

#### Food Safety and Environmental Stewardship Program

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# Certificate of Analysis

Client Report For: MyExposome

5060 SW Philomath Blvd. #501

Corvallis, OR 97333

**USA** 

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Project Name: MyExposome PO 221

Project Number: F19-34

Report Date: February 18 2020

**Analysis Approval Date:** 

Sample Received Date: See each sample page for date sample received

Ricky Scott 02/18/2020

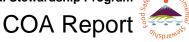
QC Review Date

FSES Director Approval: Kim A. Anderson

Date



Project Number: F19-34: MyExposome PO 221



#### Methodology:

SOP 430.00 VOCs and SVOCs:

#### **Unit Conversions:**

ppb = parts per billion ppm = parts per million ppt = parts per trillion ng/g = ppb ng/L = ppt ng/mL = ppb ng/µL = ppm ng/g(Wristband) = ppb pg/µL = ppb µg/mL = ppb

#### Abbreviations:

J flag: Indicates lower precision in quantitation due to values near limits of detection or matrix effects.

B flag: The sample was background corrected.

U\* flag: Indicates confirmed presence of the chemical but inability to quantify due to matrix interference.

Y flag: Indicates a chemical is present but quantitation is not possible.

< 123.45 U: Detection limit, indicates value was below limit of detection.

#### **COA Notes:**

Continuing calibration verification (CV) analysis was performed at the start and end of every analytical batch; or after a maximum of 15 samples. A total of four CV s were analyzed as part of the complete project; all CVs met FSES data quality objectives (DQOs) with an average of 99% of the target analytes being within 30% of the known value.

Instrument blanks (IBs) were analyzed after each CV and after a maximum of six samples. A total of eight IBs were analyzed, in all cases all target analytes were below the method limits of quantitation.

Processing blanks (construction, field, process and reagent blanks) were run with this project. Laboratory background was assessed from these blanks and background subtracted values are reported. Twelve VOCs were detected, with alkanes having the highest background.

To demonstrate instrument precision a duplicate analysis was performed during the project. The average relative percent difference (RPD) was 9.2% across all detected analytes, with a range of 0.5% to 29%.

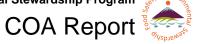


n-Dodecane

n-Eicosane

Project Name: MyExposome PO 221

Project Number: F19-34: MyExposome PO 221



0.16 U

0.16 U

1.19 U

1.53 U

Client Sample Name:	JPA_0813			Test Method:	VOC and SVOC		
FSES Sample ID:	A191134			Date Received:	08/09/19		
				Matrix:	Passive Sampling Device -	Personal	
Chemical Name		Molar Concentration (pMol/g)	Concentration (ng/g)	Chemical Na	me	Molar Concentration (pMol/g)	Concentration (ng/g)
1,2,3-Trichlorobenze	ene	0.89 U	0.16 U	n-Heptadecar	ne	0.75 U	0.18 U
1,2,3-Trimethylbenz	ene	1.31 U	0.16 U	n-Hexadecan	е	0.80 U	0.18 U
1,2,4-Trichlorobenze	ene	0.88 U	0.16 U	n-Nonane		1.68 U	0.22 U
1,2,4-Trimethylbenz	ene	1.29 U	0.16 U	n-Octadecane		0.72 U	0.18 U
1,3,5-Trimethylbenz	ene	1.28 U	0.15 U	n-Pentadecane		0.86 U	0.18 U
1,3-Dichlorobenzen	e	1.03 U	0.15 U	n-Propylbenzene		1.28 U	0.15 U
2-Chlorotoluene		1.23 U	0.16 U	n-Tetradecan	e	0.92 U	0.18 U
4-Chlorotoluene		1.19 U	0.15 U	n-Undecane		1.04 U	0.16 U
Bromobenzene		0.92 U	0.14 U	o-Dichlorober	zene	1.04 U	0.15 U
Chlorobenzene		1.54 U	0.17 U	o-Xylene		1.70 U	0.18 U
Cumene		1.29 U	0.16 U	p-Dichlorobenzene		5.12 U	0.75 U
Ethylbenzene		1.61 U	0.17 U	p-Isopropyltoluene		1.16 U	0.16 U
n-Butylbenzene		1.19 U	0.16 U	sec-Butylbenzene		1.16 U	0.16 U
n-Decane		1.12 U	0.16 U	Styrene		1.39 U	0.14 U

tert-Butylbenzene

Xylenes (m and p)

0.18 U

0.19 U

1.03 U

0.66 U



# Food Safety and Environmental Stewardship Program

COA Report

Client Sample Name:		Test Method:	VOC and SVOC
FSES Sample ID:	A191135	Date Received:	08/09/19
		Matrix:	Passive Sampling Device - Personal

Chemical Name	Molar Concentration (pMol/g)	Concentration (ng/g)	Chemical Name	Molar Concentration (pMol/g)	Concentration (ng/g)
1,2,3-Trichlorobenzene	0.89 U	0.16 U	n-Heptadecane	0.75 U	0.18 U
1,2,3-Trimethylbenzene	1.31 U	0.16 U	n-Hexadecane	0.80 U	0.18 U
1,2,4-Trichlorobenzene	0.88 U	0.16 U	n-Nonane	1.68 U	0.22 U
1,2,4-Trimethylbenzene	427.00 B	51.3 B	n-Octadecane	107000.00 B	27300 B
1,3,5-Trimethylbenzene	127.00 B	15.3 B	n-Pentadecane	1740.00 B	369 B
1,3-Dichlorobenzene	1.03 U	0.15 U	n-Propylbenzene	1.28 U	0.15 U
2-Chlorotoluene	1.23 U	0.16 U	n-Tetradecane	358.00 B	71.1 B
4-Chlorotoluene	1.19 U	0.15 U	n-Undecane	370.00 B	57.8 B
Bromobenzene	0.92 U	0.14 U	o-Dichlorobenzene	1.04 U	0.15 U
Chlorobenzene	1440.00	162	o-Xylene	551.00	58.4
Cumene	1.29 U	0.16 U	p-Dichlorobenzene	5.12 U	0.75 U
Ethylbenzene	1.61 U	0.17 U	p-Isopropyltoluene	1.16 U	0.16 U
n-Butylbenzene	1.19 U	0.16 U	sec-Butylbenzene	1.16 U	0.16 U
n-Decane	1.12 U	0.16 U	Styrene	1.39 U	0.14 U
n-Dodecane	300.00 B	51.1 B	tert-Butylbenzene	1.19 U	0.16 U
n-Eicosane	0.66 U	0.19 U	Xylenes (m and p)	921.00 B	97.8 B



# Food Safety and Environmental Stewardship Program

COA Report

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Client Sample Name:		Test Method:	VOC and SVOC
FSES Sample ID:	A191136	Date Received:	08/09/19
		Matrix:	Passive Sampling Device - Personal

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Chemical Name	Molar Concentration (pMol/g)	Concentration (ng/g)	Chemical Name	Molar Concentration (pMol/g)	Concentration (ng/g)	
1,2,3-Trichlorobenzene	0.89 U	0.16 U	n-Heptadecane	0.75 U	0.18 U	
1,2,3-Trimethylbenzene	1.31 U	0.16 U	n-Hexadecane	0.80 U	0.18 U	
1,2,4-Trichlorobenzene	0.88 U	0.16 U	n-Nonane	1.68 U	0.22 U	
1,2,4-Trimethylbenzene	92.40 B	11.1 B	n-Octadecane	59000.00 B	15000 B	
1,3,5-Trimethylbenzene	1.28 U	0.15 U	n-Pentadecane	0.86 U	0.18 U	
1,3-Dichlorobenzene	1.03 U	0.15 U	n-Propylbenzene	1.28 U	0.15 U	
2-Chlorotoluene	1.23 U	0.16 U	n-Tetradecane	134.00 B	26.7 B	
4-Chlorotoluene	1.19 U	0.15 U	n-Undecane	867.00 B	136 B	
Bromobenzene	0.92 U	0.14 U	o-Dichlorobenzene	1.04 U	0.15 U	
Chlorobenzene	1160.00	131	o-Xylene	532.00	56.4	
Cumene	1.29 U	0.16 U	p-Dichlorobenzene	5.12 U	0.75 U	
Ethylbenzene	1.61 U	0.17 U	p-Isopropyltoluene	174.00	23.3	
n-Butylbenzene	1.19 U	0.16 U	sec-Butylbenzene	1.16 U	0.16 U	
n-Decane	1.12 U	0.16 U	Styrene	1.39 U	0.14 U	
n-Dodecane	91.30 B	15.6 B	tert-Butylbenzene	1.19 U	0.16 U	
n-Eicosane	0.66 U	0.19 U	Xylenes (m and p)	1140.00 B	121 B	



# Food Safety and Environmental Stewardship Program

COA Report

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Client Sample Name:		Test Method:	VOC and SVOC
FSES Sample ID:	A191137	Date	08/09/19
		Received:	
		Matrix:	Passive Sampling Device - Personal

Chemical Name	Molar Concentration (pMol/g)	Concentration (ng/g)	Chemical Name	Molar Concentration (pMol/g)	Concentration (ng/g)	
1,2,3-Trichlorobenzene	0.89 U	0.16 U	n-Heptadecane	0.75 U	0.18 U	
1,2,3-Trimethylbenzene	1.31 U	0.16 U	n-Hexadecane	0.80 U	0.18 U	
1,2,4-Trichlorobenzene	0.88 U	0.16 U	n-Nonane	1.68 U	0.22 U	
1,2,4-Trimethylbenzene	338.00 B	40.7 B	n-Octadecane	0.72 U	0.18 U	
1,3,5-Trimethylbenzene	73.80 B	8.87 B	n-Pentadecane	0.86 U	0.18 U	
1,3-Dichlorobenzene	1.03 U	0.15 U	n-Propylbenzene	1.28 U	0.15 U	
2-Chlorotoluene	1.23 U	0.16 U	n-Tetradecane	448.00 B	88.9 B	
4-Chlorotoluene	1.19 U	0.15 U	n-Undecane	3060.00 B	478 B	
Bromobenzene	0.92 U	0.14 U	o-Dichlorobenzene	1.04 U	0.15 U	
Chlorobenzene	1660.00	187	o-Xylene	511.00	54.2	
Cumene	1.29 U	0.16 U	p-Dichlorobenzene	5.12 U	0.75 U	
Ethylbenzene	1.61 U	0.17 U	p-Isopropyltoluene	1.16 U	0.16 U	
n-Butylbenzene	1.19 U	0.16 U	sec-Butylbenzene	1.16 U	0.16 U	
n-Decane	1.12 U	0.16 U	Styrene	1.39 U	0.14 U	
n-Dodecane	796.00 B	136 B	tert-Butylbenzene 296.00		39.8	
n-Eicosane	0.66 U	0.19 U	Xylenes (m and p)	337.00 B	35.8 B	



# Food Safety and Environmental Stewardship Program

COA Report

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Client Sample Name:		Test Method:	VOC and SVOC
FSES Sample ID:	A191138	Date Received:	08/09/19
		Matrix:	Passive Sampling Device - Personal

Chemical Name	Molar Concentration (pMol/g)	Concentration (ng/g)	Chemical Name	Molar Concentration (pMol/g)	Concentration (ng/g)
1,2,3-Trichlorobenzene	0.89 U	0.16 U	n-Heptadecane	0.75 U	0.18 U
1,2,3-Trimethylbenzene	1.31 U	0.16 U	n-Hexadecane	0.80 U	0.18 U
1,2,4-Trichlorobenzene	0.88 U	0.16 U	n-Nonane	1.68 U	0.22 U
1,2,4-Trimethylbenzene	1.29 U	0.16 U	n-Octadecane	25500.00 B	6500 B
1,3,5-Trimethylbenzene	1.28 U	0.15 U	n-Pentadecane	1190.00 B	254 B
1,3-Dichlorobenzene	1.03 U	0.15 U	n-Propylbenzene	1.28 U	0.15 U
2-Chlorotoluene	1.23 U	0.16 U	n-Tetradecane	67.20 B	13.3 B
4-Chlorotoluene	1.19 U	0.15 U	n-Undecane	8160.00 B	1280 B
Bromobenzene	0.92 U	0.14 U	o-Dichlorobenzene	1.04 U	0.15 U
Chlorobenzene	1380.00	155	o-Xylene	448.00	47.6
Cumene	1.29 U	0.16 U	p-Dichlorobenzene	5.12 U	0.75 U
Ethylbenzene	1.61 U	0.17 U	p-Isopropyltoluene	389.00	52.2
n-Butylbenzene	1.19 U	0.16 U	sec-Butylbenzene	1.16 U	0.16 U
n-Decane	1.12 U	0.16 U	Styrene	1.39 U	0.14 U
n-Dodecane	665.00 B	113 B	tert-Butylbenzene	566.00	76
n-Eicosane	0.66 U	0.19 U	Xylenes (m and p)	613.00 B	65.1 B
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# Food Safety and Environmental Stewardship Program

COA Report 4/450120

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Client Sample Name:		Test Method:	VOC and SVOC
FSES Sample ID:	A191139	Date Received:	08/09/19
		Matrix:	Passive Sampling Device - Personal

Chemical Name	Molar Concentration (pMol/g)	Concentration (ng/g)	Chemical Name	Molar Concentration (pMol/g)	Concentration (ng/g)
1,2,3-Trichlorobenzene	0.89 U	0.16 U	n-Heptadecane	0.75 U	0.18 U
1,2,3-Trimethylbenzene	126.00	15.1	n-Hexadecane	0.80 U	0.18 U
1,2,4-Trichlorobenzene	0.88 U	0.16 U	n-Nonane	1.68 U	0.22 U
1,2,4-Trimethylbenzene	246.00 B	29.6 B	n-Octadecane	232000.00 B	59100 B
1,3,5-Trimethylbenzene	40.30 B	4.84 B	n-Pentadecane	4270.00 B	907 B
1,3-Dichlorobenzene	1.03 U	0.15 U	n-Propylbenzene	1.28 U	0.15 U
2-Chlorotoluene	1.23 U	0.16 U	n-Tetradecane	414.00 B	82.2 B
4-Chlorotoluene	1.19 U	0.15 U	n-Undecane	1.04 U	0.16 U
Bromobenzene	0.92 U	0.14 U	o-Dichlorobenzene	1.04 U	0.15 U
Chlorobenzene	1.54 U	0.17 U	o-Xylene	475.00	50.4
Cumene	1.29 U	0.16 U	p-Dichlorobenzene	5.12 U	0.75 U
Ethylbenzene	1.61 U	0.17 U	p-Isopropyltoluene	884.00	119
n-Butylbenzene	1.19 U	0.16 U	sec-Butylbenzene	1.16 U	0.16 U
n-Decane	562.00 B	80 B	Styrene	1.39 U	0.14 U
n-Dodecane	509.00 B	86.7 B	tert-Butylbenzene 242.00		32.4
n-Eicosane	0.66 U	0.19 U	Xylenes (m and p)	626.00 B	66.4 B



Food Safety and Environmental Stewardship Program

COA Report Vision

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Client Sample Name:	_	Test Method:	VOC and SVOC
FSES Sample ID:	A191140	Date Received:	08/09/19
		Matrix:	Passive Sampling Device - Personal

Chemical Name	Molar Concentration (pMol/g)	Concentration (ng/g)	Chemical Name	Molar Concentration (pMol/g)	Concentration (ng/g)
1,2,3-Trichlorobenzene	0.89 U	0.16 U	n-Heptadecane	0.75 U	0.18 U
1,2,3-Trimethylbenzene	1.31 U	0.16 U	n-Hexadecane	0.80 U	0.18 U
1,2,4-Trichlorobenzene	0.88 U	0.16 U	n-Nonane	1.68 U	0.22 U
1,2,4-Trimethylbenzene	166.00 B	20 B	n-Octadecane	251000.00 B	63800 B
1,3,5-Trimethylbenzene	1.28 U	0.15 U	n-Pentadecane	1700.00 B	360 B
1,3-Dichlorobenzene	1.03 U	0.15 U	n-Propylbenzene	1.28 U	0.15 U
2-Chlorotoluene	1.23 U	0.16 U	n-Tetradecane	4920.00 B	976 B
4-Chlorotoluene	1.19 U	0.15 U	n-Undecane	1270.00 B	198 B
Bromobenzene	0.92 U	0.14 U	o-Dichlorobenzene	1.04 U	0.15 U
Chlorobenzene	1.54 U	0.17 U	o-Xylene	504.00	53.6
Cumene	1.29 U	0.16 U	p-Dichlorobenzene	5.12 U	0.75 U
Ethylbenzene	1.61 U	0.17 U	p-Isopropyltoluene	153.00	20.5
n-Butylbenzene	1.19 U	0.16 U	sec-Butylbenzene	1.16 U	0.16 U
n-Decane	1.12 U	0.16 U	Styrene	1.39 U	0.14 U
n-Dodecane	535.00 B	91.1 B	tert-Butylbenzene	1.19 U	0.16 U
n-Eicosane	0.66 U	0.19 U	Xylenes (m and p)	605.00 B	64.2 B



# Food Safety and Environmental Stewardship Program

COA Report 500

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Client Sample Name:		Test Method:	VOC and SVOC
FSES Sample ID:	A191142	Date Received:	08/09/19
		Matrix:	Passive Sampling Device - Personal

Chemical Name	Molar Concentration (pMol/g)	Concentration (ng/g)	Chemical Name	Molar Concentration (pMol/g)	Concentration (ng/g)
1,2,3-Trichlorobenzene	0.89 U	0.16 U	n-Heptadecane	0.75 U	0.18 U
1,2,3-Trimethylbenzene	1.31 U	0.16 U	n-Hexadecane	0.80 U	0.18 U
1,2,4-Trichlorobenzene	0.88 U	0.16 U	n-Nonane	1.68 U	0.22 U
1,2,4-Trimethylbenzene	266.00 B	32 B	n-Octadecane	223000.00 B	56900 B
1,3,5-Trimethylbenzene	1.28 U	0.15 U	n-Pentadecane	1170.00 B	249 B
1,3-Dichlorobenzene	1.03 U	0.15 U	n-Propylbenzene	1.28 U	0.15 U
2-Chlorotoluene	1.23 U	0.16 U	n-Tetradecane	1740.00 B	344 B
4-Chlorotoluene	1.19 U	0.15 U	n-Undecane	1.04 U	0.16 U
Bromobenzene	0.92 U	0.14 U	o-Dichlorobenzene	1.04 U	0.15 U
Chlorobenzene	1.54 U	0.17 U	o-Xylene	1.70 U	0.18 U
Cumene	1.29 U	0.16 U	p-Dichlorobenzene	187.00	27.6
Ethylbenzene	1.61 U	0.17 U	p-Isopropyltoluene	1.16 U	0.16 U
n-Butylbenzene	1.19 U	0.16 U	sec-Butylbenzene	1.16 U	0.16 U
n-Decane	1780.00 B	253 B	Styrene	1.39 U	0.14 U
n-Dodecane	535.00 B	91.1 B	tert-Butylbenzene 1.19 U		0.16 U
n-Eicosane	0.66 U	0.19 U	Xylenes (m and p)	515.00 B	54.7 B



# Food Safety and Environmental Stewardship Program

COA Report

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Client Sample Name:		Test Method:	VOC and SVOC
FSES Sample ID:	A191143	Date	08/09/19
		Received:	
		Matrix:	Passive Sampling Device - Personal

Chemical Name	Molar Concentration (pMol/g)	Concentration (ng/g)	Chemical Name	Molar Concentration (pMol/g)	Concentration (ng/g)	
1,2,3-Trichlorobenzene	0.89 U	0.16 U	n-Heptadecane	0.75 U	0.18 U	
1,2,3-Trimethylbenzene	1.31 U	0.16 U	n-Hexadecane	0.80 U	0.18 U	
1,2,4-Trichlorobenzene	0.88 U	0.16 U	n-Nonane	1.68 U	0.22 U	
1,2,4-Trimethylbenzene	1.29 U	0.16 U	n-Octadecane	354000.00 B	90200 B	
1,3,5-Trimethylbenzene	1.28 U	0.15 U	n-Pentadecane	0.86 U	0.18 U	
1,3-Dichlorobenzene	1.03 U	0.15 U	n-Propylbenzene	1.28 U	0.15 U	
2-Chlorotoluene	1.23 U	0.16 U	n-Tetradecane	67.20 B	13.3 B	
4-Chlorotoluene	1.19 U	0.15 U	n-Undecane	5740.00 B	898 B	
Bromobenzene	0.92 U	0.14 U	o-Dichlorobenzene	1.04 U	0.15 U	
Chlorobenzene	1.54 U	0.17 U	o-Xylene	504.00	53.6	
Cumene	1.29 U	0.16 U	p-Dichlorobenzene	5.12 U	0.75 U	
Ethylbenzene	1.61 U	0.17 U	p-Isopropyltoluene	1.16 U	0.16 U	
n-Butylbenzene	1.19 U	0.16 U	sec-Butylbenzene	1.16 U	0.16 U	
n-Decane	1.12 U	0.16 U	Styrene 1.39 U		0.14 U	
n-Dodecane	1450.00 B	247 B	tert-Butylbenzene 1.19 U		0.16 U	
n-Eicosane	0.66 U	0.19 U	Xylenes (m and p)	492.00 B	52.2 B	



# Food Safety and Environmental Stewardship Program

COA Report

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Client Sample Name	DRO_1212	Test Method:	VOC and SVOC
FSES Sample II	D: A191144	Date Received:	08/09/19
		Matrix:	Passive Sampling Device - Personal

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Chemical Name	Molar Concentration (pMol/g)	Concentration (ng/g)	Chemical Name	Molar Concentration (pMol/g)	Concentration (ng/g)
1,2,3-Trichlorobenzene	0.89 U	0.16 U	n-Heptadecane	0.75 U	0.18 U
1,2,3-Trimethylbenzene	1.31 U	0.16 U	n-Hexadecane	0.80 U	0.18 U
1,2,4-Trichlorobenzene	0.88 U	0.16 U	n-Nonane	1.68 U	0.22 U
1,2,4-Trimethylbenzene	309.00 B	37.1 B	n-Octadecane	46800.00 B	11900 B
1,3,5-Trimethylbenzene	1.28 U	0.15 U	n-Pentadecane	0.86 U	0.18 U
1,3-Dichlorobenzene	1.03 U	0.15 U	n-Propylbenzene	1.28 U	0.15 U
2-Chlorotoluene	1.23 U	0.16 U	n-Tetradecane	336.00 B	66.7 B
4-Chlorotoluene	1.19 U	0.15 U	n-Undecane	1.04 U	0.16 U
Bromobenzene	0.92 U	0.14 U	o-Dichlorobenzene	1.04 U	0.15 U
Chlorobenzene	1460.00	164	o-Xylene	368.00	39.1
Cumene	1.29 U	0.16 U	p-Dichlorobenzene	5.12 U	0.75 U
Ethylbenzene	1.61 U	0.17 U	p-Isopropyltoluene	209.00	28
n-Butylbenzene	1.19 U	0.16 U	sec-Butylbenzene	1.16 U	0.16 U
n-Decane	1.12 U	0.16 U	Styrene	1.39 U	0.14 U
n-Dodecane	900.00 B	153 B	tert-Butylbenzene 1.19 U		0.16 U
n-Eicosane	0.66 U	0.19 U	Xylenes (m and p)	515.00 B	54.7 B



# Food Safety and Environmental Stewardship Program

COA Report Vapore

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Client Sample Name:	_	Test Method:	VOC and SVOC	
FSES Sample ID:	A191145	Date Received:	08/09/19	
		Matrix:	Passive Sampling Device - Personal	

Chemical Name	Molar Concentration (pMol/g)	Concentration (ng/g)	Chemical Name	Molar Concentration (pMol/g)	Concentration (ng/g)
1,2,3-Trichlorobenzene	0.89 U	0.16 U	n-Heptadecane	0.75 U	0.18 U
1,2,3-Trimethylbenzene	1.31 U	0.16 U	n-Hexadecane	0.80 U	0.18 U
1,2,4-Trichlorobenzene	0.88 U	0.16 U	n-Nonane	1.68 U	0.22 U
1,2,4-Trimethylbenzene	7.40 B	0.89 B	n-Octadecane	36800.00 B	9360 B
1,3,5-Trimethylbenzene	1.28 U	0.15 U	n-Pentadecane	0.86 U	0.18 U
1,3-Dichlorobenzene	1.03 U	0.15 U	n-Propylbenzene	1.28 U	0.15 U
2-Chlorotoluene	1.23 U	0.16 U	n-Tetradecane	0.92 U	0.18 U
4-Chlorotoluene	1.19 U	0.15 U	n-Undecane	1.04 U	0.16 U
Bromobenzene	0.92 U	0.14 U	o-Dichlorobenzene	1.04 U	0.15 U
Chlorobenzene	928.00	104	o-Xylene	1.70 U	0.18 U
Cumene	1.29 U	0.16 U	p-Dichlorobenzene	5.12 U	0.75 U
Ethylbenzene	1.61 U	0.17 U	p-Isopropyltoluene	1.16 U	0.16 U
n-Butylbenzene	1.19 U	0.16 U	sec-Butylbenzene	1.16 U	0.16 U
n-Decane	1.12 U	0.16 U	Styrene	1.39 U	0.14 U
n-Dodecane	1.03 U	0.18 U	tert-Butylbenzene 19		26.7
n-Eicosane	0.66 U	0.19 U	Xylenes (m and p)	153.00 B	16.2 B



# Food Safety and Environmental Stewardship Program

COA Report

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Client Sample Name:	_	Test Method:	VOC and SVOC
FSES Sample ID:	A191146	Date Received:	08/09/19
		Matrix:	Passive Sampling Device - Personal

Chemical Name	Molar Concentration (pMol/g)	Concentration (ng/g)	Chemical Name	Molar Concentration (pMol/g)	Concentration (ng/g)
1,2,3-Trichlorobenzene	0.89 U	0.16 U	n-Heptadecane	0.75 U	0.18 U
1,2,3-Trimethylbenzene	1.31 U	0.16 U	n-Hexadecane	0.80 U	0.18 U
1,2,4-Trichlorobenzene	0.88 U	0.16 U	n-Nonane	1.68 U	0.22 U
1,2,4-Trimethylbenzene	129.00 B	15.6 B	n-Octadecane	30000.00 B	7630 B
1,3,5-Trimethylbenzene	1.28 U	0.15 U	n-Pentadecane	2030.00 B	432 B
1,3-Dichlorobenzene	1.03 U	0.15 U	n-Propylbenzene	1.28 U	0.15 U
2-Chlorotoluene	1.23 U	0.16 U	n-Tetradecane	2450.00 B	487 B
4-Chlorotoluene	1.19 U	0.15 U	n-Undecane	313.00 B	48.9 B
Bromobenzene	0.92 U	0.14 U	o-Dichlorobenzene	1.04 U	0.15 U
Chlorobenzene	1100.00	124	o-Xylene	1.70 U	0.18 U
Cumene	1.29 U	0.16 U	p-Dichlorobenzene	5.12 U	0.75 U
Ethylbenzene	1.61 U	0.17 U	p-Isopropyltoluene	1.16 U	0.16 U
n-Butylbenzene	1.19 U	0.16 U	sec-Butylbenzene	1.16 U	0.16 U
n-Decane	1.12 U	0.16 U	Styrene	1.39 U	0.14 U
n-Dodecane	1.03 U	0.18 U	tert-Butylbenzene	1.19 U	0.16 U
n-Eicosane	0.66 U	0.19 U	Xylenes (m and p)	333.00 B	35.3 B



# Food Safety and Environmental Stewardship Program

COA Report (%)

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	Client Sample Name:		Test Method:	VOC and SVOC
	FSES Sample ID:	A191147	Date Received:	08/09/19
			Matrix:	Passive Sampling Device - Personal

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Chemical Name	Molar Concentration (pMol/g)	Concentration (ng/g)		Molar Concentration (pMol/g)	Concentration (ng/g)
1,2,3-Trichlorobenzene	0.89 U	0.16 U	n-Heptadecane	0.75 U	0.18 U
1,2,3-Trimethylbenzene	1.31 U	0.16 U	n-Hexadecane	0.80 U	0.18 U
1,2,4-Trichlorobenzene	0.88 U	0.16 U	n-Nonane	1.68 U	0.22 U
1,2,4-Trimethylbenzene	96.10 B	11.6 B	n-Octadecane	0.72 U	0.18 U
1,3,5-Trimethylbenzene	1.28 U	0.15 U	n-Pentadecane	0.86 U	0.18 U
1,3-Dichlorobenzene	1.03 U	0.15 U	n-Propylbenzene	1.28 U	0.15 U
2-Chlorotoluene	1.23 U	0.16 U	n-Tetradecane	0.92 U	0.18 U
4-Chlorotoluene	1.19 U	0.15 U	n-Undecane	1.04 U	0.16 U
Bromobenzene	0.92 U	0.14 U	o-Dichlorobenzene	1.04 U	0.15 U
Chlorobenzene	965.00	109	o-Xylene	425.00	45.1
Cumene	1.29 U	0.16 U	p-Dichlorobenzene	5.12 U	0.75 U
Ethylbenzene	1.61 U	0.17 U	p-Isopropyltoluene	268.00	36
n-Butylbenzene	1.19 U	0.16 U	sec-Butylbenzene	1.16 U	0.16 U
n-Decane	1.12 U	0.16 U	Styrene 1.39 U		0.14 U
n-Dodecane	1.03 U	0.18 U	tert-Butylbenzene	1.19 U	0.16 U
n-Eicosane	0.66 U	0.19 U	Xylenes (m and p)	488.00 B	51.8 B



Food Safety and Environmental Stewardship Program

COA Report 4/45park

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Client Sample Name:	_	Test Method:	VOC and SVOC
FSES Sample ID:	A191148	Date Received:	08/09/19
		Matrix:	Passive Sampling Device - Personal

Chemical Name	Molar Concentration (pMol/g)	Concentration (ng/g)	Chemical Name	Molar Concentration (pMol/g)	Concentration (ng/g)
1,2,3-Trichlorobenzene	0.89 U	0.16 U	n-Heptadecane	0.75 U	0.18 U
1,2,3-Trimethylbenzene	1.31 U	0.16 U	n-Hexadecane	0.80 U	0.18 U
1,2,4-Trichlorobenzene	0.88 U	0.16 U	n-Nonane	1.68 U	0.22 U
1,2,4-Trimethylbenzene	88.70 B	10.7 B	n-Octadecane	0.72 U	0.18 U
1,3,5-Trimethylbenzene	1.28 U	0.15 U	n-Pentadecane	0.86 U	0.18 U
1,3-Dichlorobenzene	1.03 U	0.15 U	n-Propylbenzene	1.28 U	0.15 U
2-Chlorotoluene	1.23 U	0.16 U	n-Tetradecane	851.00 B	169 B
4-Chlorotoluene	1.19 U	0.15 U	n-Undecane	1.04 U	0.16 U
Bromobenzene	0.92 U	0.14 U	o-Dichlorobenzene	1.04 U	0.15 U
Chlorobenzene	1200.00	135	o-Xylene	1.70 U	0.18 U
Cumene	1.29 U	0.16 U	p-Dichlorobenzene	5.12 U	0.75 U
Ethylbenzene	1.61 U	0.17 U	p-Isopropyltoluene	1.16 U	0.16 U
n-Butylbenzene	1.19 U	0.16 U	sec-Butylbenzene	1.16 U	0.16 U
n-Decane	1.12 U	0.16 U	Styrene	1.39 U	0.14 U
n-Dodecane	1.03 U	0.18 U	tert-Butylbenzene	699.00	93.8
n-Eicosane	0.66 U	0.19 U	Xylenes (m and p)	107.00 B	11.3 B



Food Safety and Environmental Stewardship Program

COA Report 500

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Client Sample Name:		Test Method:	VOC and SVOC
FSES Sample ID:	A191149	Date Received:	08/09/19
		Matrix:	Passive Sampling Device - Personal

Chemical Name	Molar Concentration Che Concentration (pMol/g)		Chemical Name	Molar Concentration (pMol/g)	Concentration (ng/g)
1,2,3-Trichlorobenzene	0.89 U	0.16 U	n-Heptadecane	0.75 U	0.18 U
1,2,3-Trimethylbenzene	141.00	17.0	n-Hexadecane	0.80 U	0.18 U
1,2,4-Trichlorobenzene	0.88 U	0.16 U	n-Nonane	1.68 U	0.22 U
1,2,4-Trimethylbenzene	96.10 B	11.6 B	n-Octadecane	0.72 U	0.18 U
1,3,5-Trimethylbenzene	1.28 U	0.15 U	n-Pentadecane	1560.00 B	332 B
1,3-Dichlorobenzene	1.03 U	0.15 U	n-Propylbenzene	1.28 U	0.15 U
2-Chlorotoluene	1.23 U	0.16 U	n-Tetradecane	1570.00 B	311 B
4-Chlorotoluene	1.19 U	0.15 U	n-Undecane	1.04 U	0.16 U
Bromobenzene	0.92 U	0.14 U	o-Dichlorobenzene	1.04 U	0.15 U
Chlorobenzene	1140.00	128	o-Xylene	1.70 U	0.18 U
Cumene	1.29 U	0.16 U	p-Dichlorobenzene	5.12 U	0.75 U
Ethylbenzene	1.61 U	0.17 U	p-Isopropyltoluene	225.00	30.2
n-Butylbenzene	1.19 U	0.16 U	sec-Butylbenzene	1.16 U	0.16 U
n-Decane	1.12 U	0.16 U	Styrene 1.39 U		0.14 U
n-Dodecane	1.03 U	0.18 U	tert-Butylbenzene	1.19 U	0.16 U
n-Eicosane	0.66 U	0.19 U	Xylenes (m and p)	130.00 B	13.8 B
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# Food Safety and Environmental Stewardship Program

COA Report spice

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Client Sample Name:	_	Test Method:	VOC and SVOC
FSES Sample ID:	A191150	Date Received:	08/09/19
		Matrix:	Passive Sampling Device - Personal

Chemical Name Molar Concentr (pMol/g)		Concentration (ng/g)	Chemical Name	Molar Concentration (pMol/g)	Concentration (ng/g)
1,2,3-Trichlorobenzene	0.89 U	0.16 U	n-Heptadecane	0.75 U	0.18 U
1,2,3-Trimethylbenzene	1.31 U	0.16 U	n-Hexadecane	0.80 U	0.18 U
1,2,4-Trichlorobenzene	0.88 U	0.16 U	n-Nonane	4440.00	569
1,2,4-Trimethylbenzene	1.29 U	0.16 U	n-Octadecane	0.72 U	0.18 U
1,3,5-Trimethylbenzene	1.28 U	0.15 U	n-Pentadecane	630.00 B	134 B
1,3-Dichlorobenzene	1.03 U	0.15 U	n-Propylbenzene	1.28 U	0.15 U
2-Chlorotoluene	1.23 U	0.16 U	n-Tetradecane	0.92 U	0.18 U
4-Chlorotoluene	1.19 U	0.15 U	n-Undecane	1.04 U	0.16 U
Bromobenzene	0.92 U	0.14 U	o-Dichlorobenzene	1.04 U	0.15 U
Chlorobenzene	1160.00	131	o-Xylene	1.70 U	0.18 U
Cumene	1.29 U	0.16 U	p-Dichlorobenzene	5.12 U	0.75 U
Ethylbenzene	1.61 U	0.17 U	p-Isopropyltoluene	257.00	34.4
n-Butylbenzene	1.19 U	0.16 U	sec-Butylbenzene	1.16 U	0.16 U
n-Decane	1.12 U	0.16 U	Styrene 1.39		0.14 U
n-Dodecane	91.30 B	15.6 B	tert-Butylbenzene	1.19 U	0.16 U
n-Eicosane	0.66 U	0.19 U	Xylenes (m and p)	1.53 U	0.16 U



# Food Safety and Environmental Stewardship Program

COA Report

Client Sample Name:		Test Method:	VOC and SVOC
FSES Sample ID:	A191151	Date Received:	08/09/19
		Matrix:	Passive Sampling Device - Personal

Chemical Name	Molar Concentration (pMol/g)	Concentration (ng/g)	Chemical Name	Molar Concentration (pMol/g)	Concentration (ng/g)
1,2,3-Trichlorobenzene	0.89 U	0.16 U	n-Heptadecane	0.75 U	0.18 U
1,2,3-Trimethylbenzene	1.31 U	0.16 U	n-Hexadecane	0.80 U	0.18 U
1,2,4-Trichlorobenzene	181.00	32.9	n-Nonane	1.68 U	0.22 U
1,2,4-Trimethylbenzene	1.29 U	0.16 U	n-Octadecane	0.72 U	0.18 U
1,3,5-Trimethylbenzene	1.28 U	0.15 U	n-Pentadecane	933.00 B	198 B
1,3-Dichlorobenzene	1.03 U	0.15 U	n-Propylbenzene	1.28 U	0.15 U
2-Chlorotoluene	1.23 U	0.16 U	n-Tetradecane	952.00 B	189 B
4-Chlorotoluene	1.19 U	0.15 U	n-Undecane	1.04 U	0.16 U
Bromobenzene	0.92 U	0.14 U	o-Dichlorobenzene	1.04 U	0.15 U
Chlorobenzene	879.00	98.9	o-Xylene	322.00	34.2
Cumene	1.29 U	0.16 U	p-Dichlorobenzene	1540.00	227
Ethylbenzene	1.61 U	0.17 U	p-Isopropyltoluene	1.16 U	0.16 U
n-Butylbenzene	1.19 U	0.16 U	sec-Butylbenzene	1.16 U	0.16 U
n-Decane	1.12 U	0.16 U	Styrene 1.39 U		0.14 U
n-Dodecane	117.00 B	20 B	tert-Butylbenzene 1.19 U		0.16 U
n-Eicosane	0.66 U	0.19 U	Xylenes (m and p)	1.53 U	0.16 U



# Food Safety and Environmental Stewardship Program

COA Report

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Client Sample Name:		Test Method:	VOC and SVOC
FSES Sample ID:	A191152	Date Received:	08/09/19
		Matrix:	Passive Sampling Device - Personal

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Chemical Name	Molar Concentration (pMol/g)	Concentration (ng/g)	Chemical Name	Molar Concentration (pMol/g)	Concentration (ng/g)
1,2,3-Trichlorobenzene	0.89 U	0.16 U	n-Heptadecane	4570.00 B	1100 B
1,2,3-Trimethylbenzene	1.31 U	0.16 U	n-Hexadecane	0.80 U	0.18 U
1,2,4-Trichlorobenzene	0.88 U	0.16 U	n-Nonane	1.68 U	0.22 U
1,2,4-Trimethylbenzene	1.29 U	0.16 U	n-Octadecane	418000.00 B	106000 B
1,3,5-Trimethylbenzene	1.28 U	0.15 U	n-Pentadecane	3960.00 B	840 B
1,3-Dichlorobenzene	1.03 U	0.15 U	n-Propylbenzene	1.28 U	0.15 U
2-Chlorotoluene	1.23 U	0.16 U	n-Tetradecane	2230.00 B	442 B
4-Chlorotoluene	1.19 U	0.15 U	n-Undecane	1.04 U	0.16 U
Bromobenzene	0.92 U	0.14 U	o-Dichlorobenzene	1.04 U	0.15 U
Chlorobenzene	1470.00	166	o-Xylene	1.70 U	0.18 U
Cumene	1.29 U	0.16 U	p-Dichlorobenzene	5.12 U	0.75 U
Ethylbenzene	1.61 U	0.17 U	p-Isopropyltoluene	1.16 U	0.16 U
n-Butylbenzene	1.19 U	0.16 U	sec-Butylbenzene	1.16 U	0.16 U
n-Decane	1.12 U	0.16 U	Styrene 1.39		0.14 U
n-Dodecane	1.03 U	0.18 U	tert-Butylbenzene	1.19 U	0.16 U
n-Eicosane	0.66 U	0.19 U	Xylenes (m and p)	247.00 B	26.2 B



Food Safety and Environmental Stewardship Program

COA Report

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Client Sample Name:		Test Method:	VOC and SVOC
FSES Sample ID:	A191153	Date Received:	08/09/19
		Matrix:	Passive Sampling Device - Personal

Chemical Name	Molar Concentration (pMol/g)	Concentration (ng/g)	Chemical Name	Molar Concentration (pMol/g)	Concentration (ng/g)
1,2,3-Trichlorobenzene	0.89 U	0.16 U	n-Heptadecane	0.75 U	0.18 U
1,2,3-Trimethylbenzene	237.00	28.4	n-Hexadecane	0.80 U	0.18 U
1,2,4-Trichlorobenzene	0.88 U	0.16 U	n-Nonane	1.68 U	0.22 U
1,2,4-Trimethylbenzene	131.00 B	15.8 B	n-Octadecane	0.72 U	0.18 U
1,3,5-Trimethylbenzene	1.28 U	0.15 U	n-Pentadecane	839.00 B	178 B
1,3-Dichlorobenzene	1.03 U	0.15 U	n-Propylbenzene	1.28 U	0.15 U
2-Chlorotoluene	1.23 U	0.16 U	n-Tetradecane	0.92 U	0.18 U
4-Chlorotoluene	1.19 U	0.15 U	n-Undecane	1.04 U	0.16 U
Bromobenzene	0.92 U	0.14 U	o-Dichlorobenzene	1.04 U	0.15 U
Chlorobenzene	1090.00	123	o-Xylene	1.70 U	0.18 U
Cumene	1.29 U	0.16 U	p-Dichlorobenzene	249.00	36.7
Ethylbenzene	1.61 U	0.17 U	p-Isopropyltoluene	399.00	53.6
n-Butylbenzene	1.19 U	0.16 U	sec-Butylbenzene	1.16 U	0.16 U
n-Decane	1.12 U	0.16 U	Styrene	1.39 U	0.14 U
n-Dodecane	235.00 B	40 B	tert-Butylbenzene	1.19 U	0.16 U
n-Eicosane	0.66 U	0.19 U	Xylenes (m and p)	1.53 U	0.16 U



# Food Safety and Environmental Stewardship Program

COA Report 400 No.

			- Inc.	
Client Sample Name:	_	Test Method:	VOC and SVOC	
FSES Sample ID:	A191154	Date Received:	08/09/19	
		Matrix:	Passive Sampling Device - Personal	

Chemical Name	Molar Concentration (pMol/g)	Concentration (ng/g)	Chemical Name	Molar Concentration (pMol/g)	Concentration (ng/g)
1,2,3-Trichlorobenzene	0.89 U	0.16 U	n-Heptadecane	0.75 U	0.18 U
1,2,3-Trimethylbenzene	1.31 U	0.16 U	n-Hexadecane	0.80 U	0.18 U
1,2,4-Trichlorobenzene	0.88 U	0.16 U	n-Nonane	1.68 U	0.22 U
1,2,4-Trimethylbenzene	1.29 U	0.16 U	n-Octadecane	809000.00 JB	206000 JB
1,3,5-Trimethylbenzene	1.28 U	0.15 U	n-Pentadecane	0.86 U	0.18 U
1,3-Dichlorobenzene	1.03 U	0.15 U	n-Propylbenzene	1.28 U	0.15 U
2-Chlorotoluene	1.23 U	0.16 U	n-Tetradecane	0.92 U	0.18 U
4-Chlorotoluene	1.19 U	0.15 U	n-Undecane	1.04 U	0.16 U
Bromobenzene	0.92 U	0.14 U	o-Dichlorobenzene	1.04 U	0.15 U
Chlorobenzene	1310.00	147	o-Xylene	1.70 U	0.18 U
Cumene	1.29 U	0.16 U	p-Dichlorobenzene	5.12 U	0.75 U
Ethylbenzene	1.61 U	0.17 U	p-Isopropyltoluene	1.16 U	0.16 U
n-Butylbenzene	1.19 U	0.16 U	sec-Butylbenzene	1.16 U	0.16 U
n-Decane	1.12 U	0.16 U	Styrene	1.39 U	0.14 U
n-Dodecane	1.03 U	0.18 U	tert-Butylbenzene	1.19 U	0.16 U
n-Eicosane	0.66 U	0.19 U	Xylenes (m and p)	1.53 U	0.16 U



# Food Safety and Environmental Stewardship Program

COA Report

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Client Sample Name:		Test Method:	VOC and SVOC
FSES Sample ID:	A191155		08/09/19
		Received:	
		Matrix:	Passive Sampling Device - Personal

			<u> </u>				
Chemical Name	Molar Concentration (pMol/g)	Concentration (ng/g)	Chemical Name	Molar Concentration (pMol/g)	Concentration (ng/g)		
1,2,3-Trichlorobenzene	0.89 U	0.16 U	n-Heptadecane	26500.00 B	6380 B		
1,2,3-Trimethylbenzene	1.31 U	0.16 U	n-Hexadecane	9090.00 B	2060 B		
1,2,4-Trichlorobenzene	0.88 U	0.16 U	n-Nonane	44200.00	5670		
1,2,4-Trimethylbenzene	1.29 U	0.16 U	n-Octadecane	52200.00 B	13300 B		
1,3,5-Trimethylbenzene	1.28 U	0.15 U	n-Pentadecane	11600.00 B	2470 B		
1,3-Dichlorobenzene	1.03 U	0.15 U	n-Propylbenzene	1.28 U	0.15 U		
2-Chlorotoluene	1.23 U	0.16 U	n-Tetradecane	3370.00 B	669 B		
4-Chlorotoluene	1.19 U	0.15 U	n-Undecane	73700.00 B	11500 B		
Bromobenzene	0.92 U	0.14 U	o-Dichlorobenzene	1.04 U	0.15 U		
Chlorobenzene	1.54 U	0.17 U	o-Xylene	1.70 U	0.18 U		
Cumene	1.29 U	0.16 U	p-Dichlorobenzene	5.12 U	0.75 U		
Ethylbenzene	1.61 U	0.17 U	p-Isopropyltoluene	1.16 U	0.16 U		
n-Butylbenzene	1.19 U	0.16 U	sec-Butylbenzene	1.16 U	0.16 U		
n-Decane	1.12 U	0.16 U	Styrene	1.39 U	0.14 U		
n-Dodecane	1000.00 B	171 B	tert-Butylbenzene 1.19 U		0.16 U		
n-Eicosane	0.66 U	0.19 U	Xylenes (m and p)	1.53 U	0.16 U		