

ANALYTICAL REPORT

Job Number: 410-9077-1

Job Description: fYNOP Monthly Surface Water

For:

Groundwater Sciences Corporation
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Attention: Christopher O'Neil



Approved for release.
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8/12/2020 11:04 AM

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08/12/2020

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Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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Definitions/Glossary

Client: Groundwater Sciences Corporation
Project/Site: fYNOP Monthly Surface Water

Job ID: 410-9077-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
^c	CCV Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
410-9077-1

Receipt

The samples were received on 7/29/2020 9:55 PM; the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.9°C

Receipt Exceptions

The container count for the following sample did not match the information listed on the Chain-of-Custody (COC): HD-QC1-0/1-2 (410-9077-14). Received 3 containers not 2.

GC/MS VOA

Method 8260D_LL: The continuing calibration verification (CCV) associated with batch 410-30932 recovered outside acceptance criteria, low biased, for Bromomethane. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

Method 8260D_LL: The continuing calibration verification (CCV) associated with batch 410-31280 recovered outside acceptance criteria, low biased, for Bromoform, Bromomethane, Chloromethane, Carbon tetrachloride and Vinyl chloride. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Non-detections of the affected analytes are reported. Any detections are considered estimated.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Groundwater Sciences Corporation
Project/Site: fYNOP Monthly Surface Water

Job ID: 410-9077-1

Client Sample ID: HD-COD-SW-6-0/1-0

Lab Sample ID: 410-9077-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.4	J	5.0	0.90	ug/L	1		8260D	Total/NA
Chloromethane	0.14	J	0.50	0.060	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.067	J	0.50	0.050	ug/L	1		8260D	Total/NA
Trichloroethene	0.065	J	0.50	0.060	ug/L	1		8260D	Total/NA

Client Sample ID: HD-COD-SW-7-0/1-0

Lab Sample ID: 410-9077-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.8	J	5.0	0.90	ug/L	1		8260D	Total/NA
Chloroform	0.11	J	0.50	0.090	ug/L	1		8260D	Total/NA
Chloromethane	0.063	J	0.50	0.060	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.080	J	0.50	0.050	ug/L	1		8260D	Total/NA
Trichloroethene	0.081	J	0.50	0.060	ug/L	1		8260D	Total/NA

Client Sample ID: HD-COD-SW-8-0/1-0

Lab Sample ID: 410-9077-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.8	J	5.0	0.90	ug/L	1		8260D	Total/NA
Chloromethane	0.071	J	0.50	0.060	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.076	J	0.50	0.050	ug/L	1		8260D	Total/NA
Trichloroethene	0.068	J	0.50	0.060	ug/L	1		8260D	Total/NA

Client Sample ID: HD-COD-SW-9-0/1-0

Lab Sample ID: 410-9077-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	3.0	J	5.0	0.90	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.076	J	0.50	0.060	ug/L	1		8260D	Total/NA
Toluene	0.088	J	0.50	0.070	ug/L	1		8260D	Total/NA

Client Sample ID: HD-COD-SW-13-0/1-0

Lab Sample ID: 410-9077-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.1	J	5.0	0.90	ug/L	1		8260D	Total/NA
Chloromethane	0.070	J	0.50	0.060	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.086	J	0.50	0.050	ug/L	1		8260D	Total/NA
Trichloroethene	0.073	J	0.50	0.060	ug/L	1		8260D	Total/NA

Client Sample ID: HD-COD-SW-15-0/1-0

Lab Sample ID: 410-9077-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.12	J	0.50	0.060	ug/L	1		8260D	Total/NA
1,1-Dichloroethene	0.089	J	0.50	0.060	ug/L	1		8260D	Total/NA
Acetone	1.7	J	5.0	0.90	ug/L	1		8260D	Total/NA
Chloroform	0.25	J	0.50	0.090	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.75		0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	2.5		0.50	0.060	ug/L	1		8260D	Total/NA
Trichloroethene	0.89		0.50	0.060	ug/L	1		8260D	Total/NA

Client Sample ID: HD-COD-SW-16-0/1-0

Lab Sample ID: 410-9077-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.5	J	5.0	0.90	ug/L	1		8260D	Total/NA
Chloromethane	0.093	J	0.50	0.060	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.087	J	0.50	0.050	ug/L	1		8260D	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Groundwater Sciences Corporation
 Project/Site: fYNOP Monthly Surface Water

Job ID: 410-9077-1

Client Sample ID: HD-COD-SW-16-0/1-0 (Continued)

Lab Sample ID: 410-9077-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	0.078	J	0.50	0.060	ug/L	1		8260D	Total/NA

Client Sample ID: HD-COD-SW-17-0/1-0

Lab Sample ID: 410-9077-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.11	J	0.50	0.060	ug/L	1		8260D	Total/NA
1,1-Dichloroethane	0.095	J	0.50	0.070	ug/L	1		8260D	Total/NA
1,1-Dichloroethene	0.069	J	0.50	0.060	ug/L	1		8260D	Total/NA
Acetone	1.1	J	5.0	0.90	ug/L	1		8260D	Total/NA
Chloroform	0.13	J	0.50	0.090	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	1.1		0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	3.0		0.50	0.060	ug/L	1		8260D	Total/NA
Trichloroethene	1.4		0.50	0.060	ug/L	1		8260D	Total/NA
Vinyl chloride	0.11	J	0.50	0.10	ug/L	1		8260D	Total/NA

Client Sample ID: HD-COD-SW-26-0/1-0

Lab Sample ID: 410-9077-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.17	J	0.50	0.060	ug/L	1		8260D	Total/NA
Chloroform	0.64		0.50	0.090	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.091	J	0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	3.6		0.50	0.060	ug/L	1		8260D	Total/NA
Trichloroethene	0.19	J	0.50	0.060	ug/L	1		8260D	Total/NA

Client Sample ID: HD-COD-SW-27-0/1-0

Lab Sample ID: 410-9077-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.9	J	5.0	0.90	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.069	J	0.50	0.050	ug/L	1		8260D	Total/NA

Client Sample ID: HD-COD-SW-28-0/1-0

Lab Sample ID: 410-9077-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	5.9		5.0	0.90	ug/L	1		8260D	Total/NA
Chloroform	0.097	J	0.50	0.090	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.080	J	0.50	0.060	ug/L	1		8260D	Total/NA

Client Sample ID: HD-COD-SW-29-0/1-0

Lab Sample ID: 410-9077-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.6	J	5.0	0.90	ug/L	1		8260D	Total/NA
Chloromethane	0.060	J ^c	0.50	0.060	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.080	J	0.50	0.050	ug/L	1		8260D	Total/NA

Client Sample ID: HD-QC1-0/1-1

Lab Sample ID: 410-9077-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.11	J	0.50	0.060	ug/L	1		8260D	Total/NA
1,1-Dichloroethane	0.087	J	0.50	0.070	ug/L	1		8260D	Total/NA
1,1-Dichloroethene	0.073	J	0.50	0.060	ug/L	1		8260D	Total/NA
Acetone	1.9	J	5.0	0.90	ug/L	1		8260D	Total/NA
Chloroform	0.13	J	0.50	0.090	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	1.1		0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	3.1		0.50	0.060	ug/L	1		8260D	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Groundwater Sciences Corporation
Project/Site: FYNOP Monthly Surface Water

Job ID: 410-9077-1

Client Sample ID: HD-QC1-0/1-1 (Continued)

Lab Sample ID: 410-9077-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	1.4		0.50	0.060	ug/L	1		8260D	Total/NA

Client Sample ID: HD-QC1-0/1-2

Lab Sample ID: 410-9077-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.5	J	5.0	0.90	ug/L	1		8260D	Total/NA
Methylene Chloride	0.26	J	0.50	0.070	ug/L	1		8260D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: fYNOP Monthly Surface Water

Job ID: 410-9077-1

Client Sample ID: HD-COD-SW-6-0/1-0

Lab Sample ID: 410-9077-1

Date Collected: 07/28/20 09:40

Matrix: Surface Water

Date Received: 07/29/20 21:55

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			08/08/20 04:26	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/08/20 04:26	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/08/20 04:26	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			08/08/20 04:26	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			08/08/20 04:26	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			08/08/20 04:26	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			08/08/20 04:26	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			08/08/20 04:26	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			08/08/20 04:26	1
2-Hexanone	ND		5.0	0.60	ug/L			08/08/20 04:26	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			08/08/20 04:26	1
Acetone	2.4	J	5.0	0.90	ug/L			08/08/20 04:26	1
Acrylonitrile	ND		5.0	0.40	ug/L			08/08/20 04:26	1
Benzene	ND		0.50	0.050	ug/L			08/08/20 04:26	1
Bromoform	ND		1.0	0.30	ug/L			08/08/20 04:26	1
Bromomethane	ND	^c	0.50	0.070	ug/L			08/08/20 04:26	1
Carbon disulfide	ND		1.0	0.060	ug/L			08/08/20 04:26	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			08/08/20 04:26	1
Chlorobenzene	ND		0.50	0.060	ug/L			08/08/20 04:26	1
Bromochloromethane	ND		0.50	0.050	ug/L			08/08/20 04:26	1
Dibromochloromethane	ND		0.50	0.070	ug/L			08/08/20 04:26	1
Chloroethane	ND		0.50	0.070	ug/L			08/08/20 04:26	1
Chloroform	ND		0.50	0.090	ug/L			08/08/20 04:26	1
Chloromethane	0.14	J	0.50	0.060	ug/L			08/08/20 04:26	1
cis-1,2-Dichloroethene	0.067	J	0.50	0.050	ug/L			08/08/20 04:26	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			08/08/20 04:26	1
Bromodichloromethane	ND		0.50	0.050	ug/L			08/08/20 04:26	1
Ethylbenzene	ND		0.50	0.060	ug/L			08/08/20 04:26	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			08/08/20 04:26	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			08/08/20 04:26	1
Methylene Chloride	ND		0.50	0.070	ug/L			08/08/20 04:26	1
Styrene	ND		0.50	0.050	ug/L			08/08/20 04:26	1
Tetrachloroethene	ND		0.50	0.060	ug/L			08/08/20 04:26	1
Toluene	ND		0.50	0.070	ug/L			08/08/20 04:26	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			08/08/20 04:26	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			08/08/20 04:26	1
Trichloroethene	0.065	J	0.50	0.060	ug/L			08/08/20 04:26	1
Vinyl chloride	ND		0.50	0.10	ug/L			08/08/20 04:26	1
Xylenes, Total	ND		1.0	0.15	ug/L			08/08/20 04:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		80 - 120		08/08/20 04:26	1
4-Bromofluorobenzene (Surr)	96		80 - 120		08/08/20 04:26	1
Dibromofluoromethane (Surr)	92		80 - 120		08/08/20 04:26	1
Toluene-d8 (Surr)	100		80 - 120		08/08/20 04:26	1

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: fYNOP Monthly Surface Water

Job ID: 410-9077-1

Client Sample ID: HD-COD-SW-7-0/1-0

Lab Sample ID: 410-9077-2

Date Collected: 07/28/20 10:25

Matrix: Surface Water

Date Received: 07/29/20 21:55

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			08/08/20 04:48	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/08/20 04:48	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/08/20 04:48	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			08/08/20 04:48	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			08/08/20 04:48	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			08/08/20 04:48	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			08/08/20 04:48	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			08/08/20 04:48	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			08/08/20 04:48	1
2-Hexanone	ND		5.0	0.60	ug/L			08/08/20 04:48	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			08/08/20 04:48	1
Acetone	1.8	J	5.0	0.90	ug/L			08/08/20 04:48	1
Acrylonitrile	ND		5.0	0.40	ug/L			08/08/20 04:48	1
Benzene	ND		0.50	0.050	ug/L			08/08/20 04:48	1
Bromoform	ND		1.0	0.30	ug/L			08/08/20 04:48	1
Bromomethane	ND	^c	0.50	0.070	ug/L			08/08/20 04:48	1
Carbon disulfide	ND		1.0	0.060	ug/L			08/08/20 04:48	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			08/08/20 04:48	1
Chlorobenzene	ND		0.50	0.060	ug/L			08/08/20 04:48	1
Bromochloromethane	ND		0.50	0.050	ug/L			08/08/20 04:48	1
Dibromochloromethane	ND		0.50	0.070	ug/L			08/08/20 04:48	1
Chloroethane	ND		0.50	0.070	ug/L			08/08/20 04:48	1
Chloroform	0.11	J	0.50	0.090	ug/L			08/08/20 04:48	1
Chloromethane	0.063	J	0.50	0.060	ug/L			08/08/20 04:48	1
cis-1,2-Dichloroethene	0.080	J	0.50	0.050	ug/L			08/08/20 04:48	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			08/08/20 04:48	1
Bromodichloromethane	ND		0.50	0.050	ug/L			08/08/20 04:48	1
Ethylbenzene	ND		0.50	0.060	ug/L			08/08/20 04:48	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			08/08/20 04:48	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			08/08/20 04:48	1
Methylene Chloride	ND		0.50	0.070	ug/L			08/08/20 04:48	1
Styrene	ND		0.50	0.050	ug/L			08/08/20 04:48	1
Tetrachloroethene	ND		0.50	0.060	ug/L			08/08/20 04:48	1
Toluene	ND		0.50	0.070	ug/L			08/08/20 04:48	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			08/08/20 04:48	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			08/08/20 04:48	1
Trichloroethene	0.081	J	0.50	0.060	ug/L			08/08/20 04:48	1
Vinyl chloride	ND		0.50	0.10	ug/L			08/08/20 04:48	1
Xylenes, Total	ND		1.0	0.15	ug/L			08/08/20 04:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		80 - 120		08/08/20 04:48	1
4-Bromofluorobenzene (Surr)	94		80 - 120		08/08/20 04:48	1
Dibromofluoromethane (Surr)	92		80 - 120		08/08/20 04:48	1
Toluene-d8 (Surr)	100		80 - 120		08/08/20 04:48	1

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: fYNOP Monthly Surface Water

Job ID: 410-9077-1

Client Sample ID: HD-COD-SW-8-0/1-0

Lab Sample ID: 410-9077-3

Date Collected: 07/28/20 08:05

Matrix: Surface Water

Date Received: 07/29/20 21:55

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			08/08/20 05:10	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/08/20 05:10	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/08/20 05:10	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			08/08/20 05:10	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			08/08/20 05:10	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			08/08/20 05:10	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			08/08/20 05:10	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			08/08/20 05:10	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			08/08/20 05:10	1
2-Hexanone	ND		5.0	0.60	ug/L			08/08/20 05:10	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			08/08/20 05:10	1
Acetone	1.8	J	5.0	0.90	ug/L			08/08/20 05:10	1
Acrylonitrile	ND		5.0	0.40	ug/L			08/08/20 05:10	1
Benzene	ND		0.50	0.050	ug/L			08/08/20 05:10	1
Bromoform	ND		1.0	0.30	ug/L			08/08/20 05:10	1
Bromomethane	ND	^c	0.50	0.070	ug/L			08/08/20 05:10	1
Carbon disulfide	ND		1.0	0.060	ug/L			08/08/20 05:10	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			08/08/20 05:10	1
Chlorobenzene	ND		0.50	0.060	ug/L			08/08/20 05:10	1
Bromochloromethane	ND		0.50	0.050	ug/L			08/08/20 05:10	1
Dibromochloromethane	ND		0.50	0.070	ug/L			08/08/20 05:10	1
Chloroethane	ND		0.50	0.070	ug/L			08/08/20 05:10	1
Chloroform	ND		0.50	0.090	ug/L			08/08/20 05:10	1
Chloromethane	0.071	J	0.50	0.060	ug/L			08/08/20 05:10	1
cis-1,2-Dichloroethene	0.076	J	0.50	0.050	ug/L			08/08/20 05:10	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			08/08/20 05:10	1
Bromodichloromethane	ND		0.50	0.050	ug/L			08/08/20 05:10	1
Ethylbenzene	ND		0.50	0.060	ug/L			08/08/20 05:10	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			08/08/20 05:10	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			08/08/20 05:10	1
Methylene Chloride	ND		0.50	0.070	ug/L			08/08/20 05:10	1
Styrene	ND		0.50	0.050	ug/L			08/08/20 05:10	1
Tetrachloroethene	ND		0.50	0.060	ug/L			08/08/20 05:10	1
Toluene	ND		0.50	0.070	ug/L			08/08/20 05:10	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			08/08/20 05:10	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			08/08/20 05:10	1
Trichloroethene	0.068	J	0.50	0.060	ug/L			08/08/20 05:10	1
Vinyl chloride	ND		0.50	0.10	ug/L			08/08/20 05:10	1
Xylenes, Total	ND		1.0	0.15	ug/L			08/08/20 05:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		80 - 120		08/08/20 05:10	1
4-Bromofluorobenzene (Surr)	96		80 - 120		08/08/20 05:10	1
Dibromofluoromethane (Surr)	92		80 - 120		08/08/20 05:10	1
Toluene-d8 (Surr)	101		80 - 120		08/08/20 05:10	1

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: fYNOP Monthly Surface Water

Job ID: 410-9077-1

Client Sample ID: HD-COD-SW-9-0/1-0

Lab Sample ID: 410-9077-4

Date Collected: 07/28/20 11:20

Matrix: Surface Water

Date Received: 07/29/20 21:55

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			08/08/20 05:32	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/08/20 05:32	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/08/20 05:32	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			08/08/20 05:32	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			08/08/20 05:32	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			08/08/20 05:32	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			08/08/20 05:32	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			08/08/20 05:32	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			08/08/20 05:32	1
2-Hexanone	ND		5.0	0.60	ug/L			08/08/20 05:32	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			08/08/20 05:32	1
Acetone	3.0	J	5.0	0.90	ug/L			08/08/20 05:32	1
Acrylonitrile	ND		5.0	0.40	ug/L			08/08/20 05:32	1
Benzene	ND		0.50	0.050	ug/L			08/08/20 05:32	1
Bromoform	ND		1.0	0.30	ug/L			08/08/20 05:32	1
Bromomethane	ND	^c	0.50	0.070	ug/L			08/08/20 05:32	1
Carbon disulfide	ND		1.0	0.060	ug/L			08/08/20 05:32	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			08/08/20 05:32	1
Chlorobenzene	ND		0.50	0.060	ug/L			08/08/20 05:32	1
Bromochloromethane	ND		0.50	0.050	ug/L			08/08/20 05:32	1
Dibromochloromethane	ND		0.50	0.070	ug/L			08/08/20 05:32	1
Chloroethane	ND		0.50	0.070	ug/L			08/08/20 05:32	1
Chloroform	ND		0.50	0.090	ug/L			08/08/20 05:32	1
Chloromethane	ND		0.50	0.060	ug/L			08/08/20 05:32	1
cis-1,2-Dichloroethene	ND		0.50	0.050	ug/L			08/08/20 05:32	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			08/08/20 05:32	1
Bromodichloromethane	ND		0.50	0.050	ug/L			08/08/20 05:32	1
Ethylbenzene	ND		0.50	0.060	ug/L			08/08/20 05:32	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			08/08/20 05:32	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			08/08/20 05:32	1
Methylene Chloride	ND		0.50	0.070	ug/L			08/08/20 05:32	1
Styrene	ND		0.50	0.050	ug/L			08/08/20 05:32	1
Tetrachloroethene	0.076	J	0.50	0.060	ug/L			08/08/20 05:32	1
Toluene	0.088	J	0.50	0.070	ug/L			08/08/20 05:32	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			08/08/20 05:32	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			08/08/20 05:32	1
Trichloroethene	ND		0.50	0.060	ug/L			08/08/20 05:32	1
Vinyl chloride	ND		0.50	0.10	ug/L			08/08/20 05:32	1
Xylenes, Total	ND		1.0	0.15	ug/L			08/08/20 05:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		80 - 120		08/08/20 05:32	1
4-Bromofluorobenzene (Surr)	97		80 - 120		08/08/20 05:32	1
Dibromofluoromethane (Surr)	91		80 - 120		08/08/20 05:32	1
Toluene-d8 (Surr)	101		80 - 120		08/08/20 05:32	1

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: fYNOP Monthly Surface Water

Job ID: 410-9077-1

Client Sample ID: HD-COD-SW-13-0/1-0

Lab Sample ID: 410-9077-5

Date Collected: 07/28/20 08:25

Matrix: Surface Water

Date Received: 07/29/20 21:55

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			08/08/20 05:55	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/08/20 05:55	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/08/20 05:55	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			08/08/20 05:55	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			08/08/20 05:55	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			08/08/20 05:55	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			08/08/20 05:55	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			08/08/20 05:55	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			08/08/20 05:55	1
2-Hexanone	ND		5.0	0.60	ug/L			08/08/20 05:55	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			08/08/20 05:55	1
Acetone	2.1	J	5.0	0.90	ug/L			08/08/20 05:55	1
Acrylonitrile	ND		5.0	0.40	ug/L			08/08/20 05:55	1
Benzene	ND		0.50	0.050	ug/L			08/08/20 05:55	1
Bromoform	ND		1.0	0.30	ug/L			08/08/20 05:55	1
Bromomethane	ND	^c	0.50	0.070	ug/L			08/08/20 05:55	1
Carbon disulfide	ND		1.0	0.060	ug/L			08/08/20 05:55	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			08/08/20 05:55	1
Chlorobenzene	ND		0.50	0.060	ug/L			08/08/20 05:55	1
Bromochloromethane	ND		0.50	0.050	ug/L			08/08/20 05:55	1
Dibromochloromethane	ND		0.50	0.070	ug/L			08/08/20 05:55	1
Chloroethane	ND		0.50	0.070	ug/L			08/08/20 05:55	1
Chloroform	ND		0.50	0.090	ug/L			08/08/20 05:55	1
Chloromethane	0.070	J	0.50	0.060	ug/L			08/08/20 05:55	1
cis-1,2-Dichloroethene	0.086	J	0.50	0.050	ug/L			08/08/20 05:55	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			08/08/20 05:55	1
Bromodichloromethane	ND		0.50	0.050	ug/L			08/08/20 05:55	1
Ethylbenzene	ND		0.50	0.060	ug/L			08/08/20 05:55	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			08/08/20 05:55	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			08/08/20 05:55	1
Methylene Chloride	ND		0.50	0.070	ug/L			08/08/20 05:55	1
Styrene	ND		0.50	0.050	ug/L			08/08/20 05:55	1
Tetrachloroethene	ND		0.50	0.060	ug/L			08/08/20 05:55	1
Toluene	ND		0.50	0.070	ug/L			08/08/20 05:55	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			08/08/20 05:55	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			08/08/20 05:55	1
Trichloroethene	0.073	J	0.50	0.060	ug/L			08/08/20 05:55	1
Vinyl chloride	ND		0.50	0.10	ug/L			08/08/20 05:55	1
Xylenes, Total	ND		1.0	0.15	ug/L			08/08/20 05:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		80 - 120		08/08/20 05:55	1
4-Bromofluorobenzene (Surr)	96		80 - 120		08/08/20 05:55	1
Dibromofluoromethane (Surr)	92		80 - 120		08/08/20 05:55	1
Toluene-d8 (Surr)	100		80 - 120		08/08/20 05:55	1

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: fYNOP Monthly Surface Water

Job ID: 410-9077-1

Client Sample ID: HD-COD-SW-15-0/1-0

Lab Sample ID: 410-9077-6

Date Collected: 07/28/20 10:40

Matrix: Surface Water

Date Received: 07/29/20 21:55

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.12	J	0.50	0.060	ug/L			08/08/20 02:57	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/08/20 02:57	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/08/20 02:57	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			08/08/20 02:57	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			08/08/20 02:57	1
1,1-Dichloroethene	0.089	J	0.50	0.060	ug/L			08/08/20 02:57	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			08/08/20 02:57	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			08/08/20 02:57	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			08/08/20 02:57	1
2-Hexanone	ND		5.0	0.60	ug/L			08/08/20 02:57	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			08/08/20 02:57	1
Acetone	1.7	J	5.0	0.90	ug/L			08/08/20 02:57	1
Acrylonitrile	ND		5.0	0.40	ug/L			08/08/20 02:57	1
Benzene	ND		0.50	0.050	ug/L			08/08/20 02:57	1
Bromoform	ND		1.0	0.30	ug/L			08/08/20 02:57	1
Bromomethane	ND	^c	0.50	0.070	ug/L			08/08/20 02:57	1
Carbon disulfide	ND		1.0	0.060	ug/L			08/08/20 02:57	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			08/08/20 02:57	1
Chlorobenzene	ND		0.50	0.060	ug/L			08/08/20 02:57	1
Bromochloromethane	ND		0.50	0.050	ug/L			08/08/20 02:57	1
Dibromochloromethane	ND		0.50	0.070	ug/L			08/08/20 02:57	1
Chloroethane	ND		0.50	0.070	ug/L			08/08/20 02:57	1
Chloroform	0.25	J	0.50	0.090	ug/L			08/08/20 02:57	1
Chloromethane	ND		0.50	0.060	ug/L			08/08/20 02:57	1
cis-1,2-Dichloroethene	0.75		0.50	0.050	ug/L			08/08/20 02:57	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			08/08/20 02:57	1
Bromodichloromethane	ND		0.50	0.050	ug/L			08/08/20 02:57	1
Ethylbenzene	ND		0.50	0.060	ug/L			08/08/20 02:57	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			08/08/20 02:57	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			08/08/20 02:57	1
Methylene Chloride	ND		0.50	0.070	ug/L			08/08/20 02:57	1
Styrene	ND		0.50	0.050	ug/L			08/08/20 02:57	1
Tetrachloroethene	2.5		0.50	0.060	ug/L			08/08/20 02:57	1
Toluene	ND		0.50	0.070	ug/L			08/08/20 02:57	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			08/08/20 02:57	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			08/08/20 02:57	1
Trichloroethene	0.89		0.50	0.060	ug/L			08/08/20 02:57	1
Vinyl chloride	ND		0.50	0.10	ug/L			08/08/20 02:57	1
Xylenes, Total	ND		1.0	0.15	ug/L			08/08/20 02:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		80 - 120		08/08/20 02:57	1
4-Bromofluorobenzene (Surr)	95		80 - 120		08/08/20 02:57	1
Dibromofluoromethane (Surr)	92		80 - 120		08/08/20 02:57	1
Toluene-d8 (Surr)	100		80 - 120		08/08/20 02:57	1

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: fYNOP Monthly Surface Water

Job ID: 410-9077-1

Client Sample ID: HD-COD-SW-16-0/1-0

Lab Sample ID: 410-9077-7

Date Collected: 07/28/20 08:45

Matrix: Surface Water

Date Received: 07/29/20 21:55

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			08/08/20 06:17	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/08/20 06:17	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/08/20 06:17	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			08/08/20 06:17	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			08/08/20 06:17	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			08/08/20 06:17	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			08/08/20 06:17	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			08/08/20 06:17	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			08/08/20 06:17	1
2-Hexanone	ND		5.0	0.60	ug/L			08/08/20 06:17	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			08/08/20 06:17	1
Acetone	1.5	J	5.0	0.90	ug/L			08/08/20 06:17	1
Acrylonitrile	ND		5.0	0.40	ug/L			08/08/20 06:17	1
Benzene	ND		0.50	0.050	ug/L			08/08/20 06:17	1
Bromoform	ND		1.0	0.30	ug/L			08/08/20 06:17	1
Bromomethane	ND	^c	0.50	0.070	ug/L			08/08/20 06:17	1
Carbon disulfide	ND		1.0	0.060	ug/L			08/08/20 06:17	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			08/08/20 06:17	1
Chlorobenzene	ND		0.50	0.060	ug/L			08/08/20 06:17	1
Bromochloromethane	ND		0.50	0.050	ug/L			08/08/20 06:17	1
Dibromochloromethane	ND		0.50	0.070	ug/L			08/08/20 06:17	1
Chloroethane	ND		0.50	0.070	ug/L			08/08/20 06:17	1
Chloroform	ND		0.50	0.090	ug/L			08/08/20 06:17	1
Chloromethane	0.093	J	0.50	0.060	ug/L			08/08/20 06:17	1
cis-1,2-Dichloroethene	0.087	J	0.50	0.050	ug/L			08/08/20 06:17	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			08/08/20 06:17	1
Bromodichloromethane	ND		0.50	0.050	ug/L			08/08/20 06:17	1
Ethylbenzene	ND		0.50	0.060	ug/L			08/08/20 06:17	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			08/08/20 06:17	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			08/08/20 06:17	1
Methylene Chloride	ND		0.50	0.070	ug/L			08/08/20 06:17	1
Styrene	ND		0.50	0.050	ug/L			08/08/20 06:17	1
Tetrachloroethene	ND		0.50	0.060	ug/L			08/08/20 06:17	1
Toluene	ND		0.50	0.070	ug/L			08/08/20 06:17	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			08/08/20 06:17	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			08/08/20 06:17	1
Trichloroethene	0.078	J	0.50	0.060	ug/L			08/08/20 06:17	1
Vinyl chloride	ND		0.50	0.10	ug/L			08/08/20 06:17	1
Xylenes, Total	ND		1.0	0.15	ug/L			08/08/20 06:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		80 - 120		08/08/20 06:17	1
4-Bromofluorobenzene (Surr)	95		80 - 120		08/08/20 06:17	1
Dibromofluoromethane (Surr)	91		80 - 120		08/08/20 06:17	1
Toluene-d8 (Surr)	100		80 - 120		08/08/20 06:17	1

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: fYNOP Monthly Surface Water

Job ID: 410-9077-1

Client Sample ID: HD-COD-SW-17-0/1-0

Lab Sample ID: 410-9077-8

Date Collected: 07/28/20 08:55

Matrix: Surface Water

Date Received: 07/29/20 21:55

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.11	J	0.50	0.060	ug/L			08/08/20 06:39	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/08/20 06:39	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/08/20 06:39	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			08/08/20 06:39	1
1,1-Dichloroethane	0.095	J	0.50	0.070	ug/L			08/08/20 06:39	1
1,1-Dichloroethene	0.069	J	0.50	0.060	ug/L			08/08/20 06:39	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			08/08/20 06:39	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			08/08/20 06:39	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			08/08/20 06:39	1
2-Hexanone	ND		5.0	0.60	ug/L			08/08/20 06:39	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			08/08/20 06:39	1
Acetone	1.1	J	5.0	0.90	ug/L			08/08/20 06:39	1
Acrylonitrile	ND		5.0	0.40	ug/L			08/08/20 06:39	1
Benzene	ND		0.50	0.050	ug/L			08/08/20 06:39	1
Bromoform	ND		1.0	0.30	ug/L			08/08/20 06:39	1
Bromomethane	ND	^c	0.50	0.070	ug/L			08/08/20 06:39	1
Carbon disulfide	ND		1.0	0.060	ug/L			08/08/20 06:39	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			08/08/20 06:39	1
Chlorobenzene	ND		0.50	0.060	ug/L			08/08/20 06:39	1
Bromochloromethane	ND		0.50	0.050	ug/L			08/08/20 06:39	1
Dibromochloromethane	ND		0.50	0.070	ug/L			08/08/20 06:39	1
Chloroethane	ND		0.50	0.070	ug/L			08/08/20 06:39	1
Chloroform	0.13	J	0.50	0.090	ug/L			08/08/20 06:39	1
Chloromethane	ND		0.50	0.060	ug/L			08/08/20 06:39	1
cis-1,2-Dichloroethene	1.1		0.50	0.050	ug/L			08/08/20 06:39	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			08/08/20 06:39	1
Bromodichloromethane	ND		0.50	0.050	ug/L			08/08/20 06:39	1
Ethylbenzene	ND		0.50	0.060	ug/L			08/08/20 06:39	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			08/08/20 06:39	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			08/08/20 06:39	1
Methylene Chloride	ND		0.50	0.070	ug/L			08/08/20 06:39	1
Styrene	ND		0.50	0.050	ug/L			08/08/20 06:39	1
Tetrachloroethene	3.0		0.50	0.060	ug/L			08/08/20 06:39	1
Toluene	ND		0.50	0.070	ug/L			08/08/20 06:39	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			08/08/20 06:39	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			08/08/20 06:39	1
Trichloroethene	1.4		0.50	0.060	ug/L			08/08/20 06:39	1
Vinyl chloride	0.11	J	0.50	0.10	ug/L			08/08/20 06:39	1
Xylenes, Total	ND		1.0	0.15	ug/L			08/08/20 06:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		80 - 120		08/08/20 06:39	1
4-Bromofluorobenzene (Surr)	96		80 - 120		08/08/20 06:39	1
Dibromofluoromethane (Surr)	92		80 - 120		08/08/20 06:39	1
Toluene-d8 (Surr)	99		80 - 120		08/08/20 06:39	1

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: fYNOP Monthly Surface Water

Job ID: 410-9077-1

Client Sample ID: HD-COD-SW-26-0/1-0

Lab Sample ID: 410-9077-9

Date Collected: 07/28/20 10:00

Matrix: Surface Water

Date Received: 07/29/20 21:55

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			08/08/20 07:01	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/08/20 07:01	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/08/20 07:01	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			08/08/20 07:01	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			08/08/20 07:01	1
1,1-Dichloroethene	0.17	J	0.50	0.060	ug/L			08/08/20 07:01	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			08/08/20 07:01	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			08/08/20 07:01	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			08/08/20 07:01	1
2-Hexanone	ND		5.0	0.60	ug/L			08/08/20 07:01	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			08/08/20 07:01	1
Acetone	ND		5.0	0.90	ug/L			08/08/20 07:01	1
Acrylonitrile	ND		5.0	0.40	ug/L			08/08/20 07:01	1
Benzene	ND		0.50	0.050	ug/L			08/08/20 07:01	1
Bromoform	ND		1.0	0.30	ug/L			08/08/20 07:01	1
Bromomethane	ND	^c	0.50	0.070	ug/L			08/08/20 07:01	1
Carbon disulfide	ND		1.0	0.060	ug/L			08/08/20 07:01	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			08/08/20 07:01	1
Chlorobenzene	ND		0.50	0.060	ug/L			08/08/20 07:01	1
Bromochloromethane	ND		0.50	0.050	ug/L			08/08/20 07:01	1
Dibromochloromethane	ND		0.50	0.070	ug/L			08/08/20 07:01	1
Chloroethane	ND		0.50	0.070	ug/L			08/08/20 07:01	1
Chloroform	0.64		0.50	0.090	ug/L			08/08/20 07:01	1
Chloromethane	ND		0.50	0.060	ug/L			08/08/20 07:01	1
cis-1,2-Dichloroethene	0.091	J	0.50	0.050	ug/L			08/08/20 07:01	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			08/08/20 07:01	1
Bromodichloromethane	ND		0.50	0.050	ug/L			08/08/20 07:01	1
Ethylbenzene	ND		0.50	0.060	ug/L			08/08/20 07:01	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			08/08/20 07:01	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			08/08/20 07:01	1
Methylene Chloride	ND		0.50	0.070	ug/L			08/08/20 07:01	1
Styrene	ND		0.50	0.050	ug/L			08/08/20 07:01	1
Tetrachloroethene	3.6		0.50	0.060	ug/L			08/08/20 07:01	1
Toluene	ND		0.50	0.070	ug/L			08/08/20 07:01	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			08/08/20 07:01	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			08/08/20 07:01	1
Trichloroethene	0.19	J	0.50	0.060	ug/L			08/08/20 07:01	1
Vinyl chloride	ND		0.50	0.10	ug/L			08/08/20 07:01	1
Xylenes, Total	ND		1.0	0.15	ug/L			08/08/20 07:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		80 - 120		08/08/20 07:01	1
4-Bromofluorobenzene (Surr)	95		80 - 120		08/08/20 07:01	1
Dibromofluoromethane (Surr)	91		80 - 120		08/08/20 07:01	1
Toluene-d8 (Surr)	99		80 - 120		08/08/20 07:01	1

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: fYNOP Monthly Surface Water

Job ID: 410-9077-1

Client Sample ID: HD-COD-SW-27-0/1-0

Lab Sample ID: 410-9077-10

Date Collected: 07/28/20 10:35

Matrix: Surface Water

Date Received: 07/29/20 21:55

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			08/08/20 07:23	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/08/20 07:23	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/08/20 07:23	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			08/08/20 07:23	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			08/08/20 07:23	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			08/08/20 07:23	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			08/08/20 07:23	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			08/08/20 07:23	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			08/08/20 07:23	1
2-Hexanone	ND		5.0	0.60	ug/L			08/08/20 07:23	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			08/08/20 07:23	1
Acetone	2.9	J	5.0	0.90	ug/L			08/08/20 07:23	1
Acrylonitrile	ND		5.0	0.40	ug/L			08/08/20 07:23	1
Benzene	ND		0.50	0.050	ug/L			08/08/20 07:23	1
Bromoform	ND		1.0	0.30	ug/L			08/08/20 07:23	1
Bromomethane	ND	^c	0.50	0.070	ug/L			08/08/20 07:23	1
Carbon disulfide	ND		1.0	0.060	ug/L			08/08/20 07:23	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			08/08/20 07:23	1
Chlorobenzene	ND		0.50	0.060	ug/L			08/08/20 07:23	1
Bromochloromethane	ND		0.50	0.050	ug/L			08/08/20 07:23	1
Dibromochloromethane	ND		0.50	0.070	ug/L			08/08/20 07:23	1
Chloroethane	ND		0.50	0.070	ug/L			08/08/20 07:23	1
Chloroform	ND		0.50	0.090	ug/L			08/08/20 07:23	1
Chloromethane	ND		0.50	0.060	ug/L			08/08/20 07:23	1
cis-1,2-Dichloroethene	0.069	J	0.50	0.050	ug/L			08/08/20 07:23	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			08/08/20 07:23	1
Bromodichloromethane	ND		0.50	0.050	ug/L			08/08/20 07:23	1
Ethylbenzene	ND		0.50	0.060	ug/L			08/08/20 07:23	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			08/08/20 07:23	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			08/08/20 07:23	1
Methylene Chloride	ND		0.50	0.070	ug/L			08/08/20 07:23	1
Styrene	ND		0.50	0.050	ug/L			08/08/20 07:23	1
Tetrachloroethene	ND		0.50	0.060	ug/L			08/08/20 07:23	1
Toluene	ND		0.50	0.070	ug/L			08/08/20 07:23	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			08/08/20 07:23	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			08/08/20 07:23	1
Trichloroethene	ND		0.50	0.060	ug/L			08/08/20 07:23	1
Vinyl chloride	ND		0.50	0.10	ug/L			08/08/20 07:23	1
Xylenes, Total	ND		1.0	0.15	ug/L			08/08/20 07:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		80 - 120		08/08/20 07:23	1
4-Bromofluorobenzene (Surr)	96		80 - 120		08/08/20 07:23	1
Dibromofluoromethane (Surr)	91		80 - 120		08/08/20 07:23	1
Toluene-d8 (Surr)	101		80 - 120		08/08/20 07:23	1

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: fYNOP Monthly Surface Water

Job ID: 410-9077-1

Client Sample ID: HD-COD-SW-28-0/1-0

Lab Sample ID: 410-9077-11

Date Collected: 07/28/20 11:35

Matrix: Surface Water

Date Received: 07/29/20 21:55

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			08/08/20 07:45	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/08/20 07:45	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/08/20 07:45	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			08/08/20 07:45	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			08/08/20 07:45	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			08/08/20 07:45	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			08/08/20 07:45	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			08/08/20 07:45	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			08/08/20 07:45	1
2-Hexanone	ND		5.0	0.60	ug/L			08/08/20 07:45	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			08/08/20 07:45	1
Acetone	5.9		5.0	0.90	ug/L			08/08/20 07:45	1
Acrylonitrile	ND		5.0	0.40	ug/L			08/08/20 07:45	1
Benzene	ND		0.50	0.050	ug/L			08/08/20 07:45	1
Bromoform	ND		1.0	0.30	ug/L			08/08/20 07:45	1
Bromomethane	ND	^c	0.50	0.070	ug/L			08/08/20 07:45	1
Carbon disulfide	ND		1.0	0.060	ug/L			08/08/20 07:45	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			08/08/20 07:45	1
Chlorobenzene	ND		0.50	0.060	ug/L			08/08/20 07:45	1
Bromochloromethane	ND		0.50	0.050	ug/L			08/08/20 07:45	1
Dibromochloromethane	ND		0.50	0.070	ug/L			08/08/20 07:45	1
Chloroethane	ND		0.50	0.070	ug/L			08/08/20 07:45	1
Chloroform	0.097 J		0.50	0.090	ug/L			08/08/20 07:45	1
Chloromethane	ND		0.50	0.060	ug/L			08/08/20 07:45	1
cis-1,2-Dichloroethene	ND		0.50	0.050	ug/L			08/08/20 07:45	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			08/08/20 07:45	1
Bromodichloromethane	ND		0.50	0.050	ug/L			08/08/20 07:45	1
Ethylbenzene	ND		0.50	0.060	ug/L			08/08/20 07:45	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			08/08/20 07:45	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			08/08/20 07:45	1
Methylene Chloride	ND		0.50	0.070	ug/L			08/08/20 07:45	1
Styrene	ND		0.50	0.050	ug/L			08/08/20 07:45	1
Tetrachloroethene	0.080 J		0.50	0.060	ug/L			08/08/20 07:45	1
Toluene	ND		0.50	0.070	ug/L			08/08/20 07:45	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			08/08/20 07:45	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			08/08/20 07:45	1
Trichloroethene	ND		0.50	0.060	ug/L			08/08/20 07:45	1
Vinyl chloride	ND		0.50	0.10	ug/L			08/08/20 07:45	1
Xylenes, Total	ND		1.0	0.15	ug/L			08/08/20 07:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		80 - 120		08/08/20 07:45	1
4-Bromofluorobenzene (Surr)	96		80 - 120		08/08/20 07:45	1
Dibromofluoromethane (Surr)	91		80 - 120		08/08/20 07:45	1
Toluene-d8 (Surr)	101		80 - 120		08/08/20 07:45	1

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: fYNOP Monthly Surface Water

Job ID: 410-9077-1

Client Sample ID: HD-COD-SW-29-0/1-0

Lab Sample ID: 410-9077-12

Date Collected: 07/28/20 07:50

Matrix: Surface Water

Date Received: 07/29/20 21:55

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			08/10/20 13:18	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/10/20 13:18	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/10/20 13:18	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			08/10/20 13:18	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			08/10/20 13:18	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			08/10/20 13:18	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			08/10/20 13:18	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			08/10/20 13:18	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			08/10/20 13:18	1
2-Hexanone	ND		5.0	0.60	ug/L			08/10/20 13:18	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			08/10/20 13:18	1
Acetone	1.6	J	5.0	0.90	ug/L			08/10/20 13:18	1
Acrylonitrile	ND		5.0	0.40	ug/L			08/10/20 13:18	1
Benzene	ND		0.50	0.050	ug/L			08/10/20 13:18	1
Bromoform	ND	^c	1.0	0.30	ug/L			08/10/20 13:18	1
Bromomethane	ND	^c	0.50	0.070	ug/L			08/10/20 13:18	1
Carbon disulfide	ND		1.0	0.060	ug/L			08/10/20 13:18	1
Carbon tetrachloride	ND	^c	0.50	0.070	ug/L			08/10/20 13:18	1
Chlorobenzene	ND		0.50	0.060	ug/L			08/10/20 13:18	1
Bromochloromethane	ND		0.50	0.050	ug/L			08/10/20 13:18	1
Dibromochloromethane	ND		0.50	0.070	ug/L			08/10/20 13:18	1
Chloroethane	ND		0.50	0.070	ug/L			08/10/20 13:18	1
Chloroform	ND		0.50	0.090	ug/L			08/10/20 13:18	1
Chloromethane	0.060	J ^c	0.50	0.060	ug/L			08/10/20 13:18	1
cis-1,2-Dichloroethene	0.080	J	0.50	0.050	ug/L			08/10/20 13:18	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			08/10/20 13:18	1
Bromodichloromethane	ND		0.50	0.050	ug/L			08/10/20 13:18	1
Ethylbenzene	ND		0.50	0.060	ug/L			08/10/20 13:18	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			08/10/20 13:18	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			08/10/20 13:18	1
Methylene Chloride	ND		0.50	0.070	ug/L			08/10/20 13:18	1
Styrene	ND		0.50	0.050	ug/L			08/10/20 13:18	1
Tetrachloroethene	ND		0.50	0.060	ug/L			08/10/20 13:18	1
Toluene	ND		0.50	0.070	ug/L			08/10/20 13:18	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			08/10/20 13:18	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			08/10/20 13:18	1
Trichloroethene	ND		0.50	0.060	ug/L			08/10/20 13:18	1
Vinyl chloride	ND	^c	0.50	0.10	ug/L			08/10/20 13:18	1
Xylenes, Total	ND		1.0	0.15	ug/L			08/10/20 13:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		80 - 120		08/10/20 13:18	1
4-Bromofluorobenzene (Surr)	97		80 - 120		08/10/20 13:18	1
Dibromofluoromethane (Surr)	92		80 - 120		08/10/20 13:18	1
Toluene-d8 (Surr)	101		80 - 120		08/10/20 13:18	1

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: fYNOP Monthly Surface Water

Job ID: 410-9077-1

Client Sample ID: HD-QC1-0/1-1

Lab Sample ID: 410-9077-13

Date Collected: 07/28/20 11:00

Matrix: Water

Date Received: 07/29/20 21:55

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.11	J	0.50	0.060	ug/L			08/08/20 08:07	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/08/20 08:07	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/08/20 08:07	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			08/08/20 08:07	1
1,1-Dichloroethane	0.087	J	0.50	0.070	ug/L			08/08/20 08:07	1
1,1-Dichloroethene	0.073	J	0.50	0.060	ug/L			08/08/20 08:07	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			08/08/20 08:07	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			08/08/20 08:07	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			08/08/20 08:07	1
2-Hexanone	ND		5.0	0.60	ug/L			08/08/20 08:07	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			08/08/20 08:07	1
Acetone	1.9	J	5.0	0.90	ug/L			08/08/20 08:07	1
Acrylonitrile	ND		5.0	0.40	ug/L			08/08/20 08:07	1
Benzene	ND		0.50	0.050	ug/L			08/08/20 08:07	1
Bromoform	ND		1.0	0.30	ug/L			08/08/20 08:07	1
Bromomethane	ND	^c	0.50	0.070	ug/L			08/08/20 08:07	1
Carbon disulfide	ND		1.0	0.060	ug/L			08/08/20 08:07	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			08/08/20 08:07	1
Chlorobenzene	ND		0.50	0.060	ug/L			08/08/20 08:07	1
Bromochloromethane	ND		0.50	0.050	ug/L			08/08/20 08:07	1
Dibromochloromethane	ND		0.50	0.070	ug/L			08/08/20 08:07	1
Chloroethane	ND		0.50	0.070	ug/L			08/08/20 08:07	1
Chloroform	0.13	J	0.50	0.090	ug/L			08/08/20 08:07	1
Chloromethane	ND		0.50	0.060	ug/L			08/08/20 08:07	1
cis-1,2-Dichloroethene	1.1		0.50	0.050	ug/L			08/08/20 08:07	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			08/08/20 08:07	1
Bromodichloromethane	ND		0.50	0.050	ug/L			08/08/20 08:07	1
Ethylbenzene	ND		0.50	0.060	ug/L			08/08/20 08:07	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			08/08/20 08:07	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			08/08/20 08:07	1
Methylene Chloride	ND		0.50	0.070	ug/L			08/08/20 08:07	1
Styrene	ND		0.50	0.050	ug/L			08/08/20 08:07	1
Tetrachloroethene	3.1		0.50	0.060	ug/L			08/08/20 08:07	1
Toluene	ND		0.50	0.070	ug/L			08/08/20 08:07	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			08/08/20 08:07	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			08/08/20 08:07	1
Trichloroethene	1.4		0.50	0.060	ug/L			08/08/20 08:07	1
Vinyl chloride	ND		0.50	0.10	ug/L			08/08/20 08:07	1
Xylenes, Total	ND		1.0	0.15	ug/L			08/08/20 08:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		80 - 120		08/08/20 08:07	1
4-Bromofluorobenzene (Surr)	97		80 - 120		08/08/20 08:07	1
Dibromofluoromethane (Surr)	90		80 - 120		08/08/20 08:07	1
Toluene-d8 (Surr)	100		80 - 120		08/08/20 08:07	1

Client Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: fYNOP Monthly Surface Water

Job ID: 410-9077-1

Client Sample ID: HD-QC1-0/1-2

Lab Sample ID: 410-9077-14

Date Collected: 07/28/20 00:00

Matrix: Water

Date Received: 07/29/20 21:55

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			08/08/20 00:22	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/08/20 00:22	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/08/20 00:22	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			08/08/20 00:22	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			08/08/20 00:22	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			08/08/20 00:22	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			08/08/20 00:22	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			08/08/20 00:22	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			08/08/20 00:22	1
2-Hexanone	ND		5.0	0.60	ug/L			08/08/20 00:22	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			08/08/20 00:22	1
Acetone	1.5	J	5.0	0.90	ug/L			08/08/20 00:22	1
Acrylonitrile	ND		5.0	0.40	ug/L			08/08/20 00:22	1
Benzene	ND		0.50	0.050	ug/L			08/08/20 00:22	1
Bromoform	ND		1.0	0.30	ug/L			08/08/20 00:22	1
Bromomethane	ND	^c	0.50	0.070	ug/L			08/08/20 00:22	1
Carbon disulfide	ND		1.0	0.060	ug/L			08/08/20 00:22	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			08/08/20 00:22	1
Chlorobenzene	ND		0.50	0.060	ug/L			08/08/20 00:22	1
Bromochloromethane	ND		0.50	0.050	ug/L			08/08/20 00:22	1
Dibromochloromethane	ND		0.50	0.070	ug/L			08/08/20 00:22	1
Chloroethane	ND		0.50	0.070	ug/L			08/08/20 00:22	1
Chloroform	ND		0.50	0.090	ug/L			08/08/20 00:22	1
Chloromethane	ND		0.50	0.060	ug/L			08/08/20 00:22	1
cis-1,2-Dichloroethene	ND		0.50	0.050	ug/L			08/08/20 00:22	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			08/08/20 00:22	1
Bromodichloromethane	ND		0.50	0.050	ug/L			08/08/20 00:22	1
Ethylbenzene	ND		0.50	0.060	ug/L			08/08/20 00:22	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			08/08/20 00:22	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			08/08/20 00:22	1
Methylene Chloride	0.26	J	0.50	0.070	ug/L			08/08/20 00:22	1
Styrene	ND		0.50	0.050	ug/L			08/08/20 00:22	1
Tetrachloroethene	ND		0.50	0.060	ug/L			08/08/20 00:22	1
Toluene	ND		0.50	0.070	ug/L			08/08/20 00:22	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			08/08/20 00:22	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			08/08/20 00:22	1
Trichloroethene	ND		0.50	0.060	ug/L			08/08/20 00:22	1
Vinyl chloride	ND		0.50	0.10	ug/L			08/08/20 00:22	1
Xylenes, Total	ND		1.0	0.15	ug/L			08/08/20 00:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		80 - 120		08/08/20 00:22	1
4-Bromofluorobenzene (Surr)	96		80 - 120		08/08/20 00:22	1
Dibromofluoromethane (Surr)	91		80 - 120		08/08/20 00:22	1
Toluene-d8 (Surr)	101		80 - 120		08/08/20 00:22	1

Default Detection Limits

Client: Groundwater Sciences Corporation
 Project/Site: fYNOP Monthly Surface Water

Job ID: 410-9077-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	RL	MDL	Units
1,1,1,2-Tetrachloroethane	0.50	0.070	ug/L
1,1,1-Trichloroethane	0.50	0.060	ug/L
1,1,2,2-Tetrachloroethane	0.50	0.070	ug/L
1,1,2-Trichloroethane	0.50	0.060	ug/L
1,1-Dichloroethane	0.50	0.070	ug/L
1,1-Dichloroethene	0.50	0.060	ug/L
1,2-Dibromoethane (EDB)	0.50	0.060	ug/L
1,2-Dichloroethane	0.50	0.050	ug/L
1,2-Dichloropropane	0.50	0.060	ug/L
2-Butanone (MEK)	5.0	0.60	ug/L
2-Hexanone	5.0	0.60	ug/L
4-Methyl-2-pentanone (MIBK)	5.0	0.70	ug/L
Acetone	5.0	0.90	ug/L
Acrylonitrile	5.0	0.40	ug/L
Benzene	0.50	0.050	ug/L
Bromochloromethane	0.50	0.050	ug/L
Bromodichloromethane	0.50	0.050	ug/L
Bromoform	1.0	0.30	ug/L
Bromomethane	0.50	0.070	ug/L
Carbon disulfide	1.0	0.060	ug/L
Carbon tetrachloride	0.50	0.070	ug/L
Chlorobenzene	0.50	0.060	ug/L
Chloroethane	0.50	0.070	ug/L
Chloroform	0.50	0.090	ug/L
Chloromethane	0.50	0.060	ug/L
cis-1,2-Dichloroethene	0.50	0.050	ug/L
cis-1,3-Dichloropropene	0.50	0.050	ug/L
Dibromochloromethane	0.50	0.070	ug/L
Ethylbenzene	0.50	0.060	ug/L
Methyl tert-butyl ether	0.50	0.050	ug/L
Methylene Chloride	0.50	0.070	ug/L
Styrene	0.50	0.050	ug/L
Tetrachloroethene	0.50	0.060	ug/L
Toluene	0.50	0.070	ug/L
trans-1,2-Dichloroethene	0.50	0.060	ug/L
trans-1,3-Dichloropropene	0.50	0.060	ug/L
Trichloroethene	0.50	0.060	ug/L
Vinyl chloride	0.50	0.10	ug/L
Xylenes, Total	1.0	0.15	ug/L

Surrogate Summary

Client: Groundwater Sciences Corporation
 Project/Site: fYNOP Monthly Surface Water

Job ID: 410-9077-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Surface Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (80-120)	BFB (80-120)	DBFM (80-120)	TOL (80-120)
410-9077-1	HD-COD-SW-6-0/1-0	98	96	92	100
410-9077-2	HD-COD-SW-7-0/1-0	99	94	92	100
410-9077-3	HD-COD-SW-8-0/1-0	97	96	92	101
410-9077-4	HD-COD-SW-9-0/1-0	99	97	91	101
410-9077-5	HD-COD-SW-13-0/1-0	100	96	92	100
410-9077-6	HD-COD-SW-15-0/1-0	96	95	92	100
410-9077-6 MS	HD-COD-SW-15-0/1-0 MS	97	97	90	101
410-9077-6 MSD	HD-COD-SW-15-0/1-0 MSD	98	98	89	100
410-9077-7	HD-COD-SW-16-0/1-0	99	95	91	100
410-9077-8	HD-COD-SW-17-0/1-0	98	96	92	99
410-9077-9	HD-COD-SW-26-0/1-0	101	95	91	99
410-9077-10	HD-COD-SW-27-0/1-0	100	96	91	101
410-9077-11	HD-COD-SW-28-0/1-0	98	96	91	101
410-9077-12	HD-COD-SW-29-0/1-0	99	97	92	101

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
 BFB = 4-Bromofluorobenzene (Surr)
 DBFM = Dibromofluoromethane (Surr)
 TOL = Toluene-d8 (Surr)

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (80-120)	BFB (80-120)	DBFM (80-120)	TOL (80-120)
410-9077-13	HD-QC1-0/1-1	98	97	90	100
410-9077-14	HD-QC1-0/1-2	100	96	91	101
LCS 410-30932/4	Lab Control Sample	98	98	91	99
LCS 410-31280/4	Lab Control Sample	98	98	91	101
LCSD 410-31280/5	Lab Control Sample Dup	97	98	91	102
MB 410-30932/6	Method Blank	97	97	91	98
MB 410-31280/7	Method Blank	100	97	92	101

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
 BFB = 4-Bromofluorobenzene (Surr)
 DBFM = Dibromofluoromethane (Surr)
 TOL = Toluene-d8 (Surr)

QC Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: fYNOP Monthly Surface Water

Job ID: 410-9077-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-30932/6
Matrix: Water
Analysis Batch: 30932

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			08/07/20 23:56	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/07/20 23:56	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/07/20 23:56	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			08/07/20 23:56	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			08/07/20 23:56	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			08/07/20 23:56	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			08/07/20 23:56	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			08/07/20 23:56	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			08/07/20 23:56	1
2-Hexanone	ND		5.0	0.60	ug/L			08/07/20 23:56	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			08/07/20 23:56	1
Acetone	ND		5.0	0.90	ug/L			08/07/20 23:56	1
Acrylonitrile	ND		5.0	0.40	ug/L			08/07/20 23:56	1
Benzene	ND		0.50	0.050	ug/L			08/07/20 23:56	1
Bromoform	ND		1.0	0.30	ug/L			08/07/20 23:56	1
Bromomethane	ND		0.50	0.070	ug/L			08/07/20 23:56	1
Carbon disulfide	ND		1.0	0.060	ug/L			08/07/20 23:56	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			08/07/20 23:56	1
Chlorobenzene	ND		0.50	0.060	ug/L			08/07/20 23:56	1
Bromochloromethane	ND		0.50	0.050	ug/L			08/07/20 23:56	1
Dibromochloromethane	ND		0.50	0.070	ug/L			08/07/20 23:56	1
Chloroethane	ND		0.50	0.070	ug/L			08/07/20 23:56	1
Chloroform	ND		0.50	0.090	ug/L			08/07/20 23:56	1
Chloromethane	ND		0.50	0.060	ug/L			08/07/20 23:56	1
cis-1,2-Dichloroethene	ND		0.50	0.050	ug/L			08/07/20 23:56	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			08/07/20 23:56	1
Bromodichloromethane	ND		0.50	0.050	ug/L			08/07/20 23:56	1
Ethylbenzene	ND		0.50	0.060	ug/L			08/07/20 23:56	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			08/07/20 23:56	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			08/07/20 23:56	1
Methylene Chloride	ND		0.50	0.070	ug/L			08/07/20 23:56	1
Styrene	ND		0.50	0.050	ug/L			08/07/20 23:56	1
Tetrachloroethene	ND		0.50	0.060	ug/L			08/07/20 23:56	1
Toluene	ND		0.50	0.070	ug/L			08/07/20 23:56	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			08/07/20 23:56	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			08/07/20 23:56	1
Trichloroethene	ND		0.50	0.060	ug/L			08/07/20 23:56	1
Vinyl chloride	ND		0.50	0.10	ug/L			08/07/20 23:56	1
Xylenes, Total	ND		1.0	0.15	ug/L			08/07/20 23:56	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		80 - 120		08/07/20 23:56	1
4-Bromofluorobenzene (Surr)	97		80 - 120		08/07/20 23:56	1
Dibromofluoromethane (Surr)	91		80 - 120		08/07/20 23:56	1
Toluene-d8 (Surr)	98		80 - 120		08/07/20 23:56	1

QC Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: fYNOP Monthly Surface Water

Job ID: 410-9077-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-30932/4

Matrix: Water

Analysis Batch: 30932

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	5.00	4.17		ug/L		83	78 - 126
1,1,1,2-Tetrachloroethane	5.00	4.32		ug/L		86	71 - 134
1,1,2,2-Tetrachloroethane	5.00	5.20		ug/L		104	75 - 123
1,1,2-Trichloroethane	5.00	4.93		ug/L		99	80 - 120
1,1-Dichloroethane	5.00	4.87		ug/L		97	74 - 120
1,1-Dichloroethene	5.00	4.77		ug/L		95	80 - 131
1,2-Dichloroethane	5.00	4.14		ug/L		83	69 - 122
1,2-Dichloropropane	5.00	5.27		ug/L		105	80 - 120
2-Butanone (MEK)	37.5	35.7		ug/L		95	59 - 141
2-Hexanone	25.0	23.5		ug/L		94	52 - 140
4-Methyl-2-pentanone (MIBK)	25.0	23.3		ug/L		93	55 - 140
Acetone	37.5	31.2		ug/L		83	60 - 146
Acrylonitrile	25.0	25.4		ug/L		102	64 - 139
Benzene	5.00	4.94		ug/L		99	80 - 120
Bromoform	5.00	4.16		ug/L		83	49 - 144
Bromomethane	5.00	4.01		ug/L		80	60 - 136
Carbon disulfide	5.00	4.94		ug/L		99	67 - 130
Carbon tetrachloride	5.00	4.01		ug/L		80	64 - 141
Chlorobenzene	5.00	4.68		ug/L		94	80 - 120
Bromochloromethane	5.00	4.21		ug/L		84	80 - 120
Dibromochloromethane	5.00	4.46		ug/L		89	64 - 138
Chloroethane	5.00	4.48		ug/L		90	63 - 120
Chloroform	5.00	4.58		ug/L		92	80 - 120
Chloromethane	5.00	4.36		ug/L		87	56 - 124
cis-1,2-Dichloroethene	5.00	5.01		ug/L		100	80 - 122
cis-1,3-Dichloropropene	5.00	4.84		ug/L		97	67 - 121
Bromodichloromethane	5.00	4.48		ug/L		90	73 - 124
Ethylbenzene	5.00	4.71		ug/L		94	80 - 120
1,2-Dibromoethane (EDB)	5.00	4.56		ug/L		91	80 - 120
Methyl tert-butyl ether	5.00	4.57		ug/L		91	69 - 120
Methylene Chloride	5.00	4.99		ug/L		100	80 - 120
Styrene	5.00	4.93		ug/L		99	80 - 120
Tetrachloroethene	5.00	4.35		ug/L		87	80 - 120
Toluene	5.00	4.99		ug/L		100	80 - 120
trans-1,2-Dichloroethene	5.00	4.83		ug/L		97	80 - 122
trans-1,3-Dichloropropene	5.00	4.62		ug/L		92	61 - 129
Trichloroethene	5.00	4.58		ug/L		92	80 - 120
Vinyl chloride	5.00	4.53		ug/L		91	60 - 125
Xylenes, Total	15.0	14.3		ug/L		95	80 - 120

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	98		80 - 120
4-Bromofluorobenzene (Surr)	98		80 - 120
Dibromofluoromethane (Surr)	91		80 - 120
Toluene-d8 (Surr)	99		80 - 120

QC Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: fYNOP Monthly Surface Water

Job ID: 410-9077-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 410-9077-6 MS

Matrix: Surface Water

Analysis Batch: 30932

Client Sample ID: HD-COD-SW-15-0/1-0 MS

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
1,1,1-Trichloroethane	0.12	J	5.00	4.73		ug/L		92	78 - 126
1,1,1,2-Tetrachloroethane	ND		5.00	4.66		ug/L		93	71 - 134
1,1,2,2-Tetrachloroethane	ND		5.00	5.48		ug/L		109	75 - 123
1,1,2-Trichloroethane	ND		5.00	5.27		ug/L		105	80 - 120
1,1-Dichloroethane	ND		5.00	5.43		ug/L		109	74 - 120
1,1-Dichloroethene	0.089	J	5.00	5.31		ug/L		104	80 - 131
1,2-Dichloroethane	ND		5.00	4.46		ug/L		89	69 - 122
1,2-Dichloropropane	ND		5.00	5.55		ug/L		111	80 - 120
2-Butanone (MEK)	ND		37.5	38.9		ug/L		104	59 - 141
2-Hexanone	ND		25.0	27.0		ug/L		108	52 - 140
4-Methyl-2-pentanone (MIBK)	ND		25.0	24.3		ug/L		97	55 - 140
Acetone	1.7	J	37.5	38.0		ug/L		97	60 - 146
Acrylonitrile	ND		25.0	27.0		ug/L		108	64 - 139
Benzene	ND		5.00	5.32		ug/L		106	80 - 120
Bromoform	ND		5.00	4.41		ug/L		88	49 - 144
Bromomethane	ND	^c	5.00	4.10		ug/L		82	60 - 136
Carbon disulfide	ND		5.00	5.41		ug/L		108	67 - 130
Carbon tetrachloride	ND		5.00	4.45		ug/L		89	64 - 141
Chlorobenzene	ND		5.00	5.04		ug/L		101	80 - 120
Bromochloromethane	ND		5.00	4.26		ug/L		85	80 - 120
Dibromochloromethane	ND		5.00	4.78		ug/L		96	64 - 138
Chloroethane	ND		5.00	4.71		ug/L		94	63 - 120
Chloroform	0.25	J	5.00	5.12		ug/L		97	80 - 120
Chloromethane	ND		5.00	4.48		ug/L		90	80 - 120
cis-1,2-Dichloroethene	0.75		5.00	6.10		ug/L		107	80 - 122
cis-1,3-Dichloropropene	ND		5.00	5.10		ug/L		102	67 - 121
Bromodichloromethane	ND		5.00	4.79		ug/L		96	73 - 124
Ethylbenzene	ND		5.00	5.23		ug/L		104	80 - 120
1,2-Dibromoethane (EDB)	ND		5.00	4.88		ug/L		97	80 - 120
Methyl tert-butyl ether	ND		5.00	4.63		ug/L		92	69 - 120
Methylene Chloride	ND		5.00	5.20		ug/L		104	80 - 120
Styrene	ND		5.00	5.35		ug/L		107	80 - 120
Tetrachloroethene	2.5		5.00	7.37		ug/L		98	80 - 120
Toluene	ND		5.00	5.52		ug/L		110	80 - 120
trans-1,2-Dichloroethene	ND		5.00	5.31		ug/L		106	80 - 122
trans-1,3-Dichloropropene	ND		5.00	4.93		ug/L		98	61 - 129
Trichloroethene	0.89		5.00	5.88		ug/L		100	80 - 120
Vinyl chloride	ND		5.00	4.66		ug/L		93	60 - 125
Xylenes, Total	ND		15.0	15.9		ug/L		106	80 - 120

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		80 - 120
4-Bromofluorobenzene (Surr)	97		80 - 120
Dibromofluoromethane (Surr)	90		80 - 120
Toluene-d8 (Surr)	101		80 - 120

QC Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: fYNOP Monthly Surface Water

Job ID: 410-9077-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 410-9077-6 MSD

Matrix: Surface Water

Analysis Batch: 30932

Client Sample ID: HD-COD-SW-15-0/1-0 MSD

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		
1,1,1-Trichloroethane	0.12	J	5.00	4.74		ug/L		92	78 - 126	0	30
1,1,1,2-Tetrachloroethane	ND		5.00	4.67		ug/L		93	71 - 134	0	30
1,1,2,2-Tetrachloroethane	ND		5.00	5.34		ug/L		107	75 - 123	2	30
1,1,2-Trichloroethane	ND		5.00	5.26		ug/L		105	80 - 120	0	30
1,1-Dichloroethane	ND		5.00	5.33		ug/L		106	74 - 120	2	30
1,1-Dichloroethene	0.089	J	5.00	5.38		ug/L		106	80 - 131	1	30
1,2-Dichloroethane	ND		5.00	4.24		ug/L		85	69 - 122	5	30
1,2-Dichloropropane	ND		5.00	5.50		ug/L		110	80 - 120	1	30
2-Butanone (MEK)	ND		37.5	40.0		ug/L		107	59 - 141	3	30
2-Hexanone	ND		25.0	27.7		ug/L		111	52 - 140	2	30
4-Methyl-2-pentanone (MIBK)	ND		25.0	26.3		ug/L		105	55 - 140	8	30
Acetone	1.7	J	37.5	34.7		ug/L		88	60 - 146	9	30
Acrylonitrile	ND		25.0	27.6		ug/L		110	64 - 139	2	30
Benzene	ND		5.00	5.32		ug/L		106	80 - 120	0	30
Bromoform	ND		5.00	4.28		ug/L		85	49 - 144	3	30
Bromomethane	ND	^c	5.00	4.16		ug/L		83	60 - 136	1	30
Carbon disulfide	ND		5.00	5.46		ug/L		109	67 - 130	1	30
Carbon tetrachloride	ND		5.00	4.43		ug/L		88	64 - 141	1	30
Chlorobenzene	ND		5.00	5.10		ug/L		102	80 - 120	1	30
Bromochloromethane	ND		5.00	4.23		ug/L		85	80 - 120	1	30
Dibromochloromethane	ND		5.00	4.73		ug/L		94	64 - 138	1	30
Chloroethane	ND		5.00	4.72		ug/L		94	63 - 120	0	30
Chloroform	0.25	J	5.00	5.07		ug/L		96	80 - 120	1	30
Chloromethane	ND		5.00	4.62		ug/L		92	80 - 120	3	30
cis-1,2-Dichloroethene	0.75		5.00	6.22		ug/L		109	80 - 122	2	30
cis-1,3-Dichloropropene	ND		5.00	4.99		ug/L		100	67 - 121	2	30
Bromodichloromethane	ND		5.00	4.77		ug/L		95	73 - 124	0	30
Ethylbenzene	ND		5.00	5.23		ug/L		105	80 - 120	0	30
1,2-Dibromoethane (EDB)	ND		5.00	4.79		ug/L		96	80 - 120	2	30
Methyl tert-butyl ether	ND		5.00	4.70		ug/L		94	69 - 120	1	30
Methylene Chloride	ND		5.00	5.28		ug/L		105	80 - 120	1	30
Styrene	ND		5.00	5.35		ug/L		107	80 - 120	0	30
Tetrachloroethene	2.5		5.00	7.39		ug/L		98	80 - 120	0	30
Toluene	ND		5.00	5.47		ug/L		109	80 - 120	1	30
trans-1,2-Dichloroethene	ND		5.00	5.36		ug/L		107	80 - 122	1	30
trans-1,3-Dichloropropene	ND		5.00	4.92		ug/L		98	61 - 129	0	30
Trichloroethene	0.89		5.00	5.99		ug/L		102	80 - 120	2	30
Vinyl chloride	ND		5.00	4.89		ug/L		98	60 - 125	5	30
Xylenes, Total	ND		15.0	15.9		ug/L		106	80 - 120	0	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		80 - 120
4-Bromofluorobenzene (Surr)	98		80 - 120
Dibromofluoromethane (Surr)	89		80 - 120
Toluene-d8 (Surr)	100		80 - 120

QC Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: fYNOP Monthly Surface Water

Job ID: 410-9077-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-31280/7

Matrix: Water

Analysis Batch: 31280

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			08/10/20 11:31	1
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/10/20 11:31	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			08/10/20 11:31	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			08/10/20 11:31	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			08/10/20 11:31	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			08/10/20 11:31	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			08/10/20 11:31	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			08/10/20 11:31	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			08/10/20 11:31	1
2-Hexanone	ND		5.0	0.60	ug/L			08/10/20 11:31	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			08/10/20 11:31	1
Acetone	ND		5.0	0.90	ug/L			08/10/20 11:31	1
Acrylonitrile	ND		5.0	0.40	ug/L			08/10/20 11:31	1
Benzene	ND		0.50	0.050	ug/L			08/10/20 11:31	1
Bromoform	ND		1.0	0.30	ug/L			08/10/20 11:31	1
Bromomethane	ND		0.50	0.070	ug/L			08/10/20 11:31	1
Carbon disulfide	ND		1.0	0.060	ug/L			08/10/20 11:31	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			08/10/20 11:31	1
Chlorobenzene	ND		0.50	0.060	ug/L			08/10/20 11:31	1
Bromochloromethane	ND		0.50	0.050	ug/L			08/10/20 11:31	1
Dibromochloromethane	ND		0.50	0.070	ug/L			08/10/20 11:31	1
Chloroethane	ND		0.50	0.070	ug/L			08/10/20 11:31	1
Chloroform	ND		0.50	0.090	ug/L			08/10/20 11:31	1
Chloromethane	ND		0.50	0.060	ug/L			08/10/20 11:31	1
cis-1,2-Dichloroethene	ND		0.50	0.050	ug/L			08/10/20 11:31	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			08/10/20 11:31	1
Bromodichloromethane	ND		0.50	0.050	ug/L			08/10/20 11:31	1
Ethylbenzene	ND		0.50	0.060	ug/L			08/10/20 11:31	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			08/10/20 11:31	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			08/10/20 11:31	1
Methylene Chloride	ND		0.50	0.070	ug/L			08/10/20 11:31	1
Styrene	ND		0.50	0.050	ug/L			08/10/20 11:31	1
Tetrachloroethene	ND		0.50	0.060	ug/L			08/10/20 11:31	1
Toluene	ND		0.50	0.070	ug/L			08/10/20 11:31	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			08/10/20 11:31	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			08/10/20 11:31	1
Trichloroethene	ND		0.50	0.060	ug/L			08/10/20 11:31	1
Vinyl chloride	ND		0.50	0.10	ug/L			08/10/20 11:31	1
Xylenes, Total	ND		1.0	0.15	ug/L			08/10/20 11:31	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	100		80 - 120		08/10/20 11:31	1
4-Bromofluorobenzene (Surr)	97		80 - 120		08/10/20 11:31	1
Dibromofluoromethane (Surr)	92		80 - 120		08/10/20 11:31	1
Toluene-d8 (Surr)	101		80 - 120		08/10/20 11:31	1

QC Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: fYNOP Monthly Surface Water

Job ID: 410-9077-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-31280/4

Matrix: Water

Analysis Batch: 31280

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	5.00	3.94		ug/L		79	78 - 126
1,1,1,2-Tetrachloroethane	5.00	4.14		ug/L		83	71 - 134
1,1,2,2-Tetrachloroethane	5.00	4.92		ug/L		98	75 - 123
1,1,2-Trichloroethane	5.00	4.88		ug/L		98	80 - 120
1,1-Dichloroethane	5.00	4.72		ug/L		94	74 - 120
1,1-Dichloroethene	5.00	4.60		ug/L		92	80 - 131
1,2-Dichloroethane	5.00	4.07		ug/L		81	69 - 122
1,2-Dichloropropane	5.00	5.04		ug/L		101	80 - 120
2-Butanone (MEK)	37.5	36.2		ug/L		96	59 - 141
2-Hexanone	25.0	24.2		ug/L		97	52 - 140
4-Methyl-2-pentanone (MIBK)	25.0	23.7		ug/L		95	55 - 140
Acetone	37.5	34.1		ug/L		91	60 - 146
Acrylonitrile	25.0	26.2		ug/L		105	64 - 139
Benzene	5.00	4.74		ug/L		95	80 - 120
Bromoform	5.00	3.92		ug/L		78	49 - 144
Bromomethane	5.00	3.94		ug/L		79	60 - 136
Carbon disulfide	5.00	4.73		ug/L		95	67 - 130
Carbon tetrachloride	5.00	3.68		ug/L		74	64 - 141
Chlorobenzene	5.00	4.56		ug/L		91	80 - 120
Bromochloromethane	5.00	4.26		ug/L		85	80 - 120
Dibromochloromethane	5.00	4.31		ug/L		86	64 - 138
Chloroethane	5.00	4.28		ug/L		86	63 - 120
Chloroform	5.00	4.33		ug/L		87	80 - 120
Chloromethane	5.00	4.09		ug/L		82	56 - 124
cis-1,2-Dichloroethene	5.00	4.86		ug/L		97	80 - 122
cis-1,3-Dichloropropene	5.00	4.60		ug/L		92	67 - 121
Bromodichloromethane	5.00	4.28		ug/L		86	73 - 124
Ethylbenzene	5.00	4.59		ug/L		92	80 - 120
1,2-Dibromoethane (EDB)	5.00	4.50		ug/L		90	80 - 120
Methyl tert-butyl ether	5.00	4.48		ug/L		90	69 - 120
Methylene Chloride	5.00	4.82		ug/L		96	80 - 120
Styrene	5.00	4.83		ug/L		97	80 - 120
Tetrachloroethene	5.00	4.27		ug/L		85	80 - 120
Toluene	5.00	4.86		ug/L		97	80 - 120
trans-1,2-Dichloroethene	5.00	4.68		ug/L		94	80 - 122
trans-1,3-Dichloropropene	5.00	4.52		ug/L		90	61 - 129
Trichloroethene	5.00	4.40		ug/L		88	80 - 120
Vinyl chloride	5.00	4.28		ug/L		86	60 - 125
Xylenes, Total	15.0	14.1		ug/L		94	80 - 120

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	98		80 - 120
4-Bromofluorobenzene (Surr)	98		80 - 120
Dibromofluoromethane (Surr)	91		80 - 120
Toluene-d8 (Surr)	101		80 - 120

QC Sample Results

Client: Groundwater Sciences Corporation
 Project/Site: fYNOP Monthly Surface Water

Job ID: 410-9077-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-31280/5

Matrix: Water

Analysis Batch: 31280

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	
							Limits	RPD	RPD	Limit
1,1,1-Trichloroethane	5.00	3.90		ug/L		78	78 - 126	1	30	
1,1,1,2-Tetrachloroethane	5.00	4.13		ug/L		83	71 - 134	0	30	
1,1,2,2-Tetrachloroethane	5.00	5.06		ug/L		101	75 - 123	3	30	
1,1,2-Trichloroethane	5.00	4.85		ug/L		97	80 - 120	1	30	
1,1-Dichloroethane	5.00	4.57		ug/L		91	74 - 120	3	30	
1,1-Dichloroethene	5.00	4.50		ug/L		90	80 - 131	2	30	
1,2-Dichloroethane	5.00	4.00		ug/L		80	69 - 122	2	30	
1,2-Dichloropropane	5.00	5.01		ug/L		100	80 - 120	1	30	
2-Butanone (MEK)	37.5	33.5		ug/L		89	59 - 141	8	30	
2-Hexanone	25.0	22.1		ug/L		88	52 - 140	9	30	
4-Methyl-2-pentanone (MIBK)	25.0	21.7		ug/L		87	55 - 140	9	30	
Acetone	37.5	31.9		ug/L		85	60 - 146	7	30	
Acrylonitrile	25.0	24.7		ug/L		99	64 - 139	6	30	
Benzene	5.00	4.62		ug/L		92	80 - 120	3	30	
Bromoform	5.00	3.89		ug/L		78	49 - 144	1	30	
Bromomethane	5.00	3.82		ug/L		76	60 - 136	3	30	
Carbon disulfide	5.00	4.61		ug/L		92	67 - 130	3	30	
Carbon tetrachloride	5.00	3.65		ug/L		73	64 - 141	1	30	
Chlorobenzene	5.00	4.49		ug/L		90	80 - 120	2	30	
Bromochloromethane	5.00	4.20		ug/L		84	80 - 120	1	30	
Dibromochloromethane	5.00	4.28		ug/L		86	64 - 138	1	30	
Chloroethane	5.00	4.26		ug/L		85	63 - 120	0	30	
Chloroform	5.00	4.24		ug/L		85	80 - 120	2	30	
Chloromethane	5.00	4.10		ug/L		82	56 - 124	0	30	
cis-1,2-Dichloroethene	5.00	4.77		ug/L		95	80 - 122	2	30	
cis-1,3-Dichloropropene	5.00	4.56		ug/L		91	67 - 121	1	30	
Bromodichloromethane	5.00	4.23		ug/L		85	73 - 124	1	30	
Ethylbenzene	5.00	4.55		ug/L		91	80 - 120	1	30	
1,2-Dibromoethane (EDB)	5.00	4.49		ug/L		90	80 - 120	0	30	
Methyl tert-butyl ether	5.00	4.45		ug/L		89	69 - 120	1	30	
Methylene Chloride	5.00	4.76		ug/L		95	80 - 120	1	30	
Styrene	5.00	4.81		ug/L		96	80 - 120	0	30	
Tetrachloroethene	5.00	4.21		ug/L		84	80 - 120	1	30	
Toluene	5.00	4.71		ug/L		94	80 - 120	3	30	
trans-1,2-Dichloroethene	5.00	4.66		ug/L		93	80 - 122	0	30	
trans-1,3-Dichloropropene	5.00	4.52		ug/L		90	61 - 129	0	30	
Trichloroethene	5.00	4.26		ug/L		85	80 - 120	3	30	
Vinyl chloride	5.00	4.21		ug/L		84	60 - 125	2	30	
Xylenes, Total	15.0	14.0		ug/L		93	80 - 120	1	30	

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	97		80 - 120
4-Bromofluorobenzene (Surr)	98		80 - 120
Dibromofluoromethane (Surr)	91		80 - 120
Toluene-d8 (Surr)	102		80 - 120

QC Association Summary

Client: Groundwater Sciences Corporation
Project/Site: fYNOP Monthly Surface Water

Job ID: 410-9077-1

GC/MS VOA

Analysis Batch: 30932

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9077-1	HD-COD-SW-6-0/1-0	Total/NA	Surface Water	8260D	
410-9077-2	HD-COD-SW-7-0/1-0	Total/NA	Surface Water	8260D	
410-9077-3	HD-COD-SW-8-0/1-0	Total/NA	Surface Water	8260D	
410-9077-4	HD-COD-SW-9-0/1-0	Total/NA	Surface Water	8260D	
410-9077-5	HD-COD-SW-13-0/1-0	Total/NA	Surface Water	8260D	
410-9077-6	HD-COD-SW-15-0/1-0	Total/NA	Surface Water	8260D	
410-9077-7	HD-COD-SW-16-0/1-0	Total/NA	Surface Water	8260D	
410-9077-8	HD-COD-SW-17-0/1-0	Total/NA	Surface Water	8260D	
410-9077-9	HD-COD-SW-26-0/1-0	Total/NA	Surface Water	8260D	
410-9077-10	HD-COD-SW-27-0/1-0	Total/NA	Surface Water	8260D	
410-9077-11	HD-COD-SW-28-0/1-0	Total/NA	Surface Water	8260D	
410-9077-13	HD-QC1-0/1-1	Total/NA	Water	8260D	
410-9077-14	HD-QC1-0/1-2	Total/NA	Water	8260D	
MB 410-30932/6	Method Blank	Total/NA	Water	8260D	
LCS 410-30932/4	Lab Control Sample	Total/NA	Water	8260D	
410-9077-6 MS	HD-COD-SW-15-0/1-0 MS	Total/NA	Surface Water	8260D	
410-9077-6 MSD	HD-COD-SW-15-0/1-0 MSD	Total/NA	Surface Water	8260D	

Analysis Batch: 31280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-9077-12	HD-COD-SW-29-0/1-0	Total/NA	Surface Water	8260D	
MB 410-31280/7	Method Blank	Total/NA	Water	8260D	
LCS 410-31280/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 410-31280/5	Lab Control Sample Dup	Total/NA	Water	8260D	

Lab Chronicle

Client: Groundwater Sciences Corporation
Project/Site: fYNOP Monthly Surface Water

Job ID: 410-9077-1

Client Sample ID: HD-COD-SW-6-0/1-0

Date Collected: 07/28/20 09:40

Date Received: 07/29/20 21:55

Lab Sample ID: 410-9077-1

Matrix: Surface Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	30932	08/08/20 04:26	K4WN	ELLE

Client Sample ID: HD-COD-SW-7-0/1-0

Date Collected: 07/28/20 10:25

Date Received: 07/29/20 21:55

Lab Sample ID: 410-9077-2

Matrix: Surface Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	30932	08/08/20 04:48	K4WN	ELLE

Client Sample ID: HD-COD-SW-8-0/1-0

Date Collected: 07/28/20 08:05

Date Received: 07/29/20 21:55

Lab Sample ID: 410-9077-3

Matrix: Surface Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	30932	08/08/20 05:10	K4WN	ELLE

Client Sample ID: HD-COD-SW-9-0/1-0

Date Collected: 07/28/20 11:20

Date Received: 07/29/20 21:55

Lab Sample ID: 410-9077-4

Matrix: Surface Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	30932	08/08/20 05:32	K4WN	ELLE

Client Sample ID: HD-COD-SW-13-0/1-0

Date Collected: 07/28/20 08:25

Date Received: 07/29/20 21:55

Lab Sample ID: 410-9077-5

Matrix: Surface Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	30932	08/08/20 05:55	K4WN	ELLE

Client Sample ID: HD-COD-SW-15-0/1-0

Date Collected: 07/28/20 10:40

Date Received: 07/29/20 21:55

Lab Sample ID: 410-9077-6

Matrix: Surface Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	30932	08/08/20 02:57	K4WN	ELLE

Client Sample ID: HD-COD-SW-16-0/1-0

Date Collected: 07/28/20 08:45

Date Received: 07/29/20 21:55

Lab Sample ID: 410-9077-7

Matrix: Surface Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	30932	08/08/20 06:17	K4WN	ELLE

Lab Chronicle

Client: Groundwater Sciences Corporation
Project/Site: fYNOP Monthly Surface Water

Job ID: 410-9077-1

Client Sample ID: HD-COD-SW-17-0/1-0

Date Collected: 07/28/20 08:55

Date Received: 07/29/20 21:55

Lab Sample ID: 410-9077-8

Matrix: Surface Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	30932	08/08/20 06:39	K4WN	ELLE

Client Sample ID: HD-COD-SW-26-0/1-0

Date Collected: 07/28/20 10:00

Date Received: 07/29/20 21:55

Lab Sample ID: 410-9077-9

Matrix: Surface Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	30932	08/08/20 07:01	K4WN	ELLE

Client Sample ID: HD-COD-SW-27-0/1-0

Date Collected: 07/28/20 10:35

Date Received: 07/29/20 21:55

Lab Sample ID: 410-9077-10

Matrix: Surface Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	30932	08/08/20 07:23	K4WN	ELLE

Client Sample ID: HD-COD-SW-28-0/1-0

Date Collected: 07/28/20 11:35

Date Received: 07/29/20 21:55

Lab Sample ID: 410-9077-11

Matrix: Surface Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	30932	08/08/20 07:45	K4WN	ELLE

Client Sample ID: HD-COD-SW-29-0/1-0

Date Collected: 07/28/20 07:50

Date Received: 07/29/20 21:55

Lab Sample ID: 410-9077-12

Matrix: Surface Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	31280	08/10/20 13:18	R64Z	ELLE

Client Sample ID: HD-QC1-0/1-1

Date Collected: 07/28/20 11:00

Date Received: 07/29/20 21:55

Lab Sample ID: 410-9077-13

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	30932	08/08/20 08:07	K4WN	ELLE

Client Sample ID: HD-QC1-0/1-2

Date Collected: 07/28/20 00:00

Date Received: 07/29/20 21:55

Lab Sample ID: 410-9077-14

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	30932	08/08/20 00:22	K4WN	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Groundwater Sciences Corporation
Project/Site: fYNOP Monthly Surface Water

Job ID: 410-9077-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-21

Method Summary

Client: Groundwater Sciences Corporation
Project/Site: fYNOP Monthly Surface Water

Job ID: 410-9077-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Groundwater Sciences Corporation
Project/Site: FYNOP Monthly Surface Water

Job ID: 410-9077-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-9077-1	HD-COD-SW-6-0/1-0	Surface Water	07/28/20 09:40	07/29/20 21:55	
410-9077-2	HD-COD-SW-7-0/1-0	Surface Water	07/28/20 10:25	07/29/20 21:55	
410-9077-3	HD-COD-SW-8-0/1-0	Surface Water	07/28/20 08:05	07/29/20 21:55	
410-9077-4	HD-COD-SW-9-0/1-0	Surface Water	07/28/20 11:20	07/29/20 21:55	
410-9077-5	HD-COD-SW-13-0/1-0	Surface Water	07/28/20 08:25	07/29/20 21:55	
410-9077-6	HD-COD-SW-15-0/1-0	Surface Water	07/28/20 10:40	07/29/20 21:55	
410-9077-7	HD-COD-SW-16-0/1-0	Surface Water	07/28/20 08:45	07/29/20 21:55	
410-9077-8	HD-COD-SW-17-0/1-0	Surface Water	07/28/20 08:55	07/29/20 21:55	
410-9077-9	HD-COD-SW-26-0/1-0	Surface Water	07/28/20 10:00	07/29/20 21:55	
410-9077-10	HD-COD-SW-27-0/1-0	Surface Water	07/28/20 10:35	07/29/20 21:55	
410-9077-11	HD-COD-SW-28-0/1-0	Surface Water	07/28/20 11:35	07/29/20 21:55	
410-9077-12	HD-COD-SW-29-0/1-0	Surface Water	07/28/20 07:50	07/29/20 21:55	
410-9077-13	HD-QC1-0/1-1	Water	07/28/20 11:00	07/29/20 21:55	
410-9077-14	HD-QC1-0/1-2	Water	07/28/20 00:00	07/29/20 21:55	

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-9077-1

SDG No.: _____

Instrument ID: 16334 Analysis Batch Number: 12269Lab Sample ID: IC 410-12269/3 Client Sample ID: _____Date Analyzed: 06/11/20 14:22 Lab File ID: GU11I01.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	1.94	Other	howej	06/12/20 14:14
Acetone	3.54	Other	howej	06/12/20 14:15
t-Butyl alcohol-d10 (IS)	4.19	Other	howej	06/12/20 14:15
1,4-Dioxane	8.58	Other	howej	06/12/20 14:12

Lab Sample ID: ICIS 410-12269/4 Client Sample ID: _____Date Analyzed: 06/11/20 14:44 Lab File ID: GU11I02.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	1.96	Other	howej	06/12/20 13:42
Chloromethane	2.15	Other	howej	06/12/20 13:43
1,3-Butadiene	2.26	Other	howej	06/12/20 13:26
Vinyl chloride	2.26	Other	howej	06/12/20 13:43
Bromomethane	2.58	Other	howej	06/12/20 13:43
Chloroethane	2.67	Other	howej	06/12/20 13:43
Dichlorofluoromethane	2.90	Other	howej	06/12/20 13:44
Trichlorofluoromethane	2.97	Other	howej	06/12/20 13:44
Ethyl ether	3.22	Other	howej	06/12/20 13:44
Freon 123a	3.30	Other	howej	06/12/20 13:26
Acetone	3.56	Other	howej	06/12/20 13:45
Methyl iodide	3.72	Other	howej	06/12/20 13:40
Carbon disulfide	3.82	Other	howej	06/12/20 13:39
Methyl acetate	3.94	Other	howej	06/12/20 13:24
Allyl chloride	4.00	Other	howej	06/12/20 13:39
Methylene Chloride	4.18	Other	howej	06/12/20 13:39
t-Butyl alcohol-d10 (IS)	4.20	Other	howej	06/12/20 13:45
t-Butyl alcohol	4.32	Other	howej	06/12/20 13:24
Methyl tert-butyl ether	4.58	Other	howej	06/12/20 13:39
trans-1,2-Dichloroethene	4.59	Other	howej	06/12/20 13:39

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-9077-1

SDG No.: _____

Instrument ID: 16334 Analysis Batch Number: 12269Lab Sample ID: ICIS 410-12269/4 Client Sample ID: _____Date Analyzed: 06/11/20 14:44 Lab File ID: GU11I02.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
n-Hexane	5.00	Other	howej	06/12/20 13:24
1,1-Dichloroethane	5.25	Other	howej	06/12/20 13:39
2-Chloro-1,3-butadiene	5.36	Other	howej	06/12/20 13:39
Ethyl t-butyl ether	5.85	Other	howej	06/12/20 13:21
2-Butanone (MEK)	6.06	Other	howej	06/12/20 13:39
cis-1,2-Dichloroethene	6.09	Other	howej	06/12/20 13:39
2,2-Dichloropropane	6.10	Other	howej	06/12/20 13:39
Propionitrile	6.15	Other	howej	06/12/20 13:46
Methacrylonitrile	6.37	Other	howej	06/12/20 13:39
Bromochloromethane	6.42	Other	howej	06/12/20 13:39
Tetrahydrofuran	6.42	Other	howej	06/12/20 13:24
Chloroform	6.57	Other	howej	06/12/20 13:39
1,1,1-Trichloroethane	6.79	Other	howej	06/12/20 13:38
Cyclohexane	6.89	Other	howej	06/12/20 13:38
1,1-Dichloropropene	7.00	Other	howej	06/12/20 13:38
Carbon tetrachloride	7.01	Other	howej	06/12/20 13:24
Isobutyl alcohol	7.18	Other	howej	06/12/20 13:25
1,2-Dichloroethane-d4 (Surr)	7.24	Other	howej	06/12/20 13:25
Benzene	7.27	Other	howej	06/12/20 13:25
1,2-Dichloroethane	7.34	Other	howej	06/12/20 13:21
t-Amyl methyl ether	7.46	Other	howej	06/12/20 13:38
Fluorobenzene (IS)	7.67	Other	howej	06/12/20 13:21
n-Heptane	7.68	Other	howej	06/12/20 13:25
n-Butanol	8.06	Other	howej	06/12/20 13:27
Trichloroethene	8.15	Other	howej	06/12/20 13:38
Methylcyclohexane	8.46	Other	howej	06/12/20 13:25
1,2-Dichloropropane	8.49	Other	howej	06/12/20 13:26
1,4-Dioxane	8.58	Other	howej	06/12/20 13:38
Methyl methacrylate	8.58	Other	howej	06/12/20 13:38
Dibromomethane	8.59	Other	howej	06/12/20 13:38

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-9077-1

SDG No.: _____

Instrument ID: 16334 Analysis Batch Number: 12269Lab Sample ID: ICIS 410-12269/4 Client Sample ID: _____Date Analyzed: 06/11/20 14:44 Lab File ID: GU11I02.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromodichloromethane	8.84	Other	howej	06/12/20 13:26
2-Nitropropane	9.12	Other	howej	06/12/20 13:26
cis-1,3-Dichloropropene	9.38	Other	howej	06/12/20 13:38
4-Methyl-2-pentanone (MIBK)	9.57	Other	howej	06/12/20 13:27
Toluene	9.77	Other	howej	06/12/20 13:37
trans-1,3-Dichloropropene	10.03	Other	howej	06/12/20 13:27
Ethyl methacrylate	10.10	Other	howej	06/12/20 13:37
1,1,2-Trichloroethane	10.24	Other	howej	06/12/20 13:27
Tetrachloroethene	10.32	Other	howej	06/12/20 13:37
1,3-Dichloropropane	10.40	Other	howej	06/12/20 13:37
2-Hexanone	10.46	Other	howej	06/12/20 13:29
Dibromochloromethane	10.62	Other	howej	06/12/20 13:29
1,2-Dibromoethane (EDB)	10.73	Other	howej	06/12/20 13:37
1-Chlorohexane	11.16	Other	howej	06/12/20 13:29
Chlorobenzene	11.18	Other	howej	06/12/20 13:37
1,1,1,2-Tetrachloroethane	11.27	Other	howej	06/12/20 13:36
Ethylbenzene	11.27	Other	howej	06/12/20 13:36
m&p-Xylene	11.38	Other	howej	06/12/20 13:40
o-Xylene	11.71	Other	howej	06/12/20 13:36
Styrene	11.73	Other	howej	06/12/20 13:36
Bromoform	11.88	Other	howej	06/12/20 13:36
Isopropylbenzene	12.02	Other	howej	06/12/20 13:36
4-Bromofluorobenzene (Surr)	12.16	Other	howej	06/12/20 13:29
1,1,2,2-Tetrachloroethane	12.27	Other	howej	06/12/20 13:36
Bromobenzene	12.27	Other	howej	06/12/20 13:35
trans-1,4-Dichloro-2-butene	12.29	Other	howej	06/12/20 13:29
1,2,3-Trichloropropane	12.31	Other	howej	06/12/20 13:30
N-Propylbenzene	12.35	Other	howej	06/12/20 13:30
2-Chlorotoluene	12.42	Other	howej	06/12/20 13:35
1,3,5-Trimethylbenzene	12.48	Other	howej	06/12/20 13:30

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-9077-1

SDG No.: _____

Instrument ID: 16334 Analysis Batch Number: 12269Lab Sample ID: ICIS 410-12269/4 Client Sample ID: _____Date Analyzed: 06/11/20 14:44 Lab File ID: GU11I02.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4-Chlorotoluene	12.51	Other	howej	06/12/20 13:30
tert-Butylbenzene	12.73	Other	howej	06/12/20 13:34
1,2,4-Trimethylbenzene	12.76	Other	howej	06/12/20 13:31
Pentachloroethane	12.76	Other	howej	06/12/20 13:34
sec-Butylbenzene	12.88	Other	howej	06/12/20 13:31
1,3-Dichlorobenzene	12.98	Other	howej	06/12/20 13:34
p-Isopropyltoluene	12.99	Other	howej	06/12/20 13:31
1,4-Dichlorobenzene	13.05	Other	howej	06/12/20 13:34
1,2,3-Trimethylbenzene	13.07	Other	howej	06/12/20 13:32
Benzyl chloride	13.13	Other	howej	06/12/20 13:31
n-Butylbenzene	13.29	Other	howej	06/12/20 13:32
1,2-Dichlorobenzene	13.32	Other	howej	06/12/20 13:32
1,2-Dibromo-3-Chloropropane	13.86	Other	howej	06/12/20 13:33
1,3,5-Trichlorobenzene	13.98	Other	howej	06/12/20 13:33
1,2,4-Trichlorobenzene	14.41	Other	howej	06/12/20 13:33
Hexachlorobutadiene	14.49	Other	howej	06/12/20 13:32
Naphthalene	14.59	Other	howej	06/12/20 13:40
1,2,3-Trichlorobenzene	14.73	Other	howej	06/12/20 13:40

Lab Sample ID: IC 410-12269/5 Client Sample ID: _____Date Analyzed: 06/11/20 15:06 Lab File ID: GU11I03.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	1.95	Other	howej	06/12/20 13:49
Vinyl chloride	2.26	Other	howej	06/12/20 13:49
Bromomethane	2.57	Other	howej	06/12/20 13:49
Chloroethane	2.66	Other	howej	06/12/20 13:49
t-Butyl alcohol-d10 (IS)	4.18	Other	howej	06/12/20 13:50
1,4-Dioxane	8.57	Other	howej	06/12/20 13:51

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-9077-1

SDG No.: _____

Instrument ID: 16334 Analysis Batch Number: 12269Lab Sample ID: IC 410-12269/6 Client Sample ID: _____Date Analyzed: 06/11/20 15:28 Lab File ID: GU11I04.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	1.95	Other	howej	06/12/20 13:52
1,3-Butadiene	2.26	Other	howej	06/12/20 13:52
Vinyl chloride	2.26	Other	howej	06/12/20 13:52
Bromomethane	2.58	Other	howej	06/12/20 13:52
Acetone	3.56	Other	howej	06/12/20 13:53
Methyl iodide	3.71	Other	howej	06/12/20 13:53
t-Butyl alcohol-d10 (IS)	4.20	Other	howej	06/12/20 13:53
di-Isopropyl ether	5.31	Other	howej	06/12/20 13:54
1,4-Dioxane	8.57	Other	howej	06/12/20 13:54

Lab Sample ID: IC 410-12269/7 Client Sample ID: _____Date Analyzed: 06/11/20 15:51 Lab File ID: GU11I05.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	1.95	Other	howej	06/12/20 13:55
1,3-Butadiene	2.26	Other	howej	06/12/20 13:55
Ethyl ether	3.18	Other	howej	06/12/20 13:56
t-Butyl alcohol-d10 (IS)	4.20	Other	howej	06/12/20 13:56
2-Chloro-1,3-butadiene	5.34	Other	howej	06/12/20 13:56
Ethyl t-butyl ether	5.84	Other	howej	06/12/20 13:57
1,2-Dichloroethane	7.34	Other	howej	06/12/20 13:57
1,4-Dioxane	8.59	Other	howej	06/12/20 13:57

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-9077-1

SDG No.: _____

Instrument ID: 16334 Analysis Batch Number: 12269Lab Sample ID: IC 410-12269/8 Client Sample ID: _____Date Analyzed: 06/11/20 16:13 Lab File ID: GU11I06.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3-Butadiene	2.26	Other	howej	06/12/20 13:58
Bromomethane	2.58	Other	howej	06/12/20 13:59
Ethyl ether	3.22	Other	howej	06/12/20 13:59
Acetone	3.56	Other	howej	06/12/20 13:59
Methyl iodide	3.71	Other	howej	06/12/20 13:59
Methyl acetate	3.95	Other	howej	06/12/20 14:10
t-Butyl alcohol-d10 (IS)	4.21	Other	howej	06/12/20 14:00
2-Chloro-1,3-butadiene	5.35	Other	howej	06/12/20 14:00
Ethyl t-butyl ether	5.85	Other	howej	06/12/20 14:00
2-Butanone (MEK)	6.06	Other	howej	06/12/20 14:00
2,2-Dichloropropane	6.12	Other	howej	06/12/20 14:00
Methacrylonitrile	6.36	Other	howej	06/12/20 14:01
1,4-Dioxane	8.59	Other	howej	06/12/20 14:01
Dibromomethane	8.59	Other	howej	06/12/20 14:01

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-9077-1

SDG No.: _____

Instrument ID: 16334 Analysis Batch Number: 12269Lab Sample ID: IC 410-12269/9 Client Sample ID: _____Date Analyzed: 06/11/20 16:35 Lab File ID: GU11I07.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3-Butadiene	2.26	Other	howej	06/12/20 14:02
Vinyl chloride	2.26	Other	howej	06/12/20 14:02
Bromomethane	2.57	Other	howej	06/12/20 14:02
Ethyl ether	3.22	Other	howej	06/12/20 14:02
Freon 113	3.57	Other	howej	06/12/20 14:03
Methyl iodide	3.71	Other	howej	06/12/20 14:03
Methyl acetate	3.98	Other	howej	06/12/20 14:09
Methylene Chloride	4.19	Other	howej	06/12/20 14:03
t-Butyl alcohol-d10 (IS)	4.20	Other	howej	06/12/20 14:03
Ethyl t-butyl ether	5.84	Other	howej	06/12/20 14:03
2,2-Dichloropropane	6.11	Other	howej	06/12/20 14:03
Methacrylonitrile	6.36	Other	howej	06/12/20 14:03
Carbon tetrachloride	7.00	Other	howej	06/12/20 14:04
t-Amyl methyl ether	7.46	Other	howej	06/12/20 14:04
1,4-Dioxane	8.59	Other	howej	06/12/20 14:04
Methyl methacrylate	8.59	Other	howej	06/12/20 14:04
Bromodichloromethane	8.84	Other	howej	06/12/20 14:04
1,2-Dibromo-3-Chloropropane	13.85	Other	howej	06/12/20 14:05

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-9077-1

SDG No.: _____

Instrument ID: 16334 Analysis Batch Number: 12269

Lab Sample ID: ICV 410-12269/10 Client Sample ID: _____

Date Analyzed: 06/11/20 16:57 Lab File ID: GU11V01.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	1.95	Other	howej	06/14/20 10:07
1,3-Butadiene	2.26	Other	howej	06/14/20 10:11
Vinyl chloride	2.26	Other	howej	06/14/20 10:07
Bromomethane	2.57	Other	howej	06/14/20 10:07
Chloroethane	2.67	Other	howej	06/14/20 10:08
Dichlorofluoromethane	2.91	Other	howej	06/14/20 10:08
Methyl iodide	3.72	Other	howej	06/14/20 10:08
2,2-Dichloropropane	6.11	Other	howej	06/14/20 10:09
1,4-Dioxane	8.57	Other	howej	06/14/20 10:10

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-9077-1

SDG No.: _____

Instrument ID: 16334 Analysis Batch Number: 30932Lab Sample ID: CCVIS 410-30932/3 Client Sample ID: _____Date Analyzed: 08/07/20 22:49 Lab File ID: GG07C01.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromomethane	2.56	Incomplete Integration	campbellme	08/07/20 23:12
Methyl acetate	3.96	Incomplete Integration	campbellme	08/07/20 23:12
1,4-Dioxane	8.58	Incomplete Integration	campbellme	08/07/20 23:13

Lab Sample ID: LCS 410-30932/4 Client Sample ID: _____Date Analyzed: 08/07/20 23:11 Lab File ID: GG07L01.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromomethane	2.57	Incomplete Integration	campbellme	08/07/20 23:36

Lab Sample ID: 410-9077-14 Client Sample ID: HD-QC1-0/1-2Date Analyzed: 08/08/20 00:22 Lab File ID: GG07S01.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methylene Chloride	4.16	Missed Peak	campbellme	08/09/20 17:18
t-Butyl alcohol-d10 (IS)	4.19	Incomplete Integration	campbellme	08/09/20 17:18
1,2-Dichloroethane	7.35	Incomplete Integration	campbellme	08/09/20 17:18

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-9077-1

SDG No.: _____

Instrument ID: 16334 Analysis Batch Number: 30932Lab Sample ID: 410-9077-6 Client Sample ID: HD-COD-SW-15-0/1-0Date Analyzed: 08/08/20 02:57 Lab File ID: GG07S08.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.81	Incomplete Integration	campbellme	08/09/20 17:26
t-Butyl alcohol-d10 (IS)	4.20	Incomplete Integration	campbellme	08/09/20 17:26
Methyl tert-butyl ether	4.57	Incomplete Integration	campbellme	08/09/20 17:26
1,1-Dichloroethane	5.26	Incomplete Integration	campbellme	08/09/20 17:26
Carbon tetrachloride	7.01	Incomplete Integration	campbellme	08/09/20 17:26
Benzene	7.28	Incomplete Integration	campbellme	08/09/20 17:27

Lab Sample ID: 410-9077-6 MS Client Sample ID: HD-COD-SW-15-0/1-0 MS MSDate Analyzed: 08/08/20 03:20 Lab File ID: GG07S09.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	2.14	Incomplete Integration	campbellme	08/09/20 17:28
t-Butyl alcohol-d10 (IS)	4.18	Incomplete Integration	campbellme	08/09/20 17:28

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-9077-1

SDG No.: _____

Instrument ID: 16334 Analysis Batch Number: 30932Lab Sample ID: 410-9077-6 MSD Client Sample ID: HD-COD-SW-15-0/1-0 MSD MSDDate Analyzed: 08/08/20 03:42 Lab File ID: GG07S10.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	2.14	Incomplete Integration	campbellme	08/09/20 17:30
Vinyl chloride	2.26	Incomplete Integration	campbellme	08/09/20 17:30
t-Butyl alcohol-d10 (IS)	4.18	Incomplete Integration	campbellme	08/09/20 17:30

Lab Sample ID: 410-9077-1 Client Sample ID: HD-COD-SW-6-0/1-0Date Analyzed: 08/08/20 04:26 Lab File ID: GG07S12.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.81	Incomplete Integration	campbellme	08/09/20 18:10
t-Butyl alcohol-d10 (IS)	4.20	Incomplete Integration	campbellme	08/09/20 18:10
cis-1,2-Dichloroethene	6.07	Incomplete Integration	campbellme	08/09/20 18:10
Chloroform	6.57	Incomplete Integration	campbellme	08/09/20 18:10
Benzene	7.28	Incomplete Integration	campbellme	08/09/20 18:10
1,2-Dichloroethane	7.35	Incomplete Integration	campbellme	08/09/20 18:10
Trichloroethene	8.14	Incomplete Integration	campbellme	08/09/20 18:10
m-Xylene & p-Xylene	11.38	Incomplete Integration	campbellme	08/09/20 18:11

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-9077-1

SDG No.: _____

Instrument ID: 16334 Analysis Batch Number: 30932Lab Sample ID: 410-9077-2 Client Sample ID: _____Date Analyzed: 08/08/20 04:48 Lab File ID: GG07S13.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
t-Butyl alcohol-d10 (IS)	4.18	Incomplete Integration	campbellme	08/09/20 18:11
cis-1,2-Dichloroethene	6.10	Incomplete Integration	campbellme	08/09/20 18:11
Benzene	7.28	Incomplete Integration	campbellme	08/09/20 18:11
1,2-Dichloroethane	7.35	Incomplete Integration	campbellme	08/09/20 18:11
Trichloroethene	8.15	Incomplete Integration	campbellme	08/09/20 18:12

Lab Sample ID: 410-9077-3 Client Sample ID: HD-COD-SW-8-0/1-0Date Analyzed: 08/08/20 05:10 Lab File ID: GG07S14.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.81	Incomplete Integration	campbellme	08/09/20 18:12
t-Butyl alcohol-d10 (IS)	4.20	Incomplete Integration	campbellme	08/09/20 18:12
Benzene	7.29	Incomplete Integration	campbellme	08/09/20 18:12
1,2-Dichloroethane	7.34	Incomplete Integration	campbellme	08/09/20 18:12
Trichloroethene	8.15	Incomplete Integration	campbellme	08/09/20 18:13
Tetrachloroethene	10.31	Incomplete Integration	campbellme	08/09/20 18:13

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-9077-1

SDG No.: _____

Instrument ID: 16334 Analysis Batch Number: 30932Lab Sample ID: 410-9077-4 Client Sample ID: HD-COD-SW-9-0/1-0Date Analyzed: 08/08/20 05:32 Lab File ID: GG07S15.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.80	Incomplete Integration	campbellme	08/09/20 18:13
Methylene Chloride	4.18	Incomplete Integration	campbellme	08/09/20 18:13
t-Butyl alcohol-d10 (IS)	4.20	Incomplete Integration	campbellme	08/09/20 18:13
Benzene	7.29	Incomplete Integration	campbellme	08/09/20 18:14
1,2-Dichloroethane	7.35	Incomplete Integration	campbellme	08/09/20 18:14
Trichloroethene	8.16	Incomplete Integration	campbellme	08/09/20 18:14

Lab Sample ID: 410-9077-5 Client Sample ID: HD-COD-SW-13-0/1-0Date Analyzed: 08/08/20 05:55 Lab File ID: GG07S16.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.55	Incomplete Integration	campbellme	08/09/20 18:14
t-Butyl alcohol-d10 (IS)	4.18	Incomplete Integration	campbellme	08/09/20 18:14
cis-1,2-Dichloroethene	6.10	Incomplete Integration	campbellme	08/09/20 18:14
Chloroform	6.59	Incomplete Integration	campbellme	08/09/20 18:15
Benzene	7.28	Incomplete Integration	campbellme	08/09/20 18:15

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-9077-1

SDG No.: _____

Instrument ID: 16334 Analysis Batch Number: 30932Lab Sample ID: 410-9077-7 Client Sample ID: HD-COD-SW-16-0/1-0Date Analyzed: 08/08/20 06:17 Lab File ID: GG07S17.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.80	Incomplete Integration	campbellme	08/09/20 18:15
t-Butyl alcohol-d10 (IS)	4.18	Incomplete Integration	campbellme	08/09/20 18:15
cis-1,2-Dichloroethene	6.07	Incomplete Integration	campbellme	08/09/20 18:15
Chloroform	6.56	Incomplete Integration	campbellme	08/09/20 18:15
Trichloroethene	8.16	Incomplete Integration	campbellme	08/09/20 18:16
Tetrachloroethene	10.32	Incomplete Integration	campbellme	08/09/20 18:16

Lab Sample ID: 410-9077-8 Client Sample ID: HD-COD-SW-17-0/1-0Date Analyzed: 08/08/20 06:39 Lab File ID: GG07S18.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.78	Incomplete Integration	campbellme	08/09/20 18:16
t-Butyl alcohol-d10 (IS)	4.18	Incomplete Integration	campbellme	08/09/20 18:16
1,1-Dichloroethane	5.25	Incomplete Integration	campbellme	08/09/20 18:16
Benzene	7.27	Incomplete Integration	campbellme	08/09/20 18:17

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-9077-1

SDG No.: _____

Instrument ID: 16334 Analysis Batch Number: 30932Lab Sample ID: 410-9077-9 Client Sample ID: _____Date Analyzed: 08/08/20 07:01 Lab File ID: GG07S19.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
t-Butyl alcohol-d10 (IS)	4.20	Incomplete Integration	campbellme	08/09/20 18:17
1,1,1-Trichloroethane	6.81	Incomplete Integration	campbellme	08/09/20 18:17
Benzene	7.28	Incomplete Integration	campbellme	08/09/20 18:17
Trichloroethene	8.15	Incomplete Integration	campbellme	08/09/20 18:17
Bromodichloromethane	8.84	Incomplete Integration	campbellme	08/09/20 18:17
4-Methyl-2-pentanone (MIBK)		Invalid Compound ID	campbellme	08/09/20 18:18

Lab Sample ID: 410-9077-10 Client Sample ID: _____Date Analyzed: 08/08/20 07:23 Lab File ID: GG07S20.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
t-Butyl alcohol-d10 (IS)	4.20	Incomplete Integration	campbellme	08/09/20 18:18
Benzene	7.27	Incomplete Integration	campbellme	08/09/20 18:18
1,2-Dichloroethane	7.34	Incomplete Integration	campbellme	08/09/20 18:18

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-9077-1

SDG No.: _____

Instrument ID: 16334 Analysis Batch Number: 30932Lab Sample ID: 410-9077-11 Client Sample ID: HD-COD-SW-28-0/1-0Date Analyzed: 08/08/20 07:45 Lab File ID: GG07S21.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methylene Chloride	4.17	Incomplete Integration	campbellm e	08/09/20 18:19
t-Butyl alcohol-d10 (IS)	4.18	Incomplete Integration	campbellm e	08/09/20 18:19
1,2-Dichloroethane	7.34	Incomplete Integration	campbellm e	08/09/20 18:19
Trichloroethene	8.15	Incomplete Integration	campbellm e	08/09/20 18:19

Lab Sample ID: 410-9077-13 Client Sample ID: HD-QC1-0/1-1Date Analyzed: 08/08/20 08:07 Lab File ID: GG07S22.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.81	Incomplete Integration	campbellm e	08/09/20 18:19
t-Butyl alcohol-d10 (IS)	4.19	Incomplete Integration	campbellm e	08/09/20 18:20
1,2-Dichloroethane	7.34	Incomplete Integration	campbellm e	08/09/20 18:20

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-9077-1

SDG No.: _____

Instrument ID: 16334 Analysis Batch Number: 31280Lab Sample ID: CCVIS 410-31280/3 Client Sample ID: _____Date Analyzed: 08/10/20 10:03 Lab File ID: GG09C01.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	1.95	Other	howej	08/10/20 10:29
Vinyl chloride	2.26	Other	howej	08/10/20 10:30
1,4-Dioxane	8.58	Other	howej	08/10/20 10:35

Lab Sample ID: LCS 410-31280/4 Client Sample ID: _____Date Analyzed: 08/10/20 10:25 Lab File ID: GG09L01.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Vinyl chloride	2.26	Other	howej	08/10/20 11:40
Bromomethane	2.57	Other	howej	08/10/20 11:40

Lab Sample ID: LCSD 410-31280/5 Client Sample ID: _____Date Analyzed: 08/10/20 10:47 Lab File ID: GG09L02.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromomethane	2.58	Other	howej	08/10/20 11:42

Lab Sample ID: 410-9077-12 Client Sample ID: HD-COD-SW-29-0/1-0Date Analyzed: 08/10/20 13:18 Lab File ID: GG10S04.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.55	Other	howej	08/10/20 15:31
t-Butyl alcohol-d10 (IS)	4.20	Other	howej	08/10/20 15:32

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-9077-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration					
					Reagent ID	Volume Added							
MSV_29_826ISS_00007	09/25/20	03/25/20	Methanol, Lot DX212	10 mL	MSV_8260_SS_00066	1 mL	1,2-Dichloroethane-d4 (Surr)	250 ug/mL					
							4-Bromofluorobenzene (Surr)	250 ug/mL					
							Dibromofluoromethane (Surr)	250 ug/mL					
					MSV_Cus826_IS_00041						1 mL	1,4-Dichlorobenzene-d4	250 ug/mL
												Chlorobenzene-d5 (IS)	250 ug/mL
												Fluorobenzene (IS)	250 ug/mL
												t-Butyl alcohol-d10 (IS)	1250 ug/mL
.MSV_8260_SS_00066	03/31/22		Restek, Lot A0146938				(Purchased Reagent)	1,2-Dichloroethane-d4 (Surr)	2500 ug/mL				
							4-Bromofluorobenzene (Surr)	2500 ug/mL					
							Dibromofluoromethane (Surr)	2500 ug/mL					
							Toluene-d8 (Surr)	2500 ug/mL					
.MSV_Cus826_IS_00041	05/31/21		Restek, Lot A0138205				(Purchased Reagent)	1,4-Dichlorobenzene-d4	2500 ug/mL				
							Chlorobenzene-d5 (IS)	2500 ug/mL					
							Fluorobenzene (IS)	2500 ug/mL					
							t-Butyl alcohol-d10 (IS)	12500 ug/mL					
MSV_Q_QVOA1_00032	07/08/20	06/08/20	Methanol, Lot DX212	25 mL	MSV_Q#1B_00038	1 mL	1,1,1,2-Tetrachloroethane	40 mg/L					
							1,1,1-Trichloroethane	40 mg/L					
							1,1,2,2-Tetrachloroethane	40 mg/L					
							1,1,2-Trichloroethane	40 mg/L					
							1,1-Dichloroethane	40 mg/L					
							1,1-Dichloroethene	40 mg/L					
							1,2-Dibromoethane (EDB)	40 mg/L					
							1,2-Dichloroethane	40 mg/L					
							1,2-Dichloropropane	40 mg/L					
							Benzene	40 mg/L					
							Bromodichloromethane	40 mg/L					
							Bromoform	40 mg/L					
							Carbon tetrachloride	40 mg/L					
							Chlorobenzene	40 mg/L					
							Chloroform	40 mg/L					
					cis-1,2-Dichloroethene	40 mg/L							
					cis-1,3-Dichloropropene	40 mg/L							
					Dibromochloromethane	40 mg/L							
					Ethylbenzene	40 mg/L							
					Methylene Chloride	40 mg/L							
					Styrene	40 mg/L							
					Tetrachloroethene	40 mg/L							
					Toluene	40 mg/L							
					trans-1,2-Dichloroethene	40 mg/L							
					trans-1,3-Dichloropropene	40 mg/L							
					Trichloroethene	40 mg/L							
					MSV_Q#3B_00032						1 mL	2-Butanone (MEK)	300 mg/L
2-Hexanone	200 mg/L												
4-Methyl-2-pentanone (MIBK)	200 mg/L												
Acetone	300 mg/L												
Acrylonitrile	200 mg/L												

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-9077-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					MSV_Q#4C_00036	1 mL	Carbon disulfide	40 mg/L
							Methyl tert-butyl ether	40 mg/L
.MSV_Q#1B_00038	04/30/22		Restek, Lot A0148625		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	1000 ug/mL
							1,1,1-Trichloroethane	1000 ug/mL
							1,1,2,2-Tetrachloroethane	1000 ug/mL
							1,1,2-Trichloroethane	1000 ug/mL
							1,1-Dichloroethane	1000 ug/mL
							1,1-Dichloroethene	1000 ug/mL
							1,2-Dibromoethane (EDB)	1000 ug/mL
							1,2-Dichloroethane	1000 ug/mL
							1,2-Dichloropropane	1000 ug/mL
							Benzene	1000 ug/mL
							Bromodichloromethane	1000 ug/mL
							Bromoform	1000 ug/mL
							Carbon tetrachloride	1000 ug/mL
							Chlorobenzene	1000 ug/mL
							Chloroform	1000 ug/mL
							cis-1,2-Dichloroethene	1000 ug/mL
							cis-1,3-Dichloropropene	1000 ug/mL
							Dibromochloromethane	1000 ug/mL
							Ethylbenzene	1000 ug/mL
							Methylene Chloride	1000 ug/mL
							Styrene	1000 ug/mL
							Tetrachloroethene	1000 ug/mL
							Toluene	1000 ug/mL
							trans-1,2-Dichloroethene	1000 ug/mL
							trans-1,3-Dichloropropene	1000 ug/mL
							Trichloroethene	1000 ug/mL
.MSV_Q#3B_00032	09/30/20		Restek, Lot A0147509		(Purchased Reagent)		2-Butanone (MEK)	7500 ug/mL
							2-Hexanone	5000 ug/mL
							4-Methyl-2-pentanone (MIBK)	5000 ug/mL
							Acetone	7500 ug/mL
							Acrylonitrile	5000 ug/mL
.MSV_Q#4C_00036	03/31/21		Restek, Lot A0158704		(Purchased Reagent)		Carbon disulfide	1000 ug/mL
							Methyl tert-butyl ether	1000 ug/mL
MSV_Q_QVOA1_00040	09/02/20	08/03/20	Methanol, Lot DX212	25 mL	MSV_Q#1B_00048	1 mL	1,1,1,2-Tetrachloroethane	40 mg/L
							1,1,1-Trichloroethane	40 mg/L
							1,1,2,2-Tetrachloroethane	40 mg/L
							1,1,2-Trichloroethane	40 mg/L
							1,1-Dichloroethane	40 mg/L
							1,1-Dichloroethene	40 mg/L
							1,2-Dibromoethane (EDB)	40 mg/L
							1,2-Dichloroethane	40 mg/L
							1,2-Dichloropropane	40 mg/L
							Benzene	40 mg/L
							Bromodichloromethane	40 mg/L
							Bromoform	40 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-9077-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration		
					Reagent ID	Volume Added				
							Carbon tetrachloride	40 mg/L		
							Chlorobenzene	40 mg/L		
							Chloroform	40 mg/L		
							cis-1,2-Dichloroethene	40 mg/L		
							cis-1,3-Dichloropropene	40 mg/L		
							Dibromochloromethane	40 mg/L		
							Ethylbenzene	40 mg/L		
							Methylene Chloride	40 mg/L		
							Styrene	40 mg/L		
							Tetrachloroethene	40 mg/L		
							Toluene	40 mg/L		
							trans-1,2-Dichloroethene	40 mg/L		
							trans-1,3-Dichloropropene	40 mg/L		
							Trichloroethene	40 mg/L		
							MSV_Q#3B_00042	1 mL	2-Butanone (MEK)	300 mg/L
									2-Hexanone	200 mg/L
									4-Methyl-2-pentanone (MIBK)	200 mg/L
									Acetone	300 mg/L
									Acrylonitrile	200 mg/L
	1 mL	MSV_Q#4C_00047	Carbon disulfide	40 mg/L						
			Methyl tert-butyl ether	40 mg/L						
.MSV_Q#1B_00048	04/30/22	Restek, Lot A0148625				(Purchased Reagent)	1,1,1,2-Tetrachloroethane	1000 ug/mL		
							1,1,1-Trichloroethane	1000 ug/mL		
							1,1,2,2-Tetrachloroethane	1000 ug/mL		
							1,1,2-Trichloroethane	1000 ug/mL		
							1,1-Dichloroethane	1000 ug/mL		
							1,1-Dichloroethene	1000 ug/mL		
							1,2-Dibromoethane (EDB)	1000 ug/mL		
							1,2-Dichloroethane	1000 ug/mL		
							1,2-Dichloropropane	1000 ug/mL		
							Benzene	1000 ug/mL		
							Bromodichloromethane	1000 ug/mL		
							Bromoform	1000 ug/mL		
							Carbon tetrachloride	1000 ug/mL		
							Chlorobenzene	1000 ug/mL		
							Chloroform	1000 ug/mL		
							cis-1,2-Dichloroethene	1000 ug/mL		
							cis-1,3-Dichloropropene	1000 ug/mL		
							Dibromochloromethane	1000 ug/mL		
							Ethylbenzene	1000 ug/mL		
							Methylene Chloride	1000 ug/mL		
							Styrene	1000 ug/mL		
							Tetrachloroethene	1000 ug/mL		
							Toluene	1000 ug/mL		
trans-1,2-Dichloroethene	1000 ug/mL									
trans-1,3-Dichloropropene	1000 ug/mL									
Trichloroethene	1000 ug/mL									
.MSV_Q#3B_00042	09/30/21	Restek, Lot A0158722				(Purchased Reagent)	2-Butanone (MEK)	7500 ug/mL		

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-9077-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration	
					Reagent ID	Volume Added			
							2-Hexanone	5000 ug/mL	
							4-Methyl-2-pentanone (MIBK)	5000 ug/mL	
							Acetone	7500 ug/mL	
							Acrylonitrile	5000 ug/mL	
.MSV_Q#4C_00047	03/31/21		Restek, Lot A0158704			(Purchased Reagent)	Carbon disulfide	1000 ug/mL	
							Methyl tert-butyl ether	1000 ug/mL	
MSV_Q_QVOA1_00041	09/09/20	08/10/20	Methanol, Lot DX212	25 mL	MSV_Q#1B_00050	1 mL	1,1,1,2-Tetrachloroethane	40 mg/L	
							1,1,1-Trichloroethane	40 mg/L	
							1,1,2,2-Tetrachloroethane	40 mg/L	
							1,1,2-Trichloroethane	40 mg/L	
							1,1-Dichloroethane	40 mg/L	
							1,1-Dichloroethene	40 mg/L	
							1,2-Dibromoethane (EDB)	40 mg/L	
							1,2-Dichloroethane	40 mg/L	
							1,2-Dichloropropane	40 mg/L	
							Benzene	40 mg/L	
							Bromodichloromethane	40 mg/L	
							Bromoform	40 mg/L	
							Carbon tetrachloride	40 mg/L	
							Chlorobenzene	40 mg/L	
							Chloroform	40 mg/L	
					cis-1,2-Dichloroethene	40 mg/L			
					cis-1,3-Dichloropropene	40 mg/L			
					Dibromochloromethane	40 mg/L			
					Ethylbenzene	40 mg/L			
					Methylene Chloride	40 mg/L			
					Styrene	40 mg/L			
					Tetrachloroethene	40 mg/L			
					Toluene	40 mg/L			
					trans-1,2-Dichloroethene	40 mg/L			
					trans-1,3-Dichloropropene	40 mg/L			
					Trichloroethene	40 mg/L			
							2-Hexanone	200 mg/L	
							4-Methyl-2-pentanone (MIBK)	200 mg/L	
							Acetone	300 mg/L	
							Acrylonitrile	200 mg/L	
					MSV_Q#4C_00049	1 mL	Carbon disulfide	40 mg/L	
							Methyl tert-butyl ether	40 mg/L	
.MSV_Q#1B_00050	04/30/22		Restek, Lot A0148625				(Purchased Reagent)	1,1,1,2-Tetrachloroethane	1000 ug/mL
								1,1,1-Trichloroethane	1000 ug/mL
								1,1,2,2-Tetrachloroethane	1000 ug/mL
								1,1,2-Trichloroethane	1000 ug/mL
								1,1-Dichloroethane	1000 ug/mL
								1,1-Dichloroethene	1000 ug/mL
								1,2-Dibromoethane (EDB)	1000 ug/mL
								1,2-Dichloroethane	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-9077-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichloropropane	1000 ug/mL
							Benzene	1000 ug/mL
							Bromodichloromethane	1000 ug/mL
							Bromoform	1000 ug/mL
							Carbon tetrachloride	1000 ug/mL
							Chlorobenzene	1000 ug/mL
							Chloroform	1000 ug/mL
							cis-1,2-Dichloroethene	1000 ug/mL
							cis-1,3-Dichloropropene	1000 ug/mL
							Dibromochloromethane	1000 ug/mL
							Ethylbenzene	1000 ug/mL
							Methylene Chloride	1000 ug/mL
							Styrene	1000 ug/mL
							Tetrachloroethene	1000 ug/mL
							Toluene	1000 ug/mL
							trans-1,2-Dichloroethene	1000 ug/mL
							trans-1,3-Dichloropropene	1000 ug/mL
							Trichloroethene	1000 ug/mL
.MSV_Q#3B_00044	09/30/21		Restek, Lot A0158722		(Purchased Reagent)		2-Butanone (MEK)	7500 ug/mL
							2-Hexanone	5000 ug/mL
							4-Methyl-2-pentanone (MIBK)	5000 ug/mL
							Acetone	7500 ug/mL
							Acrylonitrile	5000 ug/mL
.MSV_Q#4C_00049	03/31/21		Restek, Lot A0158704		(Purchased Reagent)		Carbon disulfide	1000 ug/mL
							Methyl tert-butyl ether	1000 ug/mL
MSV_Q_QVOA6_00030	07/11/20	06/11/20	Methanol, Lot DX212	25 mL	MSV_QCS#6Std_00034	1 mL	Bromochloromethane	40 ug/mL
.MSV_QCS#6Std_00034	09/30/21		Restek, Lot A0158906		(Purchased Reagent)		Bromochloromethane	1000 ug/mL
MSV_Q_QVOA6_00038	09/05/20	08/06/20	Methanol, Lot DX212	25 mL	MSV_QCS#6Std_00045	1 mL	Bromochloromethane	40 ug/mL
.MSV_QCS#6Std_00045	09/30/21		Restek, Lot A0158906		(Purchased Reagent)		Bromochloromethane	1000 ug/mL
MSV_QGAS_826_00045	06/18/20	06/11/20	Methanol, Lot DX212	1 mL	MSV_502QGas_00061	20 uL	Bromomethane	40 ug/mL
							Chloroethane	40 ug/mL
							Chloromethane	40 ug/mL
							Vinyl chloride	40 ug/mL
.MSV_502QGas_00061	06/18/20		Restek, Lot A0155823		(Purchased Reagent)		Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
MSV_QGAS_826_00061	08/13/20	08/06/20	Methanol, Lot DX212	1 mL	MSV_502QGas_00081	20 uL	Bromomethane	40 ug/mL
							Chloroethane	40 ug/mL
							Chloromethane	40 ug/mL
							Vinyl chloride	40 ug/mL
.MSV_502QGas_00081	08/13/20		Restek, Lot A0155823		(Purchased Reagent)		Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
MSV_QGAS_826_00062	08/17/20	08/10/20	Methanol, Lot DX212	1 mL	MSV_502QGas_00082	20 uL	Bromomethane	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-9077-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.MSV_502QGas_00082	08/17/20		Restek, Lot A0155823		(Purchased Reagent)		Chloroethane	40 ug/mL
							Chloromethane	40 ug/mL
							Vinyl chloride	40 ug/mL
							Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
MSV_RV1_826_00016	07/08/20	06/11/20	Methanol, Lot DX212	1 mL	MSV_V#1B_00072	10 uL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane (EDB)	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-Trichlorobenzene	50 ug/mL
							1,3,5-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	50 ug/mL
							1-Chlorohexane	50 ug/mL
							2,2-Dichloropropane	50 ug/mL
							2-Chlorotoluene	50 ug/mL
							4-Chlorotoluene	50 ug/mL
							4-Isopropyltoluene	50 ug/mL
							Benzene	50 ug/mL
							Bromobenzene	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
cis-1,2-Dichloroethene	50 ug/mL							
cis-1,3-Dichloropropane	50 ug/mL							
Dibromochloromethane	50 ug/mL							
Dibromomethane	50 ug/mL							
Ethylbenzene	50 ug/mL							
Hexachlorobutadiene	50 ug/mL							
Isopropylbenzene	50 ug/mL							

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-9077-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							m-Xylene & p-Xylene	100 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
					MSV_V#2B_00084	10 uL	1,4-Dioxane	2500 ug/mL
							2-Methyl-2-propanol	1000 ug/mL
							Isobutyl alcohol	2500 ug/mL
							Methacrylonitrile	500 ug/mL
							n-Butanol	5000 ug/mL
							Propionitrile	1000 ug/mL
							trans-1,4-Dichloro-2-butene	500 ug/mL
					MSV_V#4C_00059	10 uL	1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,2-Dichloro-1,1,2-trifluoroethane	50 ug/mL
							2-Chloro-1,3-butadiene	50 ug/mL
							Benzyl chloride	50 ug/mL
							Butadiene	50 ug/mL
							Carbon disulfide	50 ug/mL
							Cyclohexane	50 ug/mL
							Ethyl methacrylate	50 ug/mL
							Hexane	50 ug/mL
							Iodomethane	50 ug/mL
							Isopropyl ether	50 ug/mL
							Methyl methacrylate	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							n-Heptane	50 ug/mL
							Tert-amyl methyl ether	50 ug/mL
							Tert-butyl ethyl ether	50 ug/mL
					MSV_V_VOA2_00034	150 uL	1,4-Dioxane	2500 ug/mL
							2-Methyl-2-propanol	1000 ug/mL
							Isobutyl alcohol	2500 ug/mL
							Methacrylonitrile	500 ug/mL
							n-Butanol	5000 ug/mL
							Propionitrile	1000 ug/mL
							trans-1,4-Dichloro-2-butene	500 ug/mL
					MSV_V_VOA3_00031	100 uL	2-Butanone (MEK)	500 ug/mL
							2-Hexanone	500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-9077-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Nitropropane	500 ug/mL
							4-Methyl-2-pentanone (MIBK)	500 ug/mL
							Acetone	500 ug/mL
							Acrylonitrile	250 ug/mL
							Tetrahydrofuran	500 ug/mL
							Acrolein	2499.96 ug/mL
.MSV_V#1B_00072	07/11/20		Restek, Lot A0158586			(Purchased Reagent)	1,1,1,2-Tetrachloroethane	5000 ug/mL
							1,1,1-Trichloroethane	5000 ug/mL
							1,1,2,2-Tetrachloroethane	5000 ug/mL
							1,1,2-Trichloroethane	5000 ug/mL
							1,1-Dichloroethane	5000 ug/mL
							1,1-Dichloroethene	5000 ug/mL
							1,1-Dichloropropene	5000 ug/mL
							1,2,3-Trichlorobenzene	5000 ug/mL
							1,2,3-Trichloropropane	5000 ug/mL
							1,2,4-Trichlorobenzene	5000 ug/mL
							1,2,4-Trimethylbenzene	5000 ug/mL
							1,2-Dibromo-3-Chloropropane	5000 ug/mL
							1,2-Dibromoethane (EDB)	5000 ug/mL
							1,2-Dichlorobenzene	5000 ug/mL
							1,2-Dichloroethane	5000 ug/mL
							1,2-Dichloropropane	5000 ug/mL
							1,3,5-Trichlorobenzene	5000 ug/mL
							1,3,5-Trimethylbenzene	5000 ug/mL
							1,3-Dichlorobenzene	5000 ug/mL
							1,3-Dichloropropane	5000 ug/mL
							1,4-Dichlorobenzene	5000 ug/mL
							1-Chlorohexane	5000 ug/mL
							2,2-Dichloropropane	5000 ug/mL
							2-Chlorotoluene	5000 ug/mL
							4-Chlorotoluene	5000 ug/mL
							4-Isopropyltoluene	5000 ug/mL
							Benzene	5000 ug/mL
							Bromobenzene	5000 ug/mL
							Bromodichloromethane	5000 ug/mL
							Bromoform	5000 ug/mL
							Carbon tetrachloride	5000 ug/mL
							Chlorobenzene	5000 ug/mL
							Chloroform	5000 ug/mL
							cis-1,2-Dichloroethene	5000 ug/mL
							cis-1,3-Dichloropropane	5000 ug/mL
							Dibromochloromethane	5000 ug/mL
							Dibromomethane	5000 ug/mL
							Ethylbenzene	5000 ug/mL
							Hexachlorobutadiene	5000 ug/mL
							Isopropylbenzene	5000 ug/mL
							m-Xylene & p-Xylene	10000 ug/mL
							Methylene Chloride	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-9077-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							n-Butylbenzene	5000 ug/mL
							N-Propylbenzene	5000 ug/mL
							Naphthalene	5000 ug/mL
							o-Xylene	5000 ug/mL
							sec-Butylbenzene	5000 ug/mL
							Styrene	5000 ug/mL
							tert-Butylbenzene	5000 ug/mL
							Tetrachloroethene	5000 ug/mL
							Toluene	5000 ug/mL
							trans-1,2-Dichloroethene	5000 ug/mL
							trans-1,3-Dichloropropene	5000 ug/mL
							Trichloroethene	5000 ug/mL
.MSV_V#2B_00084	07/11/20		Restek, Lot A0147800		(Purchased Reagent)		1,4-Dioxane	62500 ug/mL
							2-Methyl-2-propanol	25000 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Methacrylonitrile	12500 ug/mL
							n-Butanol	125000 ug/mL
							Propionitrile	25000 ug/mL
							trans-1,4-Dichloro-2-butene	12500 ug/mL
.MSV_V#4C_00059	07/11/20		Restek, Lot A0158660		(Purchased Reagent)		1,1,2-Trichloro-1,2,2-trifluoroethane	5000 ug/mL
							1,2-Dichloro-1,1,2-trifluoroethane	5000 ug/mL
							2-Chloro-1,3-butadiene	5000 ug/mL
							Benzyl chloride	5000 ug/mL
							Butadiene	5000 ug/mL
							Carbon disulfide	5000 ug/mL
							Cyclohexane	5000 ug/mL
							Ethyl methacrylate	5000 ug/mL
							Hexane	5000 ug/mL
							Iodomethane	5000 ug/mL
							Isopropyl ether	5000 ug/mL
							Methyl methacrylate	5000 ug/mL
							Methyl tert-butyl ether	5000 ug/mL
							n-Heptane	5000 ug/mL
							Tert-amyl methyl ether	5000 ug/mL
							Tert-butyl ethyl ether	5000 ug/mL
.MSV_V_VOA2_00034	07/08/20	06/08/20	Methanol, Lot DX212	5 mL	MSV_V#2B_00083	1 mL	1,4-Dioxane	12500 ug/mL
							2-Methyl-2-propanol	5000 ug/mL
							Isobutyl alcohol	12500 ug/mL
							Methacrylonitrile	2500 ug/mL
							n-Butanol	25000 ug/mL
							Propionitrile	5000 ug/mL
							trans-1,4-Dichloro-2-butene	2500 ug/mL
..MSV_V#2B_00083	07/08/20		Restek, Lot A0147800		(Purchased Reagent)		1,4-Dioxane	62500 ug/mL
							2-Methyl-2-propanol	25000 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Methacrylonitrile	12500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-9077-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.MSV_V_VOA3_00031	07/08/20	06/08/20	Methanol, Lot DX212	5 mL	MSV_V#3B_00037	1 mL	n-Butanol	125000 ug/mL
							Propionitrile	25000 ug/mL
							trans-1,4-Dichloro-2-butene	12500 ug/mL
							2-Butanone (MEK)	5000 ug/mL
							2-Hexanone	5000 ug/mL
							2-Nitropropane	5000 ug/mL
							4-Methyl-2-pentanone (MIBK)	5000 ug/mL
							Acetone	5000 ug/mL
..MSV_V#3B_00037	07/08/20		Restek, Lot A0158677		MSV_VACR_00008	1 mL	Acrolein	24999.6 ug/mL
							2-Butanone (MEK)	25000 ug/mL
							2-Hexanone	25000 ug/mL
							2-Nitropropane	25000 ug/mL
							4-Methyl-2-pentanone (MIBK)	25000 ug/mL
							Acetone	25000 ug/mL
							Acrylonitrile	12500 ug/mL
							Tetrahydrofuran	25000 ug/mL
..MSV_VACR_00008	08/01/20	06/02/20	Methanol, Lot DX212	10 mL	MSV_VACR_STK_00008	9.079 mL	Acrolein	124998 ug/mL
...MSV_VACR_STK_00008	08/01/20	06/02/20	Methanol, Lot DX212	10 mL	MSV_ACROLEIN_00005	1.46 g	Acrolein	137678 ug/mL
...MSV_ACROLEIN_00005	12/31/20		Chem Service, Lot 97170000				Acrolein	0.943 g/g
MSV_RV1_826_00020	08/25/20	07/30/20	Methanol, Lot DX212	1 mL	MSV_V#1B_00092	10 uL	1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,2-Dibromoethane (EDB)	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							Benzene	50 ug/mL
							Bromodichloromethane	50 ug/mL
							Bromoform	50 ug/mL
							Carbon tetrachloride	50 ug/mL
							Chlorobenzene	50 ug/mL
							Chloroform	50 ug/mL
							cis-1,2-Dichloroethene	50 ug/mL
							cis-1,3-Dichloropropene	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Methylene Chloride	50 ug/mL
							Styrene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
trans-1,3-Dichloropropene	50 ug/mL							
Trichloroethene	50 ug/mL							

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-9077-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					MSV_V#4C_00073	10 uL	Carbon disulfide	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
					MSV_V_VOA3_00038	100 uL	2-Butanone (MEK)	500 ug/mL
							2-Hexanone	500 ug/mL
							4-Methyl-2-pentanone (MIBK)	500 ug/mL
							Acetone	500 ug/mL
.MSV_V#1B_00092	08/29/20		Restek, Lot A0158586		(Purchased Reagent)		Acrylonitrile	250 ug/mL
							1,1,1,2-Tetrachloroethane	5000 ug/mL
							1,1,1-Trichloroethane	5000 ug/mL
							1,1,2,2-Tetrachloroethane	5000 ug/mL
							1,1,2-Trichloroethane	5000 ug/mL
							1,1-Dichloroethane	5000 ug/mL
							1,1-Dichloroethene	5000 ug/mL
							1,2-Dibromoethane (EDB)	5000 ug/mL
							1,2-Dichloroethane	5000 ug/mL
							1,2-Dichloropropane	5000 ug/mL
							Benzene	5000 ug/mL
							Bromodichloromethane	5000 ug/mL
							Bromoform	5000 ug/mL
							Carbon tetrachloride	5000 ug/mL
							Chlorobenzene	5000 ug/mL
							Chloroform	5000 ug/mL
							cis-1,2-Dichloroethene	5000 ug/mL
							cis-1,3-Dichloropropene	5000 ug/mL
							Dibromochloromethane	5000 ug/mL
							Ethylbenzene	5000 ug/mL
							Methylene Chloride	5000 ug/mL
							Styrene	5000 ug/mL
							Tetrachloroethene	5000 ug/mL
							Toluene	5000 ug/mL
		trans-1,2-Dichloroethene	5000 ug/mL					
		trans-1,3-Dichloropropene	5000 ug/mL					
		Trichloroethene	5000 ug/mL					
.MSV_V#4C_00073	08/29/20		Restek, Lot A0158660		(Purchased Reagent)		Carbon disulfide	5000 ug/mL
							Methyl tert-butyl ether	5000 ug/mL
.MSV_V_VOA3_00038	08/25/20	07/26/20	Methanol, Lot DX212	5 mL	MSV_V#3B_00044	1 mL	2-Butanone (MEK)	5000 ug/mL
							2-Hexanone	5000 ug/mL
							4-Methyl-2-pentanone (MIBK)	5000 ug/mL
							Acetone	5000 ug/mL
							Acrylonitrile	2500 ug/mL
..MSV_V#3B_00044	08/25/20		Restek, Lot A0158677		(Purchased Reagent)		2-Butanone (MEK)	25000 ug/mL
							2-Hexanone	25000 ug/mL
							4-Methyl-2-pentanone (MIBK)	25000 ug/mL
							Acetone	25000 ug/mL
							Acrylonitrile	12500 ug/mL
MSV_RV4_826_00017	06/27/20	06/11/20	Methanol, Lot DX212	1 mL	MSV_V_EE_00003	50 uL	Ethyl ether	49.9925 ug/mL
					MSV_V_VOA6_00039	50 uL	1,2,3-Trimethylbenzene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-9077-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							3-Chloro-1-propene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Methyl acetate	50 ug/mL
							Methylcyclohexane	50 ug/mL
							Pentachloroethane	50 ug/mL
.MSV V EE 00003	10/28/20	04/28/20	Methanol, Lot DX212	100 mL	MSV EE MISCSK 00004	2.059 mL	Ethyl ether	999.85 ug/mL
..MSV EE MISCSK 00004	10/28/20	04/28/20	Methanol, Lot DX212	10 mL	MSV EE Neat 00002	0.4856 g	Ethyl ether	48560 ug/mL
...MSV EE Neat 00002	11/30/21		Chem Service, Lot 7967000		(Purchased Reagent)		Ethyl ether	1 g/g
.MSV V VOA6_00039	07/11/20	06/11/20	Methanol, Lot DX212	5 mL	MSV_V#6_00021	1 mL	1,2,3-Trimethylbenzene	1000 ug/mL
							3-Chloro-1-propene	1000 ug/mL
							Bromochloromethane	1000 ug/mL
							Methyl acetate	1000 ug/mL
							Methylcyclohexane	1000 ug/mL
							Pentachloroethane	1000 ug/mL
..MSV_V#6_00021	07/11/20		Restek, Lot A0158625		(Purchased Reagent)		1,2,3-Trimethylbenzene	5000 ug/mL
							3-Chloro-1-propene	5000 ug/mL
							Bromochloromethane	5000 ug/mL
							Methyl acetate	5000 ug/mL
							Methylcyclohexane	5000 ug/mL
							Pentachloroethane	5000 ug/mL
MSV RV4 826 00021	08/22/20	07/27/20	Methanol, Lot DX212	1 mL	MSV V VOA6_00045	50 uL	Bromochloromethane	50 ug/mL
.MSV V VOA6_00045	08/22/20	07/23/20	Methanol, Lot DX212	5 mL	MSV_V#6_00027	1 mL	Bromochloromethane	1000 ug/mL
..MSV_V#6_00027	08/22/20		Restek, Lot A0158625		(Purchased Reagent)		Bromochloromethane	5000 ug/mL
MSV RV4GAS826_00047	06/18/20	06/11/20	Methanol, Lot DX212	1 mL	MSV_DCFM_00016	25 uL	Dichlorofluoromethane	50 ug/mL
					MSV_V_Gas_00090	25 uL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.MSV_DCFM_00016	07/04/20		AccuStandard, Lot 219051360		(Purchased Reagent)		Dichlorofluoromethane	2000 ug/mL
.MSV_V_Gas_00090	06/18/20		Restek, Lot A0150705		(Purchased Reagent)		Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Dichlorodifluoromethane	2000 ug/mL
							Trichlorofluoromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
MSV RV4GAS826_00063	08/13/20	08/06/20	Methanol, Lot DX212	1 mL	MSV_V_Gas_00124	25 uL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.MSV_V_Gas_00124	08/13/20		Restek, Lot A0159812		(Purchased Reagent)		Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
MSV RV4GAS826_00064	08/17/20	08/10/20	Methanol, Lot DX212	1 mL	MSV_V_Gas_00125	25 uL	Bromomethane	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-9077-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.MSV_V_Gas_00125	08/17/20		Restek, Lot A0159812			(Purchased Reagent)	Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
							Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
MSV_V_BFB_00002							1,2-Dichloroethene, Total	
							1,3-Dichloropropene, Total	
							divinyl benzene	
							Tentatively Identified Compound	
							Total Diethylbenzene	
							Xylenes, Total	
.MSV_VBFB_STK_00002	07/28/20	01/28/20	Methanol, Lot DX212	10 mL	MSV_VBFB_STK_00002	0.117 mL	BFB	49.8701 ug/mL
..MSV_4BFB_NEAT_00001	01/31/21		Chem Service, Lot 8995800		MSV_4BFB_NEAT_00001	1.0656 g	BFB	106560 ug/mL
						(Purchased Reagent)	BFB	1 g/g
MSV_V_BFB_00003							1,2-Dichloroethene, Total	
							1,3-Dichloropropene, Total	
							divinyl benzene	
							Tentatively Identified Compound	
							Total Diethylbenzene	
							Xylenes, Total	
.MSV_VBFB_STK_00004	01/22/21	07/22/20	Methanol, Lot DX212	10 mL	MSV_VBFB_STK_00004	0.117 mL	BFB	50.0245 ug/mL
..MSV_4BFB_NEAT_00002	01/31/21		Chem Service, Lot 8601300		MSV_4BFB_NEAT_00002	1.0689 g	BFB	106890 ug/mL
						(Purchased Reagent)	BFB	1 g/g

Reagent

MSV_4BFB_NEAT_00002

660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

4-Bromofluorobenzene

CATALOG NUMBER N-10809-1G ✓✓
LOT NUMBER 8601300 ✓✓
DATE CERTIFIED 01/06/16 ✓✓
EXPIRATION DATE 01/31/21 ✓✓
CAS NUMBER 460-00-4
MOLECULAR FORMULA C₆H₄BrF
MOLECULAR WEIGHT 175.00
STORAGE Store in a cool dry place.
HANDLING See Safety Data Sheet
INTENDED USE For laboratory use only.
ISO GUIDE 34 CERTIFIED []

Analytical Test	Value
FT-IR SPECTROSCOPY	CONFORMS TO STRUCTURE
PHYSICAL APPEARANCE	COLORLESS LIQUID ✓✓
% PURITY (GC/FID)	99.5 ✓✓

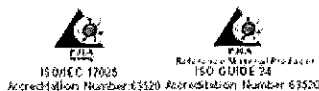
Chem Service, Inc. guarantees the purity to be +/- 0.5% deviation prior to the expiration date shown on the label and exclusive of any customer contamination.

Certified By:

Mary Beth O'Donnell

Mary Beth O'Donnell
CSM/TC

Chem Service, Inc. is accredited to ISO Guide 34:2009, ISO/IEC 17025:2005 and certified to ISO 9001:2008



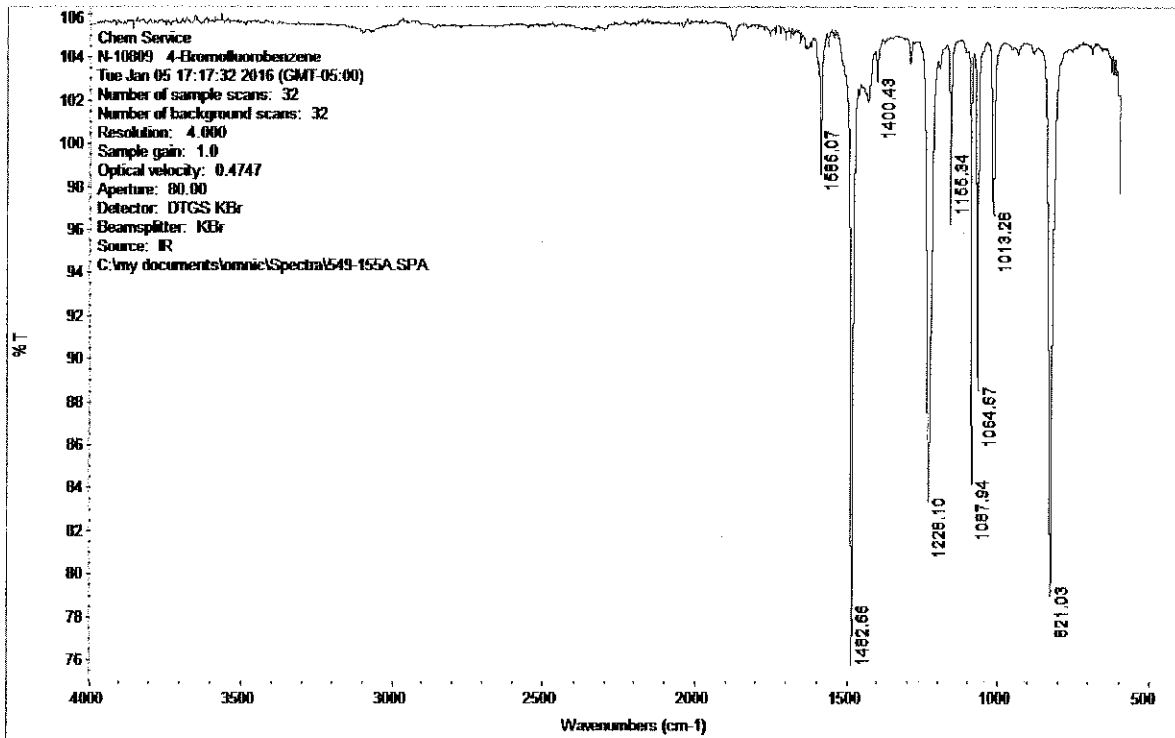
COA Form
Revision 3 (3/2015)

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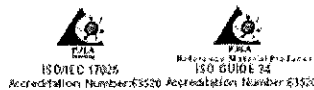
CERTIFICATE OF ANALYSIS

Analysis Method: FTIR- Spectroscopy

Catalog Number: N-10809-1G
Description: 4-Bromofluorobenzene
Lot Number: 8601300
Expiration Date: 01/31/21



Chem Service, Inc. is accredited to ISO Guide 34:2009, ISO/IEC 17025:2005 and certified to ISO 9001:2008





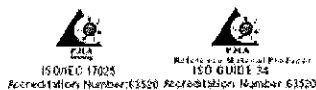
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CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number:	N-10809-1G
Description:	4-Bromofluorobenzene
Lot Number:	8601300
Expiration Date:	01/31/21

Chem Service, Inc. is accredited to ISO Guide 34:2009, ISO/IEC 17025:2005 and certified to ISO 9001:2008

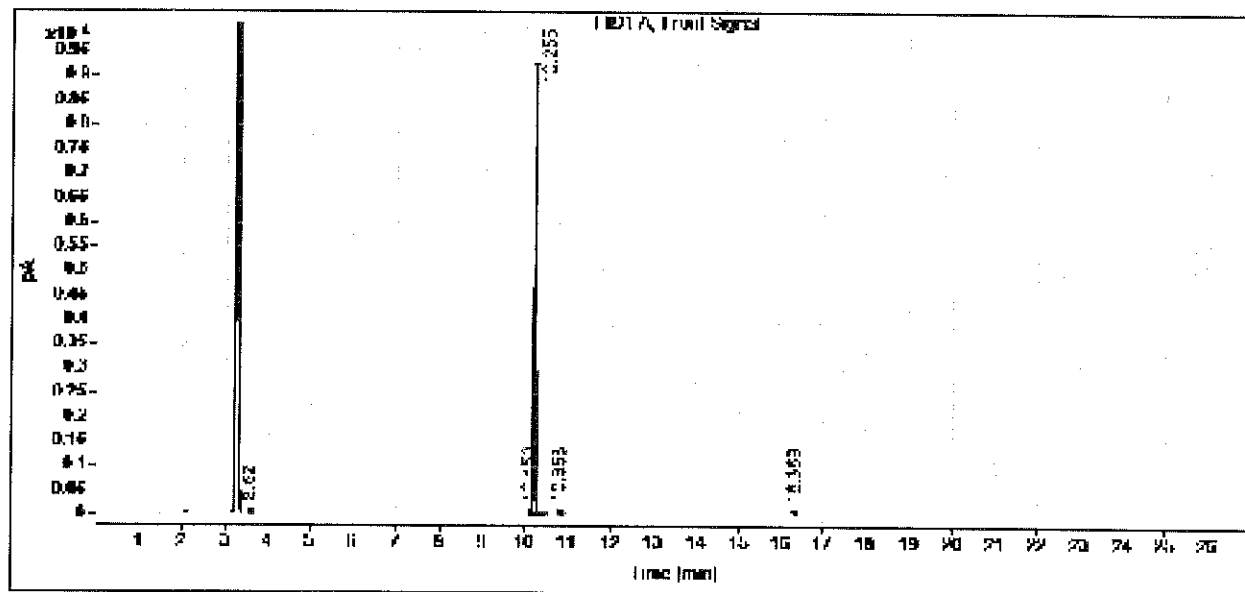


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CERTIFICATE OF ANALYSIS

Gas Chromatography / Flame Ionization Detector (GC/FID)

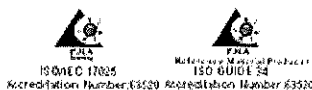
Data file: C:\CHEM321\1\DATA\11215\SIG1007347.D
Sample name: N-10809/CH2CL2
Instrument: GC 1 **Sample type:** Sample
Injection date: 1/5/2016 4:20:37 PM **Location:** Vial 6
Acq. method: MIX1.M **Injection volume:** 1.0uL
Column name: DB-824 (30m x 0.53mm x 3.0um)



Signal: FID1 A, Front Signal

RT [min]	Type	Width [min]	Area	Height	Area%
3.620	BB	0.0403	3.8748	1.1723	0.0145
10.156	BV	0.0195	0.7424	0.4889	0.0028
10.255	VB S	0.0437	26687.8328	9172.4229	99.7795
10.853	BB	0.0583	54.3345	12.3602	0.2031
16.369	BB	0.0034	0.0123	0.0605	0.0000
Sum			26748.5988		

Chem Service, Inc. is accredited to ISO Guide 34:2009, ISO/IEC 17025:2005 and certified to ISO 9001:2008



Reagent

MSV_502QGas_00061



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
 Bellefonte, PA 16823-8812
 Tel: (800)356-1688
 Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 55669.SEC **Lot No.:** A0155823
Description : Custom 502.2 "Q" Gas Mix
Custom 502.2 "Q" Gas Mix 2,000µg/mL, P&T Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : January 31, 2027 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Dichlorodifluoromethane (CFC-12)	2,016.5 µg/mL	+/-	19.3550	µg/mL	Gravimetric
	CAS # 75-71-8.SEC (Lot 26165)		+/-	114.1077	µg/mL	Unstressed
	Purity 99%		+/-	116.7296	µg/mL	Stressed
2	Chloromethane (methyl chloride)	2,005.6 µg/mL	+/-	18.7428	µg/mL	Gravimetric
	CAS # 74-87-3.SEC (Lot 18343)		+/-	113.4037	µg/mL	Unstressed
	Purity 99%		+/-	116.0133	µg/mL	Stressed
3	Vinyl chloride	2,004.4 µg/mL	+/-	15.4000	µg/mL	Gravimetric
	CAS # 75-01-4.SEC (Lot MKBK6872V)		+/-	112.8325	µg/mL	Unstressed
	Purity 99%		+/-	115.4519	µg/mL	Stressed
4	Bromomethane (methyl bromide)	2,022.0 µg/mL	+/-	18.0735	µg/mL	Gravimetric
	CAS # 74-83-9.SEC (Lot Q119-46)		+/-	114.2018	µg/mL	Unstressed
	Purity 99%		+/-	116.8358	µg/mL	Stressed
5	Chloroethane (ethyl chloride)	2,013.1 µg/mL	+/-	20.5181	µg/mL	Gravimetric
	CAS # 75-00-3.SEC (Lot 00004202)		+/-	114.1209	µg/mL	Unstressed
	Purity 99%		+/-	116.7336	µg/mL	Stressed
6	Trichlorofluoromethane (CFC-11)	2,001.1 µg/mL	+/-	17.4531	µg/mL	Gravimetric
	CAS # 75-69-4.SEC (Lot 253600)		+/-	112.9531	µg/mL	Unstressed
	Purity 99%		+/-	115.5613	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

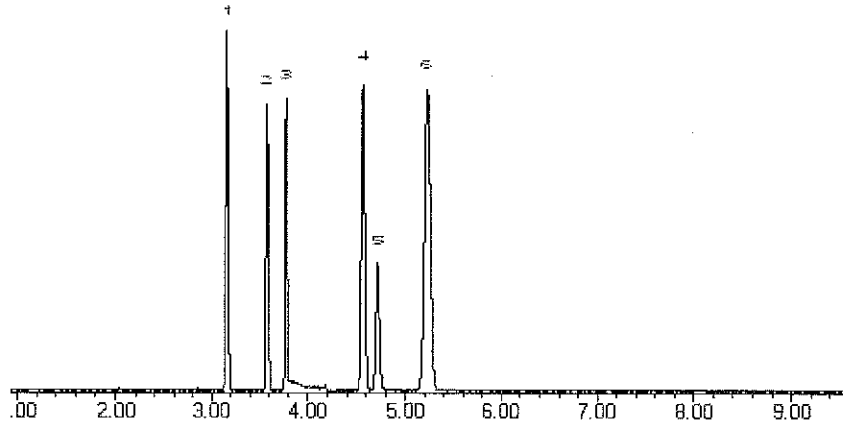
Carrier Gas:
helium-constant flow 2.0 mL/min.

Temp. Program:
40°C (hold 6 min.) to 100°C
@ 6°C/min.

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Lane Kibe
Lane Kibe - Mix Technician

Date Mixed: 16-Dec-2019 **Balance:** 1127510105

Amanda Miller
Amanda Miller - Operations Tech-ARM QC

Date Passed: 27-Dec-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

MSV_502QGas_00081



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
 Bellefonte, PA 16823-8812
 Tel: (800)356-1688
 Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 55669.SEC **Lot No.:** A0155823
Description : Custom 502.2 "Q" Gas Mix
Custom 502.2 "Q" Gas Mix 2,000µg/mL, P&T Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : January 31, 2027 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Dichlorodifluoromethane (CFC-12)	2,016.5 µg/mL	+/-	19.3550	µg/mL	Gravimetric
	CAS # 75-71-8.SEC (Lot 26165)		+/-	114.1077	µg/mL	Unstressed
	Purity 99%		+/-	116.7296	µg/mL	Stressed
2	Chloromethane (methyl chloride)	2,005.6 µg/mL	+/-	18.7428	µg/mL	Gravimetric
	CAS # 74-87-3.SEC (Lot 18343)		+/-	113.4037	µg/mL	Unstressed
	Purity 99%		+/-	116.0133	µg/mL	Stressed
3	Vinyl chloride	2,004.4 µg/mL	+/-	15.4000	µg/mL	Gravimetric
	CAS # 75-01-4.SEC (Lot MKBK6872V)		+/-	112.8325	µg/mL	Unstressed
	Purity 99%		+/-	115.4519	µg/mL	Stressed
4	Bromomethane (methyl bromide)	2,022.0 µg/mL	+/-	18.0735	µg/mL	Gravimetric
	CAS # 74-83-9.SEC (Lot Q119-46)		+/-	114.2018	µg/mL	Unstressed
	Purity 99%		+/-	116.8358	µg/mL	Stressed
5	Chloroethane (ethyl chloride)	2,013.1 µg/mL	+/-	20.5181	µg/mL	Gravimetric
	CAS # 75-00-3.SEC (Lot 00004202)		+/-	114.1209	µg/mL	Unstressed
	Purity 99%		+/-	116.7336	µg/mL	Stressed
6	Trichlorofluoromethane (CFC-11)	2,001.1 µg/mL	+/-	17.4531	µg/mL	Gravimetric
	CAS # 75-69-4.SEC (Lot 253600)		+/-	112.9531	µg/mL	Unstressed
	Purity 99%		+/-	115.5613	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

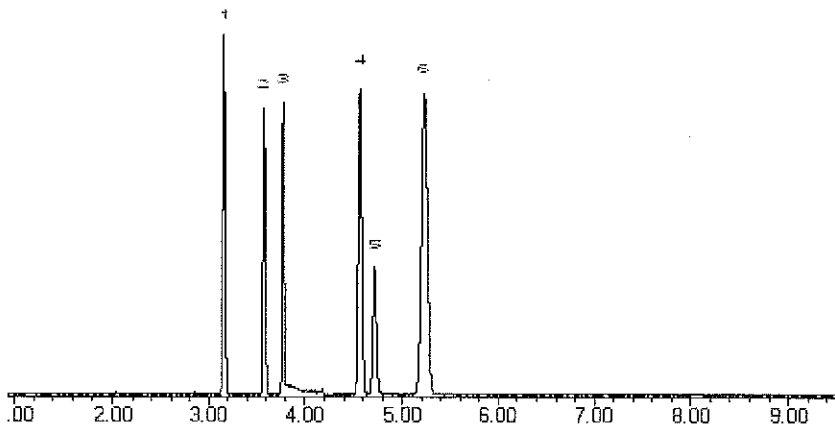
Carrier Gas:
helium-constant flow 2.0 mL/min.

Temp. Program:
40°C (hold 6 min.) to 100°C
@ 6°C/min.

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Lane Kibe
Lane Kibe - Mix Technician

Date Mixed: 16-Dec-2019 **Balance:** 1127510105

Amanda Miller
Amanda Miller - Operations Tech-ARM QC

Date Passed: 27-Dec-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

MSV_502QGas_00082



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
 Bellefonte, PA 16823-8812
 Tel: (800)356-1688
 Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 55669.SEC **Lot No.:** A0155823
Description : Custom 502.2 "Q" Gas Mix
Custom 502.2 "Q" Gas Mix 2,000µg/mL, P&T Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : January 31, 2027 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Dichlorodifluoromethane (CFC-12)	2,016.5 µg/mL	+/-	19.3550	µg/mL	Gravimetric
	CAS # 75-71-8.SEC (Lot 26165)		+/-	114.1077	µg/mL	Unstressed
	Purity 99%		+/-	116.7296	µg/mL	Stressed
2	Chloromethane (methyl chloride)	2,005.6 µg/mL	+/-	18.7428	µg/mL	Gravimetric
	CAS # 74-87-3.SEC (Lot 18343)		+/-	113.4037	µg/mL	Unstressed
	Purity 99%		+/-	116.0133	µg/mL	Stressed
3	Vinyl chloride	2,004.4 µg/mL	+/-	15.4000	µg/mL	Gravimetric
	CAS # 75-01-4.SEC (Lot MKBK6872V)		+/-	112.8325	µg/mL	Unstressed
	Purity 99%		+/-	115.4519	µg/mL	Stressed
4	Bromomethane (methyl bromide)	2,022.0 µg/mL	+/-	18.0735	µg/mL	Gravimetric
	CAS # 74-83-9.SEC (Lot Q119-46)		+/-	114.2018	µg/mL	Unstressed
	Purity 99%		+/-	116.8358	µg/mL	Stressed
5	Chloroethane (ethyl chloride)	2,013.1 µg/mL	+/-	20.5181	µg/mL	Gravimetric
	CAS # 75-00-3.SEC (Lot 00004202)		+/-	114.1209	µg/mL	Unstressed
	Purity 99%		+/-	116.7336	µg/mL	Stressed
6	Trichlorofluoromethane (CFC-11)	2,001.1 µg/mL	+/-	17.4531	µg/mL	Gravimetric
	CAS # 75-69-4.SEC (Lot 253600)		+/-	112.9531	µg/mL	Unstressed
	Purity 99%		+/-	115.5613	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

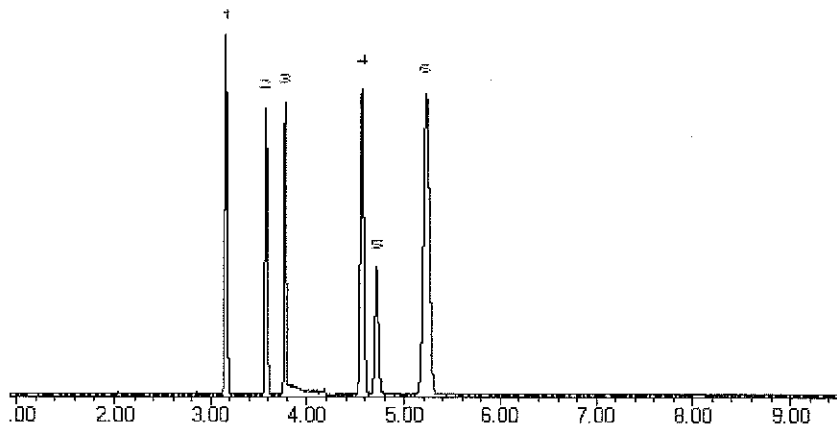
Carrier Gas:
helium-constant flow 2.0 mL/min.

Temp. Program:
40°C (hold 6 min.) to 100°C
@ 6°C/min.

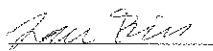
Inj. Temp:
200°C

Det. Temp:
250°C


Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Lane Kibe - Mix Technician

Date Mixed: 16-Dec-2019 **Balance:** 1127510105


Amanda Miller - Operations Tech-ARM QC

Date Passed: 27-Dec-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

MSV_8260_SS_00066



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
 Bellefonte, PA 16823-8812
 Tel: (800)356-1688
 Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 55671 **Lot No.:** A0146938
Description : 8260A Surrogate Mix
8260A Surrogate Mix 2,500µg/mL, P&T Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : March 31, 2022 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Dibromofluoromethane	2,505.2 µg/mL	+/-	14.5653	µg/mL Gravimetric
	CAS # 1868-53-7 (Lot 0012016)		+/-	140.4622	µg/mL Unstressed
	Purity 99%		+/-	143.7488	µg/mL Stressed
2	1,2-Dichloroethane-d4	2,517.2 µg/mL	+/-	14.6350	µg/mL Gravimetric
	CAS # 17060-07-0 (Lot PR-26748)		+/-	141.1350	µg/mL Unstressed
	Purity 99%		+/-	144.4374	µg/mL Stressed
3	Toluene-d8	2,507.7 µg/mL	+/-	14.5798	µg/mL Gravimetric
	CAS # 2037-26-5 (Lot PR-27311)		+/-	140.6024	µg/mL Unstressed
	Purity 99%		+/-	143.8923	µg/mL Stressed
4	1-Bromo-4-fluorobenzene (BFB)	2,507.7 µg/mL	+/-	14.5798	µg/mL Gravimetric
	CAS # 460-00-4 (Lot 20401KO)		+/-	140.6024	µg/mL Unstressed
	Purity 99%		+/-	143.8923	µg/mL Stressed

Solvent: P&T Methanol
 CAS # 67-56-1
 Purity 99%

Column:

105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:

hydrogen-constant pressure 11.0 psi.

Temp. Program:

40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:

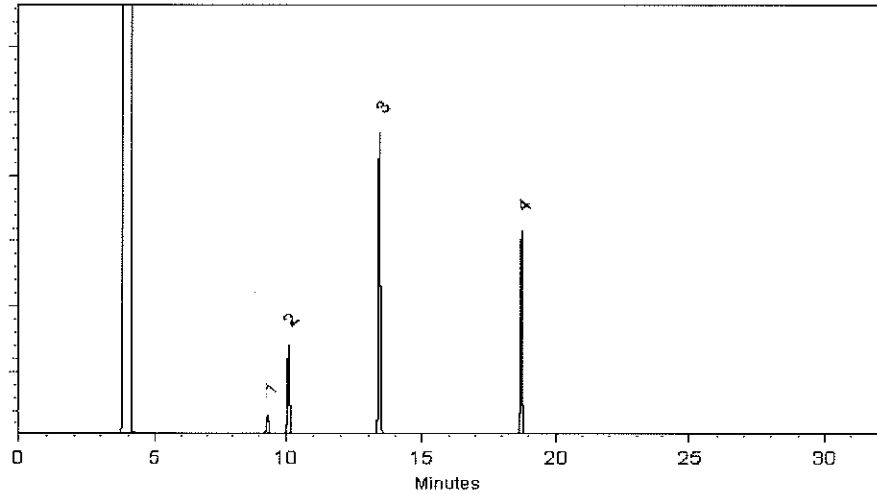
200°C

Det. Temp:

250°C

Det. Type:

FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Maggie Wang

Maggie Wang - Operations Technician I

Date Mixed: 12-Mar-2019

Balance: 1128342314

Jennifer J Pollino

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 15-Mar-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

MSV_Cus826_IS_00041



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
 Bellefonte, PA 16823-8812
 Tel: (800)356-1688
 Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 558267 **Lot No.:** A0138205
Description : Custom 8260A IS Mix
Custom 8260A IS Mix 2,500-12,500µg/mL, P&T Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : May 31, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	tert-Butyl Alcohol-d10	12,613.8 µg/mL	+/-	73.3376	µg/mL	Gravimetric
	CAS # 53001-22-2 (Lot PR-29485)		+/-	270.0624	µg/mL	Unstressed
	Purity 98%		+/-	277.9136	µg/mL	Stressed
2	Fluorobenzene	2,517.8 µg/mL	+/-	14.6387	µg/mL	Gravimetric
	CAS # 462-06-6 (Lot BCBK8171V)		+/-	53.9064	µg/mL	Unstressed
	Purity 99%		+/-	55.4736	µg/mL	Stressed
3	Chlorobenzene-d5	2,518.8 µg/mL	+/-	14.6445	µg/mL	Gravimetric
	CAS # 3114-55-4 (Lot PR-22736)		+/-	53.9278	µg/mL	Unstressed
	Purity 99%		+/-	55.4956	µg/mL	Stressed
4	1,4-Dichlorobenzene-d4	2,511.0 µg/mL	+/-	14.5992	µg/mL	Gravimetric
	CAS # 3855-82-1 (Lot PR-18488)		+/-	53.7608	µg/mL	Unstressed
	Purity 99%		+/-	55.3237	µg/mL	Stressed

Solvent: P&T Methanol
 CAS # 67-56-1
 Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

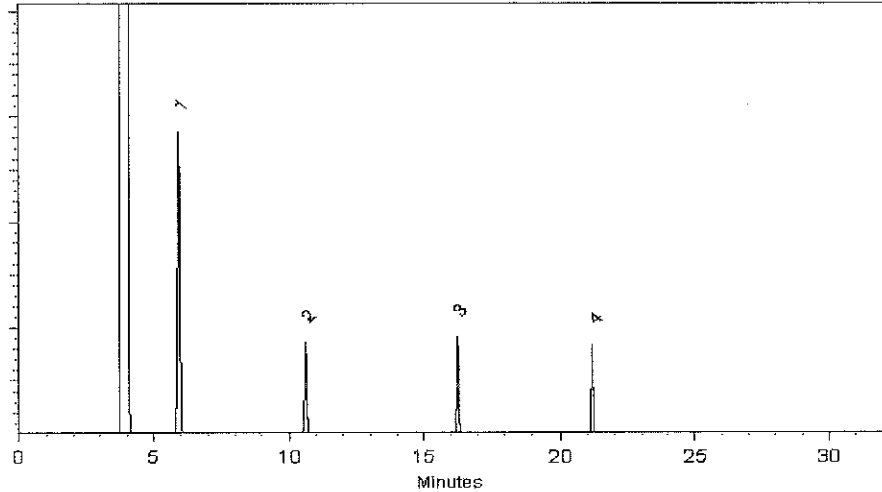
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

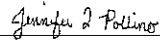
Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Tom Suckar - Mix Technician

Date Mixed: 21-May-2018 Balance: 1128342314


Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 23-May-2018

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

MSV_DCFM_00016

CERTIFICATE OF ANALYSIS

Catalog No: M-502-61-10X
Description: Dichlorofluoromethane
Lot: 219051360
Solvent: Methanol
Hazards: Refer to SDS for complete safety information

Date Certified: May 13, 2019
Expiration: May 13, 2029
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)



Signal Word: Danger

Certified Reference Material



Component	CAS #	Purity % (GC/FID)	Prepared Concentration ² (µg/mL)	Certified Analyte Concentration ¹ (µg/mL)
Dichlorofluoromethane	75-43-4	98.0	2000	1960

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Certified By: 

Larry Decker, Organic QC Manager

1. Quality Standards:

ISO 17034 – General Requirements for the Competence of Reference Material Producers ANAB Certificate Number AR-1463

ISO/IEC 17025 – General Requirements for the Competence of Testing And Calibration Laboratories ANAB Certificate Number AT-1339

ISO 9001:2015 – Quality Management System – Requirements Eagle Registrations Certificate Number 3774

- 2. Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7.
- 3. Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards and calibrated using an in-house procedure. Good Laboratory Practices have been used throughout the preparation of this Standard.
- 4. Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.
- 5. Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label
- 6. Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(V))^2 + (u(m))^2 + (u(IV))^2 + (u(RO))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level.
- 7. Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

Reagent

MSV_Q#1B_00038



110 Benner Circle
 Bellefonte, PA 16823-8812
 Tel: (800)356-1688
 Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569936-1.sec **Lot No.:** A0148625
Description : Custom Revised Q #1B Standard
Custom Revised Q #1B Standard 1,000µg/mL, P&T Methanol,
1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : April 30, 2022 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	1,1-Dichloroethene	1,005.5 µg/mL	+/-	7.1750	µg/mL	Gravimetric
	CAS # 75-35-4.SEC (Lot 5111300)		+/-	56.5279	µg/mL	Unstressed
	Purity 99%		+/-	57.8435	µg/mL	Stressed
2	Methylene chloride (dichloromethane)	1,004.5 µg/mL	+/-	7.1682	µg/mL	Gravimetric
	CAS # 75-09-2.SEC (Lot FGM02)		+/-	56.4745	µg/mL	Unstressed
	Purity 99%		+/-	57.7888	µg/mL	Stressed
3	trans-1,2-Dichloroethene	1,002.8 µg/mL	+/-	7.1558	µg/mL	Gravimetric
	CAS # 156-60-5.SEC (Lot TSSUB)		+/-	56.3767	µg/mL	Unstressed
	Purity 97%		+/-	57.6888	µg/mL	Stressed
4	1,1-Dichloroethane	1,006.8 µg/mL	+/-	7.1846	µg/mL	Gravimetric
	CAS # 75-34-3.SEC (Lot 5379000)		+/-	56.6038	µg/mL	Unstressed
	Purity 99%		+/-	57.9211	µg/mL	Stressed
5	2,2-Dichloropropane	1,003.2 µg/mL	+/-	7.7659	µg/mL	Gravimetric
	CAS # 594-20-7.SEC (Lot I7E8E)		+/-	56.4820	µg/mL	Unstressed
	Purity 98%		+/-	57.7928	µg/mL	Stressed
6	cis-1,2-Dichloroethene	1,001.2 µg/mL	+/-	7.7507	µg/mL	Gravimetric
	CAS # 156-59-2.SEC (Lot HGC01-BLKT)		+/-	56.3716	µg/mL	Unstressed
	Purity 98%		+/-	57.6799	µg/mL	Stressed
7	Chloroform	1,004.5 µg/mL	+/-	7.1684	µg/mL	Gravimetric
	CAS # 67-66-3.SEC (Lot 1297547)		+/-	56.4759	µg/mL	Unstressed
	Purity 99%		+/-	57.7903	µg/mL	Stressed

8	1,1,1-trichloroethane CAS # 71-55-6 * Purity 99%	(Lot B15W12061)	1,000.9	µg/mL	+/- 7.1427 +/- 56.2735 +/- 57.5832	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	1,1-Dichloropropene CAS # 563-58-6.SEC Purity 96%	(Lot 4672600)	1,005.1	µg/mL	+/- 7.7804 +/- 56.5876 +/- 57.9008	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	Carbon tetrachloride CAS # 56-23-5.SEC Purity 99%	(Lot 11466)	1,006.6	µg/mL	+/- 7.1828 +/- 56.5897 +/- 57.9068	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	1,2-Dichloroethane CAS # 107-06-2.SEC Purity 99%	(Lot FO6PK)	1,003.3	µg/mL	+/- 7.1598 +/- 56.4084 +/- 57.7212	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	Benzene CAS # 71-43-2.SEC Purity 99%	(Lot B28Y008)	1,003.5	µg/mL	+/- 7.7683 +/- 56.4996 +/- 57.8109	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	Trichloroethene CAS # 79-01-6.SEC Purity 99%	(Lot H04X050)	1,005.6	µg/mL	+/- 7.1760 +/- 56.5363 +/- 57.8521	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	1,2-Dichloropropane CAS # 78-87-5.SEC Purity 99%	(Lot OGG01)	1,004.3	µg/mL	+/- 7.1666 +/- 56.4618 +/- 57.7759	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	Bromodichloromethane CAS # 75-27-4.SEC Purity 99%	(Lot 10171168)	1,006.2	µg/mL	+/- 7.1801 +/- 56.5686 +/- 57.8852	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	Dibromomethane CAS # 74-95-3.SEC Purity 99%	(Lot FGI01-OICH)	1,006.1	µg/mL	+/- 7.7881 +/- 56.6438 +/- 57.9584	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	cis-1,3-Dichloropropene CAS # 10061-01-5.SEC Purity 99%	(Lot 4870A)	1,001.9	µg/mL	+/- 7.1498 +/- 56.3297 +/- 57.6407	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	Toluene CAS # 108-88-3.SEC Purity 99%	(Lot YND2B-BD)	1,004.8	µg/mL	+/- 7.7782 +/- 56.5717 +/- 57.8846	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	trans-1,3-Dichloropropene CAS # 10061-02-6.SEC Purity 99%	(Lot ZDMSL)	1,002.6	µg/mL	+/- 7.1548 +/- 56.3691 +/- 57.6810	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	1,1,2-Trichloroethane CAS # 79-00-5.SEC Purity 98%	(Lot 3440900)	1,007.8	µg/mL	+/- 7.1920 +/- 56.6618 +/- 57.9805	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
21	1,3-Dichloropropane CAS # 142-28-9.SEC Purity 99%	(Lot AGN01-EFPC)	1,003.8	µg/mL	+/- 7.7708 +/- 56.5177 +/- 57.8293	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
22	Tetrachloroethene CAS # 127-18-4.SEC Purity 99%	(Lot F09W014)	1,004.1	µg/mL	+/- 7.1652 +/- 56.4506 +/- 57.7644	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
23	Dibromochloromethane CAS # 124-48-1.SEC Purity 97%	(Lot 10181507)	1,009.5	µg/mL	+/- 7.2035 +/- 56.7530 +/- 58.0739	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

24	1,2-Dibromoethane (EDB)		1,007.8	µg/mL	+/-	7.8017	µg/mL	Gravimetric
	CAS # 106-93-4.SEC	(Lot 3505900)			+/-	56.7429	µg/mL	Unstressed
	Purity 99%				+/-	58.0598	µg/mL	Stressed
25	1-Chlorohexane		1,001.0	µg/mL	+/-	5.8744	µg/mL	Gravimetric
	CAS # 544-10-5.SEC	(Lot 8171700)			+/-	56.1308	µg/mL	Unstressed
	Purity 99%				+/-	57.4439	µg/mL	Stressed
26	Chlorobenzene		1,004.8	µg/mL	+/-	7.1703	µg/mL	Gravimetric
	CAS # 108-90-7.SEC	(Lot 1161936)			+/-	56.4913	µg/mL	Unstressed
	Purity 99%				+/-	57.8061	µg/mL	Stressed
27	1,1,1,2-Tetrachloroethane		1,003.4	µg/mL	+/-	7.7677	µg/mL	Gravimetric
	CAS # 630-20-6.SEC	(Lot GC01)			+/-	56.4951	µg/mL	Unstressed
	Purity 99%				+/-	57.8063	µg/mL	Stressed
28	Ethylbenzene		1,003.4	µg/mL	+/-	7.7677	µg/mL	Gravimetric
	CAS # 100-41-4.SEC	(Lot PI4SE)			+/-	56.4951	µg/mL	Unstressed
	Purity 99%				+/-	57.8063	µg/mL	Stressed
29	m-Xylene		1,005.9	µg/mL	+/-	7.7869	µg/mL	Gravimetric
	CAS # 108-38-3.SEC	(Lot OUKMG-GB)			+/-	56.6348	µg/mL	Unstressed
	Purity 99%				+/-	57.9491	µg/mL	Stressed
30	p-Xylene		1,008.3	µg/mL	+/-	7.8054	µg/mL	Gravimetric
	CAS # 106-42-3.SEC	(Lot GM01)			+/-	56.7699	µg/mL	Unstressed
	Purity 99%				+/-	58.0874	µg/mL	Stressed
31	o-Xylene		1,005.8	µg/mL	+/-	7.7862	µg/mL	Gravimetric
	CAS # 95-47-6.SEC	(Lot FGL01)			+/-	56.6303	µg/mL	Unstressed
	Purity 99%				+/-	57.9445	µg/mL	Stressed
32	Styrene		1,001.1	µg/mL	+/-	7.7497	µg/mL	Gravimetric
	CAS # 100-42-5.SEC	(Lot QGQ7F)			+/-	56.3645	µg/mL	Unstressed
	Purity 99%				+/-	57.6726	µg/mL	Stressed
33	Isopropylbenzene (cumene)		1,004.3	µg/mL	+/-	7.7745	µg/mL	Gravimetric
	CAS # 98-82-8.SEC	(Lot WVREC)			+/-	56.5447	µg/mL	Unstressed
	Purity 99%				+/-	57.8570	µg/mL	Stressed
34	Bromoform		1,005.7	µg/mL	+/-	7.1764	µg/mL	Gravimetric
	CAS # 75-25-2.SEC	(Lot 5197400)			+/-	56.5392	µg/mL	Unstressed
	Purity 98%				+/-	57.8551	µg/mL	Stressed
35	1,1,2,2-Tetrachloroethane		1,006.8	µg/mL	+/-	7.1848	µg/mL	Gravimetric
	CAS # 79-34-5.SEC	(Lot CFA4D-AQ)			+/-	56.6052	µg/mL	Unstressed
	Purity 99%				+/-	57.9226	µg/mL	Stressed
36	1,2,3-Trichloropropane		1,002.4	µg/mL	+/-	7.7598	µg/mL	Gravimetric
	CAS # 96-18-4.SEC	(Lot OGI01)			+/-	56.4378	µg/mL	Unstressed
	Purity 98%				+/-	57.7477	µg/mL	Stressed
37	n-Propylbenzene		1,007.8	µg/mL	+/-	7.8011	µg/mL	Gravimetric
	CAS # 103-65-1.SEC	(Lot T2HFC)			+/-	56.7384	µg/mL	Unstressed
	Purity 99%				+/-	58.0551	µg/mL	Stressed
38	Bromobenzene		1,004.8	µg/mL	+/-	7.7782	µg/mL	Gravimetric
	CAS # 108-86-1.SEC	(Lot 2FUHG-EM)			+/-	56.5717	µg/mL	Unstressed
	Purity 99%				+/-	57.8846	µg/mL	Stressed
39	1,3,5-Trichlorobenzene		1,002.0	µg/mL	+/-	5.8803	µg/mL	Gravimetric
	CAS # 108-70-3.SEC	(Lot I28U021)			+/-	56.1868	µg/mL	Unstressed
	Purity 99%				+/-	57.5013	µg/mL	Stressed

40	2-Chlorotoluene CAS # 95-49-8.SEC Purity 99%	(Lot SW8QG-AO)	1,008.1	µg/mL	+/-	7.8036 56.7564 58.0736	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	4-Chlorotoluene CAS # 106-43-4.SEC Purity 99%	(Lot P4XHJ-AO)	1,002.1	µg/mL	+/-	7.7571 56.4186 57.7279	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	tert-Butylbenzene CAS # 98-06-6.SEC Purity 99%	(Lot D6OHC)	1,004.2	µg/mL	+/-	7.7732 56.5357 57.8478	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	1,2,4-Trimethylbenzene CAS # 95-63-6.SEC Purity 99%	(Lot SC7LO-QA)	1,009.5	µg/mL	+/-	7.8147 56.8374 58.1565	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	sec-Butylbenzene CAS # 135-98-8.SEC Purity 99%	(Lot O4HRF)	1,006.9	µg/mL	+/-	7.7943 56.6888 58.0044	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	4-Isopropyltoluene (p-cymene) CAS # 99-87-6.SEC Purity 96%	(Lot 1195000)	1,000.0	µg/mL	+/-	7.7410 56.3015 57.6081	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	1,3-Dichlorobenzene CAS # 541-73-1.SEC Purity 99%	(Lot FMDFD)	1,003.3	µg/mL	+/-	7.1593 56.4042 57.7169	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	1,4-Dichlorobenzene CAS # 106-46-7.SEC Purity 99%	(Lot 4Y5DC)	1,008.5	µg/mL	+/-	7.1967 56.6994 58.0189	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
48	n-Butylbenzene CAS # 104-51-8.SEC Purity 99%	(Lot MMPGA)	1,005.4	µg/mL	+/-	7.7825 56.6032 57.9169	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
49	1,2-Dichlorobenzene CAS # 95-50-1.SEC Purity 99%	(Lot 4NRGF-OT)	1,006.8	µg/mL	+/-	7.1842 56.6010 57.9183	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
50	1,2-Dibromo-3-chloropropane CAS # 96-12-8.SEC Purity 98%	(Lot LC00408V)	1,002.7	µg/mL	+/-	7.7616 56.4511 57.7612	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
51	1,3,5-Trimethylbenzene CAS # 108-67-8.SEC Purity 99%	(Lot FGH02-CMLN)	1,002.2	µg/mL	+/-	7.7584 56.4276 57.7371	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
52	1,2,4-Trichlorobenzene CAS # 120-82-1.SEC Purity 99%	(Lot 3LYYC)	1,007.2	µg/mL	+/-	7.7968 56.7068 58.0229	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
53	Hexachlorobutadiene CAS # 87-68-3.SEC Purity 97%	(Lot 5526800)	1,005.8	µg/mL	+/-	7.7857 56.6265 57.9407	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
54	Naphthalene CAS # 91-20-3.SEC Purity 99%	(Lot SKZ5N)	1,001.8	µg/mL	+/-	7.7553 56.4050 57.7141	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
55	1,2,3-Trichlorobenzene CAS # 87-61-6.SEC Purity 98%	(Lot A0043055)	1,005.9	µg/mL	+/-	7.7865 56.6321 57.9464	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.# 10910)

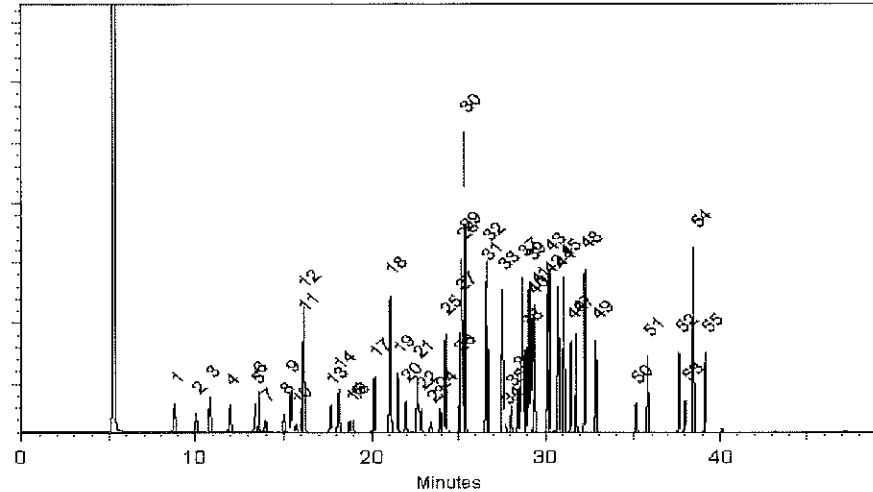
Carrier Gas:
hydrogen-constant pressure 8.0 psi.

Temp. Program:
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Michael Mage

Date Mixed: 26-Apr-2019 Balance: 1127510105

Jennifer J. Pollino
Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 30-Apr-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \cdot \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

MSV_Q#1B_00048



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
 Bellefonte, PA 16823-8812
 Tel: (800)356-1688
 Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569936-1.sec **Lot No.:** A0148625
Description : Custom Revised Q #1B Standard
Custom Revised Q #1B Standard 1,000µg/mL, P&T Methanol,
1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : April 30, 2022 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,1-Dichloroethene	1,005.5 µg/mL	+/-	7.1750 µg/mL
	CAS # 75-35-4.SEC (Lot 5111300)		+/-	56.5279 µg/mL
	Purity 99%		+/-	57.8435 µg/mL
2	Methylene chloride (dichloromethane)	1,004.5 µg/mL	+/-	7.1682 µg/mL
	CAS # 75-09-2.SEC (Lot FGM02)		+/-	56.4745 µg/mL
	Purity 99%		+/-	57.7888 µg/mL
3	trans-1,2-Dichloroethene	1,002.8 µg/mL	+/-	7.1558 µg/mL
	CAS # 156-60-5.SEC (Lot TSSUB)		+/-	56.3767 µg/mL
	Purity 97%		+/-	57.6888 µg/mL
4	1,1-Dichloroethane	1,006.8 µg/mL	+/-	7.1846 µg/mL
	CAS # 75-34-3.SEC (Lot 5379000)		+/-	56.6038 µg/mL
	Purity 99%		+/-	57.9211 µg/mL
5	2,2-Dichloropropane	1,003.2 µg/mL	+/-	7.7659 µg/mL
	CAS # 594-20-7.SEC (Lot I7E8E)		+/-	56.4820 µg/mL
	Purity 98%		+/-	57.7928 µg/mL
6	cis-1,2-Dichloroethene	1,001.2 µg/mL	+/-	7.7507 µg/mL
	CAS # 156-59-2.SEC (Lot HGC01-BLKT)		+/-	56.3716 µg/mL
	Purity 98%		+/-	57.6799 µg/mL
7	Chloroform	1,004.5 µg/mL	+/-	7.1684 µg/mL
	CAS # 67-66-3.SEC (Lot 1297547)		+/-	56.4759 µg/mL
	Purity 99%		+/-	57.7903 µg/mL

8	1,1,1-trichloroethane CAS # 71-55-6 * Purity 99%	(Lot B15W12061)	1,000.9	µg/mL	+/- 7.1427 +/- 56.2735 +/- 57.5832	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	1,1-Dichloropropene CAS # 563-58-6.SEC Purity 96%	(Lot 4672600)	1,005.1	µg/mL	+/- 7.7804 +/- 56.5876 +/- 57.9008	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	Carbon tetrachloride CAS # 56-23-5.SEC Purity 99%	(Lot 11466)	1,006.6	µg/mL	+/- 7.1828 +/- 56.5897 +/- 57.9068	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	1,2-Dichloroethane CAS # 107-06-2.SEC Purity 99%	(Lot FO6PK)	1,003.3	µg/mL	+/- 7.1598 +/- 56.4084 +/- 57.7212	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	Benzene CAS # 71-43-2.SEC Purity 99%	(Lot B28Y008)	1,003.5	µg/mL	+/- 7.7683 +/- 56.4996 +/- 57.8109	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	Trichloroethene CAS # 79-01-6.SEC Purity 99%	(Lot H04X050)	1,005.6	µg/mL	+/- 7.1760 +/- 56.5363 +/- 57.8521	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	1,2-Dichloropropane CAS # 78-87-5.SEC Purity 99%	(Lot OGG01)	1,004.3	µg/mL	+/- 7.1666 +/- 56.4618 +/- 57.7759	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	Bromodichloromethane CAS # 75-27-4.SEC Purity 99%	(Lot 10171168)	1,006.2	µg/mL	+/- 7.1801 +/- 56.5686 +/- 57.8852	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	Dibromomethane CAS # 74-95-3.SEC Purity 99%	(Lot FGI01-OICH)	1,006.1	µg/mL	+/- 7.7881 +/- 56.6438 +/- 57.9584	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	cis-1,3-Dichloropropene CAS # 10061-01-5.SEC Purity 99%	(Lot 4870A)	1,001.9	µg/mL	+/- 7.1498 +/- 56.3297 +/- 57.6407	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	Toluene CAS # 108-88-3.SEC Purity 99%	(Lot YND2B-BD)	1,004.8	µg/mL	+/- 7.7782 +/- 56.5717 +/- 57.8846	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	trans-1,3-Dichloropropene CAS # 10061-02-6.SEC Purity 99%	(Lot ZDMSL)	1,002.6	µg/mL	+/- 7.1548 +/- 56.3691 +/- 57.6810	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	1,1,2-Trichloroethane CAS # 79-00-5.SEC Purity 98%	(Lot 3440900)	1,007.8	µg/mL	+/- 7.1920 +/- 56.6618 +/- 57.9805	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
21	1,3-Dichloropropane CAS # 142-28-9.SEC Purity 99%	(Lot AGN01-EFPC)	1,003.8	µg/mL	+/- 7.7708 +/- 56.5177 +/- 57.8293	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
22	Tetrachloroethene CAS # 127-18-4.SEC Purity 99%	(Lot F09W014)	1,004.1	µg/mL	+/- 7.1652 +/- 56.4506 +/- 57.7644	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
23	Dibromochloromethane CAS # 124-48-1.SEC Purity 97%	(Lot 10181507)	1,009.5	µg/mL	+/- 7.2035 +/- 56.7530 +/- 58.0739	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

24	1,2-Dibromoethane (EDB)		1,007.8	µg/mL	+/-	7.8017	µg/mL	Gravimetric
	CAS # 106-93-4.SEC	(Lot 3505900)			+/-	56.7429	µg/mL	Unstressed
	Purity 99%				+/-	58.0598	µg/mL	Stressed
25	1-Chlorohexane		1,001.0	µg/mL	+/-	5.8744	µg/mL	Gravimetric
	CAS # 544-10-5.SEC	(Lot 8171700)			+/-	56.1308	µg/mL	Unstressed
	Purity 99%				+/-	57.4439	µg/mL	Stressed
26	Chlorobenzene		1,004.8	µg/mL	+/-	7.1703	µg/mL	Gravimetric
	CAS # 108-90-7.SEC	(Lot 1161936)			+/-	56.4913	µg/mL	Unstressed
	Purity 99%				+/-	57.8061	µg/mL	Stressed
27	1,1,1,2-Tetrachloroethane		1,003.4	µg/mL	+/-	7.7677	µg/mL	Gravimetric
	CAS # 630-20-6.SEC	(Lot GC01)			+/-	56.4951	µg/mL	Unstressed
	Purity 99%				+/-	57.8063	µg/mL	Stressed
28	Ethylbenzene		1,003.4	µg/mL	+/-	7.7677	µg/mL	Gravimetric
	CAS # 100-41-4.SEC	(Lot PI4SE)			+/-	56.4951	µg/mL	Unstressed
	Purity 99%				+/-	57.8063	µg/mL	Stressed
29	m-Xylene		1,005.9	µg/mL	+/-	7.7869	µg/mL	Gravimetric
	CAS # 108-38-3.SEC	(Lot OUKMG-GB)			+/-	56.6348	µg/mL	Unstressed
	Purity 99%				+/-	57.9491	µg/mL	Stressed
30	p-Xylene		1,008.3	µg/mL	+/-	7.8054	µg/mL	Gravimetric
	CAS # 106-42-3.SEC	(Lot GM01)			+/-	56.7699	µg/mL	Unstressed
	Purity 99%				+/-	58.0874	µg/mL	Stressed
31	o-Xylene		1,005.8	µg/mL	+/-	7.7862	µg/mL	Gravimetric
	CAS # 95-47-6.SEC	(Lot FGL01)			+/-	56.6303	µg/mL	Unstressed
	Purity 99%				+/-	57.9445	µg/mL	Stressed
32	Styrene		1,001.1	µg/mL	+/-	7.7497	µg/mL	Gravimetric
	CAS # 100-42-5.SEC	(Lot QGQ7F)			+/-	56.3645	µg/mL	Unstressed
	Purity 99%				+/-	57.6726	µg/mL	Stressed
33	Isopropylbenzene (cumene)		1,004.3	µg/mL	+/-	7.7745	µg/mL	Gravimetric
	CAS # 98-82-8.SEC	(Lot WVREC)			+/-	56.5447	µg/mL	Unstressed
	Purity 99%				+/-	57.8570	µg/mL	Stressed
34	Bromoform		1,005.7	µg/mL	+/-	7.1764	µg/mL	Gravimetric
	CAS # 75-25-2.SEC	(Lot 5197400)			+/-	56.5392	µg/mL	Unstressed
	Purity 98%				+/-	57.8551	µg/mL	Stressed
35	1,1,2,2-Tetrachloroethane		1,006.8	µg/mL	+/-	7.1848	µg/mL	Gravimetric
	CAS # 79-34-5.SEC	(Lot CFA4D-AQ)			+/-	56.6052	µg/mL	Unstressed
	Purity 99%				+/-	57.9226	µg/mL	Stressed
36	1,2,3-Trichloropropane		1,002.4	µg/mL	+/-	7.7598	µg/mL	Gravimetric
	CAS # 96-18-4.SEC	(Lot OGI01)			+/-	56.4378	µg/mL	Unstressed
	Purity 98%				+/-	57.7477	µg/mL	Stressed
37	n-Propylbenzene		1,007.8	µg/mL	+/-	7.8011	µg/mL	Gravimetric
	CAS # 103-65-1.SEC	(Lot T2HFC)			+/-	56.7384	µg/mL	Unstressed
	Purity 99%				+/-	58.0551	µg/mL	Stressed
38	Bromobenzene		1,004.8	µg/mL	+/-	7.7782	µg/mL	Gravimetric
	CAS # 108-86-1.SEC	(Lot 2FUHG-EM)			+/-	56.5717	µg/mL	Unstressed
	Purity 99%				+/-	57.8846	µg/mL	Stressed
39	1,3,5-Trichlorobenzene		1,002.0	µg/mL	+/-	5.8803	µg/mL	Gravimetric
	CAS # 108-70-3.SEC	(Lot I28U021)			+/-	56.1868	µg/mL	Unstressed
	Purity 99%				+/-	57.5013	µg/mL	Stressed

40	2-Chlorotoluene CAS # 95-49-8.SEC Purity 99%	(Lot SW8QG-AO)	1,008.1	µg/mL	+/-	7.8036 56.7564 58.0736	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	4-Chlorotoluene CAS # 106-43-4.SEC Purity 99%	(Lot P4XHJ-AO)	1,002.1	µg/mL	+/-	7.7571 56.4186 57.7279	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	tert-Butylbenzene CAS # 98-06-6.SEC Purity 99%	(Lot D6OHC)	1,004.2	µg/mL	+/-	7.7732 56.5357 57.8478	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	1,2,4-Trimethylbenzene CAS # 95-63-6.SEC Purity 99%	(Lot SC7LO-QA)	1,009.5	µg/mL	+/-	7.8147 56.8374 58.1565	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	sec-Butylbenzene CAS # 135-98-8.SEC Purity 99%	(Lot O4HRF)	1,006.9	µg/mL	+/-	7.7943 56.6888 58.0044	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	4-Isopropyltoluene (p-cymene) CAS # 99-87-6.SEC Purity 96%	(Lot 1195000)	1,000.0	µg/mL	+/-	7.7410 56.3015 57.6081	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	1,3-Dichlorobenzene CAS # 541-73-1.SEC Purity 99%	(Lot FMDFD)	1,003.3	µg/mL	+/-	7.1593 56.4042 57.7169	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	1,4-Dichlorobenzene CAS # 106-46-7.SEC Purity 99%	(Lot 4Y5DC)	1,008.5	µg/mL	+/-	7.1967 56.6994 58.0189	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
48	n-Butylbenzene CAS # 104-51-8.SEC Purity 99%	(Lot MMPGA)	1,005.4	µg/mL	+/-	7.7825 56.6032 57.9169	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
49	1,2-Dichlorobenzene CAS # 95-50-1.SEC Purity 99%	(Lot 4NRGF-OT)	1,006.8	µg/mL	+/-	7.1842 56.6010 57.9183	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
50	1,2-Dibromo-3-chloropropane CAS # 96-12-8.SEC Purity 98%	(Lot LC00408V)	1,002.7	µg/mL	+/-	7.7616 56.4511 57.7612	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
51	1,3,5-Trimethylbenzene CAS # 108-67-8.SEC Purity 99%	(Lot FGH02-CMLN)	1,002.2	µg/mL	+/-	7.7584 56.4276 57.7371	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
52	1,2,4-Trichlorobenzene CAS # 120-82-1.SEC Purity 99%	(Lot 3LYYC)	1,007.2	µg/mL	+/-	7.7968 56.7068 58.0229	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
53	Hexachlorobutadiene CAS # 87-68-3.SEC Purity 97%	(Lot 5526800)	1,005.8	µg/mL	+/-	7.7857 56.6265 57.9407	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
54	Naphthalene CAS # 91-20-3.SEC Purity 99%	(Lot SKZ5N)	1,001.8	µg/mL	+/-	7.7553 56.4050 57.7141	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
55	1,2,3-Trichlorobenzene CAS # 87-61-6.SEC Purity 98%	(Lot A0043055)	1,005.9	µg/mL	+/-	7.7865 56.6321 57.9464	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.# 10910)

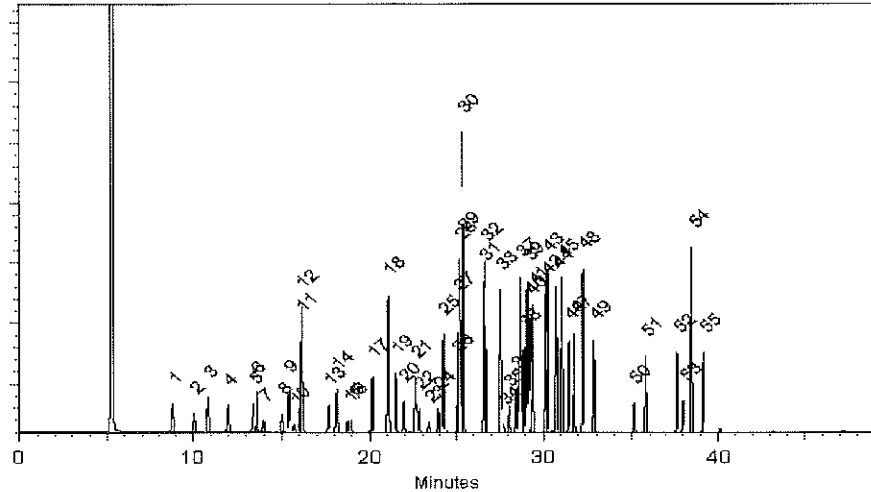
Carrier Gas:
hydrogen-constant pressure 8.0 psi.

Temp. Program:
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Michael Maje

Date Mixed: 26-Apr-2019 Balance: 1127510105

Jennifer J. Pollino
Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 30-Apr-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \cdot \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

MSV_Q#1B_00050



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
 Bellefonte, PA 16823-8812
 Tel: (800)356-1688
 Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569936-1.sec **Lot No.:** A0148625
Description : Custom Revised Q #1B Standard
Custom Revised Q #1B Standard 1,000µg/mL, P&T Methanol,
1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : April 30, 2022 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	1,1-Dichloroethene	1,005.5 µg/mL	+/-	7.1750	µg/mL	Gravimetric
	CAS # 75-35-4.SEC (Lot 5111300)		+/-	56.5279	µg/mL	Unstressed
	Purity 99%		+/-	57.8435	µg/mL	Stressed
2	Methylene chloride (dichloromethane)	1,004.5 µg/mL	+/-	7.1682	µg/mL	Gravimetric
	CAS # 75-09-2.SEC (Lot FGM02)		+/-	56.4745	µg/mL	Unstressed
	Purity 99%		+/-	57.7888	µg/mL	Stressed
3	trans-1,2-Dichloroethene	1,002.8 µg/mL	+/-	7.1558	µg/mL	Gravimetric
	CAS # 156-60-5.SEC (Lot TSSUB)		+/-	56.3767	µg/mL	Unstressed
	Purity 97%		+/-	57.6888	µg/mL	Stressed
4	1,1-Dichloroethane	1,006.8 µg/mL	+/-	7.1846	µg/mL	Gravimetric
	CAS # 75-34-3.SEC (Lot 5379000)		+/-	56.6038	µg/mL	Unstressed
	Purity 99%		+/-	57.9211	µg/mL	Stressed
5	2,2-Dichloropropane	1,003.2 µg/mL	+/-	7.7659	µg/mL	Gravimetric
	CAS # 594-20-7.SEC (Lot I7E8E)		+/-	56.4820	µg/mL	Unstressed
	Purity 98%		+/-	57.7928	µg/mL	Stressed
6	cis-1,2-Dichloroethene	1,001.2 µg/mL	+/-	7.7507	µg/mL	Gravimetric
	CAS # 156-59-2.SEC (Lot HGC01-BLKT)		+/-	56.3716	µg/mL	Unstressed
	Purity 98%		+/-	57.6799	µg/mL	Stressed
7	Chloroform	1,004.5 µg/mL	+/-	7.1684	µg/mL	Gravimetric
	CAS # 67-66-3.SEC (Lot 1297547)		+/-	56.4759	µg/mL	Unstressed
	Purity 99%		+/-	57.7903	µg/mL	Stressed

8	1,1,1-trichloroethane CAS # 71-55-6 * Purity 99%	(Lot B15W12061)	1,000.9	µg/mL	+/- 7.1427 +/- 56.2735 +/- 57.5832	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	1,1-Dichloropropene CAS # 563-58-6.SEC Purity 96%	(Lot 4672600)	1,005.1	µg/mL	+/- 7.7804 +/- 56.5876 +/- 57.9008	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	Carbon tetrachloride CAS # 56-23-5.SEC Purity 99%	(Lot 11466)	1,006.6	µg/mL	+/- 7.1828 +/- 56.5897 +/- 57.9068	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	1,2-Dichloroethane CAS # 107-06-2.SEC Purity 99%	(Lot FO6PK)	1,003.3	µg/mL	+/- 7.1598 +/- 56.4084 +/- 57.7212	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	Benzene CAS # 71-43-2.SEC Purity 99%	(Lot B28Y008)	1,003.5	µg/mL	+/- 7.7683 +/- 56.4996 +/- 57.8109	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	Trichloroethene CAS # 79-01-6.SEC Purity 99%	(Lot H04X050)	1,005.6	µg/mL	+/- 7.1760 +/- 56.5363 +/- 57.8521	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	1,2-Dichloropropane CAS # 78-87-5.SEC Purity 99%	(Lot OGG01)	1,004.3	µg/mL	+/- 7.1666 +/- 56.4618 +/- 57.7759	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	Bromodichloromethane CAS # 75-27-4.SEC Purity 99%	(Lot 10171168)	1,006.2	µg/mL	+/- 7.1801 +/- 56.5686 +/- 57.8852	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	Dibromomethane CAS # 74-95-3.SEC Purity 99%	(Lot FGI01-OICH)	1,006.1	µg/mL	+/- 7.7881 +/- 56.6438 +/- 57.9584	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	cis-1,3-Dichloropropene CAS # 10061-01-5.SEC Purity 99%	(Lot 4870A)	1,001.9	µg/mL	+/- 7.1498 +/- 56.3297 +/- 57.6407	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	Toluene CAS # 108-88-3.SEC Purity 99%	(Lot YND2B-BD)	1,004.8	µg/mL	+/- 7.7782 +/- 56.5717 +/- 57.8846	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	trans-1,3-Dichloropropene CAS # 10061-02-6.SEC Purity 99%	(Lot ZDMSL)	1,002.6	µg/mL	+/- 7.1548 +/- 56.3691 +/- 57.6810	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	1,1,2-Trichloroethane CAS # 79-00-5.SEC Purity 98%	(Lot 3440900)	1,007.8	µg/mL	+/- 7.1920 +/- 56.6618 +/- 57.9805	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
21	1,3-Dichloropropane CAS # 142-28-9.SEC Purity 99%	(Lot AGN01-EFPC)	1,003.8	µg/mL	+/- 7.7708 +/- 56.5177 +/- 57.8293	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
22	Tetrachloroethene CAS # 127-18-4.SEC Purity 99%	(Lot F09W014)	1,004.1	µg/mL	+/- 7.1652 +/- 56.4506 +/- 57.7644	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
23	Dibromochloromethane CAS # 124-48-1.SEC Purity 97%	(Lot 10181507)	1,009.5	µg/mL	+/- 7.2035 +/- 56.7530 +/- 58.0739	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

24	1,2-Dibromoethane (EDB)		1,007.8	µg/mL	+/-	7.8017	µg/mL	Gravimetric
	CAS #	106-93-4.SEC (Lot 3505900)			+/-	56.7429	µg/mL	Unstressed
	Purity	99%			+/-	58.0598	µg/mL	Stressed
25	1-Chlorohexane		1,001.0	µg/mL	+/-	5.8744	µg/mL	Gravimetric
	CAS #	544-10-5.SEC (Lot 8171700)			+/-	56.1308	µg/mL	Unstressed
	Purity	99%			+/-	57.4439	µg/mL	Stressed
26	Chlorobenzene		1,004.8	µg/mL	+/-	7.1703	µg/mL	Gravimetric
	CAS #	108-90-7.SEC (Lot 1161936)			+/-	56.4913	µg/mL	Unstressed
	Purity	99%			+/-	57.8061	µg/mL	Stressed
27	1,1,1,2-Tetrachloroethane		1,003.4	µg/mL	+/-	7.7677	µg/mL	Gravimetric
	CAS #	630-20-6.SEC (Lot GC01)			+/-	56.4951	µg/mL	Unstressed
	Purity	99%			+/-	57.8063	µg/mL	Stressed
28	Ethylbenzene		1,003.4	µg/mL	+/-	7.7677	µg/mL	Gravimetric
	CAS #	100-41-4.SEC (Lot PI4SE)			+/-	56.4951	µg/mL	Unstressed
	Purity	99%			+/-	57.8063	µg/mL	Stressed
29	m-Xylene		1,005.9	µg/mL	+/-	7.7869	µg/mL	Gravimetric
	CAS #	108-38-3.SEC (Lot OUKMG-GB)			+/-	56.6348	µg/mL	Unstressed
	Purity	99%			+/-	57.9491	µg/mL	Stressed
30	p-Xylene		1,008.3	µg/mL	+/-	7.8054	µg/mL	Gravimetric
	CAS #	106-42-3.SEC (Lot GM01)			+/-	56.7699	µg/mL	Unstressed
	Purity	99%			+/-	58.0874	µg/mL	Stressed
31	o-Xylene		1,005.8	µg/mL	+/-	7.7862	µg/mL	Gravimetric
	CAS #	95-47-6.SEC (Lot FGL01)			+/-	56.6303	µg/mL	Unstressed
	Purity	99%			+/-	57.9445	µg/mL	Stressed
32	Styrene		1,001.1	µg/mL	+/-	7.7497	µg/mL	Gravimetric
	CAS #	100-42-5.SEC (Lot QGQ7F)			+/-	56.3645	µg/mL	Unstressed
	Purity	99%			+/-	57.6726	µg/mL	Stressed
33	Isopropylbenzene (cumene)		1,004.3	µg/mL	+/-	7.7745	µg/mL	Gravimetric
	CAS #	98-82-8.SEC (Lot WVREC)			+/-	56.5447	µg/mL	Unstressed
	Purity	99%			+/-	57.8570	µg/mL	Stressed
34	Bromoform		1,005.7	µg/mL	+/-	7.1764	µg/mL	Gravimetric
	CAS #	75-25-2.SEC (Lot 5197400)			+/-	56.5392	µg/mL	Unstressed
	Purity	98%			+/-	57.8551	µg/mL	Stressed
35	1,1,2,2-Tetrachloroethane		1,006.8	µg/mL	+/-	7.1848	µg/mL	Gravimetric
	CAS #	79-34-5.SEC (Lot CFA4D-AQ)			+/-	56.6052	µg/mL	Unstressed
	Purity	99%			+/-	57.9226	µg/mL	Stressed
36	1,2,3-Trichloropropane		1,002.4	µg/mL	+/-	7.7598	µg/mL	Gravimetric
	CAS #	96-18-4.SEC (Lot OGI01)			+/-	56.4378	µg/mL	Unstressed
	Purity	98%			+/-	57.7477	µg/mL	Stressed
37	n-Propylbenzene		1,007.8	µg/mL	+/-	7.8011	µg/mL	Gravimetric
	CAS #	103-65-1.SEC (Lot T2HFC)			+/-	56.7384	µg/mL	Unstressed
	Purity	99%			+/-	58.0551	µg/mL	Stressed
38	Bromobenzene		1,004.8	µg/mL	+/-	7.7782	µg/mL	Gravimetric
	CAS #	108-86-1.SEC (Lot 2FUHG-EM)			+/-	56.5717	µg/mL	Unstressed
	Purity	99%			+/-	57.8846	µg/mL	Stressed
39	1,3,5-Trichlorobenzene		1,002.0	µg/mL	+/-	5.8803	µg/mL	Gravimetric
	CAS #	108-70-3.SEC (Lot I28U021)			+/-	56.1868	µg/mL	Unstressed
	Purity	99%			+/-	57.5013	µg/mL	Stressed

40	2-Chlorotoluene CAS # 95-49-8.SEC Purity 99%	(Lot SW8QG-AO)	1,008.1	µg/mL	+/-	7.8036 56.7564 58.0736	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	4-Chlorotoluene CAS # 106-43-4.SEC Purity 99%	(Lot P4XHJ-AO)	1,002.1	µg/mL	+/-	7.7571 56.4186 57.7279	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	tert-Butylbenzene CAS # 98-06-6.SEC Purity 99%	(Lot D6OHC)	1,004.2	µg/mL	+/-	7.7732 56.5357 57.8478	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	1,2,4-Trimethylbenzene CAS # 95-63-6.SEC Purity 99%	(Lot SC7LO-QA)	1,009.5	µg/mL	+/-	7.8147 56.8374 58.1565	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	sec-Butylbenzene CAS # 135-98-8.SEC Purity 99%	(Lot O4HRF)	1,006.9	µg/mL	+/-	7.7943 56.6888 58.0044	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	4-Isopropyltoluene (p-cymene) CAS # 99-87-6.SEC Purity 96%	(Lot 1195000)	1,000.0	µg/mL	+/-	7.7410 56.3015 57.6081	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	1,3-Dichlorobenzene CAS # 541-73-1.SEC Purity 99%	(Lot FMDFD)	1,003.3	µg/mL	+/-	7.1593 56.4042 57.7169	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	1,4-Dichlorobenzene CAS # 106-46-7.SEC Purity 99%	(Lot 4Y5DC)	1,008.5	µg/mL	+/-	7.1967 56.6994 58.0189	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
48	n-Butylbenzene CAS # 104-51-8.SEC Purity 99%	(Lot MMPGA)	1,005.4	µg/mL	+/-	7.7825 56.6032 57.9169	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
49	1,2-Dichlorobenzene CAS # 95-50-1.SEC Purity 99%	(Lot 4NRGF-OT)	1,006.8	µg/mL	+/-	7.1842 56.6010 57.9183	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
50	1,2-Dibromo-3-chloropropane CAS # 96-12-8.SEC Purity 98%	(Lot LC00408V)	1,002.7	µg/mL	+/-	7.7616 56.4511 57.7612	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
51	1,3,5-Trimethylbenzene CAS # 108-67-8.SEC Purity 99%	(Lot FGH02-CMLN)	1,002.2	µg/mL	+/-	7.7584 56.4276 57.7371	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
52	1,2,4-Trichlorobenzene CAS # 120-82-1.SEC Purity 99%	(Lot 3LYYC)	1,007.2	µg/mL	+/-	7.7968 56.7068 58.0229	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
53	Hexachlorobutadiene CAS # 87-68-3.SEC Purity 97%	(Lot 5526800)	1,005.8	µg/mL	+/-	7.7857 56.6265 57.9407	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
54	Naphthalene CAS # 91-20-3.SEC Purity 99%	(Lot SKZ5N)	1,001.8	µg/mL	+/-	7.7553 56.4050 57.7141	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
55	1,2,3-Trichlorobenzene CAS # 87-61-6.SEC Purity 98%	(Lot A0043055)	1,005.9	µg/mL	+/-	7.7865 56.6321 57.9464	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.# 10910)

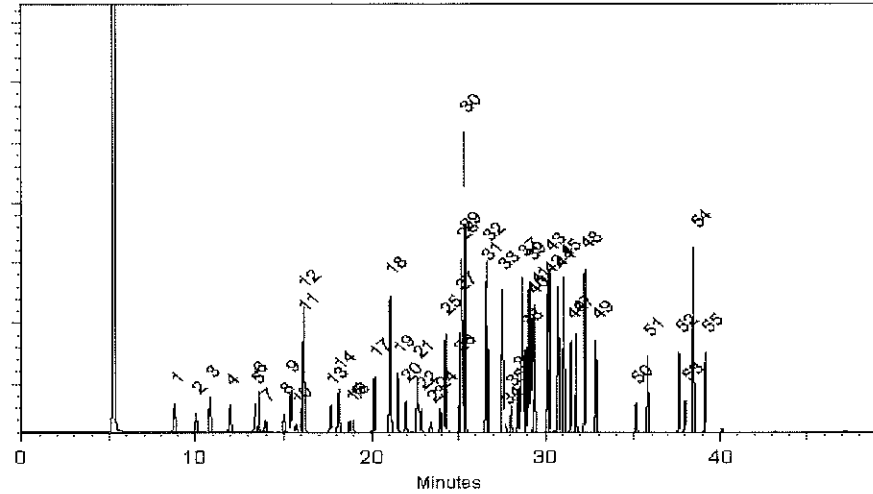
Carrier Gas:
hydrogen-constant pressure 8.0 psi.

Temp. Program:
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Michael Mage

Date Mixed: 26-Apr-2019 Balance: 1127510105

Jennifer J. Pollino
Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 30-Apr-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \cdot \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

MSV_Q#3B_00032



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 56736.SEC Lot No.: A0147509

Description : Custom Q #3B Standard

Custom Q #3B Standard 1,000-7,500µg/mL, P&T Methanol/Water (90:10), 1mL/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : September 30, 2020 Storage: 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Acetone CAS # 67-64-1.SEC (Lot U13B039) Purity 99%	7,515.3 µg/mL	+/- 44.0039	µg/mL	Gravimetric
			+/- 371.8038	µg/mL	Unstressed
			+/- 381.0473	µg/mL	Stressed
2	Acrylonitrile CAS # 107-13-1.SEC (Lot V54AD) Purity 99%	5,028.0 µg/mL	+/- 29.5071	µg/mL	Gravimetric
			+/- 248.7567	µg/mL	Unstressed
			+/- 254.9406	µg/mL	Stressed
3	2-Butanone (MEK) CAS # 78-93-3.SEC (Lot RGZ2A) Purity 99%	7,514.0 µg/mL	+/- 43.9961	µg/mL	Gravimetric
			+/- 371.7379	µg/mL	Unstressed
			+/- 380.9797	µg/mL	Stressed
4	Tetrahydrofuran CAS # 109-99-9.SEC (Lot 8DAOJ) Purity 99%	5,040.7 µg/mL	+/- 29.5815	µg/mL	Gravimetric
			+/- 249.3834	µg/mL	Unstressed
			+/- 255.5829	µg/mL	Stressed
5	2-Nitropropane CAS # 79-46-9.SEC (Lot Y4YWD) Purity 98%	995.7 µg/mL	+/- 5.9140	µg/mL	Gravimetric
			+/- 49.2690	µg/mL	Unstressed
			+/- 50.4934	µg/mL	Stressed
6	4-Methyl-2-pentanone (MIBK) CAS # 108-10-1.SEC (Lot E29T040) Purity 99%	5,044.0 µg/mL	+/- 29.6010	µg/mL	Gravimetric
			+/- 249.5483	µg/mL	Unstressed
			+/- 255.7519	µg/mL	Stressed
7	2-Hexanone CAS # 591-78-6.SEC (Lot Y3TUO) Purity 98%	5,018.9 µg/mL	+/- 29.4538	µg/mL	Gravimetric
			+/- 248.3068	µg/mL	Unstressed
			+/- 254.4796	µg/mL	Stressed

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

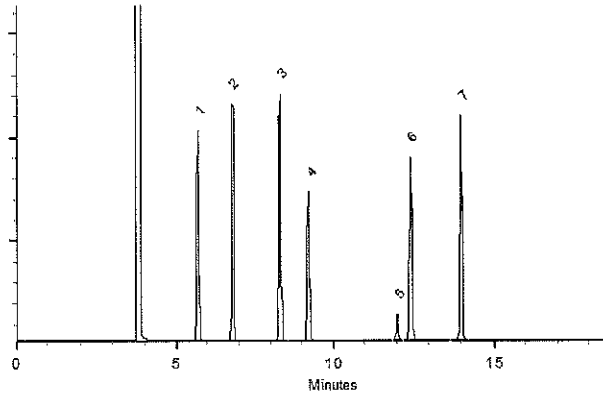
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Brandon Reish - Mix Technician

Date Mixed: 27-Mar-2019 Balance: 1128342314


Justine Albertson - Operations Tech-ARM QC

Date Passed: 28-Mar-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

MSV_Q#3B_00042



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
 Bellefonte, PA 16823-8812
 Tel: (800)356-1688
 Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 56736.SEC Lot No.: A0158722
 Description : Custom Q #3B Standard
 Custom Q #3B Standard 1,000-7,500µg/mL, P&T Methanol/Water (90:10), 1mL/ampul
 Container Size : 2 mL Pkg Amt: > 1 mL
 Expiration Date : September 30, 2021 Storage: 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Acetone	7,550.0 µg/mL	+/- 44.3076 µg/mL	Gravimetric
	CAS # 67-64-1.SEC (Lot U13B039)		+/- 373.5308 µg/mL	Unstressed
	Purity 99%		+/- 382.8166 µg/mL	Stressed
2	Acrylonitrile	5,003.0 µg/mL	+/- 29.3604 µg/mL	Gravimetric
	CAS # 107-13-1.SEC (Lot CCFKL-GL)		+/- 247.5198 µg/mL	Unstressed
	Purity 99%		+/- 253.6730 µg/mL	Stressed
3	2-Butanone (MEK)	7,517.0 µg/mL	+/- 44.1140 µg/mL	Gravimetric
	CAS # 78-93-3.SEC (Lot RGZ2A)		+/- 371.8982 µg/mL	Unstressed
	Purity 99%		+/- 381.1434 µg/mL	Stressed
4	Tetrahydrofuran	5,023.0 µg/mL	+/- 29.4778 µg/mL	Gravimetric
	CAS # 109-99-9.SEC (Lot 8DAOJ)		+/- 248.5093 µg/mL	Unstressed
	Purity 99%		+/- 254.6871 µg/mL	Stressed
5	2-Nitropropane	1,000.6 µg/mL	+/- 5.9431 µg/mL	Gravimetric
	CAS # 79-46-9.SEC (Lot Y4YWD)		+/- 49.5115 µg/mL	Unstressed
	Purity 98%		+/- 50.7419 µg/mL	Stressed
6	4-Methyl-2-pentanone (MIBK)	5,032.0 µg/mL	+/- 29.5306 µg/mL	Gravimetric
	CAS # 108-10-1.SEC (Lot E29T040)		+/- 248.9546 µg/mL	Unstressed
	Purity 99%		+/- 255.1435 µg/mL	Stressed
7	2-Hexanone	5,036.2 µg/mL	+/- 29.5554 µg/mL	Gravimetric
	CAS # 591-78-6.SEC (Lot Y3TUO)		+/- 249.1634 µg/mL	Unstressed
	Purity 98%		+/- 255.3574 µg/mL	Stressed

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

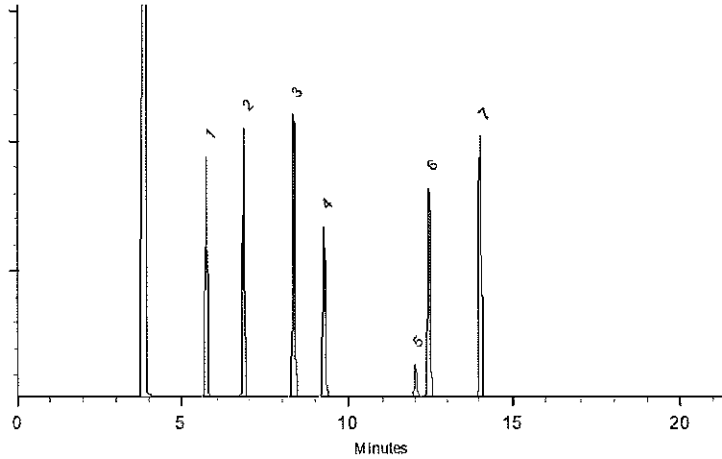
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Brandon Reish - Mix Technician

Date Mixed: 11-Mar-2020 **Balance:** 1127510105

Justine Albaraton - Operations Tech-ARM QC

Date Passed: 19-Mar-2020

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

MSV_Q#3B_00044



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
 Bellefonte, PA 16823-8812
 Tel: (800)356-1688
 Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 56736.SEC **Lot No.:** A0158722
Description : Custom Q #3B Standard
Custom Q #3B Standard 1,000-7,500µg/mL, P&T Methanol/Water (90:10), 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : September 30, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Acetone	7,550.0 µg/mL	+/-	44.3076	µg/mL Gravimetric
	CAS # 67-64-1.SEC (Lot U13B039)		+/-	373.5308	µg/mL Unstressed
	Purity 99%		+/-	382.8166	µg/mL Stressed
2	Acrylonitrile	5,003.0 µg/mL	+/-	29.3604	µg/mL Gravimetric
	CAS # 107-13-1.SEC (Lot CCFKL-GL)		+/-	247.5198	µg/mL Unstressed
	Purity 99%		+/-	253.6730	µg/mL Stressed
3	2-Butanone (MEK)	7,517.0 µg/mL	+/-	44.1140	µg/mL Gravimetric
	CAS # 78-93-3.SEC (Lot RGZ2A)		+/-	371.8982	µg/mL Unstressed
	Purity 99%		+/-	381.1434	µg/mL Stressed
4	Tetrahydrofuran	5,023.0 µg/mL	+/-	29.4778	µg/mL Gravimetric
	CAS # 109-99-9.SEC (Lot 8DAOJ)		+/-	248.5093	µg/mL Unstressed
	Purity 99%		+/-	254.6871	µg/mL Stressed
5	2-Nitropropane	1,000.6 µg/mL	+/-	5.9431	µg/mL Gravimetric
	CAS # 79-46-9.SEC (Lot Y4YWD)		+/-	49.5115	µg/mL Unstressed
	Purity 98%		+/-	50.7419	µg/mL Stressed
6	4-Methyl-2-pentanone (MIBK)	5,032.0 µg/mL	+/-	29.5306	µg/mL Gravimetric
	CAS # 108-10-1.SEC (Lot E29T040)		+/-	248.9546	µg/mL Unstressed
	Purity 99%		+/-	255.1435	µg/mL Stressed
7	2-Hexanone	5,036.2 µg/mL	+/-	29.5554	µg/mL Gravimetric
	CAS # 591-78-6.SEC (Lot Y3TUO)		+/-	249.1634	µg/mL Unstressed
	Purity 98%		+/-	255.3574	µg/mL Stressed

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

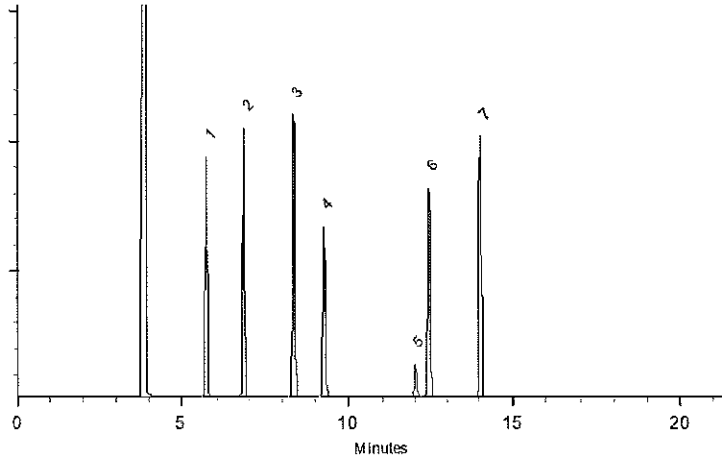
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Brandon Reish - Mix Technician

Date Mixed: 11-Mar-2020 **Balance:** 1127510105

Justine Albaraton - Operations Tech-ARM QC

Date Passed: 19-Mar-2020

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

MSV_Q#4C_00047



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 572312.SEC Lot No.: A0158704

Description : Custom Q #4C (Rev 3) Standard

Custom Q #4C (Rev 3) Standard 1,000µg/mL, P&T Methanol,
1mL/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : March 31, 2021 Storage: 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,3-Butadiene	999.8 µg/mL	+/- 9.3559	µg/mL	Gravimetric
	CAS # 106-99-0.SEC (Lot 24033)		+/- 60.7686	µg/mL	Unstressed
	Purity 99%		+/- 60.9107	µg/mL	Stressed
2	1,2-Dichloro-1,1,2-trifluoroethane (CFC-123a)	998.8 µg/mL	+/- 17.4916	µg/mL	Gravimetric
	CAS # 354-23-4 * (Lot Q9B-64)		+/- 62.4823	µg/mL	Unstressed
	Purity 99%		+/- 62.6203	µg/mL	Stressed
3	n-Pentane (C5)	1,002.5 µg/mL	+/- 5.8832	µg/mL	Gravimetric
	CAS # 109-66-0.SEC (Lot FGH02)		+/- 60.4906	µg/mL	Unstressed
	Purity 99%		+/- 60.6341	µg/mL	Stressed
4	1,1,2-Trichlorotrifluoroethane (CFC-113)	1,003.5 µg/mL	+/- 5.8891	µg/mL	Gravimetric
	CAS # 76-13-1.SEC (Lot 18342)		+/- 60.5509	µg/mL	Unstressed
	Purity 99%		+/- 60.6946	µg/mL	Stressed
5	Iodomethane (methyl iodide)	1,008.0 µg/mL	+/- 5.9155	µg/mL	Gravimetric
	CAS # 74-88-4.SEC (Lot Y25A027)		+/- 60.8224	µg/mL	Unstressed
	Purity 99%		+/- 60.9668	µg/mL	Stressed
6	Carbon disulfide	1,005.0 µg/mL	+/- 5.8979	µg/mL	Gravimetric
	CAS # 75-15-0.SEC (Lot MKBL1376V)		+/- 60.6414	µg/mL	Unstressed
	Purity 99%		+/- 60.7854	µg/mL	Stressed
7	Methyl-tert-butyl ether (MTBE)	1,002.0 µg/mL	+/- 5.8803	µg/mL	Gravimetric
	CAS # 1634-04-4.SEC (Lot ZHKYA)		+/- 60.4604	µg/mL	Unstressed
	Purity 99%		+/- 60.6039	µg/mL	Stressed

8	n-Hexane (C6)		1,002.0	µg/mL	+/-	5.8803	µg/mL	Gravimetric
	CAS #	110-54-3.SEC (Lot 10188491)			+/-	60.4604	µg/mL	Unstressed
	Purity	99%			+/-	60.6039	µg/mL	Stressed
9	Diisopropyl ether (DIPE)		1,003.0	µg/mL	+/-	5.8862	µg/mL	Gravimetric
	CAS #	108-20-3.SEC (Lot LL7TN-SH)			+/-	60.5207	µg/mL	Unstressed
	Purity	99%			+/-	60.6644	µg/mL	Stressed
10	Chloroprene (2-chloro-1,3-butadiene)		1,001.5	µg/mL	+/-	5.8774	µg/mL	Gravimetric
	CAS #	126-99-8 * (Lot 191204JLM)			+/-	60.4302	µg/mL	Unstressed
	Purity	99%			+/-	60.5737	µg/mL	Stressed
11	Ethyl-tert-butyl ether (ETBE)		1,001.0	µg/mL	+/-	5.8744	µg/mL	Gravimetric
	CAS #	637-92-3.SEC (Lot MHBjG-QK)			+/-	60.4000	µg/mL	Unstressed
	Purity	99%			+/-	60.5434	µg/mL	Stressed
12	Cyclohexane		1,001.5	µg/mL	+/-	5.8774	µg/mL	Gravimetric
	CAS #	110-82-7.SEC (Lot YADRA)			+/-	60.4302	µg/mL	Unstressed
	Purity	99%			+/-	60.5737	µg/mL	Stressed
13	tert-Amyl methyl ether (TAME)		1,006.0	µg/mL	+/-	5.9038	µg/mL	Gravimetric
	CAS #	994-05-8.SEC (Lot 8471400)			+/-	60.7017	µg/mL	Unstressed
	Purity	99%			+/-	60.8458	µg/mL	Stressed
14	n-Heptane (C7)		1,006.0	µg/mL	+/-	5.9038	µg/mL	Gravimetric
	CAS #	142-82-5.SEC (Lot OGM01)			+/-	60.7017	µg/mL	Unstressed
	Purity	99%			+/-	60.8458	µg/mL	Stressed
15	tert-Amyl ethyl ether (TAEE)		1,006.0	µg/mL	+/-	5.9038	µg/mL	Gravimetric
	CAS #	919-94-8.SEC (Lot 6455100)			+/-	60.7017	µg/mL	Unstressed
	Purity	99%			+/-	60.8458	µg/mL	Stressed
16	Methyl methacrylate		1,006.0	µg/mL	+/-	5.9038	µg/mL	Gravimetric
	CAS #	80-62-6.SEC (Lot G01X021)			+/-	60.7017	µg/mL	Unstressed
	Purity	99%			+/-	60.8458	µg/mL	Stressed
17	Ethyl methacrylate		1,004.5	µg/mL	+/-	5.8950	µg/mL	Gravimetric
	CAS #	97-63-2.SEC (Lot MLWYK-LS)			+/-	60.6112	µg/mL	Unstressed
	Purity	99%			+/-	60.7551	µg/mL	Stressed
18	Benzyl chloride		1,003.5	µg/mL	+/-	5.8891	µg/mL	Gravimetric
	CAS #	100-44-7.SEC (Lot H29N03)			+/-	60.5509	µg/mL	Unstressed
	Purity	99%			+/-	60.6946	µg/mL	Stressed
Solvent:	P&T Methanol							
	CAS # 67-56-1							
	Purity 99%							

* Restek is unable to identify a reliable and/or acceptable second source for this material - the same batch of neat material may have been used to produce both the primary and secondary standard. The primary and secondary standards were prepared using different equipment and personnel.

Tech Tips:

Raw material may contain trace amounts of tert-Butanol.

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

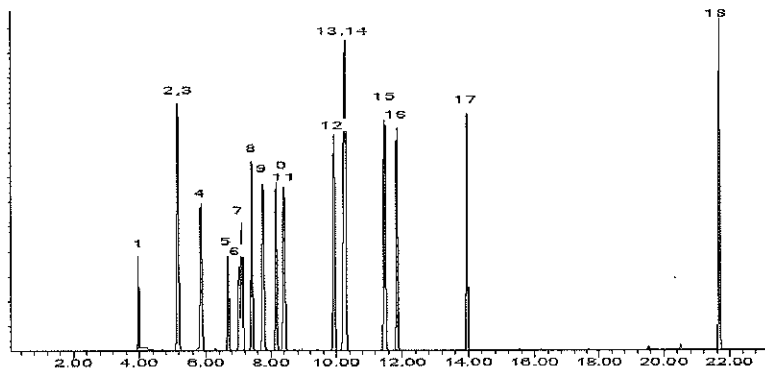
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C


Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Matt Fragassi - Mix Technician

Date Mixed: 11-Mar-2020 Balance: 1128342314


Feng-Yun Lo - GC Analyst

Date Passed: 25-Mar-2020

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

MSV_Q#4C_00049



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 572312.SEC **Lot No.:** A0158704

Description : Custom Q #4C (Rev 3) Standard

Custom Q #4C (Rev 3) Standard 1,000µg/mL, P&T Methanol,
1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	1,3-Butadiene	999.8 µg/mL	+/-	9.3559	µg/mL	Gravimetric
	CAS # 106-99-0.SEC (Lot 24033)		+/-	60.7686	µg/mL	Unstressed
	Purity 99%		+/-	60.9107	µg/mL	Stressed
2	1,2-Dichloro-1,1,2-trifluoroethane (CFC-123a)	998.8 µg/mL	+/-	17.4916	µg/mL	Gravimetric
	CAS # 354-23-4 * (Lot Q9B-64)		+/-	62.4823	µg/mL	Unstressed
	Purity 99%		+/-	62.6203	µg/mL	Stressed
3	n-Pentane (C5)	1,002.5 µg/mL	+/-	5.8832	µg/mL	Gravimetric
	CAS # 109-66-0.SEC (Lot FGH02)		+/-	60.4906	µg/mL	Unstressed
	Purity 99%		+/-	60.6341	µg/mL	Stressed
4	1,1,2-Trichlorotrifluoroethane (CFC-113)	1,003.5 µg/mL	+/-	5.8891	µg/mL	Gravimetric
	CAS # 76-13-1.SEC (Lot 18342)		+/-	60.5509	µg/mL	Unstressed
	Purity 99%		+/-	60.6946	µg/mL	Stressed
5	Iodomethane (methyl iodide)	1,008.0 µg/mL	+/-	5.9155	µg/mL	Gravimetric
	CAS # 74-88-4.SEC (Lot Y25A027)		+/-	60.8224	µg/mL	Unstressed
	Purity 99%		+/-	60.9668	µg/mL	Stressed
6	Carbon disulfide	1,005.0 µg/mL	+/-	5.8979	µg/mL	Gravimetric
	CAS # 75-15-0.SEC (Lot MKBL1376V)		+/-	60.6414	µg/mL	Unstressed
	Purity 99%		+/-	60.7854	µg/mL	Stressed
7	Methyl-tert-butyl ether (MTBE)	1,002.0 µg/mL	+/-	5.8803	µg/mL	Gravimetric
	CAS # 1634-04-4.SEC (Lot ZHKYA)		+/-	60.4604	µg/mL	Unstressed
	Purity 99%		+/-	60.6039	µg/mL	Stressed

8	n-Hexane (C6)		1,002.0	µg/mL	+/-	5.8803	µg/mL	Gravimetric
	CAS #	110-54-3.SEC (Lot 10188491)			+/-	60.4604	µg/mL	Unstressed
	Purity	99%			+/-	60.6039	µg/mL	Stressed
9	Diisopropyl ether (DIPE)		1,003.0	µg/mL	+/-	5.8862	µg/mL	Gravimetric
	CAS #	108-20-3.SEC (Lot LL7TN-SH)			+/-	60.5207	µg/mL	Unstressed
	Purity	99%			+/-	60.6644	µg/mL	Stressed
10	Chloroprene (2-chloro-1,3-butadiene)		1,001.5	µg/mL	+/-	5.8774	µg/mL	Gravimetric
	CAS #	126-99-8 * (Lot 191204JLM)			+/-	60.4302	µg/mL	Unstressed
	Purity	99%			+/-	60.5737	µg/mL	Stressed
11	Ethyl-tert-butyl ether (ETBE)		1,001.0	µg/mL	+/-	5.8744	µg/mL	Gravimetric
	CAS #	637-92-3.SEC (Lot MHBjG-QK)			+/-	60.4000	µg/mL	Unstressed
	Purity	99%			+/-	60.5434	µg/mL	Stressed
12	Cyclohexane		1,001.5	µg/mL	+/-	5.8774	µg/mL	Gravimetric
	CAS #	110-82-7.SEC (Lot YADRA)			+/-	60.4302	µg/mL	Unstressed
	Purity	99%			+/-	60.5737	µg/mL	Stressed
13	tert-Amyl methyl ether (TAME)		1,006.0	µg/mL	+/-	5.9038	µg/mL	Gravimetric
	CAS #	994-05-8.SEC (Lot 8471400)			+/-	60.7017	µg/mL	Unstressed
	Purity	99%			+/-	60.8458	µg/mL	Stressed
14	n-Heptane (C7)		1,006.0	µg/mL	+/-	5.9038	µg/mL	Gravimetric
	CAS #	142-82-5.SEC (Lot OGM01)			+/-	60.7017	µg/mL	Unstressed
	Purity	99%			+/-	60.8458	µg/mL	Stressed
15	tert-Amyl ethyl ether (TAEE)		1,006.0	µg/mL	+/-	5.9038	µg/mL	Gravimetric
	CAS #	919-94-8.SEC (Lot 6455100)			+/-	60.7017	µg/mL	Unstressed
	Purity	99%			+/-	60.8458	µg/mL	Stressed
16	Methyl methacrylate		1,006.0	µg/mL	+/-	5.9038	µg/mL	Gravimetric
	CAS #	80-62-6.SEC (Lot G01X021)			+/-	60.7017	µg/mL	Unstressed
	Purity	99%			+/-	60.8458	µg/mL	Stressed
17	Ethyl methacrylate		1,004.5	µg/mL	+/-	5.8950	µg/mL	Gravimetric
	CAS #	97-63-2.SEC (Lot MLWYK-LS)			+/-	60.6112	µg/mL	Unstressed
	Purity	99%			+/-	60.7551	µg/mL	Stressed
18	Benzyl chloride		1,003.5	µg/mL	+/-	5.8891	µg/mL	Gravimetric
	CAS #	100-44-7.SEC (Lot H29N03)			+/-	60.5509	µg/mL	Unstressed
	Purity	99%			+/-	60.6946	µg/mL	Stressed
Solvent:	P&T Methanol							
	CAS # 67-56-1							
	Purity 99%							

* Restek is unable to identify a reliable and/or acceptable second source for this material - the same batch of neat material may have been used to produce both the primary and secondary standard. The primary and secondary standards were prepared using different equipment and personnel.

Tech Tips:

Raw material may contain trace amounts of tert-Butanol.

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

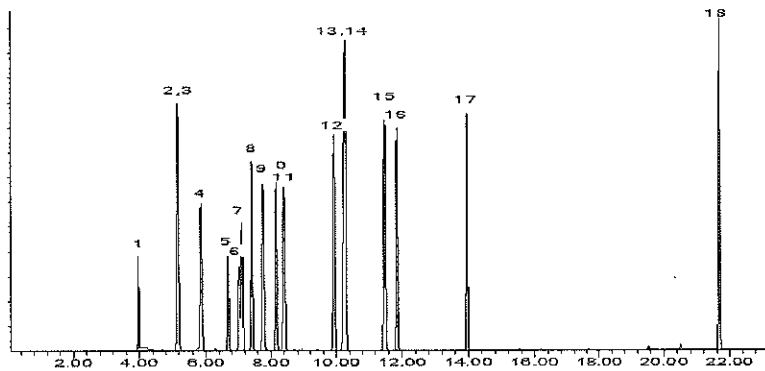
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C


Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Matt Fragassi - Mix Technician

Date Mixed: 11-Mar-2020 Balance: 1128342314


Feng-Yun Lo - GC Analyst

Date Passed: 25-Mar-2020

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

MSV_QCS#6Std_00034



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
 Bellefonte, PA 16823-8812
 Tel: (800)356-1688
 Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 558268.SEC **Lot No.:** A0158906
Description : Custom QCS #6 Standard
Custom QCS #6 Standard 1,000µg/mL, P&T Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : September 30, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Methyl acetate	1,005.3 µg/mL (Lot 6WOXM-KD)	+/-	5.9714	µg/mL	Gravimetric
	CAS # 79-20-9.SEC		+/-	60.6685	µg/mL	Unstressed
	Purity 99%		+/-	60.8125	µg/mL	Stressed
2	Allyl chloride (3-chloropropene)	1,001.3 µg/mL (Lot H3HGC)	+/-	5.9476	µg/mL	Gravimetric
	CAS # 107-05-1.SEC		+/-	60.4271	µg/mL	Unstressed
	Purity 99%		+/-	60.5705	µg/mL	Stressed
3	Bromochloromethane	1,002.0 µg/mL (Lot 8529200)	+/-	5.9516	µg/mL	Gravimetric
	CAS # 74-97-5.SEC		+/-	60.4674	µg/mL	Unstressed
	Purity 99%		+/-	60.6109	µg/mL	Stressed
4	Methylcyclohexane	1,004.7 µg/mL (Lot 24MSD-CD)	+/-	5.9674	µg/mL	Gravimetric
	CAS # 108-87-2.SEC		+/-	60.6283	µg/mL	Unstressed
	Purity 99%		+/-	60.7722	µg/mL	Stressed
5	Pentachloroethane	1,004.7 µg/mL (Lot 8170200)	+/-	5.9674	µg/mL	Gravimetric
	CAS # 76-01-7.SEC		+/-	60.6283	µg/mL	Unstressed
	Purity 99%		+/-	60.7722	µg/mL	Stressed
6	1,2,3-Trimethylbenzene	1,004.6 µg/mL (Lot 7110200)	+/-	5.9673	µg/mL	Gravimetric
	CAS # 526-73-8.SEC		+/-	60.6267	µg/mL	Unstressed
	Purity 92%		+/-	60.7706	µg/mL	Stressed
7	1,3-Diethylbenzene	1,006.0 µg/mL (Lot 113566-1)	+/-	5.9753	µg/mL	Gravimetric
	CAS # 141-93-5.SEC		+/-	60.7087	µg/mL	Unstressed
	Purity 99%		+/-	60.8528	µg/mL	Stressed

8	1,4-Diethylbenzene CAS # 105-05-5.SEC Purity 98%	(Lot FBQ02)	1,006.1 µg/mL	+/- 5.9761 +/- 60.7168 +/- 60.8609	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	1,2-Diethylbenzene CAS # 135-01-3.SEC Purity 99%	(Lot BCBF3667V)	1,008.7 µg/mL	+/- 5.9912 +/- 60.8697 +/- 61.0141	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	2-Methylnaphthalene CAS # 91-57-6.SEC Purity 99%	(Lot 76023-1)	1,006.0 µg/mL	+/- 5.9753 +/- 60.7087 +/- 60.8528	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

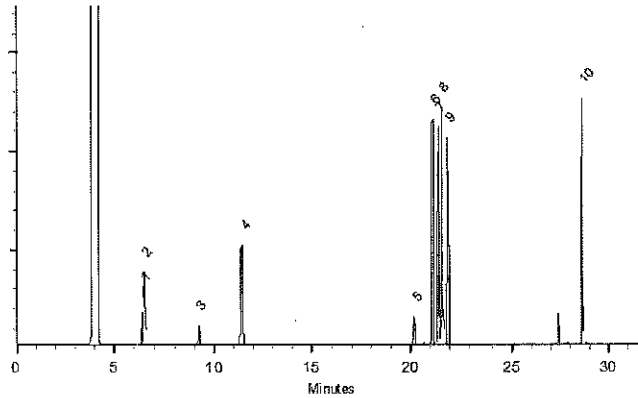
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Dalton Stover
Dalton Stover - Operations Technician I

Date Mixed: 17-Mar-2020 Balance: 1128342314

Feng-Yun Lo
Feng-Yun Lo - QC Analyst

Date Passed: 20-Mar-2020

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

MSV_QCS#6Std_00045



CERTIFIED REFERENCE MATERIAL

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Certificate of Analysis



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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 558268.SEC Lot No.: A0158906
 Description : Custom QCS #6 Standard
Custom QCS #6 Standard 1,000µg/mL, P&T Methanol, 1mL/ampul
 Container Size : 2 mL Pkg Amt: > 1 mL
 Expiration Date : September 30, 2021 Storage: 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Methyl acetate	1,005.3 µg/mL (Lot 6WOXM-KD)	+/-	5.9714	µg/mL	Gravimetric
	CAS # 79-20-9.SEC		+/-	60.6685	µg/mL	Unstressed
	Purity 99%		+/-	60.8125	µg/mL	Stressed
2	Allyl chloride (3-chloropropene)	1,001.3 µg/mL (Lot H3HGC)	+/-	5.9476	µg/mL	Gravimetric
	CAS # 107-05-1.SEC		+/-	60.4271	µg/mL	Unstressed
	Purity 99%		+/-	60.5705	µg/mL	Stressed
3	Bromochloromethane	1,002.0 µg/mL (Lot 8529200)	+/-	5.9516	µg/mL	Gravimetric
	CAS # 74-97-5.SEC		+/-	60.4674	µg/mL	Unstressed
	Purity 99%		+/-	60.6109	µg/mL	Stressed
4	Methylcyclohexane	1,004.7 µg/mL (Lot 24MSD-CD)	+/-	5.9674	µg/mL	Gravimetric
	CAS # 108-87-2.SEC		+/-	60.6283	µg/mL	Unstressed
	Purity 99%		+/-	60.7722	µg/mL	Stressed
5	Pentachloroethane	1,004.7 µg/mL (Lot 8170200)	+/-	5.9674	µg/mL	Gravimetric
	CAS # 76-01-7.SEC		+/-	60.6283	µg/mL	Unstressed
	Purity 99%		+/-	60.7722	µg/mL	Stressed
6	1,2,3-Trimethylbenzene	1,004.6 µg/mL (Lot 7110200)	+/-	5.9673	µg/mL	Gravimetric
	CAS # 526-73-8.SEC		+/-	60.6267	µg/mL	Unstressed
	Purity 92%		+/-	60.7706	µg/mL	Stressed
7	1,3-Diethylbenzene	1,006.0 µg/mL (Lot 113566-1)	+/-	5.9753	µg/mL	Gravimetric
	CAS # 141-93-5.SEC		+/-	60.7087	µg/mL	Unstressed
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9	1,2-Diethylbenzene CAS # 135-01-3.SEC Purity 99%	(Lot BCBF3667V)	1,008.7 µg/mL	+/- 5.9912 +/- 60.8697 +/- 61.0141	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	2-Methylnaphthalene CAS # 91-57-6.SEC Purity 99%	(Lot 76023-1)	1,006.0 µg/mL	+/- 5.9753 +/- 60.7087 +/- 60.8528	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:

105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:

hydrogen-constant pressure 11.0 psi.

Temp. Program:

40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:

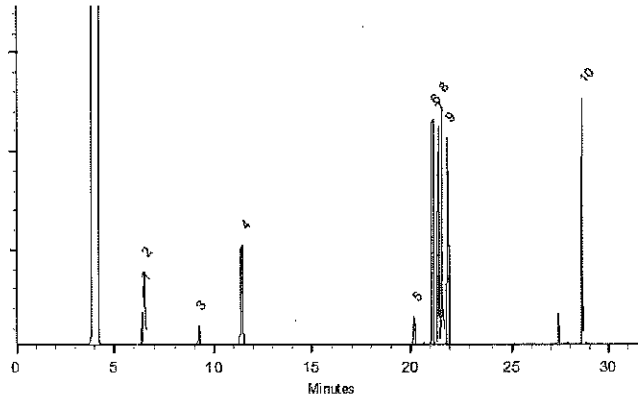
200°C

Det. Temp:

250°C

Det. Type:

FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Dalton Stover
Dalton Stover - Operations Technician I

Date Mixed: 17-Mar-2020 Balance: 1128342314

Feng-Yun Lo
Feng-Yun Lo - QC Analyst

Date Passed: 20-Mar-2020

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

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- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

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- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

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- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

MSV_V#1B_00072



CERTIFIED REFERENCE MATERIAL

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Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 569936-1 **Lot No.:** A0158586
Description : Custom Revised V #1B Standard
Custom Revised V #1B Standard 5,000µg/mL, P&T Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : March 31, 2023 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	1,1-dichloroethene	5,011.4 µg/mL	+/-	31.9644	µg/mL	Gravimetric
	CAS # 75-35-4 (Lot SHBK2437)		+/-	281.2901	µg/mL	Unstressed
	Purity 99%		+/-	287.8577	µg/mL	Stressed
2	Methylene chloride (dichloromethane)	5,004.6 µg/mL	+/-	31.9213	µg/mL	Gravimetric
	CAS # 75-09-2 (Lot SHBL3107)		+/-	280.9112	µg/mL	Unstressed
	Purity 99%		+/-	287.4700	µg/mL	Stressed
3	trans-1,2-Dichloroethene	5,017.5 µg/mL	+/-	32.0035	µg/mL	Gravimetric
	CAS # 156-60-5 (Lot MKBH9850V)		+/-	281.6339	µg/mL	Unstressed
	Purity 99%		+/-	288.2096	µg/mL	Stressed
4	1,1-Dichloroethane	5,020.4 µg/mL	+/-	32.0218	µg/mL	Gravimetric
	CAS # 75-34-3 (Lot 580900)		+/-	281.7953	µg/mL	Unstressed
	Purity 99%		+/-	288.3747	µg/mL	Stressed
5	2,2-Dichloropropane	5,050.0 µg/mL	+/-	32.0202	µg/mL	Gravimetric
	CAS # 594-20-7 (Lot BCBT5124)		+/-	283.4366	µg/mL	Unstressed
	Purity 99%		+/-	290.0553	µg/mL	Stressed
6	cis-1,2-Dichloroethene	5,046.5 µg/mL	+/-	31.9980	µg/mL	Gravimetric
	CAS # 156-59-2 (Lot MKBX5945V)		+/-	283.2401	µg/mL	Unstressed
	Purity 99%		+/-	289.8543	µg/mL	Stressed
7	chloroform	5,034.3 µg/mL	+/-	32.1103	µg/mL	Gravimetric
	CAS # 67-66-3 (Lot SHBJ9076)		+/-	282.5741	µg/mL	Unstressed
	Purity 99%		+/-	289.1717	µg/mL	Stressed

8	1,1,1-trichloroethane CAS # 71-55-6 Purity 98%	(Lot 190123CG)	5,001.3	µg/mL	+/-	31.9002 280.7250 287.2795	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	1,1-Dichloropropene CAS # 563-58-6 Purity 99%	(Lot 170301JLM)	5,048.9	µg/mL	+/-	32.0131 283.3734 289.9907	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	carbon tetrachloride CAS # 56-23-5 Purity 99%	(Lot SHBG8938V)	5,022.9	µg/mL	+/-	32.0378 281.9356 288.5183	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	1,2-Dichloroethane CAS # 107-06-2 Purity 99%	(Lot MKCH9948)	5,007.9	µg/mL	+/-	31.9421 281.0937 287.6567	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	Benzene CAS # 71-43-2 Purity 99%	(Lot SHBG7317V)	5,042.9	µg/mL	+/-	31.9750 283.0367 289.6461	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	Trichloroethene CAS # 79-01-6 Purity 99%	(Lot SHBJ4611)	5,012.9	µg/mL	+/-	31.9740 281.3743 287.9439	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	1,2-Dichloropropane CAS # 78-87-5 Purity 99%	(Lot BCBR0882V)	5,012.6	µg/mL	+/-	31.9724 281.3603 287.9295	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	bromodichloromethane CAS # 75-27-4 Purity 99%	(Lot MKCJ0238)	5,039.1	µg/mL	+/-	32.1414 282.8477 289.4517	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	Dibromomethane CAS # 74-95-3 Purity 99%	(Lot 10201030)	5,047.3	µg/mL	+/-	32.0027 283.2822 289.8973	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	cis-1,3-Dichloropropene CAS # 10061-01-5 Purity 99%	(Lot 200107JLM)	5,015.1	µg/mL	+/-	31.9883 281.5006 288.0731	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	Toluene CAS # 108-88-3 Purity 99%	(Lot SHBH9895)	5,031.9	µg/mL	+/-	31.9053 282.4193 289.0143	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	trans-1,3-Dichloropropene CAS # 10061-02-6 Purity 99%	(Lot 19420164-D1219)	5,003.8	µg/mL	+/-	31.9158 280.8621 287.4198	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	1,1,2-Trichloroethane CAS # 79-00-5 Purity 99%	(Lot FGB01)	5,015.4	µg/mL	+/-	31.9899 281.5146 288.0875	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
21	1,3-Dichloropropane CAS # 142-28-9 Purity 99%	(Lot BCBG2162V)	5,042.4	µg/mL	+/-	31.9718 283.0086 289.6173	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
22	Tetrachloroethene CAS # 127-18-4 Purity 99%	(Lot SHBJ7422)	5,014.3	µg/mL	+/-	31.9827 281.4515 288.0229	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
23	dibromochloromethane CAS # 124-48-1 Purity 99%	(Lot MKCK6472)	5,016.1	µg/mL	+/-	31.9947 281.5567 288.1306	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

24	1,2-Dibromoethane (EDB)		5,037.4	µg/mL	+/-	31.9401	µg/mL	Gravimetric
	CAS #	106-93-4	(Lot BCBP2268V)		+/-	282.7280	µg/mL	Unstressed
	Purity	99%			+/-	289.3302	µg/mL	Stressed
25	1-Chlorohexane		5,010.7	µg/mL	+/-	29.3390	µg/mL	Gravimetric
	CAS #	544-10-5	(Lot BCBS3368V)		+/-	280.9687	µg/mL	Unstressed
	Purity	98%			+/-	287.5420	µg/mL	Stressed
26	Chlorobenzene		5,009.0	µg/mL	+/-	31.9493	µg/mL	Gravimetric
	CAS #	108-90-7	(Lot SHBJ0839)		+/-	281.1568	µg/mL	Unstressed
	Purity	99%			+/-	287.7213	µg/mL	Stressed
27	1,1,1,2-Tetrachloroethane		5,038.6	µg/mL	+/-	31.9481	µg/mL	Gravimetric
	CAS #	630-20-6	(Lot MKBS3769V)		+/-	282.7981	µg/mL	Unstressed
	Purity	99%			+/-	289.4020	µg/mL	Stressed
28	Ethylbenzene		5,029.3	µg/mL	+/-	31.8886	µg/mL	Gravimetric
	CAS #	100-41-4	(Lot SHBJ3183)		+/-	282.2719	µg/mL	Unstressed
	Purity	99%			+/-	288.8635	µg/mL	Stressed
29	m-Xylene		5,038.4	µg/mL	+/-	31.9465	µg/mL	Gravimetric
	CAS #	108-38-3	(Lot SHBH8323)		+/-	282.7841	µg/mL	Unstressed
	Purity	99%			+/-	289.3876	µg/mL	Stressed
30	p-Xylene		5,038.0	µg/mL	+/-	31.9441	µg/mL	Gravimetric
	CAS #	106-42-3	(Lot SHBJ0052)		+/-	282.7630	µg/mL	Unstressed
	Purity	99%			+/-	289.3661	µg/mL	Stressed
31	o-Xylene		5,046.4	µg/mL	+/-	31.9972	µg/mL	Gravimetric
	CAS #	95-47-6	(Lot SHBH3432V)		+/-	283.2331	µg/mL	Unstressed
	Purity	99%			+/-	289.8471	µg/mL	Stressed
32	Styrene		5,047.0	µg/mL	+/-	32.0012	µg/mL	Gravimetric
	CAS #	100-42-5	(Lot MKBV4061V)		+/-	283.2682	µg/mL	Unstressed
	Purity	99%			+/-	289.8830	µg/mL	Stressed
33	Isopropylbenzene (cumene)		5,035.3	µg/mL	+/-	31.9267	µg/mL	Gravimetric
	CAS #	98-82-8	(Lot 10185056)		+/-	282.6087	µg/mL	Unstressed
	Purity	99%			+/-	289.2081	µg/mL	Stressed
34	bromoform		5,013.0	µg/mL	+/-	31.9748	µg/mL	Gravimetric
	CAS #	75-25-2	(Lot SHBJ4835)		+/-	281.3813	µg/mL	Unstressed
	Purity	99%			+/-	287.9511	µg/mL	Stressed
35	1,1,2,2-Tetrachloroethane		5,016.0	µg/mL	+/-	31.9939	µg/mL	Gravimetric
	CAS #	79-34-5	(Lot CFA4D)		+/-	281.5497	µg/mL	Unstressed
	Purity	99%			+/-	288.1234	µg/mL	Stressed
36	1,2,3-Trichloropropane		5,033.4	µg/mL	+/-	31.9148	µg/mL	Gravimetric
	CAS #	96-18-4	(Lot BCBH8722V)		+/-	282.5035	µg/mL	Unstressed
	Purity	99%			+/-	289.1004	µg/mL	Stressed
37	n-Propylbenzene		5,032.4	µg/mL	+/-	31.9084	µg/mL	Gravimetric
	CAS #	103-65-1	(Lot MKBJ0332V)		+/-	282.4473	µg/mL	Unstressed
	Purity	99%			+/-	289.0430	µg/mL	Stressed
38	Bromobenzene		5,035.5	µg/mL	+/-	31.9282	µg/mL	Gravimetric
	CAS #	108-86-1	(Lot WXBC5147V)		+/-	282.6227	µg/mL	Unstressed
	Purity	99%			+/-	289.2225	µg/mL	Stressed
39	1,3,5-Trimethylbenzene		5,029.8	µg/mL	+/-	31.8918	µg/mL	Gravimetric
	CAS #	108-67-8	(Lot BCBS7648V)		+/-	282.3000	µg/mL	Unstressed
	Purity	99%			+/-	288.8922	µg/mL	Stressed

40	2-Chlorotoluene		5,037.5	µg/mL	+/-	31.9409	µg/mL	Gravimetric	
	CAS #	95-49-8	(Lot MKBW5554V)			+/-	282.7350	µg/mL	Unstressed
	Purity	99%				+/-	289.3373	µg/mL	Stressed
41	4-Chlorotoluene		5,039.1	µg/mL	+/-	31.9512	µg/mL	Gravimetric	
	CAS #	106-43-4	(Lot MKBL7753V)			+/-	282.8262	µg/mL	Unstressed
	Purity	99%				+/-	289.4307	µg/mL	Stressed
42	tert-Butylbenzene		5,049.8	µg/mL	+/-	32.0186	µg/mL	Gravimetric	
	CAS #	98-06-6	(Lot STBD6954V)			+/-	283.4225	µg/mL	Unstressed
	Purity	99%				+/-	290.0409	µg/mL	Stressed
43	1,2,4-Trimethylbenzene		5,046.8	µg/mL	+/-	31.9996	µg/mL	Gravimetric	
	CAS #	95-63-6	(Lot MKBJ6229V)			+/-	283.2544	µg/mL	Unstressed
	Purity	98%				+/-	289.8689	µg/mL	Stressed
44	sec-Butylbenzene		5,042.8	µg/mL	+/-	31.9742	µg/mL	Gravimetric	
	CAS #	135-98-8	(Lot MKBR9260V)			+/-	283.0296	µg/mL	Unstressed
	Purity	99%				+/-	289.6389	µg/mL	Stressed
45	p-Isopropyltoluene (p-Cymene)		5,038.4	µg/mL	+/-	31.9465	µg/mL	Gravimetric	
	CAS #	99-87-6	(Lot MKBV3556V)			+/-	282.7841	µg/mL	Unstressed
	Purity	99%				+/-	289.3876	µg/mL	Stressed
46	1,3-Dichlorobenzene		5,017.6	µg/mL	+/-	32.0043	µg/mL	Gravimetric	
	CAS #	541-73-1	(Lot BCBQ7100V)			+/-	281.6409	µg/mL	Unstressed
	Purity	99%				+/-	288.2167	µg/mL	Stressed
47	1,4-Dichlorobenzene		5,023.8	µg/mL	+/-	32.0433	µg/mL	Gravimetric	
	CAS #	106-46-7	(Lot MKBS4401V)			+/-	281.9847	µg/mL	Unstressed
	Purity	99%				+/-	288.5686	µg/mL	Stressed
48	n-Butylbenzene		5,024.8	µg/mL	+/-	31.8601	µg/mL	Gravimetric	
	CAS #	104-51-8	(Lot 09804AE)			+/-	282.0194	µg/mL	Unstressed
	Purity	99%				+/-	288.6050	µg/mL	Stressed
49	1,2-Dichlorobenzene		5,024.5	µg/mL	+/-	32.0481	µg/mL	Gravimetric	
	CAS #	95-50-1	(Lot SHBG3111V)			+/-	282.0268	µg/mL	Unstressed
	Purity	99%				+/-	288.6117	µg/mL	Stressed
50	1,2-Dibromo-3-chloropropane		5,036.4	µg/mL	+/-	31.9338	µg/mL	Gravimetric	
	CAS #	96-12-8	(Lot FBL01)			+/-	282.6718	µg/mL	Unstressed
	Purity	99%				+/-	289.2727	µg/mL	Stressed
51	1,3,5-Trichlorobenzene		5,034.0	µg/mL	+/-	29.4752	µg/mL	Gravimetric	
	CAS #	108-70-3	(Lot 11319AS)			+/-	282.2729	µg/mL	Unstressed
	Purity	99%				+/-	288.8768	µg/mL	Stressed
52	1,2,4-Trichlorobenzene		5,036.5	µg/mL	+/-	31.9346	µg/mL	Gravimetric	
	CAS #	120-82-1	(Lot SHBJ0905)			+/-	282.6789	µg/mL	Unstressed
	Purity	99%				+/-	289.2799	µg/mL	Stressed
53	Hexachlorobutadiene		5,033.6	µg/mL	+/-	31.9164	µg/mL	Gravimetric	
	CAS #	87-68-3	(Lot J31X013)			+/-	282.5175	µg/mL	Unstressed
	Purity	99%				+/-	289.1148	µg/mL	Stressed
54	Naphthalene		5,033.6	µg/mL	+/-	31.9164	µg/mL	Gravimetric	
	CAS #	91-20-3	(Lot MKBW2603V)			+/-	282.5175	µg/mL	Unstressed
	Purity	99%				+/-	289.1148	µg/mL	Stressed
55	1,2,3-Trichlorobenzene		5,016.0	µg/mL	+/-	31.8046	µg/mL	Gravimetric	
	CAS #	87-61-6	(Lot MKBS4859V)			+/-	281.5283	µg/mL	Unstressed
	Purity	99%				+/-	288.1024	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.# 10910)

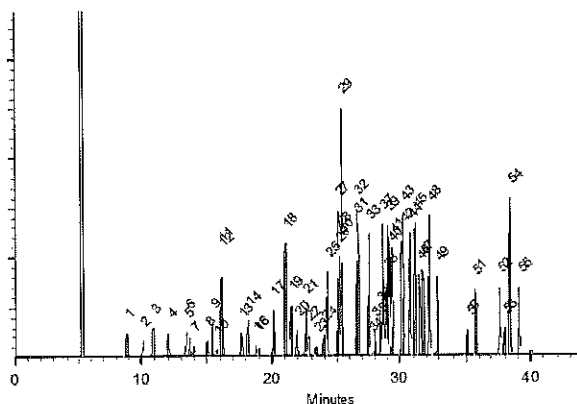
Carrier Gas:
hydrogen-constant pressure 8.0 psi.

Temp. Program:
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Cyndee L. Crust
Cyndee L. Crust - Mix Technician

Date Mixed: 09-Mar-2020 Balance: B251644995

Feng-Yan Lo
Feng-Yan Lo - GC Analyst

Date Passed: 11-Mar-2020

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

MSV_V#2B_00083



110 Benner Circle
 Bellefonte, PA 16823-8812
 Tel: (800)356-1688
 Fax: (814)353-1309

Certificate of Analysis

www.restek.com

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 56734 **Lot No.:** A0147800
Description : Custom V # 2B Standard
Custom V #2B Standard 12,500-125,000µg/mL, P&T Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : April 30, 2021 **Storage:** 0°C or colder

Elution Order	Compound	CAS #	Percent Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	2-Propanol (isopropanol)	67-63-0	99%	25,038.8 µg/mL	+/- 146.6077 µg/mL
2	tert-Butanol (TBA)	75-65-0	99%	25,051.6 µg/mL	+/- 146.6826 µg/mL
3	Propionitrile	107-12-0	99%	25,036.8 µg/mL	+/- 146.5960 µg/mL
4	Methacrylonitrile	126-98-7	99%	12,531.6 µg/mL	+/- 73.3753 µg/mL
5	Isobutanol (2-Methyl-1-propanol)	78-83-1	99%	62,524.0 µg/mL	+/- 366.0729 µg/mL
6	1-Butanol	71-36-3	99%	125,066.8 µg/mL	+/- 732.2559 µg/mL
7	1,4-Dioxane	123-91-1	99%	62,523.6 µg/mL	+/- 366.0705 µg/mL
8	trans-1,4-dichloro-2-butene	110-57-6	94%	12,530.6 µg/mL	+/- 73.3693 µg/mL
Solvent:	P&T Methanol	67-56-1	99%		

Specific Reference Material Notes:

This RM (Reference Material) is not a CRM (Certified Reference Material) due to the 1-butanol concentration exceeding the maximum concentration on Restek's ISO Guide 34 scope of accreditation.

Column:

105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:

hydrogen-constant pressure 11.0 psi.

Temp. Program:

40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:

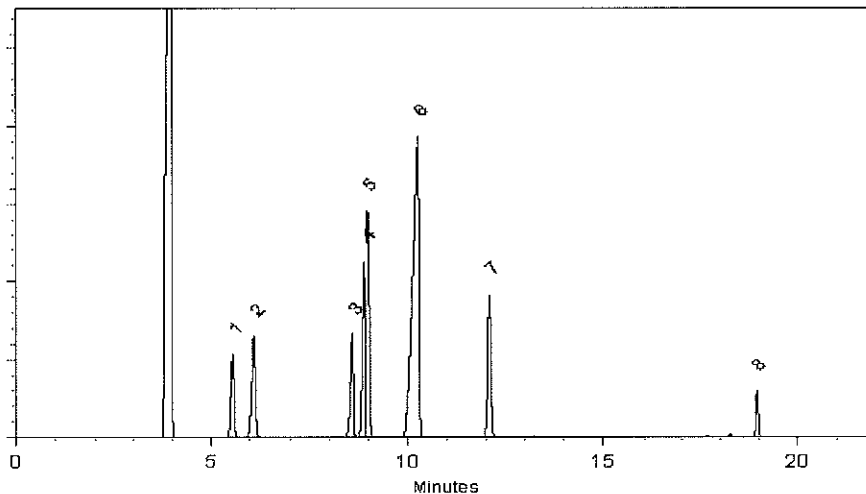
200°C

Det. Temp:

250°C

Det. Type:

FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Clara Winkle

Clara Winkle - Operations Technician I

Date Mixed: 03-Apr-2019

Balance: B251644995

Jennifer L Pollino

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 10-Apr-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the RM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Uncertainty Value Notes:

- Uncertainties are determined using data from balances and glassware, raw material purity, and, when significant, equipment tolerances or calibration results.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

MSV_V#2B_00084



110 Benner Circle
 Bellefonte, PA 16823-8812
 Tel: (800)356-1688
 Fax: (814)353-1309

Certificate of Analysis

www.restek.com

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 56734 **Lot No.:** A0147800
Description : Custom V # 2B Standard
Custom V #2B Standard 12,500-125,000µg/mL, P&T Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : April 30, 2021 **Storage:** 0°C or colder

Elution Order	Compound	CAS #	Percent Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	2-Propanol (isopropanol)	67-63-0	99%	25,038.8 µg/mL	+/- 146.6077 µg/mL
2	tert-Butanol (TBA)	75-65-0	99%	25,051.6 µg/mL	+/- 146.6826 µg/mL
3	Propionitrile	107-12-0	99%	25,036.8 µg/mL	+/- 146.5960 µg/mL
4	Methacrylonitrile	126-98-7	99%	12,531.6 µg/mL	+/- 73.3753 µg/mL
5	Isobutanol (2-Methyl-1-propanol)	78-83-1	99%	62,524.0 µg/mL	+/- 366.0729 µg/mL
6	1-Butanol	71-36-3	99%	125,066.8 µg/mL	+/- 732.2559 µg/mL
7	1,4-Dioxane	123-91-1	99%	62,523.6 µg/mL	+/- 366.0705 µg/mL
8	trans-1,4-dichloro-2-butene	110-57-6	94%	12,530.6 µg/mL	+/- 73.3693 µg/mL
Solvent:	P&T Methanol	67-56-1	99%		

Specific Reference Material Notes:

This RM (Reference Material) is not a CRM (Certified Reference Material) due to the 1-butanol concentration exceeding the maximum concentration on Restek's ISO Guide 34 scope of accreditation.

Column:

105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:

hydrogen-constant pressure 11.0 psi.

Temp. Program:

40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:

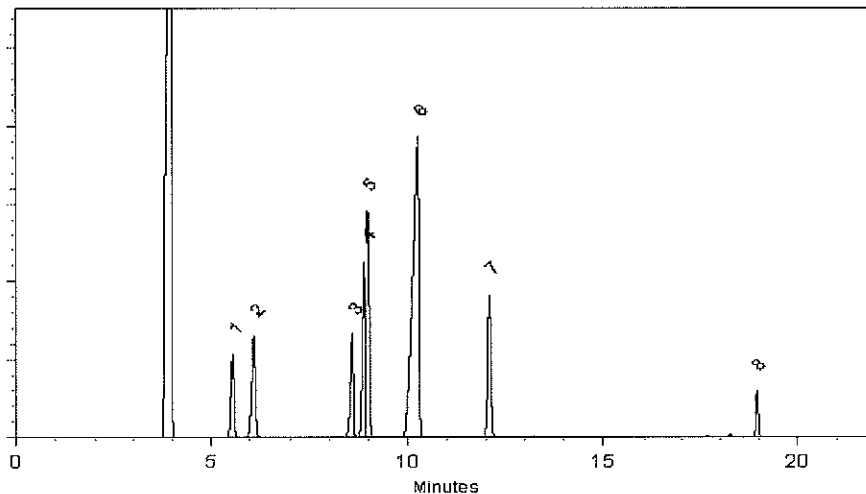
200°C

Det. Temp:

250°C

Det. Type:

FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Clara Winkle

Clara Winkle - Operations Technician I

Date Mixed: 03-Apr-2019

Balance: B251644995

Jennifer L Pollino

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 10-Apr-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the RM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Uncertainty Value Notes:

- Uncertainties are determined using data from balances and glassware, raw material purity, and, when significant, equipment tolerances or calibration results.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

MSV_V#3B_00037



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 56736 **Lot No.:** A0158677

Description : Custom V # 3B Standard
Custom V #3B Standard 12,500-25,000µg/mL, P&T Methanol/Water (90:10), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2023 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Acetone CAS # 67-64-1 (Lot MKCK2598) Purity 99%	25,001.0 µg/mL	+/- 146.3864 µg/mL	+/- 1,236.8670 µg/mL	+/- 1,267.6168 µg/mL	Gravimetric Unstressed Stressed
2	Acrylonitrile CAS # 107-13-1 (Lot A0387097) Purity 99%	12,511.0 µg/mL	+/- 73.2547 µg/mL	+/- 618.9529 µg/mL	+/- 634.3408 µg/mL	Gravimetric Unstressed Stressed
3	2-Butanone (MEK) CAS # 78-93-3 (Lot SHBK9603) Purity 99%	25,007.0 µg/mL	+/- 146.4215 µg/mL	+/- 1,237.1638 µg/mL	+/- 1,267.9210 µg/mL	Gravimetric Unstressed Stressed
4	Tetrahydrofuran CAS # 109-99-9 (Lot SHBK8926) Purity 99%	25,049.0 µg/mL	+/- 146.6674 µg/mL	+/- 1,239.2417 µg/mL	+/- 1,270.0505 µg/mL	Gravimetric Unstressed Stressed
5	2-Nitropropane CAS # 79-46-9 (Lot BCCB9352) Purity 97%	24,758.3 µg/mL	+/- 144.9652 µg/mL	+/- 1,224.8589 µg/mL	+/- 1,255.3102 µg/mL	Gravimetric Unstressed Stressed
6	4-Methyl-2-pentanone (MIBK) CAS # 108-10-1 (Lot SHBL5515) Purity 99%	25,014.0 µg/mL	+/- 146.4625 µg/mL	+/- 1,237.5101 µg/mL	+/- 1,268.2759 µg/mL	Gravimetric Unstressed Stressed
7	2-Hexanone CAS # 591-78-6 (Lot MKCL1599) Purity 99%	25,016.0 µg/mL	+/- 146.4742 µg/mL	+/- 1,237.6091 µg/mL	+/- 1,268.3773 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

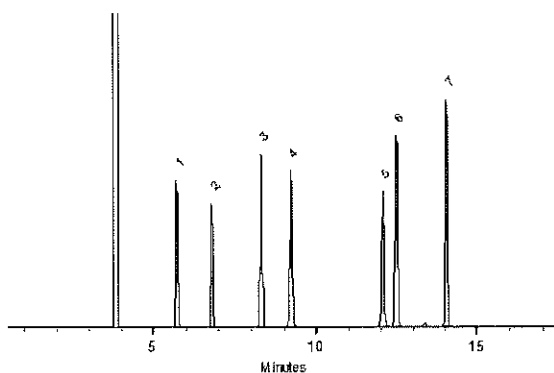
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

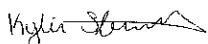
Inj. Temp:
200°C

Det. Temp:
250°C

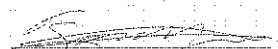
Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Kyle Struble - Operations Technician I

Date Mixed: 10-Mar-2020 **Balance:** B251644995


Feng-Yun Lo - QC Analyst

Date Passed: 12-Mar-2020

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

MSV_V#3B_00044



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
 Bellefonte, PA 16823-8812
 Tel: (800)356-1688
 Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 56736 **Lot No.:** A0158677
Description : Custom V # 3B Standard
Custom V #3B Standard 12,500-25,000µg/mL, P&T Methanol/Water (90:10), 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : March 31, 2023 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Acetone CAS # 67-64-1 (Lot MKCK2598) Purity 99%	25,001.0 µg/mL	+/- 146.3864 µg/mL	+/- 1,236.8670 µg/mL	+/- 1,267.6168 µg/mL	Gravimetric Unstressed Stressed
2	Acrylonitrile CAS # 107-13-1 (Lot A0387097) Purity 99%	12,511.0 µg/mL	+/- 73.2547 µg/mL	+/- 618.9529 µg/mL	+/- 634.3408 µg/mL	Gravimetric Unstressed Stressed
3	2-Butanone (MEK) CAS # 78-93-3 (Lot SHBK9603) Purity 99%	25,007.0 µg/mL	+/- 146.4215 µg/mL	+/- 1,237.1638 µg/mL	+/- 1,267.9210 µg/mL	Gravimetric Unstressed Stressed
4	Tetrahydrofuran CAS # 109-99-9 (Lot SHBK8926) Purity 99%	25,049.0 µg/mL	+/- 146.6674 µg/mL	+/- 1,239.2417 µg/mL	+/- 1,270.0505 µg/mL	Gravimetric Unstressed Stressed
5	2-Nitropropane CAS # 79-46-9 (Lot BCCB9352) Purity 97%	24,758.3 µg/mL	+/- 144.9652 µg/mL	+/- 1,224.8589 µg/mL	+/- 1,255.3102 µg/mL	Gravimetric Unstressed Stressed
6	4-Methyl-2-pentanone (MIBK) CAS # 108-10-1 (Lot SHBL5515) Purity 99%	25,014.0 µg/mL	+/- 146.4625 µg/mL	+/- 1,237.5101 µg/mL	+/- 1,268.2759 µg/mL	Gravimetric Unstressed Stressed
7	2-Hexanone CAS # 591-78-6 (Lot MKCL1599) Purity 99%	25,016.0 µg/mL	+/- 146.4742 µg/mL	+/- 1,237.6091 µg/mL	+/- 1,268.3773 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

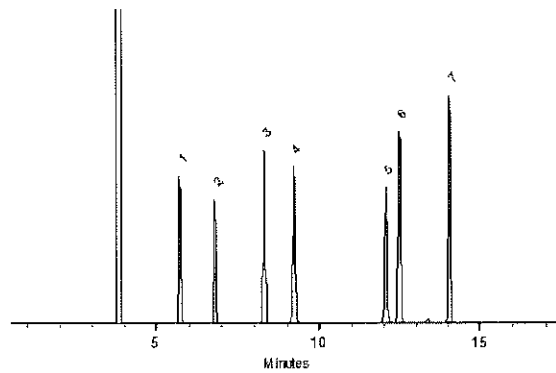
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

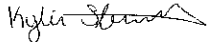
Inj. Temp:
200°C

Det. Temp:
250°C


Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Kyle Struble - Operations Technician I

Date Mixed: 10-Mar-2020 **Balance:** B251644995


Feng-Yun Lo - QC Analyst

Date Passed: 12-Mar-2020

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

MSV_V#4C_00059



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
 Bellefonte, PA 16823-8812
 Tel: (800)356-1688
 Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 572312 **Lot No.:** A0158660
Description : Custom V #4C (Rev 3) Standard
Custom V #4C (Rev 3) Standard 5,000µg/mL, P&T Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : March 31, 2021 **Storage:** 0°C or colder
Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	1,3-Butadiene	5,002.1 µg/mL	+/-	39.8717	µg/mL	Gravimetric
	CAS # 106-99-0 (Lot SHBK2299)		+/-	303.0271	µg/mL	Unstressed
	Purity 99%		+/-	303.7407	µg/mL	Stressed
2	1,2-Dichloro-1,1,2-trifluoroethane (CFC-123a)	5,001.4 µg/mL	+/-	47.3932	µg/mL	Gravimetric
	CAS # 354-23-4 (Lot Q9B-64)		+/-	304.0702	µg/mL	Unstressed
	Purity 99%		+/-	304.7812	µg/mL	Stressed
3	n-Pentane (C5)	5,025.0 µg/mL	+/-	29.4225	µg/mL	Gravimetric
	CAS # 109-66-0 (Lot SHBL0400)		+/-	303.2005	µg/mL	Unstressed
	Purity 99%		+/-	303.9203	µg/mL	Stressed
4	1,1,2-Trichlorotrifluoroethane (CFC-113)	5,024.0 µg/mL	+/-	29.4166	µg/mL	Gravimetric
	CAS # 76-13-1 (Lot 00016133)		+/-	303.1402	µg/mL	Unstressed
	Purity 99%		+/-	303.8598	µg/mL	Stressed
5	Iodomethane (methyl iodide)	5,035.0 µg/mL	+/-	29.4810	µg/mL	Gravimetric
	CAS # 74-88-4 (Lot D4406-0122JM)		+/-	303.8039	µg/mL	Unstressed
	Purity 99%		+/-	304.5251	µg/mL	Stressed
6	Carbon disulfide	5,046.0 µg/mL	+/-	29.5454	µg/mL	Gravimetric
	CAS # 75-15-0 (Lot U22D706)		+/-	304.4676	µg/mL	Unstressed
	Purity 99%		+/-	305.1904	µg/mL	Stressed
7	Methyl-tert-butyl ether (MTBE)	5,025.0 µg/mL	+/-	29.4225	µg/mL	Gravimetric
	CAS # 1634-04-4 (Lot SHBK4806)		+/-	303.2005	µg/mL	Unstressed
	Purity 99%		+/-	303.9203	µg/mL	Stressed

8	n-Hexane (C6)		5,025.5	µg/mL	+/-	29.4254	µg/mL	Gravimetric
	CAS #	110-54-3 (Lot SHBL0924)			+/-	303.2307	µg/mL	Unstressed
	Purity	99%			+/-	303.9505	µg/mL	Stressed
9	Diisopropyl ether (DIPE)		5,015.0	µg/mL	+/-	29.3639	µg/mL	Gravimetric
	CAS #	108-20-3 (Lot SHBH1927V)			+/-	302.5971	µg/mL	Unstressed
	Purity	99%			+/-	303.3154	µg/mL	Stressed
10	Chloroprene (2-chloro-1,3-butadiene)		5,046.5	µg/mL	+/-	29.5484	µg/mL	Gravimetric
	CAS #	126-99-8 (Lot 191204JLM)			+/-	304.4978	µg/mL	Unstressed
	Purity	99%			+/-	305.2206	µg/mL	Stressed
11	Ethyl-tert-butyl ether (ETBE)		5,026.5	µg/mL	+/-	29.4313	µg/mL	Gravimetric
	CAS #	637-92-3 (Lot MKCJ3589)			+/-	303.2910	µg/mL	Unstressed
	Purity	99%			+/-	304.0110	µg/mL	Stressed
12	Cyclohexane		5,028.5	µg/mL	+/-	29.4430	µg/mL	Gravimetric
	CAS #	110-82-7 (Lot MKCF5831)			+/-	303.4117	µg/mL	Unstressed
	Purity	99%			+/-	304.1319	µg/mL	Stressed
13	tert-Amyl methyl ether (TAME)		5,021.0	µg/mL	+/-	29.3991	µg/mL	Gravimetric
	CAS #	994-05-8 (Lot HMBG6382V)			+/-	302.9592	µg/mL	Unstressed
	Purity	99%			+/-	303.6783	µg/mL	Stressed
14	n-Heptane (C7)		5,044.1	µg/mL	+/-	29.5341	µg/mL	Gravimetric
	CAS #	142-82-5 (Lot SHBK8626)			+/-	304.3506	µg/mL	Unstressed
	Purity	98%			+/-	305.0730	µg/mL	Stressed
15	tert-Amyl ethyl ether (TAEE)		5,018.5	µg/mL	+/-	29.3844	µg/mL	Gravimetric
	CAS #	919-94-8 (Lot IKVYB)			+/-	302.8083	µg/mL	Unstressed
	Purity	99%			+/-	303.5271	µg/mL	Stressed
16	Methyl methacrylate		5,028.0	µg/mL	+/-	29.4400	µg/mL	Gravimetric
	CAS #	80-62-6 (Lot MKCG6589)			+/-	303.3815	µg/mL	Unstressed
	Purity	99%			+/-	304.1017	µg/mL	Stressed
17	Ethyl methacrylate		5,043.0	µg/mL	+/-	29.5279	µg/mL	Gravimetric
	CAS #	97-63-2 (Lot SHBF9649V)			+/-	304.2866	µg/mL	Unstressed
	Purity	99%			+/-	305.0089	µg/mL	Stressed
18	Benzyl chloride		5,019.5	µg/mL	+/-	29.3903	µg/mL	Gravimetric
	CAS #	100-44-7 (Lot SHBH2102V)			+/-	302.8686	µg/mL	Unstressed
	Purity	99%			+/-	303.5876	µg/mL	Stressed
Solvent:	P&T Methanol							
	CAS # 67-56-1							
	Purity 99%							

Tech Tips:

Raw material may contain trace amounts of tert-Butanol.

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

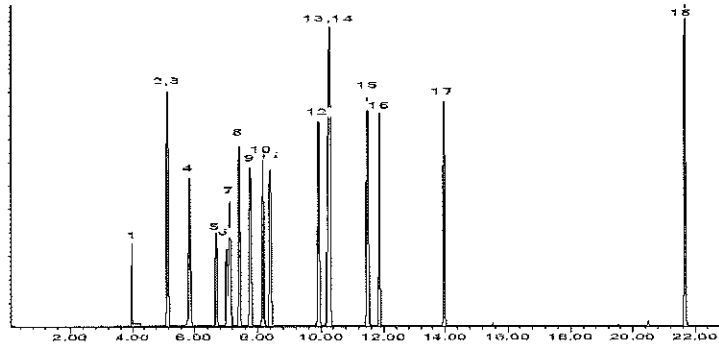
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD

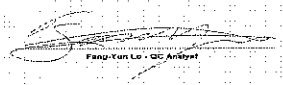


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Tom Suckal - Mix Technician

Date Mixed: 10-Mar-2020

Balance: B707717271



Date Passed: 25-Mar-2020

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \cdot \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

MSV_V#4C_00073



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 572312 **Lot No.:** A0158660

Description : Custom V #4C (Rev 3) Standard
Custom V #4C (Rev 3) Standard 5,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2021 **Storage:** 0°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	1,3-Butadiene	5,002.1 µg/mL	+/-	39.8717	µg/mL	Gravimetric
	CAS # 106-99-0 (Lot SHBK2299)		+/-	303.0271	µg/mL	Unstressed
	Purity 99%		+/-	303.7407	µg/mL	Stressed
2	1,2-Dichloro-1,1,2-trifluoroethane (CFC-123a)	5,001.4 µg/mL	+/-	47.3932	µg/mL	Gravimetric
	CAS # 354-23-4 (Lot Q9B-64)		+/-	304.0702	µg/mL	Unstressed
	Purity 99%		+/-	304.7812	µg/mL	Stressed
3	n-Pentane (C5)	5,025.0 µg/mL	+/-	29.4225	µg/mL	Gravimetric
	CAS # 109-66-0 (Lot SHBL0400)		+/-	303.2005	µg/mL	Unstressed
	Purity 99%		+/-	303.9203	µg/mL	Stressed
4	1,1,2-Trichlorotrifluoroethane (CFC-113)	5,024.0 µg/mL	+/-	29.4166	µg/mL	Gravimetric
	CAS # 76-13-1 (Lot 00016133)		+/-	303.1402	µg/mL	Unstressed
	Purity 99%		+/-	303.8598	µg/mL	Stressed
5	Iodomethane (methyl iodide)	5,035.0 µg/mL	+/-	29.4810	µg/mL	Gravimetric
	CAS # 74-88-4 (Lot D4406-0122JM)		+/-	303.8039	µg/mL	Unstressed
	Purity 99%		+/-	304.5251	µg/mL	Stressed
6	Carbon disulfide	5,046.0 µg/mL	+/-	29.5454	µg/mL	Gravimetric
	CAS # 75-15-0 (Lot U22D706)		+/-	304.4676	µg/mL	Unstressed
	Purity 99%		+/-	305.1904	µg/mL	Stressed
7	Methyl-tert-butyl ether (MTBE)	5,025.0 µg/mL	+/-	29.4225	µg/mL	Gravimetric
	CAS # 1634-04-4 (Lot SHBK4806)		+/-	303.2005	µg/mL	Unstressed
	Purity 99%		+/-	303.9203	µg/mL	Stressed

8	n-Hexane (C6)		5,025.5	µg/mL	+/-	29.4254	µg/mL	Gravimetric
	CAS #	110-54-3 (Lot SHBL0924)			+/-	303.2307	µg/mL	Unstressed
	Purity	99%			+/-	303.9505	µg/mL	Stressed
9	Diisopropyl ether (DIPE)		5,015.0	µg/mL	+/-	29.3639	µg/mL	Gravimetric
	CAS #	108-20-3 (Lot SHBH1927V)			+/-	302.5971	µg/mL	Unstressed
	Purity	99%			+/-	303.3154	µg/mL	Stressed
10	Chloroprene (2-chloro-1,3-butadiene)		5,046.5	µg/mL	+/-	29.5484	µg/mL	Gravimetric
	CAS #	126-99-8 (Lot 191204JLM)			+/-	304.4978	µg/mL	Unstressed
	Purity	99%			+/-	305.2206	µg/mL	Stressed
11	Ethyl-tert-butyl ether (ETBE)		5,026.5	µg/mL	+/-	29.4313	µg/mL	Gravimetric
	CAS #	637-92-3 (Lot MKCJ3589)			+/-	303.2910	µg/mL	Unstressed
	Purity	99%			+/-	304.0110	µg/mL	Stressed
12	Cyclohexane		5,028.5	µg/mL	+/-	29.4430	µg/mL	Gravimetric
	CAS #	110-82-7 (Lot MKCF5831)			+/-	303.4117	µg/mL	Unstressed
	Purity	99%			+/-	304.1319	µg/mL	Stressed
13	tert-Amyl methyl ether (TAME)		5,021.0	µg/mL	+/-	29.3991	µg/mL	Gravimetric
	CAS #	994-05-8 (Lot HMBG6382V)			+/-	302.9592	µg/mL	Unstressed
	Purity	99%			+/-	303.6783	µg/mL	Stressed
14	n-Heptane (C7)		5,044.1	µg/mL	+/-	29.5341	µg/mL	Gravimetric
	CAS #	142-82-5 (Lot SHBK8626)			+/-	304.3506	µg/mL	Unstressed
	Purity	98%			+/-	305.0730	µg/mL	Stressed
15	tert-Amyl ethyl ether (TAEE)		5,018.5	µg/mL	+/-	29.3844	µg/mL	Gravimetric
	CAS #	919-94-8 (Lot IKVYB)			+/-	302.8083	µg/mL	Unstressed
	Purity	99%			+/-	303.5271	µg/mL	Stressed
16	Methyl methacrylate		5,028.0	µg/mL	+/-	29.4400	µg/mL	Gravimetric
	CAS #	80-62-6 (Lot MKCG6589)			+/-	303.3815	µg/mL	Unstressed
	Purity	99%			+/-	304.1017	µg/mL	Stressed
17	Ethyl methacrylate		5,043.0	µg/mL	+/-	29.5279	µg/mL	Gravimetric
	CAS #	97-63-2 (Lot SHBF9649V)			+/-	304.2866	µg/mL	Unstressed
	Purity	99%			+/-	305.0089	µg/mL	Stressed
18	Benzyl chloride		5,019.5	µg/mL	+/-	29.3903	µg/mL	Gravimetric
	CAS #	100-44-7 (Lot SHBH2102V)			+/-	302.8686	µg/mL	Unstressed
	Purity	99%			+/-	303.5876	µg/mL	Stressed
Solvent:	P&T Methanol							
	CAS # 67-56-1							
	Purity 99%							

Tech Tips:

Raw material may contain trace amounts of tert-Butanol.

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

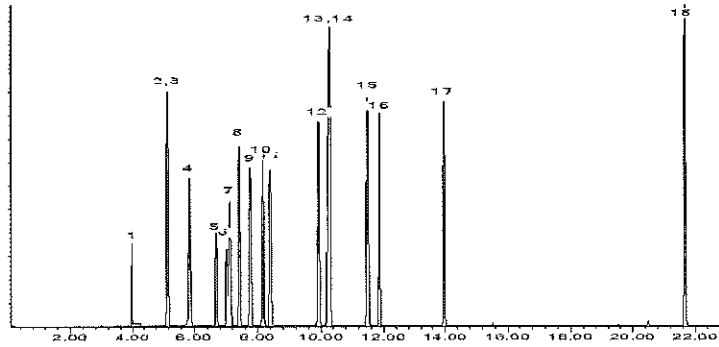
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD

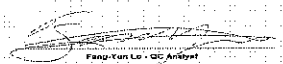


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Tom Suckal - Mix Technician

Date Mixed: 10-Mar-2020

Balance: B707717271


Fisher Scientific

Date Passed: 25-Mar-2020

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \cdot \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

MSV_V#6_00021



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
 Bellefonte, PA 16823-8812
 Tel: (800)356-1688
 Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 558268 **Lot No.:** A0158625
Description : Custom CS#6 Standard
Custom CS#6 Standard 5,000µg/mL, P&T Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : September 30, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)			
1	Methyl acetate CAS # 79-20-9 Purity 99% (Lot SHBK5436)	5,039.0 µg/mL	+/-	29.5717 µg/mL	Gravimetric	
			+/-	304.0518 µg/mL	Unstressed	
			+/-	304.7735 µg/mL	Stressed	
2	Allyl chloride (3-chloropropene) CAS # 107-05-1 Purity 99% (Lot 191118KJ)	5,046.0 µg/mL	+/-	29.6128 µg/mL	Gravimetric	
			+/-	304.4742 µg/mL	Unstressed	
			+/-	305.1969 µg/mL	Stressed	
3	Bromochloromethane CAS # 74-97-5 Purity 98% (Lot 00008541)	5,040.1 µg/mL	+/-	29.5784 µg/mL	Gravimetric	
			+/-	304.1206 µg/mL	Unstressed	
			+/-	304.8425 µg/mL	Stressed	
4	Methylcyclohexane CAS # 108-87-2 Purity 99% (Lot SHBJ0457)	5,041.0 µg/mL	+/-	29.5834 µg/mL	Gravimetric	
			+/-	304.1725 µg/mL	Unstressed	
			+/-	304.8945 µg/mL	Stressed	
5	Pentachloroethane CAS # 76-01-7 Purity 99% (Lot 8866000)	5,035.0 µg/mL	+/-	29.5482 µg/mL	Gravimetric	
			+/-	303.8104 µg/mL	Unstressed	
			+/-	304.5316 µg/mL	Stressed	
6	1,2,3-Trimethylbenzene CAS # 526-73-8 Purity 99% (Lot 8766.05-14)	5,012.0 µg/mL	+/-	29.4132 µg/mL	Gravimetric	
			+/-	302.4226 µg/mL	Unstressed	
			+/-	303.1405 µg/mL	Stressed	
7	1,3-Diethylbenzene CAS # 141-93-5 Purity 98% (Lot BCBT8967)	5,041.1 µg/mL	+/-	29.5841 µg/mL	Gravimetric	
			+/-	304.1797 µg/mL	Unstressed	
			+/-	304.9017 µg/mL	Stressed	

8	1,4-Diethylbenzene CAS # 105-05-5 Purity 98%	(Lot RLHJK)	5,035.2 µg/mL	+/- 29.5496 +/- 303.8249 +/- 304.5461	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	1,2-Diethylbenzene CAS # 135-01-3 Purity 99%	(Lot ECH2970181)	5,011.0 µg/mL	+/- 29.4074 +/- 302.3623 +/- 303.0800	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	2-Methylnaphthalene CAS # 91-57-6 Purity 96%	(Lot STBG8884)	5,023.7 µg/mL	+/- 29.4818 +/- 303.1274 +/- 303.8469	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

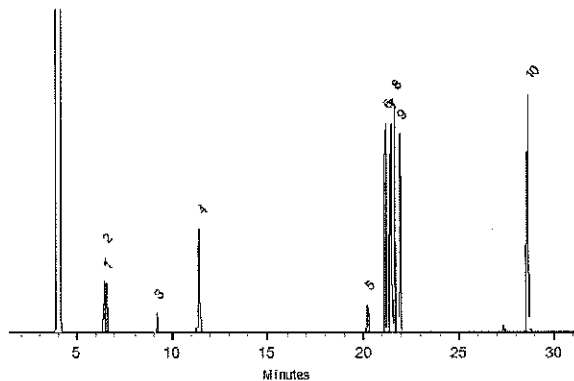
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C


Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Tom Suckar - Mix Technician

Date Mixed: 09-Mar-2020 Balance: B707717271


Tom Suckar - QC Analyst

Date Passed: 12-Mar-2020

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

MSV_V#6_00027



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
 Bellefonte, PA 16823-8812
 Tel: (800)356-1688
 Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 558268 **Lot No.:** A0158625
Description : Custom CS#6 Standard
Custom CS#6 Standard 5,000µg/mL, P&T Methanol, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : September 30, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)			
1	Methyl acetate CAS # 79-20-9 (Lot SHBK5436) Purity 99%	5,039.0 µg/mL	+/- 29.5717	µg/mL	Gravimetric	
			+/- 304.0518	µg/mL	Unstressed	
			+/- 304.7735	µg/mL	Stressed	
2	Allyl chloride (3-chloropropene) CAS # 107-05-1 (Lot 191118KJ) Purity 99%	5,046.0 µg/mL	+/- 29.6128	µg/mL	Gravimetric	
			+/- 304.4742	µg/mL	Unstressed	
			+/- 305.1969	µg/mL	Stressed	
3	Bromochloromethane CAS # 74-97-5 (Lot 00008541) Purity 98%	5,040.1 µg/mL	+/- 29.5784	µg/mL	Gravimetric	
			+/- 304.1206	µg/mL	Unstressed	
			+/- 304.8425	µg/mL	Stressed	
4	Methylcyclohexane CAS # 108-87-2 (Lot SHBJ0457) Purity 99%	5,041.0 µg/mL	+/- 29.5834	µg/mL	Gravimetric	
			+/- 304.1725	µg/mL	Unstressed	
			+/- 304.8945	µg/mL	Stressed	
5	Pentachloroethane CAS # 76-01-7 (Lot 8866000) Purity 99%	5,035.0 µg/mL	+/- 29.5482	µg/mL	Gravimetric	
			+/- 303.8104	µg/mL	Unstressed	
			+/- 304.5316	µg/mL	Stressed	
6	1,2,3-Trimethylbenzene CAS # 526-73-8 (Lot 8766.05-14) Purity 99%	5,012.0 µg/mL	+/- 29.4132	µg/mL	Gravimetric	
			+/- 302.4226	µg/mL	Unstressed	
			+/- 303.1405	µg/mL	Stressed	
7	1,3-Diethylbenzene CAS # 141-93-5 (Lot BCBT8967) Purity 98%	5,041.1 µg/mL	+/- 29.5841	µg/mL	Gravimetric	
			+/- 304.1797	µg/mL	Unstressed	
			+/- 304.9017	µg/mL	Stressed	

8	1,4-Diethylbenzene CAS # 105-05-5 Purity 98%	(Lot RLHJK)	5,035.2 µg/mL	+/- 29.5496 +/- 303.8249 +/- 304.5461	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	1,2-Diethylbenzene CAS # 135-01-3 Purity 99%	(Lot ECH2970181)	5,011.0 µg/mL	+/- 29.4074 +/- 302.3623 +/- 303.0800	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	2-Methylnaphthalene CAS # 91-57-6 Purity 96%	(Lot STBG8884)	5,023.7 µg/mL	+/- 29.4818 +/- 303.1274 +/- 303.8469	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

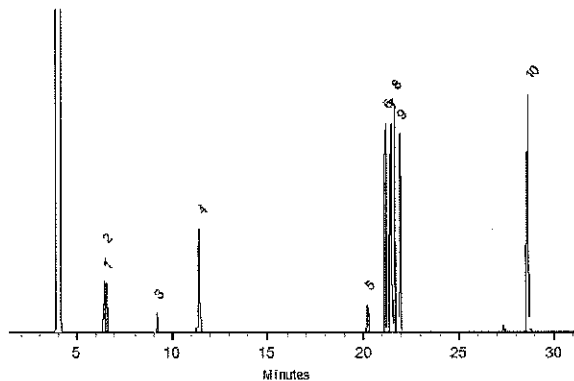
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C


Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Tom Suckar - Mix Technician

Date Mixed: 09-Mar-2020 Balance: B707717271


Tom Suckar - QC Analyst

Date Passed: 12-Mar-2020

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

MSV_V_Gas_00090



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 55669 **Lot No.:** A0150705

Description : Custom 502.2 "V" Gas Mix
Custom 502.2 "V" Gas Mix 2,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2026 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Dichlorodifluoromethane (CFC-12) CAS # 75-71-8 (Lot 00012554) Purity 99%	2,001.7 µg/mL	+/- 16.1239	µg/mL	Gravimetric	
			+/- 112.7879	µg/mL	Unstressed	
			+/- 115.4014	µg/mL	Stressed	
2	Chloromethane (methyl chloride) CAS # 74-87-3 (Lot SHBK6571) Purity 99%	2,000.3 µg/mL	+/- 18.7162	µg/mL	Gravimetric	
			+/- 113.1078	µg/mL	Unstressed	
			+/- 115.7104	µg/mL	Stressed	
3	Vinyl chloride CAS # 75-01-4 (Lot 00015559) Purity 99%	2,006.5 µg/mL	+/- 18.3560	µg/mL	Gravimetric	
			+/- 113.3921	µg/mL	Unstressed	
			+/- 116.0044	µg/mL	Stressed	
4	Bromomethane (methyl bromide) CAS # 74-83-9 (Lot 101604) Purity 99%	1,999.6 µg/mL	+/- 20.0741	µg/mL	Gravimetric	
			+/- 113.3042	µg/mL	Unstressed	
			+/- 115.9007	µg/mL	Stressed	
5	Chloroethane (ethyl chloride) CAS # 75-00-3 (Lot 107-401039114-1) Purity 99%	1,998.5 µg/mL	+/- 16.7167	µg/mL	Gravimetric	
			+/- 112.6955	µg/mL	Unstressed	
			+/- 115.3027	µg/mL	Stressed	
6	Trichlorofluoromethane (CFC-11) CAS # 75-69-4 (Lot SHBH4155V) Purity 99%	2,000.0 µg/mL	+/- 14.1138	µg/mL	Gravimetric	
			+/- 112.4230	µg/mL	Unstressed	
			+/- 115.0403	µg/mL	Stressed	

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

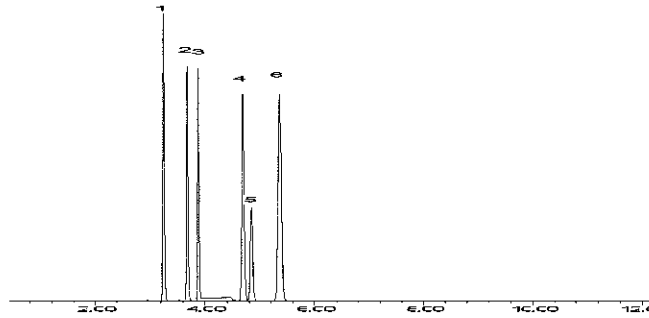
Carrier Gas:
helium-constant flow 2.0 ml/min.

Temp. Program:
40°C (hold 6 min.) to 100°C
@ 5°C/min.

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD

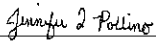


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Tom Suckar - Mix Technician

Date Mixed: 10-Jul-2019

Balance: B251644995


Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 16-Jul-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

MSV_V_Gas_00124



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 55669 **Lot No.:** A0159812

Description : Custom 502.2 "V" Gas Mix
Custom 502.2 "V" Gas Mix 2,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : May 31, 2027 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Dichlorodifluoromethane (CFC-12)	2,005.1 µg/mL	+/-	16.8576	µg/mL	Gravimetric
	CAS # 75-71-8 (Lot 00012554)		+/-	113.0809	µg/mL	Unstressed
	Purity 99%		+/-	115.6966	µg/mL	Stressed
2	Chloromethane (methyl chloride)	2,003.5 µg/mL	+/-	19.3327	µg/mL	Gravimetric
	CAS # 74-87-3 (Lot SHBK6571)		+/-	113.3884	µg/mL	Unstressed
	Purity 99%		+/-	115.9929	µg/mL	Stressed
3	Vinyl chloride	2,001.1 µg/mL	+/-	18.1213	µg/mL	Gravimetric
	CAS # 75-01-4 (Lot 00015559)		+/-	113.0560	µg/mL	Unstressed
	Purity 99%		+/-	115.6619	µg/mL	Stressed
4	Bromomethane (methyl bromide)	1,998.8 µg/mL	+/-	17.7535	µg/mL	Gravimetric
	CAS # 74-83-9 (Lot 101604)		+/-	112.8737	µg/mL	Unstressed
	Purity 99%		+/-	115.4779	µg/mL	Stressed
5	Chloroethane (ethyl chloride)	2,002.3 µg/mL	+/-	17.1357	µg/mL	Gravimetric
	CAS # 75-00-3 (Lot 107-401039114-1)		+/-	112.9711	µg/mL	Unstressed
	Purity 99%		+/-	115.5821	µg/mL	Stressed
6	Trichlorofluoromethane (CFC-11)	2,020.0 µg/mL	+/-	11.7716	µg/mL	Gravimetric
	CAS # 75-69-4 (Lot 25931)		+/-	113.2622	µg/mL	Unstressed
	Purity 99%		+/-	115.9123	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

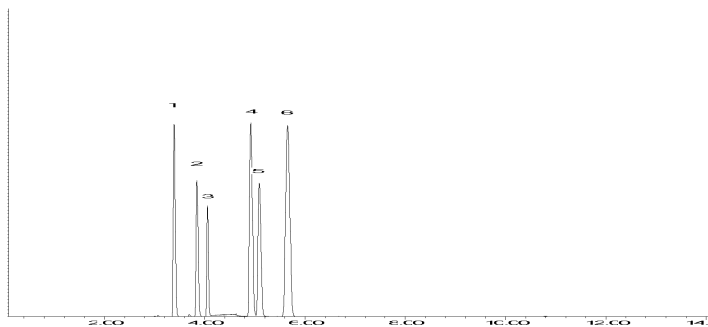
Carrier Gas:
helium-constant flow 2.0 mL/min.

Temp. Program:
40°C (hold 6 min.) to 100°C
@ 6°C/min.

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Tom Suckar - Mix Technician

Date Mixed: 10-Apr-2020

Balance: B707717271

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 06-May-2020

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

MSV_V_Gas_00125



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 55669 **Lot No.:** A0159812

Description : Custom 502.2 "V" Gas Mix
Custom 502.2 "V" Gas Mix 2,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : May 31, 2027 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Dichlorodifluoromethane (CFC-12)	2,005.1 µg/mL	+/-	16.8576	µg/mL	Gravimetric
	CAS # 75-71-8 (Lot 00012554)		+/-	113.0809	µg/mL	Unstressed
	Purity 99%		+/-	115.6966	µg/mL	Stressed
2	Chloromethane (methyl chloride)	2,003.5 µg/mL	+/-	19.3327	µg/mL	Gravimetric
	CAS # 74-87-3 (Lot SHBK6571)		+/-	113.3884	µg/mL	Unstressed
	Purity 99%		+/-	115.9929	µg/mL	Stressed
3	Vinyl chloride	2,001.1 µg/mL	+/-	18.1213	µg/mL	Gravimetric
	CAS # 75-01-4 (Lot 00015559)		+/-	113.0560	µg/mL	Unstressed
	Purity 99%		+/-	115.6619	µg/mL	Stressed
4	Bromomethane (methyl bromide)	1,998.8 µg/mL	+/-	17.7535	µg/mL	Gravimetric
	CAS # 74-83-9 (Lot 101604)		+/-	112.8737	µg/mL	Unstressed
	Purity 99%		+/-	115.4779	µg/mL	Stressed
5	Chloroethane (ethyl chloride)	2,002.3 µg/mL	+/-	17.1357	µg/mL	Gravimetric
	CAS # 75-00-3 (Lot 107-401039114-1)		+/-	112.9711	µg/mL	Unstressed
	Purity 99%		+/-	115.5821	µg/mL	Stressed
6	Trichlorofluoromethane (CFC-11)	2,020.0 µg/mL	+/-	11.7716	µg/mL	Gravimetric
	CAS # 75-69-4 (Lot 25931)		+/-	113.2622	µg/mL	Unstressed
	Purity 99%		+/-	115.9123	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

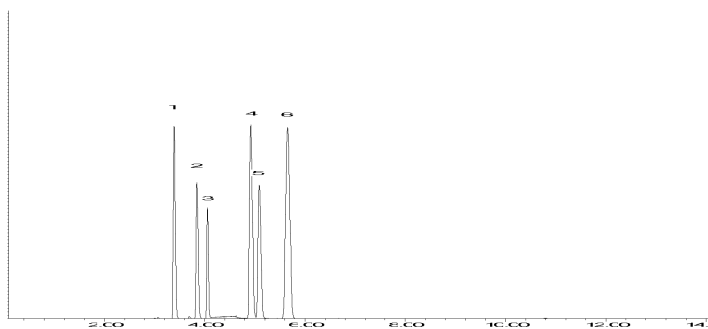
Carrier Gas:
helium-constant flow 2.0 mL/min.

Temp. Program:
40°C (hold 6 min.) to 100°C
@ 6°C/min.

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Tom Suckar - Mix Technician

Date Mixed: 10-Apr-2020

Balance: B707717271

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 06-May-2020

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Method 8260D Low Level

Volatile Organic Compounds (GC/MS)
by Method 8260D Low Level

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-9077-1

SDG No.: _____

Matrix: Water Level: Low

GC Column (1): R-624SilMS ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
HD-COD-SW-6-0/1-0	410-9077-1	92	98	100	96
HD-COD-SW-7-0/1-0	410-9077-2	92	99	100	94
HD-COD-SW-8-0/1-0	410-9077-3	92	97	101	96
HD-COD-SW-9-0/1-0	410-9077-4	91	99	101	97
HD-COD-SW-13-0/1-0	410-9077-5	92	100	100	96
HD-COD-SW-15-0/1-0	410-9077-6	92	96	100	95
HD-COD-SW-16-0/1-0	410-9077-7	91	99	100	95
HD-COD-SW-17-0/1-0	410-9077-8	92	98	99	96
HD-COD-SW-26-0/1-0	410-9077-9	91	101	99	95
HD-COD-SW-27-0/1-0	410-9077-10	91	100	101	96
HD-COD-SW-28-0/1-0	410-9077-11	91	98	101	96
HD-COD-SW-29-0/1-0	410-9077-12	92	99	101	97
HD-QC1-0/1-1	410-9077-13	90	98	100	97
HD-QC1-0/1-2	410-9077-14	91	100	101	96
	MB 410-30932/6	91	97	98	97
	MB 410-31280/7	92	100	101	97
	LCS 410-30932/4	91	98	99	98
	LCS 410-31280/4	91	98	101	98
	LCSD 410-31280/5	91	97	102	98
HD-COD-SW-15-0/1-0 MS MS	410-9077-6 MS	90	97	101	97
HD-COD-SW-15-0/1-0 MSD MSD	410-9077-6 MSD	89	98	100	98

QC LIMITS

DBFM = Dibromofluoromethane (Surr)	80-120
DCA = 1,2-Dichloroethane-d4 (Surr)	80-120
TOL = Toluene-d8 (Surr)	80-120
BFB = 4-Bromofluorobenzene (Surr)	80-120

Column to be used to flag recovery values

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-9077-1

SDG No.: _____

Matrix: Water Level: Low Lab File ID: GG07L01.D

Lab ID: LCS 410-30932/4 Client ID: _____

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	5.00	4.17	83	78-126	
1,1,1,2-Tetrachloroethane	5.00	4.32	86	71-134	
1,1,2,2-Tetrachloroethane	5.00	5.20	104	75-123	
1,1,2-Trichloroethane	5.00	4.93	99	80-120	
1,1-Dichloroethane	5.00	4.87	97	74-120	
1,1-Dichloroethene	5.00	4.77	95	80-131	
1,2-Dichloroethane	5.00	4.14	83	69-122	
1,2-Dichloropropane	5.00	5.27	105	80-120	
2-Butanone (MEK)	37.5	35.7	95	59-141	
2-Hexanone	25.0	23.5	94	52-140	
4-Methyl-2-pentanone (MIBK)	25.0	23.3	93	55-140	
Acetone	37.5	31.2	83	60-146	
Acrylonitrile	25.0	25.4	102	64-139	
Benzene	5.00	4.94	99	80-120	
Bromoform	5.00	4.16	83	49-144	
Bromomethane	5.00	4.01	80	60-136	
Carbon disulfide	5.00	4.94	99	67-130	
Carbon tetrachloride	5.00	4.01	80	64-141	
Chlorobenzene	5.00	4.68	94	80-120	
Bromochloromethane	5.00	4.21	84	80-120	
Dibromochloromethane	5.00	4.46	89	64-138	
Chloroethane	5.00	4.48	90	63-120	
Chloroform	5.00	4.58	92	80-120	
Chloromethane	5.00	4.36	87	56-124	
cis-1,2-Dichloroethene	5.00	5.01	100	80-122	
cis-1,3-Dichloropropene	5.00	4.84	97	67-121	
Bromodichloromethane	5.00	4.48	90	73-124	
Ethylbenzene	5.00	4.71	94	80-120	
1,2-Dibromoethane (EDB)	5.00	4.56	91	80-120	
Methyl tert-butyl ether	5.00	4.57	91	69-120	
Methylene Chloride	5.00	4.99	100	80-120	
Styrene	5.00	4.93	99	80-120	
Tetrachloroethene	5.00	4.35	87	80-120	
Toluene	5.00	4.99	100	80-120	
trans-1,2-Dichloroethene	5.00	4.83	97	80-122	
trans-1,3-Dichloropropene	5.00	4.62	92	61-129	
Trichloroethene	5.00	4.58	92	80-120	
Vinyl chloride	5.00	4.53	91	60-125	
Xylenes, Total	15.0	14.3	95	80-120	

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-9077-1

SDG No.: _____

Matrix: Water Level: Low Lab File ID: GG09L01.D

Lab ID: LCS 410-31280/4 Client ID: _____

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	5.00	3.94	79	78-126	
1,1,1,2-Tetrachloroethane	5.00	4.14	83	71-134	
1,1,2,2-Tetrachloroethane	5.00	4.92	98	75-123	
1,1,2-Trichloroethane	5.00	4.88	98	80-120	
1,1-Dichloroethane	5.00	4.72	94	74-120	
1,1-Dichloroethene	5.00	4.60	92	80-131	
1,2-Dichloroethane	5.00	4.07	81	69-122	
1,2-Dichloropropane	5.00	5.04	101	80-120	
2-Butanone (MEK)	37.5	36.2	96	59-141	
2-Hexanone	25.0	24.2	97	52-140	
4-Methyl-2-pentanone (MIBK)	25.0	23.7	95	55-140	
Acetone	37.5	34.1	91	60-146	
Acrylonitrile	25.0	26.2	105	64-139	
Benzene	5.00	4.74	95	80-120	
Bromoform	5.00	3.92	78	49-144	
Bromomethane	5.00	3.94	79	60-136	
Carbon disulfide	5.00	4.73	95	67-130	
Carbon tetrachloride	5.00	3.68	74	64-141	
Chlorobenzene	5.00	4.56	91	80-120	
Bromochloromethane	5.00	4.26	85	80-120	
Dibromochloromethane	5.00	4.31	86	64-138	
Chloroethane	5.00	4.28	86	63-120	
Chloroform	5.00	4.33	87	80-120	
Chloromethane	5.00	4.09	82	56-124	
cis-1,2-Dichloroethene	5.00	4.86	97	80-122	
cis-1,3-Dichloropropene	5.00	4.60	92	67-121	
Bromodichloromethane	5.00	4.28	86	73-124	
Ethylbenzene	5.00	4.59	92	80-120	
1,2-Dibromoethane (EDB)	5.00	4.50	90	80-120	
Methyl tert-butyl ether	5.00	4.48	90	69-120	
Methylene Chloride	5.00	4.82	96	80-120	
Styrene	5.00	4.83	97	80-120	
Tetrachloroethene	5.00	4.27	85	80-120	
Toluene	5.00	4.86	97	80-120	
trans-1,2-Dichloroethene	5.00	4.68	94	80-122	
trans-1,3-Dichloropropene	5.00	4.52	90	61-129	
Trichloroethene	5.00	4.40	88	80-120	
Vinyl chloride	5.00	4.28	86	60-125	
Xylenes, Total	15.0	14.1	94	80-120	

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-9077-1

SDG No.: _____

Matrix: Water Level: Low Lab File ID: GG09L02.D

Lab ID: LCSD 410-31280/5 Client ID: _____

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
1,1,1-Trichloroethane	5.00	3.90	78	1	30	78-126	
1,1,1,2-Tetrachloroethane	5.00	4.13	83	0	30	71-134	
1,1,2,2-Tetrachloroethane	5.00	5.06	101	3	30	75-123	
1,1,2-Trichloroethane	5.00	4.85	97	1	30	80-120	
1,1-Dichloroethane	5.00	4.57	91	3	30	74-120	
1,1-Dichloroethene	5.00	4.50	90	2	30	80-131	
1,2-Dichloroethane	5.00	4.00	80	2	30	69-122	
1,2-Dichloropropane	5.00	5.01	100	1	30	80-120	
2-Butanone (MEK)	37.5	33.5	89	8	30	59-141	
2-Hexanone	25.0	22.1	88	9	30	52-140	
4-Methyl-2-pentanone (MIBK)	25.0	21.7	87	9	30	55-140	
Acetone	37.5	31.9	85	7	30	60-146	
Acrylonitrile	25.0	24.7	99	6	30	64-139	
Benzene	5.00	4.62	92	3	30	80-120	
Bromoform	5.00	3.89	78	1	30	49-144	
Bromomethane	5.00	3.82	76	3	30	60-136	
Carbon disulfide	5.00	4.61	92	3	30	67-130	
Carbon tetrachloride	5.00	3.65	73	1	30	64-141	
Chlorobenzene	5.00	4.49	90	2	30	80-120	
Bromochloromethane	5.00	4.20	84	1	30	80-120	
Dibromochloromethane	5.00	4.28	86	1	30	64-138	
Chloroethane	5.00	4.26	85	0	30	63-120	
Chloroform	5.00	4.24	85	2	30	80-120	
Chloromethane	5.00	4.10	82	0	30	56-124	
cis-1,2-Dichloroethene	5.00	4.77	95	2	30	80-122	
cis-1,3-Dichloropropene	5.00	4.56	91	1	30	67-121	
Bromodichloromethane	5.00	4.23	85	1	30	73-124	
Ethylbenzene	5.00	4.55	91	1	30	80-120	
1,2-Dibromoethane (EDB)	5.00	4.49	90	0	30	80-120	
Methyl tert-butyl ether	5.00	4.45	89	1	30	69-120	
Methylene Chloride	5.00	4.76	95	1	30	80-120	
Styrene	5.00	4.81	96	0	30	80-120	
Tetrachloroethene	5.00	4.21	84	1	30	80-120	
Toluene	5.00	4.71	94	3	30	80-120	
trans-1,2-Dichloroethene	5.00	4.66	93	0	30	80-122	
trans-1,3-Dichloropropene	5.00	4.52	90	0	30	61-129	
Trichloroethene	5.00	4.26	85	3	30	80-120	
Vinyl chloride	5.00	4.21	84	2	30	60-125	
Xylenes, Total	15.0	14.0	93	1	30	80-120	

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Lancaster Laboratories

Job No.: 410-9077-1

SDG No.: _____

Matrix: Water

Level: Low

Lab File ID: GG07S09.D

Lab ID: 410-9077-6 MS

Client ID: HD-COD-SW-15-0/1-0 MS MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	5.00	0.12 J	4.73	92	78-126	
1,1,1,2-Tetrachloroethane	5.00	ND	4.66	93	71-134	
1,1,2,2-Tetrachloroethane	5.00	ND	5.48	109	75-123	
1,1,2-Trichloroethane	5.00	ND	5.27	105	80-120	
1,1-Dichloroethane	5.00	ND	5.43	109	74-120	
1,1-Dichloroethene	5.00	0.089 J	5.31	104	80-131	
1,2-Dichloroethane	5.00	ND	4.46	89	69-122	
1,2-Dichloropropane	5.00	ND	5.55	111	80-120	
2-Butanone (MEK)	37.5	ND	38.9	104	59-141	
2-Hexanone	25.0	ND	27.0	108	52-140	
4-Methyl-2-pentanone (MIBK)	25.0	ND	24.3	97	55-140	
Acetone	37.5	1.7 J	38.0	97	60-146	
Acrylonitrile	25.0	ND	27.0	108	64-139	
Benzene	5.00	ND	5.32	106	80-120	
Bromoform	5.00	ND	4.41	88	49-144	
Bromomethane	5.00	ND	4.10	82	60-136	
Carbon disulfide	5.00	ND	5.41	108	67-130	
Carbon tetrachloride	5.00	ND	4.45	89	64-141	
Chlorobenzene	5.00	ND	5.04	101	80-120	
Bromochloromethane	5.00	ND	4.26	85	80-120	
Dibromochloromethane	5.00	ND	4.78	96	64-138	
Chloroethane	5.00	ND	4.71	94	63-120	
Chloroform	5.00	0.25 J	5.12	97	80-120	
Chloromethane	5.00	ND	4.48	90	80-120	
cis-1,2-Dichloroethene	5.00	0.75	6.10	107	80-122	
cis-1,3-Dichloropropene	5.00	ND	5.10	102	67-121	
Bromodichloromethane	5.00	ND	4.79	96	73-124	
Ethylbenzene	5.00	ND	5.23	104	80-120	
1,2-Dibromoethane (EDB)	5.00	ND	4.88	97	80-120	
Methyl tert-butyl ether	5.00	ND	4.63	92	69-120	
Methylene Chloride	5.00	ND	5.20	104	80-120	
Styrene	5.00	ND	5.35	107	80-120	
Tetrachloroethene	5.00	2.5	7.37	98	80-120	
Toluene	5.00	ND	5.52	110	80-120	
trans-1,2-Dichloroethene	5.00	ND	5.31	106	80-122	
trans-1,3-Dichloropropene	5.00	ND	4.93	98	61-129	
Trichloroethene	5.00	0.89	5.88	100	80-120	
Vinyl chloride	5.00	ND	4.66	93	60-125	
Xylenes, Total	15.0	ND	15.9	106	80-120	

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories

Job No.: 410-9077-1

SDG No.: _____

Matrix: Water

Level: Low

Lab File ID: GG07S10.D

Lab ID: 410-9077-6 MSD

Client ID: HD-COD-SW-15-0/1-0 MSD MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
1,1,1-Trichloroethane	5.00	4.74	92	0	30	78-126	
1,1,1,2-Tetrachloroethane	5.00	4.67	93	0	30	71-134	
1,1,2,2-Tetrachloroethane	5.00	5.34	107	2	30	75-123	
1,1,2-Trichloroethane	5.00	5.26	105	0	30	80-120	
1,1-Dichloroethane	5.00	5.33	106	2	30	74-120	
1,1-Dichloroethene	5.00	5.38	106	1	30	80-131	
1,2-Dichloroethane	5.00	4.24	85	5	30	69-122	
1,2-Dichloropropane	5.00	5.50	110	1	30	80-120	
2-Butanone (MEK)	37.5	40.0	107	3	30	59-141	
2-Hexanone	25.0	27.7	111	2	30	52-140	
4-Methyl-2-pentanone (MIBK)	25.0	26.3	105	8	30	55-140	
Acetone	37.5	34.7	88	9	30	60-146	
Acrylonitrile	25.0	27.6	110	2	30	64-139	
Benzene	5.00	5.32	106	0	30	80-120	
Bromoform	5.00	4.28	85	3	30	49-144	
Bromomethane	5.00	4.16	83	1	30	60-136	
Carbon disulfide	5.00	5.46	109	1	30	67-130	
Carbon tetrachloride	5.00	4.43	88	1	30	64-141	
Chlorobenzene	5.00	5.10	102	1	30	80-120	
Bromochloromethane	5.00	4.23	85	1	30	80-120	
Dibromochloromethane	5.00	4.73	94	1	30	64-138	
Chloroethane	5.00	4.72	94	0	30	63-120	
Chloroform	5.00	5.07	96	1	30	80-120	
Chloromethane	5.00	4.62	92	3	30	80-120	
cis-1,2-Dichloroethene	5.00	6.22	109	2	30	80-122	
cis-1,3-Dichloropropene	5.00	4.99	100	2	30	67-121	
Bromodichloromethane	5.00	4.77	95	0	30	73-124	
Ethylbenzene	5.00	5.23	105	0	30	80-120	
1,2-Dibromoethane (EDB)	5.00	4.79	96	2	30	80-120	
Methyl tert-butyl ether	5.00	4.70	94	1	30	69-120	
Methylene Chloride	5.00	5.28	105	1	30	80-120	
Styrene	5.00	5.35	107	0	30	80-120	
Tetrachloroethene	5.00	7.39	98	0	30	80-120	
Toluene	5.00	5.47	109	1	30	80-120	
trans-1,2-Dichloroethene	5.00	5.36	107	1	30	80-122	
trans-1,3-Dichloropropene	5.00	4.92	98	0	30	61-129	
Trichloroethene	5.00	5.99	102	2	30	80-120	
Vinyl chloride	5.00	4.89	98	5	30	60-125	
Xylenes, Total	15.0	15.9	106	0	30	80-120	

Column to be used to flag recovery and RPD values

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-9077-1
 SDG No.: _____
 Lab File ID: GG07B01.D Lab Sample ID: MB 410-30932/6
 Matrix: Water Heated Purge: (Y/N) N
 Instrument ID: 16334 Date Analyzed: 08/07/2020 23:56
 GC Column: R-624SilMS 30m ID: 0.25 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 410-30932/4	GG07L01.D	08/07/2020 23:11
HD-QC1-0/1-2	410-9077-14	GG07S01.D	08/08/2020 00:22
HD-COD-SW-15-0/1-0	410-9077-6	GG07S08.D	08/08/2020 02:57
HD-COD-SW-15-0/1-0 MS MS	410-9077-6 MS	GG07S09.D	08/08/2020 03:20
HD-COD-SW-15-0/1-0 MSD MSD	410-9077-6 MSD	GG07S10.D	08/08/2020 03:42
HD-COD-SW-6-0/1-0	410-9077-1	GG07S12.D	08/08/2020 04:26
HD-COD-SW-7-0/1-0	410-9077-2	GG07S13.D	08/08/2020 04:48
HD-COD-SW-8-0/1-0	410-9077-3	GG07S14.D	08/08/2020 05:10
HD-COD-SW-9-0/1-0	410-9077-4	GG07S15.D	08/08/2020 05:32
HD-COD-SW-13-0/1-0	410-9077-5	GG07S16.D	08/08/2020 05:55
HD-COD-SW-16-0/1-0	410-9077-7	GG07S17.D	08/08/2020 06:17
HD-COD-SW-17-0/1-0	410-9077-8	GG07S18.D	08/08/2020 06:39
HD-COD-SW-26-0/1-0	410-9077-9	GG07S19.D	08/08/2020 07:01
HD-COD-SW-27-0/1-0	410-9077-10	GG07S20.D	08/08/2020 07:23
HD-COD-SW-28-0/1-0	410-9077-11	GG07S21.D	08/08/2020 07:45
HD-QC1-0/1-1	410-9077-13	GG07S22.D	08/08/2020 08:07

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-9077-1
 SDG No.: _____
 Lab File ID: GG09B01.D Lab Sample ID: MB 410-31280/7
 Matrix: Water Heated Purge: (Y/N) N
 Instrument ID: 16334 Date Analyzed: 08/10/2020 11:31
 GC Column: R-624SilMS 30m ID: 0.25 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 410-31280/4	GG09L01.D	08/10/2020 10:25
	LCSD 410-31280/5	GG09L02.D	08/10/2020 10:47
HD-COD-SW-29-0/1-0	410-9077-12	GG10S04.D	08/10/2020 13:18

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1

SDG No.: _____

Lab File ID: GU11T02.D BFB Injection Date: 06/11/2020

Instrument ID: 16334 BFB Injection Time: 13:27

Analysis Batch No.: 12269

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	22.1
75	30.0 - 60.0 % of mass 95	56.4
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	6.8
173	Less than 2.0 % of mass 174	1.3 (1.4) 1
174	50.0 - 120.00 % of mass 95	93.7
175	5.0 - 9.0 % of mass 174	7.7 (8.2) 1
176	95.0 - 101.0 % of mass 174	90.9 (97.0) 1
177	5.0 - 9.0 % of mass 176	6.4 (7.0) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 410-12269/3	GU11I01.D	06/11/2020	14:22
	ICIS 410-12269/4	GU11I02.D	06/11/2020	14:44
	IC 410-12269/5	GU11I03.D	06/11/2020	15:06
	IC 410-12269/6	GU11I04.D	06/11/2020	15:28
	IC 410-12269/7	GU11I05.D	06/11/2020	15:51
	IC 410-12269/8	GU11I06.D	06/11/2020	16:13
	IC 410-12269/9	GU11I07.D	06/11/2020	16:35
	ICV 410-12269/10	GU11V01.D	06/11/2020	16:57

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1

SDG No.: _____

Lab File ID: GG07T01.D BFB Injection Date: 08/07/2020

Instrument ID: 16334 BFB Injection Time: 22:12

Analysis Batch No.: 30932

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	20.6
75	30.0 - 60.0 % of mass 95	50.6
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	6.6
173	Less than 2.0 % of mass 174	0.9 (1.1) 1
174	50.0 - 120.00 % of mass 95	84.1
175	5.0 - 9.0 % of mass 174	6.4 (7.6) 1
176	95.0 - 101.0 % of mass 174	81.1 (96.5) 1
177	5.0 - 9.0 % of mass 176	5.2 (6.4) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 410-30932/3	GG07C01.D	08/07/2020	22:49
	LCS 410-30932/4	GG07L01.D	08/07/2020	23:11
	MB 410-30932/6	GG07B01.D	08/07/2020	23:56
HD-QC1-0/1-2	410-9077-14	GG07S01.D	08/08/2020	0:22
HD-COD-SW-15-0/1-0	410-9077-6	GG07S08.D	08/08/2020	2:57
HD-COD-SW-15-0/1-0 MS MS	410-9077-6 MS	GG07S09.D	08/08/2020	3:20
HD-COD-SW-15-0/1-0 MSD MSD	410-9077-6 MSD	GG07S10.D	08/08/2020	3:42
HD-COD-SW-6-0/1-0	410-9077-1	GG07S12.D	08/08/2020	4:26
HD-COD-SW-7-0/1-0	410-9077-2	GG07S13.D	08/08/2020	4:48
HD-COD-SW-8-0/1-0	410-9077-3	GG07S14.D	08/08/2020	5:10
HD-COD-SW-9-0/1-0	410-9077-4	GG07S15.D	08/08/2020	5:32
HD-COD-SW-13-0/1-0	410-9077-5	GG07S16.D	08/08/2020	5:55
HD-COD-SW-16-0/1-0	410-9077-7	GG07S17.D	08/08/2020	6:17
HD-COD-SW-17-0/1-0	410-9077-8	GG07S18.D	08/08/2020	6:39
HD-COD-SW-26-0/1-0	410-9077-9	GG07S19.D	08/08/2020	7:01
HD-COD-SW-27-0/1-0	410-9077-10	GG07S20.D	08/08/2020	7:23
HD-COD-SW-28-0/1-0	410-9077-11	GG07S21.D	08/08/2020	7:45
HD-QC1-0/1-1	410-9077-13	GG07S22.D	08/08/2020	8:07

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1

SDG No.: _____

Lab File ID: GG10T01.D BFB Injection Date: 08/10/2020

Instrument ID: 16334 BFB Injection Time: 09:21

Analysis Batch No.: 31280

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.0	
75	30.0 - 60.0 % of mass 95	51.8	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.7	
173	Less than 2.0 % of mass 174	0.8	(0.9) 1
174	50.0 - 120.00 % of mass 95	87.0	
175	5.0 - 9.0 % of mass 174	6.7	(7.7) 1
176	95.0 - 101.0 % of mass 174	84.7	(97.3) 1
177	5.0 - 9.0 % of mass 176	5.2	(6.2) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 410-31280/3	GG09C01.D	08/10/2020	10:03
	LCS 410-31280/4	GG09L01.D	08/10/2020	10:25
	LCSD 410-31280/5	GG09L02.D	08/10/2020	10:47
	MB 410-31280/7	GG09B01.D	08/10/2020	11:31
HD-COD-SW-29-0/1-0	410-9077-12	GG10S04.D	08/10/2020	13:18

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Sample No.: ICIS 410-12269/4 Date Analyzed: 06/11/2020 14:44
 Instrument ID: 16334 GC Column: R-624SilMS 30m ID: 0.25 (mm)
 Lab File ID (Standard): GU11I02.D Heated Purge: (Y/N) N
 Calibration ID: 5635

	TBAd10		FB		CBzd5	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT	157279	4.20	2025090	7.67	1571507	11.16
UPPER LIMIT	314558	4.70	4050180	8.17	3143014	11.66
LOWER LIMIT	78640	3.70	1012545	7.17	785754	10.66
LAB SAMPLE ID	CLIENT SAMPLE ID					
ICV 410-12269/10	141350	4.21	1992694	7.68	1548032	11.16
CCVIS 410-30932/3	139855	4.18	1890205	7.68	1454417	11.15
CCVIS 410-31280/3	170231	4.20	2023592	7.68	1519984	11.15

TBAd10 = t-Butyl alcohol-d10 (IS)
 FB = Fluorobenzene (IS)
 CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 50%-200% of internal standard area
 RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Sample No.: ICIS 410-12269/4 Date Analyzed: 06/11/2020 14:44
 Instrument ID: 16334 GC Column: R-624SilMS 30m ID: 0.25 (mm)
 Lab File ID (Standard): GU11I02.D Heated Purge: (Y/N) N
 Calibration ID: 5635

	DCBd4					
	AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT	862579	13.04				
UPPER LIMIT	1725158	13.54				
LOWER LIMIT	431290	12.54				
LAB SAMPLE ID	CLIENT SAMPLE ID					
ICV 410-12269/10		866545	13.04			
CCVIS 410-30932/3		745948	13.03			
CCVIS 410-31280/3		781010	13.03			

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
 RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Sample No.: CCVIS 410-30932/3 Date Analyzed: 08/07/2020 22:49
 Instrument ID: 16334 GC Column: R-624SilMS 30m ID: 0.25 (mm)
 Lab File ID (Standard): GG07C01.D Heated Purge: (Y/N) N
 Calibration ID: 5646

	TBAd10		FB		CBZd5		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	139855	4.18	1890205	7.68	1454417	11.15	
UPPER LIMIT	279710	4.68	3780410	8.18	2908834	11.65	
LOWER LIMIT	69928	3.68	945103	7.18	727209	10.65	
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-30932/4		155826	4.20	1911400	7.68	1456386	11.16
MB 410-30932/6		114602	4.18	1811052	7.68	1381125	11.15
410-9077-14	HD-QC1-0/1-2	134291	4.19	1825305	7.68	1353619	11.15
410-9077-6	HD-COD-SW-15-0/1-0	135301	4.20	1807628	7.68	1351019	11.16
410-9077-6 MS	HD-COD-SW-15-0/1-0 MS MS	141585	4.18	1912134	7.68	1419310	11.15
410-9077-6 MSD	HD-COD-SW-15-0/1-0 MSD MSD	135639	4.18	1920786	7.68	1420251	11.15
410-9077-1	HD-COD-SW-6-0/1-0	137734	4.20	1806058	7.68	1355847	11.15
410-9077-2	HD-COD-SW-7-0/1-0	141617	4.18	1807802	7.68	1353549	11.15
410-9077-3	HD-COD-SW-8-0/1-0	137904	4.20	1788527	7.68	1332477	11.16
410-9077-4	HD-COD-SW-9-0/1-0	127799	4.20	1816167	7.68	1341786	11.15
410-9077-5	HD-COD-SW-13-0/1-0	137395	4.18	1793475	7.68	1349761	11.15
410-9077-7	HD-COD-SW-16-0/1-0	143823	4.18	1794715	7.68	1343140	11.15
410-9077-8	HD-COD-SW-17-0/1-0	143955	4.18	1809189	7.68	1362351	11.15
410-9077-9	HD-COD-SW-26-0/1-0	134017	4.20	1807055	7.68	1358187	11.15
410-9077-10	HD-COD-SW-27-0/1-0	139445	4.20	1808531	7.68	1342010	11.15
410-9077-11	HD-COD-SW-28-0/1-0	124540	4.18	1790507	7.68	1332153	11.15
410-9077-13	HD-QC1-0/1-1	128196	4.19	1795391	7.68	1331627	11.15

TBAd10 = t-Butyl alcohol-d10 (IS)
 FB = Fluorobenzene (IS)
 CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 50%-200% of internal standard area
 RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Sample No.: CCVIS 410-30932/3 Date Analyzed: 08/07/2020 22:49
 Instrument ID: 16334 GC Column: R-624SilMS 30m ID: 0.25 (mm)
 Lab File ID (Standard): GG07C01.D Heated Purge: (Y/N) N
 Calibration ID: 5646

		DCBd4					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		745948	13.03				
UPPER LIMIT		1491896	13.53				
LOWER LIMIT		372974	12.53				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-30932/4		742594	13.03				
MB 410-30932/6		702807	13.03				
410-9077-14	HD-QC1-0/1-2	672666	13.03				
410-9077-6	HD-COD-SW-15-0/1-0	678527	13.03				
410-9077-6 MS	HD-COD-SW-15-0/1-0 MS	718380	13.03				
410-9077-6 MSD	HD-COD-SW-15-0/1-0 MSD MSD	728656	13.03				
410-9077-1	HD-COD-SW-6-0/1-0	688319	13.03				
410-9077-2	HD-COD-SW-7-0/1-0	672771	13.03				
410-9077-3	HD-COD-SW-8-0/1-0	675365	13.03				
410-9077-4	HD-COD-SW-9-0/1-0	685064	13.03				
410-9077-5	HD-COD-SW-13-0/1-0	685030	13.03				
410-9077-7	HD-COD-SW-16-0/1-0	659476	13.03				
410-9077-8	HD-COD-SW-17-0/1-0	682395	13.03				
410-9077-9	HD-COD-SW-26-0/1-0	681942	13.03				
410-9077-10	HD-COD-SW-27-0/1-0	671361	13.03				
410-9077-11	HD-COD-SW-28-0/1-0	677968	13.03				
410-9077-13	HD-QC1-0/1-1	670619	13.03				

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
 RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Sample No.: CCVIS 410-31280/3 Date Analyzed: 08/10/2020 10:03
 Instrument ID: 16334 GC Column: R-624SilMS 30m ID: 0.25 (mm)
 Lab File ID (Standard): GG09C01.D Heated Purge: (Y/N) N
 Calibration ID: 5635

	TBAd10		FB		CBZd5		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	170231	4.20	2023592	7.68	1519984	11.15	
UPPER LIMIT	340462	4.70	4047184	8.18	3039968	11.65	
LOWER LIMIT	85116	3.70	1011796	7.18	759992	10.65	
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-31280/4	160165	4.20	2018109	7.68	1508465	11.15	
LCSD 410-31280/5	176166	4.21	2037563	7.68	1507692	11.15	
MB 410-31280/7	171705	4.20	1904137	7.68	1424874	11.15	
410-9077-12	HD-COD-SW-29-0/1-0	167318	4.20	1906643	7.68	1420562	11.15

TBAd10 = t-Butyl alcohol-d10 (IS)

FB = Fluorobenzene (IS)

CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 50%-200% of internal standard area

RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Sample No.: CCVIS 410-31280/3 Date Analyzed: 08/10/2020 10:03
 Instrument ID: 16334 GC Column: R-624SilMS 30m ID: 0.25 (mm)
 Lab File ID (Standard): GG09C01.D Heated Purge: (Y/N) N
 Calibration ID: 5635

	DCBd4					
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD	781010	13.03				
UPPER LIMIT	1562020	13.53				
LOWER LIMIT	390505	12.53				
LAB SAMPLE ID	CLIENT SAMPLE ID					
LCS 410-31280/4	786390	13.03				
LCSD 410-31280/5	772320	13.03				
MB 410-31280/7	719142	13.03				
410-9077-12	HD-COD-SW-29-0/1-0	731818	13.03			

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
 RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-6-0/1-0 Lab Sample ID: 410-9077-1
 Matrix: Surface Water Lab File ID: GG07S12.D
 Analysis Method: 8260D Date Collected: 07/28/2020 09:40
 Sample wt/vol: 25 (mL) Date Analyzed: 08/08/2020 04:26
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 30932 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		0.50	0.060
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.060
75-34-3	1,1-Dichloroethane	ND		0.50	0.070
75-35-4	1,1-Dichloroethene	ND		0.50	0.060
107-06-2	1,2-Dichloroethane	ND		0.50	0.050
78-87-5	1,2-Dichloropropane	ND		0.50	0.060
78-93-3	2-Butanone (MEK)	ND		5.0	0.60
591-78-6	2-Hexanone	ND		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70
67-64-1	Acetone	2.4	J	5.0	0.90
107-13-1	Acrylonitrile	ND		5.0	0.40
71-43-2	Benzene	ND		0.50	0.050
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND	^c	0.50	0.070
75-15-0	Carbon disulfide	ND		1.0	0.060
56-23-5	Carbon tetrachloride	ND		0.50	0.070
108-90-7	Chlorobenzene	ND		0.50	0.060
74-97-5	Bromochloromethane	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
75-00-3	Chloroethane	ND		0.50	0.070
67-66-3	Chloroform	ND		0.50	0.090
74-87-3	Chloromethane	0.14	J	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.067	J	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
75-27-4	Bromodichloromethane	ND		0.50	0.050
100-41-4	Ethylbenzene	ND		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.050
75-09-2	Methylene Chloride	ND		0.50	0.070
100-42-5	Styrene	ND		0.50	0.050
127-18-4	Tetrachloroethene	ND		0.50	0.060
108-88-3	Toluene	ND		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-6-0/1-0 Lab Sample ID: 410-9077-1
 Matrix: Surface Water Lab File ID: GG07S12.D
 Analysis Method: 8260D Date Collected: 07/28/2020 09:40
 Sample wt/vol: 25 (mL) Date Analyzed: 08/08/2020 04:26
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 30932 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	0.065	J	0.50	0.060
75-01-4	Vinyl chloride	ND		0.50	0.10
1330-20-7	Xylenes, Total	ND		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	92		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S12.D
 Lims ID: 410-9077-A-1
 Client ID: HD-COD-SW-6-0/1-0
 Sample Type: Client
 Inject. Date: 08-Aug-2020 04:26:30 ALS Bottle#: 17 Worklist Smp#: 18
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-9077-a-1
 Misc. Info.: 410-0007550-018
 Operator ID: MEC29284 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 09-Aug-2020 18:20:24 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1057

First Level Reviewer: campbellme

Date: 09-Aug-2020 18:11:12

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Chloromethane	50	2.136	2.129	0.007	99	10088	0.1443	
7 Vinyl chloride	62		2.245				ND	
9 Bromomethane	94		2.562				ND	
10 Chloroethane	64		2.648				ND	
19 1,1-Dichloroethene	96		3.507				ND	
20 Acetone	43	3.550	3.550	0.000	99	18361	2.39	
25 Carbon disulfide	76	3.806	3.794	0.012	53	4200	0.0313	M
28 Methylene Chloride	84		4.166				ND	
* 29 t-Butyl alcohol-d10 (IS)	65	4.196	4.184	0.012	22	137734	50.0	M
31 Acrylonitrile	53		4.519				ND	
32 Methyl tert-butyl ether	73		4.568				ND	
33 trans-1,2-Dichloroethene	96		4.574				ND	
36 1,1-Dichloroethane	63		5.245				ND	
40 2-Butanone (MEK)	43		6.049				ND	
41 cis-1,2-Dichloroethene	96	6.068	6.086	-0.018	79	3373	0.0674	a
48 Chlorobromomethane	128		6.415				ND	
50 Chloroform	83	6.574	6.568	0.006	18	3400	0.0388	a
\$ 52 Dibromofluoromethane (Surr)	113	6.787	6.787	0.000	93	445839	9.24	
51 1,1,1-Trichloroethane	97		6.793				ND	
56 Carbon tetrachloride	117		6.994				ND	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.238	7.232	0.006	0	90452	9.84	
59 Benzene	78	7.281	7.269	0.012	41	2385	0.0132	7M
60 1,2-Dichloroethane	62	7.348	7.342	0.006	1	2167	0.0332	a
* 63 Fluorobenzene (IS)	96	7.677	7.677	0.000	98	1806058	10.0	
67 Trichloroethene	95	8.140	8.153	-0.013	79	3240	0.0645	a
69 1,2-Dichloropropane	63		8.488				ND	
75 Dichlorobromomethane	83		8.835				ND	
80 cis-1,3-Dichloropropene	75		9.390				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	
\$ 82 Toluene-d8 (Surr)	98	9.695	9.695	0.000	95	1775402	10.0	
83 Toluene	92	9.774	9.774	0.000	96	4511	0.0403	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ug/l	Flags
84 trans-1,3-Dichloropropene	75		10.030				ND	
86 1,1,2-Trichloroethane	97		10.238				ND	
88 Tetrachloroethene	166	10.323	10.317	0.006	83	1439	0.0263	
91 2-Hexanone	43		10.457				ND	
93 Chlorodibromomethane	129		10.609				ND	
94 Ethylene Dibromide	107		10.719				ND	
* 95 Chlorobenzene-d5 (IS)	117	11.152	11.152	0.000	88	1355847	10.0	
97 Chlorobenzene	112		11.183				ND	
S 101 Xylenes, Total	106		11.245				ND	
98 1,1,1,2-Tetrachloroethane	131		11.262				ND	
99 Ethylbenzene	91		11.268				ND	
100 m-Xylene & p-Xylene	106	11.378	11.384	-0.006	0	1774	0.0205	7M
102 o-Xylene	106		11.713				ND	
103 Styrene	104		11.725				ND	
104 Bromoform	173		11.884				ND	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	89	631147	9.57	
109 1,1,2,2-Tetrachloroethane	83		12.255				ND	
* 124 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	97	688319	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MSV_29_826ISS_00007

Amount Added: 1.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S12.D

Injection Date: 08-Aug-2020 04:26:30

Instrument ID: 16334

Operator ID: MEC29284

Lims ID: 410-9077-A-1

Lab Sample ID: 410-9077-1

Worklist Smp#: 18

Client ID: HD-COD-SW-6-0/1-0

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

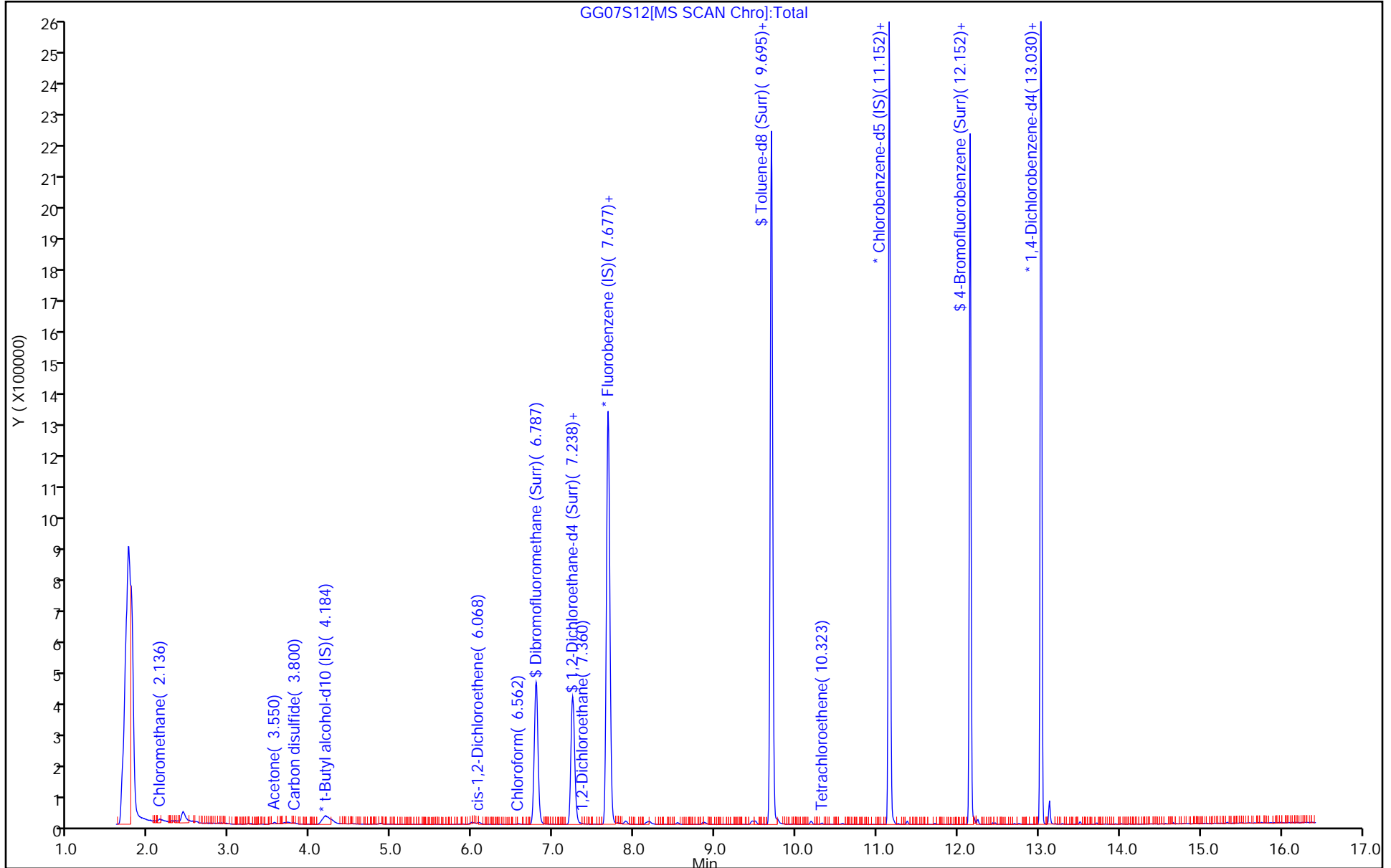
ALS Bottle#: 17

Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S12.D
 Lims ID: 410-9077-A-1
 Client ID: HD-COD-SW-6-0/1-0
 Sample Type: Client
 Inject. Date: 08-Aug-2020 04:26:30 ALS Bottle#: 17 Worklist Smp#: 18
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-9077-a-1
 Misc. Info.: 410-0007550-018
 Operator ID: MEC29284 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 09-Aug-2020 18:20:24 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1057

First Level Reviewer: campbellme Date: 09-Aug-2020 18:11:12

Compound	Amount Added	Amount Recovered	% Rec.
\$ 52 Dibromofluoromethane (Surr)	10.0	9.24	92.41
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	9.84	98.44
\$ 82 Toluene-d8 (Surr)	10.0	10.0	100.03
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.57	95.75

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S12.D

Injection Date: 08-Aug-2020 04:26:30

Instrument ID: 16334

Lims ID: 410-9077-A-1

Lab Sample ID: 410-9077-1

Client ID: HD-COD-SW-6-0/1-0

Operator ID: MEC29284

ALS Bottle#: 17

Worklist Smp#: 18

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

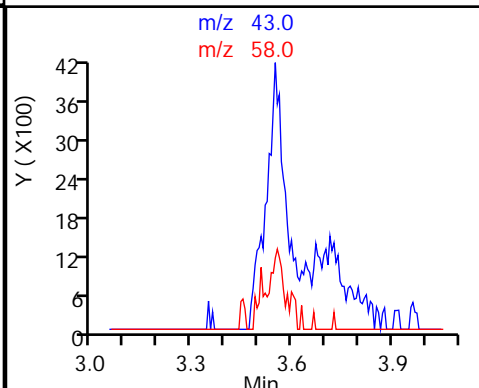
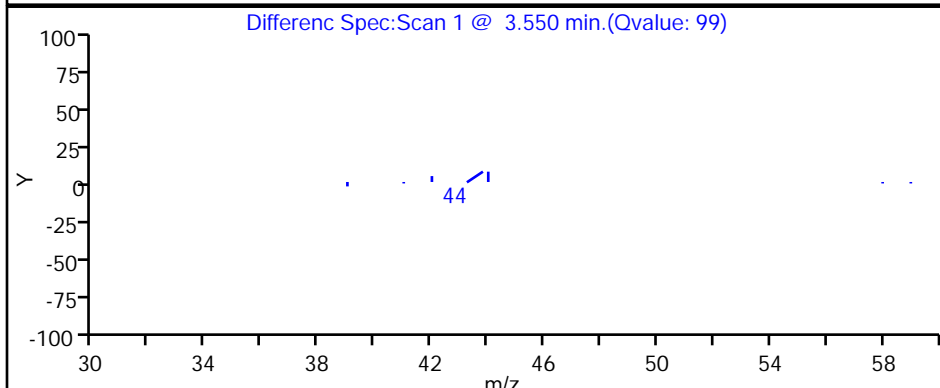
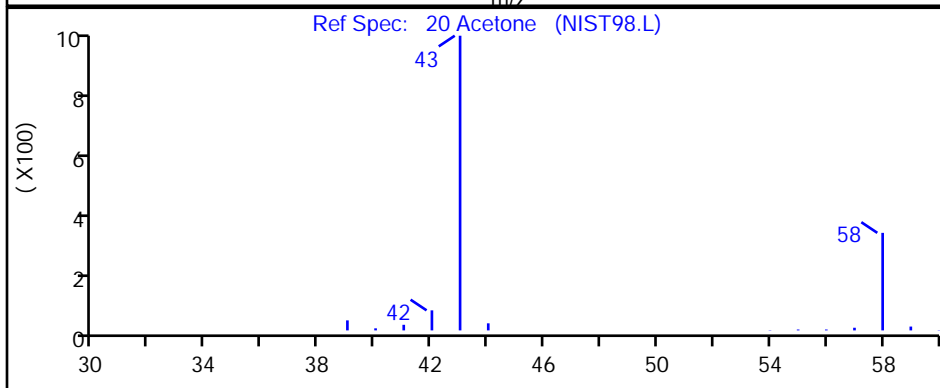
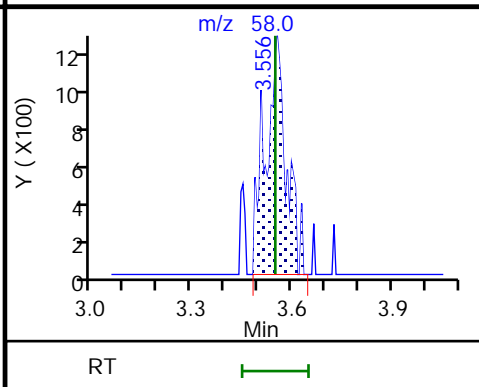
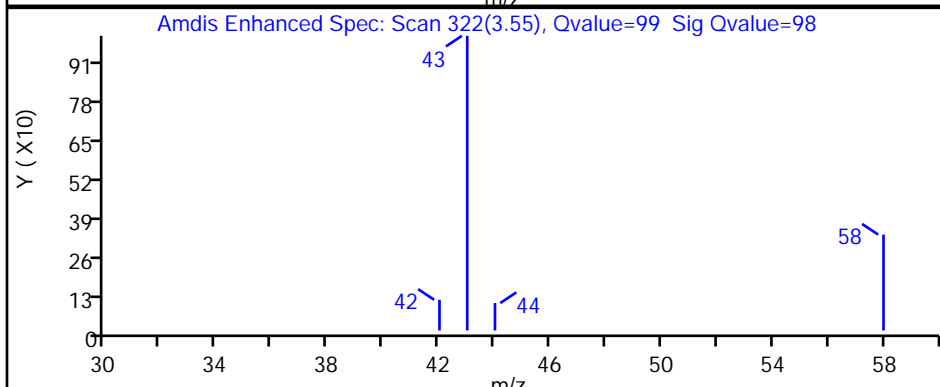
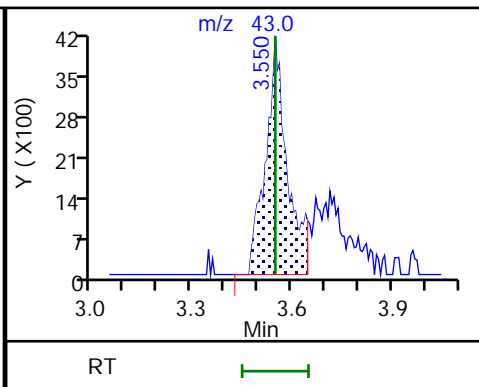
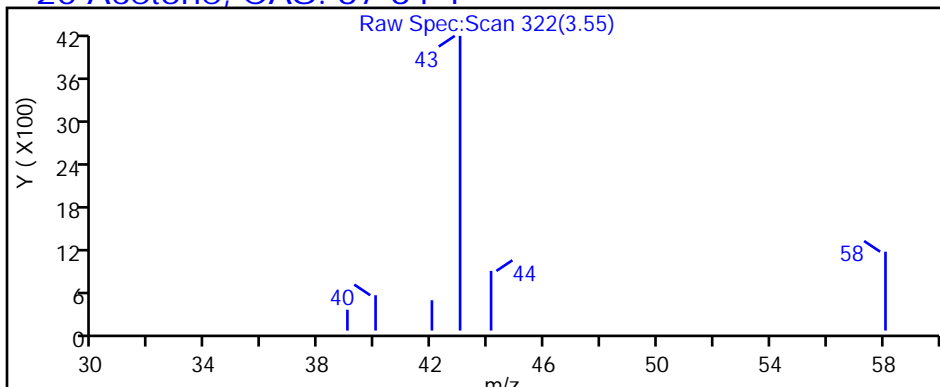
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

20 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S12.D

Injection Date: 08-Aug-2020 04:26:30

Instrument ID: 16334

Lims ID: 410-9077-A-1

Lab Sample ID: 410-9077-1

Client ID: HD-COD-SW-6-0/1-0

Operator ID: MEC29284

ALS Bottle#: 17

Worklist Smp#: 18

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

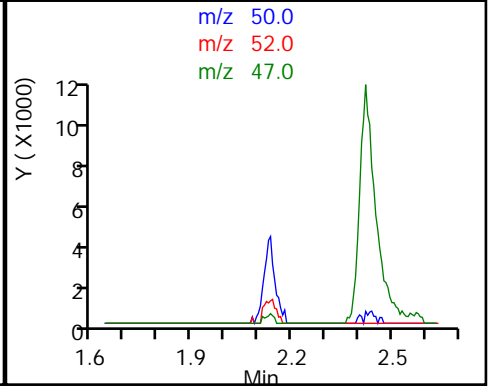
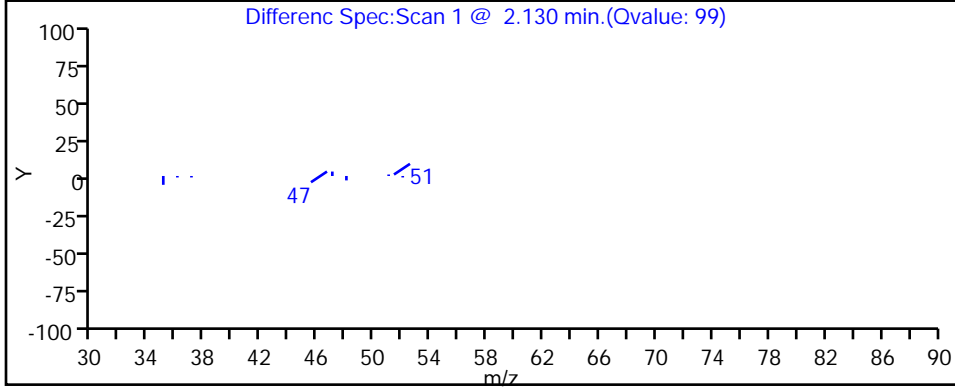
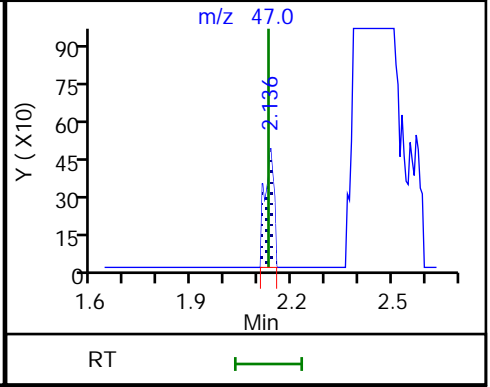
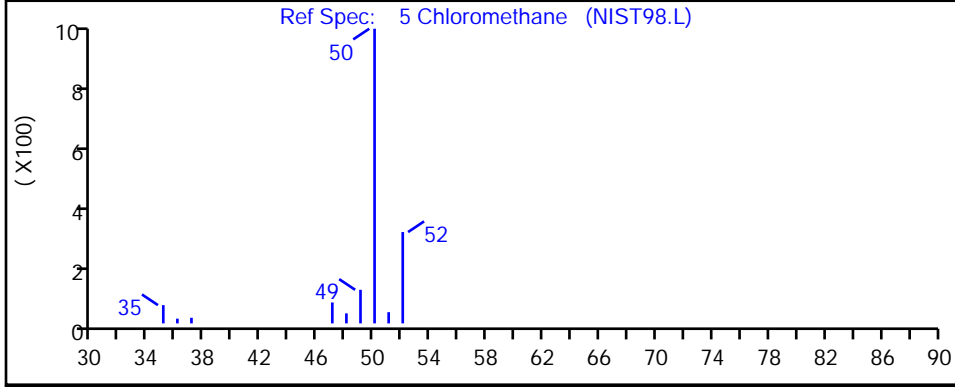
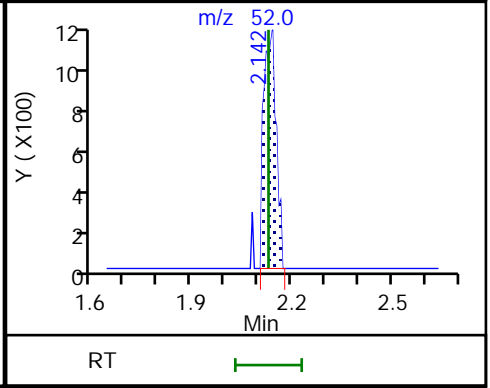
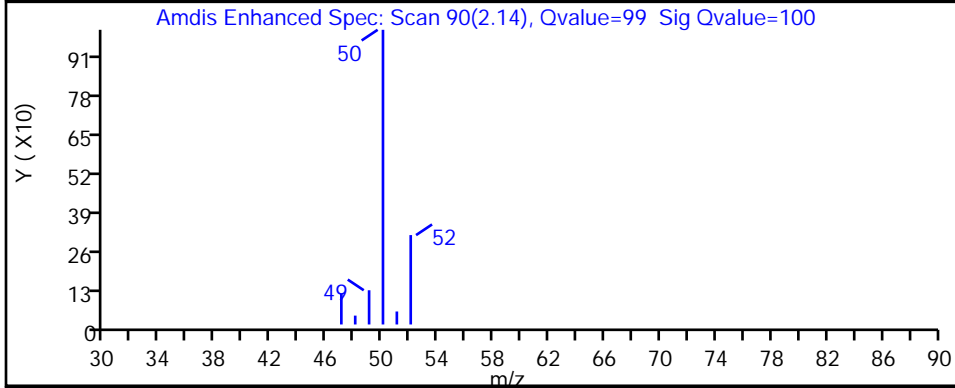
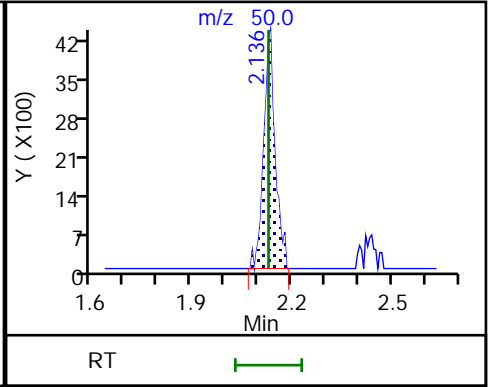
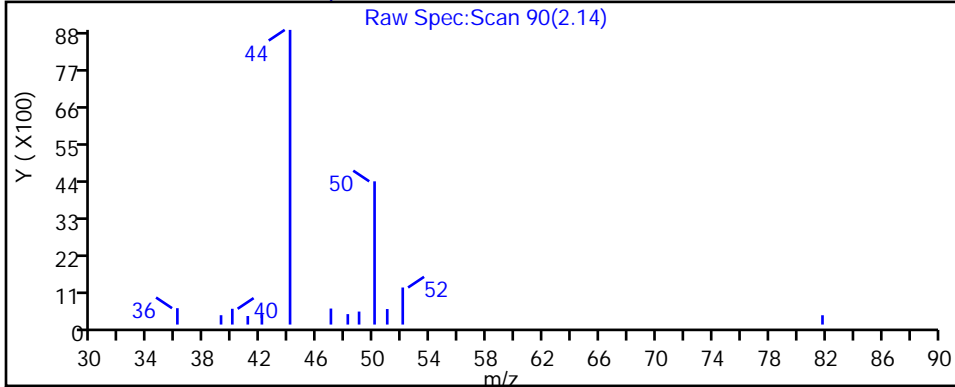
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

5 Chloromethane, CAS: 74-87-3



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S12.D

Injection Date: 08-Aug-2020 04:26:30

Instrument ID: 16334

Lims ID: 410-9077-A-1

Lab Sample ID: 410-9077-1

Client ID: HD-COD-SW-6-0/1-0

Operator ID: MEC29284

ALS Bottle#: 17

Worklist Smp#: 18

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

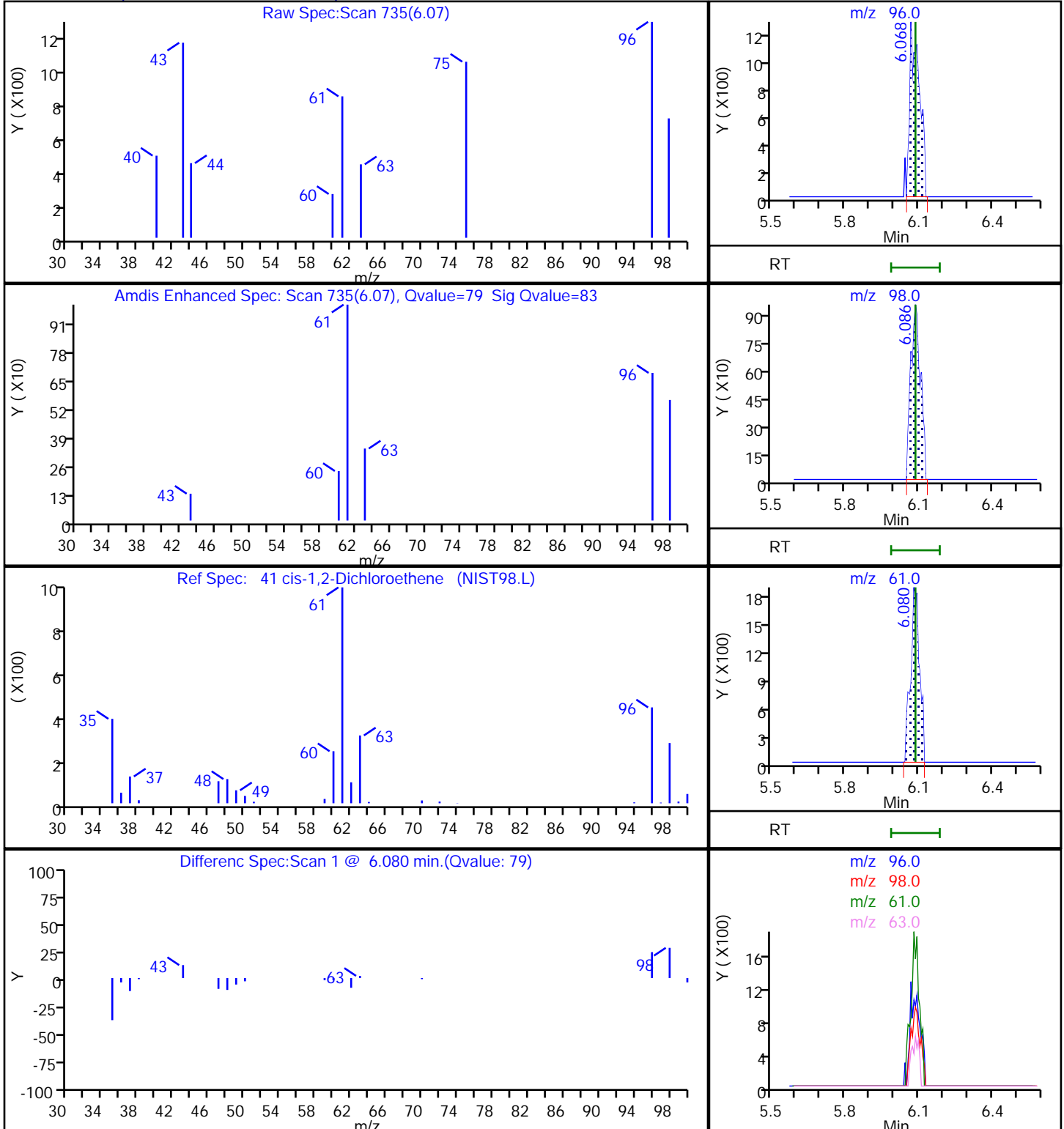
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

41 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S12.D

Injection Date: 08-Aug-2020 04:26:30

Instrument ID: 16334

Lims ID: 410-9077-A-1

Lab Sample ID: 410-9077-1

Client ID: HD-COD-SW-6-0/1-0

Operator ID: MEC29284

ALS Bottle#: 17

Worklist Smp#: 18

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

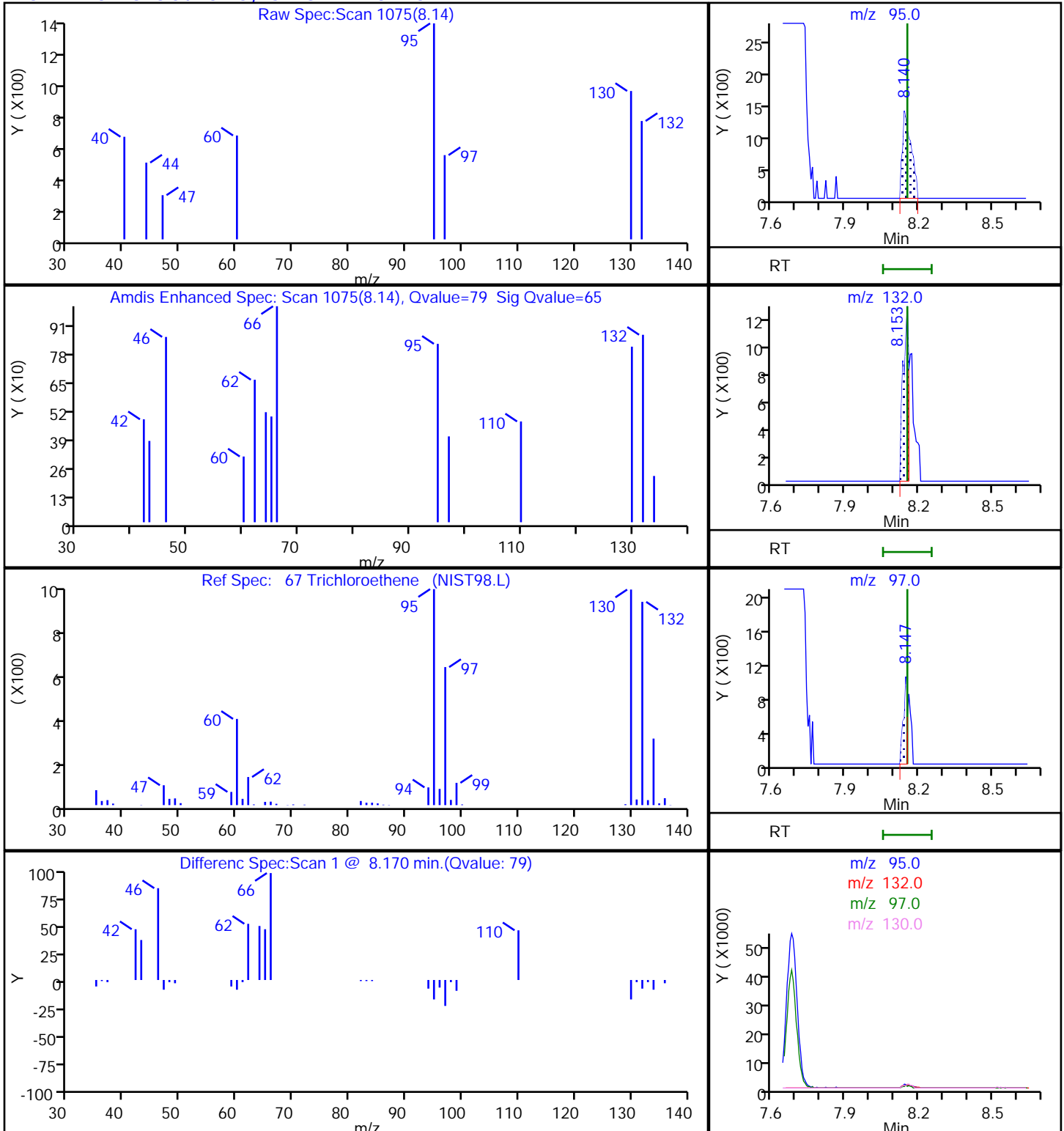
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

67 Trichloroethene, CAS: 79-01-6



Eurofins Lancaster Laboratories Env, LLC

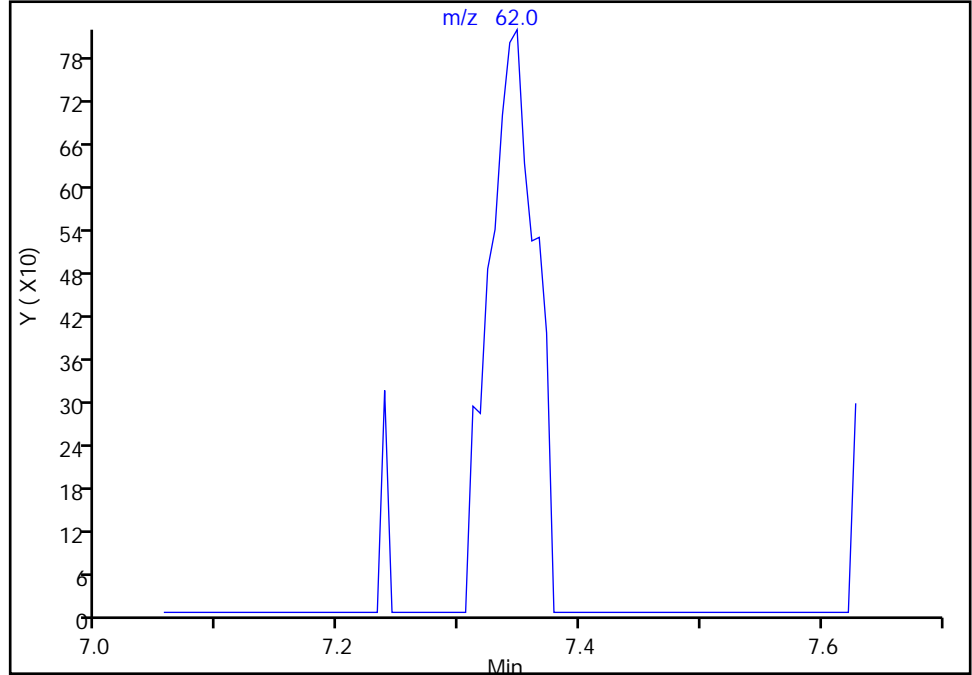
Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S12.D
Injection Date: 08-Aug-2020 04:26:30 Instrument ID: 16334
Lims ID: 410-9077-A-1 Lab Sample ID: 410-9077-1
Client ID: HD-COD-SW-6-0/1-0
Operator ID: MEC29284 ALS Bottle#: 17 Worklist Smp#: 18
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

60 1,2-Dichloroethane, CAS: 107-06-2

Signal: 1

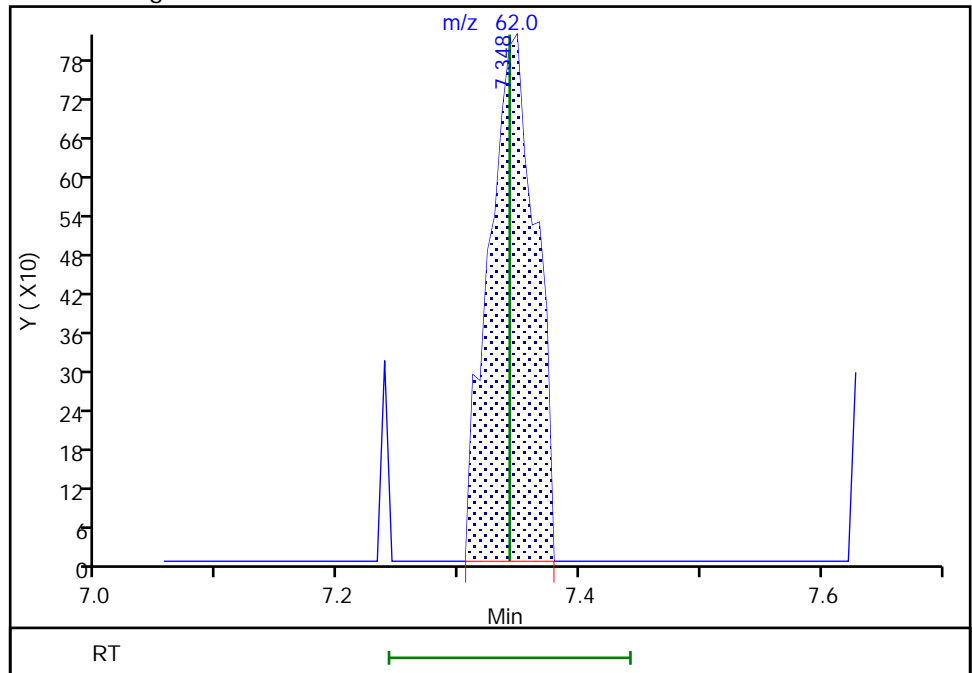
Not Detected
Expected RT: 7.34

Processing Integration Results



Manual Integration Results

RT: 7.35
Area: 2167
Amount: 0.033209
Amount Units: ug/l



Reviewer: campbellme, 09-Aug-2020 18:10:44
Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

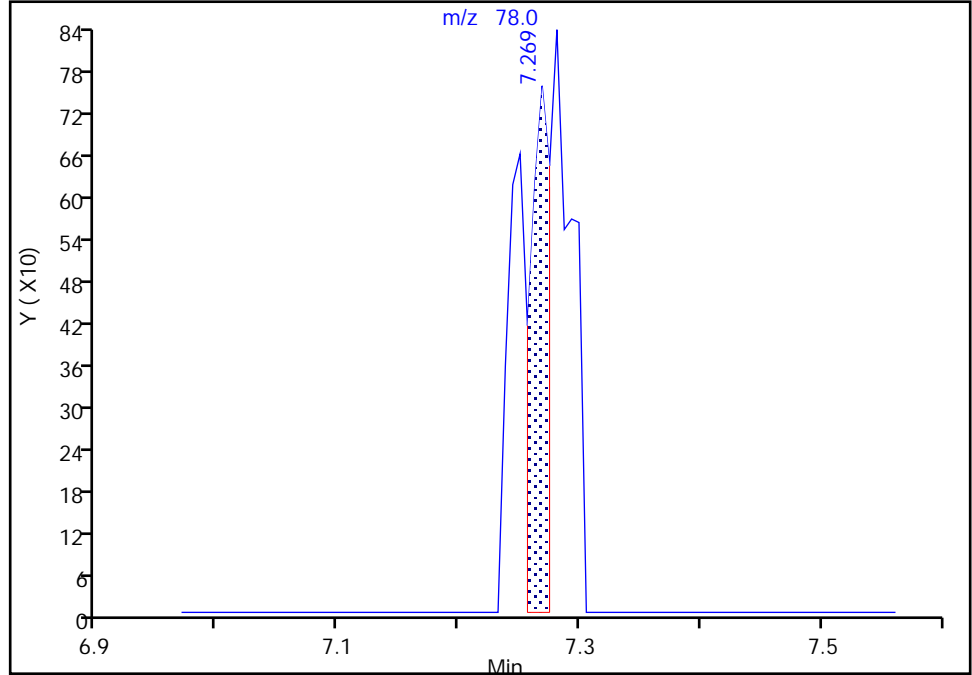
Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S12.D
Injection Date: 08-Aug-2020 04:26:30 Instrument ID: 16334
Lims ID: 410-9077-A-1 Lab Sample ID: 410-9077-1
Client ID: HD-COD-SW-6-0/1-0
Operator ID: MEC29284 ALS Bottle#: 17 Worklist Smp#: 18
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

59 Benzene, CAS: 71-43-2

Signal: 1

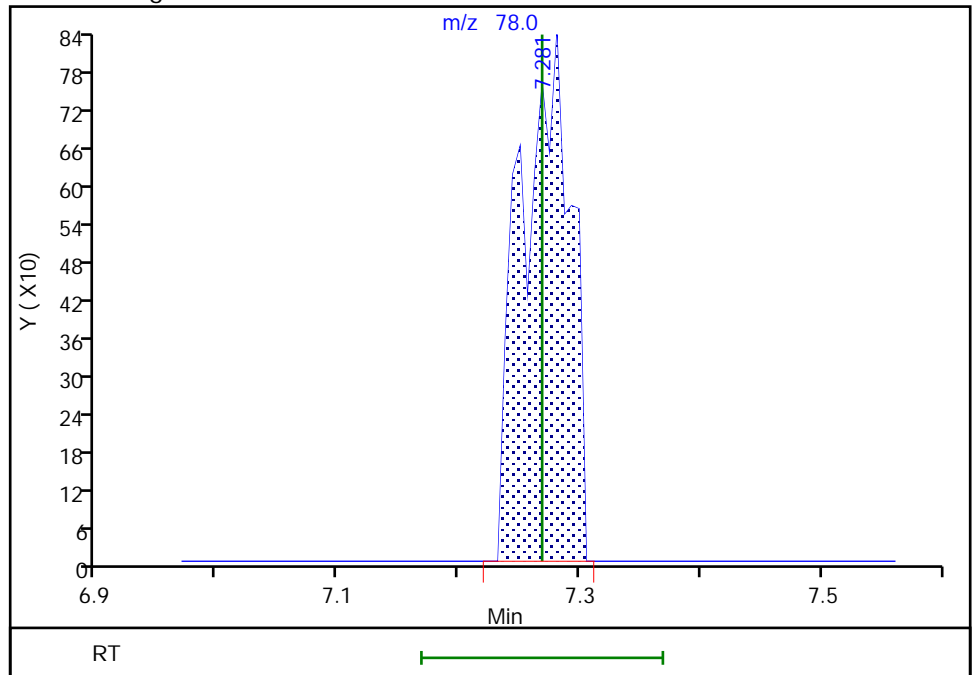
RT: 7.27
Area: 881
Amount: 0.004886
Amount Units: ug/l

Processing Integration Results



RT: 7.28
Area: 2385
Amount: 0.013227
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 09-Aug-2020 18:10:41
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

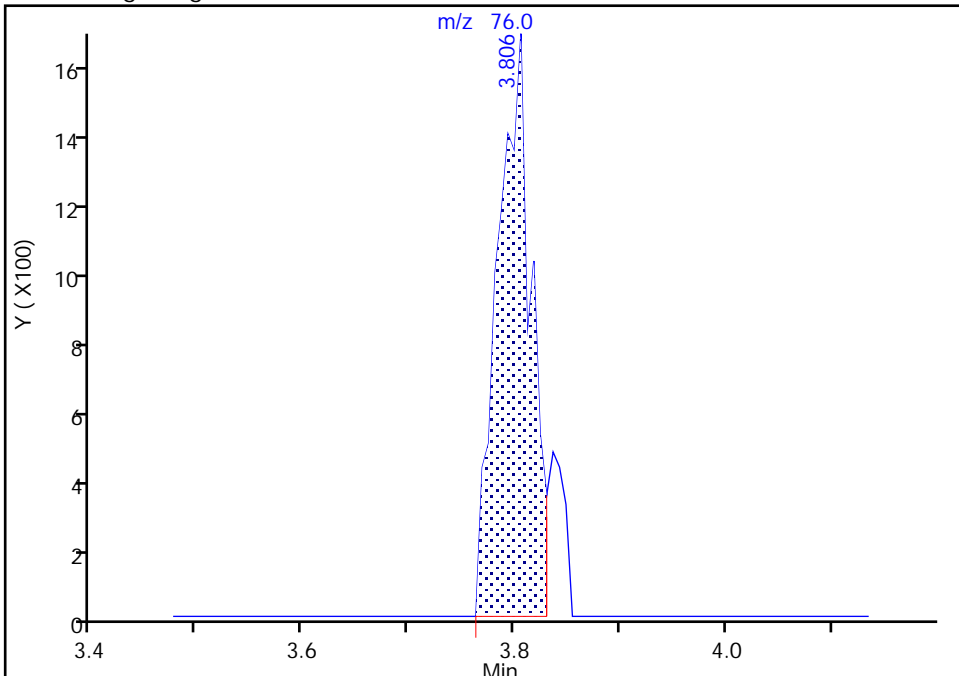
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Injection Date: 08-Aug-2020 04:26:30 Instrument ID: 16334
Lims ID: 410-9077-A-1 Lab Sample ID: 410-9077-1
Client ID: HD-COD-SW-6-0/1-0
Operator ID: MEC29284 ALS Bottle#: 17 Worklist Smp#: 18
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

25 Carbon disulfide, CAS: 75-15-0

Signal: 1

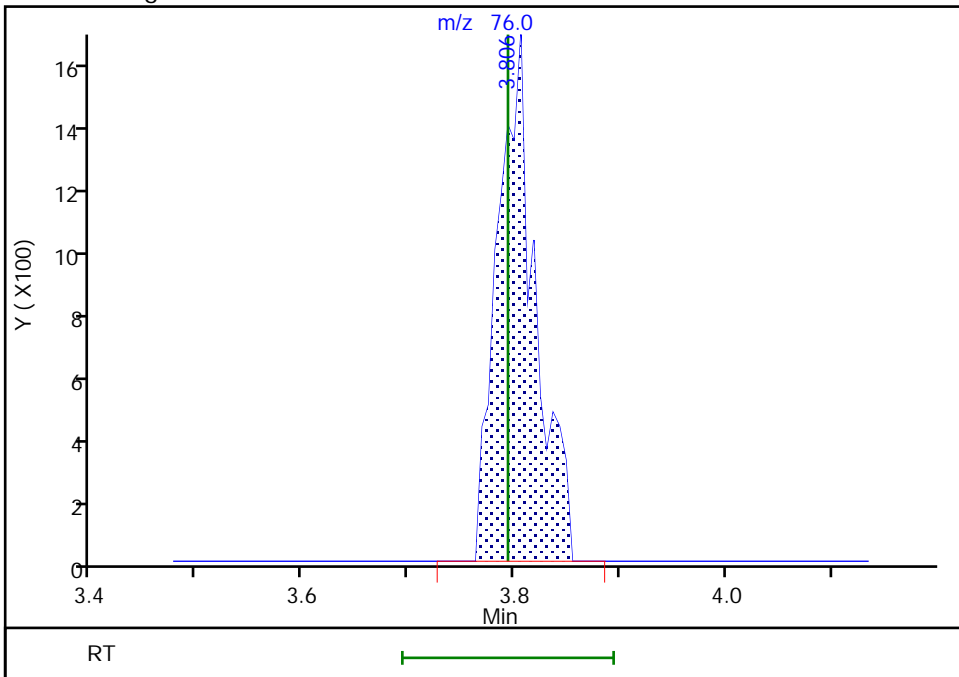
RT: 3.81
Area: 3749
Amount: 0.027905
Amount Units: ug/l

Processing Integration Results



RT: 3.81
Area: 4200
Amount: 0.031262
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 09-Aug-2020 18:10:08
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 247 of 777

Eurofins Lancaster Laboratories Env, LLC

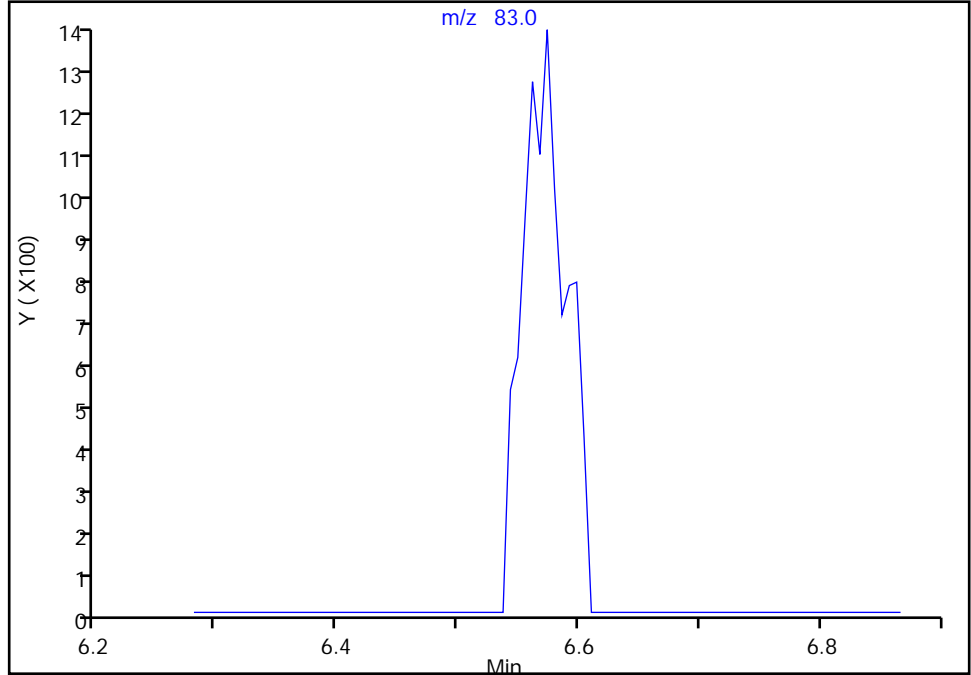
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Injection Date: 08-Aug-2020 04:26:30 Instrument ID: 16334
Lims ID: 410-9077-A-1 Lab Sample ID: 410-9077-1
Client ID: HD-COD-SW-6-0/1-0
Operator ID: MEC29284 ALS Bottle#: 17 Worklist Smp#: 18
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

50 Chloroform, CAS: 67-66-3

Signal: 1

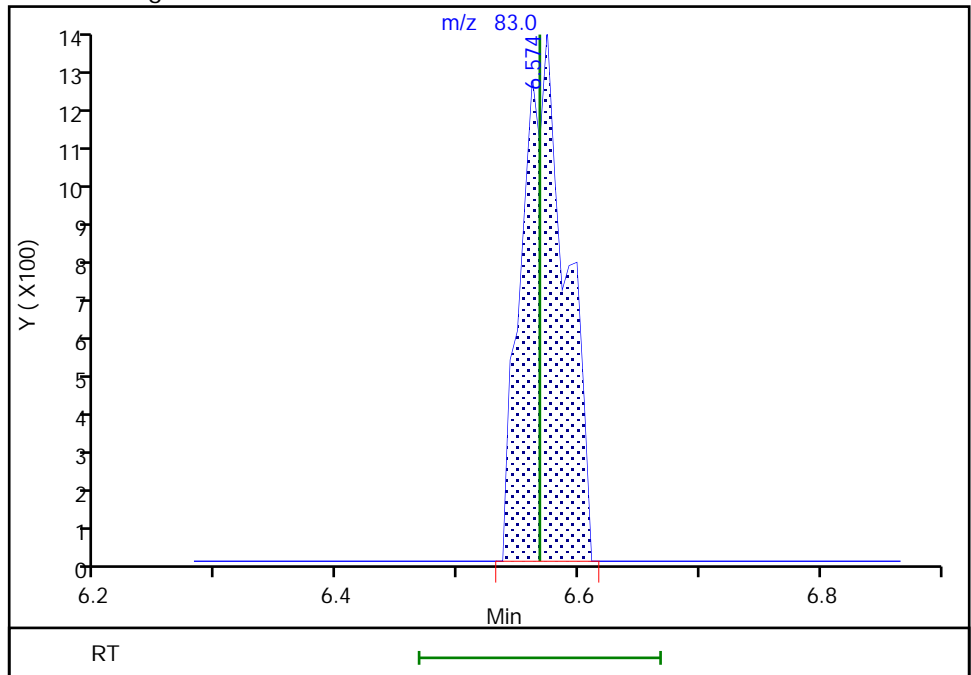
Not Detected
Expected RT: 6.57

Processing Integration Results



Manual Integration Results

RT: 6.57
Area: 3400
Amount: 0.038845
Amount Units: ug/l



Reviewer: campbellme, 09-Aug-2020 18:10:32
Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

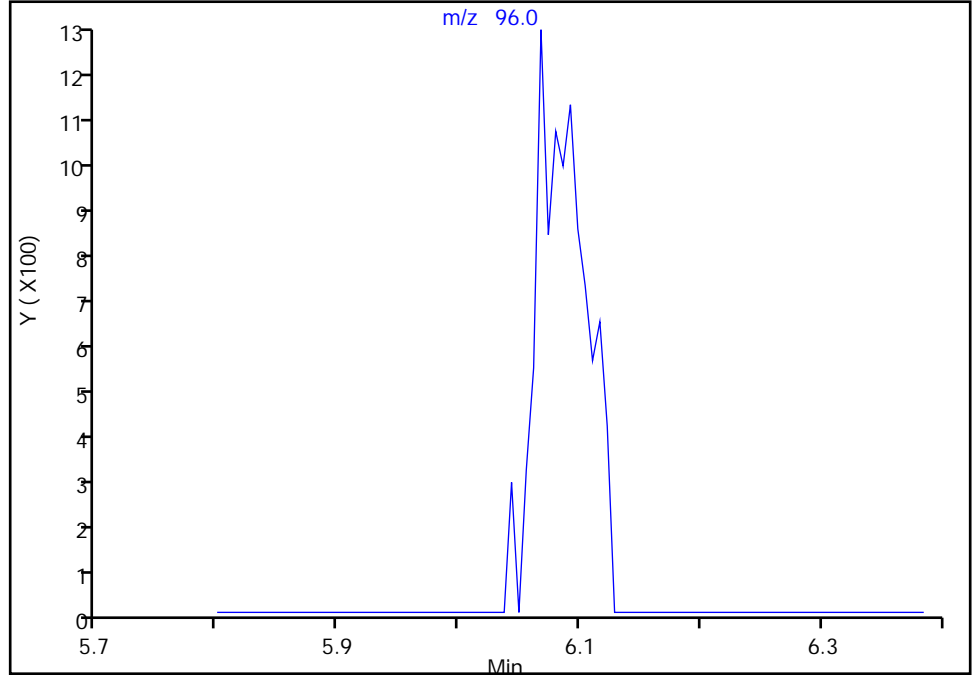
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Injection Date: 08-Aug-2020 04:26:30 Instrument ID: 16334
Lims ID: 410-9077-A-1 Lab Sample ID: 410-9077-1
Client ID: HD-COD-SW-6-0/1-0
Operator ID: MEC29284 ALS Bottle#: 17 Worklist Smp#: 18
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

41 cis-1,2-Dichloroethene, CAS: 156-59-2

Signal: 1

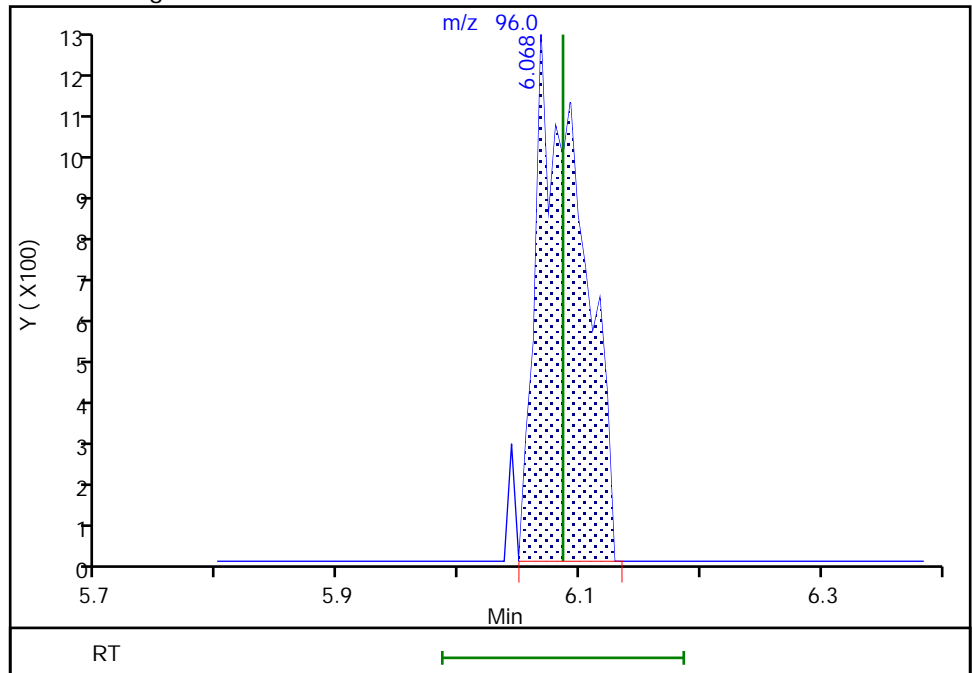
Not Detected
Expected RT: 6.09

Processing Integration Results



Manual Integration Results

RT: 6.07
Area: 3373
Amount: 0.067354
Amount Units: ug/l



Reviewer: campbellme, 09-Aug-2020 18:10:27

Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

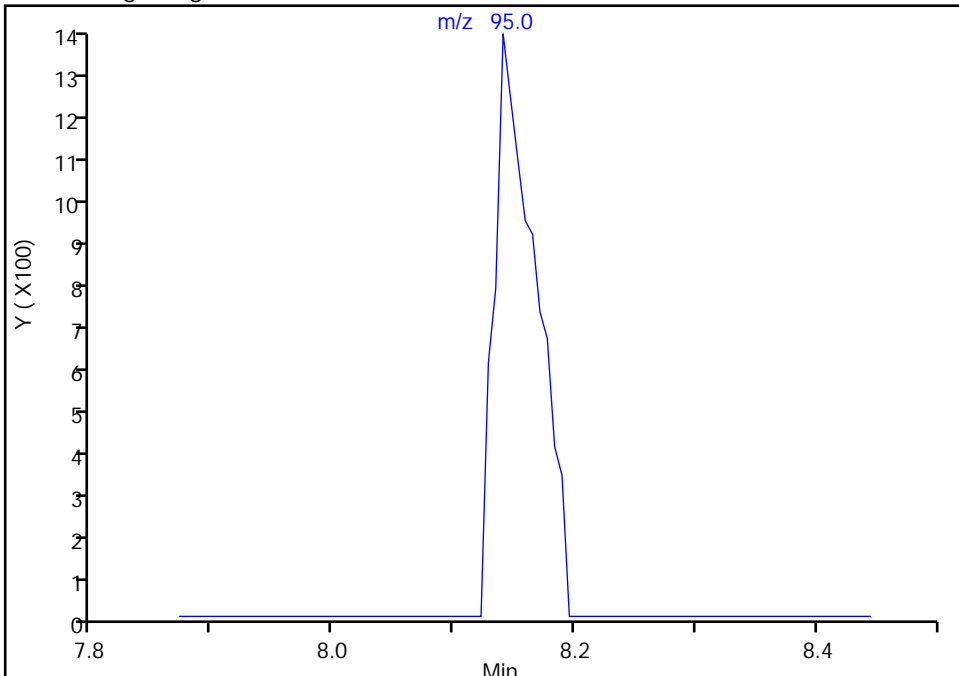
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Injection Date: 08-Aug-2020 04:26:30 Instrument ID: 16334
Lims ID: 410-9077-A-1 Lab Sample ID: 410-9077-1
Client ID: HD-COD-SW-6-0/1-0
Operator ID: MEC29284 ALS Bottle#: 17 Worklist Smp#: 18
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

67 Trichloroethene, CAS: 79-01-6

Signal: 1

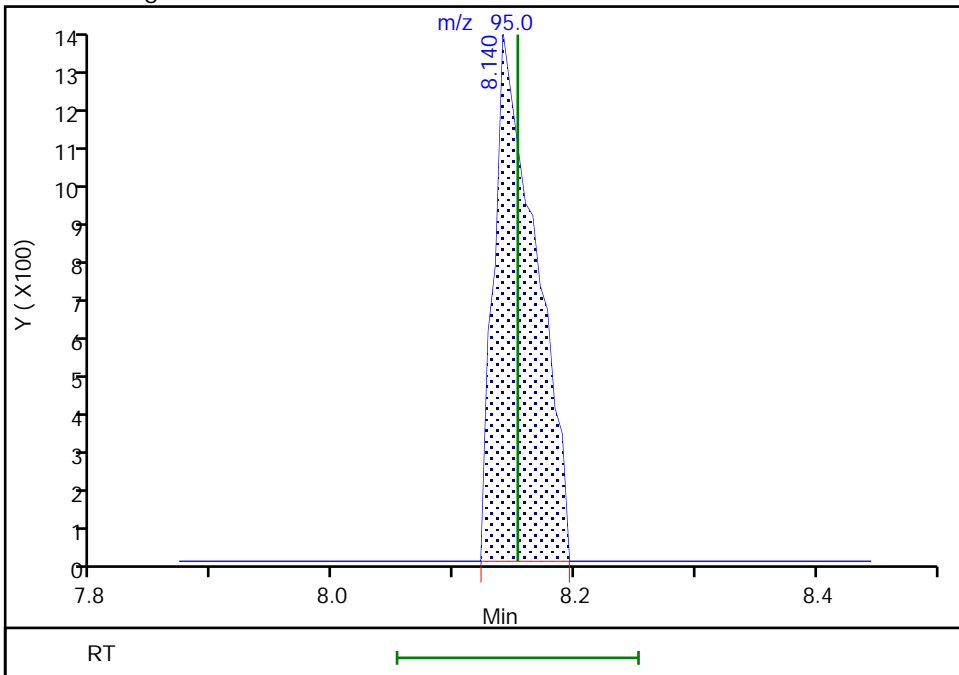
Not Detected
Expected RT: 8.15

Processing Integration Results



Manual Integration Results

RT: 8.14
Area: 3240
Amount: 0.064523
Amount Units: ug/l



Reviewer: campbellme, 09-Aug-2020 18:10:49
Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration
Page 250 of 777

Eurofins Lancaster Laboratories Env, LLC

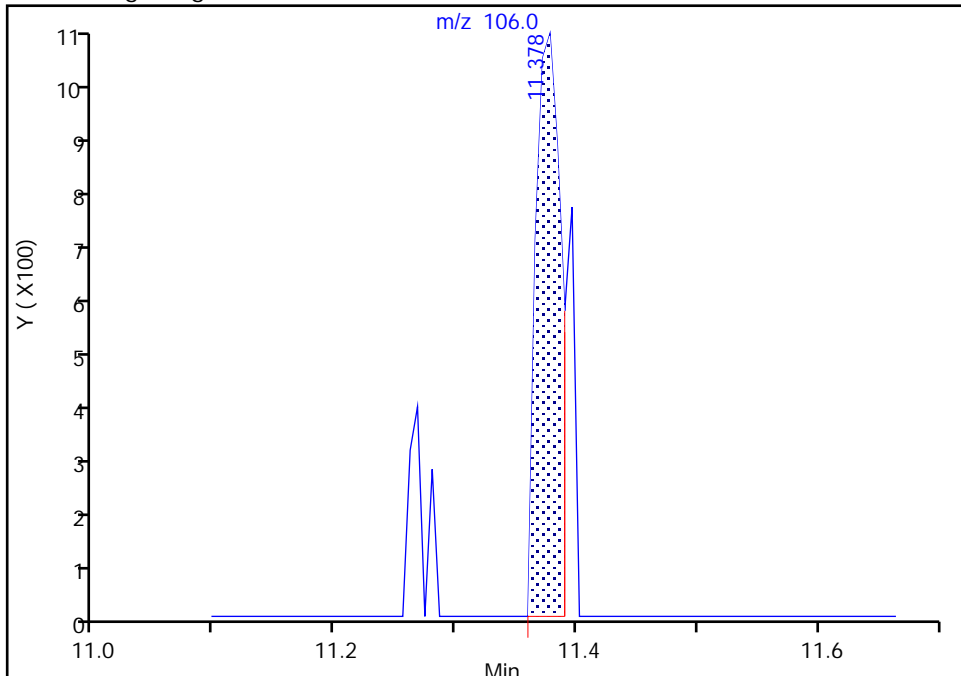
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Injection Date: 08-Aug-2020 04:26:30 Instrument ID: 16334
Lims ID: 410-9077-A-1 Lab Sample ID: 410-9077-1
Client ID: HD-COD-SW-6-0/1-0
Operator ID: MEC29284 ALS Bottle#: 17 Worklist Smp#: 18
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

100 m-Xylene & p-Xylene, CAS: 179601-23-1

Signal: 1

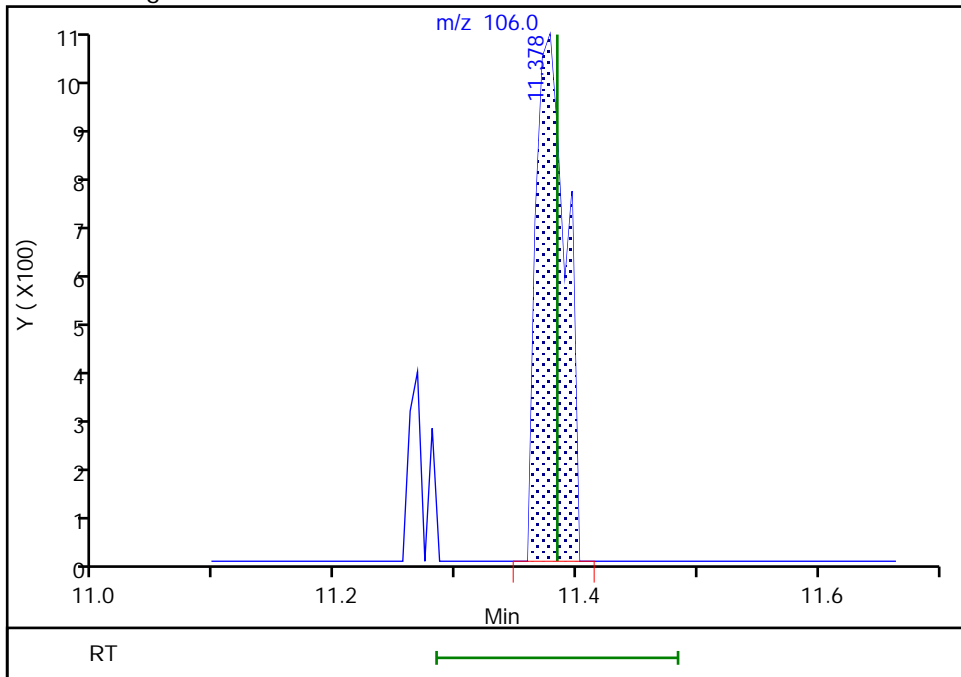
RT: 11.38
Area: 1506
Amount: 0.017403
Amount Units: ug/l

Processing Integration Results



RT: 11.38
Area: 1774
Amount: 0.020500
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 09-Aug-2020 18:11:05
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

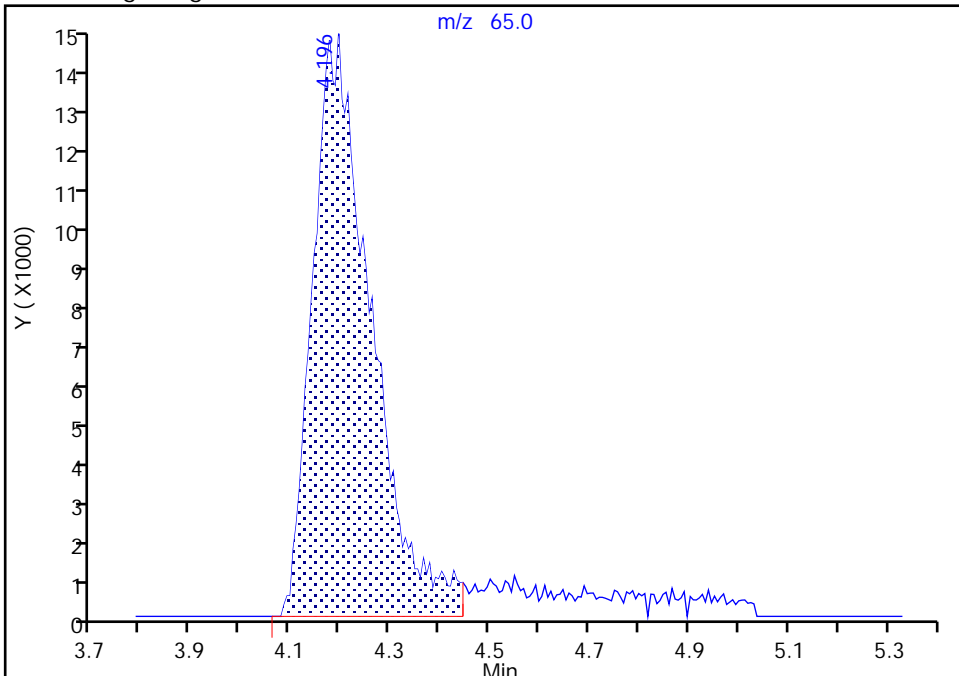
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Injection Date: 08-Aug-2020 04:26:30 Instrument ID: 16334
Lims ID: 410-9077-A-1 Lab Sample ID: 410-9077-1
Client ID: HD-COD-SW-6-0/1-0
Operator ID: MEC29284 ALS Bottle#: 17 Worklist Smp#: 18
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 29 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

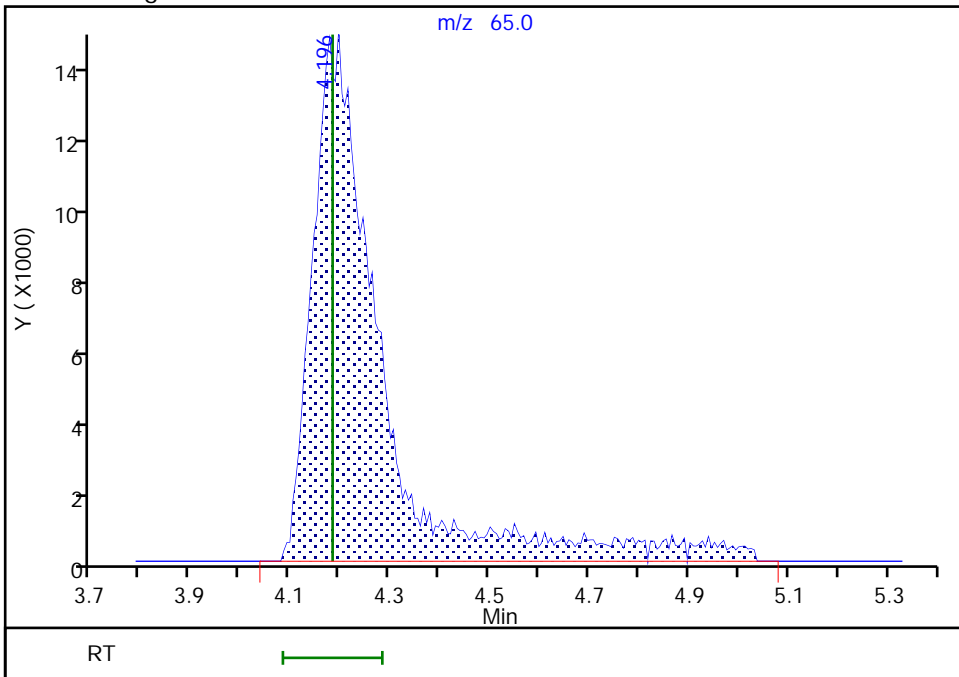
RT: 4.20
Area: 118930
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.20
Area: 137734
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 09-Aug-2020 18:10:19
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-7-0/1-0 Lab Sample ID: 410-9077-2
 Matrix: Surface Water Lab File ID: GG07S13.D
 Analysis Method: 8260D Date Collected: 07/28/2020 10:25
 Sample wt/vol: 25 (mL) Date Analyzed: 08/08/2020 04:48
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 30932 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		0.50	0.060
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.060
75-34-3	1,1-Dichloroethane	ND		0.50	0.070
75-35-4	1,1-Dichloroethene	ND		0.50	0.060
107-06-2	1,2-Dichloroethane	ND		0.50	0.050
78-87-5	1,2-Dichloropropane	ND		0.50	0.060
78-93-3	2-Butanone (MEK)	ND		5.0	0.60
591-78-6	2-Hexanone	ND		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70
67-64-1	Acetone	1.8	J	5.0	0.90
107-13-1	Acrylonitrile	ND		5.0	0.40
71-43-2	Benzene	ND		0.50	0.050
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND	^c	0.50	0.070
75-15-0	Carbon disulfide	ND		1.0	0.060
56-23-5	Carbon tetrachloride	ND		0.50	0.070
108-90-7	Chlorobenzene	ND		0.50	0.060
74-97-5	Bromochloromethane	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
75-00-3	Chloroethane	ND		0.50	0.070
67-66-3	Chloroform	0.11	J	0.50	0.090
74-87-3	Chloromethane	0.063	J	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.080	J	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
75-27-4	Bromodichloromethane	ND		0.50	0.050
100-41-4	Ethylbenzene	ND		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.050
75-09-2	Methylene Chloride	ND		0.50	0.070
100-42-5	Styrene	ND		0.50	0.050
127-18-4	Tetrachloroethene	ND		0.50	0.060
108-88-3	Toluene	ND		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-7-0/1-0 Lab Sample ID: 410-9077-2
 Matrix: Surface Water Lab File ID: GG07S13.D
 Analysis Method: 8260D Date Collected: 07/28/2020 10:25
 Sample wt/vol: 25 (mL) Date Analyzed: 08/08/2020 04:48
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 30932 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	0.081	J	0.50	0.060
75-01-4	Vinyl chloride	ND		0.50	0.10
1330-20-7	Xylenes, Total	ND		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		80-120
460-00-4	4-Bromofluorobenzene (Surr)	94		80-120
1868-53-7	Dibromofluoromethane (Surr)	92		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S13.D
 Lims ID: 410-9077-A-2
 Client ID: HD-COD-SW-7-0/1-0
 Sample Type: Client
 Inject. Date: 08-Aug-2020 04:48:30 ALS Bottle#: 18 Worklist Smp#: 19
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-9077-a-2
 Misc. Info.: 410-0007550-019
 Operator ID: MEC29284 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 09-Aug-2020 18:20:24 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1057

First Level Reviewer: campbellme

Date: 09-Aug-2020 18:12:20

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Chloromethane	50	2.123	2.129	-0.006	97	4384	0.0627	
7 Vinyl chloride	62		2.245				ND	
9 Bromomethane	94		2.562				ND	
10 Chloroethane	64		2.648				ND	
19 1,1-Dichloroethene	96		3.507				ND	
20 Acetone	43	3.556	3.550	0.006	98	13917	1.76	
25 Carbon disulfide	76		3.794				ND	
28 Methylene Chloride	84		4.166				ND	
* 29 t-Butyl alcohol-d10 (IS)	65	4.178	4.184	-0.006	22	141617	50.0	M
31 Acrylonitrile	53		4.519				ND	
32 Methyl tert-butyl ether	73		4.568				ND	
33 trans-1,2-Dichloroethene	96		4.574				ND	
36 1,1-Dichloroethane	63		5.245				ND	
40 2-Butanone (MEK)	43		6.049				ND	
41 cis-1,2-Dichloroethene	96	6.098	6.086	0.012	77	4015	0.0801	a
48 Chlorobromomethane	128		6.415				ND	
50 Chloroform	83	6.574	6.568	0.006	93	9690	0.1106	
\$ 52 Dibromofluoromethane (Surr)	113	6.787	6.787	0.000	93	443889	9.19	
51 1,1,1-Trichloroethane	97		6.793				ND	
56 Carbon tetrachloride	117		6.994				ND	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.244	7.232	0.012	0	91206	9.92	
59 Benzene	78	7.275	7.269	0.006	52	2389	0.0132	Ma
60 1,2-Dichloroethane	62	7.354	7.342	0.012	1	1962	0.0300	a
* 63 Fluorobenzene (IS)	96	7.677	7.677	0.000	98	1807802	10.0	
67 Trichloroethene	95	8.153	8.153	0.000	86	4069	0.0810	M
69 1,2-Dichloropropane	63		8.488				ND	
75 Dichlorobromomethane	83		8.835				ND	
80 cis-1,3-Dichloropropene	75		9.390				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	
\$ 82 Toluene-d8 (Surr)	98	9.695	9.695	0.000	95	1766570	9.97	
83 Toluene	92	9.774	9.774	0.000	96	4416	0.0395	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
84 trans-1,3-Dichloropropene	75		10.030				ND	
86 1,1,2-Trichloroethane	97		10.238				ND	
88 Tetrachloroethene	166	10.317	10.317	0.000	89	3167	0.0579	
91 2-Hexanone	43		10.457				ND	
93 Chlorodibromomethane	129		10.609				ND	
94 Ethylene Dibromide	107		10.719				ND	
* 95 Chlorobenzene-d5 (IS)	117	11.152	11.152	0.000	88	1353549	10.0	
97 Chlorobenzene	112		11.183				ND	
S 101 Xylenes, Total	106		11.245				ND	
98 1,1,1,2-Tetrachloroethane	131		11.262				ND	
99 Ethylbenzene	91		11.268				ND	
100 m-Xylene & p-Xylene	106		11.384				ND	
102 o-Xylene	106		11.713				ND	
103 Styrene	104		11.725				ND	
104 Bromoform	173		11.884				ND	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	89	621057	9.44	
109 1,1,2,2-Tetrachloroethane	83		12.255				ND	
* 124 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	96	672771	10.0	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MSV_29_826ISS_00007

Amount Added: 1.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S13.D

Injection Date: 08-Aug-2020 04:48:30

Instrument ID: 16334

Operator ID: MEC29284

Lims ID: 410-9077-A-2

Lab Sample ID: 410-9077-2

Worklist Smp#: 19

Client ID: HD-COD-SW-7-0/1-0

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

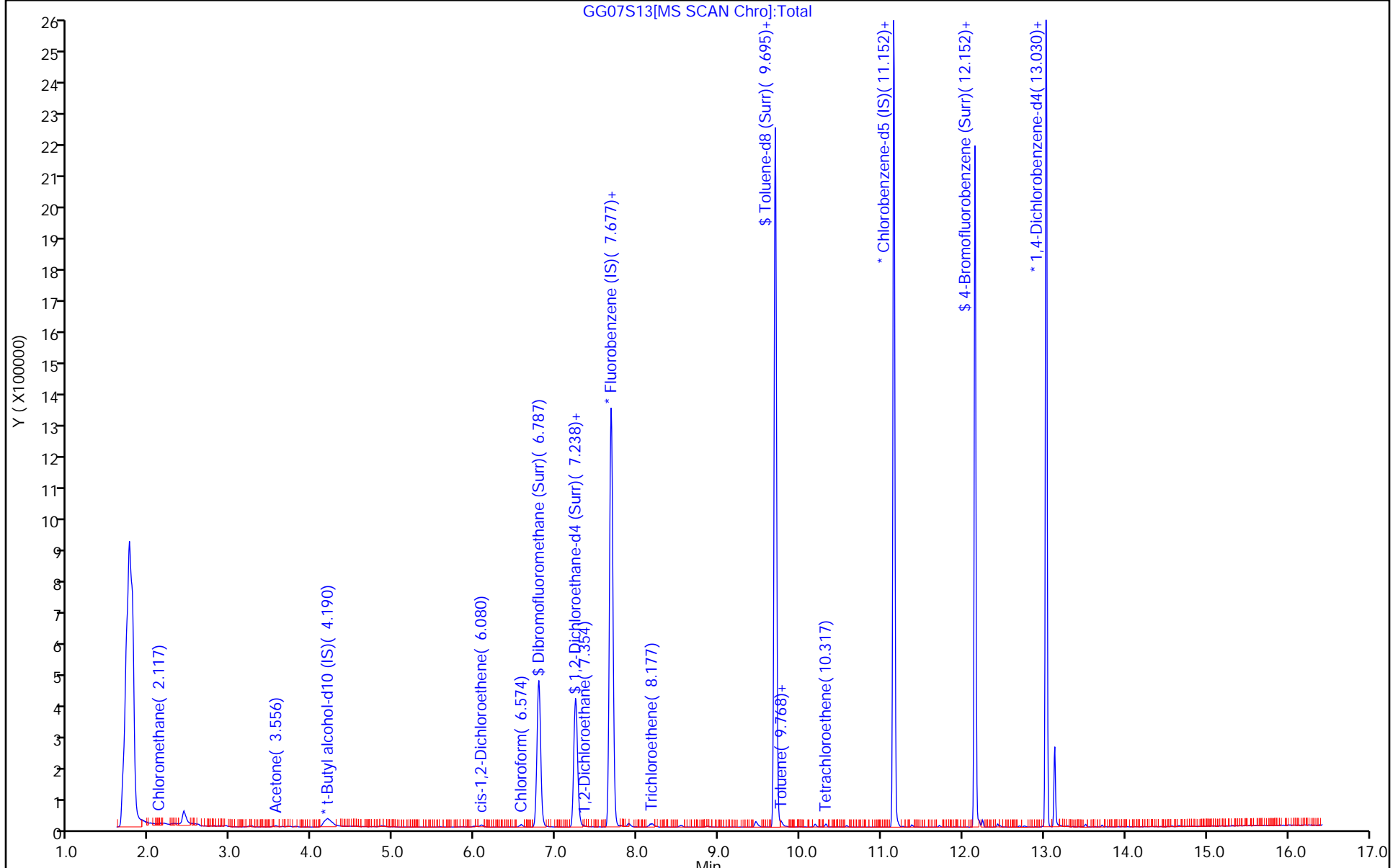
ALS Bottle#: 18

Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S13.D
 Lims ID: 410-9077-A-2
 Client ID: HD-COD-SW-7-0/1-0
 Sample Type: Client
 Inject. Date: 08-Aug-2020 04:48:30 ALS Bottle#: 18 Worklist Smp#: 19
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-9077-a-2
 Misc. Info.: 410-0007550-019
 Operator ID: MEC29284 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 09-Aug-2020 18:20:24 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1057

First Level Reviewer: campbellme Date: 09-Aug-2020 18:12:20

Compound	Amount Added	Amount Recovered	% Rec.
\$ 52 Dibromofluoromethane (Surr)	10.0	9.19	91.92
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	9.92	99.16
\$ 82 Toluene-d8 (Surr)	10.0	9.97	99.70
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.44	94.38

Euromins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S13.D

Injection Date: 08-Aug-2020 04:48:30

Instrument ID: 16334

Lims ID: 410-9077-A-2

Lab Sample ID: 410-9077-2

Client ID: HD-COD-SW-7-0/1-0

Operator ID: MEC29284

ALS Bottle#: 18

Worklist Smp#: 19

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

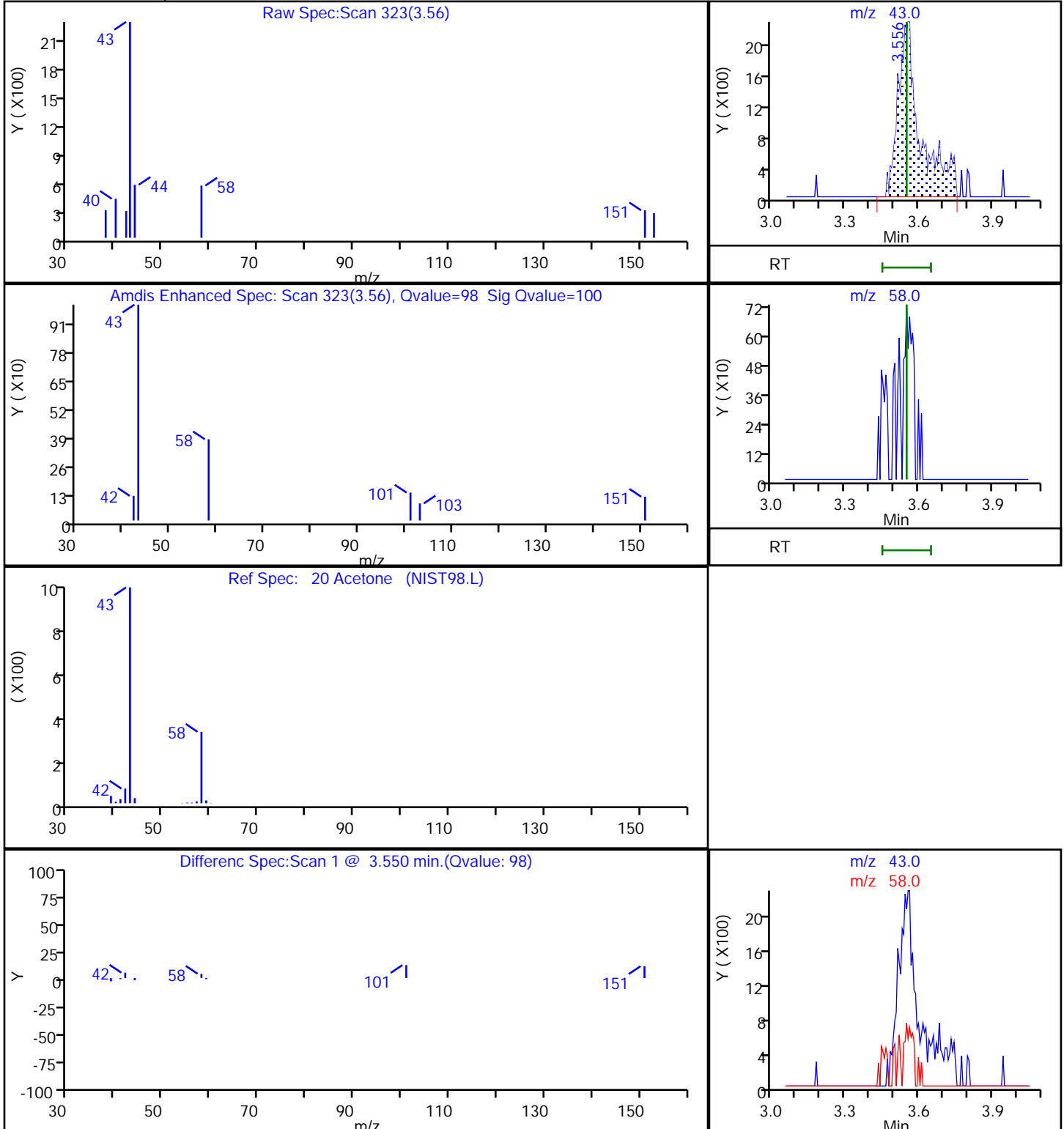
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector

MS Quad

20 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S13.D

Injection Date: 08-Aug-2020 04:48:30

Instrument ID: 16334

Lims ID: 410-9077-A-2

Lab Sample ID: 410-9077-2

Client ID: HD-COD-SW-7-0/1-0

Operator ID: MEC29284

ALS Bottle#: 18

Worklist Smp#: 19

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

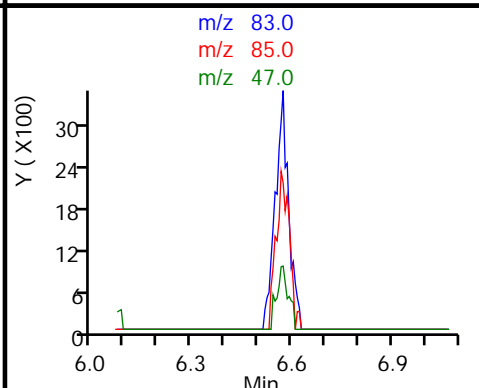
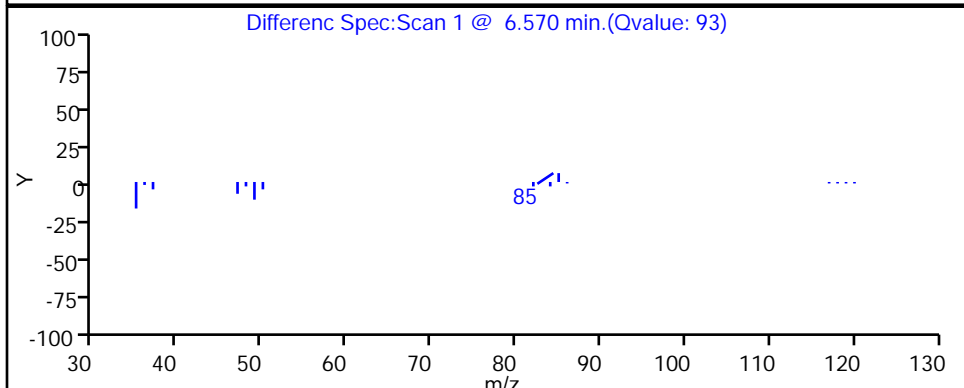
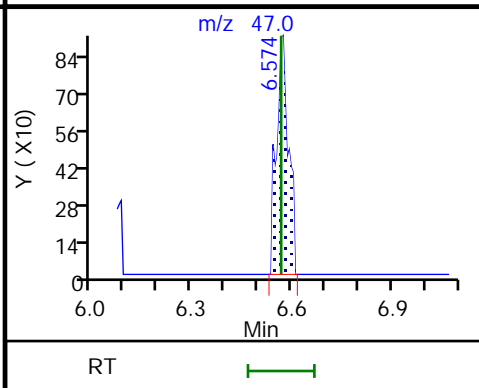
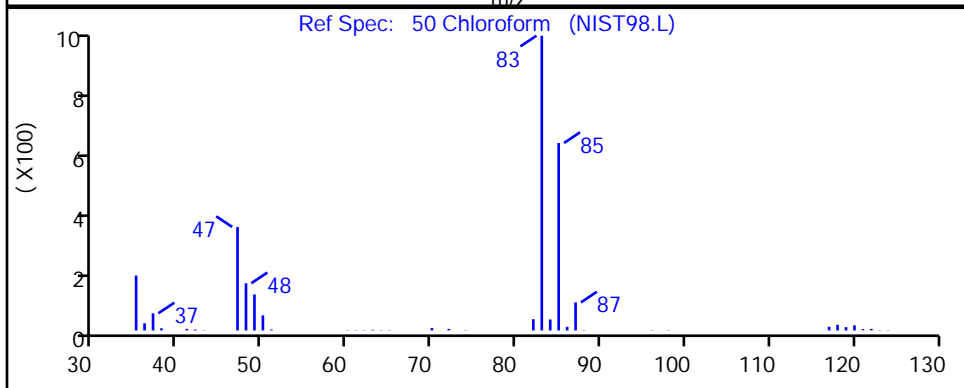
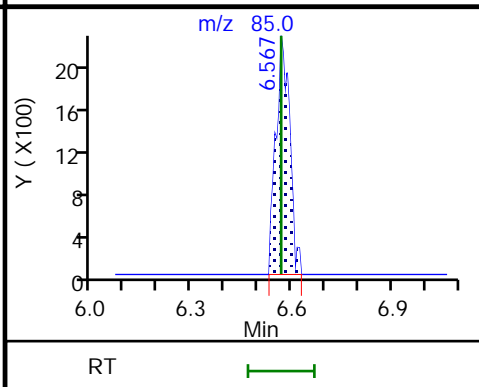
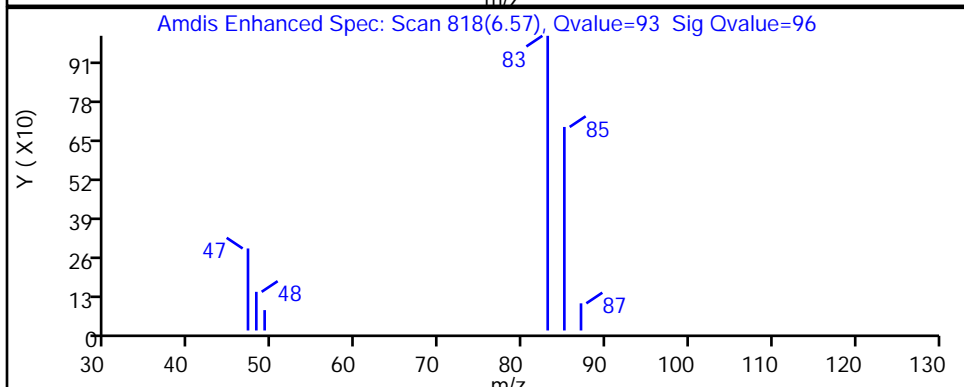
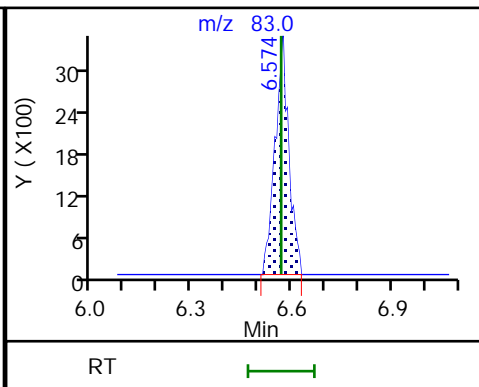
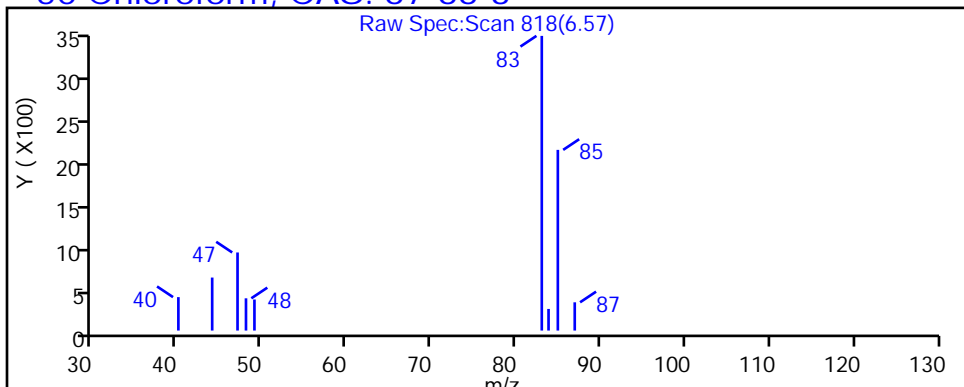
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector

MS Quad

50 Chloroform, CAS: 67-66-3



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S13.D

Injection Date: 08-Aug-2020 04:48:30

Instrument ID: 16334

Lims ID: 410-9077-A-2

Lab Sample ID: 410-9077-2

Client ID: HD-COD-SW-7-0/1-0

Operator ID: MEC29284

ALS Bottle#: 18

Worklist Smp#: 19

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

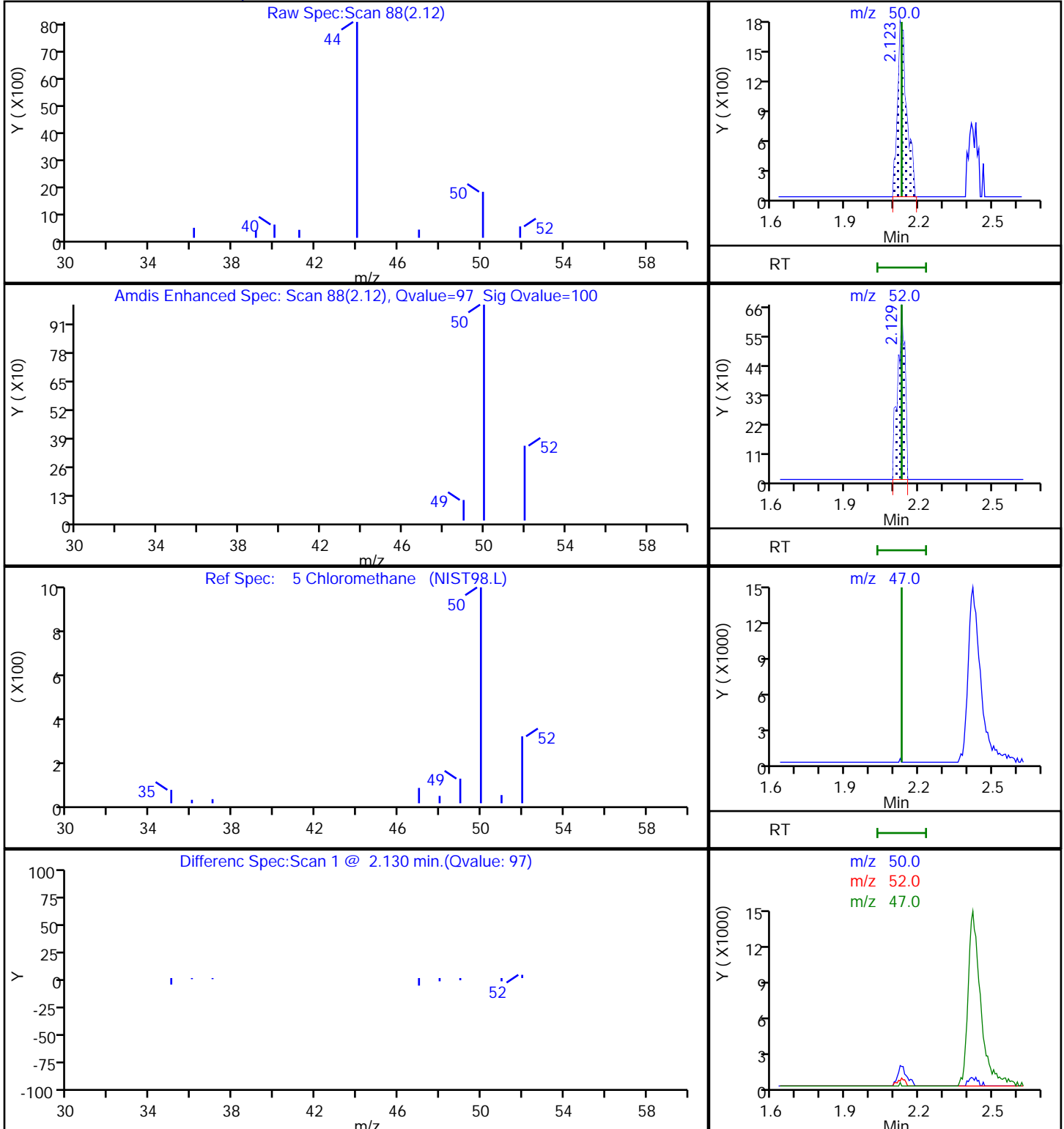
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

5 Chloromethane, CAS: 74-87-3



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S13.D

Injection Date: 08-Aug-2020 04:48:30

Instrument ID: 16334

Lims ID: 410-9077-A-2

Lab Sample ID: 410-9077-2

Client ID: HD-COD-SW-7-0/1-0

Operator ID: MEC29284

ALS Bottle#: 18

Worklist Smp#: 19

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

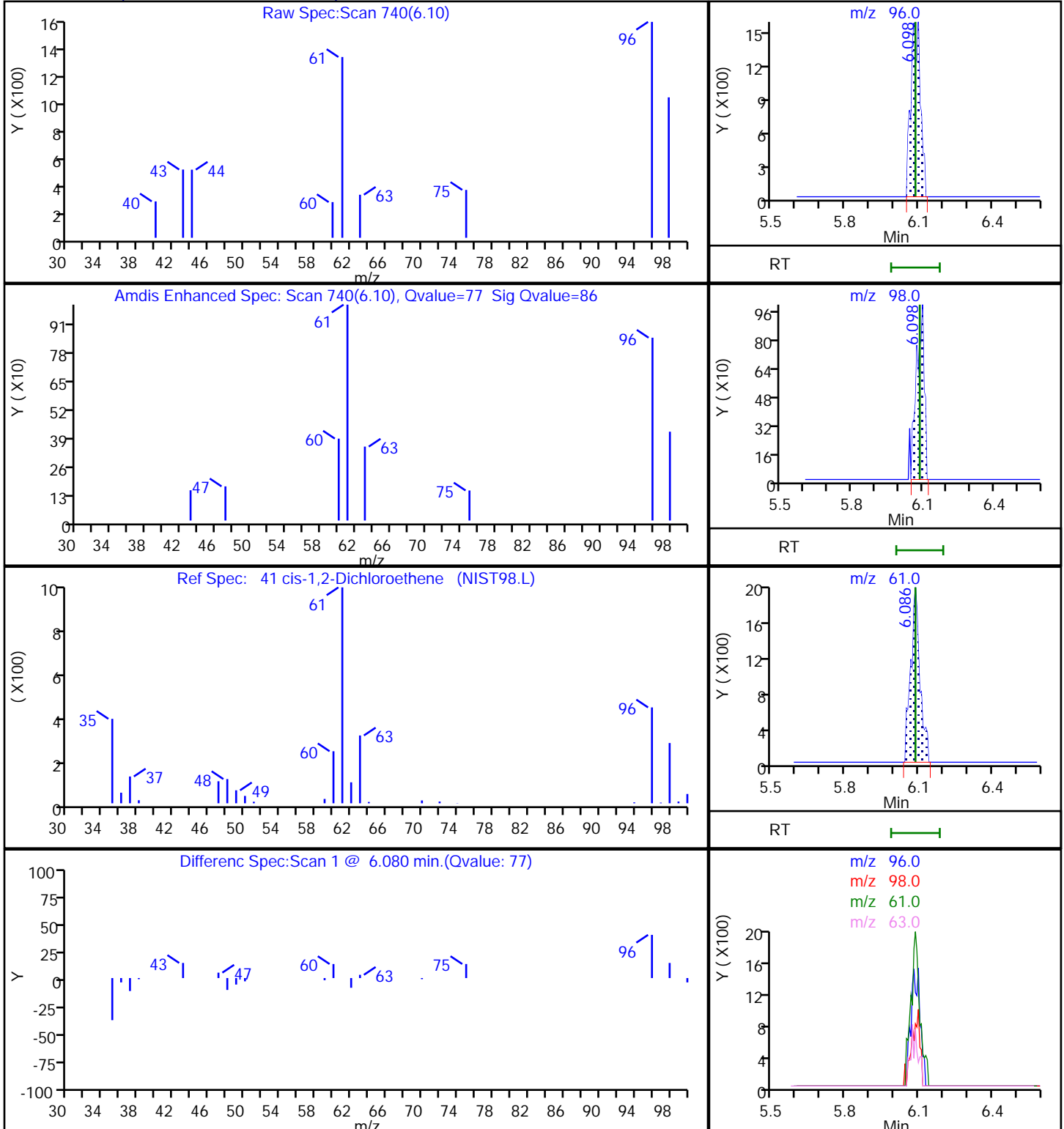
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

41 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S13.D

Injection Date: 08-Aug-2020 04:48:30

Instrument ID: 16334

Lims ID: 410-9077-A-2

Lab Sample ID: 410-9077-2

Client ID: HD-COD-SW-7-0/1-0

Operator ID: MEC29284

ALS Bottle#: 18

Worklist Smp#: 19

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

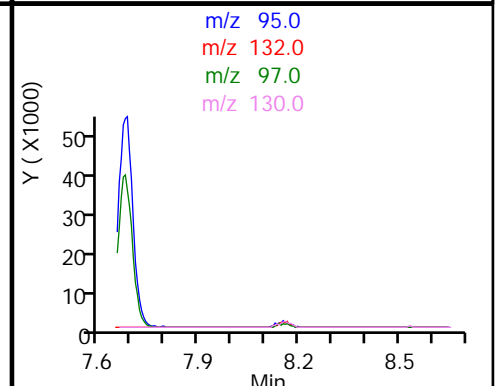
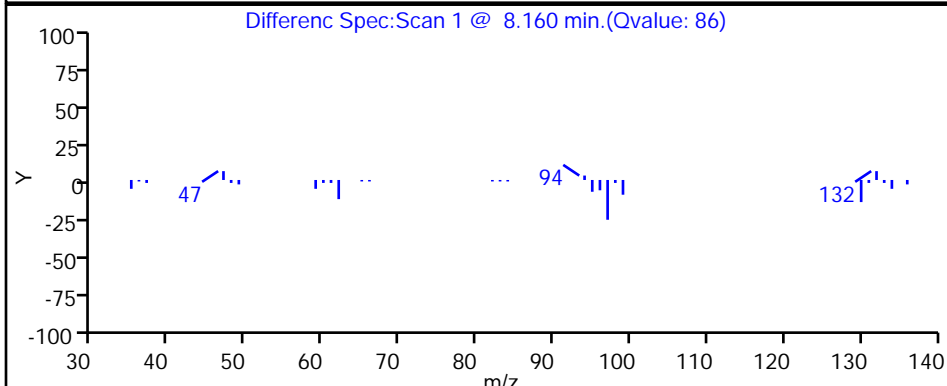
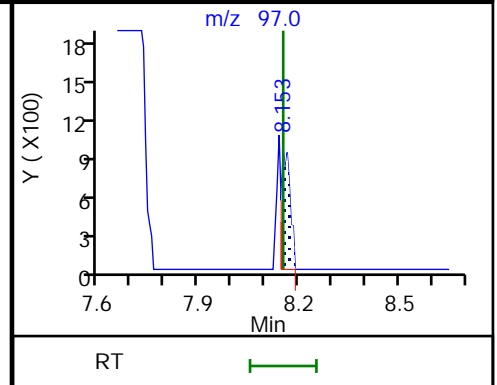
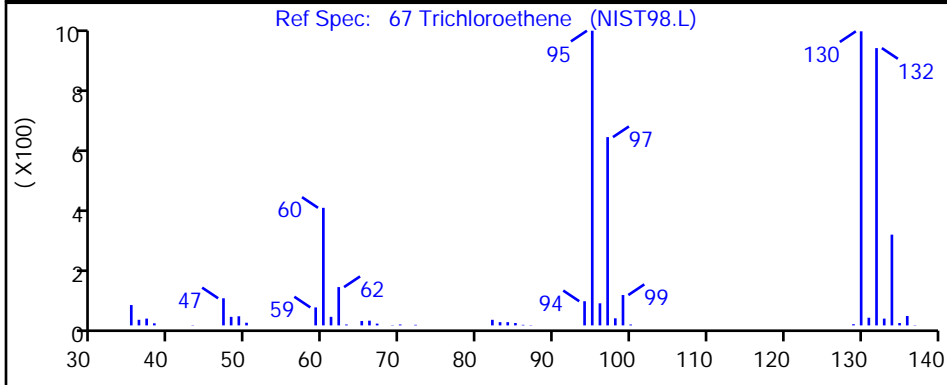
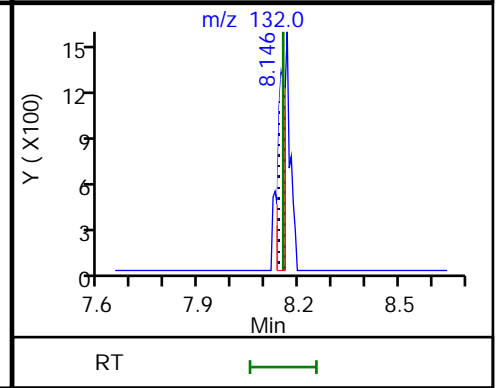
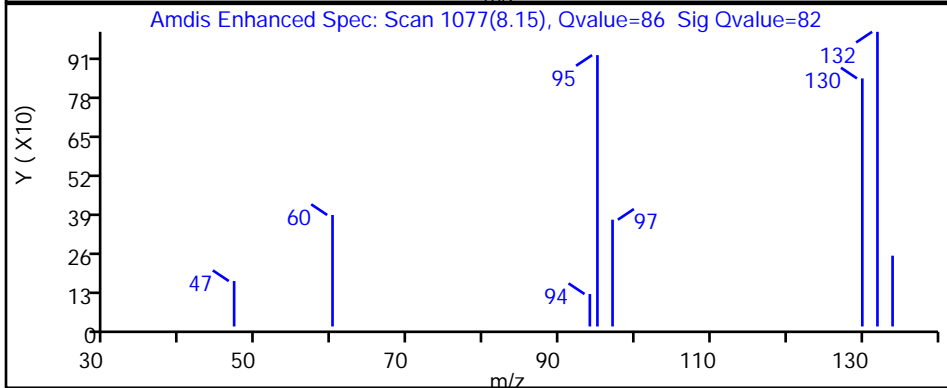
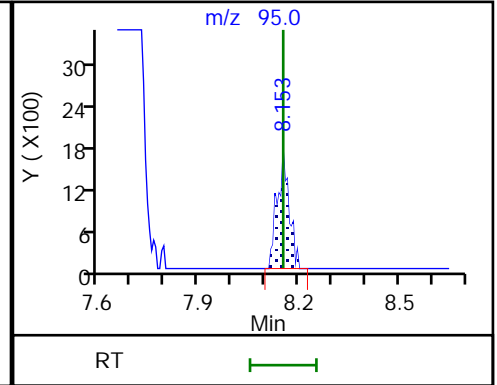
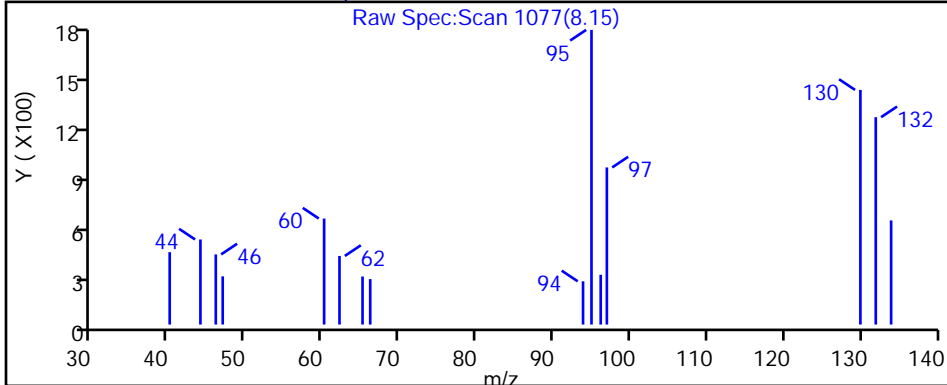
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector

MS Quad

67 Trichloroethene, CAS: 79-01-6



Eurofins Lancaster Laboratories Env, LLC

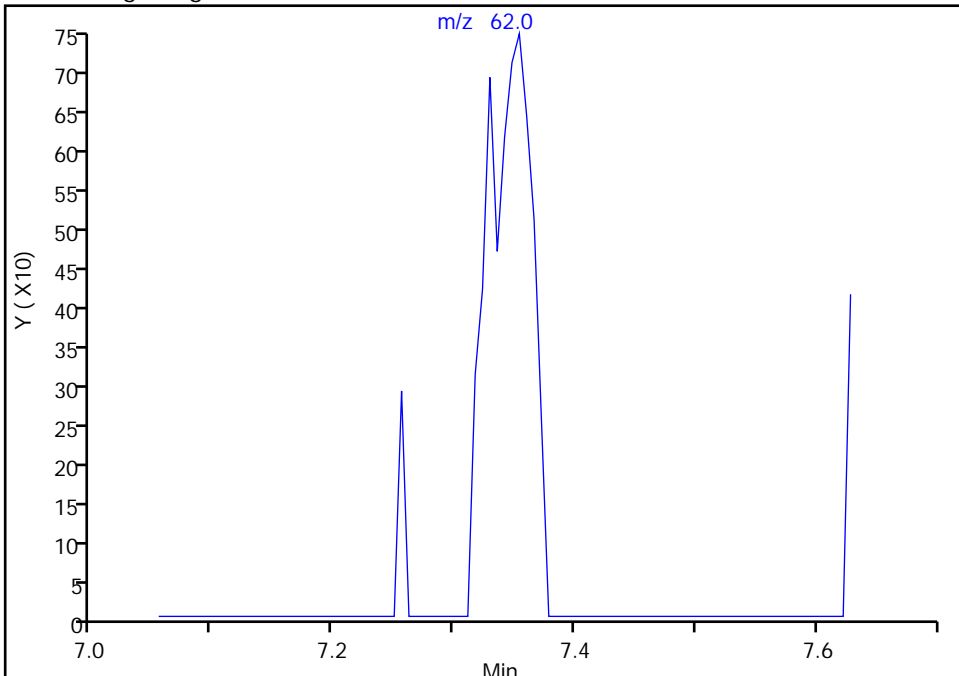
Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S13.D
Injection Date: 08-Aug-2020 04:48:30 Instrument ID: 16334
Lims ID: 410-9077-A-2 Lab Sample ID: 410-9077-2
Client ID: HD-COD-SW-7-0/1-0
Operator ID: MEC29284 ALS Bottle#: 18 Worklist Smp#: 19
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

60 1,2-Dichloroethane, CAS: 107-06-2

Signal: 1

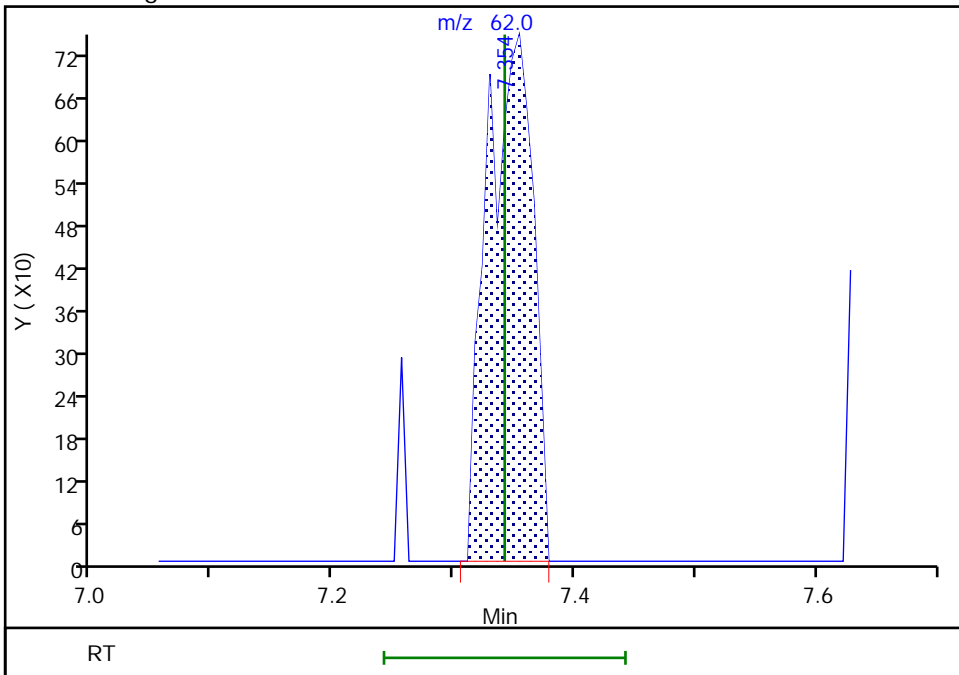
Not Detected
Expected RT: 7.34

Processing Integration Results



Manual Integration Results

RT: 7.35
Area: 1962
Amount: 0.030039
Amount Units: ug/l



Reviewer: campbellme, 09-Aug-2020 18:11:54
Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

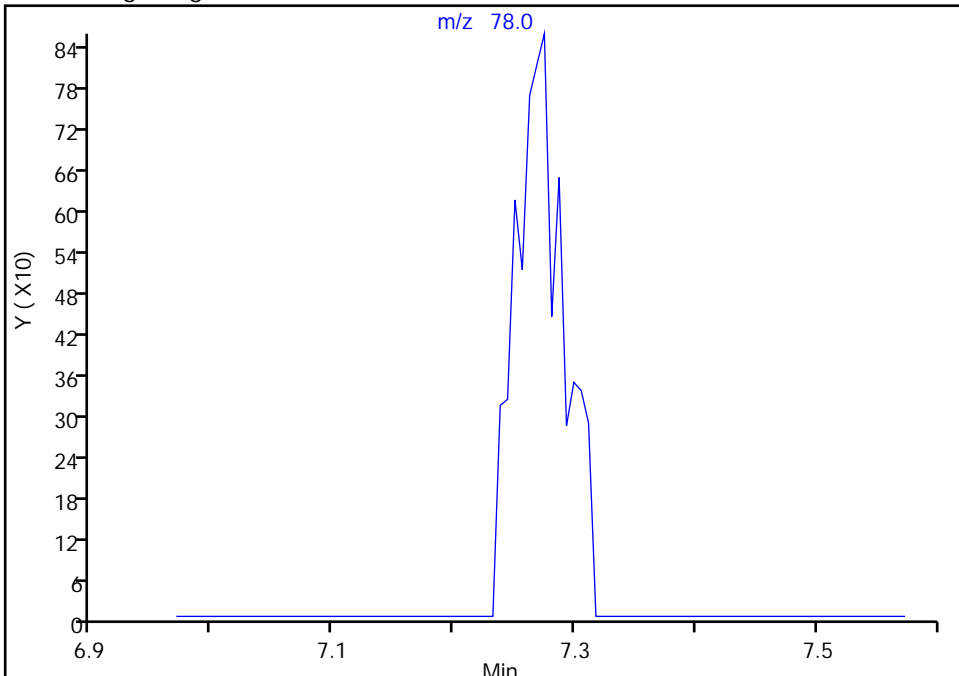
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Injection Date: 08-Aug-2020 04:48:30 Instrument ID: 16334
Lims ID: 410-9077-A-2 Lab Sample ID: 410-9077-2
Client ID: HD-COD-SW-7-0/1-0
Operator ID: MEC29284 ALS Bottle#: 18 Worklist Smp#: 19
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

59 Benzene, CAS: 71-43-2

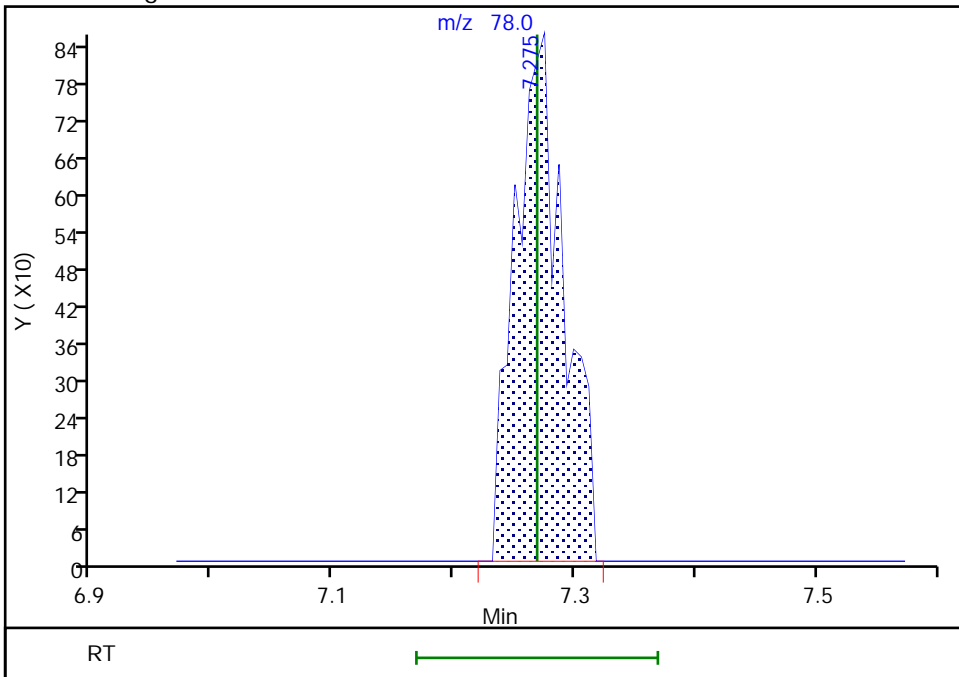
Signal: 1

Not Detected
Expected RT: 7.27

Processing Integration Results



Manual Integration Results



RT: 7.27
Area: 2389
Amount: 0.013237
Amount Units: ug/l

Eurofins Lancaster Laboratories Env, LLC

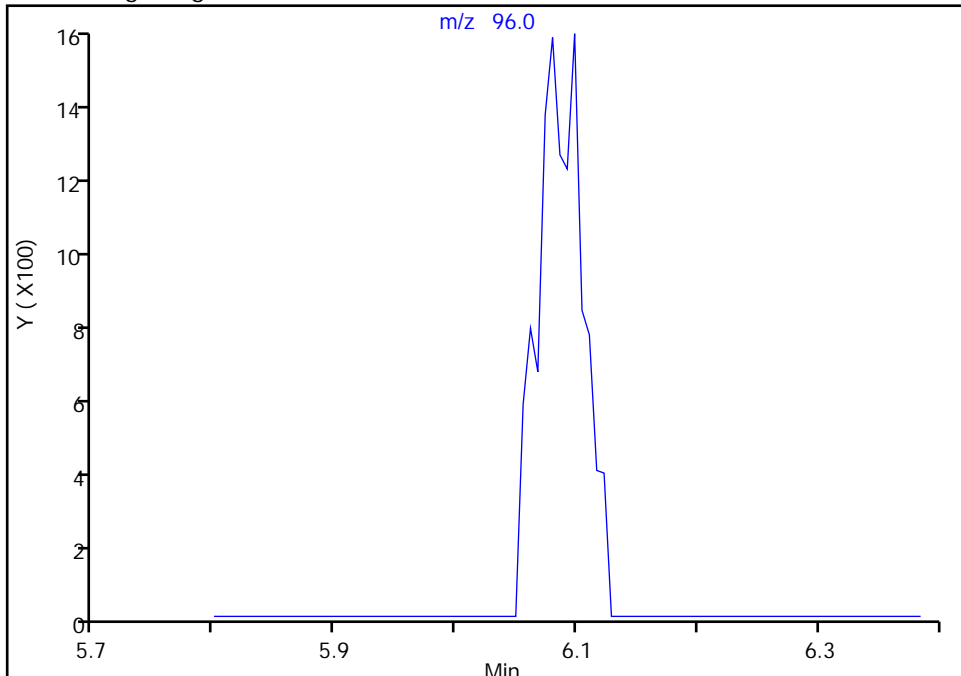
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Injection Date: 08-Aug-2020 04:48:30 Instrument ID: 16334
Lims ID: 410-9077-A-2 Lab Sample ID: 410-9077-2
Client ID: HD-COD-SW-7-0/1-0
Operator ID: MEC29284 ALS Bottle#: 18 Worklist Smp#: 19
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

41 cis-1,2-Dichloroethene, CAS: 156-59-2

Signal: 1

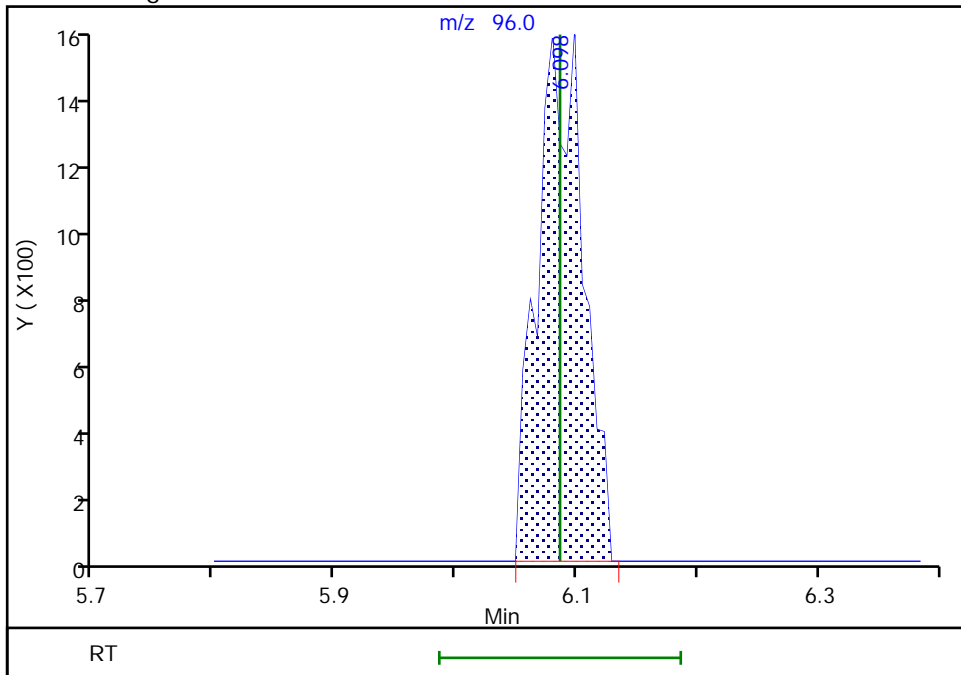
Not Detected
Expected RT: 6.09

Processing Integration Results



Manual Integration Results

RT: 6.10
Area: 4015
Amount: 0.080097
Amount Units: ug/l



Reviewer: campbellme, 09-Aug-2020 18:11:37
Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

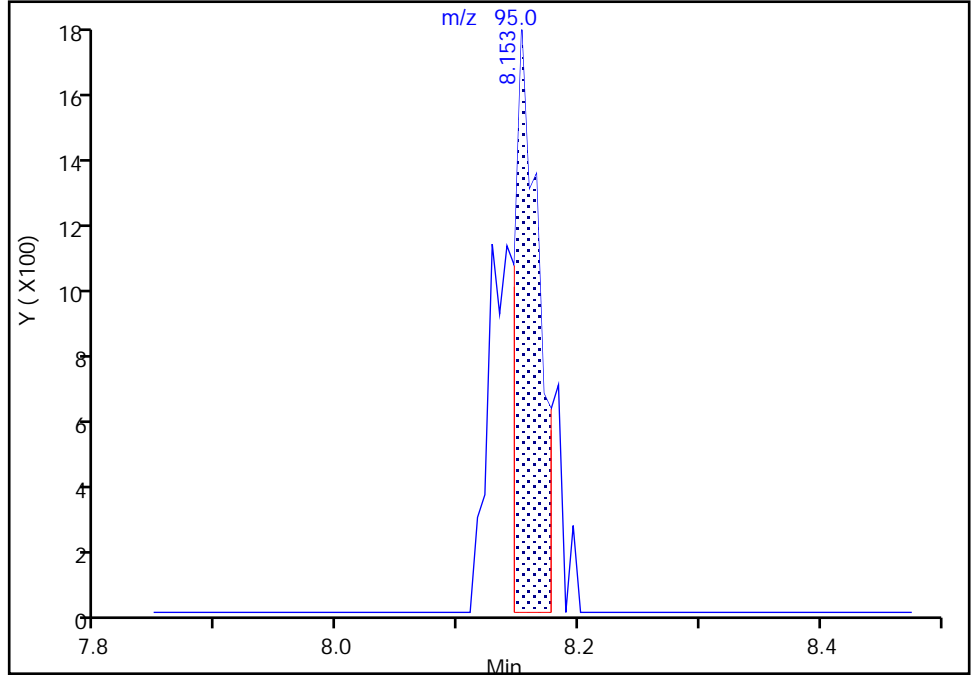
Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S13.D
Injection Date: 08-Aug-2020 04:48:30 Instrument ID: 16334
Lims ID: 410-9077-A-2 Lab Sample ID: 410-9077-2
Client ID: HD-COD-SW-7-0/1-0
Operator ID: MEC29284 ALS Bottle#: 18 Worklist Smp#: 19
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

67 Trichloroethene, CAS: 79-01-6

Signal: 1

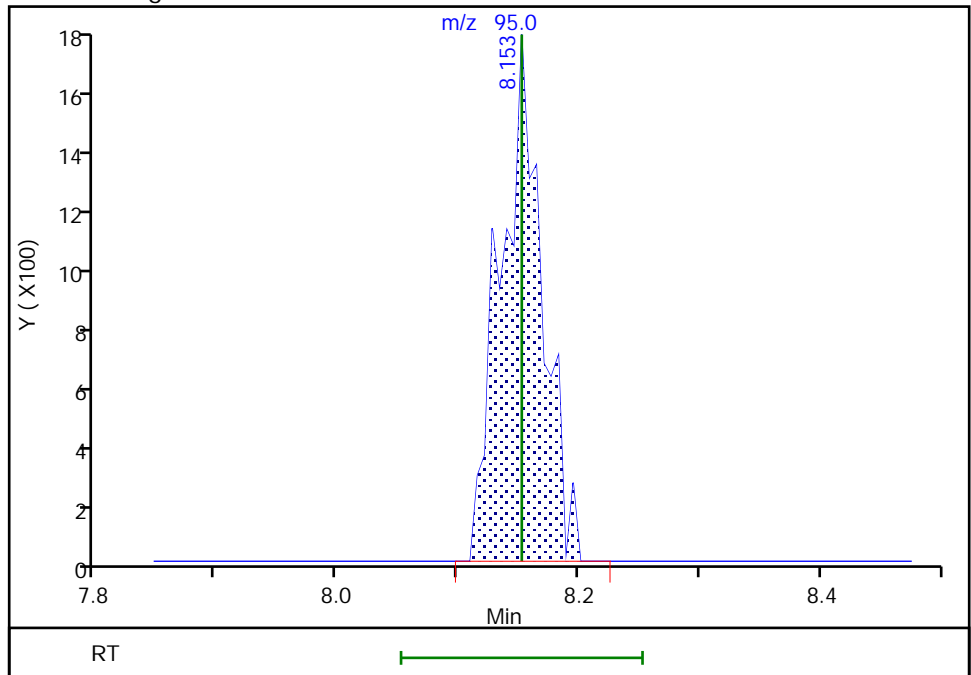
RT: 8.15
Area: 2386
Amount: 0.047470
Amount Units: ug/l

Processing Integration Results



RT: 8.15
Area: 4069
Amount: 0.080954
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 09-Aug-2020 18:12:06
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

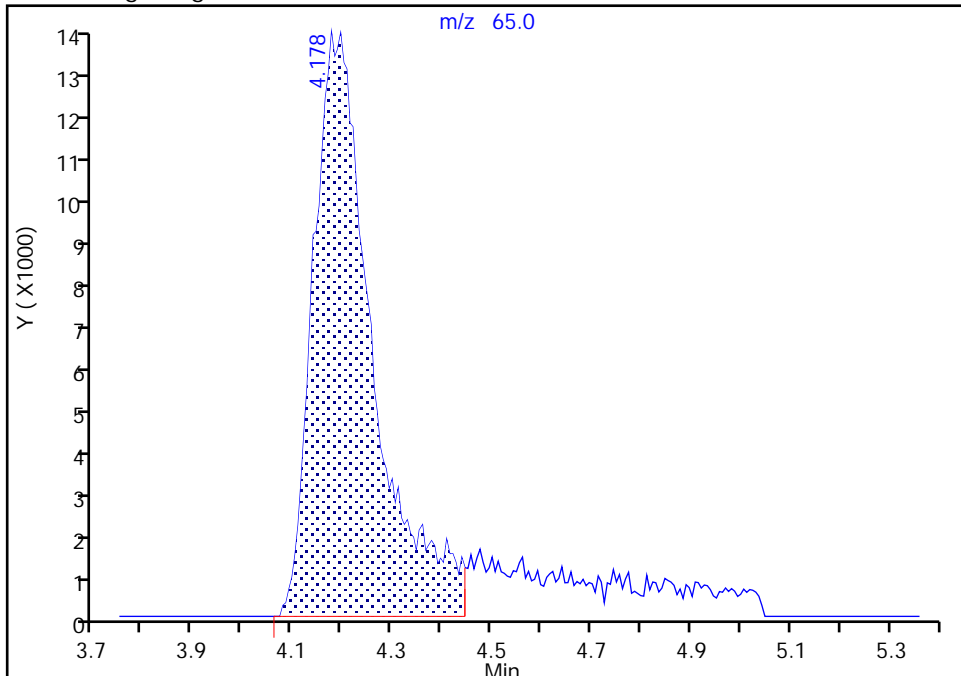
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Injection Date: 08-Aug-2020 04:48:30 Instrument ID: 16334
Lims ID: 410-9077-A-2 Lab Sample ID: 410-9077-2
Client ID: HD-COD-SW-7-0/1-0
Operator ID: MEC29284 ALS Bottle#: 18 Worklist Smp#: 19
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 29 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

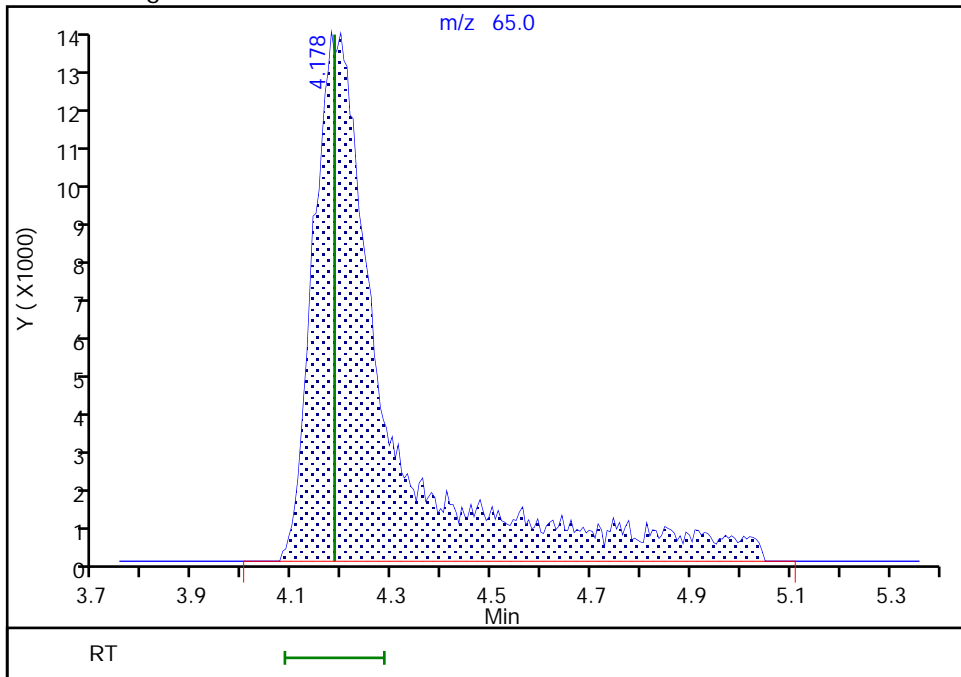
RT: 4.18
Area: 112745
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.18
Area: 141617
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 09-Aug-2020 18:11:30
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-8-0/1-0 Lab Sample ID: 410-9077-3
 Matrix: Surface Water Lab File ID: GG07S14.D
 Analysis Method: 8260D Date Collected: 07/28/2020 08:05
 Sample wt/vol: 25 (mL) Date Analyzed: 08/08/2020 05:10
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 30932 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		0.50	0.060
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.060
75-34-3	1,1-Dichloroethane	ND		0.50	0.070
75-35-4	1,1-Dichloroethene	ND		0.50	0.060
107-06-2	1,2-Dichloroethane	ND		0.50	0.050
78-87-5	1,2-Dichloropropane	ND		0.50	0.060
78-93-3	2-Butanone (MEK)	ND		5.0	0.60
591-78-6	2-Hexanone	ND		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70
67-64-1	Acetone	1.8	J	5.0	0.90
107-13-1	Acrylonitrile	ND		5.0	0.40
71-43-2	Benzene	ND		0.50	0.050
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND	^c	0.50	0.070
75-15-0	Carbon disulfide	ND		1.0	0.060
56-23-5	Carbon tetrachloride	ND		0.50	0.070
108-90-7	Chlorobenzene	ND		0.50	0.060
74-97-5	Bromochloromethane	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
75-00-3	Chloroethane	ND		0.50	0.070
67-66-3	Chloroform	ND		0.50	0.090
74-87-3	Chloromethane	0.071	J	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.076	J	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
75-27-4	Bromodichloromethane	ND		0.50	0.050
100-41-4	Ethylbenzene	ND		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.050
75-09-2	Methylene Chloride	ND		0.50	0.070
100-42-5	Styrene	ND		0.50	0.050
127-18-4	Tetrachloroethene	ND		0.50	0.060
108-88-3	Toluene	ND		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-8-0/1-0 Lab Sample ID: 410-9077-3
 Matrix: Surface Water Lab File ID: GG07S14.D
 Analysis Method: 8260D Date Collected: 07/28/2020 08:05
 Sample wt/vol: 25 (mL) Date Analyzed: 08/08/2020 05:10
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 30932 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	0.068	J	0.50	0.060
75-01-4	Vinyl chloride	ND		0.50	0.10
1330-20-7	Xylenes, Total	ND		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	92		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S14.D
 Lims ID: 410-9077-A-3
 Client ID: HD-COD-SW-8-0/1-0
 Sample Type: Client
 Inject. Date: 08-Aug-2020 05:10:30 ALS Bottle#: 19 Worklist Smp#: 20
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-9077-a-3
 Misc. Info.: 410-0007550-020
 Operator ID: MEC29284 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 09-Aug-2020 18:20:24 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1057

First Level Reviewer: campbellme

Date: 09-Aug-2020 18:13:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Chloromethane	50	2.135	2.129	0.006	97	4895	0.0707	
7 Vinyl chloride	62		2.245				ND	
9 Bromomethane	94		2.562				ND	
10 Chloroethane	64		2.648				ND	
19 1,1-Dichloroethene	96		3.507				ND	
20 Acetone	43	3.562	3.550	0.012	98	13707	1.78	
25 Carbon disulfide	76	3.812	3.794	0.018	35	1566	0.0118	7M
28 Methylene Chloride	84		4.166				ND	
* 29 t-Butyl alcohol-d10 (IS)	65	4.196	4.184	0.012	22	137904	50.0	M
31 Acrylonitrile	53		4.519				ND	
32 Methyl tert-butyl ether	73		4.568				ND	
33 trans-1,2-Dichloroethene	96		4.574				ND	
36 1,1-Dichloroethane	63		5.245				ND	
40 2-Butanone (MEK)	43		6.049				ND	
41 cis-1,2-Dichloroethene	96	6.092	6.086	0.006	79	3753	0.0757	
48 Chlorobromomethane	128		6.415				ND	
50 Chloroform	83	6.574	6.568	0.006	40	3787	0.0437	
\$ 52 Dibromofluoromethane (Surr)	113	6.793	6.787	0.006	93	437688	9.16	
51 1,1,1-Trichloroethane	97		6.793				ND	
56 Carbon tetrachloride	117		6.994				ND	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.244	7.232	0.012	0	88503	9.73	
59 Benzene	78	7.293	7.269	0.024	41	2201	0.0123	7M
60 1,2-Dichloroethane	62	7.342	7.342	0.000	1	2418	0.0374	a
* 63 Fluorobenzene (IS)	96	7.677	7.677	0.000	98	1788527	10.0	
67 Trichloroethene	95	8.153	8.153	0.000	93	3389	0.0682	a
69 1,2-Dichloropropane	63		8.488				ND	
75 Dichlorobromomethane	83		8.835				ND	
80 cis-1,3-Dichloropropene	75		9.390				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	
\$ 82 Toluene-d8 (Surr)	98	9.695	9.695	0.000	95	1759237	10.1	
83 Toluene	92	9.774	9.774	0.000	97	4550	0.0413	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ug/l	Flags
84 trans-1,3-Dichloropropene	75		10.030				ND	
86 1,1,2-Trichloroethane	97		10.238				ND	
88 Tetrachloroethene	166	10.311	10.317	-0.006	88	2241	0.0416	M
91 2-Hexanone	43		10.457				ND	
93 Chlorodibromomethane	129		10.609				ND	
94 Ethylene Dibromide	107		10.719				ND	
* 95 Chlorobenzene-d5 (IS)	117	11.158	11.152	0.006	88	1332477	10.0	
97 Chlorobenzene	112		11.183				ND	
S 101 Xylenes, Total	106		11.245				ND	
98 1,1,1,2-Tetrachloroethane	131		11.262				ND	
99 Ethylbenzene	91		11.268				ND	
100 m-Xylene & p-Xylene	106		11.384				ND	
102 o-Xylene	106		11.713				ND	
103 Styrene	104		11.725				ND	
104 Bromoform	173		11.884				ND	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	88	623559	9.63	
109 1,1,2,2-Tetrachloroethane	83		12.255				ND	
* 124 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	97	675365	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MSV_29_826ISS_00007

Amount Added: 1.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S14.D

Injection Date: 08-Aug-2020 05:10:30

Instrument ID: 16334

Operator ID: MEC29284

Lims ID: 410-9077-A-3

Lab Sample ID: 410-9077-3

Worklist Smp#: 20

Client ID: HD-COD-SW-8-0/1-0

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 19

Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S14.D
 Lims ID: 410-9077-A-3
 Client ID: HD-COD-SW-8-0/1-0
 Sample Type: Client
 Inject. Date: 08-Aug-2020 05:10:30 ALS Bottle#: 19 Worklist Smp#: 20
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-9077-a-3
 Misc. Info.: 410-0007550-020
 Operator ID: MEC29284 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 09-Aug-2020 18:20:24 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1057

First Level Reviewer: campbellme

Date: 09-Aug-2020 18:13:26

Compound	Amount Added	Amount Recovered	% Rec.
\$ 52 Dibromofluoromethane (Surr)	10.0	9.16	91.61
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	9.73	97.26
\$ 82 Toluene-d8 (Surr)	10.0	10.1	100.86
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.63	96.26

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S14.D

Injection Date: 08-Aug-2020 05:10:30

Instrument ID: 16334

Lims ID: 410-9077-A-3

Lab Sample ID: 410-9077-3

Client ID: HD-COD-SW-8-0/1-0

Operator ID: MEC29284

ALS Bottle#: 19

Worklist Smp#: 20

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

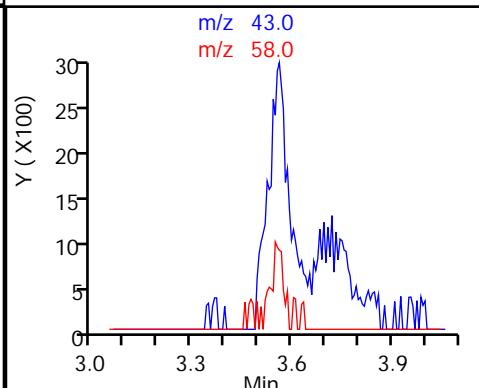
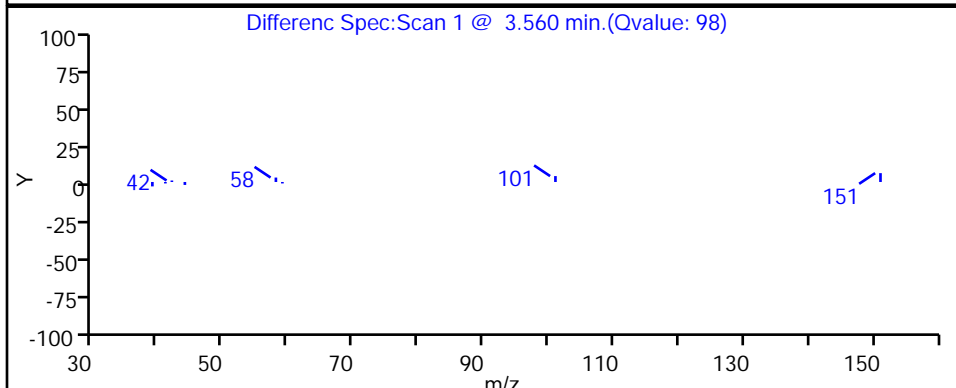
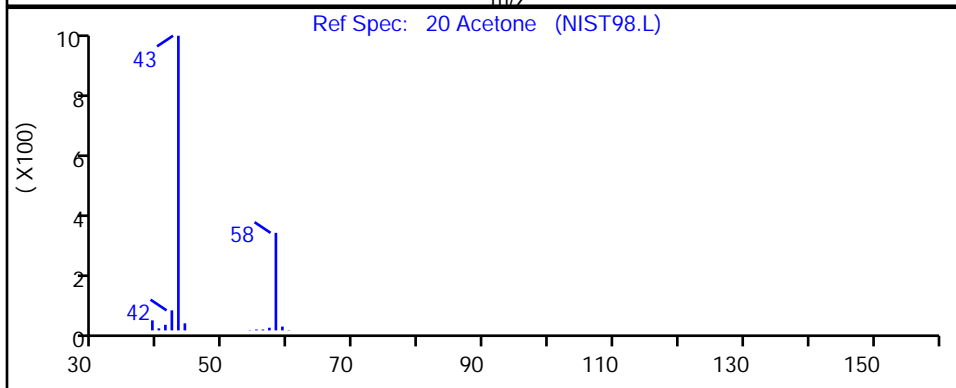
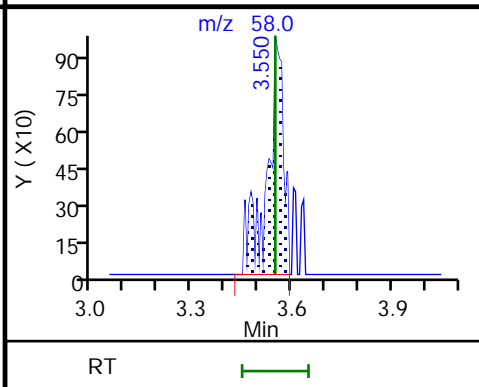
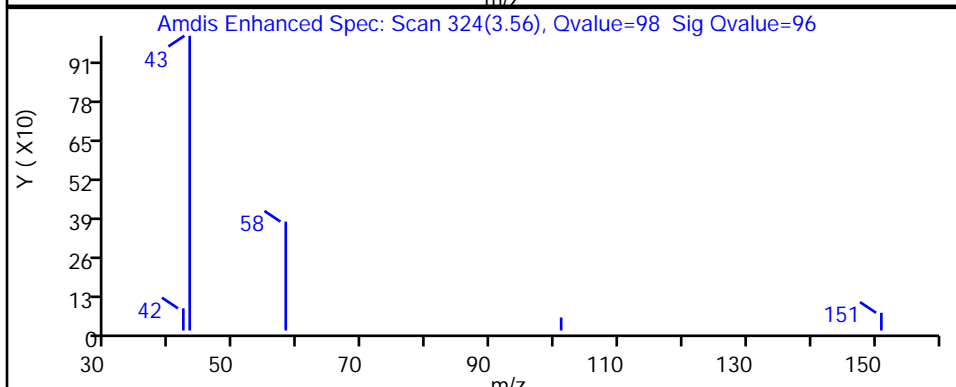
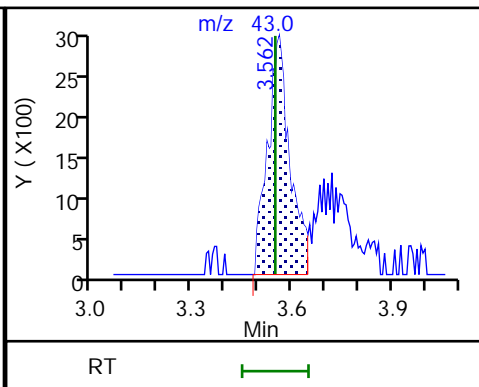
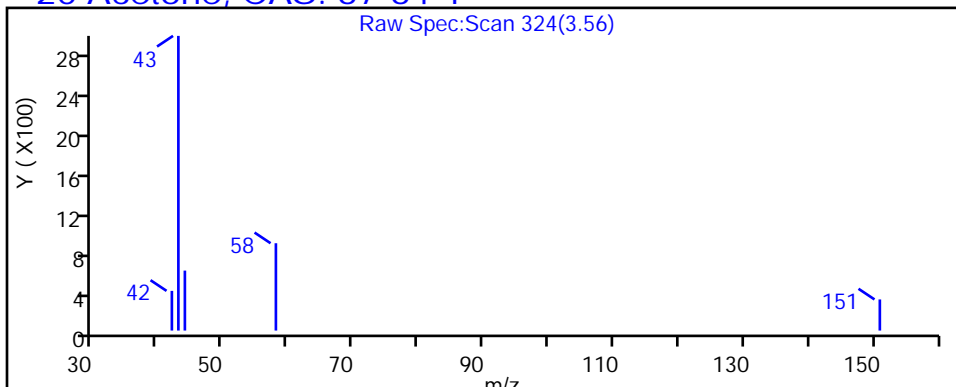
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

20 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S14.D

Injection Date: 08-Aug-2020 05:10:30

Instrument ID: 16334

Lims ID: 410-9077-A-3

Lab Sample ID: 410-9077-3

Client ID: HD-COD-SW-8-0/1-0

Operator ID: MEC29284

ALS Bottle#: 19

Worklist Smp#: 20

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

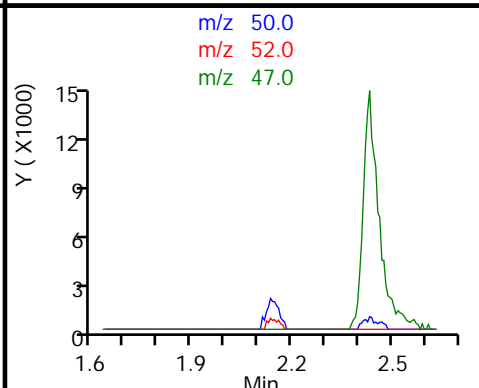
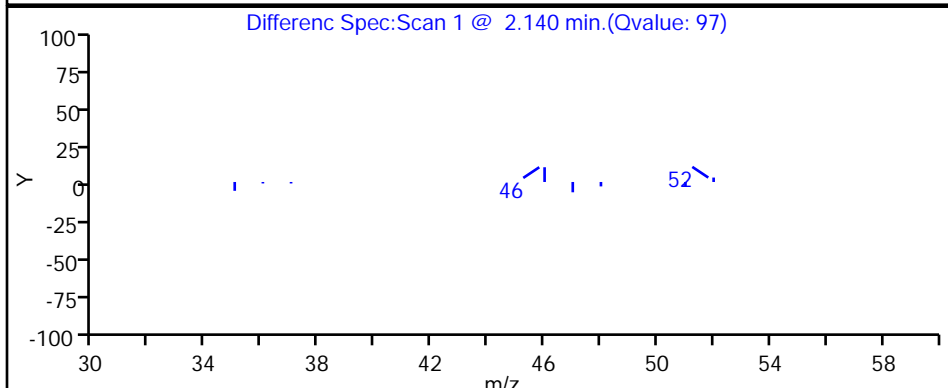
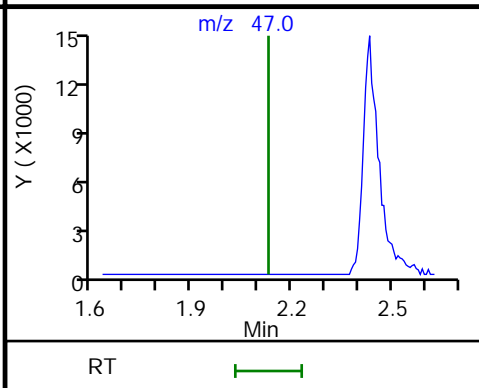
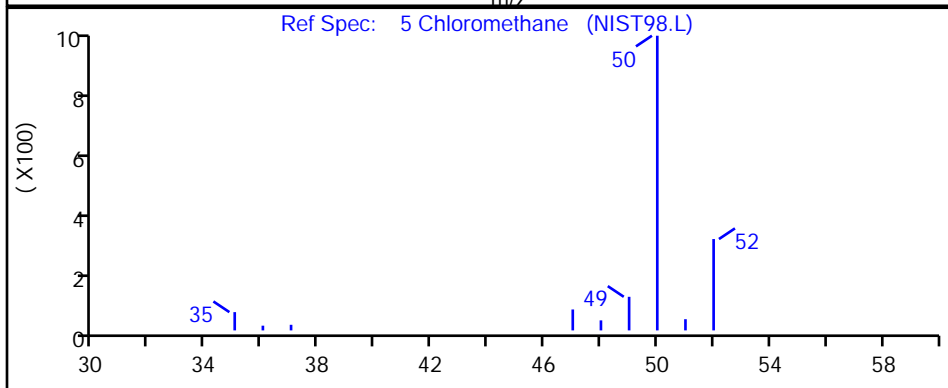
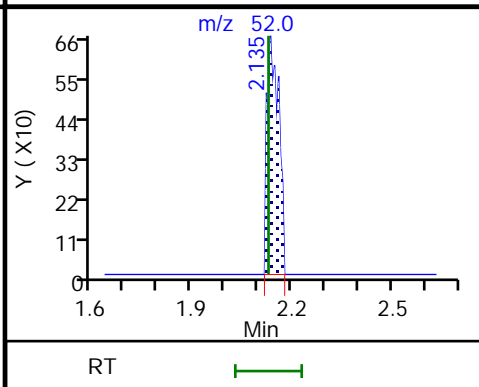
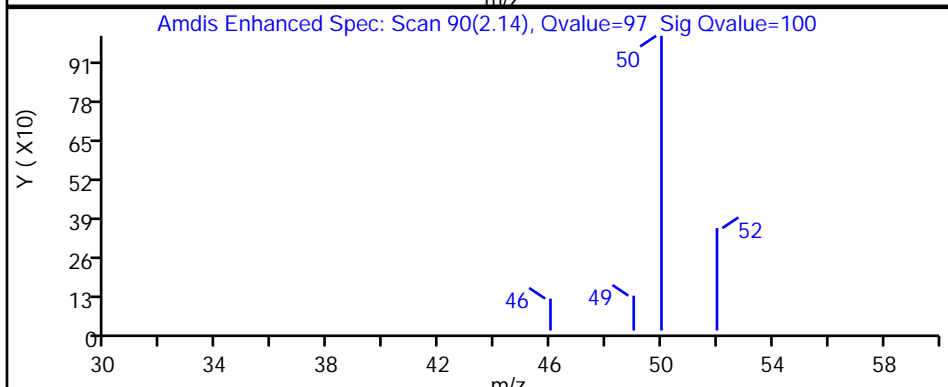
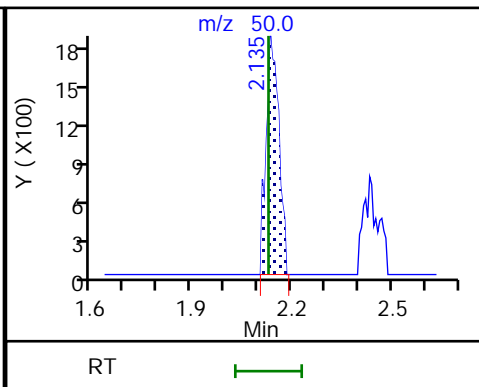
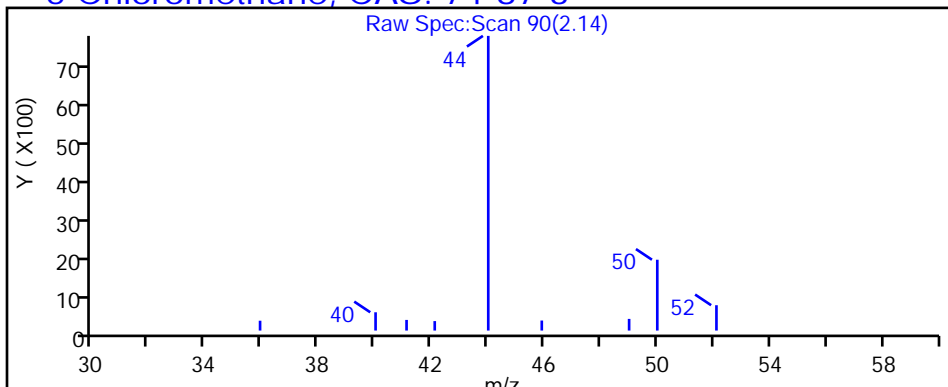
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector

MS Quad

5 Chloromethane, CAS: 74-87-3



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S14.D

Injection Date: 08-Aug-2020 05:10:30

Instrument ID: 16334

Lims ID: 410-9077-A-3

Lab Sample ID: 410-9077-3

Client ID: HD-COD-SW-8-0/1-0

Operator ID: MEC29284

ALS Bottle#: 19

Worklist Smp#: 20

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

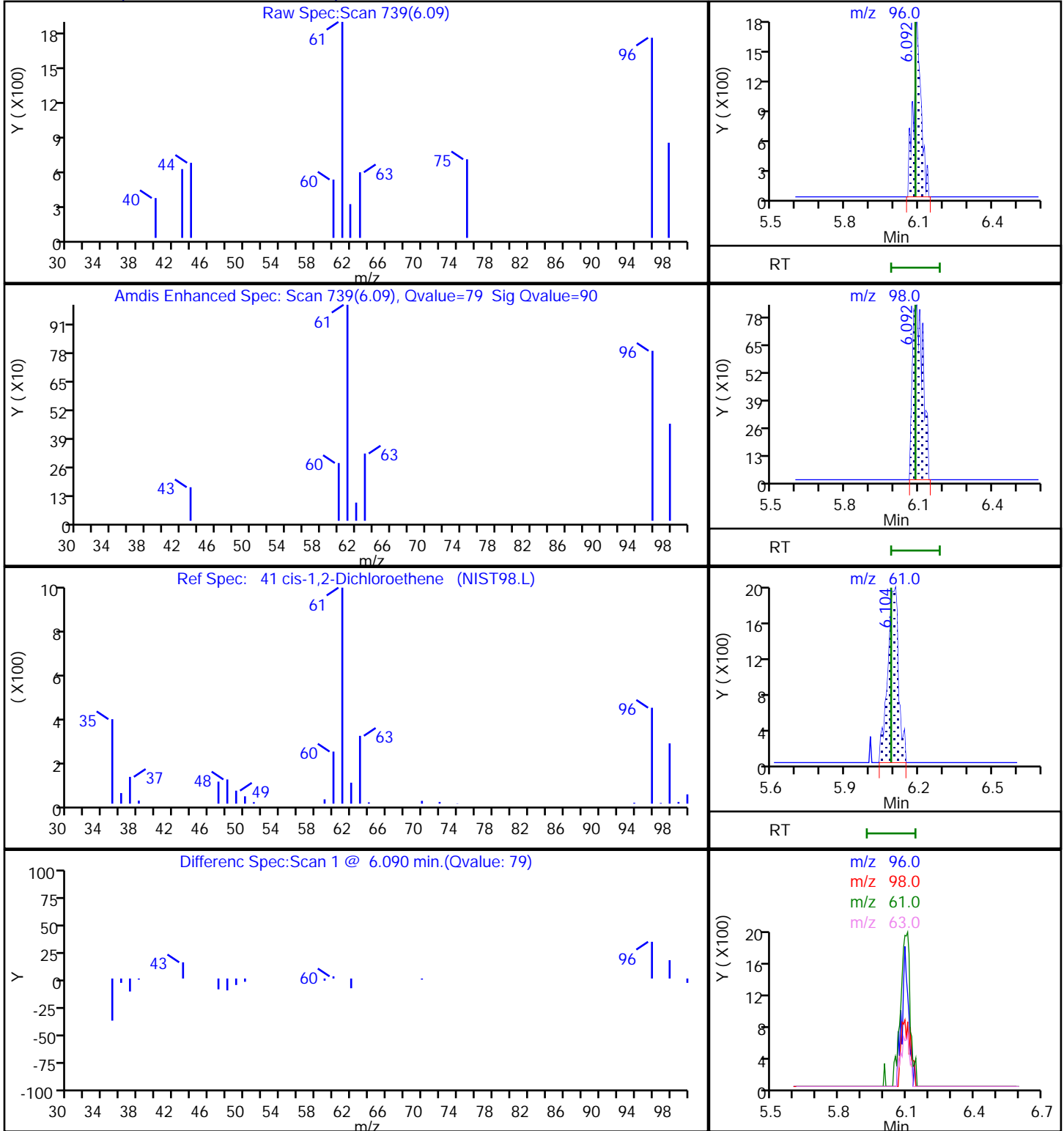
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) x 30m

MS Quad

41 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S14.D

Injection Date: 08-Aug-2020 05:10:30

Instrument ID: 16334

Lims ID: 410-9077-A-3

Lab Sample ID: 410-9077-3

Client ID: HD-COD-SW-8-0/1-0

Operator ID: MEC29284

ALS Bottle#: 19

Worklist Smp#: 20

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

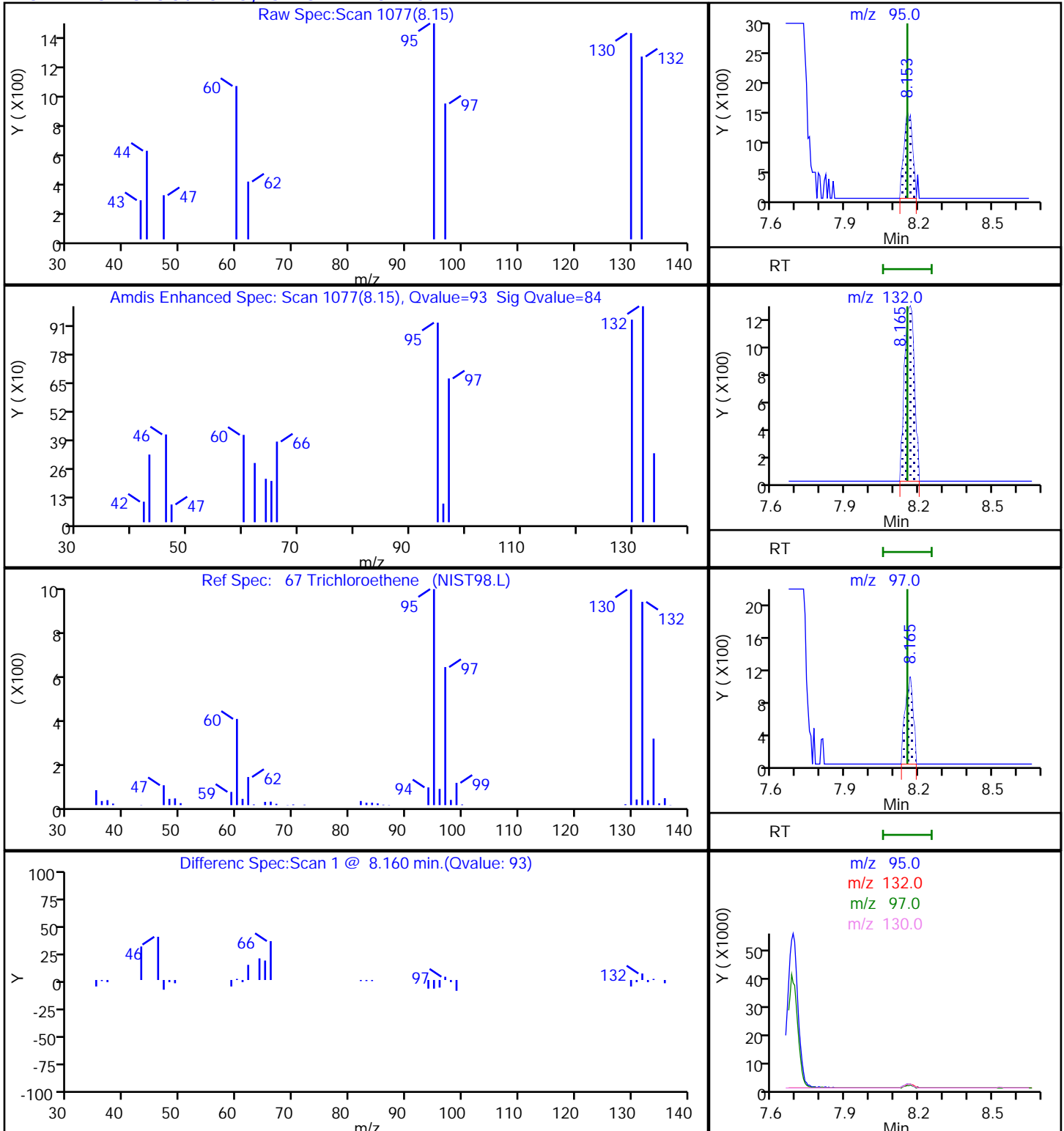
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

67 Trichloroethene, CAS: 79-01-6



Eurofins Lancaster Laboratories Env, LLC

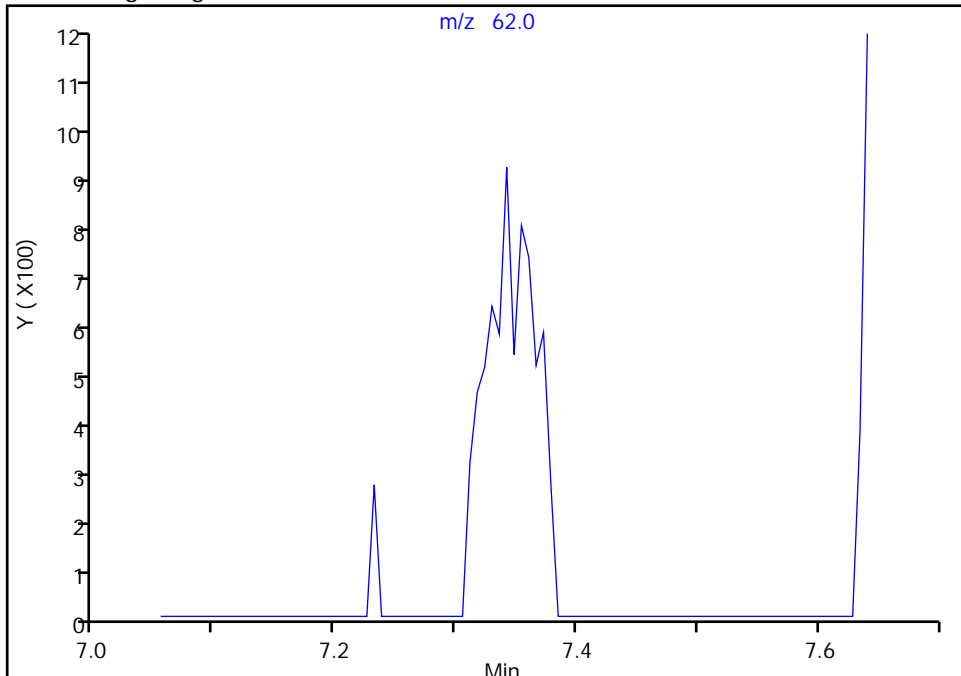
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Injection Date: 08-Aug-2020 05:10:30 Instrument ID: 16334
Lims ID: 410-9077-A-3 Lab Sample ID: 410-9077-3
Client ID: HD-COD-SW-8-0/1-0
Operator ID: MEC29284 ALS Bottle#: 19 Worklist Smp#: 20
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

60 1,2-Dichloroethane, CAS: 107-06-2

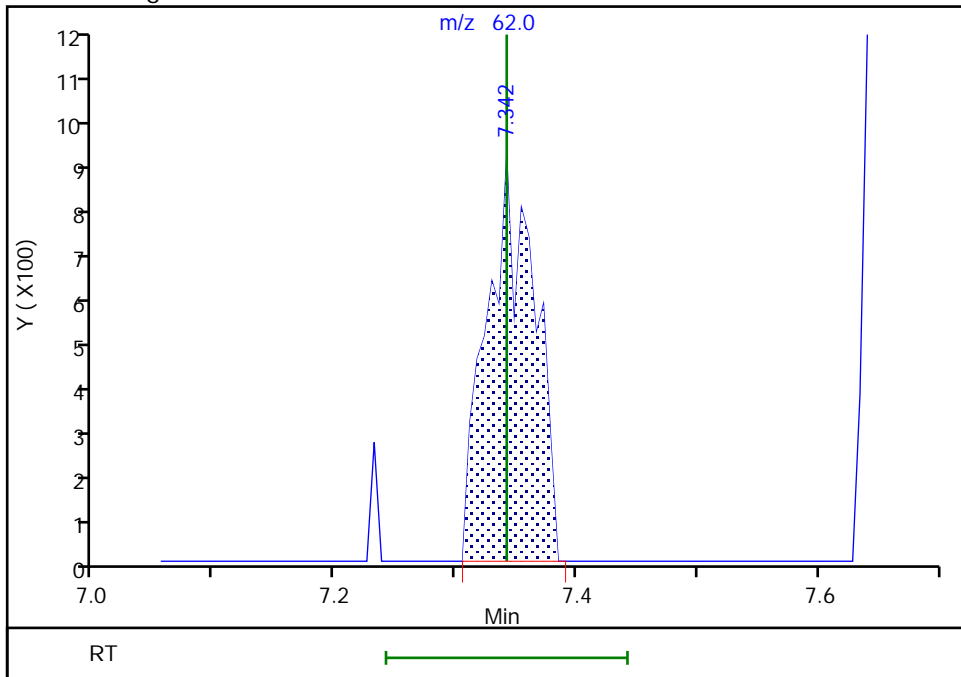
Signal: 1

Not Detected
Expected RT: 7.34

Processing Integration Results



Manual Integration Results



RT: 7.34
Area: 2418
Amount: 0.037419
Amount Units: ug/l

Eurofins Lancaster Laboratories Env, LLC

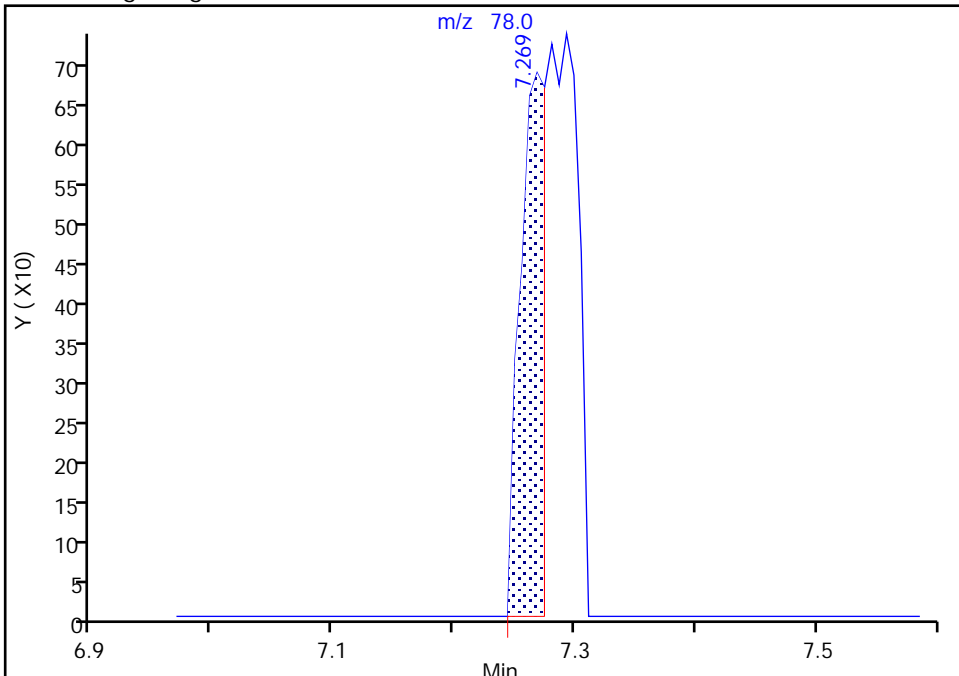
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Injection Date: 08-Aug-2020 05:10:30 Instrument ID: 16334
Lims ID: 410-9077-A-3 Lab Sample ID: 410-9077-3
Client ID: HD-COD-SW-8-0/1-0
Operator ID: MEC29284 ALS Bottle#: 19 Worklist Smp#: 20
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

59 Benzene, CAS: 71-43-2

Signal: 1

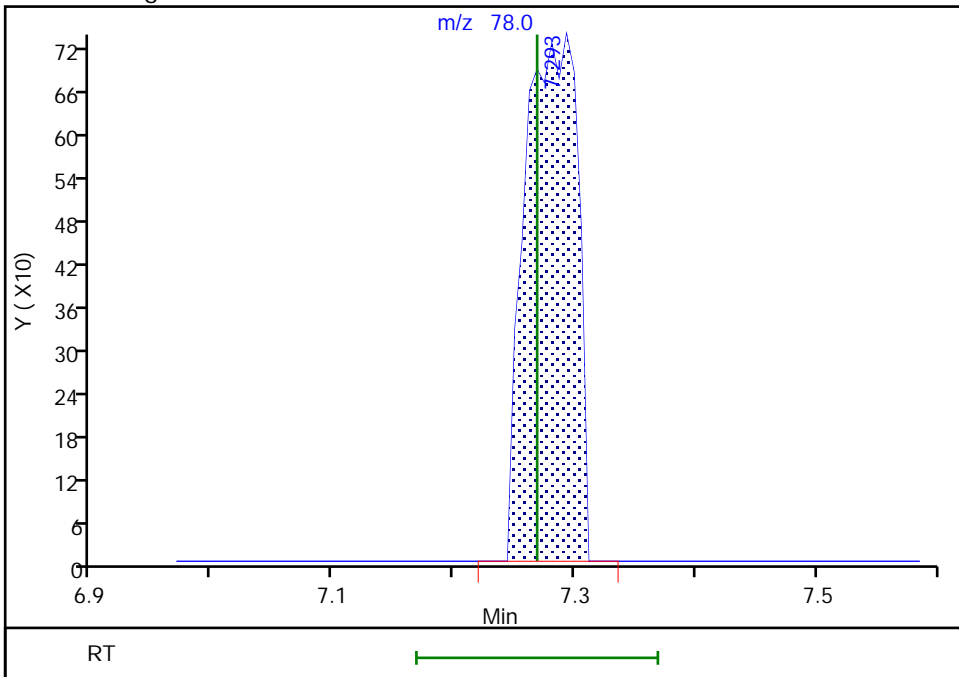
RT: 7.27
Area: 1011
Amount: 0.005662
Amount Units: ug/l

Processing Integration Results



RT: 7.29
Area: 2201
Amount: 0.012326
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 09-Aug-2020 18:12:55
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 280 of 777

Eurofins Lancaster Laboratories Env, LLC

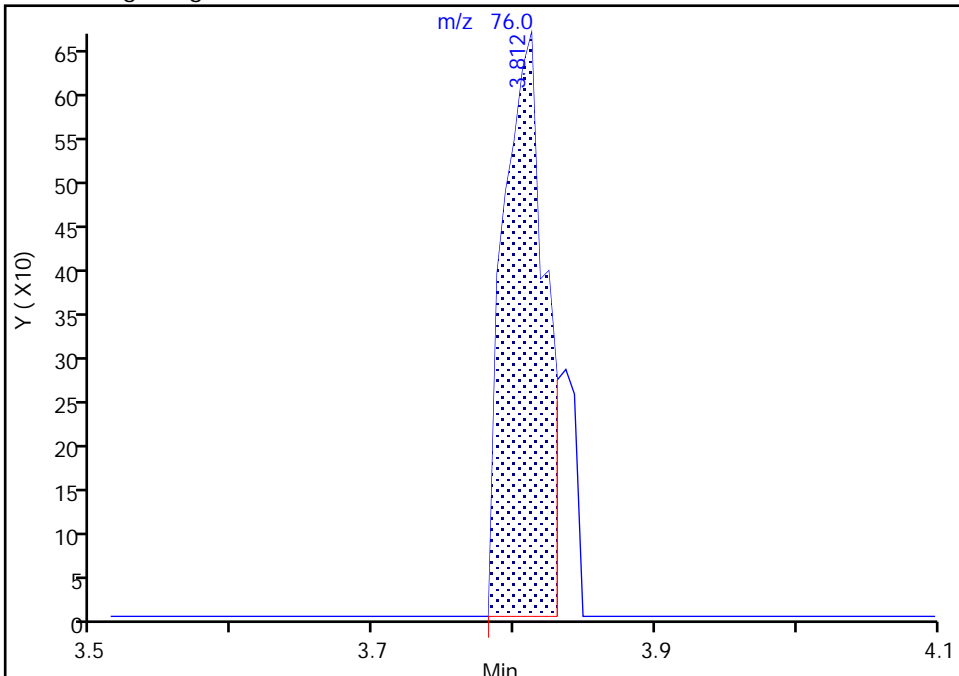
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Injection Date: 08-Aug-2020 05:10:30 Instrument ID: 16334
Lims ID: 410-9077-A-3 Lab Sample ID: 410-9077-3
Client ID: HD-COD-SW-8-0/1-0
Operator ID: MEC29284 ALS Bottle#: 19 Worklist Smp#: 20
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

25 Carbon disulfide, CAS: 75-15-0

Signal: 1

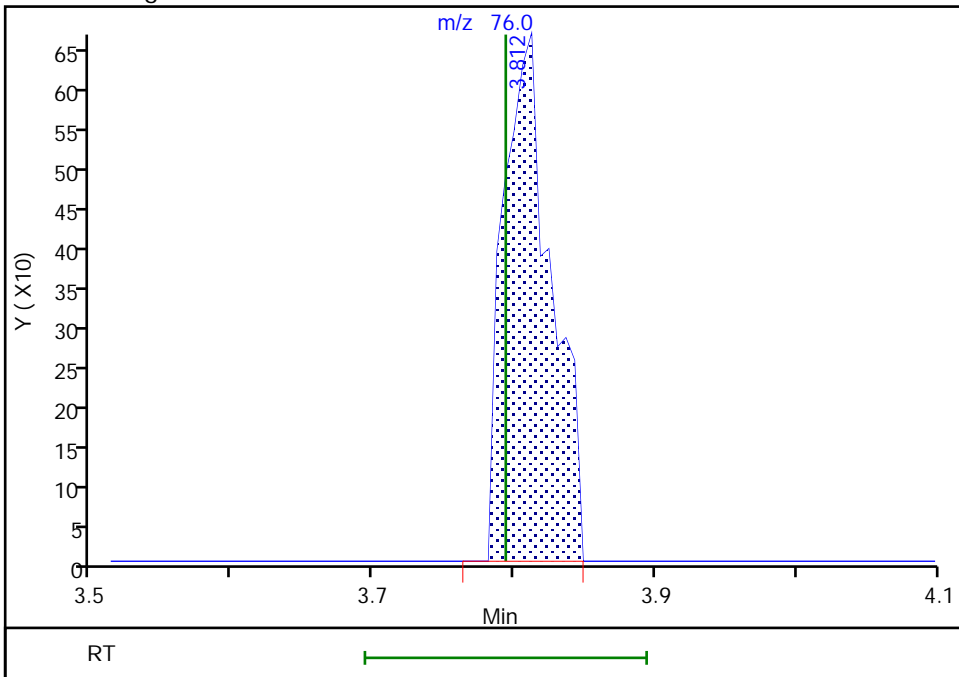
RT: 3.81
Area: 1370
Amount: 0.010297
Amount Units: ug/l

Processing Integration Results



RT: 3.81
Area: 1566
Amount: 0.011770
Amount Units: ug/l

Manual Integration Results



Eurofins Lancaster Laboratories Env, LLC

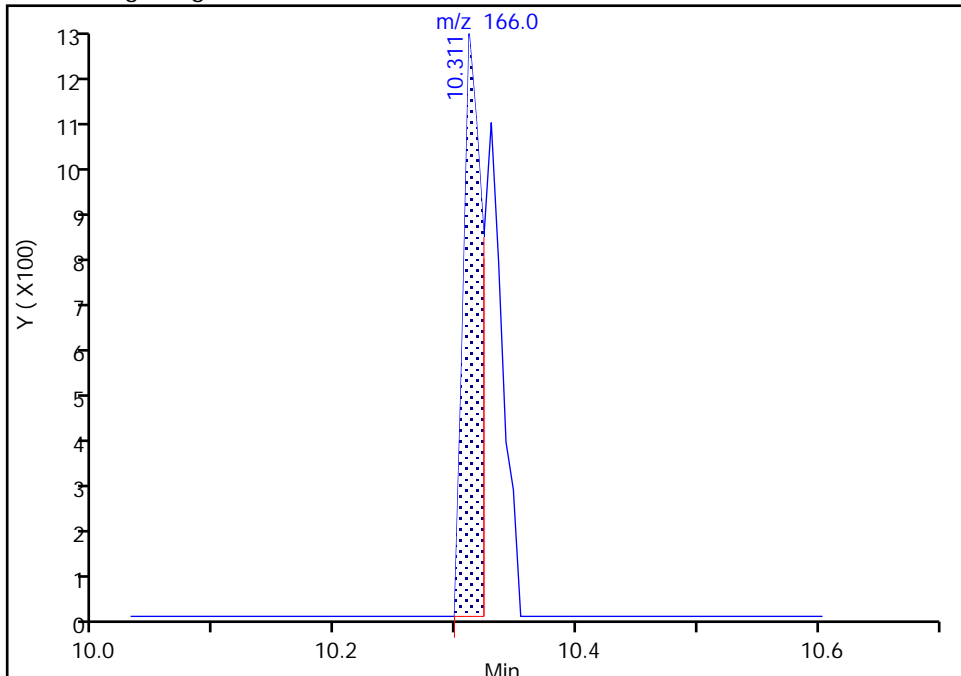
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Injection Date: 08-Aug-2020 05:10:30 Instrument ID: 16334
Lims ID: 410-9077-A-3 Lab Sample ID: 410-9077-3
Client ID: HD-COD-SW-8-0/1-0
Operator ID: MEC29284 ALS Bottle#: 19 Worklist Smp#: 20
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

88 Tetrachloroethene, CAS: 127-18-4

Signal: 1

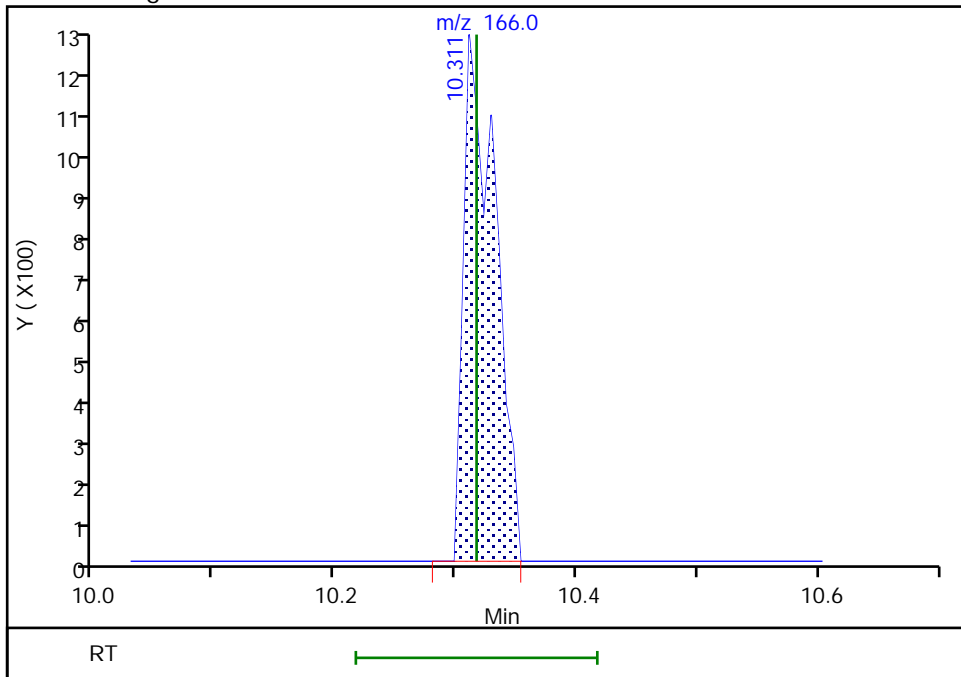
RT: 10.31
Area: 1342
Amount: 0.024919
Amount Units: ug/l

Processing Integration Results



RT: 10.31
Area: 2241
Amount: 0.041612
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 09-Aug-2020 18:13:18
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

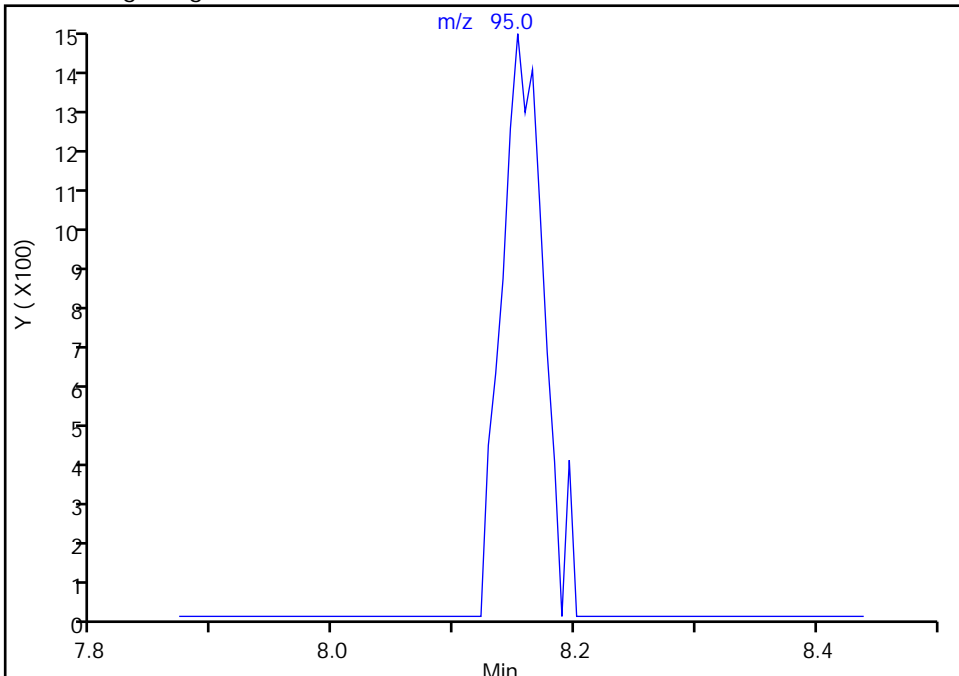
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Injection Date: 08-Aug-2020 05:10:30 Instrument ID: 16334
Lims ID: 410-9077-A-3 Lab Sample ID: 410-9077-3
Client ID: HD-COD-SW-8-0/1-0
Operator ID: MEC29284 ALS Bottle#: 19 Worklist Smp#: 20
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

67 Trichloroethene, CAS: 79-01-6

Signal: 1

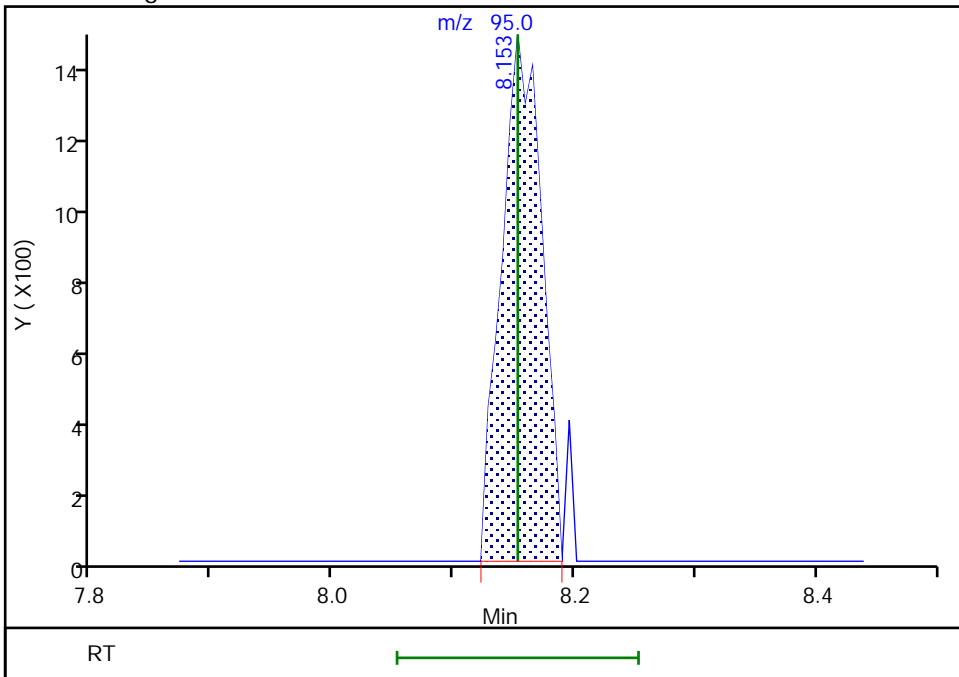
Not Detected
Expected RT: 8.15

Processing Integration Results



Manual Integration Results

RT: 8.15
Area: 3389
Amount: 0.068152
Amount Units: ug/l



Reviewer: campbellme, 09-Aug-2020 18:13:07
Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

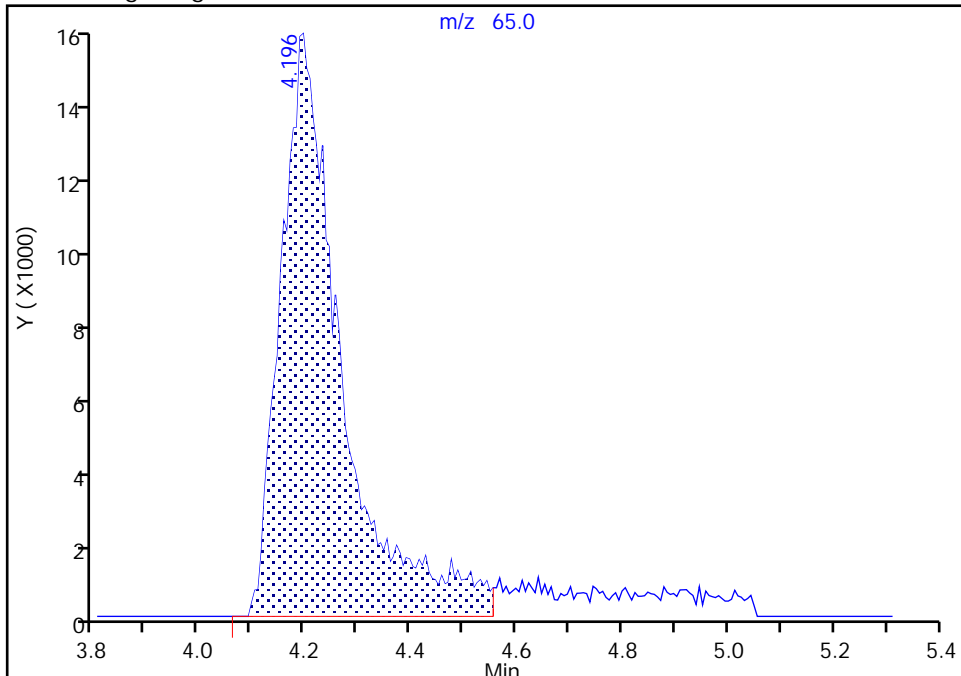
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Injection Date: 08-Aug-2020 05:10:30 Instrument ID: 16334
Lims ID: 410-9077-A-3 Lab Sample ID: 410-9077-3
Client ID: HD-COD-SW-8-0/1-0
Operator ID: MEC29284 ALS Bottle#: 19 Worklist Smp#: 20
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 29 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

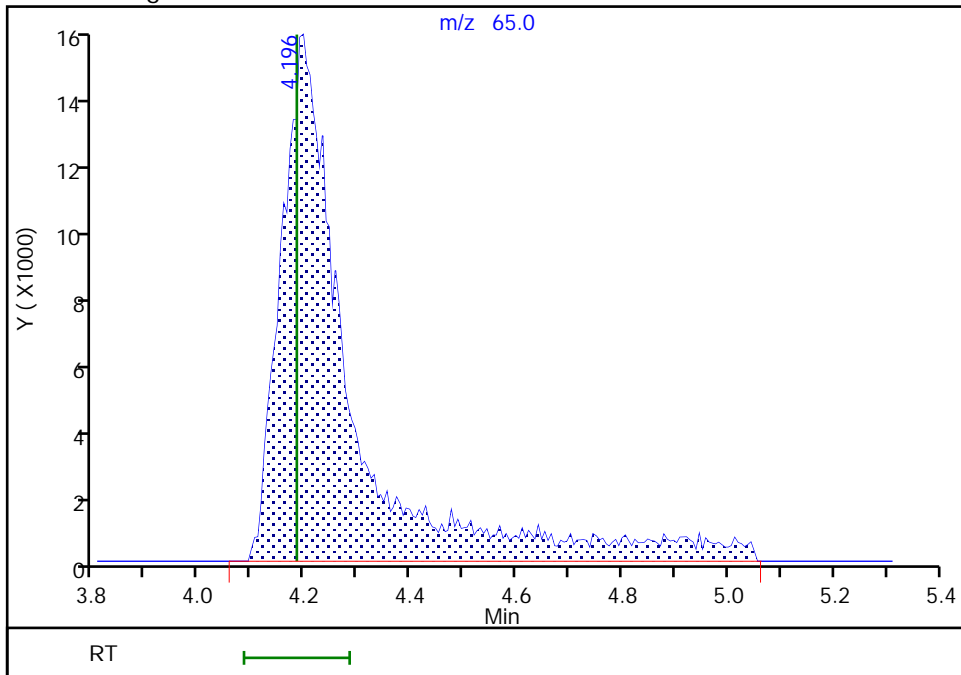
RT: 4.20
Area: 120385
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.20
Area: 137904
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 09-Aug-2020 18:12:45
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-9-0/1-0 Lab Sample ID: 410-9077-4
 Matrix: Surface Water Lab File ID: GG07S15.D
 Analysis Method: 8260D Date Collected: 07/28/2020 11:20
 Sample wt/vol: 25 (mL) Date Analyzed: 08/08/2020 05:32
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 30932 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		0.50	0.060
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.060
75-34-3	1,1-Dichloroethane	ND		0.50	0.070
75-35-4	1,1-Dichloroethene	ND		0.50	0.060
107-06-2	1,2-Dichloroethane	ND		0.50	0.050
78-87-5	1,2-Dichloropropane	ND		0.50	0.060
78-93-3	2-Butanone (MEK)	ND		5.0	0.60
591-78-6	2-Hexanone	ND		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70
67-64-1	Acetone	3.0	J	5.0	0.90
107-13-1	Acrylonitrile	ND		5.0	0.40
71-43-2	Benzene	ND		0.50	0.050
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND	^c	0.50	0.070
75-15-0	Carbon disulfide	ND		1.0	0.060
56-23-5	Carbon tetrachloride	ND		0.50	0.070
108-90-7	Chlorobenzene	ND		0.50	0.060
74-97-5	Bromochloromethane	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
75-00-3	Chloroethane	ND		0.50	0.070
67-66-3	Chloroform	ND		0.50	0.090
74-87-3	Chloromethane	ND		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	ND		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
75-27-4	Bromodichloromethane	ND		0.50	0.050
100-41-4	Ethylbenzene	ND		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.050
75-09-2	Methylene Chloride	ND		0.50	0.070
100-42-5	Styrene	ND		0.50	0.050
127-18-4	Tetrachloroethene	0.076	J	0.50	0.060
108-88-3	Toluene	0.088	J	0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-9-0/1-0 Lab Sample ID: 410-9077-4
 Matrix: Surface Water Lab File ID: GG07S15.D
 Analysis Method: 8260D Date Collected: 07/28/2020 11:20
 Sample wt/vol: 25 (mL) Date Analyzed: 08/08/2020 05:32
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 30932 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	ND		0.50	0.060
75-01-4	Vinyl chloride	ND		0.50	0.10
1330-20-7	Xylenes, Total	ND		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	91		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S15.D
 Lims ID: 410-9077-A-4
 Client ID: HD-COD-SW-9-0/1-0
 Sample Type: Client
 Inject. Date: 08-Aug-2020 05:32:30 ALS Bottle#: 20 Worklist Smp#: 21
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-9077-a-4
 Misc. Info.: 410-0007550-021
 Operator ID: MEC29284 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 09-Aug-2020 18:20:24 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1057

First Level Reviewer: campbellme

Date: 09-Aug-2020 18:14:25

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Chloromethane	50	2.135	2.129	0.006	91	3378	0.0481	
7 Vinyl chloride	62		2.245				ND	
9 Bromomethane	94		2.562				ND	
10 Chloroethane	64		2.648				ND	
19 1,1-Dichloroethene	96		3.507				ND	
20 Acetone	43	3.550	3.550	0.000	97	21700	3.04	
25 Carbon disulfide	76	3.800	3.794	0.006	58	2839	0.0210	7M
28 Methylene Chloride	84	4.184	4.166	0.018	52	1892	0.0438	Ma
* 29 t-Butyl alcohol-d10 (IS)	65	4.196	4.184	0.012	46	127799	50.0	M
31 Acrylonitrile	53		4.519				ND	
32 Methyl tert-butyl ether	73		4.568				ND	
33 trans-1,2-Dichloroethene	96		4.574				ND	
36 1,1-Dichloroethane	63		5.245				ND	
40 2-Butanone (MEK)	43		6.049				ND	
41 cis-1,2-Dichloroethene	96	6.080	6.086	-0.006	37	2097	0.0416	
48 Chlorobromomethane	128		6.415				ND	
50 Chloroform	83	6.574	6.568	0.006	93	6560	0.0745	
\$ 52 Dibromofluoromethane (Surr)	113	6.787	6.787	0.000	93	441659	9.10	
51 1,1,1-Trichloroethane	97		6.793				ND	
56 Carbon tetrachloride	117		6.994				ND	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.238	7.232	0.006	0	91382	9.89	
59 Benzene	78	7.287	7.269	0.018	58	2411	0.0133	7M
60 1,2-Dichloroethane	62	7.354	7.342	0.012	1	2168	0.0330	a
* 63 Fluorobenzene (IS)	96	7.677	7.677	0.000	98	1816167	10.0	
67 Trichloroethene	95	8.159	8.153	0.006	85	2298	0.0455	a
69 1,2-Dichloropropane	63		8.488				ND	
75 Dichlorobromomethane	83		8.835				ND	
80 cis-1,3-Dichloropropene	75		9.390				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	
\$ 82 Toluene-d8 (Surr)	98	9.701	9.695	0.006	95	1775744	10.1	
83 Toluene	92	9.774	9.774	0.000	97	9805	0.0885	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
84 trans-1,3-Dichloropropene	75		10.030				ND	
86 1,1,2-Trichloroethane	97		10.238				ND	
88 Tetrachloroethene	166	10.323	10.317	0.006	92	4135	0.0762	
91 2-Hexanone	43		10.457				ND	
93 Chlorodibromomethane	129		10.609				ND	
94 Ethylene Dibromide	107		10.719				ND	
* 95 Chlorobenzene-d5 (IS)	117	11.152	11.152	0.000	88	1341786	10.0	
97 Chlorobenzene	112		11.183				ND	
S 101 Xylenes, Total	106		11.245				ND	
98 1,1,1,2-Tetrachloroethane	131		11.262				ND	
99 Ethylbenzene	91		11.268				ND	
100 m-Xylene & p-Xylene	106		11.384				ND	
102 o-Xylene	106		11.713				ND	
103 Styrene	104		11.725				ND	
104 Bromoform	173		11.884				ND	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	88	631293	9.68	
109 1,1,2,2-Tetrachloroethane	83		12.255				ND	
* 124 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	96	685064	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MSV_29_826ISS_00007

Amount Added: 1.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S15.D

Injection Date: 08-Aug-2020 05:32:30

Instrument ID: 16334

Operator ID: MEC29284

Lims ID: 410-9077-A-4

Lab Sample ID: 410-9077-4

Worklist Smp#: 21

Client ID: HD-COD-SW-9-0/1-0

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

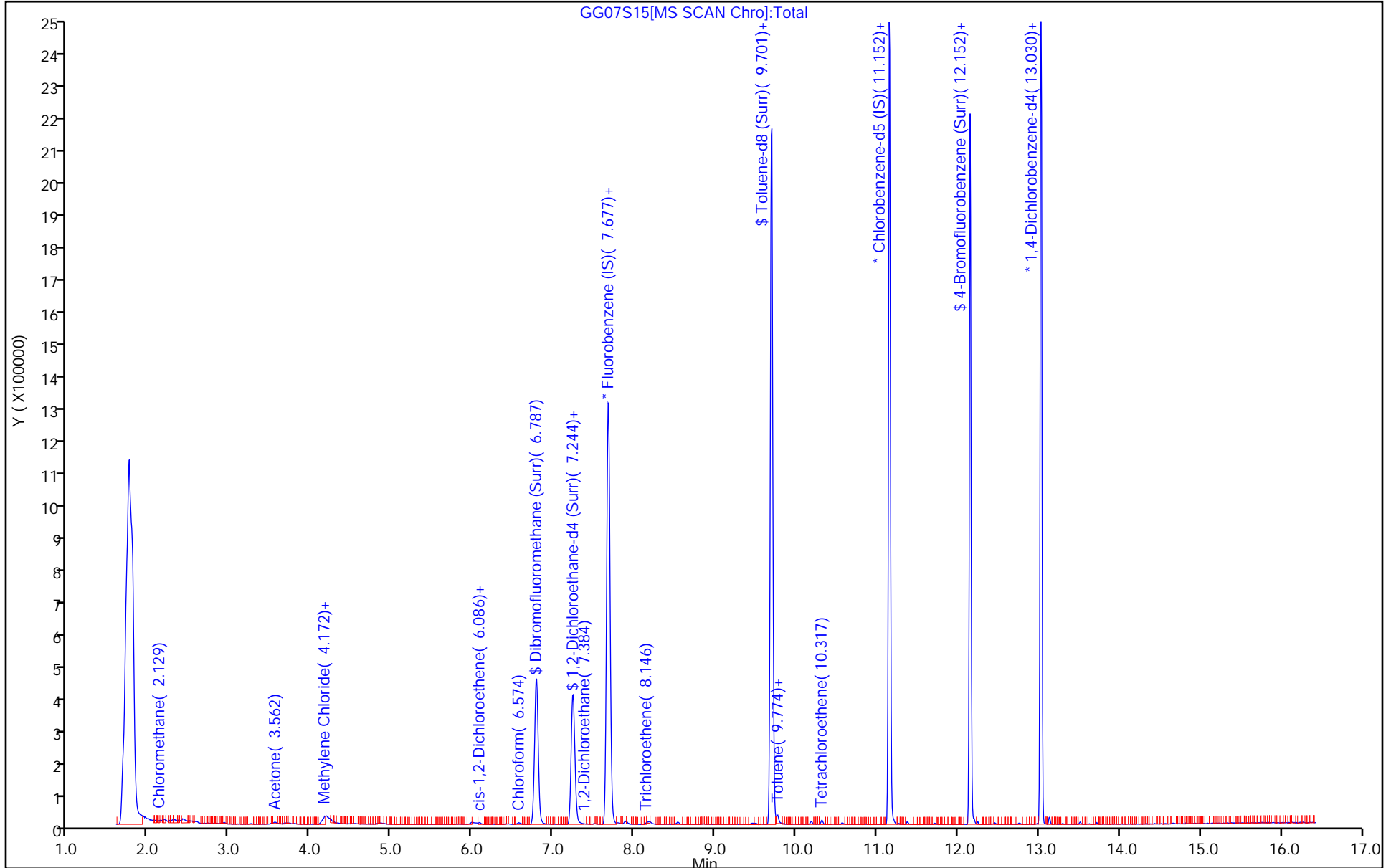
ALS Bottle#: 20

Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S15.D
 Lims ID: 410-9077-A-4
 Client ID: HD-COD-SW-9-0/1-0
 Sample Type: Client
 Inject. Date: 08-Aug-2020 05:32:30 ALS Bottle#: 20 Worklist Smp#: 21
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-9077-a-4
 Misc. Info.: 410-0007550-021
 Operator ID: MEC29284 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 09-Aug-2020 18:20:24 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1057

First Level Reviewer: campbellme

Date: 09-Aug-2020 18:14:25

Compound	Amount Added	Amount Recovered	% Rec.
\$ 52 Dibromofluoromethane (Surr)	10.0	9.10	91.04
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	9.89	98.90
\$ 82 Toluene-d8 (Surr)	10.0	10.1	101.10
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.68	96.77

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S15.D

Injection Date: 08-Aug-2020 05:32:30

Instrument ID: 16334

Lims ID: 410-9077-A-4

Lab Sample ID: 410-9077-4

Client ID: HD-COD-SW-9-0/1-0

Operator ID: MEC29284

ALS Bottle#: 20

Worklist Smp#: 21

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

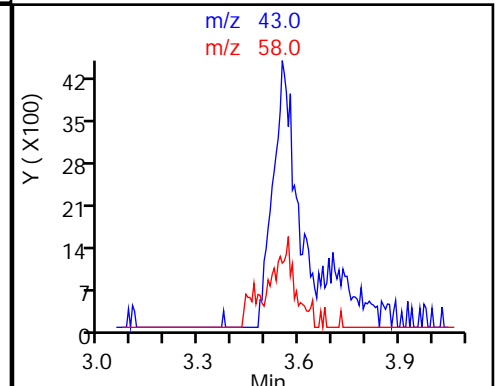
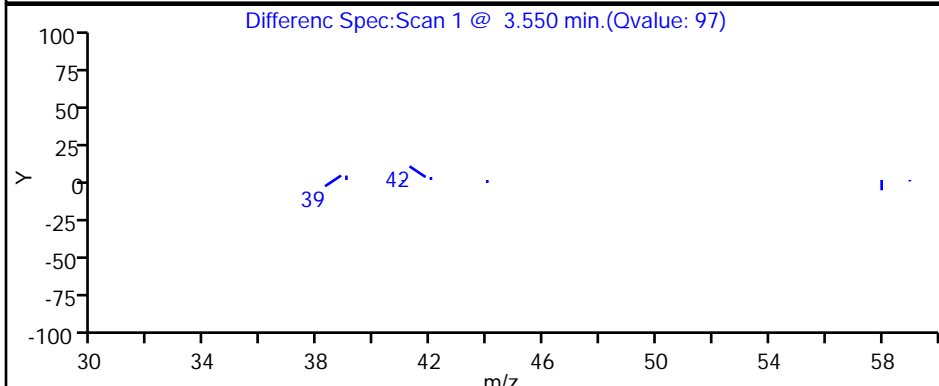
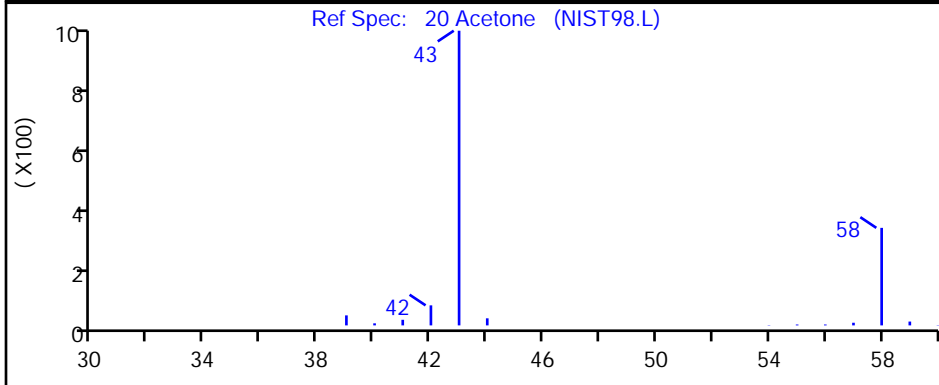
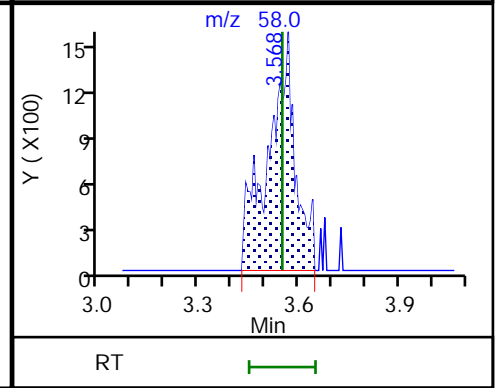
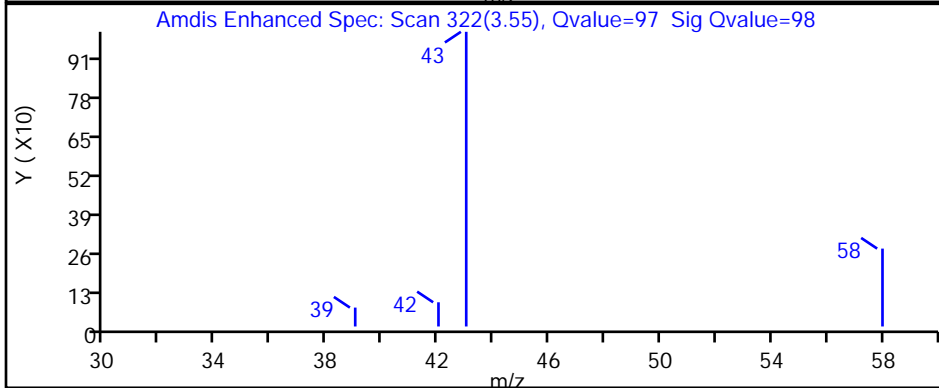
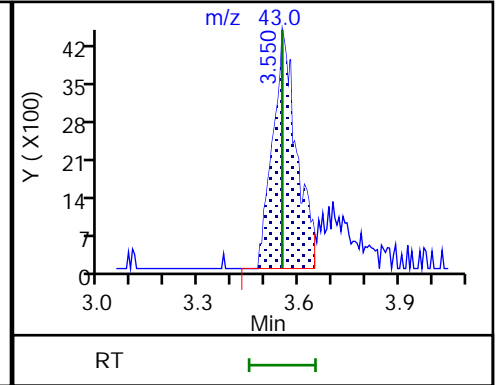
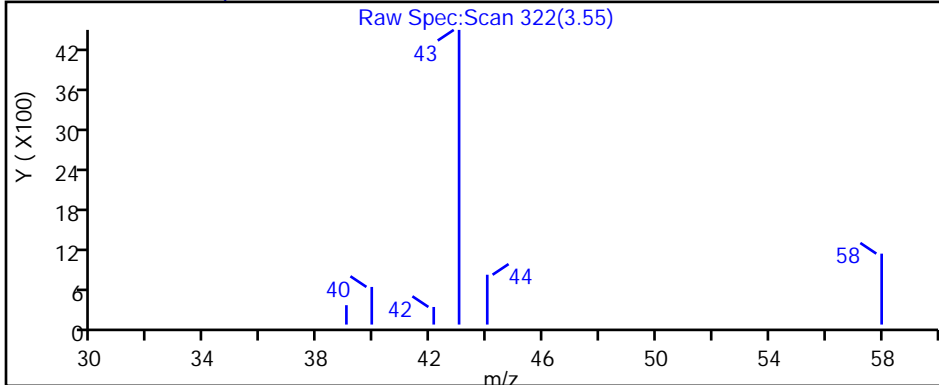
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

20 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S15.D

Injection Date: 08-Aug-2020 05:32:30

Instrument ID: 16334

Lims ID: 410-9077-A-4

Lab Sample ID: 410-9077-4

Client ID: HD-COD-SW-9-0/1-0

Operator ID: MEC29284

ALS Bottle#: 20

Worklist Smp#: 21

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

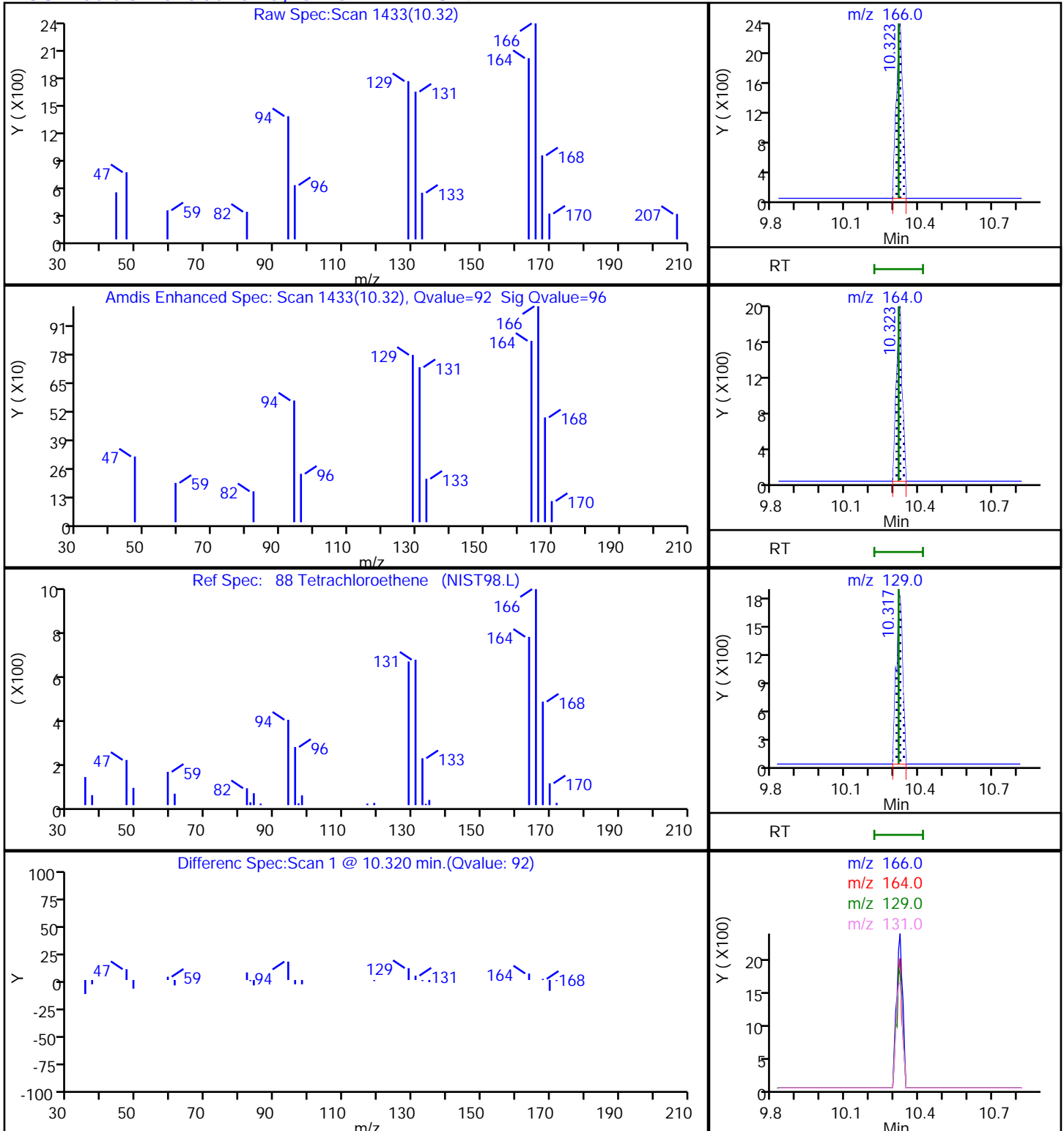
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

88 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S15.D

Injection Date: 08-Aug-2020 05:32:30

Instrument ID: 16334

Lims ID: 410-9077-A-4

Lab Sample ID: 410-9077-4

Client ID: HD-COD-SW-9-0/1-0

Operator ID: MEC29284

ALS Bottle#: 20

Worklist Smp#: 21

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

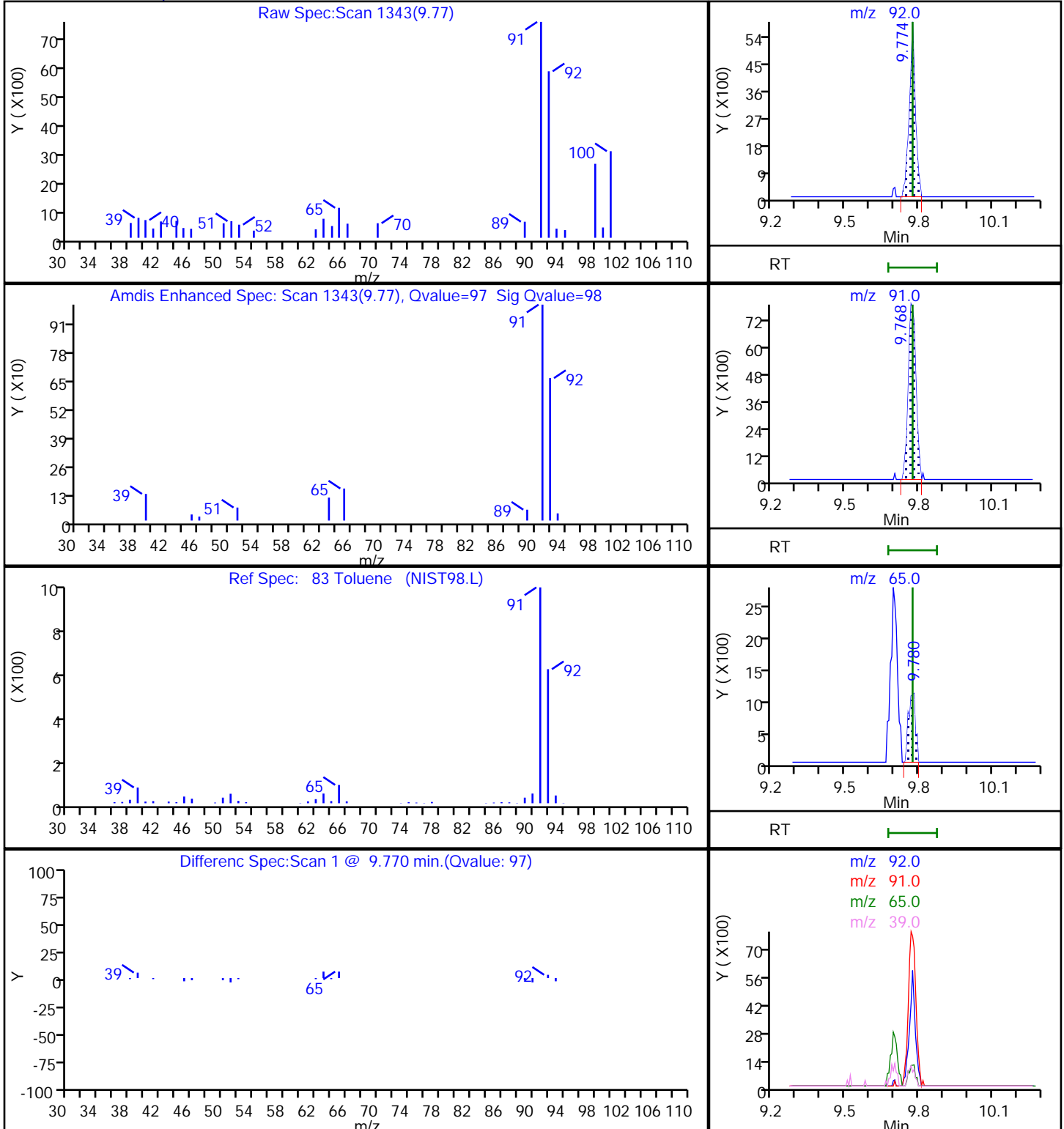
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

83 Toluene, CAS: 108-88-3



Eurofins Lancaster Laboratories Env, LLC

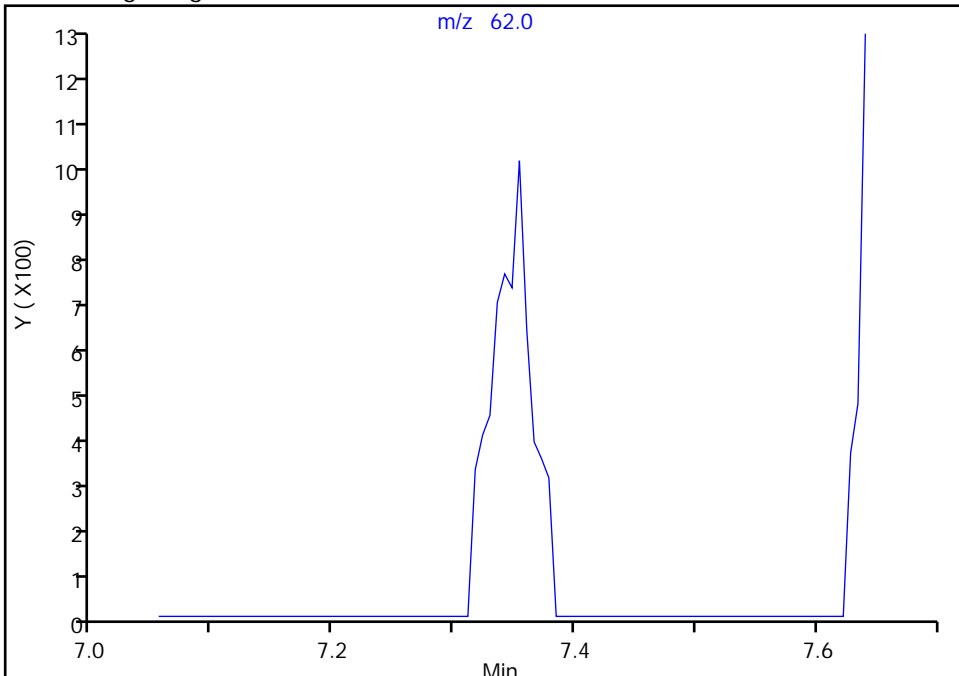
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Injection Date: 08-Aug-2020 05:32:30 Instrument ID: 16334
Lims ID: 410-9077-A-4 Lab Sample ID: 410-9077-4
Client ID: HD-COD-SW-9-0/1-0
Operator ID: MEC29284 ALS Bottle#: 20 Worklist Smp#: 21
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

60 1,2-Dichloroethane, CAS: 107-06-2

Signal: 1

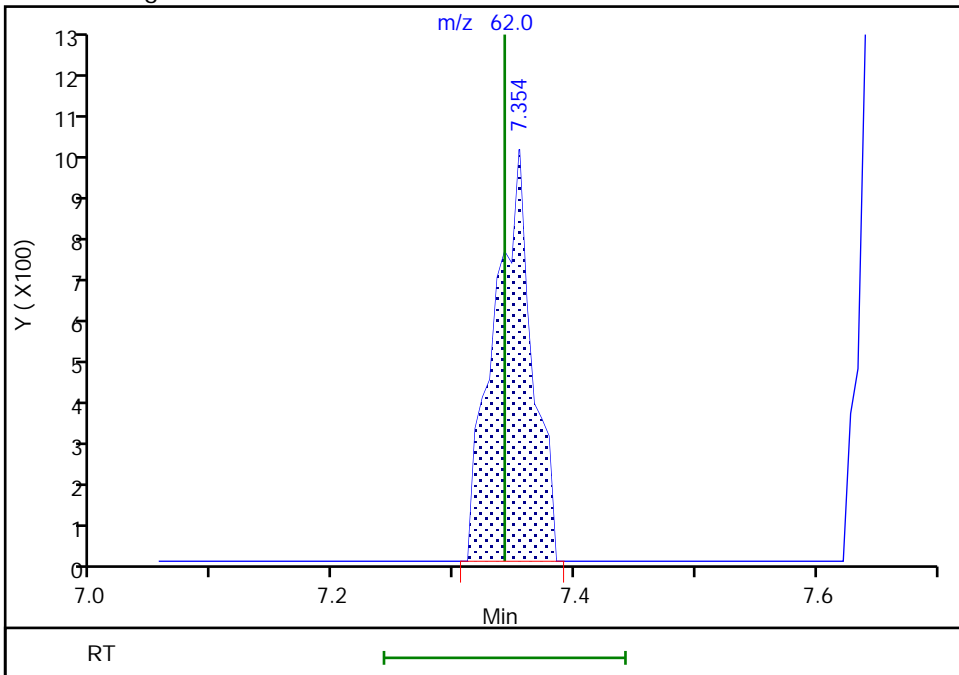
Not Detected
Expected RT: 7.34

Processing Integration Results



Manual Integration Results

RT: 7.35
Area: 2168
Amount: 0.033040
Amount Units: ug/l



Eurofins Lancaster Laboratories Env, LLC

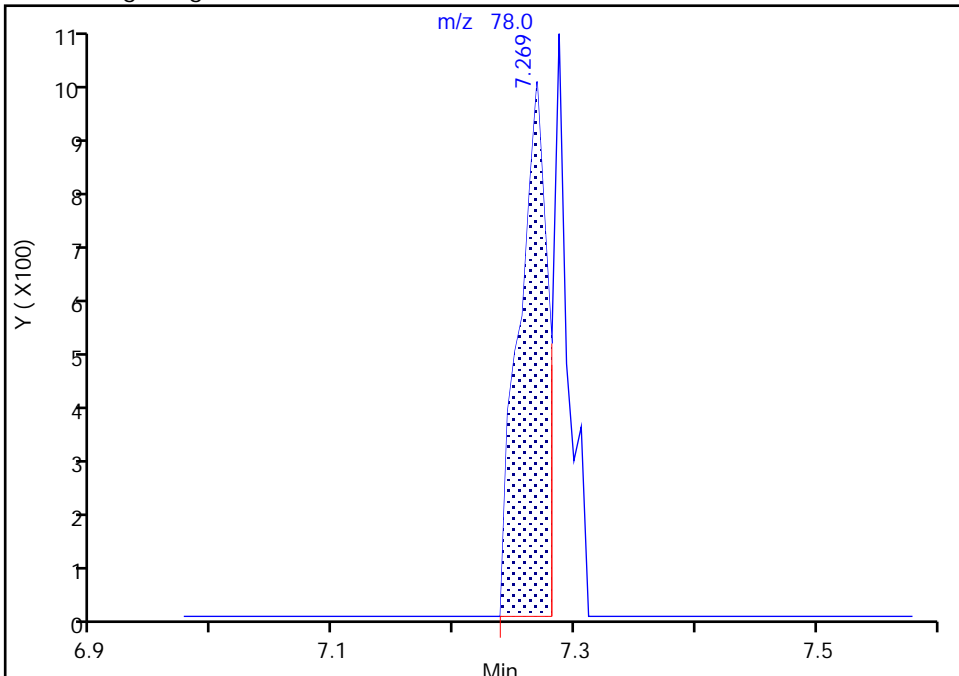
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Injection Date: 08-Aug-2020 05:32:30 Instrument ID: 16334
Lims ID: 410-9077-A-4 Lab Sample ID: 410-9077-4
Client ID: HD-COD-SW-9-0/1-0
Operator ID: MEC29284 ALS Bottle#: 20 Worklist Smp#: 21
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

59 Benzene, CAS: 71-43-2

Signal: 1

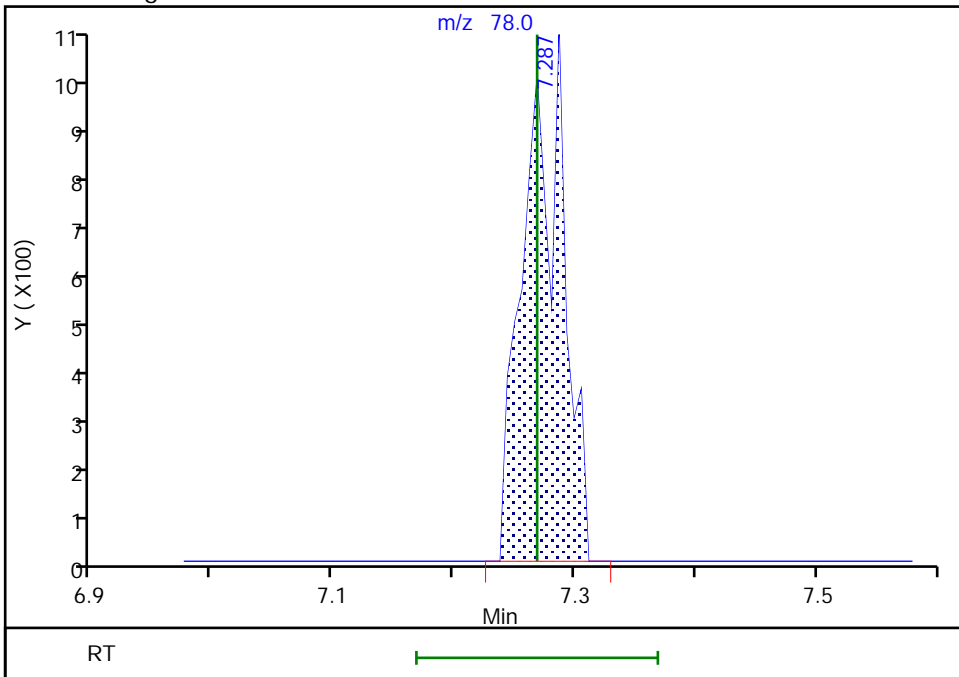
RT: 7.27
Area: 1617
Amount: 0.008918
Amount Units: ug/l

Processing Integration Results



RT: 7.29
Area: 2411
Amount: 0.013297
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 09-Aug-2020 18:14:04
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 295 of 777

Eurofins Lancaster Laboratories Env, LLC

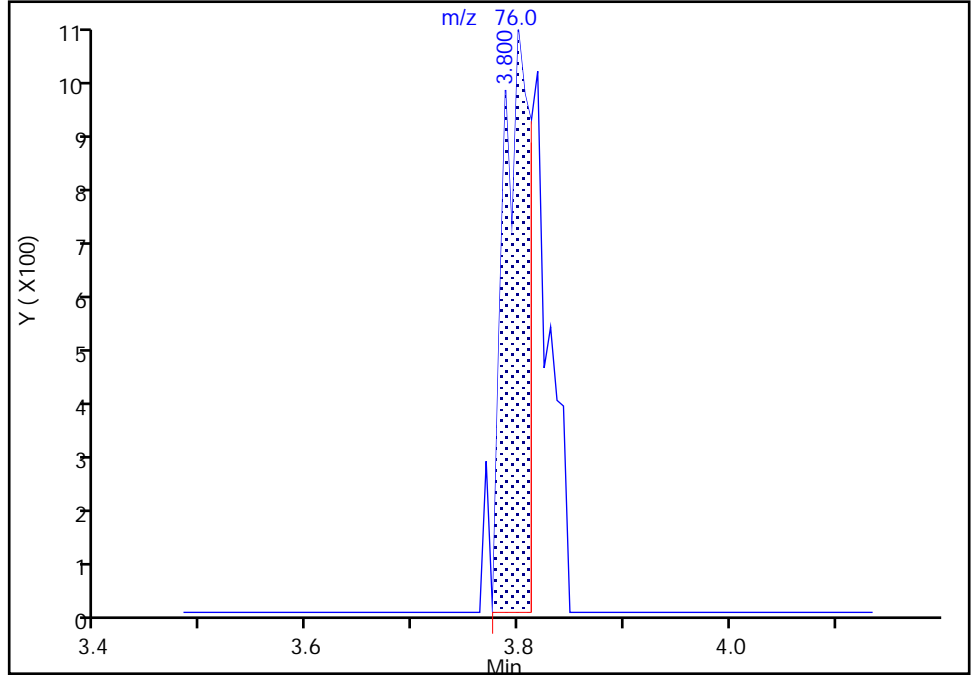
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Injection Date: 08-Aug-2020 05:32:30 Instrument ID: 16334
Lims ID: 410-9077-A-4 Lab Sample ID: 410-9077-4
Client ID: HD-COD-SW-9-0/1-0
Operator ID: MEC29284 ALS Bottle#: 20 Worklist Smp#: 21
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

25 Carbon disulfide, CAS: 75-15-0

Signal: 1

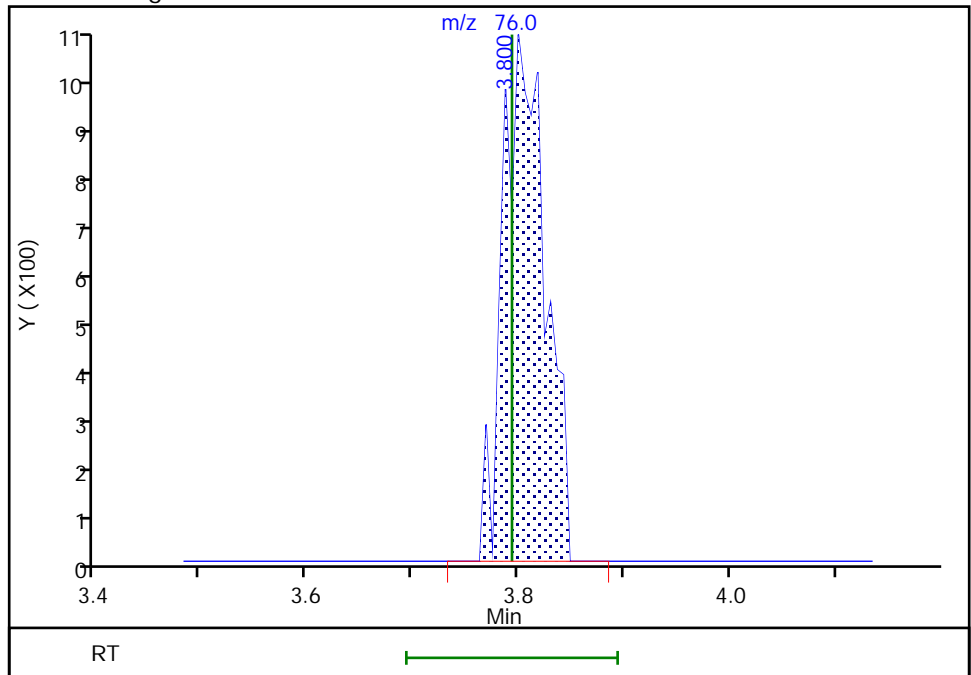
RT: 3.80
Area: 1783
Amount: 0.013198
Amount Units: ug/l

Processing Integration Results



RT: 3.80
Area: 2839
Amount: 0.021014
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 09-Aug-2020 18:13:38
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

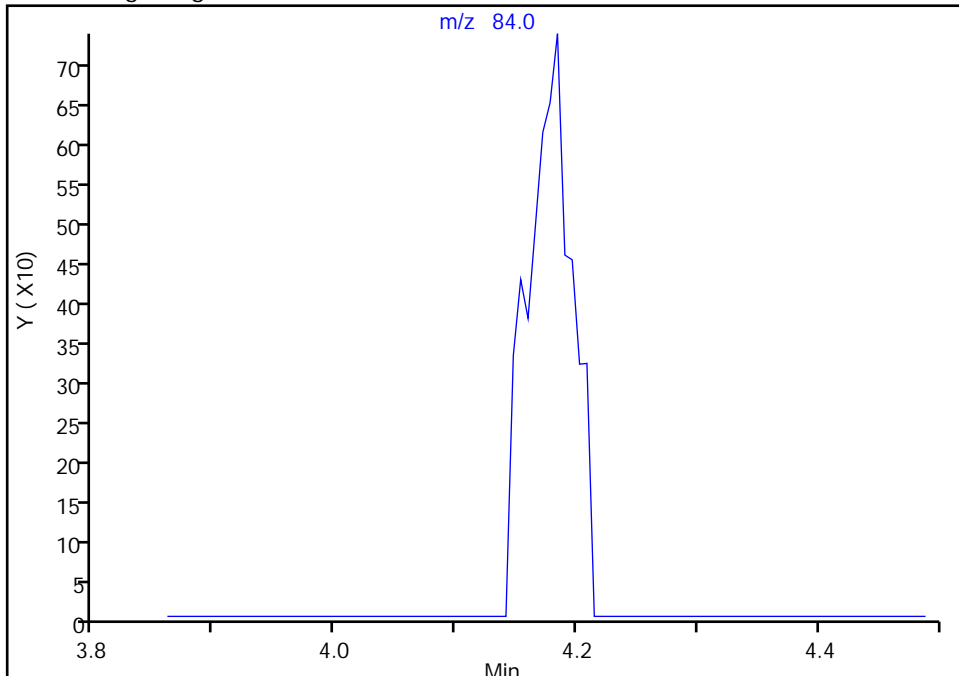
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Injection Date: 08-Aug-2020 05:32:30 Instrument ID: 16334
Lims ID: 410-9077-A-4 Lab Sample ID: 410-9077-4
Client ID: HD-COD-SW-9-0/1-0
Operator ID: MEC29284 ALS Bottle#: 20 Worklist Smp#: 21
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

28 Methylene Chloride, CAS: 75-09-2

Signal: 1

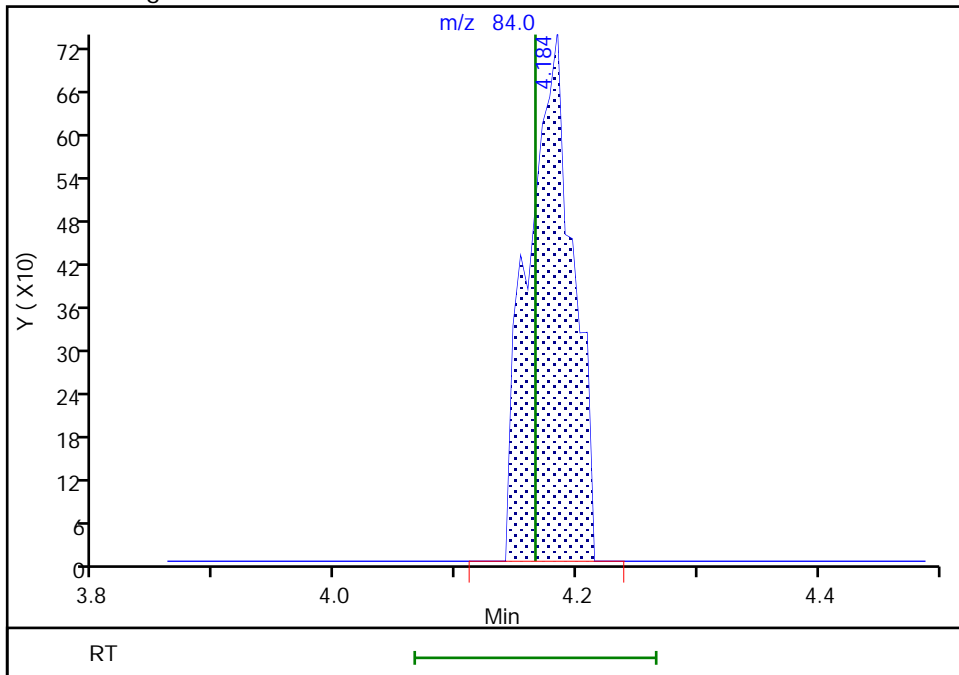
Not Detected
Expected RT: 4.17

Processing Integration Results



Manual Integration Results

RT: 4.18
Area: 1892
Amount: 0.043761
Amount Units: ug/l



Reviewer: campbellme, 09-Aug-2020 18:13:44
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Euofins Lancaster Laboratories Env, LLC

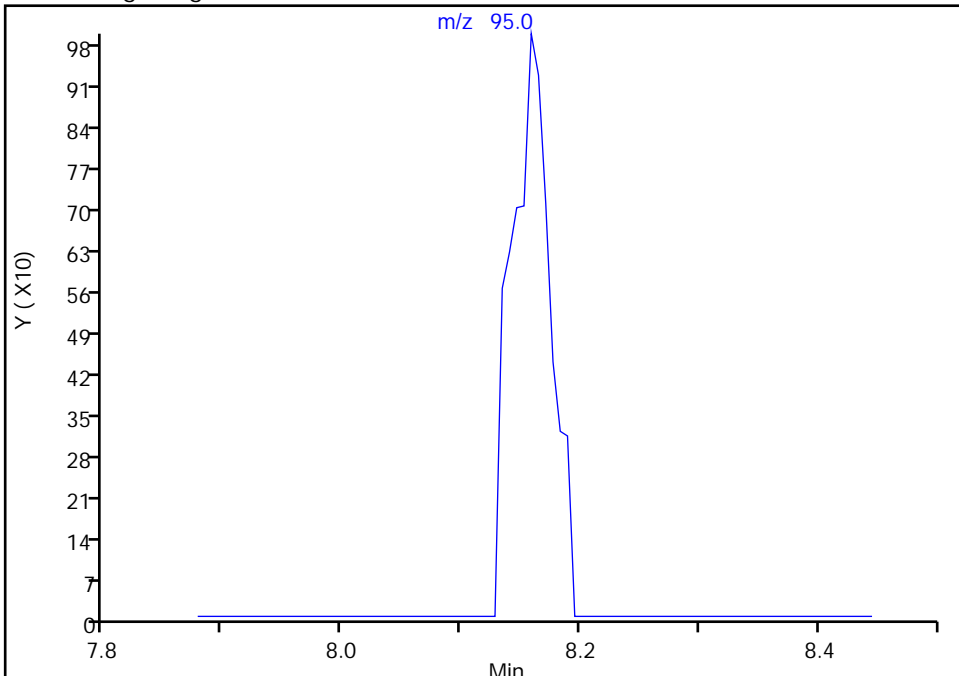
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Injection Date: 08-Aug-2020 05:32:30 Instrument ID: 16334
Lims ID: 410-9077-A-4 Lab Sample ID: 410-9077-4
Client ID: HD-COD-SW-9-0/1-0
Operator ID: MEC29284 ALS Bottle#: 20 Worklist Smp#: 21
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

67 Trichloroethene, CAS: 79-01-6

Signal: 1

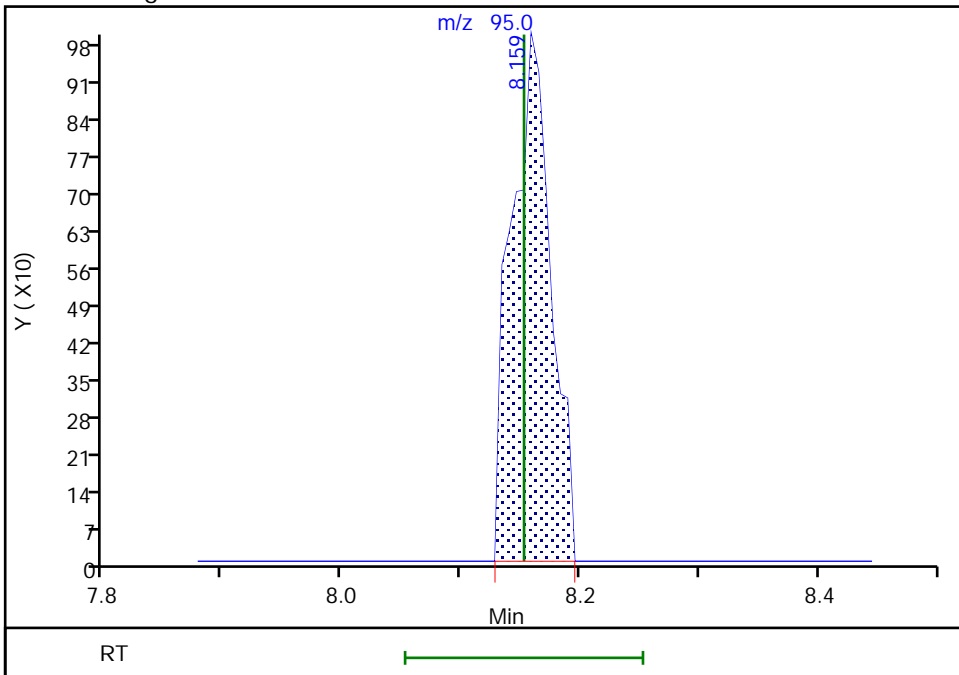
Not Detected
Expected RT: 8.15

Processing Integration Results



Manual Integration Results

RT: 8.16
Area: 2298
Amount: 0.045509
Amount Units: ug/l



Reviewer: campbellme, 09-Aug-2020 18:14:14
Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

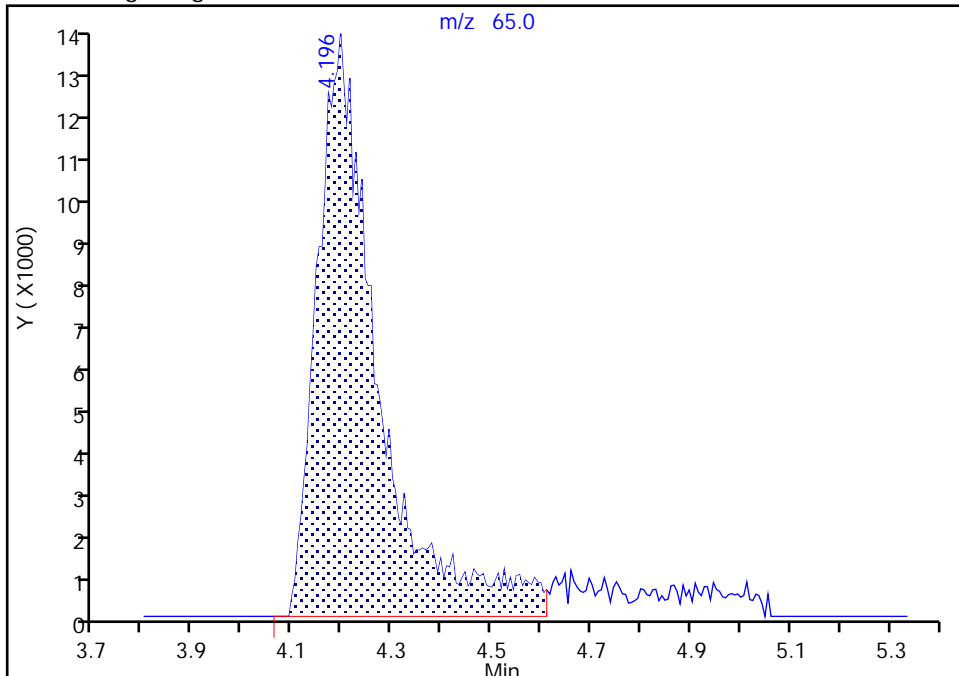
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Injection Date: 08-Aug-2020 05:32:30 Instrument ID: 16334
Lims ID: 410-9077-A-4 Lab Sample ID: 410-9077-4
Client ID: HD-COD-SW-9-0/1-0
Operator ID: MEC29284 ALS Bottle#: 20 Worklist Smp#: 21
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 29 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

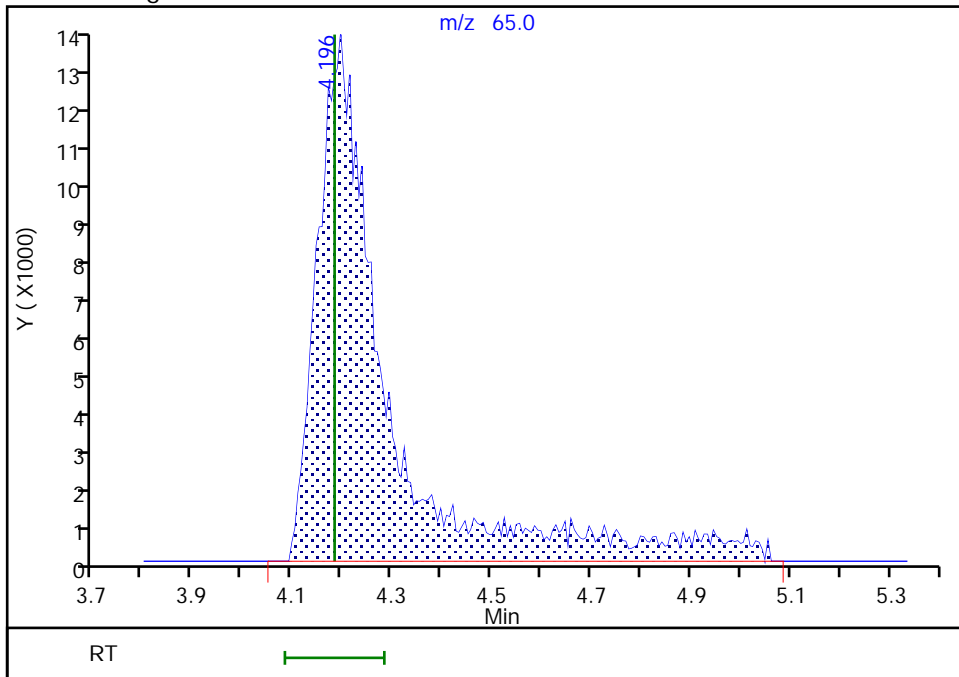
RT: 4.20
Area: 112772
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.20
Area: 127799
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 09-Aug-2020 18:13:52
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-13-0/1-0 Lab Sample ID: 410-9077-5
 Matrix: Surface Water Lab File ID: GG07S16.D
 Analysis Method: 8260D Date Collected: 07/28/2020 08:25
 Sample wt/vol: 25 (mL) Date Analyzed: 08/08/2020 05:55
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 30932 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		0.50	0.060
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.060
75-34-3	1,1-Dichloroethane	ND		0.50	0.070
75-35-4	1,1-Dichloroethene	ND		0.50	0.060
107-06-2	1,2-Dichloroethane	ND		0.50	0.050
78-87-5	1,2-Dichloropropane	ND		0.50	0.060
78-93-3	2-Butanone (MEK)	ND		5.0	0.60
591-78-6	2-Hexanone	ND		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70
67-64-1	Acetone	2.1	J	5.0	0.90
107-13-1	Acrylonitrile	ND		5.0	0.40
71-43-2	Benzene	ND		0.50	0.050
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND	^c	0.50	0.070
75-15-0	Carbon disulfide	ND		1.0	0.060
56-23-5	Carbon tetrachloride	ND		0.50	0.070
108-90-7	Chlorobenzene	ND		0.50	0.060
74-97-5	Bromochloromethane	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
75-00-3	Chloroethane	ND		0.50	0.070
67-66-3	Chloroform	ND		0.50	0.090
74-87-3	Chloromethane	0.070	J	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.086	J	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
75-27-4	Bromodichloromethane	ND		0.50	0.050
100-41-4	Ethylbenzene	ND		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.050
75-09-2	Methylene Chloride	ND		0.50	0.070
100-42-5	Styrene	ND		0.50	0.050
127-18-4	Tetrachloroethene	ND		0.50	0.060
108-88-3	Toluene	ND		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-13-0/1-0 Lab Sample ID: 410-9077-5
 Matrix: Surface Water Lab File ID: GG07S16.D
 Analysis Method: 8260D Date Collected: 07/28/2020 08:25
 Sample wt/vol: 25 (mL) Date Analyzed: 08/08/2020 05:55
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 30932 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	0.073	J	0.50	0.060
75-01-4	Vinyl chloride	ND		0.50	0.10
1330-20-7	Xylenes, Total	ND		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	92		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S16.D
 Lims ID: 410-9077-A-5
 Client ID: HD-COD-SW-13-0/1-0
 Sample Type: Client
 Inject. Date: 08-Aug-2020 05:55:30 ALS Bottle#: 21 Worklist Smp#: 22
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-9077-a-5
 Misc. Info.: 410-0007550-022
 Operator ID: MEC29284 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 09-Aug-2020 18:20:24 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1057

First Level Reviewer: campbellme

Date: 09-Aug-2020 18:15:22

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Chloromethane	50	2.129	2.129	0.000	95	4883	0.0704	
7 Vinyl chloride	62		2.245				ND	
9 Bromomethane	94		2.562				ND	
10 Chloroethane	64		2.648				ND	
19 1,1-Dichloroethene	96		3.507				ND	
20 Acetone	43	3.550	3.550	0.000	69	15942	2.08	M
25 Carbon disulfide	76		3.794				ND	
28 Methylene Chloride	84		4.166				ND	
* 29 t-Butyl alcohol-d10 (IS)	65	4.184	4.184	0.000	23	137395	50.0	M
31 Acrylonitrile	53		4.519				ND	
32 Methyl tert-butyl ether	73		4.568				ND	
33 trans-1,2-Dichloroethene	96		4.574				ND	
36 1,1-Dichloroethane	63		5.245				ND	
40 2-Butanone (MEK)	43		6.049				ND	
41 cis-1,2-Dichloroethene	96	6.104	6.086	0.018	82	4262	0.0857	a
48 Chlorobromomethane	128		6.415				ND	
50 Chloroform	83	6.586	6.568	0.018	1	3237	0.0372	a
\$ 52 Dibromofluoromethane (Surr)	113	6.787	6.787	0.000	93	440820	9.20	
51 1,1,1-Trichloroethane	97		6.793				ND	
56 Carbon tetrachloride	117		6.994				ND	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.238	7.232	0.006	0	90873	9.96	
59 Benzene	78	7.275	7.269	0.006	41	2370	0.0132	7M
60 1,2-Dichloroethane	62		7.342				ND	
* 63 Fluorobenzene (IS)	96	7.677	7.677	0.000	98	1793475	10.0	
67 Trichloroethene	95	8.153	8.153	0.000	92	3628	0.0728	
69 1,2-Dichloropropane	63		8.488				ND	
75 Dichlorobromomethane	83		8.835				ND	
80 cis-1,3-Dichloropropene	75		9.390				ND	
81 4-Methyl-2-pentanone (MIBK)	43	9.500	9.567	-0.067	82	11981	0.3485	
\$ 82 Toluene-d8 (Surr)	98	9.695	9.695	0.000	95	1770308	10.0	
83 Toluene	92	9.774	9.774	0.000	99	5437	0.0488	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
84 trans-1,3-Dichloropropene	75		10.030				ND	
86 1,1,2-Trichloroethane	97		10.238				ND	
88 Tetrachloroethene	166	10.323	10.317	0.006	86	2221	0.0407	
91 2-Hexanone	43		10.457				ND	
93 Chlorodibromomethane	129		10.609				ND	
94 Ethylene Dibromide	107		10.719				ND	
* 95 Chlorobenzene-d5 (IS)	117	11.152	11.152	0.000	88	1349761	10.0	
97 Chlorobenzene	112		11.183				ND	
S 101 Xylenes, Total	106		11.245				ND	
98 1,1,1,2-Tetrachloroethane	131		11.262				ND	
99 Ethylbenzene	91		11.268				ND	
100 m-Xylene & p-Xylene	106		11.384				ND	
102 o-Xylene	106		11.713				ND	
103 Styrene	104		11.725				ND	
104 Bromoform	173		11.884				ND	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	89	626864	9.55	
109 1,1,2,2-Tetrachloroethane	83		12.255				ND	
* 124 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	97	685030	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MSV_29_826ISS_00007

Amount Added: 1.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S16.D

Injection Date: 08-Aug-2020 05:55:30

Instrument ID: 16334

Operator ID: MEC29284

Lims ID: 410-9077-A-5

Lab Sample ID: 410-9077-5

Worklist Smp#: 22

Client ID: HD-COD-SW-13-0/1-0

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

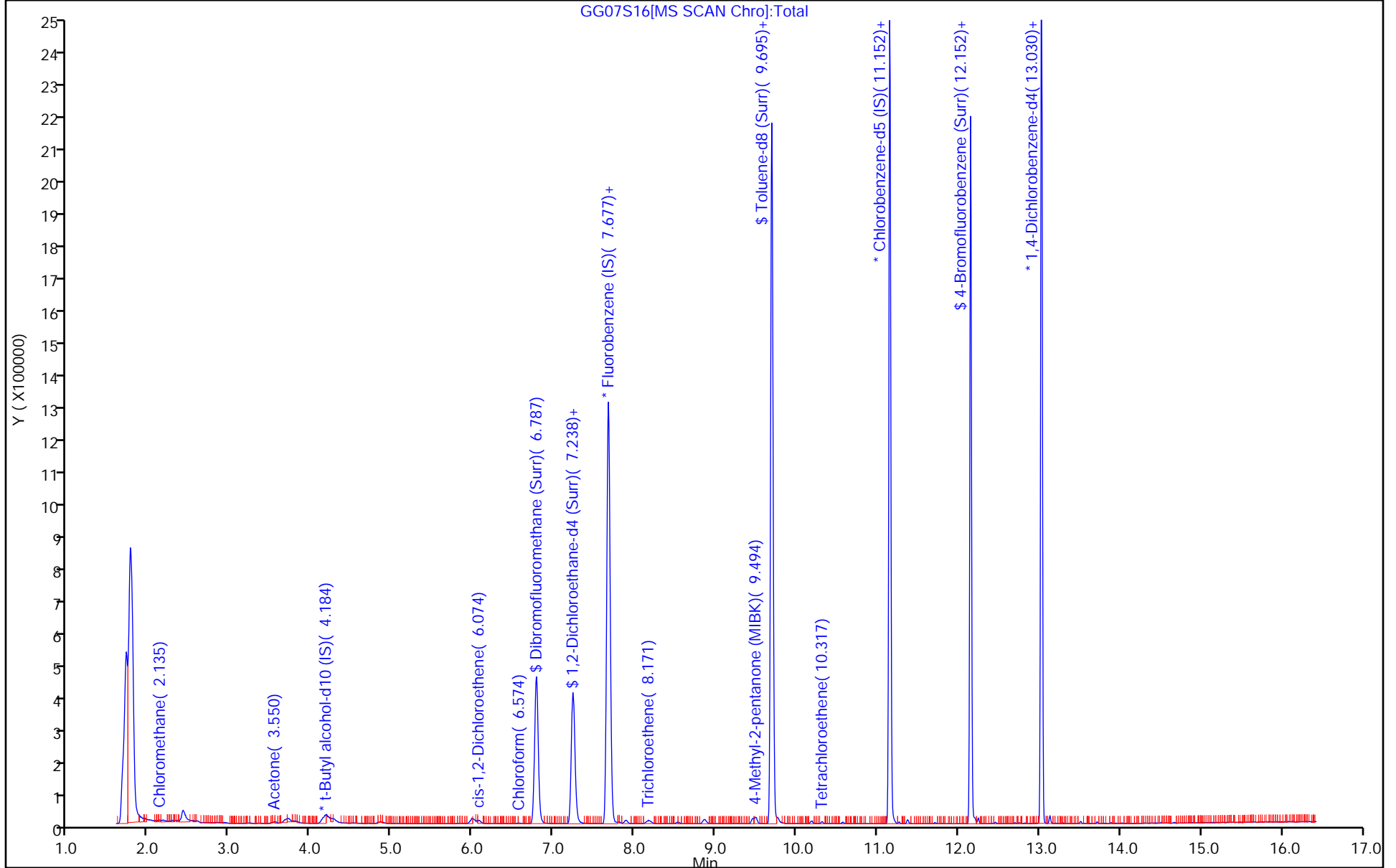
ALS Bottle#: 21

Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S16.D
 Lims ID: 410-9077-A-5
 Client ID: HD-COD-SW-13-0/1-0
 Sample Type: Client
 Inject. Date: 08-Aug-2020 05:55:30 ALS Bottle#: 21 Worklist Smp#: 22
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-9077-a-5
 Misc. Info.: 410-0007550-022
 Operator ID: MEC29284 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 09-Aug-2020 18:20:24 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1057

First Level Reviewer: campbellme Date: 09-Aug-2020 18:15:22

Compound	Amount Added	Amount Recovered	% Rec.
\$ 52 Dibromofluoromethane (Surr)	10.0	9.20	92.01
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	9.96	99.59
\$ 82 Toluene-d8 (Surr)	10.0	10.0	100.19
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.55	95.53

Euromins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S16.D

Injection Date: 08-Aug-2020 05:55:30

Instrument ID: 16334

Lims ID: 410-9077-A-5

Lab Sample ID: 410-9077-5

Client ID: HD-COD-SW-13-0/1-0

Operator ID: MEC29284

ALS Bottle#: 21

Worklist Smp#: 22

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

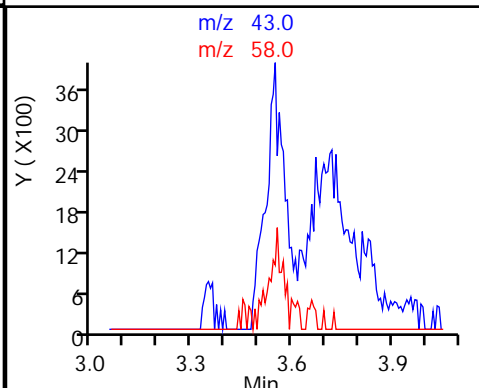
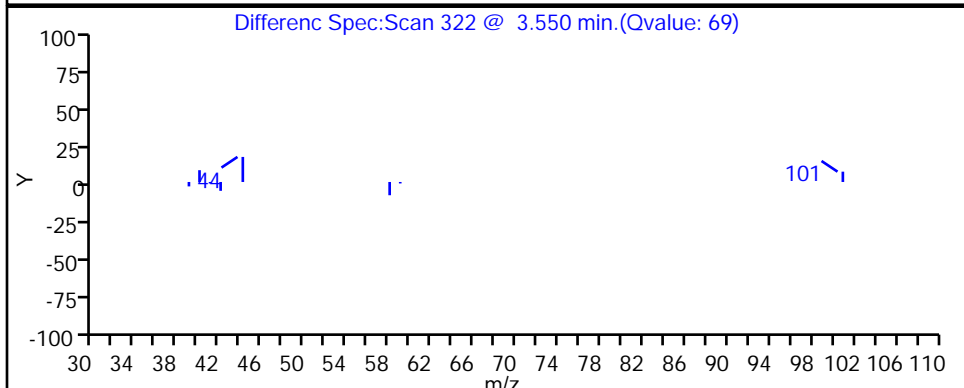
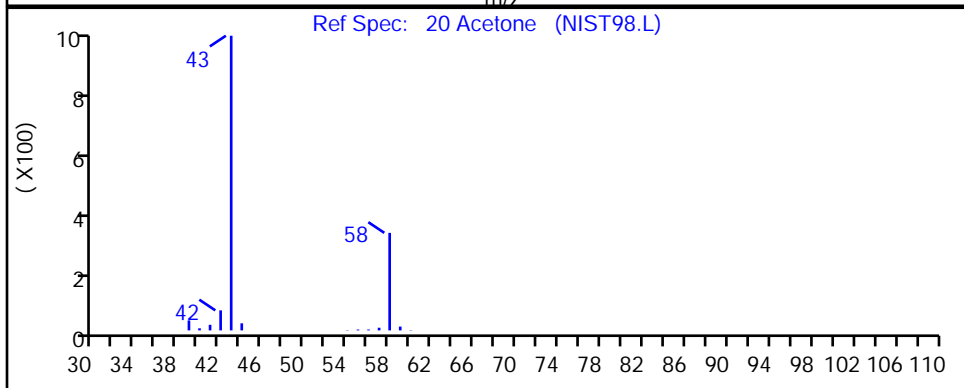
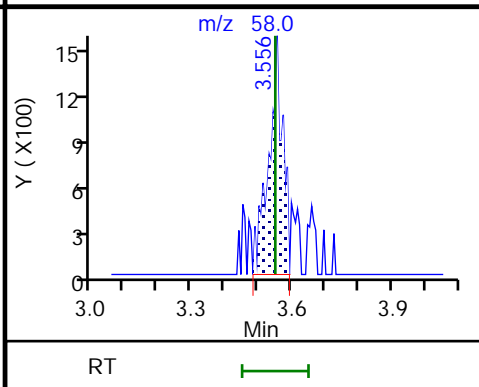
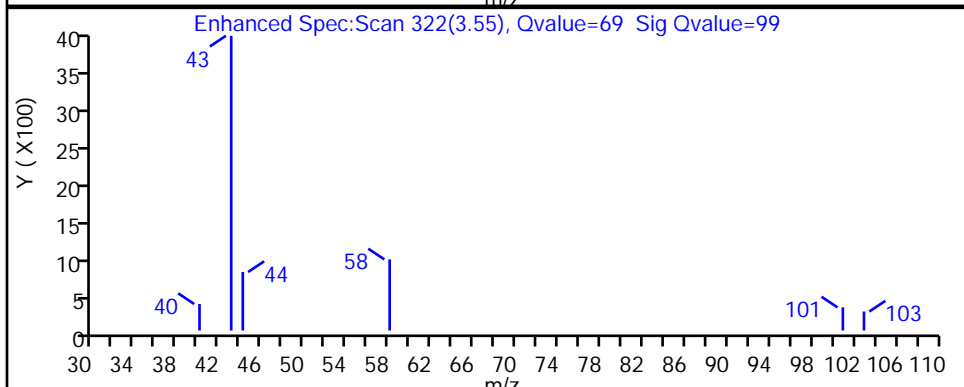
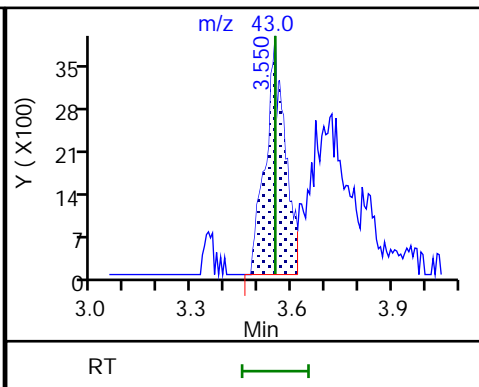
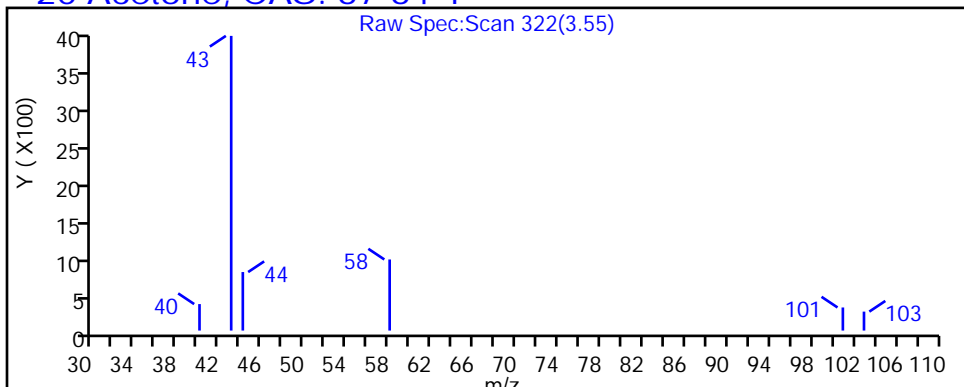
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector

MS Quad

20 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S16.D

Injection Date: 08-Aug-2020 05:55:30

Instrument ID: 16334

Lims ID: 410-9077-A-5

Lab Sample ID: 410-9077-5

Client ID: HD-COD-SW-13-0/1-0

Operator ID: MEC29284

ALS Bottle#: 21

Worklist Smp#: 22

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

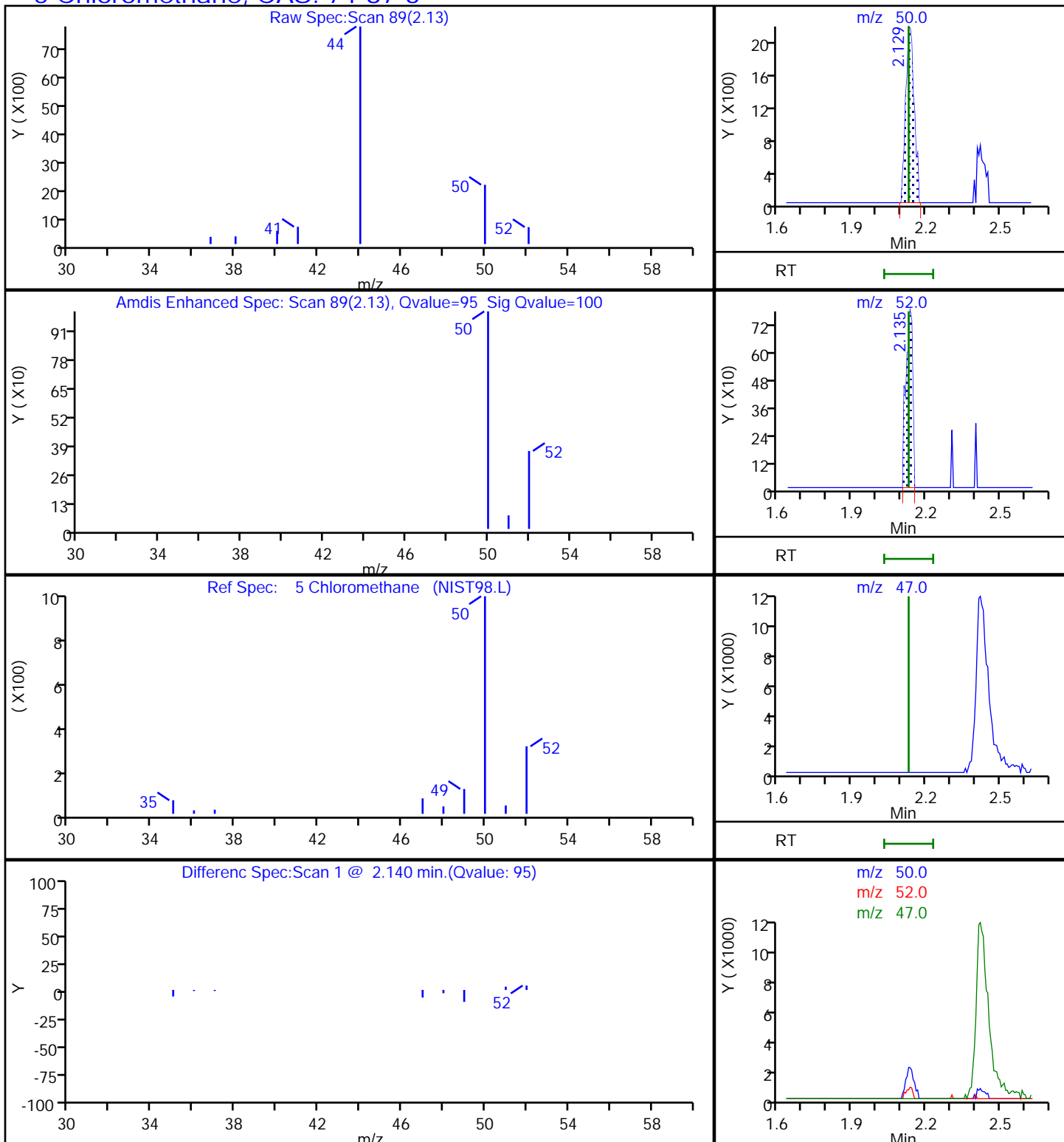
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

5 Chloromethane, CAS: 74-87-3



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S16.D

Injection Date: 08-Aug-2020 05:55:30

Instrument ID: 16334

Lims ID: 410-9077-A-5

Lab Sample ID: 410-9077-5

Client ID: HD-COD-SW-13-0/1-0

Operator ID: MEC29284

ALS Bottle#: 21

Worklist Smp#: 22

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

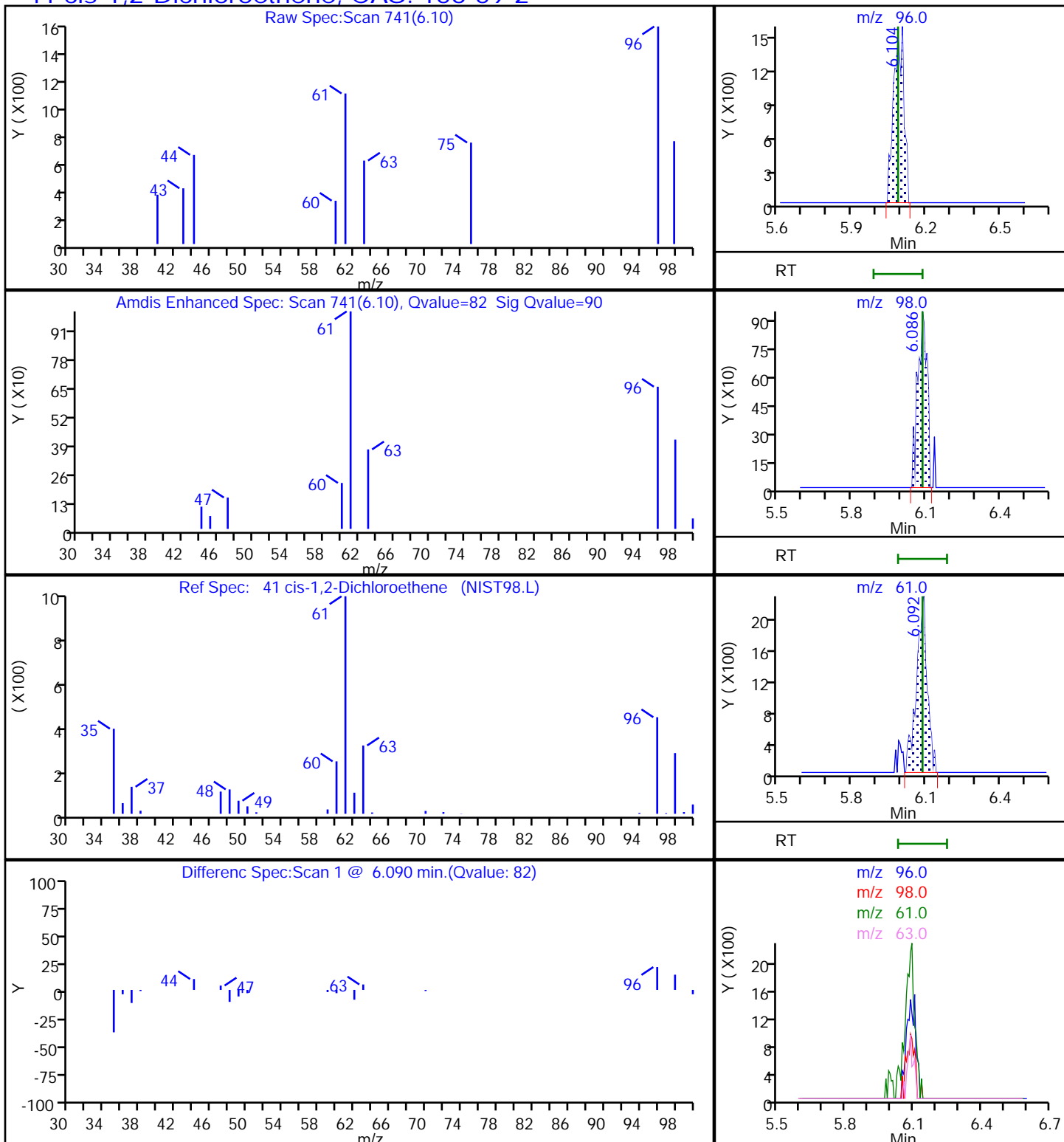
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) x 30m

MS Quad

41 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S16.D

Injection Date: 08-Aug-2020 05:55:30

Instrument ID: 16334

Lims ID: 410-9077-A-5

Lab Sample ID: 410-9077-5

Client ID: HD-COD-SW-13-0/1-0

Operator ID: MEC29284

ALS Bottle#: 21

Worklist Smp#: 22

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

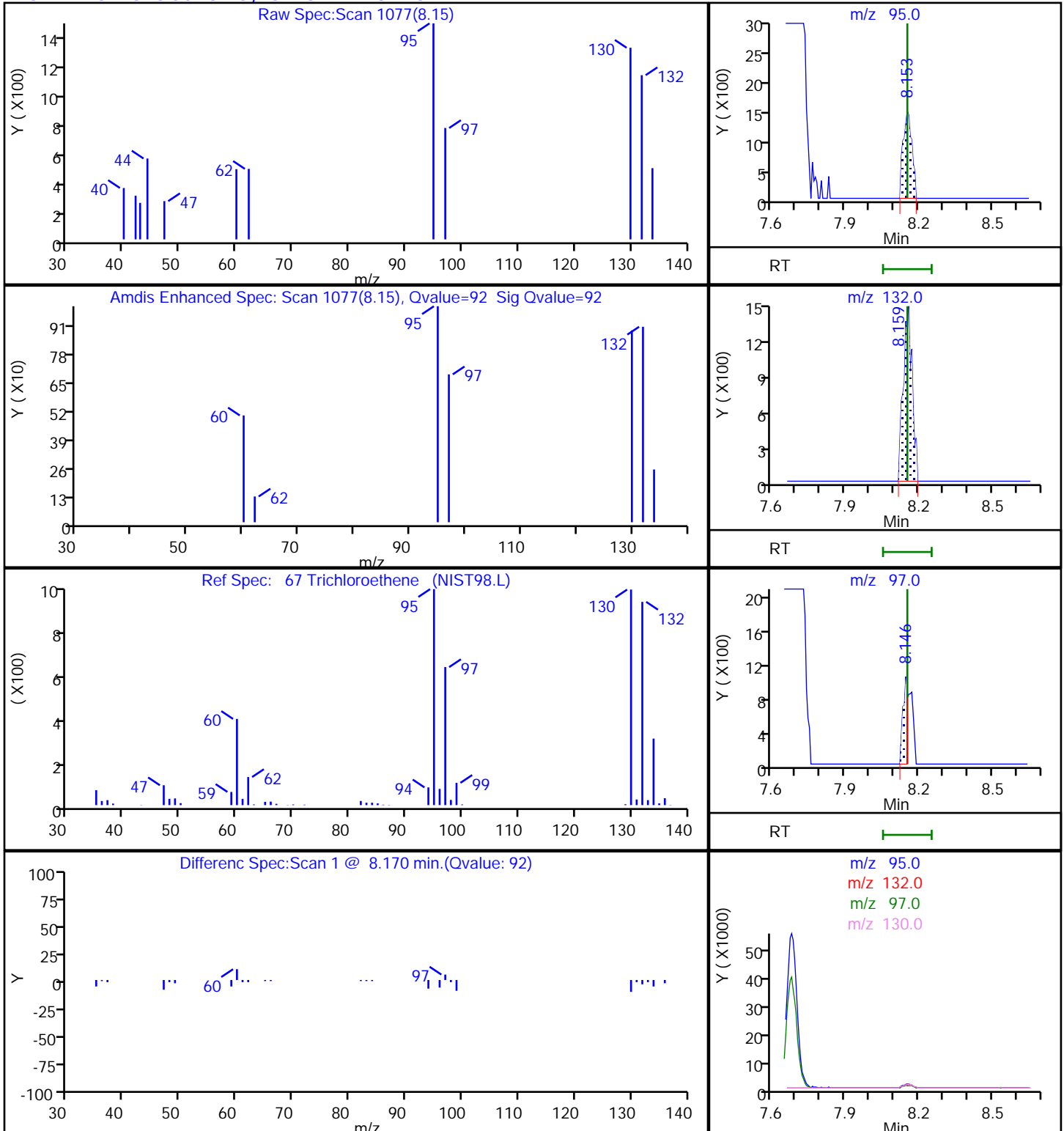
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) x 100m

MS Quad

67 Trichloroethene, CAS: 79-01-6



Eurofins Lancaster Laboratories Env, LLC

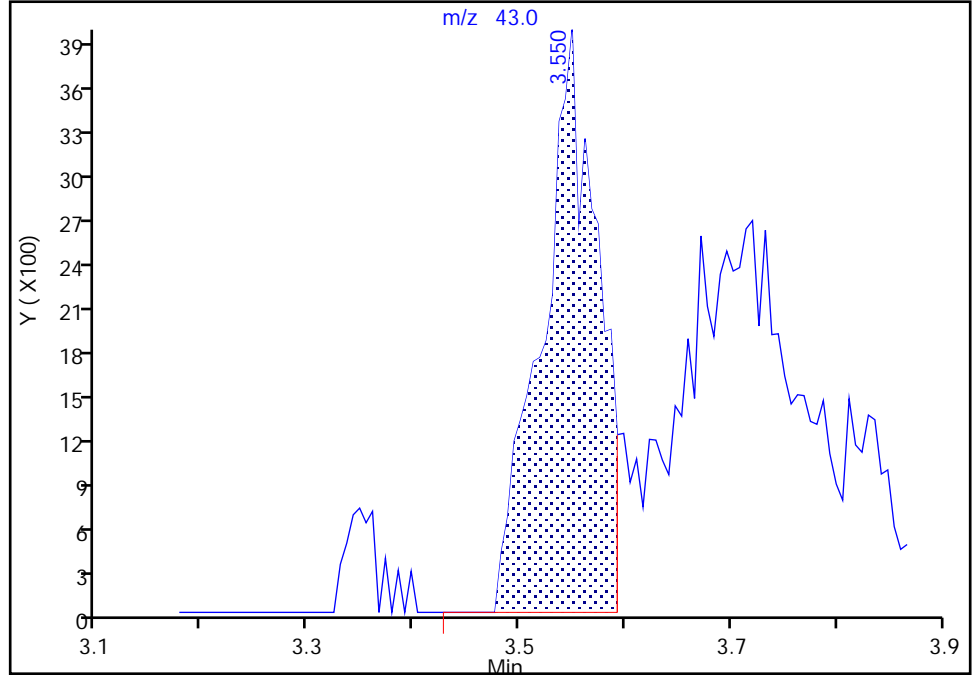
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Injection Date: 08-Aug-2020 05:55:30 Instrument ID: 16334
Lims ID: 410-9077-A-5 Lab Sample ID: 410-9077-5
Client ID: HD-COD-SW-13-0/1-0
Operator ID: MEC29284 ALS Bottle#: 21 Worklist Smp#: 22
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

20 Acetone, CAS: 67-64-1

Signal: 1

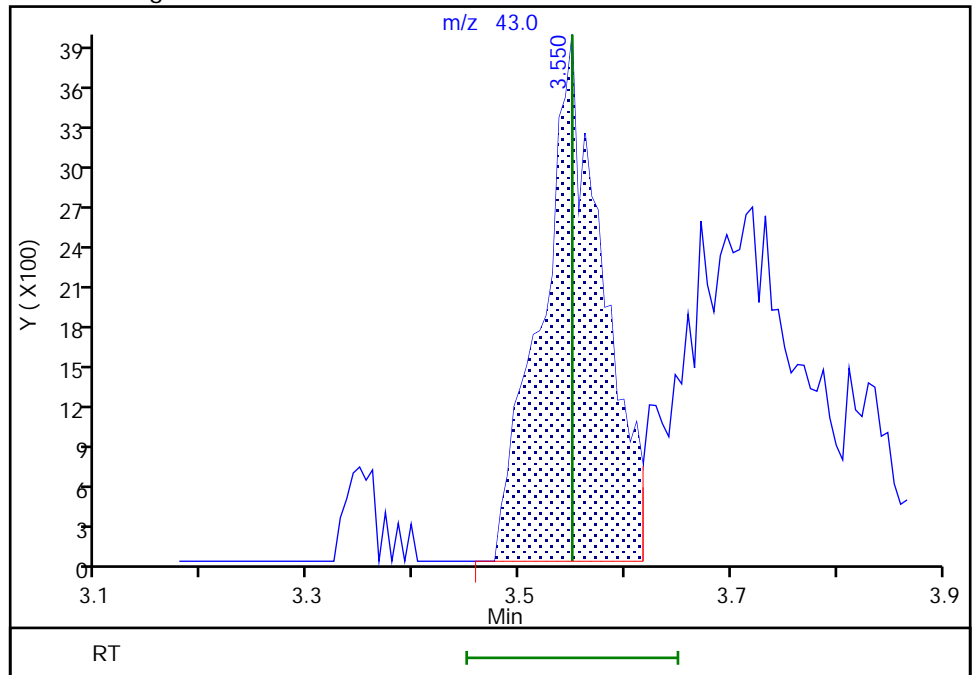
RT: 3.55
Area: 14520
Amount: 2.146562
Amount Units: ug/l

Processing Integration Results



RT: 3.55
Area: 15942
Amount: 2.077664
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 09-Aug-2020 18:14:42
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

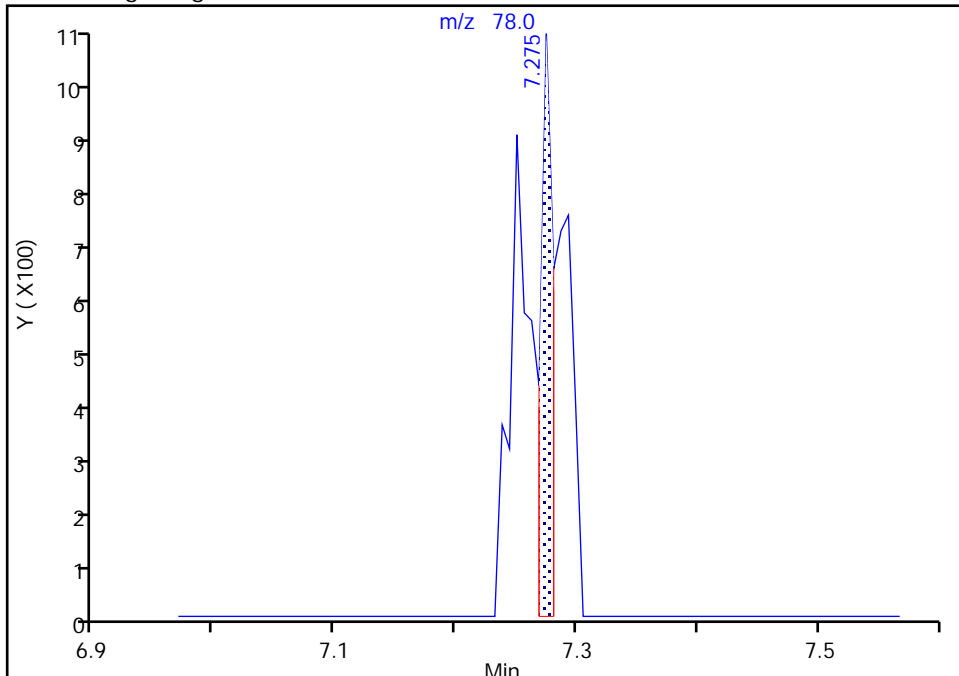
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Injection Date: 08-Aug-2020 05:55:30 Instrument ID: 16334
Lims ID: 410-9077-A-5 Lab Sample ID: 410-9077-5
Client ID: HD-COD-SW-13-0/1-0
Operator ID: MEC29284 ALS Bottle#: 21 Worklist Smp#: 22
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

59 Benzene, CAS: 71-43-2

Signal: 1

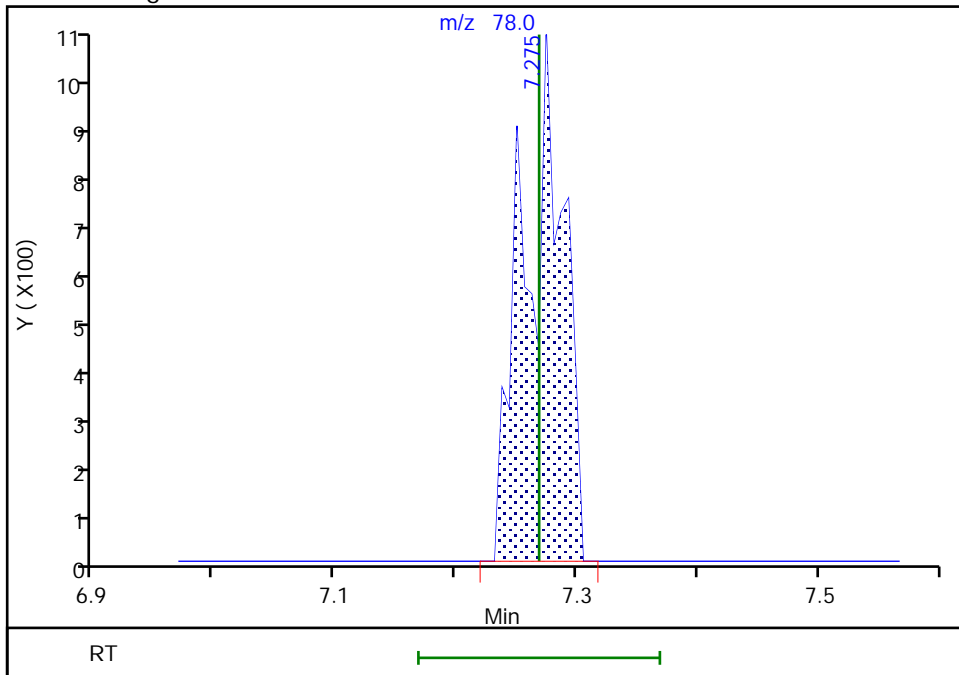
RT: 7.27
Area: 766
Amount: 0.004278
Amount Units: ug/l

Processing Integration Results



RT: 7.27
Area: 2370
Amount: 0.013236
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 09-Aug-2020 18:15:09
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

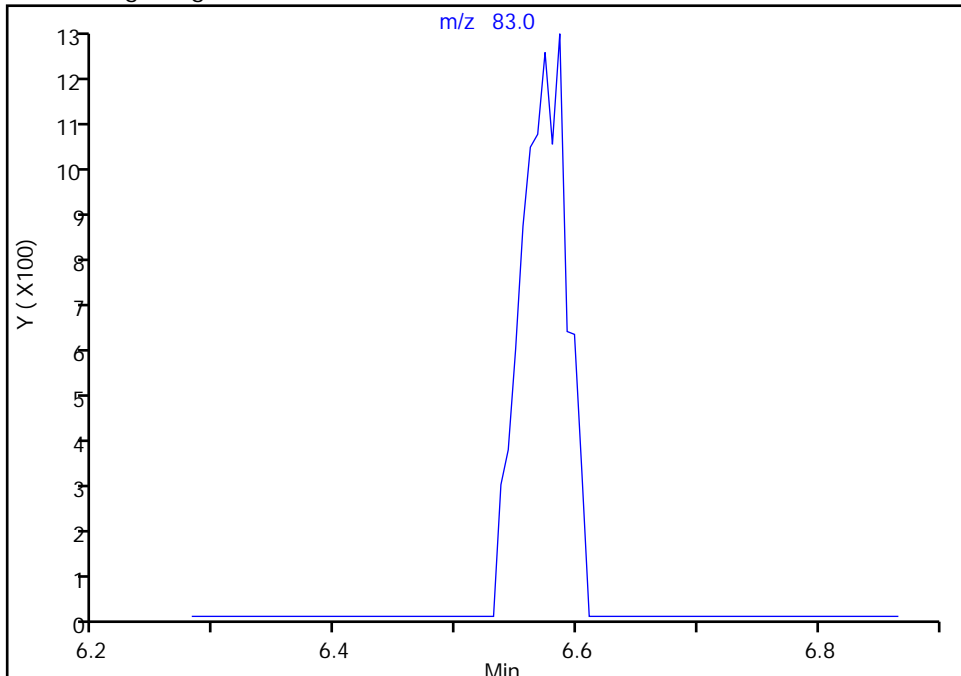
Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S16.D
Injection Date: 08-Aug-2020 05:55:30 Instrument ID: 16334
Lims ID: 410-9077-A-5 Lab Sample ID: 410-9077-5
Client ID: HD-COD-SW-13-0/1-0
Operator ID: MEC29284 ALS Bottle#: 21 Worklist Smp#: 22
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

50 Chloroform, CAS: 67-66-3

Signal: 1

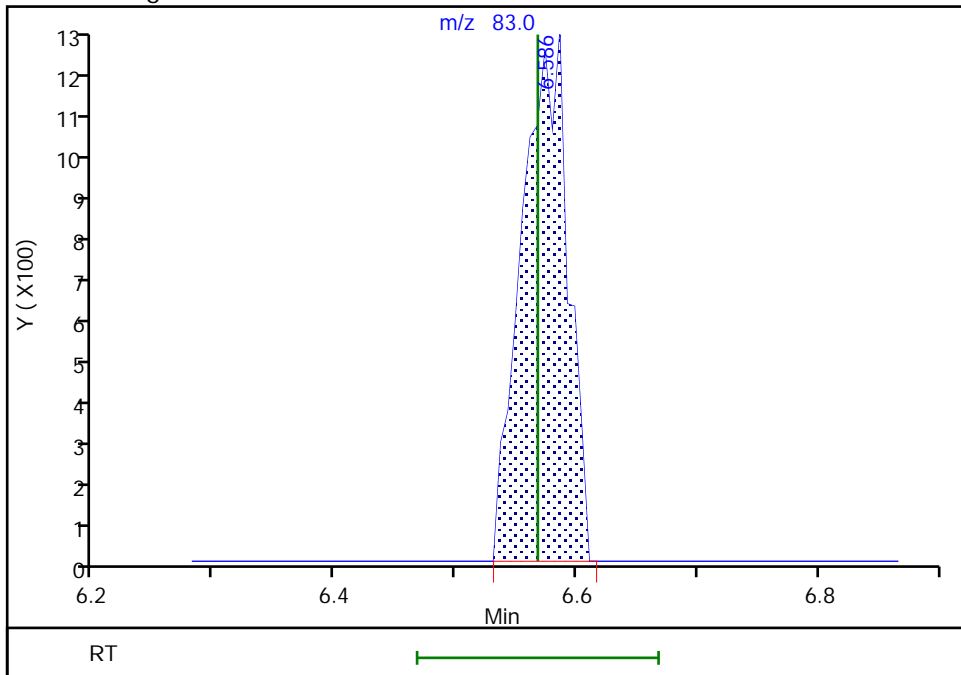
Not Detected
Expected RT: 6.57

Processing Integration Results



Manual Integration Results

RT: 6.59
Area: 3237
Amount: 0.037242
Amount Units: ug/l



Eurofins Lancaster Laboratories Env, LLC

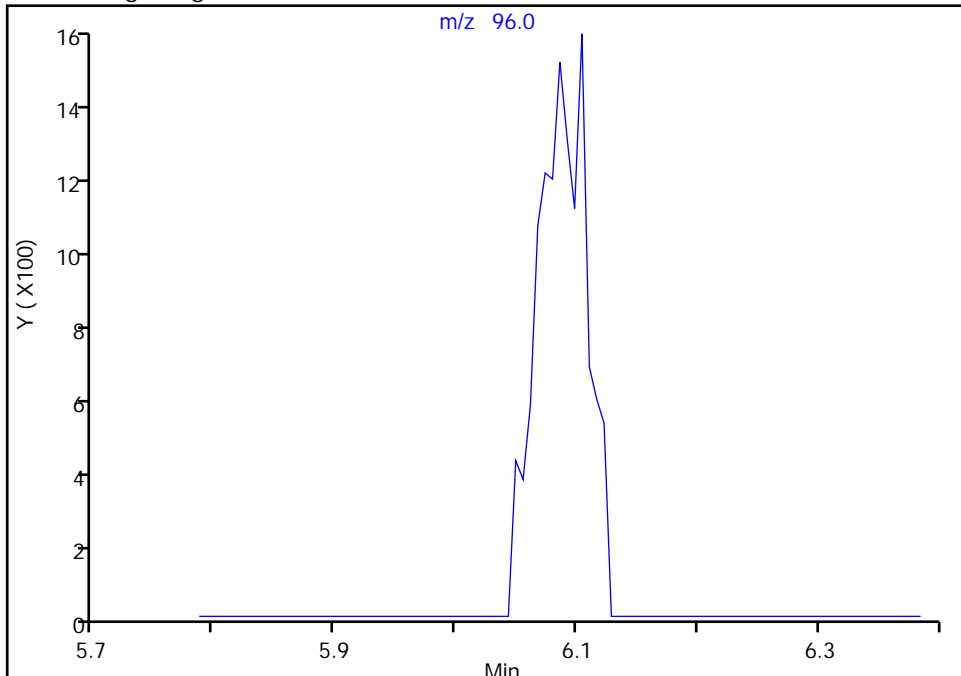
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Injection Date: 08-Aug-2020 05:55:30 Instrument ID: 16334
Lims ID: 410-9077-A-5 Lab Sample ID: 410-9077-5
Client ID: HD-COD-SW-13-0/1-0
Operator ID: MEC29284 ALS Bottle#: 21 Worklist Smp#: 22
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

41 cis-1,2-Dichloroethene, CAS: 156-59-2

Signal: 1

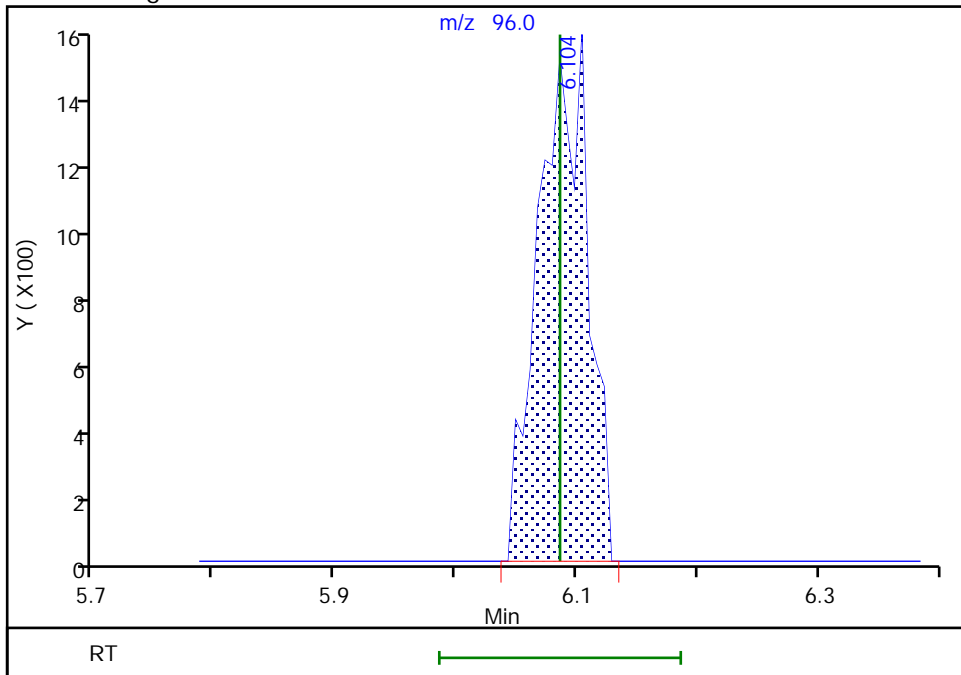
Not Detected
Expected RT: 6.09

Processing Integration Results



Manual Integration Results

RT: 6.10
Area: 4262
Amount: 0.085703
Amount Units: ug/l



Reviewer: campbellme, 09-Aug-2020 18:14:57
Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

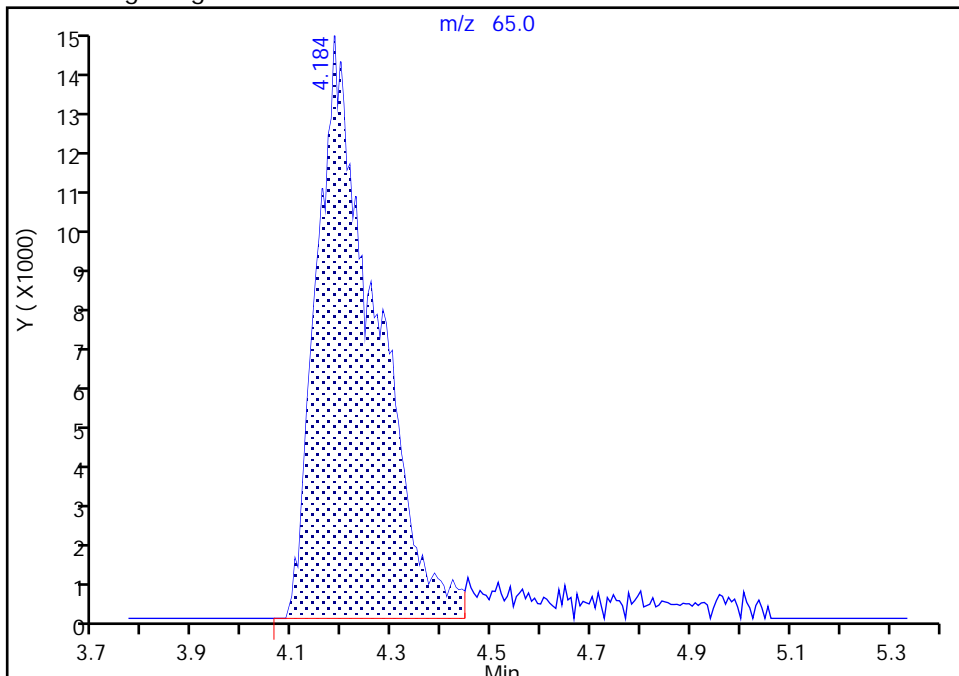
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Injection Date: 08-Aug-2020 05:55:30 Instrument ID: 16334
Lims ID: 410-9077-A-5 Lab Sample ID: 410-9077-5
Client ID: HD-COD-SW-13-0/1-0
Operator ID: MEC29284 ALS Bottle#: 21 Worklist Smp#: 22
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 29 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

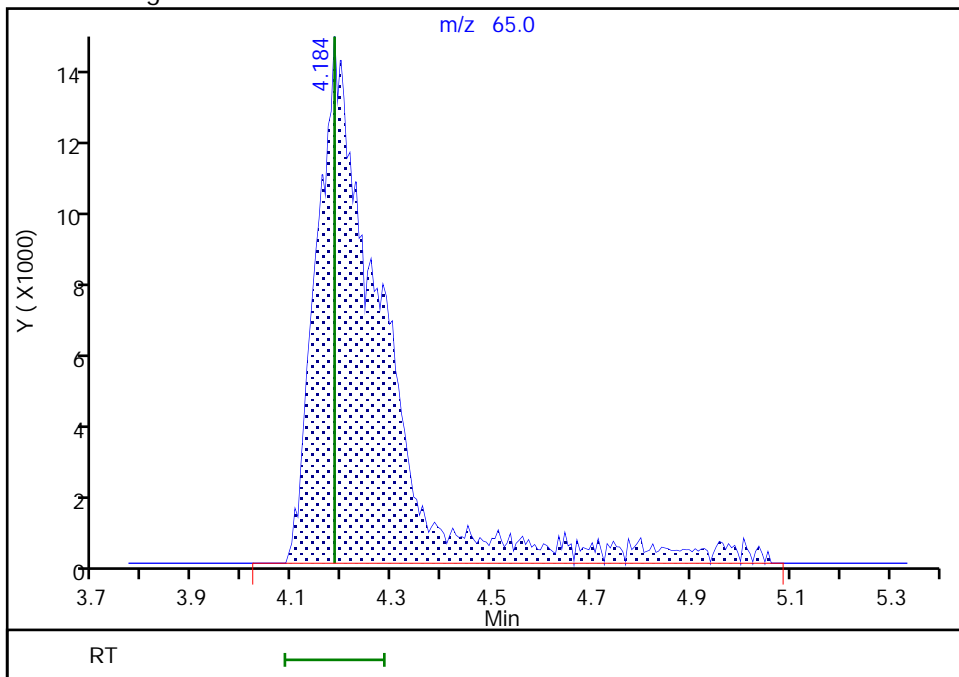
RT: 4.18
Area: 121123
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.18
Area: 137395
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 09-Aug-2020 18:14:52
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-15-0/1-0 Lab Sample ID: 410-9077-6
 Matrix: Surface Water Lab File ID: GG07S08.D
 Analysis Method: 8260D Date Collected: 07/28/2020 10:40
 Sample wt/vol: 25 (mL) Date Analyzed: 08/08/2020 02:57
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 30932 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.12	J	0.50	0.060
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.060
75-34-3	1,1-Dichloroethane	ND		0.50	0.070
75-35-4	1,1-Dichloroethene	0.089	J	0.50	0.060
107-06-2	1,2-Dichloroethane	ND		0.50	0.050
78-87-5	1,2-Dichloropropane	ND		0.50	0.060
78-93-3	2-Butanone (MEK)	ND		5.0	0.60
591-78-6	2-Hexanone	ND		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70
67-64-1	Acetone	1.7	J	5.0	0.90
107-13-1	Acrylonitrile	ND		5.0	0.40
71-43-2	Benzene	ND		0.50	0.050
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND	^c	0.50	0.070
75-15-0	Carbon disulfide	ND		1.0	0.060
56-23-5	Carbon tetrachloride	ND		0.50	0.070
108-90-7	Chlorobenzene	ND		0.50	0.060
74-97-5	Bromochloromethane	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
75-00-3	Chloroethane	ND		0.50	0.070
67-66-3	Chloroform	0.25	J	0.50	0.090
74-87-3	Chloromethane	ND		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.75		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
75-27-4	Bromodichloromethane	ND		0.50	0.050
100-41-4	Ethylbenzene	ND		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.050
75-09-2	Methylene Chloride	ND		0.50	0.070
100-42-5	Styrene	ND		0.50	0.050
127-18-4	Tetrachloroethene	2.5		0.50	0.060
108-88-3	Toluene	ND		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-15-0/1-0 Lab Sample ID: 410-9077-6
 Matrix: Surface Water Lab File ID: GG07S08.D
 Analysis Method: 8260D Date Collected: 07/28/2020 10:40
 Sample wt/vol: 25 (mL) Date Analyzed: 08/08/2020 02:57
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 30932 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	0.89		0.50	0.060
75-01-4	Vinyl chloride	ND		0.50	0.10
1330-20-7	Xylenes, Total	ND		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		80-120
460-00-4	4-Bromofluorobenzene (Surr)	95		80-120
1868-53-7	Dibromofluoromethane (Surr)	92		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S08.D
 Lims ID: 410-9077-A-6
 Client ID: HD-COD-SW-15-0/1-0
 Sample Type: Client
 Inject. Date: 08-Aug-2020 02:57:30 ALS Bottle#: 13 Worklist Smp#: 14
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-9077-a-6
 Misc. Info.: 410-0007550-014
 Operator ID: MEC29284 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 09-Aug-2020 22:30:15 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1057

First Level Reviewer: campbellme

Date: 09-Aug-2020 22:30:15

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
3 Chlorotrifluoroethene	116		1.885				ND	
1 Dichlorodifluoromethane	85		1.940				ND	
4 Chlorodifluoromethane	51		1.965				ND	
2 Dimethyl ether	45		2.014				ND	
5 Chloromethane	50		2.129				ND	
8 2-Chloro-1,1,1-Trifluoroethane	118		2.233				ND	
6 Butadiene	39		2.245				ND	
7 Vinyl chloride	62		2.245				ND	
9 Bromomethane	94		2.562				ND	
10 Chloroethane	64		2.648				ND	
T 177 Vinyl bromide TIC	106		2.830				ND	
11 Dichlorofluoromethane	67		2.885				ND	
13 Trichlorofluoromethane	101		2.946				ND	
17 Ethanol	45		3.111				ND	
15 Ethyl ether	59		3.196				ND	
T 183 Ethanol TIC	45		3.215				ND	
16 1,2-Dichloro-1,1,2-trifluoroethane	67		3.282				ND	
18 Acrolein	56		3.373				ND	
19 1,1-Dichloroethene	96	3.507	3.507	0.000	92	3412	0.0890	
21 112TCTFE	101		3.538				ND	
20 Acetone	43	3.556	3.550	0.006	94	12971	1.72	
22 Iodomethane	142		3.696				ND	
23 Isopropyl alcohol	45	3.721	3.702	0.019	95	21588	17.8	M
24 Ethyl bromide	108		3.727				ND	
25 Carbon disulfide	76	3.812	3.794	0.018	40	2418	0.0180	7M
14 Acetonitrile	41		3.928				ND	
26 Methyl acetate	43		3.964				ND	
27 3-Chloro-1-propene	41		3.977				ND	
28 Methylene Chloride	84		4.166				ND	
* 29 t-Butyl alcohol-d10 (IS)	65	4.202	4.184	0.018	29	135301	50.0	M
30 2-Methyl-2-propanol	59		4.306				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
31 Acrylonitrile	53		4.519				ND	
32 Methyl tert-butyl ether	73	4.568	4.568	0.000	24	5003	0.0425	M
33 trans-1,2-Dichloroethene	96		4.574				ND	
34 Hexane	57		5.001				ND	
35 Vinyl acetate	43		5.232				ND	
36 1,1-Dichloroethane	63	5.257	5.245	0.012	91	5048	0.0619	a
37 Isopropyl ether	45		5.306				ND	
38 2-Chloro-1,3-butadiene	53		5.354				ND	
39 Tert-butyl ethyl ether	59		5.836				ND	
40 2-Butanone (MEK)	43		6.049				ND	
41 cis-1,2-Dichloroethene	96	6.092	6.086	0.006	83	37637	0.7509	
42 2,2-Dichloropropane	77		6.092				ND	
43 Ethyl acetate	43		6.116				ND	MU
44 Propionitrile	54		6.147				ND	
S 49 1,2-Dichloroethene, Total	100				0		0.7509	
45 Methyl acrylate	55		6.177				ND	
46 Methacrylonitrile	67		6.360				ND	
48 Chlorobromomethane	128		6.415				ND	
47 Tetrahydrofuran	71		6.421				ND	
50 Chloroform	83	6.580	6.568	0.012	94	21478	0.2452	
\$ 52 Dibromofluoromethane (Surr)	113	6.793	6.787	0.006	93	443102	9.18	
51 1,1,1-Trichloroethane	97	6.799	6.793	0.006	36	9832	0.1226	
53 Cyclohexane	56		6.885				ND	
54 1-Chlorobutane	56		6.946				ND	
56 Carbon tetrachloride	117	7.013	6.994	0.019	1	1296	0.0181	7M
55 1,1-Dichloropropene	75		7.007				ND	
57 Isobutyl alcohol	41		7.171				ND	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.244	7.232	0.012	0	88498	9.62	
59 Benzene	78	7.275	7.269	0.006	57	1893	0.0105	7M
60 1,2-Dichloroethane	62		7.342				ND	
61 Isopropyl acetate	43		7.354				ND	
62 Tert-amyl methyl ether	73		7.464				ND	
* 63 Fluorobenzene (IS)	96	7.683	7.677	0.006	98	1807628	10.0	
64 n-Heptane	43	7.689	7.683	0.006	41	2948	0.0447	
66 t-Amyl alcohol	73		7.842				ND	
65 n-Butanol	56		8.055				ND	
67 Trichloroethene	95	8.159	8.153	0.006	96	44888	0.8931	
68 Methylcyclohexane	83		8.457				ND	
69 1,2-Dichloropropane	63		8.488				ND	
70 2-ethoxy-2-methyl butane	87		8.494				ND	
72 1,4-Dioxane	88		8.579				ND	
71 Methyl methacrylate	69		8.579				ND	
73 Dibromomethane	93		8.598				ND	
74 n-Propyl acetate	61		8.659				ND	
75 Dichlorobromomethane	83		8.835				ND	
76 2-Nitropropane	41		9.122				ND	
78 2-Chloroethyl vinyl ether	63		9.201				ND	
77 Chloroacetonitrile	75		9.201				ND	
79 1-Bromo-2-chloroethane	63		9.232				ND	
80 cis-1,3-Dichloropropene	75		9.390				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	
\$ 82 Toluene-d8 (Surr)	98	9.695	9.695	0.000	95	1770183	10.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
83 Toluene	92	9.780	9.774	0.006	95	3910	0.0350	
T 172 2-Bromoethanol TIC	45		10.000				ND	U
T 181 2,3-Dibromopropene TIC	119		10.000				ND	U
T 178 Epichlorohydrin TIC	57		10.000				ND	U
T 182 3-Chloro-1,2-propanediol TIC	44		10.000				ND	U
T 171 2,3-Dibromo-1-propanol TIC	57		10.000				ND	U
T 180 Ethylene oxide TIC	44		10.000				ND	U
T 176 Chloroacetaldehyde TIC	50		10.000				ND	U
T 179 2-Bromo-3-chloropropene TIC	75		10.000				ND	U
T 175 Epibromohydrin TIC	57		10.000				ND	U
T 174 2-Chloroethanol TIC	44		10.000				ND	U
T 173 Monochloroacetic acid TIC	50		10.000				ND	U
84 trans-1,3-Dichloropropene	75		10.030				ND	
S 87 1,3-Dichloropropene, Total	100		10.060				ND	
85 Ethyl methacrylate	69		10.097				ND	
86 1,1,2-Trichloroethane	97	10.238	10.238	0.000	1	898	0.0262	
88 Tetrachloroethene	166	10.323	10.317	0.006	97	134384	2.46	
89 1,3-Dichloropropane	76		10.402				ND	
91 2-Hexanone	43		10.457				ND	
92 n-Butyl acetate	43	10.579	10.573	0.006	42	3366	0.0572	
93 Chlorodibromomethane	129		10.609				ND	
94 Ethylene Dibromide	107		10.719				ND	
* 95 Chlorobenzene-d5 (IS)	117	11.158	11.152	0.006	88	1351019	10.0	
96 1-Chlorohexane	91		11.164				ND	
97 Chlorobenzene	112		11.183				ND	
S 101 Xylenes, Total	106		11.245				ND	
98 1,1,1,2-Tetrachloroethane	131		11.262				ND	
99 Ethylbenzene	91		11.268				ND	
100 m-Xylene & p-Xylene	106		11.384				ND	
102 o-Xylene	106		11.713				ND	
103 Styrene	104		11.725				ND	
104 Bromoform	173		11.884				ND	
105 Isopropylbenzene	105		12.012				ND	
106 cis-1,4-Dichloro-2-butene	88		12.067				ND	
107 Cyclohexanone	55		12.097				ND	U
\$ 108 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	88	623812	9.50	
109 1,1,2,2-Tetrachloroethane	83		12.255				ND	
110 Bromobenzene	156		12.268				ND	
111 trans-1,4-Dichloro-2-butene	53		12.280				ND	
112 1,2,3-Trichloropropane	110		12.304				ND	
113 N-Propylbenzene	91		12.335				ND	
114 2-Chlorotoluene	126		12.414				ND	
115 1,3,5-Trimethylbenzene	105		12.475				ND	
116 4-Chlorotoluene	126		12.505				ND	
118 tert-Butylbenzene	134		12.713				ND	
120 Pentachloroethane	167		12.743				ND	
119 1,2,4-Trimethylbenzene	105		12.755				ND	
121 sec-Butylbenzene	105		12.877				ND	
122 1,3-Dichlorobenzene	146		12.975				ND	
123 4-Isopropyltoluene	119		12.981				ND	
* 124 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	97	678527	10.0	
125 1,4-Dichlorobenzene	146		13.048				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
126 1,2,3-Trimethylbenzene	120		13.060				ND	
127 Benzyl chloride	126		13.127				ND	
129 p-Diethylbenzene	119		13.182				ND	
130 n-Butylbenzene	92		13.274				ND	
131 1,2-Dichlorobenzene	146		13.304				ND	
133 Hexachloroethane	201		13.511				ND	
134 1,2-Dibromo-3-Chloropropane	155		13.847				ND	
135 1,3,5-Trichlorobenzene	180		13.969				ND	
136 1,2,4-Trichlorobenzene	180		14.389				ND	
137 Hexachlorobutadiene	225		14.468				ND	
138 Naphthalene	128		14.572				ND	
139 1,2,3-Trichlorobenzene	180		14.712				ND	
140 2-Methylnaphthalene	142		15.328				ND	
142 1,1-Dichloro-1-fluoroethane	1		0.000				ND	
147 2-Bromo-1-chloropropane	1		0.000				ND	
148 1-Chloropropane	1		0.000				ND	
149 1-Bromo-3-Chloropropane	1		0.000				ND	
151 Propene oxide	1		0.000				ND	
152 n-Decane	57		0.000				ND	
159 Methylal	1		0.000				ND	
162 Dodecane	57		0.000				ND	
163 tert-Butyl Formate	1		0.000				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

U - Marked Undetected

a - User Assigned ID

Reagents:

MSV_29_826ISS_00007

Amount Added: 1.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S08.D

Injection Date: 08-Aug-2020 02:57:30

Instrument ID: 16334

Operator ID: MEC29284

Lims ID: 410-9077-A-6

Lab Sample ID: 410-9077-6

Worklist Smp#: 14

Client ID: HD-COD-SW-15-0/1-0

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

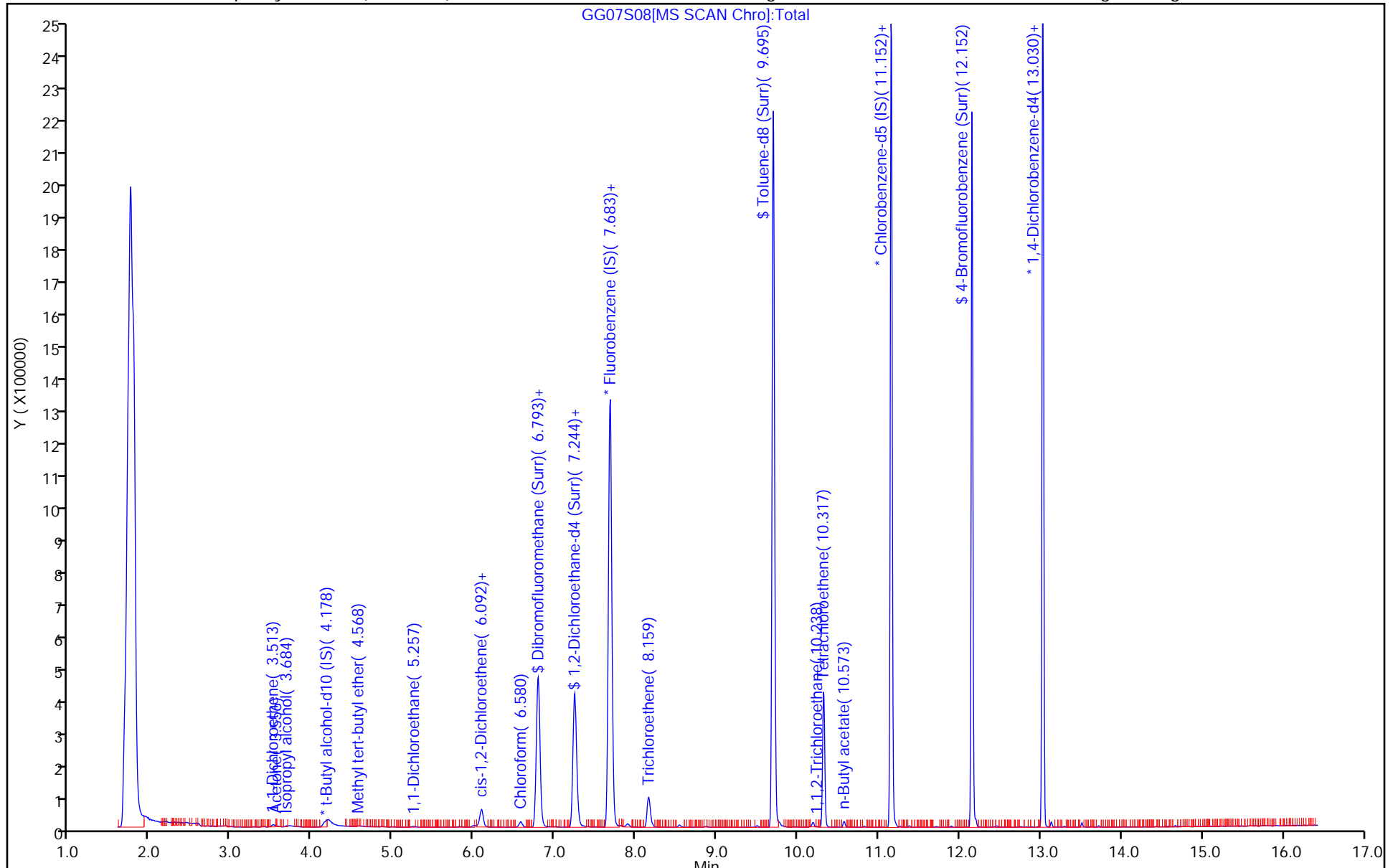
ALS Bottle#: 13

Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S08.D
 Lims ID: 410-9077-A-6
 Client ID: HD-COD-SW-15-0/1-0
 Sample Type: Client
 Inject. Date: 08-Aug-2020 02:57:30 ALS Bottle#: 13 Worklist Smp#: 14
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-9077-a-6
 Misc. Info.: 410-0007550-014
 Operator ID: MEC29284 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 09-Aug-2020 22:30:15 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1057

First Level Reviewer: campbellme Date: 09-Aug-2020 22:30:15

Compound	Amount Added	Amount Recovered	% Rec.
\$ 52 Dibromofluoromethane (Surr)	10.0	9.18	91.76
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	9.62	96.23
\$ 82 Toluene-d8 (Surr)	10.0	10.0	100.09
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.50	94.97

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S08.D

Injection Date: 08-Aug-2020 02:57:30

Instrument ID: 16334

Lims ID: 410-9077-A-6

Lab Sample ID: 410-9077-6

Client ID: HD-COD-SW-15-0/1-0

Operator ID: MEC29284

ALS Bottle#: 13

Worklist Smp#: 14

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

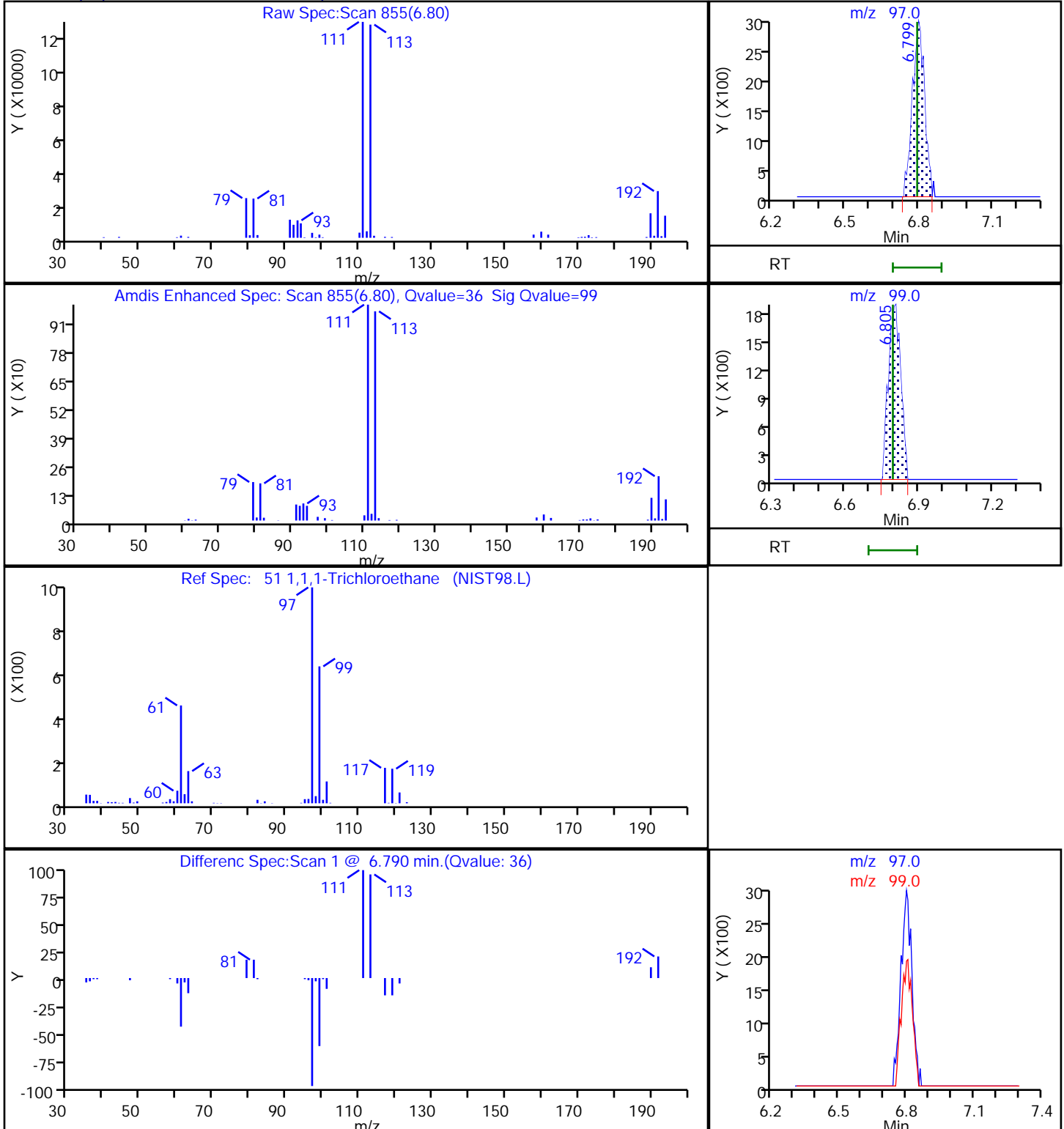
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

51 1,1,1-Trichloroethane, CAS: 71-55-6



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S08.D

Injection Date: 08-Aug-2020 02:57:30

Instrument ID: 16334

Lims ID: 410-9077-A-6

Lab Sample ID: 410-9077-6

Client ID: HD-COD-SW-15-0/1-0

Operator ID: MEC29284

ALS Bottle#: 13

Worklist Smp#: 14

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

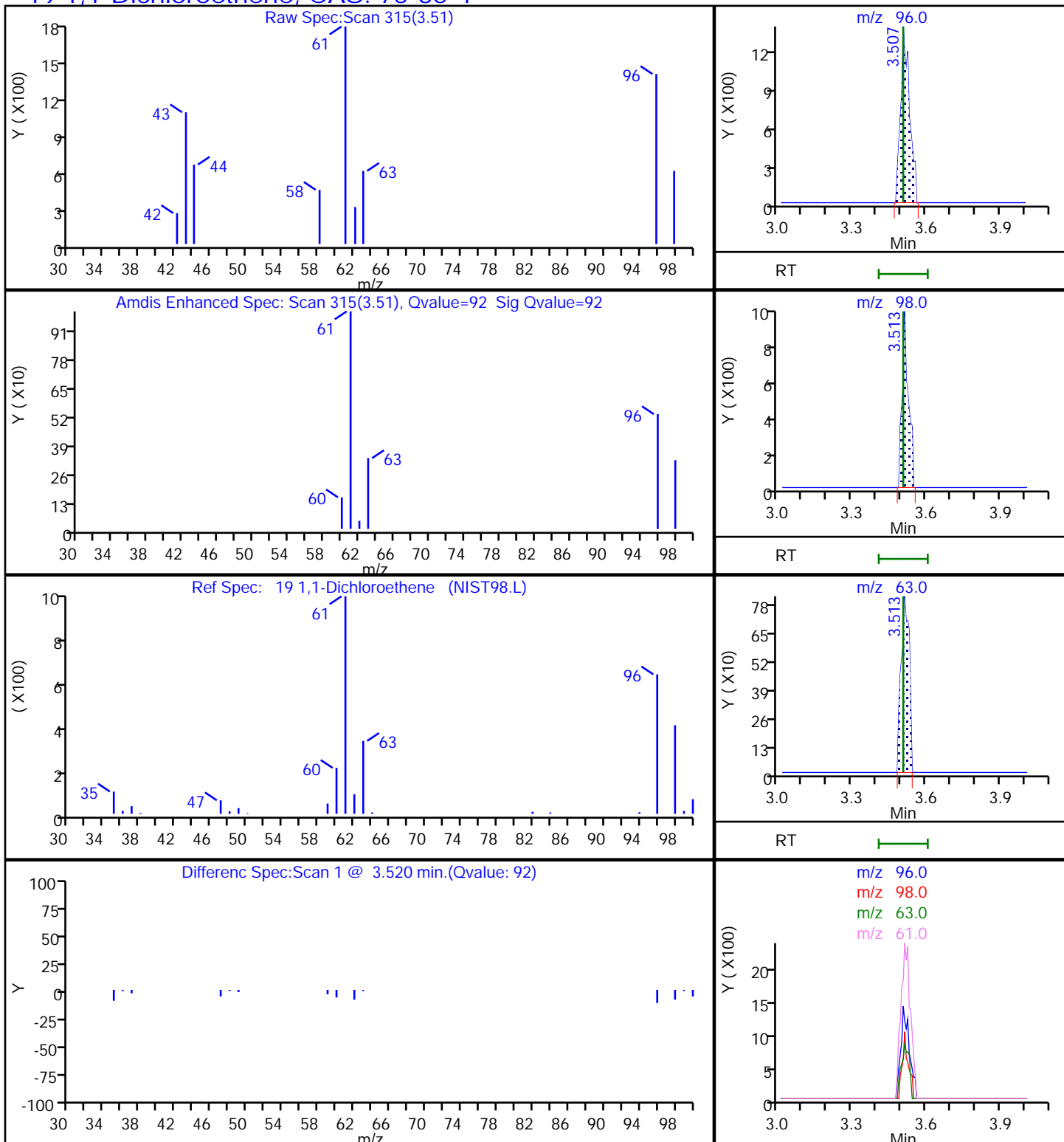
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector

MS Quad

19 1,1-Dichloroethene, CAS: 75-35-4



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S08.D

Injection Date: 08-Aug-2020 02:57:30

Instrument ID: 16334

Lims ID: 410-9077-A-6

Lab Sample ID: 410-9077-6

Client ID: HD-COD-SW-15-0/1-0

Operator ID: MEC29284

ALS Bottle#: 13

Worklist Smp#: 14

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

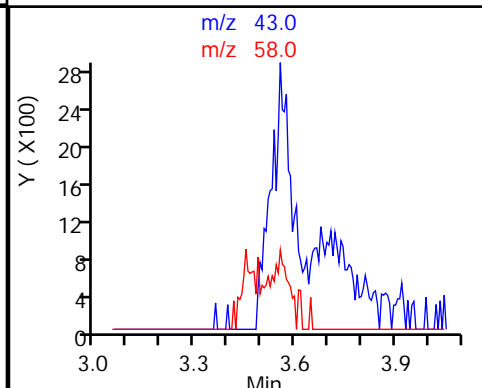
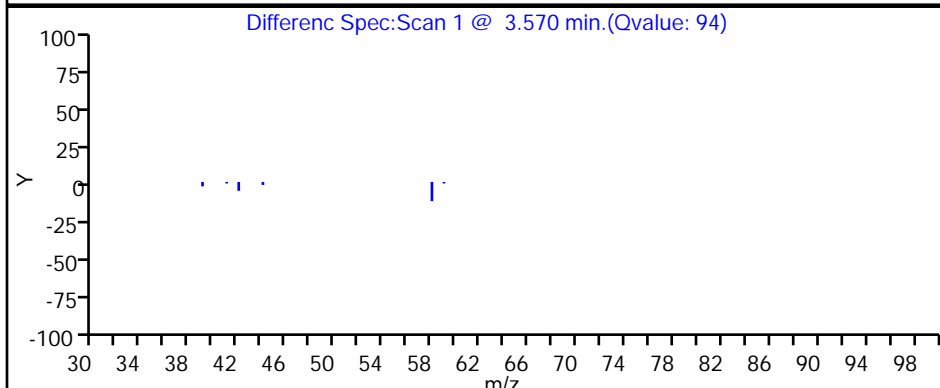
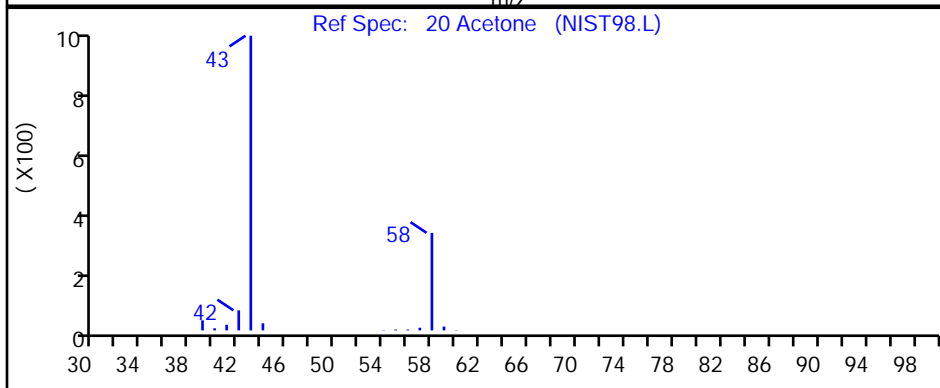
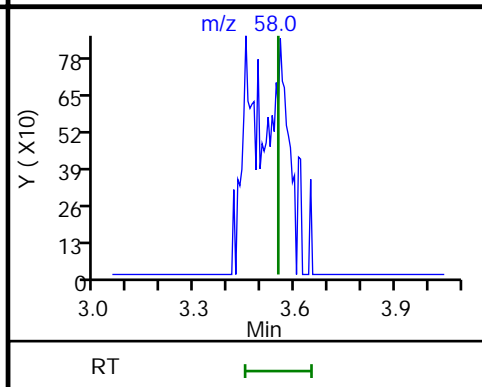
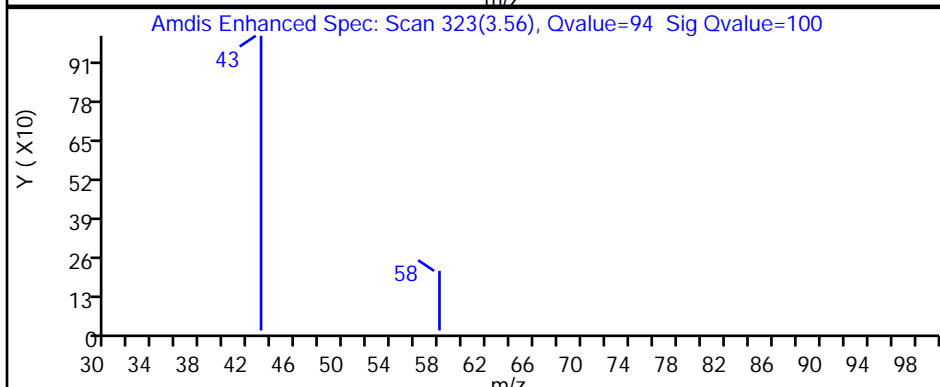
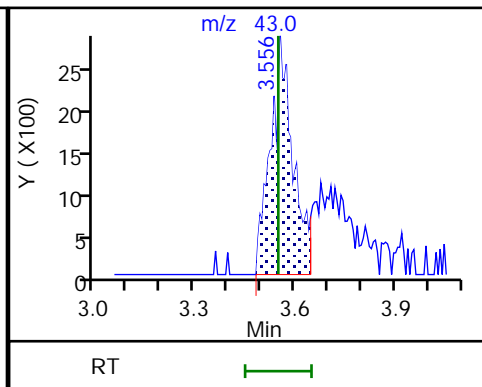
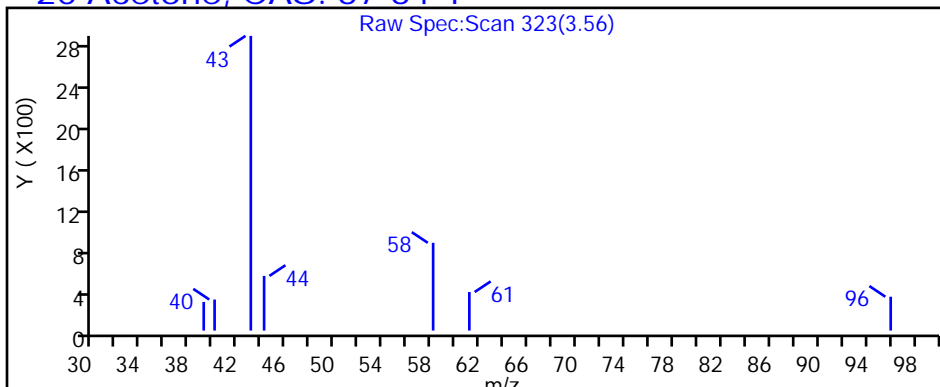
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

20 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S08.D

Injection Date: 08-Aug-2020 02:57:30

Instrument ID: 16334

Lims ID: 410-9077-A-6

Lab Sample ID: 410-9077-6

Client ID: HD-COD-SW-15-0/1-0

Operator ID: MEC29284

ALS Bottle#: 13

Worklist Smp#: 14

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

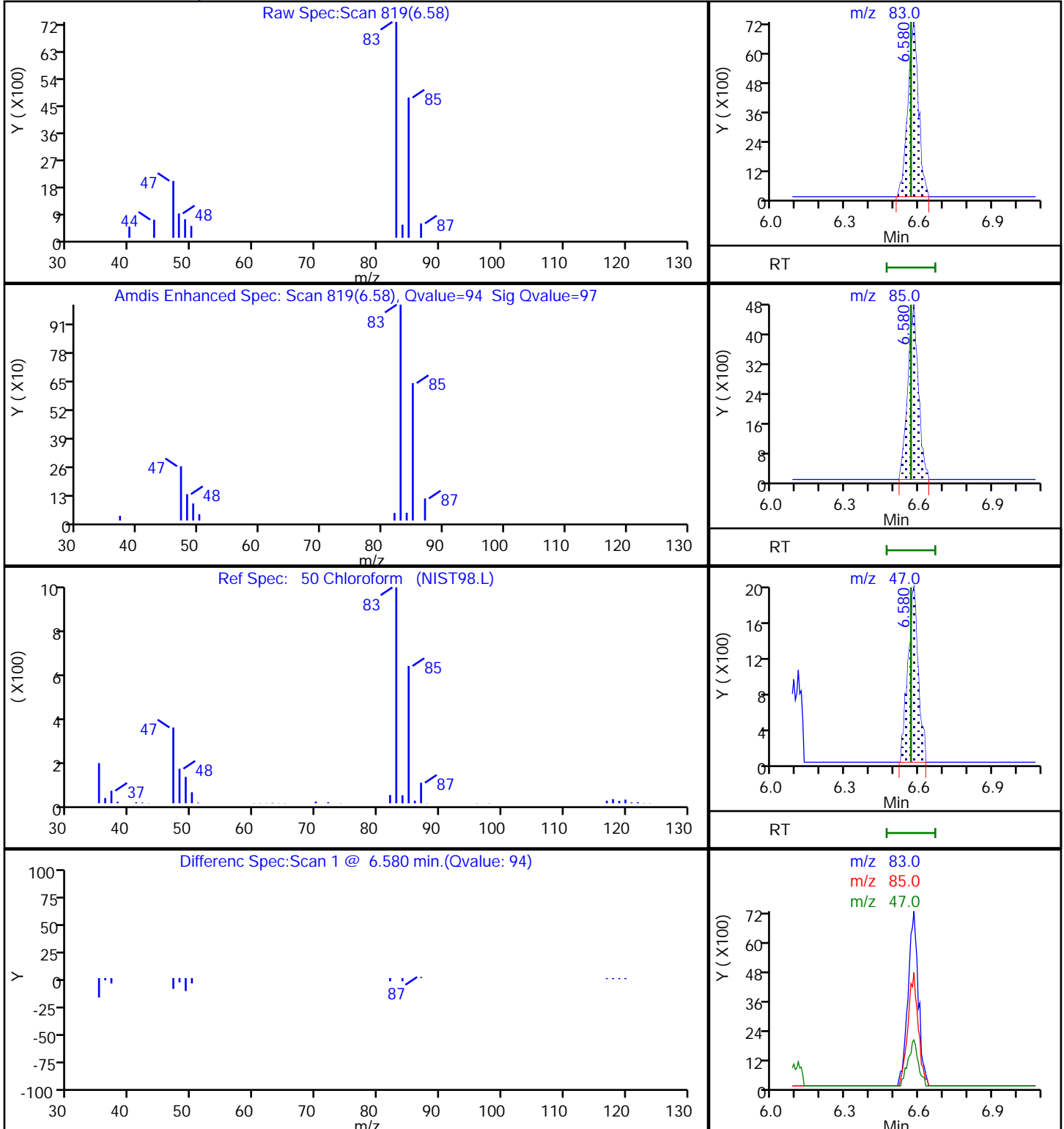
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

50 Chloroform, CAS: 67-66-3



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S08.D

Injection Date: 08-Aug-2020 02:57:30

Instrument ID: 16334

Lims ID: 410-9077-A-6

Lab Sample ID: 410-9077-6

Client ID: HD-COD-SW-15-0/1-0

Operator ID: MEC29284

ALS Bottle#: 13

Worklist Smp#: 14

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

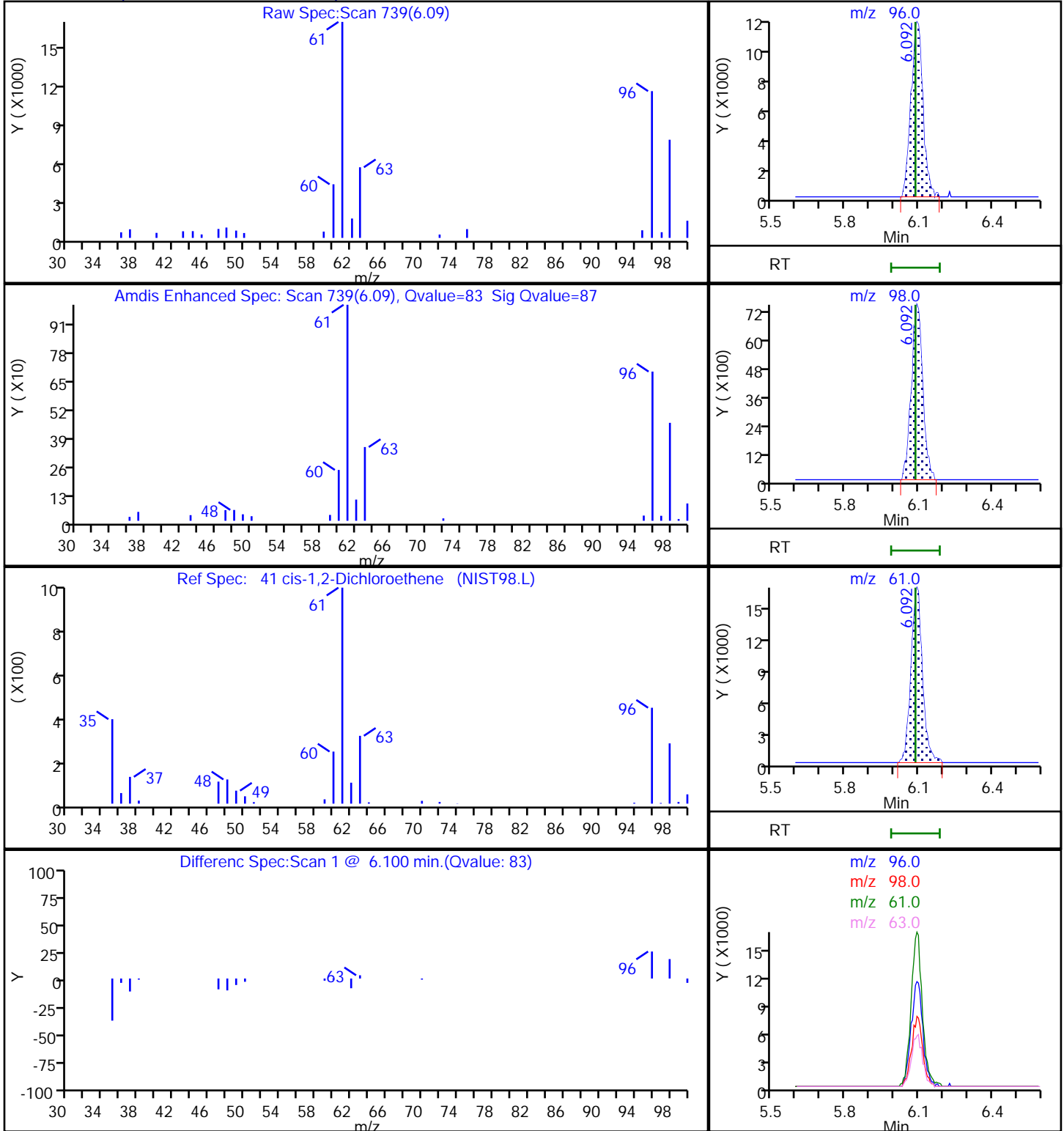
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

41 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S08.D

Injection Date: 08-Aug-2020 02:57:30

Instrument ID: 16334

Lims ID: 410-9077-A-6

Lab Sample ID: 410-9077-6

Client ID: HD-COD-SW-15-0/1-0

Operator ID: MEC29284

ALS Bottle#: 13

Worklist Smp#: 14

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

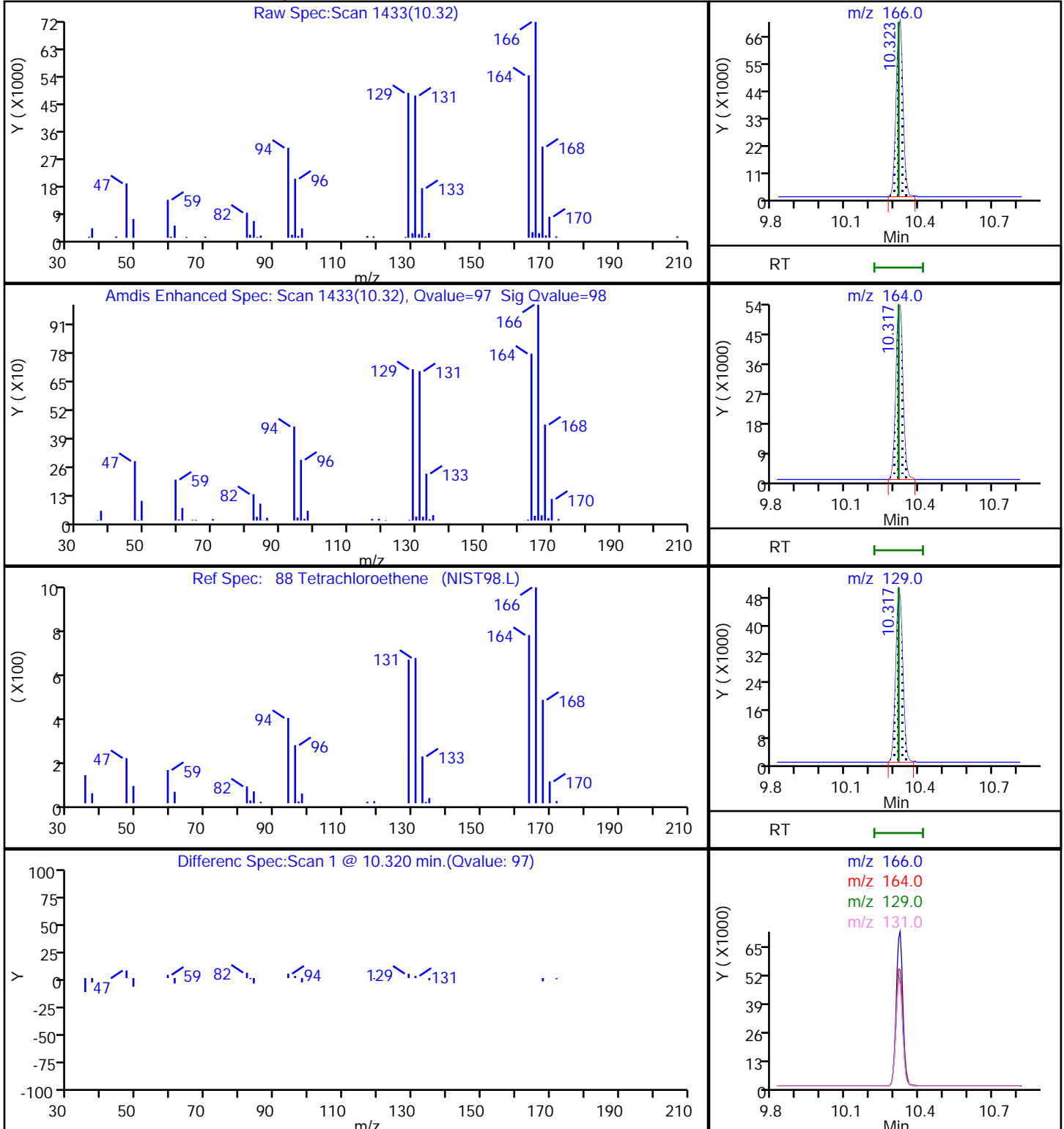
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

88 Tetrachloroethene, CAS: 127-18-4



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Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S08.D

Injection Date: 08-Aug-2020 02:57:30

Instrument ID: 16334

Lims ID: 410-9077-A-6

Lab Sample ID: 410-9077-6

Client ID: HD-COD-SW-15-0/1-0

Operator ID: MEC29284

ALS Bottle#: 13

Worklist Smp#: 14

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

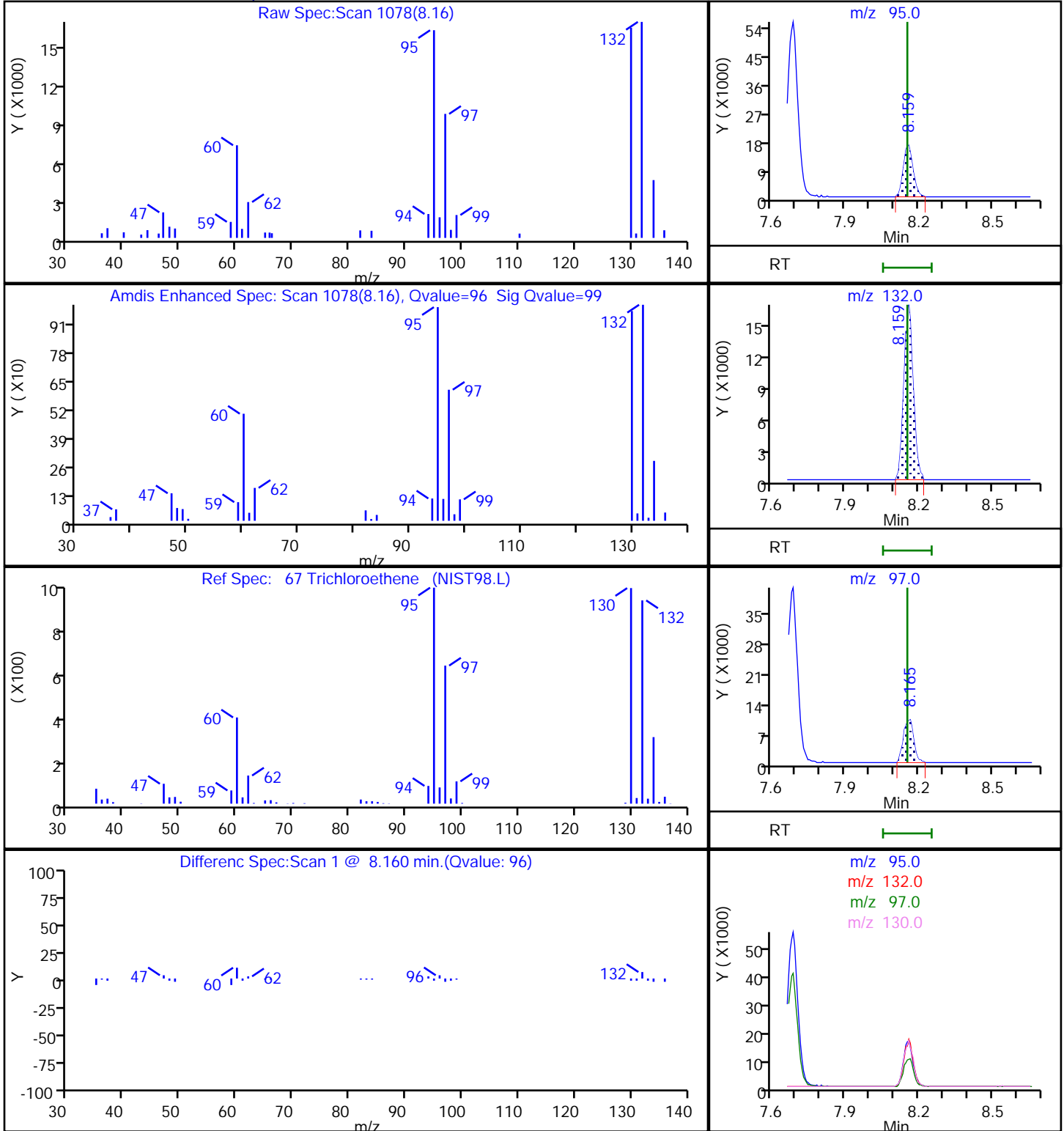
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

67 Trichloroethene, CAS: 79-01-6



Eurofins Lancaster Laboratories Env, LLC

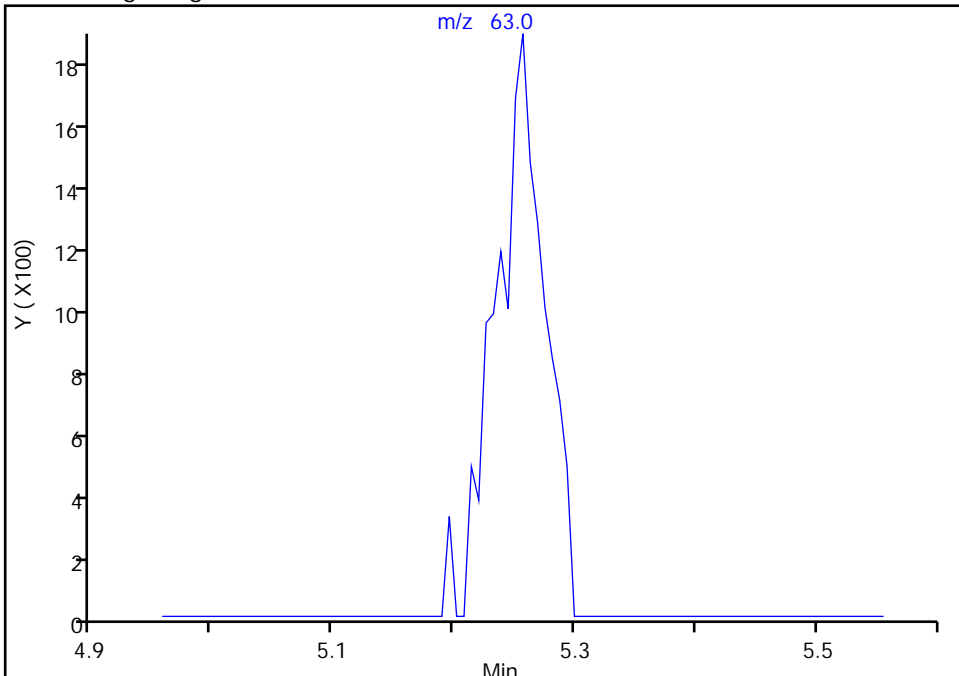
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Injection Date: 08-Aug-2020 02:57:30 Instrument ID: 16334
Lims ID: 410-9077-A-6 Lab Sample ID: 410-9077-6
Client ID: HD-COD-SW-15-0/1-0
Operator ID: MEC29284 ALS Bottle#: 13 Worklist Smp#: 14
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

36 1,1-Dichloroethane, CAS: 75-34-3

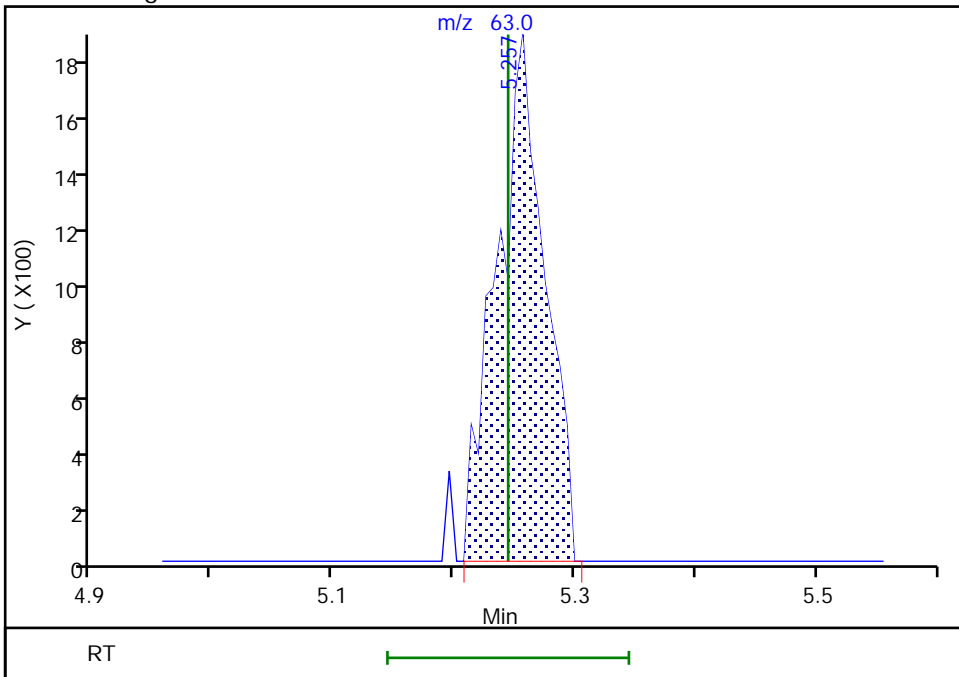
Signal: 1

Not Detected
Expected RT: 5.24

Processing Integration Results



Manual Integration Results



RT: 5.26
Area: 5048
Amount: 0.061913
Amount Units: ug/l

Eurofins Lancaster Laboratories Env, LLC

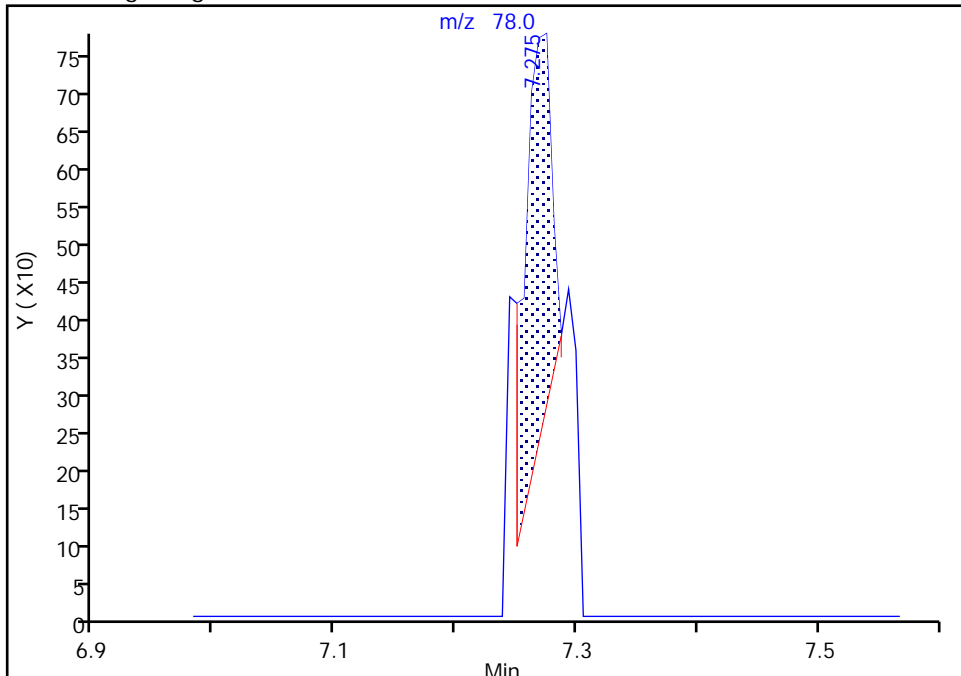
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Injection Date:	08-Aug-2020 02:57:30	Instrument ID:	16334
Lims ID:	410-9077-A-6	Lab Sample ID:	410-9077-6
Client ID:	HD-COD-SW-15-0/1-0		
Operator ID:	MEC29284	ALS Bottle#:	13
Purge Vol:	25.000 mL	Dil. Factor:	1.0000
Method:	MSV_16334_25mL	Limit Group:	MSV - 8260C_D
Column:	Rxi-624Sil MS Capillary Column (0.25mm ID)	Detector:	MS Quad
		Worklist Smp#:	14

59 Benzene, CAS: 71-43-2

Signal: 1

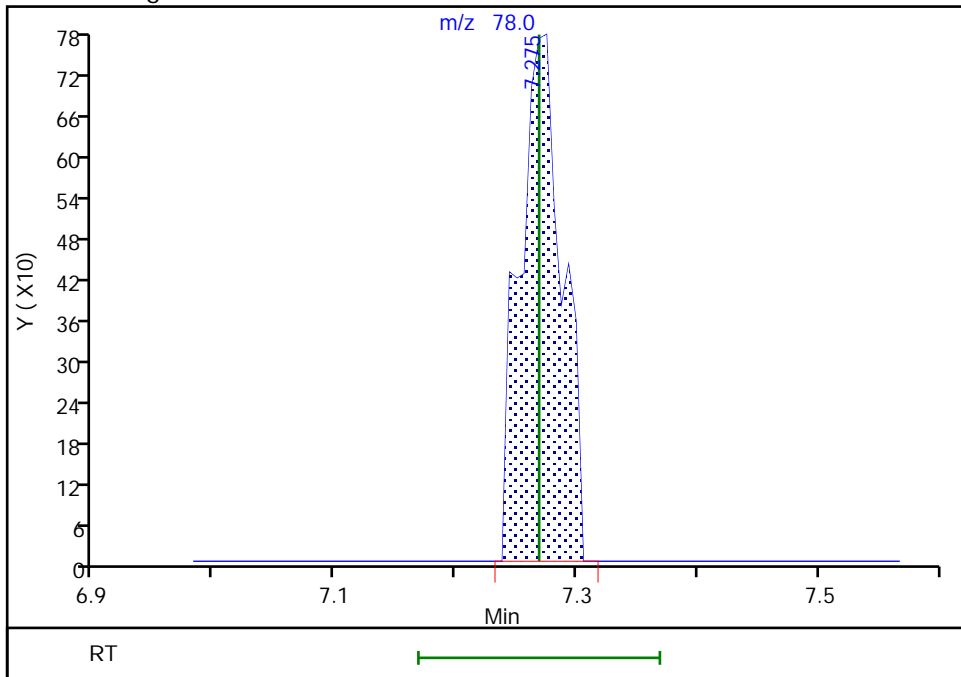
RT: 7.27
 Area: 855
 Amount: 0.004738
 Amount Units: ug/l

Processing Integration Results



RT: 7.27
 Area: 1893
 Amount: 0.010489
 Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 09-Aug-2020 17:27:07
 Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

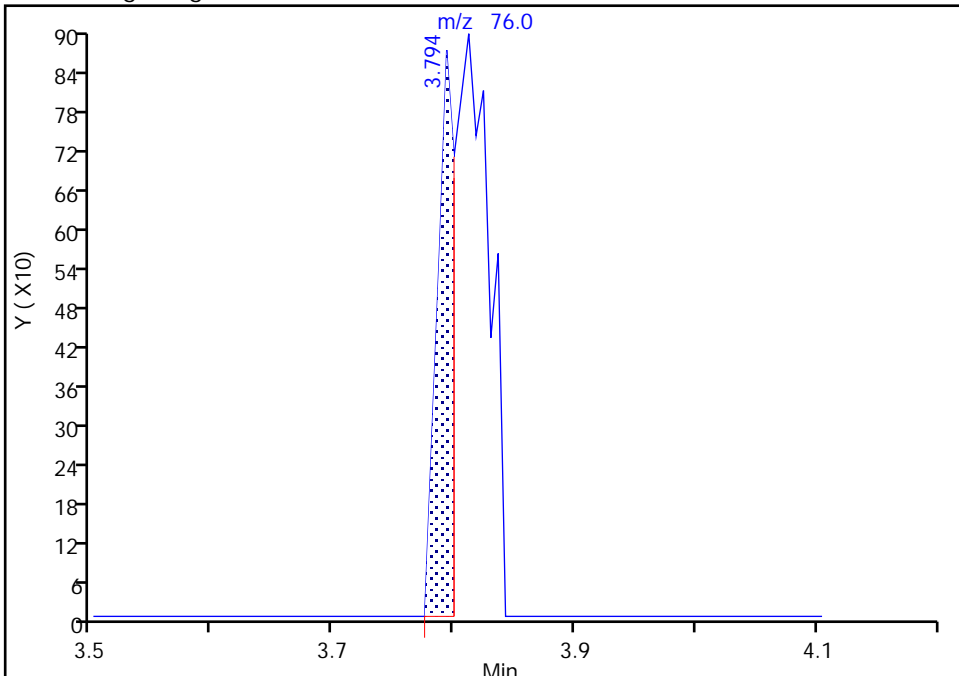
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Injection Date: 08-Aug-2020 02:57:30 Instrument ID: 16334
Lims ID: 410-9077-A-6 Lab Sample ID: 410-9077-6
Client ID: HD-COD-SW-15-0/1-0
Operator ID: MEC29284 ALS Bottle#: 13 Worklist Smp#: 14
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

25 Carbon disulfide, CAS: 75-15-0

Signal: 1

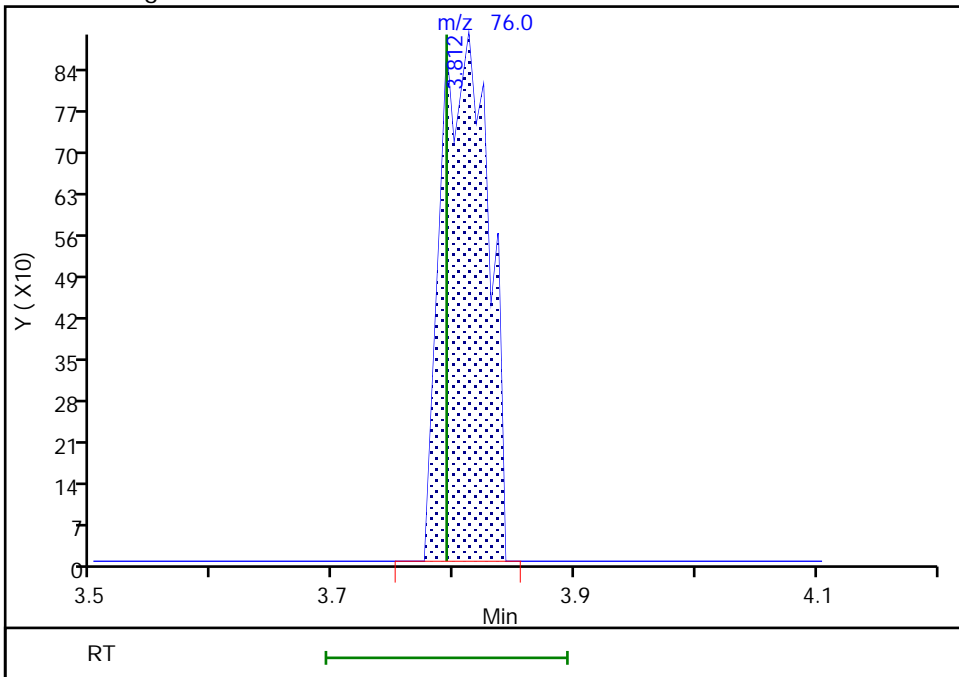
RT: 3.79
Area: 879
Amount: 0.006537
Amount Units: ug/l

Processing Integration Results



RT: 3.81
Area: 2418
Amount: 0.017982
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 09-Aug-2020 17:26:23
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

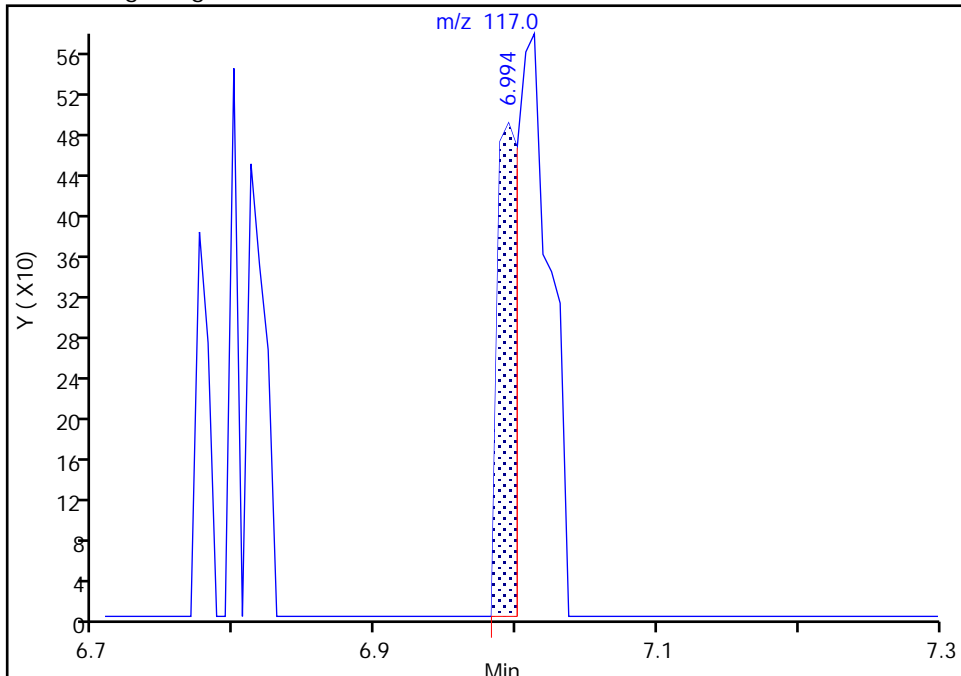
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Injection Date: 08-Aug-2020 02:57:30 Instrument ID: 16334
Lims ID: 410-9077-A-6 Lab Sample ID: 410-9077-6
Client ID: HD-COD-SW-15-0/1-0
Operator ID: MEC29284 ALS Bottle#: 13 Worklist Smp#: 14
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

56 Carbon tetrachloride, CAS: 56-23-5

Signal: 1

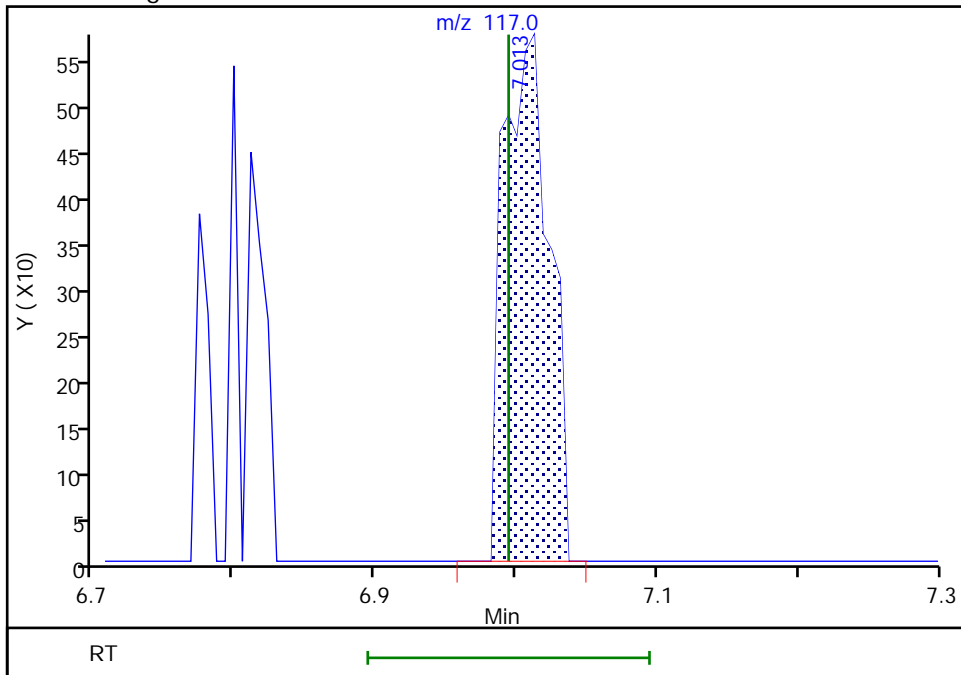
RT: 6.99
Area: 517
Amount: 0.007211
Amount Units: ug/l

Processing Integration Results



RT: 7.01
Area: 1296
Amount: 0.018075
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 09-Aug-2020 17:26:59
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

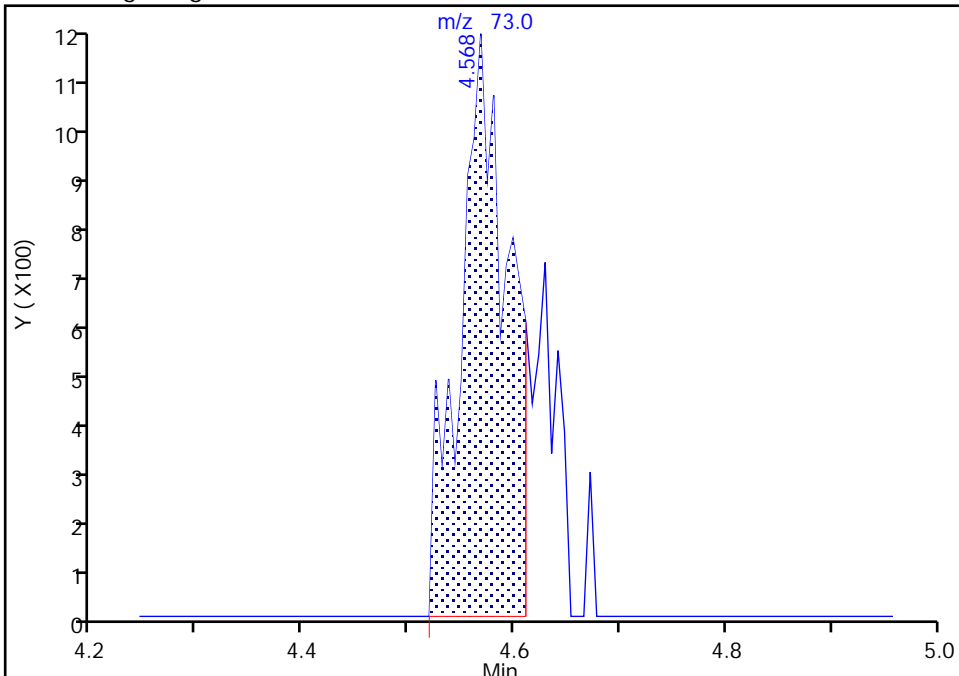
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Injection Date: 08-Aug-2020 02:57:30 Instrument ID: 16334
Lims ID: 410-9077-A-6 Lab Sample ID: 410-9077-6
Client ID: HD-COD-SW-15-0/1-0
Operator ID: MEC29284 ALS Bottle#: 13 Worklist Smp#: 14
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

32 Methyl tert-butyl ether, CAS: 1634-04-4

Signal: 1

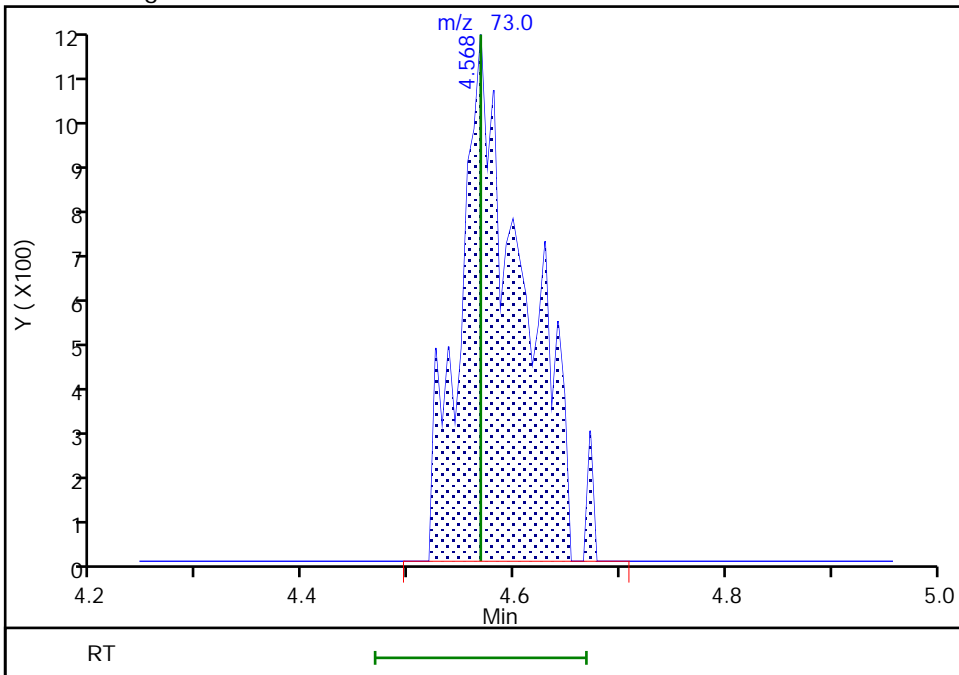
RT: 4.57
Area: 3813
Amount: 0.032363
Amount Units: ug/l

Processing Integration Results



RT: 4.57
Area: 5003
Amount: 0.042464
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 09-Aug-2020 17:26:38
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

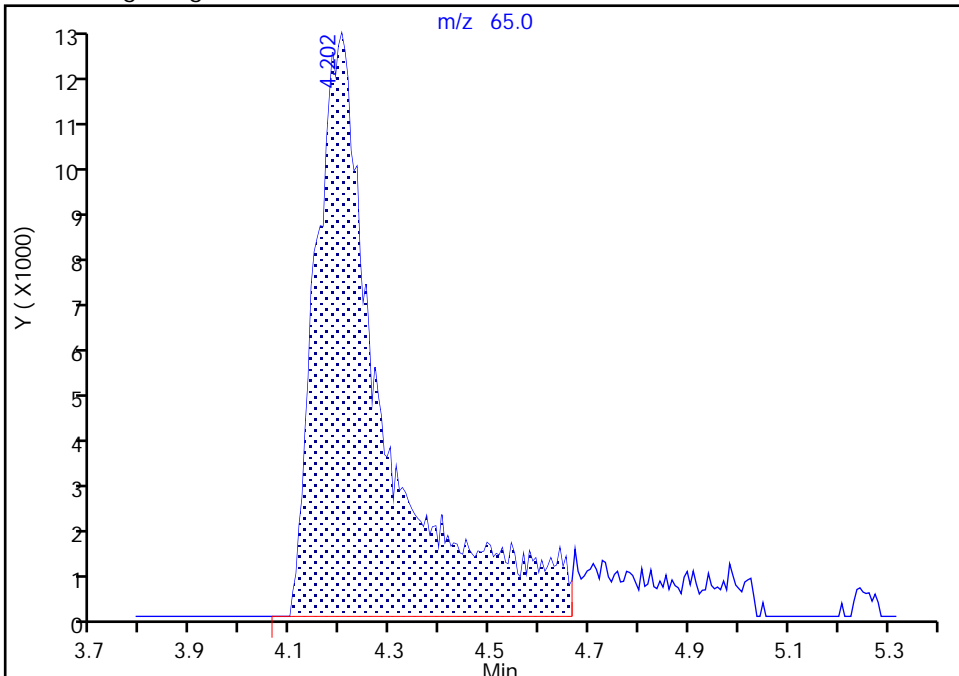
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Injection Date: 08-Aug-2020 02:57:30 Instrument ID: 16334
Lims ID: 410-9077-A-6 Lab Sample ID: 410-9077-6
Client ID: HD-COD-SW-15-0/1-0
Operator ID: MEC29284 ALS Bottle#: 13 Worklist Smp#: 14
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 29 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

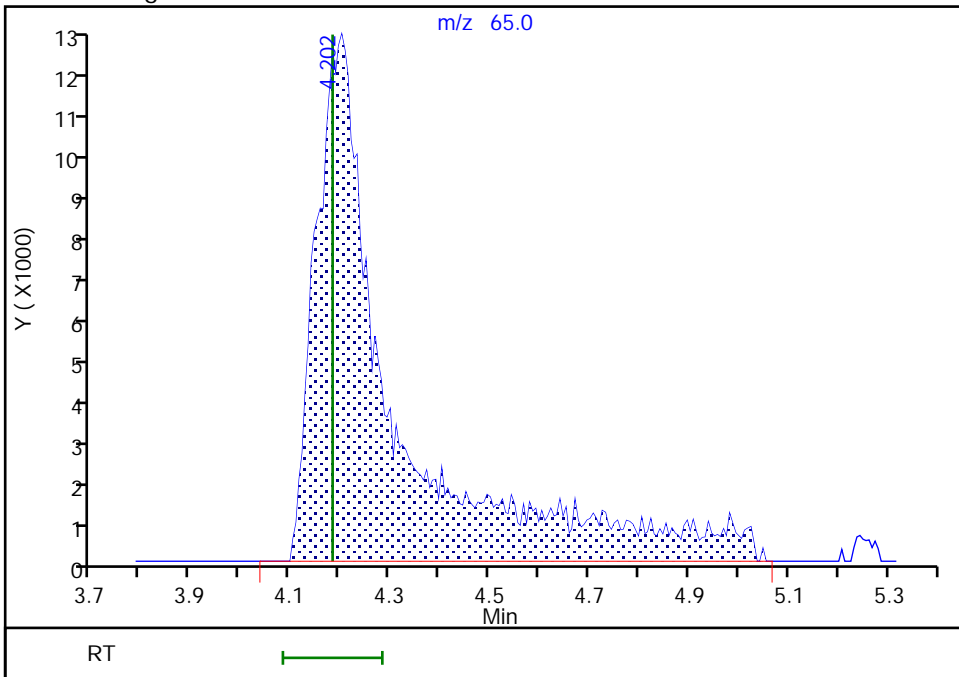
Processing Integration Results

RT: 4.20
Area: 118051
Amount: 50.000000
Amount Units: ug/l



Manual Integration Results

RT: 4.20
Area: 135301
Amount: 50.000000
Amount Units: ug/l



Reviewer: campbellme, 09-Aug-2020 17:26:33
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-16-0/1-0 Lab Sample ID: 410-9077-7
 Matrix: Surface Water Lab File ID: GG07S17.D
 Analysis Method: 8260D Date Collected: 07/28/2020 08:45
 Sample wt/vol: 25 (mL) Date Analyzed: 08/08/2020 06:17
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 30932 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		0.50	0.060
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.060
75-34-3	1,1-Dichloroethane	ND		0.50	0.070
75-35-4	1,1-Dichloroethene	ND		0.50	0.060
107-06-2	1,2-Dichloroethane	ND		0.50	0.050
78-87-5	1,2-Dichloropropane	ND		0.50	0.060
78-93-3	2-Butanone (MEK)	ND		5.0	0.60
591-78-6	2-Hexanone	ND		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70
67-64-1	Acetone	1.5	J	5.0	0.90
107-13-1	Acrylonitrile	ND		5.0	0.40
71-43-2	Benzene	ND		0.50	0.050
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND	^c	0.50	0.070
75-15-0	Carbon disulfide	ND		1.0	0.060
56-23-5	Carbon tetrachloride	ND		0.50	0.070
108-90-7	Chlorobenzene	ND		0.50	0.060
74-97-5	Bromochloromethane	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
75-00-3	Chloroethane	ND		0.50	0.070
67-66-3	Chloroform	ND		0.50	0.090
74-87-3	Chloromethane	0.093	J	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.087	J	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
75-27-4	Bromodichloromethane	ND		0.50	0.050
100-41-4	Ethylbenzene	ND		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.050
75-09-2	Methylene Chloride	ND		0.50	0.070
100-42-5	Styrene	ND		0.50	0.050
127-18-4	Tetrachloroethene	ND		0.50	0.060
108-88-3	Toluene	ND		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-16-0/1-0 Lab Sample ID: 410-9077-7
 Matrix: Surface Water Lab File ID: GG07S17.D
 Analysis Method: 8260D Date Collected: 07/28/2020 08:45
 Sample wt/vol: 25 (mL) Date Analyzed: 08/08/2020 06:17
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 30932 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	0.078	J	0.50	0.060
75-01-4	Vinyl chloride	ND		0.50	0.10
1330-20-7	Xylenes, Total	ND		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		80-120
460-00-4	4-Bromofluorobenzene (Surr)	95		80-120
1868-53-7	Dibromofluoromethane (Surr)	91		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S17.D
 Lims ID: 410-9077-A-7
 Client ID: HD-COD-SW-16-0/1-0
 Sample Type: Client
 Inject. Date: 08-Aug-2020 06:17:30 ALS Bottle#: 22 Worklist Smp#: 23
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-9077-a-7
 Misc. Info.: 410-0007550-023
 Operator ID: MEC29284 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 09-Aug-2020 18:20:24 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1057

First Level Reviewer: campbellme Date: 09-Aug-2020 18:16:20

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Chloromethane	50	2.129	2.129	0.000	93	6473	0.0932	
7 Vinyl chloride	62		2.245				ND	
9 Bromomethane	94		2.562				ND	
10 Chloroethane	64		2.648				ND	
19 1,1-Dichloroethene	96		3.507				ND	
20 Acetone	43	3.550	3.550	0.000	94	11798	1.47	
25 Carbon disulfide	76	3.800	3.794	0.006	24	1411	0.0106	7M
28 Methylene Chloride	84		4.166				ND	
* 29 t-Butyl alcohol-d10 (IS)	65	4.184	4.184	0.000	22	143823	50.0	M
31 Acrylonitrile	53		4.519				ND	
32 Methyl tert-butyl ether	73		4.568				ND	
33 trans-1,2-Dichloroethene	96		4.574				ND	
36 1,1-Dichloroethane	63		5.245				ND	
40 2-Butanone (MEK)	43		6.049				ND	
41 cis-1,2-Dichloroethene	96	6.074	6.086	-0.012	78	4307	0.0865	a
48 Chlorobromomethane	128		6.415				ND	
50 Chloroform	83	6.561	6.568	-0.007	88	3716	0.0427	a
\$ 52 Dibromofluoromethane (Surr)	113	6.787	6.787	0.000	93	437489	9.13	
51 1,1,1-Trichloroethane	97		6.793				ND	
56 Carbon tetrachloride	117		6.994				ND	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.244	7.232	0.012	0	89959	9.85	
59 Benzene	78		7.269				ND	
60 1,2-Dichloroethane	62		7.342				ND	
* 63 Fluorobenzene (IS)	96	7.677	7.677	0.000	98	1794715	10.0	
67 Trichloroethene	95	8.159	8.153	0.006	83	3905	0.0783	M
69 1,2-Dichloropropane	63		8.488				ND	
75 Dichlorobromomethane	83		8.835				ND	
80 cis-1,3-Dichloropropene	75		9.390				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	
\$ 82 Toluene-d8 (Surr)	98	9.695	9.695	0.000	95	1752873	9.97	
83 Toluene	92	9.774	9.774	0.000	97	4654	0.0419	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
84 trans-1,3-Dichloropropene	75		10.030				ND	
86 1,1,2-Trichloroethane	97		10.238				ND	
88 Tetrachloroethene	166	10.323	10.317	0.006	94	2596	0.0478	M
91 2-Hexanone	43		10.457				ND	
93 Chlorodibromomethane	129		10.609				ND	
94 Ethylene Dibromide	107		10.719				ND	
* 95 Chlorobenzene-d5 (IS)	117	11.152	11.152	0.000	88	1343140	10.0	
97 Chlorobenzene	112		11.183				ND	
S 101 Xylenes, Total	106		11.245				ND	
98 1,1,1,2-Tetrachloroethane	131		11.262				ND	
99 Ethylbenzene	91		11.268				ND	
100 m-Xylene & p-Xylene	106		11.384				ND	
102 o-Xylene	106		11.713				ND	
103 Styrene	104		11.725				ND	
104 Bromoform	173		11.884				ND	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	88	619815	9.49	
109 1,1,2,2-Tetrachloroethane	83		12.255				ND	
* 124 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	97	659476	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MSV_29_826ISS_00007

Amount Added: 1.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S17.D

Injection Date: 08-Aug-2020 06:17:30

Instrument ID: 16334

Operator ID: MEC29284

Lims ID: 410-9077-A-7

Lab Sample ID: 410-9077-7

Worklist Smp#: 23

Client ID: HD-COD-SW-16-0/1-0

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

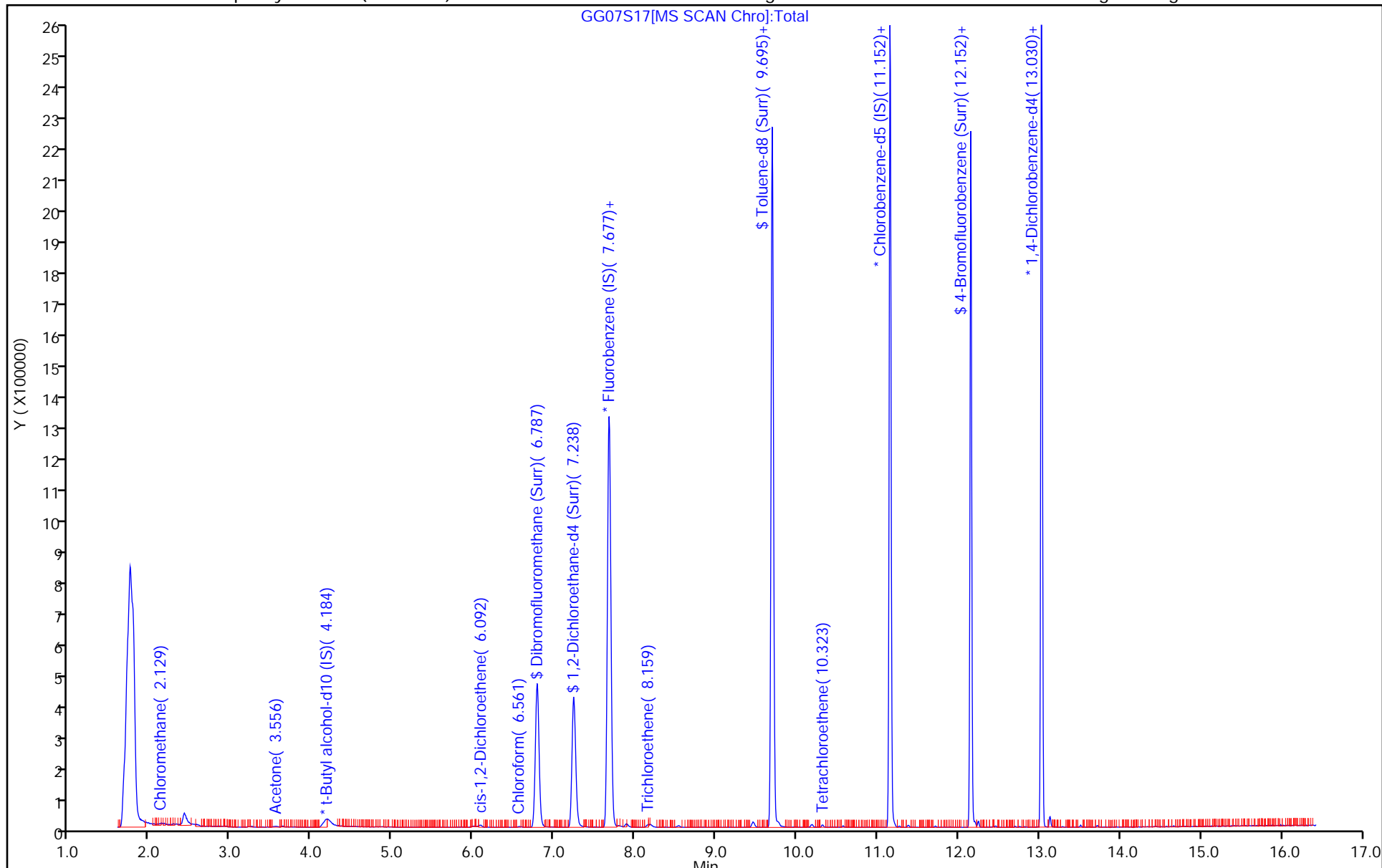
ALS Bottle#: 22

Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S17.D
 Lims ID: 410-9077-A-7
 Client ID: HD-COD-SW-16-0/1-0
 Sample Type: Client
 Inject. Date: 08-Aug-2020 06:17:30 ALS Bottle#: 22 Worklist Smp#: 23
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-9077-a-7
 Misc. Info.: 410-0007550-023
 Operator ID: MEC29284 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 09-Aug-2020 18:20:24 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1057

First Level Reviewer: campbellme

Date: 09-Aug-2020 18:16:20

Compound	Amount Added	Amount Recovered	% Rec.
\$ 52 Dibromofluoromethane (Surr)	10.0	9.13	91.25
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	9.85	98.52
\$ 82 Toluene-d8 (Surr)	10.0	9.97	99.69
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.49	94.92

Euromins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S17.D

Injection Date: 08-Aug-2020 06:17:30

Instrument ID: 16334

Lims ID: 410-9077-A-7

Lab Sample ID: 410-9077-7

Client ID: HD-COD-SW-16-0/1-0

Operator ID: MEC29284

ALS Bottle#: 22

Worklist Smp#: 23

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

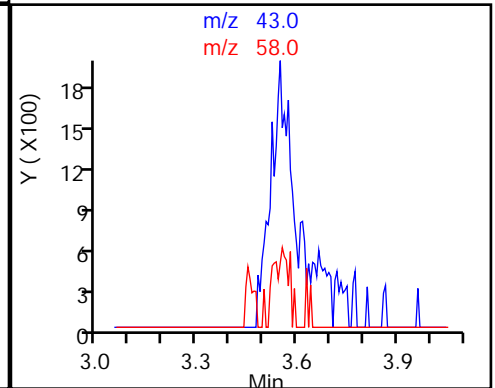
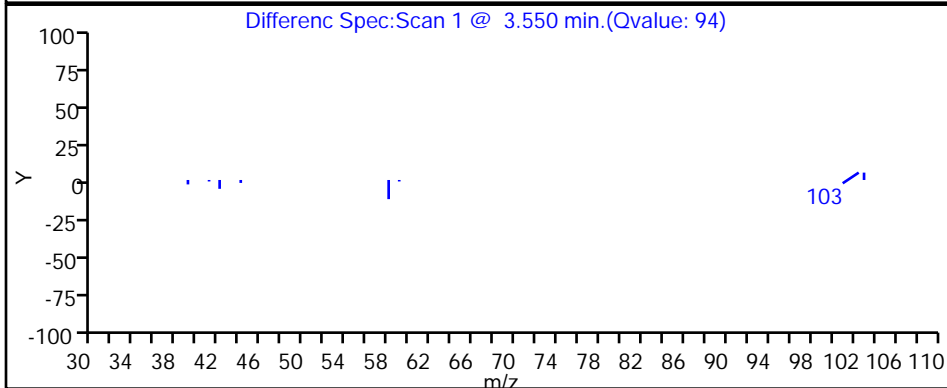
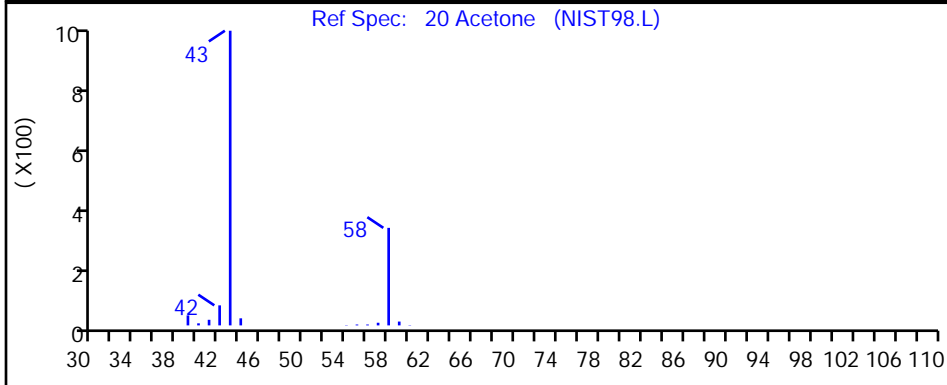
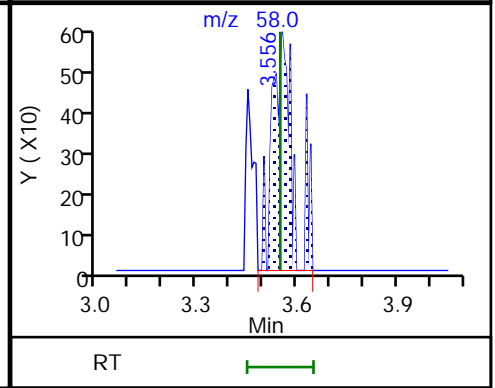
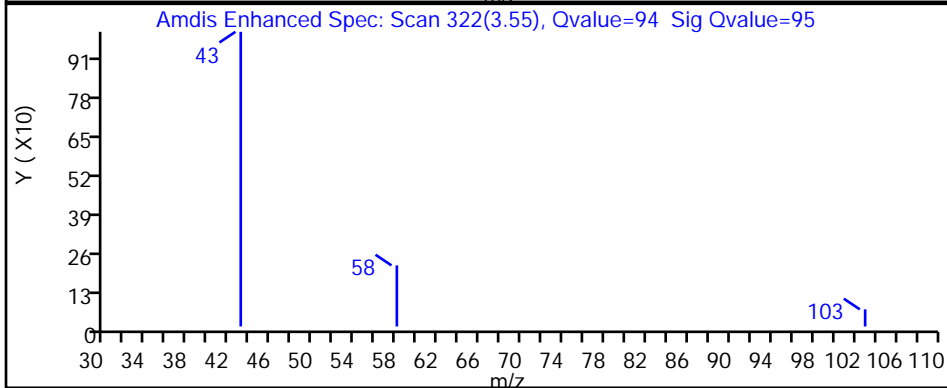
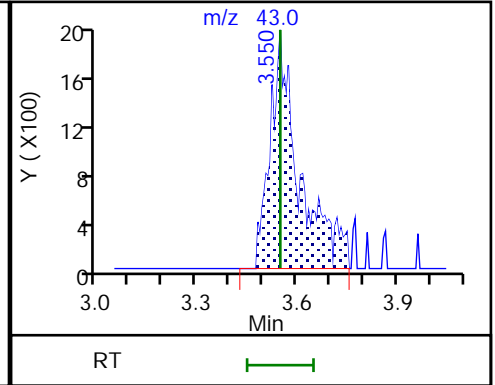
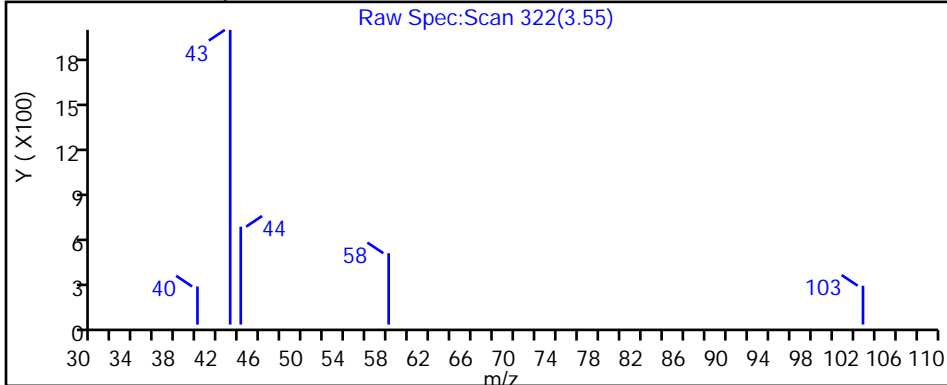
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

20 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S17.D

Injection Date: 08-Aug-2020 06:17:30

Instrument ID: 16334

Lims ID: 410-9077-A-7

Lab Sample ID: 410-9077-7

Client ID: HD-COD-SW-16-0/1-0

Operator ID: MEC29284

ALS Bottle#: 22

Worklist Smp#: 23

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

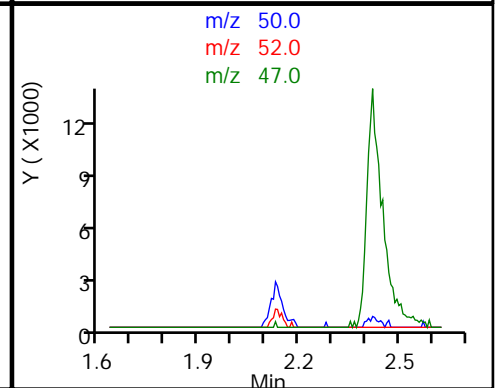
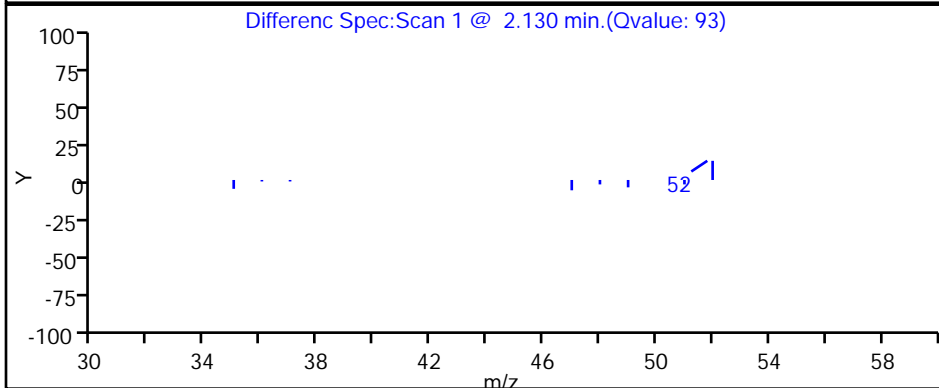
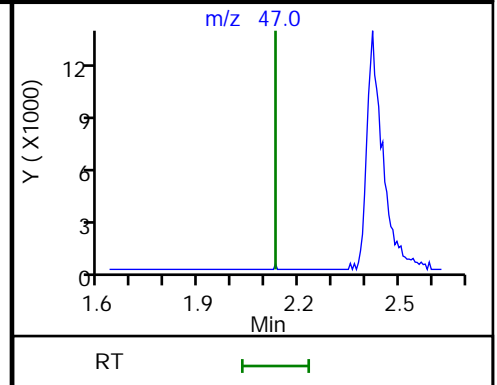
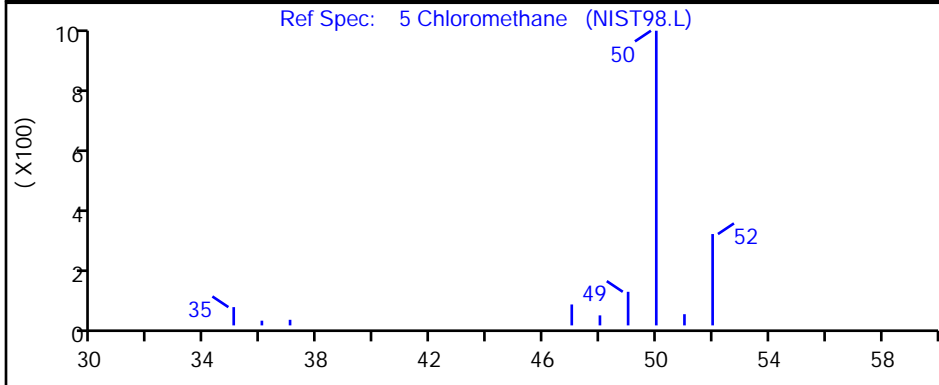
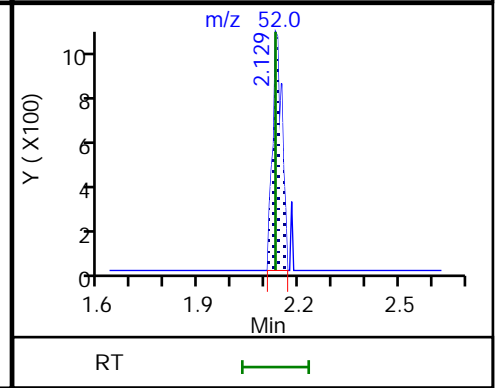
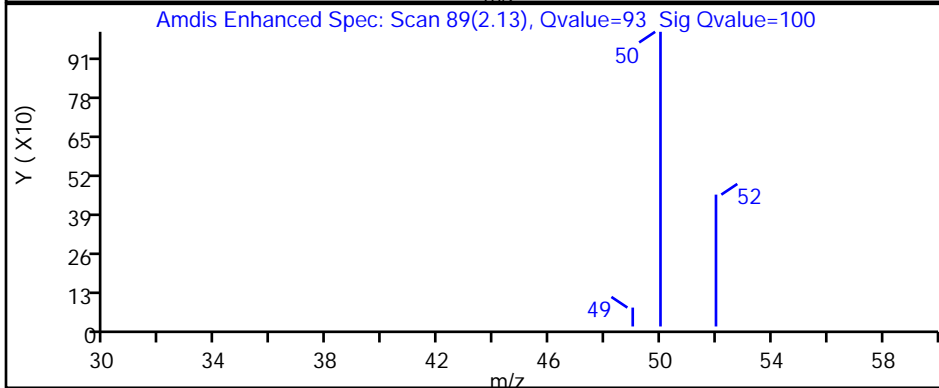
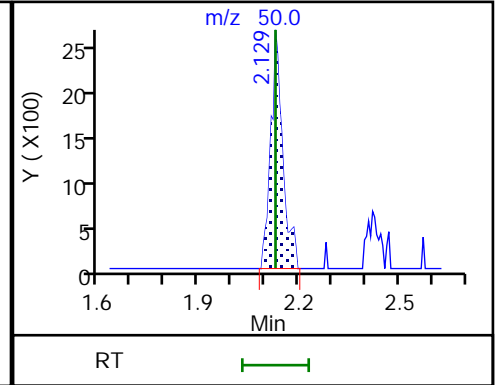
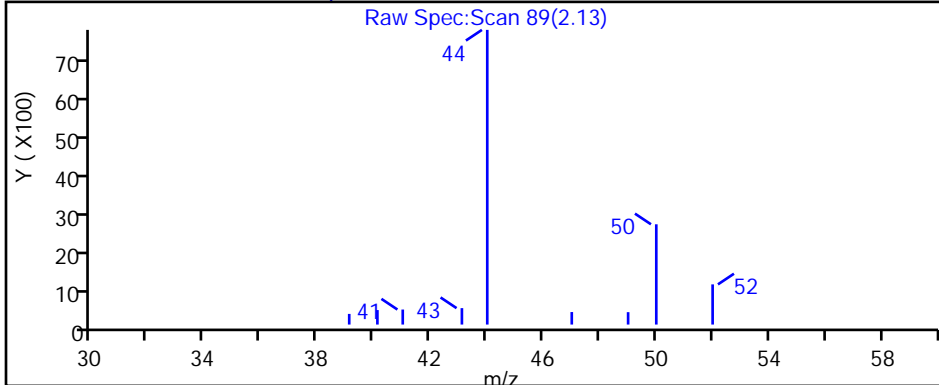
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

5 Chloromethane, CAS: 74-87-3



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S17.D

Injection Date: 08-Aug-2020 06:17:30

Instrument ID: 16334

Lims ID: 410-9077-A-7

Lab Sample ID: 410-9077-7

Client ID: HD-COD-SW-16-0/1-0

Operator ID: MEC29284

ALS Bottle#: 22

Worklist Smp#: 23

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

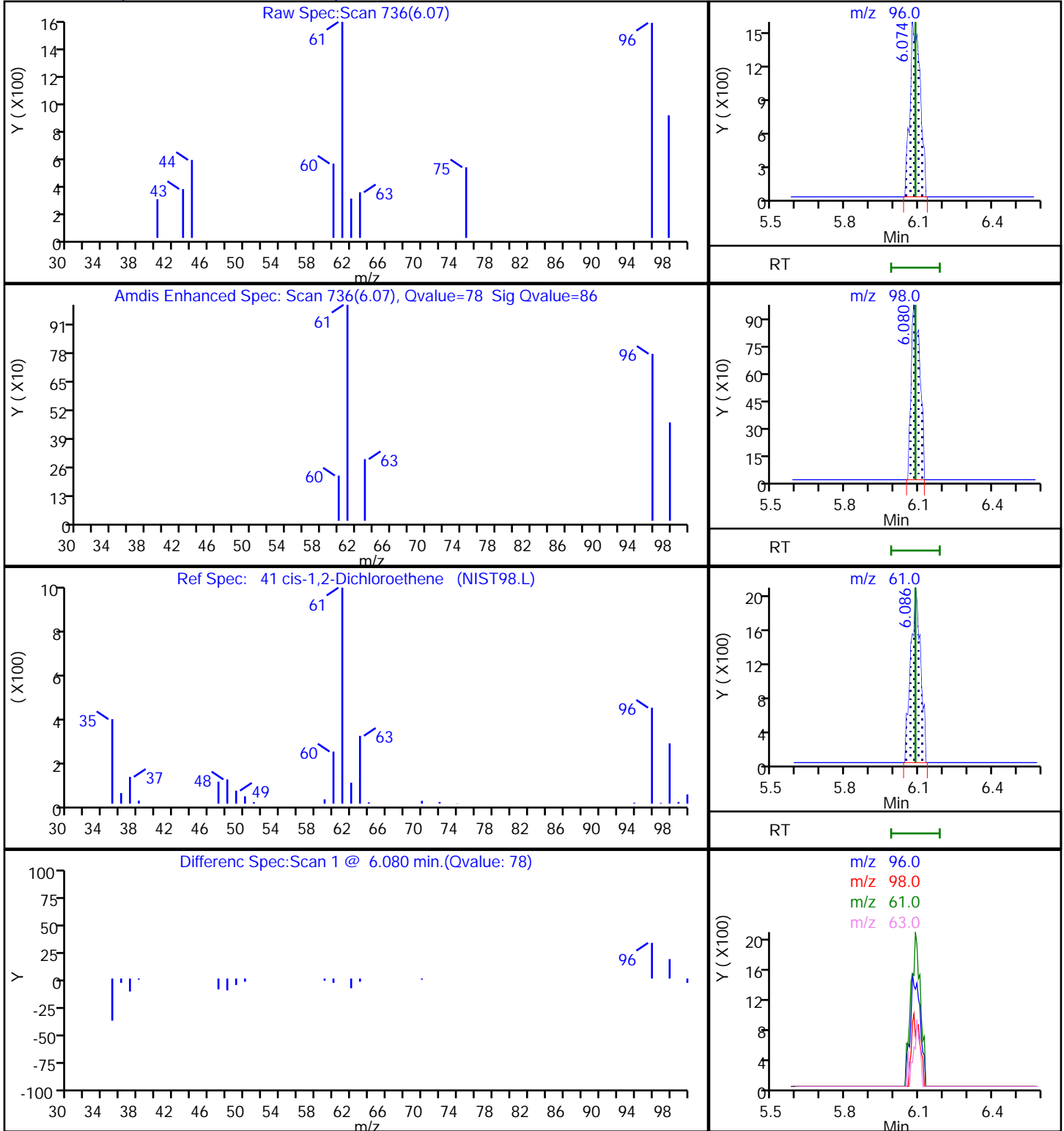
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) x 30m

MS Quad

41 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S17.D

Injection Date: 08-Aug-2020 06:17:30

Instrument ID: 16334

Lims ID: 410-9077-A-7

Lab Sample ID: 410-9077-7

Client ID: HD-COD-SW-16-0/1-0

Operator ID: MEC29284

ALS Bottle#: 22

Worklist Smp#: 23

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

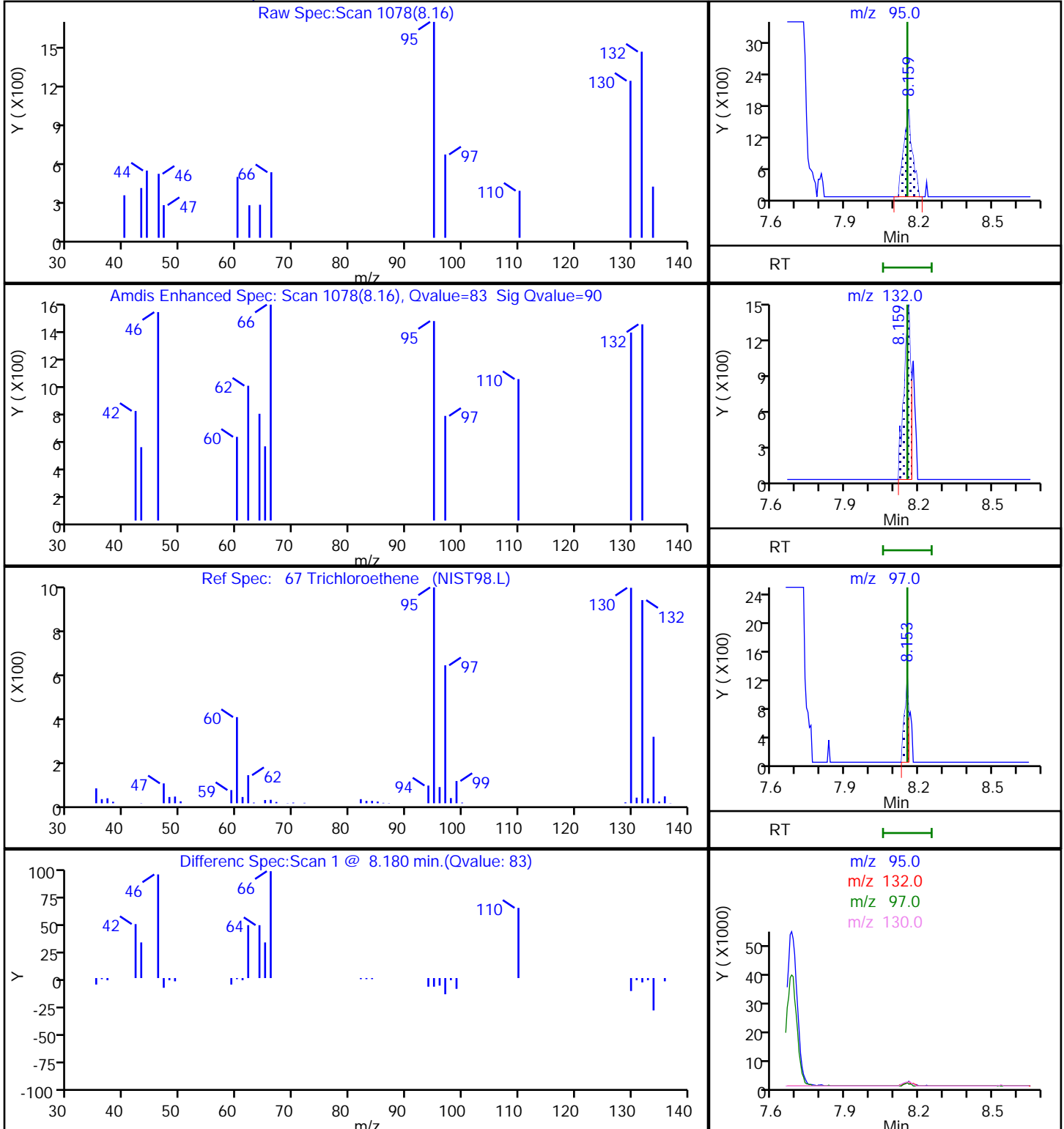
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

67 Trichloroethene, CAS: 79-01-6



Eurofins Lancaster Laboratories Env, LLC

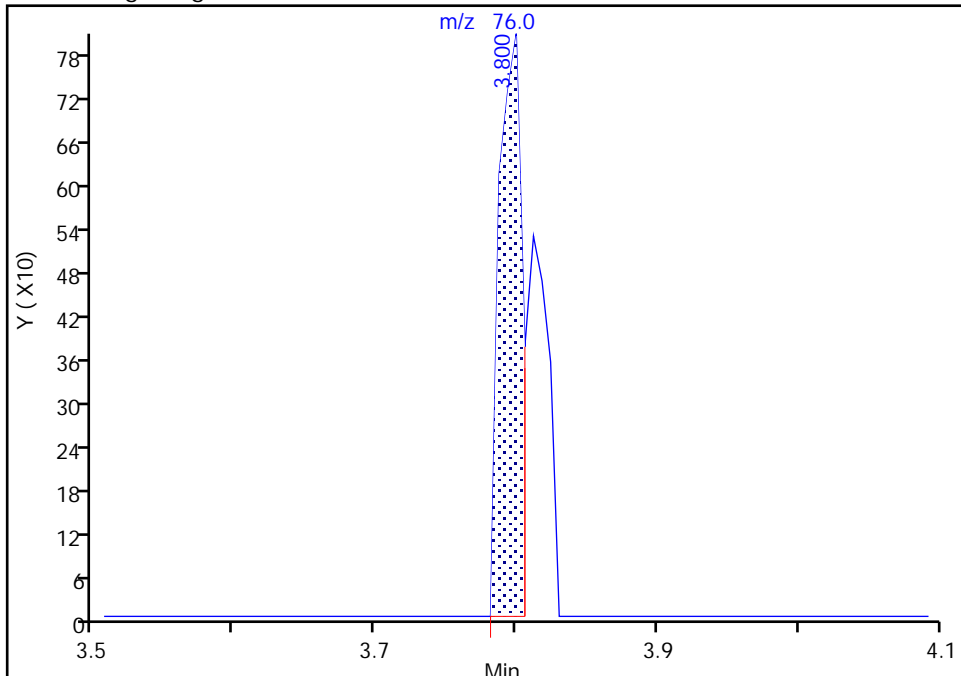
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Injection Date: 08-Aug-2020 06:17:30 Instrument ID: 16334
Lims ID: 410-9077-A-7 Lab Sample ID: 410-9077-7
Client ID: HD-COD-SW-16-0/1-0
Operator ID: MEC29284 ALS Bottle#: 22 Worklist Smp#: 23
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

25 Carbon disulfide, CAS: 75-15-0

Signal: 1

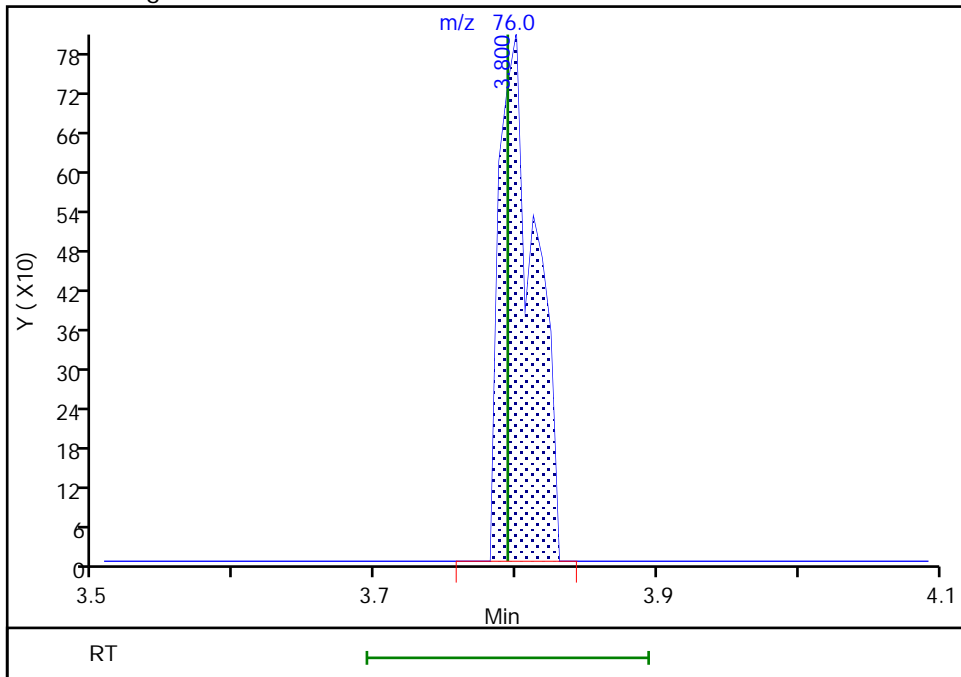
RT: 3.80
Area: 921
Amount: 0.006899
Amount Units: ug/l

Processing Integration Results



RT: 3.80
Area: 1411
Amount: 0.010569
Amount Units: ug/l

Manual Integration Results



Eurofins Lancaster Laboratories Env, LLC

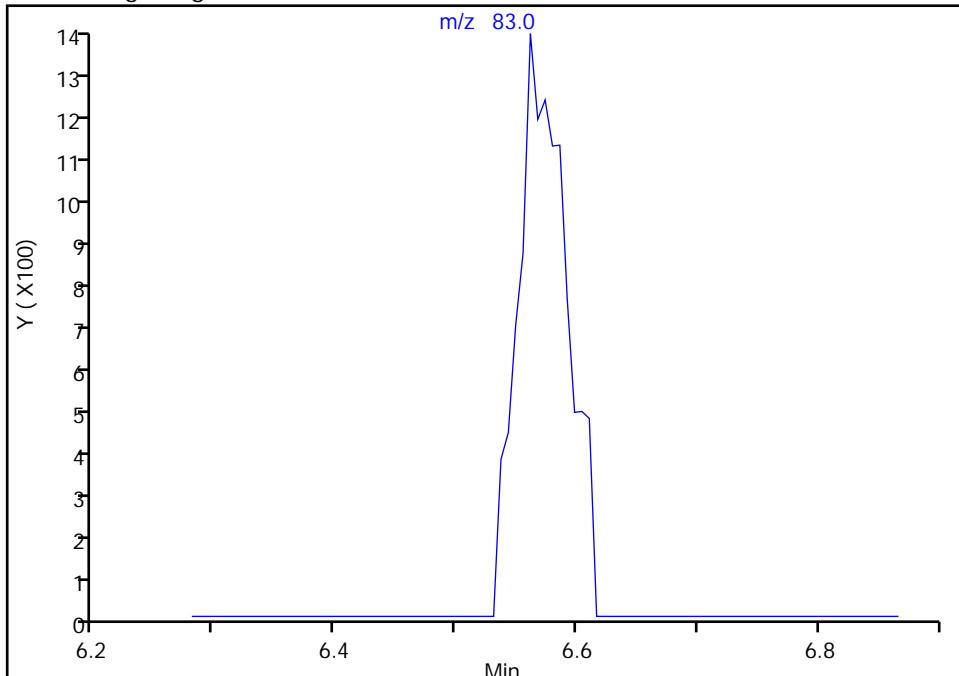
Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S17.D
Injection Date: 08-Aug-2020 06:17:30 Instrument ID: 16334
Lims ID: 410-9077-A-7 Lab Sample ID: 410-9077-7
Client ID: HD-COD-SW-16-0/1-0
Operator ID: MEC29284 ALS Bottle#: 22 Worklist Smp#: 23
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

50 Chloroform, CAS: 67-66-3

Signal: 1

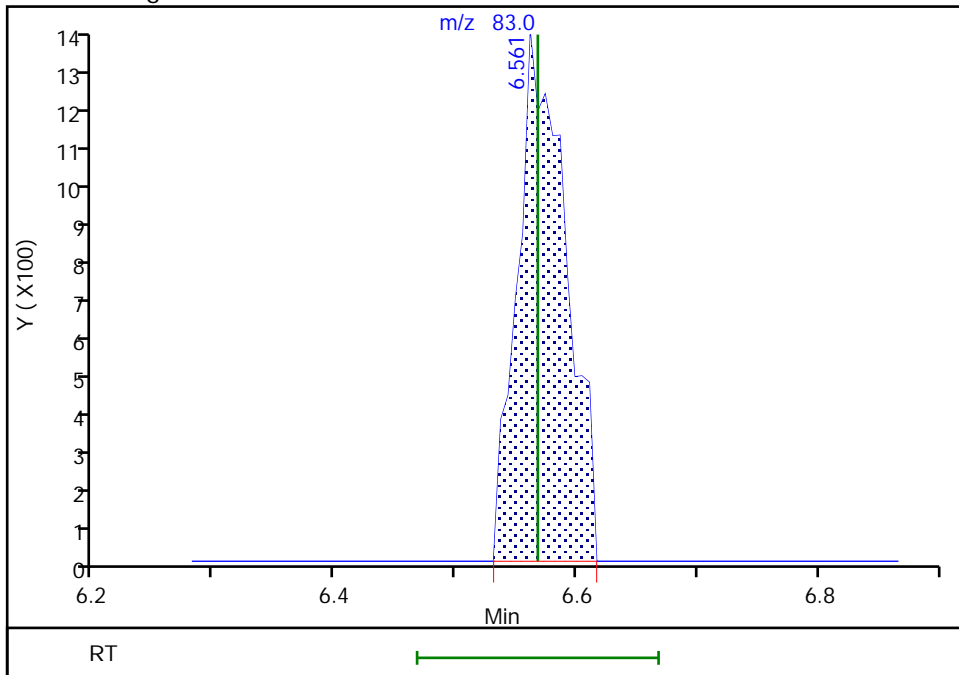
Not Detected
Expected RT: 6.57

Processing Integration Results



Manual Integration Results

RT: 6.56
Area: 3716
Amount: 0.042723
Amount Units: ug/l



Reviewer: campbellme, 09-Aug-2020 18:15:57
Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

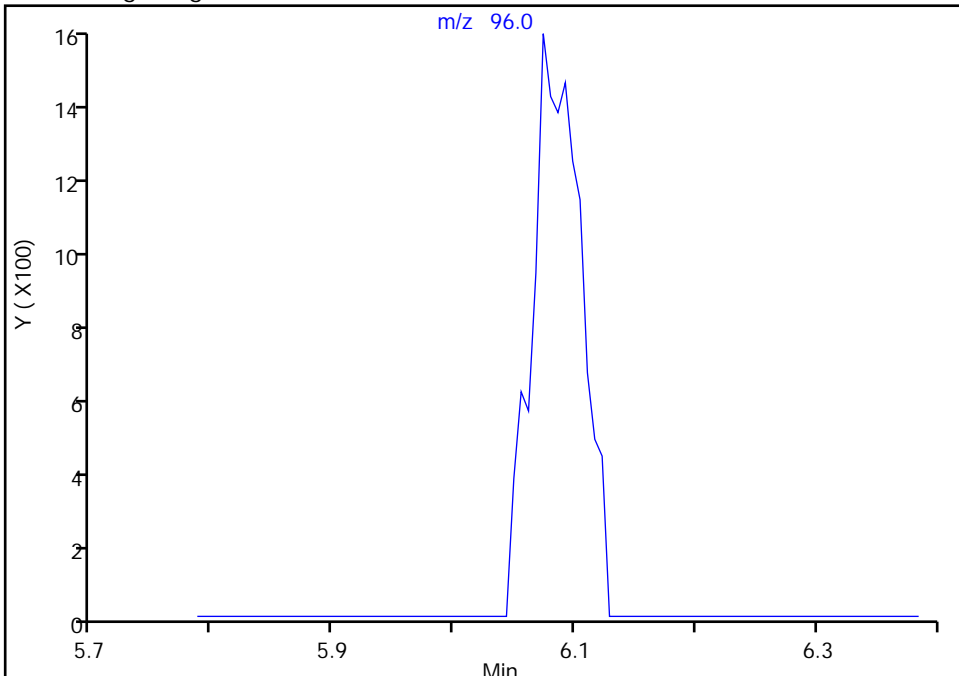
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Injection Date: 08-Aug-2020 06:17:30 Instrument ID: 16334
Lims ID: 410-9077-A-7 Lab Sample ID: 410-9077-7
Client ID: HD-COD-SW-16-0/1-0
Operator ID: MEC29284 ALS Bottle#: 22 Worklist Smp#: 23
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

41 cis-1,2-Dichloroethene, CAS: 156-59-2

Signal: 1

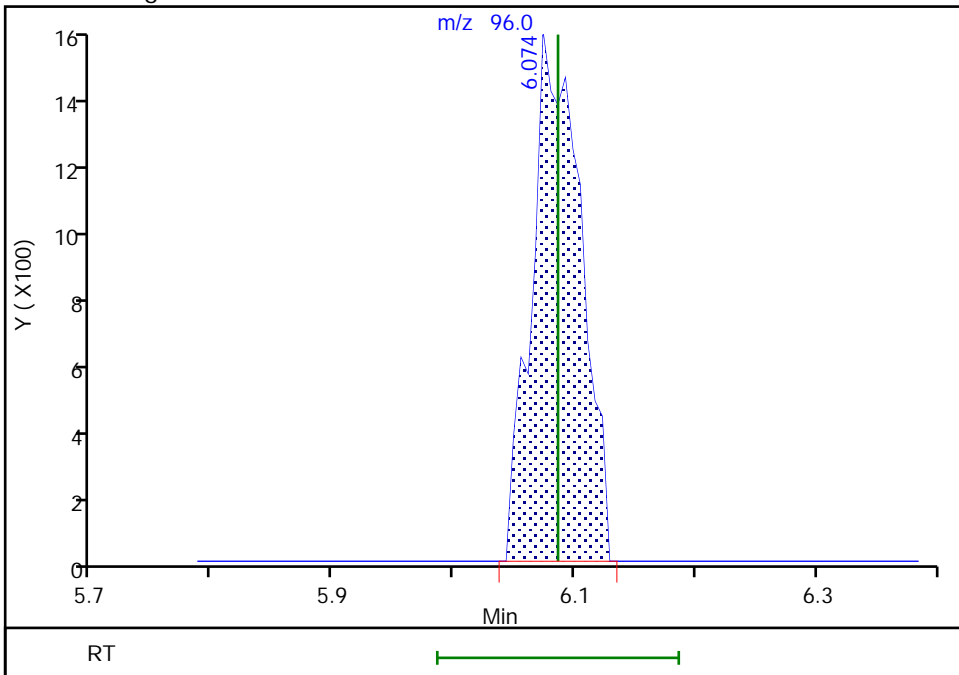
Not Detected
Expected RT: 6.09

Processing Integration Results



Manual Integration Results

RT: 6.07
Area: 4307
Amount: 0.086548
Amount Units: ug/l



Eurofins Lancaster Laboratories Env, LLC

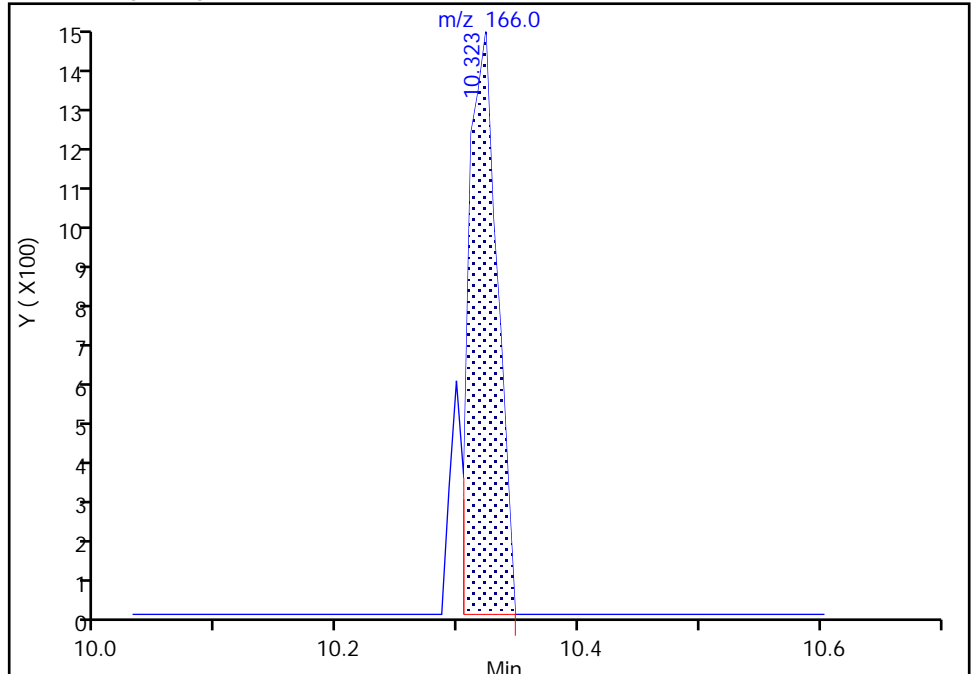
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Injection Date: 08-Aug-2020 06:17:30 Instrument ID: 16334
Lims ID: 410-9077-A-7 Lab Sample ID: 410-9077-7
Client ID: HD-COD-SW-16-0/1-0
Operator ID: MEC29284 ALS Bottle#: 22 Worklist Smp#: 23
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

88 Tetrachloroethene, CAS: 127-18-4

Signal: 1

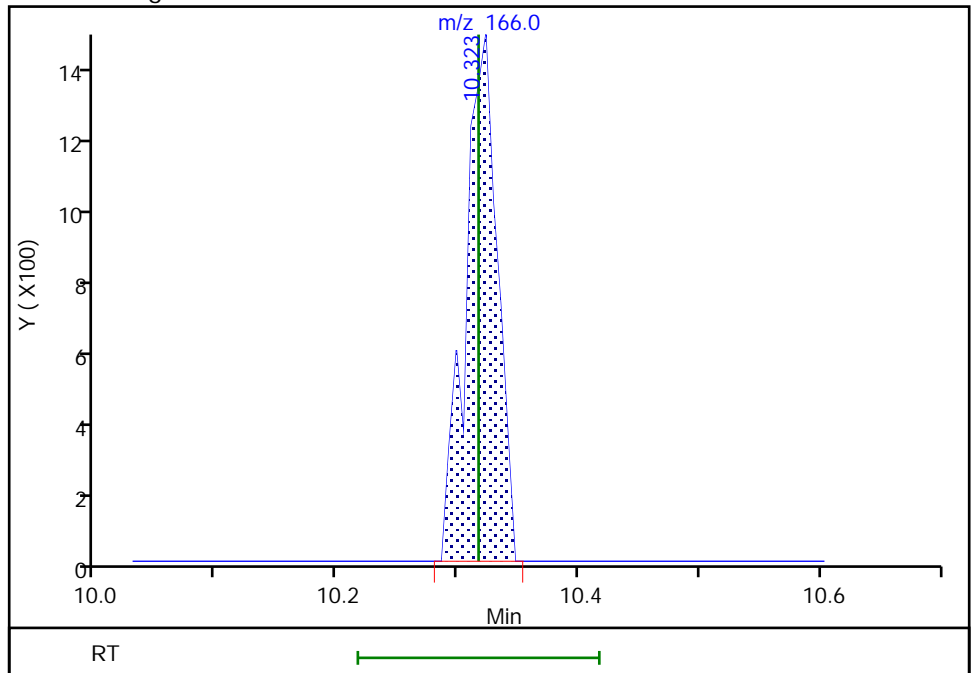
RT: 10.32
Area: 2274
Amount: 0.041890
Amount Units: ug/l

Processing Integration Results



RT: 10.32
Area: 2596
Amount: 0.047822
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 09-Aug-2020 18:16:13
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

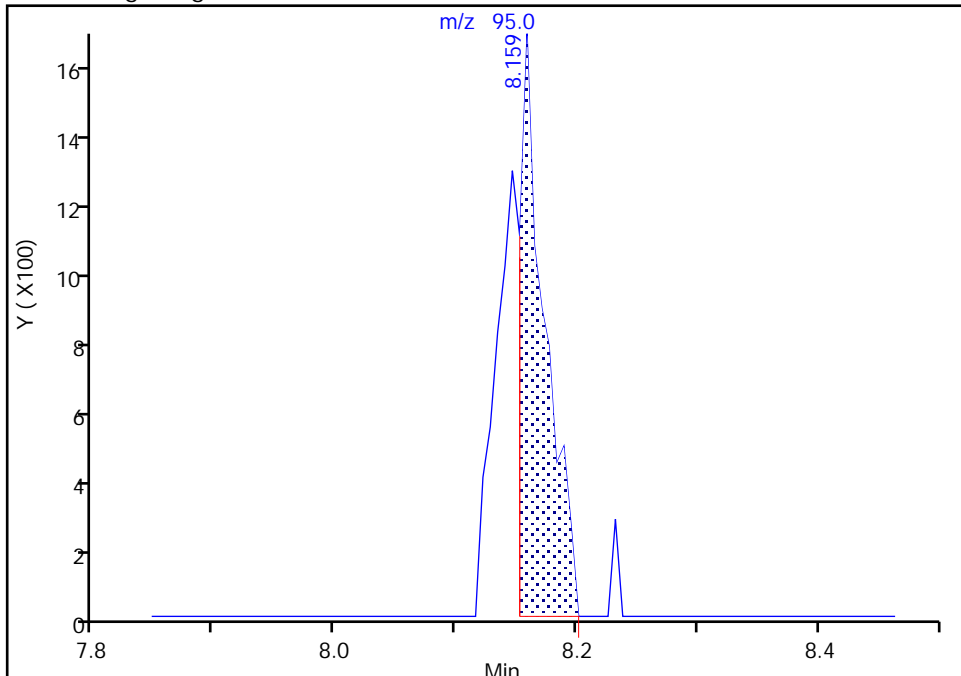
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Injection Date: 08-Aug-2020 06:17:30 Instrument ID: 16334
Lims ID: 410-9077-A-7 Lab Sample ID: 410-9077-7
Client ID: HD-COD-SW-16-0/1-0
Operator ID: MEC29284 ALS Bottle#: 22 Worklist Smp#: 23
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

67 Trichloroethene, CAS: 79-01-6

Signal: 1

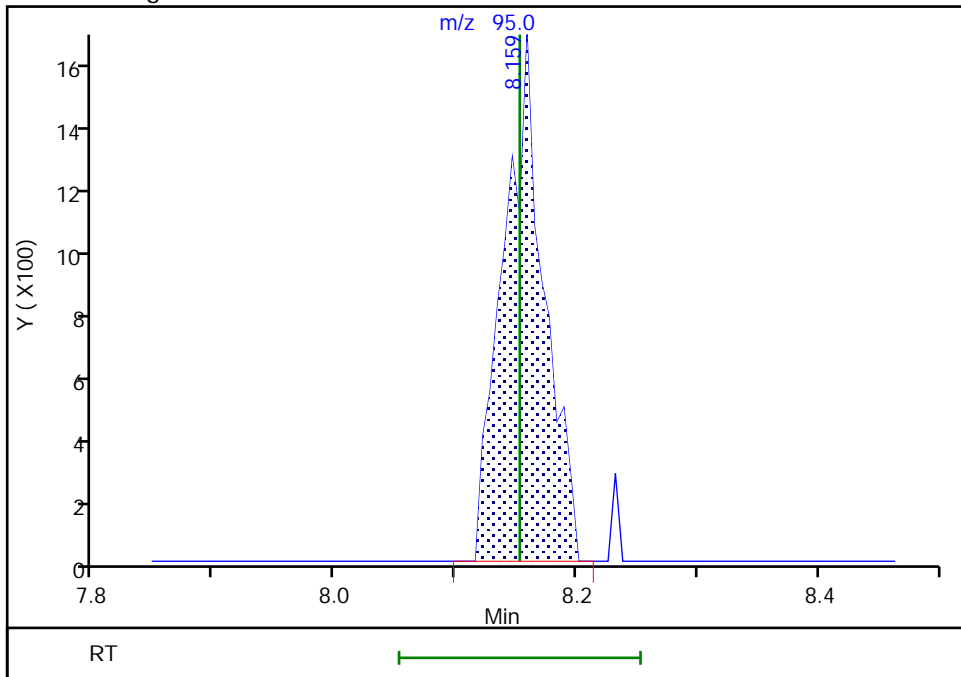
RT: 8.16
Area: 2431
Amount: 0.048718
Amount Units: ug/l

Processing Integration Results



RT: 8.16
Area: 3905
Amount: 0.078258
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 09-Aug-2020 18:16:05
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

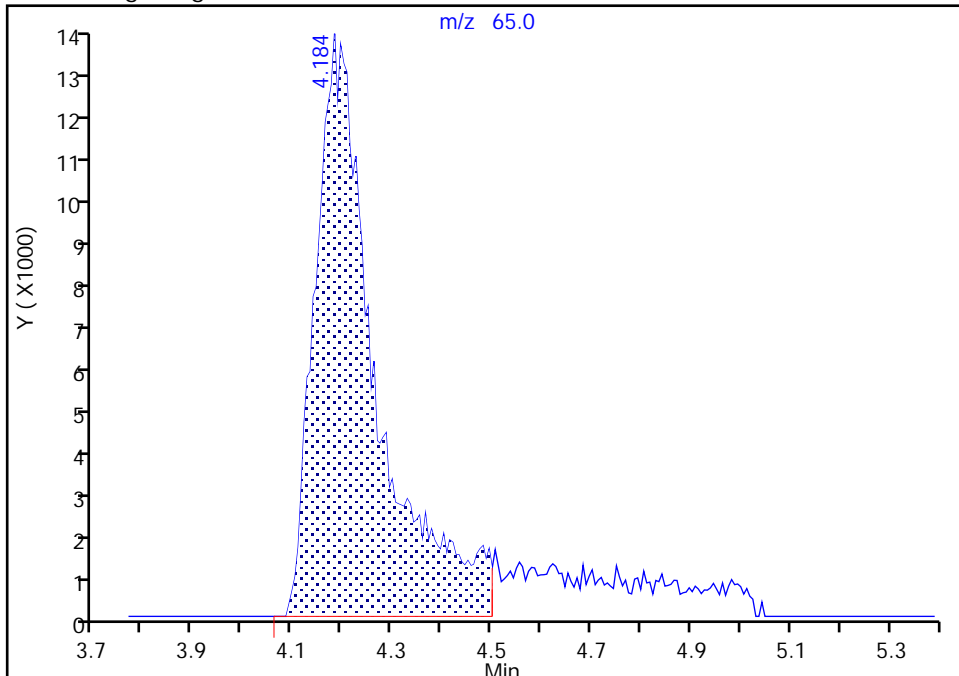
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Injection Date: 08-Aug-2020 06:17:30 Instrument ID: 16334
Lims ID: 410-9077-A-7 Lab Sample ID: 410-9077-7
Client ID: HD-COD-SW-16-0/1-0
Operator ID: MEC29284 ALS Bottle#: 22 Worklist Smp#: 23
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 29 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

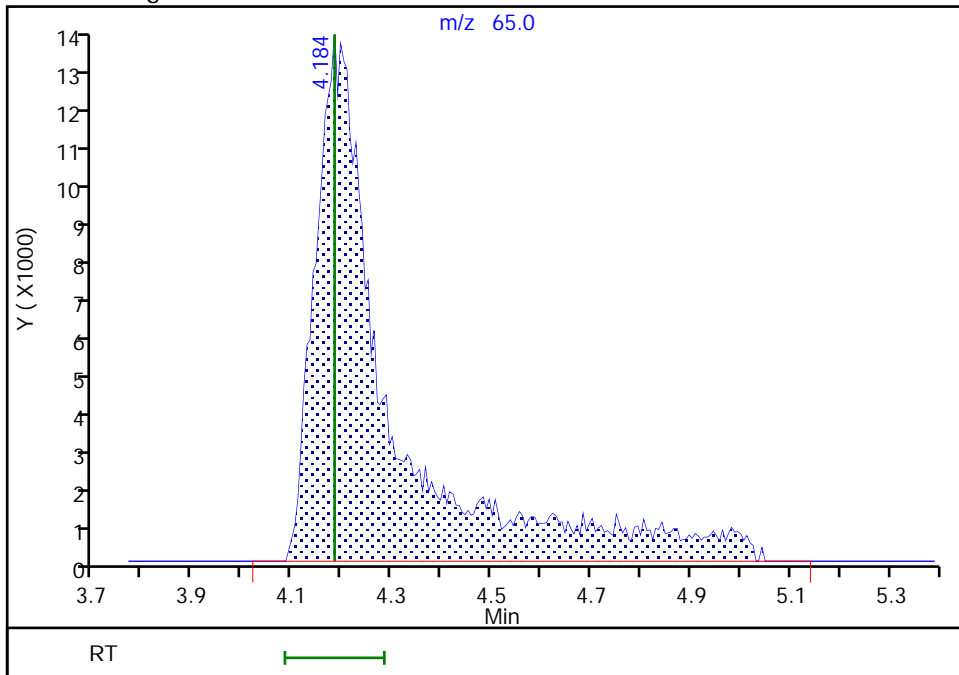
RT: 4.18
Area: 117272
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.18
Area: 143823
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 09-Aug-2020 18:15:48
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-17-0/1-0 Lab Sample ID: 410-9077-8
 Matrix: Surface Water Lab File ID: GG07S18.D
 Analysis Method: 8260D Date Collected: 07/28/2020 08:55
 Sample wt/vol: 25 (mL) Date Analyzed: 08/08/2020 06:39
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 30932 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.11	J	0.50	0.060
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.060
75-34-3	1,1-Dichloroethane	0.095	J	0.50	0.070
75-35-4	1,1-Dichloroethene	0.069	J	0.50	0.060
107-06-2	1,2-Dichloroethane	ND		0.50	0.050
78-87-5	1,2-Dichloropropane	ND		0.50	0.060
78-93-3	2-Butanone (MEK)	ND		5.0	0.60
591-78-6	2-Hexanone	ND		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70
67-64-1	Acetone	1.1	J	5.0	0.90
107-13-1	Acrylonitrile	ND		5.0	0.40
71-43-2	Benzene	ND		0.50	0.050
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND	^c	0.50	0.070
75-15-0	Carbon disulfide	ND		1.0	0.060
56-23-5	Carbon tetrachloride	ND		0.50	0.070
108-90-7	Chlorobenzene	ND		0.50	0.060
74-97-5	Bromochloromethane	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
75-00-3	Chloroethane	ND		0.50	0.070
67-66-3	Chloroform	0.13	J	0.50	0.090
74-87-3	Chloromethane	ND		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	1.1		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
75-27-4	Bromodichloromethane	ND		0.50	0.050
100-41-4	Ethylbenzene	ND		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.050
75-09-2	Methylene Chloride	ND		0.50	0.070
100-42-5	Styrene	ND		0.50	0.050
127-18-4	Tetrachloroethene	3.0		0.50	0.060
108-88-3	Toluene	ND		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-17-0/1-0 Lab Sample ID: 410-9077-8
 Matrix: Surface Water Lab File ID: GG07S18.D
 Analysis Method: 8260D Date Collected: 07/28/2020 08:55
 Sample wt/vol: 25 (mL) Date Analyzed: 08/08/2020 06:39
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 30932 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	1.4		0.50	0.060
75-01-4	Vinyl chloride	0.11	J	0.50	0.10
1330-20-7	Xylenes, Total	ND		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	92		80-120
2037-26-5	Toluene-d8 (Surr)	99		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S18.D
 Lims ID: 410-9077-A-8
 Client ID: HD-COD-SW-17-0/1-0
 Sample Type: Client
 Inject. Date: 08-Aug-2020 06:39:30 ALS Bottle#: 23 Worklist Smp#: 24
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-9077-a-8
 Misc. Info.: 410-0007550-024
 Operator ID: MEC29284 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 09-Aug-2020 18:20:24 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1057

First Level Reviewer: campbellme

Date: 09-Aug-2020 18:17:10

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Chloromethane	50	2.135	2.129	0.006	1	2317	0.0331	
7 Vinyl chloride	62	2.257	2.245	0.012	93	7003	0.1059	
9 Bromomethane	94		2.562				ND	
10 Chloroethane	64		2.648				ND	
19 1,1-Dichloroethene	96	3.501	3.507	-0.006	93	2658	0.0693	
20 Acetone	43	3.531	3.550	-0.019	67	9079	1.13	
25 Carbon disulfide	76	3.781	3.794	-0.013	3	919	0.006829	7M
28 Methylene Chloride	84		4.166				ND	
* 29 t-Butyl alcohol-d10 (IS)	65	4.178	4.184	-0.006	23	143955	50.0	M
31 Acrylonitrile	53		4.519				ND	
32 Methyl tert-butyl ether	73		4.568				ND	
33 trans-1,2-Dichloroethene	96		4.574				ND	
36 1,1-Dichloroethane	63	5.245	5.245	0.000	90	7742	0.0949	a
40 2-Butanone (MEK)	43		6.049				ND	
41 cis-1,2-Dichloroethene	96	6.092	6.086	0.006	82	57209	1.14	
48 Chlorobromomethane	128		6.415				ND	
50 Chloroform	83	6.574	6.568	0.006	93	10992	0.1254	
\$ 52 Dibromofluoromethane (Surr)	113	6.787	6.787	0.000	93	445050	9.21	
51 1,1,1-Trichloroethane	97	6.793	6.793	0.000	36	8529	0.1062	
56 Carbon tetrachloride	117		6.994				ND	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.244	7.232	0.012	0	90485	9.83	
59 Benzene	78	7.269	7.269	0.000	79	2645	0.0146	7M
60 1,2-Dichloroethane	62		7.342				ND	
* 63 Fluorobenzene (IS)	96	7.677	7.677	0.000	98	1809189	10.0	
67 Trichloroethene	95	8.146	8.153	-0.007	98	72271	1.44	
69 1,2-Dichloropropane	63		8.488				ND	
75 Dichlorobromomethane	83		8.835				ND	
80 cis-1,3-Dichloropropene	75		9.390				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	
\$ 82 Toluene-d8 (Surr)	98	9.695	9.695	0.000	95	1769045	9.92	
83 Toluene	92	9.768	9.774	-0.006	97	3243	0.0288	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
84 trans-1,3-Dichloropropene	75		10.030				ND	
86 1,1,2-Trichloroethane	97		10.238				ND	
88 Tetrachloroethene	166	10.317	10.317	0.000	96	163149	2.96	
91 2-Hexanone	43		10.457				ND	
93 Chlorodibromomethane	129		10.609				ND	
94 Ethylene Dibromide	107		10.719				ND	
* 95 Chlorobenzene-d5 (IS)	117	11.152	11.152	0.000	88	1362351	10.0	
97 Chlorobenzene	112		11.183				ND	
S 101 Xylenes, Total	106		11.245				ND	
98 1,1,1,2-Tetrachloroethane	131		11.262				ND	
99 Ethylbenzene	91		11.268				ND	
100 m-Xylene & p-Xylene	106		11.384				ND	
102 o-Xylene	106		11.713				ND	
103 Styrene	104		11.725				ND	
104 Bromoform	173		11.884				ND	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	88	634287	9.58	
109 1,1,2,2-Tetrachloroethane	83		12.255				ND	
* 124 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	97	682395	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MSV_29_826ISS_00007

Amount Added: 1.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S18.D

Injection Date: 08-Aug-2020 06:39:30

Instrument ID: 16334

Operator ID: MEC29284

Lims ID: 410-9077-A-8

Lab Sample ID: 410-9077-8

Worklist Smp#: 24

Client ID: HD-COD-SW-17-0/1-0

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 23

Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S18.D
 Lims ID: 410-9077-A-8
 Client ID: HD-COD-SW-17-0/1-0
 Sample Type: Client
 Inject. Date: 08-Aug-2020 06:39:30 ALS Bottle#: 23 Worklist Smp#: 24
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-9077-a-8
 Misc. Info.: 410-0007550-024
 Operator ID: MEC29284 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 09-Aug-2020 18:20:24 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1057

First Level Reviewer: campbellme

Date: 09-Aug-2020 18:17:10

Compound	Amount Added	Amount Recovered	% Rec.
\$ 52 Dibromofluoromethane (Surr)	10.0	9.21	92.09
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	9.83	98.31
\$ 82 Toluene-d8 (Surr)	10.0	9.92	99.19
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.58	95.76

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S18.D

Injection Date: 08-Aug-2020 06:39:30

Instrument ID: 16334

Lims ID: 410-9077-A-8

Lab Sample ID: 410-9077-8

Client ID: HD-COD-SW-17-0/1-0

Operator ID: MEC29284

ALS Bottle#: 23

Worklist Smp#: 24

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

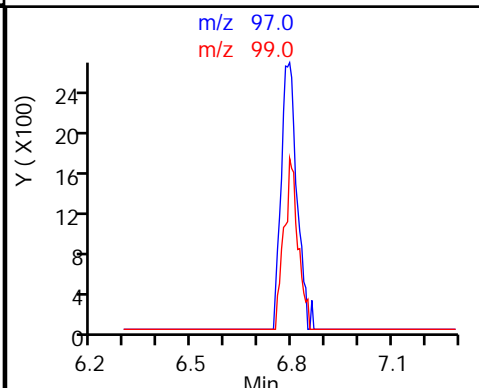
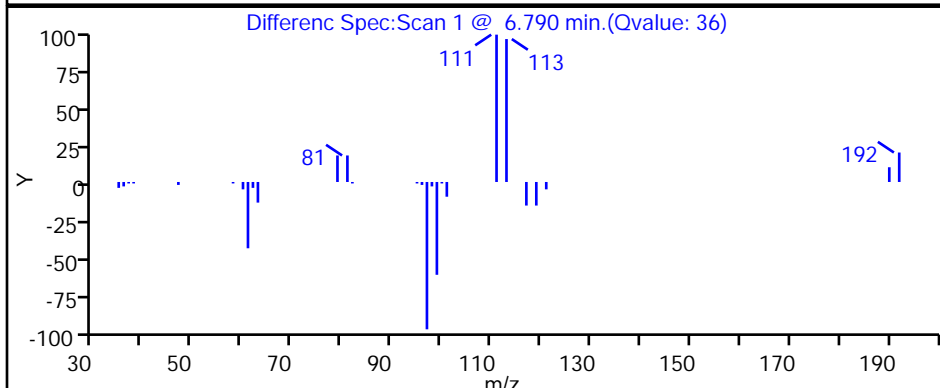
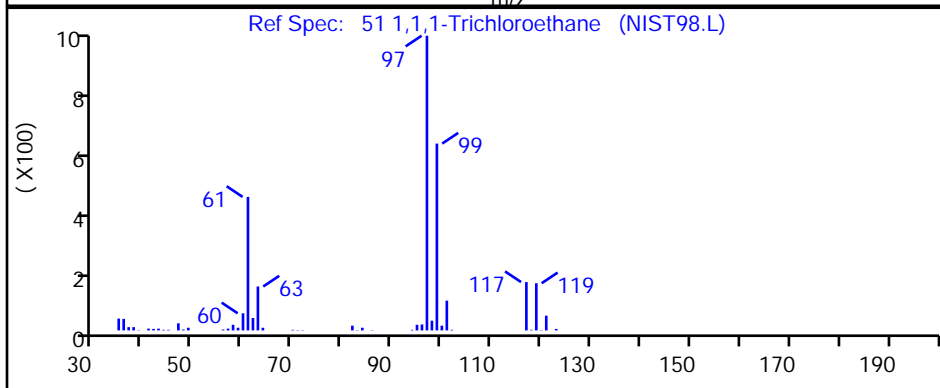
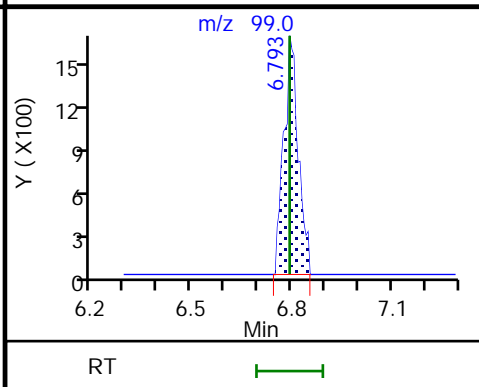
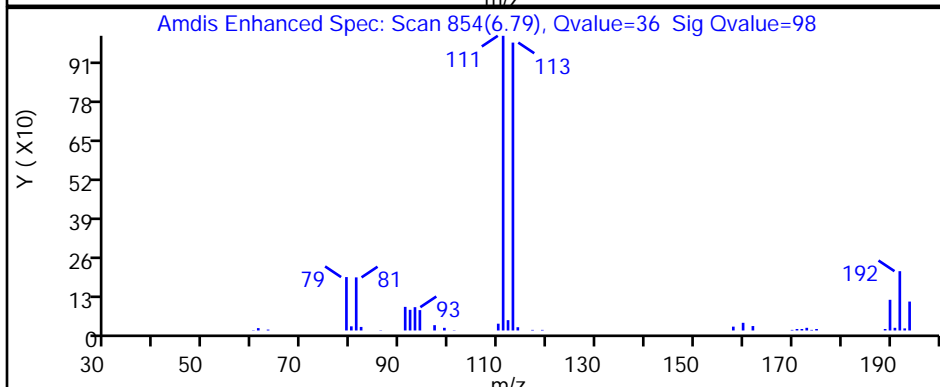
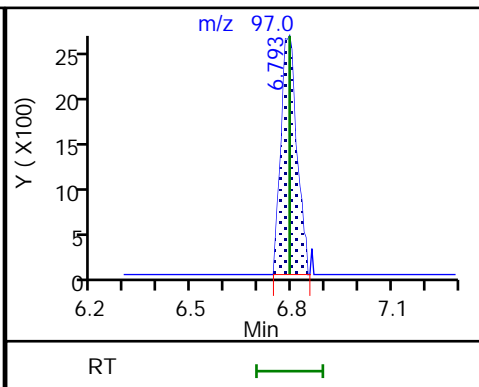
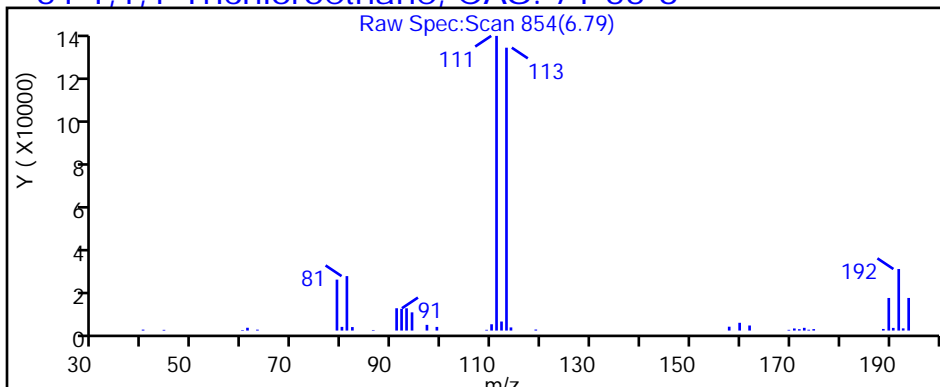
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector

MS Quad

51 1,1,1-Trichloroethane, CAS: 71-55-6



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S18.D

Injection Date: 08-Aug-2020 06:39:30

Instrument ID: 16334

Lims ID: 410-9077-A-8

Lab Sample ID: 410-9077-8

Client ID: HD-COD-SW-17-0/1-0

Operator ID: MEC29284

ALS Bottle#: 23

Worklist Smp#: 24

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

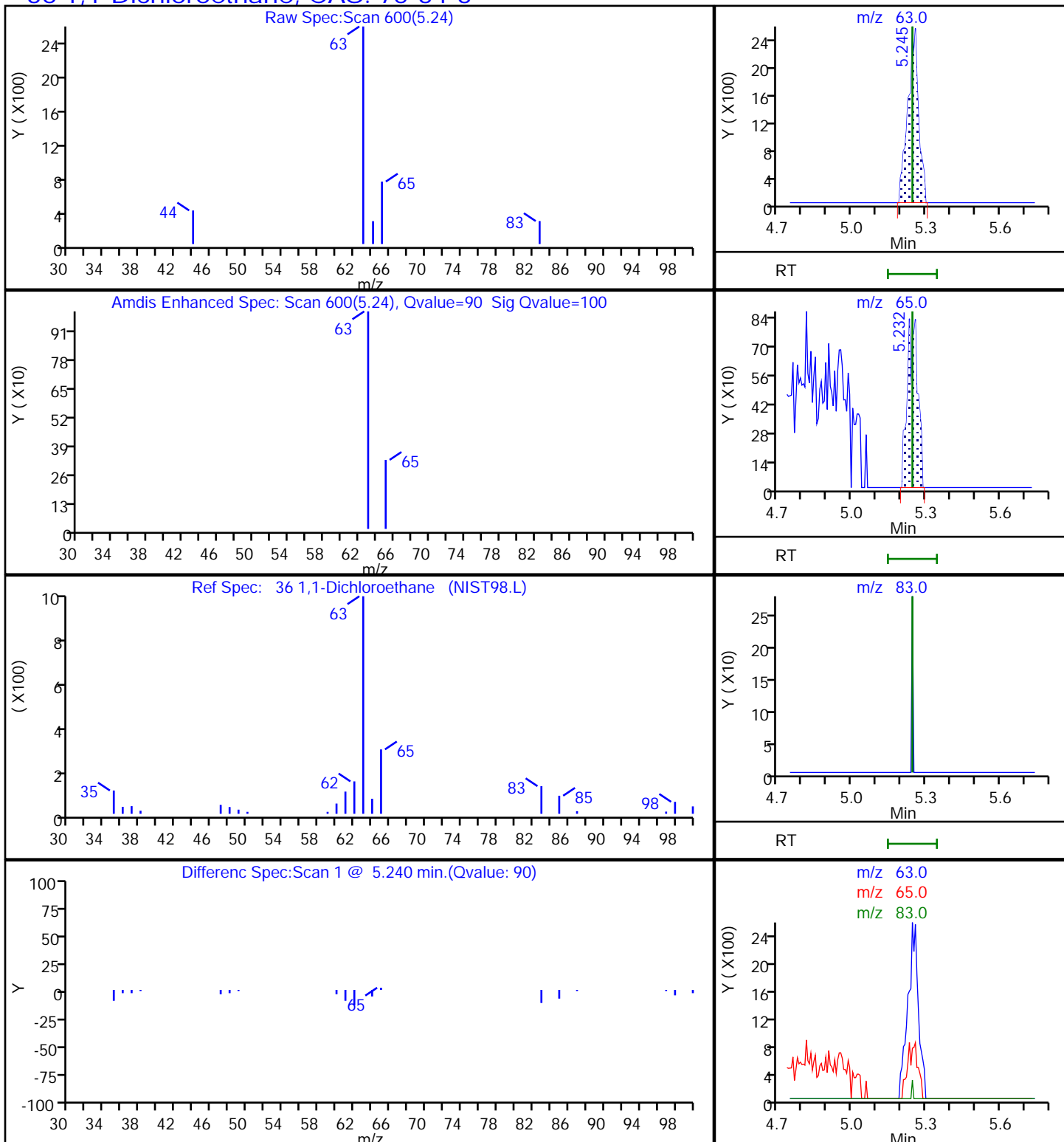
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

36 1,1-Dichloroethane, CAS: 75-34-3



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S18.D

Injection Date: 08-Aug-2020 06:39:30

Instrument ID: 16334

Lims ID: 410-9077-A-8

Lab Sample ID: 410-9077-8

Client ID: HD-COD-SW-17-0/1-0

Operator ID: MEC29284

ALS Bottle#: 23

Worklist Smp#: 24

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

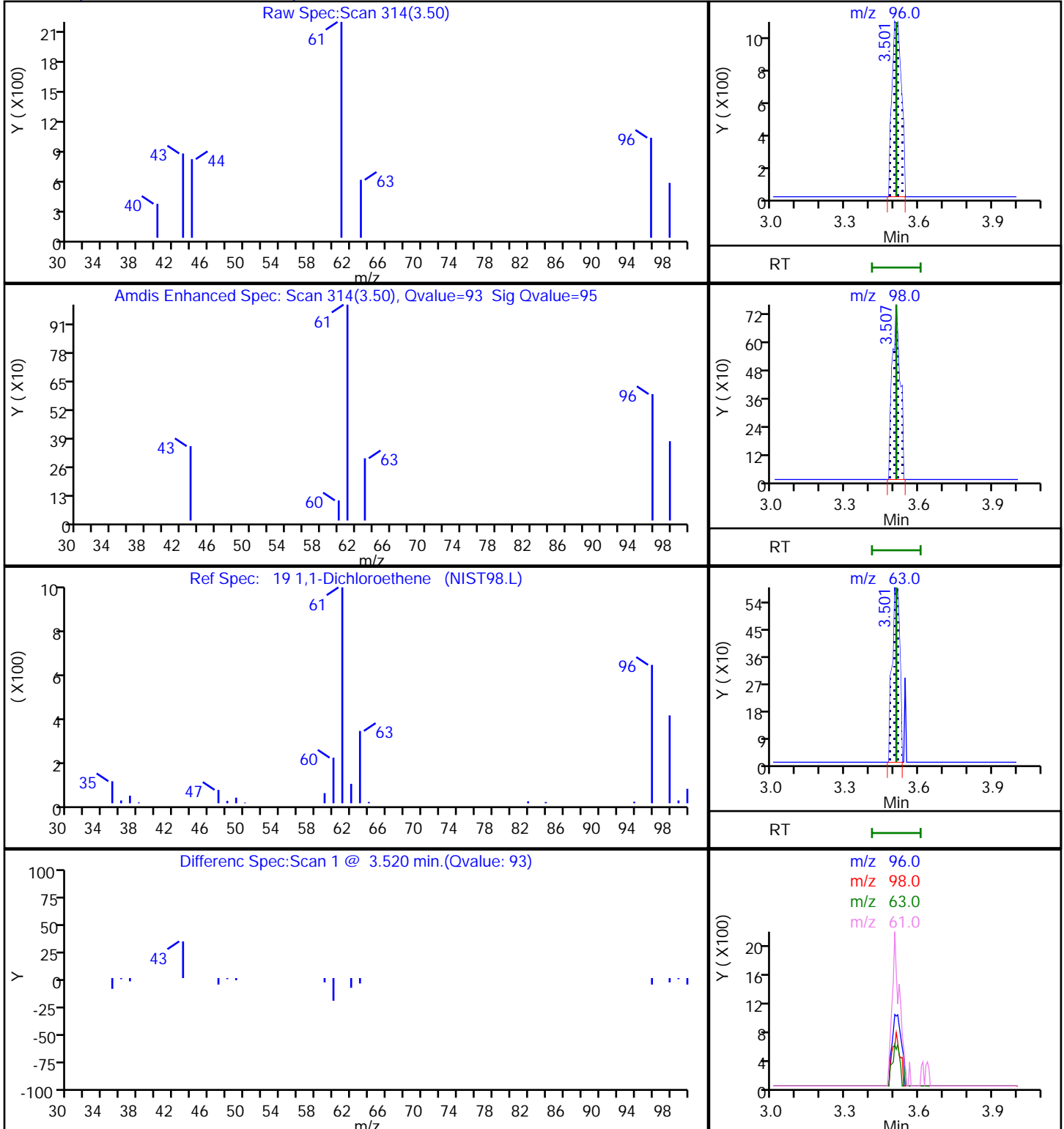
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector

MS Quad

19 1,1-Dichloroethene, CAS: 75-35-4



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S18.D

Injection Date: 08-Aug-2020 06:39:30

Instrument ID: 16334

Lims ID: 410-9077-A-8

Lab Sample ID: 410-9077-8

Client ID: HD-COD-SW-17-0/1-0

Operator ID: MEC29284

ALS Bottle#: 23

Worklist Smp#: 24

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

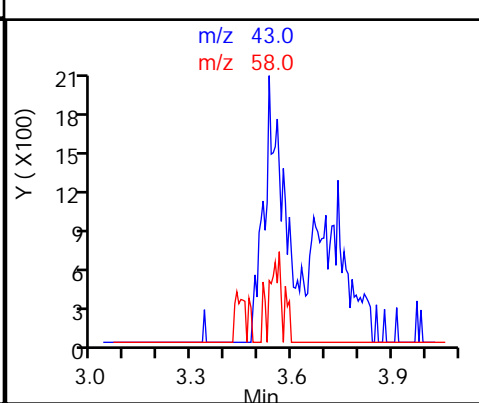
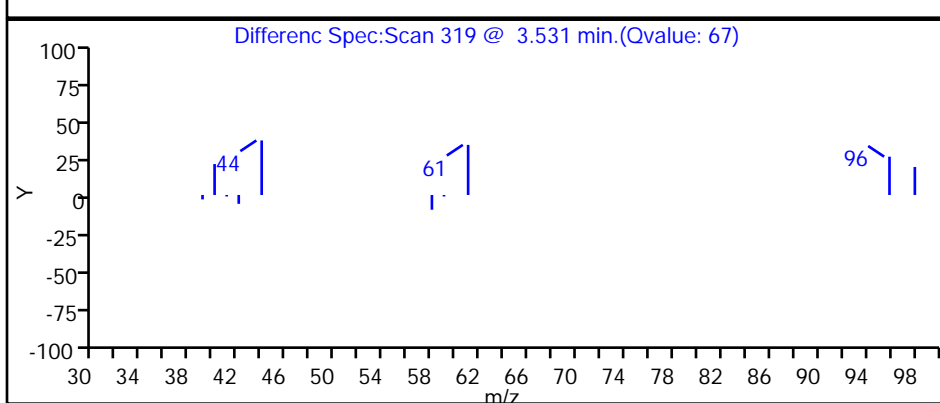
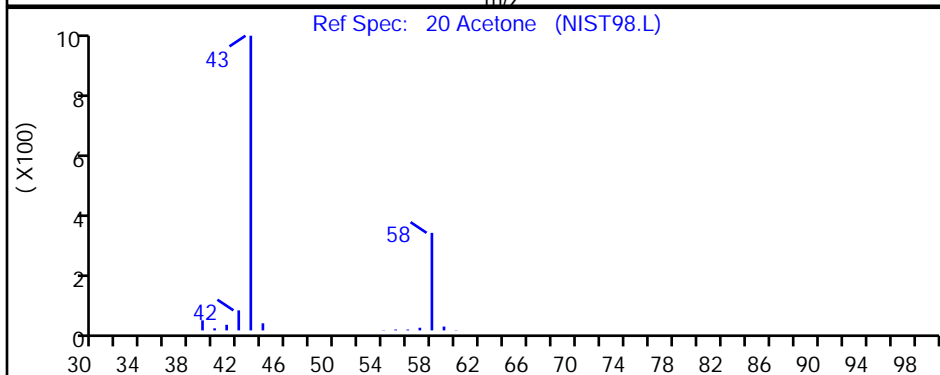
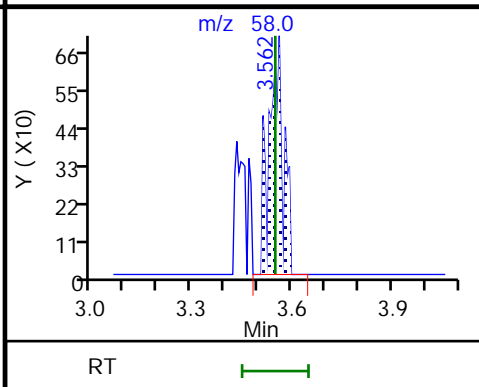
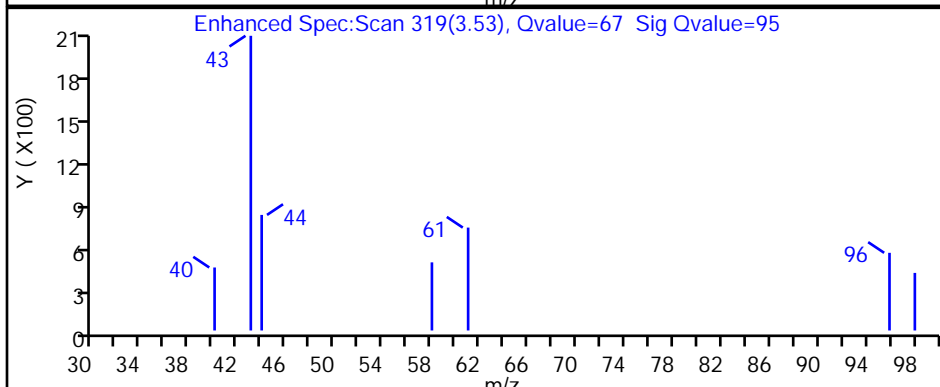
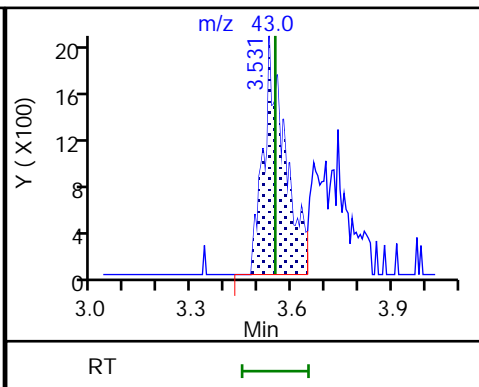
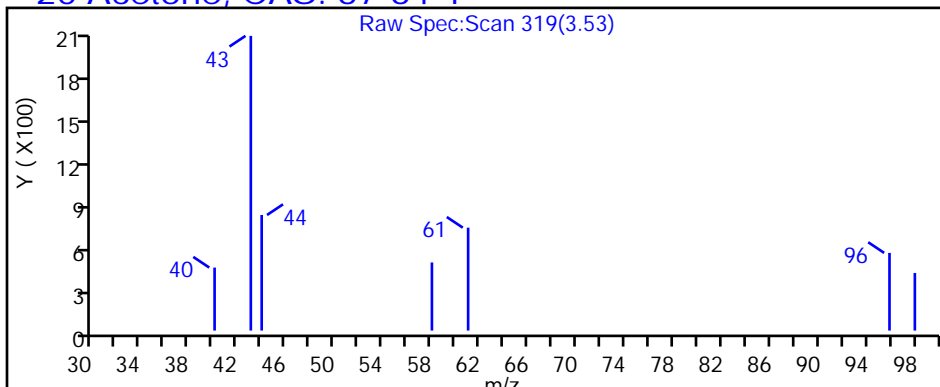
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

20 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S18.D

Injection Date: 08-Aug-2020 06:39:30

Instrument ID: 16334

Lims ID: 410-9077-A-8

Lab Sample ID: 410-9077-8

Client ID: HD-COD-SW-17-0/1-0

Operator ID: MEC29284

ALS Bottle#: 23

Worklist Smp#: 24

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

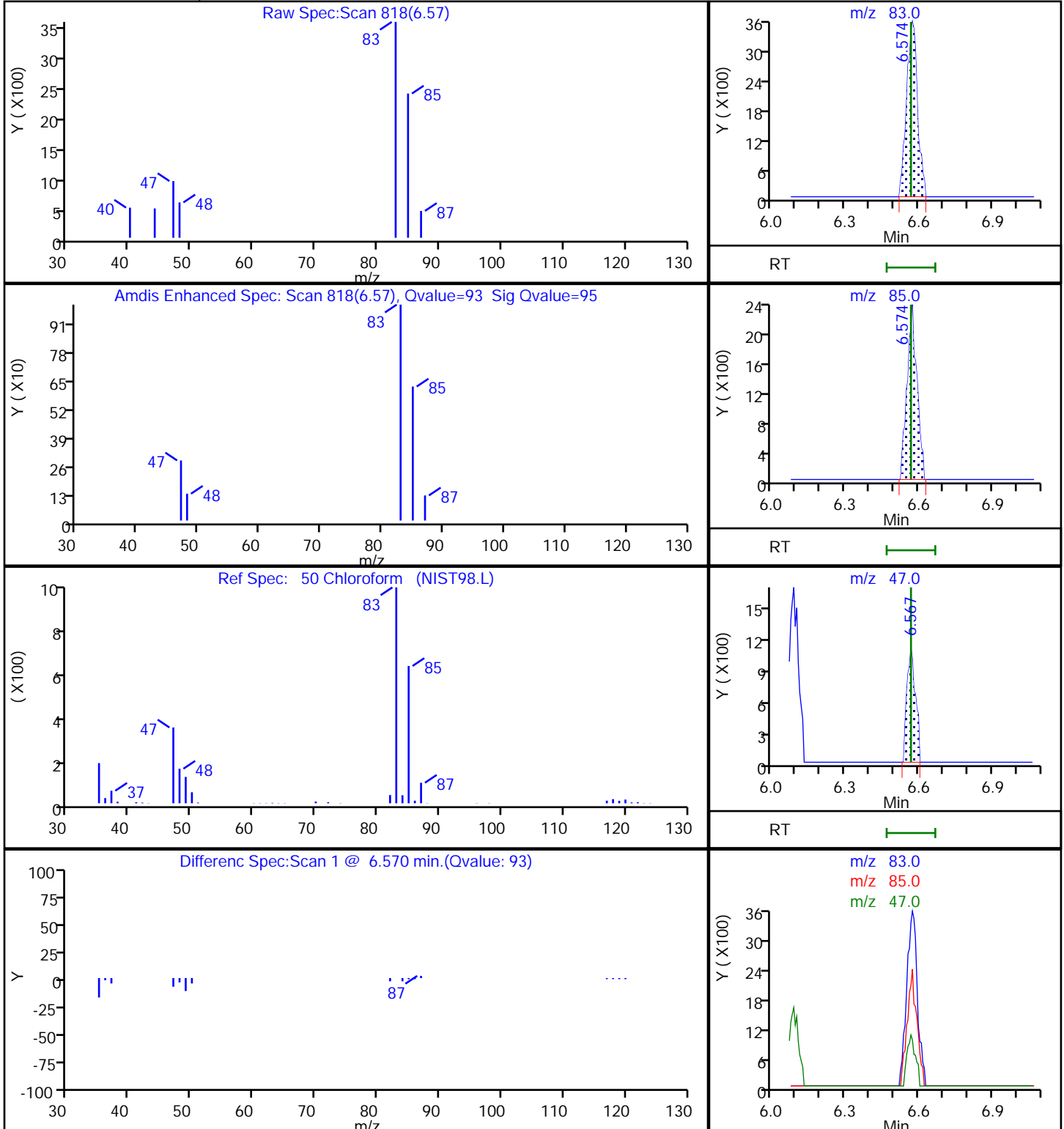
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

50 Chloroform, CAS: 67-66-3



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S18.D

Injection Date: 08-Aug-2020 06:39:30

Instrument ID: 16334

Lims ID: 410-9077-A-8

Lab Sample ID: 410-9077-8

Client ID: HD-COD-SW-17-0/1-0

Operator ID: MEC29284

ALS Bottle#: 23

Worklist Smp#: 24

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

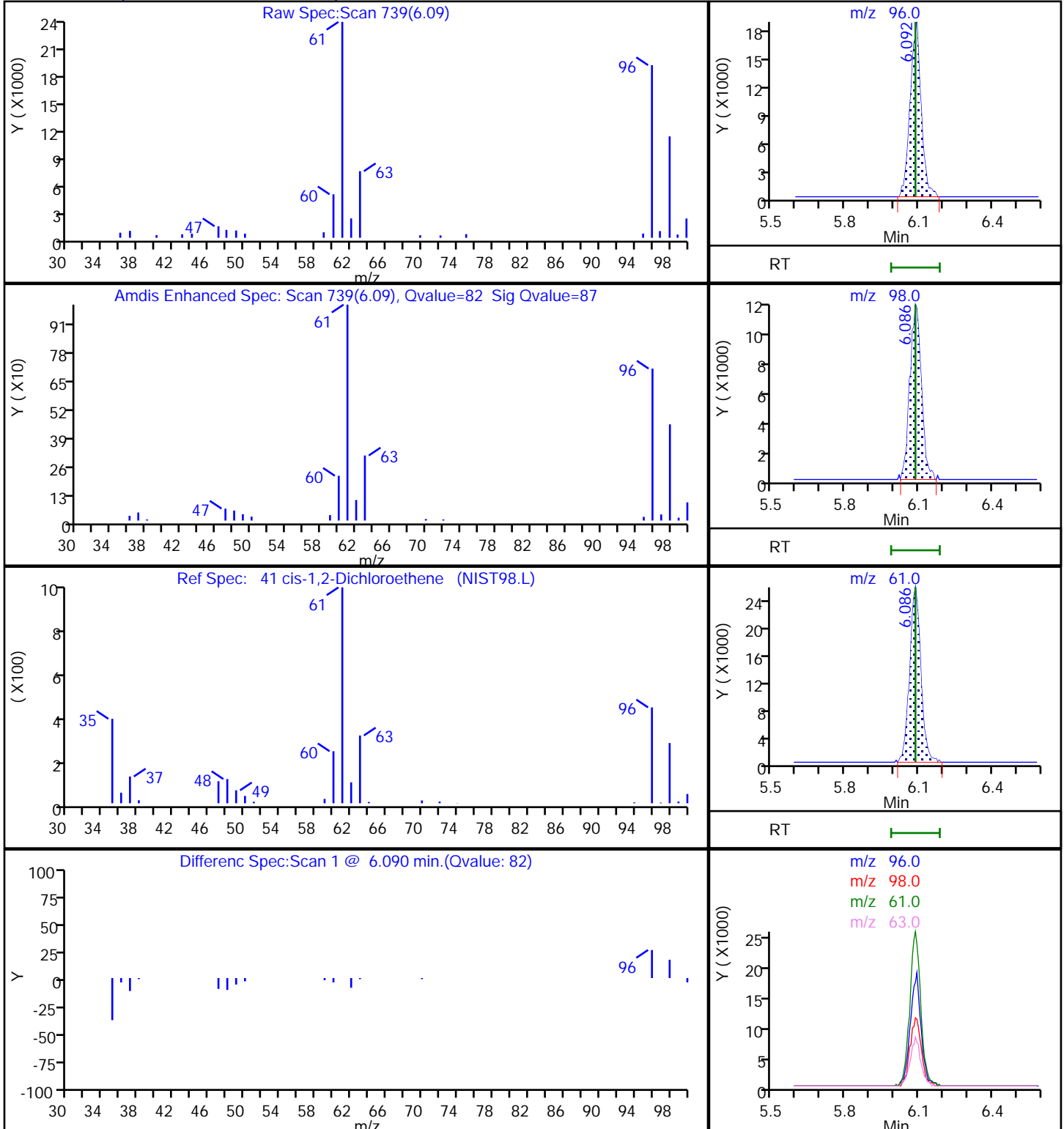
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) x 30m

MS Quad

41 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S18.D

Injection Date: 08-Aug-2020 06:39:30

Instrument ID: 16334

Lims ID: 410-9077-A-8

Lab Sample ID: 410-9077-8

Client ID: HD-COD-SW-17-0/1-0

Operator ID: MEC29284

ALS Bottle#: 23

Worklist Smp#: 24

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

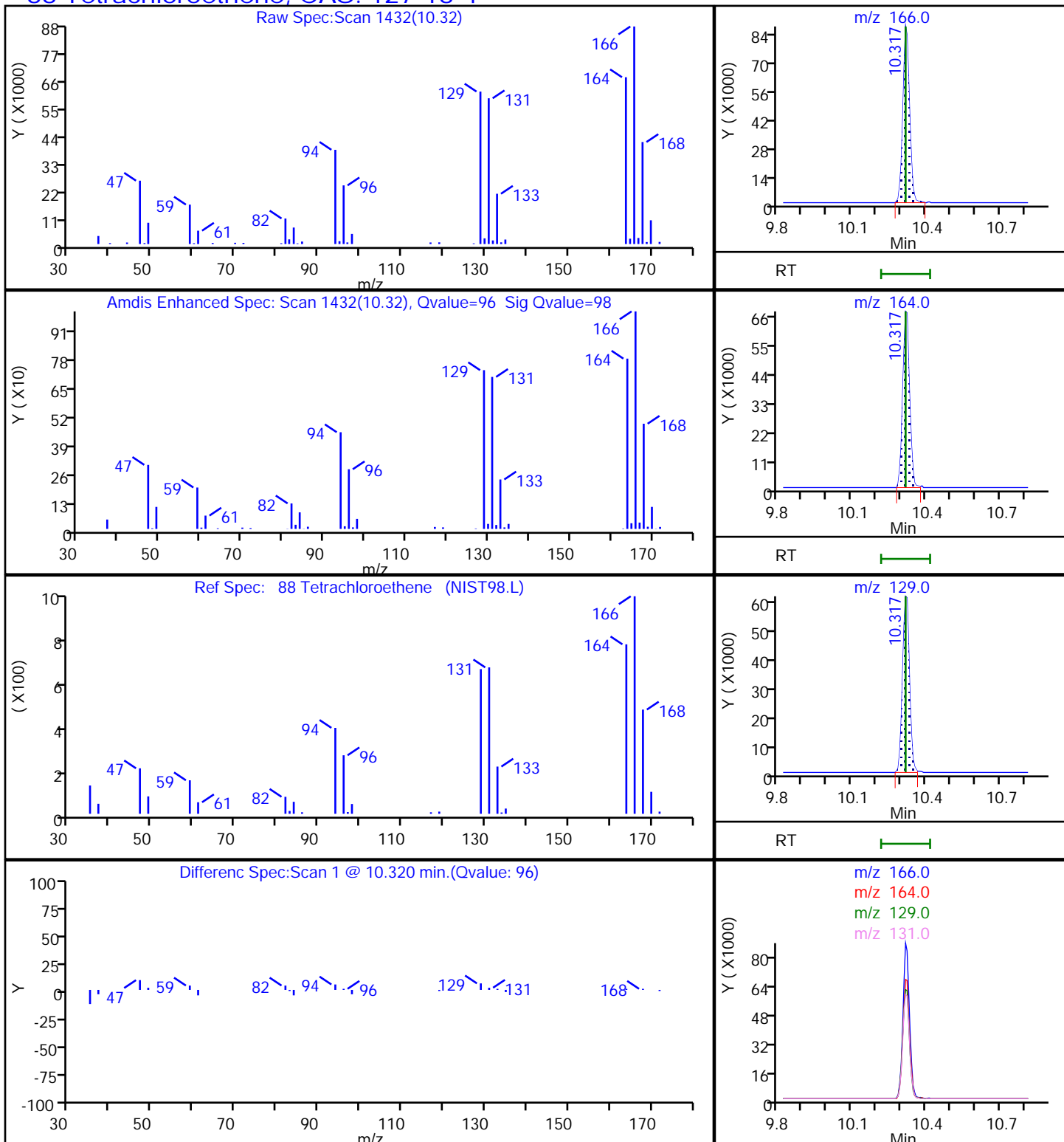
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

88 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S18.D

Injection Date: 08-Aug-2020 06:39:30

Instrument ID: 16334

Lims ID: 410-9077-A-8

Lab Sample ID: 410-9077-8

Client ID: HD-COD-SW-17-0/1-0

Operator ID: MEC29284

ALS Bottle#: 23

Worklist Smp#: 24

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

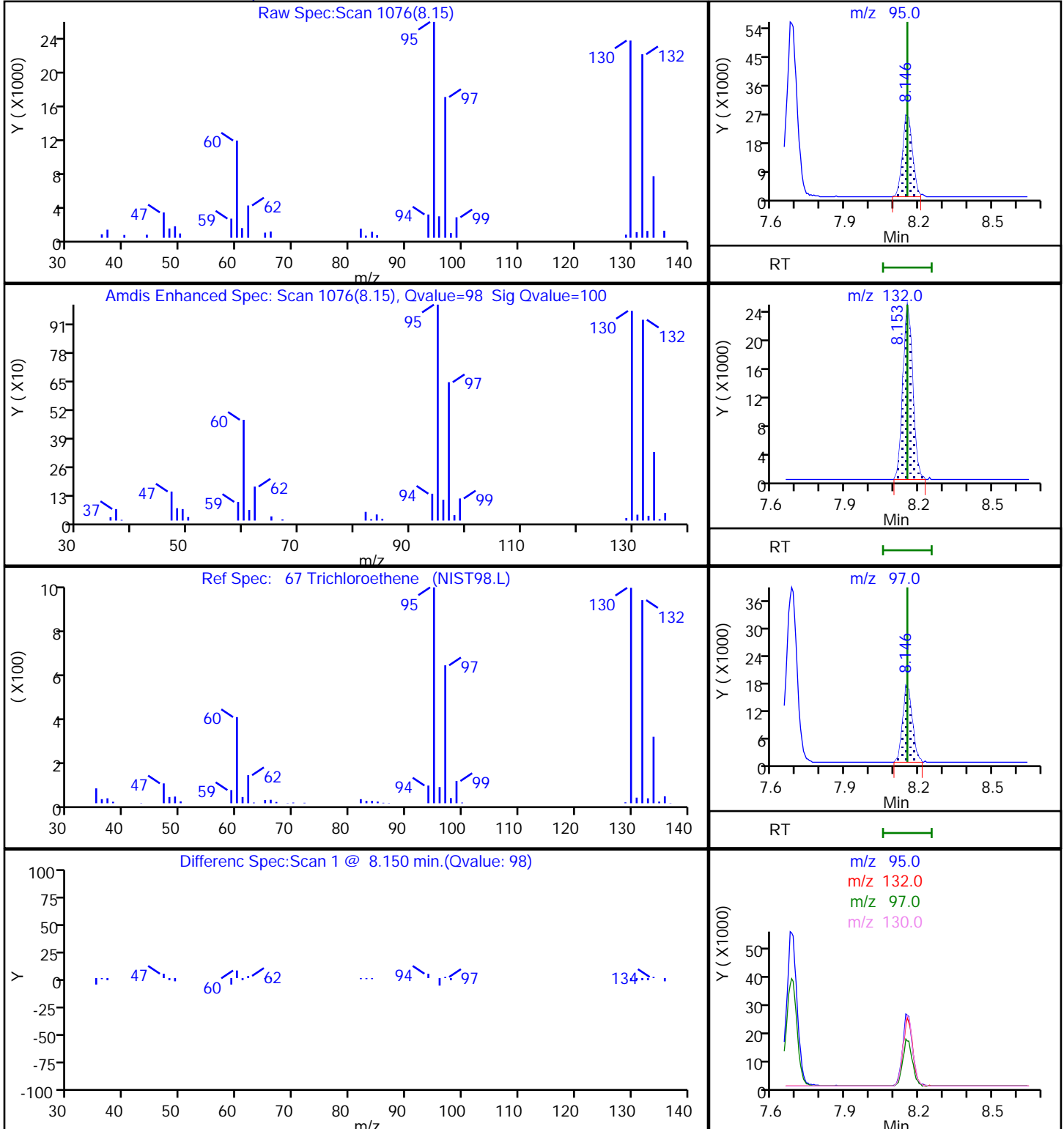
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

67 Trichloroethene, CAS: 79-01-6



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S18.D

Injection Date: 08-Aug-2020 06:39:30

Instrument ID: 16334

Lims ID: 410-9077-A-8

Lab Sample ID: 410-9077-8

Client ID: HD-COD-SW-17-0/1-0

Operator ID: MEC29284

ALS Bottle#: 23

Worklist Smp#: 24

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

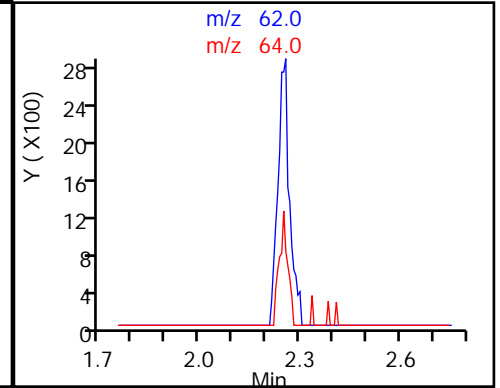
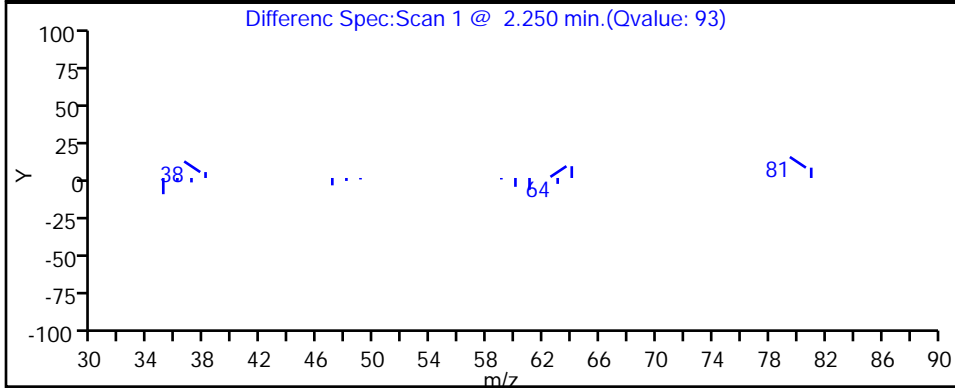
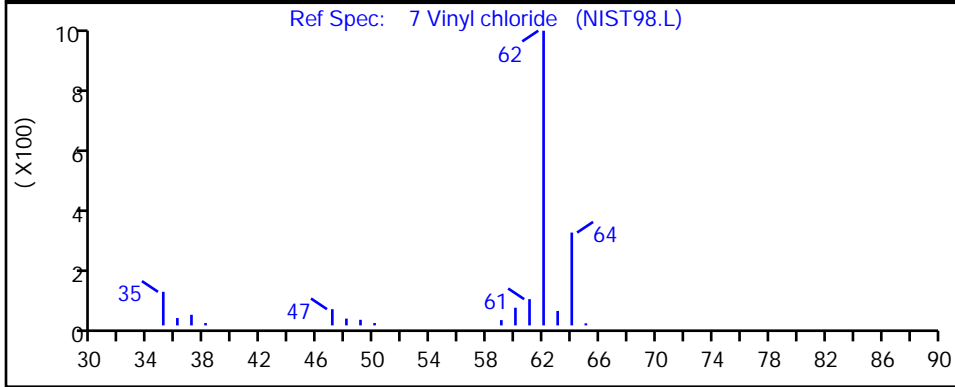
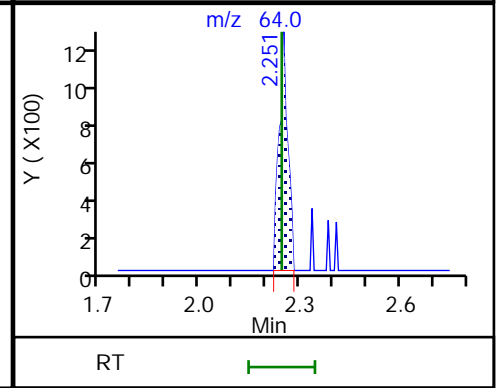
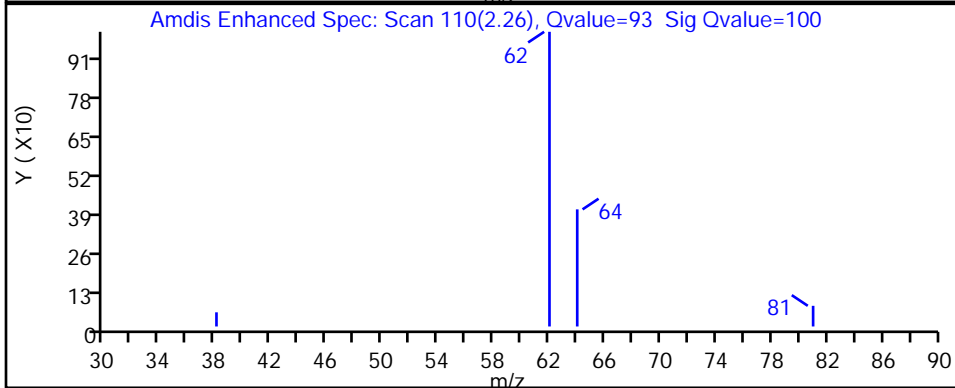
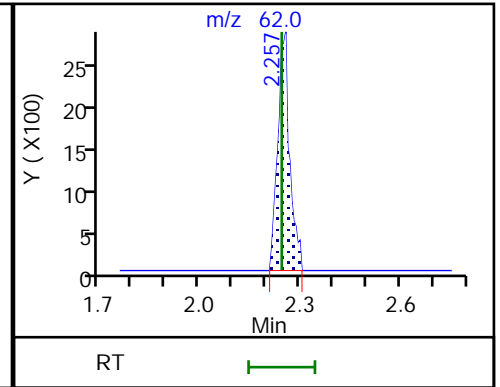
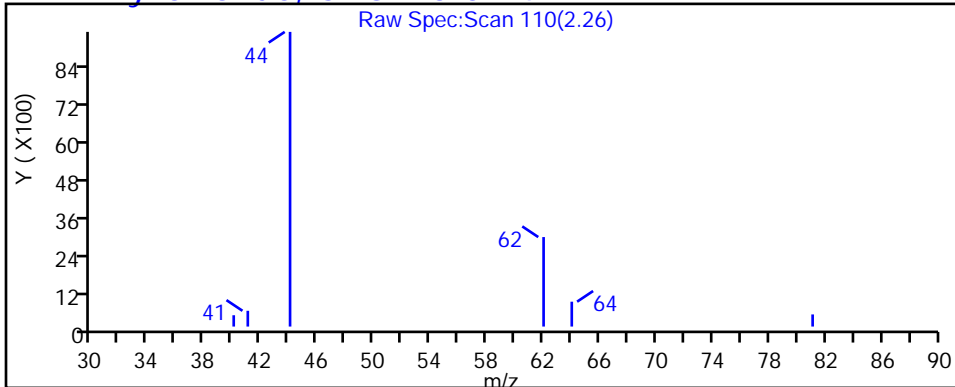
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) x 30m

MS Quad

7 Vinyl chloride, CAS: 75-01-4



Eurofins Lancaster Laboratories Env, LLC

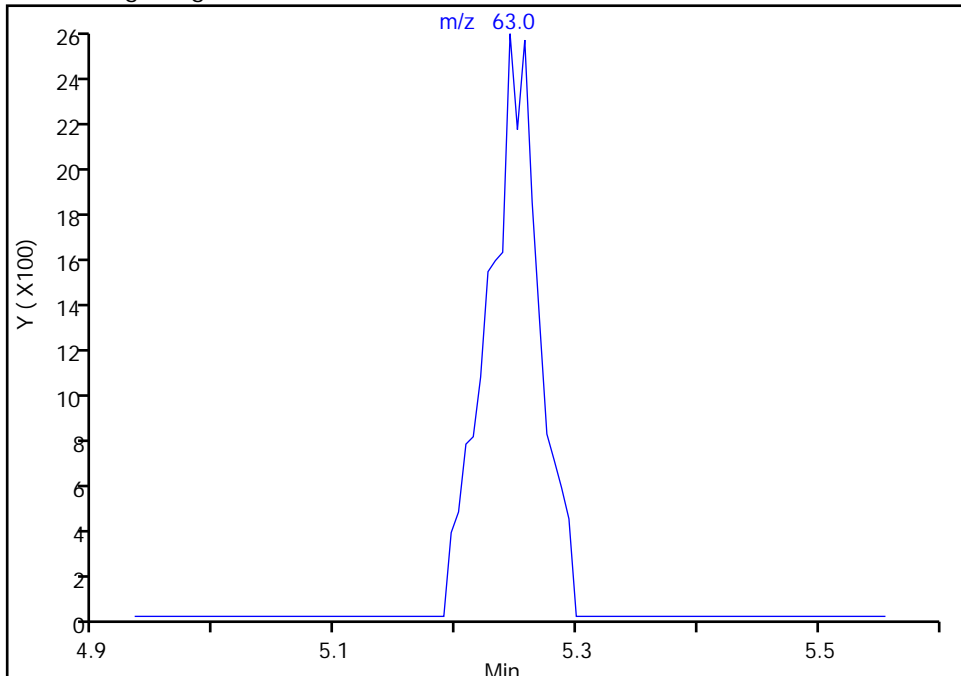
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Injection Date: 08-Aug-2020 06:39:30 Instrument ID: 16334
Lims ID: 410-9077-A-8 Lab Sample ID: 410-9077-8
Client ID: HD-COD-SW-17-0/1-0
Operator ID: MEC29284 ALS Bottle#: 23 Worklist Smp#: 24
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

36 1,1-Dichloroethane, CAS: 75-34-3

Signal: 1

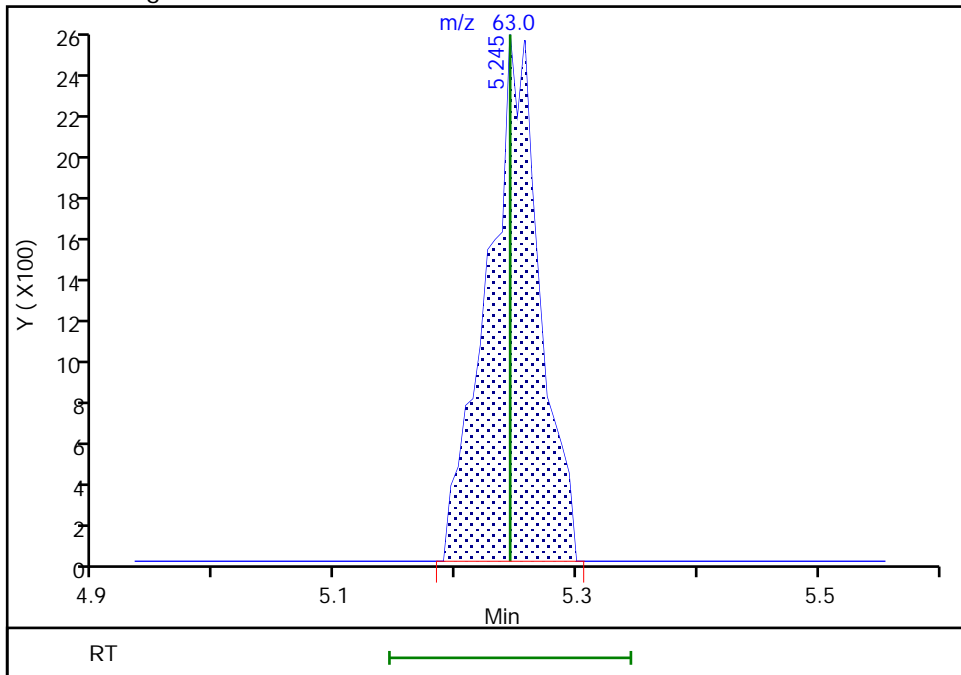
Not Detected
Expected RT: 5.24

Processing Integration Results



Manual Integration Results

RT: 5.24
Area: 7742
Amount: 0.094873
Amount Units: ug/l



Reviewer: campbellme, 09-Aug-2020 18:16:51
Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

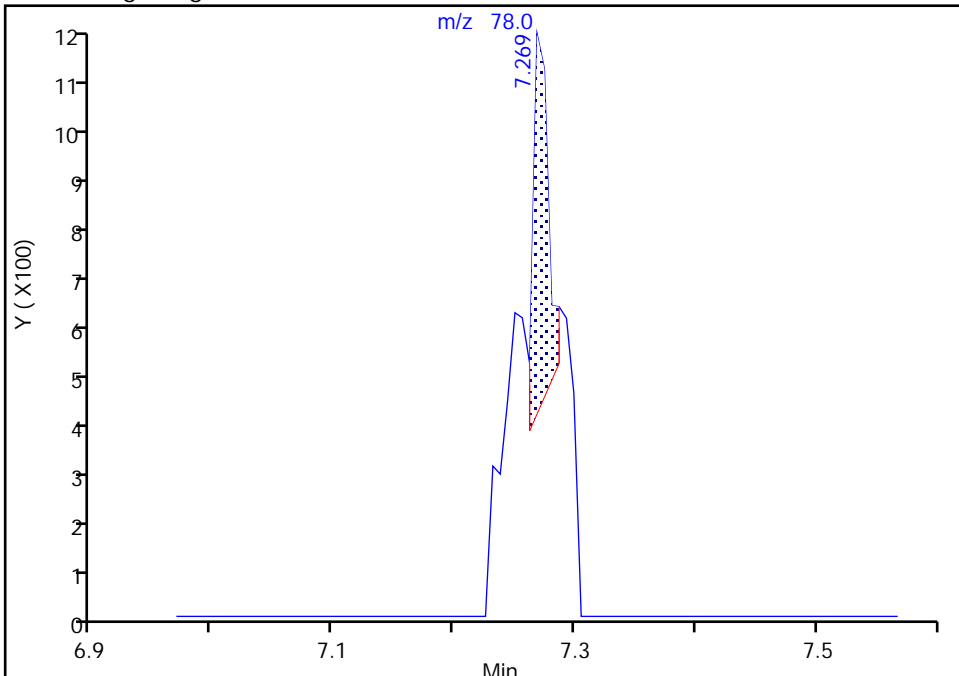
Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S18.D
Injection Date: 08-Aug-2020 06:39:30 Instrument ID: 16334
Lims ID: 410-9077-A-8 Lab Sample ID: 410-9077-8
Client ID: HD-COD-SW-17-0/1-0
Operator ID: MEC29284 ALS Bottle#: 23 Worklist Smp#: 24
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

59 Benzene, CAS: 71-43-2

Signal: 1

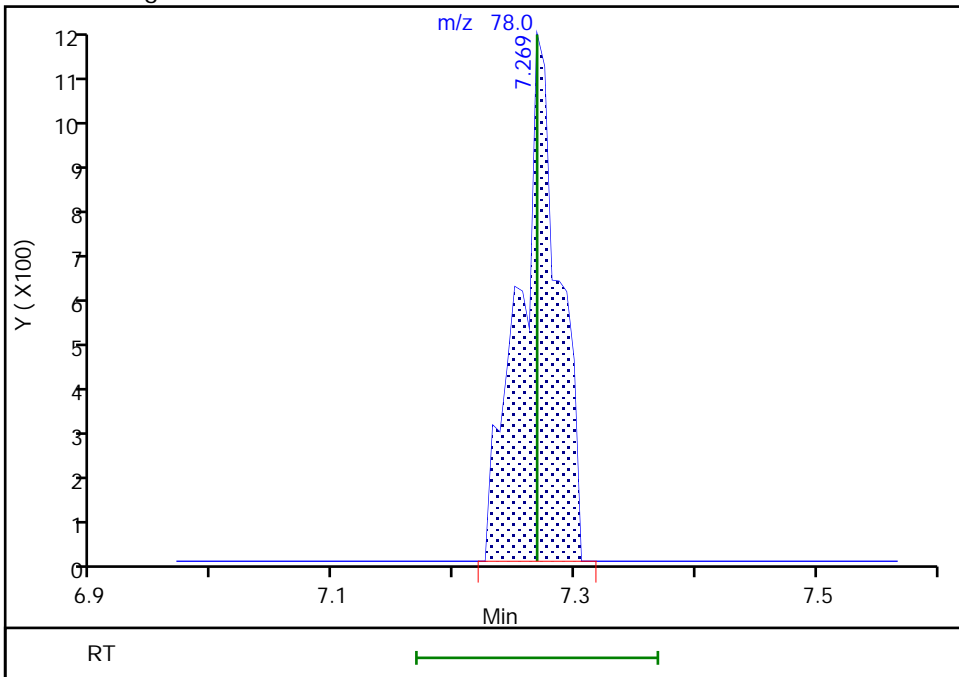
RT: 7.27
Area: 660
Amount: 0.003654
Amount Units: ug/l

Processing Integration Results



RT: 7.27
Area: 2645
Amount: 0.014644
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 09-Aug-2020 18:17:00
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Euofins Lancaster Laboratories Env, LLC

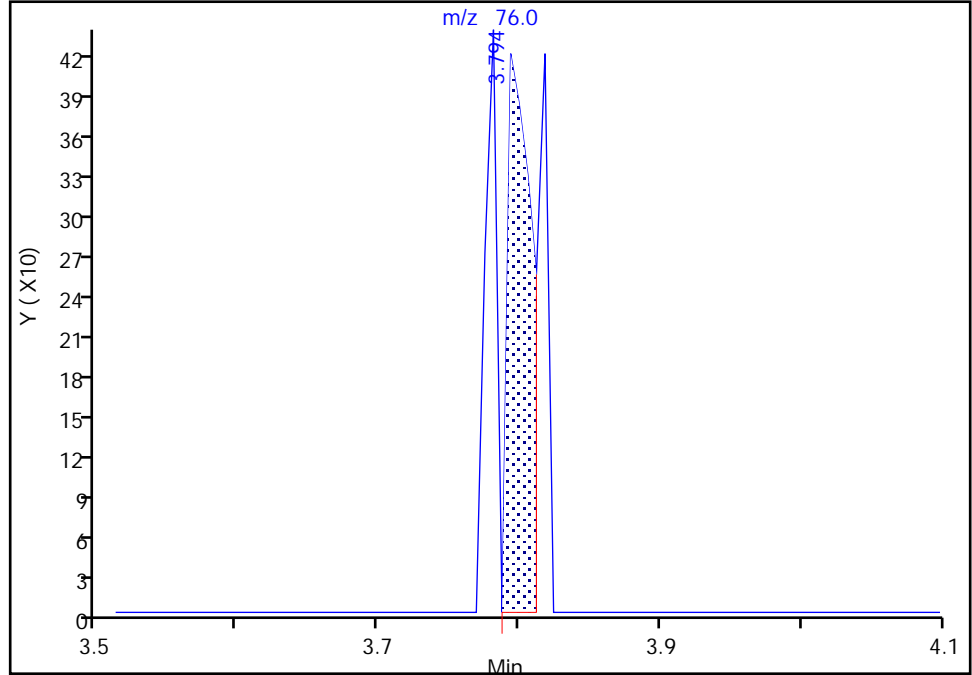
Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S18.D
Injection Date: 08-Aug-2020 06:39:30 Instrument ID: 16334
Lims ID: 410-9077-A-8 Lab Sample ID: 410-9077-8
Client ID: HD-COD-SW-17-0/1-0
Operator ID: MEC29284 ALS Bottle#: 23 Worklist Smp#: 24
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

25 Carbon disulfide, CAS: 75-15-0

Signal: 1

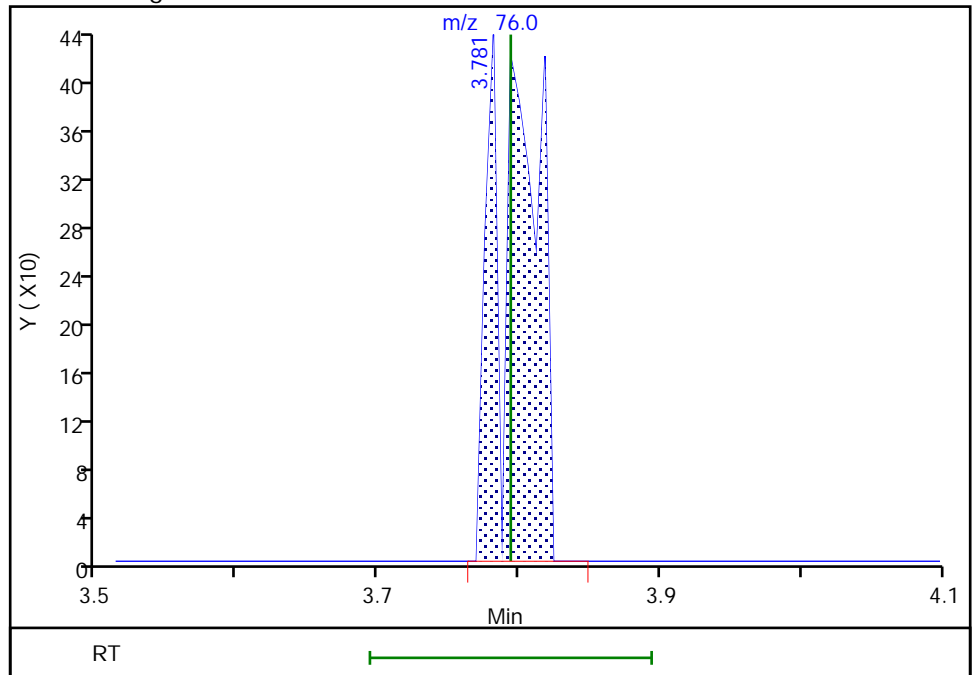
RT: 3.79
Area: 507
Amount: 0.003767
Amount Units: ug/l

Processing Integration Results



RT: 3.78
Area: 919
Amount: 0.006829
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 09-Aug-2020 18:16:32

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

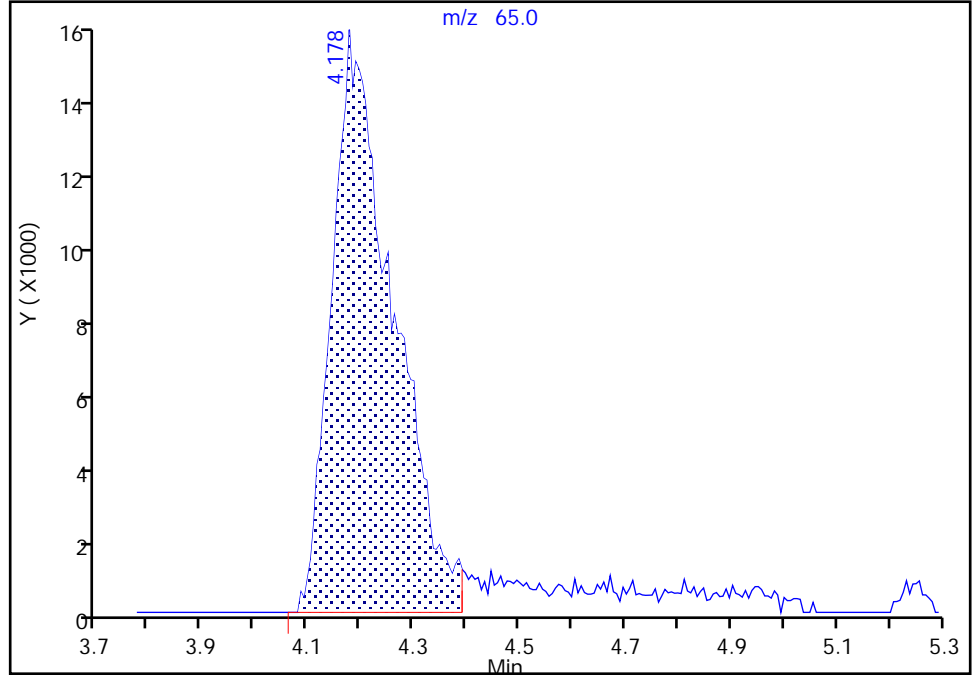
Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S18.D
Injection Date: 08-Aug-2020 06:39:30 Instrument ID: 16334
Lims ID: 410-9077-A-8 Lab Sample ID: 410-9077-8
Client ID: HD-COD-SW-17-0/1-0
Operator ID: MEC29284 ALS Bottle#: 23 Worklist Smp#: 24
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 29 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2
Signal: 1

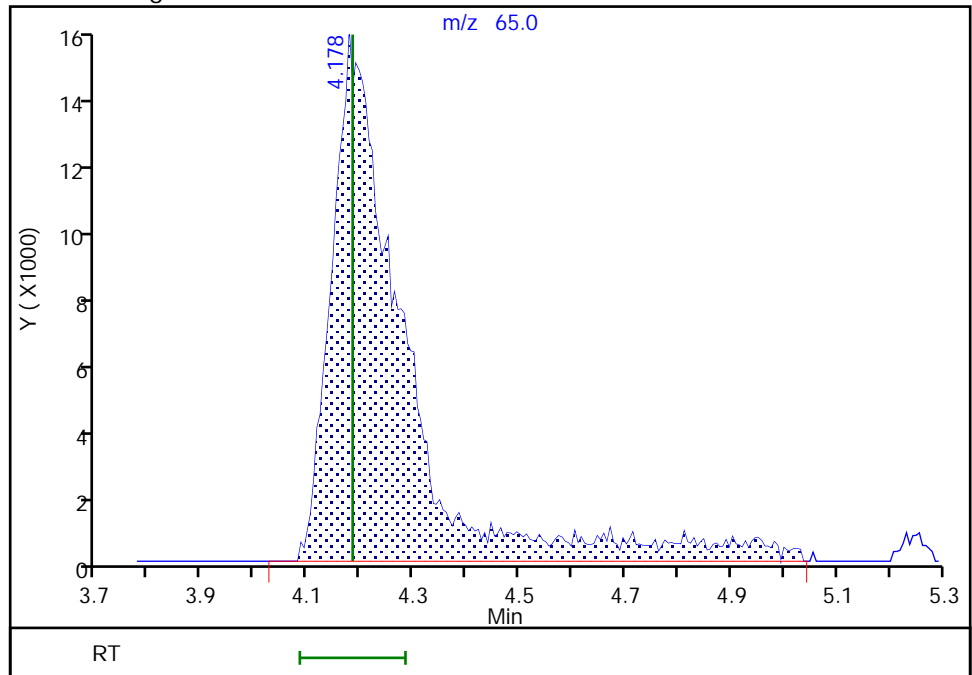
RT: 4.18
Area: 121738
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.18
Area: 143955
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 09-Aug-2020 18:16:42
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-26-0/1-0 Lab Sample ID: 410-9077-9
 Matrix: Surface Water Lab File ID: GG07S19.D
 Analysis Method: 8260D Date Collected: 07/28/2020 10:00
 Sample wt/vol: 25 (mL) Date Analyzed: 08/08/2020 07:01
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 30932 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		0.50	0.060
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.060
75-34-3	1,1-Dichloroethane	ND		0.50	0.070
75-35-4	1,1-Dichloroethene	0.17	J	0.50	0.060
107-06-2	1,2-Dichloroethane	ND		0.50	0.050
78-87-5	1,2-Dichloropropane	ND		0.50	0.060
78-93-3	2-Butanone (MEK)	ND		5.0	0.60
591-78-6	2-Hexanone	ND		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70
67-64-1	Acetone	ND		5.0	0.90
107-13-1	Acrylonitrile	ND		5.0	0.40
71-43-2	Benzene	ND		0.50	0.050
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND	^c	0.50	0.070
75-15-0	Carbon disulfide	ND		1.0	0.060
56-23-5	Carbon tetrachloride	ND		0.50	0.070
108-90-7	Chlorobenzene	ND		0.50	0.060
74-97-5	Bromochloromethane	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
75-00-3	Chloroethane	ND		0.50	0.070
67-66-3	Chloroform	0.64		0.50	0.090
74-87-3	Chloromethane	ND		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.091	J	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
75-27-4	Bromodichloromethane	ND		0.50	0.050
100-41-4	Ethylbenzene	ND		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.050
75-09-2	Methylene Chloride	ND		0.50	0.070
100-42-5	Styrene	ND		0.50	0.050
127-18-4	Tetrachloroethene	3.6		0.50	0.060
108-88-3	Toluene	ND		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-26-0/1-0 Lab Sample ID: 410-9077-9
 Matrix: Surface Water Lab File ID: GG07S19.D
 Analysis Method: 8260D Date Collected: 07/28/2020 10:00
 Sample wt/vol: 25 (mL) Date Analyzed: 08/08/2020 07:01
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 30932 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	0.19	J	0.50	0.060
75-01-4	Vinyl chloride	ND		0.50	0.10
1330-20-7	Xylenes, Total	ND		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	95		80-120
1868-53-7	Dibromofluoromethane (Surr)	91		80-120
2037-26-5	Toluene-d8 (Surr)	99		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S19.D
 Lims ID: 410-9077-A-9
 Client ID: HD-COD-SW-26-0/1-0
 Sample Type: Client
 Inject. Date: 08-Aug-2020 07:01:30 ALS Bottle#: 24 Worklist Smp#: 25
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-9077-a-9
 Misc. Info.: 410-0007550-025
 Operator ID: MEC29284 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 09-Aug-2020 18:20:24 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1057

First Level Reviewer: campbellme

Date: 09-Aug-2020 18:18:13

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Chloromethane	50		2.129				ND	
7 Vinyl chloride	62		2.245				ND	
9 Bromomethane	94		2.562				ND	
10 Chloroethane	64		2.648				ND	
19 1,1-Dichloroethene	96	3.507	3.507	0.000	93	6667	0.1740	
20 Acetone	43	3.556	3.550	0.006	74	6280	0.8391	
25 Carbon disulfide	76		3.794				ND	
28 Methylene Chloride	84		4.166				ND	
* 29 t-Butyl alcohol-d10 (IS)	65	4.196	4.184	0.012	22	134017	50.0	M
31 Acrylonitrile	53		4.519				ND	
32 Methyl tert-butyl ether	73		4.568				ND	
33 trans-1,2-Dichloroethene	96		4.574				ND	
36 1,1-Dichloroethane	63		5.245				ND	
40 2-Butanone (MEK)	43		6.049				ND	
41 cis-1,2-Dichloroethene	96	6.092	6.086	0.006	81	4578	0.0914	
48 Chlorobromomethane	128		6.415				ND	
50 Chloroform	83	6.574	6.568	0.006	95	55868	0.6379	
\$ 52 Dibromofluoromethane (Surr)	113	6.793	6.787	0.006	92	439205	9.10	
51 1,1,1-Trichloroethane	97	6.805	6.793	0.012	35	3063	0.0382	Ma
56 Carbon tetrachloride	117		6.994				ND	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.244	7.232	0.012	0	92784	10.1	
59 Benzene	78	7.281	7.269	0.012	43	1571	0.008708	7M
60 1,2-Dichloroethane	62		7.342				ND	
* 63 Fluorobenzene (IS)	96	7.683	7.677	0.006	98	1807055	10.0	
67 Trichloroethene	95	8.146	8.153	-0.007	92	9364	0.1864	Ma
69 1,2-Dichloropropane	63		8.488				ND	
75 Dichlorobromomethane	83	8.841	8.835	0.006	45	2067	0.0316	M
80 cis-1,3-Dichloropropene	75		9.390				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	U
\$ 82 Toluene-d8 (Surr)	98	9.695	9.695	0.000	95	1761057	9.90	
83 Toluene	92		9.774				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
84 trans-1,3-Dichloropropene	75		10.030				ND	
86 1,1,2-Trichloroethane	97		10.238				ND	
88 Tetrachloroethene	166	10.317	10.317	0.000	96	198410	3.61	
91 2-Hexanone	43		10.457				ND	
93 Chlorodibromomethane	129		10.609				ND	
94 Ethylene Dibromide	107		10.719				ND	
* 95 Chlorobenzene-d5 (IS)	117	11.152	11.152	0.000	88	1358187	10.0	
97 Chlorobenzene	112		11.183				ND	
S 101 Xylenes, Total	106		11.245				ND	
98 1,1,1,2-Tetrachloroethane	131		11.262				ND	
99 Ethylbenzene	91		11.268				ND	
100 m-Xylene & p-Xylene	106		11.384				ND	
102 o-Xylene	106		11.713				ND	
103 Styrene	104		11.725				ND	
104 Bromoform	173		11.884				ND	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	88	624636	9.46	
109 1,1,2,2-Tetrachloroethane	83		12.255				ND	
* 124 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	96	681942	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

U - Marked Undetected

a - User Assigned ID

Reagents:

MSV_29_826ISS_00007

Amount Added: 1.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S19.D

Injection Date: 08-Aug-2020 07:01:30

Instrument ID: 16334

Operator ID: MEC29284

Lims ID: 410-9077-A-9

Lab Sample ID: 410-9077-9

Worklist Smp#: 25

Client ID: HD-COD-SW-26-0/1-0

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

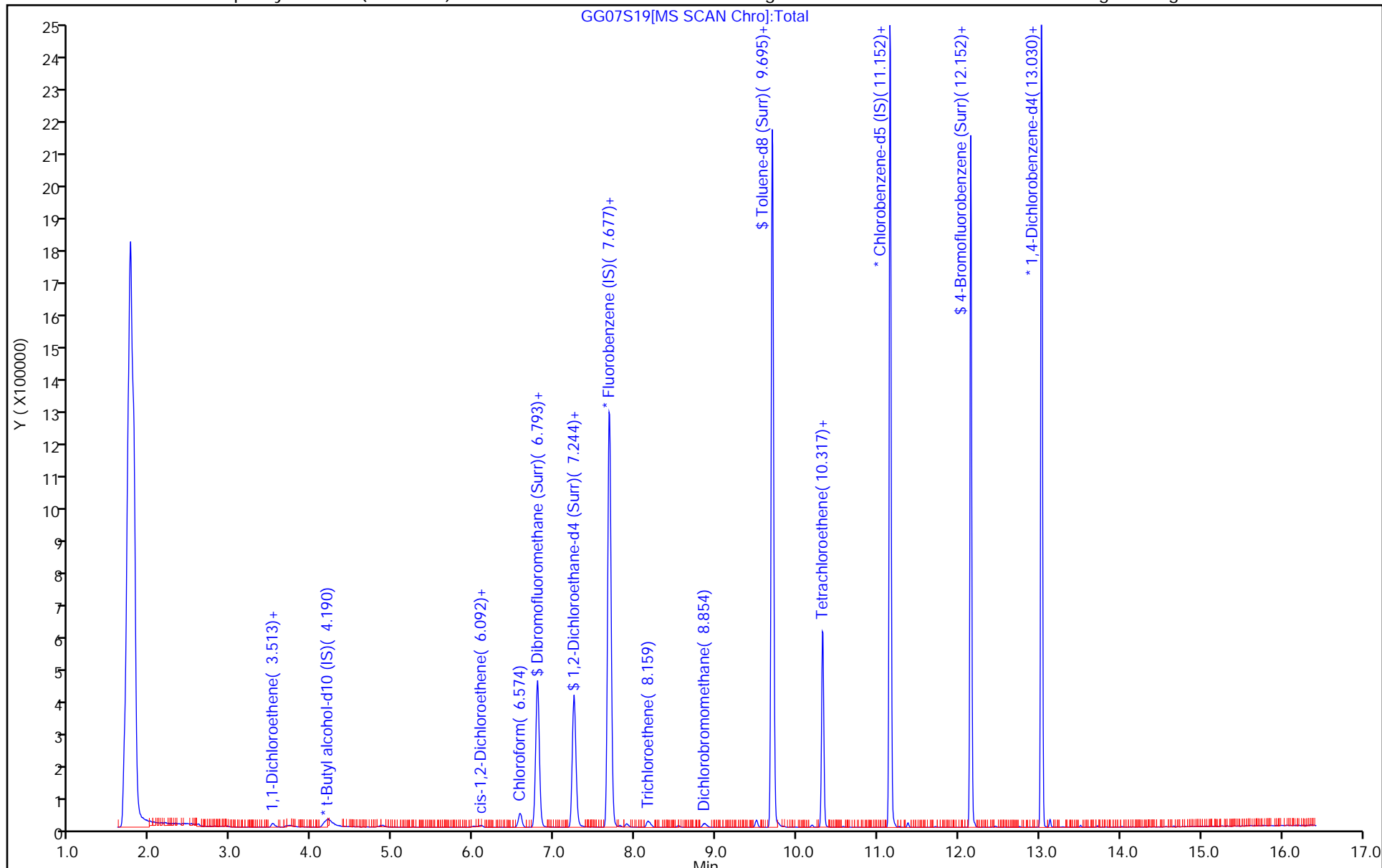
ALS Bottle#: 24

Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S19.D
 Lims ID: 410-9077-A-9
 Client ID: HD-COD-SW-26-0/1-0
 Sample Type: Client
 Inject. Date: 08-Aug-2020 07:01:30 ALS Bottle#: 24 Worklist Smp#: 25
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-9077-a-9
 Misc. Info.: 410-0007550-025
 Operator ID: MEC29284 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 09-Aug-2020 18:20:24 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1057

First Level Reviewer: campbellme

Date: 09-Aug-2020 18:18:13

Compound	Amount Added	Amount Recovered	% Rec.
\$ 52 Dibromofluoromethane (Surr)	10.0	9.10	90.99
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.1	100.92
\$ 82 Toluene-d8 (Surr)	10.0	9.90	99.05
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.46	94.60

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S19.D

Injection Date: 08-Aug-2020 07:01:30

Instrument ID: 16334

Lims ID: 410-9077-A-9

Lab Sample ID: 410-9077-9

Client ID: HD-COD-SW-26-0/1-0

Operator ID: MEC29284

ALS Bottle#: 24

Worklist Smp#: 25

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

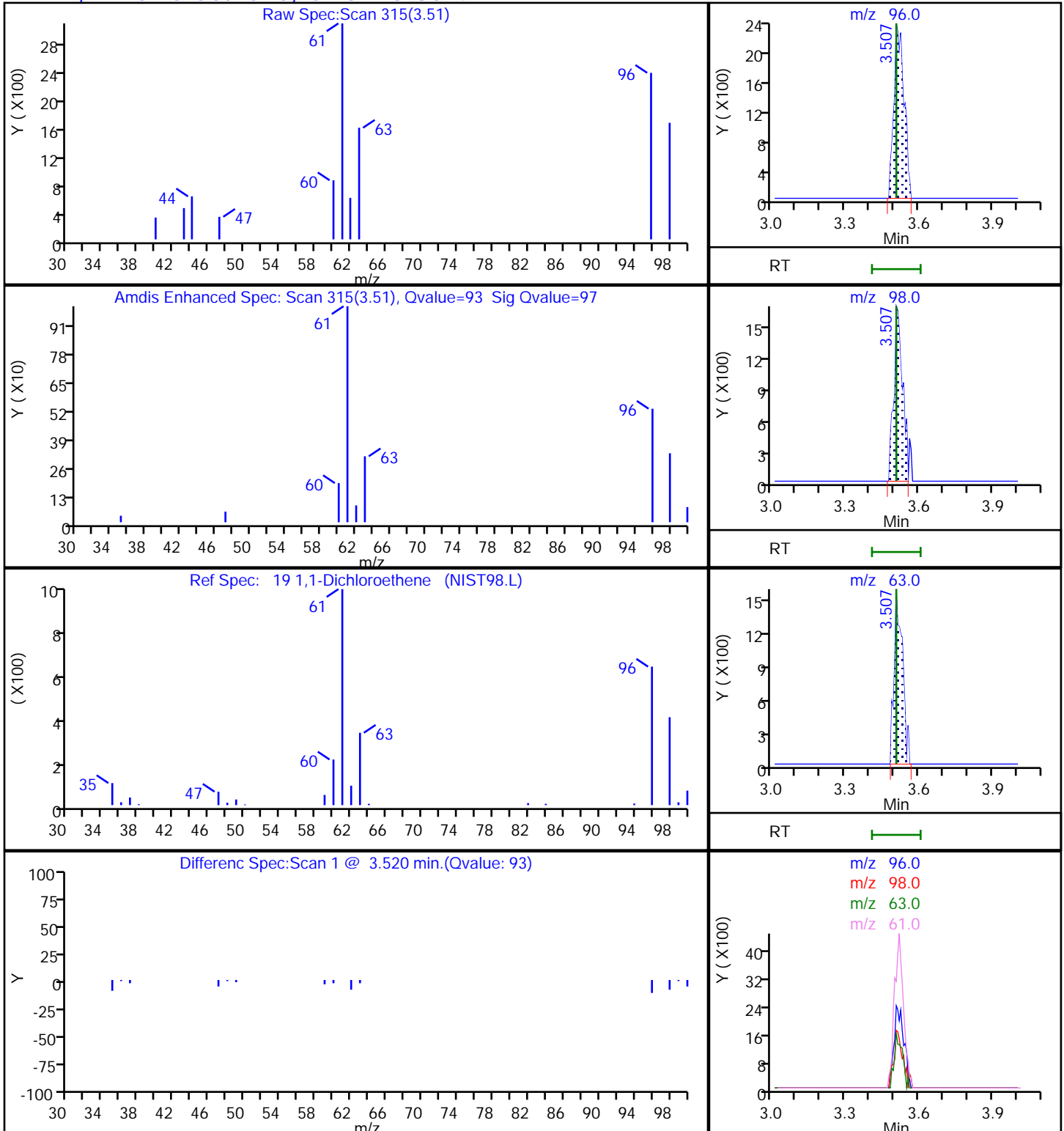
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

19 1,1-Dichloroethene, CAS: 75-35-4



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S19.D

Injection Date: 08-Aug-2020 07:01:30

Instrument ID: 16334

Lims ID: 410-9077-A-9

Lab Sample ID: 410-9077-9

Client ID: HD-COD-SW-26-0/1-0

Operator ID: MEC29284

ALS Bottle#: 24

Worklist Smp#: 25

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

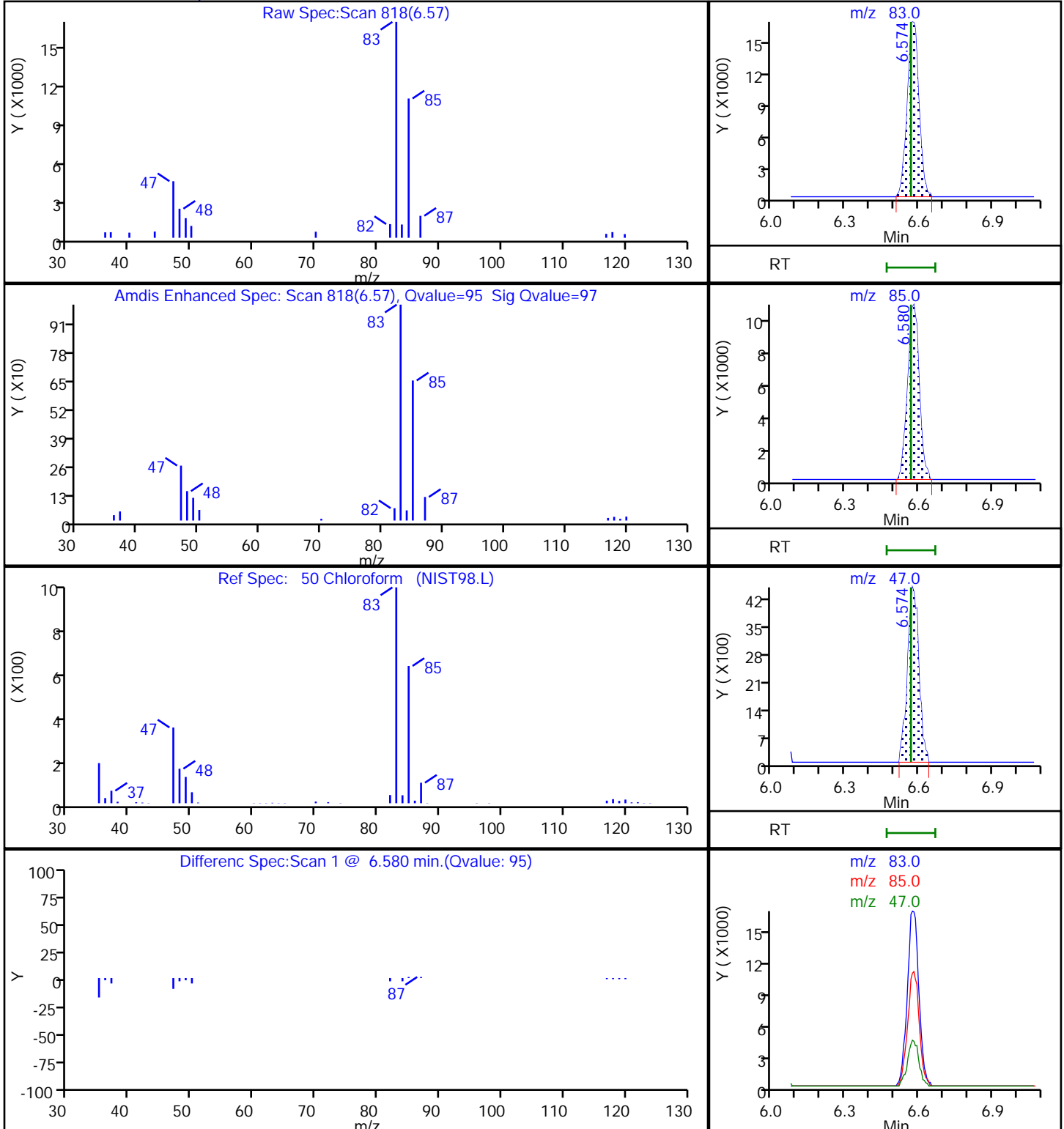
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) x 30m

MS Quad

50 Chloroform, CAS: 67-66-3



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S19.D

Injection Date: 08-Aug-2020 07:01:30

Instrument ID: 16334

Lims ID: 410-9077-A-9

Lab Sample ID: 410-9077-9

Client ID: HD-COD-SW-26-0/1-0

Operator ID: MEC29284

ALS Bottle#: 24

Worklist Smp#: 25

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

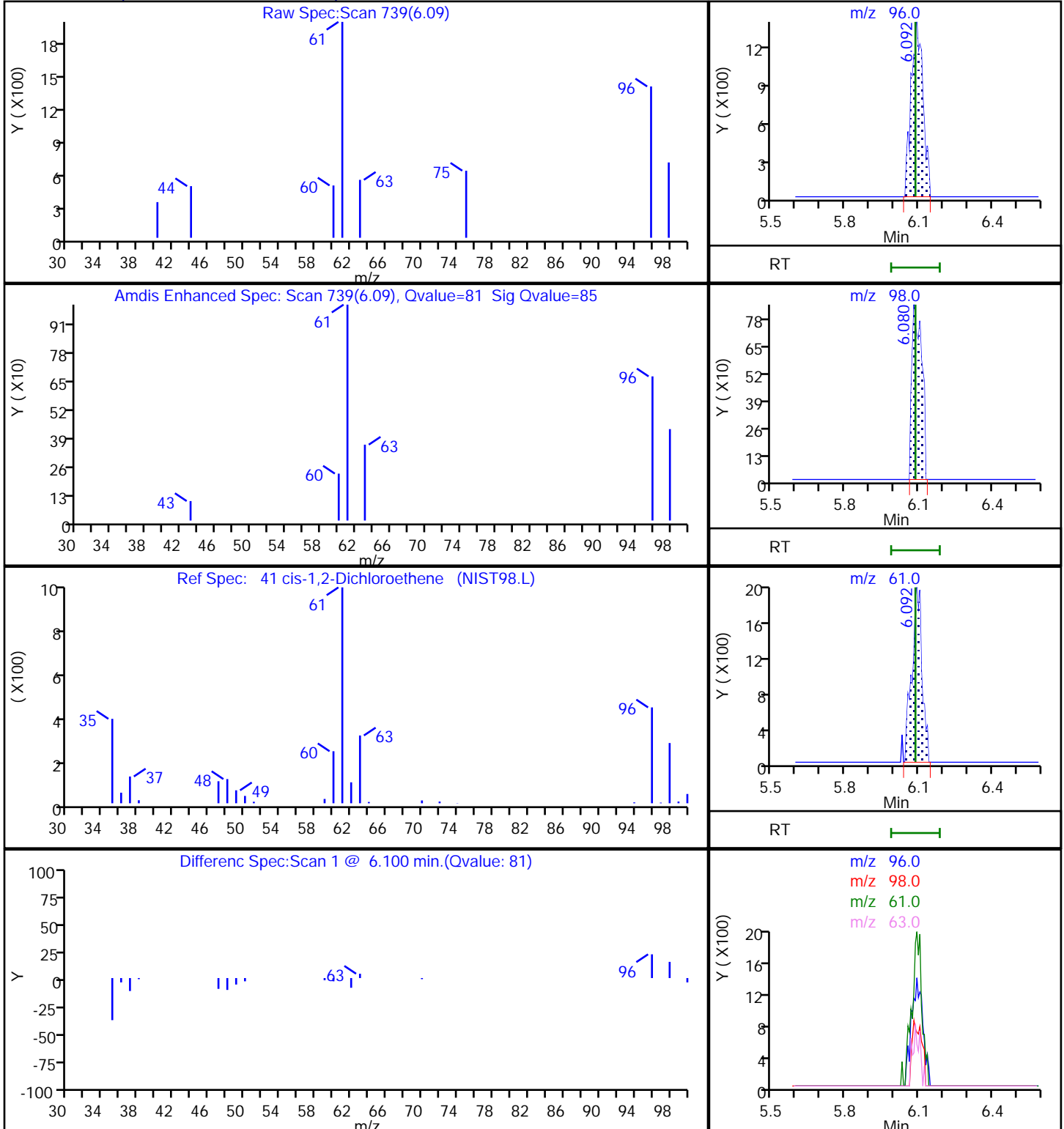
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

41 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S19.D

Injection Date: 08-Aug-2020 07:01:30

Instrument ID: 16334

Lims ID: 410-9077-A-9

Lab Sample ID: 410-9077-9

Client ID: HD-COD-SW-26-0/1-0

Operator ID: MEC29284

ALS Bottle#: 24

Worklist Smp#: 25

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

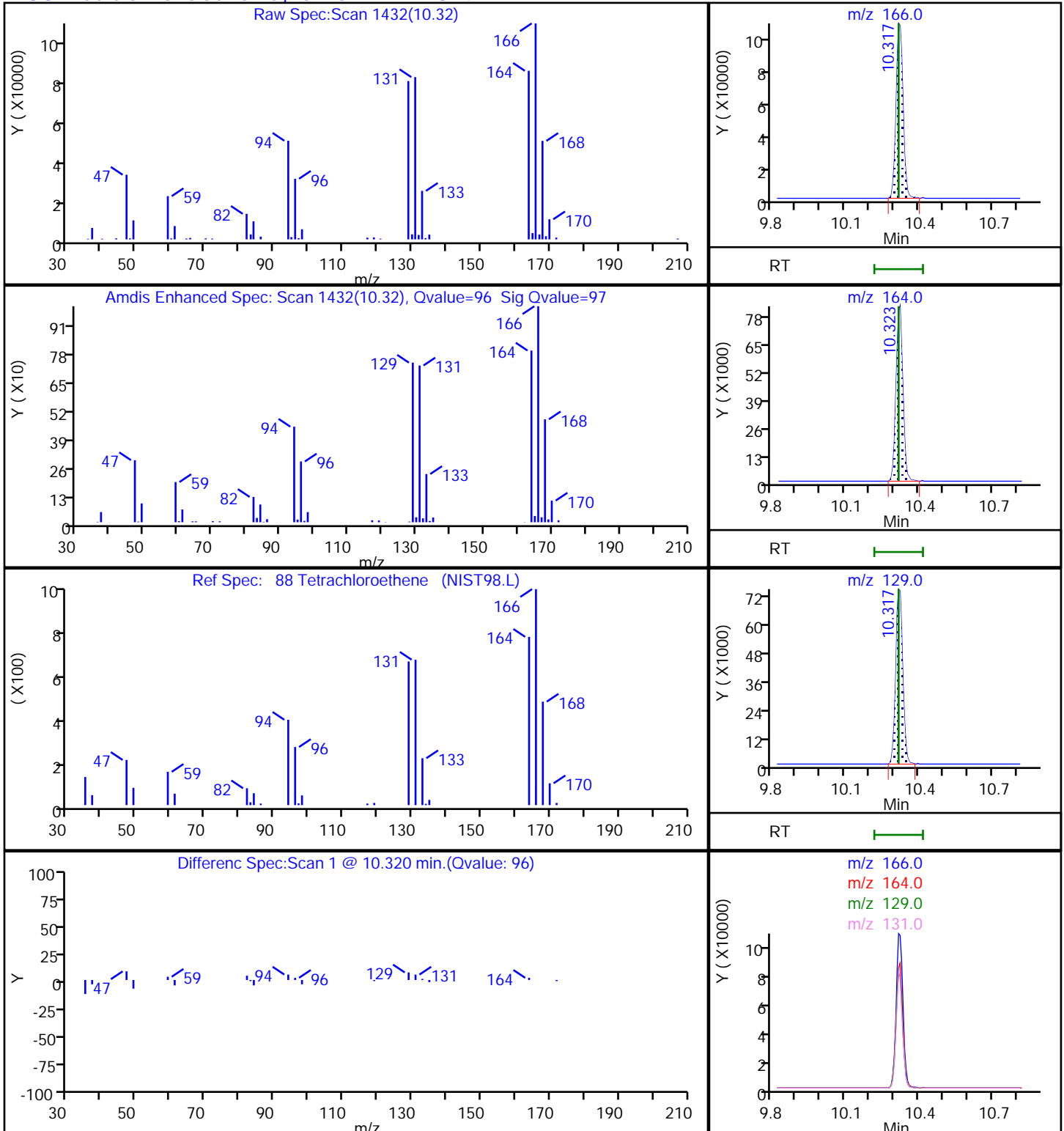
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

88 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S19.D

Injection Date: 08-Aug-2020 07:01:30

Instrument ID: 16334

Lims ID: 410-9077-A-9

Lab Sample ID: 410-9077-9

Client ID: HD-COD-SW-26-0/1-0

Operator ID: MEC29284

ALS Bottle#: 24

Worklist Smp#: 25

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

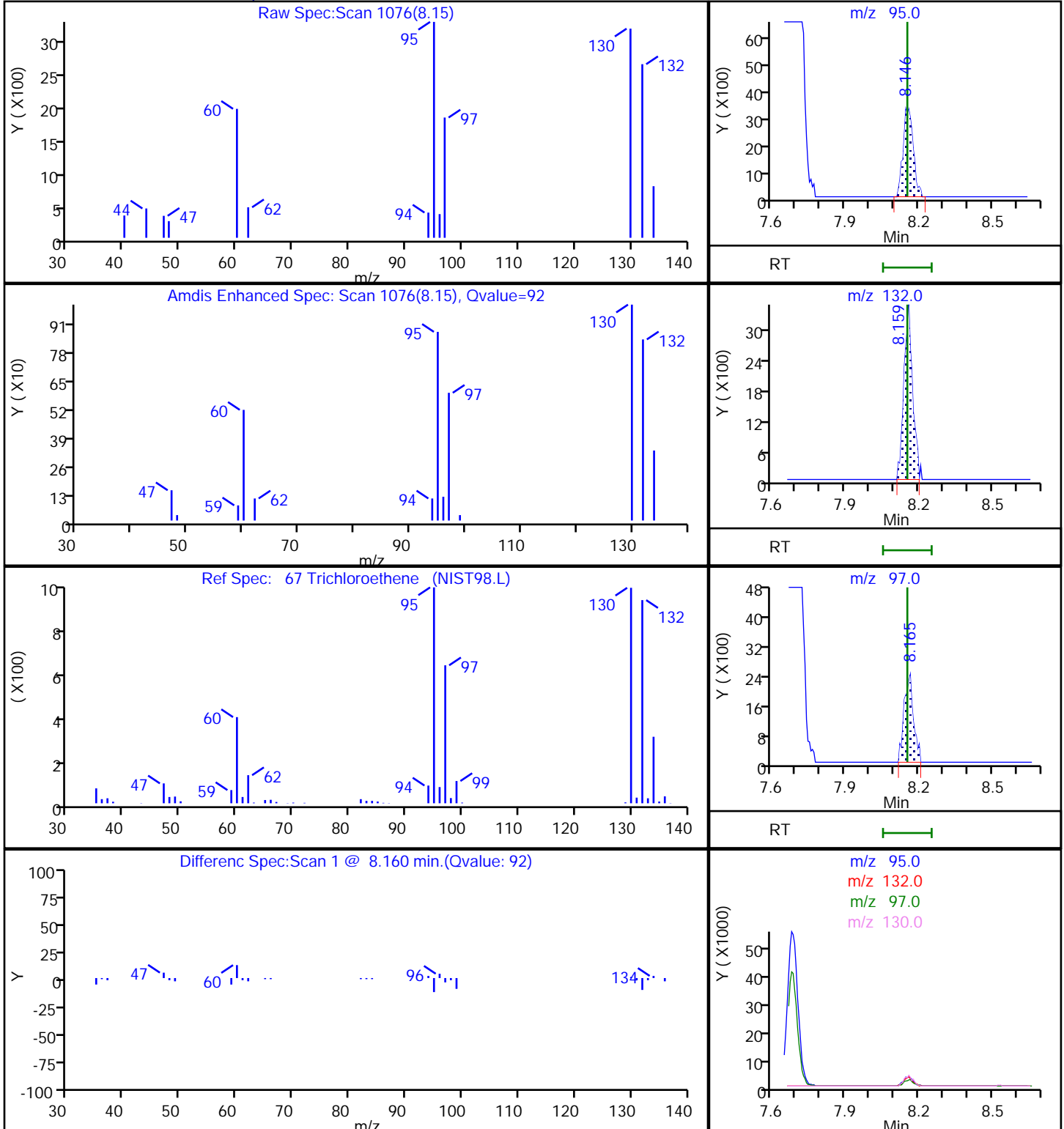
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

67 Trichloroethene, CAS: 79-01-6



Eurofins Lancaster Laboratories Env, LLC

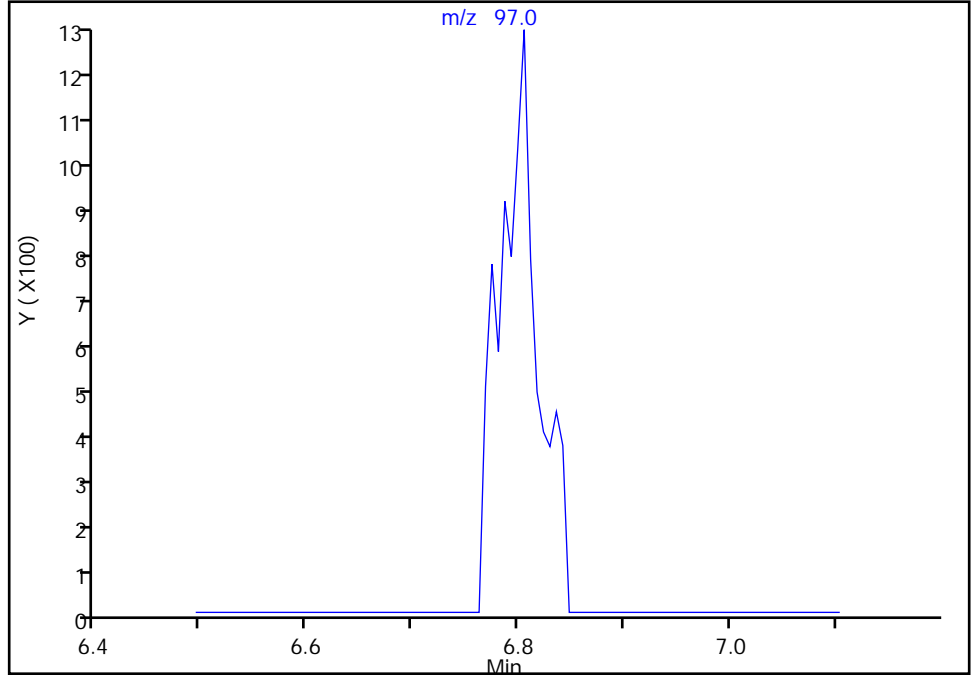
Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S19.D
Injection Date: 08-Aug-2020 07:01:30 Instrument ID: 16334
Lims ID: 410-9077-A-9 Lab Sample ID: 410-9077-9
Client ID: HD-COD-SW-26-0/1-0
Operator ID: MEC29284 ALS Bottle#: 24 Worklist Smp#: 25
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

51 1,1,1-Trichloroethane, CAS: 71-55-6

Signal: 1

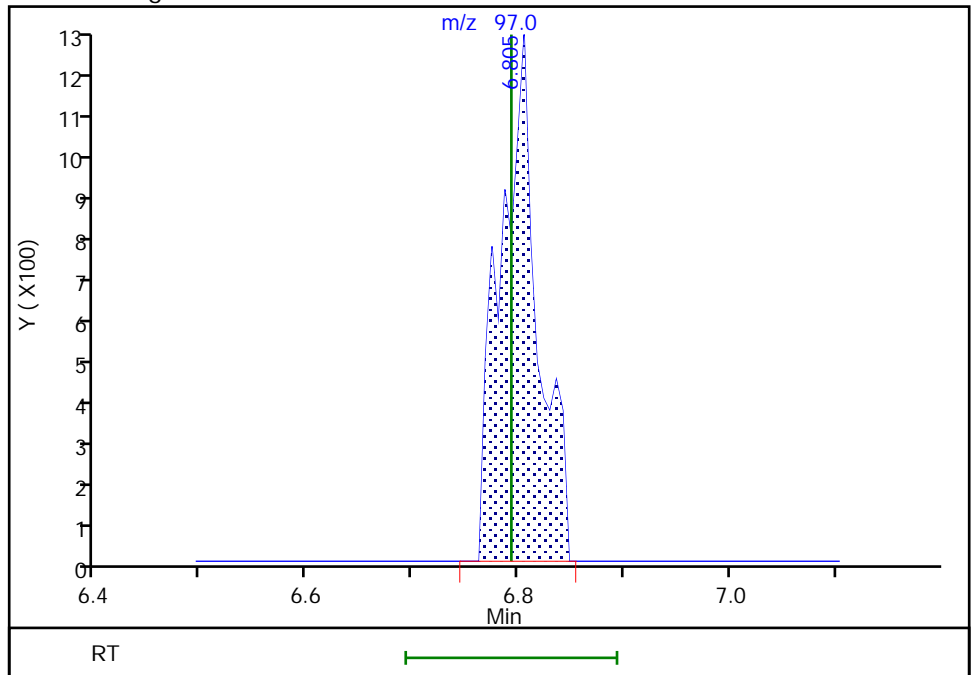
Not Detected
Expected RT: 6.79

Processing Integration Results



Manual Integration Results

RT: 6.81
Area: 3063
Amount: 0.038197
Amount Units: ug/l



Reviewer: campbellme, 09-Aug-2020 18:17:37
Audit Action: Manually Integrated

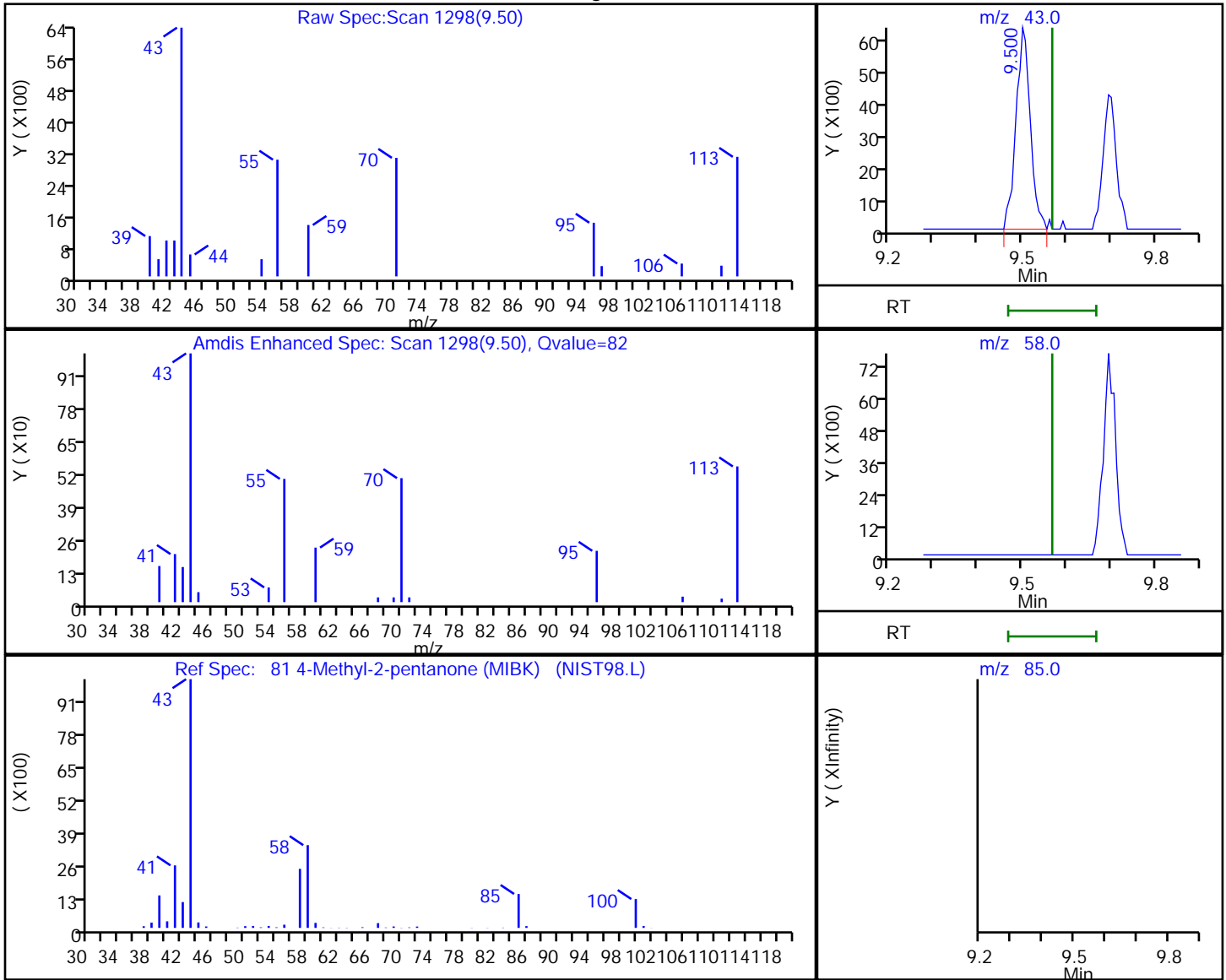
Audit Reason: Incomplete Integration
Page 382 of 777

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfms\Lancaster\ChromData\16334\20200807-7550.b\GG07S19.D
 Injection Date: 08-Aug-2020 07:01:30 Instrument ID: 16334
 Lims ID: 410-9077-A-9 Lab Sample ID: 410-9077-9
 Client ID: HD-COD-SW-26-0/1-0
 Operator ID: MEC29284 ALS Bottle#: 24 Worklist Smp#: 25
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
 Column: Rxi-624Sil MS Capillary Column (0.25mm i.d.) Detector: MS Quad

81 4-Methyl-2-pentanone (MIBK), CAS: 108-10-1

Processing Results



RT	Mass	Response	Amount
9.50	43.00	14210	0.423762
9.57	58.00	0	
9.57	85.00	0	
9.57	100.00	0	

Reviewer: campbellme, 09-Aug-2020 18:18:06

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins Lancaster Laboratories Env, LLC

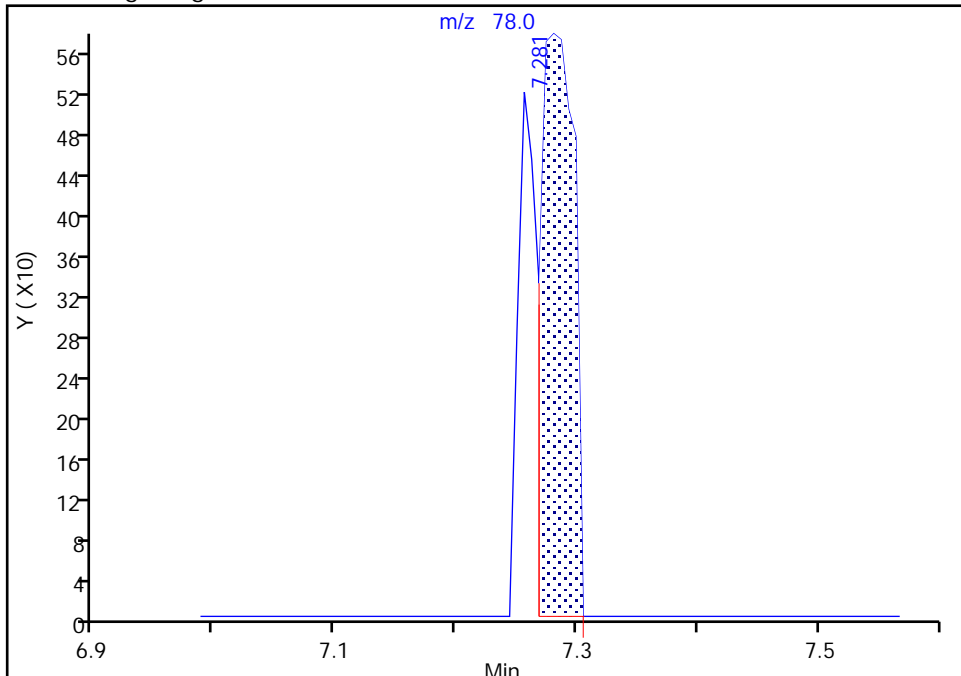
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Injection Date: 08-Aug-2020 07:01:30 Instrument ID: 16334
Lims ID: 410-9077-A-9 Lab Sample ID: 410-9077-9
Client ID: HD-COD-SW-26-0/1-0
Operator ID: MEC29284 ALS Bottle#: 24 Worklist Smp#: 25
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

59 Benzene, CAS: 71-43-2

Signal: 1

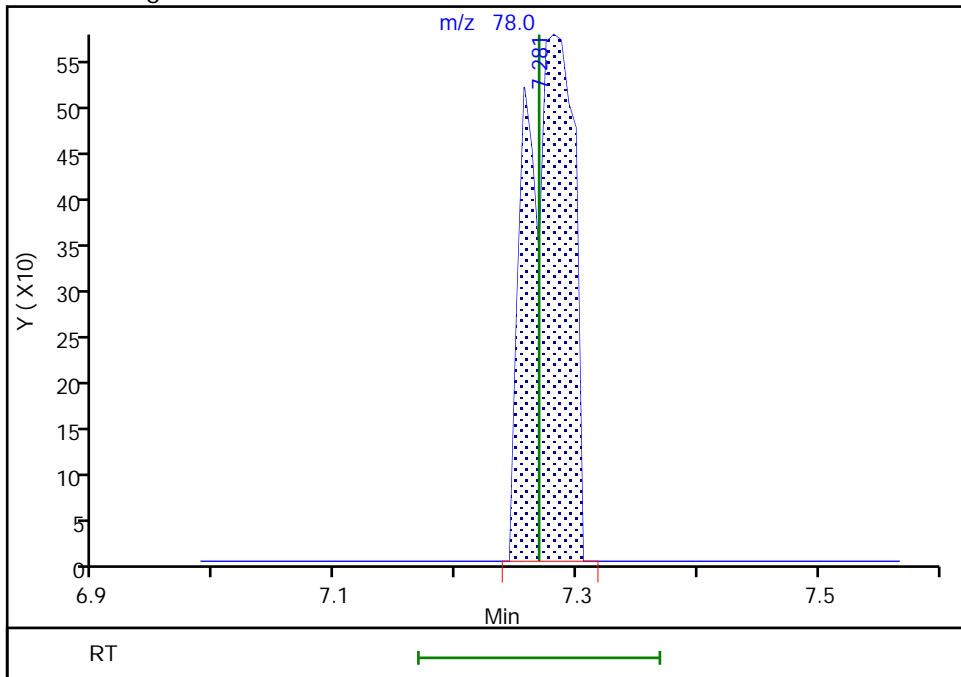
RT: 7.28
Area: 1110
Amount: 0.006153
Amount Units: ug/l

Processing Integration Results



RT: 7.28
Area: 1571
Amount: 0.008708
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 09-Aug-2020 18:17:44
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 384 of 777

Eurofins Lancaster Laboratories Env, LLC

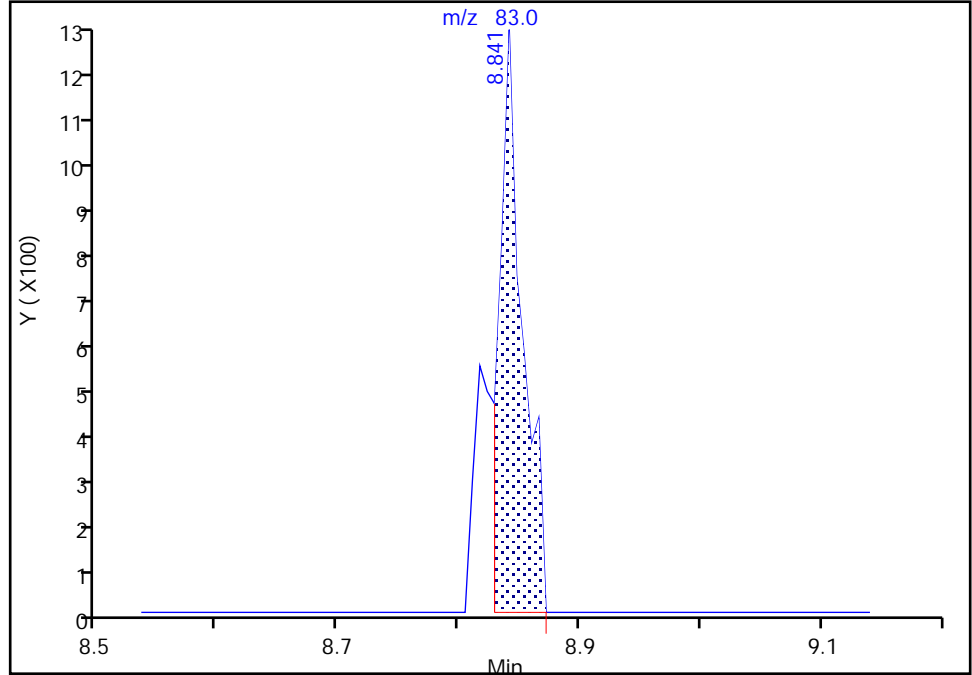
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Injection Date: 08-Aug-2020 07:01:30 Instrument ID: 16334
Lims ID: 410-9077-A-9 Lab Sample ID: 410-9077-9
Client ID: HD-COD-SW-26-0/1-0
Operator ID: MEC29284 ALS Bottle#: 24 Worklist Smp#: 25
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

75 Dichlorobromomethane, CAS: 75-27-4

Signal: 1

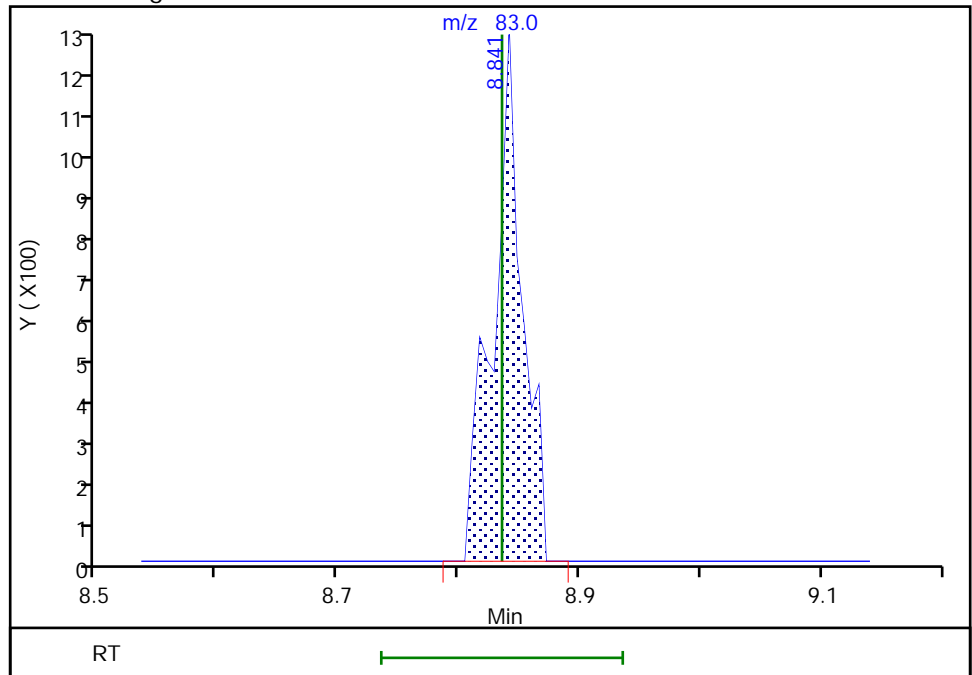
RT: 8.84
Area: 1611
Amount: 0.024625
Amount Units: ug/l

Processing Integration Results



RT: 8.84
Area: 2067
Amount: 0.031595
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 09-Aug-2020 18:17:57
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

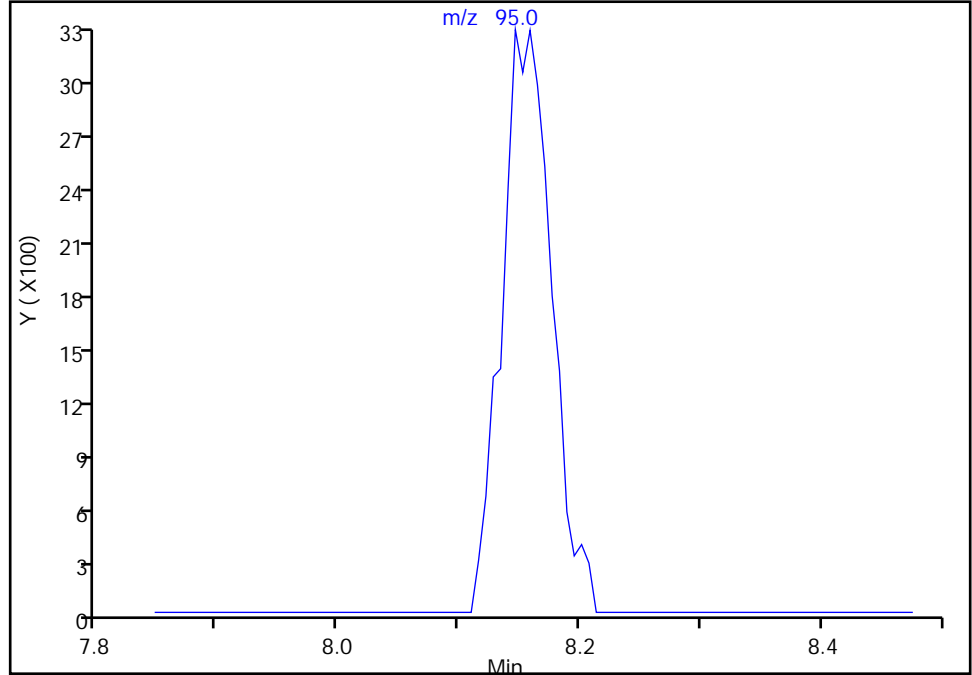
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Injection Date: 08-Aug-2020 07:01:30 Instrument ID: 16334
Lims ID: 410-9077-A-9 Lab Sample ID: 410-9077-9
Client ID: HD-COD-SW-26-0/1-0
Operator ID: MEC29284 ALS Bottle#: 24 Worklist Smp#: 25
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

67 Trichloroethene, CAS: 79-01-6

Signal: 1

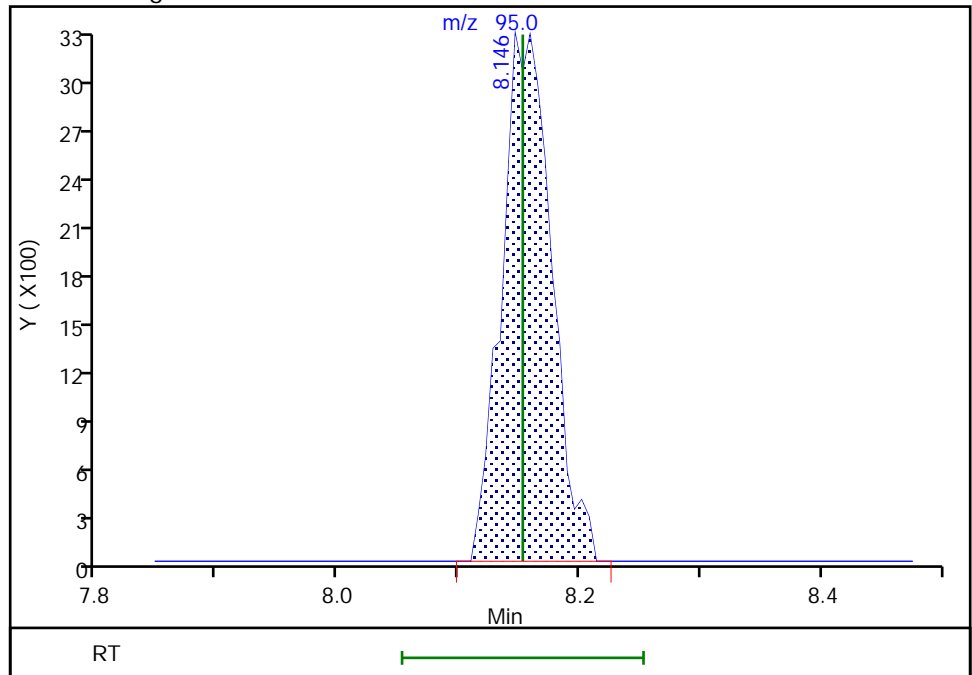
Not Detected
Expected RT: 8.15

Processing Integration Results



Manual Integration Results

RT: 8.15
Area: 9364
Amount: 0.186377
Amount Units: ug/l



Reviewer: campbellme, 09-Aug-2020 18:17:52
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

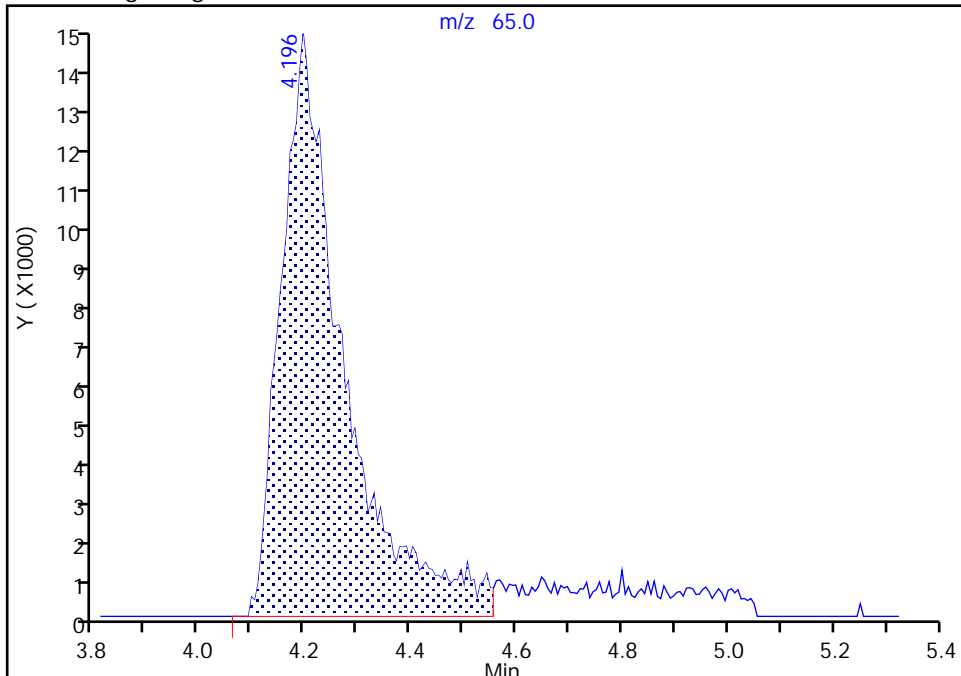
Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S19.D
Injection Date: 08-Aug-2020 07:01:30 Instrument ID: 16334
Lims ID: 410-9077-A-9 Lab Sample ID: 410-9077-9
Client ID: HD-COD-SW-26-0/1-0
Operator ID: MEC29284 ALS Bottle#: 24 Worklist Smp#: 25
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 29 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

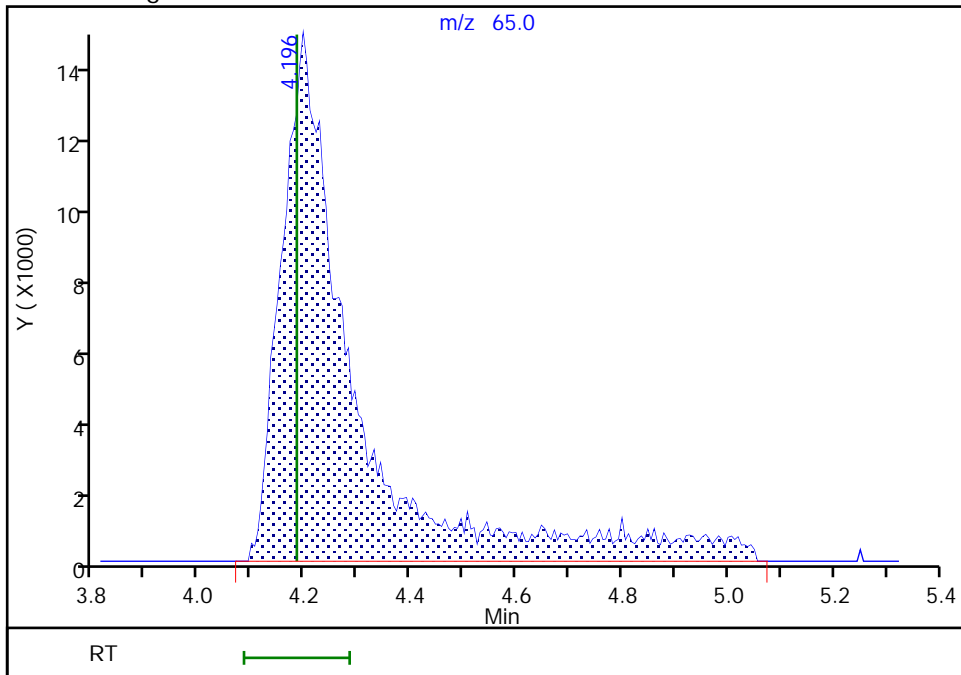
RT: 4.20
Area: 115552
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.20
Area: 134017
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 09-Aug-2020 18:17:26
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-27-0/1-0 Lab Sample ID: 410-9077-10
 Matrix: Surface Water Lab File ID: GG07S20.D
 Analysis Method: 8260D Date Collected: 07/28/2020 10:35
 Sample wt/vol: 25 (mL) Date Analyzed: 08/08/2020 07:23
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 30932 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		0.50	0.060
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.060
75-34-3	1,1-Dichloroethane	ND		0.50	0.070
75-35-4	1,1-Dichloroethene	ND		0.50	0.060
107-06-2	1,2-Dichloroethane	ND		0.50	0.050
78-87-5	1,2-Dichloropropane	ND		0.50	0.060
78-93-3	2-Butanone (MEK)	ND		5.0	0.60
591-78-6	2-Hexanone	ND		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70
67-64-1	Acetone	2.9	J	5.0	0.90
107-13-1	Acrylonitrile	ND		5.0	0.40
71-43-2	Benzene	ND		0.50	0.050
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND	^c	0.50	0.070
75-15-0	Carbon disulfide	ND		1.0	0.060
56-23-5	Carbon tetrachloride	ND		0.50	0.070
108-90-7	Chlorobenzene	ND		0.50	0.060
74-97-5	Bromochloromethane	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
75-00-3	Chloroethane	ND		0.50	0.070
67-66-3	Chloroform	ND		0.50	0.090
74-87-3	Chloromethane	ND		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.069	J	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
75-27-4	Bromodichloromethane	ND		0.50	0.050
100-41-4	Ethylbenzene	ND		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.050
75-09-2	Methylene Chloride	ND		0.50	0.070
100-42-5	Styrene	ND		0.50	0.050
127-18-4	Tetrachloroethene	ND		0.50	0.060
108-88-3	Toluene	ND		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-27-0/1-0 Lab Sample ID: 410-9077-10
 Matrix: Surface Water Lab File ID: GG07S20.D
 Analysis Method: 8260D Date Collected: 07/28/2020 10:35
 Sample wt/vol: 25 (mL) Date Analyzed: 08/08/2020 07:23
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 30932 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	ND		0.50	0.060
75-01-4	Vinyl chloride	ND		0.50	0.10
1330-20-7	Xylenes, Total	ND		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	91		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
 Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S20.D
 Lims ID: 410-9077-A-10
 Client ID: HD-COD-SW-27-0/1-0
 Sample Type: Client
 Inject. Date: 08-Aug-2020 07:23:30 ALS Bottle#: 25 Worklist Smp#: 26
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-9077-a-10
 Misc. Info.: 410-0007550-026
 Operator ID: MEC29284 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 09-Aug-2020 18:20:24 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1057

First Level Reviewer: campbellme Date: 09-Aug-2020 18:18:54

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Chloromethane	50	2.136	2.129	0.007	92	3092	0.0442	
7 Vinyl chloride	62		2.245				ND	
9 Bromomethane	94		2.562				ND	
10 Chloroethane	64		2.648				ND	
19 1,1-Dichloroethene	96		3.507				ND	
20 Acetone	43	3.562	3.550	0.012	89	22589	2.90	
25 Carbon disulfide	76		3.794				ND	
28 Methylene Chloride	84		4.166				ND	
* 29 t-Butyl alcohol-d10 (IS)	65	4.202	4.184	0.018	25	139445	50.0	M
31 Acrylonitrile	53		4.519				ND	
32 Methyl tert-butyl ether	73		4.568				ND	
33 trans-1,2-Dichloroethene	96		4.574				ND	
36 1,1-Dichloroethane	63		5.245				ND	
40 2-Butanone (MEK)	43		6.049				ND	
41 cis-1,2-Dichloroethene	96	6.080	6.086	-0.006	27	3473	0.0693	
48 Chlorobromomethane	128		6.415				ND	
50 Chloroform	83	6.580	6.568	0.012	91	6754	0.0771	
\$ 52 Dibromofluoromethane (Surr)	113	6.787	6.787	0.000	93	439991	9.11	
51 1,1,1-Trichloroethane	97		6.793				ND	
56 Carbon tetrachloride	117		6.994				ND	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.244	7.232	0.012	0	91652	9.96	
59 Benzene	78	7.269	7.269	0.000	41	2920	0.0162	7M
60 1,2-Dichloroethane	62	7.336	7.342	-0.006	1	1720	0.0263	a
* 63 Fluorobenzene (IS)	96	7.677	7.677	0.000	98	1808531	10.0	
67 Trichloroethene	95		8.153				ND	
69 1,2-Dichloropropane	63		8.488				ND	
75 Dichlorobromomethane	83		8.835				ND	
80 cis-1,3-Dichloropropene	75		9.390				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	
\$ 82 Toluene-d8 (Surr)	98	9.695	9.695	0.000	95	1771775	10.1	
83 Toluene	92	9.774	9.774	0.000	97	5100	0.0460	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
84 trans-1,3-Dichloropropene	75		10.030				ND	
86 1,1,2-Trichloroethane	97		10.238				ND	
88 Tetrachloroethene	166	10.317	10.317	0.000	92	2252	0.0415	
91 2-Hexanone	43		10.457				ND	
93 Chlorodibromomethane	129		10.609				ND	
94 Ethylene Dibromide	107		10.719				ND	
* 95 Chlorobenzene-d5 (IS)	117	11.152	11.152	0.000	88	1342010	10.0	
97 Chlorobenzene	112		11.183				ND	
S 101 Xylenes, Total	106		11.245				ND	
98 1,1,1,2-Tetrachloroethane	131		11.262				ND	
99 Ethylbenzene	91		11.268				ND	
100 m-Xylene & p-Xylene	106		11.384				ND	
102 o-Xylene	106		11.713				ND	
103 Styrene	104		11.725				ND	
104 Bromoform	173		11.884				ND	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	88	626993	9.61	
109 1,1,2,2-Tetrachloroethane	83		12.255				ND	
* 124 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	97	671361	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MSV_29_826ISS_00007

Amount Added: 1.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S20.D

Injection Date: 08-Aug-2020 07:23:30

Instrument ID: 16334

Operator ID: MEC29284

Lims ID: 410-9077-A-10

Lab Sample ID: 410-9077-10

Worklist Smp#: 26

Client ID: HD-COD-SW-27-0/1-0

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

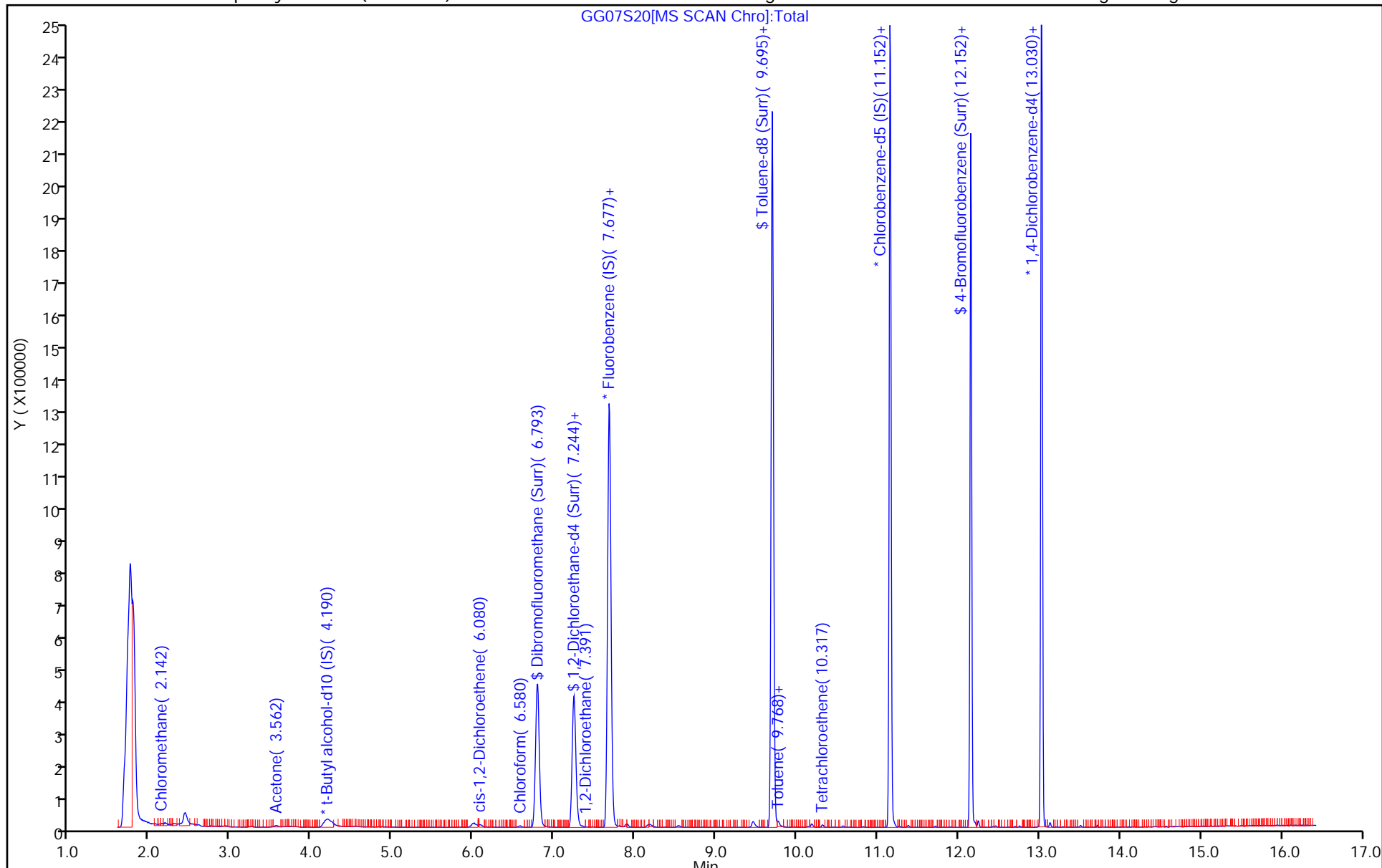
ALS Bottle#: 25

Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S20.D
 Lims ID: 410-9077-A-10
 Client ID: HD-COD-SW-27-0/1-0
 Sample Type: Client
 Inject. Date: 08-Aug-2020 07:23:30 ALS Bottle#: 25 Worklist Smp#: 26
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-9077-a-10
 Misc. Info.: 410-0007550-026
 Operator ID: MEC29284 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 09-Aug-2020 18:20:24 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1057

First Level Reviewer: campbellme Date: 09-Aug-2020 18:18:54

Compound	Amount Added	Amount Recovered	% Rec.
\$ 52 Dibromofluoromethane (Surr)	10.0	9.11	91.07
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	9.96	99.61
\$ 82 Toluene-d8 (Surr)	10.0	10.1	100.85
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.61	96.10

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S20.D

Injection Date: 08-Aug-2020 07:23:30

Instrument ID: 16334

Lims ID: 410-9077-A-10

Lab Sample ID: 410-9077-10

Client ID: HD-COD-SW-27-0/1-0

Operator ID: MEC29284

ALS Bottle#: 25

Worklist Smp#: 26

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

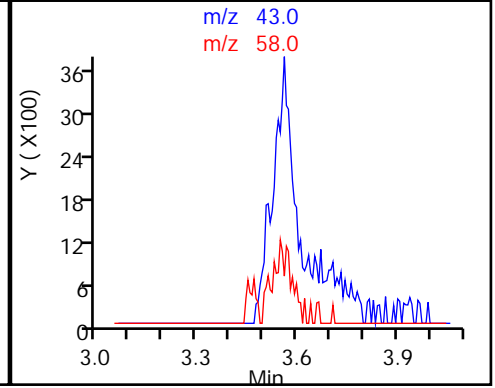
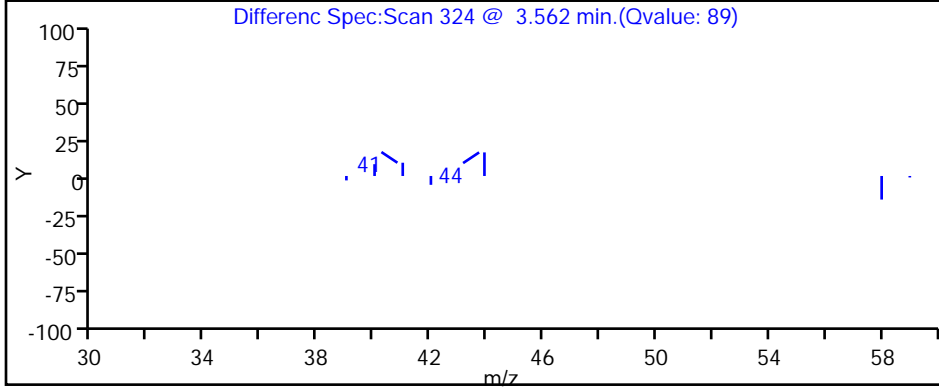
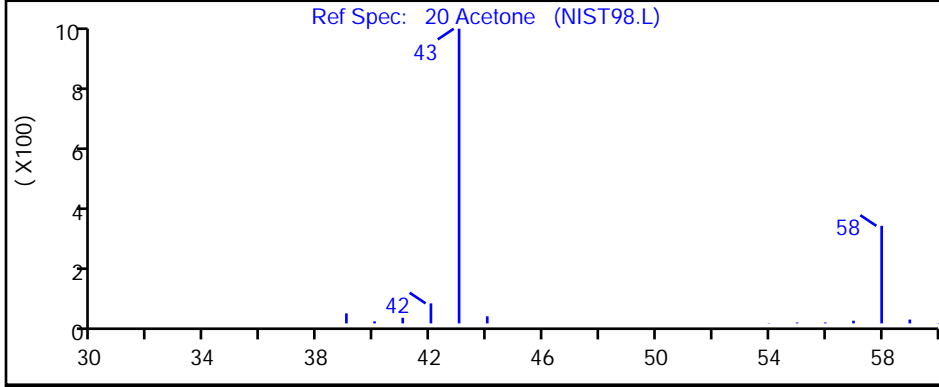
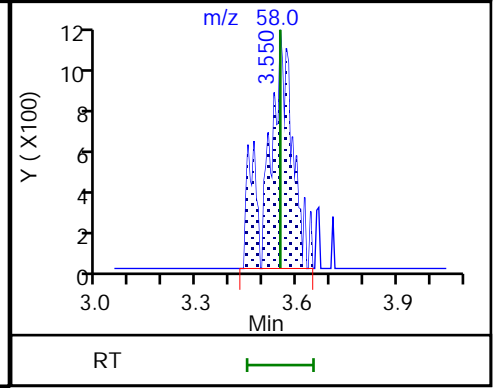
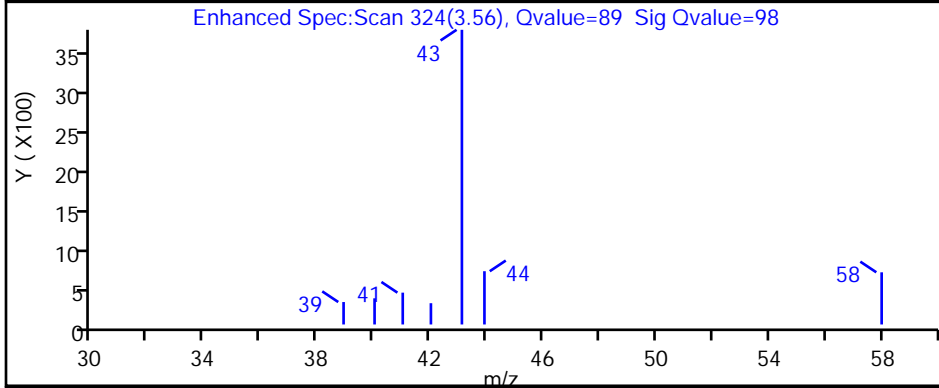
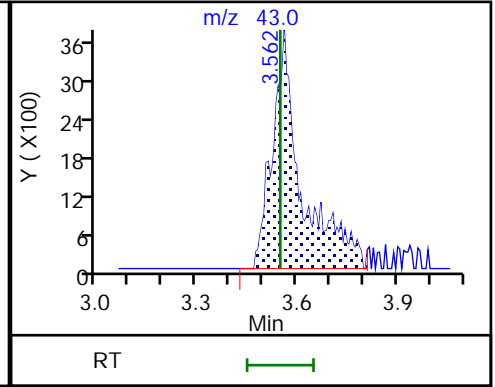
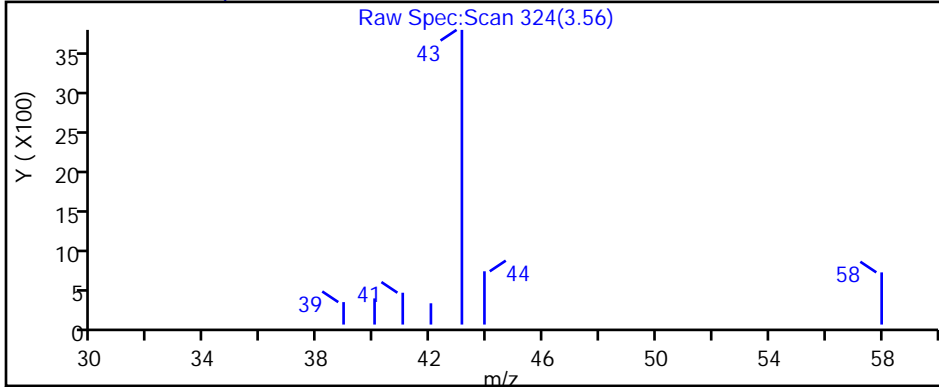
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

20 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S20.D

Injection Date: 08-Aug-2020 07:23:30

Instrument ID: 16334

Lims ID: 410-9077-A-10

Lab Sample ID: 410-9077-10

Client ID: HD-COD-SW-27-0/1-0

Operator ID: MEC29284

ALS Bottle#: 25

Worklist Smp#: 26

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

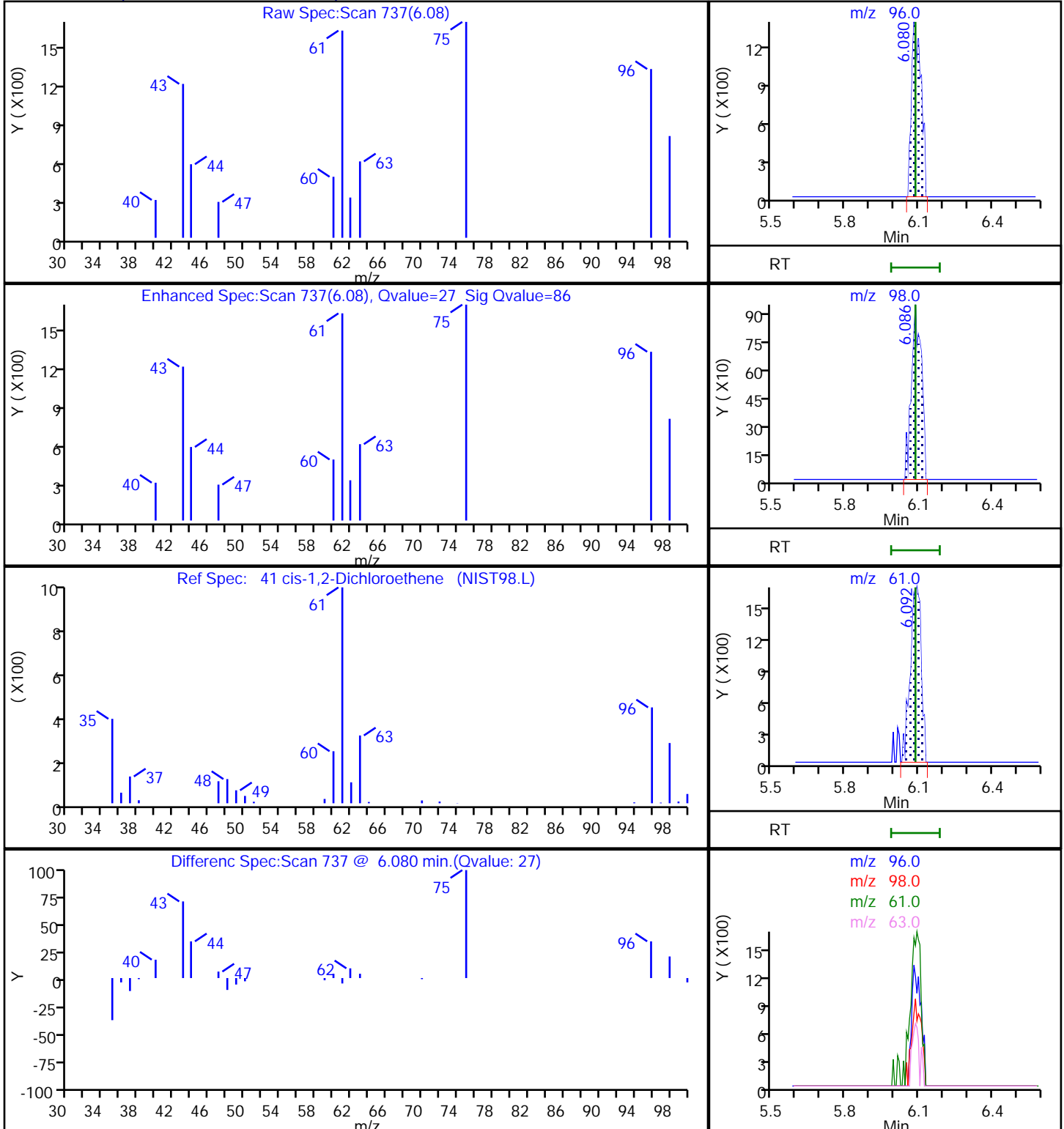
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

41 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

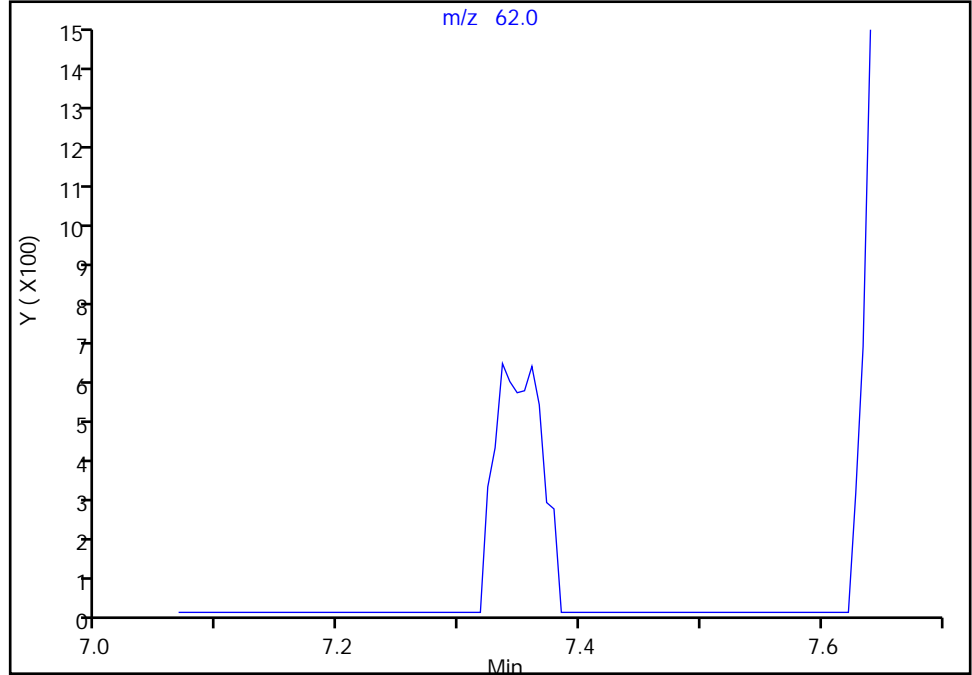
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Injection Date: 08-Aug-2020 07:23:30 Instrument ID: 16334
Lims ID: 410-9077-A-10 Lab Sample ID: 410-9077-10
Client ID: HD-COD-SW-27-0/1-0
Operator ID: MEC29284 ALS Bottle#: 25 Worklist Smp#: 26
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

60 1,2-Dichloroethane, CAS: 107-06-2

Signal: 1

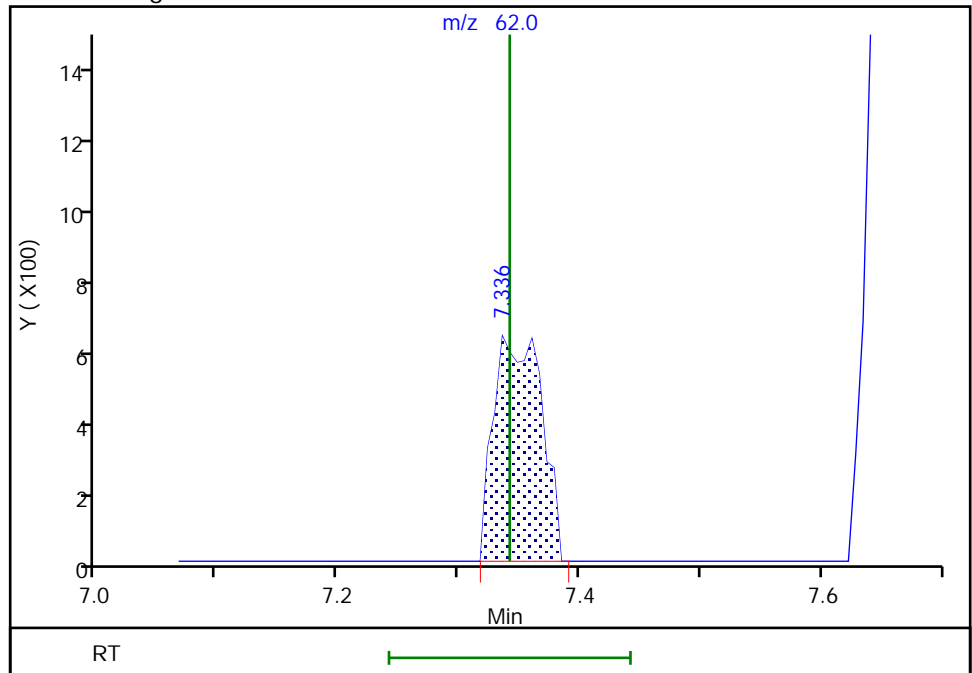
Not Detected
Expected RT: 7.34

Processing Integration Results



Manual Integration Results

RT: 7.34
Area: 1720
Amount: 0.026323
Amount Units: ug/l



Reviewer: campbellme, 09-Aug-2020 18:18:44
Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

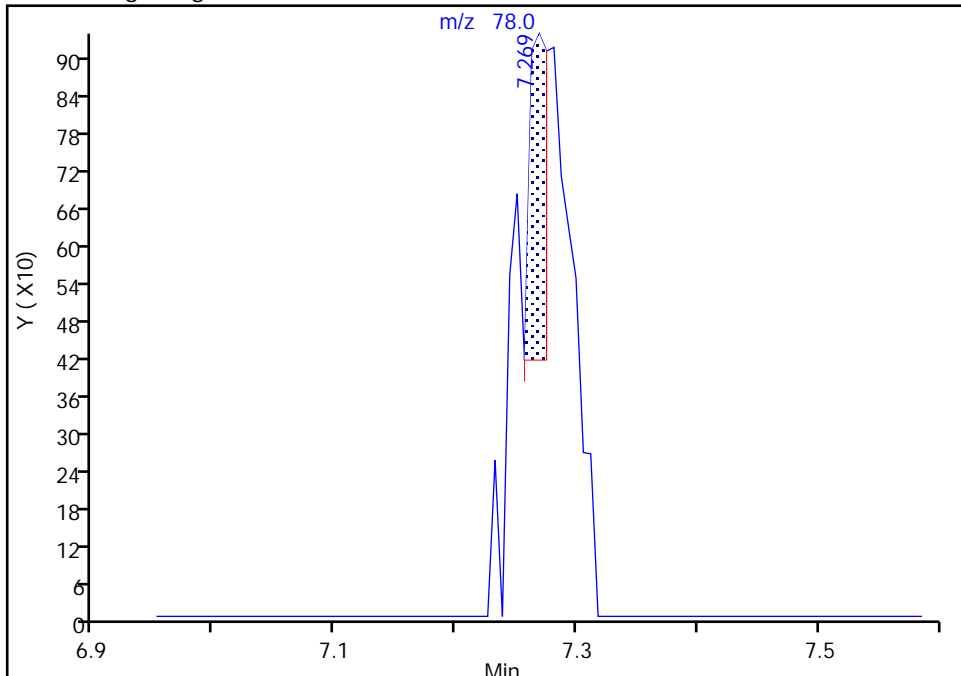
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Injection Date: 08-Aug-2020 07:23:30 Instrument ID: 16334
Lims ID: 410-9077-A-10 Lab Sample ID: 410-9077-10
Client ID: HD-COD-SW-27-0/1-0
Operator ID: MEC29284 ALS Bottle#: 25 Worklist Smp#: 26
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

59 Benzene, CAS: 71-43-2

Signal: 1

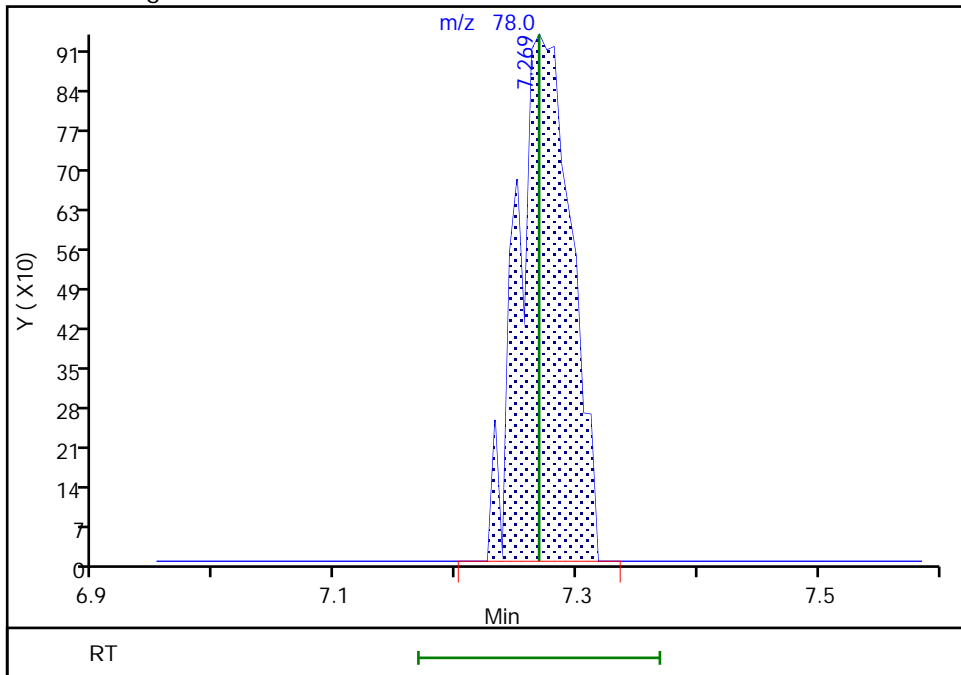
RT: 7.27
Area: 557
Amount: 0.003085
Amount Units: ug/l

Processing Integration Results



RT: 7.27
Area: 2920
Amount: 0.016172
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 09-Aug-2020 18:18:40
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 397 of 777

Eurofins Lancaster Laboratories Env, LLC

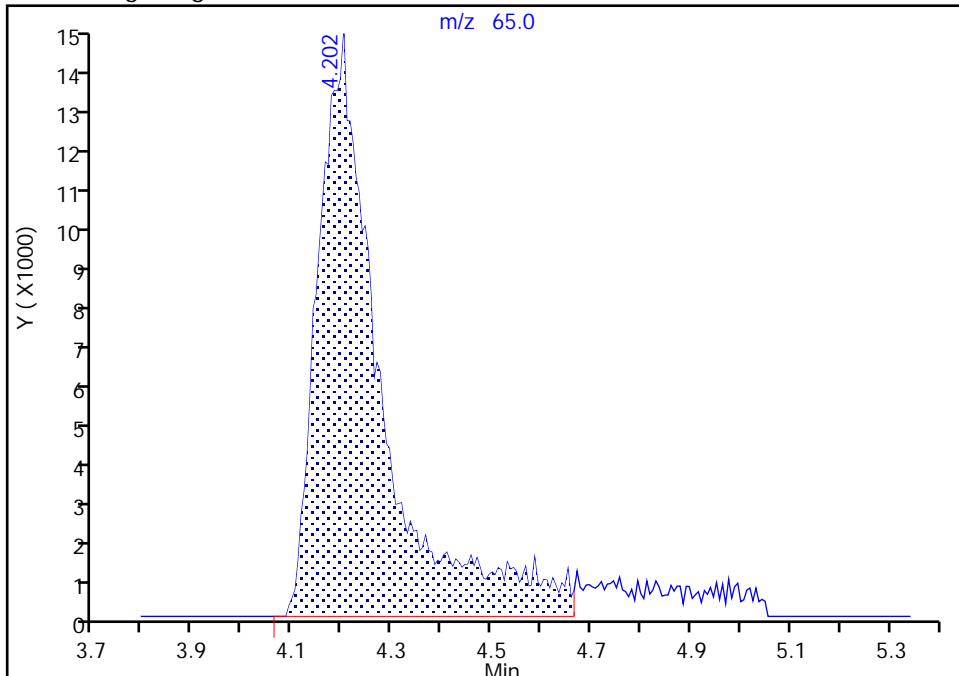
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Injection Date: 08-Aug-2020 07:23:30 Instrument ID: 16334
Lims ID: 410-9077-A-10 Lab Sample ID: 410-9077-10
Client ID: HD-COD-SW-27-0/1-0
Operator ID: MEC29284 ALS Bottle#: 25 Worklist Smp#: 26
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 29 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

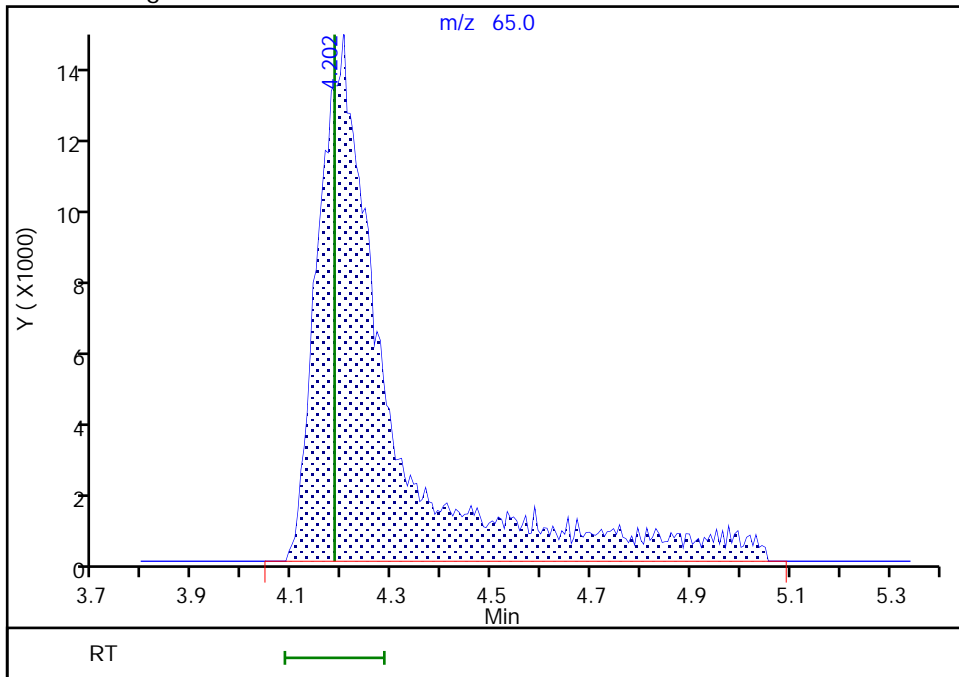
RT: 4.20
Area: 124926
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.20
Area: 139445
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 09-Aug-2020 18:18:30
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-28-0/1-0 Lab Sample ID: 410-9077-11
 Matrix: Surface Water Lab File ID: GG07S21.D
 Analysis Method: 8260D Date Collected: 07/28/2020 11:35
 Sample wt/vol: 25 (mL) Date Analyzed: 08/08/2020 07:45
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 30932 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		0.50	0.060
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.060
75-34-3	1,1-Dichloroethane	ND		0.50	0.070
75-35-4	1,1-Dichloroethene	ND		0.50	0.060
107-06-2	1,2-Dichloroethane	ND		0.50	0.050
78-87-5	1,2-Dichloropropane	ND		0.50	0.060
78-93-3	2-Butanone (MEK)	ND		5.0	0.60
591-78-6	2-Hexanone	ND		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70
67-64-1	Acetone	5.9		5.0	0.90
107-13-1	Acrylonitrile	ND		5.0	0.40
71-43-2	Benzene	ND		0.50	0.050
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND	^c	0.50	0.070
75-15-0	Carbon disulfide	ND		1.0	0.060
56-23-5	Carbon tetrachloride	ND		0.50	0.070
108-90-7	Chlorobenzene	ND		0.50	0.060
74-97-5	Bromochloromethane	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
75-00-3	Chloroethane	ND		0.50	0.070
67-66-3	Chloroform	0.097	J	0.50	0.090
74-87-3	Chloromethane	ND		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	ND		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
75-27-4	Bromodichloromethane	ND		0.50	0.050
100-41-4	Ethylbenzene	ND		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.050
75-09-2	Methylene Chloride	ND		0.50	0.070
100-42-5	Styrene	ND		0.50	0.050
127-18-4	Tetrachloroethene	0.080	J	0.50	0.060
108-88-3	Toluene	ND		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-28-0/1-0 Lab Sample ID: 410-9077-11
 Matrix: Surface Water Lab File ID: GG07S21.D
 Analysis Method: 8260D Date Collected: 07/28/2020 11:35
 Sample wt/vol: 25 (mL) Date Analyzed: 08/08/2020 07:45
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 30932 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	ND		0.50	0.060
75-01-4	Vinyl chloride	ND		0.50	0.10
1330-20-7	Xylenes, Total	ND		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	91		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S21.D
 Lims ID: 410-9077-A-11
 Client ID: HD-COD-SW-28-0/1-0
 Sample Type: Client
 Inject. Date: 08-Aug-2020 07:45:30 ALS Bottle#: 26 Worklist Smp#: 27
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-9077-a-11
 Misc. Info.: 410-0007550-027
 Operator ID: MEC29284 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 09-Aug-2020 18:20:24 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1057

First Level Reviewer: campbellme

Date: 09-Aug-2020 18:19:42

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Chloromethane	50		2.129				ND	
7 Vinyl chloride	62		2.245				ND	
9 Bromomethane	94		2.562				ND	
10 Chloroethane	64		2.648				ND	
19 1,1-Dichloroethene	96		3.507				ND	
20 Acetone	43	3.556	3.550	0.006	99	41240	5.93	
25 Carbon disulfide	76		3.794				ND	
28 Methylene Chloride	84	4.166	4.166	0.000	68	2529	0.0593	Ma
* 29 t-Butyl alcohol-d10 (IS)	65	4.184	4.184	0.000	59	124540	50.0	M
31 Acrylonitrile	53		4.519				ND	
32 Methyl tert-butyl ether	73		4.568				ND	
33 trans-1,2-Dichloroethene	96		4.574				ND	
36 1,1-Dichloroethane	63		5.245				ND	
40 2-Butanone (MEK)	43		6.049				ND	
41 cis-1,2-Dichloroethene	96	6.080	6.086	-0.006	6	1639	0.0330	
48 Chlorobromomethane	128		6.415				ND	
50 Chloroform	83	6.580	6.568	0.012	93	8442	0.0973	
\$ 52 Dibromofluoromethane (Surr)	113	6.787	6.787	0.000	93	437174	9.14	
51 1,1,1-Trichloroethane	97		6.793				ND	
56 Carbon tetrachloride	117		6.994				ND	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.244	7.232	0.012	0	89521	9.83	
59 Benzene	78		7.269				ND	
60 1,2-Dichloroethane	62	7.342	7.342	0.000	1	1914	0.0296	a
* 63 Fluorobenzene (IS)	96	7.677	7.677	0.000	98	1790507	10.0	
67 Trichloroethene	95	8.153	8.153	0.000	68	2296	0.0461	M
69 1,2-Dichloropropane	63		8.488				ND	
75 Dichlorobromomethane	83		8.835				ND	
80 cis-1,3-Dichloropropene	75		9.390				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	
\$ 82 Toluene-d8 (Surr)	98	9.695	9.695	0.000	95	1755138	10.1	
83 Toluene	92	9.774	9.774	0.000	96	5671	0.0515	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
84 trans-1,3-Dichloropropene	75		10.030				ND	
86 1,1,2-Trichloroethane	97		10.238				ND	
88 Tetrachloroethene	166	10.311	10.317	-0.006	92	4307	0.0800	
91 2-Hexanone	43		10.457				ND	
93 Chlorodibromomethane	129		10.609				ND	
94 Ethylene Dibromide	107		10.719				ND	
* 95 Chlorobenzene-d5 (IS)	117	11.152	11.152	0.000	88	1332153	10.0	
97 Chlorobenzene	112		11.183				ND	
S 101 Xylenes, Total	106		11.245				ND	
98 1,1,1,2-Tetrachloroethane	131		11.262				ND	
99 Ethylbenzene	91		11.268				ND	
100 m-Xylene & p-Xylene	106		11.384				ND	
102 o-Xylene	106		11.713				ND	
103 Styrene	104		11.725				ND	
104 Bromoform	173		11.884				ND	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	88	624233	9.64	
109 1,1,2,2-Tetrachloroethane	83		12.255				ND	
* 124 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	97	677968	10.0	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MSV_29_826ISS_00007

Amount Added: 1.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S21.D

Injection Date: 08-Aug-2020 07:45:30

Instrument ID: 16334

Operator ID: MEC29284

Lims ID: 410-9077-A-11

Lab Sample ID: 410-9077-11

Worklist Smp#: 27

Client ID: HD-COD-SW-28-0/1-0

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

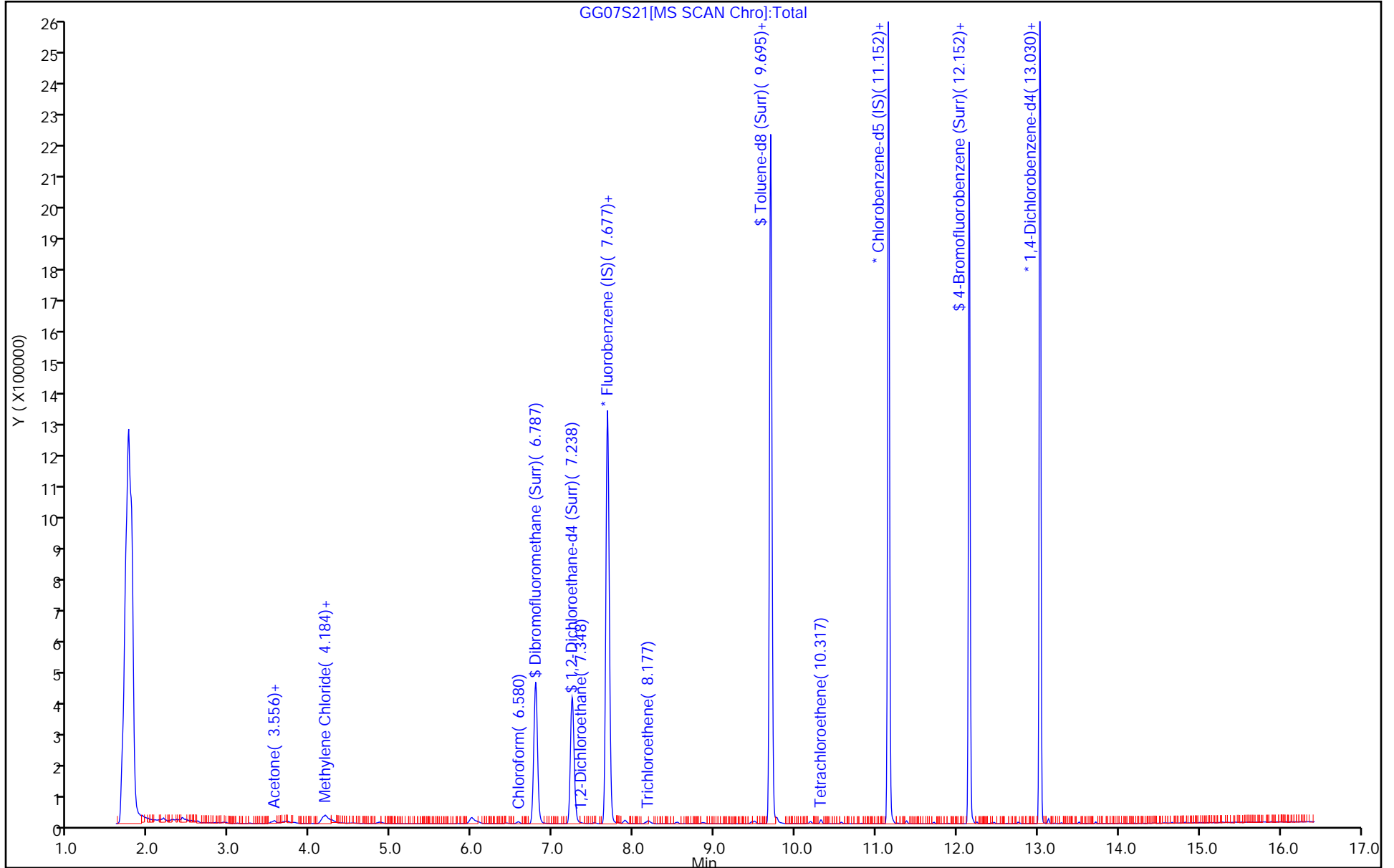
ALS Bottle#: 26

Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S21.D
 Lims ID: 410-9077-A-11
 Client ID: HD-COD-SW-28-0/1-0
 Sample Type: Client
 Inject. Date: 08-Aug-2020 07:45:30 ALS Bottle#: 26 Worklist Smp#: 27
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-9077-a-11
 Misc. Info.: 410-0007550-027
 Operator ID: MEC29284 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 09-Aug-2020 18:20:24 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1057

First Level Reviewer: campbellme Date: 09-Aug-2020 18:19:42

Compound	Amount Added	Amount Recovered	% Rec.
\$ 52 Dibromofluoromethane (Surr)	10.0	9.14	91.40
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	9.83	98.27
\$ 82 Toluene-d8 (Surr)	10.0	10.1	100.65
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.64	96.38

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S21.D

Injection Date: 08-Aug-2020 07:45:30

Instrument ID: 16334

Lims ID: 410-9077-A-11

Lab Sample ID: 410-9077-11

Client ID: HD-COD-SW-28-0/1-0

Operator ID: MEC29284

ALS Bottle#: 26

Worklist Smp#: 27

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

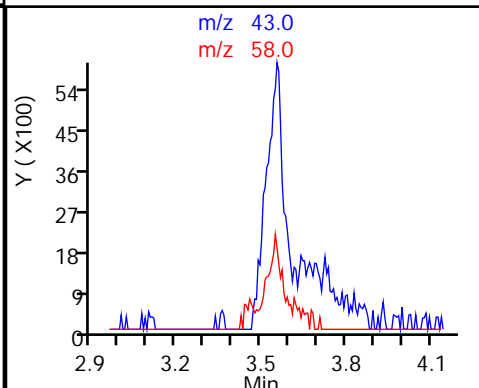
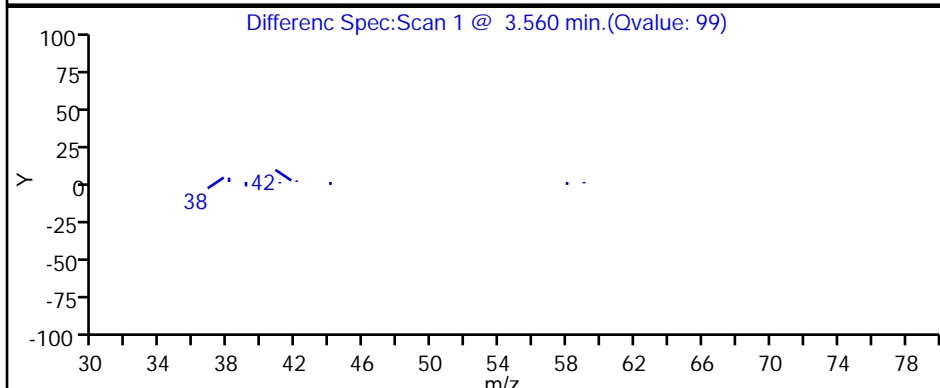
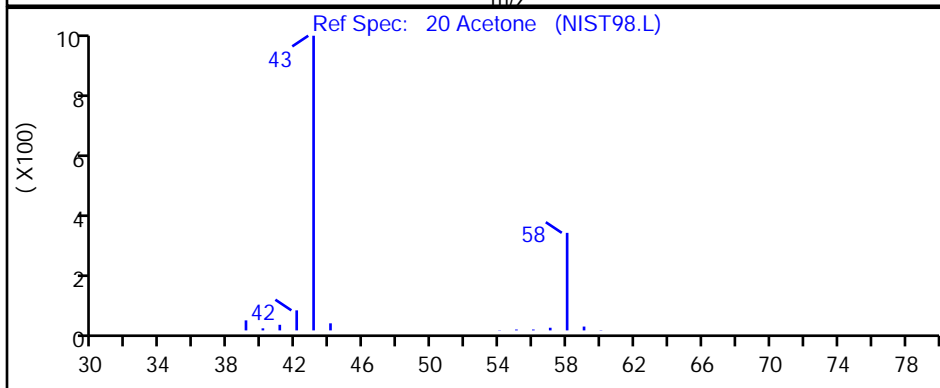
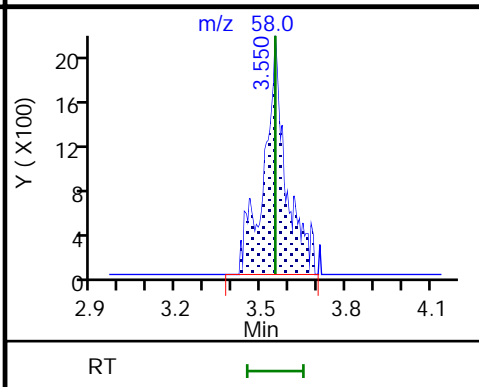
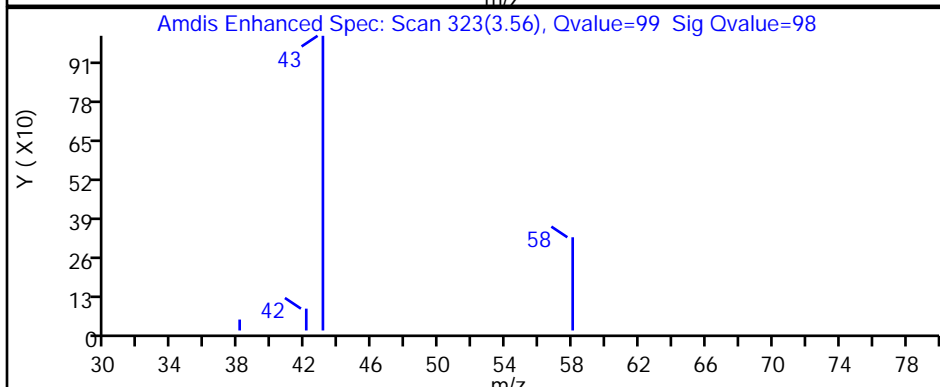
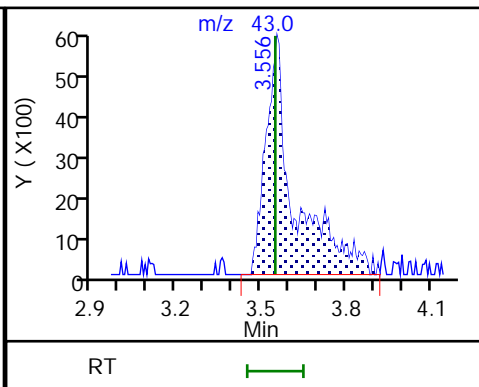
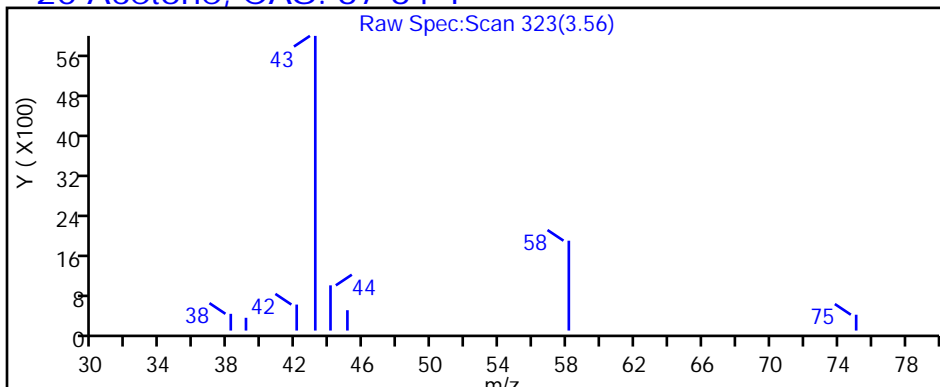
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

20 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S21.D

Injection Date: 08-Aug-2020 07:45:30

Instrument ID: 16334

Lims ID: 410-9077-A-11

Lab Sample ID: 410-9077-11

Client ID: HD-COD-SW-28-0/1-0

Operator ID: MEC29284

ALS Bottle#: 26

Worklist Smp#: 27

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

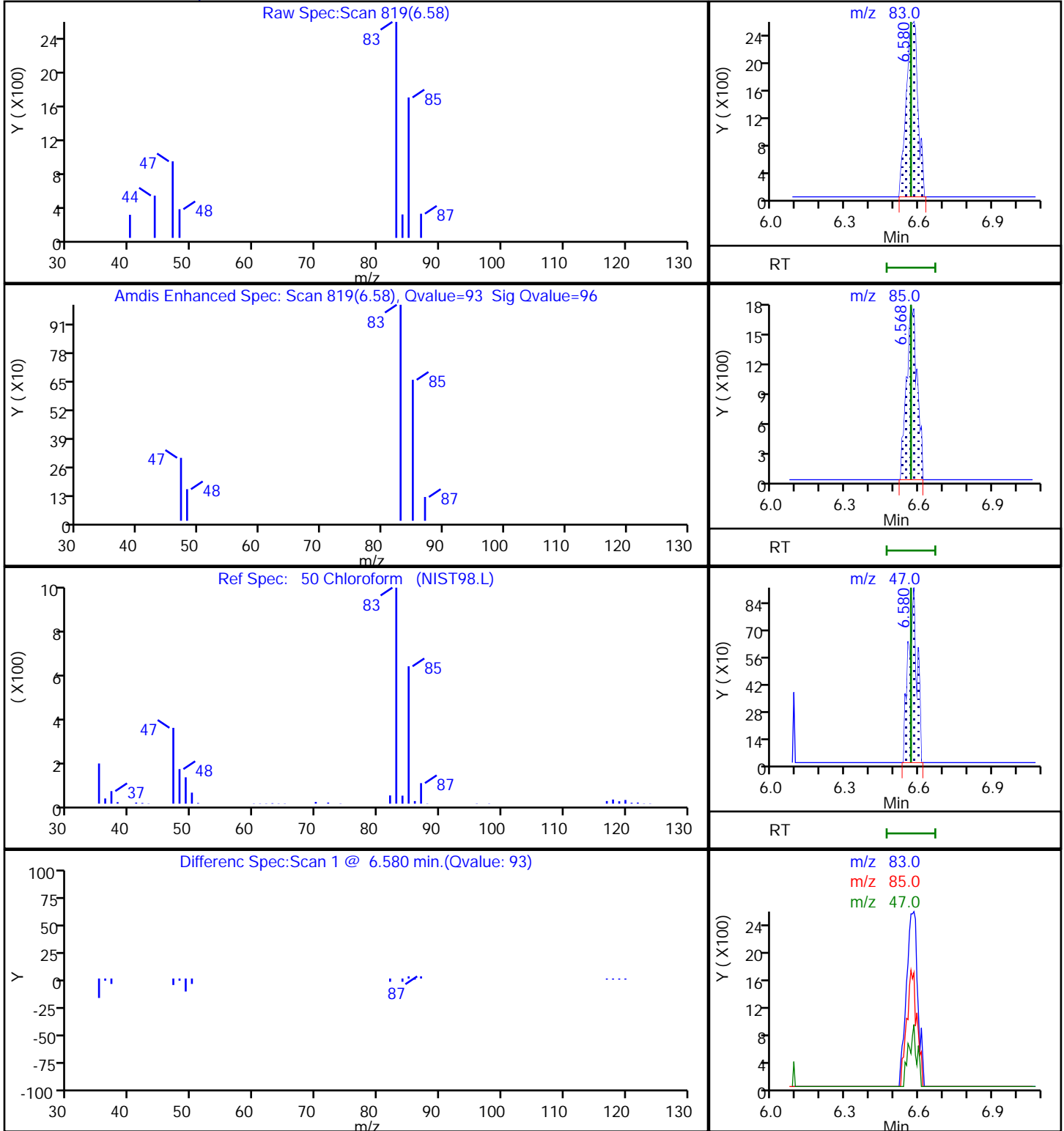
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

50 Chloroform, CAS: 67-66-3



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S21.D

Injection Date: 08-Aug-2020 07:45:30

Instrument ID: 16334

Lims ID: 410-9077-A-11

Lab Sample ID: 410-9077-11

Client ID: HD-COD-SW-28-0/1-0

Operator ID: MEC29284

ALS Bottle#: 26

Worklist Smp#: 27

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

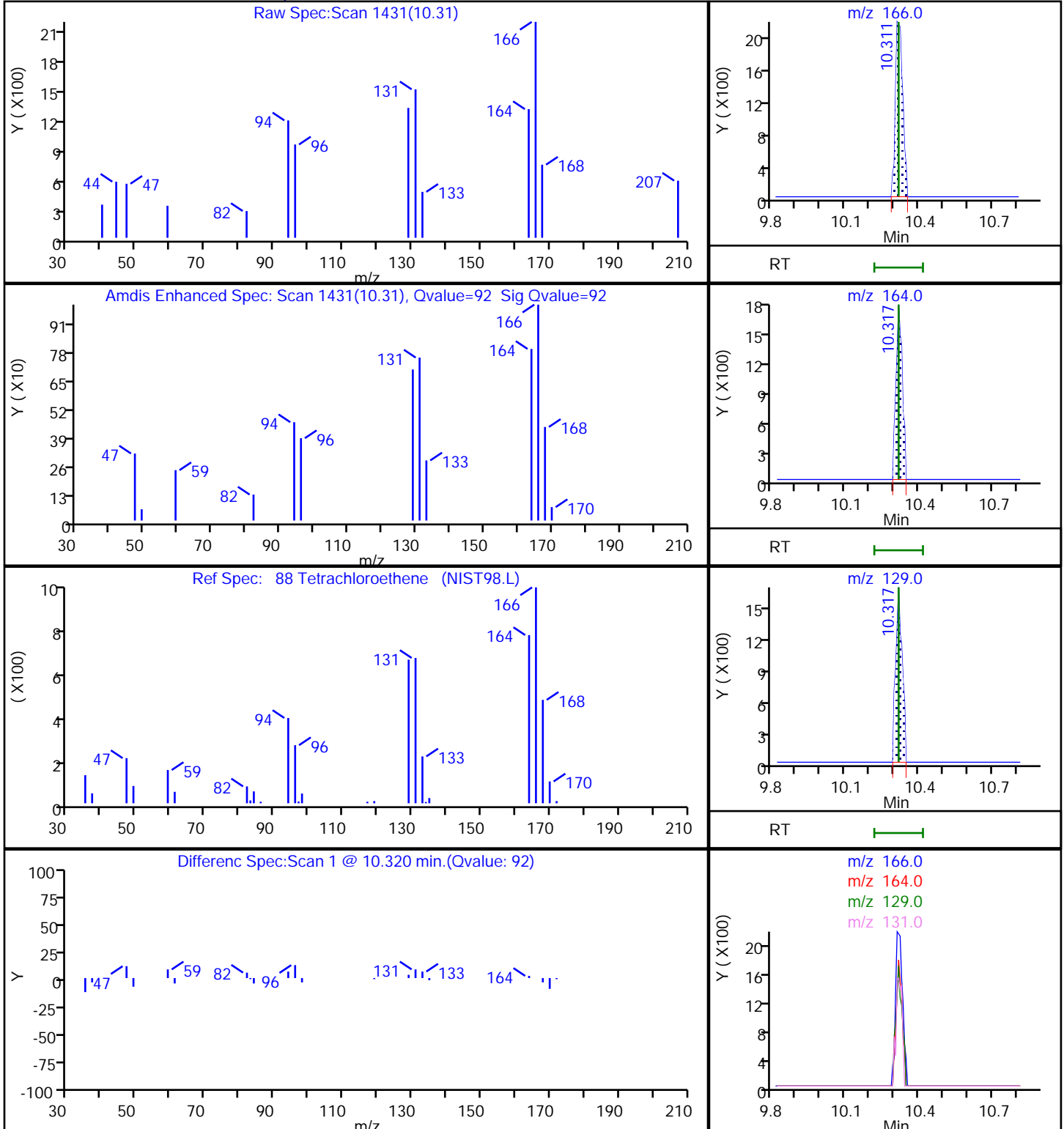
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector

MS Quad

88 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

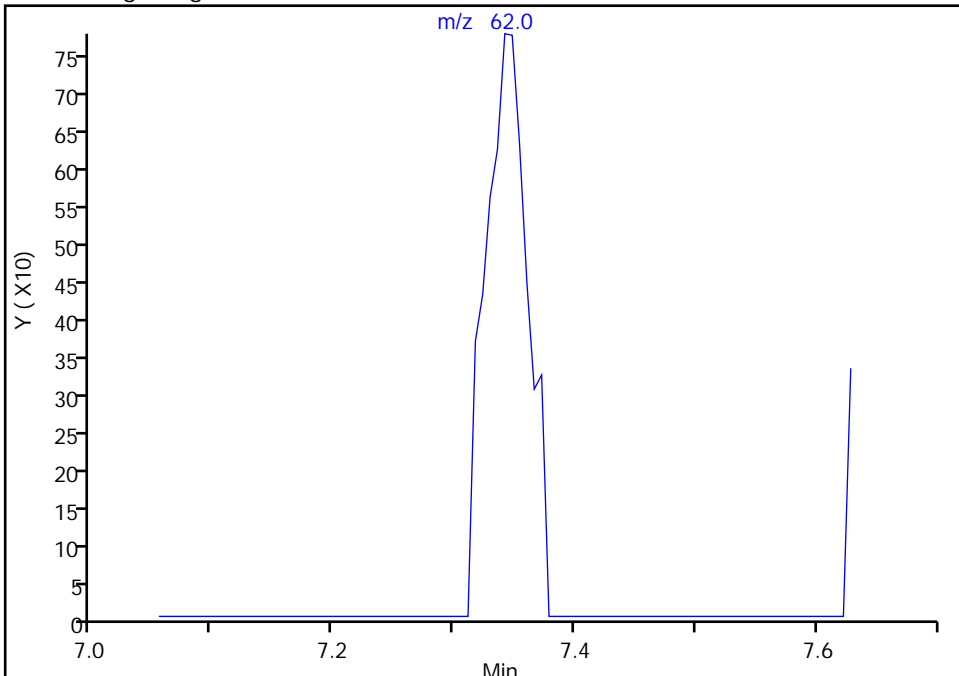
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Injection Date: 08-Aug-2020 07:45:30 Instrument ID: 16334
Lims ID: 410-9077-A-11 Lab Sample ID: 410-9077-11
Client ID: HD-COD-SW-28-0/1-0
Operator ID: MEC29284 ALS Bottle#: 26 Worklist Smp#: 27
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

60 1,2-Dichloroethane, CAS: 107-06-2

Signal: 1

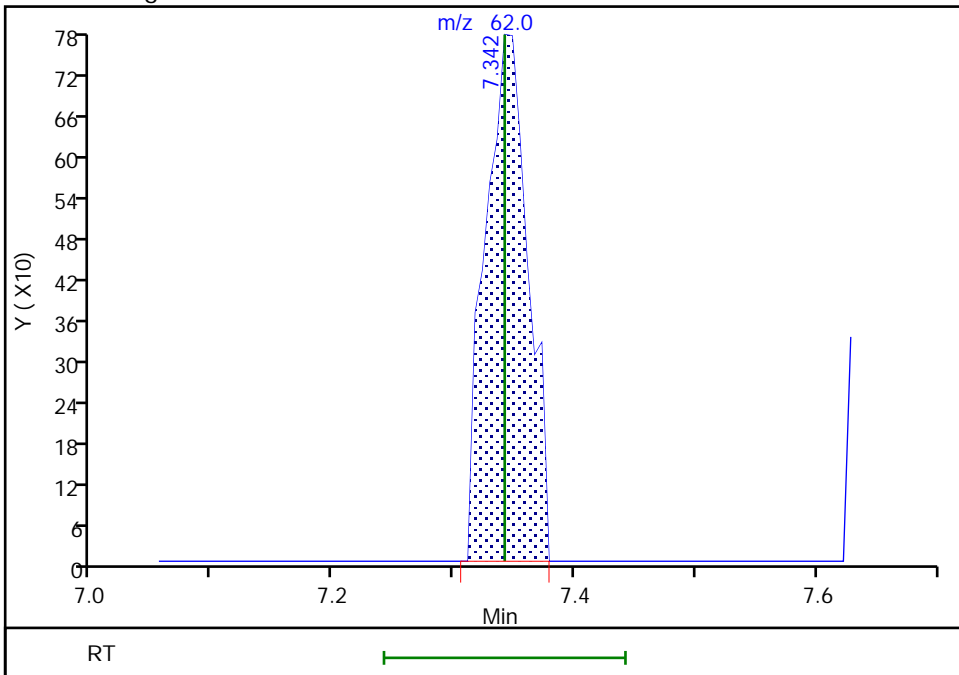
Not Detected
Expected RT: 7.34

Processing Integration Results



Manual Integration Results

RT: 7.34
Area: 1914
Amount: 0.029587
Amount Units: ug/l



Reviewer: campbellme, 09-Aug-2020 18:19:27
Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

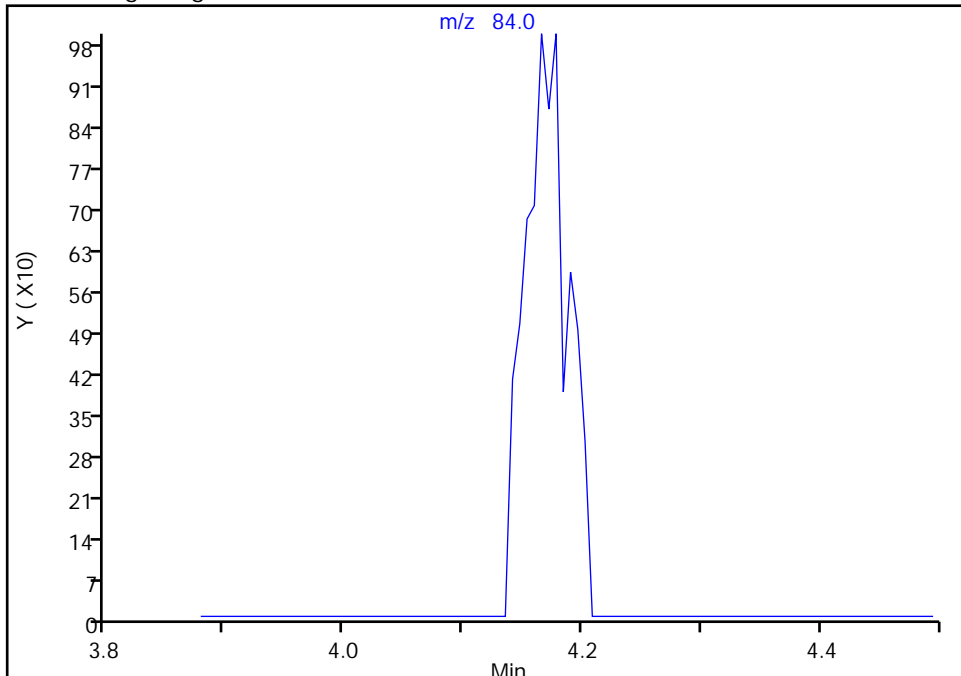
Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S21.D
Injection Date: 08-Aug-2020 07:45:30 Instrument ID: 16334
Lims ID: 410-9077-A-11 Lab Sample ID: 410-9077-11
Client ID: HD-COD-SW-28-0/1-0
Operator ID: MEC29284 ALS Bottle#: 26 Worklist Smp#: 27
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

28 Methylene Chloride, CAS: 75-09-2

Signal: 1

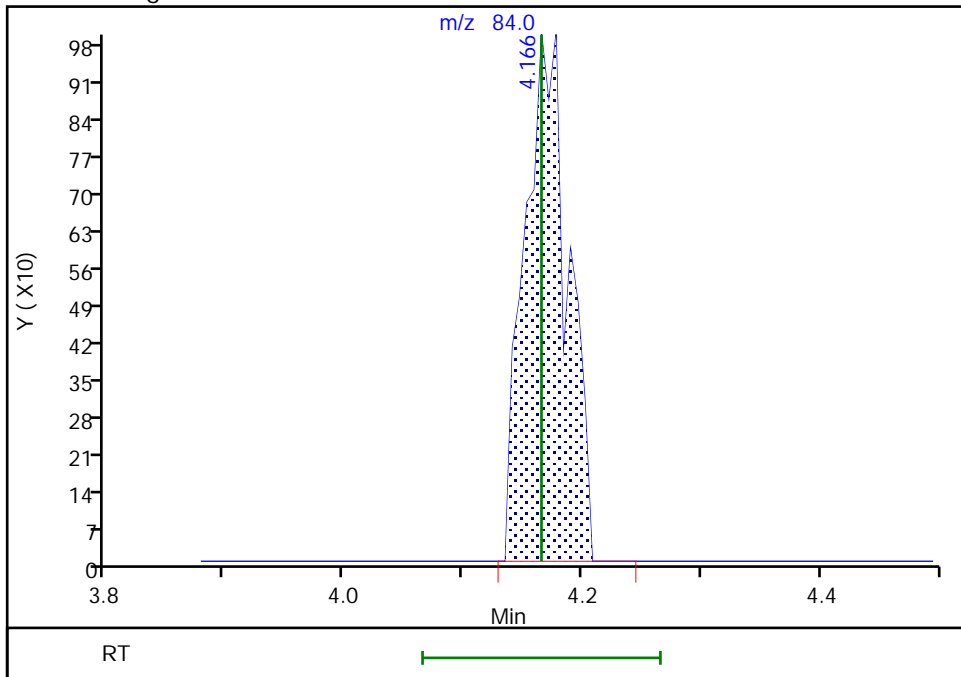
Not Detected
Expected RT: 4.17

Processing Integration Results



Manual Integration Results

RT: 4.17
Area: 2529
Amount: 0.059333
Amount Units: ug/l



Eurofins Lancaster Laboratories Env, LLC

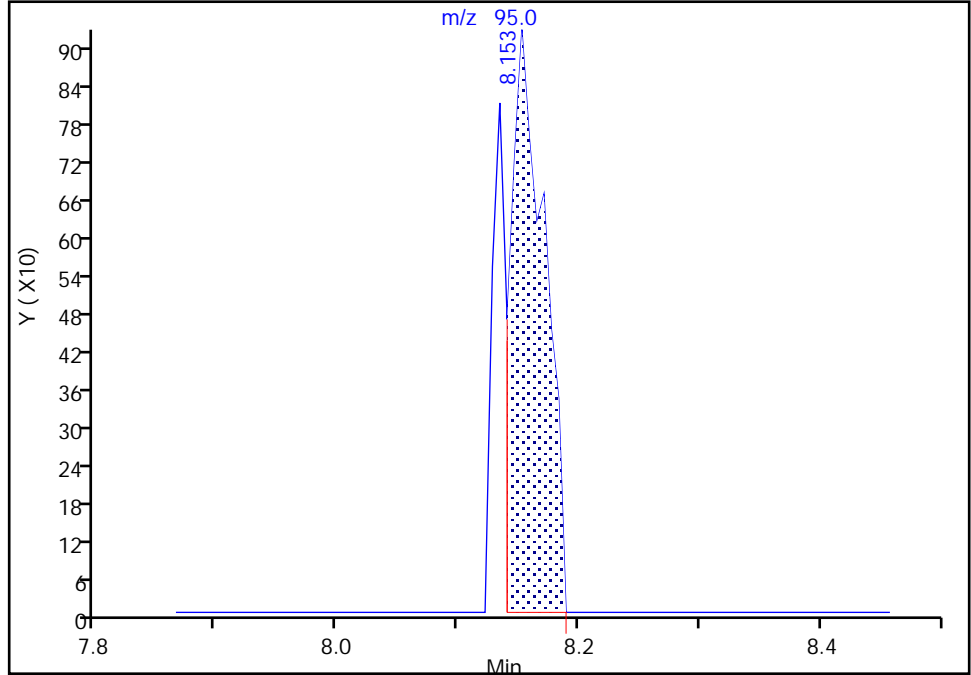
Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S21.D
Injection Date: 08-Aug-2020 07:45:30 Instrument ID: 16334
Lims ID: 410-9077-A-11 Lab Sample ID: 410-9077-11
Client ID: HD-COD-SW-28-0/1-0
Operator ID: MEC29284 ALS Bottle#: 26 Worklist Smp#: 27
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

67 Trichloroethene, CAS: 79-01-6

Signal: 1

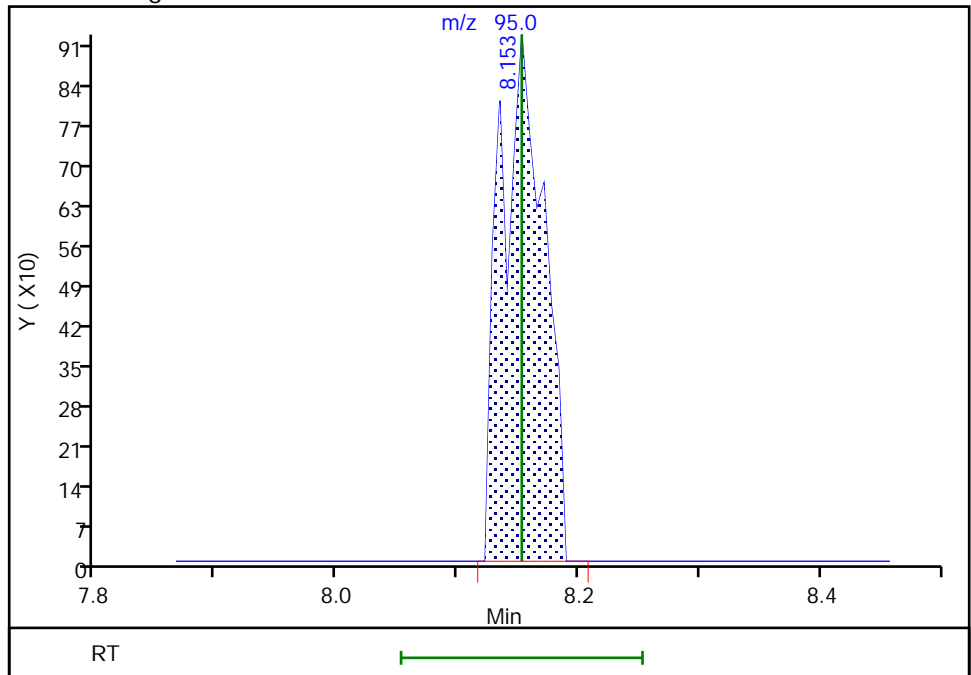
RT: 8.15
Area: 1801
Amount: 0.036178
Amount Units: ug/l

Processing Integration Results



RT: 8.15
Area: 2296
Amount: 0.046121
Amount Units: ug/l

Manual Integration Results



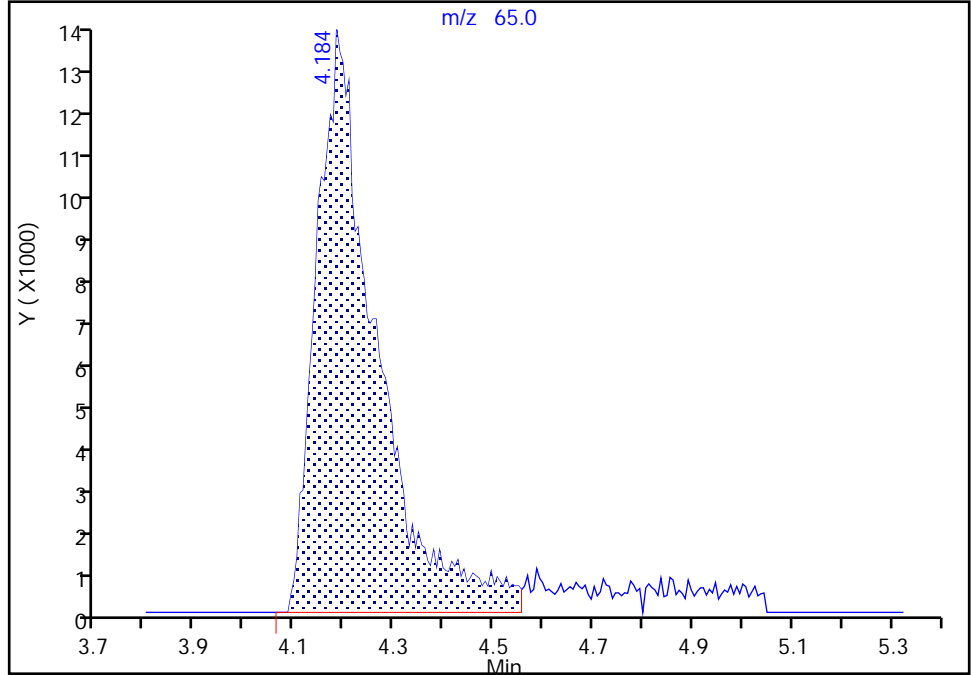
Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S21.D
Injection Date: 08-Aug-2020 07:45:30 Instrument ID: 16334
Lims ID: 410-9077-A-11 Lab Sample ID: 410-9077-11
Client ID: HD-COD-SW-28-0/1-0
Operator ID: MEC29284 ALS Bottle#: 26 Worklist Smp#: 27
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 29 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2
Signal: 1

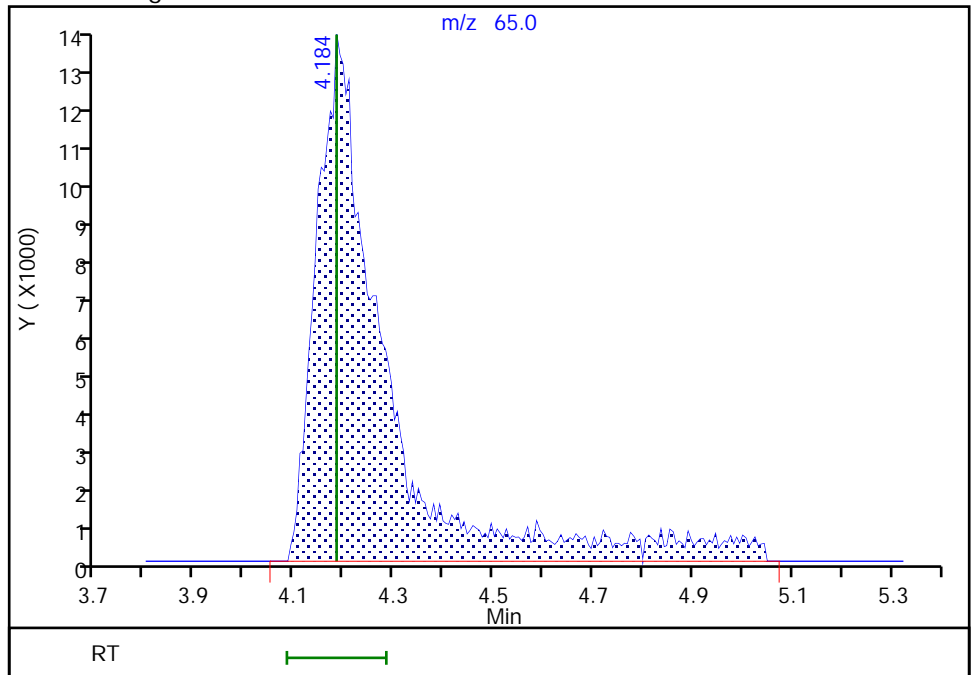
RT: 4.18
Area: 109467
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.18
Area: 124540
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 09-Aug-2020 18:19:20
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-29-0/1-0 Lab Sample ID: 410-9077-12
 Matrix: Surface Water Lab File ID: GG10S04.D
 Analysis Method: 8260D Date Collected: 07/28/2020 07:50
 Sample wt/vol: 25 (mL) Date Analyzed: 08/10/2020 13:18
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 31280 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		0.50	0.060
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.060
75-34-3	1,1-Dichloroethane	ND		0.50	0.070
75-35-4	1,1-Dichloroethene	ND		0.50	0.060
107-06-2	1,2-Dichloroethane	ND		0.50	0.050
78-87-5	1,2-Dichloropropane	ND		0.50	0.060
78-93-3	2-Butanone (MEK)	ND		5.0	0.60
591-78-6	2-Hexanone	ND		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70
67-64-1	Acetone	1.6	J	5.0	0.90
107-13-1	Acrylonitrile	ND		5.0	0.40
71-43-2	Benzene	ND		0.50	0.050
75-25-2	Bromoform	ND	^c	1.0	0.30
74-83-9	Bromomethane	ND	^c	0.50	0.070
75-15-0	Carbon disulfide	ND		1.0	0.060
56-23-5	Carbon tetrachloride	ND	^c	0.50	0.070
108-90-7	Chlorobenzene	ND		0.50	0.060
74-97-5	Bromochloromethane	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
75-00-3	Chloroethane	ND		0.50	0.070
67-66-3	Chloroform	ND		0.50	0.090
74-87-3	Chloromethane	0.060	J ^c	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.080	J	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
75-27-4	Bromodichloromethane	ND		0.50	0.050
100-41-4	Ethylbenzene	ND		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.050
75-09-2	Methylene Chloride	ND		0.50	0.070
100-42-5	Styrene	ND		0.50	0.050
127-18-4	Tetrachloroethene	ND		0.50	0.060
108-88-3	Toluene	ND		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-29-0/1-0 Lab Sample ID: 410-9077-12
 Matrix: Surface Water Lab File ID: GG10S04.D
 Analysis Method: 8260D Date Collected: 07/28/2020 07:50
 Sample wt/vol: 25 (mL) Date Analyzed: 08/10/2020 13:18
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 31280 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	ND		0.50	0.060
75-01-4	Vinyl chloride	ND	^c	0.50	0.10
1330-20-7	Xylenes, Total	ND		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	92		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200810-7630.b\GG10S04.D
 Lims ID: 410-9077-B-12
 Client ID: HD-COD-SW-29-0/1-0
 Sample Type: Client
 Inject. Date: 10-Aug-2020 13:18:30 ALS Bottle#: 10 Worklist Smp#: 11
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-9077-b-12
 Misc. Info.: 410-0007630-011
 Operator ID: JKH09052 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20200810-7630.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 10-Aug-2020 15:32:14 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1047

First Level Reviewer: howej

Date: 10-Aug-2020 15:32:14

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Chloromethane	50	2.142	2.142	0.000	92	4401	0.0596	
7 Vinyl chloride	62		2.257				ND	
9 Bromomethane	94		2.574				ND	
10 Chloroethane	64		2.660				ND	
19 1,1-Dichloroethene	96		3.519				ND	
20 Acetone	43	3.550	3.556	-0.006	98	14708	1.57	M
25 Carbon disulfide	76		3.806				ND	
28 Methylene Chloride	84		4.178				ND	
* 29 t-Butyl alcohol-d10 (IS)	65	4.202	4.202	0.000	29	167318	50.0	M
31 Acrylonitrile	53		4.525				ND	
32 Methyl tert-butyl ether	73		4.574				ND	
33 trans-1,2-Dichloroethene	96		4.586				ND	
36 1,1-Dichloroethane	63		5.257				ND	
40 2-Butanone (MEK)	43		6.055				ND	
41 cis-1,2-Dichloroethene	96	6.080	6.092	-0.012	79	4253	0.0804	
48 Chlorobromomethane	128		6.415				ND	
50 Chloroform	83	6.568	6.574	-0.006	90	4403	0.0477	
\$ 52 Dibromofluoromethane (Surr)	113	6.787	6.793	-0.006	93	467027	9.17	
51 1,1,1-Trichloroethane	97		6.799				ND	
56 Carbon tetrachloride	117		7.007				ND	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.238	7.244	-0.006	0	95653	9.86	
59 Benzene	78		7.275				ND	
60 1,2-Dichloroethane	62		7.348				ND	
* 63 Fluorobenzene (IS)	96	7.677	7.683	-0.006	98	1906643	10.0	
67 Trichloroethene	95		8.159				ND	
69 1,2-Dichloropropane	63		8.494				ND	
75 Dichlorobromomethane	83		8.842				ND	
80 cis-1,3-Dichloropropene	75		9.390				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.573				ND	
\$ 82 Toluene-d8 (Surr)	98	9.695	9.695	0.000	95	1880100	10.1	
83 Toluene	92	9.768	9.774	-0.006	97	5614	0.0478	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
84 trans-1,3-Dichloropropene	75		10.036				ND	
86 1,1,2-Trichloroethane	97		10.238				ND	
88 Tetrachloroethene	166	10.317	10.317	0.000	87	2562	0.0446	
91 2-Hexanone	43		10.457				ND	
93 Chlorodibromomethane	129		10.616				ND	
94 Ethylene Dibromide	107		10.719				ND	
* 95 Chlorobenzene-d5 (IS)	117	11.152	11.152	0.000	88	1420562	10.0	
97 Chlorobenzene	112		11.183				ND	
S 101 Xylenes, Total	106		11.245				ND	
98 1,1,1,2-Tetrachloroethane	131		11.262				ND	
99 Ethylbenzene	91		11.268				ND	
100 m-Xylene & p-Xylene	106		11.384				ND	
102 o-Xylene	106		11.713				ND	
103 Styrene	104		11.725				ND	
104 Bromoform	173		11.884				ND	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	88	672974	9.74	
109 1,1,2,2-Tetrachloroethane	83		12.255				ND	
* 124 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	96	731818	10.0	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MSV_29_826ISS_00007

Amount Added: 1.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\16334\20200810-7630.b\GG10S04.D

Injection Date: 10-Aug-2020 13:18:30

Instrument ID: 16334

Operator ID: JKH09052

Lims ID: 410-9077-B-12

Lab Sample ID: 410-9077-12

Worklist Smp#: 11

Client ID: HD-COD-SW-29-0/1-0

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

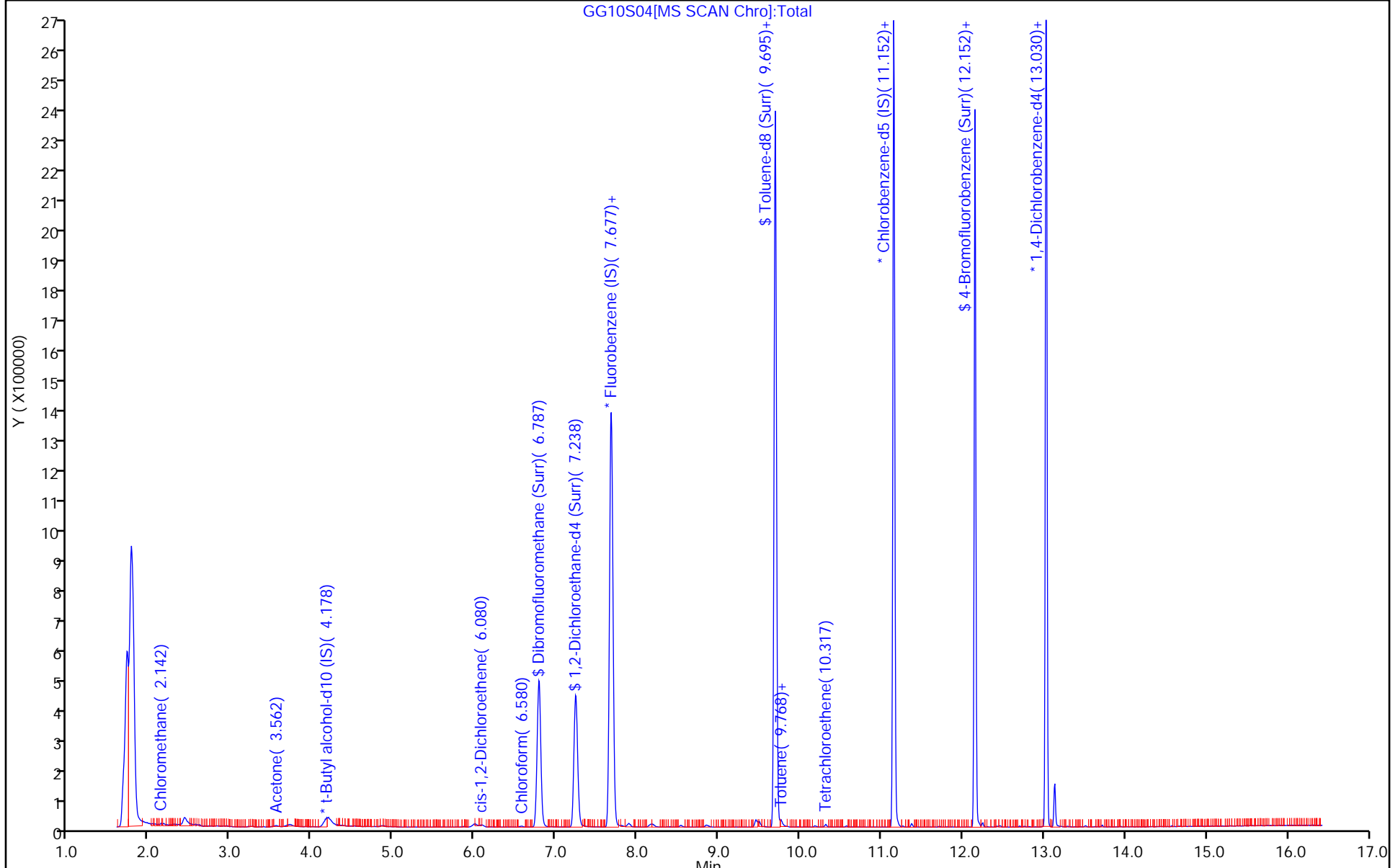
ALS Bottle#: 10

Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200810-7630.b\GG10S04.D
 Lims ID: 410-9077-B-12
 Client ID: HD-COD-SW-29-0/1-0
 Sample Type: Client
 Inject. Date: 10-Aug-2020 13:18:30 ALS Bottle#: 10 Worklist Smp#: 11
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-9077-b-12
 Misc. Info.: 410-0007630-011
 Operator ID: JKH09052 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20200810-7630.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 10-Aug-2020 15:32:14 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1047

First Level Reviewer: howej Date: 10-Aug-2020 15:32:14

Compound	Amount Added	Amount Recovered	% Rec.
\$ 52 Dibromofluoromethane (Surr)	10.0	9.17	91.70
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	9.86	98.61
\$ 82 Toluene-d8 (Surr)	10.0	10.1	101.10
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.74	97.44

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200810-7630.b\GG10S04.D

Injection Date: 10-Aug-2020 13:18:30

Instrument ID: 16334

Lims ID: 410-9077-B-12

Lab Sample ID: 410-9077-12

Client ID: HD-COD-SW-29-0/1-0

Operator ID: JKH09052

ALS Bottle#: 10

Worklist Smp#: 11

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

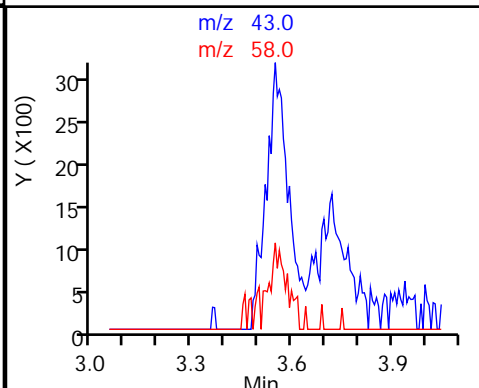
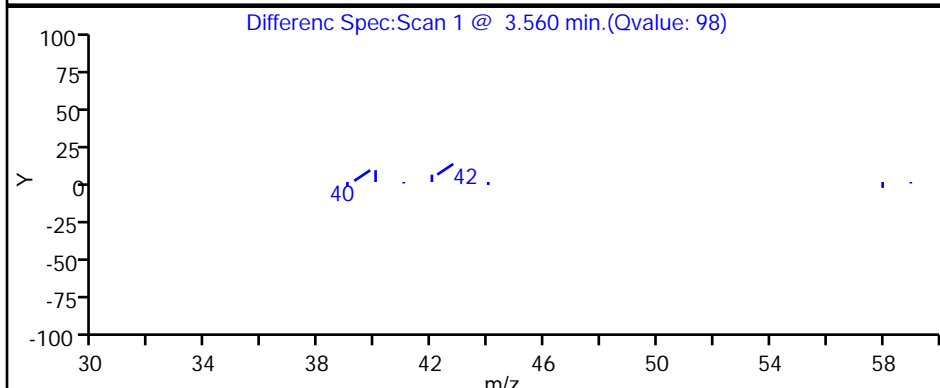
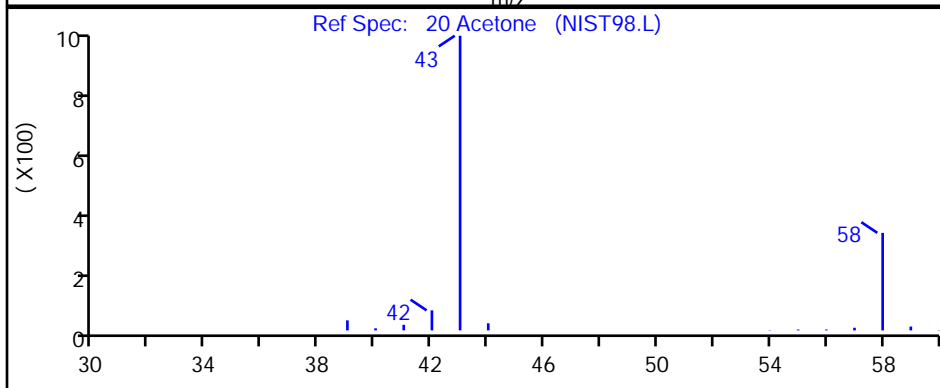
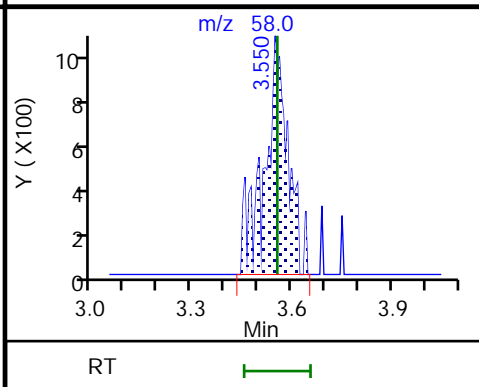
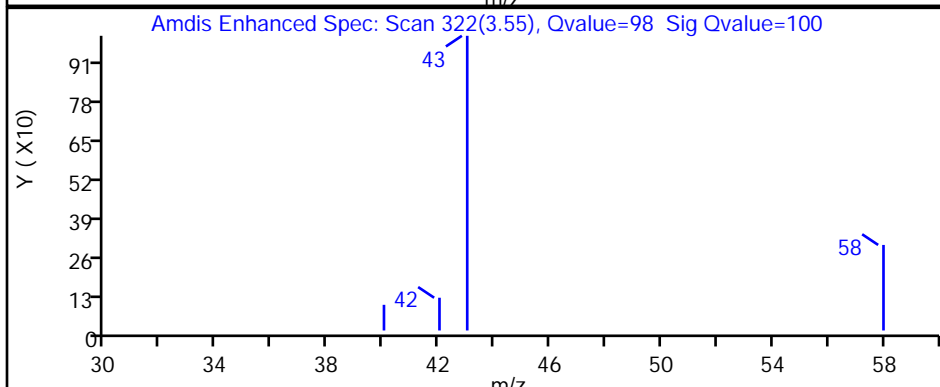
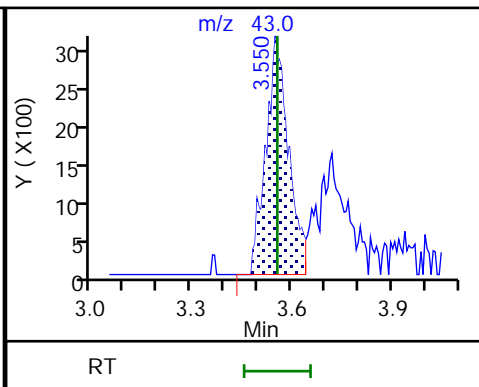
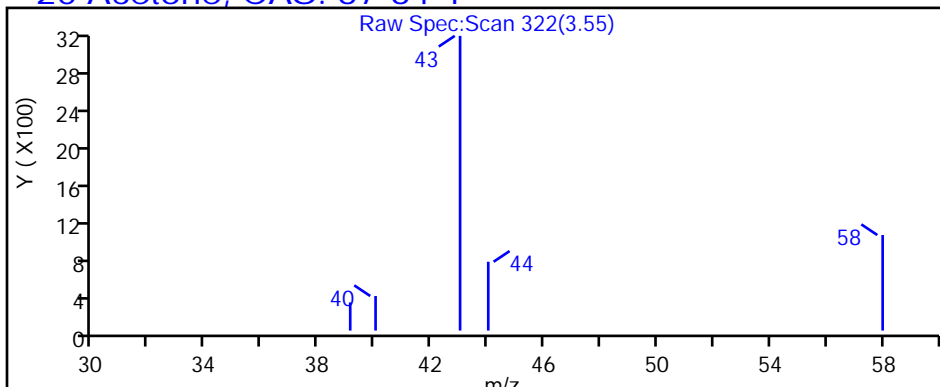
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) x 30m

MS Quad

20 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200810-7630.b\GG10S04.D

Injection Date: 10-Aug-2020 13:18:30

Instrument ID: 16334

Lims ID: 410-9077-B-12

Lab Sample ID: 410-9077-12

Client ID: HD-COD-SW-29-0/1-0

Operator ID: JKH09052

ALS Bottle#: 10

Worklist Smp#: 11

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

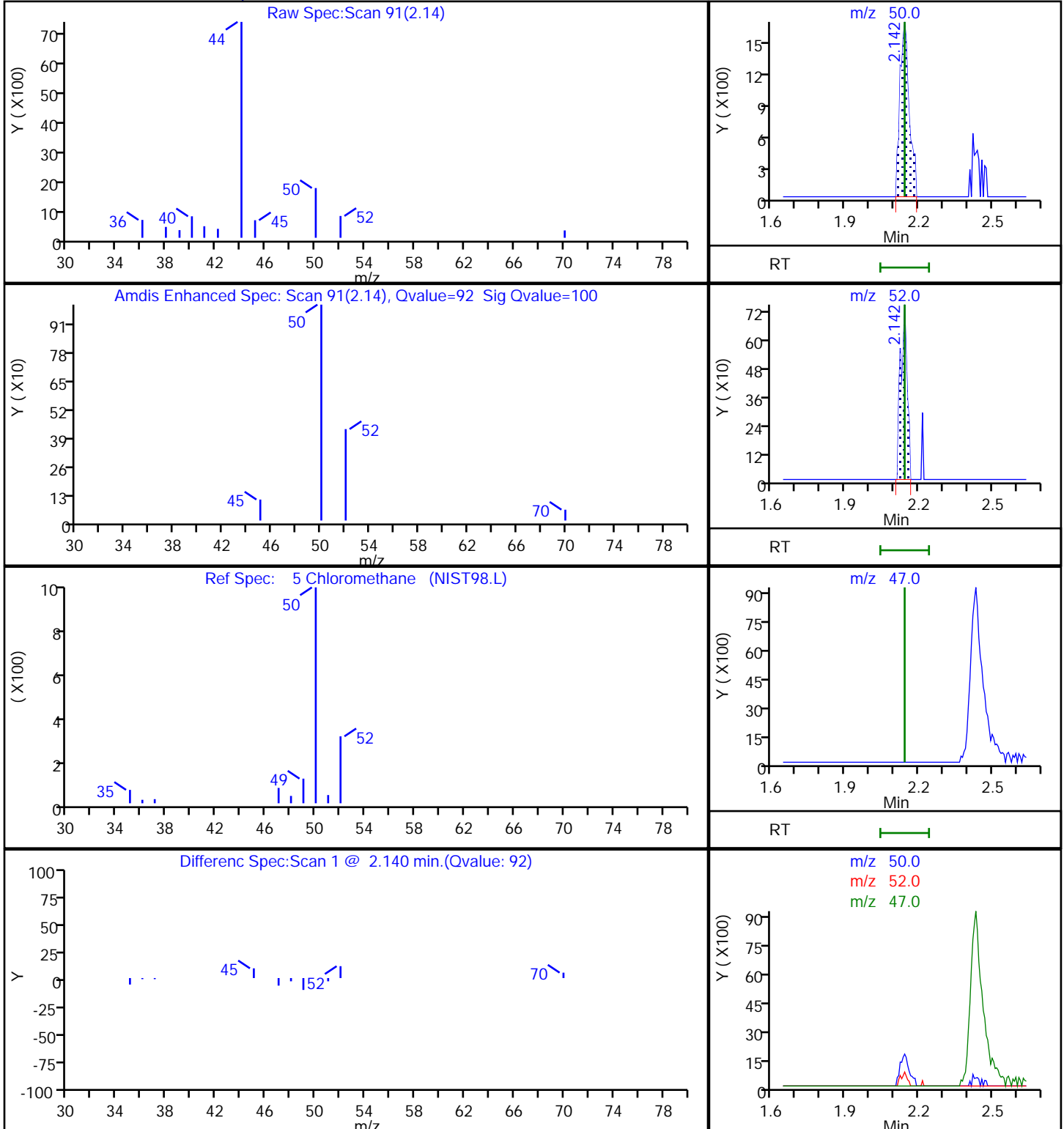
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) x 30m

MS Quad

5 Chloromethane, CAS: 74-87-3



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200810-7630.b\GG10S04.D

Injection Date: 10-Aug-2020 13:18:30

Instrument ID: 16334

Lims ID: 410-9077-B-12

Lab Sample ID: 410-9077-12

Client ID: HD-COD-SW-29-0/1-0

Operator ID: JKH09052

ALS Bottle#: 10

Worklist Smp#: 11

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

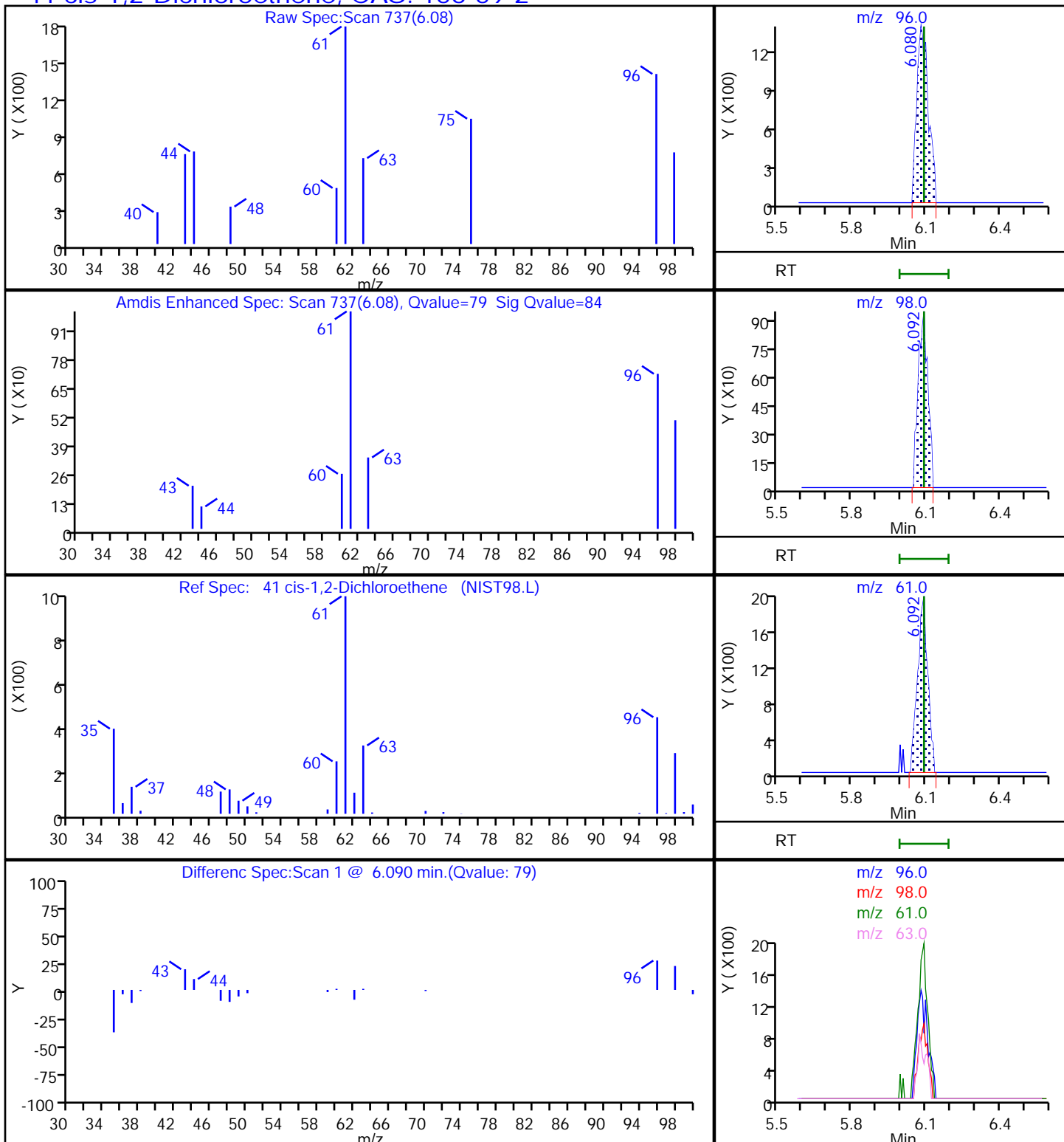
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

41 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

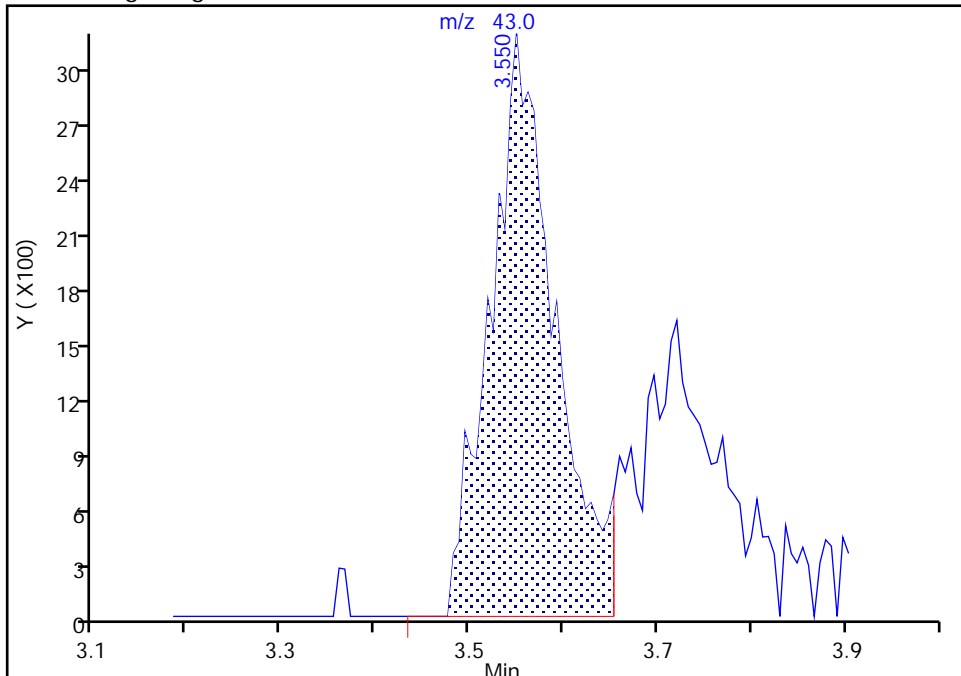
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Injection Date: 10-Aug-2020 13:18:30 Instrument ID: 16334
Lims ID: 410-9077-B-12 Lab Sample ID: 410-9077-12
Client ID: HD-COD-SW-29-0/1-0
Operator ID: JKH09052 ALS Bottle#: 10 Worklist Smp#: 11
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

20 Acetone, CAS: 67-64-1

Signal: 1

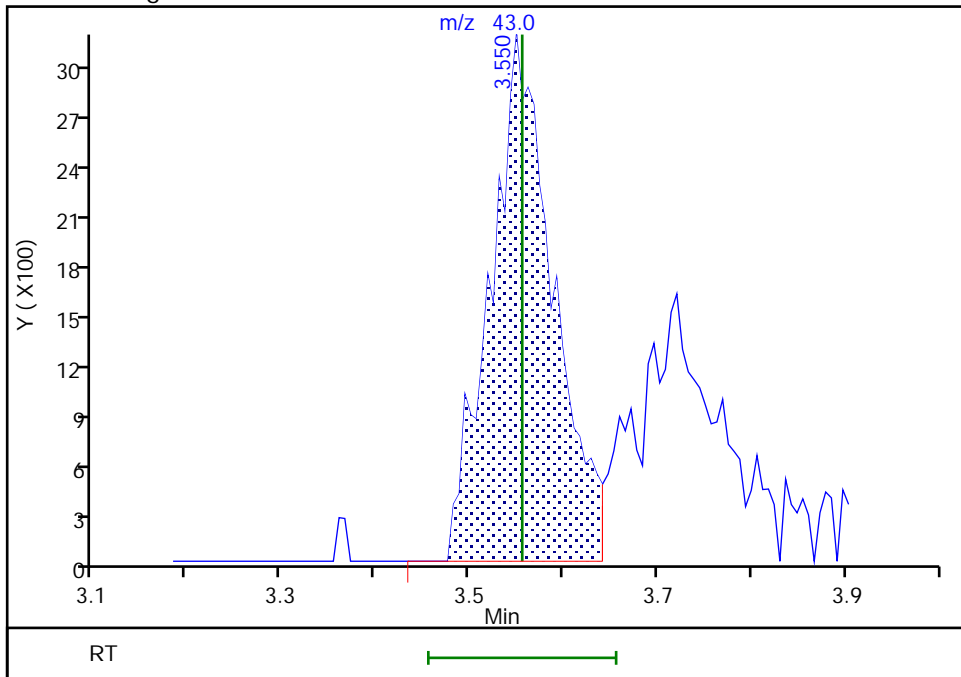
RT: 3.55
Area: 15143
Amount: 1.963174
Amount Units: ug/l

Processing Integration Results



RT: 3.55
Area: 14708
Amount: 1.574035
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 10-Aug-2020 15:31:50
Audit Action: Split an Integrated Peak

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

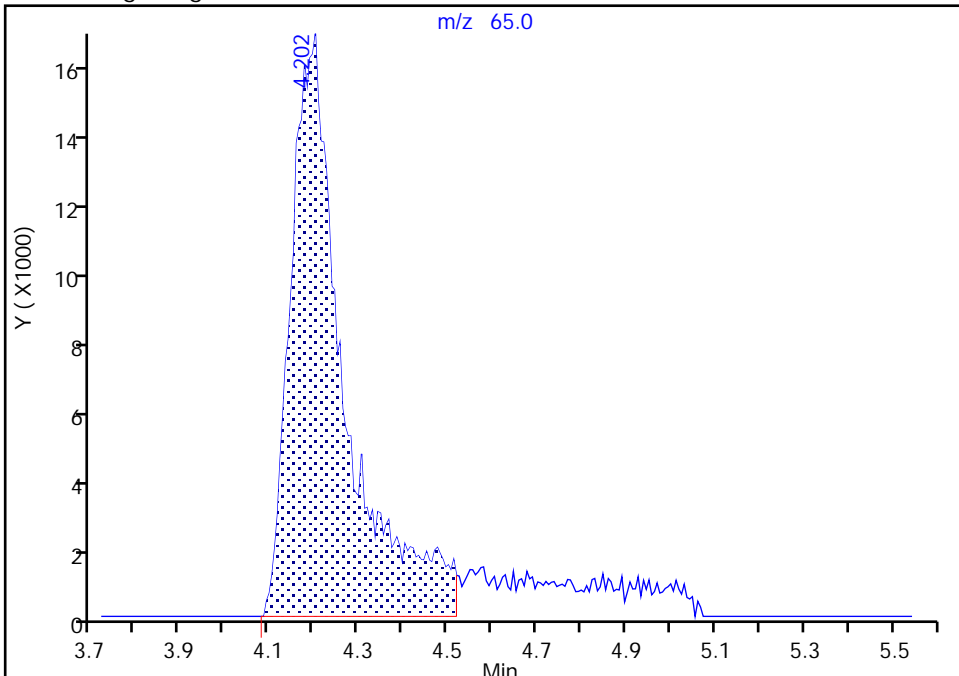
Data File: \\chromfs\Lancaster\ChromData\16334\20200810-7630.b\GG10S04.D
Injection Date: 10-Aug-2020 13:18:30 Instrument ID: 16334
Lims ID: 410-9077-B-12 Lab Sample ID: 410-9077-12
Client ID: HD-COD-SW-29-0/1-0
Operator ID: JKH09052 ALS Bottle#: 10 Worklist Smp#: 11
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 29 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

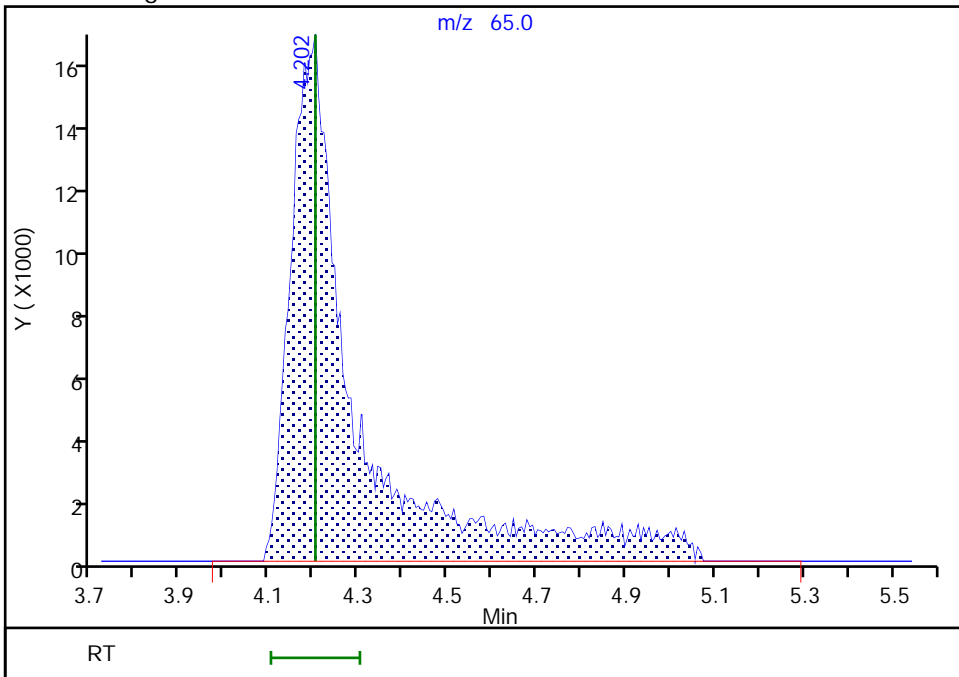
RT: 4.20
Area: 138120
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.20
Area: 167318
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 10-Aug-2020 15:32:01
Audit Action: Manually Integrated

Audit Reason: Other

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Client Sample ID: HD-QC1-0/1-1 Lab Sample ID: 410-9077-13
 Matrix: Water Lab File ID: GG07S22.D
 Analysis Method: 8260D Date Collected: 07/28/2020 11:00
 Sample wt/vol: 25 (mL) Date Analyzed: 08/08/2020 08:07
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 30932 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.11	J	0.50	0.060
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.060
75-34-3	1,1-Dichloroethane	0.087	J	0.50	0.070
75-35-4	1,1-Dichloroethene	0.073	J	0.50	0.060
107-06-2	1,2-Dichloroethane	ND		0.50	0.050
78-87-5	1,2-Dichloropropane	ND		0.50	0.060
78-93-3	2-Butanone (MEK)	ND		5.0	0.60
591-78-6	2-Hexanone	ND		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70
67-64-1	Acetone	1.9	J	5.0	0.90
107-13-1	Acrylonitrile	ND		5.0	0.40
71-43-2	Benzene	ND		0.50	0.050
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND	^c	0.50	0.070
75-15-0	Carbon disulfide	ND		1.0	0.060
56-23-5	Carbon tetrachloride	ND		0.50	0.070
108-90-7	Chlorobenzene	ND		0.50	0.060
74-97-5	Bromochloromethane	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
75-00-3	Chloroethane	ND		0.50	0.070
67-66-3	Chloroform	0.13	J	0.50	0.090
74-87-3	Chloromethane	ND		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	1.1		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
75-27-4	Bromodichloromethane	ND		0.50	0.050
100-41-4	Ethylbenzene	ND		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.050
75-09-2	Methylene Chloride	ND		0.50	0.070
100-42-5	Styrene	ND		0.50	0.050
127-18-4	Tetrachloroethene	3.1		0.50	0.060
108-88-3	Toluene	ND		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Client Sample ID: HD-QC1-0/1-1 Lab Sample ID: 410-9077-13
 Matrix: Water Lab File ID: GG07S22.D
 Analysis Method: 8260D Date Collected: 07/28/2020 11:00
 Sample wt/vol: 25 (mL) Date Analyzed: 08/08/2020 08:07
 Soil Aliquot Vol.: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 30932 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	1.4		0.50	0.060
75-01-4	Vinyl chloride	ND		0.50	0.10
1330-20-7	Xylenes, Total	ND		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	90		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S22.D
 Lims ID: 410-9077-A-13
 Client ID: HD-QC1-0/1-1
 Sample Type: Client
 Inject. Date: 08-Aug-2020 08:07:30 ALS Bottle#: 27 Worklist Smp#: 28
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-9077-a-13
 Misc. Info.: 410-0007550-028
 Operator ID: MEC29284 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 09-Aug-2020 18:20:24 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1057

First Level Reviewer: campbellme Date: 09-Aug-2020 18:20:24

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Chloromethane	50	2.129	2.129	0.000	1	2750	0.0396	
7 Vinyl chloride	62	2.245	2.245	0.000	93	6426	0.0980	
9 Bromomethane	94		2.562				ND	
10 Chloroethane	64		2.648				ND	
19 1,1-Dichloroethene	96	3.513	3.507	0.006	92	2798	0.0735	
20 Acetone	43	3.538	3.550	-0.012	98	13869	1.94	
25 Carbon disulfide	76	3.812	3.794	0.018	19	1145	0.008573	7M
28 Methylene Chloride	84		4.166				ND	
* 29 t-Butyl alcohol-d10 (IS)	65	4.190	4.184	0.006	27	128196	50.0	M
31 Acrylonitrile	53		4.519				ND	
32 Methyl tert-butyl ether	73		4.568				ND	
33 trans-1,2-Dichloroethene	96		4.574				ND	
36 1,1-Dichloroethane	63	5.239	5.245	-0.006	86	7039	0.0869	
40 2-Butanone (MEK)	43		6.049				ND	
41 cis-1,2-Dichloroethene	96	6.086	6.086	0.000	82	56639	1.14	
48 Chlorobromomethane	128		6.415				ND	
50 Chloroform	83	6.574	6.568	0.006	95	11081	0.1274	
\$ 52 Dibromofluoromethane (Surr)	113	6.787	6.787	0.000	93	433980	9.05	
51 1,1,1-Trichloroethane	97	6.799	6.793	0.006	41	8578	0.1077	
56 Carbon tetrachloride	117		6.994				ND	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.238	7.232	0.006	0	89553	9.80	
59 Benzene	78		7.269				ND	
60 1,2-Dichloroethane	62	7.342	7.342	0.000	1	2113	0.0326	a
* 63 Fluorobenzene (IS)	96	7.677	7.677	0.000	98	1795391	10.0	
67 Trichloroethene	95	8.153	8.153	0.000	97	72226	1.45	
69 1,2-Dichloropropane	63		8.488				ND	
75 Dichlorobromomethane	83		8.835				ND	
80 cis-1,3-Dichloropropene	75		9.390				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	
\$ 82 Toluene-d8 (Surr)	98	9.695	9.695	0.000	95	1749365	10.0	
83 Toluene	92	9.768	9.774	-0.006	97	2856	0.0260	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
84 trans-1,3-Dichloropropene	75		10.030				ND	
86 1,1,2-Trichloroethane	97		10.238				ND	
88 Tetrachloroethene	166	10.317	10.317	0.000	97	164891	3.06	
91 2-Hexanone	43		10.457				ND	
93 Chlorodibromomethane	129		10.609				ND	
94 Ethylene Dibromide	107		10.719				ND	
* 95 Chlorobenzene-d5 (IS)	117	11.152	11.152	0.000	88	1331627	10.0	
97 Chlorobenzene	112		11.183				ND	
S 101 Xylenes, Total	106		11.245				ND	
98 1,1,1,2-Tetrachloroethane	131		11.262				ND	
99 Ethylbenzene	91		11.268				ND	
100 m-Xylene & p-Xylene	106		11.384				ND	
102 o-Xylene	106		11.713				ND	
103 Styrene	104		11.725				ND	
104 Bromoform	173		11.884				ND	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	88	627122	9.69	
109 1,1,2,2-Tetrachloroethane	83		12.255				ND	
* 124 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	97	670619	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MSV_29_826ISS_00007

Amount Added: 1.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S22.D

Injection Date: 08-Aug-2020 08:07:30

Instrument ID: 16334

Operator ID: MEC29284

Lims ID: 410-9077-A-13

Lab Sample ID: 410-9077-13

Worklist Smp#: 28

Client ID: HD-QC1-0/1-1

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 27

Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S22.D
 Lims ID: 410-9077-A-13
 Client ID: HD-QC1-0/1-1
 Sample Type: Client
 Inject. Date: 08-Aug-2020 08:07:30 ALS Bottle#: 27 Worklist Smp#: 28
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-9077-a-13
 Misc. Info.: 410-0007550-028
 Operator ID: MEC29284 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 09-Aug-2020 18:20:24 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1057

First Level Reviewer: campbellme Date: 09-Aug-2020 18:20:24

Compound	Amount Added	Amount Recovered	% Rec.
\$ 52 Dibromofluoromethane (Surr)	10.0	9.05	90.49
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	9.80	98.04
\$ 82 Toluene-d8 (Surr)	10.0	10.0	100.35
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.69	96.87

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S22.D

Injection Date: 08-Aug-2020 08:07:30

Instrument ID: 16334

Lims ID: 410-9077-A-13

Lab Sample ID: 410-9077-13

Client ID: HD-QC1-0/1-1

Operator ID: MEC29284

ALS Bottle#: 27

Worklist Smp#: 28

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

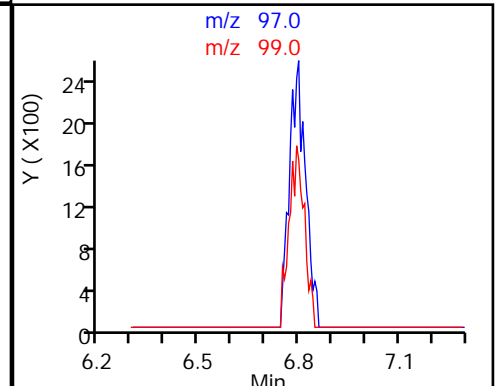
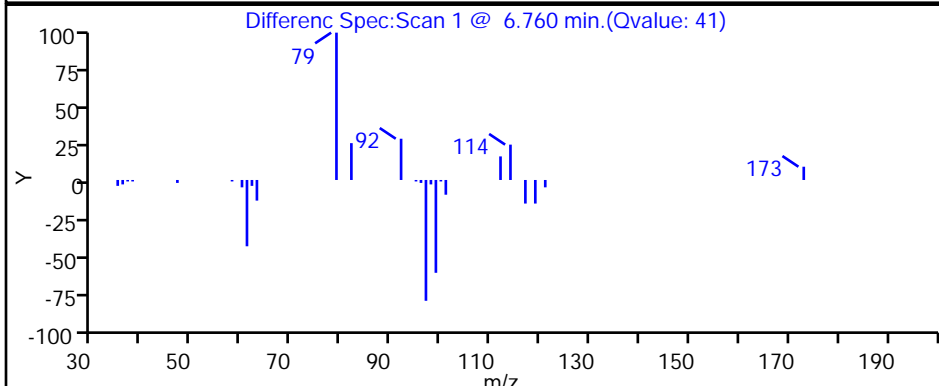
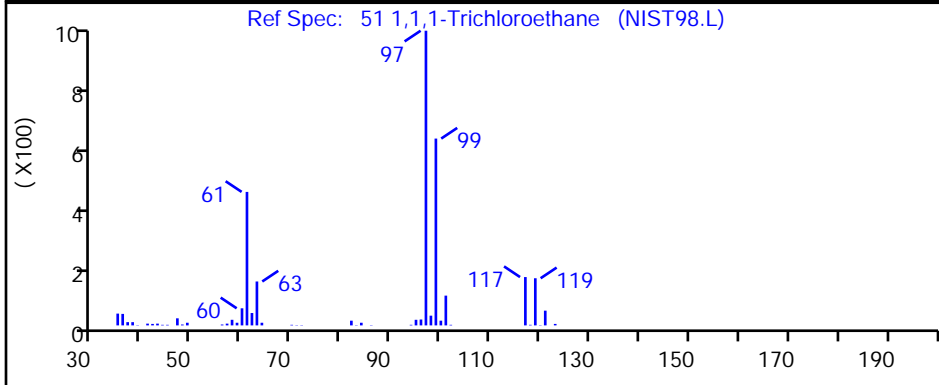
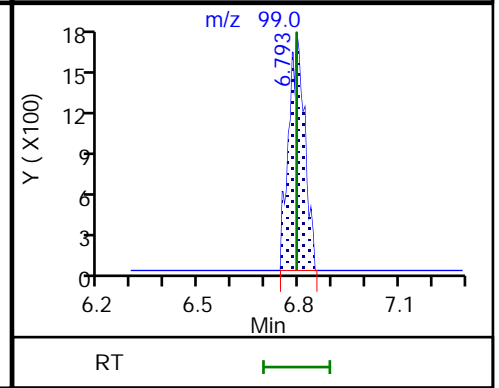
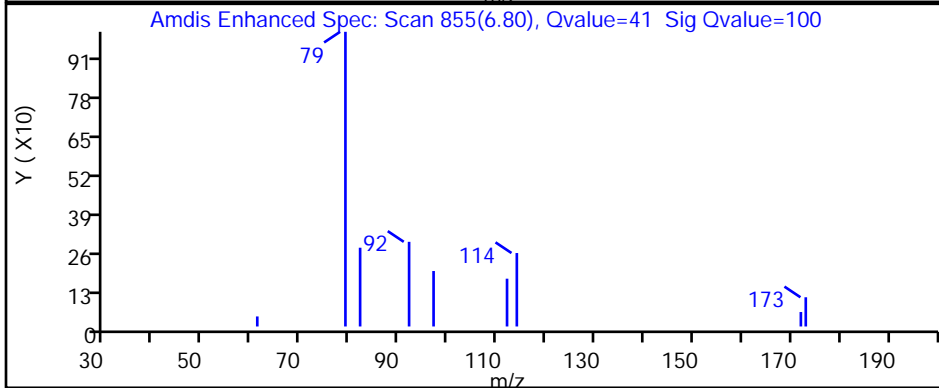
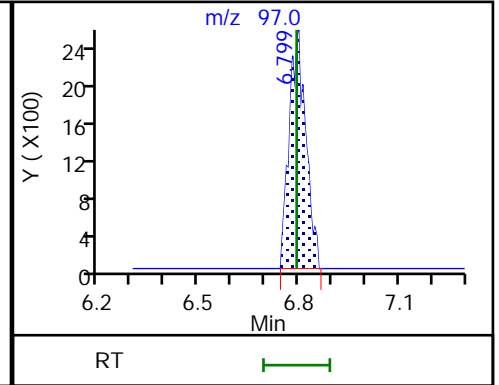
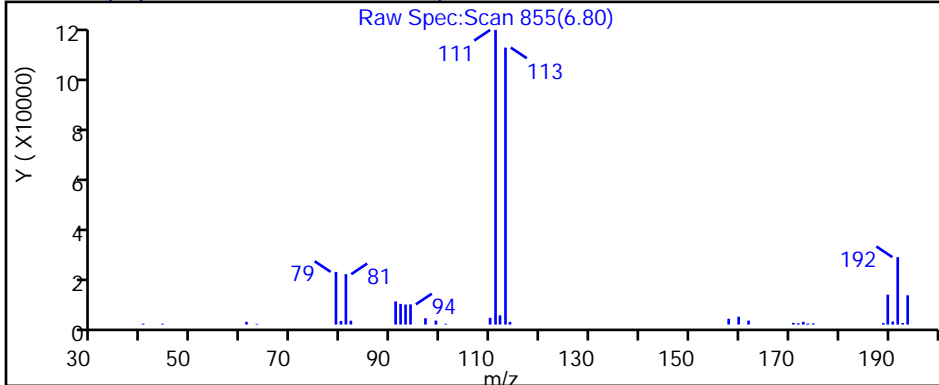
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

51 1,1,1-Trichloroethane, CAS: 71-55-6



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S22.D

Injection Date: 08-Aug-2020 08:07:30

Instrument ID: 16334

Lims ID: 410-9077-A-13

Lab Sample ID: 410-9077-13

Client ID: HD-QC1-0/1-1

Operator ID: MEC29284

ALS Bottle#: 27

Worklist Smp#: 28

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

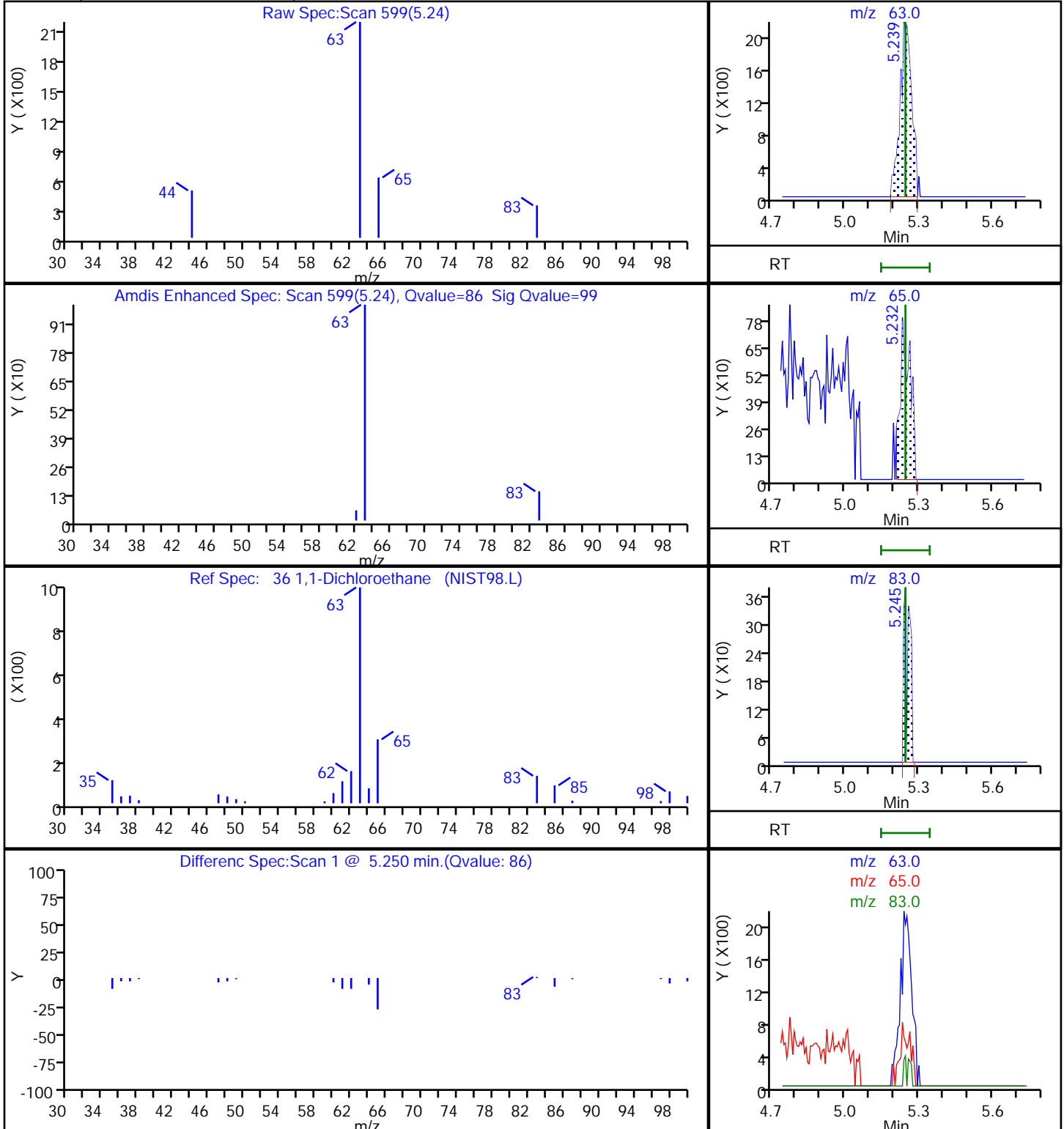
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

36 1,1-Dichloroethane, CAS: 75-34-3



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S22.D

Injection Date: 08-Aug-2020 08:07:30

Instrument ID: 16334

Lims ID: 410-9077-A-13

Lab Sample ID: 410-9077-13

Client ID: HD-QC1-0/1-1

Operator ID: MEC29284

ALS Bottle#: 27

Worklist Smp#: 28

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

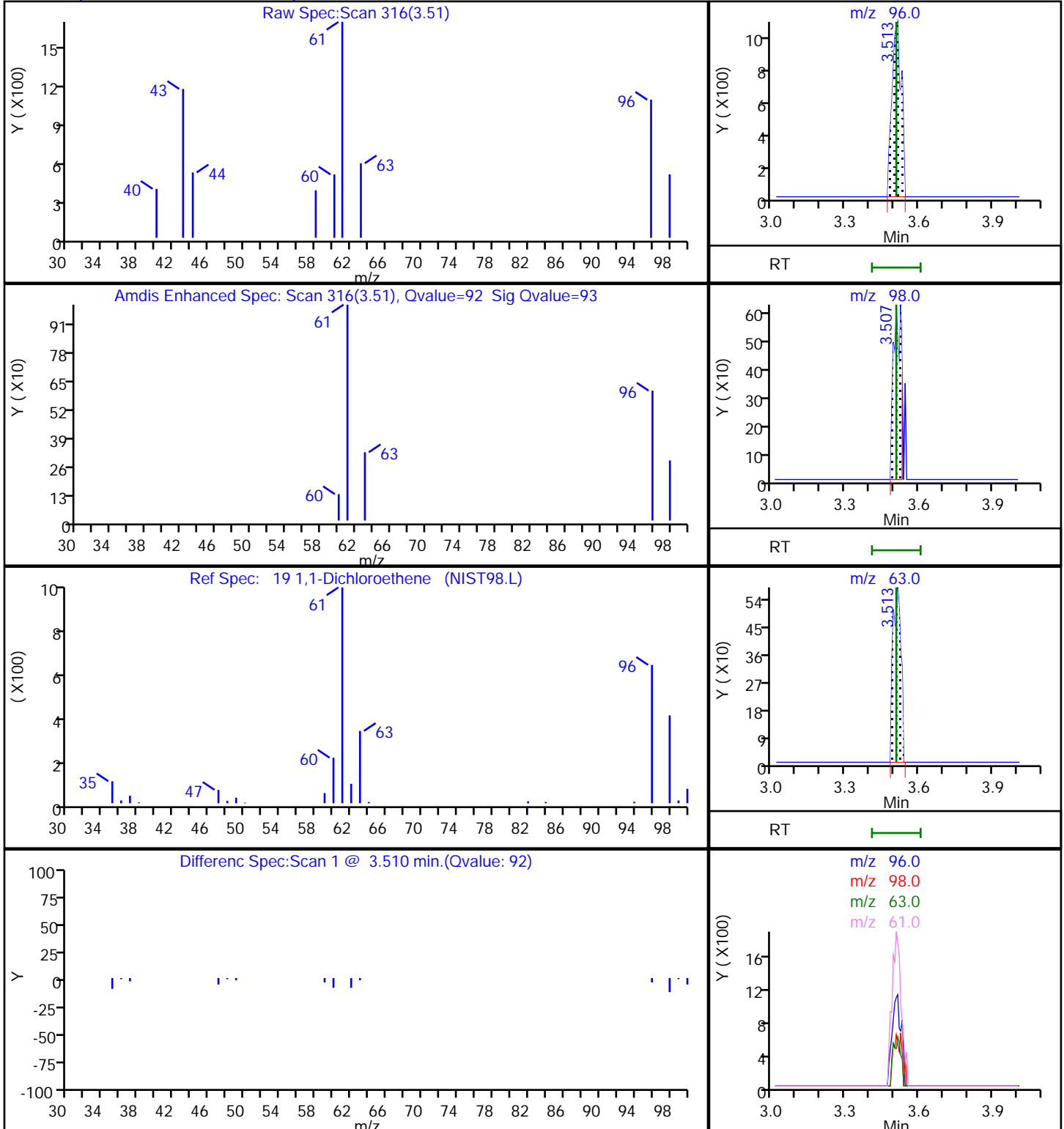
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

19 1,1-Dichloroethene, CAS: 75-35-4



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S22.D

Injection Date: 08-Aug-2020 08:07:30

Instrument ID: 16334

Lims ID: 410-9077-A-13

Lab Sample ID: 410-9077-13

Client ID: HD-QC1-0/1-1

Operator ID: MEC29284

ALS Bottle#: 27

Worklist Smp#: 28

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

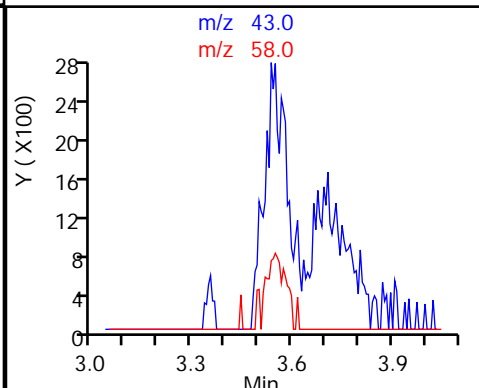
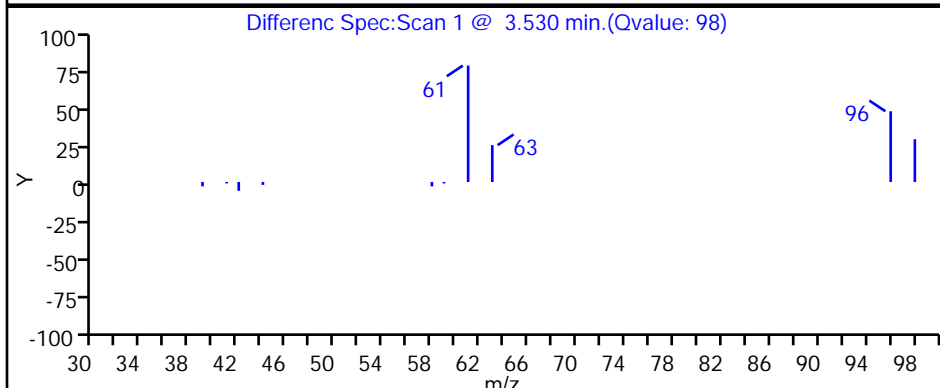
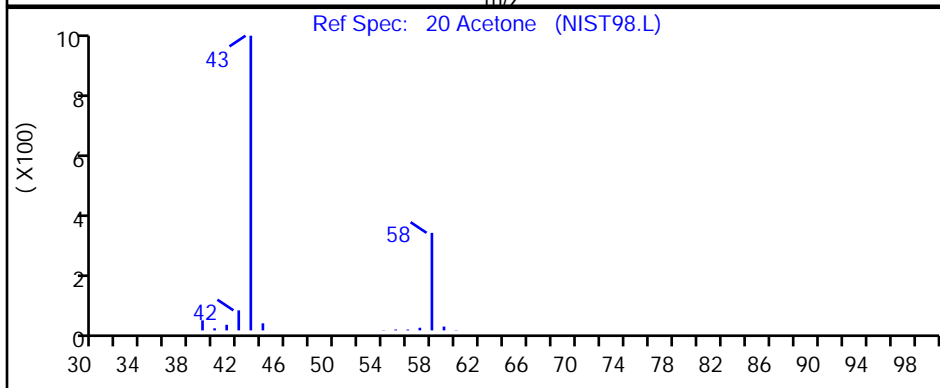
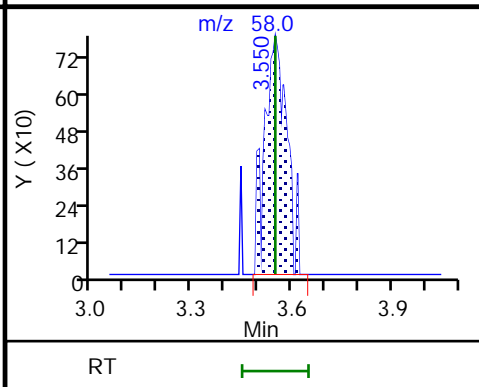
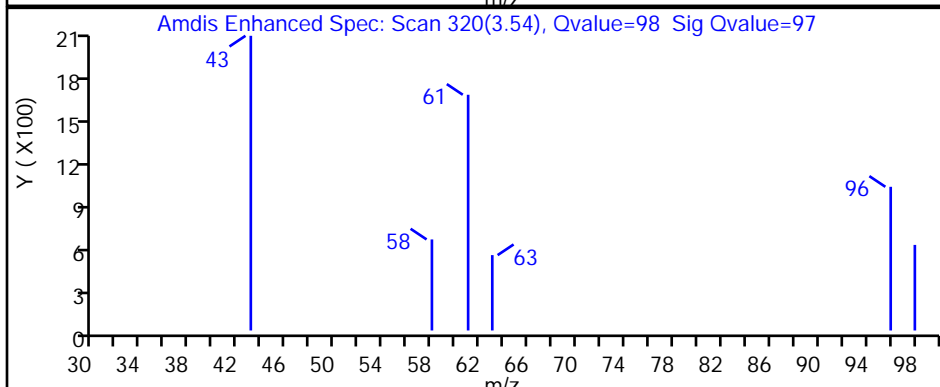
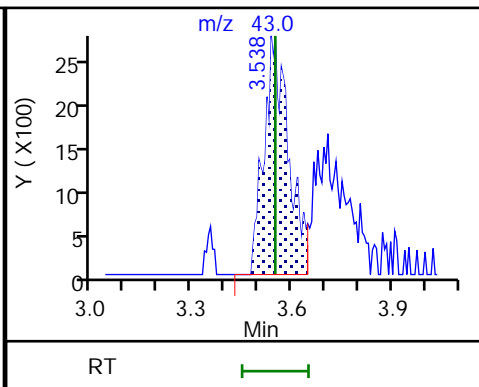
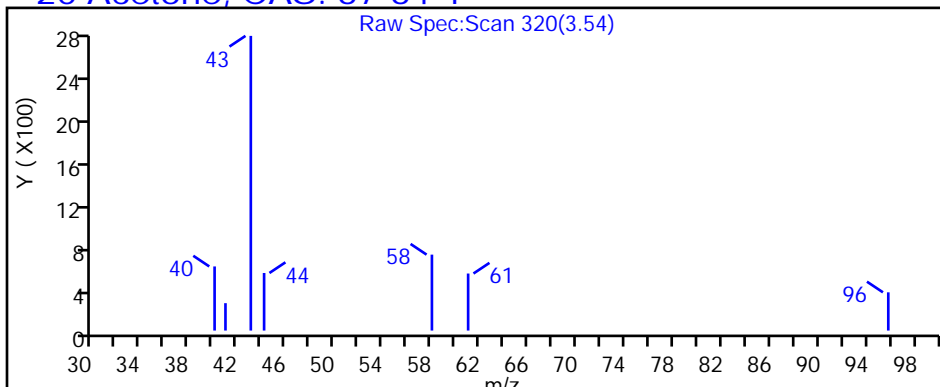
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

20 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S22.D

Injection Date: 08-Aug-2020 08:07:30

Instrument ID: 16334

Lims ID: 410-9077-A-13

Lab Sample ID: 410-9077-13

Client ID: HD-QC1-0/1-1

Operator ID: MEC29284

ALS Bottle#: 27

Worklist Smp#: 28

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

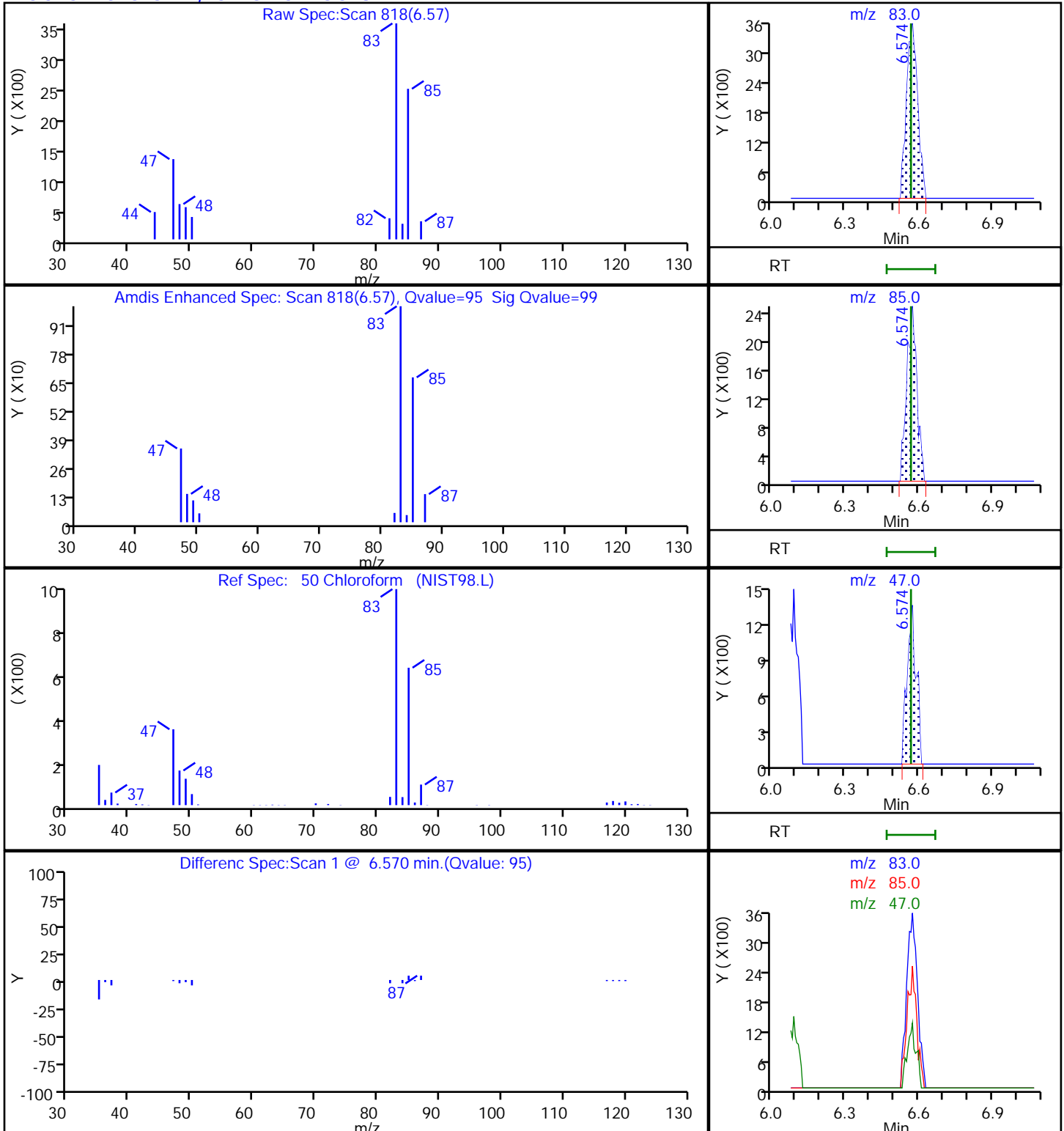
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

50 Chloroform, CAS: 67-66-3



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S22.D

Injection Date: 08-Aug-2020 08:07:30

Instrument ID: 16334

Lims ID: 410-9077-A-13

Lab Sample ID: 410-9077-13

Client ID: HD-QC1-0/1-1

Operator ID: MEC29284

ALS Bottle#: 27

Worklist Smp#: 28

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

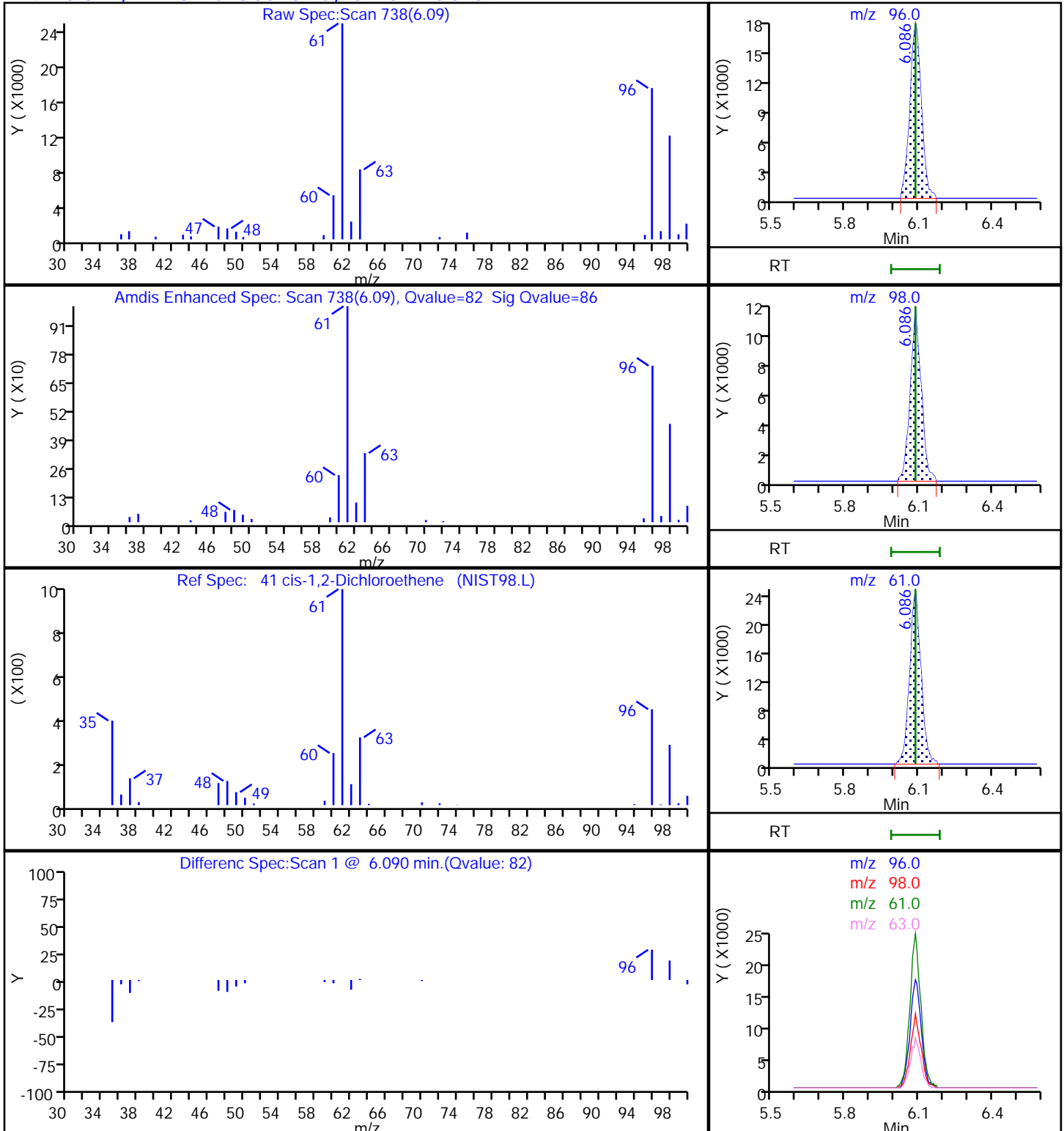
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) x 30m

MS Quad

41 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S22.D

Injection Date: 08-Aug-2020 08:07:30

Instrument ID: 16334

Lims ID: 410-9077-A-13

Lab Sample ID: 410-9077-13

Client ID: HD-QC1-0/1-1

Operator ID: MEC29284

ALS Bottle#: 27

Worklist Smp#: 28

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

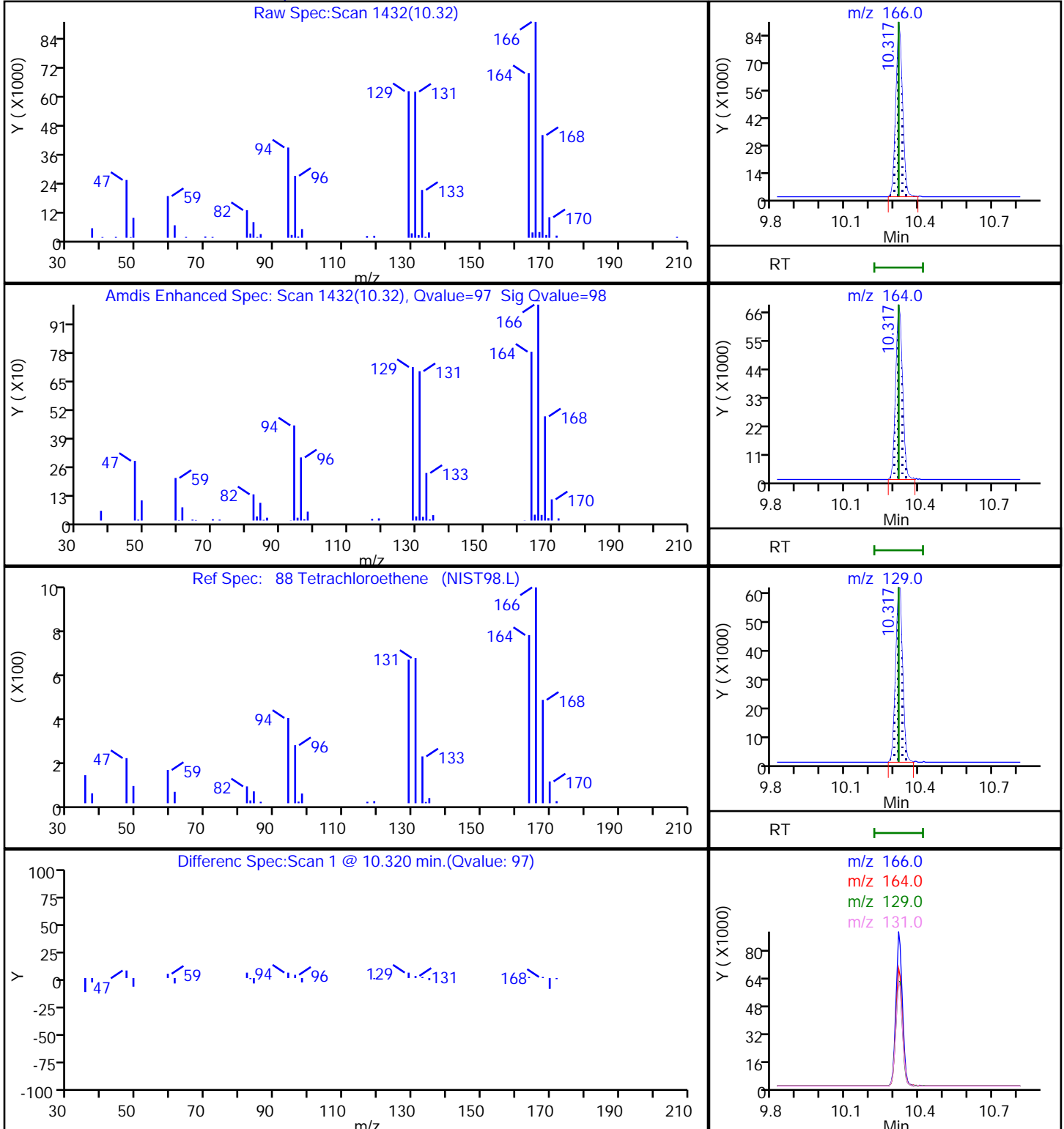
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

88 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S22.D

Injection Date: 08-Aug-2020 08:07:30

Instrument ID: 16334

Lims ID: 410-9077-A-13

Lab Sample ID: 410-9077-13

Client ID: HD-QC1-0/1-1

Operator ID: MEC29284

ALS Bottle#: 27

Worklist Smp#: 28

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

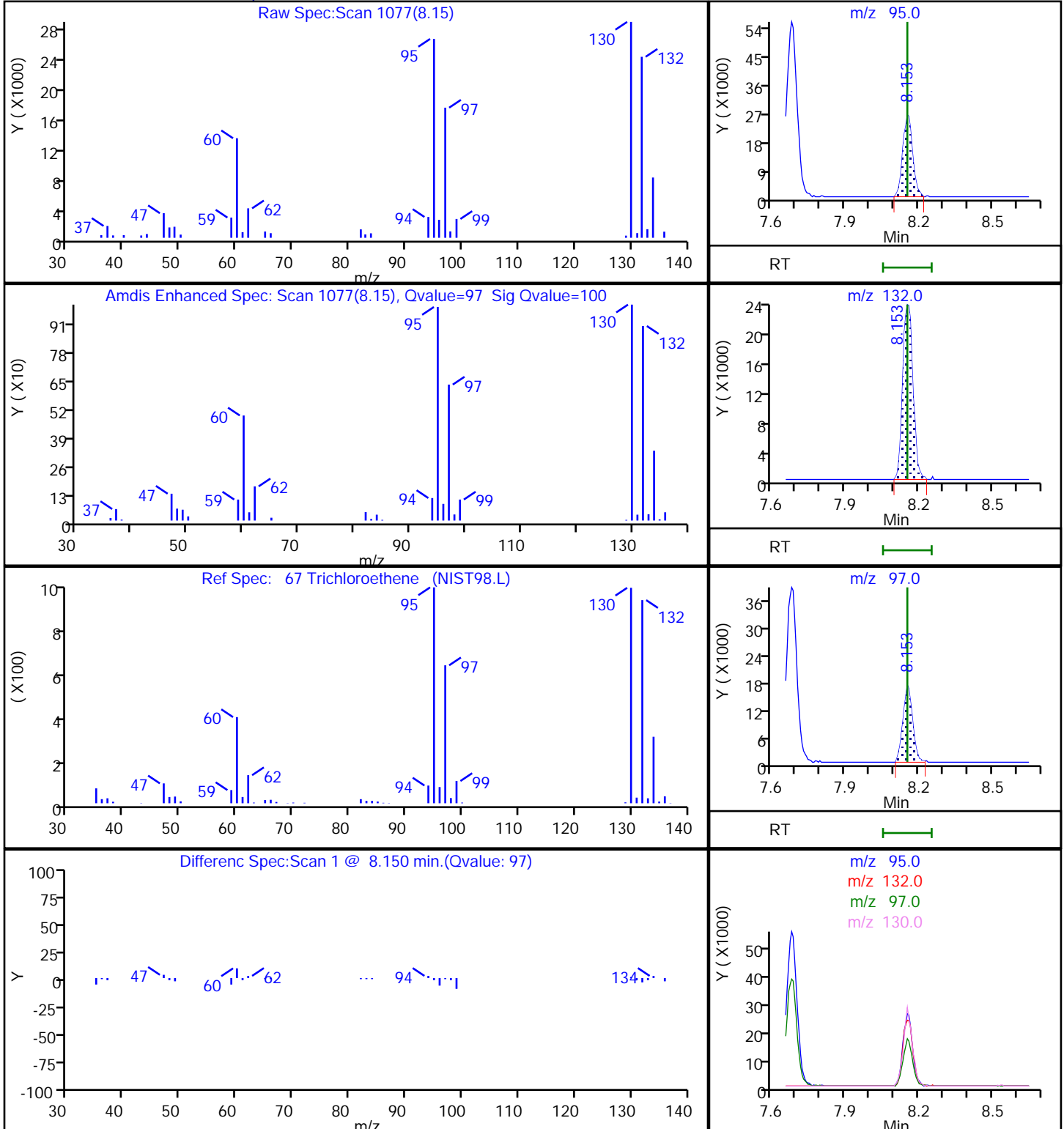
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) x 30m

MS Quad

67 Trichloroethene, CAS: 79-01-6



Eurofins Lancaster Laboratories Env, LLC

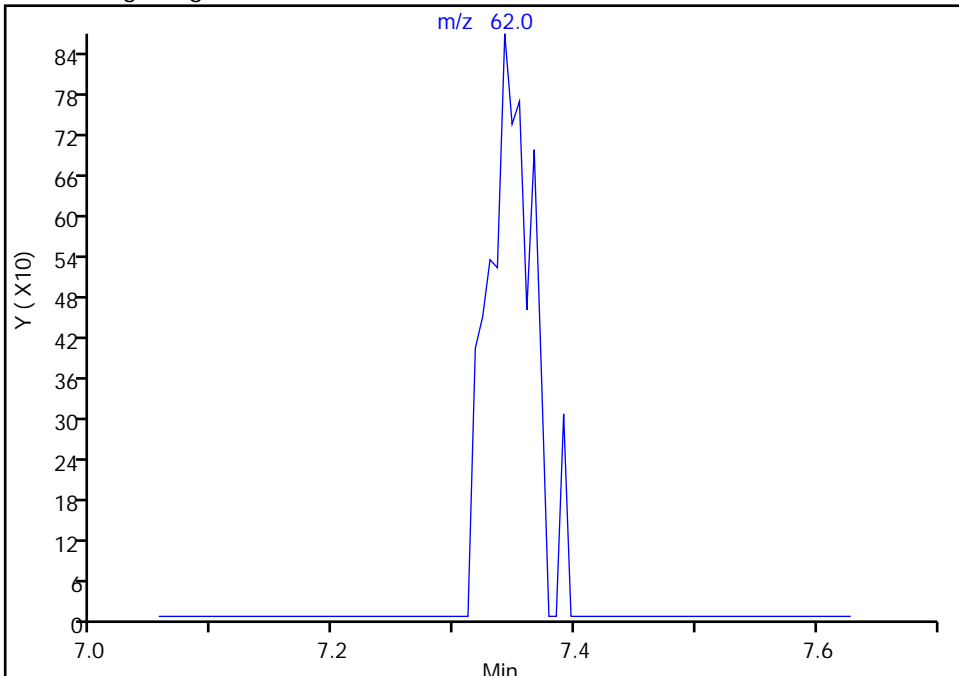
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Injection Date: 08-Aug-2020 08:07:30 Instrument ID: 16334
Lims ID: 410-9077-A-13 Lab Sample ID: 410-9077-13
Client ID: HD-QC1-0/1-1
Operator ID: MEC29284 ALS Bottle#: 27 Worklist Smp#: 28
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

60 1,2-Dichloroethane, CAS: 107-06-2

Signal: 1

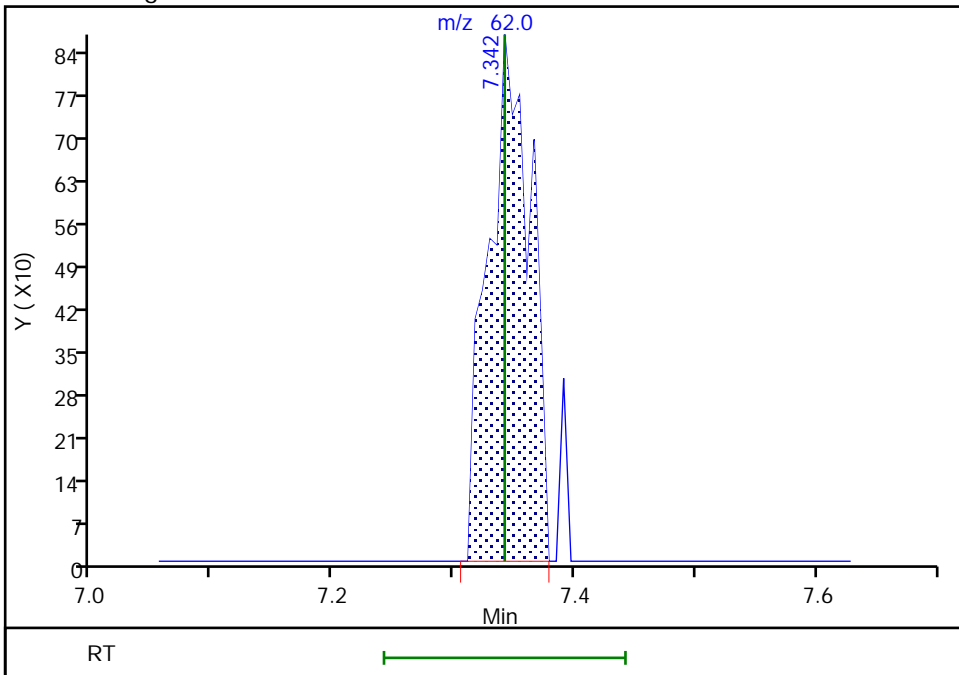
Not Detected
Expected RT: 7.34

Processing Integration Results



Manual Integration Results

RT: 7.34
Area: 2113
Amount: 0.032574
Amount Units: ug/l



Reviewer: campbellme, 09-Aug-2020 18:20:14
Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

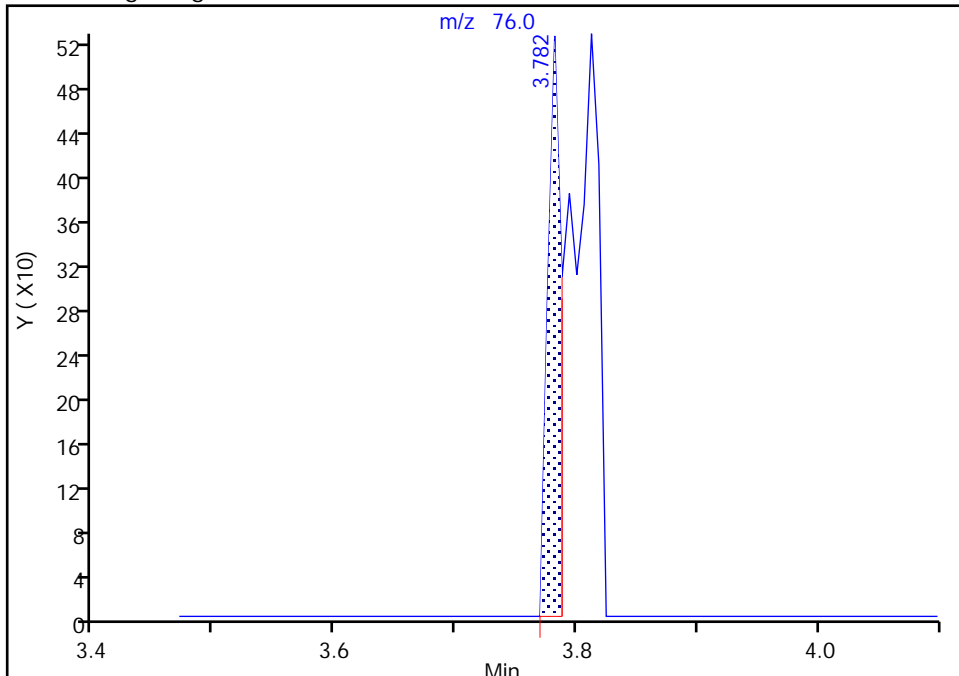
Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S22.D
Injection Date: 08-Aug-2020 08:07:30 Instrument ID: 16334
Lims ID: 410-9077-A-13 Lab Sample ID: 410-9077-13
Client ID: HD-QC1-0/1-1
Operator ID: MEC29284 ALS Bottle#: 27 Worklist Smp#: 28
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

25 Carbon disulfide, CAS: 75-15-0

Signal: 1

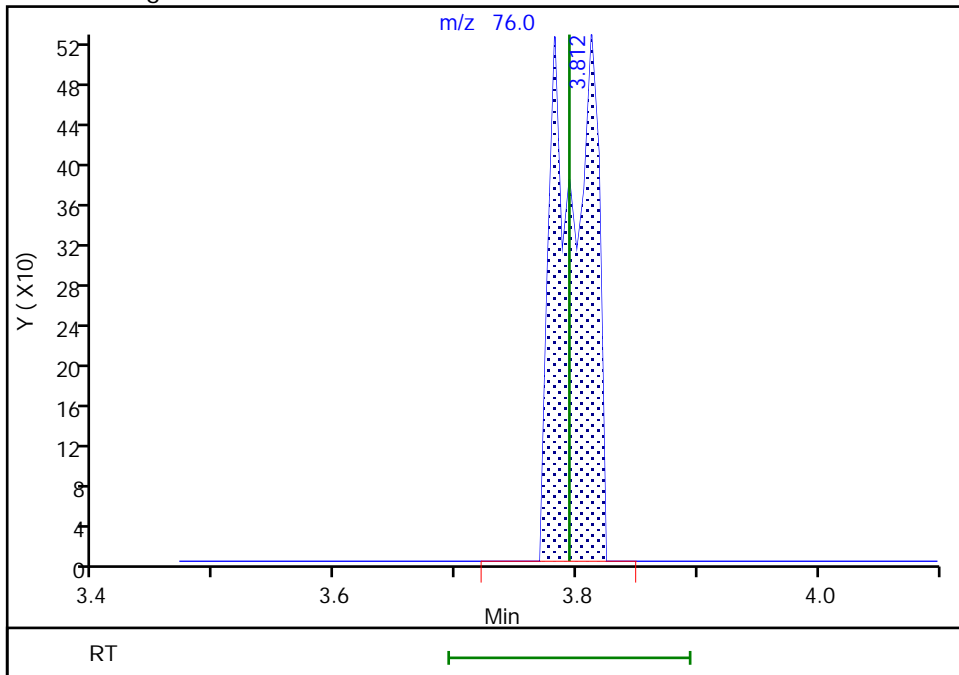
RT: 3.78
Area: 411
Amount: 0.003077
Amount Units: ug/l

Processing Integration Results



RT: 3.81
Area: 1145
Amount: 0.008573
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 09-Aug-2020 18:19:54
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

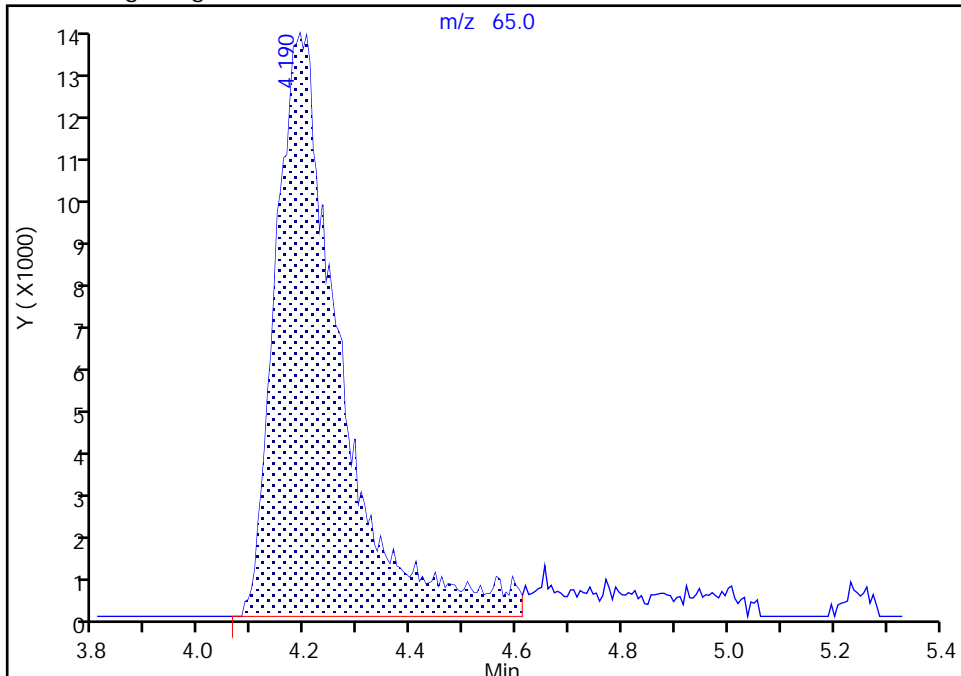
Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S22.D
Injection Date: 08-Aug-2020 08:07:30 Instrument ID: 16334
Lims ID: 410-9077-A-13 Lab Sample ID: 410-9077-13
Client ID: HD-QC1-0/1-1
Operator ID: MEC29284 ALS Bottle#: 27 Worklist Smp#: 28
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 29 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

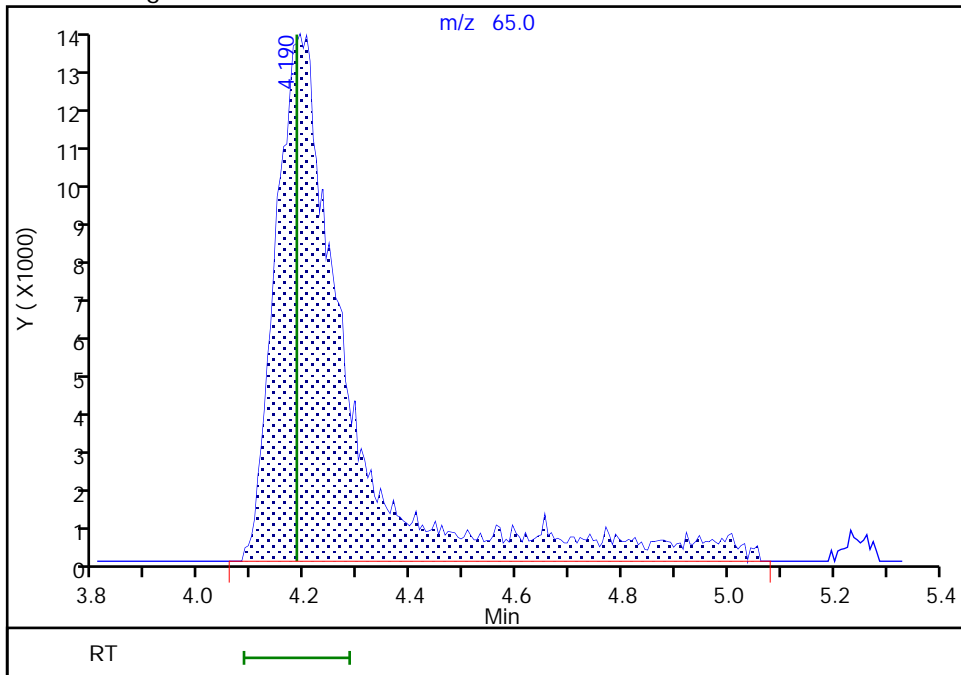
RT: 4.19
Area: 114476
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.19
Area: 128196
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 09-Aug-2020 18:20:03
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Client Sample ID: HD-QC1-0/1-2 Lab Sample ID: 410-9077-14
 Matrix: Water Lab File ID: GG07S01.D
 Analysis Method: 8260D Date Collected: 07/28/2020 00:00
 Sample wt/vol: 25 (mL) Date Analyzed: 08/08/2020 00:22
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 30932 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		0.50	0.060
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.060
75-34-3	1,1-Dichloroethane	ND		0.50	0.070
75-35-4	1,1-Dichloroethene	ND		0.50	0.060
107-06-2	1,2-Dichloroethane	ND		0.50	0.050
78-87-5	1,2-Dichloropropane	ND		0.50	0.060
78-93-3	2-Butanone (MEK)	ND		5.0	0.60
591-78-6	2-Hexanone	ND		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70
67-64-1	Acetone	1.5	J	5.0	0.90
107-13-1	Acrylonitrile	ND		5.0	0.40
71-43-2	Benzene	ND		0.50	0.050
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND	^c	0.50	0.070
75-15-0	Carbon disulfide	ND		1.0	0.060
56-23-5	Carbon tetrachloride	ND		0.50	0.070
108-90-7	Chlorobenzene	ND		0.50	0.060
74-97-5	Bromochloromethane	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
75-00-3	Chloroethane	ND		0.50	0.070
67-66-3	Chloroform	ND		0.50	0.090
74-87-3	Chloromethane	ND		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	ND		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
75-27-4	Bromodichloromethane	ND		0.50	0.050
100-41-4	Ethylbenzene	ND		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.050
75-09-2	Methylene Chloride	0.26	J	0.50	0.070
100-42-5	Styrene	ND		0.50	0.050
127-18-4	Tetrachloroethene	ND		0.50	0.060
108-88-3	Toluene	ND		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Client Sample ID: HD-QC1-0/1-2 Lab Sample ID: 410-9077-14
 Matrix: Water Lab File ID: GG07S01.D
 Analysis Method: 8260D Date Collected: 07/28/2020 00:00
 Sample wt/vol: 25 (mL) Date Analyzed: 08/08/2020 00:22
 Soil Aliquot Vol.: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 30932 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	ND		0.50	0.060
75-01-4	Vinyl chloride	ND		0.50	0.10
1330-20-7	Xylenes, Total	ND		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	91		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S01.D
 Lims ID: 410-9077-A-14
 Client ID: HD-QC1-0/1-2
 Sample Type: Client
 Inject. Date: 08-Aug-2020 00:22:30 ALS Bottle#: 6 Worklist Smp#: 7
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-9077-a-14
 Misc. Info.: 410-0007550-007
 Operator ID: MEC29284 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 09-Aug-2020 17:31:44 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1057

First Level Reviewer: campbellme Date: 09-Aug-2020 17:19:09

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Chloromethane	50		2.129				ND	
7 Vinyl chloride	62		2.245				ND	
9 Bromomethane	94		2.562				ND	
10 Chloroethane	64		2.648				ND	
19 1,1-Dichloroethene	96		3.507				ND	
20 Acetone	43	3.556	3.550	0.006	98	11213	1.50	
25 Carbon disulfide	76		3.794				ND	
28 Methylene Chloride	84	4.160	4.166	-0.006	93	11286	0.2597	Ma
* 29 t-Butyl alcohol-d10 (IS)	65	4.190	4.184	0.006	83	134291	50.0	M
31 Acrylonitrile	53		4.519				ND	
32 Methyl tert-butyl ether	73		4.568				ND	
33 trans-1,2-Dichloroethene	96		4.574				ND	
36 1,1-Dichloroethane	63		5.245				ND	
40 2-Butanone (MEK)	43		6.049				ND	
41 cis-1,2-Dichloroethene	96		6.086				ND	
48 Chlorobromomethane	128		6.415				ND	
50 Chloroform	83		6.568				ND	
\$ 52 Dibromofluoromethane (Surr)	113	6.793	6.787	0.006	93	444855	9.12	
51 1,1,1-Trichloroethane	97		6.793				ND	
56 Carbon tetrachloride	117		6.994				ND	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.238	7.232	0.006	0	93073	10.0	
59 Benzene	78		7.269				ND	
60 1,2-Dichloroethane	62	7.348	7.342	0.006	7	2184	0.0331	a
* 63 Fluorobenzene (IS)	96	7.677	7.677	0.000	98	1825305	10.0	
67 Trichloroethene	95		8.153				ND	
69 1,2-Dichloropropane	63		8.488				ND	
75 Dichlorobromomethane	83		8.835				ND	
80 cis-1,3-Dichloropropene	75		9.390				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	
\$ 82 Toluene-d8 (Surr)	98	9.695	9.695	0.000	95	1784833	10.1	
83 Toluene	92		9.774				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
84 trans-1,3-Dichloropropene	75		10.030				ND	
86 1,1,2-Trichloroethane	97		10.238				ND	
88 Tetrachloroethene	166		10.317				ND	
91 2-Hexanone	43		10.457				ND	
93 Chlorodibromomethane	129		10.609				ND	
94 Ethylene Dibromide	107		10.719				ND	
* 95 Chlorobenzene-d5 (IS)	117	11.152	11.152	0.000	88	1353619	10.0	
97 Chlorobenzene	112		11.183				ND	
S 101 Xylenes, Total	106		11.245				ND	
98 1,1,1,2-Tetrachloroethane	131		11.262				ND	
99 Ethylbenzene	91		11.268				ND	
100 m-Xylene & p-Xylene	106		11.384				ND	
102 o-Xylene	106		11.713				ND	
103 Styrene	104		11.725				ND	
104 Bromoform	173		11.884				ND	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	89	633678	9.63	
109 1,1,2,2-Tetrachloroethane	83		12.255				ND	
* 124 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	97	672666	10.0	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MSV_29_826ISS_00007

Amount Added: 1.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S01.D

Injection Date: 08-Aug-2020 00:22:30

Instrument ID: 16334

Operator ID: MEC29284

Lims ID: 410-9077-A-14

Lab Sample ID: 410-9077-14

Worklist Smp#: 7

Client ID: HD-QC1-0/1-2

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

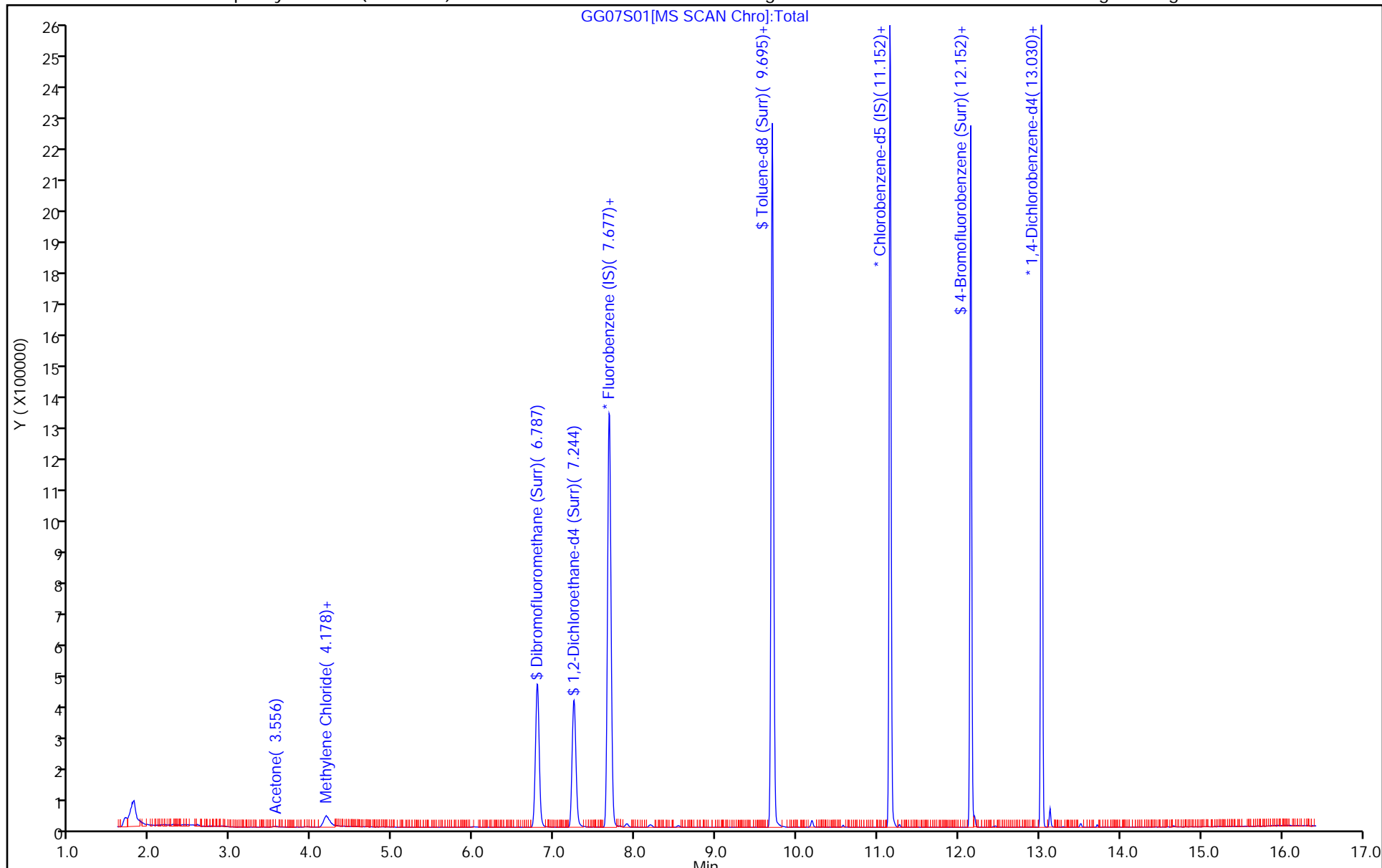
ALS Bottle#: 6

Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S01.D
 Lims ID: 410-9077-A-14
 Client ID: HD-QC1-0/1-2
 Sample Type: Client
 Inject. Date: 08-Aug-2020 00:22:30 ALS Bottle#: 6 Worklist Smp#: 7
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-9077-a-14
 Misc. Info.: 410-0007550-007
 Operator ID: MEC29284 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 09-Aug-2020 17:31:44 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1057

First Level Reviewer: campbellme

Date: 09-Aug-2020 17:19:09

Compound	Amount Added	Amount Recovered	% Rec.
\$ 52 Dibromofluoromethane (Surr)	10.0	9.12	91.24
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.0	100.22
\$ 82 Toluene-d8 (Surr)	10.0	10.1	100.73
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.63	96.29

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S01.D

Injection Date: 08-Aug-2020 00:22:30

Instrument ID: 16334

Lims ID: 410-9077-A-14

Lab Sample ID: 410-9077-14

Client ID: HD-QC1-0/1-2

Operator ID: MEC29284

ALS Bottle#: 6

Worklist Smp#: 7

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

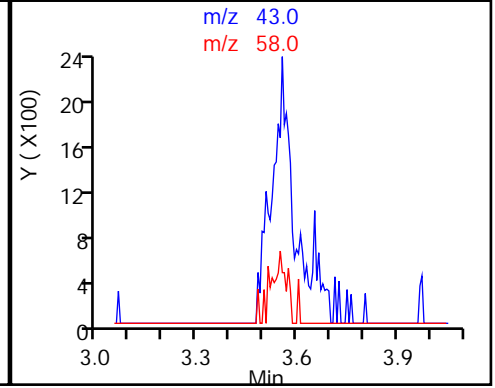
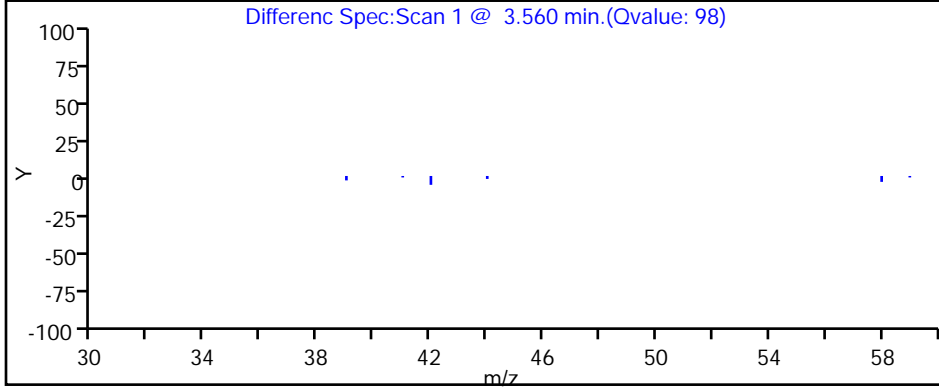
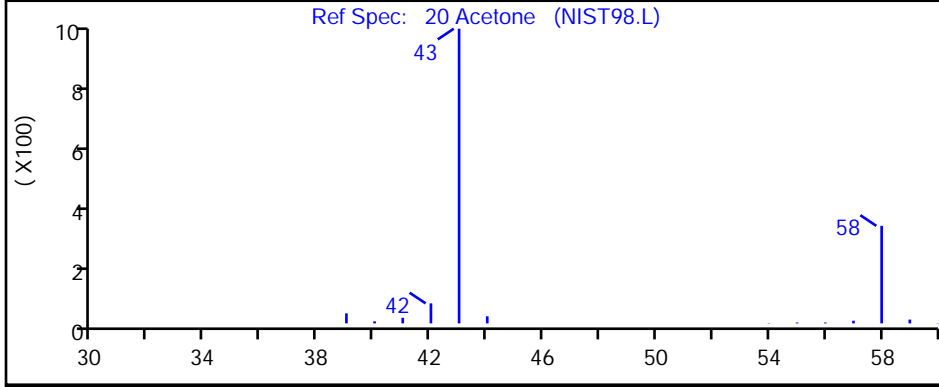
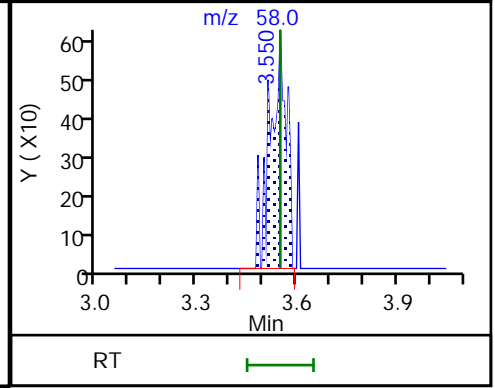
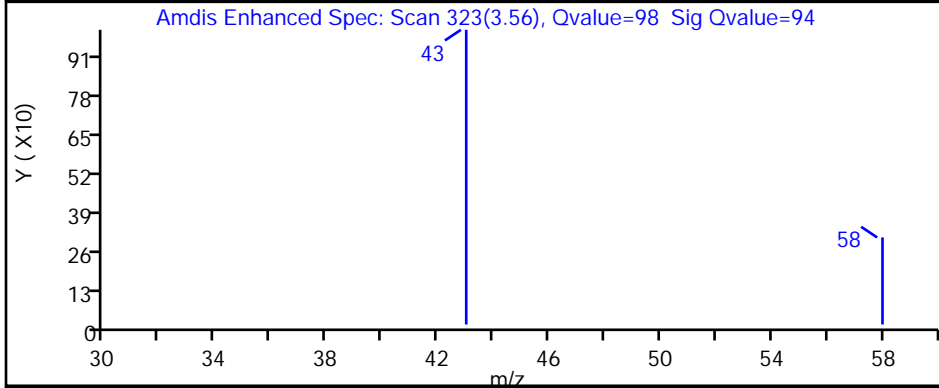
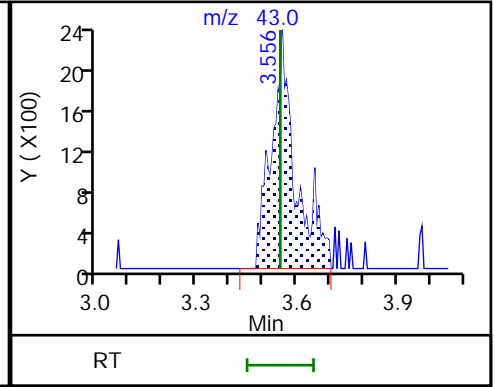
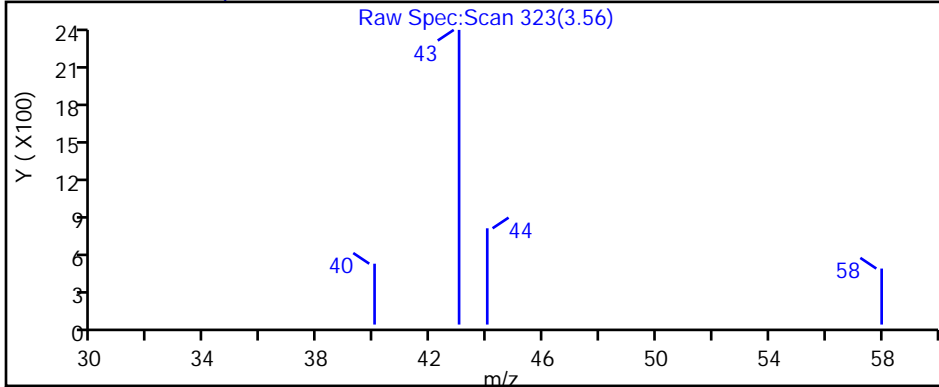
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

20 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S01.D

Injection Date: 08-Aug-2020 00:22:30

Instrument ID: 16334

Lims ID: 410-9077-A-14

Lab Sample ID: 410-9077-14

Client ID: HD-QC1-0/1-2

Operator ID: MEC29284

ALS Bottle#: 6

Worklist Smp#: 7

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

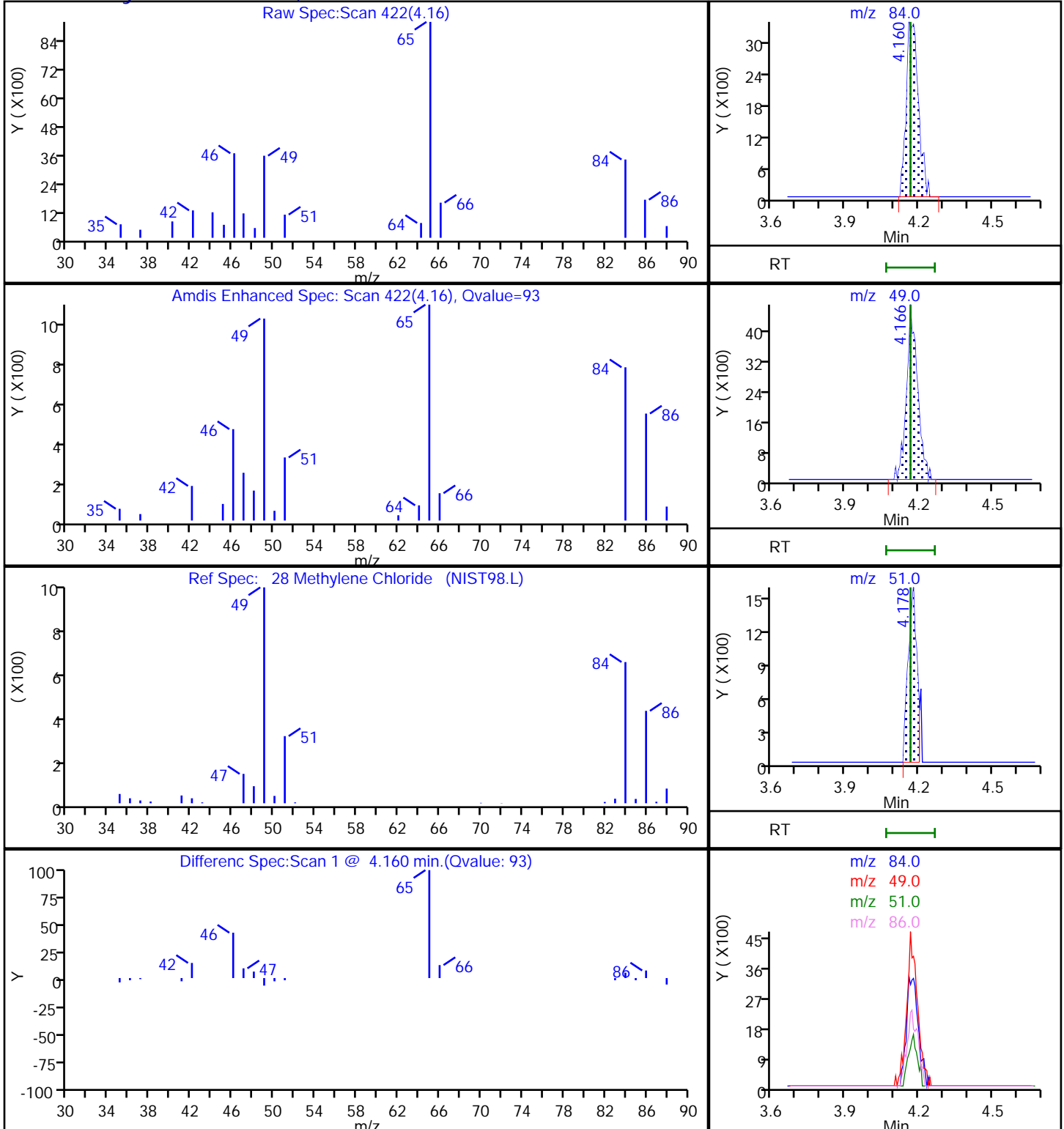
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

28 Methylene Chloride, CAS: 75-09-2



Eurofins Lancaster Laboratories Env, LLC

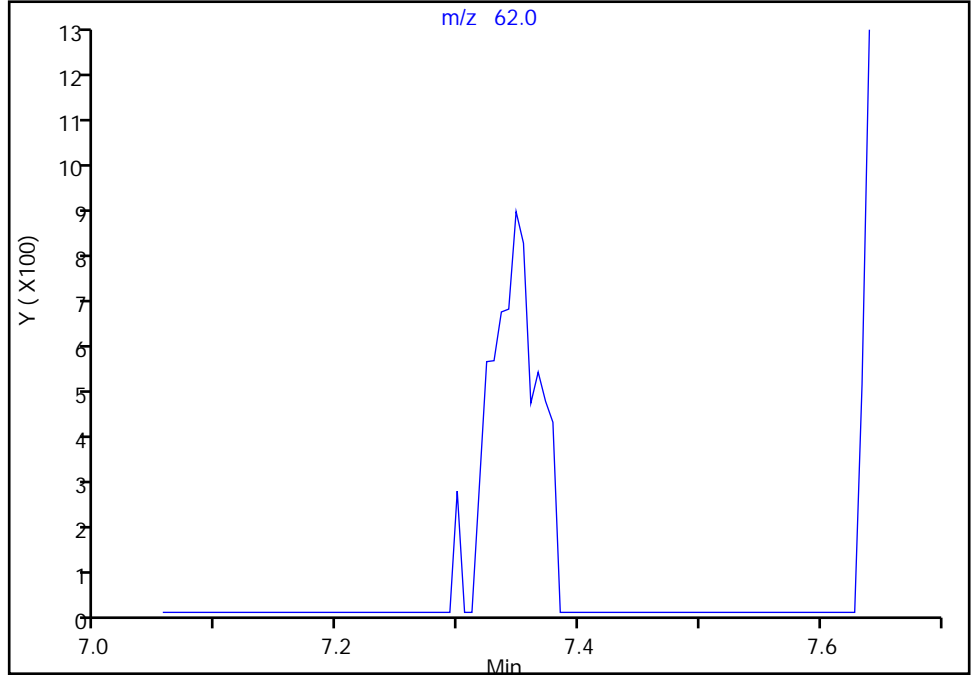
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Injection Date: 08-Aug-2020 00:22:30 Instrument ID: 16334
Lims ID: 410-9077-A-14 Lab Sample ID: 410-9077-14
Client ID: HD-QC1-0/1-2
Operator ID: MEC29284 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

60 1,2-Dichloroethane, CAS: 107-06-2

Signal: 1

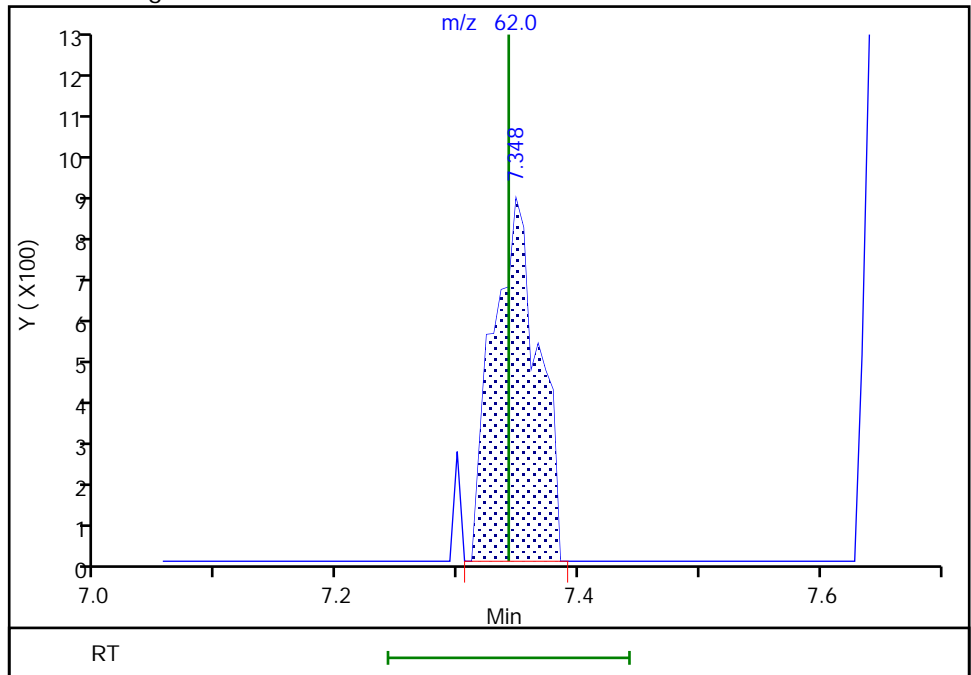
Not Detected
Expected RT: 7.34

Processing Integration Results



Manual Integration Results

RT: 7.35
Area: 2184
Amount: 0.033117
Amount Units: ug/l



Reviewer: campbellme, 09-Aug-2020 17:18:59
Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

Euofins Lancaster Laboratories Env, LLC

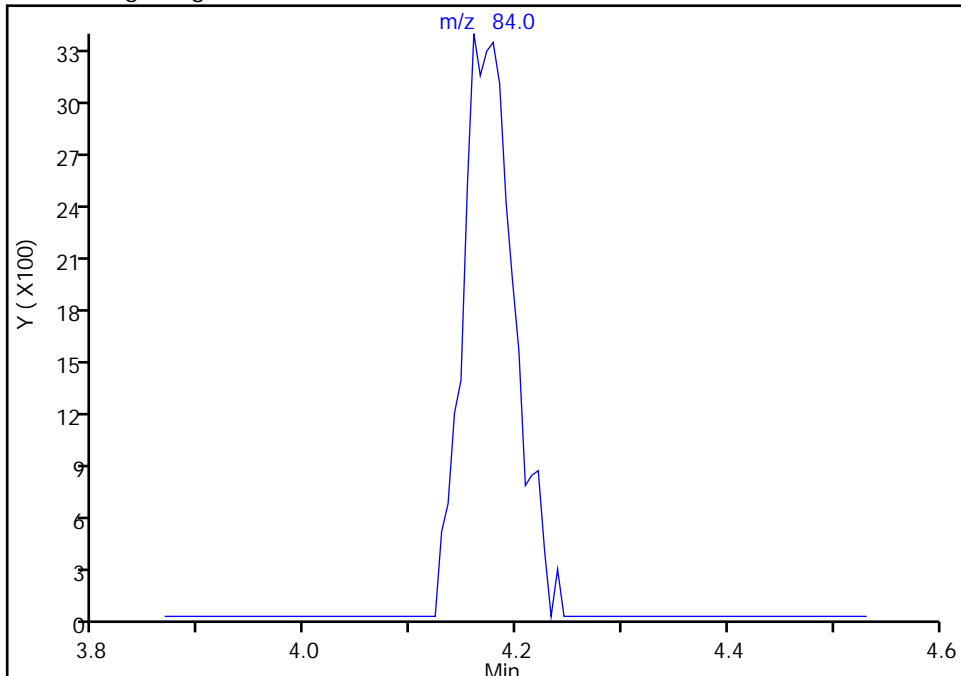
Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S01.D
Injection Date: 08-Aug-2020 00:22:30 Instrument ID: 16334
Lims ID: 410-9077-A-14 Lab Sample ID: 410-9077-14
Client ID: HD-QC1-0/1-2
Operator ID: MEC29284 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

28 Methylene Chloride, CAS: 75-09-2

Signal: 1

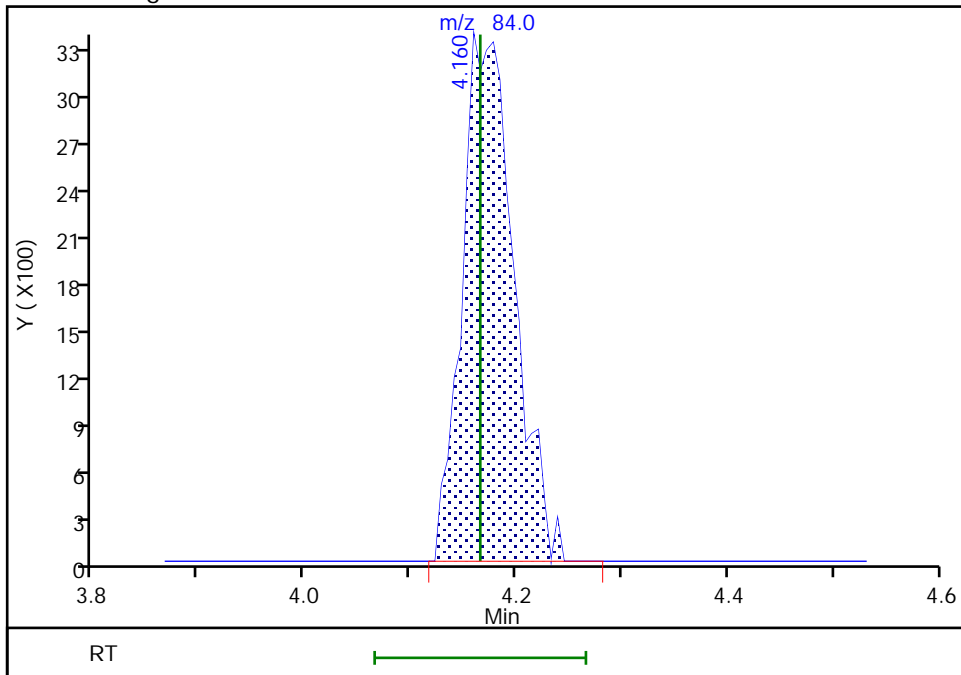
Not Detected
Expected RT: 4.17

Processing Integration Results



Manual Integration Results

RT: 4.16
Area: 11286
Amount: 0.259735
Amount Units: ug/l



Reviewer: campbellme, 09-Aug-2020 17:18:39
Audit Action: Manually Integrated

Audit Reason: Missed Peak

Eurofins Lancaster Laboratories Env, LLC

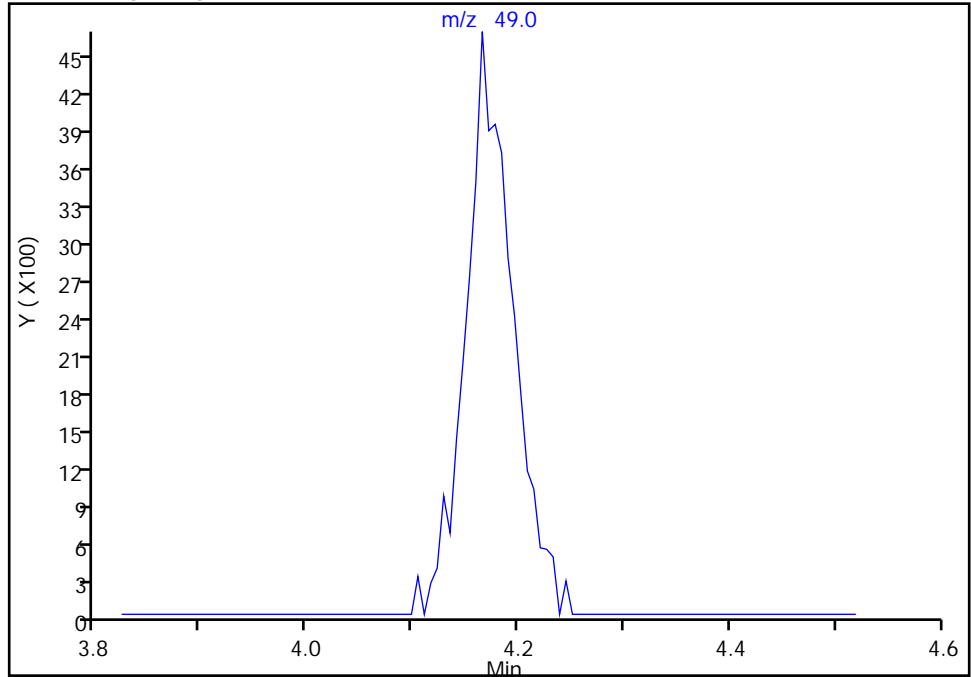
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Injection Date: 08-Aug-2020 00:22:30 Instrument ID: 16334
Lims ID: 410-9077-A-14 Lab Sample ID: 410-9077-14
Client ID: HD-QC1-0/1-2
Operator ID: MEC29284 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

28 Methylene Chloride, CAS: 75-09-2

Signal: 2

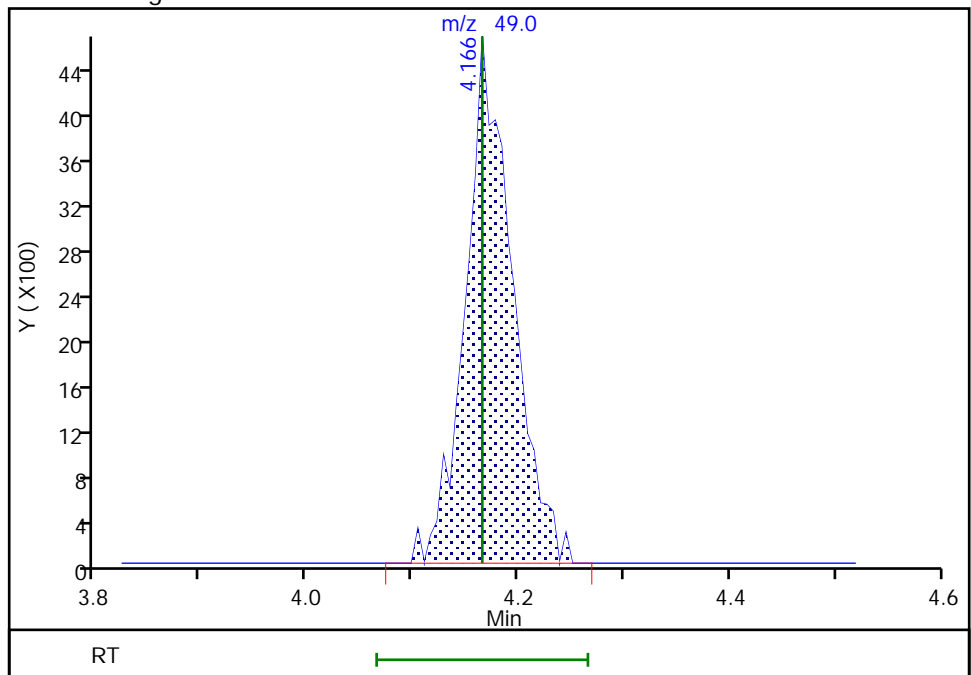
Not Detected
Expected RT: 4.17

Processing Integration Results



Manual Integration Results

RT: 4.17
Area: 14425
Amount: 0.259735
Amount Units: ug/l



Reviewer: campbellme, 09-Aug-2020 17:18:42

Audit Action: Manually Integrated

Audit Reason: Missed Peak

Eurofins Lancaster Laboratories Env, LLC

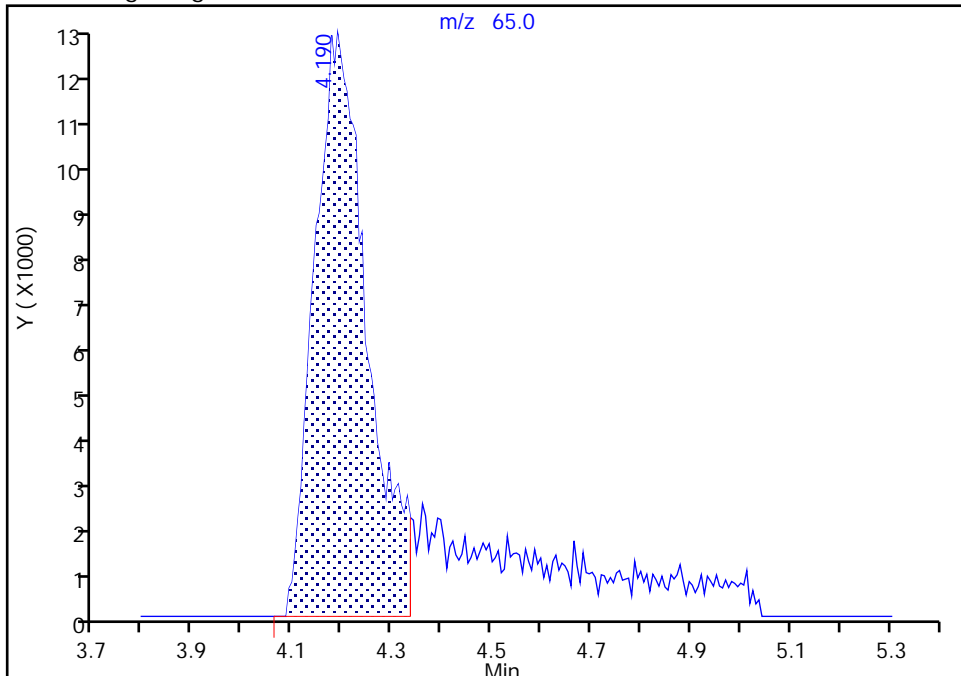
Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S01.D
Injection Date: 08-Aug-2020 00:22:30 Instrument ID: 16334
Lims ID: 410-9077-A-14 Lab Sample ID: 410-9077-14
Client ID: HD-QC1-0/1-2
Operator ID: MEC29284 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 29 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

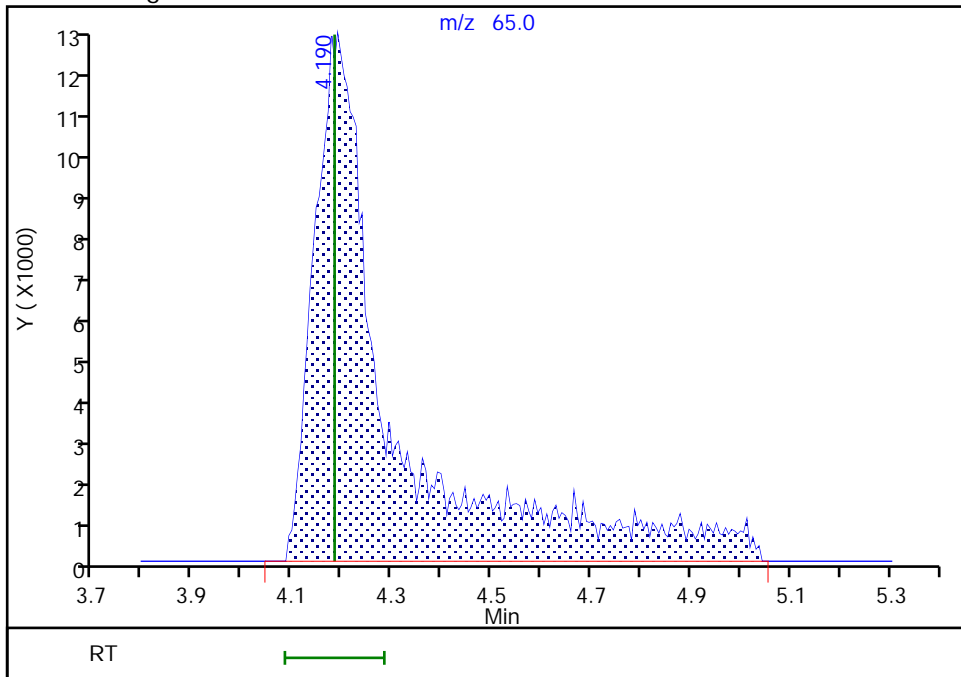
RT: 4.19
Area: 90854
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.19
Area: 134291
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 09-Aug-2020 17:18:52
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-9077-1

Analy Batch No.: 12269

SDG No.: _____

Instrument ID: 16334

GC Column: R-624SilMS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 06/11/2020 14:22

Calibration End Date: 06/11/2020 16:35

Calibration ID: 5635

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-12269/9	GU11I07.D
Level 2	IC 410-12269/8	GU11I06.D
Level 3	IC 410-12269/7	GU11I05.D
Level 4	IC 410-12269/6	GU11I04.D
Level 5	IC 410-12269/5	GU11I03.D
Level 6	ICIS 410-12269/4	GU11I02.D
Level 7	IC 410-12269/3	GU11I01.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
Dichlorodifluoromethane	0.4406 0.4253	0.3878 0.3906	0.4271	0.4433	0.4066	Ave	0.4173			0.1000	5.4		20.0				
Chloromethane	0.4401 0.3824	0.3998 0.3453	0.3950	0.3866	0.3598	Ave	0.3870			0.1000	7.9		20.0				
1,3-Butadiene	0.3212 0.3342	0.3373 0.2984	0.3662	0.3475	0.3118	Ave	0.3310				6.9		20.0				
Vinyl chloride	0.3736 0.3775	0.3614 0.3460	0.3586	0.3890	0.3513	Ave	0.3653			0.1000	4.2		20.0				
Bromomethane	0.2895 0.2785	0.2875 0.2886	0.2643	0.2803	0.2576	Ave	0.2780			0.1000	4.5		20.0				
Chloroethane	0.2328 0.2092	0.2085 0.2058	0.2024	0.2081	0.1930	Ave	0.2086			0.1000	5.8		20.0				
Dichlorofluoromethane	0.5179 0.5006	0.4938 0.4868	0.4781	0.5058	0.4716	Ave	0.4935			0.1000	3.3		20.0				
Trichlorofluoromethane	0.4903 0.5153	0.4666 0.4976	0.4750	0.4872	0.4913	Ave	0.4890			0.1000	3.2		20.0				
Ethyl ether	0.1794 0.1862	0.1884 0.1803	0.1861	0.1756	0.1717	Ave	0.1811				3.4		20.0				
Freon 123a	0.2882 0.2916	0.2864 0.2676	0.2813	0.2853	0.2743	Ave	0.2821				3.0		20.0				
Acrolein	1.8008 1.8704	1.7046 1.7155	1.7742	1.8343	1.6392	Ave	1.7627				4.6		20.0				
1,1-Dichloroethene	0.2237 0.2211	0.2001 0.2109	0.2103	0.2095	0.2089	Ave	0.2121			0.1000	3.8		20.0				
Acetone	3.2520 2.7016	3.0679 2.4764	2.8948	2.7965	2.3570	Ave	2.7923			0.1000	11.3		20.0				
Freon 113	0.2370 0.2463	0.1986 0.2404	0.2412	0.2422	0.2308	Ave	0.2338			0.1000	6.9		20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-9077-1

Analy Batch No.: 12269

SDG No.: _____

Instrument ID: 16334

GC Column: R-624SilMS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 06/11/2020 14:22

Calibration End Date: 06/11/2020 16:35

Calibration ID: 5635

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
Methyl iodide	0.4594 0.4522	0.4228 0.4348	0.4384	0.4309	0.4185	Ave		0.4367			3.4		20.0				
Carbon disulfide	0.7648 0.7763	0.7282 0.7504	0.7366	0.7333	0.7174	Ave		0.7439		0.1000	2.8		20.0				
Methyl acetate	6.0986 6.9056	7.1192 6.4190	7.0891	7.0381	5.6369	Ave		6.6152		0.1000	8.7		20.0				
Allyl chloride	0.3669 0.3633	0.3416 0.3455	0.3436	0.3592	0.3416	Ave		0.3517			3.1		20.0				
Methylene Chloride	0.2612 0.2442	0.2322 0.2303	0.2407	0.2299	0.2280	Ave		0.2381		0.1000	5.0		20.0				
t-Butyl alcohol	0.9118 0.9514	0.8902 0.8557	0.8439	0.9246	0.8523	Ave		0.8900			4.6		20.0				
Acrylonitrile	3.1877 3.1121	2.8299 2.9338	3.0980	3.1335	2.7332	Ave		3.0040			5.8		20.0				
Methyl tert-butyl ether	0.6651 0.6706	0.6307 0.6371	0.6715	0.6544	0.6331	Ave		0.6518		0.1000	2.8		20.0				
trans-1,2-Dichloroethene	0.2363 0.2501	0.2363 0.2416	0.2396	0.2416	0.2299	Ave		0.2394		0.1000	2.6		20.0				
n-Hexane	0.3155 0.3336	0.2679 0.3280	0.3254	0.3187	0.3182	Ave		0.3153			6.9		20.0				
1,1-Dichloroethane	0.4794 0.4658	0.4326 0.4425	0.4624	0.4430	0.4316	Ave		0.4511		0.2000	4.1		20.0				
di-Isopropyl ether	0.8698 0.8250	0.7695 0.7884	0.8118	0.7841	0.7634	Ave		0.8017			4.6		20.0				
2-Chloro-1,3-butadiene	0.4379 0.4373	0.3834 0.4261	0.4020	0.4147	0.4034	Ave		0.4150			4.9		20.0				
Ethyl t-butyl ether	0.8330 0.8036	0.7544 0.7582	0.8089	0.7853	0.7533	Ave		0.7853			4.0		20.0				
2-Butanone (MEK)	5.0997 4.9192	4.8205 4.5965	4.8134	4.9294	4.3631	Ave		4.7917		0.1000	5.1		20.0				
cis-1,2-Dichloroethene	0.2866 0.2854	0.2690 0.2771	0.2876	0.2731	0.2621	Ave		0.2773		0.1000	3.5		20.0				
2,2-Dichloropropane	0.3992 0.4145	0.3798 0.4089	0.3956	0.3926	0.3860	Ave		0.3967			3.1		20.0				
Propionitrile	1.1543 1.1234	1.0850 1.0396	1.1246	1.1079	1.0193	Ave		1.0935			4.5		20.0				
Methacrylonitrile	4.0856 4.5043	4.0370 4.1927	4.1477	4.3255	3.8964	Ave		4.1699			4.8		20.0				
Bromochloromethane	0.1215 0.1357	0.1347 0.1360	0.1344	0.1313	0.1258	Ave		0.1314			4.3		20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-9077-1

Analy Batch No.: 12269

SDG No.: _____

Instrument ID: 16334

GC Column: R-624SilMS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 06/11/2020 14:22

Calibration End Date: 06/11/2020 16:35

Calibration ID: 5635

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
Tetrahydrofuran	1.3367 1.3202	1.2406 1.2326	1.2185	1.3190	1.1101	Ave		1.2540			6.4		20.0				
Chloroform	0.4935 0.4994	0.4806 0.4850	0.4895	0.4775	0.4670	Ave		0.4846		0.2000	2.2		20.0				
1,1,1-Trichloroethane	0.4647 0.4602	0.4240 0.4508	0.4439	0.4358	0.4270	Ave		0.4438		0.1000	3.6		20.0				
Cyclohexane	0.3866 0.4035	0.3530 0.3944	0.3853	0.3920	0.3764	Ave		0.3844		0.1000	4.2		20.0				
1,1-Dichloropropene	0.3692 0.3699	0.3392 0.3672	0.3603	0.3527	0.3463	Ave		0.3578			3.4		20.0				
Carbon tetrachloride	0.4265 0.4148	0.3616 0.4075	0.3934	0.3870	0.3858	Ave		0.3967		0.1000	5.4		20.0				
Isobutyl alcohol	0.0064 0.0057	0.0058 0.0057	0.0051	0.0049	0.0052	Ave		0.0056			9.2		20.0				
Benzene	1.0487 1.0143	0.9653 1.0021	1.0219	0.9871	0.9492	Ave		0.9984		0.5000	3.4		20.0				
1,2-Dichloroethane	0.4146 0.3552	0.3694 0.3435	0.3597	0.3531	0.3337	Ave		0.3613		0.1000	7.2		20.0				
t-Amyl methyl ether	0.7146 0.7337	0.6654 0.7043	0.7222	0.7097	0.6890	Ave		0.7055			3.2		20.0				
n-Heptane	0.3945 0.3775	0.3227 0.3733	0.3693	0.3664	0.3482	Ave		0.3645			6.3		20.0				
n-Butanol	0.2504 0.2774	0.2724 0.2522	0.2886	0.3019	0.2670	Ave		0.2728			6.8		20.0				
Trichloroethene	0.2895 0.2867	0.2709 0.2822	0.2774	0.2721	0.2674	Ave		0.2780		0.2000	3.0		20.0				
Methylcyclohexane	0.4585 0.4189	0.3755 0.4257	0.3629	0.4171	0.4029	Ave		0.4088		0.1000	7.8		20.0				
1,2-Dichloropropane	0.2560 0.2619	0.2401 0.2664	0.2481	0.2544	0.2459	Ave		0.2533		0.1000	3.6		20.0				
Methyl methacrylate	8.6487 9.1286	7.3603 8.6828	8.5696	8.7384	7.9406	Ave		8.4384			7.0		20.0				
1,4-Dioxane	++++ 0.0640	0.0583 0.0615	0.0558	0.0635	0.0601	Ave		0.0605		0.0050	5.2		20.0				
Dibromomethane	0.1489 0.1503	0.1451 0.1504	0.1479	0.1427	0.1378	Ave		0.1462			3.2		20.0				
Bromodichloromethane	0.3597 0.3824	0.3437 0.3786	0.3561	0.3609	0.3529	Ave		0.3620		0.2000	3.8		20.0				
2-Nitropropane	3.4302 3.9478	3.2341 3.7995	3.3605	3.5517	3.3191	Ave		3.5204			7.5		20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-9077-1

Analy Batch No.: 12269

SDG No.:

Instrument ID: 16334

GC Column: R-624SilMS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 06/11/2020 14:22

Calibration End Date: 06/11/2020 16:35

Calibration ID: 5635

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
cis-1,3-Dichloropropene	0.3715 0.4304	0.3771 0.4338	0.3937	0.4034	0.3926	Ave		0.4004			0.2000	6.0	20.0				
4-Methyl-2-pentanone (MIBK)	12.173 13.523	11.556 12.949	12.695	12.830	11.849	Ave		12.511			0.1000	5.5	20.0				
Toluene	0.8514 0.8393	0.7990 0.8419	0.8357	0.8214	0.7940	Ave		0.8261			0.4000	2.7	20.0				
trans-1,3-Dichloropropene	0.4631 0.5033	0.4343 0.4987	0.4490	0.4681	0.4670	Ave		0.4691			0.1000	5.3	20.0				
Ethyl methacrylate	0.3556 0.3953	0.3170 0.3994	0.3550	0.3625	0.3681	Ave		0.3647				7.6	20.0				
1,1,2-Trichloroethane	0.2616 0.2545	0.2449 0.2553	0.2670	0.2529	0.2413	Ave		0.2539			0.1000	3.5	20.0				
Tetrachloroethene	0.4259 0.4095	0.3892 0.4047	0.4101	0.3994	0.3904	Ave		0.4042			0.2000	3.2	20.0				
1,3-Dichloropropane	0.4420 0.4545	0.4221 0.4391	0.4440	0.4413	0.4235	Ave		0.4381				2.6	20.0				
2-Hexanone	8.6260 9.9755	8.3038 9.4931	9.0001	9.5187	8.7654	Ave		9.0975			0.1000	6.5	20.0				
Dibromochloromethane	0.3169 0.3506	0.2950 0.3555	0.3204	0.3335	0.3294	Ave		0.3287				6.3	20.0				
1,2-Dibromoethane (EDB)	0.2560 0.2654	0.2392 0.2645	0.2518	0.2614	0.2499	Ave		0.2555			0.1000	3.7	20.0				
1-Chlorohexane	0.6148 0.5000	0.4970 0.5065	0.4960	0.4982	0.4704	Ave		0.5118				9.1	20.0				
Chlorobenzene	1.0100 0.9937	0.9543 1.0071	0.9753	0.9738	0.9397	Ave		0.9791			0.5000	2.7	20.0				
1,1,1,2-Tetrachloroethane	0.3672 0.3892	0.3377 0.3953	0.3562	0.3583	0.3671	Ave		0.3673				5.4	20.0				
Ethylbenzene	1.8027 1.7600	1.6586 1.7627	1.7155	1.6760	1.6438	Ave		1.7170			0.1000	3.5	20.0				
m&p-Xylene	0.6364 0.6575	0.6123 0.6658	0.6386	0.6370	0.6202	Ave		0.6383			0.1000	3.0	20.0				
o-Xylene	0.5996 0.6561	0.5884 0.6684	0.6271	0.6172	0.6143	Ave		0.6245			0.3000	4.6	20.0				
Styrene	0.9925 1.1101	0.9385 1.1392	0.9789	1.0184	1.0249	Ave		1.0289			0.3000	7.0	20.0				
Bromoform	0.1996 0.2239	0.1764 0.2322	0.2093	0.2010	0.2092	Ave		0.2074			0.1000	8.7	20.0				
Isopropylbenzene	1.6397 1.7545	1.5869 1.7648	1.6480	1.6668	1.6275	Ave		1.6697			0.1000	4.0	20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-9077-1

Analy Batch No.: 12269

SDG No.: _____

Instrument ID: 16334

GC Column: R-624SilMS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 06/11/2020 14:22

Calibration End Date: 06/11/2020 16:35

Calibration ID: 5635

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
1,1,2,2-Tetrachloroethane	0.6096 0.6289	0.5743 0.6308	0.6133	0.5923	0.5916	Ave		0.6058			0.3000	3.4	20.0				
Bromobenzene	0.8338 0.8165	0.7802 0.8237	0.8062	0.7940	0.7632	Ave		0.8025				3.1	20.0				
trans-1,4-Dichloro-2-butene	4.5558 5.7851	4.1868 5.7630	4.7559	5.2687	4.9033	Ave		5.0312				12.0	20.0				
1,2,3-Trichloropropane	0.1785 0.1733	0.1621 0.1717	0.1615	0.1751	0.1654	Ave		0.1697				3.9	20.0				
N-Propylbenzene	3.8565 3.8265	3.5996 3.7228	3.6909	3.6935	3.6040	Ave		3.7134				2.7	20.0				
2-Chlorotoluene	0.6909 0.7723	0.7187 0.7567	0.7623	0.7413	0.7213	Ave		0.7377				3.9	20.0				
1,3,5-Trimethylbenzene	2.5132 2.7543	2.3458 2.7283	2.5796	2.6147	2.5503	Ave		2.5837				5.3	20.0				
4-Chlorotoluene	0.7622 0.8082	0.7608 0.8012	0.8094	0.7873	0.7621	Ave		0.7845				2.9	20.0				
tert-Butylbenzene	0.6188 0.5951	0.5670 0.6008	0.5349	0.5680	0.5421	Ave		0.5753				5.4	20.0				
Pentachloroethane	0.4883 0.5385	0.4780 0.5546	0.4921	0.5005	0.5030	Ave		0.5078				5.5	20.0				
1,2,4-Trimethylbenzene	2.5931 2.8767	2.5704 2.8450	2.6723	2.7090	2.6399	Ave		2.7009				4.4	20.0				
sec-Butylbenzene	3.3913 3.5716	3.2211 3.5200	3.4388	3.3699	3.2827	Ave		3.3994				3.6	20.0				
1,3-Dichlorobenzene	1.5545 1.6081	1.4885 1.5975	1.5913	1.5634	1.4725	Ave		1.5537			0.6000	3.4	20.0				
p-Isopropyltoluene	2.7730 3.1213	2.7072 3.1082	2.9060	2.9409	2.8598	Ave		2.9166				5.4	20.0				
1,4-Dichlorobenzene	1.6541 1.6367	1.5337 1.5976	1.5676	1.5485	1.4975	Ave		1.5765			0.5000	3.6	20.0				
1,2,3-Trimethylbenzene	1.1542 1.2338	1.1587 1.2404	1.1592	1.1895	1.1461	Ave		1.1831				3.3	20.0				
Benzyl chloride	0.1865 0.2623	0.1938 0.2695	0.2129	0.2273	0.2322	Ave		0.2263				14.0	20.0				
n-Butylbenzene	1.4993 1.6214	1.4569 1.5895	1.4708	1.5300	1.4581	Ave		1.5180				4.3	20.0				
1,2-Dichlorobenzene	1.4838 1.4989	1.4400 1.4563	1.4692	1.4449	1.3578	Ave		1.4501			0.4000	3.2	20.0				
1,2-Dibromo-3-Chloropropane	0.0848 0.0913	0.0843 0.0926	0.0865	0.0847	0.0896	Ave		0.0877			0.0500	3.9	20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-9077-1 Analy Batch No.: 12269

SDG No.: _____

Instrument ID: 16334 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/11/2020 14:22 Calibration End Date: 06/11/2020 16:35 Calibration ID: 5635

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
1,3,5-Trichlorobenzene	1.2814 1.2793	1.1529 1.2161	1.2148	1.2423	1.1097	Ave		1.2138			5.2		20.0				
1,2,4-Trichlorobenzene	1.0758 1.1174	0.9844 1.0319	1.0645	1.0657	0.9611	Ave		1.0430		0.2000	5.2		20.0				
Hexachlorobutadiene	0.6408 0.5898	0.5280 0.5472	0.5758	0.5863	0.5178	Ave		0.5694			7.4		20.0				
Naphthalene	1.7027 1.8268	1.6619 1.7089	1.7000	1.7144	1.5890	Ave		1.7005			4.2		20.0				
1,2,3-Trichlorobenzene	0.8995 0.9285	0.8269 0.8747	0.8924	0.8883	0.8198	Ave		0.8757			4.5		20.0				
Dibromofluoromethane (Surr)	0.2670 0.2676	0.2681 0.2669	0.2677	0.2646	0.2680	Ave		0.2671			0.5		20.0				
1,2-Dichloroethane-d4 (Surr)	0.0518 0.0512	0.0505 0.0496	0.0514	0.0514	0.0502	Ave		0.0509			1.6		20.0				
Toluene-d8 (Surr)	1.3131 1.3045	1.3138 1.2952	1.3111	1.3075	1.3181	Ave		1.3091			0.6		20.0				
4-Bromofluorobenzene (Surr)	0.4855 0.4840	0.4914 0.4852	0.4832	0.4872	0.4868	Ave		0.4862			0.6		20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-9077-1

Analy Batch No.: 12269

SDG No.: _____

Instrument ID: 16334

GC Column: R-624SilMS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 06/11/2020 14:22

Calibration End Date: 06/11/2020 16:35

Calibration ID: 5635

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-12269/9	GU11I07.D
Level 2	IC 410-12269/8	GU11I06.D
Level 3	IC 410-12269/7	GU11I05.D
Level 4	IC 410-12269/6	GU11I04.D
Level 5	IC 410-12269/5	GU11I03.D
Level 6	ICIS 410-12269/4	GU11I02.D
Level 7	IC 410-12269/3	GU11I01.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	16767 861238	38036 1984078	83765	178749	426927	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Chloromethane	FB	Ave	16748 774332	39208 1753849	77460	155896	377802	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,3-Butadiene	FB	Ave	12223 676884	33085 1515556	71809	140128	327455	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Vinyl chloride	FB	Ave	14219 764446	35444 1757294	70329	156852	368909	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Bromomethane	FB	Ave	11019 563948	28195 1465712	51829	113026	270531	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Chloroethane	FB	Ave	8859 423722	20454 1045426	39699	83903	202695	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Dichlorofluoromethane	FB	Ave	19709 1013838	48434 2472588	93767	203944	495281	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Trichlorofluoromethane	FB	Ave	18659 1043554	45766 2527278	93152	196422	515969	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Ethyl ether	FB	Ave	6826 376971	18473 915410	36495	70780	180317	0.200 10.0	0.500 25.0	1.000	2.00	5.00
Freon 123a	FB	Ave	10969 590535	28090 1359176	55160	115034	288085	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Acrolein	TBAd 10	Ave	54729 2941709	136105 7198120	278380	560705	1437225	10.00 500	25.0 1250	50.0	100.0	250
1,1-Dichloroethene	FB	Ave	8513 447762	19625 1071407	41247	84464	219385	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Acetone	TBAd 10	Ave	19767 849795	48993 2078246	90842	170971	413332	2.00 100	5.00 250	10.0	20.0	50.0
Freon 113	FB	Ave	9019 498700	19479 1220912	47304	97659	242415	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Methyl iodide	FB	Ave	17483 915828	41468 2208468	85976	173729	439486	0.200 10.0	0.500 25.0	1.00	2.00	5.00

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-9077-1

Analy Batch No.: 12269

SDG No.: _____

Instrument ID: 16334

GC Column: R-624SilMS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 06/11/2020 14:22

Calibration End Date: 06/11/2020 16:35

Calibration ID: 5635

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Carbon disulfide	FB	Ave	29106 1572147	71425 3811428	144459	295661	753397	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Methyl acetate	TBAd 10	Ave	3707 217220	11369 538692	22246	43029	98848	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Allyl chloride	FB	Ave	13962 735794	33502 1754558	67393	144812	358682	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Methylene Chloride	FB	Ave	9940 494462	22771 1169757	47196	92693	239404	0.200 10.0	0.500 25.0	1.00	2.00	5.00
t-Butyl alcohol	TBAd 10	Ave	11084 598514	28432 1436229	52964	113054	298914	4.00 200	10.0 500	20.0	40.0	100
Acrylonitrile	TBAd 10	Ave	9688 489475	22596 1231068	48608	95786	239646	1.00 50.0	2.50 125	5.00	10.0	25.0
Methyl tert-butyl ether	FB	Ave	25312 1358106	61856 3235725	131683	263865	664808	0.200 10.0	0.500 25.0	1.00	2.00	5.00
trans-1,2-Dichloroethene	FB	Ave	8994 506462	23180 1227235	46982	97412	241463	0.200 10.0	0.500 25.0	1.00	2.00	5.00
n-Hexane	FB	Ave	12007 675565	26279 1666010	63825	128481	334122	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1-Dichloroethane	FB	Ave	18242 943383	42425 2247631	90684	178634	453257	0.200 10.0	0.500 25.0	1.00	2.00	5.00
di-Isopropyl ether	FB	Ave	33101 1670705	75469 4004248	159201	316169	801612	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2-Chloro-1,3-butadiene	FB	Ave	16665 885492	37602 2164097	78841	167222	423657	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Ethyl t-butyl ether	FB	Ave	31701 1627371	73992 3851025	158639	316631	791056	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2-Butanone (MEK)	TBAd 10	Ave	30998 1547384	76981 3857503	151047	301371	765107	2.00 100	5.00 250	10.0	20.0	50.0
cis-1,2-Dichloroethene	FB	Ave	10908 577884	26387 1407300	56405	110133	275231	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2,2-Dichloropropane	FB	Ave	15193 839339	37253 2076881	77593	158313	405354	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Propionitrile	TBAd 10	Ave	14033 706757	34655 1744988	70584	135466	357481	4.00 200	10.0 500	20.0	40.0	100
Methacrylonitrile	TBAd 10	Ave	24834 1416865	64469 3518617	130157	264452	683280	2.00 100	5.00 250	10.0	20.0	50.0
Bromochloromethane	FB	Ave	4625 274903	13212 690855	26362	52959	132074	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Tetrahydrofuran	TBAd 10	Ave	8125 415293	19811 1034407	38236	80643	194671	2.00 100	5.00 250	10.0	20.0	50.0
Chloroform	FB	Ave	18779 1011245	47140 2463392	96003	192529	490370	0.200 10.0	0.500 25.0	1.00	2.00	5.00

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-9077-1

Analy Batch No.: 12269

SDG No.:

Instrument ID: 16334

GC Column: R-624SilMS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 06/11/2020 14:22

Calibration End Date: 06/11/2020 16:35

Calibration ID: 5635

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,1,1-Trichloroethane	FB	Ave	17683 931969	41583 2289628	87049	175714	448388	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Cyclohexane	FB	Ave	14714 817081	34619 2002994	75569	158048	395239	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1-Dichloropropene	FB	Ave	14049 749047	33272 1864944	70666	142226	363684	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Carbon tetrachloride	FB	Ave	16231 839973	35465 2069795	77146	156057	405095	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Isobutyl alcohol	FB	Ave	12236 577326	28570 1449825	50191	99482	274296	10.0 500	25.0 1250	50.0	100	250
Benzene	FB	Ave	39910 2054148	94671 5089767	200406	397987	996740	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2-Dichloroethane	FB	Ave	15779 719375	36227 1744529	70535	142364	350379	0.200 10.0	0.500 25.0	1.00	2.00	5.00
t-Amyl methyl ether	FB	Ave	27193 1485891	65259 3576954	141625	286155	723561	0.200 10.0	0.500 25.0	1.00	2.00	5.00
n-Heptane	FB	Ave	15014 764390	31648 1896236	72417	147715	365619	0.200 10.0	0.500 25.0	1.00	2.00	5.00
n-Butanol	TBAd 10	Ave	15221 872474	43507 2116412	90569	184567	468229	20.0 1000	50.0 2500	100	200	500
Trichloroethene	FB	Ave	11016 580582	26574 1433249	54395	109726	280843	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Methylcyclohexane	FB	Ave	17448 848347	36826 2161882	71175	168189	423089	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2-Dichloropropane	FB	Ave	9744 530310	23553 1352901	48647	102573	258233	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Methyl methacrylate	TBAd 10	Ave	5257 287147	11754 728679	26892	53424	139246	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,4-Dioxane	TBAd 10	Ave	++++ 100676	4653 258259	8754	19421	52703	++++ 500	25.0 1250	50.0	100	250
Dibromomethane	FB	Ave	5667 304406	14233 763628	28996	57540	144753	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Bromodichloromethane	FB	Ave	13688 774382	33709 1922752	69846	145531	370535	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2-Nitropropane	TBAd 10	Ave	20850 1241815	51647 3188626	105456	217140	582036	2.00 100	5.00 250	10.0	20.0	50.0
cis-1,3-Dichloropropene	FB	Ave	14137 871617	36989 2203053	77216	162672	412239	0.200 10.0	0.500 25.0	1.00	2.00	5.00
4-Methyl-2-pentanone (MIBK)	TBAd 10	Ave	73994 4253795	184539 10867379	398366	784382	2077848	2.00 100	5.00 250	10.0	20.0	50.0
Toluene	CBZd 5	Ave	24766 1319026	60009 3345388	126096	252745	634896	0.200 10.0	0.500 25.0	1.00	2.00	5.00

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-9077-1

Analy Batch No.: 12269

SDG No.: _____

Instrument ID: 16334

GC Column: R-624SilMS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 06/11/2020 14:22

Calibration End Date: 06/11/2020 16:35

Calibration ID: 5635

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
trans-1,3-Dichloropropene	CBZd 5	Ave	13471 790985	32615 1981499	67750	144026	373464	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Ethyl methacrylate	CBZd 5	Ave	10345 621159	23808 1587034	53565	111554	294326	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1,2-Trichloroethane	CBZd 5	Ave	7611 399920	18390 1014332	40292	77822	192985	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Tetrachloroethene	CBZd 5	Ave	12389 643580	29226 1608084	61875	122891	312182	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,3-Dichloropropane	CBZd 5	Ave	12857 714231	31700 1744901	66994	135789	338633	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2-Hexanone	TBAd 10	Ave	52432 3137863	132607 7966818	282430	581946	1537101	2.00 100	5.00 250	10.0	20.0	50.0
Dibromochloromethane	CBZd 5	Ave	9217 550991	22152 1412503	48337	102625	263397	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2-Dibromoethane (EDB)	CBZd 5	Ave	7446 417127	17968 1050836	37996	80424	199818	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1-Chlorohexane	CBZd 5	Ave	17884 785815	37329 2012724	74830	153297	376115	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Chlorobenzene	CBZd 5	Ave	29379 1561602	71673 4001539	147149	299649	751448	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1,1,2-Tetrachloroethane	CBZd 5	Ave	10681 611572	25359 1570554	53744	110242	293520	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Ethylbenzene	CBZd 5	Ave	52438 2765839	124564 7003937	258829	515714	1314442	0.200 10.0	0.500 25.0	1.00	2.00	5.00
m&p-Xylene	CBZd 5	Ave	37025 2066415	91971 5291403	192695	392034	991915	0.400 20.0	1.00 50.0	2.00	4.00	10.0
o-Xylene	CBZd 5	Ave	17442 1031124	44192 2655825	94621	189920	491187	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Styrene	CBZd 5	Ave	28872 1744495	70485 4526523	147688	313383	819579	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Bromoform	CBZd 5	Ave	5805 351852	13251 922514	31581	61850	167294	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Isopropylbenzene	CBZd 5	Ave	47697 2757144	119182 7012288	248648	512902	1301373	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	9823 542504	23725 1398205	50638	100666	258297	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Bromobenzene	DCBd 4	Ave	13436 704261	32228 1825670	66568	134960	333222	0.200 10.0	0.500 25.0	1.00	2.00	5.00
trans-1,4-Dichloro-2-butene	TBAd 10	Ave	27692 1819743	66860 4836446	149244	322113	859834	2.00 100	5.00 250	10.0	20.0	50.0
1,2,3-Trichloropropane	DCBd 4	Ave	2876 149465	6695 380521	13337	29765	72220	0.200 10.0	0.500 25.0	1.00	2.00	5.00

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-9077-1

Analy Batch No.: 12269

SDG No.:

Instrument ID: 16334

GC Column: R-624SilMS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 06/11/2020 14:22

Calibration End Date: 06/11/2020 16:35

Calibration ID: 5635

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
N-Propylbenzene	DCBd 4	Ave	62146 3300628	148696 8251547	304744	627767	1573463	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2-Chlorotoluene	DCBd 4	Ave	11134 666211	29688 1677269	62941	126000	314921	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,3,5-Trimethylbenzene	DCBd 4	Ave	40499 2375803	96902 6047375	212984	444414	1113431	0.200 10.0	0.500 25.0	1.00	2.00	5.00
4-Chlorotoluene	DCBd 4	Ave	12283 697119	31429 1775917	66830	133810	332722	0.200 10.0	0.500 25.0	1.00	2.00	5.00
tert-Butylbenzene	DCBd 4	Ave	9972 513292	23424 1331679	44164	96548	236671	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Pentachloroethane	DCBd 4	Ave	7869 464478	19744 1229225	40629	85071	219598	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2,4-Trimethylbenzene	DCBd 4	Ave	41788 2481394	106180 6305897	220636	460435	1152527	0.200 10.0	0.500 25.0	1.00	2.00	5.00
sec-Butylbenzene	DCBd 4	Ave	54650 3080818	133063 7802052	283926	572769	1433199	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,3-Dichlorobenzene	DCBd 4	Ave	25051 1387081	61490 3540776	131388	265717	642858	0.200 10.0	0.500 25.0	1.00	2.00	5.00
p-Isopropyltoluene	DCBd 4	Ave	44686 2692351	111834 6889312	239938	499857	1248567	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,4-Dichlorobenzene	DCBd 4	Ave	26655 1411779	63356 3541151	129428	263190	653782	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2,3-Trimethylbenzene	DCBd 4	Ave	18599 1064292	47867 2749277	95707	202170	500357	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Benzyl chloride	DCBd 4	Ave	3005 226236	8005 597242	17581	38638	101355	0.200 10.0	0.500 25.0	1.00	2.00	5.00
n-Butylbenzene	DCBd 4	Ave	24161 1398562	60183 3523191	121441	260048	636568	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2-Dichlorobenzene	DCBd 4	Ave	23911 1292909	59487 3228016	121308	245587	592783	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	1366 78720	3484 205257	7145	14392	39138	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,3,5-Trichlorobenzene	DCBd 4	Ave	20650 1103506	47627 2695432	100299	211152	484471	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2,4-Trichlorobenzene	DCBd 4	Ave	17336 963858	40666 2287248	87887	181126	419622	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Hexachlorobutadiene	DCBd 4	Ave	10327 508769	21811 1212984	47538	99655	226084	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Naphthalene	DCBd 4	Ave	27438 1575717	68651 3787832	140365	291385	693735	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2,3-Trichlorobenzene	DCBd 4	Ave	14496 800883	34158 1938866	73685	150982	357907	0.200 10.0	0.500 25.0	1.00	2.00	5.00

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-9077-1 Analy Batch No.: 12269

SDG No.: _____

Instrument ID: 16334 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/11/2020 14:22 Calibration End Date: 06/11/2020 16:35 Calibration ID: 5635

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
			LVL 6	LVL 7				LVL 6	LVL 7			
Dibromofluoromethane (Surr)	FB	Ave	508089 541828	525986 542310	524964	533370	562843	10.0 10.0	10.0 10.0	10.0	10.0	10.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	98612 103710	99091 100814	100867	103540	105361	10.0 10.0	10.0 10.0	10.0	10.0	10.0
Toluene-d8 (Surr)	CBZd 5	Ave	1909902 2050055	1973373 2058532	1978243	2011718	2108046	10.0 10.0	10.0 10.0	10.0	10.0	10.0
4-Bromofluorobenzene (Surr)	CBZd 5	Ave	706164 760546	738034 771169	729050	749515	778572	10.0 10.0	10.0 10.0	10.0	10.0	10.0

Curve Type Legend:

Ave = Average ISTD

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I01.D
 Lims ID: IC std7
 Client ID:
 Sample Type: IC Calib Level: 7
 Inject. Date: 11-Jun-2020 14:22:30 ALS Bottle#: 2 Worklist Smp#: 3
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0003178-003
 Misc. Info.: IC STD7
 Operator ID: DVV10203 Instrument ID: 16334
 Sublist: chrom-MSV_16334_25mL*sub4
 Method: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 16-Jun-2020 21:19:54 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I17.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1028

First Level Reviewer: howej

Date: 12-Jun-2020 14:20:22

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.940	1.953	-0.013	88	1984078	25.0	23.4	M
5 Chloromethane	50	2.135	2.142	-0.007	99	1753849	25.0	22.3	
6 Butadiene	39	2.251	2.263	-0.012	95	1515556	25.0	22.5	
7 Vinyl chloride	62	2.251	2.263	-0.012	98	1757294	25.0	23.7	
9 Bromomethane	94	2.568	2.580	-0.012	93	1465712	25.0	25.9	
10 Chloroethane	64	2.654	2.660	-0.006	98	1045426	25.0	24.7	
11 Dichlorofluoromethane	67	2.897	2.904	-0.007	98	2472588	25.0	24.7	
13 Trichlorofluoromethane	101	2.952	2.958	-0.006	97	2527278	25.0	25.4	
15 Ethyl ether	59	3.202	3.208	-0.006	92	915410	25.0	24.9	
16 1,2-Dichloro-1,1,2-trifluoroethane	67	3.294	3.300	-0.006	92	1359176	25.0	23.7	
18 Acrolein	56	3.379	3.391	-0.012	98	7198120	1250.0	1216.5	
19 1,1-Dichloroethene	96	3.507	3.525	-0.018	96	1071407	25.0	24.9	
21 112TCTFE	101	3.544	3.550	-0.006	92	1220912	25.0	25.7	
20 Acetone	43	3.544	3.562	-0.018	98	2078246	250.0	221.7	M
23 Isopropyl alcohol	45	3.714	3.708	0.006	98	614235	500.0	451.3	
22 Iodomethane	142	3.702	3.714	-0.012	99	2208468	25.0	24.9	
24 Ethyl bromide	108	3.733	3.745	-0.012	99	936806	25.0	24.8	
25 Carbon disulfide	76	3.806	3.818	-0.012	99	3811428	25.0	25.2	
26 Methyl acetate	43	3.946	3.946	0.000	97	538692	25.0	24.3	
27 3-Chloro-1-propene	41	3.983	3.995	-0.012	84	1754558	25.0	24.6	
28 Methylene Chloride	84	4.172	4.184	-0.012	95	1169757	25.0	24.2	
* 29 t-Butyl alcohol-d10 (IS)	65	4.190	4.196	-0.006	93	167844	50.0	50.0	M
30 2-Methyl-2-propanol	59	4.312	4.318	-0.006	97	1436229	500.0	480.7	
31 Acrylonitrile	53	4.507	4.519	-0.012	97	1231068	125.0	122.1	
32 Methyl tert-butyl ether	73	4.574	4.586	-0.012	90	3235725	25.0	24.4	
33 trans-1,2-Dichloroethene	96	4.574	4.586	-0.012	97	1227235	25.0	25.2	
34 Hexane	57	4.995	4.995	0.000	95	1666010	25.0	26.0	
36 1,1-Dichloroethane	63	5.245	5.251	-0.006	97	2247631	25.0	24.5	
37 Isopropyl ether	45	5.312	5.306	0.006	91	4004248	25.0	24.6	
38 2-Chloro-1,3-butadiene	53	5.348	5.360	-0.012	96	2164097	25.0	25.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 Tert-butyl ethyl ether	59	5.842	5.842	0.000	97	3851025	25.0	24.1	
40 2-Butanone (MEK)	43	6.049	6.055	-0.006	100	3857503	250.0	239.8	
41 cis-1,2-Dichloroethene	96	6.080	6.092	-0.012	84	1407300	25.0	25.0	
42 2,2-Dichloropropane	77	6.098	6.104	-0.006	90	2076881	25.0	25.8	
44 Propionitrile	54	6.147	6.153	-0.006	98	1744988	500.0	475.4	
S 49 1,2-Dichloroethene, Total	100				0			50.2	
46 Methacrylonitrile	67	6.360	6.360	0.000	94	3518617	250.0	251.4	
48 Chlorobromomethane	128	6.409	6.409	0.000	95	690855	25.0	25.9	
47 Tetrahydrofuran	71	6.409	6.427	-0.018	91	1034407	250.0	245.7	
50 Chloroform	83	6.567	6.567	0.000	95	2463392	25.0	25.0	
\$ 52 Dibromofluoromethane (Surr)	113	6.781	6.787	-0.006	93	542310	10.0	10.0	
51 1,1,1-Trichloroethane	97	6.793	6.793	0.000	98	2289628	25.0	25.4	
53 Cyclohexane	56	6.884	6.885	0.000	94	2002994	25.0	25.6	
55 1,1-Dichloropropene	75	7.000	7.000	0.000	89	1864944	25.0	25.7	
56 Carbon tetrachloride	117	7.000	7.000	0.000	85	2069795	25.0	25.7	
57 Isobutyl alcohol	41	7.171	7.177	-0.006	90	1449825	1250.0	1282.7	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.238	7.238	0.000	0	100814	10.0	9.75	
59 Benzene	78	7.262	7.262	0.000	99	5089767	25.0	25.1	
60 1,2-Dichloroethane	62	7.336	7.342	-0.006	98	1744529	25.0	23.8	
62 Tert-amyl methyl ether	73	7.464	7.464	0.000	96	3576954	25.0	25.0	
* 63 Fluorobenzene (IS)	96	7.671	7.671	0.000	98	2031596	10.0	10.0	
64 n-Heptane	43	7.677	7.683	-0.006	90	1896236	25.0	25.6	
65 n-Butanol	56	8.055	8.061	-0.006	92	2116412	2500.0	2310.7	
67 Trichloroethene	95	8.146	8.153	-0.007	96	1433249	25.0	25.4	
68 Methylcyclohexane	83	8.457	8.457	0.000	92	2161882	25.0	26.0	
70 2-ethoxy-2-methyl butane	87	8.494	8.488	0.006	92	2095939	25.0	26.4	
69 1,2-Dichloropropane	63	8.488	8.488	0.000	88	1352901	25.0	26.3	
72 1,4-Dioxane	88	8.579	8.573	0.006	34	258259	1250.0	1270.7	M
71 Methyl methacrylate	69	8.573	8.573	0.000	88	728679	25.0	25.7	
73 Dibromomethane	93	8.591	8.598	-0.007	95	763628	25.0	25.7	
75 Dichlorobromomethane	83	8.835	8.835	0.000	98	1922752	25.0	26.1	
76 2-Nitropropane	41	9.122	9.122	0.000	99	3188626	250.0	269.8	
79 1-Bromo-2-chloroethane	63	9.225	9.226	-0.001	99	1450497	25.0	25.7	
80 cis-1,3-Dichloropropene	75	9.384	9.384	0.000	91	2203053	25.0	27.1	
81 4-Methyl-2-pentanone (MIBK)	43	9.567	9.567	0.000	98	10867379	250.0	258.8	
\$ 82 Toluene-d8 (Surr)	98	9.695	9.695	0.000	95	2058532	10.0	9.89	
83 Toluene	92	9.768	9.768	0.000	96	3345388	25.0	25.5	
84 trans-1,3-Dichloropropene	75	10.030	10.036	-0.006	98	1981499	25.0	26.6	
S 87 1,3-Dichloropropene, Total	100				0			53.7	
85 Ethyl methacrylate	69	10.091	10.097	-0.006	88	1587034	25.0	27.4	
86 1,1,2-Trichloroethane	97	10.237	10.238	-0.001	94	1014332	25.0	25.1	
88 Tetrachloroethene	166	10.317	10.317	0.000	94	1608084	25.0	25.0	
89 1,3-Dichloropropane	76	10.402	10.402	0.000	93	1744901	25.0	25.1	
91 2-Hexanone	43	10.457	10.457	0.000	98	7966818	250.0	260.9	
93 Chlorodibromomethane	129	10.609	10.615	-0.006	90	1412503	25.0	27.0	
94 Ethylene Dibromide	107	10.719	10.719	0.000	98	1050836	25.0	25.9	
* 95 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	88	1589386	10.0	10.0	
96 1-Chlorohexane	91	11.164	11.164	0.000	96	2012724	25.0	24.7	
97 Chlorobenzene	112	11.182	11.182	0.000	96	4001539	25.0	25.7	
S 101 Xylenes, Total	106				0			78.9	
98 1,1,1,2-Tetrachloroethane	131	11.268	11.268	0.000	92	1570554	25.0	26.9	
99 Ethylbenzene	91	11.268	11.268	0.000	99	7003937	25.0	25.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
100 m-Xylene & p-Xylene	106	11.384	11.384	0.000	0	5291403	50.0	52.2	
102 o-Xylene	106	11.713	11.713	0.000	98	2655825	25.0	26.8	
103 Styrene	104	11.731	11.731	0.000	94	4526523	25.0	27.7	
104 Bromoform	173	11.884	11.890	-0.006	94	922514	25.0	28.0	
105 Isopropylbenzene	105	12.018	12.018	0.000	97	7012288	25.0	26.4	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	90	771169	10.0	9.98	
109 1,1,2,2-Tetrachloroethane	83	12.261	12.262	-0.001	93	1398205	25.0	26.0	
110 Bromobenzene	156	12.274	12.274	0.000	97	1825670	25.0	25.7	
111 trans-1,4-Dichloro-2-butene	53	12.292	12.286	0.006	97	4836446	250.0	286.4	
112 1,2,3-Trichloropropane	110	12.310	12.310	0.000	84	380521	25.0	25.3	
113 N-Propylbenzene	91	12.347	12.347	0.000	99	8251547	25.0	25.1	
114 2-Chlorotoluene	126	12.420	12.420	0.000	95	1677269	25.0	25.6	
115 1,3,5-Trimethylbenzene	105	12.481	12.481	0.000	94	6047375	25.0	26.4	
116 4-Chlorotoluene	126	12.511	12.511	0.000	99	1775917	25.0	25.5	
118 tert-Butylbenzene	134	12.725	12.725	0.000	92	1331679	25.0	26.1	
120 Pentachloroethane	167	12.755	12.755	0.000	92	1229225	25.0	27.3	
119 1,2,4-Trimethylbenzene	105	12.761	12.761	0.000	98	6305897	25.0	26.3	
121 sec-Butylbenzene	105	12.883	12.883	0.000	96	7802052	25.0	25.9	
122 1,3-Dichlorobenzene	146	12.981	12.987	-0.006	97	3540776	25.0	25.7	
123 4-Isopropyltoluene	119	12.993	12.993	0.000	96	6889312	25.0	26.6	
* 124 1,4-Dichlorobenzene-d4	152	13.042	13.036	0.006	95	886607	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.054	13.054	0.000	92	3541151	25.0	25.3	
126 1,2,3-Trimethylbenzene	120	13.066	13.066	0.000	99	2749277	25.0	26.2	
127 Benzyl chloride	126	13.133	13.133	0.000	99	597242	25.0	29.8	
129 p-Diethylbenzene	119	13.194	13.194	0.000	90	4188083	25.0	26.6	
130 n-Butylbenzene	92	13.286	13.286	0.000	98	3523191	25.0	26.2	
131 1,2-Dichlorobenzene	146	13.316	13.316	0.000	97	3228016	25.0	25.1	
134 1,2-Dibromo-3-Chloropropane	155	13.859	13.859	0.000	82	205257	25.0	26.4	
135 1,3,5-Trichlorobenzene	180	13.981	13.981	0.000	96	2695432	25.0	25.0	
136 1,2,4-Trichlorobenzene	180	14.407	14.407	0.000	93	2287248	25.0	24.7	
137 Hexachlorobutadiene	225	14.487	14.487	0.000	97	1212984	25.0	24.0	
138 Naphthalene	128	14.584	14.590	-0.006	98	3787832	25.0	25.1	
139 1,2,3-Trichlorobenzene	180	14.731	14.731	-0.001	94	1938866	25.0	25.0	
140 2-Methylnaphthalene	142	15.352	15.352	0.000	91	2375123	25.0	27.0	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MSV_RV1_826_00016

Amount Added: 25.00

Units: uL

MSV_RV4GAS826_00047

Amount Added: 25.00

Units: uL

MSV_RV4_826_00017

Amount Added: 25.00

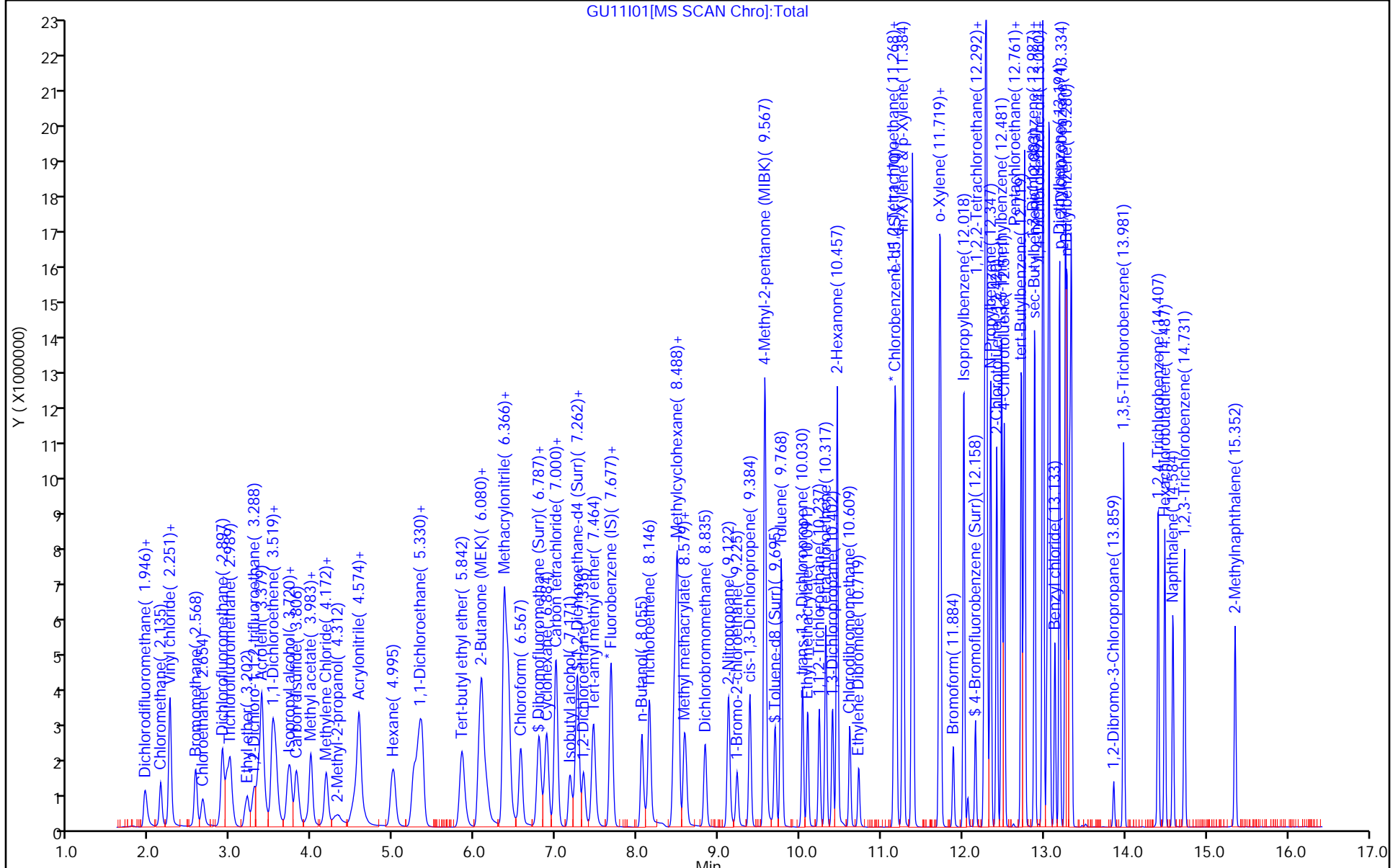
Units: uL

MSV_29_826ISS_00007

Amount Added: 1.00

Units: uL

Run Reagent



GU11I01[MS SCAN Chrom]:Total

Y (X1000000)

Eurofins Lancaster Laboratories Env, LLC

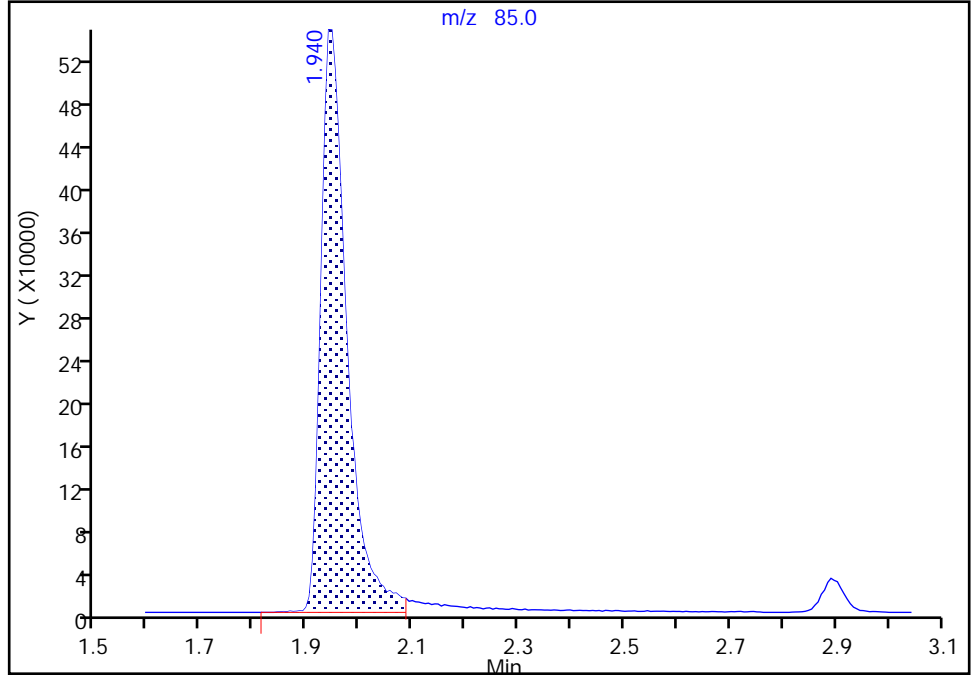
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I01.D
Injection Date: 11-Jun-2020 14:22:30 Instrument ID: 16334
Lims ID: IC std7
Client ID:
Operator ID: DVV10203 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

1 Dichlorodifluoromethane, CAS: 75-71-8

Signal: 1

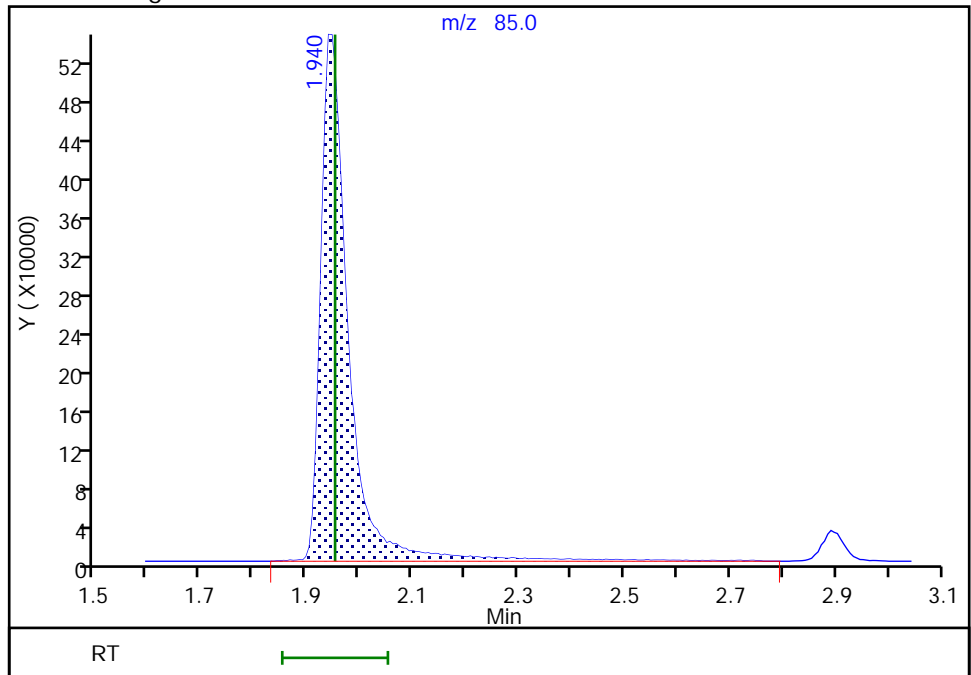
RT: 1.94
Area: 1875435
Amount: 22.283049
Amount Units: ug/l

Processing Integration Results



RT: 1.94
Area: 1984078
Amount: 23.401281
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 14:14:48
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

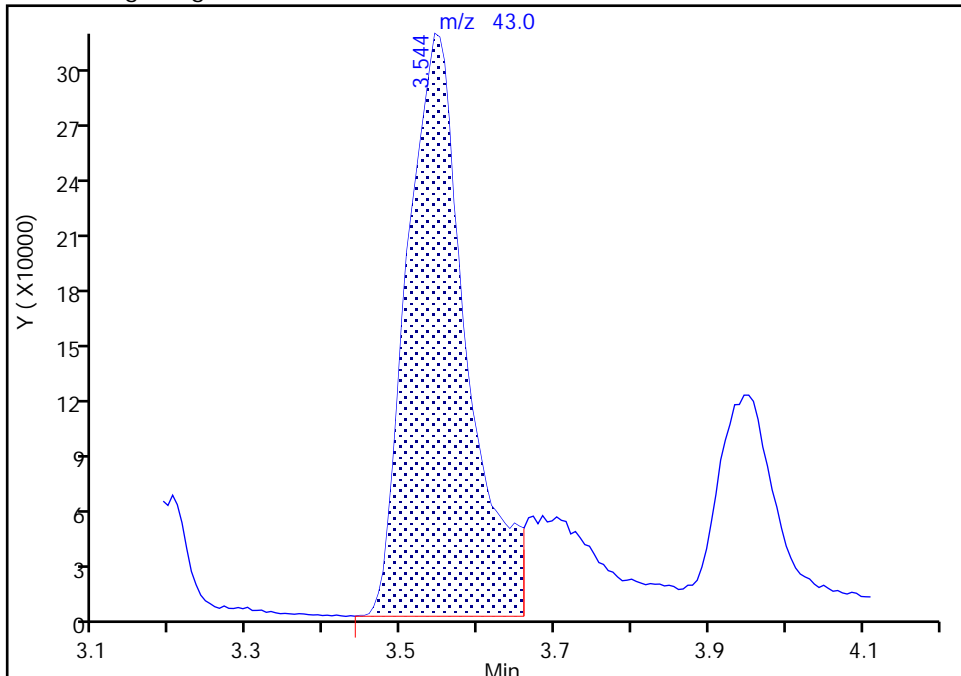
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Injection Date: 11-Jun-2020 14:22:30 Instrument ID: 16334
Lims ID: IC std7
Client ID:
Operator ID: DVV10203 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

20 Acetone, CAS: 67-64-1

Signal: 1

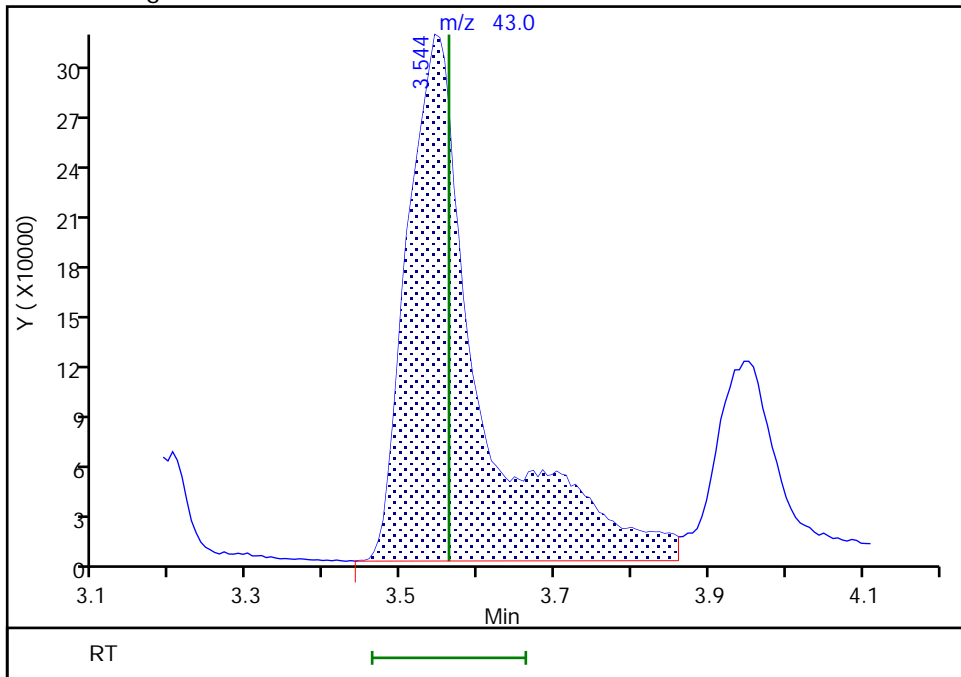
RT: 3.54
Area: 1691197
Amount: 217.4656
Amount Units: ug/l

Processing Integration Results



RT: 3.54
Area: 2078246
Amount: 221.7148
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 14:15:12
Audit Action: Assigned New Baseline

Audit Reason: Other

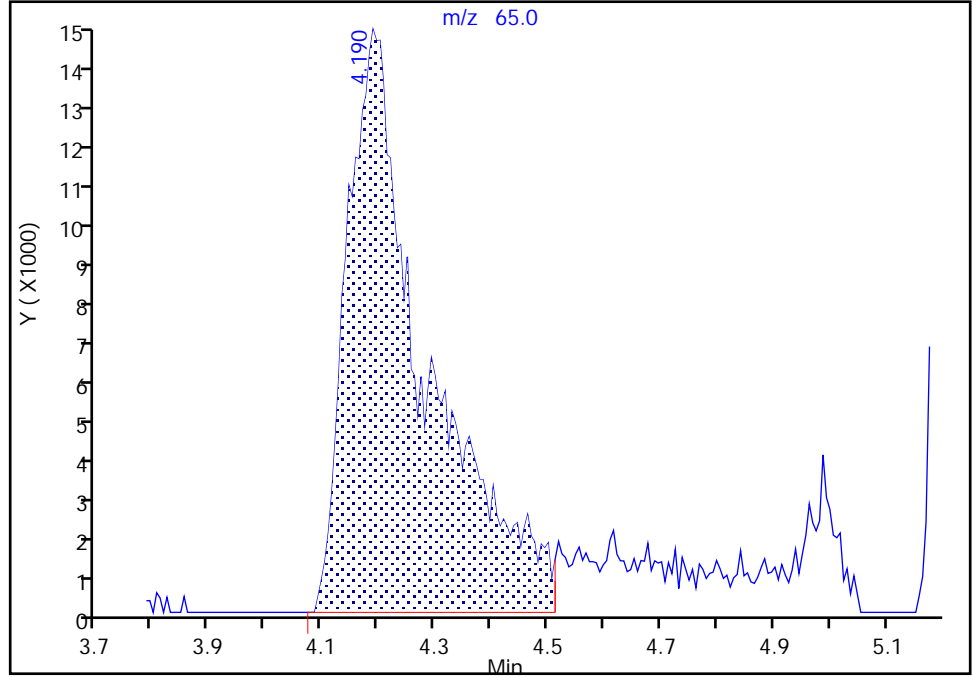
Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11101.D
Injection Date: 11-Jun-2020 14:22:30 Instrument ID: 16334
Lims ID: IC std7
Client ID:
Operator ID: DVV10203 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 29 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2
Signal: 1

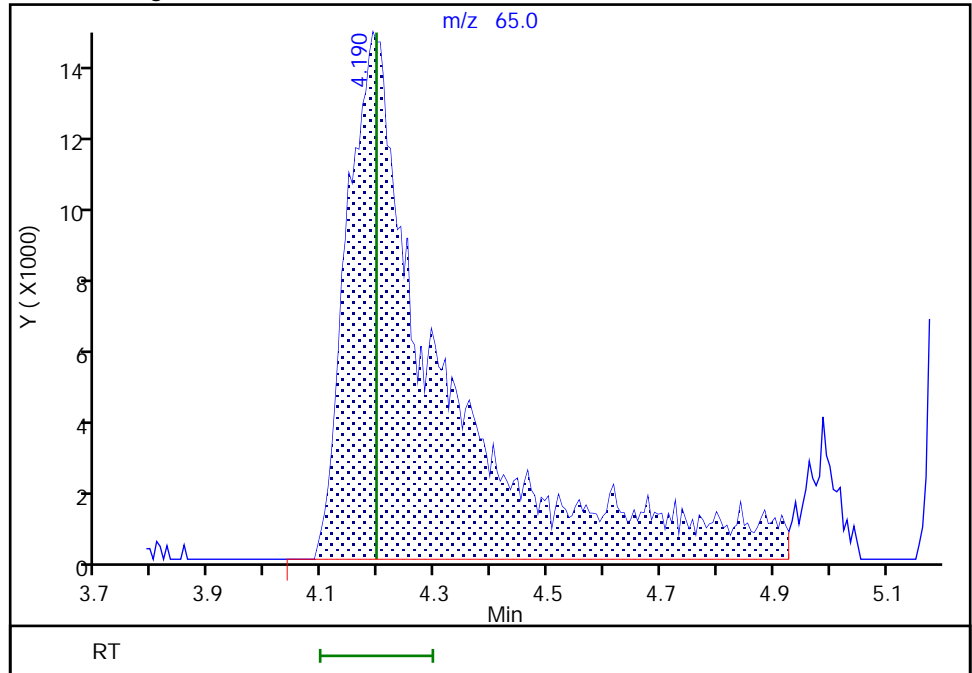
RT: 4.19
Area: 139641
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.19
Area: 167844
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 14:15:35
Audit Action: Split an Integrated Peak

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

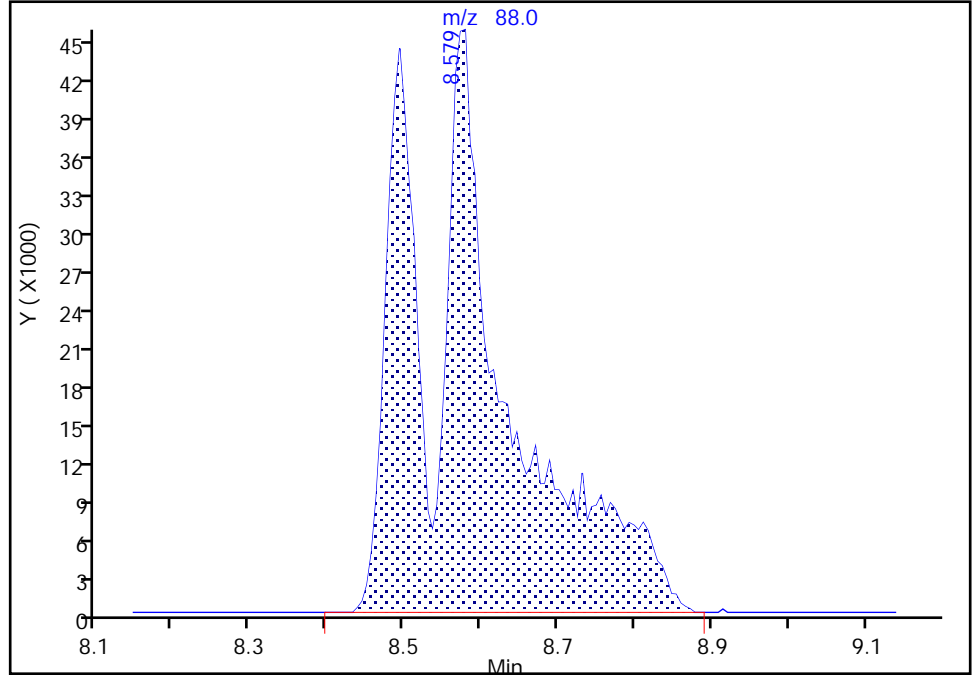
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Injection Date: 11-Jun-2020 14:22:30 Instrument ID: 16334
Lims ID: IC std7
Client ID:
Operator ID: DVV10203 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

72 1,4-Dioxane, CAS: 123-91-1

Signal: 1

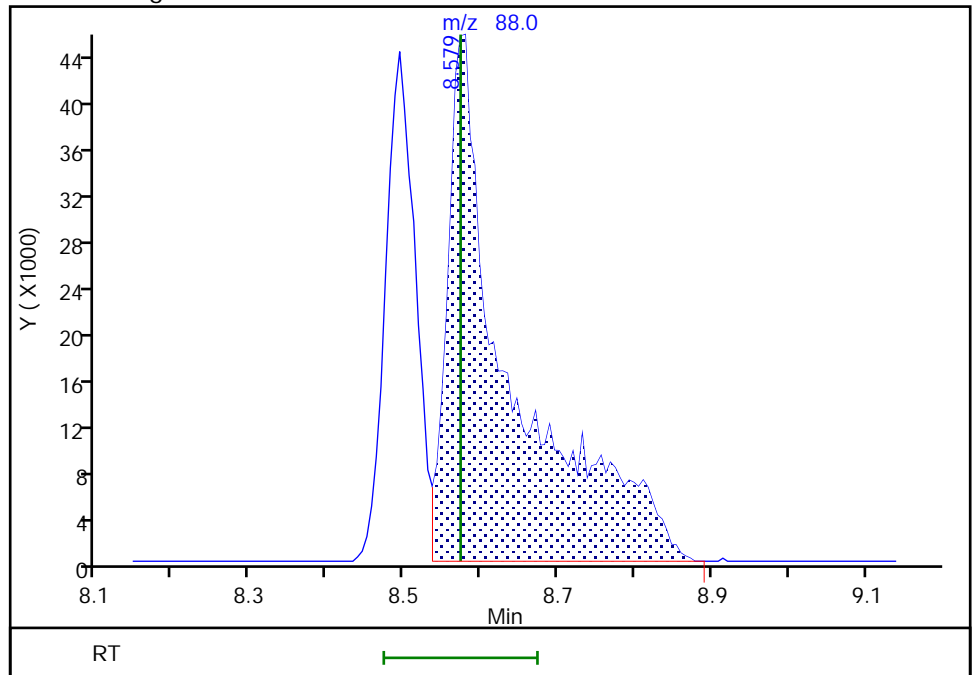
RT: 8.58
Area: 374457
Amount: 2169.8556
Amount Units: ug/l

Processing Integration Results



RT: 8.58
Area: 258259
Amount: 1270.7101
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 14:12:09
Audit Action: Split an Integrated Peak

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I02.D
 Lims ID: ICIS std6
 Client ID:
 Sample Type: ICIS Calib Level: 6
 Inject. Date: 11-Jun-2020 14:44:30 ALS Bottle#: 3 Worklist Smp#: 4
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0003178-004
 Misc. Info.: ICIS STD6
 Operator ID: DVV10203 Instrument ID: 16334
 Sublist: chrom-MSV_16334_25mL*sub4
 Method: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 16-Jun-2020 21:23:24 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I17.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1028

First Level Reviewer: howej

Date: 12-Jun-2020 13:48:57

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.959	1.959	0.000	99	861238	10.0	10.2	M
5 Chloromethane	50	2.148	2.148	0.000	99	774332	10.0	9.88	M
6 Butadiene	39	2.257	2.257	0.000	97	676884	10.0	10.1	a
7 Vinyl chloride	62	2.264	2.264	0.000	98	764446	10.0	10.3	M
9 Bromomethane	94	2.581	2.581	0.000	93	563948	10.0	10.0	M
10 Chloroethane	64	2.666	2.666	0.000	98	423722	10.0	10.0	Ma
11 Dichlorofluoromethane	67	2.904	2.904	0.000	98	1013838	10.0	10.1	Ma
13 Trichlorofluoromethane	101	2.965	2.965	0.000	96	1043554	10.0	10.5	Ma
15 Ethyl ether	59	3.215	3.215	0.000	93	376971	10.0	10.3	Ma
16 1,2-Dichloro-1,1,2-trifluoroethane	67	3.300	3.300	0.000	84	590535	10.0	10.3	a
18 Acrolein	56	3.391	3.391	0.000	96	2941709	500.0	530.5	
19 1,1-Dichloroethene	96	3.526	3.526	0.000	88	447762	10.0	10.4	
21 112TCTFE	101	3.562	3.562	0.000	82	498700	10.0	10.5	
20 Acetone	43	3.556	3.556	0.000	98	849795	100.0	96.7	Ma
23 Isopropyl alcohol	45	3.715	3.715	0.000	36	218861	200.0	161.3	a
22 Iodomethane	142	3.715	3.715	0.000	99	915828	10.0	10.4	a
24 Ethyl bromide	108	3.745	3.745	0.000	98	379672	10.0	10.1	a
25 Carbon disulfide	76	3.818	3.818	0.000	99	1572147	10.0	10.4	a
26 Methyl acetate	43	3.940	3.940	0.000	98	217220	10.0	10.4	a
27 3-Chloro-1-propene	41	3.995	3.995	0.000	83	735794	10.0	10.3	a
28 Methylene Chloride	84	4.184	4.184	0.000	91	494462	10.0	10.3	a
* 29 t-Butyl alcohol-d10 (IS)	65	4.196	4.196	0.000	92	157279	50.0	50.0	M
30 2-Methyl-2-propanol	59	4.324	4.324	0.000	97	598514	200.0	213.8	a
31 Acrylonitrile	53	4.525	4.525	0.000	94	489475	50.0	51.8	
32 Methyl tert-butyl ether	73	4.580	4.580	0.000	97	1358106	10.0	10.3	a
33 trans-1,2-Dichloroethene	96	4.586	4.586	0.000	92	506462	10.0	10.4	a
34 Hexane	57	5.001	5.001	0.000	95	675565	10.0	10.6	a
36 1,1-Dichloroethane	63	5.251	5.251	0.000	86	943383	10.0	10.3	a
37 Isopropyl ether	45	5.318	5.318	0.000	91	1670705	10.0	10.3	
38 2-Chloro-1,3-butadiene	53	5.361	5.361	0.000	93	885492	10.0	10.5	a

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 Tert-butyl ethyl ether	59	5.848	5.848	0.000	97	1627371	10.0	10.2	a
40 2-Butanone (MEK)	43	6.056	6.056	0.000	99	1547384	100.0	102.7	a
41 cis-1,2-Dichloroethene	96	6.092	6.092	0.000	72	577884	10.0	10.3	a
42 2,2-Dichloropropane	77	6.104	6.104	0.000	78	839339	10.0	10.4	a
44 Propionitrile	54	6.153	6.153	0.000	98	706757	200.0	205.5	Ma
46 Methacrylonitrile	67	6.366	6.366	0.000	91	1416865	100.0	108.0	a
48 Chlorobromomethane	128	6.415	6.415	0.000	67	274903	10.0	10.3	a
47 Tetrahydrofuran	71	6.421	6.421	0.000	72	415293	100.0	105.3	a
50 Chloroform	83	6.568	6.568	0.000	83	1011245	10.0	10.3	a
\$ 52 Dibromofluoromethane (Surr)	113	6.787	6.787	0.000	71	541828	10.0	10.0	
51 1,1,1-Trichloroethane	97	6.793	6.793	0.000	94	931969	10.0	10.4	a
53 Cyclohexane	56	6.891	6.891	0.000	93	817081	10.0	10.5	a
55 1,1-Dichloropropene	75	7.000	7.000	0.000	86	749047	10.0	10.3	a
56 Carbon tetrachloride	117	7.007	7.007	0.000	77	839973	10.0	10.5	a
57 Isobutyl alcohol	41	7.177	7.177	0.000	89	577326	500.0	512.4	a
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.238	7.238	0.000	0	103710	10.0	10.1	a
59 Benzene	78	7.269	7.269	0.000	98	2054148	10.0	10.2	a
60 1,2-Dichloroethane	62	7.342	7.342	0.000	92	719375	10.0	9.83	a
62 Tert-amyl methyl ether	73	7.464	7.464	0.000	96	1485891	10.0	10.4	a
* 63 Fluorobenzene (IS)	96	7.671	7.671	0.000	94	2025090	10.0	10.0	a
64 n-Heptane	43	7.683	7.683	0.000	65	764390	10.0	10.4	a
65 n-Butanol	56	8.055	8.055	0.000	92	872474	1000.0	1016.6	a
67 Trichloroethene	95	8.147	8.147	0.000	92	580582	10.0	10.3	a
68 Methylcyclohexane	83	8.457	8.457	0.000	92	848347	10.0	10.2	a
69 1,2-Dichloropropane	63	8.488	8.488	0.000	70	530310	10.0	10.3	a
70 2-ethoxy-2-methyl butane	87	8.494	8.494	0.000	88	835578	10.0	10.6	a
72 1,4-Dioxane	88	8.579	8.579	0.000	33	100676	500.0	528.6	Ma
71 Methyl methacrylate	69	8.579	8.579	0.000	87	287147	10.0	10.8	a
73 Dibromomethane	93	8.592	8.592	0.000	91	304406	10.0	10.3	a
75 Dichlorobromomethane	83	8.835	8.835	0.000	92	774382	10.0	10.6	a
76 2-Nitropropane	41	9.122	9.122	0.000	98	1241815	100.0	112.1	a
79 1-Bromo-2-chloroethane	63	9.226	9.226	0.000	94	577229	10.0	10.3	a
80 cis-1,3-Dichloropropene	75	9.384	9.384	0.000	87	871617	10.0	10.8	a
81 4-Methyl-2-pentanone (MIBK)	43	9.567	9.567	0.000	99	4253795	100.0	108.1	a
\$ 82 Toluene-d8 (Surr)	98	9.695	9.695	0.000	96	2050055	10.0	9.97	
83 Toluene	92	9.768	9.768	0.000	96	1319026	10.0	10.2	a
84 trans-1,3-Dichloropropene	75	10.030	10.030	0.000	95	790985	10.0	10.7	a
85 Ethyl methacrylate	69	10.097	10.097	0.000	87	621159	10.0	10.8	a
86 1,1,2-Trichloroethane	97	10.238	10.238	0.000	89	399920	10.0	10.0	a
88 Tetrachloroethene	166	10.317	10.317	0.000	89	643580	10.0	10.1	a
89 1,3-Dichloropropane	76	10.402	10.402	0.000	92	714231	10.0	10.4	a
91 2-Hexanone	43	10.457	10.457	0.000	98	3137863	100.0	109.7	a
93 Chlorodibromomethane	129	10.616	10.616	0.000	88	550991	10.0	10.7	a
94 Ethylene Dibromide	107	10.725	10.725	0.000	98	417127	10.0	10.4	a
* 95 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	86	1571507	10.0	10.0	
96 1-Chlorohexane	91	11.164	11.164	0.000	80	785815	10.0	9.77	a
97 Chlorobenzene	112	11.183	11.183	0.000	92	1561602	10.0	10.1	a
98 1,1,1,2-Tetrachloroethane	131	11.268	11.268	0.000	41	611572	10.0	10.6	a
99 Ethylbenzene	91	11.268	11.268	0.000	99	2765839	10.0	10.3	a
100 m-Xylene & p-Xylene	106	11.384	11.384	0.000	0	2066415	20.0	20.6	a
102 o-Xylene	106	11.713	11.713	0.000	96	1031124	10.0	10.5	a
103 Styrene	104	11.731	11.731	0.000	93	1744495	10.0	10.8	a

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 Bromoform	173	11.884	11.884	0.000	93	351852	10.0	10.8	a
105 Isopropylbenzene	105	12.018	12.018	0.000	96	2757144	10.0	10.5	a
\$ 108 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	89	760546	10.0	9.95	a
109 1,1,2,2-Tetrachloroethane	83	12.268	12.268	0.000	67	542504	10.0	10.4	a
110 Bromobenzene	156	12.274	12.274	0.000	91	704261	10.0	10.2	a
111 trans-1,4-Dichloro-2-butene	53	12.286	12.286	0.000	91	1819743	100.0	115.0	a
112 1,2,3-Trichloropropane	110	12.310	12.310	0.000	85	149465	10.0	10.2	a
113 N-Propylbenzene	91	12.347	12.347	0.000	99	3300628	10.0	10.3	a
114 2-Chlorotoluene	126	12.420	12.420	0.000	93	666211	10.0	10.5	a
115 1,3,5-Trimethylbenzene	105	12.481	12.481	0.000	93	2375803	10.0	10.7	a
116 4-Chlorotoluene	126	12.512	12.512	0.000	99	697119	10.0	10.3	a
118 tert-Butylbenzene	134	12.725	12.725	0.000	93	513292	10.0	10.3	a
120 Pentachloroethane	167	12.755	12.755	0.000	51	464478	10.0	10.6	a
119 1,2,4-Trimethylbenzene	105	12.762	12.762	0.000	97	2481394	10.0	10.7	a
121 sec-Butylbenzene	105	12.883	12.883	0.000	96	3080818	10.0	10.5	a
122 1,3-Dichlorobenzene	146	12.981	12.981	0.000	95	1387081	10.0	10.4	a
123 4-Isopropyltoluene	119	12.993	12.993	0.000	94	2692351	10.0	10.7	a
* 124 1,4-Dichlorobenzene-d4	152	13.042	13.042	0.000	94	862579	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.054	13.054	0.000	89	1411779	10.0	10.4	a
126 1,2,3-Trimethylbenzene	120	13.066	13.066	0.000	99	1064292	10.0	10.4	a
127 Benzyl chloride	126	13.133	13.133	0.000	99	226236	10.0	11.6	a
129 p-Diethylbenzene	119	13.194	13.194	0.000	89	1622188	10.0	10.6	a
130 n-Butylbenzene	92	13.286	13.286	0.000	97	1398562	10.0	10.7	a
131 1,2-Dichlorobenzene	146	13.316	13.316	0.000	94	1292909	10.0	10.3	a
134 1,2-Dibromo-3-Chloropropane	155	13.859	13.859	0.000	78	78720	10.0	10.4	a
135 1,3,5-Trichlorobenzene	180	13.981	13.981	0.000	91	1103506	10.0	10.5	a
136 1,2,4-Trichlorobenzene	180	14.408	14.408	0.000	92	963858	10.0	10.7	a
137 Hexachlorobutadiene	225	14.487	14.487	0.000	94	508769	10.0	10.4	a
138 Naphthalene	128	14.590	14.590	0.000	98	1575717	10.0	10.7	a
139 1,2,3-Trichlorobenzene	180	14.731	14.731	0.000	93	800883	10.0	10.6	a
140 2-Methylnaphthalene	142	15.352	15.352	0.000	87	903843	10.0	10.6	a

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MSV_RV1_826_00016

Amount Added: 10.00

Units: uL

MSV_RV4GAS826_00047

Amount Added: 10.00

Units: uL

MSV_RV4_826_00017

Amount Added: 10.00

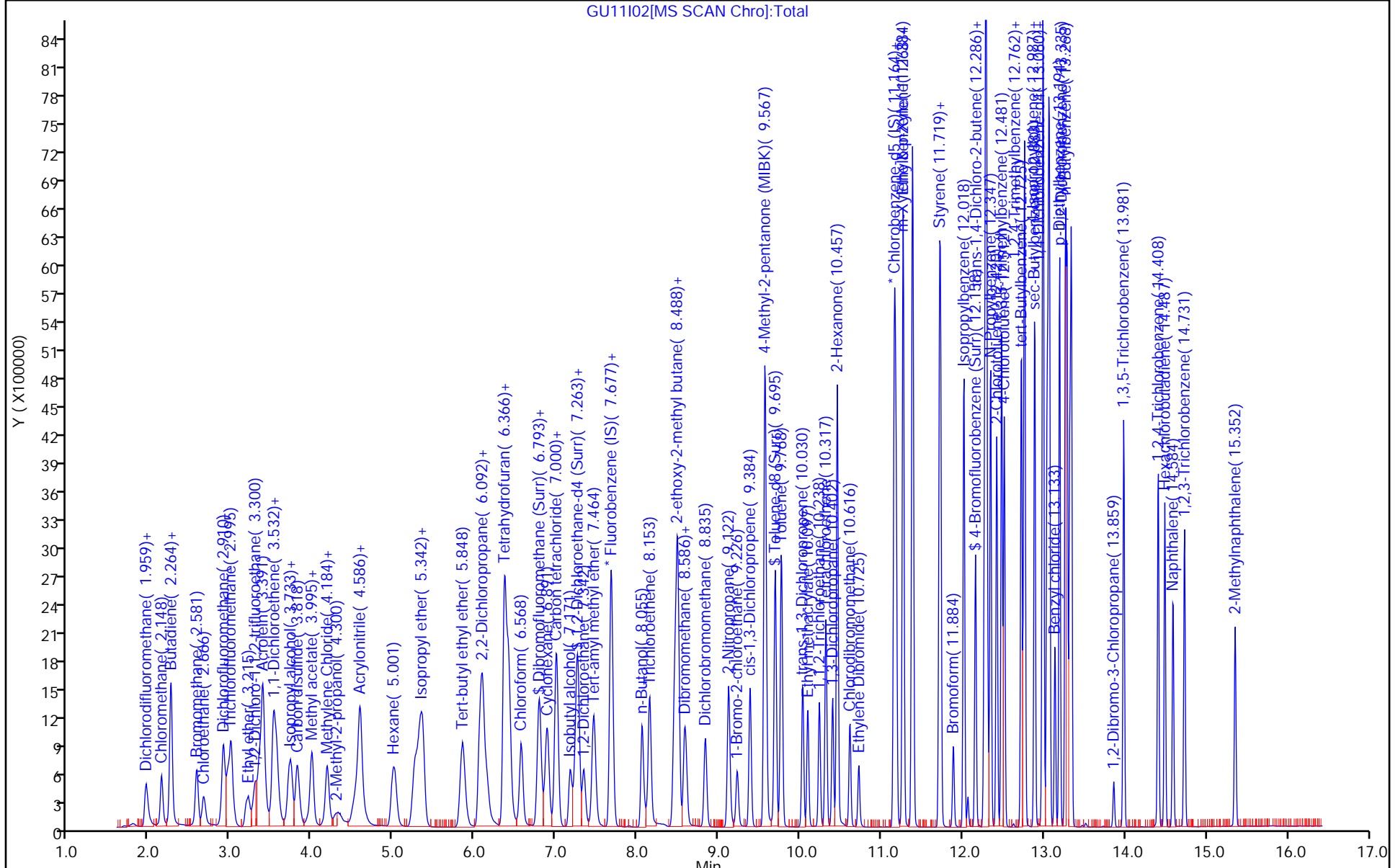
Units: uL

MSV_29_826ISS_00007

Amount Added: 1.00

Units: uL

Run Reagent



Eurofins Lancaster Laboratories Env, LLC

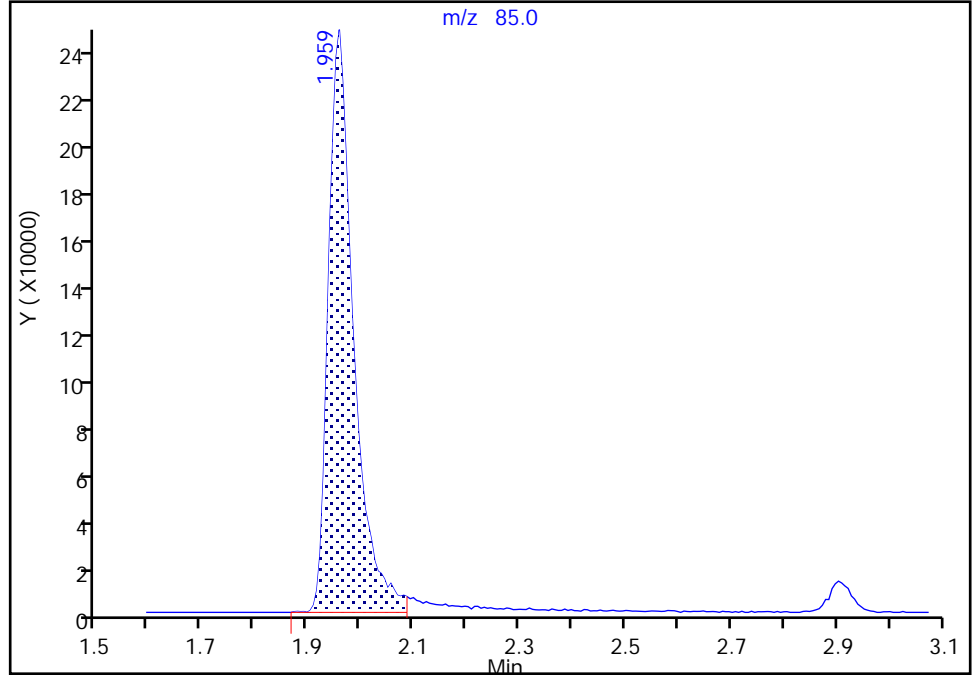
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

1 Dichlorodifluoromethane, CAS: 75-71-8

Signal: 1

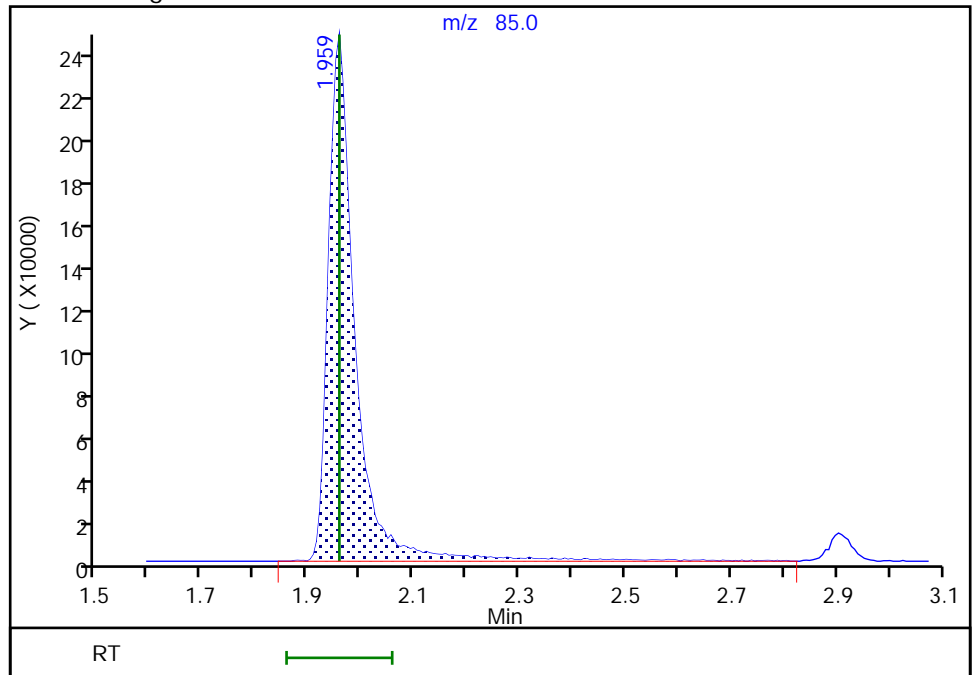
RT: 1.96
Area: 808702
Amount: 9.938543
Amount Units: ug/l

Processing Integration Results



RT: 1.96
Area: 861238
Amount: 10.190538
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:42:45
Audit Action: Manually Integrated

Audit Reason: Other

Euofins Lancaster Laboratories Env, LLC

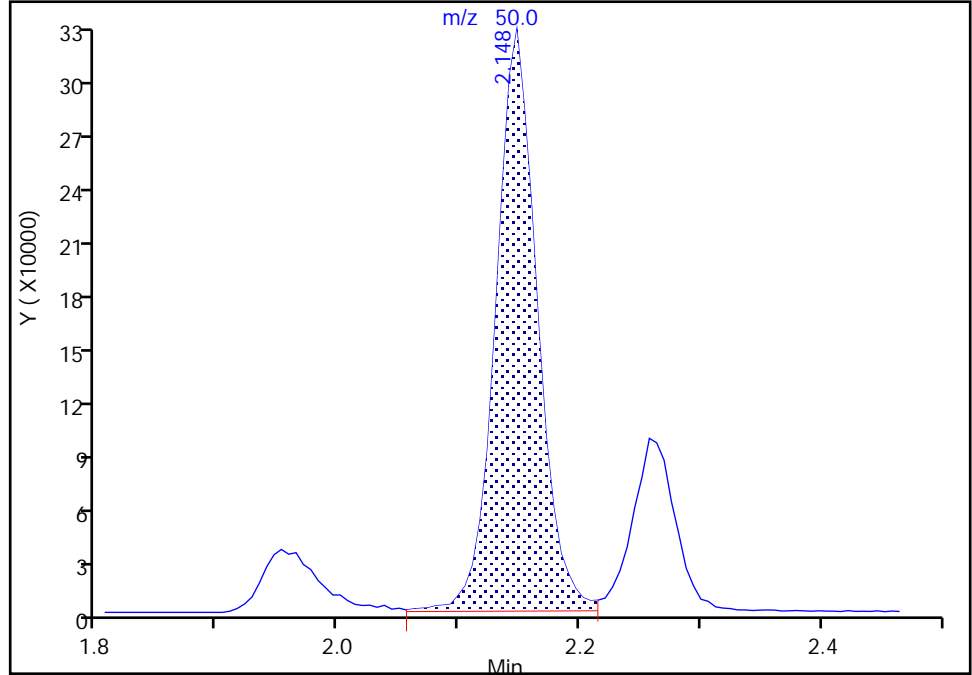
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Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

5 Chloromethane, CAS: 74-87-3

Signal: 1

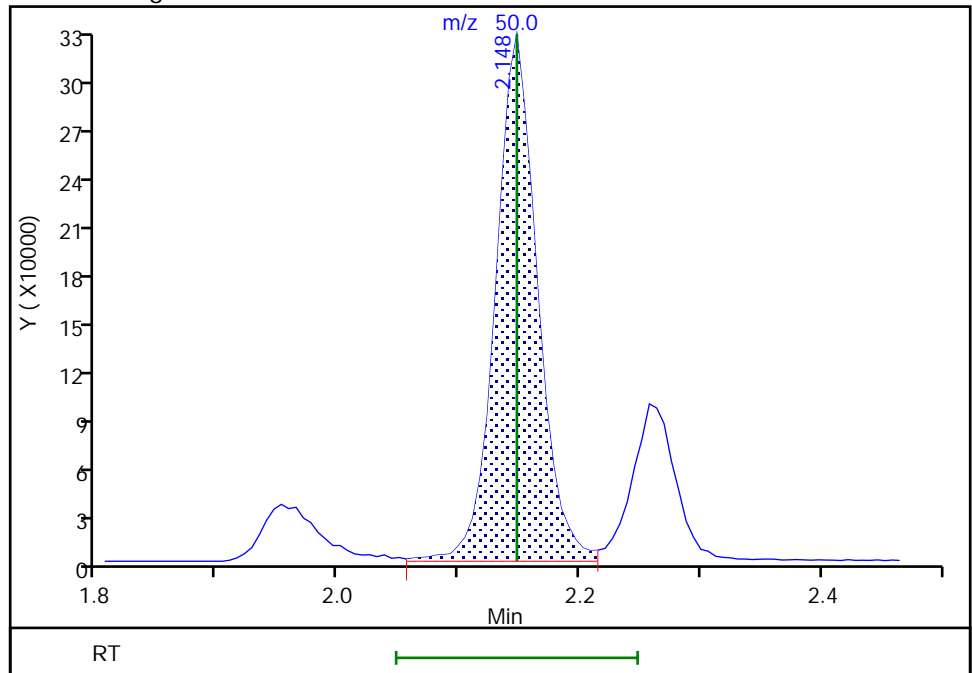
RT: 2.15
Area: 767922
Amount: 9.810296
Amount Units: ug/l

Processing Integration Results



RT: 2.15
Area: 774332
Amount: 9.880625
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:43:05
Audit Action: Assigned New Baseline

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

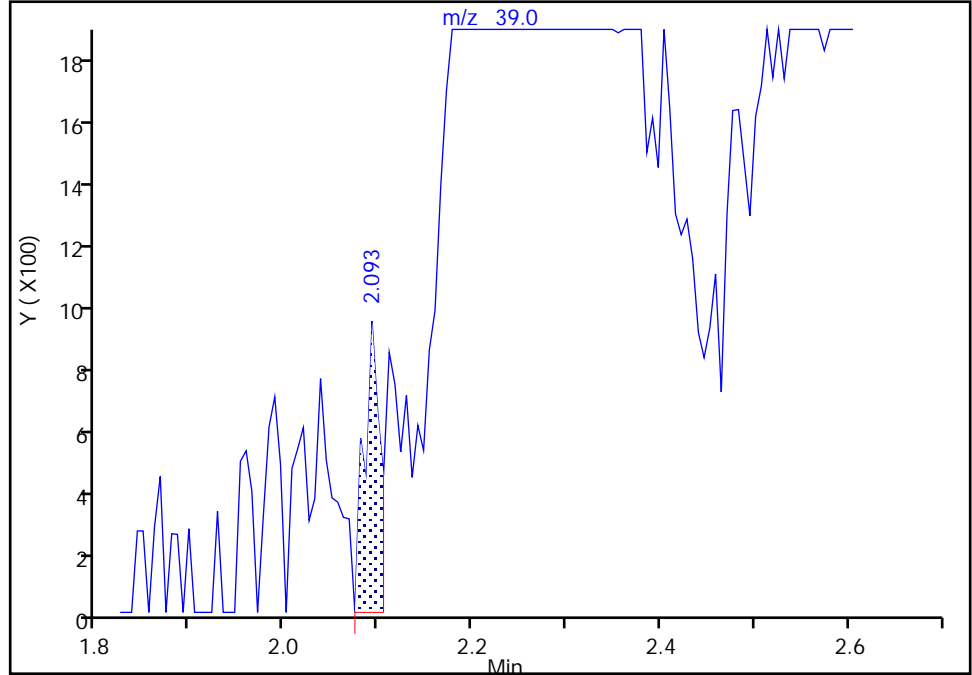
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

6 Butadiene, CAS: 106-99-0

Signal: 1

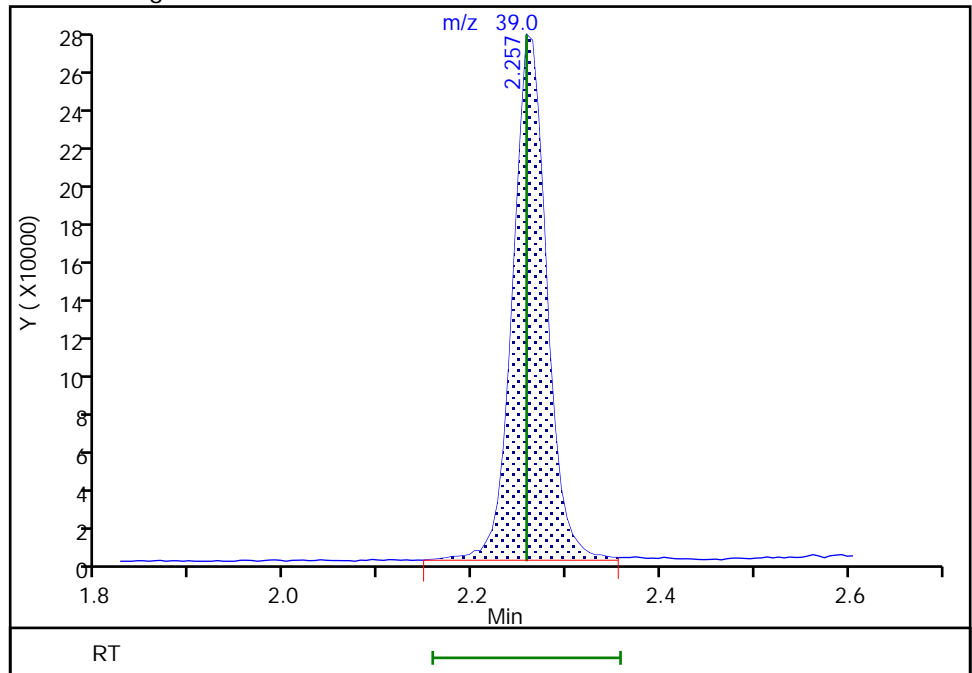
RT: 2.09
Area: 1104
Amount: 0.000005
Amount Units: ug/l

Processing Integration Results



RT: 2.26
Area: 676884
Amount: 10.099528
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:26:39
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

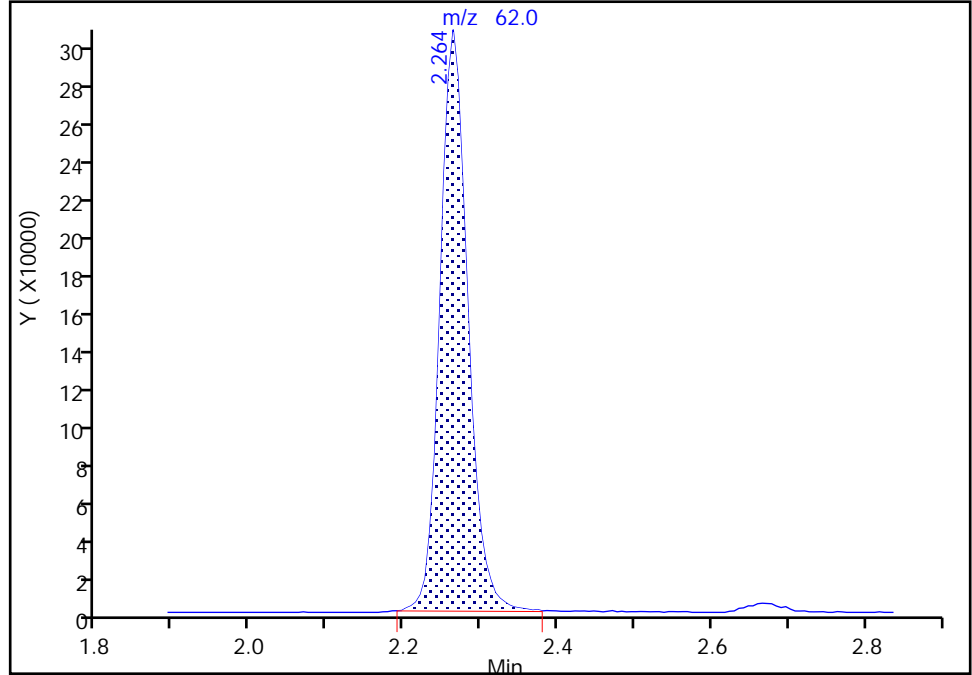
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

7 Vinyl chloride, CAS: 75-01-4

Signal: 1

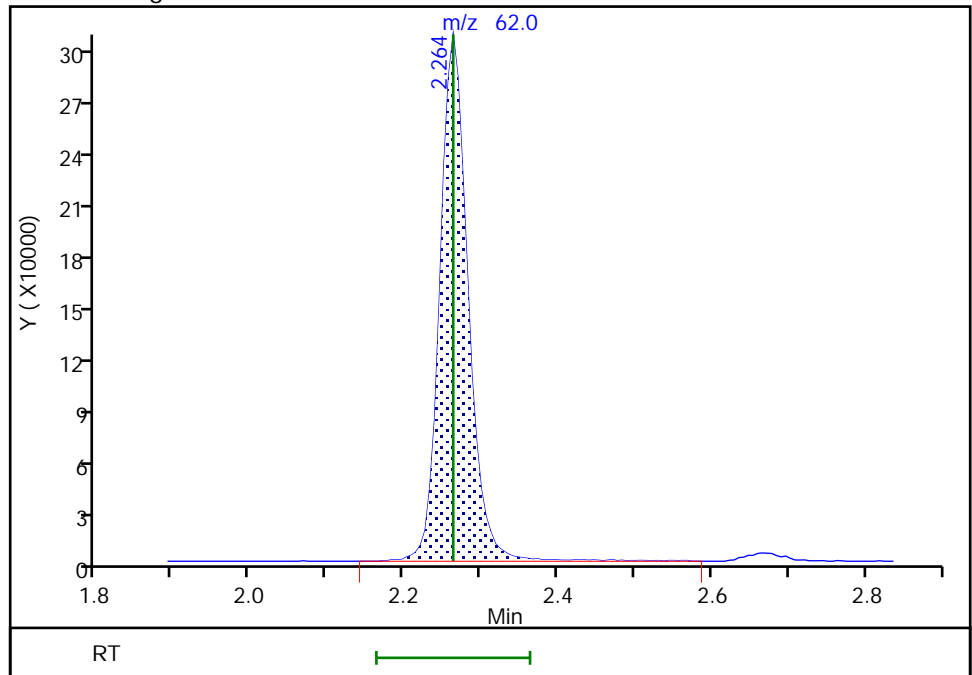
RT: 2.26
Area: 751273
Amount: 10.245577
Amount Units: ug/l

Processing Integration Results



RT: 2.26
Area: 764446
Amount: 10.332306
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:43:21
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

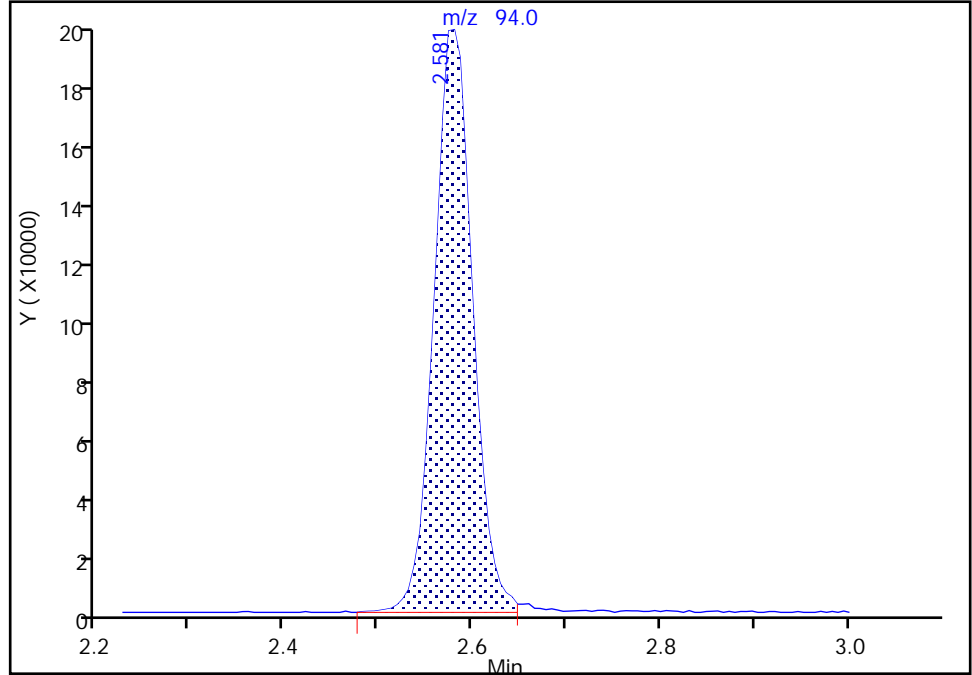
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm i.d.) Detector: MS Quad

9 Bromomethane, CAS: 74-83-9

Signal: 1

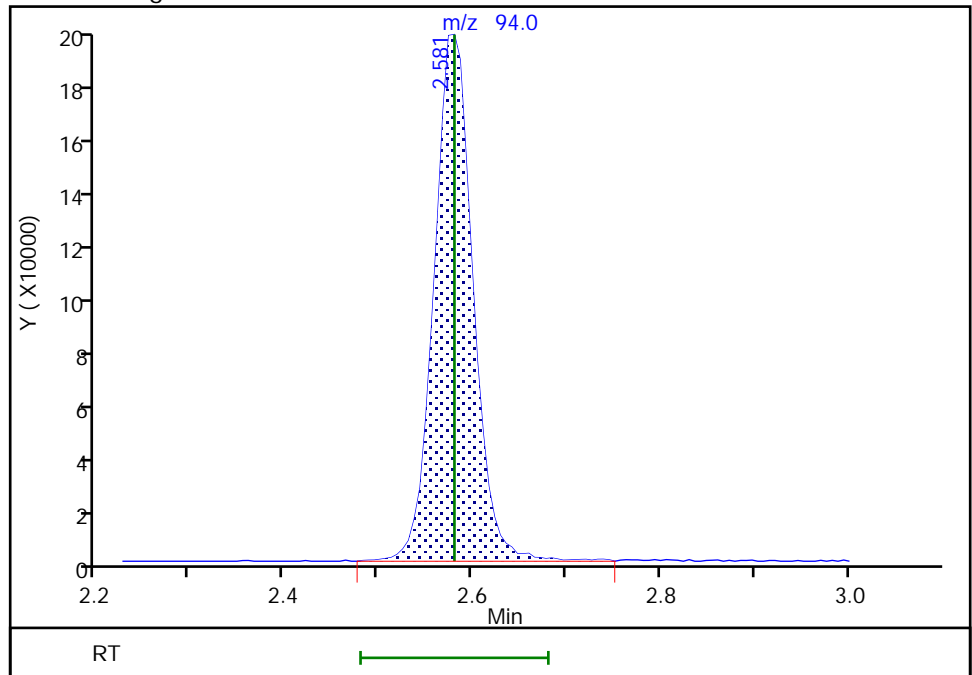
RT: 2.58
Area: 558049
Amount: 10.083560
Amount Units: ug/l

Processing Integration Results



RT: 2.58
Area: 563948
Amount: 10.015719
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:43:47
Audit Action: Manually Integrated

Audit Reason: Other

Euofins Lancaster Laboratories Env, LLC

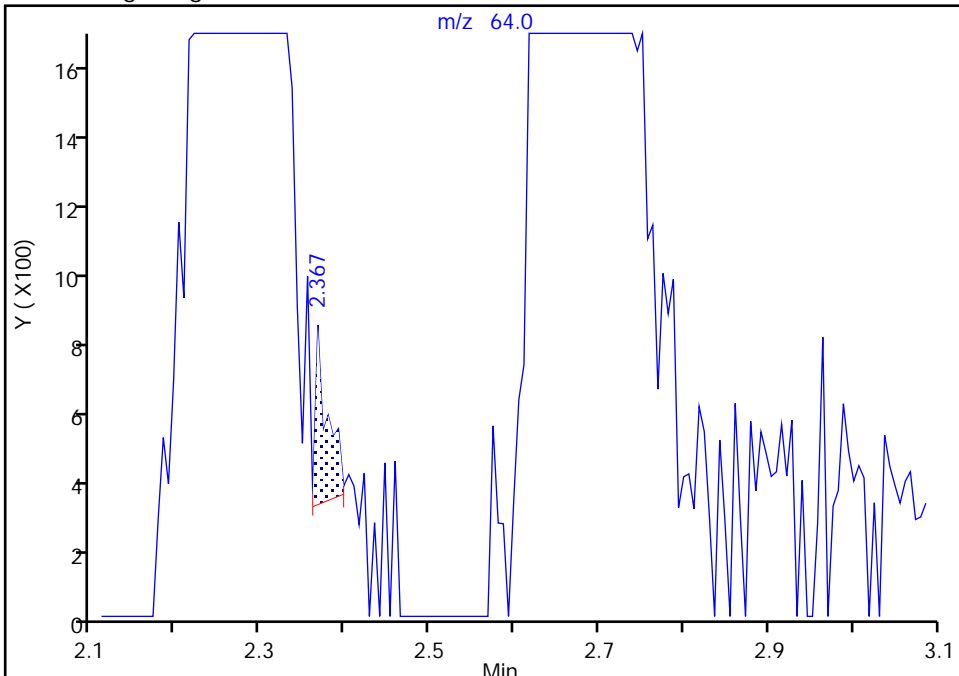
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Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

10 Chloroethane, CAS: 75-00-3

Signal: 1

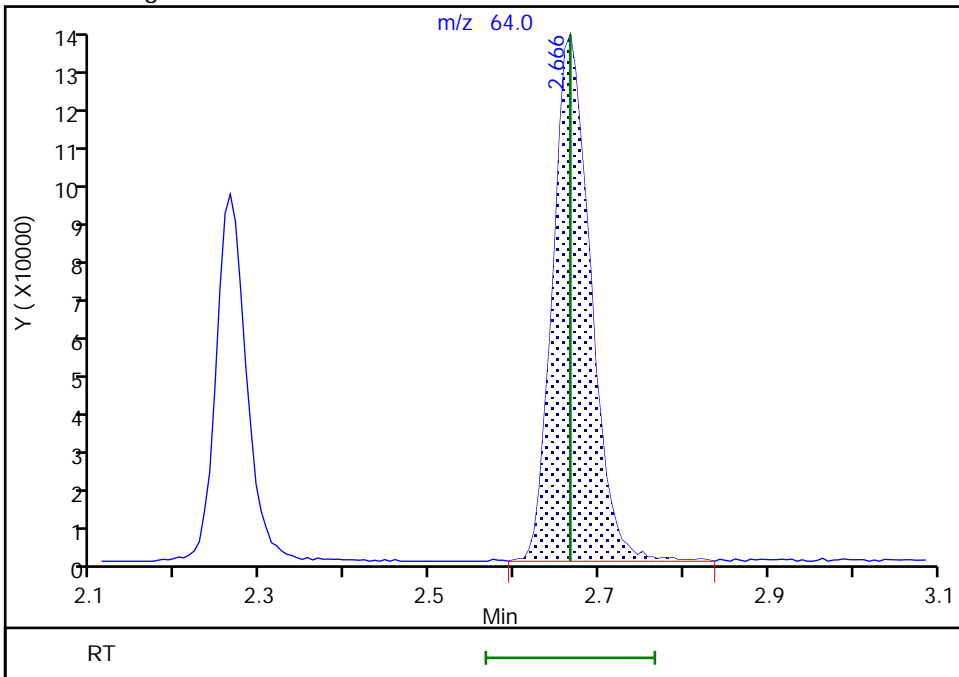
RT: 2.37
Area: 499
Amount: 0.000299
Amount Units: ug/l

Processing Integration Results



RT: 2.67
Area: 423722
Amount: 10.032244
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:43:57
Audit Action: Manually Integrated

Audit Reason: Other
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Eurofins Lancaster Laboratories Env, LLC

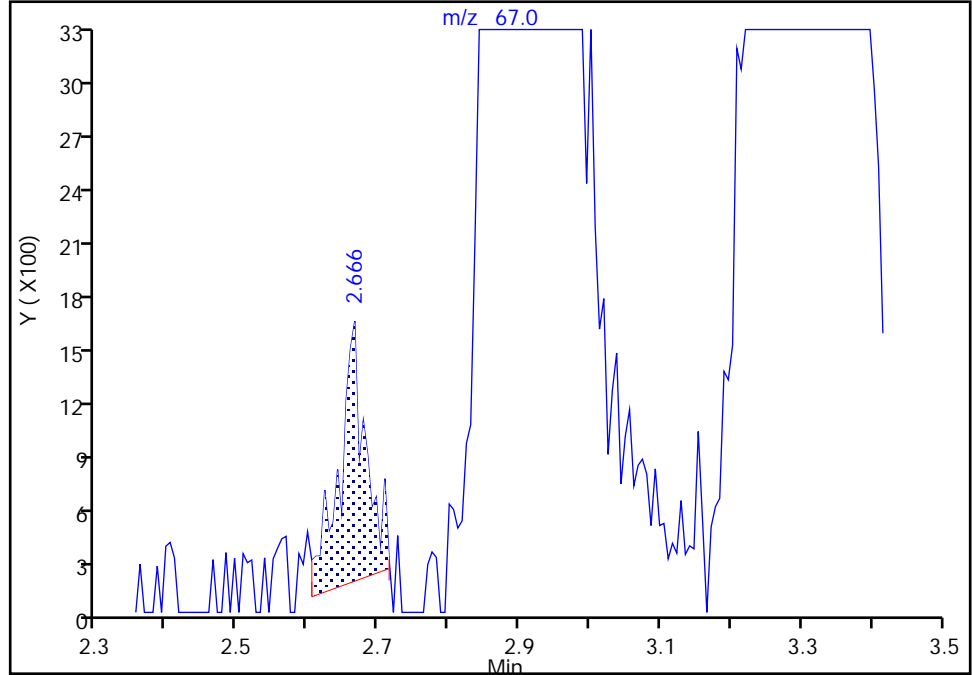
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Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

11 Dichlorofluoromethane, CAS: 75-43-4

Signal: 1

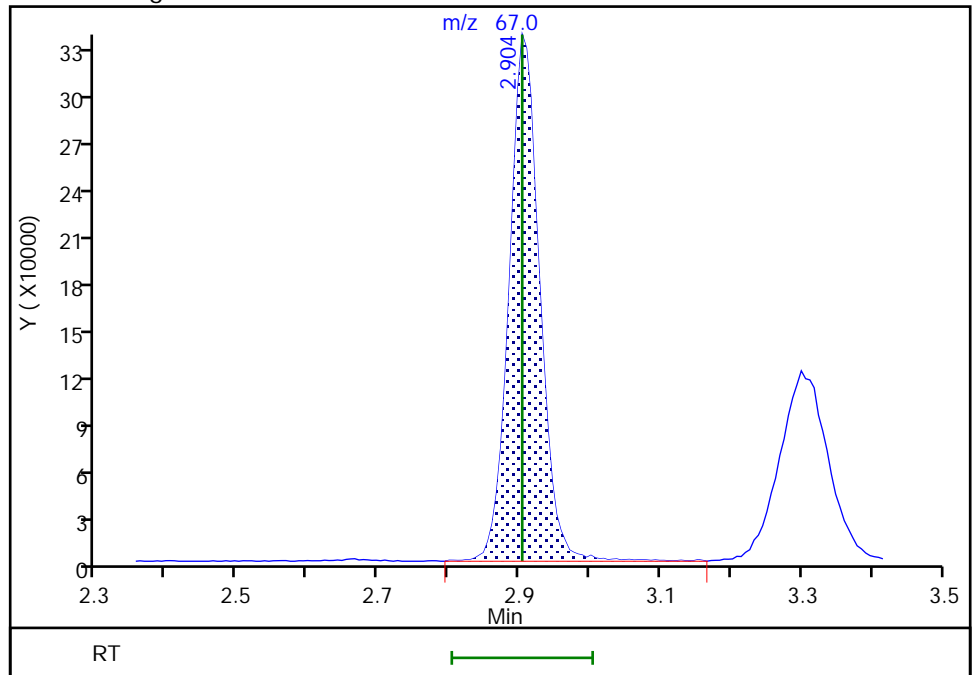
RT: 2.67
Area: 3782
Amount: 0.000889
Amount Units: ug/l

Processing Integration Results



RT: 2.90
Area: 1013838
Amount: 10.143871
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:44:06
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

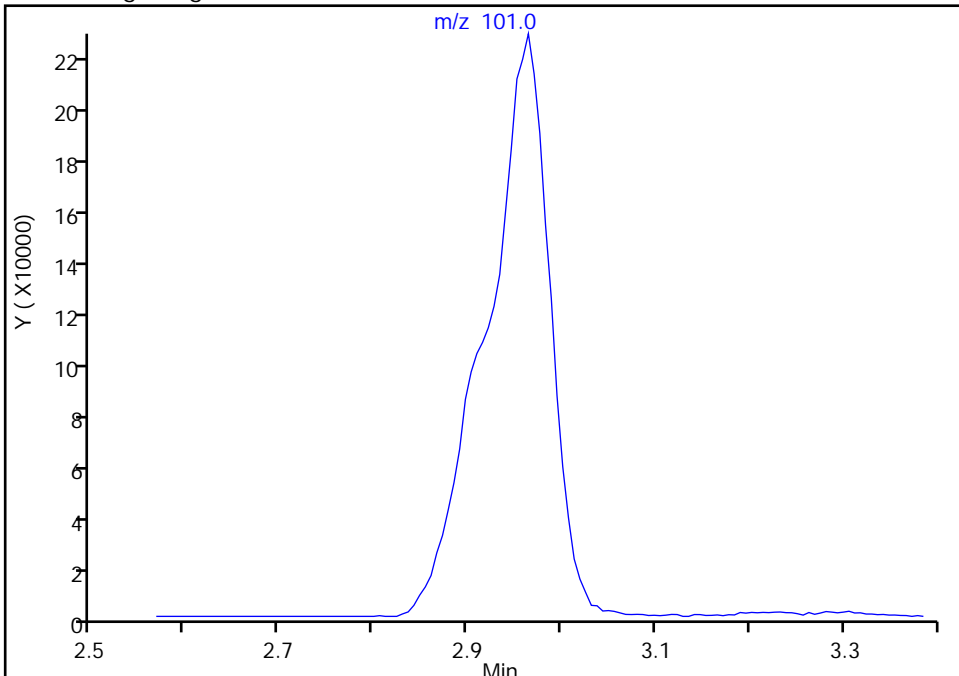
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

13 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

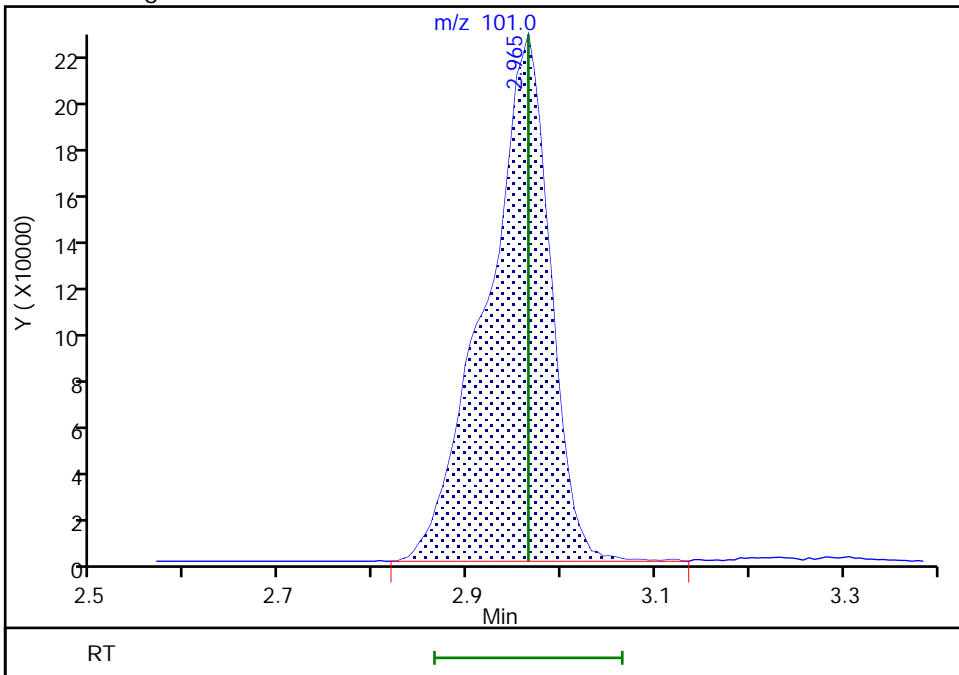
Not Detected
Expected RT: 2.96

Processing Integration Results



Manual Integration Results

RT: 2.96
Area: 1043554
Amount: 10.537093
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 13:44:14
Audit Action: Manually Integrated

Audit Reason: Other
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Eurofins Lancaster Laboratories Env, LLC

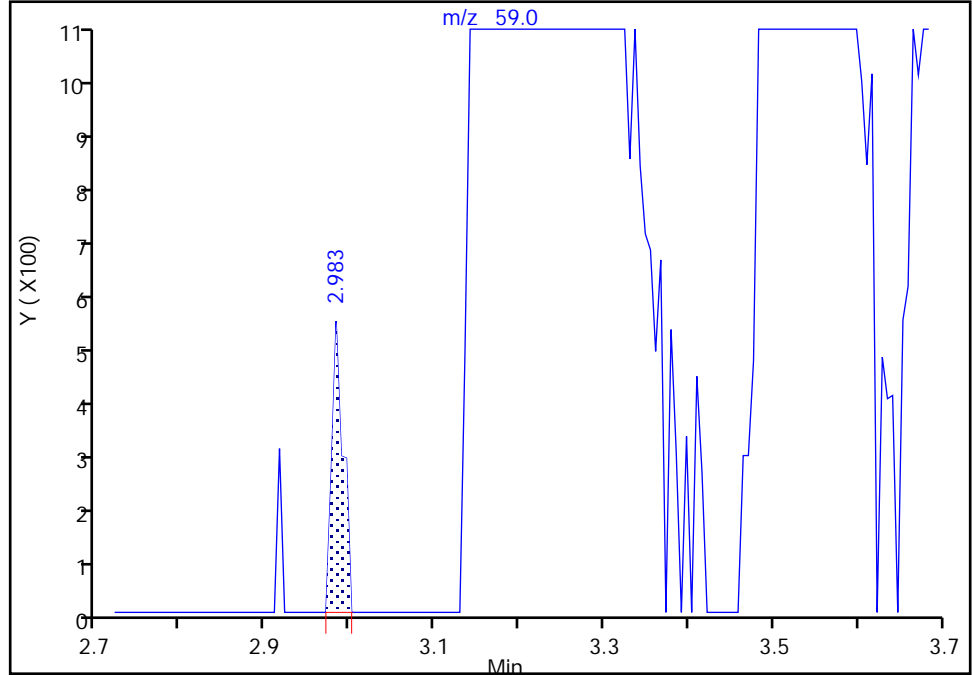
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Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

15 Ethyl ether, CAS: 60-29-7

Signal: 1

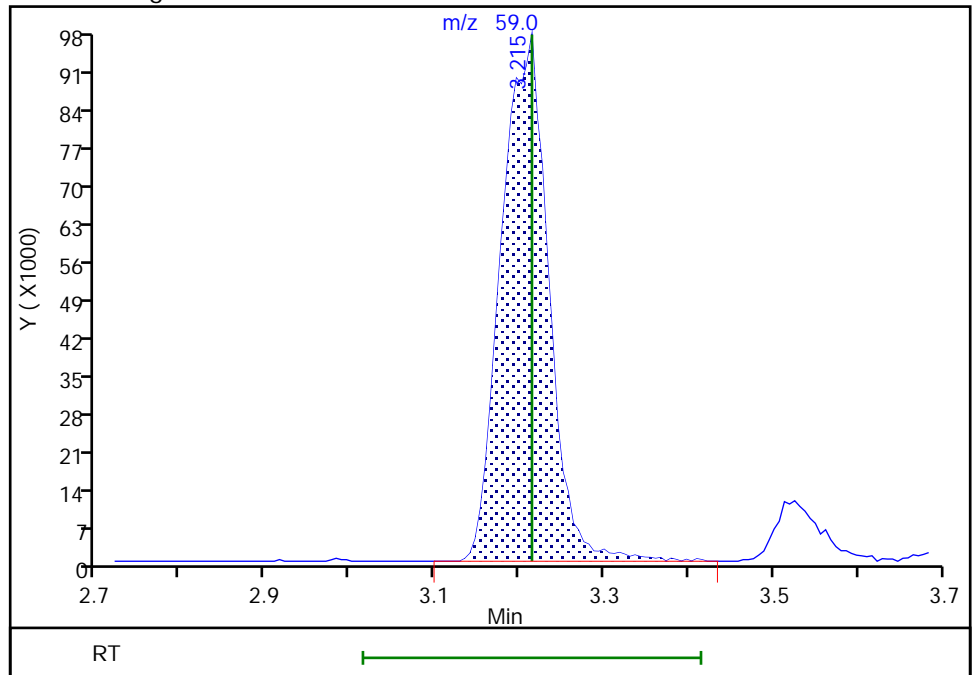
RT: 2.98
Area: 507
Amount: 0.002240
Amount Units: ug/l

Processing Integration Results



RT: 3.21
Area: 376971
Amount: 10.279380
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:44:20
Audit Action: Manually Integrated

Audit Reason: Other
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Eurofins Lancaster Laboratories Env, LLC

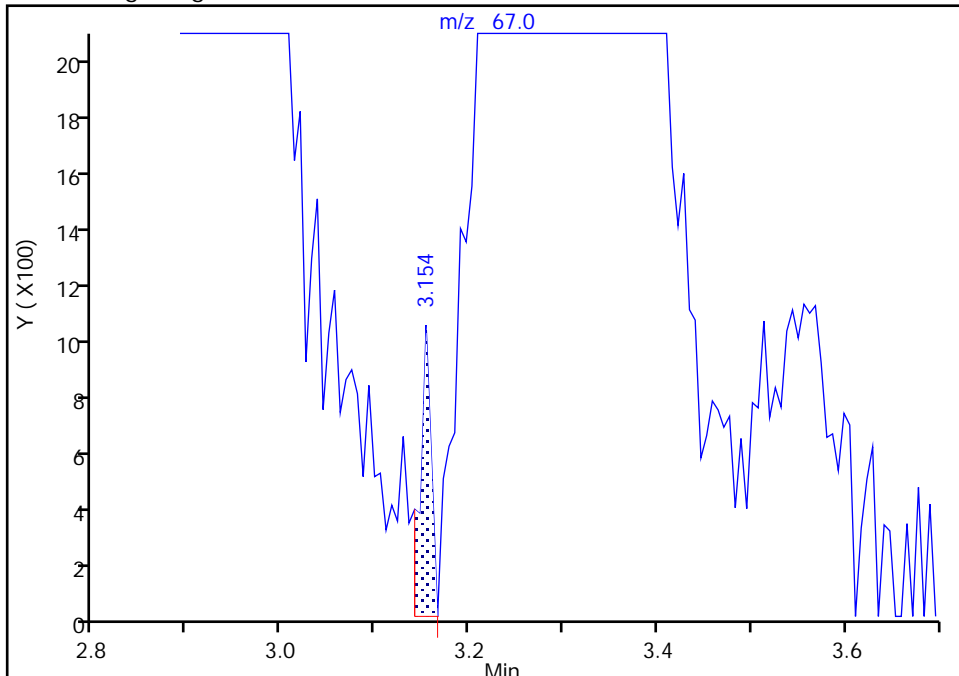
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Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

16 1,2-Dichloro-1,1,2-trifluoroetha, CAS: 354-23-4

Signal: 1

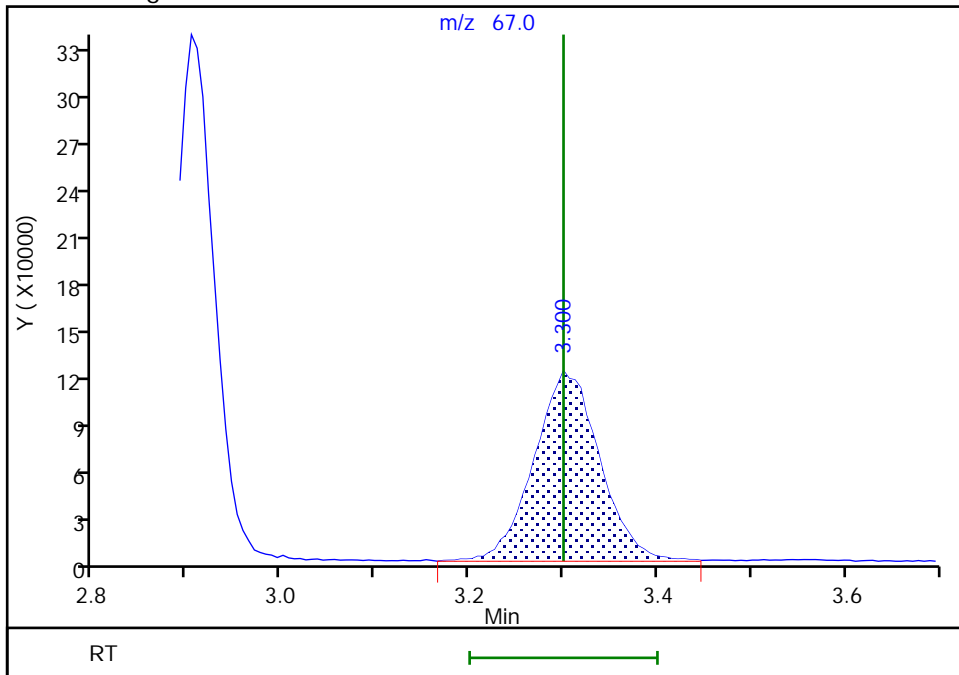
RT: 3.15
Area: 822
Amount: 0.000724
Amount Units: ug/l

Processing Integration Results



RT: 3.30
Area: 590535
Amount: 10.336808
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:26:50
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

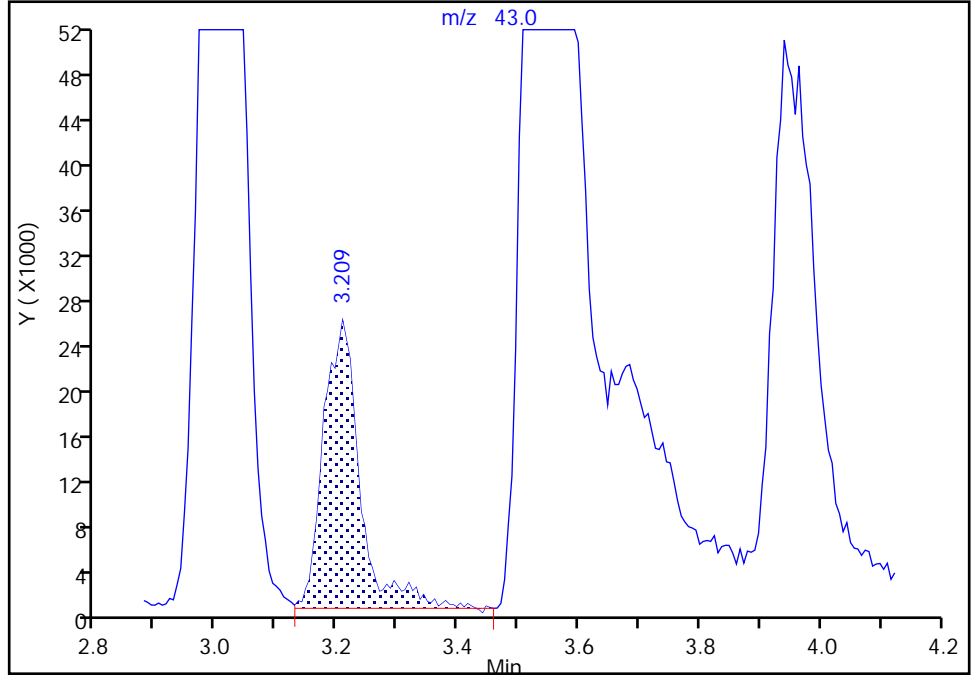
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Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

20 Acetone, CAS: 67-64-1

Signal: 1

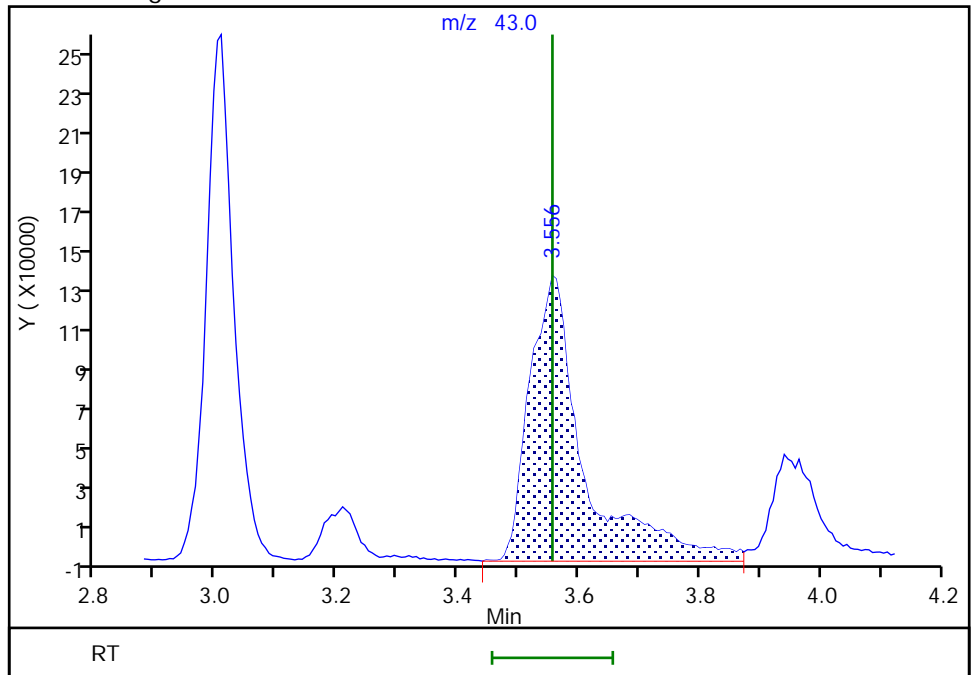
RT: 3.21
Area: 105938
Amount: 100.0000
Amount Units: ug/l

Processing Integration Results



RT: 3.56
Area: 849795
Amount: 96.749100
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:45:12
Audit Action: Assigned New Baseline

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

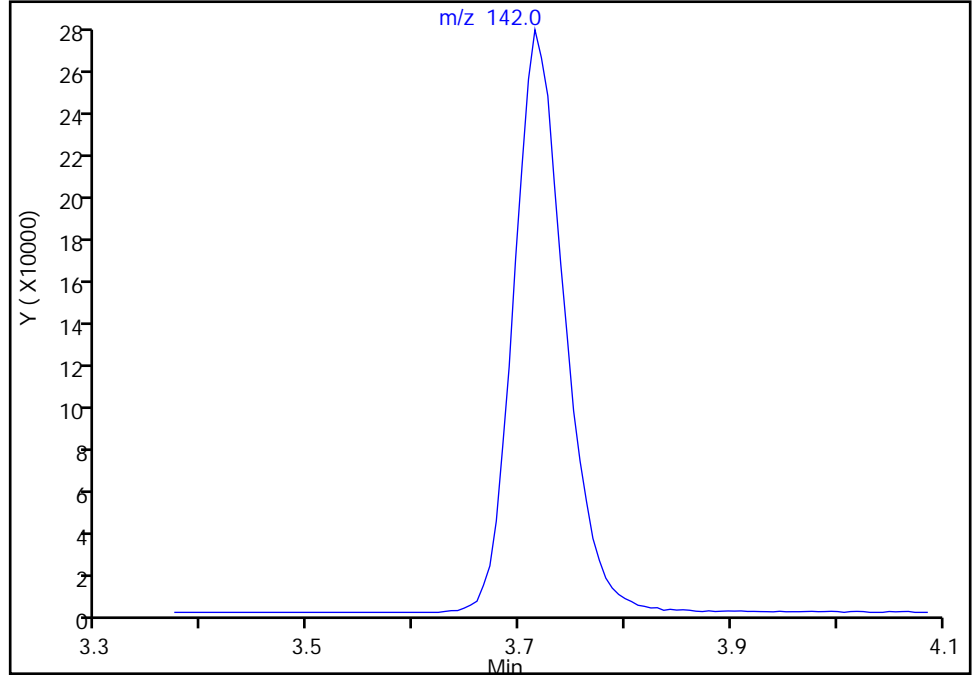
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Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

22 Iodomethane, CAS: 74-88-4

Signal: 1

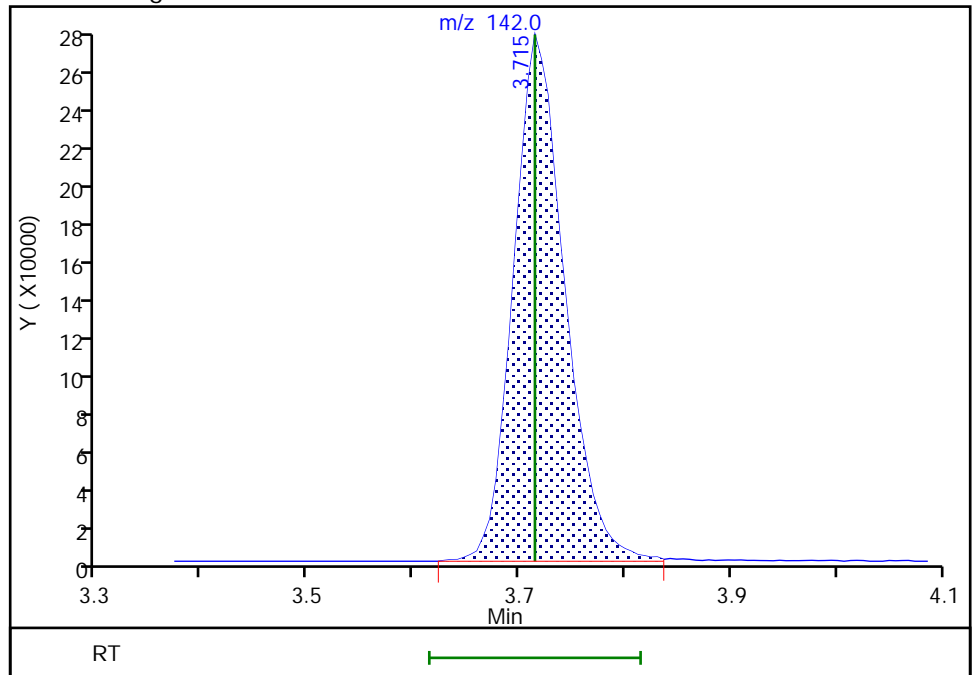
Not Detected
Expected RT: 3.71

Processing Integration Results



Manual Integration Results

RT: 3.71
Area: 915828
Amount: 10.355353
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 13:40:01
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

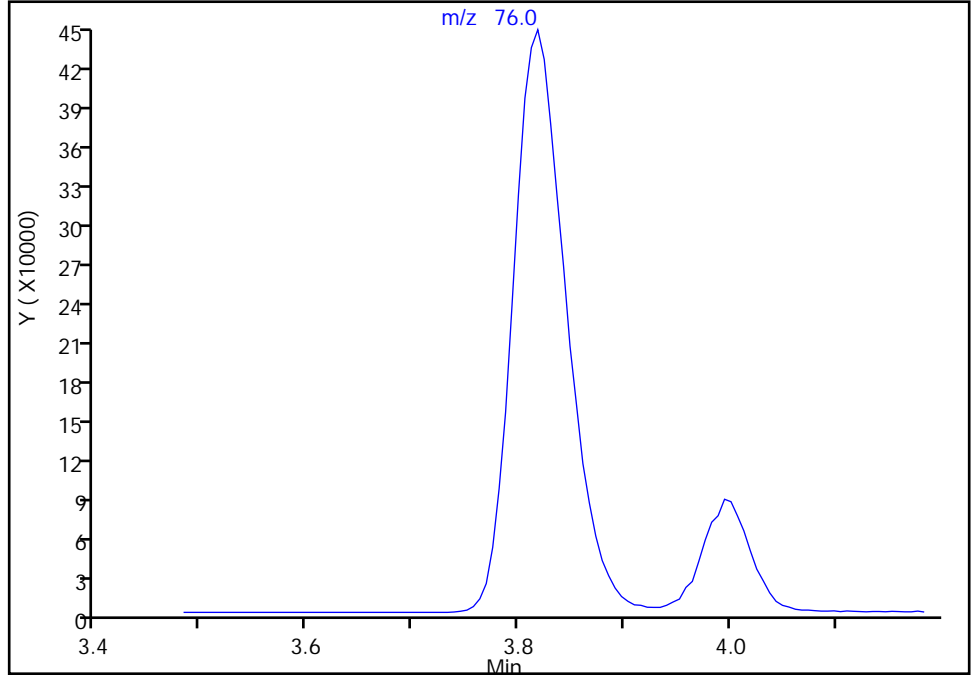
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

25 Carbon disulfide, CAS: 75-15-0

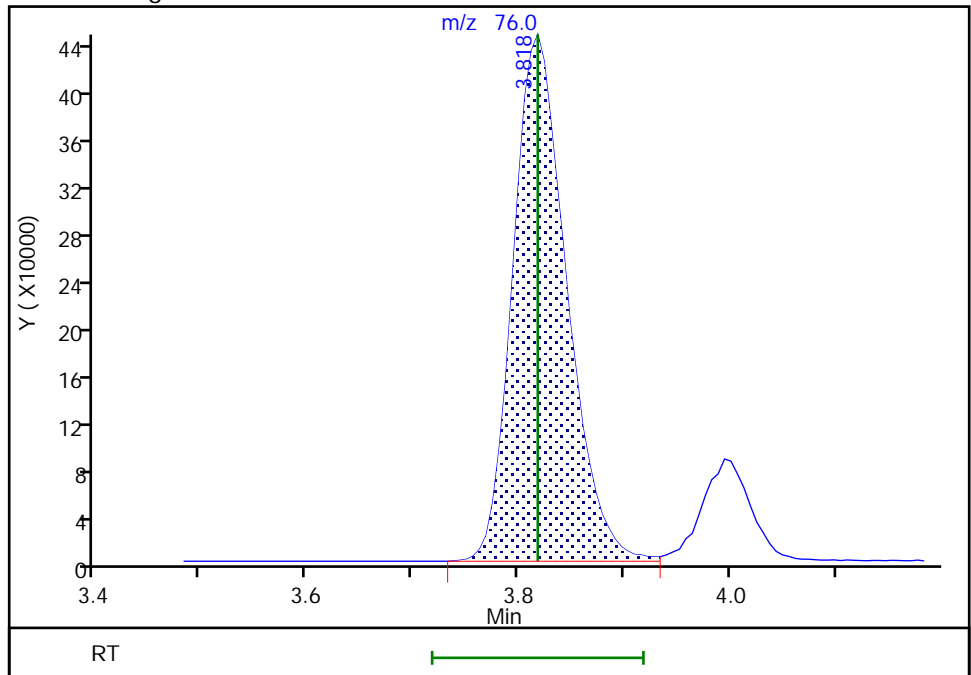
Signal: 1

Not Detected
Expected RT: 3.82

Processing Integration Results



Manual Integration Results



RT: 3.82
Area: 1572147
Amount: 10.436296
Amount Units: ug/l

Eurofins Lancaster Laboratories Env, LLC

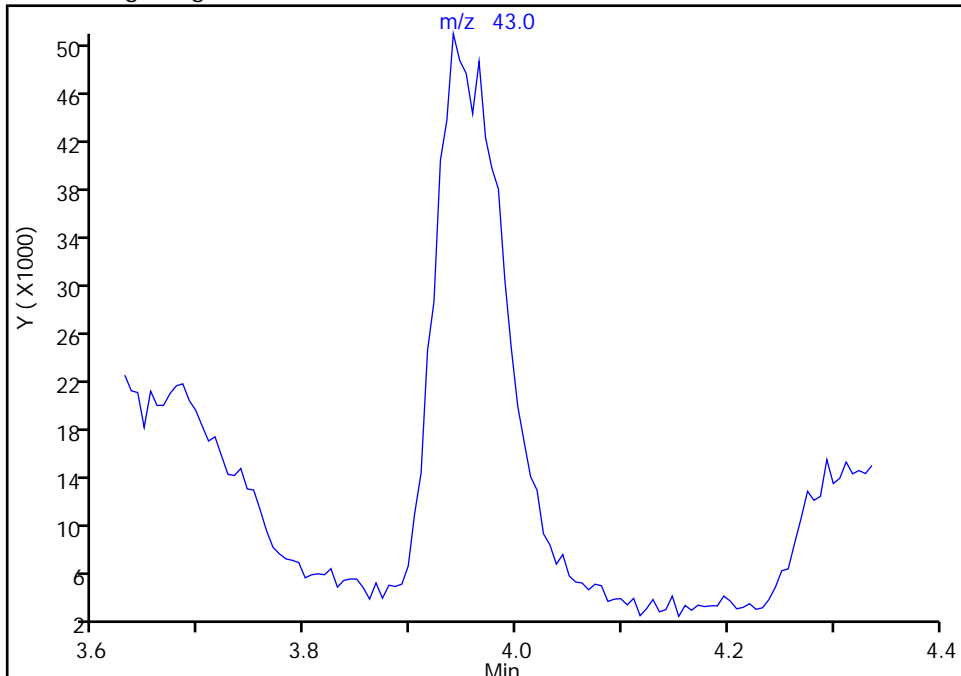
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

26 Methyl acetate, CAS: 79-20-9

Signal: 1

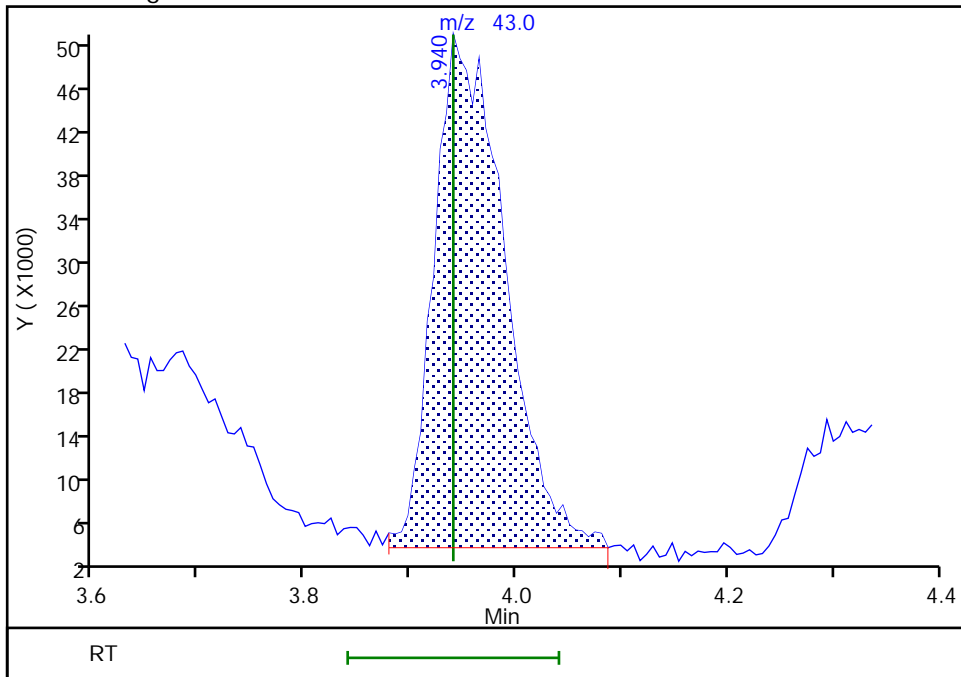
Not Detected
Expected RT: 3.94

Processing Integration Results



Manual Integration Results

RT: 3.94
Area: 217220
Amount: 10.438918
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 13:24:24
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

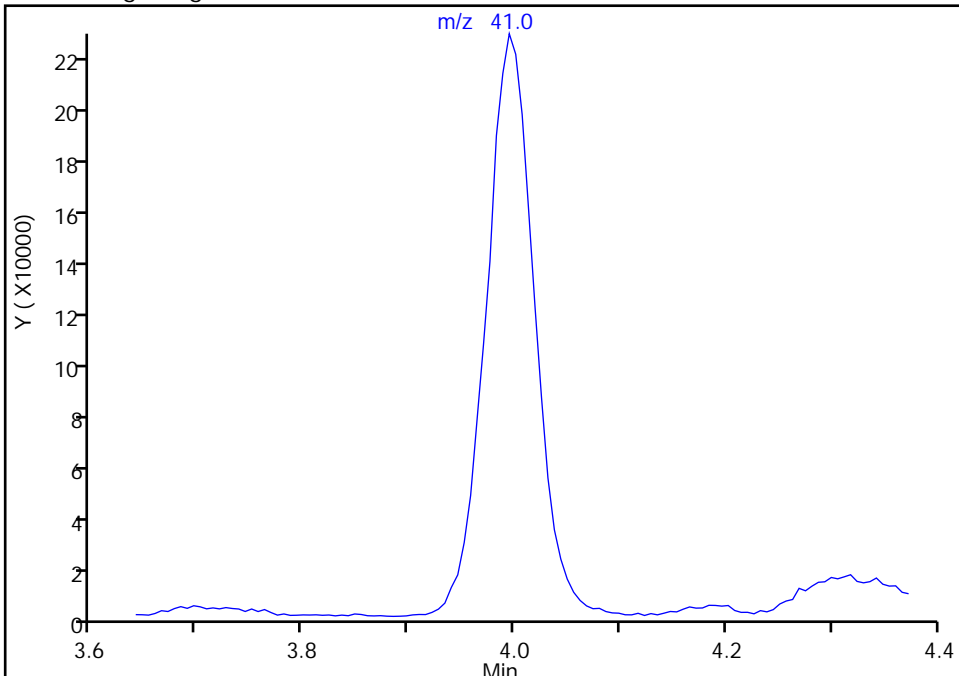
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

27 3-Chloro-1-propene, CAS: 107-05-1

Signal: 1

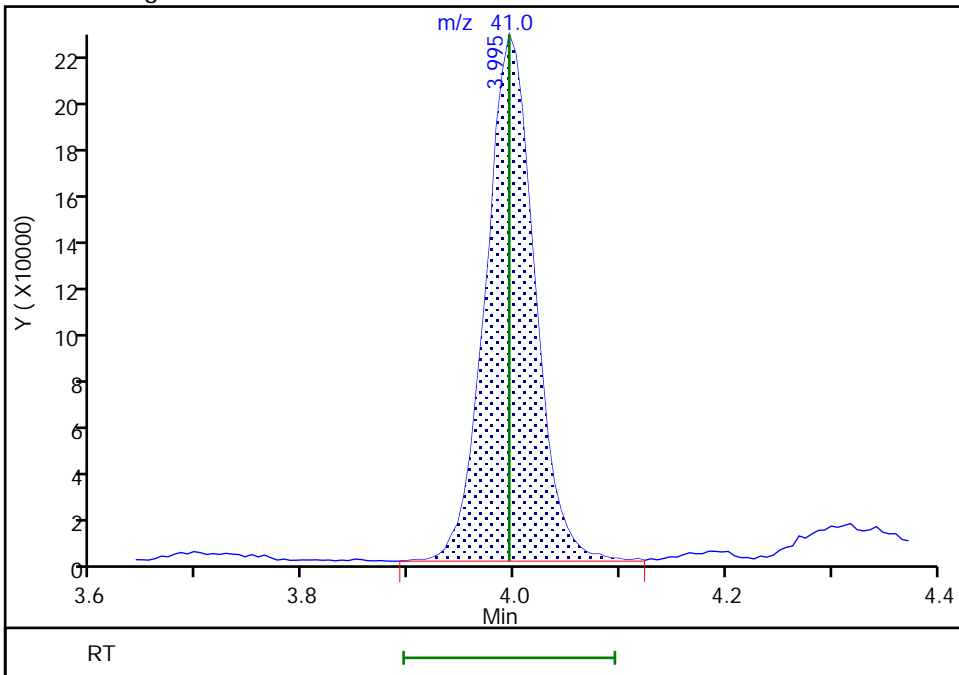
Not Detected
Expected RT: 3.99

Processing Integration Results



Manual Integration Results

RT: 3.99
Area: 735794
Amount: 10.332126
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 13:39:48
Audit Action: Assigned Compound ID

Audit Reason: Other
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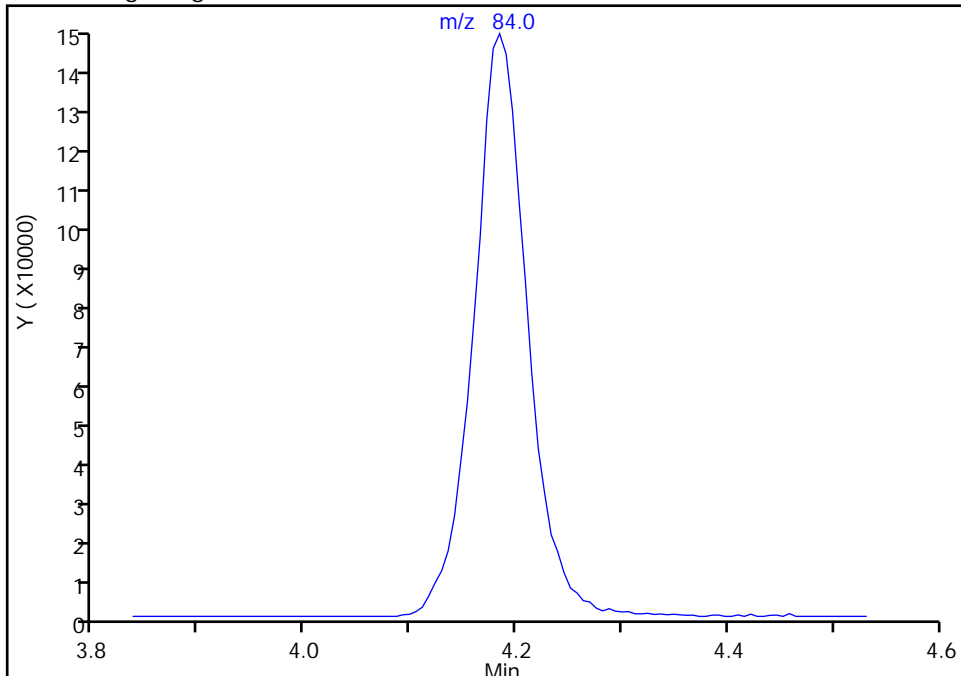
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

28 Methylene Chloride, CAS: 75-09-2

Signal: 1

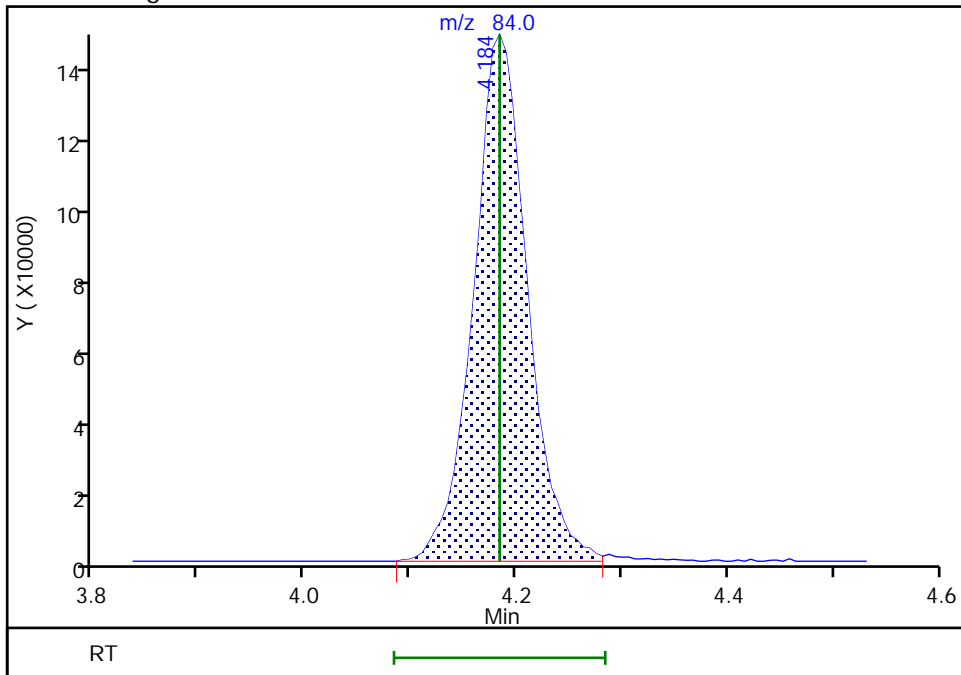
Not Detected
Expected RT: 4.18

Processing Integration Results



Manual Integration Results

RT: 4.18
Area: 494462
Amount: 10.256870
Amount Units: ug/l



Eurofins Lancaster Laboratories Env, LLC

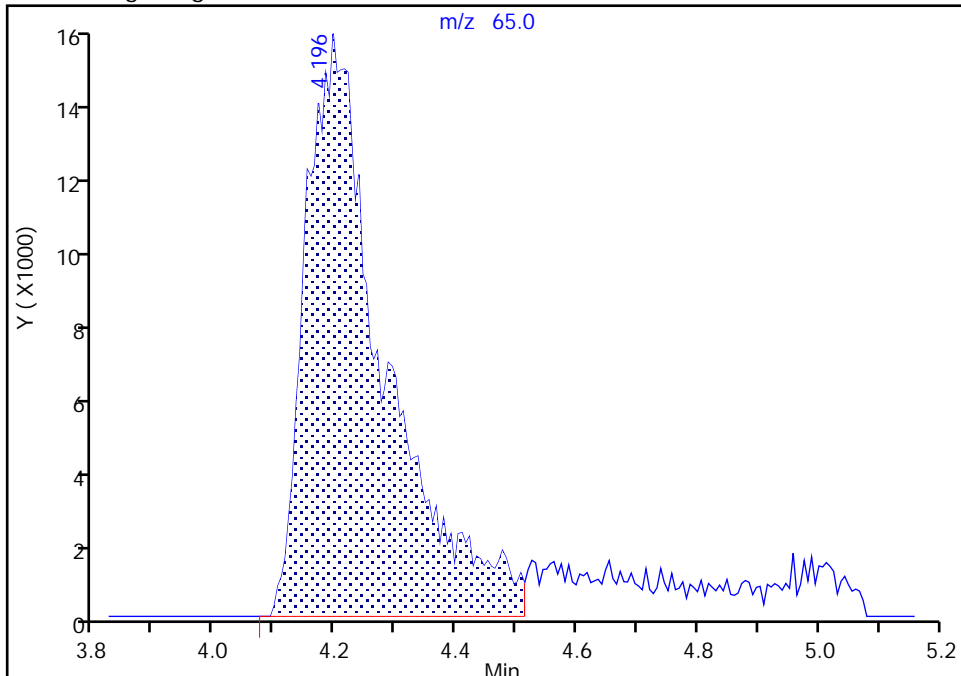
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 29 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

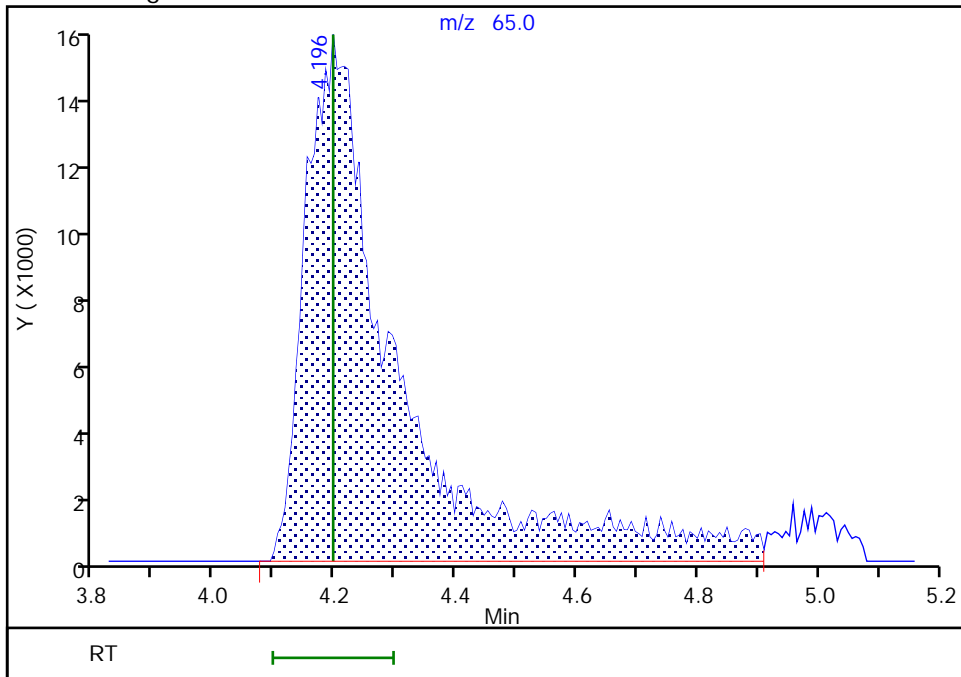
RT: 4.20
Area: 135683
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.20
Area: 157279
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:45:40
Audit Action: Split an Integrated Peak

Audit Reason: Other

Euofins Lancaster Laboratories Env, LLC

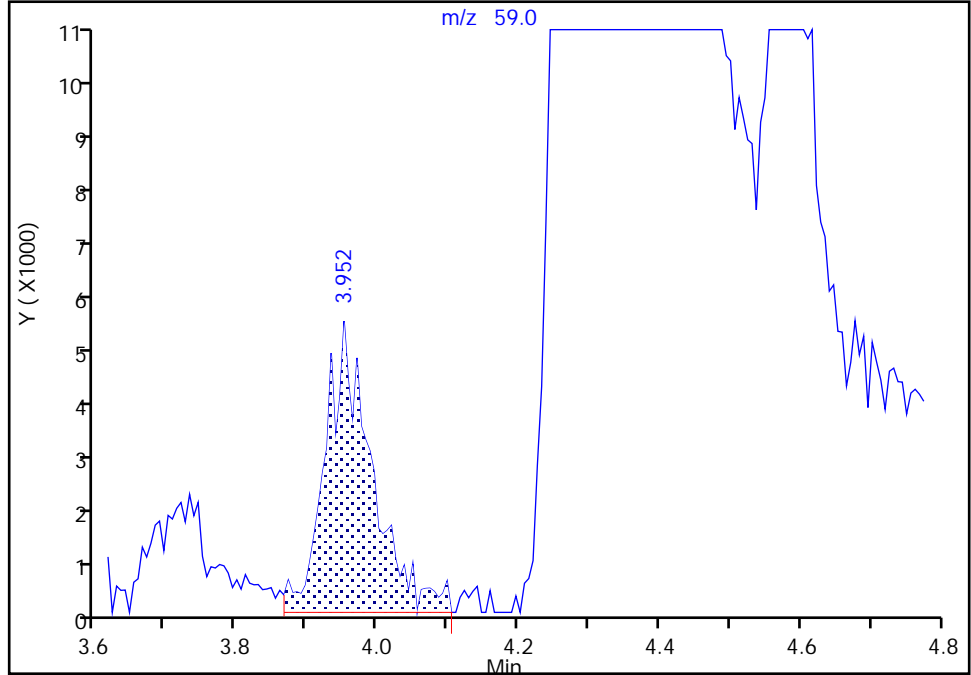
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

30 2-Methyl-2-propanol, CAS: 75-65-0

Signal: 1

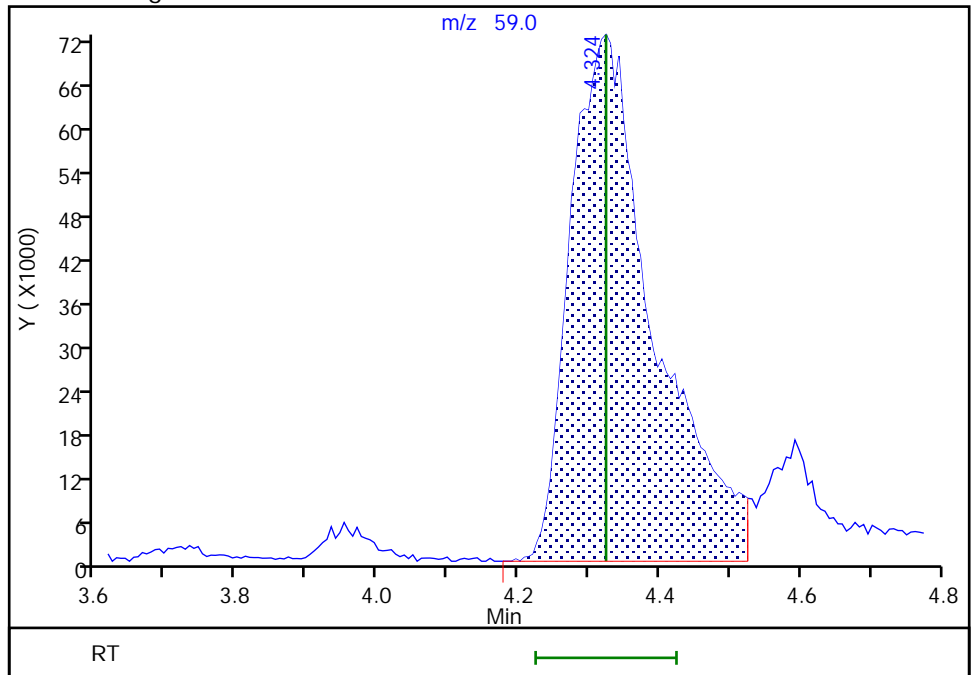
RT: 3.95
Area: 24280
Amount: 200.0000
Amount Units: ug/l

Processing Integration Results



RT: 4.32
Area: 598514
Amount: 213.7956
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:24:30
Audit Action: Assigned Compound ID

Audit Reason: Other
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Eurofins Lancaster Laboratories Env, LLC

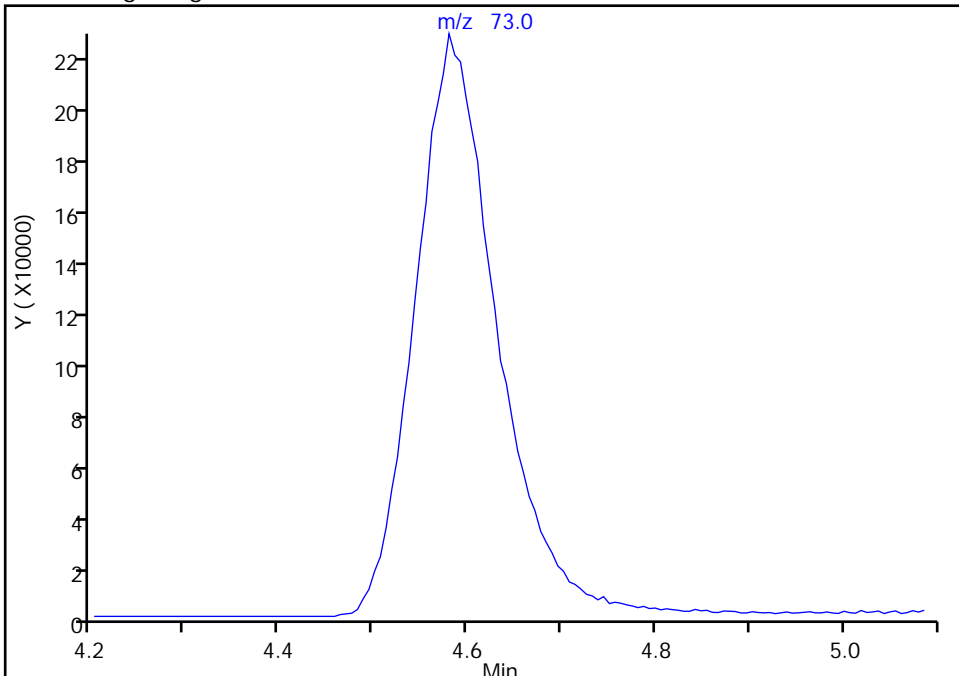
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

32 Methyl tert-butyl ether, CAS: 1634-04-4

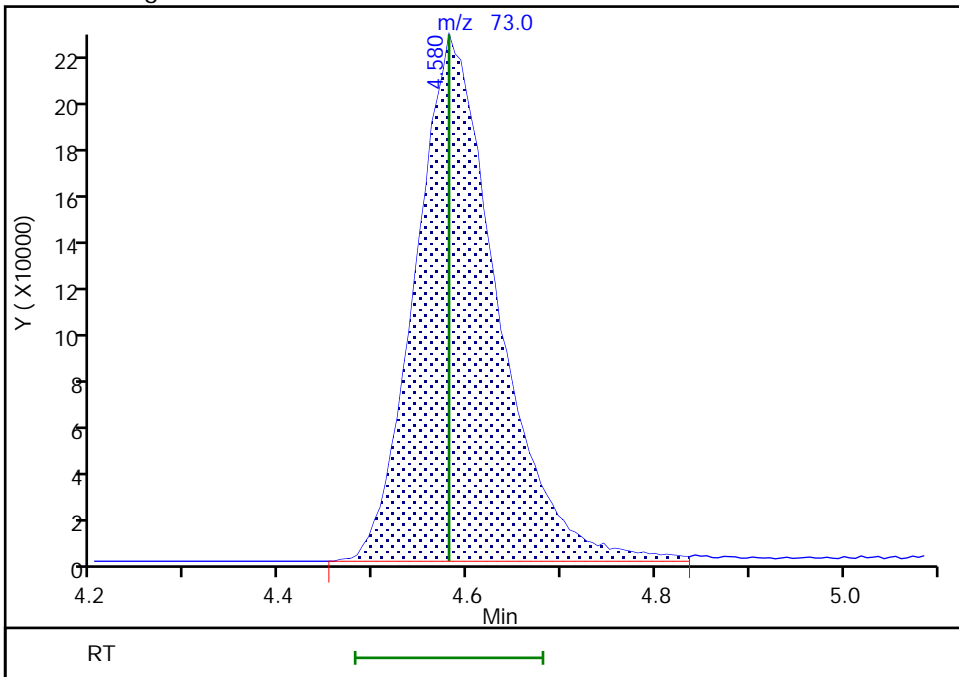
Signal: 1

Not Detected
Expected RT: 4.58

Processing Integration Results



Manual Integration Results



RT: 4.58
Area: 1358106
Amount: 10.289303
Amount Units: ug/l

Reviewer: howej, 12-Jun-2020 13:39:39
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

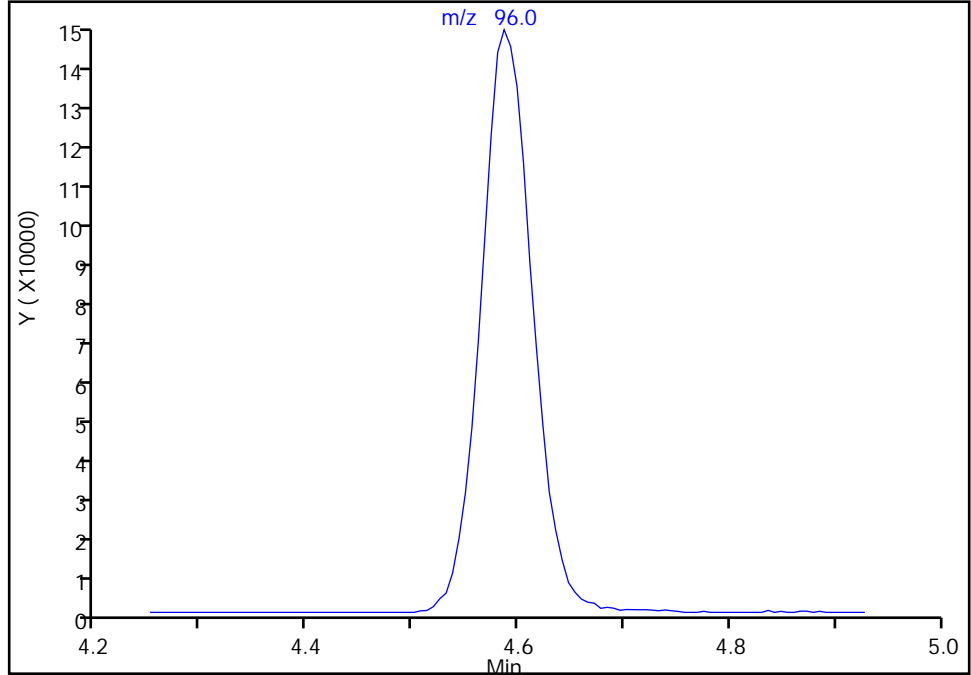
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

33 trans-1,2-Dichloroethene, CAS: 156-60-5

Signal: 1

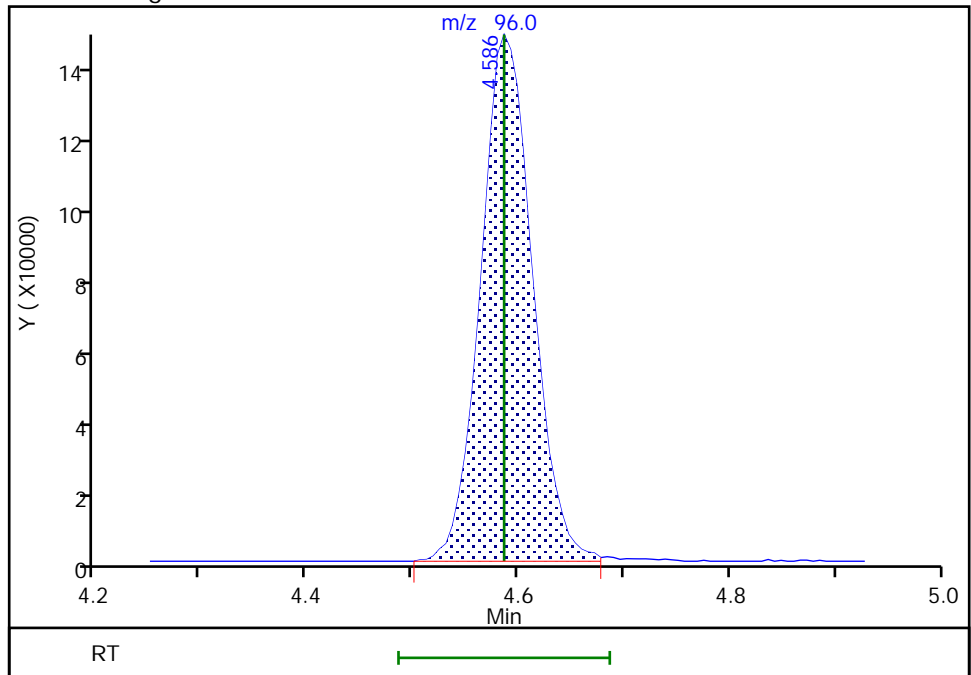
Not Detected
Expected RT: 4.59

Processing Integration Results



Manual Integration Results

RT: 4.59
Area: 506462
Amount: 10.448560
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 13:39:34
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

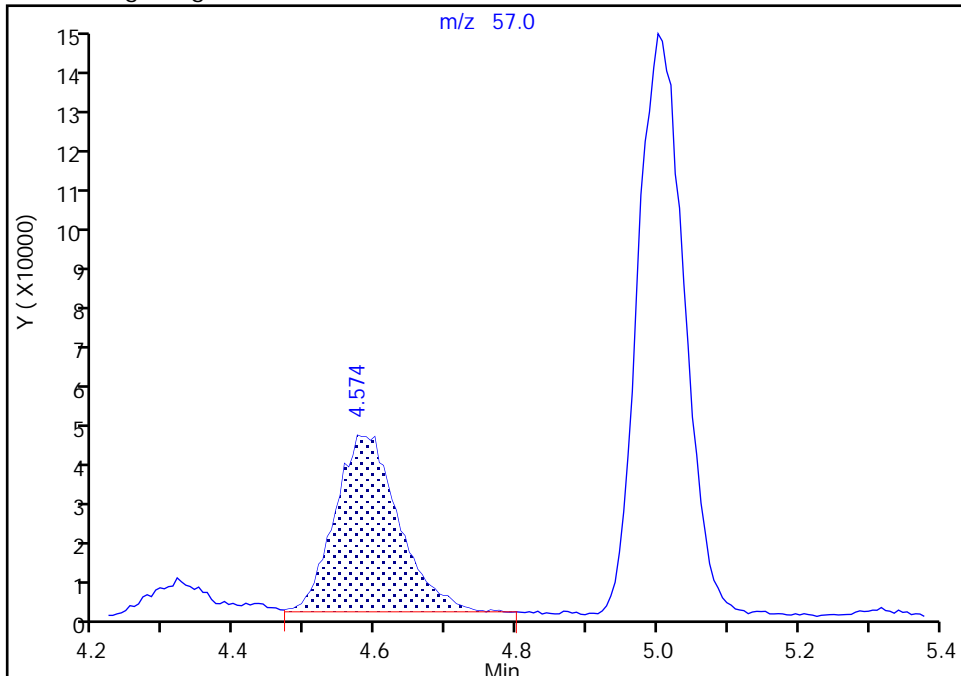
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Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

34 Hexane, CAS: 110-54-3

Signal: 1

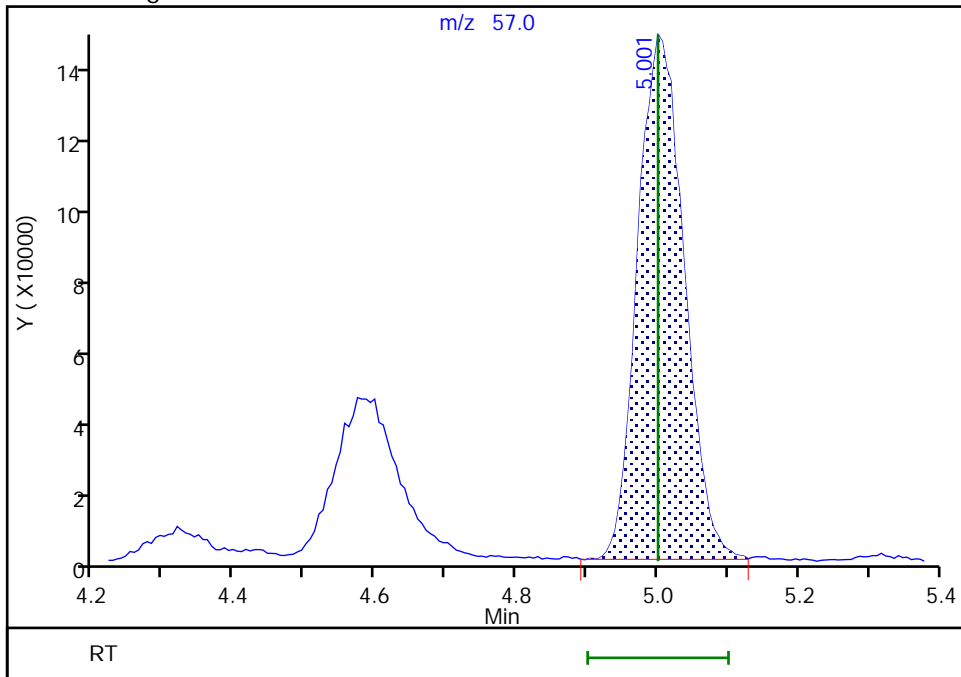
RT: 4.57
Area: 282868
Amount: 0.001103
Amount Units: ug/l

Processing Integration Results



RT: 5.00
Area: 675565
Amount: 10.579176
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:24:40
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

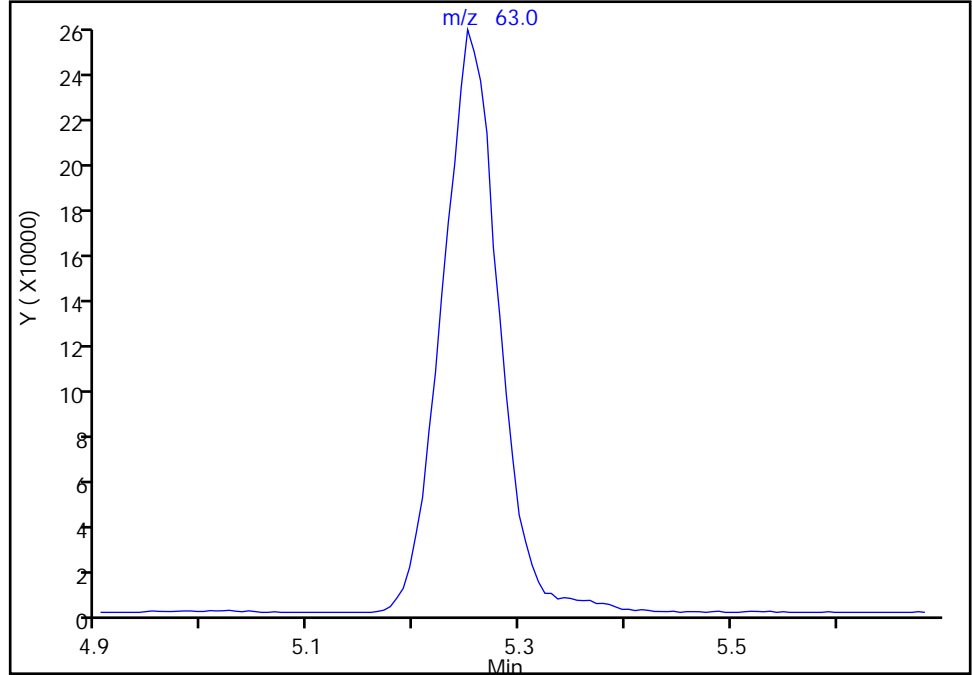
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Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

36 1,1-Dichloroethane, CAS: 75-34-3

Signal: 1

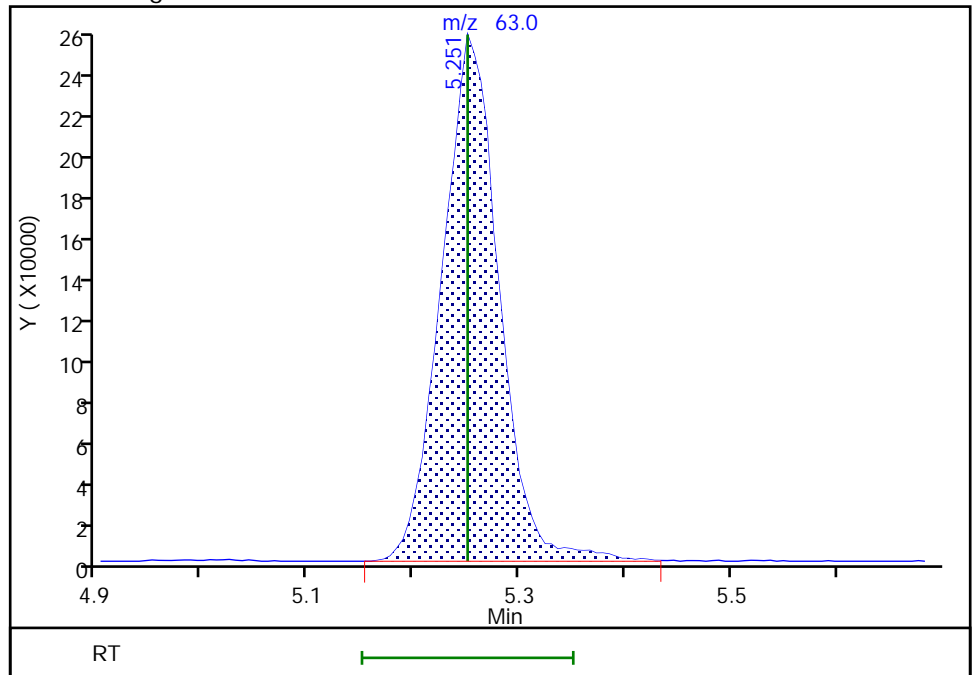
Not Detected
Expected RT: 5.25

Processing Integration Results



Manual Integration Results

RT: 5.25
Area: 943383
Amount: 10.328047
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 13:39:31
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

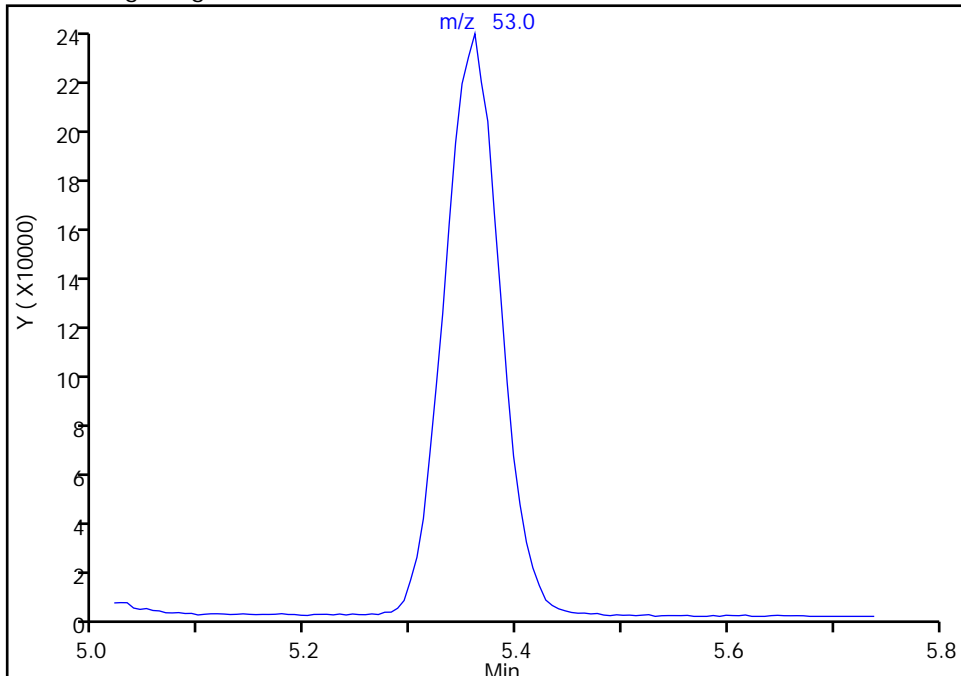
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Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

38 2-Chloro-1,3-butadiene, CAS: 126-99-8

Signal: 1

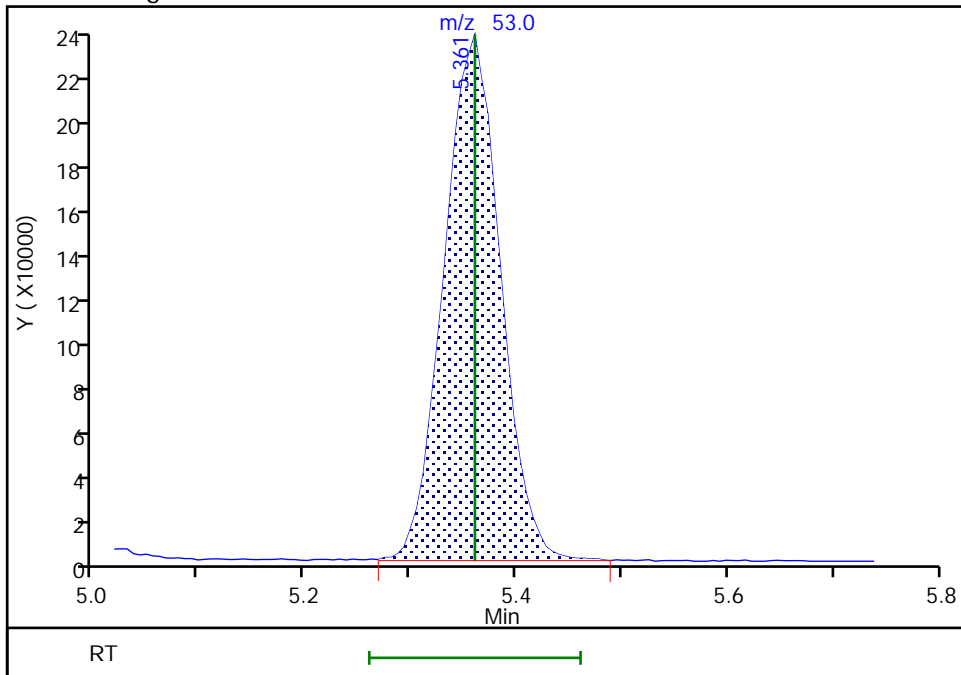
Not Detected
Expected RT: 5.36

Processing Integration Results



Manual Integration Results

RT: 5.36
Area: 885492
Amount: 10.537017
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 13:39:27
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

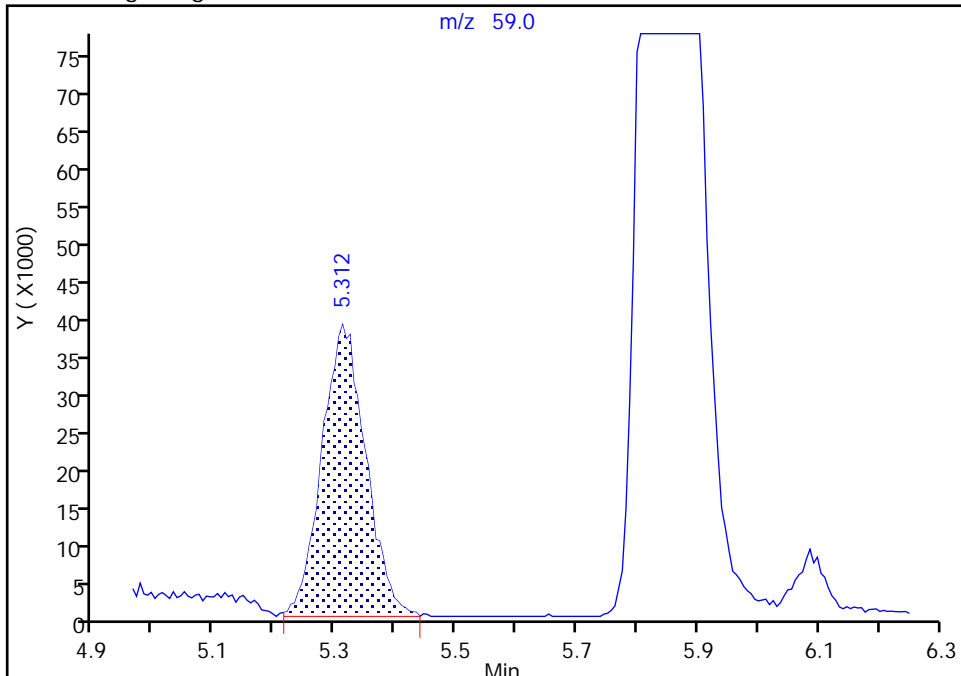
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Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

39 Tert-butyl ethyl ether, CAS: 637-92-3

Signal: 1

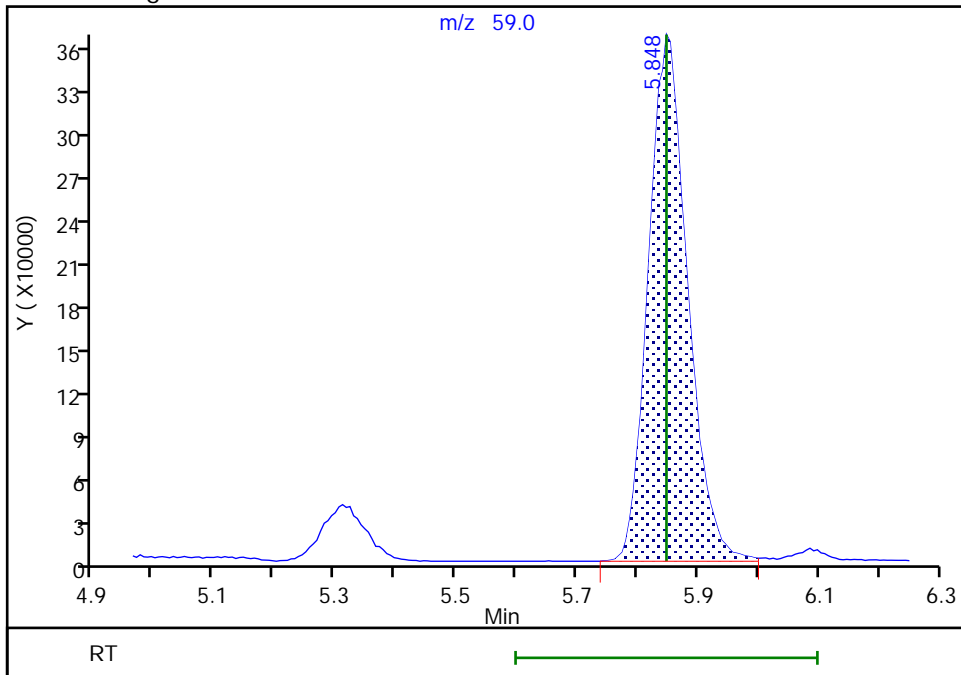
RT: 5.31
Area: 196016
Amount: 7.222909
Amount Units: ug/l

Processing Integration Results



RT: 5.85
Area: 1627371
Amount: 10.233724
Amount Units: ug/l

Manual Integration Results



Eurofins Lancaster Laboratories Env, LLC

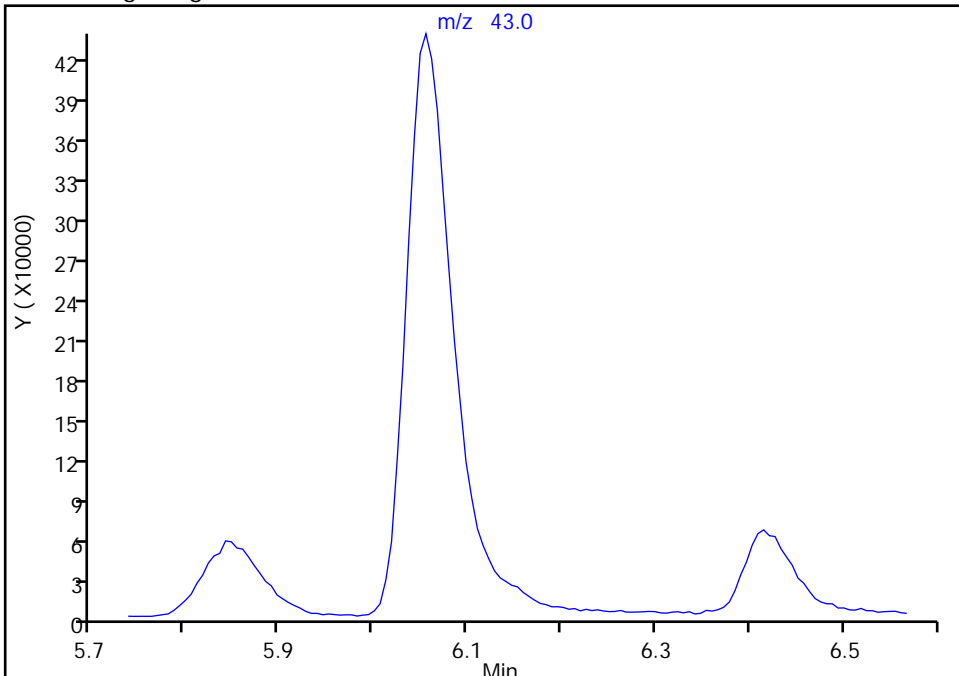
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Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

40 2-Butanone (MEK), CAS: 78-93-3

Signal: 1

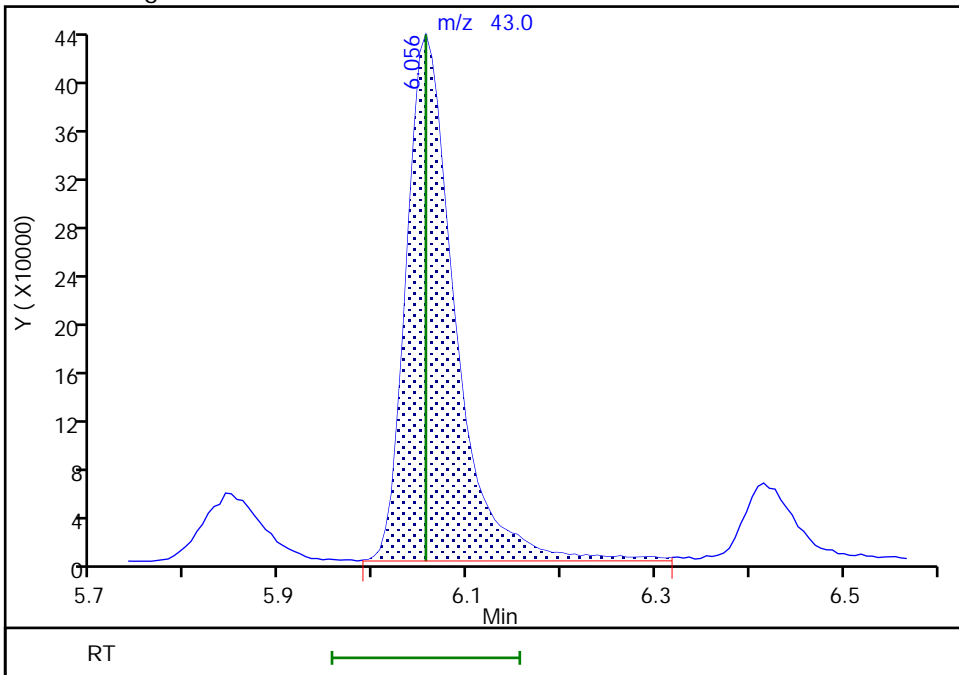
Not Detected
Expected RT: 6.06

Processing Integration Results



Manual Integration Results

RT: 6.06
Area: 1547384
Amount: 102.6616
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 13:39:22
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

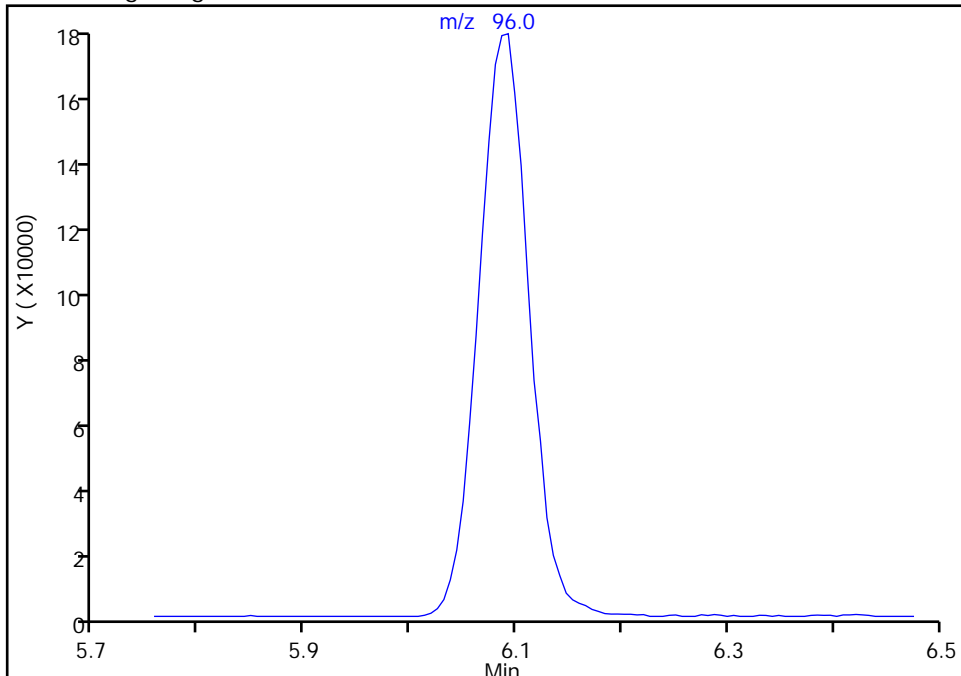
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Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

41 cis-1,2-Dichloroethene, CAS: 156-59-2

Signal: 1

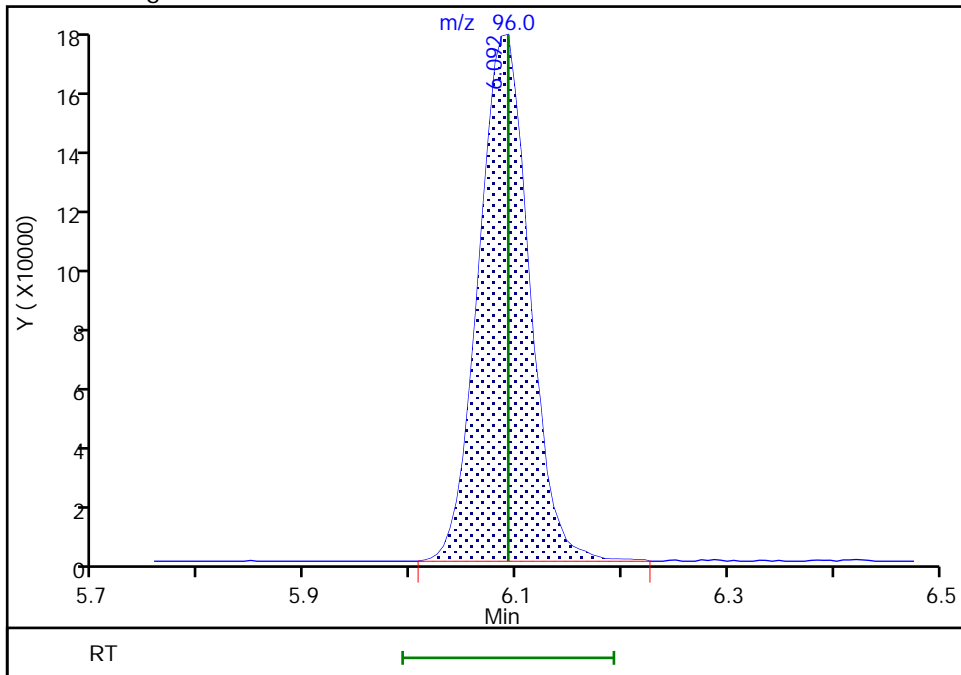
Not Detected
Expected RT: 6.09

Processing Integration Results



Manual Integration Results

RT: 6.09
Area: 577884
Amount: 10.291438
Amount Units: ug/l



Eurofins Lancaster Laboratories Env, LLC

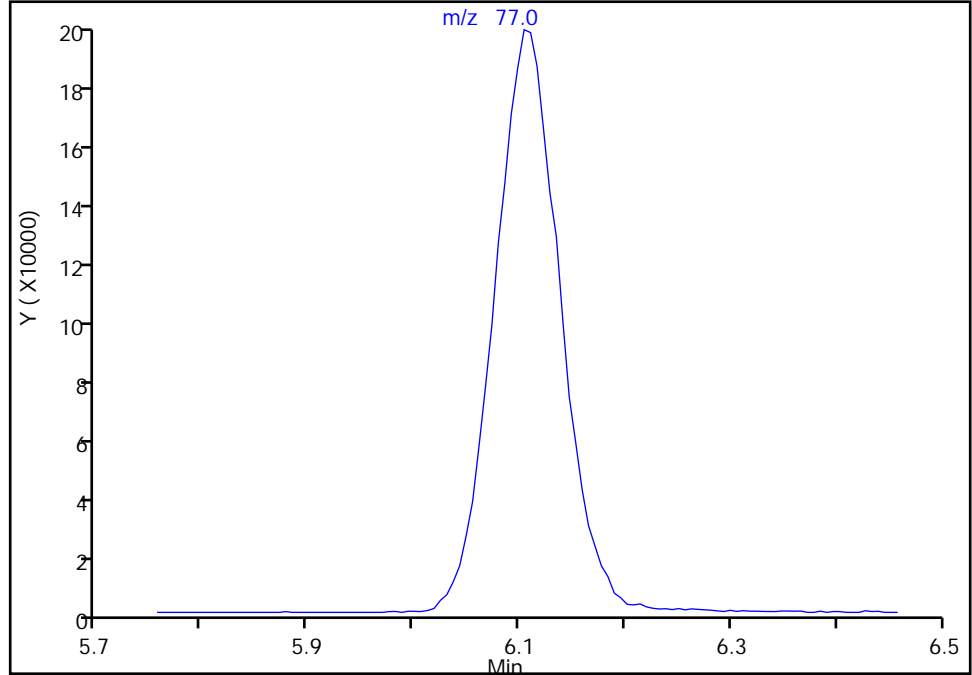
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Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

42 2,2-Dichloropropane, CAS: 594-20-7

Signal: 1

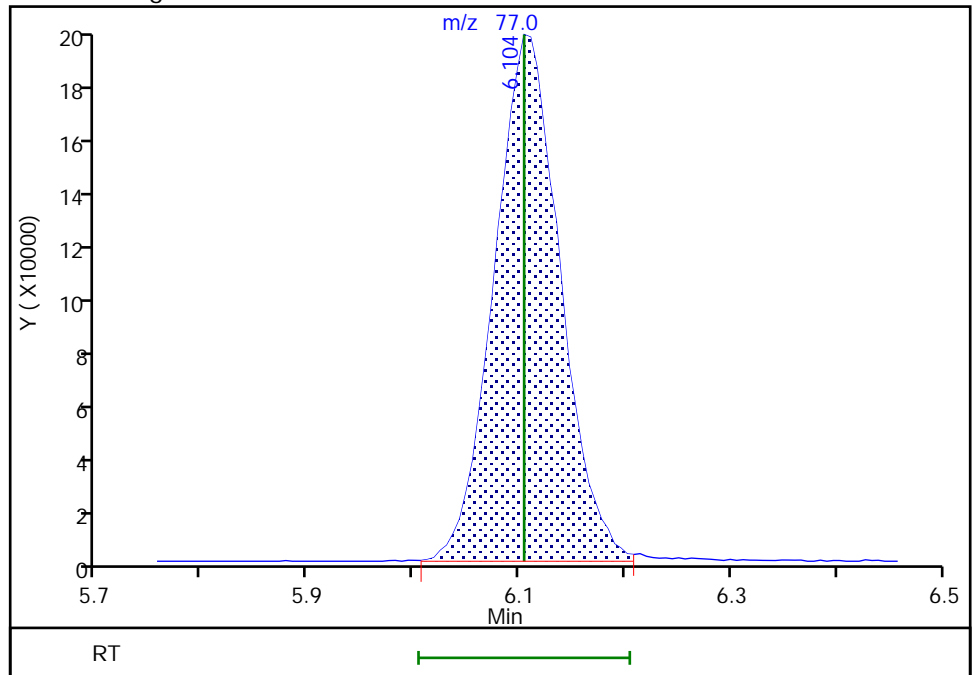
Not Detected
Expected RT: 6.10

Processing Integration Results



Manual Integration Results

RT: 6.10
Area: 839339
Amount: 10.448547
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 13:39:13
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

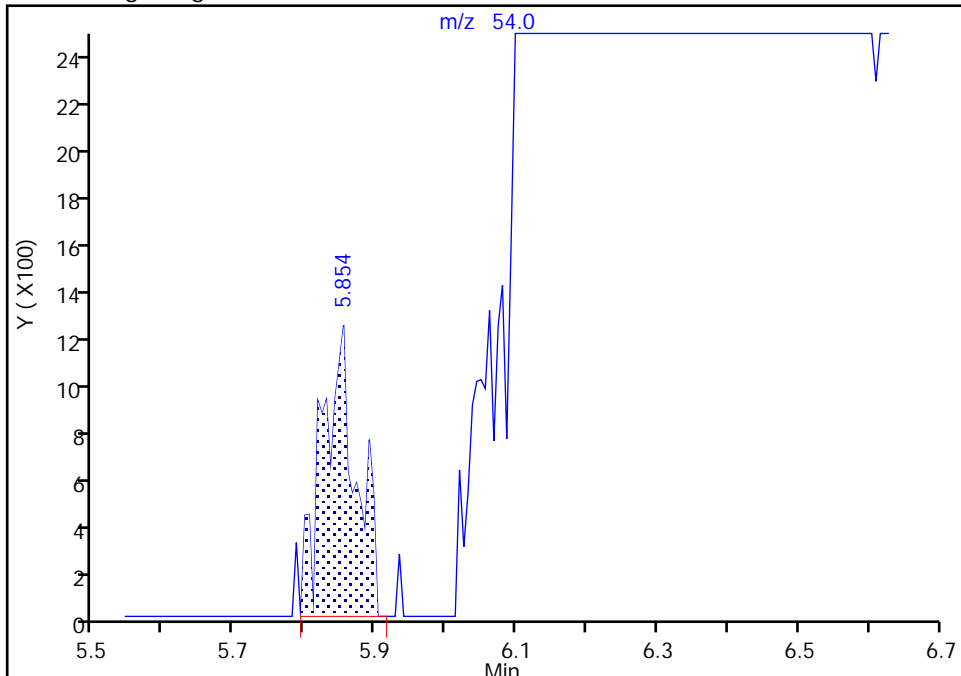
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Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

44 Propionitrile, CAS: 107-12-0

Signal: 1

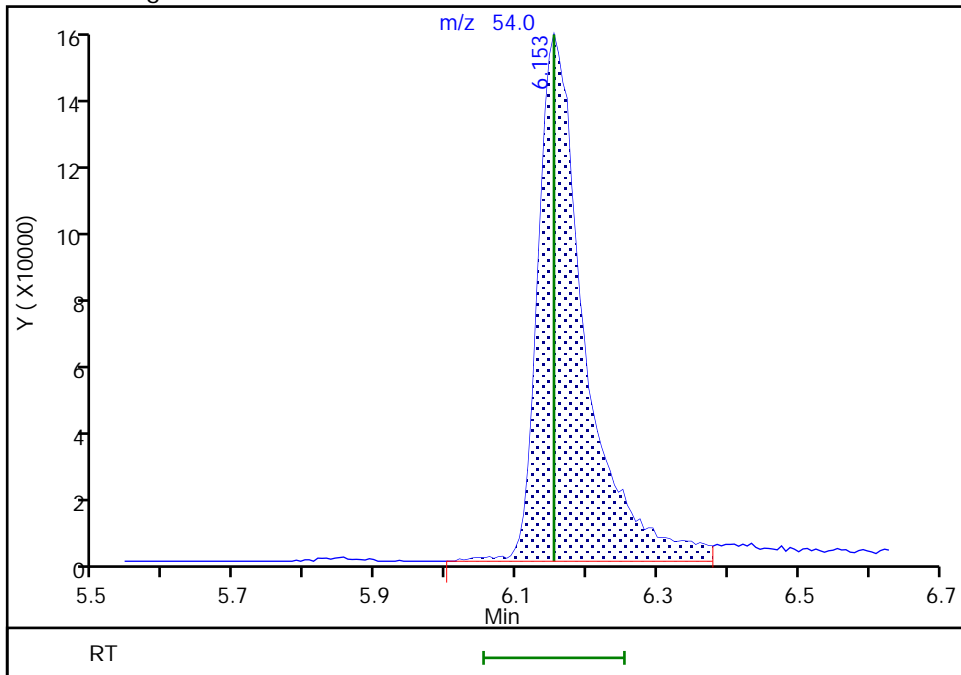
RT: 5.85
Area: 4019
Amount: 200.0000
Amount Units: ug/l

Processing Integration Results



RT: 6.15
Area: 706757
Amount: 205.4779
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:46:25
Audit Action: Split an Integrated Peak

Audit Reason: Other

Euofins Lancaster Laboratories Env, LLC

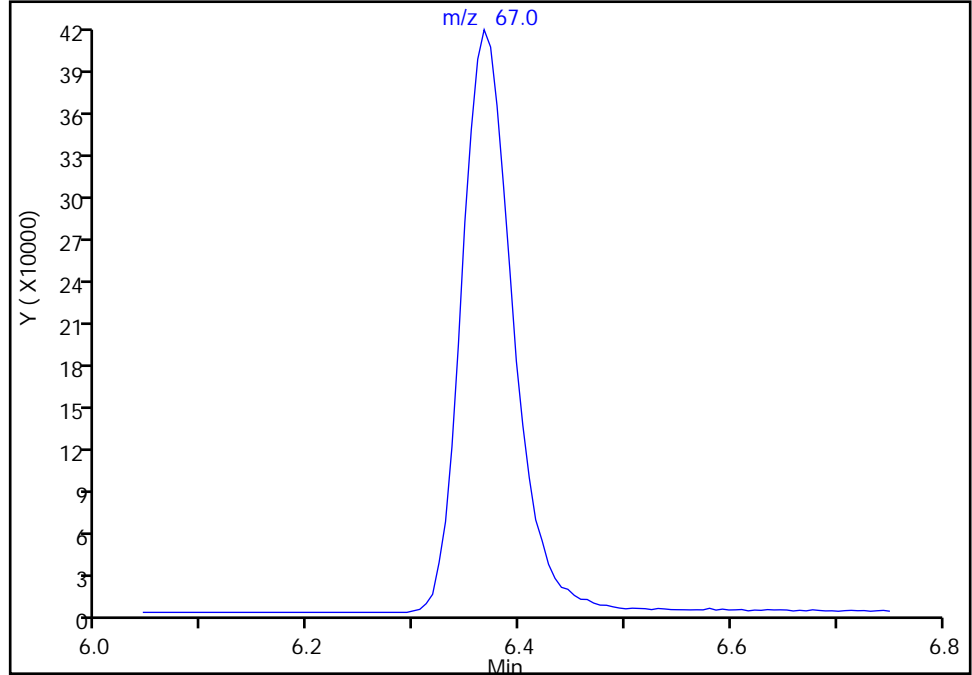
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Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

46 Methacrylonitrile, CAS: 126-98-7

Signal: 1

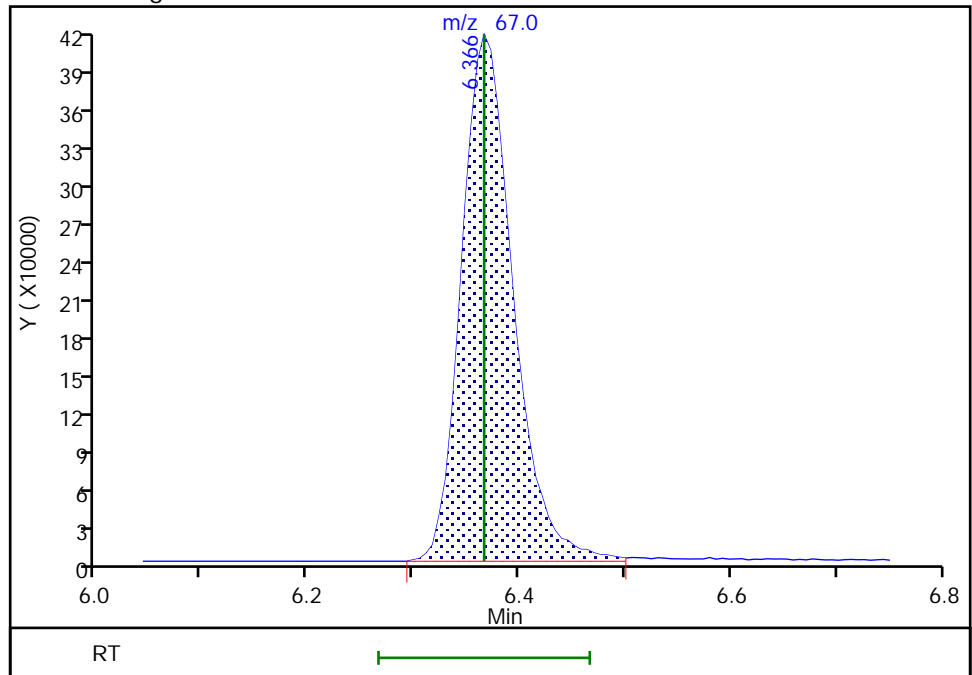
Not Detected
Expected RT: 6.37

Processing Integration Results



Manual Integration Results

RT: 6.37
Area: 1416865
Amount: 108.0193
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 13:39:09
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

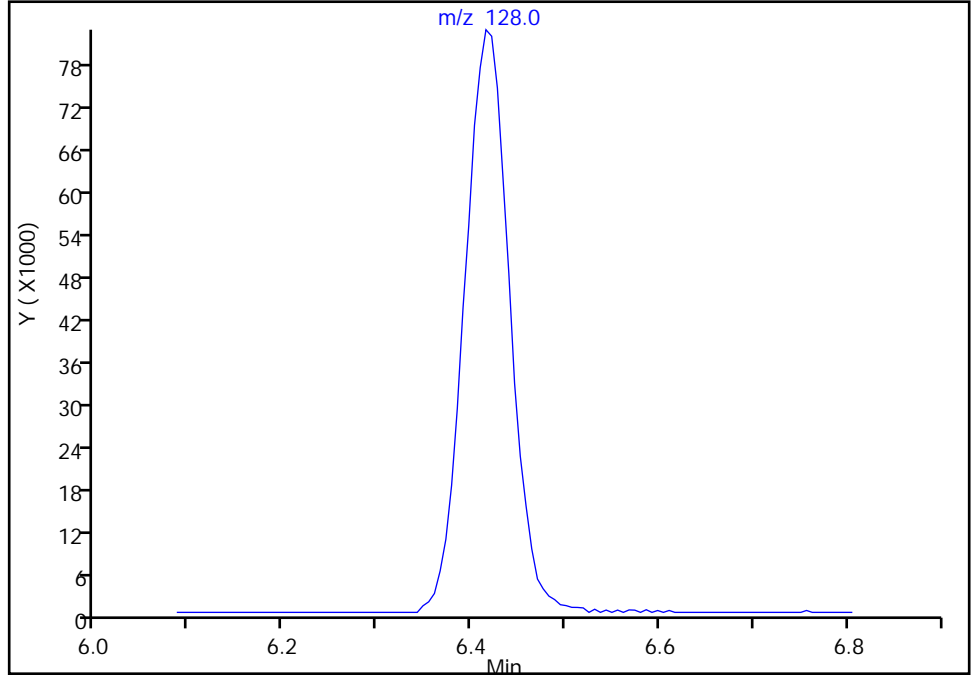
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Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

48 Chlorobromomethane, CAS: 74-97-5

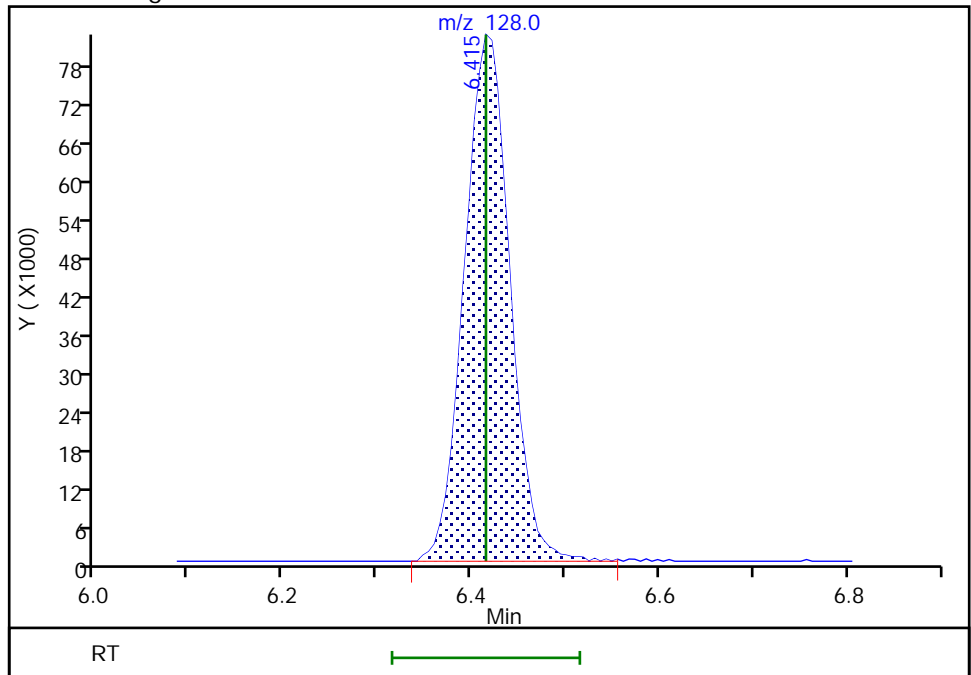
Signal: 1

Not Detected
Expected RT: 6.42

Processing Integration Results



Manual Integration Results



RT: 6.42
Area: 274903
Amount: 10.333768
Amount Units: ug/l

Eurofins Lancaster Laboratories Env, LLC

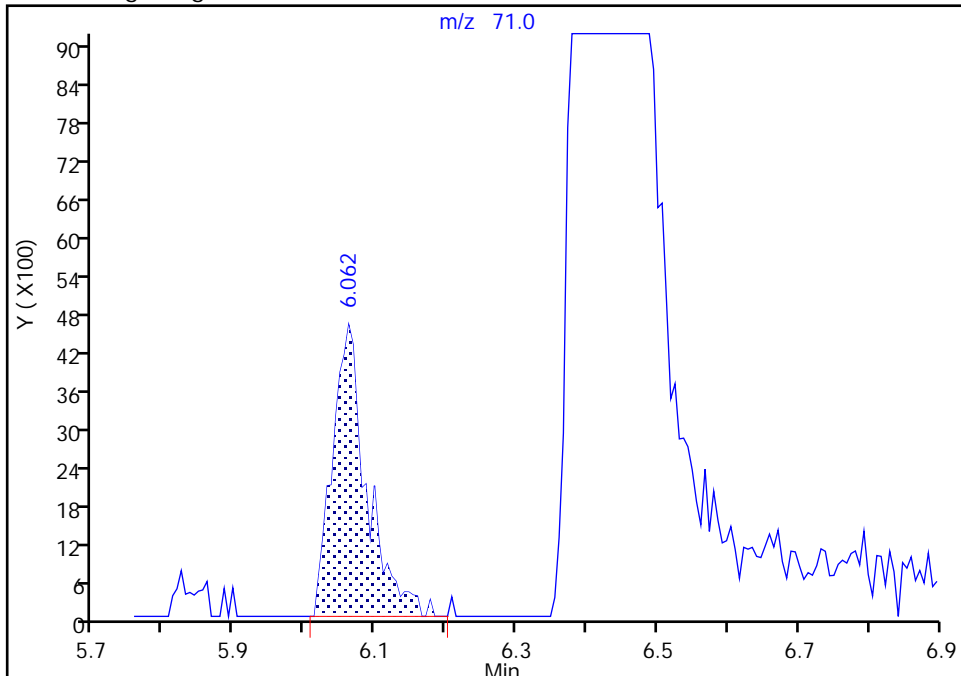
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Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

47 Tetrahydrofuran, CAS: 109-99-9

Signal: 1

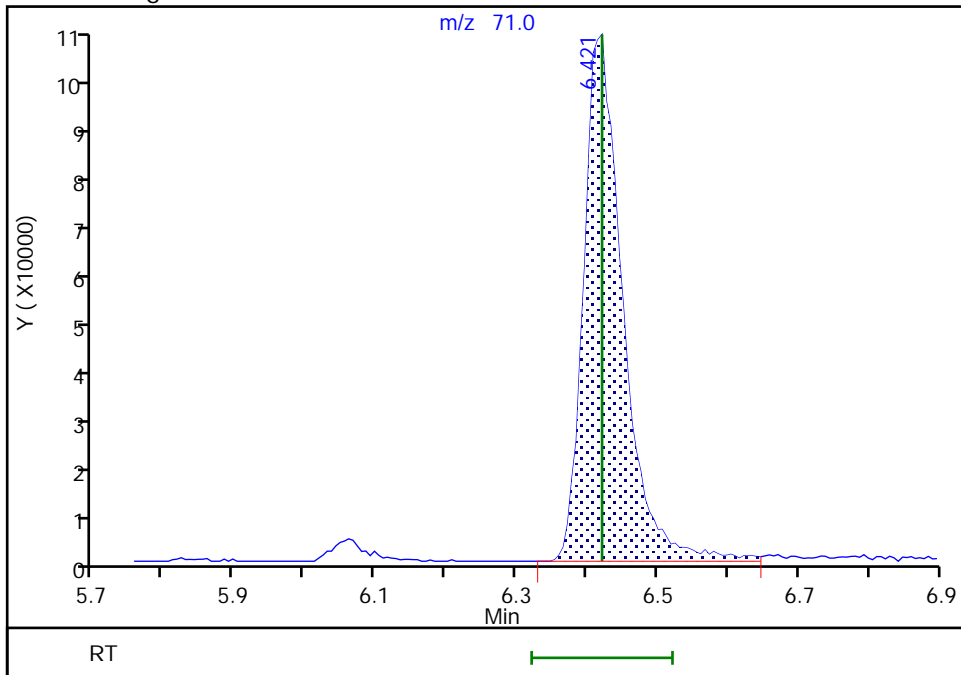
RT: 6.06
Area: 15500
Amount: 3.976724
Amount Units: ug/l

Processing Integration Results



RT: 6.42
Area: 415293
Amount: 105.2859
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:24:51
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

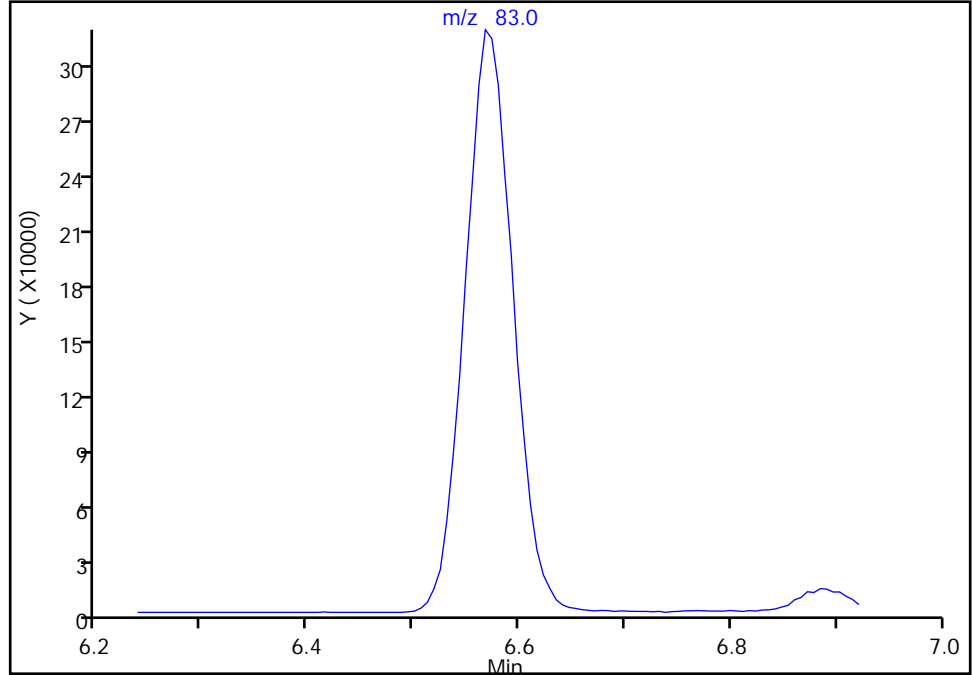
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

50 Chloroform, CAS: 67-66-3

Signal: 1

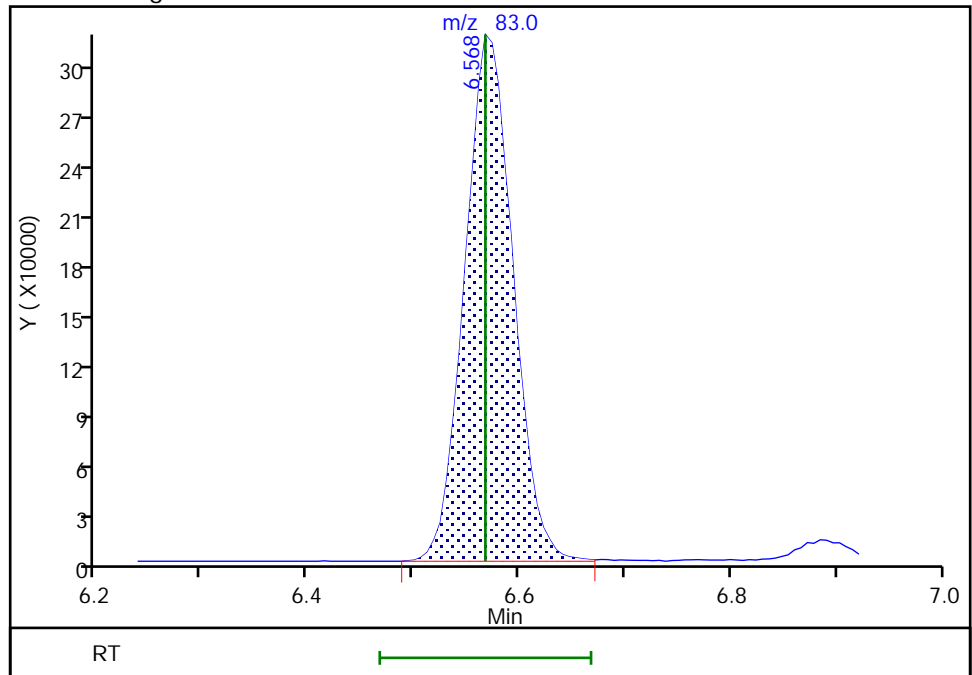
Not Detected
Expected RT: 6.57

Processing Integration Results



Manual Integration Results

RT: 6.57
Area: 1011245
Amount: 10.303760
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 13:39:01
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

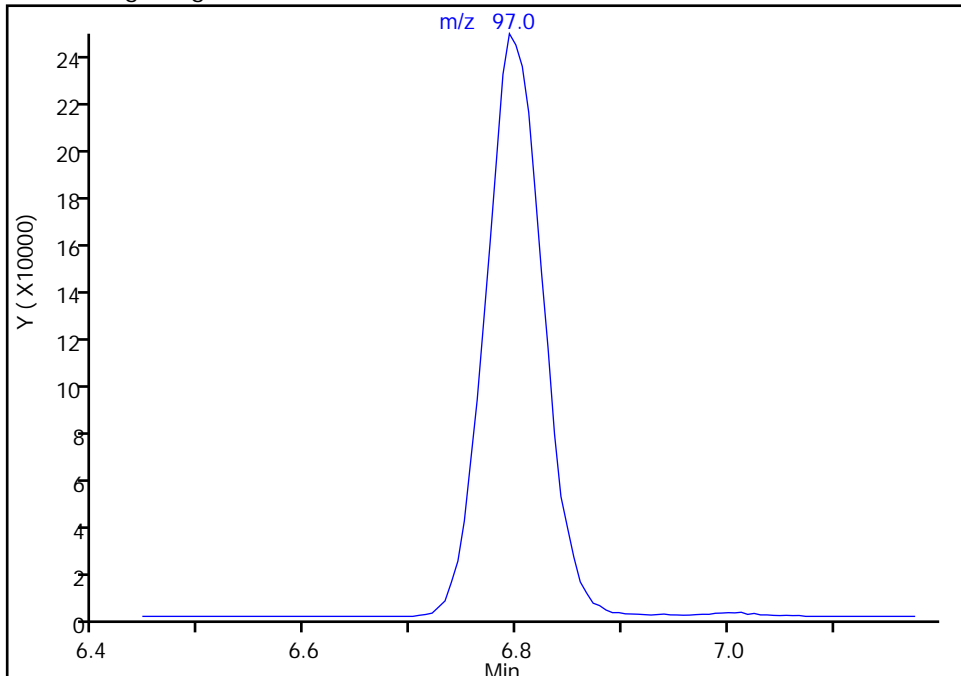
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Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

51 1,1,1-Trichloroethane, CAS: 71-55-6

Signal: 1

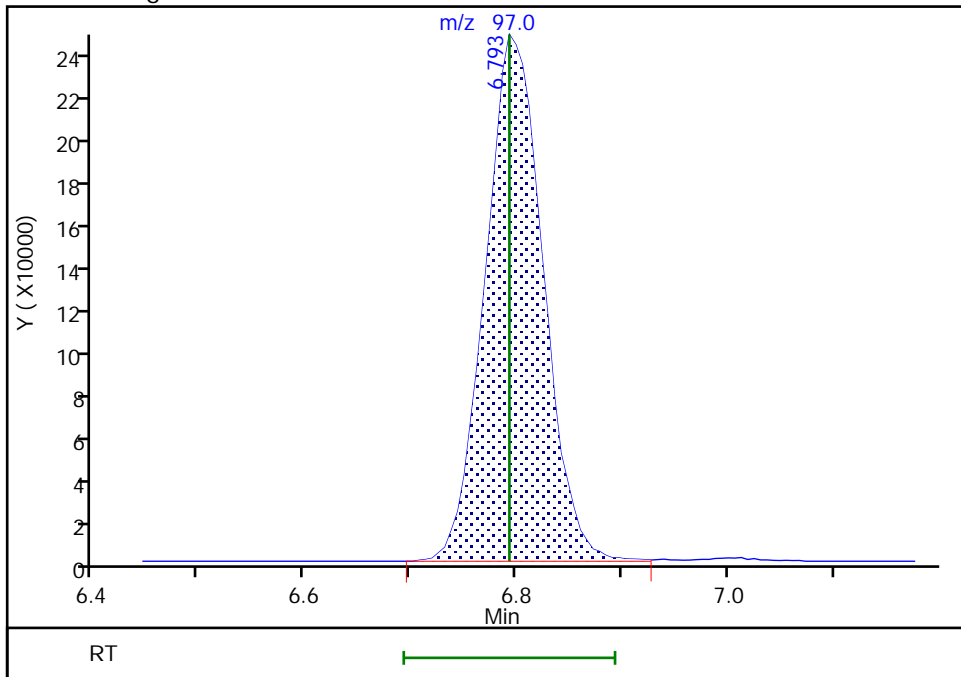
Not Detected
Expected RT: 6.79

Processing Integration Results



Manual Integration Results

RT: 6.79
Area: 931969
Amount: 10.370786
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 13:38:57
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

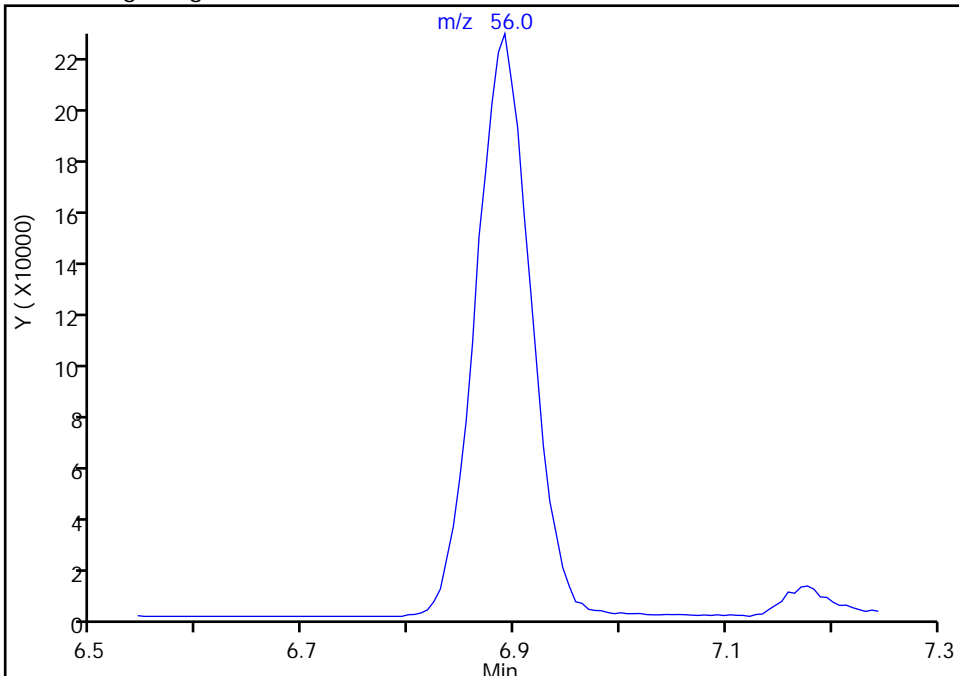
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Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

53 Cyclohexane, CAS: 110-82-7

Signal: 1

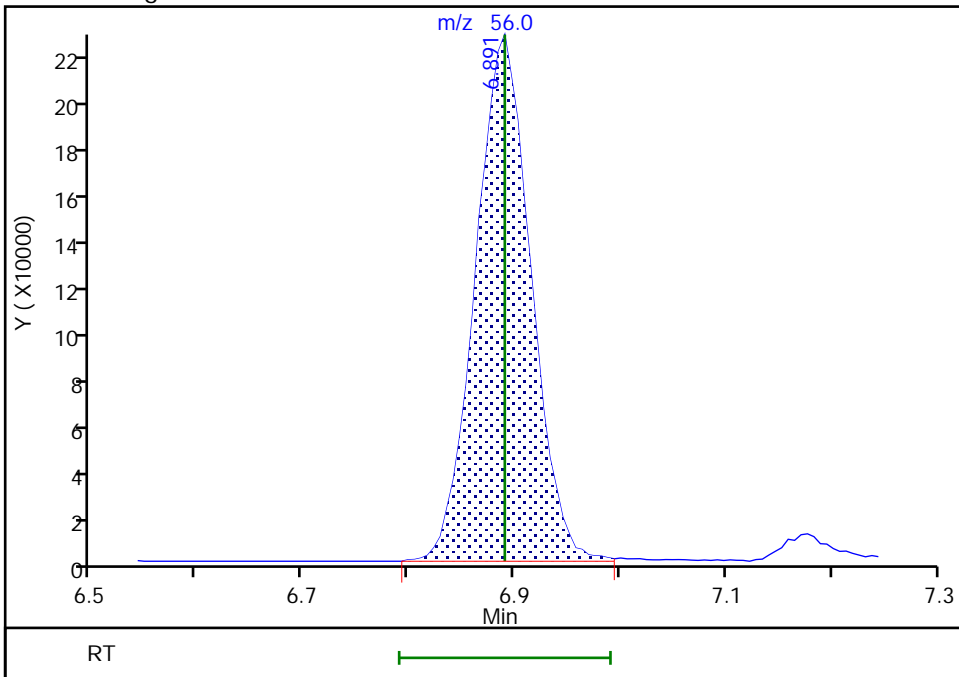
Not Detected
Expected RT: 6.89

Processing Integration Results



Manual Integration Results

RT: 6.89
Area: 817081
Amount: 10.494969
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 13:38:53
Audit Action: Assigned Compound ID

Audit Reason: Other
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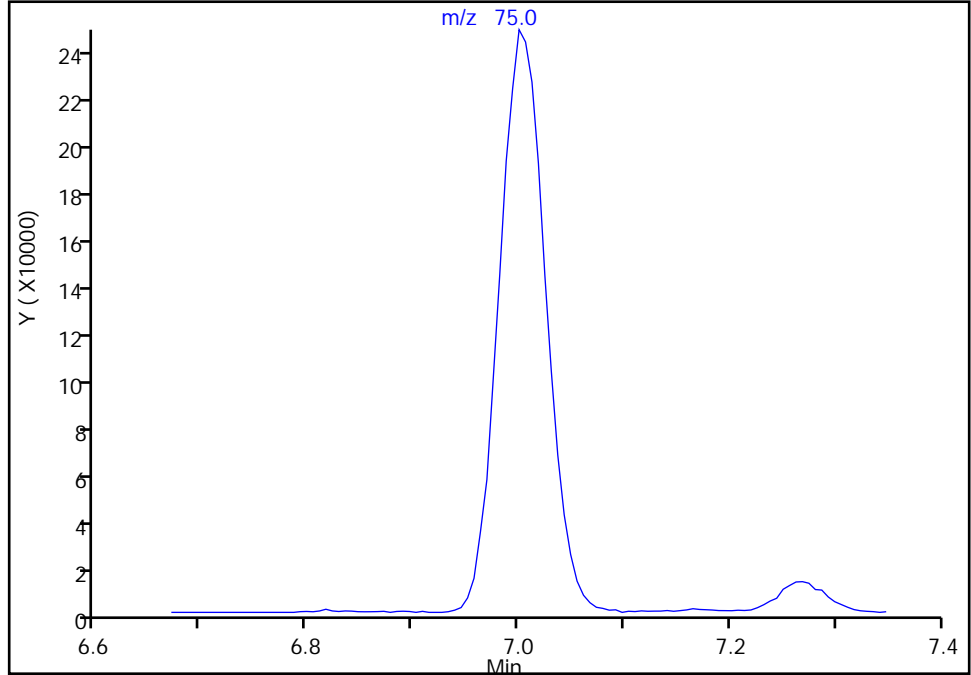
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Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

55 1,1-Dichloropropene, CAS: 563-58-6

Signal: 1

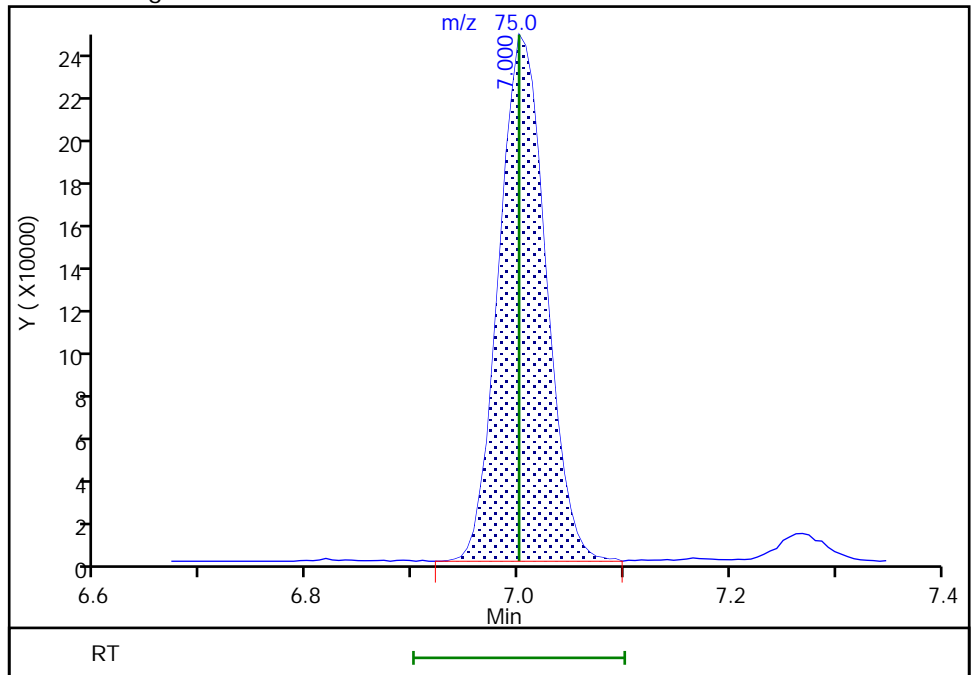
Not Detected
Expected RT: 7.00

Processing Integration Results



Manual Integration Results

RT: 7.00
Area: 749047
Amount: 10.336582
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 13:38:48
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

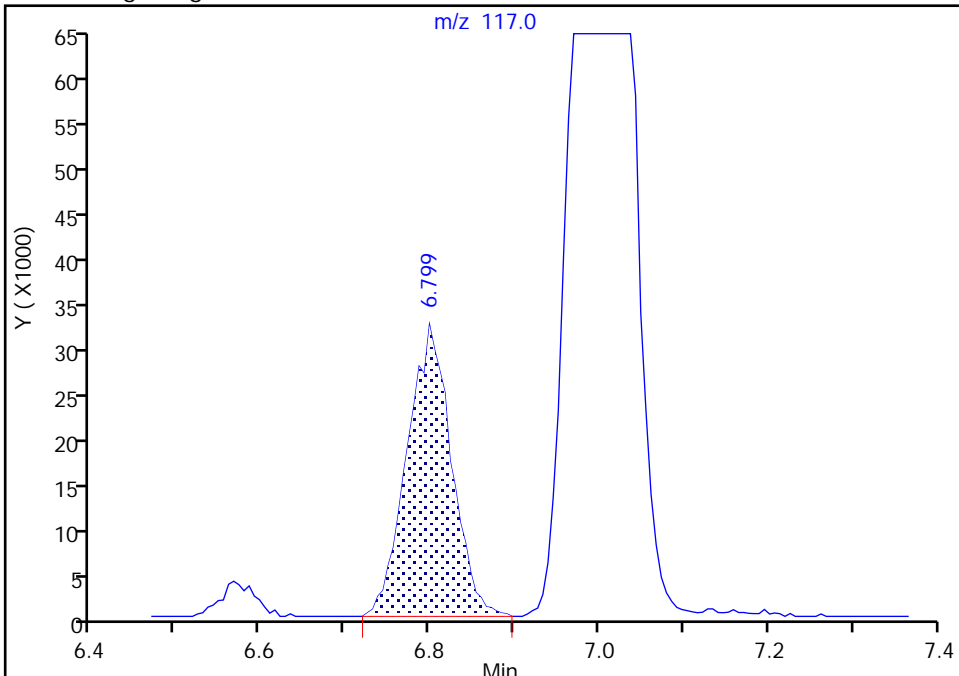
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I02.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

56 Carbon tetrachloride, CAS: 56-23-5

Signal: 1

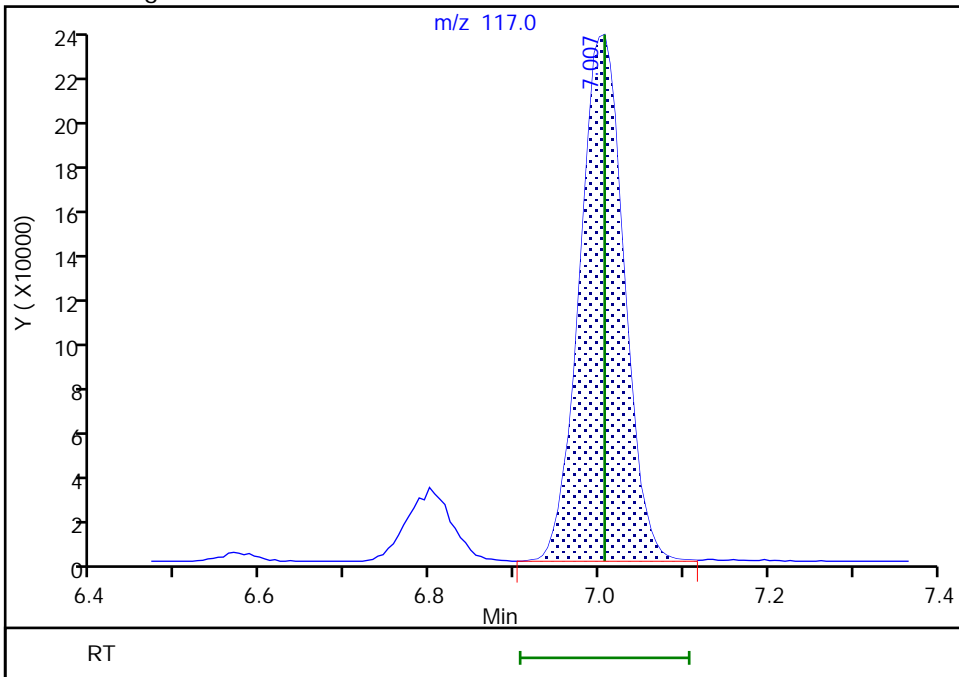
RT: 6.80
Area: 117776
Amount: 0.001473
Amount Units: ug/l

Processing Integration Results



RT: 7.01
Area: 839973
Amount: 10.457033
Amount Units: ug/l

Manual Integration Results



Eurofins Lancaster Laboratories Env, LLC

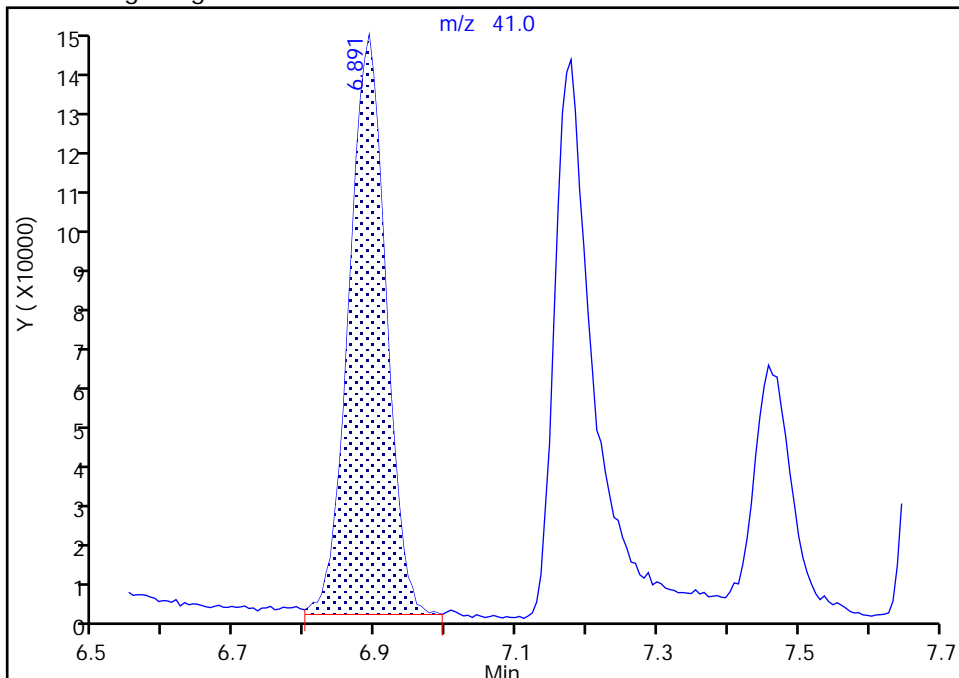
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

57 Isobutyl alcohol, CAS: 78-83-1

Signal: 1

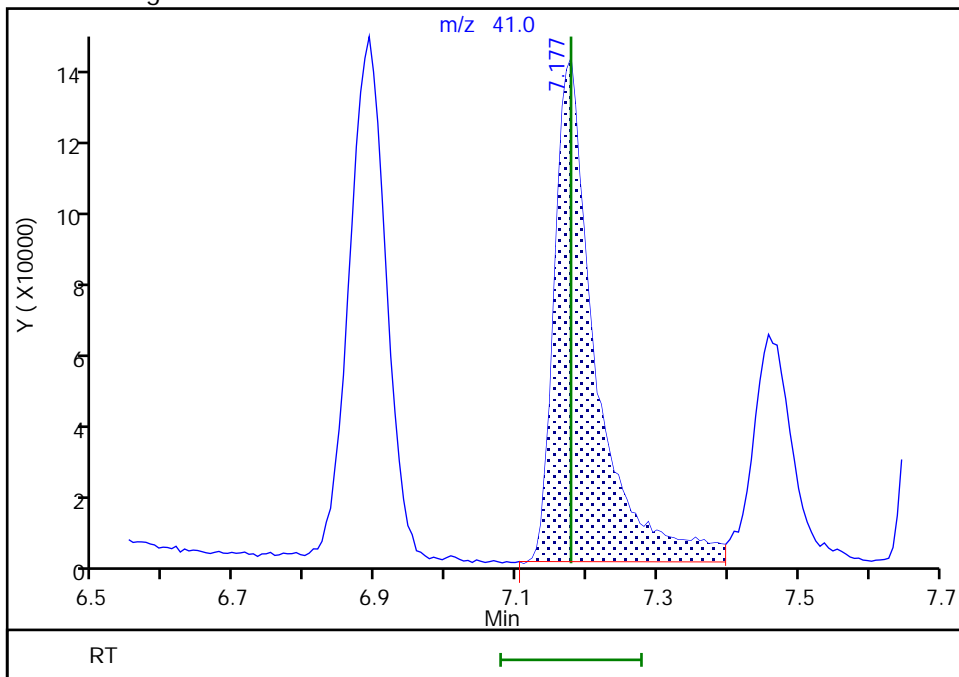
RT: 6.89
Area: 541571
Amount: 500.0000
Amount Units: ug/l

Processing Integration Results



RT: 7.18
Area: 577326
Amount: 512.4226
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:25:20
Audit Action: Assigned Compound ID

Audit Reason: Other

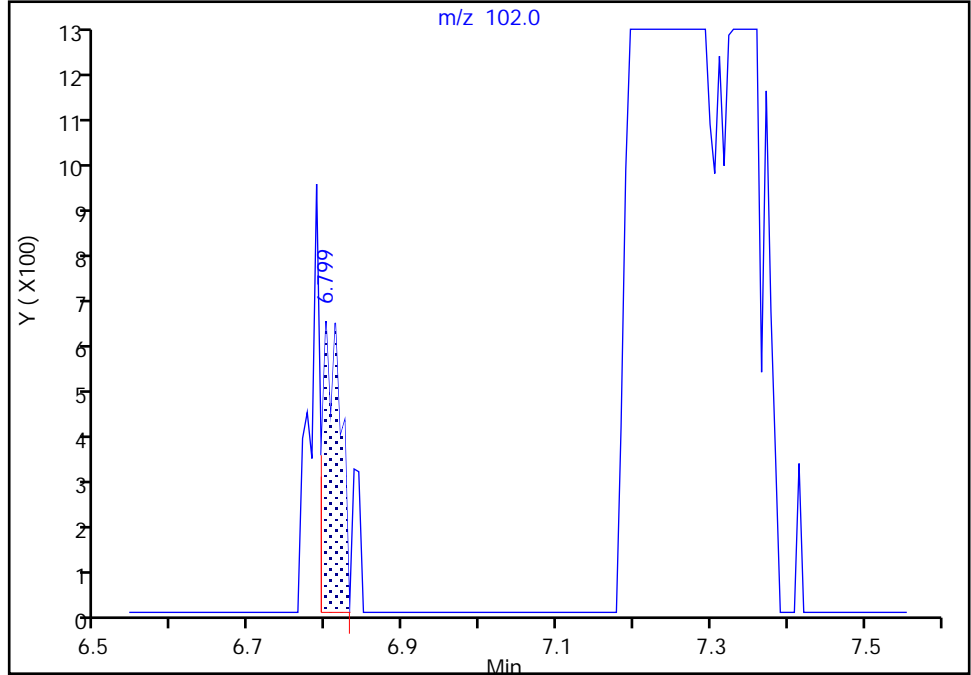
Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm i.d.) Detector: MS Quad

\$ 58 1,2-Dichloroethane-d4 (Surr), CAS: 17060-07-0
Signal: 1

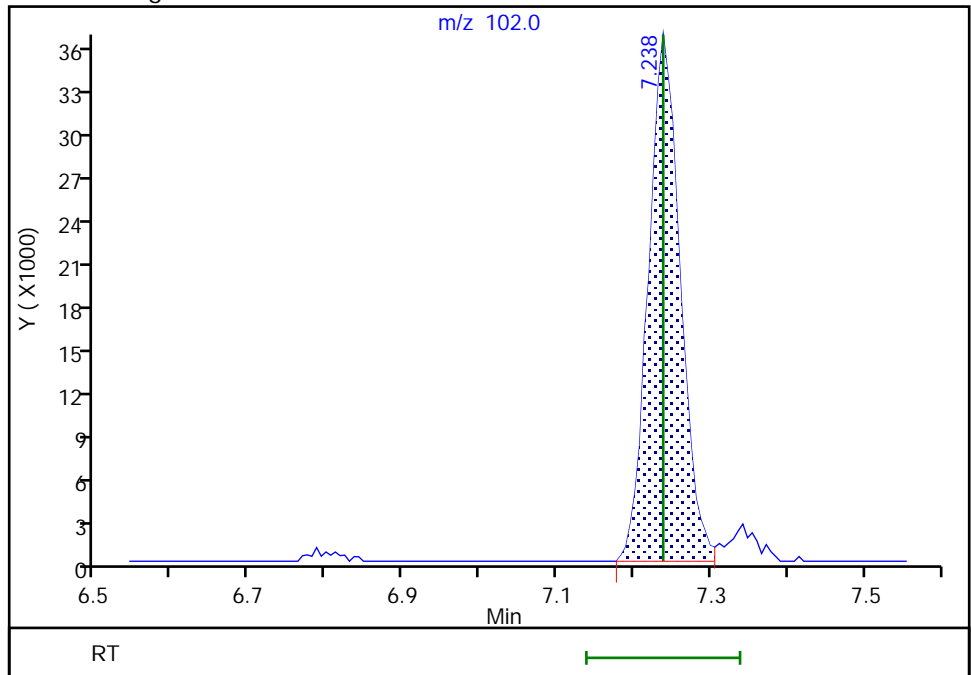
RT: 6.80
Area: 1036
Amount: 0.008789
Amount Units: ug/l

Processing Integration Results



RT: 7.24
Area: 103710
Amount: 10.066088
Amount Units: ug/l

Manual Integration Results



Eurofins Lancaster Laboratories Env, LLC

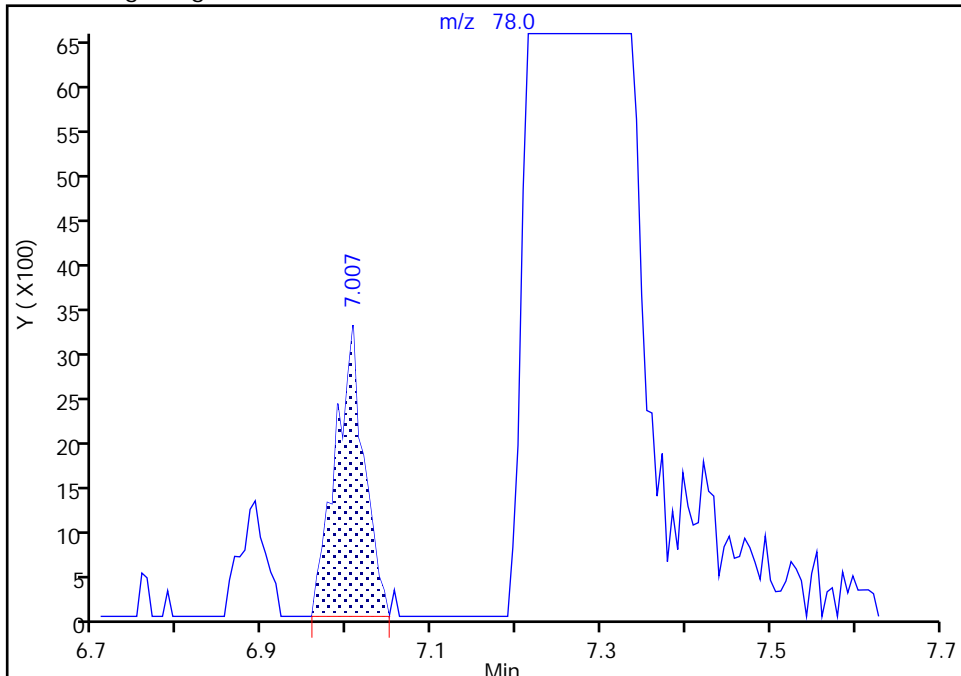
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Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

59 Benzene, CAS: 71-43-2

Signal: 1

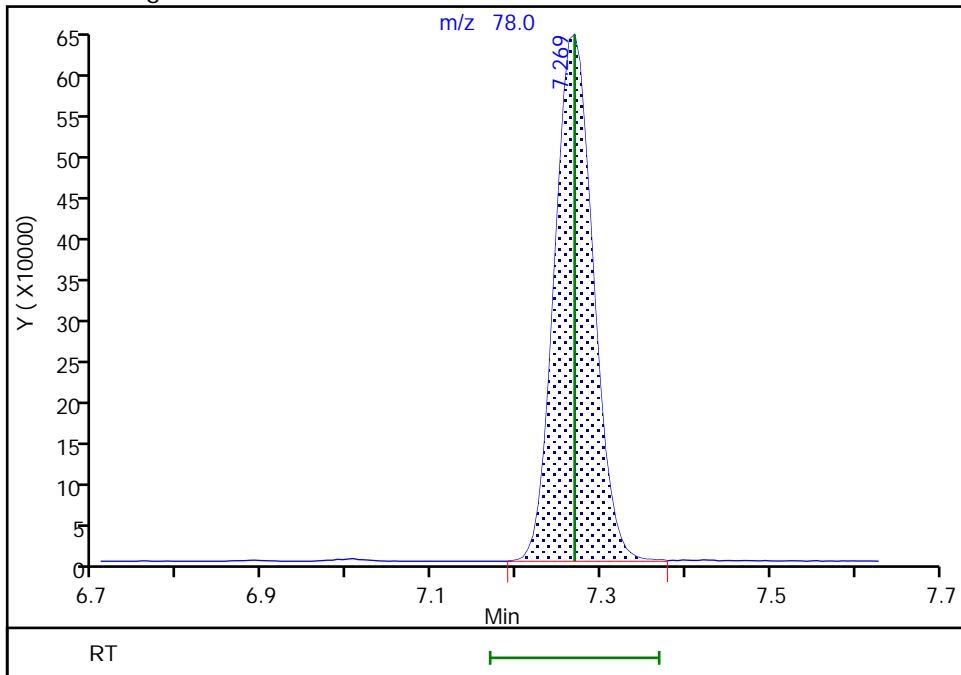
RT: 7.01
Area: 7678
Amount: 0.001442
Amount Units: ug/l

Processing Integration Results



RT: 7.27
Area: 2054148
Amount: 10.160092
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:25:28
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

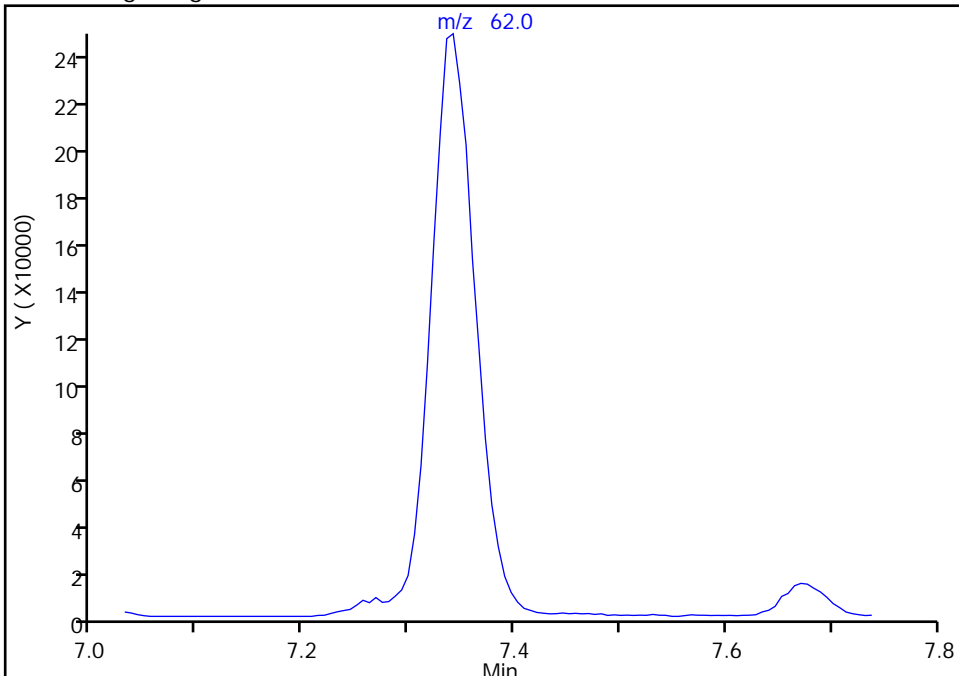
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I02.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

60 1,2-Dichloroethane, CAS: 107-06-2

Signal: 1

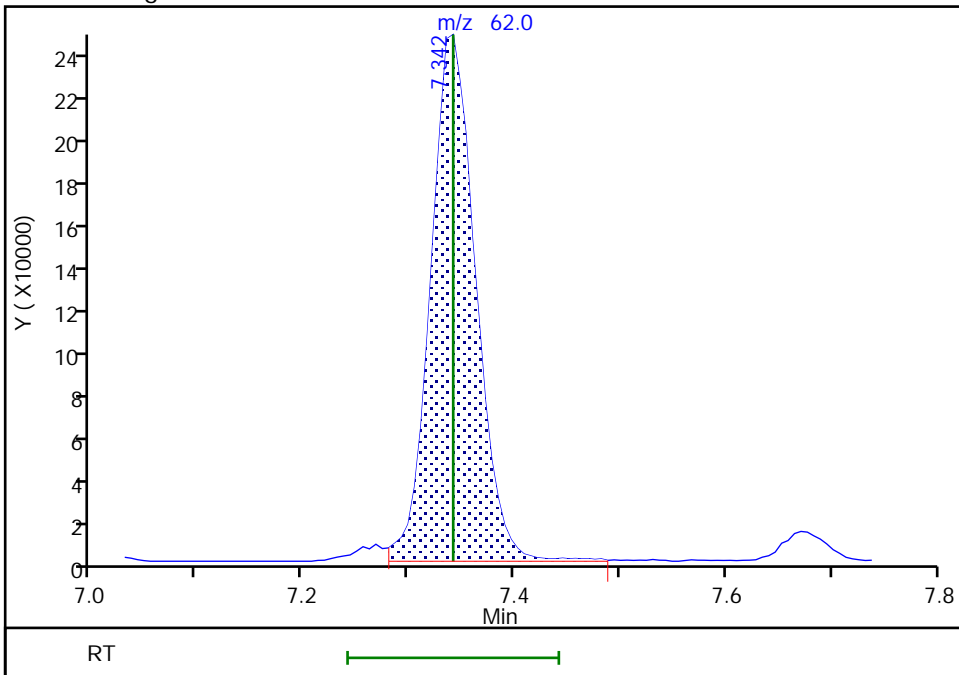
Not Detected
Expected RT: 7.34

Processing Integration Results



Manual Integration Results

RT: 7.34
Area: 719375
Amount: 9.832004
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 13:21:50
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

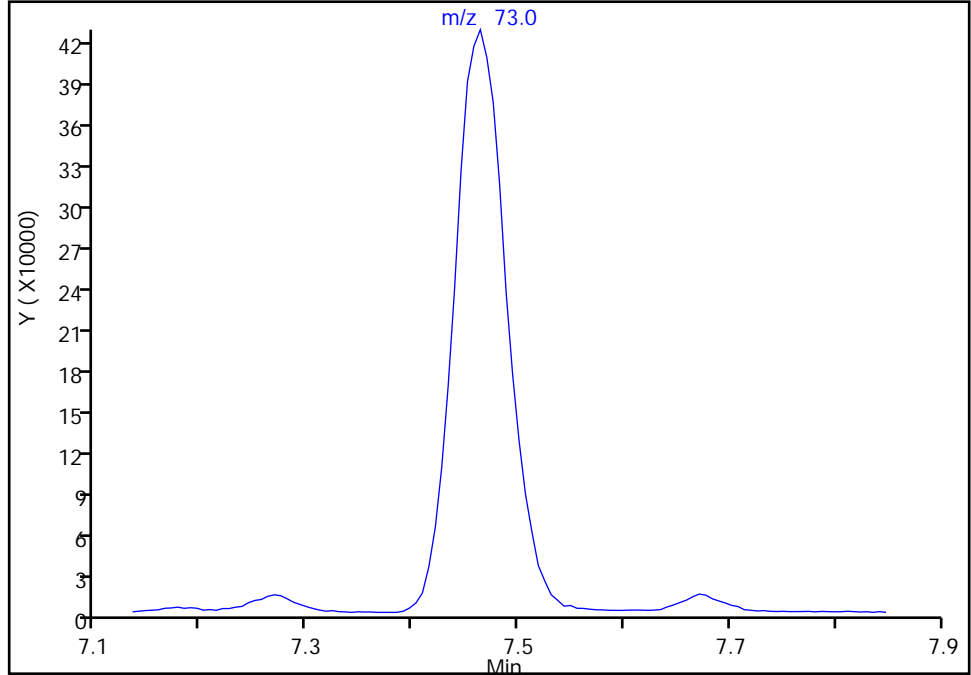
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

62 Tert-amyl methyl ether, CAS: 994-05-8

Signal: 1

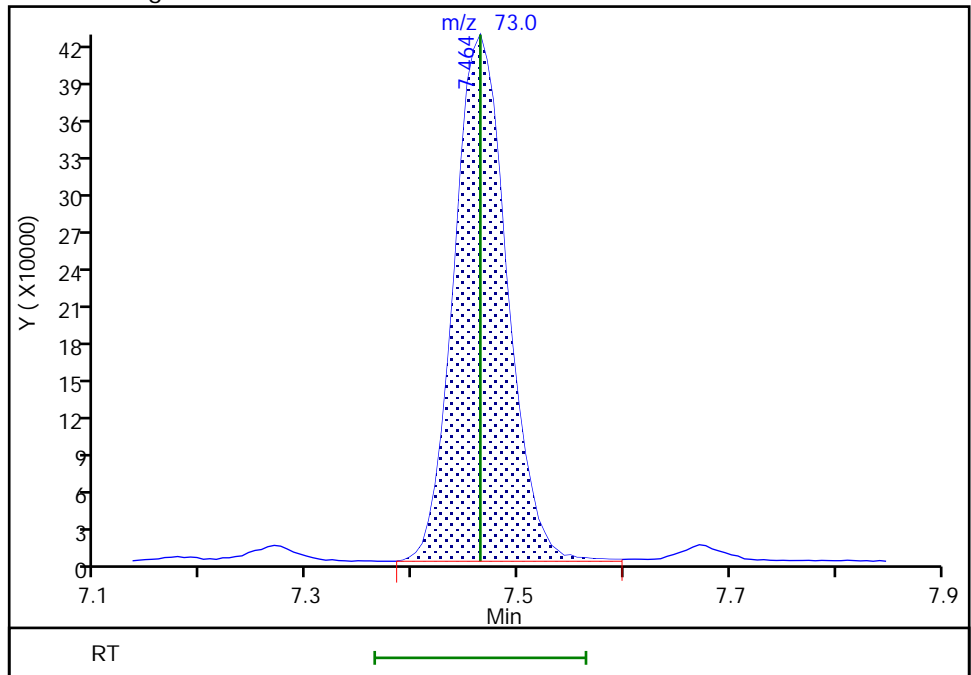
Not Detected
Expected RT: 7.46

Processing Integration Results



Manual Integration Results

RT: 7.46
Area: 1485891
Amount: 10.399619
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 13:38:44
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

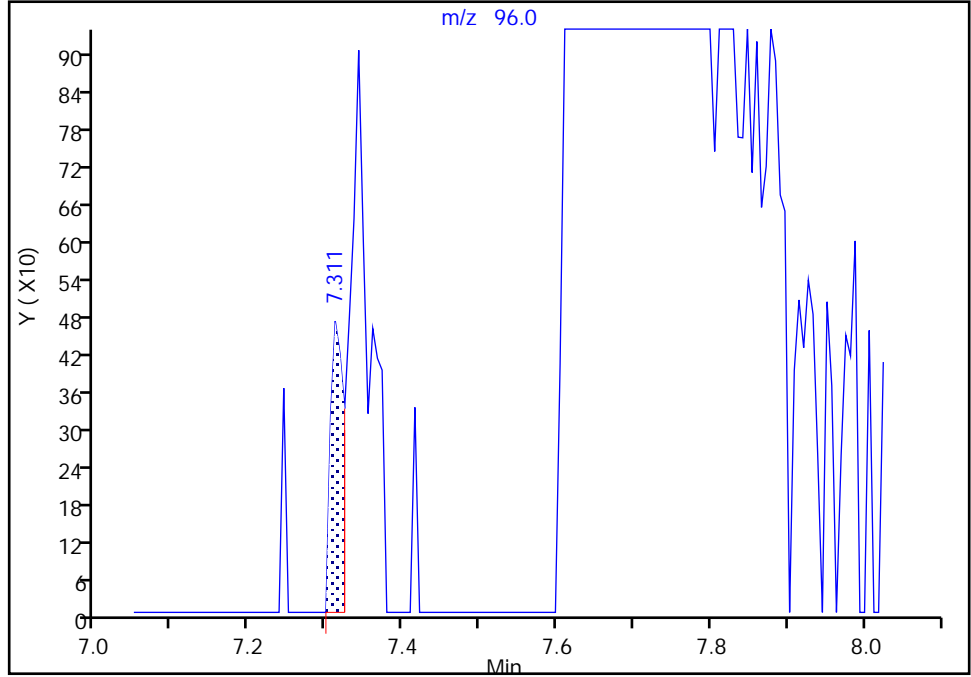
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 63 Fluorobenzene (IS), CAS: 462-06-6

Signal: 1

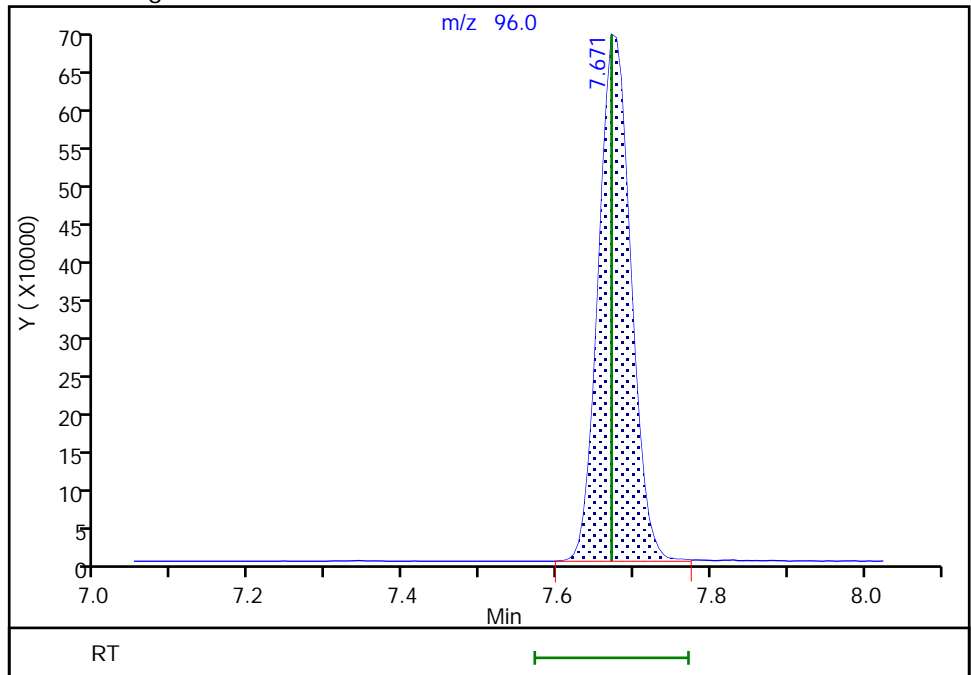
RT: 7.31
Area: 560
Amount: 10.000000
Amount Units: ug/l

Processing Integration Results



RT: 7.67
Area: 2025090
Amount: 10.000000
Amount Units: ug/l

Manual Integration Results



Eurofins Lancaster Laboratories Env, LLC

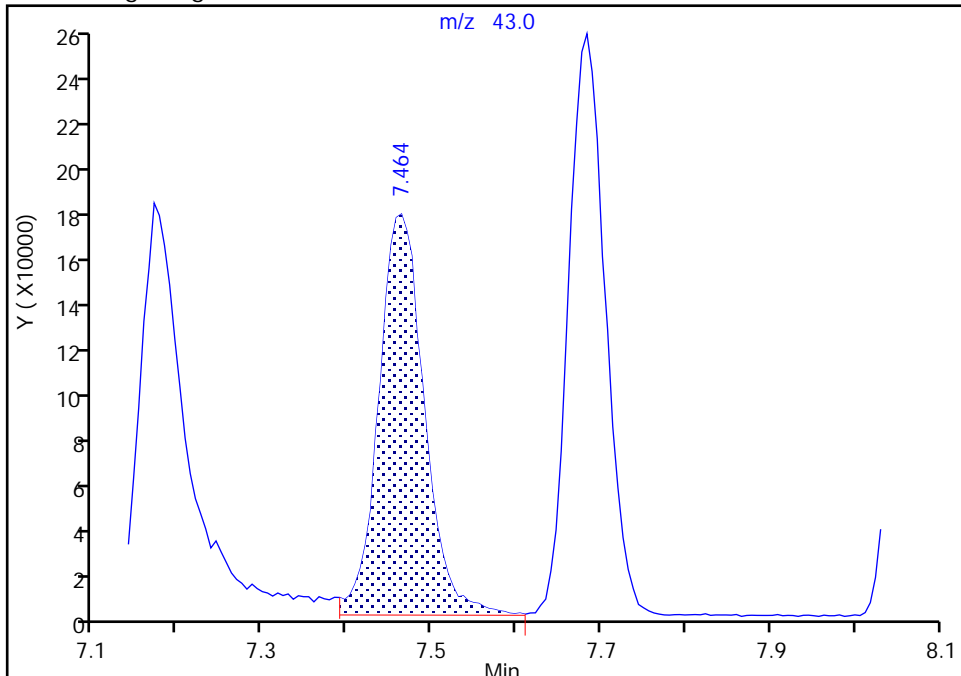
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I02.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

64 n-Heptane, CAS: 142-82-5

Signal: 1

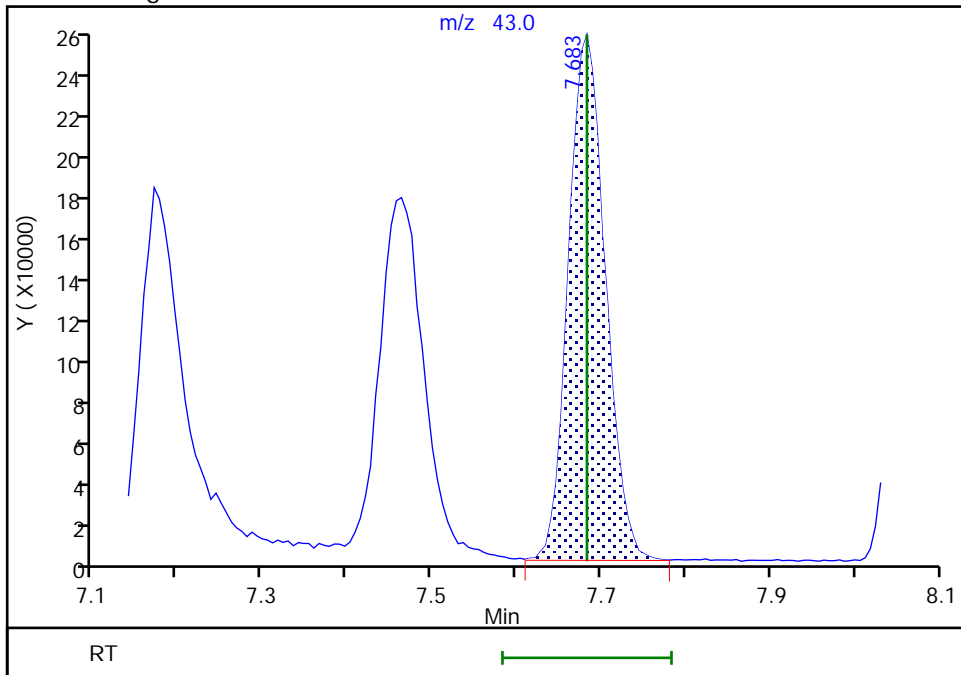
RT: 7.46
Area: 652020
Amount: 0.001236
Amount Units: ug/l

Processing Integration Results



RT: 7.68
Area: 764390
Amount: 10.354350
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:25:46
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

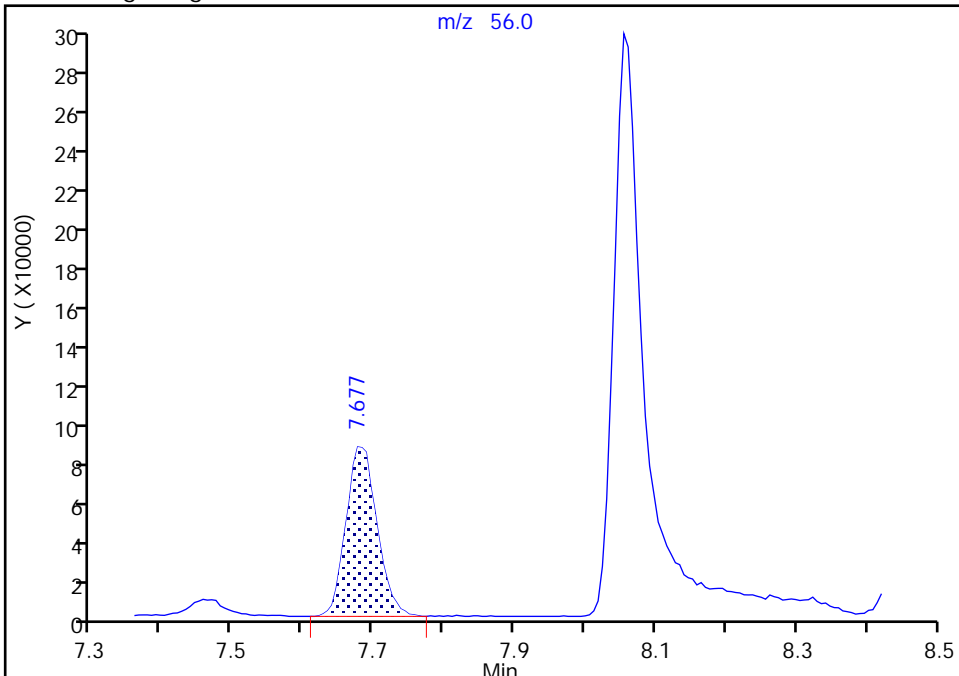
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I02.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

65 n-Butanol, CAS: 71-36-3

Signal: 1

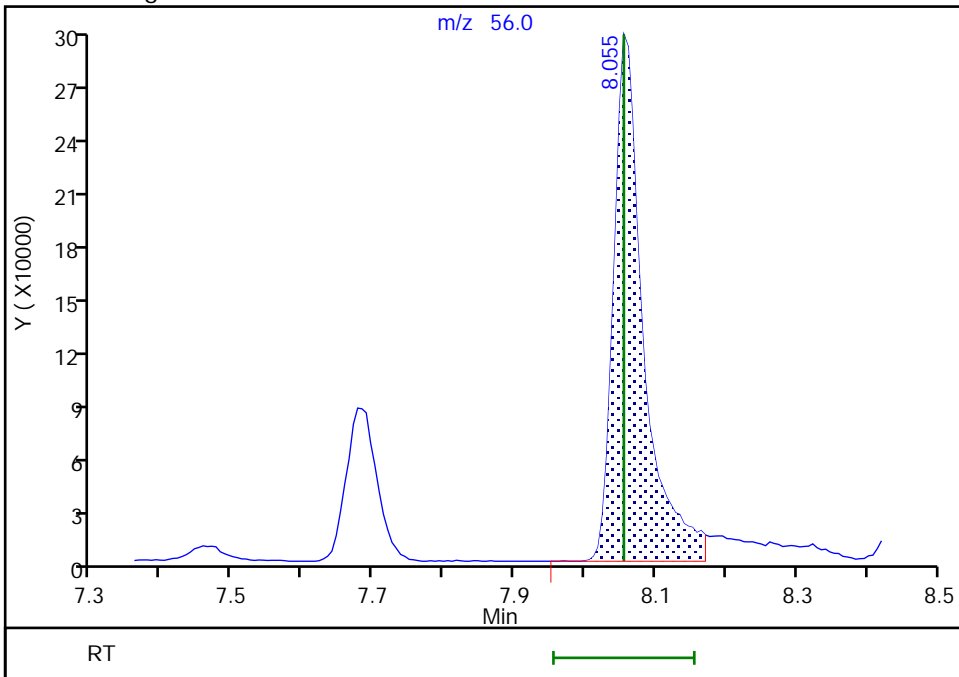
RT: 7.68
Area: 262564
Amount: 1000.0000
Amount Units: ug/l

Processing Integration Results



RT: 8.06
Area: 872474
Amount: 1016.5644
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:27:25
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

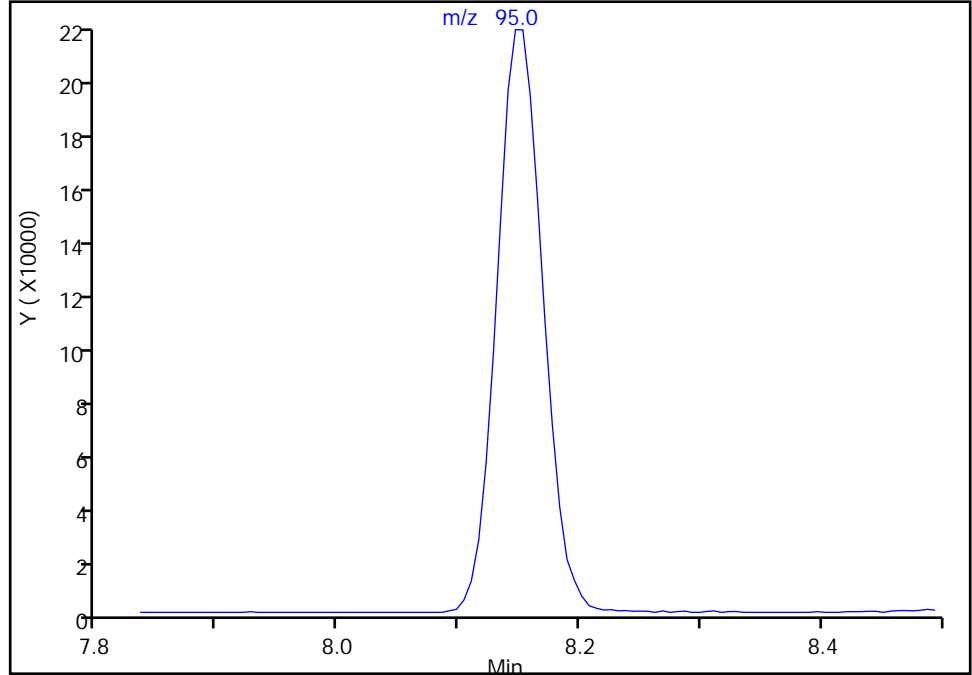
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

67 Trichloroethene, CAS: 79-01-6

Signal: 1

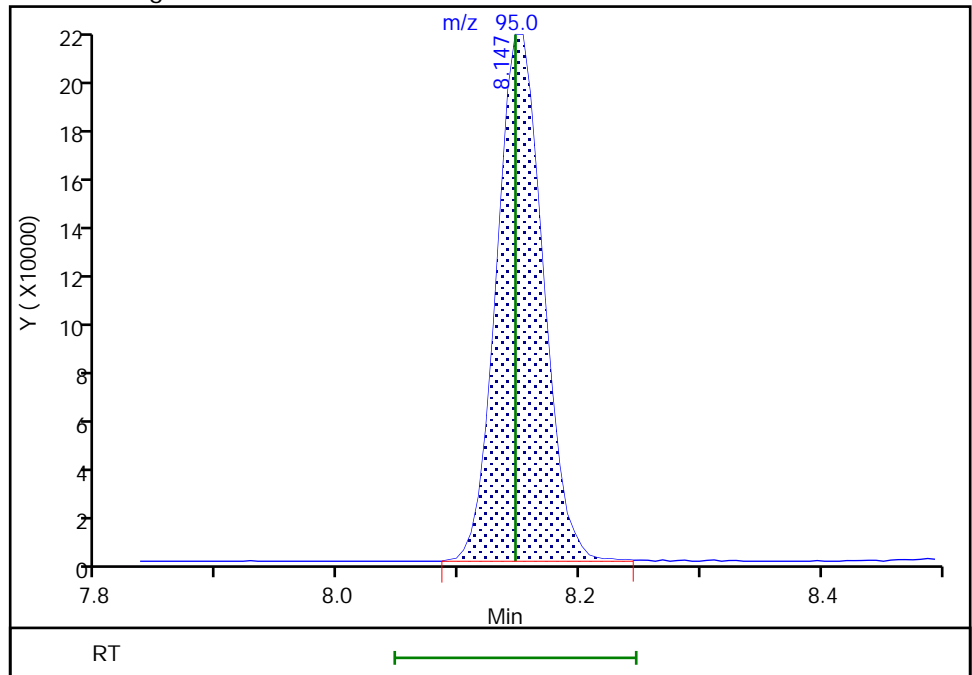
Not Detected
Expected RT: 8.15

Processing Integration Results



Manual Integration Results

RT: 8.15
Area: 580582
Amount: 10.311481
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 13:38:38
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

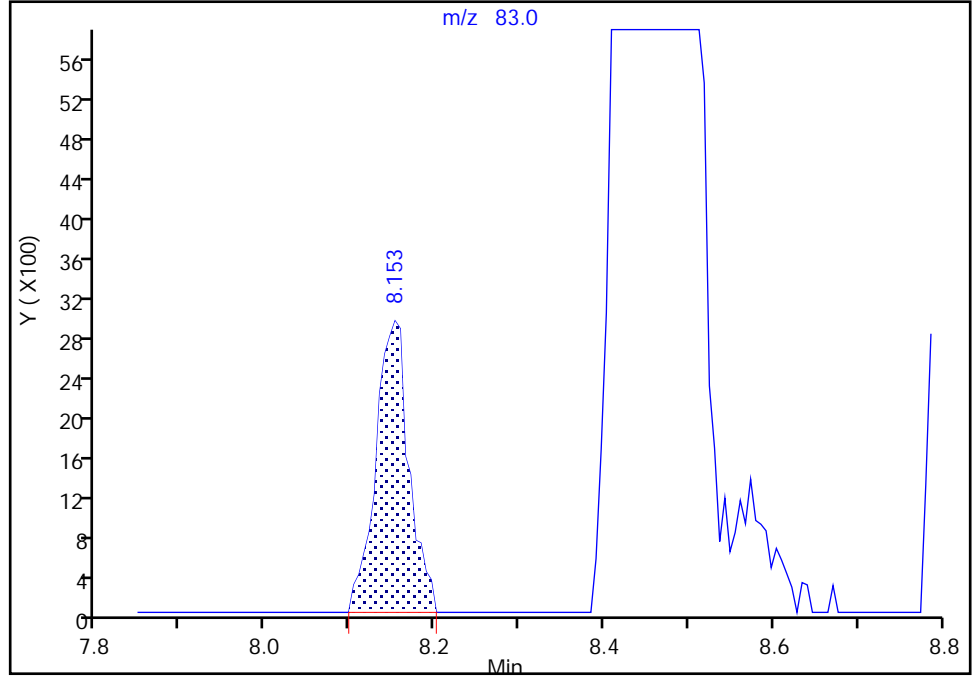
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

68 Methylcyclohexane, CAS: 108-87-2

Signal: 1

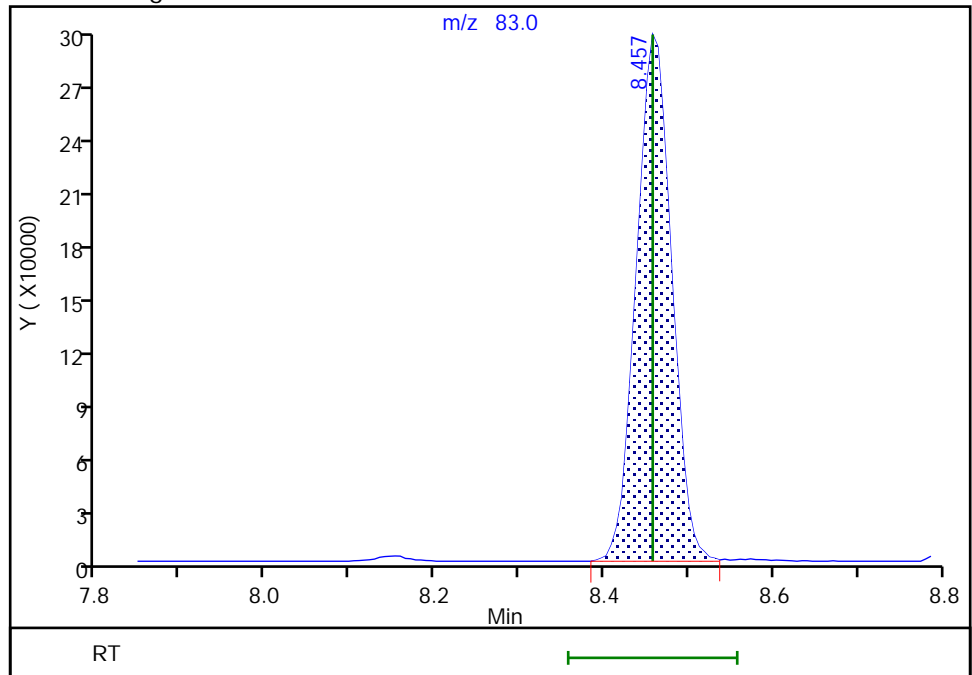
RT: 8.15
Area: 7965
Amount: 0.001564
Amount Units: ug/l

Processing Integration Results



RT: 8.46
Area: 848347
Amount: 10.247930
Amount Units: ug/l

Manual Integration Results



Eurofins Lancaster Laboratories Env, LLC

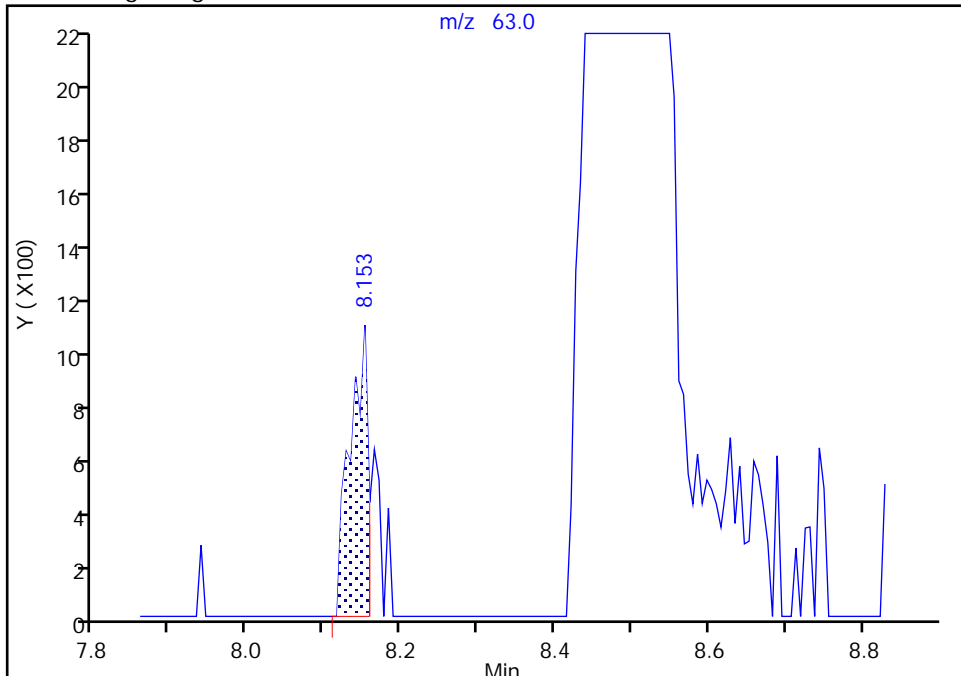
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

69 1,2-Dichloropropane, CAS: 78-87-5

Signal: 1

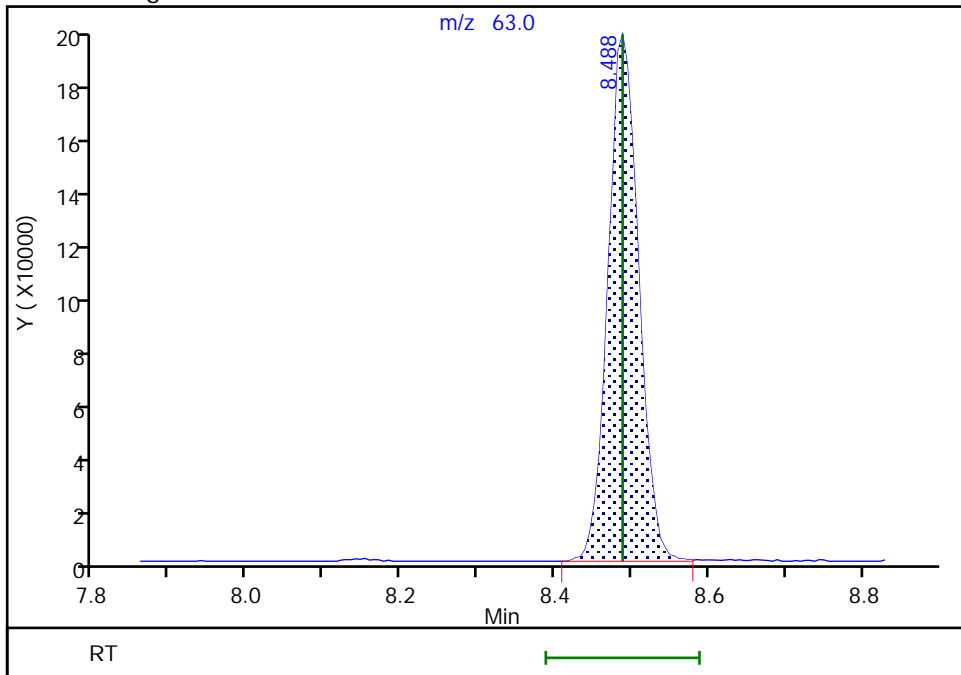
RT: 8.15
Area: 1715
Amount: 0.001630
Amount Units: ug/l

Processing Integration Results



RT: 8.49
Area: 530310
Amount: 10.340147
Amount Units: ug/l

Manual Integration Results



Eurofins Lancaster Laboratories Env, LLC

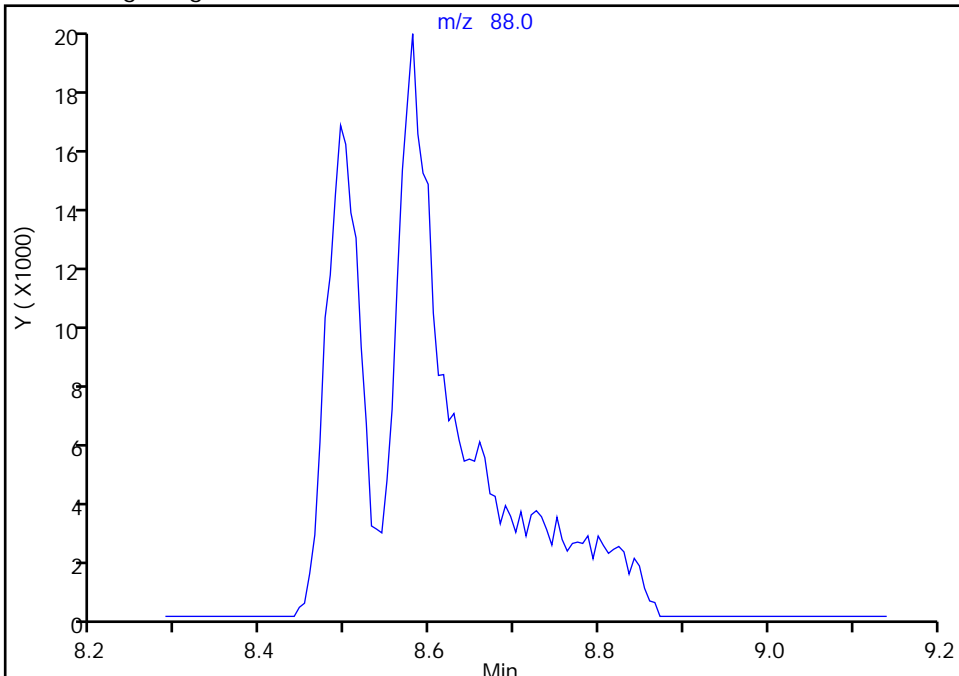
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

72 1,4-Dioxane, CAS: 123-91-1

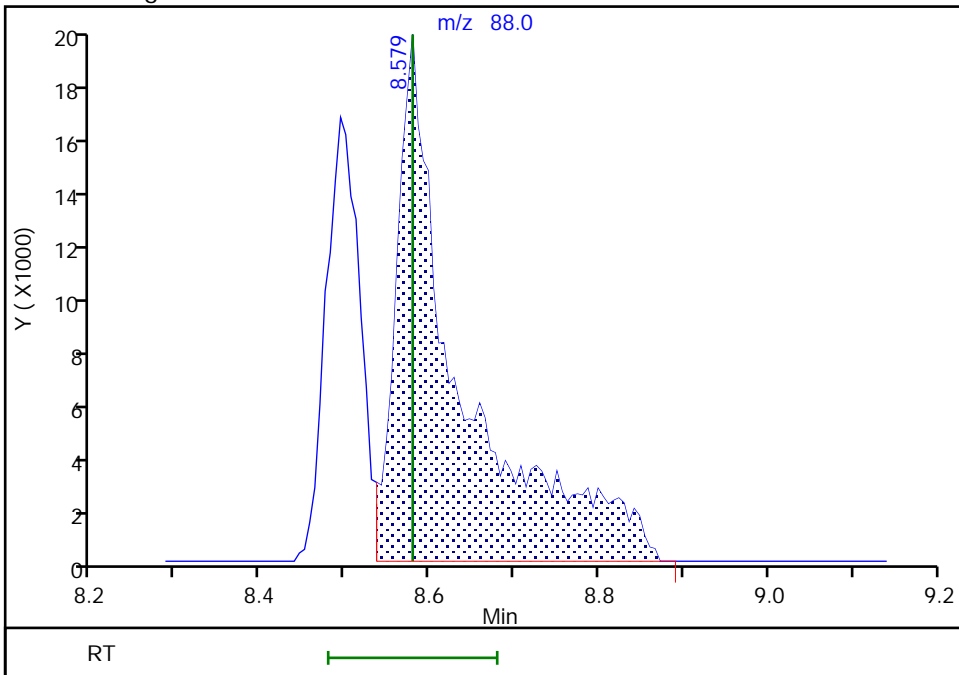
Signal: 1

Not Detected
Expected RT: 8.58

Processing Integration Results



Manual Integration Results



RT: 8.58
Area: 100676
Amount: 528.6303
Amount Units: ug/l

Reviewer: howej, 12-Jun-2020 13:38:22
Audit Action: Split an Integrated Peak

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

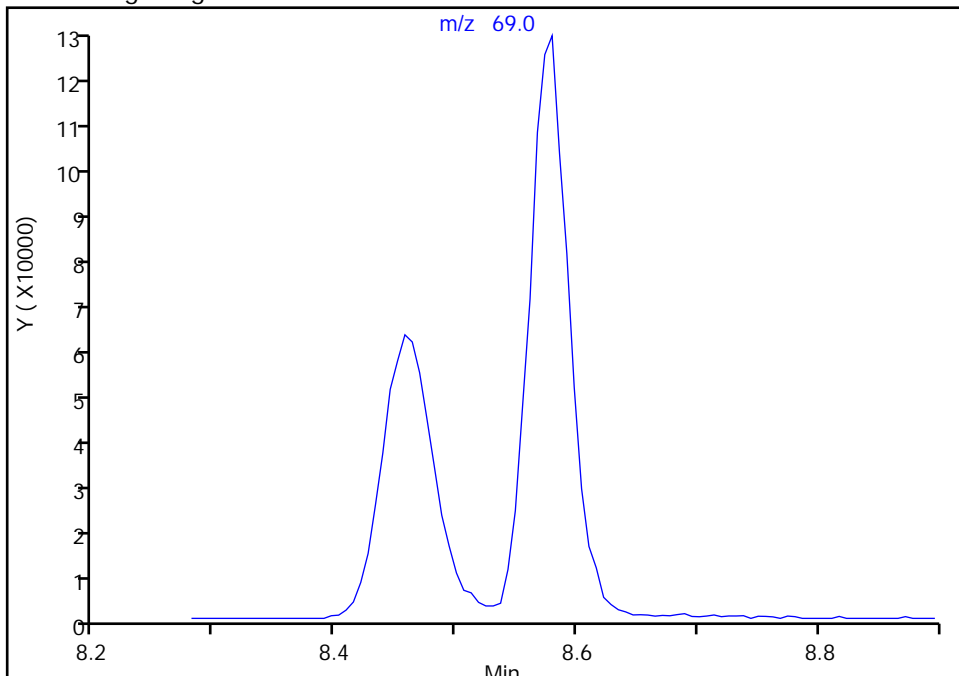
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

71 Methyl methacrylate, CAS: 80-62-6

Signal: 1

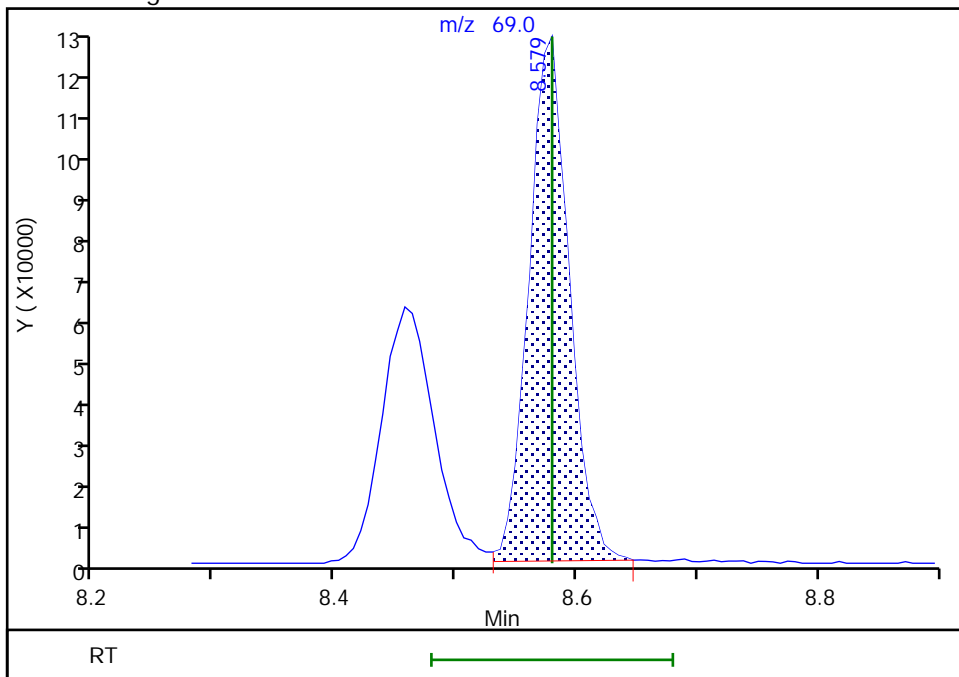
Not Detected
Expected RT: 8.58

Processing Integration Results



Manual Integration Results

RT: 8.58
Area: 287147
Amount: 10.817881
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 13:38:34
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

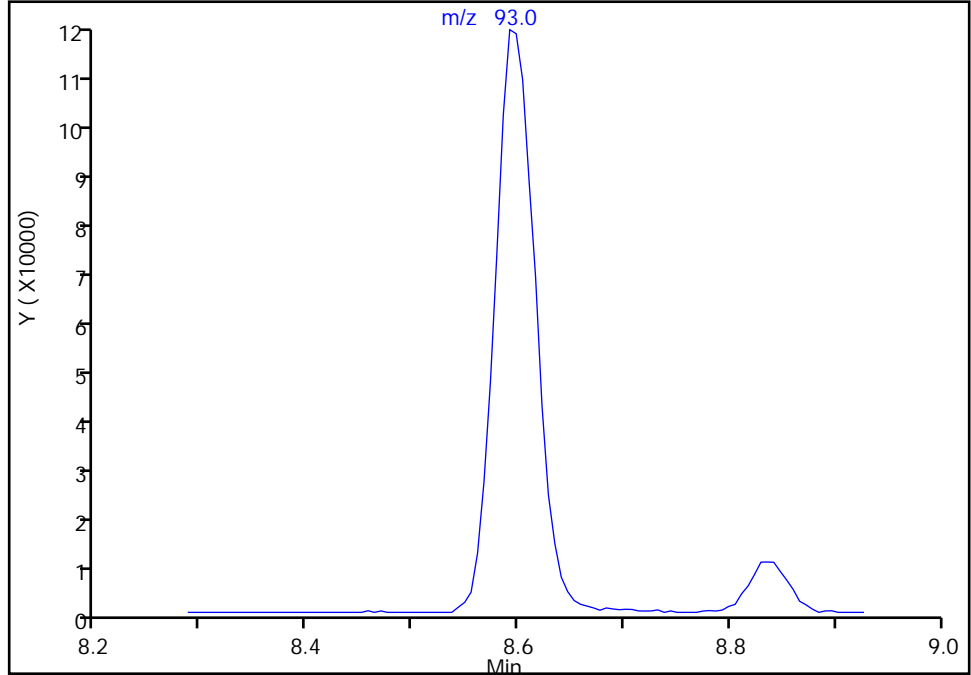
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

73 Dibromomethane, CAS: 74-95-3

Signal: 1

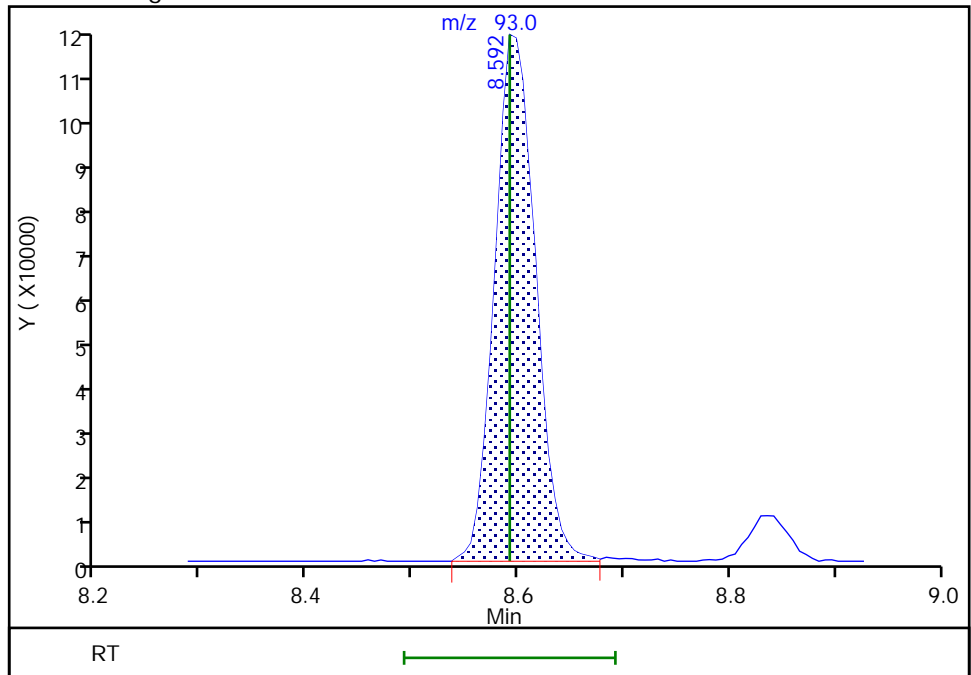
Not Detected
Expected RT: 8.59

Processing Integration Results



Manual Integration Results

RT: 8.59
Area: 304406
Amount: 10.284610
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 13:38:11
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

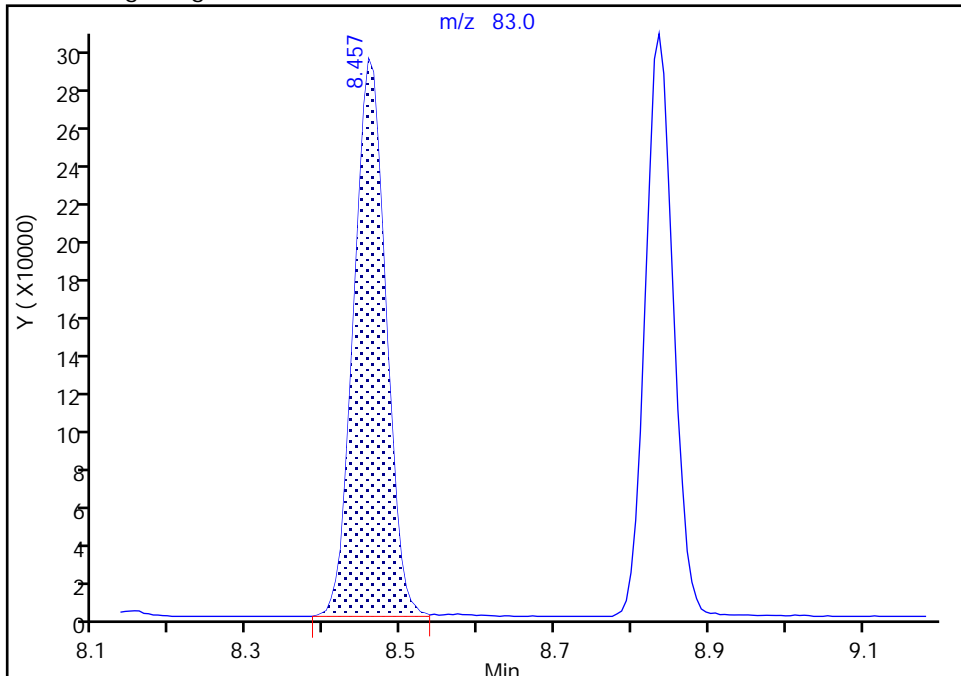
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

75 Dichlorobromomethane, CAS: 75-27-4

Signal: 1

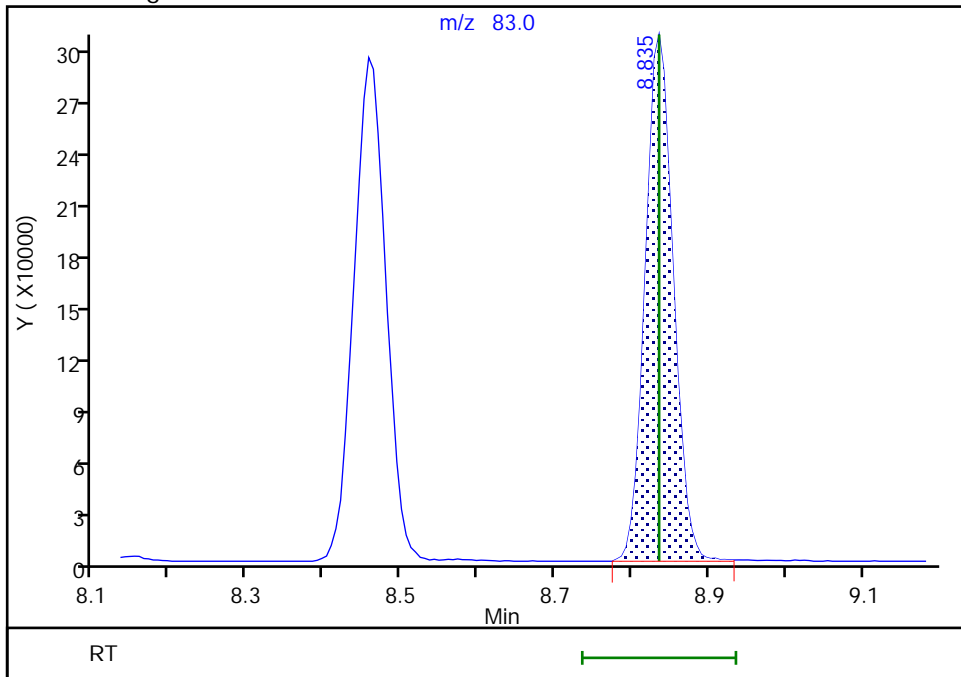
RT: 8.46
Area: 848347
Amount: 0.001217
Amount Units: ug/l

Processing Integration Results



RT: 8.84
Area: 774382
Amount: 10.562219
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:26:08
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

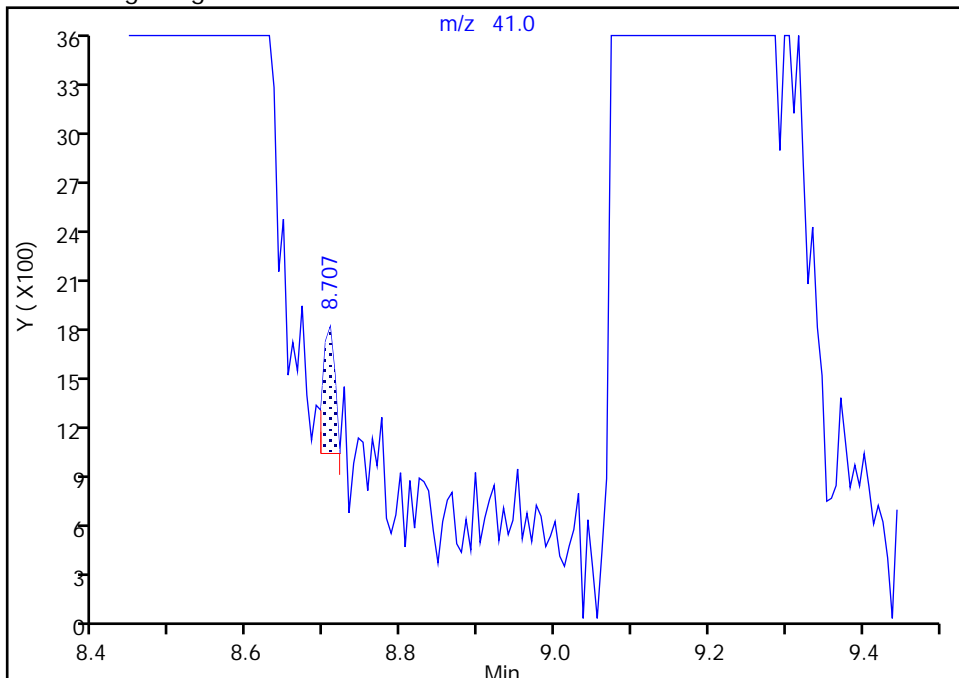
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

76 2-Nitropropane, CAS: 79-46-9

Signal: 1

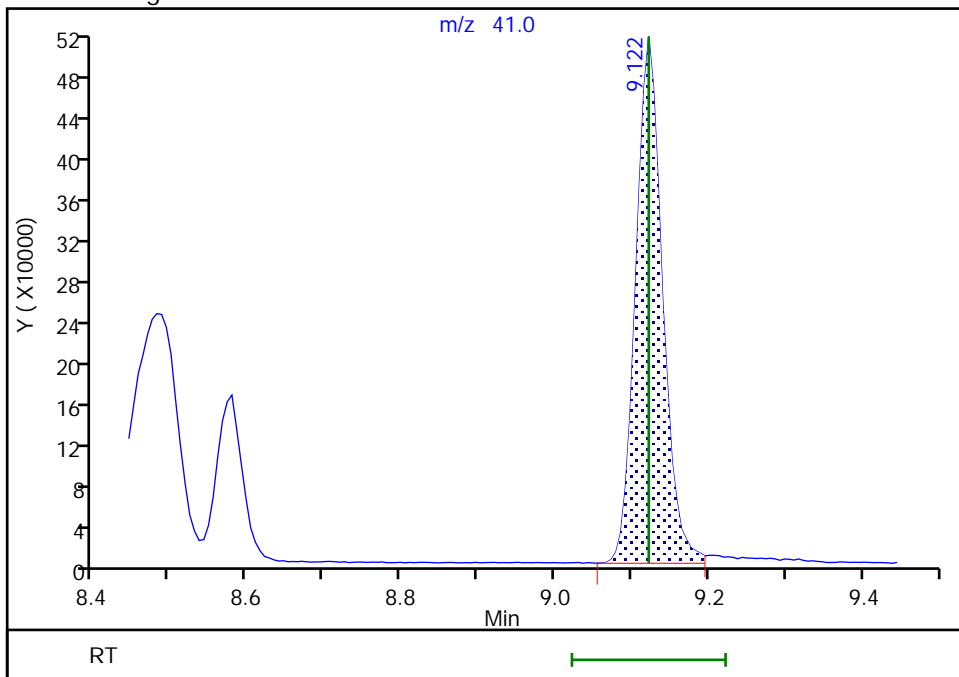
RT: 8.71
Area: 809
Amount: 100.0000
Amount Units: ug/l

Processing Integration Results



RT: 9.12
Area: 1241815
Amount: 112.1403
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:26:25
Audit Action: Assigned Compound ID

Audit Reason: Other

Euofins Lancaster Laboratories Env, LLC

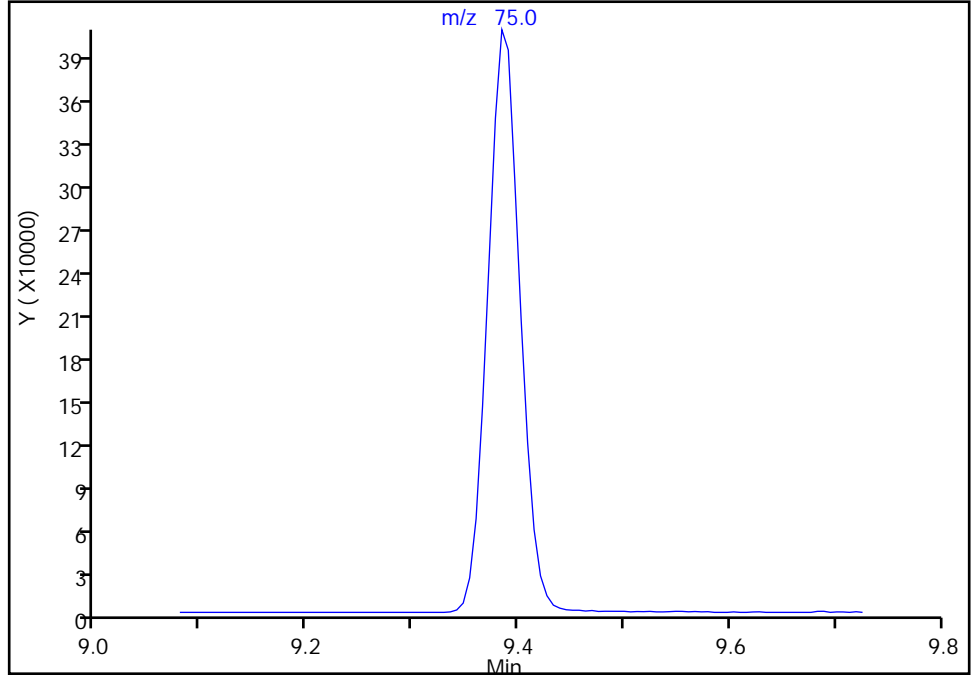
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

80 cis-1,3-Dichloropropene, CAS: 10061-01-5

Signal: 1

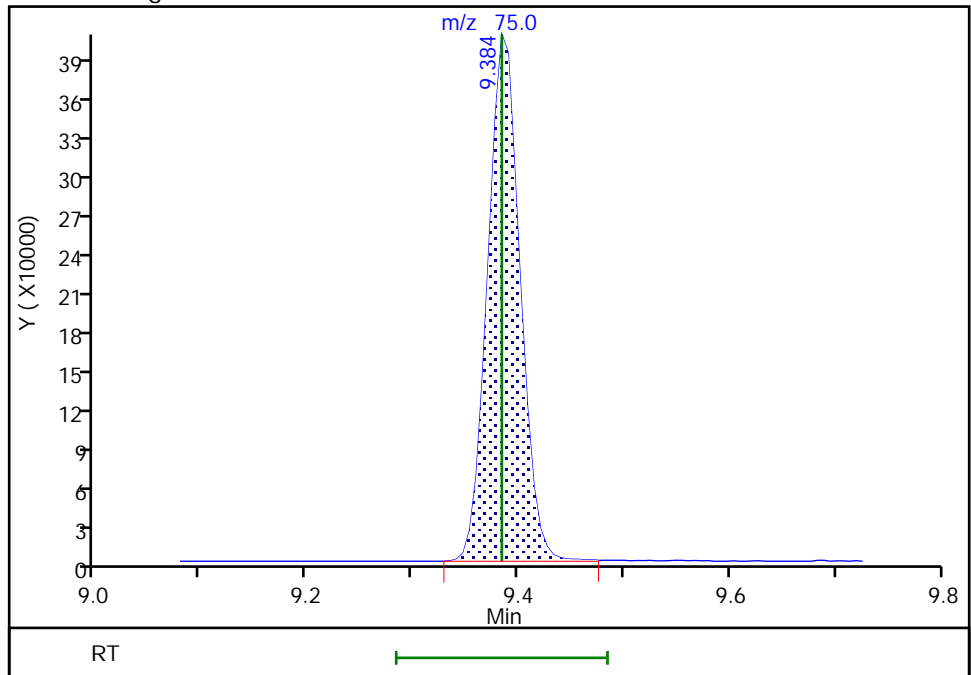
Not Detected
Expected RT: 9.38

Processing Integration Results



Manual Integration Results

RT: 9.38
Area: 871617
Amount: 10.750530
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 13:38:04
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

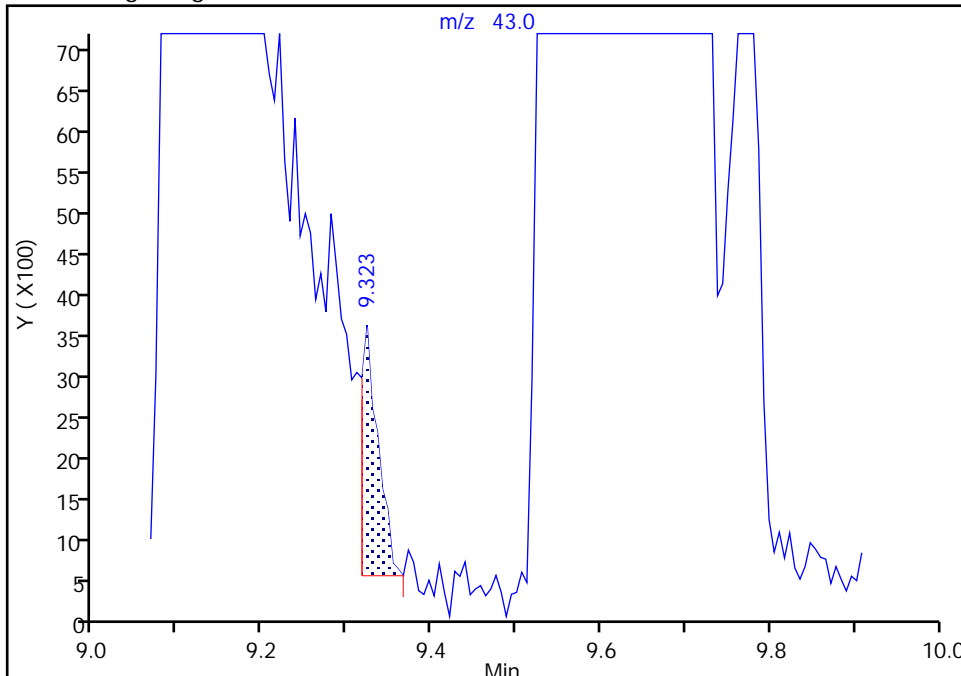
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

81 4-Methyl-2-pentanone (MIBK), CAS: 108-10-1

Signal: 1

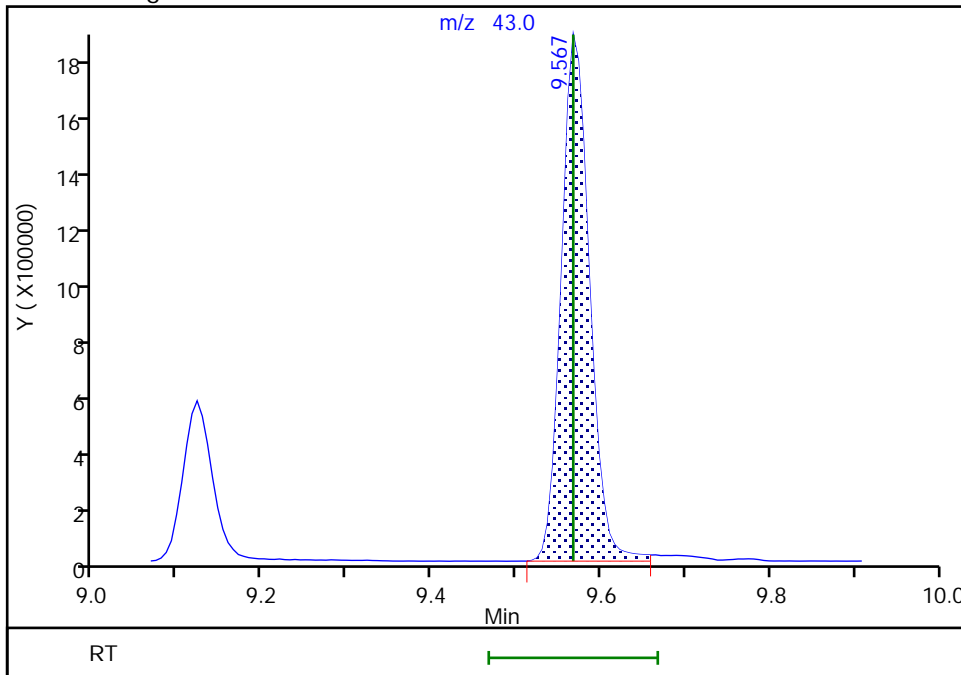
RT: 9.32
Area: 4211
Amount: 100.0000
Amount Units: ug/l

Processing Integration Results



RT: 9.57
Area: 4253795
Amount: 108.0919
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:27:35
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

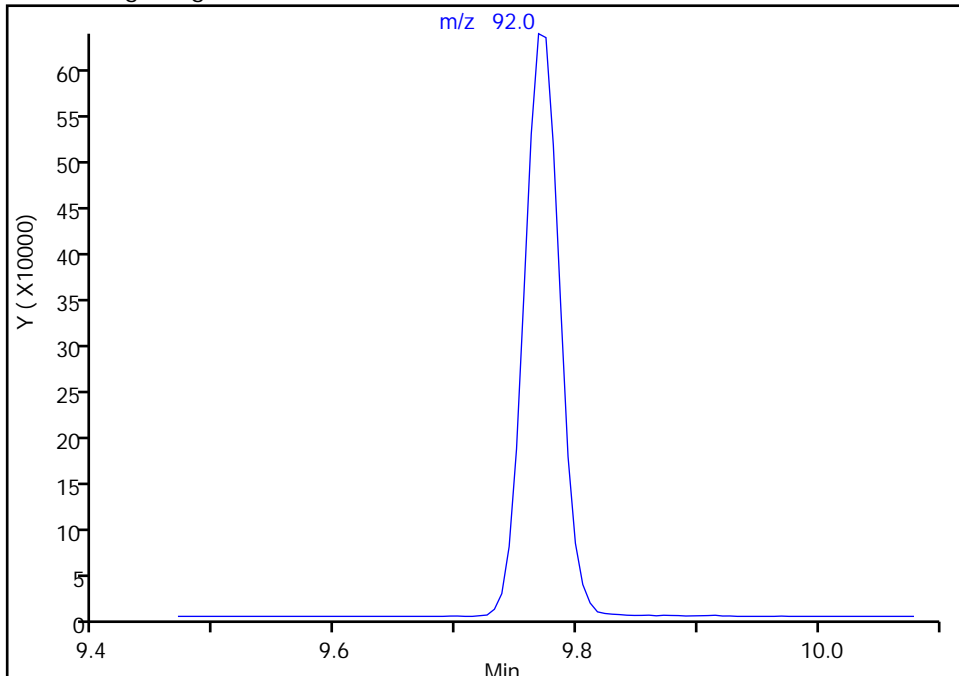
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I02.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

83 Toluene, CAS: 108-88-3

Signal: 1

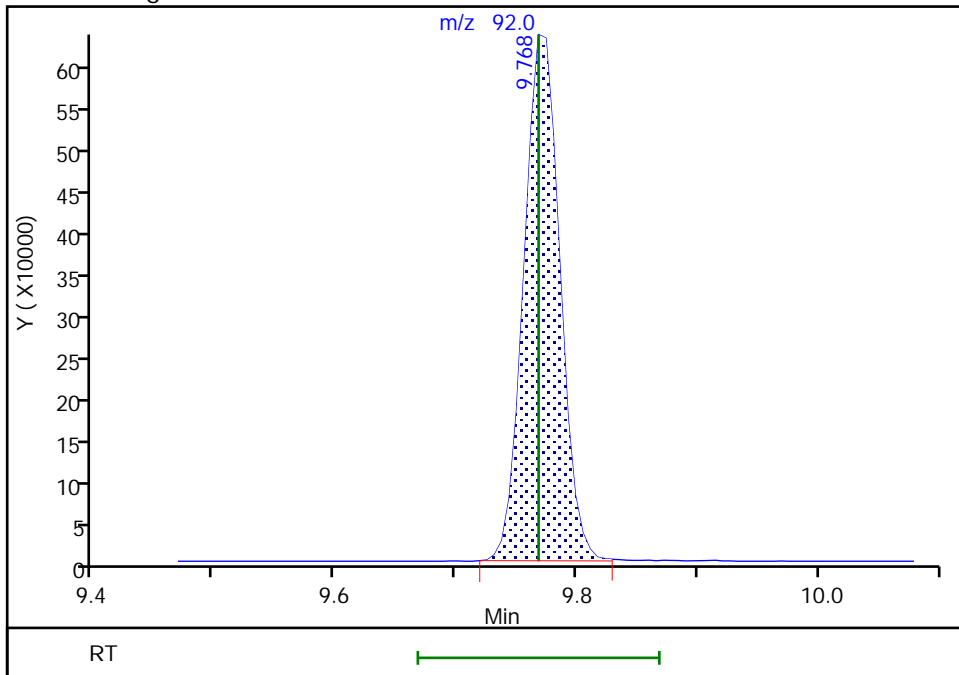
Not Detected
Expected RT: 9.77

Processing Integration Results



Manual Integration Results

RT: 9.77
Area: 1319026
Amount: 10.160104
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 13:37:22
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

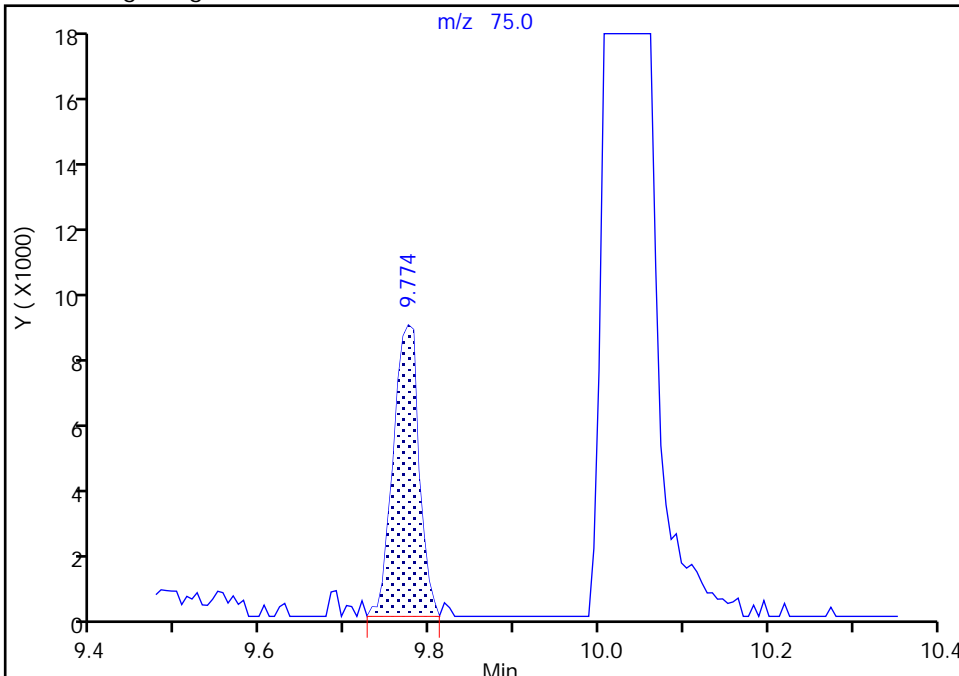
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

84 trans-1,3-Dichloropropene, CAS: 10061-02-6

Signal: 1

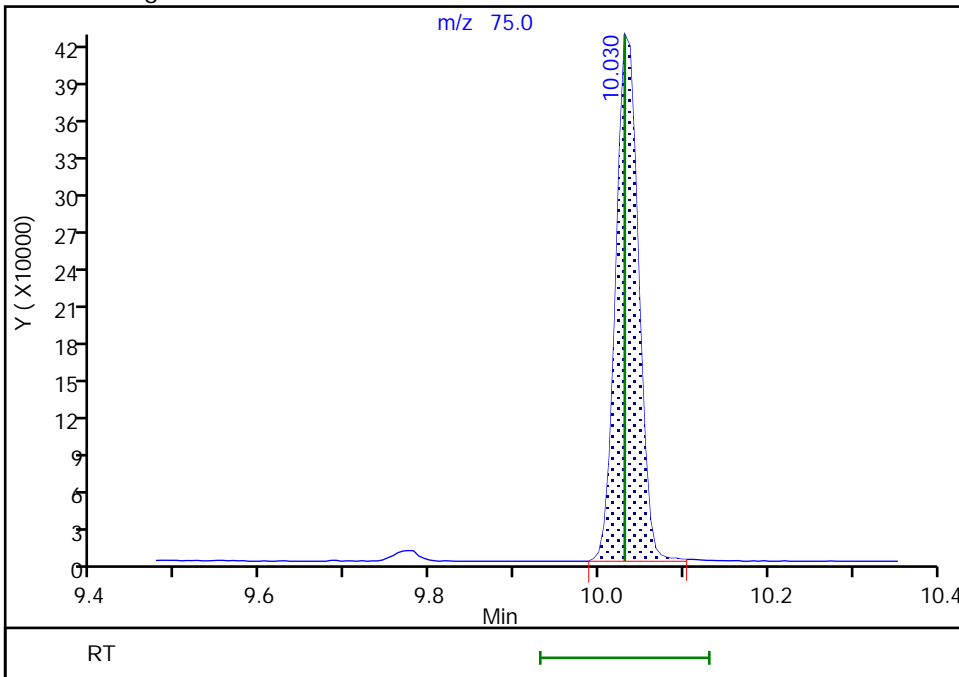
RT: 9.77
Area: 18106
Amount: 10.000000
Amount Units: ug/l

Processing Integration Results



RT: 10.03
Area: 790985
Amount: 10.730273
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:27:41
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

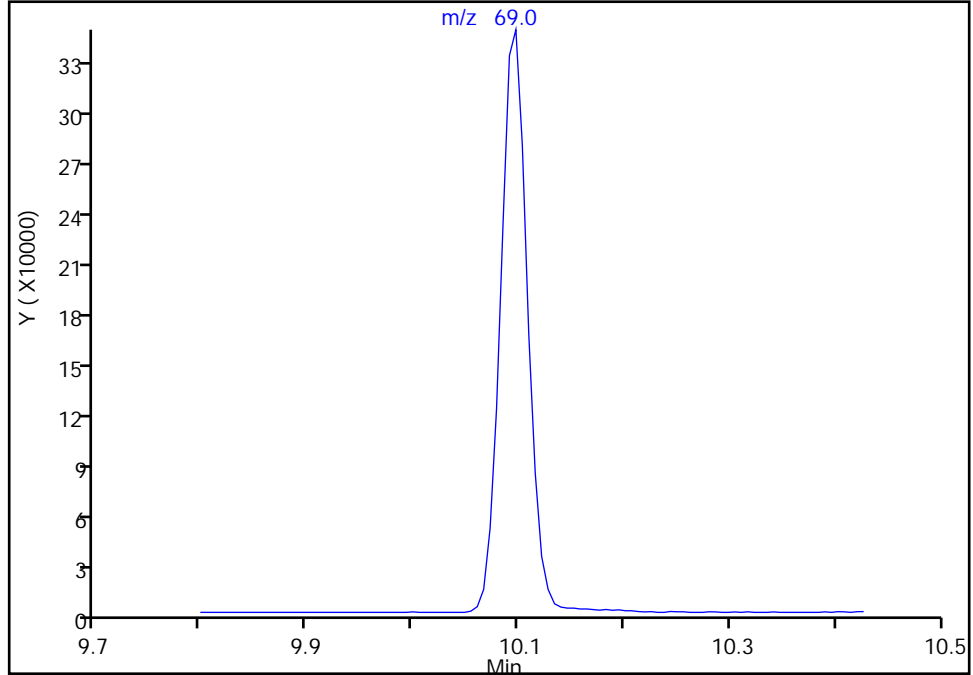
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

85 Ethyl methacrylate, CAS: 97-63-2

Signal: 1

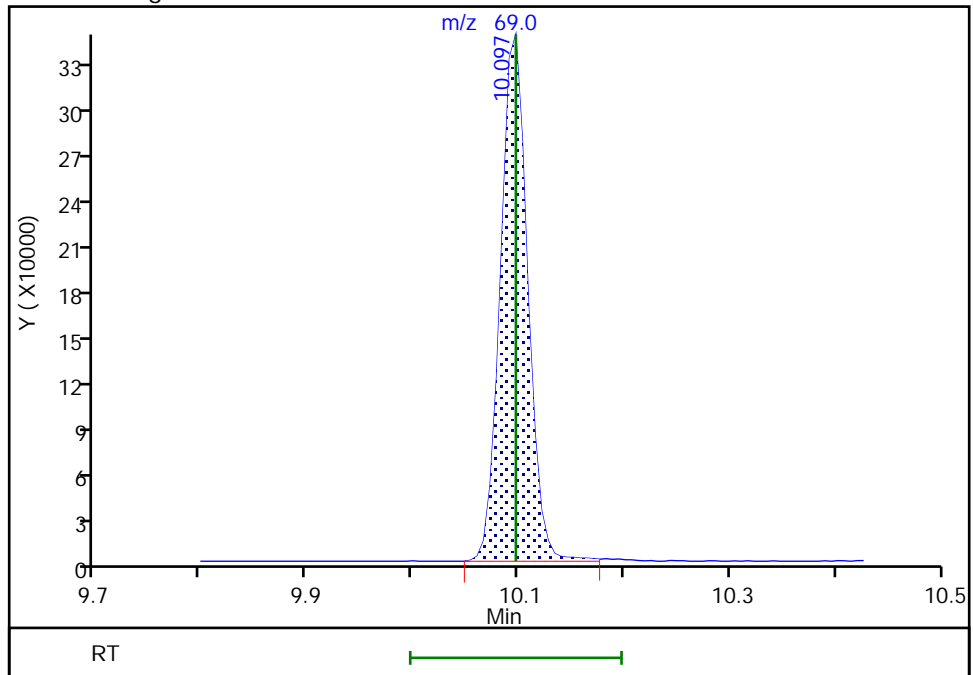
Not Detected
Expected RT: 10.10

Processing Integration Results



Manual Integration Results

RT: 10.10
Area: 621159
Amount: 10.837890
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 13:37:18
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

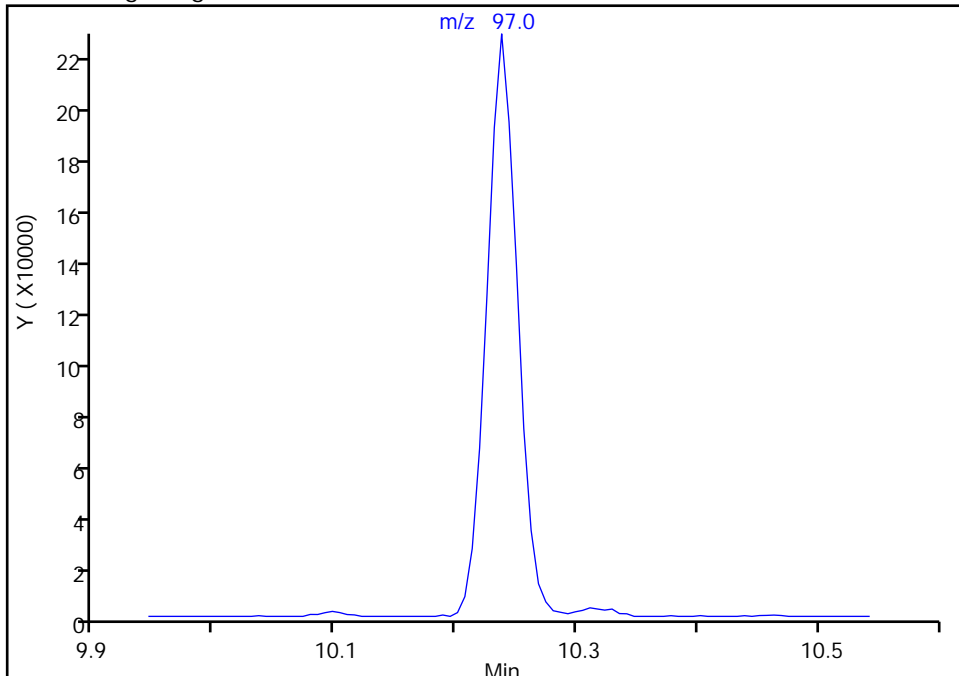
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

86 1,1,2-Trichloroethane, CAS: 79-00-5

Signal: 1

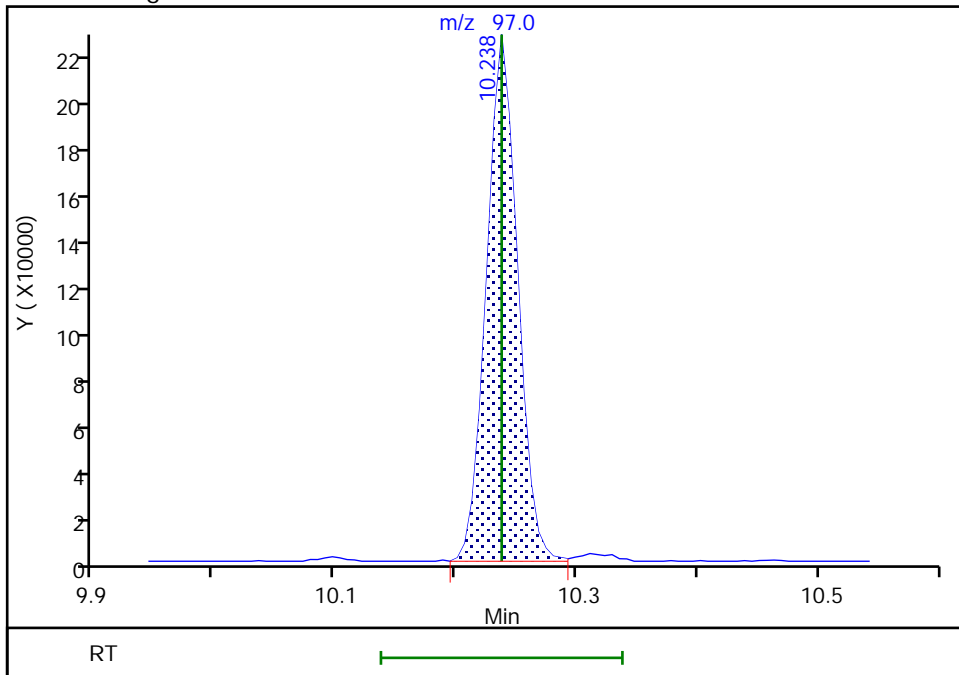
Not Detected
Expected RT: 10.24

Processing Integration Results



Manual Integration Results

RT: 10.24
Area: 399920
Amount: 10.021420
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 13:27:46
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

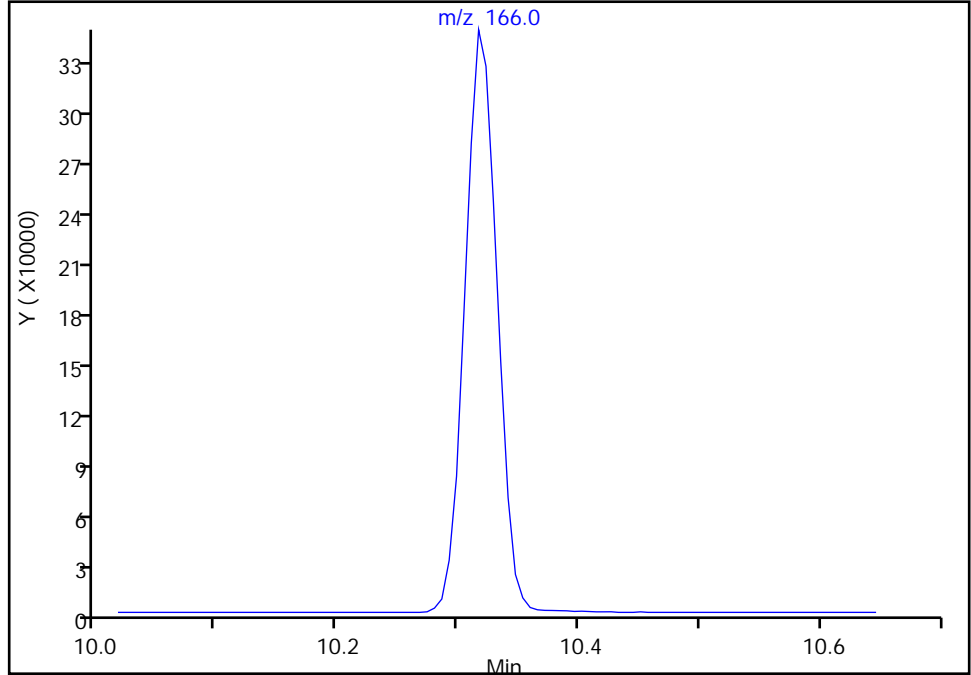
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

88 Tetrachloroethene, CAS: 127-18-4

Signal: 1

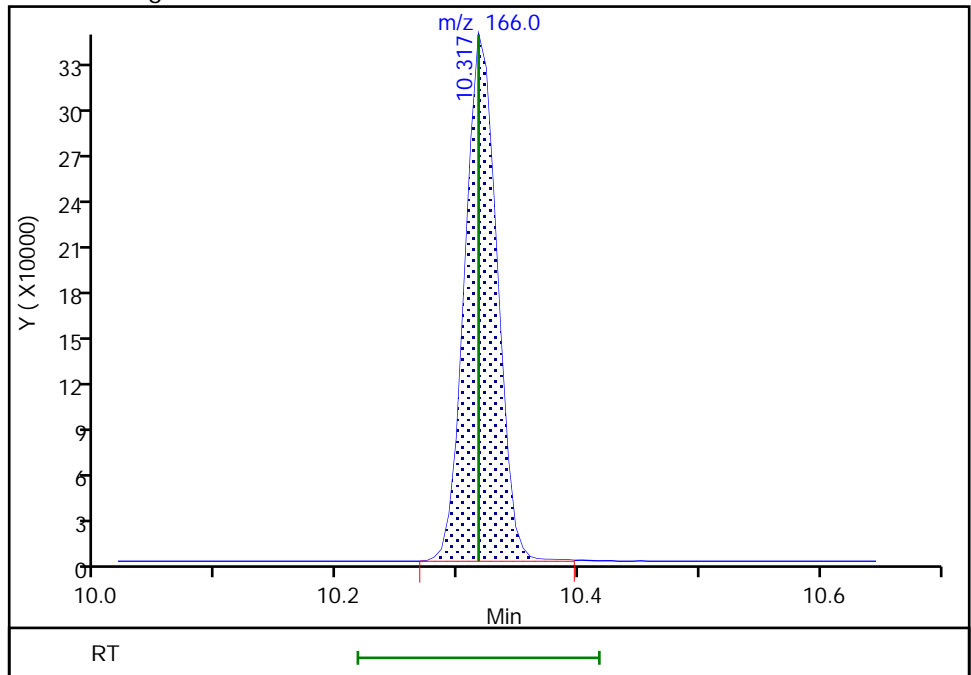
Not Detected
Expected RT: 10.32

Processing Integration Results



Manual Integration Results

RT: 10.32
Area: 643580
Amount: 10.132740
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 13:37:14
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

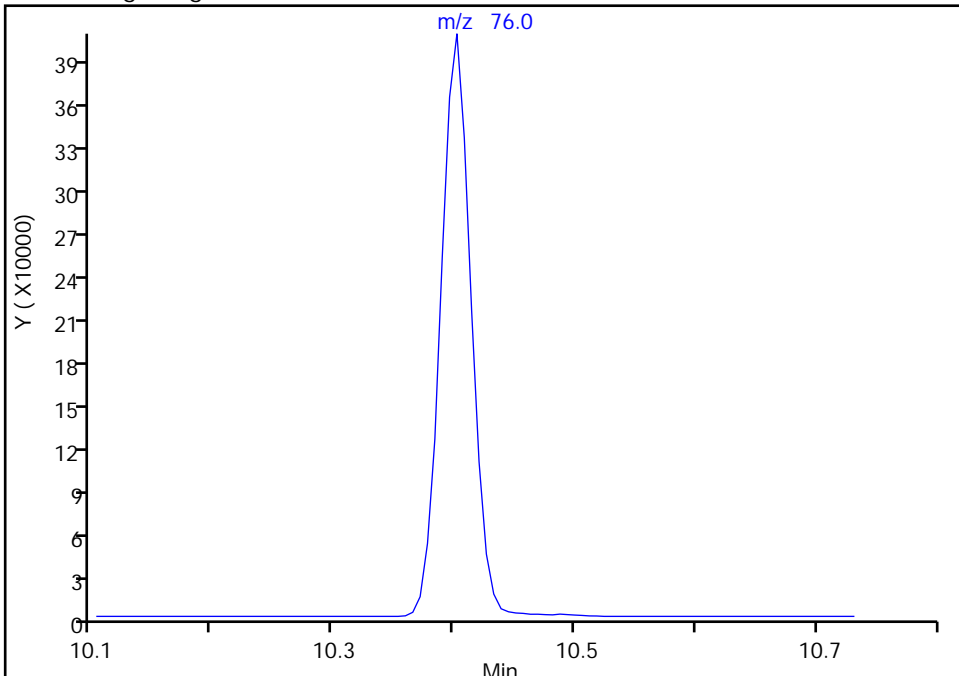
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

89 1,3-Dichloropropane, CAS: 142-28-9

Signal: 1

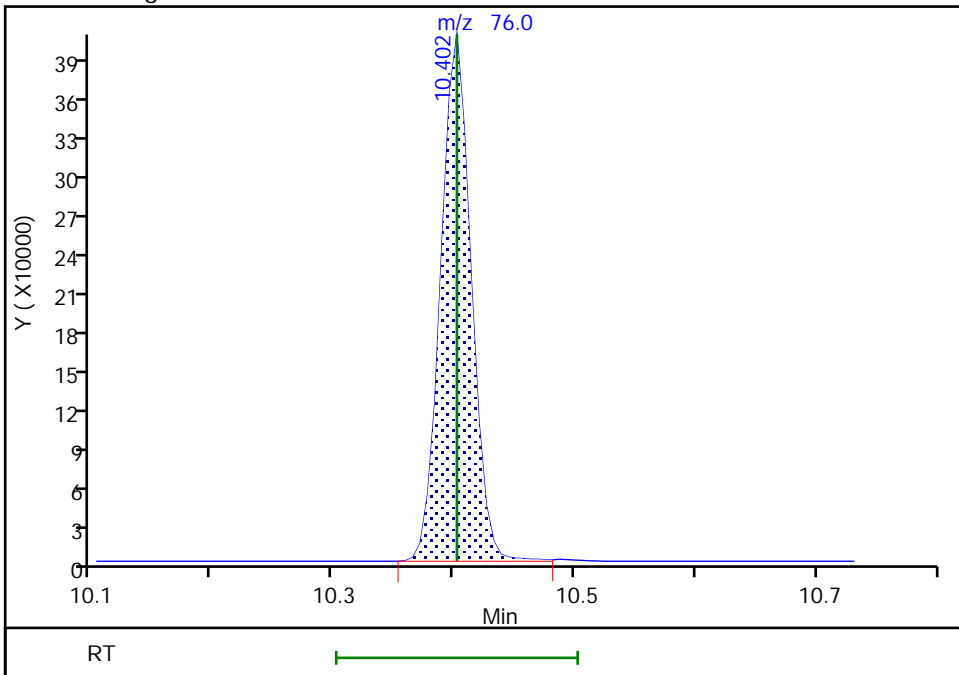
Not Detected
Expected RT: 10.40

Processing Integration Results



Manual Integration Results

RT: 10.40
Area: 714231
Amount: 10.374738
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 13:37:10
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

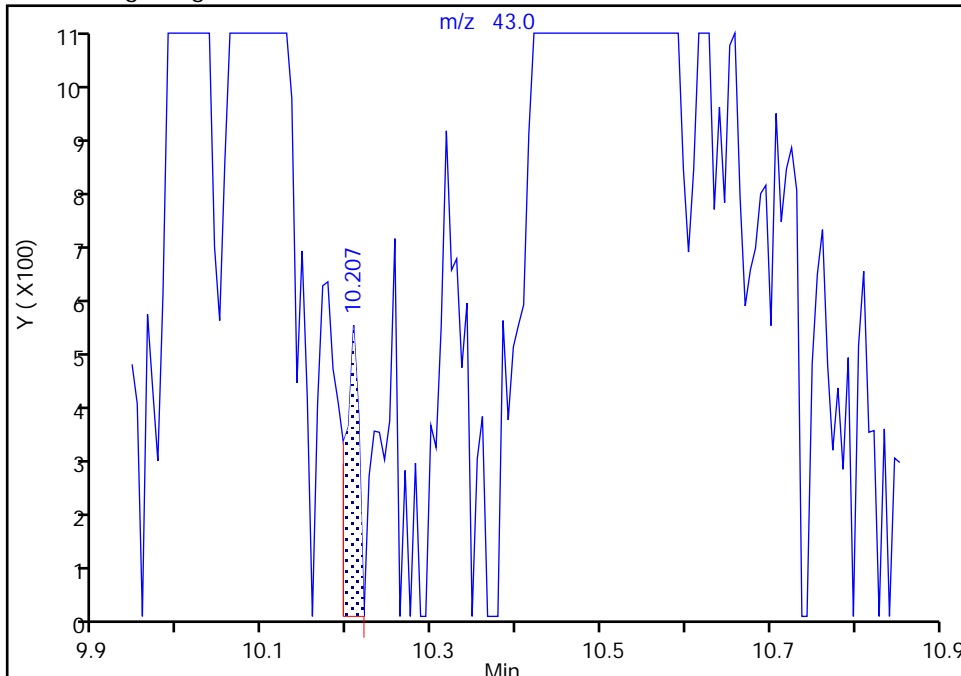
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

91 2-Hexanone, CAS: 591-78-6

Signal: 1

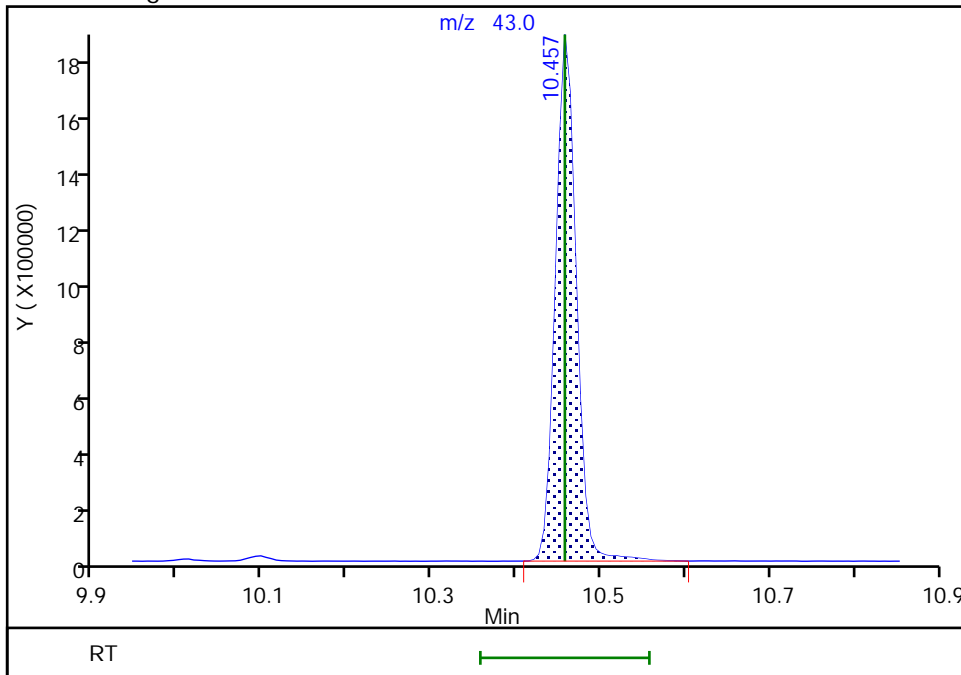
RT: 10.21
Area: 558
Amount: 100.0000
Amount Units: ug/l

Processing Integration Results



RT: 10.46
Area: 3137863
Amount: 109.6505
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:29:10
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

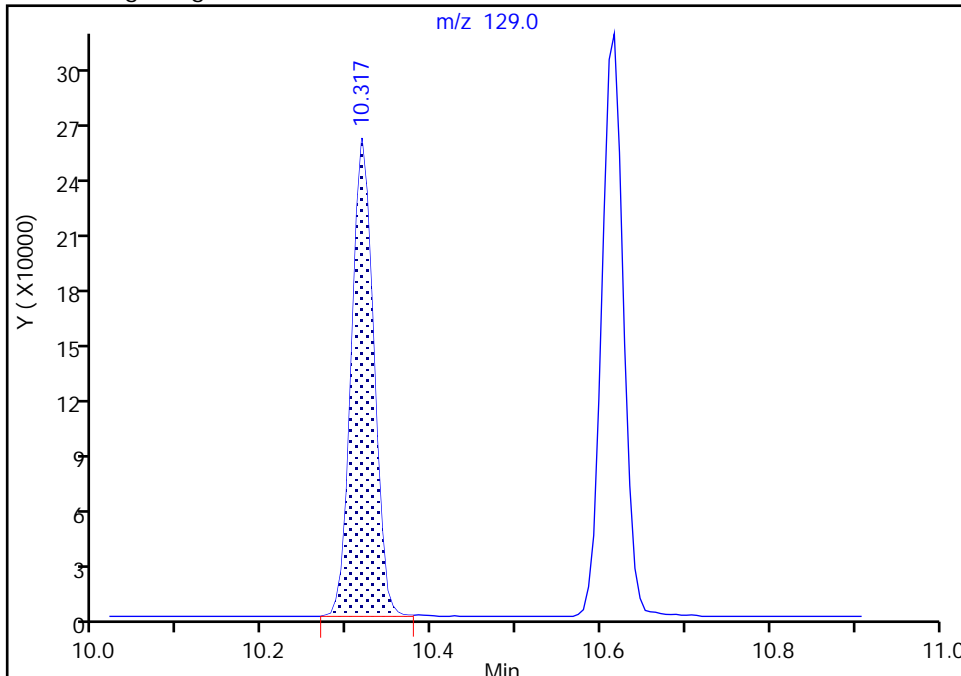
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

93 Chlorodibromomethane, CAS: 124-48-1

Signal: 1

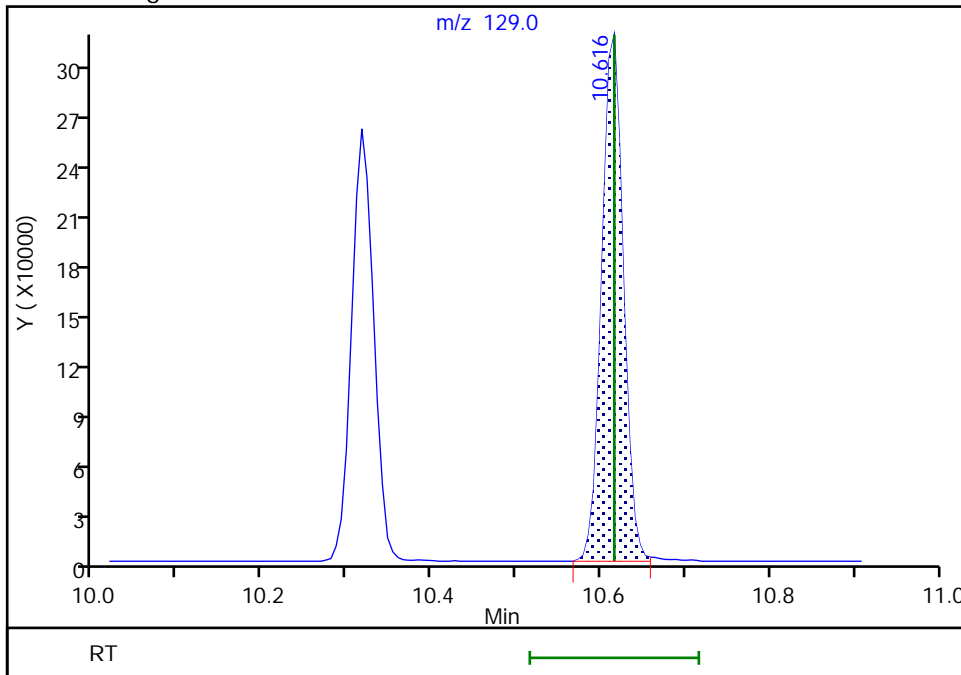
RT: 10.32
Area: 464602
Amount: 10.000000
Amount Units: ug/l

Processing Integration Results



RT: 10.62
Area: 550991
Amount: 10.665332
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:29:24
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

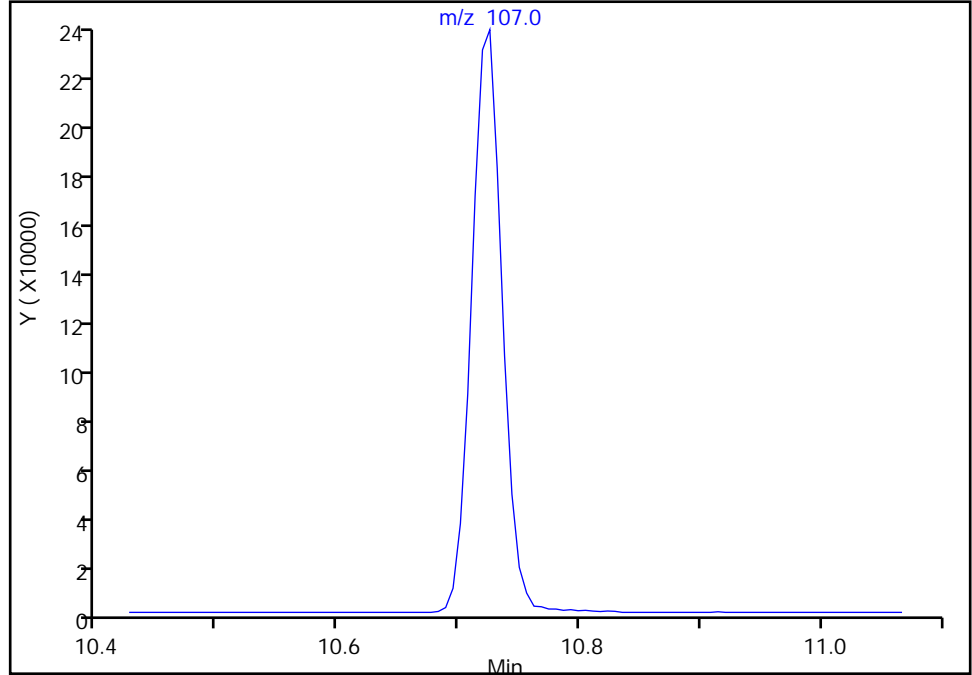
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

94 Ethylene Dibromide, CAS: 106-93-4

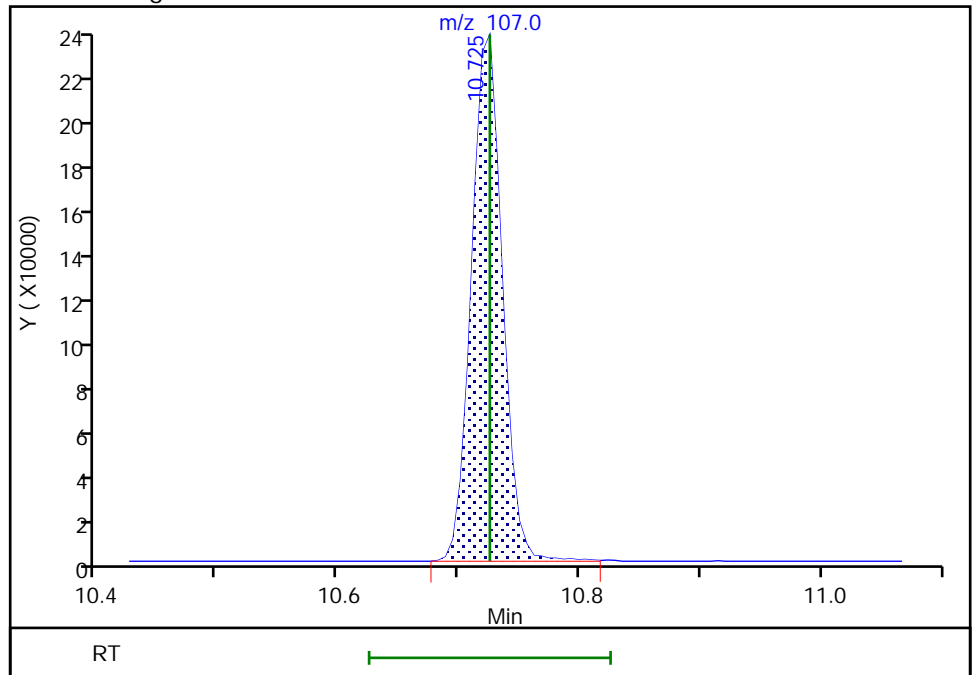
Signal: 1

Not Detected
Expected RT: 10.73

Processing Integration Results



Manual Integration Results



RT: 10.73
Area: 417127
Amount: 10.390474
Amount Units: ug/l

Eurofins Lancaster Laboratories Env, LLC

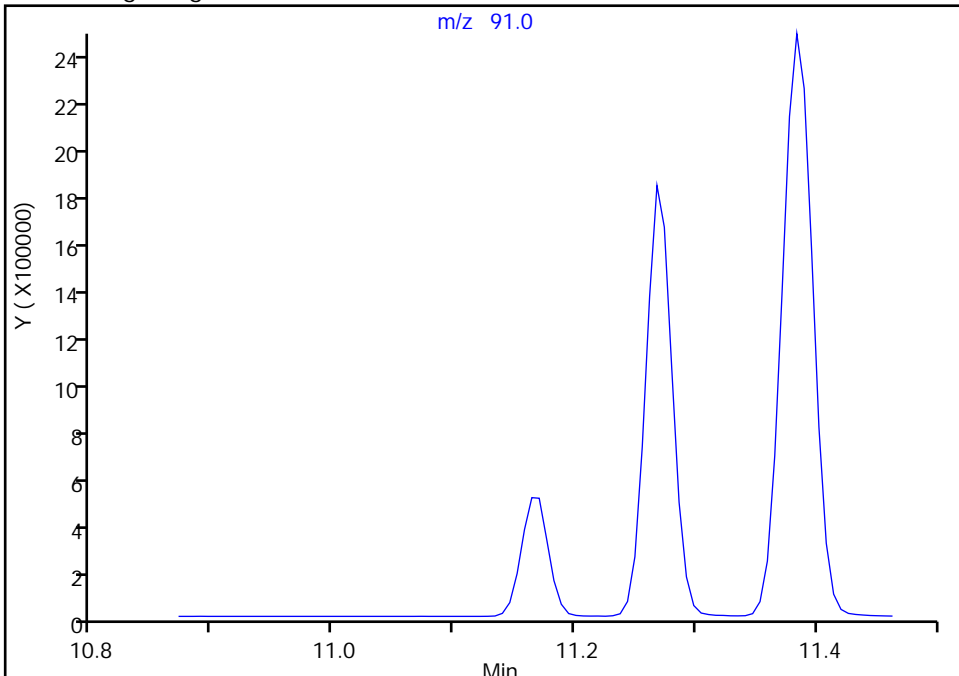
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I02.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

96 1-Chlorohexane, CAS: 544-10-5

Signal: 1

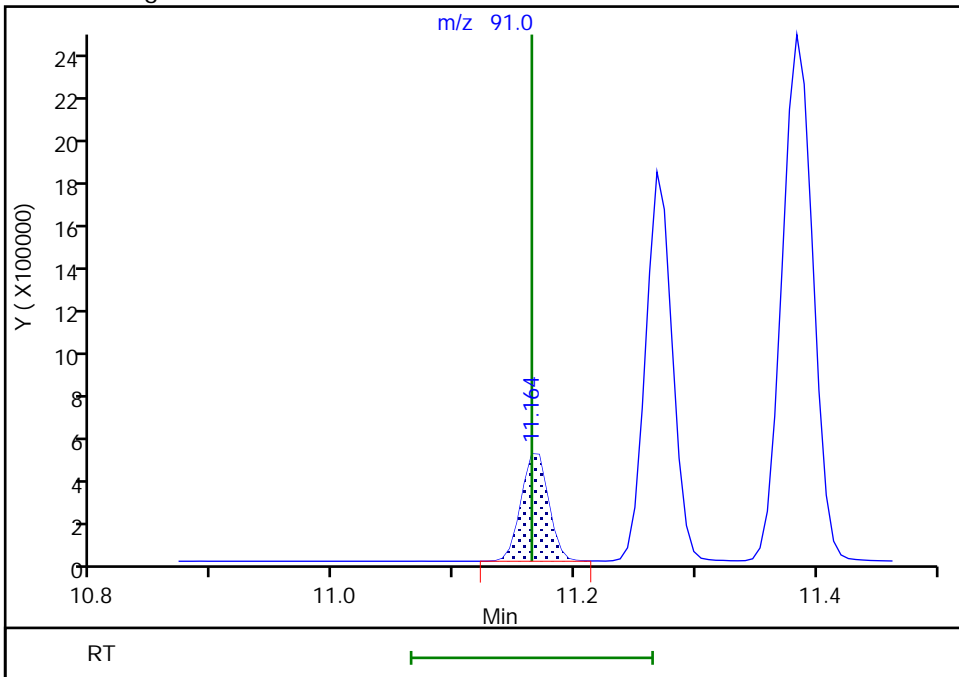
Not Detected
Expected RT: 11.16

Processing Integration Results



Manual Integration Results

RT: 11.16
Area: 785815
Amount: 9.769312
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 13:29:29
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

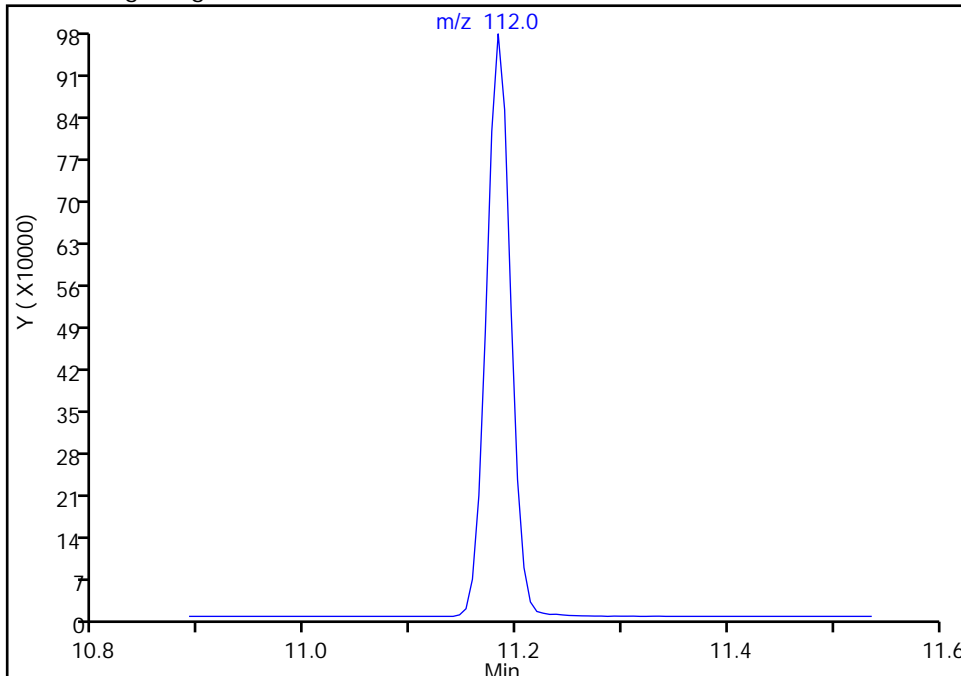
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

97 Chlorobenzene, CAS: 108-90-7

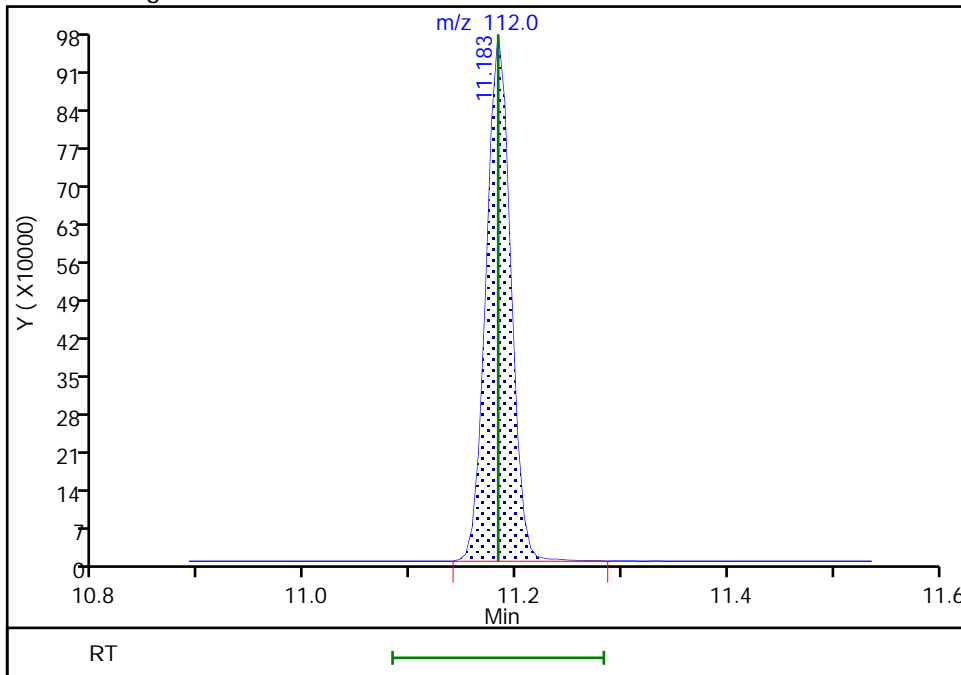
Signal: 1

Not Detected
Expected RT: 11.18

Processing Integration Results



Manual Integration Results



RT: 11.18
Area: 1561602
Amount: 10.148810
Amount Units: ug/l

Eurofins Lancaster Laboratories Env, LLC

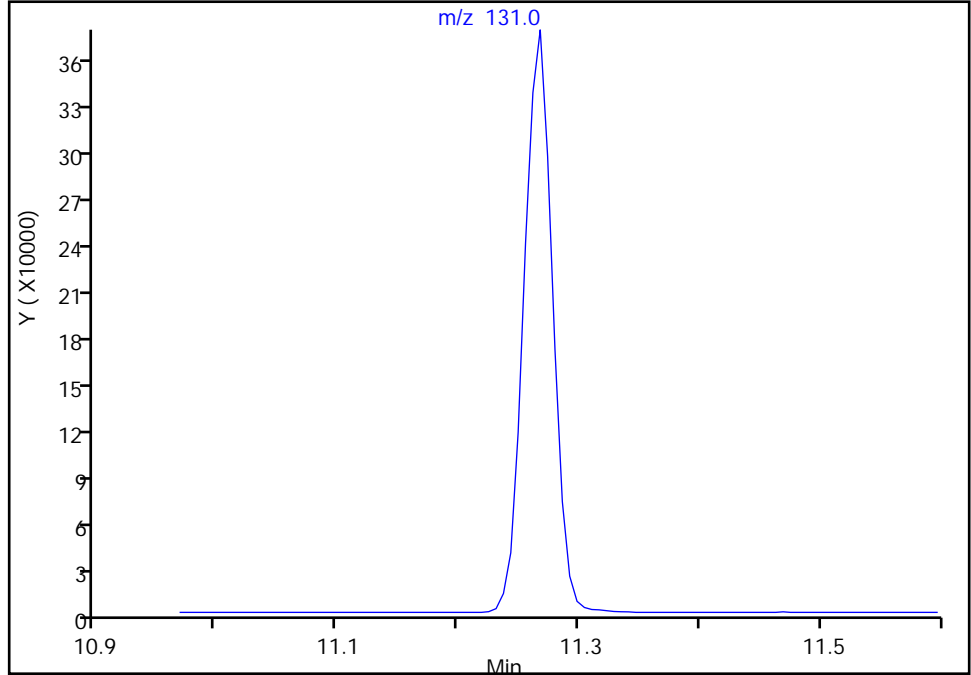
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I02.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

98 1,1,1,2-Tetrachloroethane, CAS: 630-20-6

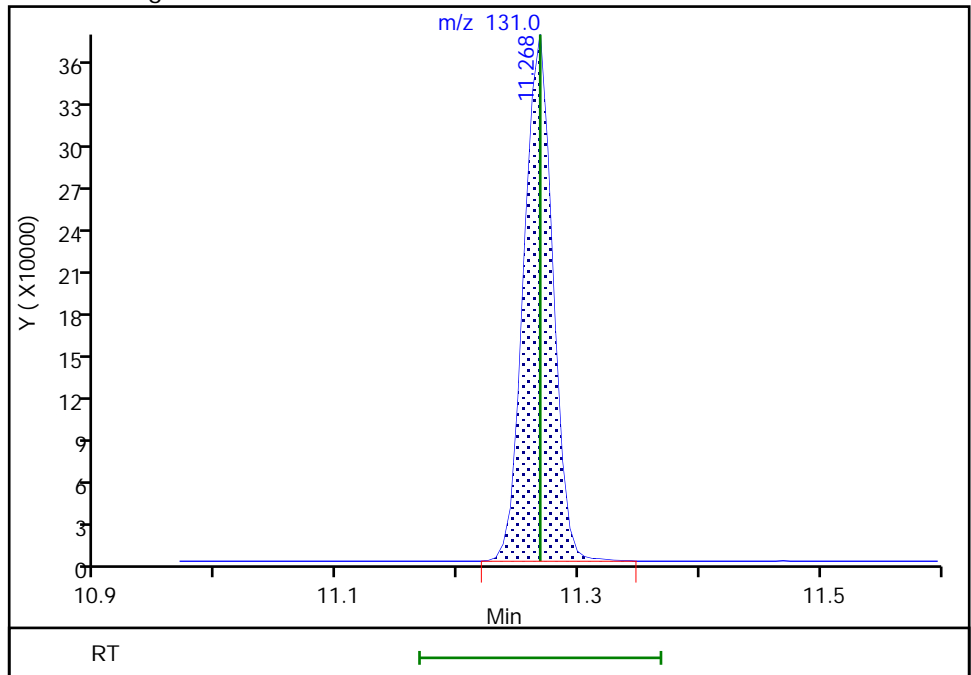
Signal: 1

Not Detected
Expected RT: 11.27

Processing Integration Results



Manual Integration Results



RT: 11.27
Area: 611572
Amount: 10.596448
Amount Units: ug/l

Eurofins Lancaster Laboratories Env, LLC

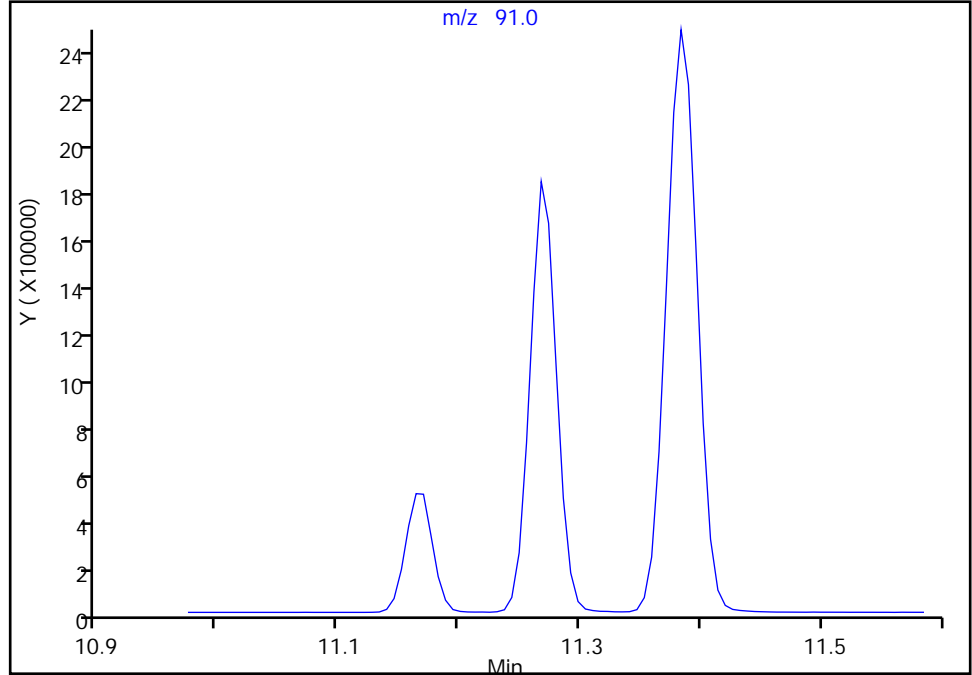
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I02.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

99 Ethylbenzene, CAS: 100-41-4

Signal: 1

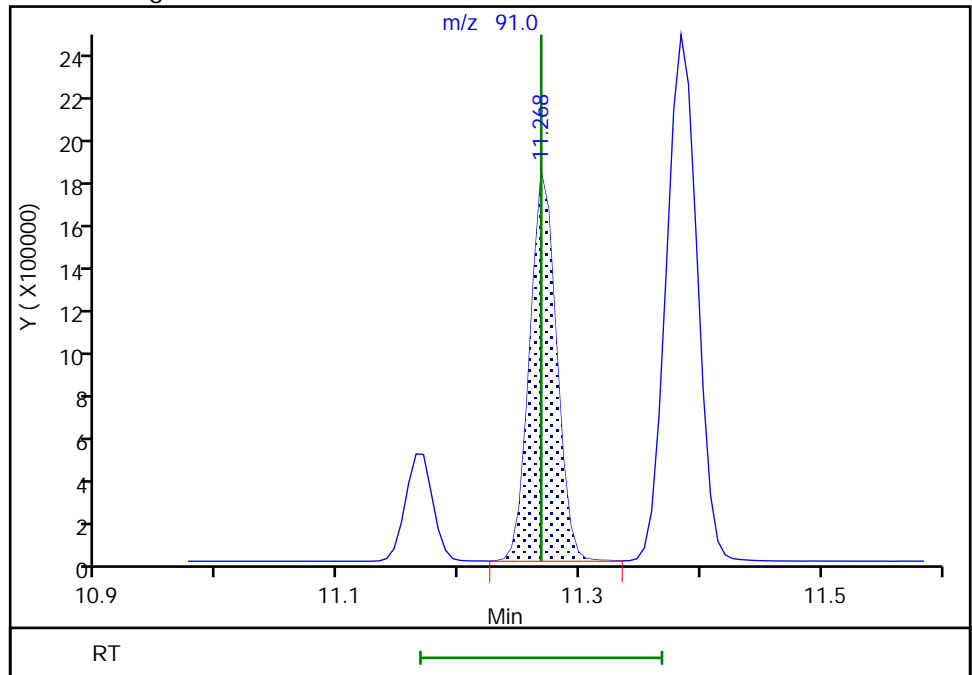
Not Detected
Expected RT: 11.27

Processing Integration Results



Manual Integration Results

RT: 11.27
Area: 2765839
Amount: 10.250235
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 13:36:50
Audit Action: Assigned Compound ID

Audit Reason: Other

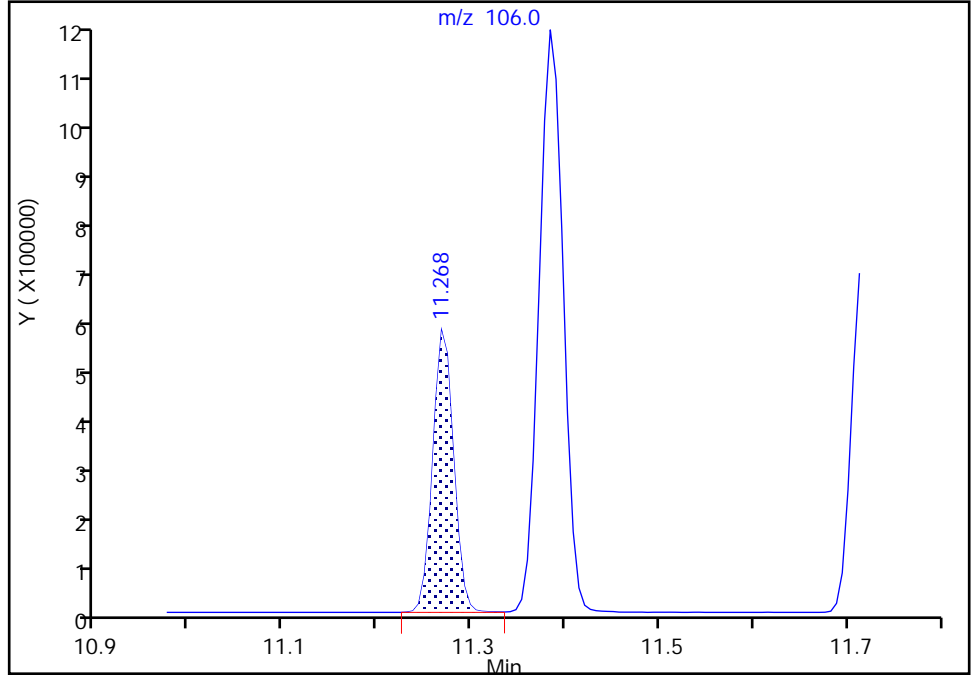
Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I02.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

100 m-Xylene & p-Xylene, CAS: 179601-23-1
Signal: 1

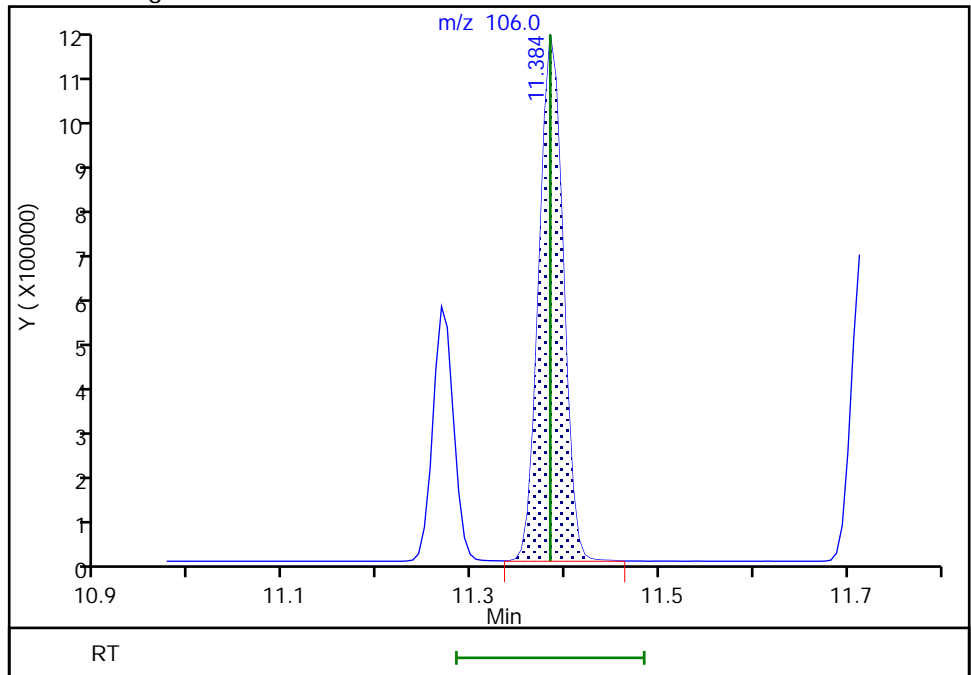
RT: 11.27
Area: 858784
Amount: 20.000000
Amount Units: ug/l

Processing Integration Results



RT: 11.38
Area: 2066415
Amount: 20.601633
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:40:23
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

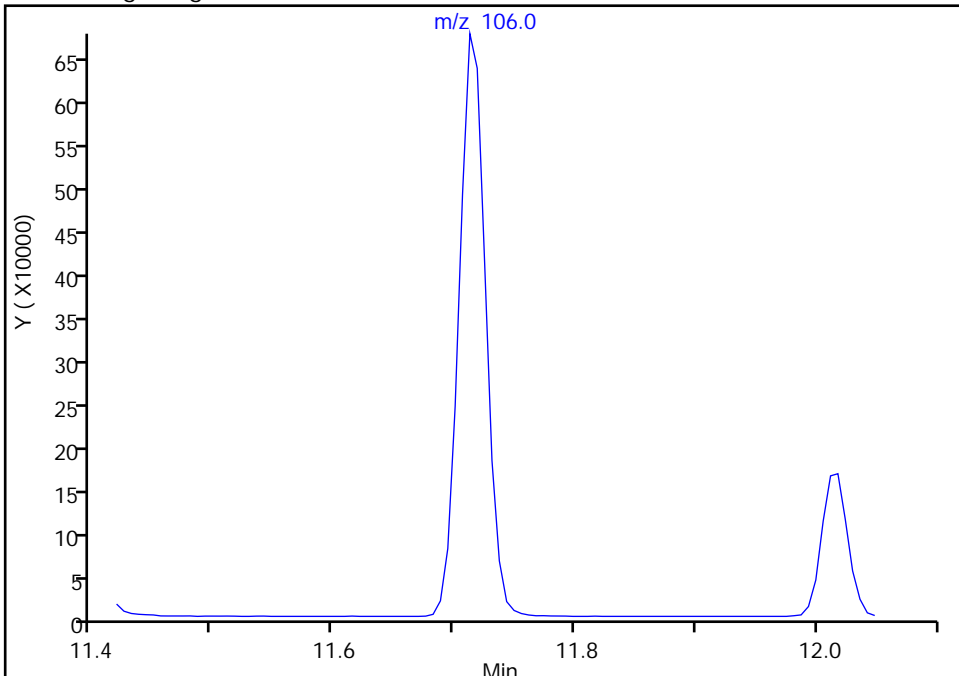
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

102 o-Xylene, CAS: 95-47-6

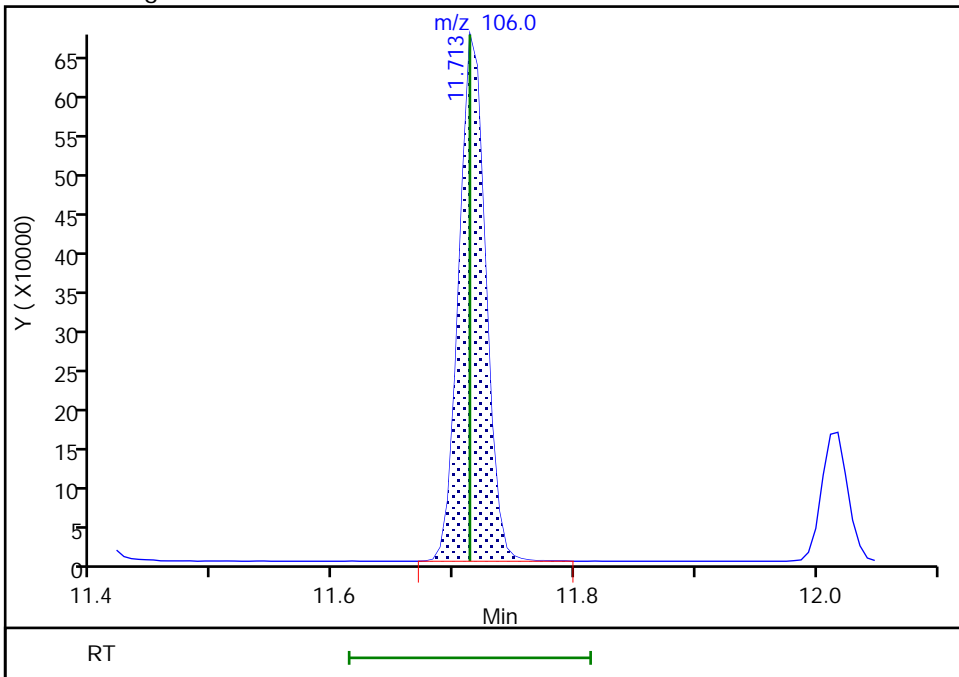
Signal: 1

Not Detected
Expected RT: 11.71

Processing Integration Results



Manual Integration Results



RT: 11.71
Area: 1031124
Amount: 10.507421
Amount Units: ug/l

Eurofins Lancaster Laboratories Env, LLC

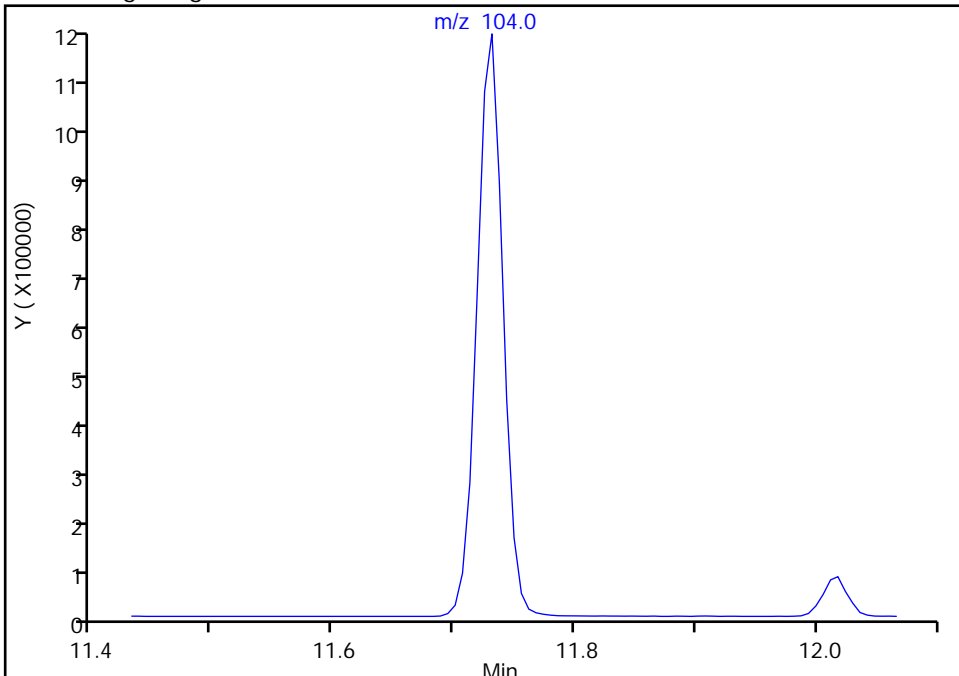
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

103 Styrene, CAS: 100-42-5

Signal: 1

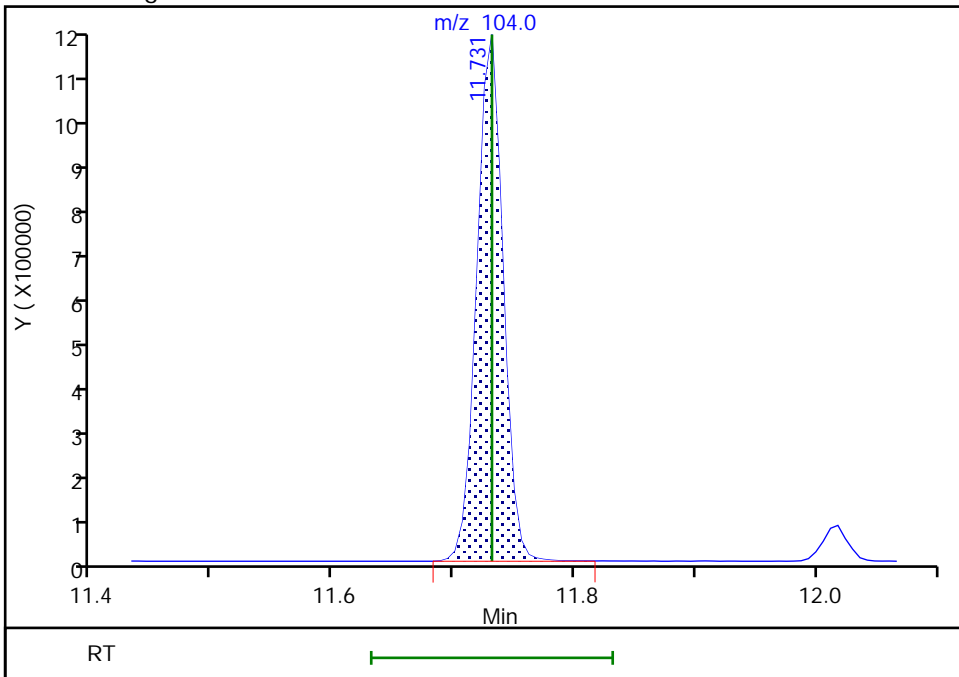
Not Detected
Expected RT: 11.73

Processing Integration Results



Manual Integration Results

RT: 11.73
Area: 1744495
Amount: 10.788601
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 13:36:22
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

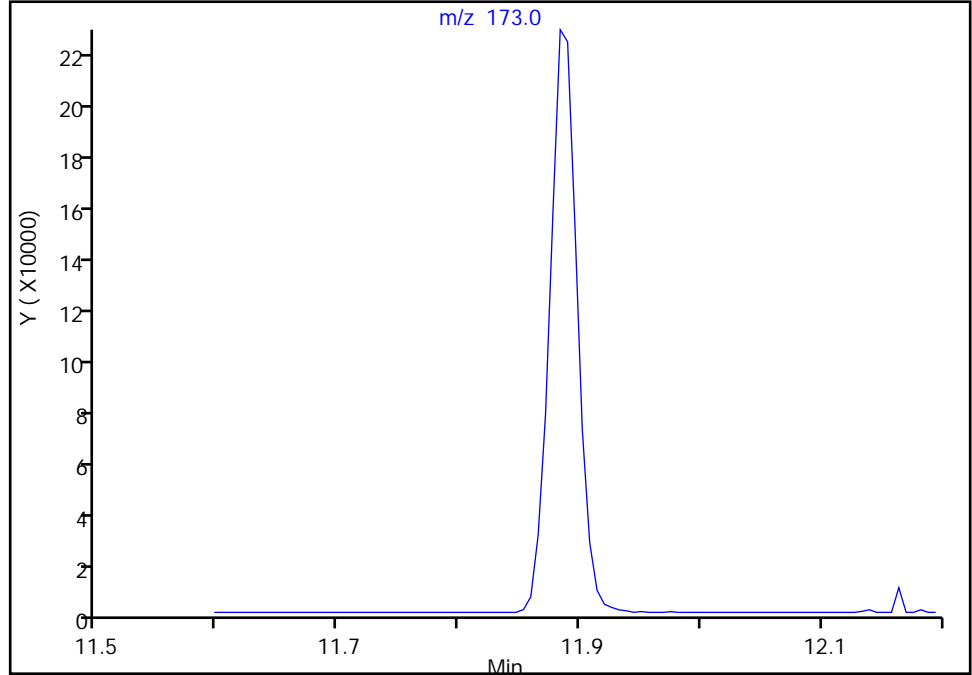
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

104 Bromoform, CAS: 75-25-2

Signal: 1

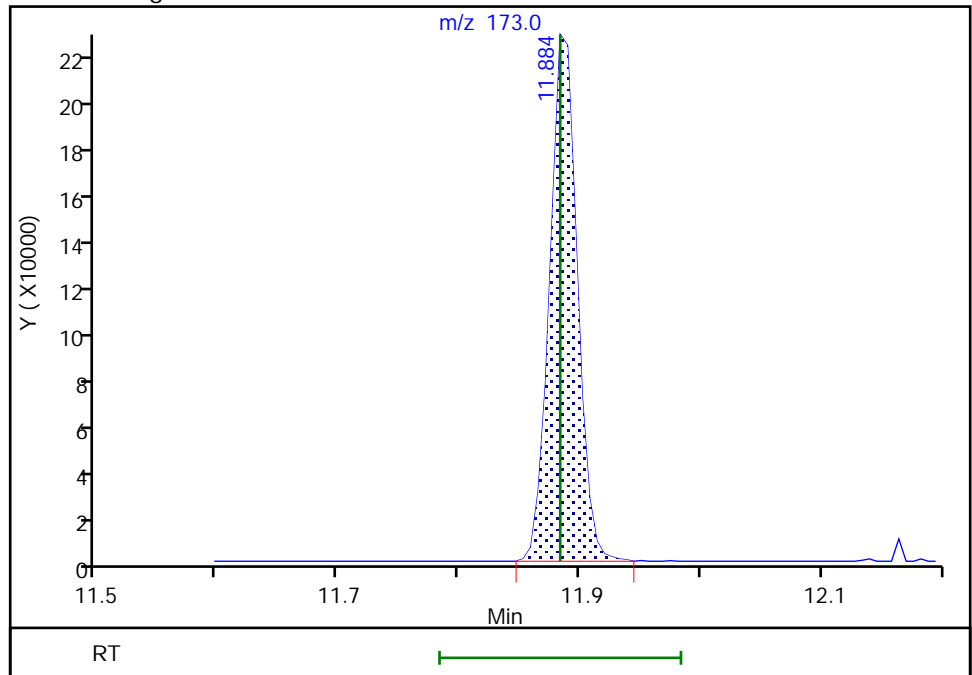
Not Detected
Expected RT: 11.88

Processing Integration Results



Manual Integration Results

RT: 11.88
Area: 351852
Amount: 10.796873
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 13:36:19
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

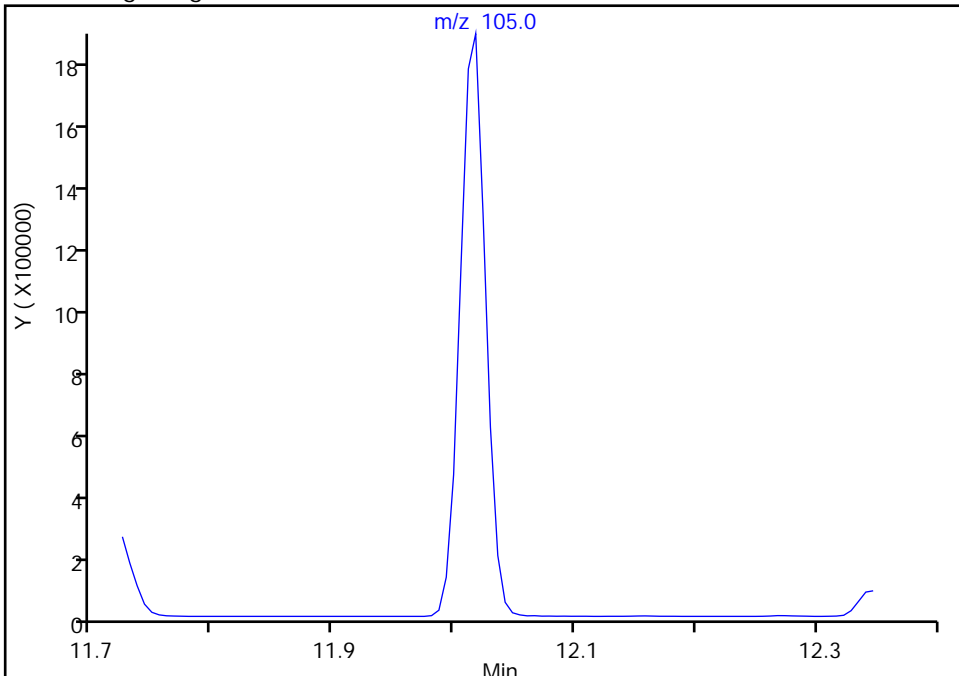
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

105 Isopropylbenzene, CAS: 98-82-8

Signal: 1

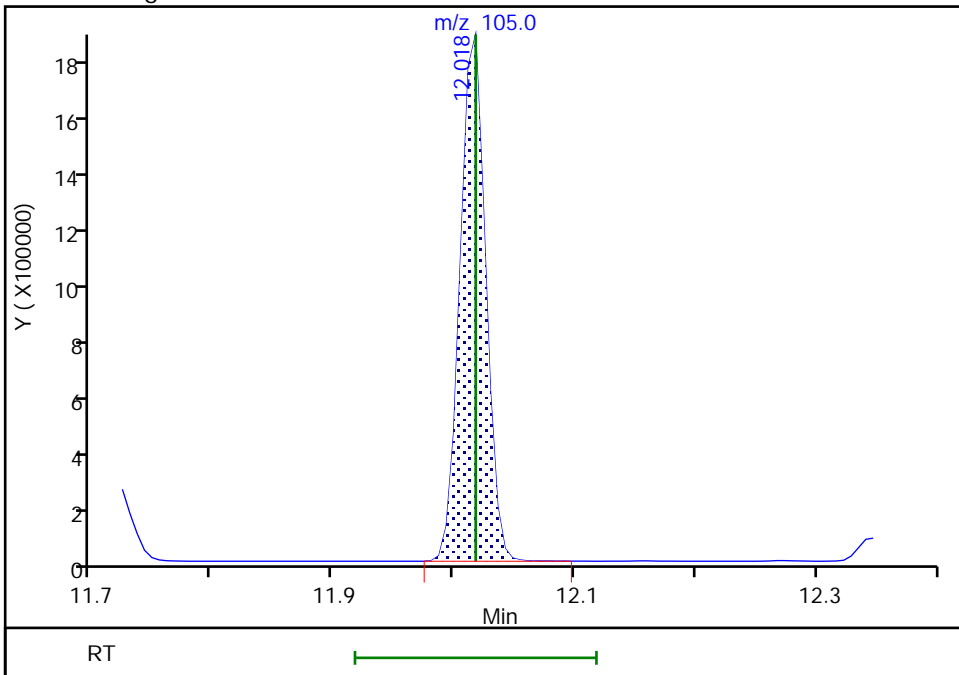
Not Detected
Expected RT: 12.02

Processing Integration Results



Manual Integration Results

RT: 12.02
Area: 2757144
Amount: 10.507409
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 13:36:14
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

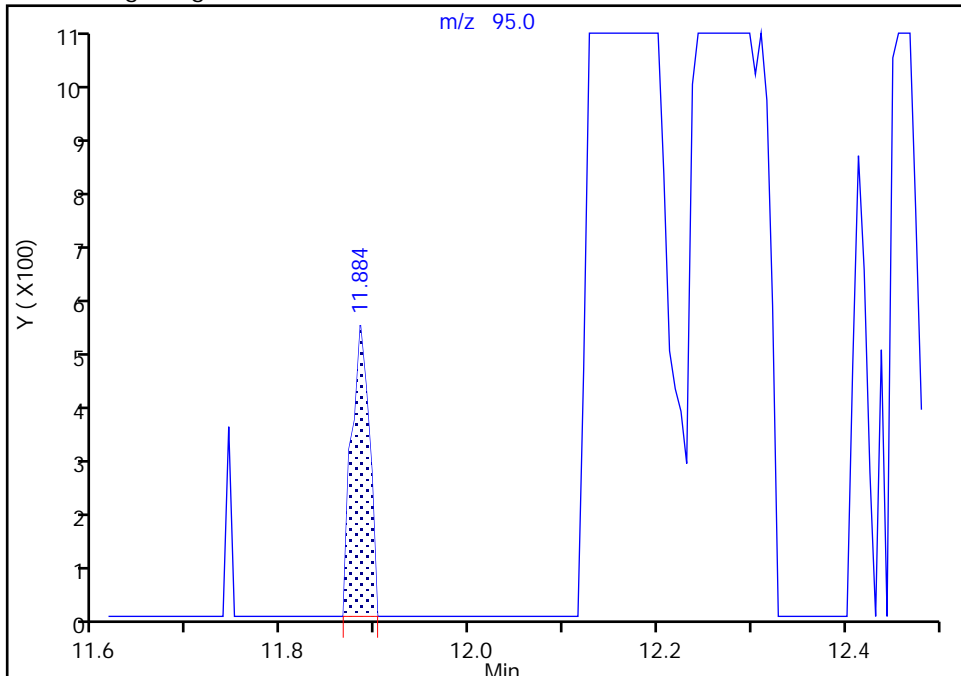
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

\$ 108 4-Bromofluorobenzene (Surr), CAS: 460-00-4

Signal: 1

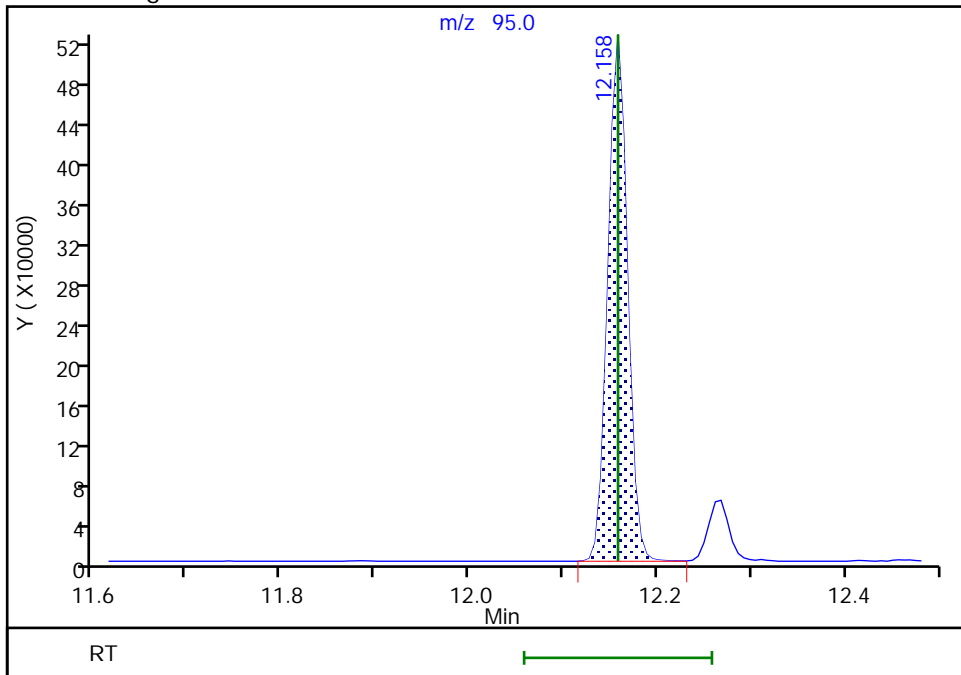
RT: 11.88
Area: 686
Amount: 10.000000
Amount Units: ug/l

Processing Integration Results



RT: 12.16
Area: 760546
Amount: 9.954455
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:29:46
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

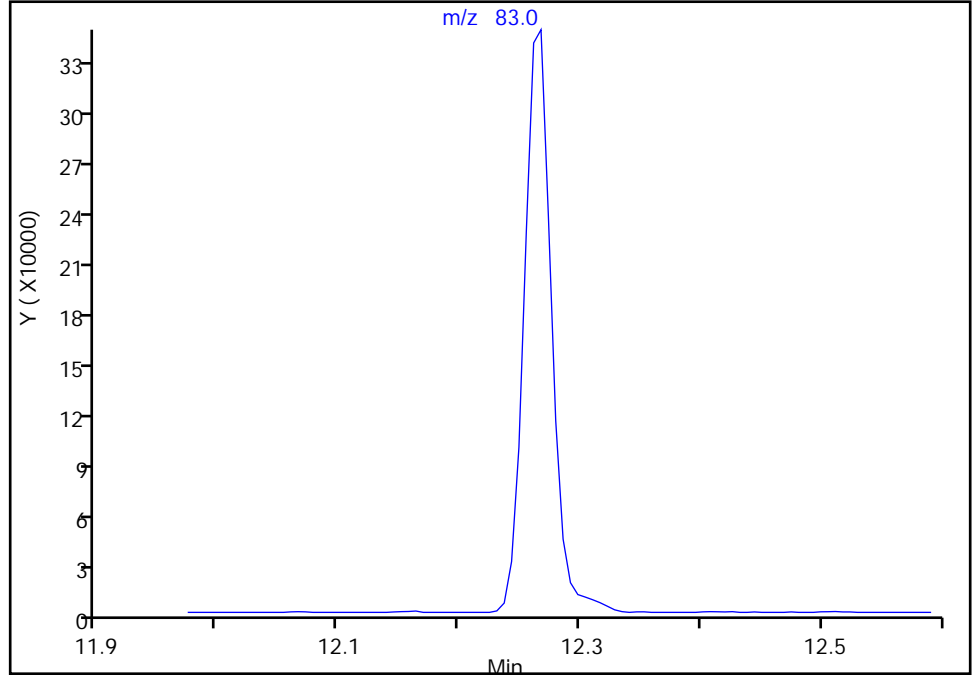
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

109 1,1,2,2-Tetrachloroethane, CAS: 79-34-5

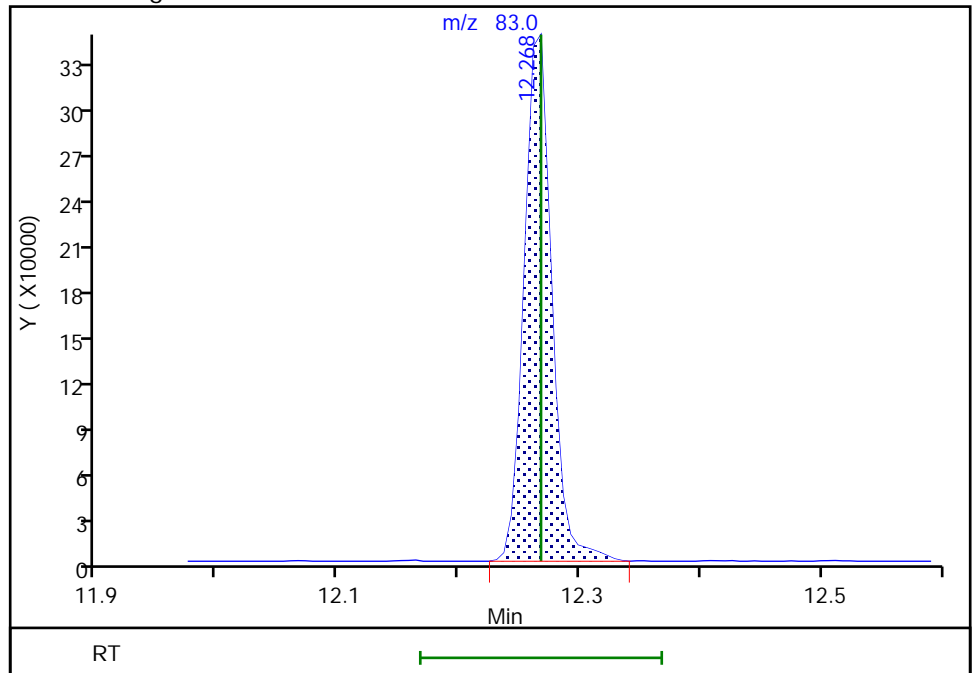
Signal: 1

Not Detected
Expected RT: 12.27

Processing Integration Results



Manual Integration Results



RT: 12.27
Area: 542504
Amount: 10.381250
Amount Units: ug/l

Reviewer: howej, 12-Jun-2020 13:36:10
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

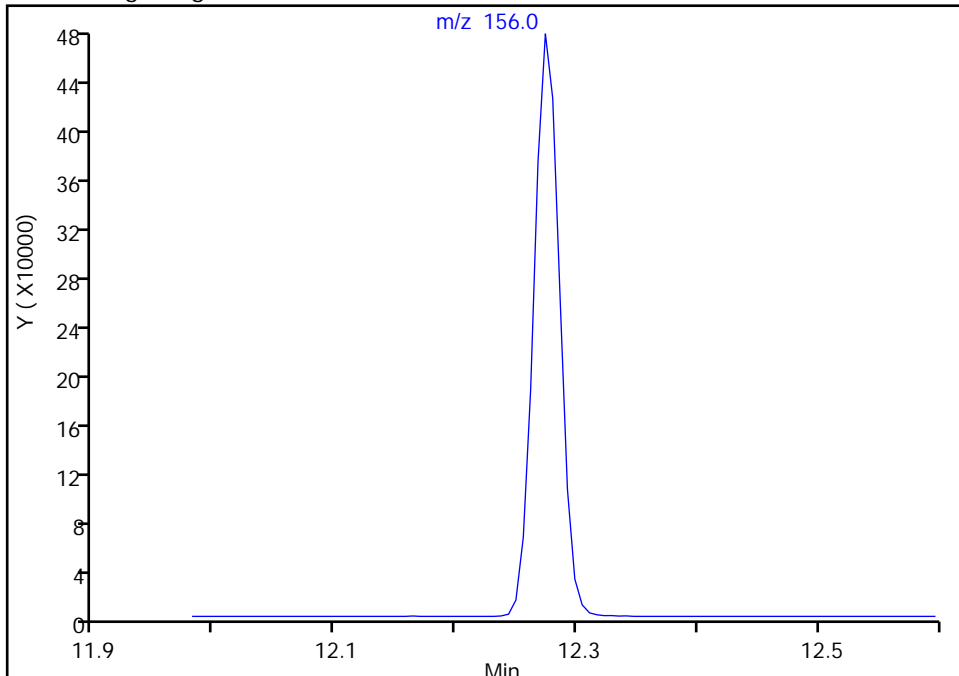
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

110 Bromobenzene, CAS: 108-86-1

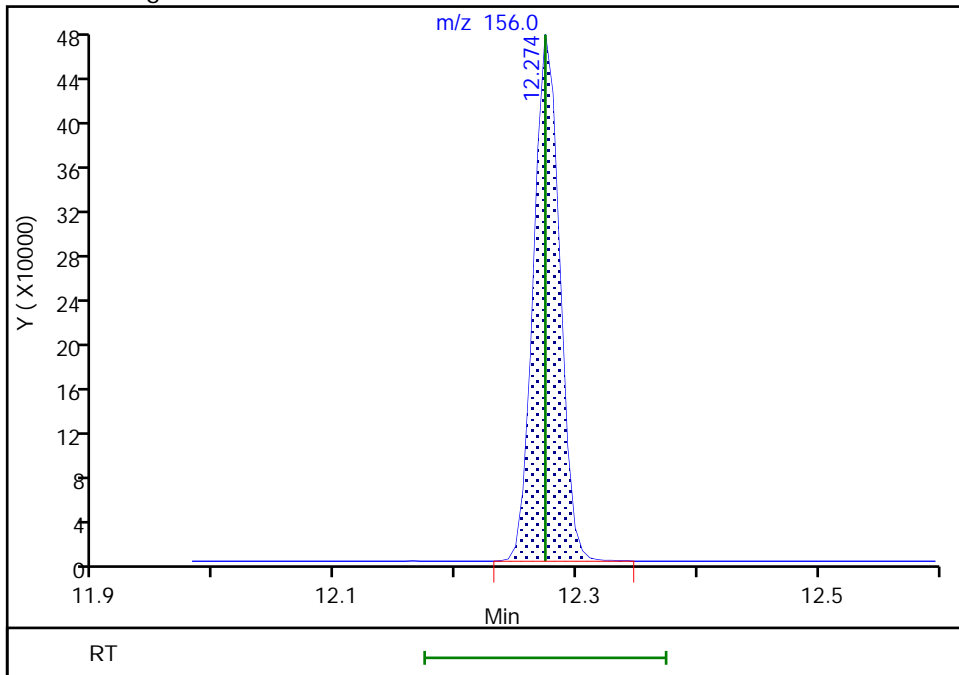
Signal: 1

Not Detected
Expected RT: 12.27

Processing Integration Results



Manual Integration Results



RT: 12.27
Area: 704261
Amount: 10.173785
Amount Units: ug/l

Reviewer: howej, 12-Jun-2020 13:35:19
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

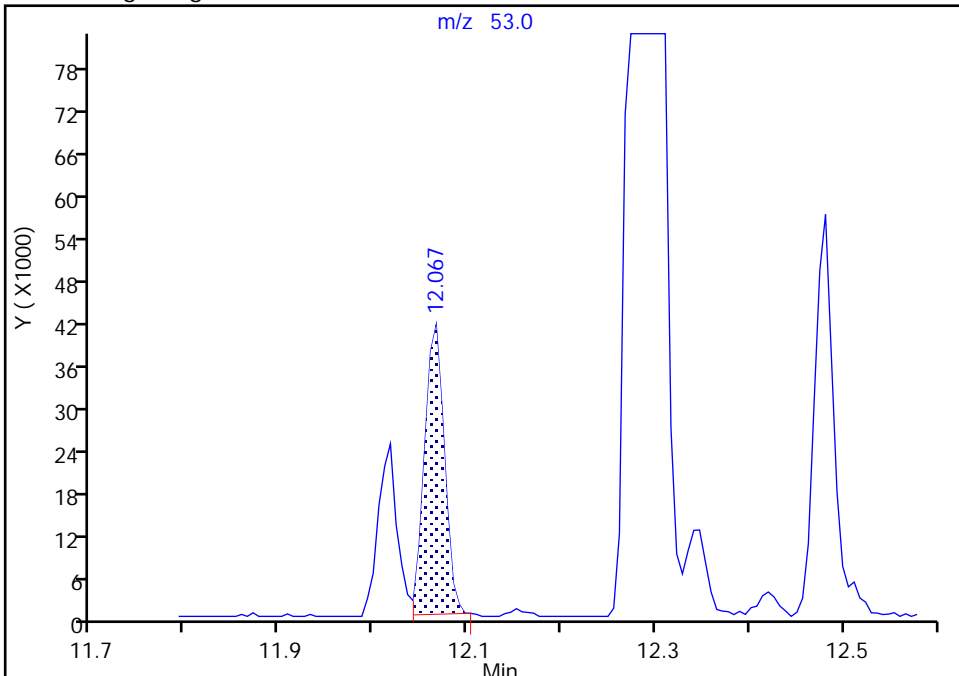
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

111 trans-1,4-Dichloro-2-butene, CAS: 110-57-6

Signal: 1

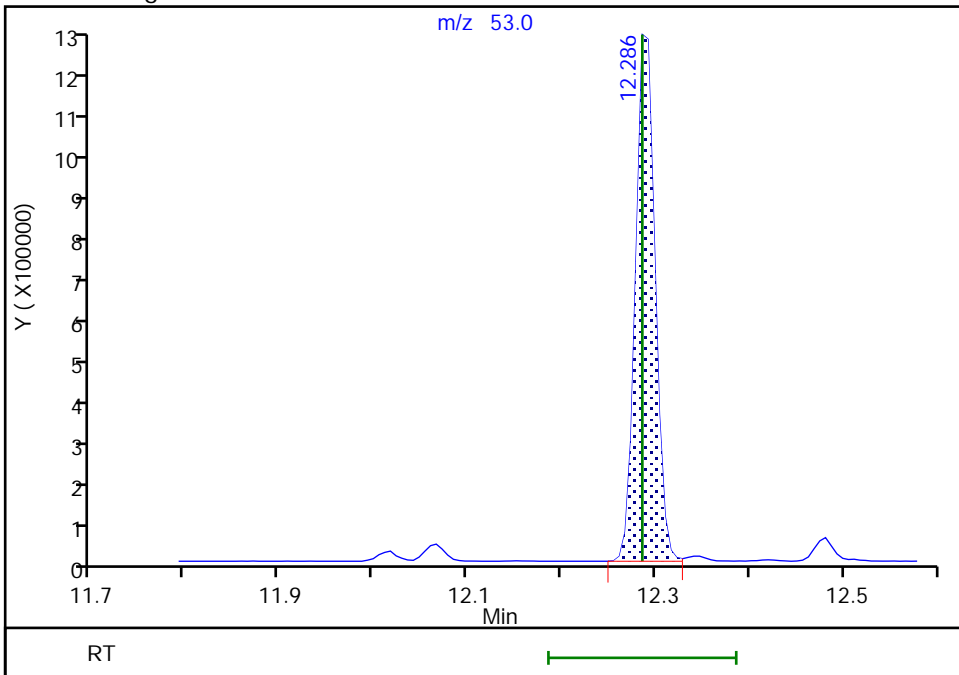
RT: 12.07
Area: 59334
Amount: 100.0000
Amount Units: ug/l

Processing Integration Results



RT: 12.29
Area: 1819743
Amount: 114.9836
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:29:53
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

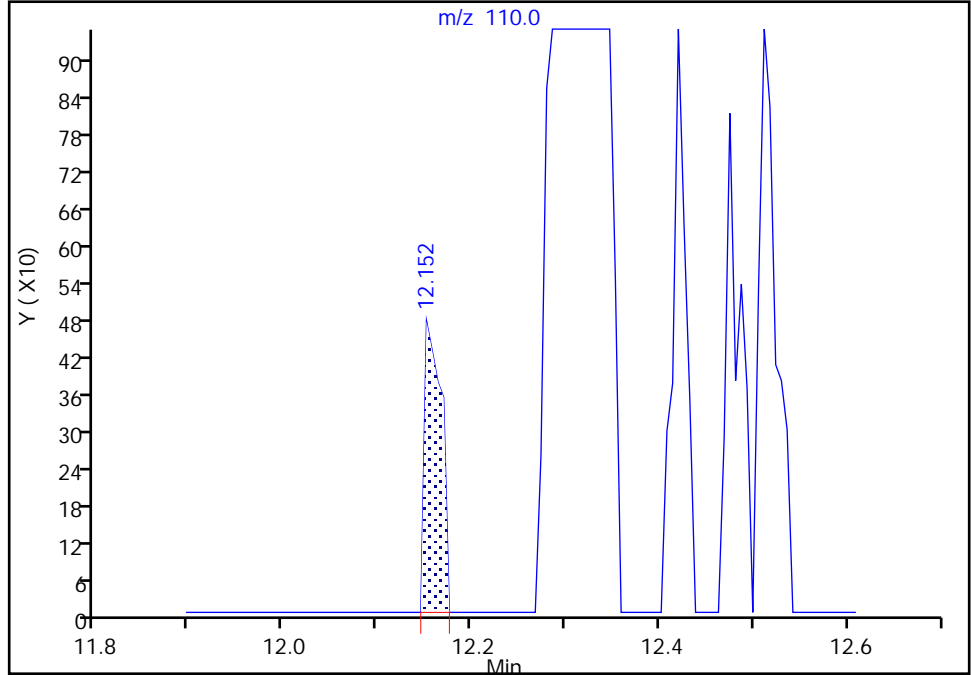
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

112 1,2,3-Trichloropropane, CAS: 96-18-4

Signal: 1

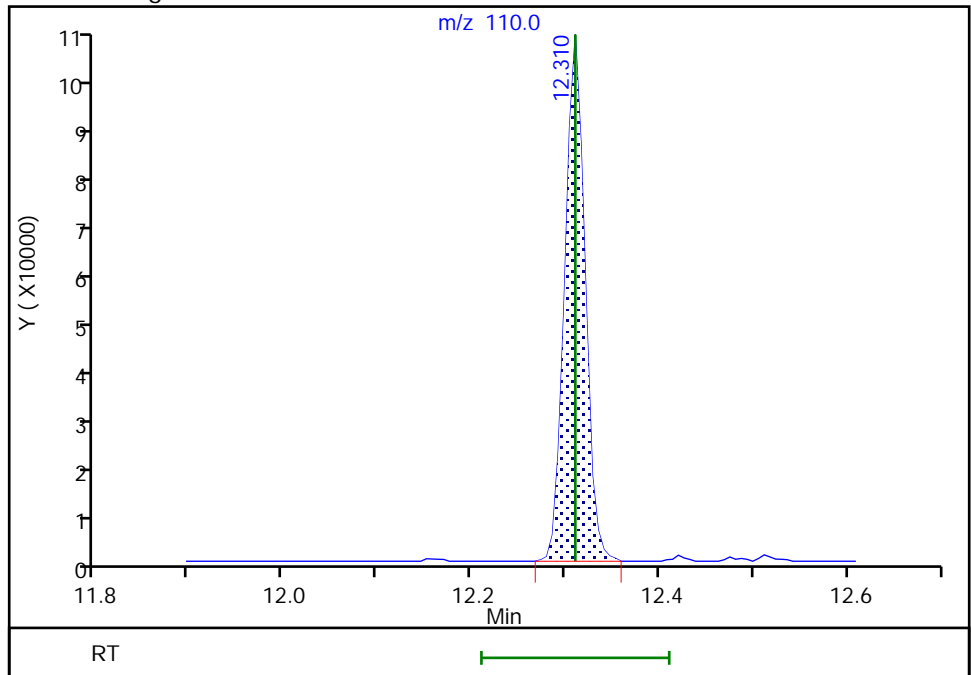
RT: 12.15
Area: 594
Amount: 10.000000
Amount Units: ug/l

Processing Integration Results



RT: 12.31
Area: 149465
Amount: 10.213629
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:30:30
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

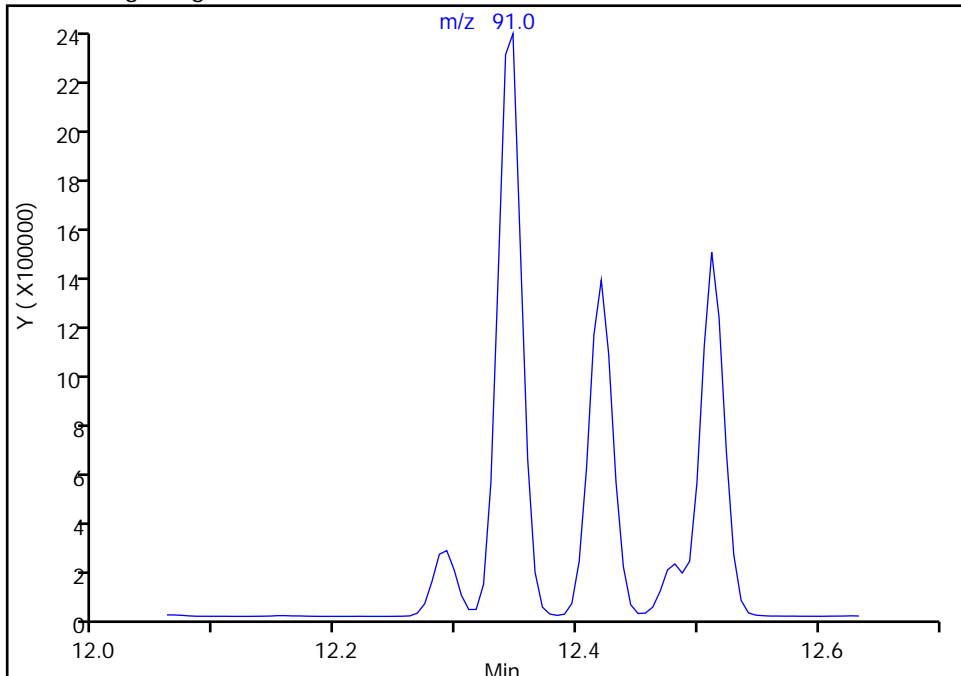
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

113 N-Propylbenzene, CAS: 103-65-1

Signal: 1

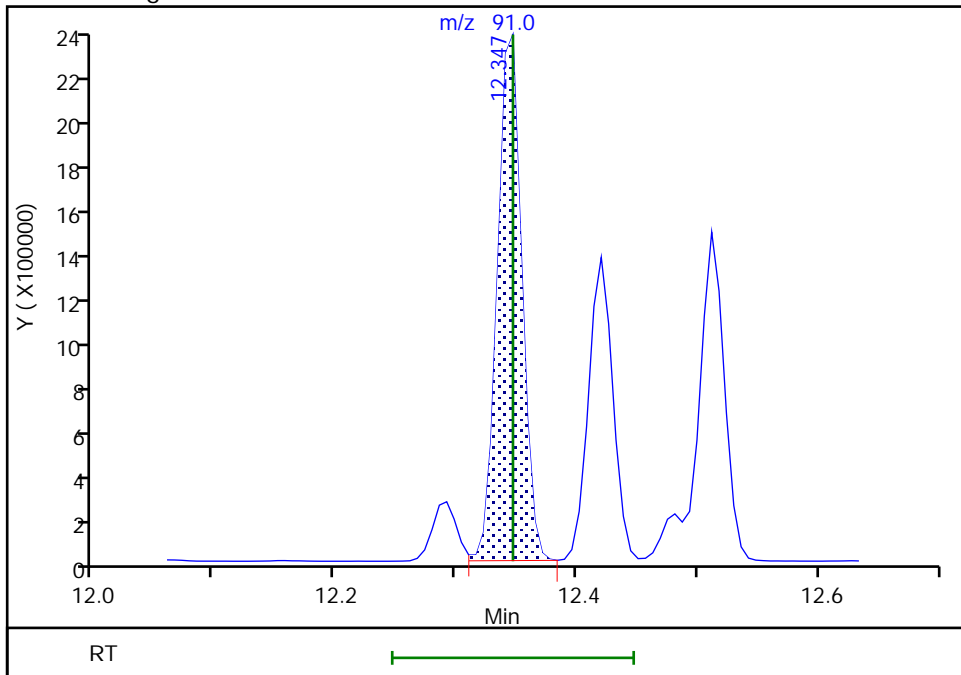
Not Detected
Expected RT: 12.35

Processing Integration Results



Manual Integration Results

RT: 12.35
Area: 3300628
Amount: 10.304512
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 13:30:14
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

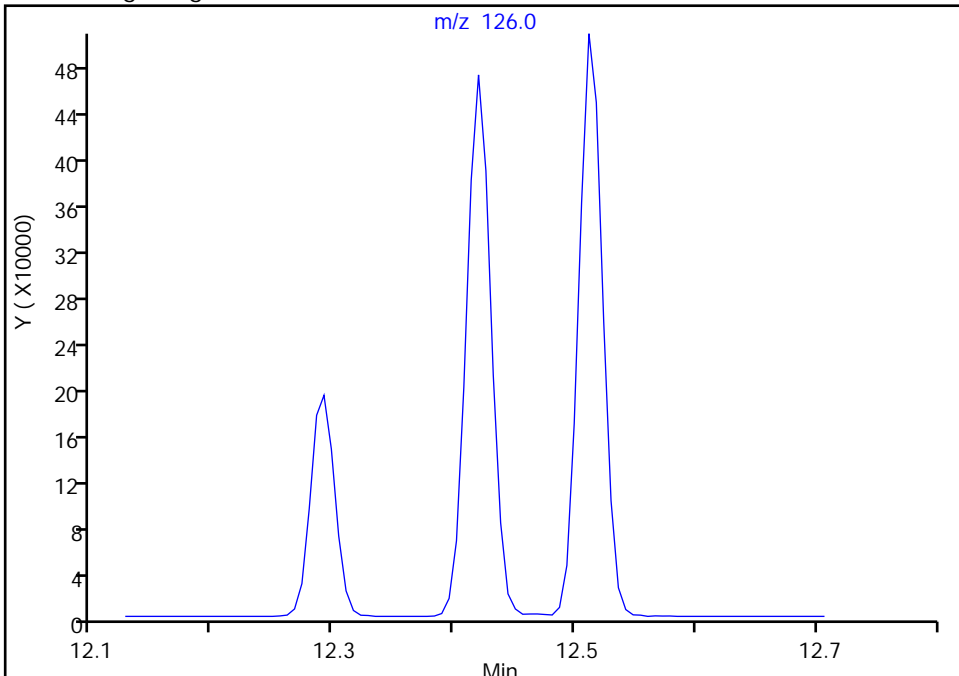
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

114 2-Chlorotoluene, CAS: 95-49-8

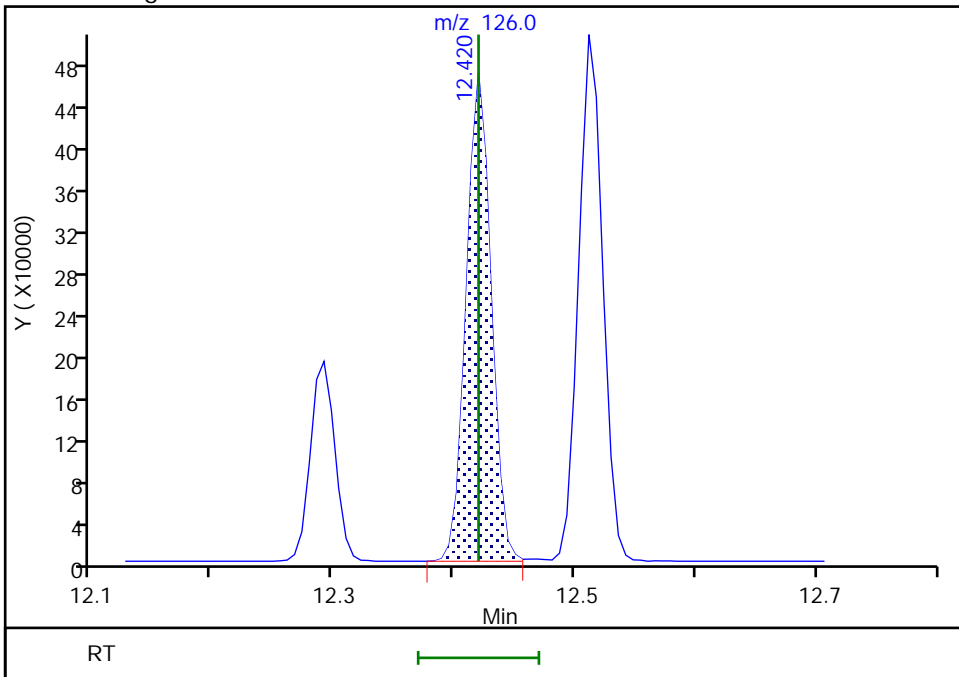
Signal: 1

Not Detected
Expected RT: 12.42

Processing Integration Results



Manual Integration Results



RT: 12.42
Area: 666211
Amount: 10.470226
Amount Units: ug/l

Reviewer: howej, 12-Jun-2020 13:35:14
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

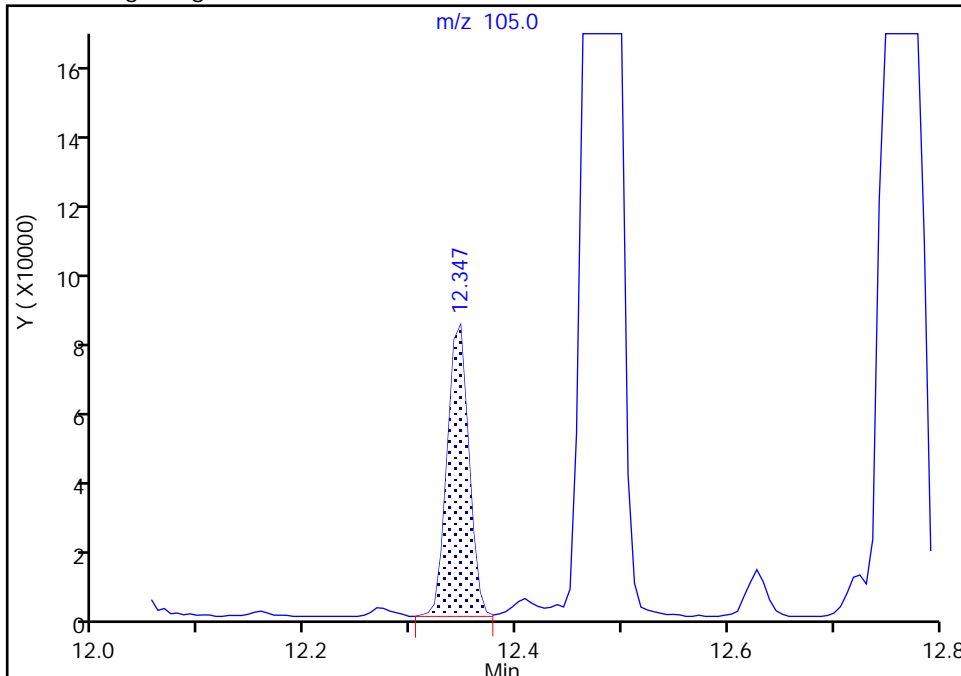
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

115 1,3,5-Trimethylbenzene, CAS: 108-67-8

Signal: 1

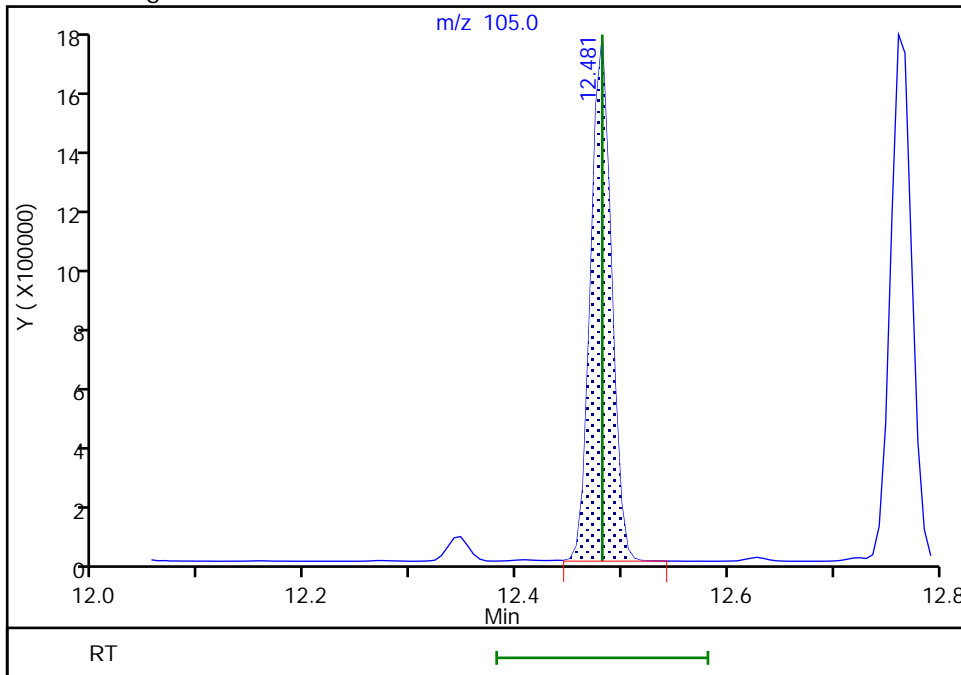
RT: 12.35
Area: 116540
Amount: 10.000000
Amount Units: ug/l

Processing Integration Results



RT: 12.48
Area: 2375803
Amount: 10.660137
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:30:55
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

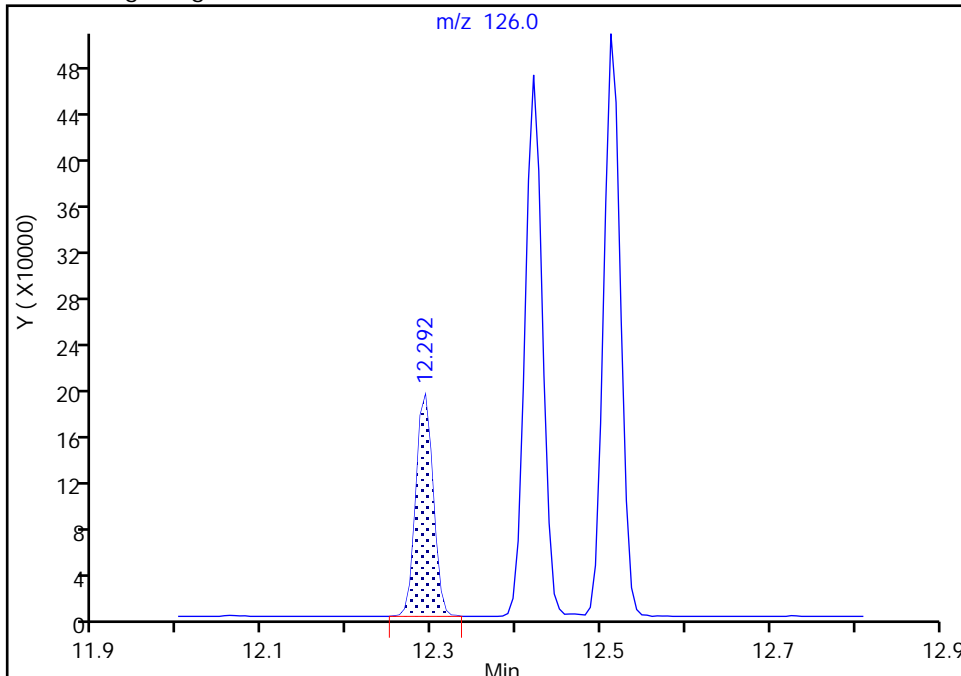
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

116 4-Chlorotoluene, CAS: 106-43-4

Signal: 1

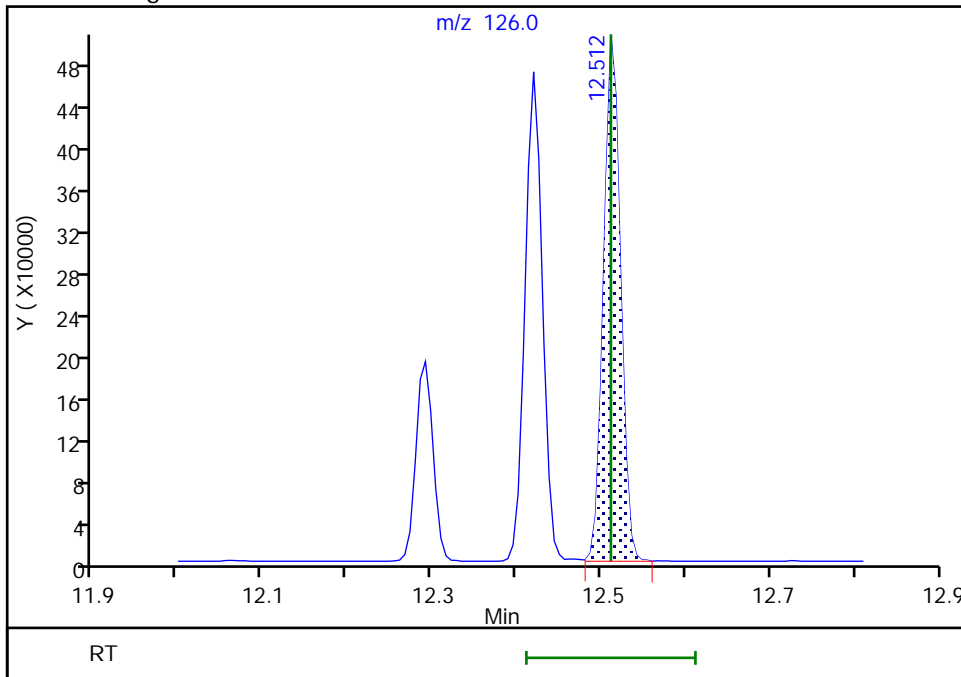
RT: 12.29
Area: 268625
Amount: 10.000000
Amount Units: ug/l

Processing Integration Results



RT: 12.51
Area: 697119
Amount: 10.302340
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:30:41
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

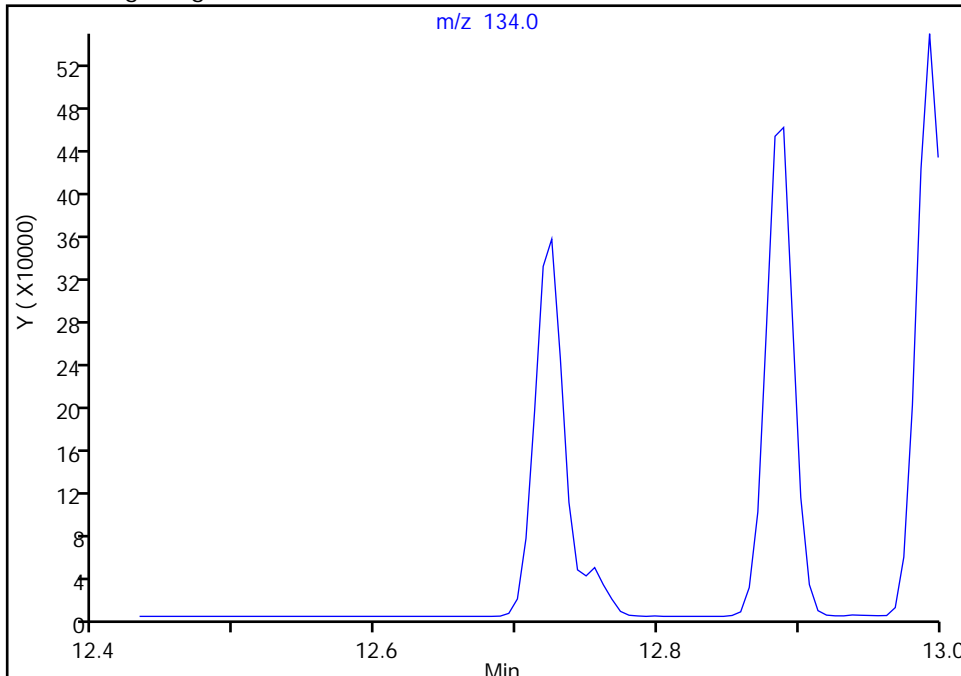
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

118 tert-Butylbenzene, CAS: 98-06-6

Signal: 1

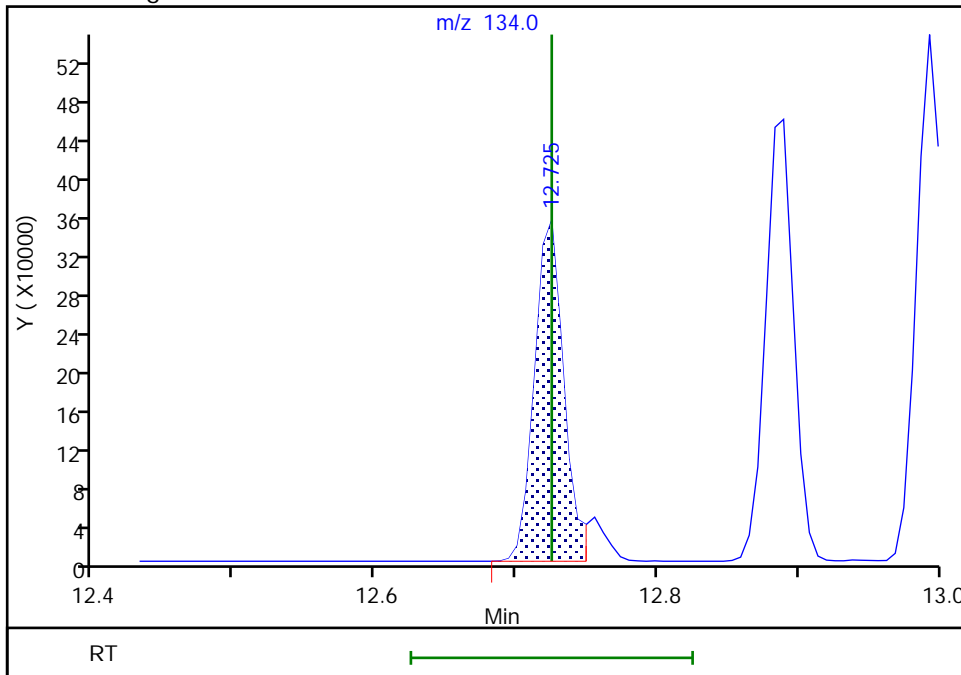
Not Detected
Expected RT: 12.72

Processing Integration Results



RT: 12.72
Area: 513292
Amount: 10.344482
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:34:43
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

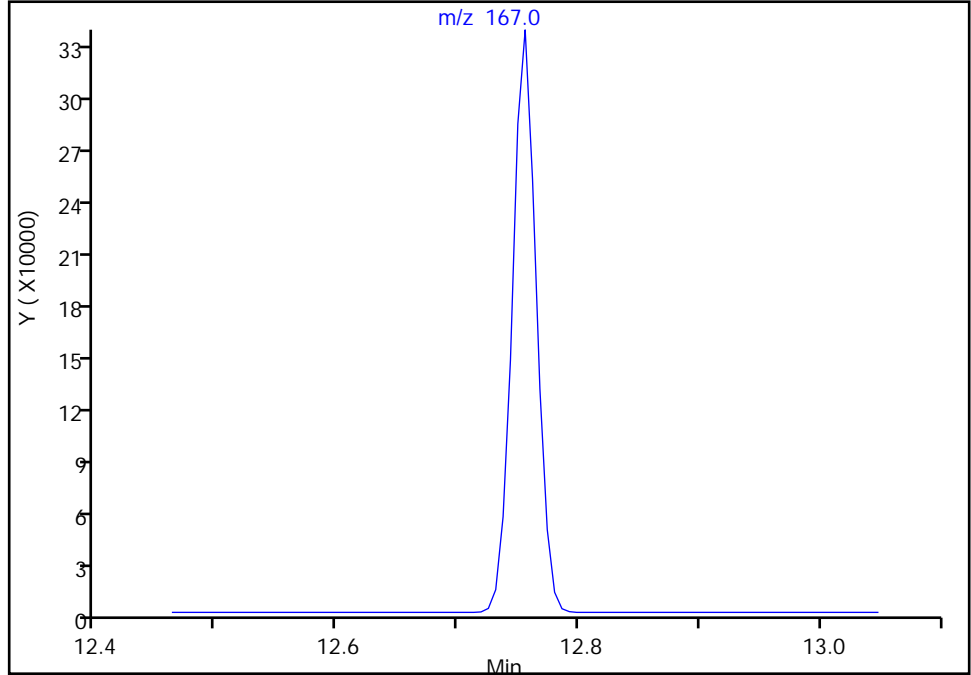
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

120 Pentachloroethane, CAS: 76-01-7

Signal: 1

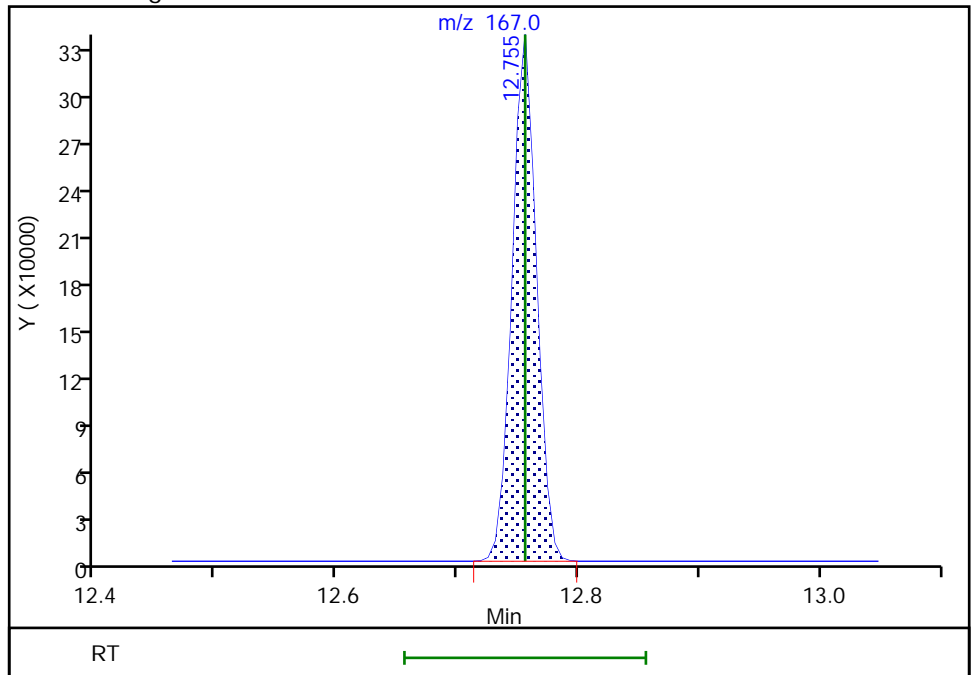
Not Detected
Expected RT: 12.76

Processing Integration Results



Manual Integration Results

RT: 12.76
Area: 464478
Amount: 10.603177
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 13:34:38
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

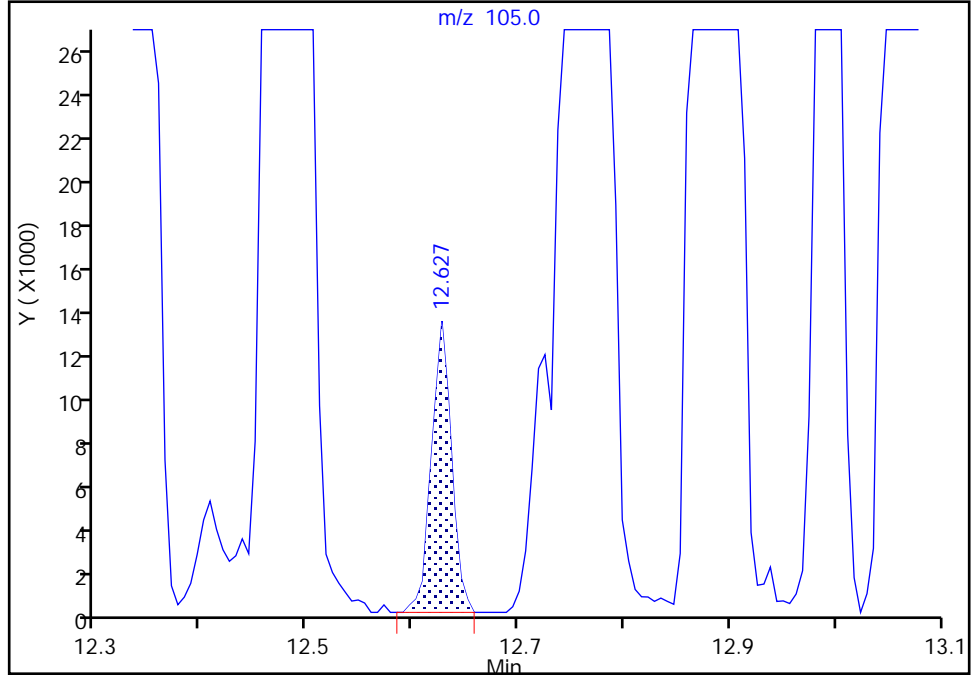
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

119 1,2,4-Trimethylbenzene, CAS: 95-63-6

Signal: 1

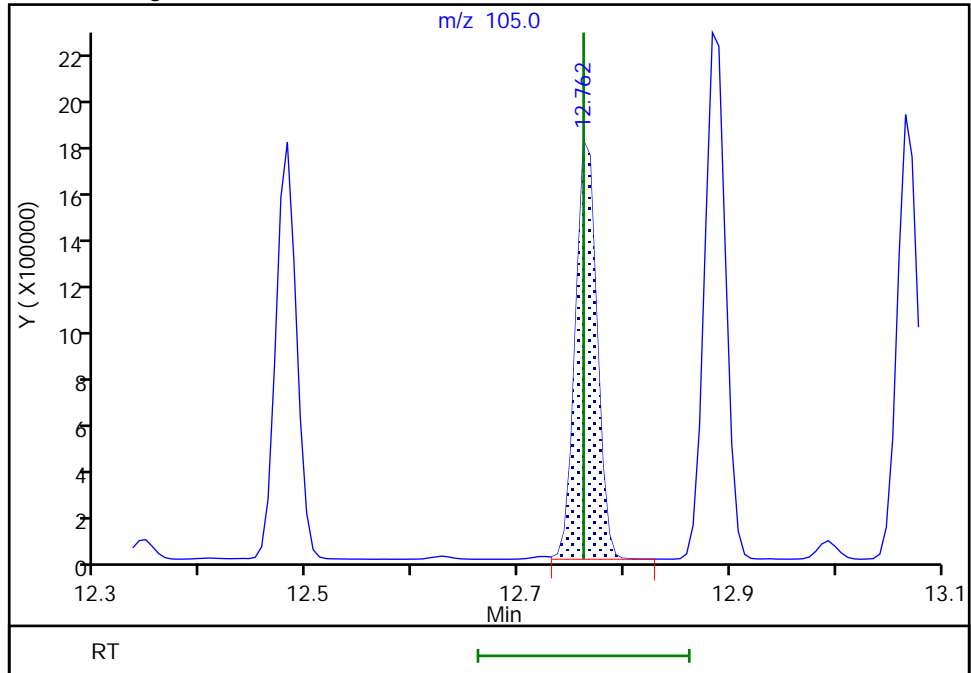
RT: 12.63
Area: 17283
Amount: 10.000000
Amount Units: ug/l

Processing Integration Results



RT: 12.76
Area: 2481394
Amount: 10.650950
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:31:02
Audit Action: Assigned Compound ID

Audit Reason: Other

Euofins Lancaster Laboratories Env, LLC

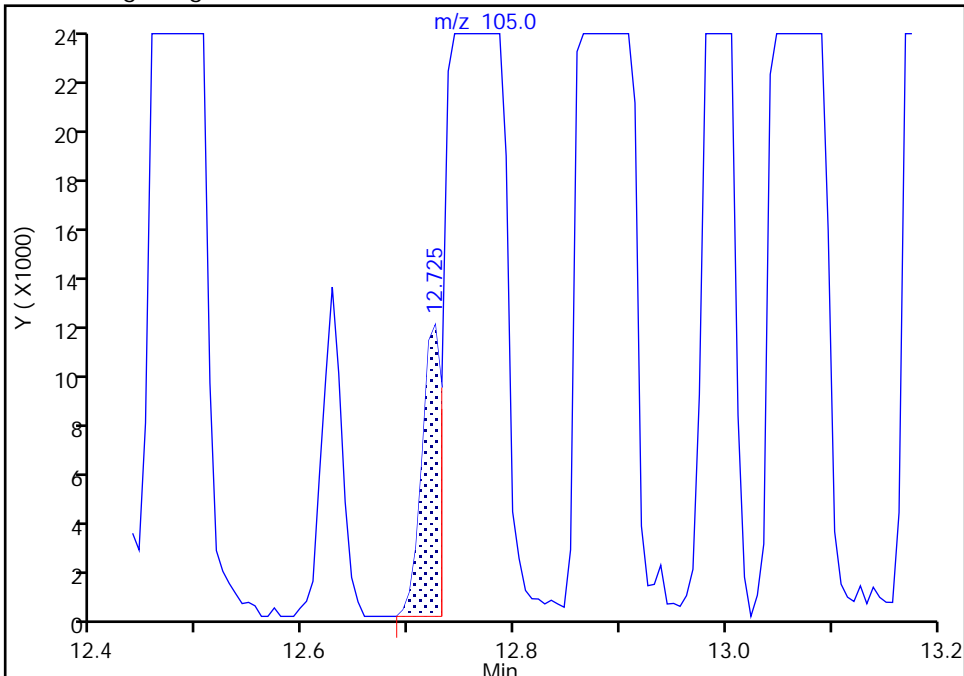
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I02.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

121 sec-Butylbenzene, CAS: 135-98-8

Signal: 1

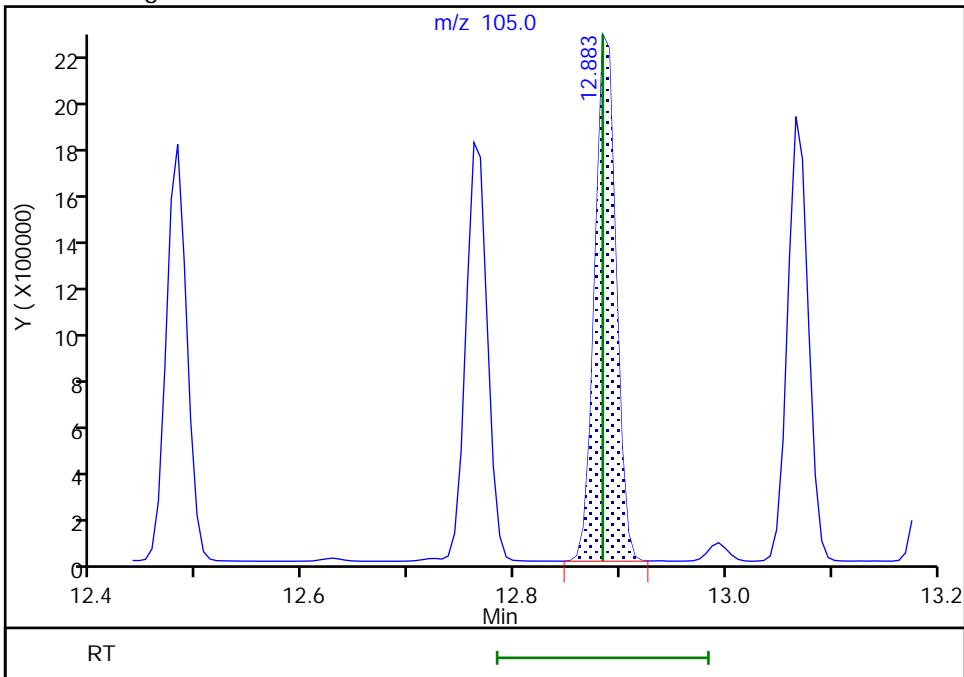
RT: 12.72
Area: 15507
Amount: 10.000000
Amount Units: ug/l

Processing Integration Results



RT: 12.88
Area: 3080818
Amount: 10.506801
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:31:27
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

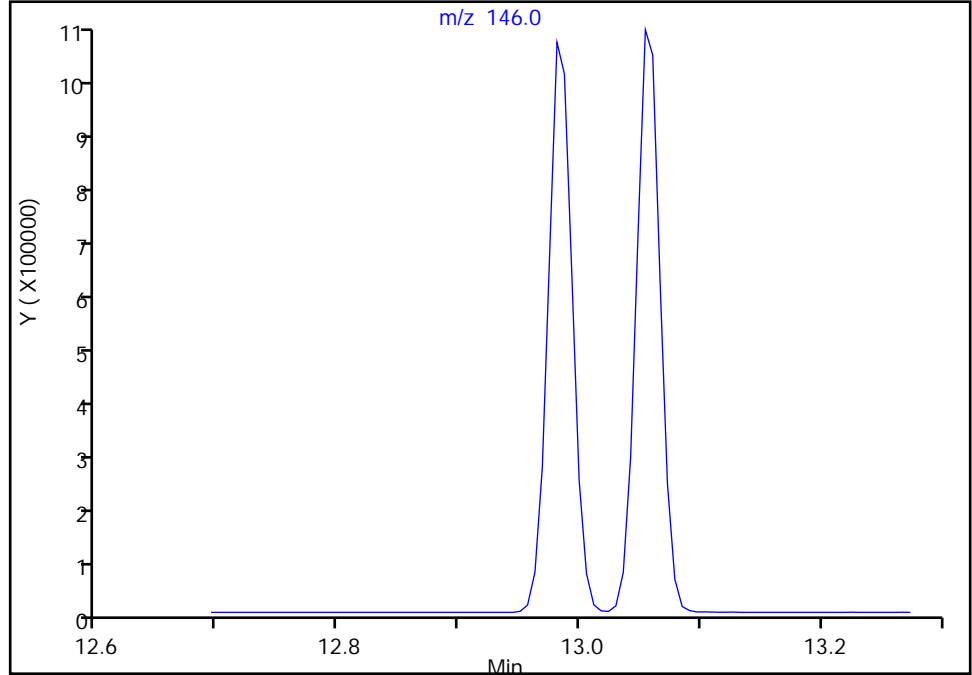
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

122 1,3-Dichlorobenzene, CAS: 541-73-1

Signal: 1

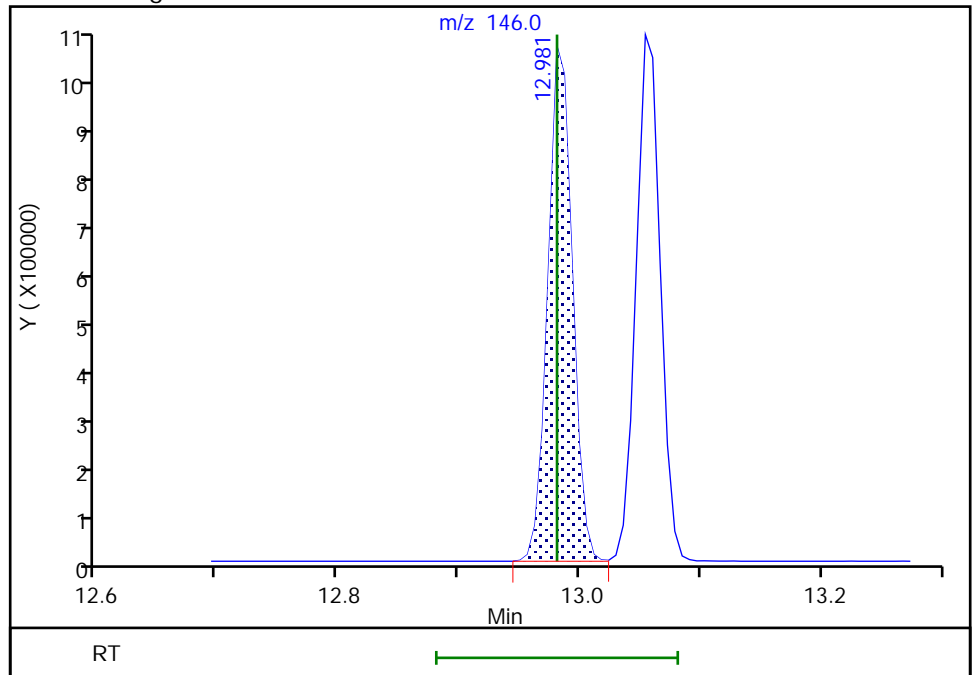
Not Detected
Expected RT: 12.98

Processing Integration Results



Manual Integration Results

RT: 12.98
Area: 1387081
Amount: 10.350061
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 13:34:27
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

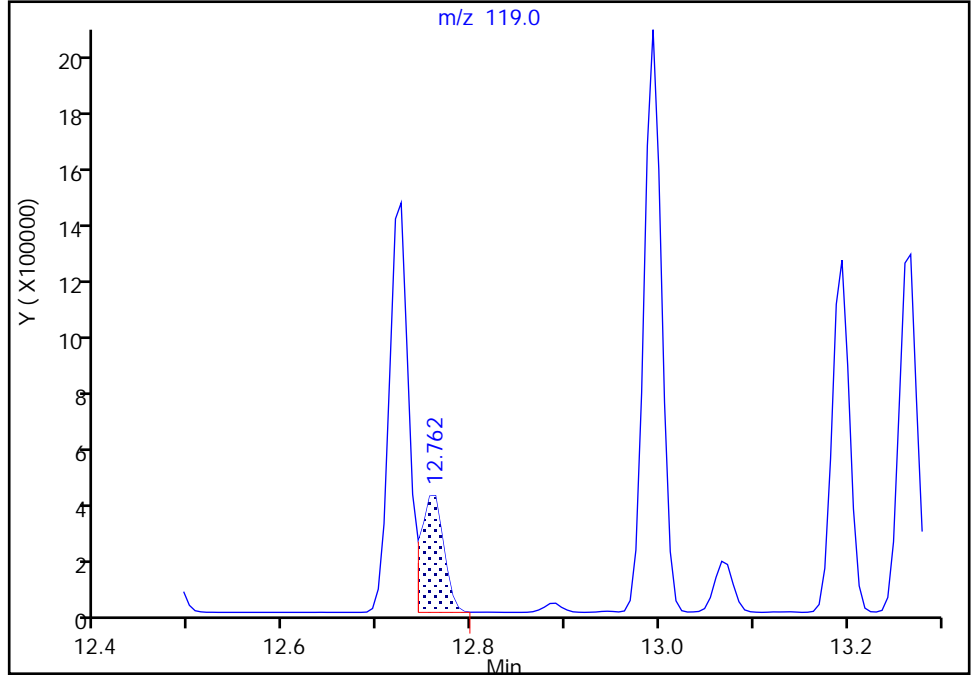
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

123 4-Isopropyltoluene, CAS: 99-87-6

Signal: 1

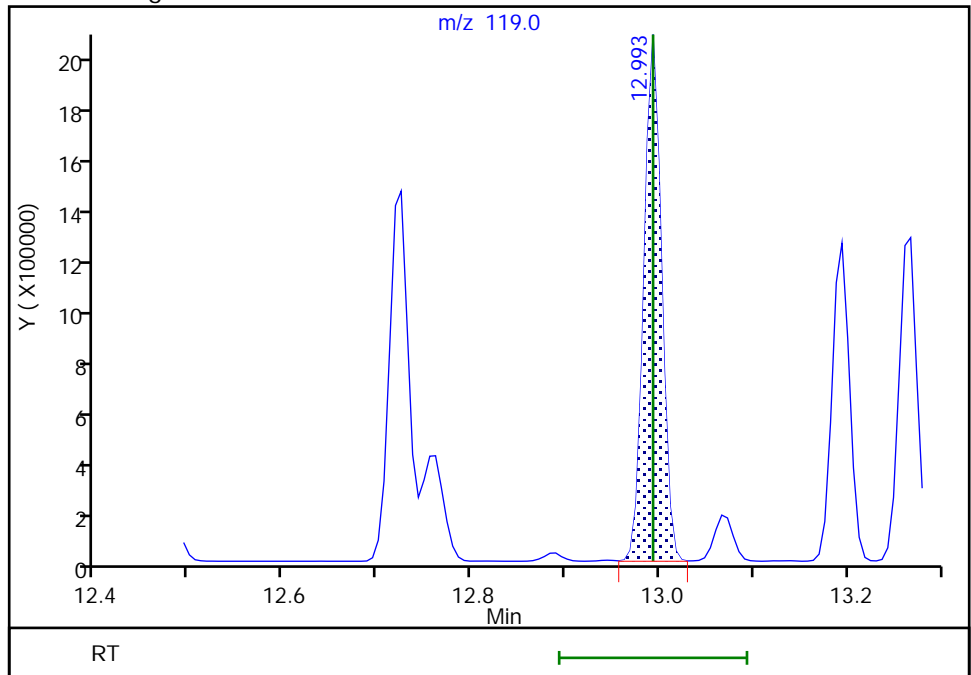
RT: 12.76
Area: 704489
Amount: 10.000000
Amount Units: ug/l

Processing Integration Results



RT: 12.99
Area: 2692351
Amount: 10.701630
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:31:40
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

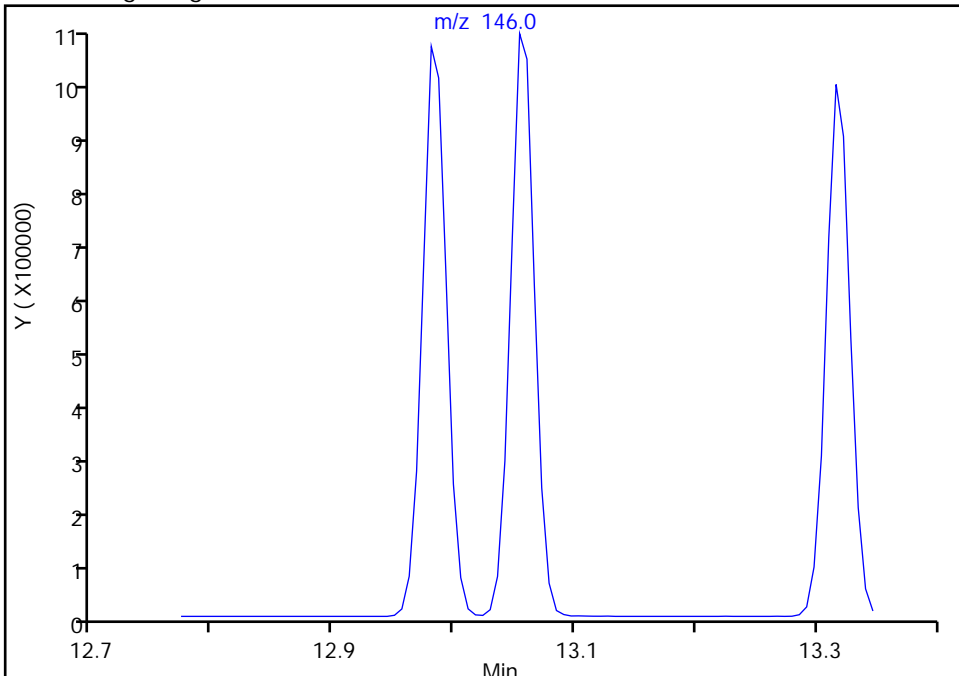
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

125 1,4-Dichlorobenzene, CAS: 106-46-7

Signal: 1

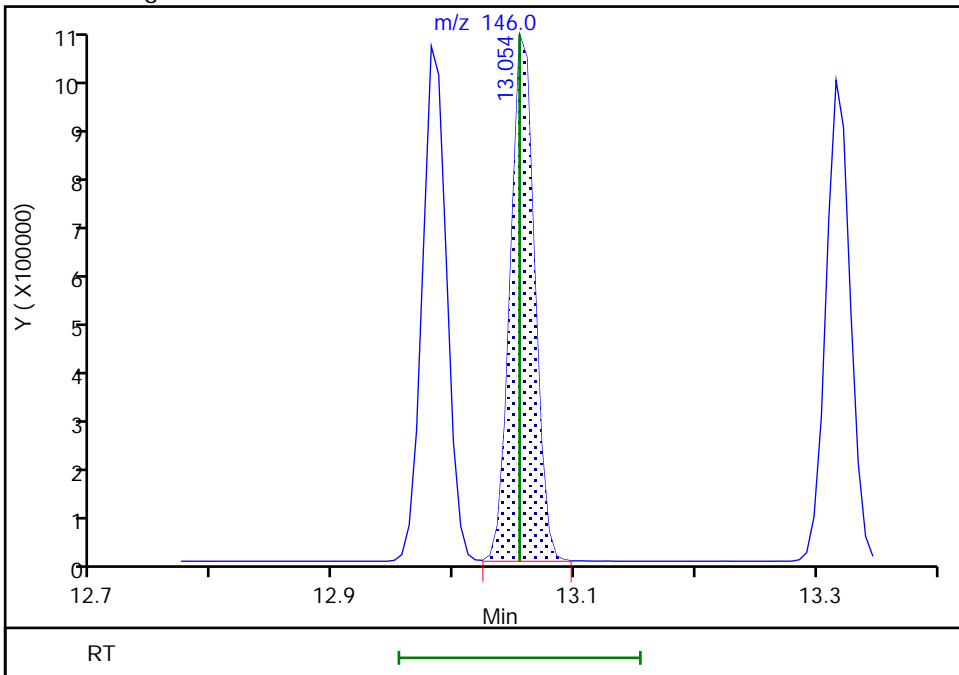
Not Detected
Expected RT: 13.05

Processing Integration Results



Manual Integration Results

RT: 13.05
Area: 1411779
Amount: 10.381692
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 13:34:33
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

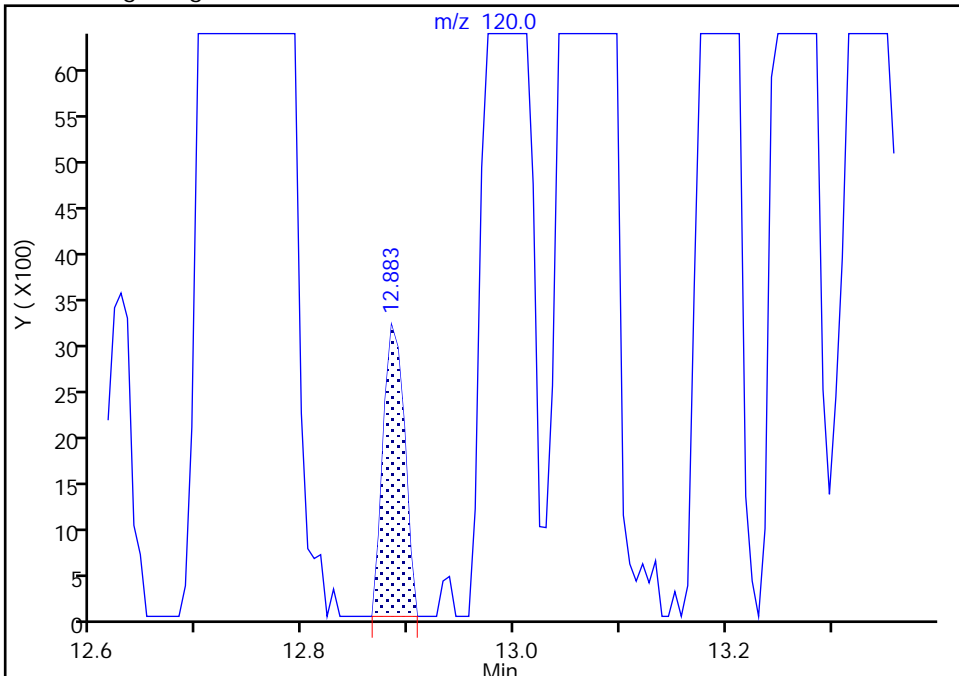
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I02.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

126 1,2,3-Trimethylbenzene, CAS: 526-73-8

Signal: 1

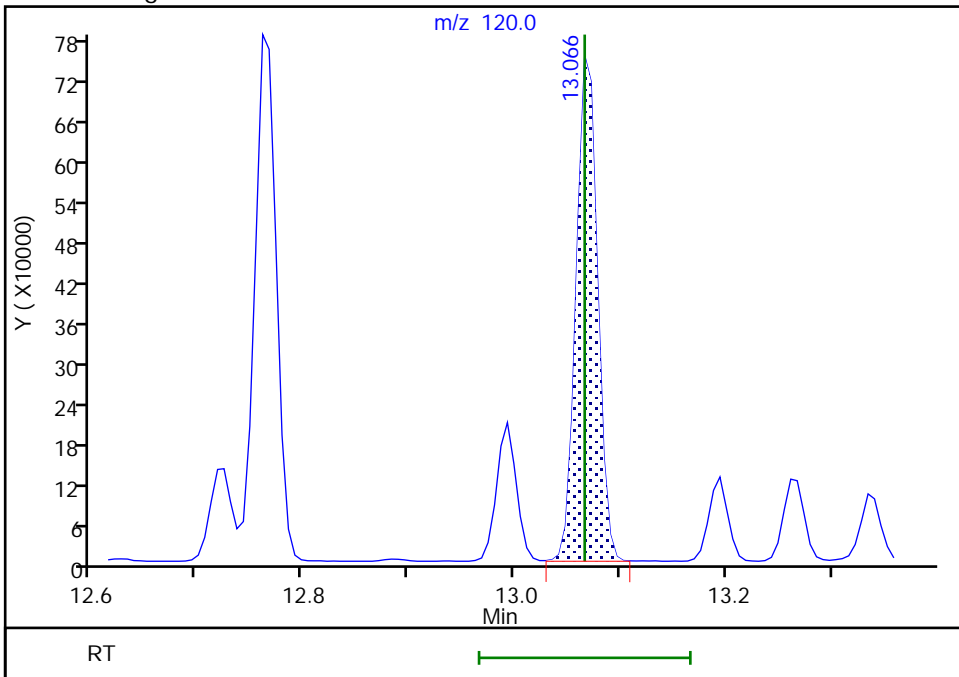
RT: 12.88
Area: 4450
Amount: 10.000000
Amount Units: ug/l

Processing Integration Results



RT: 13.07
Area: 1064292
Amount: 10.428791
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:32:13
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

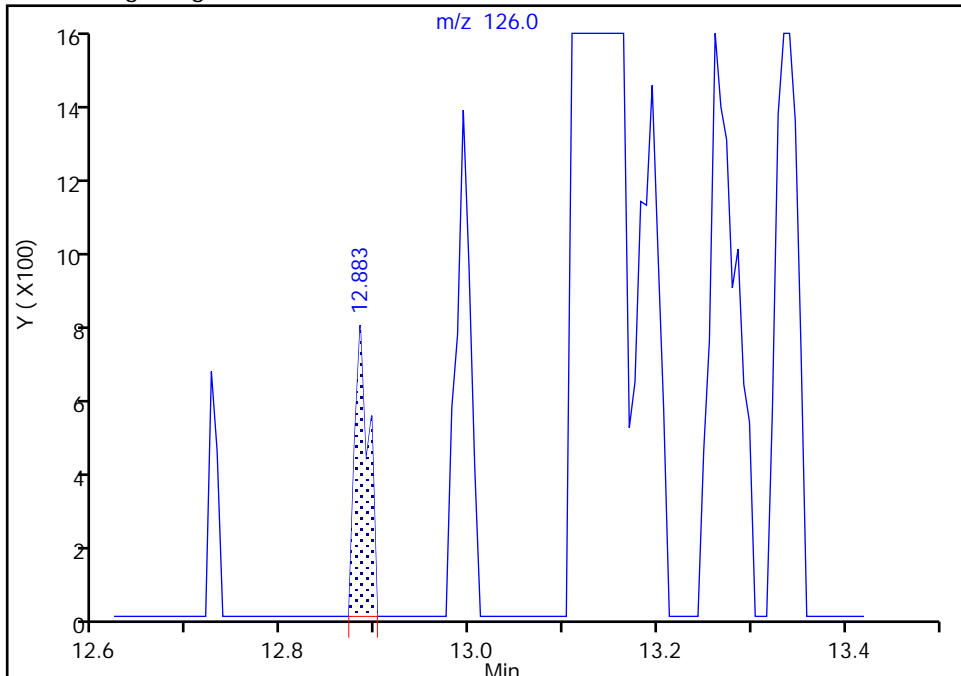
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm i.d.) Detector: MS Quad

127 Benzyl chloride, CAS: 100-44-7

Signal: 1

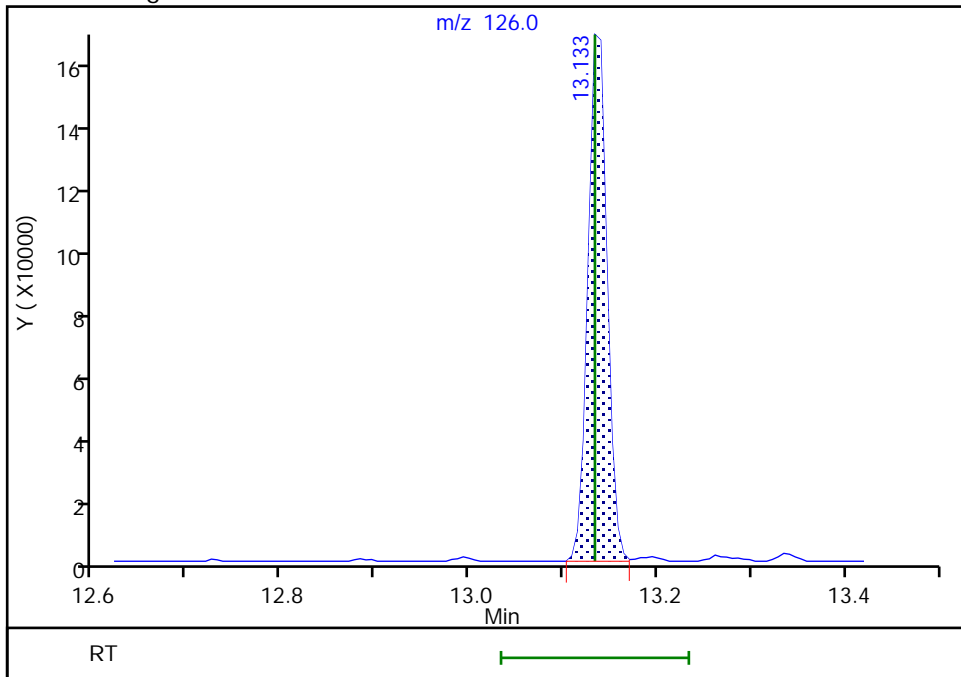
RT: 12.88
Area: 801
Amount: 10.000000
Amount Units: ug/l

Processing Integration Results



RT: 13.13
Area: 226236
Amount: 11.587647
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:31:57
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

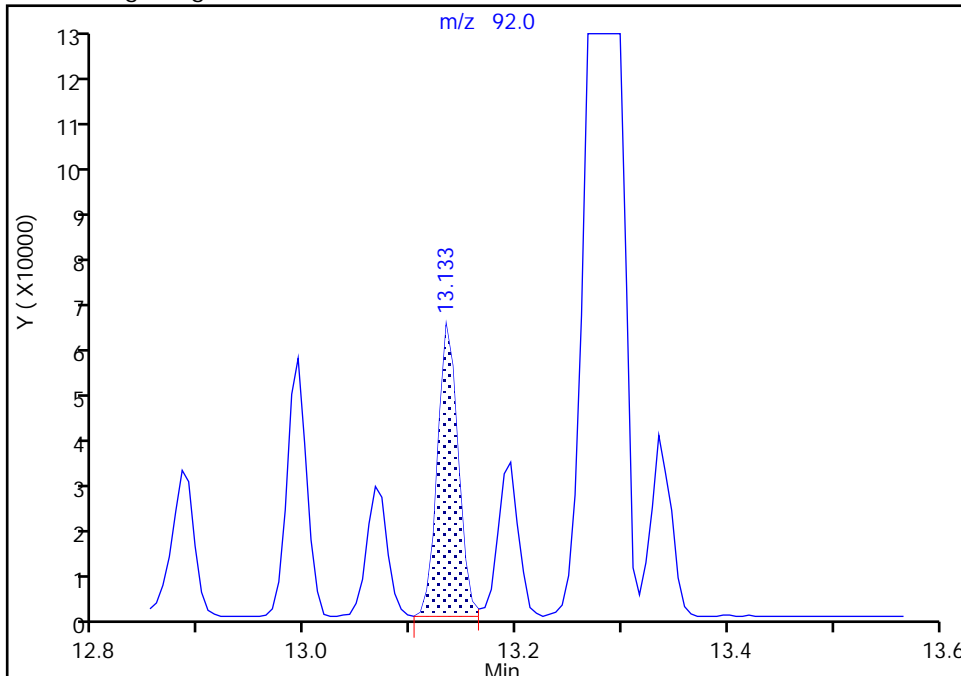
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

130 n-Butylbenzene, CAS: 104-51-8

Signal: 1

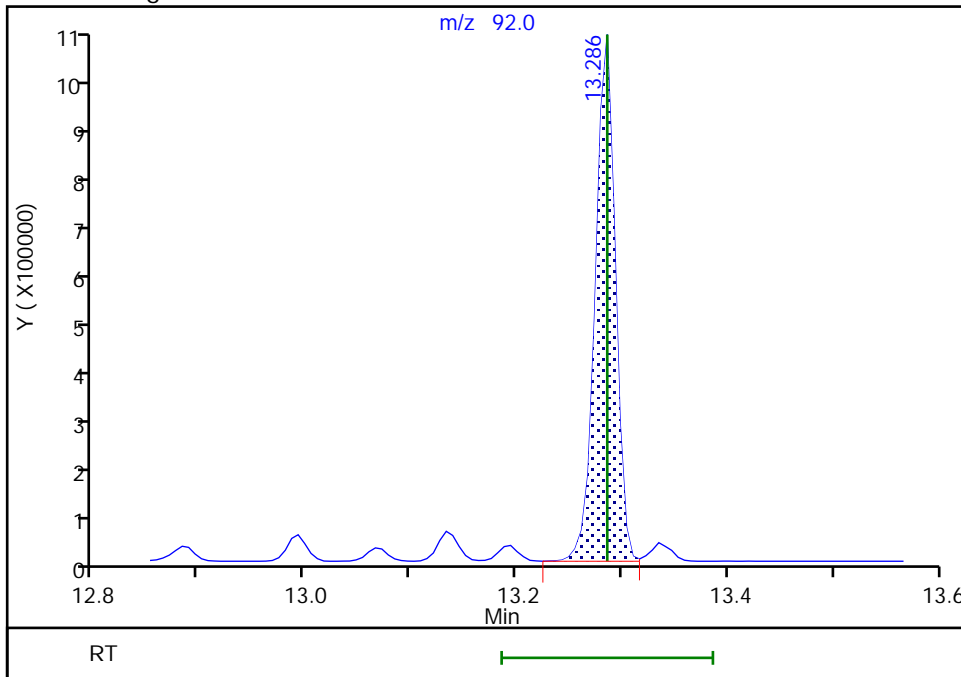
RT: 13.13
Area: 82028
Amount: 10.000000
Amount Units: ug/l

Processing Integration Results



RT: 13.29
Area: 1398562
Amount: 10.680984
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:32:42
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

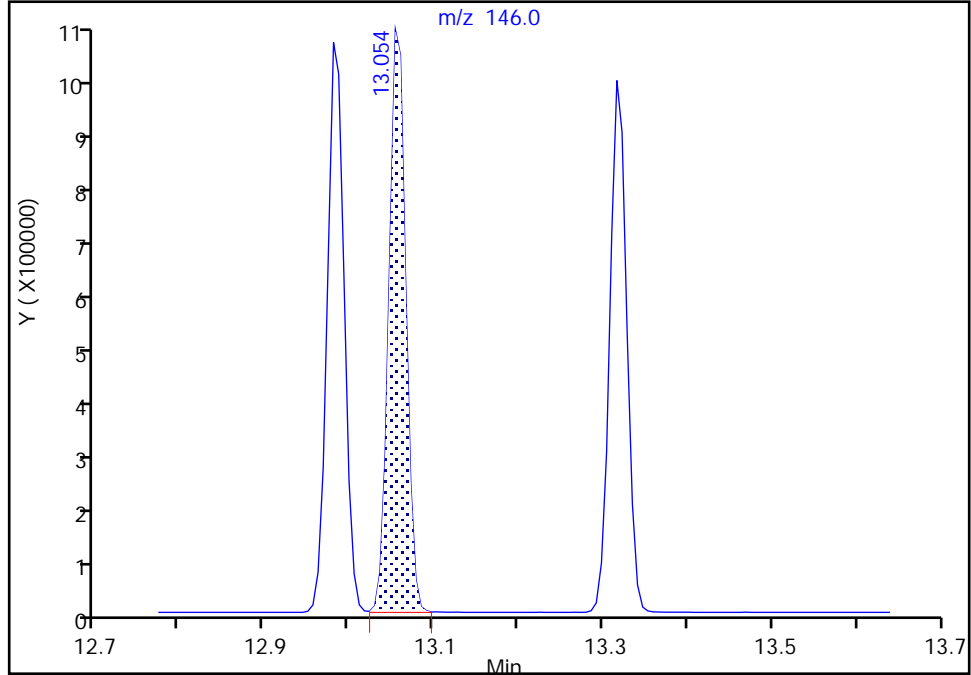
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

131 1,2-Dichlorobenzene, CAS: 95-50-1

Signal: 1

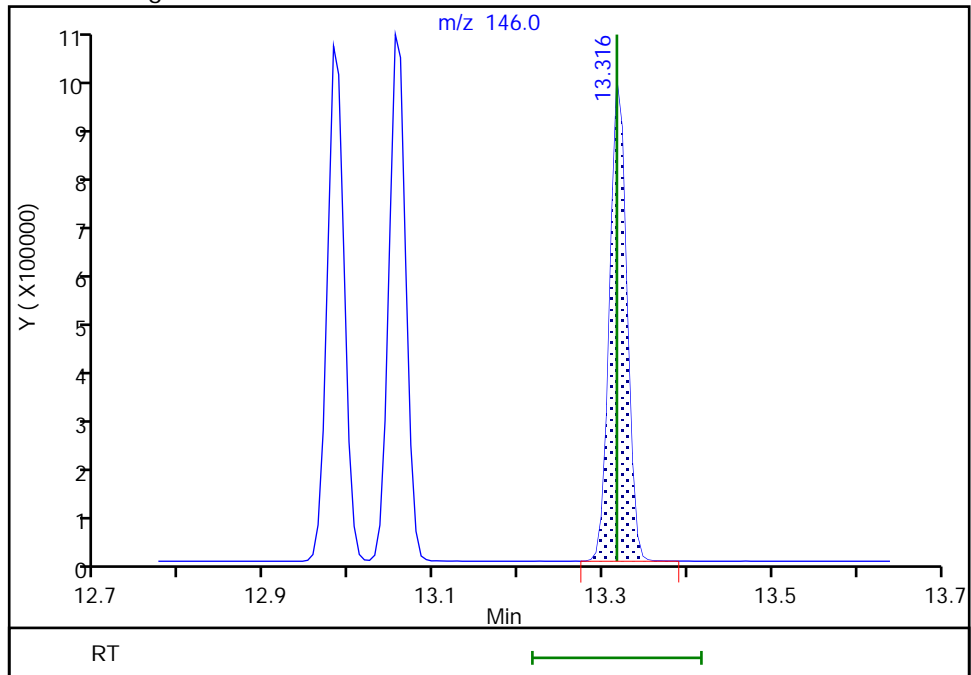
RT: 13.05
Area: 1411779
Amount: 10.000000
Amount Units: ug/l

Processing Integration Results



RT: 13.32
Area: 1292909
Amount: 10.336143
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:32:37
Audit Action: Assigned Compound ID

Audit Reason: Other

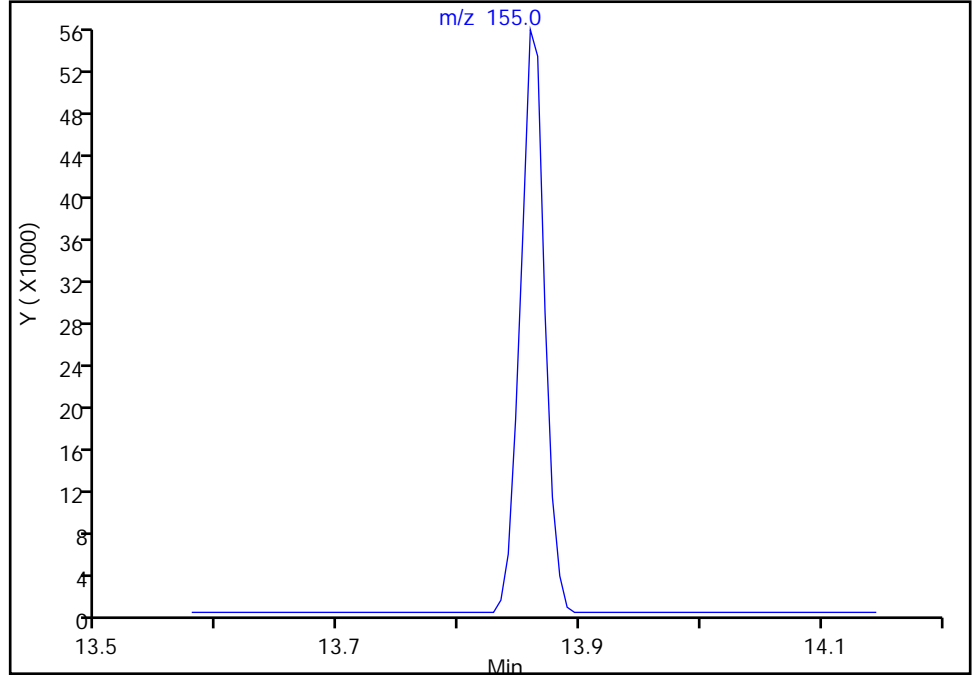
Euofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I02.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

134 1,2-Dibromo-3-Chloropropane, CAS: 96-12-8
Signal: 1

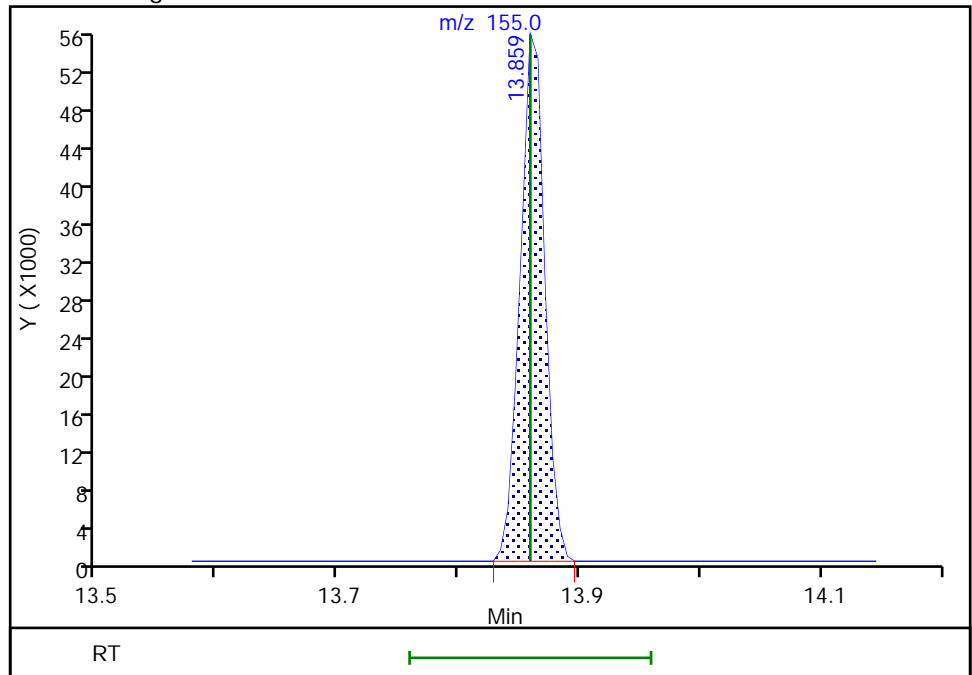
Not Detected
Expected RT: 13.86

Processing Integration Results



Manual Integration Results

RT: 13.86
Area: 78720
Amount: 10.407253
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 13:33:44
Audit Action: Assigned Compound ID

Audit Reason: Other
Page 568 of 777

Eurofins Lancaster Laboratories Env, LLC

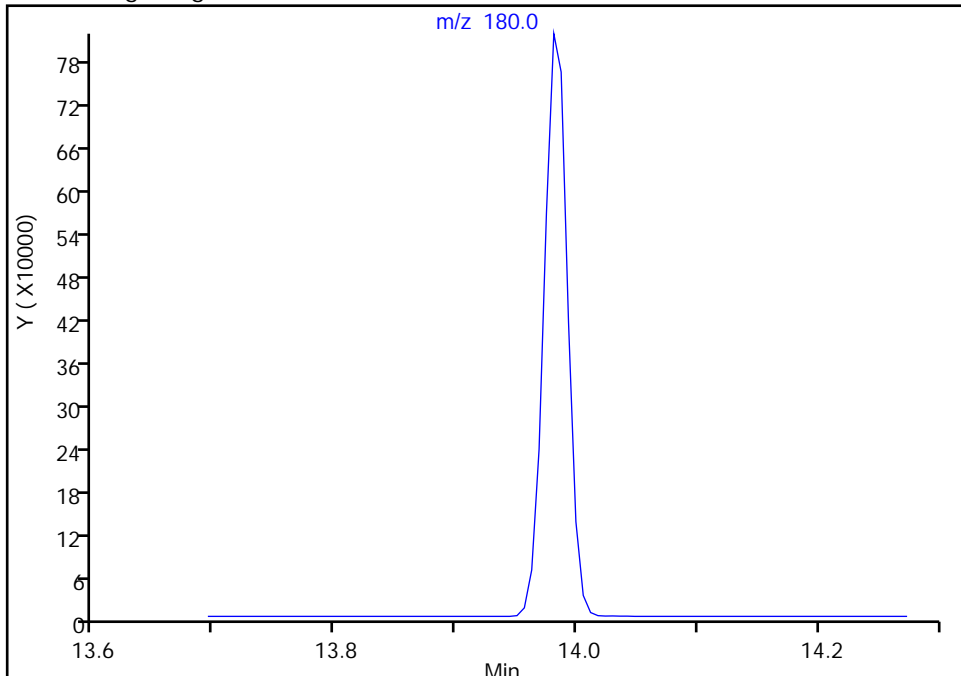
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

135 1,3,5-Trichlorobenzene, CAS: 108-70-3

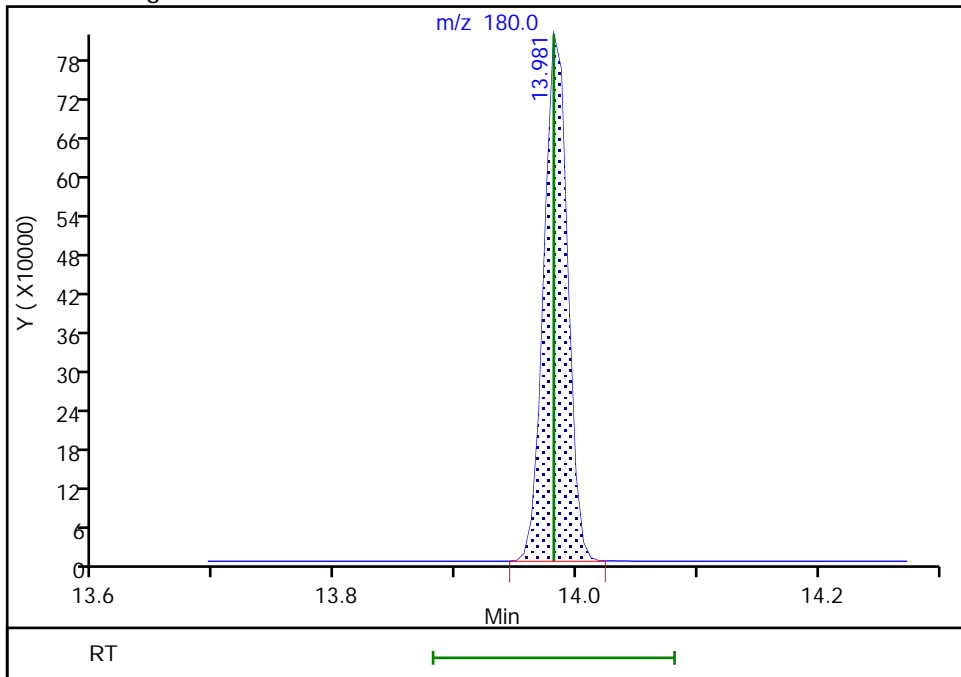
Signal: 1

Not Detected
Expected RT: 13.98

Processing Integration Results



Manual Integration Results



RT: 13.98
Area: 1103506
Amount: 10.539794
Amount Units: ug/l

Eurofins Lancaster Laboratories Env, LLC

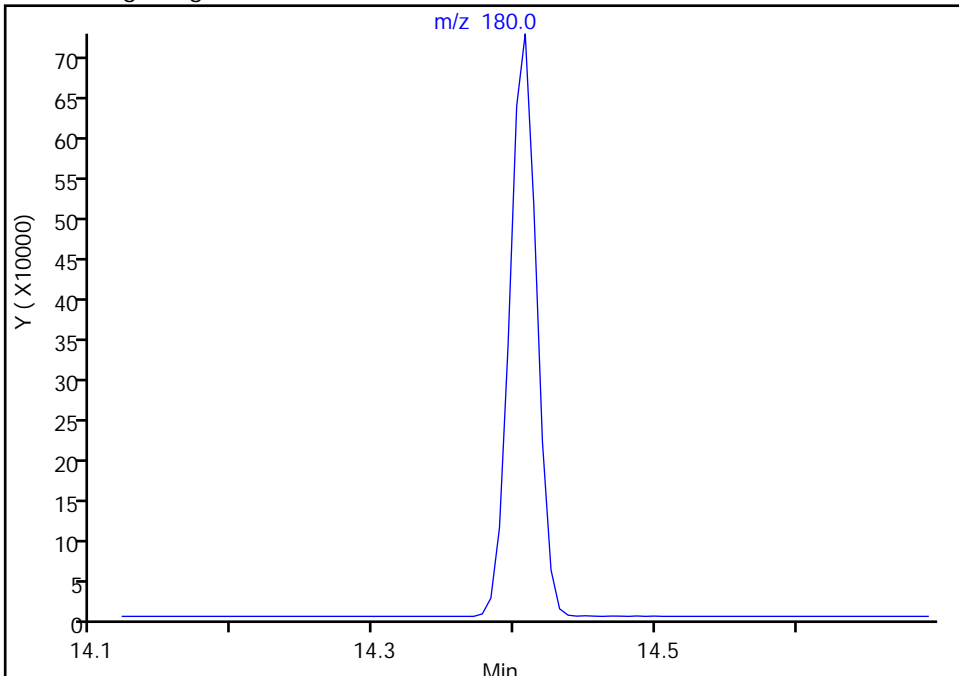
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Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

136 1,2,4-Trichlorobenzene, CAS: 120-82-1

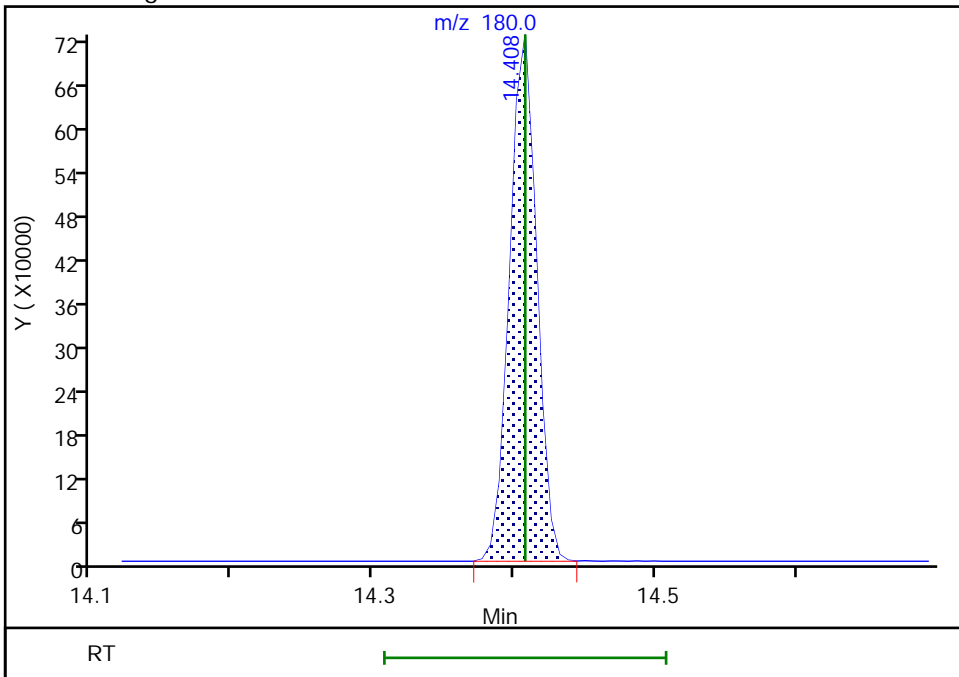
Signal: 1

Not Detected
Expected RT: 14.41

Processing Integration Results



Manual Integration Results



RT: 14.41
Area: 963858
Amount: 10.713762
Amount Units: ug/l

Eurofins Lancaster Laboratories Env, LLC

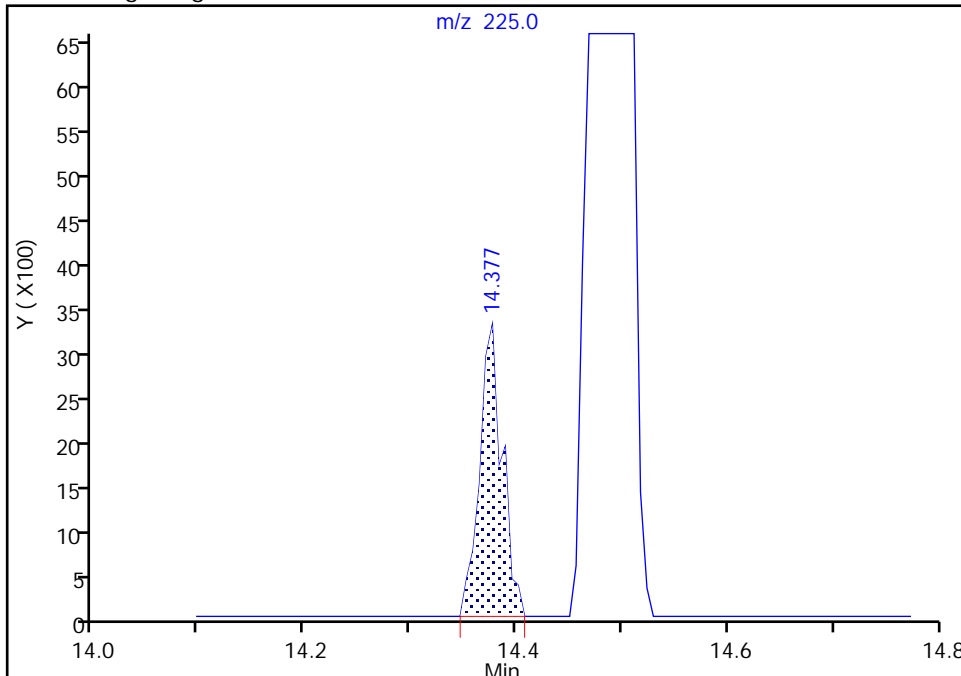
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Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

137 Hexachlorobutadiene, CAS: 87-68-3

Signal: 1

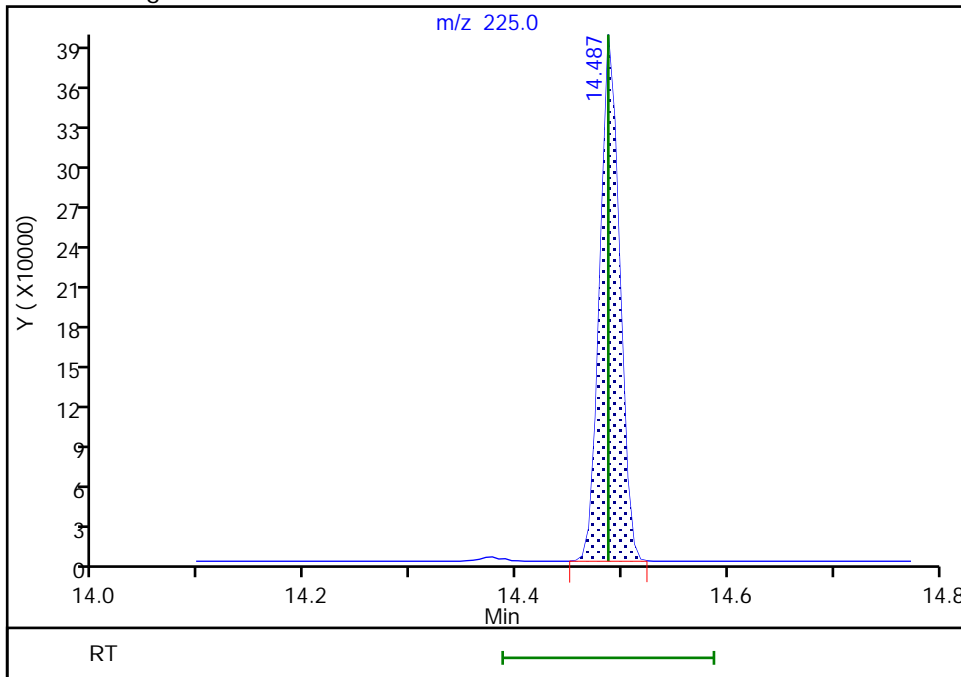
RT: 14.38
Area: 4823
Amount: 10.000000
Amount Units: ug/l

Processing Integration Results



RT: 14.49
Area: 508769
Amount: 10.358584
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:32:47
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

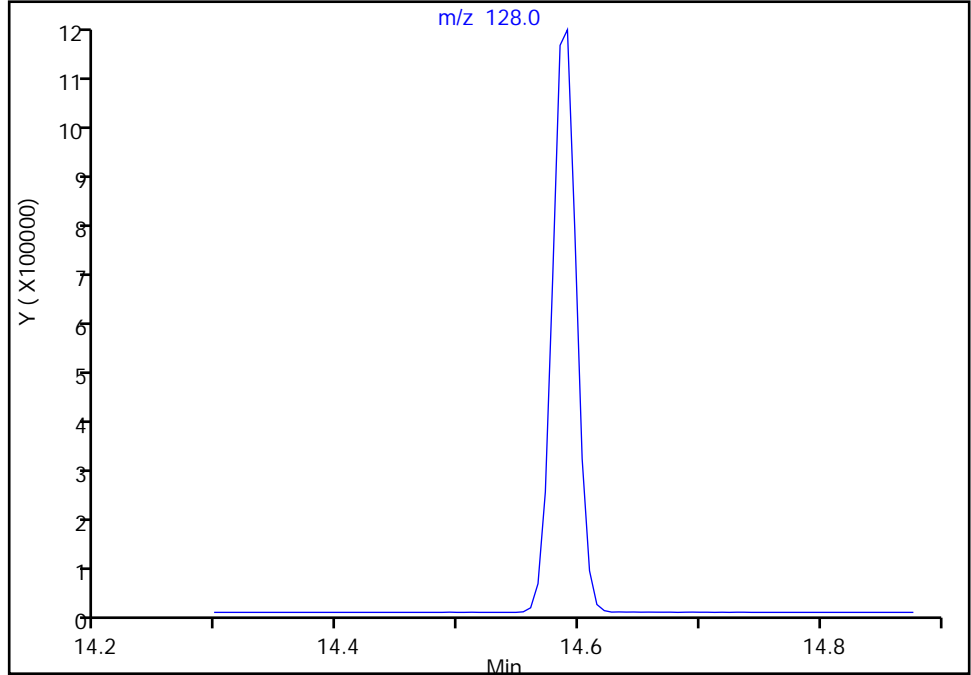
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Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

138 Naphthalene, CAS: 91-20-3

Signal: 1

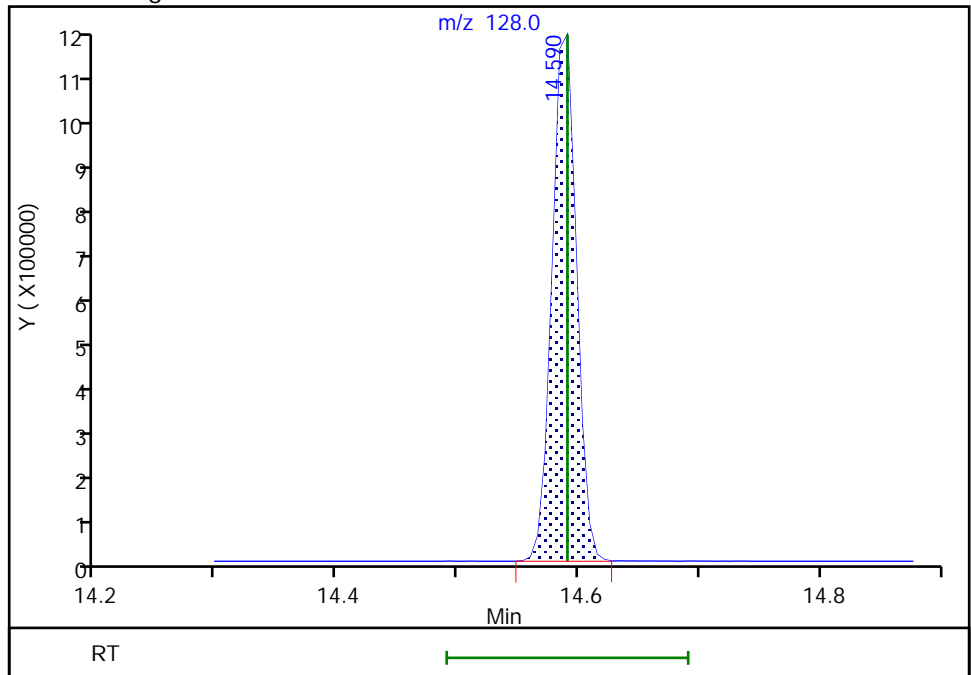
Not Detected
Expected RT: 14.59

Processing Integration Results



Manual Integration Results

RT: 14.59
Area: 1575717
Amount: 10.742320
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 13:40:16
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

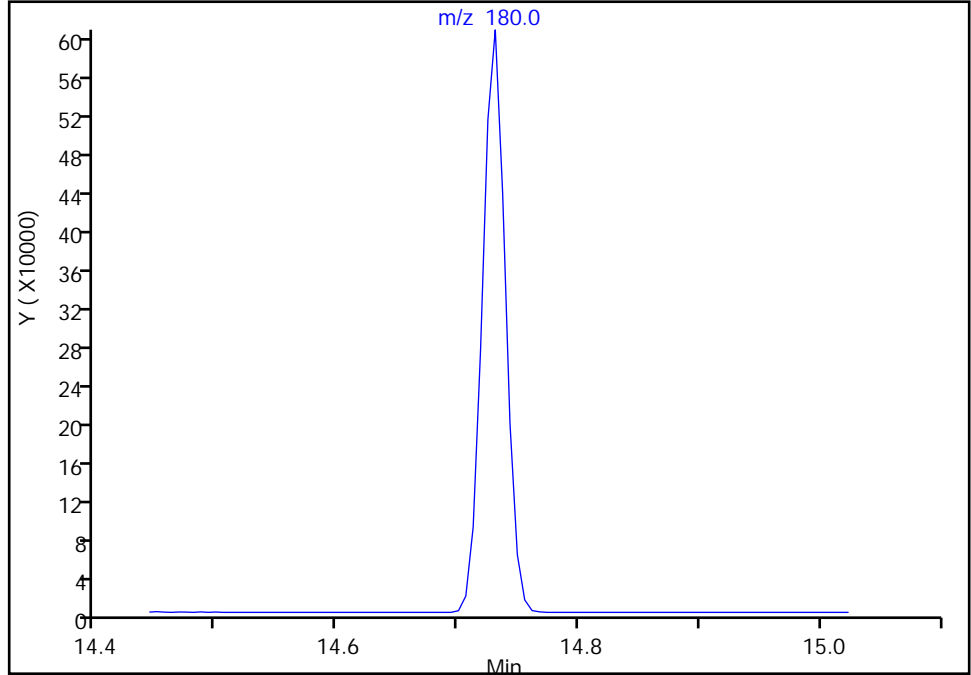
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Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

139 1,2,3-Trichlorobenzene, CAS: 87-61-6

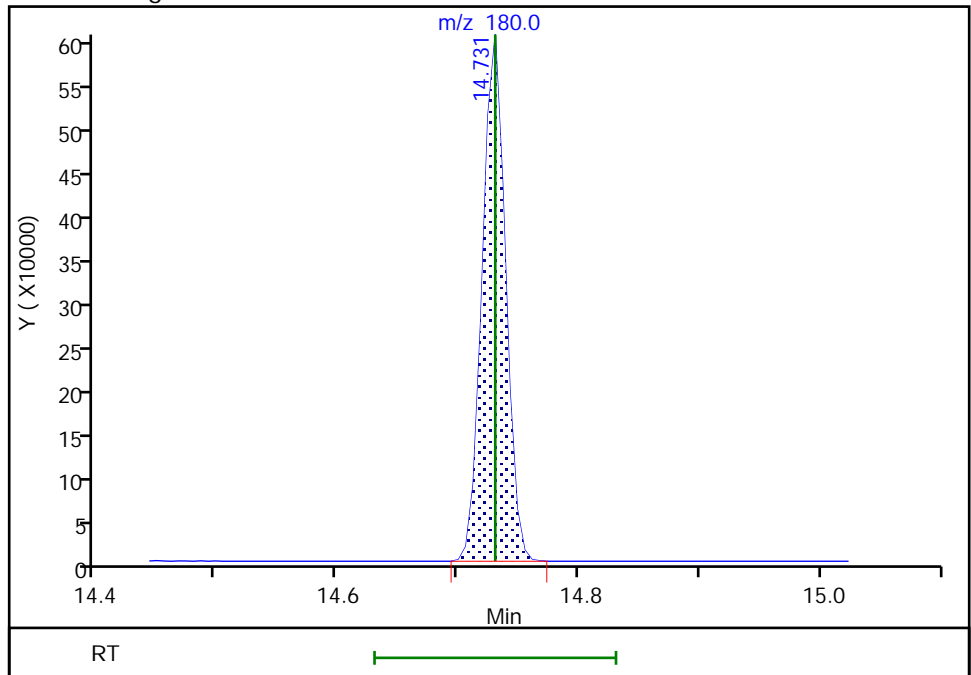
Signal: 1

Not Detected
Expected RT: 14.73

Processing Integration Results



Manual Integration Results



RT: 14.73
Area: 800883
Amount: 10.602173
Amount Units: ug/l

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I03.D
 Lims ID: IC std5
 Client ID:
 Sample Type: IC Calib Level: 5
 Inject. Date: 11-Jun-2020 15:06:30 ALS Bottle#: 4 Worklist Smp#: 5
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0003178-005
 Misc. Info.: IC STD5
 Operator ID: DVV10203 Instrument ID: 16334
 Sublist: chrom-MSV_16334_25mL*sub4
 Method: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 16-Jun-2020 21:26:52 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I17.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1028

First Level Reviewer: howej

Date: 12-Jun-2020 13:51:43

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.946	1.946	0.000	99	426927	5.00	4.87	M
5 Chloromethane	50	2.135	2.135	0.000	99	377802	5.00	4.65	
6 Butadiene	39	2.251	2.251	0.000	97	327455	5.00	4.71	
7 Vinyl chloride	62	2.257	2.257	0.000	98	368909	5.00	4.81	M
9 Bromomethane	94	2.568	2.568	0.000	93	270531	5.00	4.63	M
10 Chloroethane	64	2.660	2.660	0.000	98	202695	5.00	4.63	M
11 Dichlorofluoromethane	67	2.897	2.897	0.000	98	495281	5.00	4.78	
13 Trichlorofluoromethane	101	2.946	2.946	0.000	97	515969	5.00	5.02	
15 Ethyl ether	59	3.190	3.190	0.000	92	180317	5.00	4.74	
16 1,2-Dichloro-1,1,2-trifluoroethane	67	3.288	3.288	0.000	88	288085	5.00	4.86	
18 Acrolein	56	3.379	3.379	0.000	98	1437225	250.0	232.5	
19 1,1-Dichloroethene	96	3.513	3.513	0.000	97	219385	5.00	4.93	
20 Acetone	43	3.550	3.550	0.000	97	413332	50.0	42.2	
21 112TCTFE	101	3.544	3.544	0.000	92	242415	5.00	4.94	
23 Isopropyl alcohol	45	3.702	3.702	0.000	38	133842	100.0	95.1	
22 Iodomethane	142	3.708	3.708	0.000	98	439486	5.00	4.79	
24 Ethyl bromide	108	3.739	3.739	0.000	99	189049	5.00	4.84	
25 Carbon disulfide	76	3.806	3.806	0.000	99	753397	5.00	4.82	
26 Methyl acetate	43	3.940	3.940	0.000	98	98848	5.00	4.26	
27 3-Chloro-1-propene	41	3.983	3.983	0.000	84	358682	5.00	4.86	
28 Methylene Chloride	84	4.178	4.178	0.000	95	239404	5.00	4.79	
* 29 t-Butyl alcohol-d10 (IS)	65	4.178	4.178	0.000	92	175360	50.0	50.0	Ma
30 2-Methyl-2-propanol	59	4.318	4.318	0.000	97	298914	100.0	95.8	
31 Acrylonitrile	53	4.507	4.507	0.000	98	239646	25.0	22.7	
32 Methyl tert-butyl ether	73	4.574	4.574	0.000	98	664808	5.00	4.86	
33 trans-1,2-Dichloroethene	96	4.580	4.580	0.000	96	241463	5.00	4.80	
34 Hexane	57	5.001	5.001	0.000	95	334122	5.00	5.05	
36 1,1-Dichloroethane	63	5.245	5.245	0.000	97	453257	5.00	4.78	
37 Isopropyl ether	45	5.306	5.306	0.000	91	801612	5.00	4.76	
38 2-Chloro-1,3-butadiene	53	5.354	5.354	0.000	96	423657	5.00	4.86	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 Tert-butyl ethyl ether	59	5.848	5.848	0.000	98	791056	5.00	4.80	
40 2-Butanone (MEK)	43	6.049	6.049	0.000	100	765107	50.0	45.5	
41 cis-1,2-Dichloroethene	96	6.086	6.086	0.000	84	275231	5.00	4.73	
42 2,2-Dichloropropane	77	6.098	6.098	0.000	90	405354	5.00	4.87	
44 Propionitrile	54	6.147	6.147	0.000	98	357481	100.0	93.2	
46 Methacrylonitrile	67	6.360	6.360	0.000	91	683280	50.0	46.7	
48 Chlorobromomethane	128	6.409	6.409	0.000	96	132074	5.00	4.79	
47 Tetrahydrofuran	71	6.421	6.421	0.000	85	194671	50.0	44.3	
50 Chloroform	83	6.567	6.567	0.000	96	490370	5.00	4.82	
\$ 52 Dibromofluoromethane (Surr)	113	6.781	6.781	0.000	92	562843	10.0	10.0	
51 1,1,1-Trichloroethane	97	6.793	6.793	0.000	98	448388	5.00	4.81	
53 Cyclohexane	56	6.878	6.878	0.000	94	395239	5.00	4.89	
55 1,1-Dichloropropene	75	7.000	7.000	0.000	89	363684	5.00	4.84	
56 Carbon tetrachloride	117	7.000	7.000	0.000	87	405095	5.00	4.86	
57 Isobutyl alcohol	41	7.171	7.171	0.000	91	274296	250.0	234.7	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.238	7.238	0.000	0	105361	10.0	9.86	
59 Benzene	78	7.262	7.262	0.000	98	996740	5.00	4.75	
60 1,2-Dichloroethane	62	7.336	7.336	0.000	97	350379	5.00	4.62	
62 Tert-amyl methyl ether	73	7.458	7.458	0.000	96	723561	5.00	4.88	
* 63 Fluorobenzene (IS)	96	7.671	7.671	0.000	98	2100238	10.0	10.0	
64 n-Heptane	43	7.677	7.677	0.000	90	365619	5.00	4.78	
65 n-Butanol	56	8.055	8.055	0.000	93	468229	500.0	489.3	
67 Trichloroethene	95	8.146	8.146	0.000	96	280843	5.00	4.81	
68 Methylcyclohexane	83	8.457	8.457	0.000	92	423089	5.00	4.93	
69 1,2-Dichloropropane	63	8.482	8.482	0.000	87	258233	5.00	4.85	
70 2-ethoxy-2-methyl butane	87	8.494	8.494	0.000	91	396938	5.00	4.84	
72 1,4-Dioxane	88	8.573	8.573	0.000	32	52703	250.0	248.2	M
71 Methyl methacrylate	69	8.573	8.573	0.000	88	139246	5.00	4.71	
73 Dibromomethane	93	8.598	8.598	0.000	95	144753	5.00	4.72	
75 Dichlorobromomethane	83	8.829	8.829	0.000	97	370535	5.00	4.87	
76 2-Nitropropane	41	9.122	9.122	0.000	99	582036	50.0	47.1	
79 1-Bromo-2-chloroethane	63	9.226	9.226	0.000	99	285684	5.00	4.89	
80 cis-1,3-Dichloropropene	75	9.384	9.384	0.000	90	412239	5.00	4.90	
81 4-Methyl-2-pentanone (MIBK)	43	9.567	9.567	0.000	98	2077848	50.0	47.4	
\$ 82 Toluene-d8 (Surr)	98	9.695	9.695	0.000	95	2108046	10.0	10.1	
83 Toluene	92	9.768	9.768	0.000	96	634896	5.00	4.81	
84 trans-1,3-Dichloropropene	75	10.030	10.030	0.000	98	373464	5.00	4.98	
85 Ethyl methacrylate	69	10.097	10.097	0.000	88	294326	5.00	5.05	
86 1,1,2-Trichloroethane	97	10.238	10.238	0.000	95	192985	5.00	4.75	
88 Tetrachloroethene	166	10.317	10.317	0.000	94	312182	5.00	4.83	
89 1,3-Dichloropropane	76	10.402	10.402	0.000	94	338633	5.00	4.83	
91 2-Hexanone	43	10.457	10.457	0.000	98	1537101	50.0	48.2	
93 Chlorodibromomethane	129	10.609	10.609	0.000	89	263397	5.00	5.01	
94 Ethylene Dibromide	107	10.725	10.725	0.000	97	199818	5.00	4.89	
* 95 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	88	1599266	10.0	10.0	
96 1-Chlorohexane	91	11.164	11.164	0.000	96	376115	5.00	4.59	
97 Chlorobenzene	112	11.182	11.182	0.000	95	751448	5.00	4.80	
98 1,1,1,2-Tetrachloroethane	131	11.268	11.268	0.000	93	293520	5.00	5.00	
99 Ethylbenzene	91	11.268	11.268	0.000	99	1314442	5.00	4.79	
100 m-Xylene & p-Xylene	106	11.384	11.384	0.000	0	991915	10.0	9.72	
102 o-Xylene	106	11.713	11.713	0.000	98	491187	5.00	4.92	
103 Styrene	104	11.731	11.731	0.000	94	819579	5.00	4.98	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 Bromoform	173	11.884	11.884	0.000	94	167294	5.00	5.04	
105 Isopropylbenzene	105	12.018	12.018	0.000	97	1301373	5.00	4.87	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	89	778572	10.0	10.0	
109 1,1,2,2-Tetrachloroethane	83	12.262	12.262	0.000	94	258297	5.00	4.88	
110 Bromobenzene	156	12.274	12.274	0.000	97	333222	5.00	4.76	
111 trans-1,4-Dichloro-2-butene	53	12.292	12.292	0.000	93	859834	50.0	48.7	
112 1,2,3-Trichloropropane	110	12.310	12.310	0.000	84	72220	5.00	4.88	
113 N-Propylbenzene	91	12.347	12.347	0.000	99	1573463	5.00	4.85	
114 2-Chlorotoluene	126	12.420	12.420	0.000	95	314921	5.00	4.89	
115 1,3,5-Trimethylbenzene	105	12.481	12.481	0.000	95	1113431	5.00	4.94	
116 4-Chlorotoluene	126	12.511	12.511	0.000	99	332722	5.00	4.86	
118 tert-Butylbenzene	134	12.719	12.719	0.000	93	236671	5.00	4.71	
120 Pentachloroethane	167	12.755	12.755	0.000	93	219598	5.00	4.95	
119 1,2,4-Trimethylbenzene	105	12.768	12.768	0.000	98	1152527	5.00	4.89	
121 sec-Butylbenzene	105	12.883	12.883	0.000	95	1433199	5.00	4.83	
122 1,3-Dichlorobenzene	146	12.981	12.981	0.000	96	642858	5.00	4.74	
123 4-Isopropyltoluene	119	12.993	12.993	0.000	96	1248567	5.00	4.90	
* 124 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	96	873170	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.054	13.054	0.000	93	653782	5.00	4.75	
126 1,2,3-Trimethylbenzene	120	13.066	13.066	0.000	99	500357	5.00	4.84	
127 Benzyl chloride	126	13.139	13.139	0.000	99	101355	5.00	5.13	
129 p-Diethylbenzene	119	13.194	13.194	0.000	90	750915	5.00	4.83	
130 n-Butylbenzene	92	13.286	13.286	0.000	97	636568	5.00	4.80	
131 1,2-Dichlorobenzene	146	13.316	13.316	0.000	96	592783	5.00	4.68	
134 1,2-Dibromo-3-Chloropropane	155	13.859	13.859	0.000	85	39138	5.00	5.11	
135 1,3,5-Trichlorobenzene	180	13.981	13.981	0.000	96	484471	5.00	4.57	
136 1,2,4-Trichlorobenzene	180	14.407	14.407	0.000	94	419622	5.00	4.61	
137 Hexachlorobutadiene	225	14.487	14.487	0.000	97	226084	5.00	4.55	
138 Naphthalene	128	14.590	14.590	0.000	98	693735	5.00	4.67	
139 1,2,3-Trichlorobenzene	180	14.731	14.731	0.000	95	357907	5.00	4.68	
140 2-Methylnaphthalene	142	15.352	15.352	0.000	91	444477	5.00	5.14	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MSV_RV1_826_00016

Amount Added: 5.00

Units: uL

MSV_RV4GAS826_00047

Amount Added: 5.00

Units: uL

MSV_RV4_826_00017

Amount Added: 5.00

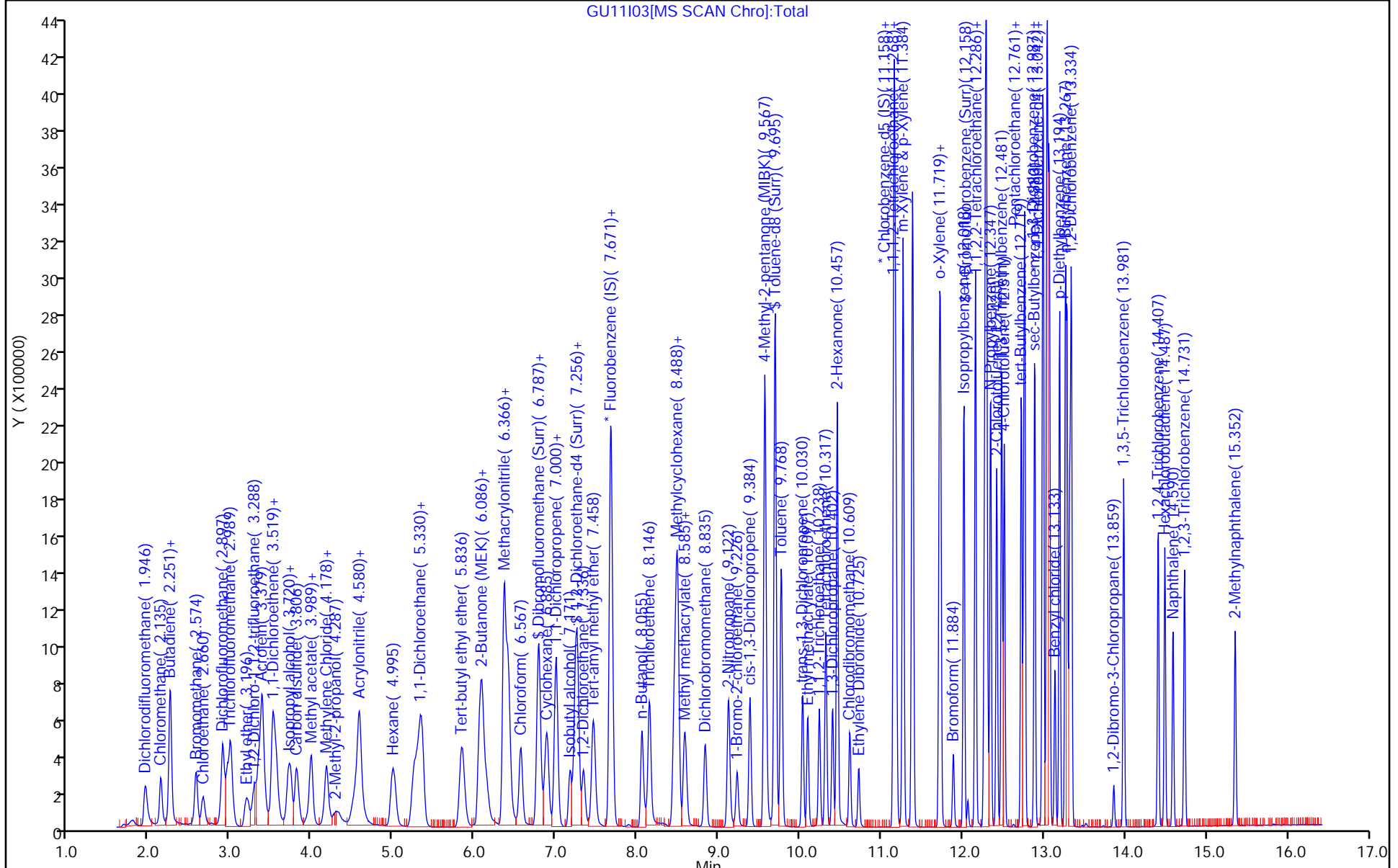
Units: uL

MSV_29_826ISS_00007

Amount Added: 1.00

Units: uL

Run Reagent



Eurofins Lancaster Laboratories Env, LLC

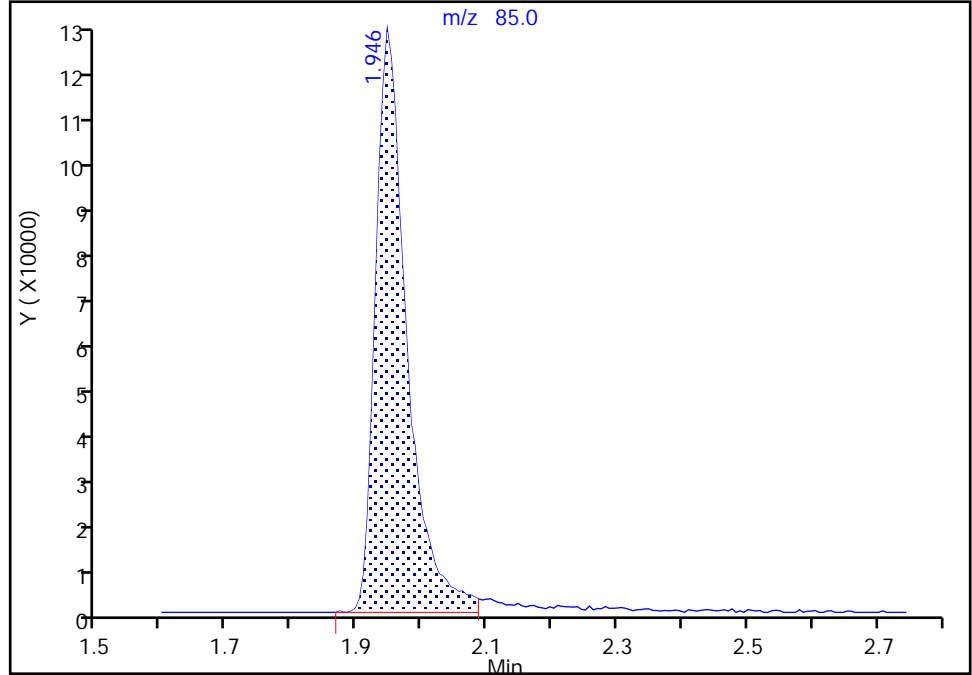
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I03.D
Injection Date: 11-Jun-2020 15:06:30 Instrument ID: 16334
Lims ID: IC std5
Client ID:
Operator ID: DVV10203 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

1 Dichlorodifluoromethane, CAS: 75-71-8

Signal: 1

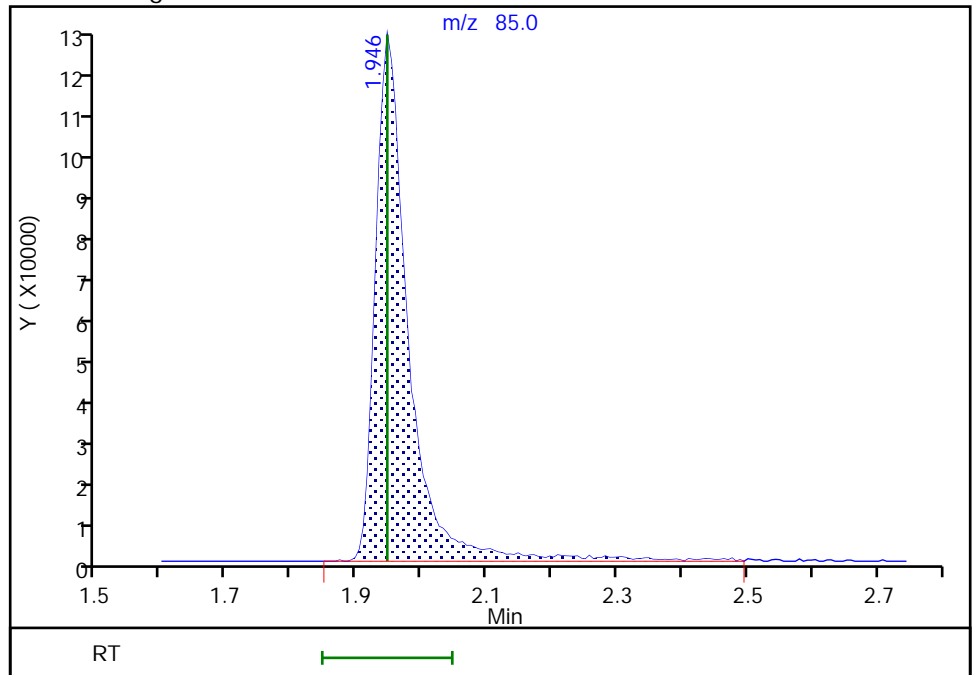
RT: 1.95
Area: 404628
Amount: 4.750930
Amount Units: ug/l

Processing Integration Results



RT: 1.95
Area: 426927
Amount: 4.870834
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:49:22
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

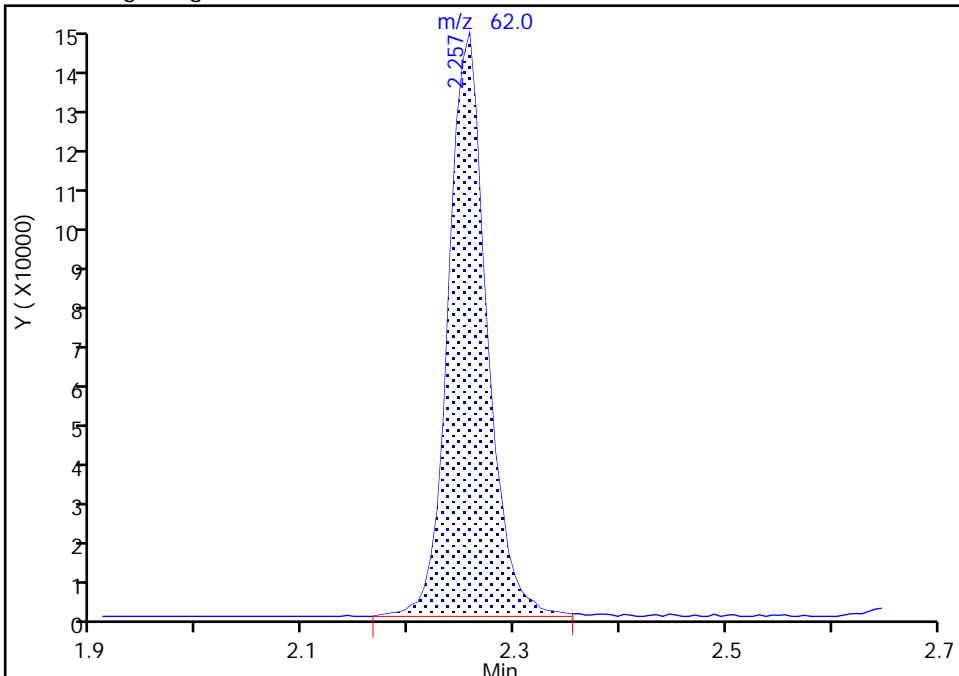
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Injection Date: 11-Jun-2020 15:06:30 Instrument ID: 16334
Lims ID: IC std5
Client ID:
Operator ID: DVV10203 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

7 Vinyl chloride, CAS: 75-01-4

Signal: 1

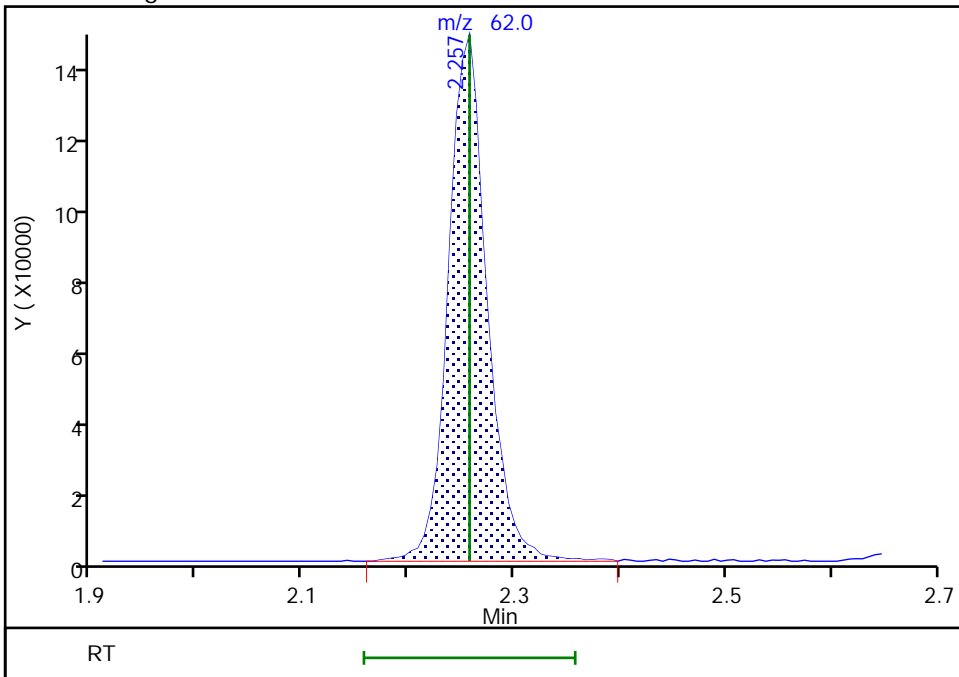
RT: 2.26
Area: 367854
Amount: 4.824772
Amount Units: ug/l

Processing Integration Results



RT: 2.26
Area: 368909
Amount: 4.807790
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:49:34
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

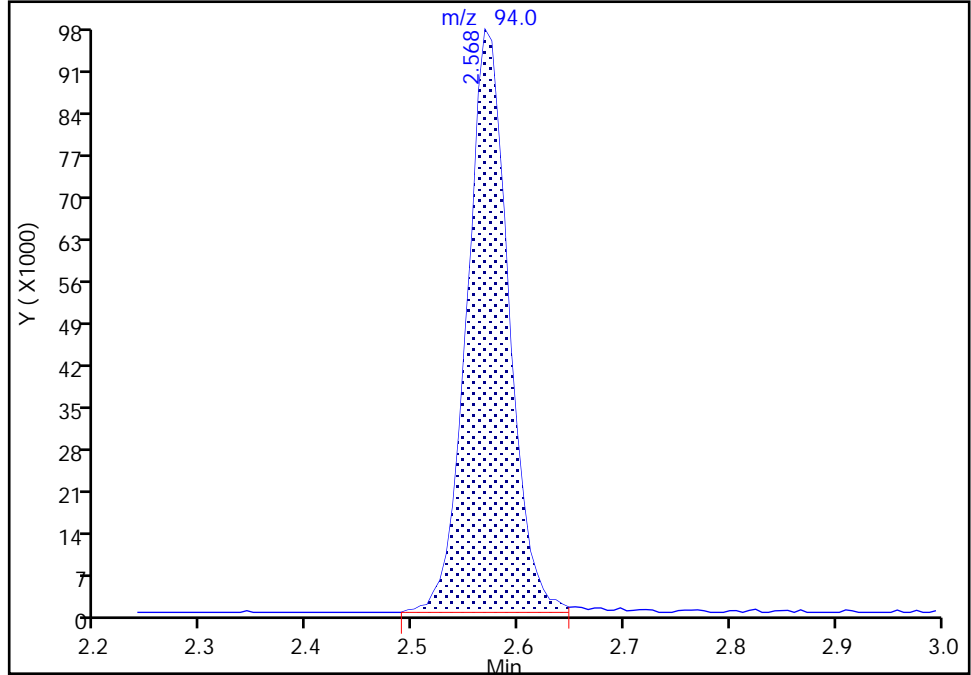
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Injection Date: 11-Jun-2020 15:06:30 Instrument ID: 16334
Lims ID: IC std5
Client ID:
Operator ID: DVV10203 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

9 Bromomethane, CAS: 74-83-9

Signal: 1

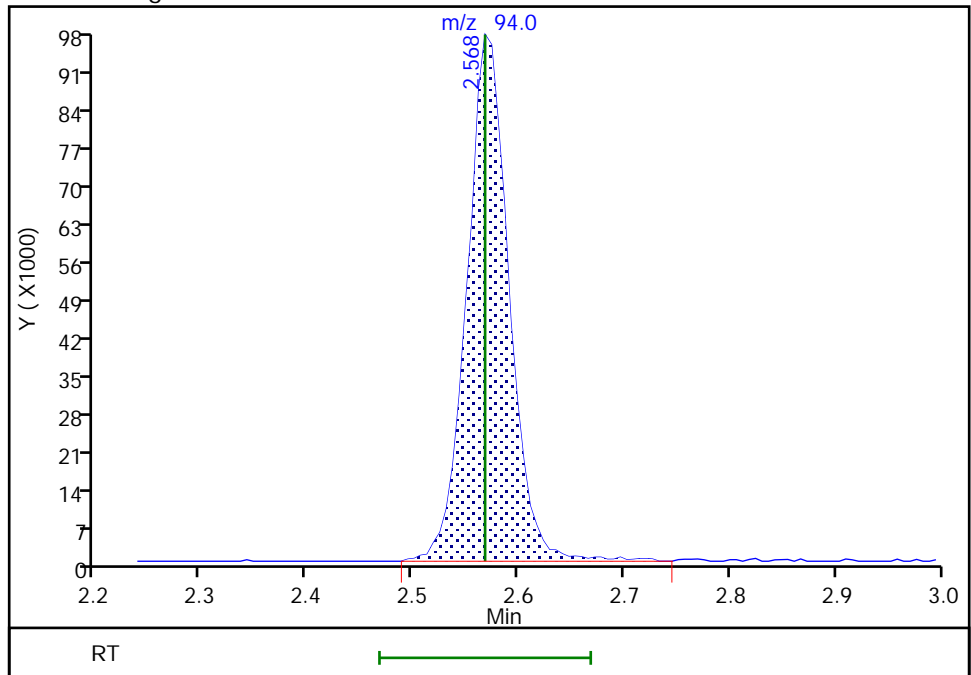
RT: 2.57
Area: 267927
Amount: 4.660935
Amount Units: ug/l

Processing Integration Results



RT: 2.57
Area: 270531
Amount: 4.632719
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:49:41
Audit Action: Manually Integrated

Audit Reason: Other
Page 580 of 777

Eurofins Lancaster Laboratories Env, LLC

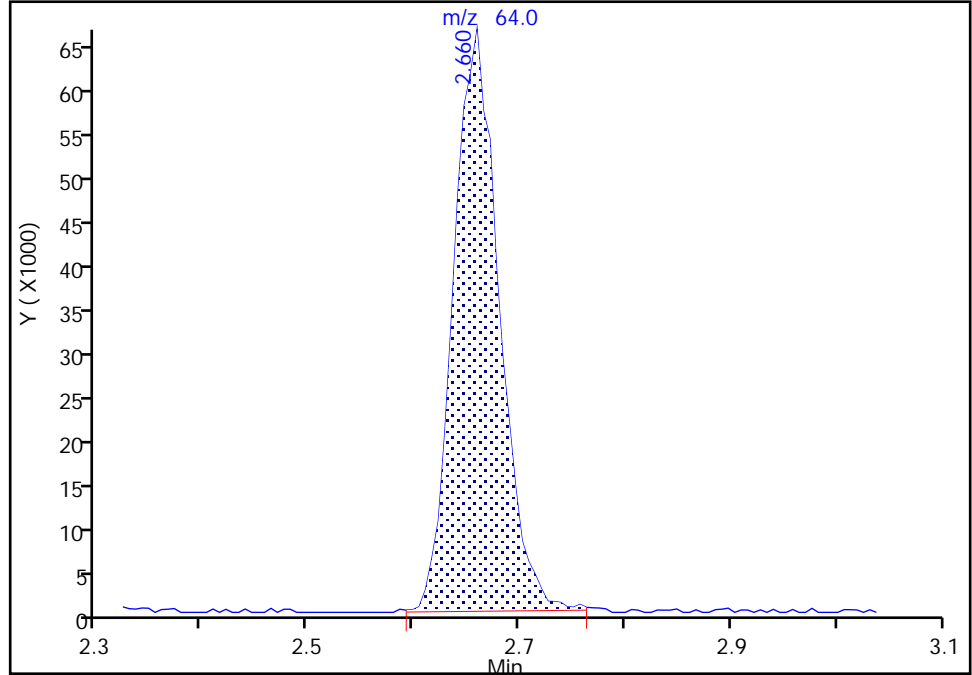
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Injection Date: 11-Jun-2020 15:06:30 Instrument ID: 16334
Lims ID: IC std5
Client ID:
Operator ID: DVV10203 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

10 Chloroethane, CAS: 75-00-3

Signal: 1

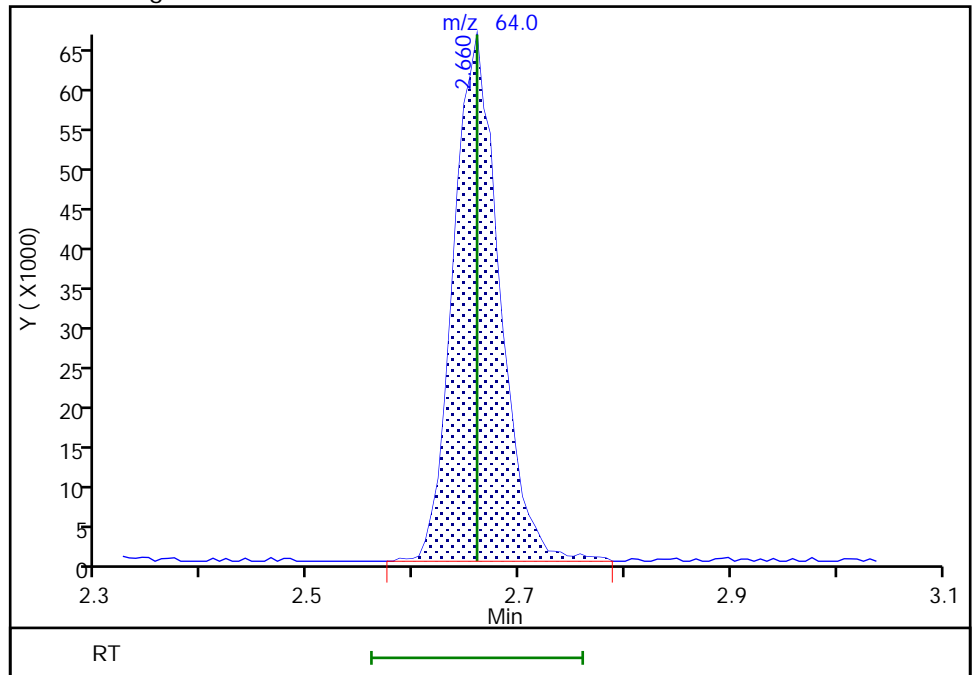
RT: 2.66
Area: 200499
Amount: 4.583821
Amount Units: ug/l

Processing Integration Results



RT: 2.66
Area: 202695
Amount: 4.627388
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:49:48
Audit Action: Manually Integrated

Audit Reason: Other

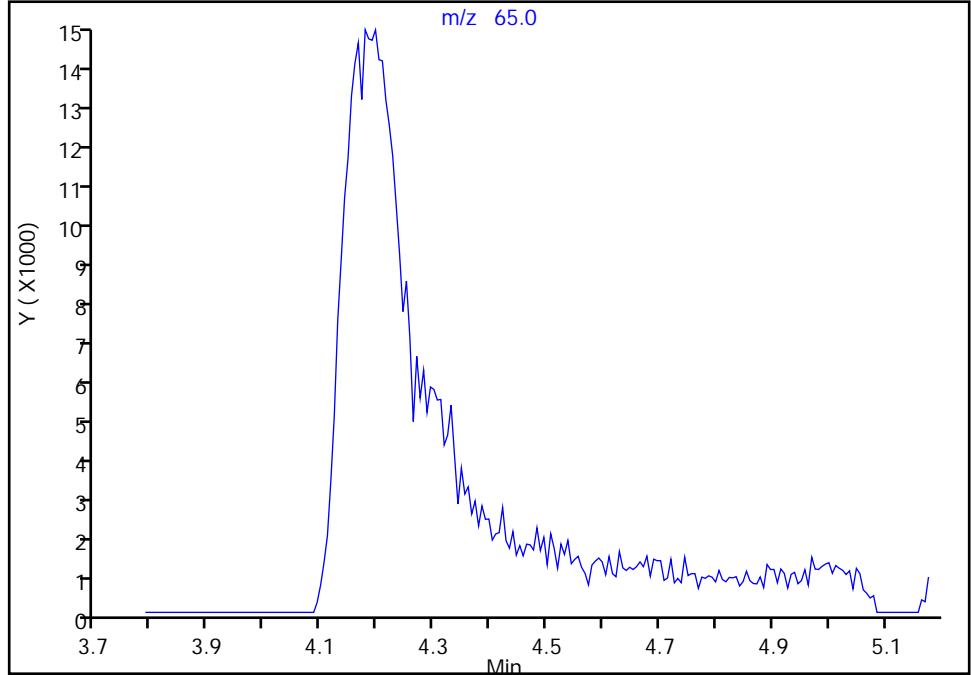
Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I03.D
Injection Date: 11-Jun-2020 15:06:30 Instrument ID: 16334
Lims ID: IC std5
Client ID:
Operator ID: DVV10203 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 29 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2
Signal: 1

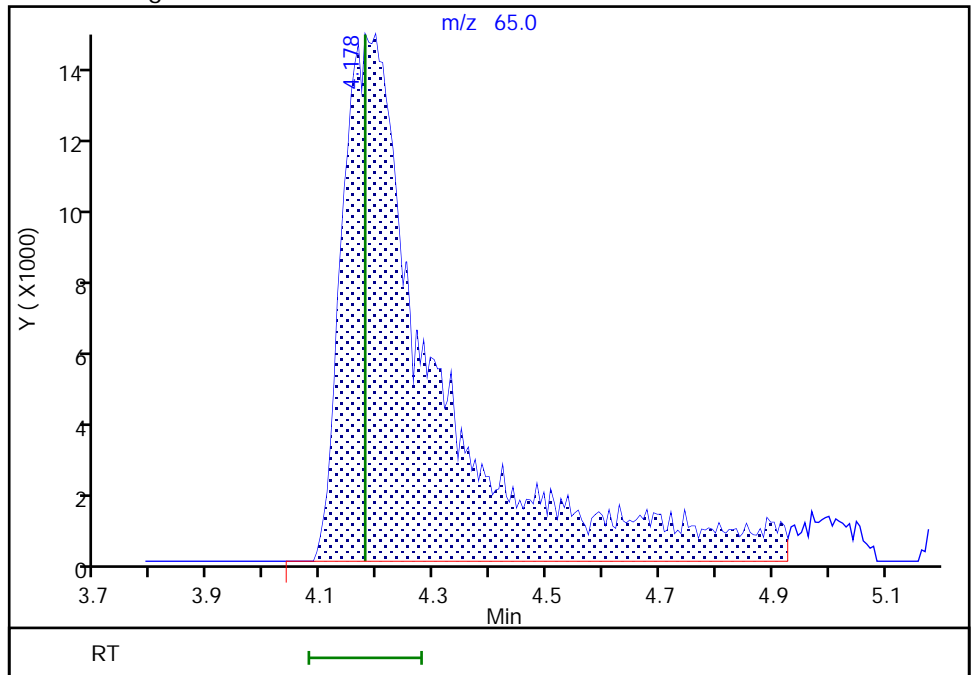
Not Detected
Expected RT: 4.18

Processing Integration Results



Manual Integration Results

RT: 4.18
Area: 175360
Amount: 50.000000
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 13:50:43
Audit Action: Split an Integrated Peak

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

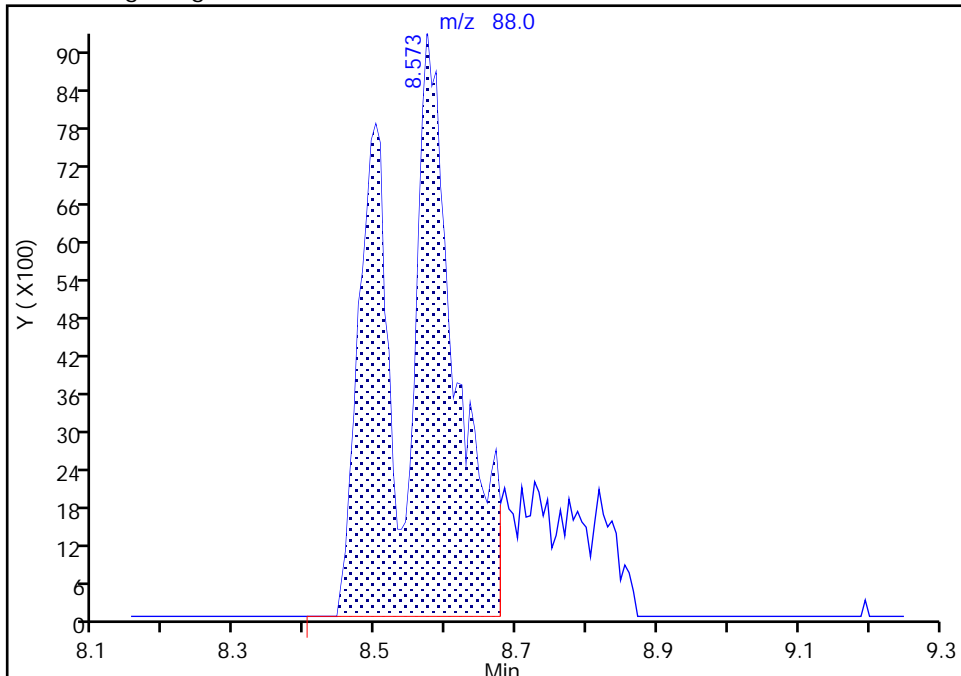
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Injection Date: 11-Jun-2020 15:06:30 Instrument ID: 16334
Lims ID: IC std5
Client ID:
Operator ID: DVV10203 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

72 1,4-Dioxane, CAS: 123-91-1

Signal: 1

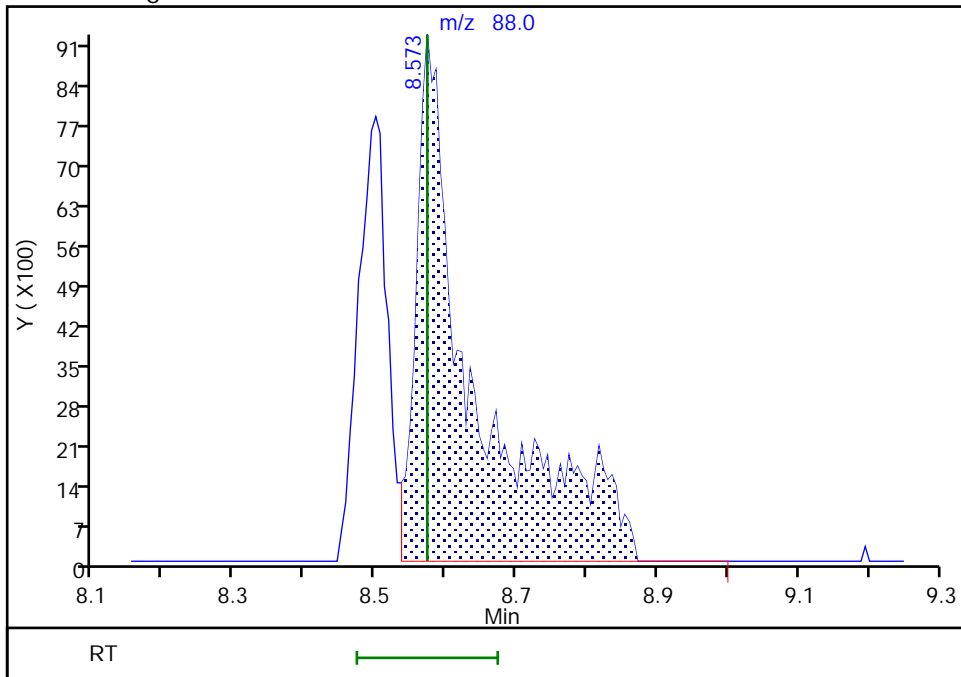
RT: 8.57
Area: 57846
Amount: 200.7449
Amount Units: ug/l

Processing Integration Results



RT: 8.57
Area: 52703
Amount: 248.1999
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:51:12
Audit Action: Split an Integrated Peak

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I04.D
 Lims ID: IC std4
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 11-Jun-2020 15:28:30 ALS Bottle#: 5 Worklist Smp#: 6
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0003178-006
 Misc. Info.: IC STD4
 Operator ID: DVV10203 Instrument ID: 16334
 Sublist: chrom-MSV_16334_25mL*sub4
 Method: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 16-Jun-2020 21:30:58 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I17.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1028

First Level Reviewer: howej

Date: 12-Jun-2020 13:54:59

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.953	1.953	0.000	99	178749	2.00	2.12	M
5 Chloromethane	50	2.142	2.142	0.000	99	155896	2.00	2.00	
6 Butadiene	39	2.263	2.263	0.000	91	140128	2.00	2.10	M
7 Vinyl chloride	62	2.263	2.263	0.000	97	156852	2.00	2.13	M
9 Bromomethane	94	2.580	2.580	0.000	93	113026	2.00	2.02	M
10 Chloroethane	64	2.660	2.660	0.000	98	83903	2.00	2.00	
11 Dichlorofluoromethane	67	2.904	2.904	0.000	98	203944	2.00	2.05	
13 Trichlorofluoromethane	101	2.958	2.958	0.000	97	196422	2.00	1.99	
15 Ethyl ether	59	3.208	3.208	0.000	92	70780	2.00	1.94	
16 1,2-Dichloro-1,1,2-trifluoroethane	67	3.300	3.300	0.000	92	115034	2.00	2.02	
18 Acrolein	56	3.391	3.391	0.000	97	560705	100.0	104.1	
19 1,1-Dichloroethene	96	3.525	3.525	0.000	96	84464	2.00	1.98	
21 112TCTFE	101	3.550	3.550	0.000	88	97659	2.00	2.07	
20 Acetone	43	3.562	3.562	0.000	97	170971	20.0	20.0	M
23 Isopropyl alcohol	45	3.708	3.708	0.000	94	56095	40.0	41.5	
22 Iodomethane	142	3.714	3.714	0.000	99	173729	2.00	1.97	M
24 Ethyl bromide	108	3.745	3.745	0.000	99	76596	2.00	2.04	
25 Carbon disulfide	76	3.818	3.818	0.000	99	295661	2.00	1.97	
26 Methyl acetate	43	3.946	3.946	0.000	98	43029	2.00	2.13	
27 3-Chloro-1-propene	41	3.995	3.995	0.000	84	144812	2.00	2.04	
28 Methylene Chloride	84	4.184	4.184	0.000	98	92693	2.00	1.93	
* 29 t-Butyl alcohol-d10 (IS)	65	4.196	4.196	0.000	92	152843	50.0	50.0	M
30 2-Methyl-2-propanol	59	4.318	4.318	0.000	97	113054	40.0	41.6	
31 Acrylonitrile	53	4.519	4.519	0.000	99	95786	10.0	10.4	
32 Methyl tert-butyl ether	73	4.586	4.586	0.000	92	263865	2.00	2.01	
33 trans-1,2-Dichloroethene	96	4.586	4.586	0.000	96	97412	2.00	2.02	
34 Hexane	57	4.995	4.995	0.000	94	128481	2.00	2.02	
36 1,1-Dichloroethane	63	5.251	5.251	0.000	97	178634	2.00	1.96	
37 Isopropyl ether	45	5.306	5.306	0.000	91	316169	2.00	1.96	a
38 2-Chloro-1,3-butadiene	53	5.360	5.360	0.000	96	167222	2.00	2.00	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 Tert-butyl ethyl ether	59	5.842	5.842	0.000	98	316631	2.00	2.00	
40 2-Butanone (MEK)	43	6.055	6.055	0.000	99	301371	20.0	20.6	
41 cis-1,2-Dichloroethene	96	6.092	6.092	0.000	83	110133	2.00	1.97	
42 2,2-Dichloropropane	77	6.104	6.104	0.000	91	158313	2.00	1.98	
44 Propionitrile	54	6.153	6.153	0.000	98	135466	40.0	40.5	
S 49 1,2-Dichloroethene, Total	100				0			3.99	
46 Methacrylonitrile	67	6.360	6.360	0.000	92	264452	20.0	20.7	
48 Chlorobromomethane	128	6.409	6.409	0.000	67	52959	2.00	2.00	
47 Tetrahydrofuran	71	6.427	6.427	0.000	78	80643	20.0	21.0	
50 Chloroform	83	6.567	6.567	0.000	96	192529	2.00	1.97	
\$ 52 Dibromofluoromethane (Surr)	113	6.787	6.787	0.000	92	533370	10.0	9.90	
51 1,1,1-Trichloroethane	97	6.793	6.793	0.000	96	175714	2.00	1.96	
53 Cyclohexane	56	6.885	6.885	0.000	95	158048	2.00	2.04	
55 1,1-Dichloropropene	75	7.000	7.000	0.000	89	142226	2.00	1.97	
56 Carbon tetrachloride	117	7.000	7.000	0.000	85	156057	2.00	1.95	
57 Isobutyl alcohol	41	7.177	7.177	0.000	89	99482	100.0	88.7	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.238	7.238	0.000	0	103540	10.0	10.1	
59 Benzene	78	7.262	7.262	0.000	98	397987	2.00	1.98	
60 1,2-Dichloroethane	62	7.342	7.342	0.000	98	142364	2.00	1.95	
62 Tert-amyl methyl ether	73	7.464	7.464	0.000	97	286155	2.00	2.01	
* 63 Fluorobenzene (IS)	96	7.671	7.671	0.000	97	2016013	10.0	10.0	
64 n-Heptane	43	7.683	7.683	0.000	42	147715	2.00	2.01	
65 n-Butanol	56	8.061	8.061	0.000	92	184567	200.0	221.3	
67 Trichloroethene	95	8.153	8.153	0.000	95	109726	2.00	1.96	
68 Methylcyclohexane	83	8.457	8.457	0.000	92	168189	2.00	2.04	
69 1,2-Dichloropropane	63	8.488	8.488	0.000	87	102573	2.00	2.01	
70 2-ethoxy-2-methyl butane	87	8.488	8.488	0.000	90	159067	2.00	2.02	
72 1,4-Dioxane	88	8.573	8.573	0.000	32	19421	100.0	104.9	M
71 Methyl methacrylate	69	8.573	8.573	0.000	87	53424	2.00	2.07	
73 Dibromomethane	93	8.598	8.598	0.000	95	57540	2.00	1.95	
75 Dichlorobromomethane	83	8.835	8.835	0.000	97	145531	2.00	1.99	
76 2-Nitropropane	41	9.122	9.122	0.000	96	217140	20.0	20.2	
79 1-Bromo-2-chloroethane	63	9.226	9.226	0.000	99	112861	2.00	2.01	
80 cis-1,3-Dichloropropene	75	9.384	9.384	0.000	90	162672	2.00	2.02	
81 4-Methyl-2-pentanone (MIBK)	43	9.567	9.567	0.000	98	784382	20.0	20.5	
\$ 82 Toluene-d8 (Surr)	98	9.695	9.695	0.000	95	2011718	10.0	9.99	
83 Toluene	92	9.768	9.768	0.000	97	252745	2.00	1.99	
84 trans-1,3-Dichloropropene	75	10.036	10.036	0.000	98	144026	2.00	2.00	
S 87 1,3-Dichloropropene, Total	100				0			4.01	
85 Ethyl methacrylate	69	10.097	10.097	0.000	88	111554	2.00	1.99	
86 1,1,2-Trichloroethane	97	10.238	10.238	0.000	94	77822	2.00	1.99	
88 Tetrachloroethene	166	10.317	10.317	0.000	93	122891	2.00	1.98	
89 1,3-Dichloropropane	76	10.402	10.402	0.000	93	135789	2.00	2.01	
91 2-Hexanone	43	10.457	10.457	0.000	98	581946	20.0	20.9	
93 Chlorodibromomethane	129	10.615	10.615	0.000	89	102625	2.00	2.03	
94 Ethylene Dibromide	107	10.719	10.719	0.000	98	80424	2.00	2.05	
* 95 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	88	1538556	10.0	10.0	
96 1-Chlorohexane	91	11.164	11.164	0.000	95	153297	2.00	1.95	
97 Chlorobenzene	112	11.182	11.182	0.000	94	299649	2.00	1.99	
S 101 Xylenes, Total	106				0			5.97	
98 1,1,1,2-Tetrachloroethane	131	11.268	11.268	0.000	91	110242	2.00	1.95	
99 Ethylbenzene	91	11.268	11.268	0.000	99	515714	2.00	1.95	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
100 m-Xylene & p-Xylene	106	11.384	11.384	0.000	0	392034	4.00	3.99	
102 o-Xylene	106	11.713	11.713	0.000	98	189920	2.00	1.98	
103 Styrene	104	11.731	11.731	0.000	94	313383	2.00	1.98	
104 Bromoform	173	11.890	11.890	0.000	93	61850	2.00	1.94	
105 Isopropylbenzene	105	12.018	12.018	0.000	97	512902	2.00	2.00	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	89	749515	10.0	10.0	
109 1,1,2,2-Tetrachloroethane	83	12.262	12.262	0.000	95	100666	2.00	1.96	
110 Bromobenzene	156	12.274	12.274	0.000	92	134960	2.00	1.98	
111 trans-1,4-Dichloro-2-butene	53	12.286	12.286	0.000	93	322113	20.0	20.9	
112 1,2,3-Trichloropropane	110	12.310	12.310	0.000	84	29765	2.00	2.06	
113 N-Propylbenzene	91	12.347	12.347	0.000	99	627767	2.00	1.99	
114 2-Chlorotoluene	126	12.420	12.420	0.000	95	126000	2.00	2.01	
115 1,3,5-Trimethylbenzene	105	12.481	12.481	0.000	93	444414	2.00	2.02	
116 4-Chlorotoluene	126	12.511	12.511	0.000	98	133810	2.00	2.01	
118 tert-Butylbenzene	134	12.725	12.725	0.000	92	96548	2.00	1.97	
120 Pentachloroethane	167	12.755	12.755	0.000	86	85071	2.00	1.97	
119 1,2,4-Trimethylbenzene	105	12.761	12.761	0.000	98	460435	2.00	2.01	
121 sec-Butylbenzene	105	12.883	12.883	0.000	95	572769	2.00	1.98	
122 1,3-Dichlorobenzene	146	12.987	12.987	0.000	97	265717	2.00	2.01	
123 4-Isopropyltoluene	119	12.993	12.993	0.000	97	499857	2.00	2.02	
* 124 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	96	849824	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.054	13.054	0.000	94	263190	2.00	1.96	
126 1,2,3-Trimethylbenzene	120	13.066	13.066	0.000	98	202170	2.00	2.01	
127 Benzyl chloride	126	13.133	13.133	0.000	99	38638	2.00	2.01	
129 p-Diethylbenzene	119	13.194	13.194	0.000	90	303991	2.00	2.01	
130 n-Butylbenzene	92	13.286	13.286	0.000	97	260048	2.00	2.02	
131 1,2-Dichlorobenzene	146	13.316	13.316	0.000	96	245587	2.00	1.99	
134 1,2-Dibromo-3-Chloropropane	155	13.859	13.859	0.000	82	14392	2.00	1.93	
135 1,3,5-Trichlorobenzene	180	13.981	13.981	0.000	96	211152	2.00	2.05	
136 1,2,4-Trichlorobenzene	180	14.407	14.407	0.000	94	181126	2.00	2.04	
137 Hexachlorobutadiene	225	14.487	14.487	0.000	96	99655	2.00	2.06	
138 Naphthalene	128	14.590	14.590	0.000	98	291385	2.00	2.02	
139 1,2,3-Trichlorobenzene	180	14.731	14.731	0.000	94	150982	2.00	2.03	
140 2-Methylnaphthalene	142	15.352	15.352	0.000	91	163226	2.00	1.94	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MSV_RV1_826_00016

Amount Added: 2.00

Units: uL

MSV_RV4GAS826_00047

Amount Added: 2.00

Units: uL

MSV_RV4_826_00017

Amount Added: 2.00

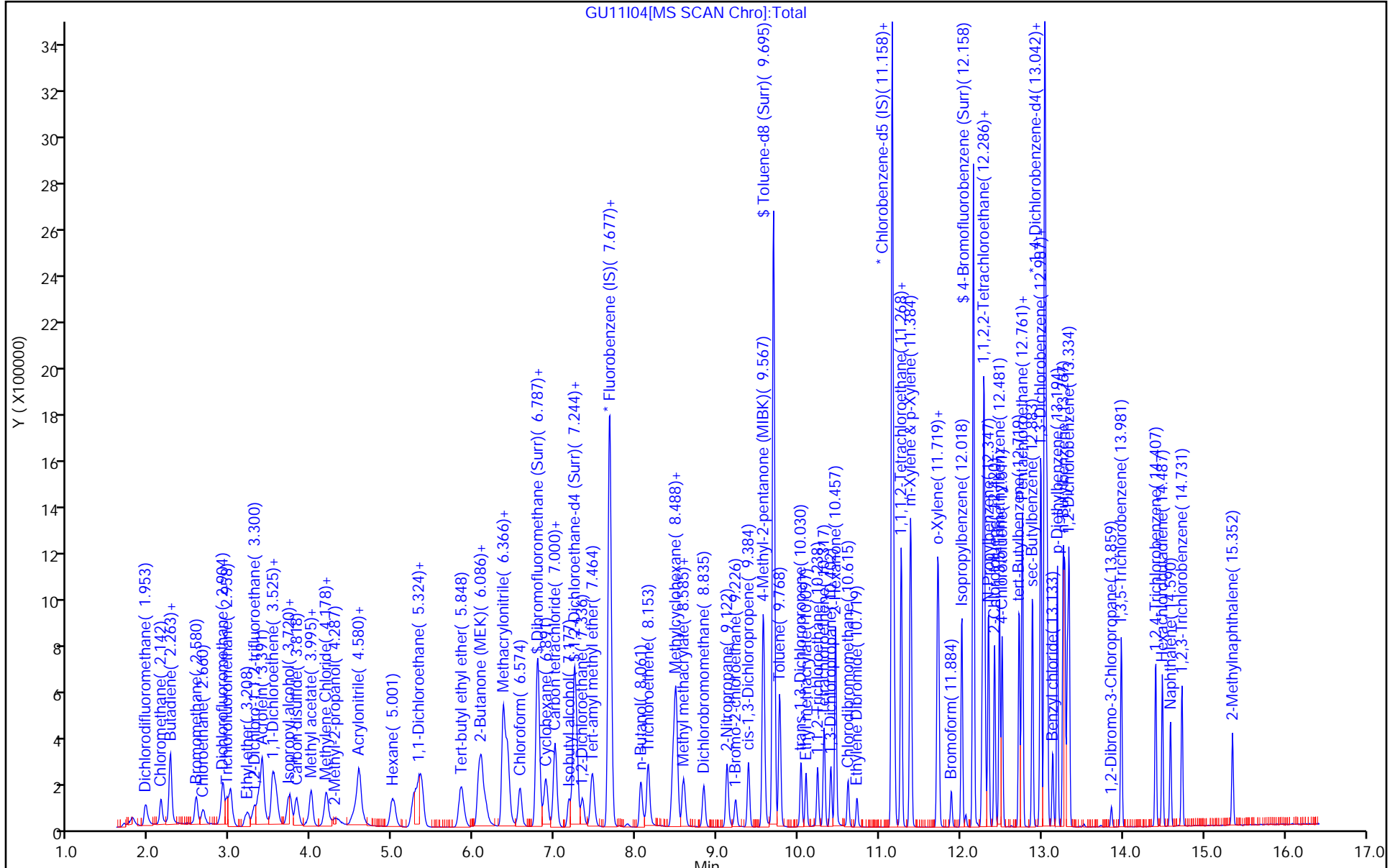
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MSV_29_826ISS_00007

Amount Added: 1.00

Units: uL

Run Reagent



Eurofins Lancaster Laboratories Env, LLC

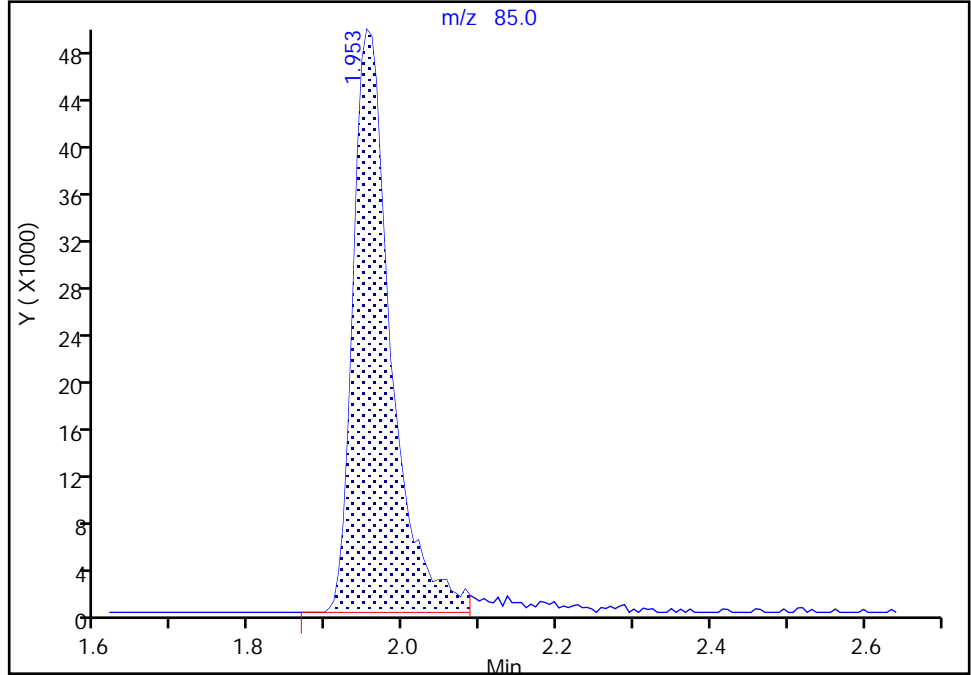
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Injection Date: 11-Jun-2020 15:28:30 Instrument ID: 16334
Lims ID: IC std4
Client ID:
Operator ID: DVV10203 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

1 Dichlorodifluoromethane, CAS: 75-71-8

Signal: 1

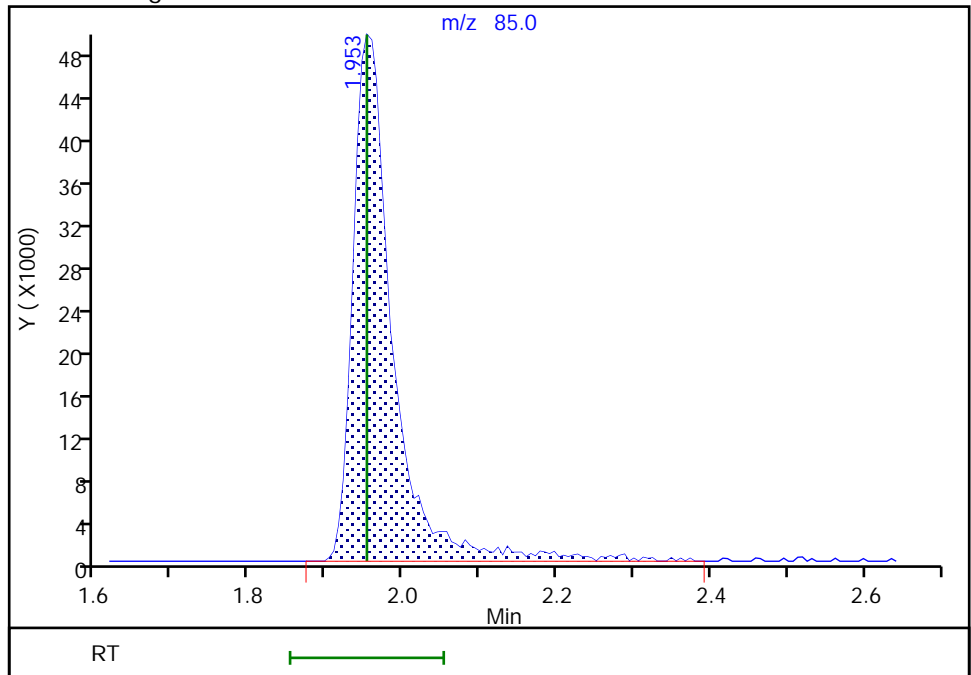
RT: 1.95
Area: 169829
Amount: 2.061926
Amount Units: ug/l

Processing Integration Results



RT: 1.95
Area: 178749
Amount: 2.124558
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:52:10
Audit Action: Manually Integrated

Audit Reason: Other

Euofins Lancaster Laboratories Env, LLC

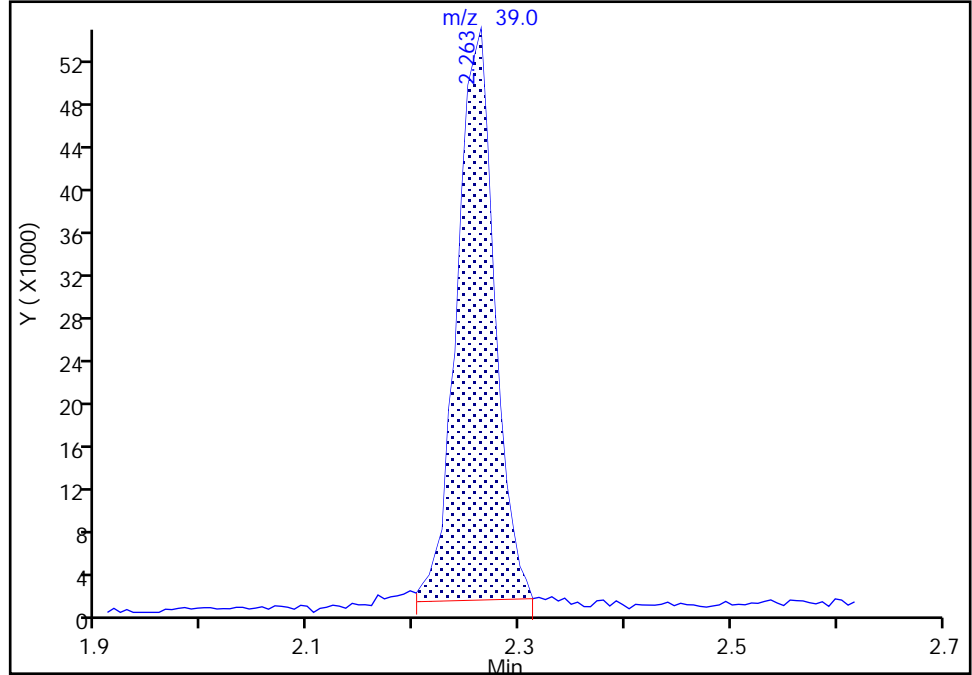
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Injection Date: 11-Jun-2020 15:28:30 Instrument ID: 16334
Lims ID: IC std4
Client ID:
Operator ID: DVV10203 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

6 Butadiene, CAS: 106-99-0

Signal: 1

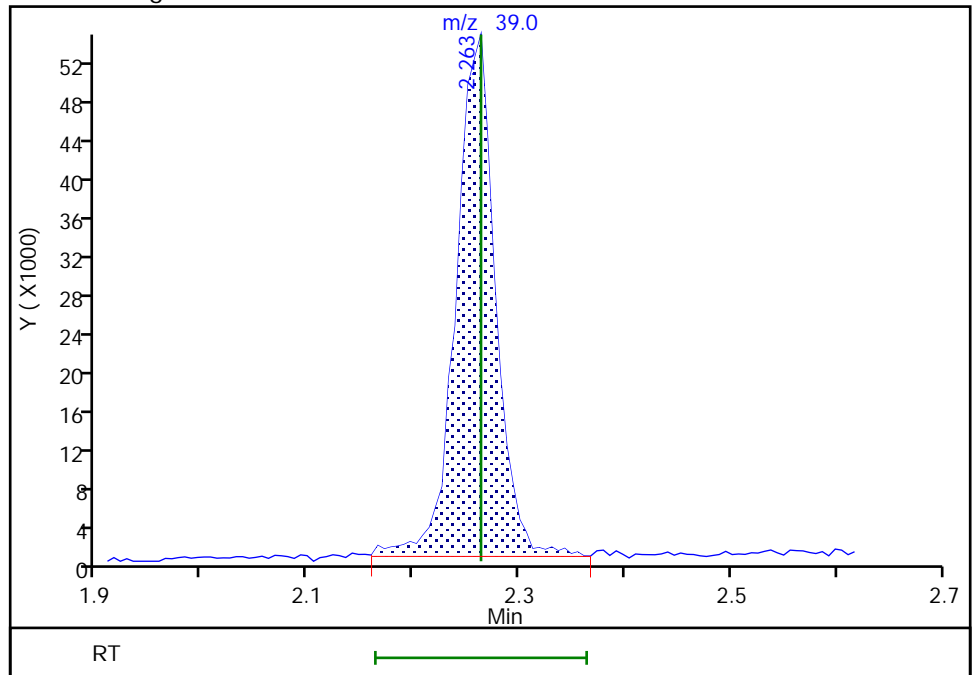
RT: 2.26
Area: 131478
Amount: 1.937402
Amount Units: ug/l

Processing Integration Results



RT: 2.26
Area: 140128
Amount: 2.100210
Amount Units: ug/l

Manual Integration Results



Eurofins Lancaster Laboratories Env, LLC

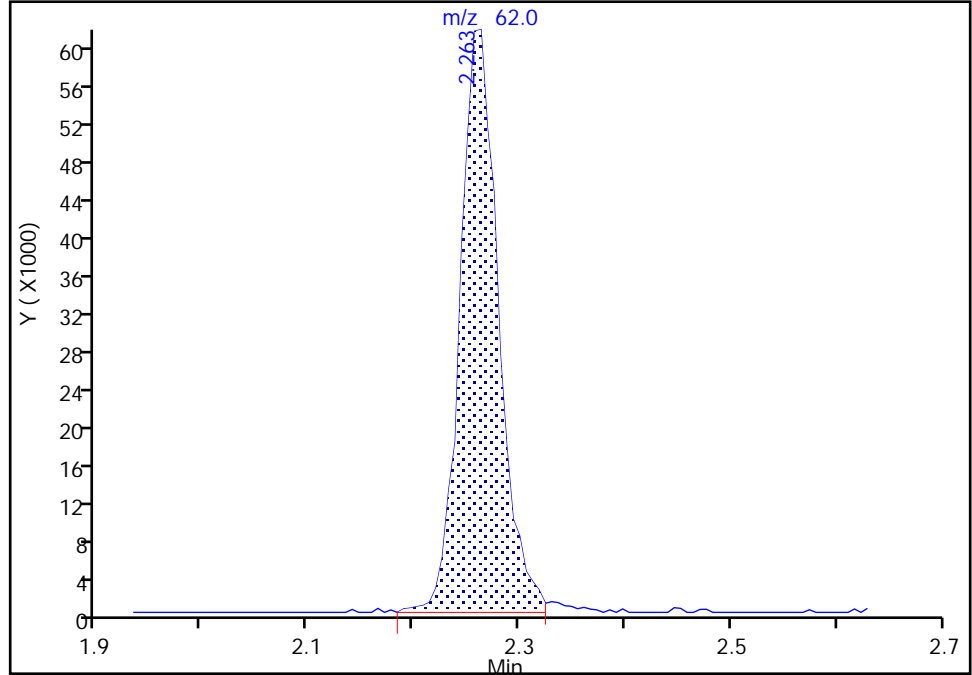
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Injection Date: 11-Jun-2020 15:28:30 Instrument ID: 16334
Lims ID: IC std4
Client ID:
Operator ID: DVV10203 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

7 Vinyl chloride, CAS: 75-01-4

Signal: 1

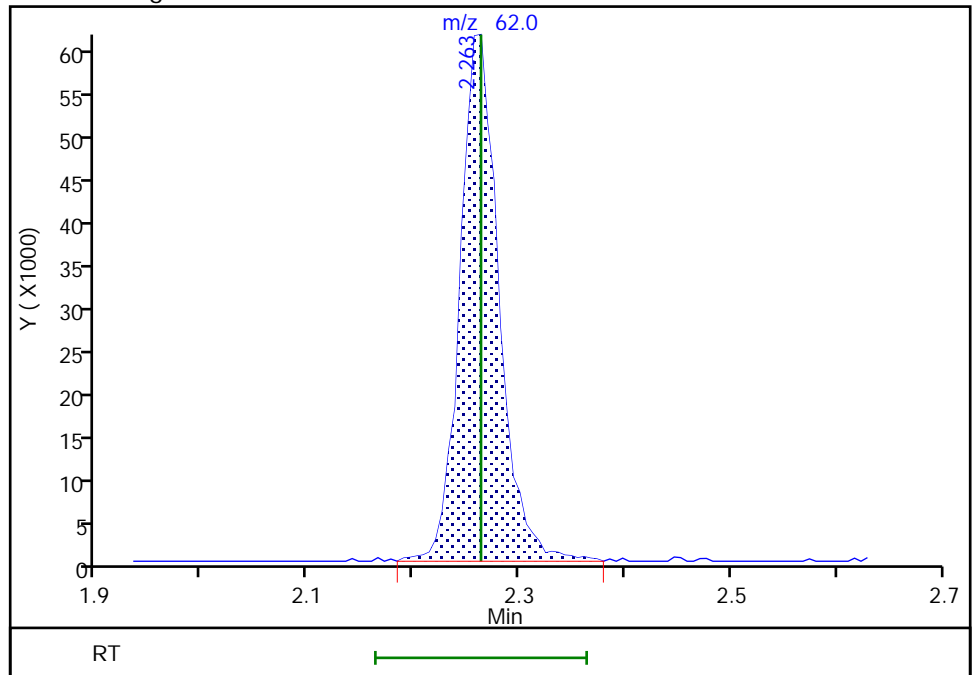
RT: 2.26
Area: 155012
Amount: 2.117240
Amount Units: ug/l

Processing Integration Results



RT: 2.26
Area: 156852
Amount: 2.129568
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:52:48
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

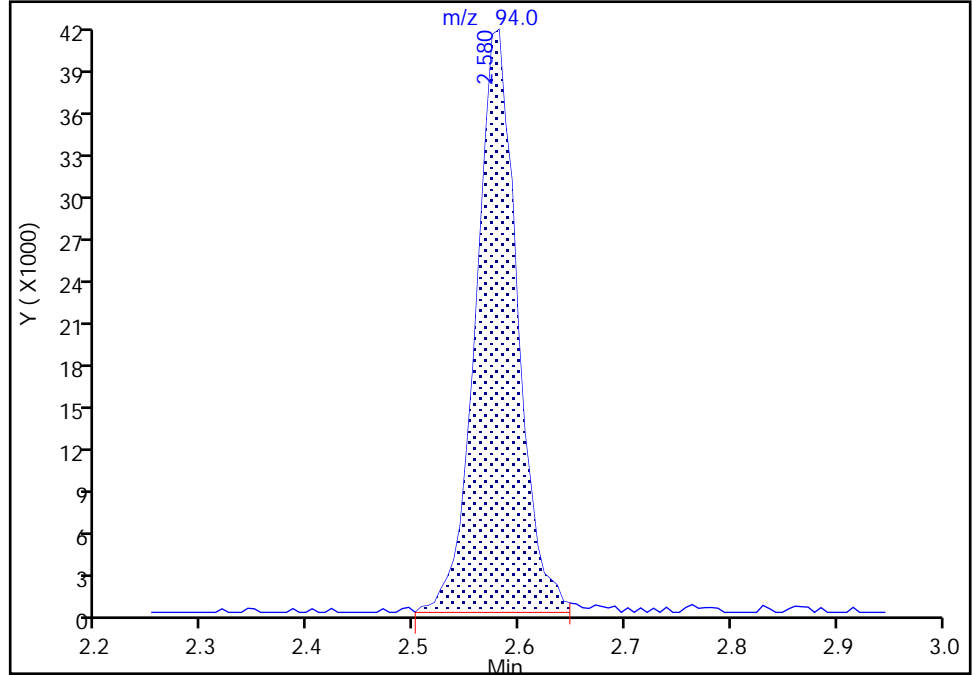
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11104.D
Injection Date: 11-Jun-2020 15:28:30 Instrument ID: 16334
Lims ID: IC std4
Client ID:
Operator ID: DVV10203 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

9 Bromomethane, CAS: 74-83-9

Signal: 1

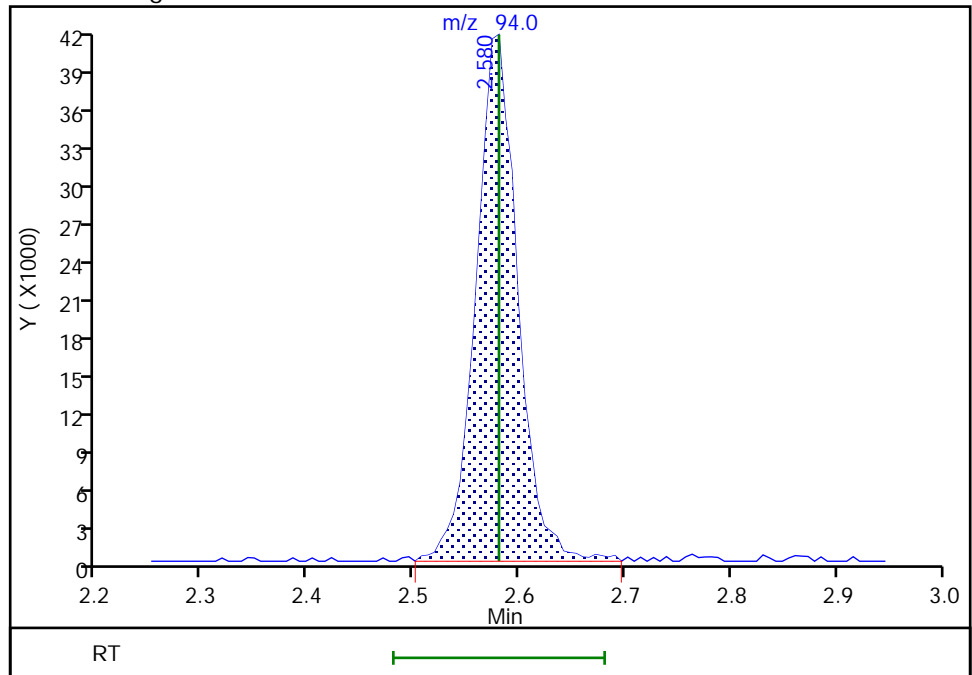
RT: 2.58
Area: 111971
Amount: 2.026635
Amount Units: ug/l

Processing Integration Results



RT: 2.58
Area: 113026
Amount: 2.016380
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:52:56
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

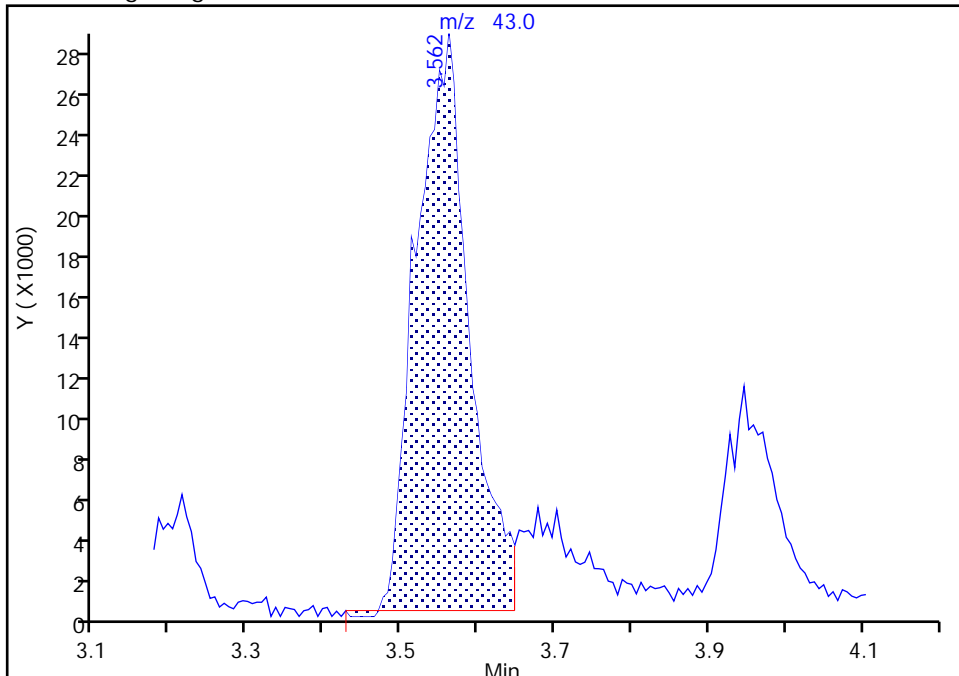
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I04.D
Injection Date: 11-Jun-2020 15:28:30 Instrument ID: 16334
Lims ID: IC std4
Client ID:
Operator ID: DVV10203 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

20 Acetone, CAS: 67-64-1

Signal: 1

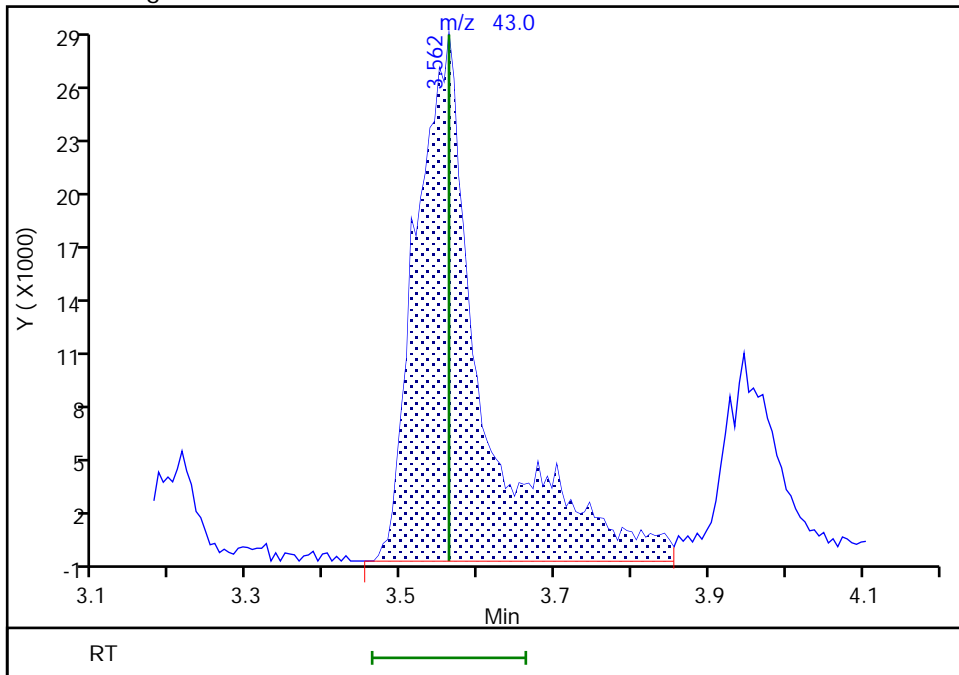
RT: 3.56
Area: 134636
Amount: 16.721655
Amount Units: ug/l

Processing Integration Results



RT: 3.56
Area: 170971
Amount: 20.029975
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:53:27
Audit Action: Assigned New Baseline

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

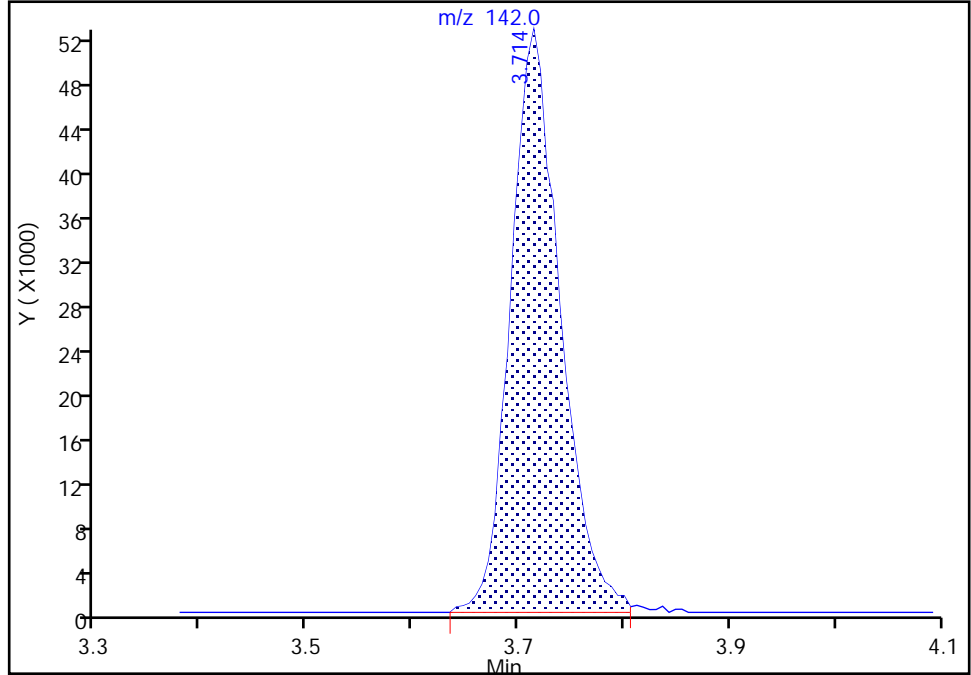
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Injection Date: 11-Jun-2020 15:28:30 Instrument ID: 16334
Lims ID: IC std4
Client ID:
Operator ID: DVV10203 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

22 Iodomethane, CAS: 74-88-4

Signal: 1

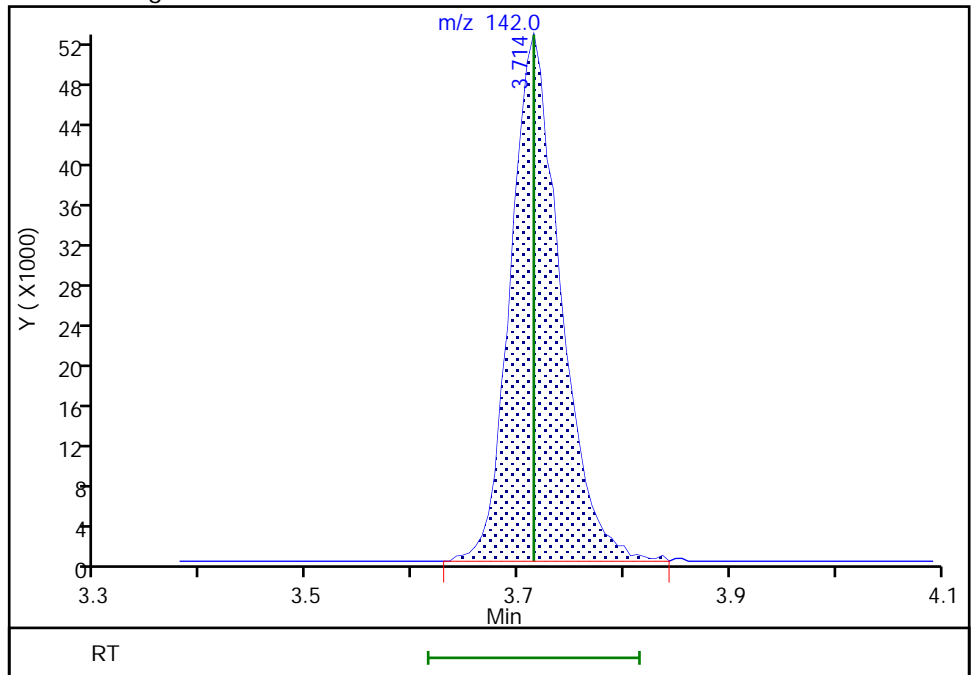
RT: 3.71
Area: 172938
Amount: 1.997918
Amount Units: ug/l

Processing Integration Results



RT: 3.71
Area: 173729
Amount: 1.973215
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:53:39
Audit Action: Manually Integrated

Audit Reason: Other

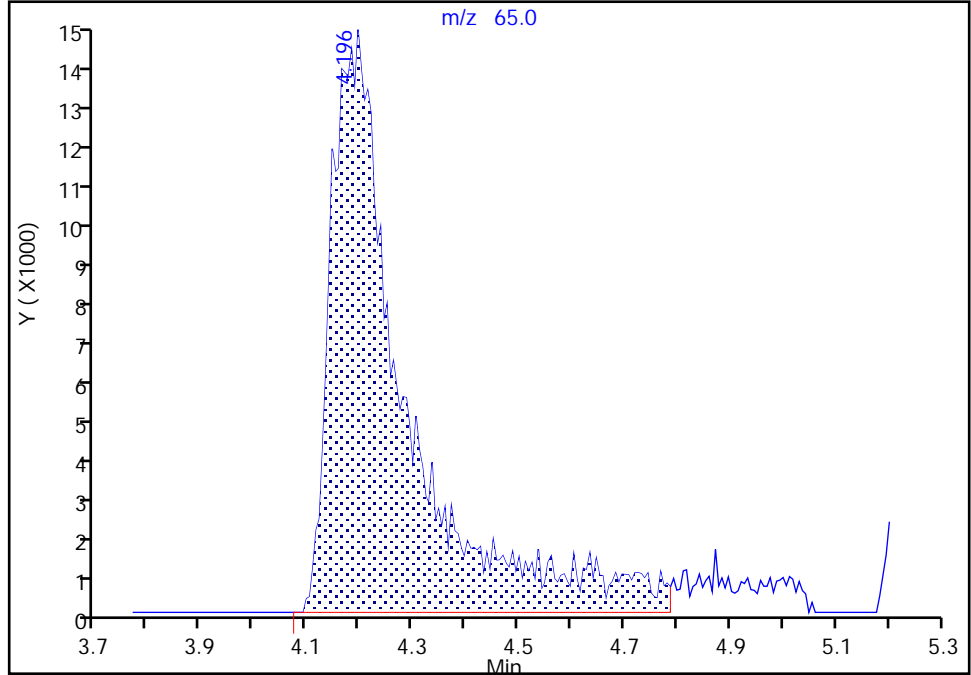
Eurofins Lancaster Laboratories Env, LLC

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Injection Date: 11-Jun-2020 15:28:30 Instrument ID: 16334
Lims ID: IC std4
Client ID:
Operator ID: DVV10203 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 29 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2
Signal: 1

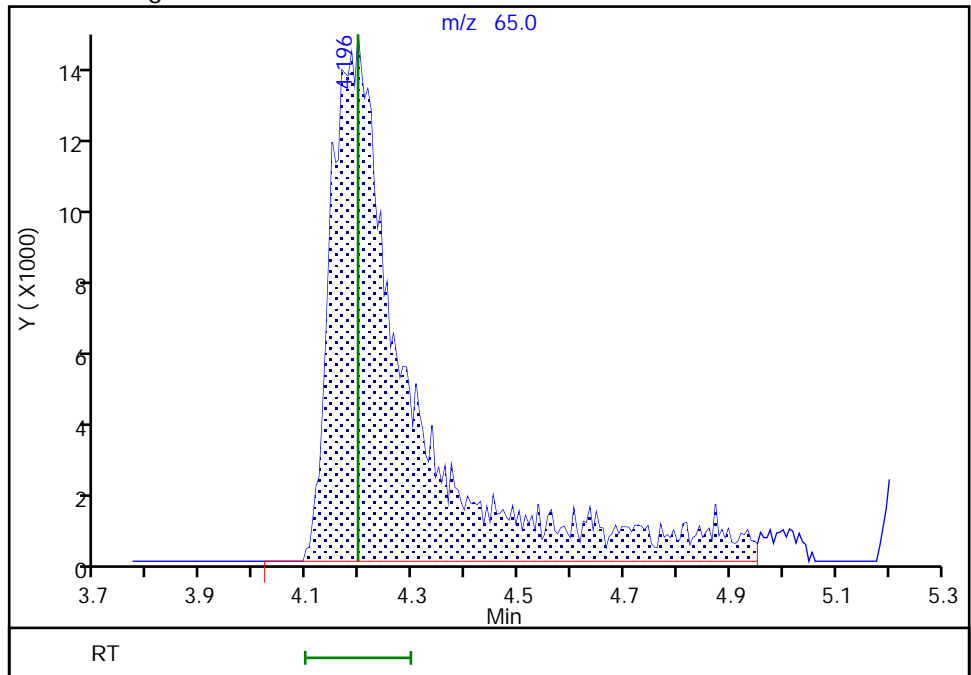
RT: 4.20
Area: 145422
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.20
Area: 152843
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:53:58
Audit Action: Split an Integrated Peak

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

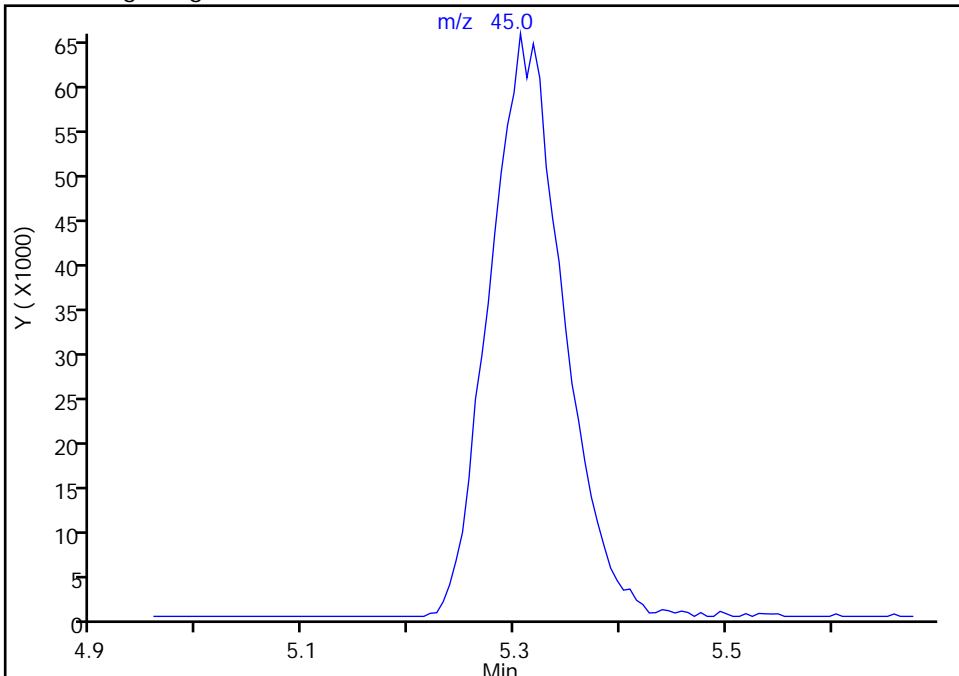
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Injection Date: 11-Jun-2020 15:28:30 Instrument ID: 16334
Lims ID: IC std4
Client ID:
Operator ID: DVV10203 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

37 Isopropyl ether, CAS: 108-20-3

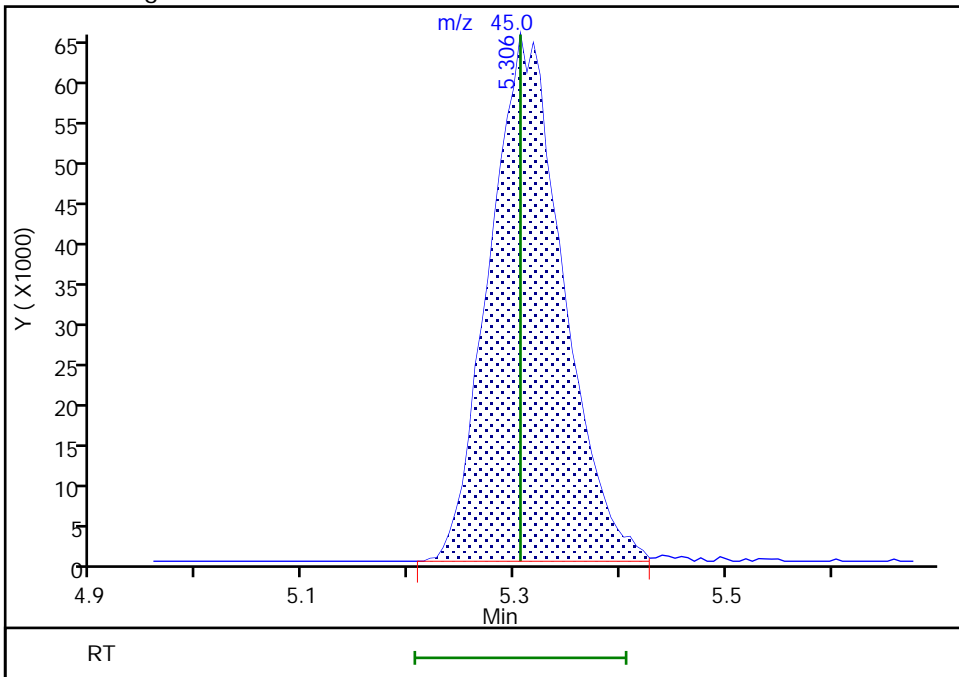
Signal: 1

Not Detected
Expected RT: 5.31

Processing Integration Results



Manual Integration Results



RT: 5.31
Area: 316169
Amount: 1.956188
Amount Units: ug/l

Eurofins Lancaster Laboratories Env, LLC

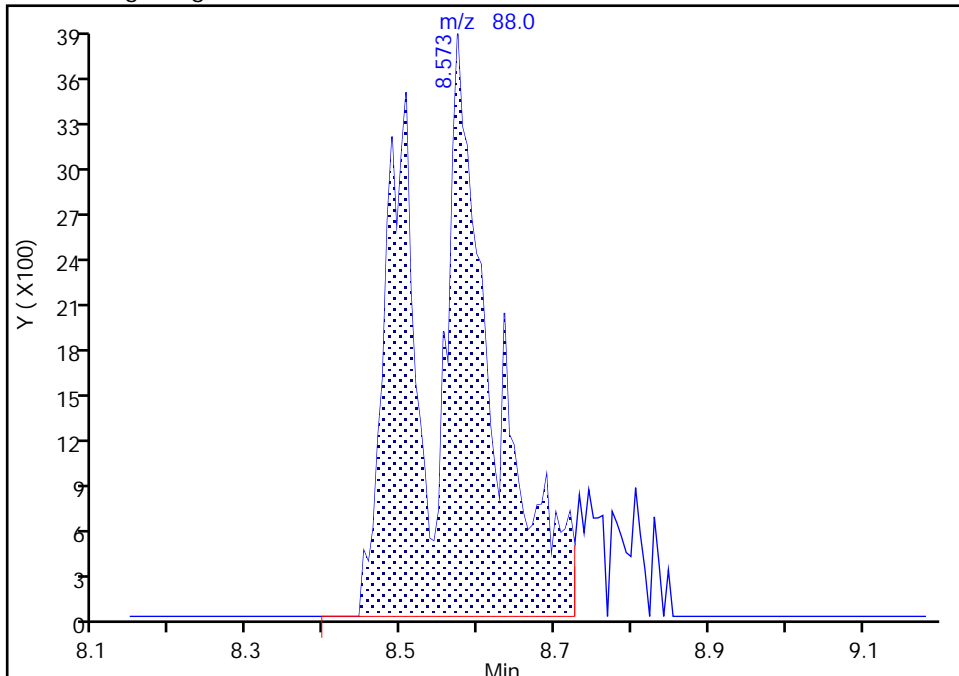
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 Injection Date: 11-Jun-2020 15:28:30 Instrument ID: 16334
 Lims ID: IC std4
 Client ID:
 Operator ID: DVV10203 ALS Bottle#: 5 Worklist Smp#: 6
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
 Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

72 1,4-Dioxane, CAS: 123-91-1

Signal: 1

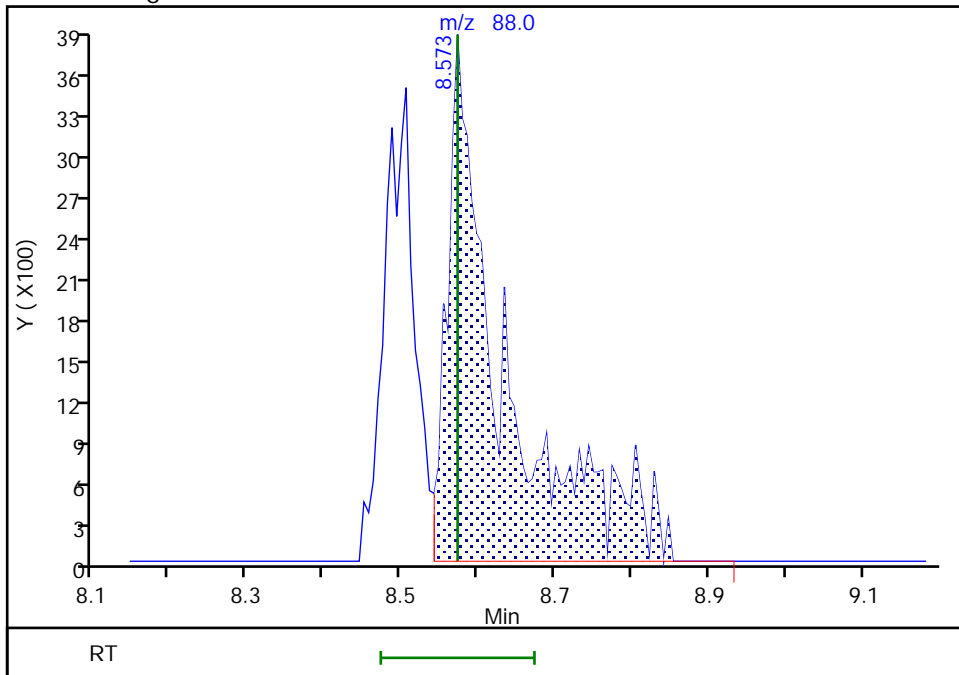
RT: 8.57
 Area: 25162
 Amount: 102.2730
 Amount Units: ug/l

Processing Integration Results



RT: 8.57
 Area: 19421
 Amount: 104.9356
 Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:54:32
 Audit Action: Split an Integrated Peak

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I05.D
 Lims ID: IC std3
 Client ID:
 Sample Type: IC Calib Level: 3
 Inject. Date: 11-Jun-2020 15:51:30 ALS Bottle#: 6 Worklist Smp#: 7
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0003178-007
 Misc. Info.: IC STD3
 Operator ID: DVV10203 Instrument ID: 16334
 Sublist: chrom-MSV_16334_25mL*sub4
 Method: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 16-Jun-2020 21:34:50 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I17.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1028

First Level Reviewer: howej

Date: 12-Jun-2020 13:58:16

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.947	1.953	-0.006	98	83765	1.00	1.02	M
5 Chloromethane	50	2.136	2.142	-0.006	99	77460	1.00	1.02	
6 Butadiene	39	2.257	2.263	-0.006	92	71809	1.00	1.11	M
7 Vinyl chloride	62	2.251	2.263	-0.012	97	70329	1.00	0.9816	
9 Bromomethane	94	2.568	2.580	-0.012	93	51829	1.00	0.9505	
10 Chloroethane	64	2.654	2.660	-0.006	97	39699	1.00	0.9706	
11 Dichlorofluoromethane	67	2.891	2.904	-0.013	97	93767	1.00	0.9688	
13 Trichlorofluoromethane	101	2.952	2.958	-0.006	98	93152	1.00	0.9712	
15 Ethyl ether	59	3.184	3.208	-0.024	89	36495	1.00	1.03	M
16 1,2-Dichloro-1,1,2-trifluoroethane	67	3.294	3.300	-0.006	93	55160	1.00	1.00	
18 Acrolein	56	3.385	3.391	-0.006	97	278380	50.0	50.3	
19 1,1-Dichloroethene	96	3.513	3.525	-0.012	97	41247	1.00	0.99	
21 112TCTFE	101	3.544	3.550	-0.006	91	47304	1.00	1.03	
20 Acetone	43	3.544	3.562	-0.018	97	90842	10.0	10.4	
23 Isopropyl alcohol	45	3.690	3.708	-0.018	30	29678	20.0	22.6	M
22 Iodomethane	142	3.702	3.714	-0.012	98	85976	1.00	1.00	
24 Ethyl bromide	108	3.733	3.745	-0.012	98	36959	1.00	1.01	
25 Carbon disulfide	76	3.812	3.818	-0.006	99	144459	1.00	0.99	
26 Methyl acetate	43	3.928	3.946	-0.018	94	22246	1.00	1.07	
27 3-Chloro-1-propene	41	3.983	3.995	-0.012	83	67393	1.00	0.9772	
28 Methylene Chloride	84	4.178	4.184	-0.006	93	47196	1.00	1.01	
* 29 t-Butyl alcohol-d10 (IS)	65	4.196	4.196	0.000	93	156903	50.0	50.0	M
30 2-Methyl-2-propanol	59	4.318	4.318	0.000	86	52964	20.0	19.0	
31 Acrylonitrile	53	4.513	4.519	-0.006	98	48608	5.00	5.16	
32 Methyl tert-butyl ether	73	4.568	4.586	-0.018	92	131683	1.00	1.03	
33 trans-1,2-Dichloroethene	96	4.580	4.586	-0.006	96	46982	1.00	1.00	
34 Hexane	57	5.001	4.995	0.006	93	63825	1.00	1.03	
36 1,1-Dichloroethane	63	5.239	5.251	-0.012	97	90684	1.00	1.03	
37 Isopropyl ether	45	5.306	5.306	0.000	90	159201	1.00	1.01	
38 2-Chloro-1,3-butadiene	53	5.342	5.360	-0.018	95	78841	1.00	0.9688	M

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 Tert-butyl ethyl ether	59	5.836	5.842	-0.006	98	158639	1.00	1.03	M
40 2-Butanone (MEK)	43	6.049	6.055	-0.006	100	151047	10.0	10.0	
41 cis-1,2-Dichloroethene	96	6.080	6.092	-0.012	84	56405	1.00	1.04	
42 2,2-Dichloropropane	77	6.098	6.104	-0.006	88	77593	1.00	1.00	
44 Propionitrile	54	6.147	6.153	-0.006	98	70584	20.0	20.6	
S 49 1,2-Dichloroethene, Total	100				0			2.04	
46 Methacrylonitrile	67	6.354	6.360	-0.006	94	130157	10.0	9.95	
48 Chlorobromomethane	128	6.415	6.409	0.006	64	26362	1.00	1.02	
47 Tetrahydrofuran	71	6.409	6.427	-0.018	83	38236	10.0	9.72	
50 Chloroform	83	6.568	6.567	0.001	95	96003	1.00	1.01	
\$ 52 Dibromofluoromethane (Surr)	113	6.781	6.787	-0.006	92	524964	10.0	10.0	
51 1,1,1-Trichloroethane	97	6.793	6.793	0.000	97	87049	1.00	1.00	
53 Cyclohexane	56	6.891	6.885	0.007	94	75569	1.00	1.00	
55 1,1-Dichloropropene	75	7.000	7.000	0.000	88	70666	1.00	1.01	
56 Carbon tetrachloride	117	7.000	7.000	0.000	86	77146	1.00	0.99	
57 Isobutyl alcohol	41	7.177	7.177	0.000	93	50191	50.0	46.0	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.232	7.238	-0.006	0	100867	10.0	10.1	
59 Benzene	78	7.256	7.262	-0.006	93	200406	1.00	1.02	
60 1,2-Dichloroethane	62	7.342	7.342	0.000	98	70535	1.00	1.00	M
62 Tert-amyl methyl ether	73	7.464	7.464	0.000	97	141625	1.00	1.02	
* 63 Fluorobenzene (IS)	96	7.671	7.671	0.000	98	1961154	10.0	10.0	
64 n-Heptane	43	7.677	7.683	-0.006	56	72417	1.00	1.01	
65 n-Butanol	56	8.061	8.061	0.000	94	90569	100.0	105.8	
67 Trichloroethene	95	8.153	8.153	0.000	93	54395	1.00	1.00	
68 Methylcyclohexane	83	8.457	8.457	0.000	90	71175	1.00	0.8878	
69 1,2-Dichloropropane	63	8.482	8.488	-0.006	71	48647	1.00	0.9795	
70 2-ethoxy-2-methyl butane	87	8.494	8.488	0.006	89	74702	1.00	0.9763	
72 1,4-Dioxane	88	8.592	8.573	0.019	33	8754	50.0	46.1	M
71 Methyl methacrylate	69	8.573	8.573	0.000	92	26892	1.00	1.02	
73 Dibromomethane	93	8.592	8.598	-0.006	96	28996	1.00	1.01	
75 Dichlorobromomethane	83	8.835	8.835	0.000	96	69846	1.00	0.9837	
76 2-Nitropropane	41	9.122	9.122	0.000	94	105456	10.0	9.55	
79 1-Bromo-2-chloroethane	63	9.219	9.226	-0.007	98	54379	1.00	1.00	
80 cis-1,3-Dichloropropene	75	9.378	9.384	-0.006	89	77216	1.00	0.9834	
81 4-Methyl-2-pentanone (MIBK)	43	9.567	9.567	0.000	99	398366	10.0	10.1	
\$ 82 Toluene-d8 (Surr)	98	9.695	9.695	0.000	95	1978243	10.0	10.0	
83 Toluene	92	9.768	9.768	0.000	96	126096	1.00	1.01	
84 trans-1,3-Dichloropropene	75	10.030	10.036	-0.006	98	67750	1.00	0.9573	
S 87 1,3-Dichloropropene, Total	100				0			1.94	
85 Ethyl methacrylate	69	10.097	10.097	0.000	88	53565	1.00	0.9734	
86 1,1,2-Trichloroethane	97	10.238	10.238	0.000	91	40292	1.00	1.05	
88 Tetrachloroethene	166	10.317	10.317	0.000	95	61875	1.00	1.01	
89 1,3-Dichloropropane	76	10.402	10.402	0.000	94	66994	1.00	1.01	
91 2-Hexanone	43	10.457	10.457	0.000	98	282430	10.0	9.89	
93 Chlorodibromomethane	129	10.609	10.615	-0.006	90	48337	1.00	0.9745	
94 Ethylene Dibromide	107	10.719	10.719	0.000	96	37996	1.00	0.9858	
* 95 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	88	1508788	10.0	10.0	
96 1-Chlorohexane	91	11.164	11.164	0.000	93	74830	1.00	0.9690	
97 Chlorobenzene	112	11.183	11.182	0.001	95	147149	1.00	1.00	
S 101 Xylenes, Total	106				0			3.01	
98 1,1,1,2-Tetrachloroethane	131	11.262	11.268	-0.006	91	53744	1.00	0.9699	
99 Ethylbenzene	91	11.268	11.268	0.000	99	258829	1.00	1.00	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
100 m-Xylene & p-Xylene	106	11.384	11.384	0.000	0	192695	2.00	2.00	
102 o-Xylene	106	11.713	11.713	0.000	98	94621	1.00	1.00	
103 Styrene	104	11.731	11.731	0.000	94	147688	1.00	0.9513	
104 Bromoform	173	11.884	11.890	-0.006	94	31581	1.00	1.01	
105 Isopropylbenzene	105	12.018	12.018	0.000	97	248648	1.00	0.9870	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	89	729050	10.0	9.94	
109 1,1,2,2-Tetrachloroethane	83	12.268	12.262	0.006	95	50638	1.00	1.01	
110 Bromobenzene	156	12.274	12.274	0.000	95	66568	1.00	1.00	
111 trans-1,4-Dichloro-2-butene	53	12.286	12.286	0.000	92	149244	10.0	9.45	
112 1,2,3-Trichloropropane	110	12.310	12.310	0.000	86	13337	1.00	0.9521	
113 N-Propylbenzene	91	12.347	12.347	0.000	99	304744	1.00	0.99	
114 2-Chlorotoluene	126	12.420	12.420	0.000	95	62941	1.00	1.03	
115 1,3,5-Trimethylbenzene	105	12.481	12.481	0.000	94	212984	1.00	1.00	
116 4-Chlorotoluene	126	12.512	12.511	0.001	99	66830	1.00	1.03	
118 tert-Butylbenzene	134	12.725	12.725	0.000	93	44164	1.00	0.9298	
120 Pentachloroethane	167	12.755	12.755	0.000	76	40629	1.00	0.9690	
119 1,2,4-Trimethylbenzene	105	12.761	12.761	0.000	98	220636	1.00	0.9894	
121 sec-Butylbenzene	105	12.883	12.883	0.000	95	283926	1.00	1.01	
122 1,3-Dichlorobenzene	146	12.981	12.987	-0.006	97	131388	1.00	1.02	
123 4-Isopropyltoluene	119	12.993	12.993	0.000	97	239938	1.00	1.00	
* 124 1,4-Dichlorobenzene-d4	152	13.042	13.036	0.006	97	825656	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.054	13.054	0.000	94	129428	1.00	0.99	
126 1,2,3-Trimethylbenzene	120	13.072	13.066	0.006	98	95707	1.00	0.9798	
127 Benzyl chloride	126	13.139	13.133	0.006	99	17581	1.00	0.9408	
129 p-Diethylbenzene	119	13.194	13.194	0.000	90	142507	1.00	0.9702	
130 n-Butylbenzene	92	13.286	13.286	0.000	97	121441	1.00	0.9689	
131 1,2-Dichlorobenzene	146	13.316	13.316	0.000	97	121308	1.00	1.01	
134 1,2-Dibromo-3-Chloropropane	155	13.859	13.859	0.000	75	7145	1.00	0.9869	
135 1,3,5-Trichlorobenzene	180	13.981	13.981	0.000	95	100299	1.00	1.00	
136 1,2,4-Trichlorobenzene	180	14.408	14.407	0.001	93	87887	1.00	1.02	
137 Hexachlorobutadiene	225	14.487	14.487	0.000	96	47538	1.00	1.01	
138 Naphthalene	128	14.590	14.590	0.000	98	140365	1.00	1.00	
139 1,2,3-Trichlorobenzene	180	14.731	14.731	0.000	94	73685	1.00	1.02	
140 2-Methylnaphthalene	142	15.352	15.352	0.000	91	79084	1.00	0.9663	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MSV_RV1_826_00016

Amount Added: 2.00

Units: uL

MSV_RV4GAS826_00047

Amount Added: 2.00

Units: uL

MSV_RV4_826_00017

Amount Added: 2.00

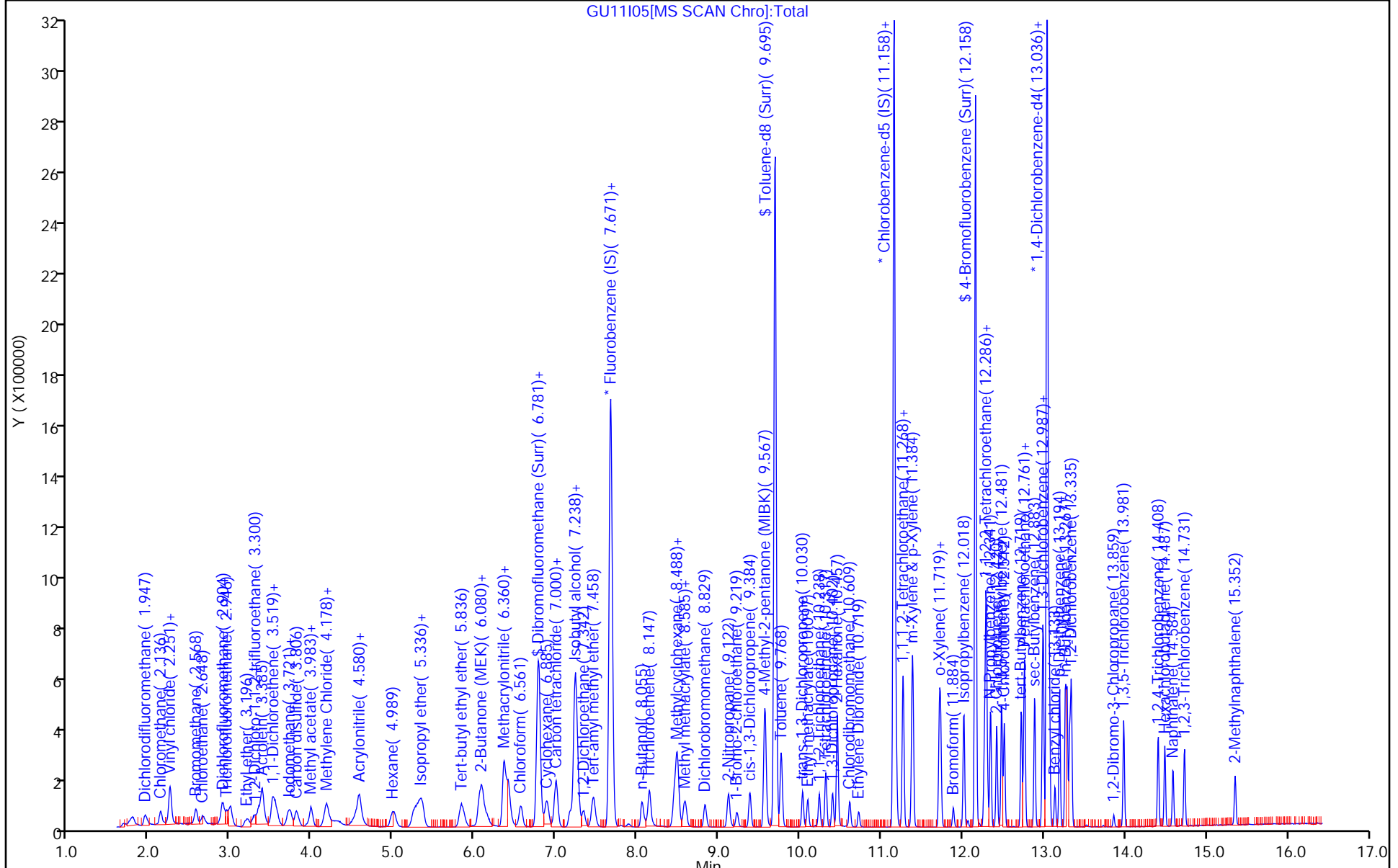
Units: uL

MSV_29_826ISS_00007

Amount Added: 1.00

Units: uL

Run Reagent



Eurofins Lancaster Laboratories Env, LLC

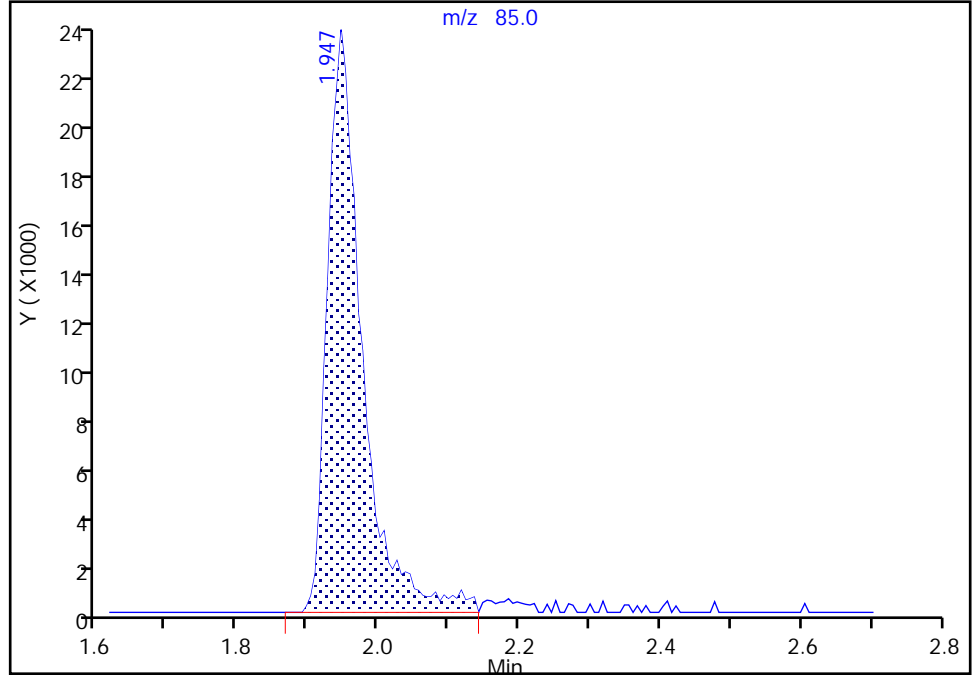
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11105.D
Injection Date: 11-Jun-2020 15:51:30 Instrument ID: 16334
Lims ID: IC std3
Client ID:
Operator ID: DVV10203 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

1 Dichlorodifluoromethane, CAS: 75-71-8

Signal: 1

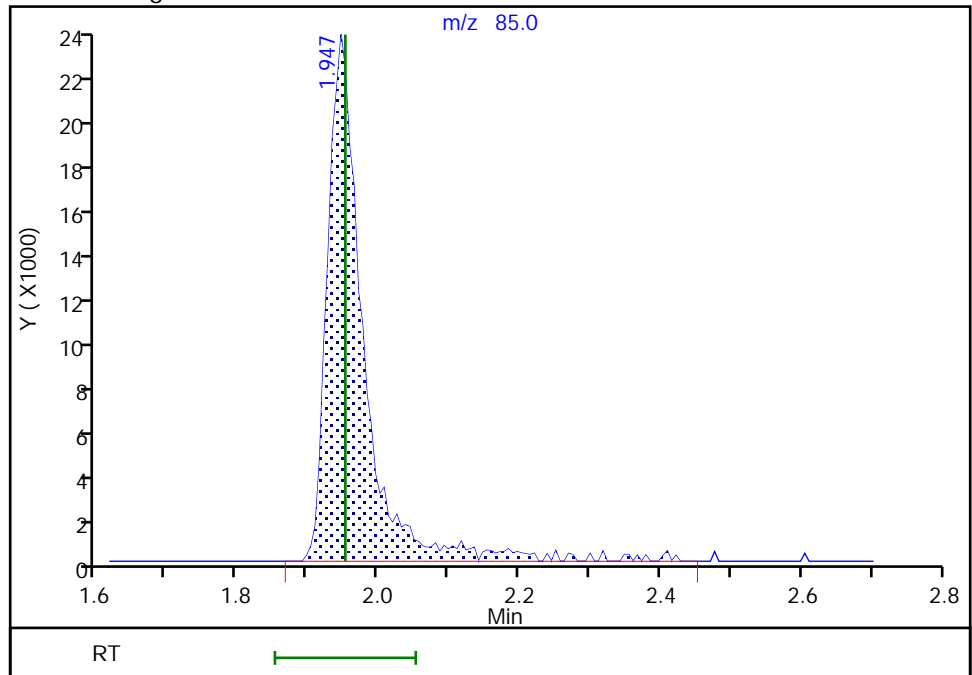
RT: 1.95
Area: 80243
Amount: 0.993810
Amount Units: ug/l

Processing Integration Results



RT: 1.95
Area: 83765
Amount: 1.023456
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:55:28
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

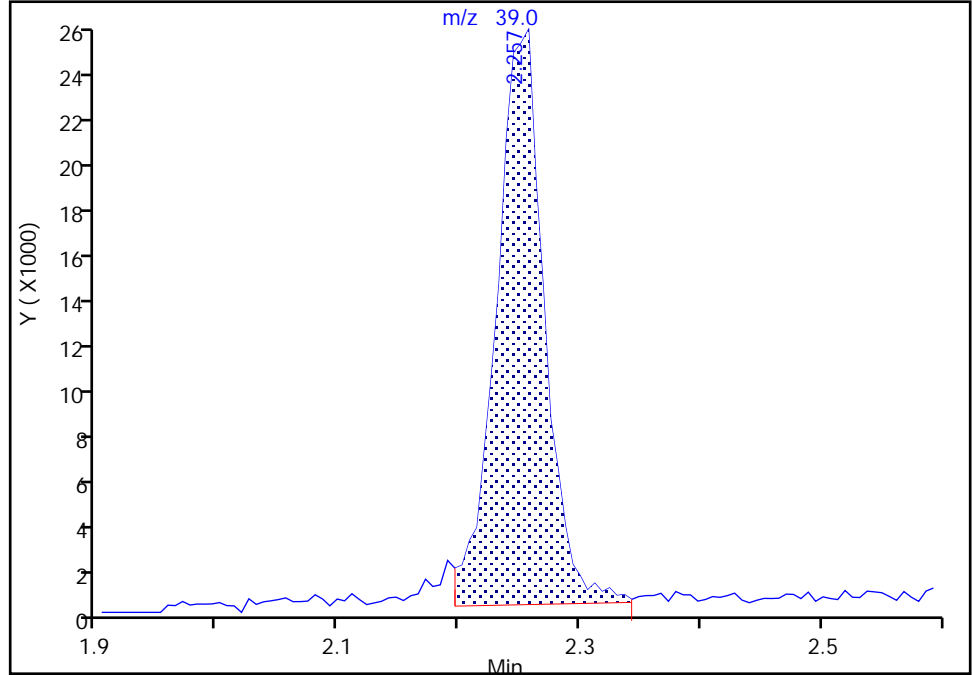
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11105.D
Injection Date: 11-Jun-2020 15:51:30 Instrument ID: 16334
Lims ID: IC std3
Client ID:
Operator ID: DVV10203 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

6 Butadiene, CAS: 106-99-0

Signal: 1

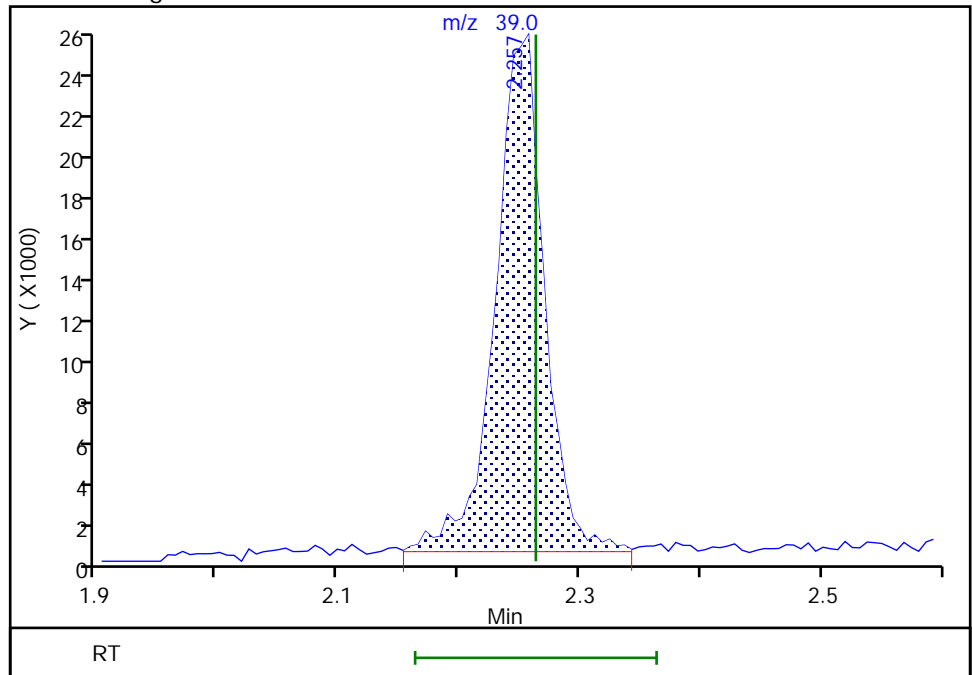
RT: 2.26
Area: 71010
Amount: 1.065937
Amount Units: ug/l

Processing Integration Results



RT: 2.26
Area: 71809
Amount: 1.106365
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:55:49
Audit Action: Assigned New Baseline

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

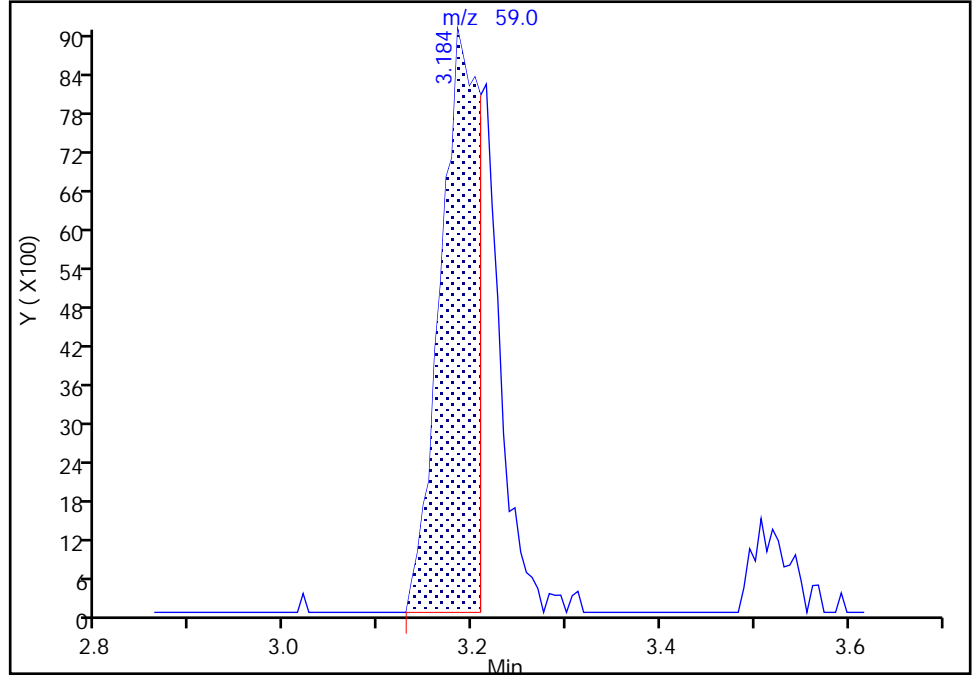
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I05.D
Injection Date: 11-Jun-2020 15:51:30 Instrument ID: 16334
Lims ID: IC std3
Client ID:
Operator ID: DVV10203 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

15 Ethyl ether, CAS: 60-29-7

Signal: 1

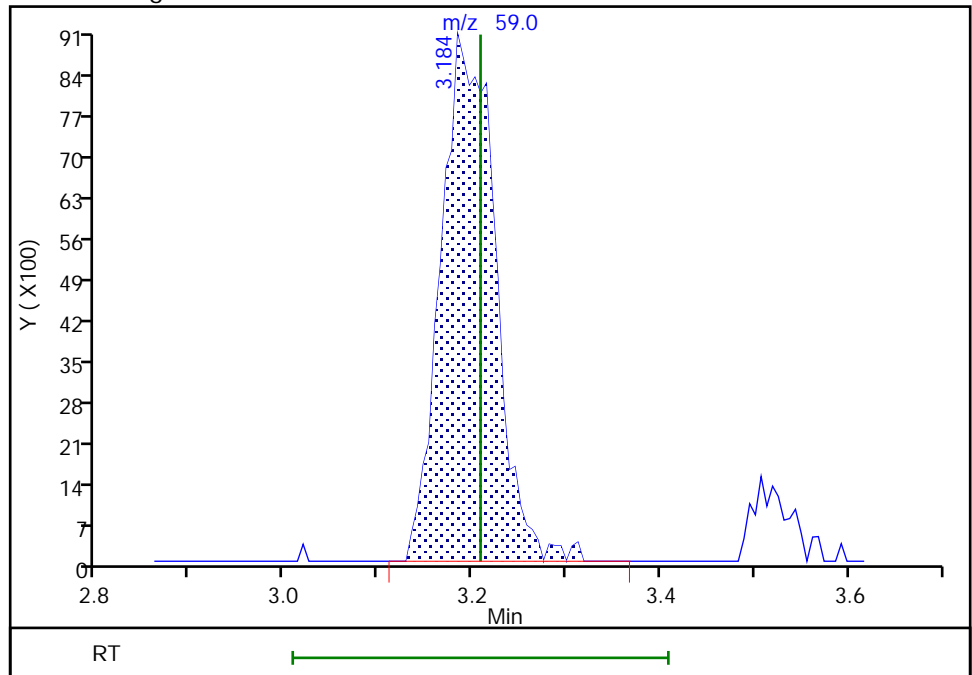
RT: 3.18
Area: 25764
Amount: 0.868093
Amount Units: ug/l

Processing Integration Results



RT: 3.18
Area: 36495
Amount: 1.027602
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:56:05
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

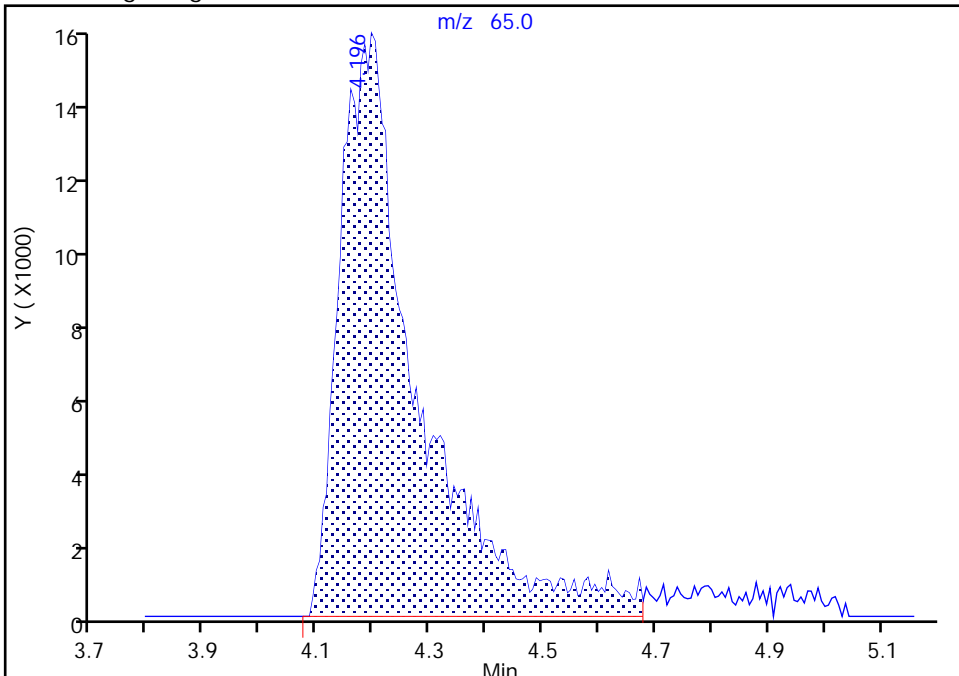
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11105.D
Injection Date: 11-Jun-2020 15:51:30 Instrument ID: 16334
Lims ID: IC std3
Client ID:
Operator ID: DVV10203 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 29 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

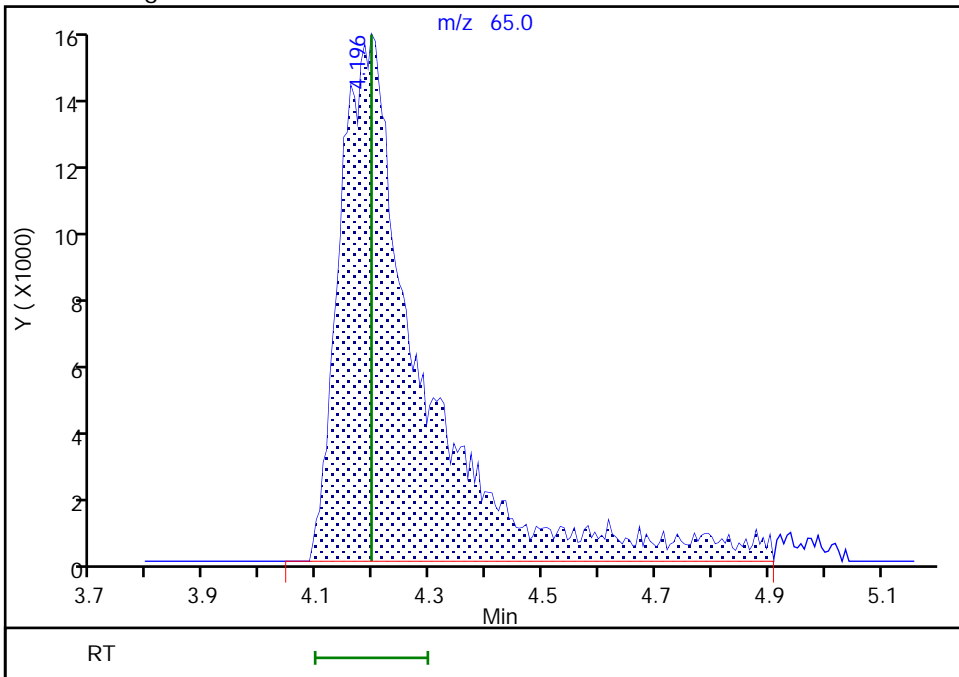
RT: 4.20
Area: 149005
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.20
Area: 156903
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:56:46
Audit Action: Manually Integrated

Audit Reason: Other

Euofins Lancaster Laboratories Env, LLC

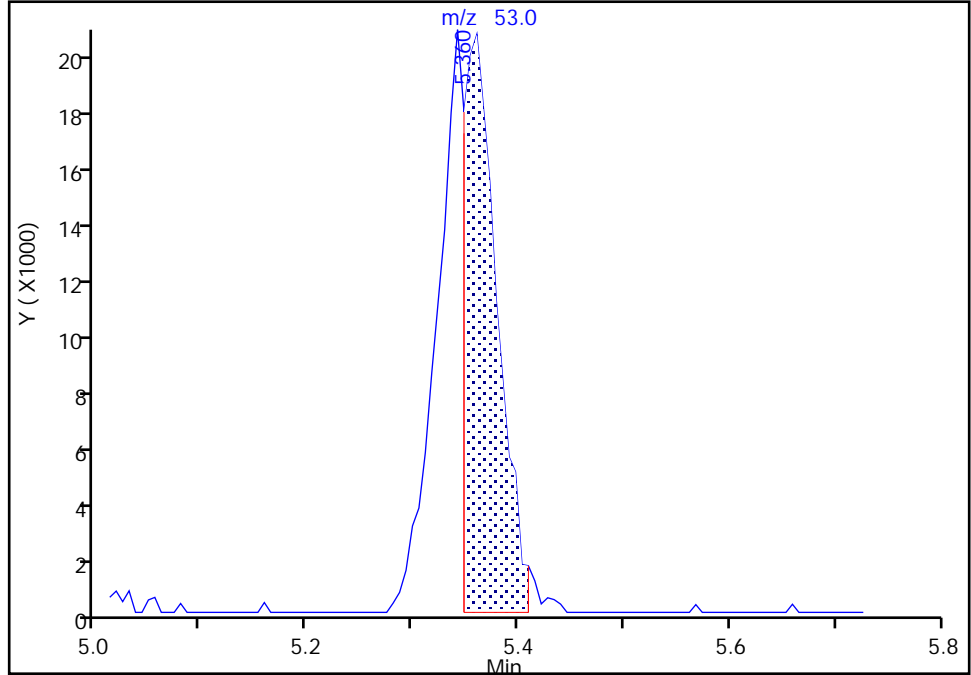
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11105.D
Injection Date: 11-Jun-2020 15:51:30 Instrument ID: 16334
Lims ID: IC std3
Client ID:
Operator ID: DVV10203 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

38 2-Chloro-1,3-butadiene, CAS: 126-99-8

Signal: 1

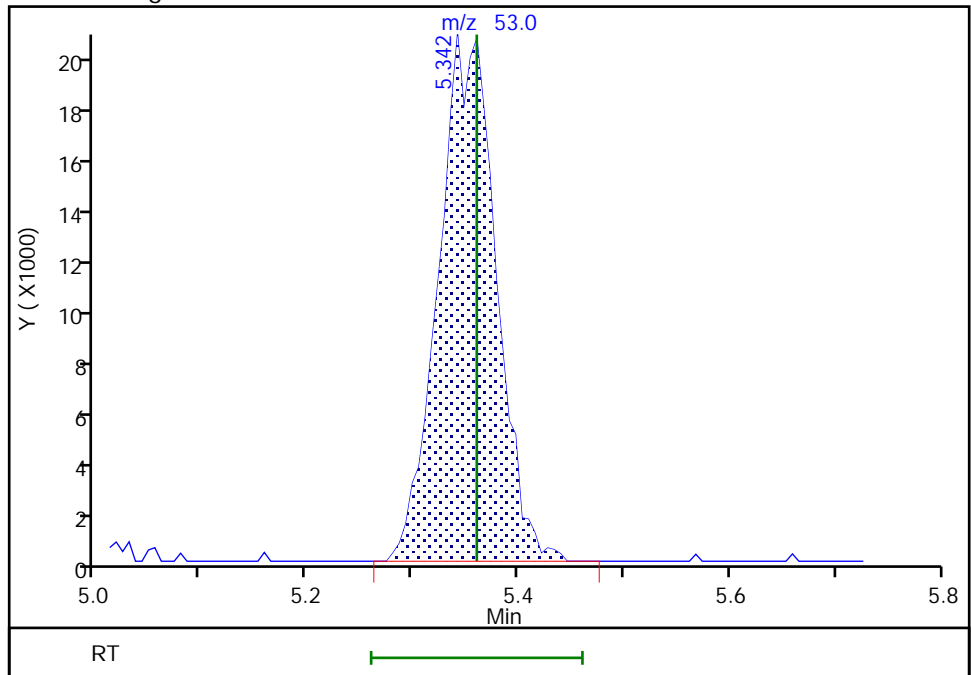
RT: 5.36
Area: 45947
Amount: 0.710066
Amount Units: ug/l

Processing Integration Results



RT: 5.34
Area: 78841
Amount: 0.968764
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:56:58
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

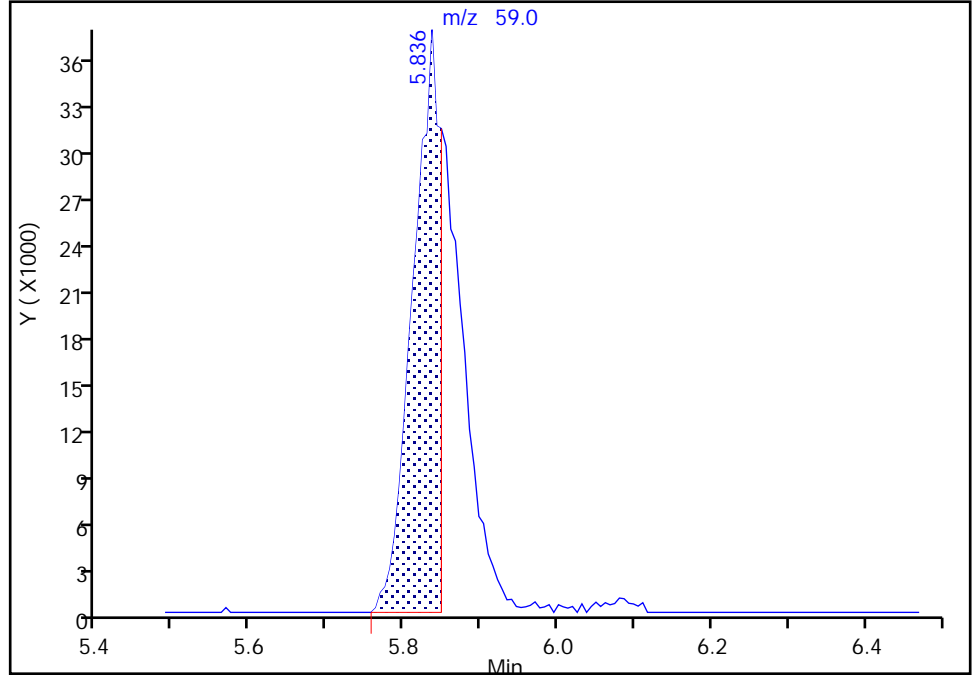
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11105.D
Injection Date: 11-Jun-2020 15:51:30 Instrument ID: 16334
Lims ID: IC std3
Client ID:
Operator ID: DVV10203 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

39 Tert-butyl ethyl ether, CAS: 637-92-3

Signal: 1

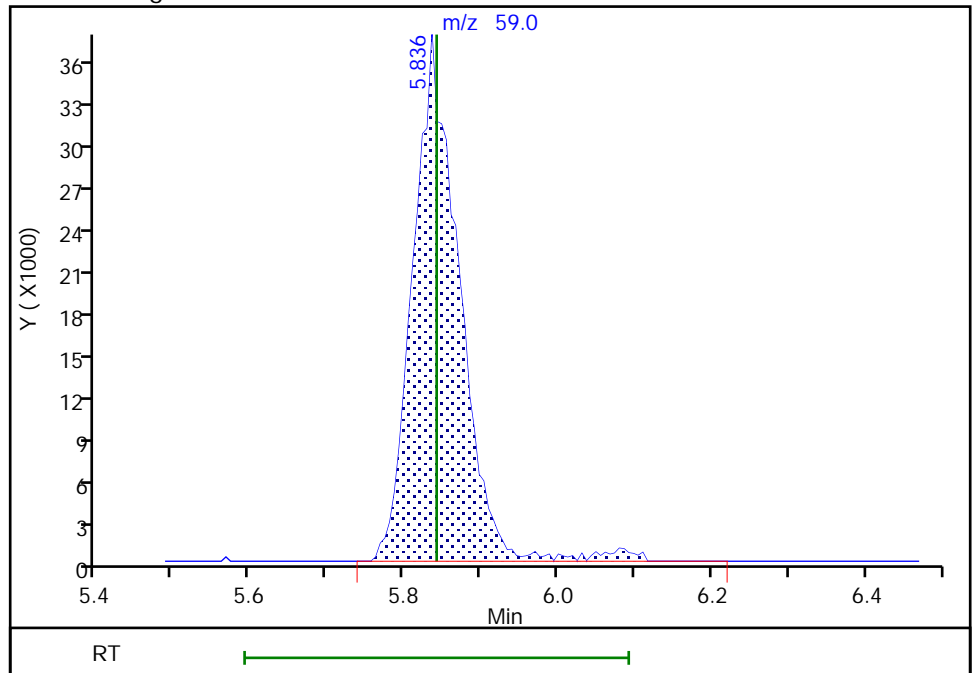
RT: 5.84
Area: 94797
Amount: 0.694627
Amount Units: ug/l

Processing Integration Results



RT: 5.84
Area: 158639
Amount: 1.030125
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:57:05
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

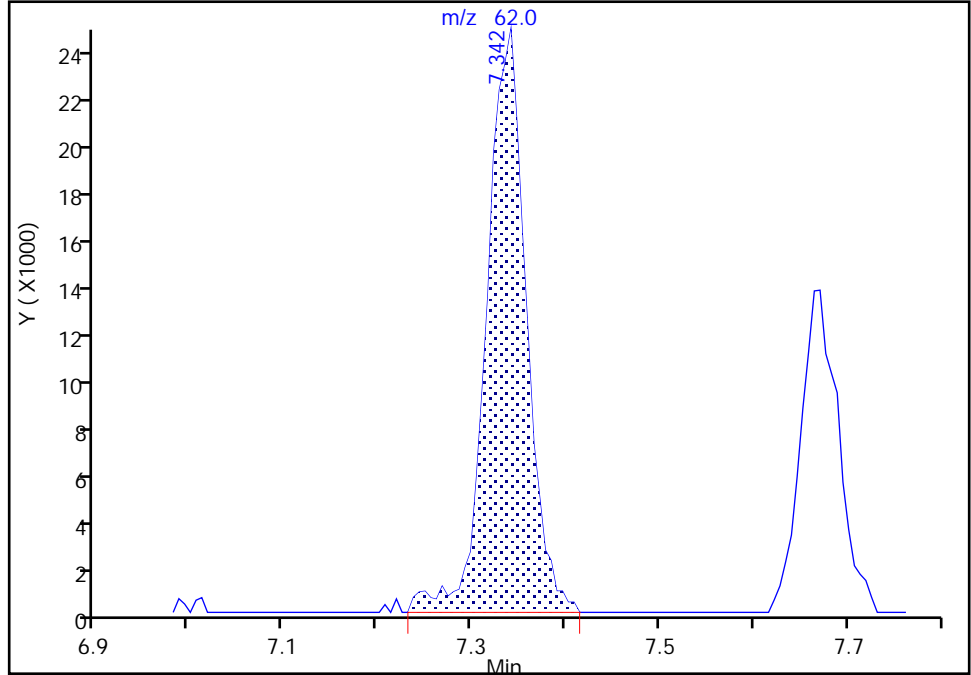
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11105.D
Injection Date: 11-Jun-2020 15:51:30 Instrument ID: 16334
Lims ID: IC std3
Client ID:
Operator ID: DVV10203 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

60 1,2-Dichloroethane, CAS: 107-06-2

Signal: 1

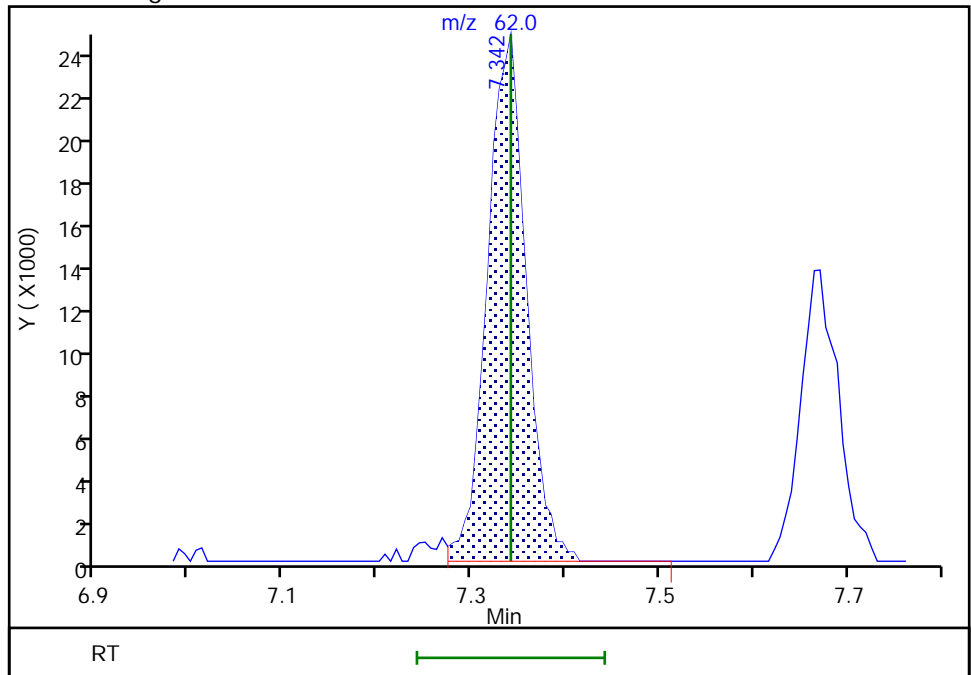
RT: 7.34
Area: 72232
Amount: 1.015934
Amount Units: ug/l

Processing Integration Results



RT: 7.34
Area: 70535
Amount: 0.995460
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:57:37
Audit Action: Split an Integrated Peak

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

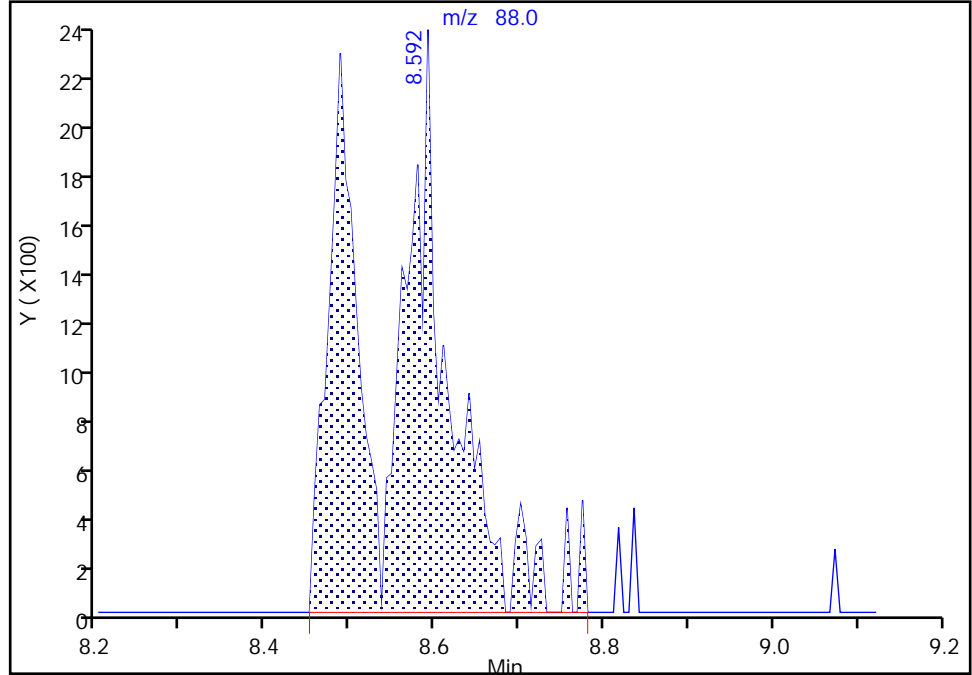
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11105.D
Injection Date: 11-Jun-2020 15:51:30 Instrument ID: 16334
Lims ID: IC std3
Client ID:
Operator ID: DVV10203 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

72 1,4-Dioxane, CAS: 123-91-1

Signal: 1

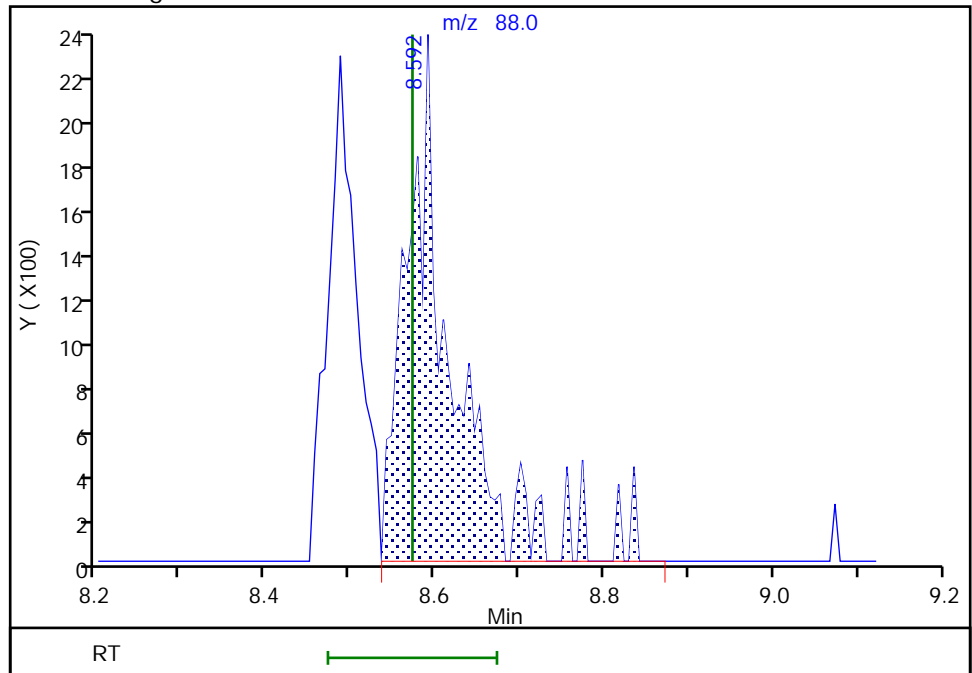
RT: 8.59
Area: 13840
Amount: 57.595832
Amount Units: ug/l

Processing Integration Results



RT: 8.59
Area: 8754
Amount: 46.075720
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:57:52
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I06.D
 Lims ID: IC std2
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 11-Jun-2020 16:13:30 ALS Bottle#: 7 Worklist Smp#: 8
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0003178-008
 Misc. Info.: IC STD2
 Operator ID: DVV10203 Instrument ID: 16334
 Sublist: chrom-MSV_16334_25mL*sub4
 Method: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 16-Jun-2020 21:39:20 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I17.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1028

First Level Reviewer: howej

Date: 12-Jun-2020 14:02:00

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.953	1.953	0.000	99	38036	0.5000	0.4646	
5 Chloromethane	50	2.148	2.142	0.006	99	39208	0.5000	0.5165	
6 Butadiene	39	2.257	2.263	-0.006	93	33085	0.5000	0.5096	M
7 Vinyl chloride	62	2.264	2.263	0.001	97	35444	0.5000	0.4946	
9 Bromomethane	94	2.581	2.580	0.001	94	28195	0.5000	0.5170	M
10 Chloroethane	64	2.666	2.660	0.006	96	20454	0.5000	0.5000	
11 Dichlorofluoromethane	67	2.910	2.904	0.006	97	48434	0.5000	0.5003	
13 Trichlorofluoromethane	101	2.971	2.958	0.013	96	45766	0.5000	0.4771	
15 Ethyl ether	59	3.215	3.208	0.007	89	18473	0.4999	0.5200	M
16 1,2-Dichloro-1,1,2-trifluoroetha	67	3.294	3.300	-0.006	91	28090	0.5000	0.5076	
18 Acrolein	56	3.397	3.391	0.006	98	136105	25.0	24.2	
19 1,1-Dichloroethene	96	3.525	3.525	0.000	95	19625	0.5000	0.4717	
21 112TCTFE	101	3.562	3.550	0.012	87	19479	0.5000	0.4248	
20 Acetone	43	3.556	3.562	-0.006	97	48993	5.00	5.49	M
23 Isopropyl alcohol	45	3.733	3.708	0.025	42	14454	10.0	11.0	M
22 Iodomethane	142	3.714	3.714	0.000	98	41468	0.5000	0.4841	M
24 Ethyl bromide	108	3.739	3.745	-0.006	97	18486	0.5003	0.5071	M
25 Carbon disulfide	76	3.812	3.818	-0.006	99	71425	0.5000	0.4895	
26 Methyl acetate	43	3.952	3.946	0.006	20	11369	0.5000	0.5381	M
27 3-Chloro-1-propene	41	4.001	3.995	0.006	79	33502	0.5000	0.4857	
28 Methylene Chloride	84	4.184	4.184	0.000	94	22771	0.5000	0.4876	
* 29 t-Butyl alcohol-d10 (IS)	65	4.214	4.196	0.018	92	159694	50.0	50.0	M
30 2-Methyl-2-propanol	59	4.300	4.318	-0.018	90	28432	10.0	10.0	
31 Acrylonitrile	53	4.531	4.519	0.012	97	22596	2.50	2.36	
32 Methyl tert-butyl ether	73	4.580	4.586	-0.006	94	61856	0.5000	0.4838	
33 trans-1,2-Dichloroethene	96	4.586	4.586	0.000	96	23180	0.5000	0.4937	
34 Hexane	57	5.013	4.995	0.018	92	26279	0.5000	0.4248	
36 1,1-Dichloroethane	63	5.257	5.251	0.006	97	42425	0.5000	0.4795	
37 Isopropyl ether	45	5.306	5.306	0.000	93	75469	0.5000	0.4799	
38 2-Chloro-1,3-butadiene	53	5.354	5.360	-0.006	95	37602	0.5000	0.4619	M

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 Tert-butyl ethyl ether	59	5.848	5.842	0.006	98	73992	0.5000	0.4804	M
40 2-Butanone (MEK)	43	6.055	6.055	0.000	82	76981	5.00	5.03	M
41 cis-1,2-Dichloroethene	96	6.092	6.092	0.000	84	26387	0.5000	0.4851	
42 2,2-Dichloropropane	77	6.116	6.104	0.012	85	37253	0.5000	0.4788	M
44 Propionitrile	54	6.165	6.153	0.012	95	34655	10.0	9.92	
S 49 1,2-Dichloroethene, Total	100				0			0.9788	
46 Methacrylonitrile	67	6.360	6.360	0.000	89	64469	5.00	4.84	M
48 Chlorobromomethane	128	6.427	6.409	0.018	67	13212	0.5000	0.5127	
47 Tetrahydrofuran	71	6.421	6.427	-0.006	79	19811	5.00	4.95	
50 Chloroform	83	6.574	6.567	0.007	94	47140	0.5000	0.4959	
\$ 52 Dibromofluoromethane (Surr)	113	6.787	6.787	0.000	92	525986	10.0	10.0	
51 1,1,1-Trichloroethane	97	6.805	6.793	0.012	95	41583	0.5000	0.4777	
53 Cyclohexane	56	6.891	6.885	0.007	94	34619	0.5000	0.4591	
55 1,1-Dichloropropene	75	7.000	7.000	0.000	88	33272	0.5000	0.4740	
56 Carbon tetrachloride	117	7.000	7.000	0.000	85	35465	0.5000	0.4558	
57 Isobutyl alcohol	41	7.171	7.177	-0.006	90	28570	25.0	26.2	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.238	7.238	0.000	0	99091	10.0	9.93	
59 Benzene	78	7.263	7.262	0.001	93	94671	0.5000	0.4834	
60 1,2-Dichloroethane	62	7.342	7.342	0.000	96	36227	0.5000	0.5112	
62 Tert-amyl methyl ether	73	7.464	7.464	0.000	96	65259	0.5000	0.4715	
* 63 Fluorobenzene (IS)	96	7.677	7.671	0.006	98	1961582	10.0	10.0	
64 n-Heptane	43	7.677	7.683	-0.006	37	31648	0.5000	0.4426	
65 n-Butanol	56	8.067	8.061	0.006	93	43507	50.0	49.9	
67 Trichloroethene	95	8.153	8.153	0.000	95	26574	0.5000	0.4873	
68 Methylcyclohexane	83	8.457	8.457	0.000	90	36826	0.5000	0.4593	
70 2-ethoxy-2-methyl butane	87	8.494	8.488	0.006	90	38269	0.5000	0.5000	
69 1,2-Dichloropropane	63	8.494	8.488	0.006	71	23553	0.5000	0.4741	
72 1,4-Dioxane	88	8.592	8.573	0.019	35	4653	25.0	24.1	M
71 Methyl methacrylate	69	8.579	8.573	0.006	89	11754	0.5000	0.4361	
73 Dibromomethane	93	8.592	8.598	-0.006	77	14233	0.5000	0.4964	M
75 Dichlorobromomethane	83	8.835	8.835	0.000	97	33709	0.5000	0.4747	
76 2-Nitropropane	41	9.122	9.122	0.000	98	51647	5.00	4.59	
79 1-Bromo-2-chloroethane	63	9.226	9.226	0.000	99	26226	0.5000	0.4811	
80 cis-1,3-Dichloropropene	75	9.384	9.384	0.000	89	36989	0.5000	0.4710	
81 4-Methyl-2-pentanone (MIBK)	43	9.567	9.567	0.000	98	184539	5.00	4.62	
\$ 82 Toluene-d8 (Surr)	98	9.695	9.695	0.000	95	1973373	10.0	10.0	
83 Toluene	92	9.768	9.768	0.000	97	60009	0.5000	0.4836	
84 trans-1,3-Dichloropropene	75	10.030	10.036	-0.006	97	32615	0.5000	0.4629	
S 87 1,3-Dichloropropene, Total	100				0			0.9339	
85 Ethyl methacrylate	69	10.097	10.097	0.000	88	23808	0.5000	0.4346	
86 1,1,2-Trichloroethane	97	10.238	10.238	0.000	93	18390	0.5000	0.4821	
88 Tetrachloroethene	166	10.317	10.317	0.000	90	29226	0.5000	0.4814	
89 1,3-Dichloropropane	76	10.402	10.402	0.000	92	31700	0.5000	0.4818	
91 2-Hexanone	43	10.457	10.457	0.000	98	132607	5.00	4.56	
93 Chlorodibromomethane	129	10.609	10.615	-0.006	91	22152	0.5000	0.4486	
94 Ethylene Dibromide	107	10.725	10.719	0.006	98	17968	0.5000	0.4683	
* 95 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	88	1502037	10.0	10.0	
96 1-Chlorohexane	91	11.164	11.164	0.000	93	37329	0.5000	0.4855	
97 Chlorobenzene	112	11.183	11.182	0.001	97	71673	0.5000	0.4873	
S 101 Xylenes, Total	106				0			1.43	
98 1,1,1,2-Tetrachloroethane	131	11.268	11.268	0.000	88	25359	0.5000	0.4597	
99 Ethylbenzene	91	11.268	11.268	0.000	99	124564	0.5000	0.4830	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
100 m-Xylene & p-Xylene	106	11.384	11.384	0.000	0	91971	1.00	0.9593	
102 o-Xylene	106	11.713	11.713	0.000	97	44192	0.5000	0.4712	
103 Styrene	104	11.731	11.731	0.000	93	70485	0.5000	0.4561	
104 Bromoform	173	11.884	11.890	-0.006	94	13251	0.5000	0.4254	
105 Isopropylbenzene	105	12.018	12.018	0.000	97	119182	0.5000	0.4752	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	89	738034	10.0	10.1	
109 1,1,2,2-Tetrachloroethane	83	12.262	12.262	0.000	93	23725	0.5000	0.4740	
110 Bromobenzene	156	12.280	12.274	0.006	90	32228	0.5000	0.4861	
111 trans-1,4-Dichloro-2-butene	53	12.292	12.286	0.006	90	66860	5.00	4.16	
112 1,2,3-Trichloropropane	110	12.310	12.310	0.000	78	6695	0.5000	0.4777	
113 N-Propylbenzene	91	12.347	12.347	0.000	99	148696	0.5000	0.4847	
114 2-Chlorotoluene	126	12.420	12.420	0.000	95	29688	0.5000	0.4871	
115 1,3,5-Trimethylbenzene	105	12.481	12.481	0.000	94	96902	0.5000	0.4539	
116 4-Chlorotoluene	126	12.512	12.511	0.001	98	31429	0.5000	0.4849	
118 tert-Butylbenzene	134	12.725	12.725	0.000	93	23424	0.5000	0.4929	
120 Pentachloroethane	167	12.749	12.755	-0.006	78	19744	0.5000	0.4706	
119 1,2,4-Trimethylbenzene	105	12.761	12.761	0.000	98	106180	0.5000	0.4758	
121 sec-Butylbenzene	105	12.890	12.883	0.007	95	133063	0.5000	0.4738	
122 1,3-Dichlorobenzene	146	12.987	12.987	0.000	97	61490	0.5000	0.4790	
123 4-Isopropyltoluene	119	12.993	12.993	0.000	97	111834	0.5000	0.4641	
* 124 1,4-Dichlorobenzene-d4	152	13.042	13.036	0.006	97	826186	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.054	13.054	0.000	95	63356	0.5000	0.4864	
126 1,2,3-Trimethylbenzene	120	13.072	13.066	0.006	98	47867	0.5000	0.4897	
127 Benzyl chloride	126	13.139	13.133	0.006	99	8005	0.5000	0.4281	
129 p-Diethylbenzene	119	13.194	13.194	0.000	90	70845	0.5000	0.4820	
130 n-Butylbenzene	92	13.286	13.286	0.000	97	60183	0.5000	0.4799	
131 1,2-Dichlorobenzene	146	13.316	13.316	0.000	95	59487	0.5000	0.4965	
134 1,2-Dibromo-3-Chloropropane	155	13.859	13.859	0.000	78	3484	0.5000	0.4809	
135 1,3,5-Trichlorobenzene	180	13.981	13.981	0.000	95	47627	0.5000	0.4749	
136 1,2,4-Trichlorobenzene	180	14.408	14.407	0.001	94	40666	0.5000	0.4719	
137 Hexachlorobutadiene	225	14.487	14.487	0.000	96	21811	0.5000	0.4636	
138 Naphthalene	128	14.590	14.590	0.000	96	68651	0.5000	0.4886	
139 1,2,3-Trichlorobenzene	180	14.731	14.731	0.000	93	34158	0.5000	0.4721	
140 2-Methylnaphthalene	142	15.352	15.352	0.000	90	38663	0.5000	0.4721	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MSV_RV1_826_00016

Amount Added: 2.00

Units: uL

MSV_RV4GAS826_00047

Amount Added: 2.00

Units: uL

MSV_RV4_826_00017

Amount Added: 2.00

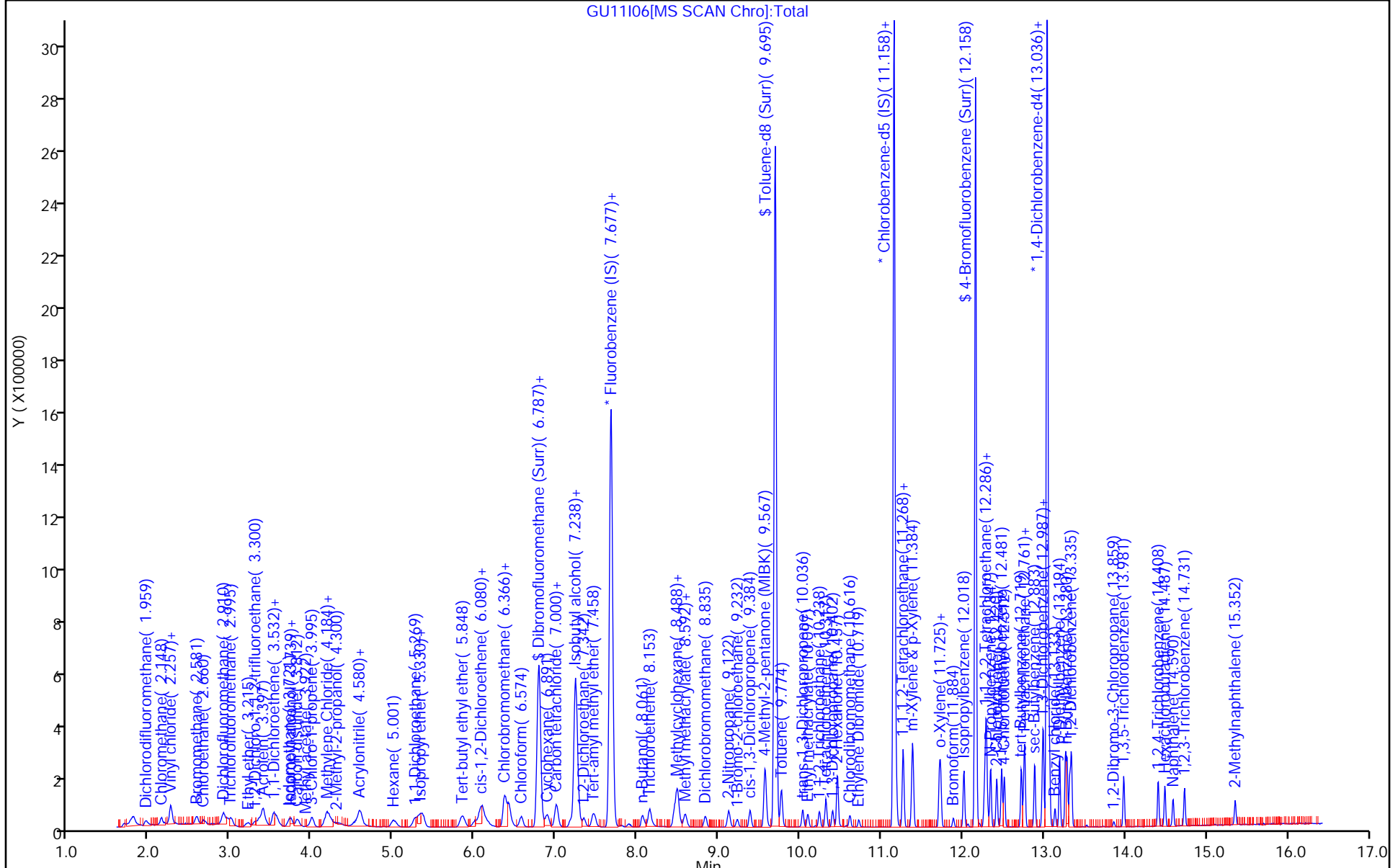
Units: uL

MSV_29_826ISS_00007

Amount Added: 1.00

Units: uL

Run Reagent



Eurofins Lancaster Laboratories Env, LLC

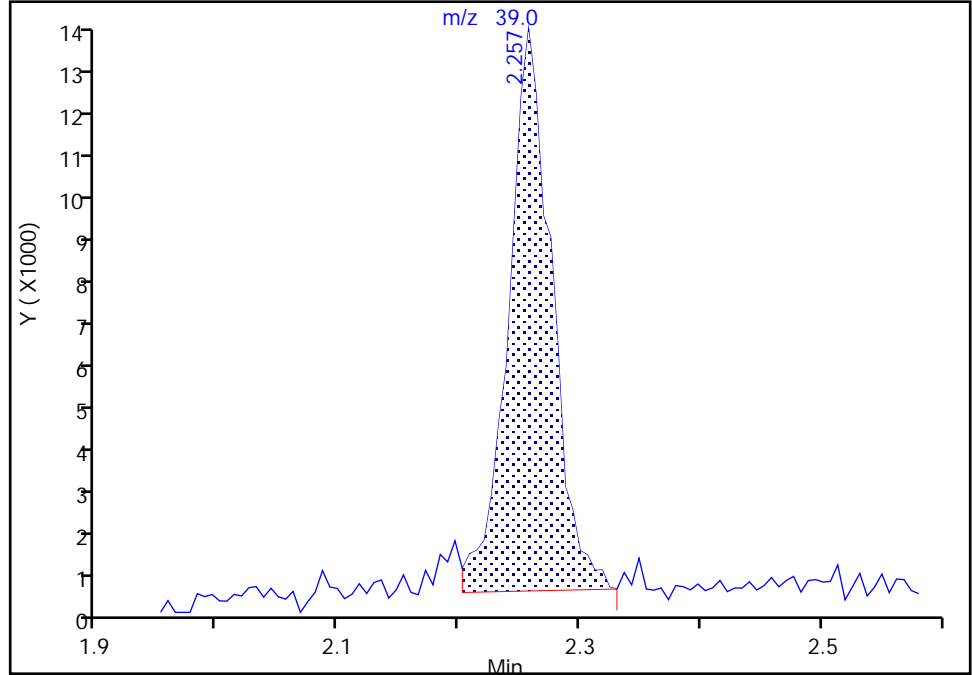
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11106.D
Injection Date: 11-Jun-2020 16:13:30 Instrument ID: 16334
Lims ID: IC std2
Client ID:
Operator ID: DVV10203 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

6 Butadiene, CAS: 106-99-0

Signal: 1

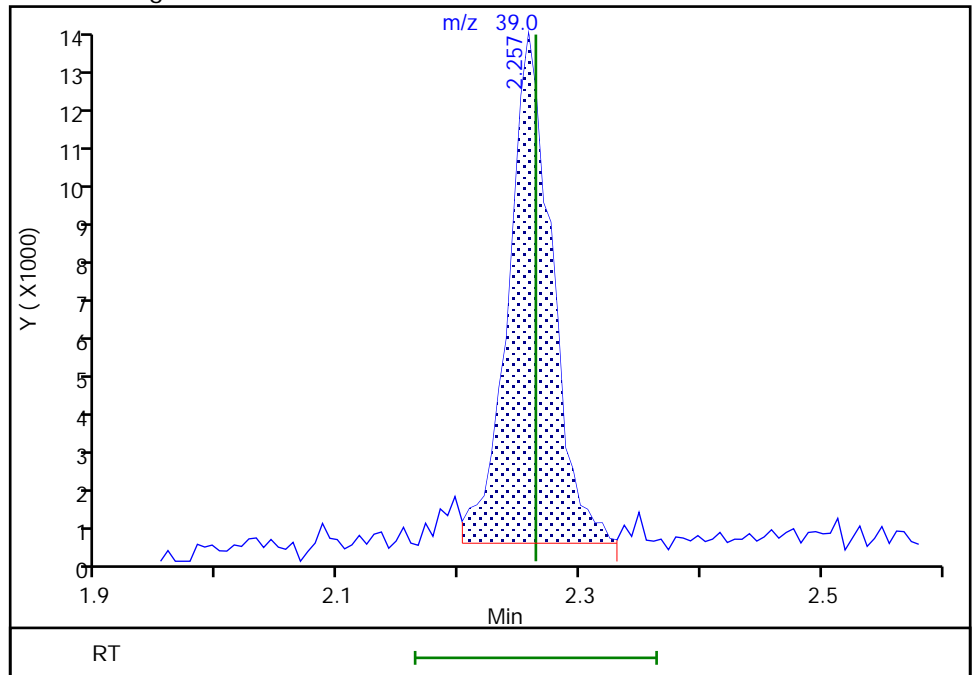
RT: 2.26
Area: 32767
Amount: 0.490920
Amount Units: ug/l

Processing Integration Results



RT: 2.26
Area: 33085
Amount: 0.509631
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:58:55
Audit Action: Assigned New Baseline

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

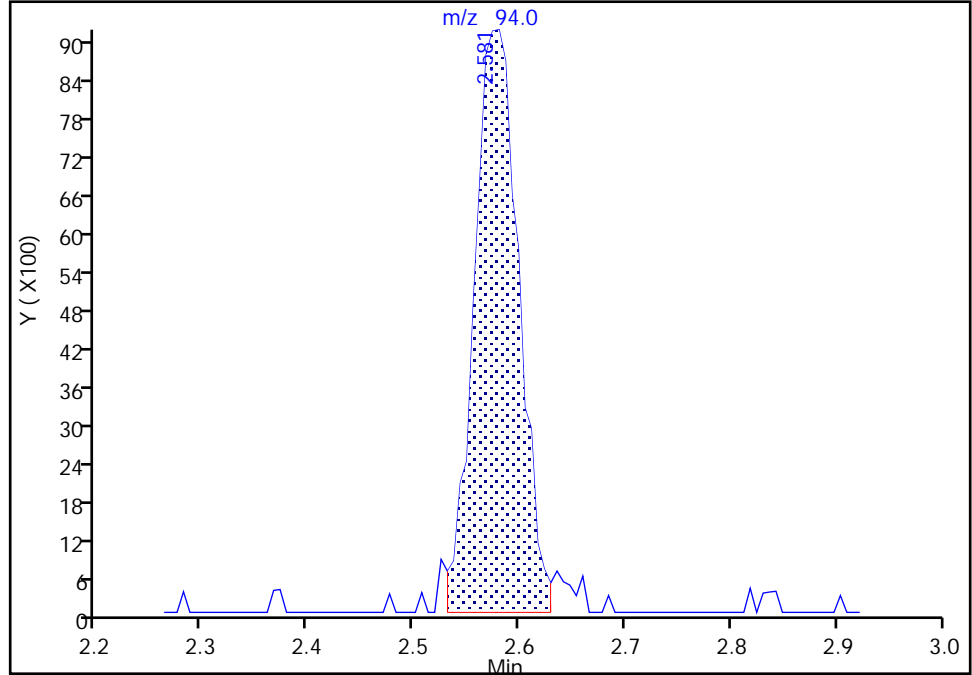
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I06.D
Injection Date: 11-Jun-2020 16:13:30 Instrument ID: 16334
Lims ID: IC std2
Client ID:
Operator ID: DVV10203 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

9 Bromomethane, CAS: 74-83-9

Signal: 1

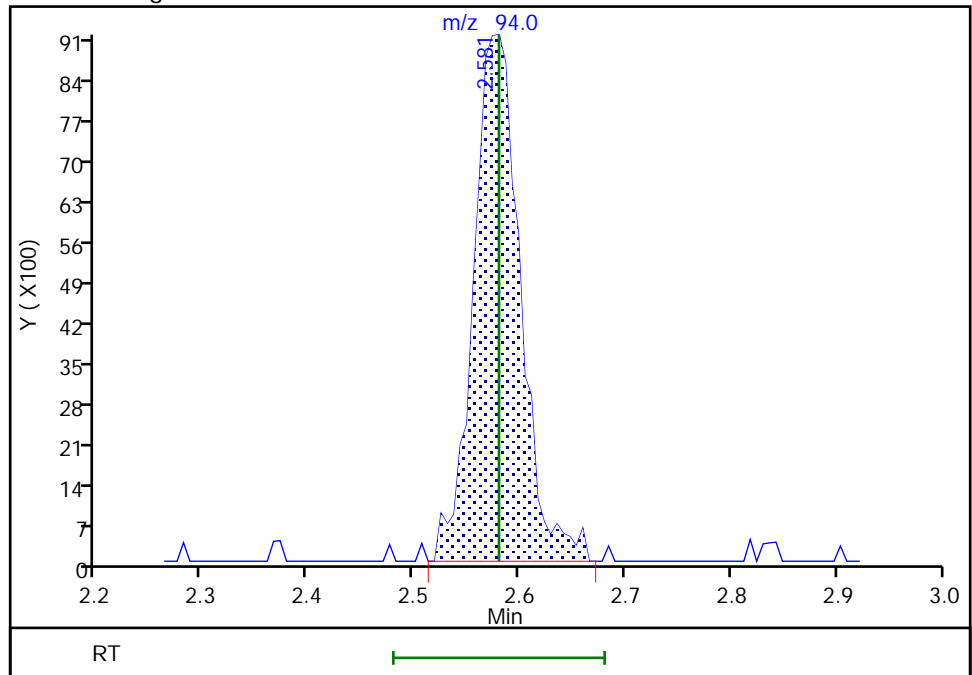
RT: 2.58
Area: 27017
Amount: 0.501883
Amount Units: ug/l

Processing Integration Results



RT: 2.58
Area: 28195
Amount: 0.516955
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:59:04
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

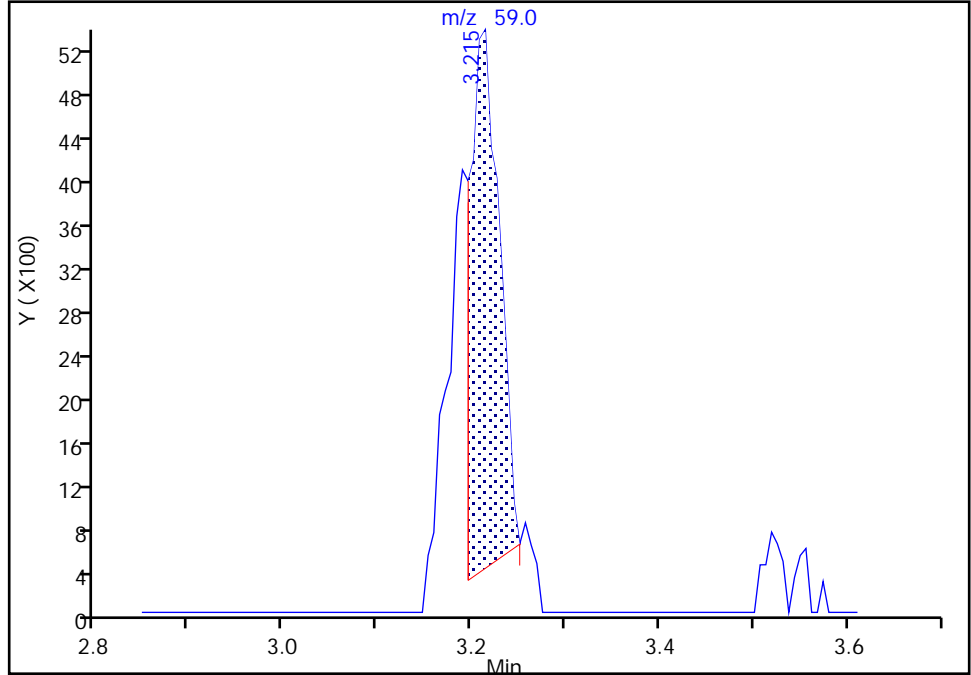
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11106.D
Injection Date: 11-Jun-2020 16:13:30 Instrument ID: 16334
Lims ID: IC std2
Client ID:
Operator ID: DVV10203 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

15 Ethyl ether, CAS: 60-29-7

Signal: 1

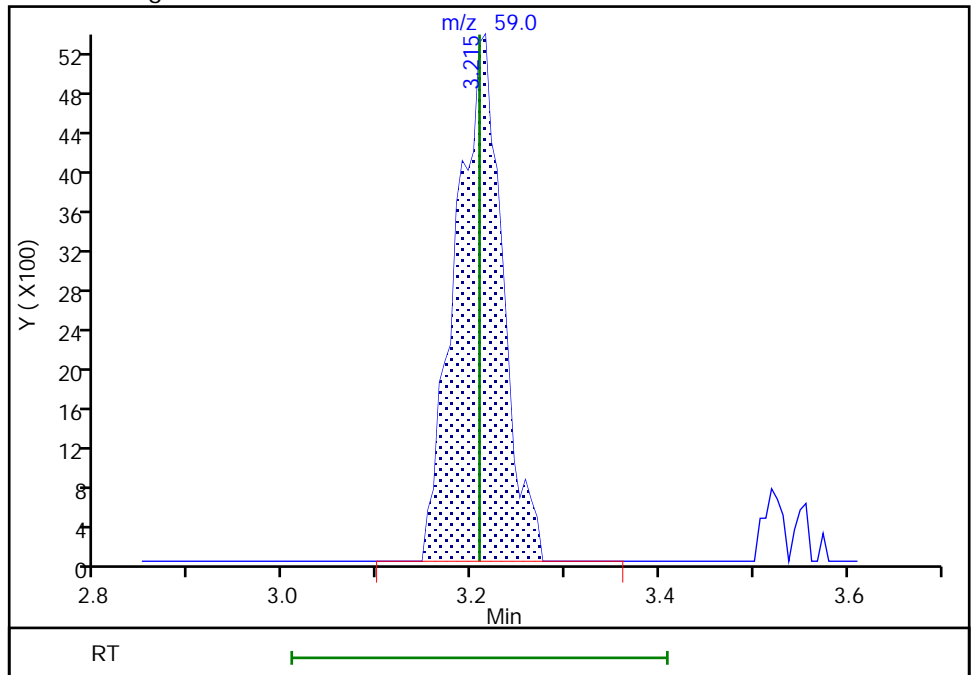
RT: 3.21
Area: 10633
Amount: 0.382527
Amount Units: ug/l

Processing Integration Results



RT: 3.21
Area: 18473
Amount: 0.520037
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:59:11
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

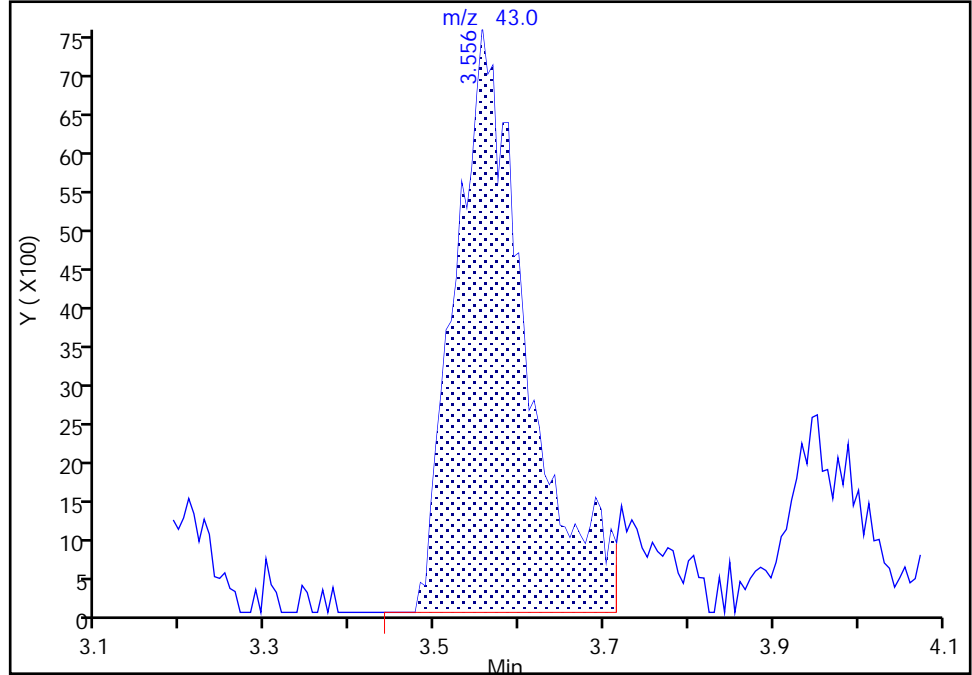
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I06.D
Injection Date: 11-Jun-2020 16:13:30 Instrument ID: 16334
Lims ID: IC std2
Client ID:
Operator ID: DVV10203 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

20 Acetone, CAS: 67-64-1

Signal: 1

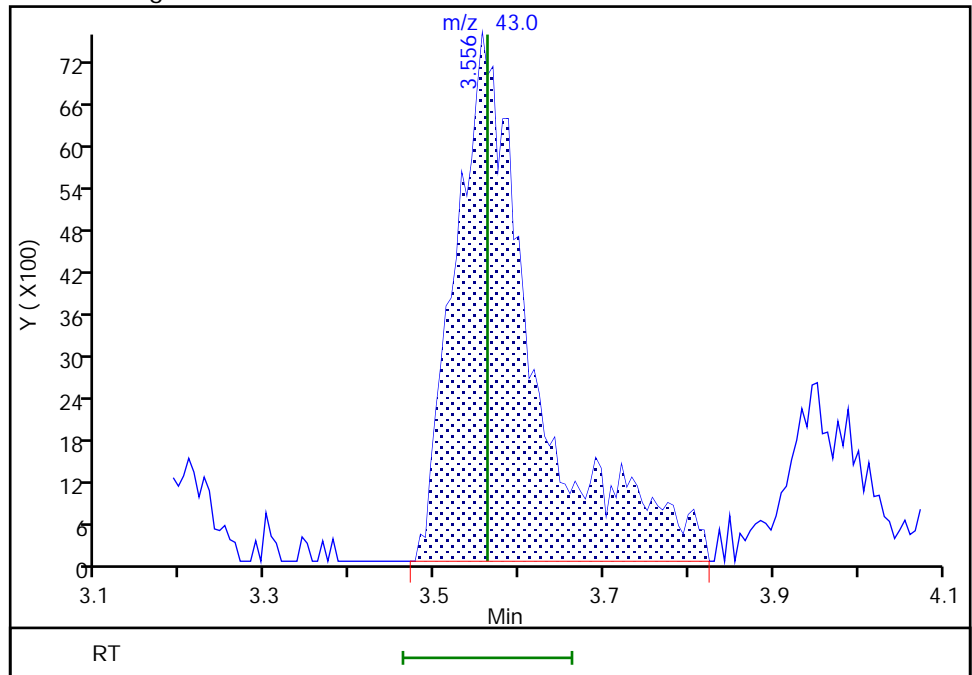
RT: 3.56
Area: 44056
Amount: 5.107733
Amount Units: ug/l

Processing Integration Results



RT: 3.56
Area: 48993
Amount: 5.493498
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:59:21
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

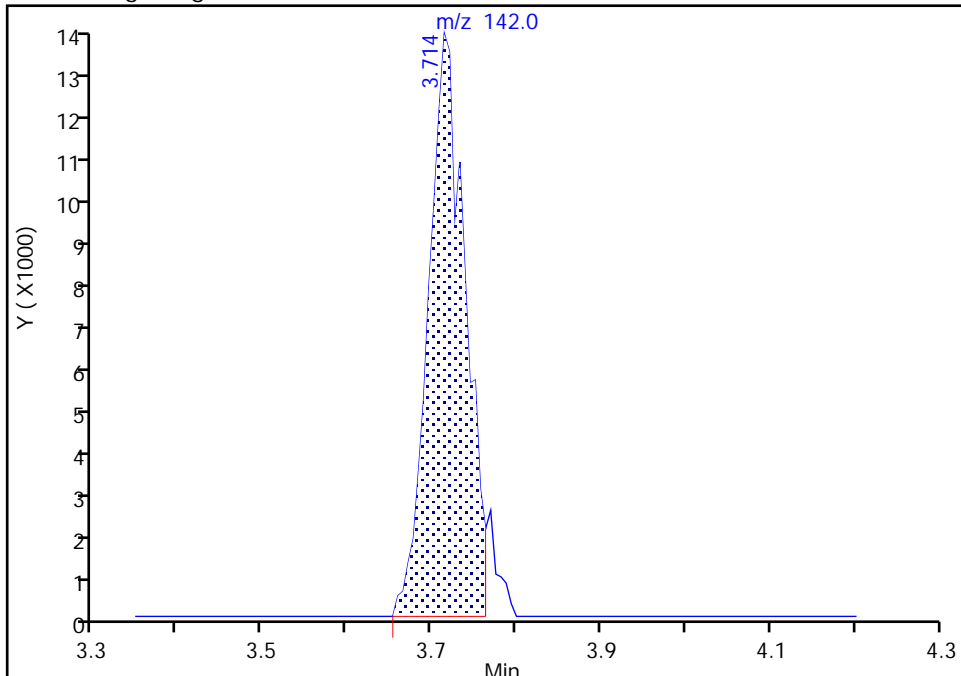
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11106.D
Injection Date: 11-Jun-2020 16:13:30 Instrument ID: 16334
Lims ID: IC std2
Client ID:
Operator ID: DVV10203 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

22 Iodomethane, CAS: 74-88-4

Signal: 1

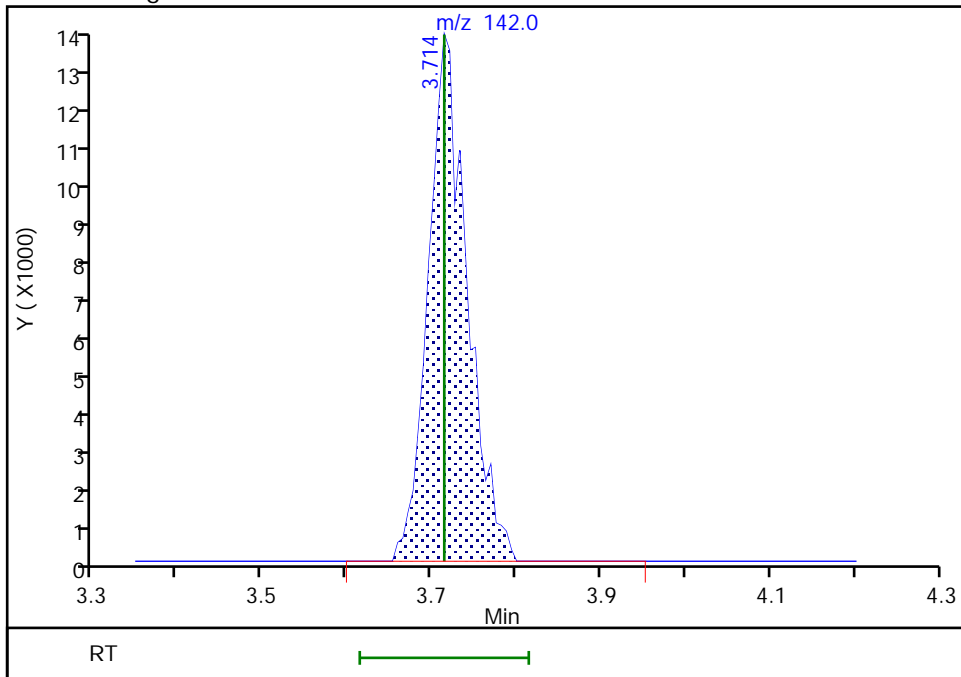
RT: 3.71
Area: 39552
Amount: 0.469258
Amount Units: ug/l

Processing Integration Results



RT: 3.71
Area: 41468
Amount: 0.484063
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:59:33
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

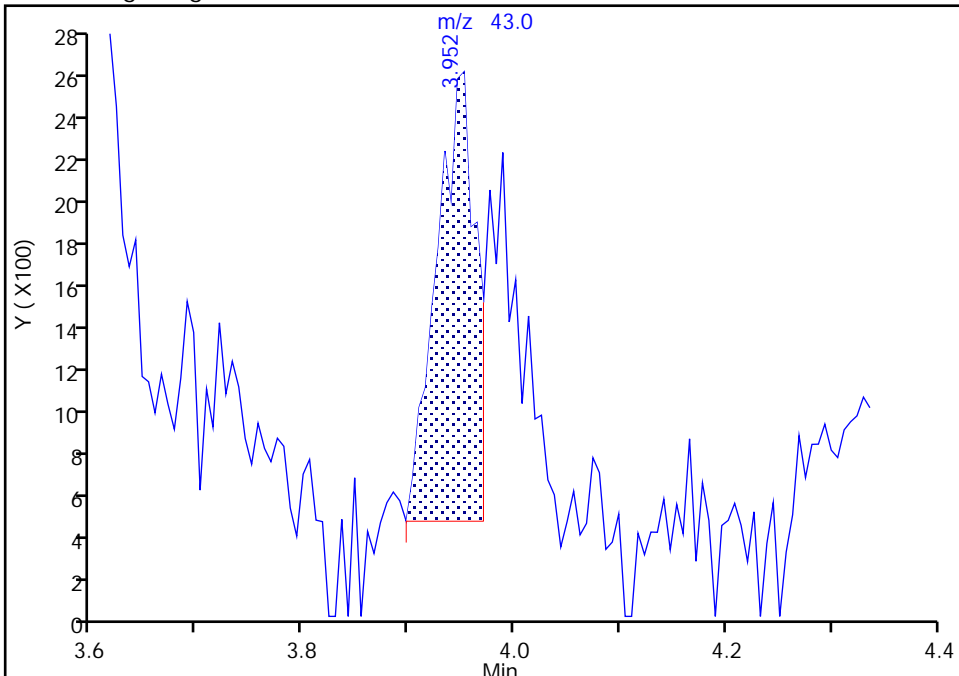
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Injection Date: 11-Jun-2020 16:13:30 Instrument ID: 16334
Lims ID: IC std2
Client ID:
Operator ID: DVV10203 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

26 Methyl acetate, CAS: 79-20-9

Signal: 1

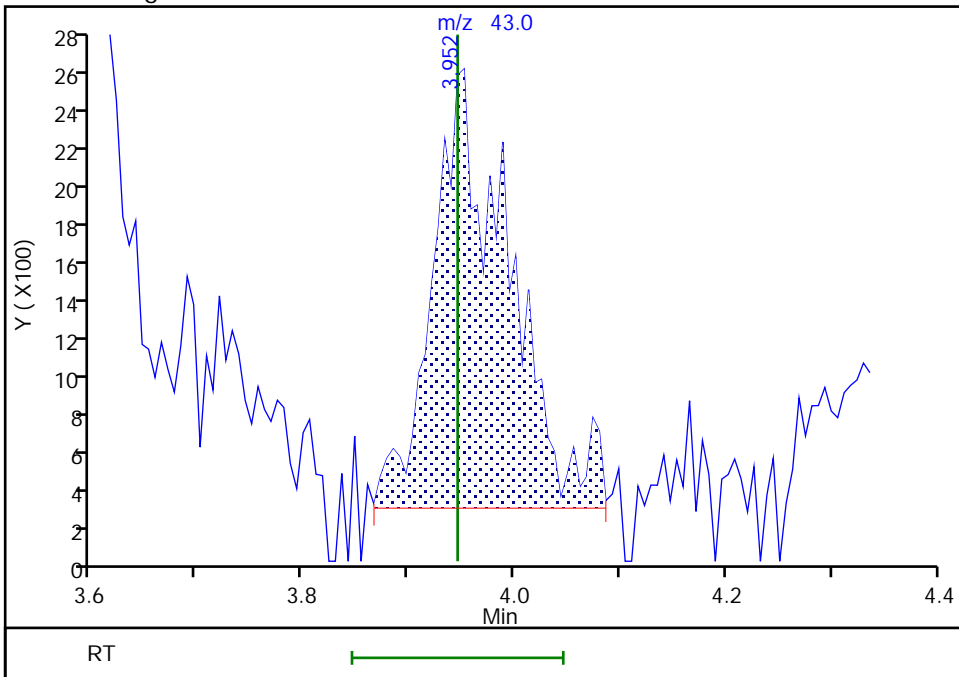
RT: 3.95
Area: 5440
Amount: 0.674632
Amount Units: ug/l

Processing Integration Results



RT: 3.95
Area: 11369
Amount: 0.538096
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 14:10:03
Audit Action: Assigned New Baseline

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

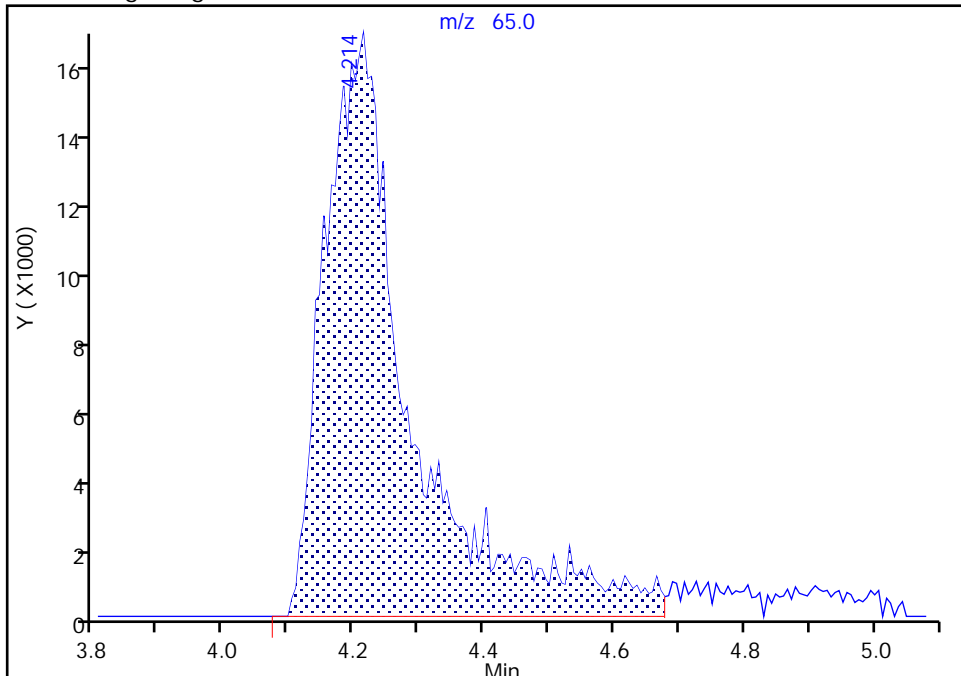
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11106.D
Injection Date: 11-Jun-2020 16:13:30 Instrument ID: 16334
Lims ID: IC std2
Client ID:
Operator ID: DVV10203 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 29 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

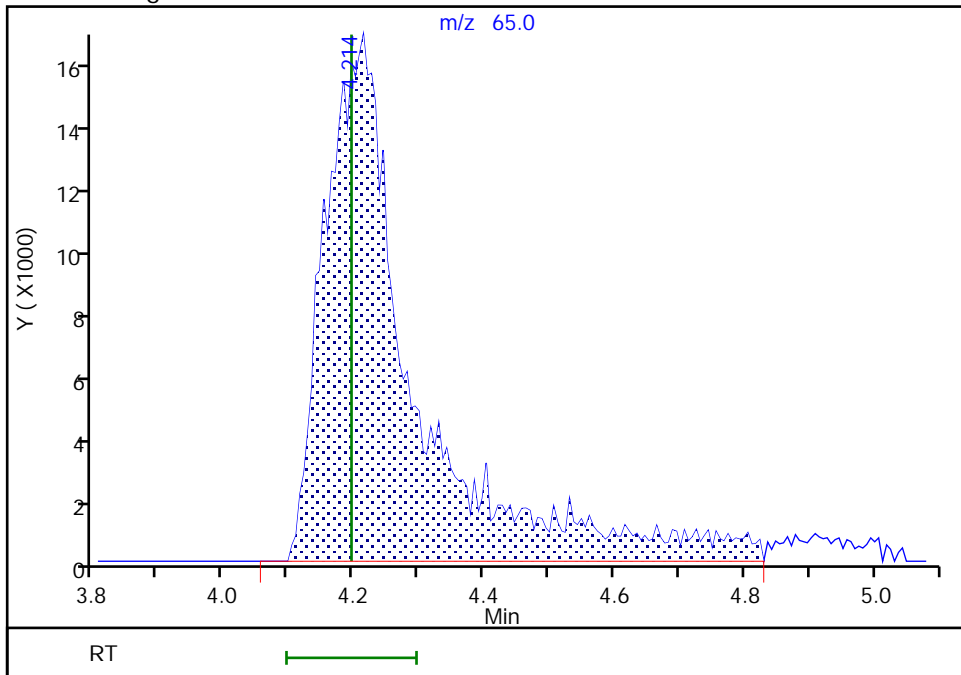
RT: 4.21
Area: 153188
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.21
Area: 159694
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 14:00:03
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

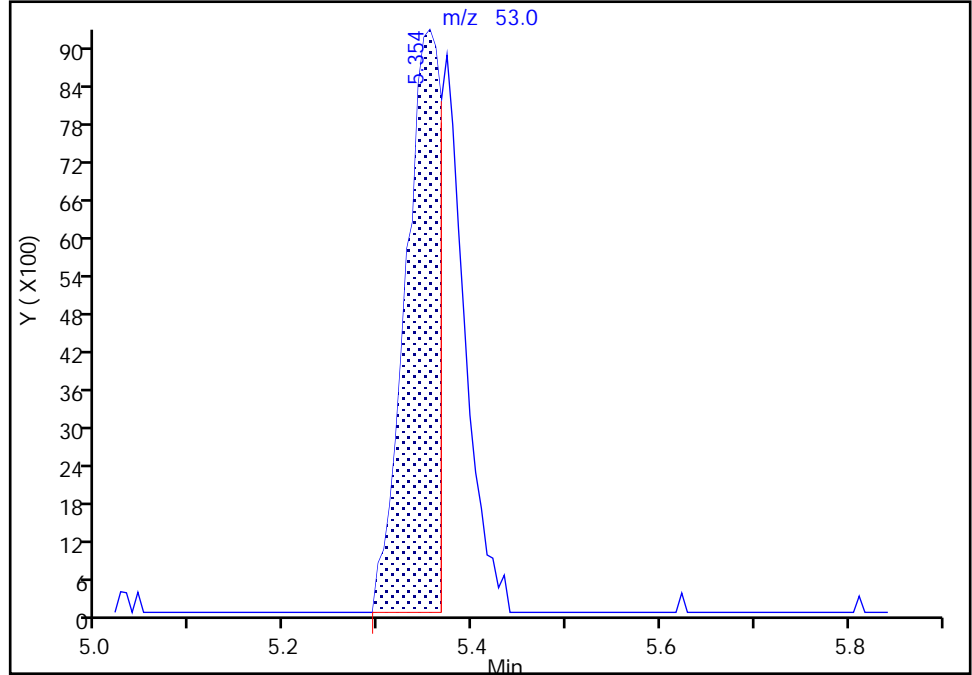
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11106.D
Injection Date: 11-Jun-2020 16:13:30 Instrument ID: 16334
Lims ID: IC std2
Client ID:
Operator ID: DVV10203 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

38 2-Chloro-1,3-butadiene, CAS: 126-99-8

Signal: 1

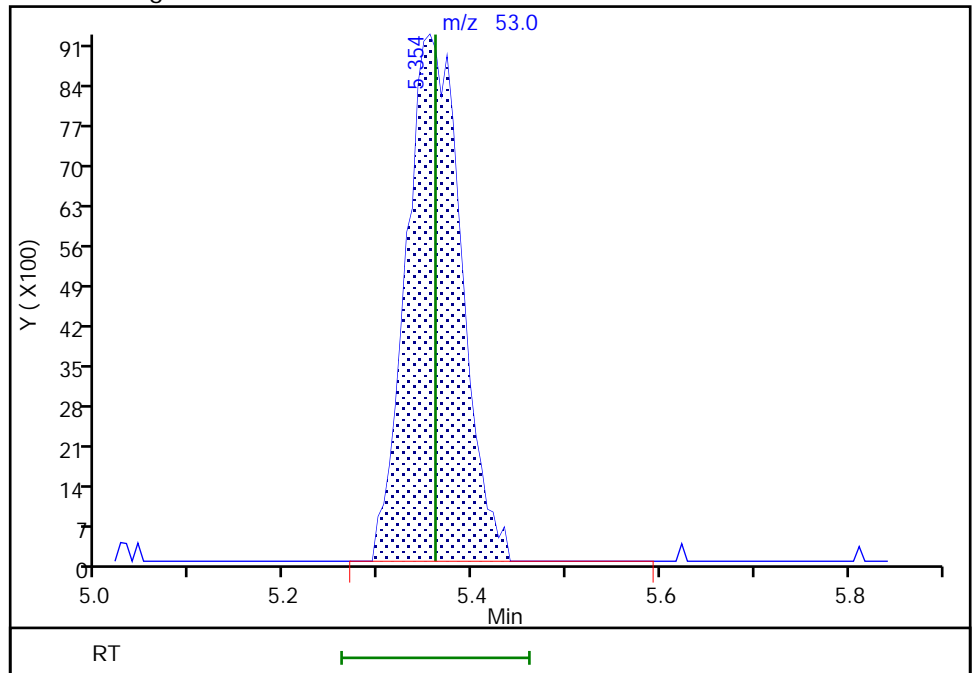
RT: 5.35
Area: 24084
Amount: 0.310607
Amount Units: ug/l

Processing Integration Results



RT: 5.35
Area: 37602
Amount: 0.461936
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 14:00:12
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

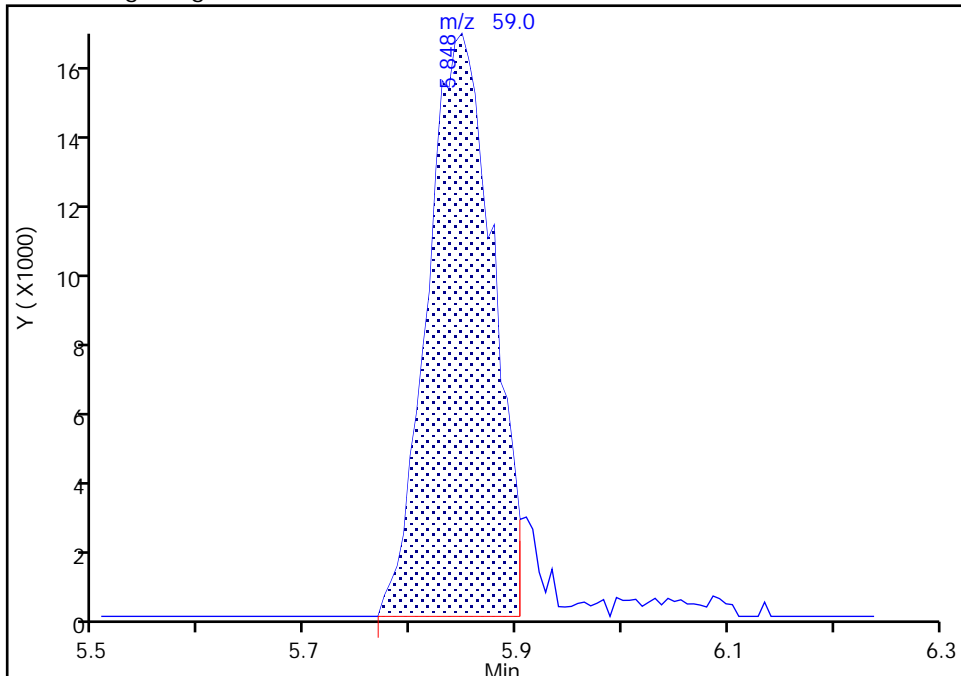
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11106.D
Injection Date: 11-Jun-2020 16:13:30 Instrument ID: 16334
Lims ID: IC std2
Client ID:
Operator ID: DVV10203 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

39 Tert-butyl ethyl ether, CAS: 637-92-3

Signal: 1

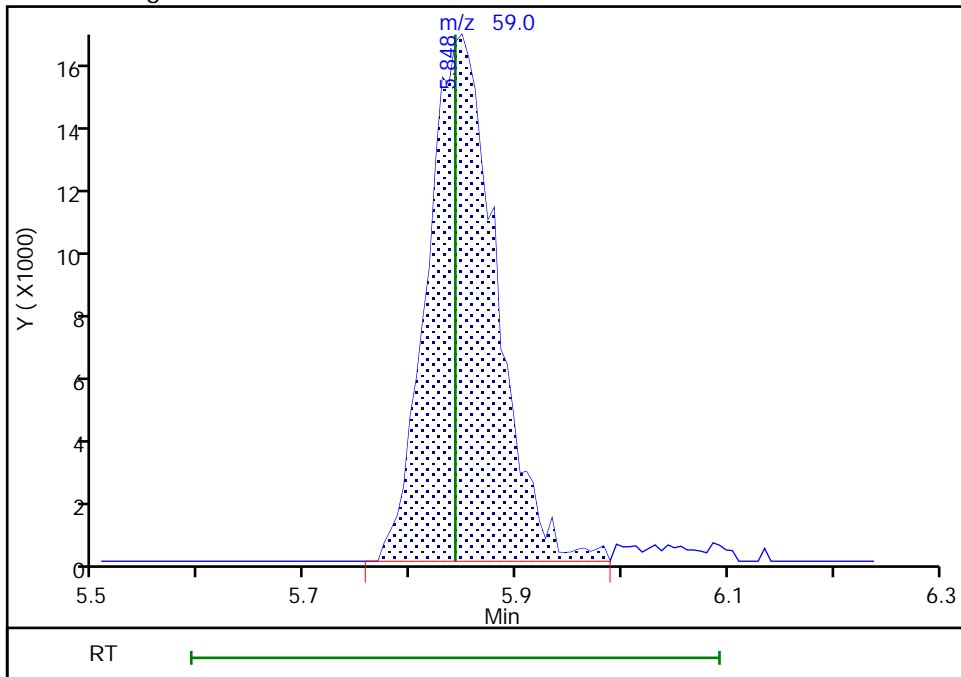
RT: 5.85
Area: 69898
Amount: 0.479990
Amount Units: ug/l

Processing Integration Results



RT: 5.85
Area: 73992
Amount: 0.480363
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 14:00:25
Audit Action: Manually Integrated

Audit Reason: Other

Euofins Lancaster Laboratories Env, LLC

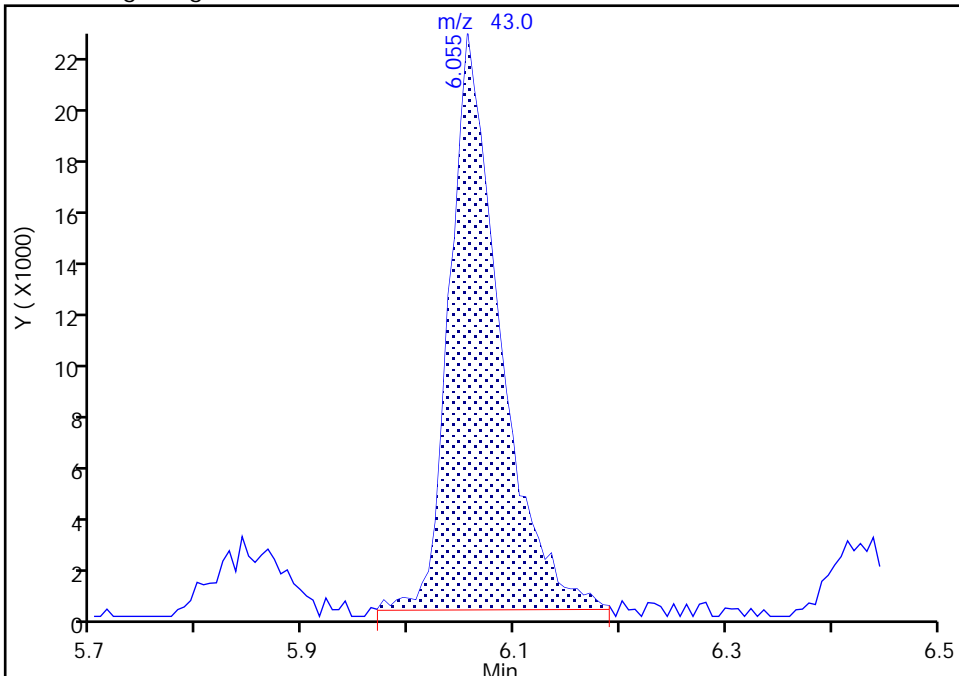
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I06.D
Injection Date: 11-Jun-2020 16:13:30 Instrument ID: 16334
Lims ID: IC std2
Client ID:
Operator ID: DVV10203 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

40 2-Butanone (MEK), CAS: 78-93-3

Signal: 1

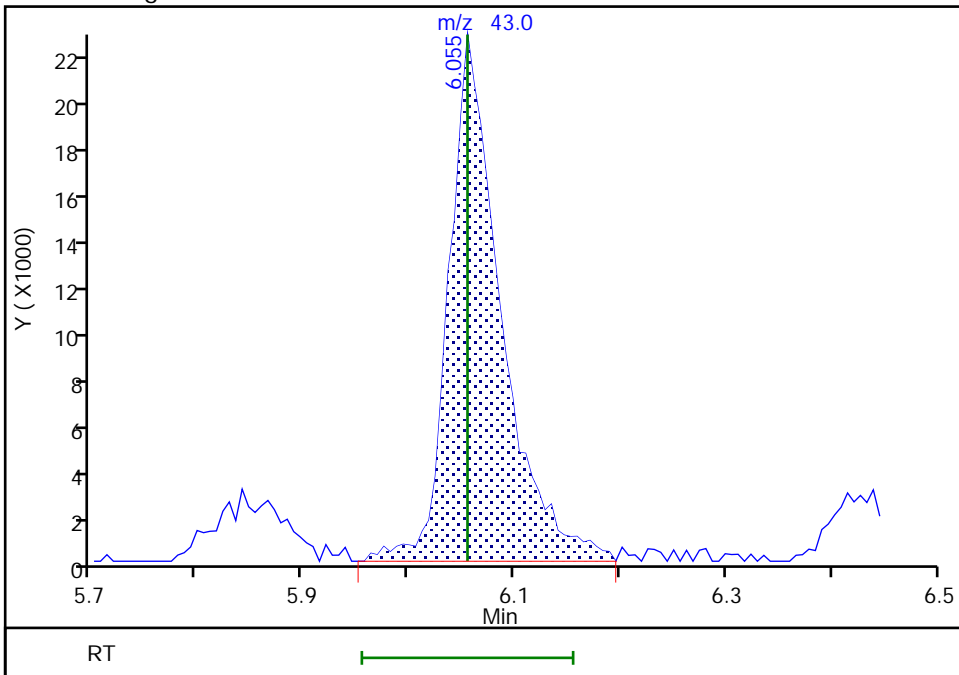
RT: 6.06
Area: 73449
Amount: 4.614245
Amount Units: ug/l

Processing Integration Results



RT: 6.06
Area: 76981
Amount: 5.030090
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 14:00:34
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

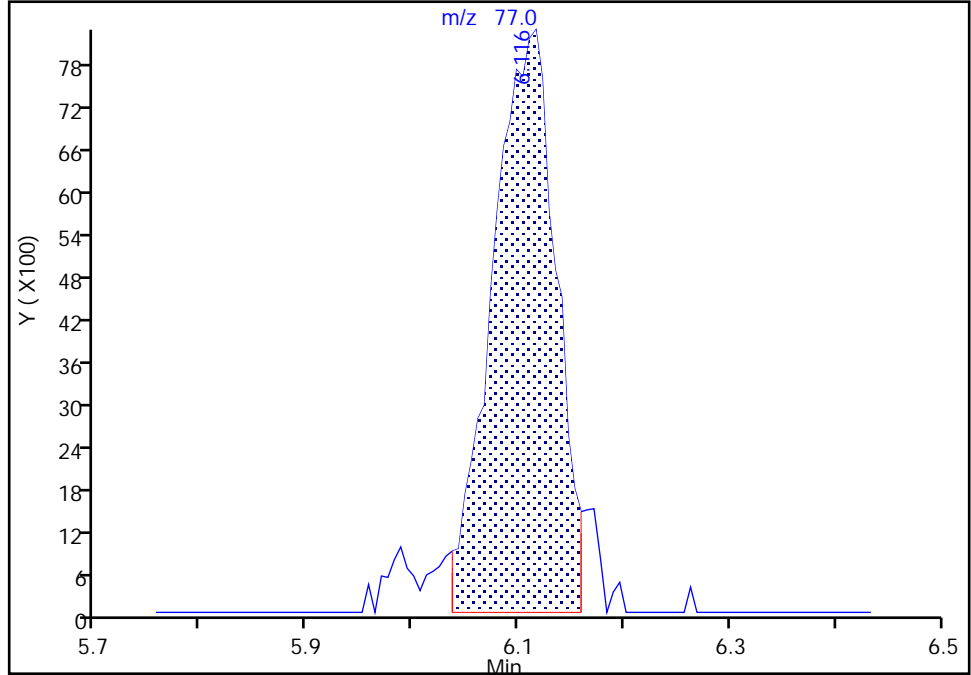
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I06.D
Injection Date: 11-Jun-2020 16:13:30 Instrument ID: 16334
Lims ID: IC std2
Client ID:
Operator ID: DVV10203 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

42 2,2-Dichloropropane, CAS: 594-20-7

Signal: 1

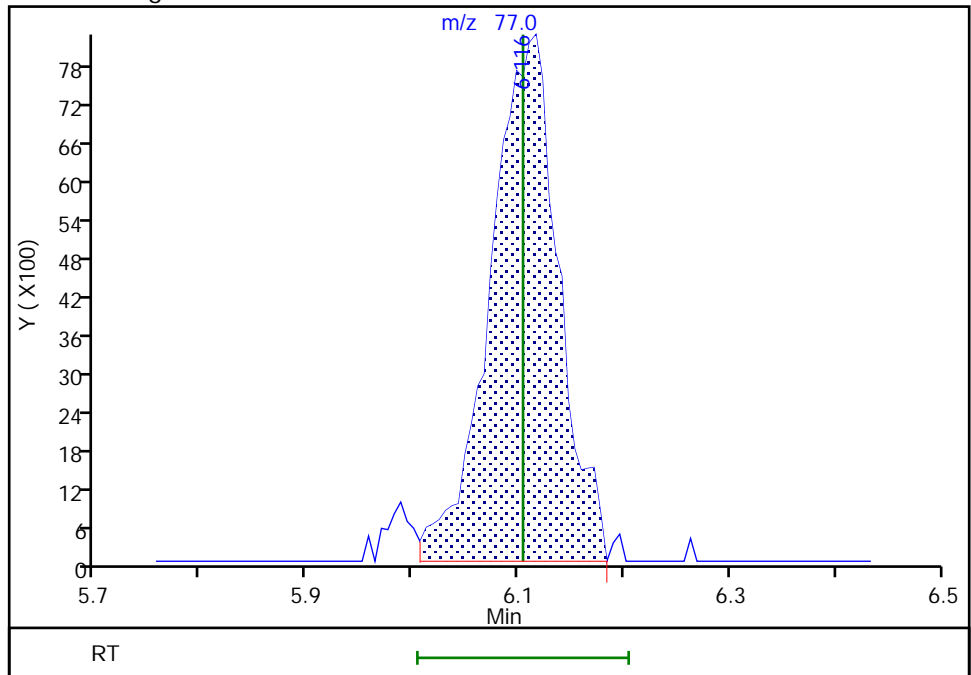
RT: 6.12
Area: 34848
Amount: 0.478877
Amount Units: ug/l

Processing Integration Results



RT: 6.12
Area: 37253
Amount: 0.478760
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 14:00:50
Audit Action: Split an Integrated Peak

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

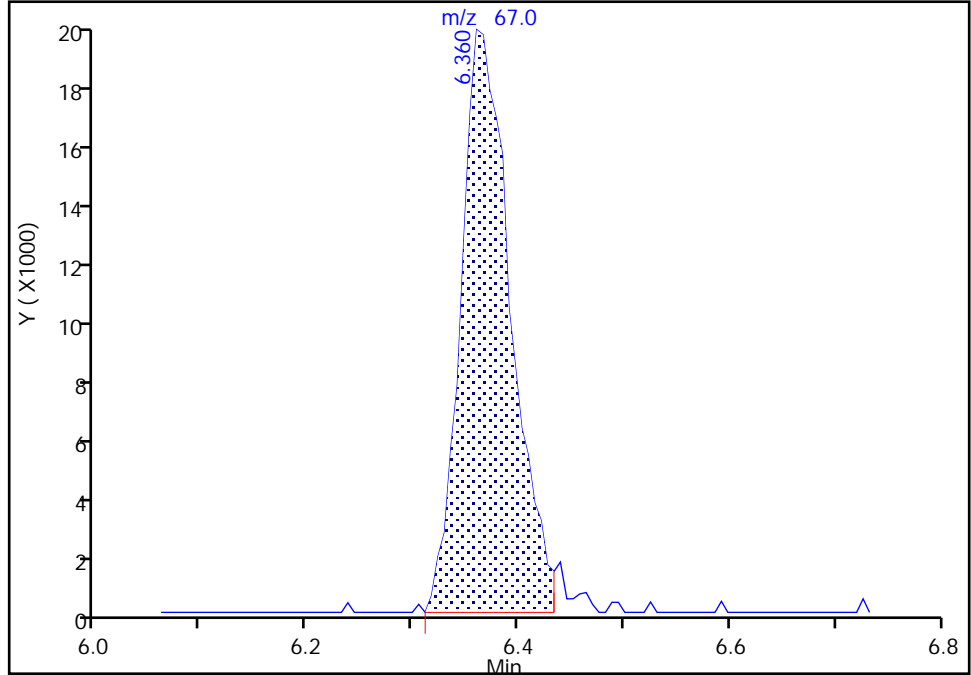
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I06.D
Injection Date: 11-Jun-2020 16:13:30 Instrument ID: 16334
Lims ID: IC std2
Client ID:
Operator ID: DVV10203 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

46 Methacrylonitrile, CAS: 126-98-7

Signal: 1

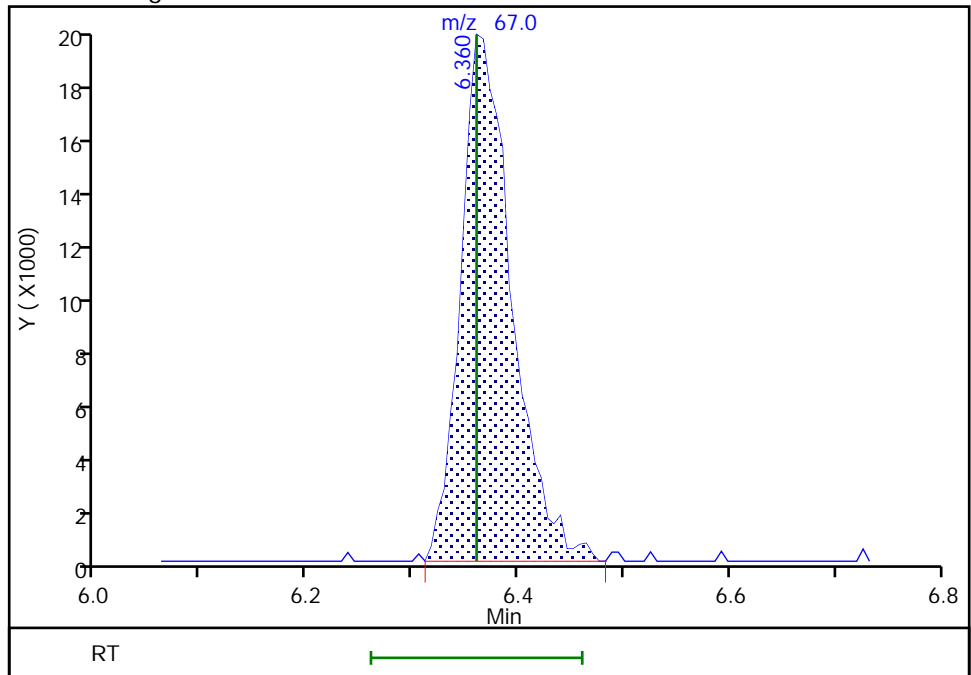
RT: 6.36
Area: 62982
Amount: 4.827464
Amount Units: ug/l

Processing Integration Results



RT: 6.36
Area: 64469
Amount: 4.840674
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 14:01:01
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

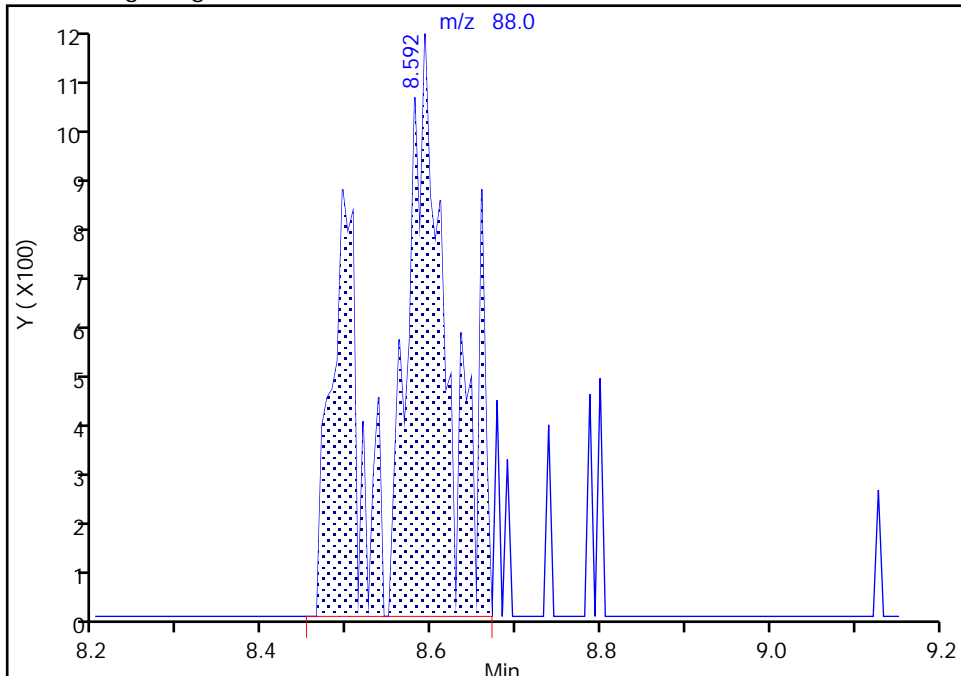
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I06.D
Injection Date: 11-Jun-2020 16:13:30 Instrument ID: 16334
Lims ID: IC std2
Client ID:
Operator ID: DVV10203 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

72 1,4-Dioxane, CAS: 123-91-1

Signal: 1

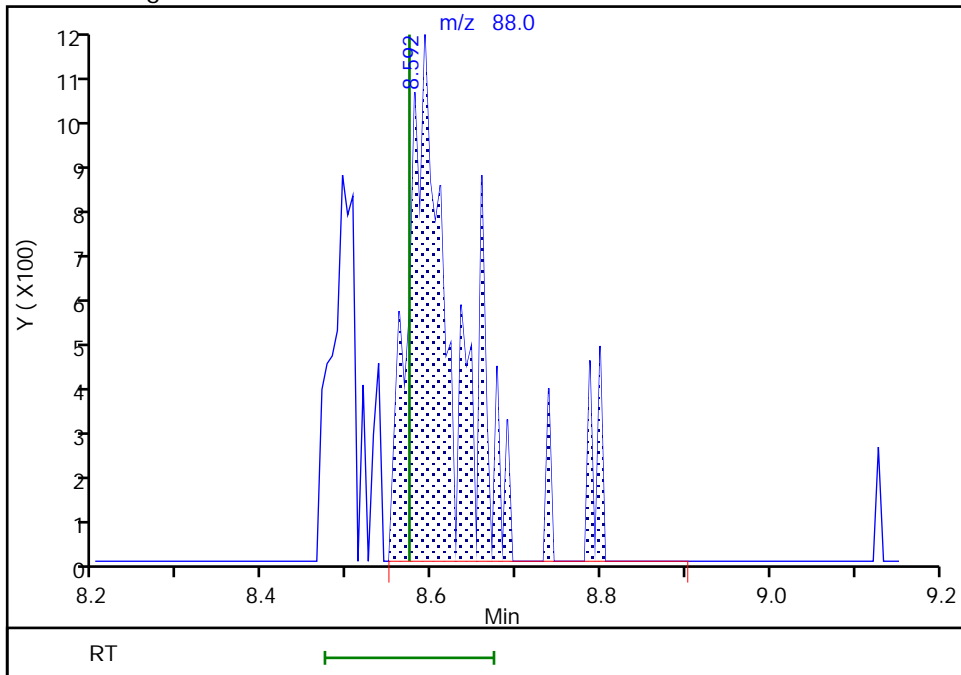
RT: 8.59
Area: 5846
Amount: 7.637195
Amount Units: ug/l

Processing Integration Results



RT: 8.59
Area: 4653
Amount: 24.062530
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 14:01:19
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

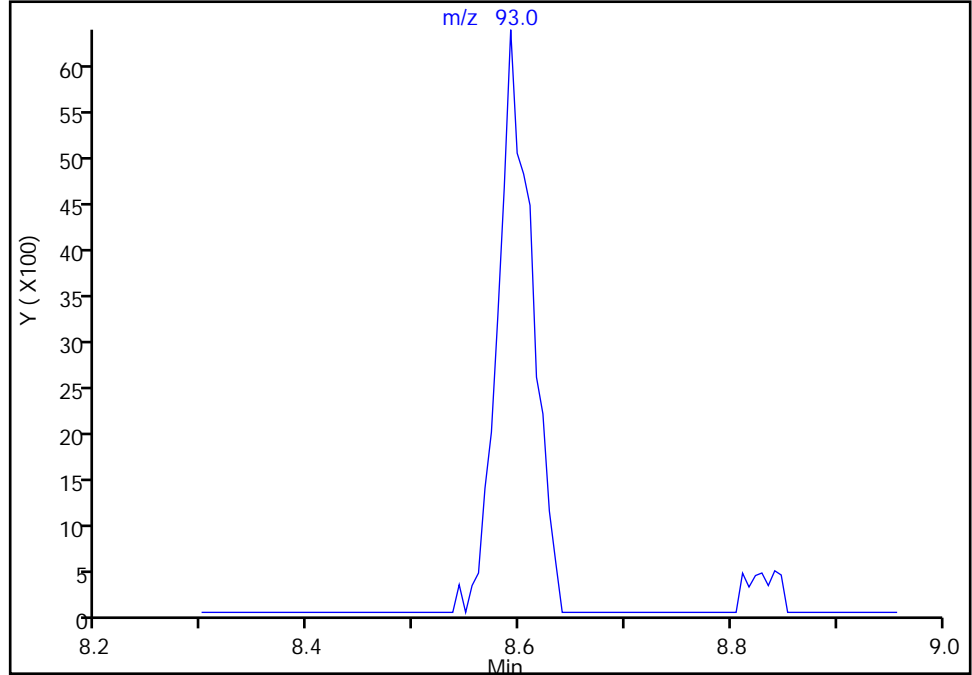
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11106.D
Injection Date: 11-Jun-2020 16:13:30 Instrument ID: 16334
Lims ID: IC std2
Client ID:
Operator ID: DVV10203 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

73 Dibromomethane, CAS: 74-95-3

Signal: 1

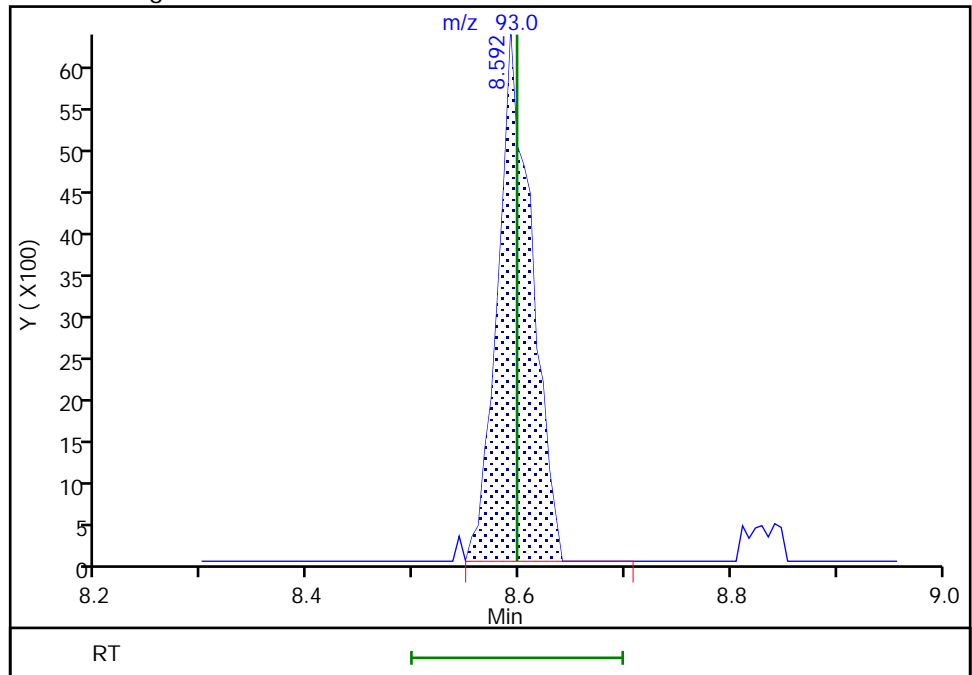
Not Detected
Expected RT: 8.60

Processing Integration Results



Manual Integration Results

RT: 8.59
Area: 14233
Amount: 0.496442
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 14:01:27
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I07.D
 Lims ID: IC std1
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 11-Jun-2020 16:35:30 ALS Bottle#: 8 Worklist Smp#: 9
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0003178-009
 Misc. Info.: IC STD1
 Operator ID: DVV10203 Instrument ID: 16334
 Sublist: chrom-MSV_16334_25mL*sub4
 Method: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 16-Jun-2020 21:44:04 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I17.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1028

First Level Reviewer: howej

Date: 12-Jun-2020 14:07:11

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.953	1.953	0.000	97	16767	0.2000	0.2111	
5 Chloromethane	50	2.148	2.142	0.006	99	16748	0.2000	0.2274	
6 Butadiene	39	2.257	2.263	-0.006	93	12223	0.2000	0.1941	M
7 Vinyl chloride	62	2.264	2.263	0.001	94	14219	0.2000	0.2045	M
9 Bromomethane	94	2.574	2.580	-0.006	92	11019	0.2000	0.2083	M
10 Chloroethane	64	2.654	2.660	-0.006	45	8859	0.2000	0.2232	
11 Dichlorofluoromethane	67	2.904	2.904	0.000	97	19709	0.2000	0.2099	
13 Trichlorofluoromethane	101	2.959	2.958	0.000	90	18659	0.2000	0.2005	
15 Ethyl ether	59	3.215	3.208	0.007	92	6826	0.2000	0.1981	M
16 1,2-Dichloro-1,1,2-trifluoroethane	67	3.300	3.300	0.000	41	10969	0.2000	0.2043	
18 Acrolein	56	3.391	3.391	0.000	97	54729	10.0	10.2	
19 1,1-Dichloroethene	96	3.513	3.525	-0.012	98	8513	0.2000	0.2110	
21 112TCTFE	101	3.568	3.550	0.018	55	9019	0.2000	0.2027	M
20 Acetone	43	3.562	3.562	0.000	77	19767	2.00	2.33	
23 Isopropyl alcohol	45	3.702	3.708	-0.006	32	5463	4.00	4.29	
22 Iodomethane	142	3.708	3.714	-0.006	87	17483	0.2000	0.2104	M
24 Ethyl bromide	108	3.751	3.745	0.006	20	6951	0.2001	0.1966	M
25 Carbon disulfide	76	3.824	3.818	0.006	98	29106	0.2000	0.2056	
26 Methyl acetate	43	3.977	3.946	0.031	19	3707	0.2000	0.1844	M
27 3-Chloro-1-propene	41	3.995	3.995	0.000	85	13962	0.2000	0.2087	
28 Methylene Chloride	84	4.190	4.184	0.006	50	9940	0.2000	0.2194	M
* 29 t-Butyl alcohol-d10 (IS)	65	4.202	4.196	0.006	40	151960	50.0	50.0	M
30 2-Methyl-2-propanol	59	4.330	4.318	0.012	28	11084	4.00	4.10	
31 Acrylonitrile	53	4.537	4.519	0.018	80	9688	1.00	1.06	
32 Methyl tert-butyl ether	73	4.580	4.586	-0.006	82	25312	0.2000	0.2041	
33 trans-1,2-Dichloroethene	96	4.586	4.586	0.000	93	8994	0.2000	0.1975	
34 Hexane	57	5.007	4.995	0.012	89	12007	0.2000	0.2001	
36 1,1-Dichloroethane	63	5.257	5.251	0.006	96	18242	0.2000	0.2125	
37 Isopropyl ether	45	5.312	5.306	0.006	92	33101	0.2000	0.2170	
38 2-Chloro-1,3-butadiene	53	5.354	5.360	-0.006	95	16665	0.2000	0.2111	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 Tert-butyl ethyl ether	59	5.842	5.842	0.000	96	31701	0.2000	0.2122	M
40 2-Butanone (MEK)	43	6.055	6.055	0.000	99	30998	2.00	2.13	
41 cis-1,2-Dichloroethene	96	6.092	6.092	0.000	82	10908	0.2000	0.2067	
42 2,2-Dichloropropane	77	6.110	6.104	0.006	72	15193	0.2000	0.2013	M
44 Propionitrile	54	6.153	6.153	0.000	97	14033	4.00	4.22	
S 49 1,2-Dichloroethene, Total	100				0			0.4042	
46 Methacrylonitrile	67	6.360	6.360	0.000	91	24834	2.00	1.96	M
48 Chlorobromomethane	128	6.421	6.409	0.012	68	4625	0.2000	0.1850	
47 Tetrahydrofuran	71	6.421	6.427	-0.006	75	8125	2.00	2.13	
50 Chloroform	83	6.580	6.567	0.013	96	18779	0.2000	0.2036	
\$ 52 Dibromofluoromethane (Surr)	113	6.787	6.787	0.000	92	508089	10.0	10.0	
51 1,1,1-Trichloroethane	97	6.799	6.793	0.006	82	17683	0.2000	0.2094	
53 Cyclohexane	56	6.878	6.885	-0.006	87	14714	0.2000	0.2011	
55 1,1-Dichloropropene	75	7.000	7.000	0.000	88	14049	0.2000	0.2063	
56 Carbon tetrachloride	117	7.000	7.000	0.000	82	16231	0.2000	0.2151	M
57 Isobutyl alcohol	41	7.177	7.177	0.000	38	12236	10.0	11.6	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.238	7.238	0.000	0	98612	10.0	10.2	
59 Benzene	78	7.269	7.262	0.007	93	39910	0.2000	0.2101	
60 1,2-Dichloroethane	62	7.330	7.342	-0.012	67	15779	0.2000	0.2295	
62 Tert-amyl methyl ether	73	7.458	7.464	-0.006	96	27193	0.2000	0.2026	M
* 63 Fluorobenzene (IS)	96	7.677	7.671	0.006	98	1902781	10.0	10.0	
64 n-Heptane	43	7.677	7.683	-0.006	37	15014	0.2000	0.2165	
65 n-Butanol	56	8.067	8.061	0.006	94	15221	20.0	18.4	
67 Trichloroethene	95	8.153	8.153	0.000	90	11016	0.2000	0.2082	
68 Methylcyclohexane	83	8.464	8.457	0.007	86	17448	0.2000	0.2243	
69 1,2-Dichloropropane	63	8.488	8.488	0.000	72	9744	0.2000	0.2022	
70 2-ethoxy-2-methyl butane	87	8.488	8.488	0.000	88	13785	0.2000	0.1857	
72 1,4-Dioxane	88	8.592	8.573	0.019	5	716	10.0	3.89	M
71 Methyl methacrylate	69	8.585	8.573	0.012	86	5257	0.2000	0.2050	M
73 Dibromomethane	93	8.592	8.598	-0.006	91	5667	0.2000	0.2038	
75 Dichlorobromomethane	83	8.835	8.835	0.000	96	13688	0.2000	0.1987	M
76 2-Nitropropane	41	9.122	9.122	0.000	94	20850	2.00	1.95	
79 1-Bromo-2-chloroethane	63	9.219	9.226	-0.007	97	10577	0.2000	0.2000	
80 cis-1,3-Dichloropropene	75	9.390	9.384	0.006	89	14137	0.2000	0.1856	
81 4-Methyl-2-pentanone (MIBK)	43	9.567	9.567	0.000	98	73994	2.00	1.95	
\$ 82 Toluene-d8 (Surr)	98	9.695	9.695	0.000	95	1909902	10.0	10.0	
83 Toluene	92	9.768	9.768	0.000	95	24766	0.2000	0.2061	
84 trans-1,3-Dichloropropene	75	10.036	10.036	0.000	95	13471	0.2000	0.1974	
S 87 1,3-Dichloropropene, Total	100				0			0.3830	
85 Ethyl methacrylate	69	10.097	10.097	0.000	86	10345	0.2000	0.1950	
86 1,1,2-Trichloroethane	97	10.238	10.238	0.000	92	7611	0.2000	0.2061	
88 Tetrachloroethene	166	10.323	10.317	0.006	92	12389	0.2000	0.2108	
89 1,3-Dichloropropane	76	10.402	10.402	0.000	94	12857	0.2000	0.2018	
91 2-Hexanone	43	10.463	10.457	0.006	98	52432	2.00	1.90	
93 Chlorodibromomethane	129	10.616	10.615	0.001	89	9217	0.2000	0.1928	
94 Ethylene Dibromide	107	10.725	10.719	0.006	97	7446	0.2000	0.2004	
* 95 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	88	1454463	10.0	10.0	
96 1-Chlorohexane	91	11.164	11.164	0.000	74	17884	0.2000	0.2402	
97 Chlorobenzene	112	11.183	11.182	0.001	97	29379	0.2000	0.2063	
S 101 Xylenes, Total	106				0			0.5909	
98 1,1,1,2-Tetrachloroethane	131	11.268	11.268	0.000	44	10681	0.2000	0.2000	
99 Ethylbenzene	91	11.268	11.268	0.000	99	52438	0.2000	0.2100	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
100 m-Xylene & p-Xylene	106	11.384	11.384	0.000	0	37025	0.4000	0.3988	
102 o-Xylene	106	11.713	11.713	0.000	97	17442	0.2000	0.1920	
103 Styrene	104	11.725	11.731	-0.006	92	28872	0.2000	0.1929	
104 Bromoform	173	11.884	11.890	-0.006	93	5805	0.2000	0.1925	
105 Isopropylbenzene	105	12.018	12.018	0.000	98	47697	0.2000	0.1964	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	89	706164	10.0	9.99	
109 1,1,2,2-Tetrachloroethane	83	12.268	12.262	0.006	63	9823	0.2000	0.2012	
110 Bromobenzene	156	12.274	12.274	0.000	88	13436	0.2000	0.2078	
111 trans-1,4-Dichloro-2-butene	53	12.292	12.286	0.006	92	27692	2.00	1.81	
112 1,2,3-Trichloropropane	110	12.310	12.310	0.000	78	2876	0.2000	0.2104	
113 N-Propylbenzene	91	12.341	12.347	-0.006	99	62146	0.2000	0.2077	
114 2-Chlorotoluene	126	12.420	12.420	0.000	95	11134	0.2000	0.1873	
115 1,3,5-Trimethylbenzene	105	12.481	12.481	0.000	93	40499	0.2000	0.1945	
116 4-Chlorotoluene	126	12.512	12.511	0.001	98	12283	0.2000	0.1943	
118 tert-Butylbenzene	134	12.719	12.725	-0.006	94	9972	0.2000	0.2151	
120 Pentachloroethane	167	12.755	12.755	0.000	72	7869	0.2000	0.1923	
119 1,2,4-Trimethylbenzene	105	12.761	12.761	0.000	98	41788	0.2000	0.1920	
121 sec-Butylbenzene	105	12.883	12.883	0.000	95	54650	0.2000	0.1995	
122 1,3-Dichlorobenzene	146	12.981	12.987	-0.006	96	25051	0.2000	0.2001	
123 4-Isopropyltoluene	119	12.993	12.993	0.000	96	44686	0.2000	0.1901	
* 124 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	96	805741	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.054	13.054	0.000	91	26655	0.2000	0.2098	
126 1,2,3-Trimethylbenzene	120	13.066	13.066	0.000	95	18599	0.2000	0.1951	
127 Benzyl chloride	126	13.139	13.133	0.006	99	3005	0.2000	0.1648	
129 p-Diethylbenzene	119	13.194	13.194	0.000	90	27932	0.2000	0.1949	
130 n-Butylbenzene	92	13.286	13.286	0.000	97	24161	0.2000	0.1975	
131 1,2-Dichlorobenzene	146	13.316	13.316	0.000	96	23911	0.2000	0.2046	
134 1,2-Dibromo-3-Chloropropane	155	13.853	13.859	-0.006	74	1366	0.2000	0.1933	M
135 1,3,5-Trichlorobenzene	180	13.981	13.981	0.000	96	20650	0.2000	0.2111	
136 1,2,4-Trichlorobenzene	180	14.407	14.407	0.000	94	17336	0.2000	0.2063	
137 Hexachlorobutadiene	225	14.487	14.487	0.000	92	10327	0.2000	0.2251	
138 Naphthalene	128	14.584	14.590	-0.006	98	27438	0.2000	0.2003	
139 1,2,3-Trichlorobenzene	180	14.725	14.731	-0.007	93	14496	0.2000	0.2054	
140 2-Methylnaphthalene	142	15.352	15.352	0.000	90	15266	0.2000	0.1911	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MSV_RV1_826_00016

Amount Added: 2.00

Units: uL

MSV_RV4GAS826_00047

Amount Added: 2.00

Units: uL

MSV_RV4_826_00017

Amount Added: 2.00

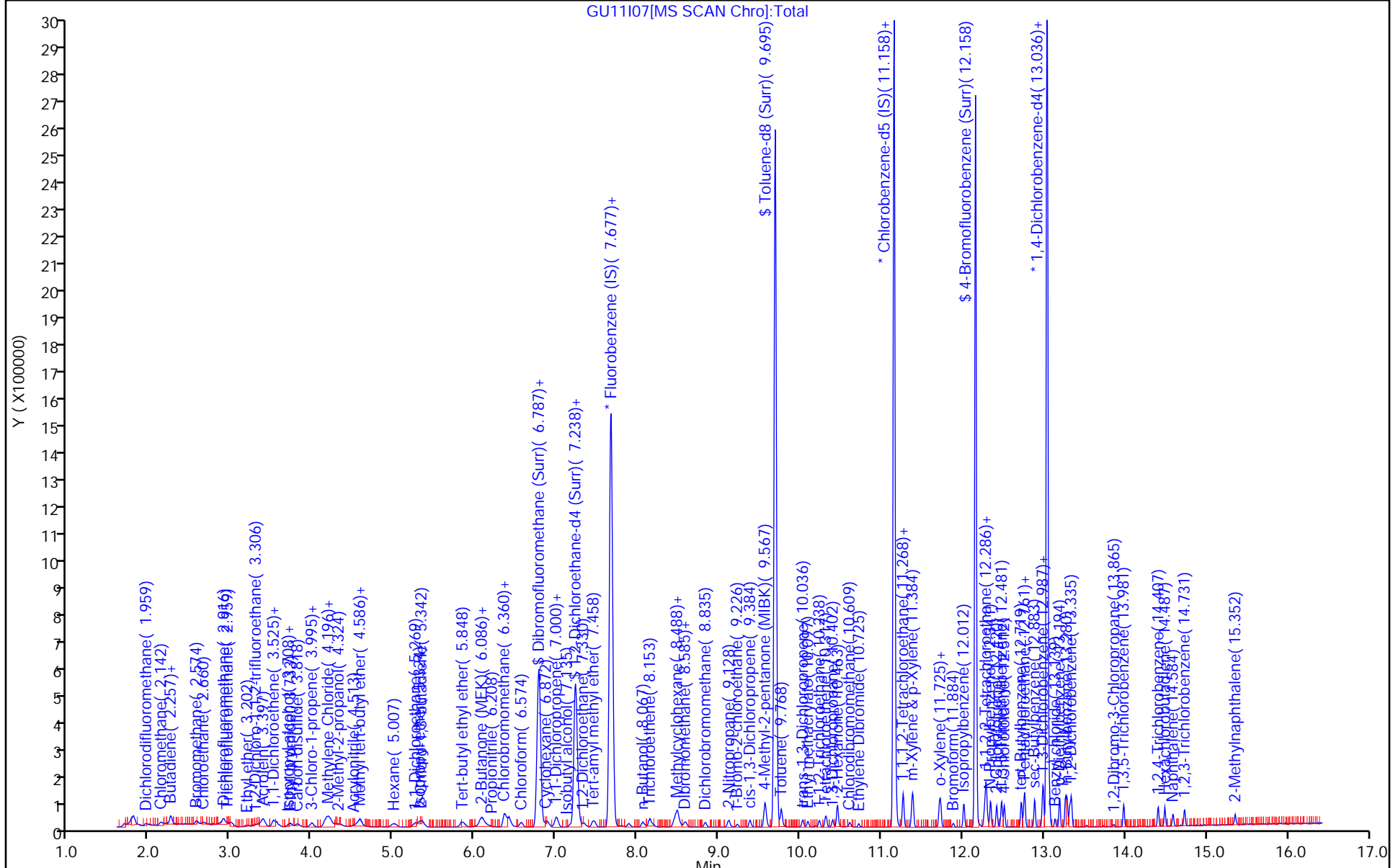
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MSV_29_826ISS_00007

Amount Added: 1.00

Units: uL

Run Reagent



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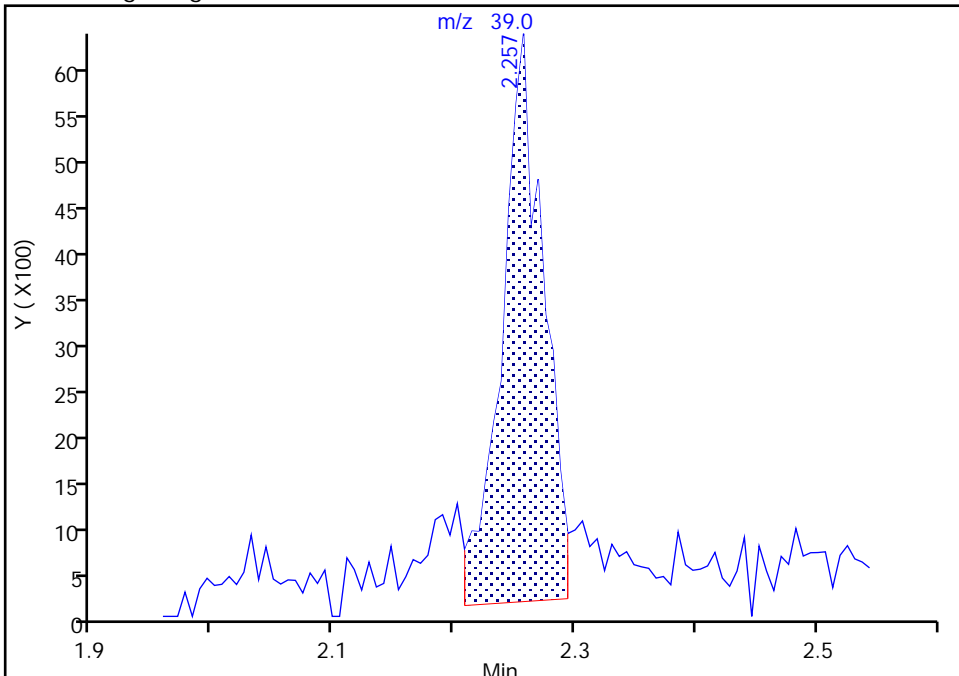
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Injection Date: 11-Jun-2020 16:35:30 Instrument ID: 16334
Lims ID: IC std1
Client ID:
Operator ID: DVV10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

6 Butadiene, CAS: 106-99-0

Signal: 1

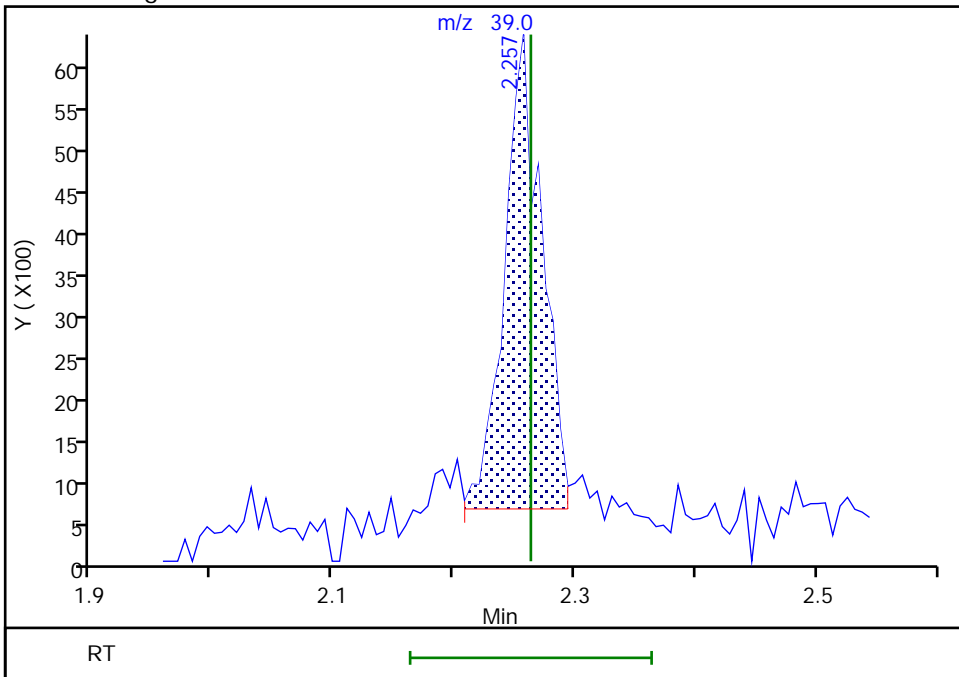
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Area: 14827
Amount: 0.228694
Amount Units: ug/l

Processing Integration Results



RT: 2.26
Area: 12223
Amount: 0.194098
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 14:02:39
Audit Action: Assigned New Baseline

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

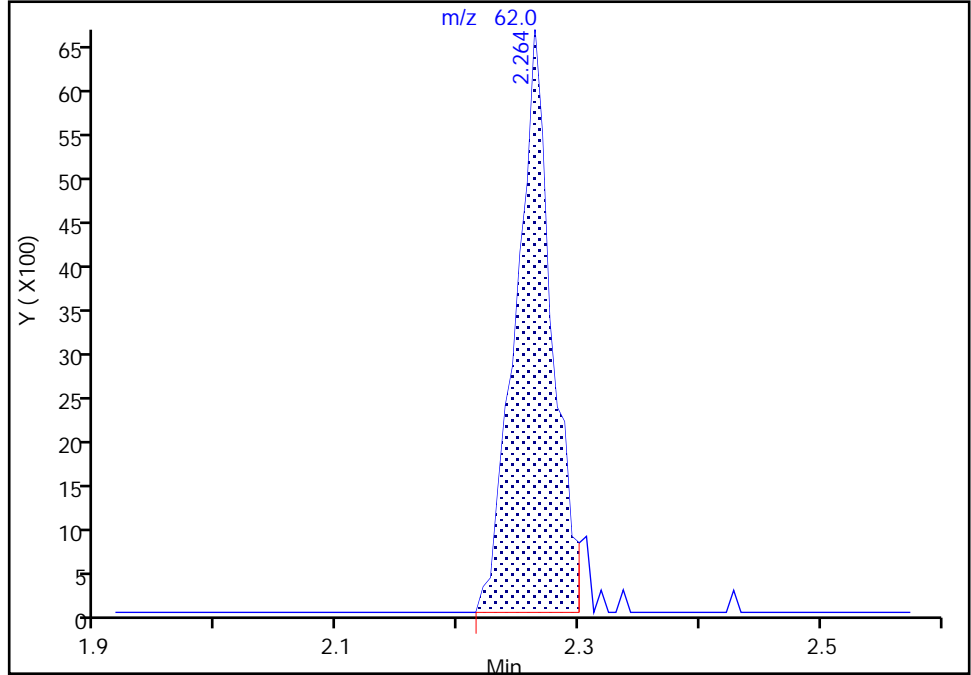
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Injection Date: 11-Jun-2020 16:35:30 Instrument ID: 16334
Lims ID: IC std1
Client ID:
Operator ID: DVV10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

7 Vinyl chloride, CAS: 75-01-4

Signal: 1

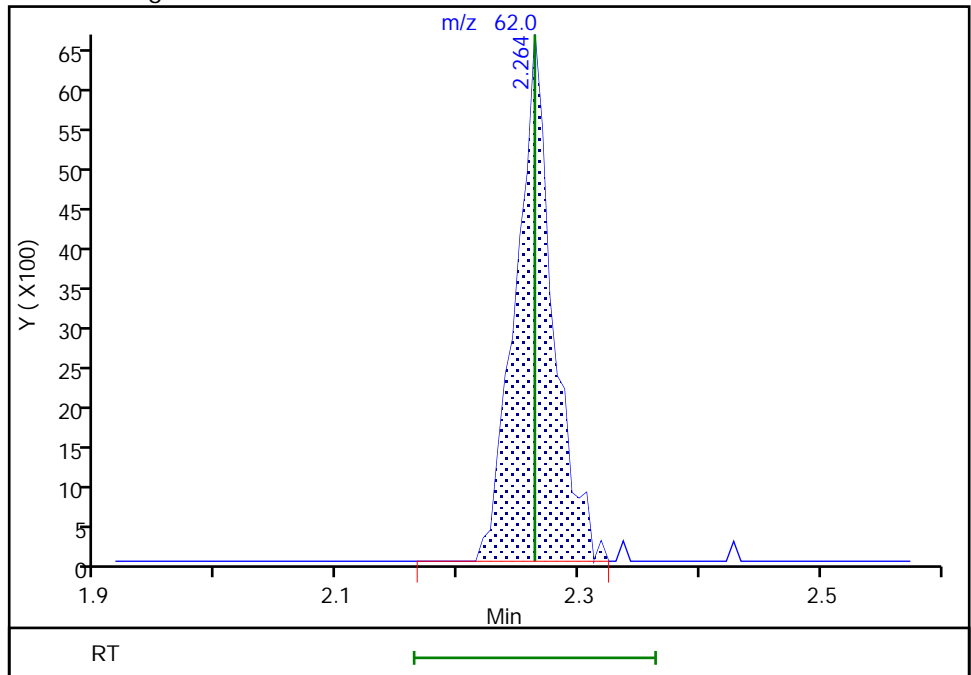
RT: 2.26
Area: 13811
Amount: 0.199506
Amount Units: ug/l

Processing Integration Results



RT: 2.26
Area: 14219
Amount: 0.204538
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 14:02:30
Audit Action: Manually Integrated

Audit Reason: Other

Euofins Lancaster Laboratories Env, LLC

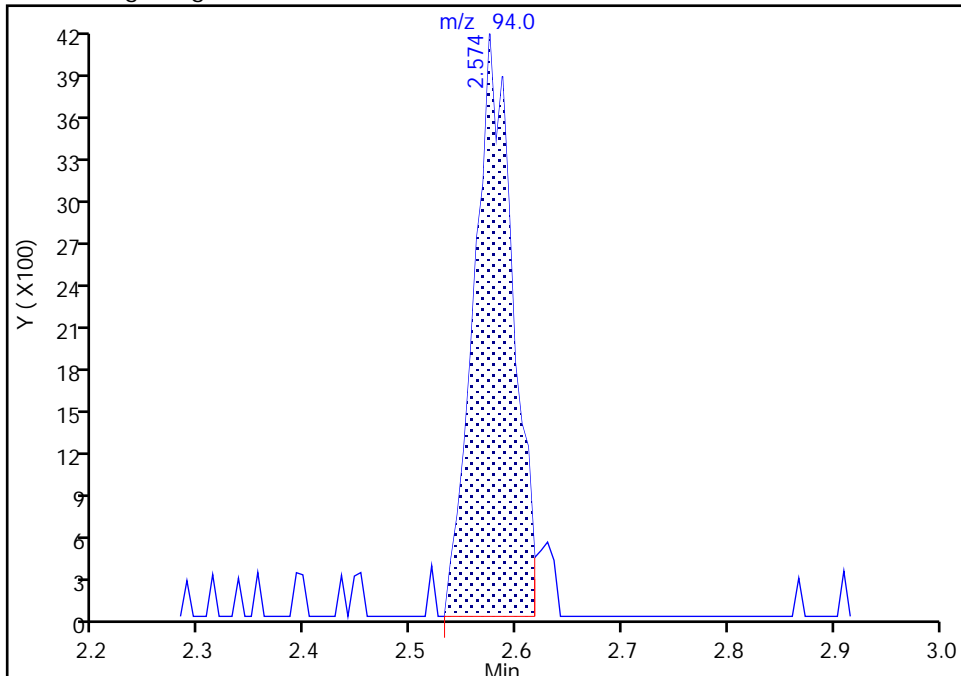
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Injection Date: 11-Jun-2020 16:35:30 Instrument ID: 16334
Lims ID: IC std1
Client ID:
Operator ID: DVV10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

9 Bromomethane, CAS: 74-83-9

Signal: 1

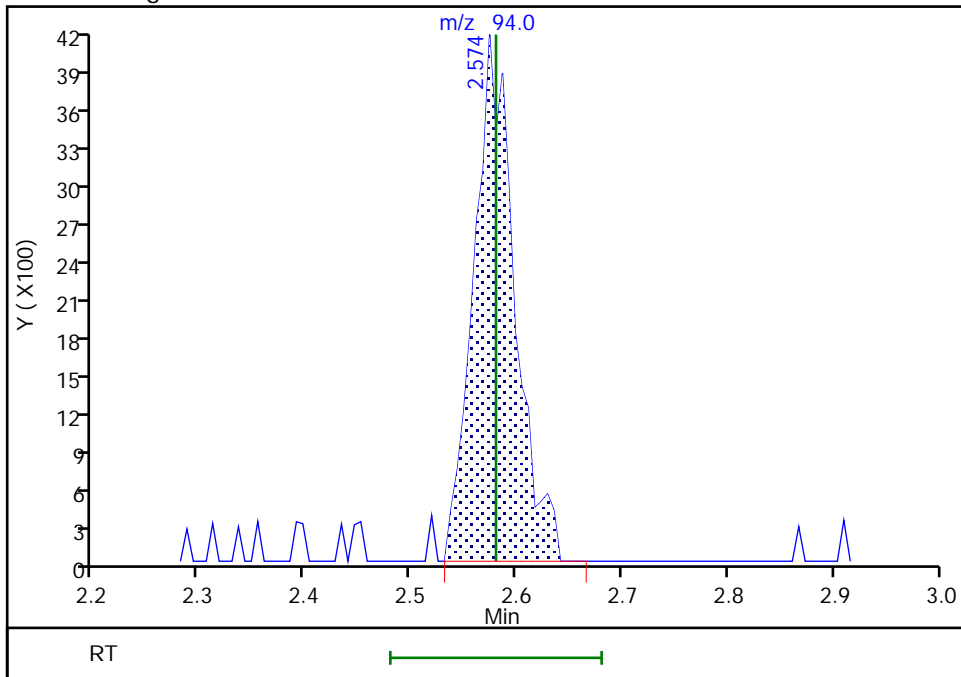
RT: 2.57
Area: 10513
Amount: 0.200079
Amount Units: ug/l

Processing Integration Results



RT: 2.57
Area: 11019
Amount: 0.208277
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 14:02:47
Audit Action: Manually Integrated

Audit Reason: Other

Euofins Lancaster Laboratories Env, LLC

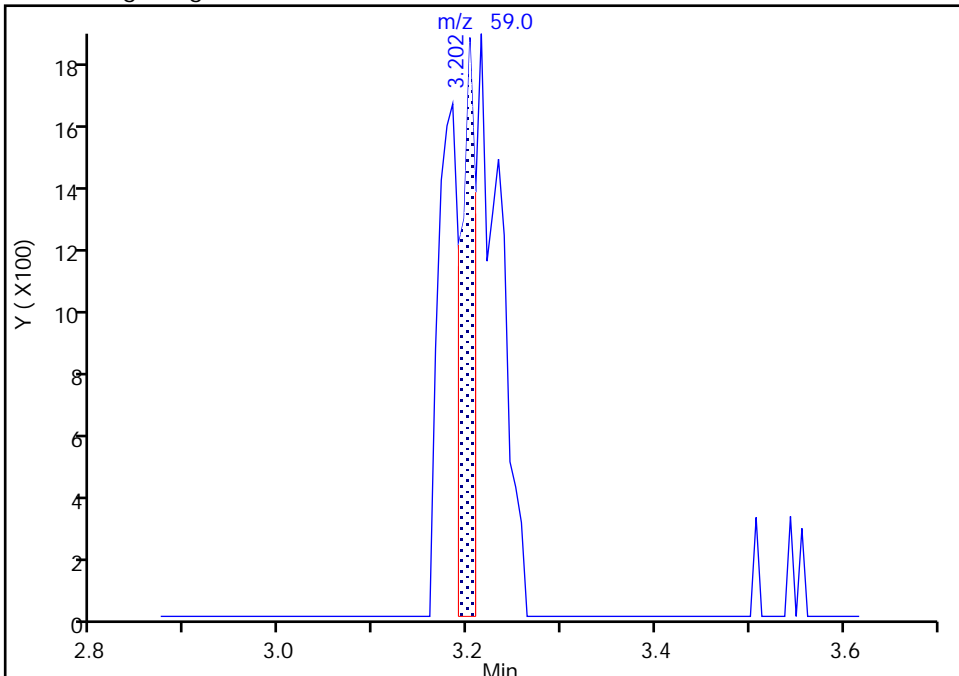
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Injection Date: 11-Jun-2020 16:35:30 Instrument ID: 16334
Lims ID: IC std1
Client ID:
Operator ID: DVV10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

15 Ethyl ether, CAS: 60-29-7

Signal: 1

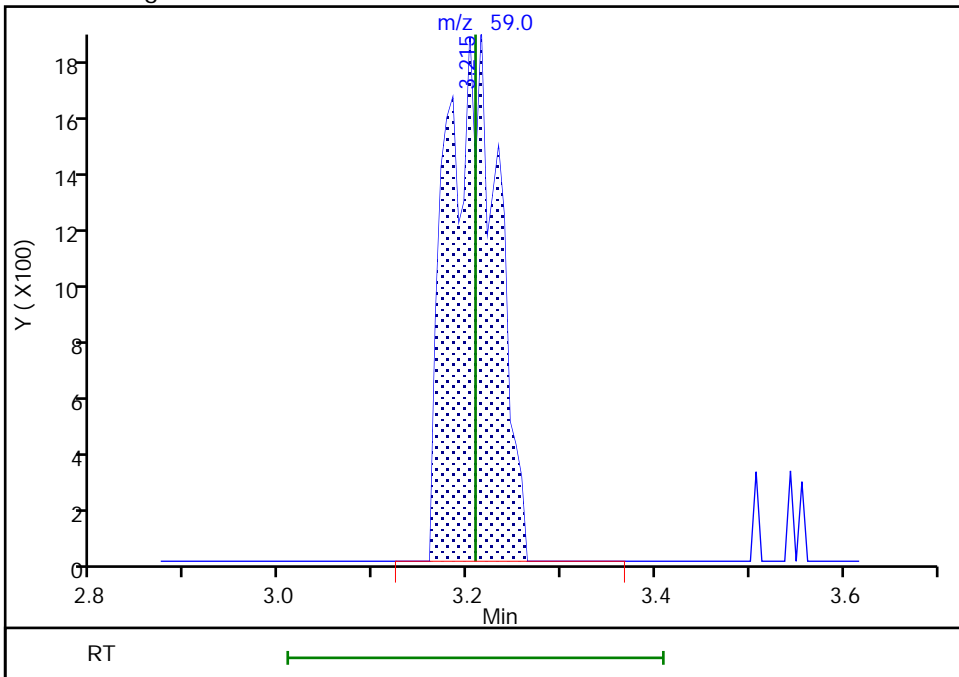
RT: 3.20
Area: 2003
Amount: 0.094450
Amount Units: ug/l

Processing Integration Results



RT: 3.21
Area: 6826
Amount: 0.198098
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 14:02:54
Audit Action: Manually Integrated

Audit Reason: Other

Euofins Lancaster Laboratories Env, LLC

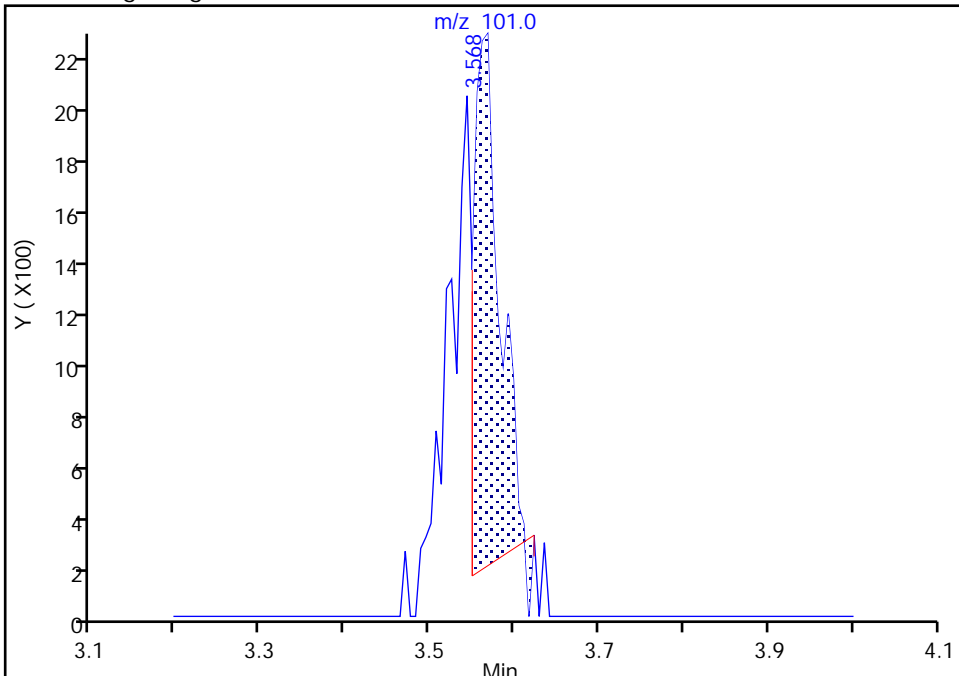
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Lims ID:	IC std1		
Client ID:			
Operator ID:	DVV10203	ALS Bottle#:	8
Purge Vol:	25.000 mL	Dil. Factor:	1.0000
Method:	MSV_16334_25mL	Limit Group:	MSV - 8260C_D
Column:	Rxi-624Sil MS Capillary Column (0.25mm ID)	Detector:	MS Quad

21 112TCTFE, CAS: 76-13-1

Signal: 1

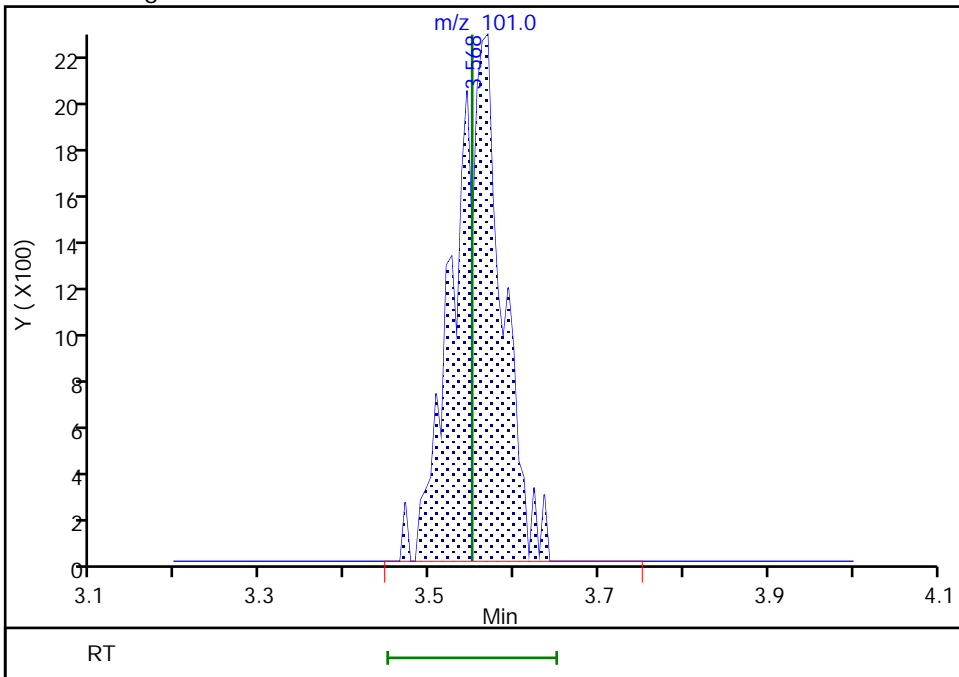
RT: 3.57
 Area: 4271
 Amount: 0.139953
 Amount Units: ug/l

Processing Integration Results



RT: 3.57
 Area: 9019
 Amount: 0.202745
 Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 14:03:01
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

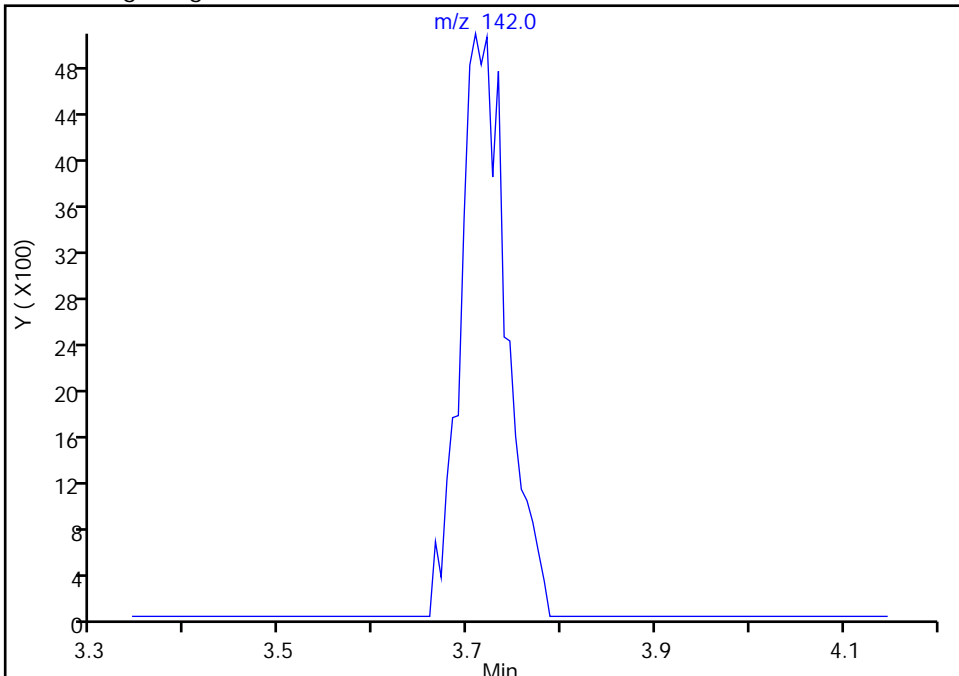
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Injection Date: 11-Jun-2020 16:35:30 Instrument ID: 16334
Lims ID: IC std1
Client ID:
Operator ID: DVV10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

22 Iodomethane, CAS: 74-88-4

Signal: 1

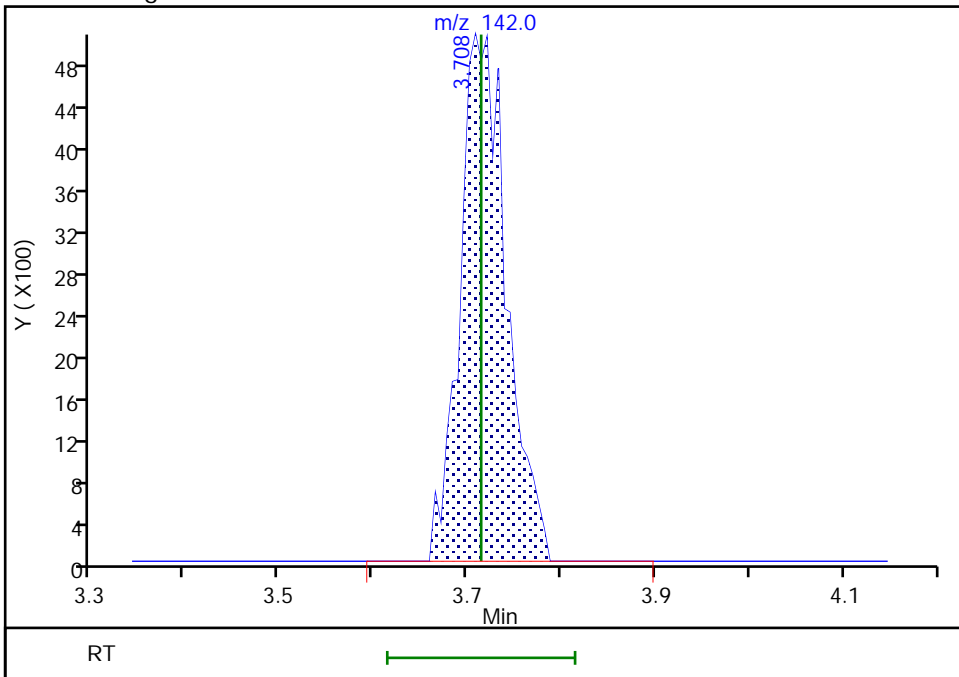
Not Detected
Expected RT: 3.71

Processing Integration Results



Manual Integration Results

RT: 3.71
Area: 17483
Amount: 0.210389
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 14:03:07
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

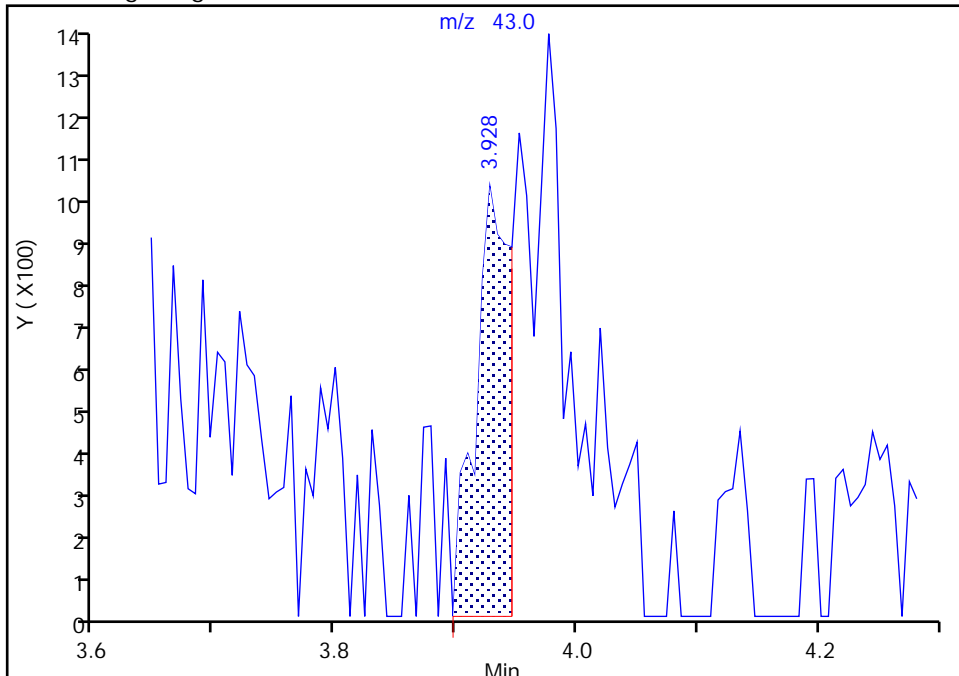
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Lims ID: IC std1
Client ID:
Operator ID: DVV10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

26 Methyl acetate, CAS: 79-20-9

Signal: 1

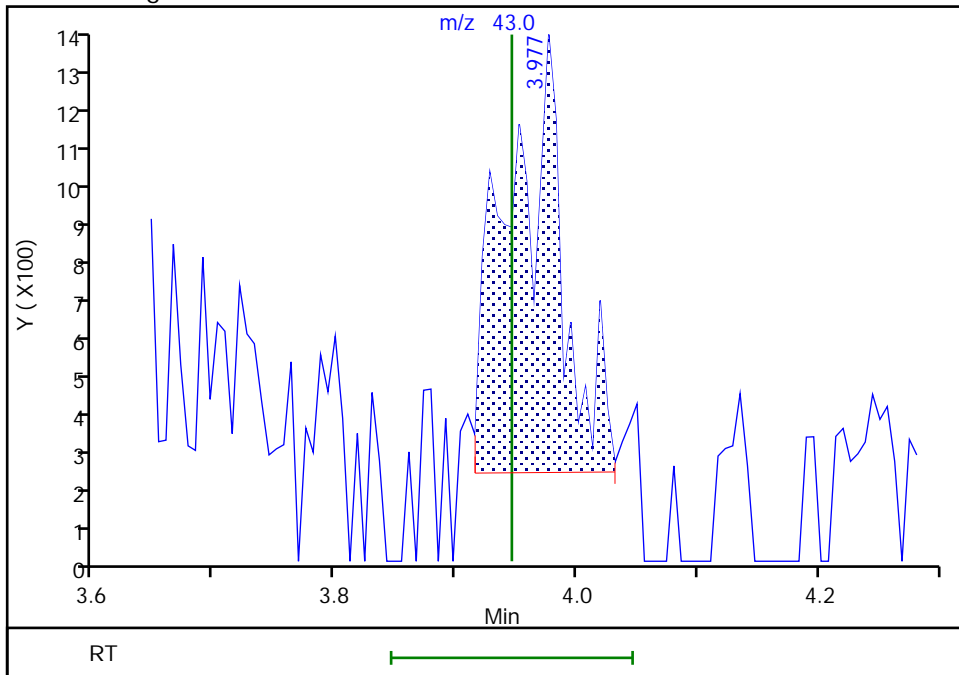
RT: 3.93
Area: 2042
Amount: 0.458044
Amount Units: ug/l

Processing Integration Results



RT: 3.98
Area: 3707
Amount: 0.184382
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 14:09:15
Audit Action: Assigned New Baseline

Audit Reason: Other

Euofins Lancaster Laboratories Env, LLC

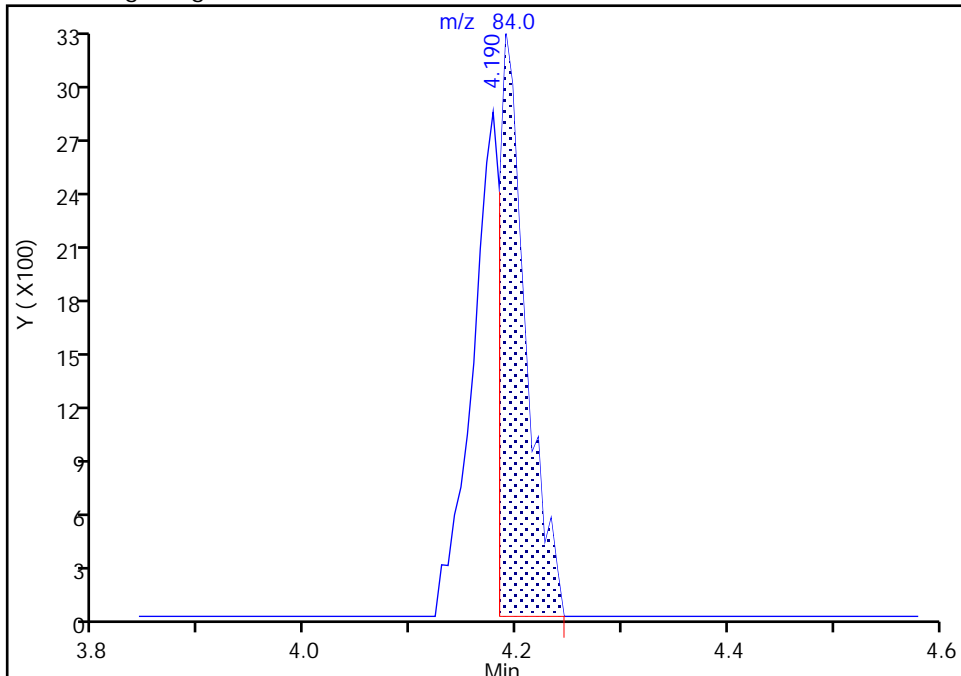
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Injection Date: 11-Jun-2020 16:35:30 Instrument ID: 16334
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Client ID:
Operator ID: DVV10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

28 Methylene Chloride, CAS: 75-09-2

Signal: 1

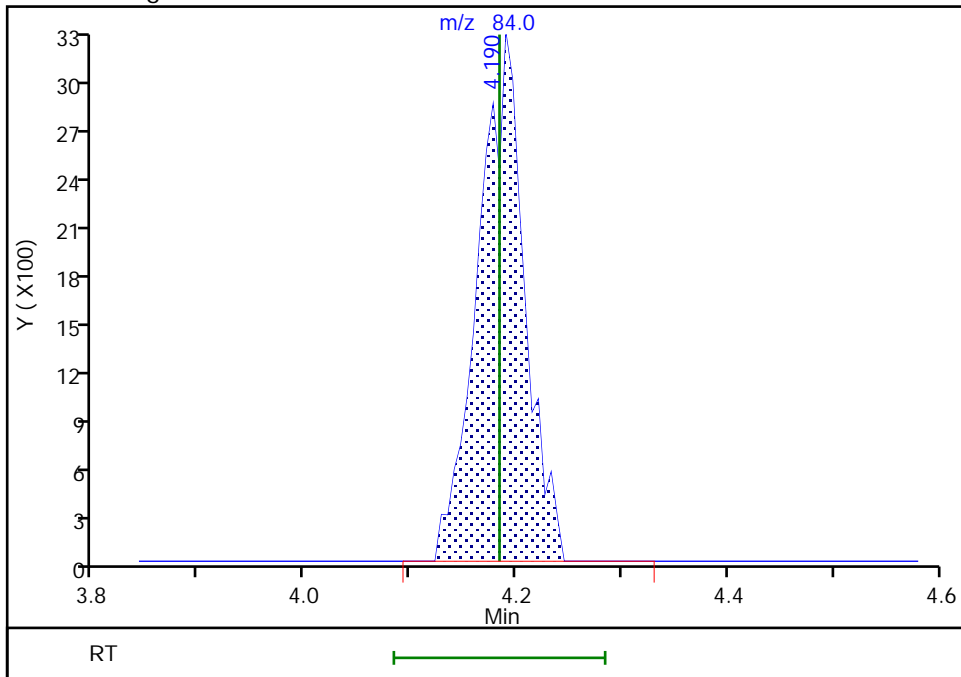
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Area: 5663
Amount: 0.134063
Amount Units: ug/l

Processing Integration Results



RT: 4.19
Area: 9940
Amount: 0.219444
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 14:03:25
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

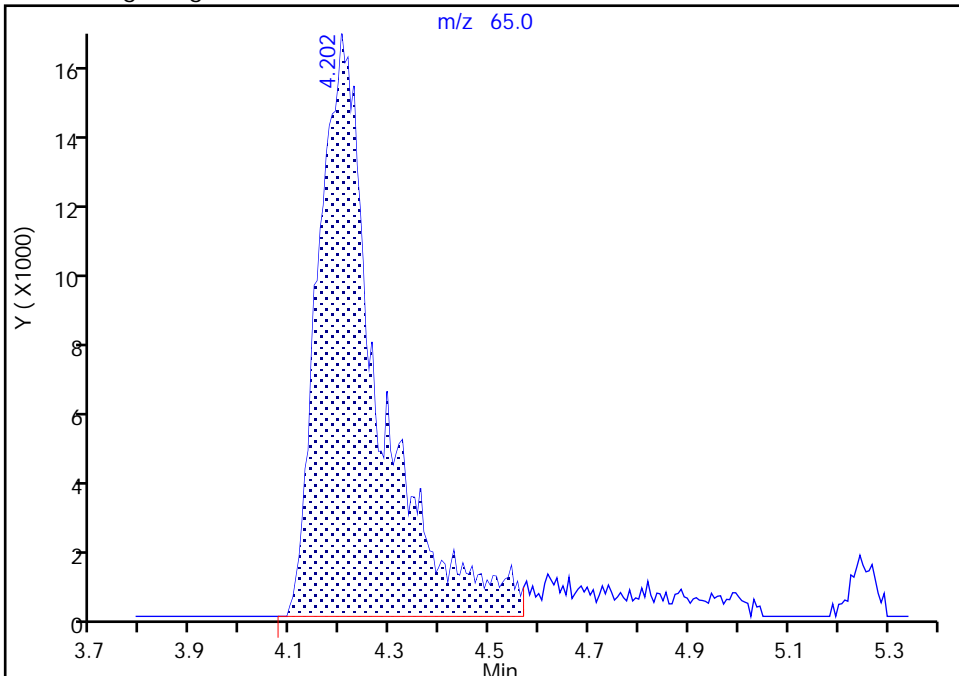
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11107.D
Injection Date: 11-Jun-2020 16:35:30 Instrument ID: 16334
Lims ID: IC std1
Client ID:
Operator ID: DVV10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 29 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

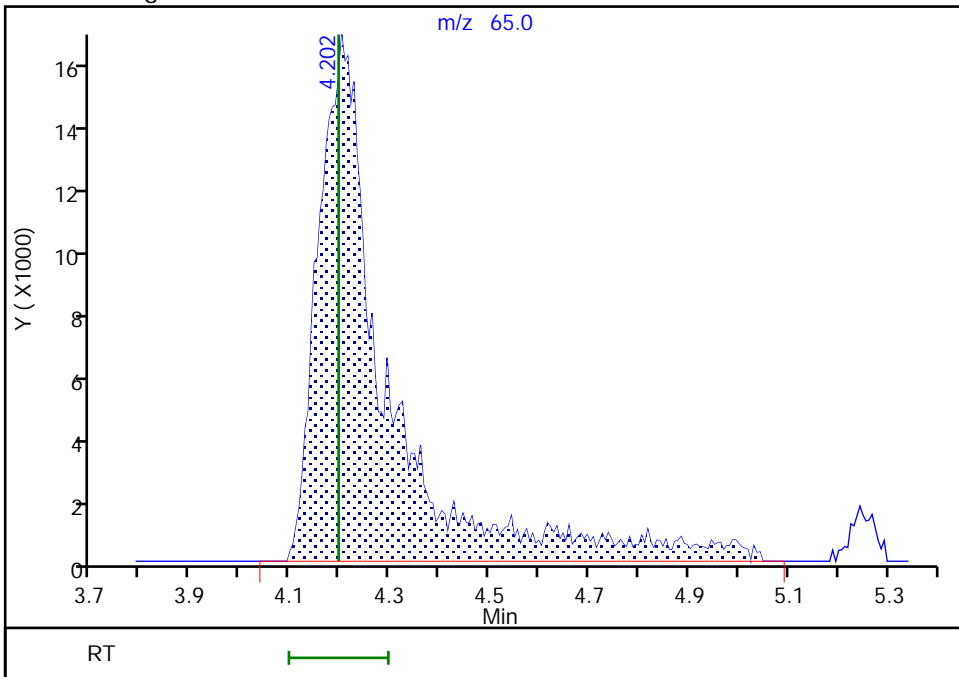
RT: 4.20
Area: 135062
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.20
Area: 151960
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 14:03:35
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

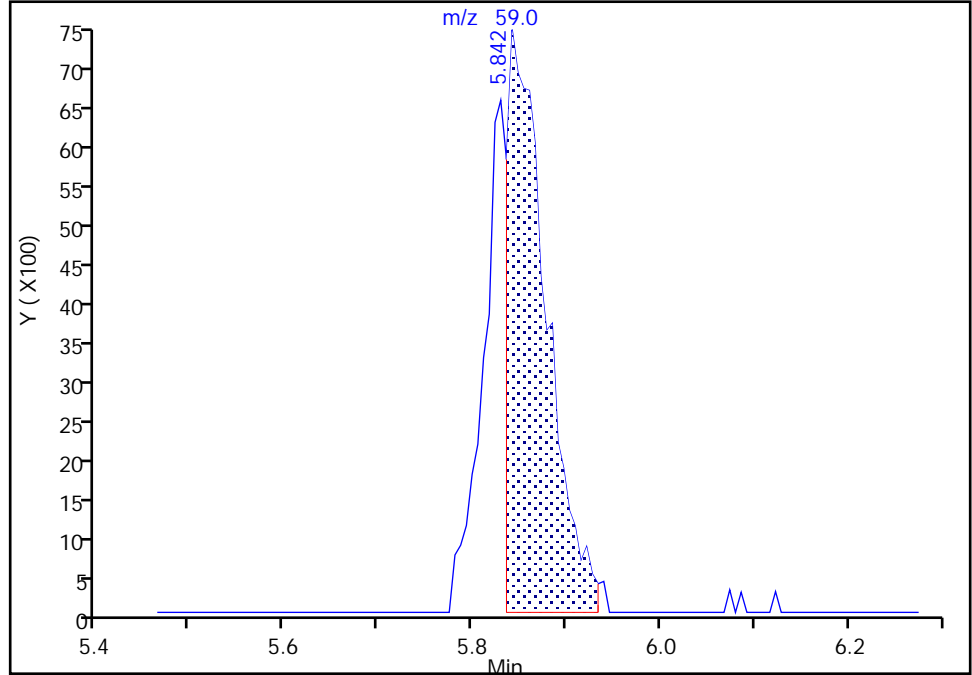
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Injection Date: 11-Jun-2020 16:35:30 Instrument ID: 16334
Lims ID: IC std1
Client ID:
Operator ID: DVV10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

39 Tert-butyl ethyl ether, CAS: 637-92-3

Signal: 1

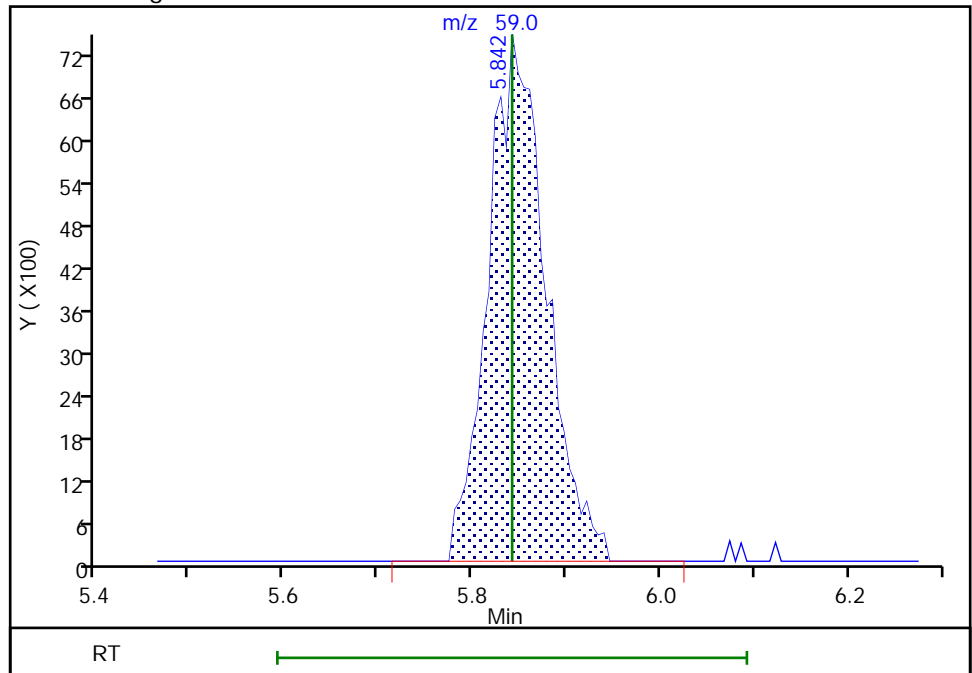
RT: 5.84
Area: 21869
Amount: 0.153582
Amount Units: ug/l

Processing Integration Results



RT: 5.84
Area: 31701
Amount: 0.212166
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 14:03:46
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

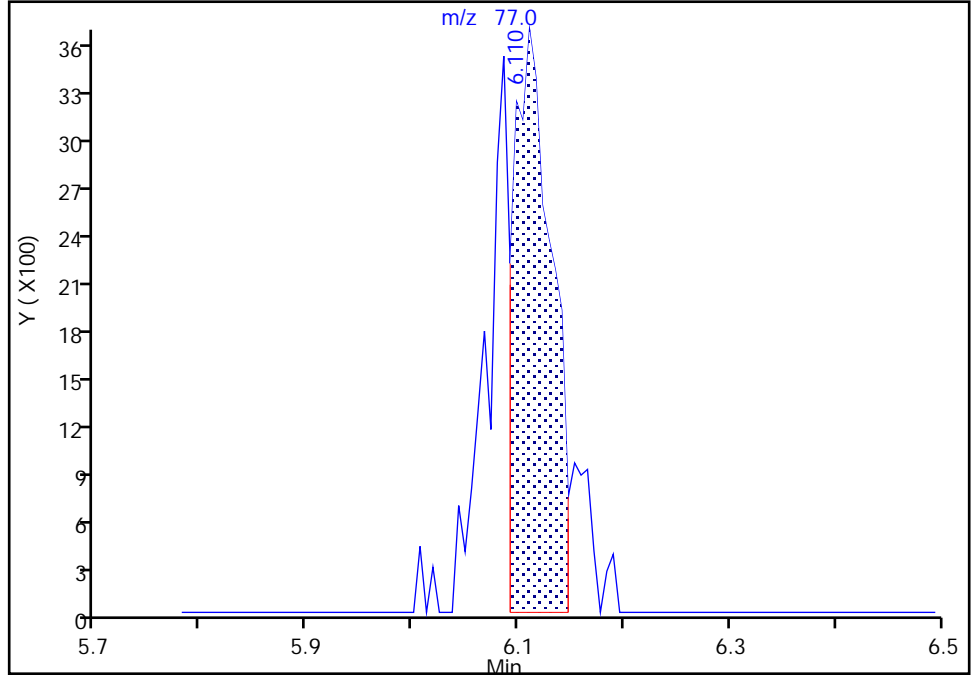
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Injection Date: 11-Jun-2020 16:35:30 Instrument ID: 16334
Lims ID: IC std1
Client ID:
Operator ID: DVV10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

42 2,2-Dichloropropane, CAS: 594-20-7

Signal: 1

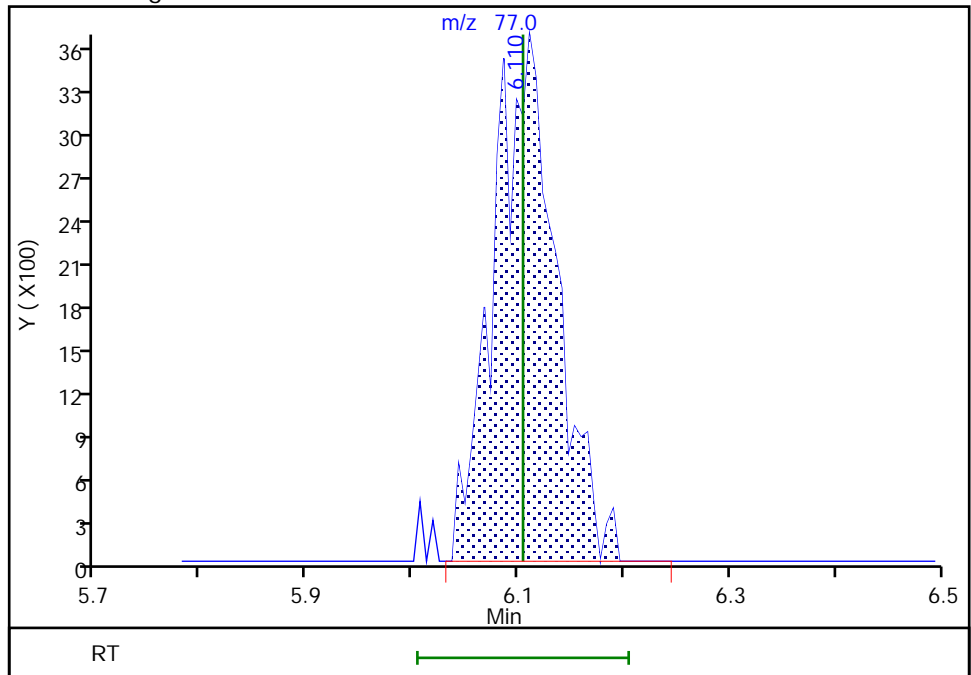
RT: 6.11
Area: 9280
Amount: 0.130236
Amount Units: ug/l

Processing Integration Results



RT: 6.11
Area: 15193
Amount: 0.201288
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 14:03:53
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

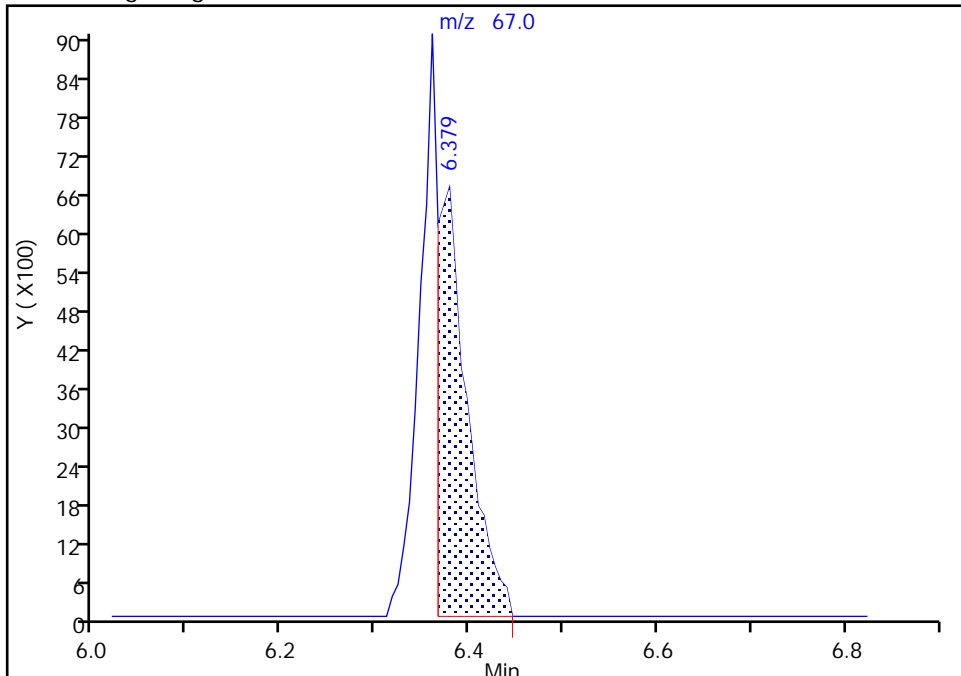
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11107.D
Injection Date: 11-Jun-2020 16:35:30 Instrument ID: 16334
Lims ID: IC std1
Client ID:
Operator ID: DVV10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

46 Methacrylonitrile, CAS: 126-98-7

Signal: 1

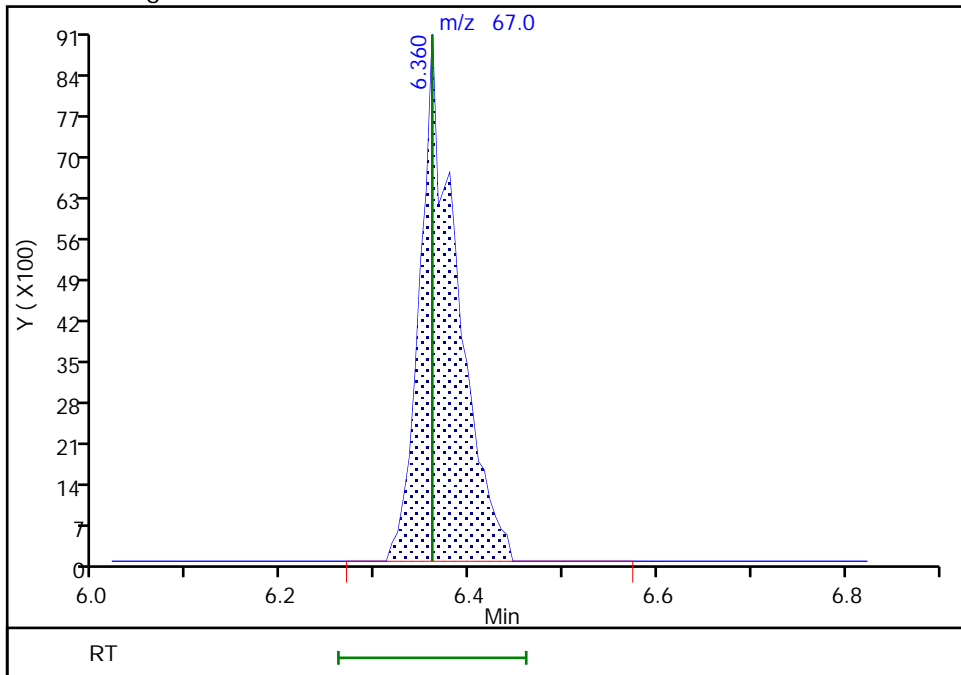
RT: 6.38
Area: 14785
Amount: 1.199784
Amount Units: ug/l

Processing Integration Results



RT: 6.36
Area: 24834
Amount: 1.959571
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 14:03:59
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

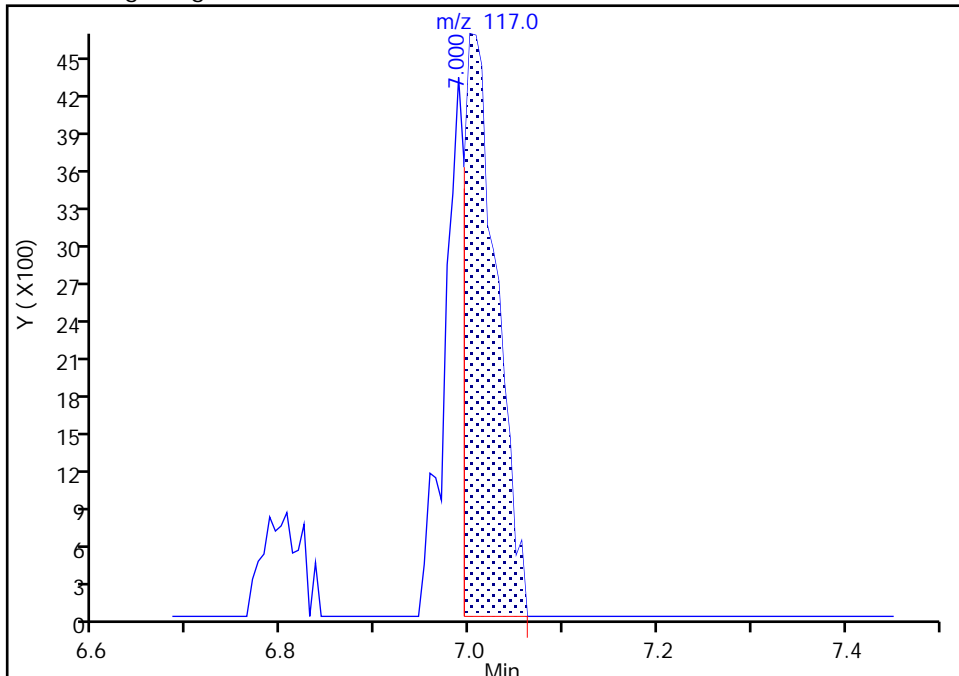
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Injection Date: 11-Jun-2020 16:35:30 Instrument ID: 16334
Lims ID: IC std1
Client ID:
Operator ID: DVV10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

56 Carbon tetrachloride, CAS: 56-23-5

Signal: 1

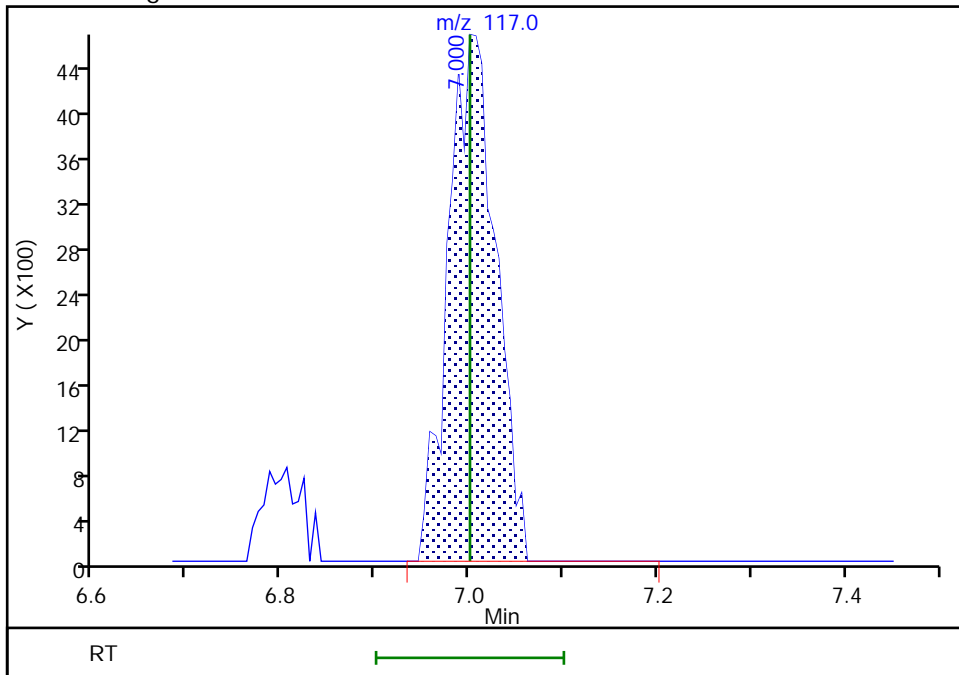
RT: 7.00
Area: 11090
Amount: 0.154451
Amount Units: ug/l

Processing Integration Results



RT: 7.00
Area: 16231
Amount: 0.215052
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 14:04:08
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

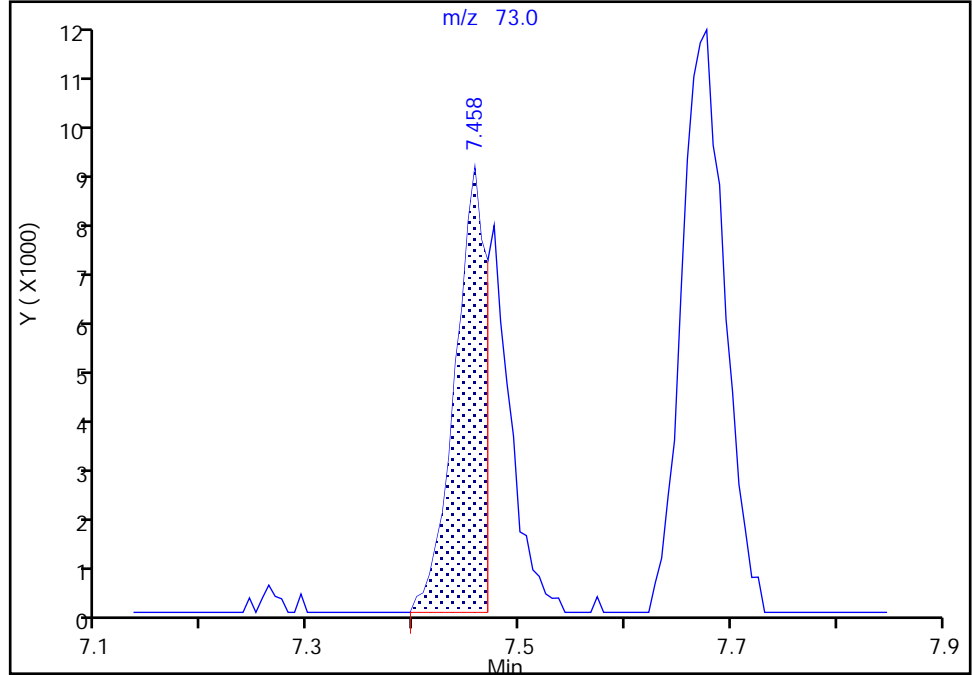
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11107.D
Injection Date: 11-Jun-2020 16:35:30 Instrument ID: 16334
Lims ID: IC std1
Client ID:
Operator ID: DVV10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

62 Tert-amyl methyl ether, CAS: 994-05-8

Signal: 1

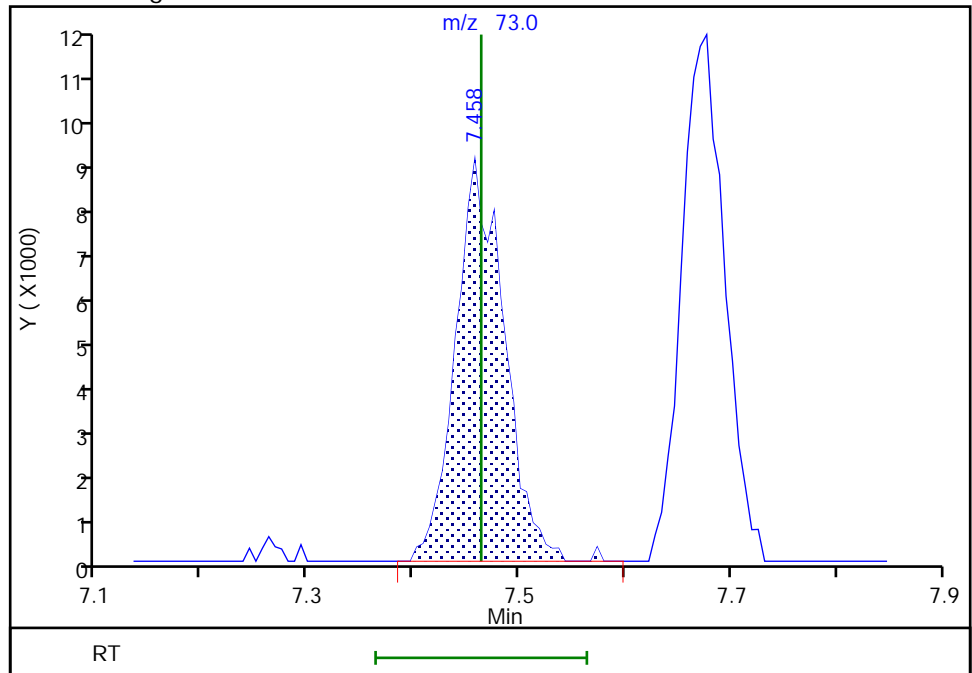
RT: 7.46
Area: 17544
Amount: 0.137754
Amount Units: ug/l

Processing Integration Results



RT: 7.46
Area: 27193
Amount: 0.202555
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 14:04:17
Audit Action: Manually Integrated

Audit Reason: Other

Euofins Lancaster Laboratories Env, LLC

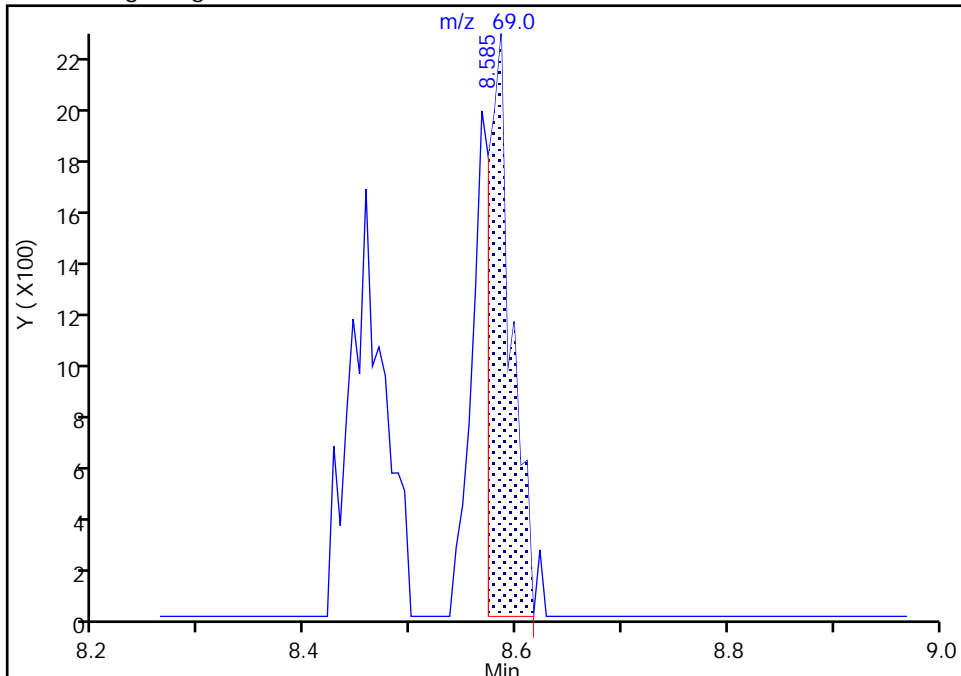
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Injection Date: 11-Jun-2020 16:35:30 Instrument ID: 16334
Lims ID: IC std1
Client ID:
Operator ID: DVV10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

71 Methyl methacrylate, CAS: 80-62-6

Signal: 1

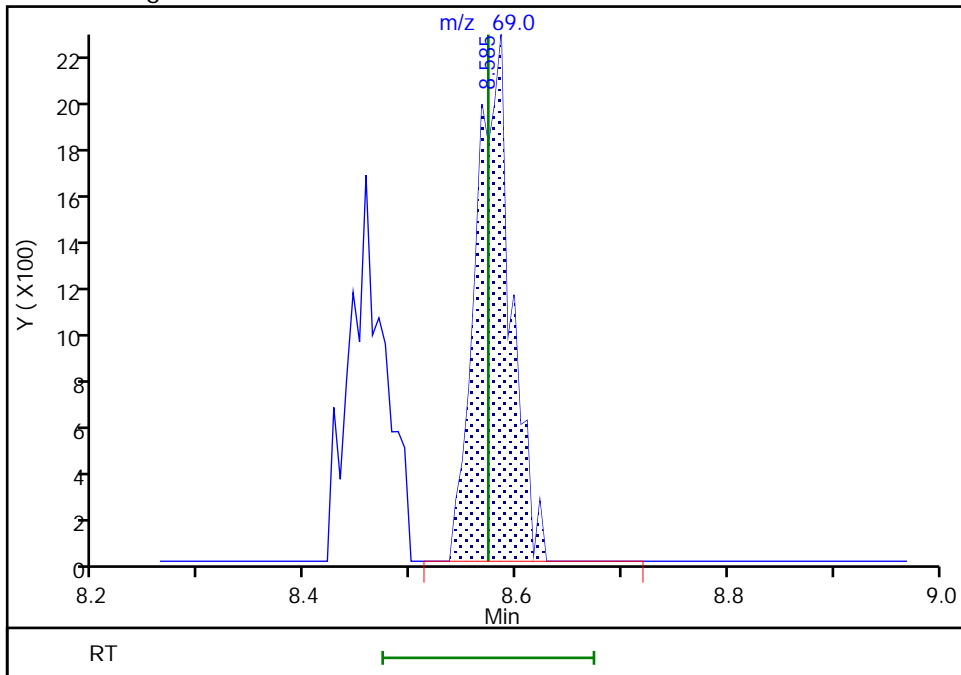
RT: 8.59
Area: 3432
Amount: 0.136712
Amount Units: ug/l

Processing Integration Results



RT: 8.59
Area: 5257
Amount: 0.204983
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 14:04:26
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

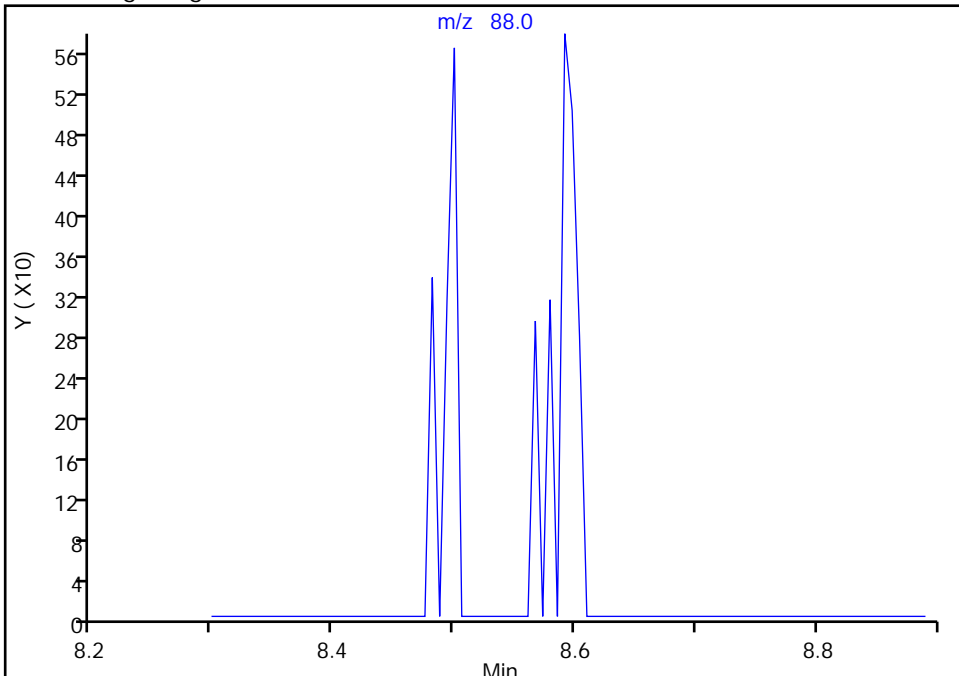
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Injection Date: 11-Jun-2020 16:35:30 Instrument ID: 16334
Lims ID: IC std1
Client ID:
Operator ID: DVV10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

72 1,4-Dioxane, CAS: 123-91-1

Signal: 1

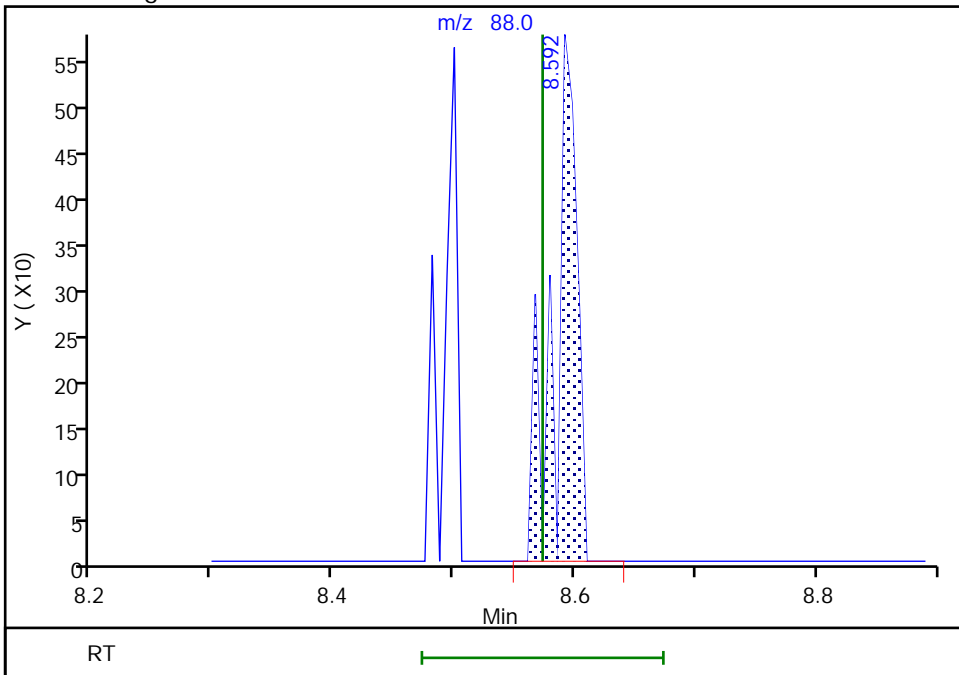
Not Detected
Expected RT: 8.57

Processing Integration Results



Manual Integration Results

RT: 8.59
Area: 716
Amount: 3.891173
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 14:04:37
Audit Action: Manually Integrated

Audit Reason: Other
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Eurofins Lancaster Laboratories Env, LLC

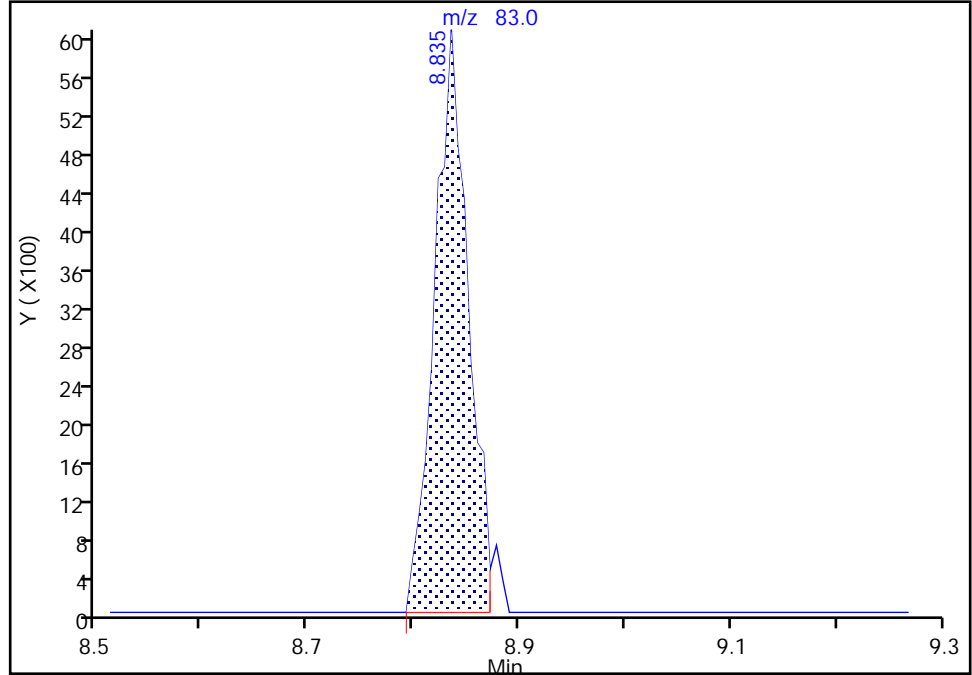
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11107.D
Injection Date: 11-Jun-2020 16:35:30 Instrument ID: 16334
Lims ID: IC std1
Client ID:
Operator ID: DVV10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm i.d.) Detector: MS Quad

75 Dichlorobromomethane, CAS: 75-27-4

Signal: 1

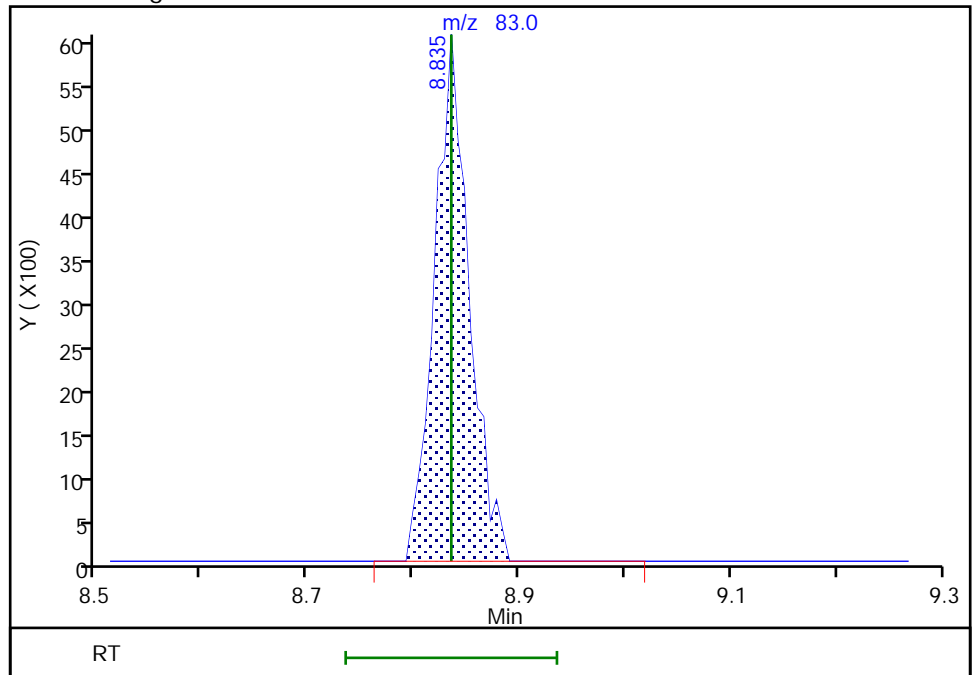
RT: 8.84
Area: 13311
Amount: 0.193985
Amount Units: ug/l

Processing Integration Results



RT: 8.84
Area: 13688
Amount: 0.198699
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 14:04:32
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

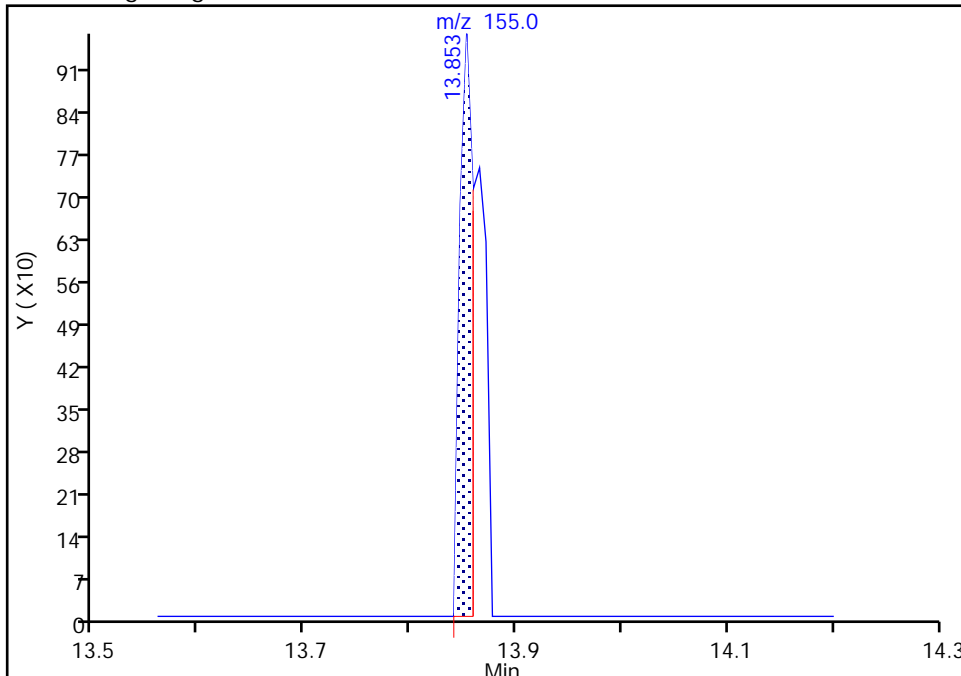
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11107.D
Injection Date: 11-Jun-2020 16:35:30 Instrument ID: 16334
Lims ID: IC std1
Client ID:
Operator ID: DVV10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

134 1,2-Dibromo-3-Chloropropane, CAS: 96-12-8

Signal: 1

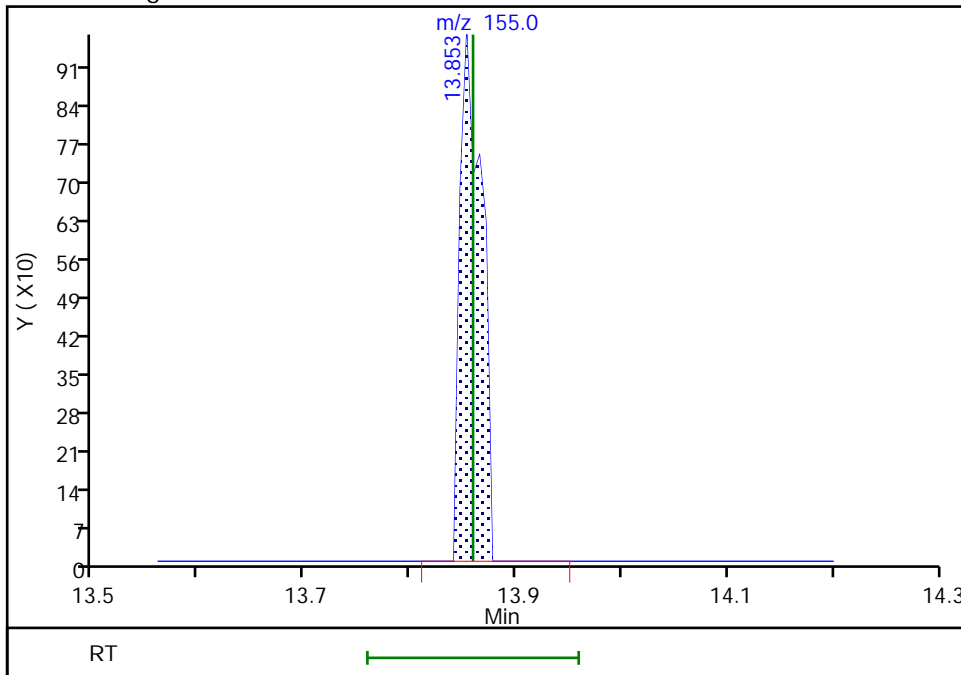
RT: 13.85
Area: 865
Amount: 0.128957
Amount Units: ug/l

Processing Integration Results



RT: 13.85
Area: 1366
Amount: 0.193333
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 14:05:01
Audit Action: Manually Integrated

Audit Reason: Other

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-9077-1

SDG No.: _____

Lab Sample ID: ICV 410-12269/10 Calibration Date: 06/11/2020 16:57

Instrument ID: 16334 Calib Start Date: 06/11/2020 14:22

GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 06/11/2020 16:35

Lab File ID: GU11V01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.4173	0.2984	0.1000	3.58	5.00	-28.5	30.0
Chloromethane	Ave	0.3870	0.3330	0.1000	4.30	5.00	-13.9	30.0
1,3-Butadiene	Ave	0.3310	0.2388		3.61	5.00	-27.8	30.0
Vinyl chloride	Ave	0.3653	0.3379	0.1000	4.62	5.00	-7.5	30.0
Bromomethane	Ave	0.2780	0.2689	0.1000	4.84	5.00	-3.3	30.0
Chloroethane	Ave	0.2086	0.1997	0.1000	4.79	5.00	-4.3	30.0
Dichlorofluoromethane	Ave	0.4935	0.4878		4.94	5.00	-1.2	30.0
Trichlorofluoromethane	Ave	0.4890	0.5065	0.1000	5.18	5.00	3.6	30.0
Ethyl ether	Ave	0.1811	0.1796		4.96	5.01	-0.8	30.0
Freon 123a	Ave	0.2821	0.2559		4.53	5.00	-9.3	30.0
Acrolein	Ave	1.763	1.679		35.7	37.5	-4.7	30.0
1,1-Dichloroethene	Ave	0.2121	0.1855	0.1000	4.37	5.00	-12.6	30.0
Freon 113	Ave	0.2338	0.1858	0.1000	3.97	5.00	-20.5	30.0
Acetone	Ave	2.792	2.636	0.1000	35.4	37.5	-5.6	30.0
Methyl iodide	Ave	0.4367	0.3666		4.20	5.00	-16.1	30.0
Ethyl bromide	Ave	0.1858	0.1770		4.70	4.93	-4.7	30.0
Carbon disulfide	Ave	0.7439	0.6117	0.1000	4.11	5.00	-17.8	30.0
Methyl acetate	Ave	6.615	6.799	0.1000	5.14	5.00	2.8	30.0
Allyl chloride	Ave	0.3517	0.3292		4.68	5.00	-6.4	30.0
Methylene Chloride	Ave	0.2381	0.2206	0.1000	4.63	5.00	-7.3	30.0
t-Butyl alcohol	Ave	0.8900	0.9894		55.6	50.0	11.2	30.0
Acrylonitrile	Ave	3.004	3.149		26.2	25.0	4.8	30.0
Methyl tert-butyl ether	Ave	0.6518	0.5737	0.1000	4.40	5.00	-12.0	30.0
trans-1,2-Dichloroethene	Ave	0.2394	0.2231	0.1000	4.66	5.00	-6.8	30.0
n-Hexane	Ave	0.3153	0.2566		4.07	5.00	-18.6	30.0
1,1-Dichloroethane	Ave	0.4511	0.4065	0.2000	4.51	5.00	-9.9	30.0
di-Isopropyl ether	Ave	0.8017	0.7290		4.55	5.00	-9.1	30.0
2-Chloro-1,3-butadiene	Ave	0.4150	0.3745		4.51	5.00	-9.8	30.0
Ethyl t-butyl ether	Ave	0.7853	0.7164		4.56	5.00	-8.8	30.0
2-Butanone (MEK)	Ave	4.792	5.012	0.1000	39.2	37.5	4.6	30.0
cis-1,2-Dichloroethene	Ave	0.2773	0.2743	0.1000	4.95	5.00	-1.1	30.0
2,2-Dichloropropane	Ave	0.3967	0.3650		4.60	5.00	-8.0	30.0
Propionitrile	Ave	1.093	1.102		37.8	37.5	0.8	30.0
Methacrylonitrile	Ave	4.170	4.617		41.5	37.5	10.7	30.0
Bromochloromethane	Ave	0.1314	0.1219		4.64	5.00	-7.2	30.0
Tetrahydrofuran	Ave	1.254	1.350		26.9	25.0	7.7	30.0
Chloroform	Ave	0.4846	0.4561	0.2000	4.71	5.00	-5.9	30.0
1,1,1-Trichloroethane	Ave	0.4438	0.4053	0.1000	4.57	5.00	-8.7	30.0
Cyclohexane	Ave	0.3844	0.3373	0.1000	4.39	5.00	-12.3	30.0
Carbon tetrachloride	Ave	0.3967	0.3694	0.1000	4.66	5.00	-6.9	30.0
1,1-Dichloropropene	Ave	0.3578	0.3298		4.61	5.00	-7.8	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-9077-1

SDG No.: _____

Lab Sample ID: ICV 410-12269/10 Calibration Date: 06/11/2020 16:57

Instrument ID: 16334 Calib Start Date: 06/11/2020 14:22

GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 06/11/2020 16:35

Lab File ID: GU11V01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Isobutyl alcohol	Ave	0.0056	0.0051		114	125	-8.8	30.0
Benzene	Ave	0.998	0.9231	0.5000	4.62	5.00	-7.5	30.0
1,2-Dichloroethane	Ave	0.3613	0.3331	0.1000	4.61	5.00	-7.8	30.0
t-Amyl methyl ether	Ave	0.7055	0.6717		4.76	5.00	-4.8	30.0
n-Heptane	Ave	0.3645	0.3005		4.12	5.00	-17.6	30.0
n-Butanol	Ave	0.2728	0.2835		260	250	3.9	30.0
Trichloroethene	Ave	0.2780	0.2639	0.2000	4.75	5.00	-5.1	30.0
Methylcyclohexane	Ave	0.4088	0.3860	0.1000	4.72	5.00	-5.6	30.0
1,2-Dichloropropane	Ave	0.2533	0.2512	0.1000	4.96	5.00	-0.8	30.0
1,4-Dioxane	Ave	0.0605	0.0637	0.0050	132	125	5.2	30.0
Methyl methacrylate	Ave	8.438	9.125		5.41	5.00	8.1	30.0
Dibromomethane	Ave	0.1462	0.1404		4.80	5.00	-4.0	30.0
Bromodichloromethane	Ave	0.3620	0.3542	0.2000	4.89	5.00	-2.2	30.0
2-Nitropropane	Ave	3.520	3.450		4.90	5.00	-2.0	30.0
1-Bromo-2-chloroethane	Ave	0.2779	0.2758		4.96	5.00	-0.8	30.0
cis-1,3-Dichloropropene	Ave	0.4004	0.3881	0.2000	4.85	5.00	-3.1	30.0
4-Methyl-2-pentanone (MIBK)	Ave	12.51	13.39	0.1000	26.8	25.0	7.0	30.0
Toluene	Ave	0.8261	0.7773	0.4000	4.70	5.00	-5.9	30.0
trans-1,3-Dichloropropene	Ave	0.4691	0.4426	0.1000	4.72	5.00	-5.6	30.0
Ethyl methacrylate	Ave	0.3647	0.3690		5.06	5.00	1.2	30.0
1,1,2-Trichloroethane	Ave	0.2539	0.2526	0.1000	4.97	5.00	-0.5	30.0
Tetrachloroethene	Ave	0.4042	0.3784	0.2000	4.68	5.00	-6.4	30.0
1,3-Dichloropropane	Ave	0.4381	0.4241		4.84	5.00	-3.2	30.0
2-Hexanone	Ave	9.098	10.09	0.1000	27.7	25.0	10.9	30.0
Dibromochloromethane	Ave	0.3287	0.3211		4.88	5.00	-2.3	30.0
1,2-Dibromoethane (EDB)	Ave	0.2555	0.2432	0.1000	4.76	5.00	-4.8	30.0
1-Chlorohexane	Ave	0.5118	0.4498		4.39	5.00	-12.1	30.0
Chlorobenzene	Ave	0.9791	0.9343	0.5000	4.77	5.00	-4.6	30.0
1,1,1,2-Tetrachloroethane	Ave	0.3673	0.3561		4.85	5.00	-3.1	30.0
Ethylbenzene	Ave	1.717	1.617	0.1000	4.71	5.00	-5.8	30.0
m&p-Xylene	Ave	0.6383	0.6100	0.1000	9.56	10.0	-4.4	30.0
o-Xylene	Ave	0.6245	0.6054	0.3000	4.85	5.00	-3.1	30.0
Styrene	Ave	1.029	1.017	0.3000	4.94	5.00	-1.2	30.0
Bromoform	Ave	0.2074	0.1976	0.1000	4.77	5.00	-4.7	30.0
Isopropylbenzene	Ave	1.670	1.627	0.1000	4.87	5.00	-2.6	30.0
1,1,2,2-Tetrachloroethane	Ave	0.6058	0.5708	0.3000	4.71	5.00	-5.8	30.0
Bromobenzene	Ave	0.8025	0.7528		4.69	5.00	-6.2	30.0
trans-1,4-Dichloro-2-butene	Ave	5.031	5.623		27.9	25.0	11.8	30.0
1,2,3-Trichloropropane	Ave	0.1697	0.1657		4.88	5.00	-2.3	30.0
N-Propylbenzene	Ave	3.713	3.537		4.76	5.00	-4.7	30.0
2-Chlorotoluene	Ave	0.7377	0.7078		4.80	5.00	-4.1	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-9077-1
 SDG No.: _____
 Lab Sample ID: ICV 410-12269/10 Calibration Date: 06/11/2020 16:57
 Instrument ID: 16334 Calib Start Date: 06/11/2020 14:22
 GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 06/11/2020 16:35
 Lab File ID: GU11V01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,3,5-Trimethylbenzene	Ave	2.584	2.485		4.81	5.00	-3.8	30.0
4-Chlorotoluene	Ave	0.7845	0.7486		4.77	5.00	-4.6	30.0
tert-Butylbenzene	Ave	0.5753	0.5283		4.59	5.00	-8.2	30.0
Pentachloroethane	Ave	0.5078	0.4793		4.72	5.00	-5.6	30.0
1,2,4-Trimethylbenzene	Ave	2.701	2.579		4.77	5.00	-4.5	30.0
sec-Butylbenzene	Ave	3.399	3.212		4.72	5.00	-5.5	30.0
1,3-Dichlorobenzene	Ave	1.554	1.457	0.6000	4.69	5.00	-6.2	30.0
p-Isopropyltoluene	Ave	2.917	2.846		4.88	5.00	-2.4	30.0
1,4-Dichlorobenzene	Ave	1.577	1.522	0.5000	4.83	5.00	-3.4	30.0
1,2,3-Trimethylbenzene	Ave	1.183	1.178		4.98	5.00	-0.4	30.0
Benzyl chloride	Ave	0.2263	0.2175		4.80	5.00	-3.9	30.0
n-Butylbenzene	Ave	1.518	1.448		4.77	5.00	-4.6	30.0
1,2-Dichlorobenzene	Ave	1.450	1.376	0.4000	4.74	5.00	-5.1	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.0877	0.0841	0.0500	4.80	5.00	-4.1	30.0
1,3,5-Trichlorobenzene	Ave	1.214	1.169		4.81	5.00	-3.7	30.0
1,2,4-Trichlorobenzene	Ave	1.043	1.026	0.2000	4.92	5.00	-1.6	30.0
Hexachlorobutadiene	Ave	0.5694	0.5489		4.82	5.00	-3.6	30.0
Naphthalene	Ave	1.701	1.625		4.78	5.00	-4.4	30.0
1,2,3-Trichlorobenzene	Ave	0.8757	0.8433		4.81	5.00	-3.7	30.0
Dibromofluoromethane (Surr)	Ave	0.2671	0.2671		10.0	10.0	0.0	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0509	0.0493		9.69	10.0	-3.1	30.0
Toluene-d8 (Surr)	Ave	1.309	1.299		9.92	10.0	-0.8	30.0
4-Bromofluorobenzene (Surr)	Ave	0.4862	0.4912		10.1	10.0	1.0	30.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11V01.D
 Lims ID: ICV
 Client ID:
 Sample Type: ICV
 Inject. Date: 11-Jun-2020 16:57:30 ALS Bottle#: 9 Worklist Smp#: 10
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0003178-010
 Misc. Info.: ICV
 Operator ID: DVV10203 Instrument ID: 16334
 Sublist:
 Method: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 16-Jun-2020 21:44:04 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I17.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1028

First Level Reviewer: virayd

Date: 14-Jun-2020 10:01:00

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.953	1.953	0.000	99	297311	5.00	3.58	M
5 Chloromethane	50	2.148	2.142	0.006	98	331813	5.00	4.30	
6 Butadiene	39	2.257	2.263	-0.006	98	237939	5.00	3.61	M
7 Vinyl chloride	62	2.264	2.263	0.001	98	336665	5.00	4.62	M
9 Bromomethane	94	2.574	2.580	-0.006	93	267908	5.00	4.84	M
10 Chloroethane	64	2.666	2.660	0.006	98	198930	5.00	4.79	M
11 Dichlorofluoromethane	67	2.910	2.904	0.006	98	485987	5.00	4.94	M
13 Trichlorofluoromethane	101	2.965	2.958	0.007	97	504639	5.00	5.18	
15 Ethyl ether	59	3.215	3.208	0.007	93	179165	5.01	4.96	
16 1,2-Dichloro-1,1,2-trifluoroethane	67	3.300	3.300	0.000	91	254918	5.00	4.53	
18 Acrolein	56	3.385	3.391	-0.006	98	177992	37.5	35.7	
19 1,1-Dichloroethene	96	3.519	3.525	-0.006	96	184782	5.00	4.37	
21 112TCTFE	101	3.556	3.550	0.006	91	185107	5.00	3.97	
20 Acetone	43	3.562	3.562	0.000	98	279445	37.5	35.4	
23 Isopropyl alcohol	45	3.739	3.708	0.031	29	51651	37.5	38.7	M
22 Iodomethane	142	3.715	3.714	0.001	99	365247	5.00	4.20	M
24 Ethyl bromide	108	3.745	3.745	0.000	99	174052	4.93	4.70	
25 Carbon disulfide	76	3.818	3.818	0.000	99	609443	5.00	4.11	
26 Methyl acetate	43	3.952	3.946	0.006	98	96108	5.00	5.14	
27 3-Chloro-1-propene	41	3.995	3.995	0.000	83	327973	5.00	4.68	
28 Methylene Chloride	84	4.190	4.184	0.006	95	219809	5.00	4.63	
* 29 t-Butyl alcohol-d10 (IS)	65	4.208	4.196	0.012	92	141350	50.0	50.0	M
30 2-Methyl-2-propanol	59	4.336	4.318	0.018	96	139847	50.0	55.6	
31 Acrylonitrile	53	4.525	4.519	0.006	100	222583	25.0	26.2	
32 Methyl tert-butyl ether	73	4.586	4.586	0.000	98	571578	5.00	4.40	
33 trans-1,2-Dichloroethene	96	4.586	4.586	0.000	98	222294	5.00	4.66	
34 Hexane	57	5.007	4.995	0.012	93	255689	5.00	4.07	
36 1,1-Dichloroethane	63	5.251	5.251	0.000	97	405059	5.00	4.51	
37 Isopropyl ether	45	5.318	5.306	0.012	91	726356	5.00	4.55	
38 2-Chloro-1,3-butadiene	53	5.361	5.360	0.001	96	373127	5.00	4.51	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 Tert-butyl ethyl ether	59	5.848	5.842	0.006	97	713826	5.00	4.56	
40 2-Butanone (MEK)	43	6.056	6.055	0.001	100	531314	37.5	39.2	
41 cis-1,2-Dichloroethene	96	6.086	6.092	-0.006	85	273262	5.00	4.95	
42 2,2-Dichloropropane	77	6.110	6.104	0.006	90	363694	5.00	4.60	M
44 Propionitrile	54	6.153	6.153	0.000	98	116837	37.5	37.8	
46 Methacrylonitrile	67	6.373	6.360	0.013	90	489470	37.5	41.5	
48 Chlorobromomethane	128	6.415	6.409	0.006	92	121459	5.00	4.64	
47 Tetrahydrofuran	71	6.421	6.427	-0.006	80	95433	25.0	26.9	
50 Chloroform	83	6.574	6.567	0.007	95	454466	5.00	4.71	
\$ 52 Dibromofluoromethane (Surr)	113	6.787	6.787	0.000	92	532299	10.0	10.0	
51 1,1,1-Trichloroethane	97	6.799	6.793	0.006	98	403837	5.00	4.57	
53 Cyclohexane	56	6.891	6.885	0.007	94	336097	5.00	4.39	
55 1,1-Dichloropropene	75	7.007	7.000	0.007	89	328593	5.00	4.61	
56 Carbon tetrachloride	117	7.000	7.000	0.000	86	368042	5.00	4.66	
57 Isobutyl alcohol	41	7.183	7.177	0.006	92	126415	125.0	114.0	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.238	7.238	0.000	0	98203	10.0	9.69	
59 Benzene	78	7.269	7.262	0.007	98	919764	5.00	4.62	
60 1,2-Dichloroethane	62	7.342	7.342	0.000	98	331919	5.00	4.61	
62 Tert-amyl methyl ether	73	7.464	7.464	0.000	96	669240	5.00	4.76	
* 63 Fluorobenzene (IS)	96	7.677	7.671	0.006	98	1992694	10.0	10.0	
64 n-Heptane	43	7.683	7.683	0.000	88	299433	5.00	4.12	
65 n-Butanol	56	8.061	8.061	0.000	92	200384	250.0	259.8	
67 Trichloroethene	95	8.153	8.153	0.000	96	262973	5.00	4.75	
68 Methylcyclohexane	83	8.457	8.457	0.000	92	384569	5.00	4.72	
70 2-ethoxy-2-methyl butane	87	8.494	8.488	0.006	92	382031	5.00	4.91	
69 1,2-Dichloropropane	63	8.488	8.488	0.000	89	250326	5.00	4.96	
72 1,4-Dioxane	88	8.573	8.573	0.000	30	22516	125.0	131.6	M
71 Methyl methacrylate	69	8.573	8.573	0.000	87	128975	5.00	5.41	
73 Dibromomethane	93	8.598	8.598	0.000	95	139834	5.00	4.80	
75 Dichlorobromomethane	83	8.835	8.835	0.000	98	352866	5.00	4.89	
76 2-Nitropropane	41	9.116	9.122	-0.006	94	48762	5.00	4.90	
78 2-Chloroethyl vinyl ether	63		9.201				5.00	ND	
79 1-Bromo-2-chloroethane	63	9.226	9.226	0.000	99	274774	5.00	4.96	
80 cis-1,3-Dichloropropene	75	9.384	9.384	0.000	90	386700	5.00	4.85	
81 4-Methyl-2-pentanone (MIBK)	43	9.567	9.567	0.000	98	946093	25.0	26.8	
\$ 82 Toluene-d8 (Surr)	98	9.695	9.695	0.000	95	2010621	10.0	9.92	
83 Toluene	92	9.768	9.768	0.000	96	601604	5.00	4.70	
84 trans-1,3-Dichloropropene	75	10.036	10.036	0.000	98	342569	5.00	4.72	
85 Ethyl methacrylate	69	10.097	10.097	0.000	87	285604	5.00	5.06	
86 1,1,2-Trichloroethane	97	10.238	10.238	0.000	94	195496	5.00	4.97	
88 Tetrachloroethene	166	10.317	10.317	0.000	95	292866	5.00	4.68	
89 1,3-Dichloropropane	76	10.402	10.402	0.000	93	328248	5.00	4.84	
91 2-Hexanone	43	10.457	10.457	0.000	98	712952	25.0	27.7	
93 Chlorodibromomethane	129	10.616	10.615	0.001	90	248521	5.00	4.88	
94 Ethylene Dibromide	107	10.725	10.719	0.006	98	188204	5.00	4.76	
* 95 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	88	1548032	10.0	10.0	
96 1-Chlorohexane	91	11.164	11.164	0.000	96	348123	5.00	4.39	
97 Chlorobenzene	112	11.183	11.182	0.001	93	723124	5.00	4.77	
98 1,1,1,2-Tetrachloroethane	131	11.268	11.268	0.000	92	275593	5.00	4.85	
99 Ethylbenzene	91	11.268	11.268	0.000	99	1251811	5.00	4.71	
100 m-Xylene & p-Xylene	106	11.384	11.384	0.000	0	944309	10.0	9.56	
102 o-Xylene	106	11.713	11.713	0.000	98	468568	5.00	4.85	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
103 Styrene	104	11.731	11.731	0.000	94	786801	5.00	4.94	
104 Bromoform	173	11.884	11.890	-0.006	94	152969	5.00	4.77	
105 Isopropylbenzene	105	12.018	12.018	0.000	97	1259107	5.00	4.87	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	89	760447	10.0	10.1	
109 1,1,2,2-Tetrachloroethane	83	12.262	12.262	0.000	96	247309	5.00	4.71	
110 Bromobenzene	156	12.274	12.274	0.000	94	326153	5.00	4.69	
111 trans-1,4-Dichloro-2-butene	53	12.292	12.286	0.006	93	397418	25.0	27.9	
112 1,2,3-Trichloropropane	110	12.310	12.310	0.000	87	71788	5.00	4.88	
113 N-Propylbenzene	91	12.347	12.347	0.000	99	1532525	5.00	4.76	
114 2-Chlorotoluene	126	12.420	12.420	0.000	95	306652	5.00	4.80	
115 1,3,5-Trimethylbenzene	105	12.481	12.481	0.000	94	1076496	5.00	4.81	
116 4-Chlorotoluene	126	12.512	12.511	0.001	98	324330	5.00	4.77	
118 tert-Butylbenzene	134	12.725	12.725	0.000	93	228912	5.00	4.59	
120 Pentachloroethane	167	12.755	12.755	0.000	91	207649	5.00	4.72	
119 1,2,4-Trimethylbenzene	105	12.762	12.761	0.001	98	1117420	5.00	4.77	
121 sec-Butylbenzene	105	12.883	12.883	0.000	96	1391496	5.00	4.72	
122 1,3-Dichlorobenzene	146	12.981	12.987	-0.006	96	631228	5.00	4.69	
123 4-Isopropyltoluene	119	12.993	12.993	0.000	97	1232982	5.00	4.88	
* 124 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	98	866545	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.054	13.054	0.000	93	659622	5.00	4.83	
126 1,2,3-Trimethylbenzene	120	13.066	13.066	0.000	99	510334	5.00	4.98	
127 Benzyl chloride	126	13.140	13.133	0.007	99	94243	5.00	4.80	
129 p-Diethylbenzene	119	13.194	13.194	0.000	91	730409	5.00	4.74	
130 n-Butylbenzene	92	13.286	13.286	0.000	98	627543	5.00	4.77	
131 1,2-Dichlorobenzene	146	13.316	13.316	0.000	96	596149	5.00	4.74	
134 1,2-Dibromo-3-Chloropropane	155	13.859	13.859	0.000	81	36451	5.00	4.80	
135 1,3,5-Trichlorobenzene	180	13.981	13.981	0.000	96	506393	5.00	4.81	
136 1,2,4-Trichlorobenzene	180	14.408	14.407	0.001	93	444513	5.00	4.92	
137 Hexachlorobutadiene	225	14.487	14.487	0.000	97	237802	5.00	4.82	
138 Naphthalene	128	14.590	14.590	0.000	98	704139	5.00	4.78	
139 1,2,3-Trichlorobenzene	180	14.731	14.731	0.000	94	365392	5.00	4.81	
140 2-Methylnaphthalene	142	15.352	15.352	0.000	90	358125	5.00	4.17	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MSV_Q_QARC_00031	Amount Added: 12.50	Units: uL	
MSV_Q_QVOA6_00030	Amount Added: 12.50	Units: uL	
MSV_Q_QVOA1_00032	Amount Added: 12.50	Units: uL	
MSV_Q_EE_00002	Amount Added: 12.50	Units: uL	
MSV_Q_ETBR_00003	Amount Added: 12.50	Units: uL	
MSV_QGAS_826_00045	Amount Added: 12.50	Units: uL	
MSV_29_826ISS_00007	Amount Added: 1.00	Units: uL	Run Reagent

Data File: \\chromf\Lancaster\ChromData\16334\20200611-3178.b\GU11V01.D

Injection Date: 11-Jun-2020 16:57:30

Instrument ID: 16334

Operator ID: DVV10203

Lims ID: ICV

Worklist Smp#: 10

Client ID:

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

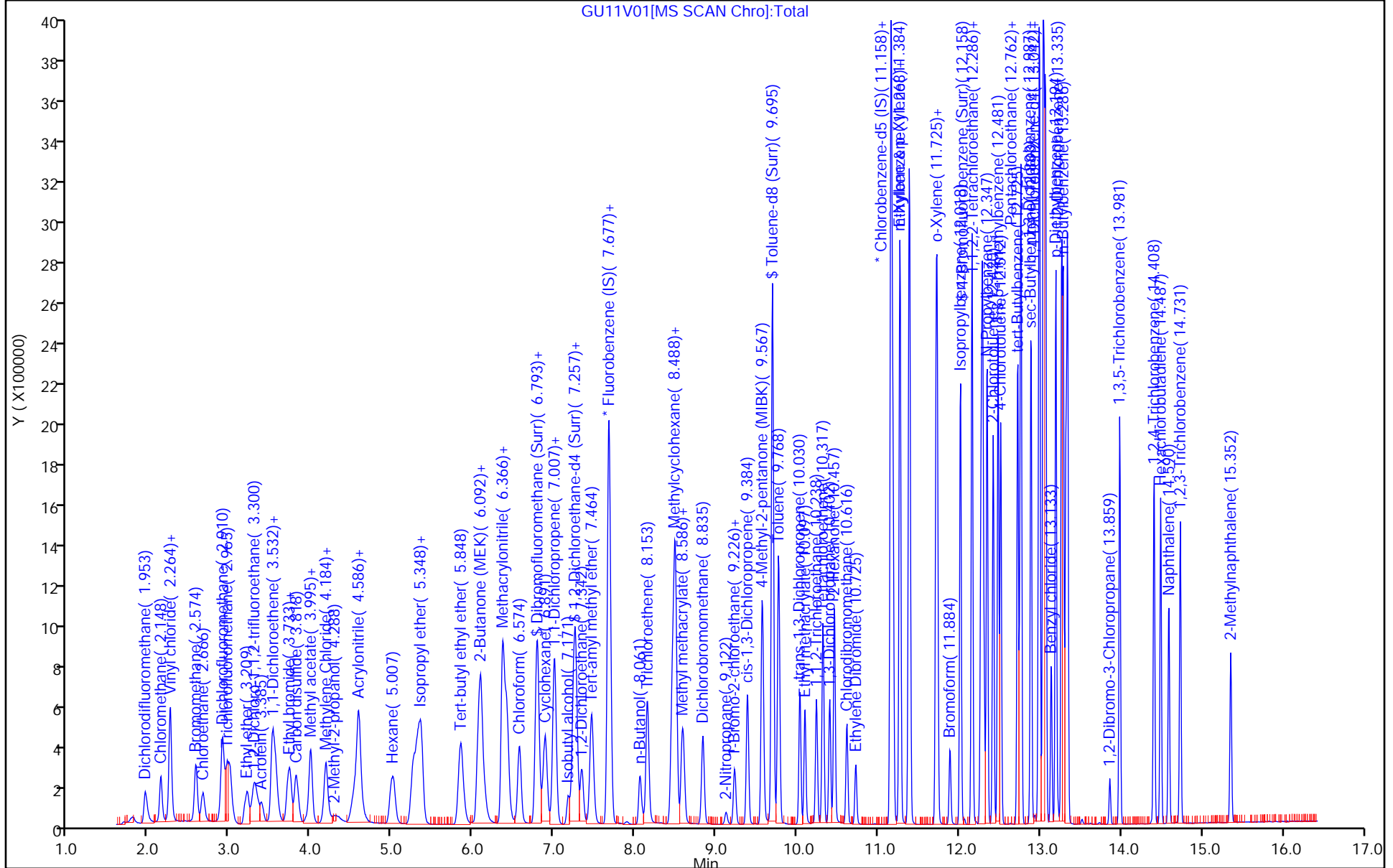
ALS Bottle#: 9

Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



GU11V01[MS SCAN Chrom]:Total

Eurofins Lancaster Laboratories Env, LLC

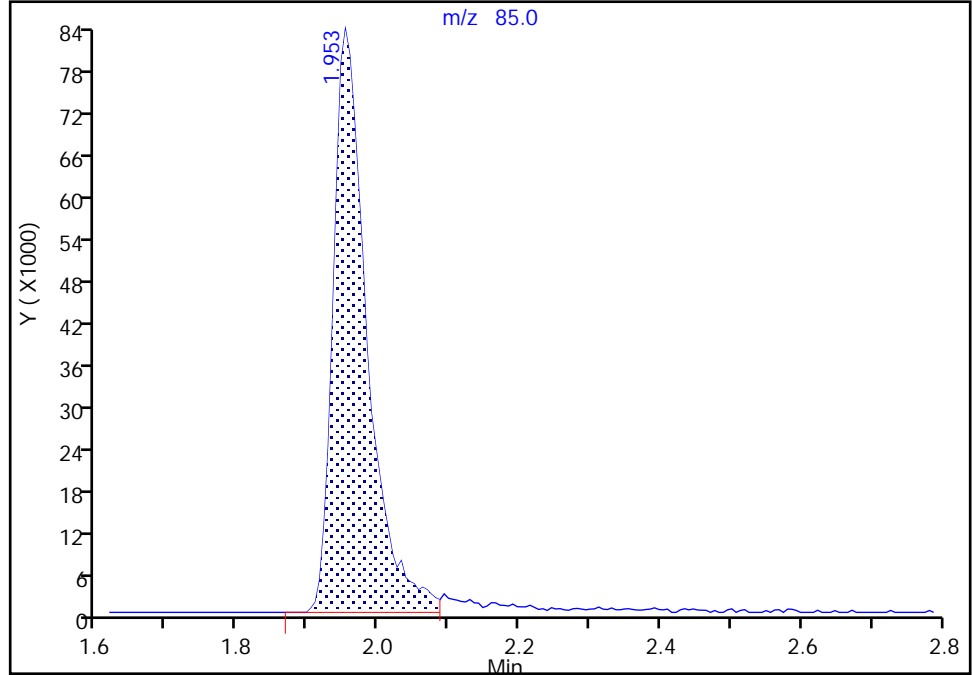
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Injection Date: 11-Jun-2020 16:57:30 Instrument ID: 16334
Lims ID: ICV
Client ID:
Operator ID: DVV10203 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

1 Dichlorodifluoromethane, CAS: 75-71-8

Signal: 1

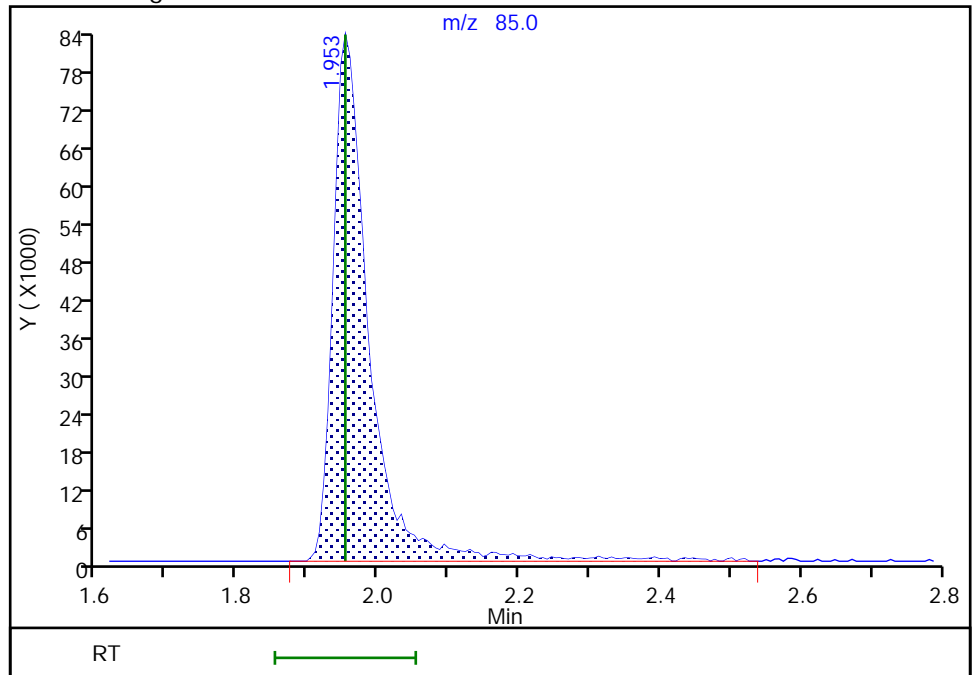
RT: 1.95
Area: 279914
Amount: 3.365908
Amount Units: ug/l

Processing Integration Results



RT: 1.95
Area: 297311
Amount: 3.575103
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 14-Jun-2020 10:07:37
Audit Action: Manually Integrated

Audit Reason: Other

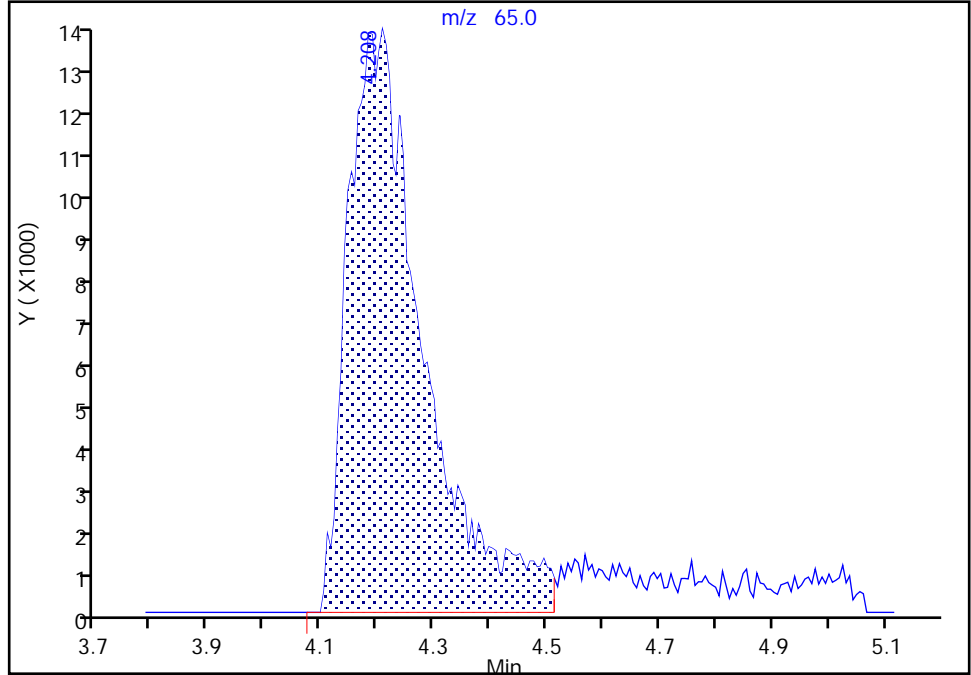
Euofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11V01.D
Injection Date: 11-Jun-2020 16:57:30 Instrument ID: 16334
Lims ID: ICV
Client ID:
Operator ID: DVV10203 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 29 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2
Signal: 1

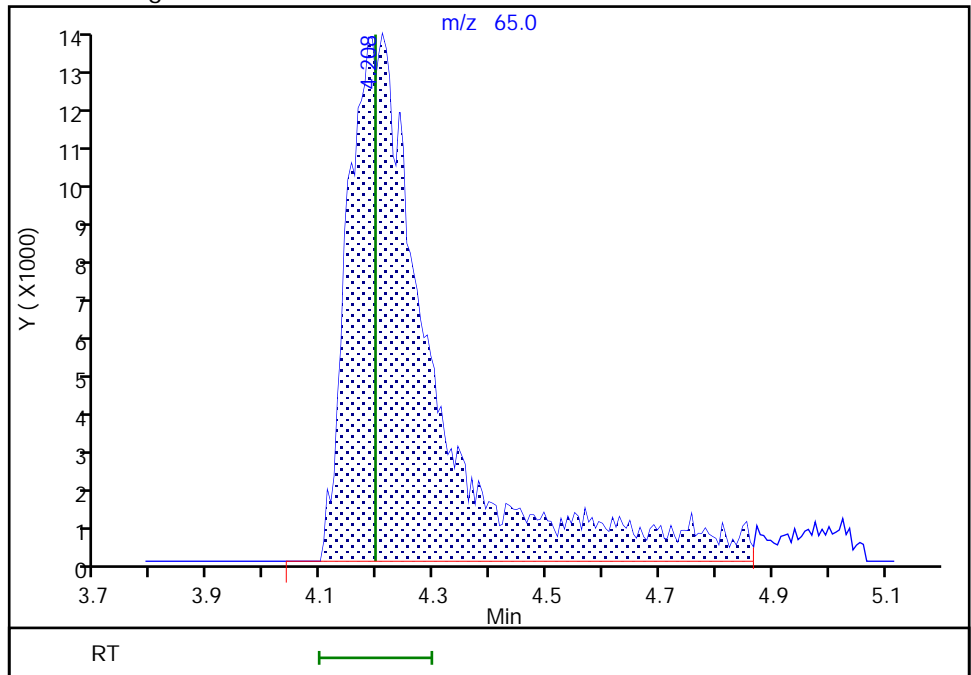
RT: 4.21
Area: 124580
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.21
Area: 141350
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 14-Jun-2020 10:09:17
Audit Action: Split an Integrated Peak

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

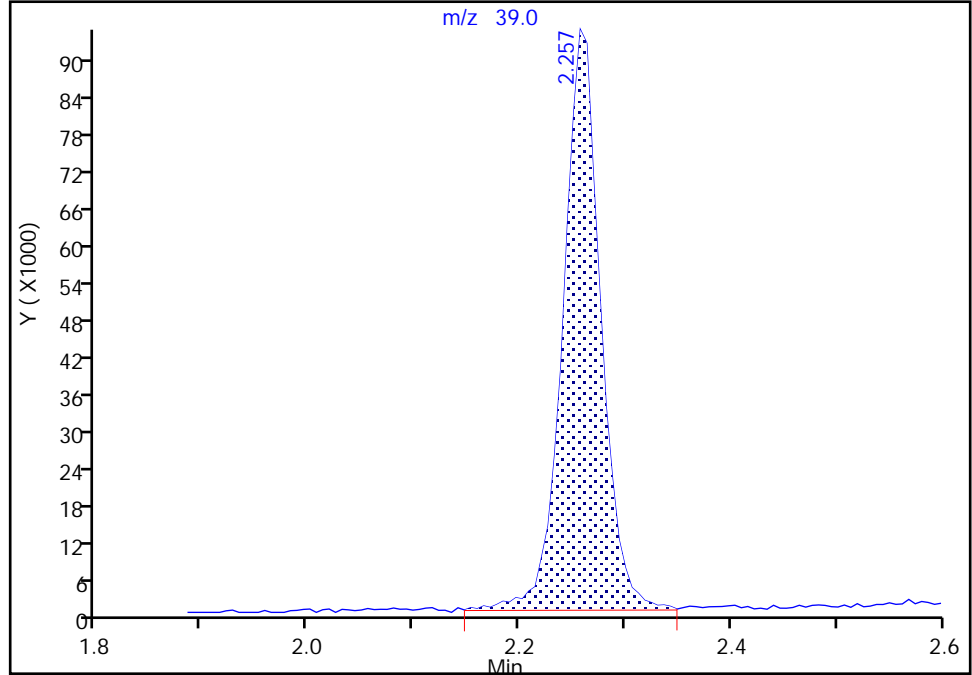
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Injection Date: 11-Jun-2020 16:57:30 Instrument ID: 16334
Lims ID: ICV
Client ID:
Operator ID: DVV10203 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

6 Butadiene, CAS: 106-99-0

Signal: 1

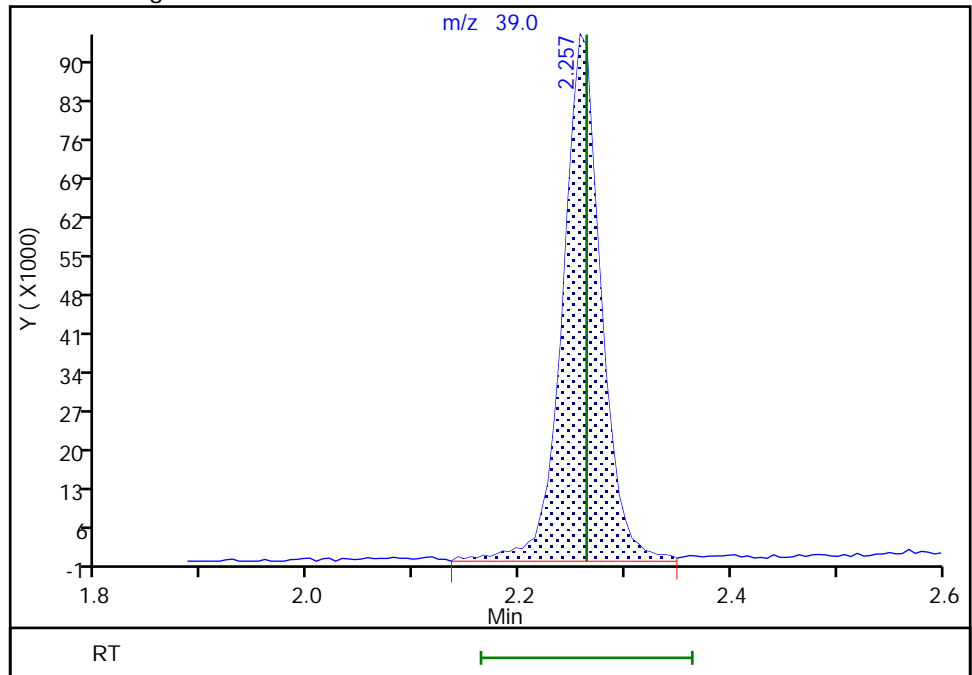
RT: 2.26
Area: 233349
Amount: 3.538315
Amount Units: ug/l

Processing Integration Results



RT: 2.26
Area: 237939
Amount: 3.607914
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 14-Jun-2020 10:11:47
Audit Action: Assigned New Baseline

Audit Reason: Other

Euofins Lancaster Laboratories Env, LLC

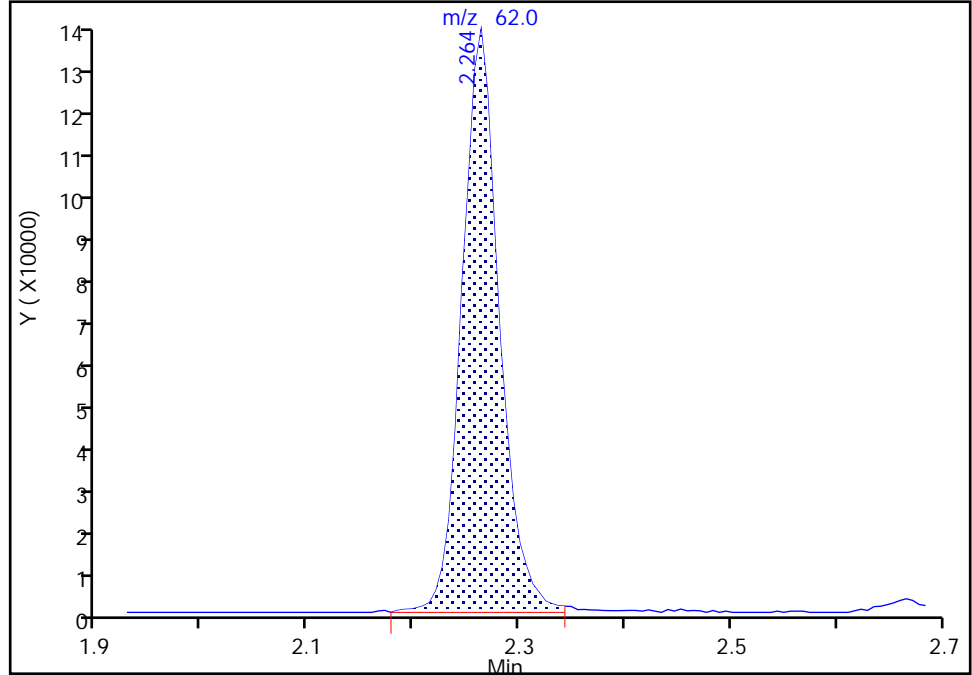
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11V01.D
Injection Date: 11-Jun-2020 16:57:30 Instrument ID: 16334
Lims ID: ICV
Client ID:
Operator ID: DVV10203 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

7 Vinyl chloride, CAS: 75-01-4

Signal: 1

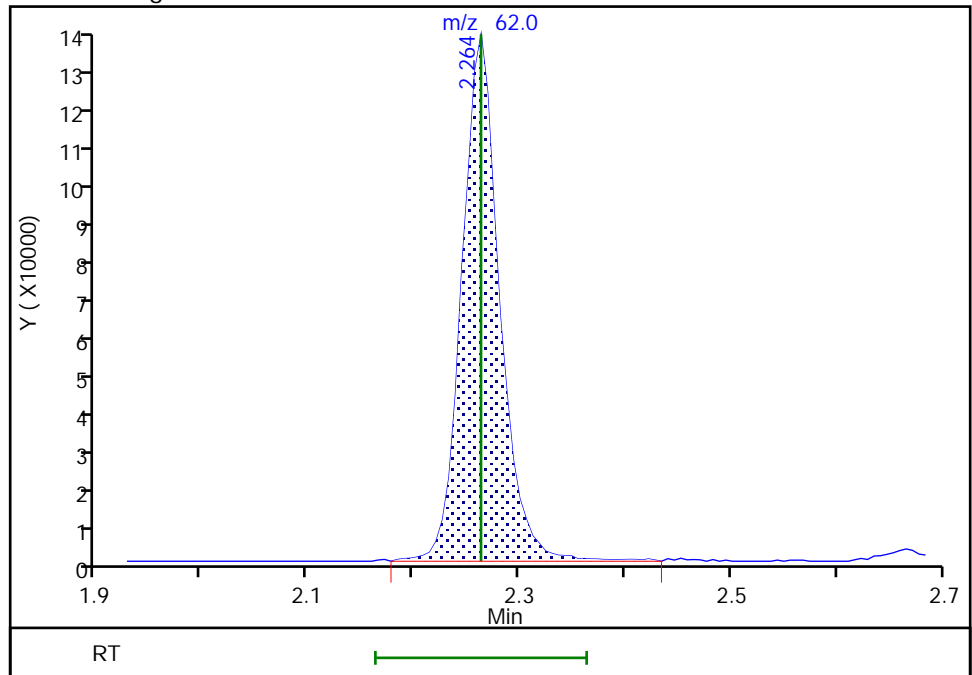
RT: 2.26
Area: 333925
Amount: 4.586729
Amount Units: ug/l

Processing Integration Results



RT: 2.26
Area: 336665
Amount: 4.624365
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 14-Jun-2020 10:07:47
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

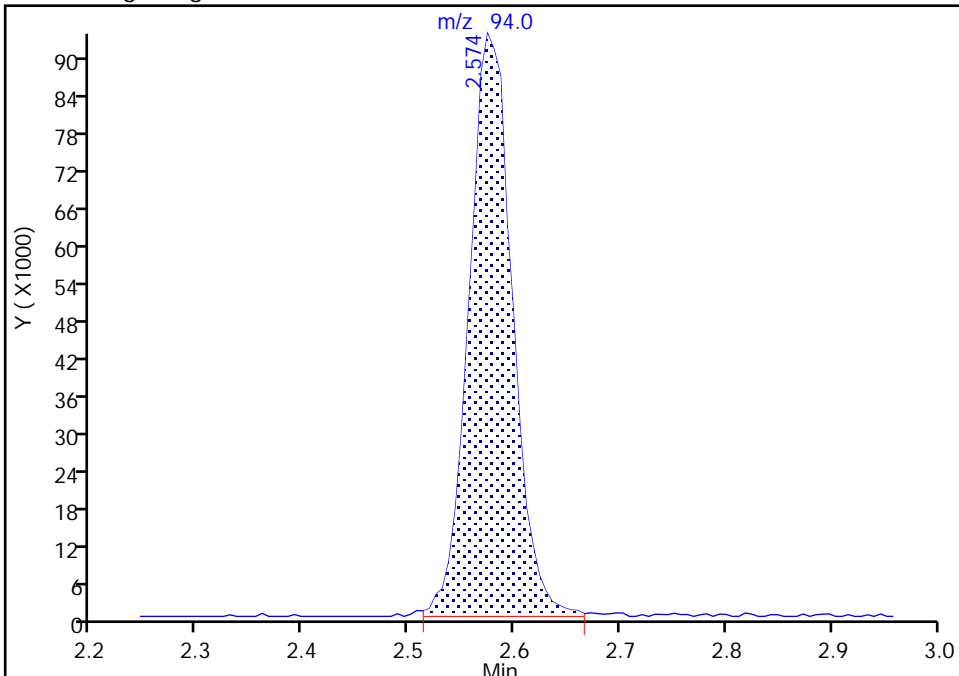
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Injection Date: 11-Jun-2020 16:57:30 Instrument ID: 16334
Lims ID: ICV
Client ID:
Operator ID: DVV10203 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

9 Bromomethane, CAS: 74-83-9

Signal: 1

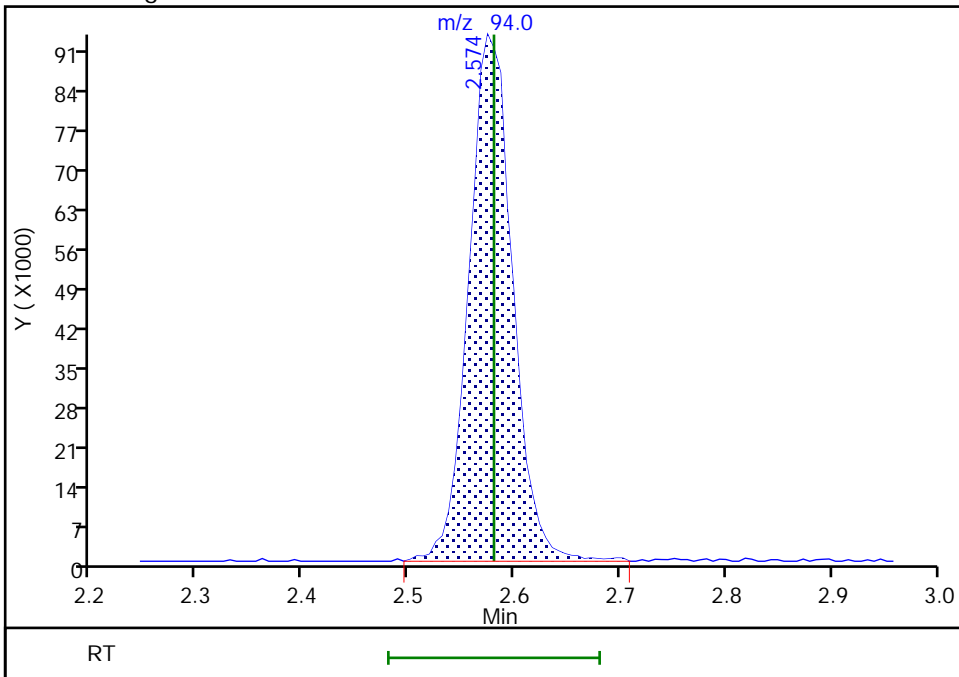
RT: 2.57
Area: 266365
Amount: 4.807552
Amount Units: ug/l

Processing Integration Results



RT: 2.57
Area: 267908
Amount: 4.835401
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 14-Jun-2020 10:07:53
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

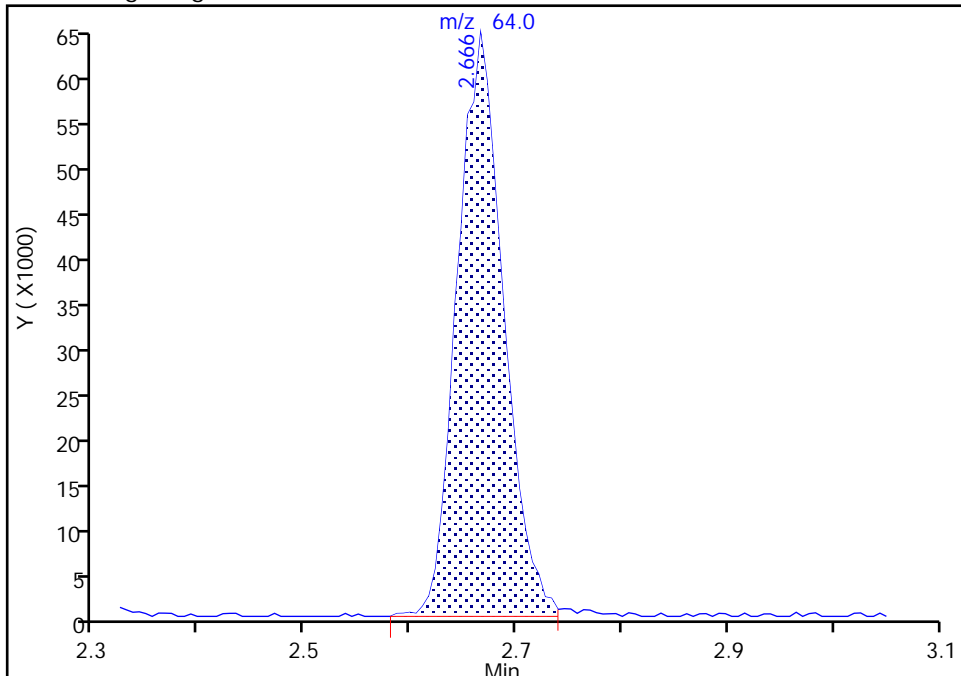
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Injection Date: 11-Jun-2020 16:57:30 Instrument ID: 16334
Lims ID: ICV
Client ID:
Operator ID: DVV10203 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

10 Chloroethane, CAS: 75-00-3

Signal: 1

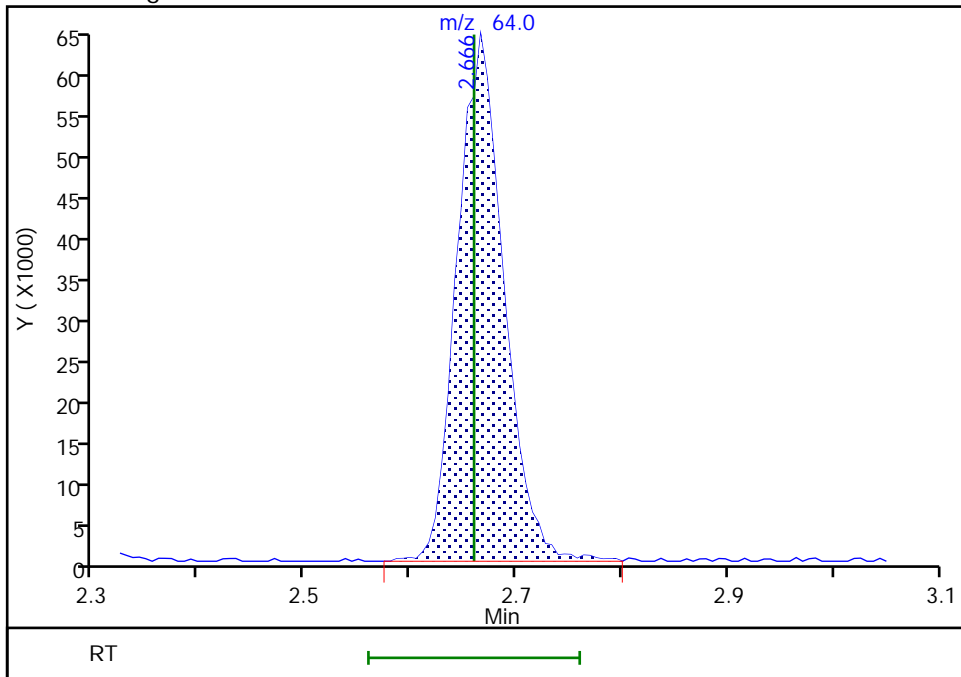
RT: 2.67
Area: 197214
Amount: 4.745244
Amount Units: ug/l

Processing Integration Results



RT: 2.67
Area: 198930
Amount: 4.786533
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 14-Jun-2020 10:08:00
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

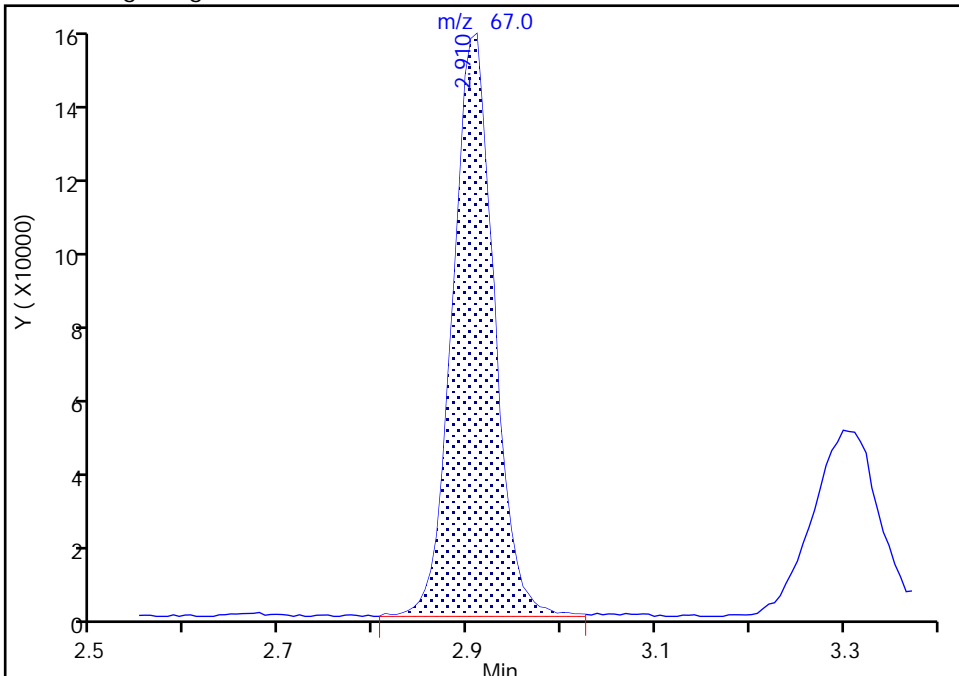
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Injection Date: 11-Jun-2020 16:57:30 Instrument ID: 16334
Lims ID: ICV
Client ID:
Operator ID: DVV10203 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

11 Dichlorofluoromethane, CAS: 75-43-4

Signal: 1

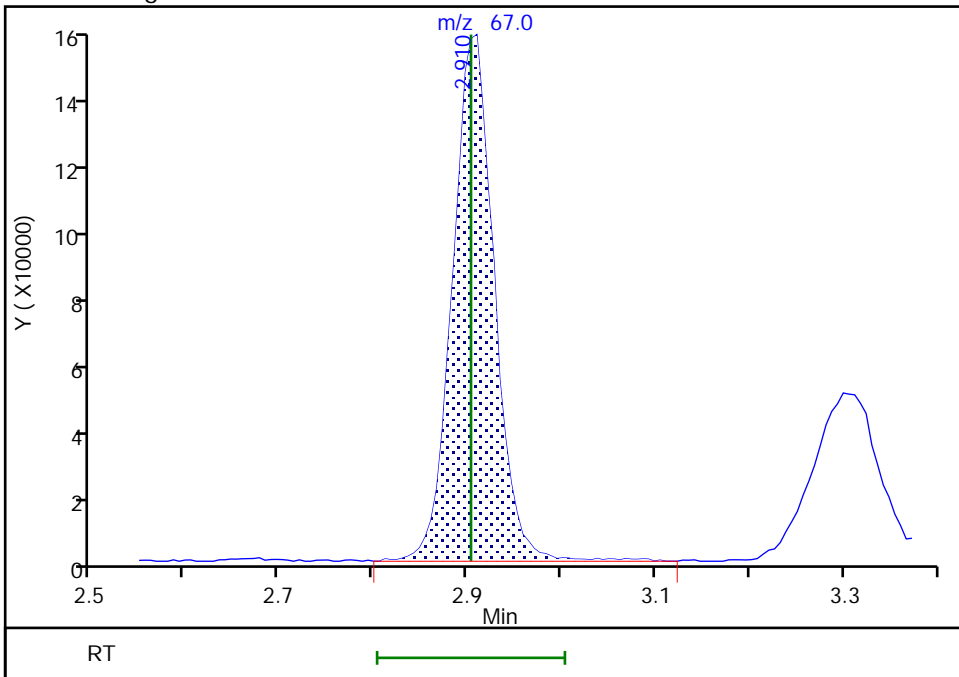
RT: 2.91
Area: 483477
Amount: 4.916032
Amount Units: ug/l

Processing Integration Results



RT: 2.91
Area: 485987
Amount: 4.941554
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 14-Jun-2020 10:08:09
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

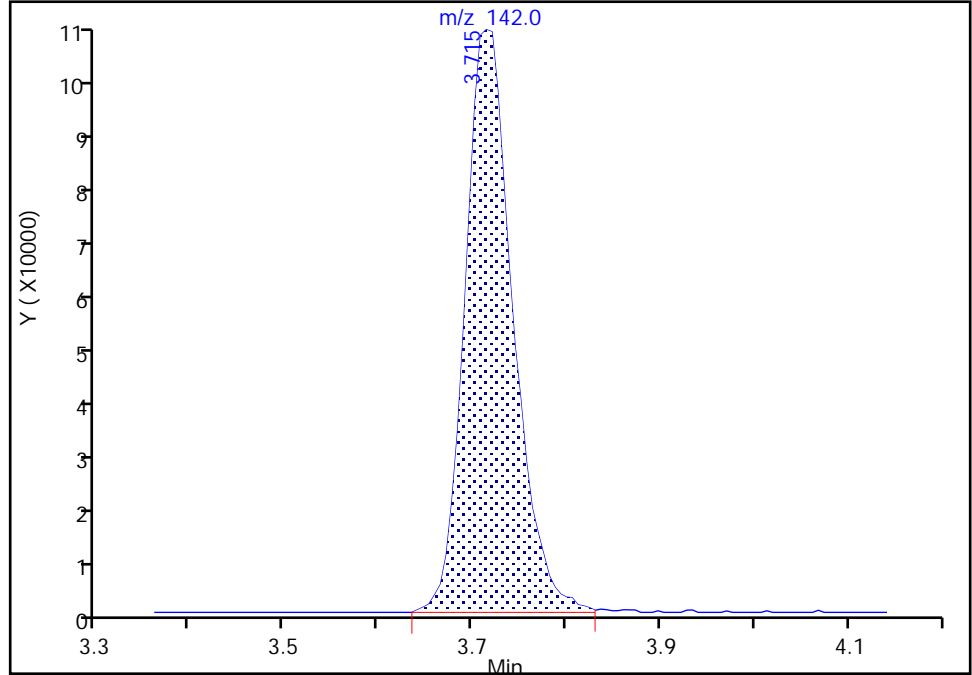
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Injection Date: 11-Jun-2020 16:57:30 Instrument ID: 16334
Lims ID: ICV
Client ID:
Operator ID: DVV10203 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

22 Iodomethane, CAS: 74-88-4

Signal: 1

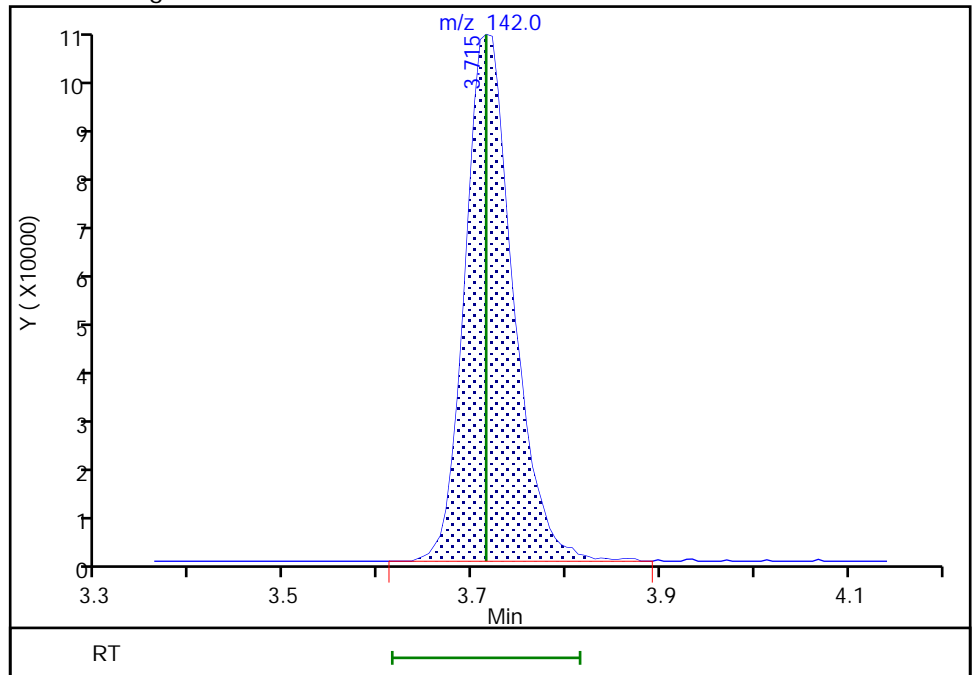
RT: 3.71
Area: 364152
Amount: 4.184440
Amount Units: ug/l

Processing Integration Results



RT: 3.71
Area: 365247
Amount: 4.197023
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 14-Jun-2020 10:08:59
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

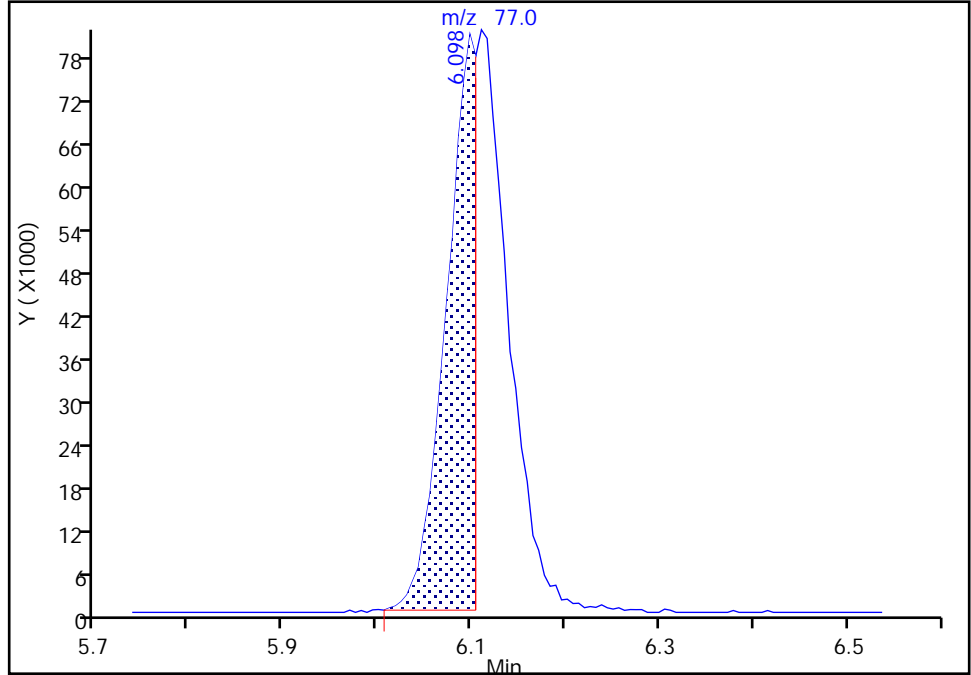
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Injection Date: 11-Jun-2020 16:57:30 Instrument ID: 16334
Lims ID: ICV
Client ID:
Operator ID: DVV10203 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

42 2,2-Dichloropropane, CAS: 594-20-7

Signal: 1

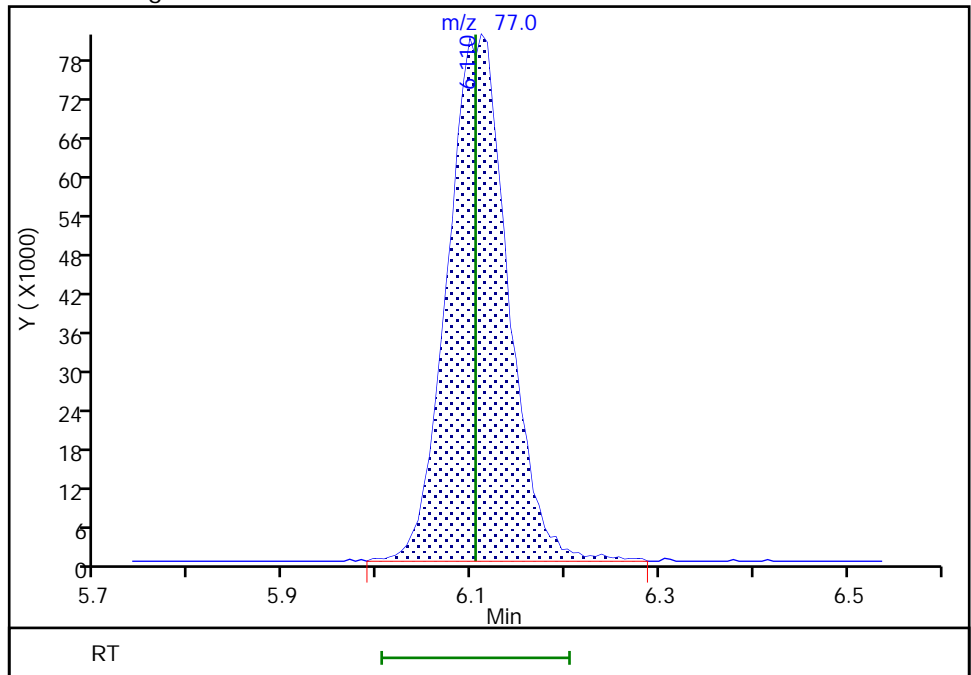
RT: 6.10
Area: 180505
Amount: 2.283555
Amount Units: ug/l

Processing Integration Results



RT: 6.11
Area: 363694
Amount: 4.601065
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 14-Jun-2020 10:09:42
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

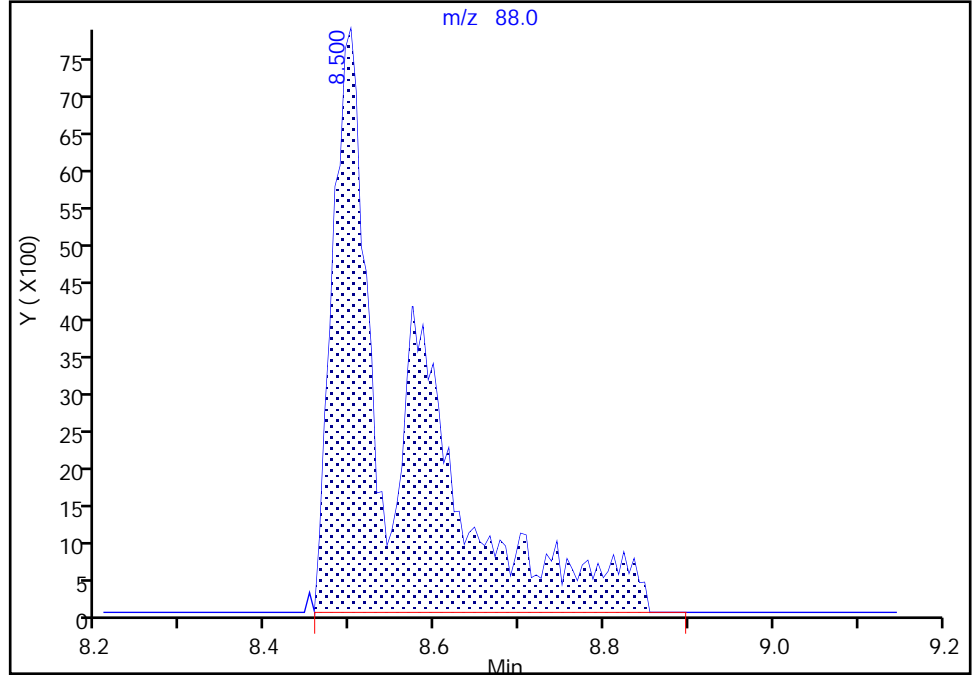
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Injection Date: 11-Jun-2020 16:57:30 Instrument ID: 16334
Lims ID: ICV
Client ID:
Operator ID: DVV10203 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

72 1,4-Dioxane, CAS: 123-91-1

Signal: 1

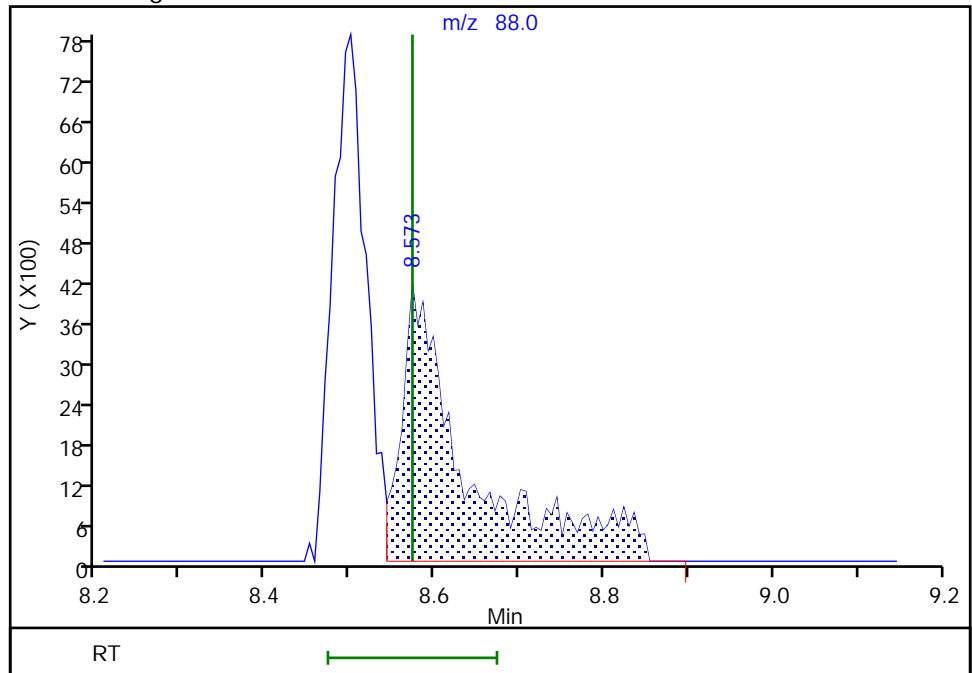
RT: 8.50
Area: 43802
Amount: 251.3466
Amount Units: ug/l

Processing Integration Results



RT: 8.57
Area: 22516
Amount: 131.5504
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 14-Jun-2020 10:10:01
Audit Action: Split an Integrated Peak

Audit Reason: Other

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-9077-1

SDG No.: _____

Lab Sample ID: CCVIS 410-30932/3 Calibration Date: 08/07/2020 22:49

Instrument ID: 16334 Calib Start Date: 06/11/2020 14:22

GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 06/11/2020 16:35

Lab File ID: GG07C01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.4173	0.3000	0.1000	7.19	10.0	-28.1*	20.0
Chloromethane	Ave	0.3870	0.3256	0.1000	8.41	10.0	-15.9	20.0
1,3-Butadiene	Ave	0.3310	0.2962		8.95	10.0	-10.5	20.0
Vinyl chloride	Ave	0.3653	0.3139	0.1000	8.59	10.0	-14.1	20.0
Bromomethane	Ave	0.2780	0.2113	0.1000	7.60	10.0	-24.0*	20.0
Chloroethane	Ave	0.2086	0.1883	0.1000	9.03	10.0	-9.7	20.0
Dichlorofluoromethane	Ave	0.4935	0.4497		9.11	10.0	-8.9	20.0
Trichlorofluoromethane	Ave	0.4890	0.4211	0.1000	8.61	10.0	-13.9	20.0
Ethyl ether	Ave	0.1811	0.1891		10.4	10.0	4.4	20.0
Freon 123a	Ave	0.2821	0.2846		10.1	10.0	0.9	20.0
Acrolein	Ave	1.763	1.818		516	500	3.1	20.0
1,1-Dichloroethene	Ave	0.2121	0.2042	0.1000	9.63	10.0	-3.7	20.0
Freon 113	Ave	0.2338	0.2342	0.1000	10.0	10.0	0.2	20.0
Acetone	Ave	2.792	2.367	0.1000	84.8	100	-15.2	20.0
Methyl iodide	Ave	0.4367	0.3784		8.67	10.0	-13.3	20.0
Ethyl bromide	Ave	0.1858	0.1728		9.31	10.0	-7.0	20.0
Carbon disulfide	Ave	0.7439	0.7495	0.1000	10.1	10.0	0.8	20.0
Methyl acetate	Ave	6.615	7.380	0.1000	11.2	10.0	11.6	20.0
Allyl chloride	Ave	0.3517	0.3723		10.6	10.0	5.9	20.0
Methylene Chloride	Ave	0.2381	0.2293	0.1000	9.63	10.0	-3.7	20.0
t-Butyl alcohol	Ave	0.8900	0.8172		184	200	-8.2	20.0
Acrylonitrile	Ave	3.004	3.146		52.4	50.0	4.7	20.0
Methyl tert-butyl ether	Ave	0.6518	0.6136	0.1000	9.41	10.0	-5.9	20.0
trans-1,2-Dichloroethene	Ave	0.2394	0.2326	0.1000	9.72	10.0	-2.8	20.0
n-Hexane	Ave	0.3153	0.3859		12.2	10.0	22.4*	20.0
1,1-Dichloroethane	Ave	0.4511	0.4475	0.2000	9.92	10.0	-0.8	20.0
di-Isopropyl ether	Ave	0.8017	0.8461		10.6	10.0	5.5	20.0
2-Chloro-1,3-butadiene	Ave	0.4150	0.4091		9.86	10.0	-1.4	20.0
Ethyl t-butyl ether	Ave	0.7853	0.7574		9.65	10.0	-3.5	20.0
2-Butanone (MEK)	Ave	4.792	4.669	0.1000	97.4	100	-2.6	20.0
cis-1,2-Dichloroethene	Ave	0.2773	0.2666	0.1000	9.62	10.0	-3.8	20.0
2,2-Dichloropropane	Ave	0.3967	0.3672		9.26	10.0	-7.4	20.0
Propionitrile	Ave	1.093	1.088		199	200	-0.5	20.0
Methacrylonitrile	Ave	4.170	4.412		106	100	5.8	20.0
Bromochloromethane	Ave	0.1314	0.1139		8.67	10.0	-13.3	20.0
Tetrahydrofuran	Ave	1.254	1.271		101	100	1.4	20.0
Chloroform	Ave	0.4846	0.4420	0.2000	9.12	10.0	-8.8	20.0
1,1,1-Trichloroethane	Ave	0.4438	0.3793	0.1000	8.55	10.0	-14.5	20.0
Cyclohexane	Ave	0.3844	0.4537	0.1000	11.8	10.0	18.0	20.0
Carbon tetrachloride	Ave	0.3967	0.3213	0.1000	8.10	10.0	-19.0	20.0
1,1-Dichloropropene	Ave	0.3578	0.3545		9.91	10.0	-0.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-9077-1

SDG No.: _____

Lab Sample ID: CCVIS 410-30932/3 Calibration Date: 08/07/2020 22:49

Instrument ID: 16334 Calib Start Date: 06/11/2020 14:22

GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 06/11/2020 16:35

Lab File ID: GG07C01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Isobutyl alcohol	Ave	0.0056	0.0046		413	500	-17.4	20.0
Benzene	Ave	0.998	1.006	0.5000	10.1	10.0	0.8	20.0
1,2-Dichloroethane	Ave	0.3613	0.3034	0.1000	8.40	10.0	-16.0	20.0
t-Amyl methyl ether	Ave	0.7055	0.6806		9.65	10.0	-3.5	20.0
n-Heptane	Ave	0.3645	0.4524		12.4	10.0	24.1*	20.0
n-Butanol	Ave	0.2728	0.2954		1080	1000	8.3	20.0
Trichloroethene	Ave	0.2780	0.2601	0.2000	9.35	10.0	-6.5	20.0
Methylcyclohexane	Ave	0.4088	0.4564	0.1000	11.2	10.0	11.7	20.0
1,2-Dichloropropane	Ave	0.2533	0.2653	0.1000	10.5	10.0	4.8	20.0
1,4-Dioxane	Ave	0.0605	0.0553	0.0050	457	500	-8.7	20.0
Methyl methacrylate	Ave	8.438	8.793		10.4	10.0	4.2	20.0
Dibromomethane	Ave	0.1462	0.1251		8.56	10.0	-14.4	20.0
Bromodichloromethane	Ave	0.3620	0.3327	0.2000	9.19	10.0	-8.1	20.0
2-Nitropropane	Ave	3.520	2.753		78.2	100	-21.8*	20.0
1-Bromo-2-chloroethane	Ave	0.2779	0.2815		10.1	10.0	1.3	20.0
cis-1,3-Dichloropropene	Ave	0.4004	0.4030	0.2000	10.1	10.0	0.7	20.0
4-Methyl-2-pentanone (MIBK)	Ave	12.51	12.76	0.1000	102	100	2.0	20.0
Toluene	Ave	0.8261	0.8317	0.4000	10.1	10.0	0.7	20.0
trans-1,3-Dichloropropene	Ave	0.4691	0.4476	0.1000	9.54	10.0	-4.6	20.0
Ethyl methacrylate	Ave	0.3647	0.3754		10.3	10.0	2.9	20.0
1,1,2-Trichloroethane	Ave	0.2539	0.2416	0.1000	9.51	10.0	-4.9	20.0
Tetrachloroethene	Ave	0.4042	0.3587	0.2000	8.88	10.0	-11.2	20.0
1,3-Dichloropropane	Ave	0.4381	0.4297		9.81	10.0	-1.9	20.0
2-Hexanone	Ave	9.098	9.422	0.1000	104	100	3.6	20.0
Dibromochloromethane	Ave	0.3287	0.2919		8.88	10.0	-11.2	20.0
1,2-Dibromoethane (EDB)	Ave	0.2555	0.2336	0.1000	9.15	10.0	-8.5	20.0
1-Chlorohexane	Ave	0.5118	0.4817		9.41	10.0	-5.9	20.0
Chlorobenzene	Ave	0.9791	0.9126	0.5000	9.32	10.0	-6.8	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3673	0.3258		8.87	10.0	-11.3	20.0
Ethylbenzene	Ave	1.717	1.677	0.1000	9.77	10.0	-2.3	20.0
m&p-Xylene	Ave	0.6383	0.6251	0.1000	19.6	20.0	-2.1	20.0
o-Xylene	Ave	0.6245	0.6153	0.3000	9.85	10.0	-1.5	20.0
Styrene	Ave	1.029	1.061	0.3000	10.3	10.0	3.1	20.0
Bromoform	Ave	0.2074	0.1778	0.1000	8.58	10.0	-14.2	20.0
Isopropylbenzene	Ave	1.670	1.629	0.1000	9.75	10.0	-2.5	20.0
1,1,2,2-Tetrachloroethane	Ave	0.6058	0.6273	0.3000	10.4	10.0	3.5	20.0
Bromobenzene	Ave	0.8025	0.7607		9.48	10.0	-5.2	20.0
trans-1,4-Dichloro-2-butene	Ave	5.031	5.172		103	100	2.8	20.0
1,2,3-Trichloropropane	Ave	0.1697	0.1596		9.41	10.0	-5.9	20.0
N-Propylbenzene	Ave	3.713	3.875		10.4	10.0	4.4	20.0
2-Chlorotoluene	Ave	0.7377	0.7423		10.1	10.0	0.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-9077-1
 SDG No.: _____
 Lab Sample ID: CCVIS 410-30932/3 Calibration Date: 08/07/2020 22:49
 Instrument ID: 16334 Calib Start Date: 06/11/2020 14:22
 GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 06/11/2020 16:35
 Lab File ID: GG07C01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,3,5-Trimethylbenzene	Ave	2.584	2.717		10.5	10.0	5.2	20.0
4-Chlorotoluene	Ave	0.7845	0.7756		9.89	10.0	-1.1	20.0
tert-Butylbenzene	Ave	0.5753	0.5679		9.87	10.0	-1.3	20.0
Pentachloroethane	Ave	0.5078	0.4682		9.22	10.0	-7.8	20.0
1,2,4-Trimethylbenzene	Ave	2.701	2.815		10.4	10.0	4.2	20.0
sec-Butylbenzene	Ave	3.399	3.563		10.5	10.0	4.8	20.0
1,3-Dichlorobenzene	Ave	1.554	1.511	0.6000	9.73	10.0	-2.7	20.0
p-Isopropyltoluene	Ave	2.917	2.986		10.2	10.0	2.4	20.0
1,4-Dichlorobenzene	Ave	1.577	1.508	0.5000	9.57	10.0	-4.3	20.0
1,2,3-Trimethylbenzene	Ave	1.183	1.158		9.78	10.0	-2.2	20.0
Benzyl chloride	Ave	0.2263	0.2435		10.8	10.0	7.6	20.0
n-Butylbenzene	Ave	1.518	1.615		10.6	10.0	6.4	20.0
1,2-Dichlorobenzene	Ave	1.450	1.376	0.4000	9.49	10.0	-5.1	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.0877	0.0761	0.0500	8.68	10.0	-13.2	20.0
1,3,5-Trichlorobenzene	Ave	1.214	1.113		9.17	10.0	-8.3	20.0
1,2,4-Trichlorobenzene	Ave	1.043	0.9136	0.2000	8.76	10.0	-12.4	20.0
Hexachlorobutadiene	Ave	0.5694	0.5117		8.99	10.0	-10.1	20.0
Naphthalene	Ave	1.701	1.557		9.15	10.0	-8.5	20.0
1,2,3-Trichlorobenzene	Ave	0.8757	0.7573		8.65	10.0	-13.5	20.0
Dibromofluoromethane (Surr)	Ave	0.2671	0.2411		9.03	10.0	-9.7	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0509	0.0494		9.71	10.0	-2.9	20.0
Toluene-d8 (Surr)	Ave	1.309	1.290		9.85	10.0	-1.5	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4862	0.4824		9.92	10.0	-0.8	20.0

Eurofins Lancaster Laboratories Env, LLC
 Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07C01.D
 Lims ID: CCVIS
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 07-Aug-2020 22:49:30 ALS Bottle#: 2 Worklist Smp#: 3
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: CCVIS
 Misc. Info.: 410-0007550-003
 Operator ID: MEC29284 Instrument ID: 16334
 Sublist: chrom-MSV_16334_25mL*sub4
 Method: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 09-Aug-2020 17:31:44 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1057

First Level Reviewer: campbellme Date: 07-Aug-2020 23:18:03

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.940	1.940	0.000	99	566974	10.0	7.19	
5 Chloromethane	50	2.129	2.129	0.000	99	615422	10.0	8.41	
6 Butadiene	39	2.245	2.245	0.000	95	559942	10.0	8.95	
7 Vinyl chloride	62	2.245	2.245	0.000	97	593412	10.0	8.59	
9 Bromomethane	94	2.562	2.562	0.000	91	399427	10.0	7.60	M
10 Chloroethane	64	2.648	2.648	0.000	100	355979	10.0	9.03	
11 Dichlorofluoromethane	67	2.885	2.885	0.000	97	850014	10.0	9.11	
13 Trichlorofluoromethane	101	2.946	2.946	0.000	97	795915	10.0	8.61	
15 Ethyl ether	59	3.196	3.196	0.000	93	357281	10.0	10.4	
16 1,2-Dichloro-1,1,2-trifluoroetha	67	3.282	3.282	0.000	94	538031	10.0	10.1	
18 Acrolein	56	3.373	3.373	0.000	99	2542338	500.0	515.6	
19 1,1-Dichloroethene	96	3.507	3.507	0.000	96	386002	10.0	9.63	
21 112TCTFE	101	3.538	3.538	0.000	95	442700	10.0	10.0	
20 Acetone	43	3.550	3.550	0.000	99	662123	100.0	84.8	
22 Iodomethane	142	3.696	3.696	0.000	99	715306	10.0	8.67	
23 Isopropyl alcohol	45	3.702	3.702	0.000	36	209077	200.0	165.1	
24 Ethyl bromide	108	3.727	3.727	0.000	98	326865	10.0	9.31	
25 Carbon disulfide	76	3.794	3.794	0.000	100	1416724	10.0	10.1	
26 Methyl acetate	43	3.964	3.964	0.000	98	206427	10.0	11.2	M
27 3-Chloro-1-propene	41	3.977	3.977	0.000	89	703640	10.0	10.6	
28 Methylene Chloride	84	4.166	4.166	0.000	95	433501	10.0	9.63	
* 29 t-Butyl alcohol-d10 (IS)	65	4.184	4.184	0.000	93	139855	50.0	50.0	M
30 2-Methyl-2-propanol	59	4.306	4.306	0.000	98	457142	200.0	183.6	
31 Acrylonitrile	53	4.519	4.519	0.000	98	439996	50.0	52.4	
32 Methyl tert-butyl ether	73	4.568	4.568	0.000	92	1159834	10.0	9.41	
33 trans-1,2-Dichloroethene	96	4.574	4.574	0.000	96	439635	10.0	9.72	
34 Hexane	57	5.001	5.001	0.000	95	729393	10.0	12.2	
36 1,1-Dichloroethane	63	5.245	5.245	0.000	96	845913	10.0	9.92	
37 Isopropyl ether	45	5.306	5.306	0.000	94	1599241	10.0	10.6	
38 2-Chloro-1,3-butadiene	53	5.354	5.354	0.000	93	773262	10.0	9.86	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 Tert-butyl ethyl ether	59	5.836	5.836	0.000	98	1431691	10.0	9.65	
40 2-Butanone (MEK)	43	6.049	6.049	0.000	100	1306066	100.0	97.4	
41 cis-1,2-Dichloroethene	96	6.086	6.086	0.000	84	503985	10.0	9.62	
42 2,2-Dichloropropane	77	6.092	6.092	0.000	89	694037	10.0	9.26	
44 Propionitrile	54	6.147	6.147	0.000	99	608560	200.0	199.0	
46 Methacrylonitrile	67	6.360	6.360	0.000	94	1234035	100.0	105.8	
48 Chlorobromomethane	128	6.415	6.415	0.000	97	215229	10.0	8.67	
47 Tetrahydrofuran	71	6.421	6.421	0.000	85	355565	100.0	101.4	
50 Chloroform	83	6.568	6.568	0.000	95	835402	10.0	9.12	
\$ 52 Dibromofluoromethane (Surr)	113	6.787	6.787	0.000	93	455792	10.0	9.03	
51 1,1,1-Trichloroethane	97	6.793	6.793	0.000	98	716978	10.0	8.55	
53 Cyclohexane	56	6.885	6.885	0.000	94	857630	10.0	11.8	
56 Carbon tetrachloride	117	6.994	6.994	0.000	95	607299	10.0	8.10	
55 1,1-Dichloropropene	75	7.007	7.007	0.000	96	670009	10.0	9.91	
57 Isobutyl alcohol	41	7.171	7.171	0.000	94	434164	500.0	412.9	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.232	7.232	0.000	0	93360	10.0	9.71	
59 Benzene	78	7.269	7.269	0.000	98	1901611	10.0	10.1	
60 1,2-Dichloroethane	62	7.342	7.342	0.000	98	573426	10.0	8.40	
62 Tert-amyl methyl ether	73	7.464	7.464	0.000	97	1286389	10.0	9.65	
* 63 Fluorobenzene (IS)	96	7.677	7.677	0.000	99	1890205	10.0	10.0	
64 n-Heptane	43	7.683	7.683	0.000	93	855061	10.0	12.4	
65 n-Butanol	56	8.055	8.055	0.000	93	826272	1000.0	1082.7	
67 Trichloroethene	95	8.153	8.153	0.000	98	491543	10.0	9.35	
68 Methylcyclohexane	83	8.457	8.457	0.000	94	862747	10.0	11.2	
69 1,2-Dichloropropane	63	8.488	8.488	0.000	84	501463	10.0	10.5	
70 2-ethoxy-2-methyl butane	87	8.494	8.494	0.000	90	728655	10.0	9.88	
72 1,4-Dioxane	88	8.579	8.579	0.000	34	77322	500.0	456.6	M
71 Methyl methacrylate	69	8.579	8.579	0.000	95	245960	10.0	10.4	
73 Dibromomethane	93	8.598	8.598	0.000	97	236474	10.0	8.56	
75 Dichlorobromomethane	83	8.835	8.835	0.000	99	628861	10.0	9.19	
76 2-Nitropropane	41	9.122	9.122	0.000	99	770145	100.0	78.2	
79 1-Bromo-2-chloroethane	63	9.232	9.232	0.000	99	532138	10.0	10.1	
80 cis-1,3-Dichloropropene	75	9.390	9.390	0.000	94	761775	10.0	10.1	
81 4-Methyl-2-pentanone (MIBK)	43	9.567	9.567	0.000	98	3568532	100.0	102.0	
\$ 82 Toluene-d8 (Surr)	98	9.695	9.695	0.000	95	1875736	10.0	9.85	
83 Toluene	92	9.774	9.774	0.000	97	1209692	10.0	10.1	
84 trans-1,3-Dichloropropene	75	10.030	10.030	0.000	96	651003	10.0	9.54	
85 Ethyl methacrylate	69	10.097	10.097	0.000	90	545997	10.0	10.3	
86 1,1,2-Trichloroethane	97	10.238	10.238	0.000	92	351381	10.0	9.51	
88 Tetrachloroethene	166	10.317	10.317	0.000	96	521720	10.0	8.88	
89 1,3-Dichloropropane	76	10.402	10.402	0.000	93	624883	10.0	9.81	
91 2-Hexanone	43	10.457	10.457	0.000	98	2635427	100.0	103.6	
93 Chlorodibromomethane	129	10.609	10.609	0.000	90	424586	10.0	8.88	
94 Ethylene Dibromide	107	10.719	10.719	0.000	98	339801	10.0	9.15	
* 95 Chlorobenzene-d5 (IS)	117	11.152	11.152	0.000	87	1454417	10.0	10.0	
96 1-Chlorohexane	91	11.164	11.164	0.000	96	700628	10.0	9.41	
97 Chlorobenzene	112	11.183	11.183	0.000	93	1327313	10.0	9.32	
98 1,1,1,2-Tetrachloroethane	131	11.262	11.262	0.000	93	473891	10.0	8.87	
99 Ethylbenzene	91	11.268	11.268	0.000	99	2438695	10.0	9.77	
100 m-Xylene & p-Xylene	106	11.384	11.384	0.000	0	1818170	20.0	19.6	
102 o-Xylene	106	11.713	11.713	0.000	97	894941	10.0	9.85	
103 Styrene	104	11.725	11.725	0.000	95	1542936	10.0	10.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 Bromoform	173	11.884	11.884	0.000	96	258628	10.0	8.58	
105 Isopropylbenzene	105	12.012	12.012	0.000	96	2368851	10.0	9.75	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	88	701539	10.0	9.92	
109 1,1,2,2-Tetrachloroethane	83	12.255	12.255	0.000	92	467922	10.0	10.4	
110 Bromobenzene	156	12.268	12.268	0.000	97	567419	10.0	9.48	
111 trans-1,4-Dichloro-2-butene	53	12.280	12.280	0.000	93	1446797	100.0	102.8	
112 1,2,3-Trichloropropane	110	12.304	12.304	0.000	82	119034	10.0	9.41	
113 N-Propylbenzene	91	12.335	12.335	0.000	99	2890725	10.0	10.4	
114 2-Chlorotoluene	126	12.414	12.414	0.000	96	553719	10.0	10.1	
115 1,3,5-Trimethylbenzene	105	12.475	12.475	0.000	93	2026792	10.0	10.5	
116 4-Chlorotoluene	126	12.505	12.505	0.000	98	578549	10.0	9.89	
118 tert-Butylbenzene	134	12.713	12.713	0.000	93	423624	10.0	9.87	
120 Pentachloroethane	167	12.743	12.743	0.000	90	349225	10.0	9.22	
119 1,2,4-Trimethylbenzene	105	12.755	12.755	0.000	97	2099854	10.0	10.4	
121 sec-Butylbenzene	105	12.877	12.877	0.000	95	2657478	10.0	10.5	
122 1,3-Dichlorobenzene	146	12.975	12.975	0.000	98	1127130	10.0	9.73	
123 4-Isopropyltoluene	119	12.981	12.981	0.000	97	2227457	10.0	10.2	
* 124 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	95	745948	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.048	13.048	0.000	93	1125082	10.0	9.57	
126 1,2,3-Trimethylbenzene	120	13.060	13.060	0.000	99	863451	10.0	9.78	
127 Benzyl chloride	126	13.127	13.127	0.000	99	181610	10.0	10.8	
129 p-Diethylbenzene	119	13.182	13.182	0.000	91	1319800	10.0	9.95	
130 n-Butylbenzene	92	13.274	13.274	0.000	97	1204509	10.0	10.6	
131 1,2-Dichlorobenzene	146	13.304	13.304	0.000	97	1026632	10.0	9.49	
134 1,2-Dibromo-3-Chloropropane	155	13.847	13.847	0.000	83	56780	10.0	8.68	
135 1,3,5-Trichlorobenzene	180	13.969	13.969	0.000	97	829980	10.0	9.17	
136 1,2,4-Trichlorobenzene	180	14.389	14.389	0.000	94	681482	10.0	8.76	
137 Hexachlorobutadiene	225	14.468	14.468	0.000	97	381687	10.0	8.99	
138 Naphthalene	128	14.572	14.572	0.000	97	1161300	10.0	9.15	
139 1,2,3-Trichlorobenzene	180	14.712	14.712	0.000	95	564876	10.0	8.65	
140 2-Methylnaphthalene	142	15.328	15.328	0.000	92	572084	10.0	7.74	

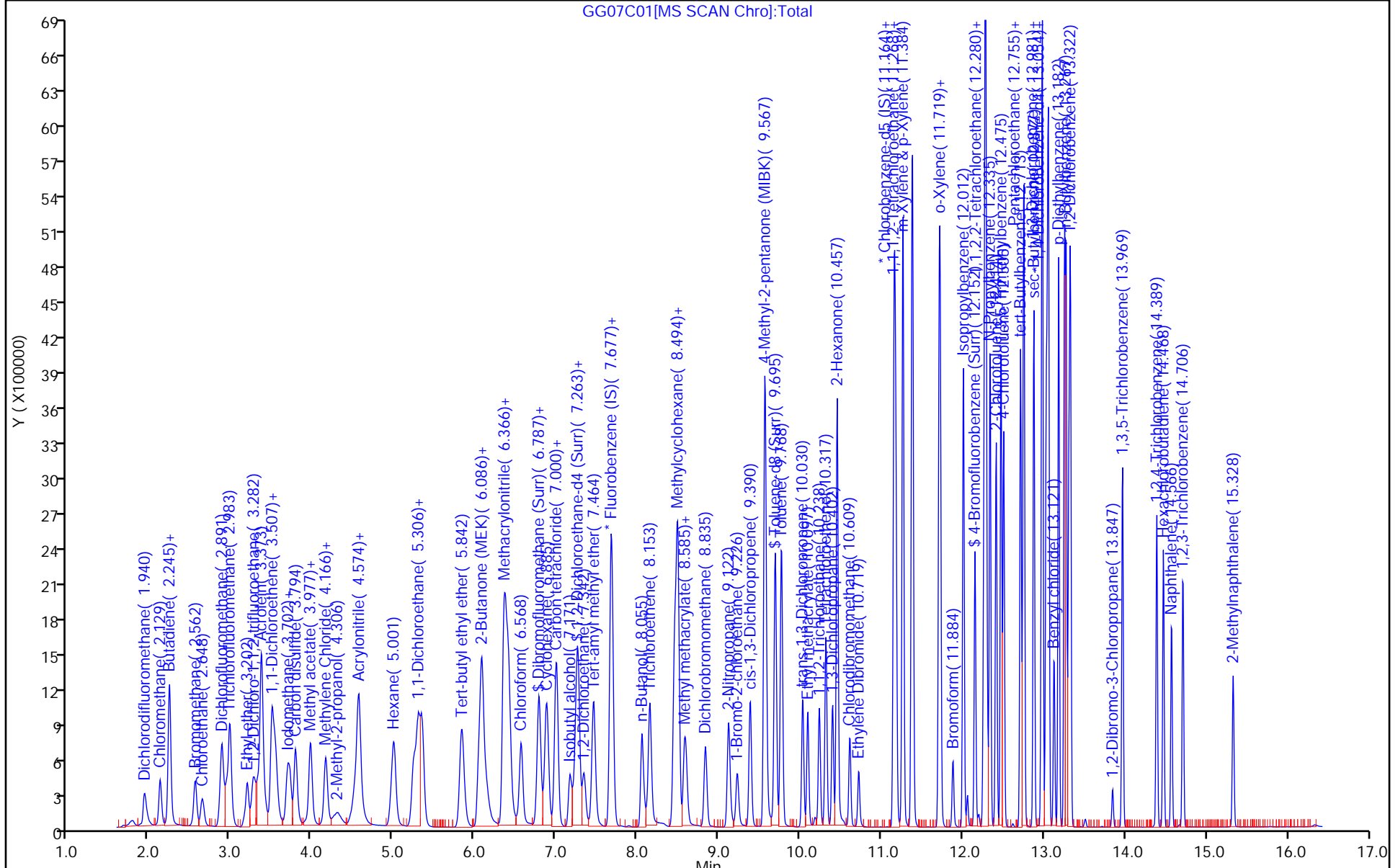
QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MSV_RV4_826_00021	Amount Added: 10.00	Units: uL	
MSV_RV1_826_00020	Amount Added: 10.00	Units: uL	
MSV_RV4GAS826_00063	Amount Added: 10.00	Units: uL	
MSV_29_826ISS_00007	Amount Added: 1.00	Units: uL	Run Reagent



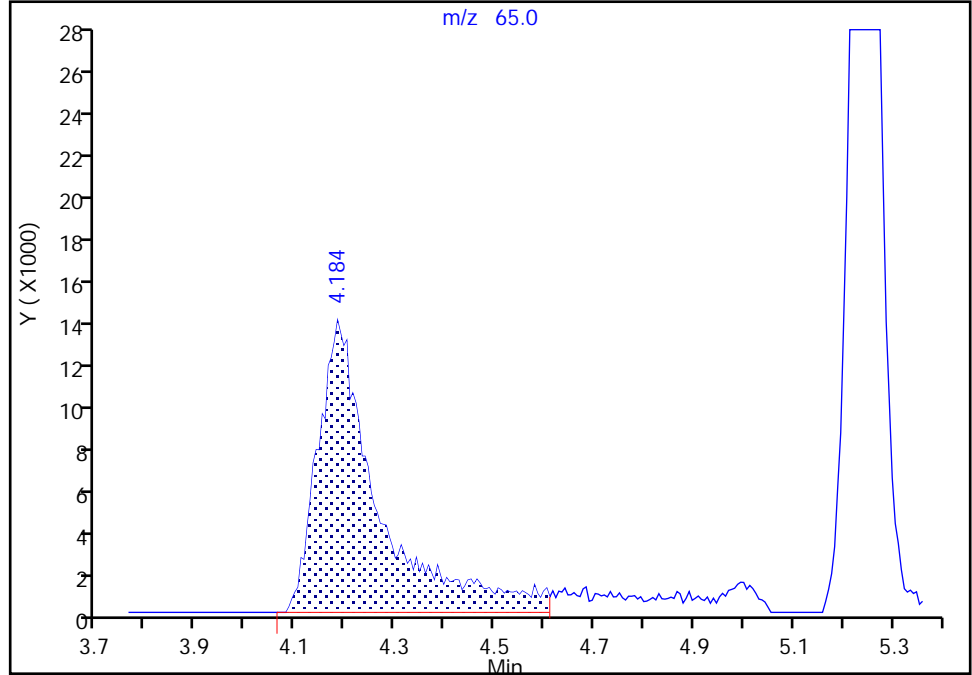
Euofins Lancaster Laboratories Env, LLC

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Injection Date: 07-Aug-2020 22:49:30 Instrument ID: 16334
Lims ID: CCVIS
Client ID:
Operator ID: MEC29284 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 29 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2
Signal: 1

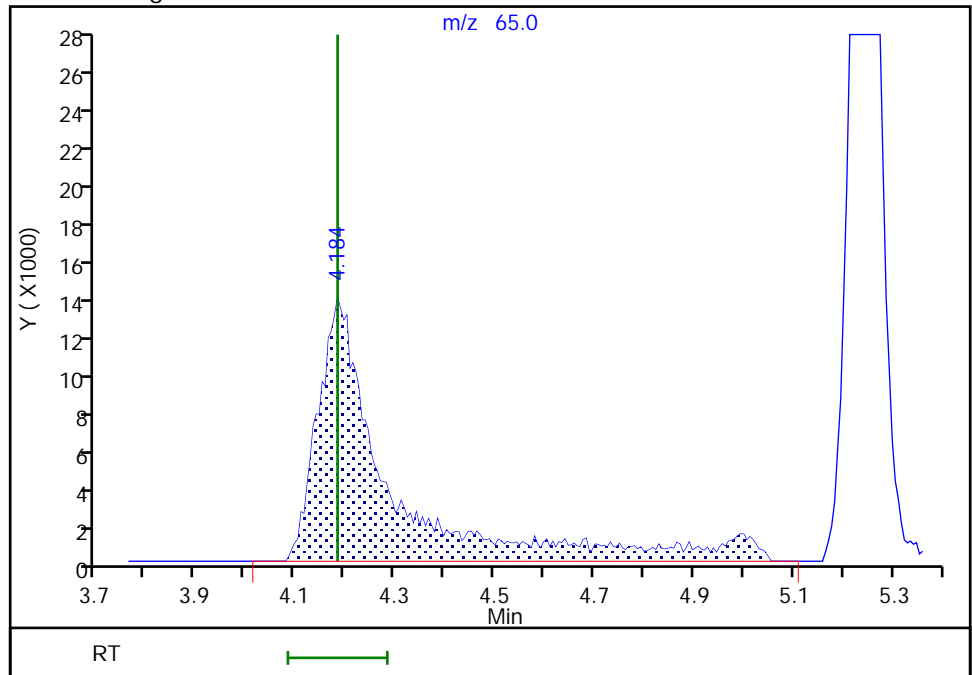
RT: 4.18
Area: 118487
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.18
Area: 139855
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Eurofins Lancaster Laboratories Env, LLC

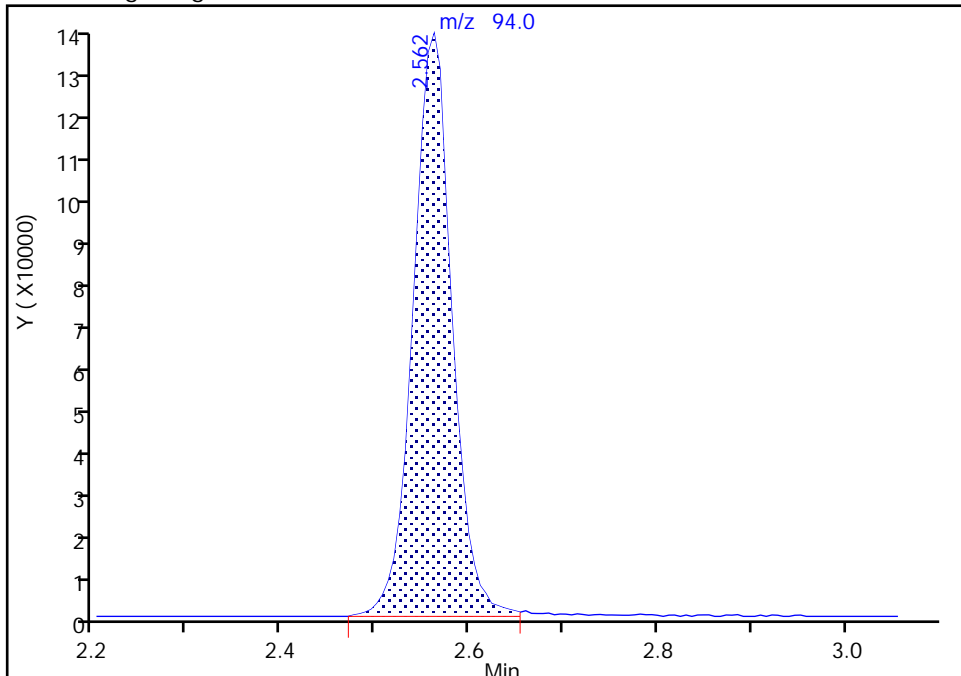
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Injection Date: 07-Aug-2020 22:49:30 Instrument ID: 16334
Lims ID: CCVIS
Client ID:
Operator ID: MEC29284 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

9 Bromomethane, CAS: 74-83-9

Signal: 1

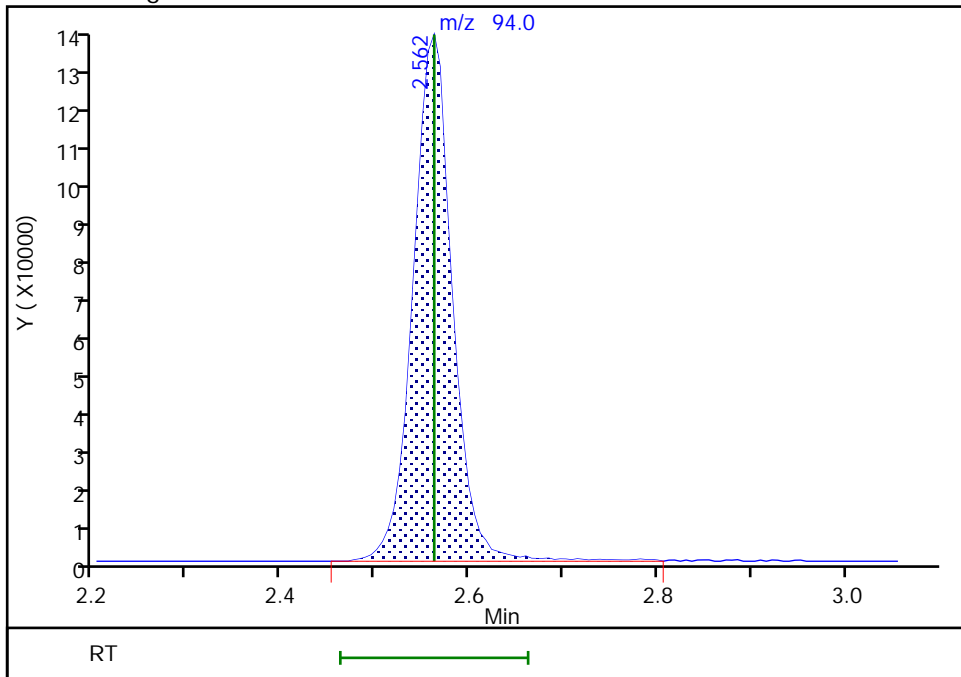
RT: 2.56
Area: 395216
Amount: 7.519916
Amount Units: ug/l

Processing Integration Results



RT: 2.56
Area: 399427
Amount: 7.600041
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 07-Aug-2020 23:12:17
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

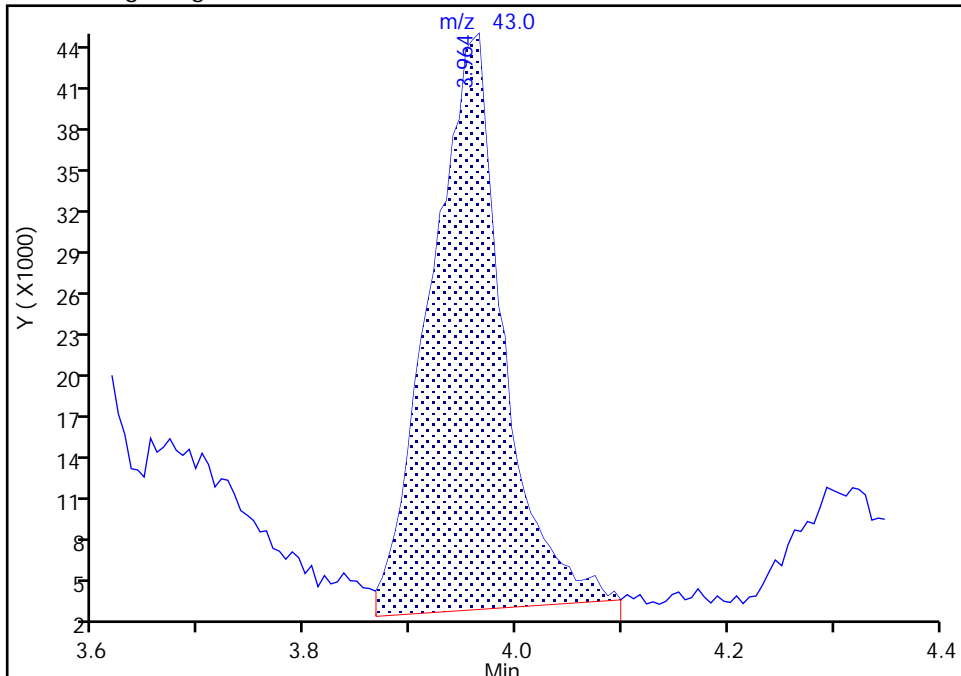
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Injection Date: 07-Aug-2020 22:49:30 Instrument ID: 16334
Lims ID: CCVIS
Client ID:
Operator ID: MEC29284 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

26 Methyl acetate, CAS: 79-20-9

Signal: 1

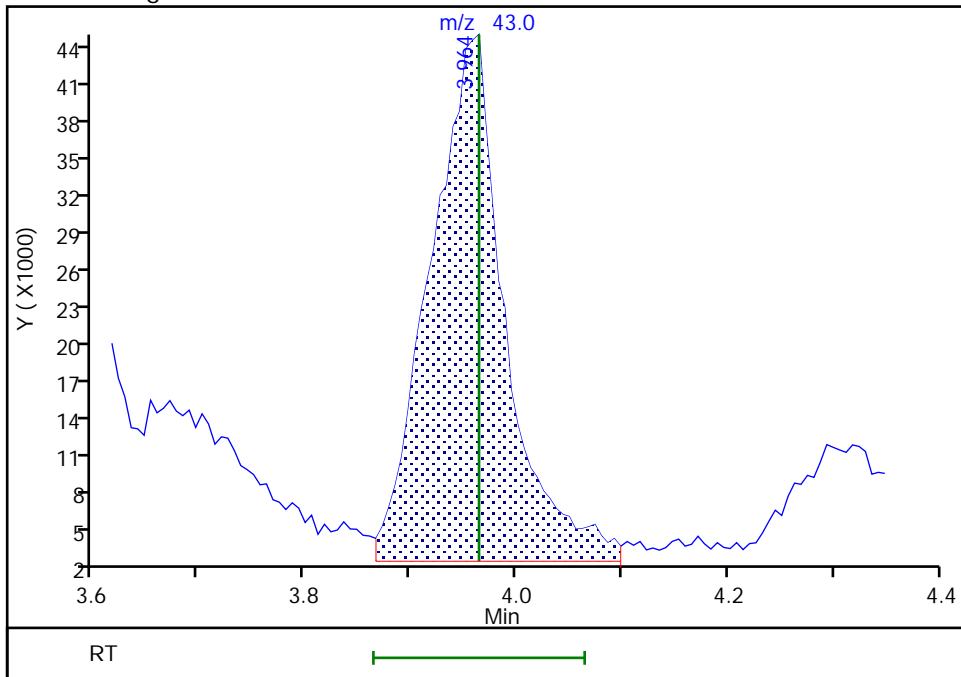
RT: 3.96
Area: 197889
Amount: 12.623429
Amount Units: ug/l

Processing Integration Results



RT: 3.96
Area: 206427
Amount: 11.156164
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 07-Aug-2020 23:12:33
Audit Action: Assigned New Baseline

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

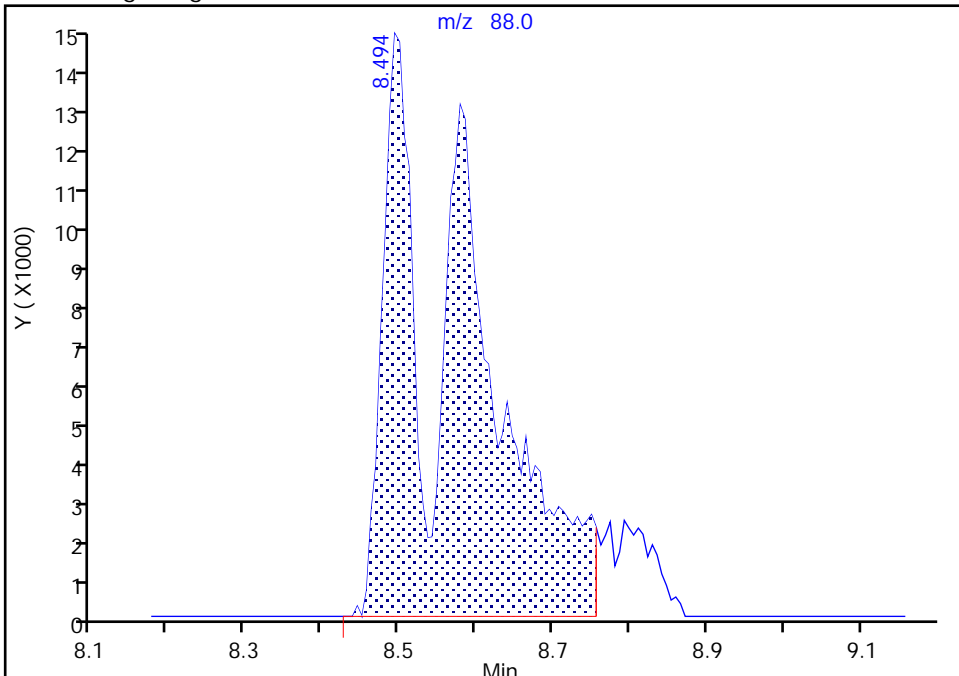
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Injection Date: 07-Aug-2020 22:49:30 Instrument ID: 16334
Lims ID: CCVIS
Client ID:
Operator ID: MEC29284 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

72 1,4-Dioxane, CAS: 123-91-1

Signal: 1

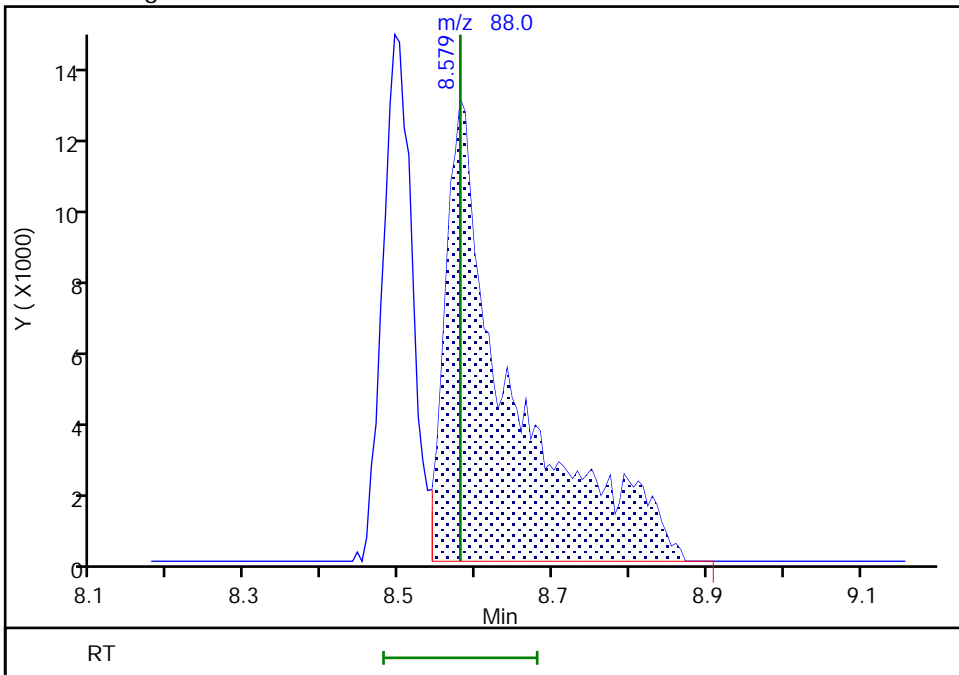
RT: 8.49
Area: 105944
Amount: 625.5978
Amount Units: ug/l

Processing Integration Results



RT: 8.58
Area: 77322
Amount: 456.5853
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 07-Aug-2020 23:13:11
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-9077-1

SDG No.: _____

Lab Sample ID: CCVIS 410-31280/3 Calibration Date: 08/10/2020 10:03

Instrument ID: 16334 Calib Start Date: 06/11/2020 14:22

GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 06/11/2020 16:35

Lab File ID: GG09C01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.4173	0.2428	0.1000	5.82	10.0	-41.8*	20.0
Chloromethane	Ave	0.3870	0.2921	0.1000	7.55	10.0	-24.5*	20.0
1,3-Butadiene	Ave	0.3310	0.3647		11.0	10.0	10.2	20.0
Vinyl chloride	Ave	0.3653	0.2776	0.1000	7.60	10.0	-24.0*	20.0
Bromomethane	Ave	0.2780	0.1957	0.1000	7.04	10.0	-29.6*	20.0
Chloroethane	Ave	0.2086	0.1709	0.1000	8.19	10.0	-18.1	20.0
Dichlorofluoromethane	Ave	0.4935	0.4030		8.17	10.0	-18.3	20.0
Trichlorofluoromethane	Ave	0.4890	0.3670	0.1000	7.50	10.0	-25.0*	20.0
Ethyl ether	Ave	0.1811	0.1817		10.0	10.0	0.4	20.0
Freon 123a	Ave	0.2821	0.2617		9.28	10.0	-7.2	20.0
Acrolein	Ave	1.763	1.559		442	500	-11.6	20.0
1,1-Dichloroethene	Ave	0.2121	0.1884	0.1000	8.89	10.0	-11.1	20.0
Acetone	Ave	2.792	2.363	0.1000	84.6	100	-15.4	20.0
Freon 113	Ave	0.2338	0.2133	0.1000	9.13	10.0	-8.7	20.0
Methyl iodide	Ave	0.4367	0.3590		8.22	10.0	-17.8	20.0
Ethyl bromide	Ave	0.1858	0.1635		8.80	10.0	-12.0	20.0
Carbon disulfide	Ave	0.7439	0.6852	0.1000	9.21	10.0	-7.9	20.0
Methyl acetate	Ave	6.615	5.714	0.1000	8.64	10.0	-13.6	20.0
Allyl chloride	Ave	0.3517	0.3405		9.68	10.0	-3.2	20.0
Methylene Chloride	Ave	0.2381	0.2210	0.1000	9.28	10.0	-7.2	20.0
t-Butyl alcohol	Ave	0.8900	0.7988		180	200	-10.2	20.0
Acrylonitrile	Ave	3.004	2.942		49.0	50.0	-2.1	20.0
Methyl tert-butyl ether	Ave	0.6518	0.6037	0.1000	9.26	10.0	-7.4	20.0
trans-1,2-Dichloroethene	Ave	0.2394	0.2202	0.1000	9.20	10.0	-8.0	20.0
n-Hexane	Ave	0.3153	0.3410		10.8	10.0	8.2	20.0
1,1-Dichloroethane	Ave	0.4511	0.4232	0.2000	9.38	10.0	-6.2	20.0
di-Isopropyl ether	Ave	0.8017	0.8030		10.0	10.0	0.2	20.0
2-Chloro-1,3-butadiene	Ave	0.4150	0.3774		9.09	10.0	-9.1	20.0
Ethyl t-butyl ether	Ave	0.7853	0.7373		9.39	10.0	-6.1	20.0
2-Butanone (MEK)	Ave	4.792	4.270	0.1000	89.1	100	-10.9	20.0
cis-1,2-Dichloroethene	Ave	0.2773	0.2526	0.1000	9.11	10.0	-8.9	20.0
2,2-Dichloropropane	Ave	0.3967	0.3470		8.75	10.0	-12.5	20.0
Propionitrile	Ave	1.093	1.089		199	200	-0.4	20.0
Methacrylonitrile	Ave	4.170	3.894		93.4	100	-6.6	20.0
Bromochloromethane	Ave	0.1314	0.1122		8.54	10.0	-14.6	20.0
Tetrahydrofuran	Ave	1.254	1.132		90.3	100	-9.7	20.0
Chloroform	Ave	0.4846	0.4204	0.2000	8.67	10.0	-13.3	20.0
1,1,1-Trichloroethane	Ave	0.4438	0.3566	0.1000	8.04	10.0	-19.6	20.0
Cyclohexane	Ave	0.3844	0.4096	0.1000	10.7	10.0	6.5	20.0
Carbon tetrachloride	Ave	0.3967	0.2923	0.1000	7.37	10.0	-26.3*	20.0
1,1-Dichloropropene	Ave	0.3578	0.3316		9.27	10.0	-7.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-9077-1

SDG No.: _____

Lab Sample ID: CCVIS 410-31280/3 Calibration Date: 08/10/2020 10:03

Instrument ID: 16334 Calib Start Date: 06/11/2020 14:22

GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 06/11/2020 16:35

Lab File ID: GG09C01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Isobutyl alcohol	Ave	0.0056	0.0049		439	500	-12.3	20.0
Benzene	Ave	0.998	0.9520	0.5000	9.54	10.0	-4.6	20.0
1,2-Dichloroethane	Ave	0.3613	0.2958	0.1000	8.19	10.0	-18.1	20.0
t-Amyl methyl ether	Ave	0.7055	0.6630		9.40	10.0	-6.0	20.0
n-Heptane	Ave	0.3645	0.3901		10.7	10.0	7.0	20.0
n-Butanol	Ave	0.2728	0.2805		1030	1000	2.8	20.0
Trichloroethene	Ave	0.2780	0.2477	0.2000	8.91	10.0	-10.9	20.0
Methylcyclohexane	Ave	0.4088	0.4040	0.1000	9.88	10.0	-1.2	20.0
1,2-Dichloropropane	Ave	0.2533	0.2544	0.1000	10.0	10.0	0.5	20.0
1,4-Dioxane	Ave	0.0605	0.0608	0.0050	502	500	0.5	20.0
Methyl methacrylate	Ave	8.438	7.518		8.91	10.0	-10.9	20.0
Dibromomethane	Ave	0.1462	0.1222		8.36	10.0	-16.4	20.0
Bromodichloromethane	Ave	0.3620	0.3074	0.2000	8.49	10.0	-15.1	20.0
2-Nitropropane	Ave	3.520	2.363		67.1	100	-32.9*	20.0
1-Bromo-2-chloroethane	Ave	0.2779	0.2661		9.58	10.0	-4.2	20.0
cis-1,3-Dichloropropene	Ave	0.4004	0.3841	0.2000	9.59	10.0	-4.1	20.0
4-Methyl-2-pentanone (MIBK)	Ave	12.51	11.27	0.1000	90.1	100	-9.9	20.0
Toluene	Ave	0.8261	0.8078	0.4000	9.78	10.0	-2.2	20.0
trans-1,3-Dichloropropene	Ave	0.4691	0.4385	0.1000	9.35	10.0	-6.5	20.0
Ethyl methacrylate	Ave	0.3647	0.3664		10.0	10.0	0.5	20.0
1,1,2-Trichloroethane	Ave	0.2539	0.2353	0.1000	9.27	10.0	-7.3	20.0
Tetrachloroethene	Ave	0.4042	0.3456	0.2000	8.55	10.0	-14.5	20.0
1,3-Dichloropropane	Ave	0.4381	0.4180		9.54	10.0	-4.6	20.0
2-Hexanone	Ave	9.098	8.188	0.1000	90.0	100	-10.0	20.0
Dibromochloromethane	Ave	0.3287	0.2783		8.47	10.0	-15.3	20.0
1,2-Dibromoethane (EDB)	Ave	0.2555	0.2342	0.1000	9.17	10.0	-8.3	20.0
1-Chlorohexane	Ave	0.5118	0.4592		8.97	10.0	-10.3	20.0
Chlorobenzene	Ave	0.9791	0.8877	0.5000	9.07	10.0	-9.3	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3673	0.3112		8.47	10.0	-15.3	20.0
Ethylbenzene	Ave	1.717	1.610	0.1000	9.38	10.0	-6.2	20.0
m&p-Xylene	Ave	0.6383	0.6123	0.1000	19.2	20.0	-4.1	20.0
o-Xylene	Ave	0.6245	0.6058	0.3000	9.70	10.0	-3.0	20.0
Styrene	Ave	1.029	1.038	0.3000	10.1	10.0	0.9	20.0
Bromoform	Ave	0.2074	0.1653	0.1000	7.97	10.0	-20.3*	20.0
Isopropylbenzene	Ave	1.670	1.581	0.1000	9.47	10.0	-5.3	20.0
1,1,2,2-Tetrachloroethane	Ave	0.6058	0.6180	0.3000	10.2	10.0	2.0	20.0
Bromobenzene	Ave	0.8025	0.7594		9.46	10.0	-5.4	20.0
trans-1,4-Dichloro-2-butene	Ave	5.031	3.794		75.4	100	-24.6*	20.0
1,2,3-Trichloropropane	Ave	0.1697	0.1621		9.56	10.0	-4.4	20.0
N-Propylbenzene	Ave	3.713	3.719		10.0	10.0	0.1	20.0
2-Chlorotoluene	Ave	0.7377	0.7202		9.76	10.0	-2.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-9077-1
 SDG No.: _____
 Lab Sample ID: CCVIS 410-31280/3 Calibration Date: 08/10/2020 10:03
 Instrument ID: 16334 Calib Start Date: 06/11/2020 14:22
 GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 06/11/2020 16:35
 Lab File ID: GG09C01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,3,5-Trimethylbenzene	Ave	2.584	2.645		10.2	10.0	2.4	20.0
4-Chlorotoluene	Ave	0.7845	0.7523		9.59	10.0	-4.1	20.0
tert-Butylbenzene	Ave	0.5753	0.5592		9.72	10.0	-2.8	20.0
Pentachloroethane	Ave	0.5078	0.4352		8.57	10.0	-14.3	20.0
1,2,4-Trimethylbenzene	Ave	2.701	2.741		10.1	10.0	1.5	20.0
sec-Butylbenzene	Ave	3.399	3.428		10.1	10.0	0.8	20.0
1,3-Dichlorobenzene	Ave	1.554	1.482	0.6000	9.54	10.0	-4.6	20.0
p-Isopropyltoluene	Ave	2.917	2.881		9.88	10.0	-1.2	20.0
1,4-Dichlorobenzene	Ave	1.577	1.472	0.5000	9.34	10.0	-6.6	20.0
1,2,3-Trimethylbenzene	Ave	1.183	1.136		9.60	10.0	-4.0	20.0
Benzyl chloride	Ave	0.2263	0.2312		10.2	10.0	2.1	20.0
n-Butylbenzene	Ave	1.518	1.542		10.2	10.0	1.6	20.0
1,2-Dichlorobenzene	Ave	1.450	1.342	0.4000	9.25	10.0	-7.5	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.0877	0.0758	0.0500	8.65	10.0	-13.5	20.0
1,3,5-Trichlorobenzene	Ave	1.214	1.068		8.80	10.0	-12.0	20.0
1,2,4-Trichlorobenzene	Ave	1.043	0.8867	0.2000	8.50	10.0	-15.0	20.0
Hexachlorobutadiene	Ave	0.5694	0.4751		8.34	10.0	-16.6	20.0
Naphthalene	Ave	1.701	1.528		8.99	10.0	-10.1	20.0
1,2,3-Trichlorobenzene	Ave	0.8757	0.7350		8.39	10.0	-16.1	20.0
Dibromofluoromethane (Surr)	Ave	0.2671	0.2416		9.04	10.0	-9.6	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0509	0.0491		9.65	10.0	-3.5	20.0
Toluene-d8 (Surr)	Ave	1.309	1.325		10.1	10.0	1.2	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4862	0.4788		9.85	10.0	-1.5	20.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200810-7630.b\GG09C01.D
 Lims ID: CCVIS
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 10-Aug-2020 10:03:30 ALS Bottle#: 2 Worklist Smp#: 3
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: CCVIS
 Misc. Info.: 410-0007630-003
 Operator ID: JKH09052 Instrument ID: 16334
 Sublist: chrom-MSV_16334_25mL*sub4

Method: \\chromfs\Lancaster\ChromData\16334\20200810-7630.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 10-Aug-2020 13:01:19 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1047

First Level Reviewer: howej Date: 10-Aug-2020 11:05:38

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.953	1.953	0.000	100	491247	10.0	5.82	M
5 Chloromethane	50	2.142	2.142	0.000	99	591095	10.0	7.55	
6 Butadiene	39	2.257	2.257	0.000	96	737922	10.0	11.0	
7 Vinyl chloride	62	2.257	2.257	0.000	98	561807	10.0	7.60	M
9 Bromomethane	94	2.574	2.574	0.000	91	396091	10.0	7.04	
10 Chloroethane	64	2.660	2.660	0.000	99	345793	10.0	8.19	
11 Dichlorofluoromethane	67	2.898	2.898	0.000	97	815464	10.0	8.17	
13 Trichlorofluoromethane	101	2.959	2.959	0.000	97	742568	10.0	7.50	
15 Ethyl ether	59	3.215	3.215	0.000	92	367717	10.0	10.0	
16 1,2-Dichloro-1,1,2-trifluoroethane	67	3.294	3.294	0.000	94	529651	10.0	9.28	
18 Acrolein	56	3.385	3.385	0.000	99	2653772	500.0	442.2	
19 1,1-Dichloroethene	96	3.519	3.519	0.000	96	381322	10.0	8.89	
20 Acetone	43	3.556	3.556	0.000	99	804400	100.0	84.6	
21 112TCTFE	101	3.556	3.556	0.000	85	431705	10.0	9.13	
22 Iodomethane	142	3.708	3.708	0.000	99	726413	10.0	8.22	
23 Isopropyl alcohol	45	3.721	3.721	0.000	41	271217	200.0	200.1	
24 Ethyl bromide	108	3.739	3.739	0.000	98	330955	10.0	8.80	
25 Carbon disulfide	76	3.806	3.806	0.000	100	1386546	10.0	9.21	
26 Methyl acetate	43	3.964	3.964	0.000	98	194556	10.0	8.64	
27 3-Chloro-1-propene	41	3.989	3.989	0.000	89	688942	10.0	9.68	
28 Methylene Chloride	84	4.178	4.178	0.000	95	447106	10.0	9.28	
* 29 t-Butyl alcohol-d10 (IS)	65	4.202	4.202	0.000	93	170231	50.0	50.0	M
30 2-Methyl-2-propanol	59	4.324	4.324	0.000	98	543943	200.0	179.5	
31 Acrylonitrile	53	4.525	4.525	0.000	98	500744	50.0	49.0	
32 Methyl tert-butyl ether	73	4.574	4.574	0.000	97	1221697	10.0	9.26	
33 trans-1,2-Dichloroethene	96	4.586	4.586	0.000	97	445633	10.0	9.20	
34 Hexane	57	5.007	5.007	0.000	95	690123	10.0	10.8	
36 1,1-Dichloroethane	63	5.257	5.257	0.000	96	856357	10.0	9.38	
37 Isopropyl ether	45	5.312	5.312	0.000	94	1624893	10.0	10.0	
38 2-Chloro-1,3-butadiene	53	5.360	5.360	0.000	93	763732	10.0	9.09	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 Tert-butyl ethyl ether	59	5.848	5.848	0.000	98	1491969	10.0	9.39	
40 2-Butanone (MEK)	43	6.055	6.055	0.000	100	1453657	100.0	89.1	
41 cis-1,2-Dichloroethene	96	6.092	6.092	0.000	84	511155	10.0	9.11	
42 2,2-Dichloropropane	77	6.104	6.104	0.000	93	702256	10.0	8.75	
44 Propionitrile	54	6.159	6.159	0.000	99	741472	200.0	199.2	
46 Methacrylonitrile	67	6.372	6.372	0.000	94	1325691	100.0	93.4	
48 Chlorobromomethane	128	6.415	6.415	0.000	97	226985	10.0	8.54	
47 Tetrahydrofuran	71	6.427	6.427	0.000	88	385498	100.0	90.3	
50 Chloroform	83	6.574	6.574	0.000	95	850616	10.0	8.67	
\$ 52 Dibromofluoromethane (Surr)	113	6.793	6.793	0.000	93	488911	10.0	9.04	
51 1,1,1-Trichloroethane	97	6.799	6.799	0.000	99	721533	10.0	8.04	
53 Cyclohexane	56	6.891	6.891	0.000	93	828790	10.0	10.7	
56 Carbon tetrachloride	117	7.007	7.007	0.000	97	591434	10.0	7.37	
55 1,1-Dichloropropene	75	7.013	7.013	0.000	96	670979	10.0	9.27	
57 Isobutyl alcohol	41	7.177	7.177	0.000	94	493884	500.0	438.7	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.244	7.244	0.000	0	99360	10.0	9.65	
59 Benzene	78	7.275	7.275	0.000	98	1926450	10.0	9.54	
60 1,2-Dichloroethane	62	7.348	7.348	0.000	98	598587	10.0	8.19	
62 Tert-amyl methyl ether	73	7.464	7.464	0.000	98	1341606	10.0	9.40	
* 63 Fluorobenzene (IS)	96	7.683	7.683	0.000	98	2023592	10.0	10.0	
64 n-Heptane	43	7.689	7.689	0.000	94	789479	10.0	10.7	
65 n-Butanol	56	8.061	8.061	0.000	90	954828	1000.0	1027.9	
67 Trichloroethene	95	8.159	8.159	0.000	98	501158	10.0	8.91	
68 Methylcyclohexane	83	8.464	8.464	0.000	94	817588	10.0	9.88	
69 1,2-Dichloropropane	63	8.494	8.494	0.000	86	514861	10.0	10.0	
70 2-ethoxy-2-methyl butane	87	8.500	8.500	0.000	91	743169	10.0	9.41	
72 1,4-Dioxane	88	8.579	8.579	0.000	34	103570	500.0	502.4	M
71 Methyl methacrylate	69	8.579	8.579	0.000	92	255953	10.0	8.91	
73 Dibromomethane	93	8.598	8.598	0.000	97	247257	10.0	8.36	
75 Dichlorobromomethane	83	8.842	8.842	0.000	99	621991	10.0	8.49	
76 2-Nitropropane	41	9.122	9.122	0.000	98	804344	100.0	67.1	
79 1-Bromo-2-chloroethane	63	9.232	9.232	0.000	99	538511	10.0	9.58	
80 cis-1,3-Dichloropropene	75	9.390	9.390	0.000	94	777328	10.0	9.59	
81 4-Methyl-2-pentanone (MIBK)	43	9.573	9.573	0.000	98	3835846	100.0	90.1	
\$ 82 Toluene-d8 (Surr)	98	9.695	9.695	0.000	95	2014485	10.0	10.1	
83 Toluene	92	9.774	9.774	0.000	97	1227826	10.0	9.78	
84 trans-1,3-Dichloropropene	75	10.036	10.036	0.000	95	666526	10.0	9.35	
85 Ethyl methacrylate	69	10.097	10.097	0.000	90	556846	10.0	10.0	
86 1,1,2-Trichloroethane	97	10.238	10.238	0.000	92	357645	10.0	9.27	
88 Tetrachloroethene	166	10.317	10.317	0.000	96	525280	10.0	8.55	
89 1,3-Dichloropropane	76	10.402	10.402	0.000	93	635271	10.0	9.54	
91 2-Hexanone	43	10.457	10.457	0.000	98	2787728	100.0	90.0	
93 Chlorodibromomethane	129	10.616	10.616	0.000	90	423048	10.0	8.47	
94 Ethylene Dibromide	107	10.719	10.719	0.000	98	355988	10.0	9.17	
* 95 Chlorobenzene-d5 (IS)	117	11.152	11.152	0.000	87	1519984	10.0	10.0	
96 1-Chlorohexane	91	11.164	11.164	0.000	97	697973	10.0	8.97	
97 Chlorobenzene	112	11.183	11.183	0.000	93	1349210	10.0	9.07	
98 1,1,1,2-Tetrachloroethane	131	11.262	11.262	0.000	93	472993	10.0	8.47	
99 Ethylbenzene	91	11.268	11.268	0.000	99	2447344	10.0	9.38	
100 m-Xylene & p-Xylene	106	11.384	11.384	0.000	0	1861456	20.0	19.2	
102 o-Xylene	106	11.713	11.713	0.000	97	920828	10.0	9.70	
103 Styrene	104	11.725	11.725	0.000	95	1578132	10.0	10.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 Bromoform	173	11.884	11.884	0.000	97	251270	10.0	7.97	
105 Isopropylbenzene	105	12.012	12.012	0.000	96	2403610	10.0	9.47	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	89	727828	10.0	9.85	
109 1,1,2,2-Tetrachloroethane	83	12.255	12.255	0.000	93	482637	10.0	10.2	
110 Bromobenzene	156	12.268	12.268	0.000	97	593075	10.0	9.46	
111 trans-1,4-Dichloro-2-butene	53	12.280	12.280	0.000	93	1291583	100.0	75.4	
112 1,2,3-Trichloropropane	110	12.304	12.304	0.000	83	126633	10.0	9.56	
113 N-Propylbenzene	91	12.335	12.335	0.000	99	2904359	10.0	10.0	
114 2-Chlorotoluene	126	12.414	12.414	0.000	96	562456	10.0	9.76	
115 1,3,5-Trimethylbenzene	105	12.469	12.469	0.000	93	2066139	10.0	10.2	
116 4-Chlorotoluene	126	12.505	12.505	0.000	98	587577	10.0	9.59	
118 tert-Butylbenzene	134	12.713	12.713	0.000	93	436732	10.0	9.72	
120 Pentachloroethane	167	12.743	12.743	0.000	87	339875	10.0	8.57	
119 1,2,4-Trimethylbenzene	105	12.755	12.755	0.000	98	2140566	10.0	10.1	
121 sec-Butylbenzene	105	12.877	12.877	0.000	95	2677419	10.0	10.1	
122 1,3-Dichlorobenzene	146	12.975	12.975	0.000	98	1157675	10.0	9.54	
123 4-Isopropyltoluene	119	12.981	12.981	0.000	97	2250362	10.0	9.88	
* 124 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	96	781010	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.048	13.048	0.000	93	1149930	10.0	9.34	
126 1,2,3-Trimethylbenzene	120	13.060	13.060	0.000	99	887260	10.0	9.60	
127 Benzyl chloride	126	13.127	13.127	0.000	99	180551	10.0	10.2	
129 p-Diethylbenzene	119	13.182	13.182	0.000	91	1334433	10.0	9.60	
130 n-Butylbenzene	92	13.274	13.274	0.000	98	1203992	10.0	10.2	
131 1,2-Dichlorobenzene	146	13.304	13.304	0.000	97	1048130	10.0	9.25	
134 1,2-Dibromo-3-Chloropropane	155	13.847	13.847	0.000	83	59221	10.0	8.65	
135 1,3,5-Trichlorobenzene	180	13.969	13.969	0.000	97	834078	10.0	8.80	
136 1,2,4-Trichlorobenzene	180	14.389	14.389	0.000	94	692552	10.0	8.50	
137 Hexachlorobutadiene	225	14.468	14.468	0.000	97	371035	10.0	8.34	
138 Naphthalene	128	14.566	14.566	0.000	98	1193600	10.0	8.99	
139 1,2,3-Trichlorobenzene	180	14.712	14.712	0.000	95	574048	10.0	8.39	
140 2-Methylnaphthalene	142	15.328	15.328	0.000	92	640431	10.0	8.27	

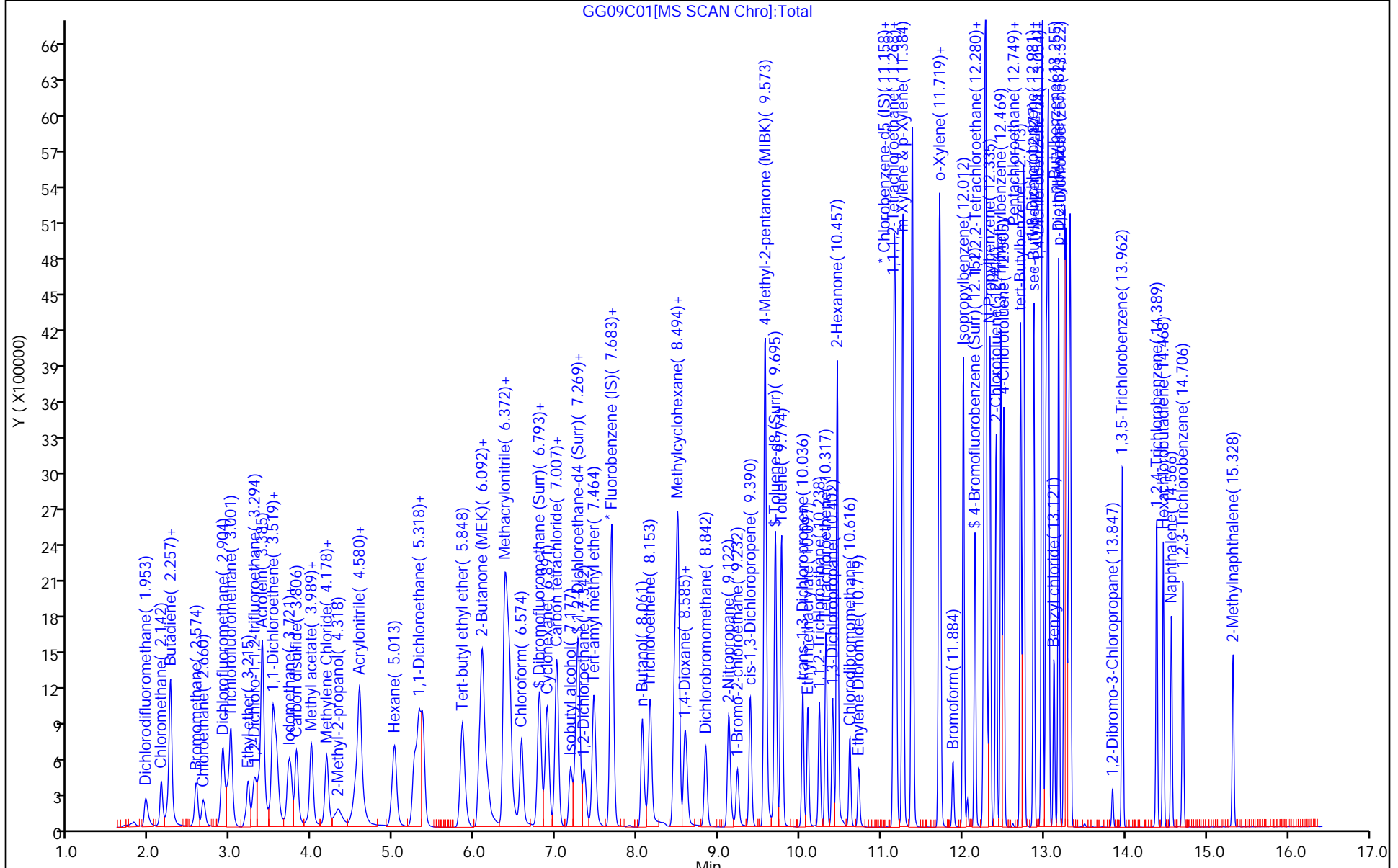
QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MSV_RV4_826_00021	Amount Added: 10.00	Units: uL	
MSV_RV1_826_00020	Amount Added: 10.00	Units: uL	
MSV_RV4GAS826_00064	Amount Added: 10.00	Units: uL	
MSV_29_826ISS_00007	Amount Added: 1.00	Units: uL	Run Reagent



Eurofins Lancaster Laboratories Env, LLC

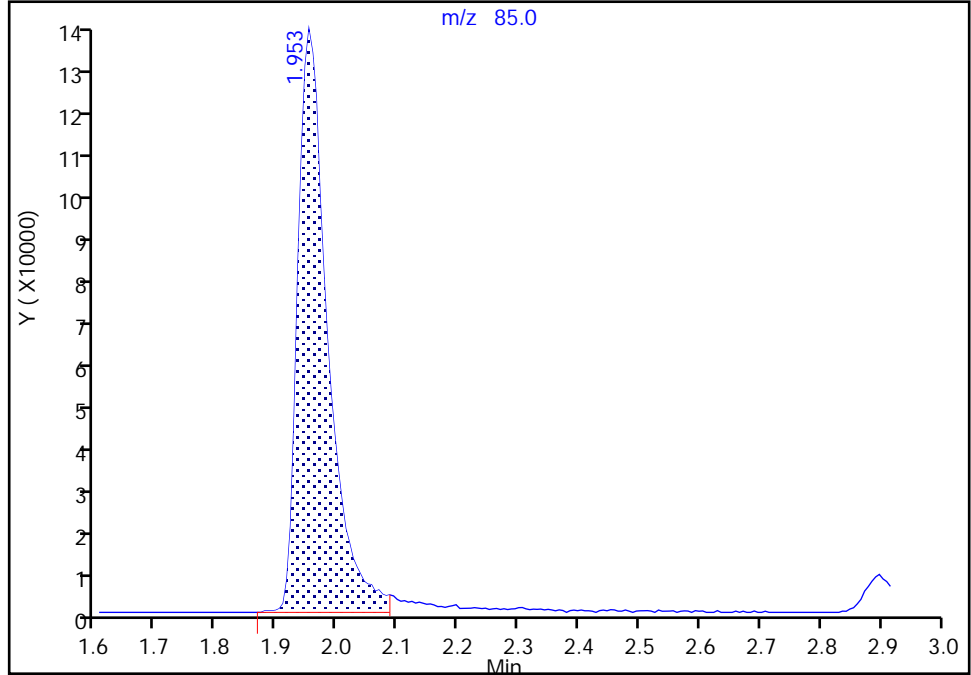
Data File: \\chromfs\Lancaster\ChromData\16334\20200810-7630.b\GG09C01.D
Injection Date: 10-Aug-2020 10:03:30 Instrument ID: 16334
Lims ID: CCVIS
Client ID:
Operator ID: JKH09052 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

1 Dichlorodifluoromethane, CAS: 75-71-8

Signal: 1

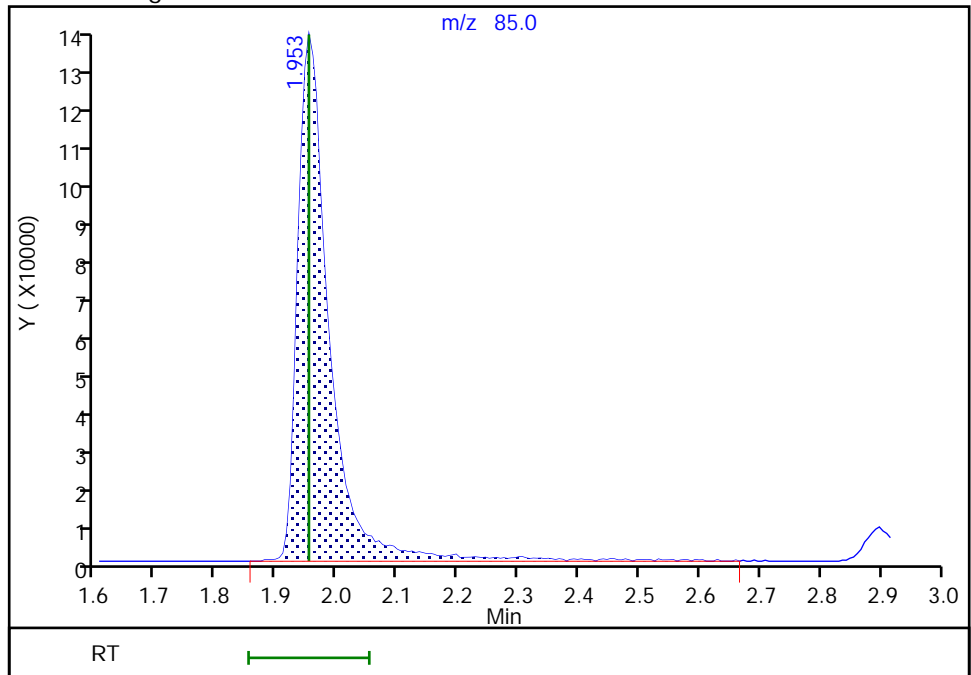
RT: 1.95
Area: 464409
Amount: 5.499154
Amount Units: ug/l

Processing Integration Results



RT: 1.95
Area: 491247
Amount: 5.816948
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 10-Aug-2020 10:29:56
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

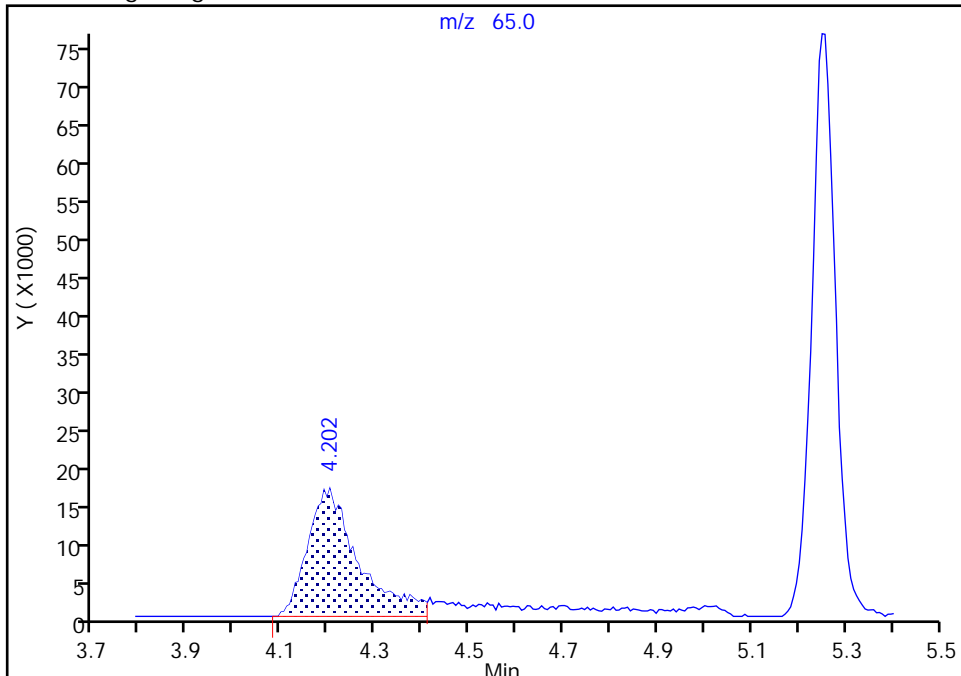
Data File: \\chromfs\Lancaster\ChromData\16334\20200810-7630.b\GG09C01.D
Injection Date: 10-Aug-2020 10:03:30 Instrument ID: 16334
Lims ID: CCVIS
Client ID:
Operator ID: JKH09052 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 29 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

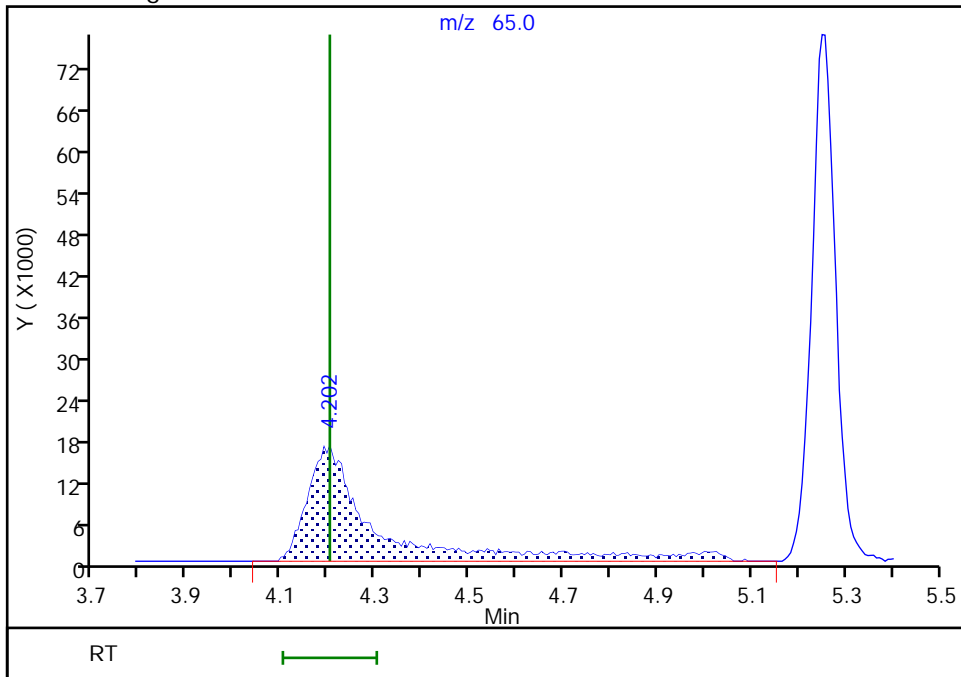
RT: 4.20
Area: 125648
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.20
Area: 170231
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 10-Aug-2020 10:34:53
Audit Action: Manually Integrated

Audit Reason: Other
Page 685 of 777

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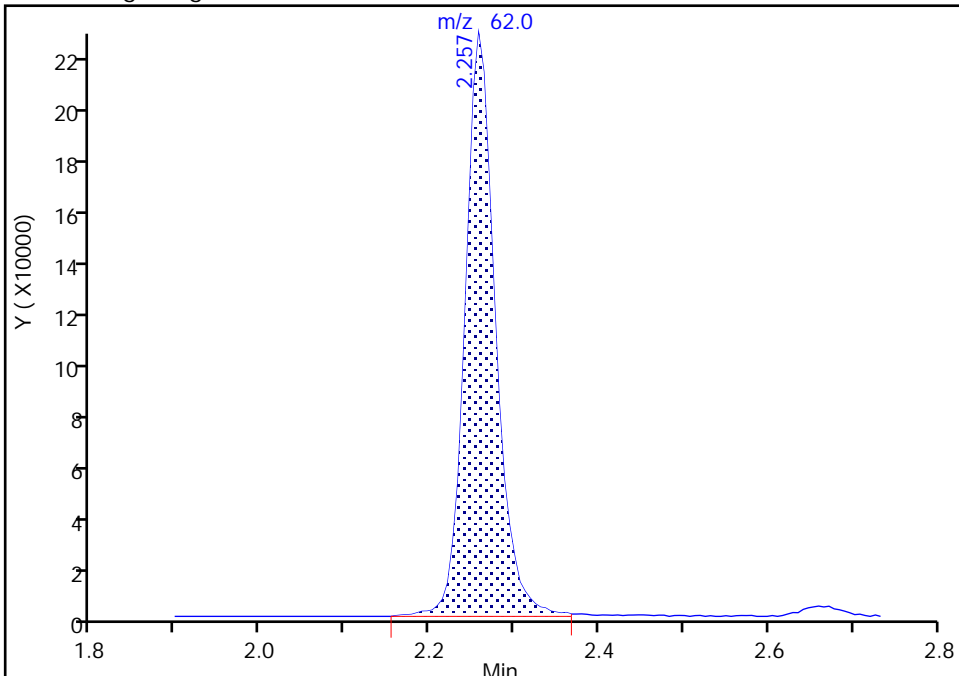
Data File: \\chromfs\Lancaster\ChromData\16334\20200810-7630.b\GG09C01.D
Injection Date: 10-Aug-2020 10:03:30 Instrument ID: 16334
Lims ID: CCVIS
Client ID:
Operator ID: JKH09052 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

7 Vinyl chloride, CAS: 75-01-4

Signal: 1

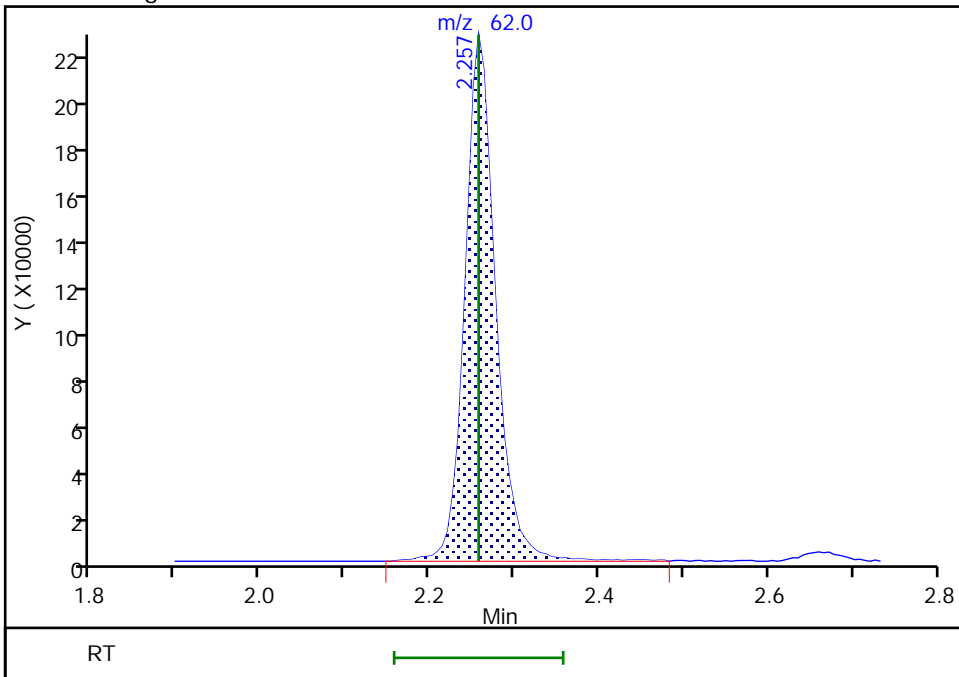
RT: 2.26
Area: 558254
Amount: 7.550986
Amount Units: ug/l

Processing Integration Results



RT: 2.26
Area: 561807
Amount: 7.599044
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 10-Aug-2020 10:30:07
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

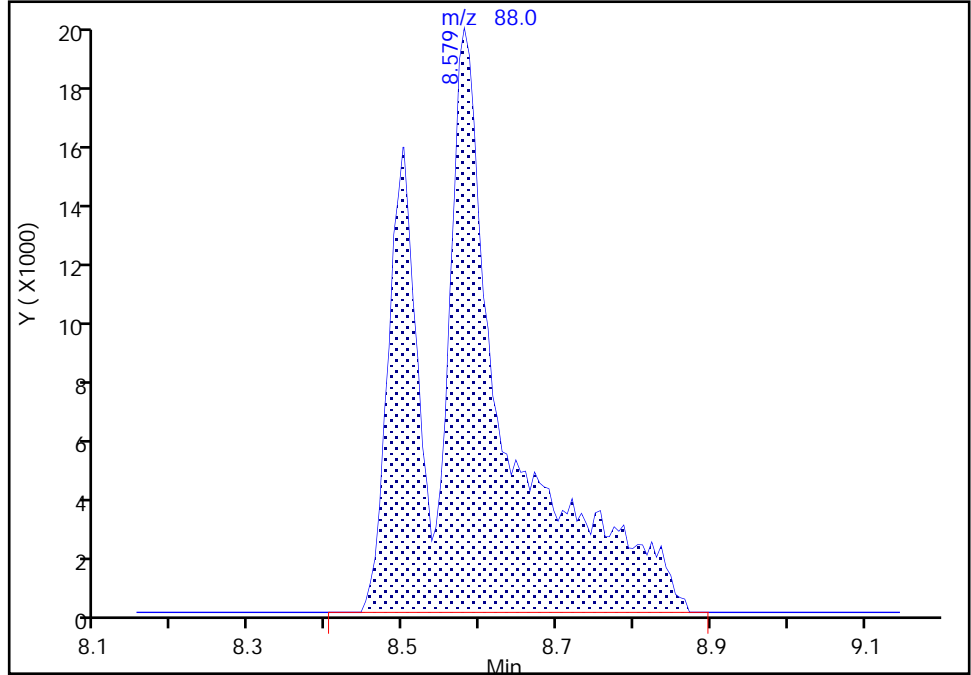
Data File: \\chromfs\Lancaster\ChromData\16334\20200810-7630.b\GG09C01.D
Injection Date: 10-Aug-2020 10:03:30 Instrument ID: 16334
Lims ID: CCVIS
Client ID:
Operator ID: JKH09052 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

72 1,4-Dioxane, CAS: 123-91-1

Signal: 1

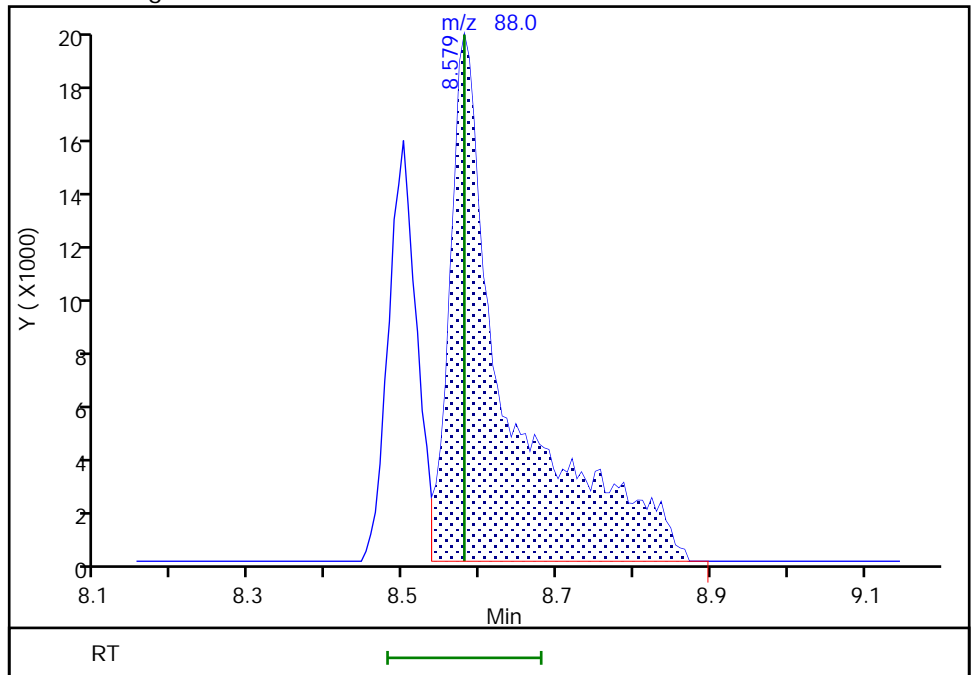
RT: 8.58
Area: 142651
Amount: 692.0429
Amount Units: ug/l

Processing Integration Results



RT: 8.58
Area: 103570
Amount: 502.4492
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 10-Aug-2020 10:35:15
Audit Action: Split an Integrated Peak

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC
 Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11T02.D
 Lims ID: bfb
 Client ID:
 Sample Type: BFB
 Inject. Date: 11-Jun-2020 13:27:30 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 1.0 uL Dil. Factor: 1.0000
 Sample Info: 410-0003178-001
 Misc. Info.: BFB
 Operator ID: DVV10203 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 12-Jun-2020 14:19:13 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I17.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1008

First Level Reviewer: virayd Date: 11-Jun-2020 13:45:43

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
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\$ 165 BFB	95	5.200	5.200	0.000	90	171099	NR	NR	
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QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

MSV_V_BFB_00002

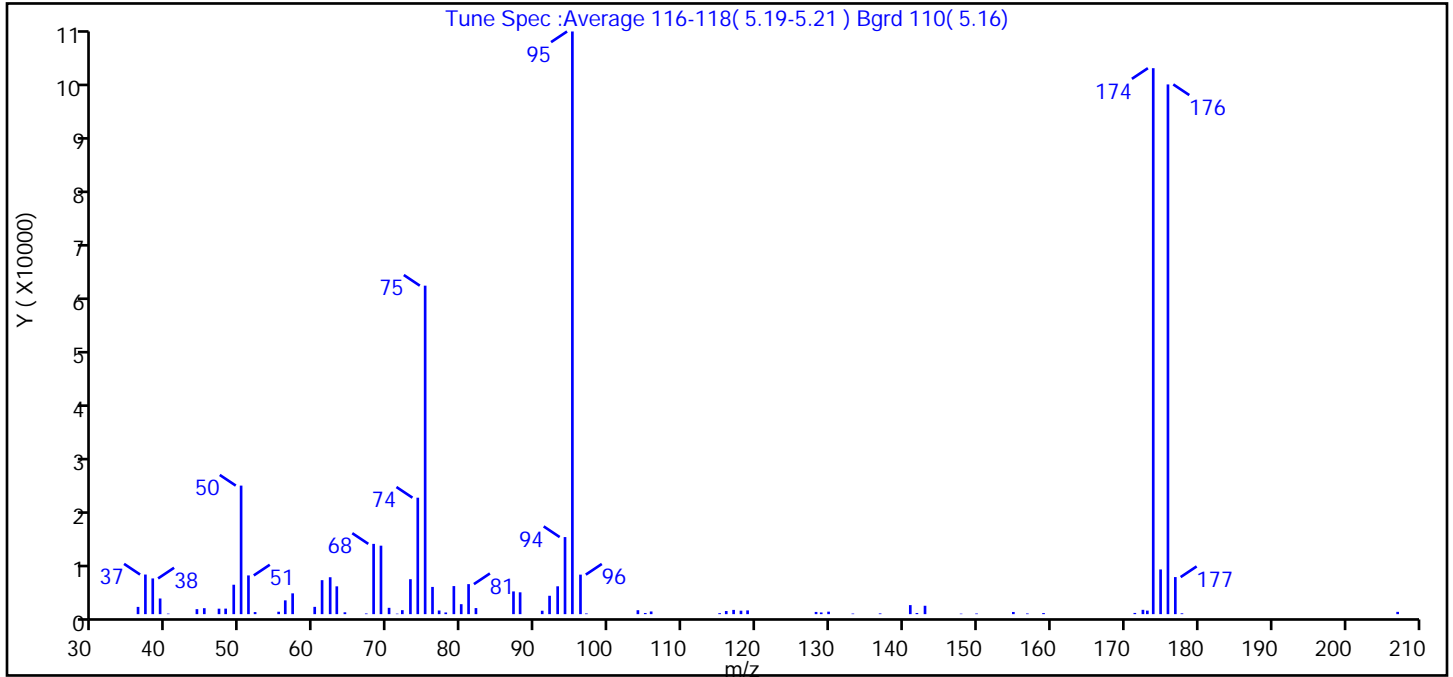
Amount Added: 1.00

Units: uL

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11T02.D
 Injection Date: 11-Jun-2020 13:27:30 Instrument ID: 16334
 Lims ID: bfb
 Client ID:
 Operator ID: DVV10203 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 1.0 uL Dil. Factor: 1.0000
 Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
 Tune Method: BFB Method 8260

\$ 165 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	22.1
75	30 to 60% of m/z 95	56.4
96	5 to 9% of m/z 95	6.8
173	Less than 2% of m/z 174	1.3 (1.4)
174	50 to 120% of m/z 95	93.7
175	5 to 9% of m/z 174	7.7 (8.2)
176	Greater than 95% but less than 101% of m/z 174	90.9 (97.0)
177	5 to 9% of m/z 176	6.4 (7.0)

Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11T02.D\MSV_16334_25mL.rsl\spectra.d
Injection Date: 11-Jun-2020 13:27:30
Spectrum: Tune Spec :Average 116-118(5.19-5.21) Bgrd 110(5.16)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 76

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1329	63.00	5096	88.00	4002	133.00	106
37.00	7260	64.00	338	91.00	626	137.00	135
38.00	6546	67.00	124	92.00	3368	141.00	1656
39.00	2869	68.00	12880	93.00	5105	142.00	208
40.00	95	69.00	12550	94.00	14127	143.00	1536
44.00	915	70.00	1159	95.00	106800	148.00	88
45.00	1094	71.00	90	96.00	7242	150.00	117
47.00	1003	72.00	731	97.00	125	155.00	399
48.00	1014	73.00	6405	104.00	719	157.00	126
49.00	5393	74.00	21344	105.00	212	159.00	194
50.00	23560	75.00	60208	106.00	490	171.00	221
51.00	7099	76.00	4988	115.00	180	172.00	791
52.00	379	77.00	669	116.00	572	173.00	647
55.00	443	78.00	307	117.00	778	174.00	100072
56.00	2526	79.00	5144	118.00	632	175.00	8191
57.00	3812	80.00	1827	119.00	686	176.00	97096
60.00	1336	81.00	5504	128.00	405	177.00	6795
61.00	6228	82.00	1111	129.00	311	178.00	151
62.00	6765	87.00	4165	130.00	453	207.00	420

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11T02.D

Injection Date: 11-Jun-2020 13:27:30

Instrument ID: 16334

Operator ID: DVV10203

Lims ID: bfb

Worklist Smp#: 1

Client ID:

Injection Vol: 1.0 uL

Dil. Factor: 1.0000

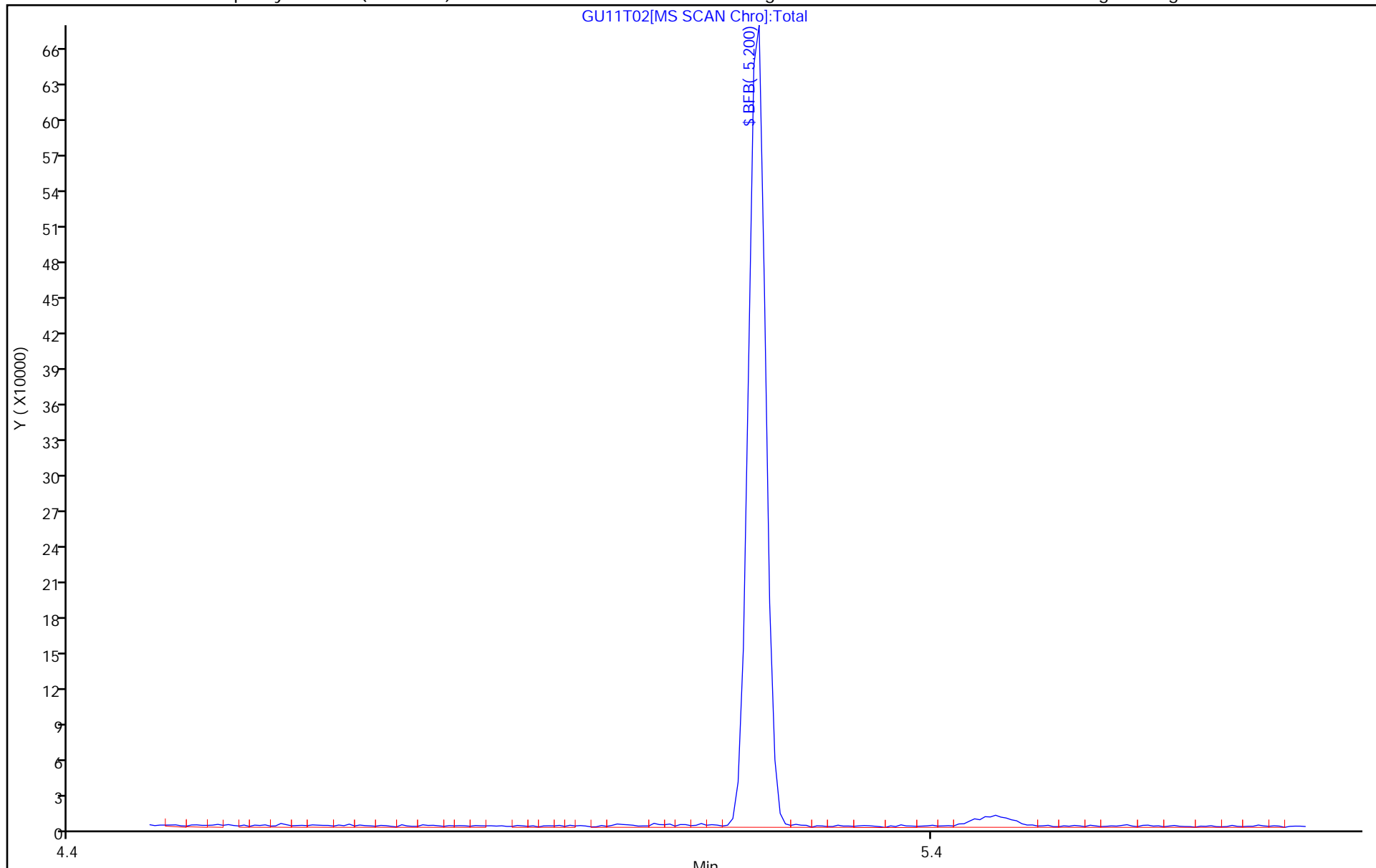
ALS Bottle#: 1

Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC
 Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07T01.D
 Lims ID: bfb
 Client ID:
 Sample Type: BFB
 Inject. Date: 07-Aug-2020 22:12:30 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 1.0 uL Dil. Factor: 1.0000
 Sample Info: bfb
 Operator ID: MEC29284 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 09-Aug-2020 17:32:34 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1057

First Level Reviewer: campbellme Date: 07-Aug-2020 22:32:22

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
\$ 165 BFB	95	5.188	5.188	0.000	89	972422	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

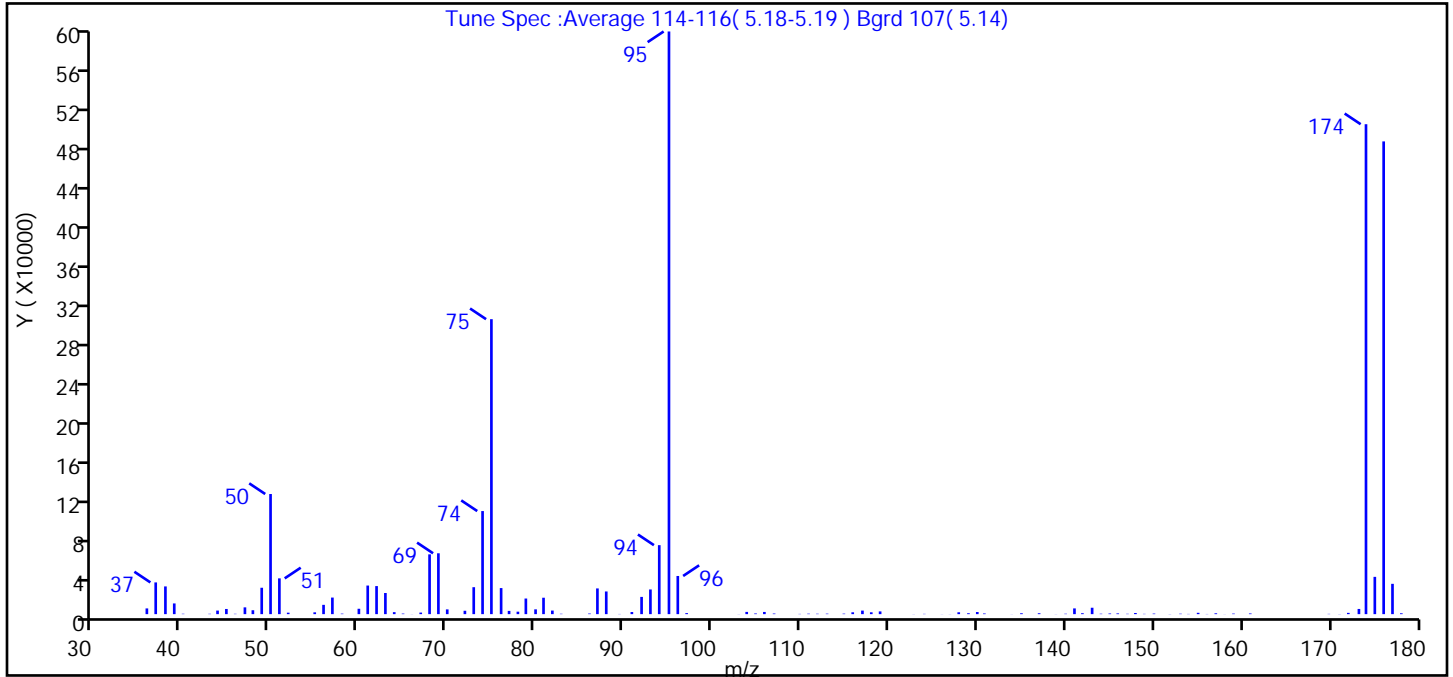
Reagents:

MSV_V_BFB_00003 Amount Added: 1.00 Units: uL

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07T01.D
 Injection Date: 07-Aug-2020 22:12:30 Instrument ID: 16334
 Lims ID: bfb
 Client ID:
 Operator ID: MEC29284 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 1.0 uL Dil. Factor: 1.0000
 Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
 Tune Method: BFB Method 8260

\$ 165 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	20.6
75	30 to 60% of m/z 95	50.6
96	5 to 9% of m/z 95	6.6
173	Less than 2% of m/z 174	0.9 (1.1)
174	50 to 120% of m/z 95	84.1
175	5 to 9% of m/z 174	6.4 (7.6)
176	Greater than 95% but less than 101% of m/z 174	81.1 (96.5)
177	5 to 9% of m/z 176	5.2 (6.4)

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07T01.D\MSV_16334_25mL.rsl\spectra.d
 Injection Date: 07-Aug-2020 22:12:30
 Spectrum: Tune Spec :Average 114-116(5.18-5.19) Bgrd 107(5.14)
 Base Peak: 95.10
 Minimum % Base Peak: 0
 Number of Points: 108

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	5802	68.00	60568	104.00	2274	142.00	943
37.00	32144	69.00	61656	105.00	689	143.00	6491
38.00	28088	70.00	4814	106.00	2222	144.00	433
39.00	10844	72.00	3426	107.00	620	145.00	669
40.00	390	73.00	27304	110.00	244	146.00	758
43.00	341	74.00	104424	111.00	469	147.00	349
44.00	3612	75.00	298816	112.00	407	148.00	1166
45.00	5240	76.00	26408	113.00	492	149.00	286
46.00	344	77.00	3289	115.00	514	150.00	573
47.00	6870	78.00	2494	116.00	1876	152.00	144
48.00	3969	79.00	15823	117.00	3596	153.00	435
49.00	26736	80.00	4867	118.00	1877	154.00	224
50.00	121696	81.00	16632	119.00	2767	155.00	1358
51.00	36248	82.00	3638	123.00	103	156.00	179
52.00	1484	83.00	380	124.00	286	157.00	855
55.00	1832	86.00	626	126.00	89	158.00	84
56.00	9423	87.00	26056	127.00	92	159.00	566
57.00	16792	88.00	22976	128.00	1890	161.00	690
58.00	515	90.00	192	129.00	913	170.00	273
60.00	5449	91.00	2138	130.00	2155	171.00	141
61.00	28968	92.00	17464	131.00	677	172.00	1295
62.00	28432	93.00	25008	134.00	84	173.00	5264
63.00	21416	94.00	69888	135.00	886	174.00	496320
64.00	2016	95.00	590272	137.00	903	175.00	37776
65.00	571	96.00	38664	139.00	100	176.00	478912
66.00	85	97.00	1029	140.00	414	177.00	30712
67.00	1590	103.00	98	141.00	5817	178.00	864

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07T01.D

Injection Date: 07-Aug-2020 22:12:30

Instrument ID: 16334

Operator ID: MEC29284

Lims ID: bfb

Worklist Smp#: 1

Client ID:

Injection Vol: 1.0 uL

Dil. Factor: 1.0000

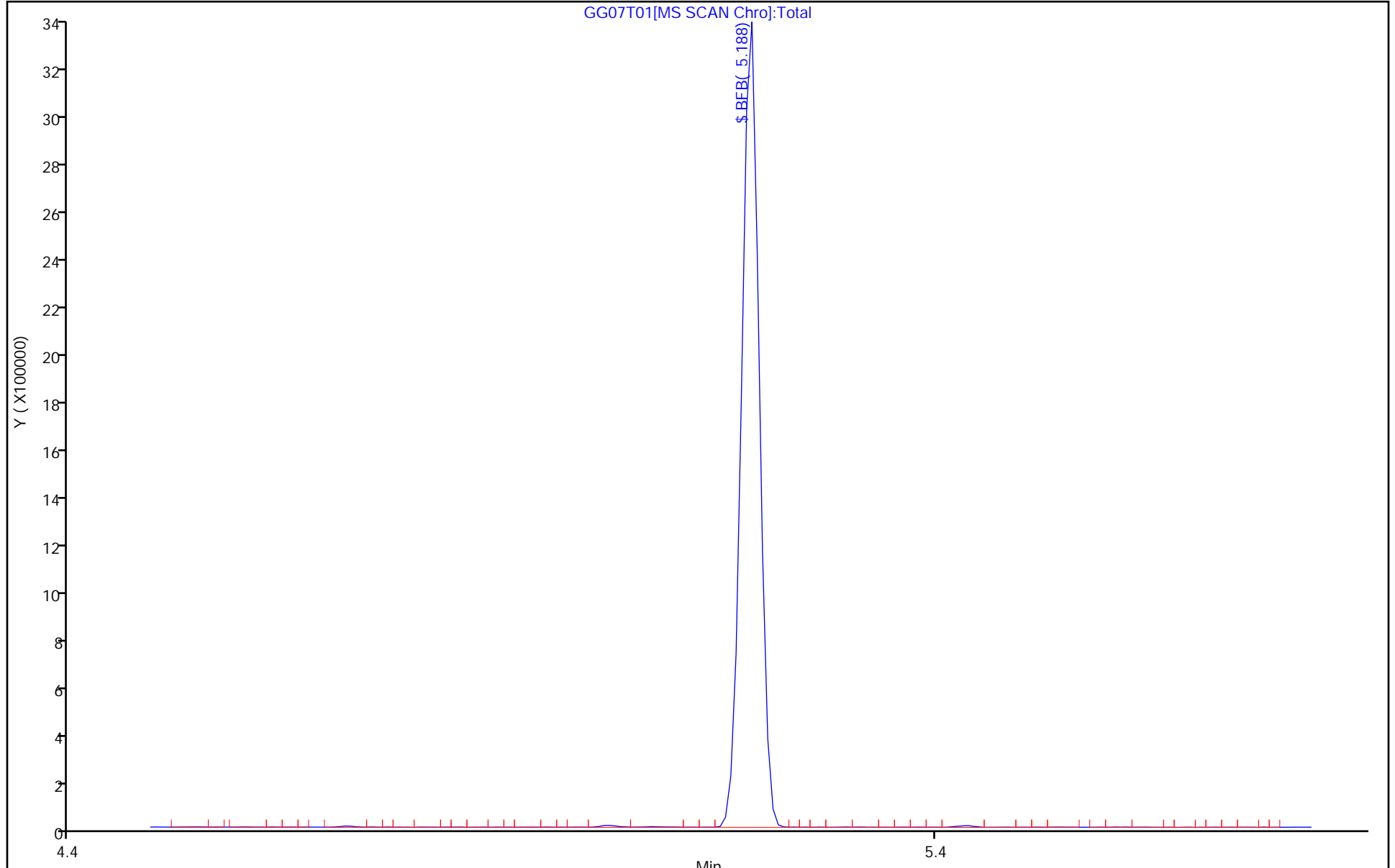
ALS Bottle#: 1

Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC
 Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200810-7630.b\GG10T01.D
 Lims ID: bfb
 Client ID:
 Sample Type: BFB
 Inject. Date: 10-Aug-2020 09:21:30 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 1.0 uL Dil. Factor: 1.0000
 Sample Info: bfb
 Misc. Info.: 410-0007630-001
 Operator ID: JKH09052 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20200810-7630.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 10-Aug-2020 13:02:03 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1047

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
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\$ 165 BFB	95	5.188	5.188	0.000	90	654368	NR	NR	
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QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

MSV_V_BFB_00003

Amount Added: 1.00

Units: uL

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200810-7630.b\GG10T01.D

Injection Date: 10-Aug-2020 09:21:30

Instrument ID: 16334

Lims ID: bfb

Client ID:

Operator ID: JKH09052

ALS Bottle#: 1

Worklist Smp#: 1

Injection Vol: 1.0 uL

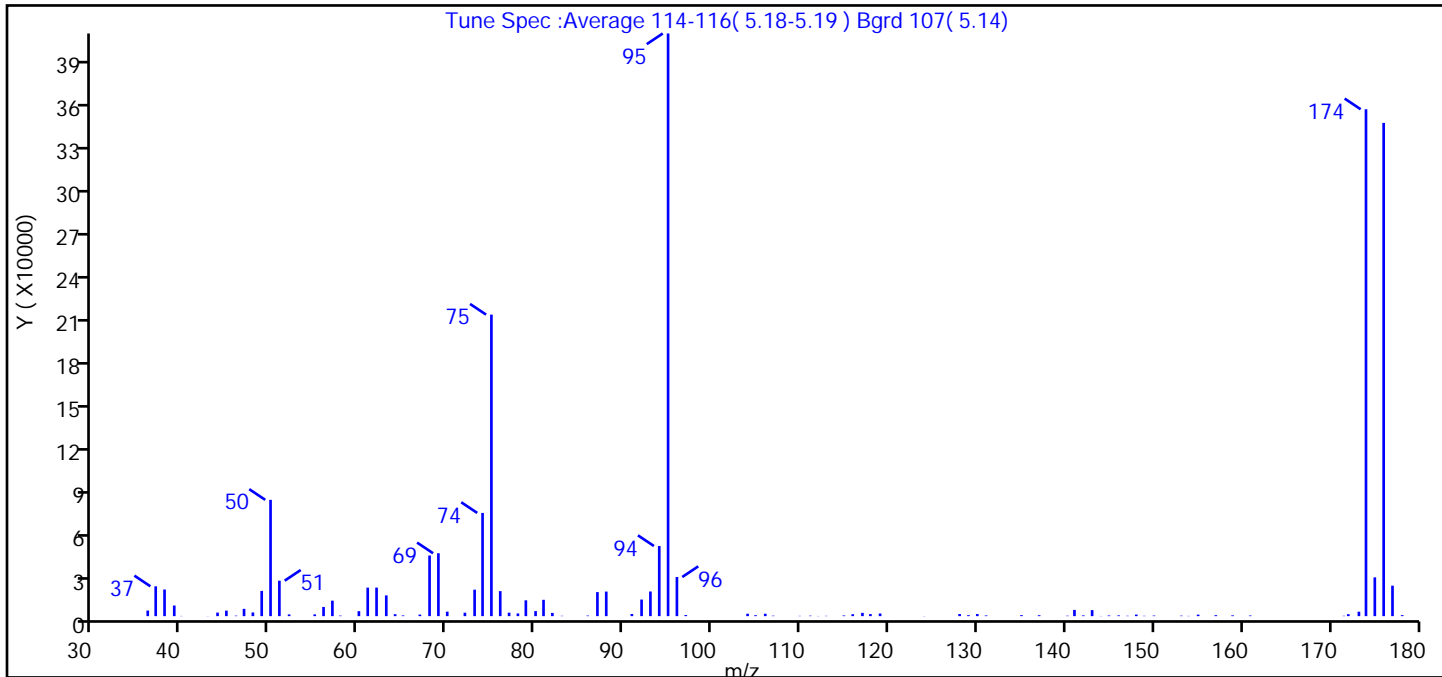
Dil. Factor: 1.0000

Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Tune Method: BFB Method 8260

\$ 165 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	20.0
75	30 to 60% of m/z 95	51.8
96	5 to 9% of m/z 95	6.7
173	Less than 2% of m/z 174	0.8 (0.9)
174	50 to 120% of m/z 95	87.0
175	5 to 9% of m/z 174	6.7 (7.7)
176	Greater than 95% but less than 101% of m/z 174	84.7 (97.3)
177	5 to 9% of m/z 176	5.2 (6.2)

Data File: \\chromfs\Lancaster\ChromData\16334\20200810-7630.b\GG10T01.D\MSV_16334_25mL.rsl\spectra.d
Injection Date: 10-Aug-2020 09:21:30
Spectrum: Tune Spec :Average 114-116(5.18-5.19) Bgrd 107(5.14)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 96

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	3878	65.00	499	95.00	404032	141.00	4337
37.00	20696	67.00	1097	96.00	27144	142.00	510
38.00	18480	68.00	42048	97.00	768	143.00	4178
39.00	7371	69.00	43616	104.00	1672	144.00	125
40.00	146	70.00	3112	105.00	642	145.00	459
43.00	91	72.00	2405	106.00	1660	146.00	532
44.00	2449	73.00	18360	107.00	328	147.00	260
45.00	3805	74.00	71568	110.00	194	148.00	1092
46.00	348	75.00	209088	111.00	330	149.00	220
47.00	5057	76.00	17344	112.00	122	150.00	413
48.00	2562	77.00	2407	113.00	208	153.00	340
49.00	17504	78.00	1869	115.00	472	154.00	166
50.00	80656	79.00	10978	116.00	1342	155.00	1048
51.00	24600	80.00	3496	117.00	2275	157.00	672
52.00	1198	81.00	11330	118.00	1428	159.00	545
55.00	1213	82.00	2240	119.00	1834	161.00	454
56.00	6387	83.00	228	124.00	111	172.00	243
57.00	10734	86.00	394	128.00	1468	172.00	1358
58.00	367	87.00	16672	129.00	674	173.00	3086
60.00	3447	88.00	17032	130.00	1454	174.00	351488
61.00	19760	91.00	1496	131.00	494	175.00	26904
62.00	19792	92.00	11510	135.00	693	176.00	342016
63.00	14390	93.00	17088	137.00	630	177.00	21144
64.00	1349	94.00	48624	140.00	294	178.00	685

Data File: \\chromfs\Lancaster\ChromData\16334\20200810-7630.b\GG10T01.D

Injection Date: 10-Aug-2020 09:21:30

Instrument ID: 16334

Operator ID: JKH09052

Lims ID: bfb

Worklist Smp#: 1

Client ID:

Injection Vol: 1.0 uL

Dil. Factor: 1.0000

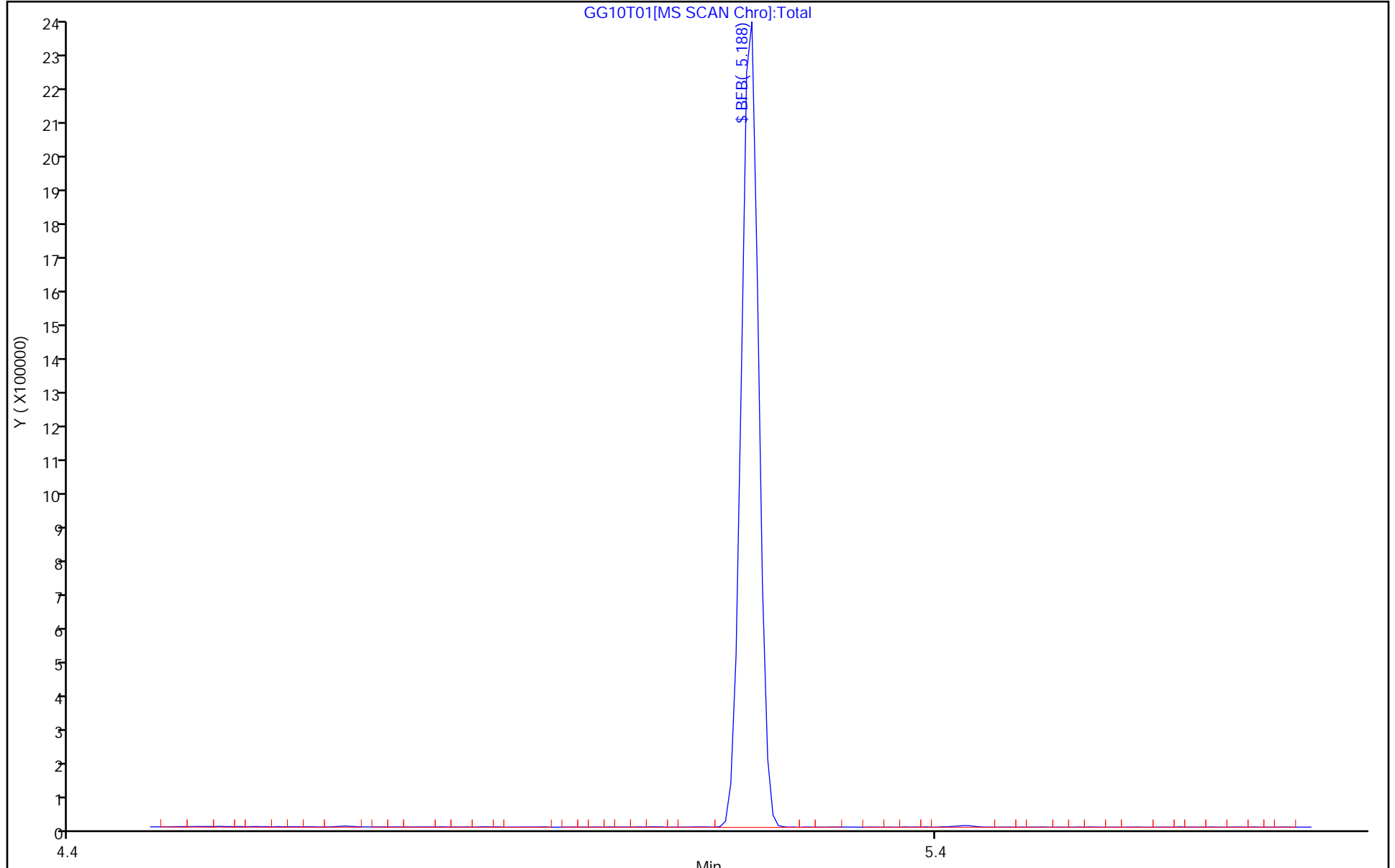
ALS Bottle#: 1

Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 410-30932/6
 Matrix: Water Lab File ID: GG07B01.D
 Analysis Method: 8260D Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 08/07/2020 23:56
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 30932 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		0.50	0.060
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.060
75-34-3	1,1-Dichloroethane	ND		0.50	0.070
75-35-4	1,1-Dichloroethene	ND		0.50	0.060
107-06-2	1,2-Dichloroethane	ND		0.50	0.050
78-87-5	1,2-Dichloropropane	ND		0.50	0.060
78-93-3	2-Butanone (MEK)	ND		5.0	0.60
591-78-6	2-Hexanone	ND		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70
67-64-1	Acetone	ND		5.0	0.90
107-13-1	Acrylonitrile	ND		5.0	0.40
71-43-2	Benzene	ND		0.50	0.050
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND		0.50	0.070
75-15-0	Carbon disulfide	ND		1.0	0.060
56-23-5	Carbon tetrachloride	ND		0.50	0.070
108-90-7	Chlorobenzene	ND		0.50	0.060
74-97-5	Bromochloromethane	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
75-00-3	Chloroethane	ND		0.50	0.070
67-66-3	Chloroform	ND		0.50	0.090
74-87-3	Chloromethane	ND		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	ND		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
75-27-4	Bromodichloromethane	ND		0.50	0.050
100-41-4	Ethylbenzene	ND		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.050
75-09-2	Methylene Chloride	ND		0.50	0.070
100-42-5	Styrene	ND		0.50	0.050
127-18-4	Tetrachloroethene	ND		0.50	0.060
108-88-3	Toluene	ND		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 410-30932/6
 Matrix: Water Lab File ID: GG07B01.D
 Analysis Method: 8260D Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 08/07/2020 23:56
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 30932 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	ND		0.50	0.060
75-01-4	Vinyl chloride	ND		0.50	0.10
1330-20-7	Xylenes, Total	ND		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	91		80-120
2037-26-5	Toluene-d8 (Surr)	98		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07B01.D
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 07-Aug-2020 23:56:30 ALS Bottle#: 5 Worklist Smp#: 6
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: MB
 Misc. Info.: 410-0007550-006
 Operator ID: MEC29284 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 09-Aug-2020 17:31:44 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1057

First Level Reviewer: campbellme Date: 08-Aug-2020 00:19:57

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
3 Chlorotrifluoroethene	116		1.885					ND	
1 Dichlorodifluoromethane	85		1.940					ND	
4 Chlorodifluoromethane	51	1.898	1.965	-0.067	1	2722		0.0593	
2 Dimethyl ether	45		2.014					ND	
5 Chloromethane	50		2.129					ND	
8 2-Chloro-1,1,1-Trifluoroethane	118		2.233					ND	
6 Butadiene	39		2.245					ND	
7 Vinyl chloride	62		2.245					ND	
9 Bromomethane	94		2.562					ND	
10 Chloroethane	64		2.648					ND	
11 Dichlorofluoromethane	67		2.885					ND	
13 Trichlorofluoromethane	101		2.946					ND	
17 Ethanol	45		3.111					ND	
15 Ethyl ether	59		3.196					ND	
16 1,2-Dichloro-1,1,2-trifluoroethane	67		3.282					ND	
18 Acrolein	56	3.404	3.373	0.031	1	1644		0.4069	7M
19 1,1-Dichloroethene	96		3.507					ND	
21 112TCTFE	101		3.538					ND	
20 Acetone	43		3.550					ND	
22 Iodomethane	142		3.696					ND	
23 Isopropyl alcohol	45		3.702					ND	
24 Ethyl bromide	108		3.727					ND	
25 Carbon disulfide	76		3.794					ND	
14 Acetonitrile	41		3.928					ND	
26 Methyl acetate	43		3.964					ND	
27 3-Chloro-1-propene	41		3.977					ND	
28 Methylene Chloride	84		4.166					ND	
* 29 t-Butyl alcohol-d10 (IS)	65	4.178	4.184	-0.006	26	114602	50.0	50.0	
30 2-Methyl-2-propanol	59		4.306					ND	
31 Acrylonitrile	53		4.519					ND	
32 Methyl tert-butyl ether	73		4.568					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
33 trans-1,2-Dichloroethene	96		4.574					ND	
34 Hexane	57		5.001					ND	
35 Vinyl acetate	43		5.232					ND	
36 1,1-Dichloroethane	63		5.245					ND	
37 Isopropyl ether	45		5.306					ND	
38 2-Chloro-1,3-butadiene	53		5.354					ND	
39 Tert-butyl ethyl ether	59		5.836					ND	
40 2-Butanone (MEK)	43		6.049					ND	
41 cis-1,2-Dichloroethene	96		6.086					ND	
42 2,2-Dichloropropane	77		6.092					ND	
43 Ethyl acetate	43		6.116					ND	
44 Propionitrile	54		6.147					ND	
S 49 1,2-Dichloroethene, Total	100		6.155					ND	
45 Methyl acrylate	55		6.177					ND	
46 Methacrylonitrile	67		6.360					ND	
48 Chlorobromomethane	128		6.415					ND	
47 Tetrahydrofuran	71		6.421					ND	
50 Chloroform	83		6.568					ND	
\$ 52 Dibromofluoromethane (Surr)	113	6.787	6.787	0.000	93	441751	10.0	9.13	
51 1,1,1-Trichloroethane	97		6.793					ND	
53 Cyclohexane	56		6.885					ND	
54 1-Chlorobutane	56		6.946					ND	
56 Carbon tetrachloride	117		6.994					ND	
55 1,1-Dichloropropene	75		7.007					ND	
57 Isobutyl alcohol	41		7.171					ND	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.244	7.232	0.012	0	89708	10.0	9.74	
59 Benzene	78		7.269					ND	
60 1,2-Dichloroethane	62		7.342					ND	
61 Isopropyl acetate	43		7.354					ND	
62 Tert-amyl methyl ether	73		7.464					ND	
* 63 Fluorobenzene (IS)	96	7.677	7.677	0.000	98	1811052	10.0	10.0	
64 n-Heptane	43		7.683					ND	
66 t-Amyl alcohol	73		7.842					ND	
65 n-Butanol	56		8.055					ND	
67 Trichloroethene	95		8.153					ND	
68 Methylcyclohexane	83		8.457					ND	
69 1,2-Dichloropropane	63		8.488					ND	
70 2-ethoxy-2-methyl butane	87		8.494					ND	
72 1,4-Dioxane	88		8.579					ND	
71 Methyl methacrylate	69		8.579					ND	
73 Dibromomethane	93		8.598					ND	
74 n-Propyl acetate	61		8.659					ND	
75 Dichlorobromomethane	83		8.835					ND	
76 2-Nitropropane	41		9.122					ND	
78 2-Chloroethyl vinyl ether	63		9.201					ND	
77 Chloroacetonitrile	75		9.201					ND	
79 1-Bromo-2-chloroethane	63		9.232					ND	
80 cis-1,3-Dichloropropene	75		9.390					ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.567					ND	
\$ 82 Toluene-d8 (Surr)	98	9.695	9.695	0.000	95	1779098	10.0	9.84	
83 Toluene	92		9.774					ND	
84 trans-1,3-Dichloropropene	75		10.030					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
S 87 1,3-Dichloropropene, Total	100		10.060					ND	
85 Ethyl methacrylate	69		10.097					ND	
86 1,1,2-Trichloroethane	97		10.238					ND	
88 Tetrachloroethene	166		10.317					ND	
89 1,3-Dichloropropane	76		10.402					ND	
91 2-Hexanone	43		10.457					ND	
92 n-Butyl acetate	43	10.573	10.573	0.000	9	453		0.007531	
93 Chlorodibromomethane	129		10.609					ND	
94 Ethylene Dibromide	107		10.719					ND	
* 95 Chlorobenzene-d5 (IS)	117	11.152	11.152	0.000	88	1381125	10.0	10.0	
96 1-Chlorohexane	91		11.164					ND	
97 Chlorobenzene	112		11.183					ND	
S 101 Xylenes, Total	106		11.245					ND	
98 1,1,1,2-Tetrachloroethane	131		11.262					ND	
99 Ethylbenzene	91		11.268					ND	
100 m-Xylene & p-Xylene	106		11.384					ND	
102 o-Xylene	106		11.713					ND	
103 Styrene	104		11.725					ND	
104 Bromoform	173		11.884					ND	
105 Isopropylbenzene	105		12.012					ND	
106 cis-1,4-Dichloro-2-butene	88		12.067					ND	
107 Cyclohexanone	55		12.097					ND	U
\$ 108 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	88	649773	10.0	9.68	
109 1,1,2,2-Tetrachloroethane	83		12.255					ND	
110 Bromobenzene	156		12.268					ND	
111 trans-1,4-Dichloro-2-butene	53		12.280					ND	
112 1,2,3-Trichloropropane	110		12.304					ND	
113 N-Propylbenzene	91		12.335					ND	
114 2-Chlorotoluene	126		12.414					ND	
115 1,3,5-Trimethylbenzene	105		12.475					ND	
116 4-Chlorotoluene	126		12.505					ND	
118 tert-Butylbenzene	134		12.713					ND	
120 Pentachloroethane	167		12.743					ND	
119 1,2,4-Trimethylbenzene	105		12.755					ND	
121 sec-Butylbenzene	105		12.877					ND	
122 1,3-Dichlorobenzene	146		12.975					ND	
123 4-Isopropyltoluene	119		12.981					ND	
* 124 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	97	702807	10.0	10.0	
125 1,4-Dichlorobenzene	146		13.048					ND	
126 1,2,3-Trimethylbenzene	120		13.060					ND	
127 Benzyl chloride	126		13.127					ND	
129 p-Diethylbenzene	119		13.182					ND	
130 n-Butylbenzene	92		13.274					ND	
131 1,2-Dichlorobenzene	146		13.304					ND	
133 Hexachloroethane	201		13.511					ND	
134 1,2-Dibromo-3-Chloropropane	155		13.847					ND	
135 1,3,5-Trichlorobenzene	180		13.969					ND	
136 1,2,4-Trichlorobenzene	180		14.389					ND	
137 Hexachlorobutadiene	225		14.468					ND	
138 Naphthalene	128		14.572					ND	
139 1,2,3-Trichlorobenzene	180		14.712					ND	
140 2-Methylnaphthalene	142	15.334	15.328	0.006	86	1264		0.0181	

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07B01.D

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
142 1,1-Dichloro-1-fluoroethane	1		0.000					ND	
147 2-Bromo-1-chloropropane	1		0.000					ND	
148 1-Chloropropane	1		0.000					ND	
149 1-Bromo-3-Chloropropane	1		0.000					ND	
151 Propene oxide	1		0.000					ND	
152 n-Decane	57		0.000					ND	
159 Methylal	1		0.000					ND	
162 Dodecane	57		0.000					ND	
163 tert-Butyl Formate	1		0.000					ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

U - Marked Undetected

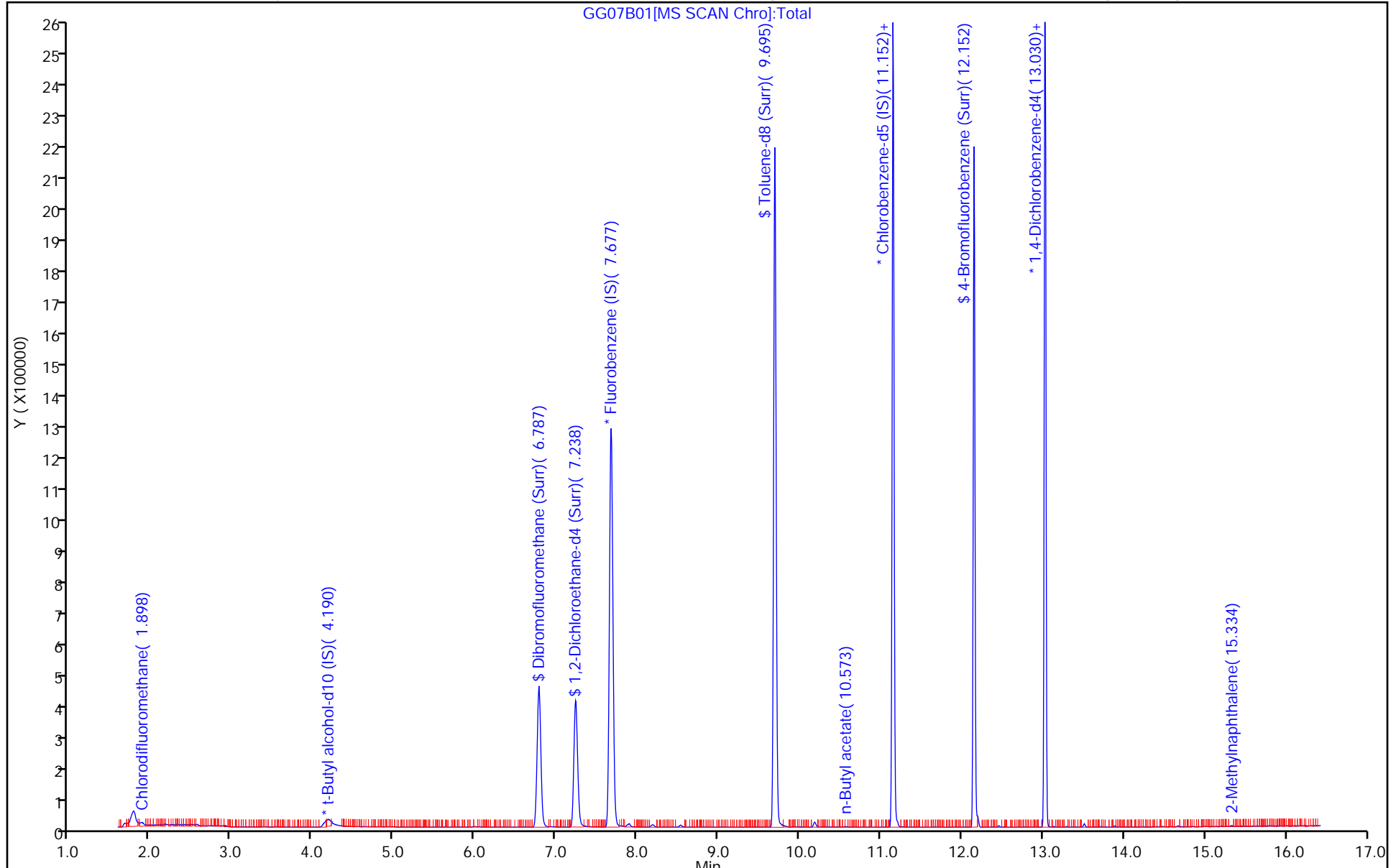
Reagents:

MSV_29_826ISS_00007

Amount Added: 1.00

Units: uL

Run Reagent



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07B01.D
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 07-Aug-2020 23:56:30 ALS Bottle#: 5 Worklist Smp#: 6
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: MB
 Misc. Info.: 410-0007550-006
 Operator ID: MEC29284 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 09-Aug-2020 17:31:44 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1057

First Level Reviewer: campbellme Date: 08-Aug-2020 00:19:57

Compound	Amount Added	Amount Recovered	% Rec.
\$ 52 Dibromofluoromethane (Surr)	10.0	9.13	91.31
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	9.74	97.36
\$ 82 Toluene-d8 (Surr)	10.0	9.84	98.40
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.68	96.77

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 410-31280/7
 Matrix: Water Lab File ID: GG09B01.D
 Analysis Method: 8260D Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 08/10/2020 11:31
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 31280 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		0.50	0.060
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.060
75-34-3	1,1-Dichloroethane	ND		0.50	0.070
75-35-4	1,1-Dichloroethene	ND		0.50	0.060
107-06-2	1,2-Dichloroethane	ND		0.50	0.050
78-87-5	1,2-Dichloropropane	ND		0.50	0.060
78-93-3	2-Butanone (MEK)	ND		5.0	0.60
591-78-6	2-Hexanone	ND		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70
67-64-1	Acetone	ND		5.0	0.90
107-13-1	Acrylonitrile	ND		5.0	0.40
71-43-2	Benzene	ND		0.50	0.050
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND		0.50	0.070
75-15-0	Carbon disulfide	ND		1.0	0.060
56-23-5	Carbon tetrachloride	ND		0.50	0.070
108-90-7	Chlorobenzene	ND		0.50	0.060
74-97-5	Bromochloromethane	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
75-00-3	Chloroethane	ND		0.50	0.070
67-66-3	Chloroform	ND		0.50	0.090
74-87-3	Chloromethane	ND		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	ND		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
75-27-4	Bromodichloromethane	ND		0.50	0.050
100-41-4	Ethylbenzene	ND		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.050
75-09-2	Methylene Chloride	ND		0.50	0.070
100-42-5	Styrene	ND		0.50	0.050
127-18-4	Tetrachloroethene	ND		0.50	0.060
108-88-3	Toluene	ND		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 410-31280/7
 Matrix: Water Lab File ID: GG09B01.D
 Analysis Method: 8260D Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 08/10/2020 11:31
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 31280 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	ND		0.50	0.060
75-01-4	Vinyl chloride	ND		0.50	0.10
1330-20-7	Xylenes, Total	ND		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	92		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
 Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200810-7630.b\GG09B01.D
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 10-Aug-2020 11:31:30 ALS Bottle#: 6 Worklist Smp#: 7
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: MB
 Misc. Info.: 410-0007630-007
 Operator ID: JKH09052 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20200810-7630.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 10-Aug-2020 13:01:19 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1047

First Level Reviewer: howej Date: 10-Aug-2020 13:01:05

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
3 Chlorotrifluoroethene	116		1.885					ND	
1 Dichlorodifluoromethane	85		1.953					ND	
4 Chlorodifluoromethane	51		1.965					ND	
2 Dimethyl ether	45		2.014					ND	
5 Chloromethane	50		2.142					ND	
8 2-Chloro-1,1,1-Trifluoroethane	118		2.233					ND	
6 Butadiene	39		2.257					ND	
7 Vinyl chloride	62		2.257					ND	
9 Bromomethane	94		2.574					ND	
10 Chloroethane	64		2.660					ND	
11 Dichlorofluoromethane	67		2.898					ND	
13 Trichlorofluoromethane	101		2.959					ND	
17 Ethanol	45		3.111					ND	
15 Ethyl ether	59		3.215					ND	
16 1,2-Dichloro-1,1,2-trifluoroethane	67		3.294					ND	
18 Acrolein	56		3.385					ND	
19 1,1-Dichloroethene	96		3.519					ND	
20 Acetone	43		3.556					ND	
21 112TCTFE	101		3.556					ND	
22 Iodomethane	142		3.708					ND	
23 Isopropyl alcohol	45		3.721					ND	
24 Ethyl bromide	108		3.739					ND	
25 Carbon disulfide	76		3.806					ND	
14 Acetonitrile	41		3.928					ND	
26 Methyl acetate	43		3.964					ND	
27 3-Chloro-1-propene	41		3.989					ND	
28 Methylene Chloride	84		4.178					ND	
* 29 t-Butyl alcohol-d10 (IS)	65	4.202	4.202	0.000	25	171705	50.0	50.0	M
30 2-Methyl-2-propanol	59		4.324					ND	
31 Acrylonitrile	53		4.525					ND	
32 Methyl tert-butyl ether	73		4.574					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
33 trans-1,2-Dichloroethene	96		4.586					ND	
34 Hexane	57		5.007					ND	
35 Vinyl acetate	43		5.232					ND	
36 1,1-Dichloroethane	63		5.257					ND	
37 Isopropyl ether	45		5.312					ND	
38 2-Chloro-1,3-butadiene	53		5.360					ND	
39 Tert-butyl ethyl ether	59		5.848					ND	
40 2-Butanone (MEK)	43		6.055					ND	
41 cis-1,2-Dichloroethene	96		6.092					ND	
42 2,2-Dichloropropane	77		6.104					ND	
43 Ethyl acetate	43		6.116					ND	
S 49 1,2-Dichloroethene, Total	100		6.155					ND	
44 Propionitrile	54		6.159					ND	
45 Methyl acrylate	55		6.177					ND	
46 Methacrylonitrile	67		6.372					ND	
48 Chlorobromomethane	128		6.415					ND	
47 Tetrahydrofuran	71		6.427					ND	
50 Chloroform	83		6.574					ND	
\$ 52 Dibromofluoromethane (Surr)	113	6.793	6.793	0.000	93	465826	10.0	9.16	
51 1,1,1-Trichloroethane	97		6.799					ND	
53 Cyclohexane	56		6.891					ND	
54 1-Chlorobutane	56		6.946					ND	
56 Carbon tetrachloride	117		7.007					ND	
55 1,1-Dichloropropene	75		7.013					ND	
57 Isobutyl alcohol	41		7.177					ND	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.244	7.244	0.000	0	97254	10.0	10.0	
59 Benzene	78		7.275					ND	
60 1,2-Dichloroethane	62		7.348					ND	
61 Isopropyl acetate	43		7.354					ND	
62 Tert-amyl methyl ether	73		7.464					ND	
* 63 Fluorobenzene (IS)	96	7.683	7.683	0.000	98	1904137	10.0	10.0	
64 n-Heptane	43		7.689					ND	
66 t-Amyl alcohol	73		7.842					ND	
65 n-Butanol	56		8.061					ND	
67 Trichloroethene	95		8.159					ND	
68 Methylcyclohexane	83		8.464					ND	
69 1,2-Dichloropropane	63		8.494					ND	
70 2-ethoxy-2-methyl butane	87		8.500					ND	
72 1,4-Dioxane	88		8.579					ND	
71 Methyl methacrylate	69		8.579					ND	
73 Dibromomethane	93		8.598					ND	
74 n-Propyl acetate	61		8.659					ND	
75 Dichlorobromomethane	83		8.842					ND	
76 2-Nitropropane	41		9.122					ND	
78 2-Chloroethyl vinyl ether	63		9.201					ND	
77 Chloroacetonitrile	75		9.201					ND	
79 1-Bromo-2-chloroethane	63		9.232					ND	
80 cis-1,3-Dichloropropene	75		9.390					ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.573					ND	
\$ 82 Toluene-d8 (Surr)	98	9.695	9.695	0.000	95	1891145	10.0	10.1	
83 Toluene	92		9.774					ND	
84 trans-1,3-Dichloropropene	75		10.036					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
S 87 1,3-Dichloropropene, Total	100		10.060					ND	
85 Ethyl methacrylate	69		10.097					ND	
86 1,1,2-Trichloroethane	97		10.238					ND	
88 Tetrachloroethene	166		10.317					ND	
89 1,3-Dichloropropane	76		10.402					ND	
91 2-Hexanone	43		10.457					ND	
92 n-Butyl acetate	43		10.573					ND	U
93 Chlorodibromomethane	129		10.616					ND	
94 Ethylene Dibromide	107		10.719					ND	
* 95 Chlorobenzene-d5 (IS)	117	11.152	11.152	0.000	88	1424874	10.0	10.0	
96 1-Chlorohexane	91		11.164					ND	
97 Chlorobenzene	112		11.183					ND	
S 101 Xylenes, Total	106		11.245					ND	
98 1,1,1,2-Tetrachloroethane	131		11.262					ND	
99 Ethylbenzene	91		11.268					ND	
100 m-Xylene & p-Xylene	106		11.384					ND	
102 o-Xylene	106		11.713					ND	
103 Styrene	104		11.725					ND	
104 Bromoform	173		11.884					ND	
105 Isopropylbenzene	105		12.012					ND	
106 cis-1,4-Dichloro-2-butene	88		12.067					ND	
107 Cyclohexanone	55		12.097					ND	U
\$ 108 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	89	669073	10.0	9.66	
109 1,1,2,2-Tetrachloroethane	83		12.255					ND	
110 Bromobenzene	156		12.268					ND	
111 trans-1,4-Dichloro-2-butene	53		12.280					ND	
112 1,2,3-Trichloropropane	110		12.304					ND	
113 N-Propylbenzene	91		12.335					ND	
114 2-Chlorotoluene	126		12.414					ND	
115 1,3,5-Trimethylbenzene	105		12.469					ND	
116 4-Chlorotoluene	126		12.505					ND	
118 tert-Butylbenzene	134		12.713					ND	
120 Pentachloroethane	167		12.743					ND	
119 1,2,4-Trimethylbenzene	105		12.755					ND	
121 sec-Butylbenzene	105		12.877					ND	
122 1,3-Dichlorobenzene	146		12.975					ND	
123 4-Isopropyltoluene	119		12.981					ND	
* 124 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	96	719142	10.0	10.0	
125 1,4-Dichlorobenzene	146		13.048					ND	
126 1,2,3-Trimethylbenzene	120		13.060					ND	
127 Benzyl chloride	126		13.127					ND	
129 p-Diethylbenzene	119		13.182					ND	
130 n-Butylbenzene	92		13.274					ND	
131 1,2-Dichlorobenzene	146		13.304					ND	
133 Hexachloroethane	201		13.511					ND	
134 1,2-Dibromo-3-Chloropropane	155		13.847					ND	
135 1,3,5-Trichlorobenzene	180		13.969					ND	
136 1,2,4-Trichlorobenzene	180		14.389					ND	
137 Hexachlorobutadiene	225		14.468					ND	
138 Naphthalene	128		14.566					ND	
139 1,2,3-Trichlorobenzene	180		14.712					ND	
140 2-Methylnaphthalene	142		15.328					ND	U

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
142 1,1-Dichloro-1-fluoroethane	1		0.000					ND	
147 2-Bromo-1-chloropropane	1		0.000					ND	
148 1-Chloropropane	1		0.000					ND	
149 1-Bromo-3-Chloropropane	1		0.000					ND	
151 Propene oxide	1		0.000					ND	
152 n-Decane	57		0.000					ND	
159 Methylal	1		0.000					ND	
162 Dodecane	57		0.000					ND	
163 tert-Butyl Formate	1		0.000					ND	

QC Flag Legend

Review Flags

M - Manually Integrated

U - Marked Undetected

Reagents:

MSV_29_826ISS_00007

Amount Added: 1.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\16334\20200810-7630.b\GG09B01.D

Injection Date: 10-Aug-2020 11:31:30

Instrument ID: 16334

Operator ID: JKH09052

Lims ID: MB

Worklist Smp#: 7

Client ID:

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

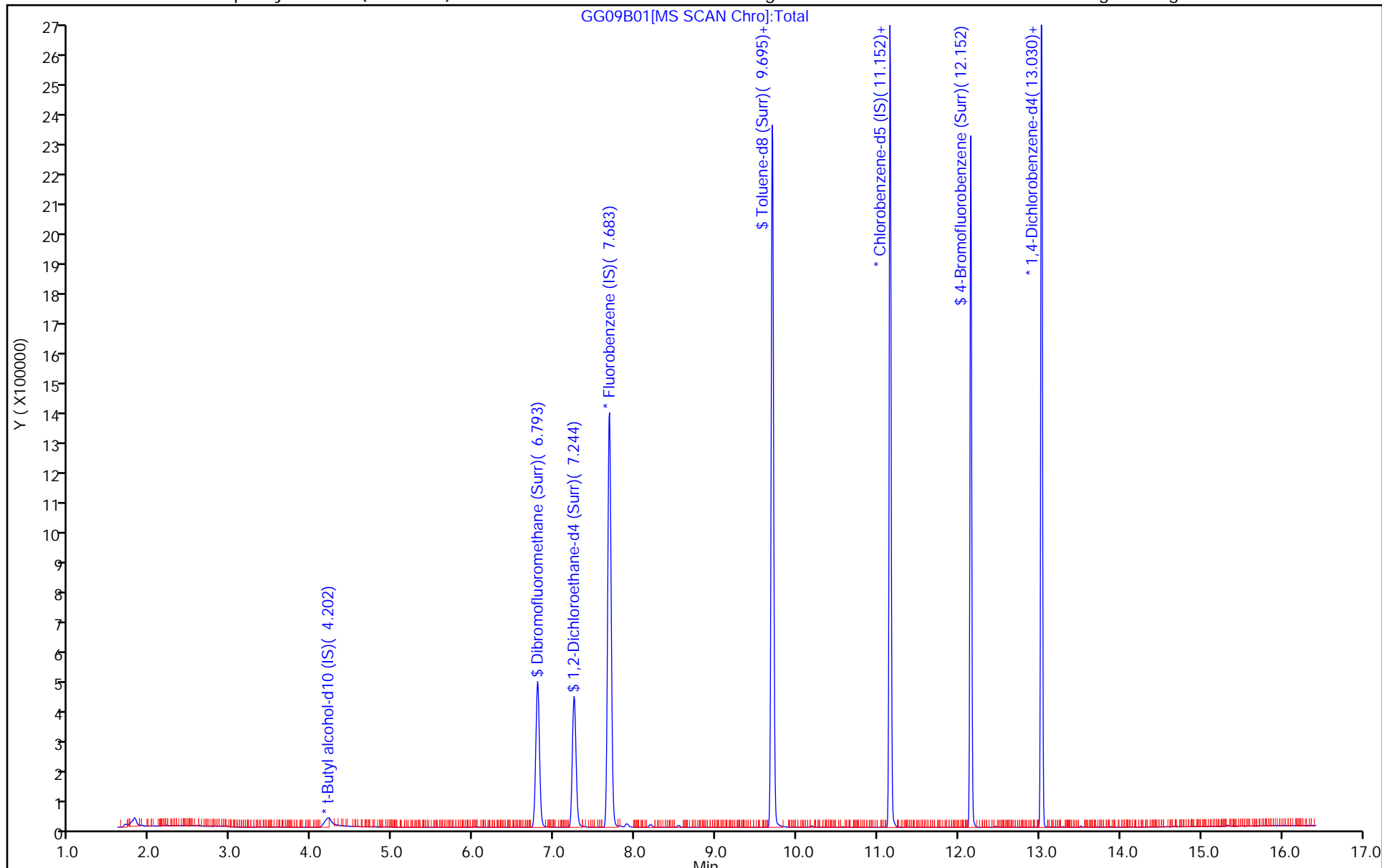
ALS Bottle#: 6

Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200810-7630.b\GG09B01.D
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 10-Aug-2020 11:31:30 ALS Bottle#: 6 Worklist Smp#: 7
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: MB
 Misc. Info.: 410-0007630-007
 Operator ID: JKH09052 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20200810-7630.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 10-Aug-2020 13:01:19 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1047

First Level Reviewer: howej Date: 10-Aug-2020 13:01:05

Compound	Amount Added	Amount Recovered	% Rec.
\$ 52 Dibromofluoromethane (Surr)	10.0	9.16	91.58
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.0	100.39
\$ 82 Toluene-d8 (Surr)	10.0	10.1	101.39
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.66	96.58

Eurofins Lancaster Laboratories Env, LLC

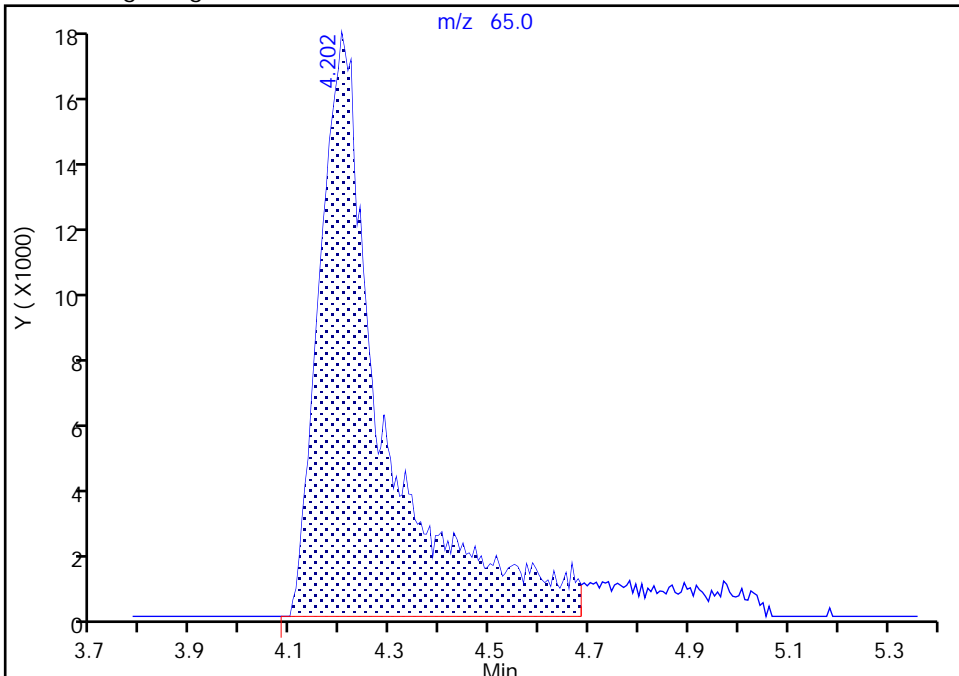
Data File: \\chromfs\Lancaster\ChromData\16334\20200810-7630.b\GG09B01.D
Injection Date: 10-Aug-2020 11:31:30 Instrument ID: 16334
Lims ID: MB
Client ID:
Operator ID: JKH09052 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 29 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

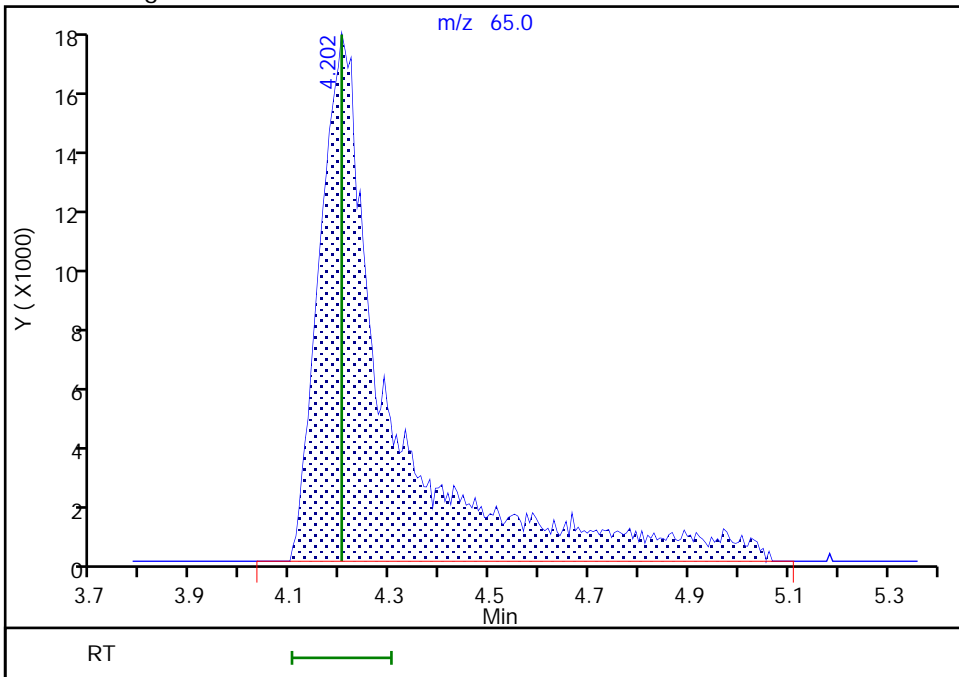
RT: 4.20
Area: 154471
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.20
Area: 171705
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 10-Aug-2020 11:55:27
Audit Action: Manually Integrated

Audit Reason: Other

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 410-30932/4
 Matrix: Water Lab File ID: GG07L01.D
 Analysis Method: 8260D Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 08/07/2020 23:11
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 30932 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	4.17		0.50	0.060
630-20-6	1,1,1,2-Tetrachloroethane	4.32		0.50	0.070
79-34-5	1,1,2,2-Tetrachloroethane	5.20		0.50	0.070
79-00-5	1,1,2-Trichloroethane	4.93		0.50	0.060
75-34-3	1,1-Dichloroethane	4.87		0.50	0.070
75-35-4	1,1-Dichloroethene	4.77		0.50	0.060
107-06-2	1,2-Dichloroethane	4.14		0.50	0.050
78-87-5	1,2-Dichloropropane	5.27		0.50	0.060
78-93-3	2-Butanone (MEK)	35.7		5.0	0.60
591-78-6	2-Hexanone	23.5		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	23.3		5.0	0.70
67-64-1	Acetone	31.2		5.0	0.90
107-13-1	Acrylonitrile	25.4		5.0	0.40
71-43-2	Benzene	4.94		0.50	0.050
75-25-2	Bromoform	4.16		1.0	0.30
74-83-9	Bromomethane	4.01		0.50	0.070
75-15-0	Carbon disulfide	4.94		1.0	0.060
56-23-5	Carbon tetrachloride	4.01		0.50	0.070
108-90-7	Chlorobenzene	4.68		0.50	0.060
74-97-5	Bromochloromethane	4.21		0.50	0.050
124-48-1	Dibromochloromethane	4.46		0.50	0.070
75-00-3	Chloroethane	4.48		0.50	0.070
67-66-3	Chloroform	4.58		0.50	0.090
74-87-3	Chloromethane	4.36		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	5.01		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	4.84		0.50	0.050
75-27-4	Bromodichloromethane	4.48		0.50	0.050
100-41-4	Ethylbenzene	4.71		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	4.56		0.50	0.060
1634-04-4	Methyl tert-butyl ether	4.57		0.50	0.050
75-09-2	Methylene Chloride	4.99		0.50	0.070
100-42-5	Styrene	4.93		0.50	0.050
127-18-4	Tetrachloroethene	4.35		0.50	0.060
108-88-3	Toluene	4.99		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	4.83		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	4.62		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 410-30932/4
 Matrix: Water Lab File ID: GG07L01.D
 Analysis Method: 8260D Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 08/07/2020 23:11
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 30932 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	4.58		0.50	0.060
75-01-4	Vinyl chloride	4.53		0.50	0.10
1330-20-7	Xylenes, Total	14.3		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		80-120
460-00-4	4-Bromofluorobenzene (Surr)	98		80-120
1868-53-7	Dibromofluoromethane (Surr)	91		80-120
2037-26-5	Toluene-d8 (Surr)	99		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07L01.D
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 07-Aug-2020 23:11:30 ALS Bottle#: 3 Worklist Smp#: 4
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: LCS
 Misc. Info.: 410-0007550-004
 Operator ID: MEC29284 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 09-Aug-2020 17:31:44 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1057

First Level Reviewer: campbellme

Date: 07-Aug-2020 23:37:38

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.947	1.940	0.007	99	277029	5.00	3.47	M
5 Chloromethane	50	2.136	2.129	0.007	99	322375	5.00	4.36	
6 Butadiene	39	2.251	2.245	0.006	96	280233	5.00	4.43	
7 Vinyl chloride	62	2.257	2.245	0.012	97	316290	5.00	4.53	
9 Bromomethane	94	2.568	2.562	0.006	90	213071	5.00	4.01	M
10 Chloroethane	64	2.660	2.648	0.012	99	178771	5.00	4.48	
11 Dichlorofluoromethane	67	2.898	2.885	0.013	97	432823	5.00	4.59	
13 Trichlorofluoromethane	101	2.959	2.946	0.013	97	395633	5.00	4.23	
15 Ethyl ether	59	3.215	3.196	0.019	93	190597	5.01	5.51	
16 1,2-Dichloro-1,1,2-trifluoroetha	67	3.288	3.282	0.006	94	272326	5.00	5.05	
18 Acrolein	56	3.385	3.373	0.012	99	187255	37.5	34.1	
19 1,1-Dichloroethene	96	3.519	3.507	0.012	96	193521	5.00	4.77	
21 112TCTFE	101	3.550	3.538	0.012	93	204191	5.00	4.57	
20 Acetone	43	3.556	3.550	0.006	94	271873	37.5	31.2	
22 Iodomethane	142	3.708	3.696	0.012	99	340100	5.00	4.07	
23 Isopropyl alcohol	45	3.714	3.702	0.012	96	42488	37.5	33.2	
24 Ethyl bromide	108	3.739	3.727	0.012	98	166347	4.93	4.68	
25 Carbon disulfide	76	3.806	3.794	0.012	99	702452	5.00	4.94	
26 Methyl acetate	43	3.977	3.964	0.013	98	95412	5.00	4.63	
27 3-Chloro-1-propene	41	3.989	3.977	0.012	90	358527	5.00	5.33	
28 Methylene Chloride	84	4.172	4.166	0.006	96	227177	5.00	4.99	
* 29 t-Butyl alcohol-d10 (IS)	65	4.196	4.184	0.012	93	155826	50.0	50.0	M
30 2-Methyl-2-propanol	59	4.324	4.306	0.018	98	112518	50.0	40.6	
31 Acrylonitrile	53	4.531	4.519	0.012	98	237912	25.0	25.4	
32 Methyl tert-butyl ether	73	4.580	4.568	0.012	92	569310	5.00	4.57	
33 trans-1,2-Dichloroethene	96	4.580	4.574	0.006	96	221063	5.00	4.83	
34 Hexane	57	5.007	5.001	0.006	95	342384	5.00	5.68	
36 1,1-Dichloroethane	63	5.257	5.245	0.012	96	419621	5.00	4.87	
37 Isopropyl ether	45	5.312	5.306	0.006	93	785487	5.00	5.13	
38 2-Chloro-1,3-butadiene	53	5.367	5.354	0.013	93	367392	5.00	4.63	
39 Tert-butyl ethyl ether	59	5.842	5.836	0.006	98	722205	5.00	4.81	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
40 2-Butanone (MEK)	43	6.055	6.049	0.006	100	533768	37.5	35.7	
41 cis-1,2-Dichloroethene	96	6.092	6.086	0.006	84	265716	5.00	5.01	
42 2,2-Dichloropropane	77	6.104	6.092	0.012	91	346711	5.00	4.57	
44 Propionitrile	54	6.147	6.147	0.000	98	135928	37.5	39.9	
46 Methacrylonitrile	67	6.366	6.360	0.006	94	468481	37.5	36.0	
48 Chlorobromomethane	128	6.421	6.415	0.006	97	105717	5.00	4.21	
47 Tetrahydrofuran	71	6.415	6.421	-0.006	77	94536	25.0	24.2	
50 Chloroform	83	6.574	6.568	0.006	94	424083	5.00	4.58	
\$ 52 Dibromofluoromethane (Surr)	113	6.793	6.787	0.006	93	466959	10.0	9.15	
51 1,1,1-Trichloroethane	97	6.799	6.793	0.006	98	353488	5.00	4.17	
53 Cyclohexane	56	6.891	6.885	0.006	93	410829	5.00	5.59	
56 Carbon tetrachloride	117	7.007	6.994	0.013	96	304377	5.00	4.01	
55 1,1-Dichloropropene	75	7.007	7.007	0.001	94	326535	5.00	4.77	
57 Isobutyl alcohol	41	7.177	7.171	0.006	94	97784	125.0	92.0	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.238	7.232	0.006	0	95292	10.0	9.80	
59 Benzene	78	7.275	7.269	0.006	97	943611	5.00	4.94	
60 1,2-Dichloroethane	62	7.348	7.342	0.006	98	285644	5.00	4.14	
62 Tert-amyl methyl ether	73	7.464	7.464	0.000	97	643787	5.00	4.77	
* 63 Fluorobenzene (IS)	96	7.677	7.677	0.000	98	1911400	10.0	10.0	
64 n-Heptane	43	7.689	7.683	0.006	93	404834	5.00	5.81	
65 n-Butanol	56	8.061	8.055	0.006	92	211240	250.0	248.4	
67 Trichloroethene	95	8.153	8.153	0.000	97	243602	5.00	4.58	
68 Methylcyclohexane	83	8.464	8.457	0.007	94	412123	5.00	5.27	
69 1,2-Dichloropropane	63	8.494	8.488	0.006	93	255077	5.00	5.27	
70 2-ethoxy-2-methyl butane	87	8.500	8.494	0.006	91	360184	5.00	4.83	
72 1,4-Dioxane	88	8.579	8.579	0.000	29	25243	125.0	133.8	M
71 Methyl methacrylate	69	8.579	8.579	0.000	92	124411	5.00	4.73	
73 Dibromomethane	93	8.604	8.598	0.006	96	121968	5.00	4.37	
75 Dichlorobromomethane	83	8.835	8.835	0.000	99	309776	5.00	4.48	
76 2-Nitropropane	41	9.122	9.122	0.000	99	37096	5.00	3.38	
78 2-Chloroethyl vinyl ether	63		9.201				ND	ND	
79 1-Bromo-2-chloroethane	63	9.232	9.232	0.000	99	263293	5.00	4.96	
80 cis-1,3-Dichloropropene	75	9.390	9.390	0.000	93	370417	5.00	4.84	
81 4-Methyl-2-pentanone (MIBK)	43	9.573	9.567	0.006	98	909941	25.0	23.3	
\$ 82 Toluene-d8 (Surr)	98	9.695	9.695	0.000	95	1894289	10.0	9.94	
83 Toluene	92	9.774	9.774	0.000	98	600790	5.00	4.99	
84 trans-1,3-Dichloropropene	75	10.036	10.030	0.006	96	315894	5.00	4.62	
85 Ethyl methacrylate	69	10.097	10.097	0.000	90	265798	5.00	5.00	
86 1,1,2-Trichloroethane	97	10.238	10.238	0.000	92	182278	5.00	4.93	
88 Tetrachloroethene	166	10.323	10.317	0.006	96	255885	5.00	4.35	
89 1,3-Dichloropropane	76	10.402	10.402	0.000	94	304050	5.00	4.77	
91 2-Hexanone	43	10.457	10.457	0.000	98	666491	25.0	23.5	
93 Chlorodibromomethane	129	10.616	10.609	0.007	91	213545	5.00	4.46	
94 Ethylene Dibromide	107	10.725	10.719	0.006	99	169739	5.00	4.56	
* 95 Chlorobenzene-d5 (IS)	117	11.158	11.152	0.006	88	1456386	10.0	10.0	
96 1-Chlorohexane	91	11.164	11.164	0.000	97	334120	5.00	4.48	
97 Chlorobenzene	112	11.183	11.183	0.000	93	666696	5.00	4.68	
98 1,1,1,2-Tetrachloroethane	131	11.262	11.262	0.000	94	231102	5.00	4.32	
99 Ethylbenzene	91	11.268	11.268	0.000	99	1178993	5.00	4.71	
100 m-Xylene & p-Xylene	106	11.384	11.384	0.000	0	887183	10.0	9.54	
102 o-Xylene	106	11.713	11.713	0.000	98	433005	5.00	4.76	
103 Styrene	104	11.725	11.725	0.000	94	739366	5.00	4.93	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 Bromoform	173	11.884	11.884	0.000	96	125576	5.00	4.16	
105 Isopropylbenzene	105	12.012	12.012	0.000	96	1146398	5.00	4.71	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	88	692573	10.0	9.78	
109 1,1,2,2-Tetrachloroethane	83	12.255	12.255	0.000	93	233805	5.00	5.20	
110 Bromobenzene	156	12.268	12.268	0.000	97	279505	5.00	4.69	
111 trans-1,4-Dichloro-2-butene	53	12.286	12.280	0.006	94	352119	25.0	22.5	
112 1,2,3-Trichloropropane	110	12.304	12.304	0.000	85	63405	5.00	5.03	
113 N-Propylbenzene	91	12.335	12.335	0.000	99	1425546	5.00	5.17	
114 2-Chlorotoluene	126	12.414	12.414	0.000	96	269607	5.00	4.92	
115 1,3,5-Trimethylbenzene	105	12.475	12.475	0.000	93	979546	5.00	5.11	
116 4-Chlorotoluene	126	12.505	12.505	0.000	98	281416	5.00	4.83	
118 tert-Butylbenzene	134	12.713	12.713	0.000	94	205528	5.00	4.81	
120 Pentachloroethane	167	12.743	12.743	0.000	89	166794	5.00	4.42	
119 1,2,4-Trimethylbenzene	105	12.755	12.755	0.000	97	1013745	5.00	5.05	
121 sec-Butylbenzene	105	12.877	12.877	0.000	95	1283851	5.00	5.09	
122 1,3-Dichlorobenzene	146	12.975	12.975	0.000	98	544750	5.00	4.72	
123 4-Isopropyltoluene	119	12.981	12.981	0.000	97	1072822	5.00	4.95	
* 124 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	96	742594	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.048	13.048	0.000	93	554059	5.00	4.73	
126 1,2,3-Trimethylbenzene	120	13.060	13.060	0.000	99	432261	5.00	4.92	
127 Benzyl chloride	126	13.127	13.127	0.000	99	84377	5.00	5.02	
129 p-Diethylbenzene	119	13.182	13.182	0.000	91	621489	5.00	4.70	
130 n-Butylbenzene	92	13.274	13.274	0.000	98	572493	5.00	5.08	
131 1,2-Dichlorobenzene	146	13.304	13.304	0.000	97	506823	5.00	4.71	
134 1,2-Dibromo-3-Chloropropane	155	13.847	13.847	0.000	80	29178	5.00	4.48	
135 1,3,5-Trichlorobenzene	180	13.969	13.969	0.000	97	400757	5.00	4.45	
136 1,2,4-Trichlorobenzene	180	14.389	14.389	0.000	94	340589	5.00	4.40	
137 Hexachlorobutadiene	225	14.468	14.468	0.000	97	185294	5.00	4.38	
138 Naphthalene	128	14.572	14.572	0.000	97	577473	5.00	4.57	
139 1,2,3-Trichlorobenzene	180	14.712	14.712	0.000	95	292019	5.00	4.49	
140 2-Methylnaphthalene	142	15.328	15.328	0.000	91	299548	5.00	4.07	

QC Flag Legend

Processing Flags

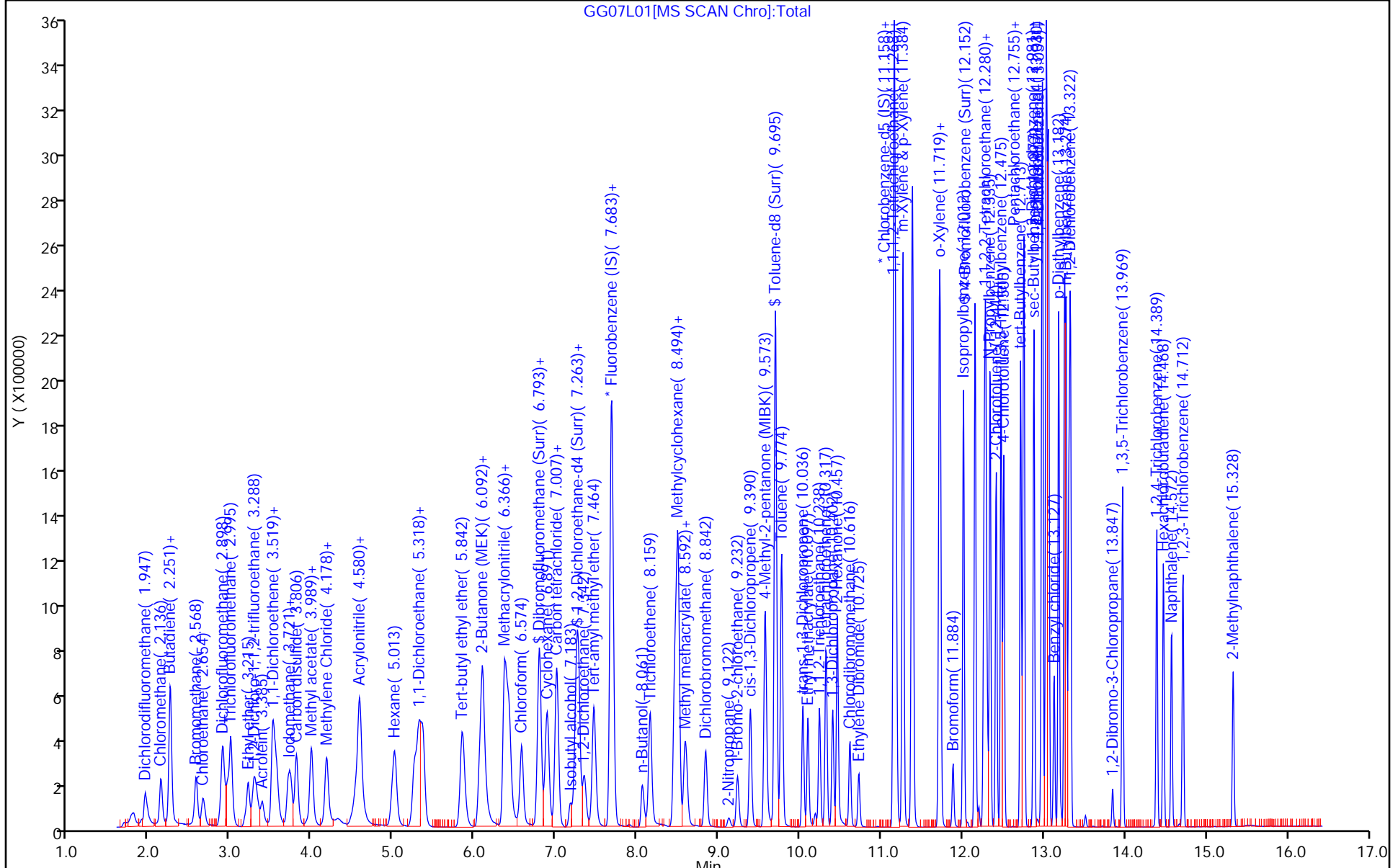
ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MSV_Q_QVOA1_00040	Amount Added: 12.50	Units: uL	
MSV_Q_QARC_00039	Amount Added: 12.50	Units: uL	
MSV_Q_ETBR_00003	Amount Added: 12.50	Units: uL	
MSV_Q_EE_00002	Amount Added: 12.50	Units: uL	
MSV_Q_QVOA6_00038	Amount Added: 12.50	Units: uL	
MSV_QGAS_826_00061	Amount Added: 12.50	Units: uL	
MSV_29_826ISS_00007	Amount Added: 1.00	Units: uL	Run Reagent



GG07L01[MS SCAN Chrom]:Total

Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07L01.D
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 07-Aug-2020 23:11:30 ALS Bottle#: 3 Worklist Smp#: 4
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: LCS
 Misc. Info.: 410-0007550-004
 Operator ID: MEC29284 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 09-Aug-2020 17:31:44 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1057

First Level Reviewer: campbellme Date: 07-Aug-2020 23:37:38

Compound	Amount Added	Amount Recovered	% Rec.
\$ 52 Dibromofluoromethane (Surr)	10.0	9.15	91.45
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	9.80	97.99
\$ 82 Toluene-d8 (Surr)	10.0	9.94	99.36
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.78	97.81

Eurofins Lancaster Laboratories Env, LLC

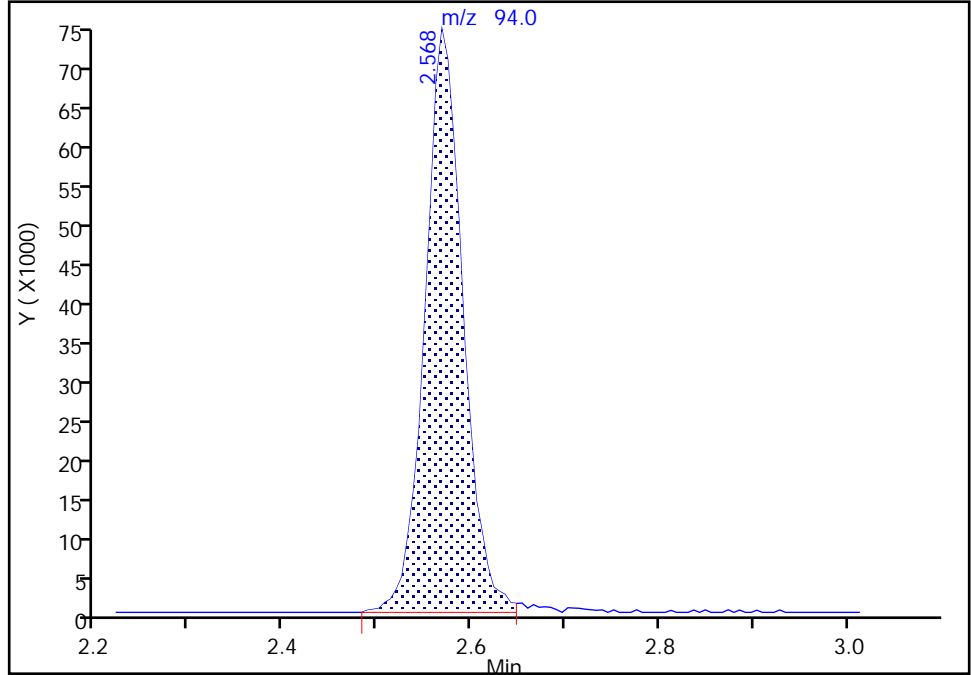
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Injection Date: 07-Aug-2020 23:11:30 Instrument ID: 16334
Lims ID: LCS
Client ID:
Operator ID: MEC29284 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

9 Bromomethane, CAS: 74-83-9

Signal: 1

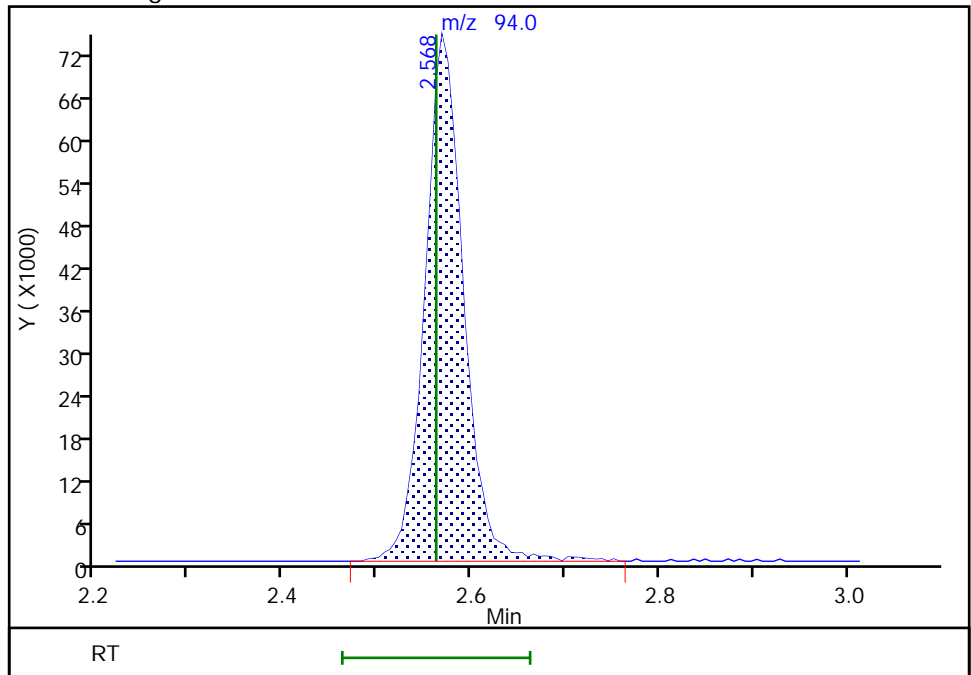
RT: 2.57
Area: 210007
Amount: 3.951569
Amount Units: ug/l

Processing Integration Results



RT: 2.57
Area: 213071
Amount: 4.009223
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 07-Aug-2020 23:36:54

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

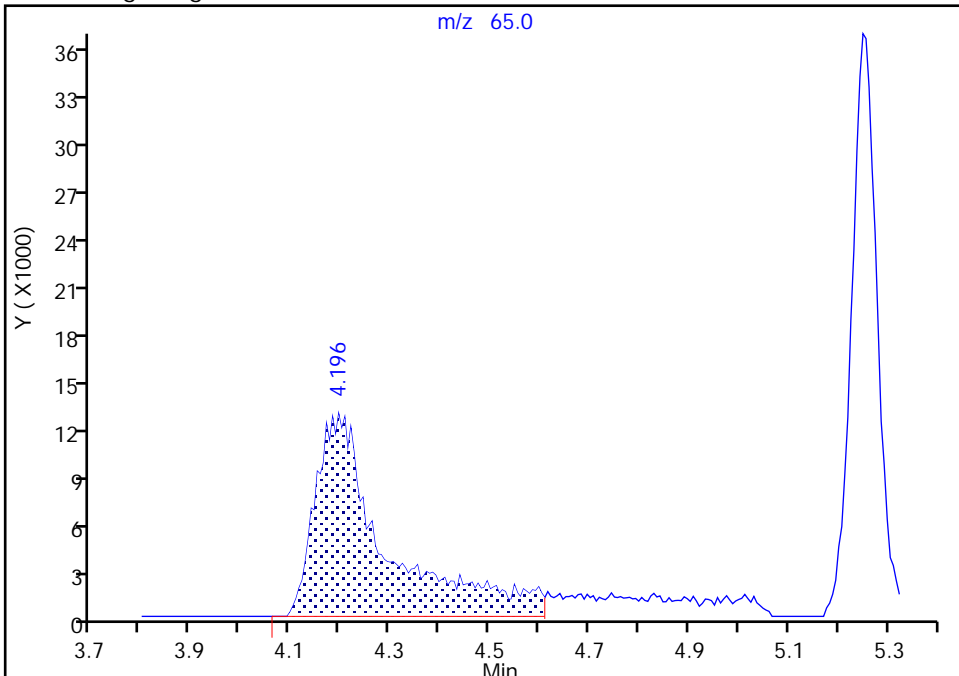
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Injection Date: 07-Aug-2020 23:11:30 Instrument ID: 16334
Lims ID: LCS
Client ID:
Operator ID: MEC29284 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 29 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

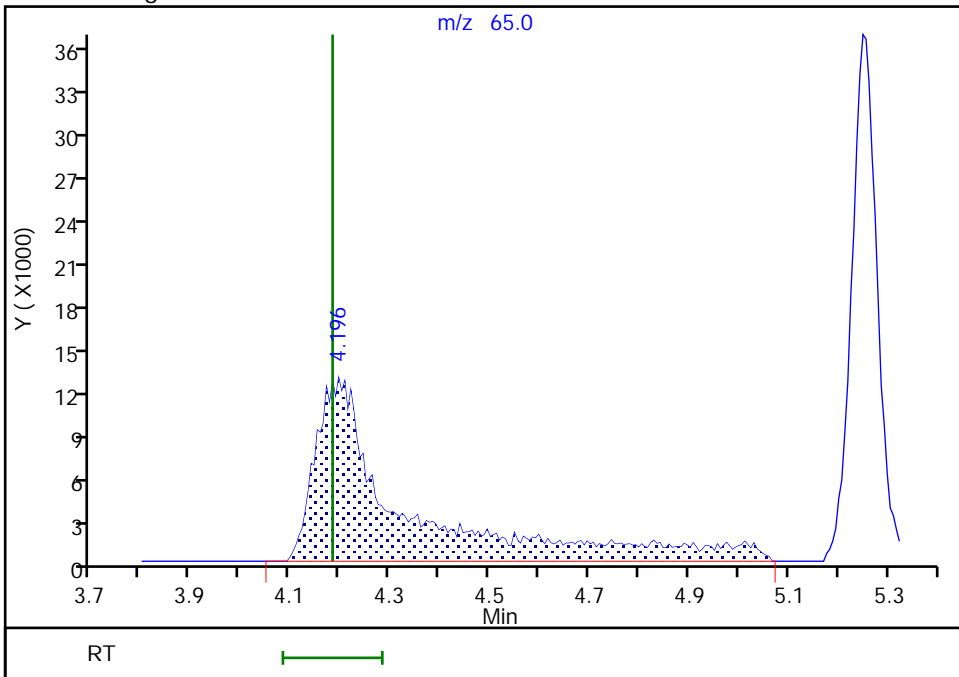
RT: 4.20
Area: 126092
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.20
Area: 155826
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 07-Aug-2020 23:37:06
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 410-31280/4
 Matrix: Water Lab File ID: GG09L01.D
 Analysis Method: 8260D Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 08/10/2020 10:25
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 31280 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	3.94		0.50	0.060
630-20-6	1,1,1,2-Tetrachloroethane	4.14		0.50	0.070
79-34-5	1,1,2,2-Tetrachloroethane	4.92		0.50	0.070
79-00-5	1,1,2-Trichloroethane	4.88		0.50	0.060
75-34-3	1,1-Dichloroethane	4.72		0.50	0.070
75-35-4	1,1-Dichloroethene	4.60		0.50	0.060
107-06-2	1,2-Dichloroethane	4.07		0.50	0.050
78-87-5	1,2-Dichloropropane	5.04		0.50	0.060
78-93-3	2-Butanone (MEK)	36.2		5.0	0.60
591-78-6	2-Hexanone	24.2		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	23.7		5.0	0.70
67-64-1	Acetone	34.1		5.0	0.90
107-13-1	Acrylonitrile	26.2		5.0	0.40
71-43-2	Benzene	4.74		0.50	0.050
75-25-2	Bromoform	3.92		1.0	0.30
74-83-9	Bromomethane	3.94		0.50	0.070
75-15-0	Carbon disulfide	4.73		1.0	0.060
56-23-5	Carbon tetrachloride	3.68		0.50	0.070
108-90-7	Chlorobenzene	4.56		0.50	0.060
74-97-5	Bromochloromethane	4.26		0.50	0.050
124-48-1	Dibromochloromethane	4.31		0.50	0.070
75-00-3	Chloroethane	4.28		0.50	0.070
67-66-3	Chloroform	4.33		0.50	0.090
74-87-3	Chloromethane	4.09		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	4.86		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	4.60		0.50	0.050
75-27-4	Bromodichloromethane	4.28		0.50	0.050
100-41-4	Ethylbenzene	4.59		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	4.50		0.50	0.060
1634-04-4	Methyl tert-butyl ether	4.48		0.50	0.050
75-09-2	Methylene Chloride	4.82		0.50	0.070
100-42-5	Styrene	4.83		0.50	0.050
127-18-4	Tetrachloroethene	4.27		0.50	0.060
108-88-3	Toluene	4.86		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	4.68		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	4.52		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 410-31280/4
 Matrix: Water Lab File ID: GG09L01.D
 Analysis Method: 8260D Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 08/10/2020 10:25
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 31280 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	4.40		0.50	0.060
75-01-4	Vinyl chloride	4.28		0.50	0.10
1330-20-7	Xylenes, Total	14.1		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		80-120
460-00-4	4-Bromofluorobenzene (Surr)	98		80-120
1868-53-7	Dibromofluoromethane (Surr)	91		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200810-7630.b\GG09L01.D
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 10-Aug-2020 10:25:30 ALS Bottle#: 3 Worklist Smp#: 4
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: LCS
 Misc. Info.: 410-0007630-004
 Operator ID: JKH09052 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20200810-7630.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 10-Aug-2020 13:01:19 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1047

First Level Reviewer: howej

Date: 10-Aug-2020 11:41:42

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.946	1.953	-0.007	99	259916	5.00	3.09	M
5 Chloromethane	50	2.142	2.142	0.000	99	319326	5.00	4.09	
6 Butadiene	39	2.251	2.257	-0.006	95	346202	5.00	5.18	
7 Vinyl chloride	62	2.257	2.257	0.000	97	315715	5.00	4.28	M
9 Bromomethane	94	2.574	2.574	0.000	90	221322	5.00	3.94	M
10 Chloroethane	64	2.654	2.660	-0.006	99	179986	5.00	4.28	
11 Dichlorofluoromethane	67	2.898	2.898	0.000	97	422548	5.00	4.24	
13 Trichlorofluoromethane	101	2.958	2.959	-0.001	97	389132	5.00	3.94	
15 Ethyl ether	59	3.208	3.215	-0.007	93	196203	5.01	5.37	
16 1,2-Dichloro-1,1,2-trifluoroethane	67	3.288	3.294	-0.006	94	269997	5.00	4.74	
18 Acrolein	56	3.385	3.385	0.000	99	204169	37.5	36.2	
19 1,1-Dichloroethene	96	3.513	3.519	-0.006	96	196996	5.00	4.60	
20 Acetone	43	3.550	3.556	-0.006	99	305248	37.5	34.1	
21 112TCTFE	101	3.556	3.556	0.000	88	196499	5.00	4.16	
22 Iodomethane	142	3.708	3.708	0.000	99	349941	5.00	3.97	
23 Isopropyl alcohol	45	3.727	3.721	0.006	35	43072	37.5	31.9	
24 Ethyl bromide	108	3.739	3.739	0.000	99	170192	4.93	4.54	
25 Carbon disulfide	76	3.806	3.806	0.000	99	709978	5.00	4.73	
26 Methyl acetate	43	3.964	3.964	0.000	98	106499	5.00	5.03	
27 3-Chloro-1-propene	41	3.989	3.989	0.000	89	366424	5.00	5.16	
28 Methylene Chloride	84	4.172	4.178	-0.006	95	231469	5.00	4.82	
* 29 t-Butyl alcohol-d10 (IS)	65	4.196	4.202	-0.006	93	160165	50.0	50.0	M
30 2-Methyl-2-propanol	59	4.324	4.324	0.000	98	143799	50.0	50.4	
31 Acrylonitrile	53	4.519	4.525	-0.006	99	252031	25.0	26.2	
32 Methyl tert-butyl ether	73	4.574	4.574	0.000	97	589137	5.00	4.48	
33 trans-1,2-Dichloroethene	96	4.580	4.586	-0.006	97	226073	5.00	4.68	
34 Hexane	57	5.013	5.007	0.006	95	326231	5.00	5.13	
36 1,1-Dichloroethane	63	5.251	5.257	-0.006	96	429989	5.00	4.72	
37 Isopropyl ether	45	5.306	5.312	-0.006	94	794114	5.00	4.91	
38 2-Chloro-1,3-butadiene	53	5.360	5.360	0.000	93	368804	5.00	4.40	
39 Tert-butyl ethyl ether	59	5.842	5.848	-0.006	98	735248	5.00	4.64	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
40 2-Butanone (MEK)	43	6.062	6.055	0.007	100	555195	37.5	36.2	
41 cis-1,2-Dichloroethene	96	6.092	6.092	0.000	84	272191	5.00	4.86	
42 2,2-Dichloropropane	77	6.104	6.104	0.000	89	350585	5.00	4.38	
44 Propionitrile	54	6.153	6.159	-0.006	98	130882	37.5	37.4	
46 Methacrylonitrile	67	6.372	6.372	0.000	95	505055	37.5	37.8	
48 Chlorobromomethane	128	6.415	6.415	0.000	95	112831	5.00	4.26	
47 Tetrahydrofuran	71	6.427	6.427	0.000	90	102188	25.0	25.4	
50 Chloroform	83	6.574	6.574	0.000	95	423717	5.00	4.33	
\$ 52 Dibromofluoromethane (Surr)	113	6.787	6.793	-0.006	93	488592	10.0	9.06	
51 1,1,1-Trichloroethane	97	6.799	6.799	0.000	98	353073	5.00	3.94	
53 Cyclohexane	56	6.885	6.891	-0.006	94	385278	5.00	4.97	
56 Carbon tetrachloride	117	7.000	7.007	-0.007	95	294828	5.00	3.68	
55 1,1-Dichloropropene	75	7.013	7.013	0.000	96	324432	5.00	4.49	
57 Isobutyl alcohol	41	7.177	7.177	0.000	94	120789	125.0	107.6	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.238	7.244	-0.006	0	100329	10.0	9.77	
59 Benzene	78	7.275	7.275	0.000	97	954393	5.00	4.74	
60 1,2-Dichloroethane	62	7.342	7.348	-0.006	98	296509	5.00	4.07	
62 Tert-amyl methyl ether	73	7.464	7.464	0.000	97	664784	5.00	4.67	
* 63 Fluorobenzene (IS)	96	7.683	7.683	0.000	98	2018109	10.0	10.0	
64 n-Heptane	43	7.683	7.689	-0.006	92	370832	5.00	5.04	
65 n-Butanol	56	8.061	8.061	0.000	91	217457	250.0	248.8	
67 Trichloroethene	95	8.153	8.159	-0.006	98	247099	5.00	4.40	
68 Methylcyclohexane	83	8.464	8.464	0.000	94	415193	5.00	5.03	
69 1,2-Dichloropropane	63	8.488	8.494	-0.006	89	257636	5.00	5.04	
70 2-ethoxy-2-methyl butane	87	8.500	8.500	0.000	90	365092	5.00	4.64	
72 1,4-Dioxane	88	8.579	8.579	0.000	31	27655	125.0	142.6	M
71 Methyl methacrylate	69	8.573	8.579	-0.006	93	128152	5.00	4.74	
73 Dibromomethane	93	8.604	8.598	0.006	96	125019	5.00	4.24	
75 Dichlorobromomethane	83	8.841	8.842	-0.001	98	312942	5.00	4.28	
76 2-Nitropropane	41	9.122	9.122	0.000	99	36680	5.00	3.25	
78 2-Chloroethyl vinyl ether	63		9.201				ND	ND	
79 1-Bromo-2-chloroethane	63	9.232	9.232	0.000	99	271223	5.00	4.84	
80 cis-1,3-Dichloropropene	75	9.390	9.390	0.000	94	371478	5.00	4.60	
81 4-Methyl-2-pentanone (MIBK)	43	9.567	9.573	-0.006	98	950044	25.0	23.7	
\$ 82 Toluene-d8 (Surr)	98	9.695	9.695	0.000	95	1991488	10.0	10.1	
83 Toluene	92	9.774	9.774	0.000	97	605883	5.00	4.86	
84 trans-1,3-Dichloropropene	75	10.036	10.036	0.000	96	319875	5.00	4.52	
85 Ethyl methacrylate	69	10.097	10.097	0.000	90	269556	5.00	4.90	
86 1,1,2-Trichloroethane	97	10.238	10.238	0.000	91	186838	5.00	4.88	
88 Tetrachloroethene	166	10.323	10.317	0.006	97	260206	5.00	4.27	
89 1,3-Dichloropropane	76	10.402	10.402	0.000	93	314531	5.00	4.76	
91 2-Hexanone	43	10.457	10.457	0.000	98	706511	25.0	24.2	
93 Chlorodibromomethane	129	10.616	10.616	0.000	90	213874	5.00	4.31	
94 Ethylene Dibromide	107	10.719	10.719	0.000	99	173248	5.00	4.50	
* 95 Chlorobenzene-d5 (IS)	117	11.152	11.152	0.000	88	1508465	10.0	10.0	
96 1-Chlorohexane	91	11.164	11.164	0.000	96	327762	5.00	4.25	
97 Chlorobenzene	112	11.182	11.183	-0.001	93	672811	5.00	4.56	
98 1,1,1,2-Tetrachloroethane	131	11.262	11.262	0.000	94	229252	5.00	4.14	
99 Ethylbenzene	91	11.268	11.268	0.000	99	1188073	5.00	4.59	
100 m-Xylene & p-Xylene	106	11.384	11.384	0.000	0	907963	10.0	9.43	
102 o-Xylene	106	11.713	11.713	0.000	98	440027	5.00	4.67	
103 Styrene	104	11.725	11.725	0.000	94	749475	5.00	4.83	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 Bromoform	173	11.884	11.884	0.000	96	122489	5.00	3.92	
105 Isopropylbenzene	105	12.012	12.012	0.000	96	1163201	5.00	4.62	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	89	720069	10.0	9.82	
109 1,1,2,2-Tetrachloroethane	83	12.255	12.255	0.000	94	234297	5.00	4.92	
110 Bromobenzene	156	12.268	12.268	0.000	98	285847	5.00	4.53	
111 trans-1,4-Dichloro-2-butene	53	12.280	12.280	0.000	93	308569	25.0	19.1	
112 1,2,3-Trichloropropane	110	12.304	12.304	0.000	85	63381	5.00	4.75	
113 N-Propylbenzene	91	12.335	12.335	0.000	99	1444012	5.00	4.94	
114 2-Chlorotoluene	126	12.414	12.414	0.000	96	273348	5.00	4.71	
115 1,3,5-Trimethylbenzene	105	12.469	12.469	0.000	94	1000493	5.00	4.92	
116 4-Chlorotoluene	126	12.505	12.505	0.000	98	284898	5.00	4.62	
118 tert-Butylbenzene	134	12.713	12.713	0.000	93	202127	5.00	4.47	
120 Pentachloroethane	167	12.743	12.743	0.000	87	169624	5.00	4.25	
119 1,2,4-Trimethylbenzene	105	12.755	12.755	0.000	97	1026498	5.00	4.83	
121 sec-Butylbenzene	105	12.877	12.877	0.000	95	1291672	5.00	4.83	
122 1,3-Dichlorobenzene	146	12.975	12.975	0.000	97	568450	5.00	4.65	
123 4-Isopropyltoluene	119	12.981	12.981	0.000	97	1091734	5.00	4.76	
* 124 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	96	786390	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.048	13.048	0.000	94	583035	5.00	4.70	
126 1,2,3-Trimethylbenzene	120	13.060	13.060	0.000	99	465193	5.00	5.00	
127 Benzyl chloride	126	13.127	13.127	0.000	99	84652	5.00	4.76	
129 p-Diethylbenzene	119	13.182	13.182	0.000	91	671445	5.00	4.80	
130 n-Butylbenzene	92	13.274	13.274	0.000	97	580165	5.00	4.86	
131 1,2-Dichlorobenzene	146	13.304	13.304	0.000	97	520755	5.00	4.57	
134 1,2-Dibromo-3-Chloropropane	155	13.847	13.847	0.000	81	29152	5.00	4.23	
135 1,3,5-Trichlorobenzene	180	13.969	13.969	0.000	96	412900	5.00	4.33	
136 1,2,4-Trichlorobenzene	180	14.389	14.389	0.000	94	355548	5.00	4.33	
137 Hexachlorobutadiene	225	14.468	14.468	0.000	97	188985	5.00	4.22	
138 Naphthalene	128	14.566	14.566	0.000	97	592805	5.00	4.43	
139 1,2,3-Trichlorobenzene	180	14.712	14.712	0.000	95	290461	5.00	4.22	
140 2-Methylnaphthalene	142	15.328	15.328	0.000	91	281514	5.00	3.61	

QC Flag Legend

Processing Flags

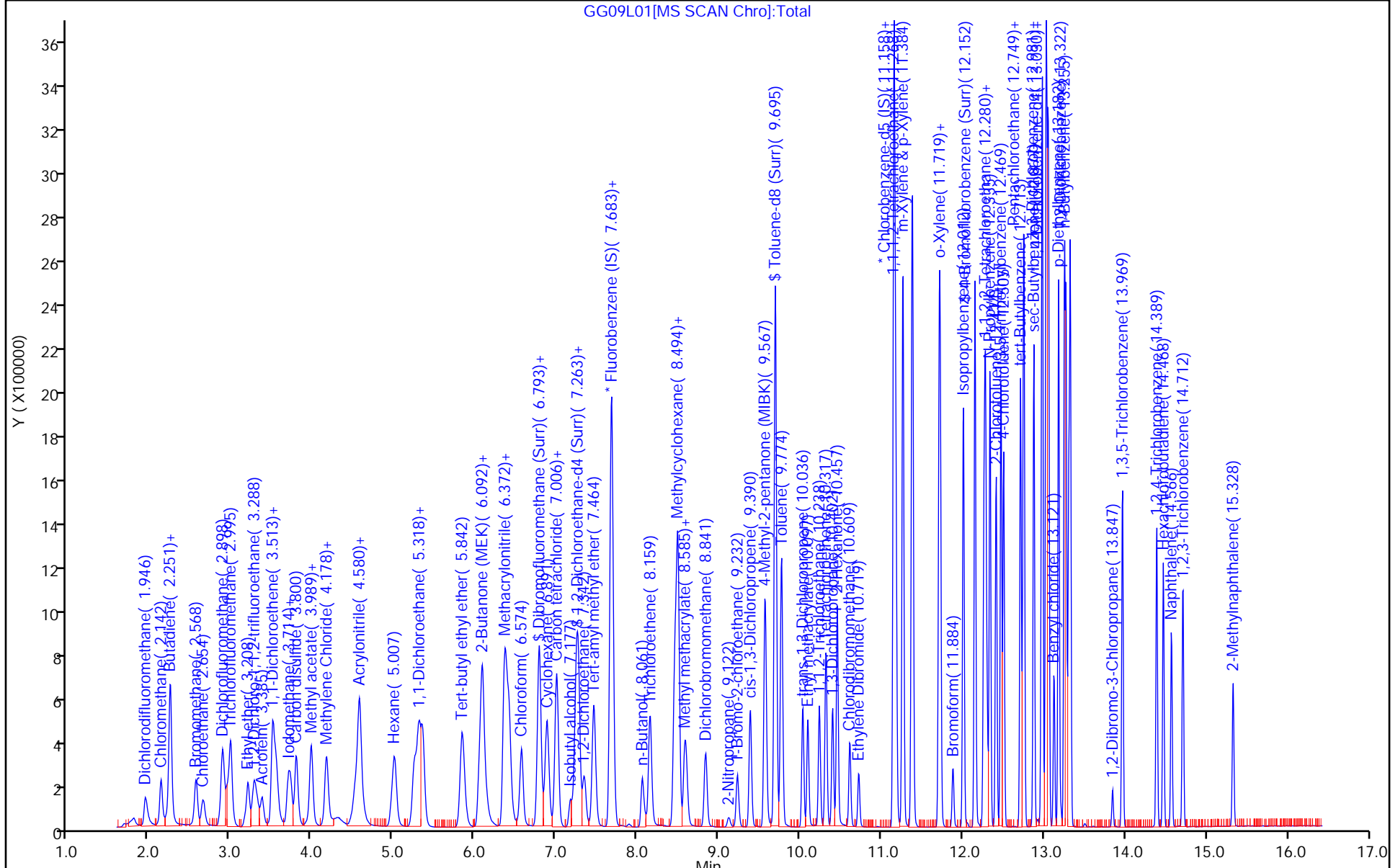
ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MSV_Q_QVOA1_00041	Amount Added: 12.50	Units: uL	
MSV_Q_QARC_00040	Amount Added: 12.50	Units: uL	
MSV_Q_ETBR_00003	Amount Added: 12.50	Units: uL	
MSV_Q_EE_00002	Amount Added: 12.50	Units: uL	
MSV_Q_QVOA6_00038	Amount Added: 12.50	Units: uL	
MSV_QGAS_826_00062	Amount Added: 12.50	Units: uL	
MSV_29_826ISS_00007	Amount Added: 1.00	Units: uL	Run Reagent



GG09L01[MS SCAN Chrom]:Total

Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200810-7630.b\GG09L01.D
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 10-Aug-2020 10:25:30 ALS Bottle#: 3 Worklist Smp#: 4
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: LCS
 Misc. Info.: 410-0007630-004
 Operator ID: JKH09052 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20200810-7630.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 10-Aug-2020 13:01:19 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1047

First Level Reviewer: howej Date: 10-Aug-2020 11:41:42

Compound	Amount Added	Amount Recovered	% Rec.
\$ 52 Dibromofluoromethane (Surr)	10.0	9.06	90.63
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	9.77	97.72
\$ 82 Toluene-d8 (Surr)	10.0	10.1	100.85
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.82	98.19

Eurofins Lancaster Laboratories Env, LLC

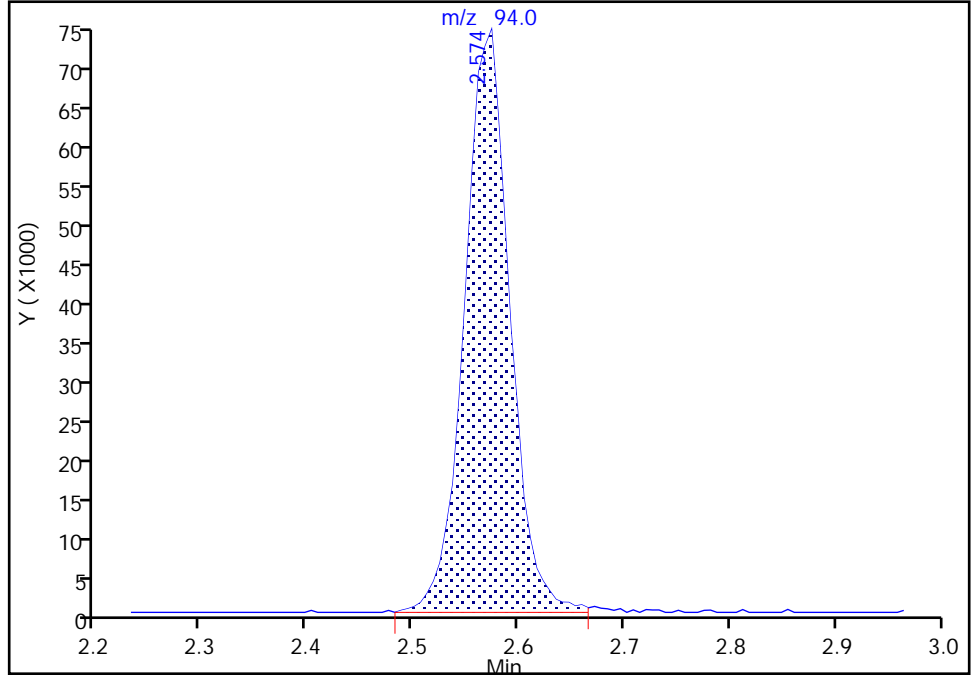
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Injection Date: 10-Aug-2020 10:25:30 Instrument ID: 16334
Lims ID: LCS
Client ID:
Operator ID: JKH09052 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

9 Bromomethane, CAS: 74-83-9

Signal: 1

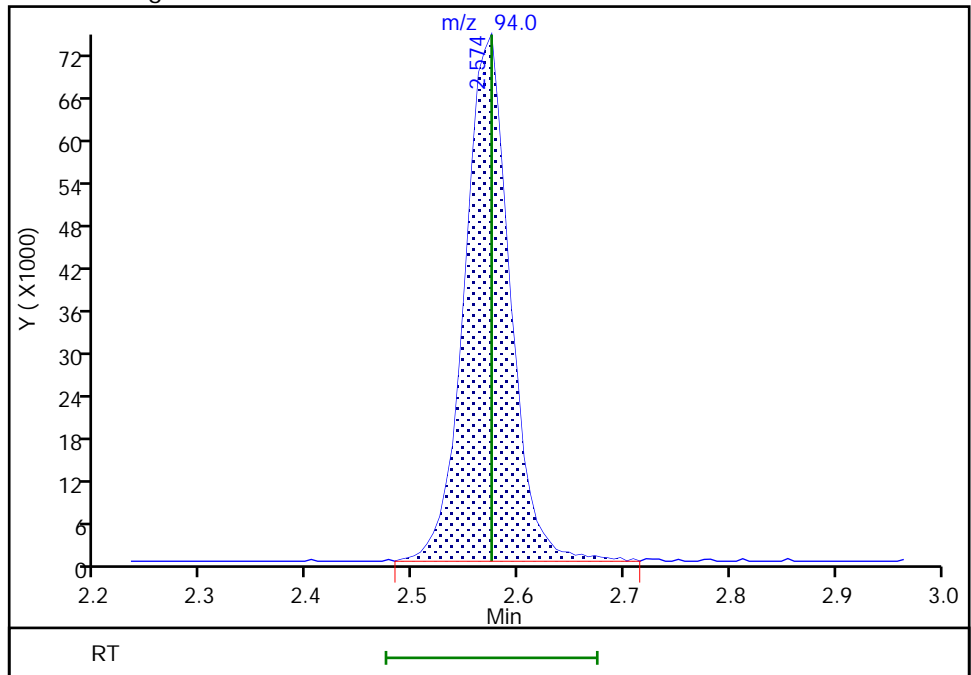
RT: 2.57
Area: 220302
Amount: 3.926099
Amount Units: ug/l

Processing Integration Results



RT: 2.57
Area: 221322
Amount: 3.944277
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 10-Aug-2020 11:40:48
Audit Action: Manually Integrated

Audit Reason: Other
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Eurofins Lancaster Laboratories Env, LLC

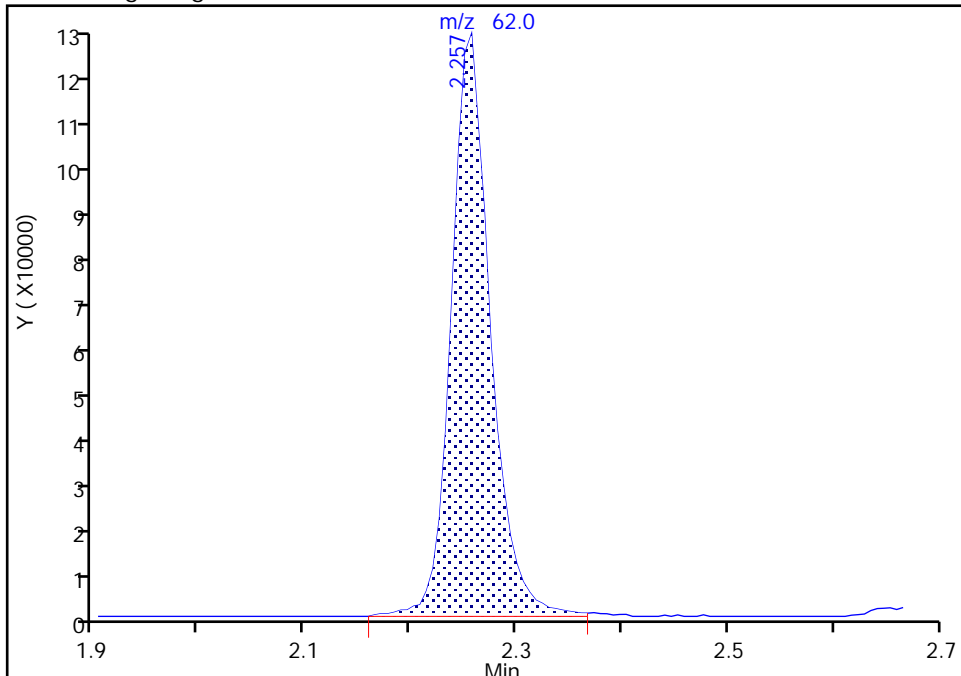
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Injection Date: 10-Aug-2020 10:25:30 Instrument ID: 16334
Lims ID: LCS
Client ID:
Operator ID: JKH09052 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

7 Vinyl chloride, CAS: 75-01-4

Signal: 1

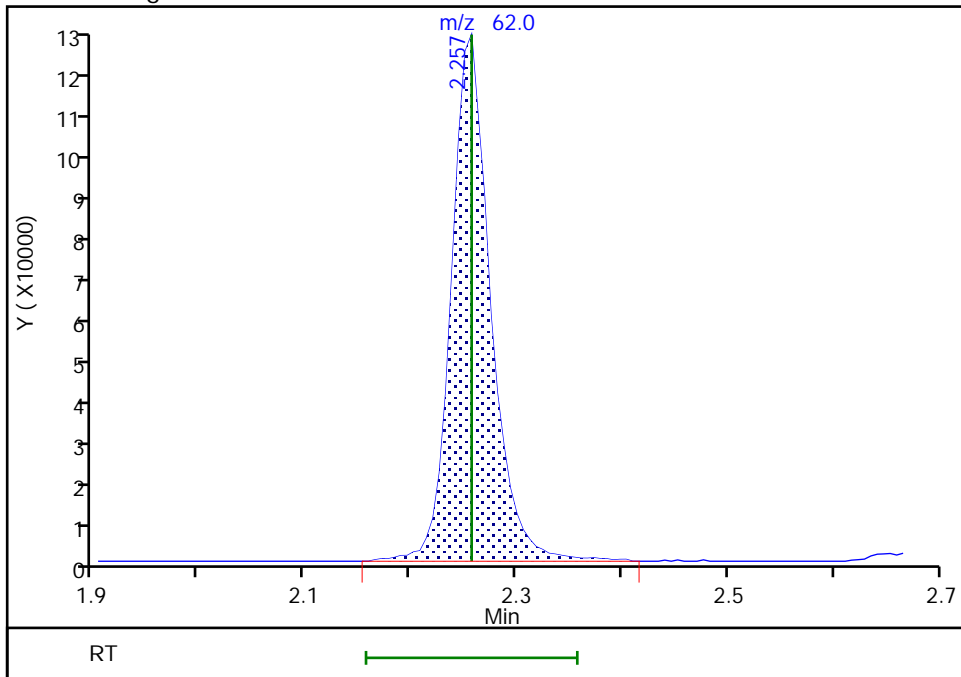
RT: 2.26
Area: 314578
Amount: 4.266566
Amount Units: ug/l

Processing Integration Results



RT: 2.26
Area: 315715
Amount: 4.281987
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 10-Aug-2020 11:40:42
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

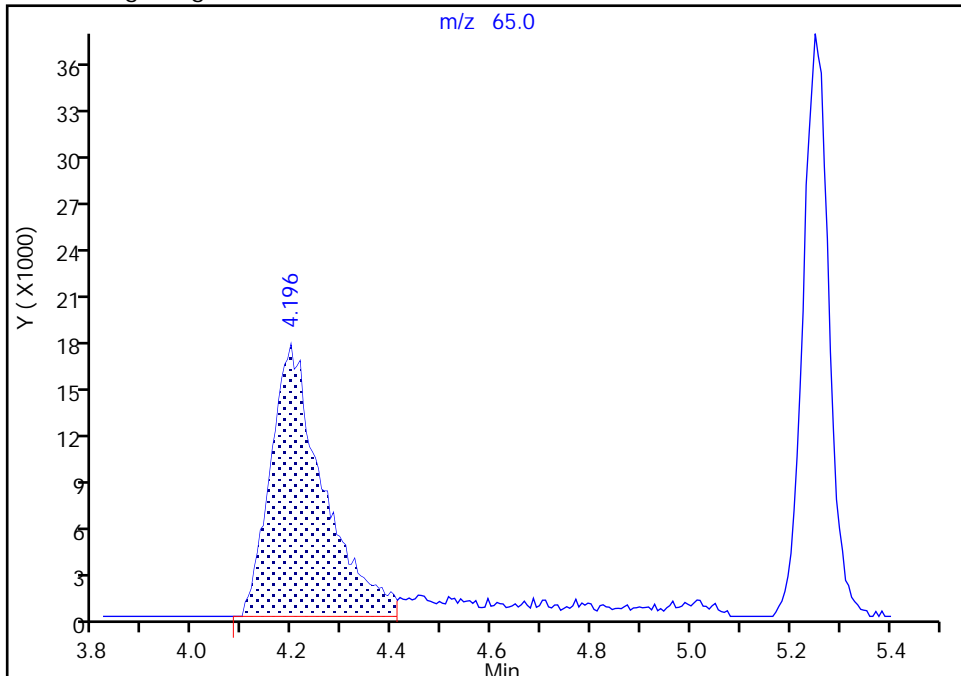
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Injection Date: 10-Aug-2020 10:25:30 Instrument ID: 16334
Lims ID: LCS
Client ID:
Operator ID: JKH09052 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 29 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

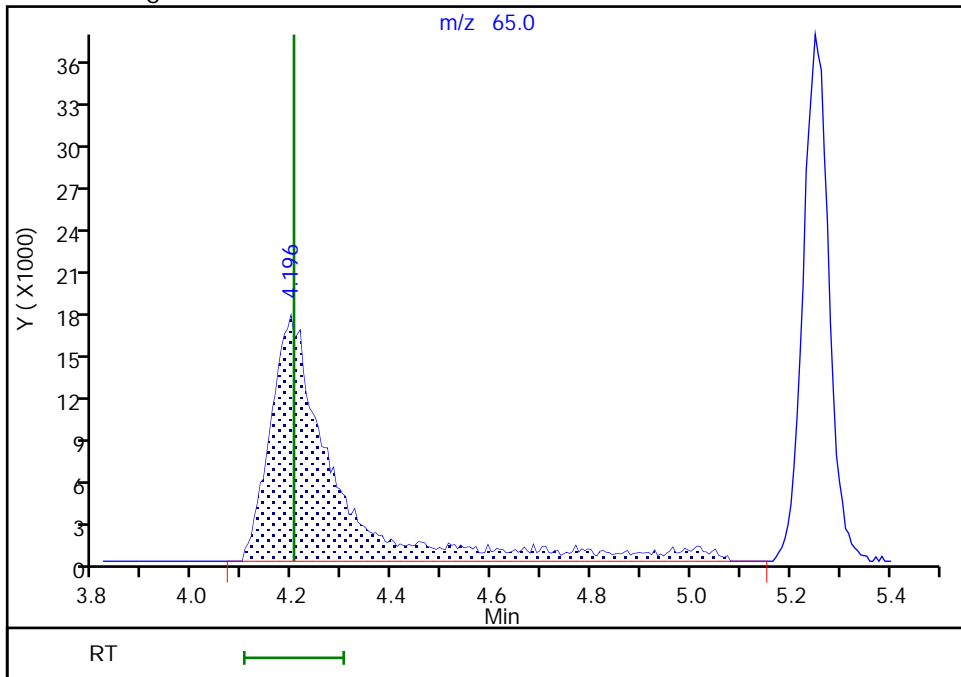
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Area: 129736
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.20
Area: 160165
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 10-Aug-2020 11:41:08
Audit Action: Manually Integrated

Audit Reason: Other
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FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCSD 410-31280/5
 Matrix: Water Lab File ID: GG09L02.D
 Analysis Method: 8260D Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 08/10/2020 10:47
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 31280 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	3.90		0.50	0.060
630-20-6	1,1,1,2-Tetrachloroethane	4.13		0.50	0.070
79-34-5	1,1,2,2-Tetrachloroethane	5.06		0.50	0.070
79-00-5	1,1,2-Trichloroethane	4.85		0.50	0.060
75-34-3	1,1-Dichloroethane	4.57		0.50	0.070
75-35-4	1,1-Dichloroethene	4.50		0.50	0.060
107-06-2	1,2-Dichloroethane	4.00		0.50	0.050
78-87-5	1,2-Dichloropropane	5.01		0.50	0.060
78-93-3	2-Butanone (MEK)	33.5		5.0	0.60
591-78-6	2-Hexanone	22.1		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	21.7		5.0	0.70
67-64-1	Acetone	31.9		5.0	0.90
107-13-1	Acrylonitrile	24.7		5.0	0.40
71-43-2	Benzene	4.62		0.50	0.050
75-25-2	Bromoform	3.89		1.0	0.30
74-83-9	Bromomethane	3.82		0.50	0.070
75-15-0	Carbon disulfide	4.61		1.0	0.060
56-23-5	Carbon tetrachloride	3.65		0.50	0.070
108-90-7	Chlorobenzene	4.49		0.50	0.060
74-97-5	Bromochloromethane	4.20		0.50	0.050
124-48-1	Dibromochloromethane	4.28		0.50	0.070
75-00-3	Chloroethane	4.26		0.50	0.070
67-66-3	Chloroform	4.24		0.50	0.090
74-87-3	Chloromethane	4.10		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	4.77		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	4.56		0.50	0.050
75-27-4	Bromodichloromethane	4.23		0.50	0.050
100-41-4	Ethylbenzene	4.55		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	4.49		0.50	0.060
1634-04-4	Methyl tert-butyl ether	4.45		0.50	0.050
75-09-2	Methylene Chloride	4.76		0.50	0.070
100-42-5	Styrene	4.81		0.50	0.050
127-18-4	Tetrachloroethene	4.21		0.50	0.060
108-88-3	Toluene	4.71		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	4.66		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	4.52		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCSD 410-31280/5
 Matrix: Water Lab File ID: GG09L02.D
 Analysis Method: 8260D Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 08/10/2020 10:47
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 31280 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	4.26		0.50	0.060
75-01-4	Vinyl chloride	4.21		0.50	0.10
1330-20-7	Xylenes, Total	14.0		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		80-120
460-00-4	4-Bromofluorobenzene (Surr)	98		80-120
1868-53-7	Dibromofluoromethane (Surr)	91		80-120
2037-26-5	Toluene-d8 (Surr)	102		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200810-7630.b\GG09L02.D
 Lims ID: LCSD
 Client ID:
 Sample Type: LCSD
 Inject. Date: 10-Aug-2020 10:47:30 ALS Bottle#: 4 Worklist Smp#: 5
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: LCSD
 Misc. Info.: 410-0007630-005
 Operator ID: JKH09052 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20200810-7630.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 10-Aug-2020 13:01:19 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1047

First Level Reviewer: howej

Date: 10-Aug-2020 11:54:30

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.953	1.953	0.000	99	255090	5.00	3.00	
5 Chloromethane	50	2.148	2.142	0.006	99	323330	5.00	4.10	
6 Butadiene	39	2.258	2.257	0.001	95	353222	5.00	5.24	
7 Vinyl chloride	62	2.258	2.257	0.001	98	313187	5.00	4.21	
9 Bromomethane	94	2.575	2.574	0.001	90	216404	5.00	3.82	M
10 Chloroethane	64	2.660	2.660	0.000	99	180947	5.00	4.26	
11 Dichlorofluoromethane	67	2.898	2.898	0.000	97	420956	5.00	4.19	
13 Trichlorofluoromethane	101	2.965	2.959	0.006	97	380546	5.00	3.82	
15 Ethyl ether	59	3.215	3.215	0.000	93	195227	5.01	5.29	M
16 1,2-Dichloro-1,1,2-trifluoroethane	67	3.300	3.294	0.006	95	264586	5.00	4.60	
18 Acrolein	56	3.385	3.385	0.000	99	208156	37.5	33.5	
19 1,1-Dichloroethene	96	3.519	3.519	0.000	96	194263	5.00	4.50	
20 Acetone	43	3.556	3.556	0.000	99	313446	37.5	31.9	
21 112TCTFE	101	3.550	3.556	-0.006	87	192624	5.00	4.04	
22 Iodomethane	142	3.708	3.708	0.000	99	348594	5.00	3.92	
23 Isopropyl alcohol	45	3.733	3.721	0.012	28	49016	37.5	35.9	
24 Ethyl bromide	108	3.739	3.739	0.000	98	166030	4.93	4.38	
25 Carbon disulfide	76	3.806	3.806	0.000	100	698728	5.00	4.61	
26 Methyl acetate	43	3.965	3.964	0.001	97	103502	5.00	4.44	
27 3-Chloro-1-propene	41	3.989	3.989	0.000	89	363243	5.00	5.07	
28 Methylene Chloride	84	4.178	4.178	0.000	94	230649	5.00	4.76	
* 29 t-Butyl alcohol-d10 (IS)	65	4.208	4.202	0.006	93	176166	50.0	50.0	M
30 2-Methyl-2-propanol	59	4.330	4.324	0.006	97	139164	50.0	44.4	
31 Acrylonitrile	53	4.525	4.525	0.000	98	261759	25.0	24.7	
32 Methyl tert-butyl ether	73	4.580	4.574	0.006	97	590990	5.00	4.45	
33 trans-1,2-Dichloroethene	96	4.586	4.586	0.000	97	227435	5.00	4.66	
34 Hexane	57	5.007	5.007	0.000	95	320146	5.00	4.98	
36 1,1-Dichloroethane	63	5.257	5.257	0.000	96	420090	5.00	4.57	
37 Isopropyl ether	45	5.318	5.312	0.006	94	786702	5.00	4.82	
38 2-Chloro-1,3-butadiene	53	5.361	5.360	0.001	93	358187	5.00	4.24	
39 Tert-butyl ethyl ether	59	5.848	5.848	0.000	98	728986	5.00	4.56	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
40 2-Butanone (MEK)	43	6.062	6.055	0.007	100	565519	37.5	33.5	
41 cis-1,2-Dichloroethene	96	6.092	6.092	0.000	84	269438	5.00	4.77	
42 2,2-Dichloropropane	77	6.098	6.104	-0.006	90	350456	5.00	4.34	
44 Propionitrile	54	6.165	6.159	0.006	98	145141	37.5	37.7	
46 Methacrylonitrile	67	6.373	6.372	0.001	94	494050	37.5	33.6	
48 Chlorobromomethane	128	6.421	6.415	0.006	96	112358	5.00	4.20	
47 Tetrahydrofuran	71	6.427	6.427	0.000	77	102002	25.0	23.1	
50 Chloroform	83	6.580	6.574	0.006	94	418768	5.00	4.24	
\$ 52 Dibromofluoromethane (Surr)	113	6.793	6.793	0.000	93	495735	10.0	9.11	
51 1,1,1-Trichloroethane	97	6.799	6.799	0.000	98	352900	5.00	3.90	
53 Cyclohexane	56	6.891	6.891	0.000	93	384813	5.00	4.91	
56 Carbon tetrachloride	117	7.007	7.007	0.000	94	295136	5.00	3.65	
55 1,1-Dichloropropene	75	7.013	7.013	0.000	95	324074	5.00	4.44	
57 Isobutyl alcohol	41	7.183	7.177	0.006	93	122493	125.0	108.1	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.244	7.244	0.000	0	100570	10.0	9.70	
59 Benzene	78	7.275	7.275	0.000	97	939465	5.00	4.62	
60 1,2-Dichloroethane	62	7.348	7.348	0.000	97	294396	5.00	4.00	
62 Tert-amyl methyl ether	73	7.464	7.464	0.000	97	658569	5.00	4.58	
* 63 Fluorobenzene (IS)	96	7.683	7.683	0.000	98	2037563	10.0	10.0	
64 n-Heptane	43	7.689	7.689	0.000	93	362812	5.00	4.88	
65 n-Butanol	56	8.061	8.061	0.000	92	239461	250.0	249.1	
67 Trichloroethene	95	8.159	8.159	0.000	98	241440	5.00	4.26	
68 Methylcyclohexane	83	8.464	8.464	0.000	94	416311	5.00	5.00	
69 1,2-Dichloropropane	63	8.494	8.494	0.000	94	258668	5.00	5.01	
70 2-ethoxy-2-methyl butane	87	8.506	8.500	0.006	92	368416	5.00	4.63	
72 1,4-Dioxane	88	8.579	8.579	0.000	30	31197	125.0	146.2	M
71 Methyl methacrylate	69	8.579	8.579	0.000	92	129099	5.00	4.34	
73 Dibromomethane	93	8.604	8.598	0.006	96	122530	5.00	4.11	
75 Dichlorobromomethane	83	8.842	8.842	0.000	99	312133	5.00	4.23	
76 2-Nitropropane	41	9.122	9.122	0.000	96	40239	5.00	3.24	
78 2-Chloroethyl vinyl ether	63		9.201				ND	ND	
79 1-Bromo-2-chloroethane	63	9.232	9.232	0.000	99	270058	5.00	4.77	
80 cis-1,3-Dichloropropene	75	9.390	9.390	0.000	94	371675	5.00	4.56	
81 4-Methyl-2-pentanone (MIBK)	43	9.573	9.573	0.000	98	955177	25.0	21.7	
\$ 82 Toluene-d8 (Surr)	98	9.695	9.695	0.000	95	2012962	10.0	10.2	
83 Toluene	92	9.774	9.774	0.000	97	587219	5.00	4.71	
84 trans-1,3-Dichloropropene	75	10.037	10.036	0.000	96	319473	5.00	4.52	
85 Ethyl methacrylate	69	10.097	10.097	0.000	90	267188	5.00	4.86	
86 1,1,2-Trichloroethane	97	10.238	10.238	0.000	92	185792	5.00	4.85	
88 Tetrachloroethene	166	10.317	10.317	0.000	96	256451	5.00	4.21	
89 1,3-Dichloropropane	76	10.402	10.402	0.000	94	317816	5.00	4.81	
91 2-Hexanone	43	10.457	10.457	0.000	98	707210	25.0	22.1	
93 Chlorodibromomethane	129	10.616	10.616	0.000	90	212297	5.00	4.28	
94 Ethylene Dibromide	107	10.719	10.719	0.000	99	172922	5.00	4.49	
* 95 Chlorobenzene-d5 (IS)	117	11.152	11.152	0.000	92	1507692	10.0	10.0	
96 1-Chlorohexane	91	11.164	11.164	0.000	97	324898	5.00	4.21	
97 Chlorobenzene	112	11.183	11.183	0.000	93	662146	5.00	4.49	
98 1,1,1,2-Tetrachloroethane	131	11.262	11.262	0.000	93	228460	5.00	4.13	
99 Ethylbenzene	91	11.268	11.268	0.000	99	1177401	5.00	4.55	
100 m-Xylene & p-Xylene	106	11.384	11.384	0.000	0	897871	10.0	9.33	
102 o-Xylene	106	11.713	11.713	0.000	97	440550	5.00	4.68	
103 Styrene	104	11.725	11.725	0.000	94	746442	5.00	4.81	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 Bromoform	173	11.884	11.884	0.000	96	121769	5.00	3.89	
105 Isopropylbenzene	105	12.012	12.012	0.000	96	1143746	5.00	4.54	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	89	720101	10.0	9.82	
109 1,1,2,2-Tetrachloroethane	83	12.256	12.255	0.001	93	236980	5.00	5.06	
110 Bromobenzene	156	12.268	12.268	0.000	97	283097	5.00	4.57	
111 trans-1,4-Dichloro-2-butene	53	12.280	12.280	0.000	93	305495	25.0	17.2	
112 1,2,3-Trichloropropane	110	12.304	12.304	0.000	85	63683	5.00	4.86	
113 N-Propylbenzene	91	12.335	12.335	0.000	99	1417025	5.00	4.94	
114 2-Chlorotoluene	126	12.414	12.414	0.000	96	268434	5.00	4.71	
115 1,3,5-Trimethylbenzene	105	12.475	12.469	0.006	93	980087	5.00	4.91	
116 4-Chlorotoluene	126	12.506	12.505	0.001	98	278776	5.00	4.60	
118 tert-Butylbenzene	134	12.713	12.713	0.000	93	200060	5.00	4.50	
120 Pentachloroethane	167	12.743	12.743	0.000	87	165676	5.00	4.22	
119 1,2,4-Trimethylbenzene	105	12.755	12.755	0.000	97	1026893	5.00	4.92	
121 sec-Butylbenzene	105	12.877	12.877	0.000	95	1267593	5.00	4.83	
122 1,3-Dichlorobenzene	146	12.975	12.975	0.000	98	549502	5.00	4.58	
123 4-Isopropyltoluene	119	12.981	12.981	0.000	97	1075118	5.00	4.77	
* 124 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	95	772320	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.048	13.048	0.000	93	562271	5.00	4.62	
126 1,2,3-Trimethylbenzene	120	13.060	13.060	0.000	99	460416	5.00	5.04	
127 Benzyl chloride	126	13.127	13.127	0.000	99	84064	5.00	4.81	
129 p-Diethylbenzene	119	13.182	13.182	0.000	91	656147	5.00	4.78	
130 n-Butylbenzene	92	13.274	13.274	0.000	98	566280	5.00	4.83	
131 1,2-Dichlorobenzene	146	13.304	13.304	0.000	97	508305	5.00	4.54	
134 1,2-Dibromo-3-Chloropropane	155	13.847	13.847	0.000	80	29533	5.00	4.36	
135 1,3,5-Trichlorobenzene	180	13.969	13.969	0.000	97	401723	5.00	4.29	
136 1,2,4-Trichlorobenzene	180	14.389	14.389	0.000	94	338818	5.00	4.21	
137 Hexachlorobutadiene	225	14.469	14.468	0.001	97	182172	5.00	4.14	
138 Naphthalene	128	14.572	14.566	0.006	97	592003	5.00	4.51	
139 1,2,3-Trichlorobenzene	180	14.712	14.712	0.000	95	290968	5.00	4.30	
140 2-Methylnaphthalene	142	15.328	15.328	0.000	94	311475	5.00	4.07	

QC Flag Legend

Processing Flags

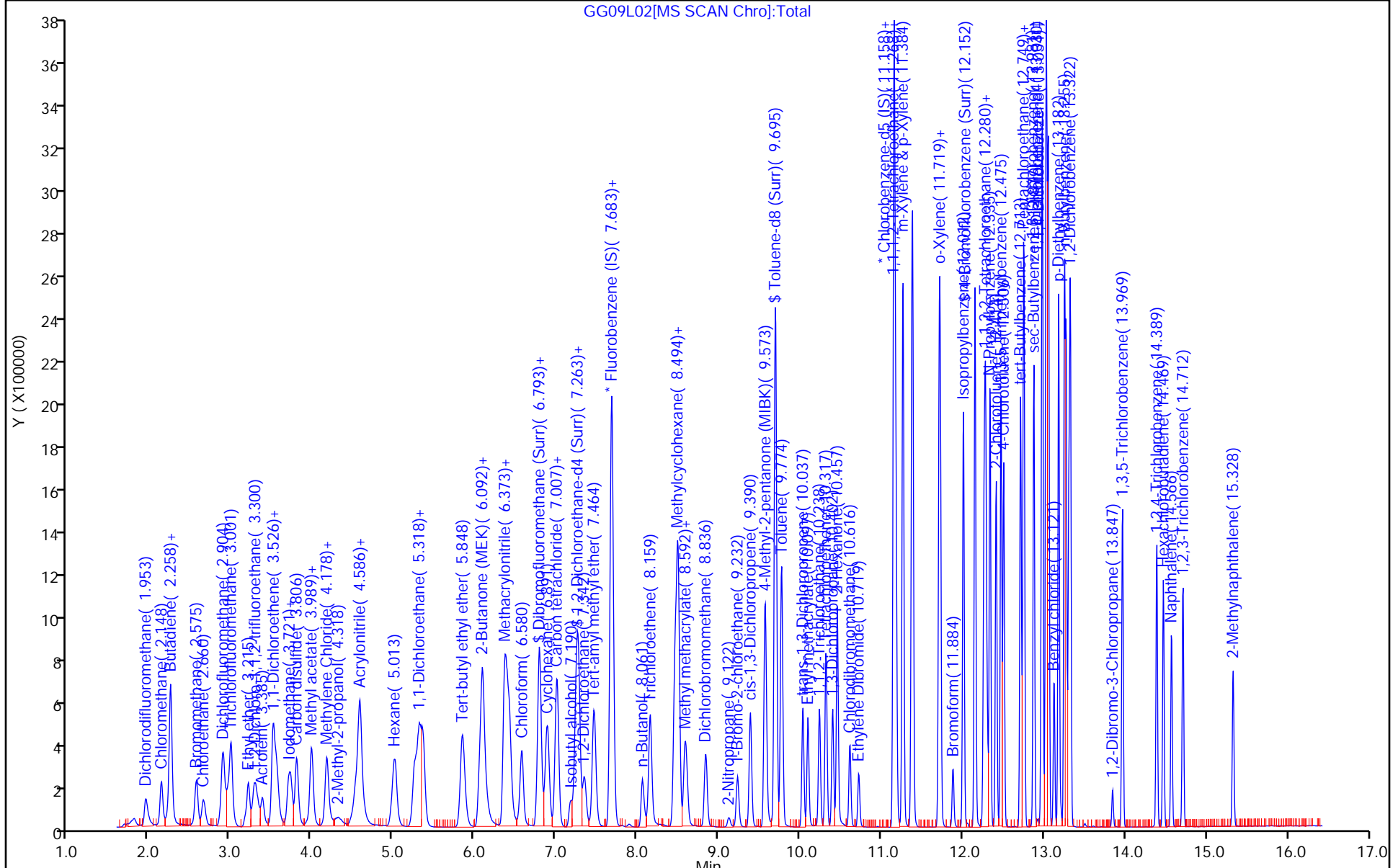
ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MSV_Q_QVOA1_00041	Amount Added: 12.50	Units: uL	
MSV_Q_QARC_00040	Amount Added: 12.50	Units: uL	
MSV_Q_QVOA6_00038	Amount Added: 12.50	Units: uL	
MSV_Q_ETBR_00003	Amount Added: 12.50	Units: uL	
MSV_Q_EE_00002	Amount Added: 12.50	Units: uL	
MSV_QGAS_826_00062	Amount Added: 12.50	Units: uL	
MSV_29_826ISS_00007	Amount Added: 1.00	Units: uL	Run Reagent



GG09L02[MS SCAN Chrom]:Total

Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200810-7630.b\GG09L02.D
 Lims ID: LCSD
 Client ID:
 Sample Type: LCSD
 Inject. Date: 10-Aug-2020 10:47:30 ALS Bottle#: 4 Worklist Smp#: 5
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: LCSD
 Misc. Info.: 410-0007630-005
 Operator ID: JKH09052 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20200810-7630.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 10-Aug-2020 13:01:19 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1047

First Level Reviewer: howej Date: 10-Aug-2020 11:54:30

Compound	Amount Added	Amount Recovered	% Rec.
\$ 52 Dibromofluoromethane (Surr)	10.0	9.11	91.08
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	9.70	97.02
\$ 82 Toluene-d8 (Surr)	10.0	10.2	101.99
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.82	98.24

Eurofins Lancaster Laboratories Env, LLC

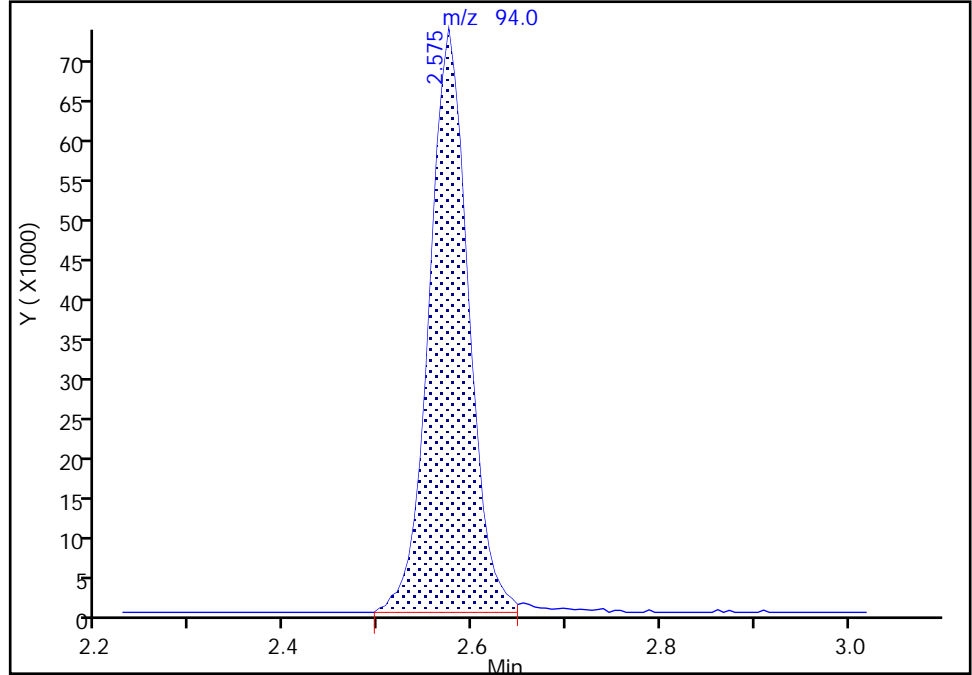
Data File: \\chromfs\Lancaster\ChromData\16334\20200810-7630.b\GG09L02.D
Injection Date: 10-Aug-2020 10:47:30 Instrument ID: 16334
Lims ID: LCSD
Client ID:
Operator ID: JKH09052 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

9 Bromomethane, CAS: 74-83-9

Signal: 1

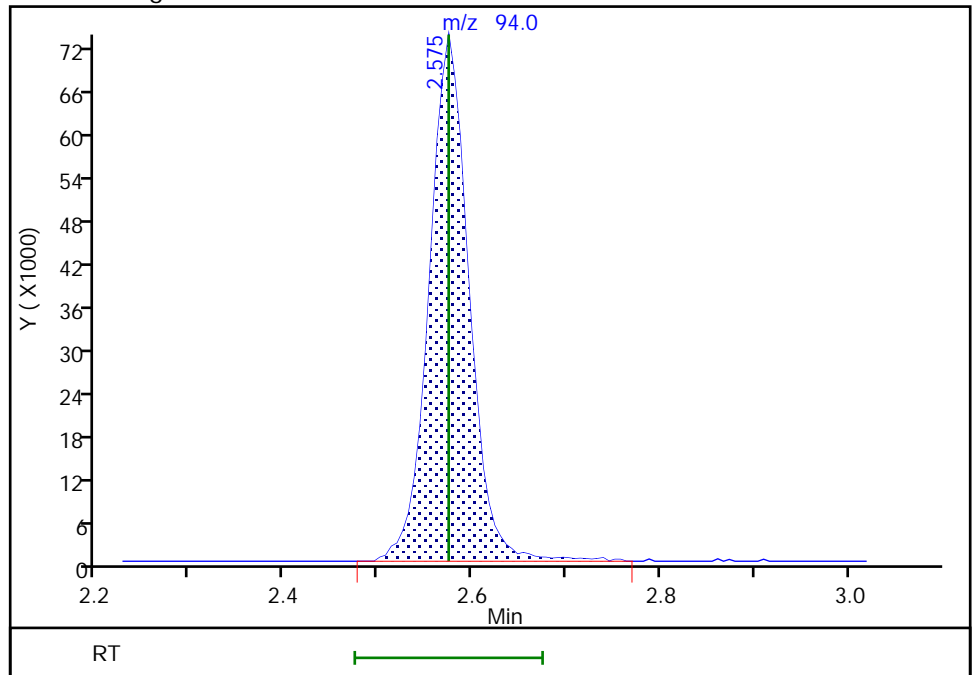
RT: 2.57
Area: 213290
Amount: 3.764843
Amount Units: ug/l

Processing Integration Results



RT: 2.57
Area: 216404
Amount: 3.819809
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 10-Aug-2020 11:42:54
Audit Action: Manually Integrated

Audit Reason: Other

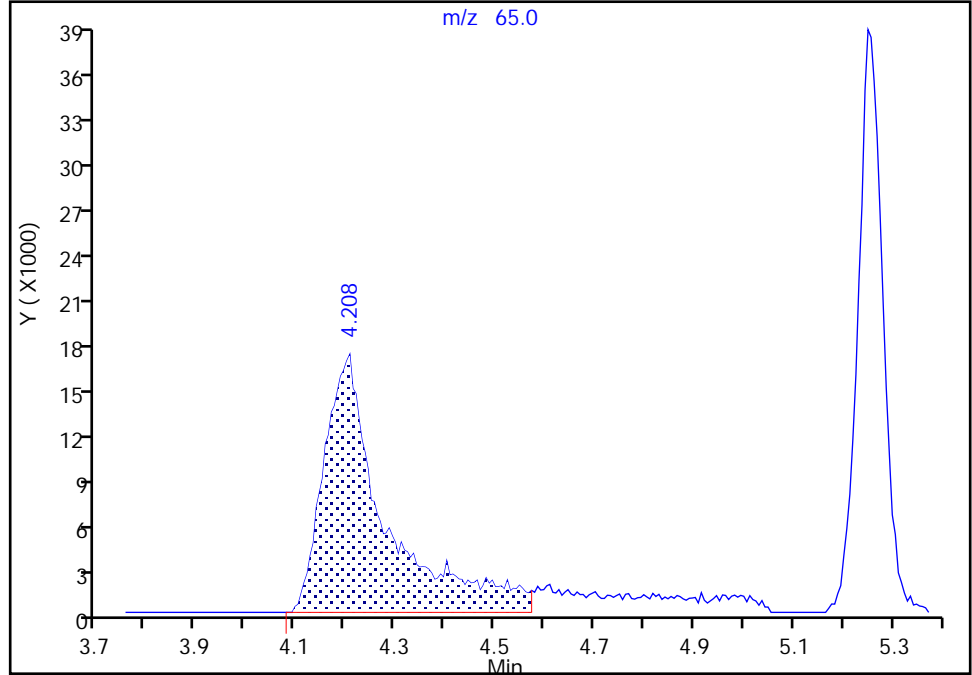
Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20200810-7630.b\GG09L02.D
Injection Date: 10-Aug-2020 10:47:30 Instrument ID: 16334
Lims ID: LCSD
Client ID:
Operator ID: JKH09052 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 29 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2
Signal: 1

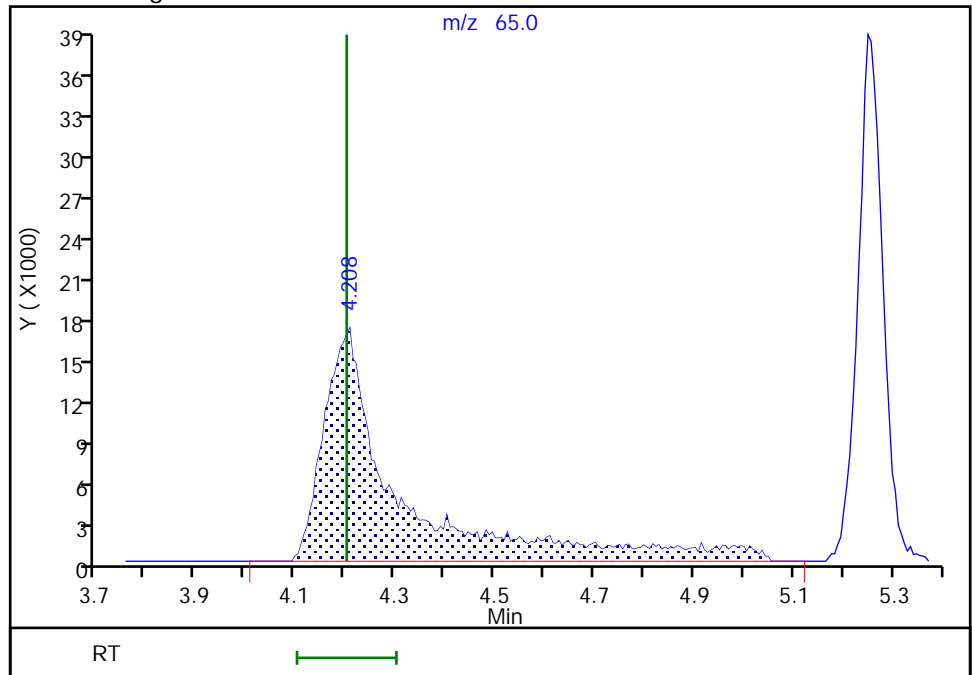
RT: 4.21
Area: 145969
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.21
Area: 176166
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-15-0/1-0 MS MS Lab Sample ID: 410-9077-6 MS
 Matrix: Surface Water Lab File ID: GG07S09.D
 Analysis Method: 8260D Date Collected: 07/28/2020 10:40
 Sample wt/vol: 25 (mL) Date Analyzed: 08/08/2020 03:20
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 30932 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	4.73		0.50	0.060
630-20-6	1,1,1,2-Tetrachloroethane	4.66		0.50	0.070
79-34-5	1,1,2,2-Tetrachloroethane	5.48		0.50	0.070
79-00-5	1,1,2-Trichloroethane	5.27		0.50	0.060
75-34-3	1,1-Dichloroethane	5.43		0.50	0.070
75-35-4	1,1-Dichloroethene	5.31		0.50	0.060
107-06-2	1,2-Dichloroethane	4.46		0.50	0.050
78-87-5	1,2-Dichloropropane	5.55		0.50	0.060
78-93-3	2-Butanone (MEK)	38.9		5.0	0.60
591-78-6	2-Hexanone	27.0		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	24.3		5.0	0.70
67-64-1	Acetone	38.0		5.0	0.90
107-13-1	Acrylonitrile	27.0		5.0	0.40
71-43-2	Benzene	5.32		0.50	0.050
75-25-2	Bromoform	4.41		1.0	0.30
74-83-9	Bromomethane	4.10		0.50	0.070
75-15-0	Carbon disulfide	5.41		1.0	0.060
56-23-5	Carbon tetrachloride	4.45		0.50	0.070
108-90-7	Chlorobenzene	5.04		0.50	0.060
74-97-5	Bromochloromethane	4.26		0.50	0.050
124-48-1	Dibromochloromethane	4.78		0.50	0.070
75-00-3	Chloroethane	4.71		0.50	0.070
67-66-3	Chloroform	5.12		0.50	0.090
74-87-3	Chloromethane	4.48		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	6.10		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	5.10		0.50	0.050
75-27-4	Bromodichloromethane	4.79		0.50	0.050
100-41-4	Ethylbenzene	5.23		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	4.88		0.50	0.060
1634-04-4	Methyl tert-butyl ether	4.63		0.50	0.050
75-09-2	Methylene Chloride	5.20		0.50	0.070
100-42-5	Styrene	5.35		0.50	0.050
127-18-4	Tetrachloroethene	7.37		0.50	0.060
108-88-3	Toluene	5.52		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	5.31		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	4.93		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-9077-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-15-0/1-0 MS MS Lab Sample ID: 410-9077-6 MS
 Matrix: Surface Water Lab File ID: GG07S09.D
 Analysis Method: 8260D Date Collected: 07/28/2020 10:40
 Sample wt/vol: 25 (mL) Date Analyzed: 08/08/2020 03:20
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 30932 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	5.88		0.50	0.060
75-01-4	Vinyl chloride	4.66		0.50	0.10
1330-20-7	Xylenes, Total	15.9		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	90		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S09.D
 Lims ID: 410-9077-A-6 MS
 Client ID: HD-COD-SW-15-0/1-0 MS
 Sample Type: MS
 Inject. Date: 08-Aug-2020 03:20:30 ALS Bottle#: 14 Worklist Smp#: 15
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-9077-a-6 ms
 Misc. Info.: 410-0007550-015
 Operator ID: MEC29284 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 09-Aug-2020 17:32:34 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1057

First Level Reviewer: campbellme

Date: 09-Aug-2020 17:37:38

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.940	1.940	0.000	99	289029	5.00	3.62	M
5 Chloromethane	50	2.136	2.129	0.007	99	331829	5.00	4.48	M
6 Butadiene	39	2.245	2.245	0.000	95	341446	5.00	5.40	
7 Vinyl chloride	62	2.251	2.245	0.006	98	325681	5.00	4.66	
9 Bromomethane	94	2.562	2.562	0.000	92	218110	5.00	4.10	
10 Chloroethane	64	2.654	2.648	0.006	100	187786	5.00	4.71	
11 Dichlorofluoromethane	67	2.891	2.885	0.006	97	443897	5.00	4.70	
13 Trichlorofluoromethane	101	2.952	2.946	0.006	97	418788	5.00	4.48	
15 Ethyl ether	59	3.202	3.196	0.006	93	183988	5.01	5.31	
16 1,2-Dichloro-1,1,2-trifluoroethane	67	3.288	3.282	0.006	94	301935	5.00	5.60	
18 Acrolein	56	3.373	3.373	0.000	98	177142	37.5	35.5	
19 1,1-Dichloroethene	96	3.507	3.507	0.000	96	215186	5.00	5.31	
21 112TCTFE	101	3.544	3.538	0.006	93	222891	5.00	4.99	
20 Acetone	43	3.550	3.550	0.000	99	300418	37.5	38.0	
22 Iodomethane	142	3.696	3.696	0.000	99	359639	5.00	4.31	
23 Isopropyl alcohol	45	3.721	3.702	0.019	98	149870	37.5	117.0	
24 Ethyl bromide	108		3.727				ND	ND	
25 Carbon disulfide	76	3.794	3.794	0.000	100	769593	5.00	5.41	
26 Methyl acetate	43	3.952	3.964	-0.012	98	92823	5.00	4.96	
27 3-Chloro-1-propene	41	3.983	3.977	0.006	89	366563	5.00	5.45	
28 Methylene Chloride	84	4.166	4.166	0.000	95	236923	5.00	5.20	
* 29 t-Butyl alcohol-d10 (IS)	65	4.178	4.184	-0.006	93	141585	50.0	50.0	M
30 2-Methyl-2-propanol	59	4.312	4.306	0.006	98	98541	50.0	39.1	
31 Acrylonitrile	53	4.519	4.519	0.000	98	229886	25.0	27.0	
32 Methyl tert-butyl ether	73	4.568	4.568	0.000	90	576723	5.00	4.63	
33 trans-1,2-Dichloroethene	96	4.580	4.574	0.006	96	243118	5.00	5.31	
34 Hexane	57	5.001	5.001	0.000	95	365490	5.00	6.06	
36 1,1-Dichloroethane	63	5.245	5.245	0.000	96	468659	5.00	5.43	
37 Isopropyl ether	45	5.306	5.306	0.000	94	814643	5.00	5.31	
38 2-Chloro-1,3-butadiene	53	5.354	5.354	0.000	93	418103	5.00	5.27	
39 Tert-butyl ethyl ether	59	5.842	5.836	0.006	98	728082	5.00	4.85	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
40 2-Butanone (MEK)	43	6.055	6.049	0.006	100	527840	37.5	38.9	
41 cis-1,2-Dichloroethene	96	6.086	6.086	0.000	84	323171	5.00	6.10	
42 2,2-Dichloropropane	77	6.098	6.092	0.006	91	378274	5.00	4.99	
44 Propionitrile	54	6.159	6.147	0.012	97	114610	37.5	37.0	
46 Methacrylonitrile	67	6.366	6.360	0.006	95	476232	37.5	40.3	
48 Chlorobromomethane	128	6.415	6.415	0.000	95	106905	5.00	4.26	
47 Tetrahydrofuran	71	6.415	6.421	-0.006	84	92104	25.0	25.9	
50 Chloroform	83	6.574	6.568	0.006	95	474613	5.00	5.12	
\$ 52 Dibromofluoromethane (Surr)	113	6.787	6.787	0.000	93	460691	10.0	9.02	
51 1,1,1-Trichloroethane	97	6.793	6.793	0.000	98	401046	5.00	4.73	
53 Cyclohexane	56	6.878	6.885	-0.007	93	446915	5.00	6.08	
56 Carbon tetrachloride	117	7.000	6.994	0.006	96	337781	5.00	4.45	
55 1,1-Dichloropropene	75	7.007	7.007	0.001	94	360716	5.00	5.27	
57 Isobutyl alcohol	41	7.171	7.171	0.000	91	108967	125.1	102.4	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.238	7.232	0.006	0	93892	10.0	9.65	
59 Benzene	78	7.269	7.269	0.000	97	1014757	5.00	5.32	
60 1,2-Dichloroethane	62	7.342	7.342	0.000	98	307998	5.00	4.46	
62 Tert-amyl methyl ether	73	7.464	7.464	0.000	97	664006	5.00	4.92	
* 63 Fluorobenzene (IS)	96	7.677	7.677	0.000	98	1912134	10.0	10.0	
64 n-Heptane	43	7.683	7.683	0.000	94	417986	5.00	6.00	
65 n-Butanol	56	8.055	8.055	0.000	92	201978	250.2	261.4	
67 Trichloroethene	95	8.153	8.153	0.000	97	312638	5.00	5.88	
68 Methylcyclohexane	83	8.457	8.457	0.000	94	437281	5.00	5.59	
69 1,2-Dichloropropane	63	8.488	8.488	0.000	93	268733	5.00	5.55	
70 2-ethoxy-2-methyl butane	87	8.500	8.494	0.006	91	379550	5.00	5.09	
72 1,4-Dioxane	88	8.585	8.579	0.006	30	20919	125.1	122.0	M
71 Methyl methacrylate	69	8.573	8.579	-0.006	92	123989	5.00	5.19	
73 Dibromomethane	93	8.598	8.598	0.000	96	126616	5.00	4.53	
75 Dichlorobromomethane	83	8.835	8.835	0.000	98	331861	5.00	4.79	
76 2-Nitropropane	41	9.122	9.122	0.000	99	35322	5.00	3.54	
78 2-Chloroethyl vinyl ether	63		9.201				ND	ND	
79 1-Bromo-2-chloroethane	63	9.232	9.232	0.000	99	268296	5.00	5.05	
80 cis-1,3-Dichloropropene	75	9.390	9.390	0.000	94	390758	5.00	5.10	
81 4-Methyl-2-pentanone (MIBK)	43	9.567	9.567	0.000	98	860255	25.0	24.3	
\$ 82 Toluene-d8 (Surr)	98	9.695	9.695	0.000	95	1878474	10.0	10.1	
83 Toluene	92	9.774	9.774	0.000	97	647051	5.00	5.52	
84 trans-1,3-Dichloropropene	75	10.036	10.030	0.006	96	327929	5.00	4.93	
85 Ethyl methacrylate	69	10.097	10.097	0.000	91	272158	5.00	5.26	
86 1,1,2-Trichloroethane	97	10.238	10.238	0.000	92	189839	5.00	5.27	
88 Tetrachloroethene	166	10.317	10.317	0.000	96	422709	5.00	7.37	
89 1,3-Dichloropropane	76	10.402	10.402	0.000	94	317543	5.00	5.11	
91 2-Hexanone	43	10.457	10.457	0.000	98	695934	25.0	27.0	
93 Chlorodibromomethane	129	10.616	10.609	0.007	90	223115	5.00	4.78	
94 Ethylene Dibromide	107	10.719	10.719	0.000	97	176863	5.00	4.88	
* 95 Chlorobenzene-d5 (IS)	117	11.152	11.152	0.000	87	1419310	10.0	10.0	
96 1-Chlorohexane	91	11.164	11.164	0.000	94	357544	5.00	4.92	
97 Chlorobenzene	112	11.183	11.183	0.000	93	700603	5.00	5.04	
98 1,1,1,2-Tetrachloroethane	131	11.262	11.262	0.000	94	242979	5.00	4.66	
99 Ethylbenzene	91	11.268	11.268	0.000	99	1273796	5.00	5.23	
100 m-Xylene & p-Xylene	106	11.384	11.384	0.000	0	968672	10.0	10.7	
102 o-Xylene	106	11.713	11.713	0.000	98	462693	5.00	5.22	
103 Styrene	104	11.725	11.725	0.000	94	781060	5.00	5.35	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 Bromoform	173	11.884	11.884	0.000	96	129733	5.00	4.41	
105 Isopropylbenzene	105	12.012	12.012	0.000	97	1229745	5.00	5.19	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	89	671283	10.0	9.73	
109 1,1,2,2-Tetrachloroethane	83	12.255	12.255	0.000	93	238334	5.00	5.48	
110 Bromobenzene	156	12.268	12.268	0.000	97	288533	5.00	5.00	
111 trans-1,4-Dichloro-2-butene	53	12.280	12.280	0.000	95	320385	25.0	22.5	
112 1,2,3-Trichloropropane	110	12.304	12.304	0.000	85	62273	5.00	5.11	
113 N-Propylbenzene	91	12.335	12.335	0.000	99	1522877	5.00	5.71	
114 2-Chlorotoluene	126	12.414	12.414	0.000	95	286197	5.00	5.40	
115 1,3,5-Trimethylbenzene	105	12.475	12.475	0.000	94	1037780	5.00	5.59	
116 4-Chlorotoluene	126	12.505	12.505	0.000	98	297016	5.00	5.27	
118 tert-Butylbenzene	134	12.713	12.713	0.000	93	227860	5.00	5.51	
120 Pentachloroethane	167	12.749	12.743	0.006	88	166080	5.00	4.55	
119 1,2,4-Trimethylbenzene	105	12.755	12.755	0.000	98	1061444	5.00	5.47	
121 sec-Butylbenzene	105	12.877	12.877	0.000	95	1371150	5.00	5.61	
122 1,3-Dichlorobenzene	146	12.975	12.975	0.000	97	568956	5.00	5.10	
123 4-Isopropyltoluene	119	12.981	12.981	0.000	97	1136827	5.00	5.43	
* 124 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	96	718380	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.048	13.048	0.000	93	581009	5.00	5.13	
126 1,2,3-Trimethylbenzene	120	13.060	13.060	0.000	99	445599	5.00	5.24	
127 Benzyl chloride	126	13.127	13.127	0.000	99	83852	5.00	5.16	
129 p-Diethylbenzene	119	13.182	13.182	0.000	91	646236	5.00	5.06	
130 n-Butylbenzene	92	13.274	13.274	0.000	97	599889	5.00	5.50	
131 1,2-Dichlorobenzene	146	13.304	13.304	0.000	97	521742	5.00	5.01	
134 1,2-Dibromo-3-Chloropropane	155	13.847	13.847	0.000	82	27659	5.00	4.39	
135 1,3,5-Trichlorobenzene	180	13.969	13.969	0.000	97	402956	5.00	4.62	
136 1,2,4-Trichlorobenzene	180	14.389	14.389	0.000	94	336327	5.00	4.49	
137 Hexachlorobutadiene	225	14.468	14.468	0.000	97	183241	5.00	4.48	
138 Naphthalene	128	14.572	14.572	0.000	97	559053	5.00	4.58	
139 1,2,3-Trichlorobenzene	180	14.712	14.712	0.000	95	278308	5.00	4.42	
140 2-Methylnaphthalene	142	15.328	15.328	0.000	92	258732	5.00	3.63	

QC Flag Legend

Processing Flags

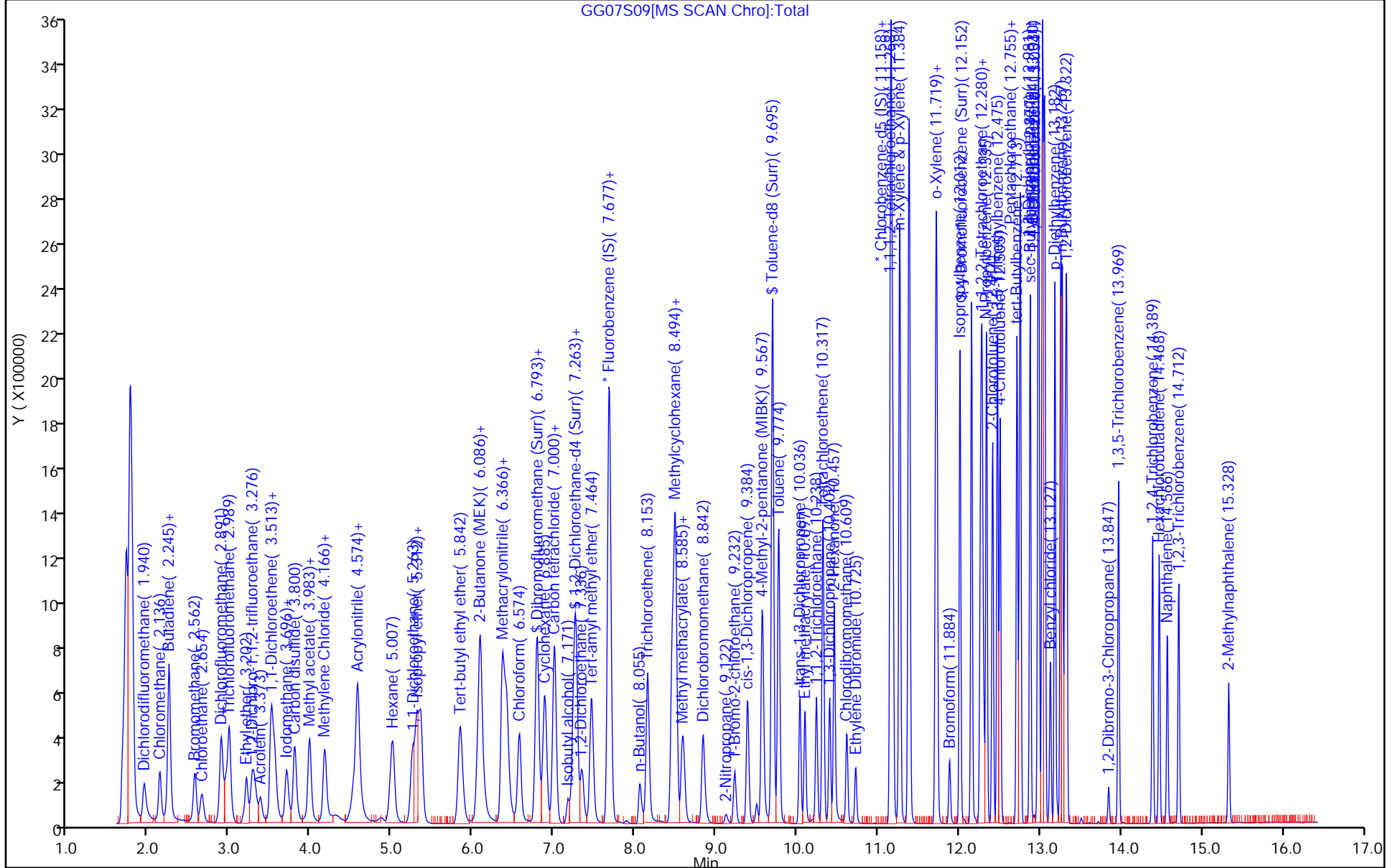
ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MSV_Q_QVOA1_00040	Amount Added: 5.38	Units: uL	
MSV_Q_QARC_00039	Amount Added: 5.38	Units: uL	
MSV_Q_QVOA6_00038	Amount Added: 5.38	Units: uL	
MSV_Q_ETBR_00003	Amount Added: 5.38	Units: uL	
MSV_Q_EE_00002	Amount Added: 5.38	Units: uL	
MSV_QGAS_826_00061	Amount Added: 5.38	Units: uL	
MSV_29_826ISS_00007	Amount Added: 1.00	Units: uL	Run Reagent



GG07S09[MS SCAN Chrom]:Total

Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S09.D
 Lims ID: 410-9077-A-6 MS
 Client ID: HD-COD-SW-15-0/1-0 MS
 Sample Type: MS
 Inject. Date: 08-Aug-2020 03:20:30 ALS Bottle#: 14 Worklist Smp#: 15
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-9077-a-6 ms
 Misc. Info.: 410-0007550-015
 Operator ID: MEC29284 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 09-Aug-2020 17:32:34 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1057

First Level Reviewer: campbellme

Date: 09-Aug-2020 17:37:38

Compound	Amount Added	Amount Recovered	% Rec.
\$ 52 Dibromofluoromethane (Surr)	10.0	9.02	90.19
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	9.65	96.51
\$ 82 Toluene-d8 (Surr)	10.0	10.1	101.10
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.73	97.28

Eurofins Lancaster Laboratories Env, LLC

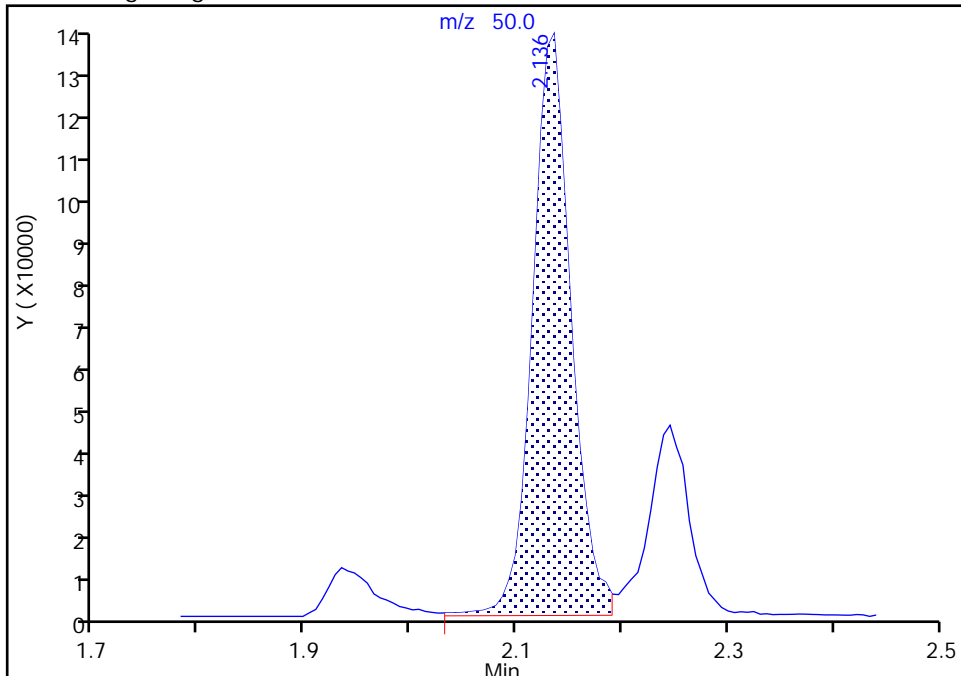
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Injection Date: 08-Aug-2020 03:20:30 Instrument ID: 16334
Lims ID: 410-9077-A-6 MS
Client ID: HD-COD-SW-15-0/1-0 MS
Operator ID: MEC29284 ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

5 Chloromethane, CAS: 74-87-3

Signal: 1

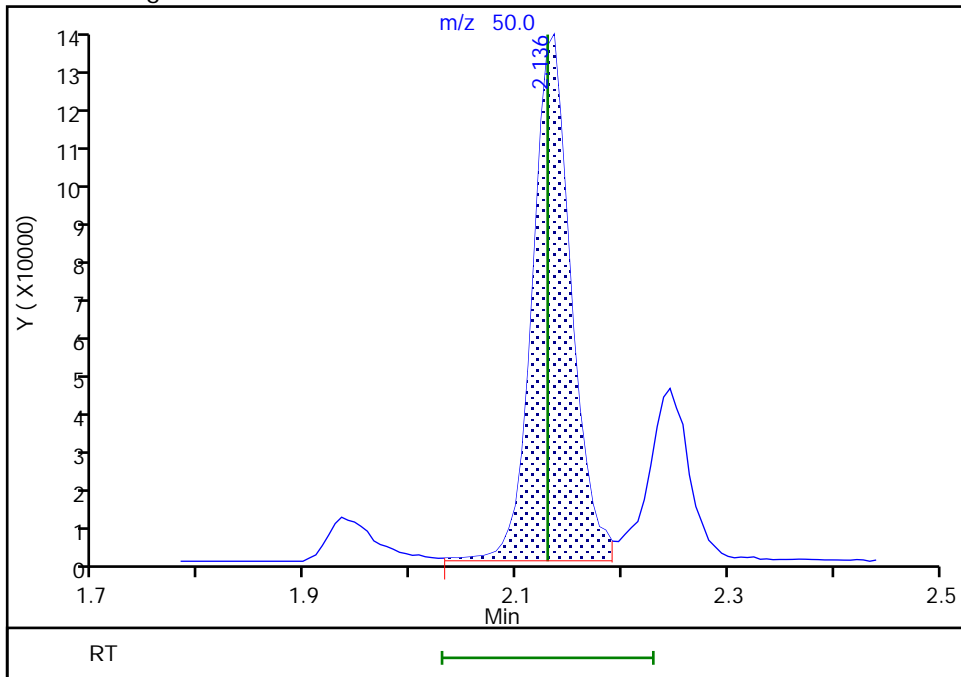
RT: 2.14
Area: 331157
Amount: 4.475249
Amount Units: ug/l

Processing Integration Results



RT: 2.14
Area: 331829
Amount: 4.484330
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 09-Aug-2020 17:28:30
Audit Action: Assigned New Baseline

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

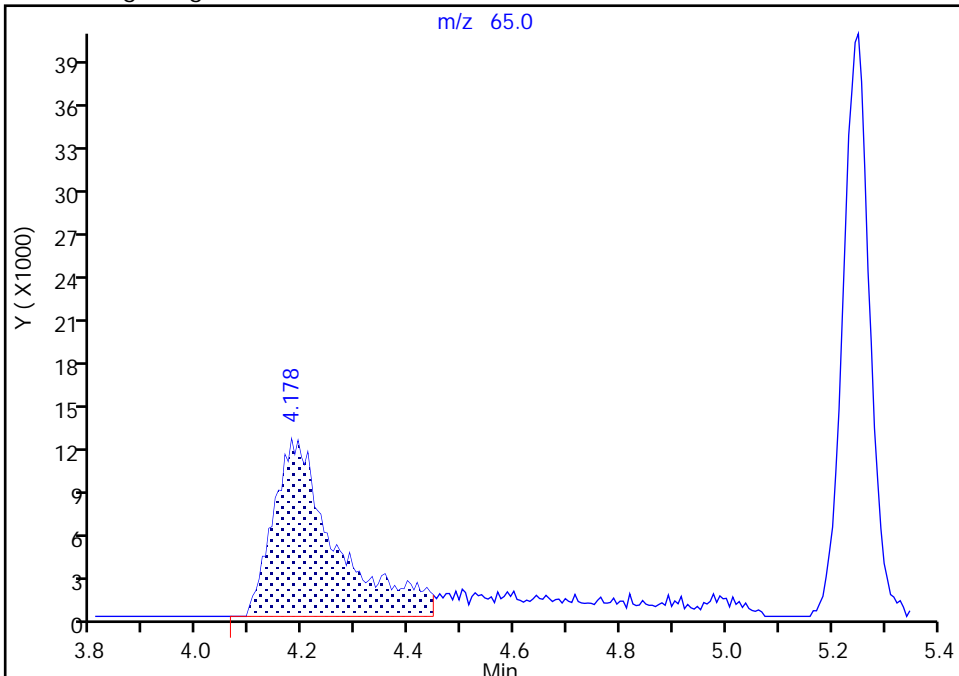
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Injection Date: 08-Aug-2020 03:20:30 Instrument ID: 16334
Lims ID: 410-9077-A-6 MS
Client ID: HD-COD-SW-15-0/1-0 MS
Operator ID: MEC29284 ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 29 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

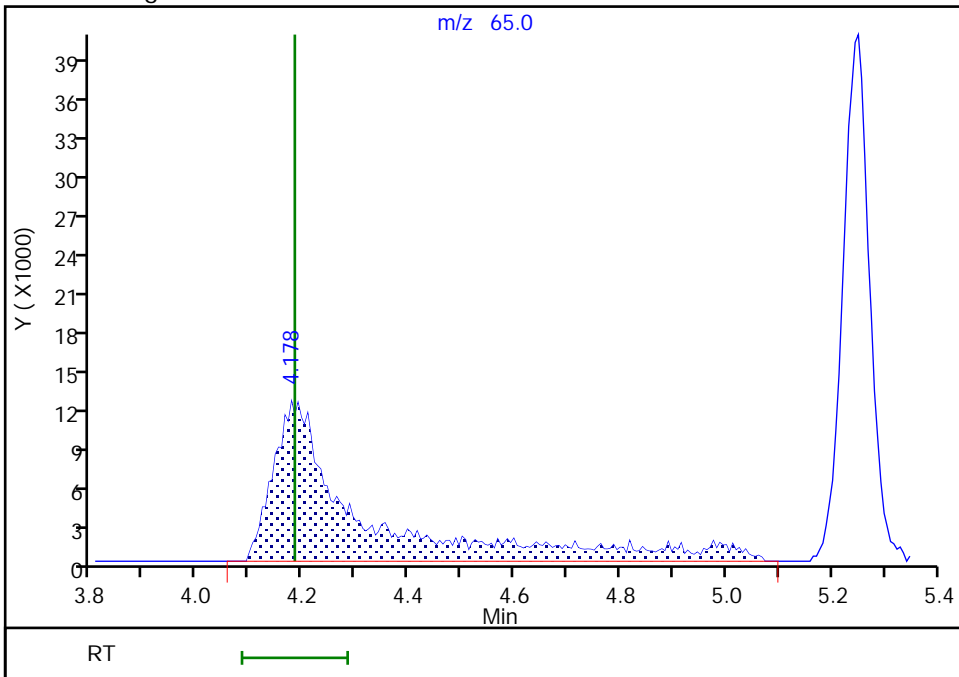
RT: 4.18
Area: 101179
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.18
Area: 141585
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 09-Aug-2020 17:28:54

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S10.D
 Lims ID: 410-9077-A-6 MSD
 Client ID: HD-COD-SW-15-0/1-0 MSD
 Sample Type: MSD
 Inject. Date: 08-Aug-2020 03:42:30 ALS Bottle#: 15 Worklist Smp#: 16
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-9077-a-6 msd
 Misc. Info.: 410-0007550-016
 Operator ID: MEC29284 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 09-Aug-2020 17:31:44 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1057

First Level Reviewer: campbellme

Date: 09-Aug-2020 17:31:03

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.953	1.940	0.013	99	302813	5.00	3.78	M
5 Chloromethane	50	2.142	2.129	0.013	99	343632	5.00	4.62	M
6 Butadiene	39	2.251	2.245	0.006	95	357778	5.00	5.63	
7 Vinyl chloride	62	2.258	2.245	0.013	97	343109	5.00	4.89	M
9 Bromomethane	94	2.575	2.562	0.013	91	222378	5.00	4.16	
10 Chloroethane	64	2.660	2.648	0.012	100	188961	5.00	4.72	
11 Dichlorofluoromethane	67	2.892	2.885	0.007	97	453781	5.00	4.79	
13 Trichlorofluoromethane	101	2.959	2.946	0.013	98	427377	5.00	4.55	
15 Ethyl ether	59	3.209	3.196	0.013	94	184227	5.01	5.30	
16 1,2-Dichloro-1,1,2-trifluoroethane	67	3.300	3.282	0.018	94	306597	5.00	5.66	
18 Acrolein	56	3.385	3.373	0.012	99	175751	37.5	36.8	
19 1,1-Dichloroethene	96	3.513	3.507	0.006	96	219150	5.00	5.38	
21 112TCTFE	101	3.550	3.538	0.012	93	225055	5.00	5.01	
20 Acetone	43	3.556	3.550	0.006	99	262546	37.5	34.7	
22 Iodomethane	142	3.708	3.696	0.012	99	362024	5.00	4.32	
23 Isopropyl alcohol	45	3.721	3.702	0.019	28	38674	37.5	30.1	
24 Ethyl bromide	108	3.739	3.727	0.012	99	170894	4.94	4.79	
25 Carbon disulfide	76	3.806	3.794	0.012	100	779705	5.00	5.46	
26 Methyl acetate	43	3.971	3.964	0.007	98	88945	5.00	4.96	
27 3-Chloro-1-propene	41	3.989	3.977	0.012	89	375465	5.00	5.56	
28 Methylene Chloride	84	4.178	4.166	0.012	96	241277	5.00	5.28	
* 29 t-Butyl alcohol-d10 (IS)	65	4.184	4.184	0.000	93	135639	50.0	50.0	M
30 2-Methyl-2-propanol	59	4.318	4.306	0.012	96	117665	50.0	48.7	
31 Acrylonitrile	53	4.525	4.519	0.006	98	224949	25.0	27.6	
32 Methyl tert-butyl ether	73	4.574	4.568	0.006	91	587925	5.00	4.70	
33 trans-1,2-Dichloroethene	96	4.586	4.574	0.012	96	246391	5.00	5.36	
34 Hexane	57	5.013	5.001	0.012	95	373819	5.00	6.17	
36 1,1-Dichloroethane	63	5.257	5.245	0.012	96	461584	5.00	5.33	
37 Isopropyl ether	45	5.306	5.306	0.000	95	824877	5.00	5.36	
38 2-Chloro-1,3-butadiene	53	5.367	5.354	0.013	93	419087	5.00	5.26	
39 Tert-butyl ethyl ether	59	5.842	5.836	0.006	98	745472	5.00	4.94	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
40 2-Butanone (MEK)	43	6.056	6.049	0.007	100	519712	37.5	40.0	
41 cis-1,2-Dichloroethene	96	6.092	6.086	0.006	85	331391	5.00	6.22	
42 2,2-Dichloropropane	77	6.104	6.092	0.012	88	378780	5.00	4.97	
44 Propionitrile	54	6.153	6.147	0.006	98	118378	37.5	39.9	
46 Methacrylonitrile	67	6.366	6.360	0.006	95	473647	37.5	41.9	
48 Chlorobromomethane	128	6.427	6.415	0.012	95	106768	5.00	4.23	
47 Tetrahydrofuran	71	6.421	6.421	0.000	91	94500	25.0	27.8	
50 Chloroform	83	6.574	6.568	0.006	94	471896	5.00	5.07	
\$ 52 Dibromofluoromethane (Surr)	113	6.793	6.787	0.006	92	456369	10.0	8.89	
51 1,1,1-Trichloroethane	97	6.793	6.793	0.000	99	404282	5.00	4.74	
53 Cyclohexane	56	6.885	6.885	0.000	93	462377	5.00	6.26	
56 Carbon tetrachloride	117	7.007	6.994	0.013	96	337380	5.00	4.43	
55 1,1-Dichloropropene	75	7.013	7.007	0.007	95	368871	5.00	5.37	
57 Isobutyl alcohol	41	7.171	7.171	0.000	91	117701	125.1	110.1	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.244	7.232	0.012	0	95343	10.0	9.76	
59 Benzene	78	7.275	7.269	0.006	97	1020708	5.00	5.32	
60 1,2-Dichloroethane	62	7.348	7.342	0.006	98	294221	5.00	4.24	
62 Tert-amyl methyl ether	73	7.464	7.464	0.000	97	659744	5.00	4.87	
* 63 Fluorobenzene (IS)	96	7.683	7.677	0.006	98	1920786	10.0	10.0	
64 n-Heptane	43	7.689	7.683	0.006	94	427012	5.00	6.10	
65 n-Butanol	56	8.061	8.055	0.006	93	199809	250.2	270.0	
67 Trichloroethene	95	8.153	8.153	0.000	98	319972	5.00	5.99	
68 Methylcyclohexane	83	8.458	8.457	0.001	94	438955	5.00	5.59	
69 1,2-Dichloropropane	63	8.494	8.488	0.006	87	267593	5.00	5.50	
70 2-ethoxy-2-methyl butane	87	8.500	8.494	0.006	90	375328	5.00	5.01	
72 1,4-Dioxane	88	8.579	8.579	0.000	29	21164	125.1	128.9	M
71 Methyl methacrylate	69	8.586	8.579	0.007	93	128670	5.00	5.62	
73 Dibromomethane	93	8.598	8.598	0.000	95	126445	5.00	4.50	
75 Dichlorobromomethane	83	8.836	8.835	0.001	99	331965	5.00	4.77	
76 2-Nitropropane	41	9.122	9.122	0.000	99	37948	5.00	3.97	
78 2-Chloroethyl vinyl ether	63		9.201				ND	ND	
79 1-Bromo-2-chloroethane	63	9.232	9.232	0.000	98	263984	5.00	4.95	
80 cis-1,3-Dichloropropene	75	9.390	9.390	0.000	93	383750	5.00	4.99	
81 4-Methyl-2-pentanone (MIBK)	43	9.573	9.567	0.006	98	892549	25.0	26.3	
\$ 82 Toluene-d8 (Surr)	98	9.701	9.695	0.006	95	1867299	10.0	10.0	
83 Toluene	92	9.774	9.774	0.000	97	641375	5.00	5.47	
84 trans-1,3-Dichloropropene	75	10.036	10.030	0.006	96	327816	5.00	4.92	
85 Ethyl methacrylate	69	10.097	10.097	0.000	90	268721	5.00	5.19	
86 1,1,2-Trichloroethane	97	10.238	10.238	0.000	91	189652	5.00	5.26	
88 Tetrachloroethene	166	10.317	10.317	0.000	96	423977	5.00	7.39	
89 1,3-Dichloropropane	76	10.402	10.402	0.000	94	319973	5.00	5.14	
91 2-Hexanone	43	10.457	10.457	0.000	98	682422	25.0	27.7	
93 Chlorodibromomethane	129	10.616	10.609	0.007	91	220657	5.00	4.73	
94 Ethylene Dibromide	107	10.725	10.719	0.006	100	173651	5.00	4.79	
* 95 Chlorobenzene-d5 (IS)	117	11.152	11.152	0.000	88	1420251	10.0	10.0	
96 1-Chlorohexane	91	11.164	11.164	0.000	95	363499	5.00	5.00	
97 Chlorobenzene	112	11.183	11.183	0.000	93	709069	5.00	5.10	
98 1,1,1,2-Tetrachloroethane	131	11.262	11.262	0.000	93	243503	5.00	4.67	
99 Ethylbenzene	91	11.268	11.268	0.000	99	1275461	5.00	5.23	
100 m-Xylene & p-Xylene	106	11.384	11.384	0.000	0	960544	10.0	10.6	
102 o-Xylene	106	11.713	11.713	0.000	97	466596	5.00	5.26	
103 Styrene	104	11.725	11.725	0.000	94	781767	5.00	5.35	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 Bromoform	173	11.884	11.884	0.000	96	125930	5.00	4.28	
105 Isopropylbenzene	105	12.012	12.012	0.000	96	1251043	5.00	5.28	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	88	679200	10.0	9.84	
109 1,1,2,2-Tetrachloroethane	83	12.262	12.255	0.007	94	235787	5.00	5.34	
110 Bromobenzene	156	12.268	12.268	0.000	97	294707	5.00	5.04	
111 trans-1,4-Dichloro-2-butene	53	12.280	12.280	0.000	93	318151	25.0	23.3	
112 1,2,3-Trichloropropane	110	12.304	12.304	0.000	85	62554	5.00	5.06	
113 N-Propylbenzene	91	12.335	12.335	0.000	99	1550963	5.00	5.73	
114 2-Chlorotoluene	126	12.414	12.414	0.000	96	290727	5.00	5.41	
115 1,3,5-Trimethylbenzene	105	12.475	12.475	0.000	93	1053699	5.00	5.60	
116 4-Chlorotoluene	126	12.506	12.505	0.001	98	299660	5.00	5.24	
118 tert-Butylbenzene	134	12.713	12.713	0.000	93	230055	5.00	5.49	
120 Pentachloroethane	167	12.749	12.743	0.006	89	167331	5.00	4.52	
119 1,2,4-Trimethylbenzene	105	12.755	12.755	0.000	98	1081416	5.00	5.49	
121 sec-Butylbenzene	105	12.877	12.877	0.000	95	1383798	5.00	5.59	
122 1,3-Dichlorobenzene	146	12.975	12.975	0.000	98	576316	5.00	5.09	
123 4-Isopropyltoluene	119	12.981	12.981	0.000	97	1148483	5.00	5.40	
* 124 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	96	728656	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.048	13.048	0.000	93	590440	5.00	5.14	
126 1,2,3-Trimethylbenzene	120	13.060	13.060	0.000	99	442727	5.00	5.14	
127 Benzyl chloride	126	13.127	13.127	0.000	99	84531	5.00	5.13	
129 p-Diethylbenzene	119	13.182	13.182	0.000	91	646253	5.00	4.99	
130 n-Butylbenzene	92	13.274	13.274	0.000	98	618727	5.00	5.59	
131 1,2-Dichlorobenzene	146	13.304	13.304	0.000	97	527106	5.00	4.99	
134 1,2-Dibromo-3-Chloropropane	155	13.847	13.847	0.000	81	27719	5.00	4.34	
135 1,3,5-Trichlorobenzene	180	13.969	13.969	0.000	97	411814	5.00	4.66	
136 1,2,4-Trichlorobenzene	180	14.389	14.389	0.000	94	344384	5.00	4.53	
137 Hexachlorobutadiene	225	14.469	14.468	0.001	97	191490	5.00	4.62	
138 Naphthalene	128	14.572	14.572	0.000	97	558220	5.00	4.51	
139 1,2,3-Trichlorobenzene	180	14.712	14.712	0.000	95	280134	5.00	4.39	
140 2-Methylnaphthalene	142	15.328	15.328	0.000	94	235149	5.00	3.26	

QC Flag Legend

Processing Flags

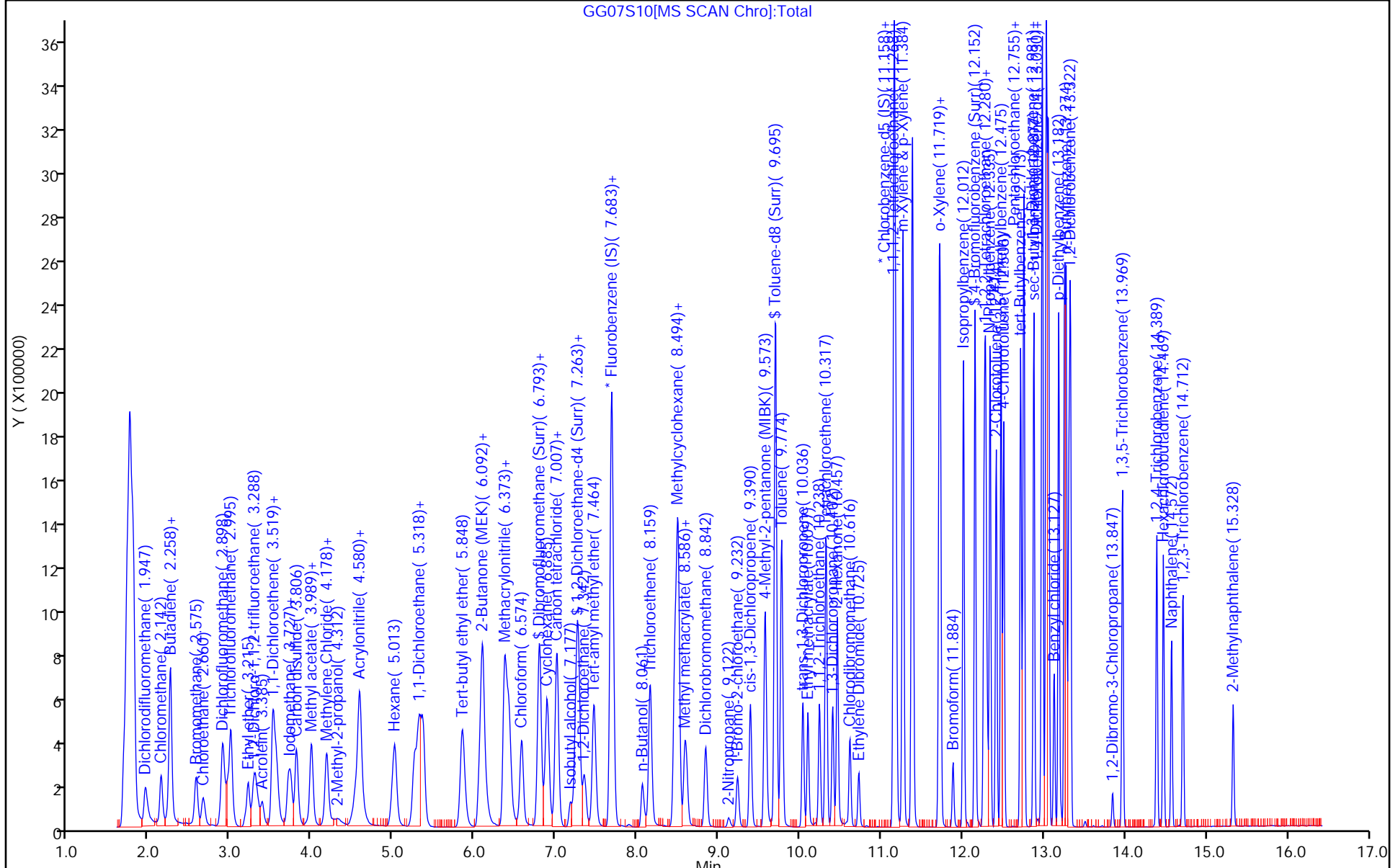
ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MSV_Q_QARC_00039	Amount Added: 5.38	Units: uL	
MSV_Q_QVOA6_00038	Amount Added: 5.38	Units: uL	
MSV_Q_ETBR_00003	Amount Added: 5.38	Units: uL	
MSV_Q_EE_00002	Amount Added: 5.38	Units: uL	
MSV_QGAS_826_00061	Amount Added: 5.38	Units: uL	
MSV_Q_QVOA1_00040	Amount Added: 5.38	Units: uL	
MSV_29_826ISS_00007	Amount Added: 1.00	Units: uL	Run Reagent



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S10.D
 Lims ID: 410-9077-A-6 MSD
 Client ID: HD-COD-SW-15-0/1-0 MSD
 Sample Type: MSD
 Inject. Date: 08-Aug-2020 03:42:30 ALS Bottle#: 15 Worklist Smp#: 16
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-9077-a-6 msd
 Misc. Info.: 410-0007550-016
 Operator ID: MEC29284 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 09-Aug-2020 17:31:44 Calib Date: 11-Jun-2020 19:54:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1057

First Level Reviewer: campbellme Date: 09-Aug-2020 17:31:03

Compound	Amount Added	Amount Recovered	% Rec.
\$ 52 Dibromofluoromethane (Surr)	10.0	8.89	88.94
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	9.76	97.57
\$ 82 Toluene-d8 (Surr)	10.0	10.0	100.44
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.84	98.37

Eurofins Lancaster Laboratories Env, LLC

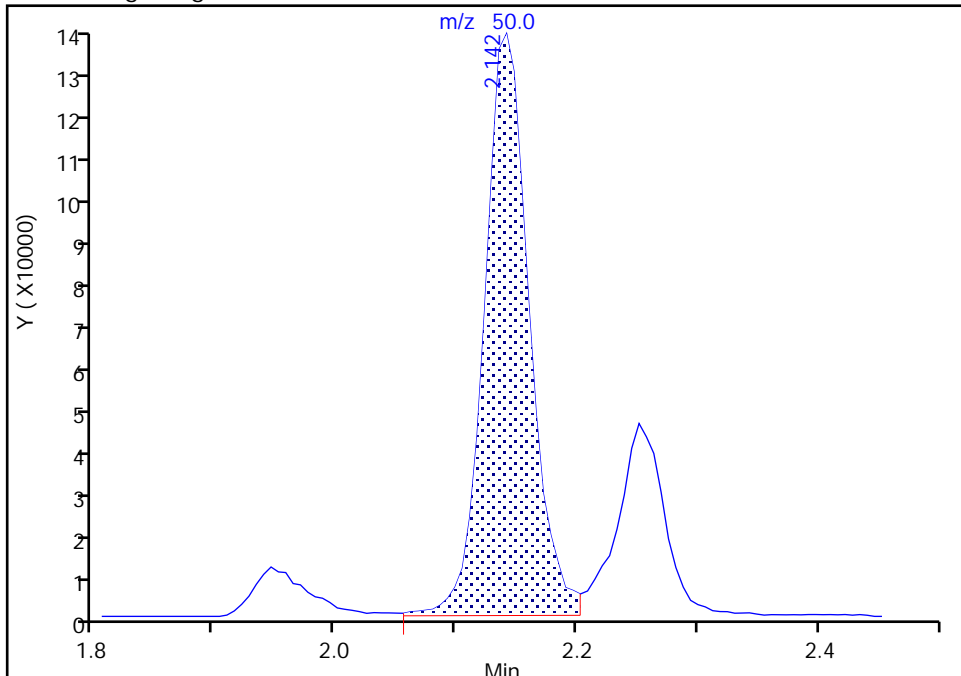
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Injection Date:	08-Aug-2020 03:42:30	Instrument ID:	16334
Lims ID:	410-9077-A-6 MSD		
Client ID:	HD-COD-SW-15-0/1-0 MSD		
Operator ID:	MEC29284	ALS Bottle#:	15
Purge Vol:	25.000 mL	Dil. Factor:	1.0000
Method:	MSV_16334_25mL	Limit Group:	MSV - 8260C_D
Column:	Rxi-624Sil MS Capillary Column (0.25mm ID)	Detector:	MS Quad
		Worklist Smp#:	16

5 Chloromethane, CAS: 74-87-3

Signal: 1

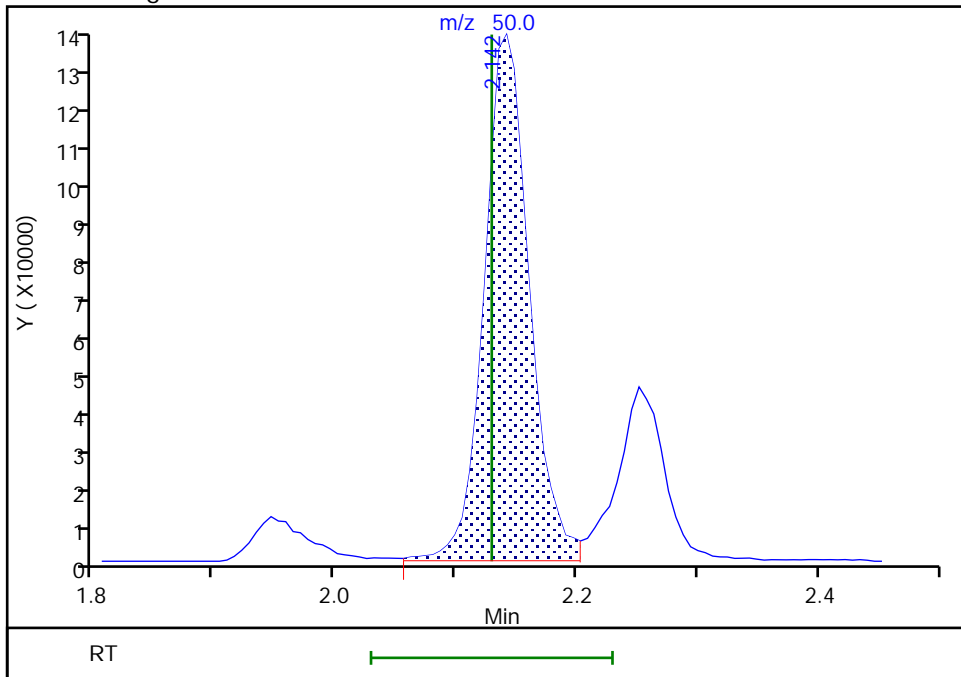
RT: 2.14
 Area: 343120
 Amount: 4.616030
 Amount Units: ug/l

Processing Integration Results



RT: 2.14
 Area: 343632
 Amount: 4.622918
 Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 09-Aug-2020 17:30:05
 Audit Action: Assigned New Baseline

Audit Reason: Incomplete Integration

Euofins Lancaster Laboratories Env, LLC

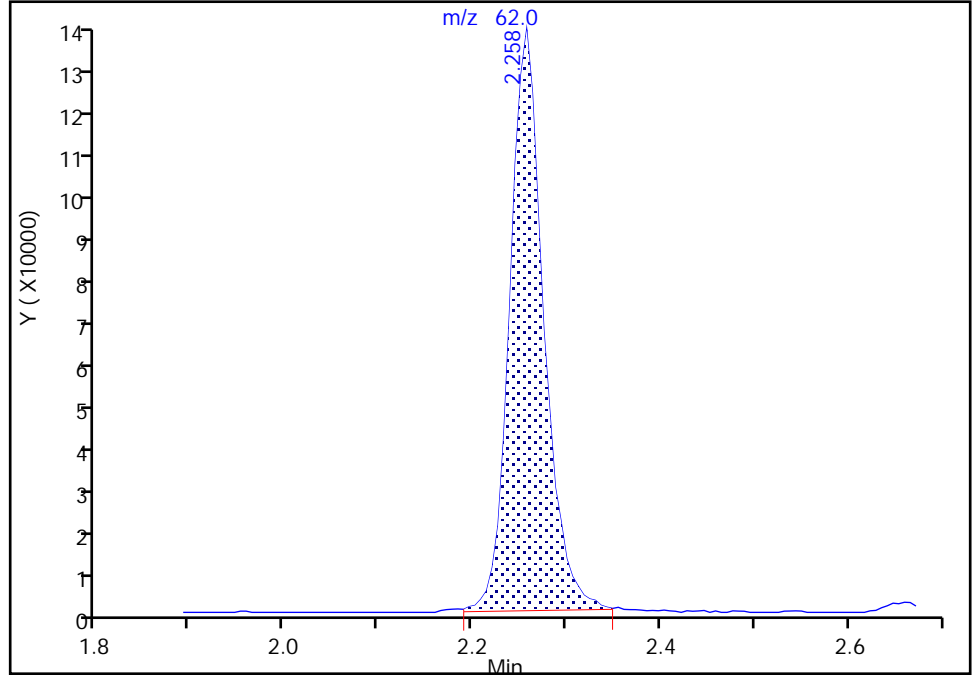
Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S10.D
Injection Date: 08-Aug-2020 03:42:30 Instrument ID: 16334
Lims ID: 410-9077-A-6 MSD
Client ID: HD-COD-SW-15-0/1-0 MSD
Operator ID: MEC29284 ALS Bottle#: 15 Worklist Smp#: 16
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

7 Vinyl chloride, CAS: 75-01-4

Signal: 1

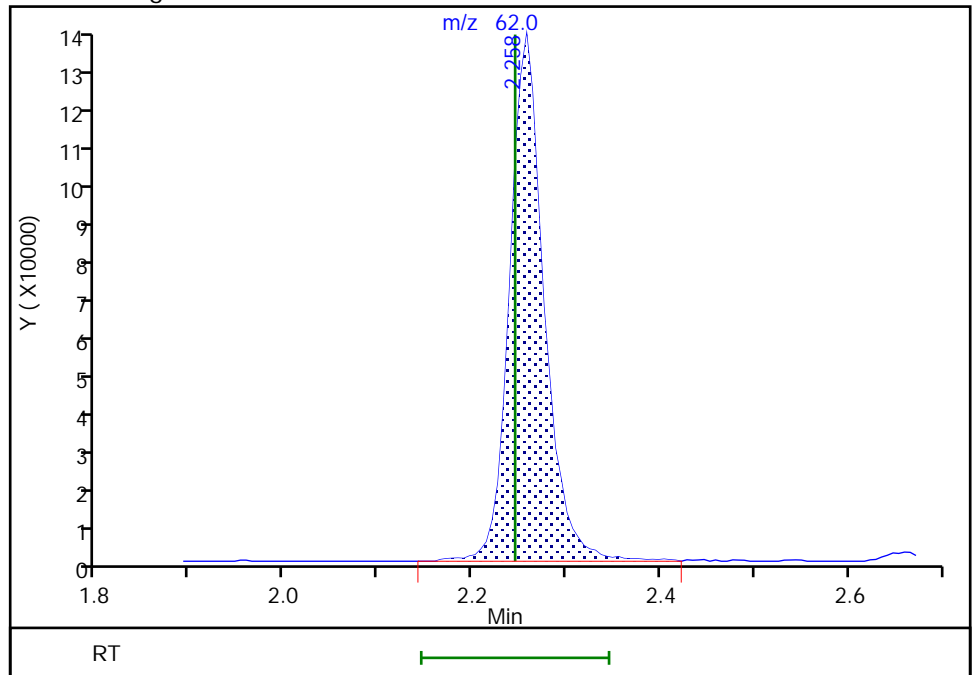
RT: 2.26
Area: 335791
Amount: 4.785032
Amount Units: ug/l

Processing Integration Results



RT: 2.26
Area: 343109
Amount: 4.889314
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 09-Aug-2020 17:30:13
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

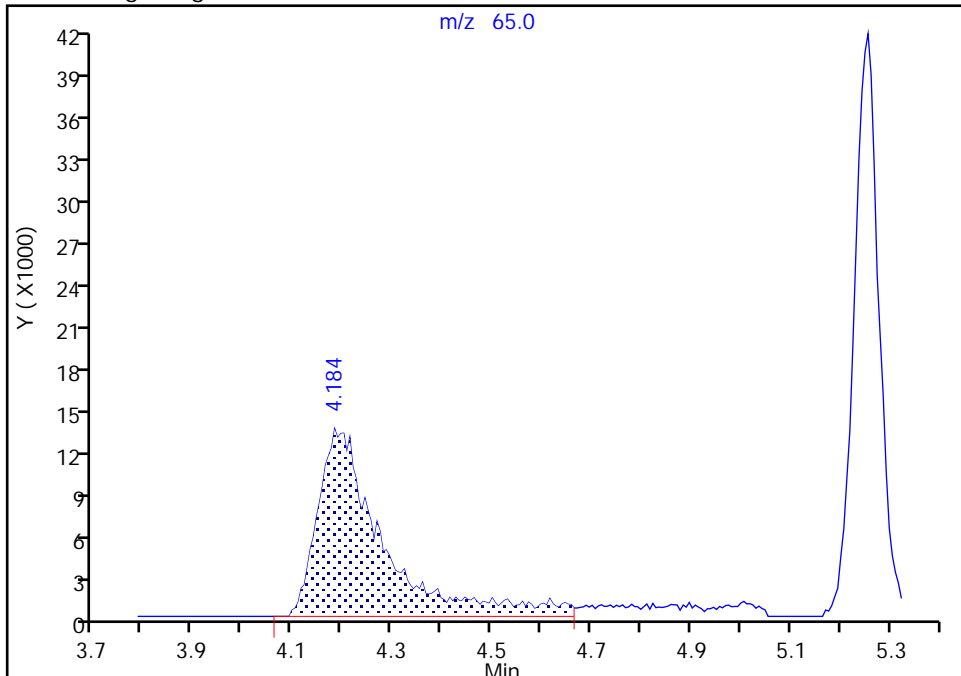
Data File: \\chromfs\Lancaster\ChromData\16334\20200807-7550.b\GG07S10.D
Injection Date: 08-Aug-2020 03:42:30 Instrument ID: 16334
Lims ID: 410-9077-A-6 MSD
Client ID: HD-COD-SW-15-0/1-0 MSD
Operator ID: MEC29284 ALS Bottle#: 15 Worklist Smp#: 16
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 29 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

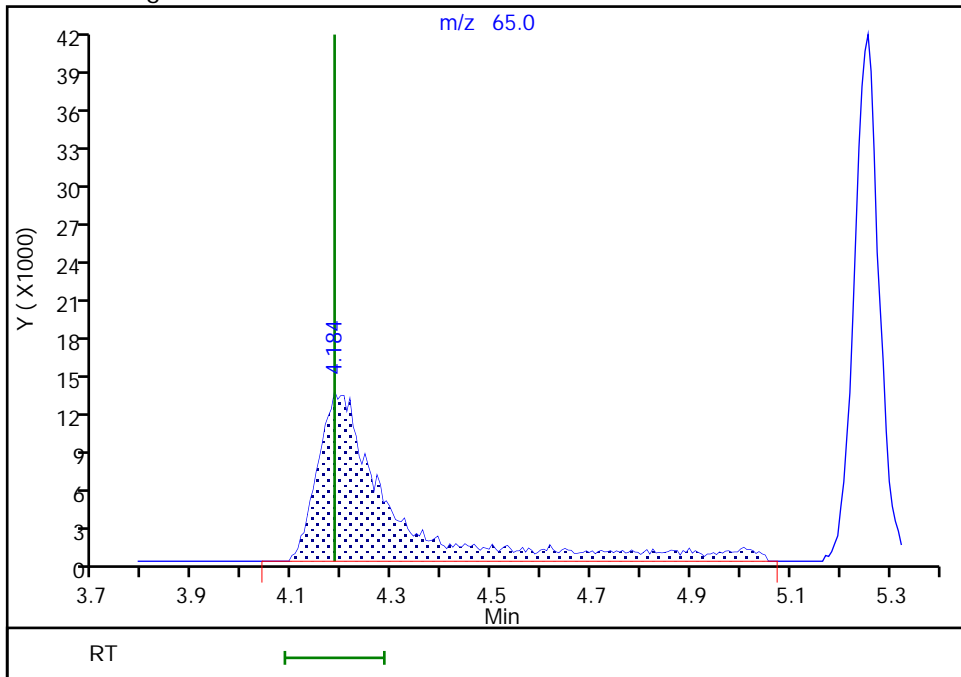
RT: 4.18
Area: 119487
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.18
Area: 135639
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-9077-1

SDG No.: _____

Instrument ID: 16334Start Date: 06/11/2020 13:27Analysis Batch Number: 12269End Date: 06/11/2020 20:16

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-12269/1		06/11/2020 13:27	1	GU11T02.D	R-624SilMS 30m 0.25 (mm)
IC 410-12269/3		06/11/2020 14:22	1	GU11I01.D	R-624SilMS 30m 0.25 (mm)
ICIS 410-12269/4		06/11/2020 14:44	1	GU11I02.D	R-624SilMS 30m 0.25 (mm)
IC 410-12269/5		06/11/2020 15:06	1	GU11I03.D	R-624SilMS 30m 0.25 (mm)
IC 410-12269/6		06/11/2020 15:28	1	GU11I04.D	R-624SilMS 30m 0.25 (mm)
IC 410-12269/7		06/11/2020 15:51	1	GU11I05.D	R-624SilMS 30m 0.25 (mm)
IC 410-12269/8		06/11/2020 16:13	1	GU11I06.D	R-624SilMS 30m 0.25 (mm)
IC 410-12269/9		06/11/2020 16:35	1	GU11I07.D	R-624SilMS 30m 0.25 (mm)
ICV 410-12269/10		06/11/2020 16:57	1	GU11V01.D	R-624SilMS 30m 0.25 (mm)
IC 410-12269/12		06/11/2020 17:41	1		R-624SilMS 30m 0.25 (mm)
IC 410-12269/13		06/11/2020 18:03	1		R-624SilMS 30m 0.25 (mm)
IC 410-12269/14		06/11/2020 18:25	1		R-624SilMS 30m 0.25 (mm)
IC 410-12269/15		06/11/2020 18:47	1		R-624SilMS 30m 0.25 (mm)
IC 410-12269/16		06/11/2020 19:09	1		R-624SilMS 30m 0.25 (mm)
IC 410-12269/17		06/11/2020 19:32	1		R-624SilMS 30m 0.25 (mm)
IC 410-12269/18		06/11/2020 19:54	1		R-624SilMS 30m 0.25 (mm)
ICV 410-12269/19		06/11/2020 20:16	1		R-624SilMS 30m 0.25 (mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-9077-1

SDG No.: _____

Instrument ID: 16334 Start Date: 08/07/2020 22:12

Analysis Batch Number: 30932 End Date: 08/08/2020 08:29

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-30932/1		08/07/2020 22:12	1	GG07T01.D	R-624silMS 30m 0.25 (mm)
CCVIS 410-30932/3		08/07/2020 22:49	1	GG07C01.D	R-624silMS 30m 0.25 (mm)
LCS 410-30932/4		08/07/2020 23:11	1	GG07L01.D	R-624silMS 30m 0.25 (mm)
ZZZZZ		08/07/2020 23:33	1		R-624silMS 30m 0.25 (mm)
MB 410-30932/6		08/07/2020 23:56	1	GG07B01.D	R-624silMS 30m 0.25 (mm)
410-9077-14		08/08/2020 00:22	1	GG07S01.D	R-624silMS 30m 0.25 (mm)
ZZZZZ		08/08/2020 00:44	1		R-624silMS 30m 0.25 (mm)
ZZZZZ		08/08/2020 01:07	1		R-624silMS 30m 0.25 (mm)
ZZZZZ		08/08/2020 01:29	1		R-624silMS 30m 0.25 (mm)
ZZZZZ		08/08/2020 01:51	1		R-624silMS 30m 0.25 (mm)
ZZZZZ		08/08/2020 02:13	1		R-624silMS 30m 0.25 (mm)
ZZZZZ		08/08/2020 02:35	1		R-624silMS 30m 0.25 (mm)
410-9077-6		08/08/2020 02:57	1	GG07S08.D	R-624silMS 30m 0.25 (mm)
410-9077-6 MS		08/08/2020 03:20	1	GG07S09.D	R-624silMS 30m 0.25 (mm)
410-9077-6 MSD		08/08/2020 03:42	1	GG07S10.D	R-624silMS 30m 0.25 (mm)
410-9077-1		08/08/2020 04:26	1	GG07S12.D	R-624silMS 30m 0.25 (mm)
410-9077-2		08/08/2020 04:48	1	GG07S13.D	R-624silMS 30m 0.25 (mm)
410-9077-3		08/08/2020 05:10	1	GG07S14.D	R-624silMS 30m 0.25 (mm)
410-9077-4		08/08/2020 05:32	1	GG07S15.D	R-624silMS 30m 0.25 (mm)
410-9077-5		08/08/2020 05:55	1	GG07S16.D	R-624silMS 30m 0.25 (mm)
410-9077-7		08/08/2020 06:17	1	GG07S17.D	R-624silMS 30m 0.25 (mm)
410-9077-8		08/08/2020 06:39	1	GG07S18.D	R-624silMS 30m 0.25 (mm)
410-9077-9		08/08/2020 07:01	1	GG07S19.D	R-624silMS 30m 0.25 (mm)
410-9077-10		08/08/2020 07:23	1	GG07S20.D	R-624silMS 30m 0.25 (mm)
410-9077-11		08/08/2020 07:45	1	GG07S21.D	R-624silMS 30m 0.25 (mm)
410-9077-13		08/08/2020 08:07	1	GG07S22.D	R-624silMS 30m 0.25 (mm)
ZZZZZ		08/08/2020 08:29	1000		R-624silMS 30m 0.25 (mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-9077-1

SDG No.: _____

Instrument ID: 16334 Start Date: 08/10/2020 09:21

Analysis Batch Number: 31280 End Date: 08/10/2020 21:05

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-31280/1		08/10/2020 09:21	1	GG10T01.D	R-624SilMS 30m 0.25 (mm)
CCVIS 410-31280/3		08/10/2020 10:03	1	GG09C01.D	R-624SilMS 30m 0.25 (mm)
LCS 410-31280/4		08/10/2020 10:25	1	GG09L01.D	R-624SilMS 30m 0.25 (mm)
LCSD 410-31280/5		08/10/2020 10:47	1	GG09L02.D	R-624SilMS 30m 0.25 (mm)
ZZZZZ		08/10/2020 11:09	1		R-624SilMS 30m 0.25 (mm)
MB 410-31280/7		08/10/2020 11:31	1	GG09B01.D	R-624SilMS 30m 0.25 (mm)
ZZZZZ		08/10/2020 12:11	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		08/10/2020 12:33	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		08/10/2020 12:56	1		R-624SilMS 30m 0.25 (mm)
410-9077-12		08/10/2020 13:18	1	GG10S04.D	R-624SilMS 30m 0.25 (mm)
ZZZZZ		08/10/2020 13:40	20		R-624SilMS 30m 0.25 (mm)
ZZZZZ		08/10/2020 15:08	10		R-624SilMS 30m 0.25 (mm)
ZZZZZ		08/10/2020 15:35	5		R-624SilMS 30m 0.25 (mm)
ZZZZZ		08/10/2020 15:57	5		R-624SilMS 30m 0.25 (mm)
ZZZZZ		08/10/2020 16:19	5		R-624SilMS 30m 0.25 (mm)
ZZZZZ		08/10/2020 16:41	5		R-624SilMS 30m 0.25 (mm)
ZZZZZ		08/10/2020 17:03	5		R-624SilMS 30m 0.25 (mm)
ZZZZZ		08/10/2020 17:25	5		R-624SilMS 30m 0.25 (mm)
ZZZZZ		08/10/2020 17:47	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		08/10/2020 18:09	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		08/10/2020 18:31	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		08/10/2020 18:53	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		08/10/2020 19:15	2		R-624SilMS 30m 0.25 (mm)
ZZZZZ		08/10/2020 19:37	20		R-624SilMS 30m 0.25 (mm)
ZZZZZ		08/10/2020 19:59	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		08/10/2020 20:21	5		R-624SilMS 30m 0.25 (mm)
ZZZZZ		08/10/2020 20:43	5		R-624SilMS 30m 0.25 (mm)
ZZZZZ		08/10/2020 21:05	5		R-624SilMS 30m 0.25 (mm)

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-9077-1

SDG No.: _____

Batch Number: 12269 Batch Start Date: 06/11/20 13:27 Batch Analyst: Viray, Don V

Batch Method: 8260D Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MSV_29 826ISS 00007	MSV_Q_EE 00002	MSV_Q_ETBR 00003	MSV_Q_QARC 00031
BFB 410-12269/1		8260D		1 uL	1 uL				
IC 410-12269/3		8260D		25 mL	25 mL	1 uL			
ICIS 410-12269/4		8260D		25 mL	25 mL	1 uL			
IC 410-12269/5		8260D		25 mL	25 mL	1 uL			
IC 410-12269/6		8260D		25 mL	25 mL	1 uL			
IC 410-12269/7		8260D		25 mL	25 mL	1 uL			
IC 410-12269/8		8260D		25 mL	25 mL	1 uL			
IC 410-12269/9		8260D		25 mL	25 mL	1 uL			
ICV 410-12269/10		8260D		25 mL	25 mL	1 uL	12.5 uL	12.5 uL	12.5 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_Q_QVOA1 00032	MSV_Q_QVOA6 00030	MSV_QGAS 826 00045	MSV_RV1 826 00016	MSV_RV4 826 00017	MSV_RV4GAS826 00047
BFB 410-12269/1		8260D							
IC 410-12269/3		8260D					25 uL	25 uL	25 uL
ICIS 410-12269/4		8260D					10 uL	10 uL	10 uL
IC 410-12269/5		8260D					5 uL	5 uL	5 uL
IC 410-12269/6		8260D					2 uL	2 uL	2 uL
IC 410-12269/7		8260D					2 uL	2 uL	2 uL
IC 410-12269/8		8260D					2 uL	2 uL	2 uL
IC 410-12269/9		8260D					2 uL	2 uL	2 uL
ICV 410-12269/10		8260D		12.5 uL	12.5 uL	12.5 uL			

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_V_BFB 00002					
BFB 410-12269/1		8260D		1 uL					
IC 410-12269/3		8260D							
ICIS 410-12269/4		8260D							
IC 410-12269/5		8260D							
IC 410-12269/6		8260D							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-9077-1

SDG No.: _____

Batch Number: 12269 Batch Start Date: 06/11/20 13:27 Batch Analyst: Viray, Don V

Batch Method: 8260D Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_V_BFB 00002					
IC 410-12269/7		8260D							
IC 410-12269/8		8260D							
IC 410-12269/9		8260D							
ICV 410-12269/10		8260D							

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-9077-1

SDG No.: _____

Batch Number: 30932 Batch Start Date: 08/07/20 22:12 Batch Analyst: Campbell, Miranda E

Batch Method: 8260D Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	ResidualChloChe ck	Headspace	MSV_29_826ISS 00007
BFB 410-30932/1		8260D		1 uL	1 uL				
CCVIS 410-30932/3		8260D		25 mL	25 mL				1 uL
LCS 410-30932/4		8260D		25 mL	25 mL				1 uL
MB 410-30932/6		8260D		25 mL	25 mL				1 uL
410-9077-A-14	HD-QC1-0/1-2	8260D	T	25 mL	25 mL	<2 SU	N	N	1 uL
410-9077-A-6	HD-COD-SW-15-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	1 uL
410-9077-A-6 MS	HD-COD-SW-15-0/1-0 MS	8260D	T	25 mL	25 mL	<2 SU	N	N	1 uL
410-9077-A-6 MSD	HD-COD-SW-15-0/1-0 MSD	8260D	T	25 mL	25 mL	<2 SU	N	N	1 uL
410-9077-A-1	HD-COD-SW-6-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	1 uL
410-9077-A-2	HD-COD-SW-7-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	1 uL
410-9077-A-3	HD-COD-SW-8-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	1 uL
410-9077-A-4	HD-COD-SW-9-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	1 uL
410-9077-A-5	HD-COD-SW-13-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	1 uL
410-9077-A-7	HD-COD-SW-16-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	1 uL
410-9077-A-8	HD-COD-SW-17-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	1 uL
410-9077-A-9	HD-COD-SW-26-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	1 uL
410-9077-A-10	HD-COD-SW-27-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	1 uL
410-9077-A-11	HD-COD-SW-28-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	1 uL
410-9077-A-13	HD-QC1-0/1-1	8260D	T	25 mL	25 mL	<2 SU	N	N	1 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_Q_EE 00002	MSV_Q_ETBR 00003	MSV_Q_QARC 00039	MSV_Q_QVOA1 00040	MSV_Q_QVOA6 00038	MSV_QGAS_826 00061
BFB 410-30932/1		8260D							
CCVIS 410-30932/3		8260D							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-9077-1

SDG No.: _____

Batch Number: 30932 Batch Start Date: 08/07/20 22:12 Batch Analyst: Campbell, Miranda E

Batch Method: 8260D Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_Q_EE 00002	MSV_Q_ETBR 00003	MSV_Q_QARC 00039	MSV_Q_QVOA1 00040	MSV_Q_QVOA6 00038	MSV_QGAS_826 00061
LCS 410-30932/4		8260D		12.5 uL	12.5 uL	12.5 uL	12.5 uL	12.5 uL	12.5 uL
MB 410-30932/6		8260D							
410-9077-A-14	HD-QC1-0/1-2	8260D	T						
410-9077-A-6	HD-COD-SW-15-0/1-0	8260D	T						
410-9077-A-6 MS	HD-COD-SW-15-0/1-0 MS	8260D	T	5.38 uL	5.38 uL	5.38 uL	5.38 uL	5.38 uL	5.38 uL
410-9077-A-6 MSD	HD-COD-SW-15-0/1-0 MSD	8260D	T	5.38 uL	5.38 uL	5.38 uL	5.38 uL	5.38 uL	5.38 uL
410-9077-A-1	HD-COD-SW-6-0/1-0	8260D	T						
410-9077-A-2	HD-COD-SW-7-0/1-0	8260D	T						
410-9077-A-3	HD-COD-SW-8-0/1-0	8260D	T						
410-9077-A-4	HD-COD-SW-9-0/1-0	8260D	T						
410-9077-A-5	HD-COD-SW-13-0/1-0	8260D	T						
410-9077-A-7	HD-COD-SW-16-0/1-0	8260D	T						
410-9077-A-8	HD-COD-SW-17-0/1-0	8260D	T						
410-9077-A-9	HD-COD-SW-26-0/1-0	8260D	T						
410-9077-A-10	HD-COD-SW-27-0/1-0	8260D	T						
410-9077-A-11	HD-COD-SW-28-0/1-0	8260D	T						
410-9077-A-13	HD-QC1-0/1-1	8260D	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_RV1_826 00020	MSV_RV4_826 00021	MSV_RV4GAS826 00063	MSV_V_BFB 00003	AnalysisComment
BFB 410-30932/1		8260D					1 uL	
CCVIS 410-30932/3		8260D		10 uL	10 uL	10 uL		9274 DCDFM and BM- ND in samples
LCS 410-30932/4		8260D						
MB 410-30932/6		8260D						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-9077-1

SDG No.: _____

Batch Number: 30932 Batch Start Date: 08/07/20 22:12 Batch Analyst: Campbell, Miranda E

Batch Method: 8260D Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_RV1 826 00020	MSV_RV4 826 00021	MSV_RV4GAS826 00063	MSV_V_BFB 00003	AnalysisComment	
410-9077-A-14	HD-QC1-0/1-2	8260D	T						
410-9077-A-6	HD-COD-SW-15-0/1-0	8260D	T						
410-9077-A-6 MS	HD-COD-SW-15-0/1-0 MS	8260D	T						
410-9077-A-6 MSD	HD-COD-SW-15-0/1-0 MSD	8260D	T						
410-9077-A-1	HD-COD-SW-6-0/1-0	8260D	T						
410-9077-A-2	HD-COD-SW-7-0/1-0	8260D	T						
410-9077-A-3	HD-COD-SW-8-0/1-0	8260D	T						
410-9077-A-4	HD-COD-SW-9-0/1-0	8260D	T						
410-9077-A-5	HD-COD-SW-13-0/1-0	8260D	T						
410-9077-A-7	HD-COD-SW-16-0/1-0	8260D	T						
410-9077-A-8	HD-COD-SW-17-0/1-0	8260D	T						
410-9077-A-9	HD-COD-SW-26-0/1-0	8260D	T						
410-9077-A-10	HD-COD-SW-27-0/1-0	8260D	T						
410-9077-A-11	HD-COD-SW-28-0/1-0	8260D	T						
410-9077-A-13	HD-QC1-0/1-1	8260D	T						

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-9077-1

SDG No.: _____

Batch Number: 31280 Batch Start Date: 08/10/20 09:21 Batch Analyst: Howe, Jennifer K

Batch Method: 8260D Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	ResidualChloChe ck	Headspace	MSV_29_826ISS 00007
BFB 410-31280/1		8260D		1 uL	1 uL				
CCVIS 410-31280/3		8260D		25 mL	25 mL				1 uL
LCS 410-31280/4		8260D		25 mL	25 mL				1 uL
LCSD 410-31280/5		8260D		25 mL	25 mL				1 uL
MB 410-31280/7		8260D		25 mL	25 mL				1 uL
410-9077-B-12	HD-COD-SW-29-0/1 -0	8260D	T	25 mL	25 mL	<2 SU	N	N	1 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_Q_EE 00002	MSV_Q_ETBR 00003	MSV_Q_QARC 00040	MSV_Q_QVOA1 00041	MSV_Q_QVOA6 00038	MSV_QGAS 826 00062
BFB 410-31280/1		8260D							
CCVIS 410-31280/3		8260D							
LCS 410-31280/4		8260D		12.5 uL	12.5 uL	12.5 uL	12.5 uL	12.5 uL	12.5 uL
LCSD 410-31280/5		8260D		12.5 uL	12.5 uL	12.5 uL	12.5 uL	12.5 uL	12.5 uL
MB 410-31280/7		8260D							
410-9077-B-12	HD-COD-SW-29-0/1 -0	8260D	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_RV1 826 00020	MSV_RV4 826 00021	MSV_RV4GAS826 00064	MSV_V_BFB 00003		
BFB 410-31280/1		8260D					1 uL		
CCVIS 410-31280/3		8260D		10 uL	10 uL	10 uL			
LCS 410-31280/4		8260D							
LCSD 410-31280/5		8260D							
MB 410-31280/7		8260D							
410-9077-B-12	HD-COD-SW-29-0/1 -0	8260D	T						

Batch Notes	

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-9077-1

SDG No.: _____

Batch Number: 31280 Batch Start Date: 08/10/20 09:21 Batch Analyst: Howe, Jennifer K

Batch Method: 8260D Batch End Date: _____

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents



Lancaster Laboratories
Environmental

Sample # _____

Client: Groundwater Sciences Corporation				Matrix			Analyses Requested						For Lab Use Only																									
Project Name/#: fYNOP Monthly Surface Water		Site ID #: fYNOP, York PA		<input type="checkbox"/> Tissue	<input type="checkbox"/> Ground	<input checked="" type="checkbox"/> Surface	Preservation Codes						SF #: _____																									
Project Manager: Chris O'Neil		P.O. #: 10012.42		<input type="checkbox"/> Potable	<input type="checkbox"/> NPDES		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>H</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td colspan="12" style="text-align: center;">Aqueous VOCs via 8260C (low level - 25 ml purge)</td> </tr> </table>						H												Aqueous VOCs via 8260C (low level - 25 ml purge)												SCR #: _____	
H																																						
Aqueous VOCs via 8260C (low level - 25 ml purge)																																						
Sampler: Casey Littlefield		PWSID #: N/A		<input type="checkbox"/> Soil	<input type="checkbox"/> Water	<input type="checkbox"/> Other:							Preservation Codes H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ P = H ₃ PO ₄ O = Other																									
Phone #: (717) 901-8176 / (717) 756-1246		Quote #:											Remarks																									
State where samples were collected: York, PA			For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																																			
Sample Identification		Collection		Grab	Composite	Soil	Water	Other:	Total # of Containers	Aqueous VOCs via 8260C (low level - 25 ml purge)																												
		Date	Time																																			
HD-COD-SW-6-0/1-0		7/25/20	0940	X			X		3	X																												
HD-COD-SW-7-0/1-0			1025	X			X		3	X																												
HD-COD-SW-8-0/1-0			0805	X			X		3	X																												
HD-COD-SW-9-0/1-0			1120	X			X		3	X																												
HD-COD-SW-13-0/1-0			0825	X			X		3	X																												
HD-COD-SW-15-0/1-0			1040	X			X		3	X																												
HD-COD-SW-15-0/1-0 MS			1040	X			X		3	X																												
HD-COD-SW-15-0/1-0 MSD			1040	X			X		3	X																												
HD-COD-SW-16-0/1-0			0845	X			X		3	X																												
HD-COD-SW-17-0/1-0			0855	X			X		3	X																												
Turnaround Time Requested (TAT) (please check):				Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>		Relinquished by:		Date	Time	Received by:		Date	Time																									
(Rush TAT is subject to laboratory approval and surcharges.)						<i>[Signature]</i>		7/28/20	1355	<i>[Signature]</i>		7/28/20	1355																									
Date results are needed:				Rush results requested by (please check):		Relinquished by:		Date	Time	Received by:		Date	Time																									
				E-Mail <input type="checkbox"/> Phone <input type="checkbox"/>		<i>[Signature]</i>		7/29/20	1416	<i>[Signature]</i>		7/29/20	1416																									
E-mail Address:				Phone:		Relinquished by:		Date	Time	Received by:		Date	Time																									
						<i>[Signature]</i>		7-29-20	21:42																													
Data Package Options (please check if required)						Relinquished by:		Date	Time	Received by:		Date	Time																									
Type I (Validation/non-CLP)	<input type="checkbox"/>	MA MCP	<input type="checkbox"/>			<i>[Signature]</i>				<i>[Signature]</i>																												
Type III (Reduced non-CLP)	<input type="checkbox"/>	CT RCP	<input type="checkbox"/>			Relinquished by:		Date	Time	Received by:		Date	Time																									
Type VI (Raw Data Only)	<input type="checkbox"/>	TX TRRP-13	<input type="checkbox"/>			<i>[Signature]</i>				<i>[Signature]</i>		7-29-20	21:55																									
NJ DKQP	<input type="checkbox"/>	NYSDEC Category	<input type="checkbox"/> A or <input type="checkbox"/> B			Relinquished by Commercial Carrier:				Temperature upon receipt		10.9 °C																										
EDD Required? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				If yes, format: _____		CLP Like Deliverables, Project Specific Analyte List		UPS _____ FedEx _____ Other _____																														

Login Sample Receipt Checklist

Client: Groundwater Sciences Corporation

Job Number: 410-9077-1

Login Number: 9077

List Source: Eurofins Lancaster Laboratories Env

List Number: 1

Creator: Mathers, William

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ($\leq 6^{\circ}\text{C}$, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	N/A	