert-butyl ether	1634-04-4	0.018	0.050	0.63	Not Detected
Naphthalene	91-20-3	0.054	0.15	0.46	0.14 J
o-Xylene	95-47-6	0.020	0.061	0.15	0.72
Tetrachloroethene	127-18-4	0.0042	0.095	0.24	0.26
Toluene	108-88-3	0.029	0.053	0.33	4.1
trans-1,2-Dichloroethene	156-60-5	0.011	0.056	0.69	Not Detected



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma Mod Building

<b>Client ID:</b>	MOD BLD-AMB1-20190725	<b>Date/Time Analyzed:</b>	7/31/19 09:31 PM
<b>Lab ID:</b>	1907637AR1-04B	<b>Dilution Factor:</b>	1.75
<b>Date/Time Collected:</b>	7/25/19 03:08 PM	<b>Instrument/Filename:</b>	msd22.i / 22073118simR1
<b>Media:</b>	6 Liter Summa Canister (SIM Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	79-01-6	0.018	0.075	0.19	0.049 J
Vinyl Chloride	75-01-4	0.0065	0.036	0.045	Not Detected

J = Estimated value.

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	99
4-Bromofluorobenzene	460-00-4	70-130	106
Toluene-d8	2037-26-5	70-130	105



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma Mod Building

<b>Client ID:</b>	Lab Blank	<b>Date/Time Analyzed:</b>	7/31/19 12:32 PM
<b>Lab ID:</b>	1907637AR1-05A	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msd22.i / 22073106R1
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2,4-Trichlorobenzene	120-82-1	0.39	1.5	3.7	0.40 J
1,2,4-Trimethylbenzene	95-63-6	0.14	0.24	0.49	Not Detected
1,2-Dichlorobenzene	95-50-1	0.14	0.30	0.60	Not Detected
1,2-Dichloropropane	78-87-5	0.030	0.23	0.46	Not Detected
1,3,5-Trimethylbenzene	108-67-8	0.092	0.24	0.49	Not Detected
1,3-Butadiene	106-99-0	0.046	0.11	0.22	Not Detected
1,3-Dichlorobenzene	541-73-1	0.14	0.30	0.60	Not Detected
1,4-Dioxane	123-91-1	0.084	0.18	0.36	Not Detected
2,2,4-Trimethylpentane	540-84-1	0.10	0.93	2.3	Not Detected
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.25	0.59	1.5	Not Detected
2-Hexanone	591-78-6	0.31	0.82	2.0	Not Detected
2-Propanol	67-63-0	0.24	0.49	1.2	Not Detected UJ
3-Chloropropene	107-05-1	0.24	0.63	1.6	Not Detected
4-Ethyltoluene	622-96-8	0.11	0.24	0.49	Not Detected
4-Methyl-2-pentanone	108-10-1	0.073	0.20	0.41	Not Detected
Acetone	67-64-1	0.15	0.48	2.4	0.31 J
alpha-Chlorotoluene	100-44-7	0.11	0.26	0.52	Not Detected
Bromodichloromethane	75-27-4	0.053	0.34	0.67	Not Detected
Bromoform	75-25-2	0.090	0.52	1.0	Not Detected
Bromomethane	74-83-9	0.27	0.78	1.9	Not Detected
Carbon Disulfide	75-15-0	0.11	0.62	1.6	Not Detected
Chlorobenzene	108-90-7	0.035	0.23	0.46	Not Detected
cis-1,3-Dichloropropene	10061-01-5	0.055	0.23	0.45	Not Detected
Cumene	98-82-8	0.11	0.24	0.49	Not Detected



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma Mod Building

<b>Client ID:</b>	Lab Blank	<b>Date/Time Analyzed:</b>	7/31/19 12:32 PM
<b>Lab ID:</b>	1907637AR1-05A	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msd22.i / 22073106R1
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cyclohexane	110-82-7	0.077	0.17	0.34	Not Detected
Dibromochloromethane	124-48-1	0.071	0.42	0.85	Not Detected
Ethanol	64-17-5	0.29	0.38	0.94	Not Detected
Freon 11	75-69-4	0.074	0.28	0.56	Not Detected
Freon 113	76-13-1	0.072	0.38	0.77	Not Detected
Heptane	142-82-5	0.085	0.20	2.0	Not Detected
Hexachlorobutadiene	87-68-3	0.62	2.1	5.3	Not Detected
Hexane	110-54-3	0.084	0.18	1.8	Not Detected
Methylene Chloride	75-09-2	0.12	0.17	0.69	Not Detected
Propylbenzene	103-65-1	0.12	0.24	0.49	Not Detected
Styrene	100-42-5	0.10	0.21	0.42	Not Detected
Tetrahydrofuran	109-99-9	0.20	0.59	1.5	Not Detected
trans-1,3-Dichloropropene	10061-02-6	0.080	0.23	0.45	Not Detected

J = Estimated value.

UJ = Analyte associated with low bias in the CCV.

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	108
4-Bromofluorobenzene	460-00-4	70-130	101
Toluene-d8	2037-26-5	70-130	104



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma Mod Building

<b>Client ID:</b>	Lab Blank	<b>Date/Time Analyzed:</b>	7/31/19 12:32 PM
<b>Lab ID:</b>	1907637AR1-05B	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msd22.i / 22073106simR1
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.0065	0.044	0.11	Not Detected
1,1,2,2-Tetrachloroethane	79-34-5	0.0077	0.055	0.14	0.043 J
1,1,2-Trichloroethane	79-00-5	0.0026	0.044	0.11	Not Detected
1,1-Dichloroethane	75-34-3	0.0054	0.032	0.081	Not Detected
1,1-Dichloroethene	75-35-4	0.0084	0.032	0.040	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.0050	0.061	0.15	0.023 J
1,2-Dichloroethane	107-06-2	0.0023	0.032	0.081	0.0070 J
1,4-Dichlorobenzene	106-46-7	0.013	0.048	0.12	0.087 J
Benzene	71-43-2	0.053	0.064	0.16	Not Detected
Carbon Tetrachloride	56-23-5	0.015	0.050	0.12	Not Detected
Chloroethane	75-00-3	0.0048	0.021	0.13	Not Detected
Chloroform	67-66-3	0.0082	0.039	0.098	Not Detected
Chloromethane	74-87-3	0.068	0.16	1.0	Not Detected UJ
cis-1,2-Dichloroethene	156-59-2	0.0087	0.032	0.079	Not Detected
Ethyl Benzene	100-41-4	0.0081	0.035	0.087	Not Detected
Freon 114	76-14-2	0.013	0.056	0.14	Not Detected
Freon 12	75-71-8	0.019	0.040	0.099	Not Detected
m,p-Xylene	108-38-3	0.012	0.035	0.17	Not Detected
Methyl tert-butyl ether	1634-04-4	0.010	0.029	0.36	Not Detected
Naphthalene	91-20-3	0.031	0.084	0.26	0.048 J
o-Xylene	95-47-6	0.011	0.035	0.087	Not Detected
Tetrachloroethene	127-18-4	0.0024	0.054	0.14	Not Detected
Toluene	108-88-3	0.017	0.030	0.19	Not Detected
trans-1,2-Dichloroethene	156-60-5	0.0064	0.032	0.40	Not Detected



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma Mod Building

<b>Client ID:</b>	Lab Blank	<b>Date/Time Analyzed:</b>	7/31/19 12:32 PM
<b>Lab ID:</b>	1907637AR1-05B	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msd22.i / 22073106simR1
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	79-01-6	0.010	0.043	0.11	Not Detected
Vinyl Chloride	75-01-4	0.0037	0.020	0.026	Not Detected

UJ = Analyte associated with low bias in the CCV.

J = Estimated value.

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	100
4-Bromofluorobenzene	460-00-4	70-130	108
Toluene-d8	2037-26-5	70-130	102



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma Mod Building

<b>Client ID:</b>	CCV	<b>Date/Time Analyzed:</b>	7/31/19 09:10 AM
<b>Lab ID:</b>	1907637AR1-06A	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msd22.i / 22073102
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
1,2,4-Trichlorobenzene	120-82-1	100
1,2,4-Trimethylbenzene	95-63-6	90
1,2-Dichlorobenzene	95-50-1	76
1,2-Dichloropropane	78-87-5	110
1,3,5-Trimethylbenzene	108-67-8	98
1,3-Butadiene	106-99-0	90
1,3-Dichlorobenzene	541-73-1	123
1,4-Dioxane	123-91-1	94
2,2,4-Trimethylpentane	540-84-1	91
2-Butanone (Methyl Ethyl Ketone)	78-93-3	82
2-Hexanone	591-78-6	72
2-Propanol	67-63-0	68 Q
3-Chloropropene	107-05-1	90
4-Ethyltoluene	622-96-8	100
4-Methyl-2-pentanone	108-10-1	88
Acetone	67-64-1	86
alpha-Chlorotoluene	100-44-7	76
Bromodichloromethane	75-27-4	97
Bromoform	75-25-2	95
Bromomethane	74-83-9	103
Carbon Disulfide	75-15-0	98
Chlorobenzene	108-90-7	102
cis-1,3-Dichloropropene	10061-01-5	98
Cumene	98-82-8	96



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma Mod Building

<b>Client ID:</b>	CCV	<b>Date/Time Analyzed:</b>	7/31/19 09:10 AM
<b>Lab ID:</b>	1907637AR1-06A	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msd22.i / 22073102
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
Cyclohexane	110-82-7	91
Dibromochloromethane	124-48-1	93
Ethanol	64-17-5	73
Freon 11	75-69-4	96
Freon 113	76-13-1	94
Heptane	142-82-5	111
Hexachlorobutadiene	87-68-3	123
Hexane	110-54-3	90
Methylene Chloride	75-09-2	91
Propylbenzene	103-65-1	96
Styrene	100-42-5	88
Tetrahydrofuran	109-99-9	80
trans-1,3-Dichloropropene	10061-02-6	92

Q = Exceeds Quality Control limits.

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	94
4-Bromofluorobenzene	460-00-4	70-130	99
Toluene-d8	2037-26-5	70-130	111



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma Mod Building

<b>Client ID:</b>	CCV	<b>Date/Time Analyzed:</b>	7/31/19 09:10 AM
<b>Lab ID:</b>	1907637AR1-06B	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msd22.i / 22073102sim
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	87
1,1,2,2-Tetrachloroethane	79-34-5	91
1,1,2-Trichloroethane	79-00-5	97
1,1-Dichloroethane	75-34-3	84
1,1-Dichloroethene	75-35-4	83
1,2-Dibromoethane (EDB)	106-93-4	95
1,2-Dichloroethane	107-06-2	102
1,4-Dichlorobenzene	106-46-7	98
Benzene	71-43-2	91
Carbon Tetrachloride	56-23-5	104
Chloroethane	75-00-3	114
Chloroform	67-66-3	97
Chloromethane	74-87-3	65 Q
cis-1,2-Dichloroethene	156-59-2	85
Ethyl Benzene	100-41-4	93
Freon 114	76-14-2	70
Freon 12	75-71-8	80
m,p-Xylene	108-38-3	88
Methyl tert-butyl ether	1634-04-4	74
Naphthalene	91-20-3	80
o-Xylene	95-47-6	86
Tetrachloroethene	127-18-4	95
Toluene	108-88-3	96
trans-1,2-Dichloroethene	156-60-5	91



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma Mod Building

<b>Client ID:</b>	CCV	<b>Date/Time Analyzed:</b>	7/31/19 09:10 AM
<b>Lab ID:</b>	1907637AR1-06B	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msd22.i / 22073102sim
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
Trichloroethene	79-01-6	105
Vinyl Chloride	75-01-4	82

Q = Exceeds Quality Control limits.

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	88
4-Bromofluorobenzene	460-00-4	70-130	106
Toluene-d8	2037-26-5	70-130	108



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma Mod Building

<b>Client ID:</b>	LCS	<b>Date/Time Analyzed:</b>	7/31/19 09:56 AM
<b>Lab ID:</b>	1907637AR1-07A	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msd22.i / 22073103
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
1,2,4-Trichlorobenzene	120-82-1	105
1,2,4-Trimethylbenzene	95-63-6	97
1,2-Dichlorobenzene	95-50-1	83
1,2-Dichloropropane	78-87-5	109
1,3,5-Trimethylbenzene	108-67-8	105
1,3-Butadiene	106-99-0	94
1,3-Dichlorobenzene	541-73-1	130
1,4-Dioxane	123-91-1	98
2,2,4-Trimethylpentane	540-84-1	97
2-Butanone (Methyl Ethyl Ketone)	78-93-3	87
2-Hexanone	591-78-6	88
2-Propanol	67-63-0	80
3-Chloropropene	107-05-1	86
4-Ethyltoluene	622-96-8	105
4-Methyl-2-pentanone	108-10-1	94
Acetone	67-64-1	90
alpha-Chlorotoluene	100-44-7	93
Bromodichloromethane	75-27-4	101
Bromoform	75-25-2	98
Bromomethane	74-83-9	109
Carbon Disulfide	75-15-0	88
Chlorobenzene	108-90-7	107
cis-1,3-Dichloropropene	10061-01-5	94
Cumene	98-82-8	100

\* % Recovery is calculated using unrounded analytical results.



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma Mod Building

<b>Client ID:</b>	LCS	<b>Date/Time Analyzed:</b>	7/31/19 09:56 AM
<b>Lab ID:</b>	1907637AR1-07A	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msd22.i / 22073103
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
Cyclohexane	110-82-7	94
Dibromochloromethane	124-48-1	96
Ethanol	64-17-5	91
Freon 11	75-69-4	101
Freon 113	76-13-1	97
Heptane	142-82-5	112
Hexachlorobutadiene	87-68-3	127
Hexane	110-54-3	93
Methylene Chloride	75-09-2	92
Propylbenzene	103-65-1	101
Styrene	100-42-5	92
Tetrahydrofuran	109-99-9	84
trans-1,3-Dichloropropene	10061-02-6	98

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	96
4-Bromofluorobenzene	460-00-4	70-130	98
Toluene-d8	2037-26-5	70-130	108

\* % Recovery is calculated using unrounded analytical results.



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma Mod Building

<b>Client ID:</b>	LCSD	<b>Date/Time Analyzed:</b>	7/31/19 10:32 AM
<b>Lab ID:</b>	1907637AR1-07AA	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msd22.i / 22073104
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
1,2,4-Trichlorobenzene	120-82-1	105
1,2,4-Trimethylbenzene	95-63-6	96
1,2-Dichlorobenzene	95-50-1	85
1,2-Dichloropropane	78-87-5	108
1,3,5-Trimethylbenzene	108-67-8	102
1,3-Butadiene	106-99-0	94
1,3-Dichlorobenzene	541-73-1	126
1,4-Dioxane	123-91-1	99
2,2,4-Trimethylpentane	540-84-1	96
2-Butanone (Methyl Ethyl Ketone)	78-93-3	87
2-Hexanone	591-78-6	89
2-Propanol	67-63-0	82
3-Chloropropene	107-05-1	87
4-Ethyltoluene	622-96-8	103
4-Methyl-2-pentanone	108-10-1	95
Acetone	67-64-1	89
alpha-Chlorotoluene	100-44-7	95
Bromodichloromethane	75-27-4	101
Bromoform	75-25-2	98
Bromomethane	74-83-9	108
Carbon Disulfide	75-15-0	87
Chlorobenzene	108-90-7	106
cis-1,3-Dichloropropene	10061-01-5	94
Cumene	98-82-8	99

\* % Recovery is calculated using unrounded analytical results.



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma Mod Building

<b>Client ID:</b>	LCSD	<b>Date/Time Analyzed:</b>	7/31/19 10:32 AM
<b>Lab ID:</b>	1907637AR1-07AA	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msd22.i / 22073104
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
Cyclohexane	110-82-7	95
Dibromochloromethane	124-48-1	95
Ethanol	64-17-5	94
Freon 11	75-69-4	101
Freon 113	76-13-1	95
Heptane	142-82-5	111
Hexachlorobutadiene	87-68-3	128
Hexane	110-54-3	93
Methylene Chloride	75-09-2	91
Propylbenzene	103-65-1	98
Styrene	100-42-5	92
Tetrahydrofuran	109-99-9	85
trans-1,3-Dichloropropene	10061-02-6	97

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	94
4-Bromofluorobenzene	460-00-4	70-130	97
Toluene-d8	2037-26-5	70-130	108

\* % Recovery is calculated using unrounded analytical results.



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma Mod Building

<b>Client ID:</b>	LCS	<b>Date/Time Analyzed:</b>	7/31/19 09:56 AM
<b>Lab ID:</b>	1907637AR1-07B	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msd22.i / 22073103sim
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	89
1,1,2,2-Tetrachloroethane	79-34-5	98
1,1,2-Trichloroethane	79-00-5	101
1,1-Dichloroethane	75-34-3	86
1,1-Dichloroethene	75-35-4	84
1,2-Dibromoethane (EDB)	106-93-4	101
1,2-Dichloroethane	107-06-2	103
1,4-Dichlorobenzene	106-46-7	103
Benzene	71-43-2	91
Carbon Tetrachloride	56-23-5	58 Q
Chloroethane	75-00-3	120
Chloroform	67-66-3	98
Chloromethane	74-87-3	69 Q
cis-1,2-Dichloroethene	156-59-2	95
Ethyl Benzene	100-41-4	96
Freon 114	76-14-2	76
Freon 12	75-71-8	83
m,p-Xylene	108-38-3	90
Methyl tert-butyl ether	1634-04-4	78
Naphthalene	91-20-3	76
o-Xylene	95-47-6	90
Tetrachloroethene	127-18-4	98
Toluene	108-88-3	97
trans-1,2-Dichloroethene	156-60-5	80

\* % Recovery is calculated using unrounded analytical results.



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma Mod Building

<b>Client ID:</b>	LCS	<b>Date/Time Analyzed:</b>	7/31/19 09:56 AM
<b>Lab ID:</b>	1907637AR1-07B	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msd22.i / 22073103sim
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
Trichloroethene	79-01-6	106
Vinyl Chloride	75-01-4	87

Q = Exceeds Quality Control limits.

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	90
4-Bromofluorobenzene	460-00-4	70-130	104
Toluene-d8	2037-26-5	70-130	107

\* % Recovery is calculated using unrounded analytical results.



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma Mod Building

<b>Client ID:</b>	LCSD	<b>Date/Time Analyzed:</b>	7/31/19 10:32 AM
<b>Lab ID:</b>	1907637AR1-07BB	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msd22.i / 22073104sim
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	89
1,1,2,2-Tetrachloroethane	79-34-5	98
1,1,2-Trichloroethane	79-00-5	101
1,1-Dichloroethane	75-34-3	86
1,1-Dichloroethene	75-35-4	84
1,2-Dibromoethane (EDB)	106-93-4	102
1,2-Dichloroethane	107-06-2	103
1,4-Dichlorobenzene	106-46-7	102
Benzene	71-43-2	91
Carbon Tetrachloride	56-23-5	58 Q
Chloroethane	75-00-3	119
Chloroform	67-66-3	98
Chloromethane	74-87-3	68 Q
cis-1,2-Dichloroethene	156-59-2	95
Ethyl Benzene	100-41-4	95
Freon 114	76-14-2	76
Freon 12	75-71-8	83
m,p-Xylene	108-38-3	89
Methyl tert-butyl ether	1634-04-4	78
Naphthalene	91-20-3	77
o-Xylene	95-47-6	89
Tetrachloroethene	127-18-4	98
Toluene	108-88-3	97
trans-1,2-Dichloroethene	156-60-5	79

\* % Recovery is calculated using unrounded analytical results.



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma Mod Building

<b>Client ID:</b>	LCSD	<b>Date/Time Analyzed:</b>	7/31/19 10:32 AM
<b>Lab ID:</b>	1907637AR1-07BB	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msd22.i / 22073104sim
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
Trichloroethene	79-01-6	106
Vinyl Chloride	75-01-4	87

Q = Exceeds Quality Control limits.

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	90
4-Bromofluorobenzene	460-00-4	70-130	103
Toluene-d8	2037-26-5	70-130	107

\* % Recovery is calculated using unrounded analytical results.

8/5/2019  
Mr. Bill Beck  
Stericycle Environmental Solutions, Inc.  
18000 72nd Ave. S  
Suite 217  
Kent WA 98032

Project Name: Tacoma Mod Building

Project #:  
Workorder #: 1907637B

Dear Mr. Bill Beck

The following report includes the data for the above referenced project for sample(s) received on 7/29/2019 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 APH 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: Allyson Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Allyson Scott

Project Manager

A Eurofins Lancaster Laboratories Company

**WORK ORDER #:** 1907637B

## Work Order Summary

<b>CLIENT:</b>	Mr. Bill Beck Stericycle Environmental Solutions, Inc. 18000 72nd Ave. S Suite 217 Kent, WA 98032	<b>BILL TO:</b>	Mr. Bill Beck Stericycle Environmental Solutions, Inc. 18000 72nd Ave. S Suite 217 Kent, WA 98032
<b>PHONE:</b>	425-227-6149	<b>P.O. #</b>	
<b>FAX:</b>		<b>PROJECT #</b>	Tacoma Mod Building
<b>DATE RECEIVED:</b>	07/29/2019	<b>CONTACT:</b>	Allyson Scott
<b>DATE COMPLETED:</b>	08/05/2019		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT</u>	<u>FINAL</u>
			VAC./PRES.	PRESSURE
01A	MOD BLD-NE-20190725	Modified TO-15 APH	4.0 "Hg	5 psi
01B	MOD BLD-NE-20190725	Modified TO-15 APH	4.0 "Hg	5 psi
02A	MOD BLD-SW1-20190725	Modified TO-15 APH	4.5 "Hg	5 psi
02B	MOD BLD-SW1-20190725	Modified TO-15 APH	4.5 "Hg	5 psi
03A	MOD BLD-SW2-20190725	Modified TO-15 APH	4.0 "Hg	5 psi
03B	MOD BLD-SW2-20190725	Modified TO-15 APH	4.0 "Hg	5 psi
04A	MOD BLD-AMB1-20190725	Modified TO-15 APH	7.0 "Hg	5 psi
04B	MOD BLD-AMB1-20190725	Modified TO-15 APH	7.0 "Hg	5 psi
05A	Lab Blank	Modified TO-15 APH	NA	NA
05B	Lab Blank	Modified TO-15 APH	NA	NA
06A	CCV	Modified TO-15 APH	NA	NA
06B	CCV	Modified TO-15 APH	NA	NA

CERTIFIED BY:



DATE: 08/05/19

Technical Director

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP - 209218, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-18-13, UT NELAP – CA009332019-11, VA NELAP - 460197, WA NELAP - C935

Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)

Accreditation number: CA300005-011, Effective date: 10/18/2018, Expiration date: 10/17/2019.

Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630  
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE  
Modified TO-15 & VPH Fractions  
Stericycle Environmental Solutions, Inc.  
Workorder# 1907637B**

Four 6 Liter Summa Canister (SIM Certified) samples were received on July 29, 2019. The laboratory performed analysis via EPA Method TO-15 and Air Toxics VPH (Volatile Petroleum Hydrocarbon) methods for the Determination of VPH Fractions using GC/MS in the full scan mode. The method involves concentrating up to 0.5 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis. This method is designed to measure gaseous phase aliphatic and aromatic compounds in ambient air and soil gas collected in stainless steel Summa canisters. Air Toxics VPH method is a hybrid of EPA TO-15, MADEP APH and WSDE VPH methods. Chromatographic peaks were identified via mass spectrum as either aliphatic or aromatic petroleum hydrocarbons and included in the appropriate range as defined by the method. The volatile Aliphatic hydrocarbons are collectively quantified within the C5 to C6 range, C6 to C8 range, C8 to C10 range and the C10 to C12 range. Additionally, the volatile Aromatic hydrocarbons are collectively quantified within the C8 to C10 range and the C10 to C12 range. The Aromatic ranges refer to the equivalent carbon (EC) ranges. (Please note that benzene constitutes the >C5-C7 aromatic range and toluene constitutes the >C7-C8 aromatic range. Benzene and toluene concentrations are reported on the TO-15 workorder fraction.)

Aliphatic data is calculated from the Total Ion chromatogram which has been reprocessed in a duplicate file differentiated from the original by the addition of an alphanumeric extension. The Aromatic calculation also uses the information contained in the associated Extracted Ion file.

#### **Receiving Notes**

There were no receiving discrepancies.

#### **Analytical Notes**

There were no analytical discrepancies.

#### **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.

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



Air Toxics

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

**Client Sample ID: MOD BLD-NE-20190725**

**Lab ID#: 1907637B-01A**

No Detections Were Found.

**Client Sample ID: MOD BLD-NE-20190725**

**Lab ID#: 1907637B-01B**

No Detections Were Found.

**Client Sample ID: MOD BLD-SW1-20190725**

**Lab ID#: 1907637B-02A**

No Detections Were Found.

**Client Sample ID: MOD BLD-SW1-20190725**

**Lab ID#: 1907637B-02B**

No Detections Were Found.

**Client Sample ID: MOD BLD-SW2-20190725**

**Lab ID#: 1907637B-03A**

No Detections Were Found.

**Client Sample ID: MOD BLD-SW2-20190725**

**Lab ID#: 1907637B-03B**

No Detections Were Found.

**Client Sample ID: MOD BLD-AMB1-20190725**

**Lab ID#: 1907637B-04A**

No Detections Were Found.

**Client Sample ID: MOD BLD-AMB1-20190725**

**Lab ID#: 1907637B-04B**

No Detections Were Found.



## Air Toxics

Client Sample ID: MOD BLD-NE-20190725

Lab ID#: 1907637B-01A

### MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	p080112a	Date of Collection:	7/25/19 2:54:00 PM	
Dil. Factor:	1.55	Date of Analysis:	8/1/19 06:17 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
C5-C6 Aliphatic Hydrocarbons (ref. to Pentane + Hexane)	16	Not Detected	50	Not Detected
>C6-C8 Aliphatic Hydrocarbons (ref. to Heptane)	16	Not Detected	64	Not Detected
>C8-C10 Aliphatic Hydrocarbons (ref. to Decane)	16	Not Detected	90	Not Detected
>C10-C12 Aliphatic Hydrocarbons (ref. to Dodecane)	16	Not Detected	110	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)



## Air Toxics

Client Sample ID: MOD BLD-NE-20190725

Lab ID#: 1907637B-01B

### MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	p080112c	Date of Collection:	7/25/19 2:54:00 PM	
Dil. Factor:	1.55	Date of Analysis:	8/1/19 06:17 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
>C8-C10 Aromatic Hydrocarbons	16	Not Detected	76	Not Detected
>C10-C12 Aromatic Hydrocarbons	16	Not Detected	85	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)



## Air Toxics

Client Sample ID: MOD BLD-SW1-20190725

Lab ID#: 1907637B-02A

### MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	p080113a	Date of Collection:	7/25/19 2:30:00 PM	
Dil. Factor:	1.58	Date of Analysis:	8/1/19 06:43 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
C5-C6 Aliphatic Hydrocarbons (ref. to Pentane + Hexane)	16	Not Detected	51	Not Detected
>C6-C8 Aliphatic Hydrocarbons (ref. to Heptane)	16	Not Detected	65	Not Detected
>C8-C10 Aliphatic Hydrocarbons (ref. to Decane)	16	Not Detected	92	Not Detected
>C10-C12 Aliphatic Hydrocarbons (ref. to Dodecane)	16	Not Detected	110	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)



## Air Toxics

Client Sample ID: MOD BLD-SW1-20190725

Lab ID#: 1907637B-02B

### MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	p080113c	Date of Collection:	7/25/19 2:30:00 PM	
Dil. Factor:	1.58	Date of Analysis:	8/1/19 06:43 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
>C8-C10 Aromatic Hydrocarbons	16	Not Detected	78	Not Detected
>C10-C12 Aromatic Hydrocarbons	16	Not Detected	87	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)



## Air Toxics

Client Sample ID: MOD BLD-SW2-20190725

Lab ID#: 1907637B-03A

### MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	p080114a	Date of Collection:	7/25/19 2:30:00 PM	
Dil. Factor:	1.55	Date of Analysis:	8/1/19 07:09 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
C5-C6 Aliphatic Hydrocarbons (ref. to Pentane + Hexane)	16	Not Detected	50	Not Detected
>C6-C8 Aliphatic Hydrocarbons (ref. to Heptane)	16	Not Detected	64	Not Detected
>C8-C10 Aliphatic Hydrocarbons (ref. to Decane)	16	Not Detected	90	Not Detected
>C10-C12 Aliphatic Hydrocarbons (ref. to Dodecane)	16	Not Detected	110	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)



## Air Toxics

Client Sample ID: MOD BLD-SW2-20190725

Lab ID#: 1907637B-03B

### MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	p080114c	Date of Collection:	7/25/19 2:30:00 PM	
Dil. Factor:	1.55	Date of Analysis:	8/1/19 07:09 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
>C8-C10 Aromatic Hydrocarbons	16	Not Detected	76	Not Detected
>C10-C12 Aromatic Hydrocarbons	16	Not Detected	85	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)



## Air Toxics

Client Sample ID: MOD BLD-AMB1-20190725

Lab ID#: 1907637B-04A

### MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	p080115a	Date of Collection:	7/25/19 3:08:00 PM	
Dil. Factor:	1.75	Date of Analysis:	8/1/19 07:36 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
C5-C6 Aliphatic Hydrocarbons (ref. to Pentane + Hexane)	18	Not Detected	57	Not Detected
>C6-C8 Aliphatic Hydrocarbons (ref. to Heptane)	18	Not Detected	72	Not Detected
>C8-C10 Aliphatic Hydrocarbons (ref. to Decane)	18	Not Detected	100	Not Detected
>C10-C12 Aliphatic Hydrocarbons (ref. to Dodecane)	18	Not Detected	120	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)



## Air Toxics

Client Sample ID: MOD BLD-AMB1-20190725

Lab ID#: 1907637B-04B

### MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	p080115c	Date of Collection:	7/25/19 3:08:00 PM	
Dil. Factor:	1.75	Date of Analysis:	8/1/19 07:36 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
>C8-C10 Aromatic Hydrocarbons	18	Not Detected	86	Not Detected
>C10-C12 Aromatic Hydrocarbons	18	Not Detected	96	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)



## Air Toxics

**Client Sample ID: Lab Blank**

**Lab ID#: 1907637B-05A**

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

<b>File Name:</b>	<b>p080111a</b>	<b>Date of Collection: NA</b>		
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 8/1/19 05:10 PM</b>		
<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
C5-C6 Aliphatic Hydrocarbons (ref. to Pentane + Hexane)	10	Not Detected	32	Not Detected
>C6-C8 Aliphatic Hydrocarbons (ref. to Heptane)	10	Not Detected	41	Not Detected
>C8-C10 Aliphatic Hydrocarbons (ref. to Decane)	10	Not Detected	58	Not Detected
>C10-C12 Aliphatic Hydrocarbons (ref. to Dodecane)	10	Not Detected	70	Not Detected

**Container Type: NA - Not Applicable**



## Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1907637B-05B

### MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	p080111c	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	8/1/19 05:10 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
>C8-C10 Aromatic Hydrocarbons	10	Not Detected	49	Not Detected
>C10-C12 Aromatic Hydrocarbons	10	Not Detected	55	Not Detected

Container Type: NA - Not Applicable



## Air Toxics

**Client Sample ID: CCV**

**Lab ID#: 1907637B-06A**

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

<b>File Name:</b>	<b>p080110a</b>	<b>Date of Collection:</b> NA
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis:</b> 8/1/19 04:42 PM

<b>Compound</b>	<b>%Recovery</b>
C5-C6 Aliphatic Hydrocarbons (ref. to Pentane + Hexane)	97
>C6-C8 Aliphatic Hydrocarbons (ref. to Heptane)	102
>C8-C10 Aliphatic Hydrocarbons (ref. to Decane)	103
>C10-C12 Aliphatic Hydrocarbons (ref. to Dodecane)	96

**Container Type: NA - Not Applicable**



## Air Toxics

**Client Sample ID: CCV**

**Lab ID#: 1907637B-06B**

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

<b>File Name:</b>	<b>p080110c</b>	<b>Date of Collection:</b> NA
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis:</b> 8/1/19 04:42 PM

<b>Compound</b>	<b>%Recovery</b>
>C8-C10 Aromatic Hydrocarbons	100
>C10-C12 Aromatic Hydrocarbons	98

**Container Type: NA - Not Applicable**



Air Toxics

## Analysis Request /Canister Chain of Custody

For Laboratory Use Only

Workorder #:

1907637

180 Blue Ravine Rd. Suite B, Folsom, CA 95630

Phone (800) 985-5955; Fax (916) 351-8279

page 1 of 1

Client: <u>Stericycle</u>		Special Instructions/Notes:				Turnaround Time (Rush surcharges may apply)				
Project Name: <u>Tacoma Med Building</u>						Standard _____		Rush _____ (specify)		
Project Manager: <u>Tasya Gray</u> Project #		Canister Vacuum/Pressure				Requested Analyses				
Sampler: <u>Trevor Louwiere</u>		Lab Use Only						AP4 by TD-15	VOCs by TD-15	Naphthalene by TD-15
Site Name: <u>Stericycle Tacoma</u>		Initial (in Hg)	Final (in Hg)	Receipt	Final (psig) Gas: N <sub>2</sub> / He					
Lab ID	Field Sample Identification(Location)	Can #	Flow Controller #	Start Sampling Information		Stop Sampling Information				
				Date	Time	Date	Time			
01A	MOD BLD - NE - 20190725	N17176L084	232227	7/25/19	0653	7/25/19	1454	30	-8	
02A	MOD BLD - SW1 - 20190725	6L1692	23175		0657		140250	32	-8.5	
03A	MOD BLD - SW2 - 20190725	6L0887	23143		0657		140230	27	-5	
04A	MOD BLD - AMB1-20190725	9251	23304		0708		1508	-28.25	-8	
Relinquished by: (Signature/Affiliation)				Date <u>7/25/19</u>	Time <u>1555</u>	Received by: (Signature/Affiliation)		Date	Time	
						<u>FEDEX</u>				
Relinquished by: (Signature/Affiliation)				Date	Time	Received by: (Signature/Affiliation)		Date <u>7/29/19</u>	Time <u>1439</u>	
						<u>SATC</u>				
Lab Use Only										
Shipper Name: <u>DeLoS</u>		Custody Seals Intact?		Yes	No	None				
<b>Sample Transportation Notice:</b> Relinquishing signature on this document indicates that samples are shipped in compliance with all applicable local, State, Federal, and international laws, regulations, and ordinances of any kind. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Eurofins Air Toxics against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T Hotline (800) 467-4922										

2/25/2020  
Mr. Duane Beery  
Stericycle Environmental Solutions, Inc.  
18000 72nd Ave. S  
Suite 217  
Kent WA 98032

Project Name: Tacoma MOD Building  
Project #:  
Workorder #: 2001467AR1

Dear Mr. Duane Beery

The following report includes the data for the above referenced project for sample(s) received on 1/21/2020 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: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Kelly Buettner  
Project Manager

**WORK ORDER #: 2001467AR1**

## Work Order Summary

<b>CLIENT:</b>	Mr. Duane Beery Stericycle Environmental Solutions, Inc. 18000 72nd Ave. S Suite 217 Kent, WA 98032	<b>BILL TO:</b>	Mr. Duane Beery Stericycle Environmental Solutions, Inc. 18000 72nd Ave. S Suite 217 Kent, WA 98032
<b>PHONE:</b>	425-227-6128	<b>P.O. #</b>	
<b>FAX:</b>		<b>PROJECT #</b>	Tacoma MOD Building
<b>DATE RECEIVED:</b>	01/21/2020	<b>CONTACT:</b>	Kelly Buettner
<b>DATE COMPLETED:</b>	02/03/2020		
<b>DATE REISSUED:</b>	02/25/2020		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	MOD BLD-NE-20200120	Modified TO-15	4.9 "Hg	5 psi
01B	MOD BLD-NE-20200120	Modified TO-15	4.9 "Hg	5 psi
02A	MOD BLD-SW1-20200120	Modified TO-15	5.5 "Hg	5.2 psi
02B	MOD BLD-SW1-20200120	Modified TO-15	5.5 "Hg	5.2 psi
03A	MOD BLD-SW2-20200120	Modified TO-15	5.1 "Hg	5.1 psi
03B	MOD BLD-SW2-20200120	Modified TO-15	5.1 "Hg	5.1 psi
04A	MOD BLD-AMB1-20200120	Modified TO-15	5.1 "Hg	5.2 psi
04B	MOD BLD-AMB1-20200120	Modified TO-15	5.1 "Hg	5.2 psi
05A	Lab Blank	Modified TO-15	NA	NA
05B	Lab Blank	Modified TO-15	NA	NA
05C	Lab Blank	Modified TO-15	NA	NA
05D	Lab Blank	Modified TO-15	NA	NA
06A	CCV	Modified TO-15	NA	NA
06B	CCV	Modified TO-15	NA	NA
06C	CCV	Modified TO-15	NA	NA
06D	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
07C	LCS	Modified TO-15	NA	NA
07CC	LCSD	Modified TO-15	NA	NA
07D	LCS	Modified TO-15	NA	NA

Continued on next page

**WORK ORDER #:** 2001467AR1

## Work Order Summary

**CLIENT:** Mr. Duane Beery  
Stericycle Environmental Solutions, Inc.  
18000 72nd Ave. S  
Suite 217  
Kent, WA 98032

**BILL TO:** Mr. Duane Beery  
Stericycle Environmental Solutions, Inc.  
18000 72nd Ave. S  
Suite 217  
Kent, WA 98032

**PHONE:** 425-227-6128

**P.O. #**

**FAX:**

**PROJECT #** Tacoma MOD Building

**DATE RECEIVED:** 01/21/2020

**CONTACT:** Kelly Buettner

**DATE COMPLETED:** 02/03/2020

**DATE REISSUED:** 02/25/2020

<b>FRACTION #</b>	<b>NAME</b>	<b>TEST</b>	<b>RECEIPT</b>	<b>FINAL</b>
			<b>VAC./PRES.</b>	<b>PRESSURE</b>
07DD	LCSD	Modified TO-15	NA	NA

CERTIFIED BY:



DATE: 02/25/20

Technical Director

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP - 209218, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-18-13, UT NELAP – CA009332019-11, VA NELAP - 460197, WA NELAP - C935

Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)

Accreditation number: CA300005-011, Effective date: 10/18/2019, Expiration date: 10/17/2020.

Eurofins Air Toxics, LLC certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, LLC.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630  
(916) 985-1000 . (800) 985-5955 . FAX (916) 351-8279

**LABORATORY NARRATIVE  
Modified TO-15 Full Scan/SIM  
Stericycle Environmental Solutions, Inc.  
Workorder# 2001467AR1**

Four 6 Liter Summa Canister (SIM Certified) samples were received on January 21, 2020. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the Full Scan and SIM acquisition modes. The method involves concentrating up to 1.0 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

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

<b><i>Requirement</i></b>	<b><i>TO-15</i></b>	<b><i>ATL Modifications</i></b>
ICAL %RSD acceptance criteria	</=30% RSD with 2 compounds allowed out to < 40% RSD	For Full Scan: 30% RSD with 4 compounds allowed out to < 40% RSD  For SIM: Project specific; default criteria is </=30% RSD with 10% of compounds allowed out to < 40% RSD
Daily Calibration	+ 30% Difference	For Full Scan: </= 30% Difference with four allowed out up to </=40%; flag and narrate outliers  For SIM: Project specific; default criteria is </= 30% Difference with 10% of compounds allowed out up to </=40%; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

### **Receiving Notes**

There were no receiving discrepancies.

### **Analytical Notes**

The results for each sample in this report were acquired from two separate data files originating from the same analytical run. The two data files have the same base file name and are differentiated with a "sim" extension on the SIM data file.

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 Relative Percent Difference (RPD) of the LCS/LCSD exceeded acceptance limits for Naphthalene

(analytical batch from 1/30/20).

The recovery of surrogate, 1,2-Dichloroethane-d4, in the Lab Blank analyzed on 1/31/20 was outside laboratory control limits of 70-130%. CAR # K23G53682A was initiated.

Per client request, the workorder was reissued on 2/25/2020 to report estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. Concentrations that are below the level at which the canister was certified may be false positives.

In addition, in this revision, the data is reported using a different format.

#### **Definition of Data Qualifying Flags**

Nine 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.

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

N - The identification is based on presumptive evidence.

CN - See case narrative explanation

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



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	MOD BLD-NE-20200120	<b>Date/Time Analyzed:</b>	1/31/20 05:38 PM
<b>Lab ID:</b>	2001467AR1-01A	<b>Dilution Factor:</b>	1.60
<b>Date/Time Collected:</b>	1/20/20 03:45 PM	<b>Instrument/Filename:</b>	msdv.i / v013112R1
<b>Media:</b>	6 Liter Summa Canister (SIM Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2,4-Trichlorobenzene	120-82-1	2.2	4.7	5.9	Not Detected
1,2,4-Trimethylbenzene	95-63-6	0.17	0.63	0.79	0.91
1,2-Dichlorobenzene	95-50-1	0.18	0.77	0.96	Not Detected
1,2-Dichloropropane	78-87-5	0.18	0.59	0.74	Not Detected
1,3,5-Trimethylbenzene	108-67-8	0.16	0.63	0.79	0.56 J
1,3-Butadiene	106-99-0	0.076	0.28	0.35	0.30 J
1,3-Dichlorobenzene	541-73-1	0.33	0.77	0.96	Not Detected
1,4-Dioxane	123-91-1	0.31	0.46	0.58	Not Detected
2,2,4-Trimethylpentane	540-84-1	0.65	3.0	3.7	2.6 J
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.48	1.9	2.4	18
2-Hexanone	591-78-6	0.83	2.6	3.3	Not Detected
2-Propanol	67-63-0	0.22	1.6	2.0	11
3-Chloropropene	107-05-1	0.91	2.0	2.5	Not Detected
4-Ethyltoluene	622-96-8	0.18	0.63	0.79	1.5
4-Methyl-2-pentanone	108-10-1	0.16	0.52	0.66	1.2 J0
Acetone	67-64-1	0.64	1.5	3.8	45
alpha-Chlorotoluene	100-44-7	0.16	0.66	0.83	Not Detected
Bromodichloromethane	75-27-4	0.39	0.86	1.1	Not Detected
Bromoform	75-25-2	0.39	1.3	1.6	Not Detected
Bromomethane	74-83-9	0.54	2.5	3.1	Not Detected
Carbon Disulfide	75-15-0	0.43	2.0	2.5	0.73 J
Chlorobenzene	108-90-7	0.19	0.59	0.74	Not Detected
cis-1,3-Dichloropropene	10061-01-5	0.14	0.58	0.73	Not Detected
Cumene	98-82-8	0.12	0.63	0.79	Not Detected



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	MOD BLD-NE-20200120	<b>Date/Time Analyzed:</b>	1/31/20 05:38 PM
<b>Lab ID:</b>	2001467AR1-01A	<b>Dilution Factor:</b>	1.60
<b>Date/Time Collected:</b>	1/20/20 03:45 PM	<b>Instrument/Filename:</b>	msdv.i / v013112R1
<b>Media:</b>	6 Liter Summa Canister (SIM Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cyclohexane	110-82-7	0.15	0.44	0.55	3.5
Dibromochloromethane	124-48-1	0.41	1.1	1.4	Not Detected
Ethanol	64-17-5	0.31	1.2	1.5	29
Freon 11	75-69-4	0.18	0.72	0.90	2.5
Freon 113	76-13-1	0.24	0.98	1.2	0.47 J
Heptane	142-82-5	0.22	2.6	3.3	2.6 J
Hexachlorobutadiene	87-68-3	2.9	6.8	8.5	Not Detected
Hexane	110-54-3	0.32	2.2	2.8	25
Methylene Chloride	75-09-2	0.16	0.44	1.1	4.0
Propylbenzene	103-65-1	0.20	0.63	0.79	0.30 J
Styrene	100-42-5	0.073	0.54	0.68	5.6
Tetrahydrofuran	109-99-9	0.94	1.9	2.4	1.4 J
trans-1,3-Dichloropropene	10061-02-6	0.17	0.58	0.73	Not Detected

J = Estimated value.

J0 = Estimated value due to bias in the CCV.

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	122
4-Bromofluorobenzene	460-00-4	70-130	89
Toluene-d8	2037-26-5	70-130	103



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	MOD BLD-NE-20200120	<b>Date/Time Analyzed:</b>	1/31/20 05:38 PM
<b>Lab ID:</b>	2001467AR1-01B	<b>Dilution Factor:</b>	1.60
<b>Date/Time Collected:</b>	1/20/20 03:45 PM	<b>Instrument/Filename:</b>	msdv.i / v013112simR1
<b>Media:</b>	6 Liter Summa Canister (SIM Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.052	0.16	0.17	Not Detected
1,1,2,2-Tetrachloroethane	79-34-5	0.073	0.20	0.22	Not Detected
1,1,2-Trichloroethane	79-00-5	0.053	0.16	0.17	Not Detected
1,1-Dichloroethane	75-34-3	0.043	0.12	0.13	Not Detected
1,1-Dichloroethene	75-35-4	0.051	0.057	0.063	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.039	0.22	0.24	Not Detected
1,2-Dichloroethane	107-06-2	0.024	0.12	0.13	0.19
1,4-Dichlorobenzene	106-46-7	0.11	0.17	0.19	Not Detected
Benzene	71-43-2	0.15	0.15	0.26	1.8
Carbon Tetrachloride	56-23-5	0.094	0.18	0.20	0.43
Chloroethane	75-00-3	0.031	0.13	0.21	0.034 J
Chloroform	67-66-3	0.044	0.14	0.16	1.1
Chloromethane	74-87-3	0.040	0.099	1.6	1.2 J
cis-1,2-Dichloroethene	156-59-2	0.045	0.11	0.13	Not Detected
Ethyl Benzene	100-41-4	0.092	0.12	0.14	1.2
Freon 114	76-14-2	0.066	0.20	0.22	0.10 J
Freon 12	75-71-8	0.040	0.14	0.16	2.3
m,p-Xylene	108-38-3	0.16	0.21	0.28	4.3
Methyl tert-butyl ether	1634-04-4	0.050	0.17	0.58	0.11 J
Naphthalene	91-20-3	0.071	0.34	0.42	Not Detected
o-Xylene	95-47-6	0.031	0.12	0.14	1.5
Tetrachloroethene	127-18-4	0.041	0.20	0.22	0.64
Toluene	108-88-3	0.092	0.18	0.30	13
trans-1,2-Dichloroethene	156-60-5	0.048	0.19	0.63	0.21 J



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	MOD BLD-NE-20200120	<b>Date/Time Analyzed:</b>	1/31/20 05:38 PM
<b>Lab ID:</b>	2001467AR1-01B	<b>Dilution Factor:</b>	1.60
<b>Date/Time Collected:</b>	1/20/20 03:45 PM	<b>Instrument/Filename:</b>	msdv.i / v013112simR1
<b>Media:</b>	6 Liter Summa Canister (SIM Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	79-01-6	0.12	0.15	0.17	Not Detected
Vinyl Chloride	75-01-4	0.031	0.037	0.041	Not Detected

J = Estimated value.

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	120
4-Bromofluorobenzene	460-00-4	70-130	90
Toluene-d8	2037-26-5	70-130	104



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	MOD BLD-SW1-20200120	<b>Date/Time Analyzed:</b>	1/31/20 02:52 PM
<b>Lab ID:</b>	2001467AR1-02A	<b>Dilution Factor:</b>	1.66
<b>Date/Time Collected:</b>	1/20/20 03:21 PM	<b>Instrument/Filename:</b>	msdv.i / v013108R1
<b>Media:</b>	6 Liter Summa Canister (SIM Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2,4-Trichlorobenzene	120-82-1	2.2	4.9	6.2	Not Detected
1,2,4-Trimethylbenzene	95-63-6	0.18	0.65	0.82	1.4
1,2-Dichlorobenzene	95-50-1	0.18	0.80	1.0	Not Detected
1,2-Dichloropropane	78-87-5	0.18	0.61	0.77	Not Detected
1,3,5-Trimethylbenzene	108-67-8	0.16	0.65	0.82	0.71 J
1,3-Butadiene	106-99-0	0.079	0.29	0.37	0.39
1,3-Dichlorobenzene	541-73-1	0.34	0.80	1.0	Not Detected
1,4-Dioxane	123-91-1	0.32	0.48	0.60	Not Detected
2,2,4-Trimethylpentane	540-84-1	0.67	3.1	3.9	2.0 J
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.50	2.0	2.4	9.1
2-Hexanone	591-78-6	0.86	2.7	3.4	Not Detected
2-Propanol	67-63-0	0.23	1.6	2.0	11
3-Chloropropene	107-05-1	0.95	2.1	2.6	Not Detected
4-Ethyltoluene	622-96-8	0.19	0.65	0.82	1.7
4-Methyl-2-pentanone	108-10-1	0.17	0.54	0.68	1.2 J0
Acetone	67-64-1	0.66	1.6	3.9	38
alpha-Chlorotoluene	100-44-7	0.17	0.69	0.86	Not Detected
Bromodichloromethane	75-27-4	0.40	0.89	1.1	Not Detected
Bromoform	75-25-2	0.40	1.4	1.7	Not Detected
Bromomethane	74-83-9	0.56	2.6	3.2	Not Detected
Carbon Disulfide	75-15-0	0.45	2.1	2.6	0.59 J
Chlorobenzene	108-90-7	0.20	0.61	0.76	Not Detected
cis-1,3-Dichloropropene	10061-01-5	0.15	0.60	0.75	Not Detected
Cumene	98-82-8	0.13	0.65	0.82	Not Detected



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	MOD BLD-SW1-20200120	<b>Date/Time Analyzed:</b>	1/31/20 02:52 PM
<b>Lab ID:</b>	2001467AR1-02A	<b>Dilution Factor:</b>	1.66
<b>Date/Time Collected:</b>	1/20/20 03:21 PM	<b>Instrument/Filename:</b>	msdv.i / v013108R1
<b>Media:</b>	6 Liter Summa Canister (SIM Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cyclohexane	110-82-7	0.15	0.46	0.57	3.3
Dibromochloromethane	124-48-1	0.43	1.1	1.4	Not Detected
Ethanol	64-17-5	0.32	1.2	1.6	22
Freon 11	75-69-4	0.19	0.75	0.93	3.0
Freon 113	76-13-1	0.25	1.0	1.3	0.48 J
Heptane	142-82-5	0.23	2.7	3.4	2.6 J
Hexachlorobutadiene	87-68-3	3.0	7.1	8.8	Not Detected
Hexane	110-54-3	0.33	2.3	2.9	30
Methylene Chloride	75-09-2	0.17	0.46	1.2	3.7
Propylbenzene	103-65-1	0.21	0.65	0.82	0.48 J
Styrene	100-42-5	0.076	0.56	0.71	3.0
Tetrahydrofuran	109-99-9	0.97	2.0	2.4	1.9 J
trans-1,3-Dichloropropene	10061-02-6	0.18	0.60	0.75	Not Detected

J = Estimated value.

J0 = Estimated value due to bias in the CCV.

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	125
4-Bromofluorobenzene	460-00-4	70-130	92
Toluene-d8	2037-26-5	70-130	107



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	MOD BLD-SW1-20200120	<b>Date/Time Analyzed:</b>	1/31/20 02:52 PM
<b>Lab ID:</b>	2001467AR1-02B	<b>Dilution Factor:</b>	1.66
<b>Date/Time Collected:</b>	1/20/20 03:21 PM	<b>Instrument/Filename:</b>	msdv.i / v013108simR1
<b>Media:</b>	6 Liter Summa Canister (SIM Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.054	0.16	0.18	Not Detected
1,1,2,2-Tetrachloroethane	79-34-5	0.075	0.20	0.23	Not Detected
1,1,2-Trichloroethane	79-00-5	0.055	0.16	0.18	Not Detected
1,1-Dichloroethane	75-34-3	0.045	0.12	0.13	Not Detected
1,1-Dichloroethene	75-35-4	0.053	0.059	0.066	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.040	0.23	0.26	Not Detected
1,2-Dichloroethane	107-06-2	0.024	0.12	0.13	0.23
1,4-Dichlorobenzene	106-46-7	0.11	0.18	0.20	Not Detected
Benzene	71-43-2	0.16	0.16	0.26	2.0
Carbon Tetrachloride	56-23-5	0.097	0.19	0.21	0.45
Chloroethane	75-00-3	0.032	0.13	0.22	Not Detected
Chloroform	67-66-3	0.046	0.14	0.16	1.1
Chloromethane	74-87-3	0.041	0.10	1.7	1.2 J
cis-1,2-Dichloroethene	156-59-2	0.046	0.12	0.13	Not Detected
Ethyl Benzene	100-41-4	0.095	0.13	0.14	1.2
Freon 114	76-14-2	0.068	0.21	0.23	0.10 J
Freon 12	75-71-8	0.042	0.15	0.16	2.4
m,p-Xylene	108-38-3	0.17	0.22	0.29	4.4
Methyl tert-butyl ether	1634-04-4	0.052	0.18	0.60	0.11 J
Naphthalene	91-20-3	0.074	0.35	0.44	0.16 J
o-Xylene	95-47-6	0.032	0.13	0.14	1.7
Tetrachloroethene	127-18-4	0.043	0.20	0.22	0.30
Toluene	108-88-3	0.095	0.19	0.31	14
trans-1,2-Dichloroethene	156-60-5	0.050	0.20	0.66	0.19 J



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	MOD BLD-SW1-20200120	<b>Date/Time Analyzed:</b>	1/31/20 02:52 PM
<b>Lab ID:</b>	2001467AR1-02B	<b>Dilution Factor:</b>	1.66
<b>Date/Time Collected:</b>	1/20/20 03:21 PM	<b>Instrument/Filename:</b>	msdv.i / v013108simR1
<b>Media:</b>	6 Liter Summa Canister (SIM Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	79-01-6	0.12	0.16	0.18	Not Detected
Vinyl Chloride	75-01-4	0.032	0.038	0.042	Not Detected

J = Estimated value.

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	120
4-Bromofluorobenzene	460-00-4	70-130	90
Toluene-d8	2037-26-5	70-130	105



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	MOD BLD-SW2-20200120	<b>Date/Time Analyzed:</b>	1/31/20 06:24 AM
<b>Lab ID:</b>	2001467AR1-03A	<b>Dilution Factor:</b>	1.62
<b>Date/Time Collected:</b>	1/20/20 03:21 PM	<b>Instrument/Filename:</b>	msdv.i / v013025R1
<b>Media:</b>	6 Liter Summa Canister (SIM Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2,4-Trichlorobenzene	120-82-1	2.2	4.8	6.0	Not Detected
1,2,4-Trimethylbenzene	95-63-6	0.17	0.64	0.80	1.4
1,2-Dichlorobenzene	95-50-1	0.18	0.78	0.97	Not Detected
1,2-Dichloropropane	78-87-5	0.18	0.60	0.75	Not Detected
1,3,5-Trimethylbenzene	108-67-8	0.16	0.64	0.80	0.74 J
1,3-Butadiene	106-99-0	0.077	0.29	0.36	0.40
1,3-Dichlorobenzene	541-73-1	0.33	0.78	0.97	Not Detected
1,4-Dioxane	123-91-1	0.31	0.47	0.58	Not Detected
2,2,4-Trimethylpentane	540-84-1	0.66	3.0	3.8	2.0 J
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.49	1.9	2.4	8.8
2-Hexanone	591-78-6	0.84	2.6	3.3	Not Detected
2-Propanol	67-63-0	0.22	1.6	2.0	11
3-Chloropropene	107-05-1	0.92	2.0	2.5	Not Detected
4-Ethyltoluene	622-96-8	0.18	0.64	0.80	1.6
4-Methyl-2-pentanone	108-10-1	0.16	0.53	0.66	1.2 J0
Acetone	67-64-1	0.65	1.5	3.8	35
alpha-Chlorotoluene	100-44-7	0.16	0.67	0.84	Not Detected
Bromodichloromethane	75-27-4	0.39	0.87	1.1	Not Detected
Bromoform	75-25-2	0.39	1.3	1.7	Not Detected
Bromomethane	74-83-9	0.55	2.5	3.1	Not Detected
Carbon Disulfide	75-15-0	0.44	2.0	2.5	0.59 J
Chlorobenzene	108-90-7	0.19	0.60	0.74	Not Detected
cis-1,3-Dichloropropene	10061-01-5	0.15	0.59	0.74	Not Detected
Cumene	98-82-8	0.12	0.64	0.80	Not Detected



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	MOD BLD-SW2-20200120	<b>Date/Time Analyzed:</b>	1/31/20 06:24 AM
<b>Lab ID:</b>	2001467AR1-03A	<b>Dilution Factor:</b>	1.62
<b>Date/Time Collected:</b>	1/20/20 03:21 PM	<b>Instrument/Filename:</b>	msdv.i / v013025R1
<b>Media:</b>	6 Liter Summa Canister (SIM Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cyclohexane	110-82-7	0.15	0.45	0.56	3.4
Dibromochloromethane	124-48-1	0.42	1.1	1.4	Not Detected
Ethanol	64-17-5	0.32	1.2	1.5	21
Freon 11	75-69-4	0.19	0.73	0.91	3.0
Freon 113	76-13-1	0.24	0.99	1.2	0.47 J
Heptane	142-82-5	0.22	2.6	3.3	2.5 J
Hexachlorobutadiene	87-68-3	2.9	6.9	8.6	Not Detected
Hexane	110-54-3	0.32	2.3	2.8	22
Methylene Chloride	75-09-2	0.16	0.45	1.1	3.4
Propylbenzene	103-65-1	0.20	0.64	0.80	0.39 J
Styrene	100-42-5	0.074	0.55	0.69	3.0
Tetrahydrofuran	109-99-9	0.95	1.9	2.4	1.8 J
trans-1,3-Dichloropropene	10061-02-6	0.18	0.59	0.74	Not Detected

J = Estimated value.

J0 = Estimated value due to bias in the CCV.

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	120
4-Bromofluorobenzene	460-00-4	70-130	93
Toluene-d8	2037-26-5	70-130	104



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	MOD BLD-SW2-20200120	<b>Date/Time Analyzed:</b>	1/31/20 06:24 AM
<b>Lab ID:</b>	2001467AR1-03B	<b>Dilution Factor:</b>	1.62
<b>Date/Time Collected:</b>	1/20/20 03:21 PM	<b>Instrument/Filename:</b>	msdv.i / v013025simR1
<b>Media:</b>	6 Liter Summa Canister (SIM Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.053	0.16	0.18	Not Detected
1,1,2,2-Tetrachloroethane	79-34-5	0.074	0.20	0.22	Not Detected
1,1,2-Trichloroethane	79-00-5	0.054	0.16	0.18	Not Detected
1,1-Dichloroethane	75-34-3	0.044	0.12	0.13	Not Detected
1,1-Dichloroethene	75-35-4	0.051	0.058	0.064	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.039	0.22	0.25	Not Detected
1,2-Dichloroethane	107-06-2	0.024	0.12	0.13	0.20
1,4-Dichlorobenzene	106-46-7	0.11	0.18	0.19	Not Detected
Benzene	71-43-2	0.15	0.16	0.26	2.0
Carbon Tetrachloride	56-23-5	0.095	0.18	0.20	0.45
Chloroethane	75-00-3	0.032	0.13	0.21	Not Detected
Chloroform	67-66-3	0.045	0.14	0.16	1.1
Chloromethane	74-87-3	0.040	0.10	1.7	1.1 J
cis-1,2-Dichloroethene	156-59-2	0.045	0.12	0.13	Not Detected
Ethyl Benzene	100-41-4	0.093	0.13	0.14	1.2
Freon 114	76-14-2	0.067	0.20	0.23	0.11 J
Freon 12	75-71-8	0.041	0.14	0.16	2.4
m,p-Xylene	108-38-3	0.16	0.21	0.28	4.4
Methyl tert-butyl ether	1634-04-4	0.051	0.18	0.58	0.11 J
Naphthalene	91-20-3	0.072	0.34	0.42	0.23 J
o-Xylene	95-47-6	0.032	0.13	0.14	1.7
Tetrachloroethene	127-18-4	0.042	0.20	0.22	0.31
Toluene	108-88-3	0.093	0.18	0.30	14
trans-1,2-Dichloroethene	156-60-5	0.049	0.19	0.64	0.20 J



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	MOD BLD-SW2-20200120	<b>Date/Time Analyzed:</b>	1/31/20 06:24 AM
<b>Lab ID:</b>	2001467AR1-03B	<b>Dilution Factor:</b>	1.62
<b>Date/Time Collected:</b>	1/20/20 03:21 PM	<b>Instrument/Filename:</b>	msdv.i / v013025simR1
<b>Media:</b>	6 Liter Summa Canister (SIM Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	79-01-6	0.12	0.16	0.17	Not Detected
Vinyl Chloride	75-01-4	0.032	0.037	0.041	Not Detected

J = Estimated value.

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	120
4-Bromofluorobenzene	460-00-4	70-130	91
Toluene-d8	2037-26-5	70-130	105



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	MOD BLD-AMB1-20200120	<b>Date/Time Analyzed:</b>	1/31/20 05:43 AM
<b>Lab ID:</b>	2001467AR1-04A	<b>Dilution Factor:</b>	1.63
<b>Date/Time Collected:</b>	1/20/20 04:03 PM	<b>Instrument/Filename:</b>	msdv.i / v013024R1
<b>Media:</b>	6 Liter Summa Canister (SIM Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2,4-Trichlorobenzene	120-82-1	2.2	4.8	6.0	Not Detected
1,2,4-Trimethylbenzene	95-63-6	0.17	0.64	0.80	0.91
1,2-Dichlorobenzene	95-50-1	0.18	0.78	0.98	Not Detected
1,2-Dichloropropane	78-87-5	0.18	0.60	0.75	Not Detected
1,3,5-Trimethylbenzene	108-67-8	0.16	0.64	0.80	0.34 J
1,3-Butadiene	106-99-0	0.078	0.29	0.36	0.32 J
1,3-Dichlorobenzene	541-73-1	0.34	0.78	0.98	Not Detected
1,4-Dioxane	123-91-1	0.31	0.47	0.59	Not Detected
2,2,4-Trimethylpentane	540-84-1	0.66	3.0	3.8	1.5 J
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.49	1.9	2.4	9.5
2-Hexanone	591-78-6	0.84	2.7	3.3	Not Detected
2-Propanol	67-63-0	0.22	1.6	2.0	4.8
3-Chloropropene	107-05-1	0.93	2.0	2.6	Not Detected
4-Ethyltoluene	622-96-8	0.19	0.64	0.80	1.0
4-Methyl-2-pentanone	108-10-1	0.16	0.53	0.67	0.68 J0
Acetone	67-64-1	0.65	1.5	3.9	18
alpha-Chlorotoluene	100-44-7	0.17	0.68	0.84	Not Detected
Bromodichloromethane	75-27-4	0.40	0.87	1.1	Not Detected
Bromoform	75-25-2	0.40	1.3	1.7	Not Detected
Bromomethane	74-83-9	0.55	2.5	3.2	Not Detected
Carbon Disulfide	75-15-0	0.44	2.0	2.5	1.9 J
Chlorobenzene	108-90-7	0.20	0.60	0.75	Not Detected
cis-1,3-Dichloropropene	10061-01-5	0.15	0.59	0.74	Not Detected
Cumene	98-82-8	0.12	0.64	0.80	Not Detected



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	MOD BLD-AMB1-20200120	<b>Date/Time Analyzed:</b>	1/31/20 05:43 AM
<b>Lab ID:</b>	2001467AR1-04A	<b>Dilution Factor:</b>	1.63
<b>Date/Time Collected:</b>	1/20/20 04:03 PM	<b>Instrument/Filename:</b>	msdv.i / v013024R1
<b>Media:</b>	6 Liter Summa Canister (SIM Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cyclohexane	110-82-7	0.15	0.45	0.56	2.6
Dibromochloromethane	124-48-1	0.42	1.1	1.4	Not Detected
Ethanol	64-17-5	0.32	1.2	1.5	4.6
Freon 11	75-69-4	0.19	0.73	0.92	2.3
Freon 113	76-13-1	0.25	1.0	1.2	0.49 J
Heptane	142-82-5	0.23	2.7	3.3	1.9 J
Hexachlorobutadiene	87-68-3	3.0	7.0	8.7	Not Detected
Hexane	110-54-3	0.32	2.3	2.9	18
Methylene Chloride	75-09-2	0.16	0.45	1.1	2.2
Propylbenzene	103-65-1	0.20	0.64	0.80	0.29 J
Styrene	100-42-5	0.075	0.56	0.69	3.7
Tetrahydrofuran	109-99-9	0.96	1.9	2.4	6.2
trans-1,3-Dichloropropene	10061-02-6	0.18	0.59	0.74	Not Detected

J = Estimated value.

J0 = Estimated value due to bias in the CCV.

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	125
4-Bromofluorobenzene	460-00-4	70-130	92
Toluene-d8	2037-26-5	70-130	103



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	MOD BLD-AMB1-20200120	<b>Date/Time Analyzed:</b>	1/31/20 05:43 AM
<b>Lab ID:</b>	2001467AR1-04B	<b>Dilution Factor:</b>	1.63
<b>Date/Time Collected:</b>	1/20/20 04:03 PM	<b>Instrument/Filename:</b>	msdv.i / v013024simR1
<b>Media:</b>	6 Liter Summa Canister (SIM Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.053	0.16	0.18	Not Detected
1,1,2,2-Tetrachloroethane	79-34-5	0.074	0.20	0.22	Not Detected
1,1,2-Trichloroethane	79-00-5	0.054	0.16	0.18	Not Detected
1,1-Dichloroethane	75-34-3	0.044	0.12	0.13	Not Detected
1,1-Dichloroethene	75-35-4	0.052	0.058	0.065	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.039	0.22	0.25	Not Detected
1,2-Dichloroethane	107-06-2	0.024	0.12	0.13	0.17
1,4-Dichlorobenzene	106-46-7	0.11	0.18	0.20	Not Detected
Benzene	71-43-2	0.15	0.16	0.26	1.4
Carbon Tetrachloride	56-23-5	0.095	0.18	0.20	0.44
Chloroethane	75-00-3	0.032	0.13	0.22	Not Detected
Chloroform	67-66-3	0.045	0.14	0.16	0.33
Chloromethane	74-87-3	0.040	0.10	1.7	1.0 J
cis-1,2-Dichloroethene	156-59-2	0.045	0.12	0.13	Not Detected
Ethyl Benzene	100-41-4	0.093	0.13	0.14	0.75
Freon 114	76-14-2	0.067	0.20	0.23	0.11 J
Freon 12	75-71-8	0.041	0.14	0.16	2.3
m,p-Xylene	108-38-3	0.17	0.21	0.28	2.7
Methyl tert-butyl ether	1634-04-4	0.051	0.18	0.59	0.085 J
Naphthalene	91-20-3	0.072	0.34	0.43	0.16 J
o-Xylene	95-47-6	0.032	0.13	0.14	1.0
Tetrachloroethene	127-18-4	0.042	0.20	0.22	0.20 J
Toluene	108-88-3	0.093	0.18	0.31	6.1
trans-1,2-Dichloroethene	156-60-5	0.049	0.19	0.65	0.12 J



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	MOD BLD-AMB1-20200120	<b>Date/Time Analyzed:</b>	1/31/20 05:43 AM
<b>Lab ID:</b>	2001467AR1-04B	<b>Dilution Factor:</b>	1.63
<b>Date/Time Collected:</b>	1/20/20 04:03 PM	<b>Instrument/Filename:</b>	msdv.i / v013024simR1
<b>Media:</b>	6 Liter Summa Canister (SIM Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	79-01-6	0.12	0.16	0.18	Not Detected
Vinyl Chloride	75-01-4	0.032	0.038	0.042	Not Detected

J = Estimated value.

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	119
4-Bromofluorobenzene	460-00-4	70-130	92
Toluene-d8	2037-26-5	70-130	104



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	Lab Blank	<b>Date/Time Analyzed:</b>	1/30/20 12:09 PM
<b>Lab ID:</b>	2001467AR1-05A	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdv.i / v013006R1
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2,4-Trichlorobenzene	120-82-1	1.3	3.0	3.7	Not Detected
1,2,4-Trimethylbenzene	95-63-6	0.11	0.39	0.49	Not Detected
1,2-Dichlorobenzene	95-50-1	0.11	0.48	0.60	Not Detected
1,2-Dichloropropane	78-87-5	0.11	0.37	0.46	Not Detected
1,3,5-Trimethylbenzene	108-67-8	0.098	0.39	0.49	Not Detected
1,3-Butadiene	106-99-0	0.048	0.18	0.22	Not Detected
1,3-Dichlorobenzene	541-73-1	0.21	0.48	0.60	Not Detected
1,4-Dioxane	123-91-1	0.19	0.29	0.36	Not Detected
2,2,4-Trimethylpentane	540-84-1	0.41	1.9	2.3	Not Detected
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.30	1.2	1.5	Not Detected
2-Hexanone	591-78-6	0.52	1.6	2.0	Not Detected
2-Propanol	67-63-0	0.14	0.98	1.2	Not Detected
3-Chloropropene	107-05-1	0.57	1.2	1.6	Not Detected
4-Ethyltoluene	622-96-8	0.11	0.39	0.49	Not Detected
4-Methyl-2-pentanone	108-10-1	0.10	0.33	0.41	Not Detected
Acetone	67-64-1	0.40	0.95	2.4	Not Detected
alpha-Chlorotoluene	100-44-7	0.10	0.41	0.52	Not Detected
Bromodichloromethane	75-27-4	0.24	0.54	0.67	Not Detected
Bromoform	75-25-2	0.24	0.83	1.0	Not Detected
Bromomethane	74-83-9	0.34	1.6	1.9	Not Detected
Carbon Disulfide	75-15-0	0.27	1.2	1.6	Not Detected
Chlorobenzene	108-90-7	0.12	0.37	0.46	Not Detected
cis-1,3-Dichloropropene	10061-01-5	0.091	0.36	0.45	Not Detected
Cumene	98-82-8	0.076	0.39	0.49	Not Detected



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	Lab Blank	<b>Date/Time Analyzed:</b>	1/30/20 12:09 PM
<b>Lab ID:</b>	2001467AR1-05A	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdv.i / v013006R1
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cyclohexane	110-82-7	0.093	0.28	0.34	Not Detected
Dibromochloromethane	124-48-1	0.26	0.68	0.85	Not Detected
Ethanol	64-17-5	0.20	0.75	0.94	Not Detected
Freon 11	75-69-4	0.12	0.45	0.56	Not Detected
Freon 113	76-13-1	0.15	0.61	0.77	Not Detected
Heptane	142-82-5	0.14	1.6	2.0	Not Detected
Hexachlorobutadiene	87-68-3	1.8	4.3	5.3	Not Detected
Hexane	110-54-3	0.20	1.4	1.8	Not Detected
Methylene Chloride	75-09-2	0.10	0.28	0.69	Not Detected
Propylbenzene	103-65-1	0.12	0.39	0.49	Not Detected
Styrene	100-42-5	0.046	0.34	0.42	Not Detected
Tetrahydrofuran	109-99-9	0.59	1.2	1.5	Not Detected
trans-1,3-Dichloropropene	10061-02-6	0.11	0.36	0.45	Not Detected

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	117
4-Bromofluorobenzene	460-00-4	70-130	96
Toluene-d8	2037-26-5	70-130	105



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	Lab Blank	<b>Date/Time Analyzed:</b>	1/30/20 12:09 PM
<b>Lab ID:</b>	2001467AR1-05B	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdv.i / v013006simR1
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.033	0.098	0.11	Not Detected
1,1,2,2-Tetrachloroethane	79-34-5	0.045	0.12	0.14	Not Detected
1,1,2-Trichloroethane	79-00-5	0.033	0.098	0.11	Not Detected
1,1-Dichloroethane	75-34-3	0.027	0.073	0.081	Not Detected
1,1-Dichloroethene	75-35-4	0.032	0.036	0.040	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.024	0.14	0.15	Not Detected
1,2-Dichloroethane	107-06-2	0.015	0.073	0.081	Not Detected
1,4-Dichlorobenzene	106-46-7	0.068	0.11	0.12	Not Detected
Benzene	71-43-2	0.094	0.096	0.16	Not Detected
Carbon Tetrachloride	56-23-5	0.058	0.11	0.12	Not Detected
Chloroethane	75-00-3	0.020	0.079	0.13	Not Detected
Chloroform	67-66-3	0.028	0.088	0.098	Not Detected
Chloromethane	74-87-3	0.025	0.062	1.0	Not Detected
cis-1,2-Dichloroethene	156-59-2	0.028	0.071	0.079	Not Detected
Ethyl Benzene	100-41-4	0.057	0.078	0.087	Not Detected
Freon 114	76-14-2	0.041	0.12	0.14	Not Detected
Freon 12	75-71-8	0.025	0.089	0.099	Not Detected
m,p-Xylene	108-38-3	0.10	0.13	0.17	Not Detected
Methyl tert-butyl ether	1634-04-4	0.031	0.11	0.36	Not Detected
Naphthalene	91-20-3	0.044	0.21	0.26	Not Detected
o-Xylene	95-47-6	0.019	0.078	0.087	Not Detected
Tetrachloroethene	127-18-4	0.026	0.12	0.14	Not Detected
Toluene	108-88-3	0.057	0.11	0.19	Not Detected
trans-1,2-Dichloroethene	156-60-5	0.030	0.12	0.40	Not Detected



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	Lab Blank	<b>Date/Time Analyzed:</b>	1/30/20 12:09 PM
<b>Lab ID:</b>	2001467AR1-05B	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdv.i / v013006simR1
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	79-01-6	0.073	0.097	0.11	Not Detected
Vinyl Chloride	75-01-4	0.020	0.023	0.026	Not Detected

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	114
4-Bromofluorobenzene	460-00-4	70-130	92
Toluene-d8	2037-26-5	70-130	105



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	Lab Blank	<b>Date/Time Analyzed:</b>	1/31/20 01:42 PM
<b>Lab ID:</b>	2001467AR1-05C	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdv.i / v013107R1
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2,4-Trichlorobenzene	120-82-1	1.3	3.0	3.7	Not Detected
1,2,4-Trimethylbenzene	95-63-6	0.11	0.39	0.49	Not Detected
1,2-Dichlorobenzene	95-50-1	0.11	0.48	0.60	Not Detected
1,2-Dichloropropane	78-87-5	0.11	0.37	0.46	Not Detected
1,3,5-Trimethylbenzene	108-67-8	0.098	0.39	0.49	Not Detected
1,3-Butadiene	106-99-0	0.048	0.18	0.22	Not Detected
1,3-Dichlorobenzene	541-73-1	0.21	0.48	0.60	Not Detected
1,4-Dioxane	123-91-1	0.19	0.29	0.36	Not Detected
2,2,4-Trimethylpentane	540-84-1	0.41	1.9	2.3	Not Detected
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.30	1.2	1.5	Not Detected
2-Hexanone	591-78-6	0.52	1.6	2.0	Not Detected
2-Propanol	67-63-0	0.14	0.98	1.2	Not Detected
3-Chloropropene	107-05-1	0.57	1.2	1.6	Not Detected
4-Ethyltoluene	622-96-8	0.11	0.39	0.49	Not Detected
4-Methyl-2-pentanone	108-10-1	0.10	0.33	0.41	Not Detected
Acetone	67-64-1	0.40	0.95	2.4	Not Detected
alpha-Chlorotoluene	100-44-7	0.10	0.41	0.52	Not Detected
Bromodichloromethane	75-27-4	0.24	0.54	0.67	Not Detected
Bromoform	75-25-2	0.24	0.83	1.0	Not Detected
Bromomethane	74-83-9	0.34	1.6	1.9	Not Detected
Carbon Disulfide	75-15-0	0.27	1.2	1.6	Not Detected
Chlorobenzene	108-90-7	0.12	0.37	0.46	Not Detected
cis-1,3-Dichloropropene	10061-01-5	0.091	0.36	0.45	Not Detected
Cumene	98-82-8	0.076	0.39	0.49	Not Detected



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	Lab Blank	<b>Date/Time Analyzed:</b>	1/31/20 01:42 PM
<b>Lab ID:</b>	2001467AR1-05C	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdv.i / v013107R1
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cyclohexane	110-82-7	0.093	0.28	0.34	Not Detected
Dibromochloromethane	124-48-1	0.26	0.68	0.85	Not Detected
Ethanol	64-17-5	0.20	0.75	0.94	Not Detected
Freon 11	75-69-4	0.12	0.45	0.56	Not Detected
Freon 113	76-13-1	0.15	0.61	0.77	Not Detected
Heptane	142-82-5	0.14	1.6	2.0	Not Detected
Hexachlorobutadiene	87-68-3	1.8	4.3	5.3	Not Detected
Hexane	110-54-3	0.20	1.4	1.8	Not Detected
Methylene Chloride	75-09-2	0.10	0.28	0.69	0.23 J
Propylbenzene	103-65-1	0.12	0.39	0.49	Not Detected
Styrene	100-42-5	0.046	0.34	0.42	Not Detected
Tetrahydrofuran	109-99-9	0.59	1.2	1.5	Not Detected
trans-1,3-Dichloropropene	10061-02-6	0.11	0.36	0.45	Not Detected

J = Estimated value.

Q = Exceeds Quality Control limits.

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	134 Q
4-Bromofluorobenzene	460-00-4	70-130	93
Toluene-d8	2037-26-5	70-130	105



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	Lab Blank	<b>Date/Time Analyzed:</b>	1/31/20 01:42 PM
<b>Lab ID:</b>	2001467AR1-05D	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdv.i / v013107simR1
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	71-55-6	0.033	0.098	0.11	Not Detected
1,1,2,2-Tetrachloroethane	79-34-5	0.045	0.12	0.14	Not Detected
1,1,2-Trichloroethane	79-00-5	0.033	0.098	0.11	Not Detected
1,1-Dichloroethane	75-34-3	0.027	0.073	0.081	Not Detected
1,1-Dichloroethene	75-35-4	0.032	0.036	0.040	Not Detected
1,2-Dibromoethane (EDB)	106-93-4	0.024	0.14	0.15	Not Detected
1,2-Dichloroethane	107-06-2	0.015	0.073	0.081	Not Detected
1,4-Dichlorobenzene	106-46-7	0.068	0.11	0.12	Not Detected
Benzene	71-43-2	0.094	0.096	0.16	Not Detected
Carbon Tetrachloride	56-23-5	0.058	0.11	0.12	Not Detected
Chloroethane	75-00-3	0.020	0.079	0.13	Not Detected
Chloroform	67-66-3	0.028	0.088	0.098	Not Detected
Chloromethane	74-87-3	0.025	0.062	1.0	Not Detected
cis-1,2-Dichloroethene	156-59-2	0.028	0.071	0.079	Not Detected
Ethyl Benzene	100-41-4	0.057	0.078	0.087	Not Detected
Freon 114	76-14-2	0.041	0.12	0.14	Not Detected
Freon 12	75-71-8	0.025	0.089	0.099	Not Detected
m,p-Xylene	108-38-3	0.10	0.13	0.17	Not Detected
Methyl tert-butyl ether	1634-04-4	0.031	0.11	0.36	Not Detected
Naphthalene	91-20-3	0.044	0.21	0.26	0.12 J
o-Xylene	95-47-6	0.019	0.078	0.087	Not Detected
Tetrachloroethene	127-18-4	0.026	0.12	0.14	Not Detected
Toluene	108-88-3	0.057	0.11	0.19	Not Detected
trans-1,2-Dichloroethene	156-60-5	0.030	0.12	0.40	Not Detected



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	Lab Blank	<b>Date/Time Analyzed:</b>	1/31/20 01:42 PM
<b>Lab ID:</b>	2001467AR1-05D	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdv.i / v013107simR1
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	79-01-6	0.073	0.097	0.11	Not Detected
Vinyl Chloride	75-01-4	0.020	0.023	0.026	Not Detected

J = Estimated value.

Q = Exceeds Quality Control limits.

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	131 Q
4-Bromofluorobenzene	460-00-4	70-130	92
Toluene-d8	2037-26-5	70-130	106



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	CCV	<b>Date/Time Analyzed:</b>	1/30/20 09:25 AM
<b>Lab ID:</b>	2001467AR1-06A	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdv.i / v013002
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
1,2,4-Trichlorobenzene	120-82-1	78
1,2,4-Trimethylbenzene	95-63-6	97
1,2-Dichlorobenzene	95-50-1	88
1,2-Dichloropropane	78-87-5	123
1,3,5-Trimethylbenzene	108-67-8	103
1,3-Butadiene	106-99-0	112
1,3-Dichlorobenzene	541-73-1	87
1,4-Dioxane	123-91-1	116
2,2,4-Trimethylpentane	540-84-1	116
2-Butanone (Methyl Ethyl Ketone)	78-93-3	111
2-Hexanone	591-78-6	113
2-Propanol	67-63-0	122
3-Chloropropene	107-05-1	114
4-Ethyltoluene	622-96-8	105
4-Methyl-2-pentanone	108-10-1	131 Q
Acetone	67-64-1	112
alpha-Chlorotoluene	100-44-7	83
Bromodichloromethane	75-27-4	111
Bromoform	75-25-2	92
Bromomethane	74-83-9	112
Carbon Disulfide	75-15-0	116
Chlorobenzene	108-90-7	94
cis-1,3-Dichloropropene	10061-01-5	109
Cumene	98-82-8	88



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	CCV	<b>Date/Time Analyzed:</b>	1/30/20 09:25 AM
<b>Lab ID:</b>	2001467AR1-06A	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdv.i / v013002
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
Cyclohexane	110-82-7	104
Dibromochloromethane	124-48-1	99
Ethanol	64-17-5	108
Freon 11	75-69-4	107
Freon 113	76-13-1	89
Heptane	142-82-5	125
Hexachlorobutadiene	87-68-3	79
Hexane	110-54-3	114
Methylene Chloride	75-09-2	106
Propylbenzene	103-65-1	99
Styrene	100-42-5	90
Tetrahydrofuran	109-99-9	125
trans-1,3-Dichloropropene	10061-02-6	106

Q = Exceeds Quality Control limits.

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	117
4-Bromofluorobenzene	460-00-4	70-130	87
Toluene-d8	2037-26-5	70-130	108



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	CCV	<b>Date/Time Analyzed:</b>	1/30/20 09:25 AM
<b>Lab ID:</b>	2001467AR1-06B	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdv.i / v013002sim
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	99
1,1,2,2-Tetrachloroethane	79-34-5	102
1,1,2-Trichloroethane	79-00-5	102
1,1-Dichloroethane	75-34-3	115
1,1-Dichloroethene	75-35-4	91
1,2-Dibromoethane (EDB)	106-93-4	96
1,2-Dichloroethane	107-06-2	119
1,4-Dichlorobenzene	106-46-7	75
Benzene	71-43-2	106
Carbon Tetrachloride	56-23-5	114
Chloroethane	75-00-3	116
Chloroform	67-66-3	106
Chloromethane	74-87-3	113
cis-1,2-Dichloroethene	156-59-2	98
Ethyl Benzene	100-41-4	88
Freon 114	76-14-2	89
Freon 12	75-71-8	100
m,p-Xylene	108-38-3	79
Methyl tert-butyl ether	1634-04-4	104
Naphthalene	91-20-3	72
o-Xylene	95-47-6	80
Tetrachloroethene	127-18-4	84
Toluene	108-88-3	95
trans-1,2-Dichloroethene	156-60-5	99



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	CCV	<b>Date/Time Analyzed:</b>	1/30/20 09:25 AM
<b>Lab ID:</b>	2001467AR1-06B	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdv.i / v013002sim
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
Trichloroethene	79-01-6	93
Vinyl Chloride	75-01-4	104

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	117
4-Bromofluorobenzene	460-00-4	70-130	83
Toluene-d8	2037-26-5	70-130	109



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	CCV	<b>Date/Time Analyzed:</b>	1/31/20 08:45 AM
<b>Lab ID:</b>	2001467AR1-06C	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdv.i / v013102
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
1,2,4-Trichlorobenzene	120-82-1	82
1,2,4-Trimethylbenzene	95-63-6	98
1,2-Dichlorobenzene	95-50-1	89
1,2-Dichloropropane	78-87-5	119
1,3,5-Trimethylbenzene	108-67-8	104
1,3-Butadiene	106-99-0	113
1,3-Dichlorobenzene	541-73-1	89
1,4-Dioxane	123-91-1	112
2,2,4-Trimethylpentane	540-84-1	116
2-Butanone (Methyl Ethyl Ketone)	78-93-3	109
2-Hexanone	591-78-6	117
2-Propanol	67-63-0	121
3-Chloropropene	107-05-1	110
4-Ethyltoluene	622-96-8	107
4-Methyl-2-pentanone	108-10-1	131 Q
Acetone	67-64-1	110
alpha-Chlorotoluene	100-44-7	87
Bromodichloromethane	75-27-4	110
Bromoform	75-25-2	93
Bromomethane	74-83-9	114
Carbon Disulfide	75-15-0	113
Chlorobenzene	108-90-7	95
cis-1,3-Dichloropropene	10061-01-5	106
Cumene	98-82-8	91



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	CCV	<b>Date/Time Analyzed:</b>	1/31/20 08:45 AM
<b>Lab ID:</b>	2001467AR1-06C	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdv.i / v013102
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
Cyclohexane	110-82-7	101
Dibromochloromethane	124-48-1	99
Ethanol	64-17-5	109
Freon 11	75-69-4	103
Freon 113	76-13-1	86
Heptane	142-82-5	124
Hexachlorobutadiene	87-68-3	82
Hexane	110-54-3	112
Methylene Chloride	75-09-2	104
Propylbenzene	103-65-1	101
Styrene	100-42-5	91
Tetrahydrofuran	109-99-9	125
trans-1,3-Dichloropropene	10061-02-6	106

Q = Exceeds Quality Control limits.

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	116
4-Bromofluorobenzene	460-00-4	70-130	86
Toluene-d8	2037-26-5	70-130	107



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	CCV	<b>Date/Time Analyzed:</b>	1/31/20 08:45 AM
<b>Lab ID:</b>	2001467AR1-06D	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdv.i / v013102sim
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	98
1,1,2,2-Tetrachloroethane	79-34-5	102
1,1,2-Trichloroethane	79-00-5	101
1,1-Dichloroethane	75-34-3	114
1,1-Dichloroethene	75-35-4	91
1,2-Dibromoethane (EDB)	106-93-4	96
1,2-Dichloroethane	107-06-2	117
1,4-Dichlorobenzene	106-46-7	76
Benzene	71-43-2	105
Carbon Tetrachloride	56-23-5	113
Chloroethane	75-00-3	118
Chloroform	67-66-3	106
Chloromethane	74-87-3	117
cis-1,2-Dichloroethene	156-59-2	98
Ethyl Benzene	100-41-4	89
Freon 114	76-14-2	90
Freon 12	75-71-8	103
m,p-Xylene	108-38-3	80
Methyl tert-butyl ether	1634-04-4	104
Naphthalene	91-20-3	74
o-Xylene	95-47-6	82
Tetrachloroethene	127-18-4	84
Toluene	108-88-3	95
trans-1,2-Dichloroethene	156-60-5	98



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	CCV	<b>Date/Time Analyzed:</b>	1/31/20 08:45 AM
<b>Lab ID:</b>	2001467AR1-06D	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdv.i / v013102sim
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
Trichloroethene	79-01-6	92
Vinyl Chloride	75-01-4	108

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	117
4-Bromofluorobenzene	460-00-4	70-130	83
Toluene-d8	2037-26-5	70-130	109



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	LCS	<b>Date/Time Analyzed:</b>	1/30/20 10:06 AM
<b>Lab ID:</b>	2001467AR1-07A	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdv.i / v013003
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
1,2,4-Trichlorobenzene	120-82-1	78
1,2,4-Trimethylbenzene	95-63-6	94
1,2-Dichlorobenzene	95-50-1	80
1,2-Dichloropropane	78-87-5	116
1,3,5-Trimethylbenzene	108-67-8	98
1,3-Butadiene	106-99-0	106
1,3-Dichlorobenzene	541-73-1	78
1,4-Dioxane	123-91-1	112
2,2,4-Trimethylpentane	540-84-1	108
2-Butanone (Methyl Ethyl Ketone)	78-93-3	106
2-Hexanone	591-78-6	114
2-Propanol	67-63-0	114
3-Chloropropene	107-05-1	101
4-Ethyltoluene	622-96-8	102
4-Methyl-2-pentanone	108-10-1	124
Acetone	67-64-1	111
alpha-Chlorotoluene	100-44-7	85
Bromodichloromethane	75-27-4	108
Bromoform	75-25-2	89
Bromomethane	74-83-9	109
Carbon Disulfide	75-15-0	110
Chlorobenzene	108-90-7	90
cis-1,3-Dichloropropene	10061-01-5	110
Cumene	98-82-8	82

\* % Recovery is calculated using unrounded analytical results.



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	LCS	<b>Date/Time Analyzed:</b>	1/30/20 10:06 AM
<b>Lab ID:</b>	2001467AR1-07A	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdv.i / v013003
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
Cyclohexane	110-82-7	99
Dibromochloromethane	124-48-1	96
Ethanol	64-17-5	105
Freon 11	75-69-4	102
Freon 113	76-13-1	82
Heptane	142-82-5	116
Hexachlorobutadiene	87-68-3	78
Hexane	110-54-3	108
Methylene Chloride	75-09-2	99
Propylbenzene	103-65-1	93
Styrene	100-42-5	83
Tetrahydrofuran	109-99-9	118
trans-1,3-Dichloropropene	10061-02-6	100

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	112
4-Bromofluorobenzene	460-00-4	70-130	82
Toluene-d8	2037-26-5	70-130	106

\* % Recovery is calculated using unrounded analytical results.



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	LCSD	<b>Date/Time Analyzed:</b>	1/30/20 10:47 AM
<b>Lab ID:</b>	2001467AR1-07AA	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdv.i / v013004
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
1,2,4-Trichlorobenzene	120-82-1	66 Q
1,2,4-Trimethylbenzene	95-63-6	95
1,2-Dichlorobenzene	95-50-1	80
1,2-Dichloropropane	78-87-5	117
1,3,5-Trimethylbenzene	108-67-8	99
1,3-Butadiene	106-99-0	102
1,3-Dichlorobenzene	541-73-1	80
1,4-Dioxane	123-91-1	113
2,2,4-Trimethylpentane	540-84-1	109
2-Butanone (Methyl Ethyl Ketone)	78-93-3	105
2-Hexanone	591-78-6	118
2-Propanol	67-63-0	113
3-Chloropropene	107-05-1	100
4-Ethyltoluene	622-96-8	104
4-Methyl-2-pentanone	108-10-1	129
Acetone	67-64-1	108
alpha-Chlorotoluene	100-44-7	89
Bromodichloromethane	75-27-4	109
Bromoform	75-25-2	92
Bromomethane	74-83-9	106
Carbon Disulfide	75-15-0	109
Chlorobenzene	108-90-7	93
cis-1,3-Dichloropropene	10061-01-5	112
Cumene	98-82-8	86

\* % Recovery is calculated using unrounded analytical results.



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	LCSD	<b>Date/Time Analyzed:</b>	1/30/20 10:47 AM
<b>Lab ID:</b>	2001467AR1-07AA	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdv.i / v013004
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
Cyclohexane	110-82-7	98
Dibromochloromethane	124-48-1	97
Ethanol	64-17-5	102
Freon 11	75-69-4	101
Freon 113	76-13-1	81
Heptane	142-82-5	119
Hexachlorobutadiene	87-68-3	73
Hexane	110-54-3	106
Methylene Chloride	75-09-2	97
Propylbenzene	103-65-1	96
Styrene	100-42-5	87
Tetrahydrofuran	109-99-9	117
trans-1,3-Dichloropropene	10061-02-6	103

Q = Exceeds Quality Control limits.

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	110
4-Bromofluorobenzene	460-00-4	70-130	85
Toluene-d8	2037-26-5	70-130	108

\* % Recovery is calculated using unrounded analytical results.



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	LCS	<b>Date/Time Analyzed:</b>	1/30/20 10:06 AM
<b>Lab ID:</b>	2001467AR1-07B	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdv.i / v013003sim
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	94
1,1,2,2-Tetrachloroethane	79-34-5	100
1,1,2-Trichloroethane	79-00-5	101
1,1-Dichloroethane	75-34-3	105
1,1-Dichloroethene	75-35-4	85
1,2-Dibromoethane (EDB)	106-93-4	95
1,2-Dichloroethane	107-06-2	110
1,4-Dichlorobenzene	106-46-7	71
Benzene	71-43-2	98
Carbon Tetrachloride	56-23-5	76
Chloroethane	75-00-3	113
Chloroform	67-66-3	100
Chloromethane	74-87-3	110
cis-1,2-Dichloroethene	156-59-2	84
Ethyl Benzene	100-41-4	84
Freon 114	76-14-2	86
Freon 12	75-71-8	97
m,p-Xylene	108-38-3	72
Methyl tert-butyl ether	1634-04-4	96
Naphthalene	91-20-3	84
o-Xylene	95-47-6	73
Tetrachloroethene	127-18-4	82
Toluene	108-88-3	88
trans-1,2-Dichloroethene	156-60-5	101

\* % Recovery is calculated using unrounded analytical results.



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	LCS	<b>Date/Time Analyzed:</b>	1/30/20 10:06 AM
<b>Lab ID:</b>	2001467AR1-07B	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdv.i / v013003sim
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
Trichloroethene	79-01-6	89
Vinyl Chloride	75-01-4	103

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	114
4-Bromofluorobenzene	460-00-4	70-130	80
Toluene-d8	2037-26-5	70-130	107

\* % Recovery is calculated using unrounded analytical results.



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	LCSD	<b>Date/Time Analyzed:</b>	1/30/20 10:47 AM
<b>Lab ID:</b>	2001467AR1-07BB	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdv.i / v013004sim
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	96
1,1,2,2-Tetrachloroethane	79-34-5	101
1,1,2-Trichloroethane	79-00-5	101
1,1-Dichloroethane	75-34-3	108
1,1-Dichloroethene	75-35-4	88
1,2-Dibromoethane (EDB)	106-93-4	95
1,2-Dichloroethane	107-06-2	110
1,4-Dichlorobenzene	106-46-7	71
Benzene	71-43-2	98
Carbon Tetrachloride	56-23-5	78
Chloroethane	75-00-3	114
Chloroform	67-66-3	102
Chloromethane	74-87-3	112
cis-1,2-Dichloroethene	156-59-2	86
Ethyl Benzene	100-41-4	88
Freon 114	76-14-2	88
Freon 12	75-71-8	98
m,p-Xylene	108-38-3	76
Methyl tert-butyl ether	1634-04-4	99
Naphthalene	91-20-3	65
o-Xylene	95-47-6	76
Tetrachloroethene	127-18-4	83
Toluene	108-88-3	90
trans-1,2-Dichloroethene	156-60-5	103

\* % Recovery is calculated using unrounded analytical results.



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	LCSD	<b>Date/Time Analyzed:</b>	1/30/20 10:47 AM
<b>Lab ID:</b>	2001467AR1-07BB	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdv.i / v013004sim
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
Trichloroethene	79-01-6	90
Vinyl Chloride	75-01-4	104

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	114
4-Bromofluorobenzene	460-00-4	70-130	82
Toluene-d8	2037-26-5	70-130	107

\* % Recovery is calculated using unrounded analytical results.



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	LCS	<b>Date/Time Analyzed:</b>	1/31/20 10:07 AM
<b>Lab ID:</b>	2001467AR1-07C	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdv.i / v013104
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
1,2,4-Trichlorobenzene	120-82-1	62 Q
1,2,4-Trimethylbenzene	95-63-6	92
1,2-Dichlorobenzene	95-50-1	78
1,2-Dichloropropane	78-87-5	112
1,3,5-Trimethylbenzene	108-67-8	96
1,3-Butadiene	106-99-0	104
1,3-Dichlorobenzene	541-73-1	79
1,4-Dioxane	123-91-1	108
2,2,4-Trimethylpentane	540-84-1	108
2-Butanone (Methyl Ethyl Ketone)	78-93-3	105
2-Hexanone	591-78-6	118
2-Propanol	67-63-0	113
3-Chloropropene	107-05-1	101
4-Ethyltoluene	622-96-8	103
4-Methyl-2-pentanone	108-10-1	122
Acetone	67-64-1	107
alpha-Chlorotoluene	100-44-7	87
Bromodichloromethane	75-27-4	107
Bromoform	75-25-2	89
Bromomethane	74-83-9	106
Carbon Disulfide	75-15-0	109
Chlorobenzene	108-90-7	91
cis-1,3-Dichloropropene	10061-01-5	106
Cumene	98-82-8	83

\* % Recovery is calculated using unrounded analytical results.



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	LCS	<b>Date/Time Analyzed:</b>	1/31/20 10:07 AM
<b>Lab ID:</b>	2001467AR1-07C	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdv.i / v013104
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
Cyclohexane	110-82-7	98
Dibromochloromethane	124-48-1	96
Ethanol	64-17-5	105
Freon 11	75-69-4	99
Freon 113	76-13-1	81
Heptane	142-82-5	113
Hexachlorobutadiene	87-68-3	65 Q
Hexane	110-54-3	107
Methylene Chloride	75-09-2	97
Propylbenzene	103-65-1	94
Styrene	100-42-5	86
Tetrahydrofuran	109-99-9	117
trans-1,3-Dichloropropene	10061-02-6	101

Q = Exceeds Quality Control limits.

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	114
4-Bromofluorobenzene	460-00-4	70-130	84
Toluene-d8	2037-26-5	70-130	105

\* % Recovery is calculated using unrounded analytical results.



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	LCSD	<b>Date/Time Analyzed:</b>	1/31/20 11:38 AM
<b>Lab ID:</b>	2001467AR1-07CC	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdv.i / v013105
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
1,2,4-Trichlorobenzene	120-82-1	63 Q
1,2,4-Trimethylbenzene	95-63-6	93
1,2-Dichlorobenzene	95-50-1	84
1,2-Dichloropropane	78-87-5	112
1,3,5-Trimethylbenzene	108-67-8	108
1,3-Butadiene	106-99-0	104
1,3-Dichlorobenzene	541-73-1	84
1,4-Dioxane	123-91-1	108
2,2,4-Trimethylpentane	540-84-1	114
2-Butanone (Methyl Ethyl Ketone)	78-93-3	108
2-Hexanone	591-78-6	119
2-Propanol	67-63-0	115
3-Chloropropene	107-05-1	105
4-Ethyltoluene	622-96-8	98
4-Methyl-2-pentanone	108-10-1	127
Acetone	67-64-1	108
alpha-Chlorotoluene	100-44-7	94
Bromodichloromethane	75-27-4	103
Bromoform	75-25-2	90
Bromomethane	74-83-9	112
Carbon Disulfide	75-15-0	110
Chlorobenzene	108-90-7	92
cis-1,3-Dichloropropene	10061-01-5	108
Cumene	98-82-8	88

\* % Recovery is calculated using unrounded analytical results.



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	LCSD	<b>Date/Time Analyzed:</b>	1/31/20 11:38 AM
<b>Lab ID:</b>	2001467AR1-07CC	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdv.i / v013105
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
Cyclohexane	110-82-7	99
Dibromochloromethane	124-48-1	92
Ethanol	64-17-5	102
Freon 11	75-69-4	102
Freon 113	76-13-1	83
Heptane	142-82-5	118
Hexachlorobutadiene	87-68-3	64 Q
Hexane	110-54-3	110
Methylene Chloride	75-09-2	98
Propylbenzene	103-65-1	98
Styrene	100-42-5	92
Tetrahydrofuran	109-99-9	118
trans-1,3-Dichloropropene	10061-02-6	99

Q = Exceeds Quality Control limits.

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	114
4-Bromofluorobenzene	460-00-4	70-130	87
Toluene-d8	2037-26-5	70-130	108

\* % Recovery is calculated using unrounded analytical results.



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	LCS	<b>Date/Time Analyzed:</b>	1/31/20 10:07 AM
<b>Lab ID:</b>	2001467AR1-07D	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdv.i / v013104sim
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	93
1,1,2,2-Tetrachloroethane	79-34-5	98
1,1,2-Trichloroethane	79-00-5	100
1,1-Dichloroethane	75-34-3	105
1,1-Dichloroethene	75-35-4	86
1,2-Dibromoethane (EDB)	106-93-4	94
1,2-Dichloroethane	107-06-2	108
1,4-Dichlorobenzene	106-46-7	69 Q
Benzene	71-43-2	96
Carbon Tetrachloride	56-23-5	75
Chloroethane	75-00-3	111
Chloroform	67-66-3	99
Chloromethane	74-87-3	110
cis-1,2-Dichloroethene	156-59-2	83
Ethyl Benzene	100-41-4	84
Freon 114	76-14-2	86
Freon 12	75-71-8	96
m,p-Xylene	108-38-3	73
Methyl tert-butyl ether	1634-04-4	96
Naphthalene	91-20-3	65
o-Xylene	95-47-6	74
Tetrachloroethene	127-18-4	81
Toluene	108-88-3	88
trans-1,2-Dichloroethene	156-60-5	100

\* % Recovery is calculated using unrounded analytical results.



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	LCS	<b>Date/Time Analyzed:</b>	1/31/20 10:07 AM
<b>Lab ID:</b>	2001467AR1-07D	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdv.i / v013104sim
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
Trichloroethene	79-01-6	88
Vinyl Chloride	75-01-4	102

Q = Exceeds Quality Control limits.

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	114
4-Bromofluorobenzene	460-00-4	70-130	81
Toluene-d8	2037-26-5	70-130	107

\* % Recovery is calculated using unrounded analytical results.



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	LCSD	<b>Date/Time Analyzed:</b>	1/31/20 11:38 AM
<b>Lab ID:</b>	2001467AR1-07DD	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdv.i / v013105sim
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
1,1,1-Trichloroethane	71-55-6	94
1,1,2,2-Tetrachloroethane	79-34-5	98
1,1,2-Trichloroethane	79-00-5	97
1,1-Dichloroethane	75-34-3	106
1,1-Dichloroethene	75-35-4	85
1,2-Dibromoethane (EDB)	106-93-4	92
1,2-Dichloroethane	107-06-2	108
1,4-Dichlorobenzene	106-46-7	73
Benzene	71-43-2	96
Carbon Tetrachloride	56-23-5	77
Chloroethane	75-00-3	114
Chloroform	67-66-3	101
Chloromethane	74-87-3	110
cis-1,2-Dichloroethene	156-59-2	84
Ethyl Benzene	100-41-4	88
Freon 114	76-14-2	85
Freon 12	75-71-8	97
m,p-Xylene	108-38-3	78
Methyl tert-butyl ether	1634-04-4	98
Naphthalene	91-20-3	65
o-Xylene	95-47-6	81
Tetrachloroethene	127-18-4	80
Toluene	108-88-3	90
trans-1,2-Dichloroethene	156-60-5	101

\* % Recovery is calculated using unrounded analytical results.



Air Toxics

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN  
Tacoma MOD Building

<b>Client ID:</b>	LCSD	<b>Date/Time Analyzed:</b>	1/31/20 11:38 AM
<b>Lab ID:</b>	2001467AR1-07DD	<b>Dilution Factor:</b>	1.00
<b>Date/Time Collected:</b>	NA - Not Applicable	<b>Instrument/Filename:</b>	msdv.i / v013105sim
<b>Media:</b>	NA - Not Applicable		

Compound	CAS#	%Recovery
Trichloroethene	79-01-6	87
Vinyl Chloride	75-01-4	104

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	116
4-Bromofluorobenzene	460-00-4	70-130	86
Toluene-d8	2037-26-5	70-130	109

\* % Recovery is calculated using unrounded analytical results.

2/3/2020  
Mr. Bill Beck  
Stericycle Environmental Solutions, Inc.  
18000 72nd Ave. S  
Suite 217  
Kent WA 98032

Project Name: Tacoma MOD Building  
Project #:  
Workorder #: 2001467B

Dear Mr. Bill Beck

The following report includes the data for the above referenced project for sample(s) received on 1/21/2020 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 APH 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: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Kelly Buettner  
Project Manager

**WORK ORDER #:** 2001467B

## Work Order Summary

<b>CLIENT:</b>	Mr. Bill Beck Stericycle Environmental Solutions, Inc. 18000 72nd Ave. S Suite 217 Kent, WA 98032	<b>BILL TO:</b>	Mr. Duane Beery Stericycle Environmental Solutions, Inc. 18000 72nd Ave. S Suite 217 Kent, WA 98032
<b>PHONE:</b>	425-227-6149	<b>P.O. #</b>	
<b>FAX:</b>		<b>PROJECT #</b>	Tacoma MOD Building
<b>DATE RECEIVED:</b>	01/21/2020	<b>CONTACT:</b>	Kelly Buettner
<b>DATE COMPLETED:</b>	02/03/2020		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	MOD BLD-NE-20200120	Modified TO-15 APH	4.9 "Hg	5 psi
01B	MOD BLD-NE-20200120	Modified TO-15 APH	4.9 "Hg	5 psi
02A	MOD BLD-SW1-20200120	Modified TO-15 APH	5.5 "Hg	5.2 psi
02B	MOD BLD-SW1-20200120	Modified TO-15 APH	5.5 "Hg	5.2 psi
03A	MOD BLD-SW2-20200120	Modified TO-15 APH	5.1 "Hg	5.1 psi
03B	MOD BLD-SW2-20200120	Modified TO-15 APH	5.1 "Hg	5.1 psi
04A	MOD BLD-AMB1-20200120	Modified TO-15 APH	5.1 "Hg	5.2 psi
04B	MOD BLD-AMB1-20200120	Modified TO-15 APH	5.1 "Hg	5.2 psi
05A	Lab Blank	Modified TO-15 APH	NA	NA
05B	Lab Blank	Modified TO-15 APH	NA	NA
06A	CCV	Modified TO-15 APH	NA	NA
06B	CCV	Modified TO-15 APH	NA	NA

CERTIFIED BY:



DATE: 02/03/20

Technical Director

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP - 209218, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-18-13, UT NELAP – CA009332019-11, VA NELAP - 460197, WA NELAP - C935

Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)

Accreditation number: CA300005-011, Effective date: 10/18/2019, Expiration date: 10/17/2020.

Eurofins Air Toxics, LLC certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, LLC.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630  
(916) 985-1000 . (800) 985-5955 . FAX (916) 351-8279

**LABORATORY NARRATIVE  
Modified TO-15 Full Scan/SIM  
Stericycle Environmental Solutions, Inc.  
Workorder# 2001467B**

Four 6 Liter Summa Canister (SIM Certified) samples were received on January 21, 2020. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the Full Scan and SIM acquisition modes. The method involves concentrating up to 1.0 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

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

<b>Requirement</b>	<b>TO-15</b>	<b>ATL Modifications</b>
ICAL %RSD acceptance criteria	</=30% RSD with 2 compounds allowed out to < 40% RSD	For Full Scan: 30% RSD with 4 compounds allowed out to < 40% RSD  For SIM: Project specific; default criteria is </=30% RSD with 10% of compounds allowed out to < 40% RSD
Daily Calibration	+ 30% Difference	For Full Scan: </= 30% Difference with four allowed out up to </=40%; flag and narrate outliers  For SIM: Project specific; default criteria is </= 30% Difference with 10% of compounds allowed out up to </=40%; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

### Receiving Notes

There were no receiving discrepancies.

### Analytical Notes

There were no analytical discrepancies.

### Definition of Data Qualifying Flags

Nine 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.

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

N - The identification is based on presumptive evidence.

CN - See case narrative explanation

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



Air Toxics

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

**Client Sample ID: MOD BLD-NE-20200120**

**Lab ID#: 2001467B-01A**

No Detections Were Found.

**Client Sample ID: MOD BLD-NE-20200120**

**Lab ID#: 2001467B-01B**

No Detections Were Found.

**Client Sample ID: MOD BLD-SW1-20200120**

**Lab ID#: 2001467B-02A**

No Detections Were Found.

**Client Sample ID: MOD BLD-SW1-20200120**

**Lab ID#: 2001467B-02B**

No Detections Were Found.

**Client Sample ID: MOD BLD-SW2-20200120**

**Lab ID#: 2001467B-03A**

No Detections Were Found.

**Client Sample ID: MOD BLD-SW2-20200120**

**Lab ID#: 2001467B-03B**

No Detections Were Found.

**Client Sample ID: MOD BLD-AMB1-20200120**

**Lab ID#: 2001467B-04A**

No Detections Were Found.

**Client Sample ID: MOD BLD-AMB1-20200120**

**Lab ID#: 2001467B-04B**

No Detections Were Found.



## Air Toxics

Client Sample ID: MOD BLD-NE-20200120

Lab ID#: 2001467B-01A

### MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	a012729a	Date of Collection:	1/20/20 3:45:00 PM	
Dil. Factor:	1.60	Date of Analysis:	1/28/20 09:26 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
C5-C6 Aliphatic Hydrocarbons (ref. to Pentane + Hexane)	16	Not Detected	52	Not Detected
>C6-C8 Aliphatic Hydrocarbons (ref. to Heptane)	16	Not Detected	66	Not Detected
>C8-C10 Aliphatic Hydrocarbons (ref. to Decane)	16	Not Detected	93	Not Detected
>C10-C12 Aliphatic Hydrocarbons (ref. to Dodecane)	16	Not Detected	110	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)



## Air Toxics

Client Sample ID: MOD BLD-NE-20200120

Lab ID#: 2001467B-01B

### MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	a012729c	Date of Collection:	1/20/20 3:45:00 PM	
Dil. Factor:	1.60	Date of Analysis:	1/28/20 09:26 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
>C8-C10 Aromatic Hydrocarbons	16	Not Detected	79	Not Detected
>C10-C12 Aromatic Hydrocarbons	16	Not Detected	88	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)



## Air Toxics

Client Sample ID: MOD BLD-SW1-20200120

Lab ID#: 2001467B-02A

### MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	a012724a	Date of Collection:	1/20/20 3:21:00 PM	
Dil. Factor:	1.66	Date of Analysis:	1/27/20 11:21 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
C5-C6 Aliphatic Hydrocarbons (ref. to Pentane + Hexane)	17	Not Detected	54	Not Detected
>C6-C8 Aliphatic Hydrocarbons (ref. to Heptane)	17	Not Detected	68	Not Detected
>C8-C10 Aliphatic Hydrocarbons (ref. to Decane)	17	Not Detected	97	Not Detected
>C10-C12 Aliphatic Hydrocarbons (ref. to Dodecane)	17	Not Detected	120	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)



## Air Toxics

Client Sample ID: MOD BLD-SW1-20200120

Lab ID#: 2001467B-02B

### MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	a012724c	Date of Collection:	1/20/20 3:21:00 PM	
Dil. Factor:	1.66	Date of Analysis:	1/27/20 11:21 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
>C8-C10 Aromatic Hydrocarbons	17	Not Detected	82	Not Detected
>C10-C12 Aromatic Hydrocarbons	17	Not Detected	91	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)



## Air Toxics

Client Sample ID: MOD BLD-SW2-20200120

Lab ID#: 2001467B-03A

### MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	a012725a	Date of Collection:	1/20/20 3:21:00 PM	
Dil. Factor:	1.62	Date of Analysis:	1/27/20 11:47 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
C5-C6 Aliphatic Hydrocarbons (ref. to Pentane + Hexane)	16	Not Detected	52	Not Detected
>C6-C8 Aliphatic Hydrocarbons (ref. to Heptane)	16	Not Detected	66	Not Detected
>C8-C10 Aliphatic Hydrocarbons (ref. to Decane)	16	Not Detected	94	Not Detected
>C10-C12 Aliphatic Hydrocarbons (ref. to Dodecane)	16	Not Detected	110	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)



## Air Toxics

Client Sample ID: MOD BLD-SW2-20200120

Lab ID#: 2001467B-03B

### MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	a012725c	Date of Collection:	1/20/20 3:21:00 PM	
Dil. Factor:	1.62	Date of Analysis:	1/27/20 11:47 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
>C8-C10 Aromatic Hydrocarbons	16	Not Detected	80	Not Detected
>C10-C12 Aromatic Hydrocarbons	16	Not Detected	89	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)



## Air Toxics

Client Sample ID: MOD BLD-AMB1-20200120

Lab ID#: 2001467B-04A

### MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	a012726a	Date of Collection:	1/20/20 4:03:00 PM	
Dil. Factor:	1.63	Date of Analysis:	1/28/20 12:14 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
C5-C6 Aliphatic Hydrocarbons (ref. to Pentane + Hexane)	16	Not Detected	53	Not Detected
>C6-C8 Aliphatic Hydrocarbons (ref. to Heptane)	16	Not Detected	67	Not Detected
>C8-C10 Aliphatic Hydrocarbons (ref. to Decane)	16	Not Detected	95	Not Detected
>C10-C12 Aliphatic Hydrocarbons (ref. to Dodecane)	16	Not Detected	110	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)



## Air Toxics

Client Sample ID: MOD BLD-AMB1-20200120

Lab ID#: 2001467B-04B

### MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	a012726c	Date of Collection:	1/20/20 4:03:00 PM	
Dil. Factor:	1.63	Date of Analysis:	1/28/20 12:14 AM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
>C8-C10 Aromatic Hydrocarbons	16	Not Detected	80	Not Detected
>C10-C12 Aromatic Hydrocarbons	16	Not Detected	89	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)



## Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 2001467B-05A

### MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	a012708a	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	1/27/20 01:39 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
C5-C6 Aliphatic Hydrocarbons (ref. to Pentane + Hexane)	10	Not Detected	32	Not Detected
>C6-C8 Aliphatic Hydrocarbons (ref. to Heptane)	10	Not Detected	41	Not Detected
>C8-C10 Aliphatic Hydrocarbons (ref. to Decane)	10	Not Detected	58	Not Detected
>C10-C12 Aliphatic Hydrocarbons (ref. to Dodecane)	10	Not Detected	70	Not Detected

Container Type: NA - Not Applicable



## Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 2001467B-05B

### MODIFIED METHOD TO-15 GC/MS FULL SCAN

File Name:	a012708c	Date of Collection:	NA	
Dil. Factor:	1.00	Date of Analysis:	1/27/20 01:39 PM	
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
>C8-C10 Aromatic Hydrocarbons	10	Not Detected	49	Not Detected
>C10-C12 Aromatic Hydrocarbons	10	Not Detected	55	Not Detected

Container Type: NA - Not Applicable



## Air Toxics

**Client Sample ID: CCV**

**Lab ID#: 2001467B-06A**

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

<b>File Name:</b>	<b>a012707a</b>	<b>Date of Collection:</b> NA
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis:</b> 1/27/20 01:13 PM

<b>Compound</b>	<b>%Recovery</b>
C5-C6 Aliphatic Hydrocarbons (ref. to Pentane + Hexane)	99
>C6-C8 Aliphatic Hydrocarbons (ref. to Heptane)	99
>C8-C10 Aliphatic Hydrocarbons (ref. to Decane)	101
>C10-C12 Aliphatic Hydrocarbons (ref. to Dodecane)	106

**Container Type: NA - Not Applicable**



## Air Toxics

**Client Sample ID: CCV**

**Lab ID#: 2001467B-06B**

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

<b>File Name:</b>	<b>a012707c</b>	<b>Date of Collection:</b> NA
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis:</b> 1/27/20 01:13 PM

<b>Compound</b>	<b>%Recovery</b>
>C8-C10 Aromatic Hydrocarbons	102
>C10-C12 Aromatic Hydrocarbons	108

**Container Type: NA - Not Applicable**



Air Toxics

## Analysis Request /Canister Chain of Custody

180 Blue Ravine Rd. Suite B, Folsom, CA 95630  
Phone (800) 985-5955; Fax (916) 351-8279

For Laboratory Use Only

Workorder #:

2001467

PID:

page--of---

Client: <u>Stericycle</u>		Special Instructions/Notes:						Turnaround Time (Rush surcharges may apply)						
Project Name: <u>Tacoma Mod Building</u>								Standard _____		Rush _____ (specify)				
Project Manager: <u>Tanya Gray</u> Project #								Canister Vacuum/Pressure		Requested Analyses				
Sampler: <u>Jamie Mekachnic</u>								Lab Use Only						
Site Name: <u>Stericycle Tacoma</u>								Initial (in Hg)	Final (in Hg)	Receipt	Final (psig) Gas: N <sub>2</sub> / He	A pH <sup>b7</sup> To -15°	VOC's b7 To -15°	Naphthalene b7 To -15°
Lab ID	Field Sample Identification(Location)	Can #	Flow Controller #	Start Sampling Information		Stop Sampling Information								
				Date	Time	Date	Time							
01A	MOD BLD-NE-20200120	660022	23319	1-20-20	0745	1-20-20	1545	-29.5	-5.5			x	x	x
02A	MOD BLD-SW1-20200120	N1704	23428		0757		1521	-24.5	-6.5			x	x	x
03A	MOD BLD-SW2-20200120	N0411	23262		0757		1521	-24.0	-5.5			x	x	x
04A	MOD BLD-AMB1-20200120	N0446	23476		0803		1603	-29.5	-6.0			x	x	x
<i>J. Mek - 1-20-20</i>														
Relinquished by: (Signature/Affiliation)				Date	Time	Received by: (Signature/Affiliation)				Date	Time			
<i>J. Mek</i>				1-20-20	1640	<i>Fed Ex</i>								
Relinquished by: (Signature/Affiliation)				Date	Time	Received by: (Signature/Affiliation)				Date	Time			
<i>Fed Ex</i>						<i>J. Mek</i>				01/21/20	0915			
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Lab Use Only														
Shipper Name: <i>J. Mek</i>		Custody Seals Intact?		Yes	No	None								
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