

ANALYTICAL REPORT

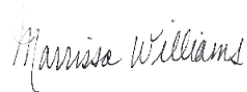
Job Number: 410-19023-1

Job Description: fYNOP Monthly Surface Water

For:

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Attention: Christopher O'Neil



Approved for release.
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Project Manager
11/20/2020 11:42 AM

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11/20/2020
Revision: 2

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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: 410-19023-1

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
410-19023-1

REVISION

The report being provided is a revision of the original report sent on 11/18/2020. The report (revision 1) is being revised due to analytical team noticed issue with deliverables.

Report revision history

Receipt

The samples were received on 10/30/2020 4:08 PM; the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.0°C

GC/MS VOA

Method 8260C_LL: The continuing calibration verification (CCV) associated with batch 410-62460 recovered above the upper control limit for Bromoform. Non-detections of the affected analytes are reported. Any detections are considered estimated.

Method 8260C_LL: The preservative used in the sample containers provided is not compatible with one of the Method 8260 analytes requested. The following sample was received preserved with hydrochloric acid: HD-COD-SW-7-0/1-0 (410-19023-2). The requested target analyte list includes Acrylonitrile, an acid-labile compound that degrades in an acidic medium.

Method 8260C_LL: The continuing calibration verification (CCV) associated with batch 410-63387 recovered above the upper control limit for Acetone and Bromoform. 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: 410-19023-1

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

Lab Sample ID: 410-19023-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	5.6		5.0	0.90	ug/L	1		8260C LL	Total/NA

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

Lab Sample ID: 410-19023-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	4.7	J ^c	5.0	0.90	ug/L	1		8260C LL	Total/NA
cis-1,2-Dichloroethene	0.078	J	0.50	0.050	ug/L	1		8260C LL	Total/NA
Trichloroethene	0.10	J	0.50	0.060	ug/L	1		8260C LL	Total/NA

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

Lab Sample ID: 410-19023-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	3.0	J	5.0	0.90	ug/L	1		8260C LL	Total/NA
Carbon disulfide	0.26	J	1.0	0.060	ug/L	1		8260C LL	Total/NA
cis-1,2-Dichloroethene	0.086	J	0.50	0.050	ug/L	1		8260C LL	Total/NA

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

Lab Sample ID: 410-19023-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	0.79	J	5.0	0.60	ug/L	1		8260C LL	Total/NA
Acetone	4.9	J	5.0	0.90	ug/L	1		8260C LL	Total/NA
Carbon disulfide	0.25	J	1.0	0.060	ug/L	1		8260C LL	Total/NA
Tetrachloroethene	0.088	J	0.50	0.060	ug/L	1		8260C LL	Total/NA
Toluene	0.39	J	0.50	0.070	ug/L	1		8260C LL	Total/NA

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

Lab Sample ID: 410-19023-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.1	J	5.0	0.90	ug/L	1		8260C LL	Total/NA
Carbon disulfide	0.25	J	1.0	0.060	ug/L	1		8260C LL	Total/NA
cis-1,2-Dichloroethene	0.051	J	0.50	0.050	ug/L	1		8260C LL	Total/NA
Tetrachloroethene	0.074	J	0.50	0.060	ug/L	1		8260C LL	Total/NA
Toluene	0.076	J	0.50	0.070	ug/L	1		8260C LL	Total/NA

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

Lab Sample ID: 410-19023-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.071	J	0.50	0.060	ug/L	1		8260C LL	Total/NA
Carbon disulfide	0.23	J	1.0	0.060	ug/L	1		8260C LL	Total/NA
Chloroform	0.25	J	0.50	0.090	ug/L	1		8260C LL	Total/NA
cis-1,2-Dichloroethene	0.66		0.50	0.050	ug/L	1		8260C LL	Total/NA
Tetrachloroethene	2.0		0.50	0.060	ug/L	1		8260C LL	Total/NA
Trichloroethene	0.79		0.50	0.060	ug/L	1		8260C LL	Total/NA

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

Lab Sample ID: 410-19023-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.2	J	5.0	0.90	ug/L	1		8260C LL	Total/NA
Carbon disulfide	0.26	J	1.0	0.060	ug/L	1		8260C LL	Total/NA
Trichloroethene	0.087	J	0.50	0.060	ug/L	1		8260C LL	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: 410-19023-1

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

Lab Sample ID: 410-19023-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	3.3	J	5.0	0.90	ug/L	1		8260C LL	Total/NA
Carbon disulfide	0.25	J	1.0	0.060	ug/L	1		8260C LL	Total/NA
Chloroform	0.10	J	0.50	0.090	ug/L	1		8260C LL	Total/NA
cis-1,2-Dichloroethene	0.14	J	0.50	0.050	ug/L	1		8260C LL	Total/NA
Tetrachloroethene	0.44	J	0.50	0.060	ug/L	1		8260C LL	Total/NA
Trichloroethene	0.28	J	0.50	0.060	ug/L	1		8260C LL	Total/NA

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

Lab Sample ID: 410-19023-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	3.1	J	5.0	0.90	ug/L	1		8260C LL	Total/NA
Carbon disulfide	0.24	J	1.0	0.060	ug/L	1		8260C LL	Total/NA
cis-1,2-Dichloroethene	0.064	J	0.50	0.050	ug/L	1		8260C LL	Total/NA

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

Lab Sample ID: 410-19023-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.7	J	5.0	0.90	ug/L	1		8260C LL	Total/NA
Carbon disulfide	0.22	J	1.0	0.060	ug/L	1		8260C LL	Total/NA
Chloromethane	0.060	J	0.50	0.060	ug/L	1		8260C LL	Total/NA
cis-1,2-Dichloroethene	0.068	J	0.50	0.050	ug/L	1		8260C LL	Total/NA
Tetrachloroethene	0.061	J	0.50	0.060	ug/L	1		8260C LL	Total/NA
Toluene	0.072	J	0.50	0.070	ug/L	1		8260C LL	Total/NA
Trichloroethene	0.094	J	0.50	0.060	ug/L	1		8260C LL	Total/NA

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

Lab Sample ID: 410-19023-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	3.3	J	5.0	0.90	ug/L	1		8260C LL	Total/NA
Carbon disulfide	0.24	J	1.0	0.060	ug/L	1		8260C LL	Total/NA
Tetrachloroethene	0.088	J	0.50	0.060	ug/L	1		8260C LL	Total/NA
Toluene	0.58		0.50	0.070	ug/L	1		8260C LL	Total/NA

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

Lab Sample ID: 410-19023-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.7	J	5.0	0.90	ug/L	1		8260C LL	Total/NA
Carbon disulfide	0.25	J	1.0	0.060	ug/L	1		8260C LL	Total/NA
Chloromethane	0.063	J	0.50	0.060	ug/L	1		8260C LL	Total/NA
cis-1,2-Dichloroethene	0.10	J	0.50	0.050	ug/L	1		8260C LL	Total/NA
Tetrachloroethene	0.065	J	0.50	0.060	ug/L	1		8260C LL	Total/NA
Trichloroethene	0.092	J	0.50	0.060	ug/L	1		8260C LL	Total/NA

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

Lab Sample ID: 410-19023-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	3.1	J	5.0	0.90	ug/L	1		8260C LL	Total/NA
Carbon disulfide	0.30	J	1.0	0.060	ug/L	1		8260C LL	Total/NA
Chloroform	0.10	J	0.50	0.090	ug/L	1		8260C LL	Total/NA
Tetrachloroethene	0.30	J	0.50	0.060	ug/L	1		8260C LL	Total/NA
Trichloroethene	0.31	J	0.50	0.060	ug/L	1		8260C LL	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: 410-19023-1

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

Lab Sample ID: 410-19023-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon disulfide	0.27	J	1.0	0.060	ug/L	1		8260C LL	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: 410-19023-1

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

Lab Sample ID: 410-19023-1

Date Collected: 10/29/20 10:15

Matrix: Water

Date Received: 10/30/20 16:08

Method: 8260C LL - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			11/05/20 12:53	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			11/05/20 12:53	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			11/05/20 12:53	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			11/05/20 12:53	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			11/05/20 12:53	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			11/05/20 12:53	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			11/05/20 12:53	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			11/05/20 12:53	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			11/05/20 12:53	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			11/05/20 12:53	1
2-Hexanone	ND		5.0	0.60	ug/L			11/05/20 12:53	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			11/05/20 12:53	1
Acetone	5.6		5.0	0.90	ug/L			11/05/20 12:53	1
Acrylonitrile	ND		5.0	0.40	ug/L			11/05/20 12:53	1
Benzene	ND		0.50	0.050	ug/L			11/05/20 12:53	1
Bromochloromethane	ND		0.50	0.050	ug/L			11/05/20 12:53	1
Bromodichloromethane	ND		0.50	0.050	ug/L			11/05/20 12:53	1
Bromoform	ND	^c	1.0	0.30	ug/L			11/05/20 12:53	1
Bromomethane	ND		0.50	0.070	ug/L			11/05/20 12:53	1
Carbon disulfide	ND		1.0	0.060	ug/L			11/05/20 12:53	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			11/05/20 12:53	1
Chlorobenzene	ND		0.50	0.060	ug/L			11/05/20 12:53	1
Chloroethane	ND		0.50	0.070	ug/L			11/05/20 12:53	1
Chloroform	ND		0.50	0.090	ug/L			11/05/20 12:53	1
Chloromethane	ND		0.50	0.060	ug/L			11/05/20 12:53	1
cis-1,2-Dichloroethene	ND		0.50	0.050	ug/L			11/05/20 12:53	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			11/05/20 12:53	1
Dibromochloromethane	ND		0.50	0.070	ug/L			11/05/20 12:53	1
Ethylbenzene	ND		0.50	0.060	ug/L			11/05/20 12:53	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			11/05/20 12:53	1
Methylene Chloride	ND		0.50	0.070	ug/L			11/05/20 12:53	1
Styrene	ND		0.50	0.050	ug/L			11/05/20 12:53	1
Tetrachloroethene	ND		0.50	0.060	ug/L			11/05/20 12:53	1
Toluene	ND		0.50	0.070	ug/L			11/05/20 12:53	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			11/05/20 12:53	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			11/05/20 12:53	1
Trichloroethene	ND		0.50	0.060	ug/L			11/05/20 12:53	1
Vinyl chloride	ND		0.50	0.10	ug/L			11/05/20 12:53	1
Xylenes, Total	ND		1.0	0.15	ug/L			11/05/20 12:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		80 - 120		11/05/20 12:53	1
Dibromofluoromethane (Surr)	102		80 - 120		11/05/20 12:53	1
Toluene-d8 (Surr)	94		80 - 120		11/05/20 12:53	1
4-Bromofluorobenzene (Surr)	92		80 - 120		11/05/20 12:53	1

Client Sample Results

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

Job ID: 410-19023-1

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

Lab Sample ID: 410-19023-2

Date Collected: 10/29/20 11:00

Matrix: Water

Date Received: 10/30/20 16:08

Method: 8260C LL - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			11/08/20 14:24	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			11/08/20 14:24	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			11/08/20 14:24	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			11/08/20 14:24	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			11/08/20 14:24	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			11/08/20 14:24	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			11/08/20 14:24	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			11/08/20 14:24	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			11/08/20 14:24	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			11/08/20 14:24	1
2-Hexanone	ND		5.0	0.60	ug/L			11/08/20 14:24	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			11/08/20 14:24	1
Acetone	4.7	J ^c	5.0	0.90	ug/L			11/08/20 14:24	1
Acrylonitrile	ND		5.0	0.40	ug/L			11/08/20 14:24	1
Benzene	ND		0.50	0.050	ug/L			11/08/20 14:24	1
Bromochloromethane	ND		0.50	0.050	ug/L			11/08/20 14:24	1
Bromodichloromethane	ND		0.50	0.050	ug/L			11/08/20 14:24	1
Bromoform	ND	^c	1.0	0.30	ug/L			11/08/20 14:24	1
Bromomethane	ND		0.50	0.070	ug/L			11/08/20 14:24	1
Carbon disulfide	ND		1.0	0.060	ug/L			11/08/20 14:24	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			11/08/20 14:24	1
Chlorobenzene	ND		0.50	0.060	ug/L			11/08/20 14:24	1
Chloroethane	ND		0.50	0.070	ug/L			11/08/20 14:24	1
Chloroform	ND		0.50	0.090	ug/L			11/08/20 14:24	1
Chloromethane	ND		0.50	0.060	ug/L			11/08/20 14:24	1
cis-1,2-Dichloroethene	0.078	J	0.50	0.050	ug/L			11/08/20 14:24	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			11/08/20 14:24	1
Dibromochloromethane	ND		0.50	0.070	ug/L			11/08/20 14:24	1
Ethylbenzene	ND		0.50	0.060	ug/L			11/08/20 14:24	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			11/08/20 14:24	1
Methylene Chloride	ND		0.50	0.070	ug/L			11/08/20 14:24	1
Styrene	ND		0.50	0.050	ug/L			11/08/20 14:24	1
Tetrachloroethene	ND		0.50	0.060	ug/L			11/08/20 14:24	1
Toluene	ND		0.50	0.070	ug/L			11/08/20 14:24	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			11/08/20 14:24	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			11/08/20 14:24	1
Trichloroethene	0.10	J	0.50	0.060	ug/L			11/08/20 14:24	1
Vinyl chloride	ND		0.50	0.10	ug/L			11/08/20 14:24	1
Xylenes, Total	ND		1.0	0.15	ug/L			11/08/20 14:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111		80 - 120		11/08/20 14:24	1
Dibromofluoromethane (Surr)	103		80 - 120		11/08/20 14:24	1
Toluene-d8 (Surr)	93		80 - 120		11/08/20 14:24	1
4-Bromofluorobenzene (Surr)	91		80 - 120		11/08/20 14:24	1

Client Sample Results

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

Job ID: 410-19023-1

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

Lab Sample ID: 410-19023-3

Date Collected: 10/29/20 09:00

Matrix: Water

Date Received: 10/30/20 16:08

Method: 8260C LL - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			11/04/20 12:39	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			11/04/20 12:39	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			11/04/20 12:39	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			11/04/20 12:39	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			11/04/20 12:39	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			11/04/20 12:39	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			11/04/20 12:39	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			11/04/20 12:39	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			11/04/20 12:39	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			11/04/20 12:39	1
2-Hexanone	ND		5.0	0.60	ug/L			11/04/20 12:39	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			11/04/20 12:39	1
Acetone	3.0	J	5.0	0.90	ug/L			11/04/20 12:39	1
Acrylonitrile	ND		5.0	0.40	ug/L			11/04/20 12:39	1
Benzene	ND		0.50	0.050	ug/L			11/04/20 12:39	1
Bromochloromethane	ND		0.50	0.050	ug/L			11/04/20 12:39	1
Bromodichloromethane	ND		0.50	0.050	ug/L			11/04/20 12:39	1
Bromoform	ND		1.0	0.30	ug/L			11/04/20 12:39	1
Bromomethane	ND		0.50	0.070	ug/L			11/04/20 12:39	1
Carbon disulfide	0.26	J	1.0	0.060	ug/L			11/04/20 12:39	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			11/04/20 12:39	1
Chlorobenzene	ND		0.50	0.060	ug/L			11/04/20 12:39	1
Chloroethane	ND		0.50	0.070	ug/L			11/04/20 12:39	1
Chloroform	ND		0.50	0.090	ug/L			11/04/20 12:39	1
Chloromethane	ND		0.50	0.060	ug/L			11/04/20 12:39	1
cis-1,2-Dichloroethene	0.086	J	0.50	0.050	ug/L			11/04/20 12:39	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			11/04/20 12:39	1
Dibromochloromethane	ND		0.50	0.070	ug/L			11/04/20 12:39	1
Ethylbenzene	ND		0.50	0.060	ug/L			11/04/20 12:39	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			11/04/20 12:39	1
Methylene Chloride	ND		0.50	0.070	ug/L			11/04/20 12:39	1
Styrene	ND		0.50	0.050	ug/L			11/04/20 12:39	1
Tetrachloroethene	ND		0.50	0.060	ug/L			11/04/20 12:39	1
Toluene	ND		0.50	0.070	ug/L			11/04/20 12:39	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			11/04/20 12:39	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			11/04/20 12:39	1
Trichloroethene	ND		0.50	0.060	ug/L			11/04/20 12:39	1
Vinyl chloride	ND		0.50	0.10	ug/L			11/04/20 12:39	1
Xylenes, Total	ND		1.0	0.15	ug/L			11/04/20 12:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		80 - 120		11/04/20 12:39	1
Dibromofluoromethane (Surr)	93		80 - 120		11/04/20 12:39	1
Toluene-d8 (Surr)	101		80 - 120		11/04/20 12:39	1
4-Bromofluorobenzene (Surr)	98		80 - 120		11/04/20 12:39	1

Client Sample Results

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

Job ID: 410-19023-1

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

Lab Sample ID: 410-19023-4

Date Collected: 10/29/20 11:45

Matrix: Water

Date Received: 10/30/20 16:08

Method: 8260C LL - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			11/04/20 13:01	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			11/04/20 13:01	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			11/04/20 13:01	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			11/04/20 13:01	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			11/04/20 13:01	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			11/04/20 13:01	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			11/04/20 13:01	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			11/04/20 13:01	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			11/04/20 13:01	1
2-Butanone (MEK)	0.79	J	5.0	0.60	ug/L			11/04/20 13:01	1
2-Hexanone	ND		5.0	0.60	ug/L			11/04/20 13:01	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			11/04/20 13:01	1
Acetone	4.9	J	5.0	0.90	ug/L			11/04/20 13:01	1
Acrylonitrile	ND		5.0	0.40	ug/L			11/04/20 13:01	1
Benzene	ND		0.50	0.050	ug/L			11/04/20 13:01	1
Bromochloromethane	ND		0.50	0.050	ug/L			11/04/20 13:01	1
Bromodichloromethane	ND		0.50	0.050	ug/L			11/04/20 13:01	1
Bromoform	ND		1.0	0.30	ug/L			11/04/20 13:01	1
Bromomethane	ND		0.50	0.070	ug/L			11/04/20 13:01	1
Carbon disulfide	0.25	J	1.0	0.060	ug/L			11/04/20 13:01	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			11/04/20 13:01	1
Chlorobenzene	ND		0.50	0.060	ug/L			11/04/20 13:01	1
Chloroethane	ND		0.50	0.070	ug/L			11/04/20 13:01	1
Chloroform	ND		0.50	0.090	ug/L			11/04/20 13:01	1
Chloromethane	ND		0.50	0.060	ug/L			11/04/20 13:01	1
cis-1,2-Dichloroethene	ND		0.50	0.050	ug/L			11/04/20 13:01	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			11/04/20 13:01	1
Dibromochloromethane	ND		0.50	0.070	ug/L			11/04/20 13:01	1
Ethylbenzene	ND		0.50	0.060	ug/L			11/04/20 13:01	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			11/04/20 13:01	1
Methylene Chloride	ND		0.50	0.070	ug/L			11/04/20 13:01	1
Styrene	ND		0.50	0.050	ug/L			11/04/20 13:01	1
Tetrachloroethene	0.088	J	0.50	0.060	ug/L			11/04/20 13:01	1
Toluene	0.39	J	0.50	0.070	ug/L			11/04/20 13:01	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			11/04/20 13:01	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			11/04/20 13:01	1
Trichloroethene	ND		0.50	0.060	ug/L			11/04/20 13:01	1
Vinyl chloride	ND		0.50	0.10	ug/L			11/04/20 13:01	1
Xylenes, Total	ND		1.0	0.15	ug/L			11/04/20 13:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		80 - 120		11/04/20 13:01	1
Dibromofluoromethane (Surr)	93		80 - 120		11/04/20 13:01	1
Toluene-d8 (Surr)	102		80 - 120		11/04/20 13:01	1
4-Bromofluorobenzene (Surr)	98		80 - 120		11/04/20 13:01	1

Client Sample Results

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

Job ID: 410-19023-1

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

Lab Sample ID: 410-19023-5

Date Collected: 10/29/20 09:20

Matrix: Water

Date Received: 10/30/20 16:08

Method: 8260C LL - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			11/04/20 13:23	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			11/04/20 13:23	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			11/04/20 13:23	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			11/04/20 13:23	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			11/04/20 13:23	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			11/04/20 13:23	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			11/04/20 13:23	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			11/04/20 13:23	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			11/04/20 13:23	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			11/04/20 13:23	1
2-Hexanone	ND		5.0	0.60	ug/L			11/04/20 13:23	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			11/04/20 13:23	1
Acetone	2.1	J	5.0	0.90	ug/L			11/04/20 13:23	1
Acrylonitrile	ND		5.0	0.40	ug/L			11/04/20 13:23	1
Benzene	ND		0.50	0.050	ug/L			11/04/20 13:23	1
Bromochloromethane	ND		0.50	0.050	ug/L			11/04/20 13:23	1
Bromodichloromethane	ND		0.50	0.050	ug/L			11/04/20 13:23	1
Bromoform	ND		1.0	0.30	ug/L			11/04/20 13:23	1
Bromomethane	ND		0.50	0.070	ug/L			11/04/20 13:23	1
Carbon disulfide	0.25	J	1.0	0.060	ug/L			11/04/20 13:23	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			11/04/20 13:23	1
Chlorobenzene	ND		0.50	0.060	ug/L			11/04/20 13:23	1
Chloroethane	ND		0.50	0.070	ug/L			11/04/20 13:23	1
Chloroform	ND		0.50	0.090	ug/L			11/04/20 13:23	1
Chloromethane	ND		0.50	0.060	ug/L			11/04/20 13:23	1
cis-1,2-Dichloroethene	0.051	J	0.50	0.050	ug/L			11/04/20 13:23	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			11/04/20 13:23	1
Dibromochloromethane	ND		0.50	0.070	ug/L			11/04/20 13:23	1
Ethylbenzene	ND		0.50	0.060	ug/L			11/04/20 13:23	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			11/04/20 13:23	1
Methylene Chloride	ND		0.50	0.070	ug/L			11/04/20 13:23	1
Styrene	ND		0.50	0.050	ug/L			11/04/20 13:23	1
Tetrachloroethene	0.074	J	0.50	0.060	ug/L			11/04/20 13:23	1
Toluene	0.076	J	0.50	0.070	ug/L			11/04/20 13:23	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			11/04/20 13:23	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			11/04/20 13:23	1
Trichloroethene	ND		0.50	0.060	ug/L			11/04/20 13:23	1
Vinyl chloride	ND		0.50	0.10	ug/L			11/04/20 13:23	1
Xylenes, Total	ND		1.0	0.15	ug/L			11/04/20 13:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		80 - 120		11/04/20 13:23	1
Dibromofluoromethane (Surr)	93		80 - 120		11/04/20 13:23	1
Toluene-d8 (Surr)	102		80 - 120		11/04/20 13:23	1
4-Bromofluorobenzene (Surr)	97		80 - 120		11/04/20 13:23	1

Client Sample Results

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

Job ID: 410-19023-1

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

Lab Sample ID: 410-19023-6

Date Collected: 10/29/20 11:25

Matrix: Water

Date Received: 10/30/20 16:08

Method: 8260C LL - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			11/04/20 13:45	1
1,1,1-Trichloroethane	0.071	J	0.50	0.060	ug/L			11/04/20 13:45	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			11/04/20 13:45	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			11/04/20 13:45	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			11/04/20 13:45	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			11/04/20 13:45	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			11/04/20 13:45	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			11/04/20 13:45	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			11/04/20 13:45	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			11/04/20 13:45	1
2-Hexanone	ND		5.0	0.60	ug/L			11/04/20 13:45	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			11/04/20 13:45	1
Acetone	ND		5.0	0.90	ug/L			11/04/20 13:45	1
Acrylonitrile	ND		5.0	0.40	ug/L			11/04/20 13:45	1
Benzene	ND		0.50	0.050	ug/L			11/04/20 13:45	1
Bromochloromethane	ND		0.50	0.050	ug/L			11/04/20 13:45	1
Bromodichloromethane	ND		0.50	0.050	ug/L			11/04/20 13:45	1
Bromoform	ND		1.0	0.30	ug/L			11/04/20 13:45	1
Bromomethane	ND		0.50	0.070	ug/L			11/04/20 13:45	1
Carbon disulfide	0.23	J	1.0	0.060	ug/L			11/04/20 13:45	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			11/04/20 13:45	1
Chlorobenzene	ND		0.50	0.060	ug/L			11/04/20 13:45	1
Chloroethane	ND		0.50	0.070	ug/L			11/04/20 13:45	1
Chloroform	0.25	J	0.50	0.090	ug/L			11/04/20 13:45	1
Chloromethane	ND		0.50	0.060	ug/L			11/04/20 13:45	1
cis-1,2-Dichloroethene	0.66		0.50	0.050	ug/L			11/04/20 13:45	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			11/04/20 13:45	1
Dibromochloromethane	ND		0.50	0.070	ug/L			11/04/20 13:45	1
Ethylbenzene	ND		0.50	0.060	ug/L			11/04/20 13:45	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			11/04/20 13:45	1
Methylene Chloride	ND		0.50	0.070	ug/L			11/04/20 13:45	1
Styrene	ND		0.50	0.050	ug/L			11/04/20 13:45	1
Tetrachloroethene	2.0		0.50	0.060	ug/L			11/04/20 13:45	1
Toluene	ND		0.50	0.070	ug/L			11/04/20 13:45	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			11/04/20 13:45	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			11/04/20 13:45	1
Trichloroethene	0.79		0.50	0.060	ug/L			11/04/20 13:45	1
Vinyl chloride	ND		0.50	0.10	ug/L			11/04/20 13:45	1
Xylenes, Total	ND		1.0	0.15	ug/L			11/04/20 13:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		80 - 120		11/04/20 13:45	1
Dibromofluoromethane (Surr)	92		80 - 120		11/04/20 13:45	1
Toluene-d8 (Surr)	102		80 - 120		11/04/20 13:45	1
4-Bromofluorobenzene (Surr)	97		80 - 120		11/04/20 13:45	1

Client Sample Results

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

Job ID: 410-19023-1

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

Lab Sample ID: 410-19023-7

Date Collected: 10/29/20 09:40

Matrix: Water

Date Received: 10/30/20 16:08

Method: 8260C LL - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			11/04/20 14:51	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			11/04/20 14:51	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			11/04/20 14:51	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			11/04/20 14:51	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			11/04/20 14:51	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			11/04/20 14:51	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			11/04/20 14:51	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			11/04/20 14:51	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			11/04/20 14:51	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			11/04/20 14:51	1
2-Hexanone	ND		5.0	0.60	ug/L			11/04/20 14:51	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			11/04/20 14:51	1
Acetone	2.2	J	5.0	0.90	ug/L			11/04/20 14:51	1
Acrylonitrile	ND		5.0	0.40	ug/L			11/04/20 14:51	1
Benzene	ND		0.50	0.050	ug/L			11/04/20 14:51	1
Bromochloromethane	ND		0.50	0.050	ug/L			11/04/20 14:51	1
Bromodichloromethane	ND		0.50	0.050	ug/L			11/04/20 14:51	1
Bromoform	ND		1.0	0.30	ug/L			11/04/20 14:51	1
Bromomethane	ND		0.50	0.070	ug/L			11/04/20 14:51	1
Carbon disulfide	0.26	J	1.0	0.060	ug/L			11/04/20 14:51	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			11/04/20 14:51	1
Chlorobenzene	ND		0.50	0.060	ug/L			11/04/20 14:51	1
Chloroethane	ND		0.50	0.070	ug/L			11/04/20 14:51	1
Chloroform	ND		0.50	0.090	ug/L			11/04/20 14:51	1
Chloromethane	ND		0.50	0.060	ug/L			11/04/20 14:51	1
cis-1,2-Dichloroethene	ND		0.50	0.050	ug/L			11/04/20 14:51	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			11/04/20 14:51	1
Dibromochloromethane	ND		0.50	0.070	ug/L			11/04/20 14:51	1
Ethylbenzene	ND		0.50	0.060	ug/L			11/04/20 14:51	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			11/04/20 14:51	1
Methylene Chloride	ND		0.50	0.070	ug/L			11/04/20 14:51	1
Styrene	ND		0.50	0.050	ug/L			11/04/20 14:51	1
Tetrachloroethene	ND		0.50	0.060	ug/L			11/04/20 14:51	1
Toluene	ND		0.50	0.070	ug/L			11/04/20 14:51	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			11/04/20 14:51	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			11/04/20 14:51	1
Trichloroethene	0.087	J	0.50	0.060	ug/L			11/04/20 14:51	1
Vinyl chloride	ND		0.50	0.10	ug/L			11/04/20 14:51	1
Xylenes, Total	ND		1.0	0.15	ug/L			11/04/20 14:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		80 - 120		11/04/20 14:51	1
Dibromofluoromethane (Surr)	93		80 - 120		11/04/20 14:51	1
Toluene-d8 (Surr)	102		80 - 120		11/04/20 14:51	1
4-Bromofluorobenzene (Surr)	98		80 - 120		11/04/20 14:51	1

Client Sample Results

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

Job ID: 410-19023-1

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

Lab Sample ID: 410-19023-8

Date Collected: 10/29/20 09:50

Matrix: Water

Date Received: 10/30/20 16:08

Method: 8260C LL - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			11/04/20 15:13	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			11/04/20 15:13	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			11/04/20 15:13	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			11/04/20 15:13	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			11/04/20 15:13	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			11/04/20 15:13	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			11/04/20 15:13	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			11/04/20 15:13	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			11/04/20 15:13	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			11/04/20 15:13	1
2-Hexanone	ND		5.0	0.60	ug/L			11/04/20 15:13	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			11/04/20 15:13	1
Acetone	3.3	J	5.0	0.90	ug/L			11/04/20 15:13	1
Acrylonitrile	ND		5.0	0.40	ug/L			11/04/20 15:13	1
Benzene	ND		0.50	0.050	ug/L			11/04/20 15:13	1
Bromochloromethane	ND		0.50	0.050	ug/L			11/04/20 15:13	1
Bromodichloromethane	ND		0.50	0.050	ug/L			11/04/20 15:13	1
Bromoform	ND		1.0	0.30	ug/L			11/04/20 15:13	1
Bromomethane	ND		0.50	0.070	ug/L			11/04/20 15:13	1
Carbon disulfide	0.25	J	1.0	0.060	ug/L			11/04/20 15:13	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			11/04/20 15:13	1
Chlorobenzene	ND		0.50	0.060	ug/L			11/04/20 15:13	1
Chloroethane	ND		0.50	0.070	ug/L			11/04/20 15:13	1
Chloroform	0.10	J	0.50	0.090	ug/L			11/04/20 15:13	1
Chloromethane	ND		0.50	0.060	ug/L			11/04/20 15:13	1
cis-1,2-Dichloroethene	0.14	J	0.50	0.050	ug/L			11/04/20 15:13	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			11/04/20 15:13	1
Dibromochloromethane	ND		0.50	0.070	ug/L			11/04/20 15:13	1
Ethylbenzene	ND		0.50	0.060	ug/L			11/04/20 15:13	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			11/04/20 15:13	1
Methylene Chloride	ND		0.50	0.070	ug/L			11/04/20 15:13	1
Styrene	ND		0.50	0.050	ug/L			11/04/20 15:13	1
Tetrachloroethene	0.44	J	0.50	0.060	ug/L			11/04/20 15:13	1
Toluene	ND		0.50	0.070	ug/L			11/04/20 15:13	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			11/04/20 15:13	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			11/04/20 15:13	1
Trichloroethene	0.28	J	0.50	0.060	ug/L			11/04/20 15:13	1
Vinyl chloride	ND		0.50	0.10	ug/L			11/04/20 15:13	1
Xylenes, Total	ND		1.0	0.15	ug/L			11/04/20 15:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		80 - 120		11/04/20 15:13	1
Dibromofluoromethane (Surr)	92		80 - 120		11/04/20 15:13	1
Toluene-d8 (Surr)	102		80 - 120		11/04/20 15:13	1
4-Bromofluorobenzene (Surr)	97		80 - 120		11/04/20 15:13	1

Client Sample Results

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

Job ID: 410-19023-1

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

Lab Sample ID: 410-19023-9

Date Collected: 10/29/20 10:35

Matrix: Water

Date Received: 10/30/20 16:08

Method: 8260C LL - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			11/04/20 15:36	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			11/04/20 15:36	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			11/04/20 15:36	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			11/04/20 15:36	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			11/04/20 15:36	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			11/04/20 15:36	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			11/04/20 15:36	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			11/04/20 15:36	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			11/04/20 15:36	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			11/04/20 15:36	1
2-Hexanone	ND		5.0	0.60	ug/L			11/04/20 15:36	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			11/04/20 15:36	1
Acetone	3.1	J	5.0	0.90	ug/L			11/04/20 15:36	1
Acrylonitrile	ND		5.0	0.40	ug/L			11/04/20 15:36	1
Benzene	ND		0.50	0.050	ug/L			11/04/20 15:36	1
Bromochloromethane	ND		0.50	0.050	ug/L			11/04/20 15:36	1
Bromodichloromethane	ND		0.50	0.050	ug/L			11/04/20 15:36	1
Bromoform	ND		1.0	0.30	ug/L			11/04/20 15:36	1
Bromomethane	ND		0.50	0.070	ug/L			11/04/20 15:36	1
Carbon disulfide	0.24	J	1.0	0.060	ug/L			11/04/20 15:36	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			11/04/20 15:36	1
Chlorobenzene	ND		0.50	0.060	ug/L			11/04/20 15:36	1
Chloroethane	ND		0.50	0.070	ug/L			11/04/20 15:36	1
Chloroform	ND		0.50	0.090	ug/L			11/04/20 15:36	1
Chloromethane	ND		0.50	0.060	ug/L			11/04/20 15:36	1
cis-1,2-Dichloroethene	0.064	J	0.50	0.050	ug/L			11/04/20 15:36	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			11/04/20 15:36	1
Dibromochloromethane	ND		0.50	0.070	ug/L			11/04/20 15:36	1
Ethylbenzene	ND		0.50	0.060	ug/L			11/04/20 15:36	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			11/04/20 15:36	1
Methylene Chloride	ND		0.50	0.070	ug/L			11/04/20 15:36	1
Styrene	ND		0.50	0.050	ug/L			11/04/20 15:36	1
Tetrachloroethene	ND		0.50	0.060	ug/L			11/04/20 15:36	1
Toluene	ND		0.50	0.070	ug/L			11/04/20 15:36	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			11/04/20 15:36	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			11/04/20 15:36	1
Trichloroethene	ND		0.50	0.060	ug/L			11/04/20 15:36	1
Vinyl chloride	ND		0.50	0.10	ug/L			11/04/20 15:36	1
Xylenes, Total	ND		1.0	0.15	ug/L			11/04/20 15:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		80 - 120		11/04/20 15:36	1
Dibromofluoromethane (Surr)	93		80 - 120		11/04/20 15:36	1
Toluene-d8 (Surr)	101		80 - 120		11/04/20 15:36	1
4-Bromofluorobenzene (Surr)	96		80 - 120		11/04/20 15:36	1

Client Sample Results

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

Job ID: 410-19023-1

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

Lab Sample ID: 410-19023-10

Date Collected: 10/29/20 11:15

Matrix: Water

Date Received: 10/30/20 16:08

Method: 8260C LL - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			11/04/20 15:58	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			11/04/20 15:58	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			11/04/20 15:58	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			11/04/20 15:58	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			11/04/20 15:58	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			11/04/20 15:58	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			11/04/20 15:58	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			11/04/20 15:58	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			11/04/20 15:58	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			11/04/20 15:58	1
2-Hexanone	ND		5.0	0.60	ug/L			11/04/20 15:58	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			11/04/20 15:58	1
Acetone	2.7	J	5.0	0.90	ug/L			11/04/20 15:58	1
Acrylonitrile	ND		5.0	0.40	ug/L			11/04/20 15:58	1
Benzene	ND		0.50	0.050	ug/L			11/04/20 15:58	1
Bromochloromethane	ND		0.50	0.050	ug/L			11/04/20 15:58	1
Bromodichloromethane	ND		0.50	0.050	ug/L			11/04/20 15:58	1
Bromoform	ND		1.0	0.30	ug/L			11/04/20 15:58	1
Bromomethane	ND		0.50	0.070	ug/L			11/04/20 15:58	1
Carbon disulfide	0.22	J	1.0	0.060	ug/L			11/04/20 15:58	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			11/04/20 15:58	1
Chlorobenzene	ND		0.50	0.060	ug/L			11/04/20 15:58	1
Chloroethane	ND		0.50	0.070	ug/L			11/04/20 15:58	1
Chloroform	ND		0.50	0.090	ug/L			11/04/20 15:58	1
Chloromethane	0.060	J	0.50	0.060	ug/L			11/04/20 15:58	1
cis-1,2-Dichloroethene	0.068	J	0.50	0.050	ug/L			11/04/20 15:58	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			11/04/20 15:58	1
Dibromochloromethane	ND		0.50	0.070	ug/L			11/04/20 15:58	1
Ethylbenzene	ND		0.50	0.060	ug/L			11/04/20 15:58	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			11/04/20 15:58	1
Methylene Chloride	ND		0.50	0.070	ug/L			11/04/20 15:58	1
Styrene	ND		0.50	0.050	ug/L			11/04/20 15:58	1
Tetrachloroethene	0.061	J	0.50	0.060	ug/L			11/04/20 15:58	1
Toluene	0.072	J	0.50	0.070	ug/L			11/04/20 15:58	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			11/04/20 15:58	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			11/04/20 15:58	1
Trichloroethene	0.094	J	0.50	0.060	ug/L			11/04/20 15:58	1
Vinyl chloride	ND		0.50	0.10	ug/L			11/04/20 15:58	1
Xylenes, Total	ND		1.0	0.15	ug/L			11/04/20 15:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		80 - 120		11/04/20 15:58	1
Dibromofluoromethane (Surr)	94		80 - 120		11/04/20 15:58	1
Toluene-d8 (Surr)	102		80 - 120		11/04/20 15:58	1
4-Bromofluorobenzene (Surr)	96		80 - 120		11/04/20 15:58	1

Client Sample Results

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

Job ID: 410-19023-1

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

Lab Sample ID: 410-19023-11

Date Collected: 10/29/20 11:55

Matrix: Water

Date Received: 10/30/20 16:08

Method: 8260C LL - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			11/04/20 16:20	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			11/04/20 16:20	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			11/04/20 16:20	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			11/04/20 16:20	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			11/04/20 16:20	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			11/04/20 16:20	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			11/04/20 16:20	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			11/04/20 16:20	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			11/04/20 16:20	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			11/04/20 16:20	1
2-Hexanone	ND		5.0	0.60	ug/L			11/04/20 16:20	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			11/04/20 16:20	1
Acetone	3.3	J	5.0	0.90	ug/L			11/04/20 16:20	1
Acrylonitrile	ND		5.0	0.40	ug/L			11/04/20 16:20	1
Benzene	ND		0.50	0.050	ug/L			11/04/20 16:20	1
Bromochloromethane	ND		0.50	0.050	ug/L			11/04/20 16:20	1
Bromodichloromethane	ND		0.50	0.050	ug/L			11/04/20 16:20	1
Bromoform	ND		1.0	0.30	ug/L			11/04/20 16:20	1
Bromomethane	ND		0.50	0.070	ug/L			11/04/20 16:20	1
Carbon disulfide	0.24	J	1.0	0.060	ug/L			11/04/20 16:20	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			11/04/20 16:20	1
Chlorobenzene	ND		0.50	0.060	ug/L			11/04/20 16:20	1
Chloroethane	ND		0.50	0.070	ug/L			11/04/20 16:20	1
Chloroform	ND		0.50	0.090	ug/L			11/04/20 16:20	1
Chloromethane	ND		0.50	0.060	ug/L			11/04/20 16:20	1
cis-1,2-Dichloroethene	ND		0.50	0.050	ug/L			11/04/20 16:20	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			11/04/20 16:20	1
Dibromochloromethane	ND		0.50	0.070	ug/L			11/04/20 16:20	1
Ethylbenzene	ND		0.50	0.060	ug/L			11/04/20 16:20	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			11/04/20 16:20	1
Methylene Chloride	ND		0.50	0.070	ug/L			11/04/20 16:20	1
Styrene	ND		0.50	0.050	ug/L			11/04/20 16:20	1
Tetrachloroethene	0.088	J	0.50	0.060	ug/L			11/04/20 16:20	1
Toluene	0.58		0.50	0.070	ug/L			11/04/20 16:20	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			11/04/20 16:20	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			11/04/20 16:20	1
Trichloroethene	ND		0.50	0.060	ug/L			11/04/20 16:20	1
Vinyl chloride	ND		0.50	0.10	ug/L			11/04/20 16:20	1
Xylenes, Total	ND		1.0	0.15	ug/L			11/04/20 16:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		80 - 120		11/04/20 16:20	1
Dibromofluoromethane (Surr)	93		80 - 120		11/04/20 16:20	1
Toluene-d8 (Surr)	101		80 - 120		11/04/20 16:20	1
4-Bromofluorobenzene (Surr)	97		80 - 120		11/04/20 16:20	1

Client Sample Results

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

Job ID: 410-19023-1

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

Lab Sample ID: 410-19023-12

Date Collected: 10/29/20 08:45

Matrix: Water

Date Received: 10/30/20 16:08

Method: 8260C LL - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			11/04/20 16:42	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			11/04/20 16:42	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			11/04/20 16:42	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			11/04/20 16:42	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			11/04/20 16:42	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			11/04/20 16:42	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			11/04/20 16:42	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			11/04/20 16:42	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			11/04/20 16:42	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			11/04/20 16:42	1
2-Hexanone	ND		5.0	0.60	ug/L			11/04/20 16:42	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			11/04/20 16:42	1
Acetone	1.7	J	5.0	0.90	ug/L			11/04/20 16:42	1
Acrylonitrile	ND		5.0	0.40	ug/L			11/04/20 16:42	1
Benzene	ND		0.50	0.050	ug/L			11/04/20 16:42	1
Bromochloromethane	ND		0.50	0.050	ug/L			11/04/20 16:42	1
Bromodichloromethane	ND		0.50	0.050	ug/L			11/04/20 16:42	1
Bromoform	ND		1.0	0.30	ug/L			11/04/20 16:42	1
Bromomethane	ND		0.50	0.070	ug/L			11/04/20 16:42	1
Carbon disulfide	0.25	J	1.0	0.060	ug/L			11/04/20 16:42	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			11/04/20 16:42	1
Chlorobenzene	ND		0.50	0.060	ug/L			11/04/20 16:42	1
Chloroethane	ND		0.50	0.070	ug/L			11/04/20 16:42	1
Chloroform	ND		0.50	0.090	ug/L			11/04/20 16:42	1
Chloromethane	0.063	J	0.50	0.060	ug/L			11/04/20 16:42	1
cis-1,2-Dichloroethene	0.10	J	0.50	0.050	ug/L			11/04/20 16:42	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			11/04/20 16:42	1
Dibromochloromethane	ND		0.50	0.070	ug/L			11/04/20 16:42	1
Ethylbenzene	ND		0.50	0.060	ug/L			11/04/20 16:42	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			11/04/20 16:42	1
Methylene Chloride	ND		0.50	0.070	ug/L			11/04/20 16:42	1
Styrene	ND		0.50	0.050	ug/L			11/04/20 16:42	1
Tetrachloroethene	0.065	J	0.50	0.060	ug/L			11/04/20 16:42	1
Toluene	ND		0.50	0.070	ug/L			11/04/20 16:42	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			11/04/20 16:42	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			11/04/20 16:42	1
Trichloroethene	0.092	J	0.50	0.060	ug/L			11/04/20 16:42	1
Vinyl chloride	ND		0.50	0.10	ug/L			11/04/20 16:42	1
Xylenes, Total	ND		1.0	0.15	ug/L			11/04/20 16:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		80 - 120		11/04/20 16:42	1
Dibromofluoromethane (Surr)	94		80 - 120		11/04/20 16:42	1
Toluene-d8 (Surr)	103		80 - 120		11/04/20 16:42	1
4-Bromofluorobenzene (Surr)	98		80 - 120		11/04/20 16:42	1

Client Sample Results

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

Job ID: 410-19023-1

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

Lab Sample ID: 410-19023-13

Date Collected: 10/29/20 12:00

Matrix: Water

Date Received: 10/30/20 16:08

Method: 8260C LL - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			11/04/20 10:49	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			11/04/20 10:49	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			11/04/20 10:49	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			11/04/20 10:49	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			11/04/20 10:49	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			11/04/20 10:49	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			11/04/20 10:49	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			11/04/20 10:49	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			11/04/20 10:49	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			11/04/20 10:49	1
2-Hexanone	ND		5.0	0.60	ug/L			11/04/20 10:49	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			11/04/20 10:49	1
Acetone	3.1	J	5.0	0.90	ug/L			11/04/20 10:49	1
Acrylonitrile	ND		5.0	0.40	ug/L			11/04/20 10:49	1
Benzene	ND		0.50	0.050	ug/L			11/04/20 10:49	1
Bromochloromethane	ND		0.50	0.050	ug/L			11/04/20 10:49	1
Bromodichloromethane	ND		0.50	0.050	ug/L			11/04/20 10:49	1
Bromoform	ND		1.0	0.30	ug/L			11/04/20 10:49	1
Bromomethane	ND		0.50	0.070	ug/L			11/04/20 10:49	1
Carbon disulfide	0.30	J	1.0	0.060	ug/L			11/04/20 10:49	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			11/04/20 10:49	1
Chlorobenzene	ND		0.50	0.060	ug/L			11/04/20 10:49	1
Chloroethane	ND		0.50	0.070	ug/L			11/04/20 10:49	1
Chloroform	0.10	J	0.50	0.090	ug/L			11/04/20 10:49	1
Chloromethane	ND		0.50	0.060	ug/L			11/04/20 10:49	1
cis-1,2-Dichloroethene	ND		0.50	0.050	ug/L			11/04/20 10:49	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			11/04/20 10:49	1
Dibromochloromethane	ND		0.50	0.070	ug/L			11/04/20 10:49	1
Ethylbenzene	ND		0.50	0.060	ug/L			11/04/20 10:49	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			11/04/20 10:49	1
Methylene Chloride	ND		0.50	0.070	ug/L			11/04/20 10:49	1
Styrene	ND		0.50	0.050	ug/L			11/04/20 10:49	1
Tetrachloroethene	0.30	J	0.50	0.060	ug/L			11/04/20 10:49	1
Toluene	ND		0.50	0.070	ug/L			11/04/20 10:49	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			11/04/20 10:49	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			11/04/20 10:49	1
Trichloroethene	0.31	J	0.50	0.060	ug/L			11/04/20 10:49	1
Vinyl chloride	ND		0.50	0.10	ug/L			11/04/20 10:49	1
Xylenes, Total	ND		1.0	0.15	ug/L			11/04/20 10:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		80 - 120		11/04/20 10:49	1
Dibromofluoromethane (Surr)	90		80 - 120		11/04/20 10:49	1
Toluene-d8 (Surr)	101		80 - 120		11/04/20 10:49	1
4-Bromofluorobenzene (Surr)	97		80 - 120		11/04/20 10:49	1

Client Sample Results

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

Job ID: 410-19023-1

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

Lab Sample ID: 410-19023-14

Date Collected: 10/29/20 00:00

Matrix: Water

Date Received: 10/30/20 16:08

Method: 8260C LL - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			11/04/20 11:11	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			11/04/20 11:11	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			11/04/20 11:11	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			11/04/20 11:11	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			11/04/20 11:11	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			11/04/20 11:11	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			11/04/20 11:11	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			11/04/20 11:11	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			11/04/20 11:11	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			11/04/20 11:11	1
2-Hexanone	ND		5.0	0.60	ug/L			11/04/20 11:11	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			11/04/20 11:11	1
Acetone	ND		5.0	0.90	ug/L			11/04/20 11:11	1
Acrylonitrile	ND		5.0	0.40	ug/L			11/04/20 11:11	1
Benzene	ND		0.50	0.050	ug/L			11/04/20 11:11	1
Bromochloromethane	ND		0.50	0.050	ug/L			11/04/20 11:11	1
Bromodichloromethane	ND		0.50	0.050	ug/L			11/04/20 11:11	1
Bromoform	ND		1.0	0.30	ug/L			11/04/20 11:11	1
Bromomethane	ND		0.50	0.070	ug/L			11/04/20 11:11	1
Carbon disulfide	0.27	J	1.0	0.060	ug/L			11/04/20 11:11	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			11/04/20 11:11	1
Chlorobenzene	ND		0.50	0.060	ug/L			11/04/20 11:11	1
Chloroethane	ND		0.50	0.070	ug/L			11/04/20 11:11	1
Chloroform	ND		0.50	0.090	ug/L			11/04/20 11:11	1
Chloromethane	ND		0.50	0.060	ug/L			11/04/20 11:11	1
cis-1,2-Dichloroethene	ND		0.50	0.050	ug/L			11/04/20 11:11	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			11/04/20 11:11	1
Dibromochloromethane	ND		0.50	0.070	ug/L			11/04/20 11:11	1
Ethylbenzene	ND		0.50	0.060	ug/L			11/04/20 11:11	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			11/04/20 11:11	1
Methylene Chloride	ND		0.50	0.070	ug/L			11/04/20 11:11	1
Styrene	ND		0.50	0.050	ug/L			11/04/20 11:11	1
Tetrachloroethene	ND		0.50	0.060	ug/L			11/04/20 11:11	1
Toluene	ND		0.50	0.070	ug/L			11/04/20 11:11	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			11/04/20 11:11	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			11/04/20 11:11	1
Trichloroethene	ND		0.50	0.060	ug/L			11/04/20 11:11	1
Vinyl chloride	ND		0.50	0.10	ug/L			11/04/20 11:11	1
Xylenes, Total	ND		1.0	0.15	ug/L			11/04/20 11:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		80 - 120		11/04/20 11:11	1
Dibromofluoromethane (Surr)	92		80 - 120		11/04/20 11:11	1
Toluene-d8 (Surr)	102		80 - 120		11/04/20 11:11	1
4-Bromofluorobenzene (Surr)	98		80 - 120		11/04/20 11:11	1

Default Detection Limits

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

Job ID: 410-19023-1

Method: 8260C LL - 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: 410-19023-1

Method: 8260C LL - 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)	DBFM (80-120)	TOL (80-120)	BFB (80-120)
410-19023-1	HD-COD-SW-6-0/1-0	108	102	94	92
410-19023-2	HD-COD-SW-7-0/1-0	111	103	93	91
410-19023-3	HD-COD-SW-8-0/1-0	98	93	101	98
410-19023-4	HD-COD-SW-9-0/1-0	101	93	102	98
410-19023-5	HD-COD-SW-13-0/1-0	98	93	102	97
410-19023-6	HD-COD-SW-15-0/1-0	101	92	102	97
410-19023-6 MS	HD-COD-SW-15-0/1-0	98	92	103	99
410-19023-6 MSD	HD-COD-SW-15-0/1-0	98	92	103	101
410-19023-7	HD-COD-SW-16-0/1-0	101	93	102	98
410-19023-8	HD-COD-SW-17-0/1-0	102	92	102	97
410-19023-9	HD-COD-SW-26-0/1-0	101	93	101	96
410-19023-10	HD-COD-SW-27-0/1-0	101	94	102	96
410-19023-11	HD-COD-SW-28-0/1-0	100	93	101	97
410-19023-12	HD-COD-SW-29-0/1-0	97	94	103	98
410-19023-13	HD-QC1-0/1-1	101	90	101	97
410-19023-14	HD-QC1-0/1-2	102	92	102	98
LCS 410-61951/4	Lab Control Sample	101	92	102	99
LCS 410-62460/4	Lab Control Sample	106	99	95	95
LCS 410-63387/4	Lab Control Sample	107	101	96	97
LCSD 410-62460/5	Lab Control Sample Dup	104	98	96	96
MB 410-61951/6	Method Blank	100	92	101	96
MB 410-62460/7	Method Blank	107	100	94	92
MB 410-63387/6	Method Blank	108	101	93	91

Surrogate Legend

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

QC Sample Results

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

Job ID: 410-19023-1

Method: 8260C LL - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-61951/6

Matrix: Water

Analysis Batch: 61951

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			11/04/20 10:05	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			11/04/20 10:05	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			11/04/20 10:05	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			11/04/20 10:05	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			11/04/20 10:05	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			11/04/20 10:05	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			11/04/20 10:05	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			11/04/20 10:05	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			11/04/20 10:05	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			11/04/20 10:05	1
2-Hexanone	ND		5.0	0.60	ug/L			11/04/20 10:05	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			11/04/20 10:05	1
Acetone	ND		5.0	0.90	ug/L			11/04/20 10:05	1
Acrylonitrile	ND		5.0	0.40	ug/L			11/04/20 10:05	1
Benzene	ND		0.50	0.050	ug/L			11/04/20 10:05	1
Bromochloromethane	ND		0.50	0.050	ug/L			11/04/20 10:05	1
Bromodichloromethane	ND		0.50	0.050	ug/L			11/04/20 10:05	1
Bromoform	ND		1.0	0.30	ug/L			11/04/20 10:05	1
Bromomethane	ND		0.50	0.070	ug/L			11/04/20 10:05	1
Carbon disulfide	0.293	J	1.0	0.060	ug/L			11/04/20 10:05	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			11/04/20 10:05	1
Chlorobenzene	ND		0.50	0.060	ug/L			11/04/20 10:05	1
Chloroethane	ND		0.50	0.070	ug/L			11/04/20 10:05	1
Chloroform	ND		0.50	0.090	ug/L			11/04/20 10:05	1
Chloromethane	ND		0.50	0.060	ug/L			11/04/20 10:05	1
cis-1,2-Dichloroethene	ND		0.50	0.050	ug/L			11/04/20 10:05	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			11/04/20 10:05	1
Dibromochloromethane	ND		0.50	0.070	ug/L			11/04/20 10:05	1
Ethylbenzene	ND		0.50	0.060	ug/L			11/04/20 10:05	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			11/04/20 10:05	1
Methylene Chloride	ND		0.50	0.070	ug/L			11/04/20 10:05	1
Styrene	ND		0.50	0.050	ug/L			11/04/20 10:05	1
Tetrachloroethene	ND		0.50	0.060	ug/L			11/04/20 10:05	1
Toluene	ND		0.50	0.070	ug/L			11/04/20 10:05	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			11/04/20 10:05	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			11/04/20 10:05	1
Trichloroethene	ND		0.50	0.060	ug/L			11/04/20 10:05	1
Vinyl chloride	ND		0.50	0.10	ug/L			11/04/20 10:05	1
Xylenes, Total	ND		1.0	0.15	ug/L			11/04/20 10:05	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	100		80 - 120		11/04/20 10:05	1
Dibromofluoromethane (Surr)	92		80 - 120		11/04/20 10:05	1
Toluene-d8 (Surr)	101		80 - 120		11/04/20 10:05	1
4-Bromofluorobenzene (Surr)	96		80 - 120		11/04/20 10:05	1

QC Sample Results

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

Job ID: 410-19023-1

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

Lab Sample ID: LCS 410-61951/4

Matrix: Water

Analysis Batch: 61951

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	5.00	4.49		ug/L		90	71 - 134
1,1,1-Trichloroethane	5.00	4.29		ug/L		86	78 - 126
1,1,1,2-Tetrachloroethane	5.00	5.20		ug/L		104	75 - 123
1,1,2-Trichloroethane	5.00	5.21		ug/L		104	80 - 120
1,1-Dichloroethane	5.00	4.87		ug/L		97	74 - 120
1,1-Dichloroethene	5.00	4.67		ug/L		93	80 - 131
1,2-Dibromoethane (EDB)	5.00	4.97		ug/L		99	80 - 120
1,2-Dichloroethane	5.00	4.40		ug/L		88	69 - 122
1,2-Dichloropropane	5.00	5.22		ug/L		104	80 - 120
2-Butanone (MEK)	37.5	33.1		ug/L		88	59 - 141
2-Hexanone	25.0	21.4		ug/L		86	52 - 140
4-Methyl-2-pentanone (MIBK)	25.0	21.2		ug/L		85	55 - 140
Acetone	37.5	29.2		ug/L		78	60 - 146
Acrylonitrile	25.0	25.4		ug/L		102	64 - 139
Benzene	5.00	4.94		ug/L		99	80 - 120
Bromochloromethane	5.00	4.32		ug/L		86	80 - 120
Bromodichloromethane	5.00	4.69		ug/L		94	73 - 124
Bromoform	5.00	4.36		ug/L		87	49 - 144
Bromomethane	5.00	4.02		ug/L		80	60 - 136
Carbon disulfide	5.00	5.02		ug/L		100	67 - 130
Carbon tetrachloride	5.00	4.02		ug/L		80	64 - 141
Chlorobenzene	5.00	4.93		ug/L		99	80 - 120
Chloroethane	5.00	4.42		ug/L		88	63 - 120
Chloroform	5.00	4.56		ug/L		91	80 - 120
Chloromethane	5.00	4.12		ug/L		82	56 - 124
cis-1,2-Dichloroethene	5.00	5.11		ug/L		102	80 - 122
cis-1,3-Dichloropropene	5.00	4.91		ug/L		98	67 - 121
Dibromochloromethane	5.00	4.80		ug/L		96	64 - 138
Ethylbenzene	5.00	4.84		ug/L		97	80 - 120
Methyl tert-butyl ether	5.00	4.74		ug/L		95	69 - 120
Methylene Chloride	5.00	4.93		ug/L		99	80 - 120
Styrene	5.00	5.00		ug/L		100	80 - 120
Tetrachloroethene	5.00	4.48		ug/L		90	80 - 120
Toluene	5.00	5.11		ug/L		102	80 - 120
trans-1,2-Dichloroethene	5.00	4.91		ug/L		98	80 - 122
trans-1,3-Dichloropropene	5.00	4.76		ug/L		95	61 - 129
Trichloroethene	5.00	4.62		ug/L		92	80 - 120
Vinyl chloride	5.00	3.96		ug/L		79	60 - 125
Xylenes, Total	15.0	14.9		ug/L		99	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		80 - 120
Dibromofluoromethane (Surr)	92		80 - 120
Toluene-d8 (Surr)	102		80 - 120
4-Bromofluorobenzene (Surr)	99		80 - 120

QC Sample Results

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

Job ID: 410-19023-1

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

Lab Sample ID: 410-19023-6 MS

Matrix: Water

Analysis Batch: 61951

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

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
1,1,1,2-Tetrachloroethane	ND		5.00	4.55		ug/L		91	71 - 134
1,1,1-Trichloroethane	0.071	J	5.00	4.63		ug/L		91	78 - 126
1,1,2,2-Tetrachloroethane	ND		5.00	5.23		ug/L		104	75 - 123
1,1,2-Trichloroethane	ND		5.00	5.18		ug/L		103	80 - 120
1,1-Dichloroethane	ND		5.00	5.17		ug/L		103	74 - 120
1,1-Dichloroethene	ND		5.00	5.28		ug/L		106	80 - 131
1,2-Dibromoethane (EDB)	ND		5.00	4.79		ug/L		96	80 - 120
1,2-Dichloroethane	ND		5.00	4.25		ug/L		85	69 - 122
1,2-Dichloropropane	ND		5.00	5.40		ug/L		108	80 - 120
2-Butanone (MEK)	ND		37.5	39.4		ug/L		105	59 - 141
2-Hexanone	ND		25.0	27.1		ug/L		108	52 - 140
4-Methyl-2-pentanone (MIBK)	ND		25.0	25.9		ug/L		103	55 - 140
Acetone	ND		37.5	32.5		ug/L		87	60 - 146
Acrylonitrile	ND		25.0	27.3		ug/L		109	64 - 139
Benzene	ND		5.00	5.18		ug/L		104	80 - 120
Bromochloromethane	ND		5.00	4.49		ug/L		90	80 - 120
Bromodichloromethane	ND		5.00	4.75		ug/L		95	73 - 124
Bromoform	ND		5.00	4.05		ug/L		81	49 - 144
Bromomethane	ND		5.00	4.04		ug/L		81	60 - 136
Carbon disulfide	0.23	J	5.00	5.35		ug/L		102	67 - 130
Carbon tetrachloride	ND		5.00	4.45		ug/L		89	64 - 141
Chlorobenzene	ND		5.00	5.03		ug/L		101	80 - 120
Chloroethane	ND		5.00	4.62		ug/L		92	63 - 120
Chloroform	0.25	J	5.00	5.00		ug/L		95	80 - 120
Chloromethane	ND		5.00	4.13		ug/L		83	80 - 120
cis-1,2-Dichloroethene	0.66		5.00	5.98		ug/L		106	80 - 122
cis-1,3-Dichloropropene	ND		5.00	4.97		ug/L		99	67 - 121
Dibromochloromethane	ND		5.00	4.68		ug/L		93	64 - 138
Ethylbenzene	ND		5.00	5.13		ug/L		102	80 - 120
Methyl tert-butyl ether	ND		5.00	4.61		ug/L		92	69 - 120
Methylene Chloride	ND		5.00	5.08		ug/L		101	80 - 120
Styrene	ND		5.00	5.25		ug/L		105	80 - 120
Tetrachloroethene	2.0		5.00	6.89		ug/L		98	80 - 120
Toluene	ND		5.00	5.46		ug/L		109	80 - 120
trans-1,2-Dichloroethene	ND		5.00	5.26		ug/L		105	80 - 122
trans-1,3-Dichloropropene	ND		5.00	4.71		ug/L		94	61 - 129
Trichloroethene	0.79		5.00	5.83		ug/L		101	80 - 120
Vinyl chloride	ND		5.00	4.31		ug/L		86	60 - 125
Xylenes, Total	ND		15.0	15.8		ug/L		105	80 - 120

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		80 - 120
Dibromofluoromethane (Surr)	92		80 - 120
Toluene-d8 (Surr)	103		80 - 120
4-Bromofluorobenzene (Surr)	99		80 - 120

QC Sample Results

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

Job ID: 410-19023-1

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

Lab Sample ID: 410-19023-6 MSD

Matrix: Water

Analysis Batch: 61951

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

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limit
1,1,1,2-Tetrachloroethane	ND		5.00	4.76		ug/L		95	71 - 134	5	30
1,1,1-Trichloroethane	0.071	J	5.00	4.67		ug/L		92	78 - 126	1	30
1,1,2,2-Tetrachloroethane	ND		5.00	5.22		ug/L		104	75 - 123	0	30
1,1,2-Trichloroethane	ND		5.00	5.29		ug/L		106	80 - 120	2	30
1,1-Dichloroethane	ND		5.00	5.23		ug/L		105	74 - 120	1	30
1,1-Dichloroethene	ND		5.00	5.26		ug/L		105	80 - 131	0	30
1,2-Dibromoethane (EDB)	ND		5.00	4.82		ug/L		96	80 - 120	1	30
1,2-Dichloroethane	ND		5.00	4.39		ug/L		88	69 - 122	3	30
1,2-Dichloropropane	ND		5.00	5.38		ug/L		107	80 - 120	0	30
2-Butanone (MEK)	ND		37.5	33.2		ug/L		88	59 - 141	17	30
2-Hexanone	ND		25.0	22.3		ug/L		89	52 - 140	19	30
4-Methyl-2-pentanone (MIBK)	ND		25.0	22.0		ug/L		88	55 - 140	16	30
Acetone	ND		37.5	31.0		ug/L		83	60 - 146	5	30
Acrylonitrile	ND		25.0	26.2		ug/L		105	64 - 139	4	30
Benzene	ND		5.00	5.18		ug/L		104	80 - 120	0	30
Bromochloromethane	ND		5.00	4.56		ug/L		91	80 - 120	2	30
Bromodichloromethane	ND		5.00	4.77		ug/L		95	73 - 124	0	30
Bromoform	ND		5.00	4.22		ug/L		84	49 - 144	4	30
Bromomethane	ND		5.00	4.11		ug/L		82	60 - 136	2	30
Carbon disulfide	0.23	J	5.00	5.38		ug/L		103	67 - 130	1	30
Carbon tetrachloride	ND		5.00	4.48		ug/L		89	64 - 141	1	30
Chlorobenzene	ND		5.00	5.14		ug/L		103	80 - 120	2	30
Chloroethane	ND		5.00	4.61		ug/L		92	63 - 120	0	30
Chloroform	0.25	J	5.00	5.05		ug/L		96	80 - 120	1	30
Chloromethane	ND		5.00	4.12		ug/L		82	80 - 120	0	30
cis-1,2-Dichloroethene	0.66		5.00	5.92		ug/L		105	80 - 122	1	30
cis-1,3-Dichloropropene	ND		5.00	4.93		ug/L		98	67 - 121	1	30
Dibromochloromethane	ND		5.00	4.80		ug/L		96	64 - 138	3	30
Ethylbenzene	ND		5.00	5.13		ug/L		103	80 - 120	0	30
Methyl tert-butyl ether	ND		5.00	4.77		ug/L		95	69 - 120	3	30
Methylene Chloride	ND		5.00	5.22		ug/L		104	80 - 120	3	30
Styrene	ND		5.00	5.30		ug/L		106	80 - 120	1	30
Tetrachloroethene	2.0		5.00	6.87		ug/L		98	80 - 120	0	30
Toluene	ND		5.00	5.46		ug/L		109	80 - 120	0	30
trans-1,2-Dichloroethene	ND		5.00	5.20		ug/L		104	80 - 122	1	30
trans-1,3-Dichloropropene	ND		5.00	4.70		ug/L		94	61 - 129	0	30
Trichloroethene	0.79		5.00	5.79		ug/L		100	80 - 120	1	30
Vinyl chloride	ND		5.00	4.21		ug/L		84	60 - 125	3	30
Xylenes, Total	ND		15.0	16.0		ug/L		107	80 - 120	2	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		80 - 120
Dibromofluoromethane (Surr)	92		80 - 120
Toluene-d8 (Surr)	103		80 - 120
4-Bromofluorobenzene (Surr)	101		80 - 120

QC Sample Results

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

Job ID: 410-19023-1

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

Lab Sample ID: MB 410-62460/7

Matrix: Water

Analysis Batch: 62460

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			11/05/20 11:01	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			11/05/20 11:01	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			11/05/20 11:01	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			11/05/20 11:01	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			11/05/20 11:01	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			11/05/20 11:01	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			11/05/20 11:01	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			11/05/20 11:01	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			11/05/20 11:01	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			11/05/20 11:01	1
2-Hexanone	ND		5.0	0.60	ug/L			11/05/20 11:01	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			11/05/20 11:01	1
Acetone	ND		5.0	0.90	ug/L			11/05/20 11:01	1
Acrylonitrile	ND		5.0	0.40	ug/L			11/05/20 11:01	1
Benzene	ND		0.50	0.050	ug/L			11/05/20 11:01	1
Bromochloromethane	ND		0.50	0.050	ug/L			11/05/20 11:01	1
Bromodichloromethane	ND		0.50	0.050	ug/L			11/05/20 11:01	1
Bromoform	ND		1.0	0.30	ug/L			11/05/20 11:01	1
Bromomethane	ND		0.50	0.070	ug/L			11/05/20 11:01	1
Carbon disulfide	ND		1.0	0.060	ug/L			11/05/20 11:01	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			11/05/20 11:01	1
Chlorobenzene	ND		0.50	0.060	ug/L			11/05/20 11:01	1
Chloroethane	ND		0.50	0.070	ug/L			11/05/20 11:01	1
Chloroform	ND		0.50	0.090	ug/L			11/05/20 11:01	1
Chloromethane	ND		0.50	0.060	ug/L			11/05/20 11:01	1
cis-1,2-Dichloroethene	ND		0.50	0.050	ug/L			11/05/20 11:01	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			11/05/20 11:01	1
Dibromochloromethane	ND		0.50	0.070	ug/L			11/05/20 11:01	1
Ethylbenzene	ND		0.50	0.060	ug/L			11/05/20 11:01	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			11/05/20 11:01	1
Methylene Chloride	ND		0.50	0.070	ug/L			11/05/20 11:01	1
Styrene	ND		0.50	0.050	ug/L			11/05/20 11:01	1
Tetrachloroethene	ND		0.50	0.060	ug/L			11/05/20 11:01	1
Toluene	ND		0.50	0.070	ug/L			11/05/20 11:01	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			11/05/20 11:01	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			11/05/20 11:01	1
Trichloroethene	ND		0.50	0.060	ug/L			11/05/20 11:01	1
Vinyl chloride	ND		0.50	0.10	ug/L			11/05/20 11:01	1
Xylenes, Total	ND		1.0	0.15	ug/L			11/05/20 11:01	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	107		80 - 120		11/05/20 11:01	1
Dibromofluoromethane (Surr)	100		80 - 120		11/05/20 11:01	1
Toluene-d8 (Surr)	94		80 - 120		11/05/20 11:01	1
4-Bromofluorobenzene (Surr)	92		80 - 120		11/05/20 11:01	1

QC Sample Results

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

Job ID: 410-19023-1

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

Lab Sample ID: LCS 410-62460/4

Matrix: Water

Analysis Batch: 62460

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	5.00	4.76		ug/L		95	71 - 134
1,1,1-Trichloroethane	5.00	4.25		ug/L		85	78 - 126
1,1,2,2-Tetrachloroethane	5.00	5.00		ug/L		100	75 - 123
1,1,2-Trichloroethane	5.00	5.22		ug/L		104	80 - 120
1,1-Dichloroethane	5.00	4.39		ug/L		88	74 - 120
1,1-Dichloroethene	5.00	4.60		ug/L		92	80 - 131
1,2-Dibromoethane (EDB)	5.00	5.06		ug/L		101	80 - 120
1,2-Dichloroethane	5.00	4.32		ug/L		86	69 - 122
1,2-Dichloropropane	5.00	4.64		ug/L		93	80 - 120
2-Butanone (MEK)	37.5	38.5		ug/L		103	59 - 141
2-Hexanone	25.0	23.1		ug/L		93	52 - 140
4-Methyl-2-pentanone (MIBK)	25.0	22.2		ug/L		89	55 - 140
Acetone	37.5	46.5		ug/L		124	60 - 146
Acrylonitrile	25.0	27.6		ug/L		110	64 - 139
Benzene	5.00	4.70		ug/L		94	80 - 120
Bromochloromethane	5.00	4.86		ug/L		97	80 - 120
Bromodichloromethane	5.00	4.72		ug/L		94	73 - 124
Bromoform	5.00	5.91		ug/L		118	49 - 144
Bromomethane	5.00	4.46		ug/L		89	60 - 136
Carbon disulfide	5.00	4.53		ug/L		91	67 - 130
Carbon tetrachloride	5.00	4.26		ug/L		85	64 - 141
Chlorobenzene	5.00	4.79		ug/L		96	80 - 120
Chloroethane	5.00	4.10		ug/L		82	63 - 120
Chloroform	5.00	4.46		ug/L		89	80 - 120
Chloromethane	5.00	4.30		ug/L		86	56 - 124
cis-1,2-Dichloroethene	5.00	4.94		ug/L		99	80 - 122
cis-1,3-Dichloropropene	5.00	4.47		ug/L		89	67 - 121
Dibromochloromethane	5.00	5.26		ug/L		105	64 - 138
Ethylbenzene	5.00	4.56		ug/L		91	80 - 120
Methyl tert-butyl ether	5.00	4.38		ug/L		88	69 - 120
Methylene Chloride	5.00	4.96		ug/L		99	80 - 120
Styrene	5.00	4.77		ug/L		95	80 - 120
Tetrachloroethene	5.00	4.79		ug/L		96	80 - 120
Toluene	5.00	4.63		ug/L		93	80 - 120
trans-1,2-Dichloroethene	5.00	4.68		ug/L		94	80 - 122
trans-1,3-Dichloropropene	5.00	4.48		ug/L		90	61 - 129
Trichloroethene	5.00	4.69		ug/L		94	80 - 120
Vinyl chloride	5.00	4.31		ug/L		86	60 - 125
Xylenes, Total	15.0	14.0		ug/L		93	80 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	106		80 - 120
Dibromofluoromethane (Surr)	99		80 - 120
Toluene-d8 (Surr)	95		80 - 120
4-Bromofluorobenzene (Surr)	95		80 - 120

QC Sample Results

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

Job ID: 410-19023-1

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

Lab Sample ID: LCSD 410-62460/5

Matrix: Water

Analysis Batch: 62460

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	5.00	4.84		ug/L		97	71 - 134	2	30
1,1,1-Trichloroethane	5.00	4.16		ug/L		83	78 - 126	2	30
1,1,2,2-Tetrachloroethane	5.00	5.00		ug/L		100	75 - 123	0	30
1,1,2-Trichloroethane	5.00	5.24		ug/L		105	80 - 120	0	30
1,1-Dichloroethane	5.00	4.47		ug/L		89	74 - 120	2	30
1,1-Dichloroethene	5.00	4.60		ug/L		92	80 - 131	0	30
1,2-Dibromoethane (EDB)	5.00	5.04		ug/L		101	80 - 120	0	30
1,2-Dichloroethane	5.00	4.31		ug/L		86	69 - 122	0	30
1,2-Dichloropropane	5.00	4.62		ug/L		92	80 - 120	1	30
2-Butanone (MEK)	37.5	36.9		ug/L		98	59 - 141	4	30
2-Hexanone	25.0	22.2		ug/L		89	52 - 140	4	30
4-Methyl-2-pentanone (MIBK)	25.0	21.3		ug/L		85	55 - 140	4	30
Acetone	37.5	44.0		ug/L		117	60 - 146	5	30
Acrylonitrile	25.0	27.0		ug/L		108	64 - 139	2	30
Benzene	5.00	4.68		ug/L		94	80 - 120	0	30
Bromochloromethane	5.00	4.89		ug/L		98	80 - 120	1	30
Bromodichloromethane	5.00	4.71		ug/L		94	73 - 124	0	30
Bromoform	5.00	5.91		ug/L		118	49 - 144	0	30
Bromomethane	5.00	4.36		ug/L		87	60 - 136	2	30
Carbon disulfide	5.00	4.45		ug/L		89	67 - 130	2	30
Carbon tetrachloride	5.00	4.27		ug/L		85	64 - 141	0	30
Chlorobenzene	5.00	4.79		ug/L		96	80 - 120	0	30
Chloroethane	5.00	4.08		ug/L		82	63 - 120	1	30
Chloroform	5.00	4.48		ug/L		90	80 - 120	1	30
Chloromethane	5.00	4.46		ug/L		89	56 - 124	4	30
cis-1,2-Dichloroethene	5.00	4.94		ug/L		99	80 - 122	0	30
cis-1,3-Dichloropropene	5.00	4.54		ug/L		91	67 - 121	2	30
Dibromochloromethane	5.00	5.22		ug/L		104	64 - 138	1	30
Ethylbenzene	5.00	4.57		ug/L		91	80 - 120	0	30
Methyl tert-butyl ether	5.00	4.35		ug/L		87	69 - 120	1	30
Methylene Chloride	5.00	5.00		ug/L		100	80 - 120	1	30
Styrene	5.00	4.77		ug/L		95	80 - 120	0	30
Tetrachloroethene	5.00	4.80		ug/L		96	80 - 120	0	30
Toluene	5.00	4.66		ug/L		93	80 - 120	1	30
trans-1,2-Dichloroethene	5.00	4.74		ug/L		95	80 - 122	1	30
trans-1,3-Dichloropropene	5.00	4.49		ug/L		90	61 - 129	0	30
Trichloroethene	5.00	4.66		ug/L		93	80 - 120	1	30
Vinyl chloride	5.00	4.39		ug/L		88	60 - 125	2	30
Xylenes, Total	15.0	14.1		ug/L		94	80 - 120	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	104		80 - 120
Dibromofluoromethane (Surr)	98		80 - 120
Toluene-d8 (Surr)	96		80 - 120
4-Bromofluorobenzene (Surr)	96		80 - 120

QC Sample Results

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

Job ID: 410-19023-1

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

Lab Sample ID: MB 410-63387/6

Matrix: Water

Analysis Batch: 63387

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			11/08/20 12:34	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			11/08/20 12:34	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			11/08/20 12:34	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			11/08/20 12:34	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			11/08/20 12:34	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			11/08/20 12:34	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			11/08/20 12:34	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			11/08/20 12:34	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			11/08/20 12:34	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			11/08/20 12:34	1
2-Hexanone	ND		5.0	0.60	ug/L			11/08/20 12:34	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			11/08/20 12:34	1
Acetone	ND		5.0	0.90	ug/L			11/08/20 12:34	1
Acrylonitrile	ND		5.0	0.40	ug/L			11/08/20 12:34	1
Benzene	ND		0.50	0.050	ug/L			11/08/20 12:34	1
Bromochloromethane	ND		0.50	0.050	ug/L			11/08/20 12:34	1
Bromodichloromethane	ND		0.50	0.050	ug/L			11/08/20 12:34	1
Bromoform	ND		1.0	0.30	ug/L			11/08/20 12:34	1
Bromomethane	ND		0.50	0.070	ug/L			11/08/20 12:34	1
Carbon disulfide	ND		1.0	0.060	ug/L			11/08/20 12:34	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			11/08/20 12:34	1
Chlorobenzene	ND		0.50	0.060	ug/L			11/08/20 12:34	1
Chloroethane	ND		0.50	0.070	ug/L			11/08/20 12:34	1
Chloroform	ND		0.50	0.090	ug/L			11/08/20 12:34	1
Chloromethane	ND		0.50	0.060	ug/L			11/08/20 12:34	1
cis-1,2-Dichloroethene	ND		0.50	0.050	ug/L			11/08/20 12:34	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			11/08/20 12:34	1
Dibromochloromethane	ND		0.50	0.070	ug/L			11/08/20 12:34	1
Ethylbenzene	ND		0.50	0.060	ug/L			11/08/20 12:34	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			11/08/20 12:34	1
Methylene Chloride	ND		0.50	0.070	ug/L			11/08/20 12:34	1
Styrene	ND		0.50	0.050	ug/L			11/08/20 12:34	1
Tetrachloroethene	ND		0.50	0.060	ug/L			11/08/20 12:34	1
Toluene	ND		0.50	0.070	ug/L			11/08/20 12:34	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			11/08/20 12:34	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			11/08/20 12:34	1
Trichloroethene	ND		0.50	0.060	ug/L			11/08/20 12:34	1
Vinyl chloride	ND		0.50	0.10	ug/L			11/08/20 12:34	1
Xylenes, Total	ND		1.0	0.15	ug/L			11/08/20 12:34	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	108		80 - 120		11/08/20 12:34	1
Dibromofluoromethane (Surr)	101		80 - 120		11/08/20 12:34	1
Toluene-d8 (Surr)	93		80 - 120		11/08/20 12:34	1
4-Bromofluorobenzene (Surr)	91		80 - 120		11/08/20 12:34	1

QC Sample Results

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

Job ID: 410-19023-1

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

Lab Sample ID: LCS 410-63387/4

Matrix: Water

Analysis Batch: 63387

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	5.00	4.69		ug/L		94	71 - 134
1,1,1-Trichloroethane	5.00	4.21		ug/L		84	78 - 126
1,1,1,2-Tetrachloroethane	5.00	4.72		ug/L		94	75 - 123
1,1,2-Trichloroethane	5.00	5.15		ug/L		103	80 - 120
1,1-Dichloroethane	5.00	4.23		ug/L		85	74 - 120
1,1-Dichloroethene	5.00	4.78		ug/L		96	80 - 131
1,2-Dibromoethane (EDB)	5.00	4.88		ug/L		98	80 - 120
1,2-Dichloroethane	5.00	4.22		ug/L		84	69 - 122
1,2-Dichloropropane	5.00	4.49		ug/L		90	80 - 120
2-Butanone (MEK)	37.5	35.9		ug/L		96	59 - 141
2-Hexanone	25.0	24.1		ug/L		96	52 - 140
4-Methyl-2-pentanone (MIBK)	25.0	22.7		ug/L		91	55 - 140
Acetone	37.5	41.4		ug/L		110	60 - 146
Acrylonitrile	25.0	26.4		ug/L		106	64 - 139
Benzene	5.00	4.63		ug/L		93	80 - 120
Bromochloromethane	5.00	5.09		ug/L		102	80 - 120
Bromodichloromethane	5.00	4.66		ug/L		93	73 - 124
Bromoform	5.00	5.98		ug/L		120	49 - 144
Bromomethane	5.00	4.40		ug/L		88	60 - 136
Carbon disulfide	5.00	4.52		ug/L		90	67 - 130
Carbon tetrachloride	5.00	4.32		ug/L		86	64 - 141
Chlorobenzene	5.00	4.71		ug/L		94	80 - 120
Chloroethane	5.00	4.17		ug/L		83	63 - 120
Chloroform	5.00	4.42		ug/L		88	80 - 120
Chloromethane	5.00	4.22		ug/L		84	56 - 124
cis-1,2-Dichloroethene	5.00	4.89		ug/L		98	80 - 122
cis-1,3-Dichloropropene	5.00	4.50		ug/L		90	67 - 121
Dibromochloromethane	5.00	5.14		ug/L		103	64 - 138
Ethylbenzene	5.00	4.44		ug/L		89	80 - 120
Methyl tert-butyl ether	5.00	4.21		ug/L		84	69 - 120
Methylene Chloride	5.00	4.84		ug/L		97	80 - 120
Styrene	5.00	4.71		ug/L		94	80 - 120
Tetrachloroethene	5.00	4.89		ug/L		98	80 - 120
Toluene	5.00	4.53		ug/L		91	80 - 120
trans-1,2-Dichloroethene	5.00	4.67		ug/L		93	80 - 122
trans-1,3-Dichloropropene	5.00	4.37		ug/L		87	61 - 129
Trichloroethene	5.00	4.63		ug/L		93	80 - 120
Vinyl chloride	5.00	4.38		ug/L		88	60 - 125
Xylenes, Total	15.0	13.8		ug/L		92	80 - 120

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	107		80 - 120
Dibromofluoromethane (Surr)	101		80 - 120
Toluene-d8 (Surr)	96		80 - 120
4-Bromofluorobenzene (Surr)	97		80 - 120

QC Association Summary

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

Job ID: 410-19023-1

GC/MS VOA

Analysis Batch: 61951

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-19023-3	HD-COD-SW-8-0/1-0	Total/NA	Water	8260C LL	
410-19023-4	HD-COD-SW-9-0/1-0	Total/NA	Water	8260C LL	
410-19023-5	HD-COD-SW-13-0/1-0	Total/NA	Water	8260C LL	
410-19023-6	HD-COD-SW-15-0/1-0	Total/NA	Water	8260C LL	
410-19023-7	HD-COD-SW-16-0/1-0	Total/NA	Water	8260C LL	
410-19023-8	HD-COD-SW-17-0/1-0	Total/NA	Water	8260C LL	
410-19023-9	HD-COD-SW-26-0/1-0	Total/NA	Water	8260C LL	
410-19023-10	HD-COD-SW-27-0/1-0	Total/NA	Water	8260C LL	
410-19023-11	HD-COD-SW-28-0/1-0	Total/NA	Water	8260C LL	
410-19023-12	HD-COD-SW-29-0/1-0	Total/NA	Water	8260C LL	
410-19023-13	HD-QC1-0/1-1	Total/NA	Water	8260C LL	
410-19023-14	HD-QC1-0/1-2	Total/NA	Water	8260C LL	
MB 410-61951/6	Method Blank	Total/NA	Water	8260C LL	
LCS 410-61951/4	Lab Control Sample	Total/NA	Water	8260C LL	
410-19023-6 MS	HD-COD-SW-15-0/1-0	Total/NA	Water	8260C LL	
410-19023-6 MSD	HD-COD-SW-15-0/1-0	Total/NA	Water	8260C LL	

Analysis Batch: 62460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-19023-1	HD-COD-SW-6-0/1-0	Total/NA	Water	8260C LL	
MB 410-62460/7	Method Blank	Total/NA	Water	8260C LL	
LCS 410-62460/4	Lab Control Sample	Total/NA	Water	8260C LL	
LCSD 410-62460/5	Lab Control Sample Dup	Total/NA	Water	8260C LL	

Analysis Batch: 63387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-19023-2	HD-COD-SW-7-0/1-0	Total/NA	Water	8260C LL	
MB 410-63387/6	Method Blank	Total/NA	Water	8260C LL	
LCS 410-63387/4	Lab Control Sample	Total/NA	Water	8260C LL	

Lab Chronicle

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

Job ID: 410-19023-1

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

Lab Sample ID: 410-19023-1

Date Collected: 10/29/20 10:15

Matrix: Water

Date Received: 10/30/20 16:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C LL		1	62460	11/05/20 12:53	R64Z	ELLE

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

Lab Sample ID: 410-19023-2

Date Collected: 10/29/20 11:00

Matrix: Water

Date Received: 10/30/20 16:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C LL		1	63387	11/08/20 14:24	MJ8R	ELLE

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

Lab Sample ID: 410-19023-3

Date Collected: 10/29/20 09:00

Matrix: Water

Date Received: 10/30/20 16:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C LL		1	61951	11/04/20 12:39	R64Z	ELLE

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

Lab Sample ID: 410-19023-4

Date Collected: 10/29/20 11:45

Matrix: Water

Date Received: 10/30/20 16:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C LL		1	61951	11/04/20 13:01	R64Z	ELLE

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

Lab Sample ID: 410-19023-5

Date Collected: 10/29/20 09:20

Matrix: Water

Date Received: 10/30/20 16:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C LL		1	61951	11/04/20 13:23	R64Z	ELLE

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

Lab Sample ID: 410-19023-6

Date Collected: 10/29/20 11:25

Matrix: Water

Date Received: 10/30/20 16:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C LL		1	61951	11/04/20 13:45	R64Z	ELLE

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

Lab Sample ID: 410-19023-7

Date Collected: 10/29/20 09:40

Matrix: Water

Date Received: 10/30/20 16:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C LL		1	61951	11/04/20 14:51	R64Z	ELLE

Lab Chronicle

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

Job ID: 410-19023-1

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

Lab Sample ID: 410-19023-8

Date Collected: 10/29/20 09:50

Matrix: Water

Date Received: 10/30/20 16:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C LL		1	61951	11/04/20 15:13	R64Z	ELLE

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

Lab Sample ID: 410-19023-9

Date Collected: 10/29/20 10:35

Matrix: Water

Date Received: 10/30/20 16:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C LL		1	61951	11/04/20 15:36	R64Z	ELLE

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

Lab Sample ID: 410-19023-10

Date Collected: 10/29/20 11:15

Matrix: Water

Date Received: 10/30/20 16:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C LL		1	61951	11/04/20 15:58	R64Z	ELLE

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

Lab Sample ID: 410-19023-11

Date Collected: 10/29/20 11:55

Matrix: Water

Date Received: 10/30/20 16:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C LL		1	61951	11/04/20 16:20	R64Z	ELLE

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

Lab Sample ID: 410-19023-12

Date Collected: 10/29/20 08:45

Matrix: Water

Date Received: 10/30/20 16:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C LL		1	61951	11/04/20 16:42	R64Z	ELLE

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

Lab Sample ID: 410-19023-13

Date Collected: 10/29/20 12:00

Matrix: Water

Date Received: 10/30/20 16:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C LL		1	61951	11/04/20 10:49	R64Z	ELLE

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

Lab Sample ID: 410-19023-14

Date Collected: 10/29/20 00:00

Matrix: Water

Date Received: 10/30/20 16:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C LL		1	61951	11/04/20 11:11	R64Z	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: 410-19023-1

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: 410-19023-1

Method	Method Description	Protocol	Laboratory
8260C LL	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: 410-19023-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-19023-1	HD-COD-SW-6-0/1-0	Water	10/29/20 10:15	10/30/20 16:08	
410-19023-2	HD-COD-SW-7-0/1-0	Water	10/29/20 11:00	10/30/20 16:08	
410-19023-3	HD-COD-SW-8-0/1-0	Water	10/29/20 09:00	10/30/20 16:08	
410-19023-4	HD-COD-SW-9-0/1-0	Water	10/29/20 11:45	10/30/20 16:08	
410-19023-5	HD-COD-SW-13-0/1-0	Water	10/29/20 09:20	10/30/20 16:08	
410-19023-6	HD-COD-SW-15-0/1-0	Water	10/29/20 11:25	10/30/20 16:08	
410-19023-7	HD-COD-SW-16-0/1-0	Water	10/29/20 09:40	10/30/20 16:08	
410-19023-8	HD-COD-SW-17-0/1-0	Water	10/29/20 09:50	10/30/20 16:08	
410-19023-9	HD-COD-SW-26-0/1-0	Water	10/29/20 10:35	10/30/20 16:08	
410-19023-10	HD-COD-SW-27-0/1-0	Water	10/29/20 11:15	10/30/20 16:08	
410-19023-11	HD-COD-SW-28-0/1-0	Water	10/29/20 11:55	10/30/20 16:08	
410-19023-12	HD-COD-SW-29-0/1-0	Water	10/29/20 08:45	10/30/20 16:08	
410-19023-13	HD-QC1-0/1-1	Water	10/29/20 12:00	10/30/20 16:08	
410-19023-14	HD-QC1-0/1-2	Water	10/29/20 00:00	10/30/20 16:08	

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-19023-1

SDG No.: _____

Instrument ID: 10193 Analysis Batch Number: 39724Lab Sample ID: IC 410-39724/3 Client Sample ID: _____Date Analyzed: 09/01/20 13:35 Lab File ID: CS01I01.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methyl acetate	3.86	Baseline	campbellme	09/01/20 16:54
Propionitrile	6.05	Incomplete Integration	campbellme	09/01/20 16:54
1,4-Dioxane	8.49	Incomplete Integration	campbellme	09/01/20 16:55

Lab Sample ID: ICIS 410-39724/4 Client Sample ID: _____Date Analyzed: 09/01/20 13:57 Lab File ID: CS01I02.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	1.92	Incomplete Integration	campbellme	09/01/20 16:56
Methyl acetate	3.87	Baseline	campbellme	09/01/20 16:56
n-Butanol	7.98	Incomplete Integration	campbellme	09/01/20 17:14
1,4-Dioxane	8.51	Incomplete Integration	campbellme	09/01/20 16:57

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-19023-1

SDG No.: _____

Instrument ID: 10193 Analysis Batch Number: 39724Lab Sample ID: IC 410-39724/5 Client Sample ID: _____Date Analyzed: 09/01/20 14:19 Lab File ID: CS01I03.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	1.91	Incomplete Integration	campbellme	09/01/20 16:58
Propionitrile	6.04	Incomplete Integration	campbellme	09/01/20 16:58
n-Butanol	7.98	Incomplete Integration	campbellme	09/01/20 17:15
1,4-Dioxane	8.50	Incomplete Integration	campbellme	09/01/20 16:59

Lab Sample ID: IC 410-39724/6 Client Sample ID: _____Date Analyzed: 09/01/20 14:42 Lab File ID: CS01I04.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	1.91	Incomplete Integration	campbellme	09/01/20 17:00
Propionitrile	6.05	Incomplete Integration	campbellme	09/01/20 17:00
n-Butanol	7.98	Incomplete Integration	campbellme	09/01/20 17:15
1,4-Dioxane	8.51	Incomplete Integration	campbellme	09/01/20 17:00

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-19023-1

SDG No.: _____

Instrument ID: 10193 Analysis Batch Number: 39724Lab Sample ID: IC 410-39724/7 Client Sample ID: _____Date Analyzed: 09/01/20 15:04 Lab File ID: CS01I05.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	1.91	Incomplete Integration	campbellme	09/01/20 17:01
Chloromethane	2.09	Baseline	campbellme	09/01/20 17:01
Acrylonitrile	4.41	Incomplete Integration	campbellme	09/01/20 17:02
Ethyl t-butyl ether	5.73	Incomplete Integration	campbellme	09/01/20 17:02
Propionitrile	6.04	Incomplete Integration	campbellme	09/01/20 17:03
Methacrylonitrile	6.26	Incomplete Integration	campbellme	09/01/20 17:02
n-Butanol	7.98	Incomplete Integration	campbellme	09/01/20 17:16
1,4-Dioxane	8.51	Incomplete Integration	campbellme	09/01/20 17:03

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-19023-1

SDG No.: _____

Instrument ID: 10193 Analysis Batch Number: 39724Lab Sample ID: IC 410-39724/8 Client Sample ID: _____Date Analyzed: 09/01/20 15:26 Lab File ID: CS01I06.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3-Butadiene	2.21	Baseline	campbellme	09/01/20 17:04
Acetone	3.48	Baseline	campbellme	09/01/20 17:04
Methyl acetate	3.89	Incomplete Integration	campbellme	09/01/20 17:04
Methylene Chloride	4.08	Incomplete Integration	campbellme	09/01/20 17:04
Propionitrile	6.05	Incomplete Integration	campbellme	09/01/20 17:05
n-Butanol	7.98	Incomplete Integration	campbellme	09/01/20 17:16
1,4-Dioxane	8.56	Incomplete Integration	campbellme	09/01/20 17:05

Lab Sample ID: IC 410-39724/9 Client Sample ID: _____Date Analyzed: 09/01/20 15:48 Lab File ID: CS01I07.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3-Butadiene	2.20	Baseline	campbellme	09/01/20 17:06
Isobutyl alcohol	7.09	Incomplete Integration	campbellme	09/01/20 17:06
n-Butanol	8.00	Incomplete Integration	campbellme	09/01/20 17:17
1,4-Dioxane	8.51	Incomplete Integration	campbellme	09/01/20 17:06

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-19023-1

SDG No.: _____

Instrument ID: 10193 Analysis Batch Number: 39724Lab Sample ID: ICV 410-39724/10 Client Sample ID: _____Date Analyzed: 09/01/20 16:10 Lab File ID: CS01V01.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	1.92	Incomplete Integration	campbellme	09/01/20 17:26
1,3-Butadiene	2.21	Baseline	campbellme	09/01/20 17:30
Freon 113	3.46	Incomplete Integration	campbellme	09/01/20 17:31
t-Butyl alcohol-d10 (IS)	4.11	Incomplete Integration	campbellme	09/01/20 17:26
Propionitrile	6.05	Incomplete Integration	campbellme	09/01/20 17:27
n-Butanol	7.98	Incomplete Integration	campbellme	09/01/20 17:28
1,4-Dioxane	8.51	Incomplete Integration	campbellme	09/01/20 17:26

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-19023-1

SDG No.: _____

Instrument ID: 10193 Analysis Batch Number: 62460Lab Sample ID: CCVIS 410-62460/3 Client Sample ID: _____Date Analyzed: 11/05/20 09:32 Lab File ID: Cn05C01.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3-Butadiene	2.18	Other	howej	11/05/20 09:58
Bromomethane	2.50	Other	howej	11/05/20 09:58
Chloroethane	2.58	Other	howej	11/05/20 09:58
Methyl acetate	3.82	Other	howej	11/05/20 09:58
1,4-Dioxane	8.44	Other	howej	11/05/20 09:59

Lab Sample ID: 410-19023-1 Client Sample ID: HD-COD-SW-6-0/1-0Date Analyzed: 11/05/20 12:53 Lab File ID: Cn05S05.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.44	Other	howej	11/05/20 14:25

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-19023-1

SDG No.: _____

Instrument ID: 10193 Analysis Batch Number: 63387Lab Sample ID: CCVIS 410-63387/3 Client Sample ID: _____Date Analyzed: 11/08/20 11:28 Lab File ID: CN08C01.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methyl acetate	3.84	Other	virayd	11/08/20 12:10
t-Butyl alcohol-d10 (IS)	4.05	Other	virayd	11/08/20 12:11
1,4-Dioxane	8.46	Other	virayd	11/08/20 12:11

Lab Sample ID: LCS 410-63387/4 Client Sample ID: _____Date Analyzed: 11/08/20 11:50 Lab File ID: CN08L01.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
t-Butyl alcohol-d10 (IS)	4.05	Other	virayd	11/08/20 12:15

Lab Sample ID: MB 410-63387/6 Client Sample ID: _____Date Analyzed: 11/08/20 12:34 Lab File ID: CN08B01.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.67	Other	virayd	11/08/20 13:03
1,2-Dichloroethane	7.21	Other	virayd	11/08/20 13:03

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-19023-1

SDG No.: _____

Instrument ID: 10193 Analysis Batch Number: 63387

Lab Sample ID: 410-19023-2 Client Sample ID: HD-COD-SW-7-0/1-0

Date Analyzed: 11/08/20 14:24 Lab File ID: CN08S06.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.44	Other	virayd	11/09/20 08:52
Carbon disulfide	3.67	Other	virayd	11/09/20 08:52
cis-1,2-Dichloroethene	5.93	Other	virayd	11/09/20 08:53
Benzene	7.12	Other	virayd	11/09/20 08:53
1,2-Dichloroethane	7.21	Other	virayd	11/09/20 08:53
2-Butanone (MEK)		Invalid Compound ID	virayd	11/09/20 08:53
Chloromethane		Invalid Compound ID	virayd	11/09/20 08:52

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-19023-1

SDG No.: _____

Instrument ID: 16334 Analysis Batch Number: 12269

Lab 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

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-19023-1

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
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
Ethyl bromide	3.75	Other	howej	06/12/20 13:39
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
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

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-19023-1

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
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
Bromodichloromethane	8.84	Other	howej	06/12/20 13:26
2-Nitropropane	9.12	Other	howej	06/12/20 13:26
1-Bromo-2-chloroethane	9.23	Other	howej	06/12/20 13:38
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

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-19023-1

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
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
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

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-19023-1

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
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.: 410-19023-1

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.: 410-19023-1

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
Ethyl bromide	3.74	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.: 410-19023-1

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
Ethyl bromide	3.75	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.: 410-19023-1

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.: 410-19023-1

SDG No.: _____

Instrument ID: 16334 Analysis Batch Number: 61951Lab Sample ID: CCVIS 410-61951/3 Client Sample ID: _____Date Analyzed: 11/04/20 08:59 Lab File ID: GC30C01.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	1.95	Other	howej	11/04/20 09:30
1,3-Butadiene	2.26	Other	howej	11/04/20 09:30
Methyl acetate	3.96	Other	howej	11/04/20 09:31
t-Butyl alcohol	4.31	Other	howej	11/04/20 09:32
1,4-Dioxane	8.57	Other	howej	11/04/20 09:32

Lab Sample ID: LCS 410-61951/4 Client Sample ID: _____Date Analyzed: 11/04/20 09:21 Lab File ID: GC30L01.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dichloroethane	7.34	Other	howej	11/04/20 09:54

Lab Sample ID: 410-19023-13 Client Sample ID: HD-QC1-0/1-1Date Analyzed: 11/04/20 10:49 Lab File ID: Gn04S02.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.81	Other	howej	11/04/20 14:24
t-Butyl alcohol-d10 (IS)	4.17	Other	howej	11/04/20 14:24

Lab Sample ID: 410-19023-14 Client Sample ID: HD-QC1-0/1-2Date Analyzed: 11/04/20 11:11 Lab File ID: Gn04S03.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.55	Other	howej	11/04/20 14:24

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-19023-1

SDG No.: _____

Instrument ID: 16334 Analysis Batch Number: 61951Lab Sample ID: 410-19023-3 Client Sample ID: HD-COD-SW-8-0/1-0Date Analyzed: 11/04/20 12:39 Lab File ID: Gn04S07.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.82	Other	howej	11/04/20 14:27
t-Butyl alcohol-d10 (IS)	4.23	Other	howej	11/04/20 14:27

Lab Sample ID: 410-19023-4 Client Sample ID: HD-COD-SW-9-0/1-0Date Analyzed: 11/04/20 13:01 Lab File ID: Gn04S08.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.82	Other	howej	11/04/20 14:28
t-Butyl alcohol-d10 (IS)	4.16	Other	howej	11/04/20 14:28
2-Butanone (MEK)	6.07	Other	howej	11/04/20 14:28

Lab Sample ID: 410-19023-5 Client Sample ID: HD-COD-SW-13-0/1-0Date Analyzed: 11/04/20 13:23 Lab File ID: Gn04S09.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.82	Other	howej	11/04/20 14:29
t-Butyl alcohol-d10 (IS)	4.18	Other	howej	11/04/20 14:29

Lab Sample ID: 410-19023-6 Client Sample ID: HD-COD-SW-15-0/1-0Date Analyzed: 11/04/20 13:45 Lab File ID: Gn04S10.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.82	Other	howej	11/04/20 14:30
t-Butyl alcohol-d10 (IS)	4.16	Other	howej	11/04/20 14:30

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-19023-1

SDG No.: _____

Instrument ID: 16334 Analysis Batch Number: 61951Lab Sample ID: 410-19023-6 MS Client Sample ID: _____Date Analyzed: 11/04/20 14:07 Lab File ID: Gn04S11.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	Other	howej	11/05/20 12:31

Lab Sample ID: 410-19023-6 MSD Client Sample ID: _____Date Analyzed: 11/04/20 14:29 Lab File ID: Gn04S12.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
t-Butyl alcohol-d10 (IS)	4.17	Other	howej	11/05/20 12:58
1,2-Dichloroethane	7.34	Other	howej	11/05/20 12:58

Lab Sample ID: 410-19023-7 Client Sample ID: HD-COD-SW-16-0/1-0Date Analyzed: 11/04/20 14:51 Lab File ID: Gn04S13.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.81	Other	howej	11/05/20 13:02
t-Butyl alcohol-d10 (IS)	4.15	Other	howej	11/05/20 13:02

Lab Sample ID: 410-19023-8 Client Sample ID: HD-COD-SW-17-0/1-0Date Analyzed: 11/04/20 15:13 Lab File ID: Gn04S14.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.82	Other	howej	11/05/20 13:03
t-Butyl alcohol-d10 (IS)	4.18	Other	howej	11/05/20 13:03
2-Butanone (MEK)	6.05	Other	howej	11/05/20 13:03

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-19023-1

SDG No.: _____

Instrument ID: 16334 Analysis Batch Number: 61951Lab Sample ID: 410-19023-9 Client Sample ID: HD-COD-SW-26-0/1-0Date Analyzed: 11/04/20 15:36 Lab File ID: Gn04S15.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.81	Other	howej	11/05/20 13:04
t-Butyl alcohol-d10 (IS)	4.18	Other	howej	11/05/20 13:04

Lab Sample ID: 410-19023-10 Client Sample ID: _____Date Analyzed: 11/04/20 15:58 Lab File ID: Gn04S16.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	Other	howej	11/05/20 13:04

Lab Sample ID: 410-19023-11 Client Sample ID: HD-COD-SW-28-0/1-0Date Analyzed: 11/04/20 16:20 Lab File ID: Gn04S17.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.82	Other	howej	11/05/20 13:05
t-Butyl alcohol-d10 (IS)	4.19	Other	howej	11/05/20 13:05
2-Butanone (MEK)	6.05	Other	howej	11/05/20 13:05

Lab Sample ID: 410-19023-12 Client Sample ID: HD-COD-SW-29-0/1-0Date Analyzed: 11/04/20 16:42 Lab File ID: Gn04S18.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.81	Other	howej	11/05/20 13:06
t-Butyl alcohol-d10 (IS)	4.17	Other	howej	11/05/20 13:06

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-19023-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration									
					Reagent ID	Volume Added											
MSV_25_826ISS_00001	03/03/21	08/31/20	Methanol, Lot DX212	10 mL	MSV_8260_SS_00189	1 mL	1,2-Dichloroethane-d4 (Surr)	250 ug/mL									
							4-Bromofluorobenzene (Surr)	250 ug/mL									
							Dibromofluoromethane (Surr)	250 ug/mL									
											MSV_Cus826_IS_00118	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_00189	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_00118	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_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_29_826ISS_00010	03/02/21	08/30/20	Methanol, Lot DX212	10 mL	MSV_Cus826_IS_00116	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									
															(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_29_826ISS_00010	03/02/21	08/30/20	Methanol, Lot DX212	10 mL	MSV_8260_SS_00186	1 mL	1,2-Dichloroethane-d4 (Surr)	250 ug/mL									
							4-Bromofluorobenzene (Surr)	250 ug/mL									
							Dibromofluoromethane (Surr)	250 ug/mL									
							Toluene-d8 (Surr)	250 ug/mL									
															(Purchased Reagent)	1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
															4-Bromofluorobenzene (Surr)	2500 ug/mL	
								Dibromofluoromethane (Surr)	2500 ug/mL								

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-19023-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Toluene-d8 (Surr)	2500 ug/mL
MSV_HP25_ISSS_00017	04/27/21	10/27/20	Methanol, Lot DX212	10 mL	MSV_Cus826_IS_00141	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_Cus826_IS_00141	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_HP25_ISSS_00017	04/27/21	10/27/20	Methanol, Lot DX212	10 mL	MSV_8260_SS_00232	1 mL	1,2-Dichloroethane-d4 (Surr)	250 ug/mL
							4-Bromofluorobenzene (Surr)	250 ug/mL
							Dibromofluoromethane (Surr)	250 ug/mL
							Toluene-d8 (Surr)	250 ug/mL
.MSV_8260_SS_00232	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_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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-19023-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acrylonitrile	200 mg/L
					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
.MSV_Q#4C_00036	03/31/21		Restek, Lot A0158704		(Purchased Reagent)		Acrylonitrile	5000 ug/mL
							Carbon disulfide	1000 ug/mL
							Methyl tert-butyl ether	1000 ug/mL
MSV_Q_QVOA1_00044	10/01/20	09/01/20	Methanol, Lot DX212	25 mL	MSV_Q#1B_00053	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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-19023-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration							
					Reagent ID	Volume Added									
							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_00046						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														
MSV_Q#4C_00052						1 mL	Acrylonitrile	200 mg/L							
							Carbon disulfide	40 mg/L							
							Methyl tert-butyl ether	40 mg/L							
.MSV_Q#1B_00053	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														

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-19023-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration					
					Reagent ID	Volume Added							
.MSV_Q#3B_00046	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_00052	03/31/21		Restek, Lot A0158704		(Purchased Reagent)		Carbon disulfide	1000 ug/mL					
							Methyl tert-butyl ether	1000 ug/mL					
MSV_Q_QVOA1_00053	12/02/20	11/02/20	Methanol, Lot DX212	25 mL	MSV_Q#1B_00067	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_00058						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
					MSV_Q#4C_00061						1 mL	Acrylonitrile	200 mg/L
												Carbon disulfide	40 mg/L
												Methyl tert-butyl ether	40 mg/L
.MSV_Q#1B_00067	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					

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-19023-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00058	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_00061	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_00041	09/25/20	08/26/20	Methanol, Lot DX212	25 mL	MSV_QCS#6Std_00049	1 mL	Bromochloromethane	40 ug/mL
.MSV_QCS#6Std_00049	09/30/21		Restek, Lot A0158906		(Purchased Reagent)		Bromochloromethane	1000 ug/mL
MSV_Q_QVOA6_00050	11/28/20	10/29/20	Methanol, Lot DX212	25 mL	MSV_QCS#6Std_00061	1 mL	Bromochloromethane	40 ug/mL
.MSV_QCS#6Std_00061	09/30/21		Restek, Lot A0158906		(Purchased Reagent)		Bromochloromethane	1000 ug/mL
MSV_Q_QVOA6_00051	12/05/20	11/05/20	Methanol, Lot DZ644	25 mL	MSV_QCS#6Std_00062	1 mL	Bromochloromethane	40 ug/mL
.MSV_QCS#6Std_00062	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 A0158823		(Purchased Reagent)		Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
MSV_QGAS_826_00069	09/08/20	09/01/20	Methanol, Lot DX212	1 mL	MSV_502QGas_00091	20 uL	Bromomethane	40 ug/mL
							Chloroethane	40 ug/mL
							Chloromethane	40 ug/mL
							Vinyl chloride	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-19023-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.MSV_502QGas_00091	09/08/20		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_00086	11/09/20	11/02/20	Methanol, Lot DZ644	1 mL	MSV_502QGas_00112	20 uL	Bromomethane	40 ug/mL
							Chloroethane	40 ug/mL
							Chloromethane	40 ug/mL
							Vinyl chloride	40 ug/mL
.MSV_502QGas_00112	11/09/20		Restek, Lot A0155823			(Purchased Reagent)	Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Vinyl chloride	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							

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-19023-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-19023-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
							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-Dichloropropene	5000 ug/mL
							Dibromochloromethane	5000 ug/mL
							Dibromomethane	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-19023-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Ethylbenzene	5000 ug/mL
							Hexachlorobutadiene	5000 ug/mL
							Isopropylbenzene	5000 ug/mL
							m-Xylene & p-Xylene	10000 ug/mL
							Methylene Chloride	5000 ug/mL
							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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-19023-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration	
					Reagent ID	Volume Added			
..MSV_V#2B_00083	07/08/20		Restek, Lot A0147800			(Purchased Reagent)	trans-1,4-Dichloro-2-butene	2500 ug/mL	
							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	
.MSV_V_VOA3_00031	07/08/20	06/08/20	Methanol, Lot DX212	5 mL	MSV_V#3B_00037	1 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			(Purchased Reagent)	Acrylonitrile	2500 ug/mL	
							Tetrahydrofuran	5000 ug/mL	
							Acrolein	24999.6 ug/mL	
							2-Butanone (MEK)	25000 ug/mL	
							2-Hexanone	25000 ug/mL	
							2-Nitropropane	25000 ug/mL	
..MSV_VACR_00008	08/01/20	06/02/20	Methanol, Lot DX212	10 mL	MSV_VACR_STK_00008	9.079 mL	4-Methyl-2-pentanone (MIBK)	25000 ug/mL	
							Acetone	25000 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				(Purchased Reagent)	Acrolein	0.943 g/g
MSV_RV1_826_00022	09/19/20	09/01/20	Methanol, Lot DX212	1 mL	MSV_V#1B_00101	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								

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-19023-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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-Dichloropropene	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							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_00121	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_00082	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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-19023-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00047	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
					MSV_V_VOA3_00043	100 uL	trans-1,4-Dichloro-2-butene	500 ug/mL
							2-Butanone (MEK)	500 ug/mL
							2-Hexanone	500 ug/mL
							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	2499.91 ug/mL							
.MSV_V#1B_00101	10/01/20		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-Dichloropropene	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-Dichloropropene	5000 ug/mL
							1,4-Dichlorobenzene	5000 ug/mL
							1-Chlorohexane	5000 ug/mL
							2,2-Dichloropropane	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-19023-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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-Dichloropropene	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
							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_00121	10/01/20		Restek, Lot A0159694			(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_00082	10/01/20		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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-19023-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00047	10/01/20	09/01/20	Methanol, Lot DX212	5 mL	MSV_V#2B_00121	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_00121	10/01/20		Restek, Lot A0159694		(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_VOA3_00043	09/19/20	09/01/20	Methanol, Lot DX212	5 mL	MSV_V#3B_00050	1 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
							Acrylonitrile	2500 ug/mL
							Tetrahydrofuran	5000 ug/mL
					MSV_VACR_00010	1 mL	Acrolein	24999.1 ug/mL
..MSV_V#3B_00050	10/01/20		Restek, Lot A0158677		(Purchased Reagent)		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_00010	09/19/20	07/21/20	Methanol, Lot DX212	10 mL	MSV_VACR_STK_00009	9.149 mL	Acrolein	124995 ug/mL
...MSV_VACR_STK_00009	09/19/20	07/21/20	Methanol, Lot DX212	10 mL	MSV_ACROLEIN_00006	1.4488 g	Acrolein	136622 ug/mL
...MSV_ACROLEIN_00006	12/31/20		Chem Service, Lot 9717000		(Purchased Reagent)		Acrolein	0.943 g/g
MSV_RV1_826_00026	11/08/20	10/12/20	Methanol, Lot DX212	1 mL	MSV_V#1B_00114	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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-19023-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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		
Methyl tert-butyl ether	50 ug/mL							
						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
							Acrylonitrile	250 ug/mL
.MSV_V#1B_00114	11/11/20		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
							1,2-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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-19023-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00094	11/11/20		Restek, Lot A0158660			(Purchased Reagent)	Carbon disulfide	5000 ug/mL
							Methyl tert-butyl ether	5000 ug/mL
.MSV_V_VOA3_00050	11/08/20	10/12/20	Methanol, Lot DX212	5 mL	MSV_V#3B_00062	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_00062	11/11/20		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_RV1_826_00027	11/08/20	10/26/20	Methanol, Lot DX212	1 mL	MSV_V#1B_00118	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
					MSV_V#4C_00098	10 uL	Carbon disulfide	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
					MSV_V_VOA3_00052	100 uL	2-Butanone (MEK)	500 ug/mL
							2-Hexanone	500 ug/mL
							4-Methyl-2-pentanone (MIBK)	500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-19023-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acetone	500 ug/mL
							Acrylonitrile	250 ug/mL
.MSV_V#1B_00118	11/25/20		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
							1,2-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_00098	11/25/20		Restek, Lot A0158660		(Purchased Reagent)		Carbon disulfide	5000 ug/mL
							Methyl tert-butyl ether	5000 ug/mL
.MSV_V_VOA3_00052	11/08/20	10/26/20	Methanol, Lot DX212	5 mL	MSV_V#3B_00064	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_00064	11/25/20		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_BCE_00010	25 uL	1-Bromo-2-chloroethane	50 ug/mL
					MSV_V_EE_00003	50 uL	Ethyl ether	49.9925 ug/mL
					MSV_V_ETBR_00005	50 uL	Ethyl bromide	50.0256 ug/mL
					MSV_V_VOA6_00039	50 uL	1,2,3-Trimethylbenzene	50 ug/mL
							3-Chloro-1-propene	50 ug/mL
							Bromochloromethane	50 ug/mL
							Methyl acetate	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-19023-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Methylcyclohexane	50 ug/mL
							Pentachloroethane	50 ug/mL
.MSV BCE 00010	06/27/20		Restek, Lot A0149919			(Purchased Reagent)	1-Bromo-2-chloroethane	2000 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 ETBR 00005	10/22/20	04/22/20	Methanol, Lot DX212	10 mL	MSV VETBR STK 00005	0.576 mL	Ethyl bromide	1000.51 ug/mL
..MSV VETBR STK 00005	10/22/20	04/22/20	Methanol, Lot DX212	10 mL	MSV EtBr Neat 00001	0.1737 g	Ethyl bromide	17370 ug/mL
...MSV EtBr Neat 00001	12/31/20		Chem Service, Lot 7832000			(Purchased Reagent)	Ethyl bromide	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_00024	09/25/20	09/01/20	Methanol, Lot DX212	1 mL	MSV BCE 00015	25 uL	1-Bromo-2-chloroethane	50 ug/mL
					MSV V EE 00003	50 uL	Ethyl ether	49.9925 ug/mL
					MSV V ETBR 00005	50 uL	Ethyl bromide	50.0256 ug/mL
					MSV_V_VOA6_00050	50 uL	1,2,3-Trimethylbenzene	50 ug/mL
							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 BCE 00015	09/25/20		Restek, Lot A0149919			(Purchased Reagent)	1-Bromo-2-chloroethane	2000 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 ETBR 00005	10/22/20	04/22/20	Methanol, Lot DX212	10 mL	MSV VETBR STK 00005	0.576 mL	Ethyl bromide	1000.51 ug/mL
..MSV VETBR STK 00005	10/22/20	04/22/20	Methanol, Lot DX212	10 mL	MSV EtBr Neat 00001	0.1737 g	Ethyl bromide	17370 ug/mL
...MSV EtBr Neat 00001	12/31/20		Chem Service, Lot 7832000			(Purchased Reagent)	Ethyl bromide	1 g/g
.MSV_V_VOA6_00050	09/25/20	08/26/20	Methanol, Lot DX212	5 mL	MSV_V#6_00032	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_00032	09/25/20		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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-19023-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Methylcyclohexane	5000 ug/mL
							Pentachloroethane	5000 ug/mL
MSV_RV4_826_00031	11/21/20	10/29/20	Methanol, Lot DX212	1 mL	MSV_V_VOA6_00059	50 uL	Bromochloromethane	50 ug/mL
.MSV_V_VOA6_00059	11/28/20	10/29/20	Methanol, Lot DX212	5 mL	MSV_V#6_00042	1 mL	Bromochloromethane	1000 ug/mL
..MSV_V#6_00042	11/28/20		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_00072	09/08/20	09/01/20	Methanol, Lot DX212	1 mL	MSV_DCFM_00019	25 uL	Dichlorofluoromethane	50 ug/mL
					MSV_V_Gas_00136	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_00019	09/12/20		AccuStandard, Lot 219051360		(Purchased Reagent)		Dichlorofluoromethane	2000 ug/mL
.MSV_V_Gas_00136	09/08/20		Restek, Lot A0159812		(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_00090	11/09/20	11/02/20	Methanol, Lot DZ644	1 mL	MSV_V_Gas_00164	25 uL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.MSV_V_Gas_00164	11/09/20		Restek, Lot A0159812		(Purchased Reagent)		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	

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-19023-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Total Diethylbenzene	
							Xylenes, Total	
					MSV VBFB STK 00002	0.117 mL	BFB	49.8701 ug/mL
.MSV VBFB STK 00002	07/28/20	01/28/20	Methanol, Lot DX212	10 mL	MSV 4BFB NEAT 00001	1.0656 g	BFB	106560 ug/mL
..MSV 4BFB NEAT 00001	01/31/21		Chem Service, Lot 8995800			(Purchased Reagent)	BFB	1 g/g
MSV_V_BFB_00003							1,2-Dichloroethene, Total	
							1,3-Dichlorobutene-2 (total)	
							1,3-Dichloropropene, Total	
							divinyl benzene	
							Tentatively Identified Compound	
							Total Diethylbenzene	
							Xylenes, Total	
					MSV VBFB STK 00004	0.117 mL	BFB	50.0245 ug/mL
.MSV VBFB STK 00004	01/22/21	07/22/20	Methanol, Lot DX212	10 mL	MSV 4BFB NEAT 00002	1.0689 g	BFB	106890 ug/mL
..MSV 4BFB NEAT 00002	01/31/21		Chem Service, Lot 8601300			(Purchased Reagent)	BFB	1 g/g

Reagent

MSV_4BFB_NEAT_00002

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 ✓✓

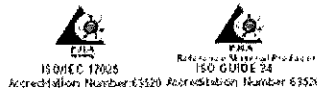
Chem Service, Inc. guarantees the purity to be +/- 0.5% deviation prior to the expiration date shown on the label and exclusive of any customer contamination.

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

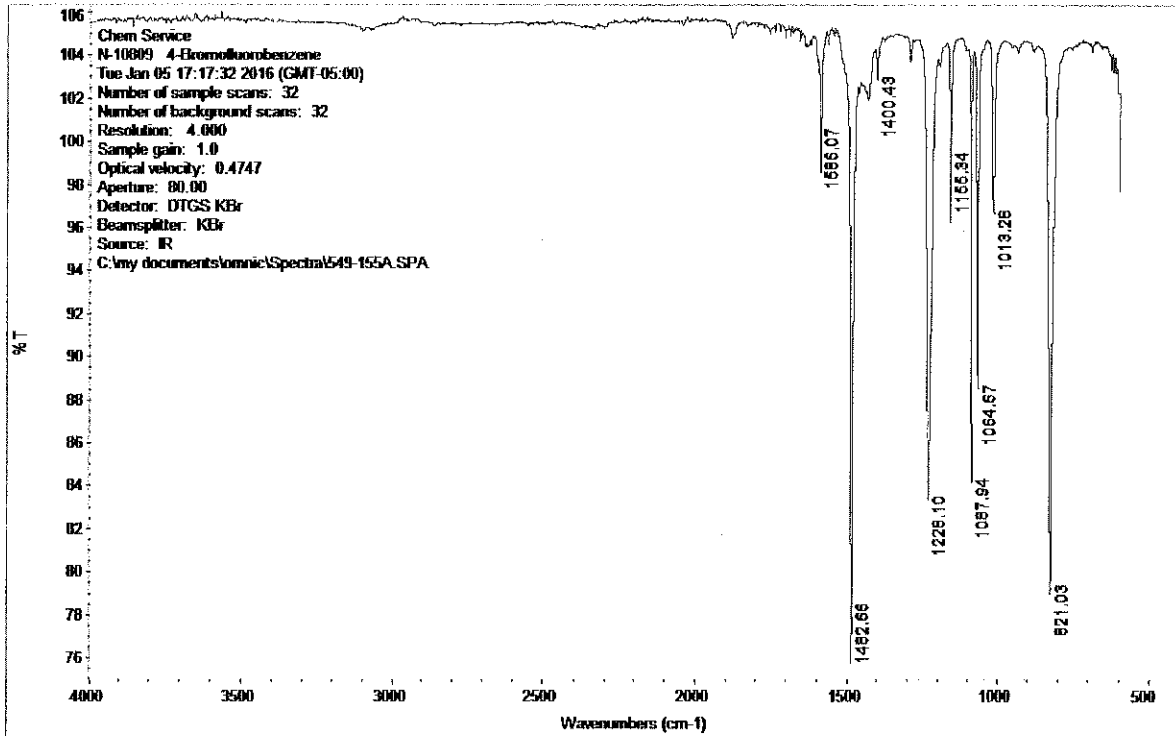


660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

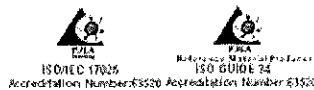
CERTIFICATE OF ANALYSIS

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





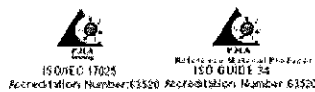
660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

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

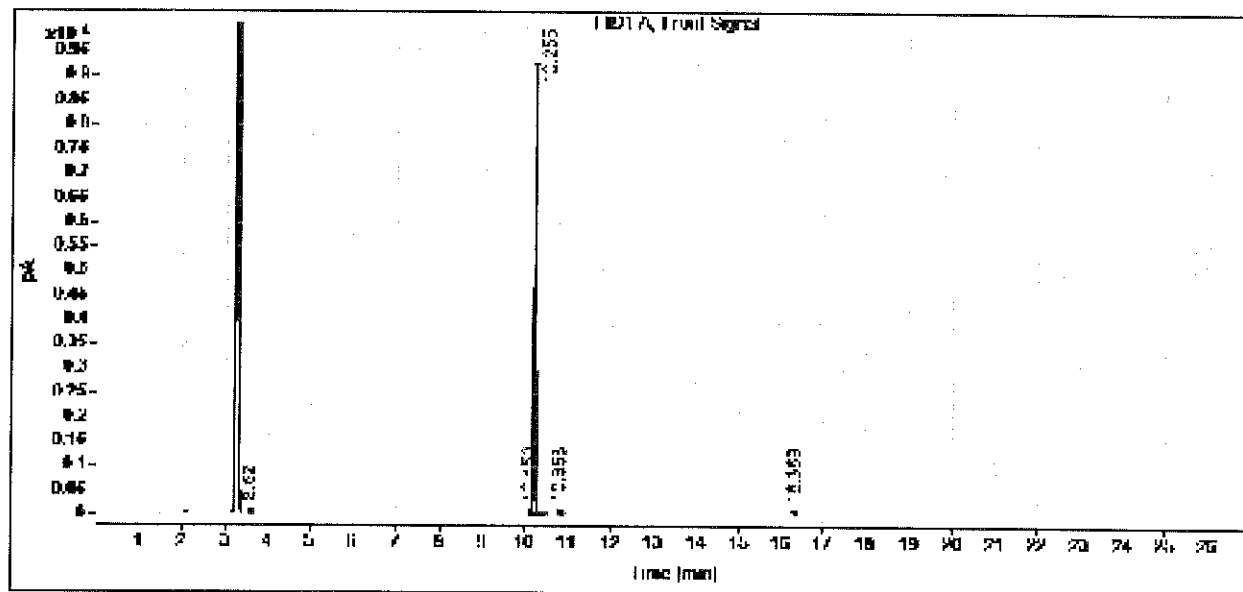


660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
 1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

Gas Chromatography / Flame Ionization Detector (GC/FID)

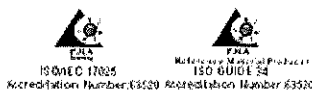
Data file: C:\CHEM32\1\DATA\1215\SIG1007347.D
 Sample name: N-10809/CH2CL2
 Instrument: GC 1
 Injection date: 1/5/2016 4:20:37 PM
 Acq. method: MIX1.M
 Column name: DB-824 (30m x 0.53mm x 3.0um)
 Sample type: Sample
 Location: Vial 6
 Injection volume: 1.0uL



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)

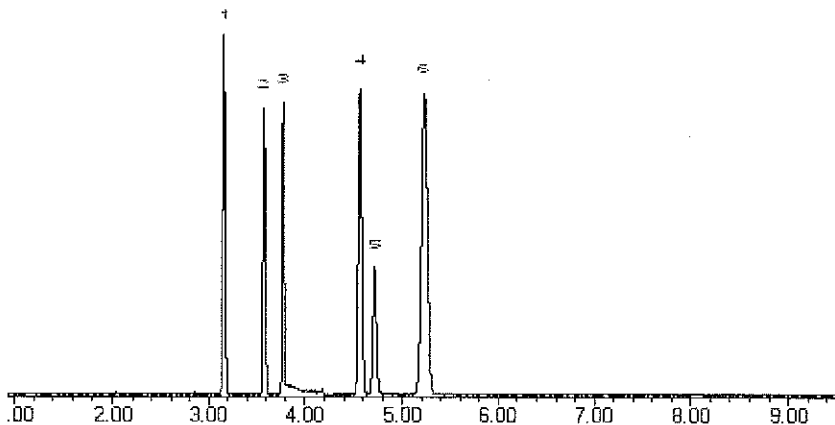
Carrier Gas:
helium-constant flow 2.0 mL/min.

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_00091



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)

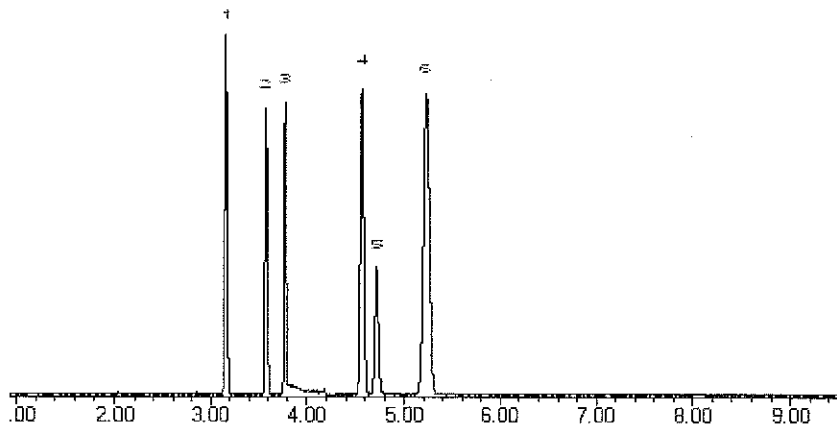
Carrier Gas:
helium-constant flow 2.0 mL/min.

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_00112



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)

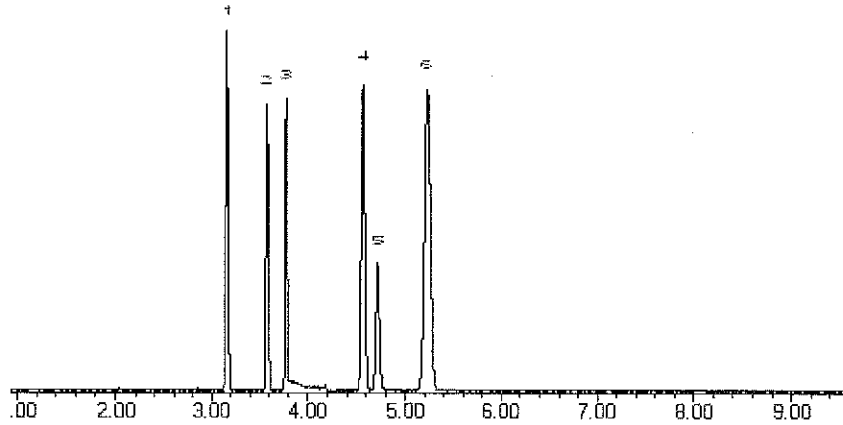
Carrier Gas:
helium-constant flow 2.0 mL/min.

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_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:

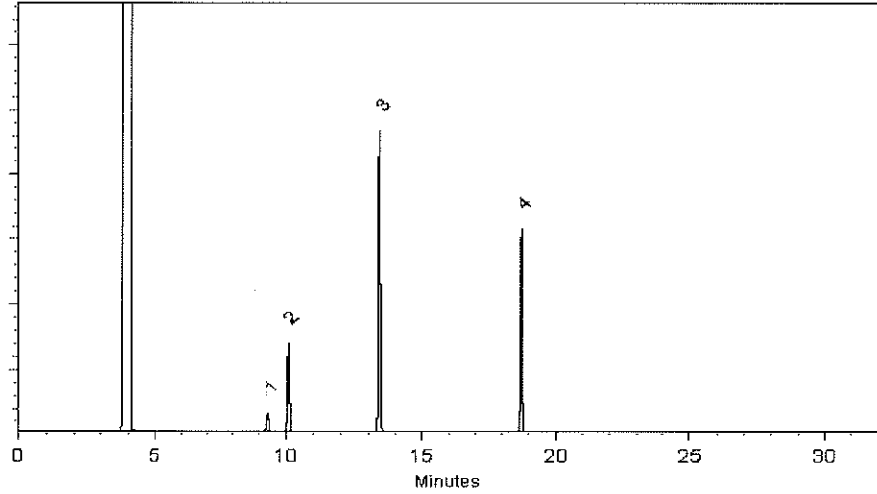
200°C

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/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_8260_SS_00186



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:

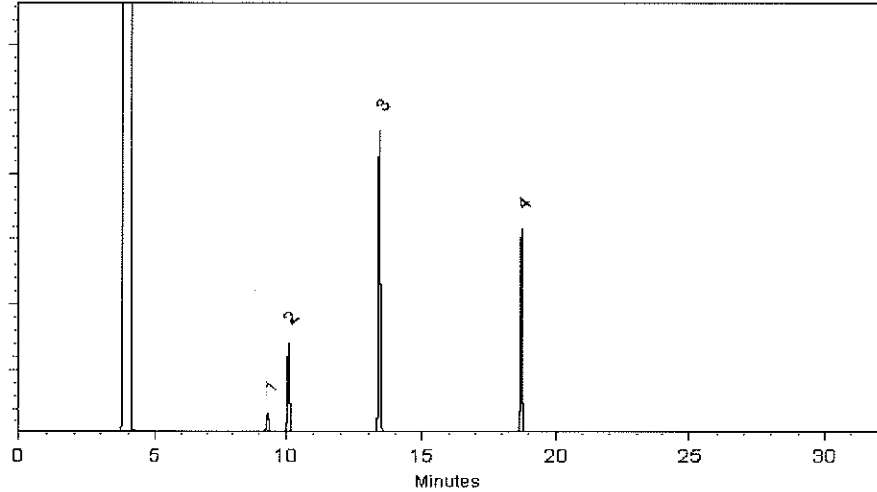
200°C

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_8260_SS_00189



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:

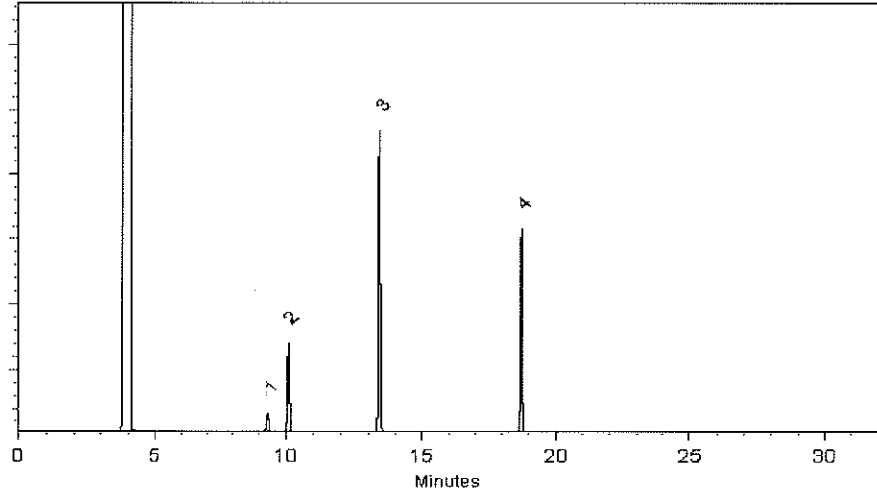
200°C

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/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_8260_SS_00232



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:

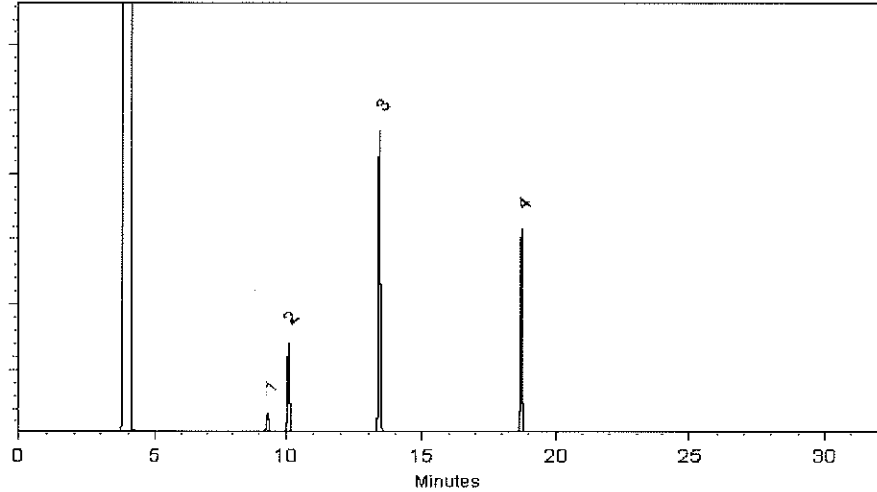
200°C

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/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_ACROLEIN_00006



CERTIFICATE OF ANALYSIS

Acrolein

CATALOG NUMBER RPN-11030-1G
LOT NUMBER 9717000
DATE CERTIFIED 12/06/19
EXPIRATION DATE 12/31/20
CAS NUMBER 107-02-8
MOLECULAR FORMULA C3H4O
MOLECULAR WEIGHT 56.06
STORAGE Store under refrigeration
HANDLING See Safety Data Sheet
INTENDED USE For laboratory use only.
NOTES Contains water and hydroquinone as an inhibitor.

Analytical Test	Value
% PURITY (GC/TCD)	94.3
% WATER (KARL FISCHER)	1.9

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 is certified to ISO 17034:2018, ISO 17025:2017 and certified to ISO 9001:2015

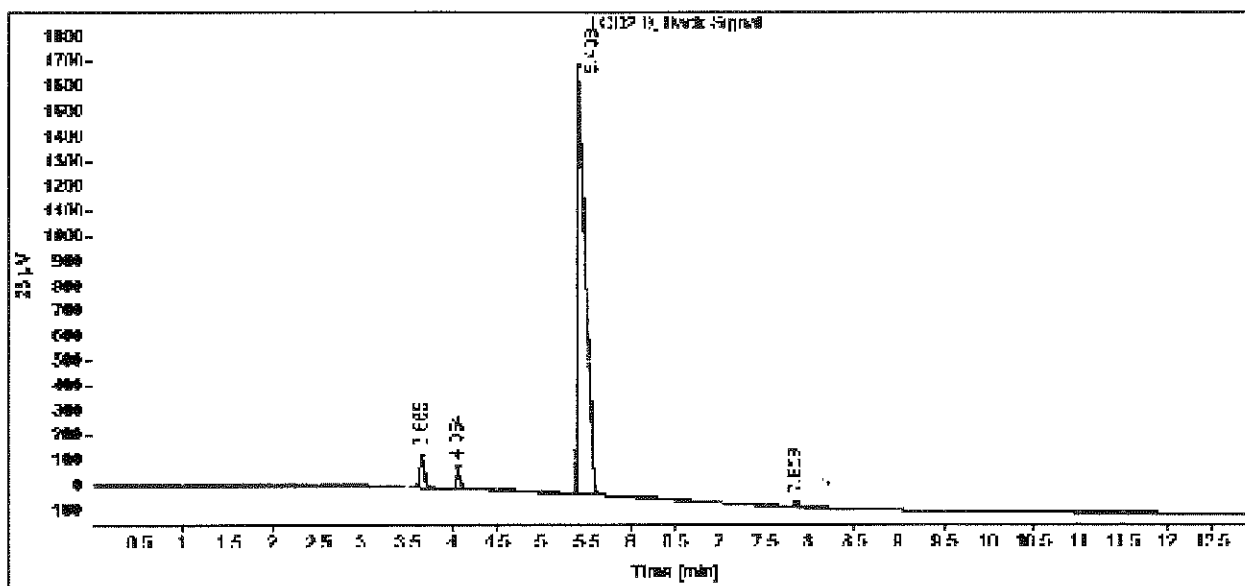
COA Form
Revision 3 (3/2015)



CERTIFICATE OF ANALYSIS

Gas Chromatography / Thermal Conductivity Detector (GC/TCD)

Data file: C:\CHEM32\1\DATA\2019 DATA\1219\SIG2022667.D
 Sample name: Acrolein
 Instrument: GC 1 Sample type: Sample
 Injection date: 12/6/2019 10:34:12 AM Location: Vial 11
 Acq. method: GASBOMB_TCD.M Injection volume: 1.0uL
 Column name: DB-624 (30m x 0.53mm x 3.0um)



Signal: TCD2 B, Back Signal

Ret. Time [min]	Type	Width [min]	Area	Height	Area%
3.665	BB	0.0554	405.7875	114.3327	3.5875
4.064	BB	0.0475	217.2787	71.5037	1.9102
5.408	BV	0.0795	10720.3574	1725.6987	94.2472
7.859	BB	0.1249	31.2959	3.7885	0.2751
Sum			11374.7178		



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

Analysis Method:

Catalog Number:	RPN-11030-1G
Description:	Acrolein
Lot Number:	9717000
Expiration Date:	12/31/20

Chem Service is accredited to ISO 17024:2015, ISO/IEC 17025:2017 and ISO 9001:2015





CERTIFICATE OF ANALYSIS

Acrolcin

CATALOG NUMBER RPN-11030-1G
LOT NUMBER 9717000
DATE CERTIFIED 12/06/19
EXPIRATION DATE 12/31/20
CAS NUMBER 107-02-8
MOLECULAR FORMULA C3H4O
MOLECULAR WEIGHT 56.06
STORAGE Store under refrigeration.
HANDLING See Safety Data Sheet
INTENDED USE For laboratory use only.
NOTES Contains water and hydroquinone as an inhibitor

Analytical Test	Value
% PURITY (GC/TCD)	94.3
% WATER (KARL FISCHER)	1.9

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

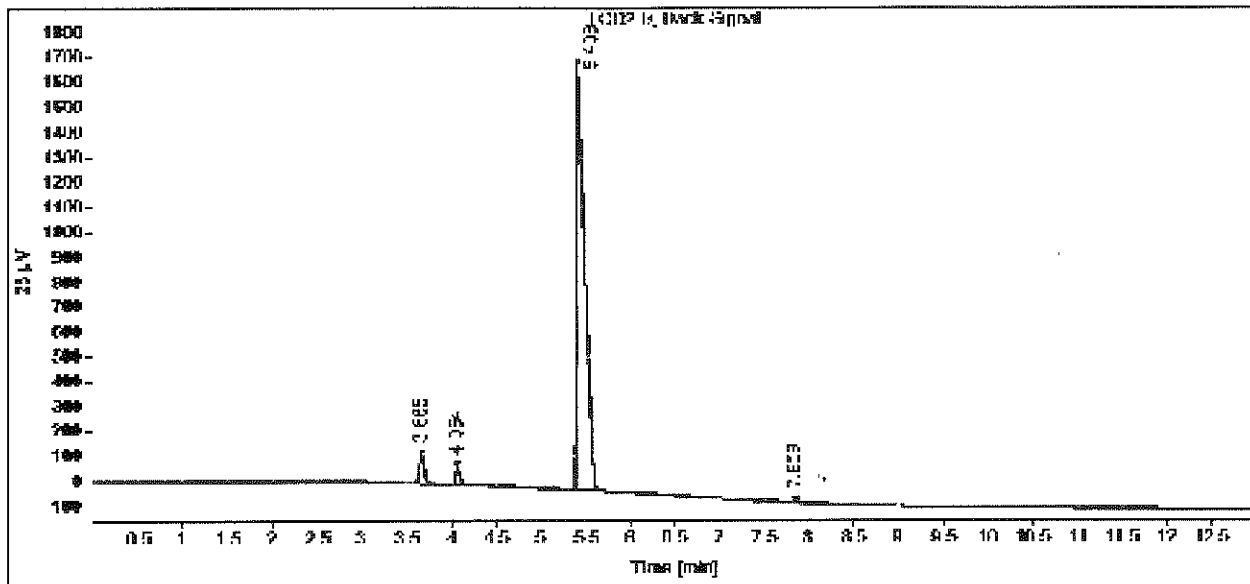
Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015



CERTIFICATE OF ANALYSIS

Gas Chromatography / Thermal Conductivity Detector (GC/TCD)

Data file: C:\CHEM32\1\DATA\2019 DATA\1219\SIG2022887.D
 Sample name: Acrolein
 Instrument: GC 1
 Injection date: 12/6/2019 10:34:12 AM
 Acq. method: GASBOMB_TCD.M
 Column name: DB-624 (30m x 0.53mm x 3.0um)
 Sample type: Sample
 Location: Vial 11
 Injection volume: 1.0uL



Signal: TCD2 B, Back Signal

RT [min]	Area	Height	Area%	
3.685 BB	0.0554	405.7875	114.3327	3.5875
4.064 BB	0.0475	217.2787	71.5037	1.9102
5.408 BV	0.0795	10720.3574	1725.8987	94.2472
7.858 BB	0.1249	31.2859	3.7685	0.2751
Sum		11374.7176		





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info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number	RPN-11030-1G
Description	Acrolein
Lot Number	9717000
Expiration Date:	12/31/20

Chem Service is accredited to ISO 17025:2015, ISO 15189:2013 and certified to ISO 9001:2015



Reagent

MSV_BCE_00010



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. : 30469 Lot No.: A0149919
 Description : 1-Bromo-2-chloroethane Standard
1-Bromo-2-Chloroethane Std, 2000µg/mL, P&T Methanol, 1mL/ampul
 Container Size : 2 mL Pkg Amt: > 1 mL
 Expiration Date : June 30, 2024 Storage: 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1-Bromo-2-chloroethane CAS # 107-04-0 Purity 99% (Lot BCBQ8054V)	2,006.0 µg/mL	+/- 11.7723	µg/mL	Gravimetric
			+/- 112.4858	µg/mL	Unstressed
			+/- 115.1173	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:

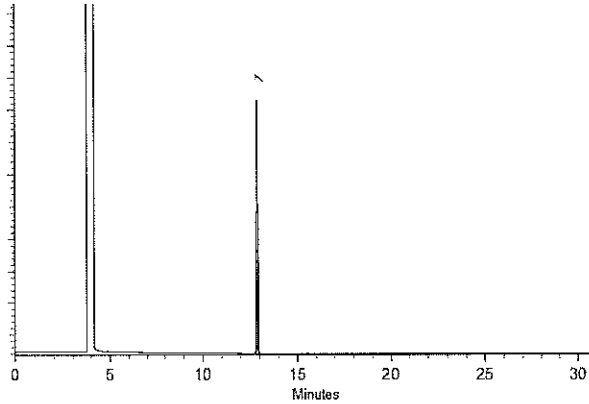
200°C

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.

Jessica McClenahan

Jessica McClenahan - Operations Technician I

Date Mixed: 07-Jun-2019

Balance: B251644995

Justin Albertson
Justin Albertson - Operations Tech-ARM QC

Date Passed: 10-Jun-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_BCE_00015



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. : 30469 Lot No.: A0149919
 Description : 1-Bromo-2-chloroethane Standard
1-Bromo-2-Chloroethane Std, 2000µg/mL, P&T Methanol, 1mL/ampul
 Container Size : 2 mL Pkg Amt: > 1 mL
 Expiration Date : June 30, 2024 Storage: 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1-Bromo-2-chloroethane CAS # 107-04-0 Purity 99% (Lot BCBQ8054V)	2,006.0 µg/mL	+/- 11.7723	µg/mL	Gravimetric
			+/- 112.4858	µg/mL	Unstressed
			+/- 115.1173	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:

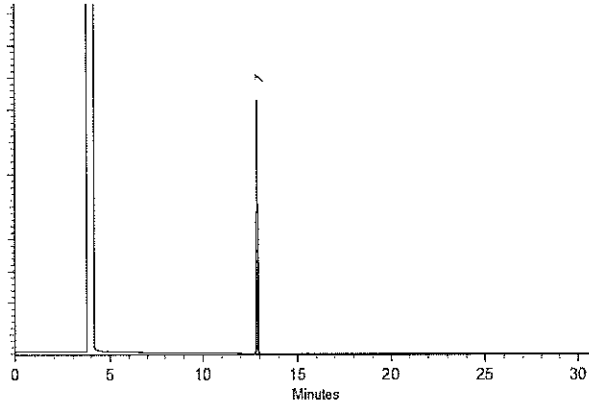
200°C

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.

Jessica McClenahan

Jessica McClenahan - Operations Technician I

Date Mixed: 07-Jun-2019

Balance: B251644995

Judith Albertson
Judith Albertson - Operations Tech-ARM QC

Date Passed: 10-Jun-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)

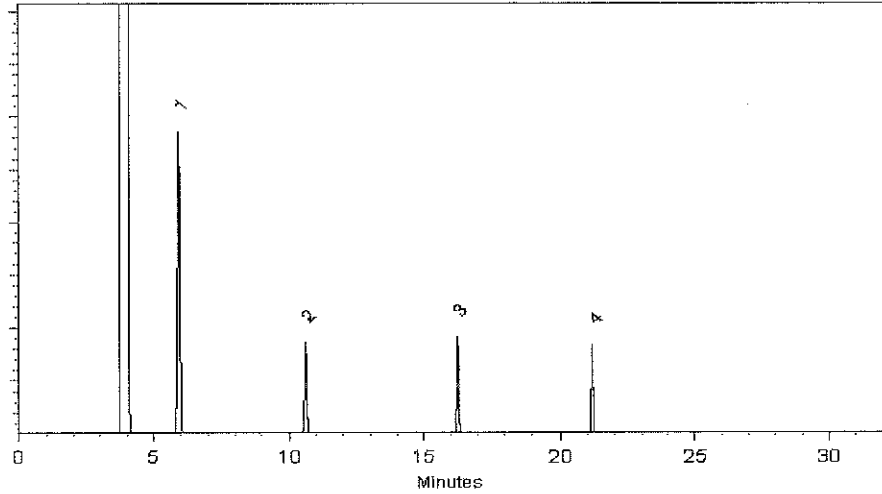
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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_Cus826_IS_00116



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)

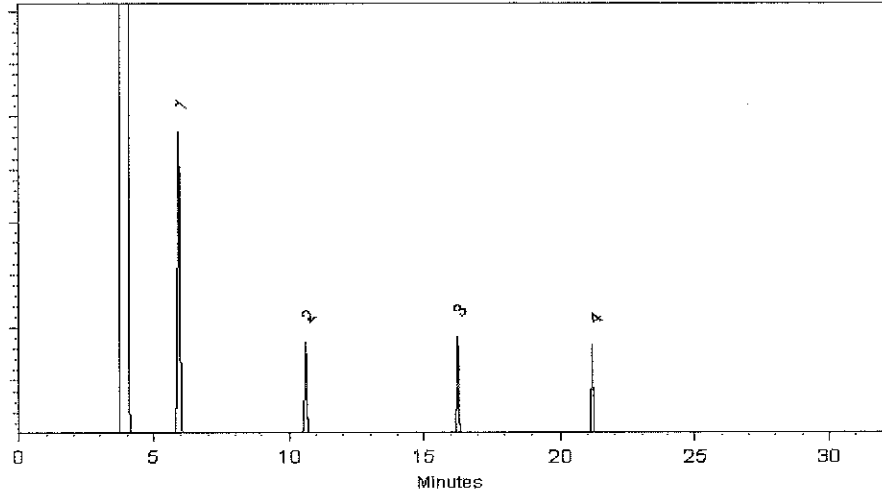
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

Inj. Temp:
200°C

Det. Temp:
250°C

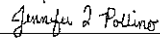
Det. Type:
FID



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_Cus826_IS_00118



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)

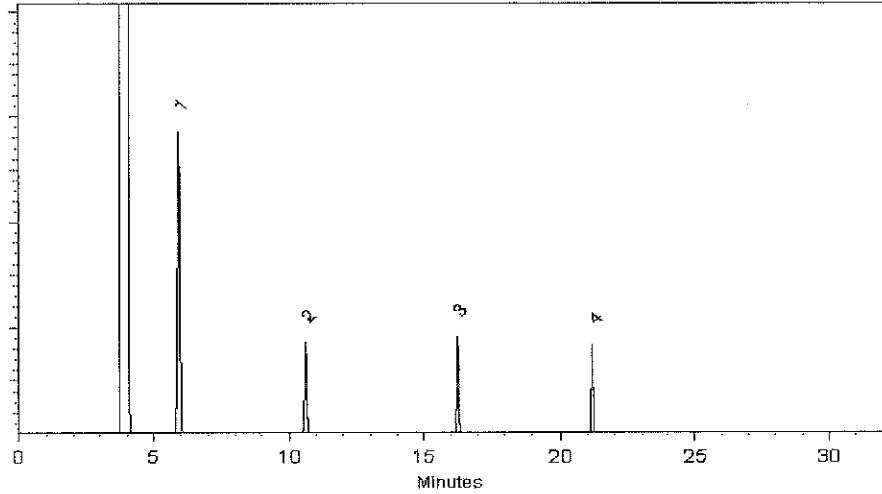
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

Inj. Temp:
200°C

Det. Temp:
250°C

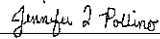
Det. Type:
FID



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_Cus826_IS_00141



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)

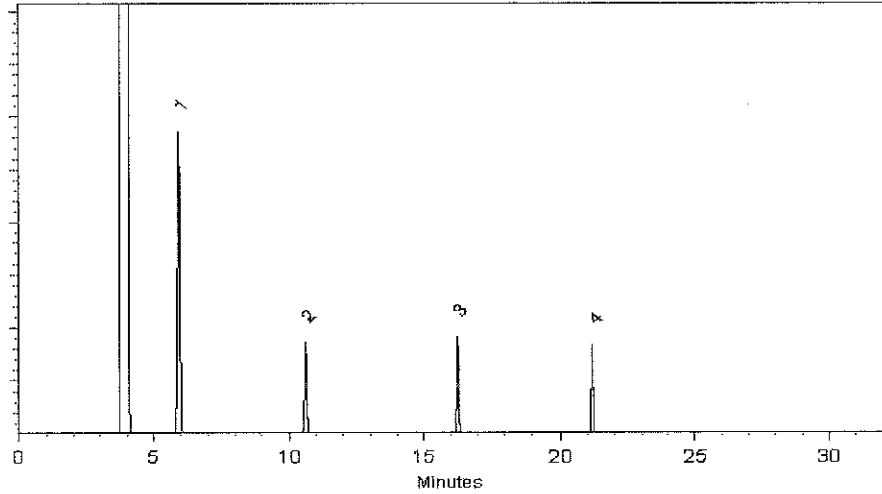
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

Inj. Temp:
200°C

Det. Temp:
250°C

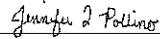
Det. Type:
FID



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: $u_a = \sqrt{(u(V))^2 + (u(m))^2 + (u(V))^2 + (u(RO))^2}$ 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_DCFM_00019

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_EtBr_Neat_00001



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

Ethyl bromide

CATALOG NUMBER N-11888-1G
LOT NUMBER 7832000
DATE CERTIFIED 12/01/17
EXPIRATION DATE 12/31/20
CAS NUMBER 74-96-4
MOLECULAR FORMULA C₂H₅Br
MOLECULAR WEIGHT 108.97
STORAGE Store in a cool dry place.
HANDLING See Safety Data Sheet
INTENDED USE For laboratory use only.

Analytical Test	Value
% PURITY (GC/FID)	99.5

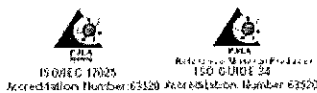
Chem Service, Inc. guarantees the purity to be +/- 0.5% deviation prior to the expiration date shown on the label and exclusive of any customer contamination.

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



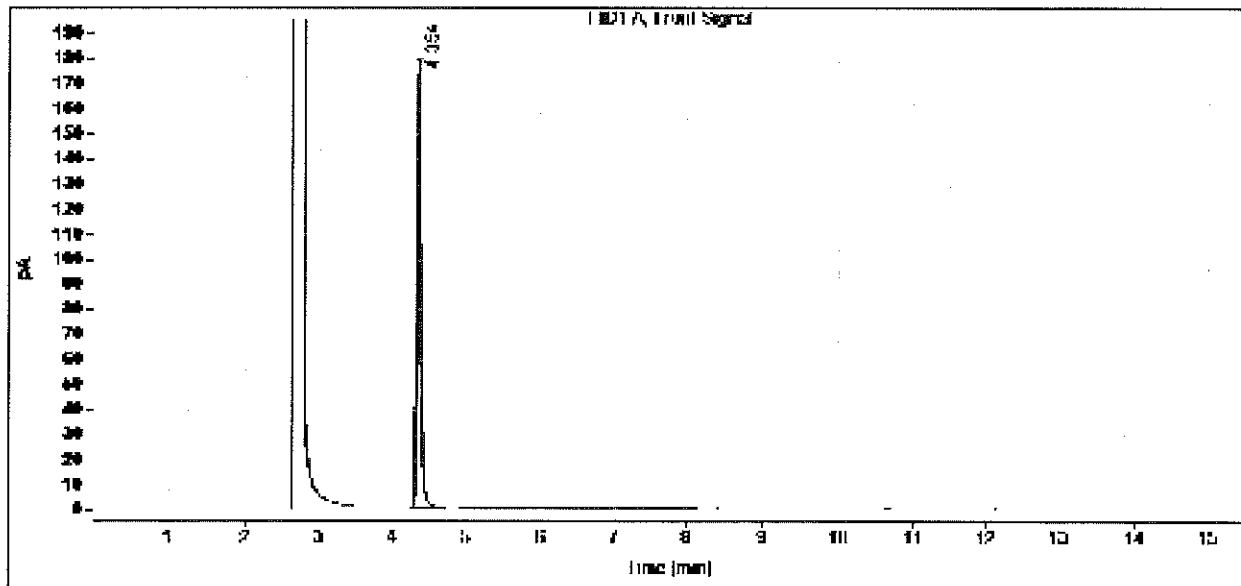
COA Form
Revision 3 (3/2015)

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

Gas Chromatography / Flame Ionization Detector (GC/FID)

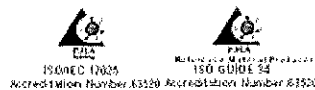
Data file: C:\CHEM32\1\DATA\2017 DATA\1117\SIG1009529.D
Sample name: Bromoethane
Instrument: GC 1
Injection date: 12/1/2017 9:30:43 AM
Acq. method: MIX1.M
Column name: DB-624 (30m x 0.53mm x 3.0um)
Sample type: Sample
Location: Vial 21
Injection volume: 1.0uL



Signal: FID1 A, Front Signal

RT [min]	Type	Width [min]	Area	Height	Area%
4.354	BB	0.0547	648.4102	176.9945	100.0000
Sum			648.4102		

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



Reagent

MSV_Q#1B_00038



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

Table with 7 columns: Elution Order, Compound, CAS #, Purity, Grav. Conc. (weight/volume), Expanded Uncertainty (95% C.L.; K=2), and measurement units. Contains 7 rows of data for various compounds like 1,1-Dichloroethene, Methylene chloride, trans-1,2-Dichloroethene, cis-1,2-Dichloroethene, and Chloroform.

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)

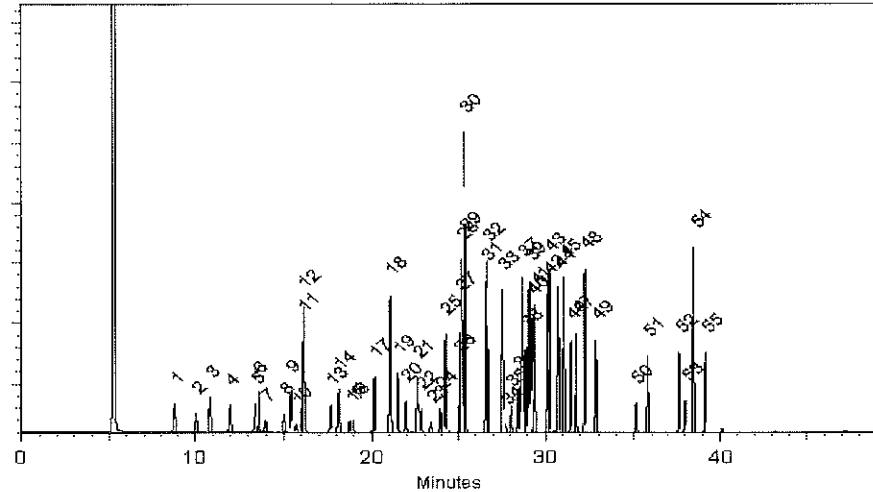
Carrier Gas:
hydrogen-constant pressure 8.0 psi.

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_00053



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

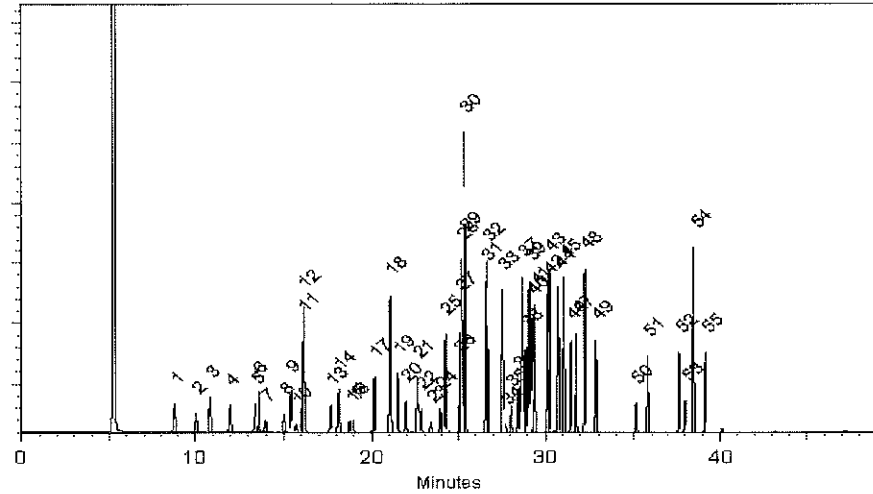
Carrier Gas:
hydrogen-constant pressure 8.0 psi.

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_00067



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

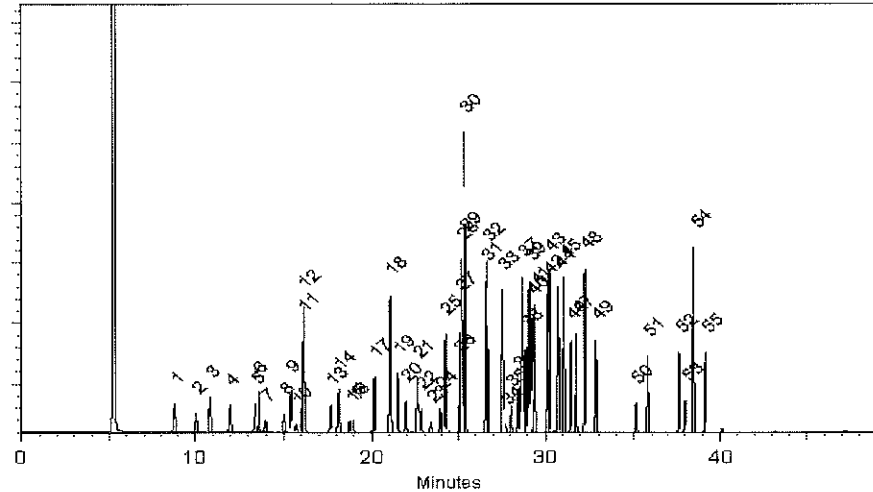
Carrier Gas:
hydrogen-constant pressure 8.0 psi.

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

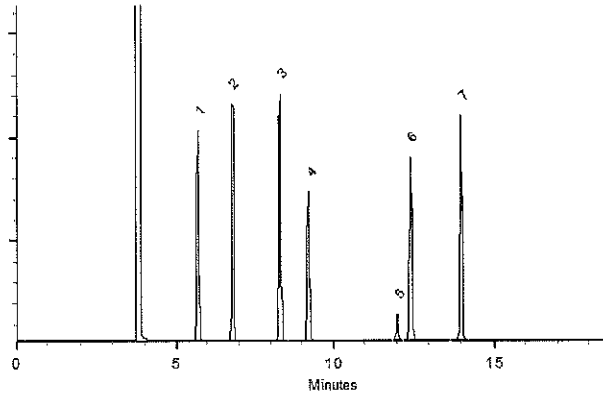
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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/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_Q#3B_00046



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)

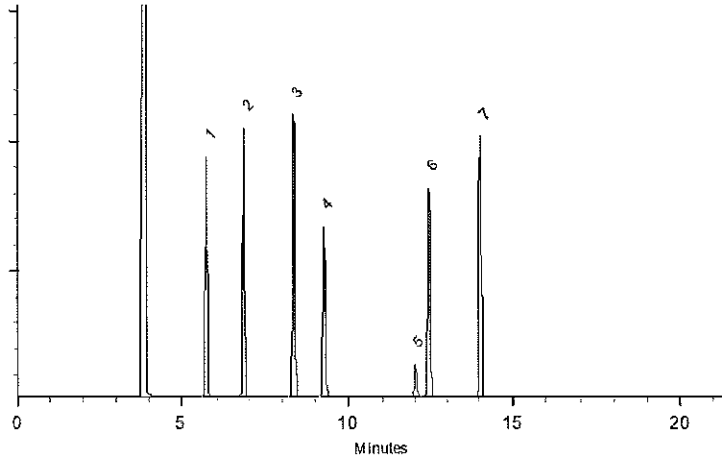
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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_00058



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

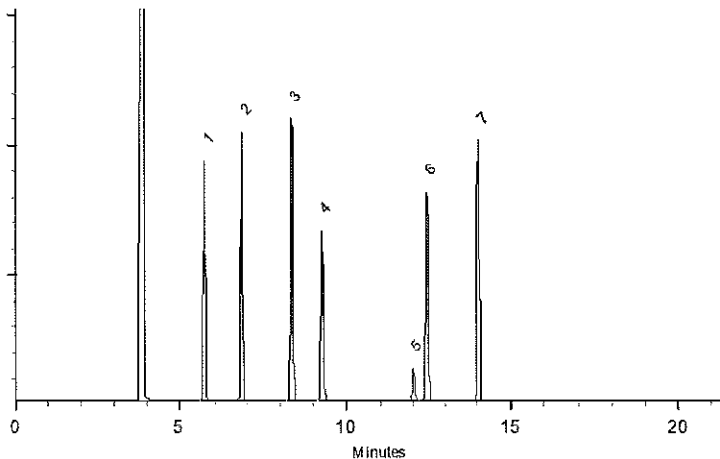
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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_00052



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)

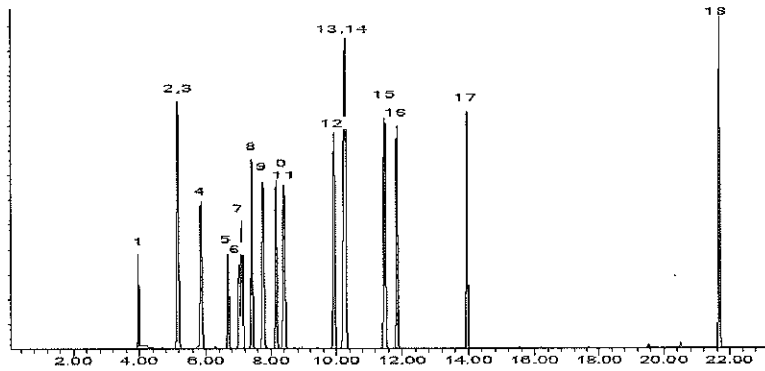
Carrier Gas:
helium-constant pressure 30 psi

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_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. : 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)

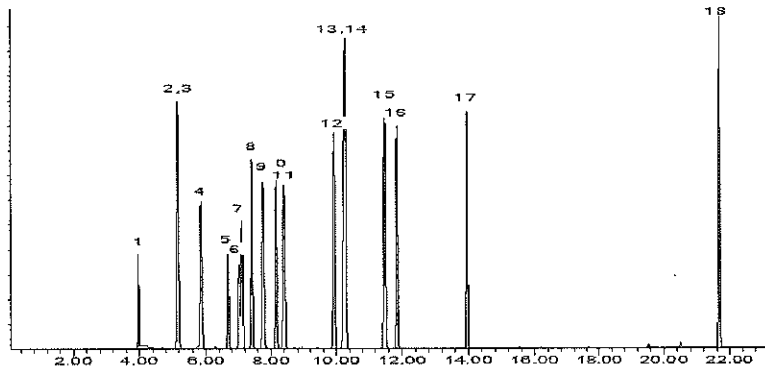
Carrier Gas:
helium-constant pressure 30 psi

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

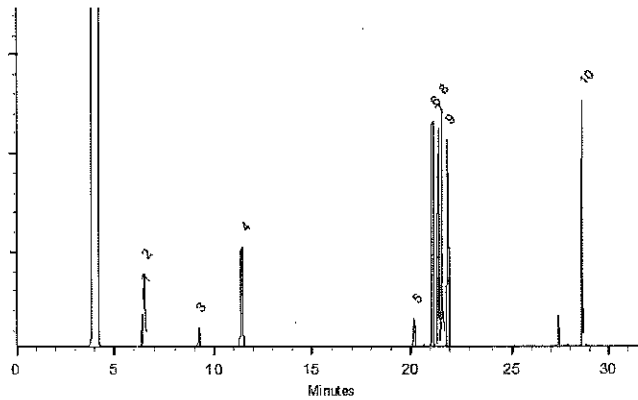
200°C

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.

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/ 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_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. : 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)

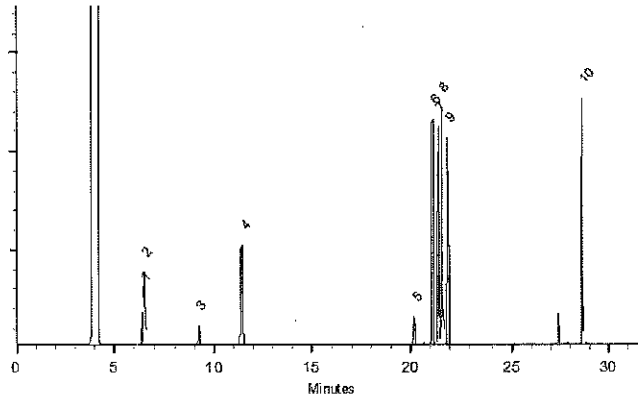
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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_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. : 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:

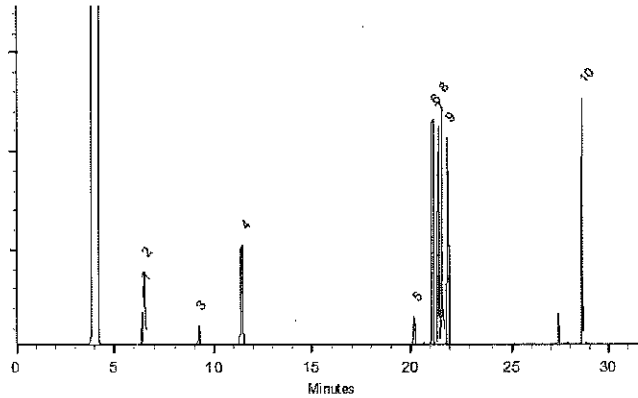
200°C

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/ 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_00062



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
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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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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)

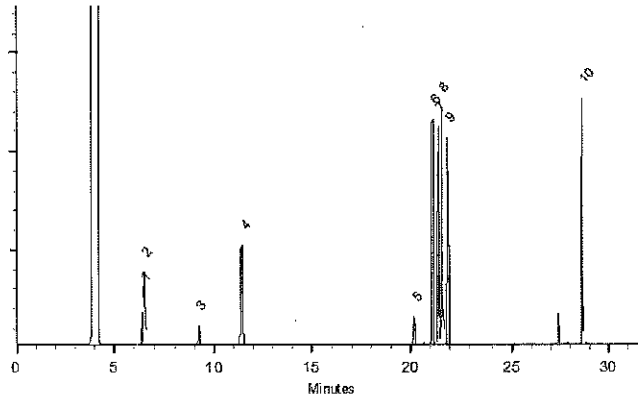
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
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- 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:

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

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#1B_00072



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

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

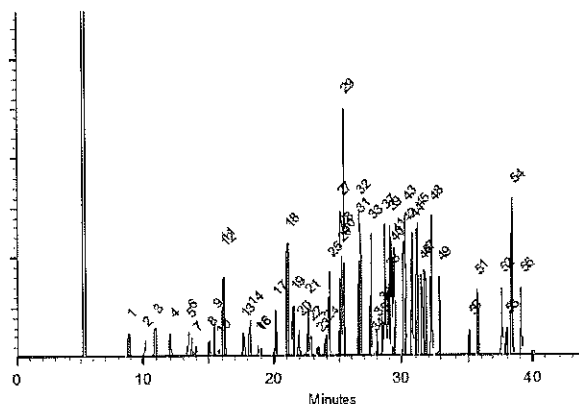
Carrier Gas:
hydrogen-constant pressure 8.0 psi.

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/ 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#1B_00101



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

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

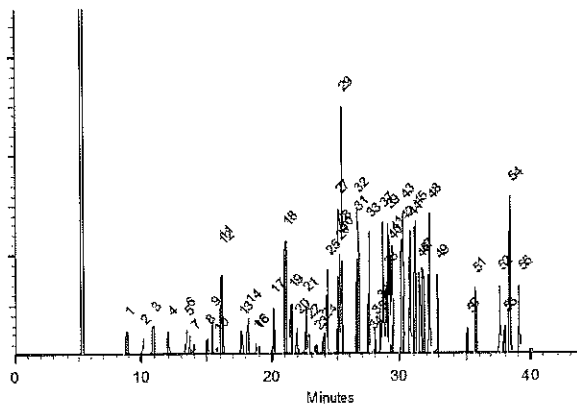
Carrier Gas:
hydrogen-constant pressure 8.0 psi.

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/ 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#1B_00114



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

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

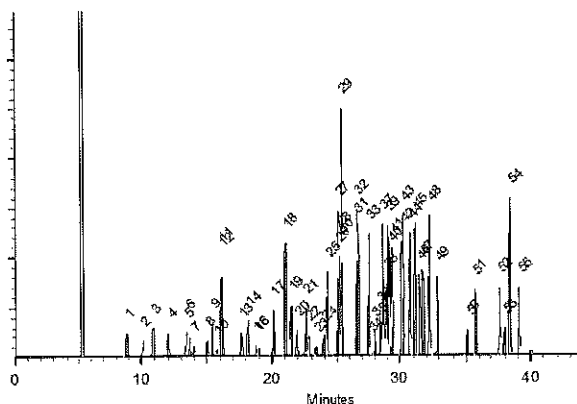
Carrier Gas:
hydrogen-constant pressure 8.0 psi.

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/ 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#1B_00118



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 **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)

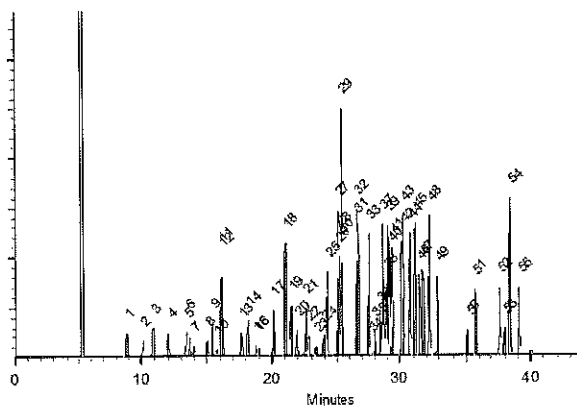
Carrier Gas:
hydrogen-constant pressure 8.0 psi.

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/ 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#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:

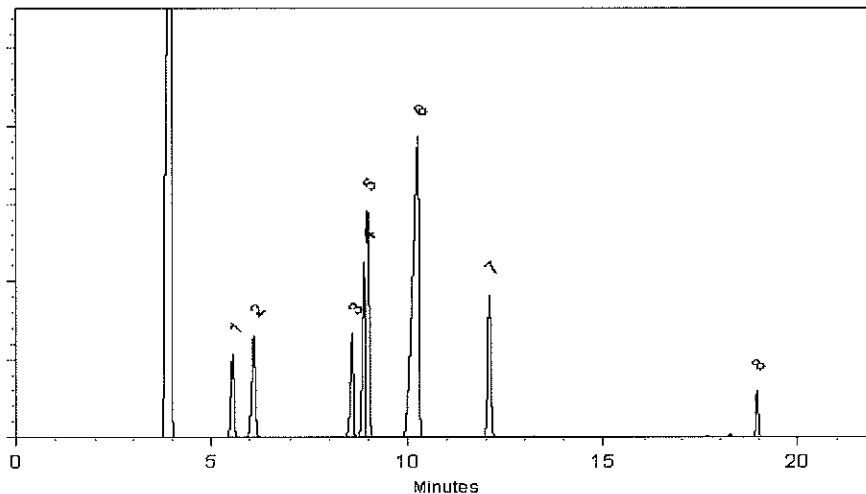
200°C

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:

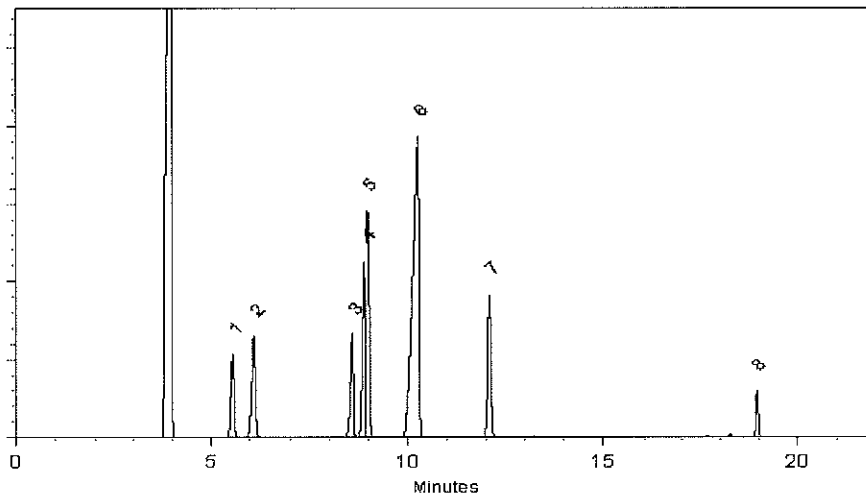
200°C

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#2B_00121



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. : 56734 **Lot No.:** A0159694
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, 2022 **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%	25,019.2 µg/mL	+/- 146.4929 µg/mL
2	tert-Butanol (TBA)	75-65-0	99%	25,022.4 µg/mL	+/- 146.5117 µg/mL
3	Propionitrile	107-12-0	99%	25,020.0 µg/mL	+/- 146.4976 µg/mL
4	Methacrylonitrile	126-98-7	99%	12,533.6 µg/mL	+/- 73.3870 µg/mL
5	Isobutanol (2-Methyl-1-propanol)	78-83-1	99%	62,702.0 µg/mL	+/- 367.1151 µg/mL
6	1-Butanol	71-36-3	99%	125,150.0 µg/mL	+/- 732.7430 µg/mL
7	1,4-Dioxane	123-91-1	99%	62,550.0 µg/mL	+/- 366.2251 µg/mL
8	trans-1,4-dichloro-2-butene	110-57-6	95%	12,549.5 µg/mL	+/- 73.4801 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)

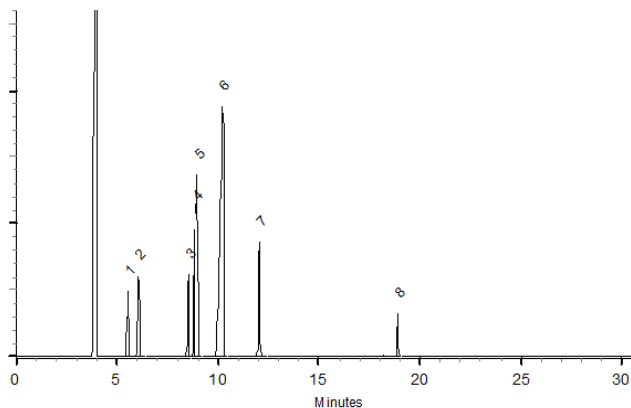
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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 Windle - Operations Technician I

Date Mixed: 07-Apr-2020 **Balance:** B251644995


Fang-Yun Lo - QC Analyst

Date Passed: 10-Apr-2020

**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

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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. : 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)

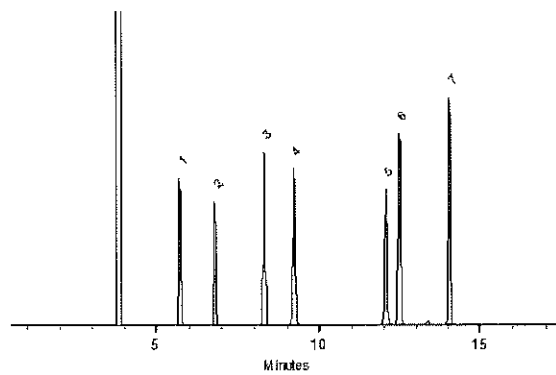
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

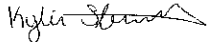
Inj. Temp:
200°C

Det. Temp:
250°C

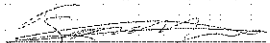
Det. Type:
FID



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_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. : 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)

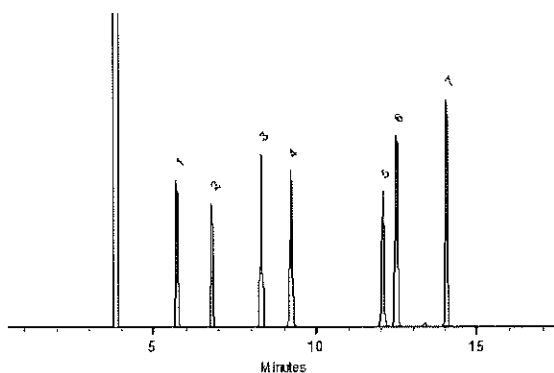
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

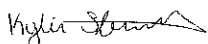
Inj. Temp:
200°C

Det. Temp:
250°C

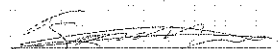
Det. Type:
FID



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_00062



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

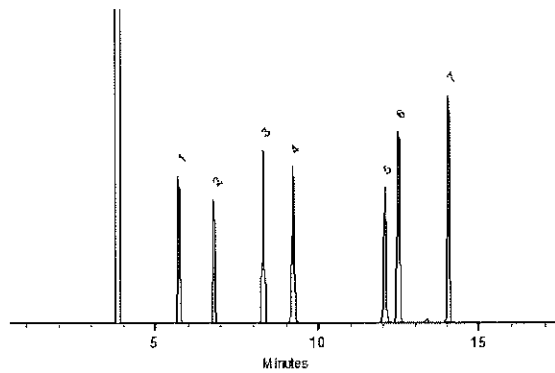
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

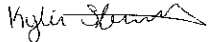
Inj. Temp:
200°C

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.


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_00064



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

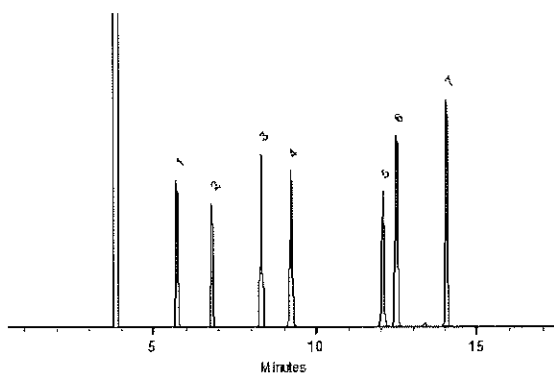
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

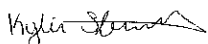
Inj. Temp:
200°C

Det. Temp:
250°C

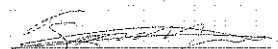
Det. Type:
FID



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.


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#4C_00059



CERTIFIED REFERENCE MATERIAL

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

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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. : 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-S02.2 (cat.#10916)

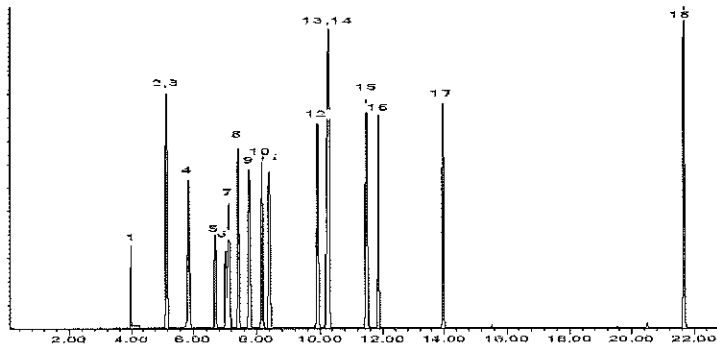
Carrier Gas:
helium-constant pressure 30 psi

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 Sucka - Mix Technician

Date Mixed: 10-Mar-2020 Balance: B707717271


Fang-tun, 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:

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

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_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. : 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-S02.2 (cat.#10916)

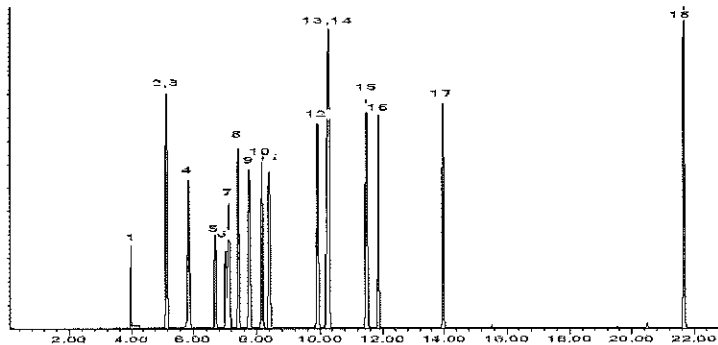
Carrier Gas:
helium-constant pressure 30 psi

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


Fang-tun, 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:

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

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_00094



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)

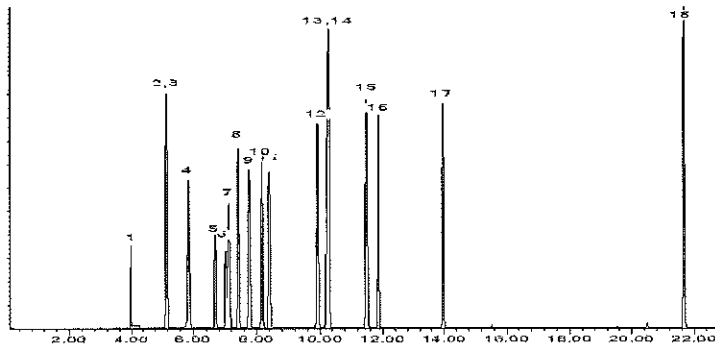
Carrier Gas:
helium-constant pressure 30 psi

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#4C_00098



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-S02.2 (cat.#10916)

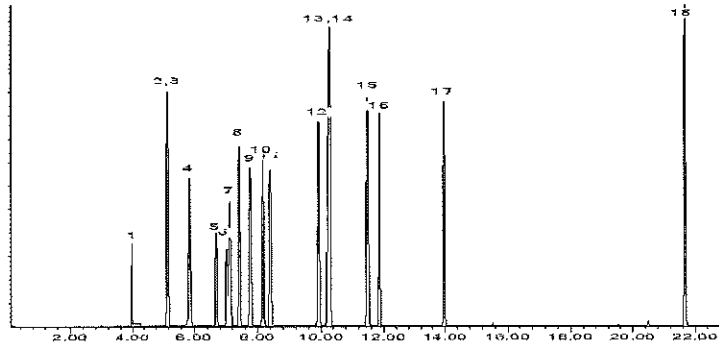
Carrier Gas:
helium-constant pressure 30 psi

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

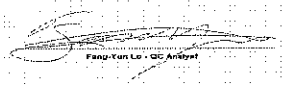


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


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.
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- Purity values are rounded to the nearest whole number.

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

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.
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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)

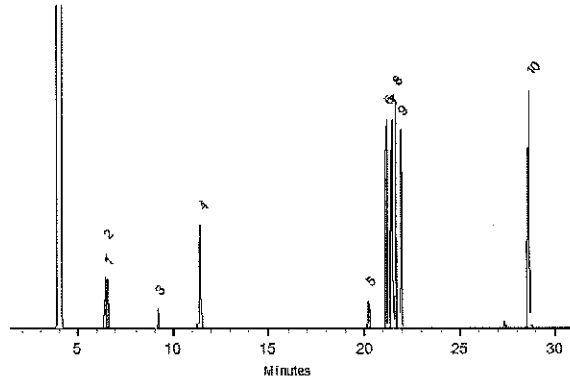
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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.

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0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

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- 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_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. : 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)

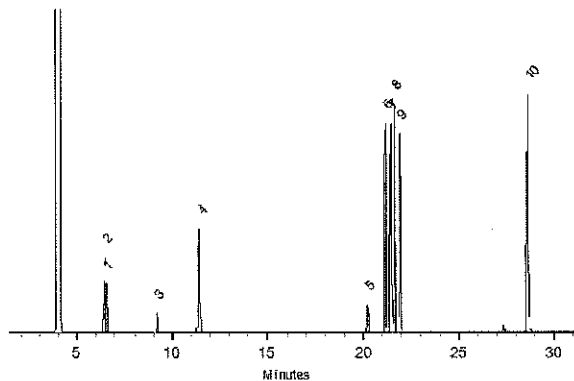
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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#6_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. : 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)

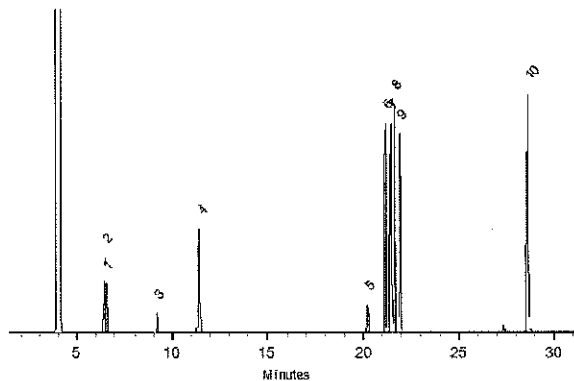
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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)

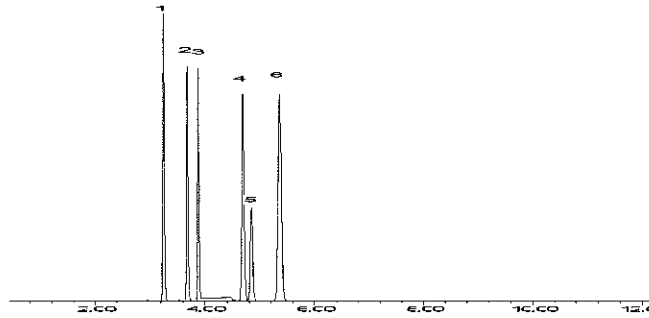
Carrier Gas:
helium-constant flow 2.0 ml/min.

Temp. Program:
40°C (hold 6 min.) to 100°C
@ 5°C/min.

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD

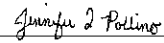


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


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/ 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_00136



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)

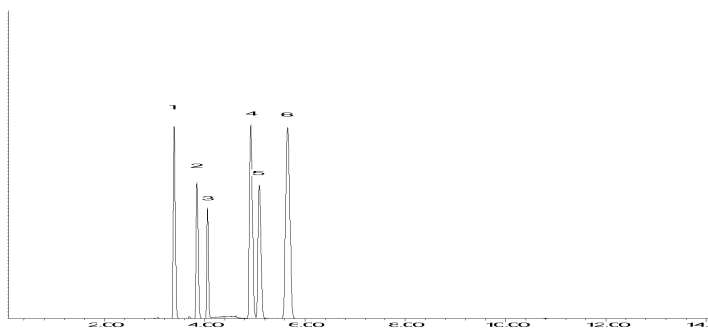
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

Inj. Temp:
200°C

Det. Temp:
250°C

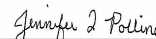
Det. Type:
MSD



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_00164



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)

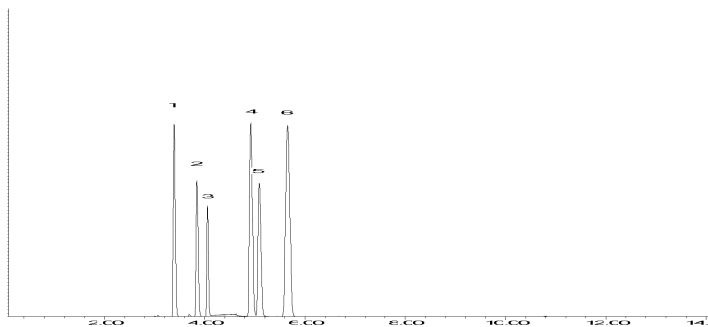
Carrier Gas:
helium-constant flow 2.0 mL/min.

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 8260C Low Level

Volatile Organic Compounds (GC/MS)
by Method 8260C Low Level

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-19023-1

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	410-19023-1	102	108	94	92
HD-COD-SW-7-0/1-0	410-19023-2	103	111	93	91
HD-COD-SW-8-0/1-0	410-19023-3	93	98	101	98
HD-COD-SW-9-0/1-0	410-19023-4	93	101	102	98
HD-COD-SW-13-0/1-0	410-19023-5	93	98	102	97
HD-COD-SW-15-0/1-0	410-19023-6	92	101	102	97
HD-COD-SW-16-0/1-0	410-19023-7	93	101	102	98
HD-COD-SW-17-0/1-0	410-19023-8	92	102	102	97
HD-COD-SW-26-0/1-0	410-19023-9	93	101	101	96
HD-COD-SW-27-0/1-0	410-19023-10	94	101	102	96
HD-COD-SW-28-0/1-0	410-19023-11	93	100	101	97
HD-COD-SW-29-0/1-0	410-19023-12	94	97	103	98
HD-QC1-0/1-1	410-19023-13	90	101	101	97
HD-QC1-0/1-2	410-19023-14	92	102	102	98
	MB 410-61951/6	92	100	101	96
	MB 410-62460/7	100	107	94	92
	MB 410-63387/6	101	108	93	91
	LCS 410-61951/4	92	101	102	99
	LCS 410-62460/4	99	106	95	95
	LCS 410-63387/4	101	107	96	97
	LCSD 410-62460/5	98	104	96	96
HD-COD-SW-15-0/1-0 MS	410-19023-6 MS	92	98	103	99
HD-COD-SW-15-0/1-0 MSD	410-19023-6 MSD	92	98	103	101

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.: 410-19023-1

SDG No.: _____

Matrix: Water Level: Low Lab File ID: GC30L01.D

Lab ID: LCS 410-61951/4 Client ID: _____

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	5.00	4.49	90	71-134	
1,1,1-Trichloroethane	5.00	4.29	86	78-126	
1,1,2,2-Tetrachloroethane	5.00	5.20	104	75-123	
1,1,2-Trichloroethane	5.00	5.21	104	80-120	
1,1-Dichloroethane	5.00	4.87	97	74-120	
1,1-Dichloroethene	5.00	4.67	93	80-131	
1,2-Dibromoethane (EDB)	5.00	4.97	99	80-120	
1,2-Dichloroethane	5.00	4.40	88	69-122	
1,2-Dichloropropane	5.00	5.22	104	80-120	
2-Butanone (MEK)	37.5	33.1	88	59-141	
2-Hexanone	25.0	21.4	86	52-140	
4-Methyl-2-pentanone (MIBK)	25.0	21.2	85	55-140	
Acetone	37.5	29.2	78	60-146	
Acrylonitrile	25.0	25.4	102	64-139	
Benzene	5.00	4.94	99	80-120	
Bromochloromethane	5.00	4.32	86	80-120	
Bromodichloromethane	5.00	4.69	94	73-124	
Bromoform	5.00	4.36	87	49-144	
Bromomethane	5.00	4.02	80	60-136	
Carbon disulfide	5.00	5.02	100	67-130	
Carbon tetrachloride	5.00	4.02	80	64-141	
Chlorobenzene	5.00	4.93	99	80-120	
Chloroethane	5.00	4.42	88	63-120	
Chloroform	5.00	4.56	91	80-120	
Chloromethane	5.00	4.12	82	56-124	
cis-1,2-Dichloroethene	5.00	5.11	102	80-122	
cis-1,3-Dichloropropene	5.00	4.91	98	67-121	
Dibromochloromethane	5.00	4.80	96	64-138	
Ethylbenzene	5.00	4.84	97	80-120	
Methyl tert-butyl ether	5.00	4.74	95	69-120	
Methylene Chloride	5.00	4.93	99	80-120	
Styrene	5.00	5.00	100	80-120	
Tetrachloroethene	5.00	4.48	90	80-120	
Toluene	5.00	5.11	102	80-120	
trans-1,2-Dichloroethene	5.00	4.91	98	80-122	
trans-1,3-Dichloropropene	5.00	4.76	95	61-129	
Trichloroethene	5.00	4.62	92	80-120	
Vinyl chloride	5.00	3.96	79	60-125	
Xylenes, Total	15.0	14.9	99	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.: 410-19023-1

SDG No.: _____

Matrix: Water Level: Low Lab File ID: Cn05L01.D

Lab ID: LCS 410-62460/4 Client ID: _____

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	5.00	4.76	95	71-134	
1,1,1-Trichloroethane	5.00	4.25	85	78-126	
1,1,2,2-Tetrachloroethane	5.00	5.00	100	75-123	
1,1,2-Trichloroethane	5.00	5.22	104	80-120	
1,1-Dichloroethane	5.00	4.39	88	74-120	
1,1-Dichloroethene	5.00	4.60	92	80-131	
1,2-Dibromoethane (EDB)	5.00	5.06	101	80-120	
1,2-Dichloroethane	5.00	4.32	86	69-122	
1,2-Dichloropropane	5.00	4.64	93	80-120	
2-Butanone (MEK)	37.5	38.5	103	59-141	
2-Hexanone	25.0	23.1	93	52-140	
4-Methyl-2-pentanone (MIBK)	25.0	22.2	89	55-140	
Acetone	37.5	46.5	124	60-146	
Acrylonitrile	25.0	27.6	110	64-139	
Benzene	5.00	4.70	94	80-120	
Bromochloromethane	5.00	4.86	97	80-120	
Bromodichloromethane	5.00	4.72	94	73-124	
Bromoform	5.00	5.91	118	49-144	
Bromomethane	5.00	4.46	89	60-136	
Carbon disulfide	5.00	4.53	91	67-130	
Carbon tetrachloride	5.00	4.26	85	64-141	
Chlorobenzene	5.00	4.79	96	80-120	
Chloroethane	5.00	4.10	82	63-120	
Chloroform	5.00	4.46	89	80-120	
Chloromethane	5.00	4.30	86	56-124	
cis-1,2-Dichloroethene	5.00	4.94	99	80-122	
cis-1,3-Dichloropropene	5.00	4.47	89	67-121	
Dibromochloromethane	5.00	5.26	105	64-138	
Ethylbenzene	5.00	4.56	91	80-120	
Methyl tert-butyl ether	5.00	4.38	88	69-120	
Methylene Chloride	5.00	4.96	99	80-120	
Styrene	5.00	4.77	95	80-120	
Tetrachloroethene	5.00	4.79	96	80-120	
Toluene	5.00	4.63	93	80-120	
trans-1,2-Dichloroethene	5.00	4.68	94	80-122	
trans-1,3-Dichloropropene	5.00	4.48	90	61-129	
Trichloroethene	5.00	4.69	94	80-120	
Vinyl chloride	5.00	4.31	86	60-125	
Xylenes, Total	15.0	14.0	93	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.: 410-19023-1

SDG No.: _____

Matrix: Water Level: Low Lab File ID: CN08L01.D

Lab ID: LCS 410-63387/4 Client ID: _____

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	5.00	4.69	94	71-134	
1,1,1-Trichloroethane	5.00	4.21	84	78-126	
1,1,2,2-Tetrachloroethane	5.00	4.72	94	75-123	
1,1,2-Trichloroethane	5.00	5.15	103	80-120	
1,1-Dichloroethane	5.00	4.23	85	74-120	
1,1-Dichloroethene	5.00	4.78	96	80-131	
1,2-Dibromoethane (EDB)	5.00	4.88	98	80-120	
1,2-Dichloroethane	5.00	4.22	84	69-122	
1,2-Dichloropropane	5.00	4.49	90	80-120	
2-Butanone (MEK)	37.5	35.9	96	59-141	
2-Hexanone	25.0	24.1	96	52-140	
4-Methyl-2-pentanone (MIBK)	25.0	22.7	91	55-140	
Acetone	37.5	41.4	110	60-146	
Acrylonitrile	25.0	26.4	106	64-139	
Benzene	5.00	4.63	93	80-120	
Bromochloromethane	5.00	5.09	102	80-120	
Bromodichloromethane	5.00	4.66	93	73-124	
Bromoform	5.00	5.98	120	49-144	
Bromomethane	5.00	4.40	88	60-136	
Carbon disulfide	5.00	4.52	90	67-130	
Carbon tetrachloride	5.00	4.32	86	64-141	
Chlorobenzene	5.00	4.71	94	80-120	
Chloroethane	5.00	4.17	83	63-120	
Chloroform	5.00	4.42	88	80-120	
Chloromethane	5.00	4.22	84	56-124	
cis-1,2-Dichloroethene	5.00	4.89	98	80-122	
cis-1,3-Dichloropropene	5.00	4.50	90	67-121	
Dibromochloromethane	5.00	5.14	103	64-138	
Ethylbenzene	5.00	4.44	89	80-120	
Methyl tert-butyl ether	5.00	4.21	84	69-120	
Methylene Chloride	5.00	4.84	97	80-120	
Styrene	5.00	4.71	94	80-120	
Tetrachloroethene	5.00	4.89	98	80-120	
Toluene	5.00	4.53	91	80-120	
trans-1,2-Dichloroethene	5.00	4.67	93	80-122	
trans-1,3-Dichloropropene	5.00	4.37	87	61-129	
Trichloroethene	5.00	4.63	93	80-120	
Vinyl chloride	5.00	4.38	88	60-125	
Xylenes, Total	15.0	13.8	92	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.: 410-19023-1

SDG No.: _____

Matrix: Water Level: Low Lab File ID: Cn05L02.D

Lab ID: LCSD 410-62460/5 Client ID: _____

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
1,1,1,2-Tetrachloroethane	5.00	4.84	97	2	30	71-134	
1,1,1-Trichloroethane	5.00	4.16	83	2	30	78-126	
1,1,2,2-Tetrachloroethane	5.00	5.00	100	0	30	75-123	
1,1,2-Trichloroethane	5.00	5.24	105	0	30	80-120	
1,1-Dichloroethane	5.00	4.47	89	2	30	74-120	
1,1-Dichloroethene	5.00	4.60	92	0	30	80-131	
1,2-Dibromoethane (EDB)	5.00	5.04	101	0	30	80-120	
1,2-Dichloroethane	5.00	4.31	86	0	30	69-122	
1,2-Dichloropropane	5.00	4.62	92	1	30	80-120	
2-Butanone (MEK)	37.5	36.9	98	4	30	59-141	
2-Hexanone	25.0	22.2	89	4	30	52-140	
4-Methyl-2-pentanone (MIBK)	25.0	21.3	85	4	30	55-140	
Acetone	37.5	44.0	117	5	30	60-146	
Acrylonitrile	25.0	27.0	108	2	30	64-139	
Benzene	5.00	4.68	94	0	30	80-120	
Bromochloromethane	5.00	4.89	98	1	30	80-120	
Bromodichloromethane	5.00	4.71	94	0	30	73-124	
Bromoform	5.00	5.91	118	0	30	49-144	
Bromomethane	5.00	4.36	87	2	30	60-136	
Carbon disulfide	5.00	4.45	89	2	30	67-130	
Carbon tetrachloride	5.00	4.27	85	0	30	64-141	
Chlorobenzene	5.00	4.79	96	0	30	80-120	
Chloroethane	5.00	4.08	82	1	30	63-120	
Chloroform	5.00	4.48	90	1	30	80-120	
Chloromethane	5.00	4.46	89	4	30	56-124	
cis-1,2-Dichloroethene	5.00	4.94	99	0	30	80-122	
cis-1,3-Dichloropropene	5.00	4.54	91	2	30	67-121	
Dibromochloromethane	5.00	5.22	104	1	30	64-138	
Ethylbenzene	5.00	4.57	91	0	30	80-120	
Methyl tert-butyl ether	5.00	4.35	87	1	30	69-120	
Methylene Chloride	5.00	5.00	100	1	30	80-120	
Styrene	5.00	4.77	95	0	30	80-120	
Tetrachloroethene	5.00	4.80	96	0	30	80-120	
Toluene	5.00	4.66	93	1	30	80-120	
trans-1,2-Dichloroethene	5.00	4.74	95	1	30	80-122	
trans-1,3-Dichloropropene	5.00	4.49	90	0	30	61-129	
Trichloroethene	5.00	4.66	93	1	30	80-120	
Vinyl chloride	5.00	4.39	88	2	30	60-125	
Xylenes, Total	15.0	14.1	94	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.: 410-19023-1

SDG No.: _____

Matrix: Water

Level: Low

Lab File ID: Gn04S11.D

Lab ID: 410-19023-6 MS

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

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	5.00	ND	4.55	91	71-134	
1,1,1-Trichloroethane	5.00	0.071 J	4.63	91	78-126	
1,1,2,2-Tetrachloroethane	5.00	ND	5.23	104	75-123	
1,1,2-Trichloroethane	5.00	ND	5.18	103	80-120	
1,1-Dichloroethane	5.00	ND	5.17	103	74-120	
1,1-Dichloroethene	5.00	ND	5.28	106	80-131	
1,2-Dibromoethane (EDB)	5.00	ND	4.79	96	80-120	
1,2-Dichloroethane	5.00	ND	4.25	85	69-122	
1,2-Dichloropropane	5.00	ND	5.40	108	80-120	
2-Butanone (MEK)	37.5	ND	39.4	105	59-141	
2-Hexanone	25.0	ND	27.1	108	52-140	
4-Methyl-2-pentanone (MIBK)	25.0	ND	25.9	103	55-140	
Acetone	37.5	ND	32.5	87	60-146	
Acrylonitrile	25.0	ND	27.3	109	64-139	
Benzene	5.00	ND	5.18	104	80-120	
Bromochloromethane	5.00	ND	4.49	90	80-120	
Bromodichloromethane	5.00	ND	4.75	95	73-124	
Bromoform	5.00	ND	4.05	81	49-144	
Bromomethane	5.00	ND	4.04	81	60-136	
Carbon disulfide	5.00	0.23 J	5.35	102	67-130	
Carbon tetrachloride	5.00	ND	4.45	89	64-141	
Chlorobenzene	5.00	ND	5.03	101	80-120	
Chloroethane	5.00	ND	4.62	92	63-120	
Chloroform	5.00	0.25 J	5.00	95	80-120	
Chloromethane	5.00	ND	4.13	83	80-120	
cis-1,2-Dichloroethene	5.00	0.66	5.98	106	80-122	
cis-1,3-Dichloropropene	5.00	ND	4.97	99	67-121	
Dibromochloromethane	5.00	ND	4.68	93	64-138	
Ethylbenzene	5.00	ND	5.13	102	80-120	
Methyl tert-butyl ether	5.00	ND	4.61	92	69-120	
Methylene Chloride	5.00	ND	5.08	101	80-120	
Styrene	5.00	ND	5.25	105	80-120	
Tetrachloroethene	5.00	2.0	6.89	98	80-120	
Toluene	5.00	ND	5.46	109	80-120	
trans-1,2-Dichloroethene	5.00	ND	5.26	105	80-122	
trans-1,3-Dichloropropene	5.00	ND	4.71	94	61-129	
Trichloroethene	5.00	0.79	5.83	101	80-120	
Vinyl chloride	5.00	ND	4.31	86	60-125	
Xylenes, Total	15.0	ND	15.8	105	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C LL

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories

Job No.: 410-19023-1

SDG No.: _____

Matrix: Water

Level: Low

Lab File ID: Gn04S12.D

Lab ID: 410-19023-6 MSD

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

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
1,1,1,2-Tetrachloroethane	5.00	4.76	95	5	30	71-134	
1,1,1-Trichloroethane	5.00	4.67	92	1	30	78-126	
1,1,2,2-Tetrachloroethane	5.00	5.22	104	0	30	75-123	
1,1,2-Trichloroethane	5.00	5.29	106	2	30	80-120	
1,1-Dichloroethane	5.00	5.23	105	1	30	74-120	
1,1-Dichloroethene	5.00	5.26	105	0	30	80-131	
1,2-Dibromoethane (EDB)	5.00	4.82	96	1	30	80-120	
1,2-Dichloroethane	5.00	4.39	88	3	30	69-122	
1,2-Dichloropropane	5.00	5.38	107	0	30	80-120	
2-Butanone (MEK)	37.5	33.2	88	17	30	59-141	
2-Hexanone	25.0	22.3	89	19	30	52-140	
4-Methyl-2-pentanone (MIBK)	25.0	22.0	88	16	30	55-140	
Acetone	37.5	31.0	83	5	30	60-146	
Acrylonitrile	25.0	26.2	105	4	30	64-139	
Benzene	5.00	5.18	104	0	30	80-120	
Bromochloromethane	5.00	4.56	91	2	30	80-120	
Bromodichloromethane	5.00	4.77	95	0	30	73-124	
Bromoform	5.00	4.22	84	4	30	49-144	
Bromomethane	5.00	4.11	82	2	30	60-136	
Carbon disulfide	5.00	5.38	103	1	30	67-130	
Carbon tetrachloride	5.00	4.48	89	1	30	64-141	
Chlorobenzene	5.00	5.14	103	2	30	80-120	
Chloroethane	5.00	4.61	92	0	30	63-120	
Chloroform	5.00	5.05	96	1	30	80-120	
Chloromethane	5.00	4.12	82	0	30	80-120	
cis-1,2-Dichloroethene	5.00	5.92	105	1	30	80-122	
cis-1,3-Dichloropropene	5.00	4.93	98	1	30	67-121	
Dibromochloromethane	5.00	4.80	96	3	30	64-138	
Ethylbenzene	5.00	5.13	103	0	30	80-120	
Methyl tert-butyl ether	5.00	4.77	95	3	30	69-120	
Methylene Chloride	5.00	5.22	104	3	30	80-120	
Styrene	5.00	5.30	106	1	30	80-120	
Tetrachloroethene	5.00	6.87	98	0	30	80-120	
Toluene	5.00	5.46	109	0	30	80-120	
trans-1,2-Dichloroethene	5.00	5.20	104	1	30	80-122	
trans-1,3-Dichloropropene	5.00	4.70	94	0	30	61-129	
Trichloroethene	5.00	5.79	100	1	30	80-120	
Vinyl chloride	5.00	4.21	84	3	30	60-125	
Xylenes, Total	15.0	16.0	107	2	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.: 410-19023-1
 SDG No.: _____
 Lab File ID: GC30B01.D Lab Sample ID: MB 410-61951/6
 Matrix: Water Heated Purge: (Y/N) N
 Instrument ID: 16334 Date Analyzed: 11/04/2020 10:05
 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 410-61951/4	GC30L01.D	11/04/2020 09:21
HD-QC1-0/1-1	410-19023-13	Gn04S02.D	11/04/2020 10:49
HD-QC1-0/1-2	410-19023-14	Gn04S03.D	11/04/2020 11:11
HD-COD-SW-8-0/1-0	410-19023-3	Gn04S07.D	11/04/2020 12:39
HD-COD-SW-9-0/1-0	410-19023-4	Gn04S08.D	11/04/2020 13:01
HD-COD-SW-13-0/1-0	410-19023-5	Gn04S09.D	11/04/2020 13:23
HD-COD-SW-15-0/1-0	410-19023-6	Gn04S10.D	11/04/2020 13:45
HD-COD-SW-15-0/1-0 MS	410-19023-6 MS	Gn04S11.D	11/04/2020 14:07
HD-COD-SW-15-0/1-0 MSD	410-19023-6 MSD	Gn04S12.D	11/04/2020 14:29
HD-COD-SW-16-0/1-0	410-19023-7	Gn04S13.D	11/04/2020 14:51
HD-COD-SW-17-0/1-0	410-19023-8	Gn04S14.D	11/04/2020 15:13
HD-COD-SW-26-0/1-0	410-19023-9	Gn04S15.D	11/04/2020 15:36
HD-COD-SW-27-0/1-0	410-19023-10	Gn04S16.D	11/04/2020 15:58
HD-COD-SW-28-0/1-0	410-19023-11	Gn04S17.D	11/04/2020 16:20
HD-COD-SW-29-0/1-0	410-19023-12	Gn04S18.D	11/04/2020 16:42

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-19023-1
 SDG No.: _____
 Lab File ID: Cn05B31.D Lab Sample ID: MB 410-62460/7
 Matrix: Water Heated Purge: (Y/N) N
 Instrument ID: 10193 Date Analyzed: 11/05/2020 11:01
 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 410-62460/4	Cn05L01.D	11/05/2020 09:54
	LCSD 410-62460/5	Cn05L02.D	11/05/2020 10:16
HD-COD-SW-6-0/1-0	410-19023-1	Cn05S05.D	11/05/2020 12:53

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-19023-1
 SDG No.: _____
 Lab File ID: CN08B01.D Lab Sample ID: MB 410-63387/6
 Matrix: Water Heated Purge: (Y/N) N
 Instrument ID: 10193 Date Analyzed: 11/08/2020 12:34
 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 410-63387/4	CN08L01.D	11/08/2020 11:50
HD-COD-SW-7-0/1-0	410-19023-2	CN08S06.D	11/08/2020 14:24

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-19023-1

SDG No.: _____

Lab File ID: CS01T01.D BFB Injection Date: 09/01/2020

Instrument ID: 10193 BFB Injection Time: 12:45

Analysis Batch No.: 39724

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	20.4
75	30.0 - 60.0 % of mass 95	49.9
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	6.5
173	Less than 2.0 % of mass 174	1.3 (1.5) 1
174	Greater than 50% of mass 95	82.8
175	5.0 - 9.0 % of mass 174	6.2 (7.5) 1
176	95.0 - 101.0 % of mass 174	82.5 (99.6) 1
177	5.0 - 9.0 % of mass 176	5.3 (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
	IC 410-39724/3	CS01I01.D	09/01/2020	13:35
	ICIS 410-39724/4	CS01I02.D	09/01/2020	13:57
	IC 410-39724/5	CS01I03.D	09/01/2020	14:19
	IC 410-39724/6	CS01I04.D	09/01/2020	14:42
	IC 410-39724/7	CS01I05.D	09/01/2020	15:04
	IC 410-39724/8	CS01I06.D	09/01/2020	15:26
	IC 410-39724/9	CS01I07.D	09/01/2020	15:48
	ICV 410-39724/10	CS01V01.D	09/01/2020	16:10

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-19023-1

SDG No.: _____

Lab File ID: CN05T02.D BFB Injection Date: 11/05/2020

Instrument ID: 10193 BFB Injection Time: 08:55

Analysis Batch No.: 62460

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	16.9
75	30.0 - 60.0 % of mass 95	45.2
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	7.0
173	Less than 2.0 % of mass 174	0.8 (0.9) 1
174	Greater than 50% of mass 95	93.9
175	5.0 - 9.0 % of mass 174	7.4 (7.8) 1
176	95.0 - 101.0 % of mass 174	91.9 (97.9) 1
177	5.0 - 9.0 % of mass 176	6.2 (6.7) 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 410-62460/3	Cn05C01.D	11/05/2020	9:32
	LCS 410-62460/4	Cn05L01.D	11/05/2020	9:54
	LCSD 410-62460/5	Cn05L02.D	11/05/2020	10:16
	MB 410-62460/7	Cn05B31.D	11/05/2020	11:01
HD-COD-SW-6-0/1-0	410-19023-1	Cn05S05.D	11/05/2020	12:53

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-19023-1

SDG No.: _____

Lab File ID: CN08T01.D BFB Injection Date: 11/08/2020

Instrument ID: 10193 BFB Injection Time: 10:50

Analysis Batch No.: 63387

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	16.2
75	30.0 - 60.0 % of mass 95	45.4
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	0.8 (0.9) 1
174	Greater than 50% of mass 95	95.4
175	5.0 - 9.0 % of mass 174	6.9 (7.3) 1
176	95.0 - 101.0 % of mass 174	92.4 (96.9) 1
177	5.0 - 9.0 % of mass 176	5.7 (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 410-63387/3	CN08C01.D	11/08/2020	11:28
	LCS 410-63387/4	CN08L01.D	11/08/2020	11:50
	MB 410-63387/6	CN08B01.D	11/08/2020	12:34
HD-COD-SW-7-0/1-0	410-19023-2	CN08S06.D	11/08/2020	14:24

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-19023-1

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	Greater than 50% 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.: 410-19023-1

SDG No.: _____

Lab File ID: GN04T01.D BFB Injection Date: 11/04/2020

Instrument ID: 16334 BFB Injection Time: 08:22

Analysis Batch No.: 61951

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	19.6
75	30.0 - 60.0 % of mass 95	51.4
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	7.0
173	Less than 2.0 % of mass 174	0.0 (0.0) 1
174	Greater than 50% of mass 95	89.2
175	5.0 - 9.0 % of mass 174	7.1 (8.0) 1
176	95.0 - 101.0 % of mass 174	85.3 (95.6) 1
177	5.0 - 9.0 % of mass 176	5.3 (6.3) 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 410-61951/3	GC30C01.D	11/04/2020	8:59
	LCS 410-61951/4	GC30L01.D	11/04/2020	9:21
	MB 410-61951/6	GC30B01.D	11/04/2020	10:05
HD-QC1-0/1-1	410-19023-13	Gn04S02.D	11/04/2020	10:49
HD-QC1-0/1-2	410-19023-14	Gn04S03.D	11/04/2020	11:11
HD-COD-SW-8-0/1-0	410-19023-3	Gn04S07.D	11/04/2020	12:39
HD-COD-SW-9-0/1-0	410-19023-4	Gn04S08.D	11/04/2020	13:01
HD-COD-SW-13-0/1-0	410-19023-5	Gn04S09.D	11/04/2020	13:23
HD-COD-SW-15-0/1-0	410-19023-6	Gn04S10.D	11/04/2020	13:45
HD-COD-SW-15-0/1-0 MS	410-19023-6 MS	Gn04S11.D	11/04/2020	14:07
HD-COD-SW-15-0/1-0 MSD	410-19023-6 MSD	Gn04S12.D	11/04/2020	14:29
HD-COD-SW-16-0/1-0	410-19023-7	Gn04S13.D	11/04/2020	14:51
HD-COD-SW-17-0/1-0	410-19023-8	Gn04S14.D	11/04/2020	15:13
HD-COD-SW-26-0/1-0	410-19023-9	Gn04S15.D	11/04/2020	15:36
HD-COD-SW-27-0/1-0	410-19023-10	Gn04S16.D	11/04/2020	15:58
HD-COD-SW-28-0/1-0	410-19023-11	Gn04S17.D	11/04/2020	16:20
HD-COD-SW-29-0/1-0	410-19023-12	Gn04S18.D	11/04/2020	16:42

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-19023-1
 SDG No.: _____
 Sample No.: ICIS 410-39724/4 Date Analyzed: 09/01/2020 13:57
 Instrument ID: 10193 GC Column: R-624SilMS 30m ID: 0.25 (mm)
 Lab File ID (Standard): CS01I02.D Heated Purge: (Y/N) N
 Calibration ID: 10281

	TBAd10		FB		CBzd5	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT	148289	4.11	2062892	7.57	1569631	11.10
UPPER LIMIT	296578	4.61	4125784	8.07	3139262	11.60
LOWER LIMIT	74145	3.61	1031446	7.07	784816	10.60
LAB SAMPLE ID	CLIENT SAMPLE ID					
ICV 410-39724/10	148288	4.11	1991070	7.57	1511072	11.10
CCVIS 410-62460/3	150419	4.06	1761239	7.53	1379391	11.07
CCVIS 410-63387/3	138035	4.05	1913315	7.53	1528037	11.07

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.: 410-19023-1
 SDG No.: _____
 Sample No.: ICIS 410-39724/4 Date Analyzed: 09/01/2020 13:57
 Instrument ID: 10193 GC Column: R-624SilMS 30m ID: 0.25 (mm)
 Lab File ID (Standard): CS01I02.D Heated Purge: (Y/N) N
 Calibration ID: 10281

	DCBd4		#	RT #	#	RT #
	AREA #	RT #				
INITIAL CALIBRATION MID-POINT	920484	13.00				
UPPER LIMIT	1840968	13.50				
LOWER LIMIT	460242	12.50				
LAB SAMPLE ID	CLIENT SAMPLE ID					
ICV 410-39724/10		880960	13.00			
CCVIS 410-62460/3		790810	12.98			
CCVIS 410-63387/3		885110	12.98			

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.: 410-19023-1
 SDG No.: _____
 Sample No.: CCVIS 410-62460/3 Date Analyzed: 11/05/2020 09:32
 Instrument ID: 10193 GC Column: R-624SilMS 30m ID: 0.25 (mm)
 Lab File ID (Standard): Cn05C01.D Heated Purge: (Y/N) N
 Calibration ID: 10281

	TBAd10		FB		CBZd5		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	150419	4.06	1761239	7.53	1379391	11.07	
UPPER LIMIT	300838	4.56	3522478	8.03	2758782	11.57	
LOWER LIMIT	75210	3.56	880620	7.03	689696	10.57	
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-62460/4		147458	4.06	1787901	7.53	1399629	11.07
LCSD 410-62460/5		157451	4.07	1805787	7.53	1398208	11.07
MB 410-62460/7		149676	4.09	1754135	7.53	1364620	11.07
410-19023-1	HD-COD-SW-6-0/1-0	140244	4.06	1691883	7.53	1327462	11.07

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.: 410-19023-1
 SDG No.: _____
 Sample No.: CCVIS 410-62460/3 Date Analyzed: 11/05/2020 09:32
 Instrument ID: 10193 GC Column: R-624SilMS 30m ID: 0.25 (mm)
 Lab File ID (Standard): Cn05C01.D Heated Purge: (Y/N) N
 Calibration ID: 10281

		DCBd4					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		790810	12.98				
UPPER LIMIT		1581620	13.48				
LOWER LIMIT		395405	12.48				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-62460/4		781884	12.98				
LCSD 410-62460/5		784881	12.98				
MB 410-62460/7		733830	12.98				
410-19023-1	HD-COD-SW-6-0/1-0	733312	12.98				

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.: 410-19023-1
 SDG No.: _____
 Sample No.: CCVIS 410-63387/3 Date Analyzed: 11/08/2020 11:28
 Instrument ID: 10193 GC Column: R-624SilMS 30m ID: 0.25 (mm)
 Lab File ID (Standard): CN08C01.D Heated Purge: (Y/N) N
 Calibration ID: 10294

	TBAd10		FB		CBzd5		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	138035	4.05	1913315	7.53	1528037	11.07	
UPPER LIMIT	276070	4.55	3826630	8.03	3056074	11.57	
LOWER LIMIT	69018	3.55	956658	7.03	764019	10.57	
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-63387/4	144412	4.05	1959162	7.53	1542583	11.07	
MB 410-63387/6	152599	4.08	1860087	7.53	1467277	11.07	
410-19023-2	HD-COD-SW-7-0/1-0	145987	4.07	1790760	7.53	1443266	11.07

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.: 410-19023-1
 SDG No.: _____
 Sample No.: CCVIS 410-63387/3 Date Analyzed: 11/08/2020 11:28
 Instrument ID: 10193 GC Column: R-624SilMS 30m ID: 0.25 (mm)
 Lab File ID (Standard): CN08C01.D Heated Purge: (Y/N) N
 Calibration ID: 10294

		DCBd4					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		885110	12.98				
UPPER LIMIT		1770220	13.48				
LOWER LIMIT		442555	12.48				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-63387/4		890934	12.98				
MB 410-63387/6		787724	12.98				
410-19023-2	HD-COD-SW-7-0/1-0	785733	12.98				

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.: 410-19023-1
 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 410-61951/3	184611	4.18	2307293	7.67	1733504	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.: 410-19023-1
 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		#	RT #	#	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 410-61951/3		870981	13.02			

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.: 410-19023-1
 SDG No.: _____
 Sample No.: CCVIS 410-61951/3 Date Analyzed: 11/04/2020 08:59
 Instrument ID: 16334 GC Column: R-624SilMS 30m ID: 0.25 (mm)
 Lab File ID (Standard): GC30C01.D Heated Purge: (Y/N) N
 Calibration ID: 5635

	TBAd10		FB		CBZd5		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	184611	4.18	2307293	7.67	1733504	11.15	
UPPER LIMIT	369222	4.68	4614586	8.17	3467008	11.65	
LOWER LIMIT	92306	3.68	1153647	7.17	866752	10.65	
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-61951/4		201022	4.17	2280091	7.67	1707152	11.15
MB 410-61951/6		182257	4.18	2205619	7.68	1654055	11.15
410-19023-13	HD-QC1-0/1-1	184970	4.17	2222895	7.67	1663410	11.15
410-19023-14	HD-QC1-0/1-2	171164	4.17	2231302	7.68	1660510	11.15
410-19023-3	HD-COD-SW-8-0/1-0	116217	4.23	2154609	7.68	1622748	11.15
410-19023-4	HD-COD-SW-9-0/1-0	160177	4.16	2190521	7.68	1646474	11.15
410-19023-5	HD-COD-SW-13-0/1-0	169801	4.18	2167011	7.67	1620306	11.15
410-19023-6	HD-COD-SW-15-0/1-0	169451	4.16	2139431	7.68	1615127	11.15
410-19023-6 MS	HD-COD-SW-15-0/1-0 MS	147545	4.18	2251786	7.67	1684760	11.15
410-19023-6 MSD	HD-COD-SW-15-0/1-0 MSD	187066	4.17	2249130	7.67	1671711	11.15
410-19023-7	HD-COD-SW-16-0/1-0	188573	4.15	2156718	7.68	1607125	11.15
410-19023-8	HD-COD-SW-17-0/1-0	197737	4.18	2202629	7.68	1649403	11.15
410-19023-9	HD-COD-SW-26-0/1-0	198175	4.18	2179769	7.68	1646765	11.15
410-19023-10	HD-COD-SW-27-0/1-0	200866	4.18	2163431	7.67	1634022	11.15
410-19023-11	HD-COD-SW-28-0/1-0	191003	4.19	2125954	7.67	1598635	11.15
410-19023-12	HD-COD-SW-29-0/1-0	193896	4.17	2148335	7.67	1613262	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.: 410-19023-1
 SDG No.: _____
 Sample No.: CCVIS 410-61951/3 Date Analyzed: 11/04/2020 08:59
 Instrument ID: 16334 GC Column: R-624SilMS 30m ID: 0.25 (mm)
 Lab File ID (Standard): GC30C01.D Heated Purge: (Y/N) N
 Calibration ID: 5635

		DCBd4					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		870981	13.02				
UPPER LIMIT		1741962	13.52				
LOWER LIMIT		435491	12.52				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-61951/4		858948	13.02				
MB 410-61951/6		824463	13.03				
410-19023-13	HD-QC1-0/1-1	815538	13.03				
410-19023-14	HD-QC1-0/1-2	828561	13.03				
410-19023-3	HD-COD-SW-8-0/1-0	808452	13.03				
410-19023-4	HD-COD-SW-9-0/1-0	815429	13.02				
410-19023-5	HD-COD-SW-13-0/1-0	796611	13.03				
410-19023-6	HD-COD-SW-15-0/1-0	791922	13.03				
410-19023-6 MS	HD-COD-SW-15-0/1-0 MS	836157	13.03				
410-19023-6 MSD	HD-COD-SW-15-0/1-0 MSD	848255	13.03				
410-19023-7	HD-COD-SW-16-0/1-0	789978	13.03				
410-19023-8	HD-COD-SW-17-0/1-0	827306	13.03				
410-19023-9	HD-COD-SW-26-0/1-0	812252	13.03				
410-19023-10	HD-COD-SW-27-0/1-0	810703	13.03				
410-19023-11	HD-COD-SW-28-0/1-0	800242	13.02				
410-19023-12	HD-COD-SW-29-0/1-0	806322	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.: 410-19023-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-6-0/1-0 Lab Sample ID: 410-19023-1
 Matrix: Water Lab File ID: Cn05S05.D
 Analysis Method: 8260C LL Date Collected: 10/29/2020 10:15
 Sample wt/vol: 25 (mL) Date Analyzed: 11/05/2020 12:53
 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.: 62460 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND		0.50	0.060
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
106-93-4	1,2-Dibromoethane (EDB)	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	5.6		5.0	0.90
107-13-1	Acrylonitrile	ND		5.0	0.40
71-43-2	Benzene	ND		0.50	0.050
74-97-5	Bromochloromethane	ND		0.50	0.050
75-27-4	Bromodichloromethane	ND		0.50	0.050
75-25-2	Bromoform	ND	^c	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
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
124-48-1	Dibromochloromethane	ND		0.50	0.070
100-41-4	Ethylbenzene	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.: 410-19023-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-6-0/1-0 Lab Sample ID: 410-19023-1
 Matrix: Water Lab File ID: Cn05S05.D
 Analysis Method: 8260C LL Date Collected: 10/29/2020 10:15
 Sample wt/vol: 25 (mL) Date Analyzed: 11/05/2020 12:53
 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.: 62460 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)	108		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		80-120
2037-26-5	Toluene-d8 (Surr)	94		80-120
460-00-4	4-Bromofluorobenzene (Surr)	92		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\10193\20201105-14733.b\Cn05S05.D
 Lims ID: 410-19023-B-1 RA
 Client ID: HD-COD-SW-6-0/1-0
 Sample Type: Client
 Inject. Date: 05-Nov-2020 12:53:30 ALS Bottle#: 11 Worklist Smp#: 12
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014733-012
 Misc. Info.: 410-19023-B-1
 Operator ID: jkh09052 Instrument ID: 10193
 Method: \\chromfs\Lancaster\ChromData\10193\20201105-14733.b\MSV_10193_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 05-Nov-2020 14:26:30 Calib Date: 01-Sep-2020 19:09:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\CS01117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1002

First Level Reviewer: howej Date: 05-Nov-2020 14:25:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
3 Chloromethane	50	2.068	2.075	-0.007	95	2182	0.0339	
5 Vinyl chloride	62		2.184				ND	
6 Bromomethane	94		2.495				ND	7
7 Chloroethane	64		2.581				ND	
14 1,1-Dichloroethene	96		3.391				ND	
16 Acetone	43	3.440	3.428	0.012	97	33391	5.60	M
20 Carbon disulfide	76		3.672				ND	7
24 Methylene Chloride	84		4.025				ND	7
* 25 t-Butyl alcohol-d10 (IS)	65	4.062	4.056	0.006	0	140244	50.0	
27 Acrylonitrile	53		4.361				ND	
28 Methyl tert-butyl ether	73		4.410				ND	
29 trans-1,2-Dichloroethene	96		4.416				ND	
32 1,1-Dichloroethane	63		5.086				ND	
36 2-Butanone (MEK)	43		5.903				ND	
37 cis-1,2-Dichloroethene	96		5.928				ND	
44 Chlorobromomethane	128		6.263				ND	
46 Chloroform	83	6.427	6.421	0.006	93	7023	0.0842	
\$ 47 Dibromofluoromethane (Surr)	113	6.641	6.635	0.006	94	409582	10.2	
48 1,1,1-Trichloroethane	97		6.641				ND	
50 Carbon tetrachloride	117		6.848				ND	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.092	7.092	0.000	0	88390	10.8	
54 Benzene	78		7.116				ND	
55 1,2-Dichloroethane	62		7.196				ND	
* 57 Fluorobenzene (IS)	96	7.531	7.531	0.000	99	1691883	10.0	
60 Trichloroethene	95		8.013				ND	
62 1,2-Dichloropropane	63		8.348				ND	
67 Dichlorobromomethane	83		8.701				ND	7
72 cis-1,3-Dichloropropene	75		9.262				ND	
73 4-Methyl-2-pentanone (MIBK)	43		9.451				ND	7
\$ 74 Toluene-d8 (Surr)	98	9.579	9.579	0.000	93	1629266	9.40	
75 Toluene	92	9.658	9.652	0.006	97	5540	0.0425	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
76 trans-1,3-Dichloropropene	75		9.927				ND	
79 1,1,2-Trichloroethane	97		10.134				ND	
80 Tetrachloroethene	166	10.225	10.213	0.012	95	2468	0.0424	
82 2-Hexanone	43		10.360				ND	7
83 Chlorodibromomethane	129		10.518				ND	
84 Ethylene Dibromide	107		10.628				ND	
* 85 Chlorobenzene-d5 (IS)	117	11.073	11.067	0.006	84	1327462	10.0	
87 Chlorobenzene	112		11.097				ND	
89 1,1,1,2-Tetrachloroethane	131		11.183				ND	
90 Ethylbenzene	91		11.183				ND	7
S 88 Xylenes, Total	106		11.245				ND	7
91 m-Xylene & p-Xylene	106		11.305				ND	7
92 o-Xylene	106		11.634				ND	7
93 Styrene	104		11.652				ND	7
94 Bromoform	173		11.811				ND	
\$ 98 4-Bromofluorobenzene (Surr)	95	12.085	12.085	0.000	97	597258	9.17	
99 1,1,2,2-Tetrachloroethane	83		12.195				ND	
* 113 1,4-Dichlorobenzene-d4	152	12.975	12.975	0.000	94	733312	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MSV_HP25_ISSS_00017

Amount Added: 1.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\10193\20201105-14733.b\Cn05S05.D

Injection Date: 05-Nov-2020 12:53:30

Instrument ID: 10193

Operator ID: jkh09052

Lims ID: 410-19023-B-1 RA

Lab Sample ID: 410-19023-1

Worklist Smp#: 12

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

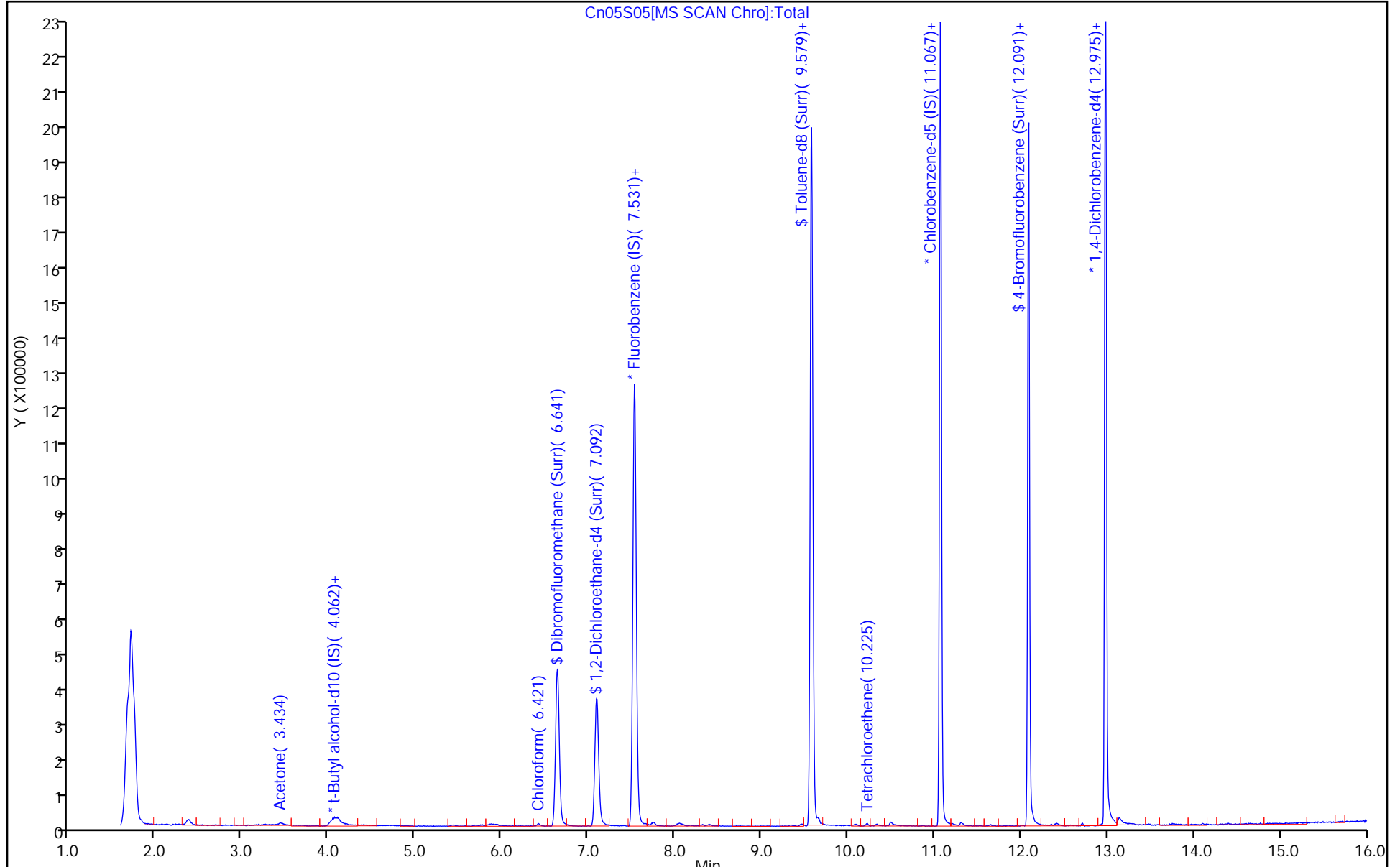
ALS Bottle#: 11

Method: MSV_10193_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\10193\20201105-14733.b\Cn05S05.D
 Lims ID: 410-19023-B-1 RA
 Client ID: HD-COD-SW-6-0/1-0
 Sample Type: Client
 Inject. Date: 05-Nov-2020 12:53:30 ALS Bottle#: 11 Worklist Smp#: 12
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014733-012
 Misc. Info.: 410-19023-B-1
 Operator ID: jkh09052 Instrument ID: 10193
 Method: \\chromfs\Lancaster\ChromData\10193\20201105-14733.b\MSV_10193_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 05-Nov-2020 14:26:30 Calib Date: 01-Sep-2020 19:09:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\CS01117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1002

First Level Reviewer: howej

Date: 05-Nov-2020 14:25:26

Compound	Amount Added	Amount Recovered	% Rec.
\$ 47 Dibromofluoromethane (Surr)	10.0	10.2	101.88
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.8	107.92
\$ 74 Toluene-d8 (Surr)	10.0	9.40	93.97
\$ 98 4-Bromofluorobenzene (Surr)	10.0	9.17	91.65

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\10193\20201105-14733.b\Cn05S05.D

Injection Date: 05-Nov-2020 12:53:30

Instrument ID: 10193

Lims ID: 410-19023-B-1 RA

Lab Sample ID: 410-19023-1

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

Operator ID: jkh09052

ALS Bottle#: 11

Worklist Smp#: 12

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

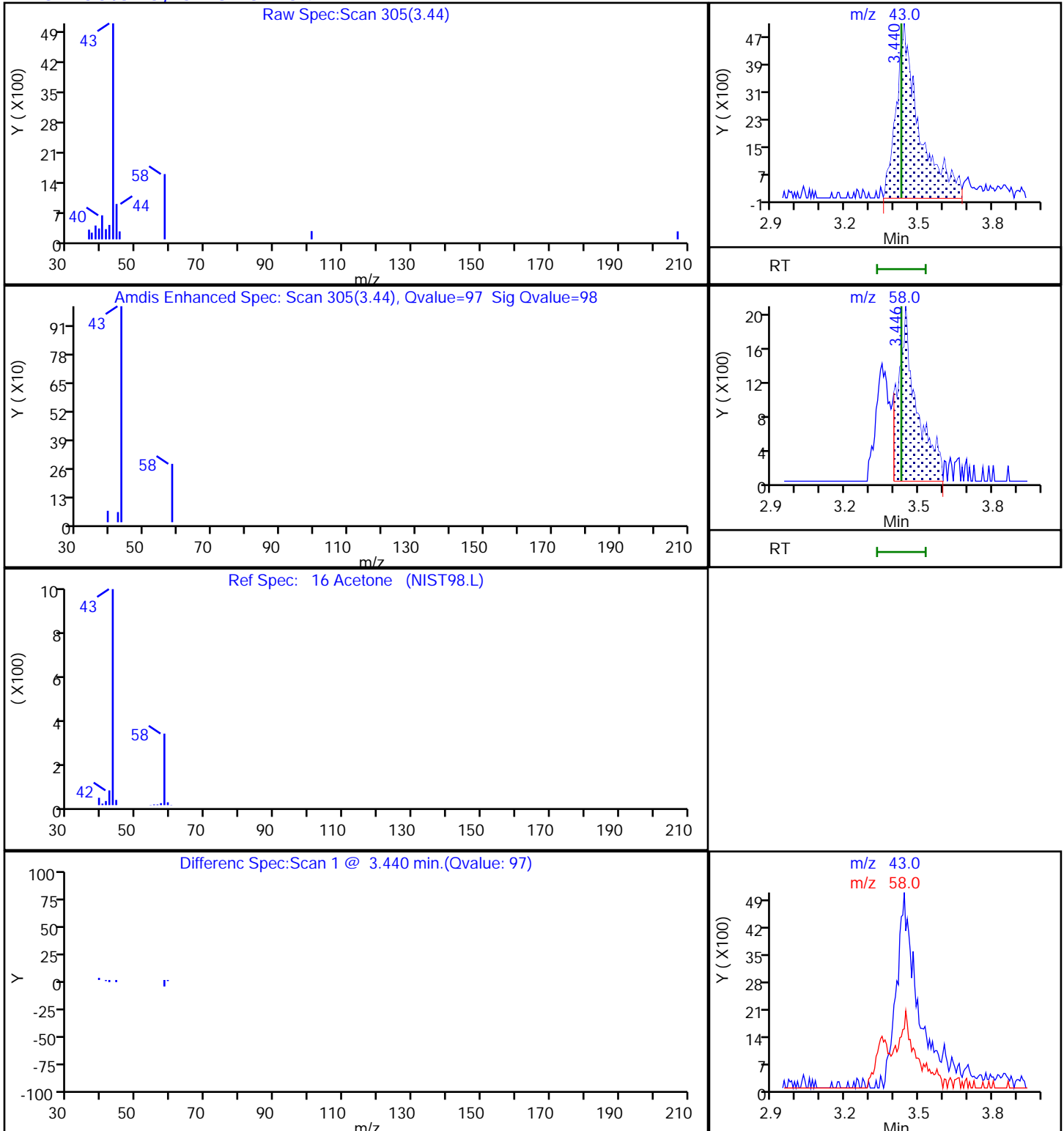
Method: MSV_10193_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

16 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

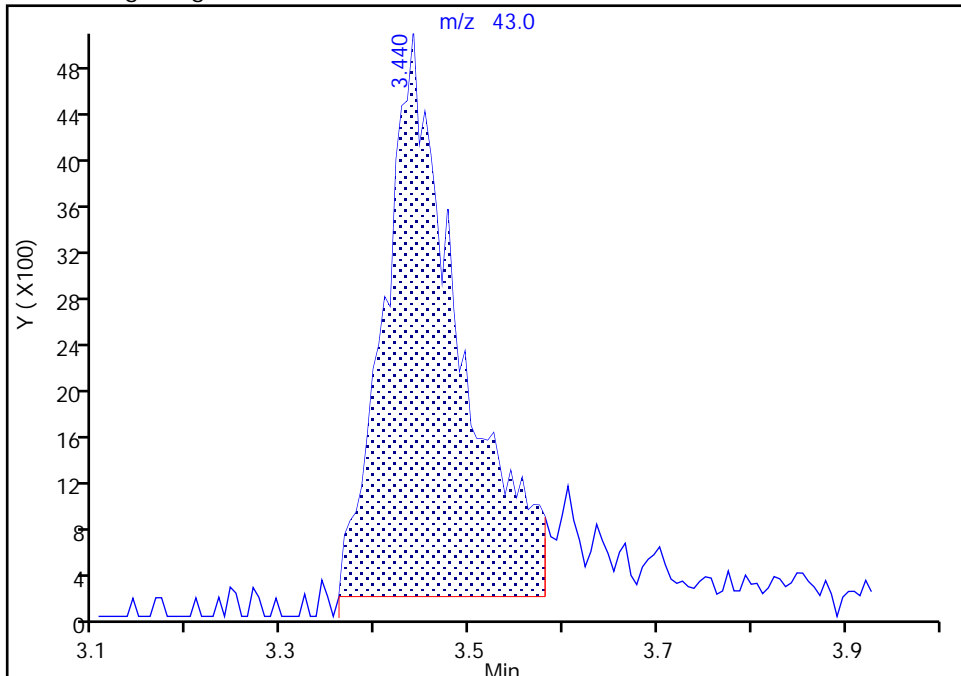
Data File: \\chromfs\Lancaster\ChromData\10193\20201105-14733.b\Cn05S05.D
Injection Date: 05-Nov-2020 12:53:30 Instrument ID: 10193
Lims ID: 410-19023-B-1 RA Lab Sample ID: 410-19023-1
Client ID: HD-COD-SW-6-0/1-0
Operator ID: jkh09052 ALS Bottle#: 11 Worklist Smp#: 12
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

16 Acetone, CAS: 67-64-1

Signal: 1

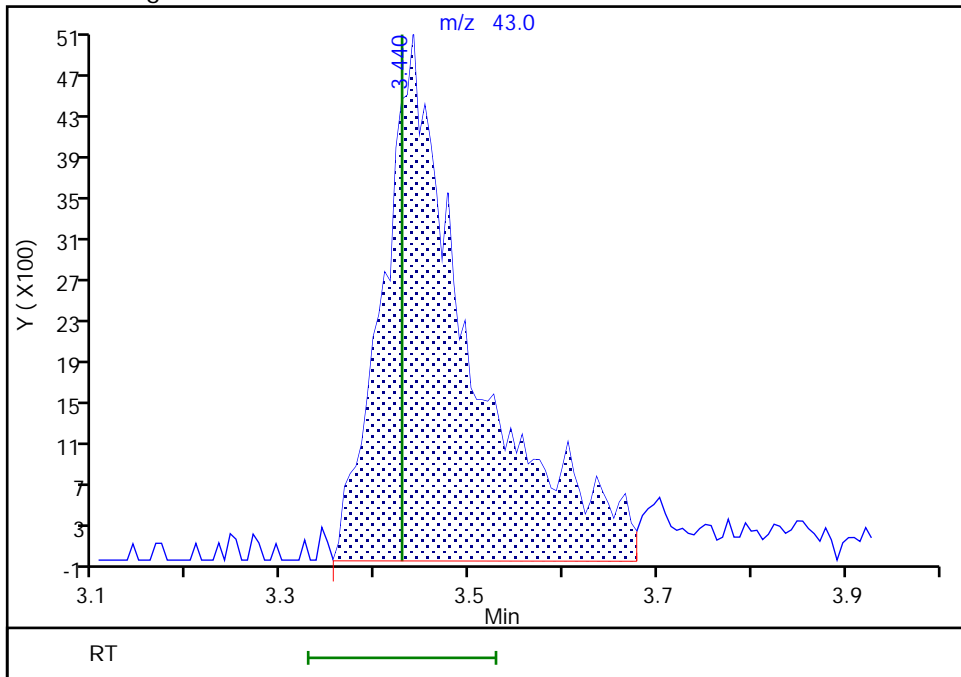
RT: 3.44
Area: 27157
Amount: 4.556014
Amount Units: ug/l

Processing Integration Results



RT: 3.44
Area: 33391
Amount: 5.601866
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 05-Nov-2020 14:25:13
Audit Action: Assigned New Baseline

Audit Reason: Other

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-19023-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-7-0/1-0 Lab Sample ID: 410-19023-2
 Matrix: Water Lab File ID: CN08S06.D
 Analysis Method: 8260C LL Date Collected: 10/29/2020 11:00
 Sample wt/vol: 25 (mL) Date Analyzed: 11/08/2020 14:24
 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.: 63387 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND		0.50	0.060
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
106-93-4	1,2-Dibromoethane (EDB)	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	4.7	J ^c	5.0	0.90
107-13-1	Acrylonitrile	ND		5.0	0.40
71-43-2	Benzene	ND		0.50	0.050
74-97-5	Bromochloromethane	ND		0.50	0.050
75-27-4	Bromodichloromethane	ND		0.50	0.050
75-25-2	Bromoform	ND	^c	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
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	0.078	J	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
100-41-4	Ethylbenzene	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.: 410-19023-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-7-0/1-0 Lab Sample ID: 410-19023-2
 Matrix: Water Lab File ID: CN08S06.D
 Analysis Method: 8260C LL Date Collected: 10/29/2020 11:00
 Sample wt/vol: 25 (mL) Date Analyzed: 11/08/2020 14:24
 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.: 63387 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	0.10	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)	111		80-120
1868-53-7	Dibromofluoromethane (Surr)	103		80-120
2037-26-5	Toluene-d8 (Surr)	93		80-120
460-00-4	4-Bromofluorobenzene (Surr)	91		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\10193\20201108-14932.b\CN08S06.D
 Lims ID: 410-19023-C-2 RA
 Client ID: HD-COD-SW-7-0/1-0
 Sample Type: Client
 Inject. Date: 08-Nov-2020 14:24:30 ALS Bottle#: 10 Worklist Smp#: 37
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014932-037
 Misc. Info.: 410-19023-C-2
 Operator ID: dvv10203 Instrument ID: 10193
 Method: \\chromfs\Lancaster\ChromData\10193\20201108-14932.b\MSV_10193_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 09-Nov-2020 09:26:32 Calib Date: 01-Sep-2020 19:09:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\CS01117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1003

First Level Reviewer: virayd

Date: 09-Nov-2020 08:53:50

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
3 Chloromethane	50		2.087				ND	U
5 Vinyl chloride	62		2.196				ND	
6 Bromomethane	94		2.507				ND	7
7 Chloroethane	64		2.593				ND	
14 1,1-Dichloroethene	96		3.404				ND	
16 Acetone	43	3.440	3.440	0.000	99	28941	4.66	M
20 Carbon disulfide	76	3.666	3.678	-0.012	42	3668	0.0251	7M
24 Methylene Chloride	84		4.038				ND	7
* 25 t-Butyl alcohol-d10 (IS)	65	4.068	4.050	0.018	0	145987	50.0	
27 Acrylonitrile	53		4.373				ND	
28 Methyl tert-butyl ether	73		4.422				ND	7
29 trans-1,2-Dichloroethene	96		4.434				ND	
32 1,1-Dichloroethane	63		5.098				ND	
36 2-Butanone (MEK)	43		5.903				ND	MU
37 cis-1,2-Dichloroethene	96	5.933	5.934	-0.001	74	4288	0.0781	a
44 Chlorobromomethane	128		6.269				ND	
46 Chloroform	83	6.427	6.421	0.006	88	4277	0.0484	
\$ 47 Dibromofluoromethane (Surr)	113	6.641	6.641	0.000	94	437361	10.3	
48 1,1,1-Trichloroethane	97		6.647				ND	
50 Carbon tetrachloride	117		6.854				ND	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.086	7.104	-0.018	0	96617	11.1	
54 Benzene	78	7.122	7.122	0.000	41	2906	0.0141	7M
55 1,2-Dichloroethane	62	7.214	7.202	0.012	1	1784	0.0288	M
* 57 Fluorobenzene (IS)	96	7.531	7.531	0.000	99	1790760	10.0	
60 Trichloroethene	95	8.025	8.012	0.013	88	5557	0.1048	
62 1,2-Dichloropropane	63		8.348				ND	
67 Dichlorobromomethane	83		8.701				ND	7
72 cis-1,3-Dichloropropene	75		9.262				ND	
73 4-Methyl-2-pentanone (MIBK)	43		9.451				ND	7
\$ 74 Toluene-d8 (Surr)	98	9.579	9.579	0.000	93	1761206	9.34	
75 Toluene	92	9.652	9.658	-0.006	97	7800	0.0550	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
76 trans-1,3-Dichloropropene	75		9.933				ND	
79 1,1,2-Trichloroethane	97		10.134				ND	
80 Tetrachloroethene	166	10.219	10.219	0.000	92	3451	0.0545	
82 2-Hexanone	43		10.366				ND	7
83 Chlorodibromomethane	129		10.518				ND	
84 Ethylene Dibromide	107		10.628				ND	
* 85 Chlorobenzene-d5 (IS)	117	11.067	11.067	0.000	84	1443266	10.0	
87 Chlorobenzene	112		11.097				ND	
89 1,1,1,2-Tetrachloroethane	131		11.182				ND	
90 Ethylbenzene	91		11.182				ND	7
S 88 Xylenes, Total	106		11.245				ND	7
91 m-Xylene & p-Xylene	106		11.304				ND	7
92 o-Xylene	106		11.634				ND	7
93 Styrene	104		11.652				ND	7
94 Bromoform	173		11.810				ND	
\$ 98 4-Bromofluorobenzene (Surr)	95	12.085	12.085	0.000	97	643628	9.08	
99 1,1,2,2-Tetrachloroethane	83		12.194				ND	
* 113 1,4-Dichlorobenzene-d4	152	12.975	12.975	0.000	94	785733	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_HP25_ISSS_00017

Amount Added: 1.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\10193\20201108-14932.b\CN08S06.D

Injection Date: 08-Nov-2020 14:24:30

Instrument ID: 10193

Operator ID: dvv10203

Lims ID: 410-19023-C-2 RA

Lab Sample ID: 410-19023-2

Worklist Smp#: 37

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

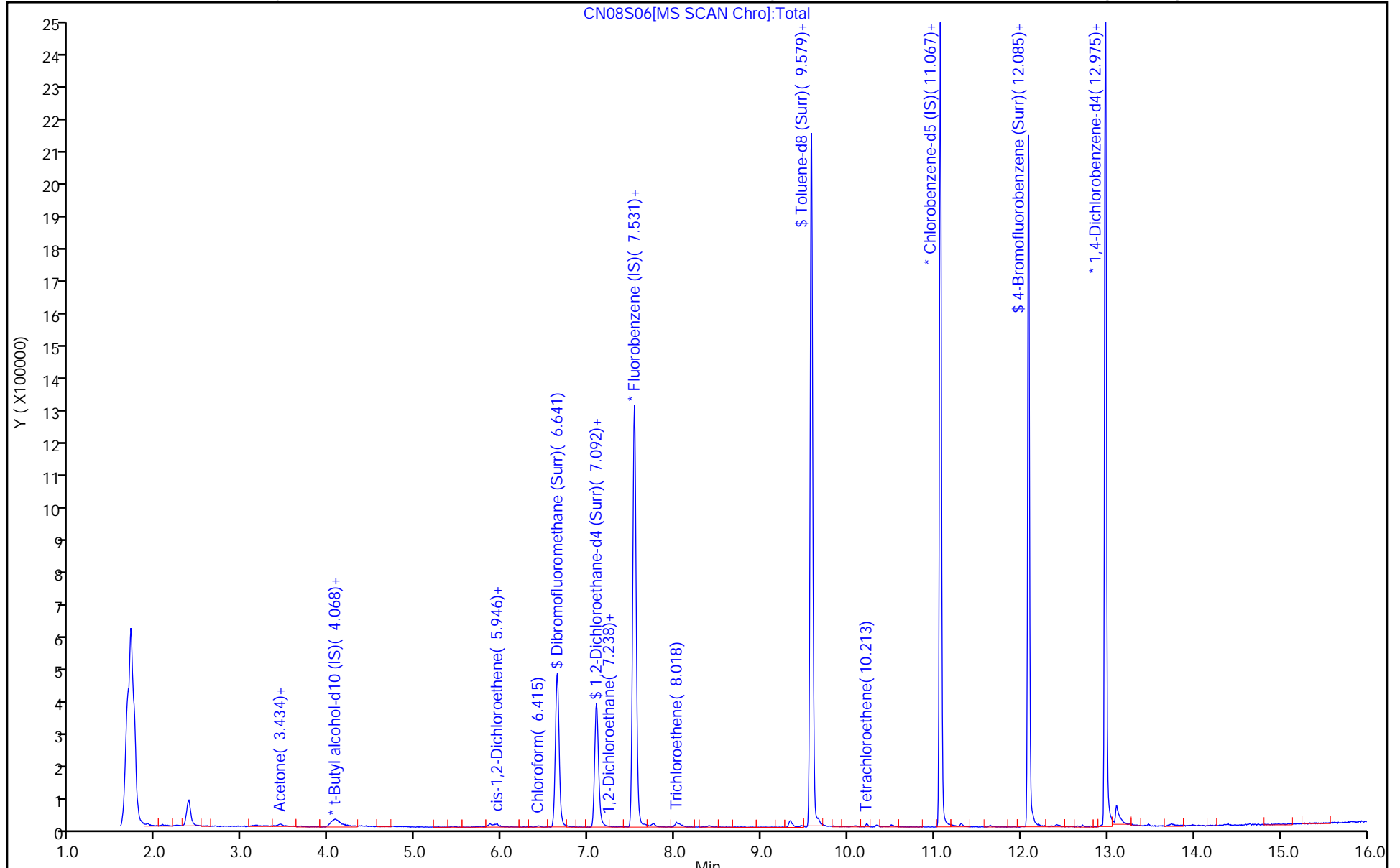
ALS Bottle#: 10

Method: MSV_10193_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\10193\20201108-14932.b\CN08S06.D
 Lims ID: 410-19023-C-2 RA
 Client ID: HD-COD-SW-7-0/1-0
 Sample Type: Client
 Inject. Date: 08-Nov-2020 14:24:30 ALS Bottle#: 10 Worklist Smp#: 37
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014932-037
 Misc. Info.: 410-19023-C-2
 Operator ID: dvv10203 Instrument ID: 10193
 Method: \\chromfs\Lancaster\ChromData\10193\20201108-14932.b\MSV_10193_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 09-Nov-2020 09:26:32 Calib Date: 01-Sep-2020 19:09:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\CS01117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1003

First Level Reviewer: virayd Date: 09-Nov-2020 08:53:50

Compound	Amount Added	Amount Recovered	% Rec.
\$ 47 Dibromofluoromethane (Surr)	10.0	10.3	102.78
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	11.1	111.45
\$ 74 Toluene-d8 (Surr)	10.0	9.34	93.43
\$ 98 4-Bromofluorobenzene (Surr)	10.0	9.08	90.84

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\10193\20201108-14932.b\CN08S06.D

Injection Date: 08-Nov-2020 14:24:30

Instrument ID: 10193

Lims ID: 410-19023-C-2 RA

Lab Sample ID: 410-19023-2

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

Operator ID: dvv10203

ALS Bottle#: 10

Worklist Smp#: 37

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

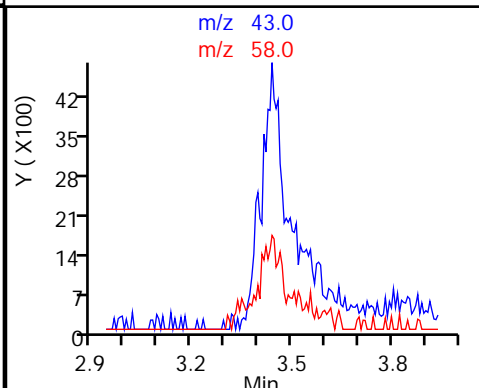
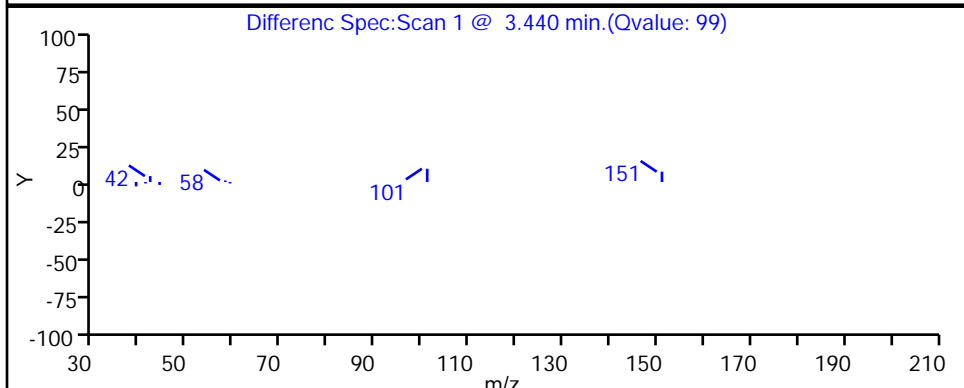
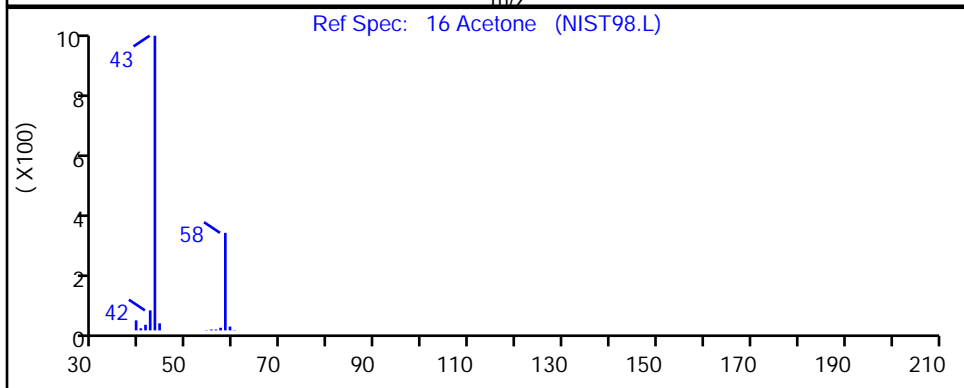
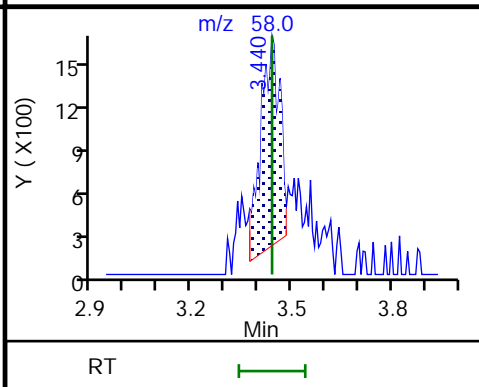
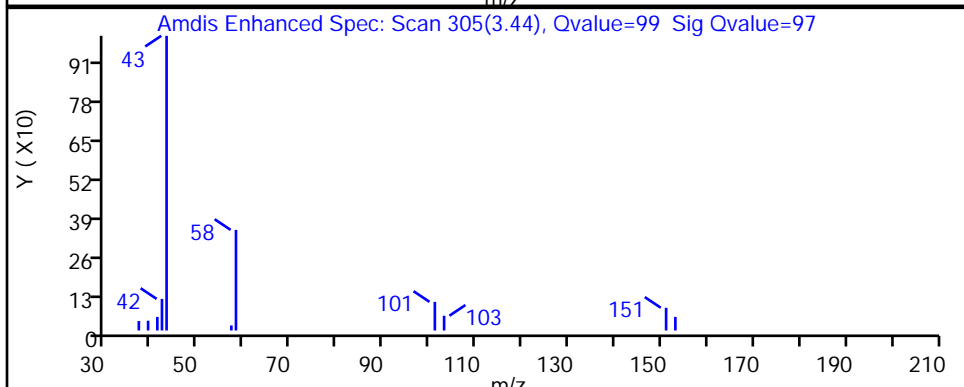
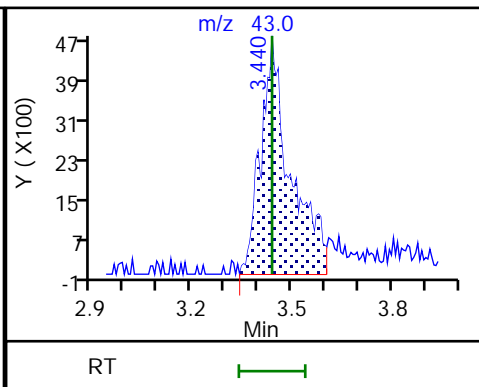
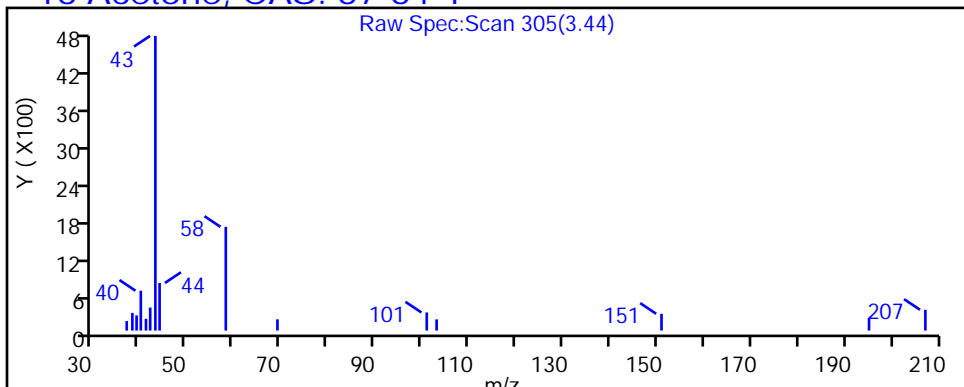
Method: MSV_10193_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

16 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\10193\20201108-14932.b\CN08S06.D

Injection Date: 08-Nov-2020 14:24:30

Instrument ID: 10193

Lims ID: 410-19023-C-2 RA

Lab Sample ID: 410-19023-2

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

Operator ID: dvv10203

ALS Bottle#: 10

Worklist Smp#: 37

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

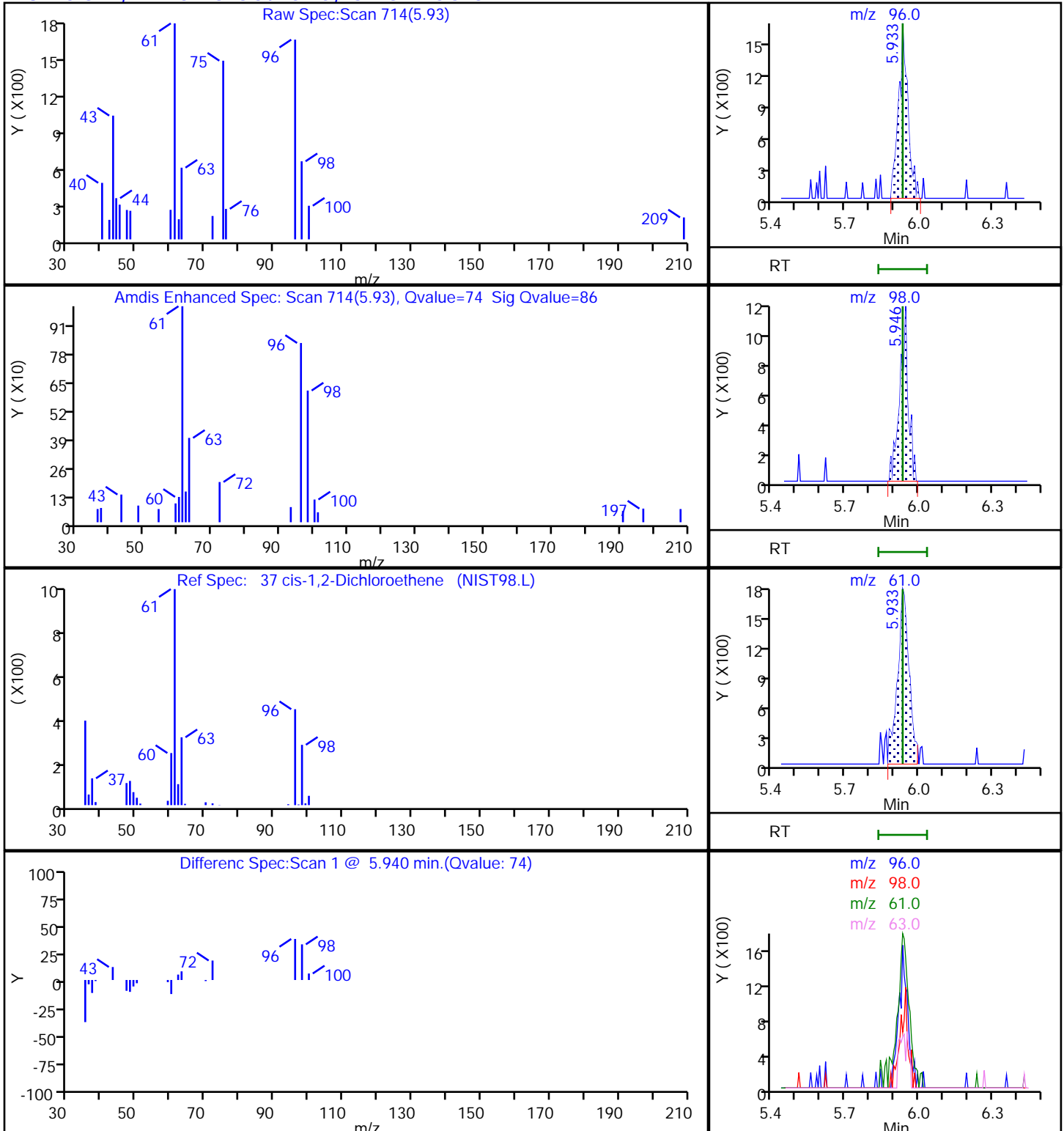
Method: MSV_10193_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

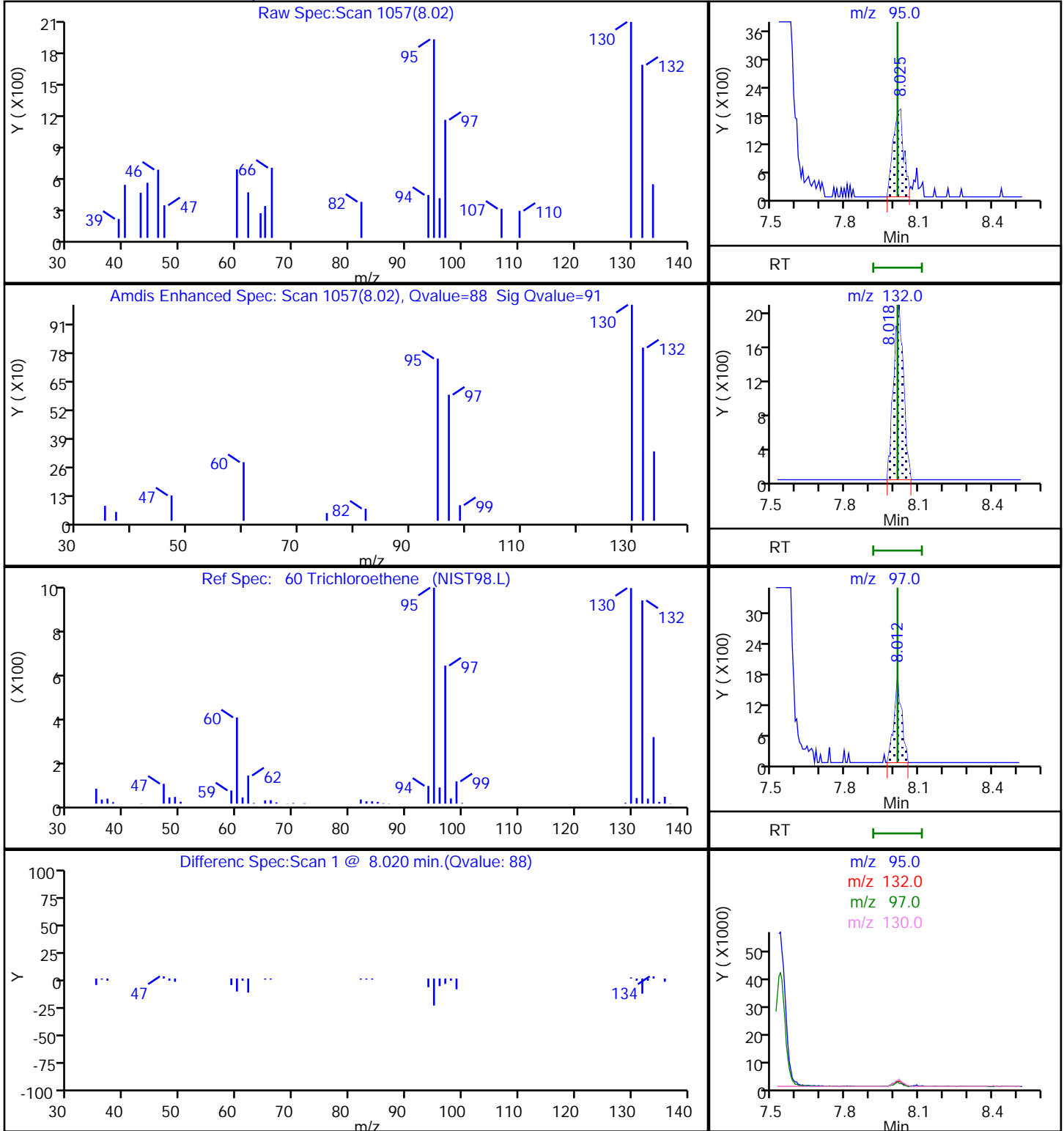
37 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\10193\20201108-14932.b\CN08S06.D
Injection Date: 08-Nov-2020 14:24:30 Instrument ID: 10193
Lims ID: 410-19023-C-2 RA Lab Sample ID: 410-19023-2
Client ID: HD-COD-SW-7-0/1-0
Operator ID: dvv10203 ALS Bottle#: 10 Worklist Smp#: 37
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) MS Quad

60 Trichloroethene, CAS: 79-01-6



Eurofins Lancaster Laboratories Env, LLC

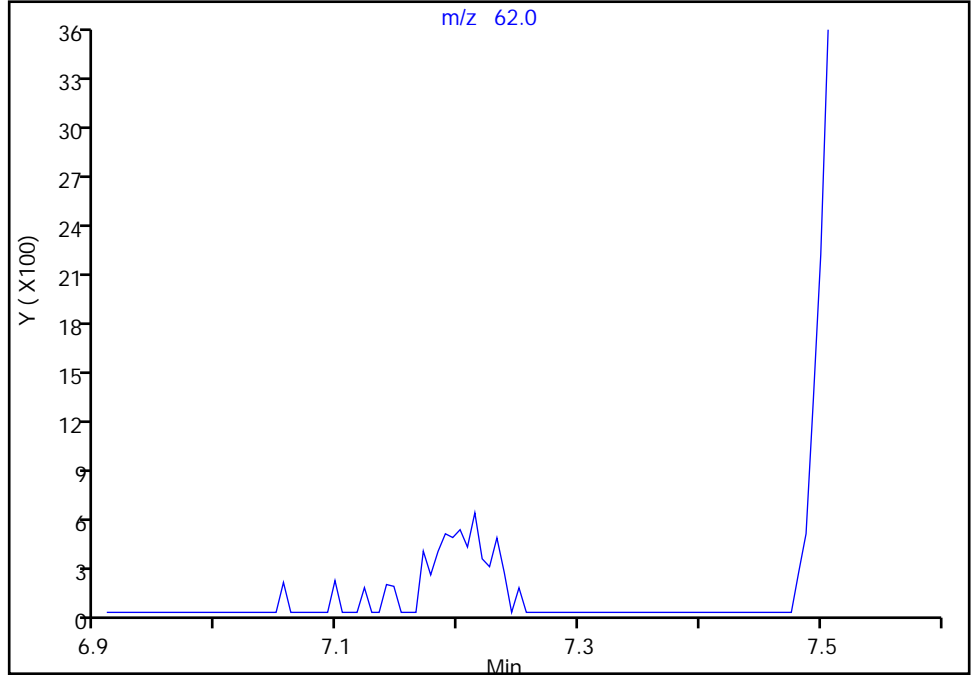
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Injection Date: 08-Nov-2020 14:24:30 Instrument ID: 10193
Lims ID: 410-19023-C-2 RA Lab Sample ID: 410-19023-2
Client ID: HD-COD-SW-7-0/1-0
Operator ID: dvv10203 ALS Bottle#: 10 Worklist Smp#: 37
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

55 1,2-Dichloroethane, CAS: 107-06-2

Signal: 1

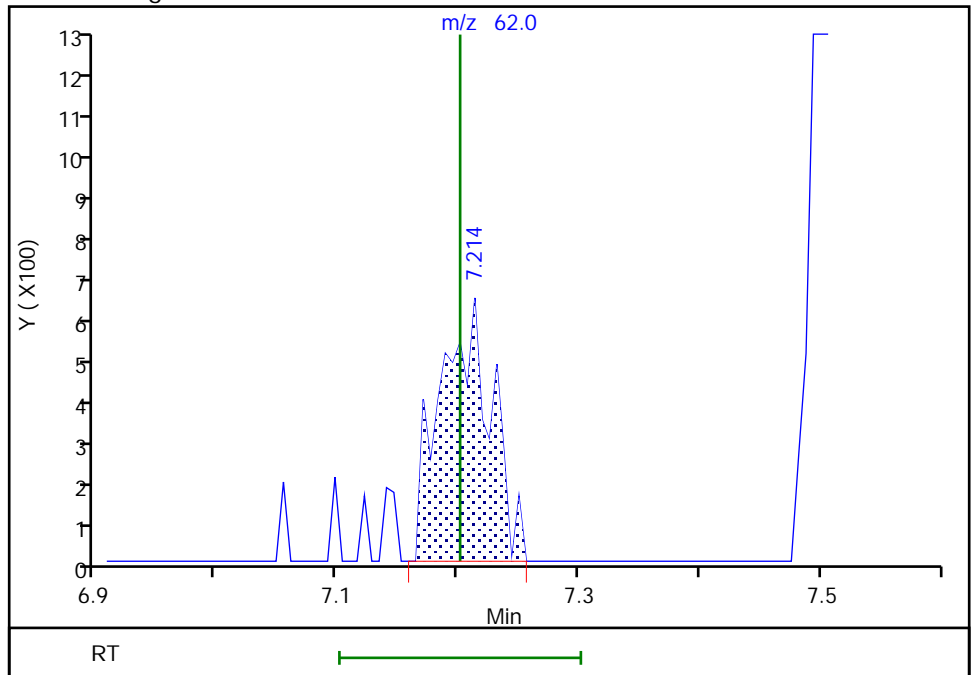
Not Detected
Expected RT: 7.20

Processing Integration Results



Manual Integration Results

RT: 7.21
Area: 1784
Amount: 0.028773
Amount Units: ug/l



Reviewer: virayd, 09-Nov-2020 08:53:31
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\10193\20201108-14932.b\CN08S06.D

Injection Date: 08-Nov-2020 14:24:30

Instrument ID: 10193

Lims ID: 410-19023-C-2 RA

Lab Sample ID: 410-19023-2

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

Operator ID: dvv10203

ALS Bottle#: 10 Worklist Smp#: 37

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

Method: MSV_10193_25mL

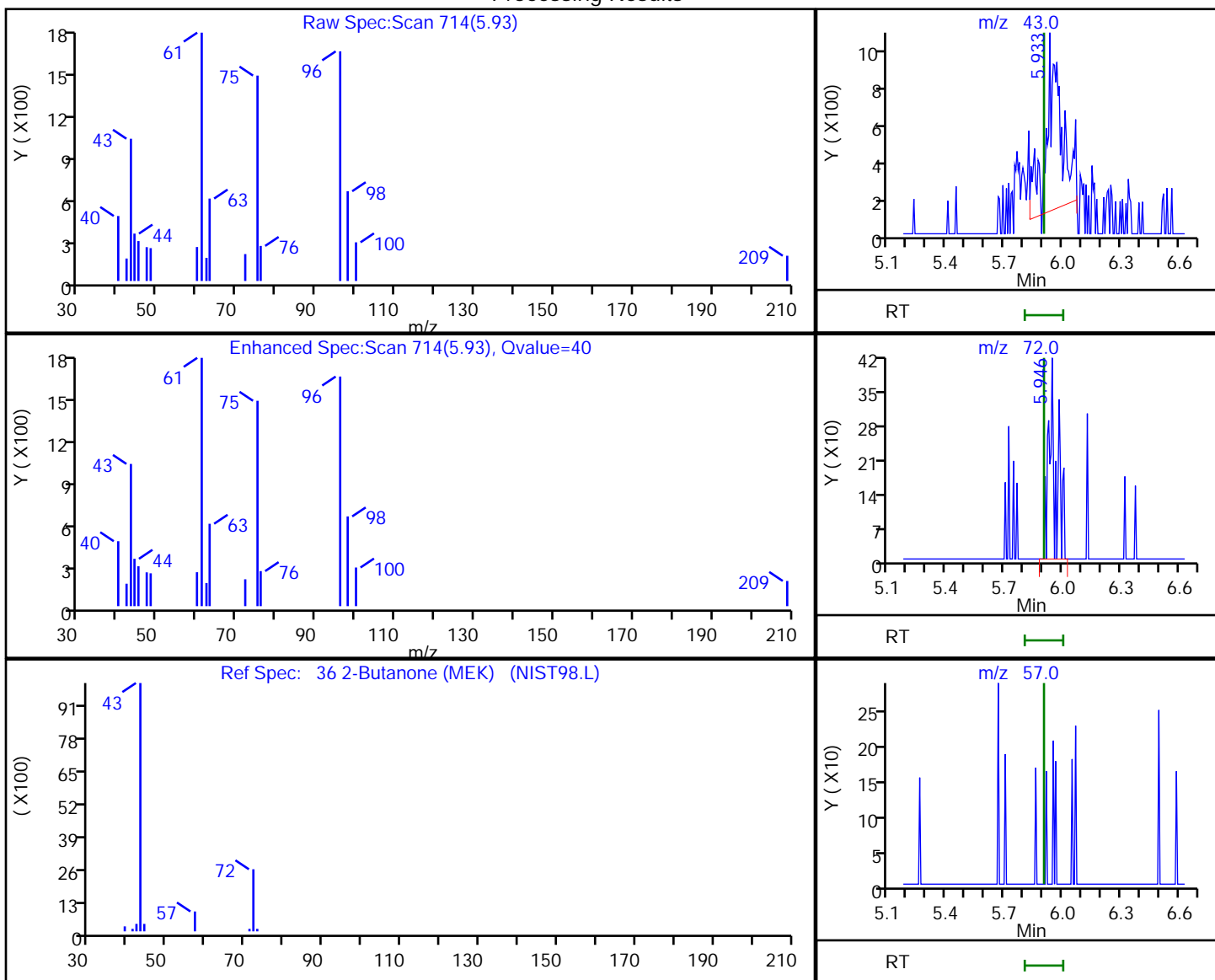
Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

36 2-Butanone (MEK), CAS: 78-93-3

Processing Results



RT	Mass	Response	Amount
5.93	43.00	4855	0.333632
5.95	72.00	1087	
5.90	57.00	0	

Reviewer: virayd, 09-Nov-2020 08:53:15

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins Lancaster Laboratories Env, LLC

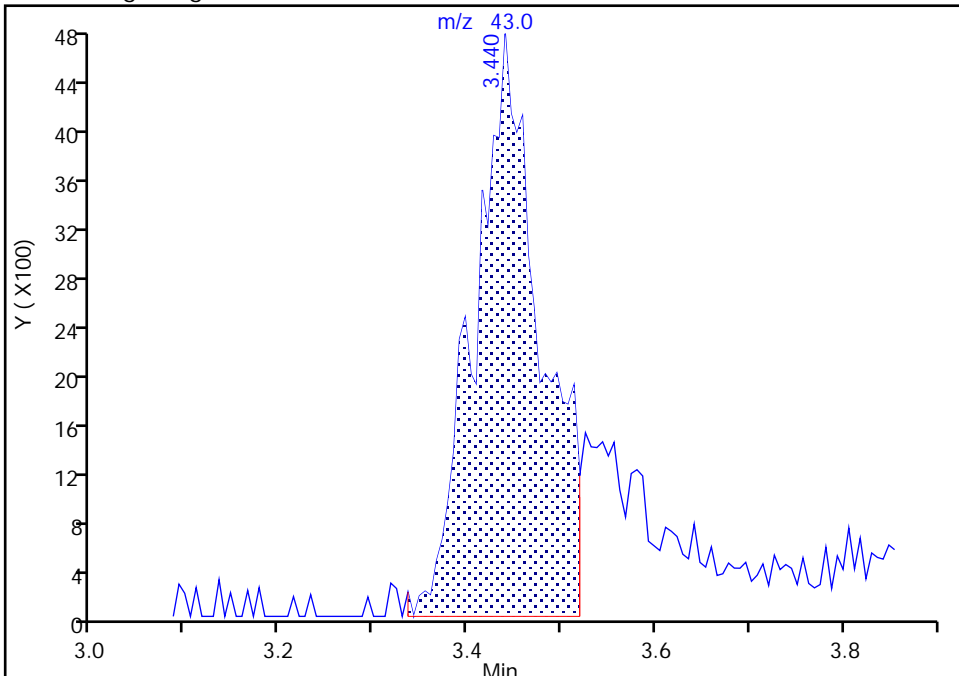
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Injection Date: 08-Nov-2020 14:24:30 Instrument ID: 10193
Lims ID: 410-19023-C-2 RA Lab Sample ID: 410-19023-2
Client ID: HD-COD-SW-7-0/1-0
Operator ID: dvv10203 ALS Bottle#: 10 Worklist Smp#: 37
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

16 Acetone, CAS: 67-64-1

Signal: 1

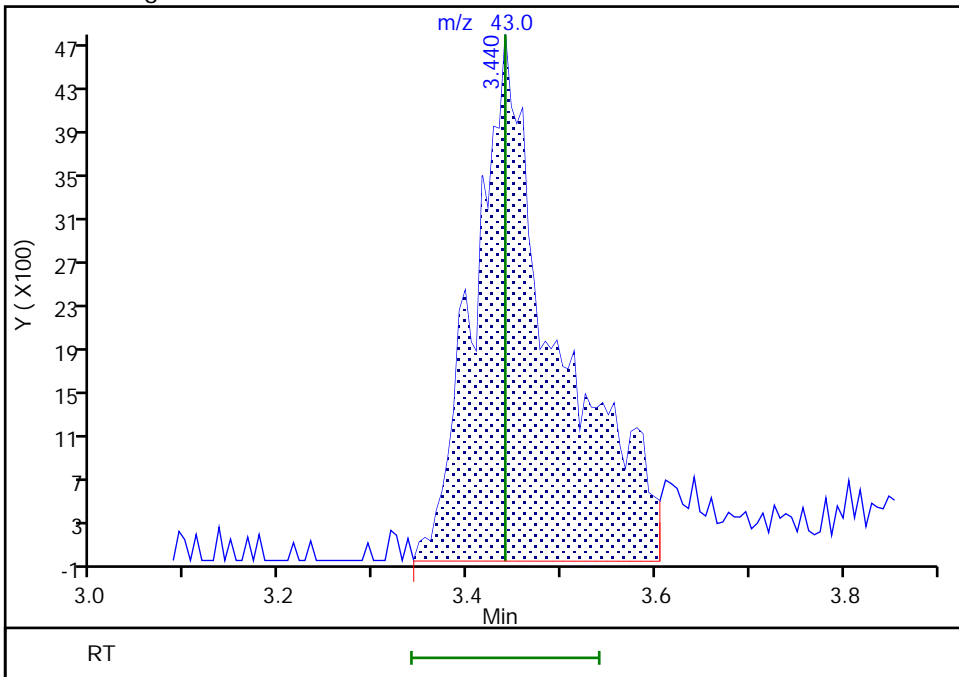
RT: 3.44
Area: 23265
Amount: 3.749526
Amount Units: ug/l

Processing Integration Results



RT: 3.44
Area: 28941
Amount: 4.664305
Amount Units: ug/l

Manual Integration Results



Reviewer: virayd, 09-Nov-2020 08:52:49
Audit Action: Manually Integrated

Audit Reason: Other

Euofins Lancaster Laboratories Env, LLC

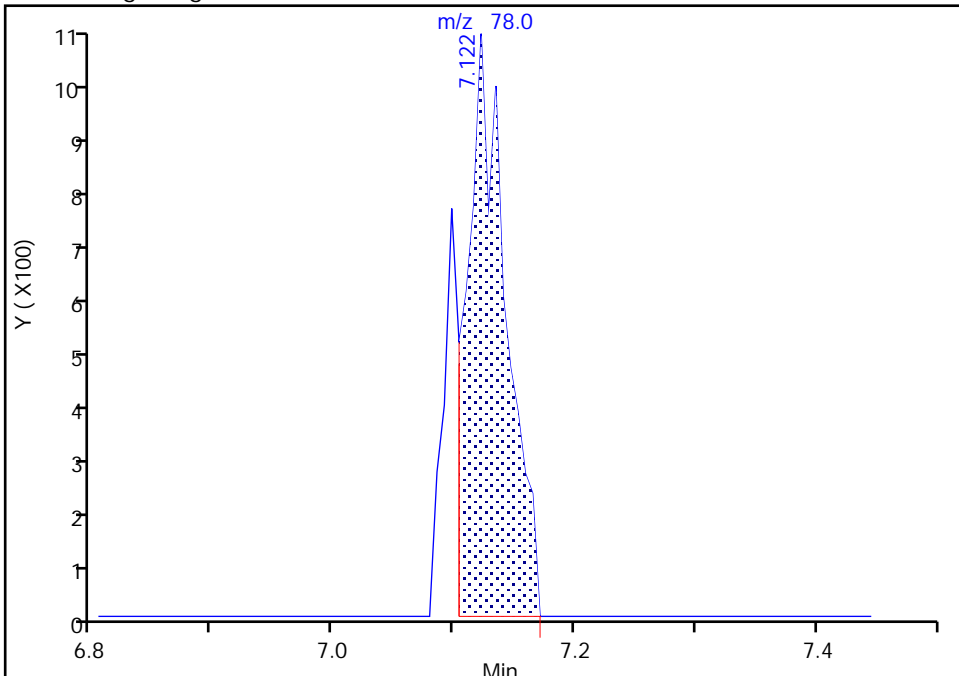
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Injection Date: 08-Nov-2020 14:24:30 Instrument ID: 10193
Lims ID: 410-19023-C-2 RA Lab Sample ID: 410-19023-2
Client ID: HD-COD-SW-7-0/1-0
Operator ID: dvv10203 ALS Bottle#: 10 Worklist Smp#: 37
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

54 Benzene, CAS: 71-43-2

Signal: 1

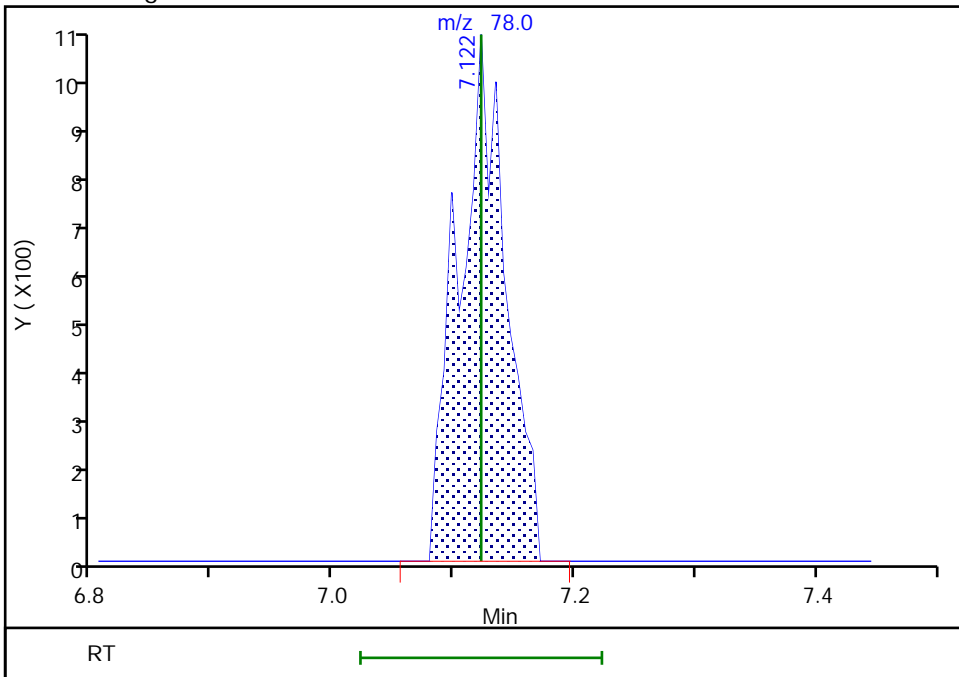
RT: 7.12
Area: 2393
Amount: 0.011635
Amount Units: ug/l

Processing Integration Results



RT: 7.12
Area: 2906
Amount: 0.014129
Amount Units: ug/l

Manual Integration Results



Reviewer: virayd, 09-Nov-2020 08:53:26
Audit Action: Manually Integrated

Audit Reason: Other

Euofins Lancaster Laboratories Env, LLC

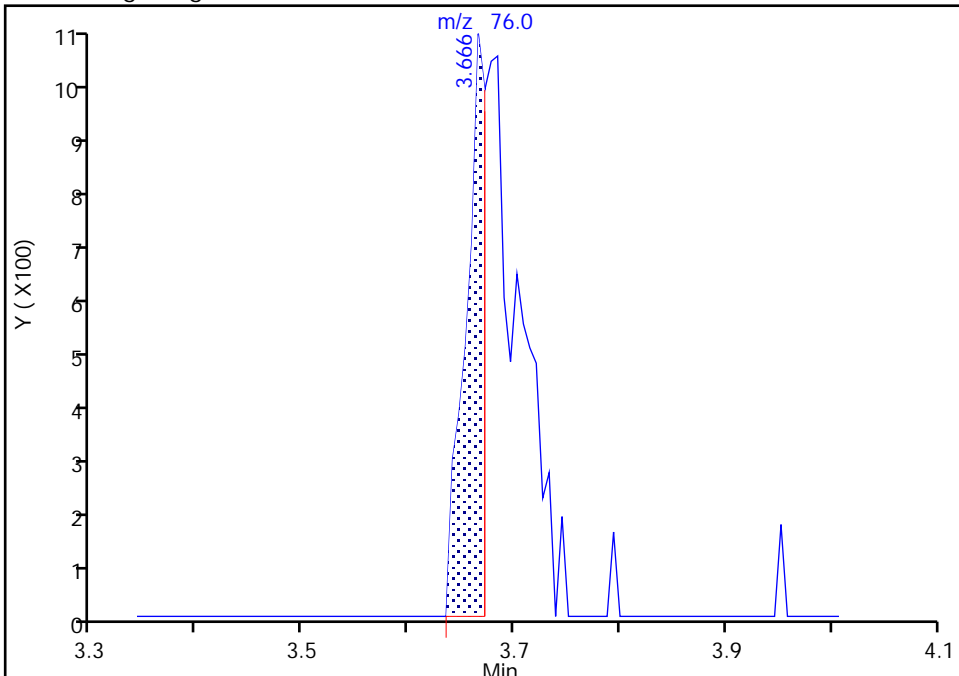
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Injection Date: 08-Nov-2020 14:24:30 Instrument ID: 10193
Lims ID: 410-19023-C-2 RA Lab Sample ID: 410-19023-2
Client ID: HD-COD-SW-7-0/1-0
Operator ID: dvv10203 ALS Bottle#: 10 Worklist Smp#: 37
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

20 Carbon disulfide, CAS: 75-15-0

Signal: 1

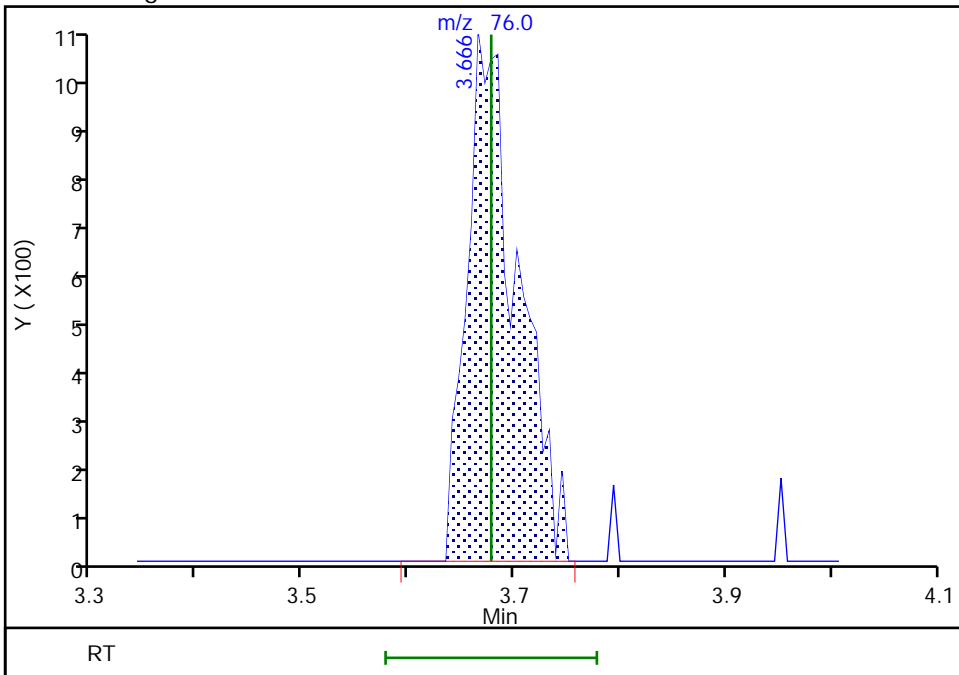
RT: 3.67
Area: 1458
Amount: 0.009969
Amount Units: ug/l

Processing Integration Results



RT: 3.67
Area: 3668
Amount: 0.025080
Amount Units: ug/l

Manual Integration Results



Reviewer: virayd, 09-Nov-2020 08:52:55
Audit Action: Manually Integrated

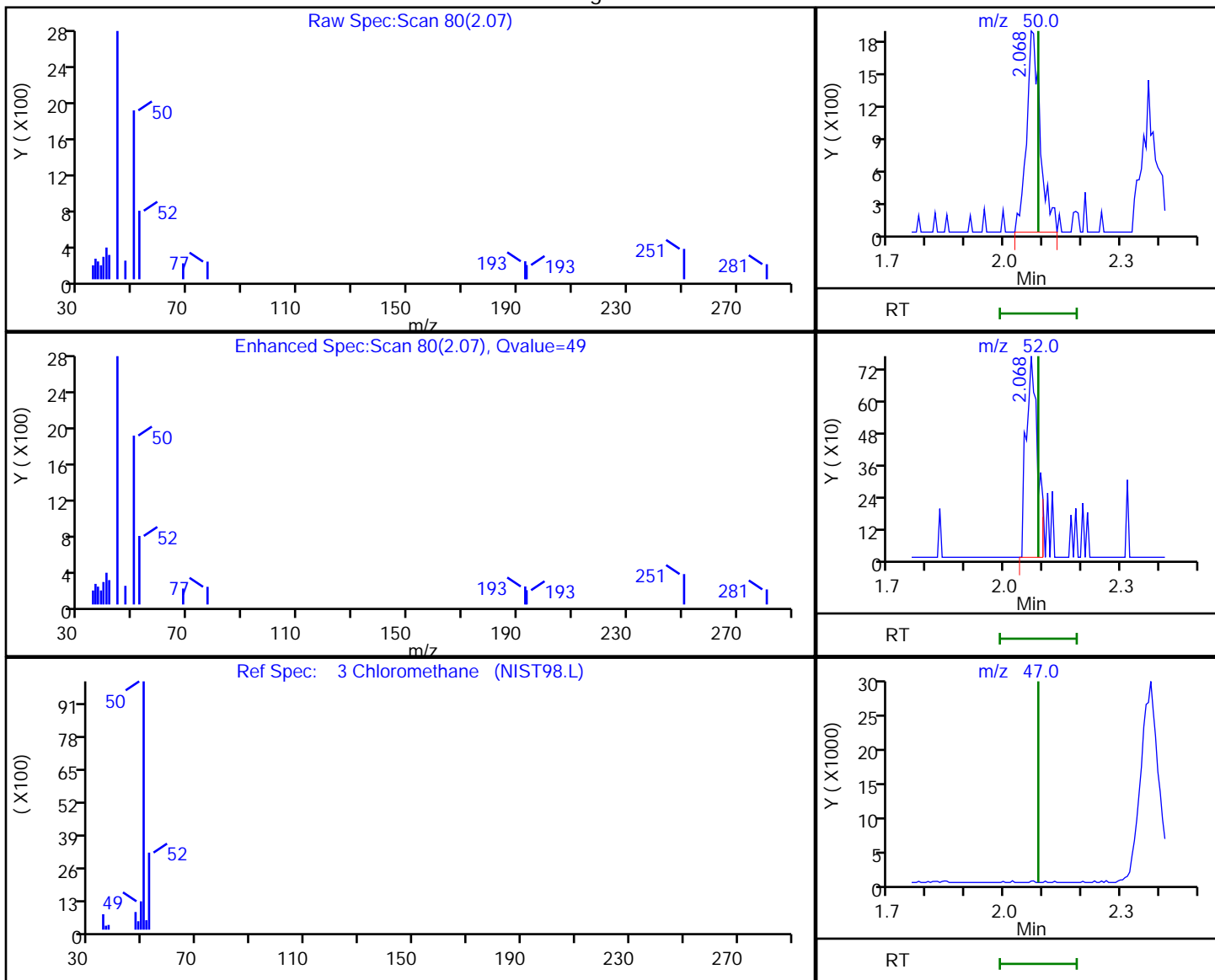
Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\10193\20201108-14932.b\CN08S06.D
 Injection Date: 08-Nov-2020 14:24:30 Instrument ID: 10193
 Lims ID: 410-19023-C-2 RA Lab Sample ID: 410-19023-2
 Client ID: HD-COD-SW-7-0/1-0
 Operator ID: dvv10203 ALS Bottle#: 10 Worklist Smp#: 37
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
 Column: Rxi-624Sil MS Capillary Column (0.25mm i.d.) Detector: MS Quad

3 Chloromethane, CAS: 74-87-3

Processing Results



RT	Mass	Response	Amount
2.07	50.00	4715	0.069212
2.07	52.00	1573	
2.09	47.00	0	

Reviewer: virayd, 09-Nov-2020 08:52:35

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins Lancaster Laboratories Env, LLC

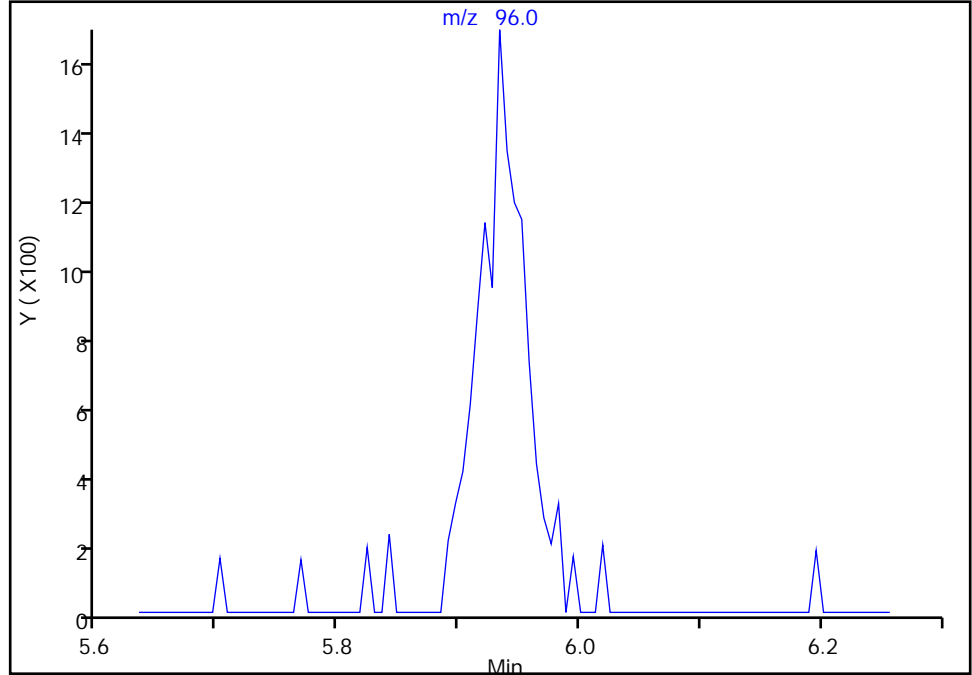
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Injection Date: 08-Nov-2020 14:24:30 Instrument ID: 10193
Lims ID: 410-19023-C-2 RA Lab Sample ID: 410-19023-2
Client ID: HD-COD-SW-7-0/1-0
Operator ID: dvv10203 ALS Bottle#: 10 Worklist Smp#: 37
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

37 cis-1,2-Dichloroethene, CAS: 156-59-2

Signal: 1

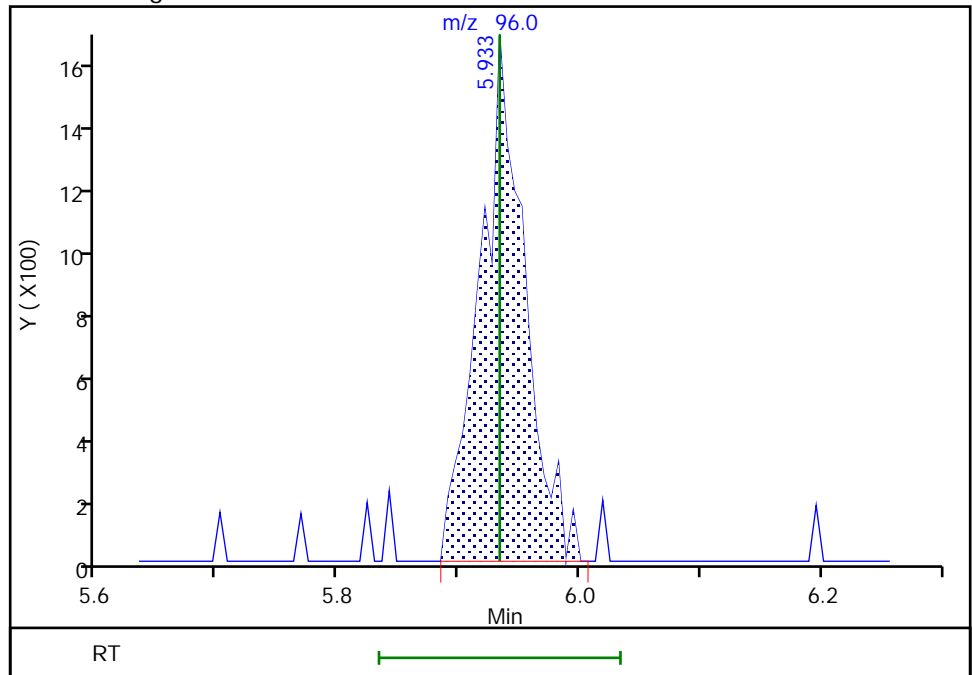
Not Detected
Expected RT: 5.93

Processing Integration Results



Manual Integration Results

RT: 5.93
Area: 4288
Amount: 0.078139
Amount Units: ug/l



Reviewer: virayd, 09-Nov-2020 08:53:19
Audit Action: Assigned Compound ID

Audit Reason: Other

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-19023-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-8-0/1-0 Lab Sample ID: 410-19023-3
 Matrix: Water Lab File ID: Gn04S07.D
 Analysis Method: 8260C LL Date Collected: 10/29/2020 09:00
 Sample wt/vol: 25 (mL) Date Analyzed: 11/04/2020 12:39
 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.: 61951 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND		0.50	0.060
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
106-93-4	1,2-Dibromoethane (EDB)	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
74-97-5	Bromochloromethane	ND		0.50	0.050
75-27-4	Bromodichloromethane	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	0.26	J	1.0	0.060
56-23-5	Carbon tetrachloride	ND		0.50	0.070
108-90-7	Chlorobenzene	ND		0.50	0.060
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	0.086	J	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
100-41-4	Ethylbenzene	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.: 410-19023-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-8-0/1-0 Lab Sample ID: 410-19023-3
 Matrix: Water Lab File ID: Gn04S07.D
 Analysis Method: 8260C LL Date Collected: 10/29/2020 09:00
 Sample wt/vol: 25 (mL) Date Analyzed: 11/04/2020 12:39
 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.: 61951 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
1868-53-7	Dibromofluoromethane (Surr)	93		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	98		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S07.D
 Lims ID: 410-19023-A-3
 Client ID: HD-COD-SW-8-0/1-0
 Sample Type: Client
 Inject. Date: 04-Nov-2020 12:39:30 ALS Bottle#: 13 Worklist Smp#: 13
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014632-013
 Misc. Info.: 410-19023-A-3
 Operator ID: jkh09052 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 04-Nov-2020 12:31:16 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: CTX1010

First Level Reviewer: howej

Date: 04-Nov-2020 14:28:12

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	9	3991	0.0479	
7 Vinyl chloride	62		2.257				ND	7
9 Bromomethane	94		2.581				ND	
10 Chloroethane	64		2.660				ND	7
19 1,1-Dichloroethene	96		3.507				ND	
20 Acetone	43	3.580	3.544	0.036	81	19739	3.04	
25 Carbon disulfide	76	3.818	3.800	0.018	99	40936	0.2554	M
28 Methylene Chloride	84		4.172				ND	
* 29 t-Butyl alcohol-d10 (IS)	65	4.227	4.184	0.043	0	116217	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		6.056				ND	
41 cis-1,2-Dichloroethene	96	6.092	6.080	0.012	70	5146	0.0861	
48 Chlorobromomethane	128		6.415				ND	
50 Chloroform	83	6.568	6.568	0.000	37	5418	0.0519	
\$ 52 Dibromofluoromethane (Surr)	113	6.781	6.781	0.000	93	537018	9.33	
51 1,1,1-Trichloroethane	97		6.793				ND	
56 Carbon tetrachloride	117		6.994				ND	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.232	7.238	-0.006	0	107245	9.78	
59 Benzene	78		7.269				ND	7
60 1,2-Dichloroethane	62		7.342				ND	
* 63 Fluorobenzene (IS)	96	7.677	7.671	0.006	99	2154609	10.0	
67 Trichloroethene	95		8.153				ND	
69 1,2-Dichloropropane	63		8.488				ND	
75 Dichlorobromomethane	83		8.835				ND	7
80 cis-1,3-Dichloropropene	75		9.384				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	7
\$ 82 Toluene-d8 (Surr)	98	9.695	9.689	0.006	94	2150770	10.1	
83 Toluene	92	9.762	9.768	-0.006	97	6872	0.0513	

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	90	3807	0.0580	
91 2-Hexanone	43	10.427	10.451	-0.024	75	9753	0.4612	
93 Chlorodibromomethane	129		10.610				ND	
94 Ethylene Dibromide	107		10.719				ND	
* 95 Chlorobenzene-d5 (IS)	117	11.152	11.152	0.000	87	1622748	10.0	
97 Chlorobenzene	112		11.176				ND	
S 101 Xylenes, Total	106		11.245				ND	7
98 1,1,1,2-Tetrachloroethane	131		11.262				ND	
99 Ethylbenzene	91		11.262				ND	7
100 m-Xylene & p-Xylene	106	11.378	11.378	0.000	0	4227	0.0408	
102 o-Xylene	106		11.707				ND	7
103 Styrene	104		11.725				ND	
104 Bromoform	173		11.878				ND	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	89	772398	9.79	
109 1,1,2,2-Tetrachloroethane	83		12.256				ND	
* 124 1,4-Dichlorobenzene-d4	152	13.030	13.024	0.006	96	808452	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MSV_29_826ISS_00010

Amount Added: 1.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S07.D

Injection Date: 04-Nov-2020 12:39:30

Instrument ID: 16334

Operator ID: jkh09052

Lims ID: 410-19023-A-3

Lab Sample ID: 410-19023-3

Worklist Smp#: 13

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

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\20201104-14632.b\Gn04S07.D
 Lims ID: 410-19023-A-3
 Client ID: HD-COD-SW-8-0/1-0
 Sample Type: Client
 Inject. Date: 04-Nov-2020 12:39:30 ALS Bottle#: 13 Worklist Smp#: 13
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014632-013
 Misc. Info.: 410-19023-A-3
 Operator ID: jkh09052 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 04-Nov-2020 12:31:16 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: CTX1010

First Level Reviewer: howej Date: 04-Nov-2020 14:28:12

Compound	Amount Added	Amount Recovered	% Rec.
\$ 52 Dibromofluoromethane (Surr)	10.0	9.33	93.30
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	9.78	97.83
\$ 82 Toluene-d8 (Surr)	10.0	10.1	101.25
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.79	97.90

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S07.D

Injection Date: 04-Nov-2020 12:39:30

Instrument ID: 16334

Lims ID: 410-19023-A-3

Lab Sample ID: 410-19023-3

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

Operator ID: jkh09052

ALS Bottle#: 13

Worklist Smp#: 13

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

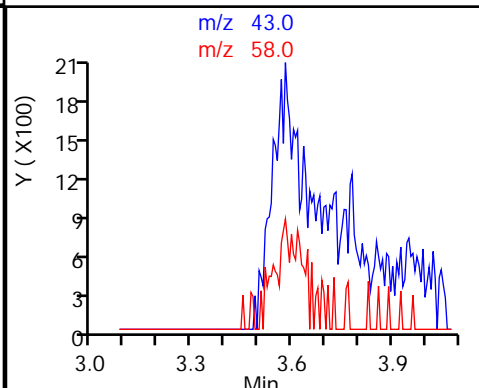
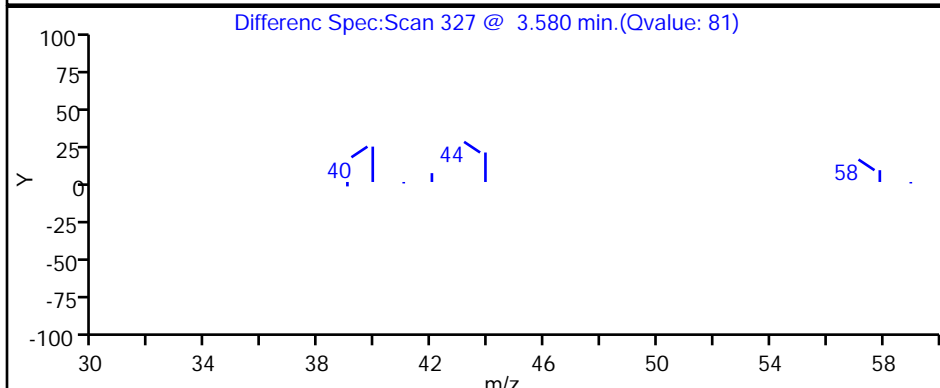
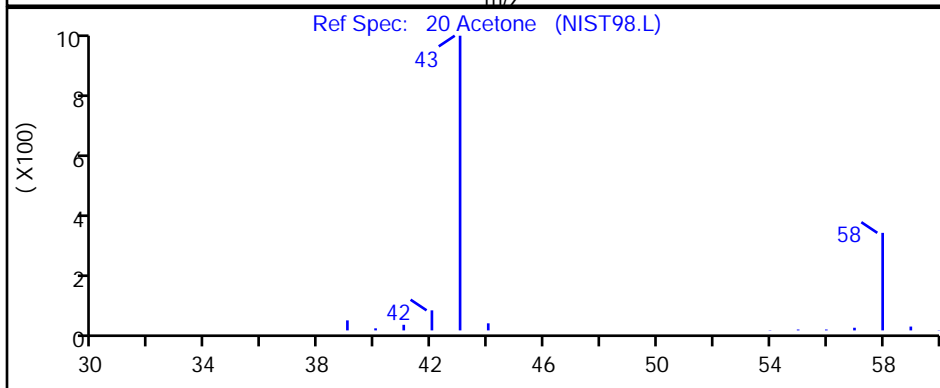
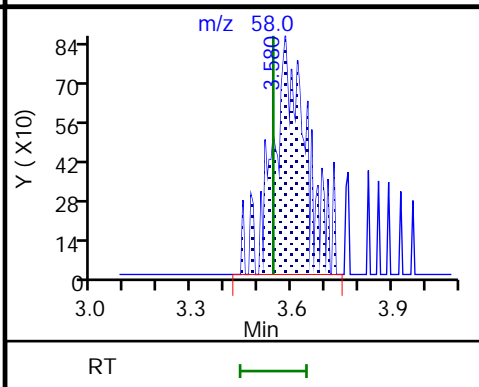
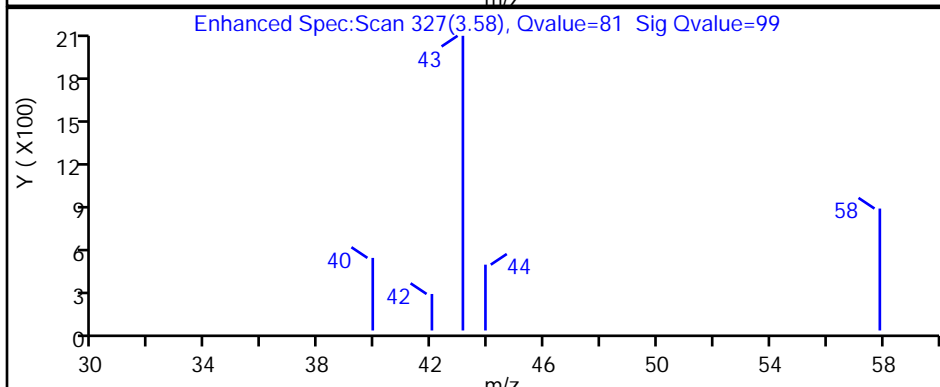
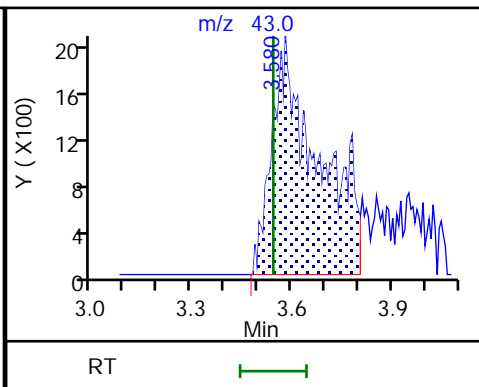
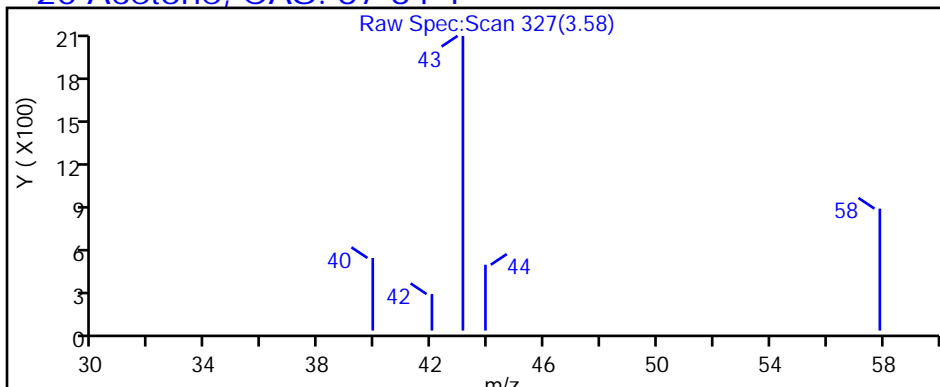
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

20 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S07.D

Injection Date: 04-Nov-2020 12:39:30

Instrument ID: 16334

Lims ID: 410-19023-A-3

Lab Sample ID: 410-19023-3

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

Operator ID: jkh09052

ALS Bottle#: 13

Worklist Smp#: 13

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

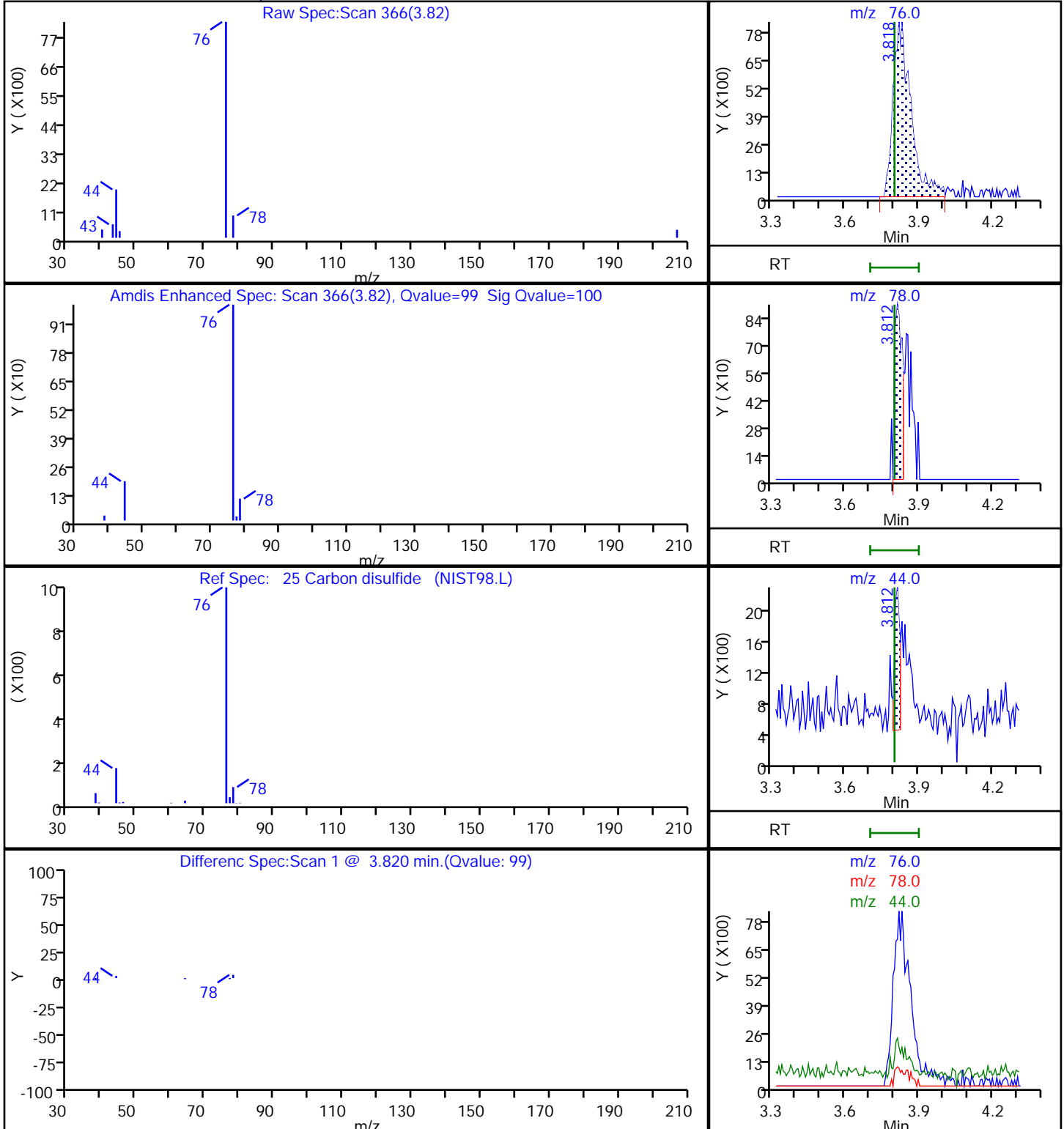
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

25 Carbon disulfide, CAS: 75-15-0



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S07.D

Injection Date: 04-Nov-2020 12:39:30

Instrument ID: 16334

Lims ID: 410-19023-A-3

Lab Sample ID: 410-19023-3

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

Operator ID: jkh09052

ALS Bottle#: 13

Worklist Smp#: 13

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

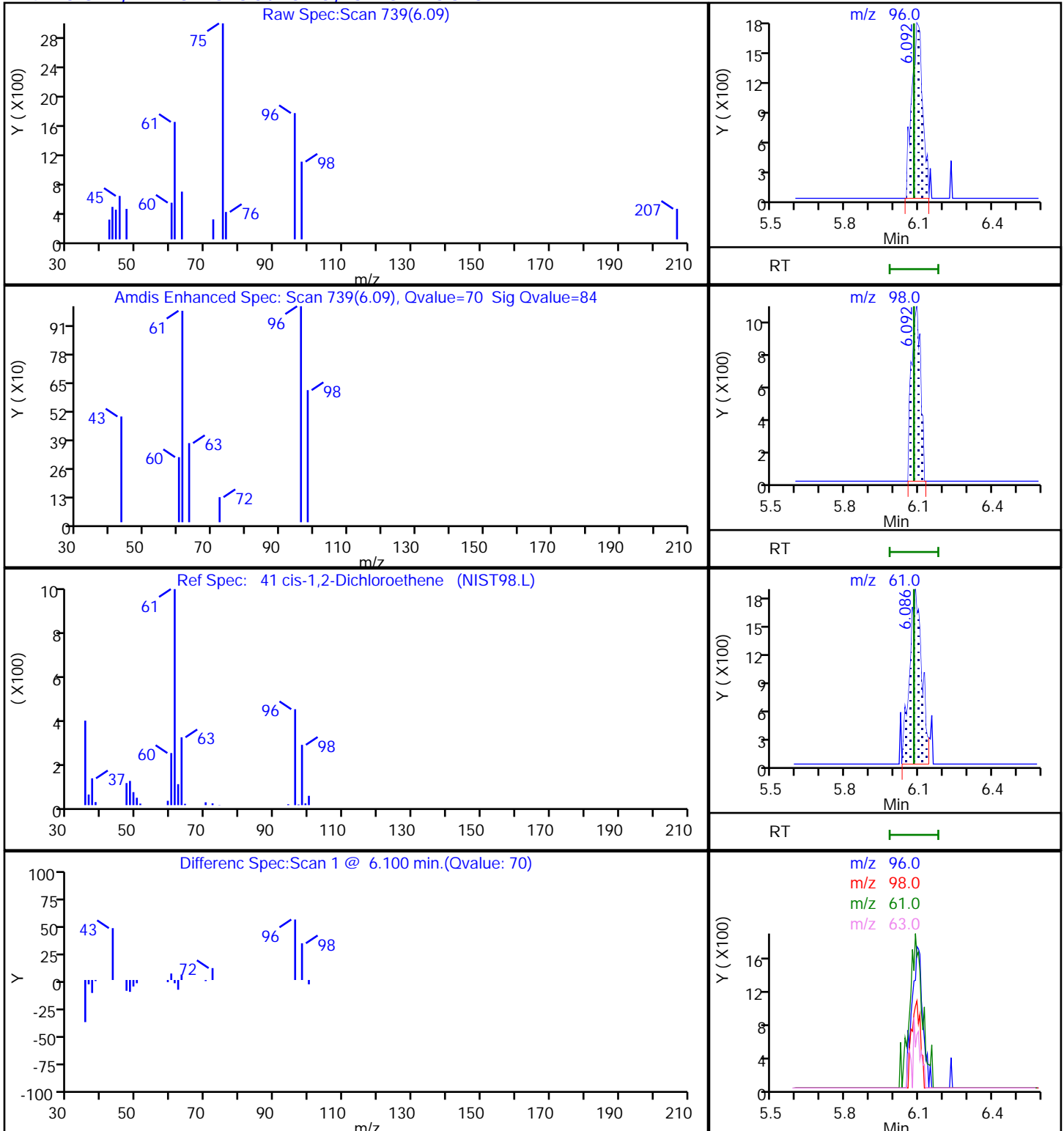
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

41 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

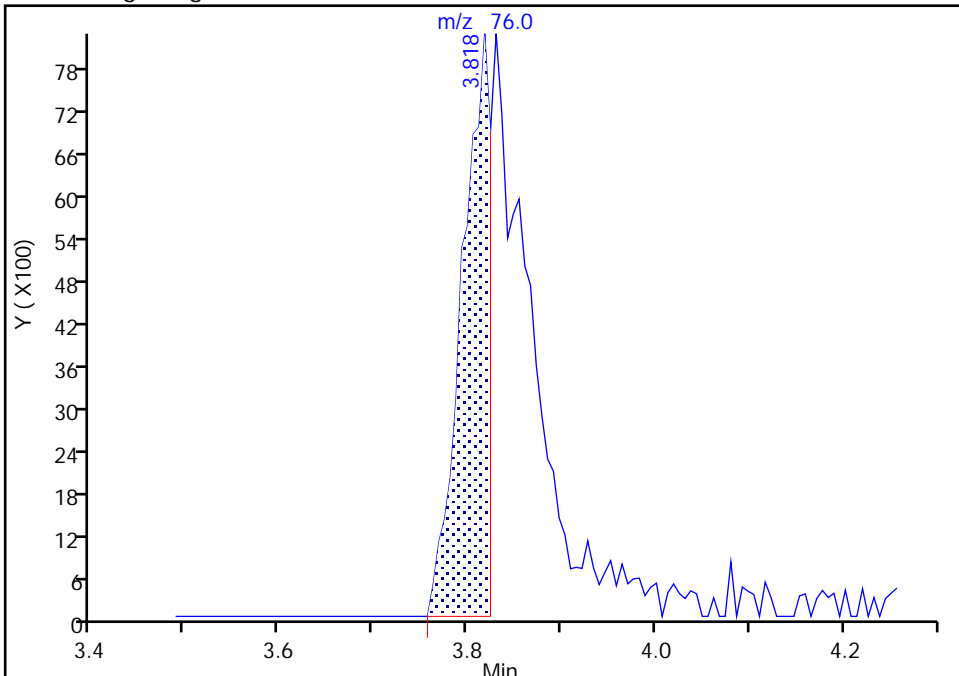
Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S07.D
Injection Date: 04-Nov-2020 12:39:30 Instrument ID: 16334
Lims ID: 410-19023-A-3 Lab Sample ID: 410-19023-3
Client ID: HD-COD-SW-8-0/1-0
Operator ID: jkh09052 ALS Bottle#: 13 Worklist Smp#: 13
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

25 Carbon disulfide, CAS: 75-15-0

Signal: 1

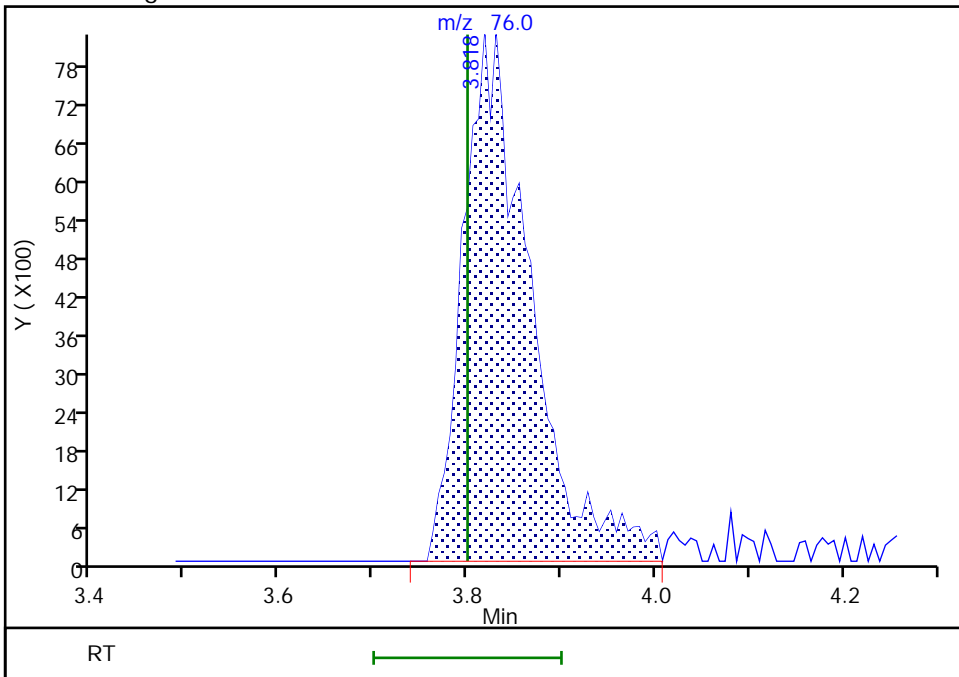
RT: 3.82
Area: 17333
Amount: 0.108144
Amount Units: ug/l

Processing Integration Results



RT: 3.82
Area: 40936
Amount: 0.255408
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 04-Nov-2020 14:27:45
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

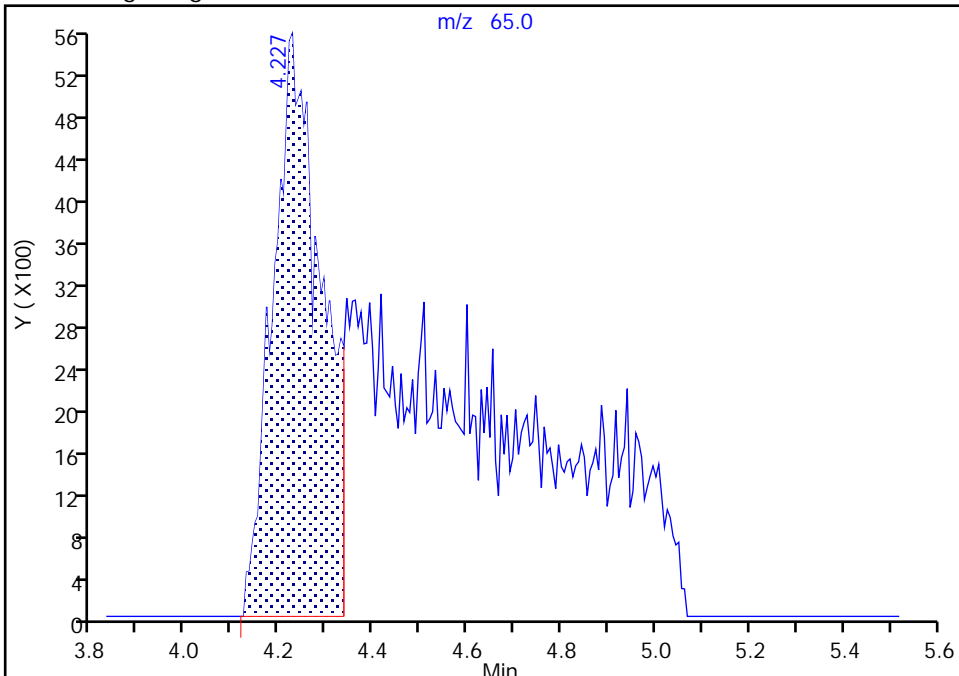
Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S07.D
Injection Date: 04-Nov-2020 12:39:30 Instrument ID: 16334
Lims ID: 410-19023-A-3 Lab Sample ID: 410-19023-3
Client ID: HD-COD-SW-8-0/1-0
Operator ID: jkh09052 ALS Bottle#: 13 Worklist Smp#: 13
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 29 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

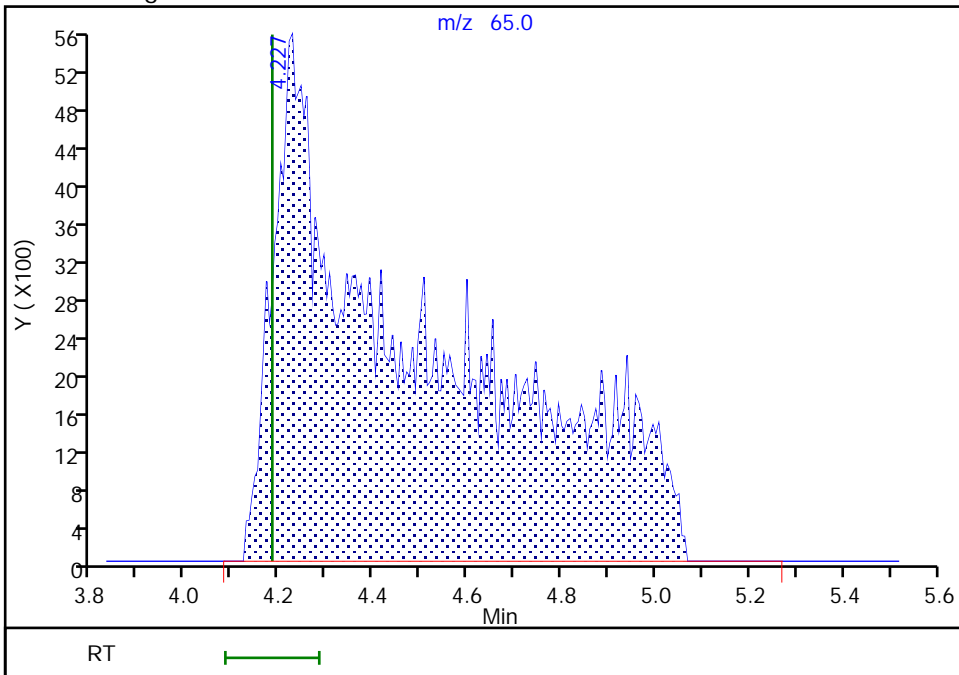
RT: 4.23
Area: 39642
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.23
Area: 116217
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 04-Nov-2020 14:27:55
Audit Action: Manually Integrated

Audit Reason: Other

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-19023-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-9-0/1-0 Lab Sample ID: 410-19023-4
 Matrix: Water Lab File ID: Gn04S08.D
 Analysis Method: 8260C LL Date Collected: 10/29/2020 11:45
 Sample wt/vol: 25 (mL) Date Analyzed: 11/04/2020 13:01
 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.: 61951 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND		0.50	0.060
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
106-93-4	1,2-Dibromoethane (EDB)	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)	0.79	J	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	4.9	J	5.0	0.90
107-13-1	Acrylonitrile	ND		5.0	0.40
71-43-2	Benzene	ND		0.50	0.050
74-97-5	Bromochloromethane	ND		0.50	0.050
75-27-4	Bromodichloromethane	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	0.25	J	1.0	0.060
56-23-5	Carbon tetrachloride	ND		0.50	0.070
108-90-7	Chlorobenzene	ND		0.50	0.060
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
124-48-1	Dibromochloromethane	ND		0.50	0.070
100-41-4	Ethylbenzene	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	0.088	J	0.50	0.060
108-88-3	Toluene	0.39	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.: 410-19023-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-9-0/1-0 Lab Sample ID: 410-19023-4
 Matrix: Water Lab File ID: Gn04S08.D
 Analysis Method: 8260C LL Date Collected: 10/29/2020 11:45
 Sample wt/vol: 25 (mL) Date Analyzed: 11/04/2020 13:01
 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.: 61951 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)	101		80-120
1868-53-7	Dibromofluoromethane (Surr)	93		80-120
2037-26-5	Toluene-d8 (Surr)	102		80-120
460-00-4	4-Bromofluorobenzene (Surr)	98		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S08.D
 Lims ID: 410-19023-A-4
 Client ID: HD-COD-SW-9-0/1-0
 Sample Type: Client
 Inject. Date: 04-Nov-2020 13:01:30 ALS Bottle#: 14 Worklist Smp#: 14
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014632-014
 Misc. Info.: 410-19023-A-4
 Operator ID: jkh09052 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 04-Nov-2020 12:31:16 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: CTX1010

First Level Reviewer: howej

Date: 04-Nov-2020 14:29:04

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Chloromethane	50		2.142				ND	
7 Vinyl chloride	62		2.257				ND	
9 Bromomethane	94		2.581				ND	
10 Chloroethane	64		2.660				ND	7
19 1,1-Dichloroethene	96		3.507				ND	
20 Acetone	43	3.544	3.544	0.000	94	44186	4.94	
25 Carbon disulfide	76	3.818	3.800	0.018	99	40505	0.2486	M
28 Methylene Chloride	84		4.172				ND	
* 29 t-Butyl alcohol-d10 (IS)	65	4.160	4.184	-0.024	0	160177	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	6.068	6.056	0.012	21	12106	0.7886	M
41 cis-1,2-Dichloroethene	96		6.080				ND	
48 Chlorobromomethane	128		6.415				ND	
50 Chloroform	83		6.568				ND	
\$ 52 Dibromofluoromethane (Surr)	113	6.787	6.781	0.006	93	541539	9.25	
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	7.238	0.000	0	112066	10.1	
59 Benzene	78		7.269				ND	7
60 1,2-Dichloroethane	62		7.342				ND	
* 63 Fluorobenzene (IS)	96	7.677	7.671	0.006	99	2190521	10.0	
67 Trichloroethene	95	8.159	8.153	0.006	63	1907	0.0313	
69 1,2-Dichloropropane	63		8.488				ND	
75 Dichlorobromomethane	83		8.835				ND	7
80 cis-1,3-Dichloropropene	75		9.384				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	7
\$ 82 Toluene-d8 (Surr)	98	9.695	9.689	0.006	94	2191974	10.2	
83 Toluene	92	9.768	9.768	0.000	98	53267	0.3916	

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	93	5844	0.0878	
91 2-Hexanone	43		10.451				ND	7
93 Chlorodibromomethane	129		10.610				ND	
94 Ethylene Dibromide	107		10.719				ND	
* 95 Chlorobenzene-d5 (IS)	117	11.152	11.152	0.000	87	1646474	10.0	
97 Chlorobenzene	112		11.176				ND	
S 101 Xylenes, Total	106				0		0.0999	
98 1,1,1,2-Tetrachloroethane	131		11.262				ND	
99 Ethylbenzene	91		11.262				ND	7
100 m-Xylene & p-Xylene	106	11.372	11.378	-0.006	0	7139	0.0679	
102 o-Xylene	106	11.707	11.707	0.000	96	3283	0.0319	
103 Styrene	104		11.725				ND	7
104 Bromoform	173		11.878				ND	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	90	784141	9.80	
109 1,1,2,2-Tetrachloroethane	83		12.256				ND	
* 124 1,4-Dichlorobenzene-d4	152	13.024	13.024	0.000	96	815429	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MSV_29_826ISS_00010

Amount Added: 1.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S08.D

Injection Date: 04-Nov-2020 13:01:30

Instrument ID: 16334

Operator ID: jkh09052

Lims ID: 410-19023-A-4

Lab Sample ID: 410-19023-4

Worklist Smp#: 14

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

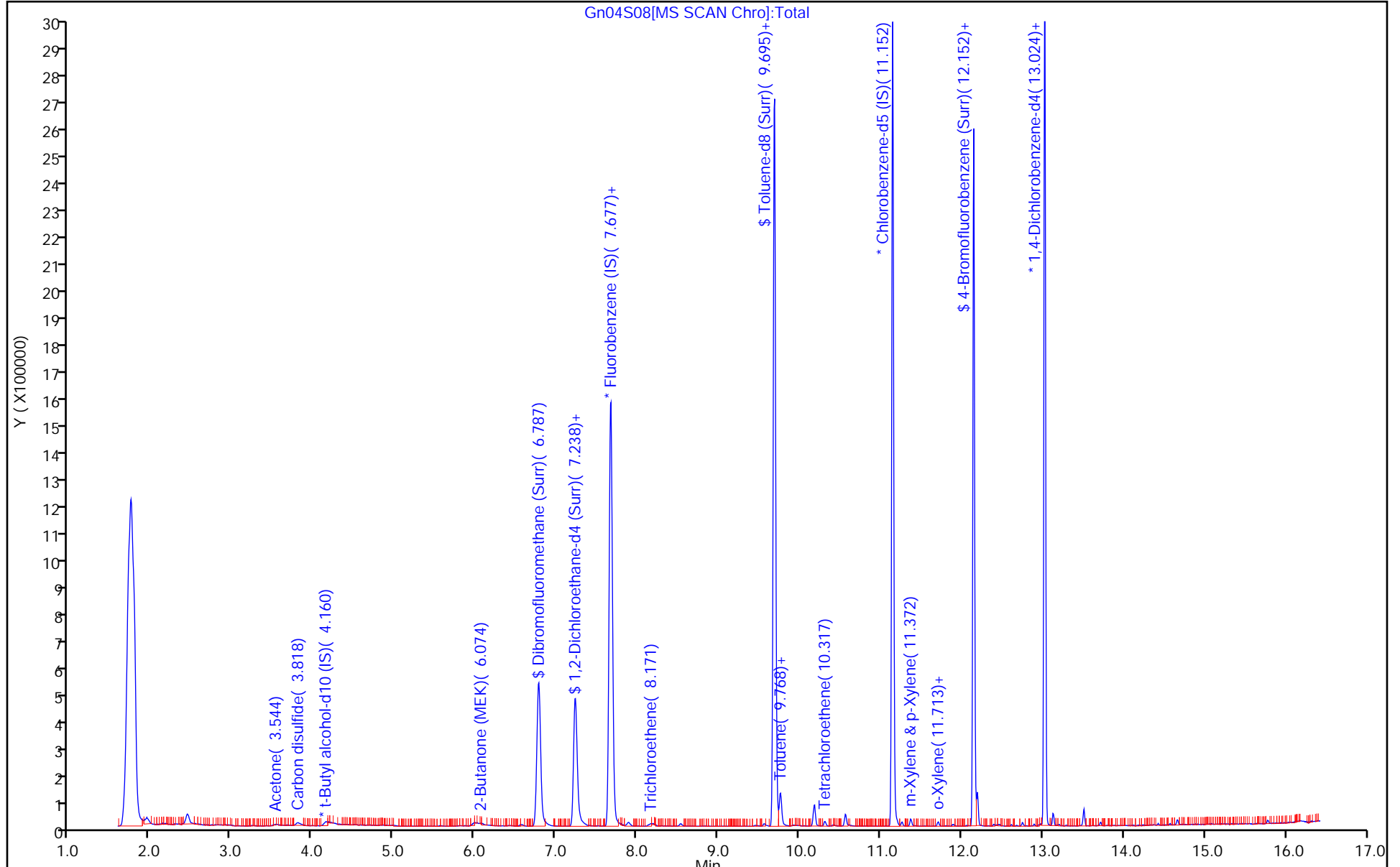
ALS Bottle#: 14

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\20201104-14632.b\Gn04S08.D
 Lims ID: 410-19023-A-4
 Client ID: HD-COD-SW-9-0/1-0
 Sample Type: Client
 Inject. Date: 04-Nov-2020 13:01:30 ALS Bottle#: 14 Worklist Smp#: 14
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014632-014
 Misc. Info.: 410-19023-A-4
 Operator ID: jkh09052 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 04-Nov-2020 12:31:16 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: CTX1010

First Level Reviewer: howej

Date: 04-Nov-2020 14:29:04

Compound	Amount Added	Amount Recovered	% Rec.
\$ 52 Dibromofluoromethane (Surr)	10.0	9.25	92.55
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.1	100.56
\$ 82 Toluene-d8 (Surr)	10.0	10.2	101.70
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.80	97.96

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S08.D

Injection Date: 04-Nov-2020 13:01:30

Instrument ID: 16334

Lims ID: 410-19023-A-4

Lab Sample ID: 410-19023-4

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

Operator ID: jkh09052

ALS Bottle#: 14

Worklist Smp#: 14

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

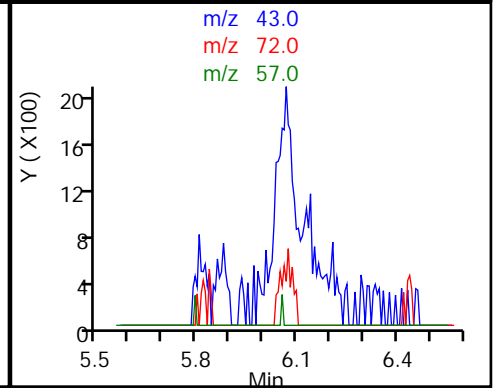
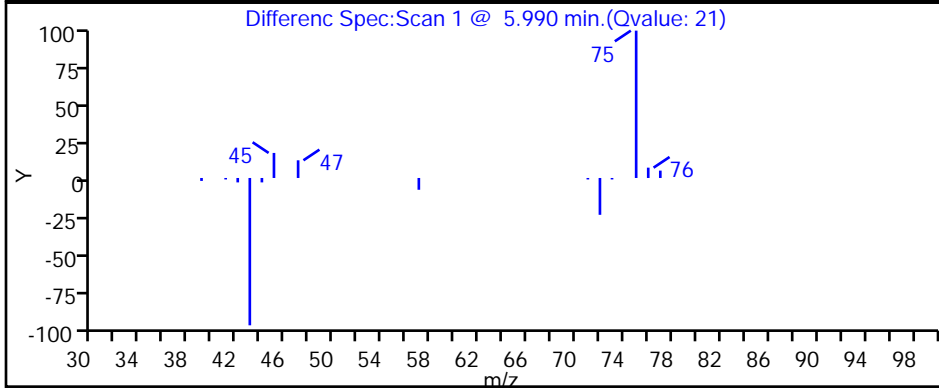
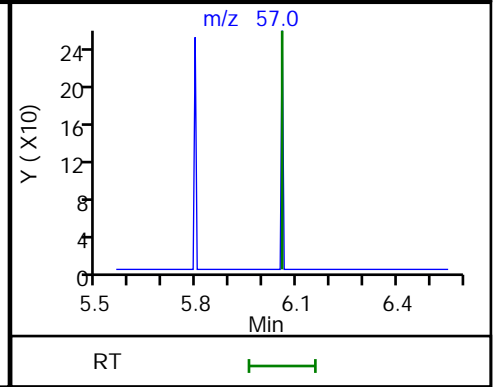
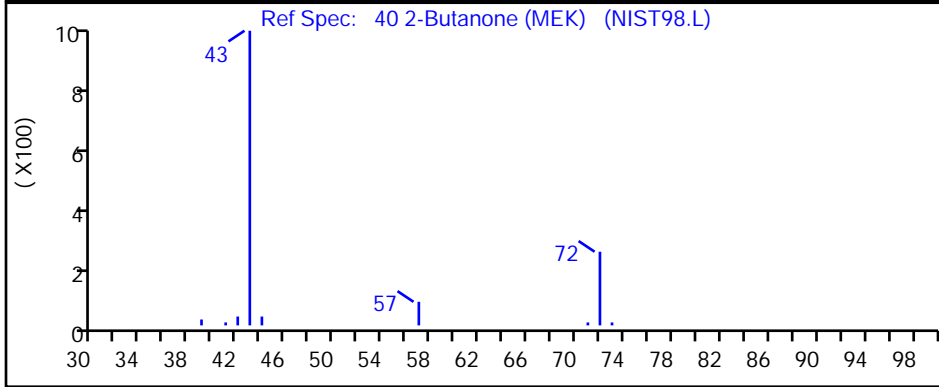
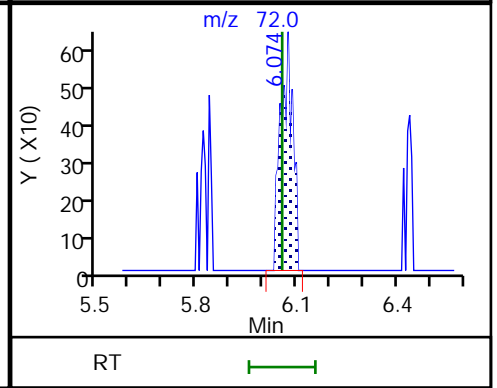
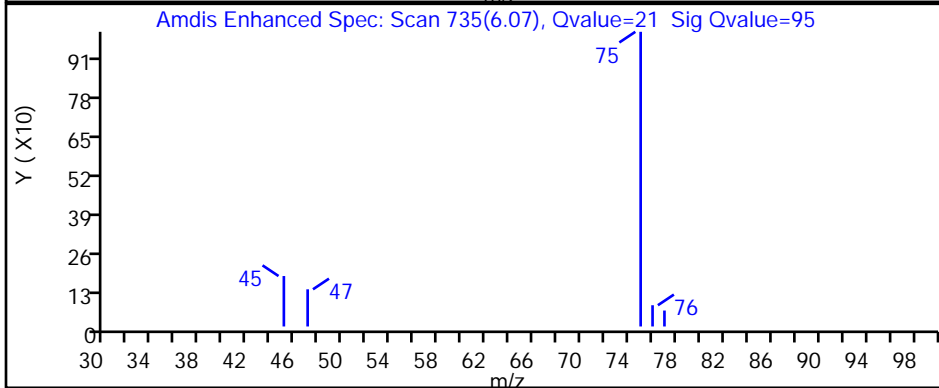
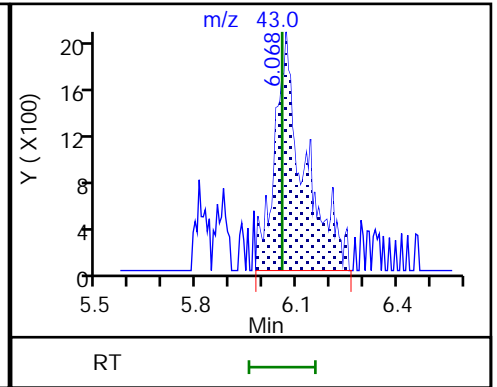
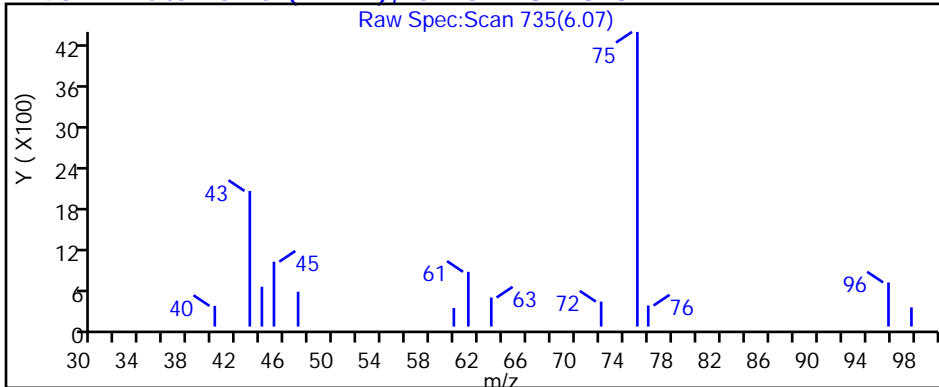
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

40 2-Butanone (MEK), CAS: 78-93-3



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S08.D

Injection Date: 04-Nov-2020 13:01:30

Instrument ID: 16334

Lims ID: 410-19023-A-4

Lab Sample ID: 410-19023-4

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

Operator ID: jkh09052

ALS Bottle#: 14

Worklist Smp#: 14

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

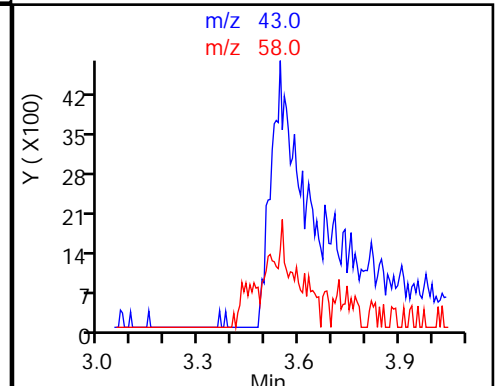
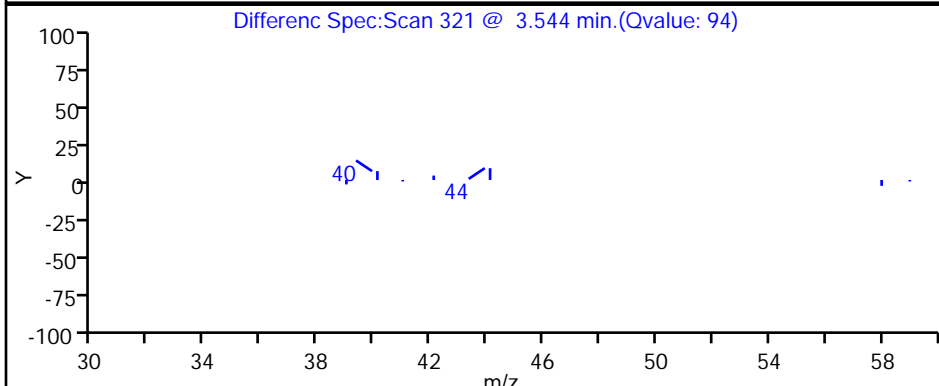
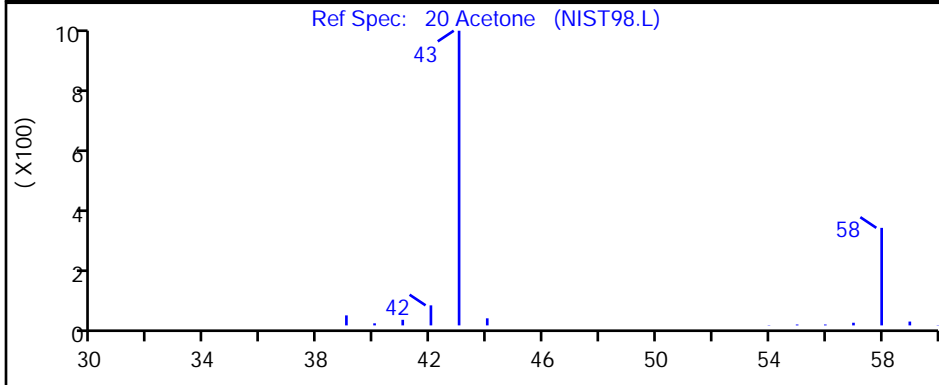
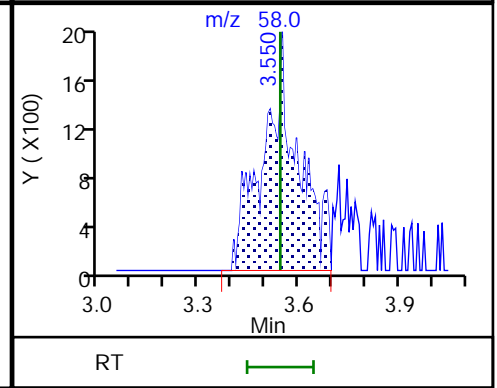
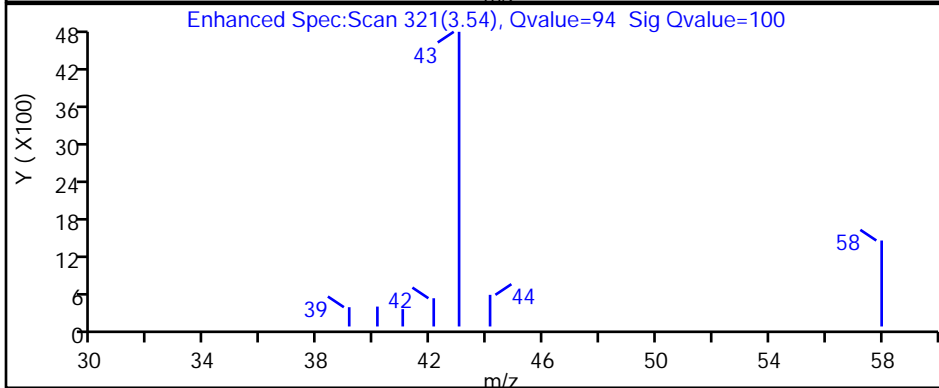
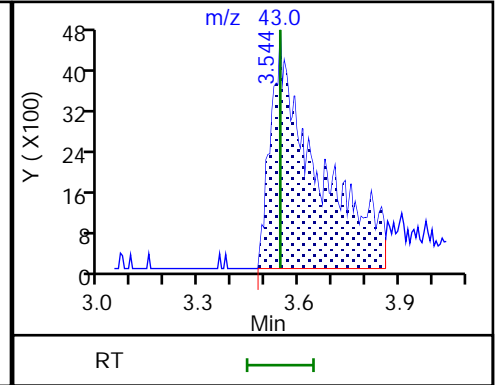
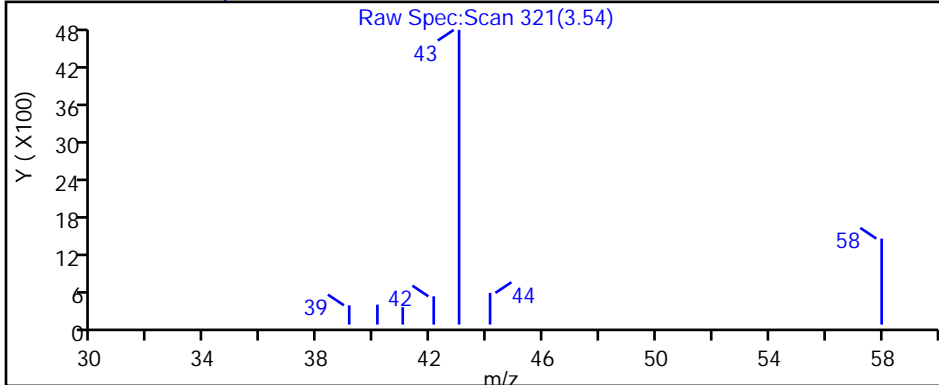
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

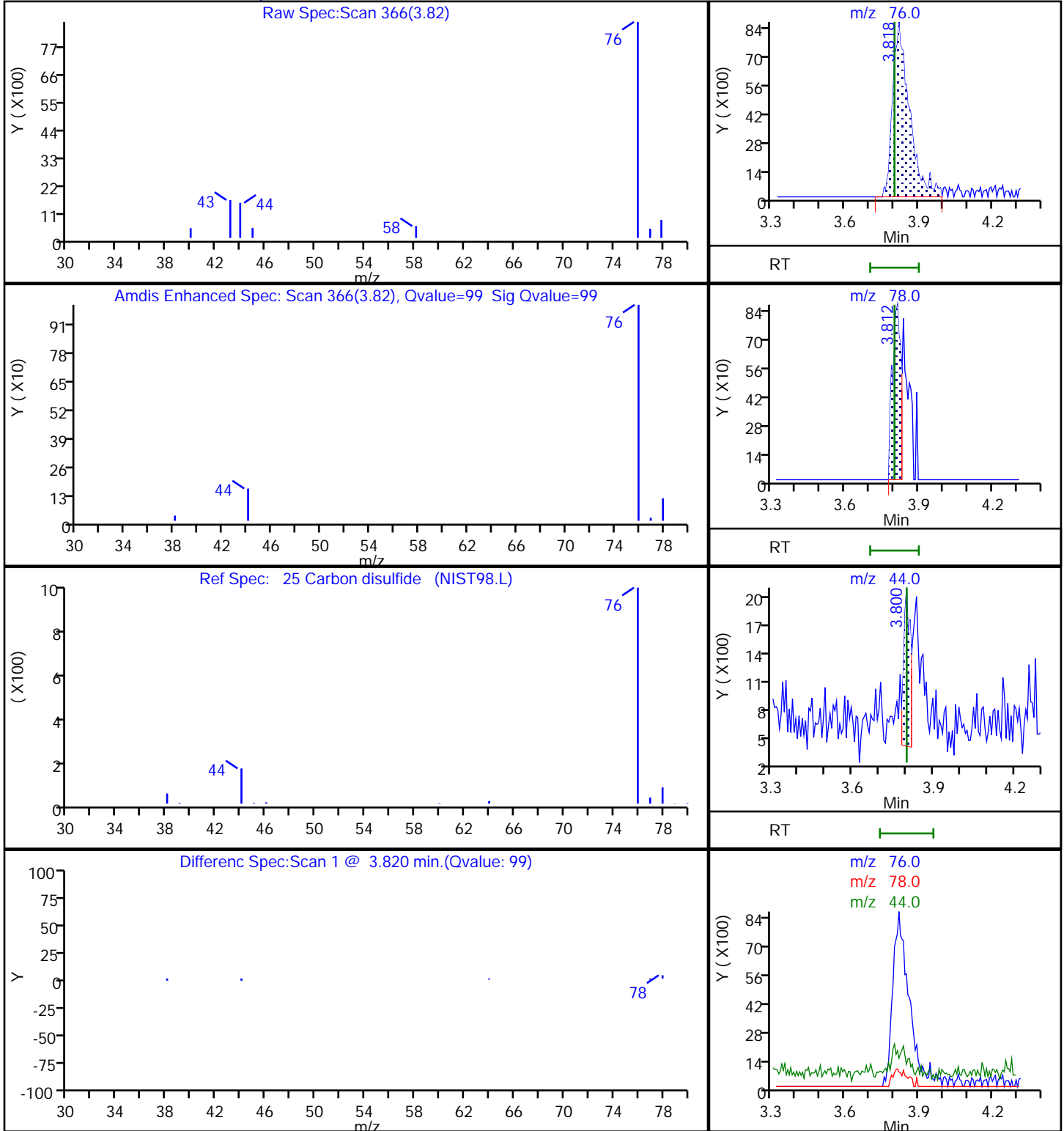
20 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S08.D
Injection Date: 04-Nov-2020 13:01:30 Instrument ID: 16334
Lims ID: 410-19023-A-4 Lab Sample ID: 410-19023-4
Client ID: HD-COD-SW-9-0/1-0
Operator ID: jkh09052 ALS Bottle#: 14 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

25 Carbon disulfide, CAS: 75-15-0



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S08.D

Injection Date: 04-Nov-2020 13:01:30

Instrument ID: 16334

Lims ID: 410-19023-A-4

Lab Sample ID: 410-19023-4

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

Operator ID: jkh09052

ALS Bottle#: 14

Worklist Smp#: 14

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

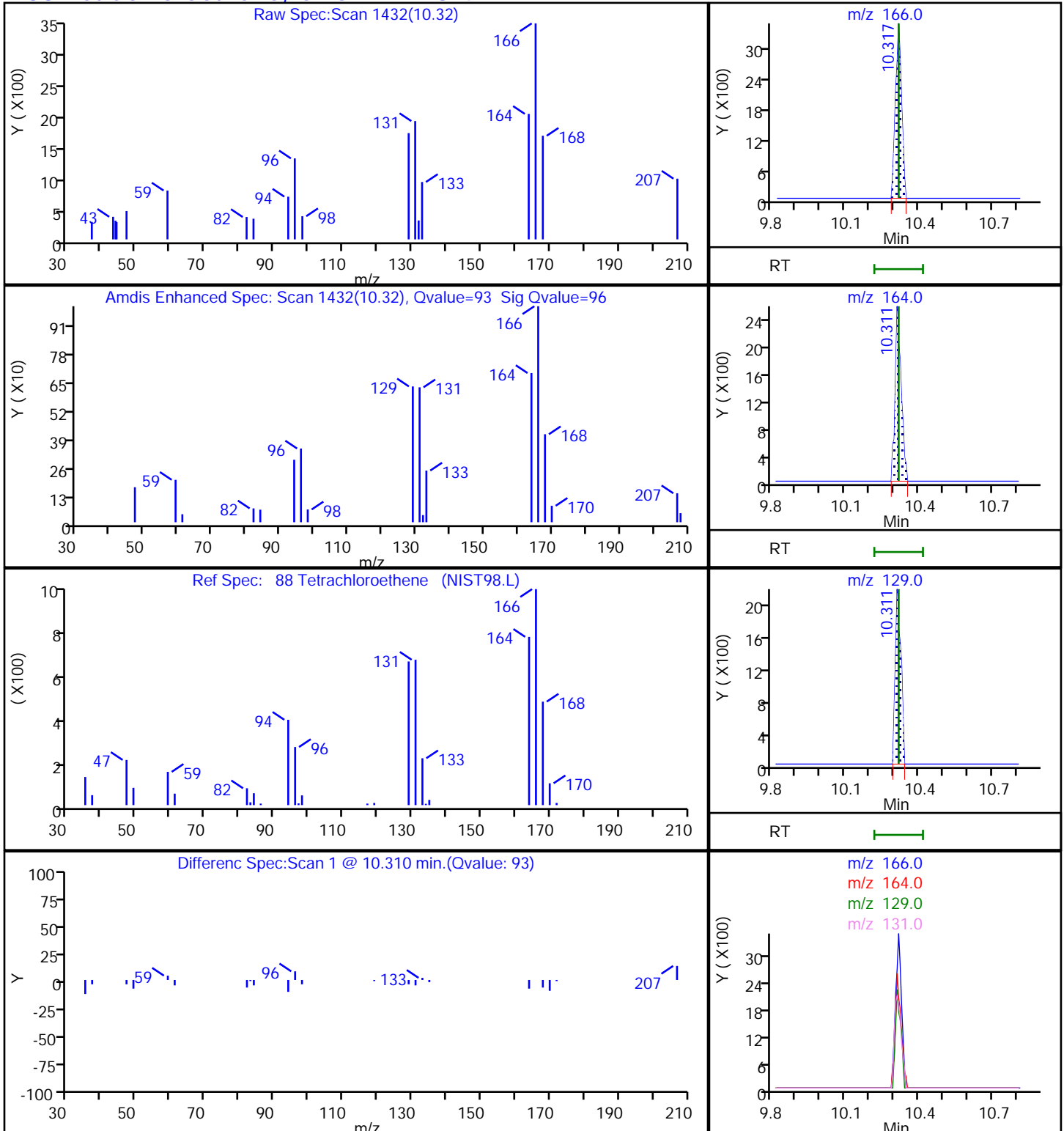
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

88 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S08.D

Injection Date: 04-Nov-2020 13:01:30

Instrument ID: 16334

Lims ID: 410-19023-A-4

Lab Sample ID: 410-19023-4

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

Operator ID: jkh09052

ALS Bottle#: 14

Worklist Smp#: 14

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

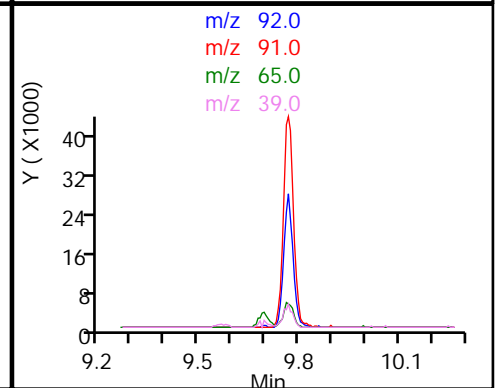
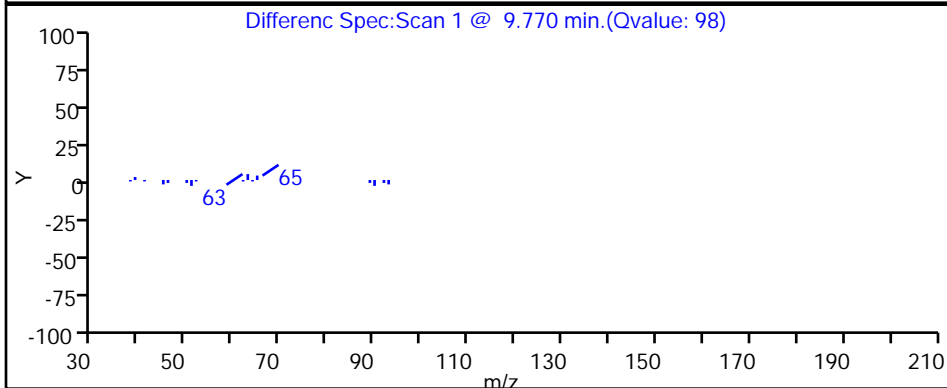
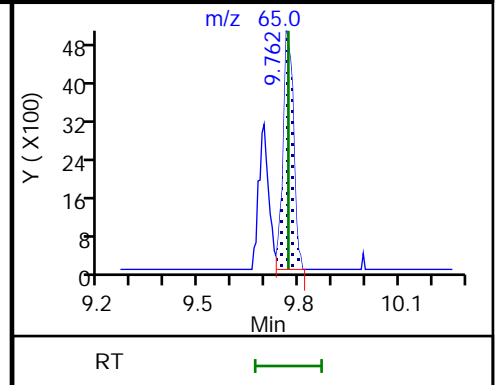
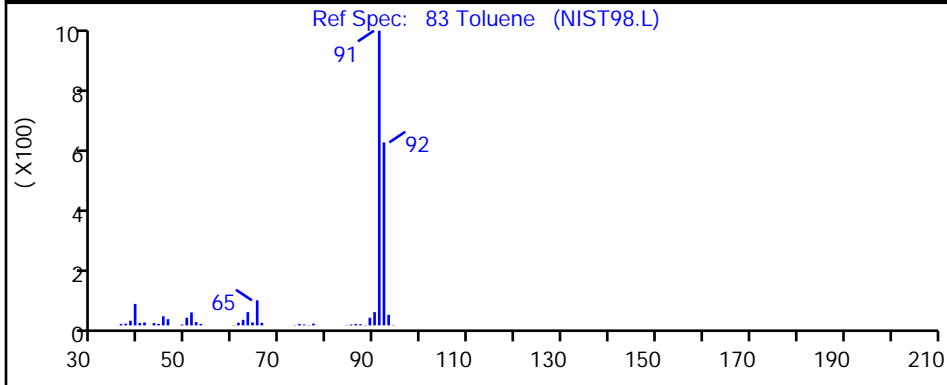
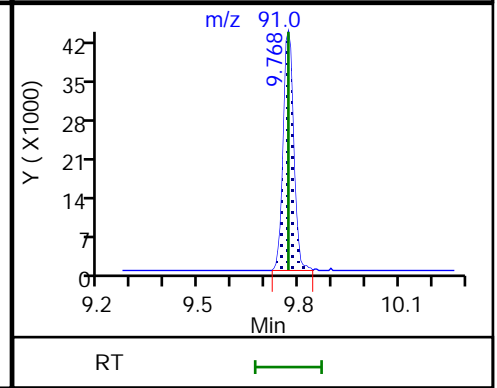
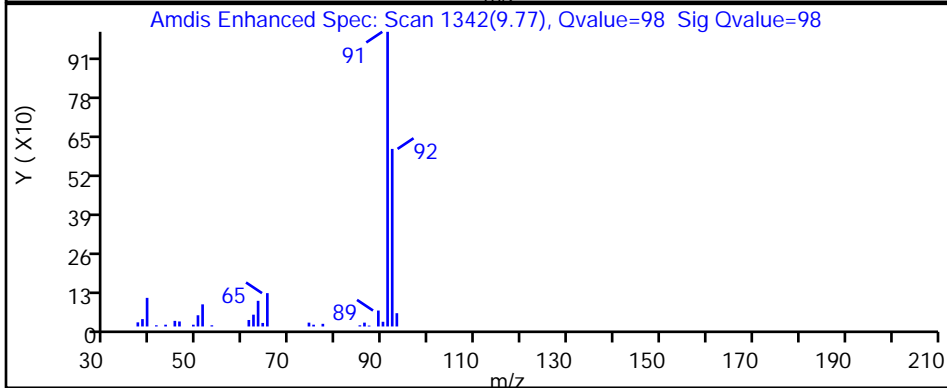
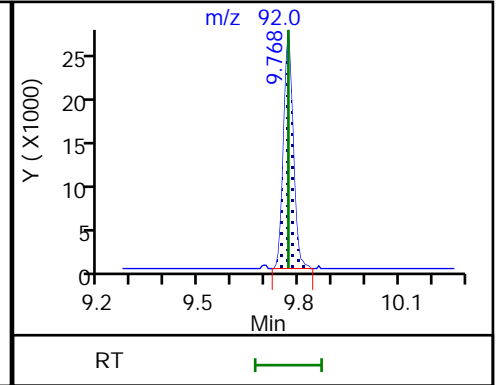
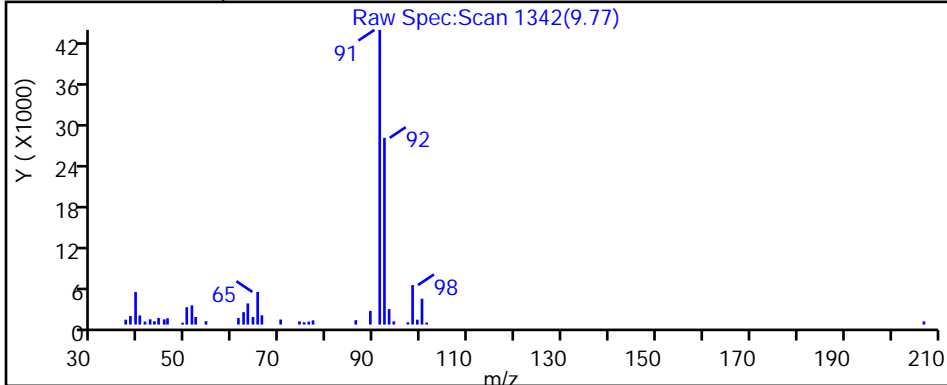
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

83 Toluene, CAS: 108-88-3



Eurofins Lancaster Laboratories Env, LLC

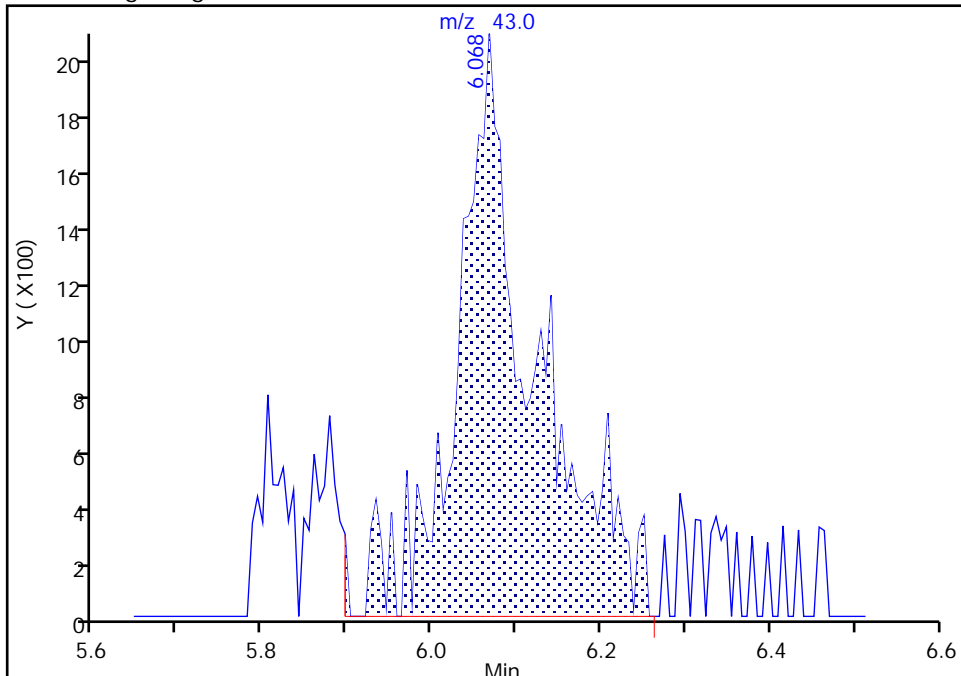
Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S08.D
Injection Date: 04-Nov-2020 13:01:30 Instrument ID: 16334
Lims ID: 410-19023-A-4 Lab Sample ID: 410-19023-4
Client ID: HD-COD-SW-9-0/1-0
Operator ID: jkh09052 ALS Bottle#: 14 Worklist Smp#: 14
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

40 2-Butanone (MEK), CAS: 78-93-3

Signal: 1

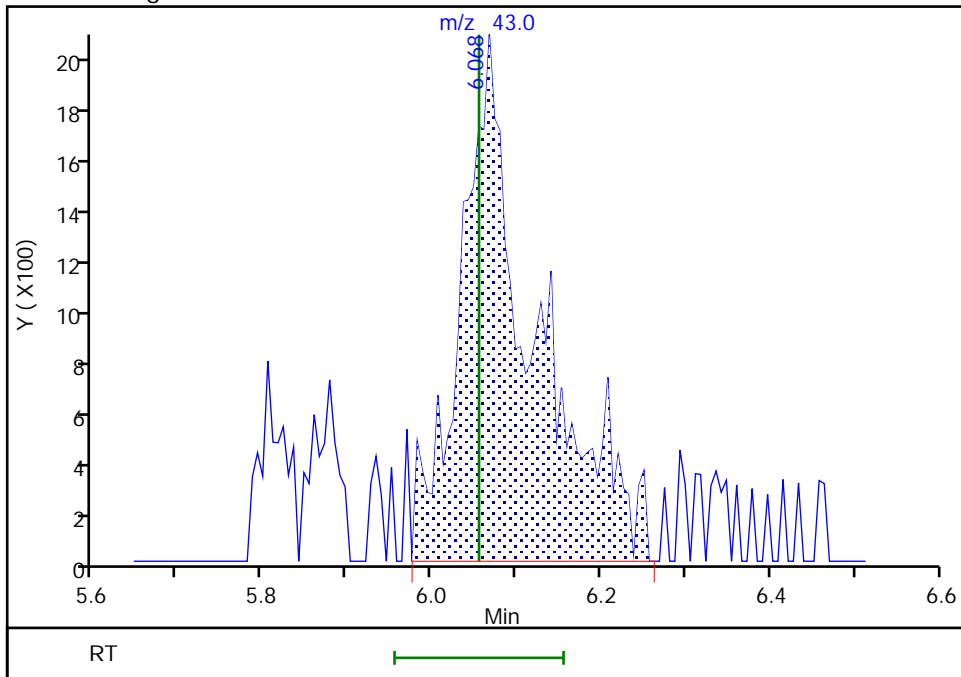
RT: 6.07
Area: 12874
Amount: 0.838676
Amount Units: ug/l

Processing Integration Results



RT: 6.07
Area: 12106
Amount: 0.788645
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 04-Nov-2020 14:28:48
Audit Action: Manually Integrated

Audit Reason: Other

Euofins Lancaster Laboratories Env, LLC

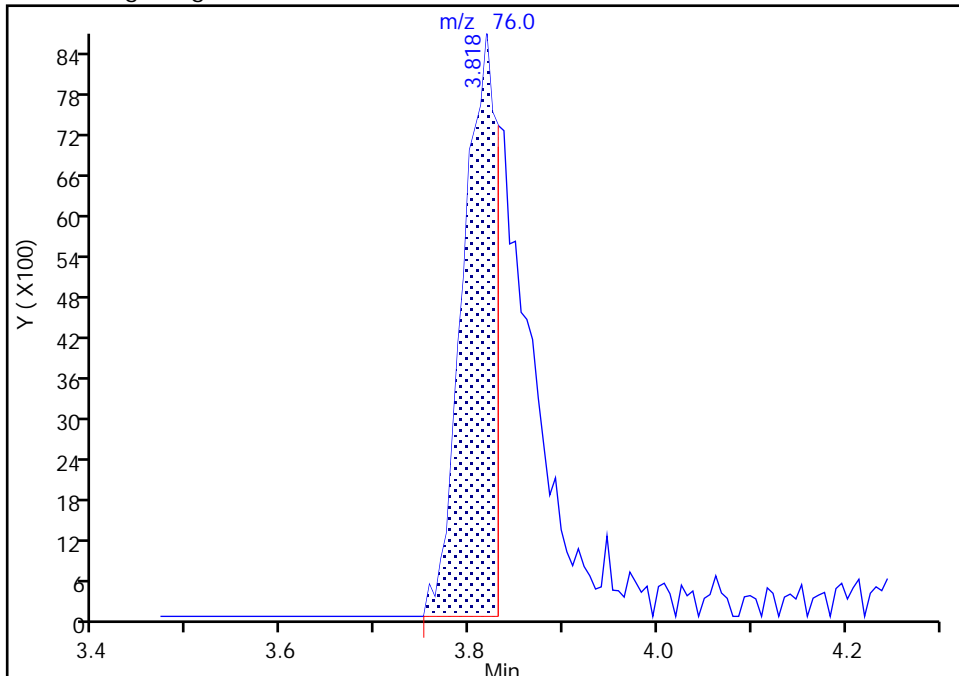
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Injection Date: 04-Nov-2020 13:01:30 Instrument ID: 16334
Lims ID: 410-19023-A-4 Lab Sample ID: 410-19023-4
Client ID: HD-COD-SW-9-0/1-0
Operator ID: jkh09052 ALS Bottle#: 14 Worklist Smp#: 14
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL 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

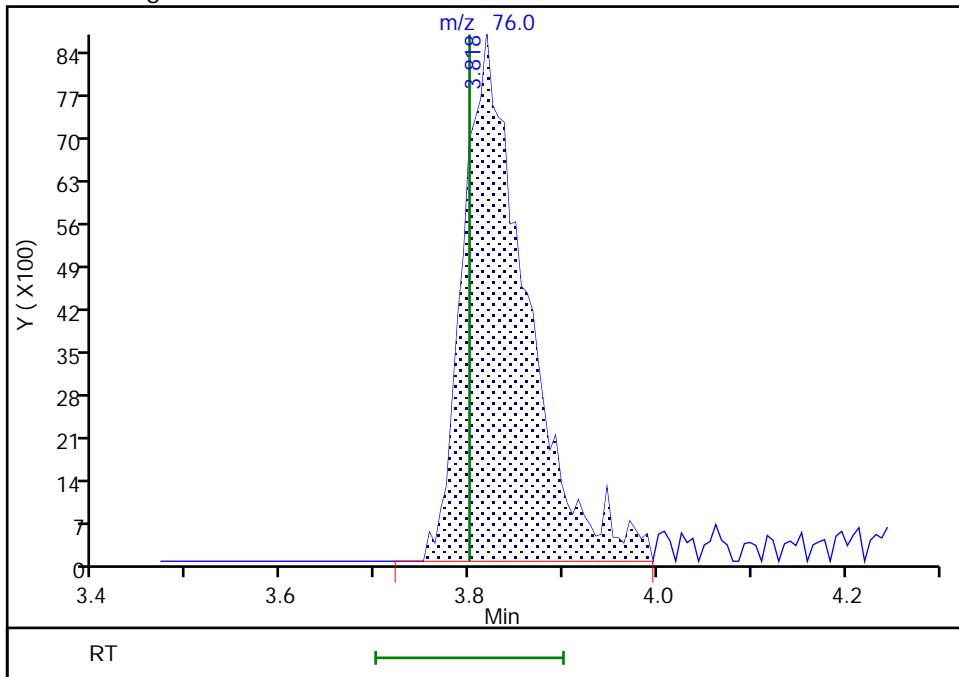
RT: 3.82
Area: 21792
Amount: 0.133736
Amount Units: ug/l

Processing Integration Results



RT: 3.82
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Amount: 0.248576
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 04-Nov-2020 14:28:28
Audit Action: Manually Integrated

Audit Reason: Other

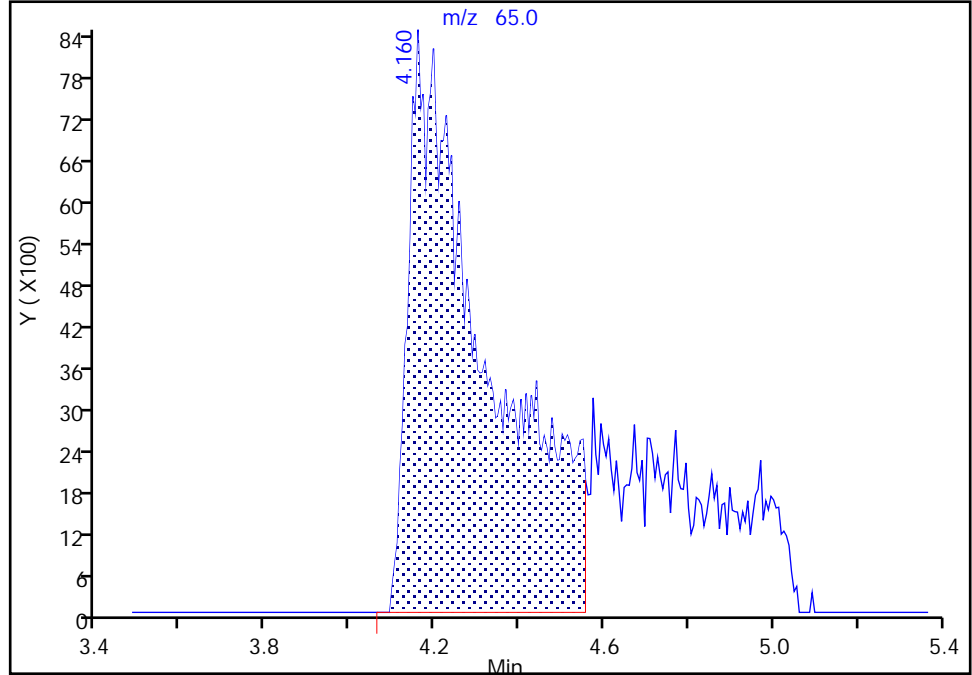
Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S08.D
Injection Date: 04-Nov-2020 13:01:30 Instrument ID: 16334
Lims ID: 410-19023-A-4 Lab Sample ID: 410-19023-4
Client ID: HD-COD-SW-9-0/1-0
Operator ID: jkh09052 ALS Bottle#: 14 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

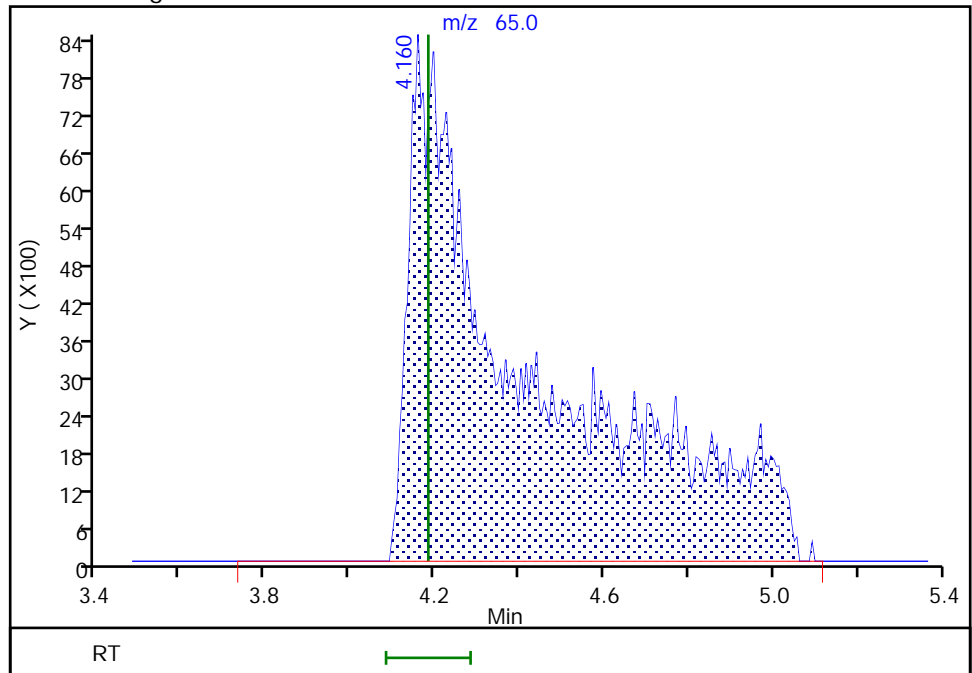
RT: 4.16
Area: 108058
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



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Area: 160177
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 04-Nov-2020 14:28:42
Audit Action: Manually Integrated

Audit Reason: Other

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-19023-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-13-0/1-0 Lab Sample ID: 410-19023-5
 Matrix: Water Lab File ID: Gn04S09.D
 Analysis Method: 8260C LL Date Collected: 10/29/2020 09:20
 Sample wt/vol: 25 (mL) Date Analyzed: 11/04/2020 13:23
 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.: 61951 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND		0.50	0.060
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
106-93-4	1,2-Dibromoethane (EDB)	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
74-97-5	Bromochloromethane	ND		0.50	0.050
75-27-4	Bromodichloromethane	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	0.25	J	1.0	0.060
56-23-5	Carbon tetrachloride	ND		0.50	0.070
108-90-7	Chlorobenzene	ND		0.50	0.060
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	0.051	J	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
100-41-4	Ethylbenzene	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	0.074	J	0.50	0.060
108-88-3	Toluene	0.076	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.: 410-19023-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-13-0/1-0 Lab Sample ID: 410-19023-5
 Matrix: Water Lab File ID: Gn04S09.D
 Analysis Method: 8260C LL Date Collected: 10/29/2020 09:20
 Sample wt/vol: 25 (mL) Date Analyzed: 11/04/2020 13:23
 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.: 61951 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
1868-53-7	Dibromofluoromethane (Surr)	93		80-120
2037-26-5	Toluene-d8 (Surr)	102		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S09.D
 Lims ID: 410-19023-A-5
 Client ID: HD-COD-SW-13-0/1-0
 Sample Type: Client
 Inject. Date: 04-Nov-2020 13:23:30 ALS Bottle#: 15 Worklist Smp#: 15
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014632-015
 Misc. Info.: 410-19023-A-6
 Operator ID: jkh09052 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 04-Nov-2020 12:31:16 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: CTX1010

First Level Reviewer: howej

Date: 04-Nov-2020 14:29:45

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Chloromethane	50		2.142				ND	7
7 Vinyl chloride	62		2.257				ND	
9 Bromomethane	94		2.581				ND	
10 Chloroethane	64		2.660				ND	7
19 1,1-Dichloroethene	96		3.507				ND	
20 Acetone	43	3.562	3.544	0.018	80	19501	2.06	
25 Carbon disulfide	76	3.818	3.800	0.018	99	39879	0.2474	M
28 Methylene Chloride	84		4.172				ND	
* 29 t-Butyl alcohol-d10 (IS)	65	4.178	4.184	-0.006	0	169801	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		6.056				ND	
41 cis-1,2-Dichloroethene	96	6.086	6.080	0.006	82	3066	0.0510	
48 Chlorobromomethane	128		6.415				ND	
50 Chloroform	83	6.574	6.568	0.006	13	3965	0.0378	
\$ 52 Dibromofluoromethane (Surr)	113	6.787	6.781	0.006	93	537825	9.29	
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	7.238	0.000	0	108583	9.85	
59 Benzene	78		7.269				ND	7
60 1,2-Dichloroethane	62		7.342				ND	
* 63 Fluorobenzene (IS)	96	7.671	7.671	0.000	98	2167011	10.0	
67 Trichloroethene	95	8.153	8.153	-0.001	93	2829	0.0470	
69 1,2-Dichloropropane	63		8.488				ND	
75 Dichlorobromomethane	83		8.835				ND	
80 cis-1,3-Dichloropropene	75		9.384				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	7
\$ 82 Toluene-d8 (Surr)	98	9.695	9.689	0.006	94	2159745	10.2	
83 Toluene	92	9.774	9.768	0.006	97	10163	0.0759	

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	94	4862	0.0742	
91 2-Hexanone	43		10.451				ND	7
93 Chlorodibromomethane	129		10.610				ND	
94 Ethylene Dibromide	107		10.719				ND	
* 95 Chlorobenzene-d5 (IS)	117	11.152	11.152	0.000	87	1620306	10.0	
97 Chlorobenzene	112		11.176				ND	
S 101 Xylenes, Total	106				0		0.0887	
98 1,1,1,2-Tetrachloroethane	131		11.262				ND	
99 Ethylbenzene	91		11.262				ND	7
100 m-Xylene & p-Xylene	106	11.377	11.378	-0.001	0	6170	0.0597	
102 o-Xylene	106	11.713	11.707	0.006	94	2937	0.0290	
103 Styrene	104		11.725				ND	
104 Bromoform	173		11.878				ND	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	89	765764	9.72	
109 1,1,2,2-Tetrachloroethane	83		12.256				ND	
* 124 1,4-Dichlorobenzene-d4	152	13.030	13.024	0.006	96	796611	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MSV_29_826ISS_00010

Amount Added: 1.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S09.D

Injection Date: 04-Nov-2020 13:23:30

Instrument ID: 16334

Operator ID: jkh09052

Lims ID: 410-19023-A-5

Lab Sample ID: 410-19023-5

Worklist Smp#: 15

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

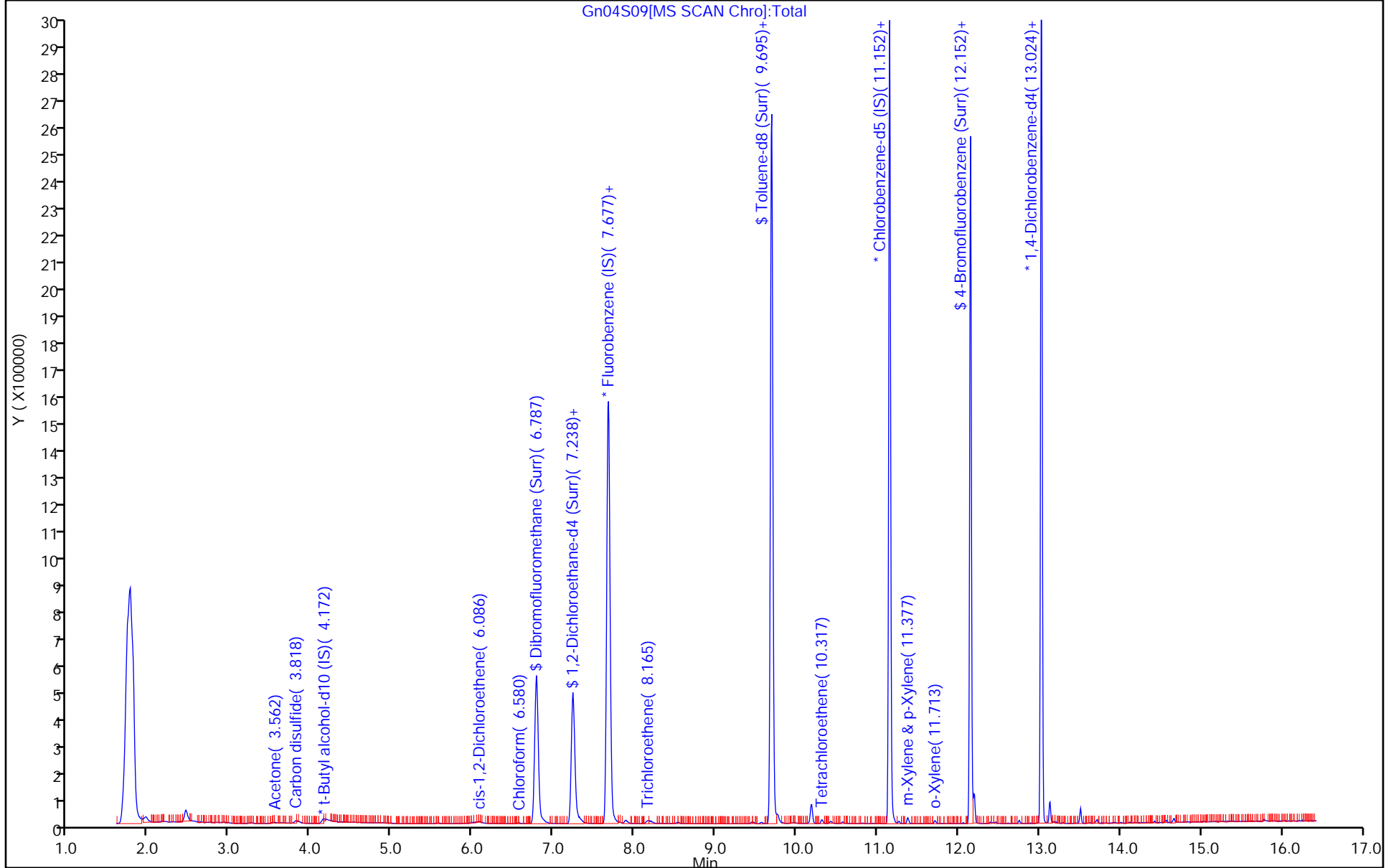
ALS Bottle#: 15

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\20201104-14632.b\Gn04S09.D
 Lims ID: 410-19023-A-5
 Client ID: HD-COD-SW-13-0/1-0
 Sample Type: Client
 Inject. Date: 04-Nov-2020 13:23:30 ALS Bottle#: 15 Worklist Smp#: 15
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014632-015
 Misc. Info.: 410-19023-A-6
 Operator ID: jkh09052 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 04-Nov-2020 12:31:16 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: CTX1010

First Level Reviewer: howej

Date: 04-Nov-2020 14:29:45

Compound	Amount Added	Amount Recovered	% Rec.
\$ 52 Dibromofluoromethane (Surr)	10.0	9.29	92.91
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	9.85	98.49
\$ 82 Toluene-d8 (Surr)	10.0	10.2	101.82
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.72	97.21

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S09.D

Injection Date: 04-Nov-2020 13:23:30

Instrument ID: 16334

Lims ID: 410-19023-A-5

Lab Sample ID: 410-19023-5

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

Operator ID: jkh09052

ALS Bottle#: 15

Worklist Smp#: 15

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

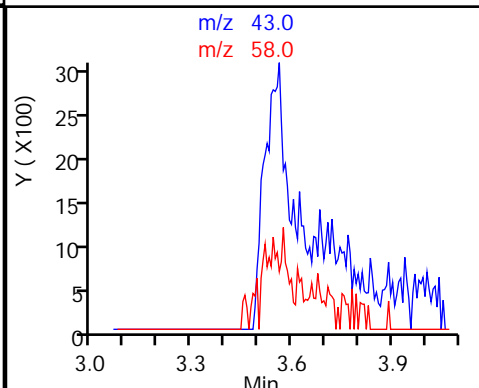
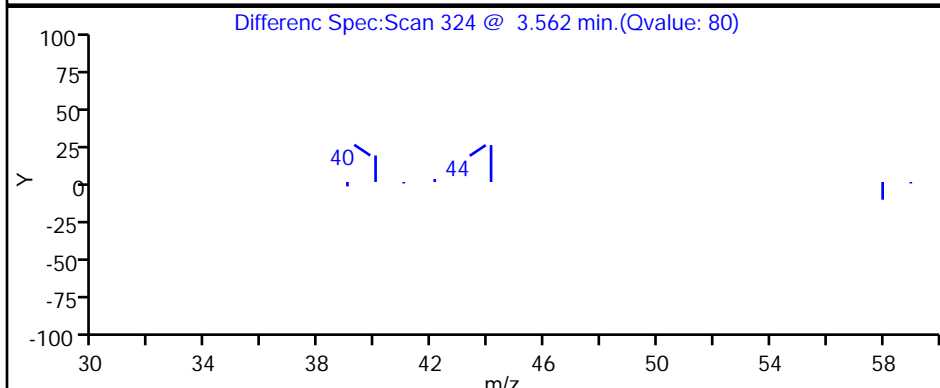
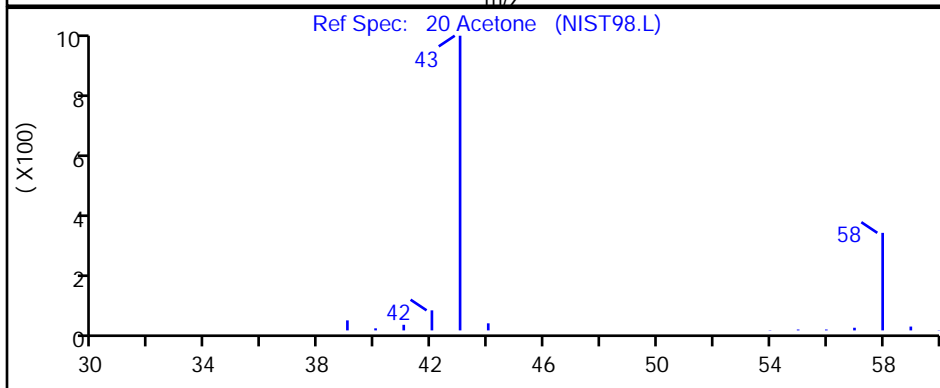
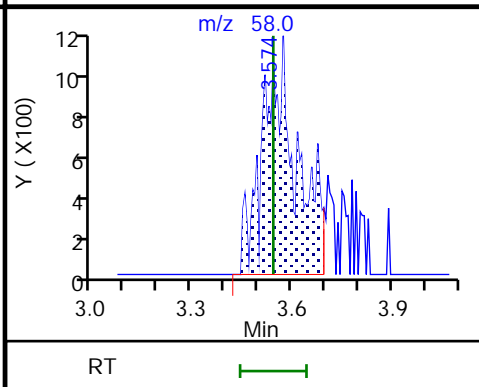
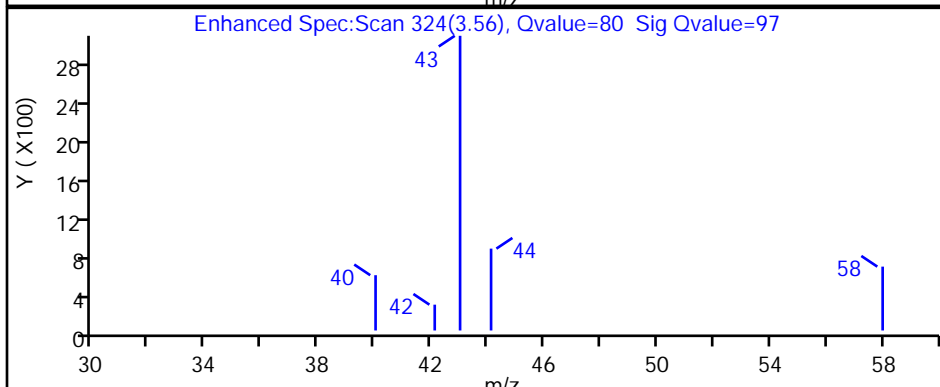
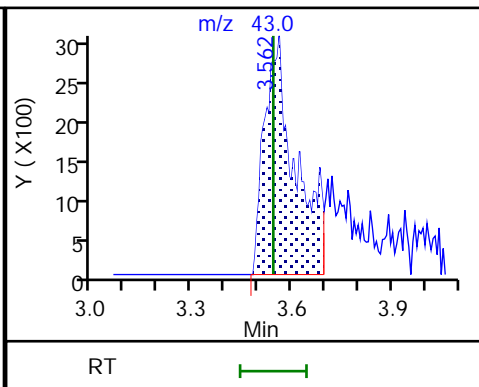
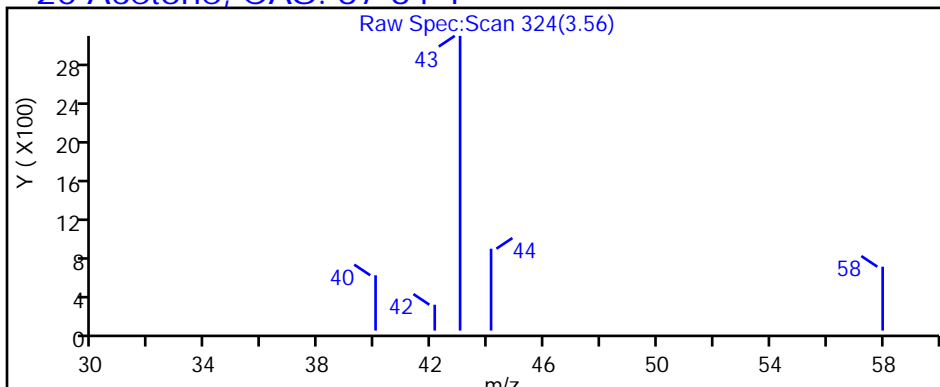
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

20 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S09.D

Injection Date: 04-Nov-2020 13:23:30

Instrument ID: 16334

Lims ID: 410-19023-A-5

Lab Sample ID: 410-19023-5

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

Operator ID: jkh09052

ALS Bottle#: 15

Worklist Smp#: 15

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

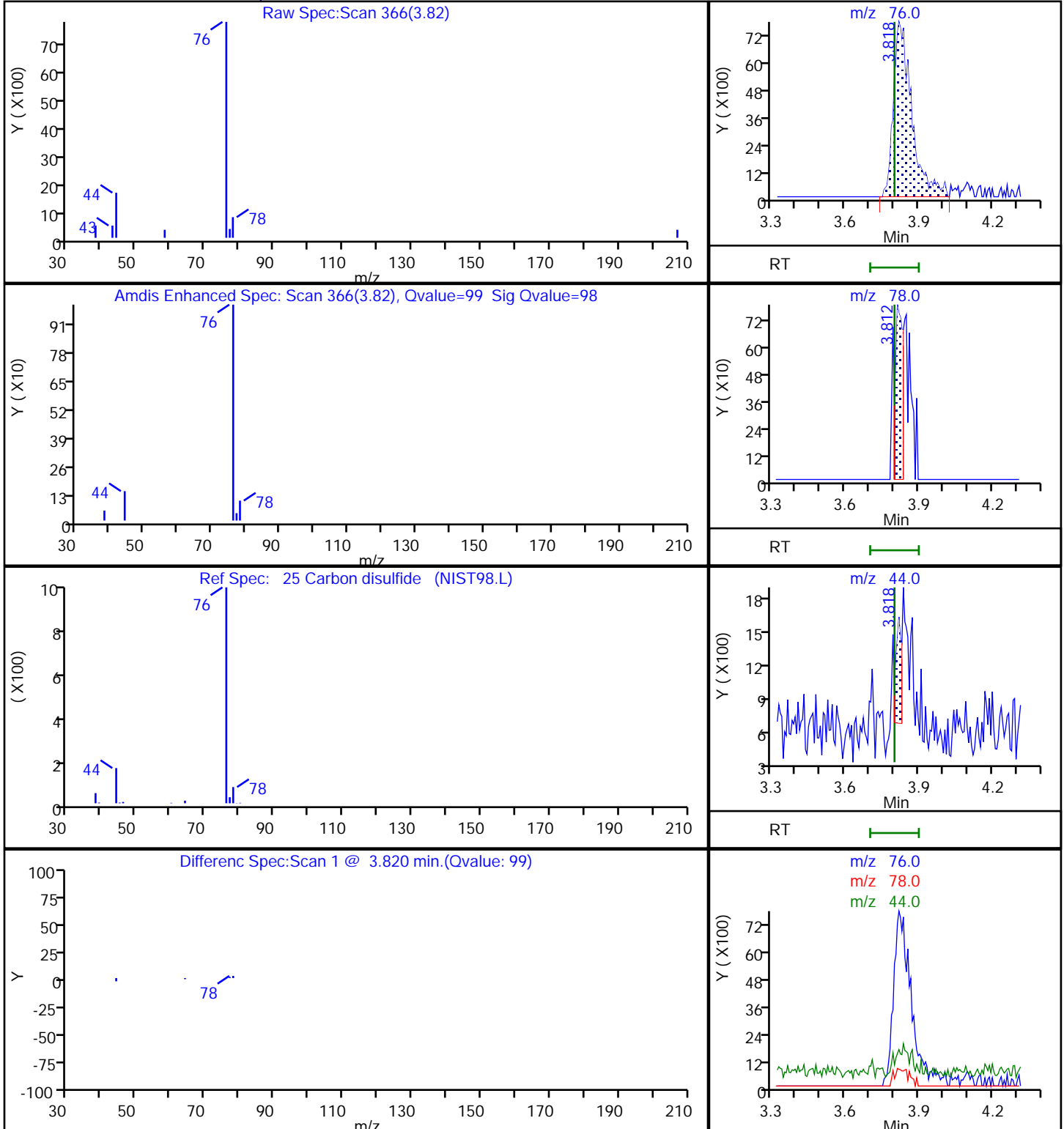
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

25 Carbon disulfide, CAS: 75-15-0



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S09.D

Injection Date: 04-Nov-2020 13:23:30

Instrument ID: 16334

Lims ID: 410-19023-A-5

Lab Sample ID: 410-19023-5

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

Operator ID: jkh09052

ALS Bottle#: 15

Worklist Smp#: 15

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

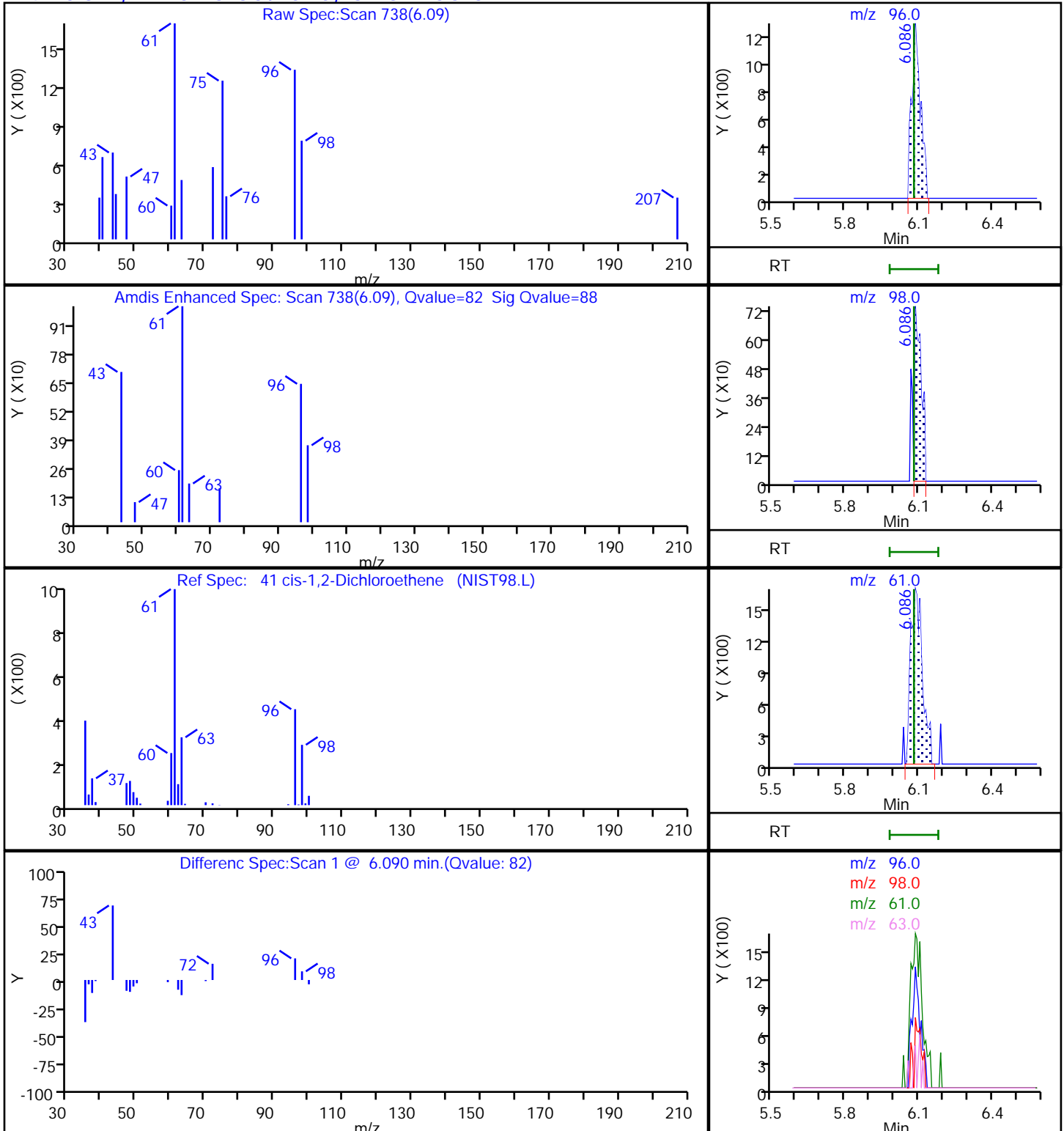
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

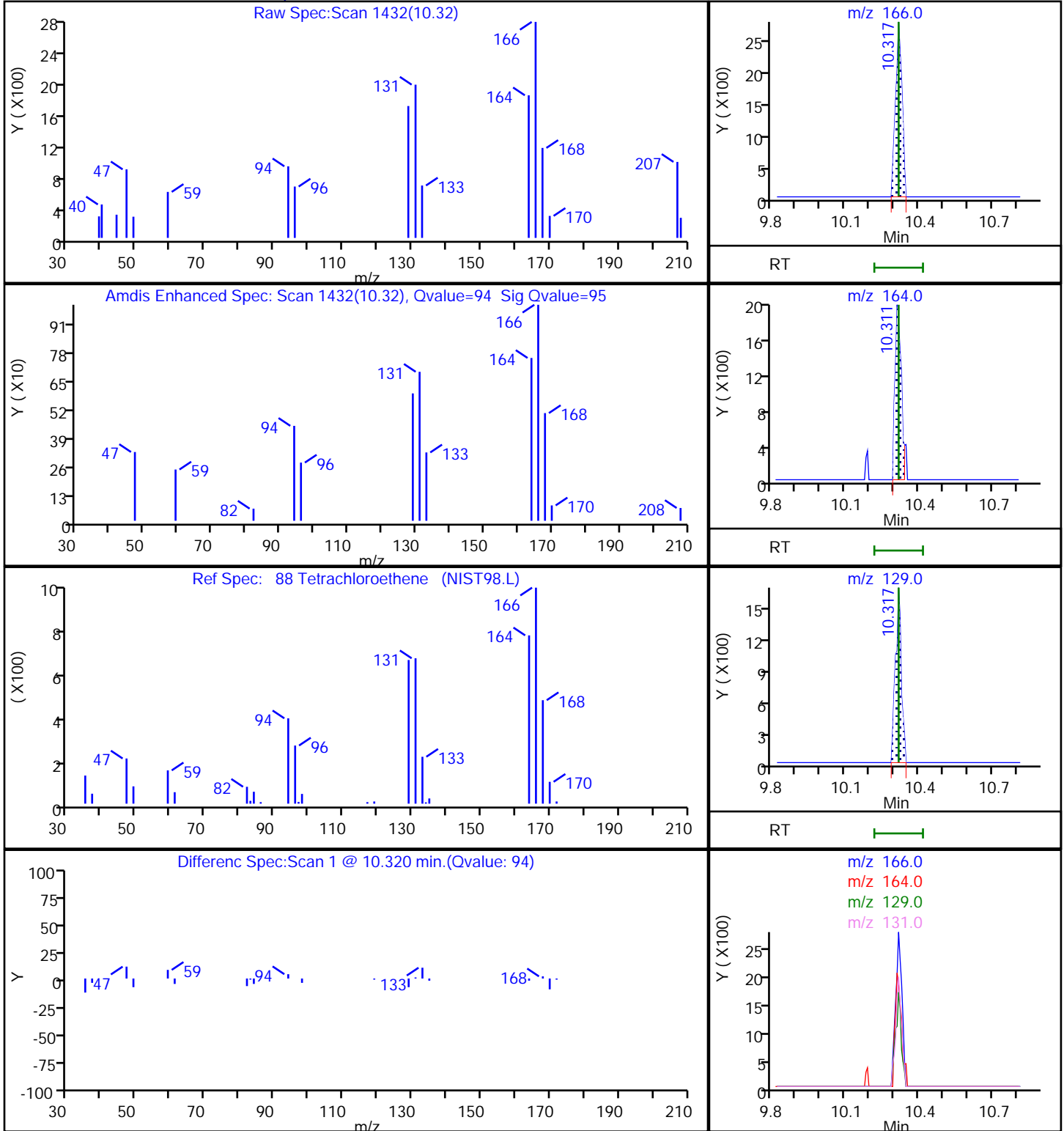
41 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S09.D
Injection Date: 04-Nov-2020 13:23:30 Instrument ID: 16334
Lims ID: 410-19023-A-5 Lab Sample ID: 410-19023-5
Client ID: HD-COD-SW-13-0/1-0
Operator ID: jkh09052 ALS Bottle#: 15 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

88 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S09.D

Injection Date: 04-Nov-2020 13:23:30

Instrument ID: 16334

Lims ID: 410-19023-A-5

Lab Sample ID: 410-19023-5

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

Operator ID: jkh09052

ALS Bottle#: 15

Worklist Smp#: 15

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

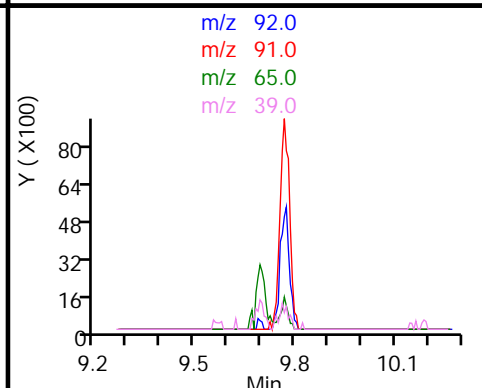
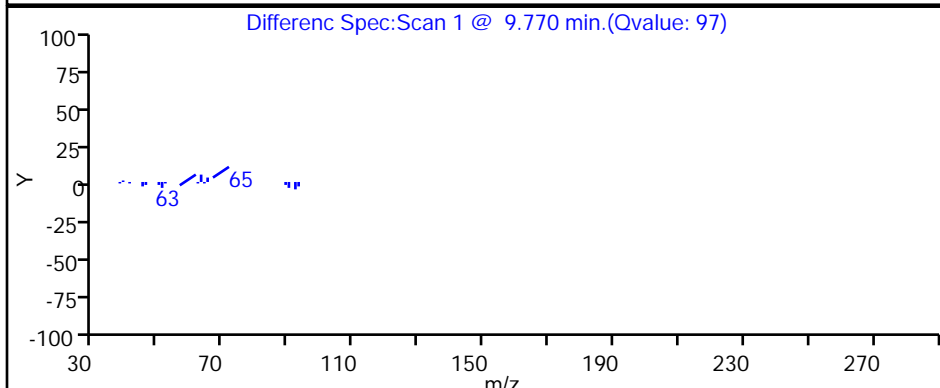
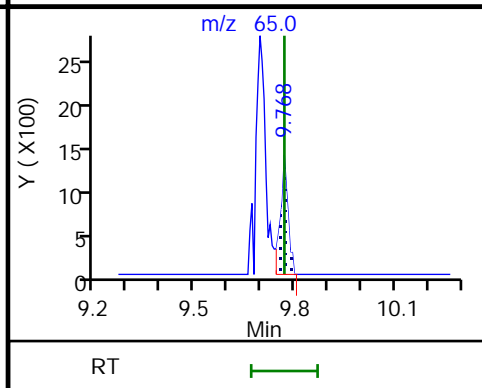
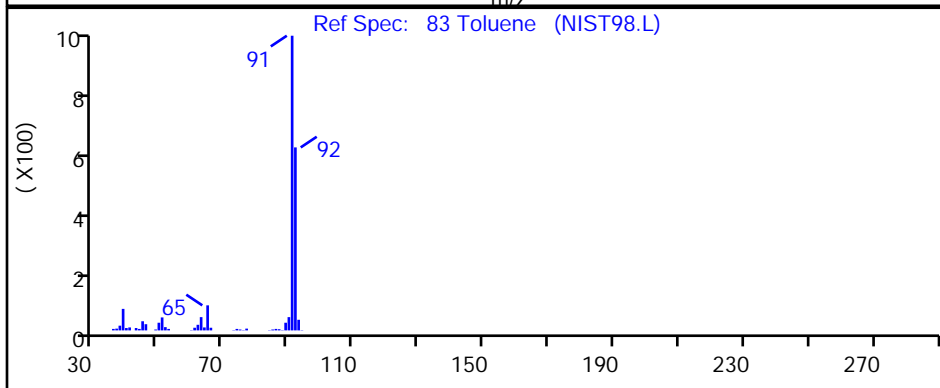
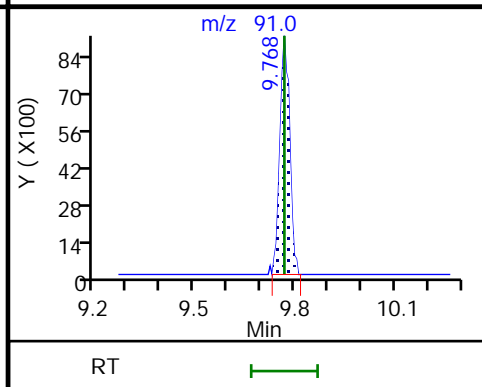
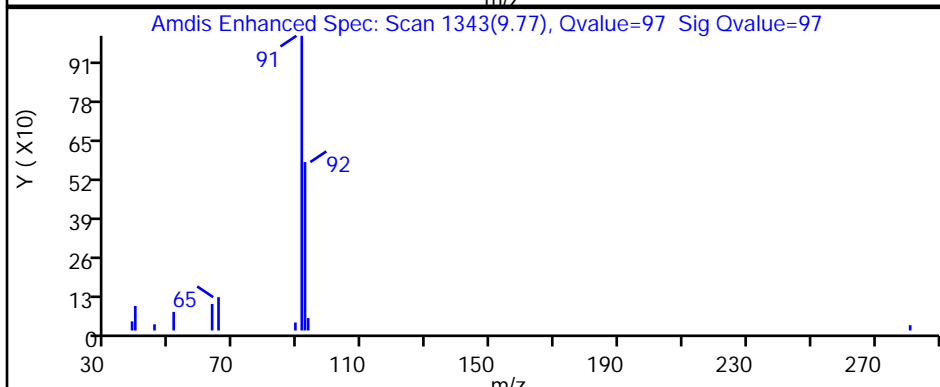
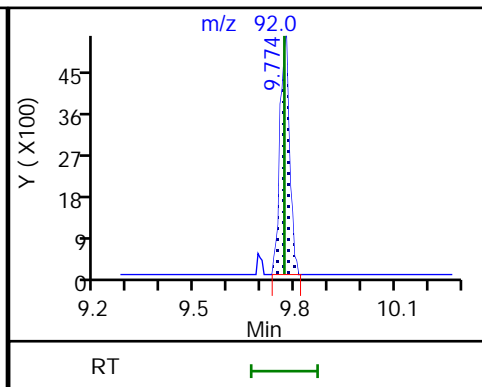
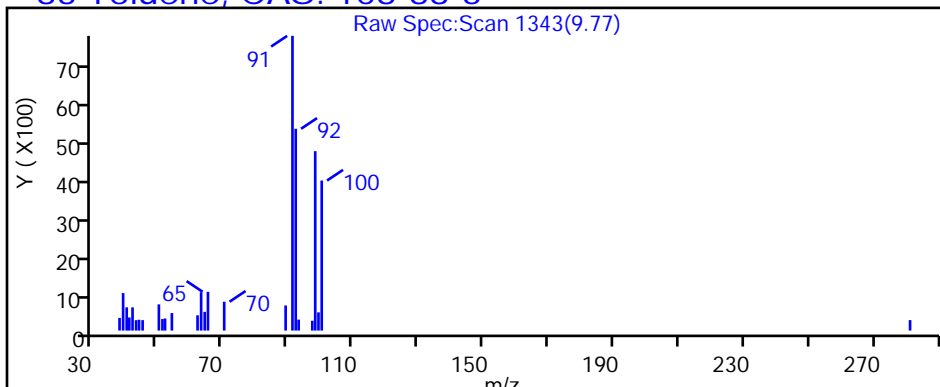
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

83 Toluene, CAS: 108-88-3



Euofins Lancaster Laboratories Env, LLC

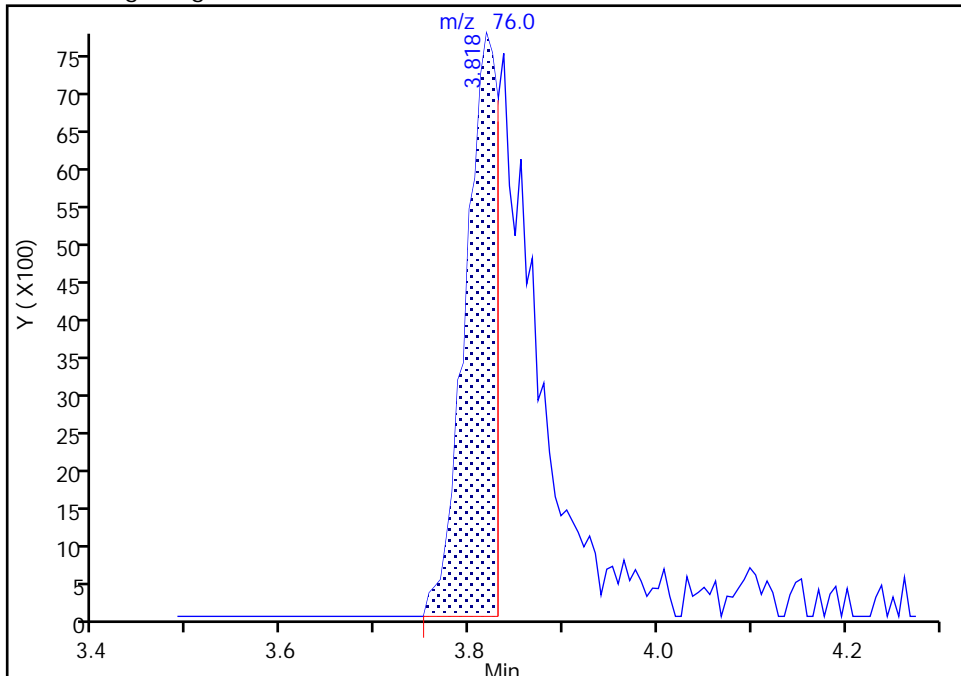
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Injection Date: 04-Nov-2020 13:23:30 Instrument ID: 16334
Lims ID: 410-19023-A-5 Lab Sample ID: 410-19023-5
Client ID: HD-COD-SW-13-0/1-0
Operator ID: jkh09052 ALS Bottle#: 15 Worklist Smp#: 15
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

25 Carbon disulfide, CAS: 75-15-0

Signal: 1

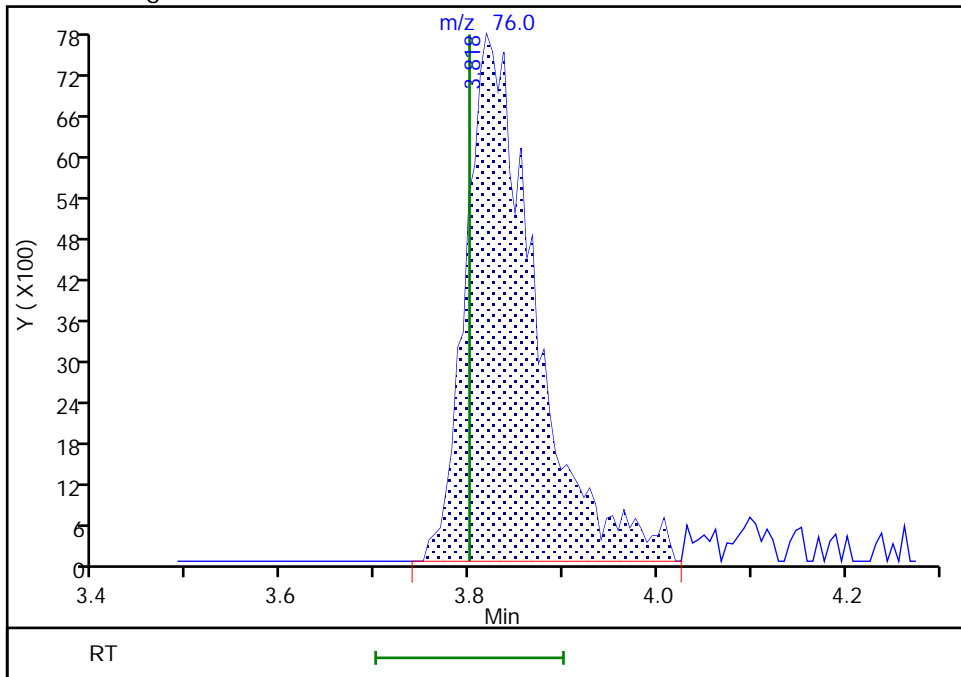
RT: 3.82
Area: 18740
Amount: 0.116254
Amount Units: ug/l

Processing Integration Results



RT: 3.82
Area: 39879
Amount: 0.247389
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 04-Nov-2020 14:29:17
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

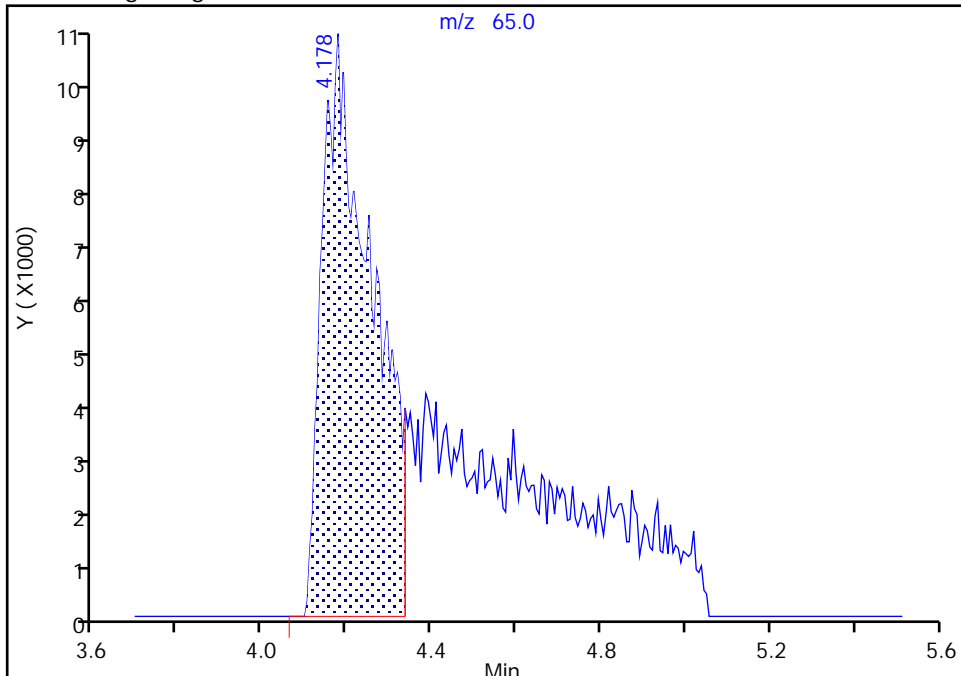
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Injection Date: 04-Nov-2020 13:23:30 Instrument ID: 16334
Lims ID: 410-19023-A-5 Lab Sample ID: 410-19023-5
Client ID: HD-COD-SW-13-0/1-0
Operator ID: jkh09052 ALS Bottle#: 15 Worklist Smp#: 15
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL 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

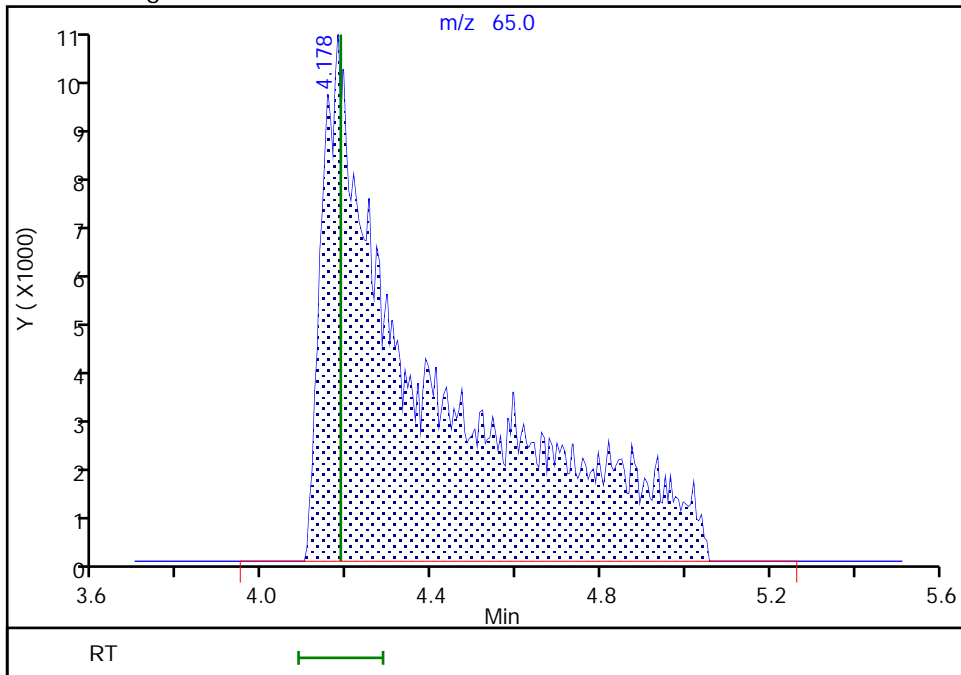
RT: 4.18
Area: 81855
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.18
Area: 169801
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 04-Nov-2020 14:29:26
Audit Action: Manually Integrated

Audit Reason: Other

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-19023-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-15-0/1-0 Lab Sample ID: 410-19023-6
 Matrix: Water Lab File ID: Gn04S10.D
 Analysis Method: 8260C LL Date Collected: 10/29/2020 11:25
 Sample wt/vol: 25 (mL) Date Analyzed: 11/04/2020 13:45
 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.: 61951 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
71-55-6	1,1,1-Trichloroethane	0.071	J	0.50	0.060
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
106-93-4	1,2-Dibromoethane (EDB)	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
74-97-5	Bromochloromethane	ND		0.50	0.050
75-27-4	Bromodichloromethane	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	0.23	J	1.0	0.060
56-23-5	Carbon tetrachloride	ND		0.50	0.070
108-90-7	Chlorobenzene	ND		0.50	0.060
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	0.66		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
100-41-4	Ethylbenzene	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	2.0		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.: 410-19023-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-15-0/1-0 Lab Sample ID: 410-19023-6
 Matrix: Water Lab File ID: Gn04S10.D
 Analysis Method: 8260C LL Date Collected: 10/29/2020 11:25
 Sample wt/vol: 25 (mL) Date Analyzed: 11/04/2020 13:45
 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.: 61951 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	0.79		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
1868-53-7	Dibromofluoromethane (Surr)	92		80-120
2037-26-5	Toluene-d8 (Surr)	102		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S10.D
 Lims ID: 410-19023-A-6
 Client ID: HD-COD-SW-15-0/1-0
 Sample Type: Client
 Inject. Date: 04-Nov-2020 13:45:30 ALS Bottle#: 16 Worklist Smp#: 16
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014632-016
 Misc. Info.: 410-19023-A-6 MS
 Operator ID: jkh09052 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 04-Nov-2020 12:31:16 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: CTX1010

First Level Reviewer: howej

Date: 04-Nov-2020 14:30:58

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		1.947				ND	
4 Chlorodifluoromethane	51		1.965				ND	7
2 Dimethyl ether	45		2.014				ND	7
5 Chloromethane	50		2.142				ND	7
8 2-Chloro-1,1,1-Trifluoroethane	118		2.233				ND	
6 Butadiene	39		2.257				ND	7
7 Vinyl chloride	62		2.257				ND	
9 Bromomethane	94		2.581				ND	
10 Chloroethane	64		2.660				ND	7
T 177 Vinyl bromide TIC	106		2.830				ND	
11 Dichlorofluoromethane	67		2.898				ND	7
13 Trichlorofluoromethane	101		2.965				ND	
17 Ethanol	45		3.111				ND	
15 Ethyl ether	59		3.209				ND	
T 183 Ethanol TIC	45		3.215				ND	7
16 1,2-Dichloro-1,1,2-trifluoroethane	67		3.294				ND	
18 Acrolein	56		3.379				ND	
19 1,1-Dichloroethene	96	3.519	3.507	0.012	85	2546	0.0561	
20 Acetone	43	3.574	3.544	0.030	32	4726	0.4994	
21 112TCTFE	101		3.550				ND	
23 Isopropyl alcohol	45	3.684	3.702	-0.018	23	2237	1.56	M
22 Iodomethane	142		3.702				ND	
24 Ethyl bromide	108		3.733				ND	
25 Carbon disulfide	76	3.824	3.800	0.024	99	36386	0.2286	M
14 Acetonitrile	41		3.928				ND	
26 Methyl acetate	43		3.958				ND	7
27 3-Chloro-1-propene	41		3.983				ND	
28 Methylene Chloride	84		4.172				ND	
* 29 t-Butyl alcohol-d10 (IS)	65	4.160	4.184	-0.024	0	169451	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	4.562	4.568	-0.006	31	6617	0.0475	
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		5.842				ND	7
40 2-Butanone (MEK)	43		6.056				ND	
41 cis-1,2-Dichloroethene	96	6.086	6.080	0.006	78	39326	0.6629	
42 2,2-Dichloropropane	77		6.098				ND	
43 Ethyl acetate	43		6.116				ND	7
44 Propionitrile	54		6.153				ND	
S 49 1,2-Dichloroethene, Total	100				0		0.6629	
45 Methyl acrylate	55		6.177				ND	
46 Methacrylonitrile	67		6.366				ND	
48 Chlorobromomethane	128		6.415				ND	
47 Tetrahydrofuran	71		6.421				ND	
50 Chloroform	83	6.568	6.568	0.000	93	26113	0.2519	
\$ 52 Dibromofluoromethane (Surr)	113	6.787	6.781	0.006	93	526767	9.22	
51 1,1,1-Trichloroethane	97	6.787	6.793	-0.006	35	6701	0.0706	
53 Cyclohexane	56		6.885				ND	
54 1-Chlorobutane	56		6.946				ND	
56 Carbon tetrachloride	117		6.994				ND	7
55 1,1-Dichloropropene	75		7.007				ND	
57 Isobutyl alcohol	41		7.171				ND	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.238	7.238	0.000	0	109725	10.1	
59 Benzene	78		7.269				ND	7
60 1,2-Dichloroethane	62		7.342				ND	
61 Isopropyl acetate	43		7.354				ND	
62 Tert-amyl methyl ether	73		7.458				ND	
* 63 Fluorobenzene (IS)	96	7.677	7.671	0.006	98	2139431	10.0	
64 n-Heptane	43		7.683				ND	7
66 t-Amyl alcohol	73		7.842				ND	
65 n-Butanol	56		8.055				ND	
67 Trichloroethene	95	8.147	8.153	-0.006	98	47043	0.7909	
68 Methylcyclohexane	83		8.451				ND	
69 1,2-Dichloropropane	63		8.488				ND	
70 2-ethoxy-2-methyl butane	87		8.500				ND	
71 Methyl methacrylate	69		8.573				ND	
72 1,4-Dioxane	88		8.573				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		9.116				ND	
78 2-Chloroethyl vinyl ether	63		9.201				ND	
77 Chloroacetonitrile	75		9.201				ND	
79 1-Bromo-2-chloroethane	63		9.226				ND	
80 cis-1,3-Dichloropropene	75		9.384				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	7
\$ 82 Toluene-d8 (Surr)	98	9.695	9.689	0.006	94	2148025	10.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
83 Toluene	92	9.762	9.768	-0.006	94	6267	0.0470	
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	7
85 Ethyl methacrylate	69		10.091				ND	
86 1,1,2-Trichloroethane	97		10.238				ND	
88 Tetrachloroethene	166	10.317	10.317	0.000	97	128208	1.96	
89 1,3-Dichloropropane	76		10.396				ND	
91 2-Hexanone	43		10.451				ND	
92 n-Butyl acetate	43		10.573				ND	U
93 Chlorodibromomethane	129		10.610				ND	
94 Ethylene Dibromide	107		10.719				ND	
* 95 Chlorobenzene-d5 (IS)	117	11.152	11.152	0.000	87	1615127	10.0	
96 1-Chlorohexane	91		11.164				ND	7
97 Chlorobenzene	112		11.176				ND	
S 101 Xylenes, Total	106		11.245				ND	7
98 1,1,1,2-Tetrachloroethane	131		11.262				ND	
99 Ethylbenzene	91		11.262				ND	7
100 m-Xylene & p-Xylene	106	11.372	11.378	-0.006	0	4346	0.0422	
102 o-Xylene	106		11.707				ND	7
103 Styrene	104		11.725				ND	7
104 Bromoform	173		11.878				ND	
105 Isopropylbenzene	105		12.006				ND	
106 cis-1,4-Dichloro-2-butene	88		12.067				ND	U
107 Cyclohexanone	55		12.097				ND	7
\$ 108 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	90	761706	9.70	
109 1,1,2,2-Tetrachloroethane	83		12.256				ND	
110 Bromobenzene	156		12.268				ND	
111 trans-1,4-Dichloro-2-butene	53		12.280				ND	
112 1,2,3-Trichloropropane	110		12.298				ND	
113 N-Propylbenzene	91		12.335				ND	
114 2-Chlorotoluene	126		12.408				ND	
115 1,3,5-Trimethylbenzene	105		12.469				ND	7
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	7
121 sec-Butylbenzene	105		12.871				ND	
122 1,3-Dichlorobenzene	146		12.969				ND	7
123 4-Isopropyltoluene	119		12.981				ND	7
* 124 1,4-Dichlorobenzene-d4	152	13.030	13.024	0.006	96	791922	10.0	
125 1,4-Dichlorobenzene	146		13.042				ND	7

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
126 1,2,3-Trimethylbenzene	120		13.054				ND	7
127 Benzyl chloride	126		13.121				ND	7
129 p-Diethylbenzene	119		13.182				ND	
130 n-Butylbenzene	92		13.268				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		13.963				ND	
136 1,2,4-Trichlorobenzene	180		14.389				ND	
137 Hexachlorobutadiene	225		14.469				ND	
138 Naphthalene	128		14.566				ND	7
139 1,2,3-Trichlorobenzene	180		14.706				ND	
140 2-Methylnaphthalene	142		15.322				ND	
142 1,1-Dichloro-1-fluoroethane	1		0.000				ND	U
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_00010

Amount Added: 1.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S10.D

Injection Date: 04-Nov-2020 13:45:30

Instrument ID: 16334

Operator ID: jkh09052

Lims ID: 410-19023-A-6

Lab Sample ID: 410-19023-6

Worklist Smp#: 16

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

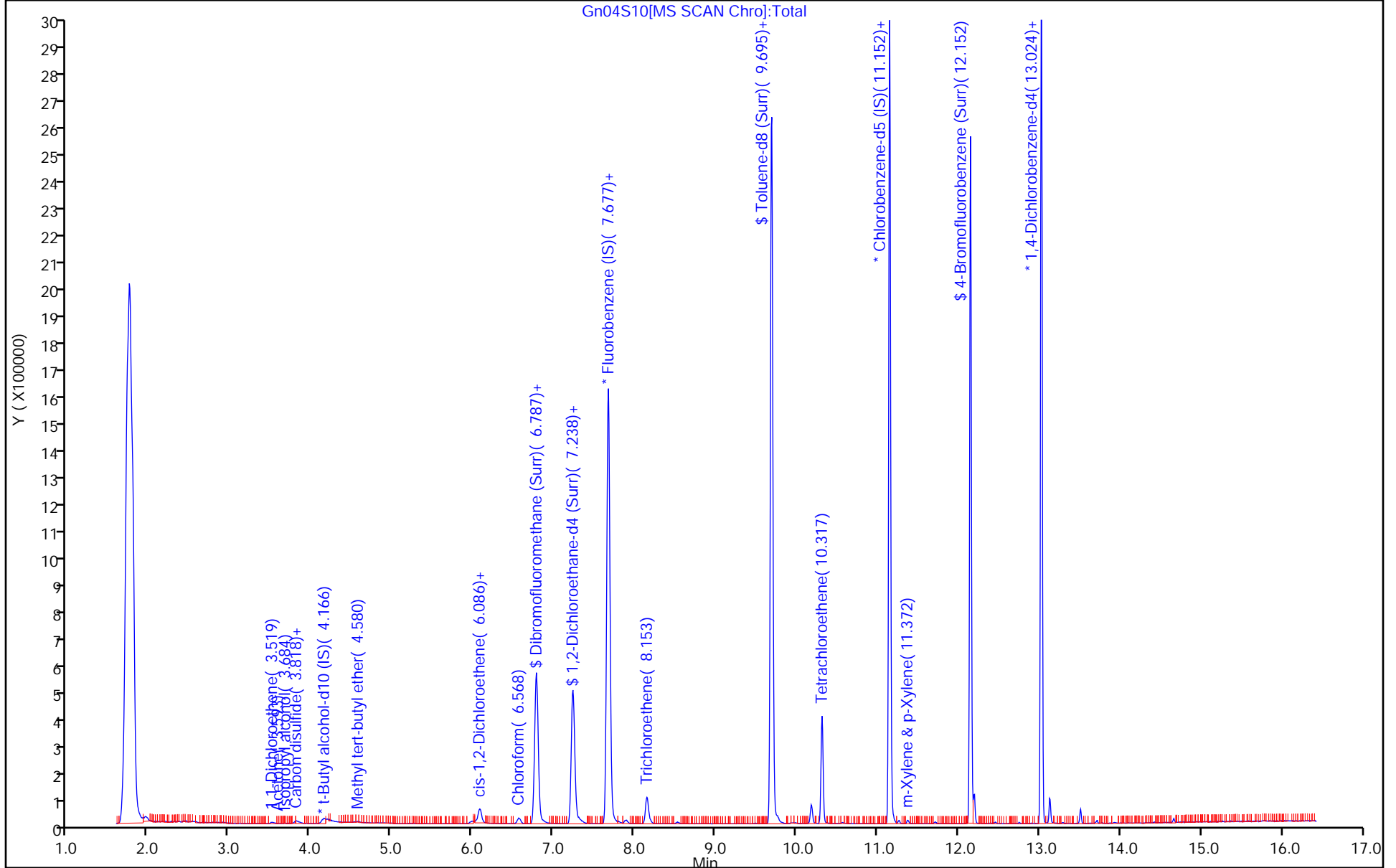
ALS Bottle#: 16

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\20201104-14632.b\Gn04S10.D
 Lims ID: 410-19023-A-6
 Client ID: HD-COD-SW-15-0/1-0
 Sample Type: Client
 Inject. Date: 04-Nov-2020 13:45:30 ALS Bottle#: 16 Worklist Smp#: 16
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014632-016
 Misc. Info.: 410-19023-A-6 MS
 Operator ID: jkh09052 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 04-Nov-2020 12:31:16 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: CTX1010

First Level Reviewer: howej

Date: 04-Nov-2020 14:30:58

Compound	Amount Added	Amount Recovered	% Rec.
\$ 52 Dibromofluoromethane (Surr)	10.0	9.22	92.17
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.1	100.81
\$ 82 Toluene-d8 (Surr)	10.0	10.2	101.60
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.70	97.00

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S10.D

Injection Date: 04-Nov-2020 13:45:30

Instrument ID: 16334

Lims ID: 410-19023-A-6

Lab Sample ID: 410-19023-6

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

Operator ID: jkh09052

ALS Bottle#: 16

Worklist Smp#: 16

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

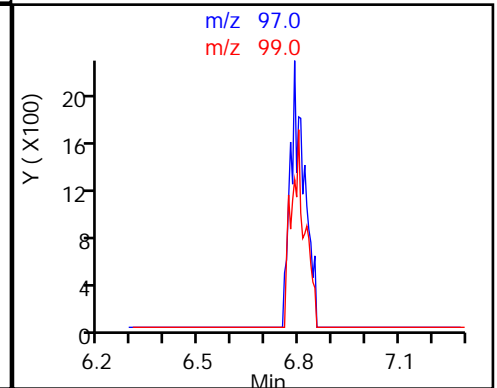
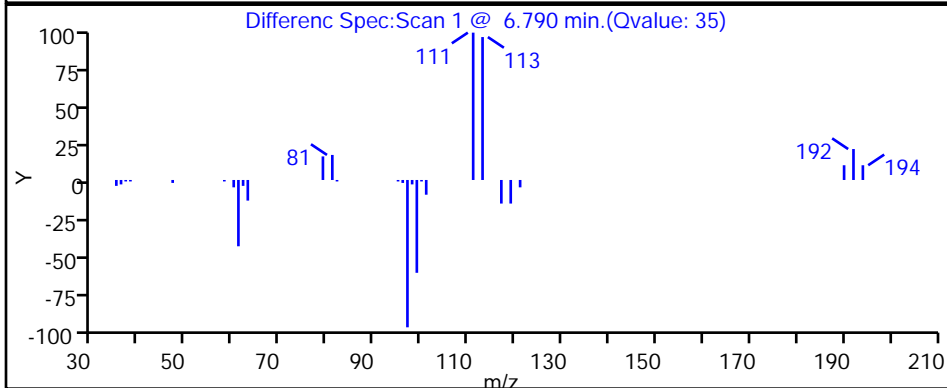
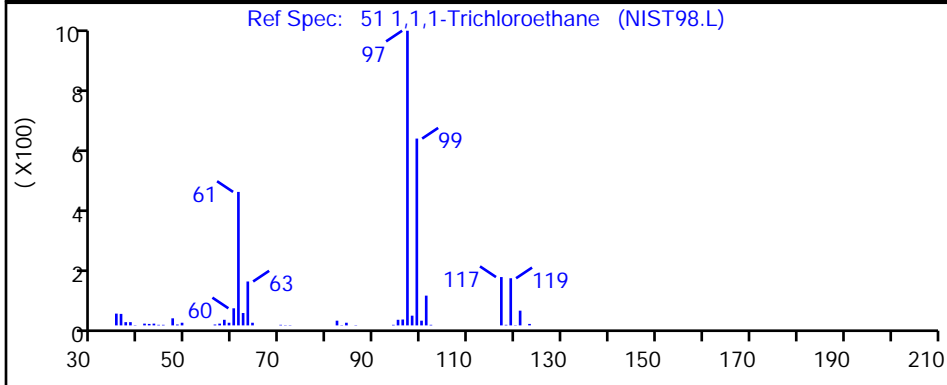
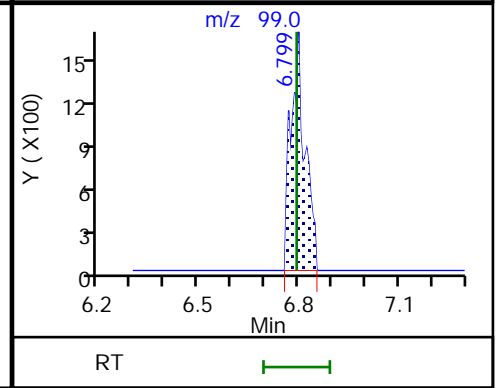
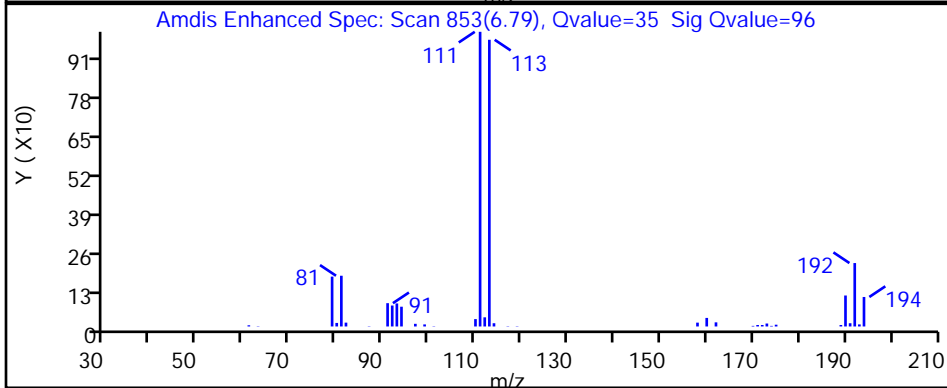
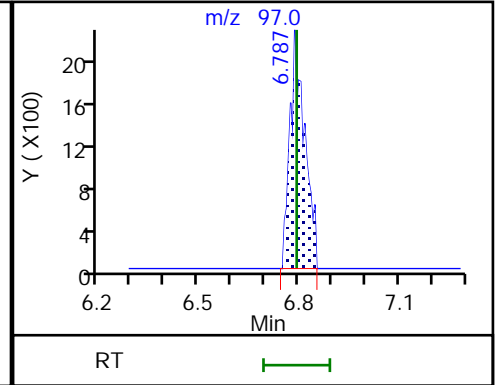
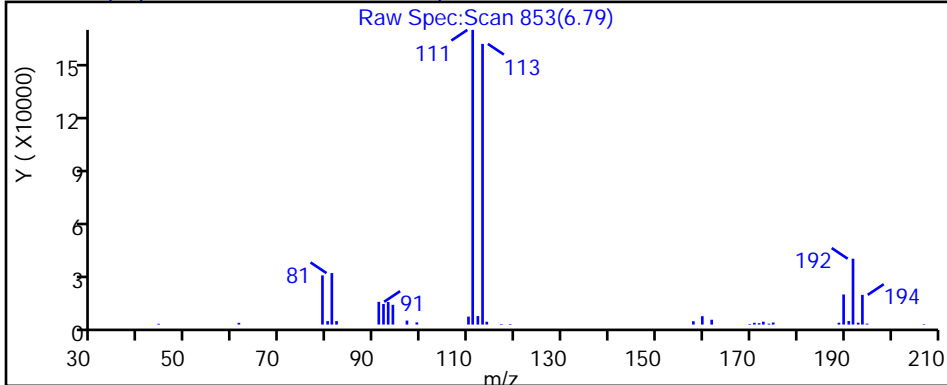
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) x 30m

MS Quad

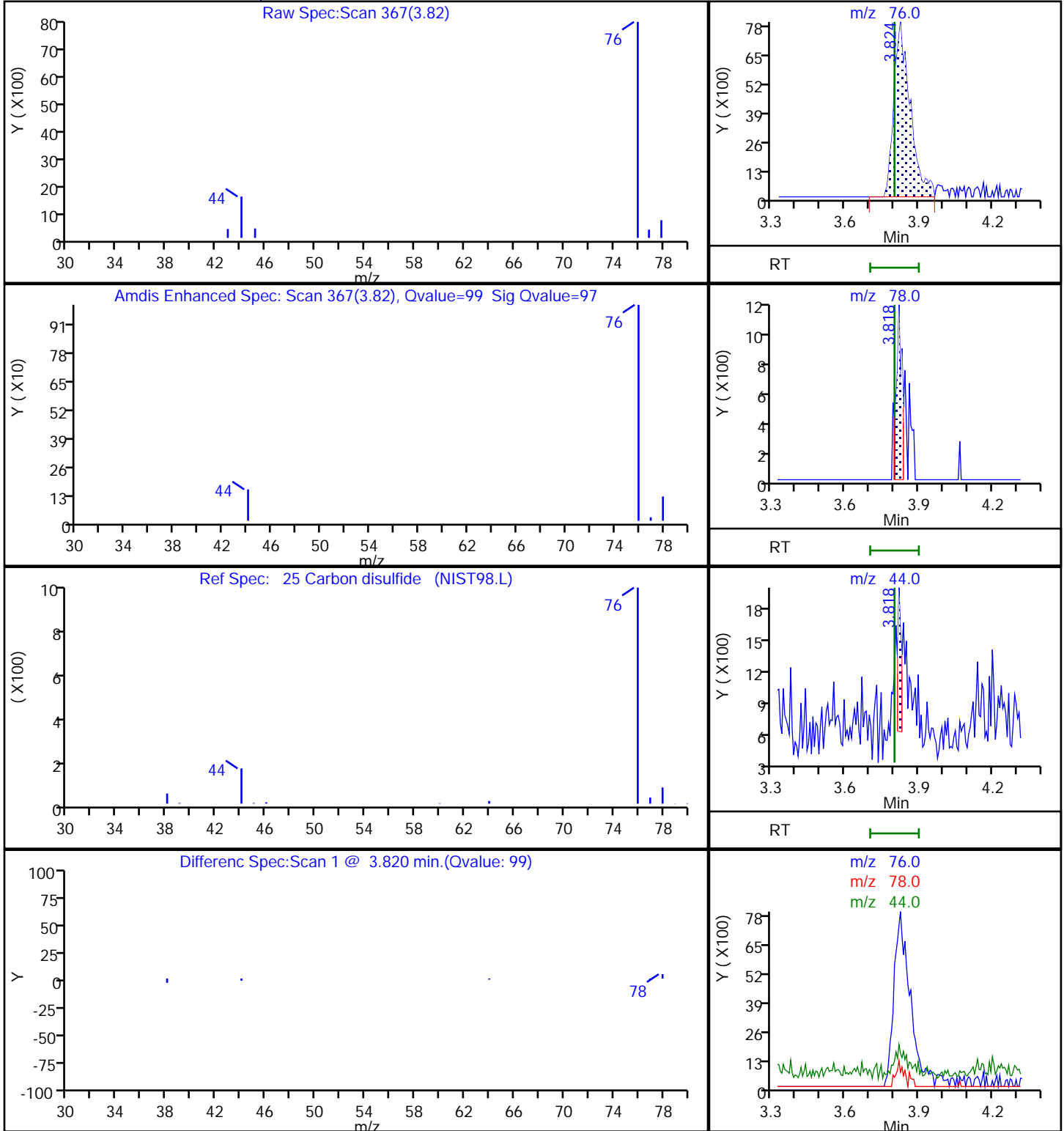
51 1,1,1-Trichloroethane, CAS: 71-55-6



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S10.D
Injection Date: 04-Nov-2020 13:45:30 Instrument ID: 16334
Lims ID: 410-19023-A-6 Lab Sample ID: 410-19023-6
Client ID: HD-COD-SW-15-0/1-0
Operator ID: jkh09052 ALS Bottle#: 16 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) MS Quad

25 Carbon disulfide, CAS: 75-15-0



Eurolins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S10.D

Injection Date: 04-Nov-2020 13:45:30

Instrument ID: 16334

Lims ID: 410-19023-A-6

Lab Sample ID: 410-19023-6

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

Operator ID: jkh09052

ALS Bottle#: 16

Worklist Smp#: 16

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

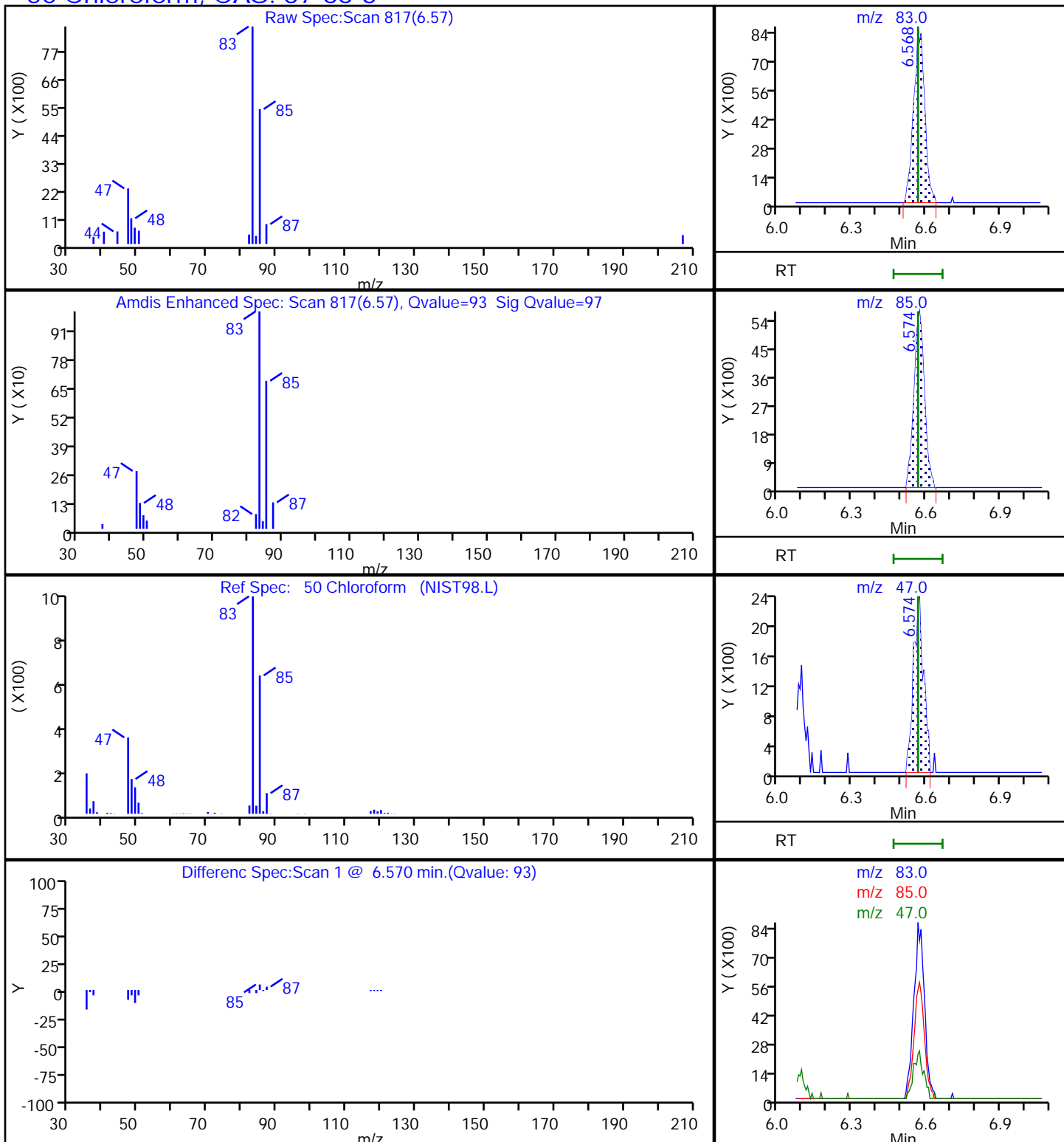
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector

MS Quad

50 Chloroform, CAS: 67-66-3



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S10.D

Injection Date: 04-Nov-2020 13:45:30

Instrument ID: 16334

Lims ID: 410-19023-A-6

Lab Sample ID: 410-19023-6

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

Operator ID: jkh09052

ALS Bottle#: 16

Worklist Smp#: 16

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

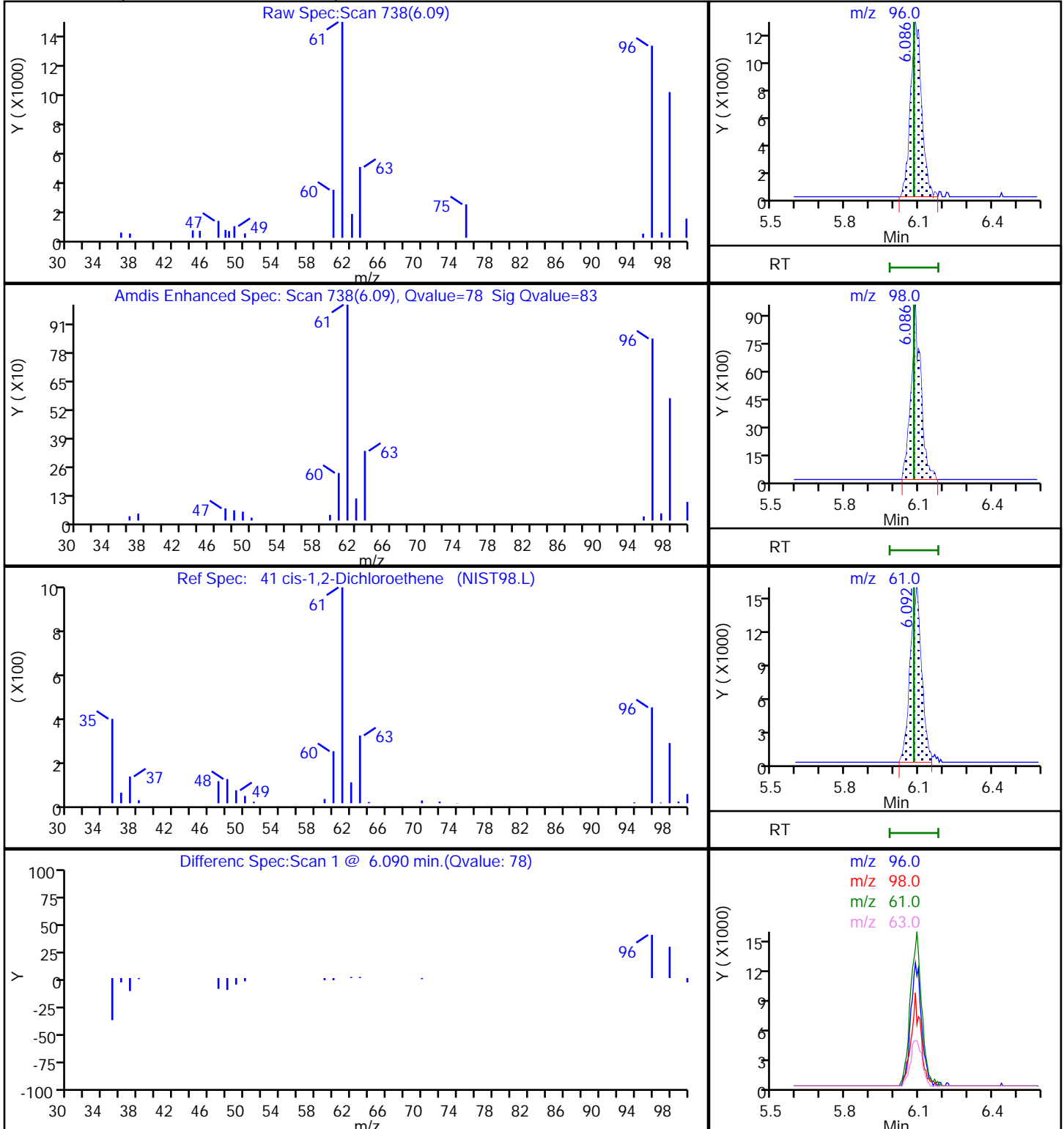
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector

MS Quad

41 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S10.D

Injection Date: 04-Nov-2020 13:45:30

Instrument ID: 16334

Lims ID: 410-19023-A-6

Lab Sample ID: 410-19023-6

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

Operator ID: jkh09052

ALS Bottle#: 16

Worklist Smp#: 16

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

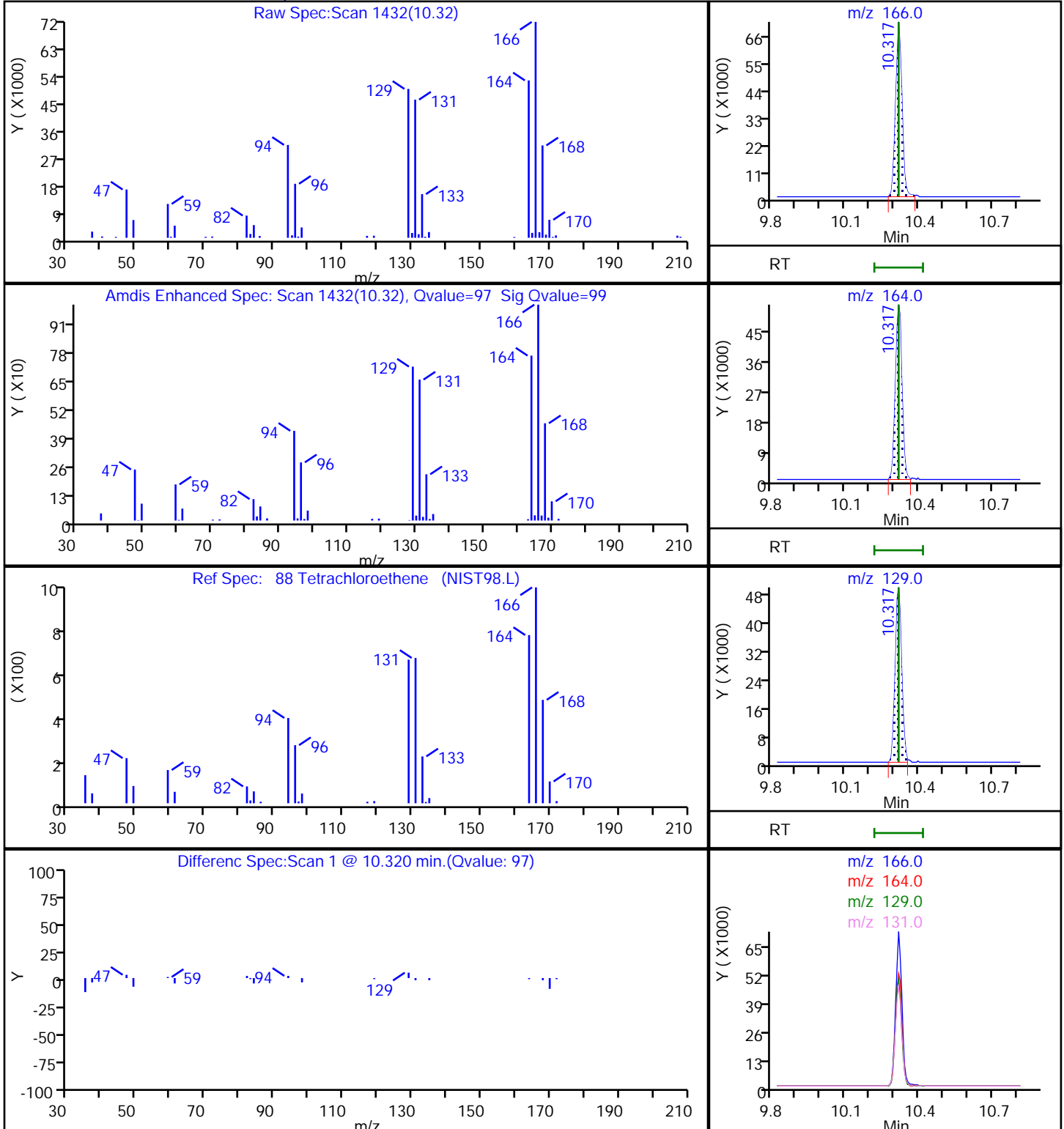
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

88 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S10.D

Injection Date: 04-Nov-2020 13:45:30

Instrument ID: 16334

Lims ID: 410-19023-A-6

Lab Sample ID: 410-19023-6

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

Operator ID: jkh09052

ALS Bottle#: 16

Worklist Smp#: 16

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

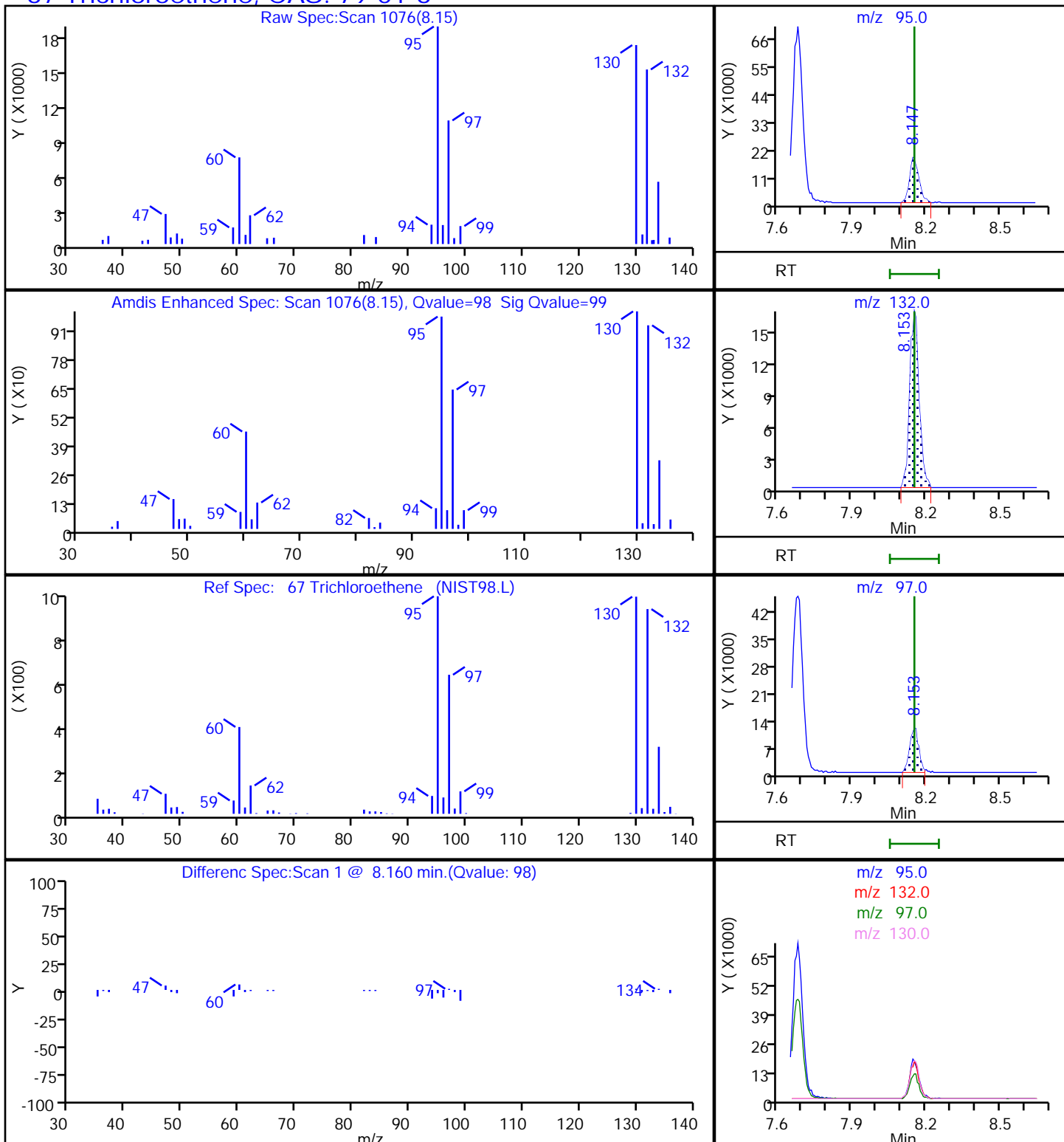
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector

MS Quad

67 Trichloroethene, CAS: 79-01-6



Eurofins Lancaster Laboratories Env, LLC

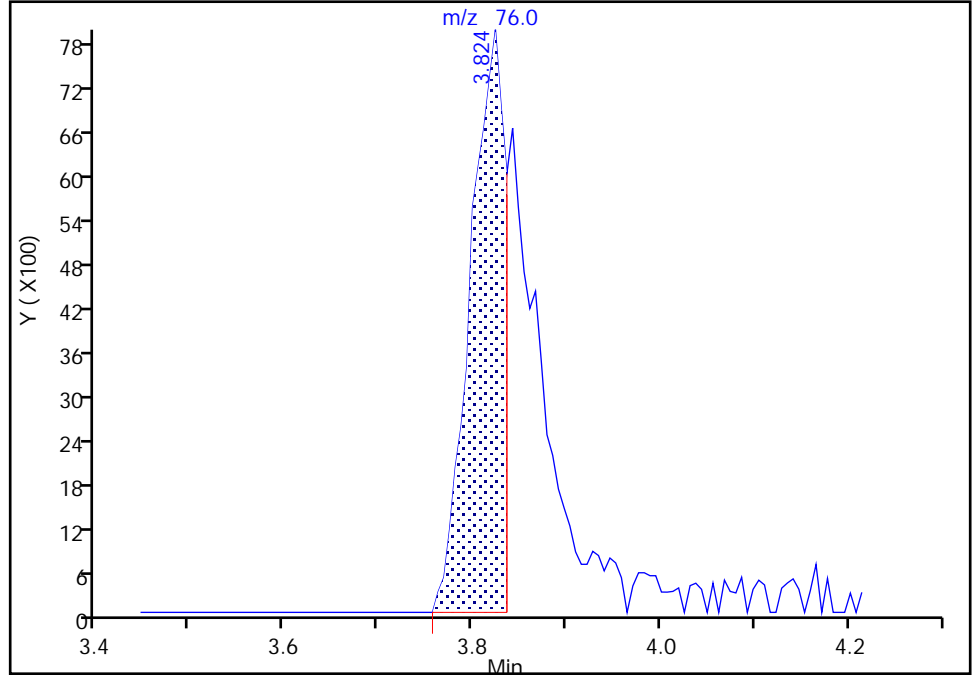
Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S10.D
Injection Date: 04-Nov-2020 13:45:30 Instrument ID: 16334
Lims ID: 410-19023-A-6 Lab Sample ID: 410-19023-6
Client ID: HD-COD-SW-15-0/1-0
Operator ID: jkh09052 ALS Bottle#: 16 Worklist Smp#: 16
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

25 Carbon disulfide, CAS: 75-15-0

Signal: 1

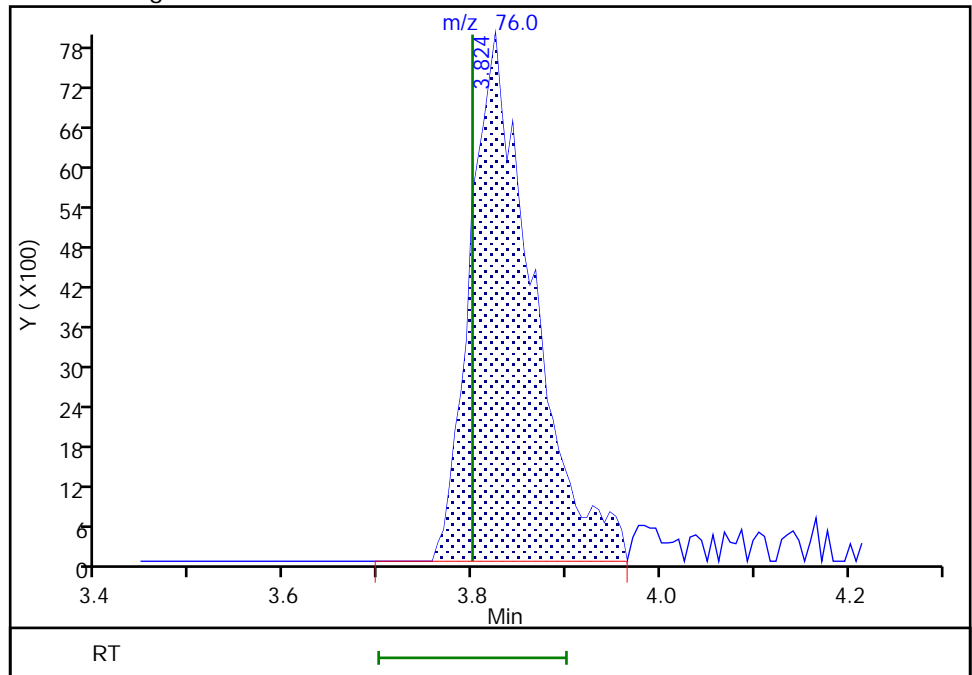
RT: 3.82
Area: 20438
Amount: 0.128421
Amount Units: ug/l

Processing Integration Results



RT: 3.82
Area: 36386
Amount: 0.228630
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 04-Nov-2020 14:30:06
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

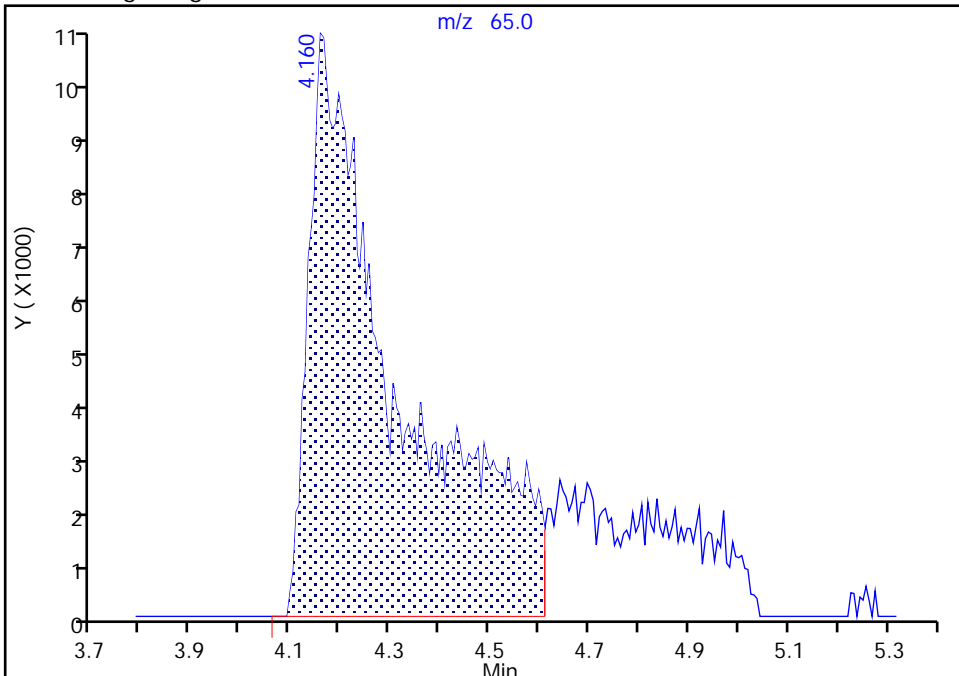
Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S10.D
Injection Date: 04-Nov-2020 13:45:30 Instrument ID: 16334
Lims ID: 410-19023-A-6 Lab Sample ID: 410-19023-6
Client ID: HD-COD-SW-15-0/1-0
Operator ID: jkh09052 ALS Bottle#: 16 Worklist Smp#: 16
Purge Vol: 25.000 mL Dil. Factor: 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

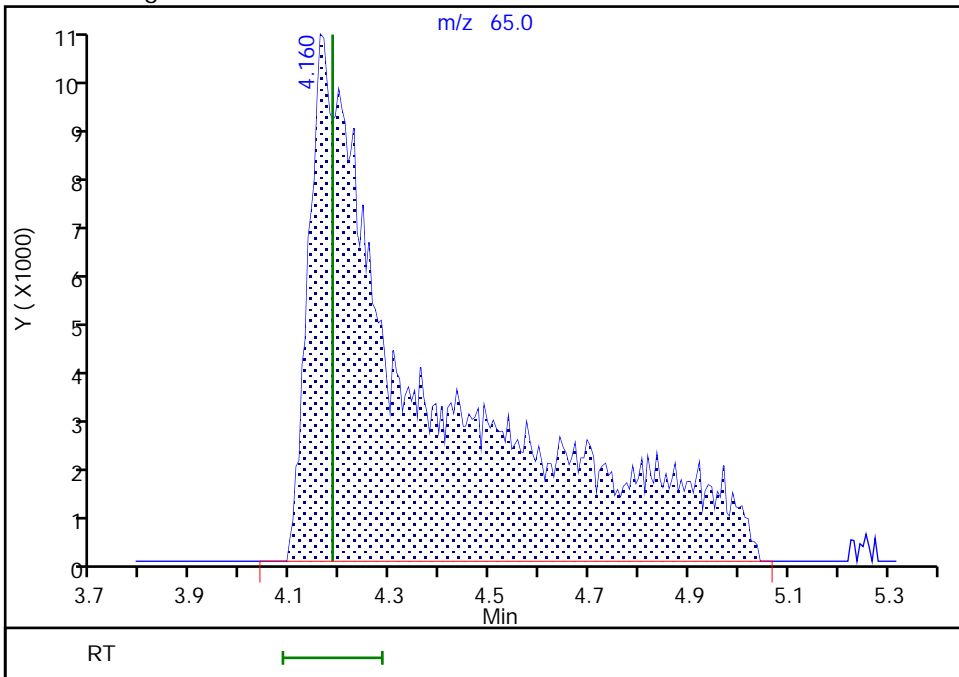
RT: 4.16
Area: 129563
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.16
Area: 169451
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 04-Nov-2020 14:30:15
Audit Action: Manually Integrated

Audit Reason: Other

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-19023-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-16-0/1-0 Lab Sample ID: 410-19023-7
 Matrix: Water Lab File ID: Gn04S13.D
 Analysis Method: 8260C LL Date Collected: 10/29/2020 09:40
 Sample wt/vol: 25 (mL) Date Analyzed: 11/04/2020 14:51
 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.: 61951 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND		0.50	0.060
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
106-93-4	1,2-Dibromoethane (EDB)	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	2.2	J	5.0	0.90
107-13-1	Acrylonitrile	ND		5.0	0.40
71-43-2	Benzene	ND		0.50	0.050
74-97-5	Bromochloromethane	ND		0.50	0.050
75-27-4	Bromodichloromethane	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	0.26	J	1.0	0.060
56-23-5	Carbon tetrachloride	ND		0.50	0.070
108-90-7	Chlorobenzene	ND		0.50	0.060
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
124-48-1	Dibromochloromethane	ND		0.50	0.070
100-41-4	Ethylbenzene	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.: 410-19023-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-16-0/1-0 Lab Sample ID: 410-19023-7
 Matrix: Water Lab File ID: Gn04S13.D
 Analysis Method: 8260C LL Date Collected: 10/29/2020 09:40
 Sample wt/vol: 25 (mL) Date Analyzed: 11/04/2020 14:51
 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.: 61951 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	0.087	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
1868-53-7	Dibromofluoromethane (Surr)	93		80-120
2037-26-5	Toluene-d8 (Surr)	102		80-120
460-00-4	4-Bromofluorobenzene (Surr)	98		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S13.D
 Lims ID: 410-19023-A-7
 Client ID: HD-COD-SW-16-0/1-0
 Sample Type: Client
 Inject. Date: 04-Nov-2020 14:51:30 ALS Bottle#: 19 Worklist Smp#: 19
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014632-019
 Misc. Info.: 410-19023-A-8
 Operator ID: jkh09052 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 05-Nov-2020 13:13:18 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: CTX1002

First Level Reviewer: howej Date: 05-Nov-2020 13:03:02

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Chloromethane	50	2.154	2.142	0.012	98	4477	0.0536	
7 Vinyl chloride	62		2.257				ND	
9 Bromomethane	94		2.581				ND	
10 Chloroethane	64		2.660				ND	
19 1,1-Dichloroethene	96		3.507				ND	
20 Acetone	43	3.550	3.544	0.006	80	23565	2.24	
25 Carbon disulfide	76	3.812	3.800	0.012	99	41720	0.2600	M
28 Methylene Chloride	84		4.172				ND	
* 29 t-Butyl alcohol-d10 (IS)	65	4.147	4.184	-0.037	0	188573	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		6.056				ND	
41 cis-1,2-Dichloroethene	96		6.080				ND	
48 Chlorobromomethane	128		6.415				ND	
50 Chloroform	83	6.568	6.568	0.000	93	7940	0.0760	
\$ 52 Dibromofluoromethane (Surr)	113	6.781	6.781	0.000	93	533528	9.26	
51 1,1,1-Trichloroethane	97		6.793				ND	
56 Carbon tetrachloride	117		6.994				ND	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.232	7.238	-0.006	0	111036	10.1	
59 Benzene	78		7.269				ND	7
60 1,2-Dichloroethane	62		7.342				ND	
* 63 Fluorobenzene (IS)	96	7.677	7.671	0.006	99	2156718	10.0	
67 Trichloroethene	95	8.140	8.153	-0.013	93	5200	0.0867	
69 1,2-Dichloropropane	63		8.488				ND	
75 Dichlorobromomethane	83		8.835				ND	7
80 cis-1,3-Dichloropropene	75		9.384				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	7
\$ 82 Toluene-d8 (Surr)	98	9.695	9.689	0.006	94	2137644	10.2	
83 Toluene	92	9.768	9.768	0.000	96	9011	0.0679	

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	86	3781	0.0582	
91 2-Hexanone	43		10.451				ND	7
93 Chlorodibromomethane	129		10.610				ND	
94 Ethylene Dibromide	107		10.719				ND	
* 95 Chlorobenzene-d5 (IS)	117	11.152	11.152	0.000	87	1607125	10.0	
97 Chlorobenzene	112		11.176				ND	
S 101 Xylenes, Total	106		11.245				ND	7
98 1,1,1,2-Tetrachloroethane	131		11.262				ND	
99 Ethylbenzene	91		11.262				ND	7
100 m-Xylene & p-Xylene	106	11.371	11.378	-0.007	0	5844	0.0570	
102 o-Xylene	106		11.707				ND	7
103 Styrene	104		11.725				ND	7
104 Bromoform	173		11.878				ND	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	90	762206	9.76	
109 1,1,2,2-Tetrachloroethane	83		12.256				ND	
* 124 1,4-Dichlorobenzene-d4	152	13.030	13.024	0.006	96	789978	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MSV_29_826ISS_00010

Amount Added: 1.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S13.D

Injection Date: 04-Nov-2020 14:51:30

Instrument ID: 16334

Operator ID: jkh09052

Lims ID: 410-19023-A-7

Lab Sample ID: 410-19023-7

Worklist Smp#: 19

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

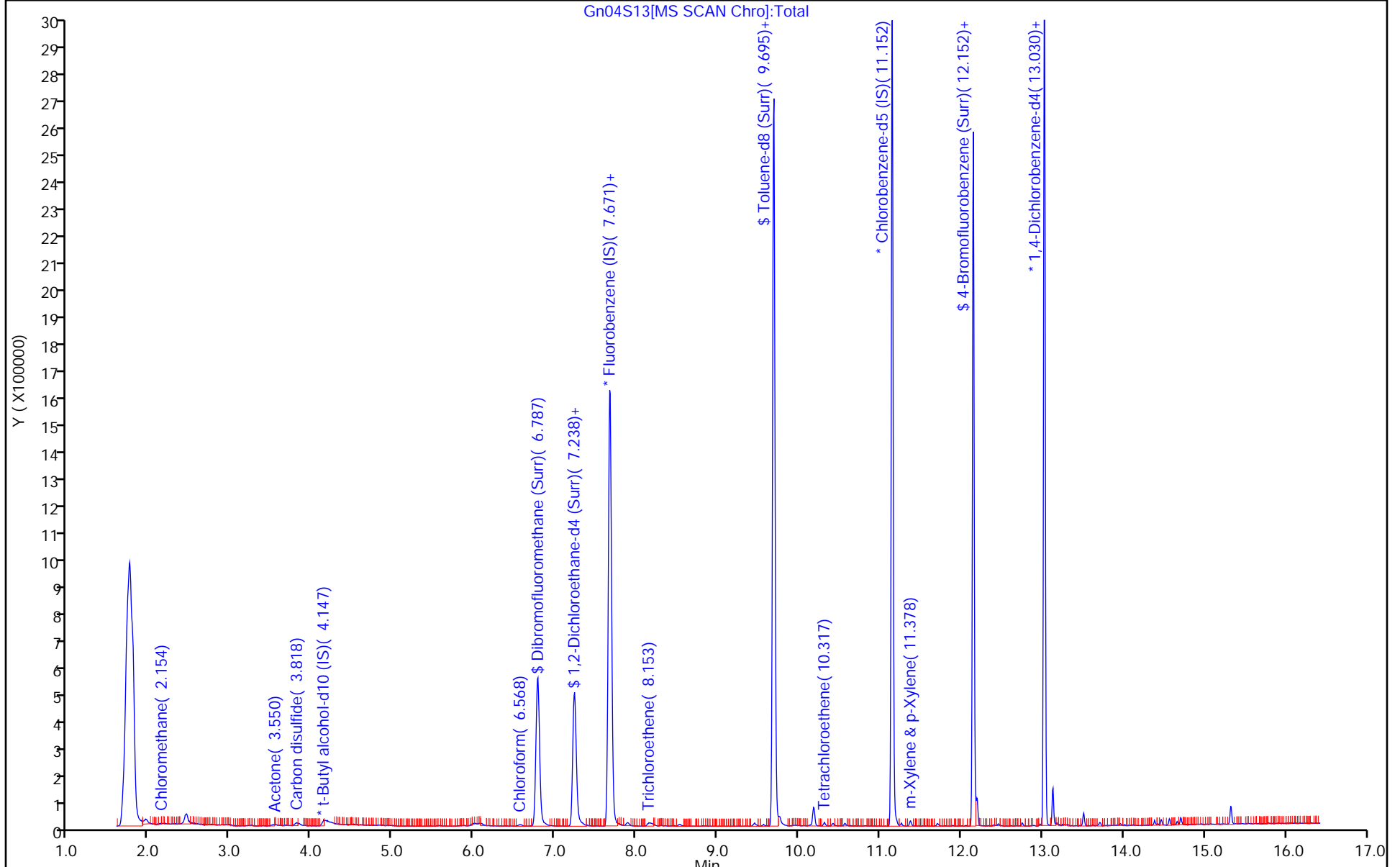
ALS Bottle#: 19

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\20201104-14632.b\Gn04S13.D
 Lims ID: 410-19023-A-7
 Client ID: HD-COD-SW-16-0/1-0
 Sample Type: Client
 Inject. Date: 04-Nov-2020 14:51:30 ALS Bottle#: 19 Worklist Smp#: 19
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014632-019
 Misc. Info.: 410-19023-A-8
 Operator ID: jkh09052 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 05-Nov-2020 13:13:18 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: CTX1002

First Level Reviewer: howej Date: 05-Nov-2020 13:03:02

Compound	Amount Added	Amount Recovered	% Rec.
\$ 52 Dibromofluoromethane (Surr)	10.0	9.26	92.61
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.1	101.19
\$ 82 Toluene-d8 (Surr)	10.0	10.2	101.61
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.76	97.55

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S13.D

Injection Date: 04-Nov-2020 14:51:30

Instrument ID: 16334

Lims ID: 410-19023-A-7

Lab Sample ID: 410-19023-7

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

Operator ID: jkh09052

ALS Bottle#: 19

Worklist Smp#: 19

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

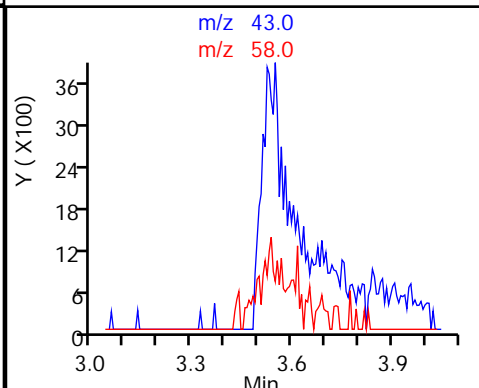
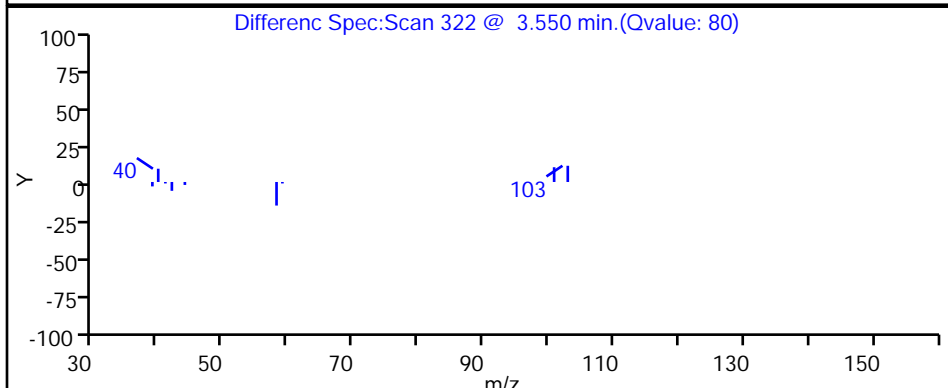
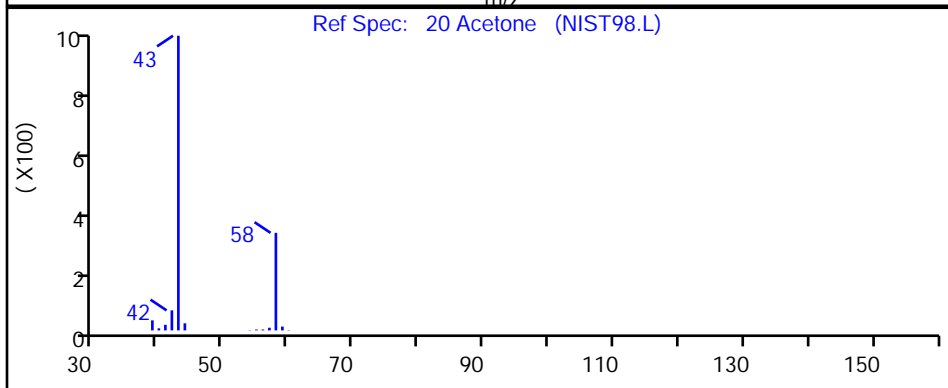
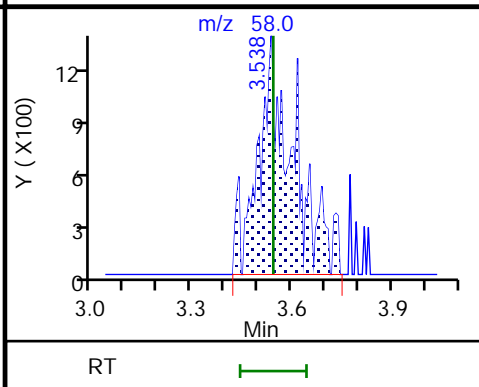
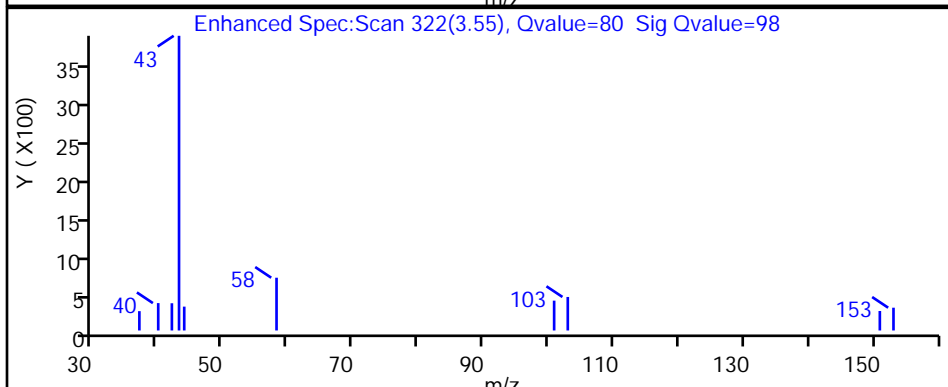
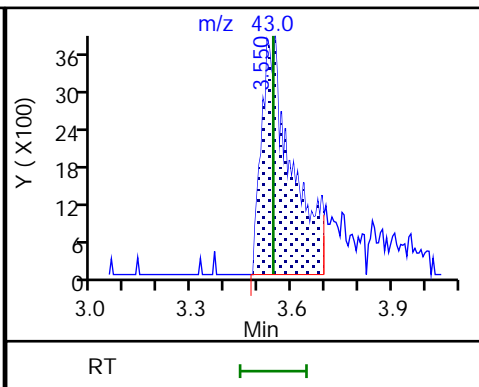
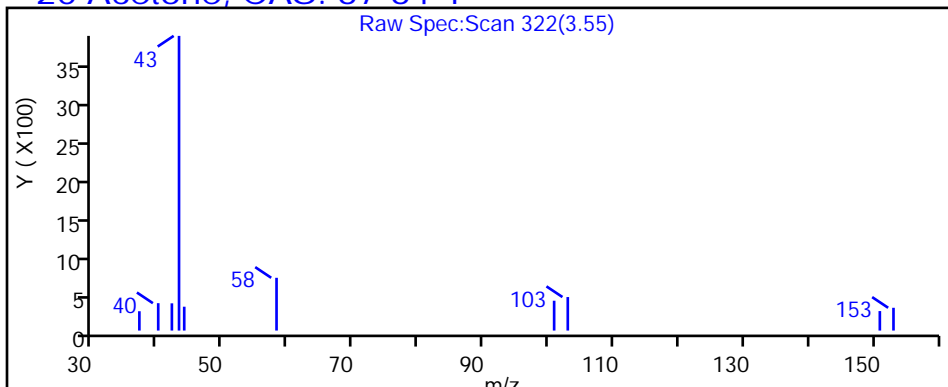
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

20 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S13.D

Injection Date: 04-Nov-2020 14:51:30

Instrument ID: 16334

Lims ID: 410-19023-A-7

Lab Sample ID: 410-19023-7

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

Operator ID: jkh09052

ALS Bottle#: 19

Worklist Smp#: 19

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

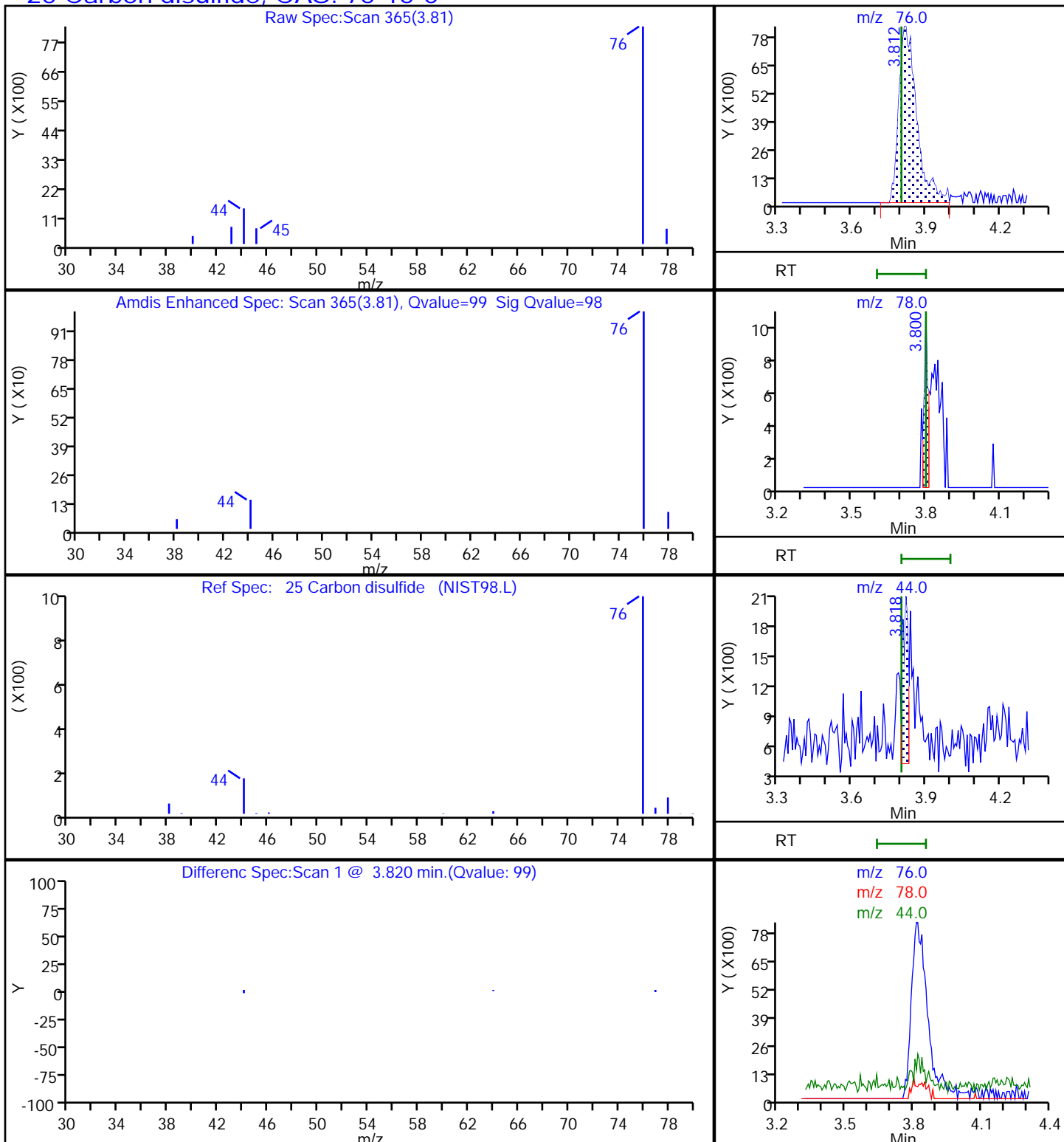
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

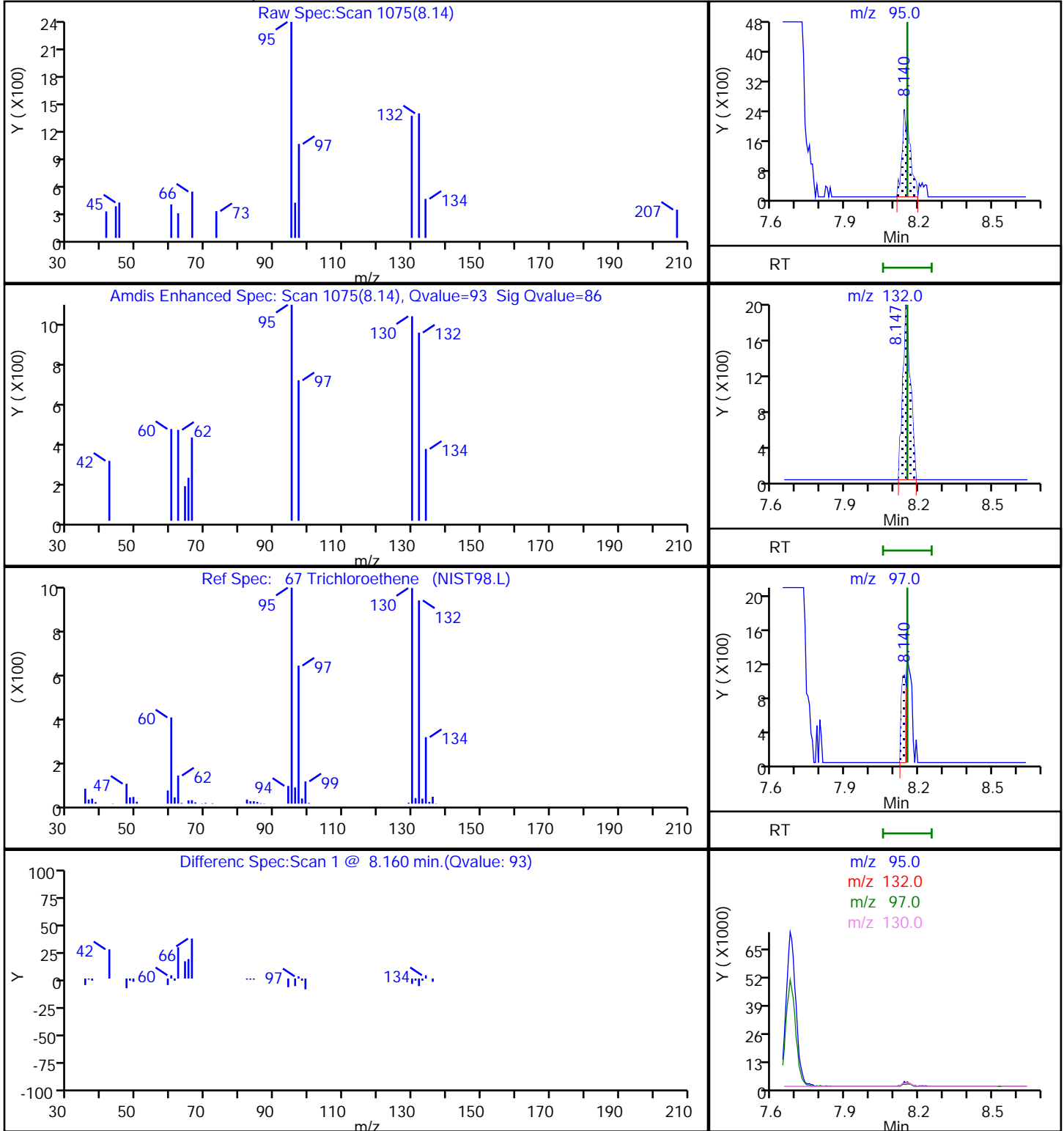
MS Quad

25 Carbon disulfide, CAS: 75-15-0



Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S13.D
Injection Date: 04-Nov-2020 14:51:30 Instrument ID: 16334
Lims ID: 410-19023-A-7 Lab Sample ID: 410-19023-7
Client ID: HD-COD-SW-16-0/1-0
Operator ID: jkh09052 ALS Bottle#: 19 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

67 Trichloroethene, CAS: 79-01-6



Eurofins Lancaster Laboratories Env, LLC

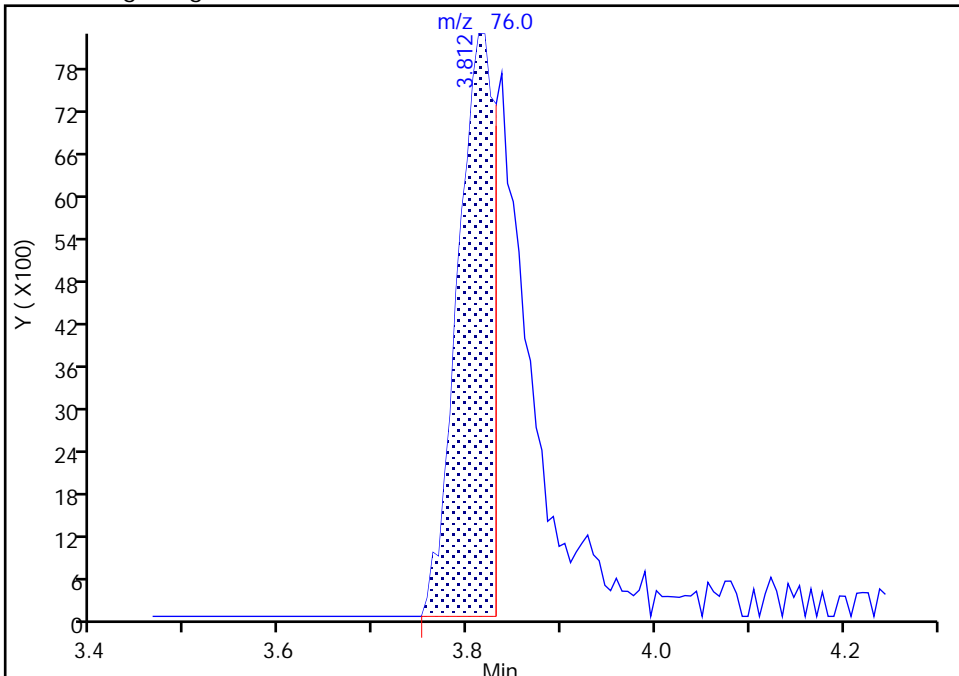
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Injection Date: 04-Nov-2020 14:51:30 Instrument ID: 16334
Lims ID: 410-19023-A-7 Lab Sample ID: 410-19023-7
Client ID: HD-COD-SW-16-0/1-0
Operator ID: jkh09052 ALS Bottle#: 19 Worklist Smp#: 19
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

25 Carbon disulfide, CAS: 75-15-0

Signal: 1

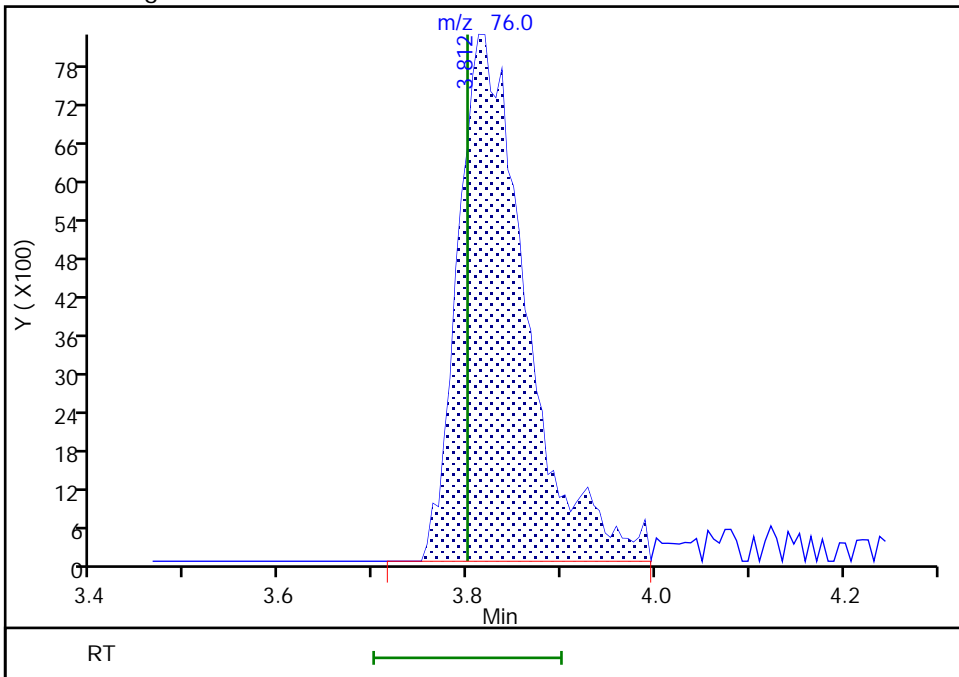
RT: 3.81
Area: 22929
Amount: 0.142919
Amount Units: ug/l

Processing Integration Results



RT: 3.81
Area: 41720
Amount: 0.260045
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 05-Nov-2020 13:02:33
Audit Action: Manually Integrated

Audit Reason: Other

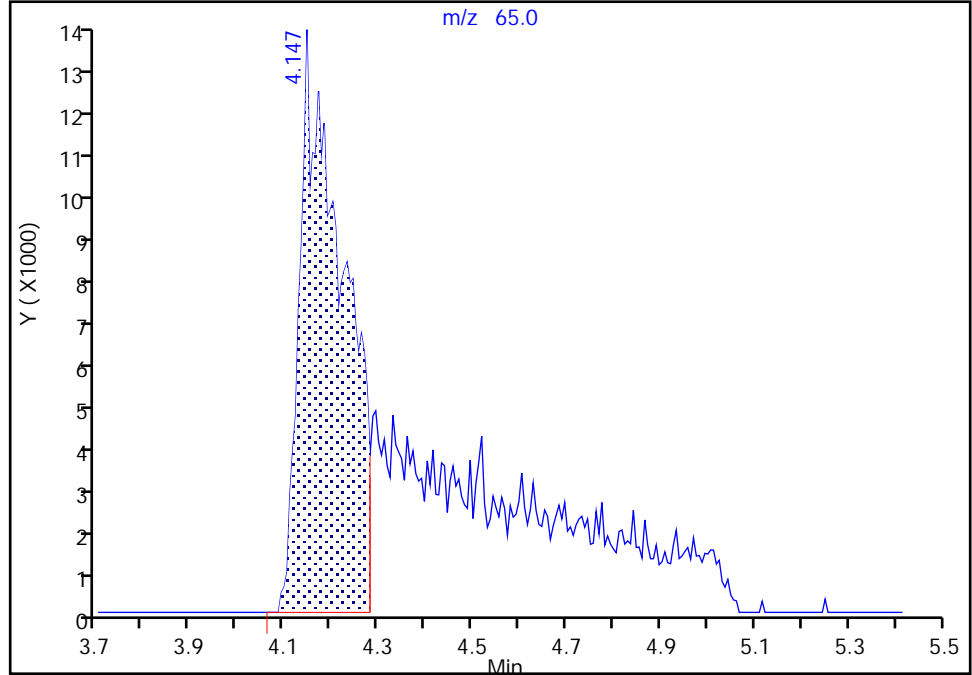
Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S13.D
Injection Date: 04-Nov-2020 14:51:30 Instrument ID: 16334
Lims ID: 410-19023-A-7 Lab Sample ID: 410-19023-7
Client ID: HD-COD-SW-16-0/1-0
Operator ID: jkh09052 ALS Bottle#: 19 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

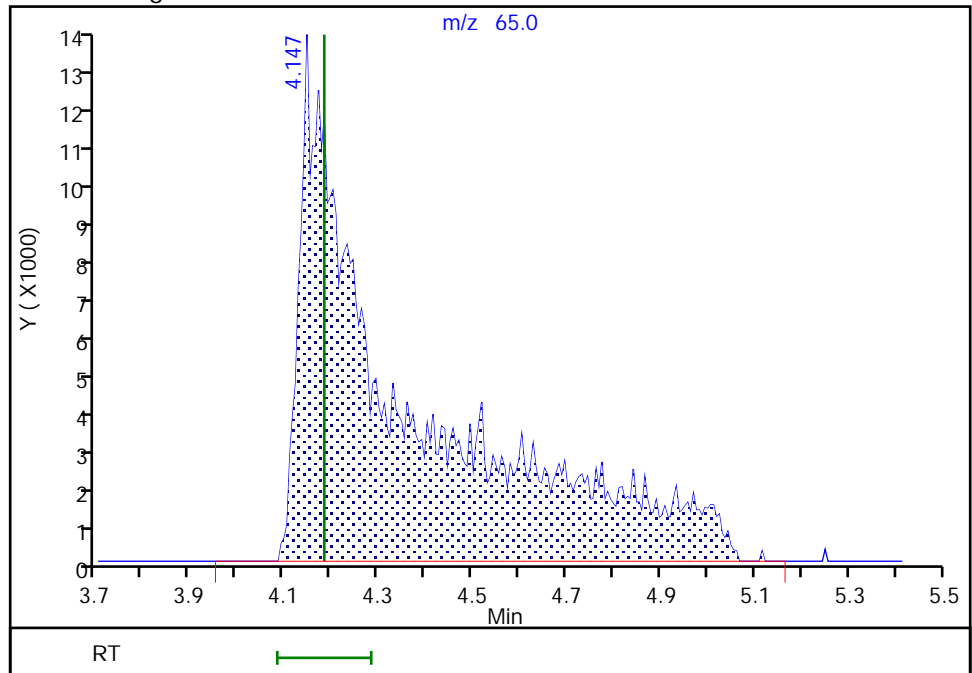
RT: 4.15
Area: 84552
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.15
Area: 188573
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 05-Nov-2020 13:02:43
Audit Action: Manually Integrated

Audit Reason: Other

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-19023-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-17-0/1-0 Lab Sample ID: 410-19023-8
 Matrix: Water Lab File ID: Gn04S14.D
 Analysis Method: 8260C LL Date Collected: 10/29/2020 09:50
 Sample wt/vol: 25 (mL) Date Analyzed: 11/04/2020 15:13
 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.: 61951 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND		0.50	0.060
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
106-93-4	1,2-Dibromoethane (EDB)	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	3.3	J	5.0	0.90
107-13-1	Acrylonitrile	ND		5.0	0.40
71-43-2	Benzene	ND		0.50	0.050
74-97-5	Bromochloromethane	ND		0.50	0.050
75-27-4	Bromodichloromethane	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	0.25	J	1.0	0.060
56-23-5	Carbon tetrachloride	ND		0.50	0.070
108-90-7	Chlorobenzene	ND		0.50	0.060
75-00-3	Chloroethane	ND		0.50	0.070
67-66-3	Chloroform	0.10	J	0.50	0.090
74-87-3	Chloromethane	ND		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.14	J	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
100-41-4	Ethylbenzene	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	0.44	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.: 410-19023-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-17-0/1-0 Lab Sample ID: 410-19023-8
 Matrix: Water Lab File ID: Gn04S14.D
 Analysis Method: 8260C LL Date Collected: 10/29/2020 09:50
 Sample wt/vol: 25 (mL) Date Analyzed: 11/04/2020 15:13
 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.: 61951 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	0.28	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)	102		80-120
1868-53-7	Dibromofluoromethane (Surr)	92		80-120
2037-26-5	Toluene-d8 (Surr)	102		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S14.D
 Lims ID: 410-19023-A-8
 Client ID: HD-COD-SW-17-0/1-0
 Sample Type: Client
 Inject. Date: 04-Nov-2020 15:13:30 ALS Bottle#: 20 Worklist Smp#: 20
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014632-020
 Misc. Info.: 410-19023-A-9
 Operator ID: jkh09052 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 05-Nov-2020 13:13:18 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: CTX1002

First Level Reviewer: howej

Date: 05-Nov-2020 13:04:04

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Chloromethane	50	2.154	2.142	0.012	20	4118	0.0483	
7 Vinyl chloride	62		2.257				ND	
9 Bromomethane	94		2.581				ND	
10 Chloroethane	64		2.660				ND	7
19 1,1-Dichloroethene	96		3.507				ND	
20 Acetone	43	3.550	3.544	0.006	90	36764	3.33	
25 Carbon disulfide	76	3.818	3.800	0.018	99	40665	0.2482	M
28 Methylene Chloride	84		4.172				ND	
* 29 t-Butyl alcohol-d10 (IS)	65	4.184	4.184	0.000	0	197737	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	6.056	-0.007	21	6419	0.3387	M
41 cis-1,2-Dichloroethene	96	6.080	6.080	0.000	71	8252	0.1351	
48 Chlorobromomethane	128		6.415				ND	
50 Chloroform	83	6.580	6.568	0.012	93	11004	0.1031	
\$ 52 Dibromofluoromethane (Surr)	113	6.787	6.781	0.006	93	541017	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	7.238	7.238	0.000	0	113988	10.2	
59 Benzene	78		7.269				ND	7
60 1,2-Dichloroethane	62		7.342				ND	
* 63 Fluorobenzene (IS)	96	7.677	7.671	0.006	99	2202629	10.0	
67 Trichloroethene	95	8.153	8.153	0.000	96	16968	0.2771	
69 1,2-Dichloropropane	63		8.488				ND	
75 Dichlorobromomethane	83		8.835				ND	7
80 cis-1,3-Dichloropropene	75		9.384				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	7
\$ 82 Toluene-d8 (Surr)	98	9.695	9.689	0.006	94	2193929	10.2	
83 Toluene	92	9.768	9.768	0.000	95	6637	0.0487	

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	93	29597	0.4440	
91 2-Hexanone	43		10.451				ND	7
93 Chlorodibromomethane	129		10.610				ND	
94 Ethylene Dibromide	107		10.719				ND	
* 95 Chlorobenzene-d5 (IS)	117	11.152	11.152	0.000	87	1649403	10.0	
97 Chlorobenzene	112		11.176				ND	
S 101 Xylenes, Total	106		11.245				ND	7
98 1,1,1,2-Tetrachloroethane	131		11.262				ND	
99 Ethylbenzene	91		11.262				ND	7
100 m-Xylene & p-Xylene	106		11.378				ND	7
102 o-Xylene	106		11.707				ND	7
103 Styrene	104		11.725				ND	7
104 Bromoform	173		11.878				ND	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	90	780526	9.73	
109 1,1,2,2-Tetrachloroethane	83		12.256				ND	
* 124 1,4-Dichlorobenzene-d4	152	13.030	13.024	0.006	96	827306	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MSV_29_826ISS_00010

Amount Added: 1.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S14.D

Injection Date: 04-Nov-2020 15:13:30

Instrument ID: 16334

Operator ID: jkh09052

Lims ID: 410-19023-A-8

Lab Sample ID: 410-19023-8

Worklist Smp#: 20

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

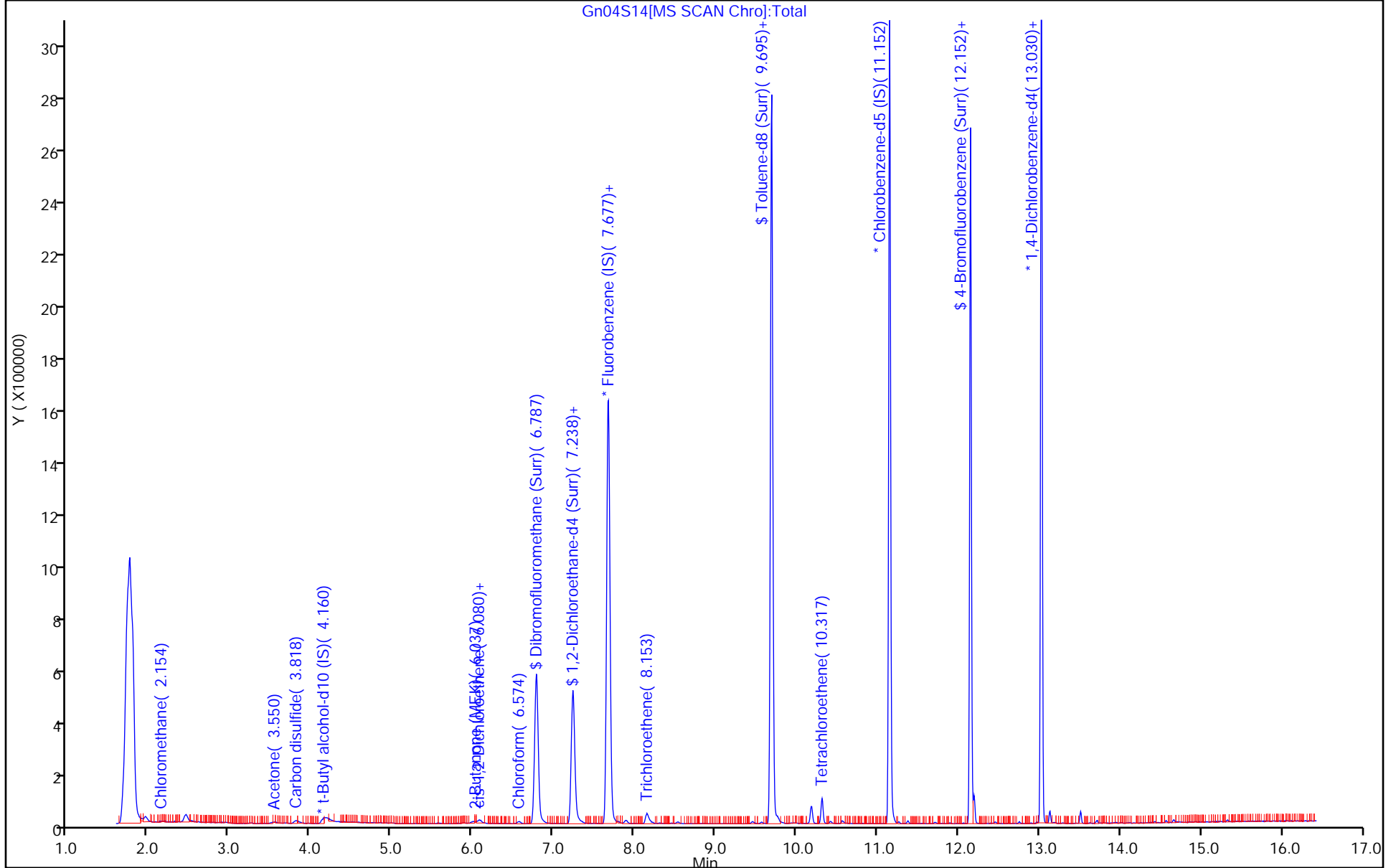
ALS Bottle#: 20

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\20201104-14632.b\Gn04S14.D
 Lims ID: 410-19023-A-8
 Client ID: HD-COD-SW-17-0/1-0
 Sample Type: Client
 Inject. Date: 04-Nov-2020 15:13:30 ALS Bottle#: 20 Worklist Smp#: 20
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014632-020
 Misc. Info.: 410-19023-A-9
 Operator ID: jkh09052 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 05-Nov-2020 13:13:18 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: CTX1002

First Level Reviewer: howej Date: 05-Nov-2020 13:04:04

Compound	Amount Added	Amount Recovered	% Rec.
\$ 52 Dibromofluoromethane (Surr)	10.0	9.19	91.95
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.2	101.72
\$ 82 Toluene-d8 (Surr)	10.0	10.2	101.61
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.73	97.33

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S14.D

Injection Date: 04-Nov-2020 15:13:30

Instrument ID: 16334

Lims ID: 410-19023-A-8

Lab Sample ID: 410-19023-8

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

Operator ID: jkh09052

ALS Bottle#: 20

Worklist Smp#: 20

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

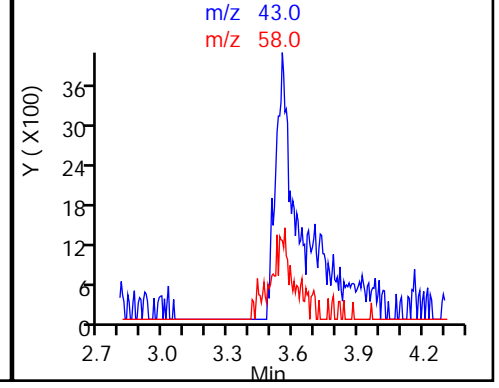
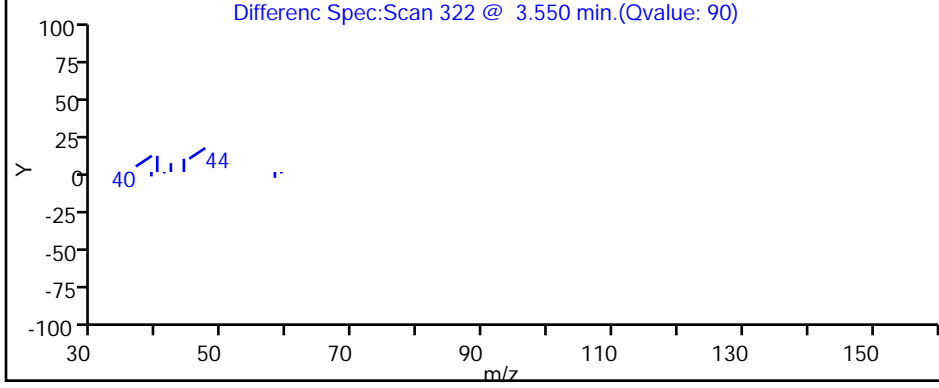
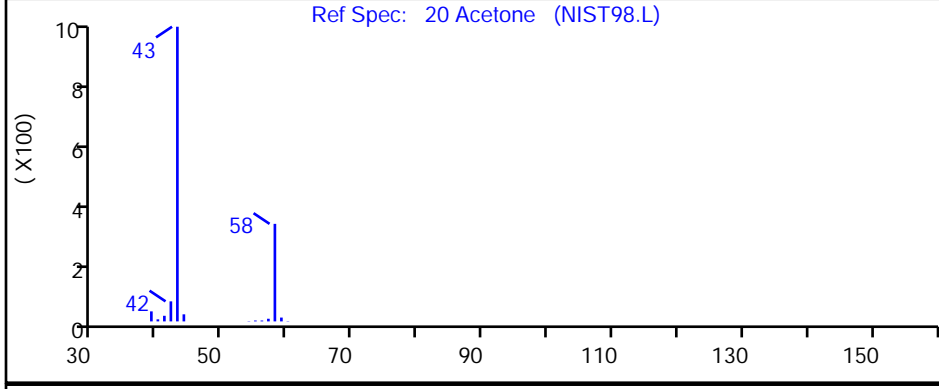
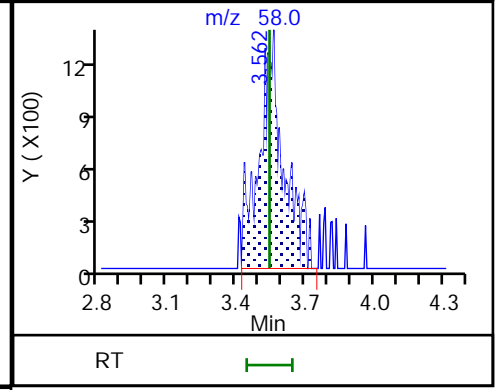
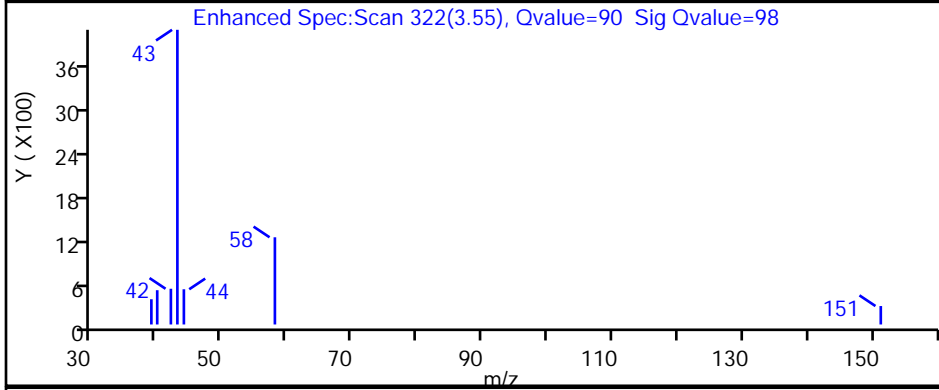
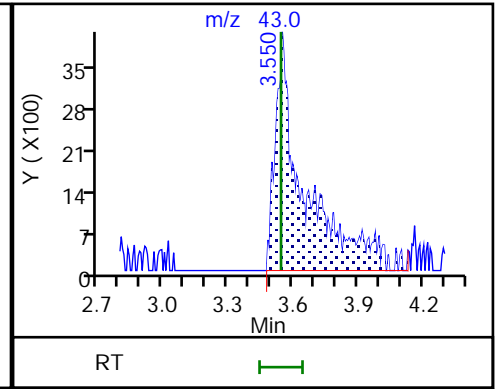
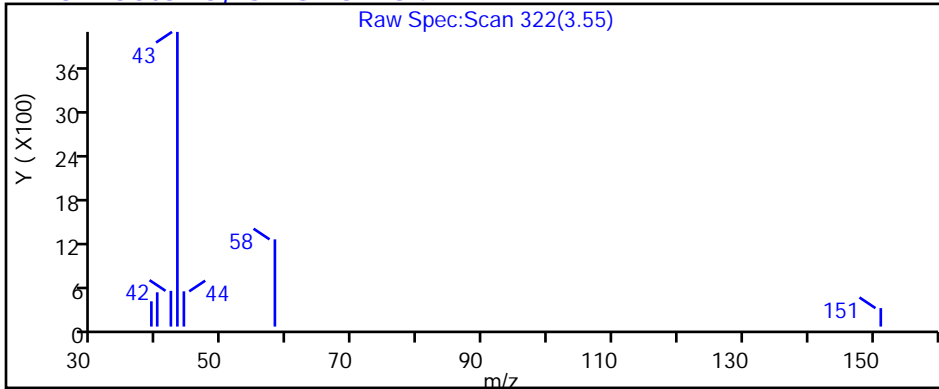
Method: MSV_16334_25mL

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\20201104-14632.b\Gn04S14.D

Injection Date: 04-Nov-2020 15:13:30

Instrument ID: 16334

Lims ID: 410-19023-A-8

Lab Sample ID: 410-19023-8

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

Operator ID: jkh09052

ALS Bottle#: 20

Worklist Smp#: 20

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

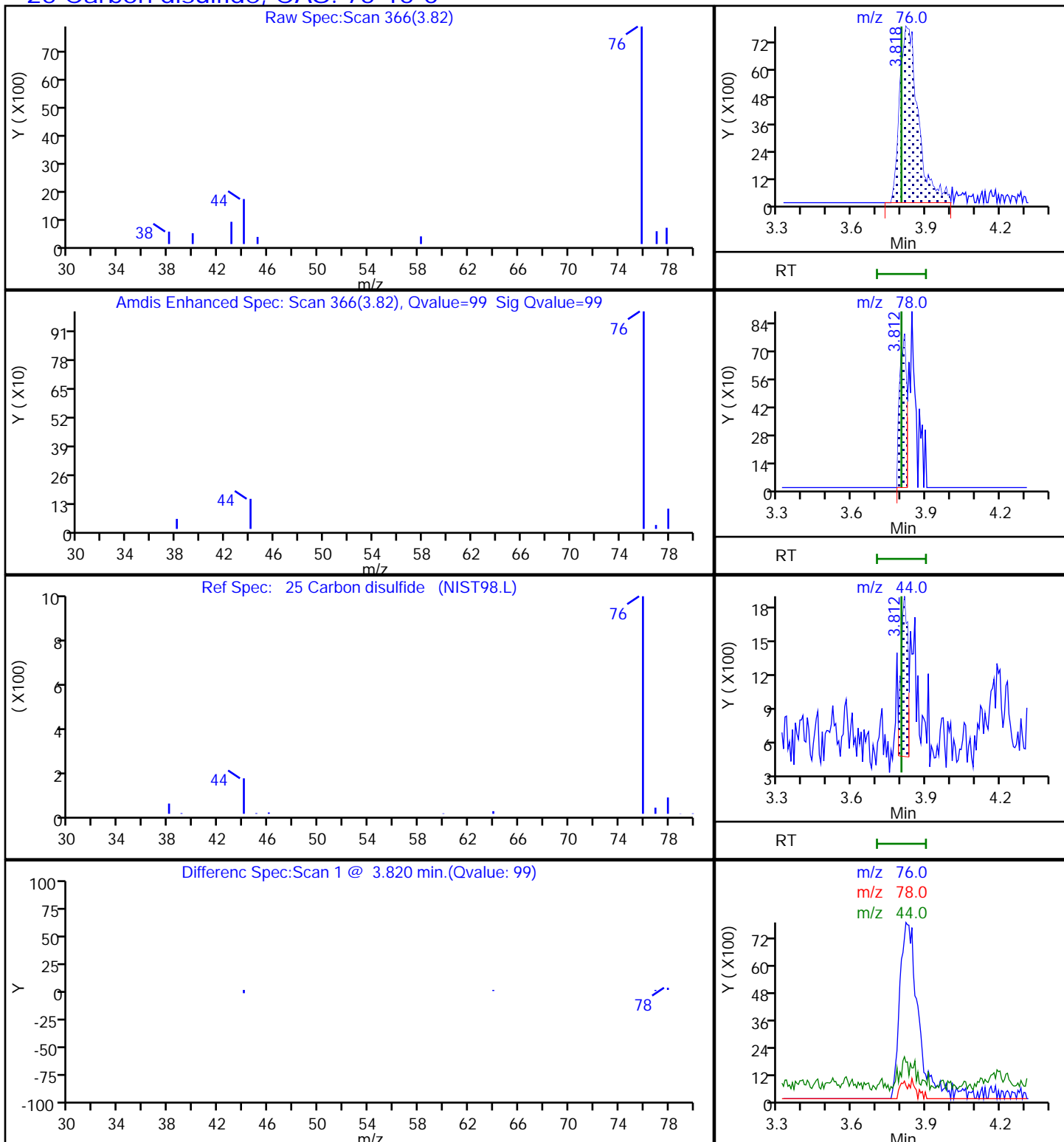
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

25 Carbon disulfide, CAS: 75-15-0



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S14.D

Injection Date: 04-Nov-2020 15:13:30

Instrument ID: 16334

Lims ID: 410-19023-A-8

Lab Sample ID: 410-19023-8

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

Operator ID: jkh09052

ALS Bottle#: 20

Worklist Smp#: 20

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

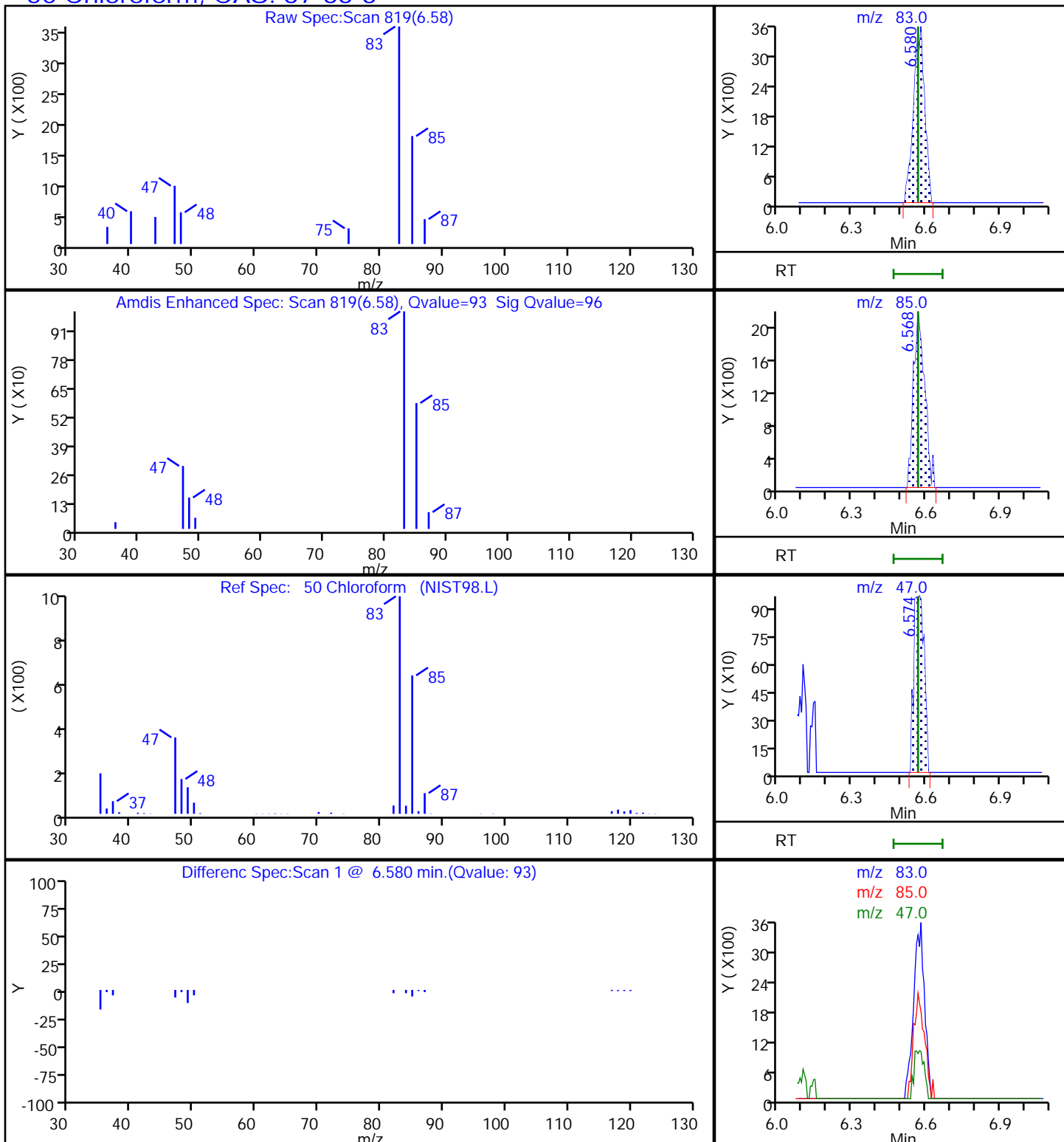
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector

MS Quad

50 Chloroform, CAS: 67-66-3



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S14.D

Injection Date: 04-Nov-2020 15:13:30

Instrument ID: 16334

Lims ID: 410-19023-A-8

Lab Sample ID: 410-19023-8

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

Operator ID: jkh09052

ALS Bottle#: 20

Worklist Smp#: 20

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

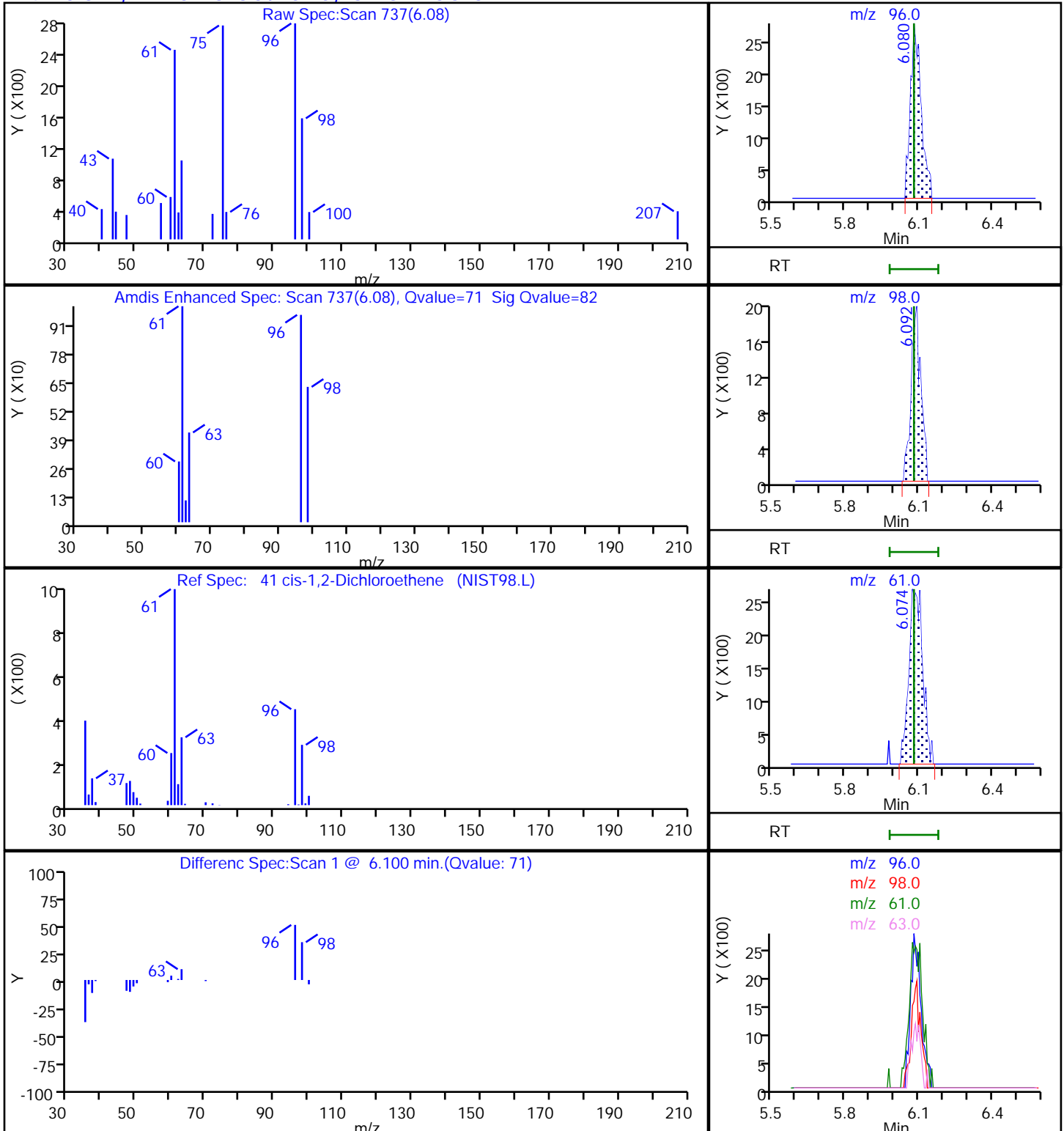
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector

MS Quad

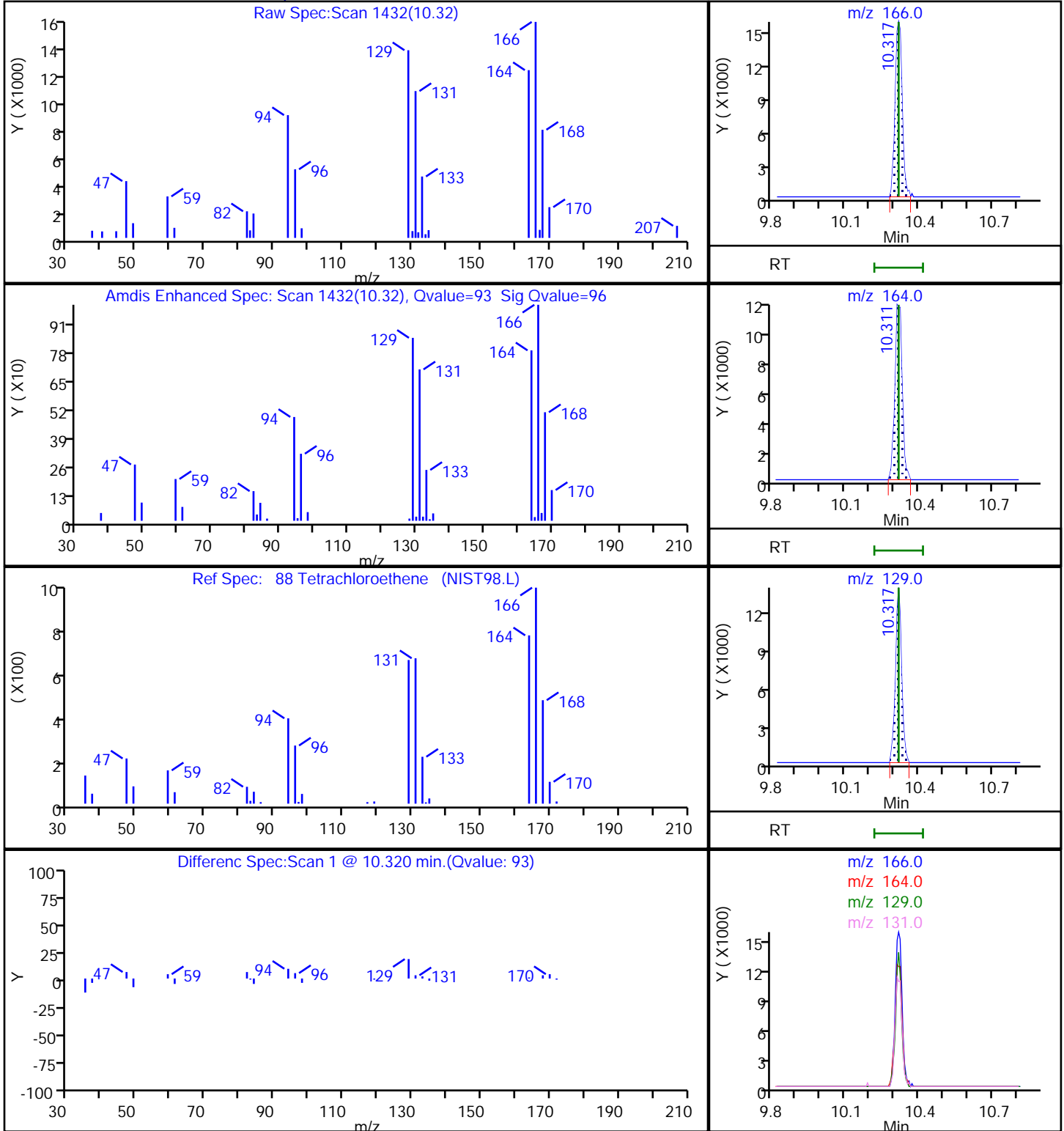
41 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S14.D
Injection Date: 04-Nov-2020 15:13:30 Instrument ID: 16334
Lims ID: 410-19023-A-8 Lab Sample ID: 410-19023-8
Client ID: HD-COD-SW-17-0/1-0
Operator ID: jkh09052 ALS Bottle#: 20 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

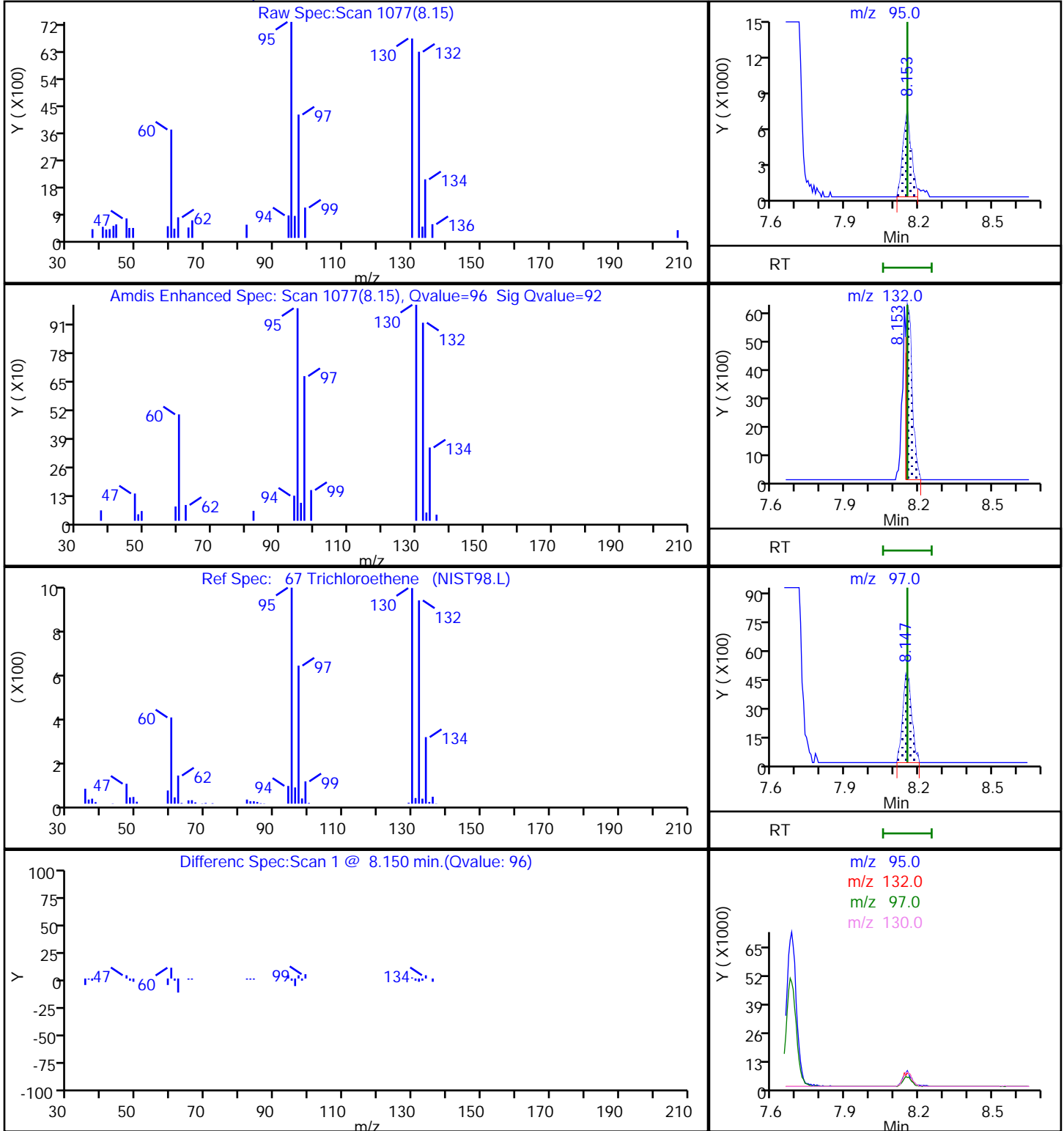
88 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S14.D
Injection Date: 04-Nov-2020 15:13:30 Instrument ID: 16334
Lims ID: 410-19023-A-8 Lab Sample ID: 410-19023-8
Client ID: HD-COD-SW-17-0/1-0
Operator ID: jkh09052 ALS Bottle#: 20 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

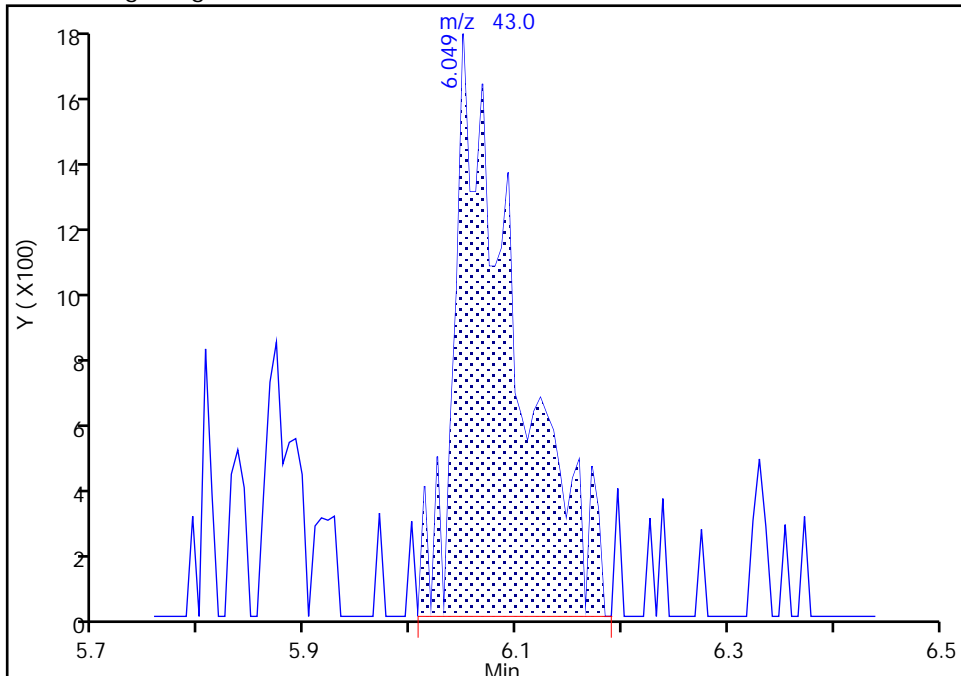
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Injection Date: 04-Nov-2020 15:13:30 Instrument ID: 16334
Lims ID: 410-19023-A-8 Lab Sample ID: 410-19023-8
Client ID: HD-COD-SW-17-0/1-0
Operator ID: jkh09052 ALS Bottle#: 20 Worklist Smp#: 20
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

40 2-Butanone (MEK), CAS: 78-93-3

Signal: 1

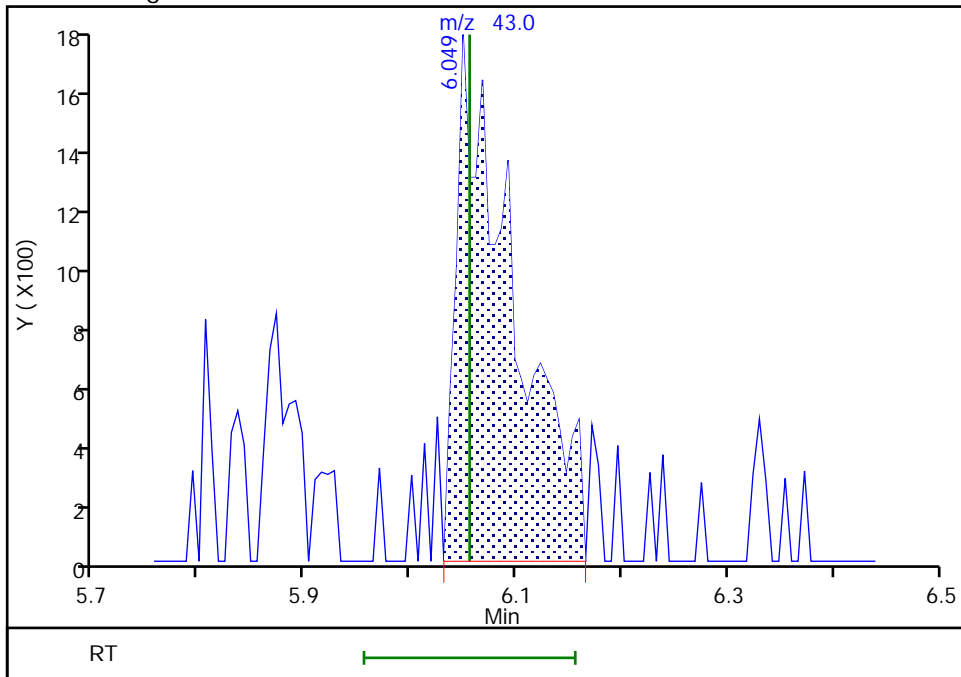
RT: 6.05
Area: 7010
Amount: 0.369923
Amount Units: ug/l

Processing Integration Results



RT: 6.05
Area: 6419
Amount: 0.338735
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 05-Nov-2020 13:03:47
Audit Action: Manually Integrated

Audit Reason: Other

Euofins Lancaster Laboratories Env, LLC

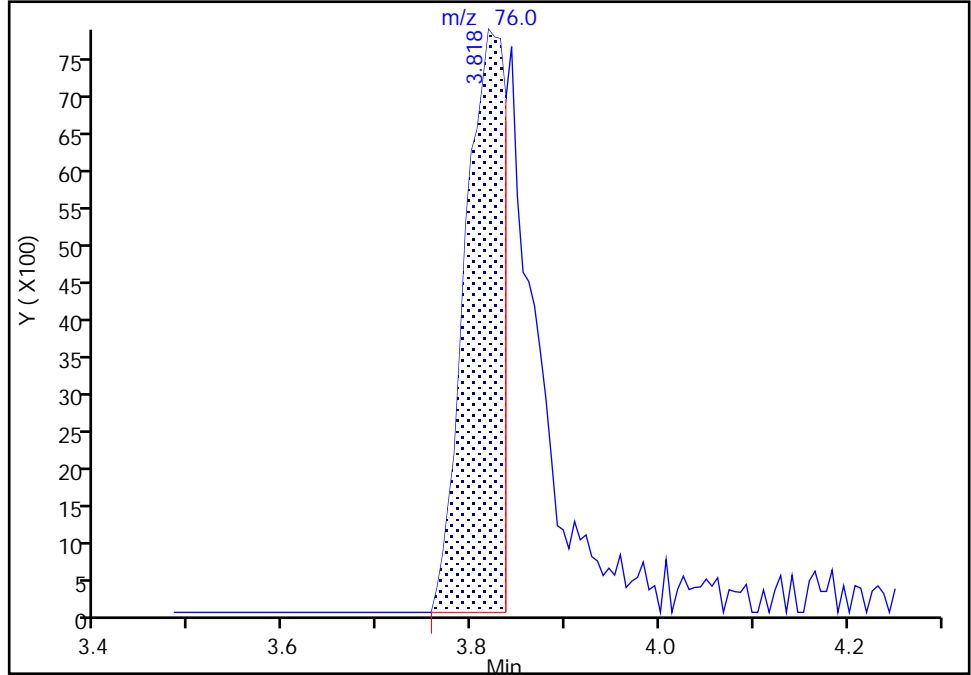
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Injection Date: 04-Nov-2020 15:13:30 Instrument ID: 16334
Lims ID: 410-19023-A-8 Lab Sample ID: 410-19023-8
Client ID: HD-COD-SW-17-0/1-0
Operator ID: jkh09052 ALS Bottle#: 20 Worklist Smp#: 20
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL 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

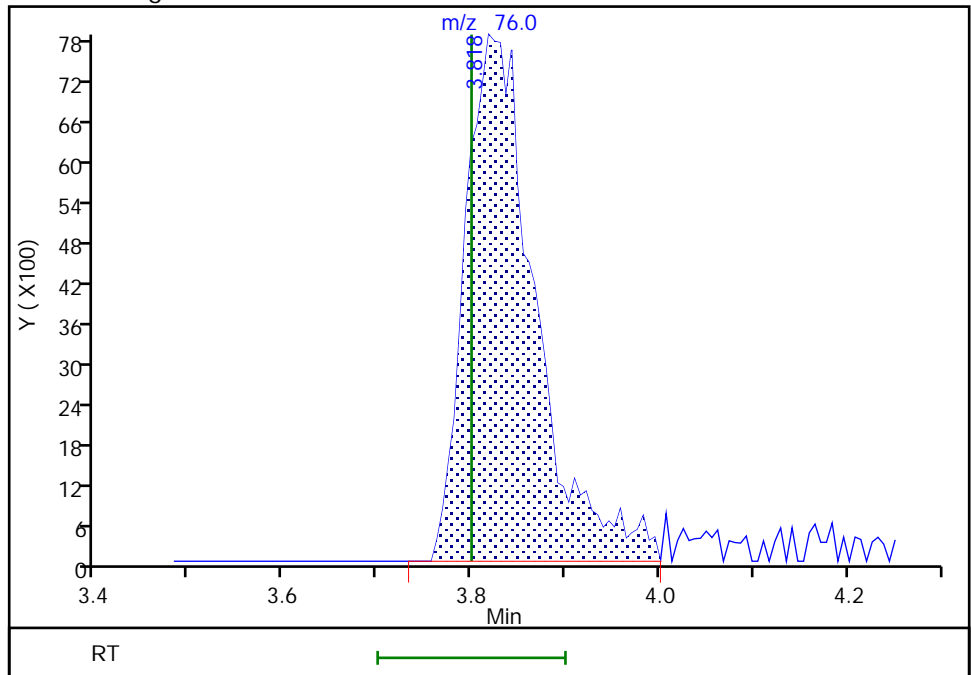
RT: 3.82
Area: 23256
Amount: 0.141936
Amount Units: ug/l

Processing Integration Results



RT: 3.82
Area: 40665
Amount: 0.248186
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 05-Nov-2020 13:03:23
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

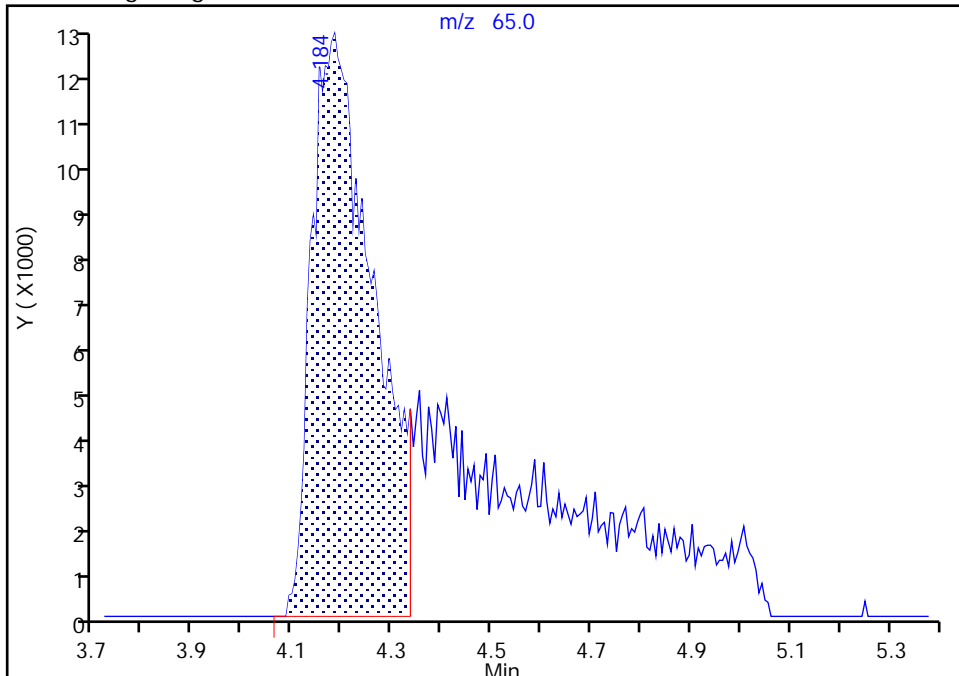
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Injection Date: 04-Nov-2020 15:13:30 Instrument ID: 16334
Lims ID: 410-19023-A-8 Lab Sample ID: 410-19023-8
Client ID: HD-COD-SW-17-0/1-0
Operator ID: jkh09052 ALS Bottle#: 20 Worklist Smp#: 20
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL 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

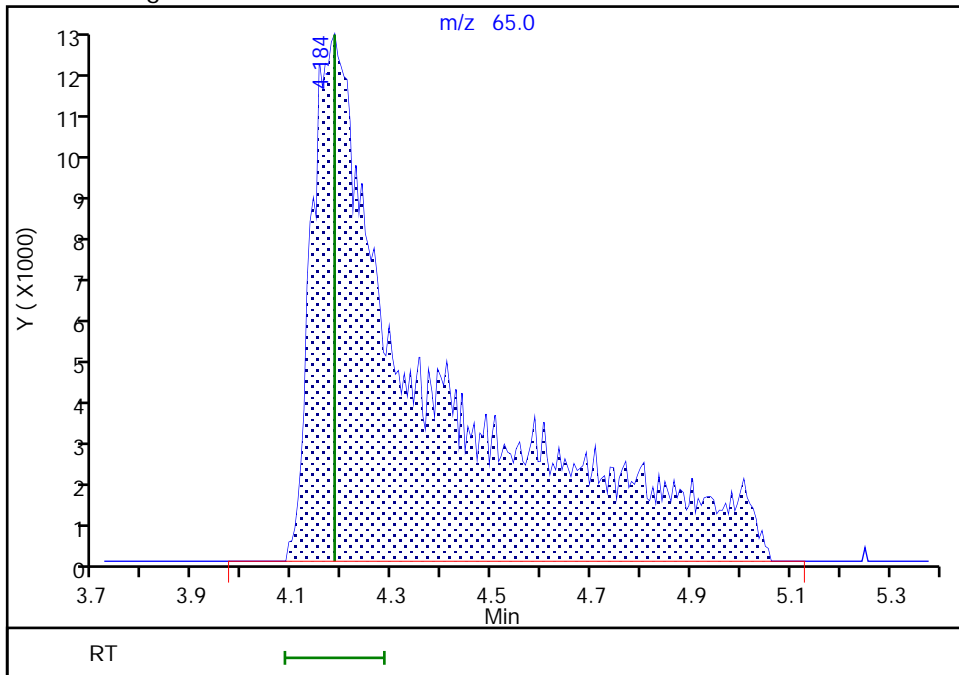
RT: 4.18
Area: 103303
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.18
Area: 197737
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 05-Nov-2020 13:03:33
Audit Action: Manually Integrated

Audit Reason: Other

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-19023-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-26-0/1-0 Lab Sample ID: 410-19023-9
 Matrix: Water Lab File ID: Gn04S15.D
 Analysis Method: 8260C LL Date Collected: 10/29/2020 10:35
 Sample wt/vol: 25 (mL) Date Analyzed: 11/04/2020 15:36
 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.: 61951 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND		0.50	0.060
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
106-93-4	1,2-Dibromoethane (EDB)	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	3.1	J	5.0	0.90
107-13-1	Acrylonitrile	ND		5.0	0.40
71-43-2	Benzene	ND		0.50	0.050
74-97-5	Bromochloromethane	ND		0.50	0.050
75-27-4	Bromodichloromethane	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	0.24	J	1.0	0.060
56-23-5	Carbon tetrachloride	ND		0.50	0.070
108-90-7	Chlorobenzene	ND		0.50	0.060
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	0.064	J	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
100-41-4	Ethylbenzene	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.: 410-19023-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-26-0/1-0 Lab Sample ID: 410-19023-9
 Matrix: Water Lab File ID: Gn04S15.D
 Analysis Method: 8260C LL Date Collected: 10/29/2020 10:35
 Sample wt/vol: 25 (mL) Date Analyzed: 11/04/2020 15:36
 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.: 61951 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)	101		80-120
1868-53-7	Dibromofluoromethane (Surr)	93		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S15.D
 Lims ID: 410-19023-A-9
 Client ID: HD-COD-SW-26-0/1-0
 Sample Type: Client
 Inject. Date: 04-Nov-2020 15:36:30 ALS Bottle#: 21 Worklist Smp#: 21
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014632-021
 Misc. Info.: 410-19023-A-9
 Operator ID: jkh09052 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 05-Nov-2020 13:13:18 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: CTX1002

First Level Reviewer: howej

Date: 05-Nov-2020 13:04:38

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Chloromethane	50		2.142				ND	
7 Vinyl chloride	62		2.257				ND	7
9 Bromomethane	94		2.581				ND	
10 Chloroethane	64		2.660				ND	7
19 1,1-Dichloroethene	96		3.507				ND	
20 Acetone	43	3.544	3.544	0.000	96	34001	3.07	
25 Carbon disulfide	76	3.812	3.800	0.012	98	39077	0.2410	M
28 Methylene Chloride	84		4.172				ND	
* 29 t-Butyl alcohol-d10 (IS)	65	4.184	4.184	0.000	0	198175	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		6.056				ND	
41 cis-1,2-Dichloroethene	96	6.074	6.080	-0.006	77	3844	0.0636	
48 Chlorobromomethane	128		6.415				ND	
50 Chloroform	83	6.568	6.568	0.000	34	5733	0.0543	
\$ 52 Dibromofluoromethane (Surr)	113	6.781	6.781	0.000	93	540028	9.27	
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	7.238	0.000	0	111722	10.1	
59 Benzene	78		7.269				ND	7
60 1,2-Dichloroethane	62		7.342				ND	
* 63 Fluorobenzene (IS)	96	7.677	7.671	0.006	98	2179769	10.0	
67 Trichloroethene	95		8.153				ND	
69 1,2-Dichloropropane	63		8.488				ND	
75 Dichlorobromomethane	83		8.835				ND	7
80 cis-1,3-Dichloropropene	75		9.384				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	7
\$ 82 Toluene-d8 (Surr)	98	9.695	9.689	0.006	94	2172985	10.1	
83 Toluene	92	9.768	9.768	0.000	97	8372	0.0615	

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	10.317	10.317	0.000	93	3908	0.0587	
91 2-Hexanone	43		10.451				ND	7
93 Chlorodibromomethane	129		10.610				ND	
94 Ethylene Dibromide	107		10.719				ND	
* 95 Chlorobenzene-d5 (IS)	117	11.152	11.152	0.000	87	1646765	10.0	
97 Chlorobenzene	112		11.176				ND	
S 101 Xylenes, Total	106		11.245				ND	7
98 1,1,1,2-Tetrachloroethane	131		11.262				ND	
99 Ethylbenzene	91		11.262				ND	7
100 m-Xylene & p-Xylene	106	11.378	11.378	0.000	0	6150	0.0585	
102 o-Xylene	106		11.707				ND	7
103 Styrene	104		11.725				ND	
104 Bromoform	173		11.878				ND	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	90	768719	9.60	
109 1,1,2,2-Tetrachloroethane	83		12.256				ND	
* 124 1,4-Dichlorobenzene-d4	152	13.030	13.024	0.006	96	812252	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MSV_29_826ISS_00010

Amount Added: 1.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S15.D

Injection Date: 04-Nov-2020 15:36:30

Instrument ID: 16334

Operator ID: jkh09052

Lims ID: 410-19023-A-9

Lab Sample ID: 410-19023-9

Worklist Smp#: 21

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

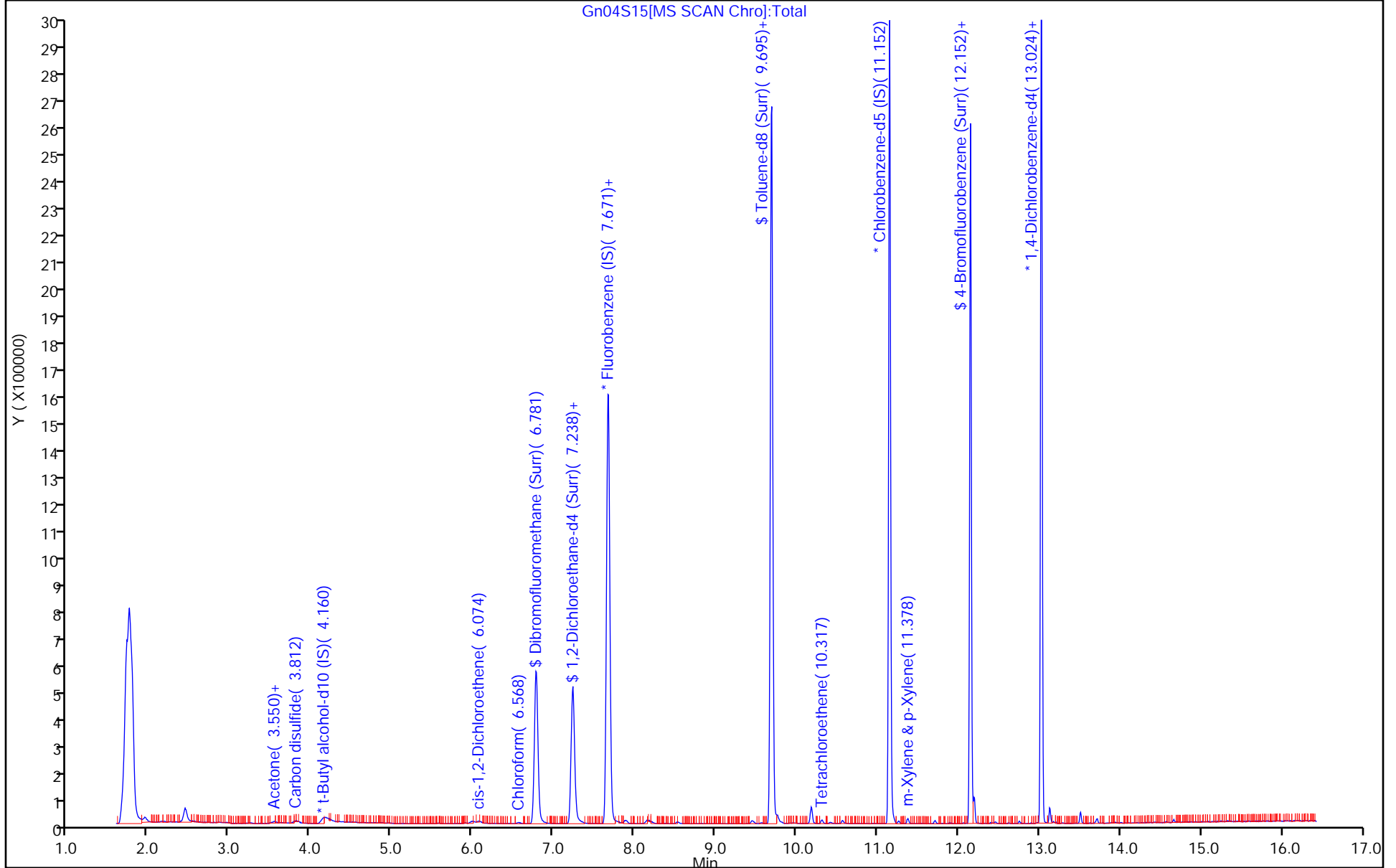
ALS Bottle#: 21

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\20201104-14632.b\Gn04S15.D
 Lims ID: 410-19023-A-9
 Client ID: HD-COD-SW-26-0/1-0
 Sample Type: Client
 Inject. Date: 04-Nov-2020 15:36:30 ALS Bottle#: 21 Worklist Smp#: 21
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014632-021
 Misc. Info.: 410-19023-A-9
 Operator ID: jkh09052 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 05-Nov-2020 13:13:18 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: CTX1002

First Level Reviewer: howej

Date: 05-Nov-2020 13:04:38

Compound	Amount Added	Amount Recovered	% Rec.
\$ 52 Dibromofluoromethane (Surr)	10.0	9.27	92.74
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.1	100.74
\$ 82 Toluene-d8 (Surr)	10.0	10.1	100.80
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.60	96.02

Euromins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S15.D

Injection Date: 04-Nov-2020 15:36:30

Instrument ID: 16334

Lims ID: 410-19023-A-9

Lab Sample ID: 410-19023-9

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

Operator ID: jkh09052

ALS Bottle#: 21

Worklist Smp#: 21

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

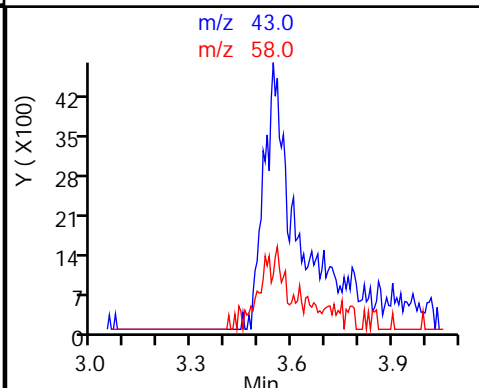
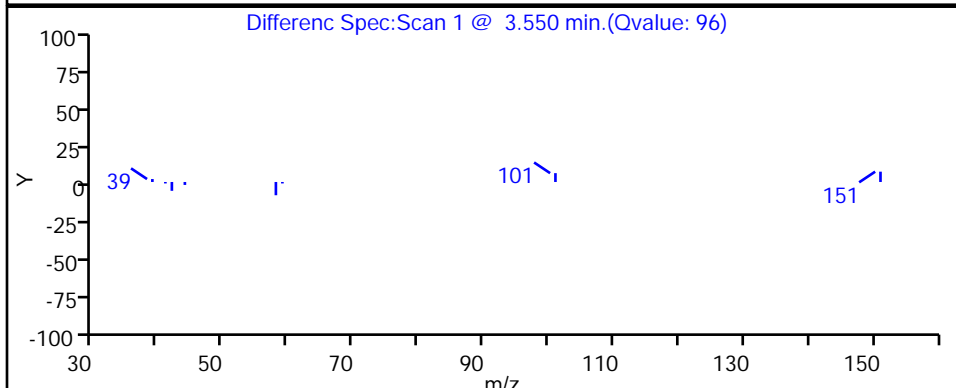
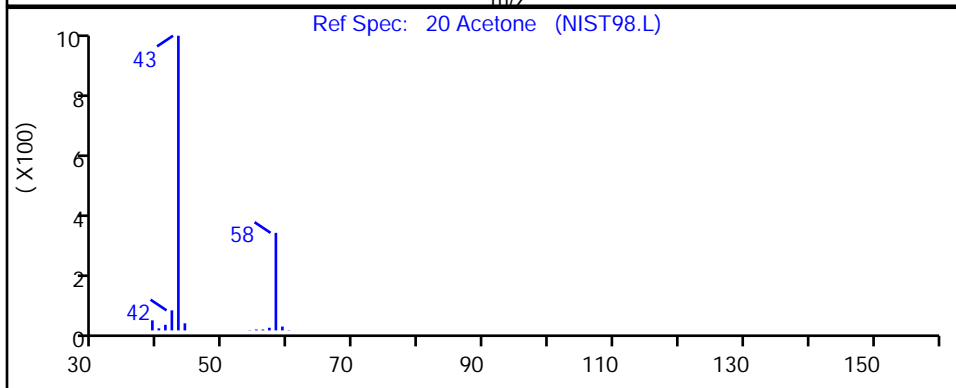
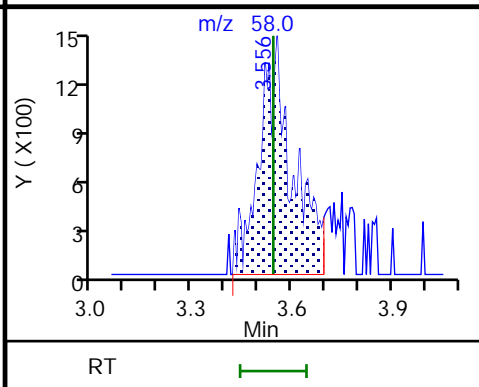
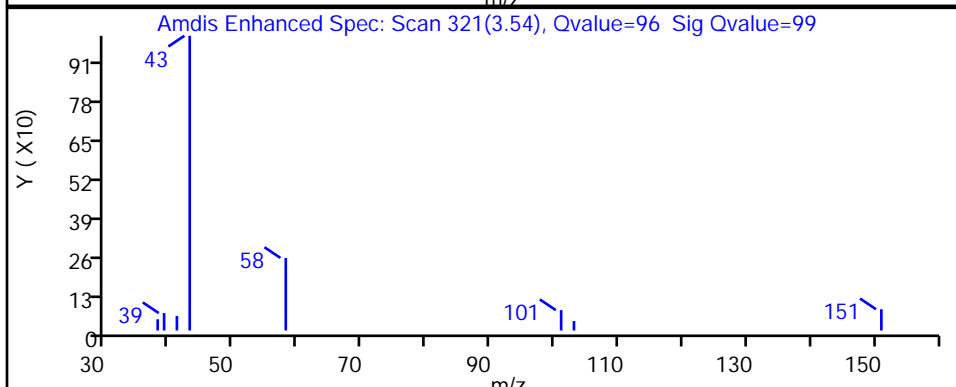
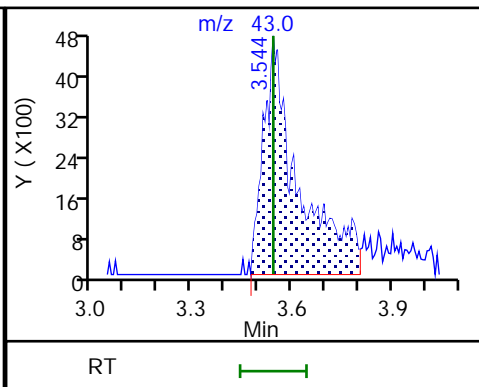
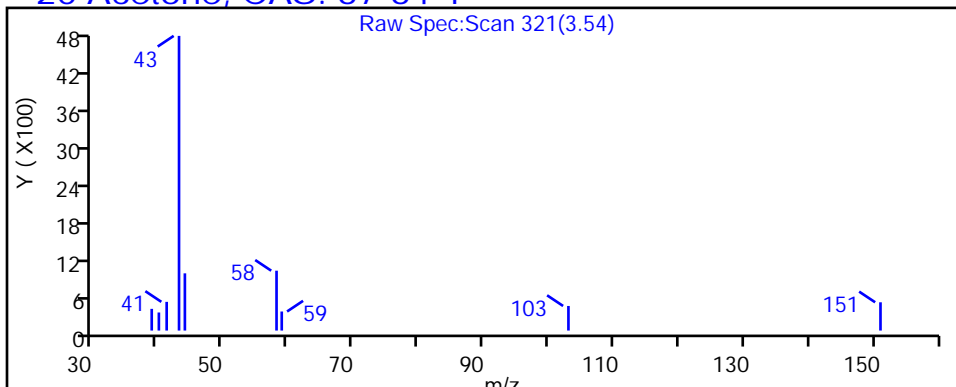
Method: MSV_16334_25mL

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\20201104-14632.b\Gn04S15.D

Injection Date: 04-Nov-2020 15:36:30

Instrument ID: 16334

Lims ID: 410-19023-A-9

Lab Sample ID: 410-19023-9

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

Operator ID: jkh09052

ALS Bottle#: 21

Worklist Smp#: 21

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

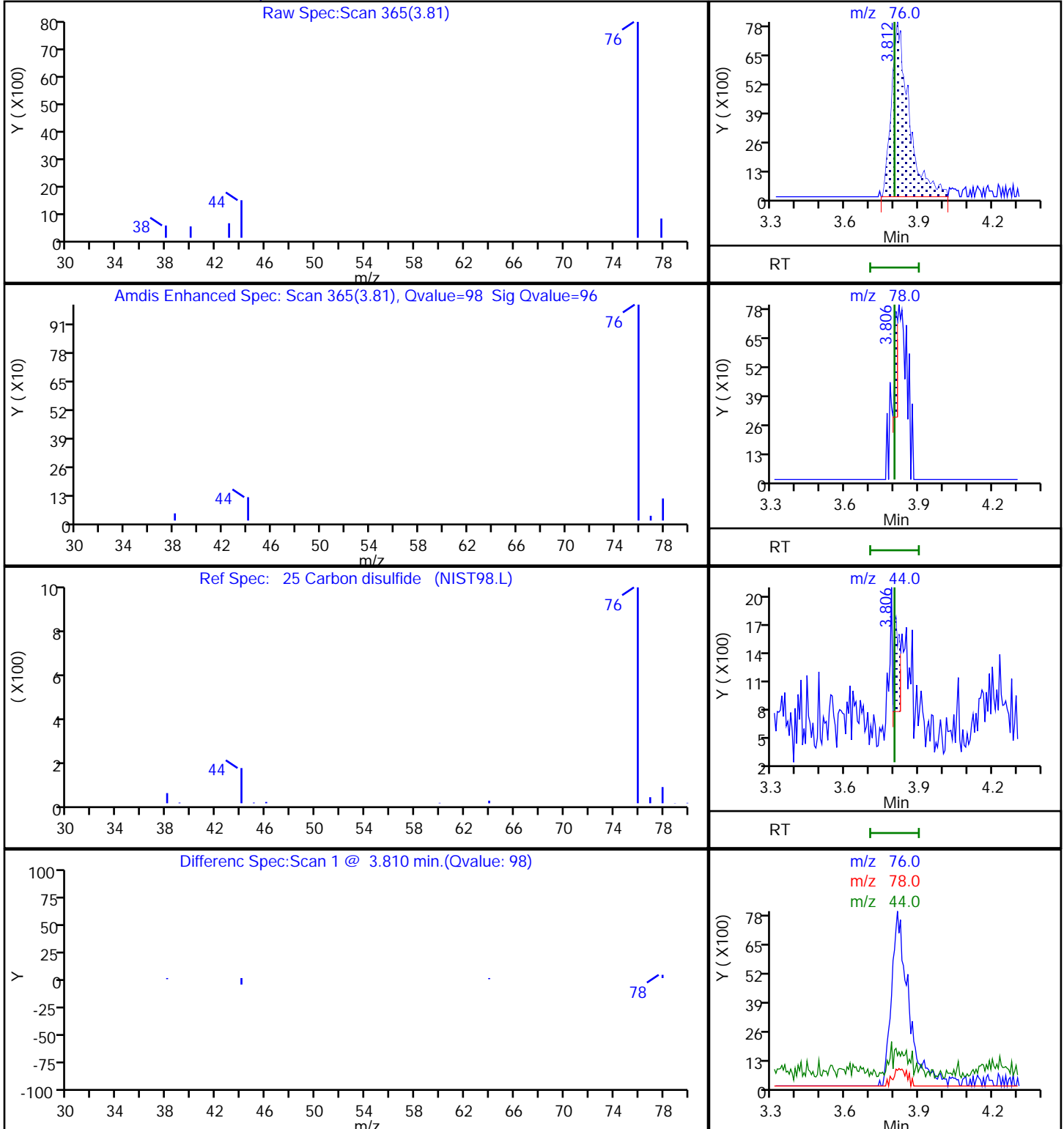
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

25 Carbon disulfide, CAS: 75-15-0



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S15.D

Injection Date: 04-Nov-2020 15:36:30

Instrument ID: 16334

Lims ID: 410-19023-A-9

Lab Sample ID: 410-19023-9

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

Operator ID: jkh09052

ALS Bottle#: 21

Worklist Smp#: 21

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

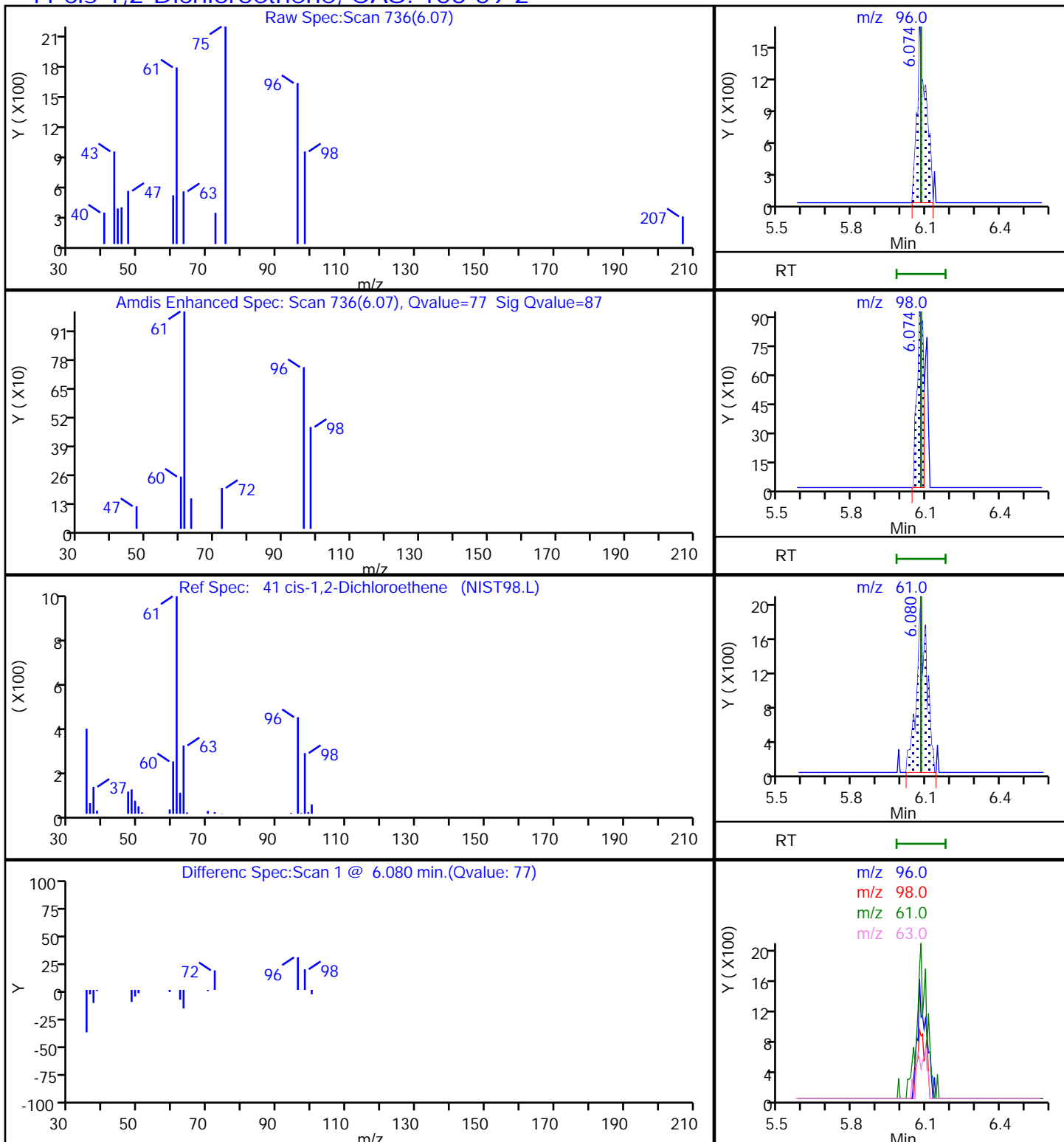
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector

MS Quad

41 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

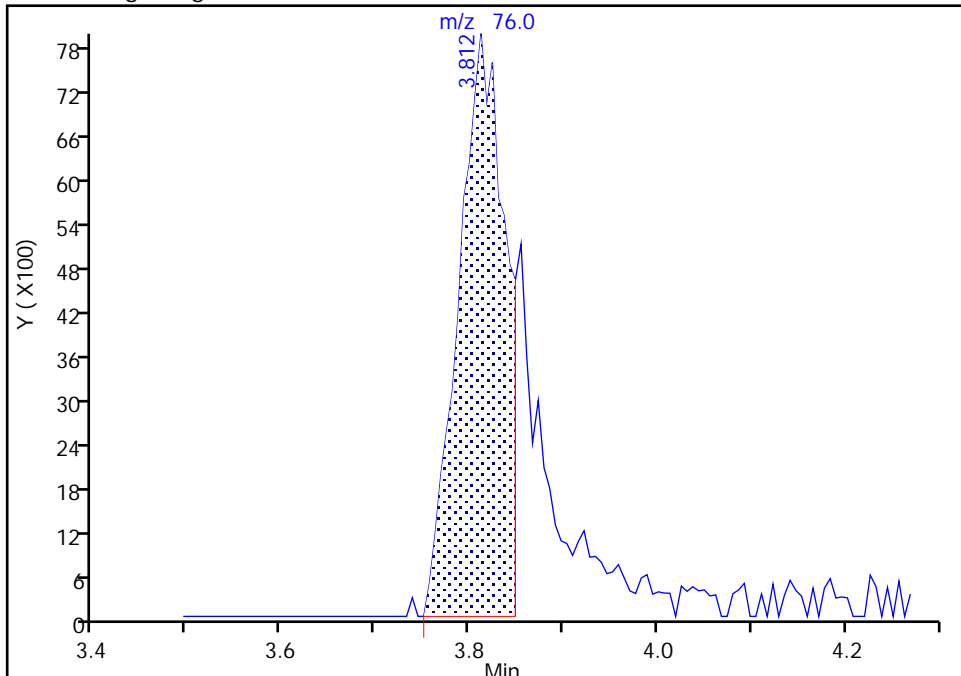
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Injection Date: 04-Nov-2020 15:36:30 Instrument ID: 16334
Lims ID: 410-19023-A-9 Lab Sample ID: 410-19023-9
Client ID: HD-COD-SW-26-0/1-0
Operator ID: jkh09052 ALS Bottle#: 21 Worklist Smp#: 21
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL 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

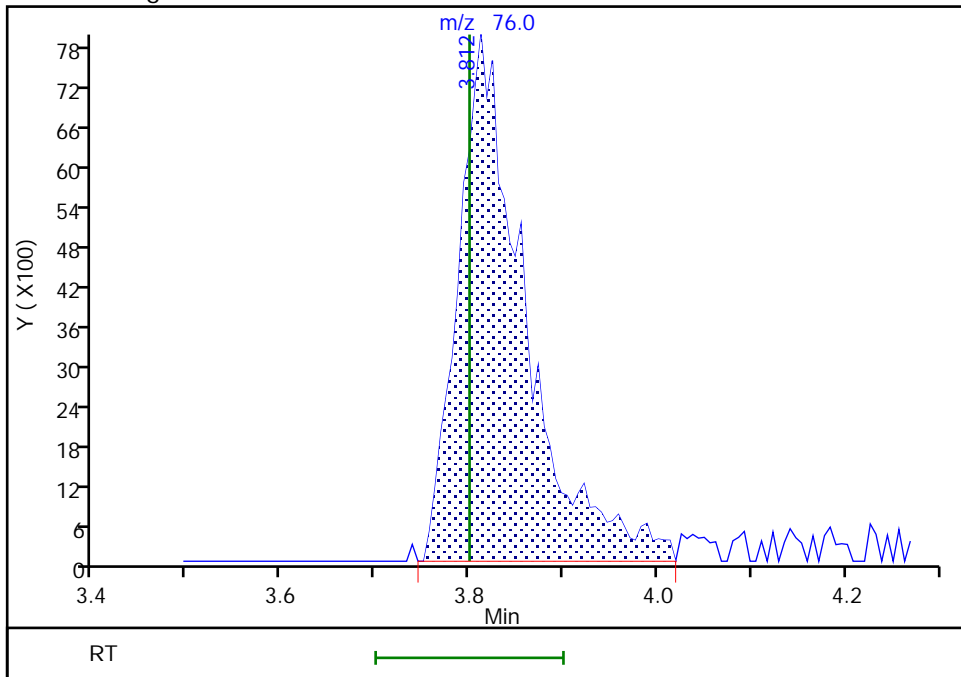
RT: 3.81
Area: 27467
Amount: 0.169394
Amount Units: ug/l

Processing Integration Results



RT: 3.81
Area: 39077
Amount: 0.240995
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 05-Nov-2020 13:04:18
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

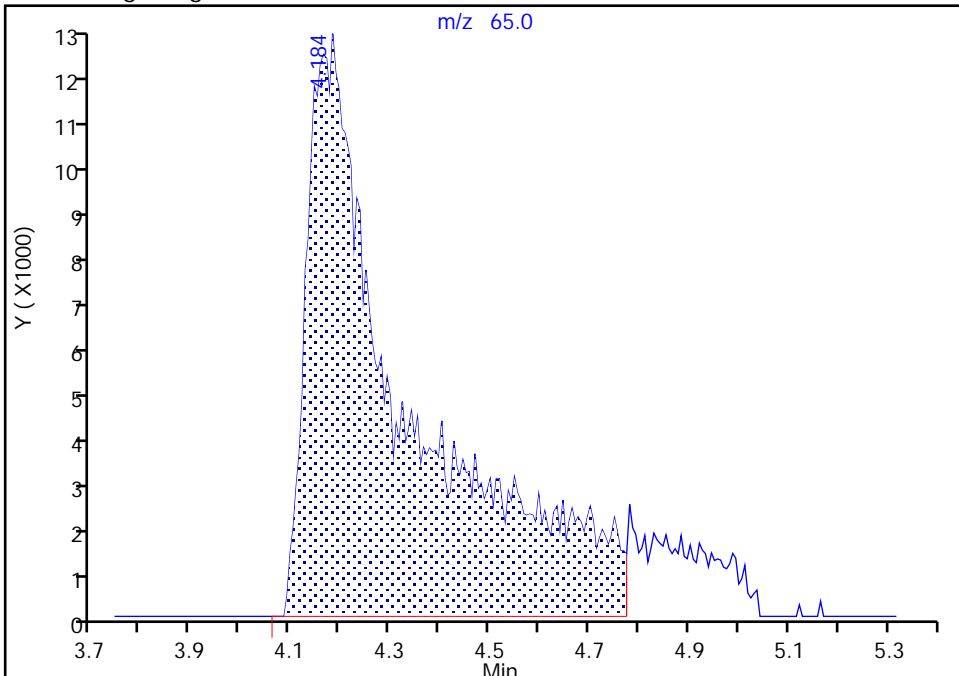
Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S15.D
Injection Date: 04-Nov-2020 15:36:30 Instrument ID: 16334
Lims ID: 410-19023-A-9 Lab Sample ID: 410-19023-9
Client ID: HD-COD-SW-26-0/1-0
Operator ID: jkh09052 ALS Bottle#: 21 Worklist Smp#: 21
Purge Vol: 25.000 mL Dil. Factor: 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

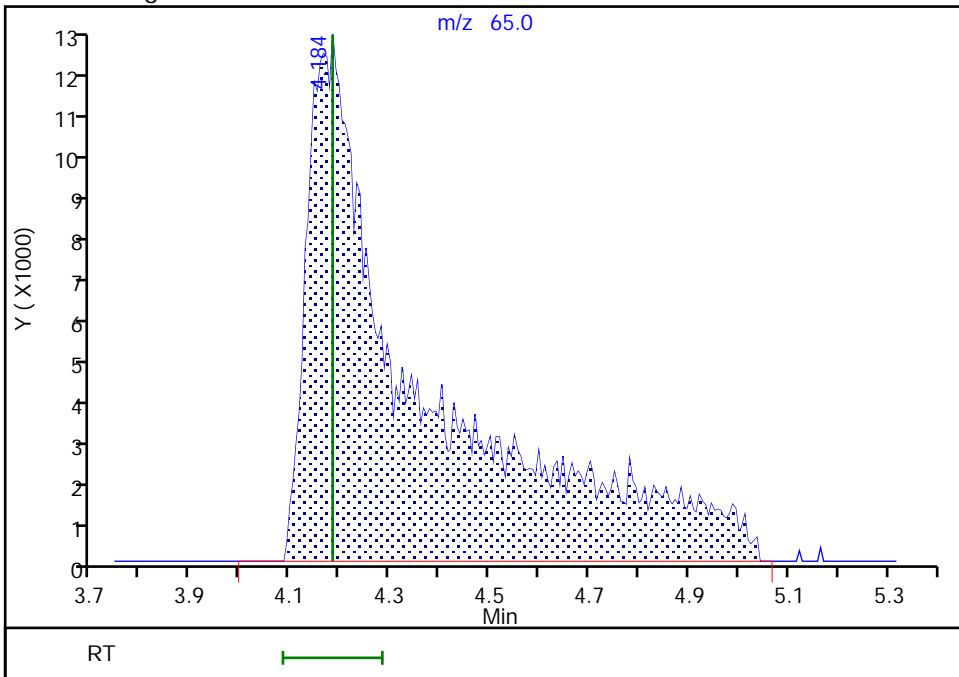
RT: 4.18
Area: 177210
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.18
Area: 198175
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 05-Nov-2020 13:04:23
Audit Action: Manually Integrated

Audit Reason: Other

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-19023-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-27-0/1-0 Lab Sample ID: 410-19023-10
 Matrix: Water Lab File ID: Gn04S16.D
 Analysis Method: 8260C LL Date Collected: 10/29/2020 11:15
 Sample wt/vol: 25 (mL) Date Analyzed: 11/04/2020 15:58
 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.: 61951 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND		0.50	0.060
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
106-93-4	1,2-Dibromoethane (EDB)	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	2.7	J	5.0	0.90
107-13-1	Acrylonitrile	ND		5.0	0.40
71-43-2	Benzene	ND		0.50	0.050
74-97-5	Bromochloromethane	ND		0.50	0.050
75-27-4	Bromodichloromethane	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	0.22	J	1.0	0.060
56-23-5	Carbon tetrachloride	ND		0.50	0.070
108-90-7	Chlorobenzene	ND		0.50	0.060
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	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.068	J	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
100-41-4	Ethylbenzene	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	0.061	J	0.50	0.060
108-88-3	Toluene	0.072	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.: 410-19023-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-27-0/1-0 Lab Sample ID: 410-19023-10
 Matrix: Water Lab File ID: Gn04S16.D
 Analysis Method: 8260C LL Date Collected: 10/29/2020 11:15
 Sample wt/vol: 25 (mL) Date Analyzed: 11/04/2020 15:58
 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.: 61951 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	0.094	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
1868-53-7	Dibromofluoromethane (Surr)	94		80-120
2037-26-5	Toluene-d8 (Surr)	102		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S16.D
 Lims ID: 410-19023-A-10
 Client ID: HD-COD-SW-27-0/1-0
 Sample Type: Client
 Inject. Date: 04-Nov-2020 15:58:30 ALS Bottle#: 22 Worklist Smp#: 22
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014632-022
 Misc. Info.: 410-19023-A-11
 Operator ID: jkh09052 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 05-Nov-2020 13:13:18 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: CTX1002

First Level Reviewer: howej

Date: 05-Nov-2020 13:05:15

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	95	5030	0.0601	
7 Vinyl chloride	62		2.257				ND	
9 Bromomethane	94		2.581				ND	
10 Chloroethane	64		2.660				ND	
19 1,1-Dichloroethene	96		3.507				ND	
20 Acetone	43	3.550	3.544	0.006	100	30509	2.72	
25 Carbon disulfide	76	3.812	3.800	0.012	99	35413	0.2200	
28 Methylene Chloride	84		4.172				ND	
* 29 t-Butyl alcohol-d10 (IS)	65	4.178	4.184	-0.006	0	200866	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		6.056				ND	
41 cis-1,2-Dichloroethene	96	6.086	6.080	0.006	75	4063	0.0677	
48 Chlorobromomethane	128		6.415				ND	
50 Chloroform	83	6.574	6.568	0.006	90	4709	0.0449	
\$ 52 Dibromofluoromethane (Surr)	113	6.787	6.781	0.006	93	543117	9.40	
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	7.238	0.000	0	110976	10.1	
59 Benzene	78		7.269				ND	7
60 1,2-Dichloroethane	62		7.342				ND	
* 63 Fluorobenzene (IS)	96	7.671	7.671	0.000	99	2163431	10.0	
67 Trichloroethene	95	8.153	8.153	0.000	93	5675	0.0943	
69 1,2-Dichloropropane	63		8.488				ND	
75 Dichlorobromomethane	83		8.835				ND	7
80 cis-1,3-Dichloropropene	75		9.384				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	7
\$ 82 Toluene-d8 (Surr)	98	9.689	9.689	0.000	94	2172334	10.2	
83 Toluene	92	9.768	9.768	0.000	98	9652	0.0715	

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	4022	0.0609	
91 2-Hexanone	43		10.451				ND	7
93 Chlorodibromomethane	129		10.610				ND	
94 Ethylene Dibromide	107		10.719				ND	
* 95 Chlorobenzene-d5 (IS)	117	11.152	11.152	0.000	87	1634022	10.0	
97 Chlorobenzene	112		11.176				ND	
S 101 Xylenes, Total	106		11.245				ND	7
98 1,1,1,2-Tetrachloroethane	131		11.262				ND	
99 Ethylbenzene	91		11.262				ND	7
100 m-Xylene & p-Xylene	106	11.372	11.378	-0.006	0	4944	0.0474	
102 o-Xylene	106		11.707				ND	7
103 Styrene	104		11.725				ND	7
104 Bromoform	173		11.878				ND	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	90	765015	9.63	
109 1,1,2,2-Tetrachloroethane	83		12.256				ND	
* 124 1,4-Dichlorobenzene-d4	152	13.030	13.024	0.006	96	810703	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MSV_29_826ISS_00010

Amount Added: 1.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S16.D

Injection Date: 04-Nov-2020 15:58:30

Instrument ID: 16334

Operator ID: jkh09052

Lims ID: 410-19023-A-10

Lab Sample ID: 410-19023-10

Worklist Smp#: 22

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

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\20201104-14632.b\Gn04S16.D
 Lims ID: 410-19023-A-10
 Client ID: HD-COD-SW-27-0/1-0
 Sample Type: Client
 Inject. Date: 04-Nov-2020 15:58:30 ALS Bottle#: 22 Worklist Smp#: 22
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014632-022
 Misc. Info.: 410-19023-A-11
 Operator ID: jkh09052 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 05-Nov-2020 13:13:18 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: CTX1002

First Level Reviewer: howej

Date: 05-Nov-2020 13:05:15

Compound	Amount Added	Amount Recovered	% Rec.
\$ 52 Dibromofluoromethane (Surr)	10.0	9.40	93.98
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.1	100.83
\$ 82 Toluene-d8 (Surr)	10.0	10.2	101.56
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.63	96.30

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S16.D

Injection Date: 04-Nov-2020 15:58:30

Instrument ID: 16334

Lims ID: 410-19023-A-10

Lab Sample ID: 410-19023-10

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

Operator ID: jkh09052

ALS Bottle#: 22

Worklist Smp#: 22

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

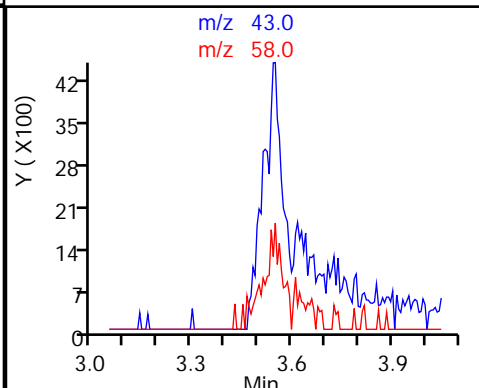
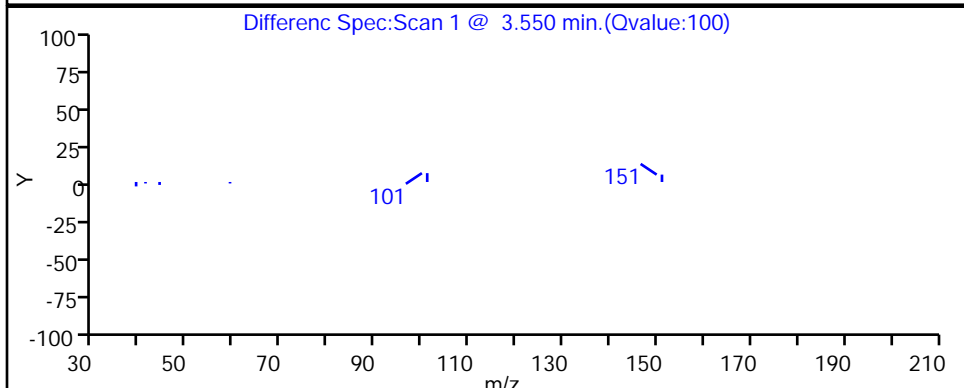
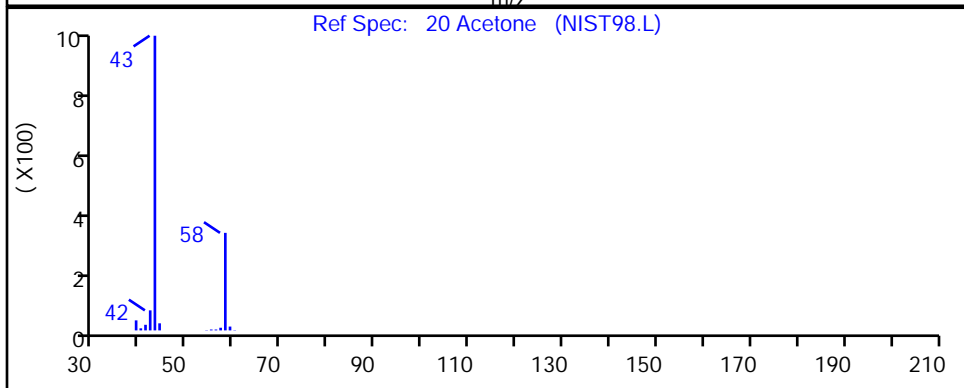
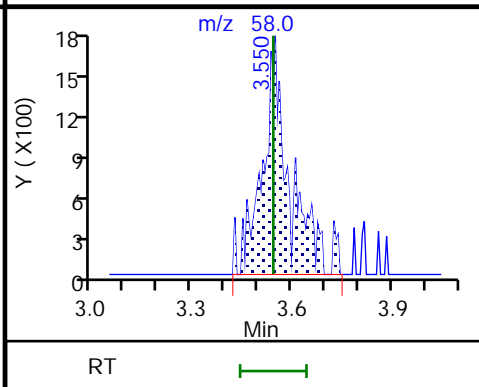
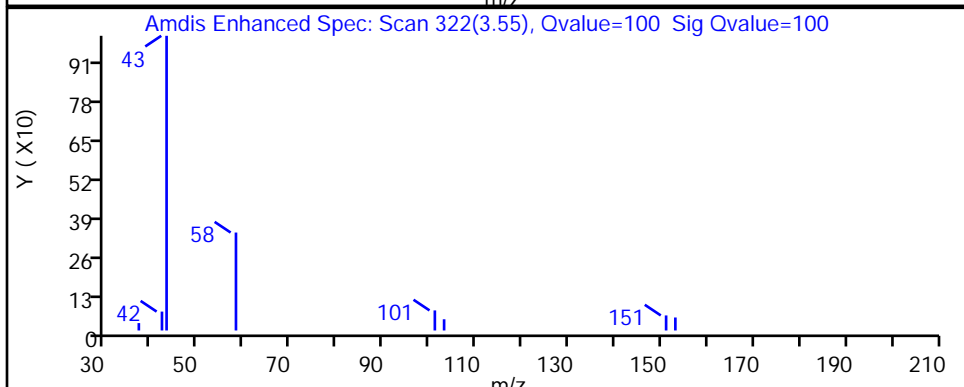
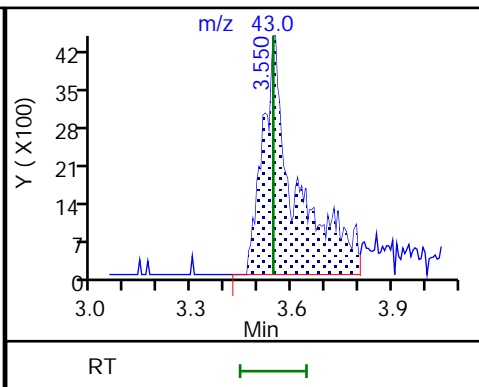
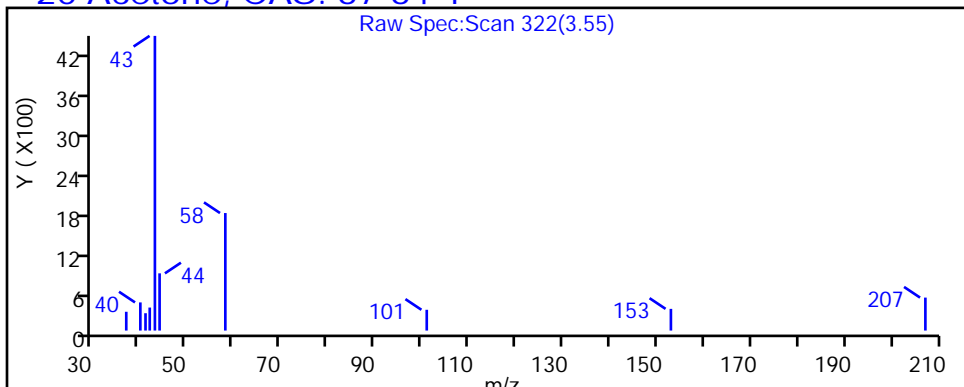
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

20 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S16.D

Injection Date: 04-Nov-2020 15:58:30

Instrument ID: 16334

Lims ID: 410-19023-A-10

Lab Sample ID: 410-19023-10

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

Operator ID: jkh09052

ALS Bottle#: 22

Worklist Smp#: 22

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

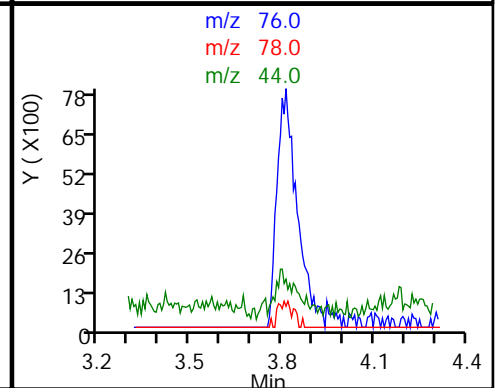
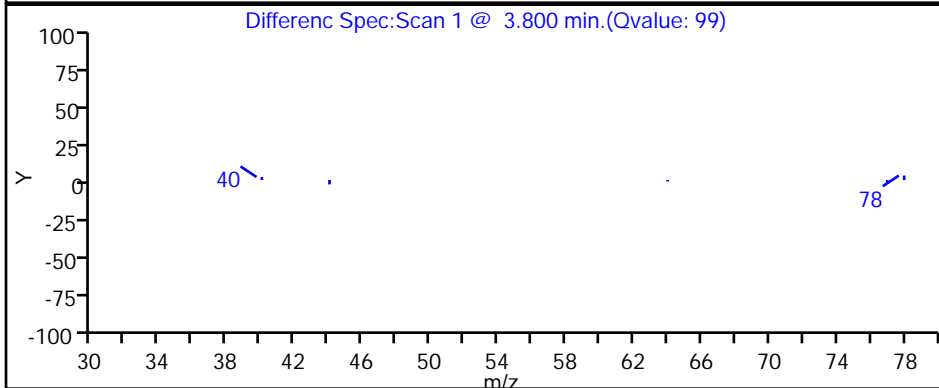
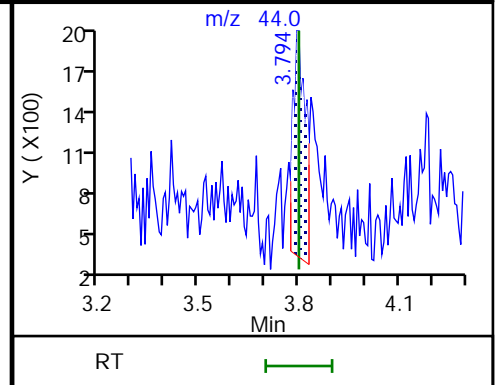
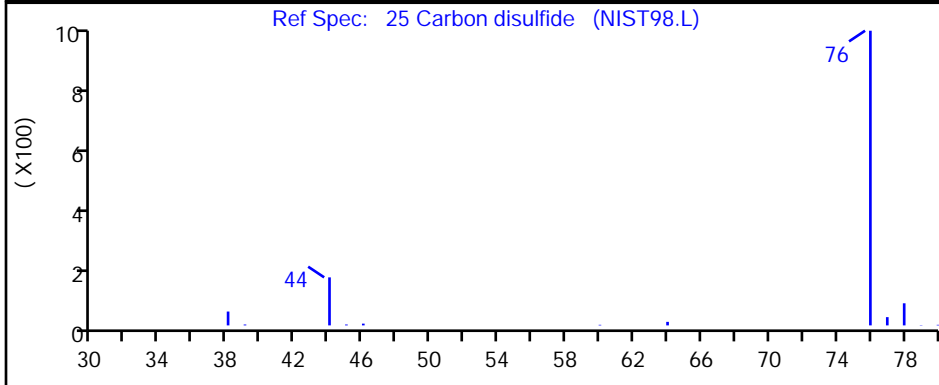
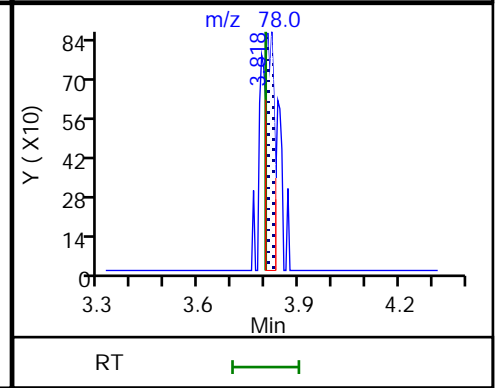
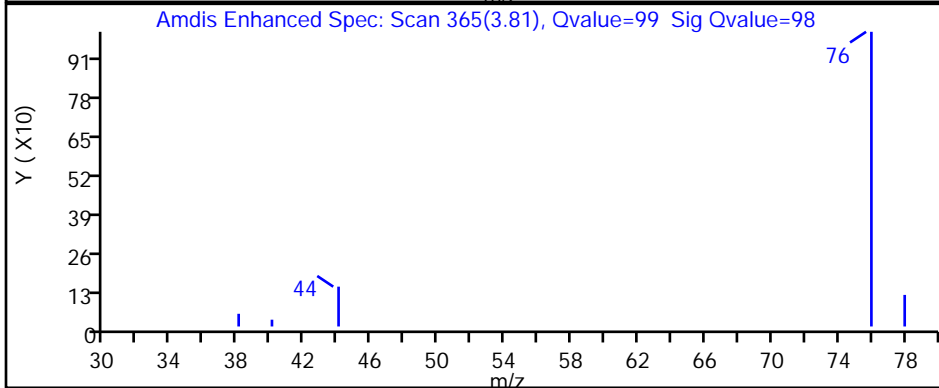
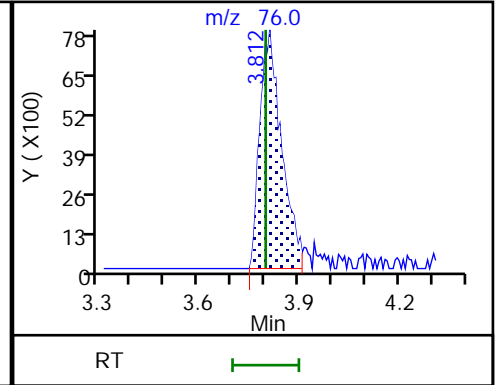
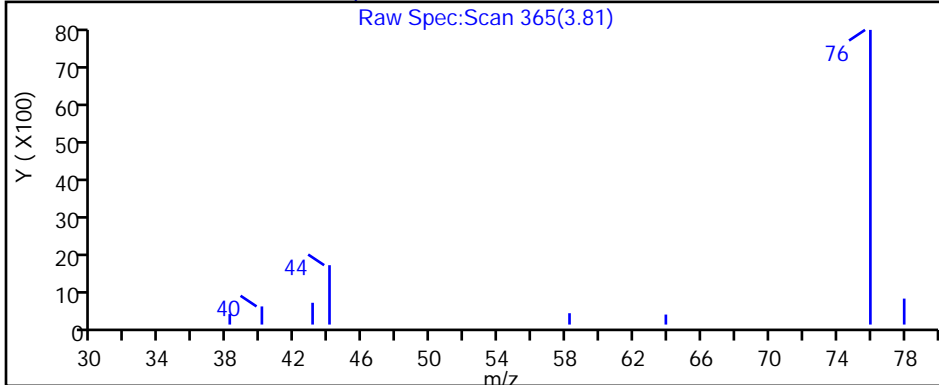
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

25 Carbon disulfide, CAS: 75-15-0



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S16.D

Injection Date: 04-Nov-2020 15:58:30

Instrument ID: 16334

Lims ID: 410-19023-A-10

Lab Sample ID: 410-19023-10

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

Operator ID: jkh09052

ALS Bottle#: 22

Worklist Smp#: 22

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

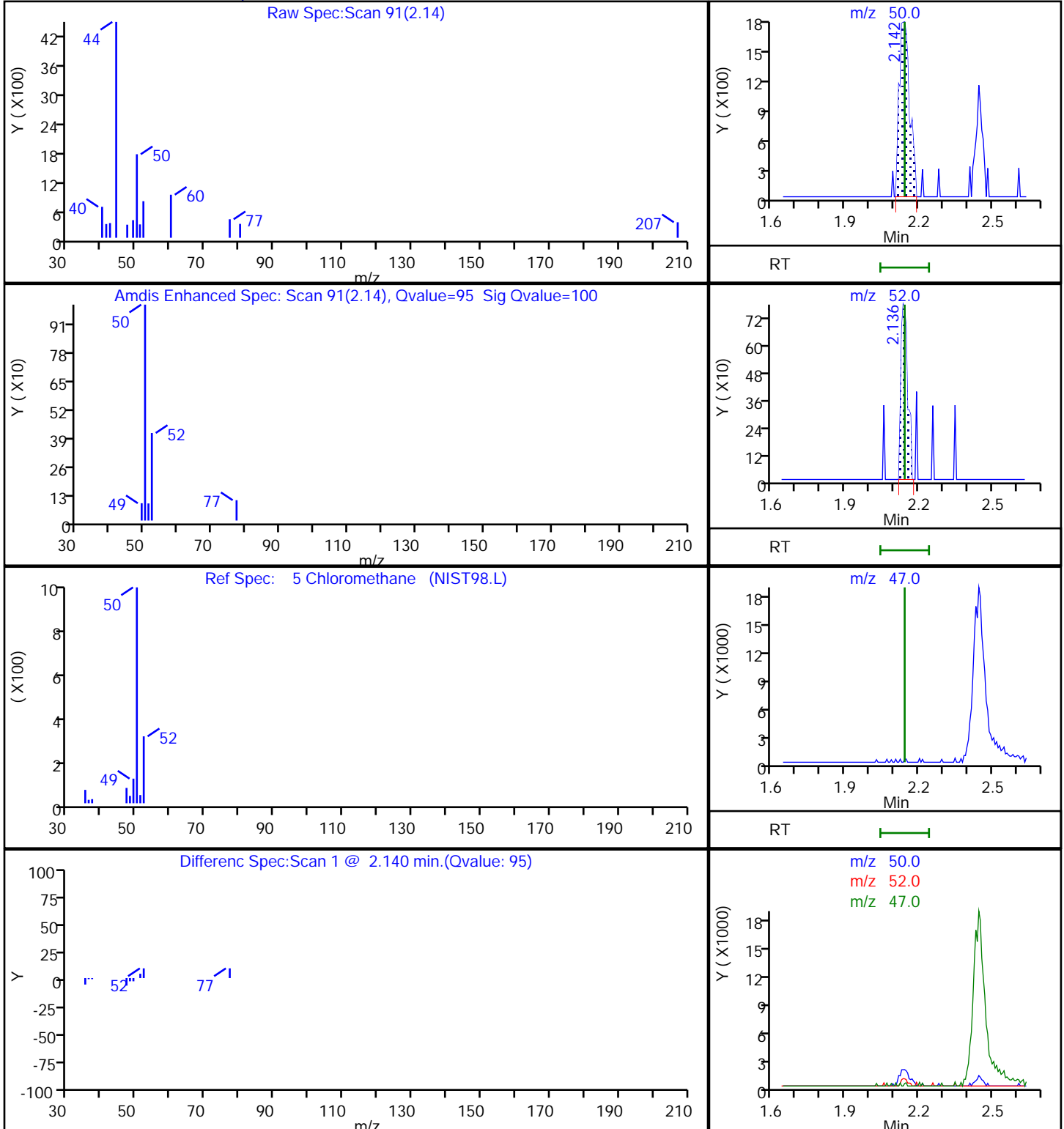
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector

MS Quad

5 Chloromethane, CAS: 74-87-3



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S16.D

Injection Date: 04-Nov-2020 15:58:30

Instrument ID: 16334

Lims ID: 410-19023-A-10

Lab Sample ID: 410-19023-10

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

Operator ID: jkh09052

ALS Bottle#: 22

Worklist Smp#: 22

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

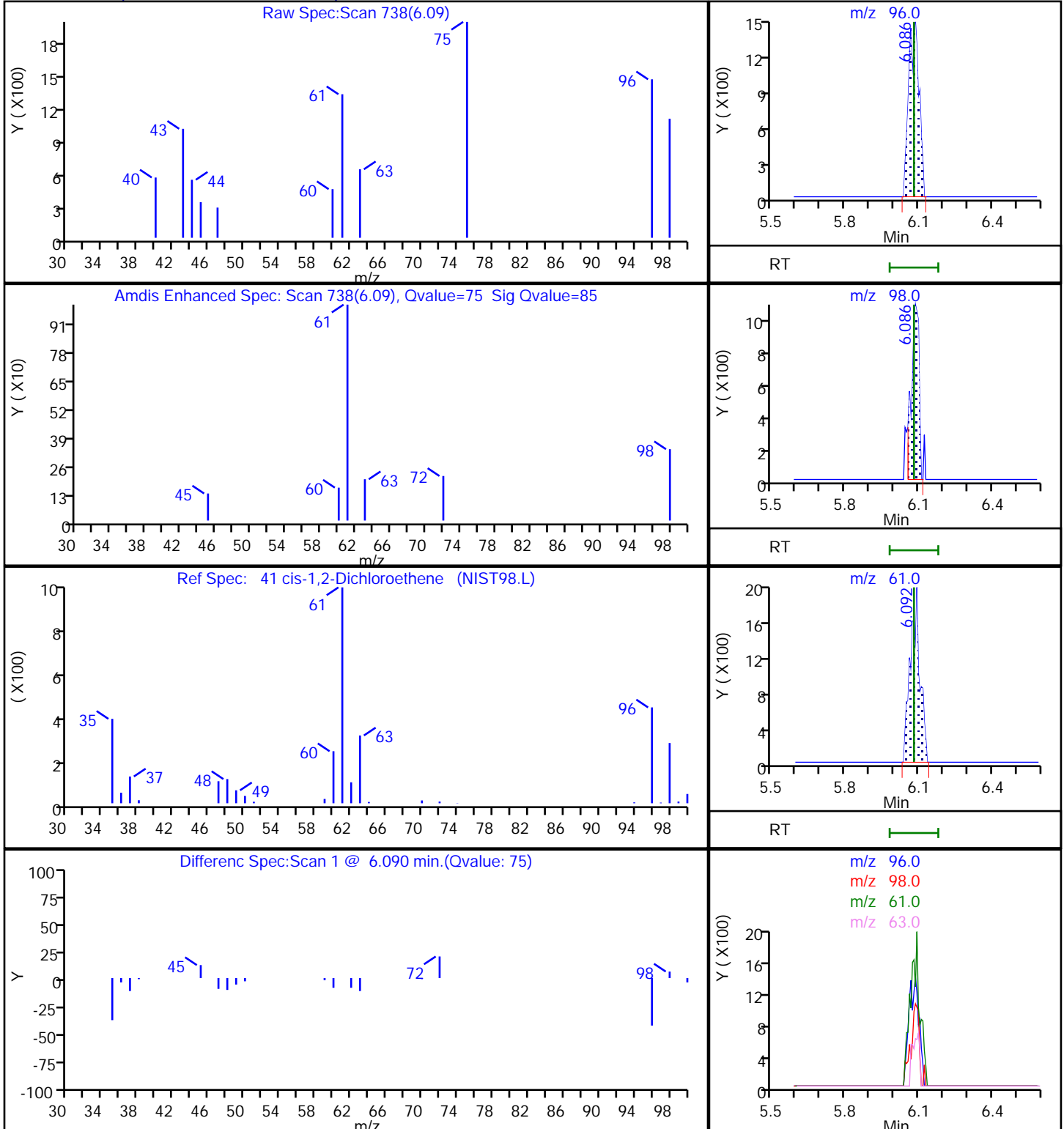
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

41 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S16.D

Injection Date: 04-Nov-2020 15:58:30

Instrument ID: 16334

Lims ID: 410-19023-A-10

Lab Sample ID: 410-19023-10

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

Operator ID: jkh09052

ALS Bottle#: 22

Worklist Smp#: 22

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

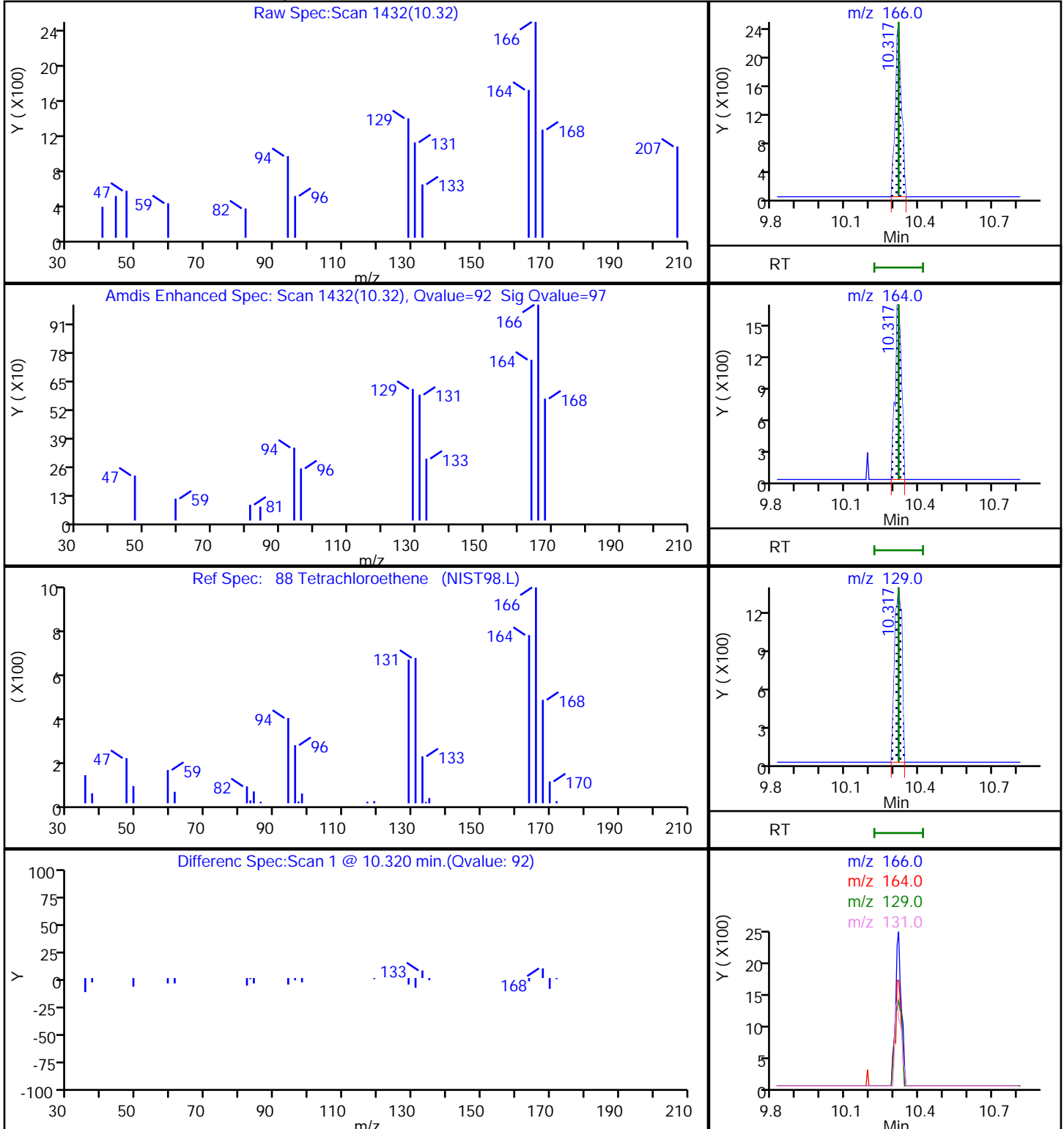
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

88 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S16.D

Injection Date: 04-Nov-2020 15:58:30

Instrument ID: 16334

Lims ID: 410-19023-A-10

Lab Sample ID: 410-19023-10

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

Operator ID: jkh09052

ALS Bottle#: 22

Worklist Smp#: 22

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

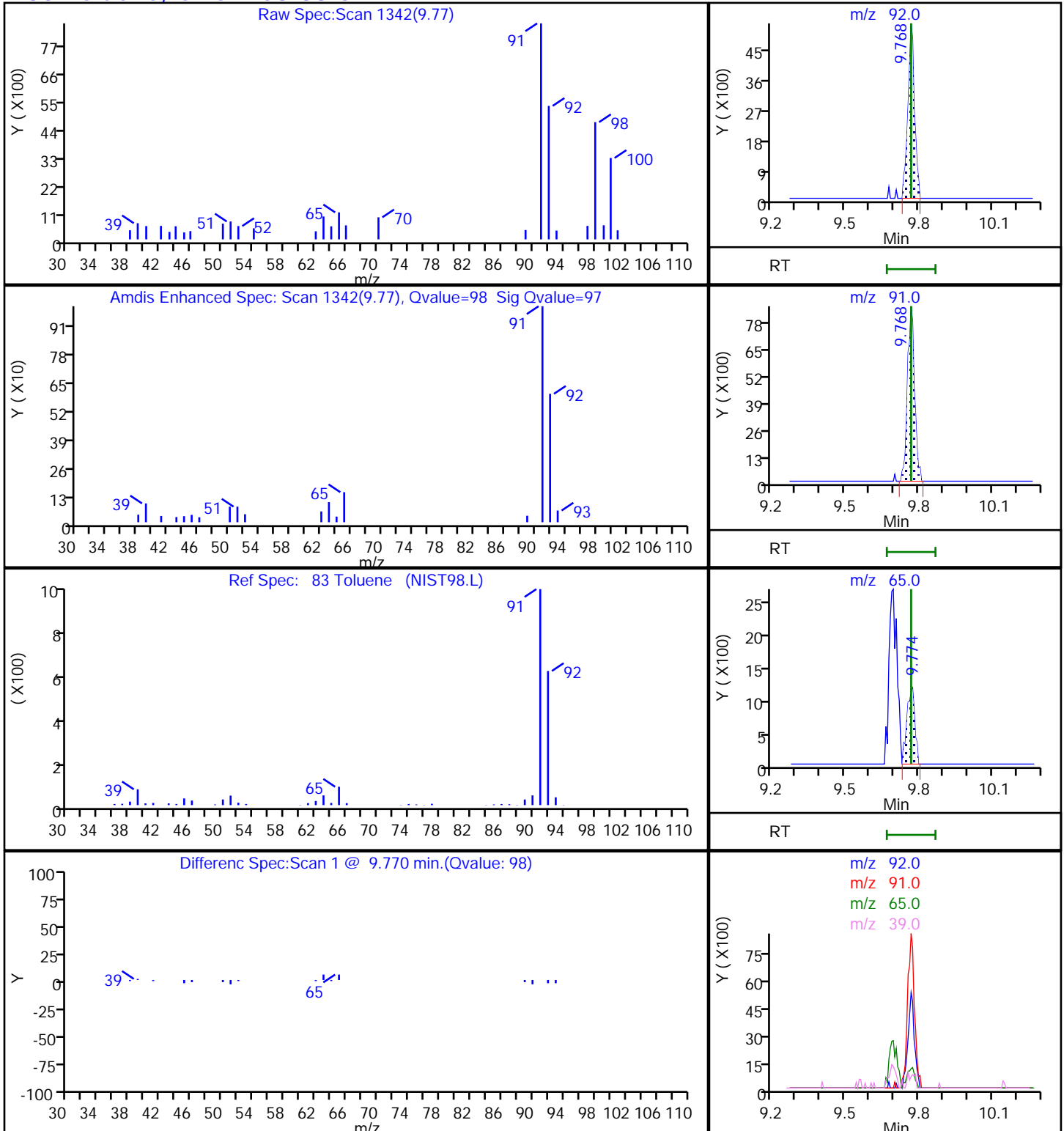
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector

MS Quad

83 Toluene, CAS: 108-88-3



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S16.D

Injection Date: 04-Nov-2020 15:58:30

Instrument ID: 16334

Lims ID: 410-19023-A-10

Lab Sample ID: 410-19023-10

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

Operator ID: jkh09052

ALS Bottle#: 22

Worklist Smp#: 22

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

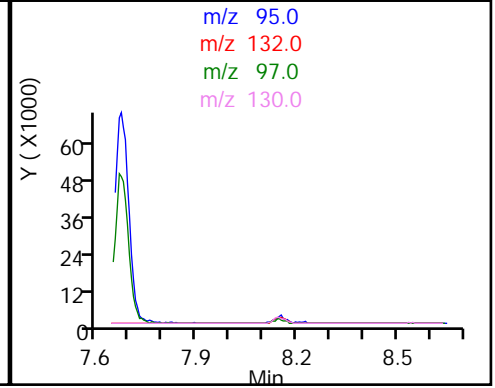
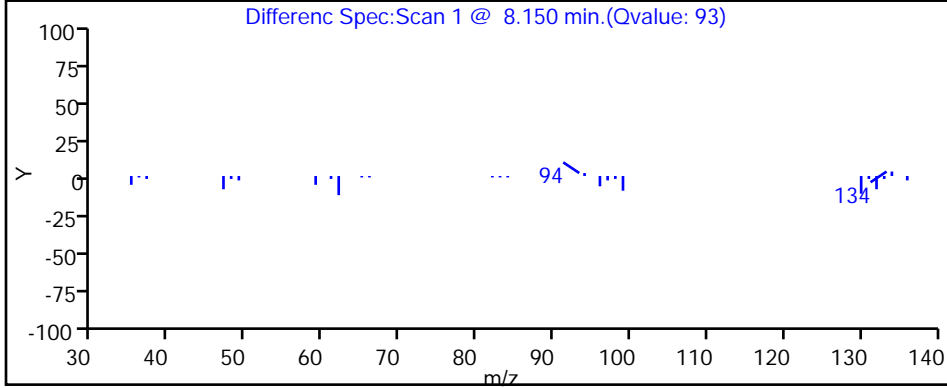
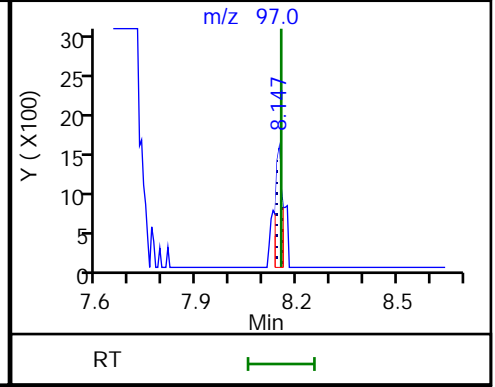
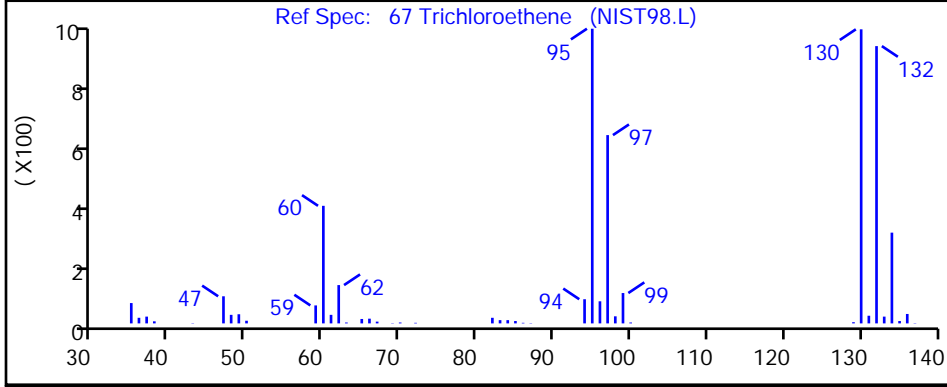
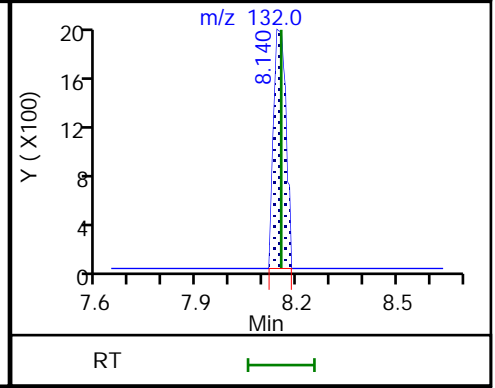
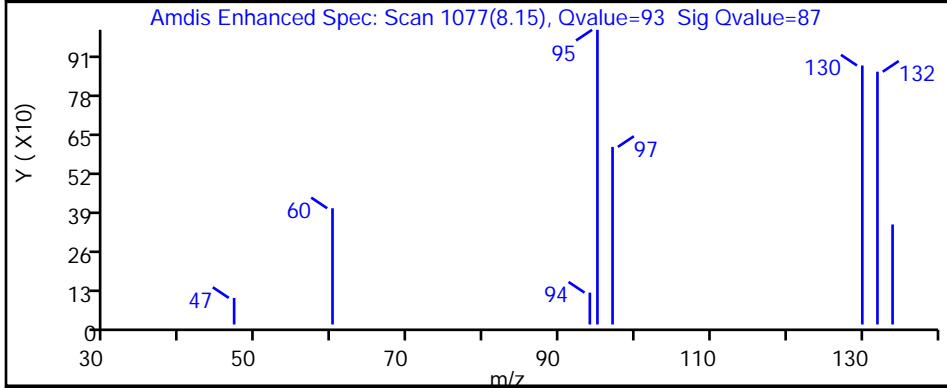
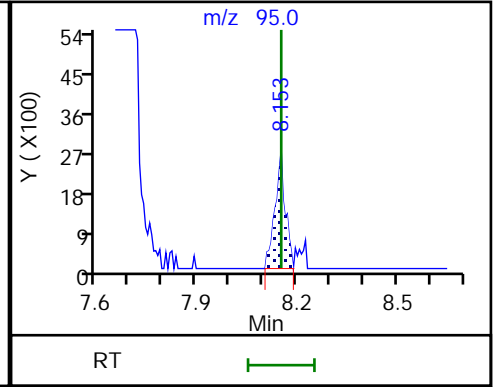
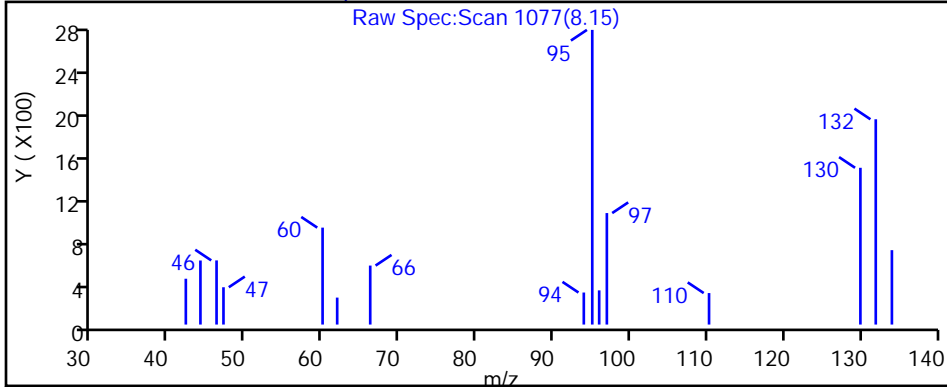
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

67 Trichloroethene, CAS: 79-01-6



Euofins Lancaster Laboratories Env, LLC

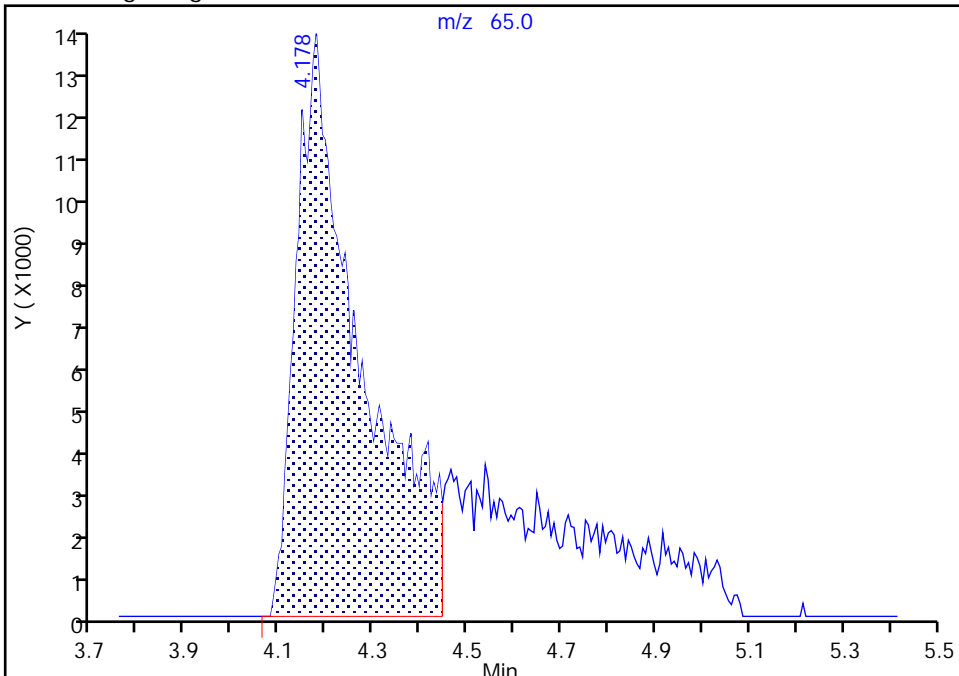
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Injection Date: 04-Nov-2020 15:58:30 Instrument ID: 16334
Lims ID: 410-19023-A-10 Lab Sample ID: 410-19023-10
Client ID: HD-COD-SW-27-0/1-0
Operator ID: jkh09052 ALS Bottle#: 22 Worklist Smp#: 22
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL 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

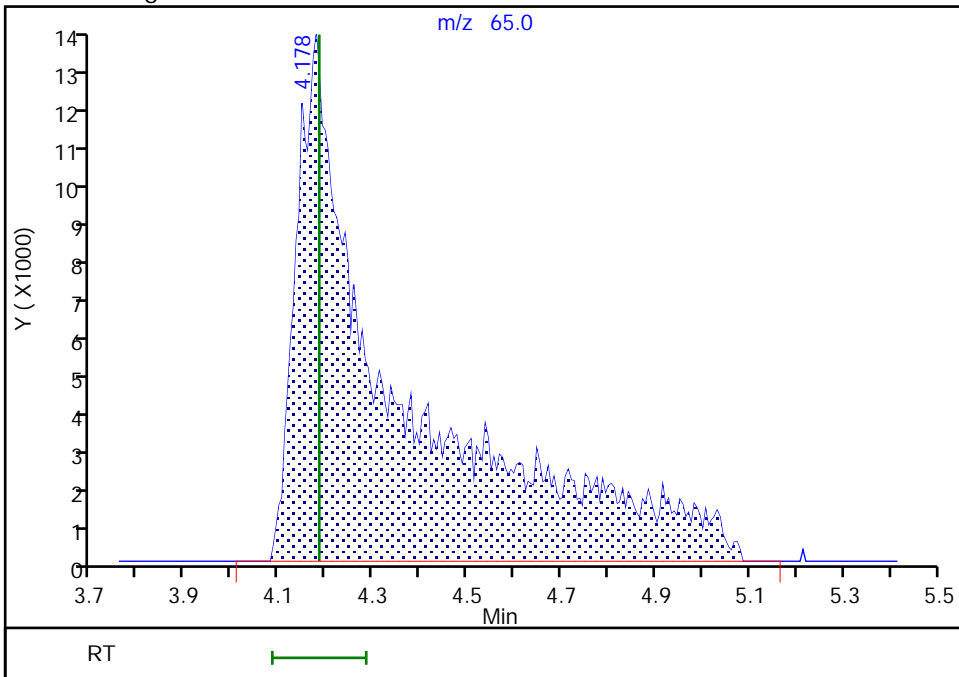
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Area: 130251
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.18
Area: 200866
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 05-Nov-2020 13:04:59
Audit Action: Manually Integrated

Audit Reason: Other

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-19023-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-28-0/1-0 Lab Sample ID: 410-19023-11
 Matrix: Water Lab File ID: Gn04S17.D
 Analysis Method: 8260C LL Date Collected: 10/29/2020 11:55
 Sample wt/vol: 25 (mL) Date Analyzed: 11/04/2020 16:20
 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.: 61951 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND		0.50	0.060
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
106-93-4	1,2-Dibromoethane (EDB)	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	3.3	J	5.0	0.90
107-13-1	Acrylonitrile	ND		5.0	0.40
71-43-2	Benzene	ND		0.50	0.050
74-97-5	Bromochloromethane	ND		0.50	0.050
75-27-4	Bromodichloromethane	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	0.24	J	1.0	0.060
56-23-5	Carbon tetrachloride	ND		0.50	0.070
108-90-7	Chlorobenzene	ND		0.50	0.060
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
124-48-1	Dibromochloromethane	ND		0.50	0.070
100-41-4	Ethylbenzene	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	0.088	J	0.50	0.060
108-88-3	Toluene	0.58		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.: 410-19023-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-28-0/1-0 Lab Sample ID: 410-19023-11
 Matrix: Water Lab File ID: Gn04S17.D
 Analysis Method: 8260C LL Date Collected: 10/29/2020 11:55
 Sample wt/vol: 25 (mL) Date Analyzed: 11/04/2020 16:20
 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.: 61951 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
1868-53-7	Dibromofluoromethane (Surr)	93		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S17.D
 Lims ID: 410-19023-A-11
 Client ID: HD-COD-SW-28-0/1-0
 Sample Type: Client
 Inject. Date: 04-Nov-2020 16:20:30 ALS Bottle#: 23 Worklist Smp#: 23
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014632-023
 Misc. Info.: 410-19023-A-12
 Operator ID: jkh09052 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 05-Nov-2020 13:13:18 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: CTX1002

First Level Reviewer: howej

Date: 05-Nov-2020 13:06:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Chloromethane	50		2.142				ND	7
7 Vinyl chloride	62		2.257				ND	
9 Bromomethane	94		2.581				ND	
10 Chloroethane	64		2.660				ND	7
19 1,1-Dichloroethene	96		3.507				ND	
20 Acetone	43	3.550	3.544	0.006	98	35215	3.30	
25 Carbon disulfide	76	3.824	3.800	0.024	99	38731	0.2449	M
28 Methylene Chloride	84		4.172				ND	
* 29 t-Butyl alcohol-d10 (IS)	65	4.190	4.184	0.006	0	191003	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	6.056	-0.007	21	10356	0.5658	M
41 cis-1,2-Dichloroethene	96		6.080				ND	
48 Chlorobromomethane	128		6.415				ND	
50 Chloroform	83		6.568				ND	
\$ 52 Dibromofluoromethane (Surr)	113	6.787	6.781	0.006	93	529831	9.33	
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	7.238	0.006	0	107705	9.96	
59 Benzene	78		7.269				ND	7
60 1,2-Dichloroethane	62		7.342				ND	
* 63 Fluorobenzene (IS)	96	7.671	7.671	0.000	99	2125954	10.0	
67 Trichloroethene	95		8.153				ND	
69 1,2-Dichloropropane	63		8.488				ND	
75 Dichlorobromomethane	83		8.835				ND	7
80 cis-1,3-Dichloropropene	75		9.384				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	7
\$ 82 Toluene-d8 (Surr)	98	9.689	9.689	0.000	94	2114100	10.1	
83 Toluene	92	9.768	9.768	0.000	97	76768	0.5813	

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	91	5692	0.0881	
91 2-Hexanone	43		10.451				ND	7
93 Chlorodibromomethane	129		10.610				ND	
94 Ethylene Dibromide	107		10.719				ND	
* 95 Chlorobenzene-d5 (IS)	117	11.152	11.152	0.000	87	1598635	10.0	
97 Chlorobenzene	112		11.176				ND	
S 101 Xylenes, Total	106				0		0.1020	
98 1,1,1,2-Tetrachloroethane	131		11.262				ND	
99 Ethylbenzene	91		11.262				ND	7
100 m-Xylene & p-Xylene	106	11.378	11.378	0.000	0	7732	0.0758	
102 o-Xylene	106	11.701	11.707	-0.006	94	2614	0.0262	
103 Styrene	104		11.725				ND	7
104 Bromoform	173		11.878				ND	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	90	754281	9.70	
109 1,1,2,2-Tetrachloroethane	83		12.256				ND	
* 124 1,4-Dichlorobenzene-d4	152	13.024	13.024	0.000	96	800242	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MSV_29_826ISS_00010

Amount Added: 1.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S17.D

Injection Date: 04-Nov-2020 16:20:30

Instrument ID: 16334

Operator ID: jkh09052

Lims ID: 410-19023-A-11

Lab Sample ID: 410-19023-11

Worklist Smp#: 23

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

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\20201104-14632.b\Gn04S17.D
 Lims ID: 410-19023-A-11
 Client ID: HD-COD-SW-28-0/1-0
 Sample Type: Client
 Inject. Date: 04-Nov-2020 16:20:30 ALS Bottle#: 23 Worklist Smp#: 23
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014632-023
 Misc. Info.: 410-19023-A-12
 Operator ID: jkh09052 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 05-Nov-2020 13:13:18 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: CTX1002

First Level Reviewer: howej

Date: 05-Nov-2020 13:06:06

Compound	Amount Added	Amount Recovered	% Rec.
\$ 52 Dibromofluoromethane (Surr)	10.0	9.33	93.30
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	9.96	99.58
\$ 82 Toluene-d8 (Surr)	10.0	10.1	101.02
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.70	97.05

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S17.D

Injection Date: 04-Nov-2020 16:20:30

Instrument ID: 16334

Lims ID: 410-19023-A-11

Lab Sample ID: 410-19023-11

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

Operator ID: jkh09052

ALS Bottle#: 23

Worklist Smp#: 23

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

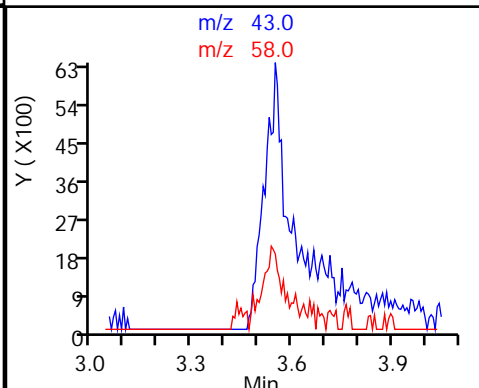
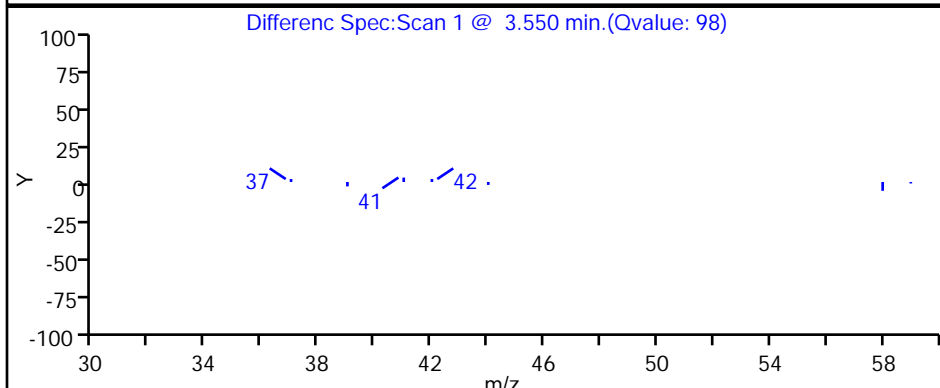
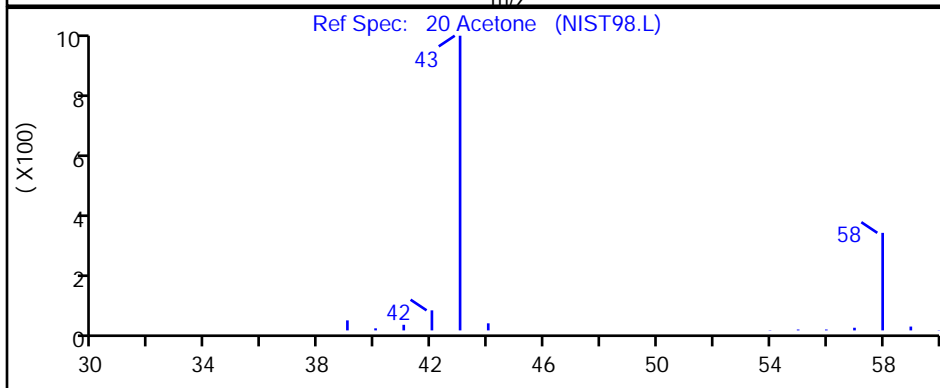
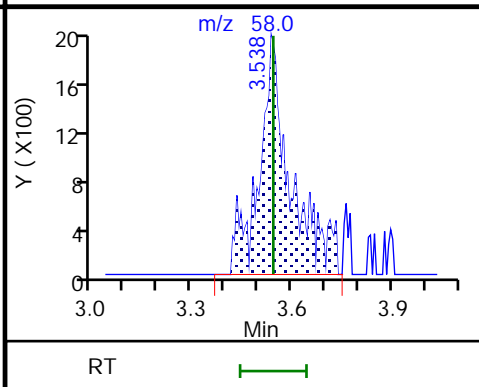
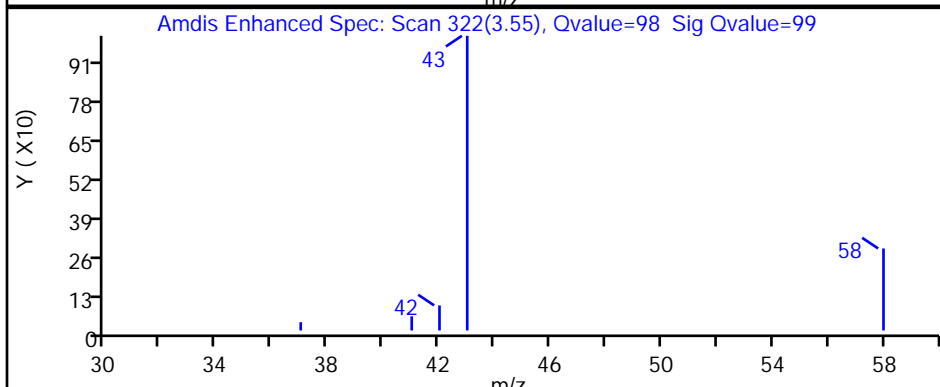
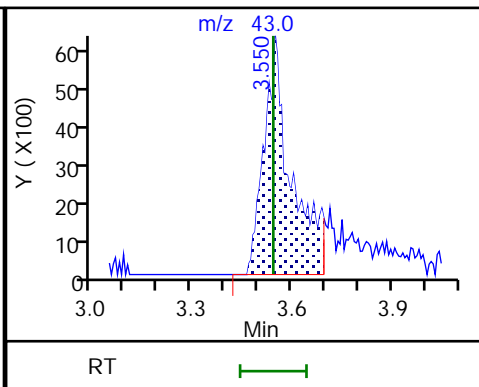
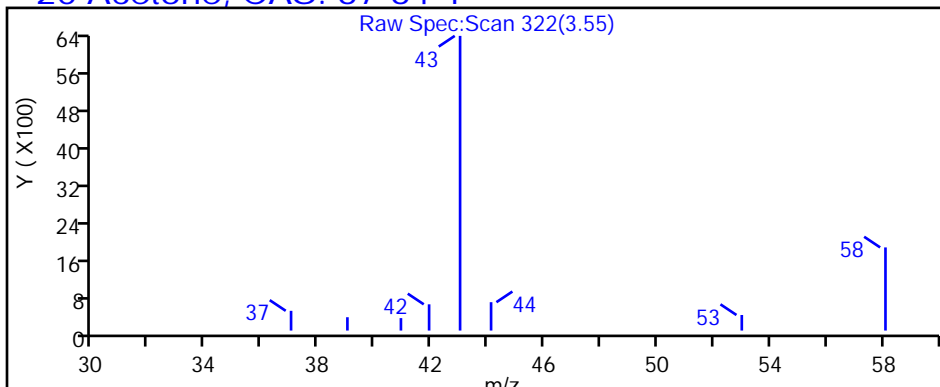
Method: MSV_16334_25mL

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\20201104-14632.b\Gn04S17.D

Injection Date: 04-Nov-2020 16:20:30

Instrument ID: 16334

Lims ID: 410-19023-A-11

Lab Sample ID: 410-19023-11

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

Operator ID: jkh09052

ALS Bottle#: 23

Worklist Smp#: 23

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

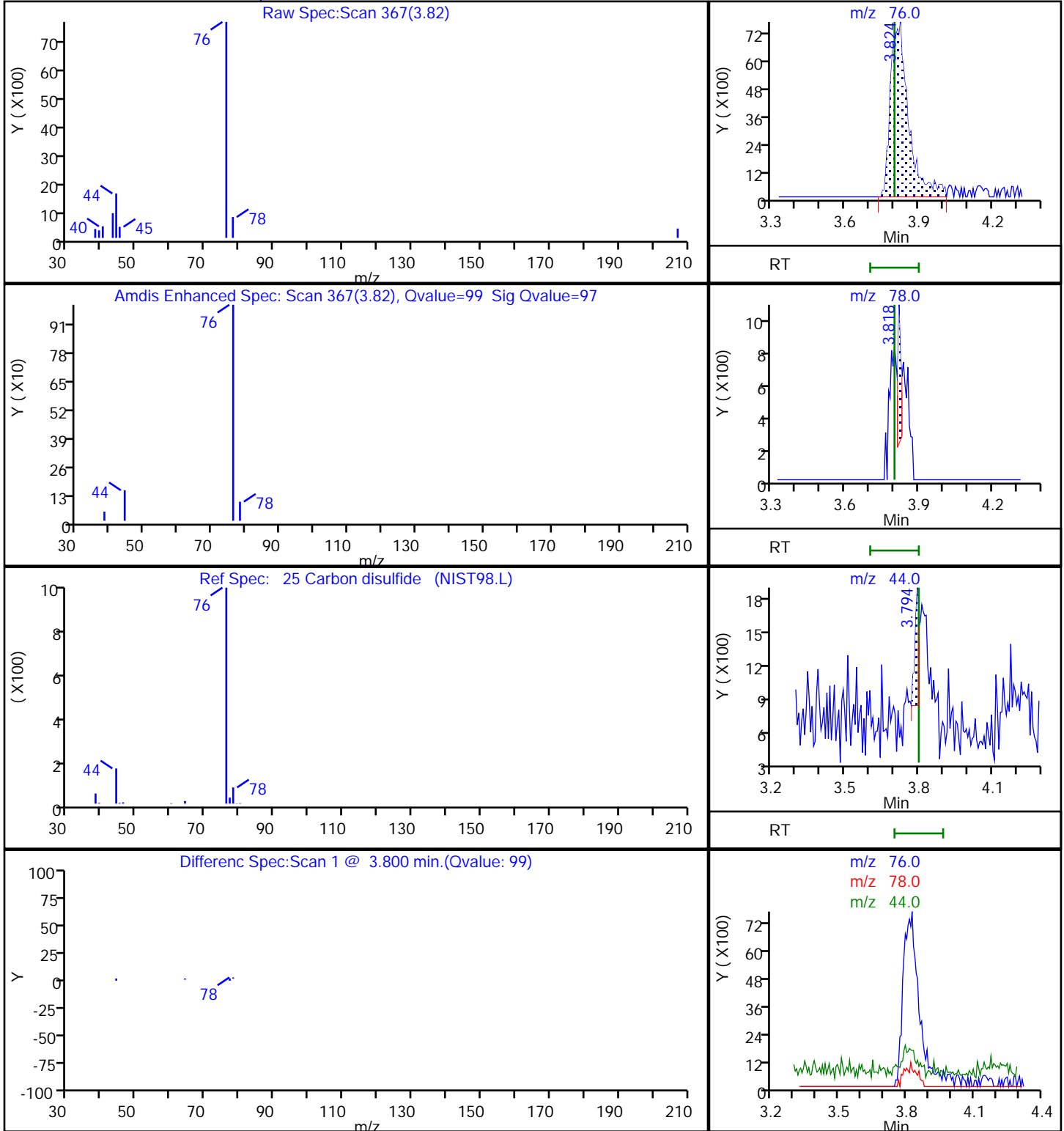
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

25 Carbon disulfide, CAS: 75-15-0



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S17.D

Injection Date: 04-Nov-2020 16:20:30

Instrument ID: 16334

Lims ID: 410-19023-A-11

Lab Sample ID: 410-19023-11

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

Operator ID: jkh09052

ALS Bottle#: 23

Worklist Smp#: 23

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

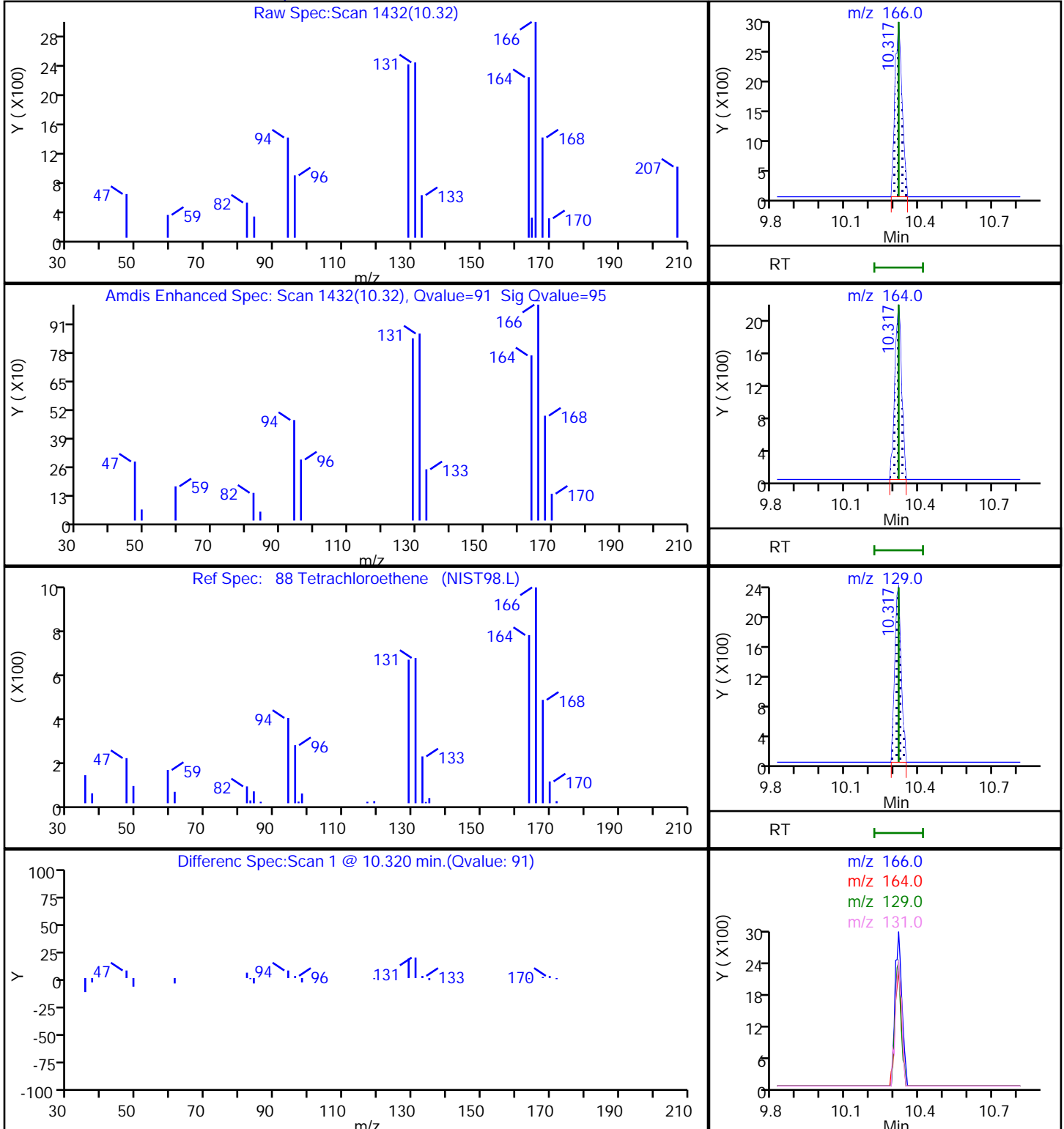
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

88 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S17.D

Injection Date: 04-Nov-2020 16:20:30

Instrument ID: 16334

Lims ID: 410-19023-A-11

Lab Sample ID: 410-19023-11

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

Operator ID: jkh09052

ALS Bottle#: 23

Worklist Smp#: 23

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

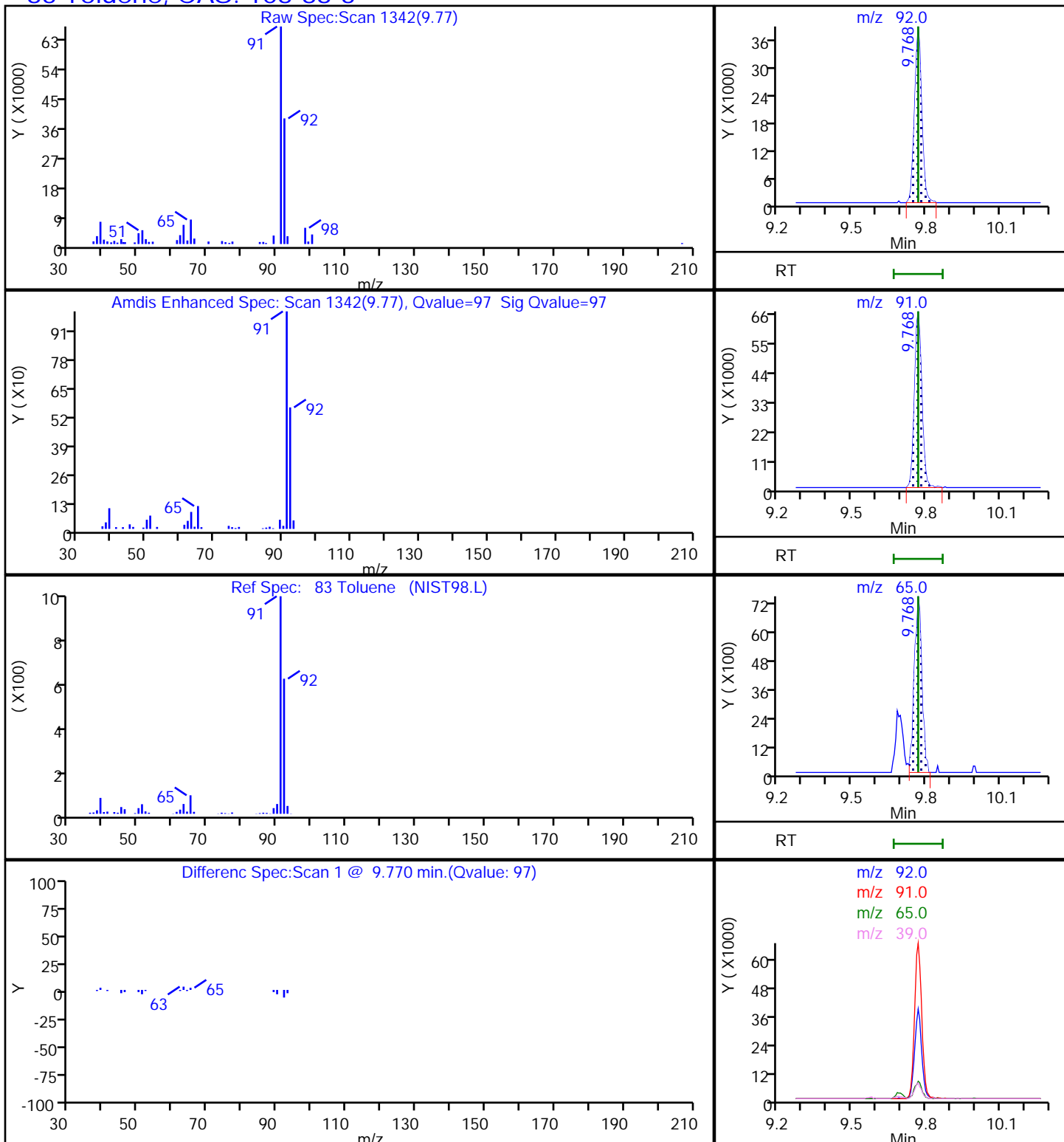
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

83 Toluene, CAS: 108-88-3



Eurofins Lancaster Laboratories Env, LLC

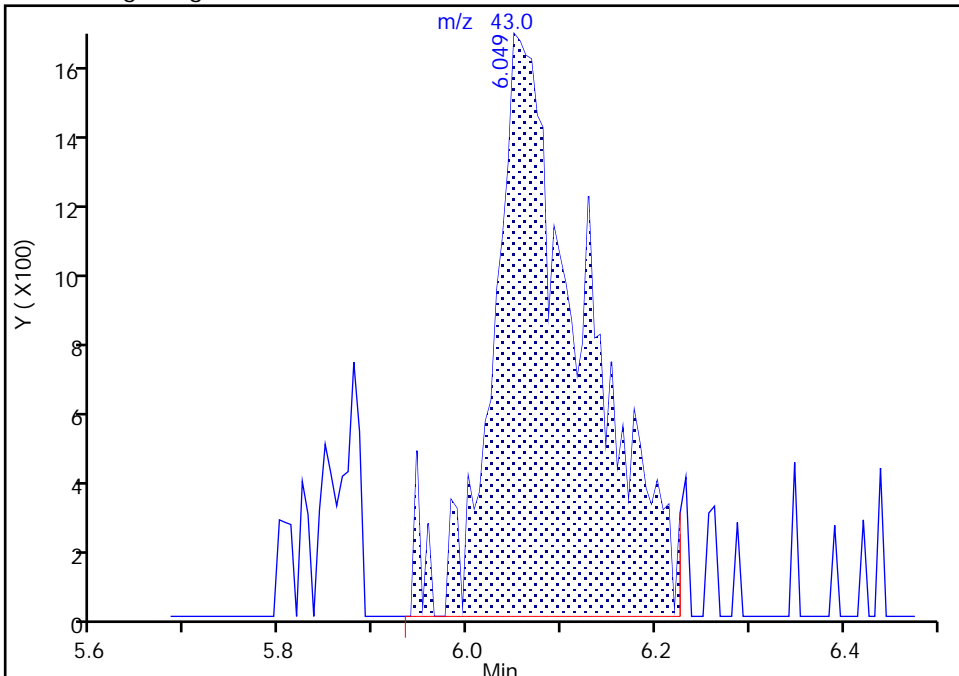
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Injection Date:	04-Nov-2020 16:20:30	Instrument ID:	16334
Lims ID:	410-19023-A-11	Lab Sample ID:	410-19023-11
Client ID:	HD-COD-SW-28-0/1-0		
Operator ID:	jkh09052	ALS Bottle#:	23
Purge Vol:	25.000 mL	Dil. Factor:	1.0000
Method:	MSV_16334_25mL	Limit Group:	MSV - 8260C_D
Column:	Rxi-624Sil MS Capillary Column (0.25mm ID)	Detector:	MS Quad
		Worklist Smp#:	23

40 2-Butanone (MEK), CAS: 78-93-3

Signal: 1

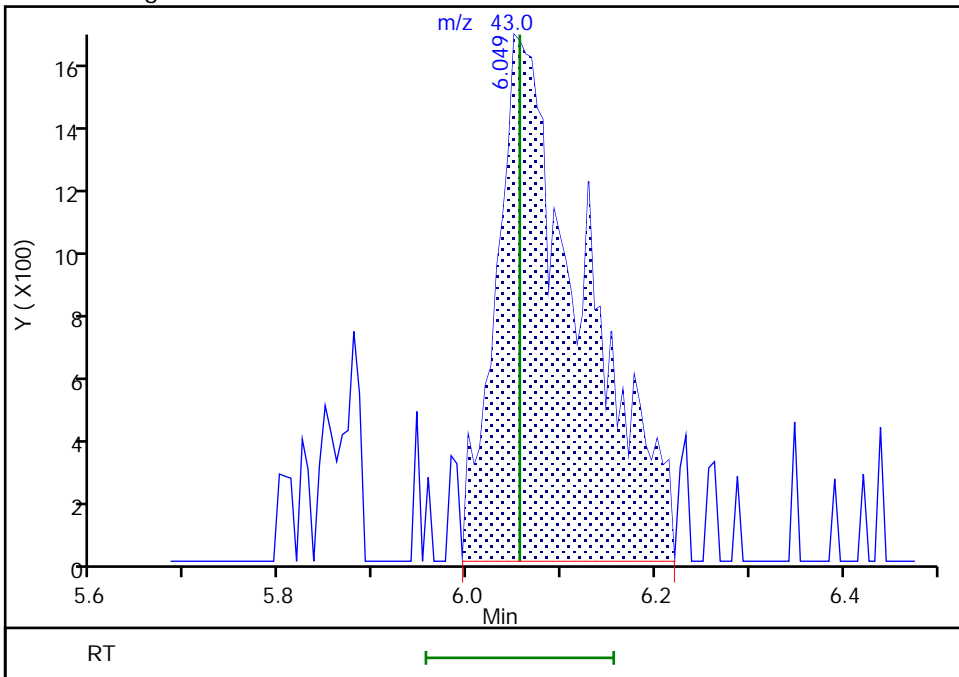
RT: 6.05
 Area: 10953
 Amount: 0.598375
 Amount Units: ug/l

Processing Integration Results



RT: 6.05
 Area: 10356
 Amount: 0.565761
 Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 05-Nov-2020 13:05:51
 Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

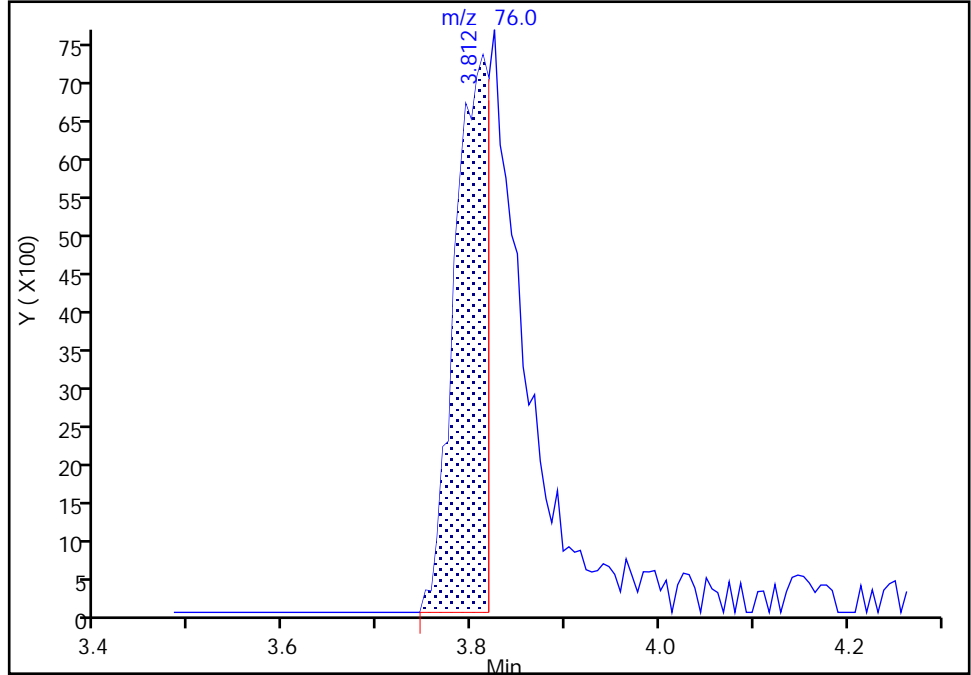
Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S17.D
Injection Date: 04-Nov-2020 16:20:30 Instrument ID: 16334
Lims ID: 410-19023-A-11 Lab Sample ID: 410-19023-11
Client ID: HD-COD-SW-28-0/1-0
Operator ID: jkh09052 ALS Bottle#: 23 Worklist Smp#: 23
Purge Vol: 25.000 mL Dil. Factor: 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

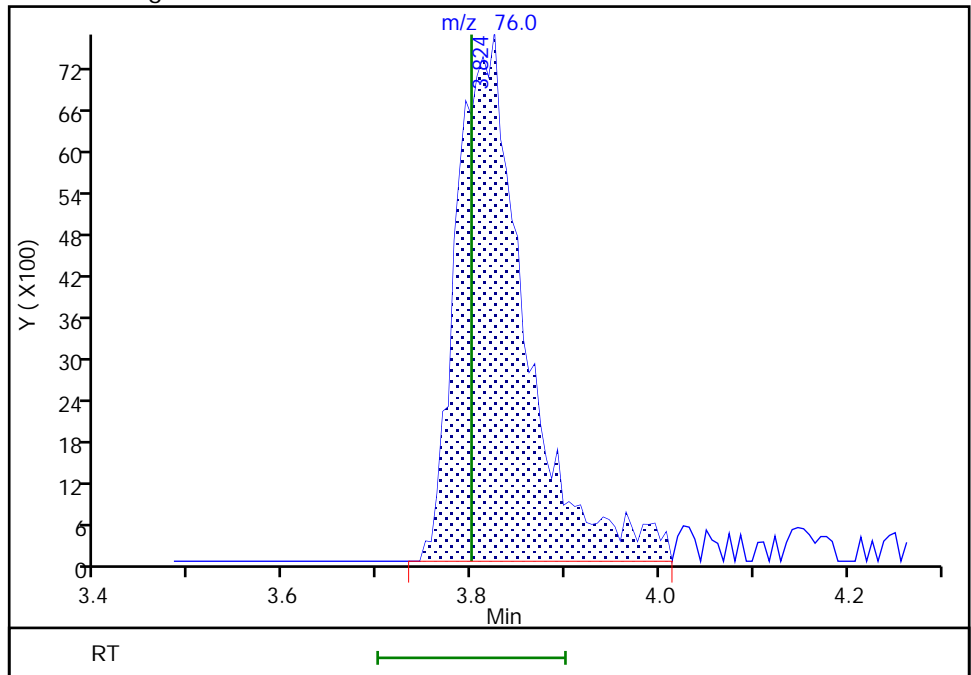
RT: 3.81
Area: 18622
Amount: 0.117752
Amount Units: ug/l

Processing Integration Results



RT: 3.82
Area: 38731
Amount: 0.244908
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 05-Nov-2020 13:05:33
Audit Action: Manually Integrated

Audit Reason: Other

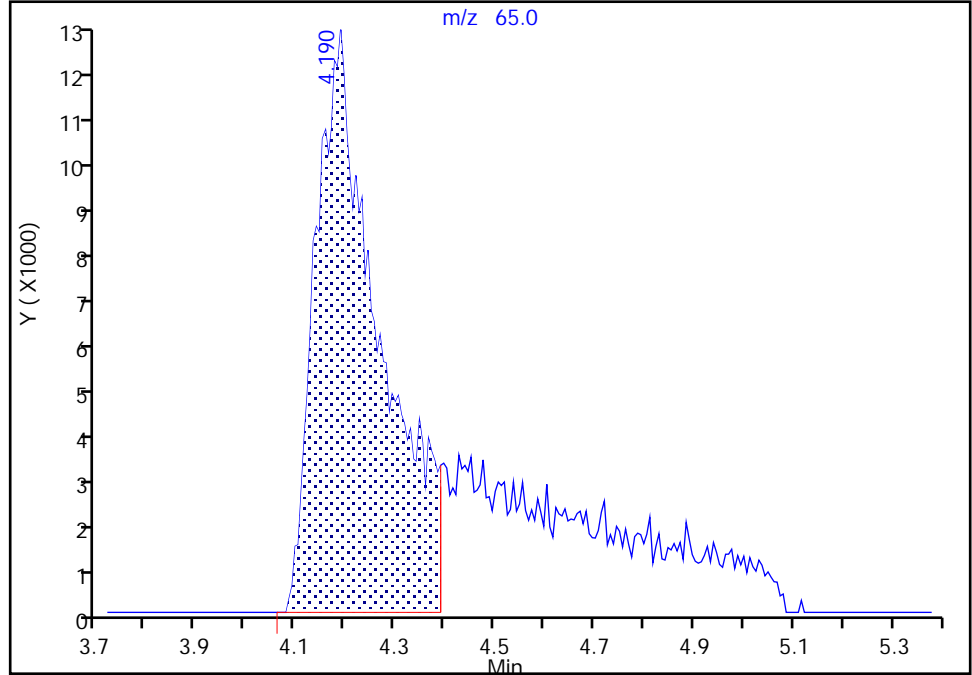
Euofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S17.D
Injection Date: 04-Nov-2020 16:20:30 Instrument ID: 16334
Lims ID: 410-19023-A-11 Lab Sample ID: 410-19023-11
Client ID: HD-COD-SW-28-0/1-0
Operator ID: jkh09052 ALS Bottle#: 23 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

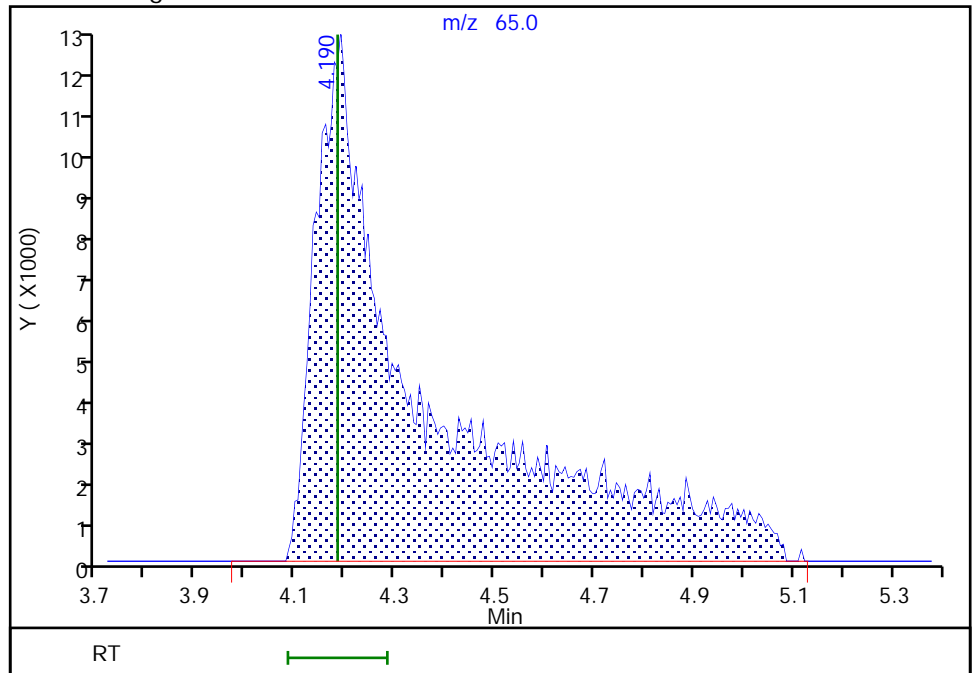
RT: 4.19
Area: 114770
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.19
Area: 191003
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 05-Nov-2020 13:05:44
Audit Action: Manually Integrated

Audit Reason: Other

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-19023-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-29-0/1-0 Lab Sample ID: 410-19023-12
 Matrix: Water Lab File ID: Gn04S18.D
 Analysis Method: 8260C LL Date Collected: 10/29/2020 08:45
 Sample wt/vol: 25 (mL) Date Analyzed: 11/04/2020 16:42
 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.: 61951 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND		0.50	0.060
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
106-93-4	1,2-Dibromoethane (EDB)	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	1.7	J	5.0	0.90
107-13-1	Acrylonitrile	ND		5.0	0.40
71-43-2	Benzene	ND		0.50	0.050
74-97-5	Bromochloromethane	ND		0.50	0.050
75-27-4	Bromodichloromethane	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	0.25	J	1.0	0.060
56-23-5	Carbon tetrachloride	ND		0.50	0.070
108-90-7	Chlorobenzene	ND		0.50	0.060
75-00-3	Chloroethane	ND		0.50	0.070
67-66-3	Chloroform	ND		0.50	0.090
74-87-3	Chloromethane	0.063	J	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.10	J	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
100-41-4	Ethylbenzene	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	0.065	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.: 410-19023-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-29-0/1-0 Lab Sample ID: 410-19023-12
 Matrix: Water Lab File ID: Gn04S18.D
 Analysis Method: 8260C LL Date Collected: 10/29/2020 08:45
 Sample wt/vol: 25 (mL) Date Analyzed: 11/04/2020 16:42
 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.: 61951 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	0.092	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
1868-53-7	Dibromofluoromethane (Surr)	94		80-120
2037-26-5	Toluene-d8 (Surr)	103		80-120
460-00-4	4-Bromofluorobenzene (Surr)	98		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S18.D
 Lims ID: 410-19023-A-12
 Client ID: HD-COD-SW-29-0/1-0
 Sample Type: Client
 Inject. Date: 04-Nov-2020 16:42:30 ALS Bottle#: 24 Worklist Smp#: 24
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014632-024
 Misc. Info.: 410-18566-C-2
 Operator ID: jkh09052 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 05-Nov-2020 13:13:18 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: CTX1002

First Level Reviewer: howej

Date: 05-Nov-2020 13:06:56

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Chloromethane	50	2.136	2.142	-0.006	94	5258	0.0632	
7 Vinyl chloride	62		2.257				ND	
9 Bromomethane	94		2.581				ND	
10 Chloroethane	64		2.660				ND	7
19 1,1-Dichloroethene	96		3.507				ND	
20 Acetone	43	3.550	3.544	0.006	68	18830	1.74	
25 Carbon disulfide	76	3.812	3.800	0.012	99	39876	0.2495	M
28 Methylene Chloride	84		4.172				ND	
* 29 t-Butyl alcohol-d10 (IS)	65	4.172	4.184	-0.012	0	193896	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		6.056				ND	
41 cis-1,2-Dichloroethene	96	6.086	6.080	0.006	85	6123	0.1028	
48 Chlorobromomethane	128		6.415				ND	
50 Chloroform	83	6.562	6.568	-0.006	89	6495	0.0624	
\$ 52 Dibromofluoromethane (Surr)	113	6.781	6.781	0.000	93	540244	9.41	
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	7.238	0.000	0	106179	9.71	
59 Benzene	78		7.269				ND	7
60 1,2-Dichloroethane	62		7.342				ND	
* 63 Fluorobenzene (IS)	96	7.671	7.671	0.000	98	2148335	10.0	
67 Trichloroethene	95	8.147	8.153	-0.006	93	5481	0.0918	
69 1,2-Dichloropropane	63		8.488				ND	
75 Dichlorobromomethane	83		8.835				ND	7
80 cis-1,3-Dichloropropene	75		9.384				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	7
\$ 82 Toluene-d8 (Surr)	98	9.689	9.689	0.000	94	2166495	10.3	
83 Toluene	92	9.768	9.768	0.000	98	7722	0.0579	

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	10.317	10.317	0.000	87	4227	0.0648	
91 2-Hexanone	43		10.451				ND	7
93 Chlorodibromomethane	129		10.610				ND	
94 Ethylene Dibromide	107		10.719				ND	
* 95 Chlorobenzene-d5 (IS)	117	11.152	11.152	0.000	87	1613262	10.0	
97 Chlorobenzene	112		11.176				ND	
S 101 Xylenes, Total	106		11.245				ND	7
98 1,1,1,2-Tetrachloroethane	131		11.262				ND	
99 Ethylbenzene	91		11.262				ND	7
100 m-Xylene & p-Xylene	106	11.378	11.378	0.000	0	5325	0.0517	
102 o-Xylene	106		11.707				ND	7
103 Styrene	104		11.725				ND	
104 Bromoform	173		11.878				ND	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	90	767382	9.78	
109 1,1,2,2-Tetrachloroethane	83		12.256				ND	
* 124 1,4-Dichlorobenzene-d4	152	13.030	13.024	0.006	96	806322	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MSV_29_826ISS_00010

Amount Added: 1.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S18.D

Injection Date: 04-Nov-2020 16:42:30

Instrument ID: 16334

Operator ID: jkh09052

Lims ID: 410-19023-A-12

Lab Sample ID: 410-19023-12

Worklist Smp#: 24

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

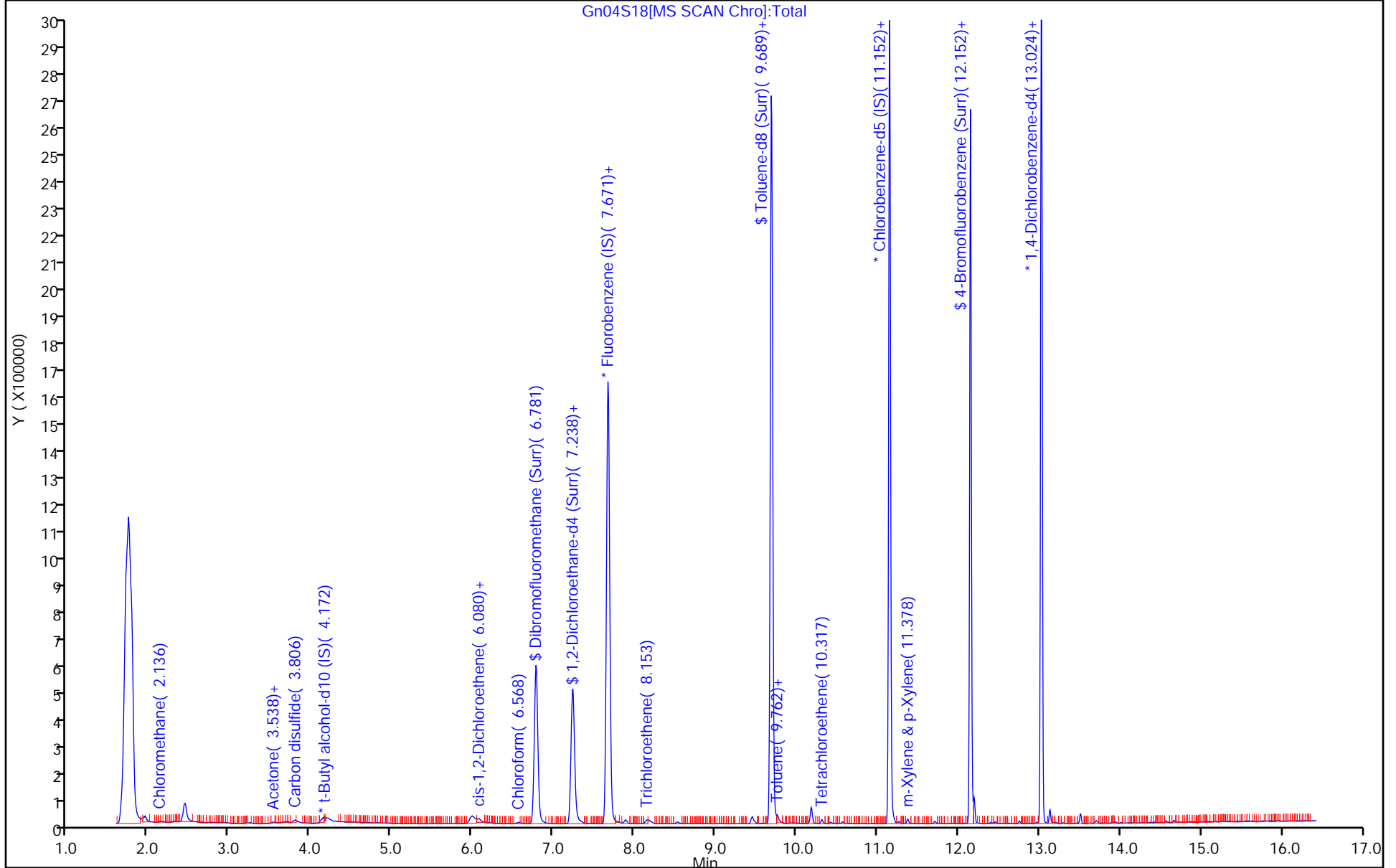
ALS Bottle#: 24

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\20201104-14632.b\Gn04S18.D
 Lims ID: 410-19023-A-12
 Client ID: HD-COD-SW-29-0/1-0
 Sample Type: Client
 Inject. Date: 04-Nov-2020 16:42:30 ALS Bottle#: 24 Worklist Smp#: 24
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014632-024
 Misc. Info.: 410-18566-C-2
 Operator ID: jkh09052 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 05-Nov-2020 13:13:18 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: CTX1002

First Level Reviewer: howej Date: 05-Nov-2020 13:06:56

Compound	Amount Added	Amount Recovered	% Rec.
\$ 52 Dibromofluoromethane (Surr)	10.0	9.41	94.14
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	9.71	97.15
\$ 82 Toluene-d8 (Surr)	10.0	10.3	102.59
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.78	97.84

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S18.D

Injection Date: 04-Nov-2020 16:42:30

Instrument ID: 16334

Lims ID: 410-19023-A-12

Lab Sample ID: 410-19023-12

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

Operator ID: jkh09052

ALS Bottle#: 24

Worklist Smp#: 24

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

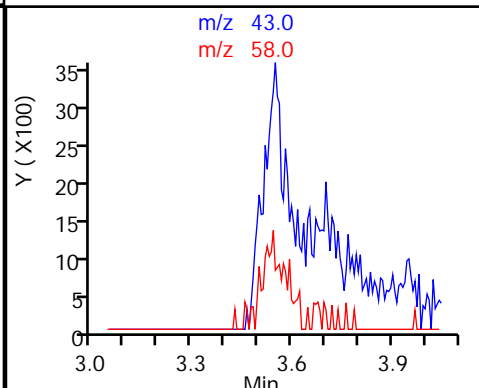
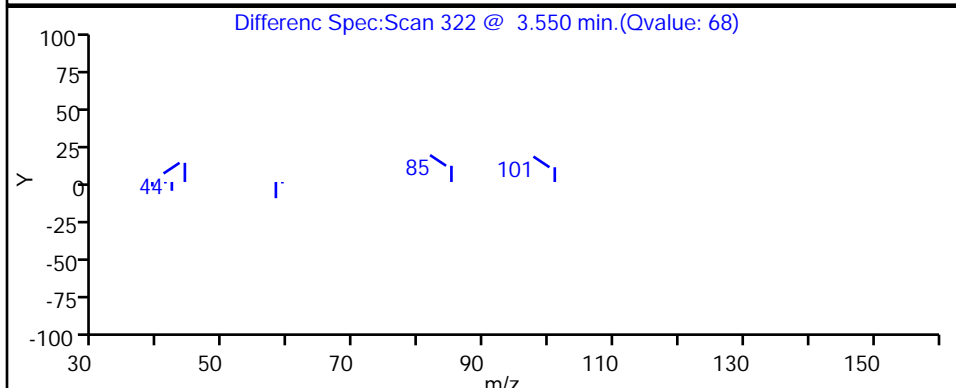
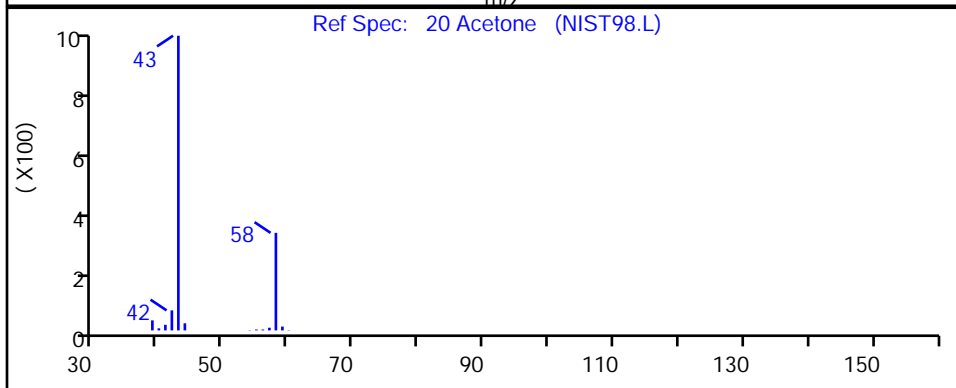
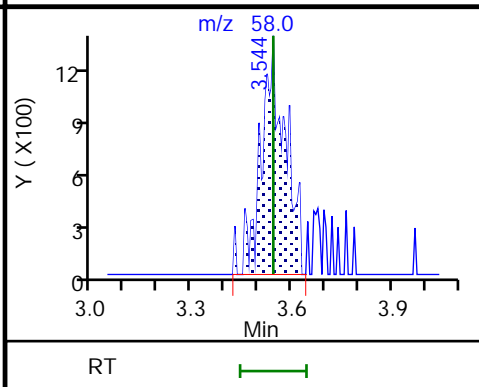
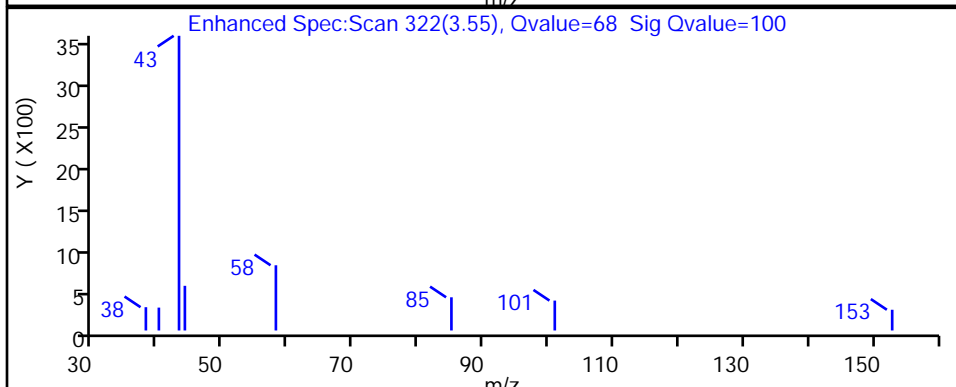
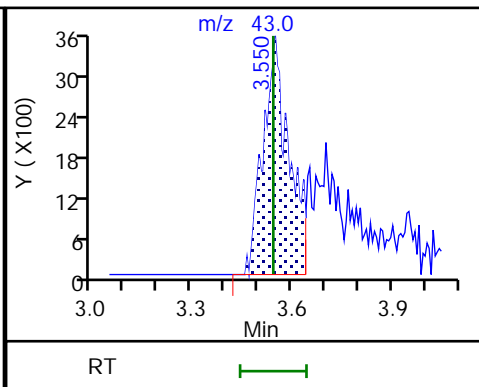
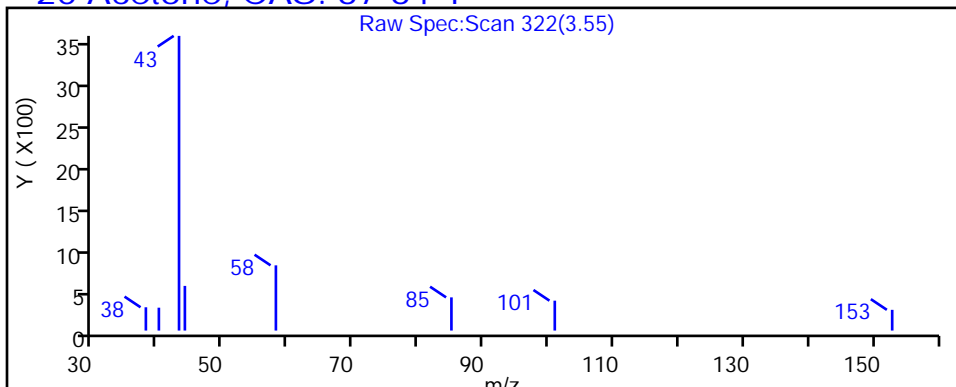
Method: MSV_16334_25mL

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\20201104-14632.b\Gn04S18.D

Injection Date: 04-Nov-2020 16:42:30

Instrument ID: 16334

Lims ID: 410-19023-A-12

Lab Sample ID: 410-19023-12

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

Operator ID: jkh09052

ALS Bottle#: 24

Worklist Smp#: 24

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

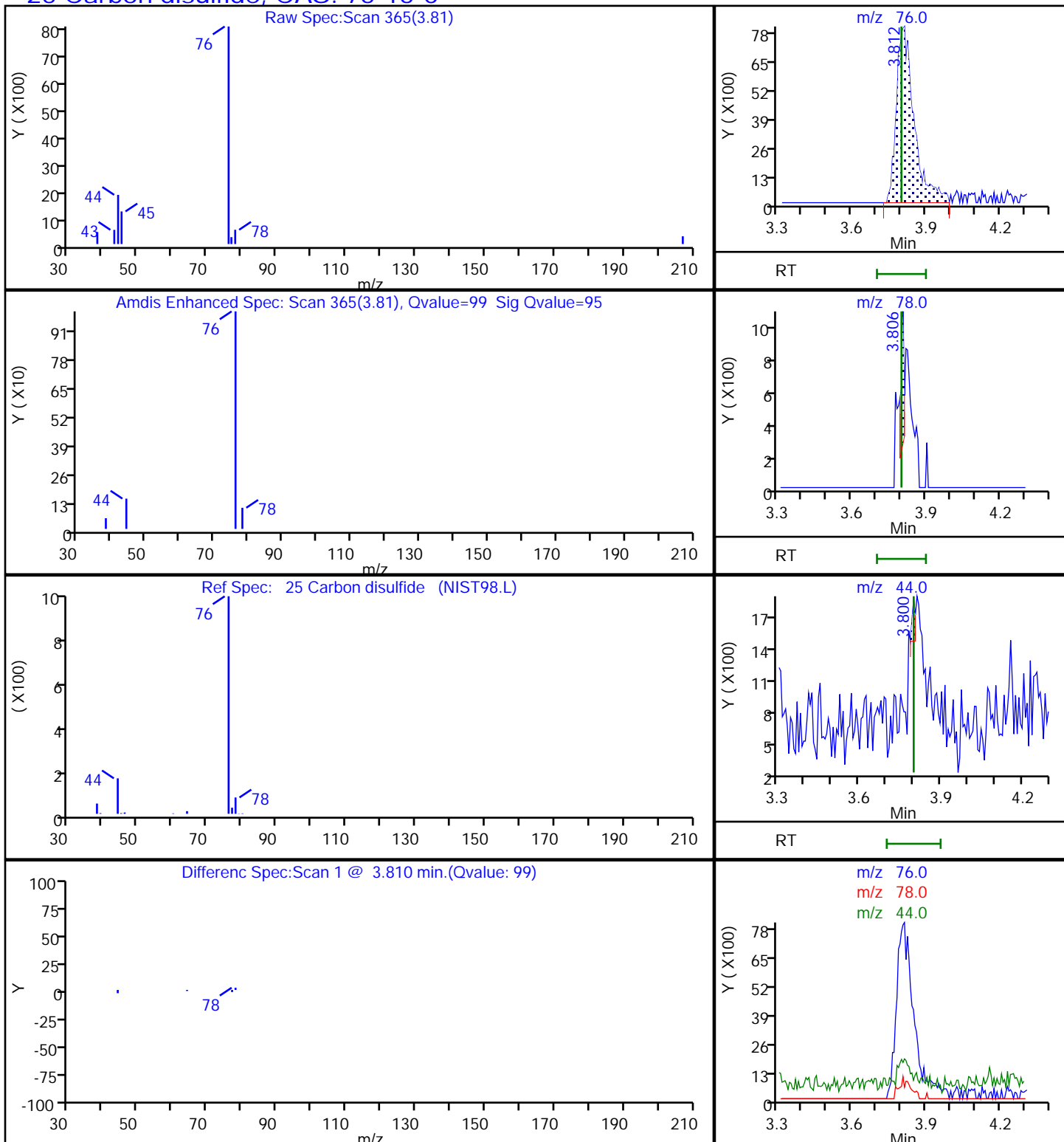
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

25 Carbon disulfide, CAS: 75-15-0



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S18.D

Injection Date: 04-Nov-2020 16:42:30

Instrument ID: 16334

Lims ID: 410-19023-A-12

Lab Sample ID: 410-19023-12

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

Operator ID: jkh09052

ALS Bottle#: 24

Worklist Smp#: 24

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

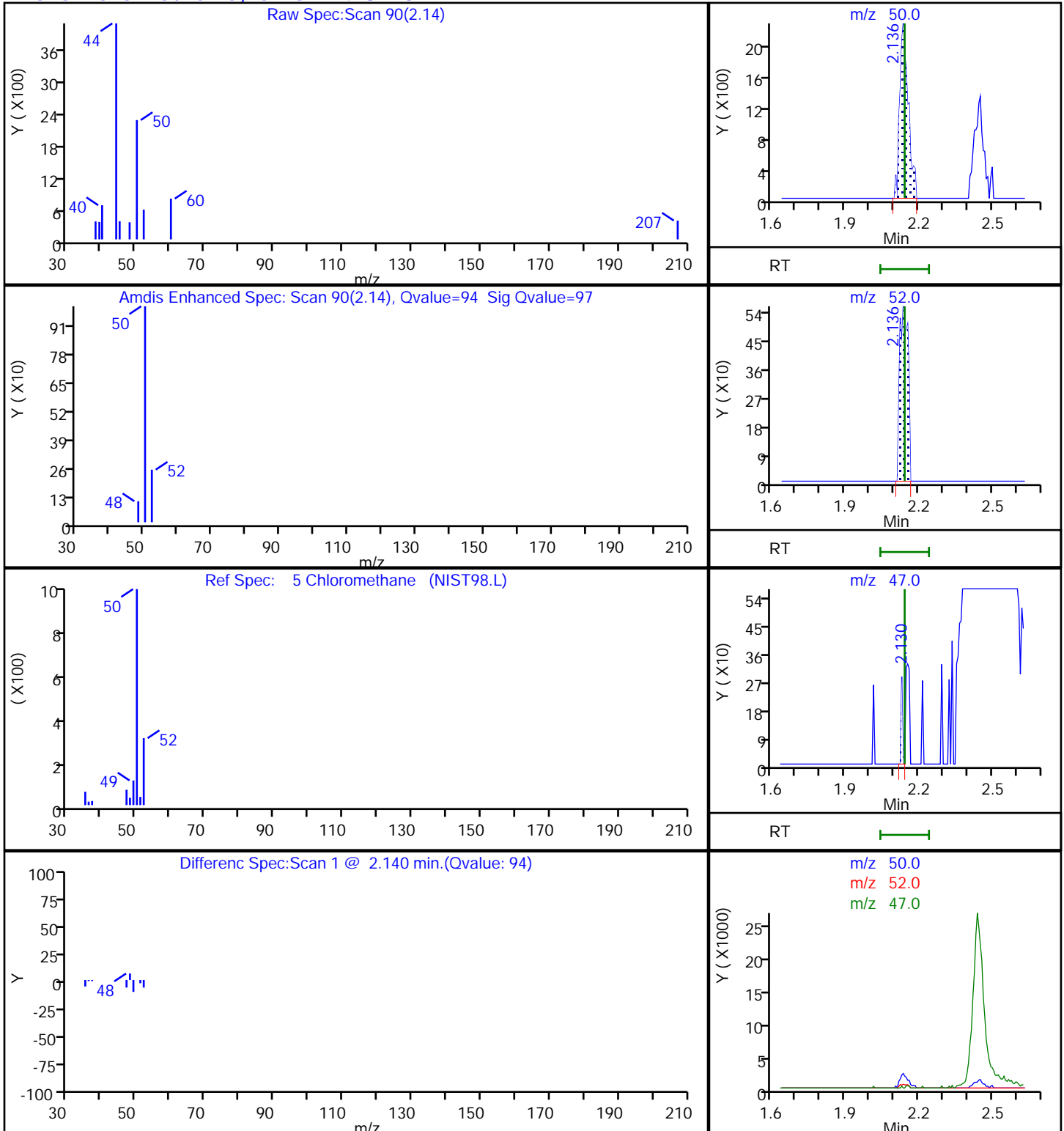
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector

MS Quad

5 Chloromethane, CAS: 74-87-3



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S18.D

Injection Date: 04-Nov-2020 16:42:30

Instrument ID: 16334

Lims ID: 410-19023-A-12

Lab Sample ID: 410-19023-12

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

Operator ID: jkh09052

ALS Bottle#: 24

Worklist Smp#: 24

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

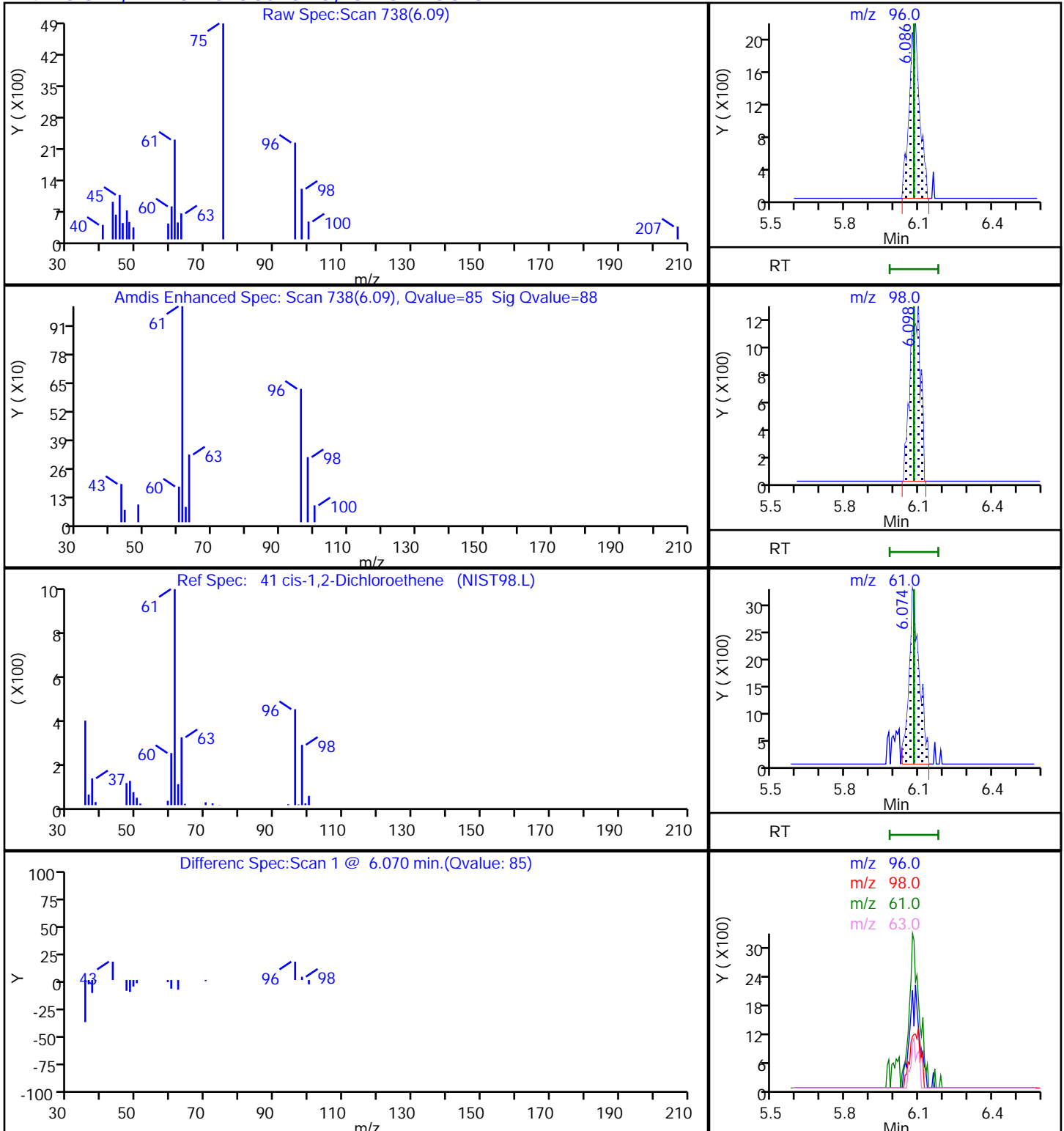
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

41 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S18.D

Injection Date: 04-Nov-2020 16:42:30

Instrument ID: 16334

Lims ID: 410-19023-A-12

Lab Sample ID: 410-19023-12

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

Operator ID: jkh09052

ALS Bottle#: 24

Worklist Smp#: 24

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

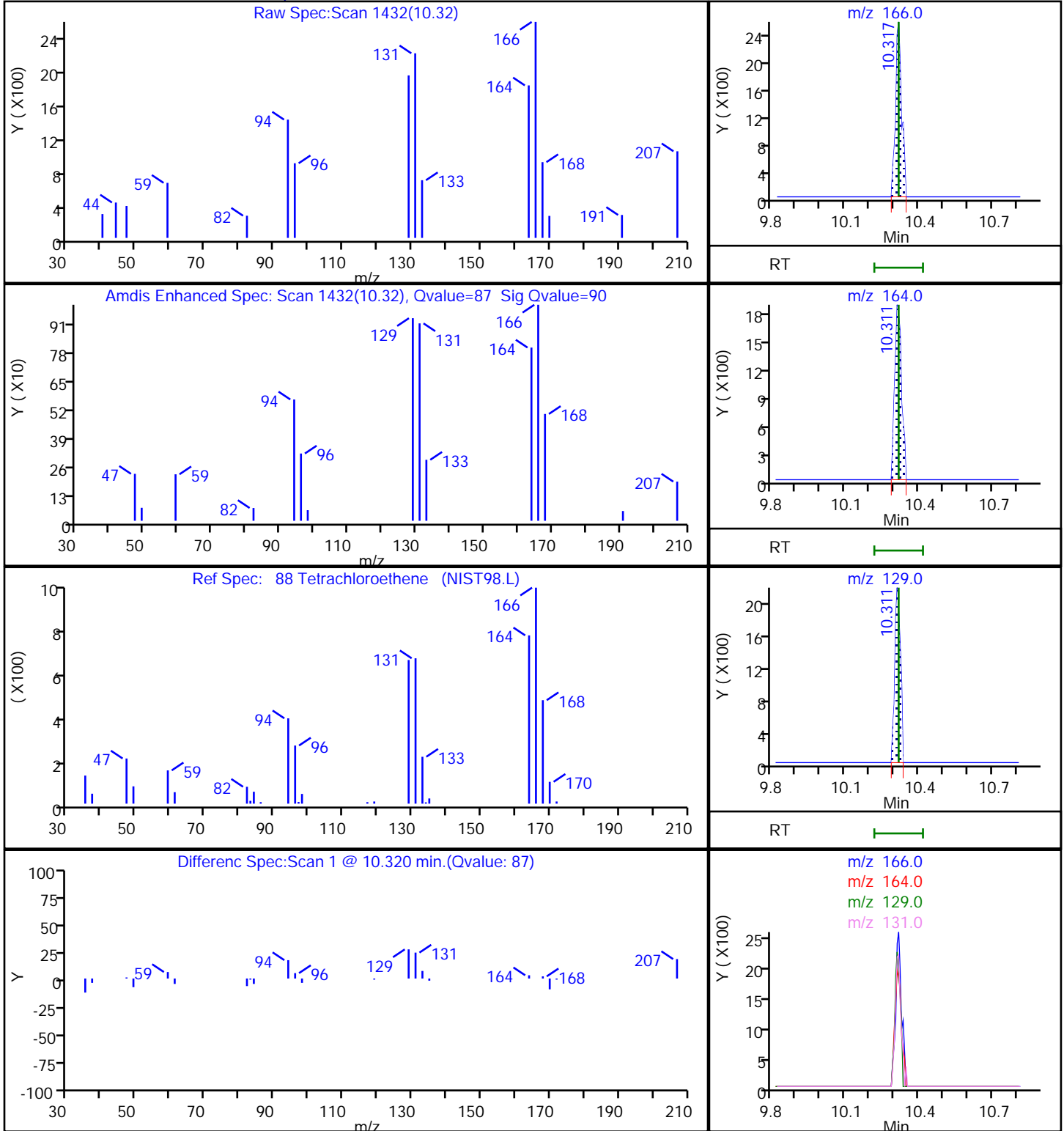
Method: MSV_16334_25mL

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\20201104-14632.b\Gn04S18.D

Injection Date: 04-Nov-2020 16:42:30

Instrument ID: 16334

Lims ID: 410-19023-A-12

Lab Sample ID: 410-19023-12

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

Operator ID: jkh09052

ALS Bottle#: 24

Worklist Smp#: 24

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

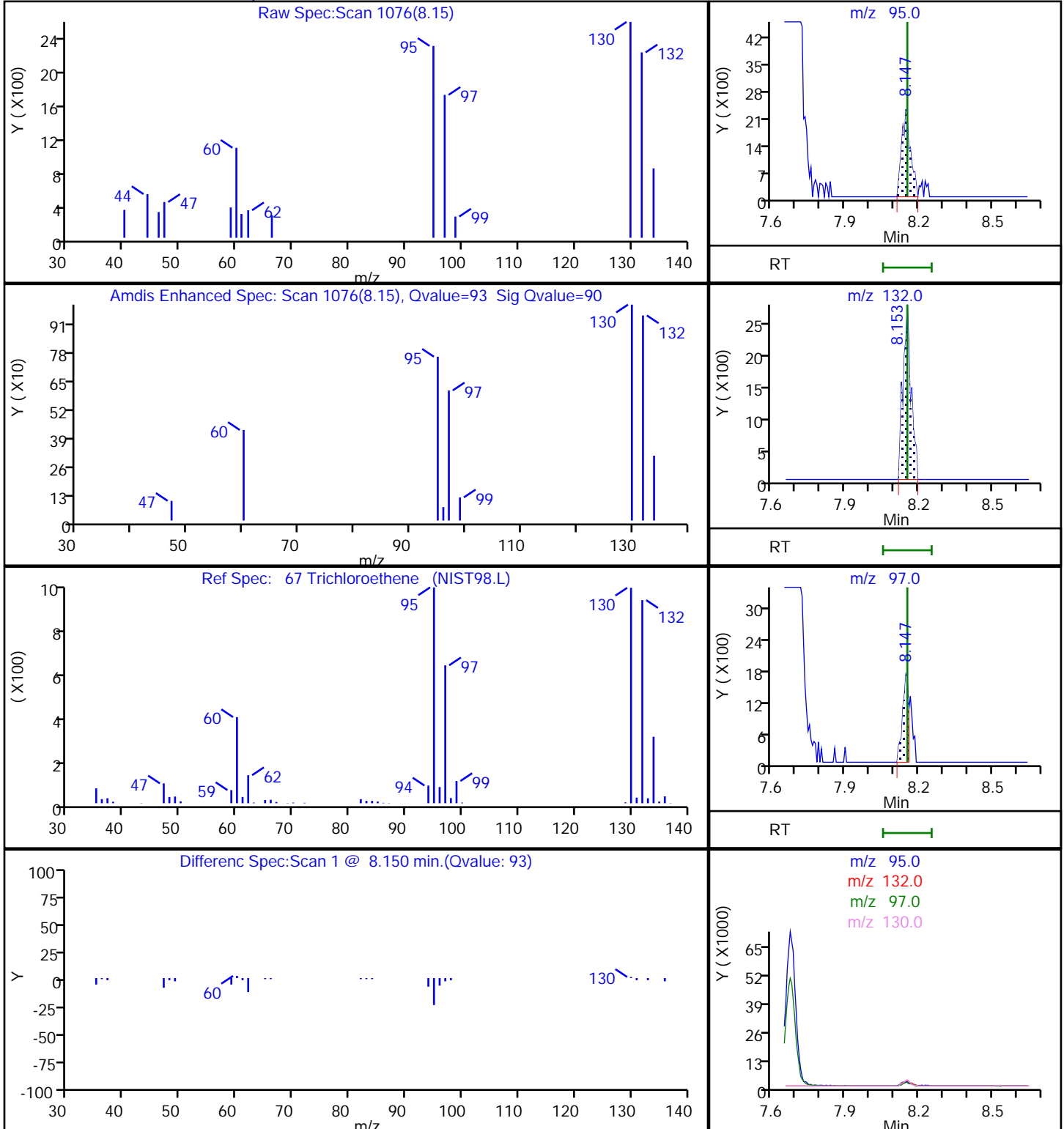
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector

MS Quad

67 Trichloroethene, CAS: 79-01-6



Euofins Lancaster Laboratories Env, LLC

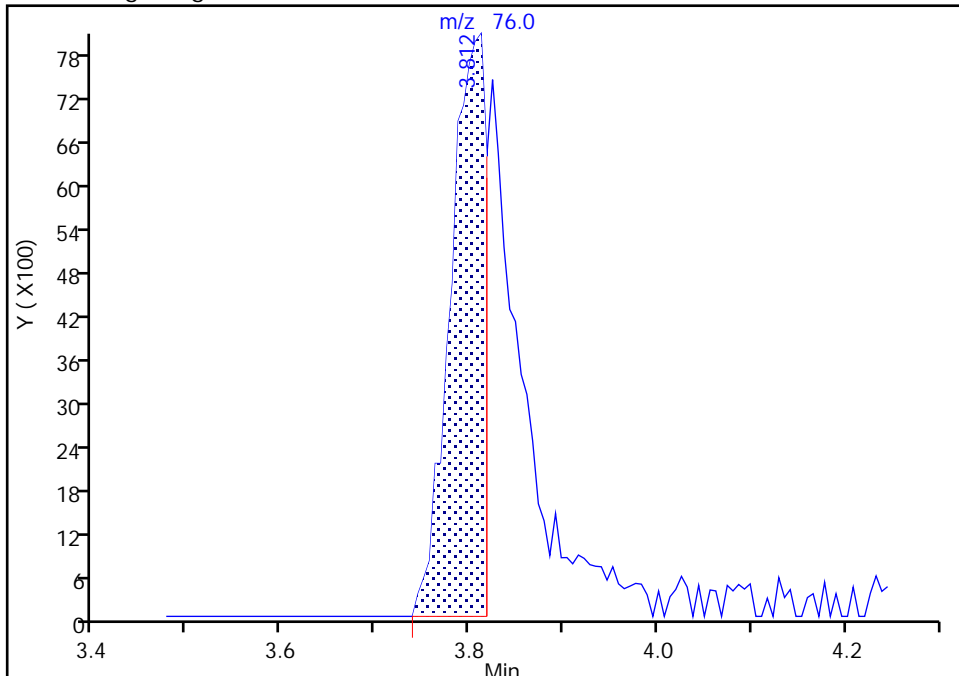
Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S18.D
Injection Date: 04-Nov-2020 16:42:30 Instrument ID: 16334
Lims ID: 410-19023-A-12 Lab Sample ID: 410-19023-12
Client ID: HD-COD-SW-29-0/1-0
Operator ID: jkh09052 ALS Bottle#: 24 Worklist Smp#: 24
Purge Vol: 25.000 mL Dil. Factor: 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

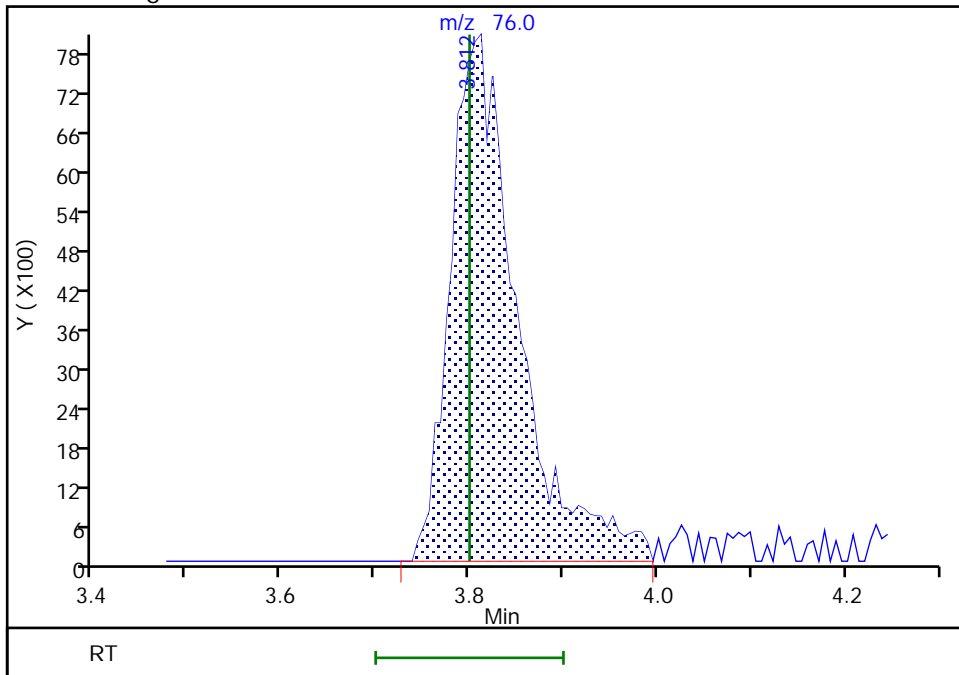
RT: 3.81
Area: 21233
Amount: 0.132864
Amount Units: ug/l

Processing Integration Results



RT: 3.81
Area: 39876
Amount: 0.249521
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 05-Nov-2020 13:06:26
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

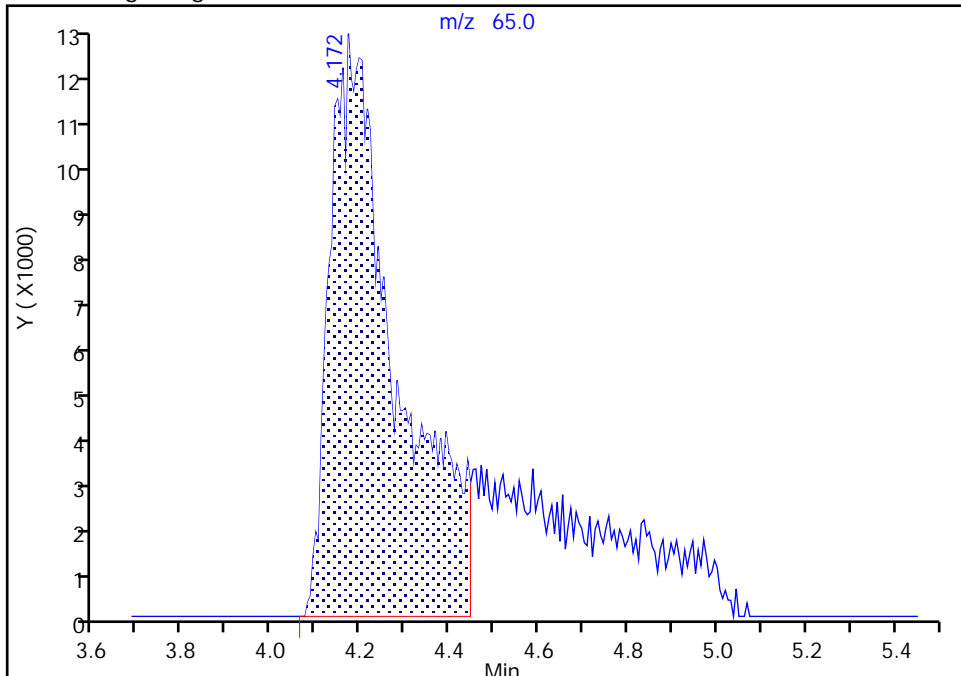
Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S18.D
Injection Date: 04-Nov-2020 16:42:30 Instrument ID: 16334
Lims ID: 410-19023-A-12 Lab Sample ID: 410-19023-12
Client ID: HD-COD-SW-29-0/1-0
Operator ID: jkh09052 ALS Bottle#: 24 Worklist Smp#: 24
Purge Vol: 25.000 mL Dil. Factor: 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

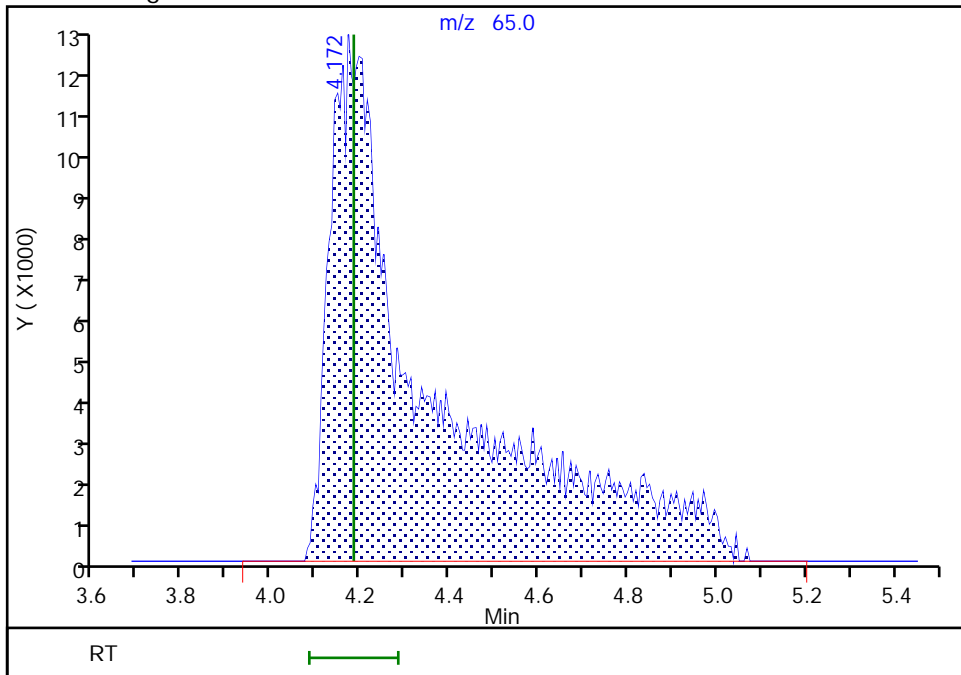
RT: 4.17
Area: 129002
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.17
Area: 193896
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 05-Nov-2020 13:06:37
Audit Action: Manually Integrated

Audit Reason: Other

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-19023-1
 SDG No.: _____
 Client Sample ID: HD-QC1-0/1-1 Lab Sample ID: 410-19023-13
 Matrix: Water Lab File ID: Gn04S02.D
 Analysis Method: 8260C LL Date Collected: 10/29/2020 12:00
 Sample wt/vol: 25 (mL) Date Analyzed: 11/04/2020 10:49
 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.: 61951 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND		0.50	0.060
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
106-93-4	1,2-Dibromoethane (EDB)	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	3.1	J	5.0	0.90
107-13-1	Acrylonitrile	ND		5.0	0.40
71-43-2	Benzene	ND		0.50	0.050
74-97-5	Bromochloromethane	ND		0.50	0.050
75-27-4	Bromodichloromethane	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	0.30	J	1.0	0.060
56-23-5	Carbon tetrachloride	ND		0.50	0.070
108-90-7	Chlorobenzene	ND		0.50	0.060
75-00-3	Chloroethane	ND		0.50	0.070
67-66-3	Chloroform	0.10	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
124-48-1	Dibromochloromethane	ND		0.50	0.070
100-41-4	Ethylbenzene	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	0.30	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.: 410-19023-1
 SDG No.: _____
 Client Sample ID: HD-QC1-0/1-1 Lab Sample ID: 410-19023-13
 Matrix: Water Lab File ID: Gn04S02.D
 Analysis Method: 8260C LL Date Collected: 10/29/2020 12:00
 Sample wt/vol: 25 (mL) Date Analyzed: 11/04/2020 10:49
 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.: 61951 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	0.31	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
1868-53-7	Dibromofluoromethane (Surr)	90		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S02.D
 Lims ID: 410-19023-A-13
 Client ID: HD-QC1-0/1-1
 Sample Type: Client
 Inject. Date: 04-Nov-2020 10:49:30 ALS Bottle#: 8 Worklist Smp#: 8
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014632-008
 Misc. Info.: 410-19023-A-13
 Operator ID: jkh09052 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 04-Nov-2020 14:30:58 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\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1010

First Level Reviewer: howej

Date: 04-Nov-2020 14:24:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Chloromethane	50	2.135	2.142	-0.007	1	4555	0.0530	
7 Vinyl chloride	62		2.257				ND	7
9 Bromomethane	94		2.581				ND	
10 Chloroethane	64		2.660				ND	7
19 1,1-Dichloroethene	96		3.507				ND	7
20 Acetone	43	3.538	3.544	-0.006	93	32485	3.14	
25 Carbon disulfide	76	3.812	3.800	0.012	98	49991	0.3023	M
28 Methylene Chloride	84		4.172				ND	
* 29 t-Butyl alcohol-d10 (IS)	65	4.166	4.184	-0.018	0	184970	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		6.056				ND	
41 cis-1,2-Dichloroethene	96		6.080				ND	
48 Chlorobromomethane	128		6.415				ND	
50 Chloroform	83	6.561	6.568	-0.007	89	10898	0.1012	
\$ 52 Dibromofluoromethane (Surr)	113	6.775	6.781	-0.006	93	535313	9.02	
51 1,1,1-Trichloroethane	97		6.793				ND	
56 Carbon tetrachloride	117		6.994				ND	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.232	7.238	-0.006	0	114494	10.1	
59 Benzene	78		7.269				ND	7
60 1,2-Dichloroethane	62		7.342				ND	
* 63 Fluorobenzene (IS)	96	7.671	7.671	0.000	99	2222895	10.0	
67 Trichloroethene	95	8.146	8.153	-0.007	98	19262	0.3117	
69 1,2-Dichloropropane	63		8.488				ND	
75 Dichlorobromomethane	83		8.835				ND	7
80 cis-1,3-Dichloropropene	75		9.384				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	7
\$ 82 Toluene-d8 (Surr)	98	9.689	9.689	0.000	94	2198194	10.1	
83 Toluene	92	9.768	9.768	0.000	95	7808	0.0568	

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	20468	0.3045	
91 2-Hexanone	43		10.451				ND	7
93 Chlorodibromomethane	129		10.610				ND	
94 Ethylene Dibromide	107		10.719				ND	
* 95 Chlorobenzene-d5 (IS)	117	11.152	11.152	0.000	87	1663410	10.0	
97 Chlorobenzene	112		11.176				ND	
S 101 Xylenes, Total	106		11.245				ND	7
98 1,1,1,2-Tetrachloroethane	131		11.262				ND	
99 Ethylbenzene	91		11.262				ND	7
100 m-Xylene & p-Xylene	106		11.378				ND	7
102 o-Xylene	106		11.707				ND	7
103 Styrene	104		11.725				ND	7
104 Bromoform	173		11.878				ND	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	90	780735	9.65	
109 1,1,2,2-Tetrachloroethane	83		12.256				ND	
* 124 1,4-Dichlorobenzene-d4	152	13.030	13.024	0.006	96	815538	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MSV_29_826ISS_00010

Amount Added: 1.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S02.D

Injection Date: 04-Nov-2020 10:49:30

Instrument ID: 16334

Operator ID: jkh09052

Lims ID: 410-19023-A-13

Lab Sample ID: 410-19023-13

Worklist Smp#: 8

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 8

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\20201104-14632.b\Gn04S02.D
 Lims ID: 410-19023-A-13
 Client ID: HD-QC1-0/1-1
 Sample Type: Client
 Inject. Date: 04-Nov-2020 10:49:30 ALS Bottle#: 8 Worklist Smp#: 8
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014632-008
 Misc. Info.: 410-19023-A-13
 Operator ID: jkh09052 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 04-Nov-2020 14:30:58 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\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1010

First Level Reviewer: howej Date: 04-Nov-2020 14:24:31

Compound	Amount Added	Amount Recovered	% Rec.
\$ 52 Dibromofluoromethane (Surr)	10.0	9.02	90.15
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.1	101.24
\$ 82 Toluene-d8 (Surr)	10.0	10.1	100.95
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.65	96.54

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S02.D

Injection Date: 04-Nov-2020 10:49:30

Instrument ID: 16334

Lims ID: 410-19023-A-13

Lab Sample ID: 410-19023-13

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

Operator ID: jkh09052

ALS Bottle#: 8

Worklist Smp#: 8

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

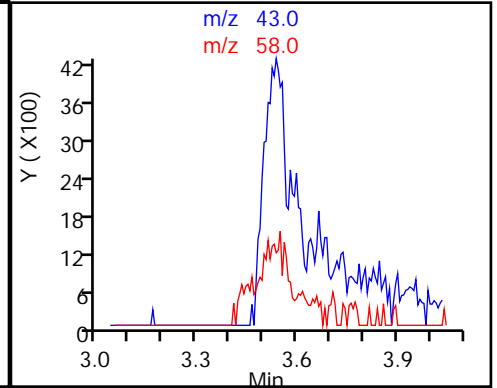
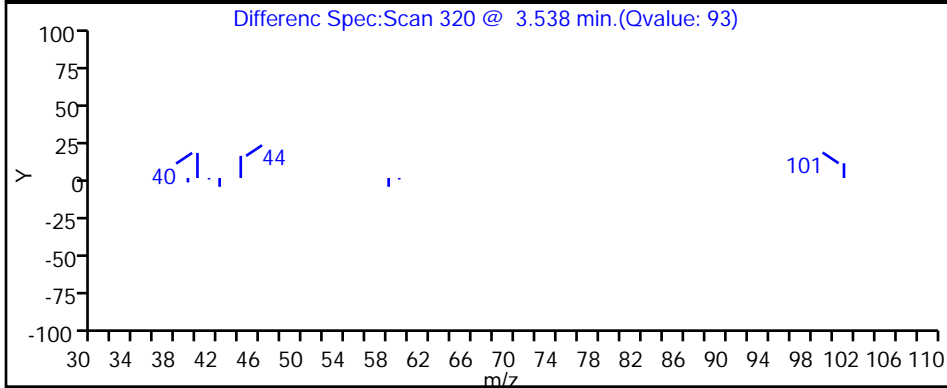
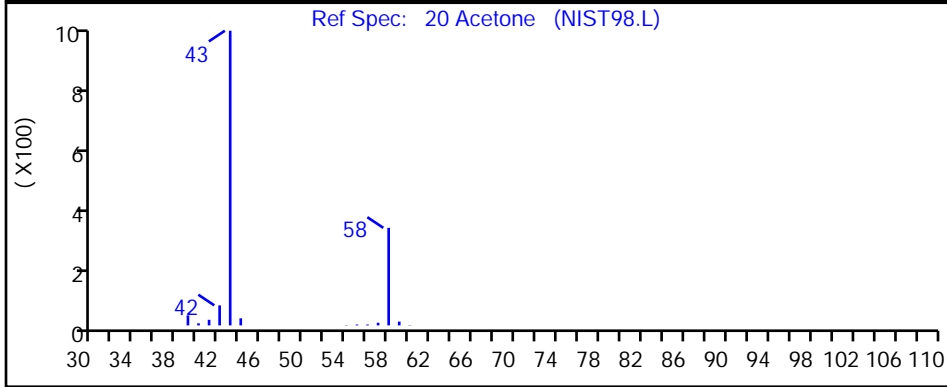
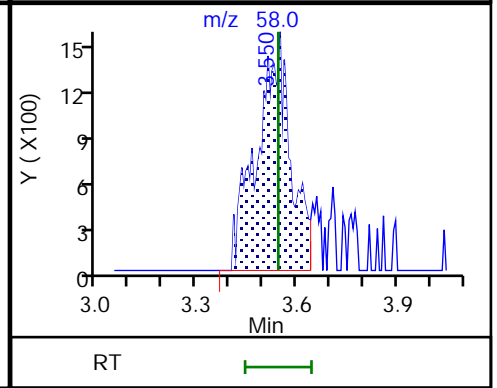
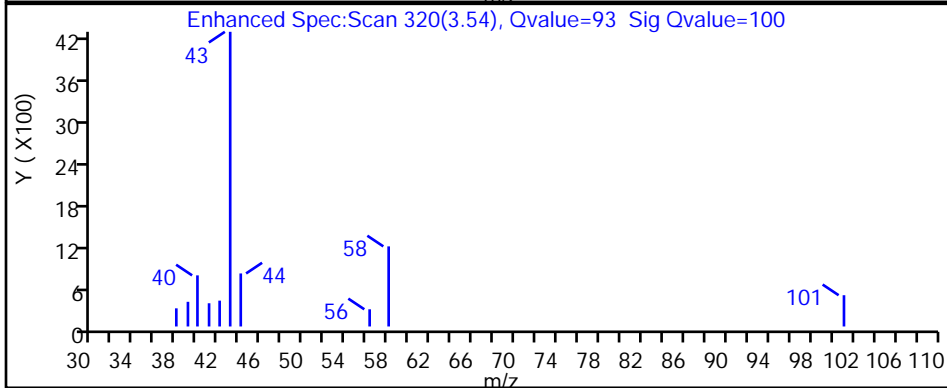
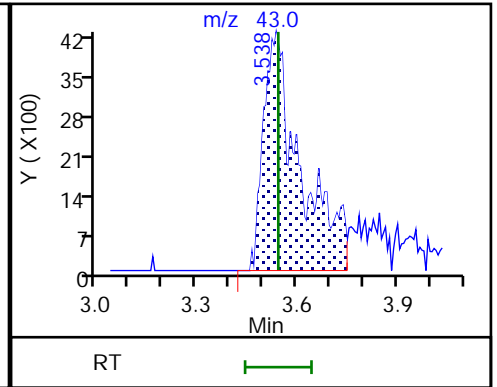
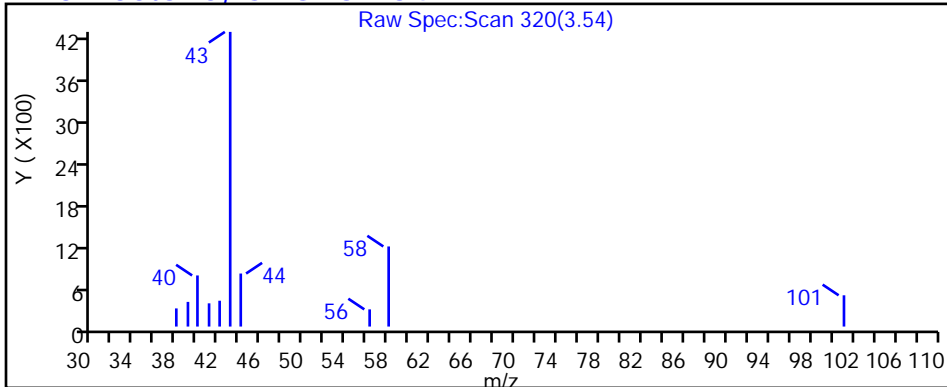
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) x 150m

MS Quad

20 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S02.D

Injection Date: 04-Nov-2020 10:49:30

Instrument ID: 16334

Lims ID: 410-19023-A-13

Lab Sample ID: 410-19023-13

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

Operator ID: jkh09052

ALS Bottle#: 8

Worklist Smp#: 8

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

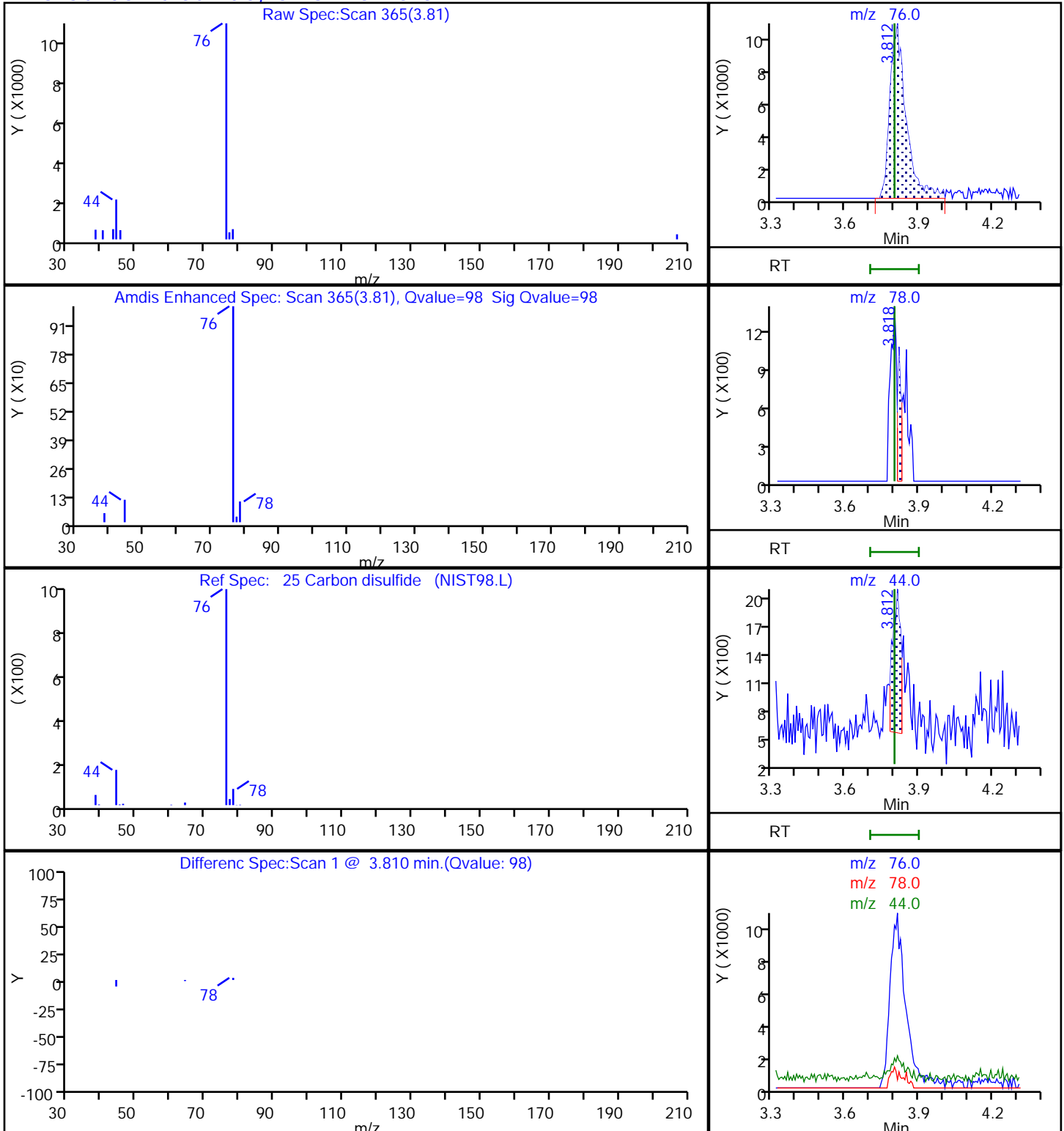
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

25 Carbon disulfide, CAS: 75-15-0



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S02.D

Injection Date: 04-Nov-2020 10:49:30

Instrument ID: 16334

Lims ID: 410-19023-A-13

Lab Sample ID: 410-19023-13

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

Operator ID: jkh09052

ALS Bottle#: 8

Worklist Smp#: 8

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

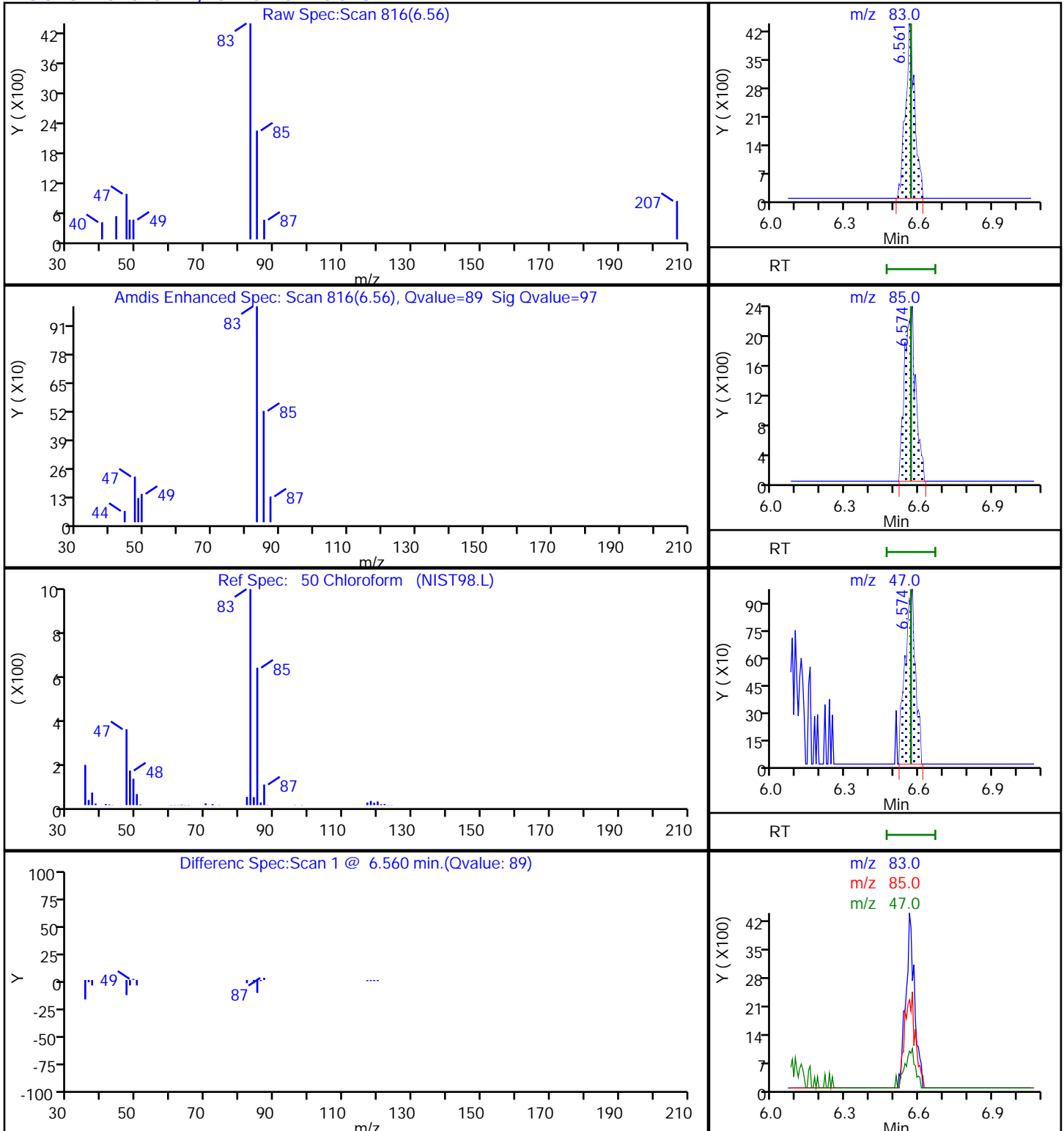
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector

MS Quad

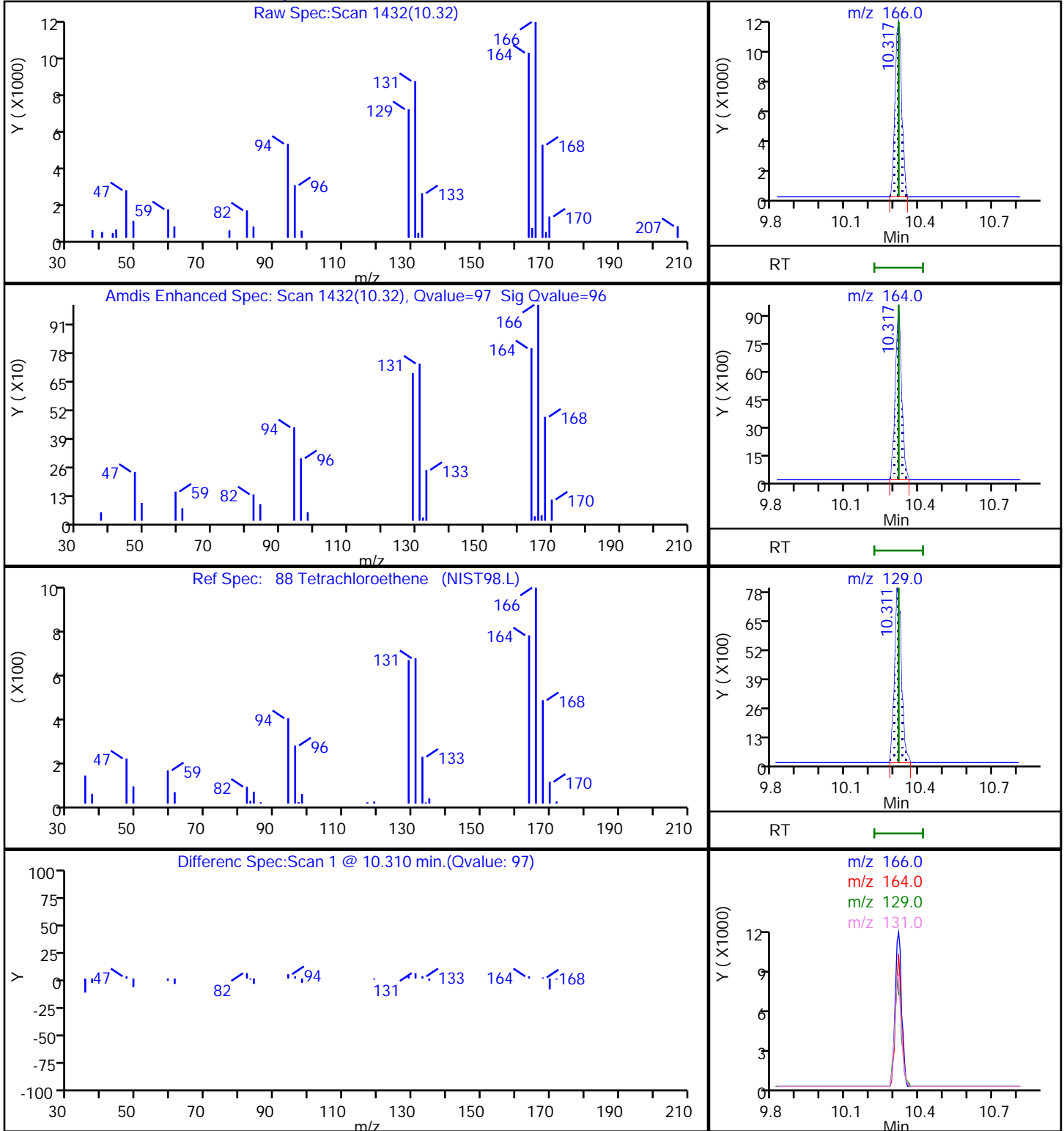
50 Chloroform, CAS: 67-66-3



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S02.D
Injection Date: 04-Nov-2020 10:49:30 Instrument ID: 16334
Lims ID: 410-19023-A-13 Lab Sample ID: 410-19023-13
Client ID: HD-QC1-0/1-1
Operator ID: jkh09052 ALS Bottle#: 8 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) MS Quad

88 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S02.D

Injection Date: 04-Nov-2020 10:49:30

Instrument ID: 16334

Lims ID: 410-19023-A-13

Lab Sample ID: 410-19023-13

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

Operator ID: jkh09052

ALS Bottle#: 8

Worklist Smp#: 8

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

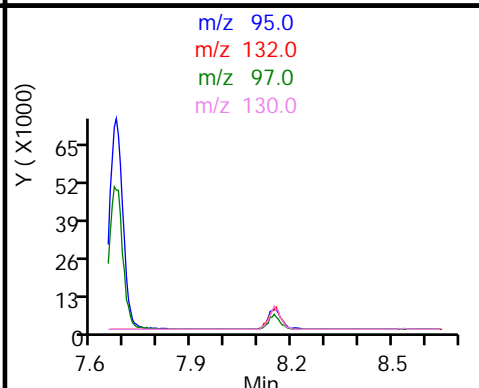
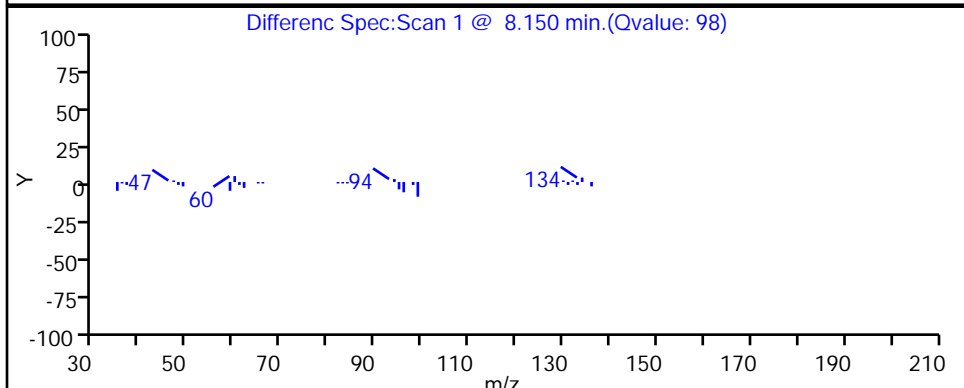
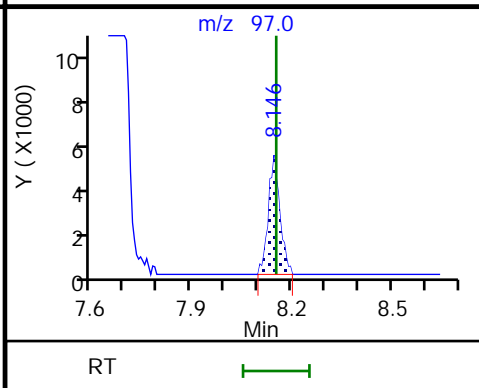
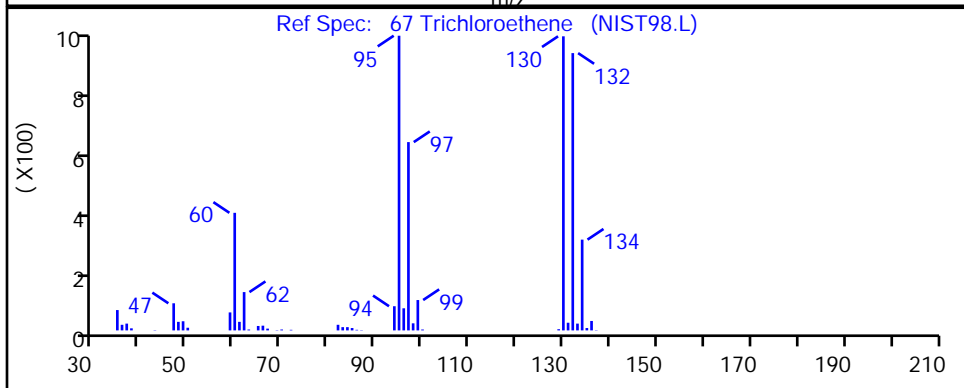
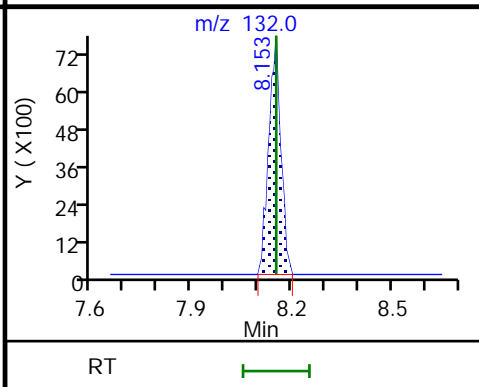
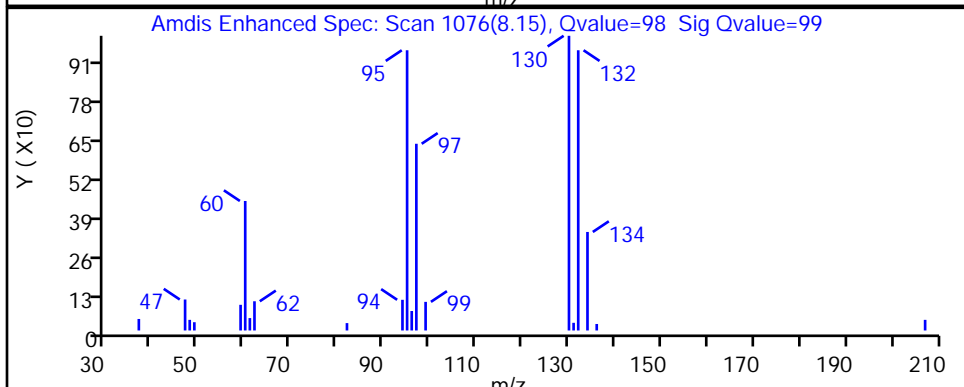
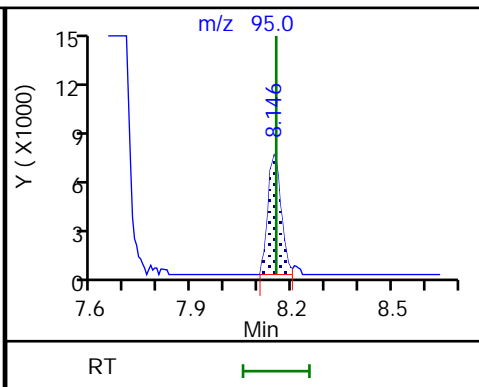
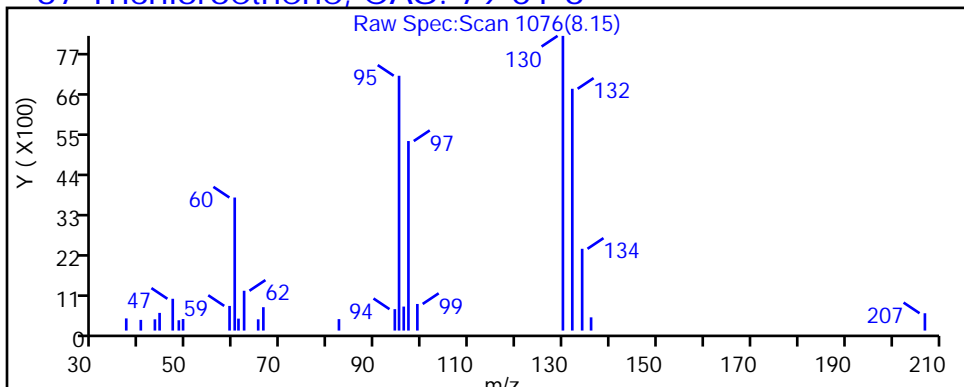
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

67 Trichloroethene, CAS: 79-01-6



Euofins Lancaster Laboratories Env, LLC

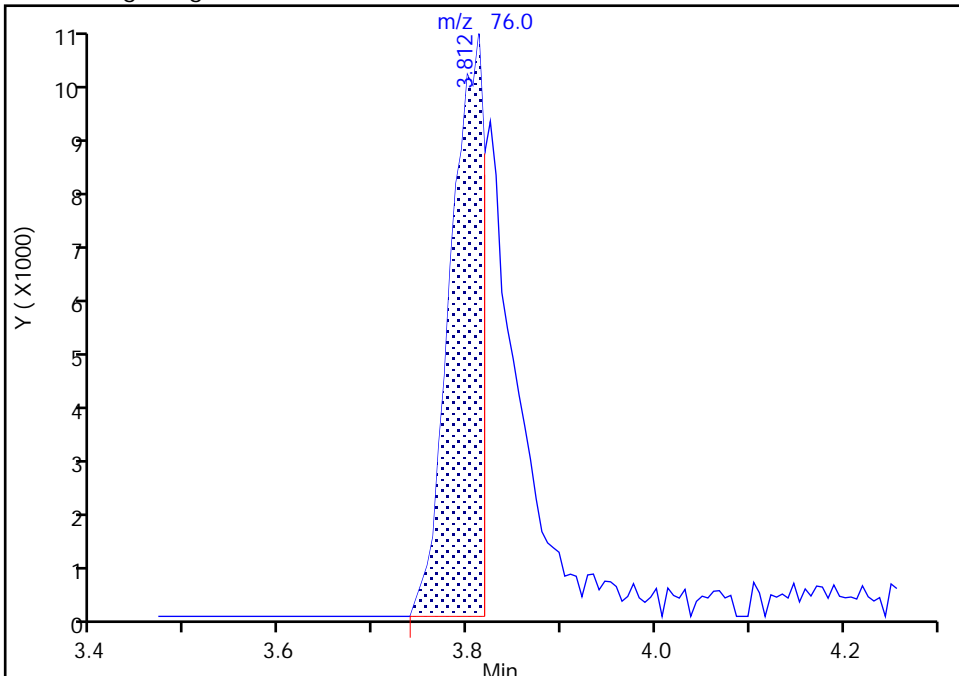
Data File:	\\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S02.D		
Injection Date:	04-Nov-2020 10:49:30	Instrument ID:	16334
Lims ID:	410-19023-A-13	Lab Sample ID:	410-19023-13
Client ID:	HD-QC1-0/1-1		
Operator ID:	jkh09052	ALS Bottle#:	8
Purge Vol:	25.000 mL	Dil. Factor:	1.0000
Method:	MSV_16334_25mL	Limit Group:	MSV - 8260C_D
Column:	Rxi-624Sil MS Capillary Column (0.25mm ID)	Detector:	MS Quad

25 Carbon disulfide, CAS: 75-15-0

Signal: 1

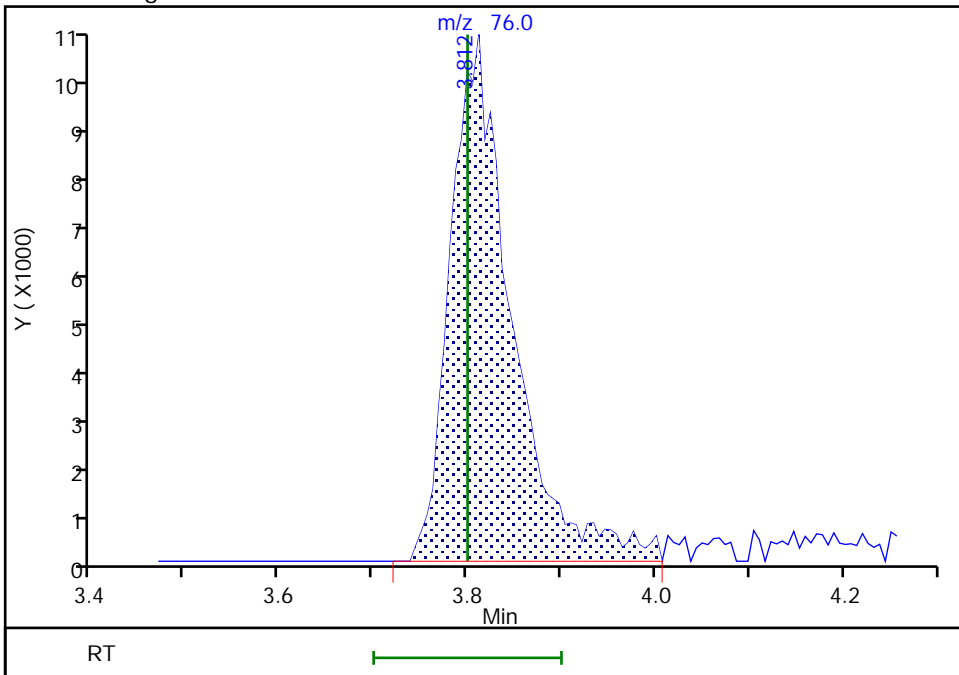
RT: 3.81
 Area: 27333
 Amount: 0.165297
 Amount Units: ug/l

Processing Integration Results



RT: 3.81
 Area: 49991
 Amount: 0.302322
 Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 04-Nov-2020 14:24:08
 Audit Action: Manually Integrated

Audit Reason: Other

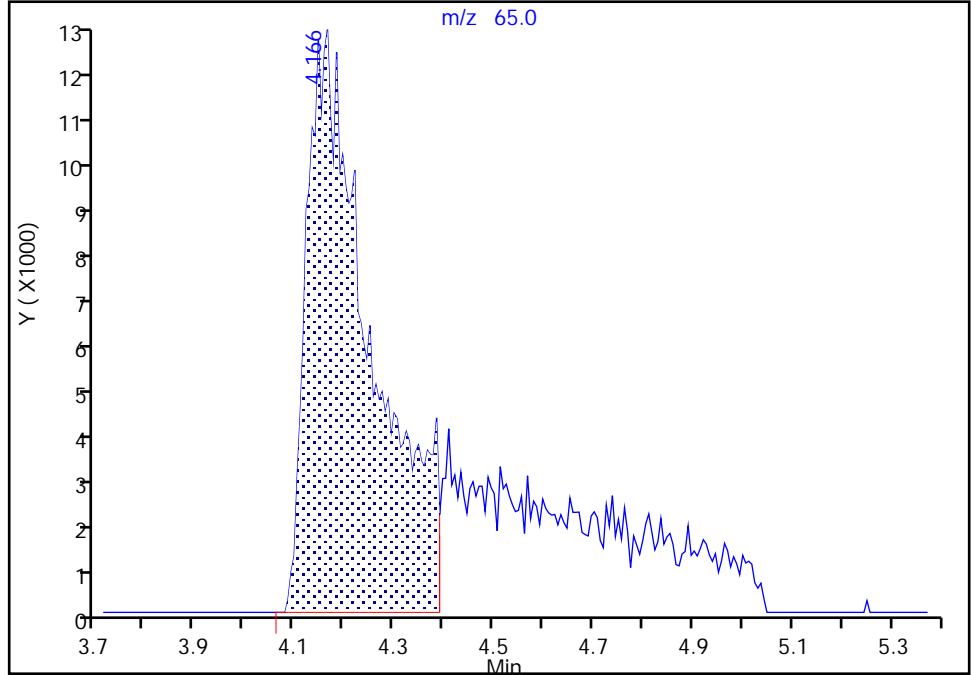
Euofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S02.D
Injection Date: 04-Nov-2020 10:49:30 Instrument ID: 16334
Lims ID: 410-19023-A-13 Lab Sample ID: 410-19023-13
Client ID: HD-QC1-0/1-1
Operator ID: jkh09052 ALS Bottle#: 8 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

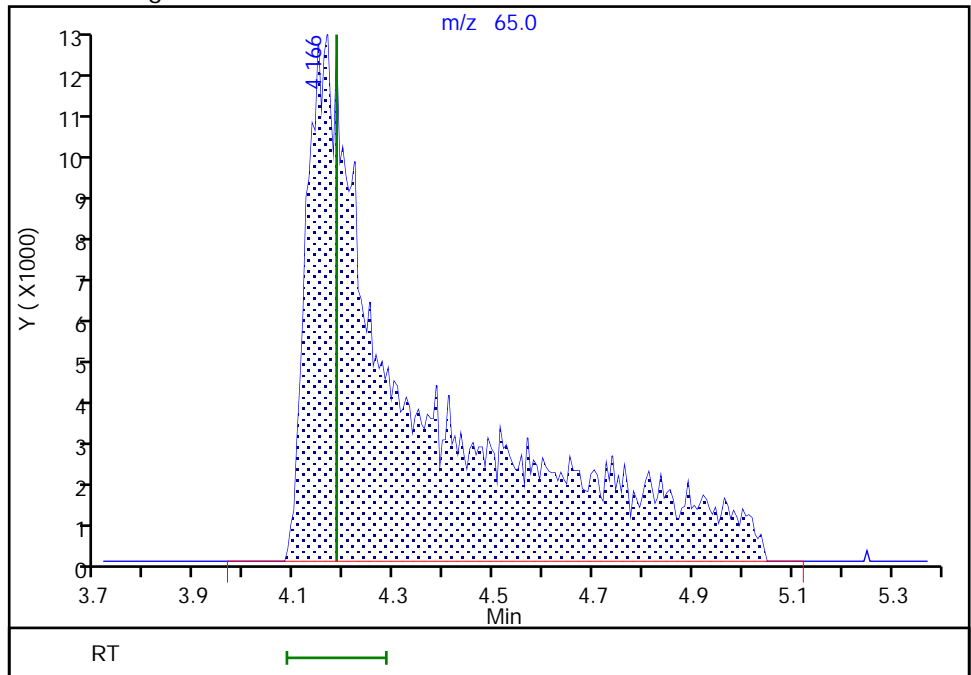
RT: 4.17
Area: 112050
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.17
Area: 184970
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 04-Nov-2020 14:24:18
Audit Action: Manually Integrated

Audit Reason: Other

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-19023-1
 SDG No.: _____
 Client Sample ID: HD-QC1-0/1-2 Lab Sample ID: 410-19023-14
 Matrix: Water Lab File ID: Gn04S03.D
 Analysis Method: 8260C LL Date Collected: 10/29/2020 00:00
 Sample wt/vol: 25 (mL) Date Analyzed: 11/04/2020 11:11
 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.: 61951 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND		0.50	0.060
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
106-93-4	1,2-Dibromoethane (EDB)	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
74-97-5	Bromochloromethane	ND		0.50	0.050
75-27-4	Bromodichloromethane	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	0.27	J	1.0	0.060
56-23-5	Carbon tetrachloride	ND		0.50	0.070
108-90-7	Chlorobenzene	ND		0.50	0.060
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
124-48-1	Dibromochloromethane	ND		0.50	0.070
100-41-4	Ethylbenzene	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.: 410-19023-1
 SDG No.: _____
 Client Sample ID: HD-QC1-0/1-2 Lab Sample ID: 410-19023-14
 Matrix: Water Lab File ID: Gn04S03.D
 Analysis Method: 8260C LL Date Collected: 10/29/2020 00:00
 Sample wt/vol: 25 (mL) Date Analyzed: 11/04/2020 11:11
 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.: 61951 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)	102		80-120
1868-53-7	Dibromofluoromethane (Surr)	92		80-120
2037-26-5	Toluene-d8 (Surr)	102		80-120
460-00-4	4-Bromofluorobenzene (Surr)	98		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S03.D
 Lims ID: 410-19023-A-14
 Client ID: HD-QC1-0/1-2
 Sample Type: Client
 Inject. Date: 04-Nov-2020 11:11:30 ALS Bottle#: 9 Worklist Smp#: 9
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014632-009
 Misc. Info.: 410-19023-A-14
 Operator ID: jkh09052 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 04-Nov-2020 14:30:58 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\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1010

First Level Reviewer: howej

Date: 04-Nov-2020 14:24:57

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Chloromethane	50		2.142				ND	
7 Vinyl chloride	62		2.257				ND	
9 Bromomethane	94		2.581				ND	
10 Chloroethane	64		2.660				ND	7
19 1,1-Dichloroethene	96		3.507				ND	
20 Acetone	43	3.550	3.544	0.006	75	7839	0.8201	M
25 Carbon disulfide	76	3.812	3.800	0.012	99	44230	0.2665	
28 Methylene Chloride	84		4.172				ND	
* 29 t-Butyl alcohol-d10 (IS)	65	4.172	4.184	-0.012	0	171164	50.0	
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		6.056				ND	
41 cis-1,2-Dichloroethene	96		6.080				ND	
48 Chlorobromomethane	128		6.415				ND	
50 Chloroform	83		6.568				ND	
\$ 52 Dibromofluoromethane (Surr)	113	6.781	6.781	0.000	93	545773	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	7.238	7.238	0.000	0	115835	10.2	
59 Benzene	78		7.269				ND	
60 1,2-Dichloroethane	62		7.342				ND	
* 63 Fluorobenzene (IS)	96	7.677	7.671	0.006	99	2231302	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		9.384				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	7
\$ 82 Toluene-d8 (Surr)	98	9.695	9.689	0.006	94	2220416	10.2	
83 Toluene	92		9.768				ND	7

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		10.451				ND	
93 Chlorodibromomethane	129		10.610				ND	
94 Ethylene Dibromide	107		10.719				ND	
* 95 Chlorobenzene-d5 (IS)	117	11.152	11.152	0.000	87	1660510	10.0	
97 Chlorobenzene	112		11.176				ND	
S 101 Xylenes, Total	106		11.245				ND	7
98 1,1,1,2-Tetrachloroethane	131		11.262				ND	
99 Ethylbenzene	91		11.262				ND	
100 m-Xylene & p-Xylene	106		11.378				ND	
102 o-Xylene	106		11.707				ND	
103 Styrene	104		11.725				ND	
104 Bromoform	173		11.878				ND	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	89	790449	9.79	
109 1,1,2,2-Tetrachloroethane	83		12.256				ND	
* 124 1,4-Dichlorobenzene-d4	152	13.030	13.024	0.006	96	828561	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MSV_29_826ISS_00010

Amount Added: 1.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S03.D

Injection Date: 04-Nov-2020 11:11:30

Instrument ID: 16334

Operator ID: jkh09052

Lims ID: 410-19023-A-14

Lab Sample ID: 410-19023-14

Worklist Smp#: 9

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

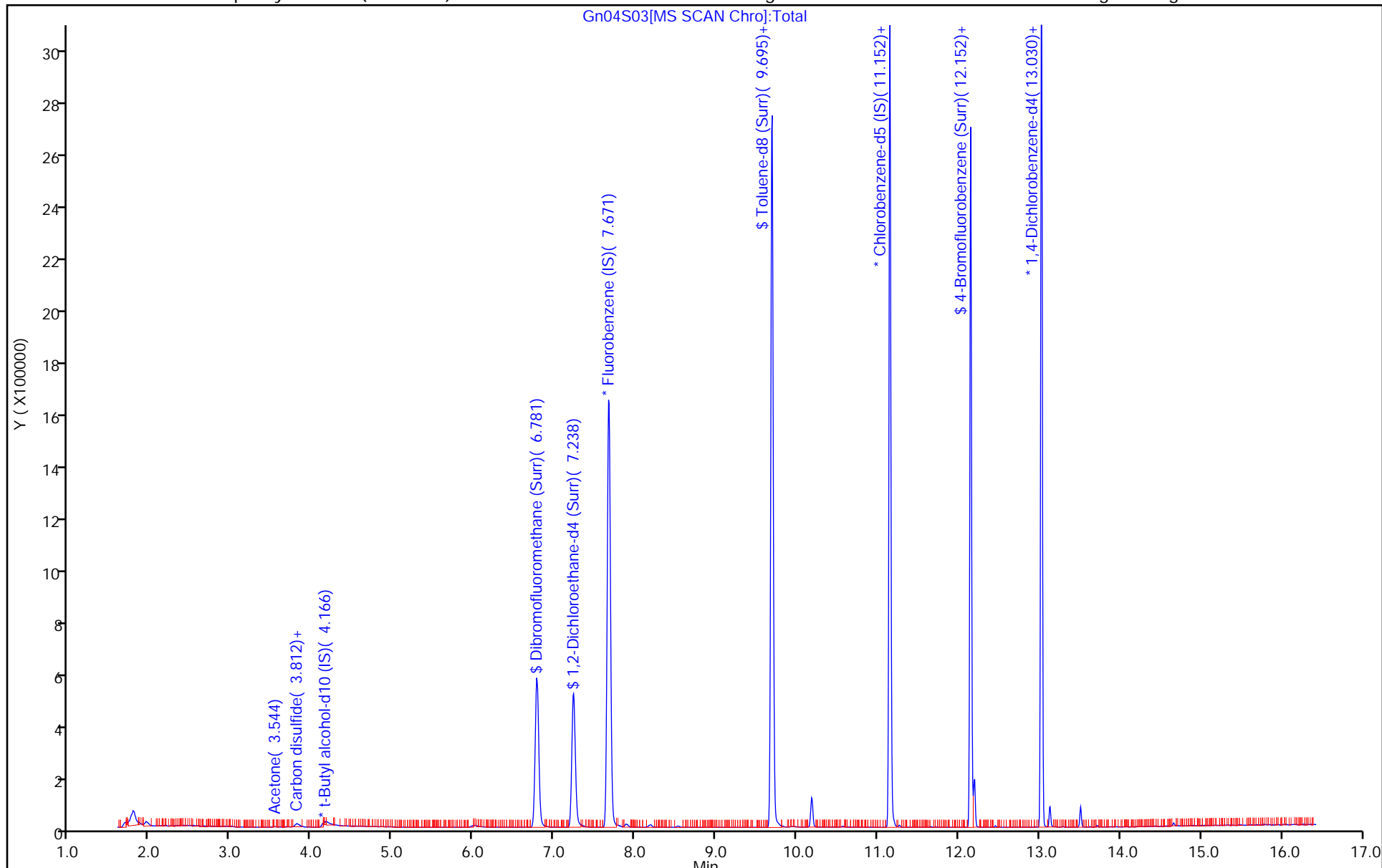
ALS Bottle#: 9

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



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S03.D
 Lims ID: 410-19023-A-14
 Client ID: HD-QC1-0/1-2
 Sample Type: Client
 Inject. Date: 04-Nov-2020 11:11:30 ALS Bottle#: 9 Worklist Smp#: 9
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014632-009
 Misc. Info.: 410-19023-A-14
 Operator ID: jkh09052 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 04-Nov-2020 14:30:58 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\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1010

First Level Reviewer: howej Date: 04-Nov-2020 14:24:57

Compound	Amount Added	Amount Recovered	% Rec.
\$ 52 Dibromofluoromethane (Surr)	10.0	9.16	91.57
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.2	102.04
\$ 82 Toluene-d8 (Surr)	10.0	10.2	102.15
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.79	97.91

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S03.D

Injection Date: 04-Nov-2020 11:11:30

Instrument ID: 16334

Lims ID: 410-19023-A-14

Lab Sample ID: 410-19023-14

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

Operator ID: jkh09052

ALS Bottle#: 9

Worklist Smp#: 9

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

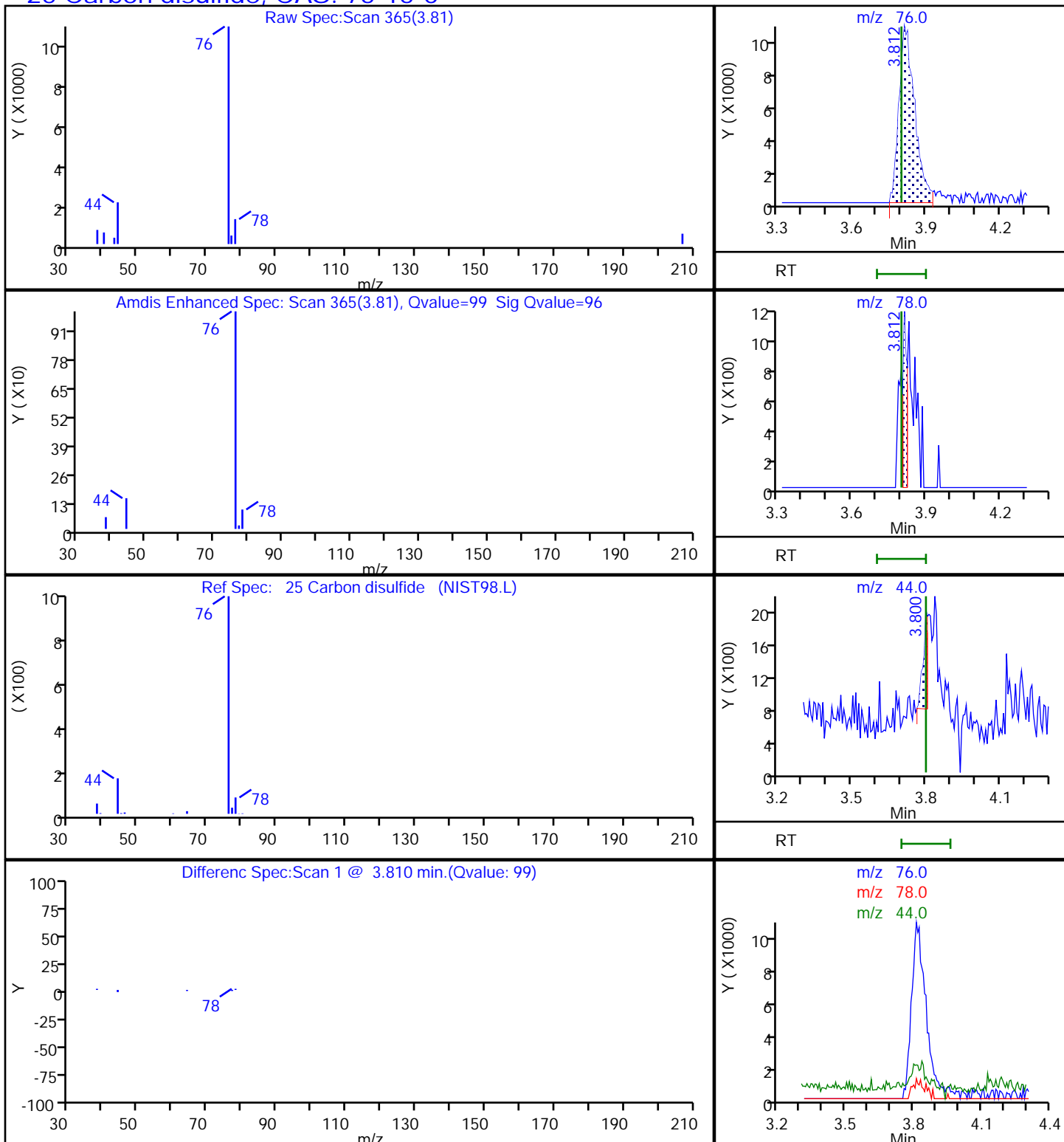
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

25 Carbon disulfide, CAS: 75-15-0



Eurofins Lancaster Laboratories Env, LLC

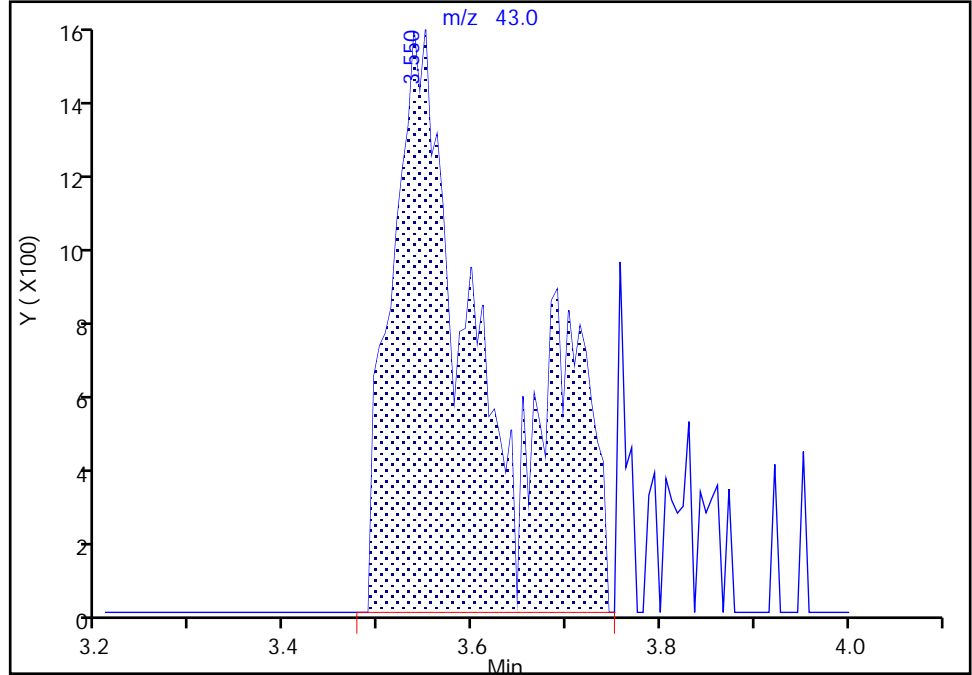
Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S03.D
Injection Date: 04-Nov-2020 11:11:30 Instrument ID: 16334
Lims ID: 410-19023-A-14 Lab Sample ID: 410-19023-14
Client ID: HD-QC1-0/1-2
Operator ID: jkh09052 ALS Bottle#: 9 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

20 Acetone, CAS: 67-64-1

Signal: 1

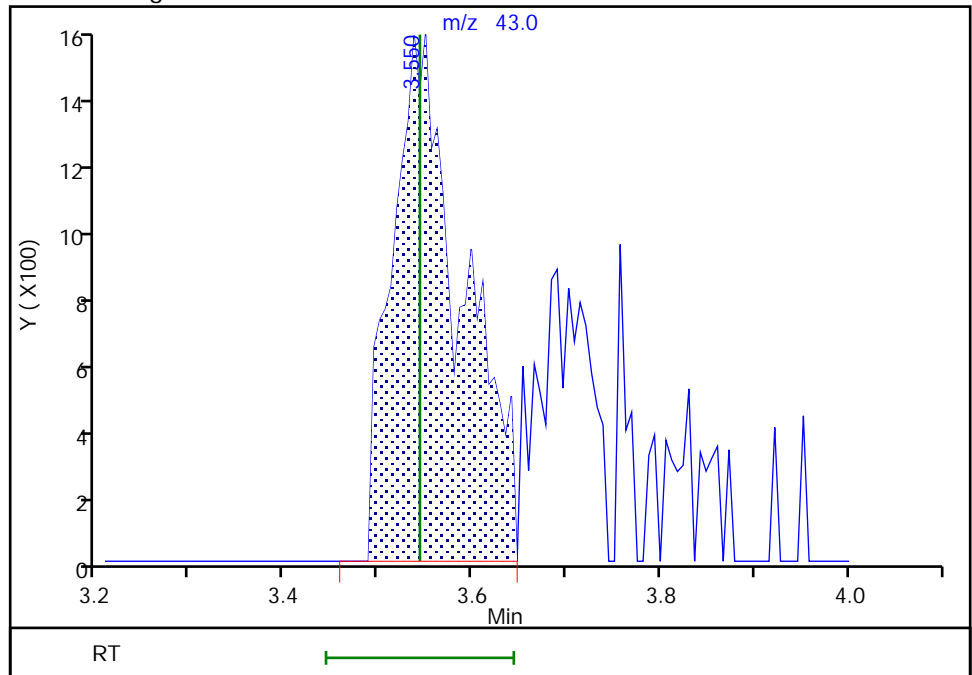
RT: 3.55
Area: 10972
Amount: 1.147828
Amount Units: ug/l

Processing Integration Results



RT: 3.55
Area: 7839
Amount: 0.820072
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 04-Nov-2020 14:24:43
Audit Action: Manually Integrated

Audit Reason: Other

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-19023-1

Analy Batch No.: 39724

SDG No.: _____

Instrument ID: 10193

GC Column: R-624SilMS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 09/01/2020 13:35

Calibration End Date: 09/01/2020 15:48

Calibration ID: 10281

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-39724/9	CS01I07.D
Level 2	IC 410-39724/8	CS01I06.D
Level 3	IC 410-39724/7	CS01I05.D
Level 4	IC 410-39724/6	CS01I04.D
Level 5	IC 410-39724/5	CS01I03.D
Level 6	ICIS 410-39724/4	CS01I02.D
Level 7	IC 410-39724/3	CS01I01.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	0.2918 0.3266	0.3522 0.3000	0.3356	0.3227	0.3298	Ave	0.3227			0.1000	6.4		20.0				
Chloromethane	0.4118 0.3640	0.4166 0.3415	0.3845	0.3763	0.3682	Ave	0.3804			0.1000	7.0		20.0				
1,3-Butadiene	0.3706 0.3470	0.3831 0.3209	0.3964	0.3503	0.3364	Ave	0.3578				7.5		20.0				
Vinyl chloride	0.3710 0.3447	0.3769 0.3205	0.3532	0.3491	0.3465	Ave	0.3517			0.1000	5.3		20.0				
Bromomethane	0.2621 0.2463	0.2522 0.2334	0.2537	0.2470	0.2428	Ave	0.2482			0.1000	3.6		20.0				
Chloroethane	0.2420 0.2076	0.2296 0.1957	0.2204	0.2152	0.2103	Ave	0.2173			0.1000	7.0		20.0				
Dichlorofluoromethane	0.5002 0.4568	0.4862 0.4354	0.4850	0.4761	0.4597	Ave	0.4713			0.1000	4.7		20.0				
Trichlorofluoromethane	0.4605 0.4468	0.4890 0.4345	0.4635	0.4578	0.4502	Ave	0.4575			0.1000	3.7		20.0				
Ethyl ether	0.2424 0.2280	0.2388 0.2201	0.2351	0.2329	0.2252	Ave	0.2318				3.4		20.0				
Freon 123a	0.4017 0.3216	0.3602 0.3077	0.3604	0.3197	0.3068	Ave	0.3397				10.4		20.0				
Acrolein	2.0142 1.8940	1.9637 2.1651	2.0559	2.0043	1.9065	Ave	2.0005				4.6		20.0				
1,1-Dichloroethene	0.2418 0.2306	0.2426 0.2200	0.2361	0.2292	0.2178	Ave	0.2312			0.1000	4.2		20.0				
Freon 113	0.2203 0.2427	0.2333 0.2316	0.2529	0.2353	0.2301	Ave	0.2352			0.1000	4.4		20.0				
Acetone	2.4480 1.8275	2.3023 2.0458	1.9178	2.1806	2.1538	Ave	2.1251			0.1000	10.1		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.: 410-19023-1

Analy Batch No.: 39724

SDG No.: _____

Instrument ID: 10193

GC Column: R-624SilMS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 09/01/2020 13:35

Calibration End Date: 09/01/2020 15:48

Calibration ID: 10281

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	0.4822 0.4629	0.4687 0.4378	0.4677	0.4453	0.4325	Ave		0.4567			4.0		20.0				
Ethyl bromide	0.1903 0.1935	0.1972 0.1891	0.1896	0.1927	0.1915	Ave		0.1920			1.5		20.0				
Carbon disulfide	0.8640 0.8277	0.8170 0.7933	0.8306	0.8071	0.7771	Ave		0.8167		0.1000	3.4		20.0				
Methyl acetate	9.4619 9.1956	7.3296 8.4904	6.2276	8.6421	9.1035	Ave		8.3501		0.1000	14.0		20.0				
Allyl chloride	0.4284 0.3952	0.4116 0.3911	0.4125	0.4004	0.3924	Ave		0.4045			3.4		20.0				
Methylene Chloride	0.2673 0.2596	0.2690 0.2450	0.2624	0.2530	0.2446	Ave		0.2573		0.1000	3.9		20.0				
t-Butyl alcohol	1.0786 0.9343	1.0895 0.9573	1.0217	0.9595	0.9311	Ave		0.9960			6.7		20.0				
Acrylonitrile	3.6060 3.1435	3.1763 3.4734	3.6610	3.3562	3.2079	Ave		3.3749			6.2		20.0				
Methyl tert-butyl ether	0.8080 0.7372	0.7726 0.6995	0.7701	0.7370	0.7146	Ave		0.7484		0.1000	5.0		20.0				
trans-1,2-Dichloroethene	0.2811 0.2736	0.2778 0.2609	0.2771	0.2631	0.2584	Ave		0.2703		0.1000	3.4		20.0				
n-Hexane	0.3770 0.3916	0.3611 0.3799	0.4016	0.3797	0.3767	Ave		0.3811			3.3		20.0				
1,1-Dichloroethane	0.5317 0.5021	0.5027 0.4713	0.5160	0.4888	0.4701	Ave		0.4975		0.2000	4.6		20.0				
di-Isopropyl ether	1.0024 0.9422	0.9815 0.8947	0.9734	0.9396	0.9047	Ave		0.9484			4.2		20.0				
2-Chloro-1,3-butadiene	0.5154 0.4645	0.4858 0.4485	0.4683	0.4604	0.4388	Ave		0.4688			5.4		20.0				
Ethyl t-butyl ether	0.9545 0.8964	0.9353 0.8421	0.9367	0.9013	0.8760	Ave		0.9061			4.3		20.0				
2-Butanone (MEK)	5.4466 4.7533	5.2332 4.9507	4.9134	4.9045	4.6863	Ave		4.9840		0.1000	5.4		20.0				
cis-1,2-Dichloroethene	0.3274 0.3030	0.3121 0.2918	0.3173	0.3033	0.2901	Ave		0.3064		0.1000	4.4		20.0				
2,2-Dichloropropane	0.4489 0.4318	0.4355 0.4139	0.4390	0.4295	0.4067	Ave		0.4293			3.4		20.0				
Propionitrile	1.1218 1.2317	1.3475 1.3330	1.3300	1.3001	1.1903	Ave		1.2649			6.8		20.0				
Methacrylonitrile	4.7767 4.8580	4.6120 5.3811	5.2269	4.8310	4.6272	Ave		4.9019			6.0		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.: 410-19023-1

Analy Batch No.: 39724

SDG No.: _____

Instrument ID: 10193

GC Column: R-624SilMS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 09/01/2020 13:35

Calibration End Date: 09/01/2020 15:48

Calibration ID: 10281

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															
Bromochloromethane	0.1358 0.1353	0.1313 0.1355	0.1358	0.1372	0.1333	Ave		0.1349			1.4		20.0				
Tetrahydrofuran	1.3990 1.4024	1.4454 1.4410	1.4710	1.4167	1.2917	Ave		1.4096			4.1		20.0				
Chloroform	0.5202 0.4930	0.4959 0.4791	0.5003	0.4910	0.4717	Ave		0.4930		0.2000	3.2		20.0				
1,1,1-Trichloroethane	0.4505 0.4529	0.4491 0.4340	0.4484	0.4481	0.4266	Ave		0.4442		0.1000	2.2		20.0				
Cyclohexane	0.4761 0.4708	0.4666 0.4592	0.4977	0.4651	0.4526	Ave		0.4697		0.1000	3.1		20.0				
Carbon tetrachloride	0.3736 0.3825	0.3626 0.3735	0.3807	0.3709	0.3612	Ave		0.3722		0.1000	2.2		20.0				
1,1-Dichloropropene	0.4216 0.3987	0.4040 0.3841	0.4090	0.3942	0.3800	Ave		0.3988			3.6		20.0				
Isobutyl alcohol	0.3751 0.3074	0.3279 0.3354	0.3075	0.2990	0.3080	Ave		0.3229			8.2		20.0				
Benzene	1.2000 1.1470	1.1667 1.1118	1.1704	1.1462	1.0973	Ave		1.1485		0.5000	3.1		20.0				
1,2-Dichloroethane	0.4157 0.3201	0.3720 0.3103	0.3512	0.3372	0.3171	Ave		0.3462		0.1000	10.8		20.0				
t-Amyl methyl ether	0.8796 0.8203	0.8294 0.7843	0.8425	0.8248	0.7964	Ave		0.8253			3.8		20.0				
n-Heptane	0.4363 0.4299	0.3892 0.4305	0.4413	0.4327	0.4098	Ave		0.4242			4.3		20.0				
n-Butanol	0.2653 0.2713	0.2533 0.3015	0.2601	0.2624	0.2592	Ave		0.2676			6.0		20.0				
Trichloroethene	0.3060 0.2974	0.2973 0.2896	0.3050	0.2951	0.2821	Ave		0.2961		0.2000	2.8		20.0				
Methylcyclohexane	0.3921 0.4589	0.4558 0.4681	0.4649	0.4659	0.4686	Ave		0.4535		0.1000	6.1		20.0				
1,2-Dichloropropane	0.3163 0.2907	0.2966 0.2887	0.3017	0.2907	0.2801	Ave		0.2950		0.1000	3.9		20.0				
Methyl methacrylate	10.694 10.216	9.9010 11.465	10.664	10.304	9.9075	Ave		10.450			5.3		20.0				
Dibromomethane	0.1573 0.1425	0.1458 0.1389	0.1476	0.1402	0.1380	Ave		0.1443			4.7		20.0				
1,4-Dioxane	0.0383 0.0539	0.0522 0.0636	0.0577	0.0553	0.0521	Ave		0.0533		0.0050	14.4		20.0				
Bromodichloromethane	0.3687 0.3625	0.3552 0.3560	0.3573	0.3500	0.3429	Ave		0.3561		0.2000	2.3		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.: 410-19023-1

Analy Batch No.: 39724

SDG No.: _____

Instrument ID: 10193

GC Column: R-624SilMS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 09/01/2020 13:35

Calibration End Date: 09/01/2020 15:48

Calibration ID: 10281

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															
2-Nitropropane	3.1499 3.3581	2.9287 3.7715	3.2325	3.1838	3.0651	Ave		3.2414			8.3		20.0				
1-Bromo-2-chloroethane	0.3076 0.3019	0.3095 0.2997	0.3085	0.3109	0.2974	Ave		0.3051			1.7		20.0				
cis-1,3-Dichloropropene	0.4505 0.4574	0.4308 0.4504	0.4399	0.4366	0.4322	Ave		0.4426		0.2000	2.3		20.0				
4-Methyl-2-pentanone (MIBK)	14.016 14.367	13.957 16.290	14.759	14.207	13.754	Ave		14.478		0.1000	6.0		20.0				
Toluene	1.0004 0.9956	1.0051 0.9649	1.0017	0.9778	0.9307	Ave		0.9823		0.4000	2.8		20.0				
trans-1,3-Dichloropropene	0.4859 0.5150	0.4729 0.5037	0.4892	0.4888	0.4880	Ave		0.4919		0.1000	2.8		20.0				
Ethyl methacrylate	0.3832 0.4288	0.4119 0.4219	0.4250	0.4203	0.4148	Ave		0.4151			3.7		20.0				
1,1,2-Trichloroethane	0.2788 0.2711	0.2787 0.2614	0.2793	0.2703	0.2599	Ave		0.2713		0.1000	3.0		20.0				
Tetrachloroethene	0.4614 0.4409	0.4386 0.4283	0.4502	0.4359	0.4167	Ave		0.4389		0.2000	3.3		20.0				
1,3-Dichloropropane	0.5020 0.4753	0.4992 0.4587	0.4896	0.4663	0.4567	Ave		0.4783			3.9		20.0				
2-Hexanone	9.3232 10.451	9.3321 11.730	10.440	10.418	9.9066	Ave		10.229		0.1000	8.1		20.0				
Dibromochloromethane	0.2734 0.3437	0.3001 0.3401	0.3060	0.3197	0.3203	Ave		0.3148			7.7		20.0				
1,2-Dibromoethane (EDB)	0.2705 0.2751	0.2685 0.2647	0.2692	0.2658	0.2615	Ave		0.2679		0.1000	1.6		20.0				
1-Chlorohexane	0.6434 0.5456	0.5804 0.5365	0.5728	0.5308	0.5171	Ave		0.5609			7.6		20.0				
Chlorobenzene	1.1591 1.1088	1.1274 1.0823	1.1325	1.0960	1.0596	Ave		1.1094		0.5000	3.0		20.0				
1,1,1,2-Tetrachloroethane	0.3624 0.3937	0.3754 0.3864	0.3803	0.3722	0.3711	Ave		0.3774			2.8		20.0				
Ethylbenzene	2.0322 1.9609	1.9521 1.9374	1.9666	1.9197	1.8587	Ave		1.9468		0.1000	2.7		20.0				
m&p-Xylene	0.7470 0.7821	0.7660 0.7722	0.7743	0.7524	0.7314	Ave		0.7608		0.1000	2.4		20.0				
o-Xylene	0.7543 0.7626	0.7377 0.7544	0.7513	0.7404	0.7161	Ave		0.7453		0.3000	2.1		20.0				
Styrene	1.2097 1.3027	1.2218 1.3129	1.2422	1.2428	1.2248	Ave		1.2510		0.3000	3.2		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.: 410-19023-1

Analy Batch No.: 39724

SDG No.:

Instrument ID: 10193

GC Column: R-624SilMS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 09/01/2020 13:35

Calibration End Date: 09/01/2020 15:48

Calibration ID: 10281

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															
Bromoform	0.1392 0.2053	0.1476 0.2084	0.1657	0.1718	0.1858	Ave		0.1748		0.1000	15.3		20.0				
Isopropylbenzene	1.9458 2.0263	1.9681 2.0001	2.0184	1.9483	1.8930	Ave		1.9714		0.1000	2.4		20.0				
1,1,2,2-Tetrachloroethane	0.6444 0.6192	0.6459 0.5895	0.6379	0.6292	0.6052	Ave		0.6245		0.3000	3.4		20.0				
Bromobenzene	0.9259 0.8543	0.8582 0.8201	0.8786	0.8448	0.8202	Ave		0.8574			4.3		20.0				
trans-1,4-Dichloro-2-butene	0.1540 0.1855	0.1591 0.1839	0.1758	0.1743	0.1775	Ave		0.1729			6.9		20.0				
1,2,3-Trichloropropane	0.1803 0.1668	0.1805 0.1560	0.1726	0.1710	0.1625	Ave		0.1700			5.3		20.0				
N-Propylbenzene	4.1100 4.0800	4.0761 3.8615	4.1430	4.0328	3.8780	Ave		4.0259			2.8		20.0				
2-Chlorotoluene	0.8972 0.8148	0.8244 0.7752	0.8538	0.8098	0.7883	Ave		0.8233			5.0		20.0				
1,3,5-Trimethylbenzene	3.0659 3.0010	2.9965 2.8926	3.0966	2.9616	2.8629	Ave		2.9824			2.8		20.0				
4-Chlorotoluene	0.9181 0.8554	0.8621 0.8224	0.8670	0.8507	0.8152	Ave		0.8558			3.9		20.0				
tert-Butylbenzene	0.7365 0.6340	0.6164 0.6142	0.6484	0.6819	0.6078	Ave		0.6485			7.2		20.0				
Pentachloroethane	0.4131 0.5184	0.4535 0.5288	0.4768	0.4964	0.5026	Ave		0.4842			8.3		20.0				
1,2,4-Trimethylbenzene	2.9755 3.1351	3.1226 3.0397	3.1427	3.0238	2.9789	Ave		3.0598			2.4		20.0				
sec-Butylbenzene	3.9078 3.8805	3.8823 3.7594	3.9147	3.8335	3.7199	Ave		3.8426			2.0		20.0				
1,3-Dichlorobenzene	1.7283 1.7190	1.7498 1.6706	1.7559	1.7171	1.6487	Ave		1.7128		0.6000	2.3		20.0				
p-Isopropyltoluene	3.3272 3.4552	3.3258 3.3657	3.3764	3.3527	3.2540	Ave		3.3510			1.8		20.0				
1,4-Dichlorobenzene	1.8673 1.7552	1.8222 1.7031	1.7458	1.7522	1.6928	Ave		1.7627		0.5000	3.5		20.0				
1,2,3-Trimethylbenzene	1.3613 1.3406	1.3459 1.3335	1.3290	1.3729	1.3170	Ave		1.3429			1.4		20.0				
Benzyl chloride	0.2108 0.2769	0.2242 0.2729	0.2409	0.2506	0.2623	Ave		0.2484			9.9		20.0				
n-Butylbenzene	1.6207 1.7769	1.6365 1.7347	1.7004	1.7288	1.6881	Ave		1.6980			3.3		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.: 410-19023-1 Analy Batch No.: 39724

SDG No.: _____

Instrument ID: 10193 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/01/2020 13:35 Calibration End Date: 09/01/2020 15:48 Calibration ID: 10281

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															
1,2-Dichlorobenzene	1.6515 1.6333	1.6237 1.5733	1.6481	1.6158	1.5674	Ave		1.6162			0.4000	2.1	20.0				
1,2-Dibromo-3-Chloropropane	0.0711 0.0942	0.0819 0.0878	0.0879	0.0890	0.0877	Ave		0.0856			0.0500	8.6	20.0				
1,3,5-Trichlorobenzene	1.4074 1.4110	1.4061 1.3656	1.4295	1.4062	1.3555	Ave		1.3973				1.9	20.0				
1,2,4-Trichlorobenzene	1.2990 1.2622	1.2785 1.2137	1.2629	1.2451	1.2149	Ave		1.2538			0.2000	2.5	20.0				
Hexachlorobutadiene	0.6553 0.6171	0.6168 0.5892	0.6150	0.6075	0.5846	Ave		0.6122				3.8	20.0				
Naphthalene	2.2291 2.2731	2.2713 2.0879	2.3270	2.2619	2.2049	Ave		2.2365				3.4	20.0				
1,2,3-Trichlorobenzene	1.1382 1.1080	1.1563 1.0364	1.1417	1.1153	1.0727	Ave		1.1098				3.8	20.0				
Dibromofluoromethane (Surr)	0.2372 0.2368	0.2372 0.2376	0.2382	0.2372	0.2391	Ave		0.2376				0.3	20.0				
1,2-Dichloroethane-d4 (Surr)	0.0480 0.0484	0.0476 0.0484	0.0485	0.0490	0.0490	Ave		0.0484				1.0	20.0				
Toluene-d8 (Surr)	1.3120 1.3054	1.3060 1.2984	1.3067	1.3058	1.3081	Ave		1.3061				0.3	20.0				
4-Bromofluorobenzene (Surr)	0.4846 0.4929	0.4884 0.4967	0.4890	0.4914	0.4931	Ave		0.4909				0.8	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.: 410-19023-1

Analy Batch No.: 39724

SDG No.: _____

Instrument ID: 10193

GC Column: R-624SilMS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 09/01/2020 13:35

Calibration End Date: 09/01/2020 15:48

Calibration ID: 10281

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-39724/9	CS01I07.D
Level 2	IC 410-39724/8	CS01I06.D
Level 3	IC 410-39724/7	CS01I05.D
Level 4	IC 410-39724/6	CS01I04.D
Level 5	IC 410-39724/5	CS01I03.D
Level 6	ICIS 410-39724/4	CS01I02.D
Level 7	IC 410-39724/3	CS01I01.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	11305 673806	34165 1551921	65583	129325	335623	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Chloromethane	FB	Ave	15951 750884	40412 1766636	75132	150814	374739	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,3-Butadiene	FB	Ave	14355 715813	37166 1660055	77445	140385	342407	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Vinyl chloride	FB	Ave	14371 711167	36562 1657758	69005	139896	352685	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Bromomethane	FB	Ave	10152 508157	24464 1207360	49576	98967	247103	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Chloroethane	FB	Ave	9373 428295	22270 1012488	43065	86238	214069	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Dichlorofluoromethane	FB	Ave	19377 942431	47161 2252587	94758	190803	467823	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Trichlorofluoromethane	FB	Ave	17838 921738	47434 2247593	90570	183481	458162	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Ethyl ether	FB	Ave	9388 470167	23165 1138572	45936	93303	229113	0.200 10.0	0.500 25.0	1.000	2.00	5.00
Freon 123a	FB	Ave	15559 663506	34942 1591534	70413	128139	312190	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Acrolein	TBAd 10	Ave	57475 2808556	142874 7052881	288468	575443	1427897	10.00 500	25.0 1250	50.0	100.0	250
1,1-Dichloroethene	FB	Ave	9367 475627	23536 1138101	46141	91871	221612	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Freon 113	FB	Ave	8535 500744	22631 1197984	49416	94307	234166	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Acetone	TBAd 10	Ave	13971 541999	33503 1332893	53819	125222	322634	2.00 100	5.00 250	10.0	20.0	50.0
Methyl iodide	FB	Ave	18680 954840	45466 2264828	91381	178469	440171	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.: 410-19023-1

Analy Batch No.: 39724

SDG No.:

Instrument ID: 10193

GC Column: R-624SilMS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 09/01/2020 13:35

Calibration End Date: 09/01/2020 15:48

Calibration ID: 10281

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
Ethyl bromide	FB	Ave	7374 399370	19138 978776	37062	77273	194973	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Carbon disulfide	FB	Ave	33471 1707453	79256 4103979	162292	323433	790900	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Methyl acetate	TBAd 10	Ave	5400 272722	10666 553177	17477	49627	136367	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Allyl chloride	FB	Ave	16597 815256	39926 2023275	80597	160482	399375	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Methylene Chloride	FB	Ave	10355 535609	26091 1267299	51267	101409	248970	0.200 10.0	0.500 25.0	1.00	2.00	5.00
t-Butyl alcohol	TBAd 10	Ave	12311 554170	31710 1247393	57344	110192	278959	4.00 200	10.0 500	20.0	40.0	100
Acrylonitrile	TBAd 10	Ave	10290 466148	23111 1131501	51371	96365	240268	1.00 50.0	2.50 125	5.00	10.0	25.0
Methyl tert-butyl ether	FB	Ave	31299 1520759	74946 3618649	150474	295369	727225	0.200 10.0	0.500 25.0	1.00	2.00	5.00
trans-1,2-Dichloroethene	FB	Ave	10888 564465	26945 1349657	54149	105433	262964	0.200 10.0	0.500 25.0	1.00	2.00	5.00
n-Hexane	FB	Ave	14606 807784	35026 1965108	78465	152150	383350	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1-Dichloroethane	FB	Ave	20597 1035693	48762 2437799	100821	195904	478397	0.200 10.0	0.500 25.0	1.00	2.00	5.00
di-Isopropyl ether	FB	Ave	38832 1943658	95205 4628483	190197	376556	920754	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2-Chloro-1,3-butadiene	FB	Ave	19967 958306	47125 2319881	91500	184491	446582	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Ethyl t-butyl ether	FB	Ave	36977 1849075	90729 4356436	183026	361189	891552	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2-Butanone (MEK)	TBAd 10	Ave	31084 1409728	76154 3225526	137888	281636	701991	2.00 100	5.00 250	10.0	20.0	50.0
cis-1,2-Dichloroethene	FB	Ave	12683 625147	30278 1509697	62000	121548	295208	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2,2-Dichloropropane	FB	Ave	17391 890664	42244 2141366	85777	172113	413880	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Propionitrile	TBAd 10	Ave	12804 730594	39217 1736921	74651	149313	356593	4.00 200	10.0 500	20.0	40.0	100
Methacrylonitrile	TBAd 10	Ave	27261 1440762	67114 3505951	146687	277418	693145	2.00 100	5.00 250	10.0	20.0	50.0
Bromochloromethane	FB	Ave	5261 279022	12738 700885	26529	54981	135663	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Tetrahydrofuran	TBAd 10	Ave	7984 415910	21034 938881	41281	81352	193486	2.00 100	5.00 250	10.0	20.0	50.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-19023-1

Analy Batch No.: 39724

SDG No.: _____

Instrument ID: 10193

GC Column: R-624SilMS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 09/01/2020 13:35

Calibration End Date: 09/01/2020 15:48

Calibration ID: 10281

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
Chloroform	FB	Ave	20153 1017069	48103 2478178	97764	196768	480095	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1,1-Trichloroethane	FB	Ave	17452 934233	43566 2245085	87622	179578	434162	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Cyclohexane	FB	Ave	18443 971248	45257 2375325	97244	186390	460601	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Carbon tetrachloride	FB	Ave	14471 789037	35175 1932273	74393	148659	367580	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1-Dichloropropene	FB	Ave	16330 822564	39192 1986821	79910	157992	386758	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Isobutyl alcohol	TBAd 10	Ave	10703 455897	23860 1092722	43145	85837	230672	10.0 500	25.0 1250	50.0	100	250
Benzene	FB	Ave	46486 2366224	113177 5751371	228700	459354	1116708	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2-Dichloroethane	FB	Ave	16105 660414	36081 1605051	68618	135129	322763	0.200 10.0	0.500 25.0	1.00	2.00	5.00
t-Amyl methyl ether	FB	Ave	34074 1692208	80450 4057198	164628	330560	810520	0.200 10.0	0.500 25.0	1.00	2.00	5.00
n-Heptane	FB	Ave	16903 886773	37755 2226987	86227	173398	417078	0.200 10.0	0.500 25.0	1.00	2.00	5.00
n-Butanol	TBAd 10	Ave	15142 804563	36853 1964301	73005	150691	388291	20.0 1000	50.0 2500	100	200	500
Trichloroethene	FB	Ave	11853 613428	28843 1497905	59588	118251	287079	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Methylcyclohexane	FB	Ave	15190 946727	44211 2421507	90839	186709	476901	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2-Dichloropropane	FB	Ave	12253 599777	28771 1493537	58951	116517	285051	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Methyl methacrylate	TBAd 10	Ave	6103 302973	14408 746981	29926	59171	148411	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Dibromomethane	FB	Ave	6094 293984	14141 718764	28840	56166	140420	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,4-Dioxane	TBAd 10	Ave	1094 79862	3795 207069	8095	15868	39014	10.0 500	25.0 1250	50.0	100	250
Bromodichloromethane	FB	Ave	14281 747888	34459 1841851	69815	140278	348987	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2-Nitropropane	TBAd 10	Ave	17977 995940	42618 2457254	90715	182830	459149	2.00 100	5.00 250	10.0	20.0	50.0
1-Bromo-2-chloroethane	FB	Ave	11914 622797	30027 1550438	60281	124609	302656	0.200 10.0	0.500 25.0	1.00	2.00	5.00
cis-1,3-Dichloropropene	FB	Ave	17450 943666	41792 2329714	85955	174979	439884	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.: 410-19023-1

Analy Batch No.: 39724

SDG No.:

Instrument ID: 10193

GC Column: R-624SilMS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 09/01/2020 13:35

Calibration End Date: 09/01/2020 15:48

Calibration ID: 10281

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
4-Methyl-2-pentanone (MIBK)	TBAd 10	Ave	79991 4260875	203096 10613666	414178	815838	2060281	2.00 100	5.00 250	10.0	20.0	50.0
Toluene	CBZd 5	Ave	29375 1562669	73639 3853589	148821	297381	721183	0.200 10.0	0.500 25.0	1.00	2.00	5.00
trans-1,3-Dichloropropene	CBZd 5	Ave	14266 808366	34646 2011642	72683	148652	378157	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Ethyl methacrylate	CBZd 5	Ave	11251 673046	30177 1684778	63147	127842	321458	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1,2-Trichloroethane	CBZd 5	Ave	8186 425508	20416 1044114	41496	82201	201374	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Tetrachloroethene	CBZd 5	Ave	13549 692046	32134 1710454	66888	132588	322909	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,3-Dichloropropane	CBZd 5	Ave	14740 746124	36571 1831923	72739	141833	353883	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2-Hexanone	TBAd 10	Ave	53208 3099544	135801 7642331	292991	598268	1483984	2.00 100	5.00 250	10.0	20.0	50.0
Dibromochloromethane	CBZd 5	Ave	8028 539411	21989 1358246	45464	97240	248177	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2-Dibromoethane (EDB)	CBZd 5	Ave	7944 431839	19670 1057340	40000	80851	202633	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1-Chlorohexane	CBZd 5	Ave	18891 856372	42522 2142701	85108	161444	400674	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Chlorobenzene	CBZd 5	Ave	34035 1740350	82597 4322456	168260	333345	821070	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1,1,2-Tetrachloroethane	CBZd 5	Ave	10641 617994	27504 1543073	56505	113207	287568	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Ethylbenzene	CBZd 5	Ave	59671 3077887	143018 7737357	292186	583876	1440317	0.200 10.0	0.500 25.0	1.00	2.00	5.00
m&p-Xylene	CBZd 5	Ave	43867 2455146	112244 6167767	230072	457654	1133528	0.400 20.0	1.00 50.0	2.00	4.00	10.0
o-Xylene	CBZd 5	Ave	22149 1197012	54046 3012741	111628	225199	554888	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Styrene	CBZd 5	Ave	35521 2044773	89517 5243447	184556	377982	949081	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Bromoform	CBZd 5	Ave	4087 322179	10815 832204	24617	52263	143999	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Isopropylbenzene	CBZd 5	Ave	57134 3180524	144191 7987853	299877	592584	1466907	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	10523 569960	26594 1416700	53769	109660	269440	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Bromobenzene	DCBd 4	Ave	15119 786388	35338 1970860	74061	147229	365172	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.: 410-19023-1

Analy Batch No.: 39724

SDG No.: _____

Instrument ID: 10193

GC Column: R-624SilMS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 09/01/2020 13:35

Calibration End Date: 09/01/2020 15:48

Calibration ID: 10281

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-1,4-Dichloro-2-butene	DCBd 4	Ave	25153 1707722	65511 4418631	148178	303768	790342	2.00 100	5.00 250	10.0	20.0	50.0
1,2,3-Trichloropropane	DCBd 4	Ave	2945 153575	7433 374830	14553	29794	72364	0.200 10.0	0.500 25.0	1.00	2.00	5.00
N-Propylbenzene	DCBd 4	Ave	67115 3755554	167830 9279542	349239	702814	1726631	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2-Chlorotoluene	DCBd 4	Ave	14651 750019	33943 1862946	71969	141124	350978	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,3,5-Trimethylbenzene	DCBd 4	Ave	50066 2762343	123379 6951334	261031	516140	1274650	0.200 10.0	0.500 25.0	1.00	2.00	5.00
4-Chlorotoluene	DCBd 4	Ave	14993 787376	35497 1976218	73083	148252	362949	0.200 10.0	0.500 25.0	1.00	2.00	5.00
tert-Butylbenzene	DCBd 4	Ave	12027 583616	25380 1475973	54654	118830	270627	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Pentachloroethane	DCBd 4	Ave	6746 477219	18671 1270655	40193	86508	223759	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2,4-Trimethylbenzene	DCBd 4	Ave	48590 2885821	128573 7304755	264914	526977	1326302	0.200 10.0	0.500 25.0	1.00	2.00	5.00
sec-Butylbenzene	DCBd 4	Ave	63813 3571893	159853 9034349	329993	668081	1656218	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,3-Dichlorobenzene	DCBd 4	Ave	28222 1582324	72046 4014697	148017	299249	734044	0.200 10.0	0.500 25.0	1.00	2.00	5.00
p-Isopropyltoluene	DCBd 4	Ave	54332 3180481	136940 8088100	284614	584284	1448806	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,4-Dichlorobenzene	DCBd 4	Ave	30493 1615615	75027 4092757	147165	305373	753707	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2,3-Trimethylbenzene	DCBd 4	Ave	22229 1234014	55416 3204589	112026	239261	586354	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Benzyl chloride	DCBd 4	Ave	3443 254856	9231 655880	20304	43679	116794	0.200 10.0	0.500 25.0	1.00	2.00	5.00
n-Butylbenzene	DCBd 4	Ave	26466 1635579	67384 4168646	143333	301292	751620	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2-Dichlorobenzene	DCBd 4	Ave	26969 1503472	66856 3780882	138925	281587	697848	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	1161 86753	3372 210885	7406	15503	39048	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,3,5-Trichlorobenzene	DCBd 4	Ave	22982 1298817	57894 3281646	120502	245063	603506	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2,4-Trichlorobenzene	DCBd 4	Ave	21212 1161828	52641 2916702	106458	216994	540926	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Hexachlorobutadiene	DCBd 4	Ave	10701 568070	25396 1415792	51838	105865	260304	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.: 410-19023-1 Analy Batch No.: 39724

SDG No.: _____

Instrument ID: 10193 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/01/2020 13:35 Calibration End Date: 09/01/2020 15:48 Calibration ID: 10281

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			
Naphthalene	DCBd 4	Ave	36400 2092386	93520 5017456	196158	394190	981719	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2,3-Trichlorobenzene	DCBd 4	Ave	18586 1019899	47610 2490582	96242	194367	477586	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Dibromofluoromethane (Surr)	FB	Ave	459388 488556	460223 491718	465395	475332	486623	10.0 10.0	10.0 10.0	10.0	10.0	10.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	92975 99744	92350 100134	94841	98150	99716	10.0 10.0	10.0 10.0	10.0	10.0	10.0
Toluene-d8 (Surr)	CBZd 5	Ave	1926152 2048995	1913735 2074244	1941329	1985750	2027327	10.0 10.0	10.0 10.0	10.0	10.0	10.0
4-Bromofluorobenzene (Surr)	CBZd 5	Ave	711441 773730	715715 793546	726539	747277	764276	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\10193\20200901-9503.b\CS01I01.D
 Lims ID: IC STD7
 Client ID:
 Sample Type: IC Calib Level: 7
 Inject. Date: 01-Sep-2020 13:35:30 ALS Bottle#: 2 Worklist Smp#: 3
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: IC STD7
 Misc. Info.: 410-0009503-003
 Operator ID: dvv10203 Instrument ID: 10193
 Sublist: chrom-MSV_10193_25mL*sub1

Method: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\MSV_10193_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 01-Sep-2020 20:10:09 Calib Date: 01-Sep-2020 19:09:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\CS01I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1059

First Level Reviewer: virayd

Date: 01-Sep-2020 15:49:38

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	1.910	1.910	0.000	99	1551921	25.0	23.2	
3 Chloromethane	50	2.099	2.099	0.000	99	1766636	25.0	22.4	
4 Butadiene	39	2.203	2.209	-0.006	95	1660055	25.0	22.4	
5 Vinyl chloride	62	2.209	2.215	-0.006	98	1657758	25.0	22.8	
6 Bromomethane	94	2.507	2.520	-0.013	91	1207360	25.0	23.5	
7 Chloroethane	64	2.599	2.605	-0.006	100	1012488	25.0	22.5	
8 Dichlorofluoromethane	67	2.831	2.837	-0.006	97	2252587	25.0	23.1	
9 Trichlorofluoromethane	101	2.892	2.898	-0.006	97	2247593	25.0	23.7	
11 Ethyl ether	59	3.129	3.135	-0.006	92	1138572	25.0	23.7	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.215	3.208	0.007	97	1591534	25.0	22.6	
13 Acrolein	56	3.300	3.306	-0.006	99	7052881	1250.0	1352.8	
14 1,1-Dichloroethene	96	3.422	3.428	-0.006	97	1138101	25.0	23.8	
15 112TCTFE	101	3.458	3.464	-0.006	92	1197984	25.0	24.6	
16 Acetone	43	3.458	3.471	-0.013	100	1332893	250.0	240.7	
17 Iodomethane	142	3.611	3.617	-0.006	99	2264828	25.0	24.0	
19 Ethyl bromide	108	3.641	3.641	0.000	99	978776	25.0	24.6	
18 Isopropyl alcohol	45	3.635	3.647	-0.012	41	563815	500.0	508.3	
20 Carbon disulfide	76	3.708	3.708	0.000	100	4103979	25.0	24.3	
22 Methyl acetate	43	3.855	3.867	-0.012	98	553177	25.0	25.4	M
23 3-Chloro-1-propene	41	3.885	3.891	-0.006	89	2023275	25.0	24.2	
24 Methylene Chloride	84	4.068	4.074	-0.006	94	1267299	25.0	23.8	
* 25 t-Butyl alcohol-d10 (IS)	65	4.092	4.117	-0.025	99	130306	50.0	50.0	
26 2-Methyl-2-propanol	59	4.214	4.227	-0.012	99	1247393	500.0	480.6	
27 Acrylonitrile	53	4.403	4.409	-0.006	98	1131501	125.0	128.6	
28 Methyl tert-butyl ether	73	4.452	4.464	-0.012	96	3618649	25.0	23.4	
29 trans-1,2-Dichloroethene	96	4.464	4.470	-0.006	97	1349657	25.0	24.1	
30 Hexane	57	4.885	4.897	-0.012	95	1965108	25.0	24.9	
32 1,1-Dichloroethane	63	5.129	5.135	-0.006	96	2437799	25.0	23.7	
33 Isopropyl ether	45	5.190	5.196	-0.006	93	4628483	25.0	23.6	
34 2-Chloro-1,3-butadiene	53	5.239	5.251	-0.012	93	2319881	25.0	23.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 Tert-butyl ethyl ether	59	5.732	5.732	0.000	98	4356436	25.0	23.2	
36 2-Butanone (MEK)	43	5.940	5.946	-0.006	100	3225526	250.0	248.3	
37 cis-1,2-Dichloroethene	96	5.970	5.970	0.000	83	1509697	25.0	23.8	
38 2,2-Dichloropropane	77	5.988	5.988	0.000	89	2141366	25.0	24.1	
40 Propionitrile	54	6.049	6.049	0.000	99	1736921	500.0	526.9	M
S 42 1,2-Dichloroethene, Total	100				0			47.9	
43 Methacrylonitrile	67	6.251	6.251	0.001	93	3505951	250.0	274.4	
44 Chlorobromomethane	128	6.305	6.305	0.000	96	700885	25.0	25.1	
45 Tetrahydrofuran	71	6.312	6.305	0.007	89	938881	250.0	255.6	
46 Chloroform	83	6.458	6.464	-0.006	94	2478178	25.0	24.3	
\$ 47 Dibromofluoromethane (Surr)	113	6.677	6.683	-0.006	94	491718	10.0	10.0	
48 1,1,1-Trichloroethane	97	6.677	6.683	-0.006	99	2245085	25.0	24.4	
49 Cyclohexane	56	6.769	6.775	-0.006	93	2375325	25.0	24.4	
50 Carbon tetrachloride	117	6.891	6.891	0.000	96	1932273	25.0	25.1	
51 1,1-Dichloropropene	75	6.897	6.897	0.000	96	1986821	25.0	24.1	
52 Isobutyl alcohol	41	7.086	7.086	0.000	94	1092722	1250.0	1298.5	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.135	7.134	0.001	0	100134	10.0	10.0	
54 Benzene	78	7.165	7.159	0.006	97	5751371	25.0	24.2	
55 1,2-Dichloroethane	62	7.238	7.238	0.000	98	1605051	25.0	22.4	
56 Tert-amyl methyl ether	73	7.354	7.360	-0.006	98	4057198	25.0	23.8	
* 57 Fluorobenzene (IS)	96	7.574	7.567	0.007	99	2069205	10.0	10.0	
58 n-Heptane	43	7.580	7.580	0.000	92	2226987	25.0	25.4	
59 n-Butanol	56	7.970	7.976	-0.006	90	1964301	2500.0	2816.7	
60 Trichloroethene	95	8.049	8.049	0.000	98	1497905	25.0	24.5	
61 Methylcyclohexane	83	8.354	8.354	0.000	93	2421507	25.0	25.8	
62 1,2-Dichloropropane	63	8.390	8.390	0.000	94	1493537	25.0	24.5	
63 2-ethoxy-2-methyl butane	87	8.403	8.396	0.007	92	2353267	25.0	24.8	
64 Methyl methacrylate	69	8.482	8.482	0.000	91	746981	25.0	27.4	
66 Dibromomethane	93	8.500	8.494	0.006	94	718764	25.0	24.1	
65 1,4-Dioxane	88	8.494	8.506	-0.012	66	207069	1250.0	1491.3	M
67 Dichlorobromomethane	83	8.744	8.738	0.006	99	1841851	25.0	25.0	
68 2-Nitropropane	41	9.024	9.024	0.000	99	2457254	250.0	290.9	
71 1-Bromo-2-chloroethane	63	9.134	9.134	0.000	99	1550438	25.0	24.6	
72 cis-1,3-Dichloropropene	75	9.299	9.299	0.000	94	2329714	25.0	25.4	
73 4-Methyl-2-pentanone (MIBK)	43	9.488	9.488	0.000	98	10613666	250.0	281.3	
\$ 74 Toluene-d8 (Surr)	98	9.610	9.610	0.000	94	2074244	10.0	9.94	
75 Toluene	92	9.689	9.689	0.000	98	3853589	25.0	24.6	
76 trans-1,3-Dichloropropene	75	9.963	9.957	0.006	96	2011642	25.0	25.6	
78 Ethyl methacrylate	69	10.024	10.024	0.000	90	1684778	25.0	25.4	
S 77 1,3-Dichloropropene, Total	100				0			51.0	
79 1,1,2-Trichloroethane	97	10.171	10.164	0.007	91	1044114	25.0	24.1	
80 Tetrachloroethene	166	10.250	10.250	0.000	97	1710454	25.0	24.4	
81 1,3-Dichloropropane	76	10.335	10.329	0.006	93	1831923	25.0	24.0	
82 2-Hexanone	43	10.390	10.396	-0.006	97	7642331	250.0	286.7	
83 Chlorodibromomethane	129	10.549	10.548	0.001	90	1358246	25.0	27.0	
84 Ethylene Dibromide	107	10.658	10.658	0.000	98	1057340	25.0	24.7	
* 85 Chlorobenzene-d5 (IS)	117	11.097	11.097	0.000	87	1597498	10.0	10.0	
86 1-Chlorohexane	91	11.109	11.109	0.000	98	2142701	25.0	23.9	
87 Chlorobenzene	112	11.122	11.122	0.000	98	4322456	25.0	24.4	
89 1,1,1,2-Tetrachloroethane	131	11.207	11.207	0.000	95	1543073	25.0	25.6	
90 Ethylbenzene	91	11.213	11.213	0.000	98	7737357	25.0	24.9	
S 88 Xylenes, Total	106				0			76.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
91 m-Xylene & p-Xylene	106	11.329	11.329	0.000	0	6167767	50.0	50.8	
92 o-Xylene	106	11.664	11.664	0.000	95	3012741	25.0	25.3	
93 Styrene	104	11.676	11.676	0.000	95	5243447	25.0	26.2	
94 Bromoform	173	11.835	11.835	0.000	97	832204	25.0	29.8	
95 Isopropylbenzene	105	11.969	11.969	0.000	96	7987853	25.0	25.4	
\$ 98 4-Bromofluorobenzene (Surr)	95	12.109	12.109	0.000	91	793546	10.0	10.1	
99 1,1,2,2-Tetrachloroethane	83	12.219	12.219	0.000	93	1416700	25.0	23.6	
100 Bromobenzene	156	12.231	12.231	0.000	94	1970860	25.0	23.9	
101 trans-1,4-Dichloro-2-butene	53	12.243	12.243	0.000	96	4418631	250.0	265.9	
102 1,2,3-Trichloropropane	110	12.268	12.268	0.000	83	374830	25.0	22.9	
103 N-Propylbenzene	91	12.298	12.298	0.000	99	9279542	25.0	24.0	
104 2-Chlorotoluene	126	12.377	12.377	0.000	96	1862946	25.0	23.5	
105 1,3,5-Trimethylbenzene	105	12.438	12.438	0.000	94	6951334	25.0	24.2	
106 4-Chlorotoluene	126	12.469	12.469	0.000	98	1976218	25.0	24.0	
107 tert-Butylbenzene	134	12.682	12.682	0.000	94	1475973	25.0	23.7	
108 Pentachloroethane	167	12.713	12.713	0.000	93	1270655	25.0	27.3	
109 1,2,4-Trimethylbenzene	105	12.725	12.725	0.000	97	7304755	25.0	24.8	
110 sec-Butylbenzene	105	12.847	12.847	0.000	94	9034349	25.0	24.5	
111 1,3-Dichlorobenzene	146	12.944	12.944	0.000	98	4014697	25.0	24.4	
112 4-Isopropyltoluene	119	12.957	12.957	0.000	97	8088100	25.0	25.1	
* 113 1,4-Dichlorobenzene-d4	152	12.999	12.999	0.000	94	961243	10.0	10.0	
114 1,4-Dichlorobenzene	146	13.018	13.017	0.001	95	4092757	25.0	24.2	
115 1,2,3-Trimethylbenzene	120	13.030	13.030	0.000	99	3204589	25.0	24.8	
116 Benzyl chloride	126	13.097	13.103	-0.006	99	655880	25.0	27.5	
119 n-Butylbenzene	92	13.249	13.249	0.000	96	4168646	25.0	25.5	
120 1,2-Dichlorobenzene	146	13.280	13.286	-0.006	98	3780882	25.0	24.3	
118 p-Diethylbenzene	119	13.304	13.304	0.000	0	4145941	25.0	25.4	
123 1,2-Dibromo-3-Chloropropane	155	13.834	13.834	0.000	87	210885	25.0	25.6	
124 1,3,5-Trichlorobenzene	180	13.956	13.956	0.000	98	3281646	25.0	24.4	
125 1,2,4-Trichlorobenzene	180	14.383	14.383	0.000	94	2916702	25.0	24.2	
126 Hexachlorobutadiene	225	14.469	14.468	0.001	97	1415792	25.0	24.1	
127 Naphthalene	128	14.566	14.566	0.000	97	5017456	25.0	23.3	
128 1,2,3-Trichlorobenzene	180	14.712	14.712	0.000	96	2490582	25.0	23.3	
129 2-Methylnaphthalene	142	15.334	15.340	-0.006	0	3387149	25.0	23.3	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MSV_RV1_826_00022

Amount Added: 25.00

Units: uL

MSV_RV4_826_00024

Amount Added: 25.00

Units: uL

MSV_RV4GAS826_00072

Amount Added: 25.00

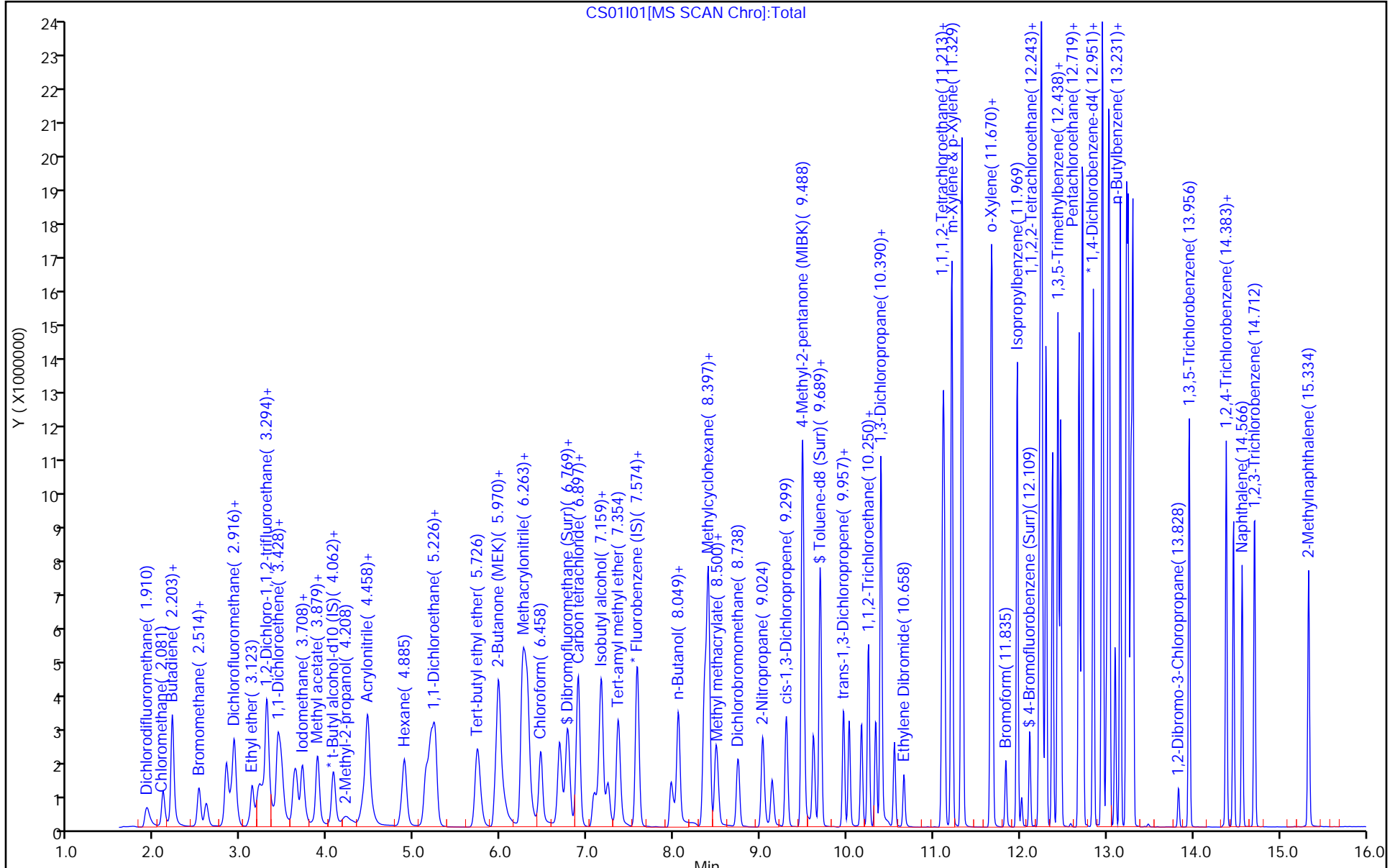
Units: uL

MSV_25_826ISS_00001

Amount Added: 1.00

Units: uL

Run Reagent



Euofins Lancaster Laboratories Env, LLC

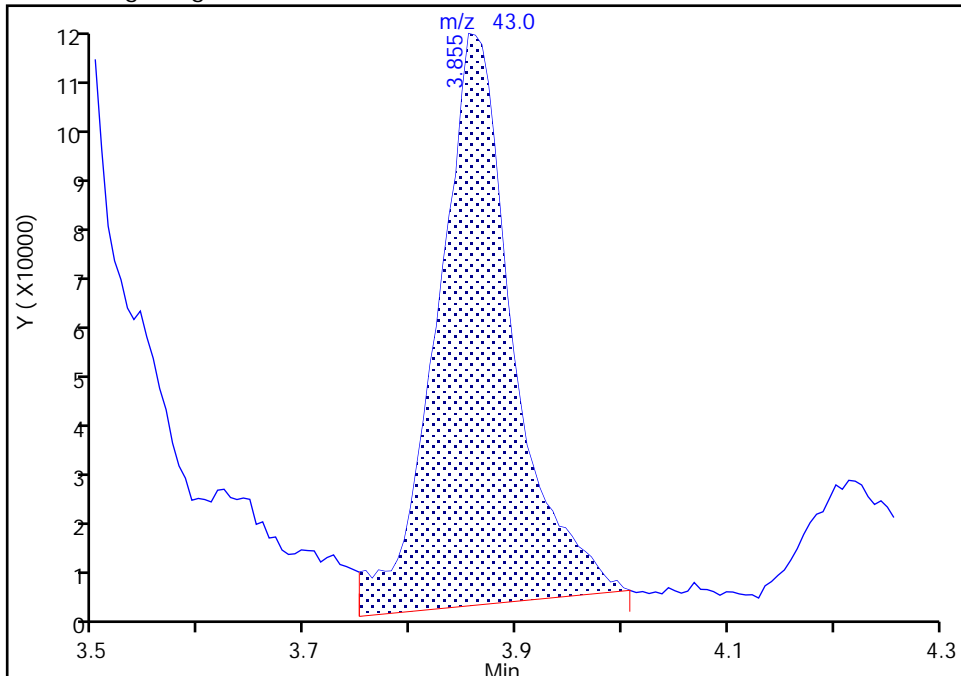
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Injection Date: 01-Sep-2020 13:35:30 Instrument ID: 10193
Lims ID: IC STD7
Client ID:
Operator ID: dvv10203 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

22 Methyl acetate, CAS: 79-20-9

Signal: 1

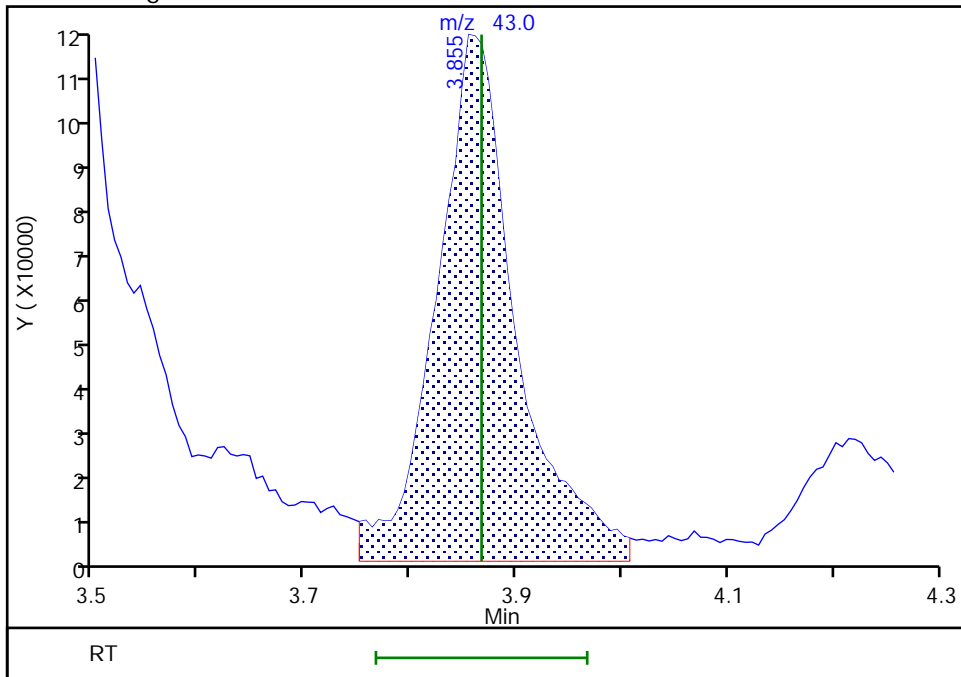
RT: 3.85
Area: 517473
Amount: 24.896311
Amount Units: ug/l

Processing Integration Results



RT: 3.85
Area: 553177
Amount: 25.420101
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 01-Sep-2020 16:54:24
Audit Action: Assigned New Baseline

Audit Reason: Baseline

Euofins Lancaster Laboratories Env, LLC

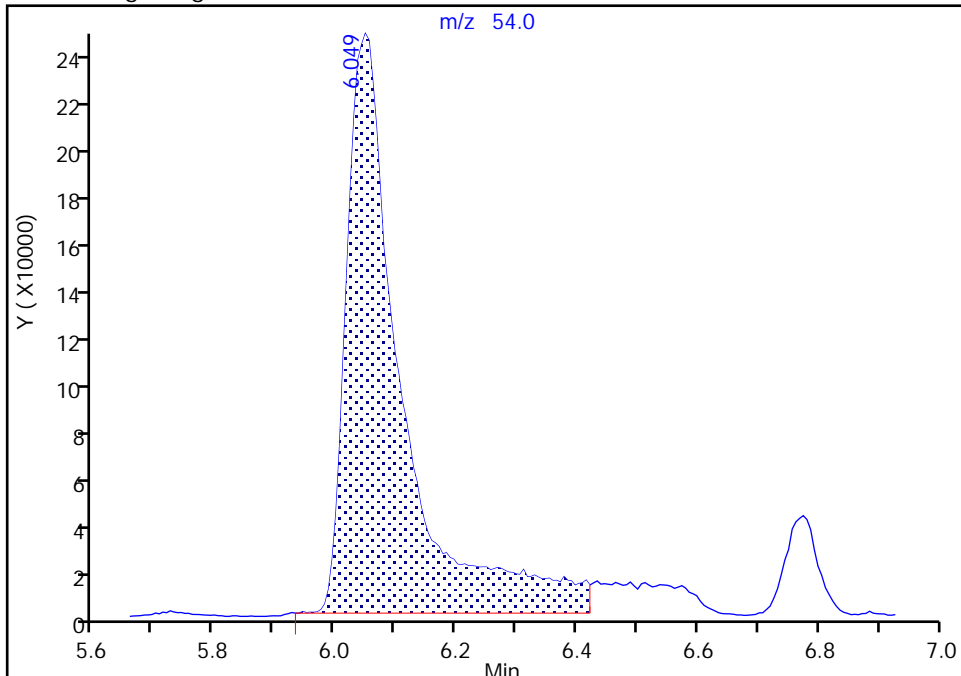
Data File: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\CS01I01.D
Injection Date: 01-Sep-2020 13:35:30 Instrument ID: 10193
Lims ID: IC STD7
Client ID:
Operator ID: dvv10203 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

40 Propionitrile, CAS: 107-12-0

Signal: 1

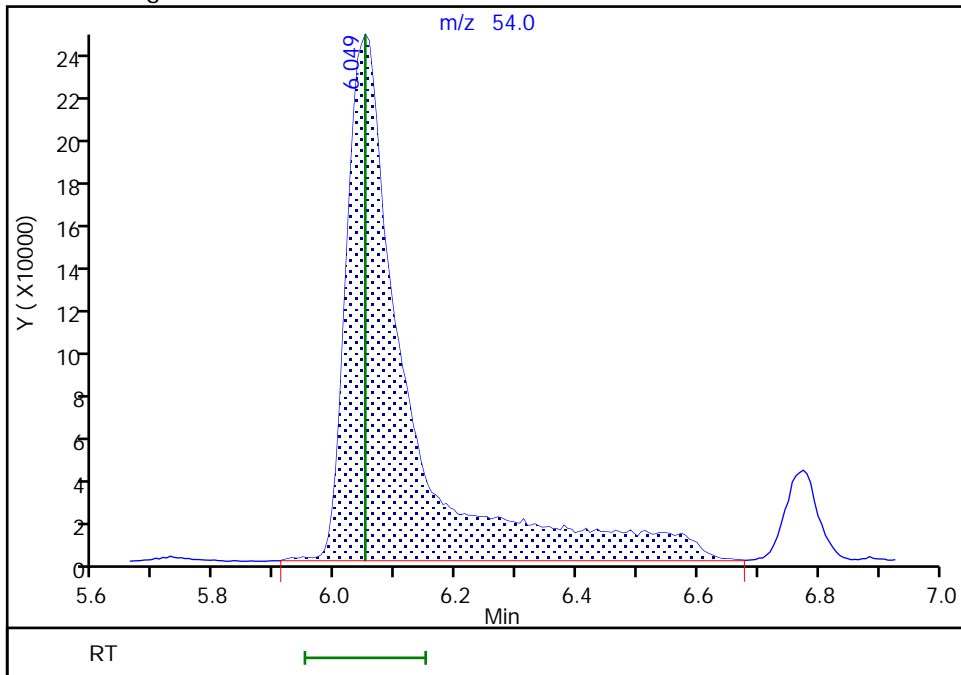
RT: 6.05
Area: 1559949
Amount: 516.6274
Amount Units: ug/l

Processing Integration Results



RT: 6.05
Area: 1736921
Amount: 526.9031
Amount Units: ug/l

Manual Integration Results



Eurofins Lancaster Laboratories Env, LLC

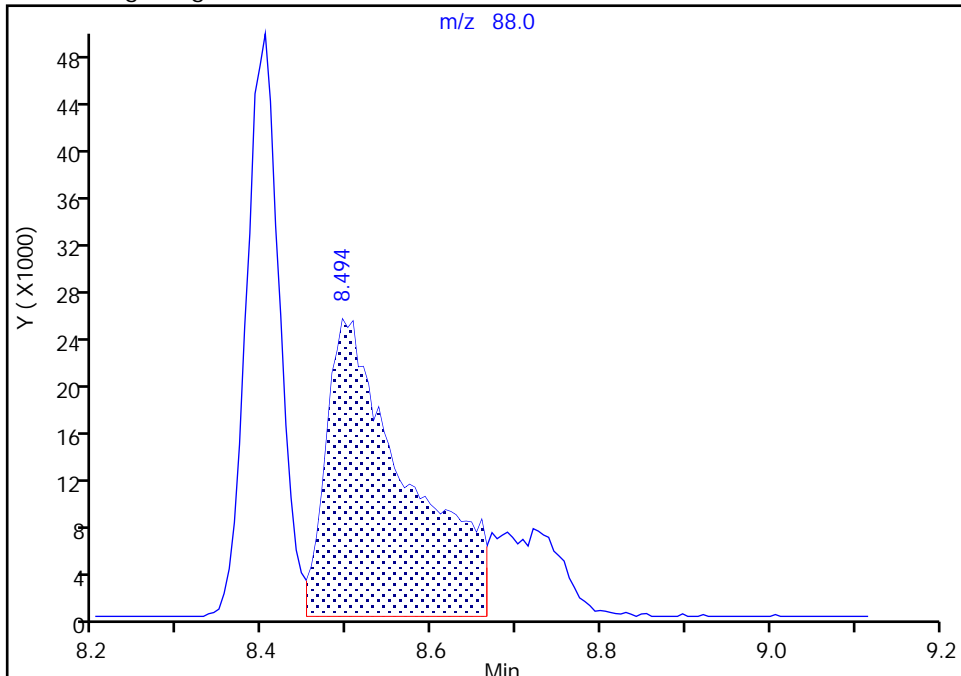
Data File: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\CS01I01.D
Injection Date: 01-Sep-2020 13:35:30 Instrument ID: 10193
Lims ID: IC STD7
Client ID:
Operator ID: dvv10203 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

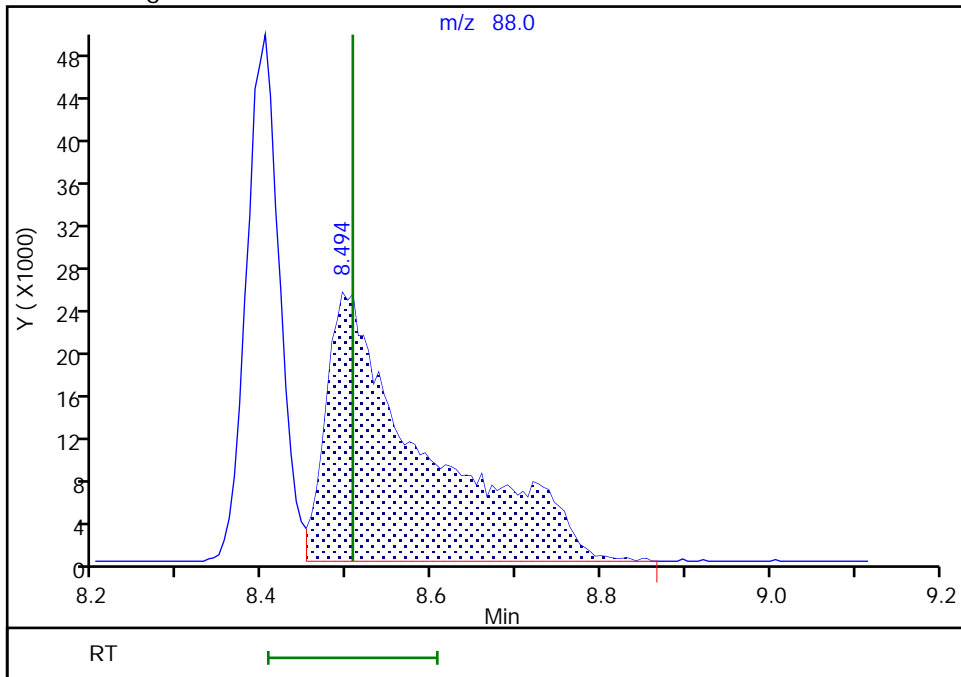
RT: 8.49
Area: 167365
Amount: 1747.3259
Amount Units: ug/l

Processing Integration Results



RT: 8.49
Area: 207069
Amount: 1491.2668
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 01-Sep-2020 16:55:25
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\CS01I02.D
 Lims ID: ICIS
 Client ID:
 Sample Type: ICIS Calib Level: 6
 Inject. Date: 01-Sep-2020 13:57:30 ALS Bottle#: 3 Worklist Smp#: 4
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: ICIS
 Misc. Info.: 410-0009503-004
 Operator ID: dvv10203 Instrument ID: 10193
 Sublist: chrom-MSV_10193_25mL*sub1

Method: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\MSV_10193_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 01-Sep-2020 20:10:18 Calib Date: 01-Sep-2020 19:09:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\CS01I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1059

First Level Reviewer: virayd

Date: 01-Sep-2020 15:34:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	1.916	1.916	0.000	99	673806	10.0	10.1	M
3 Chloromethane	50	2.105	2.105	0.000	89	750884	10.0	9.57	
4 Butadiene	39	2.215	2.215	0.000	93	715813	10.0	9.70	
5 Vinyl chloride	62	2.221	2.221	0.000	79	711167	10.0	9.80	
6 Bromomethane	94	2.526	2.526	0.000	91	508157	10.0	9.92	
7 Chloroethane	64	2.611	2.611	0.000	95	428295	10.0	9.56	
8 Dichlorofluoromethane	67	2.836	2.836	0.000	83	942431	10.0	9.69	
9 Trichlorofluoromethane	101	2.897	2.897	0.000	88	921738	10.0	9.77	
11 Ethyl ether	59	3.141	3.141	0.000	92	470167	10.0	9.83	
12 1,2-Dichloro-1,1,2-trifluoroethane	67	3.227	3.227	0.000	85	663506	10.0	9.47	
13 Acrolein	56	3.306	3.306	0.000	99	2808556	500.0	473.4	
14 1,1-Dichloroethene	96	3.434	3.434	0.000	88	475627	10.0	9.97	
15 112TCTFE	101	3.470	3.470	0.000	84	500744	10.0	10.3	
16 Acetone	43	3.470	3.470	0.000	98	541999	100.0	86.0	
17 Iodomethane	142	3.623	3.623	0.000	98	954840	10.0	10.1	
19 Ethyl bromide	108	3.653	3.653	0.000	98	399370	10.0	10.1	
18 Isopropyl alcohol	45	3.641	3.641	0.000	38	228137	200.0	184.1	
20 Carbon disulfide	76	3.714	3.714	0.000	100	1707453	10.0	10.1	
22 Methyl acetate	43	3.873	3.873	0.000	98	272722	10.0	11.0	M
23 3-Chloro-1-propene	41	3.891	3.891	0.000	88	815256	10.0	9.77	
24 Methylene Chloride	84	4.080	4.080	0.000	89	535609	10.0	10.1	
* 25 t-Butyl alcohol-d10 (IS)	65	4.111	4.111	0.000	98	148289	50.0	50.0	
26 2-Methyl-2-propanol	59	4.226	4.226	0.000	98	554170	200.0	187.6	
27 Acrylonitrile	53	4.422	4.422	0.000	79	466148	50.0	46.6	
28 Methyl tert-butyl ether	73	4.464	4.464	0.000	96	1520759	10.0	9.85	
29 trans-1,2-Dichloroethene	96	4.476	4.476	0.000	93	564465	10.0	10.1	
30 Hexane	57	4.897	4.897	0.000	95	807784	10.0	10.3	
32 1,1-Dichloroethane	63	5.141	5.141	0.000	85	1035693	10.0	10.1	
33 Isopropyl ether	45	5.202	5.202	0.000	93	1943658	10.0	9.93	
34 2-Chloro-1,3-butadiene	53	5.251	5.251	0.000	90	958306	10.0	9.91	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 Tert-butyl ethyl ether	59	5.738	5.738	0.000	98	1849075	10.0	9.89	
36 2-Butanone (MEK)	43	5.952	5.952	0.000	99	1409728	100.0	95.4	
37 cis-1,2-Dichloroethene	96	5.976	5.976	0.000	71	625147	10.0	9.89	
38 2,2-Dichloropropane	77	5.988	5.988	0.000	69	890664	10.0	10.1	
40 Propionitrile	54	6.055	6.055	0.000	98	730594	200.0	194.8	
43 Methacrylonitrile	67	6.263	6.263	0.000	92	1440762	100.0	99.1	
44 Chlorobromomethane	128	6.311	6.311	0.000	69	279022	10.0	10.0	
45 Tetrahydrofuran	71	6.317	6.317	0.000	72	415910	100.0	99.5	
46 Chloroform	83	6.464	6.464	0.000	83	1017069	10.0	10.0	
\$ 47 Dibromofluoromethane (Surr)	113	6.683	6.683	0.000	70	488556	10.0	9.97	
48 1,1,1-Trichloroethane	97	6.689	6.689	0.000	92	934233	10.0	10.2	
49 Cyclohexane	56	6.775	6.775	0.000	92	971248	10.0	10.0	
50 Carbon tetrachloride	117	6.891	6.891	0.000	83	789037	10.0	10.3	
51 1,1-Dichloropropene	75	6.903	6.903	0.000	92	822564	10.0	10.0	
52 Isobutyl alcohol	41	7.086	7.086	0.000	92	455897	500.0	476.1	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.141	7.141	0.000	0	99744	10.0	9.99	
54 Benzene	78	7.165	7.165	0.000	97	2366224	10.0	9.99	
55 1,2-Dichloroethane	62	7.238	7.238	0.000	91	660414	10.0	9.25	
56 Tert-amyl methyl ether	73	7.360	7.360	0.000	97	1692208	10.0	9.94	
* 57 Fluorobenzene (IS)	96	7.573	7.573	0.000	94	2062892	10.0	10.0	
58 n-Heptane	43	7.579	7.579	0.000	66	886773	10.0	10.1	
59 n-Butanol	56	7.976	7.976	0.000	89	804563	1000.0	1013.8	M
60 Trichloroethene	95	8.055	8.055	0.000	94	613428	10.0	10.0	
61 Methylcyclohexane	83	8.360	8.360	0.000	92	946727	10.0	10.1	
62 1,2-Dichloropropane	63	8.390	8.390	0.000	71	599777	10.0	9.86	
63 2-ethoxy-2-methyl butane	87	8.402	8.402	0.000	91	965317	10.0	10.2	
64 Methyl methacrylate	69	8.482	8.482	0.000	91	302973	10.0	9.78	
66 Dibromomethane	93	8.500	8.500	0.000	95	293984	10.0	9.87	
65 1,4-Dioxane	88	8.506	8.506	0.000	31	79862	500.0	505.4	M
67 Dichlorobromomethane	83	8.738	8.738	0.000	93	747888	10.0	10.2	
68 2-Nitropropane	41	9.024	9.024	0.000	99	995940	100.0	103.6	
71 1-Bromo-2-chloroethane	63	9.134	9.134	0.000	95	622797	10.0	9.90	
72 cis-1,3-Dichloropropene	75	9.299	9.299	0.000	92	943666	10.0	10.3	
73 4-Methyl-2-pentanone (MIBK)	43	9.488	9.488	0.000	98	4260875	100.0	99.2	
\$ 74 Toluene-d8 (Surr)	98	9.616	9.616	0.000	94	2048995	10.0	10.0	
75 Toluene	92	9.689	9.689	0.000	97	1562669	10.0	10.1	
76 trans-1,3-Dichloropropene	75	9.957	9.957	0.000	92	808366	10.0	10.5	
78 Ethyl methacrylate	69	10.024	10.024	0.000	90	673046	10.0	10.3	
79 1,1,2-Trichloroethane	97	10.170	10.170	0.000	87	425508	10.0	10.0	
80 Tetrachloroethene	166	10.250	10.250	0.000	93	692046	10.0	10.0	
81 1,3-Dichloropropane	76	10.329	10.329	0.000	94	746124	10.0	9.94	
82 2-Hexanone	43	10.390	10.390	0.000	97	3099544	100.0	102.2	
83 Chlorodibromomethane	129	10.548	10.548	0.000	88	539411	10.0	10.9	
84 Ethylene Dibromide	107	10.658	10.658	0.000	99	431839	10.0	10.3	
* 85 Chlorobenzene-d5 (IS)	117	11.097	11.097	0.000	85	1569631	10.0	10.0	
86 1-Chlorohexane	91	11.109	11.109	0.000	96	856372	10.0	9.73	
87 Chlorobenzene	112	11.121	11.121	0.000	93	1740350	10.0	10.0	
89 1,1,1,2-Tetrachloroethane	131	11.207	11.207	0.000	41	617994	10.0	10.4	
90 Ethylbenzene	91	11.213	11.213	0.000	98	3077887	10.0	10.1	
91 m-Xylene & p-Xylene	106	11.329	11.329	0.000	0	2455146	20.0	20.6	
92 o-Xylene	106	11.664	11.664	0.000	95	1197012	10.0	10.2	
93 Styrene	104	11.676	11.676	0.000	93	2044773	10.0	10.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
94 Bromoform	173	11.835	11.835	0.000	96	322179	10.0	11.7	
95 Isopropylbenzene	105	11.969	11.969	0.000	96	3180524	10.0	10.3	
\$ 98 4-Bromofluorobenzene (Surr)	95	12.109	12.109	0.000	89	773730	10.0	10.0	
99 1,1,2,2-Tetrachloroethane	83	12.219	12.219	0.000	72	569960	10.0	9.92	
100 Bromobenzene	156	12.231	12.231	0.000	92	786388	10.0	9.96	
101 trans-1,4-Dichloro-2-butene	53	12.243	12.243	0.000	93	1707722	100.0	107.3	
102 1,2,3-Trichloropropane	110	12.261	12.261	0.000	79	153575	10.0	9.82	
103 N-Propylbenzene	91	12.298	12.298	0.000	99	3755554	10.0	10.1	
104 2-Chlorotoluene	126	12.377	12.377	0.000	97	750019	10.0	9.90	
105 1,3,5-Trimethylbenzene	105	12.438	12.438	0.000	94	2762343	10.0	10.1	
106 4-Chlorotoluene	126	12.469	12.469	0.000	98	787376	10.0	10.0	
107 tert-Butylbenzene	134	12.682	12.682	0.000	88	583616	10.0	9.78	
108 Pentachloroethane	167	12.713	12.713	0.000	58	477219	10.0	10.7	
109 1,2,4-Trimethylbenzene	105	12.725	12.725	0.000	97	2885821	10.0	10.2	
110 sec-Butylbenzene	105	12.847	12.847	0.000	94	3571893	10.0	10.1	
111 1,3-Dichlorobenzene	146	12.944	12.944	0.000	97	1582324	10.0	10.0	
112 4-Isopropyltoluene	119	12.956	12.956	0.000	95	3180481	10.0	10.3	
* 113 1,4-Dichlorobenzene-d4	152	12.999	12.999	0.000	95	920484	10.0	10.0	
114 1,4-Dichlorobenzene	146	13.017	13.017	0.000	92	1615615	10.0	9.96	
115 1,2,3-Trimethylbenzene	120	13.030	13.030	0.000	99	1234014	10.0	9.98	
116 Benzyl chloride	126	13.097	13.097	0.000	99	254856	10.0	11.1	
119 n-Butylbenzene	92	13.249	13.249	0.000	97	1635579	10.0	10.5	
120 1,2-Dichlorobenzene	146	13.280	13.280	0.000	96	1503472	10.0	10.1	
118 p-Diethylbenzene	119	13.304	13.304	0.000	0	1569936	10.0	10.0	
123 1,2-Dibromo-3-Chloropropane	155	13.834	13.834	0.000	86	86753	10.0	11.0	
124 1,3,5-Trichlorobenzene	180	13.956	13.956	0.000	94	1298817	10.0	10.1	
125 1,2,4-Trichlorobenzene	180	14.383	14.383	0.000	90	1161828	10.0	10.1	
126 Hexachlorobutadiene	225	14.468	14.468	0.000	94	568070	10.0	10.1	
127 Naphthalene	128	14.566	14.566	0.000	97	2092386	10.0	10.2	
128 1,2,3-Trichlorobenzene	180	14.712	14.712	0.000	94	1019899	10.0	9.98	
129 2-Methylnaphthalene	142	15.334	15.334	0.000	0	1458971	10.0	10.5	

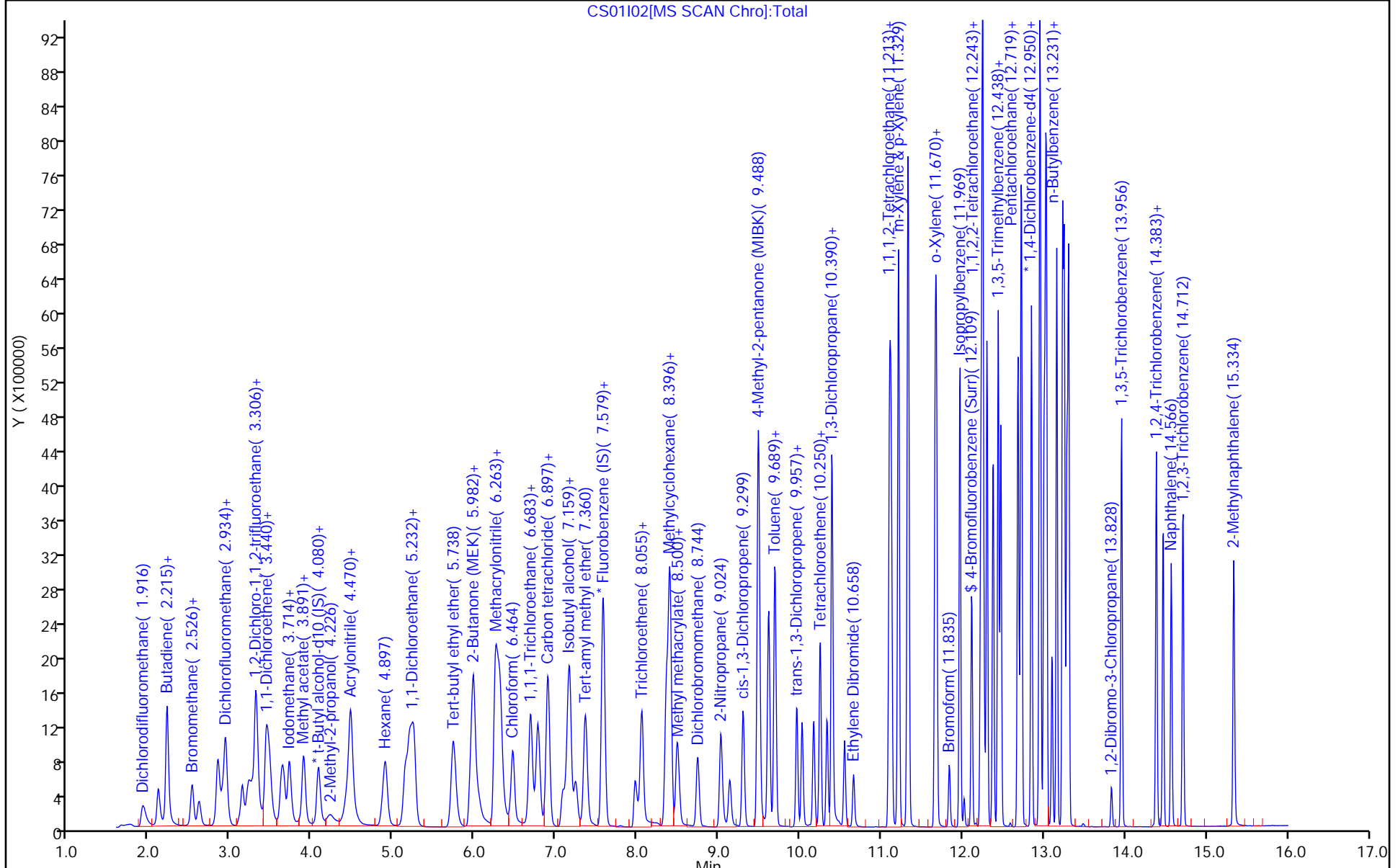
QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MSV_RV1_826_00022	Amount Added: 10.00	Units: uL	
MSV_RV4_826_00024	Amount Added: 10.00	Units: uL	
MSV_RV4GAS826_00072	Amount Added: 10.00	Units: uL	
MSV_25_826ISS_00001	Amount Added: 1.00	Units: uL	Run Reagent



CS01I02[MS SCAN Chro]:Total

Eurofins Lancaster Laboratories Env, LLC

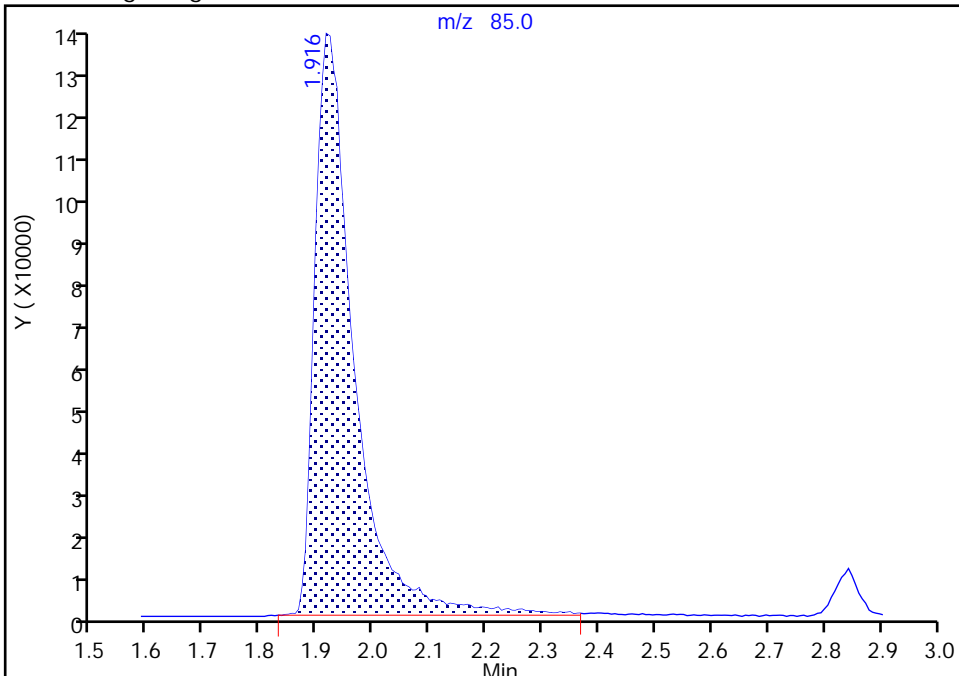
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Injection Date: 01-Sep-2020 13:57:30 Instrument ID: 10193
Lims ID: ICIS
Client ID:
Operator ID: dvv10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

2 Dichlorodifluoromethane, CAS: 75-71-8

Signal: 1

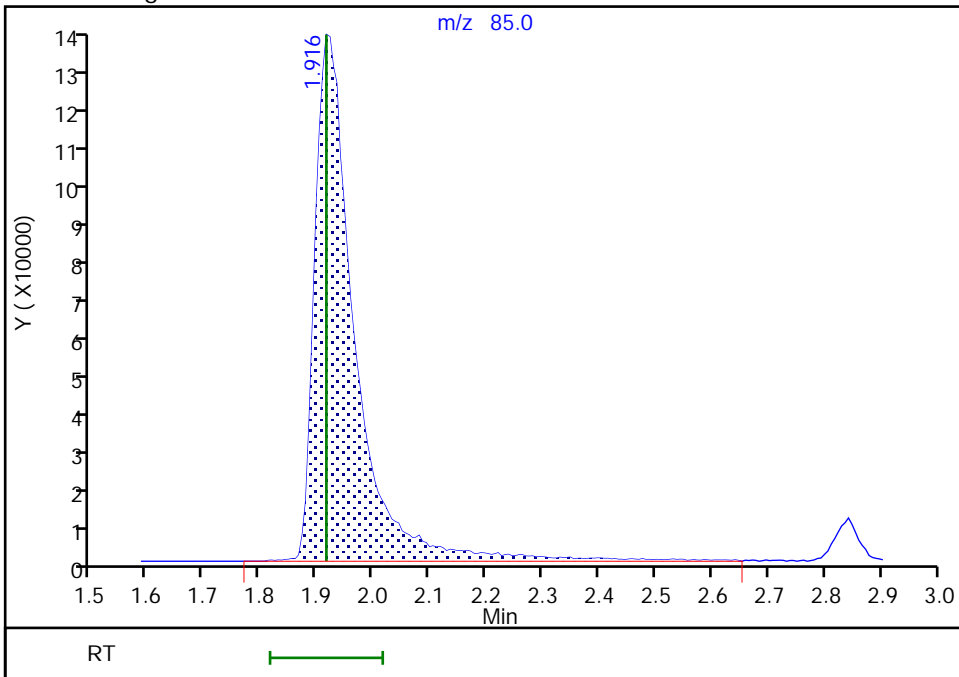
RT: 1.92
Area: 657253
Amount: 9.998399
Amount Units: ug/l

Processing Integration Results



RT: 1.92
Area: 673806
Amount: 10.122260
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 01-Sep-2020 16:56:25
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

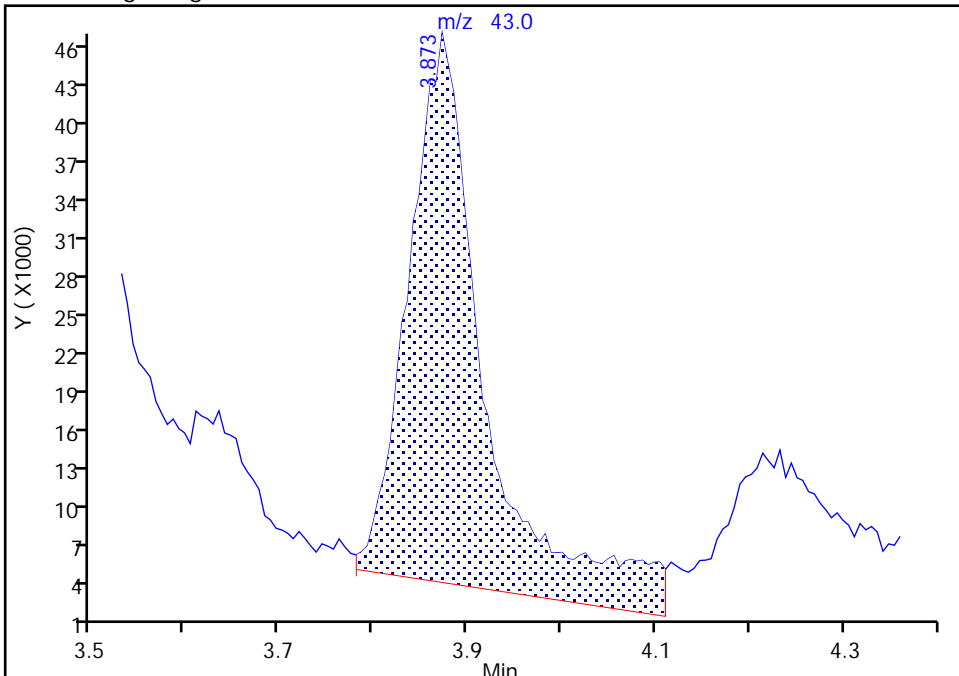
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Injection Date: 01-Sep-2020 13:57:30 Instrument ID: 10193
Lims ID: ICIS
Client ID:
Operator ID: dvv10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

22 Methyl acetate, CAS: 79-20-9

Signal: 1

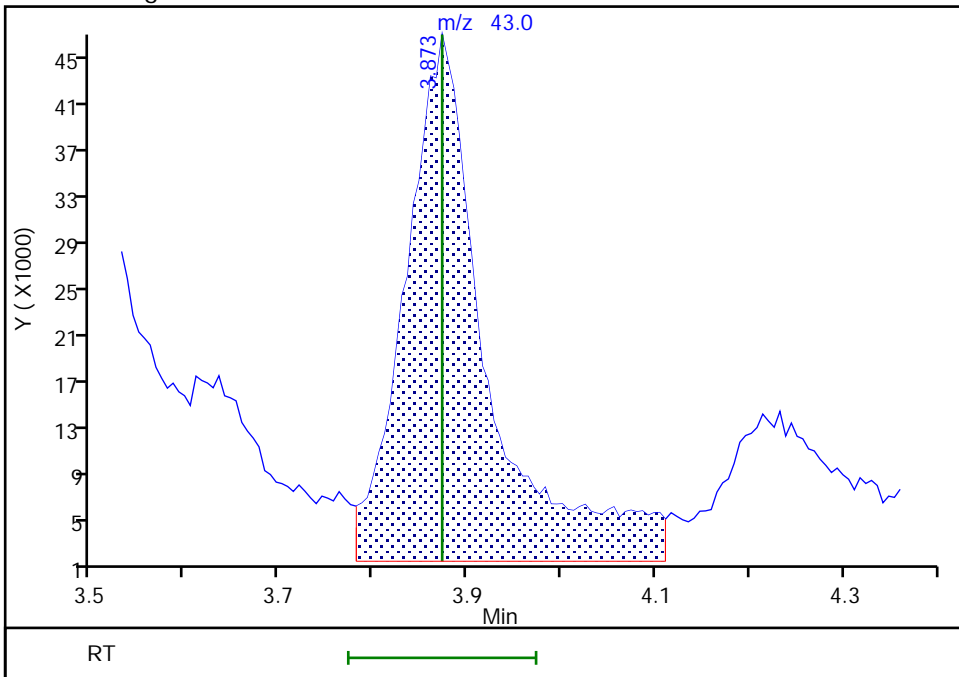
RT: 3.87
Area: 237365
Amount: 9.508028
Amount Units: ug/l

Processing Integration Results



RT: 3.87
Area: 272722
Amount: 11.012573
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 01-Sep-2020 16:56:51
Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Lancaster Laboratories Env, LLC

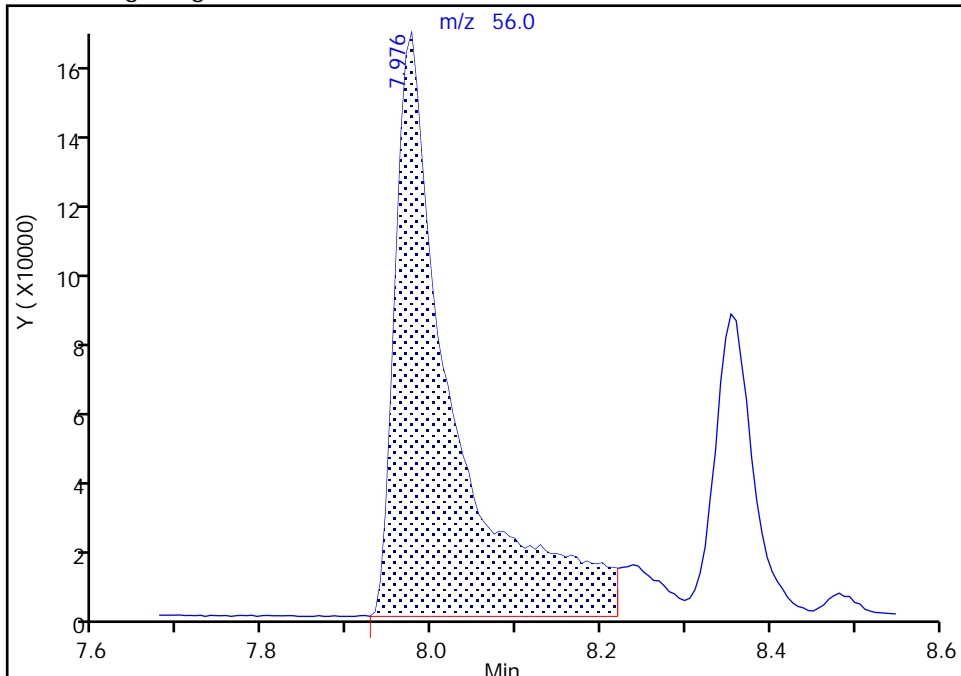
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Injection Date: 01-Sep-2020 13:57:30 Instrument ID: 10193
Lims ID: ICIS
Client ID:
Operator ID: dvv10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

59 n-Butanol, CAS: 71-36-3

Signal: 1

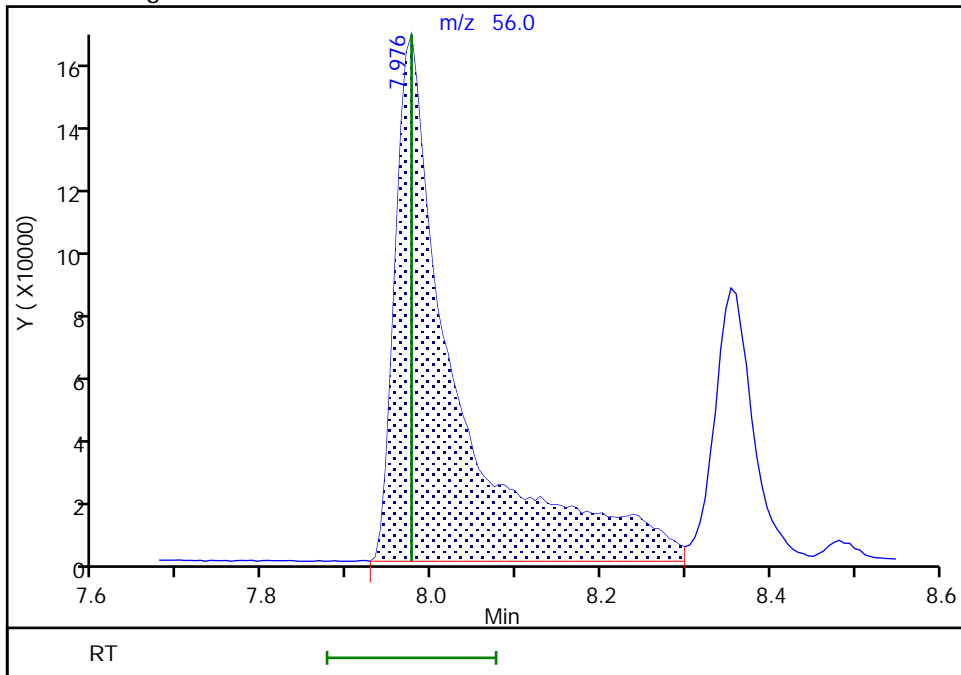
RT: 7.98
Area: 757439
Amount: 899.3216
Amount Units: ug/l

Processing Integration Results



RT: 7.98
Area: 804563
Amount: 1013.8075
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 01-Sep-2020 17:14:33
Audit Action: Assigned New Baseline

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

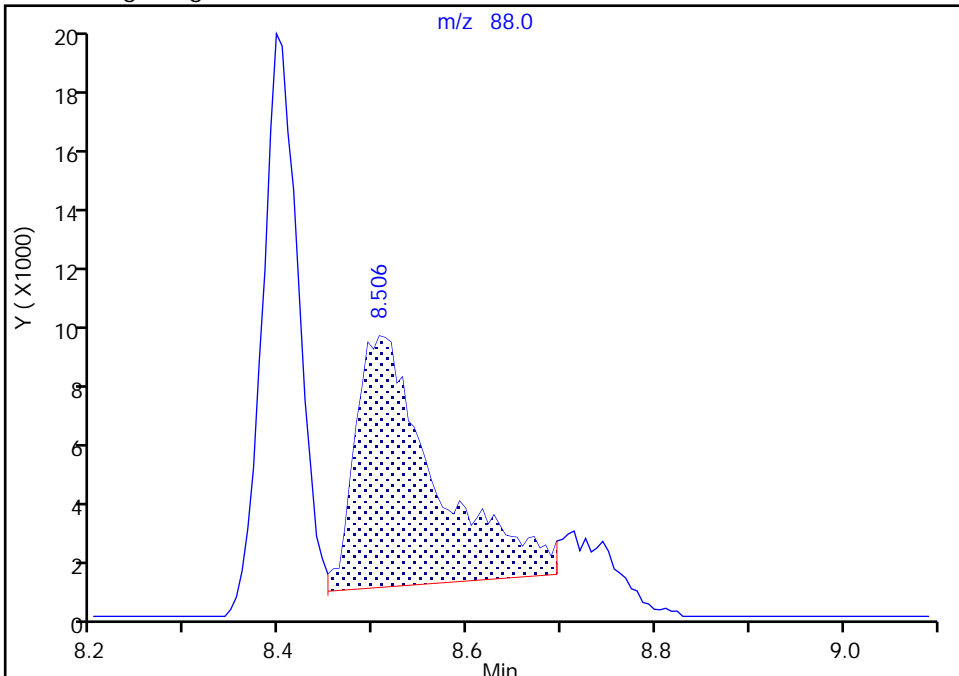
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Injection Date: 01-Sep-2020 13:57:30 Instrument ID: 10193
Lims ID: ICIS
Client ID:
Operator ID: dvv10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

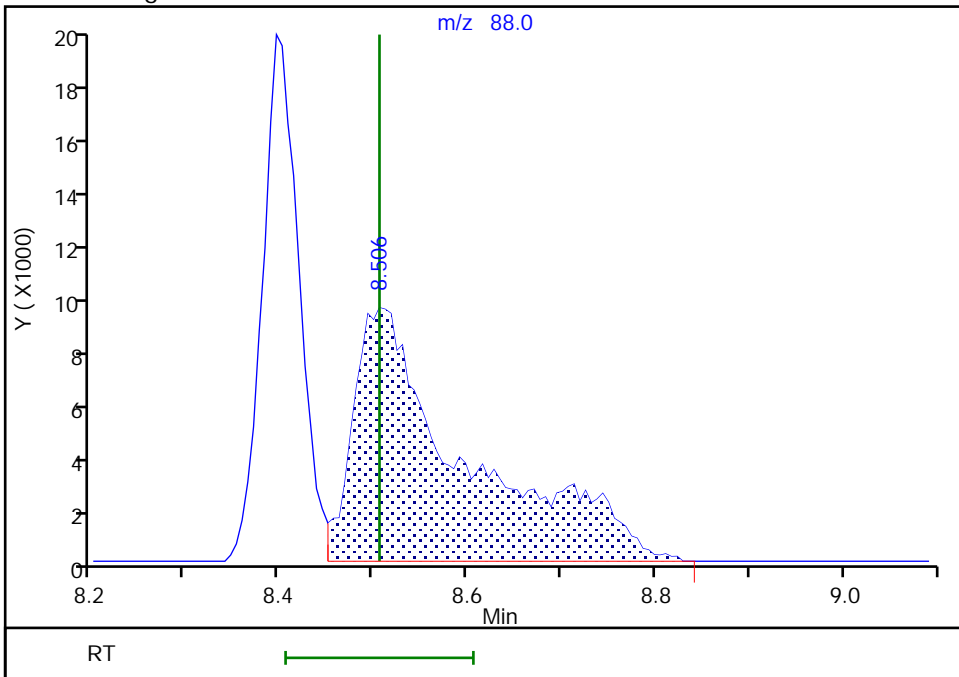
RT: 8.51
Area: 51295
Amount: 445.9401
Amount Units: ug/l

Processing Integration Results



RT: 8.51
Area: 79862
Amount: 505.4008
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 01-Sep-2020 16:57:29
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\CS01I03.D
 Lims ID: IC STD5
 Client ID:
 Sample Type: IC Calib Level: 5
 Inject. Date: 01-Sep-2020 14:19:30 ALS Bottle#: 4 Worklist Smp#: 5
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: IC STD5
 Misc. Info.: 410-0009503-005
 Operator ID: dvv10203 Instrument ID: 10193
 Sublist: chrom-MSV_10193_25mL*sub1

Method: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\MSV_10193_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 01-Sep-2020 20:10:27 Calib Date: 01-Sep-2020 19:09:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\CS01I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1059

First Level Reviewer: campbellme

Date: 01-Sep-2020 16:59:24

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	1.910	1.916	-0.006	99	335623	5.00	5.11	M
3 Chloromethane	50	2.099	2.105	-0.006	99	374739	5.00	4.84	
4 Butadiene	39	2.203	2.215	-0.012	94	342407	5.00	4.70	
5 Vinyl chloride	62	2.215	2.221	-0.006	98	352685	5.00	4.93	
6 Bromomethane	94	2.513	2.526	-0.013	91	247103	5.00	4.89	
7 Chloroethane	64	2.605	2.611	-0.006	100	214069	5.00	4.84	
8 Dichlorofluoromethane	67	2.830	2.836	-0.006	97	467823	5.00	4.88	
9 Trichlorofluoromethane	101	2.898	2.897	0.001	97	458162	5.00	4.92	
11 Ethyl ether	59	3.135	3.141	-0.006	92	229113	5.00	4.86	
12 1,2-Dichloro-1,1,2-trifluoroethane	67	3.215	3.227	-0.012	92	312190	5.00	4.51	
13 Acrolein	56	3.300	3.306	-0.006	99	1427897	250.0	238.2	
14 1,1-Dichloroethene	96	3.428	3.434	-0.006	96	221612	5.00	4.71	
15 112TCTFE	101	3.458	3.470	-0.012	92	234166	5.00	4.89	
16 Acetone	43	3.464	3.470	-0.006	98	322634	50.0	50.7	
17 Iodomethane	142	3.617	3.623	-0.006	99	440171	5.00	4.73	
18 Isopropyl alcohol	45	3.635	3.641	-0.006	40	106675	100.0	88.1	
19 Ethyl bromide	108	3.641	3.653	-0.012	98	194973	5.00	4.99	
20 Carbon disulfide	76	3.714	3.714	0.000	100	790900	5.00	4.76	
22 Methyl acetate	43	3.867	3.873	-0.006	97	136367	5.00	5.45	
23 3-Chloro-1-propene	41	3.885	3.891	-0.006	89	399375	5.00	4.85	
24 Methylene Chloride	84	4.068	4.080	-0.012	94	248970	5.00	4.75	
* 25 t-Butyl alcohol-d10 (IS)	65	4.111	4.111	0.000	98	149797	50.0	50.0	
26 2-Methyl-2-propanol	59	4.208	4.226	-0.018	99	278959	100.0	93.5	
27 Acrylonitrile	53	4.409	4.422	-0.013	99	240268	25.0	23.8	
28 Methyl tert-butyl ether	73	4.458	4.464	-0.006	91	727225	5.00	4.77	
29 trans-1,2-Dichloroethene	96	4.470	4.476	-0.006	97	262964	5.00	4.78	
30 Hexane	57	4.897	4.897	0.000	95	383350	5.00	4.94	
32 1,1-Dichloroethane	63	5.135	5.141	-0.006	96	478397	5.00	4.72	
33 Isopropyl ether	45	5.196	5.202	-0.006	93	920754	5.00	4.77	
34 2-Chloro-1,3-butadiene	53	5.245	5.251	-0.006	93	446582	5.00	4.68	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 Tert-butyl ethyl ether	59	5.726	5.738	-0.012	98	891552	5.00	4.83	
36 2-Butanone (MEK)	43	5.940	5.952	-0.012	100	701991	50.0	47.0	
37 cis-1,2-Dichloroethene	96	5.970	5.976	-0.006	83	295208	5.00	4.73	
38 2,2-Dichloropropane	77	5.988	5.988	0.000	88	413880	5.00	4.74	
40 Propionitrile	54	6.043	6.055	-0.012	99	356593	100.0	94.1	M
S 42 1,2-Dichloroethene, Total	100				0			9.51	
43 Methacrylonitrile	67	6.251	6.263	-0.013	93	693145	50.0	47.2	
44 Chlorobromomethane	128	6.311	6.311	0.000	78	135663	5.00	4.94	
45 Tetrahydrofuran	71	6.311	6.317	-0.006	86	193486	50.0	45.8	
46 Chloroform	83	6.464	6.464	0.000	95	480095	5.00	4.78	
\$ 47 Dibromofluoromethane (Surr)	113	6.683	6.683	0.000	93	486623	10.0	10.1	
48 1,1,1-Trichloroethane	97	6.677	6.689	-0.012	98	434162	5.00	4.80	
49 Cyclohexane	56	6.769	6.775	-0.006	93	460601	5.00	4.82	
50 Carbon tetrachloride	117	6.891	6.891	0.000	96	367580	5.00	4.85	
51 1,1-Dichloropropene	75	6.897	6.903	-0.006	94	386758	5.00	4.76	
52 Isobutyl alcohol	41	7.080	7.086	-0.006	94	230672	250.0	238.4	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.134	7.141	-0.006	0	99716	10.0	10.1	
54 Benzene	78	7.159	7.165	-0.006	97	1116708	5.00	4.78	
55 1,2-Dichloroethane	62	7.238	7.238	0.000	98	322763	5.00	4.58	
56 Tert-amyl methyl ether	73	7.354	7.360	-0.006	97	810520	5.00	4.82	
* 57 Fluorobenzene (IS)	96	7.573	7.573	0.000	99	2035412	10.0	10.0	
58 n-Heptane	43	7.573	7.579	-0.006	90	417078	5.00	4.83	
59 n-Butanol	56	7.976	7.976	0.000	90	388291	500.0	484.3	M
60 Trichloroethene	95	8.049	8.055	-0.006	98	287079	5.00	4.76	
61 Methylcyclohexane	83	8.354	8.360	-0.006	92	476901	5.00	5.17	
62 1,2-Dichloropropane	63	8.390	8.390	0.000	86	285051	5.00	4.75	
63 2-ethoxy-2-methyl butane	87	8.396	8.402	-0.006	91	452593	5.00	4.84	
64 Methyl methacrylate	69	8.482	8.482	0.000	91	148411	5.00	4.74	
66 Dibromomethane	93	8.494	8.500	-0.006	96	140420	5.00	4.78	
65 1,4-Dioxane	88	8.500	8.506	-0.006	32	39014	250.0	244.4	M
67 Dichlorobromomethane	83	8.738	8.738	0.000	98	348987	5.00	4.81	
68 2-Nitropropane	41	9.024	9.024	0.000	99	459149	50.0	47.3	
71 1-Bromo-2-chloroethane	63	9.134	9.134	0.000	99	302656	5.00	4.87	
72 cis-1,3-Dichloropropene	75	9.299	9.299	0.000	94	439884	5.00	4.88	
73 4-Methyl-2-pentanone (MIBK)	43	9.482	9.488	-0.006	98	2060281	50.0	47.5	
\$ 74 Toluene-d8 (Surr)	98	9.610	9.616	-0.006	94	2027327	10.0	10.0	
75 Toluene	92	9.689	9.689	0.000	98	721183	5.00	4.74	
76 trans-1,3-Dichloropropene	75	9.957	9.957	0.000	96	378157	5.00	4.96	
78 Ethyl methacrylate	69	10.024	10.024	0.000	89	321458	5.00	5.00	
S 77 1,3-Dichloropropene, Total	100				0			9.84	
79 1,1,2-Trichloroethane	97	10.164	10.170	-0.006	91	201374	5.00	4.79	
80 Tetrachloroethene	166	10.244	10.250	-0.006	97	322909	5.00	4.75	
81 1,3-Dichloropropane	76	10.329	10.329	0.000	94	353883	5.00	4.77	
82 2-Hexanone	43	10.390	10.390	0.000	97	1483984	50.0	48.4	
83 Chlorodibromomethane	129	10.548	10.548	0.000	90	248177	5.00	5.09	
84 Ethylene Dibromide	107	10.658	10.658	0.000	98	202633	5.00	4.88	
* 85 Chlorobenzene-d5 (IS)	117	11.097	11.097	0.000	87	1549814	10.0	10.0	
86 1-Chlorohexane	91	11.109	11.109	0.000	98	400674	5.00	4.61	
87 Chlorobenzene	112	11.122	11.121	0.001	94	821070	5.00	4.78	
89 1,1,1,2-Tetrachloroethane	131	11.207	11.207	0.000	94	287568	5.00	4.92	
90 Ethylbenzene	91	11.213	11.213	0.000	98	1440317	5.00	4.77	
S 88 Xylenes, Total	106				0			14.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
91 m-Xylene & p-Xylene	106	11.329	11.329	0.000	0	1133528	10.0	9.61	
92 o-Xylene	106	11.664	11.664	0.000	97	554888	5.00	4.80	
93 Styrene	104	11.676	11.676	0.000	95	949081	5.00	4.90	
94 Bromoform	173	11.835	11.835	0.000	97	143999	5.00	5.31	
95 Isopropylbenzene	105	11.969	11.969	0.000	96	1466907	5.00	4.80	
\$ 98 4-Bromofluorobenzene (Surr)	95	12.109	12.109	0.000	91	764276	10.0	10.0	
99 1,1,2,2-Tetrachloroethane	83	12.219	12.219	0.000	93	269440	5.00	4.85	
100 Bromobenzene	156	12.231	12.231	0.000	94	365172	5.00	4.78	
101 trans-1,4-Dichloro-2-butene	53	12.243	12.243	0.000	93	790342	50.0	51.3	
102 1,2,3-Trichloropropane	110	12.268	12.261	0.007	83	72364	5.00	4.78	
103 N-Propylbenzene	91	12.298	12.298	0.000	99	1726631	5.00	4.82	
104 2-Chlorotoluene	126	12.377	12.377	0.000	97	350978	5.00	4.79	
105 1,3,5-Trimethylbenzene	105	12.438	12.438	0.000	94	1274650	5.00	4.80	
106 4-Chlorotoluene	126	12.469	12.469	0.000	98	362949	5.00	4.76	
107 tert-Butylbenzene	134	12.682	12.682	0.000	93	270627	5.00	4.69	
108 Pentachloroethane	167	12.713	12.713	0.000	92	223759	5.00	5.19	
109 1,2,4-Trimethylbenzene	105	12.725	12.725	0.000	97	1326302	5.00	4.87	
110 sec-Butylbenzene	105	12.847	12.847	0.000	94	1656218	5.00	4.84	
111 1,3-Dichlorobenzene	146	12.944	12.944	0.000	98	734044	5.00	4.81	
112 4-Isopropyltoluene	119	12.957	12.956	0.001	97	1448806	5.00	4.86	
* 113 1,4-Dichlorobenzene-d4	152	12.999	12.999	0.000	95	890471	10.0	10.0	
114 1,4-Dichlorobenzene	146	13.017	13.017	0.000	94	753707	5.00	4.80	
115 1,2,3-Trimethylbenzene	120	13.030	13.030	0.000	98	586354	5.00	4.90	
116 Benzyl chloride	126	13.103	13.097	0.006	99	116794	5.00	5.28	
119 n-Butylbenzene	92	13.249	13.249	0.000	97	751620	5.00	4.97	
120 1,2-Dichlorobenzene	146	13.280	13.280	0.000	98	697848	5.00	4.85	
118 p-Diethylbenzene	119	13.304	13.304	0.000	0	755567	5.00	4.99	
123 1,2-Dibromo-3-Chloropropane	155	13.834	13.834	0.000	84	39048	5.00	5.12	
124 1,3,5-Trichlorobenzene	180	13.956	13.956	0.000	98	603506	5.00	4.85	
125 1,2,4-Trichlorobenzene	180	14.383	14.383	0.000	94	540926	5.00	4.85	
126 Hexachlorobutadiene	225	14.468	14.468	0.000	97	260304	5.00	4.77	
127 Naphthalene	128	14.566	14.566	0.000	97	981719	5.00	4.93	
128 1,2,3-Trichlorobenzene	180	14.712	14.712	0.000	95	477586	5.00	4.83	
129 2-Methylnaphthalene	142	15.334	15.334	0.000	0	699145	5.00	5.19	

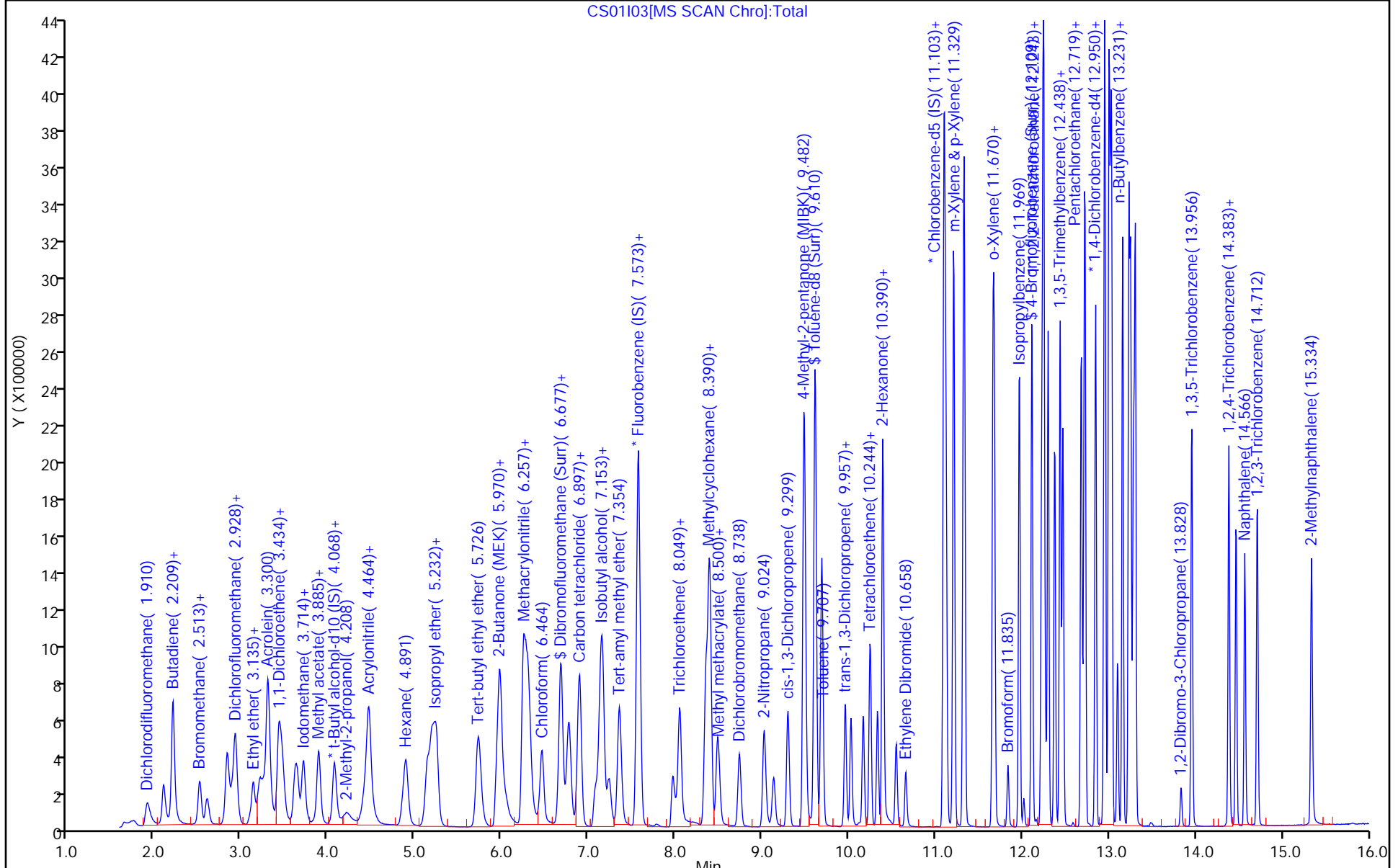
QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MSV_RV1_826_00022	Amount Added: 5.00	Units: uL	
MSV_RV4_826_00024	Amount Added: 5.00	Units: uL	
MSV_RV4GAS826_00072	Amount Added: 5.00	Units: uL	
MSV_25_826ISS_00001	Amount Added: 1.00	Units: uL	Run Reagent



Eurofins Lancaster Laboratories Env, LLC

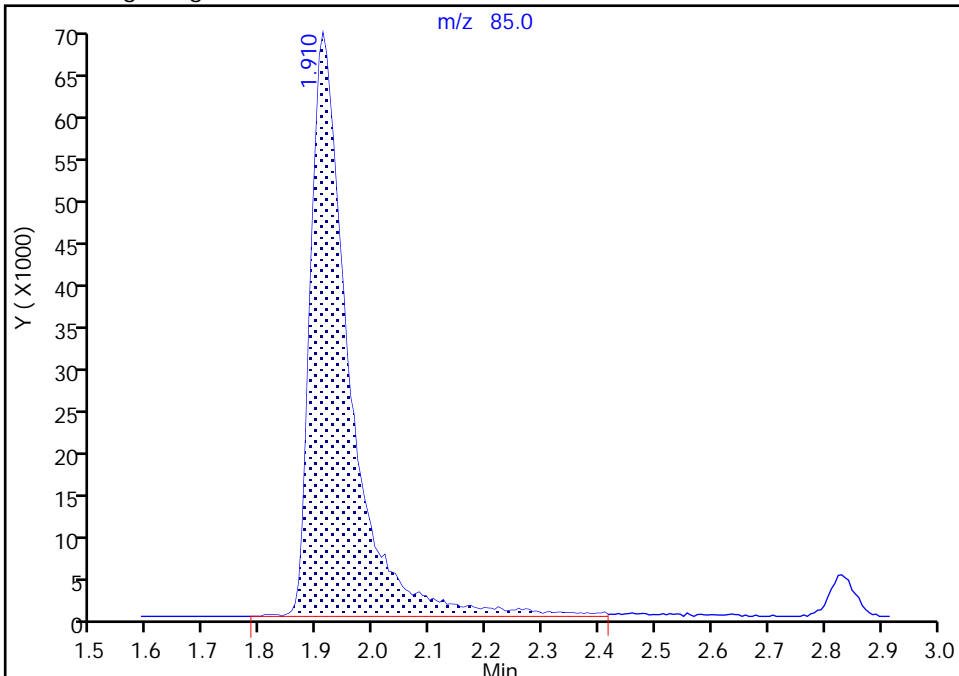
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Injection Date: 01-Sep-2020 14:19:30 Instrument ID: 10193
Lims ID: IC STD5
Client ID:
Operator ID: dvv10203 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

2 Dichlorodifluoromethane, CAS: 75-71-8

Signal: 1

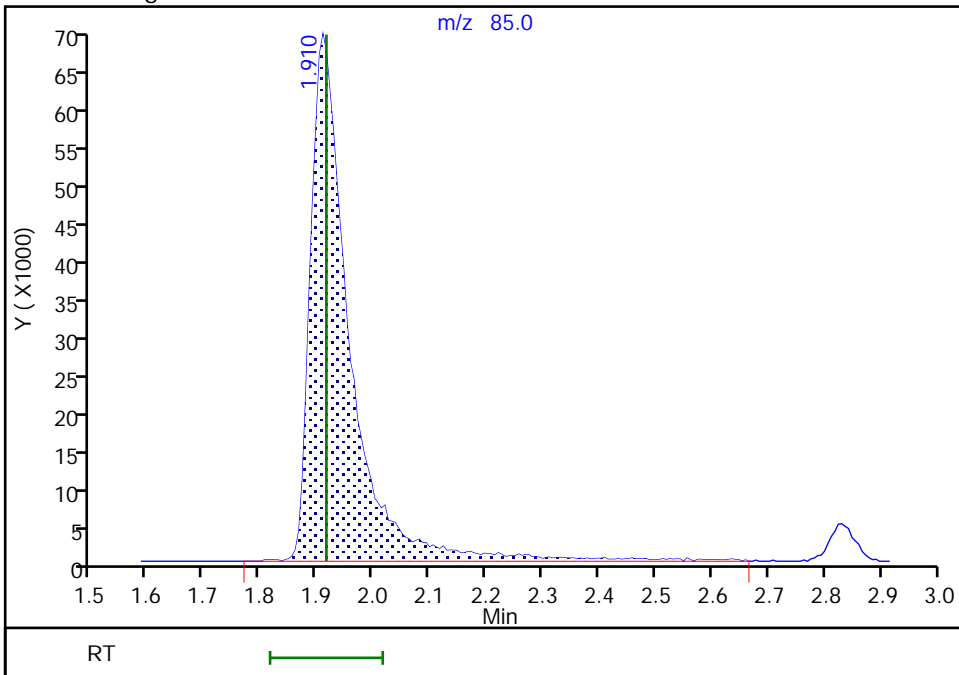
RT: 1.91
Area: 332253
Amount: 5.104245
Amount Units: ug/l

Processing Integration Results



RT: 1.91
Area: 335623
Amount: 5.109972
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 01-Sep-2020 16:58:04
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

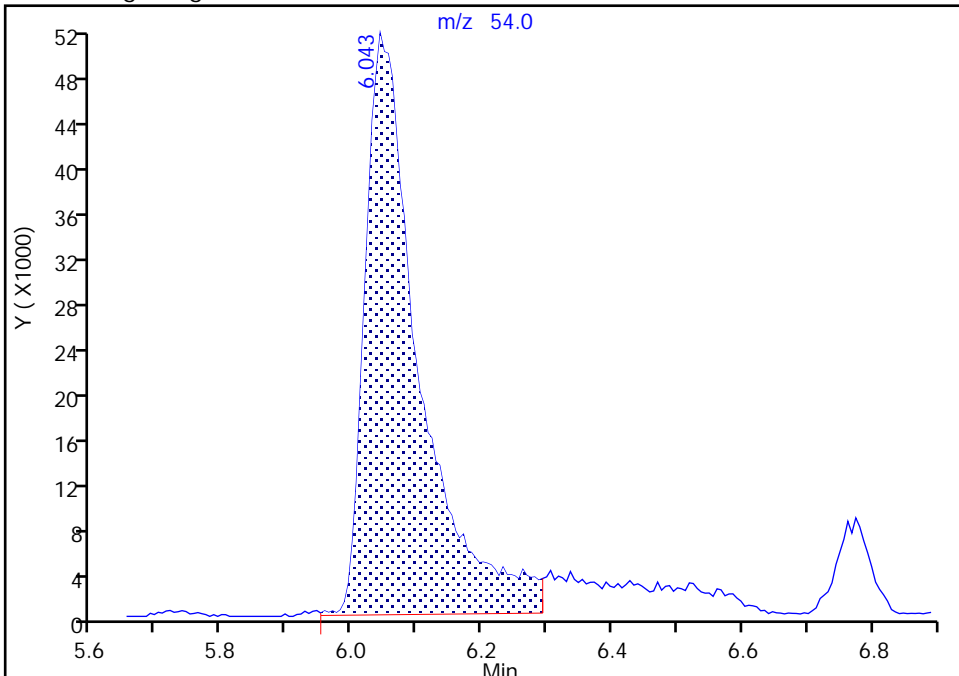
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Injection Date: 01-Sep-2020 14:19:30 Instrument ID: 10193
Lims ID: IC STD5
Client ID:
Operator ID: dvv10203 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

40 Propionitrile, CAS: 107-12-0

Signal: 1

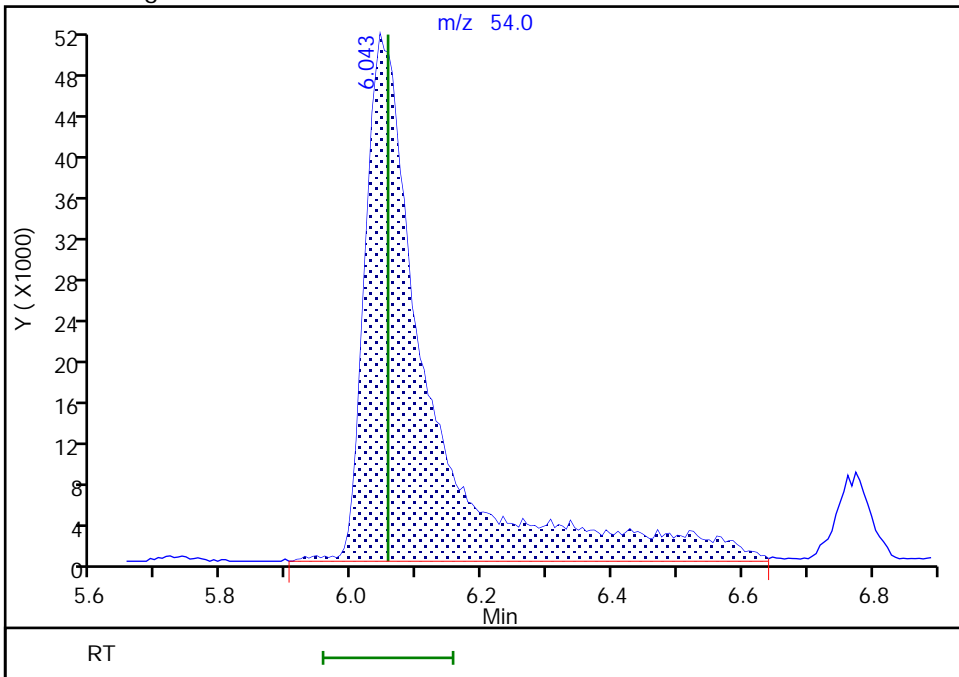
RT: 6.04
Area: 300992
Amount: 85.284659
Amount Units: ug/l

Processing Integration Results



RT: 6.04
Area: 356593
Amount: 94.098949
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 01-Sep-2020 16:58:42
Audit Action: Assigned New Baseline

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

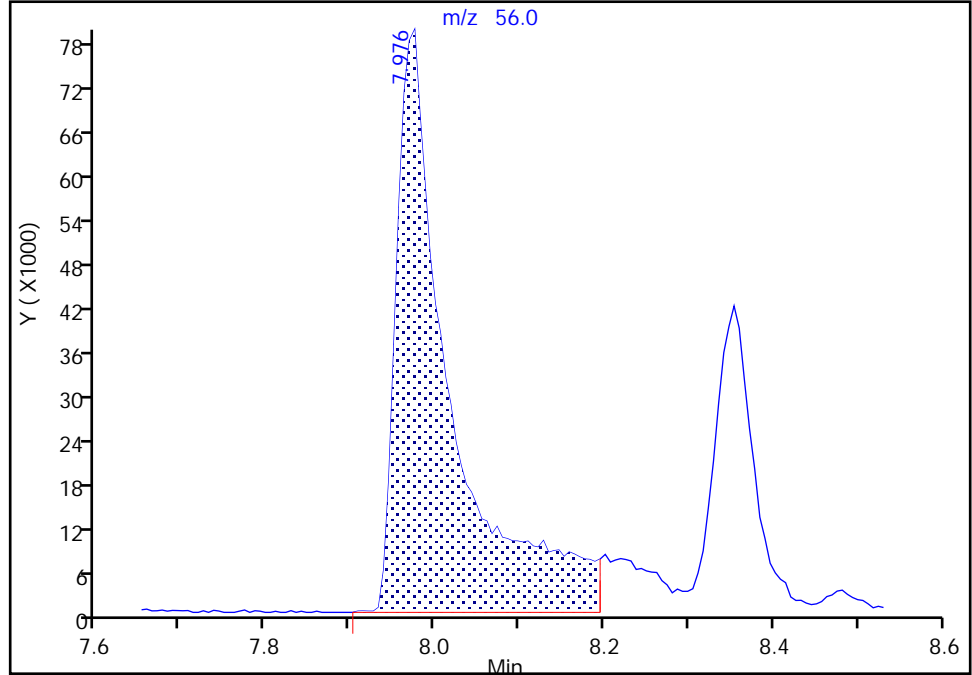
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Injection Date: 01-Sep-2020 14:19:30 Instrument ID: 10193
Lims ID: IC STD5
Client ID:
Operator ID: dvv10203 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

59 n-Butanol, CAS: 71-36-3

Signal: 1

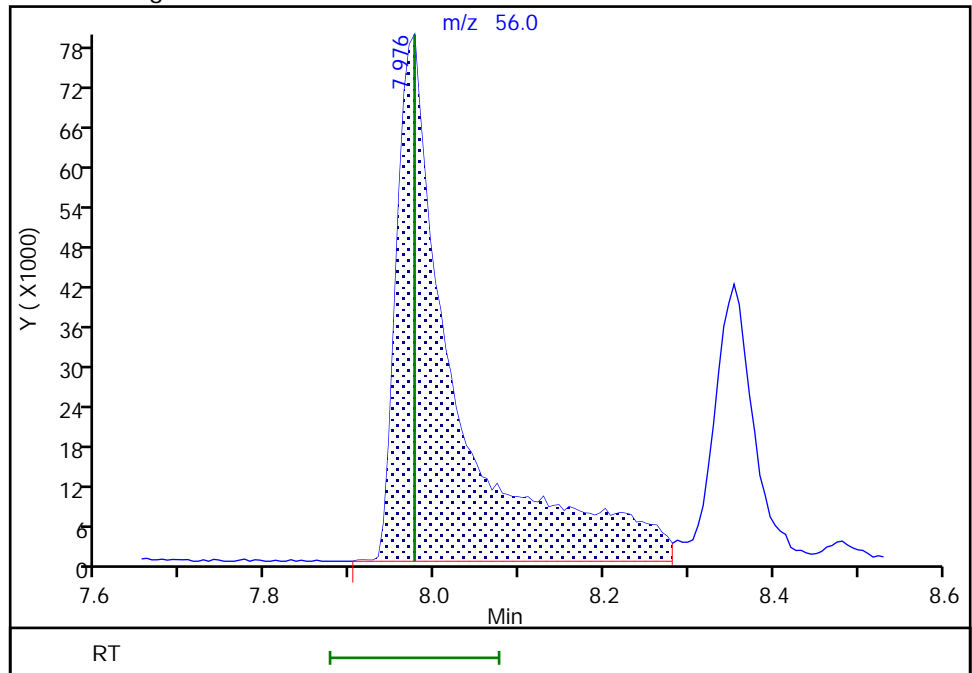
RT: 7.98
Area: 357938
Amount: 442.7101
Amount Units: ug/l

Processing Integration Results



RT: 7.98
Area: 388291
Amount: 484.3492
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 01-Sep-2020 17:15:09
Audit Action: Assigned New Baseline

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

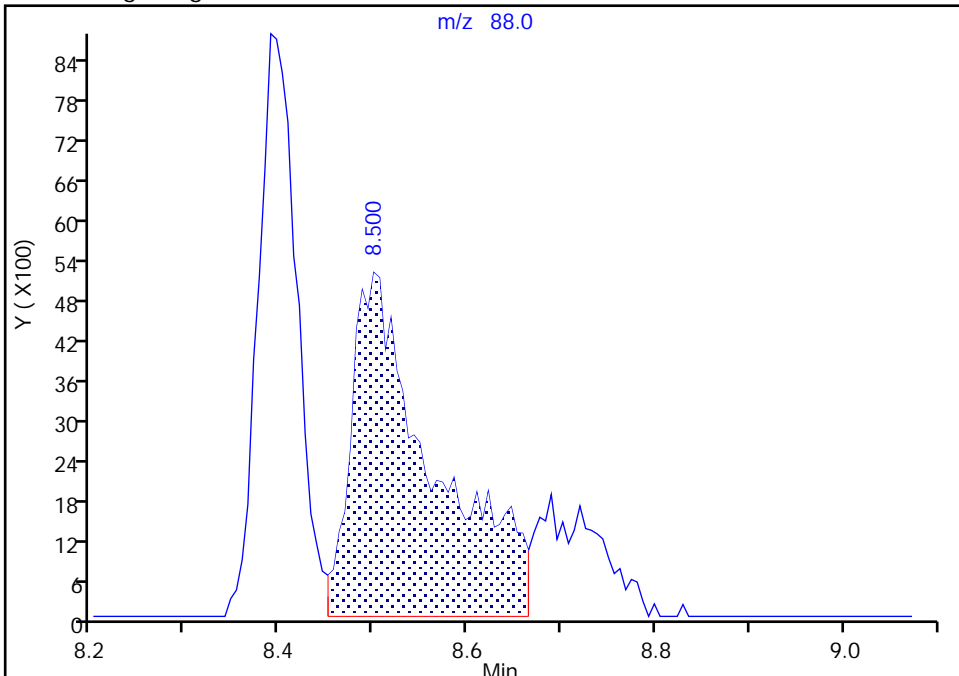
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Injection Date:	01-Sep-2020 14:19:30	Instrument ID:	10193
Lims ID:	IC STD5		
Client ID:			
Operator ID:	dvv10203	ALS Bottle#:	4
Purge Vol:	25.000 mL	Dil. Factor:	1.0000
Method:	MSV_10193_25mL	Limit Group:	MSV - 8260C_D
Column:	Rxi-624Sil MS Capillary Column (0.25mm ID)	Detector:	MS Quad
		Worklist Smp#:	5

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

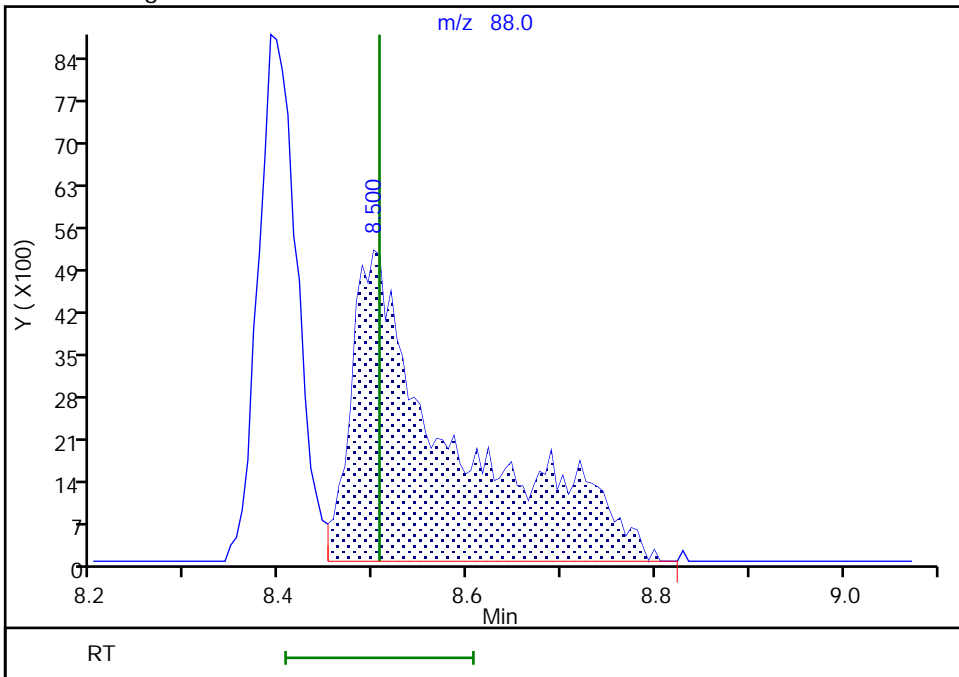
RT: 8.50
 Area: 31084
 Amount: 247.0601
 Amount Units: ug/l

Processing Integration Results



RT: 8.50
 Area: 39014
 Amount: 244.4117
 Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 01-Sep-2020 16:59:05
 Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\CS01I04.D
 Lims ID: IC STD4
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 01-Sep-2020 14:42:30 ALS Bottle#: 5 Worklist Smp#: 6
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: IC STD4
 Misc. Info.: 410-0009503-006
 Operator ID: dvv10203 Instrument ID: 10193
 Sublist: chrom-MSV_10193_25mL*sub1

Method: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\MSV_10193_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 01-Sep-2020 20:10:37 Calib Date: 01-Sep-2020 19:09:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\CS01I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1059

First Level Reviewer: campbellme

Date: 01-Sep-2020 17:01:08

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	1.910	1.910	0.000	99	129325	2.00	2.00	M
3 Chloromethane	50	2.099	2.099	0.000	99	150814	2.00	1.98	
4 Butadiene	39	2.209	2.209	0.000	93	140385	2.00	1.96	
5 Vinyl chloride	62	2.215	2.215	0.000	98	139896	2.00	1.99	
6 Bromomethane	94	2.520	2.520	0.000	92	98967	2.00	1.99	
7 Chloroethane	64	2.605	2.605	0.000	99	86238	2.00	1.98	
8 Dichlorofluoromethane	67	2.837	2.837	0.000	98	190803	2.00	2.02	
9 Trichlorofluoromethane	101	2.898	2.898	0.000	97	183481	2.00	2.00	
11 Ethyl ether	59	3.135	3.135	0.000	92	93303	2.00	2.01	
12 1,2-Dichloro-1,1,2-trifluoroethane	67	3.208	3.208	0.000	93	128139	2.00	1.88	
13 Acrolein	56	3.306	3.306	0.000	99	575443	100.0	100.2	
14 1,1-Dichloroethene	96	3.428	3.428	0.000	97	91871	2.00	1.98	
15 112TCTFE	101	3.464	3.464	0.000	92	94307	2.00	2.00	
16 Acetone	43	3.471	3.471	0.000	98	125222	20.0	20.5	
17 Iodomethane	142	3.617	3.617	0.000	99	178469	2.00	1.95	
18 Isopropyl alcohol	45	3.647	3.647	0.000	41	45049	40.0	41.8	
19 Ethyl bromide	108	3.641	3.641	0.000	99	77273	2.00	2.01	
20 Carbon disulfide	76	3.708	3.708	0.000	100	323433	2.00	1.98	
22 Methyl acetate	43	3.867	3.867	0.000	96	49627	2.00	2.07	
23 3-Chloro-1-propene	41	3.891	3.891	0.000	89	160482	2.00	1.98	
24 Methylene Chloride	84	4.074	4.074	0.000	94	101409	2.00	1.97	
* 25 t-Butyl alcohol-d10 (IS)	65	4.111	4.111	0.000	98	143561	50.0	50.0	
26 2-Methyl-2-propanol	59	4.227	4.227	0.000	98	110192	40.0	38.5	
27 Acrylonitrile	53	4.409	4.409	0.000	99	96365	10.0	9.94	
28 Methyl tert-butyl ether	73	4.464	4.464	0.000	94	295369	2.00	1.97	
29 trans-1,2-Dichloroethene	96	4.470	4.470	0.000	97	105433	2.00	1.95	
30 Hexane	57	4.897	4.897	0.000	95	152150	2.00	1.99	
32 1,1-Dichloroethane	63	5.135	5.135	0.000	96	195904	2.00	1.97	
33 Isopropyl ether	45	5.196	5.196	0.000	94	376556	2.00	1.98	
34 2-Chloro-1,3-butadiene	53	5.251	5.251	0.000	93	184491	2.00	1.96	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 Tert-butyl ethyl ether	59	5.732	5.732	0.000	98	361189	2.00	1.99	
36 2-Butanone (MEK)	43	5.946	5.946	0.000	100	281636	20.0	19.7	
37 cis-1,2-Dichloroethene	96	5.970	5.970	0.000	83	121548	2.00	1.98	
38 2,2-Dichloropropane	77	5.988	5.988	0.000	77	172113	2.00	2.00	
40 Propionitrile	54	6.049	6.049	0.000	99	149313	40.0	41.1	M
S 42 1,2-Dichloroethene, Total	100				0			3.93	
43 Methacrylonitrile	67	6.251	6.251	0.000	92	277418	20.0	19.7	
44 Chlorobromomethane	128	6.305	6.305	0.000	76	54981	2.00	2.03	
45 Tetrahydrofuran	71	6.305	6.305	0.000	80	81352	20.0	20.1	
46 Chloroform	83	6.464	6.464	0.000	95	196768	2.00	1.99	
\$ 47 Dibromofluoromethane (Surr)	113	6.683	6.683	0.000	93	475332	10.0	9.98	
48 1,1,1-Trichloroethane	97	6.683	6.683	0.000	54	179578	2.00	2.02	
49 Cyclohexane	56	6.775	6.775	0.000	93	186390	2.00	1.98	
50 Carbon tetrachloride	117	6.891	6.891	0.000	95	148659	2.00	1.99	
51 1,1-Dichloropropene	75	6.897	6.897	0.000	95	157992	2.00	1.98	
52 Isobutyl alcohol	41	7.086	7.086	0.000	92	85837	100.0	92.6	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.134	7.134	0.000	0	98150	10.0	10.1	
54 Benzene	78	7.159	7.159	0.000	96	459354	2.00	2.00	
55 1,2-Dichloroethane	62	7.238	7.238	0.000	98	135129	2.00	1.95	
56 Tert-amyl methyl ether	73	7.360	7.360	0.000	98	330560	2.00	2.00	
* 57 Fluorobenzene (IS)	96	7.573	7.573	0.000	98	2003773	10.0	10.0	
58 n-Heptane	43	7.580	7.580	0.000	76	173398	2.00	2.04	
59 n-Butanol	56	7.976	7.976	0.000	89	150691	200.0	196.1	M
60 Trichloroethene	95	8.049	8.049	0.000	98	118251	2.00	1.99	
61 Methylcyclohexane	83	8.354	8.354	0.000	93	186709	2.00	2.05	
62 1,2-Dichloropropane	63	8.390	8.390	0.000	92	116517	2.00	1.97	
63 2-ethoxy-2-methyl butane	87	8.396	8.396	0.000	91	182044	2.00	1.98	
64 Methyl methacrylate	69	8.482	8.482	0.000	92	59171	2.00	1.97	
66 Dibromomethane	93	8.494	8.494	0.000	94	56166	2.00	1.94	
65 1,4-Dioxane	88	8.506	8.506	0.000	31	15868	100.0	103.7	M
67 Dichlorobromomethane	83	8.738	8.738	0.000	98	140278	2.00	1.97	
68 2-Nitropropane	41	9.024	9.024	0.000	99	182830	20.0	19.6	
71 1-Bromo-2-chloroethane	63	9.134	9.134	0.000	99	124609	2.00	2.04	
72 cis-1,3-Dichloropropene	75	9.299	9.299	0.000	94	174979	2.00	1.97	
73 4-Methyl-2-pentanone (MIBK)	43	9.488	9.488	0.000	98	815838	20.0	19.6	
\$ 74 Toluene-d8 (Surr)	98	9.610	9.610	0.000	94	1985750	10.0	10.0	
75 Toluene	92	9.689	9.689	0.000	98	297381	2.00	1.99	
76 trans-1,3-Dichloropropene	75	9.957	9.957	0.000	96	148652	2.00	1.99	
78 Ethyl methacrylate	69	10.024	10.024	0.000	90	127842	2.00	2.03	
S 77 1,3-Dichloropropene, Total	100				0			3.96	
79 1,1,2-Trichloroethane	97	10.164	10.164	0.000	92	82201	2.00	1.99	
80 Tetrachloroethene	166	10.250	10.250	0.000	97	132588	2.00	1.99	
81 1,3-Dichloropropane	76	10.329	10.329	0.000	94	141833	2.00	1.95	
82 2-Hexanone	43	10.396	10.396	0.000	97	598268	20.0	20.4	
83 Chlorodibromomethane	129	10.548	10.548	0.000	90	97240	2.00	2.03	
84 Ethylene Dibromide	107	10.658	10.658	0.000	99	80851	2.00	1.98	
* 85 Chlorobenzene-d5 (IS)	117	11.097	11.097	0.000	87	1520735	10.0	10.0	
86 1-Chlorohexane	91	11.109	11.109	0.000	98	161444	2.00	1.89	
87 Chlorobenzene	112	11.122	11.122	0.000	95	333345	2.00	1.98	
89 1,1,1,2-Tetrachloroethane	131	11.207	11.207	0.000	91	113207	2.00	1.97	
90 Ethylbenzene	91	11.213	11.213	0.000	99	583876	2.00	1.97	
S 88 Xylenes, Total	106				0			5.94	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
91 m-Xylene & p-Xylene	106	11.329	11.329	0.000	0	457654	4.00	3.96	
92 o-Xylene	106	11.664	11.664	0.000	97	225199	2.00	1.99	
93 Styrene	104	11.676	11.676	0.000	95	377982	2.00	1.99	
94 Bromoform	173	11.835	11.835	0.000	96	52263	2.00	1.97	
95 Isopropylbenzene	105	11.969	11.969	0.000	96	592584	2.00	1.98	
\$ 98 4-Bromofluorobenzene (Surr)	95	12.109	12.109	0.000	91	747277	10.0	10.0	
99 1,1,2,2-Tetrachloroethane	83	12.219	12.219	0.000	93	109660	2.00	2.02	
100 Bromobenzene	156	12.231	12.231	0.000	91	147229	2.00	1.97	
101 trans-1,4-Dichloro-2-butene	53	12.243	12.243	0.000	96	303768	20.0	20.2	
102 1,2,3-Trichloropropane	110	12.268	12.268	0.000	84	29794	2.00	2.01	
103 N-Propylbenzene	91	12.298	12.298	0.000	99	702814	2.00	2.00	
104 2-Chlorotoluene	126	12.377	12.377	0.000	96	141124	2.00	1.97	
105 1,3,5-Trimethylbenzene	105	12.438	12.438	0.000	94	516140	2.00	1.99	
106 4-Chlorotoluene	126	12.469	12.469	0.000	98	148252	2.00	1.99	
107 tert-Butylbenzene	134	12.682	12.682	0.000	93	118830	2.00	2.10	
108 Pentachloroethane	167	12.713	12.713	0.000	91	86508	2.00	2.05	
109 1,2,4-Trimethylbenzene	105	12.725	12.725	0.000	97	526977	2.00	1.98	
110 sec-Butylbenzene	105	12.847	12.847	0.000	94	668081	2.00	2.00	
111 1,3-Dichlorobenzene	146	12.944	12.944	0.000	99	299249	2.00	2.01	
112 4-Isopropyltoluene	119	12.957	12.957	0.000	97	584284	2.00	2.00	
* 113 1,4-Dichlorobenzene-d4	152	12.999	12.999	0.000	95	871376	10.0	10.0	
114 1,4-Dichlorobenzene	146	13.017	13.017	0.000	95	305373	2.00	1.99	
115 1,2,3-Trimethylbenzene	120	13.030	13.030	0.000	99	239261	2.00	2.04	
116 Benzyl chloride	126	13.103	13.103	0.000	99	43679	2.00	2.02	
119 n-Butylbenzene	92	13.249	13.249	0.000	98	301292	2.00	2.04	
120 1,2-Dichlorobenzene	146	13.286	13.286	0.000	98	281587	2.00	2.00	
118 p-Diethylbenzene	119	13.304	13.304	0.000	0	299228	2.00	2.02	
123 1,2-Dibromo-3-Chloropropane	155	13.834	13.834	0.000	84	15503	2.00	2.08	
124 1,3,5-Trichlorobenzene	180	13.956	13.956	0.000	97	245063	2.00	2.01	
125 1,2,4-Trichlorobenzene	180	14.383	14.383	0.000	94	216994	2.00	1.99	
126 Hexachlorobutadiene	225	14.468	14.468	0.000	97	105865	2.00	1.98	
127 Naphthalene	128	14.566	14.566	0.000	97	394190	2.00	2.02	
128 1,2,3-Trichlorobenzene	180	14.712	14.712	0.000	96	194367	2.00	2.01	
129 2-Methylnaphthalene	142	15.340	15.340	0.000	0	282956	2.00	2.15	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MSV_RV1_826_00022

Amount Added: 2.00

Units: uL

MSV_RV4_826_00024

Amount Added: 2.00

Units: uL

MSV_RV4GAS826_00072

Amount Added: 2.00

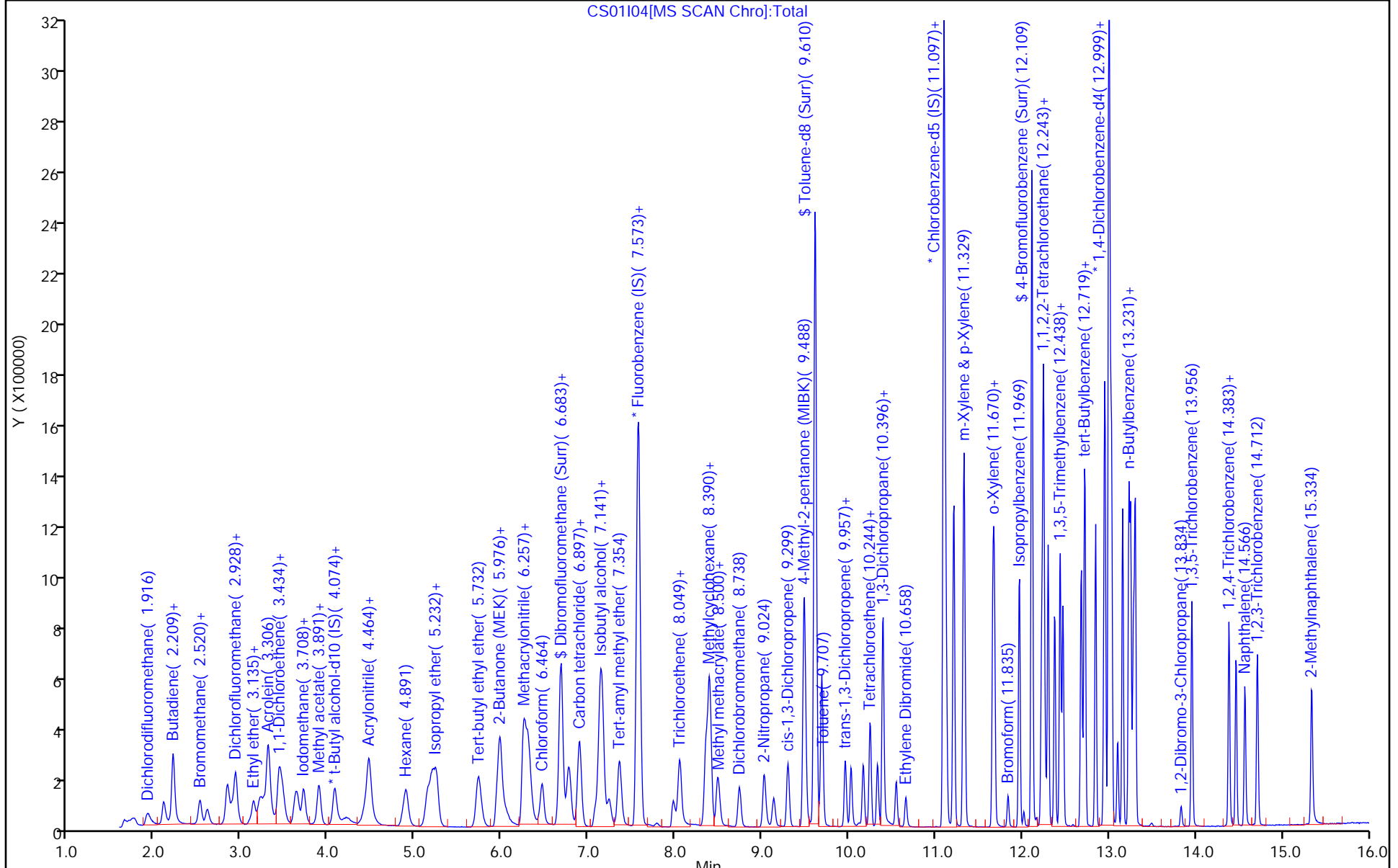
Units: uL

MSV_25_826ISS_00001

Amount Added: 1.00

Units: uL

Run Reagent



Eurofins Lancaster Laboratories Env, LLC

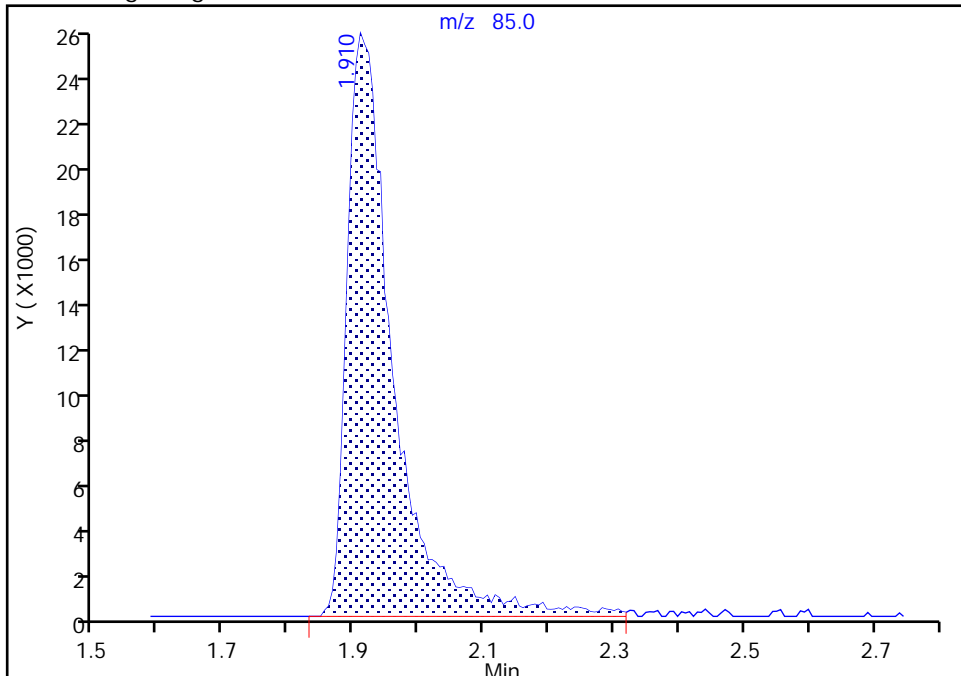
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Injection Date: 01-Sep-2020 14:42:30 Instrument ID: 10193
Lims ID: IC STD4
Client ID:
Operator ID: dvv10203 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

2 Dichlorodifluoromethane, CAS: 75-71-8

Signal: 1

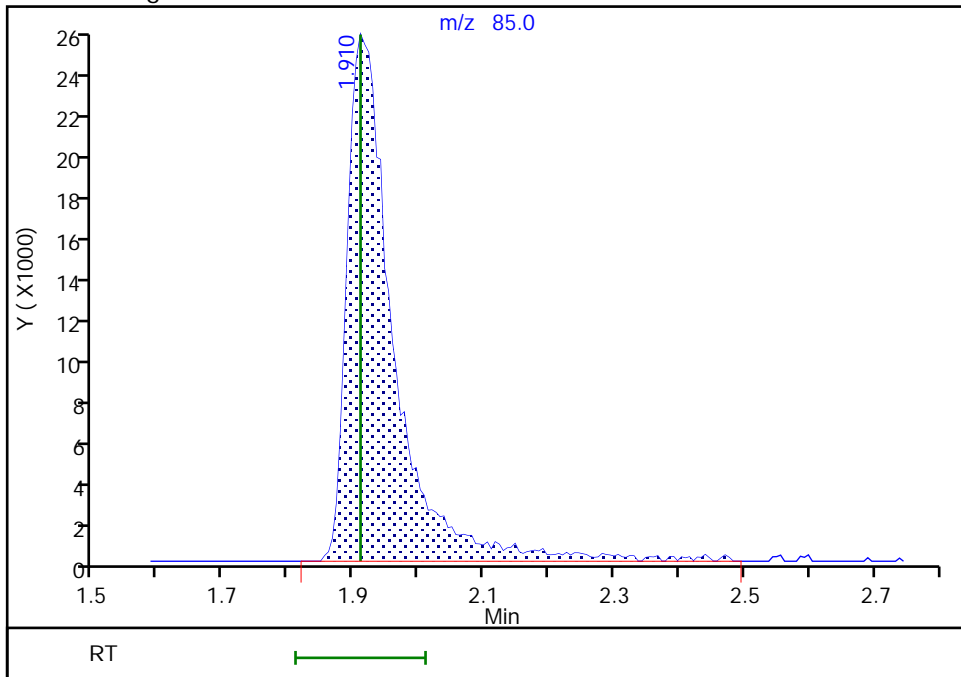
RT: 1.91
Area: 127911
Amount: 1.993115
Amount Units: ug/l

Processing Integration Results



RT: 1.91
Area: 129325
Amount: 2.000106
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 01-Sep-2020 17:00:09
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

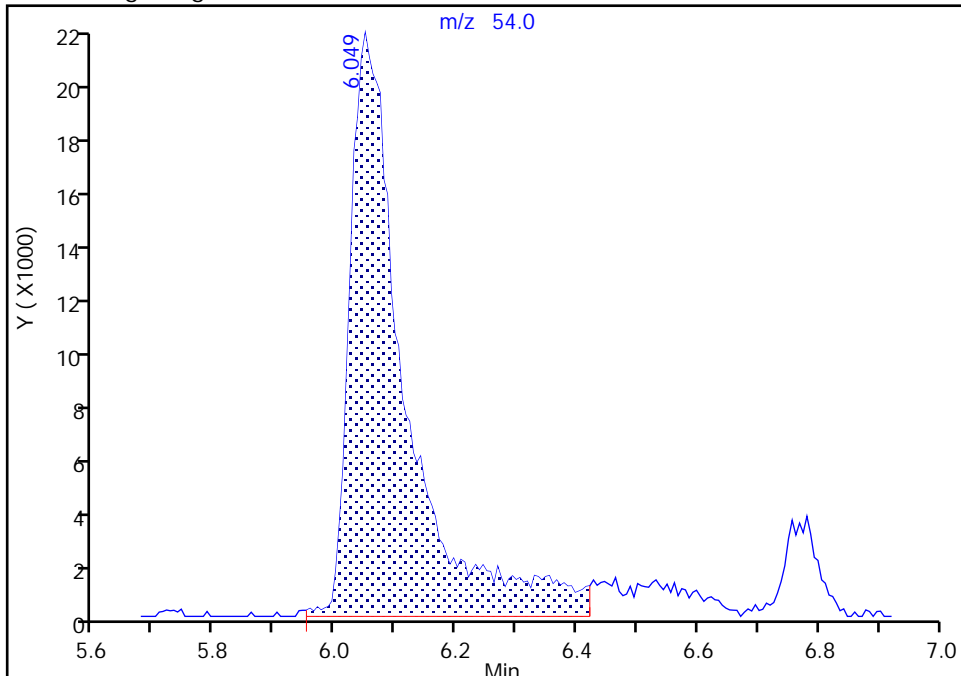
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Injection Date: 01-Sep-2020 14:42:30 Instrument ID: 10193
Lims ID: IC STD4
Client ID:
Operator ID: dvv10203 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

40 Propionitrile, CAS: 107-12-0

Signal: 1

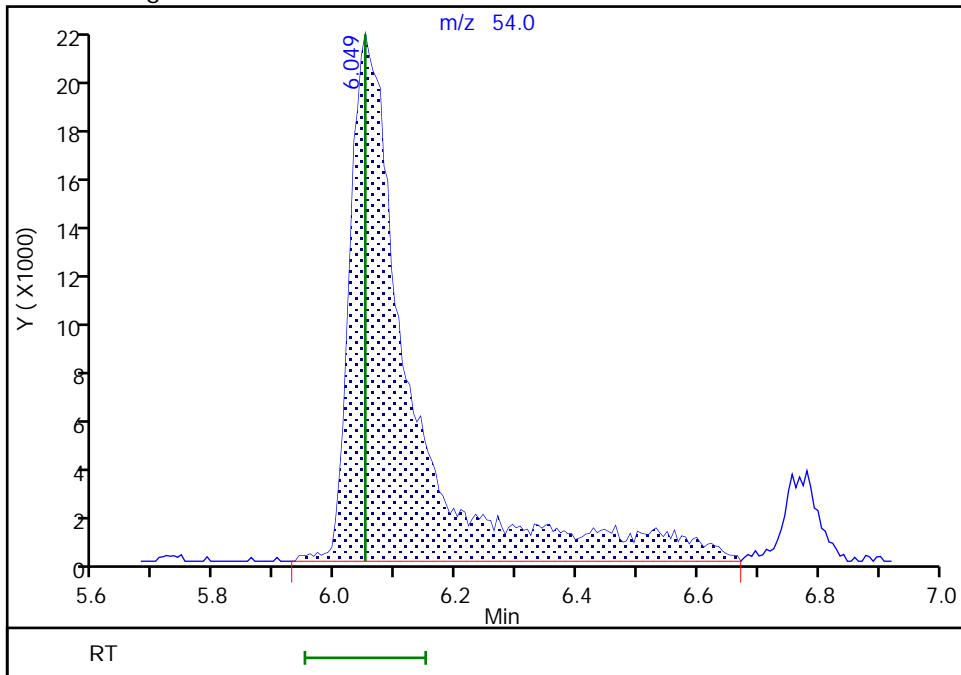
RT: 6.05
Area: 136096
Amount: 39.351569
Amount Units: ug/l

Processing Integration Results



RT: 6.05
Area: 149313
Amount: 41.112721
Amount Units: ug/l

Manual Integration Results



Eurofins Lancaster Laboratories Env, LLC

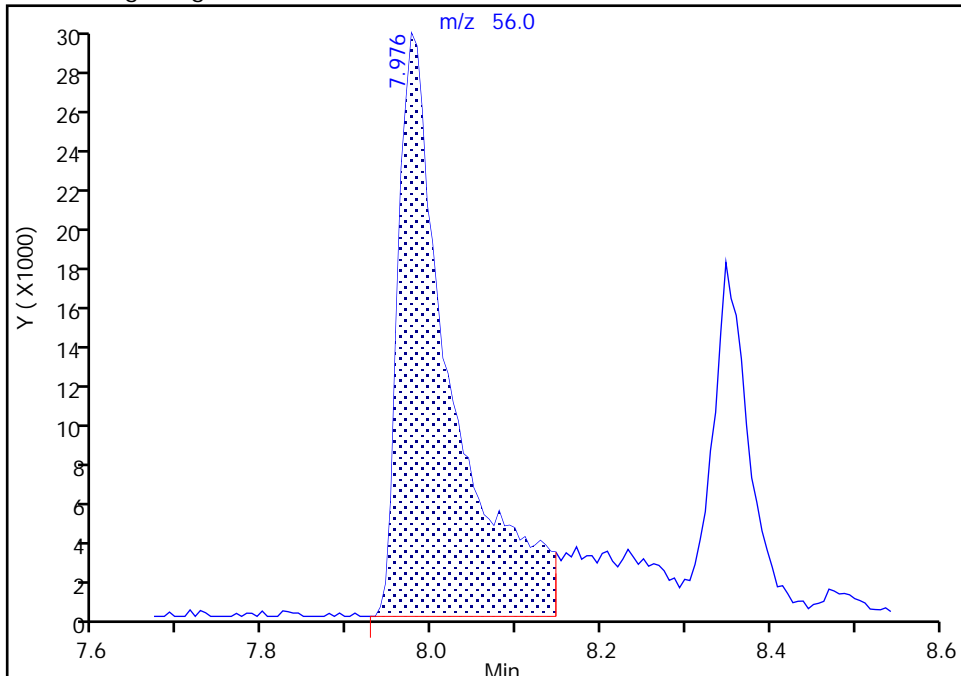
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Injection Date: 01-Sep-2020 14:42:30 Instrument ID: 10193
Lims ID: IC STD4
Client ID:
Operator ID: dvv10203 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

59 n-Butanol, CAS: 71-36-3

Signal: 1

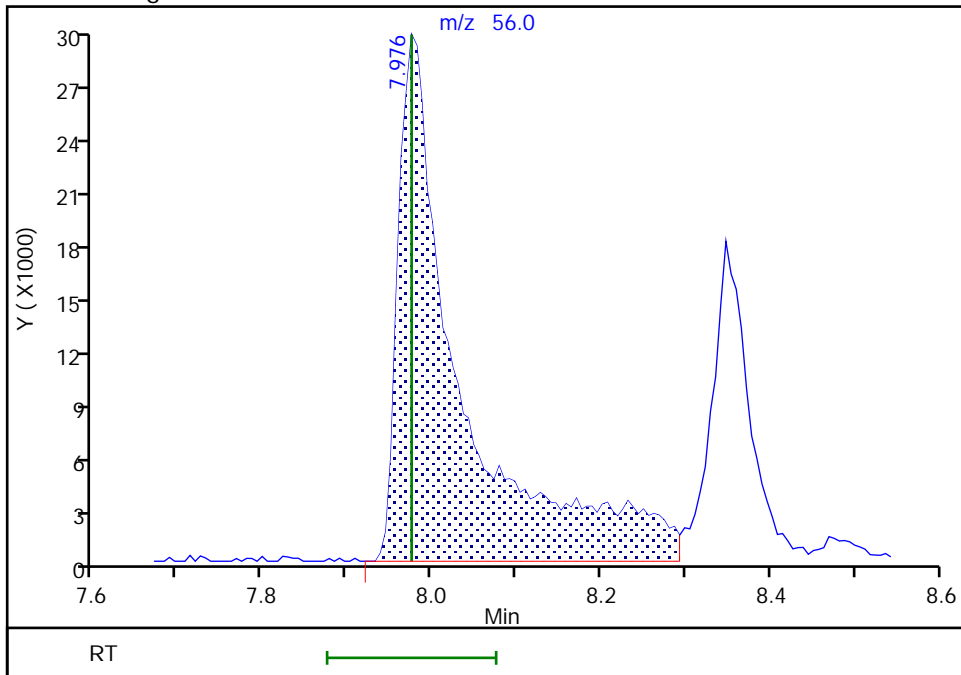
RT: 7.98
Area: 126658
Amount: 189.1626
Amount Units: ug/l

Processing Integration Results



RT: 7.98
Area: 150691
Amount: 196.1351
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 01-Sep-2020 17:15:38
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

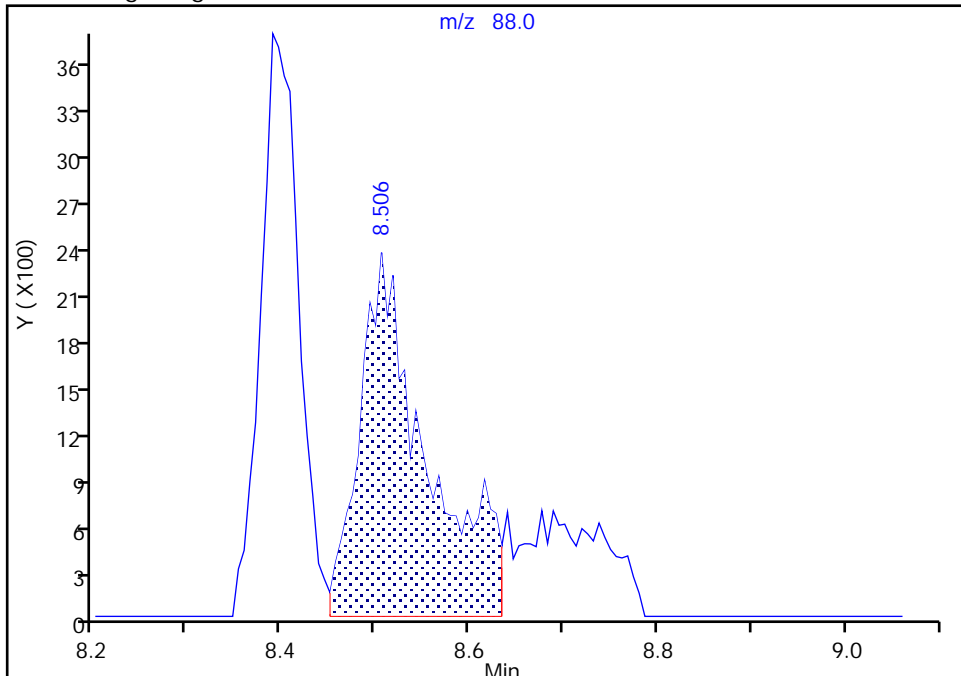
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Injection Date:	01-Sep-2020 14:42:30	Instrument ID:	10193
Lims ID:	IC STD4		
Client ID:			
Operator ID:	dvv10203	ALS Bottle#:	5
Purge Vol:	25.000 mL	Dil. Factor:	1.0000
Method:	MSV_10193_25mL	Limit Group:	MSV - 8260C_D
Column:	Rxi-624Sil MS Capillary Column (0.25mm ID)	Detector:	MS Quad
		Worklist Smp#:	6

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

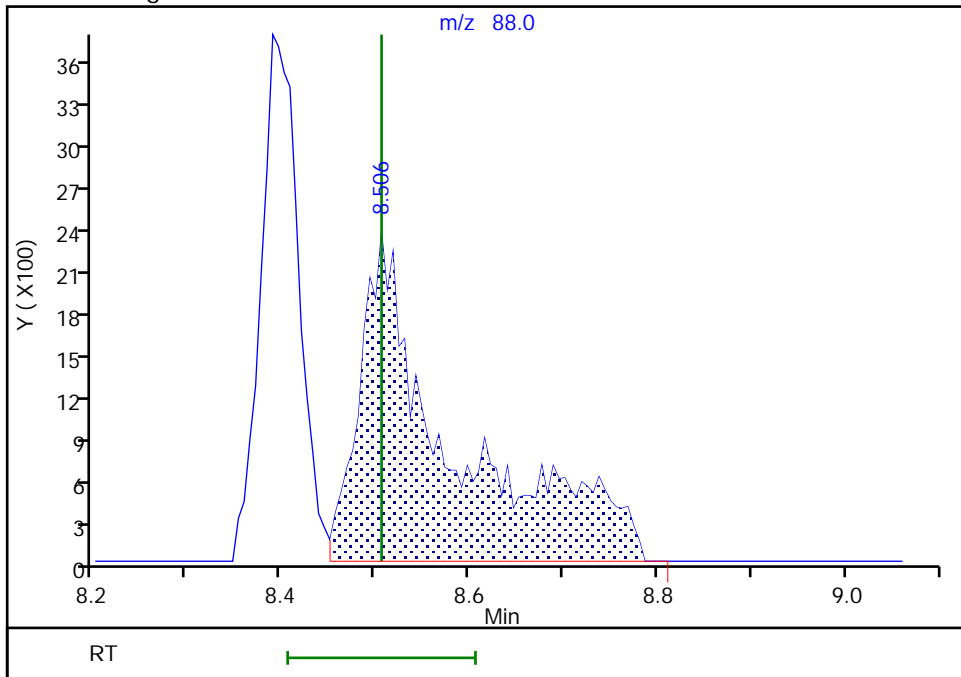
RT: 8.51
 Area: 11620
 Amount: 92.483167
 Amount Units: ug/l

Processing Integration Results



RT: 8.51
 Area: 15868
 Amount: 103.7267
 Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 01-Sep-2020 17:00:52
 Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\CS01I05.D
 Lims ID: IC STD3
 Client ID:
 Sample Type: IC Calib Level: 3
 Inject. Date: 01-Sep-2020 15:04:30 ALS Bottle#: 6 Worklist Smp#: 7
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: IC STD3
 Misc. Info.: 410-0009503-007
 Operator ID: dvv10203 Instrument ID: 10193
 Sublist: chrom-MSV_10193_25mL*sub1
 Method: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\MSV_10193_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 01-Sep-2020 20:10:47 Calib Date: 01-Sep-2020 19:09:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\CS01I17.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1059

First Level Reviewer: campbellme Date: 01-Sep-2020 17:03:43

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	1.910	1.910	0.000	99	65583	1.00	1.04	M
3 Chloromethane	50	2.093	2.099	-0.006	99	75132	1.00	1.01	M
4 Butadiene	39	2.203	2.209	-0.006	96	77445	1.00	1.11	
5 Vinyl chloride	62	2.209	2.215	-0.006	80	69005	1.00	1.00	
6 Bromomethane	94	2.507	2.520	-0.013	90	49576	1.00	1.02	
7 Chloroethane	64	2.599	2.605	-0.006	99	43065	1.00	1.01	
8 Dichlorofluoromethane	67	2.824	2.837	-0.013	97	94758	1.00	1.03	
9 Trichlorofluoromethane	101	2.891	2.898	-0.007	96	90570	1.00	1.01	
11 Ethyl ether	59	3.135	3.135	0.000	93	45936	1.00	1.01	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.208	3.208	0.000	94	70413	1.00	1.06	
13 Acrolein	56	3.300	3.306	-0.006	99	288468	50.0	51.4	
14 1,1-Dichloroethene	96	3.422	3.428	-0.006	97	46141	1.00	1.02	
15 112TCTFE	101	3.464	3.464	0.000	91	49416	1.00	1.08	
16 Acetone	43	3.471	3.471	0.000	99	53819	10.0	9.02	
17 Iodomethane	142	3.611	3.617	-0.006	99	91381	1.00	1.02	
19 Ethyl bromide	108	3.641	3.641	0.000	97	37062	1.00	0.9880	
18 Isopropyl alcohol	45	3.641	3.647	-0.006	49	20062	20.0	21.9	
20 Carbon disulfide	76	3.702	3.708	-0.006	100	162292	1.00	1.02	
22 Methyl acetate	43	3.867	3.867	0.000	97	17477	1.00	0.7458	
23 3-Chloro-1-propene	41	3.879	3.891	-0.012	89	80597	1.00	1.02	
24 Methylene Chloride	84	4.074	4.074	0.000	97	51267	1.00	1.02	
* 25 t-Butyl alcohol-d10 (IS)	65	4.099	4.111	-0.012	96	140318	50.0	50.0	
26 2-Methyl-2-propanol	59	4.214	4.227	-0.012	99	57344	20.0	20.5	
27 Acrylonitrile	53	4.409	4.409	0.000	100	51371	5.00	5.42	M
28 Methyl tert-butyl ether	73	4.452	4.464	-0.012	96	150474	1.00	1.03	
29 trans-1,2-Dichloroethene	96	4.464	4.470	-0.006	98	54149	1.00	1.03	
30 Hexane	57	4.885	4.897	-0.012	94	78465	1.00	1.05	
32 1,1-Dichloroethane	63	5.129	5.135	-0.006	97	100821	1.00	1.04	
33 Isopropyl ether	45	5.190	5.196	-0.006	94	190197	1.00	1.03	
34 2-Chloro-1,3-butadiene	53	5.245	5.251	-0.006	93	91500	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
35 Tert-butyl ethyl ether	59	5.732	5.732	0.000	98	183026	1.00	1.03	M
36 2-Butanone (MEK)	43	5.946	5.946	0.000	100	137888	10.0	9.86	
37 cis-1,2-Dichloroethene	96	5.970	5.970	0.000	82	62000	1.00	1.04	
38 2,2-Dichloropropane	77	5.982	5.988	-0.006	70	85777	1.00	1.02	
40 Propionitrile	54	6.043	6.049	-0.006	98	74651	20.0	21.0	M
S 42 1,2-Dichloroethene, Total	100				0			2.06	
43 Methacrylonitrile	67	6.263	6.251	0.013	93	146687	10.0	10.7	M
44 Chlorobromomethane	128	6.299	6.305	-0.006	93	26529	1.00	1.01	
45 Tetrahydrofuran	71	6.305	6.305	0.000	93	41281	10.0	10.4	
46 Chloroform	83	6.458	6.464	-0.006	94	97764	1.00	1.01	
\$ 47 Dibromofluoromethane (Surr)	113	6.677	6.683	-0.006	94	465395	10.0	10.0	
48 1,1,1-Trichloroethane	97	6.683	6.683	0.000	46	87622	1.00	1.01	
49 Cyclohexane	56	6.769	6.775	-0.006	93	97244	1.00	1.06	
50 Carbon tetrachloride	117	6.885	6.891	-0.006	83	74393	1.00	1.02	
51 1,1-Dichloropropene	75	6.891	6.897	-0.006	92	79910	1.00	1.03	
52 Isobutyl alcohol	41	7.080	7.086	-0.006	89	43145	50.0	47.6	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.128	7.134	-0.006	0	94841	10.0	10.0	
54 Benzene	78	7.153	7.159	-0.006	96	228700	1.00	1.02	
55 1,2-Dichloroethane	62	7.232	7.238	-0.006	97	68618	1.00	1.01	
56 Tert-amyl methyl ether	73	7.354	7.360	-0.006	97	164628	1.00	1.02	
* 57 Fluorobenzene (IS)	96	7.567	7.573	-0.006	98	1953950	10.0	10.0	
58 n-Heptane	43	7.580	7.580	0.000	82	86227	1.00	1.04	
59 n-Butanol	56	7.976	7.976	0.000	91	73005	100.0	97.2	M
60 Trichloroethene	95	8.049	8.049	0.000	98	59588	1.00	1.03	
61 Methylcyclohexane	83	8.348	8.354	-0.006	92	90839	1.00	1.03	
62 1,2-Dichloropropane	63	8.384	8.390	-0.006	72	58951	1.00	1.02	
63 2-ethoxy-2-methyl butane	87	8.396	8.396	0.000	93	92481	1.00	1.03	
64 Methyl methacrylate	69	8.482	8.482	0.000	91	29926	1.00	1.02	
66 Dibromomethane	93	8.494	8.494	0.000	96	28840	1.00	1.02	
65 1,4-Dioxane	88	8.512	8.506	0.006	31	8095	50.0	54.1	M
67 Dichlorobromomethane	83	8.732	8.738	-0.006	98	69815	1.00	1.00	
68 2-Nitropropane	41	9.024	9.024	0.000	99	90715	10.0	9.97	
71 1-Bromo-2-chloroethane	63	9.128	9.134	-0.006	98	60281	1.00	1.01	
72 cis-1,3-Dichloropropene	75	9.299	9.299	0.000	93	85955	1.00	0.99	
73 4-Methyl-2-pentanone (MIBK)	43	9.488	9.488	0.000	97	414178	10.0	10.2	
\$ 74 Toluene-d8 (Surr)	98	9.610	9.610	0.000	94	1941329	10.0	10.0	
75 Toluene	92	9.689	9.689	0.000	98	148821	1.00	1.02	
76 trans-1,3-Dichloropropene	75	9.957	9.957	0.000	96	72683	1.00	0.99	
78 Ethyl methacrylate	69	10.024	10.024	0.000	91	63147	1.00	1.02	
S 77 1,3-Dichloropropene, Total	100				0			1.99	
79 1,1,2-Trichloroethane	97	10.164	10.164	0.000	92	41496	1.00	1.03	
80 Tetrachloroethene	166	10.244	10.250	-0.006	97	66888	1.00	1.03	
81 1,3-Dichloropropane	76	10.329	10.329	0.000	94	72739	1.00	1.02	
82 2-Hexanone	43	10.390	10.396	-0.006	97	292991	10.0	10.2	
83 Chlorodibromomethane	129	10.542	10.548	-0.006	92	45464	1.00	0.9722	
84 Ethylene Dibromide	107	10.658	10.658	0.000	100	40000	1.00	1.00	
* 85 Chlorobenzene-d5 (IS)	117	11.097	11.097	0.000	87	1485716	10.0	10.0	
86 1-Chlorohexane	91	11.109	11.109	0.000	97	85108	1.00	1.02	
87 Chlorobenzene	112	11.122	11.122	0.000	95	168260	1.00	1.02	
89 1,1,1,2-Tetrachloroethane	131	11.207	11.207	0.000	92	56505	1.00	1.01	
90 Ethylbenzene	91	11.213	11.213	0.000	98	292186	1.00	1.01	
S 88 Xylenes, Total	106				0			3.04	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
91 m-Xylene & p-Xylene	106	11.329	11.329	0.000	0	230072	2.00	2.04	
92 o-Xylene	106	11.664	11.664	0.000	97	111628	1.00	1.01	
93 Styrene	104	11.676	11.676	0.000	95	184556	1.00	0.99	
94 Bromoform	173	11.835	11.835	0.000	95	24617	1.00	0.9477	
95 Isopropylbenzene	105	11.963	11.969	-0.006	96	299877	1.00	1.02	
\$ 98 4-Bromofluorobenzene (Surr)	95	12.109	12.109	0.000	91	726539	10.0	9.96	
99 1,1,2,2-Tetrachloroethane	83	12.219	12.219	0.000	94	53769	1.00	1.02	
100 Bromobenzene	156	12.225	12.231	-0.006	95	74061	1.00	1.02	
101 trans-1,4-Dichloro-2-butene	53	12.243	12.243	0.000	95	148178	10.0	10.2	
102 1,2,3-Trichloropropane	110	12.262	12.268	-0.006	81	14553	1.00	1.02	
103 N-Propylbenzene	91	12.298	12.298	0.000	99	349239	1.00	1.03	
104 2-Chlorotoluene	126	12.377	12.377	0.000	96	71969	1.00	1.04	
105 1,3,5-Trimethylbenzene	105	12.438	12.438	0.000	94	261031	1.00	1.04	
106 4-Chlorotoluene	126	12.469	12.469	0.000	98	73083	1.00	1.01	
107 tert-Butylbenzene	134	12.682	12.682	0.000	94	54654	1.00	1.00	
108 Pentachloroethane	167	12.713	12.713	0.000	91	40193	1.00	0.9847	
109 1,2,4-Trimethylbenzene	105	12.725	12.725	0.000	97	264914	1.00	1.03	
110 sec-Butylbenzene	105	12.847	12.847	0.000	94	329993	1.00	1.02	
111 1,3-Dichlorobenzene	146	12.944	12.944	0.000	98	148017	1.00	1.03	
112 4-Isopropyltoluene	119	12.957	12.957	0.000	97	284614	1.00	1.01	
* 113 1,4-Dichlorobenzene-d4	152	12.999	12.999	0.000	95	842960	10.0	10.0	
114 1,4-Dichlorobenzene	146	13.018	13.017	0.001	95	147165	1.00	0.99	
115 1,2,3-Trimethylbenzene	120	13.030	13.030	0.000	99	112026	1.00	0.9896	
116 Benzyl chloride	126	13.097	13.103	-0.006	99	20304	1.00	0.9698	
119 n-Butylbenzene	92	13.249	13.249	0.000	97	143333	1.00	1.00	
120 1,2-Dichlorobenzene	146	13.280	13.286	-0.006	98	138925	1.00	1.02	
118 p-Diethylbenzene	119	13.304	13.304	0.000	0	141827	1.00	0.9889	
123 1,2-Dibromo-3-Chloropropane	155	13.834	13.834	0.000	81	7406	1.00	1.03	
124 1,3,5-Trichlorobenzene	180	13.956	13.956	0.000	97	120502	1.00	1.02	
125 1,2,4-Trichlorobenzene	180	14.383	14.383	0.000	94	106458	1.00	1.01	
126 Hexachlorobutadiene	225	14.468	14.468	0.000	97	51838	1.00	1.00	
127 Naphthalene	128	14.572	14.566	0.006	97	196158	1.00	1.04	
128 1,2,3-Trichlorobenzene	180	14.712	14.712	0.000	95	96242	1.00	1.03	
129 2-Methylnaphthalene	142	15.340	15.340	0.000	0	125807	1.00	0.9870	

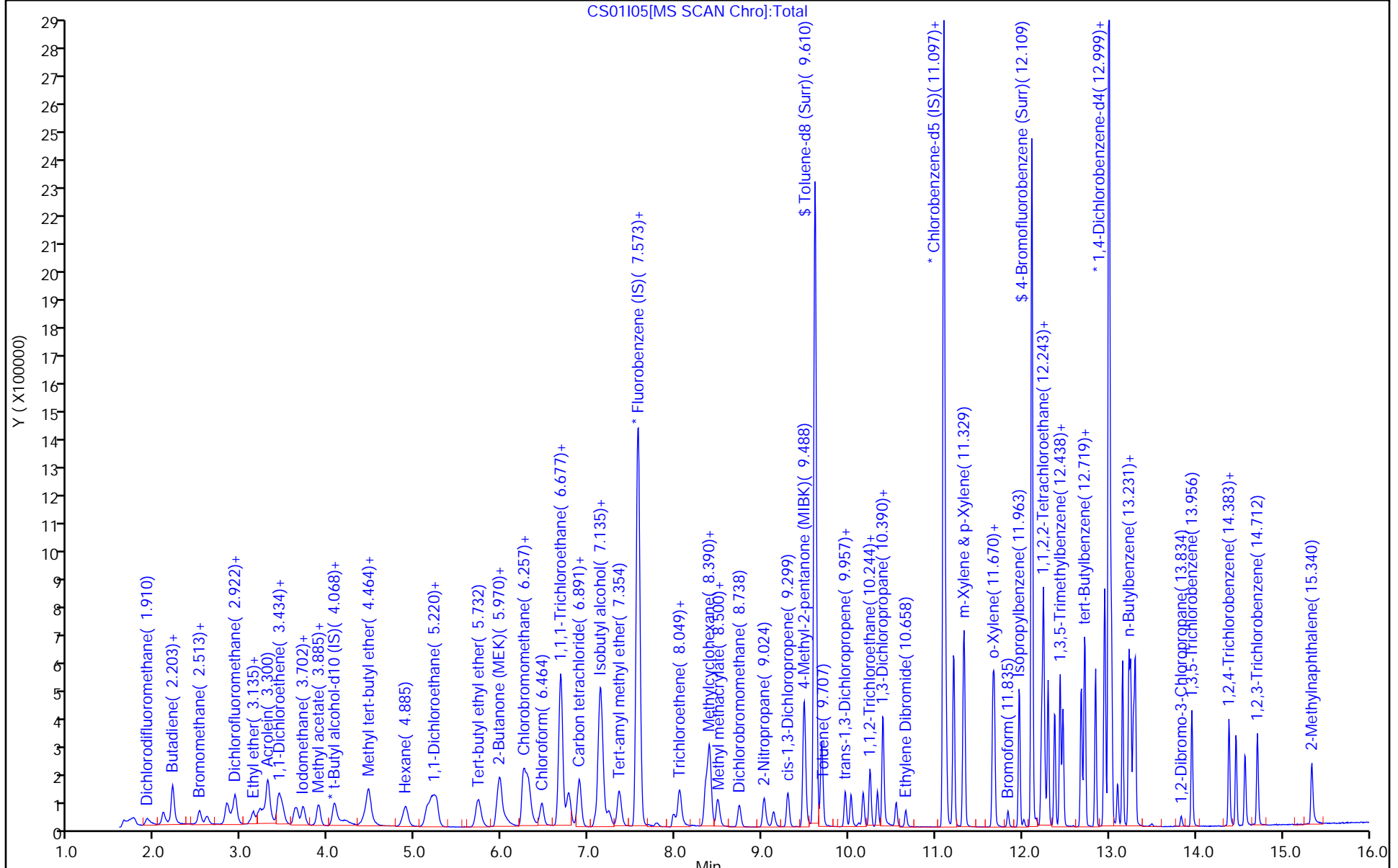
QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MSV_RV1_826_00022	Amount Added: 2.00	Units: uL	
MSV_RV4_826_00024	Amount Added: 2.00	Units: uL	
MSV_RV4GAS826_00072	Amount Added: 2.00	Units: uL	
MSV_25_826ISS_00001	Amount Added: 1.00	Units: uL	Run Reagent



Eurofins Lancaster Laboratories Env, LLC

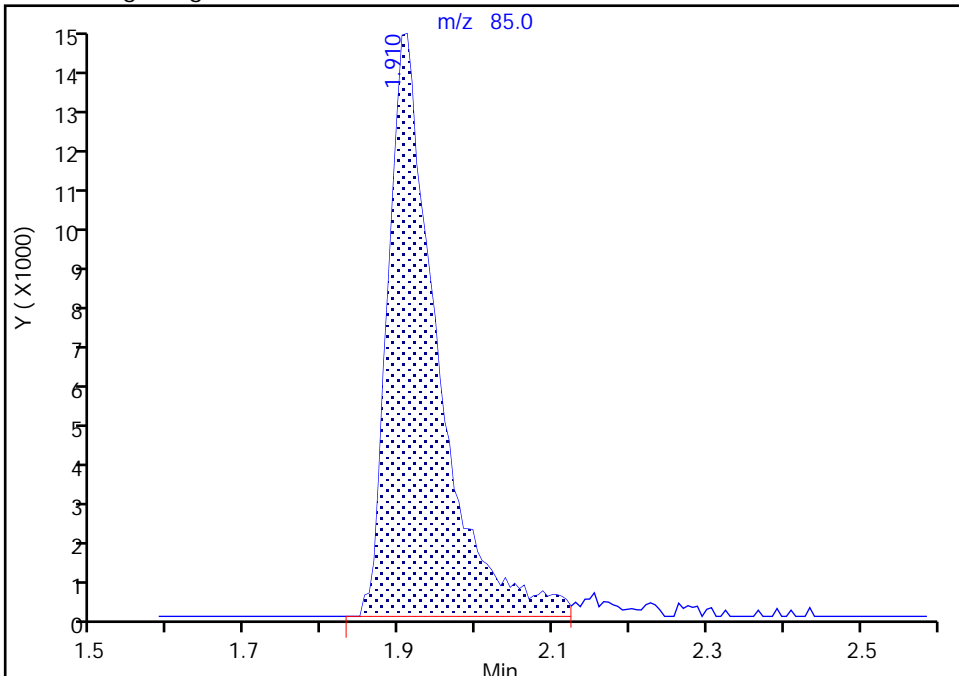
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Injection Date: 01-Sep-2020 15:04:30 Instrument ID: 10193
Lims ID: IC STD3
Client ID:
Operator ID: dvv10203 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

2 Dichlorodifluoromethane, CAS: 75-71-8

Signal: 1

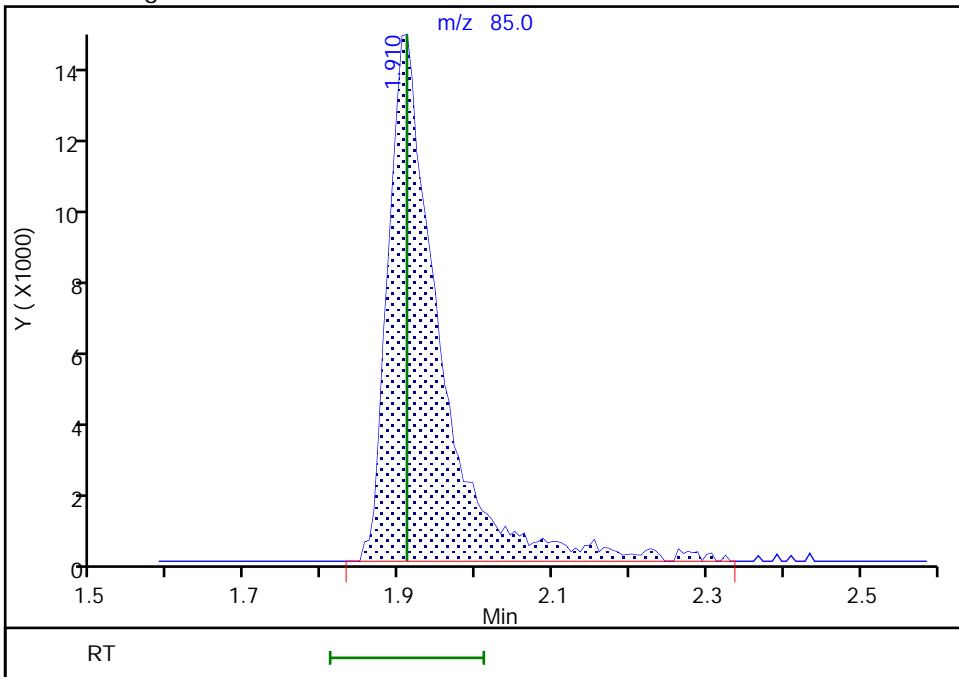
RT: 1.91
Area: 62978
Amount: 1.004767
Amount Units: ug/l

Processing Integration Results



RT: 1.91
Area: 65583
Amount: 1.040152
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 01-Sep-2020 17:01:28
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

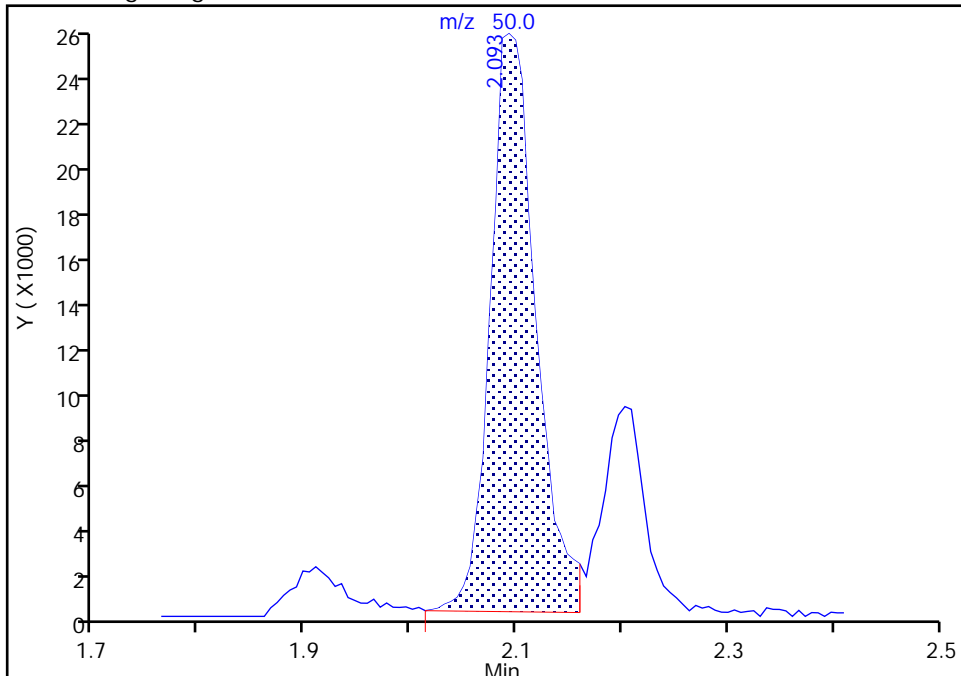
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Injection Date: 01-Sep-2020 15:04:30 Instrument ID: 10193
Lims ID: IC STD3
Client ID:
Operator ID: dvv10203 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

3 Chloromethane, CAS: 74-87-3

Signal: 1

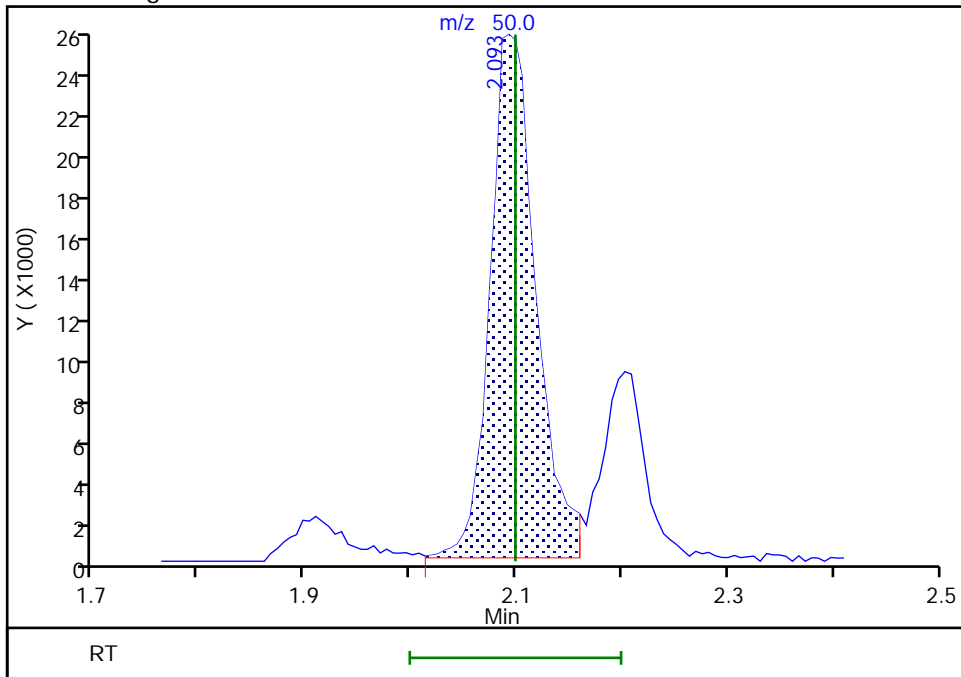
RT: 2.09
Area: 74730
Amount: 1.006130
Amount Units: ug/l

Processing Integration Results



RT: 2.09
Area: 75132
Amount: 1.010761
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 01-Sep-2020 17:01:41
Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Lancaster Laboratories Env, LLC

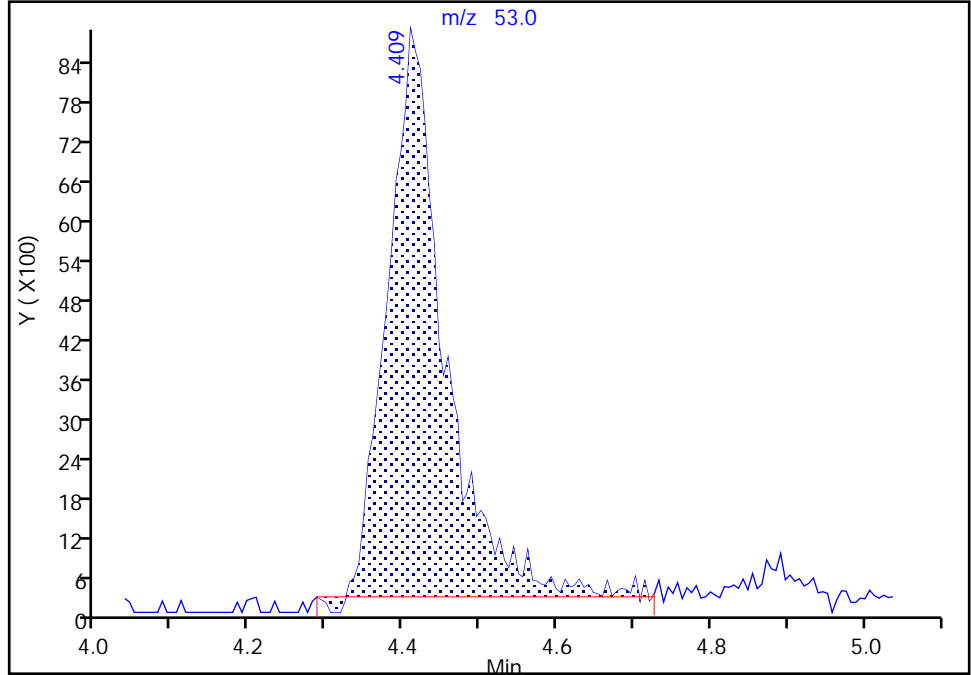
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Injection Date: 01-Sep-2020 15:04:30 Instrument ID: 10193
Lims ID: IC STD3
Client ID:
Operator ID: dvv10203 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

27 Acrylonitrile, CAS: 107-13-1

Signal: 1

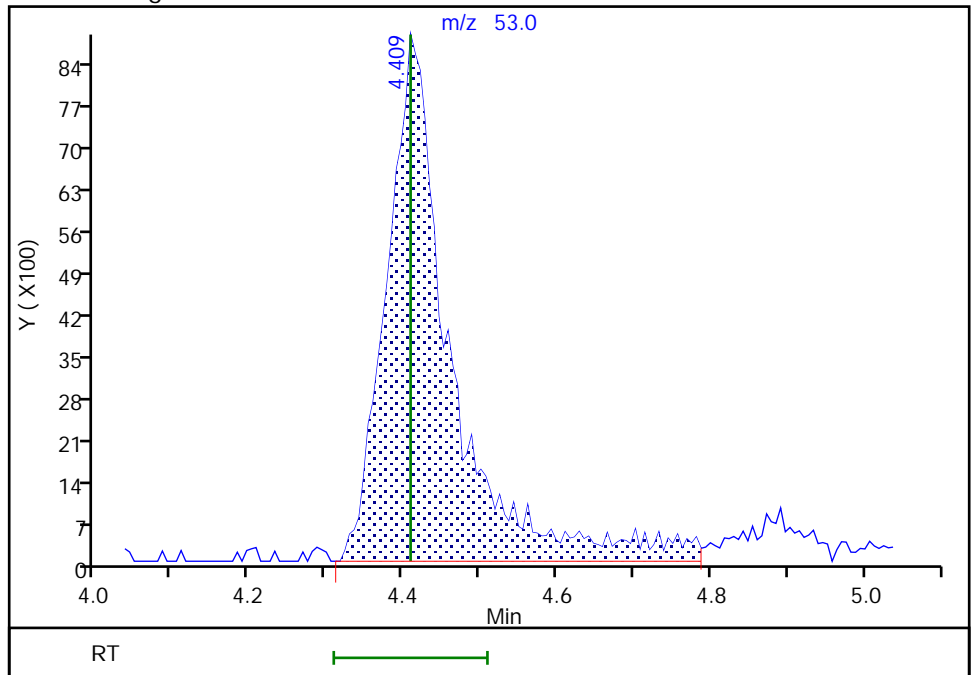
RT: 4.41
Area: 44113
Amount: 4.761831
Amount Units: ug/l

Processing Integration Results



RT: 4.41
Area: 51371
Amount: 5.423891
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 01-Sep-2020 17:02:09

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

Euofins Lancaster Laboratories Env, LLC

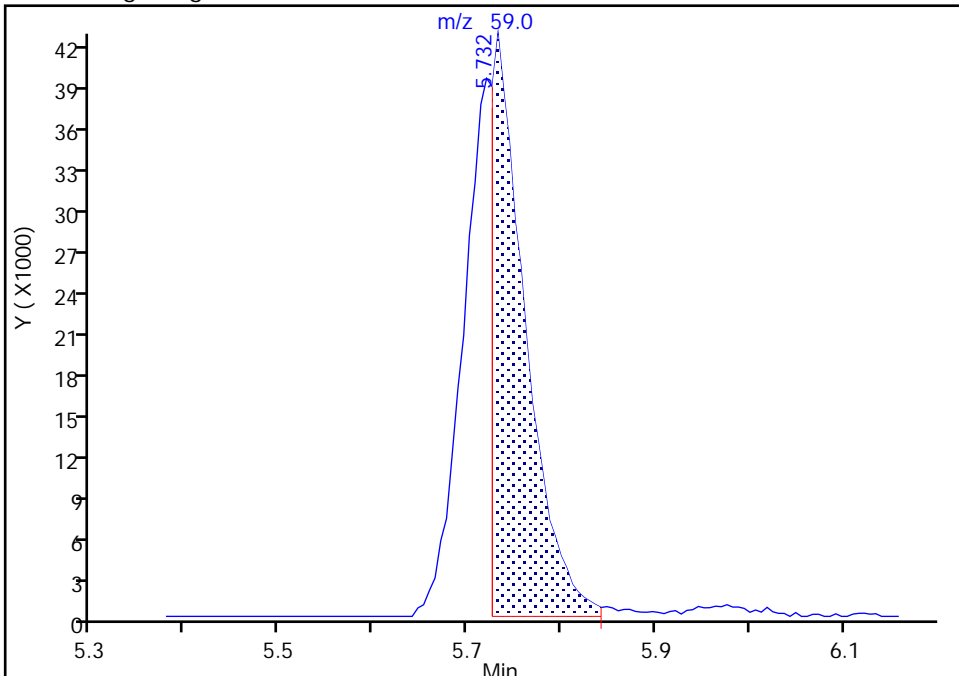
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Injection Date: 01-Sep-2020 15:04:30 Instrument ID: 10193
Lims ID: IC STD3
Client ID:
Operator ID: dvv10203 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

35 Tert-butyl ethyl ether, CAS: 637-92-3

Signal: 1

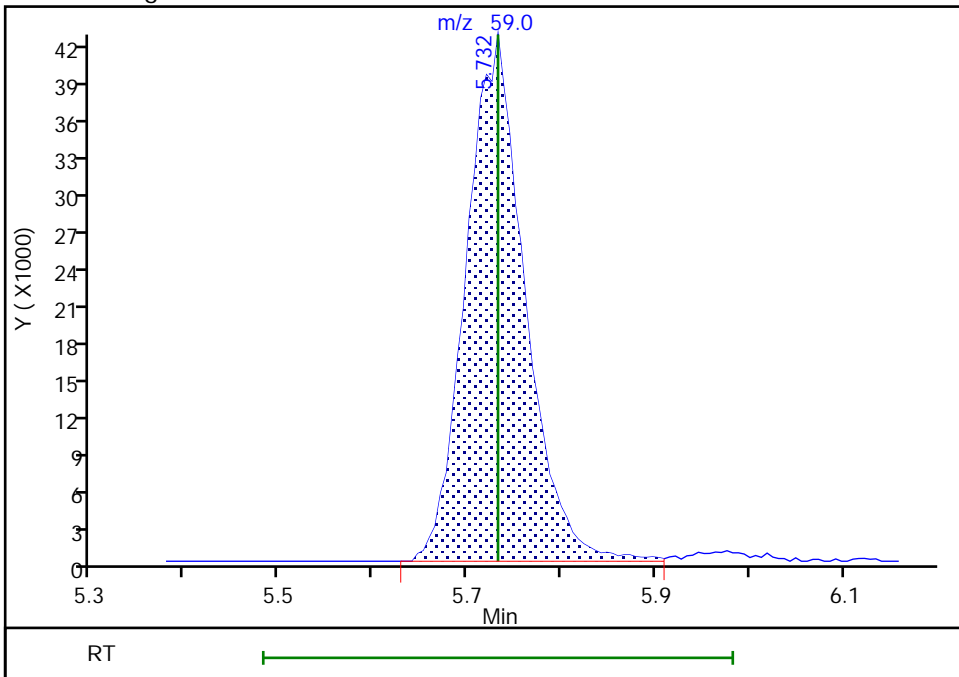
RT: 5.73
Area: 107376
Amount: 0.583894
Amount Units: ug/l

Processing Integration Results



RT: 5.73
Area: 183026
Amount: 1.033821
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 01-Sep-2020 17:02:27
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

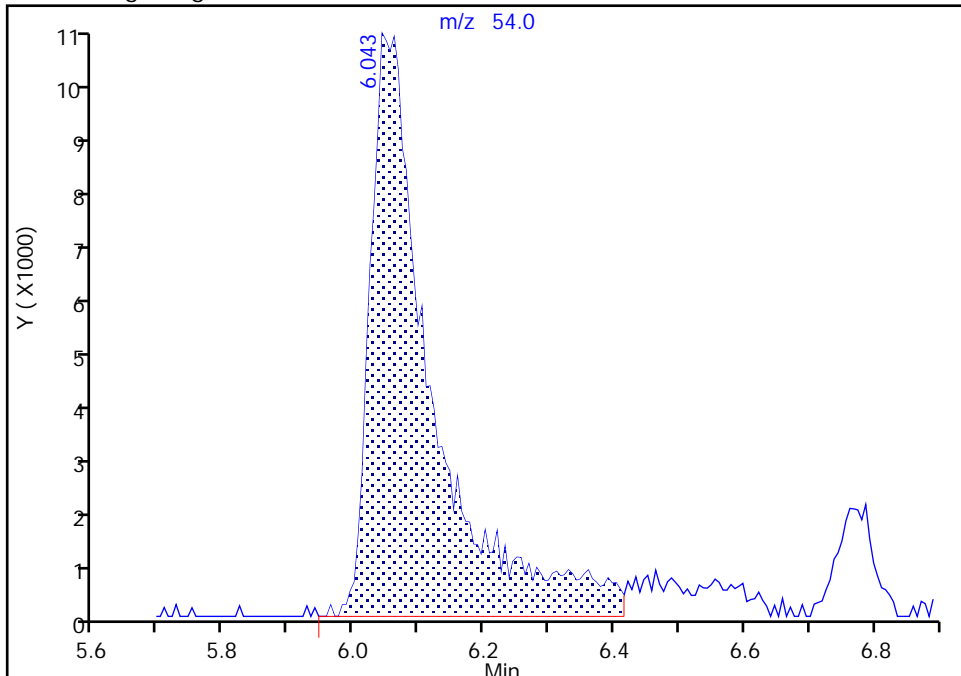
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Injection Date: 01-Sep-2020 15:04:30 Instrument ID: 10193
Lims ID: IC STD3
Client ID:
Operator ID: dvv10203 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

40 Propionitrile, CAS: 107-12-0

Signal: 1

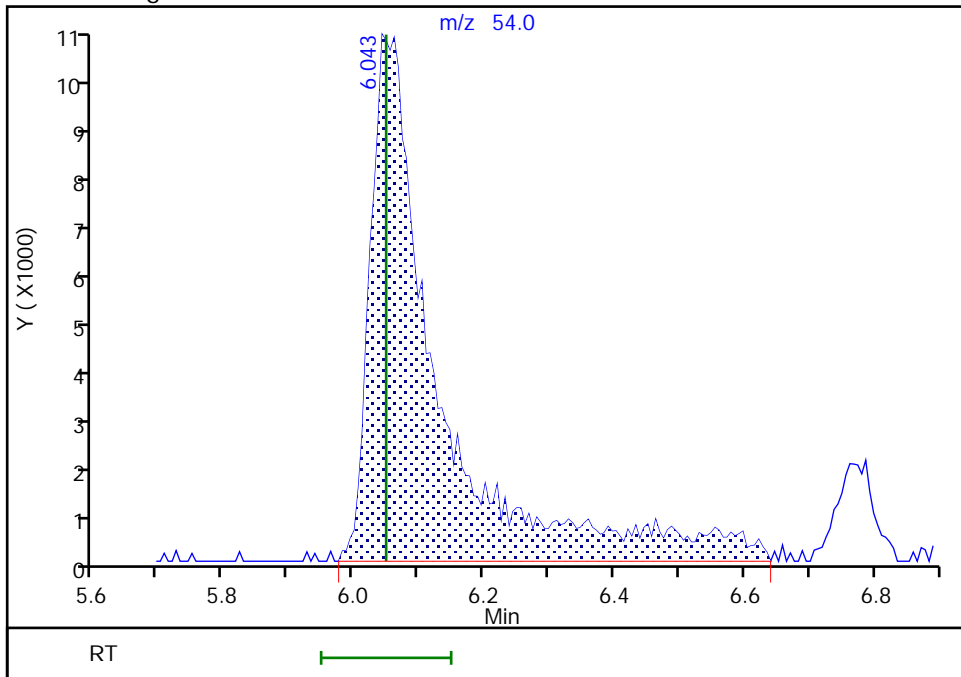
RT: 6.04
Area: 68101
Amount: 19.874939
Amount Units: ug/l

Processing Integration Results



RT: 6.04
Area: 74651
Amount: 21.029905
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 01-Sep-2020 17:03:38
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Euofins Lancaster Laboratories Env, LLC

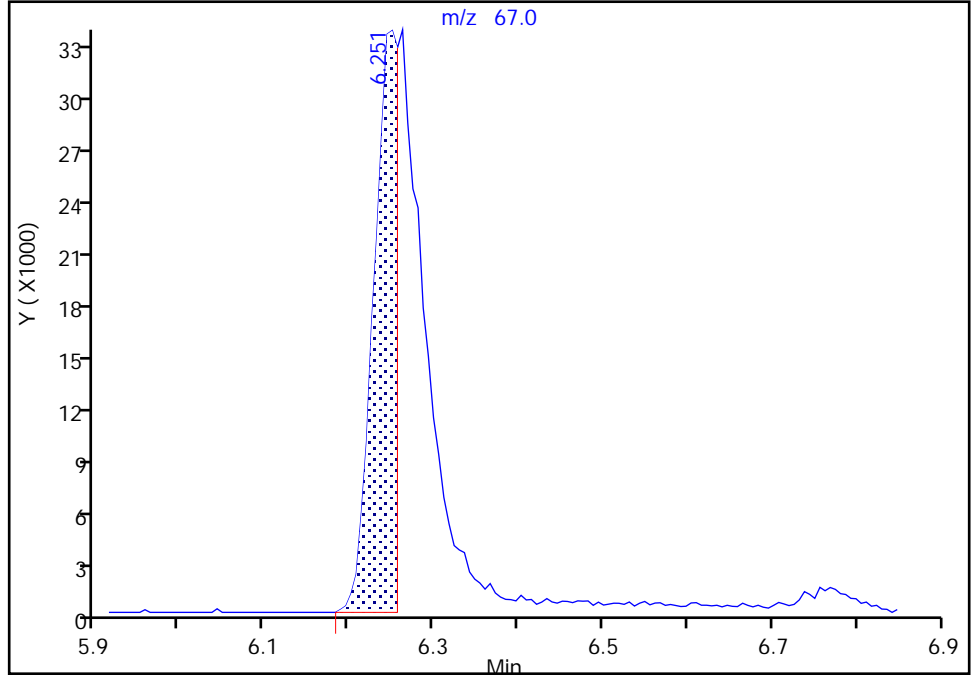
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Injection Date: 01-Sep-2020 15:04:30 Instrument ID: 10193
Lims ID: IC STD3
Client ID:
Operator ID: dvv10203 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

43 Methacrylonitrile, CAS: 126-98-7

Signal: 1

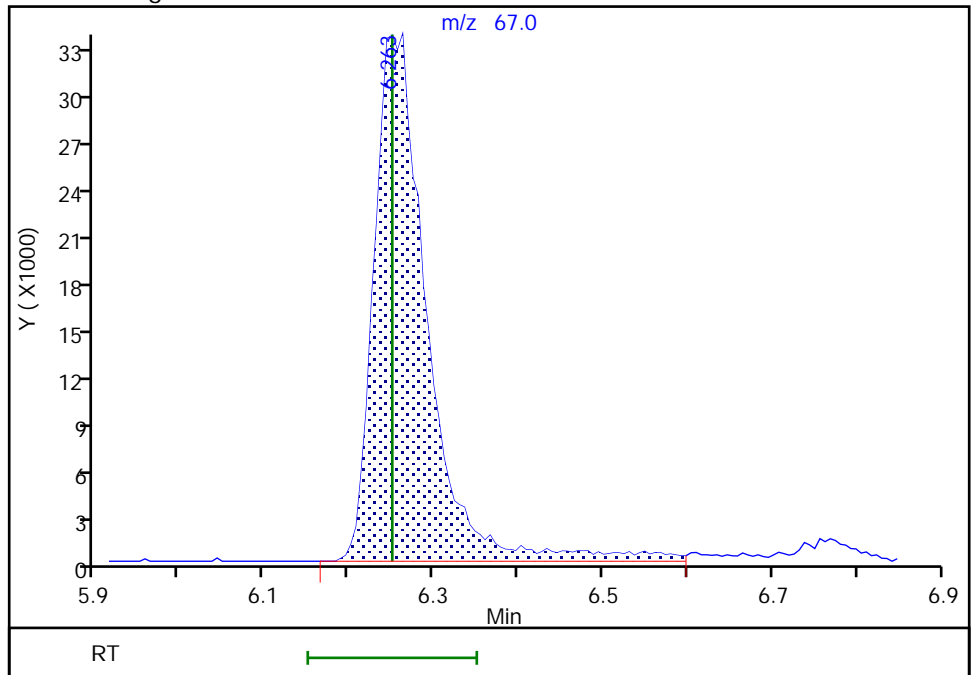
RT: 6.25
Area: 67704
Amount: 8.258310
Amount Units: ug/l

Processing Integration Results



RT: 6.26
Area: 146687
Amount: 10.663214
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 01-Sep-2020 17:02:56

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

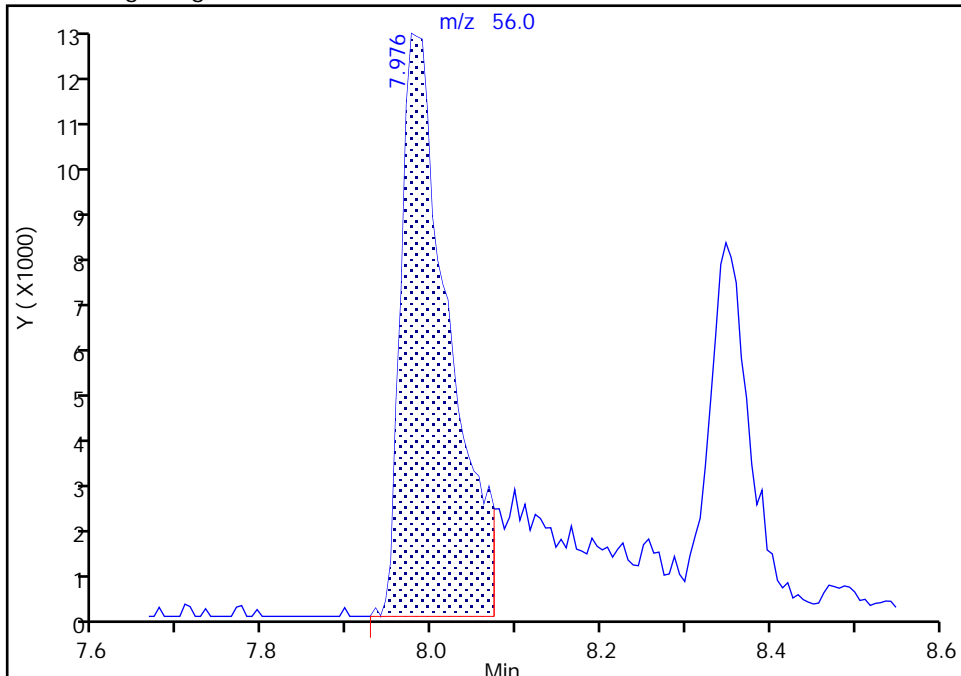
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Injection Date: 01-Sep-2020 15:04:30 Instrument ID: 10193
Lims ID: IC STD3
Client ID:
Operator ID: dvv10203 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

59 n-Butanol, CAS: 71-36-3

Signal: 1

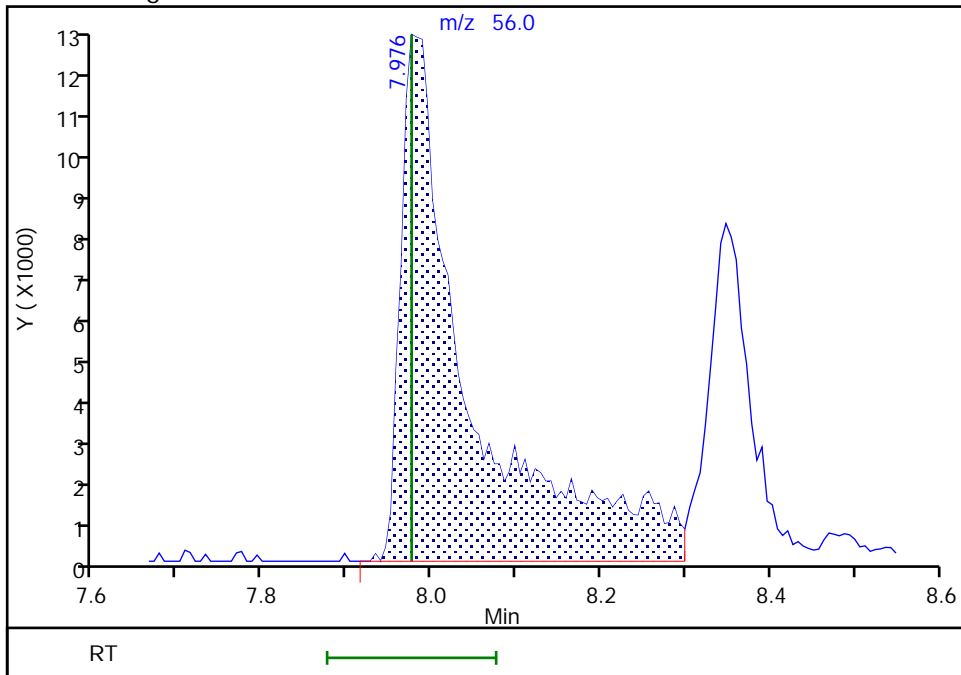
RT: 7.98
Area: 50726
Amount: 98.042226
Amount Units: ug/l

Processing Integration Results



RT: 7.98
Area: 73005
Amount: 97.217312
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 01-Sep-2020 17:16:24
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

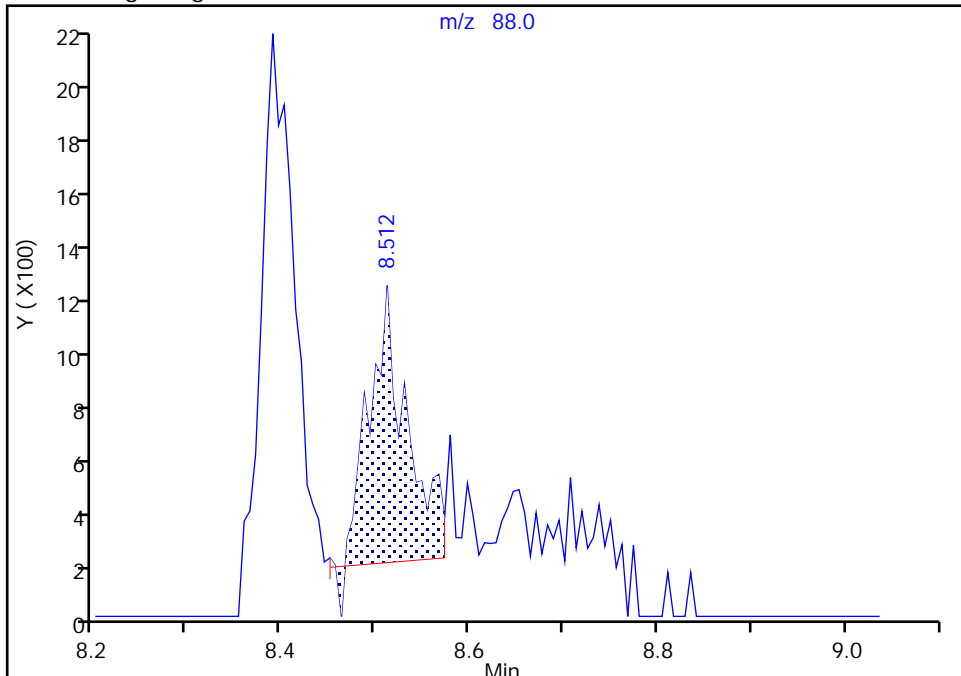
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Injection Date: 01-Sep-2020 15:04:30 Instrument ID: 10193
Lims ID: IC STD3
Client ID:
Operator ID: dvv10203 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

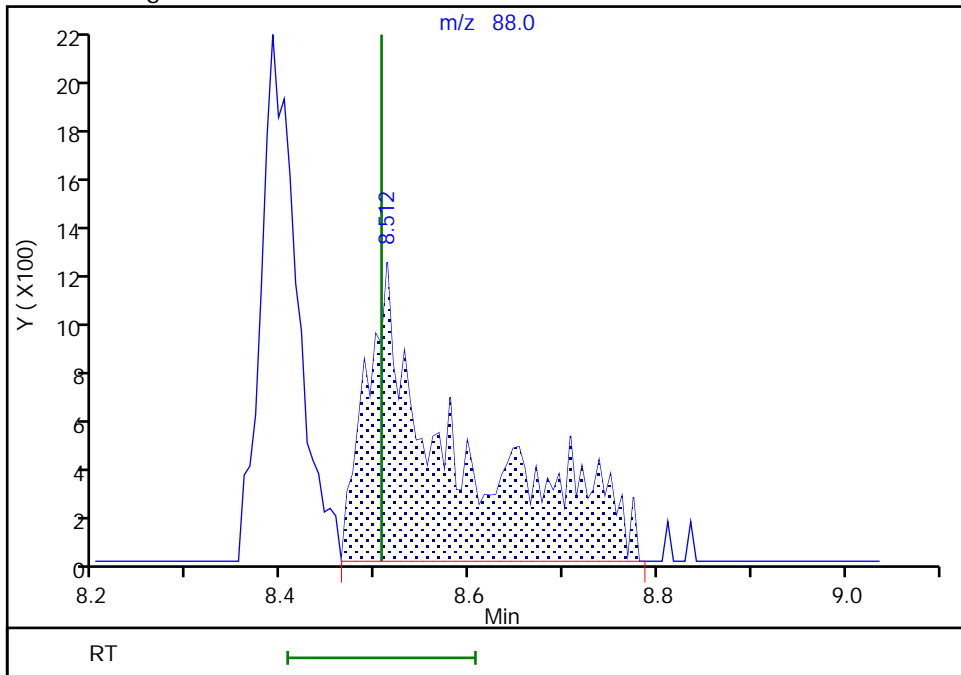
RT: 8.51
Area: 2819
Amount: 21.730370
Amount Units: ug/l

Processing Integration Results



RT: 8.51
Area: 8095
Amount: 54.138741
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 01-Sep-2020 17:03:11
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
 Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\CS01I06.D
 Lims ID: IC STD2
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 01-Sep-2020 15:26:30 ALS Bottle#: 7 Worklist Smp#: 8
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: IC STD2
 Misc. Info.: 410-0009503-008
 Operator ID: dvv10203 Instrument ID: 10193
 Sublist: chrom-MSV_10193_25mL*sub1
 Method: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\MSV_10193_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 01-Sep-2020 20:10:57 Calib Date: 01-Sep-2020 19:09:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\CS01I17.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1059

First Level Reviewer: campbellme Date: 01-Sep-2020 17:05:39

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	1.916	1.910	0.006	99	34165	0.5000	0.5457	
3 Chloromethane	50	2.105	2.099	0.006	99	40412	0.5000	0.5476	
4 Butadiene	39	2.209	2.209	0.000	94	37166	0.5000	0.5354	M
5 Vinyl chloride	62	2.221	2.215	0.006	81	36562	0.5000	0.5359	
6 Bromomethane	94	2.520	2.520	0.000	92	24464	0.5000	0.5080	
7 Chloroethane	64	2.611	2.605	0.006	99	22270	0.5000	0.5284	
8 Dichlorofluoromethane	67	2.843	2.837	0.006	97	47161	0.5000	0.5157	
9 Trichlorofluoromethane	101	2.898	2.898	0.000	96	47434	0.5000	0.5344	
11 Ethyl ether	59	3.135	3.135	0.000	92	23165	0.4999	0.5152	
12 1,2-Dichloro-1,1,2-trifluoroethane	67	3.215	3.208	0.007	96	34942	0.5000	0.5302	
13 Acrolein	56	3.312	3.306	0.006	98	142874	25.0	24.5	
14 1,1-Dichloroethene	96	3.434	3.428	0.006	98	23536	0.5000	0.5248	
15 112TCTFE	101	3.477	3.464	0.013	91	22631	0.5000	0.4960	
16 Acetone	43	3.477	3.471	0.006	99	33503	5.00	5.42	M
17 Iodomethane	142	3.617	3.617	0.000	97	45466	0.5000	0.5131	
19 Ethyl bromide	108	3.654	3.641	0.013	99	19138	0.5003	0.5138	
18 Isopropyl alcohol	45	3.654	3.647	0.007	45	16590	10.0	18.5	
20 Carbon disulfide	76	3.715	3.708	0.007	100	79256	0.5000	0.5002	
22 Methyl acetate	43	3.885	3.867	0.018	25	10666	0.5000	0.4389	M
23 3-Chloro-1-propene	41	3.897	3.891	0.006	90	39926	0.5000	0.5087	
24 Methylene Chloride	84	4.080	4.074	0.006	96	26091	0.5000	0.5227	M
* 25 t-Butyl alcohol-d10 (IS)	65	4.105	4.111	-0.006	95	145520	50.0	50.0	
26 2-Methyl-2-propanol	59	4.221	4.227	-0.005	96	31710	10.0	10.9	
27 Acrylonitrile	53	4.428	4.409	0.019	98	23111	2.50	2.35	
28 Methyl tert-butyl ether	73	4.471	4.464	0.007	95	74946	0.5000	0.5162	
29 trans-1,2-Dichloroethene	96	4.483	4.470	0.013	98	26945	0.5000	0.5139	
30 Hexane	57	4.897	4.897	0.000	94	35026	0.5000	0.4738	
32 1,1-Dichloroethane	63	5.147	5.135	0.012	96	48762	0.5000	0.5052	
33 Isopropyl ether	45	5.196	5.196	0.000	95	95205	0.5000	0.5174	
34 2-Chloro-1,3-butadiene	53	5.251	5.251	0.000	94	47125	0.5000	0.5181	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 Tert-butyl ethyl ether	59	5.732	5.732	0.000	98	90729	0.5000	0.5162	
36 2-Butanone (MEK)	43	5.964	5.946	0.018	100	76154	5.00	5.25	
37 cis-1,2-Dichloroethene	96	5.982	5.970	0.012	87	30278	0.5000	0.5093	
38 2,2-Dichloropropane	77	5.989	5.988	0.000	77	42244	0.5000	0.5072	
40 Propionitrile	54	6.049	6.049	0.000	97	39217	10.0	10.7	M
S 42 1,2-Dichloroethene, Total	100				0			1.02	
43 Methacrylonitrile	67	6.257	6.251	0.007	93	67114	5.00	4.70	
44 Chlorobromomethane	128	6.306	6.305	0.001	94	12738	0.5000	0.4868	
45 Tetrahydrofuran	71	6.324	6.305	0.019	89	21034	5.00	5.13	
46 Chloroform	83	6.464	6.464	0.000	94	48103	0.5000	0.5029	
\$ 47 Dibromofluoromethane (Surr)	113	6.684	6.683	0.001	93	460223	10.0	9.98	
48 1,1,1-Trichloroethane	97	6.677	6.683	-0.006	40	43566	0.5000	0.5055	
49 Cyclohexane	56	6.781	6.775	0.006	94	45257	0.5000	0.4966	
50 Carbon tetrachloride	117	6.891	6.891	0.000	95	35175	0.5000	0.4872	
51 1,1-Dichloropropene	75	6.897	6.897	0.000	92	39192	0.5000	0.5065	
52 Isobutyl alcohol	41	7.086	7.086	0.000	89	23860	25.0	25.4	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.135	7.134	0.001	0	92350	10.0	9.83	
54 Benzene	78	7.165	7.159	0.006	96	113177	0.5000	0.5079	
55 1,2-Dichloroethane	62	7.244	7.238	0.006	97	36081	0.5000	0.5371	
56 Tert-amyl methyl ether	73	7.354	7.360	-0.006	97	80450	0.5000	0.5024	
* 57 Fluorobenzene (IS)	96	7.574	7.573	0.001	98	1940063	10.0	10.0	
58 n-Heptane	43	7.580	7.580	0.000	38	37755	0.5000	0.4587	
59 n-Butanol	56	7.976	7.976	0.000	90	36853	50.0	47.3	M
60 Trichloroethene	95	8.055	8.049	0.006	98	28843	0.5000	0.5022	
61 Methylcyclohexane	83	8.354	8.354	0.000	91	44211	0.5000	0.5025	
62 1,2-Dichloropropane	63	8.390	8.390	0.000	73	28771	0.5000	0.5027	
63 2-ethoxy-2-methyl butane	87	8.397	8.396	0.001	91	44592	0.5000	0.5008	
64 Methyl methacrylate	69	8.482	8.482	0.000	89	14408	0.5000	0.4737	
66 Dibromomethane	93	8.500	8.494	0.006	94	14141	0.5000	0.5050	
65 1,4-Dioxane	88	8.555	8.506	0.049	30	3795	25.0	24.5	M
67 Dichlorobromomethane	83	8.744	8.738	0.006	98	34459	0.5000	0.4988	
68 2-Nitropropane	41	9.031	9.024	0.007	98	42618	5.00	4.52	
71 1-Bromo-2-chloroethane	63	9.140	9.134	0.006	99	30027	0.5000	0.5073	
72 cis-1,3-Dichloropropene	75	9.299	9.299	0.000	93	41792	0.5000	0.4868	
73 4-Methyl-2-pentanone (MIBK)	43	9.488	9.488	0.000	98	203096	5.00	4.82	
\$ 74 Toluene-d8 (Surr)	98	9.610	9.610	0.000	95	1913735	10.0	10.0	
75 Toluene	92	9.689	9.689	0.000	98	73639	0.5000	0.5116	
76 trans-1,3-Dichloropropene	75	9.963	9.957	0.006	97	34646	0.5000	0.4807	
78 Ethyl methacrylate	69	10.030	10.024	0.006	89	30177	0.5000	0.4961	
S 77 1,3-Dichloropropene, Total	100				0			0.9674	
79 1,1,2-Trichloroethane	97	10.165	10.164	0.001	91	20416	0.5000	0.5135	
80 Tetrachloroethene	166	10.244	10.250	-0.006	95	32134	0.5000	0.4997	
81 1,3-Dichloropropane	76	10.329	10.329	0.000	94	36571	0.5000	0.5219	
82 2-Hexanone	43	10.396	10.396	0.000	98	135801	5.00	4.56	
83 Chlorodibromomethane	129	10.549	10.548	0.001	89	21989	0.5000	0.4768	
84 Ethylene Dibromide	107	10.658	10.658	0.000	100	19670	0.5000	0.5010	
* 85 Chlorobenzene-d5 (IS)	117	11.097	11.097	0.000	87	1465303	10.0	10.0	
86 1-Chlorohexane	91	11.109	11.109	0.000	94	42522	0.5000	0.5173	
87 Chlorobenzene	112	11.122	11.122	0.000	95	82597	0.5000	0.5081	
89 1,1,1,2-Tetrachloroethane	131	11.207	11.207	0.000	94	27504	0.5000	0.4974	
90 Ethylbenzene	91	11.213	11.213	0.000	99	143018	0.5000	0.5014	
S 88 Xylenes, Total	106				0			1.50	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
91 m-Xylene & p-Xylene	106	11.329	11.329	0.000	0	112244	1.00	1.01	
92 o-Xylene	106	11.664	11.664	0.000	97	54046	0.5000	0.4949	
93 Styrene	104	11.683	11.676	0.007	94	89517	0.5000	0.4883	
94 Bromoform	173	11.835	11.835	0.000	94	10815	0.5000	0.4222	
95 Isopropylbenzene	105	11.969	11.969	0.000	96	144191	0.5000	0.4991	
\$ 98 4-Bromofluorobenzene (Surr)	95	12.109	12.109	0.000	91	715715	10.0	9.95	
99 1,1,2,2-Tetrachloroethane	83	12.219	12.219	0.000	93	26594	0.5000	0.5171	
100 Bromobenzene	156	12.231	12.231	0.000	91	35338	0.5000	0.5005	
101 trans-1,4-Dichloro-2-butene	53	12.243	12.243	0.000	95	65511	5.00	4.60	
102 1,2,3-Trichloropropane	110	12.262	12.268	-0.006	81	7433	0.5000	0.5310	
103 N-Propylbenzene	91	12.298	12.298	0.000	99	167830	0.5000	0.5062	
104 2-Chlorotoluene	126	12.378	12.377	0.001	96	33943	0.5000	0.5006	
105 1,3,5-Trimethylbenzene	105	12.438	12.438	0.000	94	123379	0.5000	0.5024	
106 4-Chlorotoluene	126	12.469	12.469	0.000	98	35497	0.5000	0.5037	
107 tert-Butylbenzene	134	12.682	12.682	0.000	93	25380	0.5000	0.4753	
108 Pentachloroethane	167	12.713	12.713	0.000	77	18671	0.5000	0.4682	
109 1,2,4-Trimethylbenzene	105	12.725	12.725	0.000	98	128573	0.5000	0.5103	
110 sec-Butylbenzene	105	12.847	12.847	0.000	94	159853	0.5000	0.5052	
111 1,3-Dichlorobenzene	146	12.944	12.944	0.000	98	72046	0.5000	0.5108	
112 4-Isopropyltoluene	119	12.957	12.957	0.000	97	136940	0.5000	0.4962	
* 113 1,4-Dichlorobenzene-d4	152	12.999	12.999	0.000	96	823493	10.0	10.0	
114 1,4-Dichlorobenzene	146	13.018	13.017	0.001	94	75027	0.5000	0.5169	
115 1,2,3-Trimethylbenzene	120	13.030	13.030	0.000	99	55416	0.5000	0.5011	
116 Benzyl chloride	126	13.103	13.103	0.000	99	9231	0.5000	0.4513	
119 n-Butylbenzene	92	13.249	13.249	0.000	98	67384	0.5000	0.4819	
120 1,2-Dichlorobenzene	146	13.280	13.286	-0.006	97	66856	0.5000	0.5023	
118 p-Diethylbenzene	119	13.304	13.304	0.000	0	67208	0.5000	0.4797	
123 1,2-Dibromo-3-Chloropropane	155	13.835	13.834	0.001	83	3372	0.5000	0.4781	
124 1,3,5-Trichlorobenzene	180	13.956	13.956	0.000	98	57894	0.5000	0.5031	
125 1,2,4-Trichlorobenzene	180	14.389	14.383	0.006	93	52641	0.5000	0.5099	
126 Hexachlorobutadiene	225	14.469	14.468	0.001	97	25396	0.5000	0.5037	
127 Naphthalene	128	14.572	14.566	0.006	97	93520	0.5000	0.5078	
128 1,2,3-Trichlorobenzene	180	14.712	14.712	0.000	96	47610	0.5000	0.5210	
129 2-Methylnaphthalene	142	15.346	15.340	0.006	0	61192	0.5000	0.4914	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MSV_RV1_826_00022

Amount Added: 2.00

Units: uL

MSV_RV4_826_00024

Amount Added: 2.00

Units: uL

MSV_RV4GAS826_00072

Amount Added: 2.00

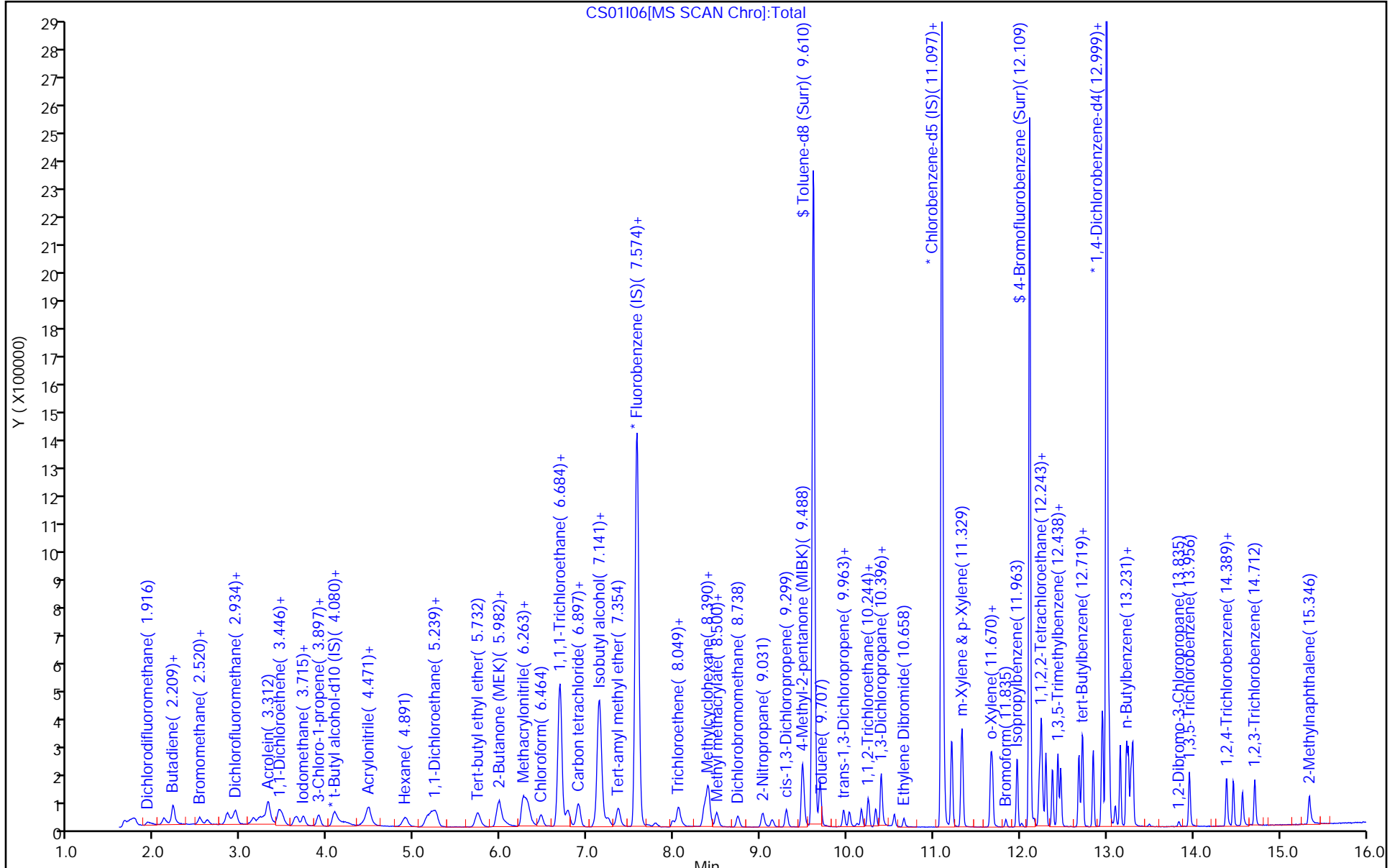
Units: uL

MSV_25_826ISS_00001

Amount Added: 1.00

Units: uL

Run Reagent



Euofins Lancaster Laboratories Env, LLC

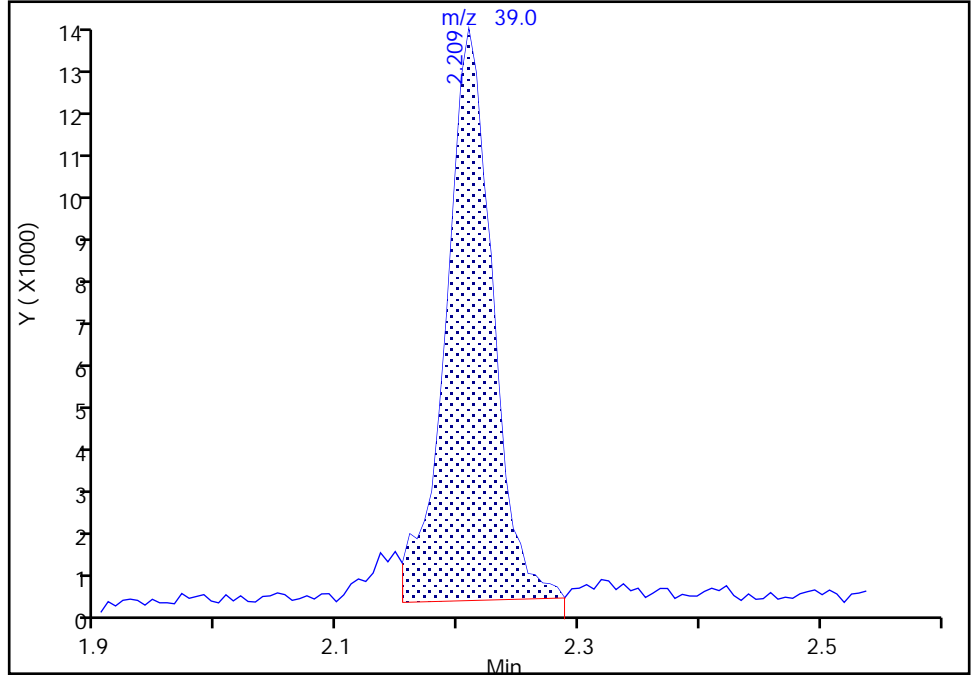
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Injection Date: 01-Sep-2020 15:26:30 Instrument ID: 10193
Lims ID: IC STD2
Client ID:
Operator ID: dvv10203 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

4 Butadiene, CAS: 106-99-0

Signal: 1

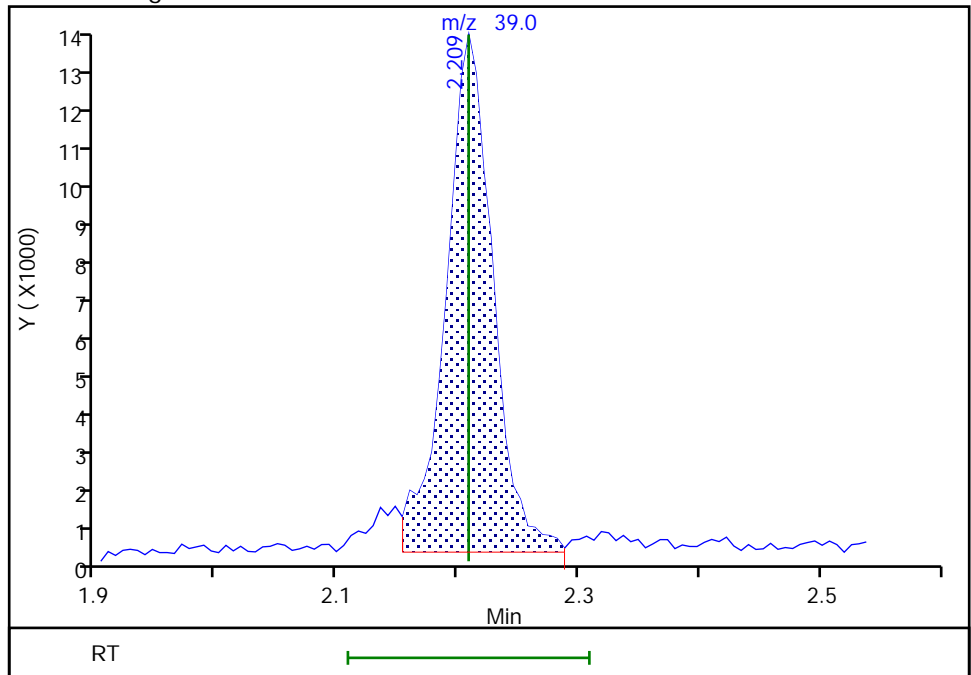
RT: 2.21
Area: 36737
Amount: 0.531655
Amount Units: ug/l

Processing Integration Results



RT: 2.21
Area: 37166
Amount: 0.535389
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 01-Sep-2020 17:04:06

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Lancaster Laboratories Env, LLC

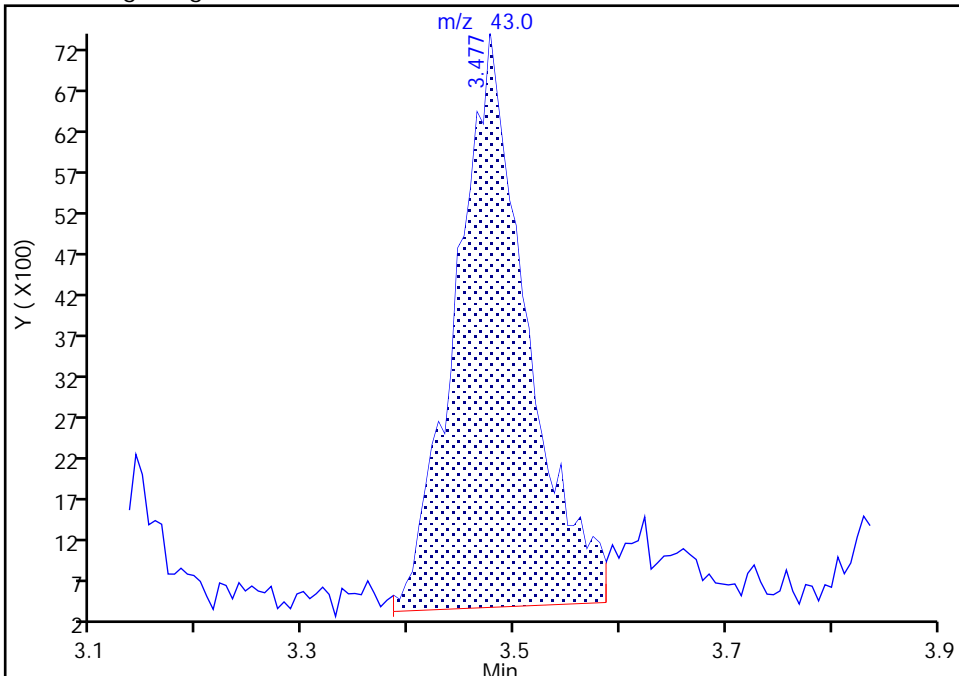
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Injection Date: 01-Sep-2020 15:26:30 Instrument ID: 10193
Lims ID: IC STD2
Client ID:
Operator ID: dvv10203 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

16 Acetone, CAS: 67-64-1

Signal: 1

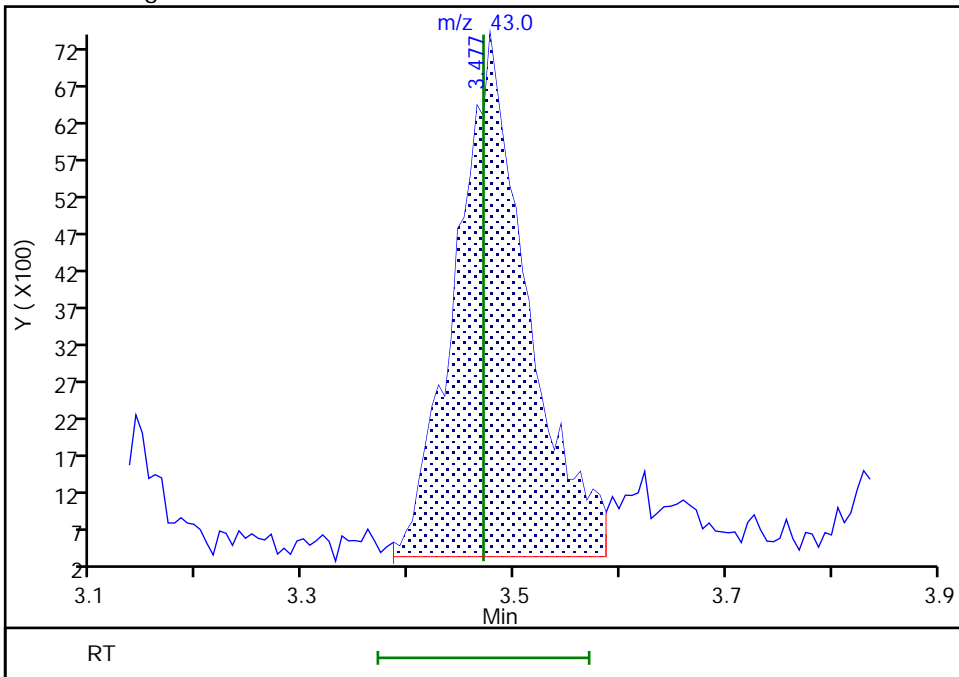
RT: 3.48
Area: 32844
Amount: 5.326538
Amount Units: ug/l

Processing Integration Results



RT: 3.48
Area: 33503
Amount: 5.416872
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 01-Sep-2020 17:04:18
Audit Action: Assigned New Baseline

Audit Reason: Baseline

Eurofins Lancaster Laboratories Env, LLC

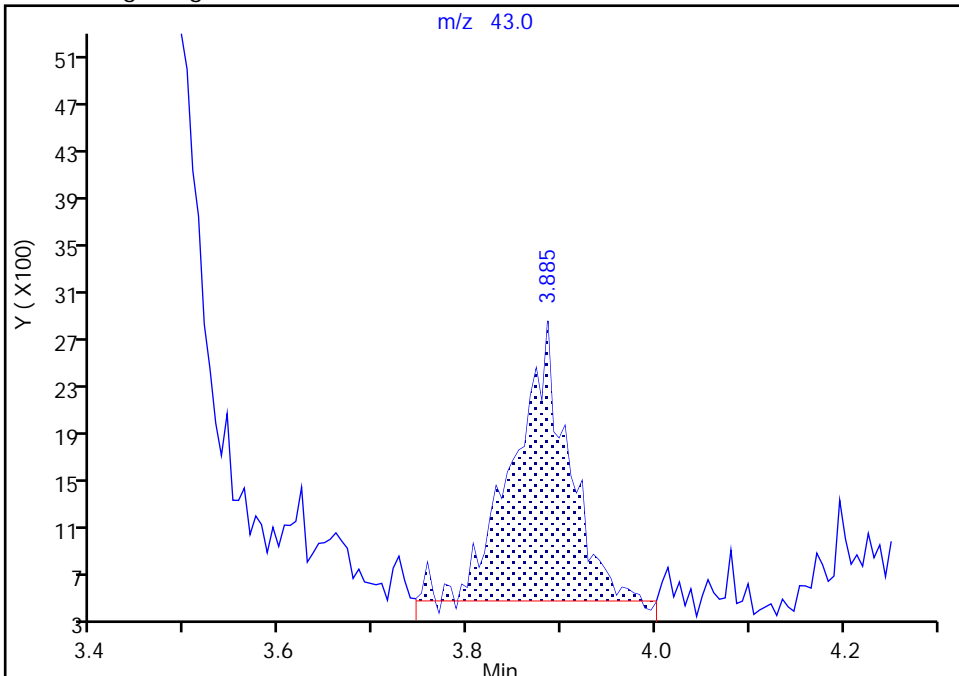
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Injection Date: 01-Sep-2020 15:26:30 Instrument ID: 10193
Lims ID: IC STD2
Client ID:
Operator ID: dvv10203 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

22 Methyl acetate, CAS: 79-20-9

Signal: 1

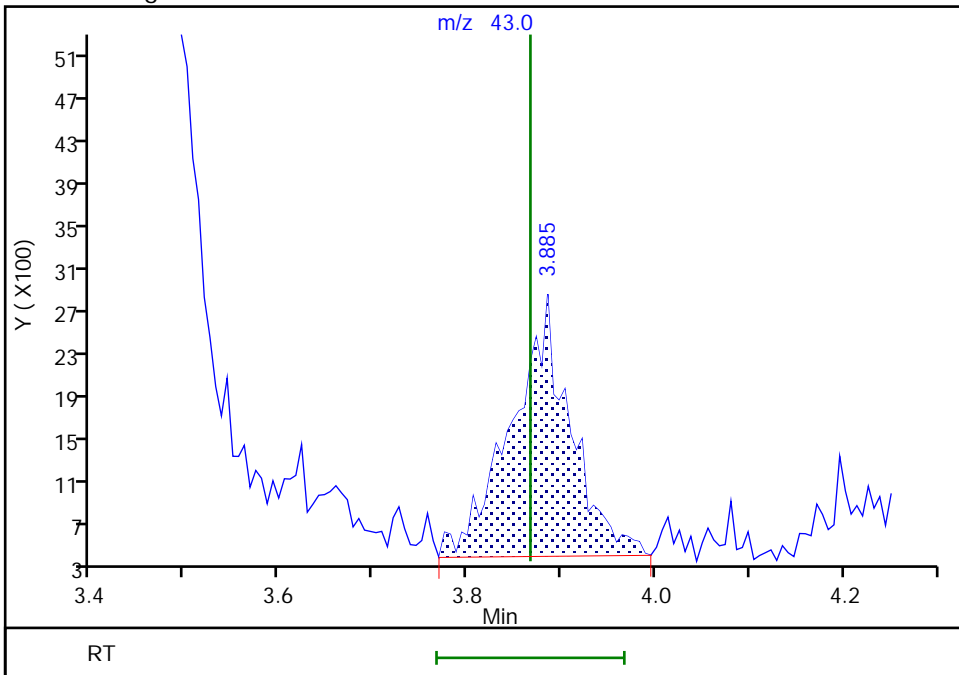
RT: 3.89
Area: 9648
Amount: 0.319685
Amount Units: ug/l

Processing Integration Results



RT: 3.89
Area: 10666
Amount: 0.438891
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 01-Sep-2020 17:04:37
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

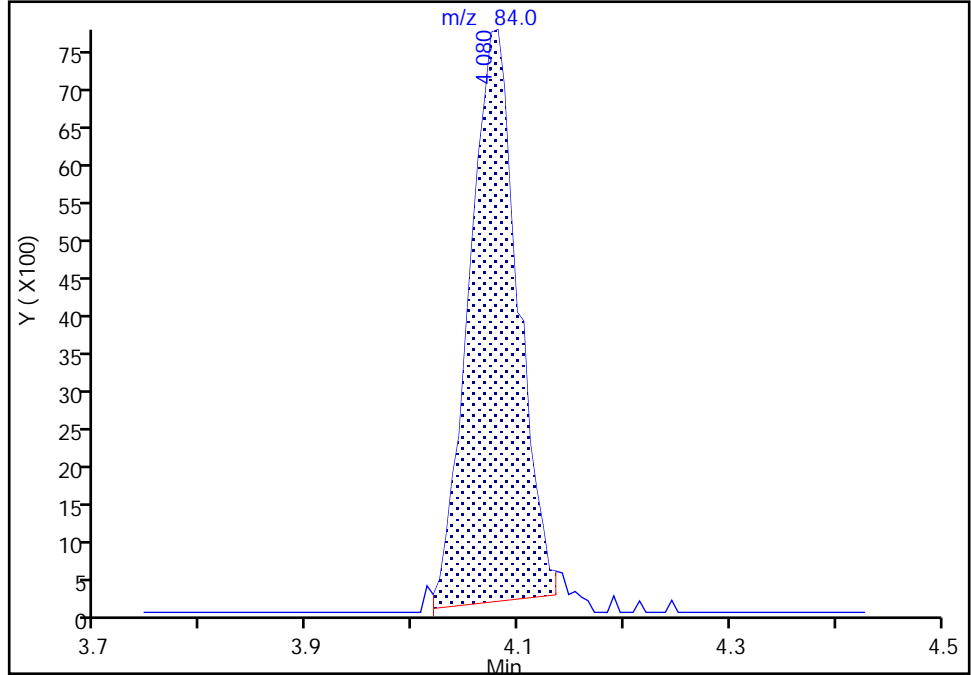
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Lims ID: IC STD2
Client ID:
Operator ID: dvv10203 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

24 Methylene Chloride, CAS: 75-09-2

Signal: 1

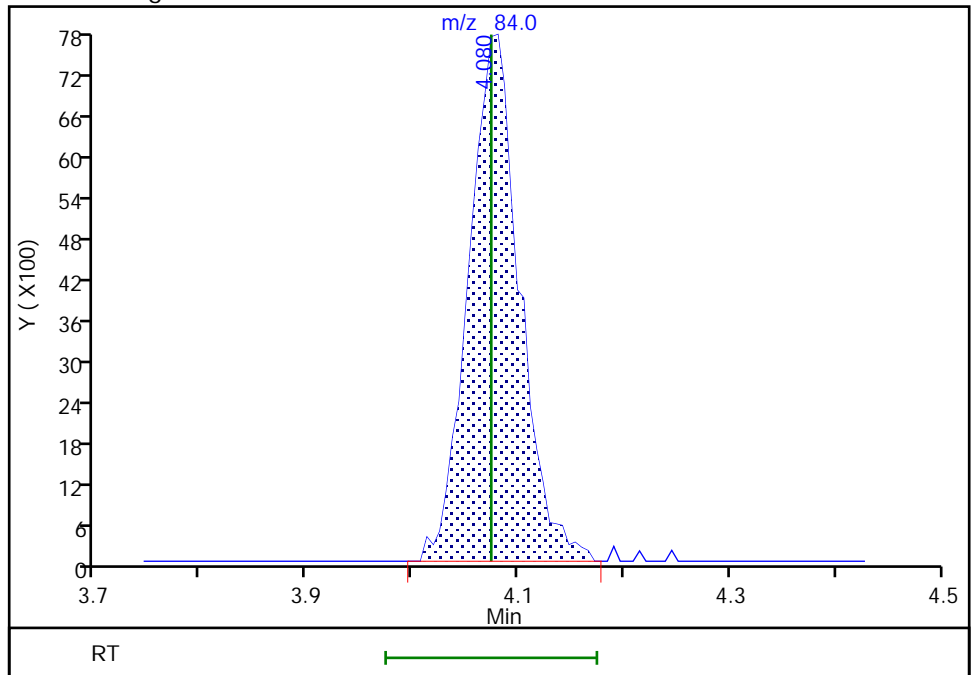
RT: 4.08
Area: 24403
Amount: 0.493670
Amount Units: ug/l

Processing Integration Results



RT: 4.08
Area: 26091
Amount: 0.522718
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 01-Sep-2020 17:04:54
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

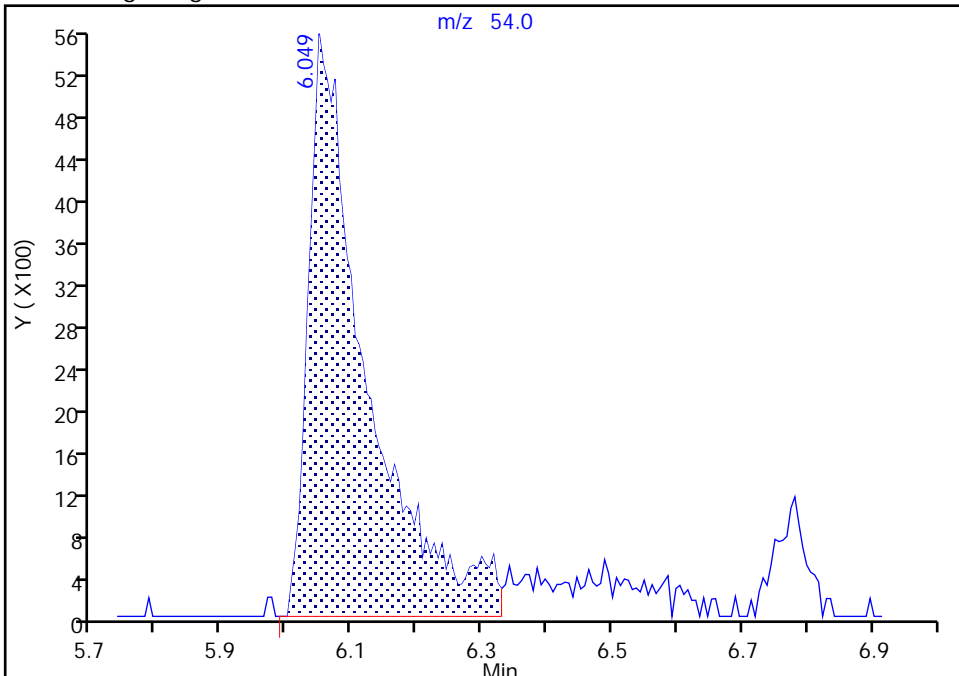
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Injection Date: 01-Sep-2020 15:26:30 Instrument ID: 10193
Lims ID: IC STD2
Client ID:
Operator ID: dvv10203 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

40 Propionitrile, CAS: 107-12-0

Signal: 1

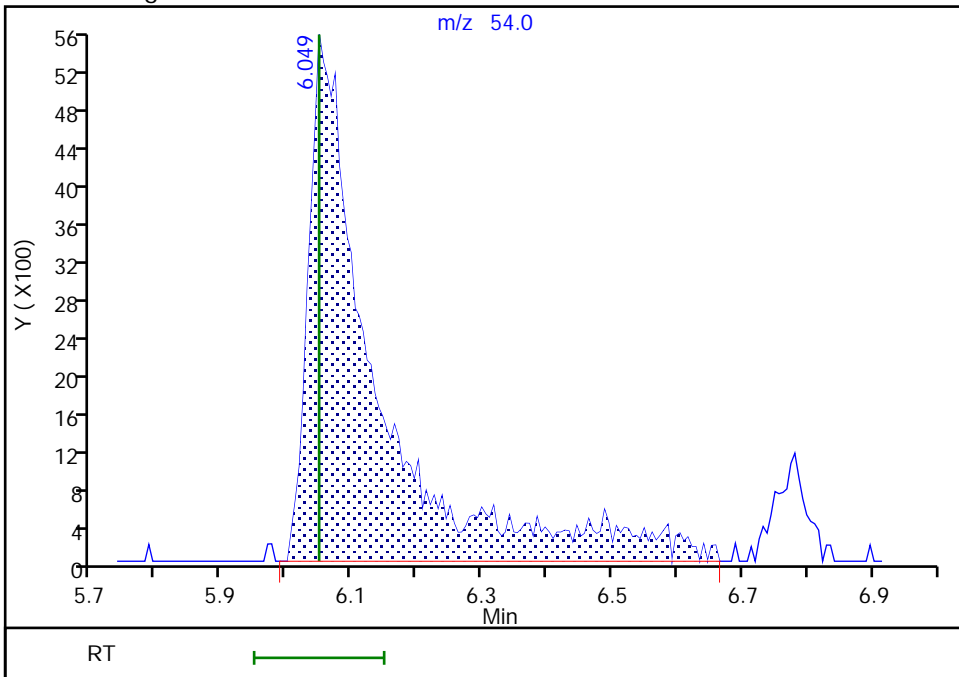
RT: 6.05
Area: 33664
Amount: 9.345852
Amount Units: ug/l

Processing Integration Results



RT: 6.05
Area: 39217
Amount: 10.652873
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 01-Sep-2020 17:05:07
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

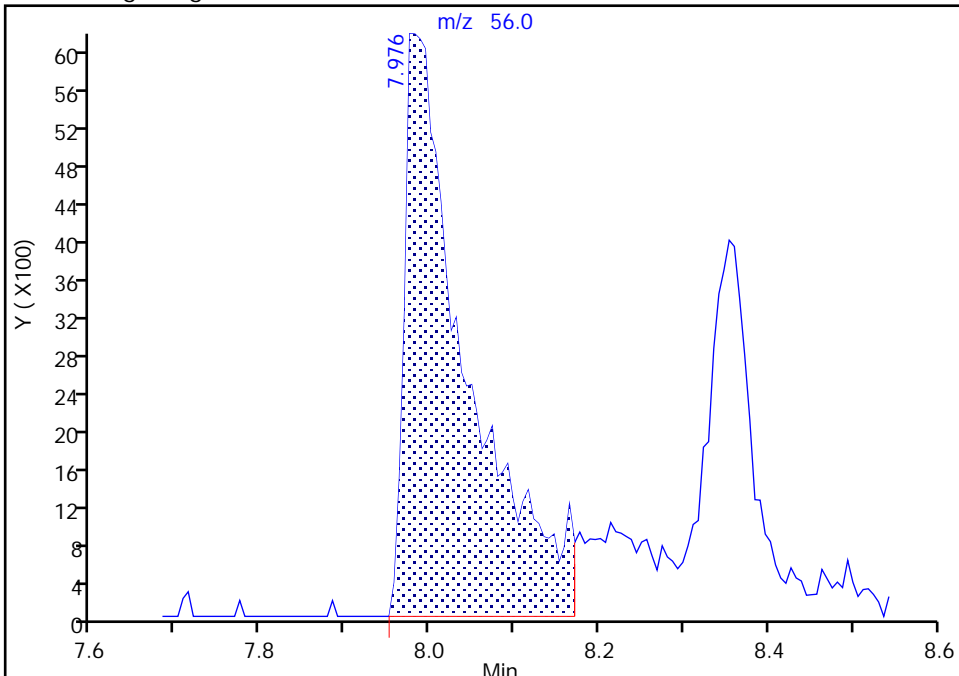
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Injection Date: 01-Sep-2020 15:26:30 Instrument ID: 10193
Lims ID: IC STD2
Client ID:
Operator ID: dvv10203 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

59 n-Butanol, CAS: 71-36-3

Signal: 1

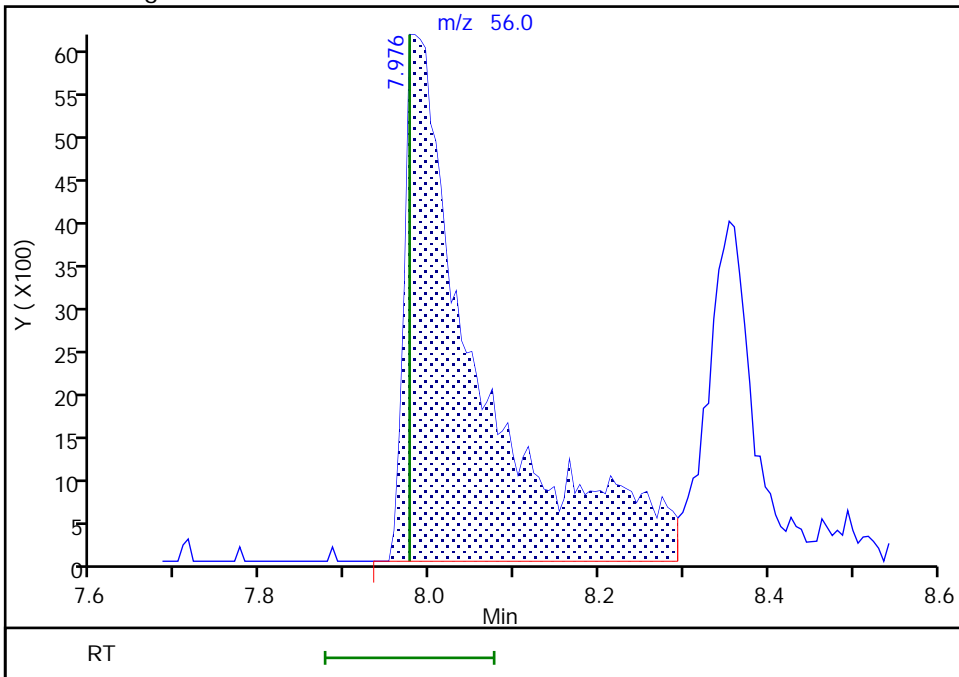
RT: 7.98
Area: 31328
Amount: 41.986609
Amount Units: ug/l

Processing Integration Results



RT: 7.98
Area: 36853
Amount: 47.321069
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 01-Sep-2020 17:16:57
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

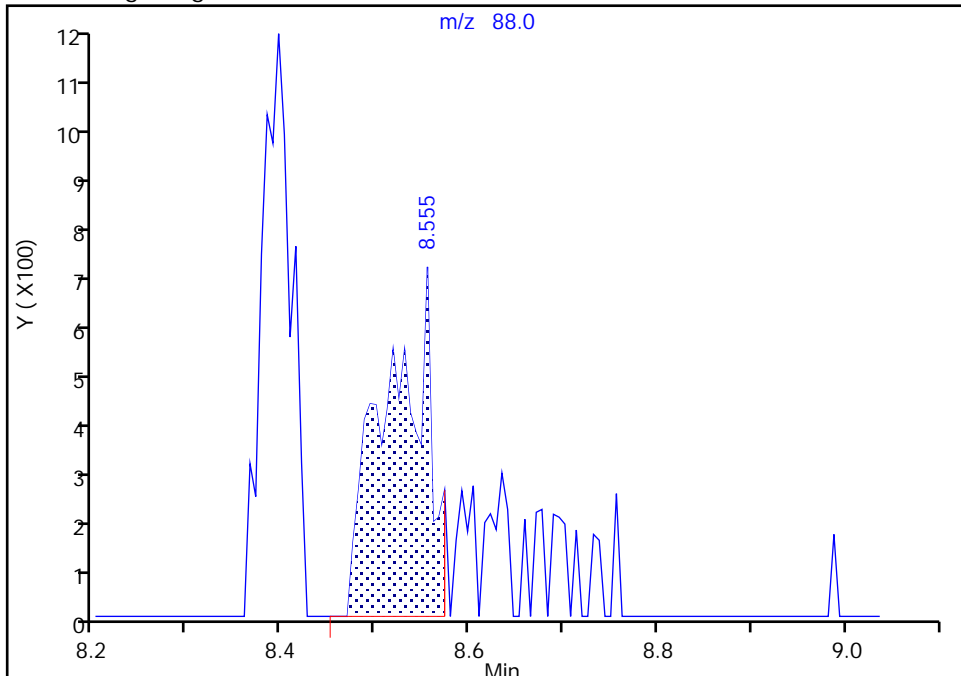
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Injection Date: 01-Sep-2020 15:26:30 Instrument ID: 10193
Lims ID: IC STD2
Client ID:
Operator ID: dvv10203 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

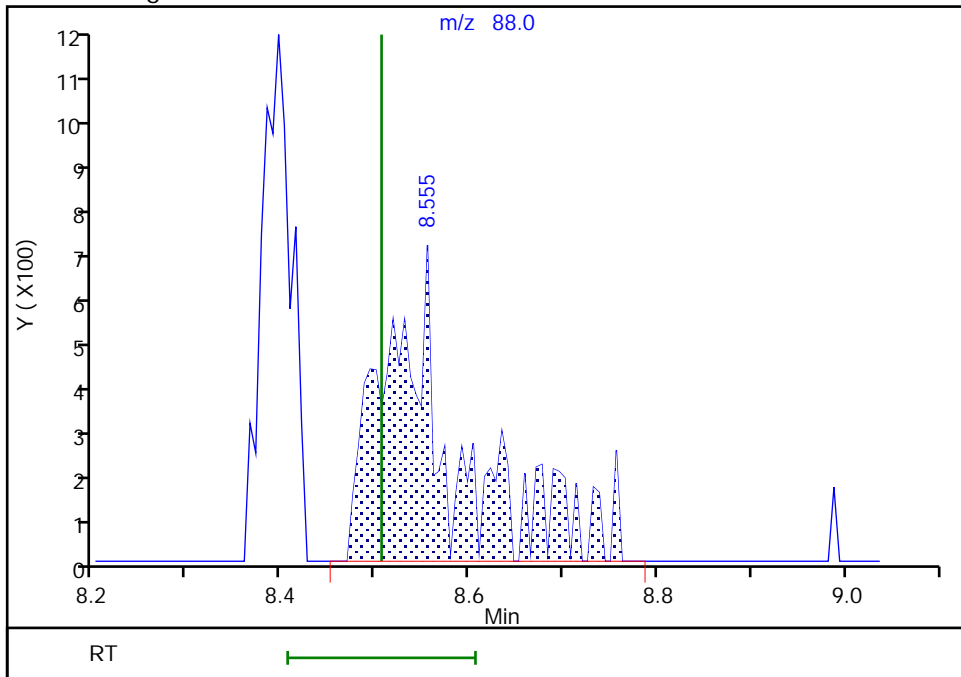
RT: 8.56
Area: 2364
Amount: 15.473810
Amount Units: ug/l

Processing Integration Results



RT: 8.56
Area: 3795
Amount: 24.473370
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 01-Sep-2020 17:05:22
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\CS01I07.D
 Lims ID: IC STD1
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 01-Sep-2020 15:48:30 ALS Bottle#: 8 Worklist Smp#: 9
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: IC STD1
 Misc. Info.: 410-0009503-009
 Operator ID: dvv10203 Instrument ID: 10193
 Sublist: chrom-MSV_10193_25mL*sub1

Method: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\MSV_10193_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 01-Sep-2020 20:11:06 Calib Date: 01-Sep-2020 19:09:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\CS01I17.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1059

First Level Reviewer: campbellme

Date: 01-Sep-2020 16:26:38

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	1.904	1.910	-0.006	97	11305	0.2000	0.1809	
3 Chloromethane	50	2.093	2.099	-0.006	99	15951	0.2000	0.2165	
4 Butadiene	39	2.197	2.209	-0.012	91	14355	0.2000	0.2071	M
5 Vinyl chloride	62	2.215	2.215	0.000	85	14371	0.2000	0.2110	
6 Bromomethane	94	2.514	2.520	-0.006	93	10152	0.2000	0.2112	
7 Chloroethane	64	2.587	2.605	-0.018	99	9373	0.2000	0.2227	
8 Dichlorofluoromethane	67	2.825	2.837	-0.013	96	19377	0.2000	0.2122	
9 Trichlorofluoromethane	101	2.892	2.898	-0.006	96	17838	0.2000	0.2013	
11 Ethyl ether	59	3.123	3.135	-0.012	92	9388	0.2000	0.2091	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.215	3.208	0.007	93	15559	0.2000	0.2365	
13 Acrolein	56	3.300	3.306	-0.006	97	57475	10.0	10.1	
14 1,1-Dichloroethene	96	3.416	3.428	-0.012	98	9367	0.2000	0.2092	
15 112TCTFE	101	3.471	3.464	0.007	85	8535	0.2000	0.1874	
16 Acetone	43	3.465	3.471	-0.006	96	13971	2.00	2.30	
17 Iodomethane	142	3.611	3.617	-0.006	100	18680	0.2000	0.2112	
19 Ethyl bromide	108	3.641	3.641	0.000	98	7374	0.2001	0.1983	
18 Isopropyl alcohol	45	3.629	3.647	-0.018	52	7471	4.00	11.4	
20 Carbon disulfide	76	3.702	3.708	-0.006	100	33471	0.2000	0.2116	
22 Methyl acetate	43	3.879	3.867	0.012	26	5400	0.2000	0.2266	
23 3-Chloro-1-propene	41	3.873	3.891	-0.018	88	16597	0.2000	0.2118	
24 Methylene Chloride	84	4.068	4.074	-0.006	98	10355	0.2000	0.2078	
* 25 t-Butyl alcohol-d10 (IS)	65	4.093	4.111	-0.018	94	142677	50.0	50.0	
26 2-Methyl-2-propanol	59	4.208	4.227	-0.018	97	12311	4.00	4.33	
27 Acrylonitrile	53	4.434	4.409	0.025	96	10290	1.00	1.07	
28 Methyl tert-butyl ether	73	4.440	4.464	-0.024	96	31299	0.2000	0.2159	
29 trans-1,2-Dichloroethene	96	4.458	4.470	-0.012	97	10888	0.2000	0.2080	
30 Hexane	57	4.891	4.897	-0.006	94	14606	0.2000	0.1979	
32 1,1-Dichloroethane	63	5.129	5.135	-0.006	96	20597	0.2000	0.2137	
33 Isopropyl ether	45	5.196	5.196	0.000	95	38832	0.2000	0.2114	
34 2-Chloro-1,3-butadiene	53	5.233	5.251	-0.018	95	19967	0.2000	0.2199	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 Tert-butyl ethyl ether	59	5.726	5.732	-0.006	97	36977	0.2000	0.2107	
36 2-Butanone (MEK)	43	5.964	5.946	0.018	95	31084	2.00	2.19	
37 cis-1,2-Dichloroethene	96	5.976	5.970	0.006	84	12683	0.2000	0.2137	
38 2,2-Dichloropropane	77	5.989	5.988	0.001	72	17391	0.2000	0.2091	
40 Propionitrile	54	6.080	6.049	0.031	88	12804	4.00	3.55	
S 42 1,2-Dichloroethene, Total	100				0			0.4217	
43 Methacrylonitrile	67	6.257	6.251	0.007	89	27261	2.00	1.95	
44 Chlorobromomethane	128	6.299	6.305	-0.006	83	5261	0.2000	0.2014	
45 Tetrahydrofuran	71	6.318	6.305	0.013	89	7984	2.00	1.98	
46 Chloroform	83	6.458	6.464	-0.006	93	20153	0.2000	0.2110	
\$ 47 Dibromofluoromethane (Surr)	113	6.677	6.683	-0.006	93	459388	10.0	9.98	
48 1,1,1-Trichloroethane	97	6.671	6.683	-0.012	37	17452	0.2000	0.2028	
49 Cyclohexane	56	6.775	6.775	0.000	93	18443	0.2000	0.2027	
50 Carbon tetrachloride	117	6.891	6.891	0.000	92	14471	0.2000	0.2008	
51 1,1-Dichloropropene	75	6.897	6.897	0.000	89	16330	0.2000	0.2114	
52 Isobutyl alcohol	41	7.092	7.086	0.006	90	10703	10.0	11.6	M
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.135	7.134	0.001	0	92975	10.0	9.92	
54 Benzene	78	7.159	7.159	0.000	94	46486	0.2000	0.2090	
55 1,2-Dichloroethane	62	7.238	7.238	0.000	79	16105	0.2000	0.2402	
56 Tert-amyl methyl ether	73	7.348	7.360	-0.012	96	34074	0.2000	0.2132	
* 57 Fluorobenzene (IS)	96	7.567	7.573	-0.006	99	1936882	10.0	10.0	
58 n-Heptane	43	7.574	7.580	-0.006	37	16903	0.2000	0.2057	
59 n-Butanol	56	8.000	7.976	0.024	81	15142	20.0	19.8	M
60 Trichloroethene	95	8.049	8.049	0.000	96	11853	0.2000	0.2067	
61 Methylcyclohexane	83	8.354	8.354	0.000	87	15190	0.2000	0.1729	
62 1,2-Dichloropropane	63	8.384	8.390	-0.006	73	12253	0.2000	0.2145	
63 2-ethoxy-2-methyl butane	87	8.397	8.396	0.001	89	17738	0.2000	0.1995	
64 Methyl methacrylate	69	8.482	8.482	0.000	89	6103	0.2000	0.2047	
66 Dibromomethane	93	8.512	8.494	0.018	86	6094	0.2000	0.2180	
65 1,4-Dioxane	88	8.506	8.506	0.000	33	1094	10.0	7.20	M
67 Dichlorobromomethane	83	8.738	8.738	0.000	96	14281	0.2000	0.2071	
68 2-Nitropropane	41	9.025	9.024	0.001	99	17977	2.00	1.94	
71 1-Bromo-2-chloroethane	63	9.134	9.134	0.000	98	11914	0.2000	0.2016	
72 cis-1,3-Dichloropropene	75	9.299	9.299	0.000	93	17450	0.2000	0.2036	
73 4-Methyl-2-pentanone (MIBK)	43	9.488	9.488	0.000	98	79991	2.00	1.94	
\$ 74 Toluene-d8 (Surr)	98	9.610	9.610	0.000	95	1926152	10.0	10.0	
75 Toluene	92	9.689	9.689	0.000	97	29375	0.2000	0.2037	
76 trans-1,3-Dichloropropene	75	9.957	9.957	0.000	96	14266	0.2000	0.1975	
78 Ethyl methacrylate	69	10.030	10.024	0.006	89	11251	0.2000	0.1846	
S 77 1,3-Dichloropropene, Total	100				0			0.4011	
79 1,1,2-Trichloroethane	97	10.165	10.164	0.001	91	8186	0.2000	0.2055	
80 Tetrachloroethene	166	10.244	10.250	-0.006	96	13549	0.2000	0.2103	
81 1,3-Dichloropropane	76	10.329	10.329	0.000	93	14740	0.2000	0.2099	
82 2-Hexanone	43	10.396	10.396	0.000	97	53208	2.00	1.82	
83 Chlorodibromomethane	129	10.543	10.548	-0.006	92	8028	0.2000	0.1737	
84 Ethylene Dibromide	107	10.658	10.658	0.000	99	7944	0.2000	0.2020	
* 85 Chlorobenzene-d5 (IS)	117	11.097	11.097	0.000	87	1468133	10.0	10.0	
86 1-Chlorohexane	91	11.103	11.109	-0.006	82	18891	0.2000	0.2294	
87 Chlorobenzene	112	11.122	11.122	0.000	97	34035	0.2000	0.2090	
89 1,1,1,2-Tetrachloroethane	131	11.207	11.207	0.000	93	10641	0.2000	0.1921	
90 Ethylbenzene	91	11.213	11.213	0.000	99	59671	0.2000	0.2088	
S 88 Xylenes, Total	106				0			0.5952	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
91 m-Xylene & p-Xylene	106	11.329	11.329	0.000	0	43867	0.4000	0.3928	
92 o-Xylene	106	11.664	11.664	0.000	97	22149	0.2000	0.2024	
93 Styrene	104	11.676	11.676	0.000	95	35521	0.2000	0.1934	
94 Bromoform	173	11.835	11.835	0.000	94	4087	0.2000	0.1592	
95 Isopropylbenzene	105	11.969	11.969	0.000	96	57134	0.2000	0.1974	
\$ 98 4-Bromofluorobenzene (Surr)	95	12.109	12.109	0.000	90	711441	10.0	9.87	
99 1,1,2,2-Tetrachloroethane	83	12.219	12.219	0.000	62	10523	0.2000	0.2064	
100 Bromobenzene	156	12.225	12.231	-0.006	96	15119	0.2000	0.2160	
101 trans-1,4-Dichloro-2-butene	53	12.249	12.243	0.006	93	25153	2.00	1.78	
102 1,2,3-Trichloropropane	110	12.268	12.268	0.000	82	2945	0.2000	0.2122	
103 N-Propylbenzene	91	12.298	12.298	0.000	98	67115	0.2000	0.2042	
104 2-Chlorotoluene	126	12.378	12.377	0.001	97	14651	0.2000	0.2179	
105 1,3,5-Trimethylbenzene	105	12.438	12.438	0.000	92	50066	0.2000	0.2056	
106 4-Chlorotoluene	126	12.475	12.469	0.006	96	14993	0.2000	0.2146	
107 tert-Butylbenzene	134	12.682	12.682	0.000	93	12027	0.2000	0.2272	
108 Pentachloroethane	167	12.713	12.713	0.000	76	6746	0.2000	0.1706	
109 1,2,4-Trimethylbenzene	105	12.725	12.725	0.000	98	48590	0.2000	0.1945	
110 sec-Butylbenzene	105	12.847	12.847	0.000	94	63813	0.2000	0.2034	
111 1,3-Dichlorobenzene	146	12.944	12.944	0.000	97	28222	0.2000	0.2018	
112 4-Isopropyltoluene	119	12.957	12.957	0.000	98	54332	0.2000	0.1986	
* 113 1,4-Dichlorobenzene-d4	152	12.999	12.999	0.000	96	816488	10.0	10.0	
114 1,4-Dichlorobenzene	146	13.018	13.017	0.001	93	30493	0.2000	0.2119	
115 1,2,3-Trimethylbenzene	120	13.030	13.030	0.000	98	22229	0.2000	0.2027	
116 Benzyl chloride	126	13.103	13.103	0.000	98	3443	0.2000	0.1698	
119 n-Butylbenzene	92	13.249	13.249	0.000	98	26466	0.2000	0.1909	
120 1,2-Dichlorobenzene	146	13.286	13.286	0.000	97	26969	0.2000	0.2044	
118 p-Diethylbenzene	119	13.304	13.304	0.000	0	28577	0.2000	0.2057	
123 1,2-Dibromo-3-Chloropropane	155	13.841	13.834	0.007	80	1161	0.2000	0.1660	
124 1,3,5-Trichlorobenzene	180	13.963	13.956	0.007	96	22982	0.2000	0.2014	
125 1,2,4-Trichlorobenzene	180	14.395	14.383	0.012	93	21212	0.2000	0.2072	
126 Hexachlorobutadiene	225	14.469	14.468	0.001	95	10701	0.2000	0.2141	
127 Naphthalene	128	14.578	14.566	0.012	97	36400	0.2000	0.1993	
128 1,2,3-Trichlorobenzene	180	14.719	14.712	0.007	94	18586	0.2000	0.2051	
129 2-Methylnaphthalene	142	15.353	15.340	0.013	0	23157	0.2000	0.1876	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MSV_RV1_826_00022

Amount Added: 2.00

Units: uL

MSV_RV4_826_00024

Amount Added: 2.00

Units: uL

MSV_RV4GAS826_00072

Amount Added: 2.00

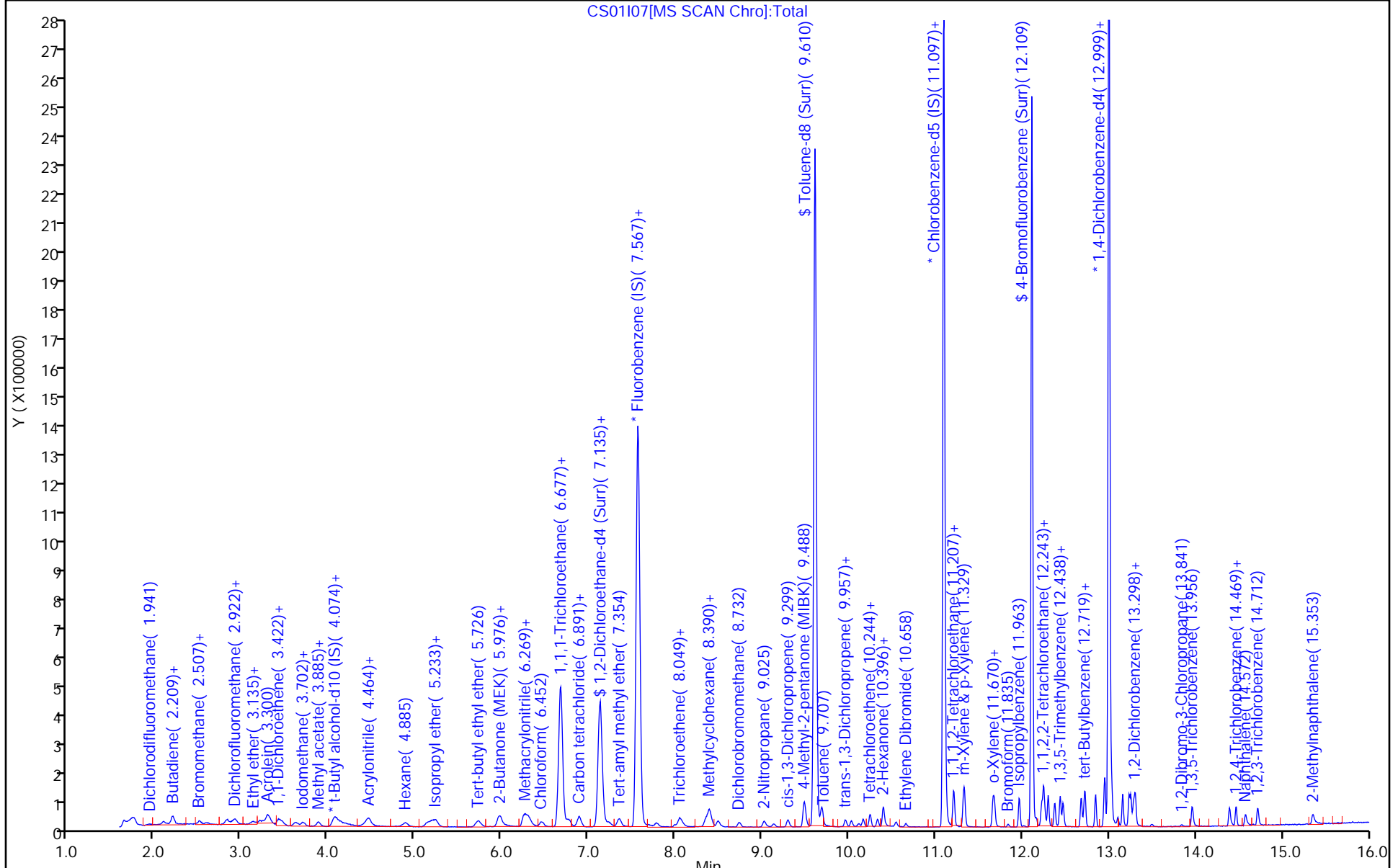
Units: uL

MSV_25_826ISS_00001

Amount Added: 1.00

Units: uL

Run Reagent



Eurofins Lancaster Laboratories Env, LLC

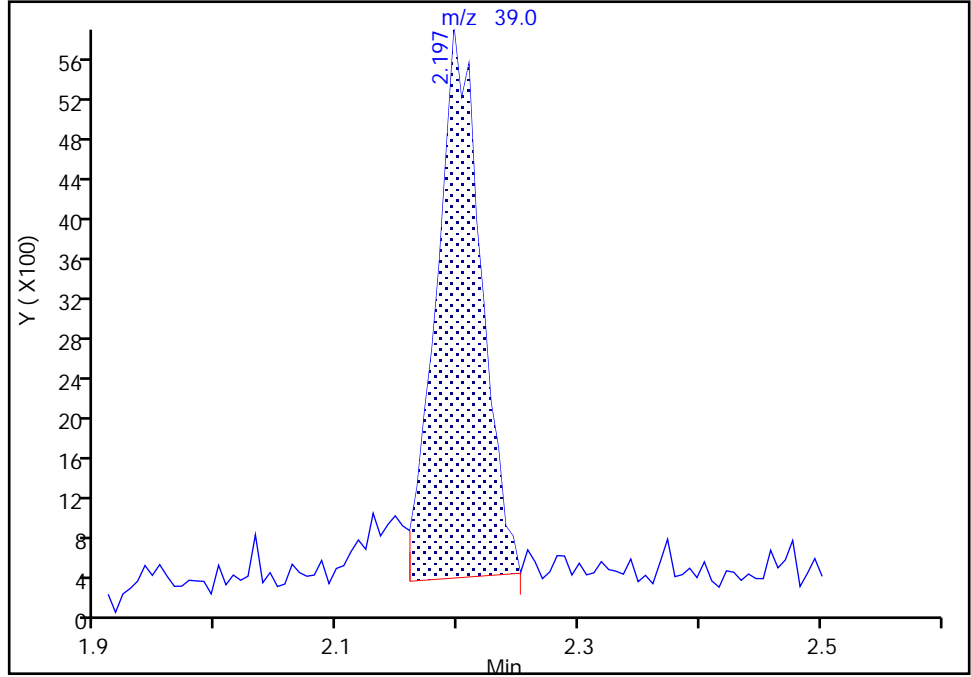
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Injection Date: 01-Sep-2020 15:48:30 Instrument ID: 10193
Lims ID: IC STD1
Client ID:
Operator ID: dvv10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

4 Butadiene, CAS: 106-99-0

Signal: 1

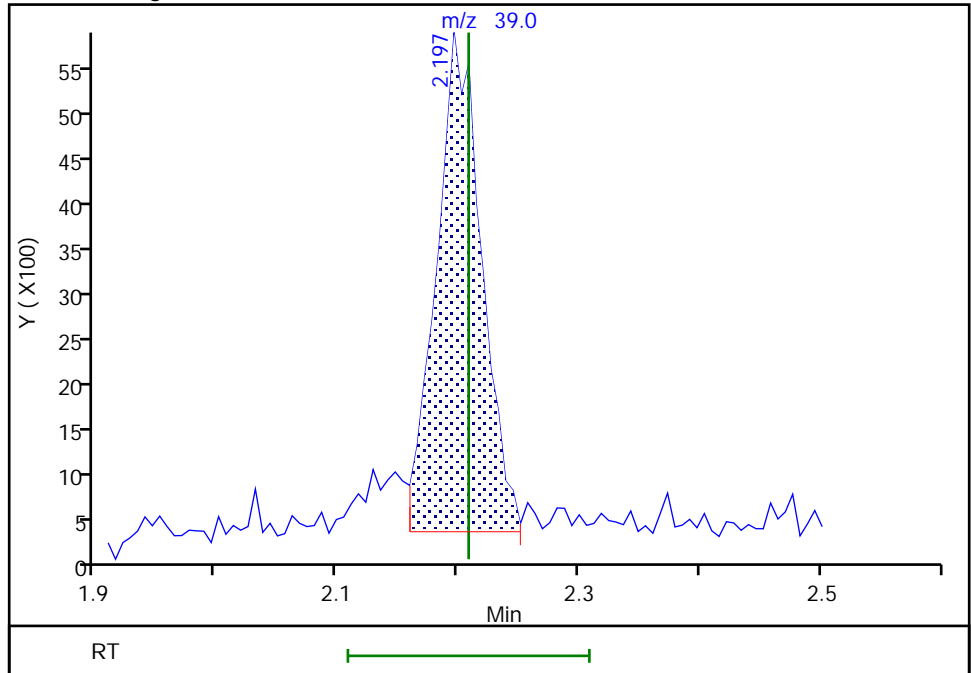
RT: 2.20
Area: 14080
Amount: 0.203738
Amount Units: ug/l

Processing Integration Results



RT: 2.20
Area: 14355
Amount: 0.207128
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 01-Sep-2020 17:06:05
Audit Action: Assigned New Baseline

Audit Reason: Baseline

Euofins Lancaster Laboratories Env, LLC

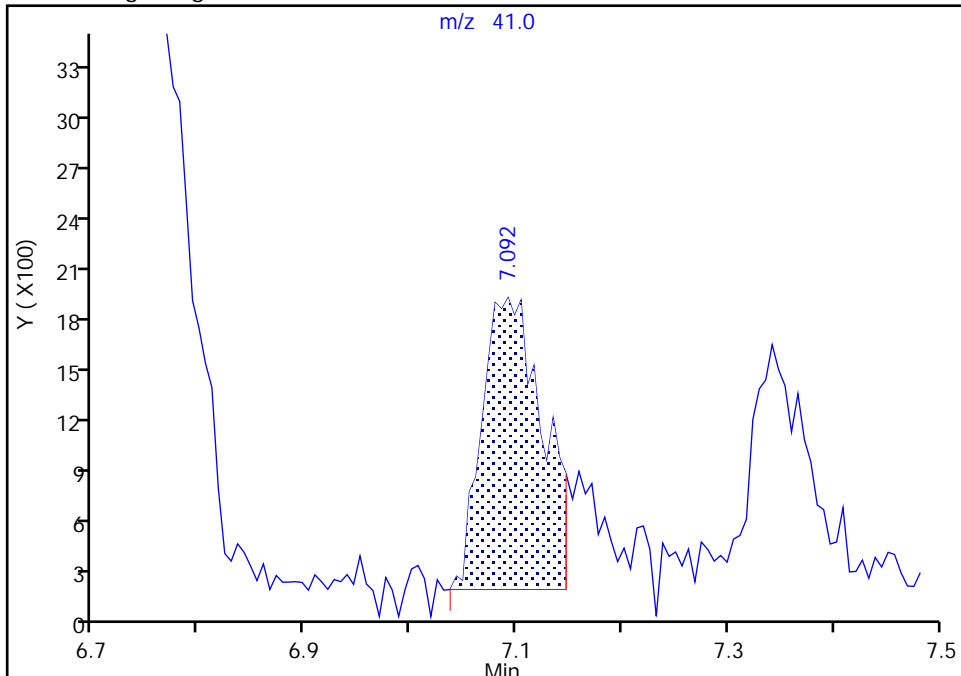
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Injection Date: 01-Sep-2020 15:48:30 Instrument ID: 10193
Lims ID: IC STD1
Client ID:
Operator ID: dvv10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

52 Isobutyl alcohol, CAS: 78-83-1

Signal: 1

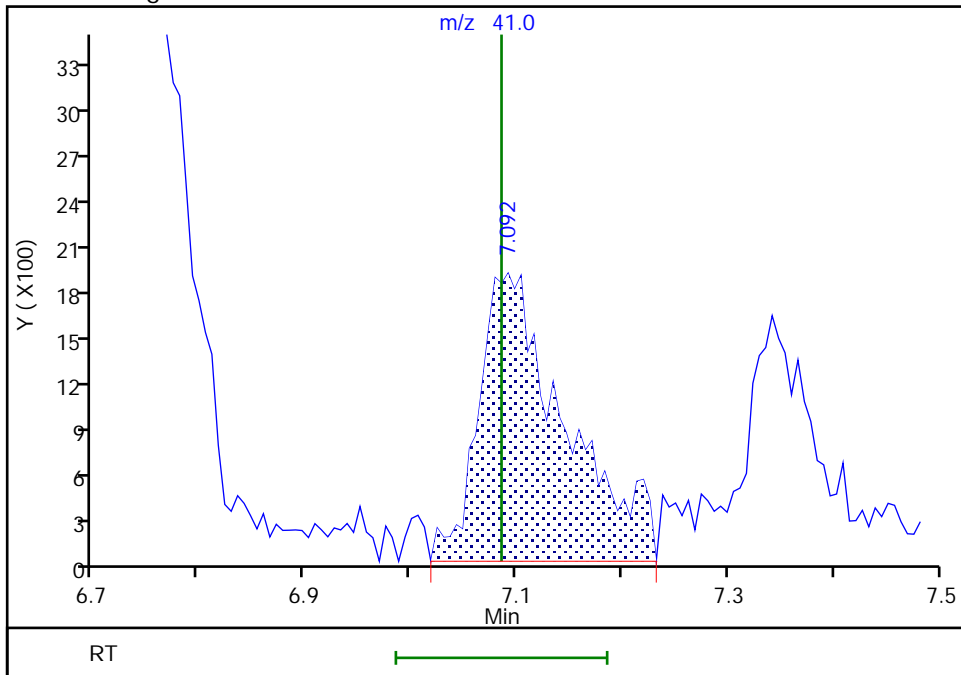
RT: 7.09
Area: 6884
Amount: 7.941417
Amount Units: ug/l

Processing Integration Results



RT: 7.09
Area: 10703
Amount: 11.615957
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 01-Sep-2020 17:06:35
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

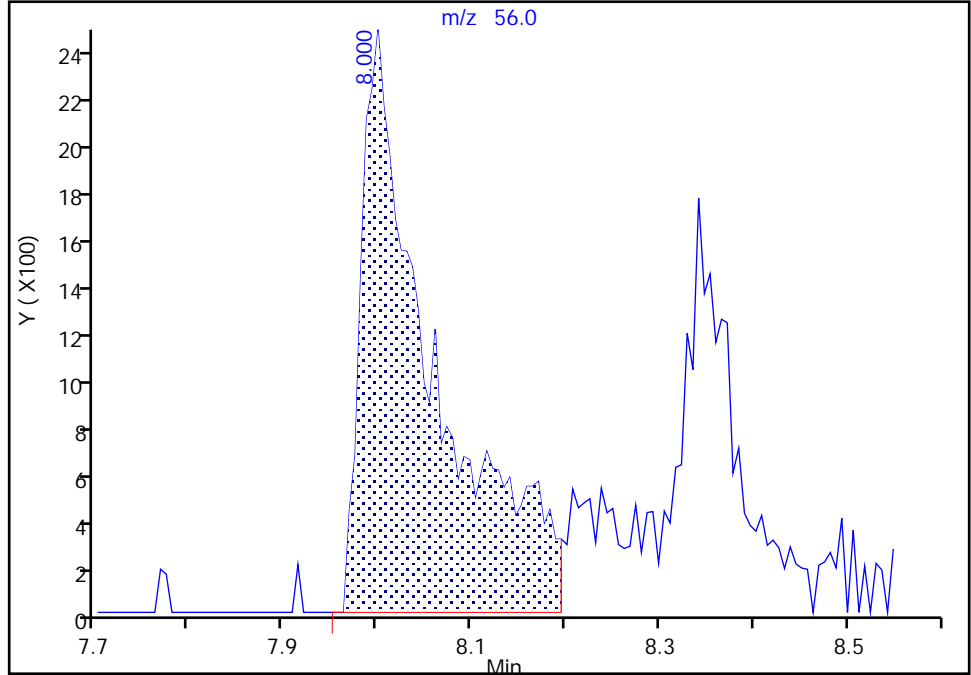
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Injection Date: 01-Sep-2020 15:48:30 Instrument ID: 10193
Lims ID: IC STD1
Client ID:
Operator ID: dvv10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

59 n-Butanol, CAS: 71-36-3

Signal: 1

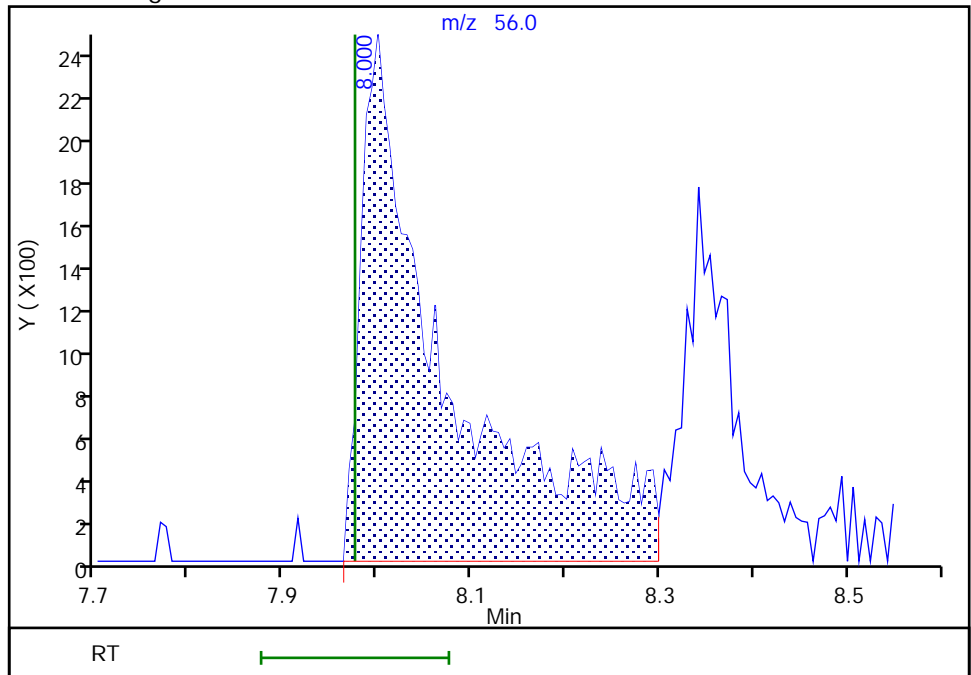
RT: 8.00
Area: 12828
Amount: 17.171709
Amount Units: ug/l

Processing Integration Results



RT: 8.00
Area: 15142
Amount: 19.830500
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 01-Sep-2020 17:17:24
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

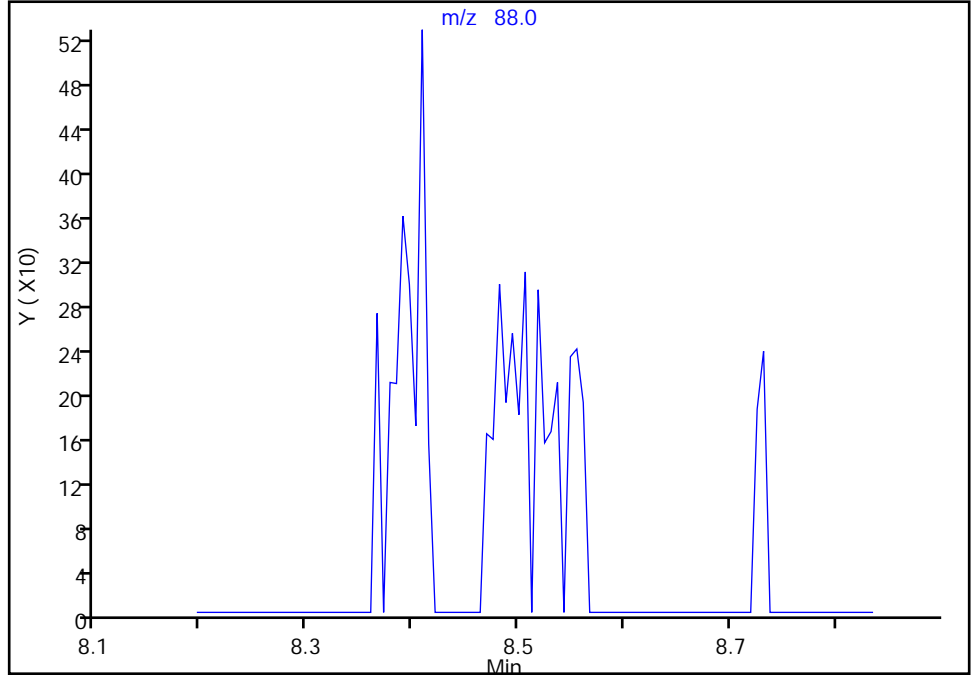
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Injection Date: 01-Sep-2020 15:48:30 Instrument ID: 10193
Lims ID: IC STD1
Client ID:
Operator ID: dvv10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

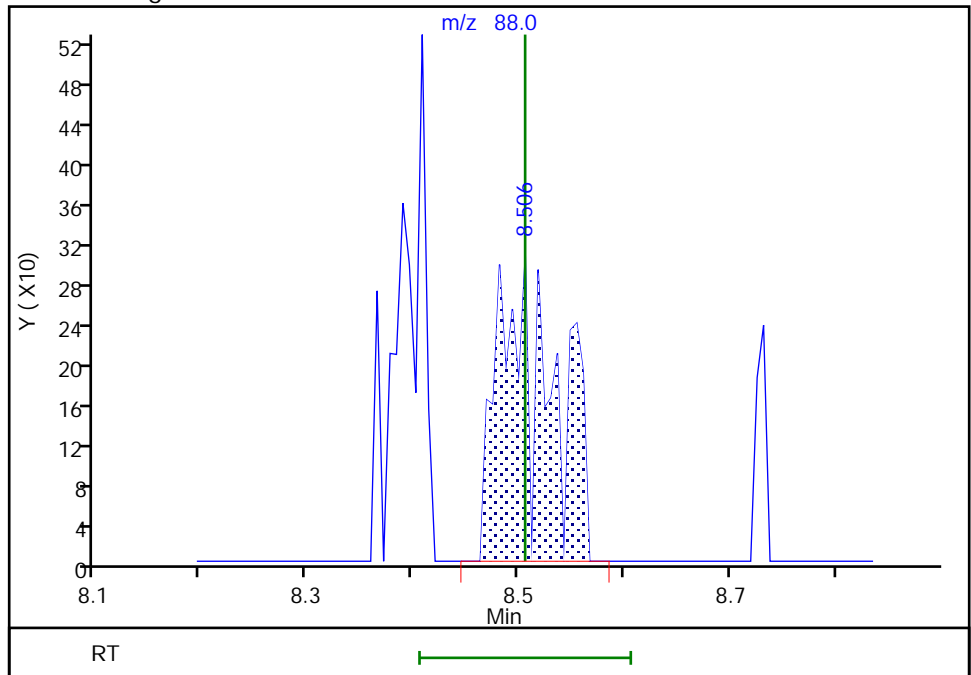
Not Detected
Expected RT: 8.51

Processing Integration Results



Manual Integration Results

RT: 8.51
Area: 1094
Amount: 7.195617
Amount Units: ug/l



Reviewer: campbellme, 01-Sep-2020 17:06:44
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

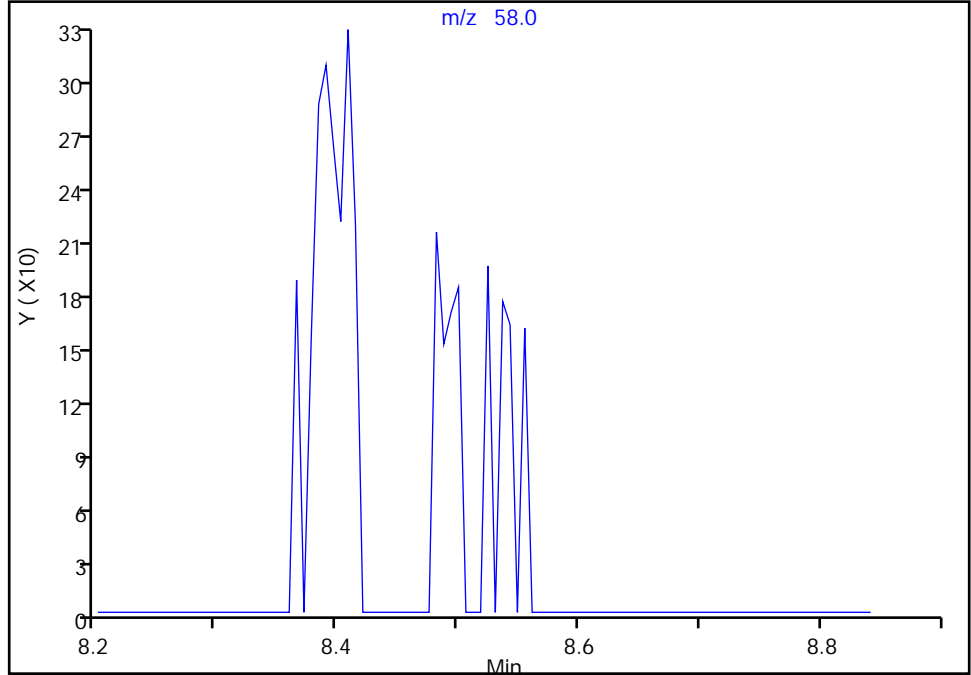
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Injection Date: 01-Sep-2020 15:48:30 Instrument ID: 10193
Lims ID: IC STD1
Client ID:
Operator ID: dvv10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

65 1,4-Dioxane, CAS: 123-91-1

Signal: 2

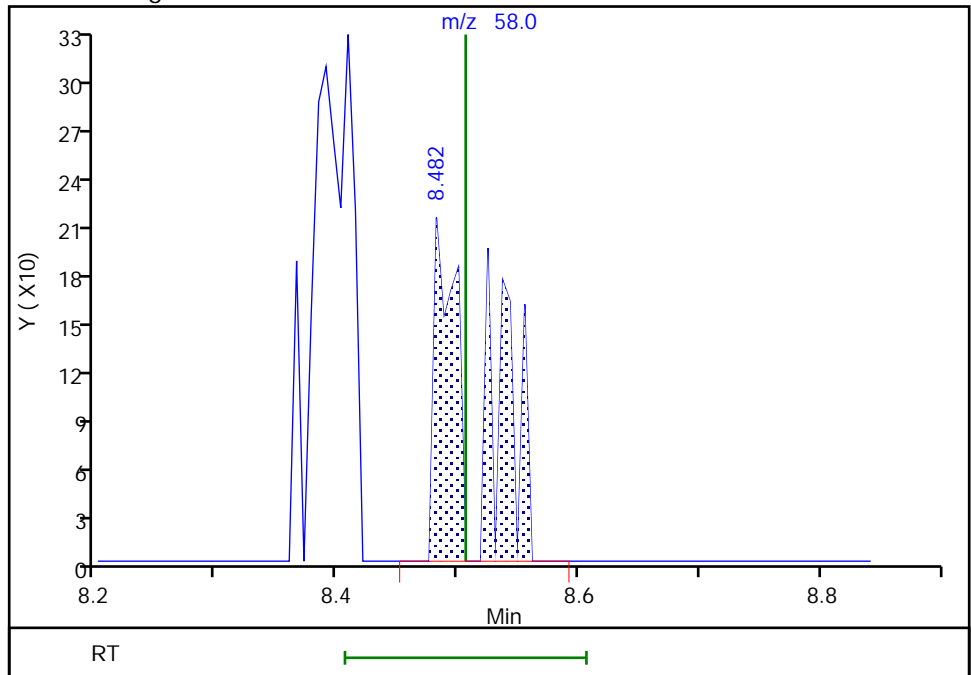
Not Detected
Expected RT: 8.51

Processing Integration Results



Manual Integration Results

RT: 8.48
Area: 515
Amount: 7.195617
Amount Units: ug/l



Reviewer: campbellme, 01-Sep-2020 17:06:48

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.: 410-19023-1

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.: 410-19023-1

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				
Ethyl bromide	0.1826 0.1874	0.1884 0.1844	0.1884	0.1899	0.1799	Ave		0.1858			2.0		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				

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.: 410-19023-1

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															
Bromochloromethane	0.1215 0.1357	0.1347 0.1360	0.1344	0.1313	0.1258	Ave		0.1314			4.3		20.0				
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				

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.: 410-19023-1

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															
2-Nitropropane	3.4302 3.9478	3.2341 3.7995	3.3605	3.5517	3.3191	Ave		3.5204			7.5		20.0				
1-Bromo-2-chloroethane	0.2779 0.2850	0.2674 0.2856	0.2773	0.2799	0.2720	Ave		0.2779			2.4		20.0				
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				

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.: 410-19023-1

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															
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				
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				

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.: 410-19023-1 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															
1,2-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			
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.: 410-19023-1

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.: 410-19023-1

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
Ethyl bromide	FB	Ave	6951 379672	18486 936806	36959	76596	189049	0.200 10.0	0.500 25.0	1.00	2.00	5.00
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

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-19023-1

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
Chloroform	FB	Ave	18779 1011245	47140 2463392	96003	192529	490370	0.200 10.0	0.500 25.0	1.00	2.00	5.00
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
1-Bromo-2-chloroethane	FB	Ave	10577 577229	26226 1450497	54379	112861	285684	0.200 10.0	0.500 25.0	1.00	2.00	5.00
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

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-19023-1

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
4-Methyl-2-pentanone (MIBK)	TBA 10	Ave	73994 4253795	184539 10867379	398366	784382	2077848	2.00 100	5.00 250	10.0	20.0	50.0
Toluene	CBZ 5	Ave	24766 1319026	60009 3345388	126096	252745	634896	0.200 10.0	0.500 25.0	1.00	2.00	5.00
trans-1,3-Dichloropropene	CBZ 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	CBZ 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	CBZ 5	Ave	7611 399920	18390 1014332	40292	77822	192985	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Tetrachloroethene	CBZ 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	CBZ 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	TBA 10	Ave	52432 3137863	132607 7966818	282430	581946	1537101	2.00 100	5.00 250	10.0	20.0	50.0
Dibromochloromethane	CBZ 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)	CBZ 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	CBZ 5	Ave	17884 785815	37329 2012724	74830	153297	376115	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Chlorobenzene	CBZ 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	CBZ 5	Ave	10681 611572	25359 1570554	53744	110242	293520	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Ethylbenzene	CBZ 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	CBZ 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	CBZ 5	Ave	17442 1031124	44192 2655825	94621	189920	491187	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Styrene	CBZ 5	Ave	28872 1744495	70485 4526523	147688	313383	819579	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Bromoform	CBZ 5	Ave	5805 351852	13251 922514	31581	61850	167294	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Isopropylbenzene	CBZ 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	DCB 4	Ave	9823 542504	23725 1398205	50638	100666	258297	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Bromobenzene	DCB 4	Ave	13436 704261	32228 1825670	66568	134960	333222	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.: 410-19023-1

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-1,4-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
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

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-19023-1 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			
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
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

Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I01.D

Injection Date: 11-Jun-2020 14:22:30

Instrument ID: 16334

Operator ID: DVV10203

Lims ID: IC std7

Worklist Smp#: 3

Client ID:

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

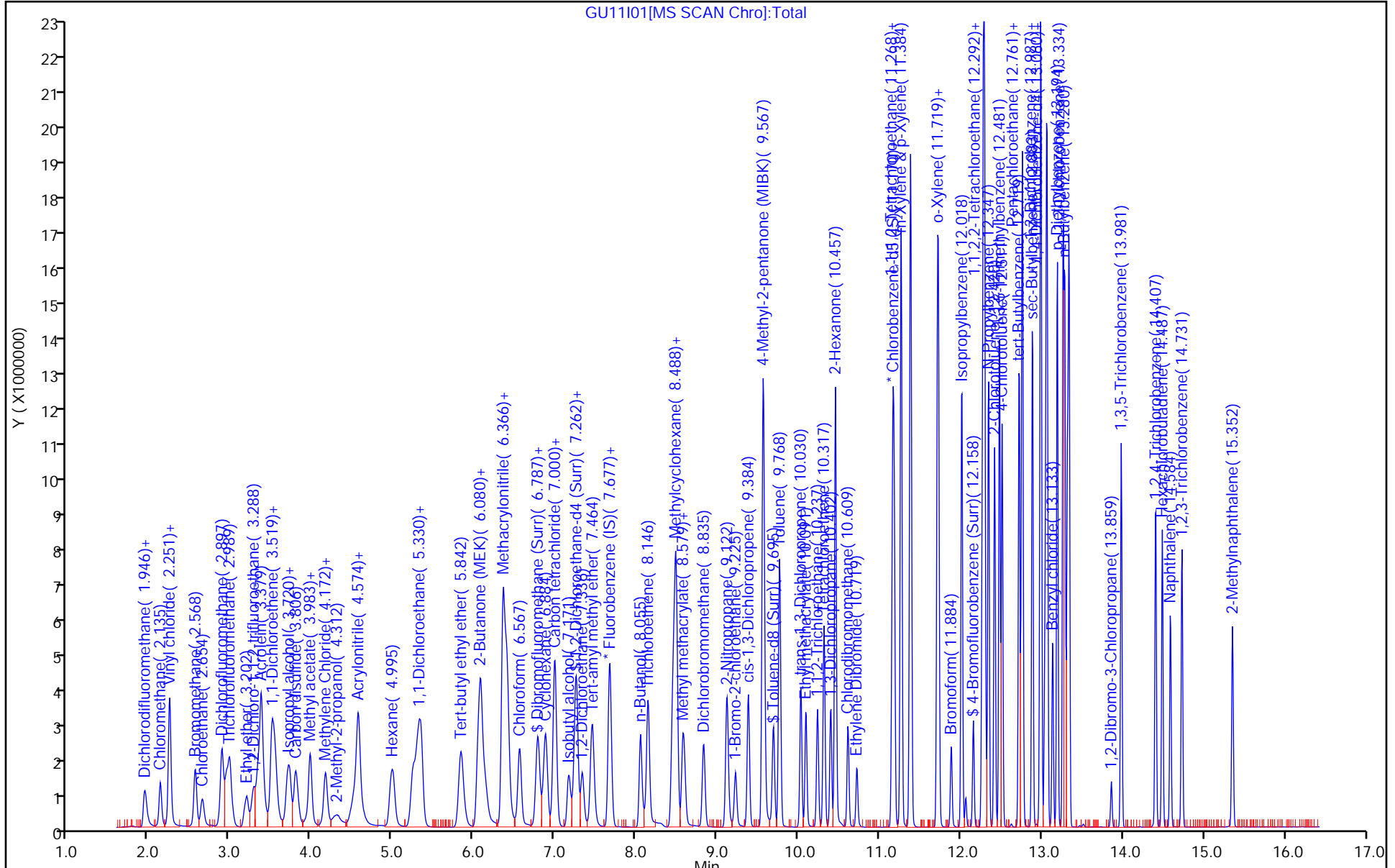
ALS Bottle#: 2

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



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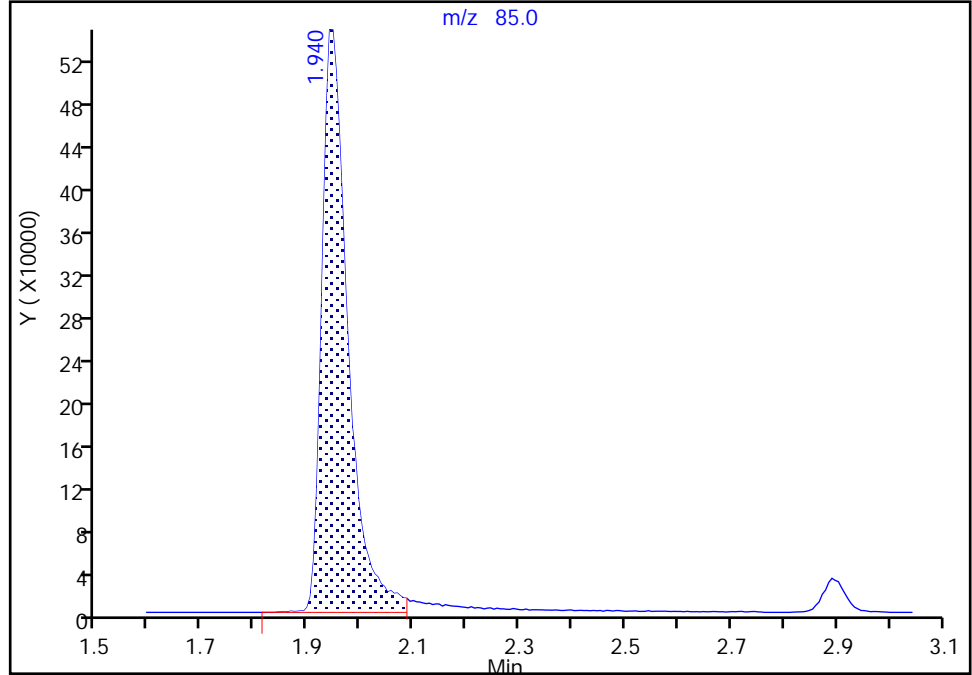
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Injection Date: 11-Jun-2020 14:22:30 Instrument ID: 16334
Lims ID: IC std7
Client ID:
Operator ID: DVV10203 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

1 Dichlorodifluoromethane, CAS: 75-71-8

Signal: 1

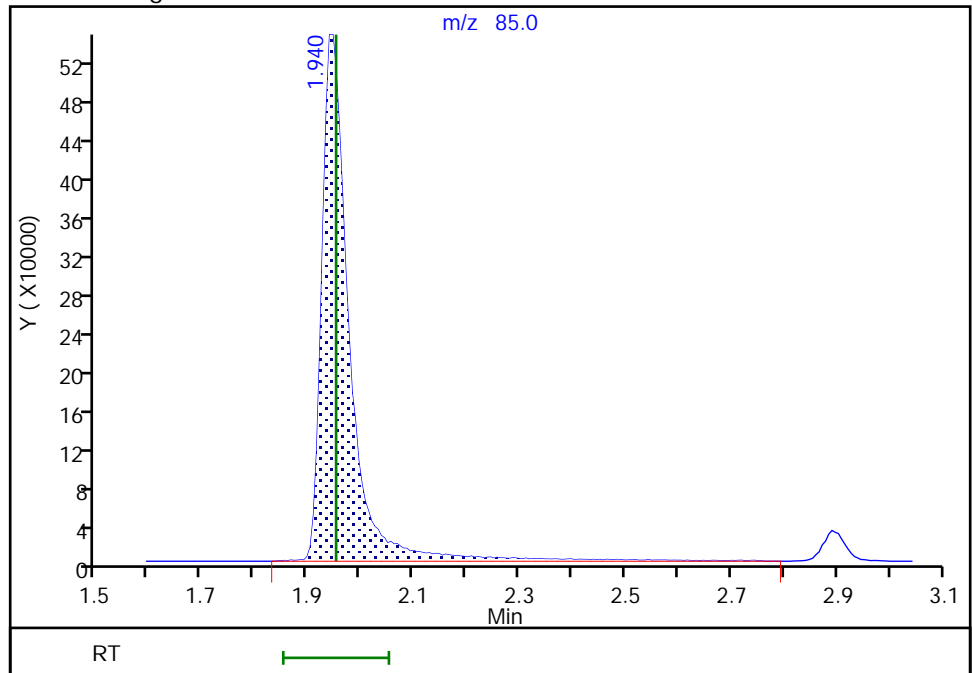
RT: 1.94
Area: 1875435
Amount: 22.283049
Amount Units: ug/l

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

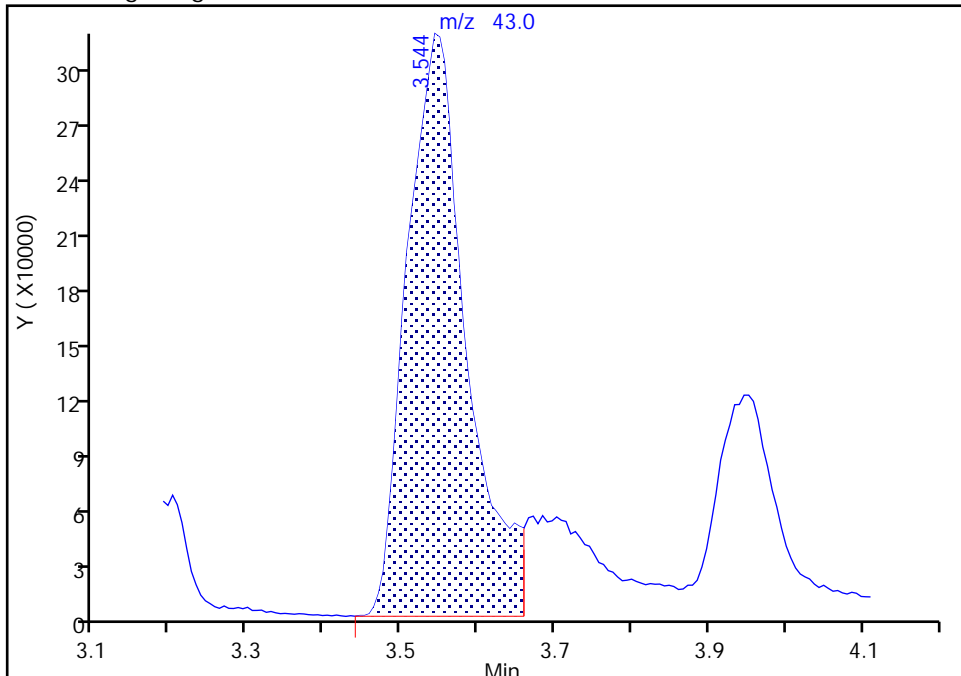
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Injection Date: 11-Jun-2020 14:22:30 Instrument ID: 16334
Lims ID: IC std7
Client ID:
Operator ID: DVV10203 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

20 Acetone, CAS: 67-64-1

Signal: 1

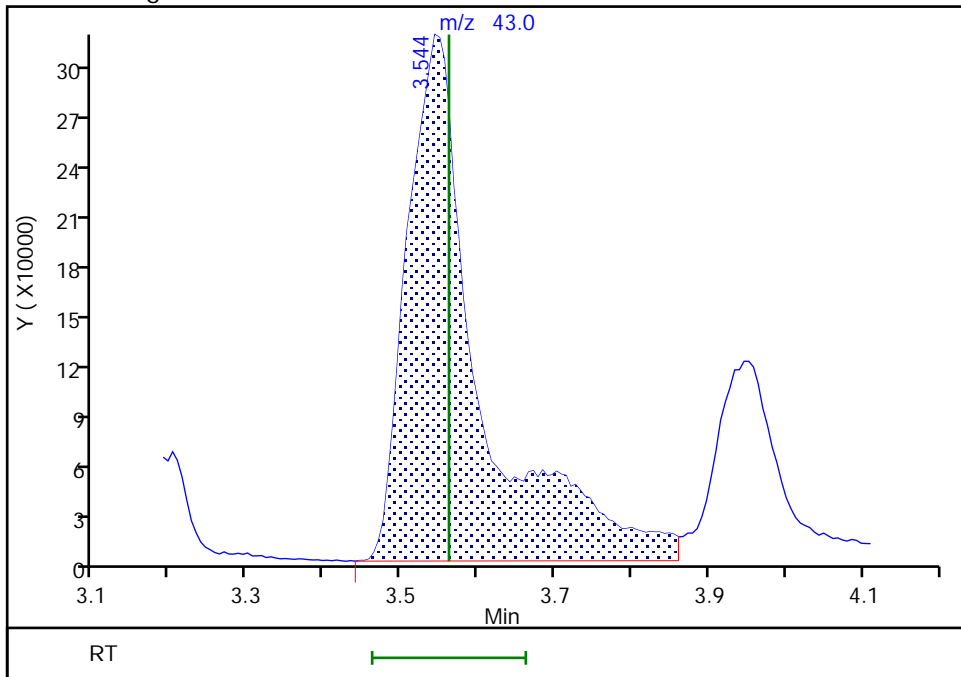
RT: 3.54
Area: 1691197
Amount: 217.4656
Amount Units: ug/l

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

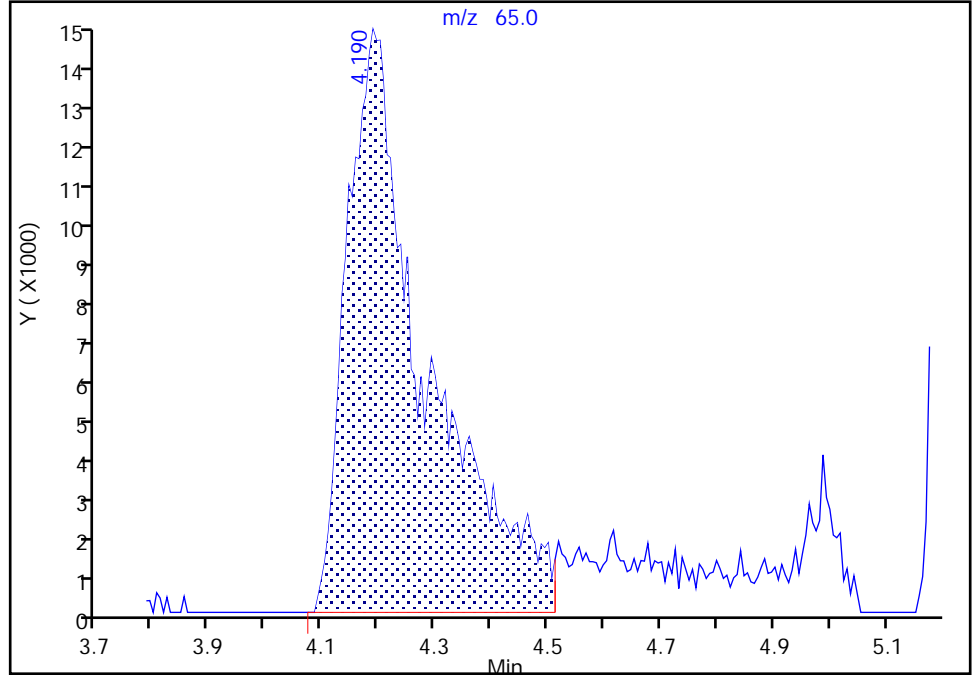
Eurofins Lancaster Laboratories Env, LLC

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

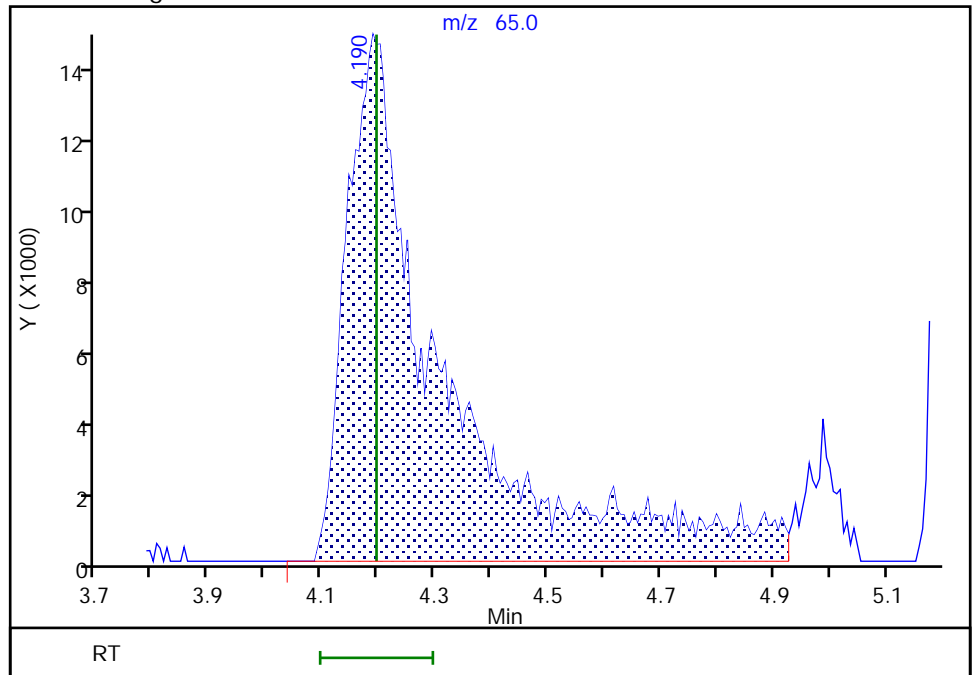
RT: 4.19
Area: 139641
Amount: 50.000000
Amount Units: ug/l

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

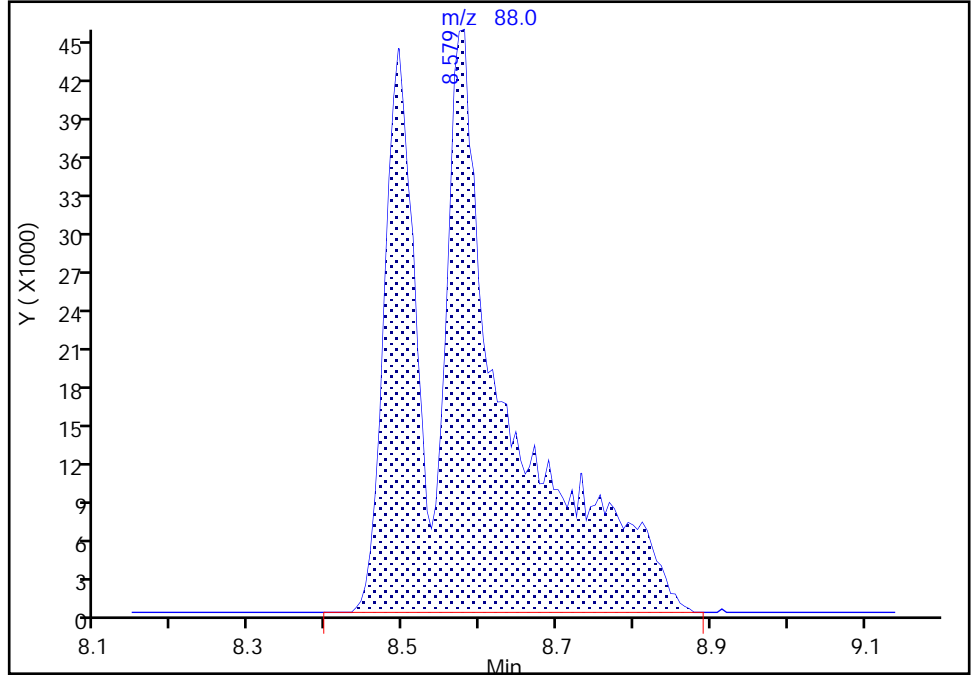
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Injection Date: 11-Jun-2020 14:22:30 Instrument ID: 16334
Lims ID: IC std7
Client ID:
Operator ID: DVV10203 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

72 1,4-Dioxane, CAS: 123-91-1

Signal: 1

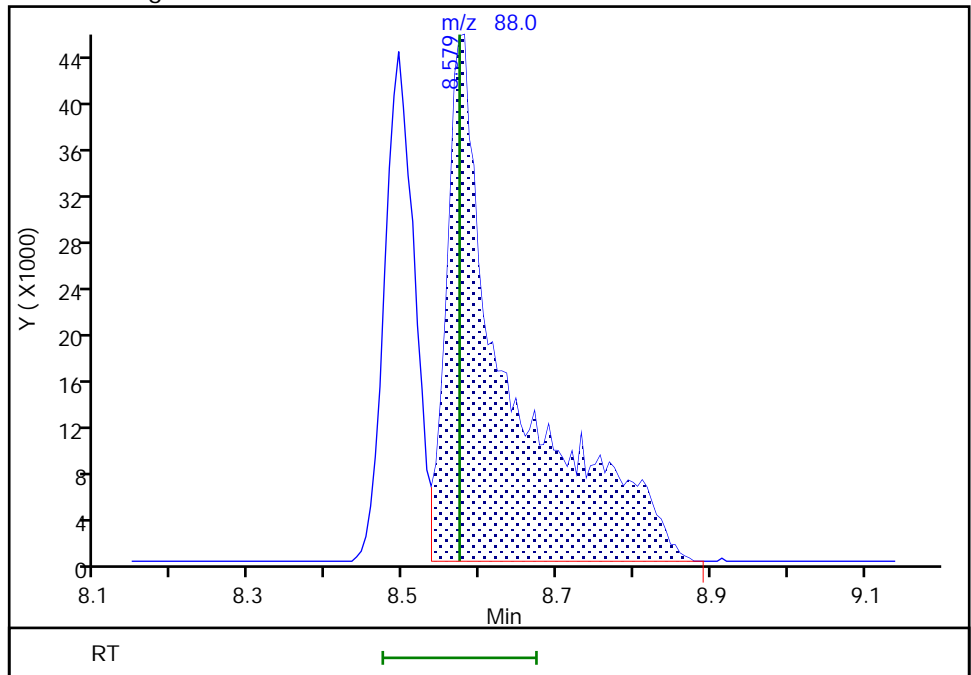
RT: 8.58
Area: 374457
Amount: 2169.8556
Amount Units: ug/l

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

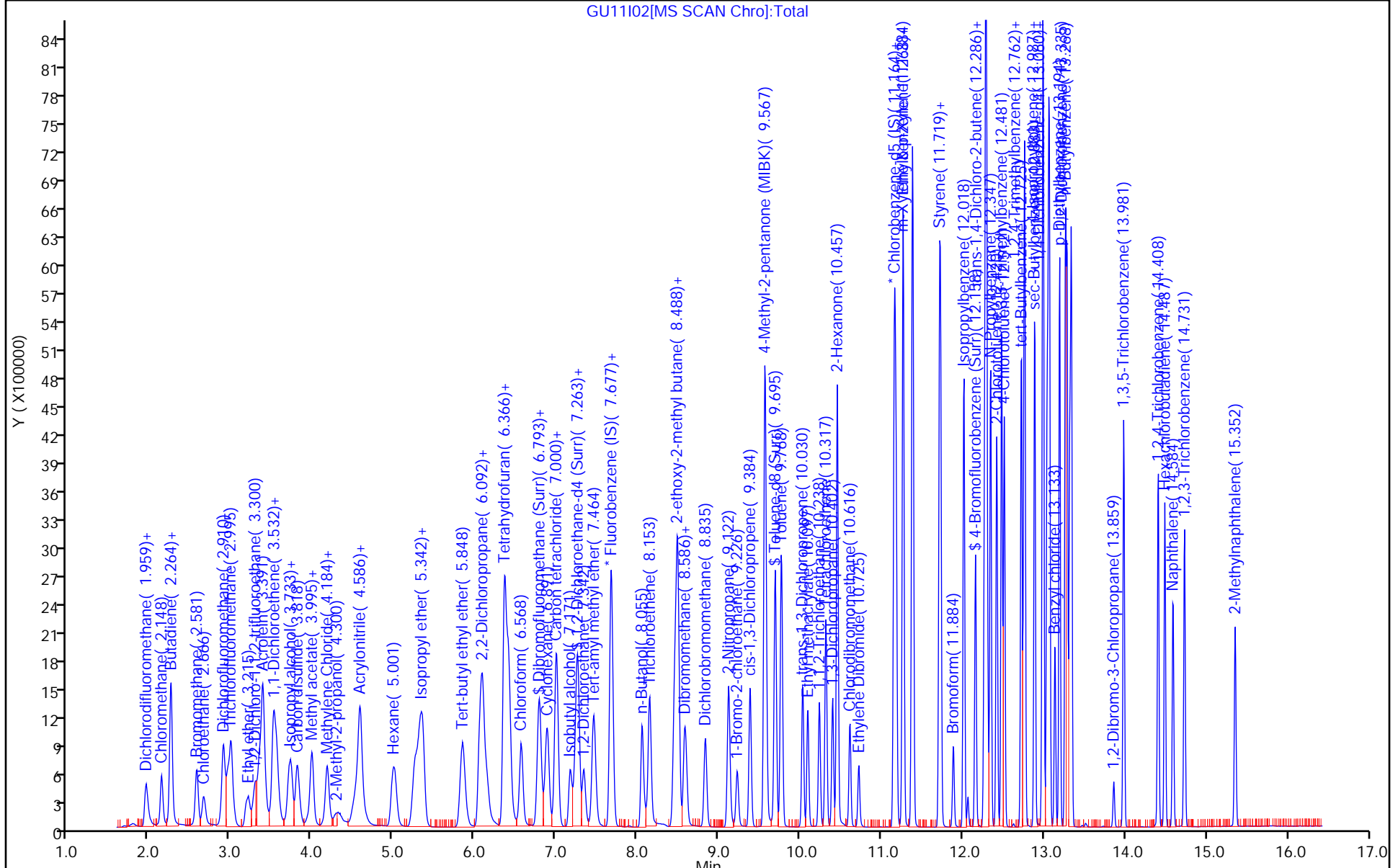
Units: uL

MSV_29_826ISS_00007

Amount Added: 1.00

Units: uL

Run Reagent



Eurofins Lancaster Laboratories Env, LLC

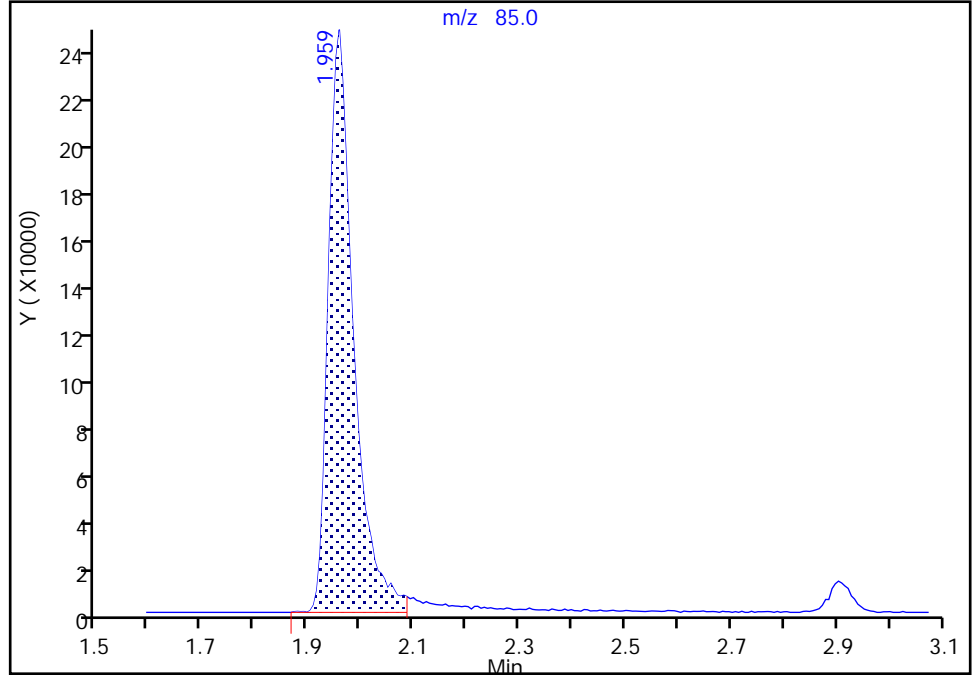
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Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

1 Dichlorodifluoromethane, CAS: 75-71-8

Signal: 1

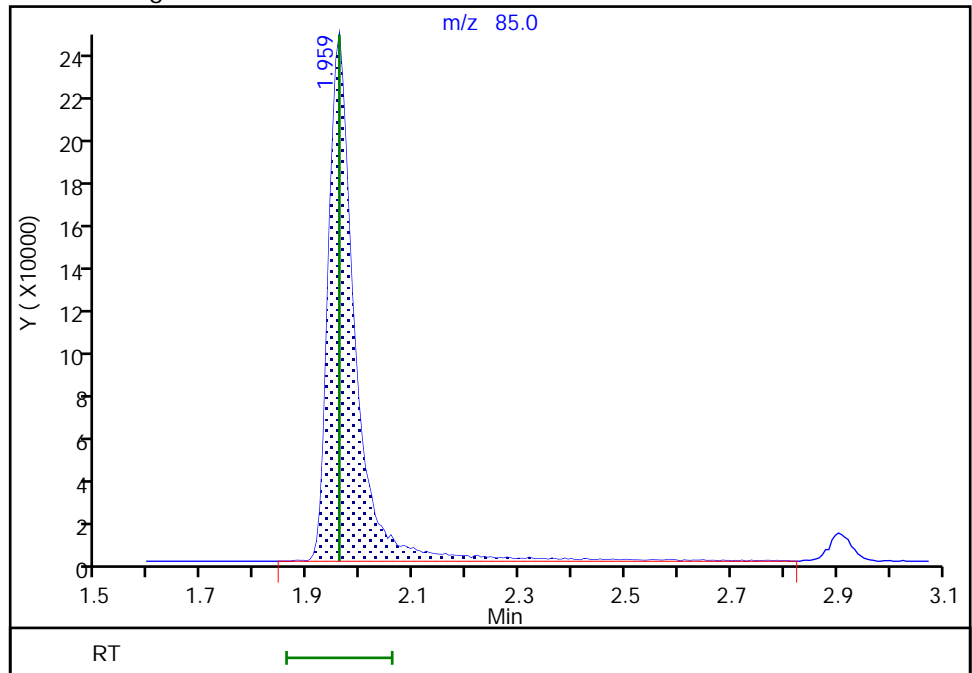
RT: 1.96
Area: 808702
Amount: 9.938543
Amount Units: ug/l

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

Eurofins Lancaster Laboratories Env, LLC

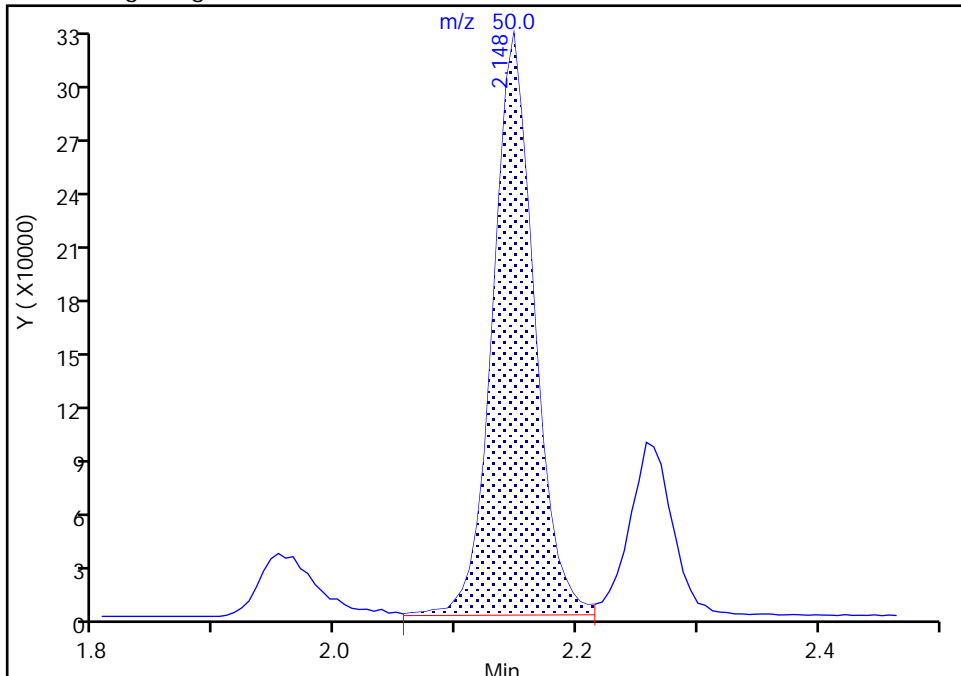
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Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

5 Chloromethane, CAS: 74-87-3

Signal: 1

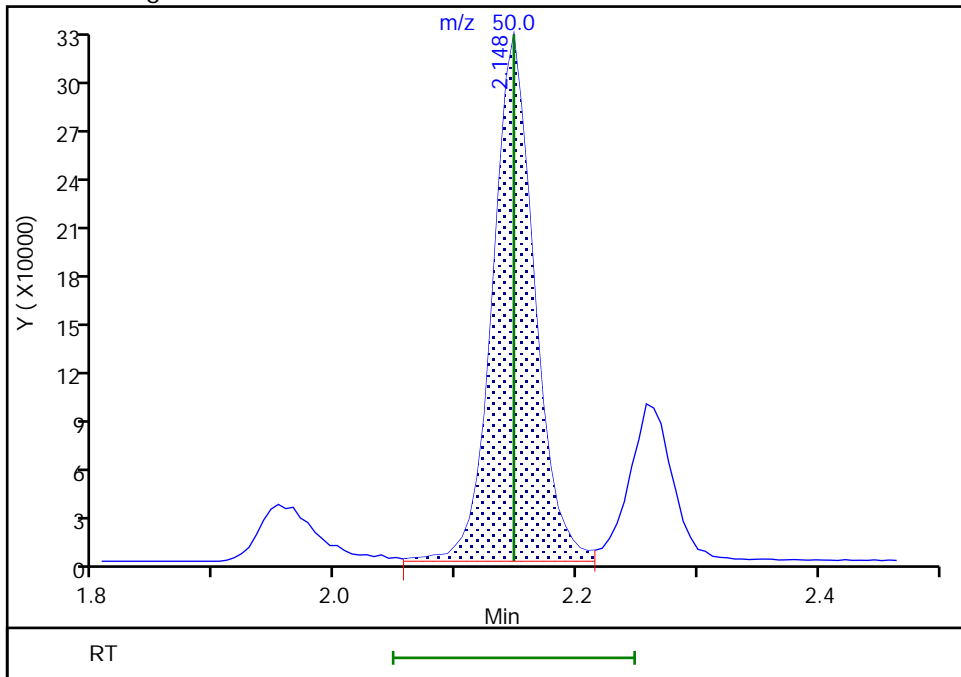
RT: 2.15
Area: 767922
Amount: 9.810296
Amount Units: ug/l

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

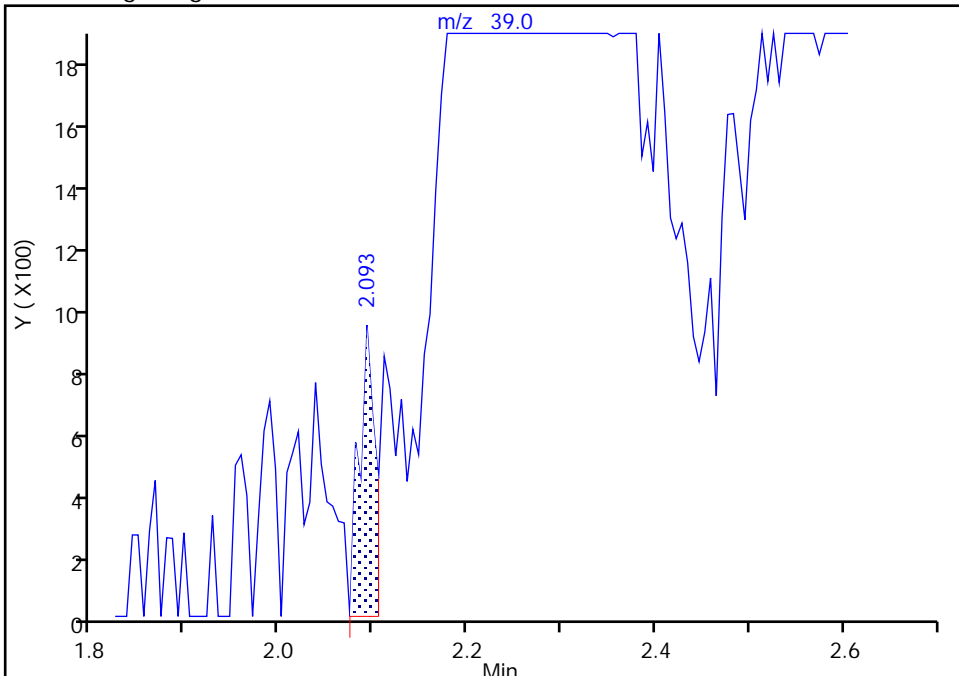
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Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

6 Butadiene, CAS: 106-99-0

Signal: 1

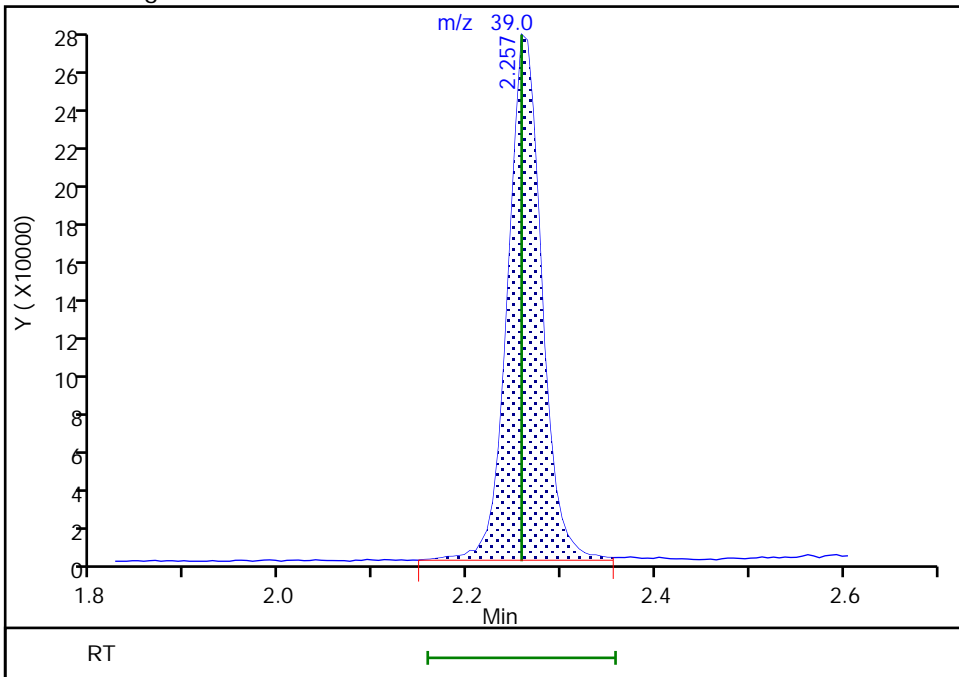
RT: 2.09
Area: 1104
Amount: 0.000005
Amount Units: ug/l

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

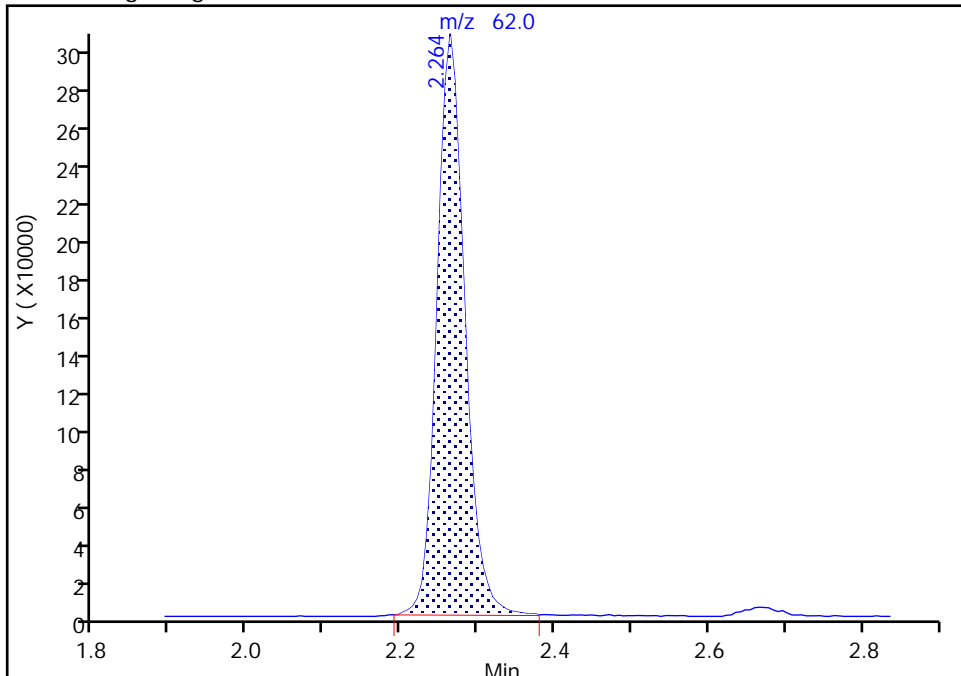
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Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

7 Vinyl chloride, CAS: 75-01-4

Signal: 1

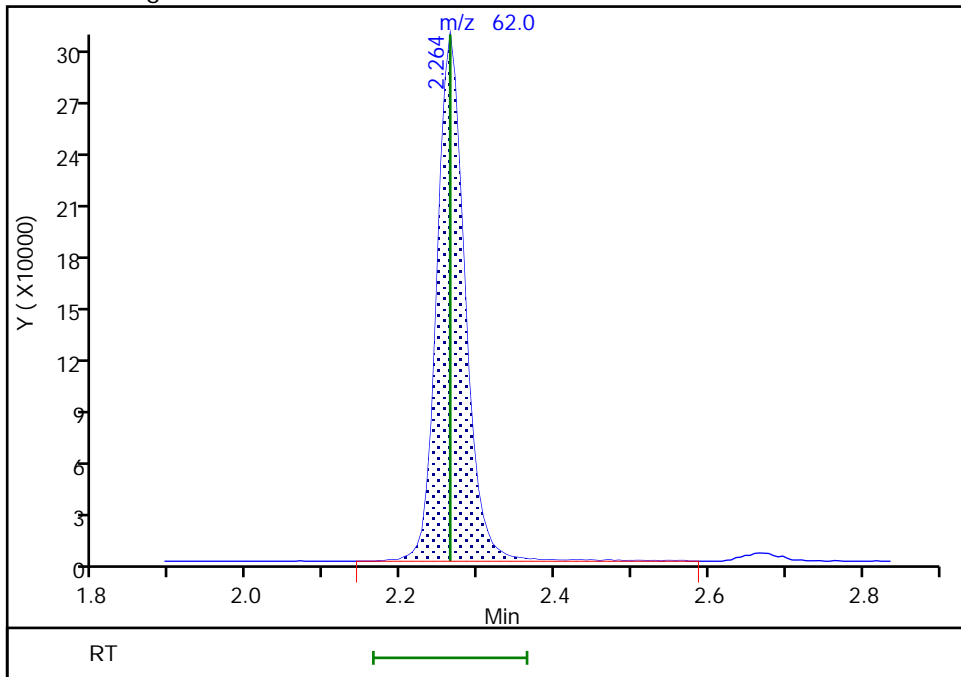
RT: 2.26
Area: 751273
Amount: 10.245577
Amount Units: ug/l

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

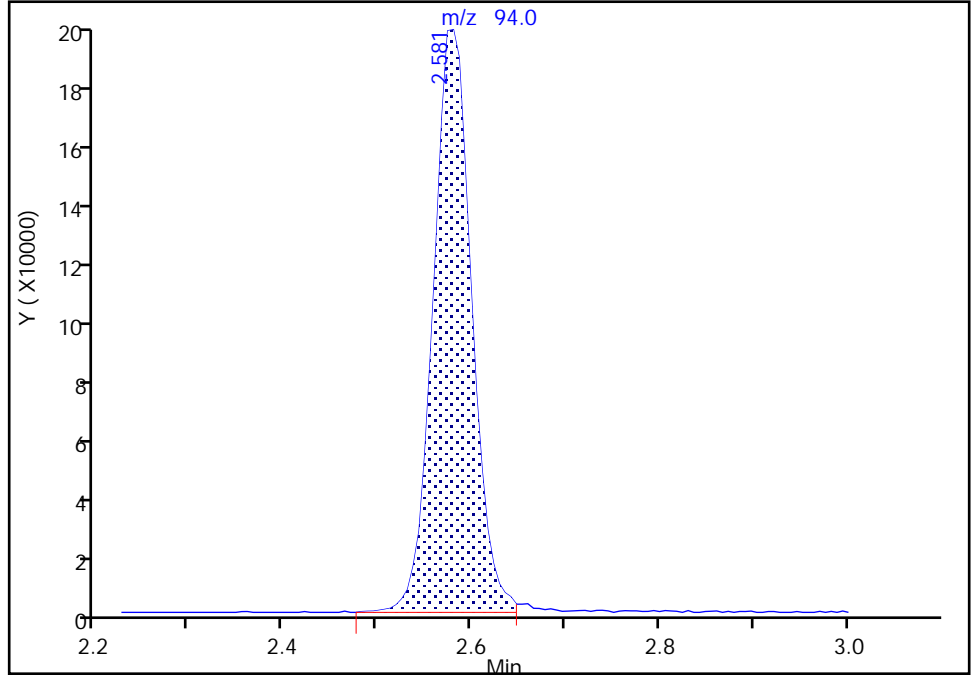
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Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

9 Bromomethane, CAS: 74-83-9

Signal: 1

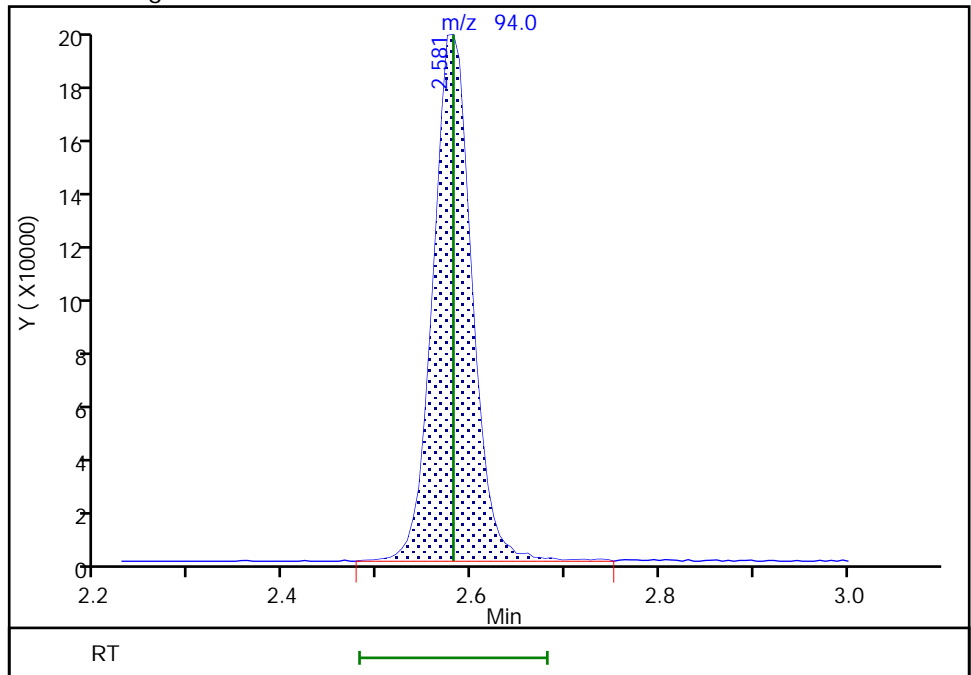
RT: 2.58
Area: 558049
Amount: 10.083560
Amount Units: ug/l

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

Eurofins Lancaster Laboratories Env, LLC

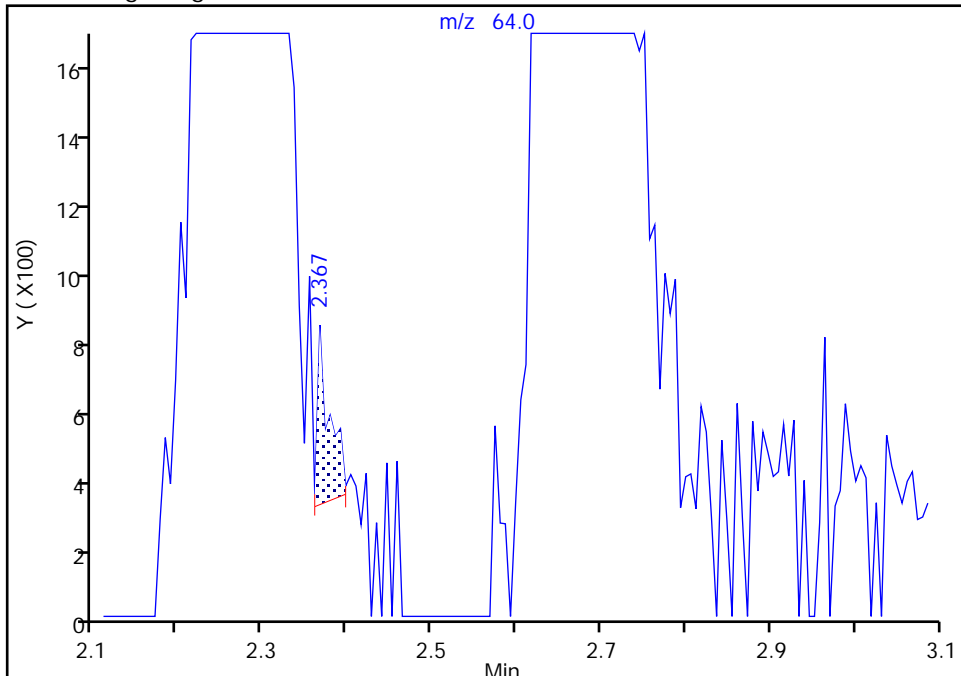
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Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

10 Chloroethane, CAS: 75-00-3

Signal: 1

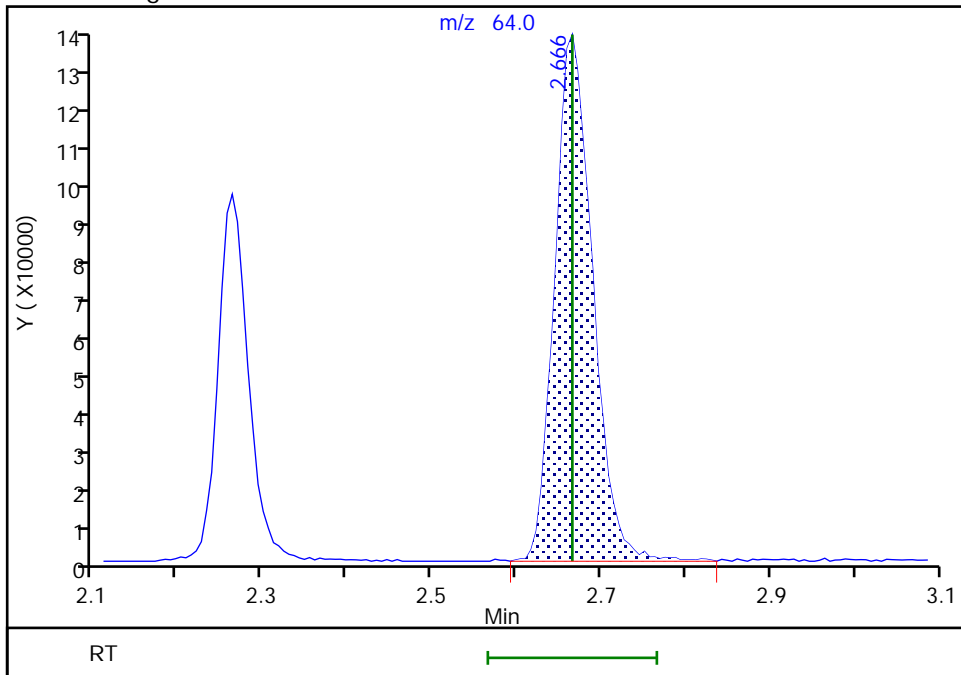
RT: 2.37
Area: 499
Amount: 0.000299
Amount Units: ug/l

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

Eurofins Lancaster Laboratories Env, LLC

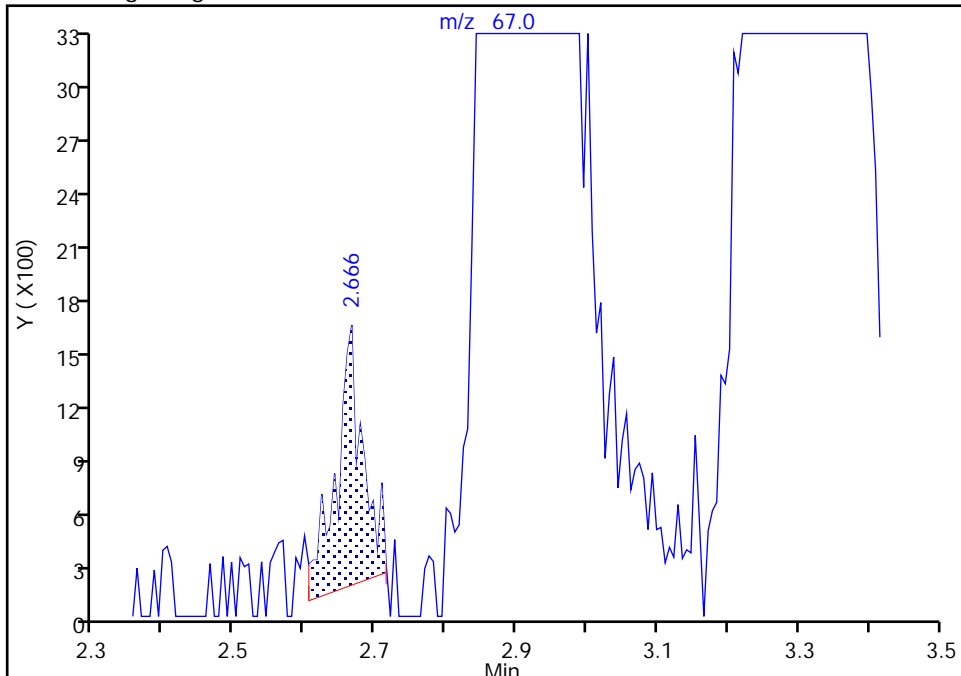
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Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

11 Dichlorofluoromethane, CAS: 75-43-4

Signal: 1

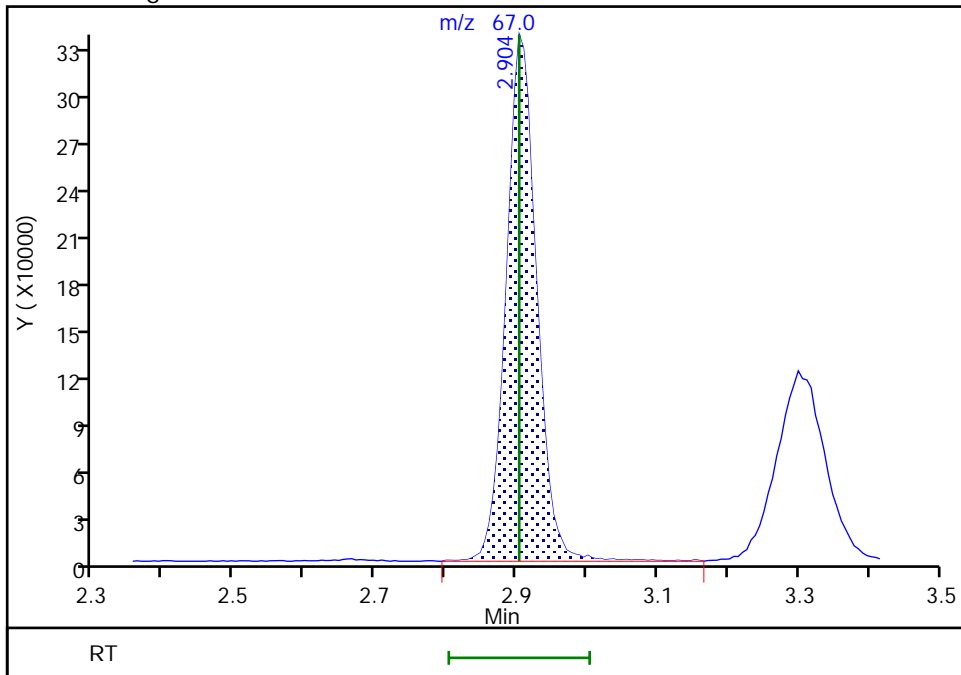
RT: 2.67
Area: 3782
Amount: 0.000889
Amount Units: ug/l

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

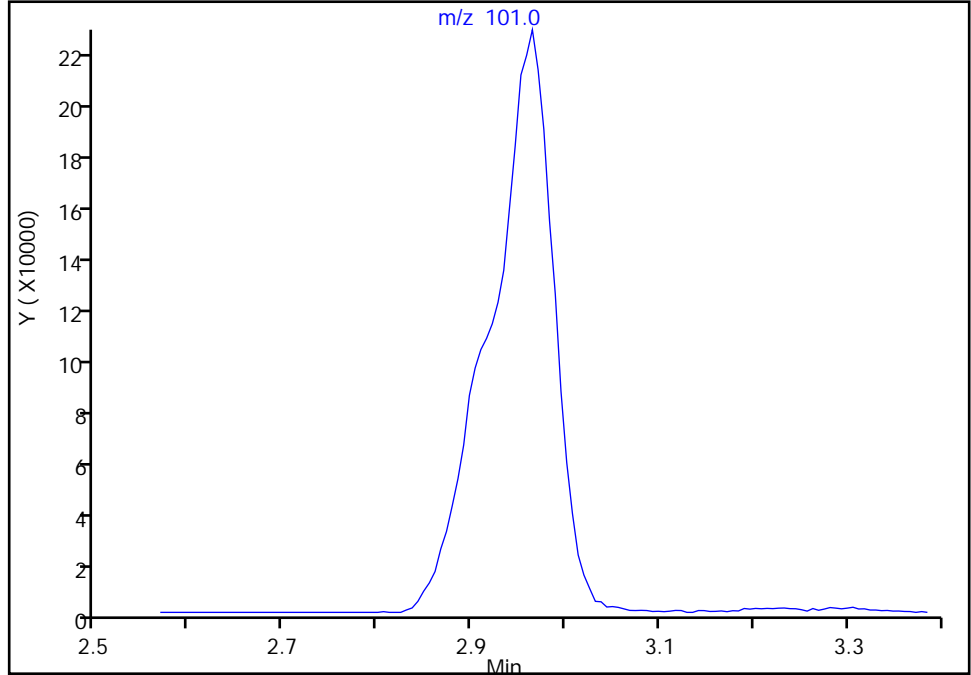
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Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

13 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

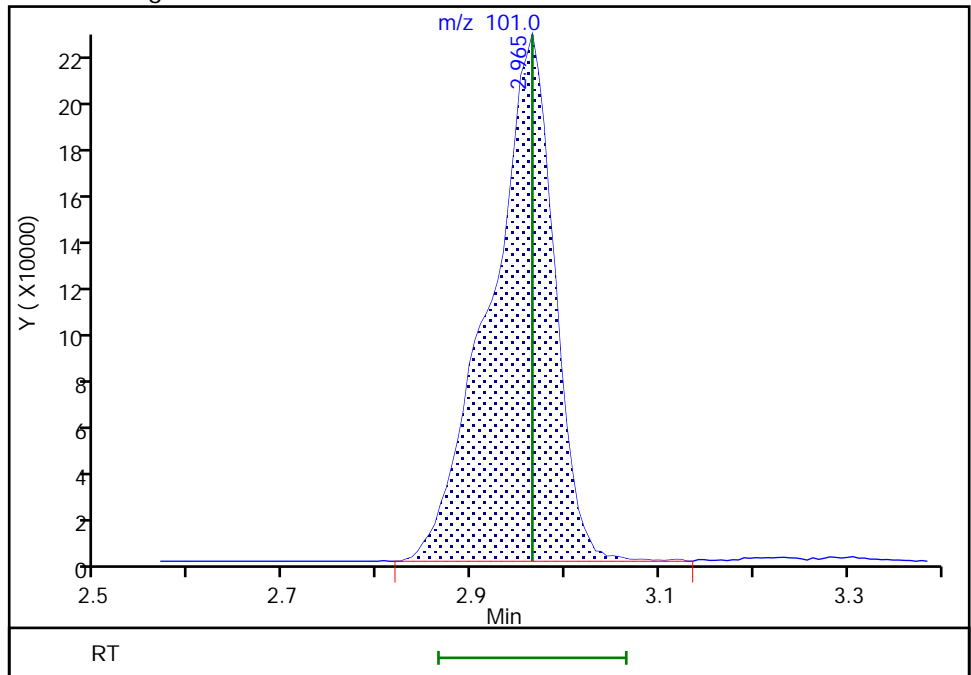
Not Detected
Expected RT: 2.96

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

Eurofins Lancaster Laboratories Env, LLC

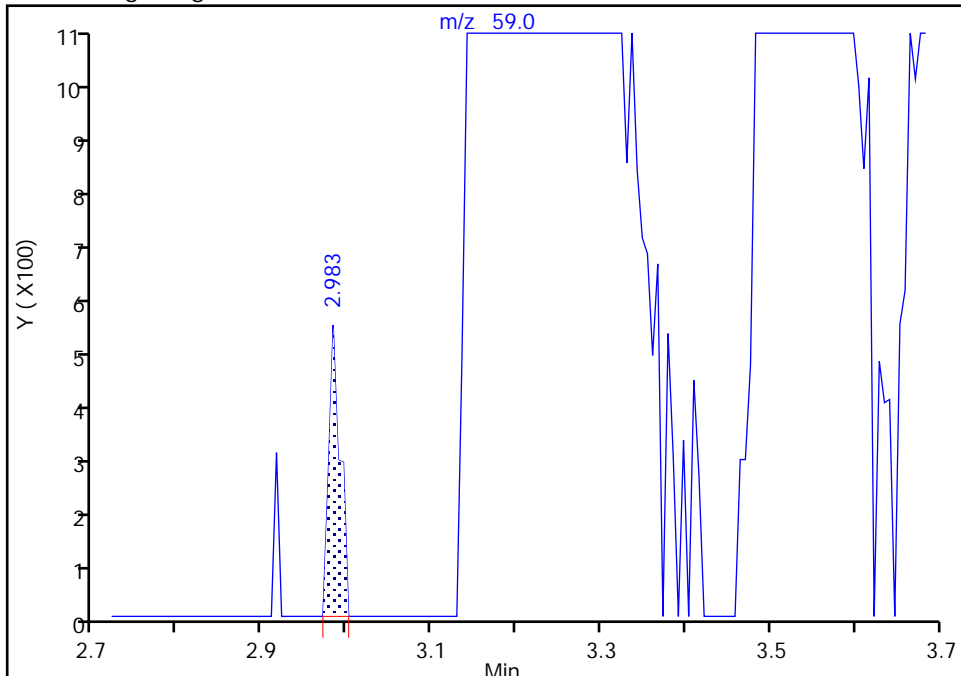
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Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

15 Ethyl ether, CAS: 60-29-7

Signal: 1

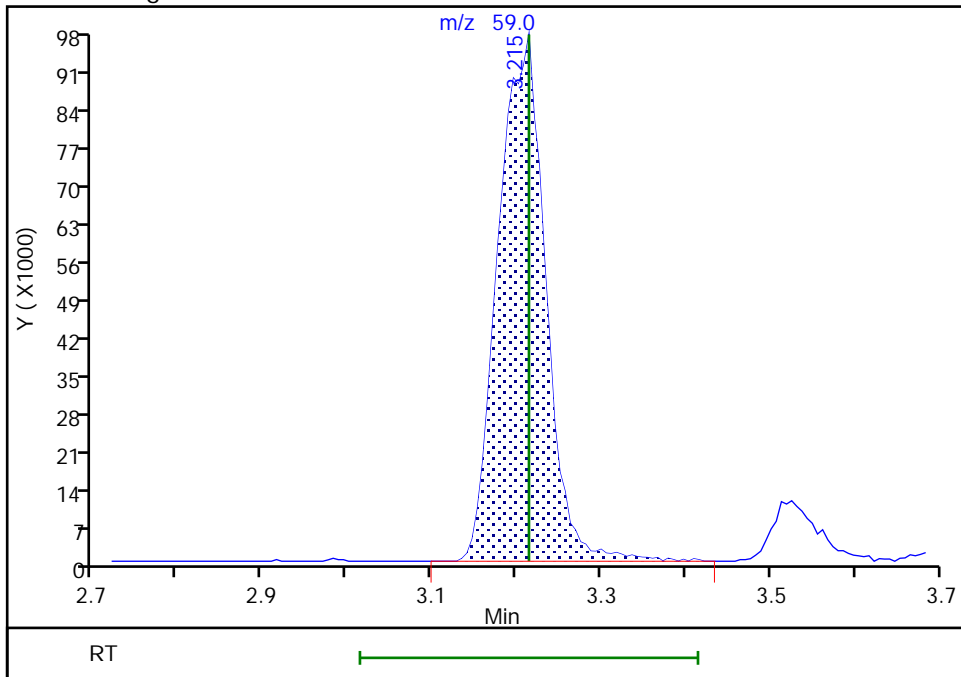
RT: 2.98
Area: 507
Amount: 0.002240
Amount Units: ug/l

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

Eurofins Lancaster Laboratories Env, LLC

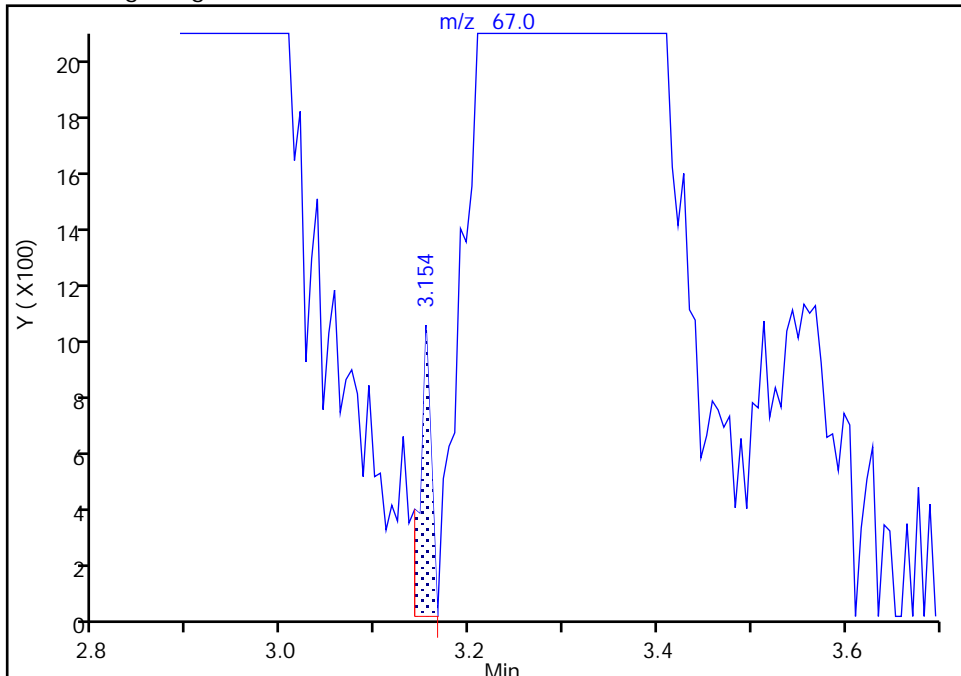
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Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

16 1,2-Dichloro-1,1,2-trifluoroetha, CAS: 354-23-4

Signal: 1

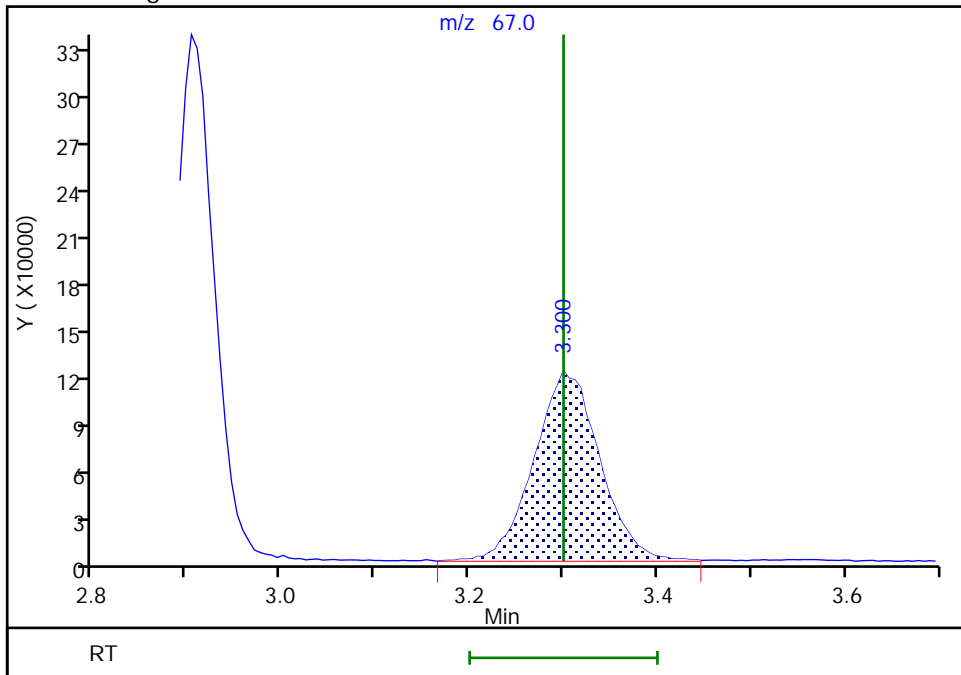
RT: 3.15
Area: 822
Amount: 0.000724
Amount Units: ug/l

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

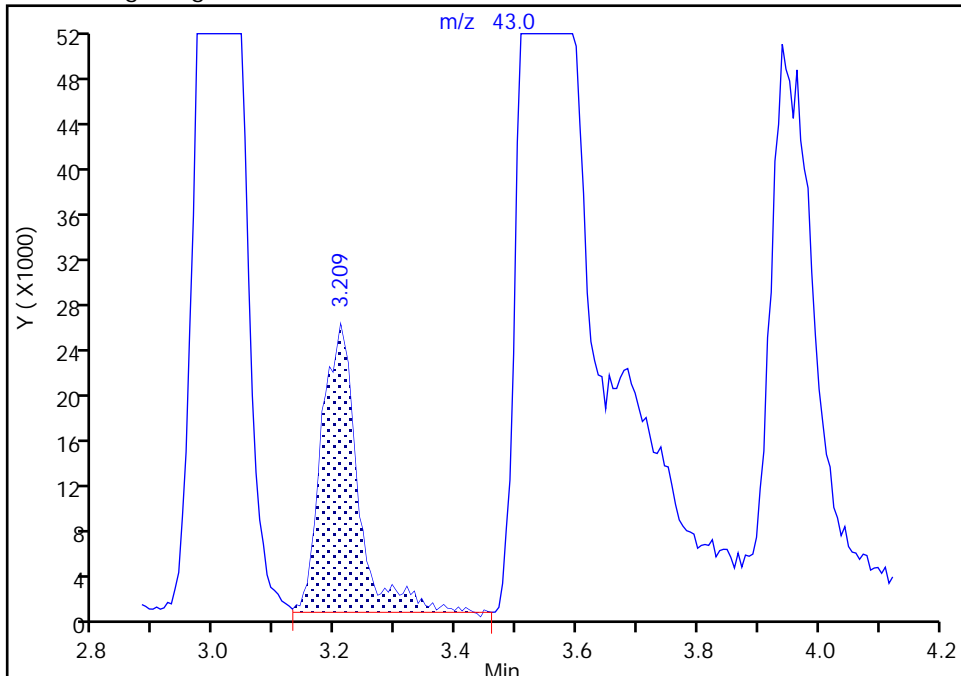
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Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

20 Acetone, CAS: 67-64-1

Signal: 1

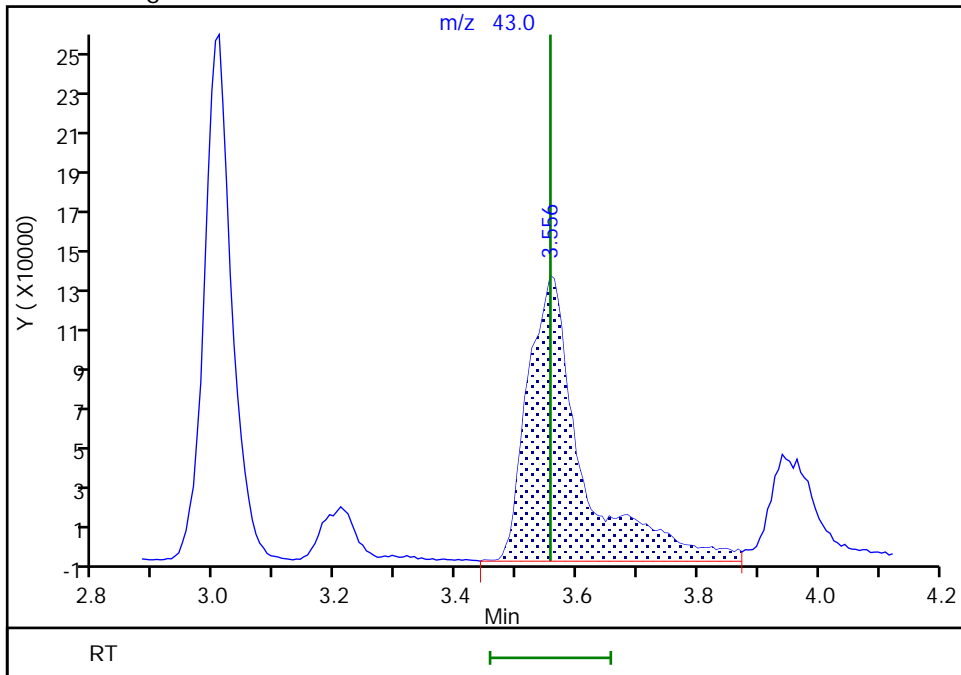
RT: 3.21
Area: 105938
Amount: 100.0000
Amount Units: ug/l

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

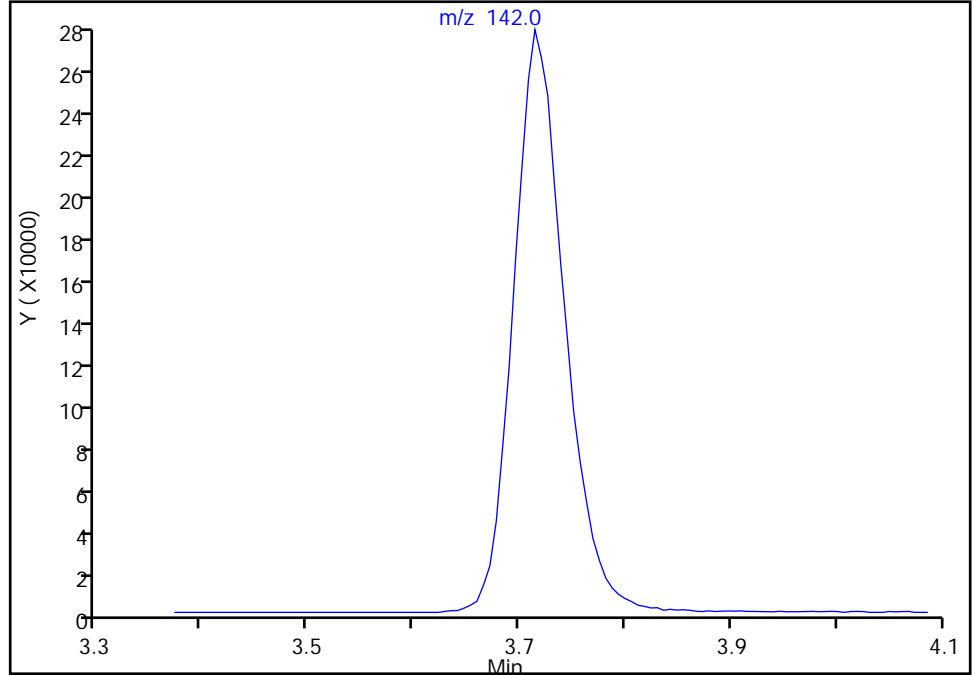
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

22 Iodomethane, CAS: 74-88-4

Signal: 1

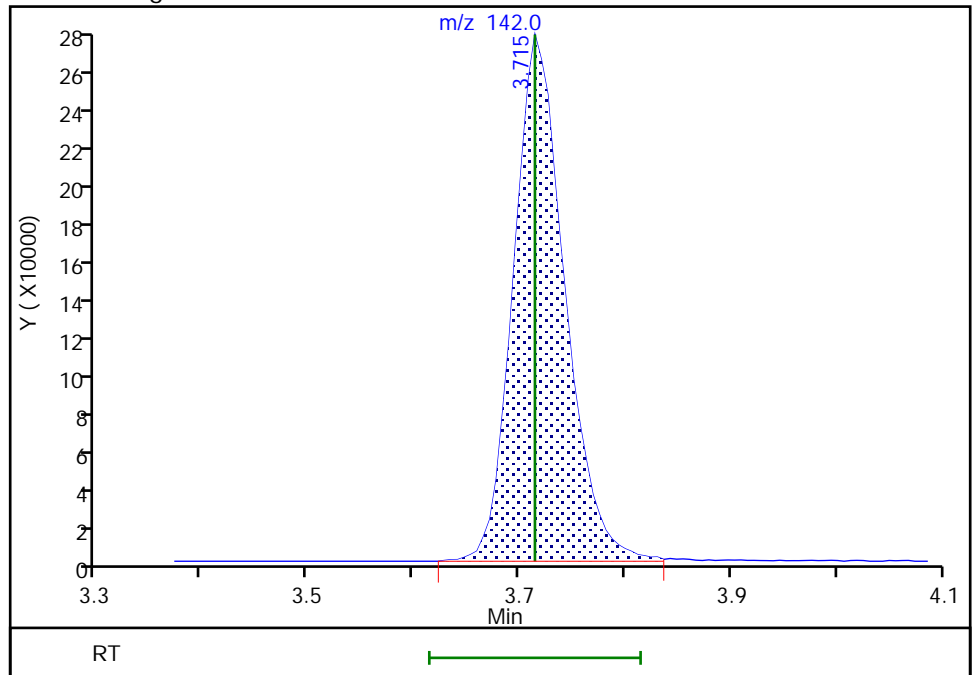
Not Detected
Expected RT: 3.71

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

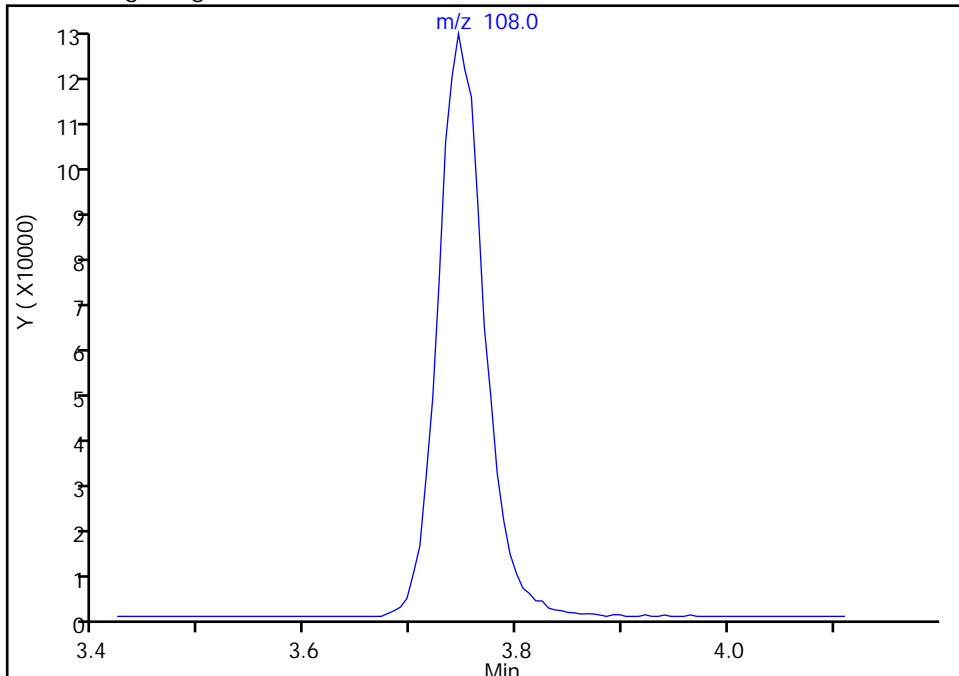
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Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

24 Ethyl bromide, CAS: 74-96-4

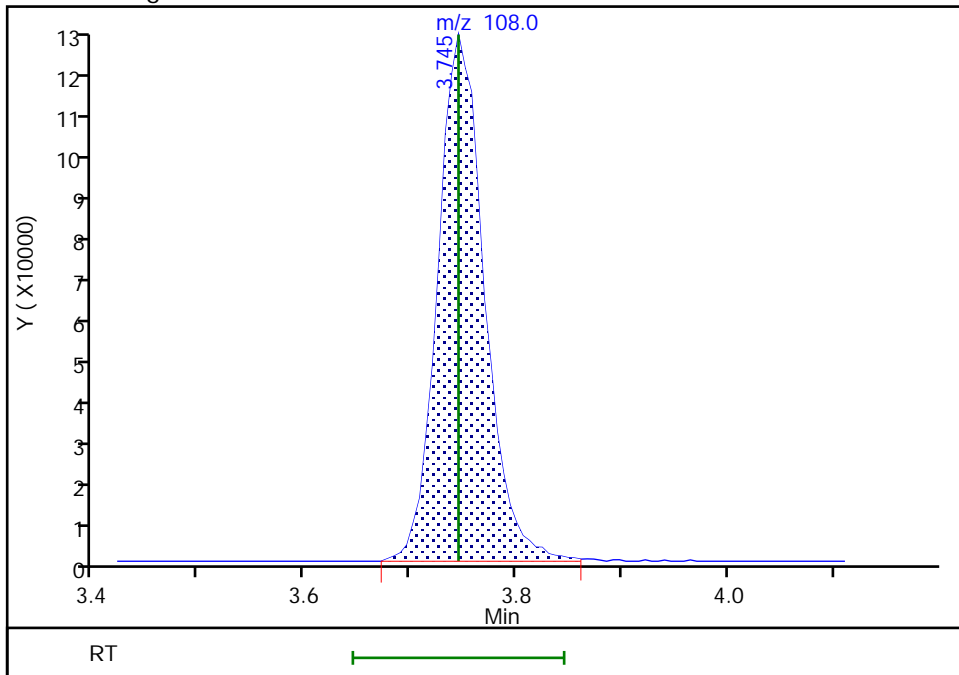
Signal: 1

Not Detected
Expected RT: 3.74

Processing Integration Results



Manual Integration Results



RT: 3.74
Area: 379672
Amount: 10.088695
Amount Units: ug/l

Reviewer: howej, 12-Jun-2020 13:39:57
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

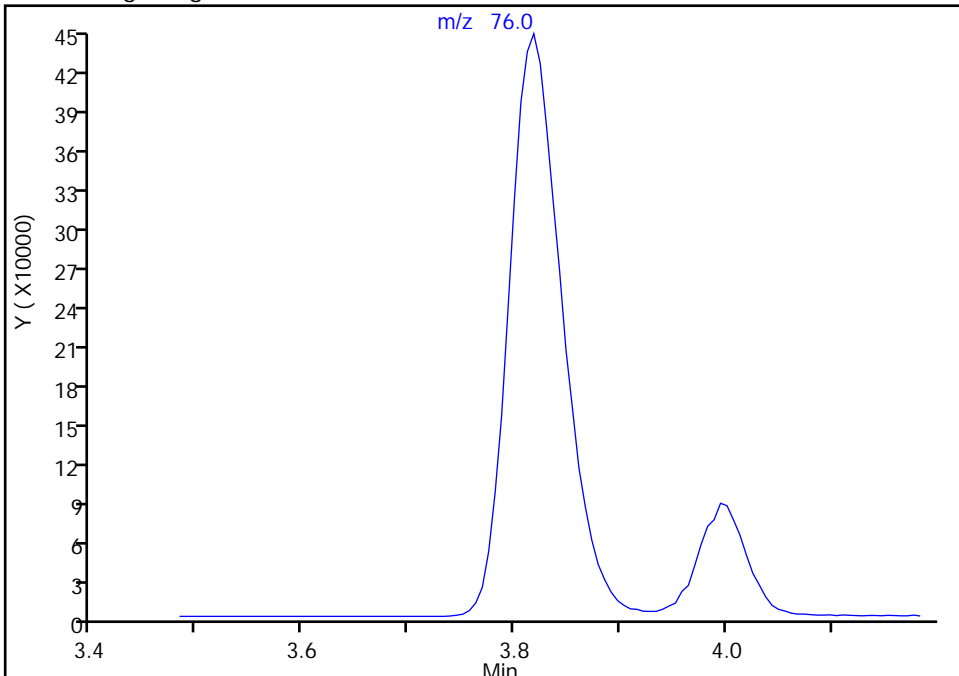
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Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

25 Carbon disulfide, CAS: 75-15-0

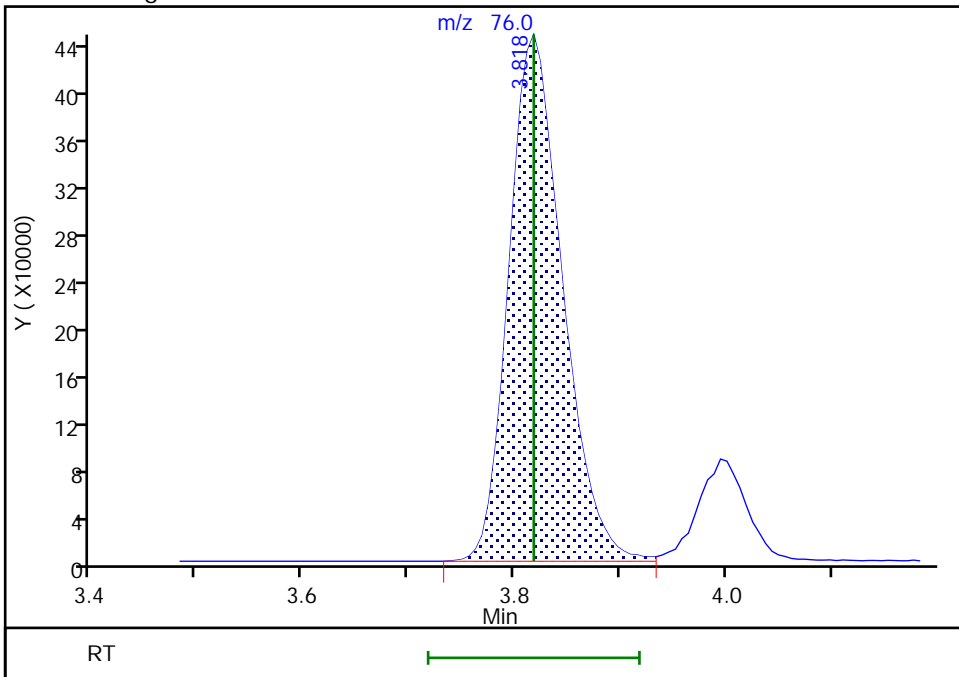
Signal: 1

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

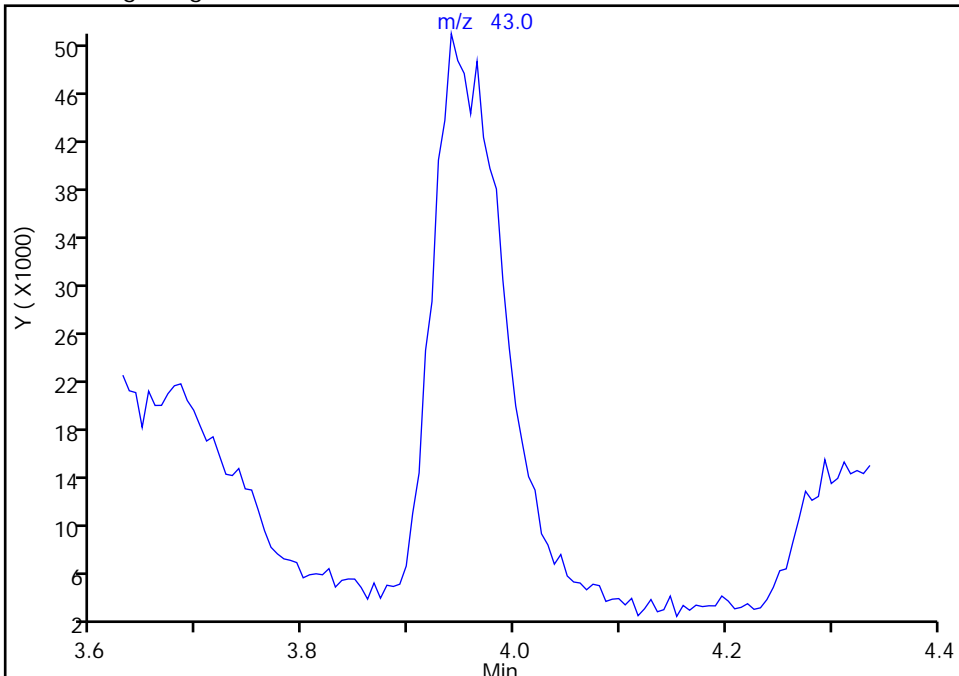
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Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

26 Methyl acetate, CAS: 79-20-9

Signal: 1

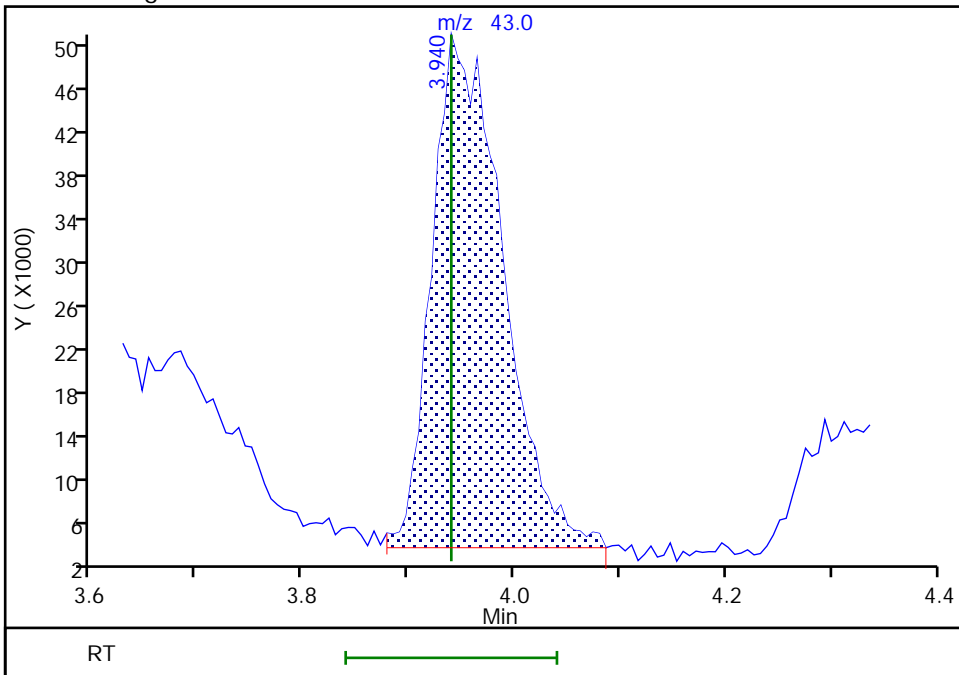
Not Detected
Expected RT: 3.94

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

Euofins Lancaster Laboratories Env, LLC

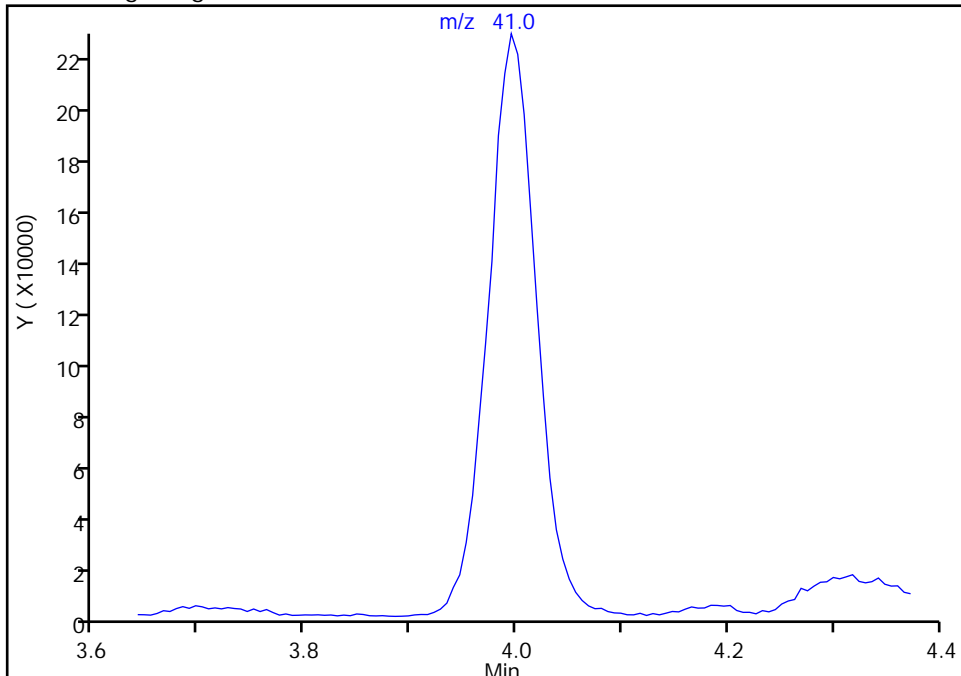
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

27 3-Chloro-1-propene, CAS: 107-05-1

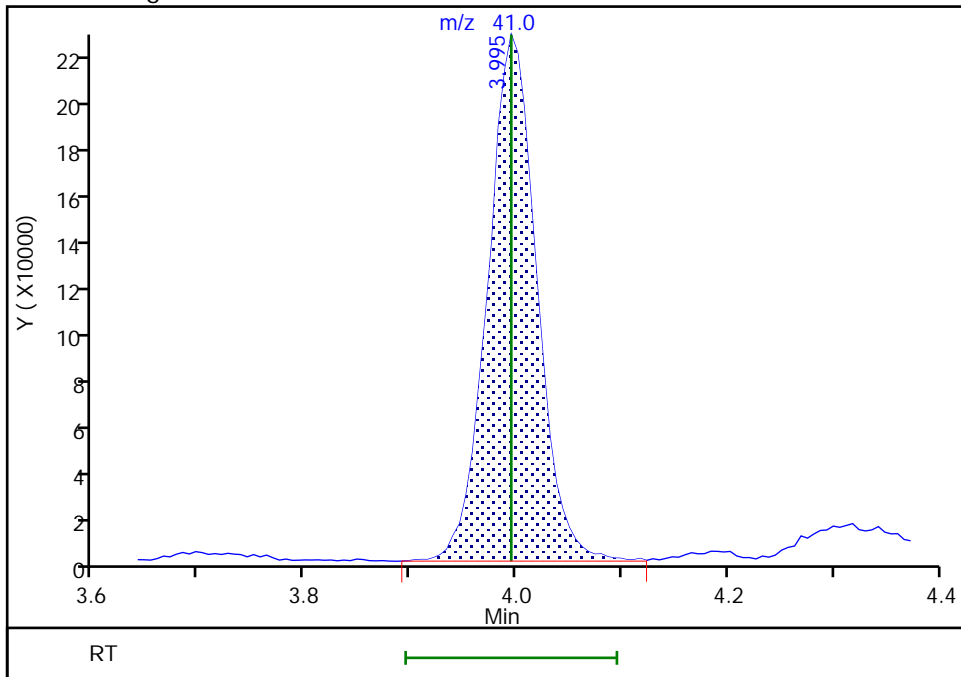
Signal: 1

Not Detected
Expected RT: 3.99

Processing Integration Results



Manual Integration Results



RT: 3.99
Area: 735794
Amount: 10.332126
Amount Units: ug/l

Eurofins Lancaster Laboratories Env, LLC

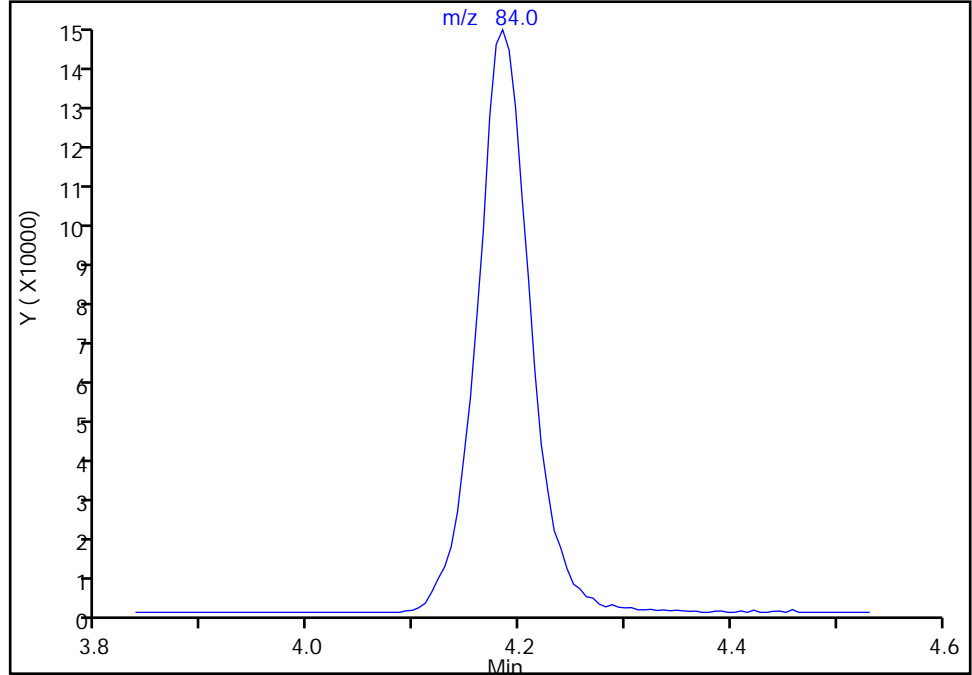
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Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

28 Methylene Chloride, CAS: 75-09-2

Signal: 1

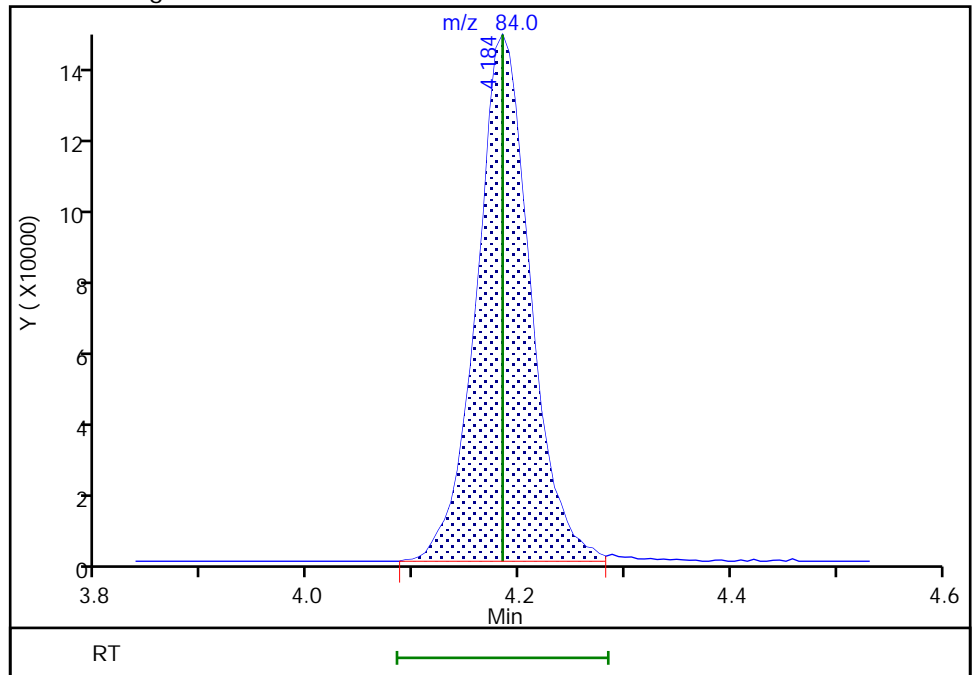
Not Detected
Expected RT: 4.18

Processing Integration Results



Manual Integration Results

RT: 4.18
Area: 494462
Amount: 10.256870
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 13:39:42
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

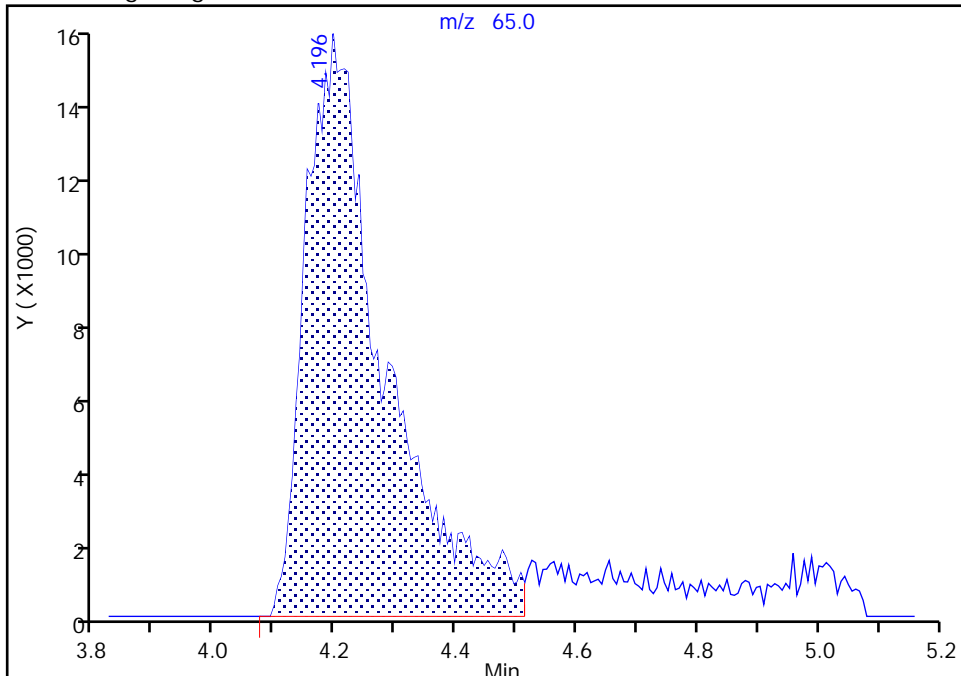
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Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 29 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

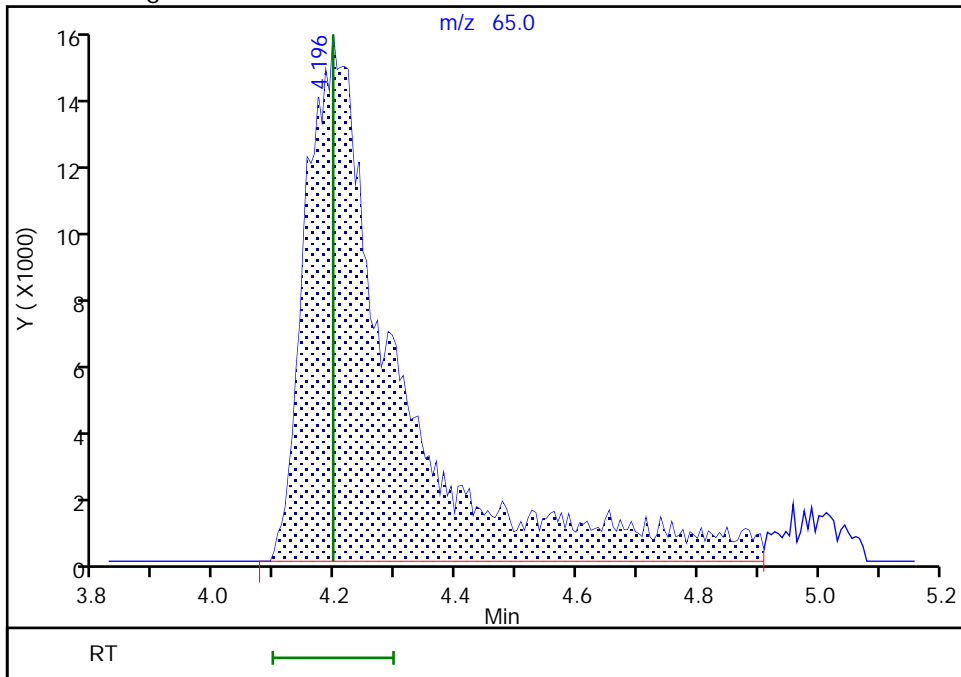
RT: 4.20
Area: 135683
Amount: 50.000000
Amount Units: ug/l

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

Eurofins Lancaster Laboratories Env, LLC

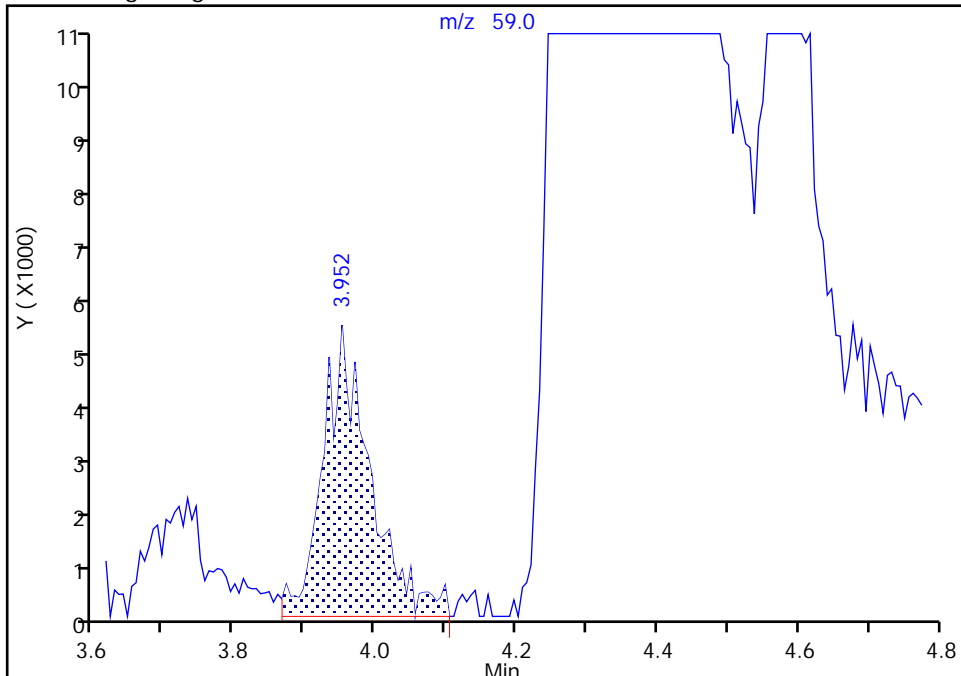
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

30 2-Methyl-2-propanol, CAS: 75-65-0

Signal: 1

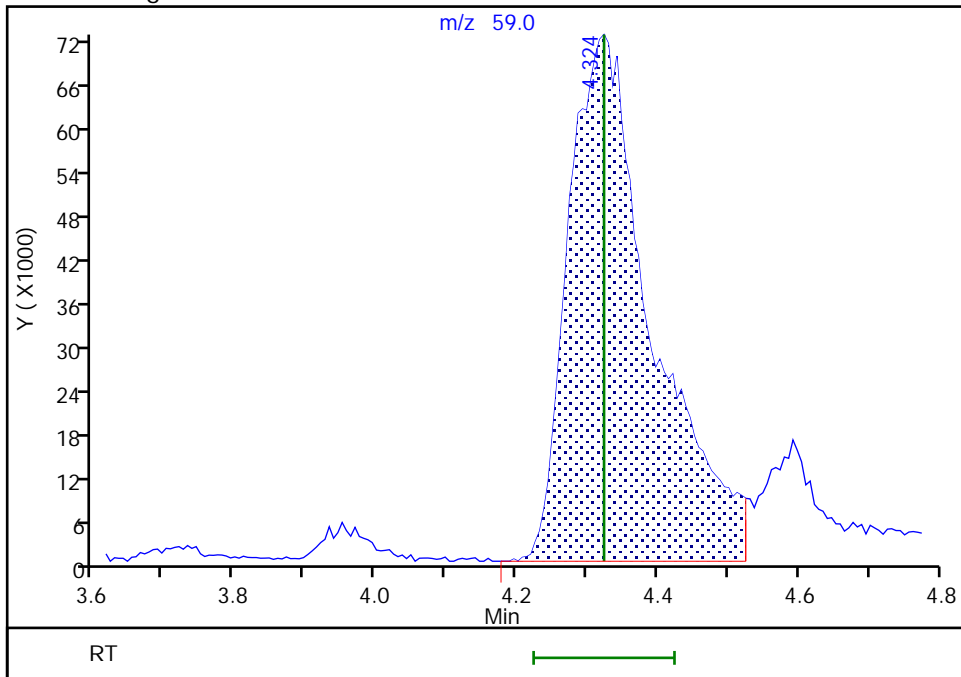
RT: 3.95
Area: 24280
Amount: 200.0000
Amount Units: ug/l

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

Eurofins Lancaster Laboratories Env, LLC

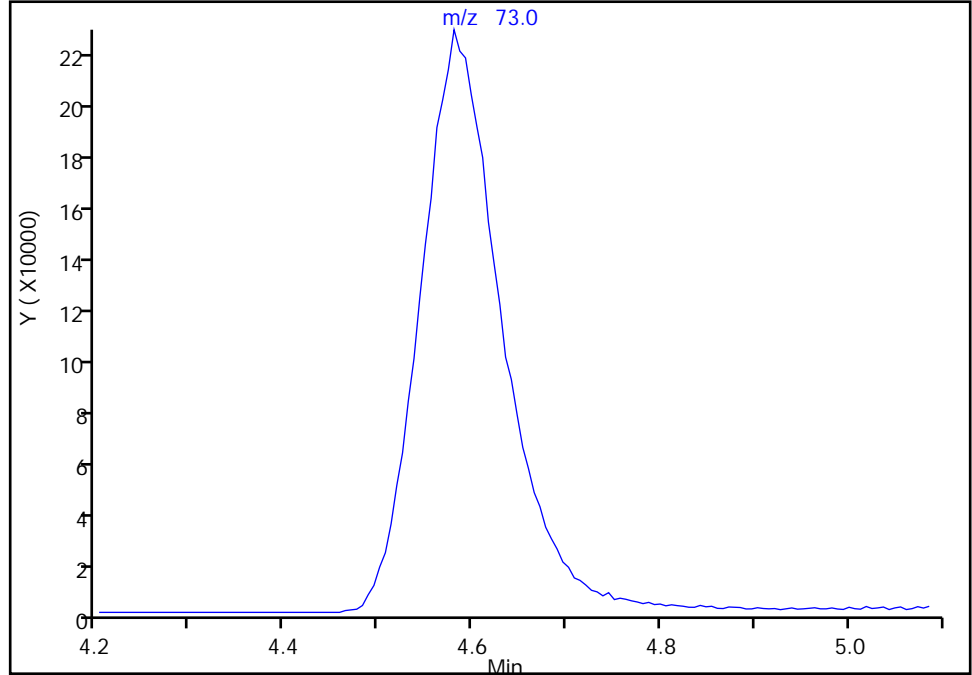
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

32 Methyl tert-butyl ether, CAS: 1634-04-4

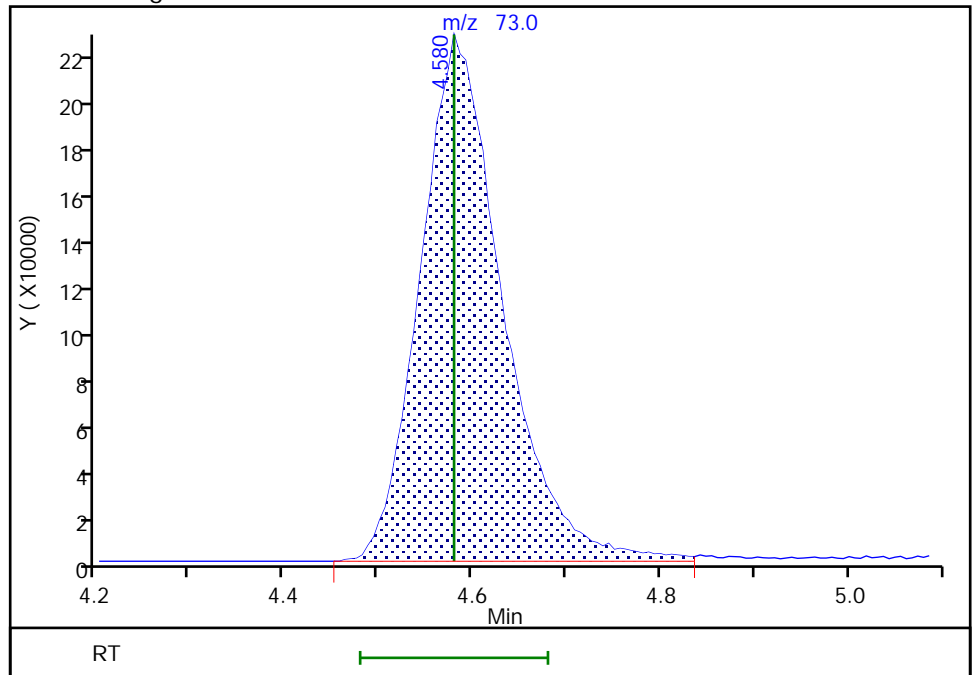
Signal: 1

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

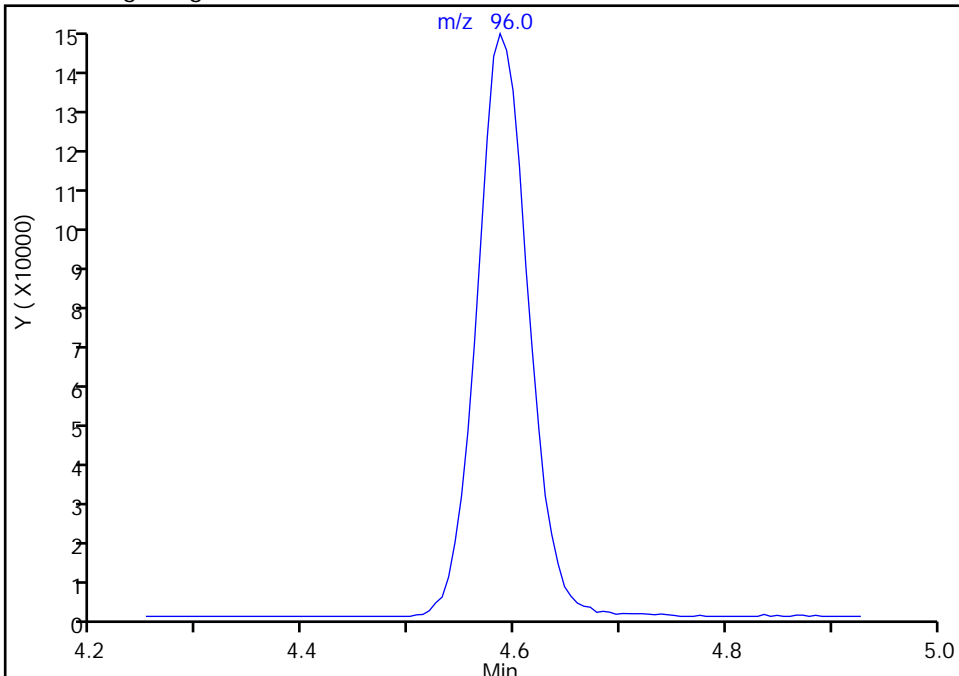
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Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

33 trans-1,2-Dichloroethene, CAS: 156-60-5

Signal: 1

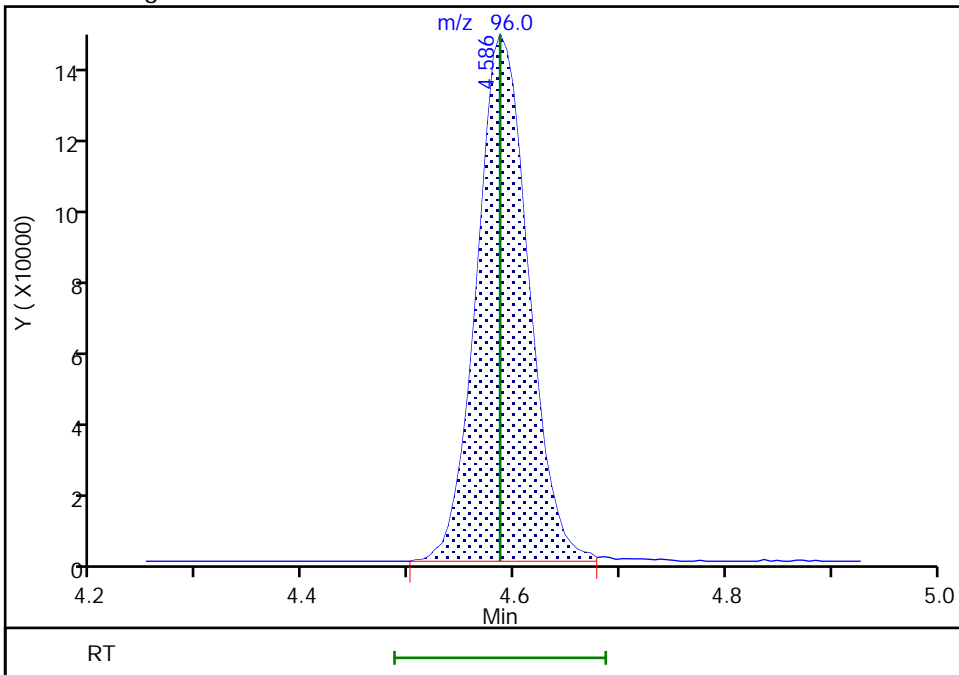
Not Detected
Expected RT: 4.59

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

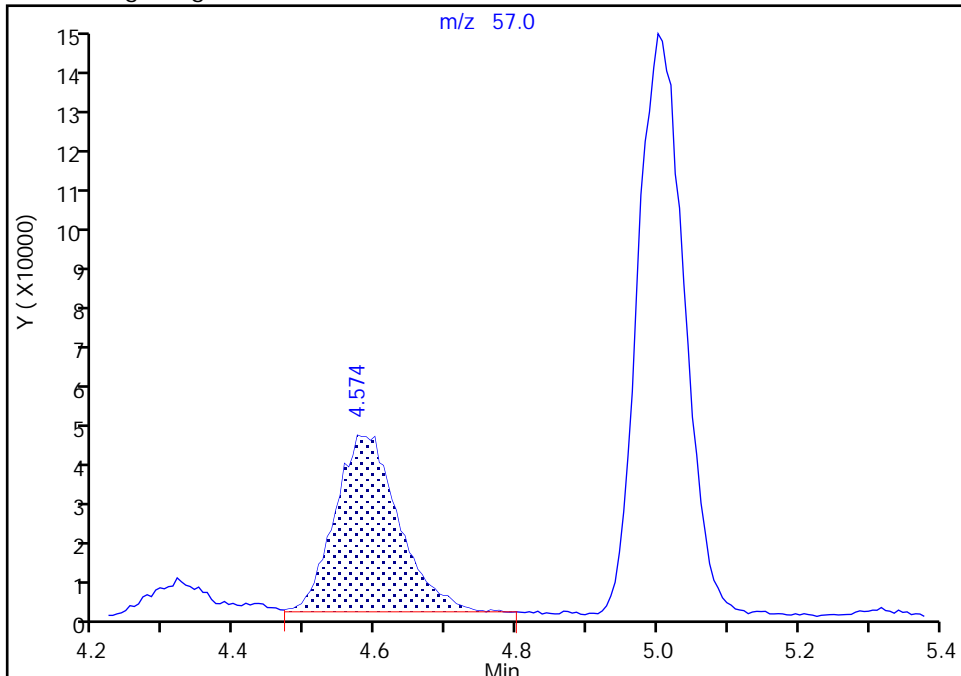
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

34 Hexane, CAS: 110-54-3

Signal: 1

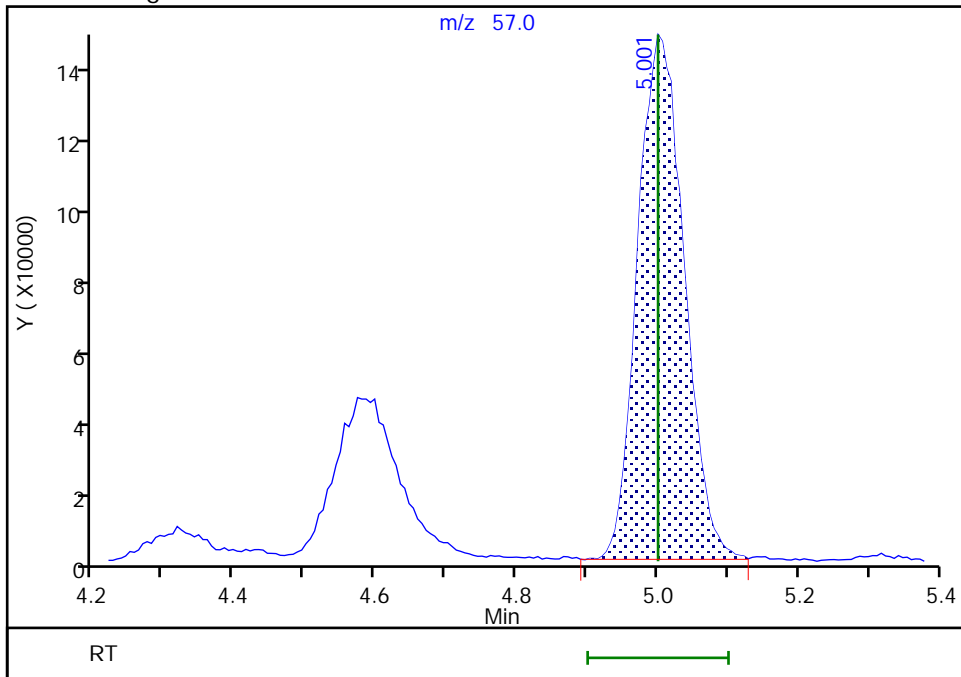
RT: 4.57
Area: 282868
Amount: 0.001103
Amount Units: ug/l

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

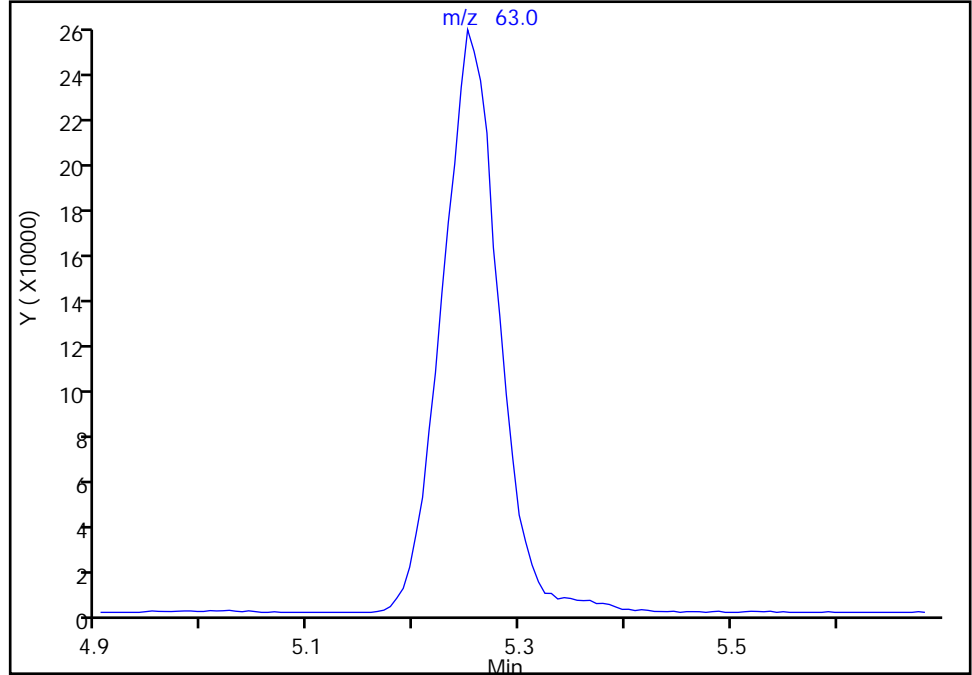
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

36 1,1-Dichloroethane, CAS: 75-34-3

Signal: 1

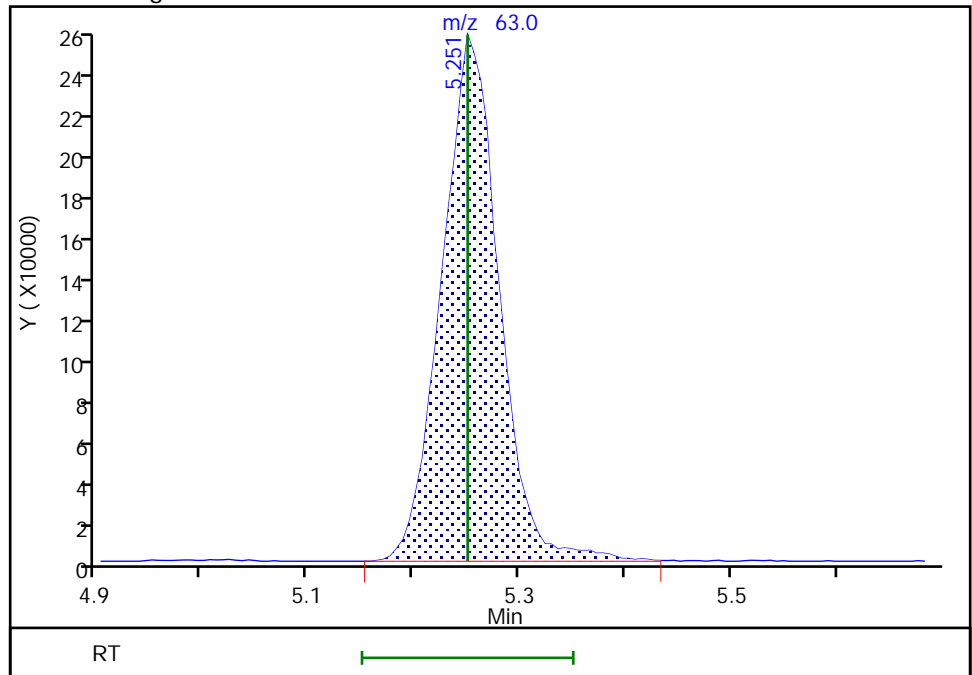
Not Detected
Expected RT: 5.25

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

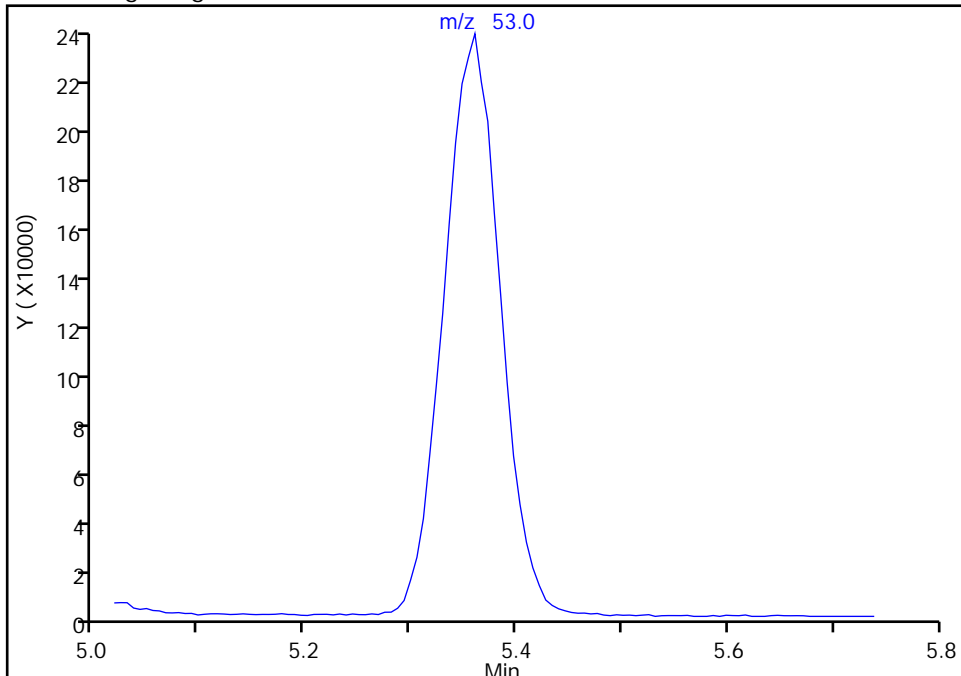
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

38 2-Chloro-1,3-butadiene, CAS: 126-99-8

Signal: 1

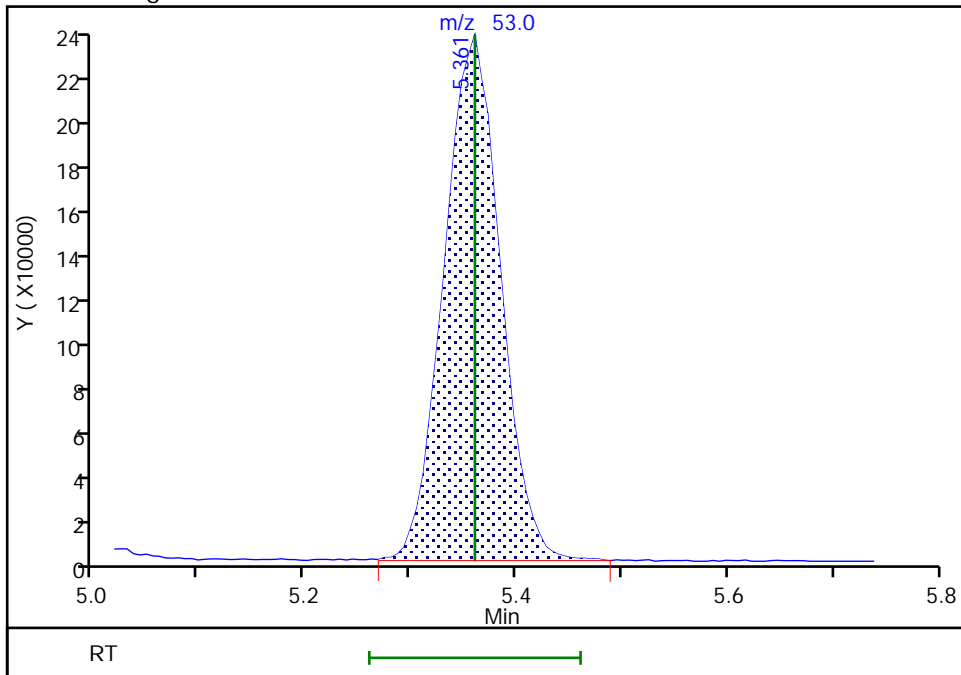
Not Detected
Expected RT: 5.36

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

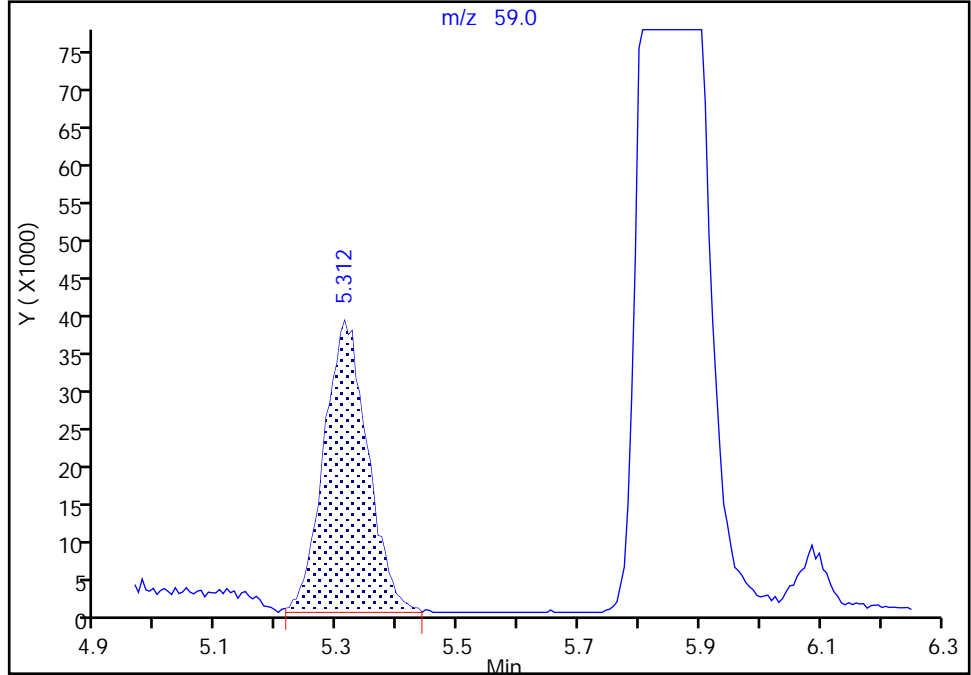
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Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

39 Tert-butyl ethyl ether, CAS: 637-92-3

Signal: 1

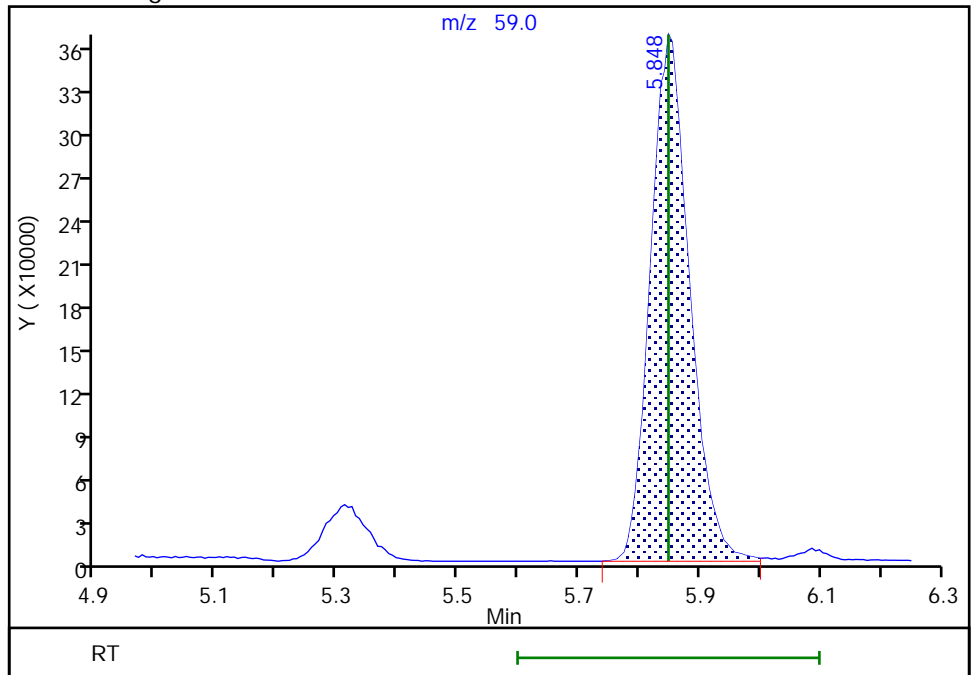
RT: 5.31
Area: 196016
Amount: 7.222909
Amount Units: ug/l

Processing Integration Results



RT: 5.85
Area: 1627371
Amount: 10.233724
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:21:42
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

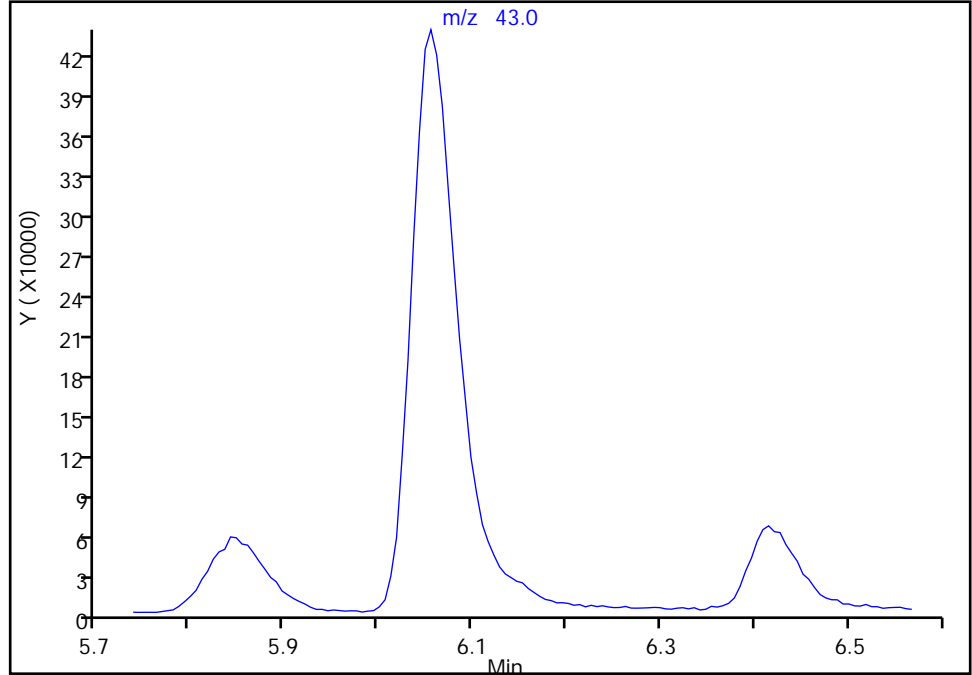
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

40 2-Butanone (MEK), CAS: 78-93-3

Signal: 1

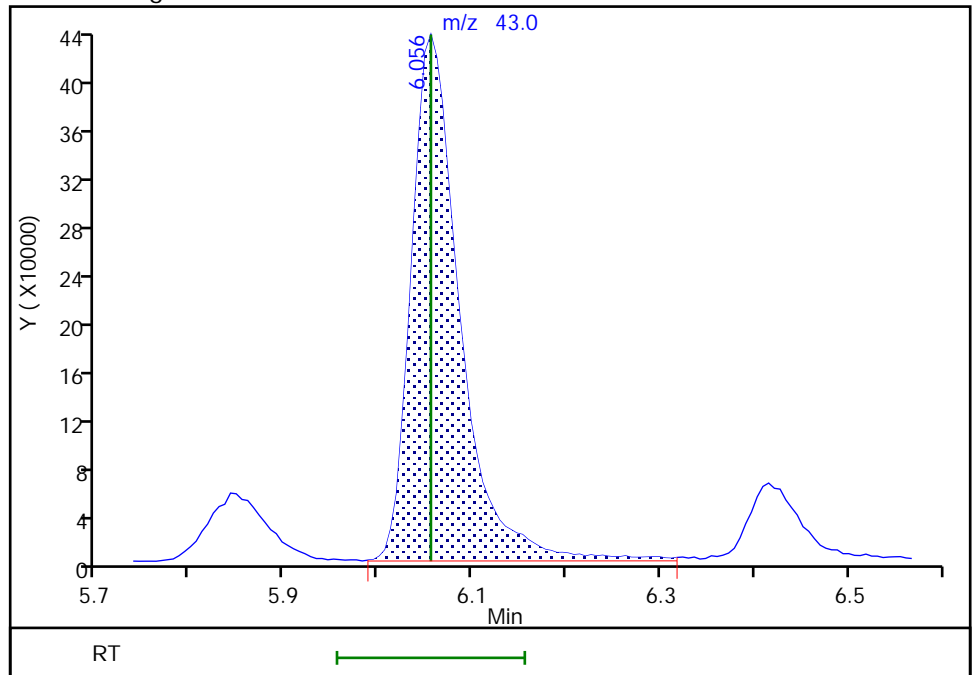
Not Detected
Expected RT: 6.06

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

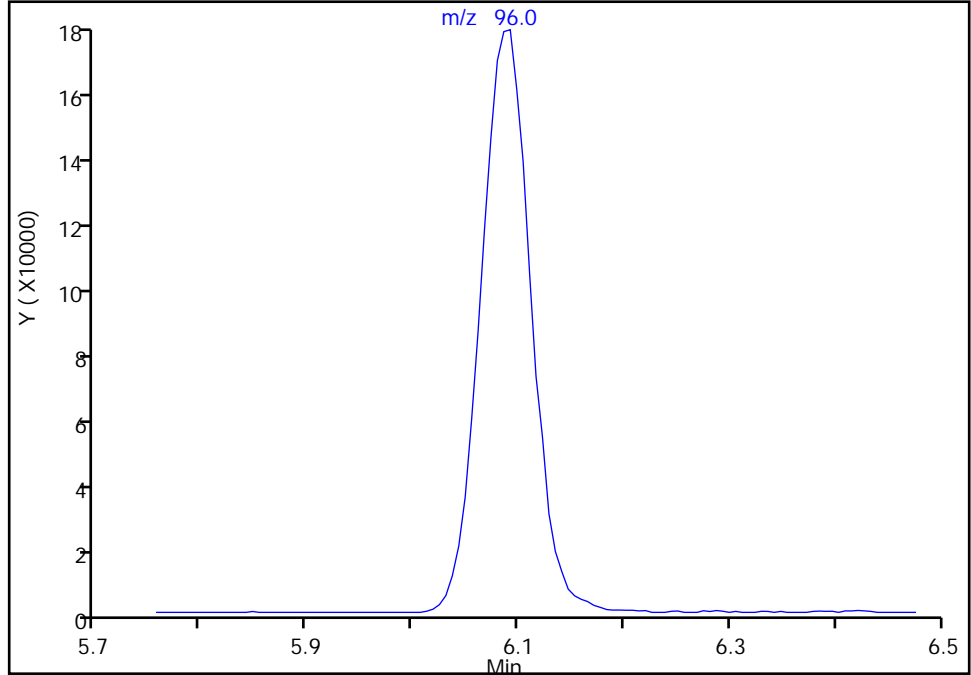
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

41 cis-1,2-Dichloroethene, CAS: 156-59-2

Signal: 1

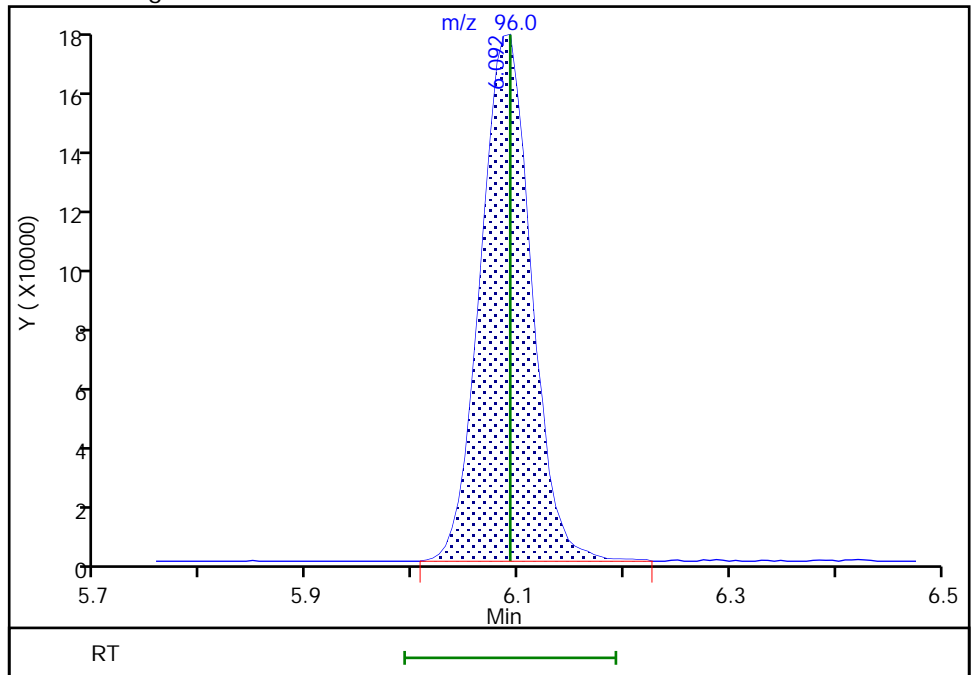
Not Detected
Expected RT: 6.09

Processing Integration Results



Manual Integration Results

RT: 6.09
Area: 577884
Amount: 10.291438
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 13:39:16
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

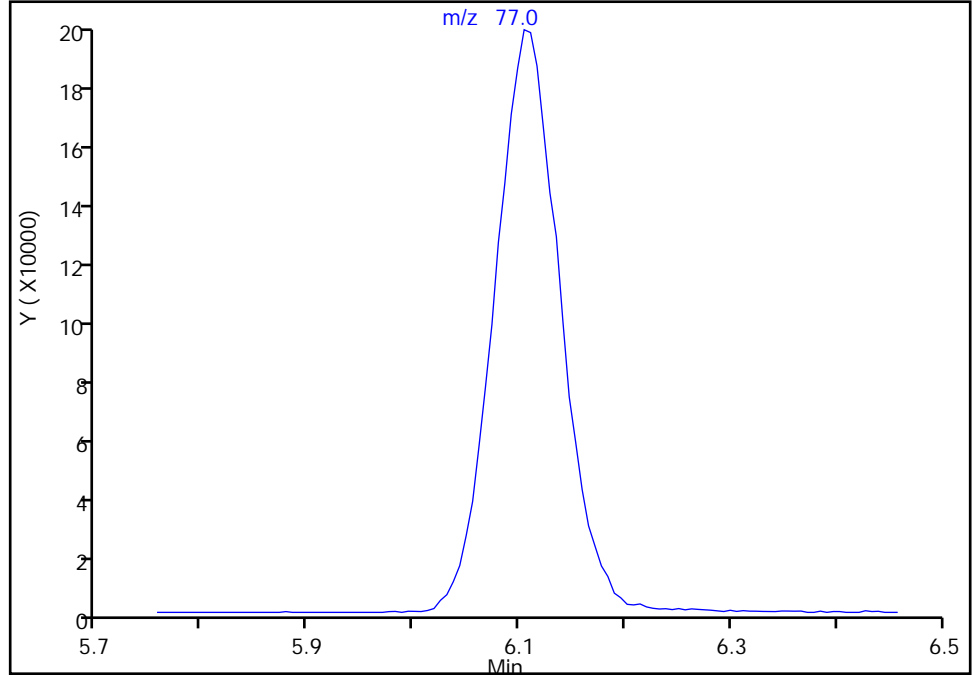
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

42 2,2-Dichloropropane, CAS: 594-20-7

Signal: 1

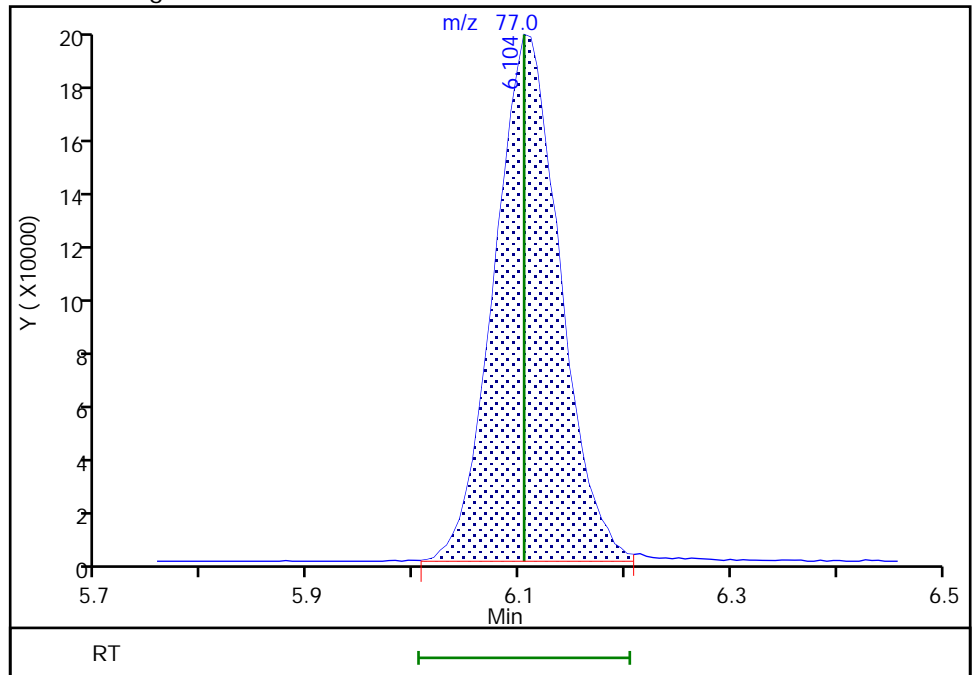
Not Detected
Expected RT: 6.10

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

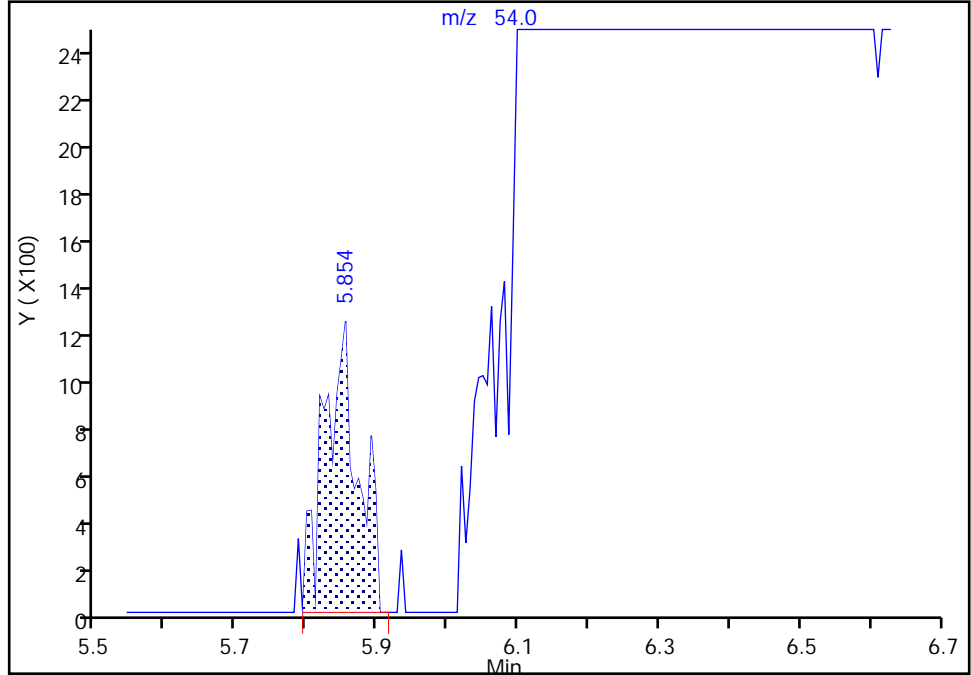
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

44 Propionitrile, CAS: 107-12-0

Signal: 1

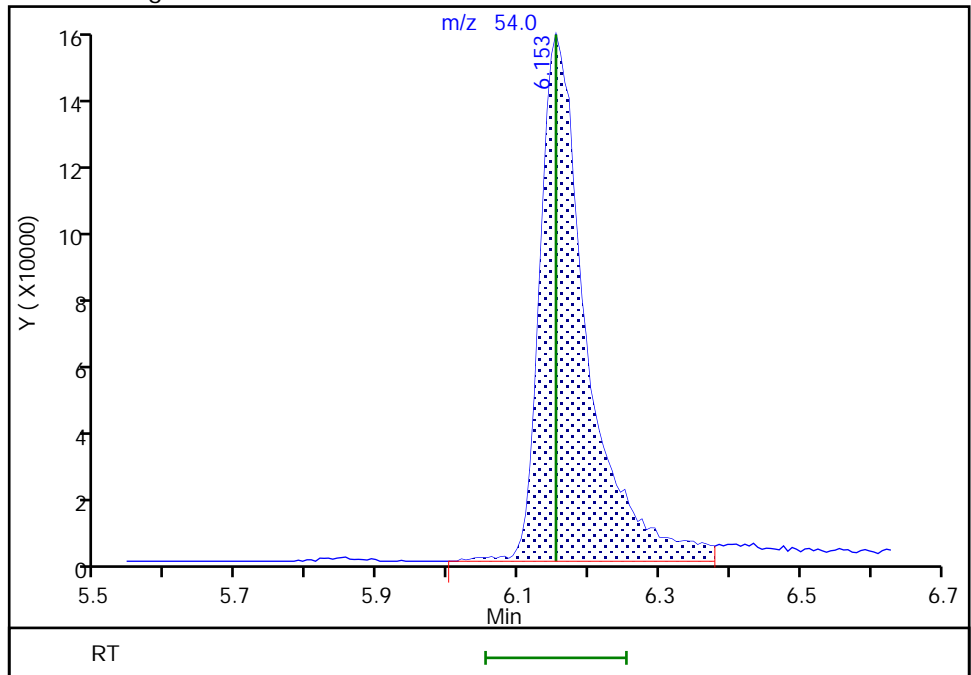
RT: 5.85
Area: 4019
Amount: 200.0000
Amount Units: ug/l

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

Eurofins Lancaster Laboratories Env, LLC

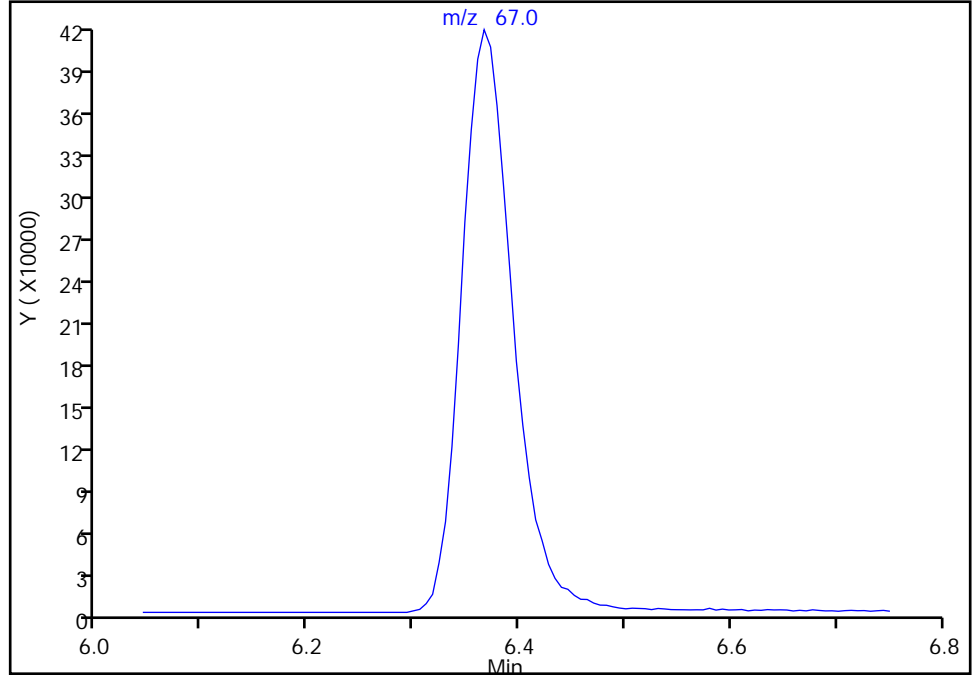
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I02.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

46 Methacrylonitrile, CAS: 126-98-7

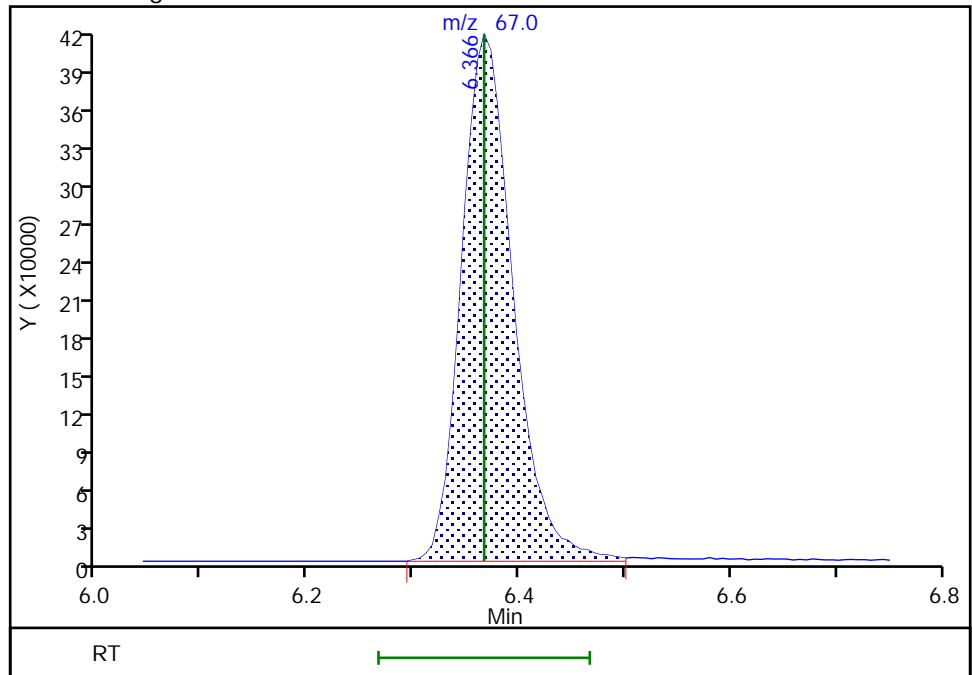
Signal: 1

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

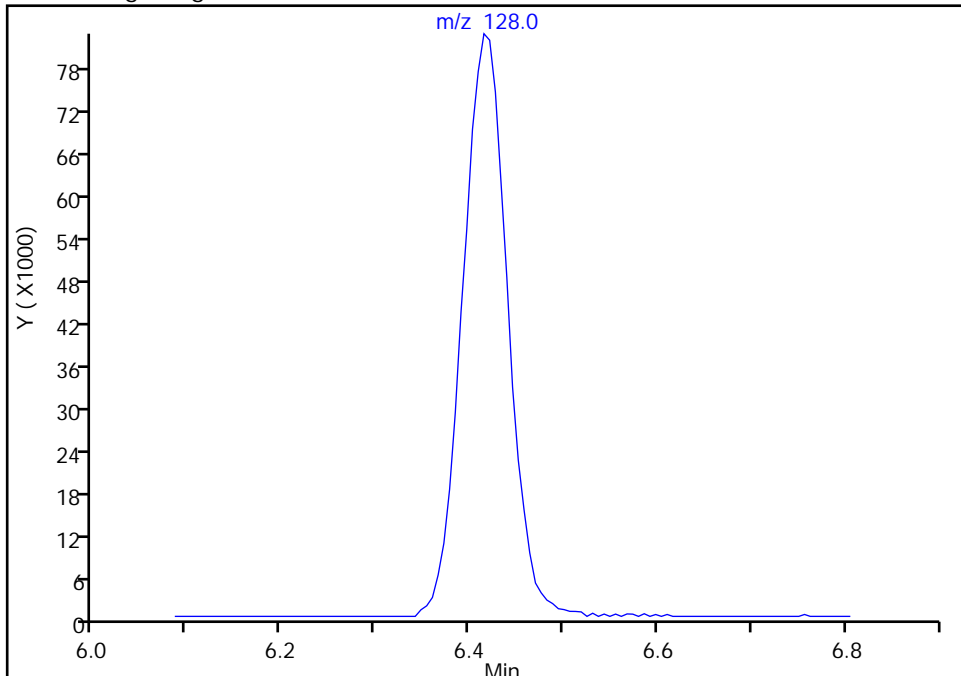
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

48 Chlorobromomethane, CAS: 74-97-5

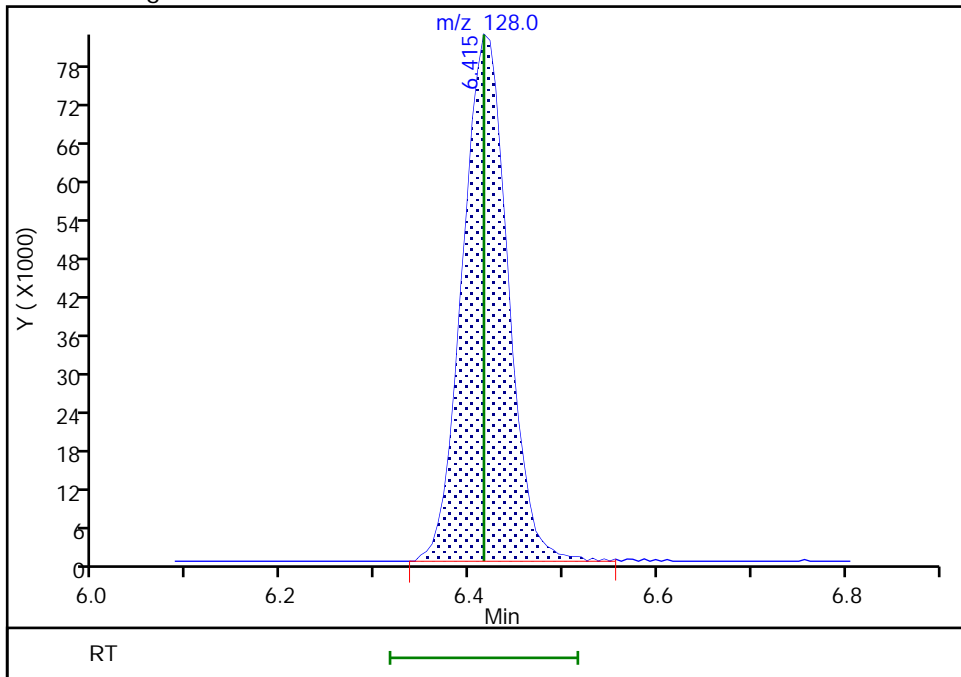
Signal: 1

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

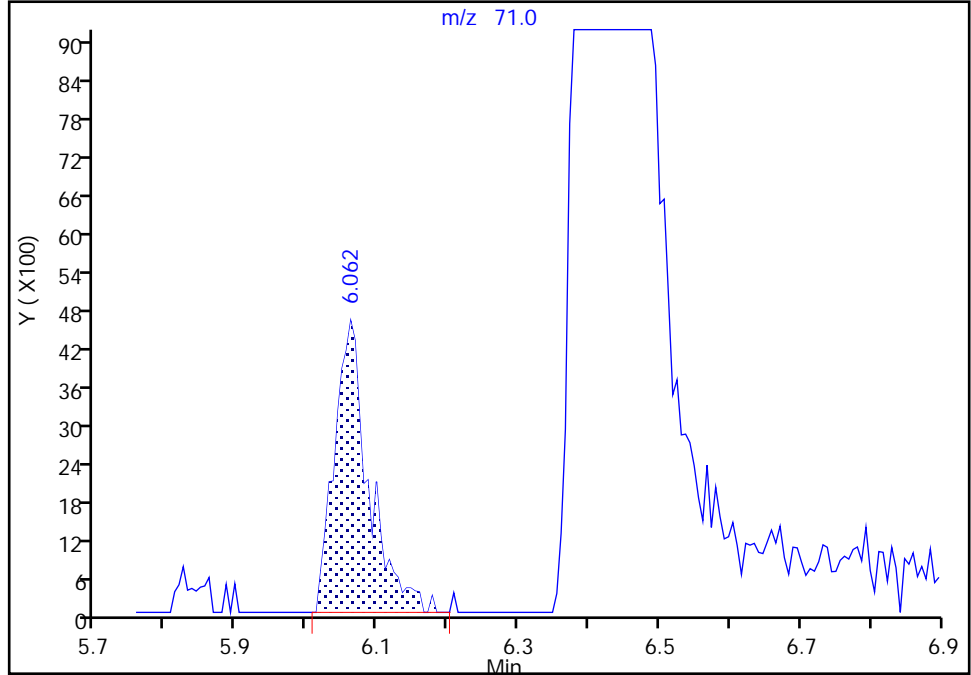
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

47 Tetrahydrofuran, CAS: 109-99-9

Signal: 1

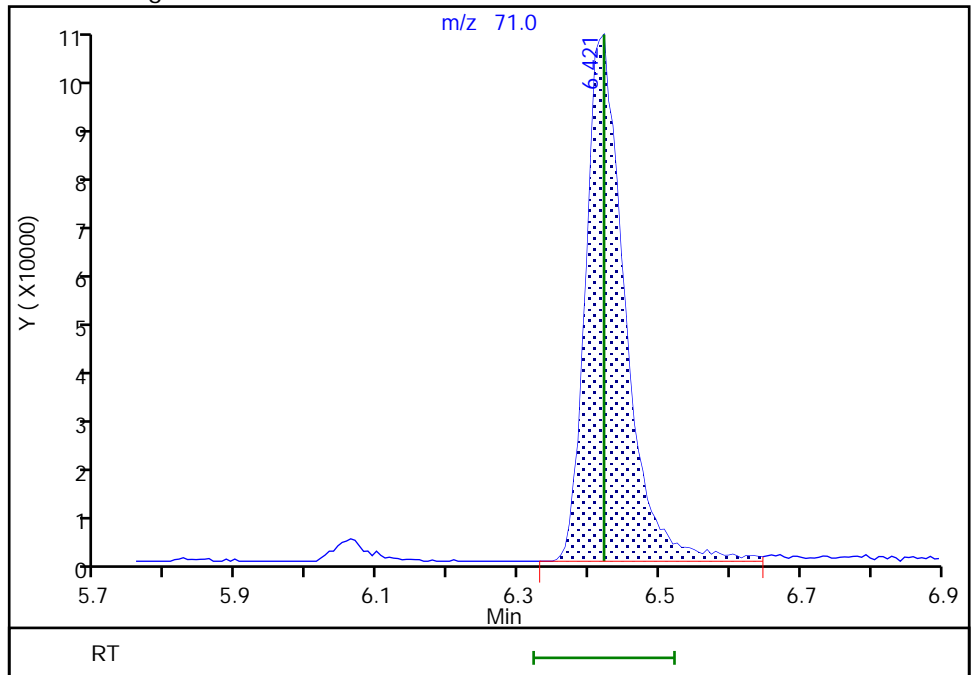
RT: 6.06
Area: 15500
Amount: 3.976724
Amount Units: ug/l

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

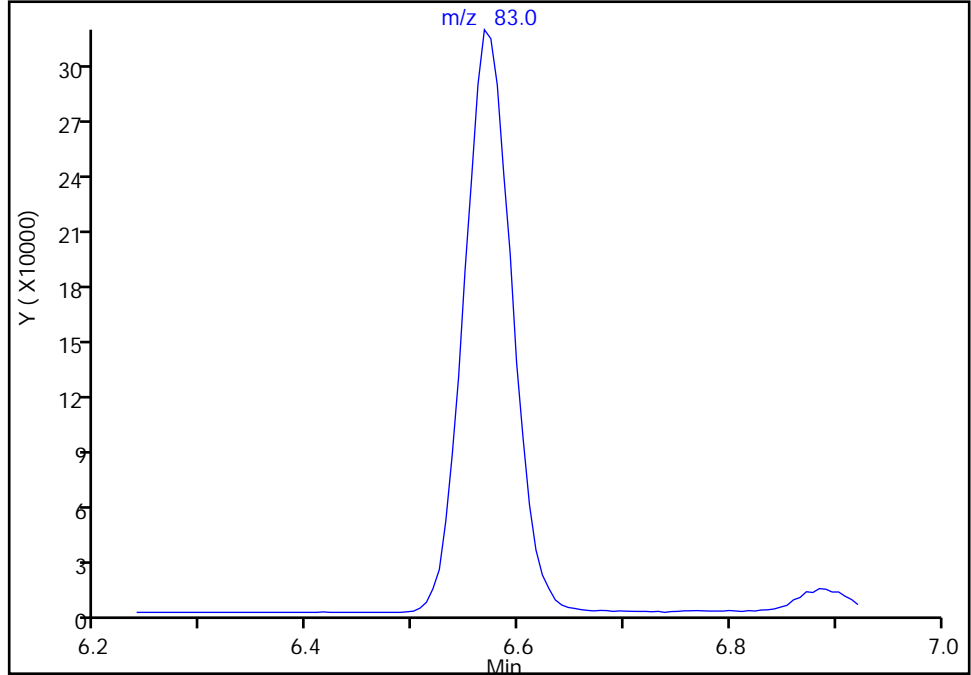
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

50 Chloroform, CAS: 67-66-3

Signal: 1

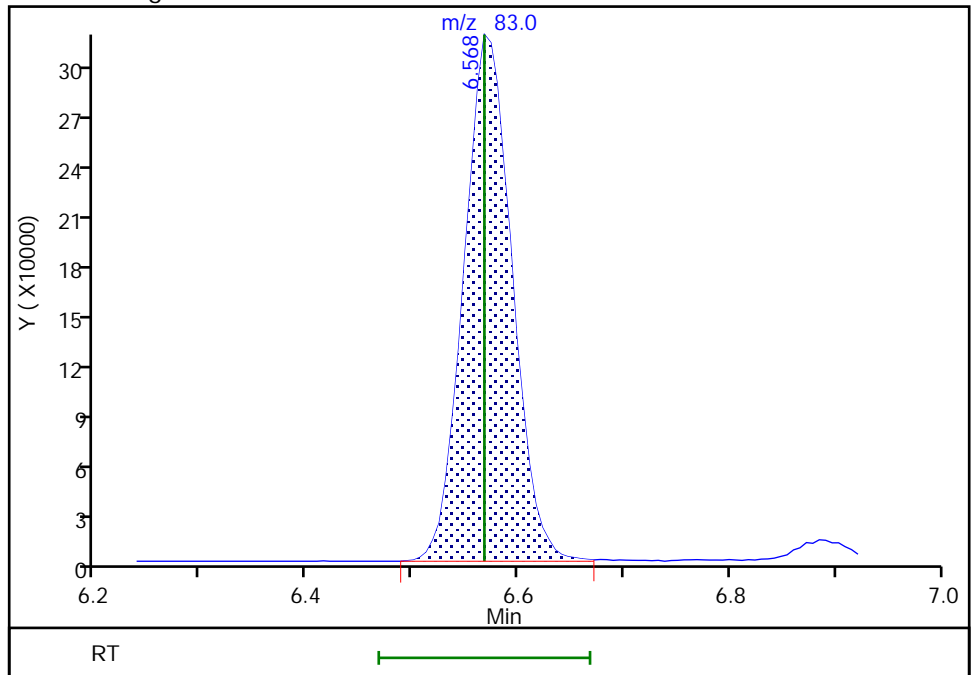
Not Detected
Expected RT: 6.57

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

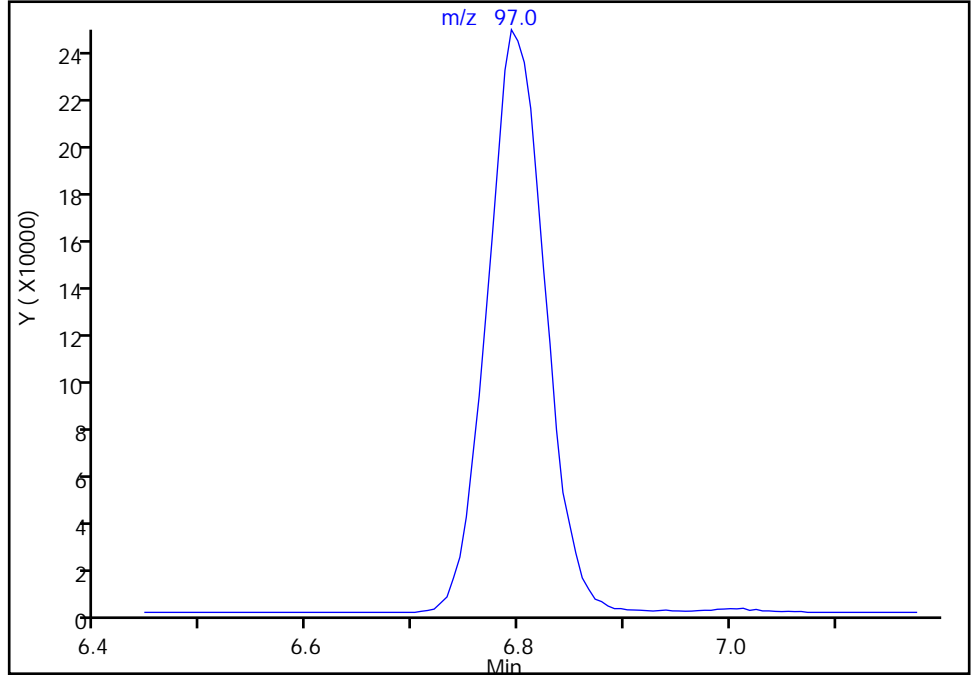
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

51 1,1,1-Trichloroethane, CAS: 71-55-6

Signal: 1

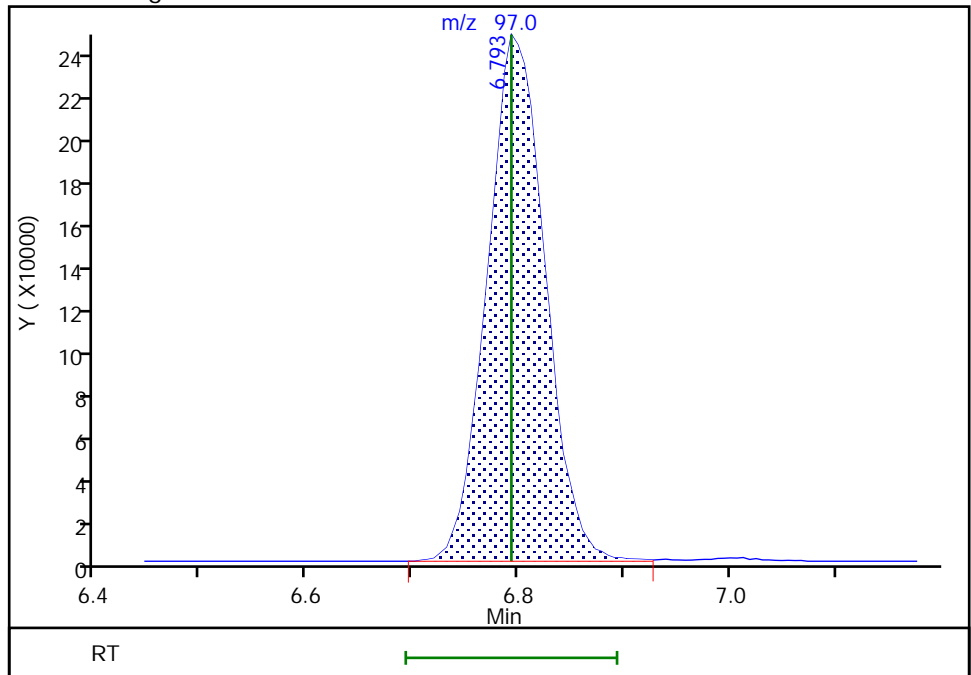
Not Detected
Expected RT: 6.79

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

Euofins Lancaster Laboratories Env, LLC

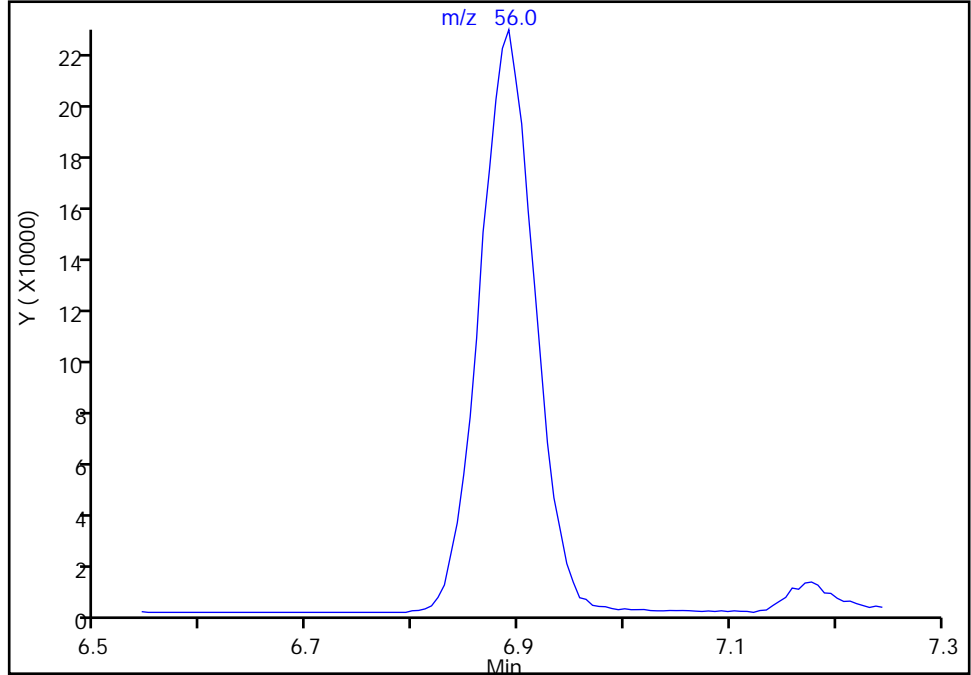
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

53 Cyclohexane, CAS: 110-82-7

Signal: 1

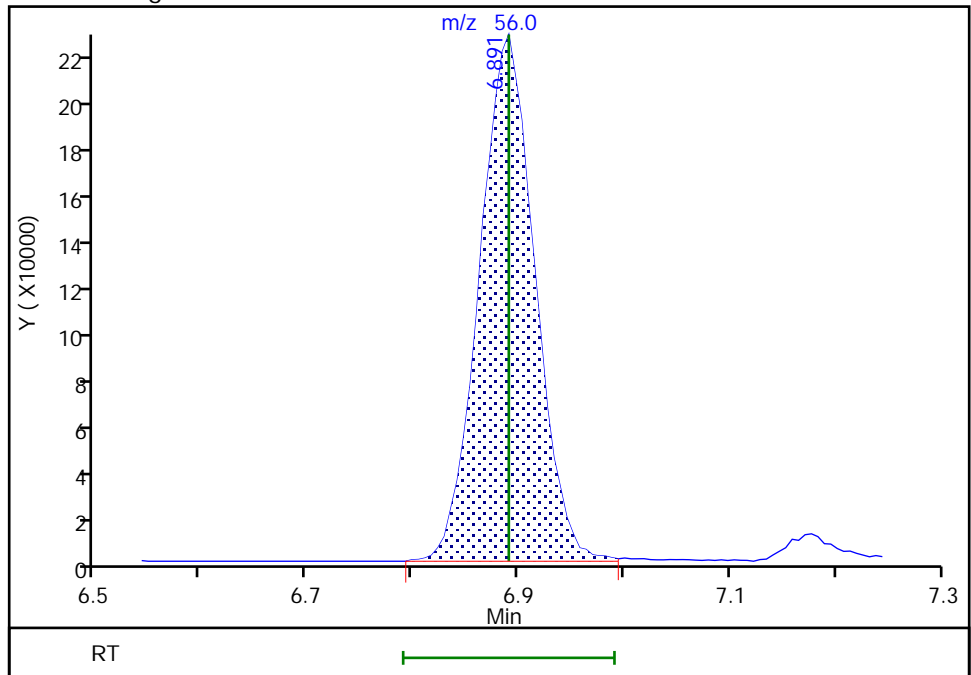
Not Detected
Expected RT: 6.89

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

Eurofins Lancaster Laboratories Env, LLC

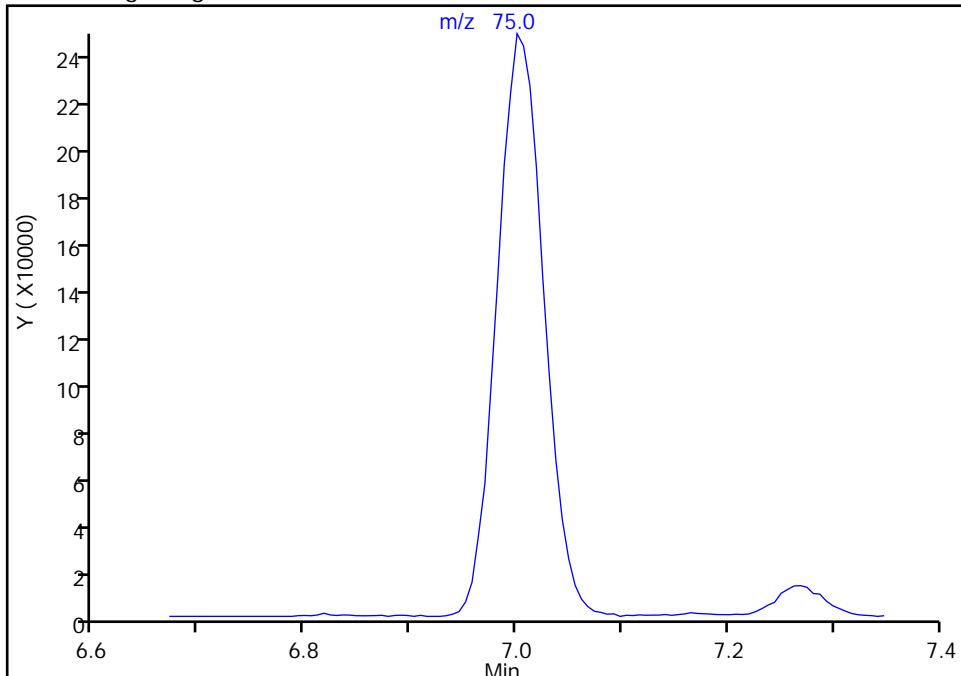
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

55 1,1-Dichloropropene, CAS: 563-58-6

Signal: 1

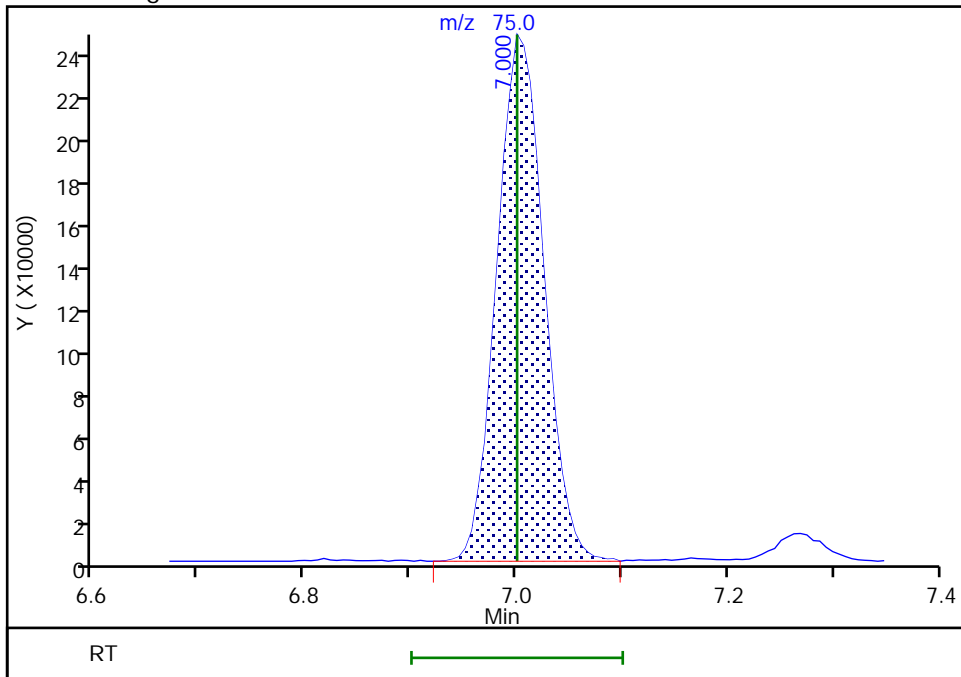
Not Detected
Expected RT: 7.00

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

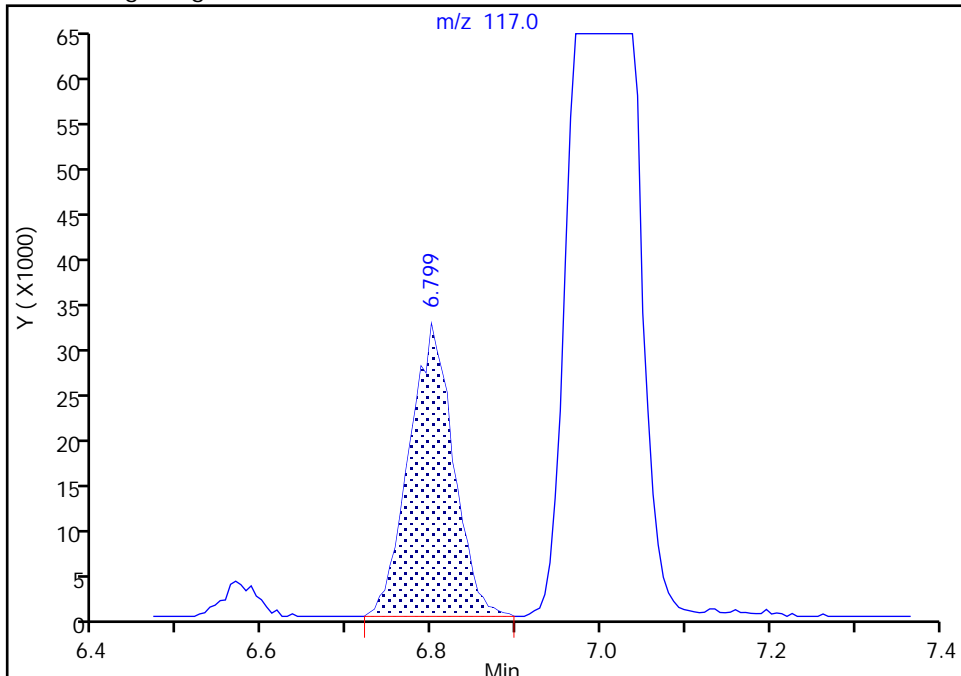
Data File:	\\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I02.D		
Injection Date:	11-Jun-2020 14:44:30	Instrument ID:	16334
Lims ID:	ICIS std6		
Client ID:			
Operator ID:	DVV10203	ALS Bottle#:	3
Purge Vol:	25.000 mL	Dil. Factor:	1.0000
Method:	MSV_16334_25mL	Limit Group:	MSV - 8260C_D
Column:	Rxi-624Sil MS Capillary Column (0.25mm ID)	Detector:	MS Quad
		Worklist Smp#:	4

56 Carbon tetrachloride, CAS: 56-23-5

Signal: 1

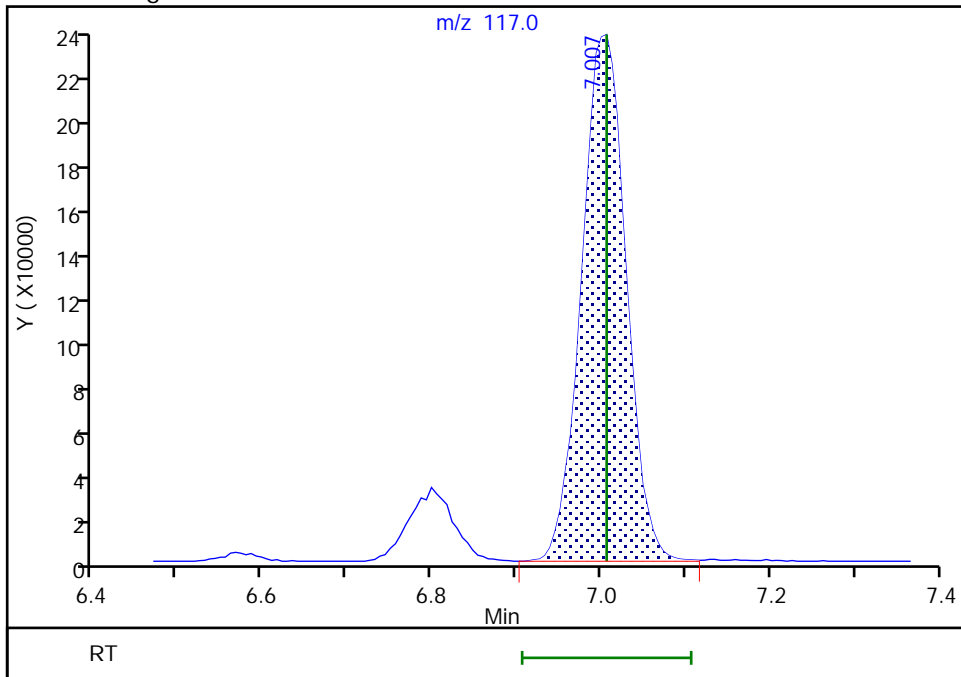
RT: 6.80
 Area: 117776
 Amount: 0.001473
 Amount Units: ug/l

Processing Integration Results



RT: 7.01
 Area: 839973
 Amount: 10.457033
 Amount Units: ug/l

Manual Integration Results



Eurofins Lancaster Laboratories Env, LLC

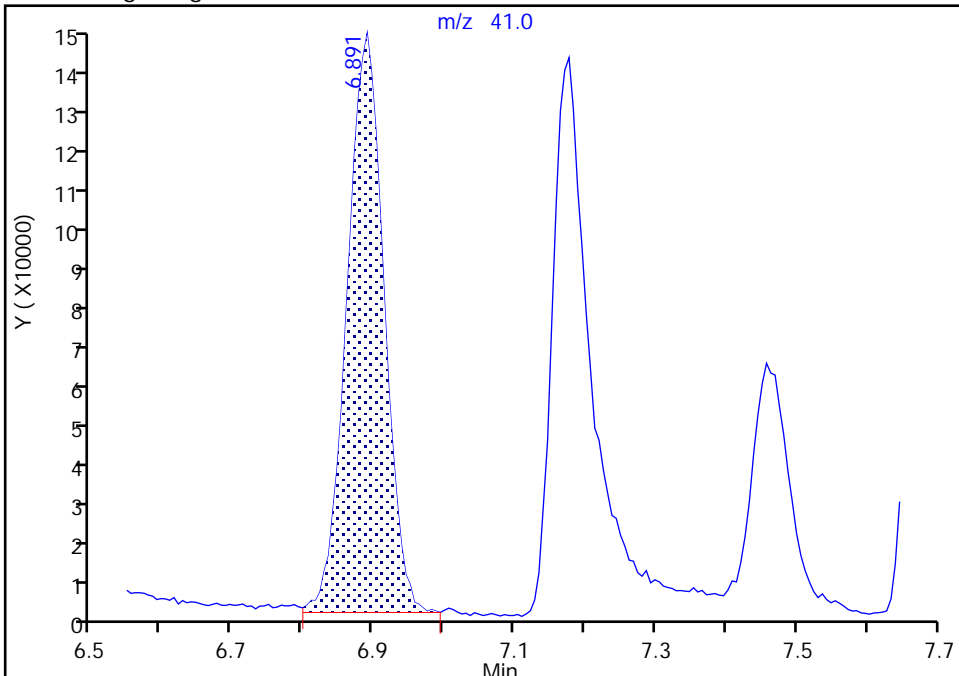
Data File:	\\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D		
Injection Date:	11-Jun-2020 14:44:30	Instrument ID:	16334
Lims ID:	ICIS std6		
Client ID:			
Operator ID:	DVV10203	ALS Bottle#:	3
Purge Vol:	25.000 mL	Dil. Factor:	1.0000
Method:	MSV_16334_25mL	Limit Group:	MSV - 8260C_D
Column:	Rxi-624Sil MS Capillary Column (0.25mm ID)	Detector:	MS Quad
		Worklist Smp#:	4

57 Isobutyl alcohol, CAS: 78-83-1

Signal: 1

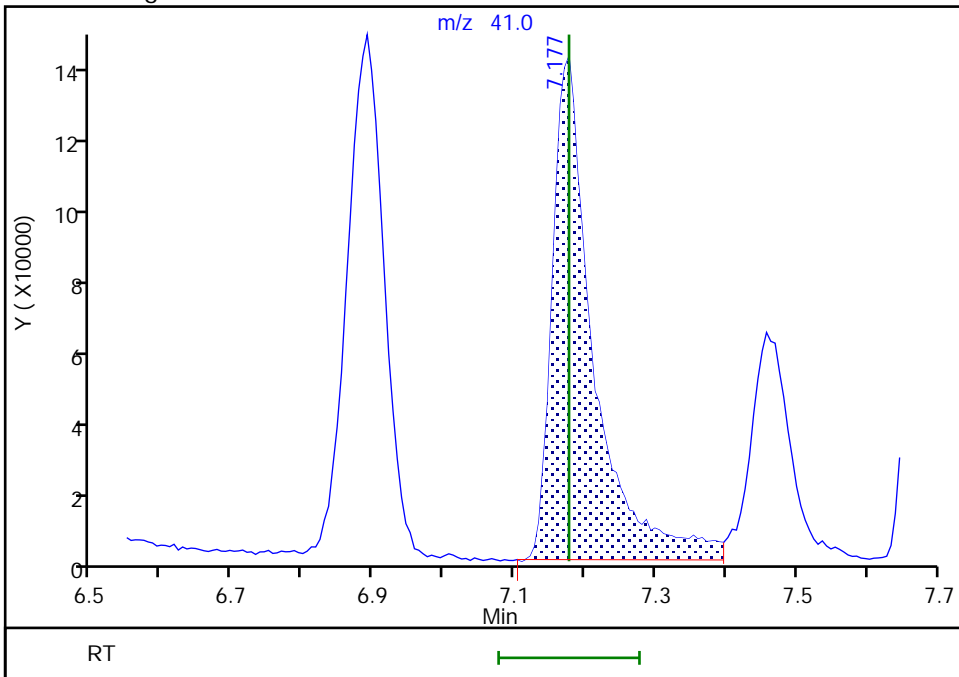
RT: 6.89
 Area: 541571
 Amount: 500.0000
 Amount Units: ug/l

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

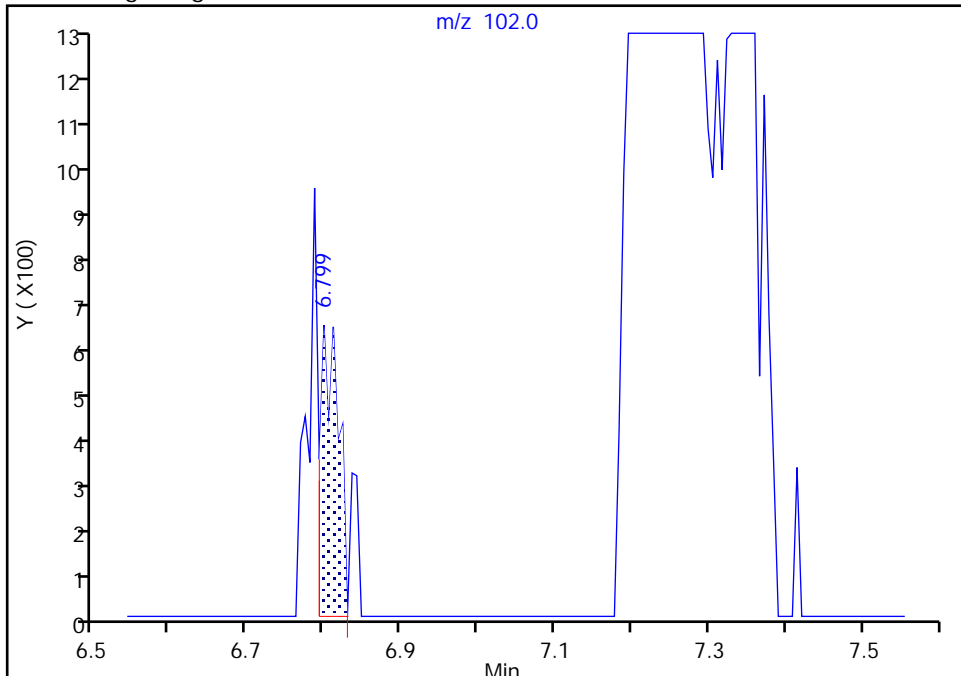
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

\$ 58 1,2-Dichloroethane-d4 (Surr), CAS: 17060-07-0

Signal: 1

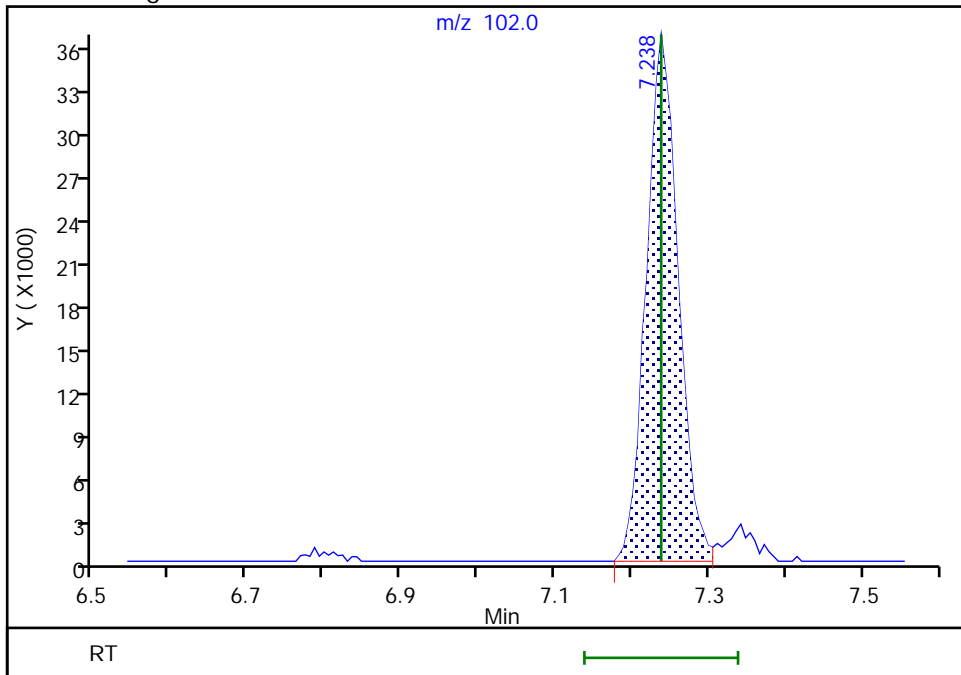
RT: 6.80
Area: 1036
Amount: 0.008789
Amount Units: ug/l

Processing Integration Results



RT: 7.24
Area: 103710
Amount: 10.066088
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:25:04
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

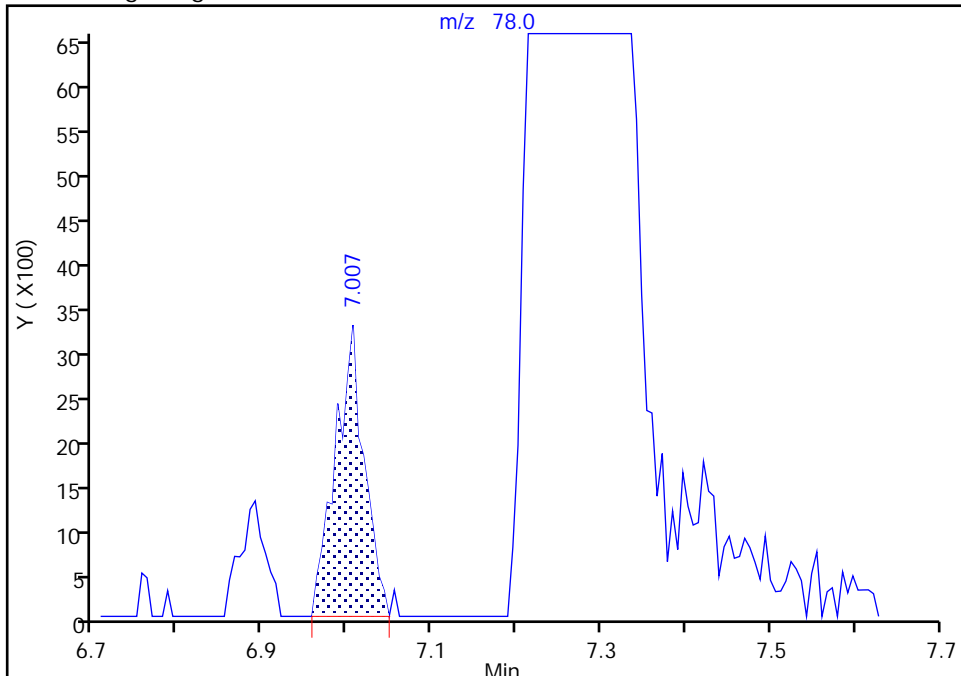
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I02.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

59 Benzene, CAS: 71-43-2

Signal: 1

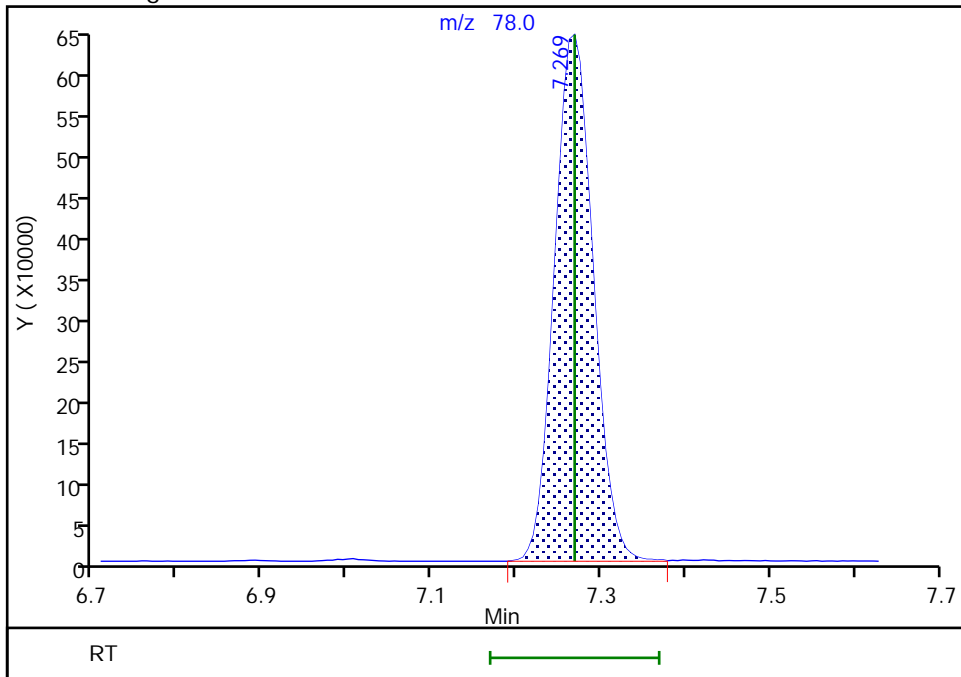
RT: 7.01
Area: 7678
Amount: 0.001442
Amount Units: ug/l

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

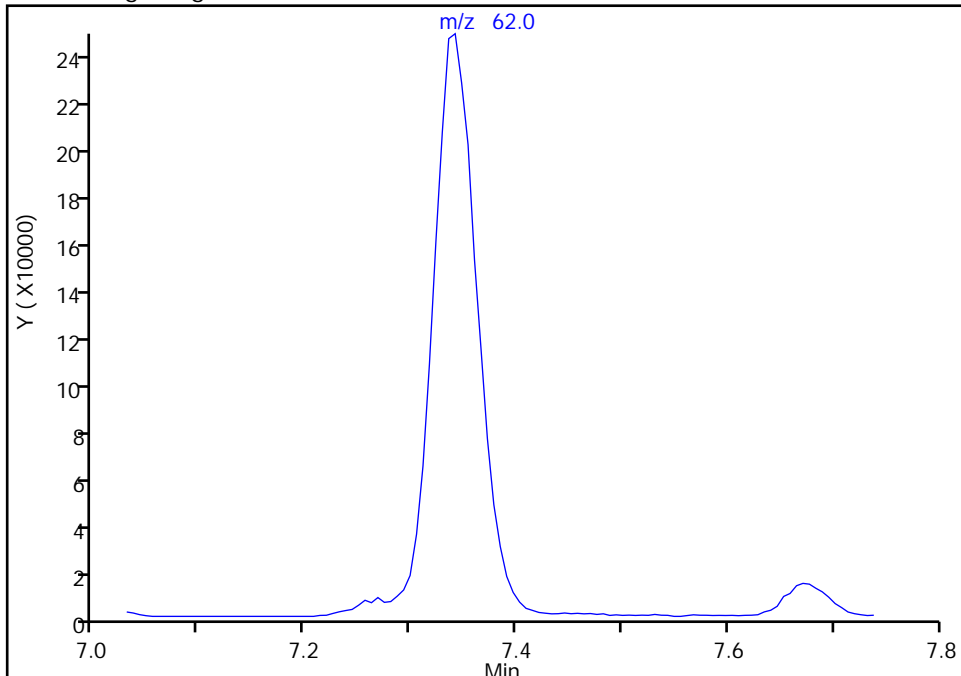
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I02.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

60 1,2-Dichloroethane, CAS: 107-06-2

Signal: 1

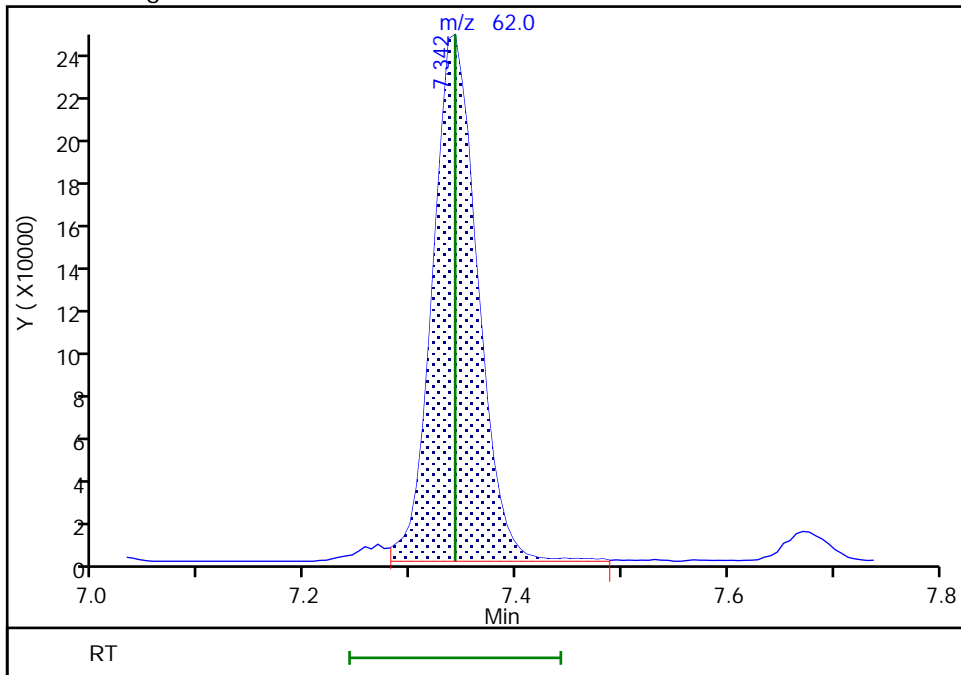
Not Detected
Expected RT: 7.34

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

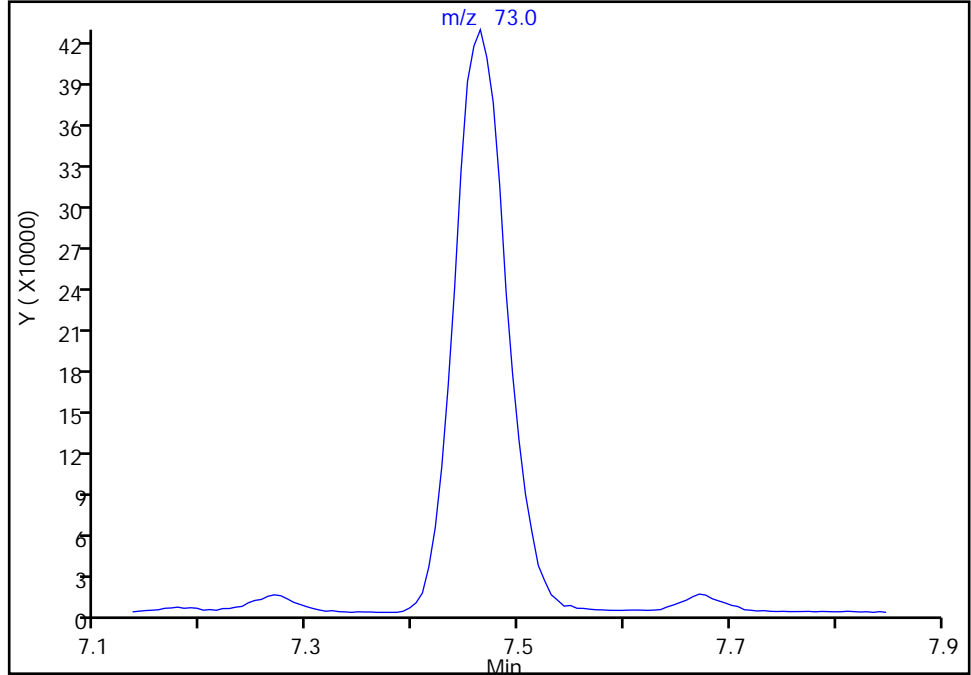
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

62 Tert-amyl methyl ether, CAS: 994-05-8

Signal: 1

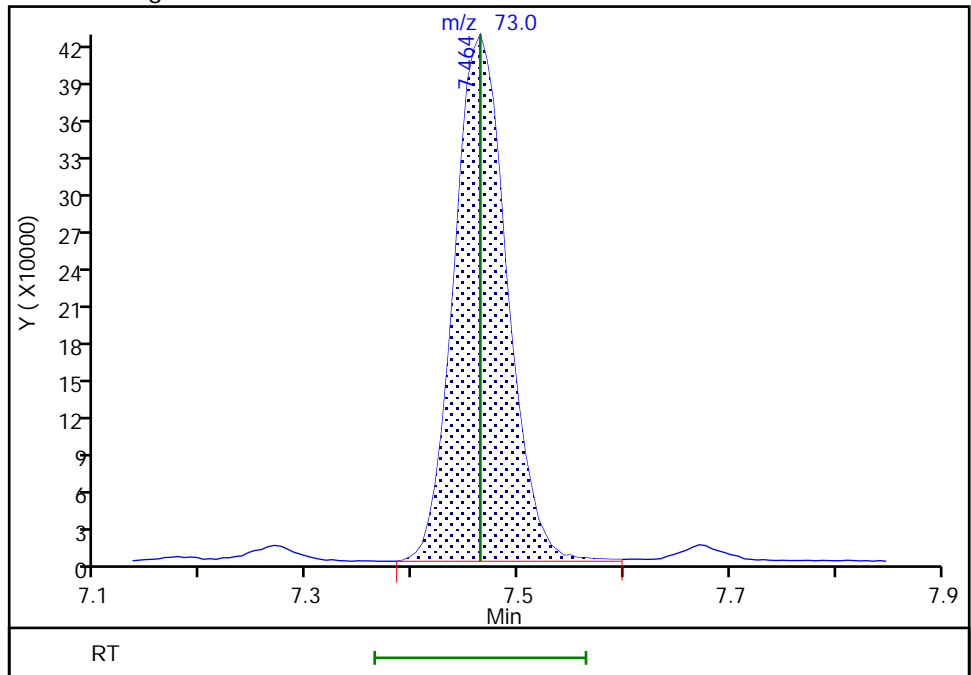
Not Detected
Expected RT: 7.46

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

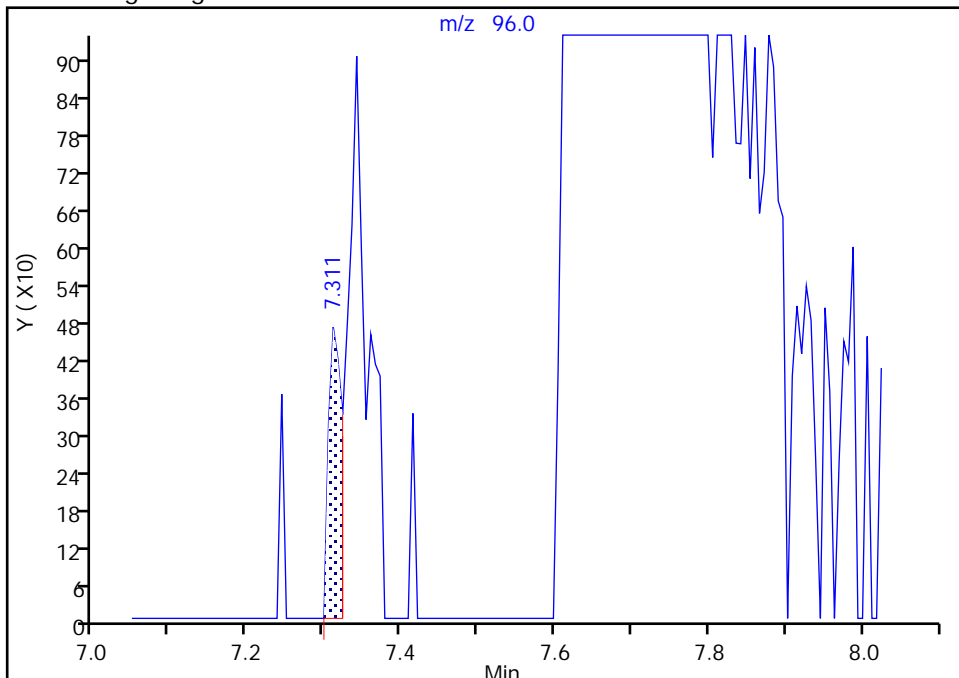
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 63 Fluorobenzene (IS), CAS: 462-06-6

Signal: 1

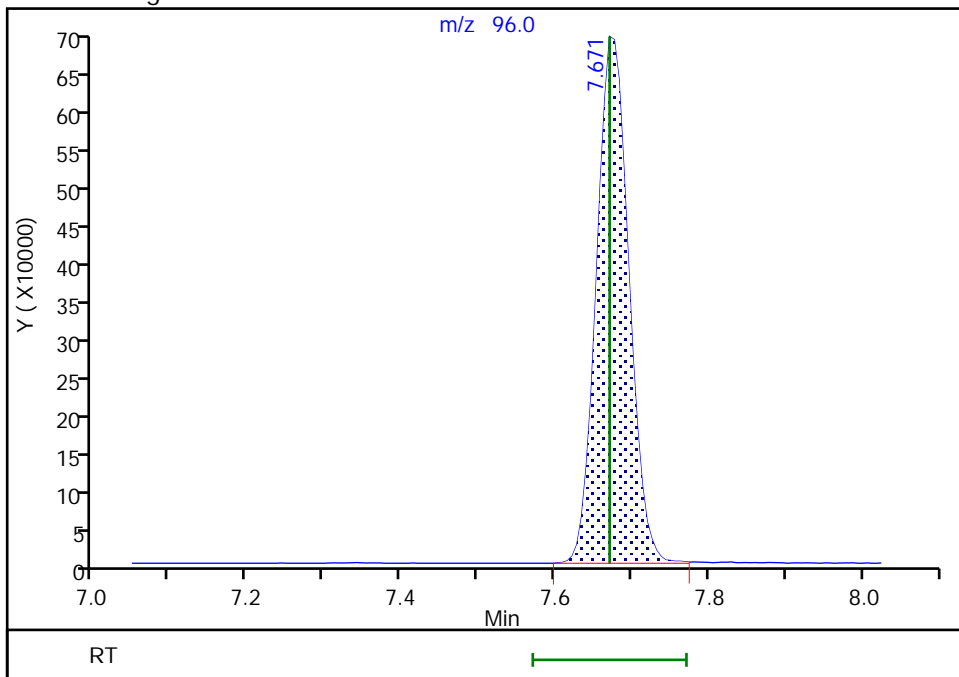
RT: 7.31
Area: 560
Amount: 10.000000
Amount Units: ug/l

Processing Integration Results



RT: 7.67
Area: 2025090
Amount: 10.000000
Amount Units: ug/l

Manual Integration Results



Eurofins Lancaster Laboratories Env, LLC

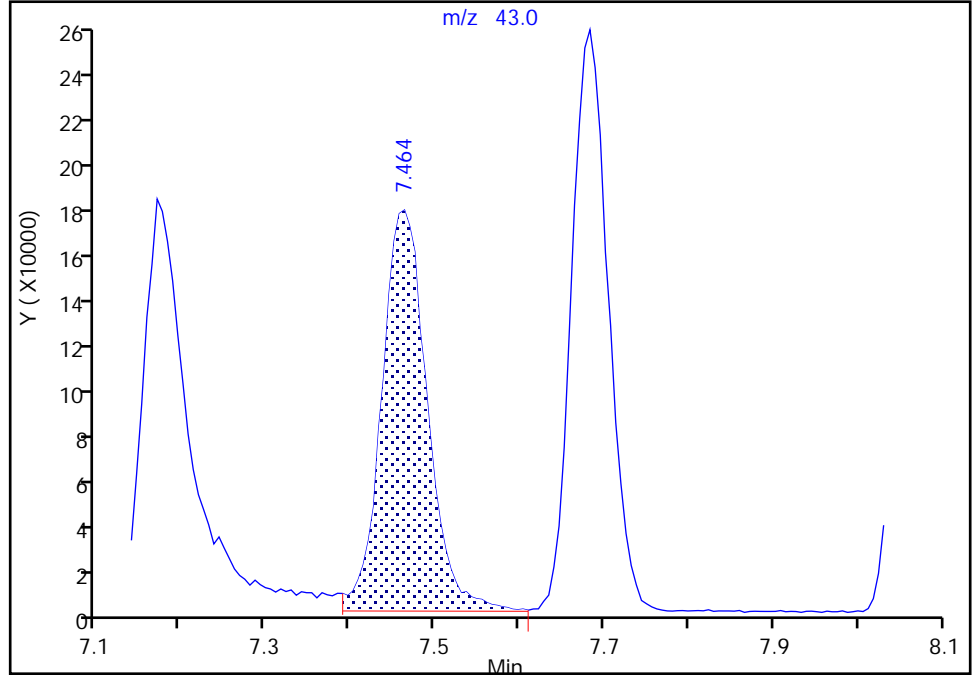
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I02.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

64 n-Heptane, CAS: 142-82-5

Signal: 1

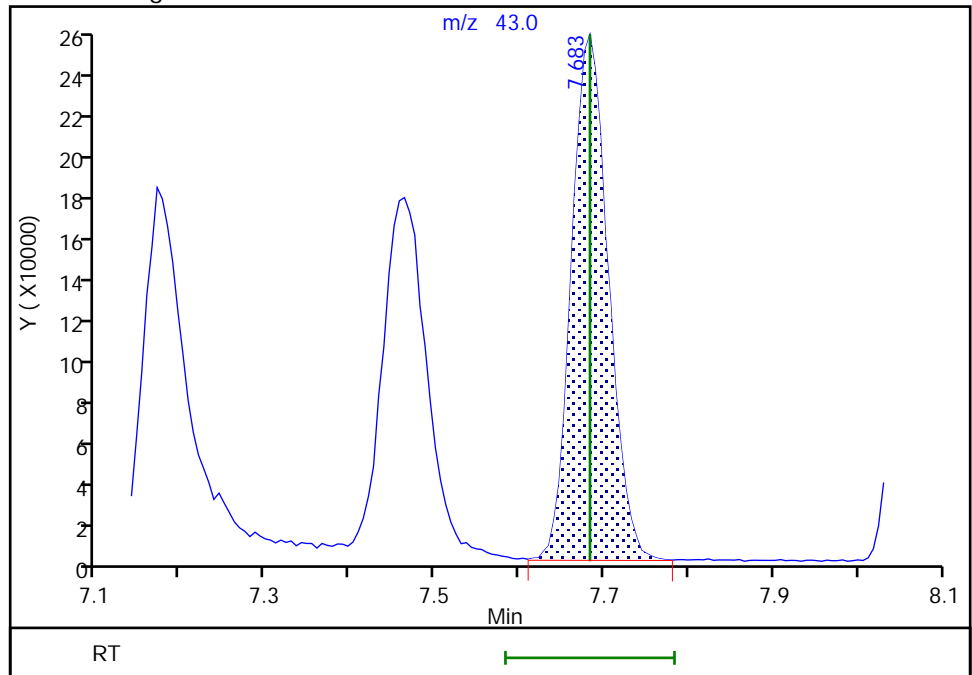
RT: 7.46
Area: 652020
Amount: 0.001236
Amount Units: ug/l

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

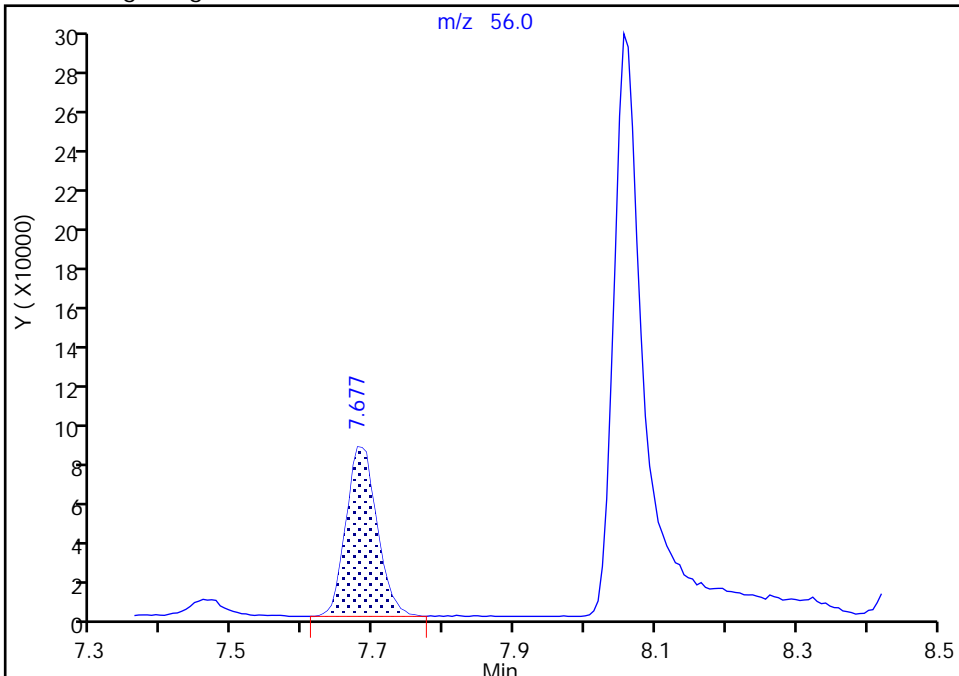
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I02.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

65 n-Butanol, CAS: 71-36-3

Signal: 1

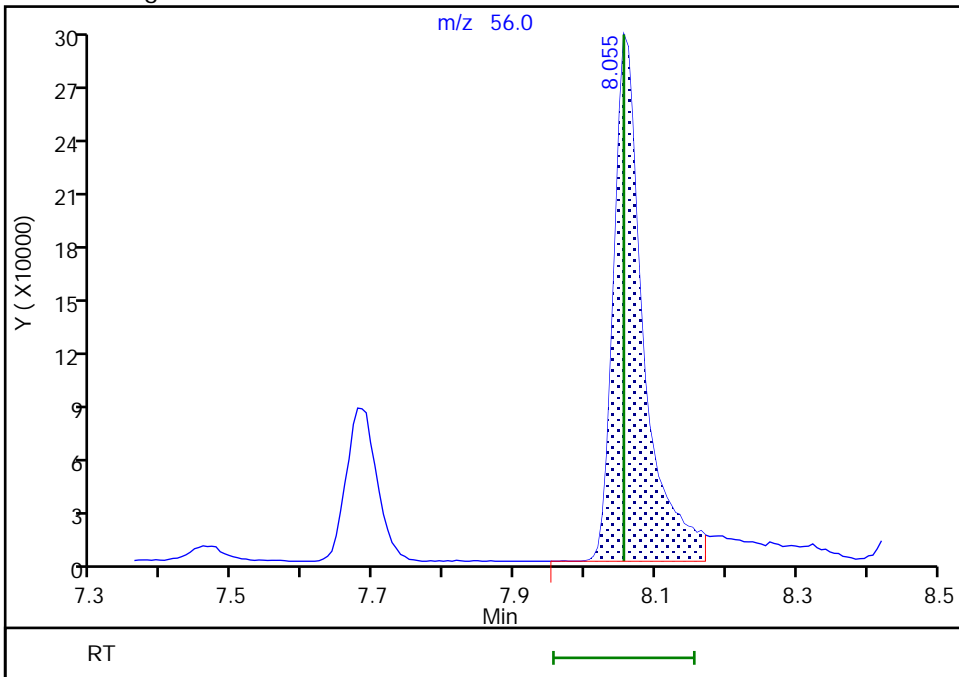
RT: 7.68
Area: 262564
Amount: 1000.0000
Amount Units: ug/l

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

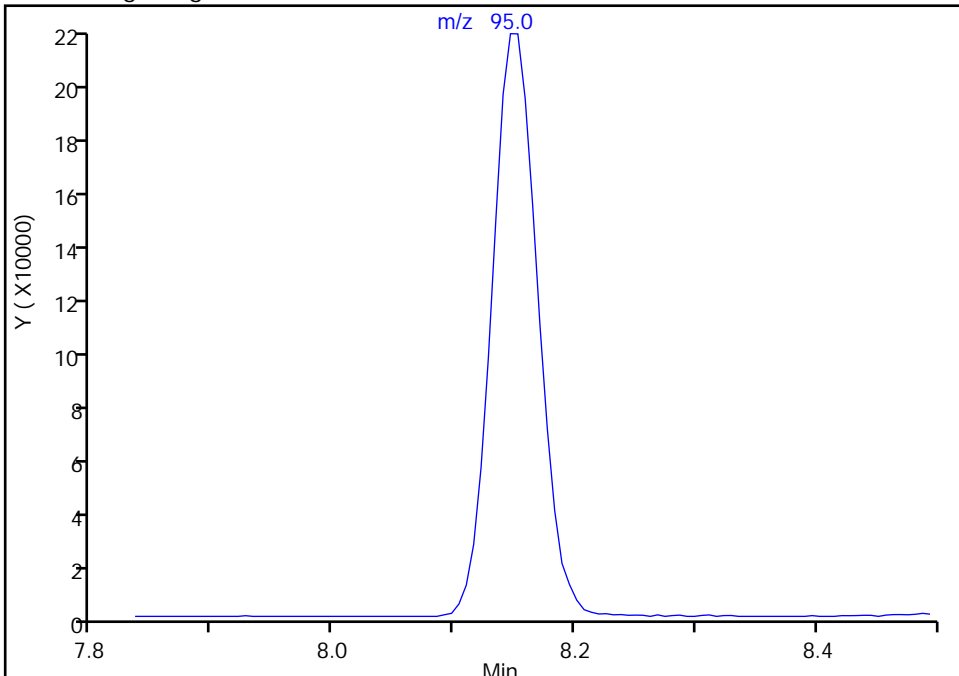
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

67 Trichloroethene, CAS: 79-01-6

Signal: 1

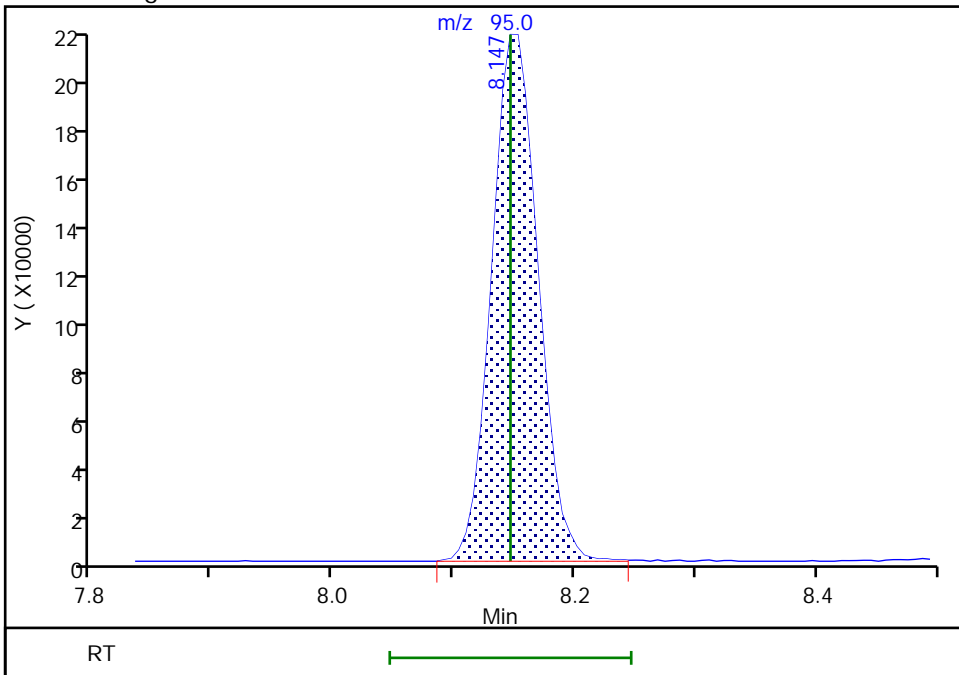
Not Detected
Expected RT: 8.15

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

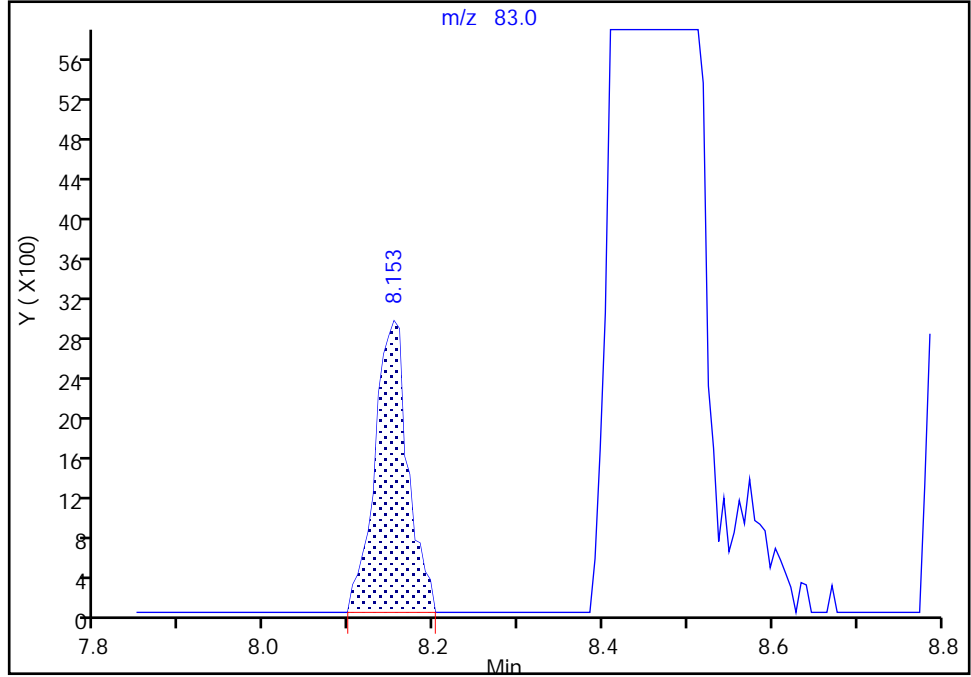
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I02.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

68 Methylcyclohexane, CAS: 108-87-2

Signal: 1

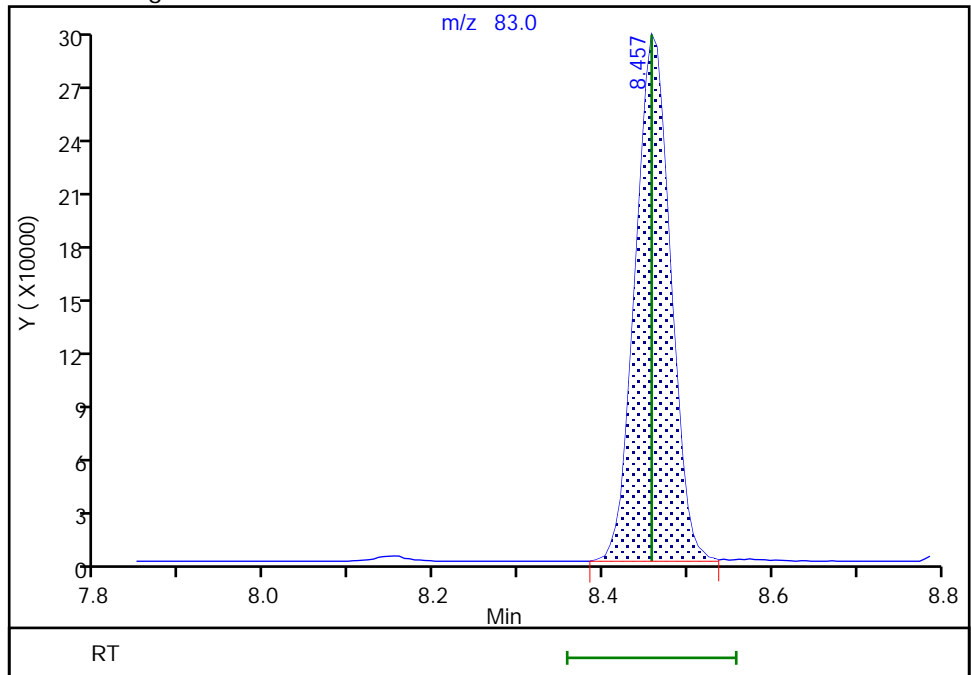
RT: 8.15
Area: 7965
Amount: 0.001564
Amount Units: ug/l

Processing Integration Results



RT: 8.46
Area: 848347
Amount: 10.247930
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:25:57
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

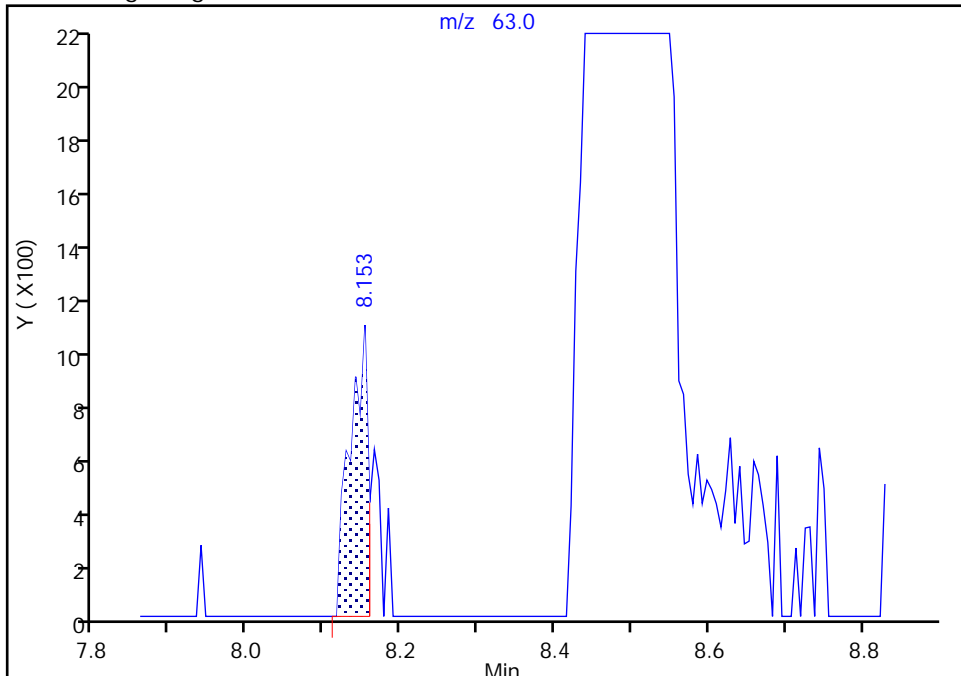
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

69 1,2-Dichloropropane, CAS: 78-87-5

Signal: 1

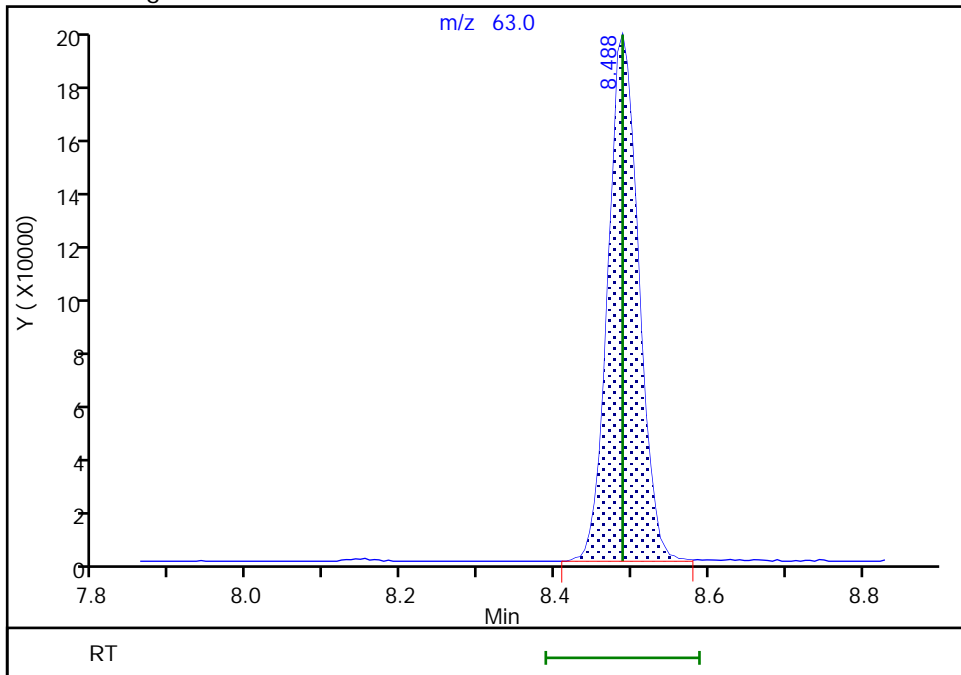
RT: 8.15
Area: 1715
Amount: 0.001630
Amount Units: ug/l

Processing Integration Results



RT: 8.49
Area: 530310
Amount: 10.340147
Amount Units: ug/l

Manual Integration Results



Eurofins Lancaster Laboratories Env, LLC

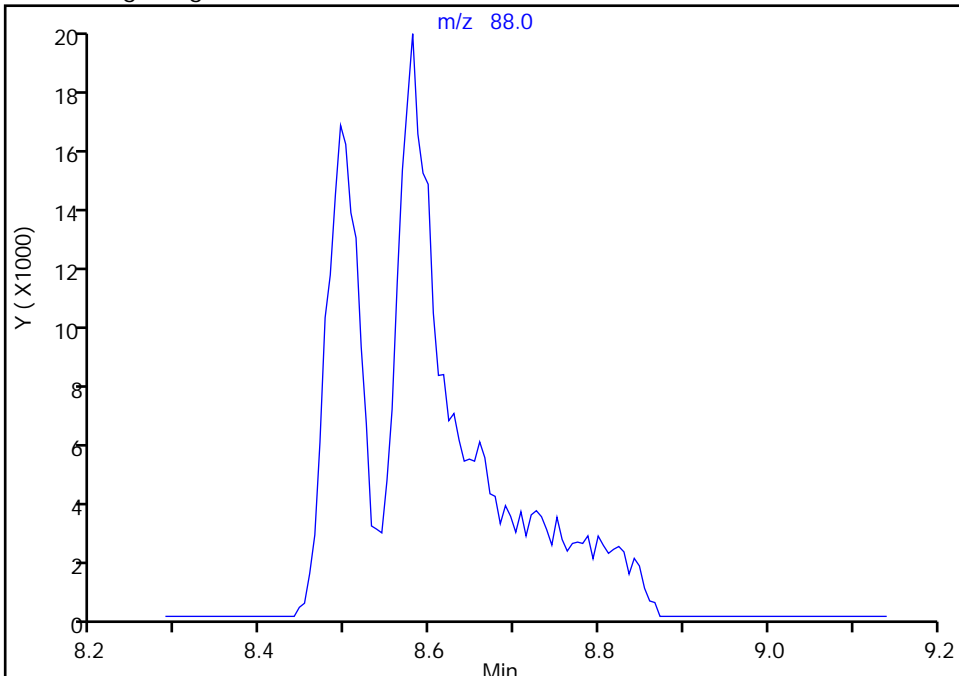
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Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

72 1,4-Dioxane, CAS: 123-91-1

Signal: 1

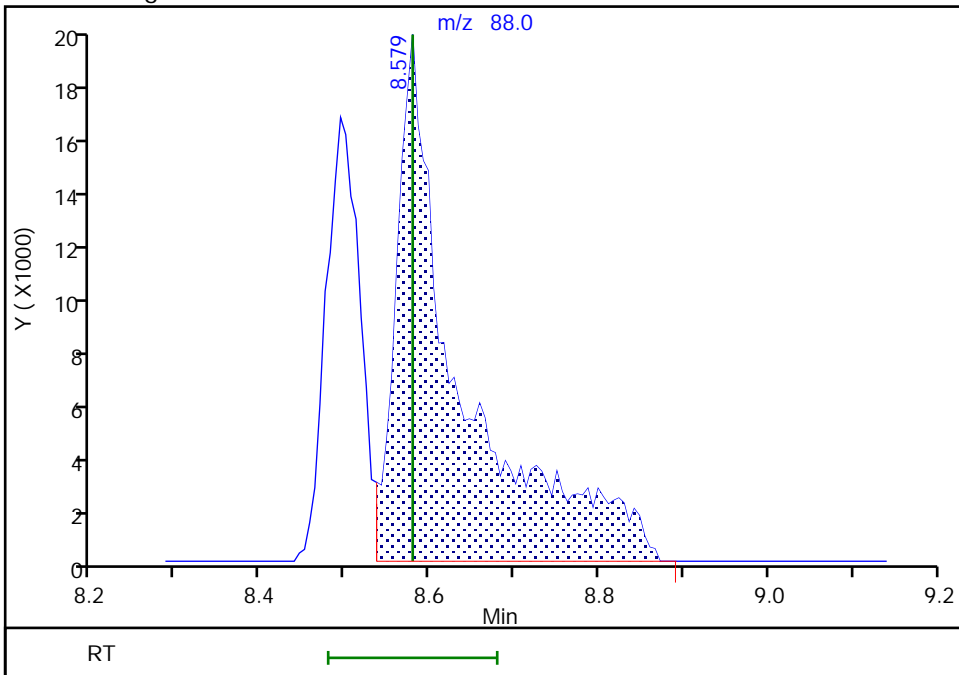
Not Detected
Expected RT: 8.58

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

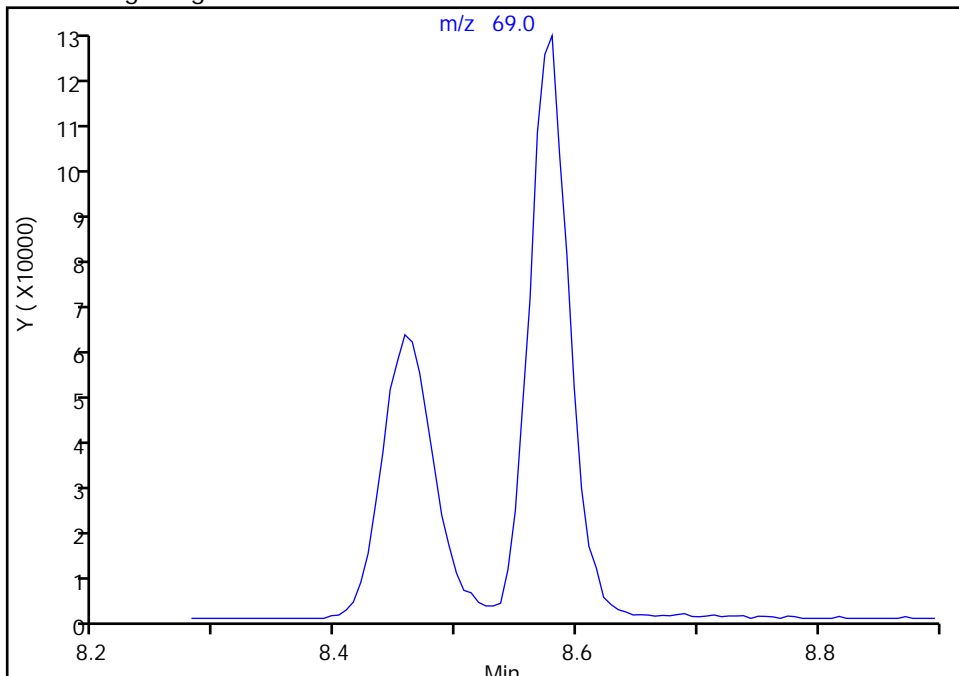
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

71 Methyl methacrylate, CAS: 80-62-6

Signal: 1

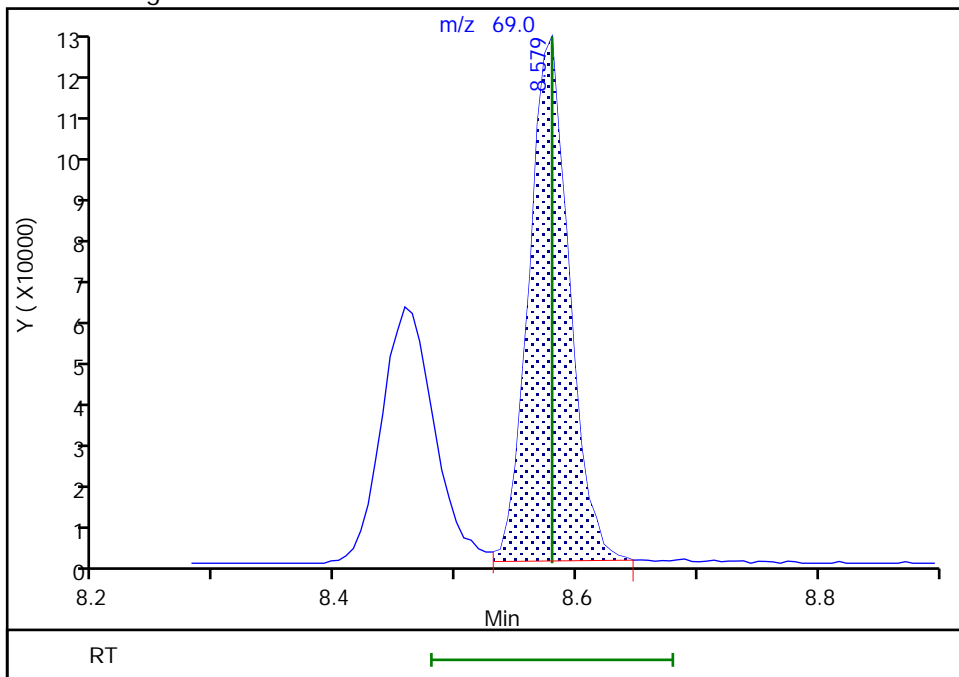
Not Detected
Expected RT: 8.58

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

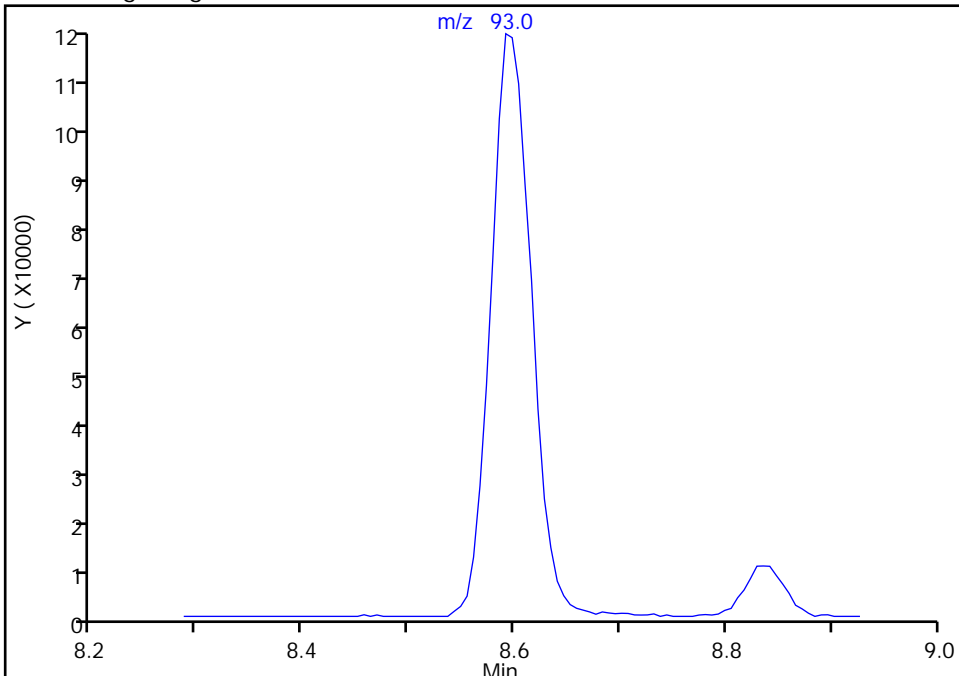
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

73 Dibromomethane, CAS: 74-95-3

Signal: 1

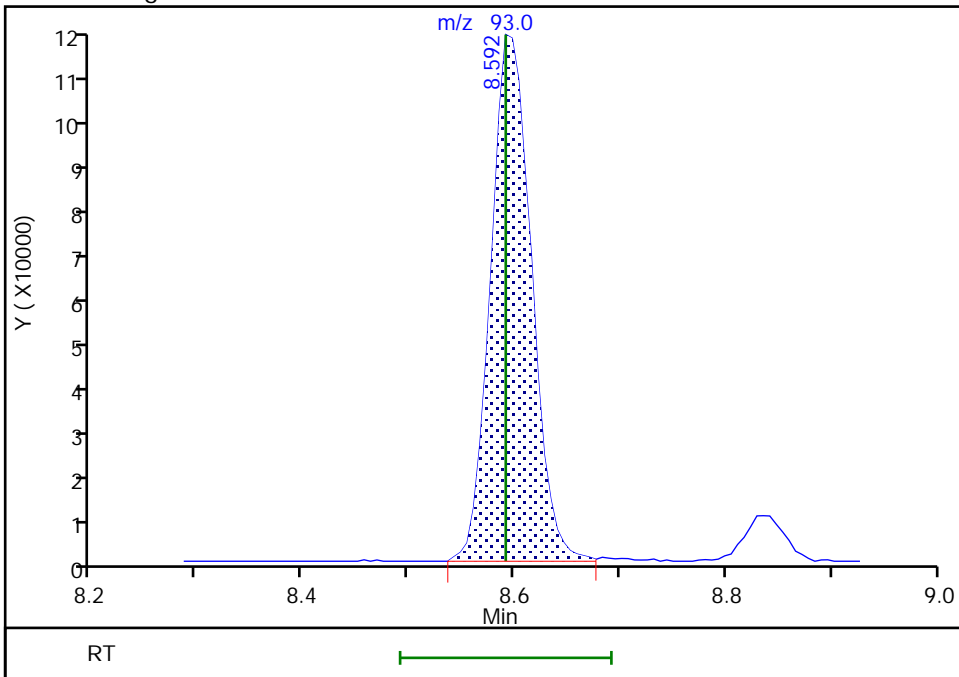
Not Detected
Expected RT: 8.59

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

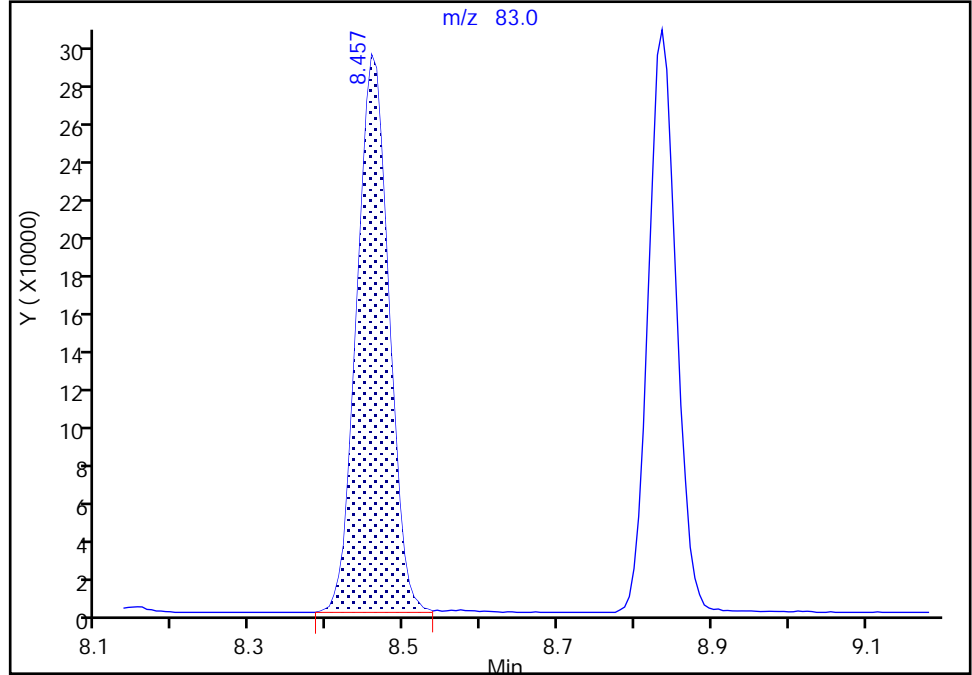
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

75 Dichlorobromomethane, CAS: 75-27-4

Signal: 1

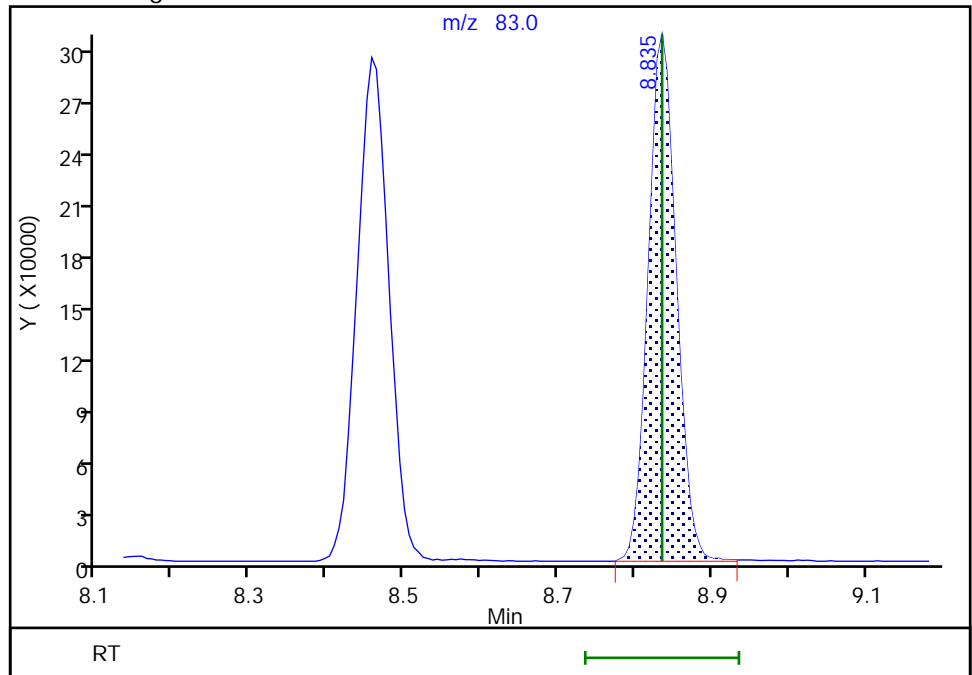
RT: 8.46
Area: 848347
Amount: 0.001217
Amount Units: ug/l

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

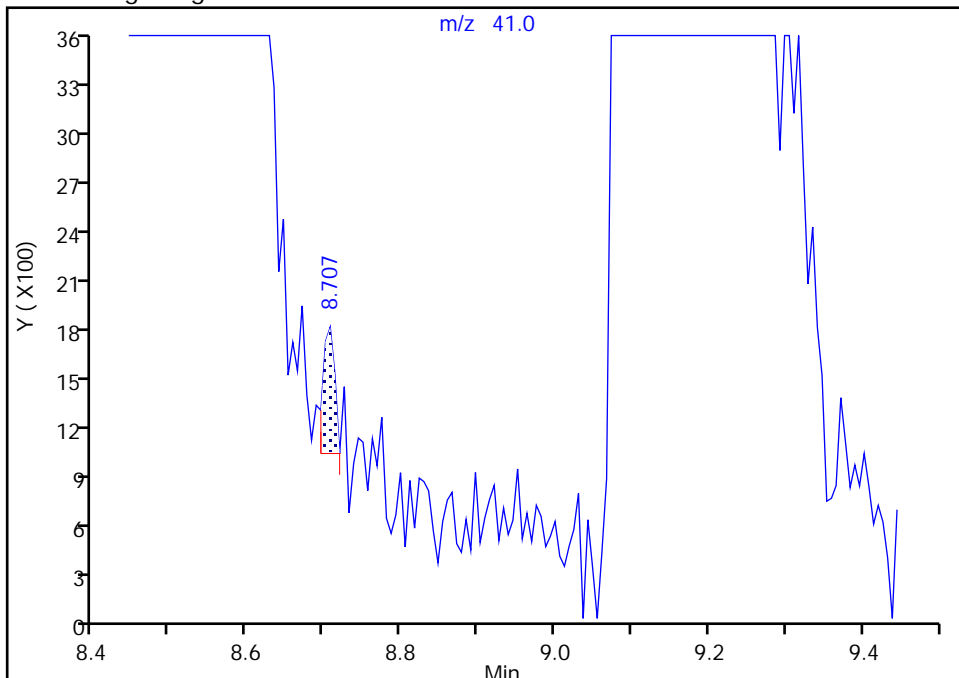
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

76 2-Nitropropane, CAS: 79-46-9

Signal: 1

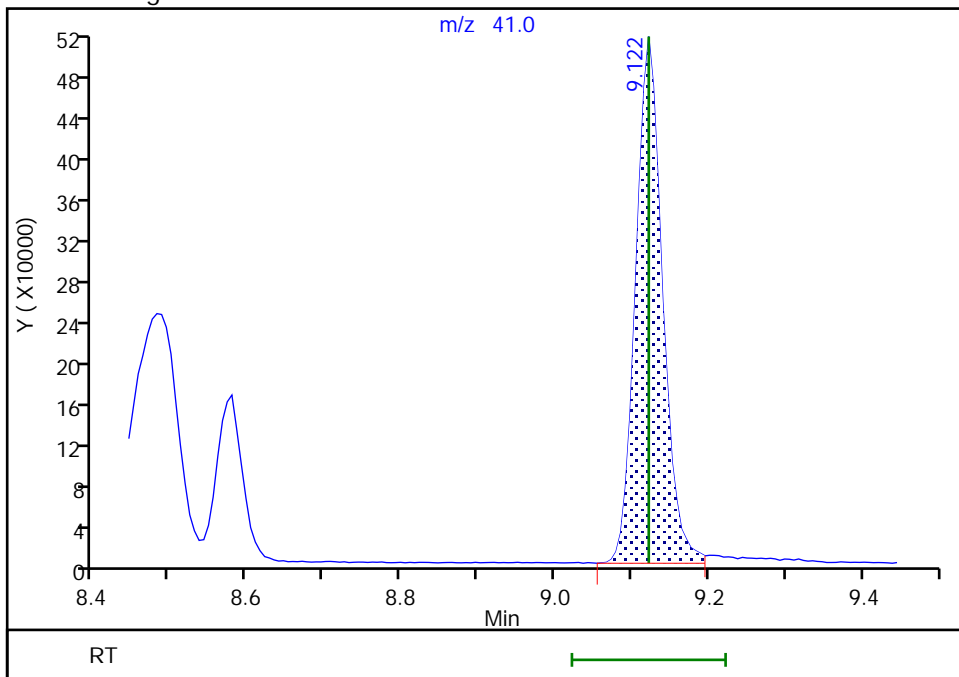
RT: 8.71
Area: 809
Amount: 100.0000
Amount Units: ug/l

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

Eurofins Lancaster Laboratories Env, LLC

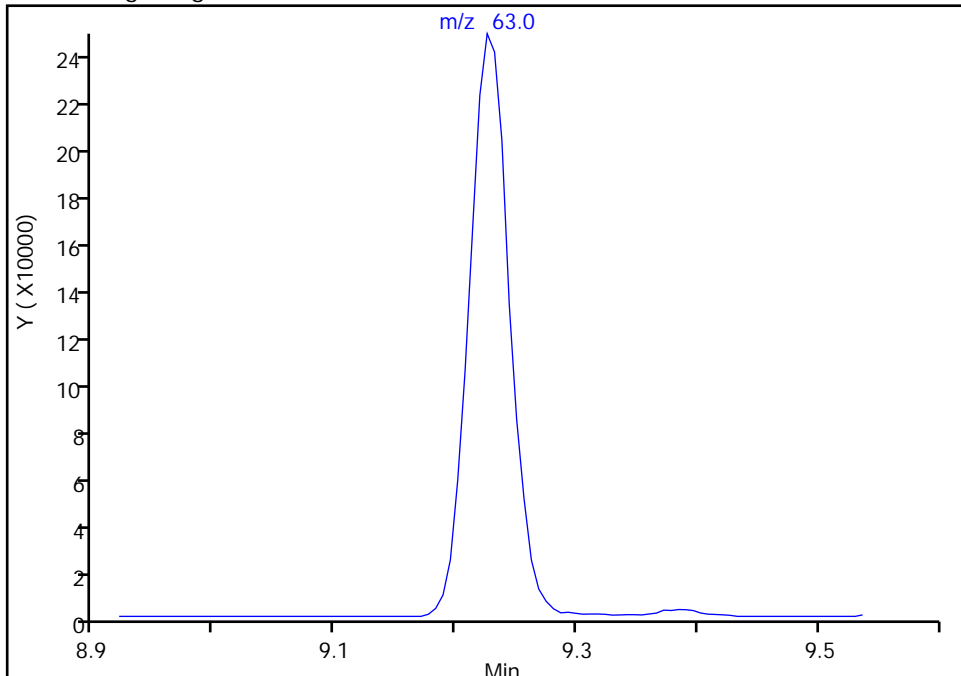
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Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

79 1-Bromo-2-chloroethane, CAS: 107-04-0

Signal: 1

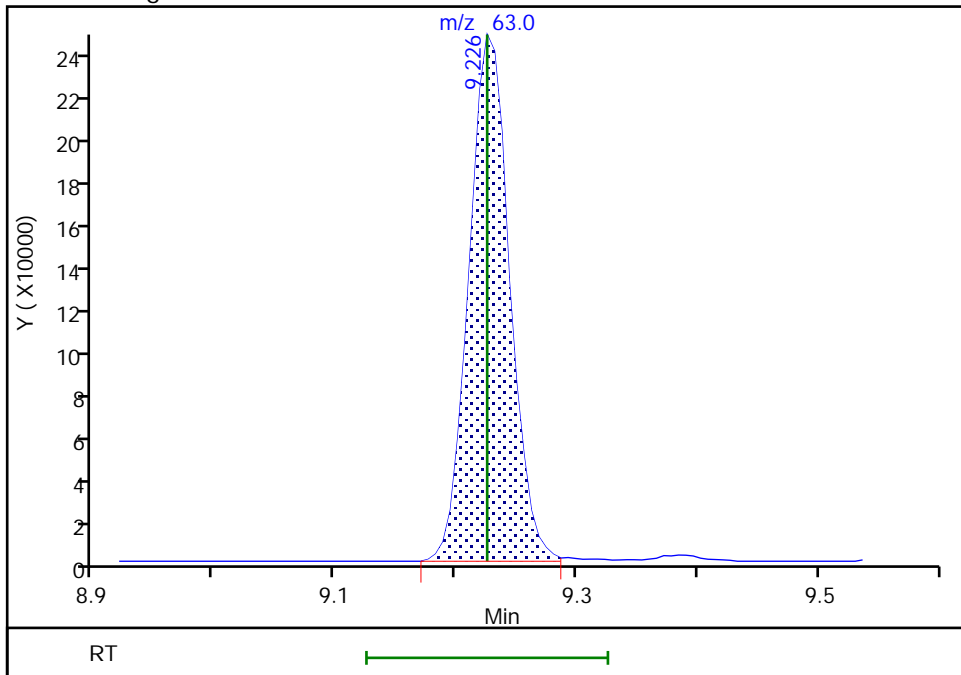
Not Detected
Expected RT: 9.23

Processing Integration Results



Manual Integration Results

RT: 9.23
Area: 577229
Amount: 10.257411
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 13:38:07
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

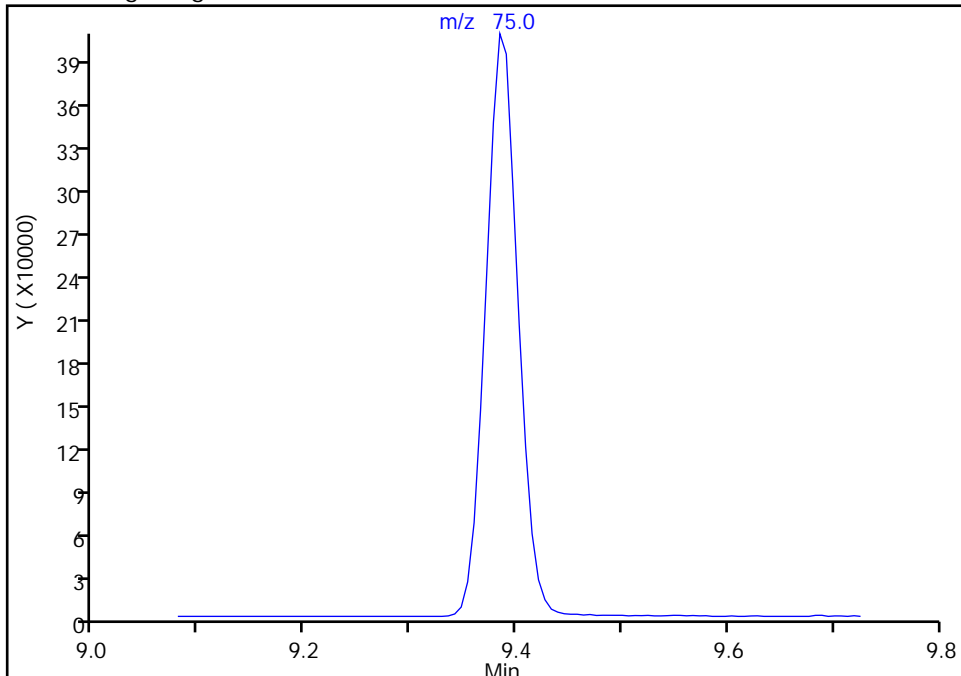
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

80 cis-1,3-Dichloropropene, CAS: 10061-01-5

Signal: 1

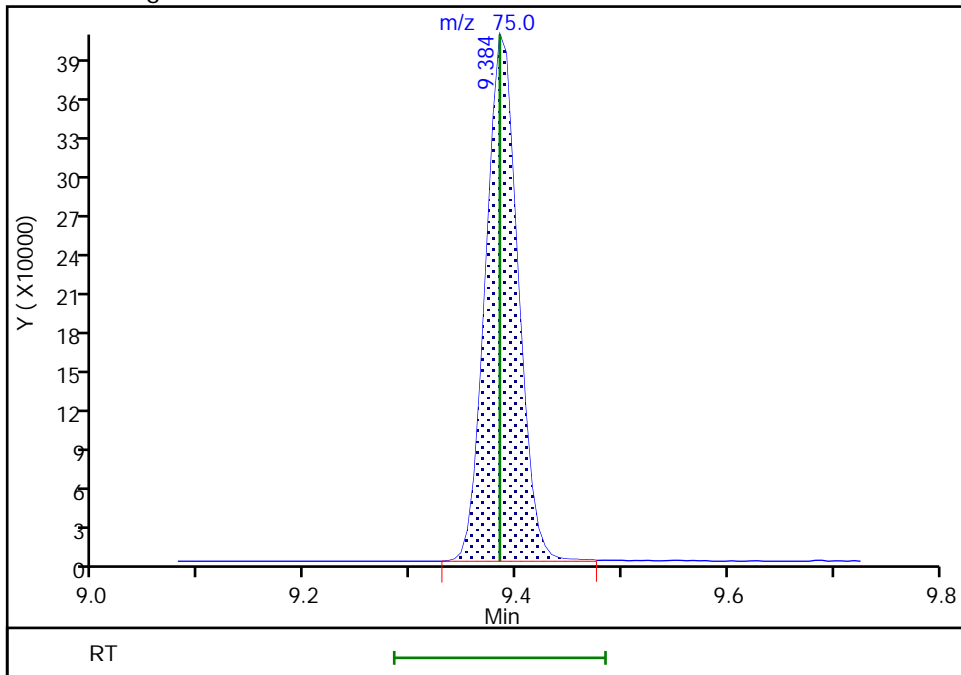
Not Detected
Expected RT: 9.38

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

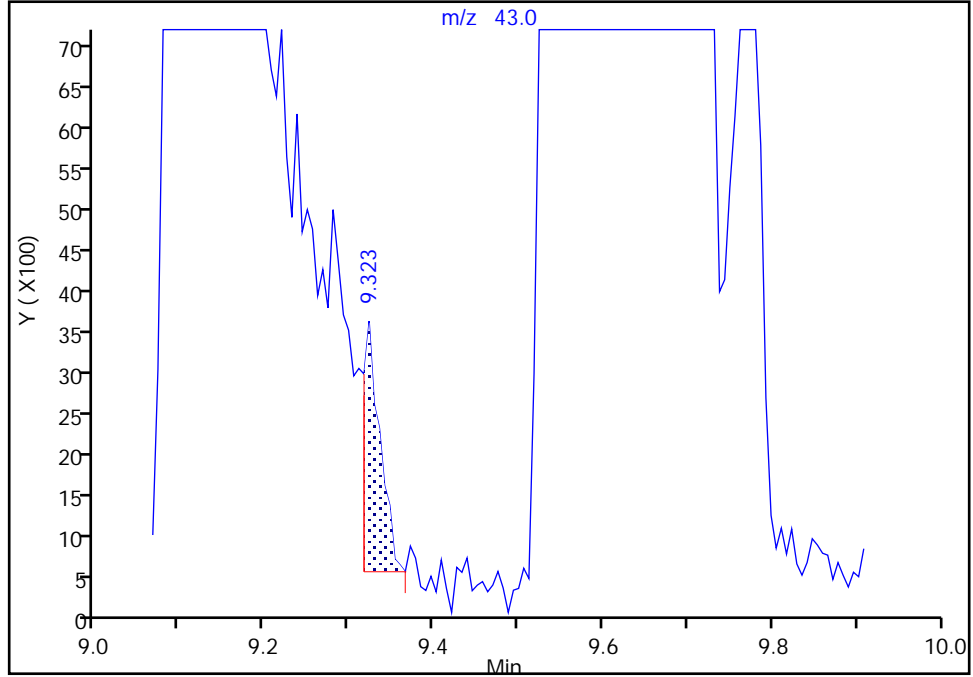
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

81 4-Methyl-2-pentanone (MIBK), CAS: 108-10-1

Signal: 1

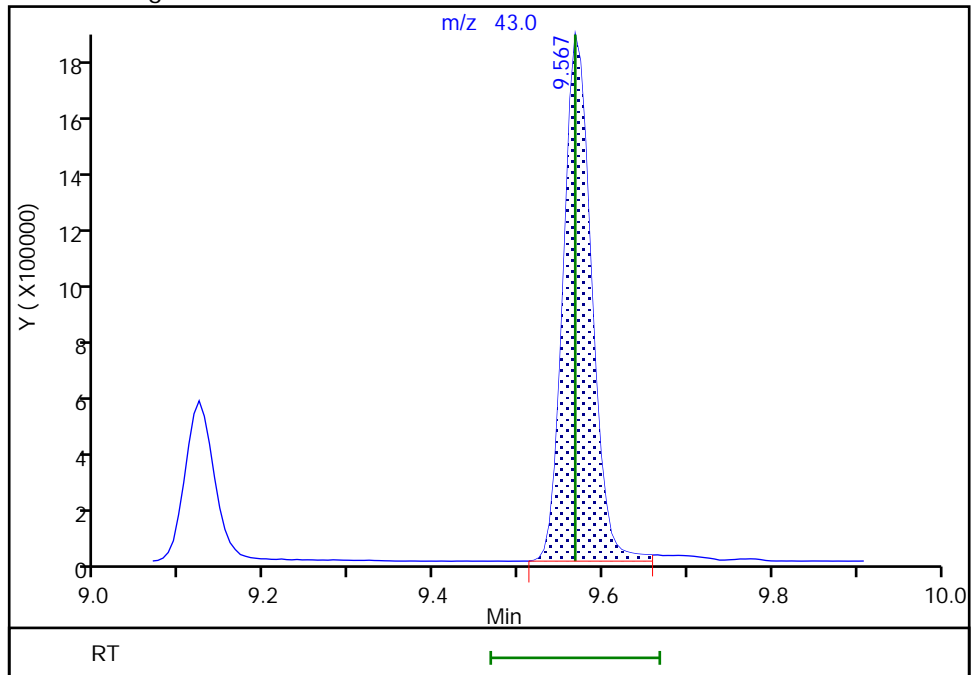
RT: 9.32
Area: 4211
Amount: 100.0000
Amount Units: ug/l

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

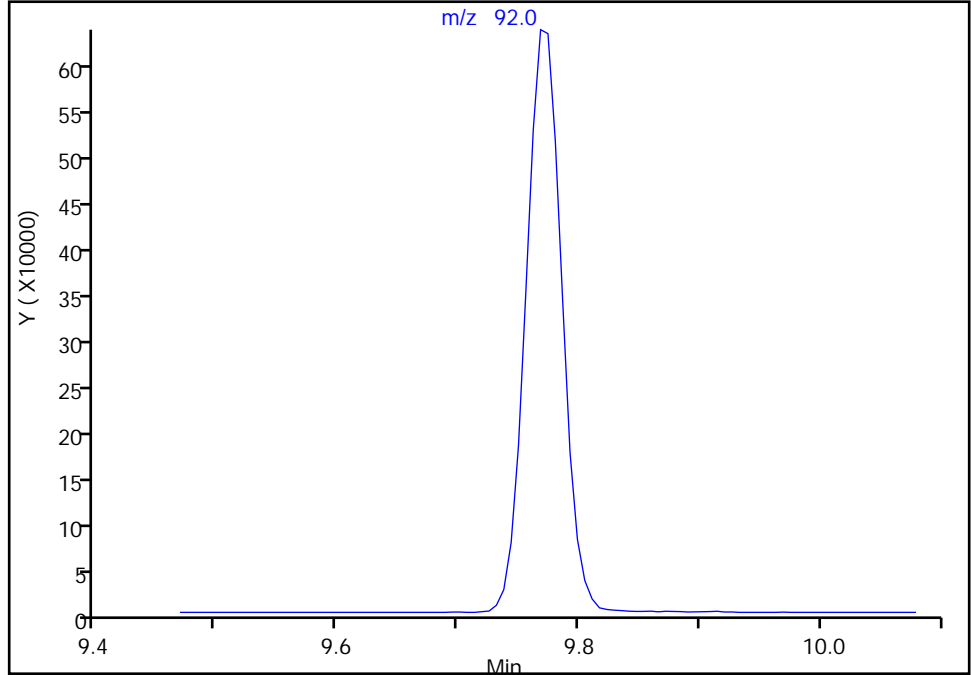
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I02.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

83 Toluene, CAS: 108-88-3

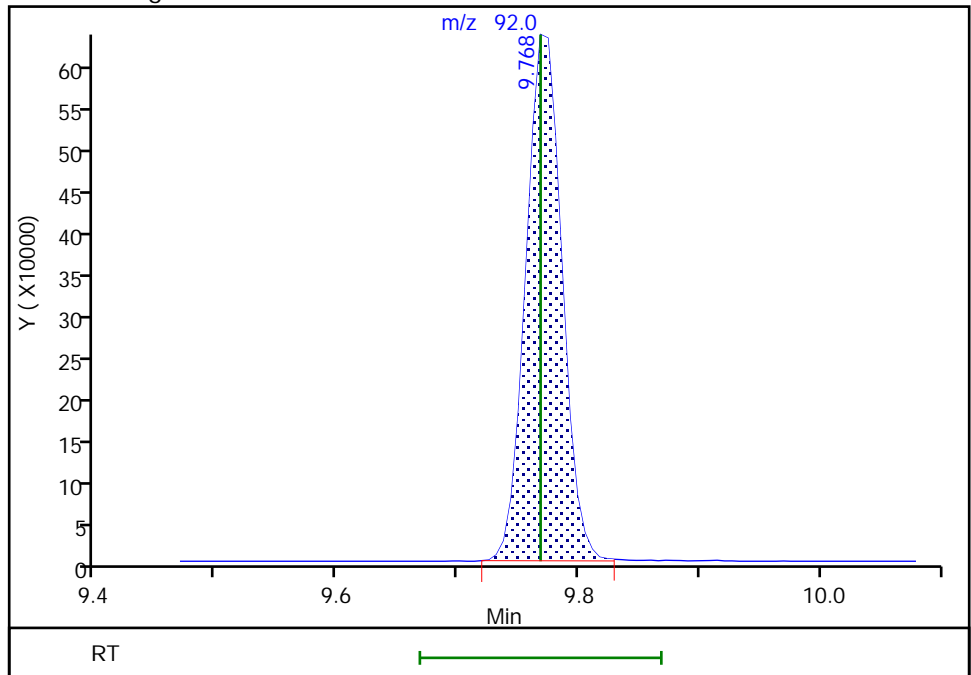
Signal: 1

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

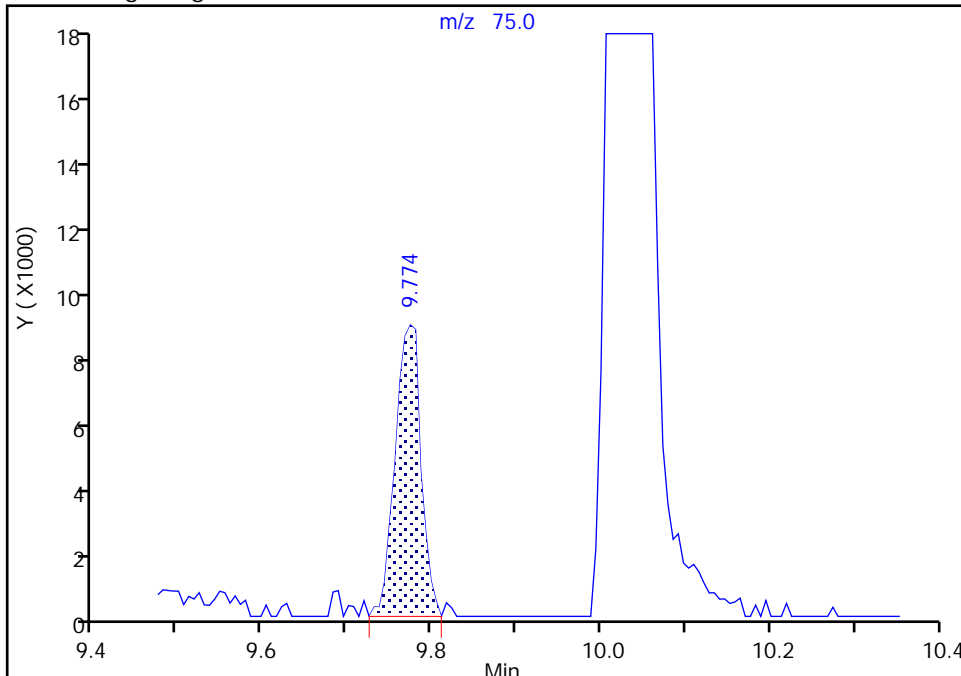
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

84 trans-1,3-Dichloropropene, CAS: 10061-02-6

Signal: 1

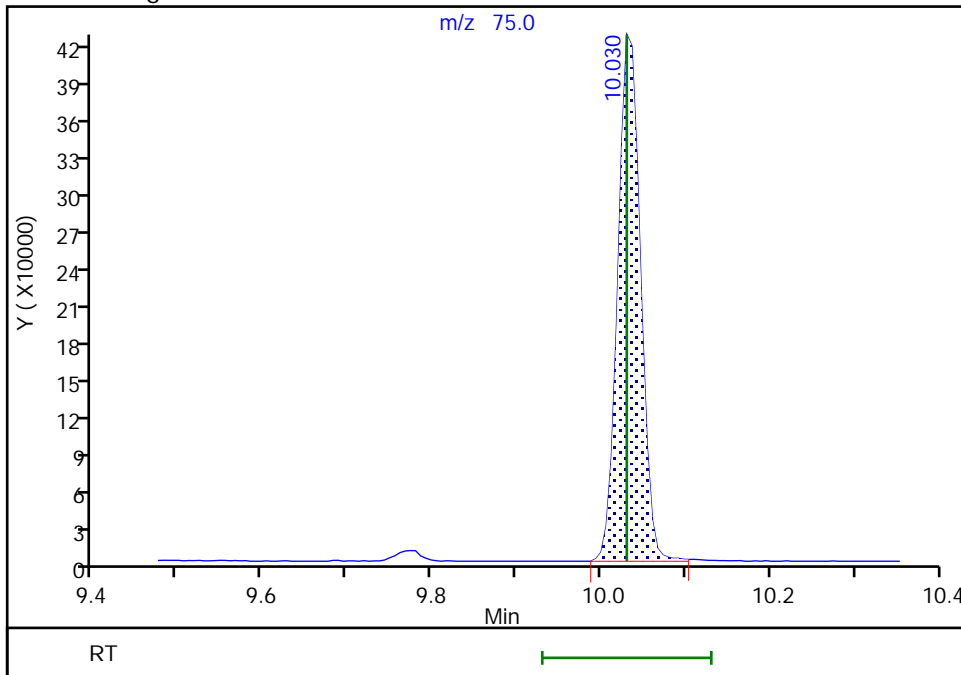
RT: 9.77
Area: 18106
Amount: 10.000000
Amount Units: ug/l

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

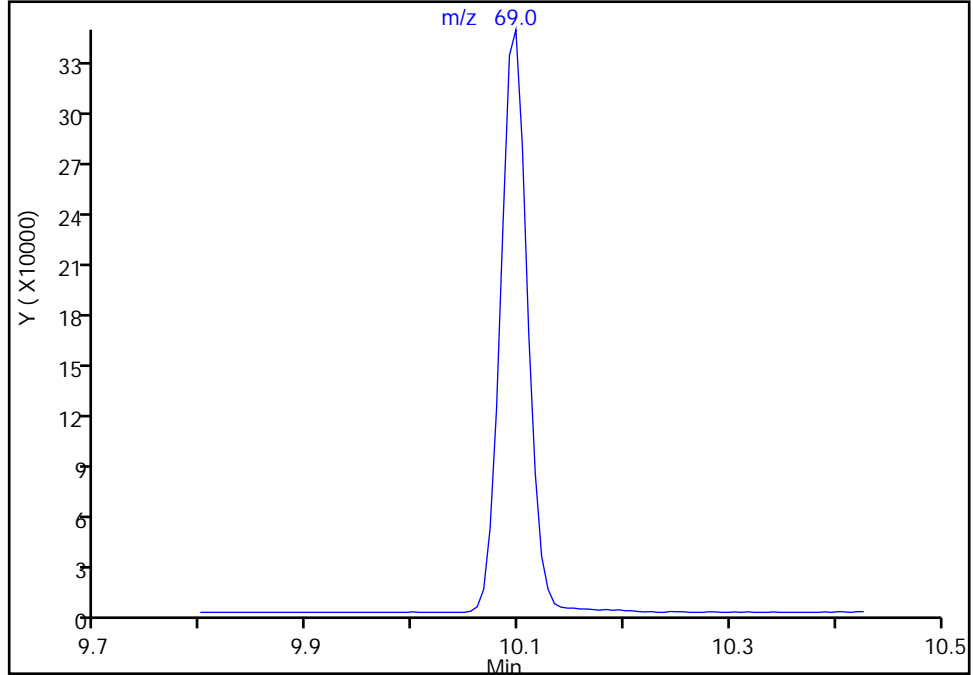
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

85 Ethyl methacrylate, CAS: 97-63-2

Signal: 1

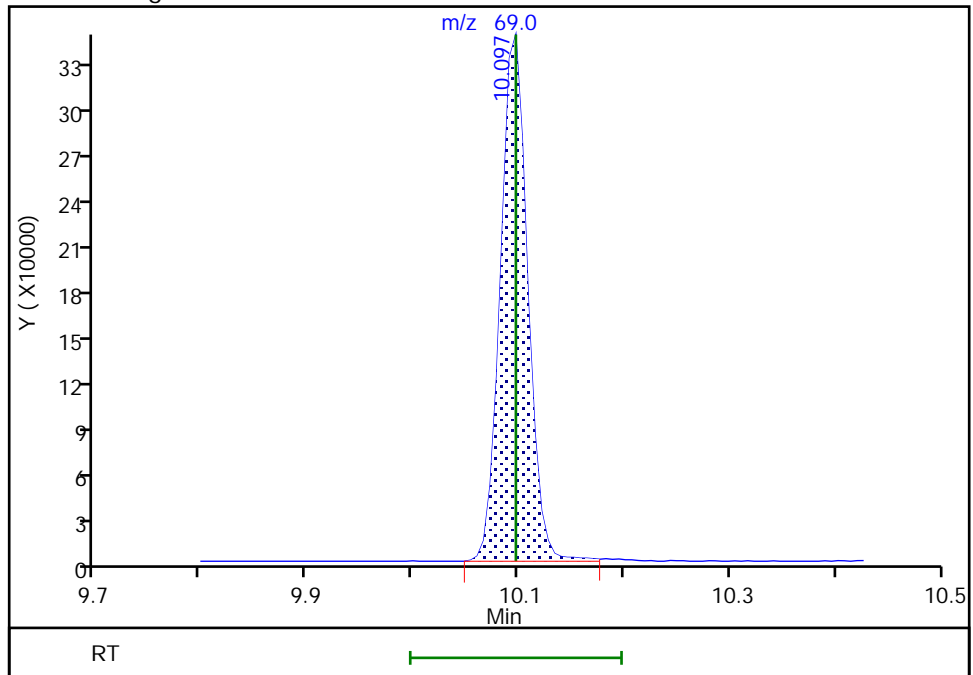
Not Detected
Expected RT: 10.10

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

Euofins Lancaster Laboratories Env, LLC

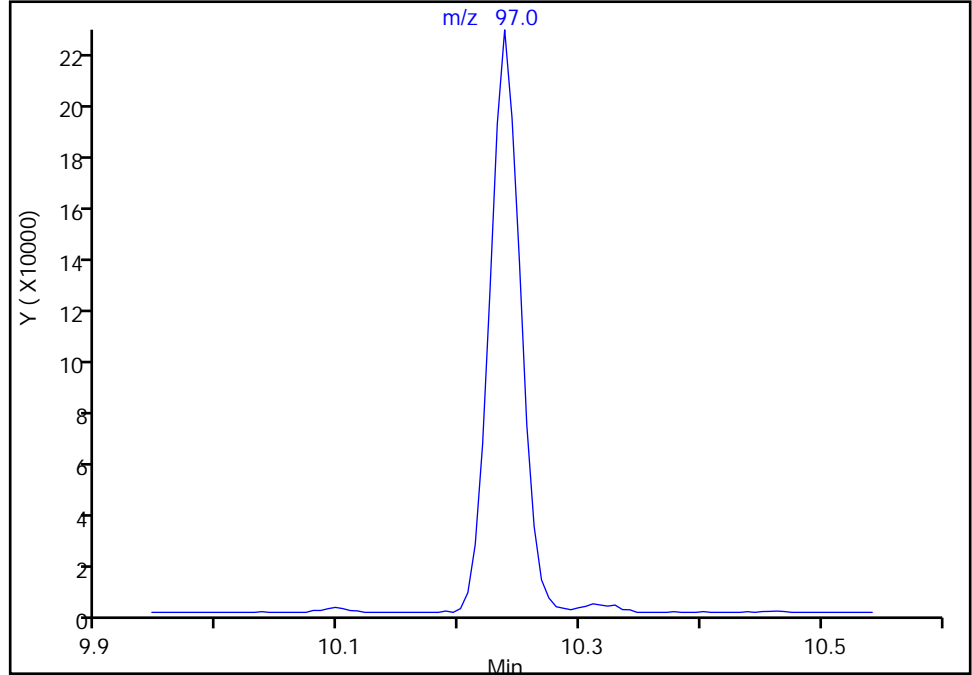
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

86 1,1,2-Trichloroethane, CAS: 79-00-5

Signal: 1

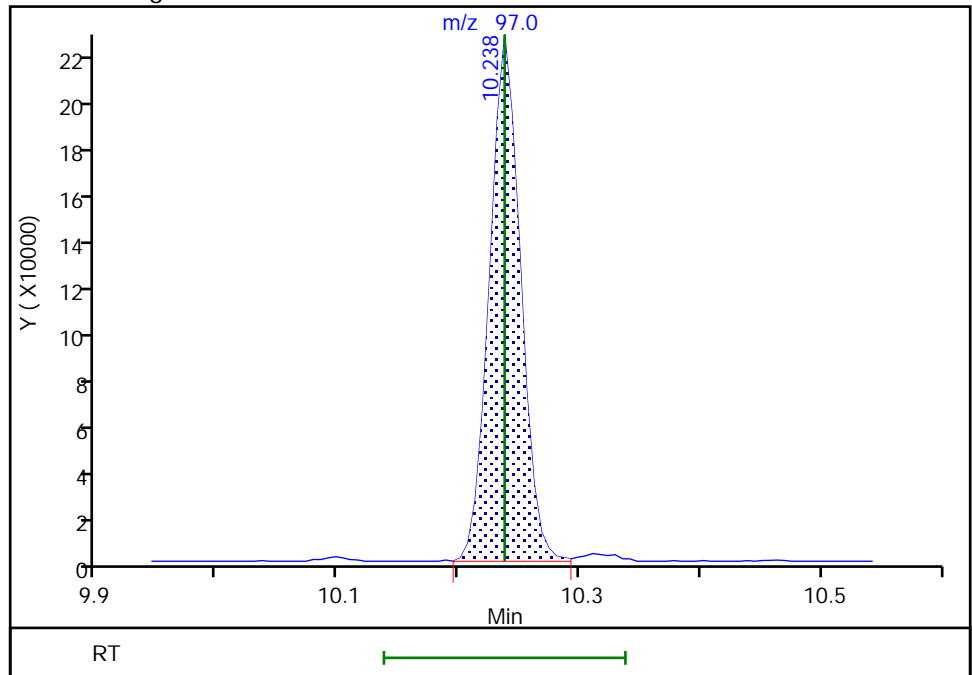
Not Detected
Expected RT: 10.24

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

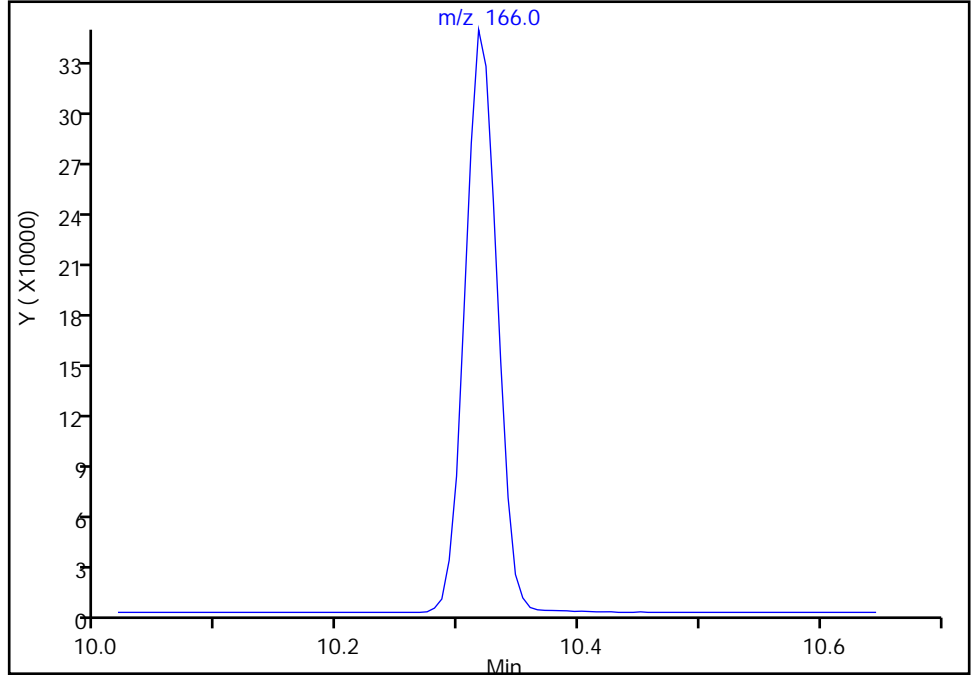
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

88 Tetrachloroethene, CAS: 127-18-4

Signal: 1

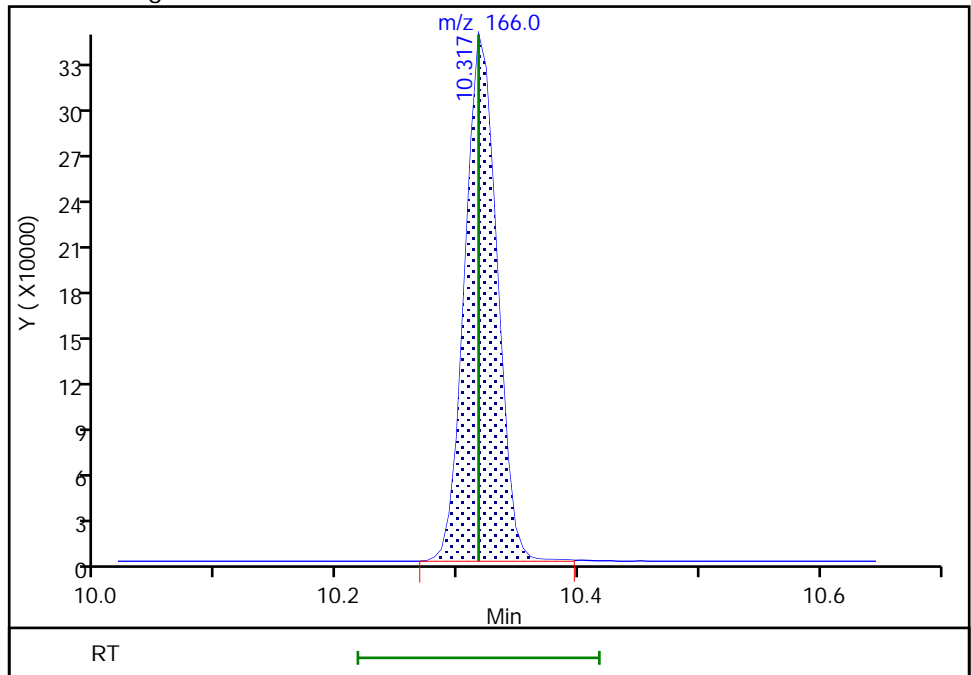
Not Detected
Expected RT: 10.32

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

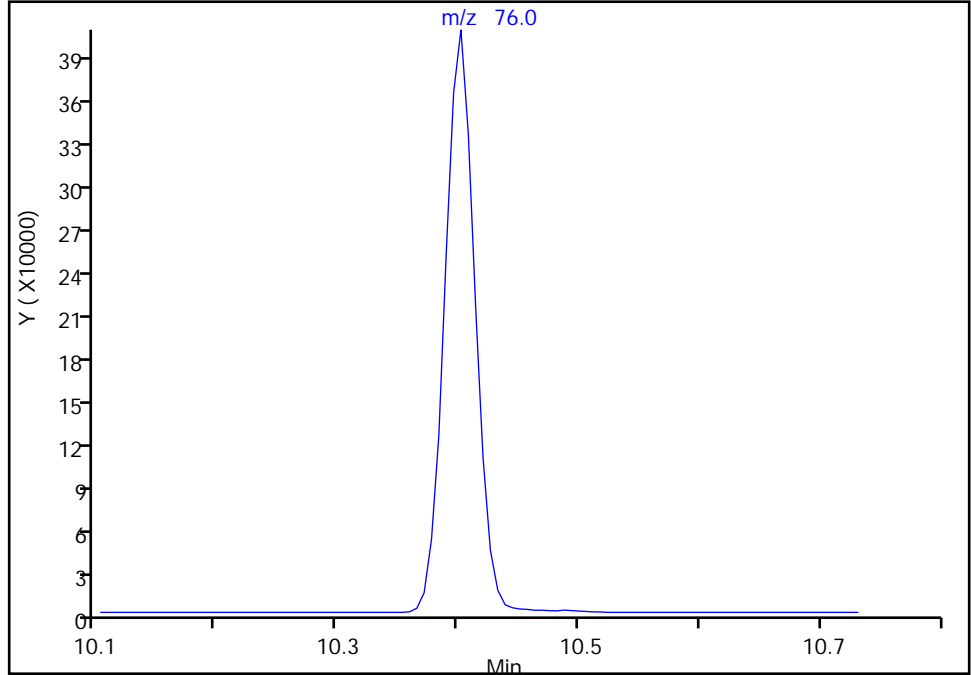
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

89 1,3-Dichloropropane, CAS: 142-28-9

Signal: 1

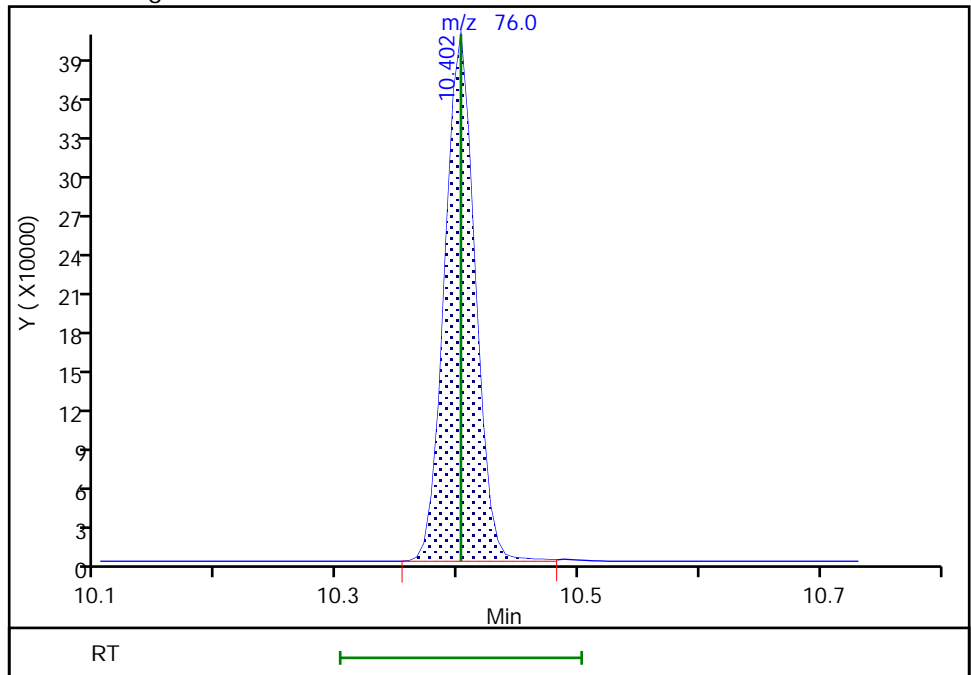
Not Detected
Expected RT: 10.40

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

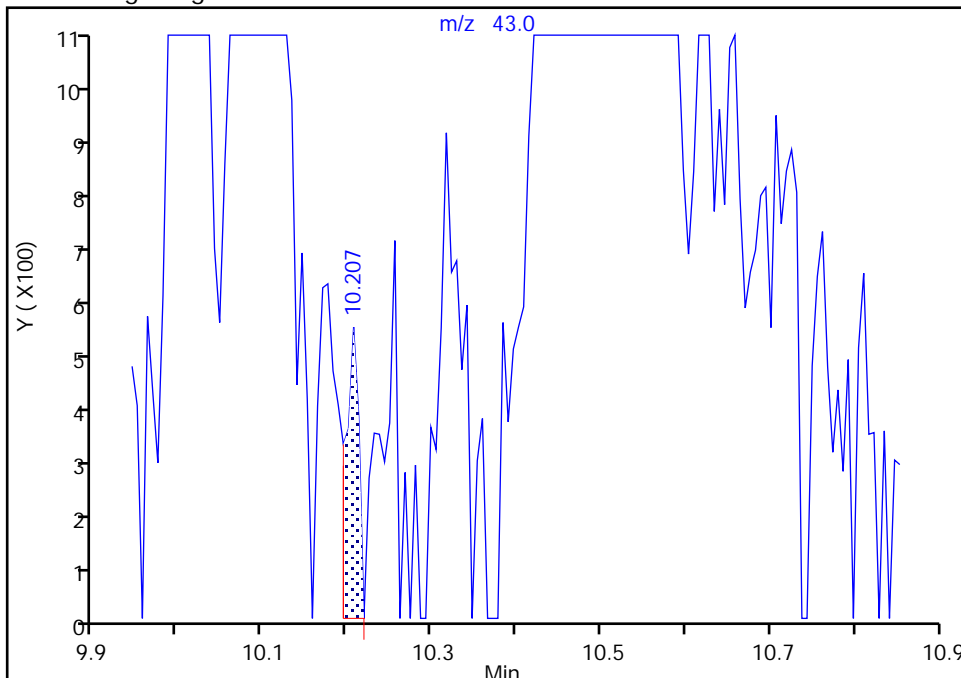
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

91 2-Hexanone, CAS: 591-78-6

Signal: 1

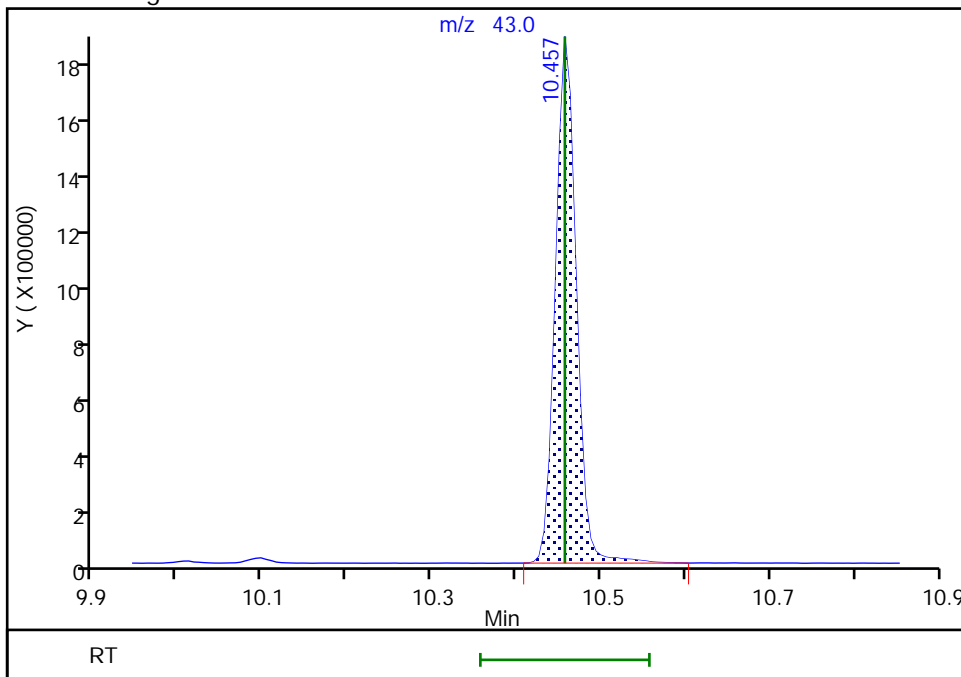
RT: 10.21
Area: 558
Amount: 100.0000
Amount Units: ug/l

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

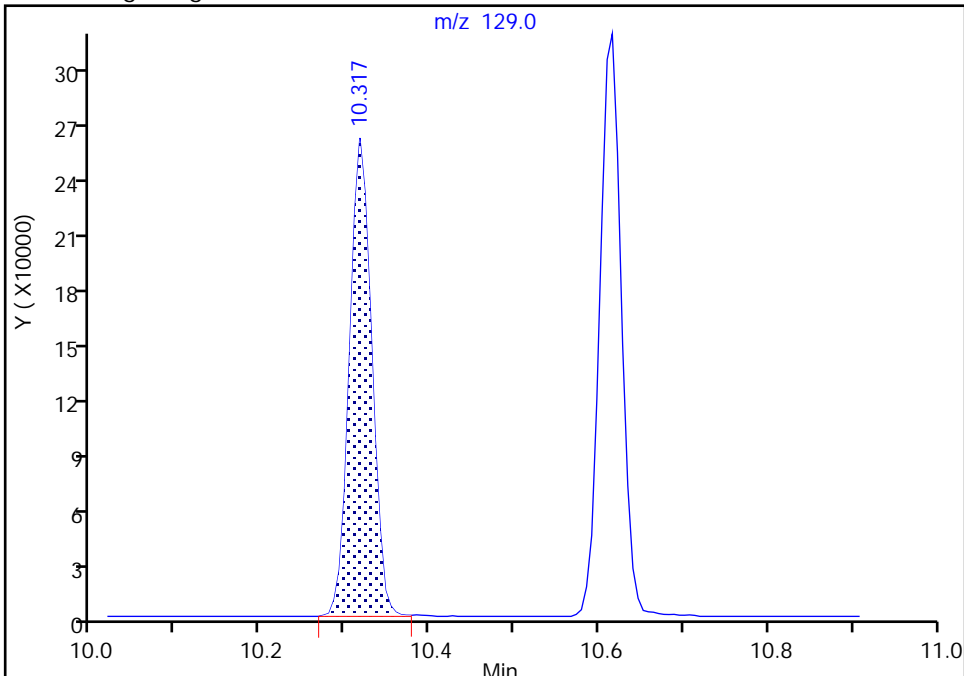
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

93 Chlorodibromomethane, CAS: 124-48-1

Signal: 1

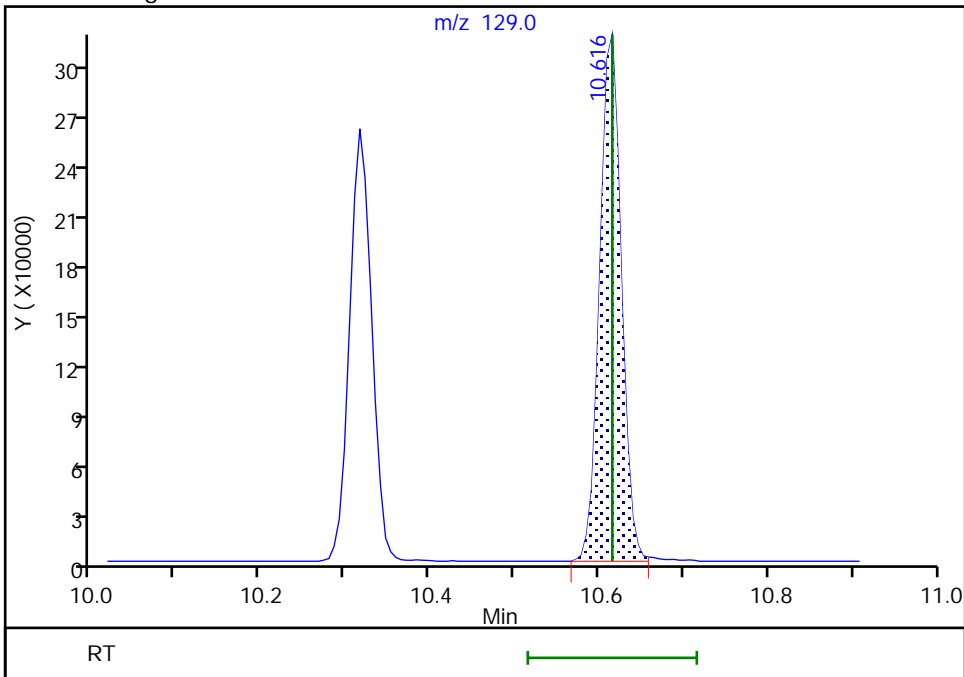
RT: 10.32
Area: 464602
Amount: 10.000000
Amount Units: ug/l

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

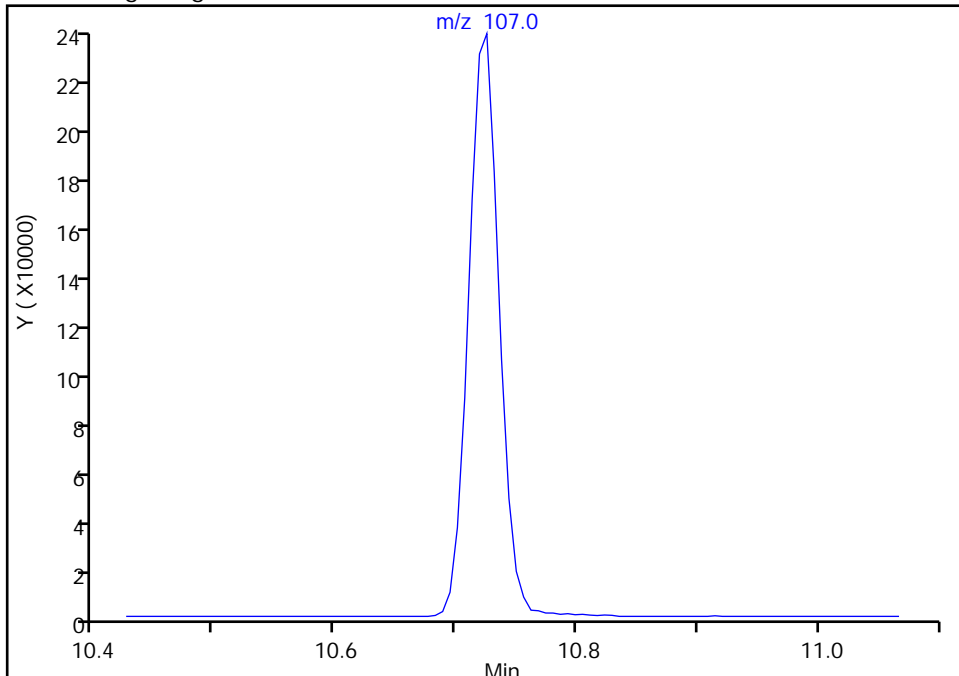
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

94 Ethylene Dibromide, CAS: 106-93-4

Signal: 1

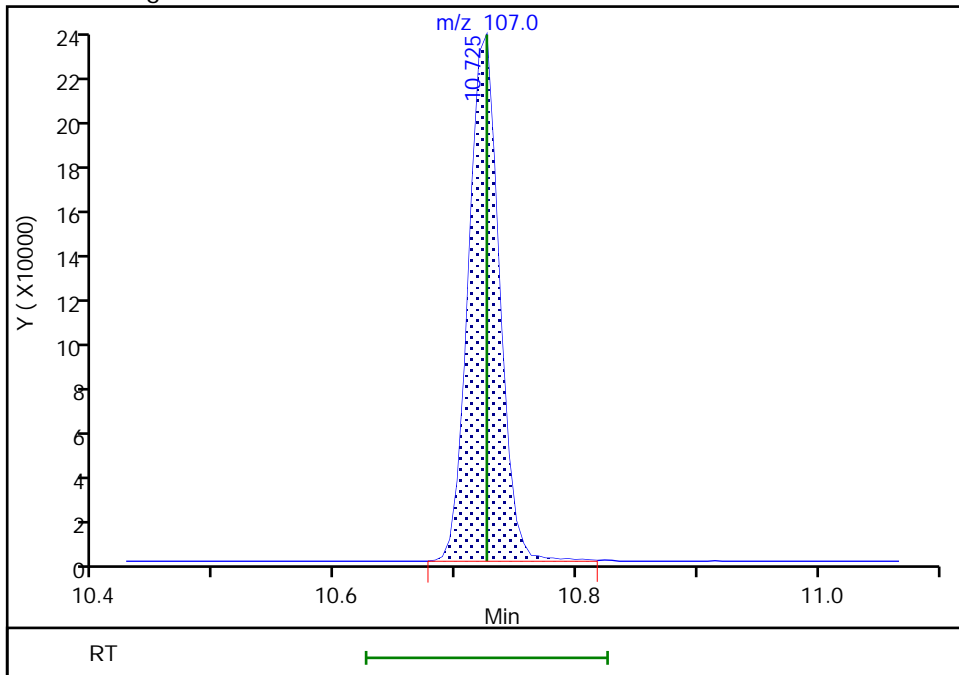
Not Detected
Expected RT: 10.73

Processing Integration Results



Manual Integration Results

RT: 10.73
Area: 417127
Amount: 10.390474
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 13:37:05
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

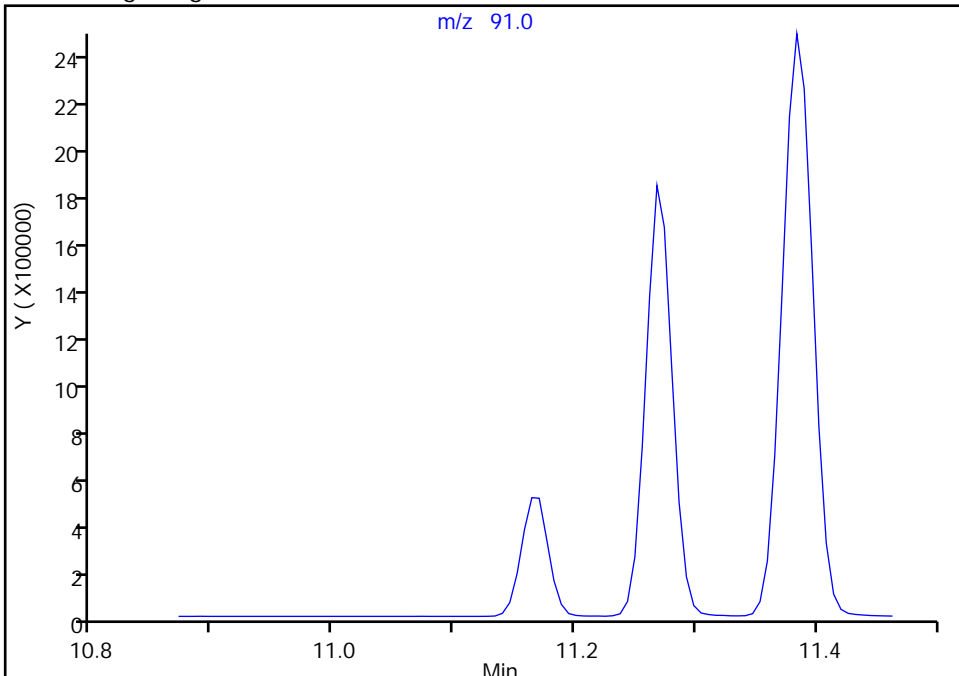
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I02.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

96 1-Chlorohexane, CAS: 544-10-5

Signal: 1

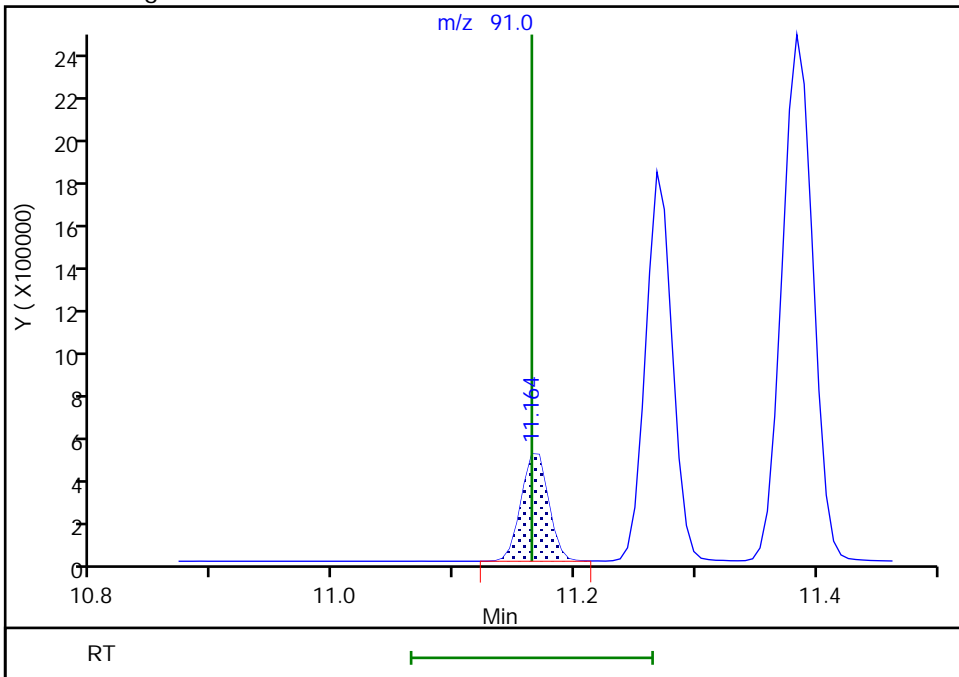
Not Detected
Expected RT: 11.16

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

Euofins Lancaster Laboratories Env, LLC

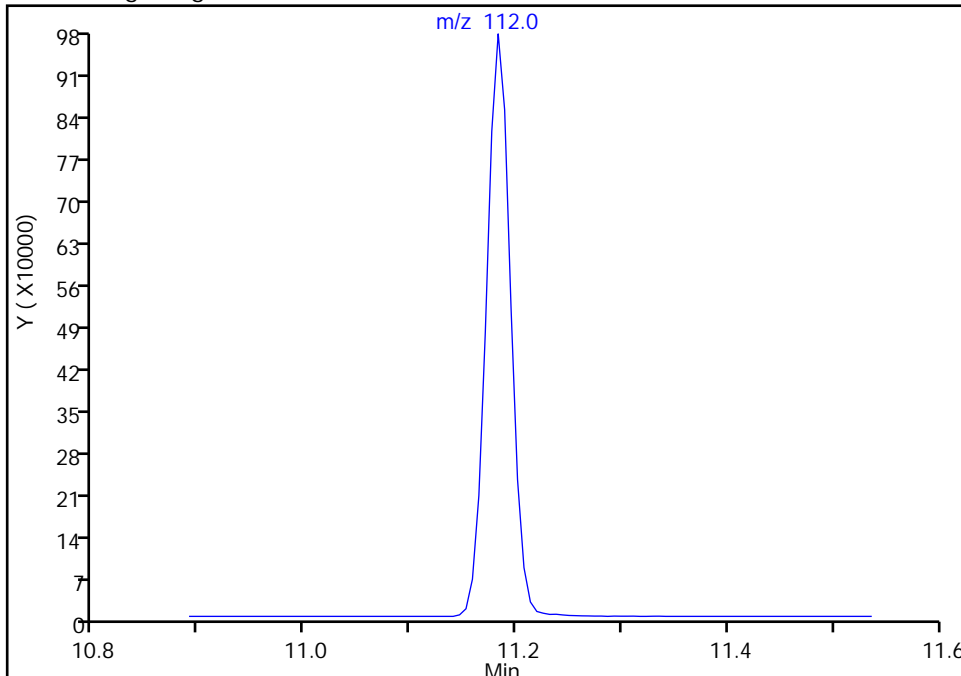
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

97 Chlorobenzene, CAS: 108-90-7

Signal: 1

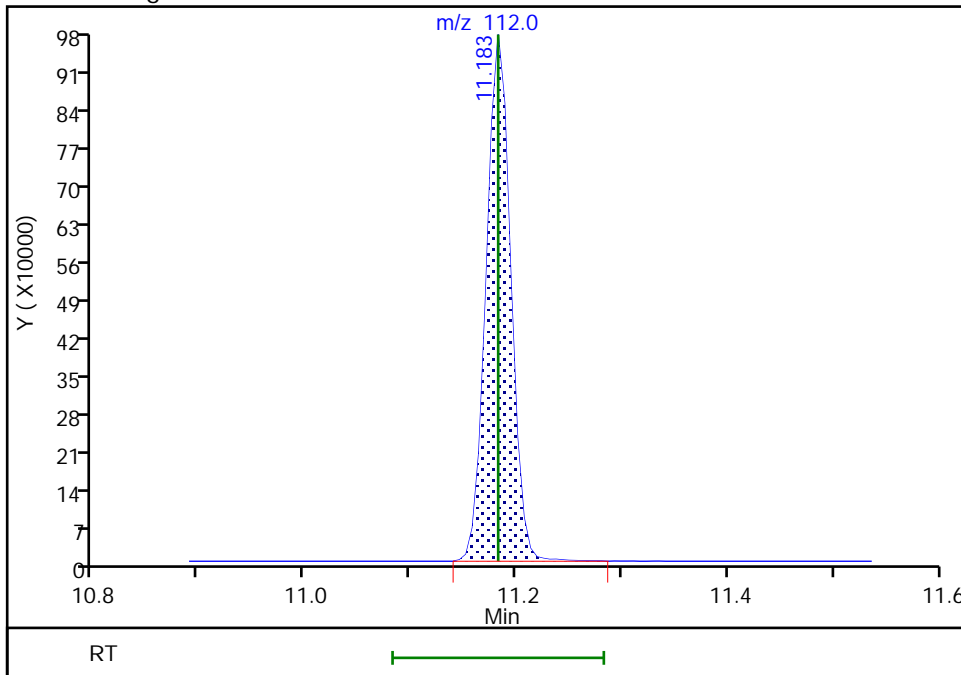
Not Detected
Expected RT: 11.18

Processing Integration Results



Manual Integration Results

RT: 11.18
Area: 1561602
Amount: 10.148810
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 13:37:00
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

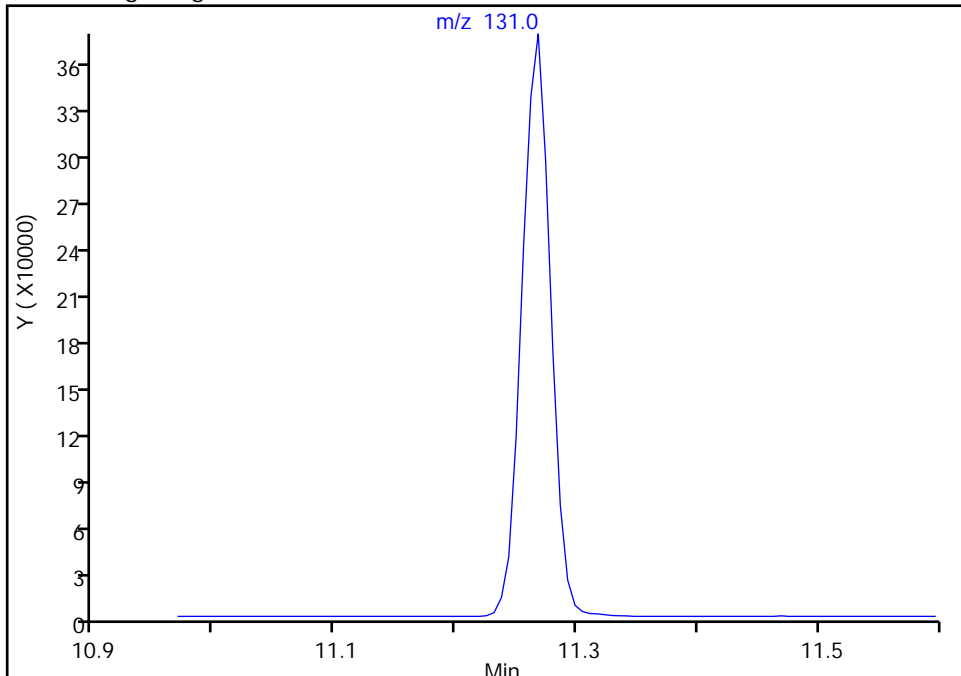
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I02.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

98 1,1,1,2-Tetrachloroethane, CAS: 630-20-6

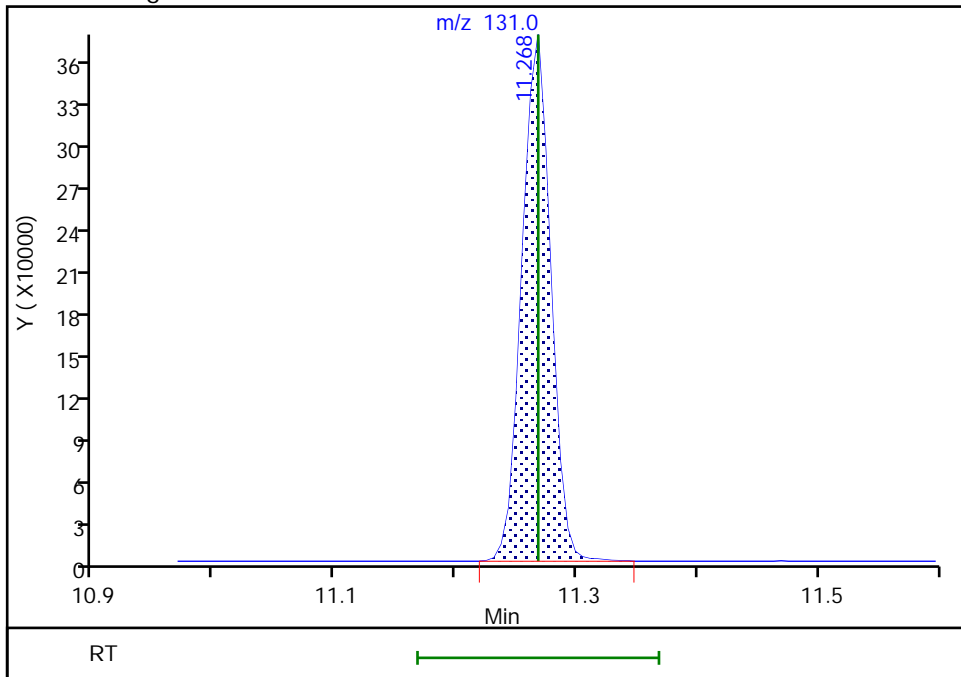
Signal: 1

Not Detected
Expected RT: 11.27

Processing Integration Results



Manual Integration Results



RT: 11.27
Area: 611572
Amount: 10.596448
Amount Units: ug/l

Euofins Lancaster Laboratories Env, LLC

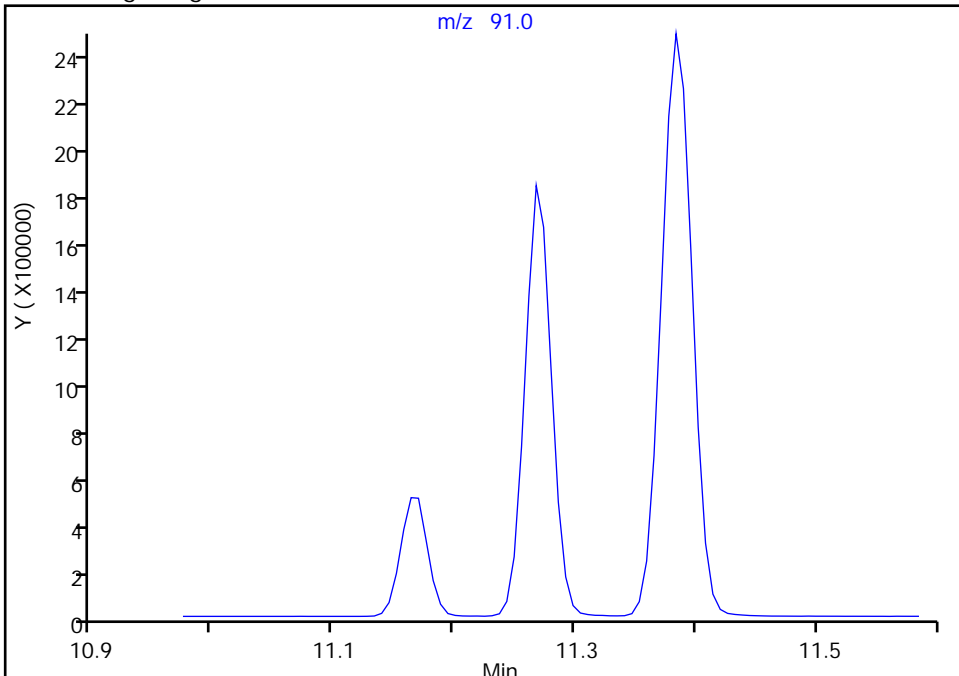
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I02.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

99 Ethylbenzene, CAS: 100-41-4

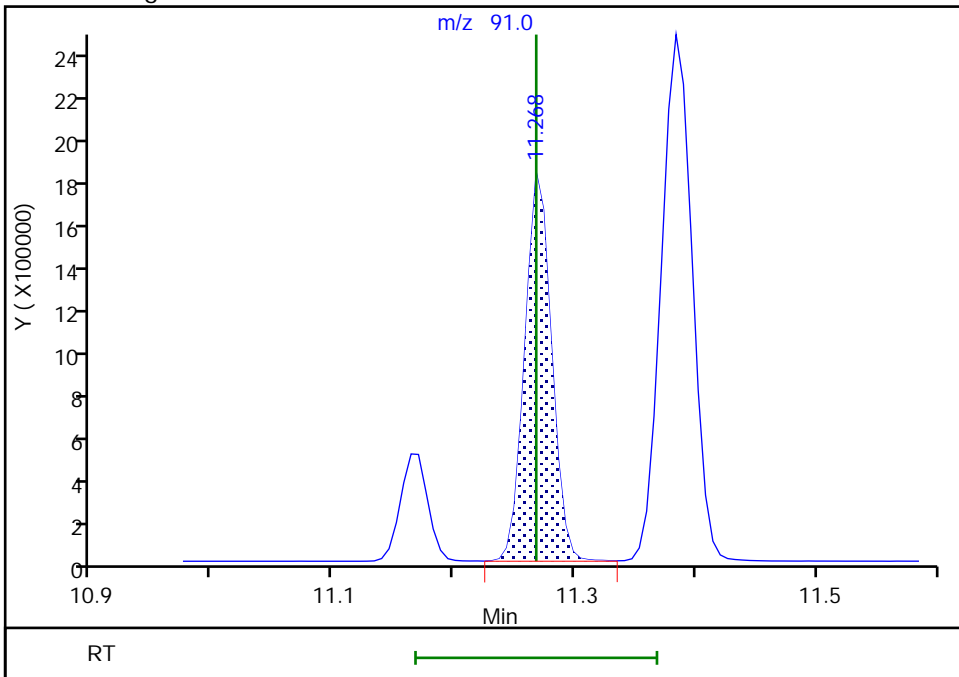
Signal: 1

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

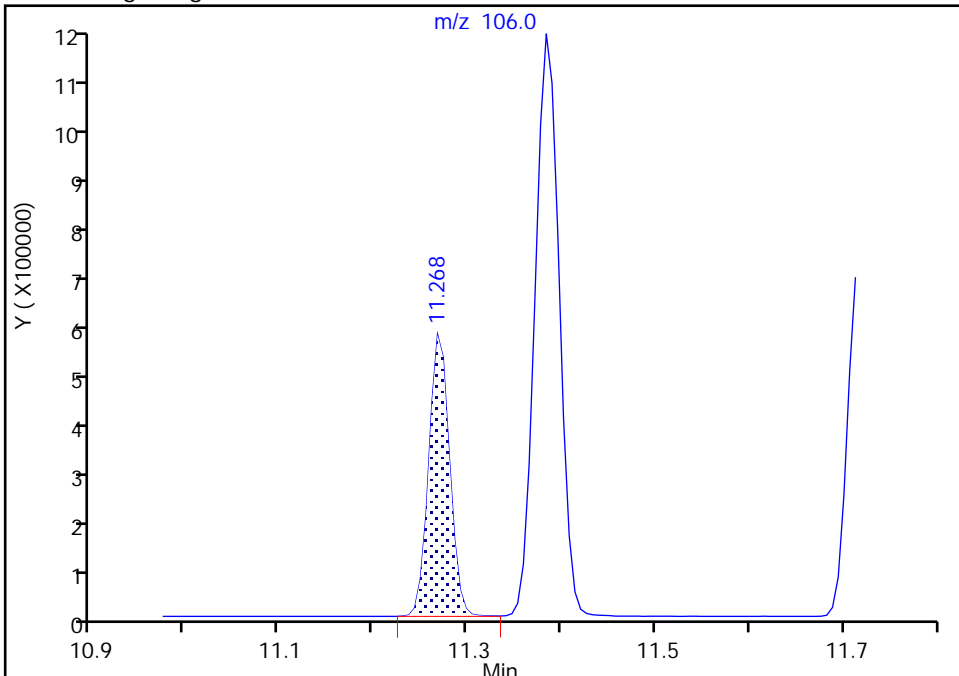
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I02.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

100 m-Xylene & p-Xylene, CAS: 179601-23-1

Signal: 1

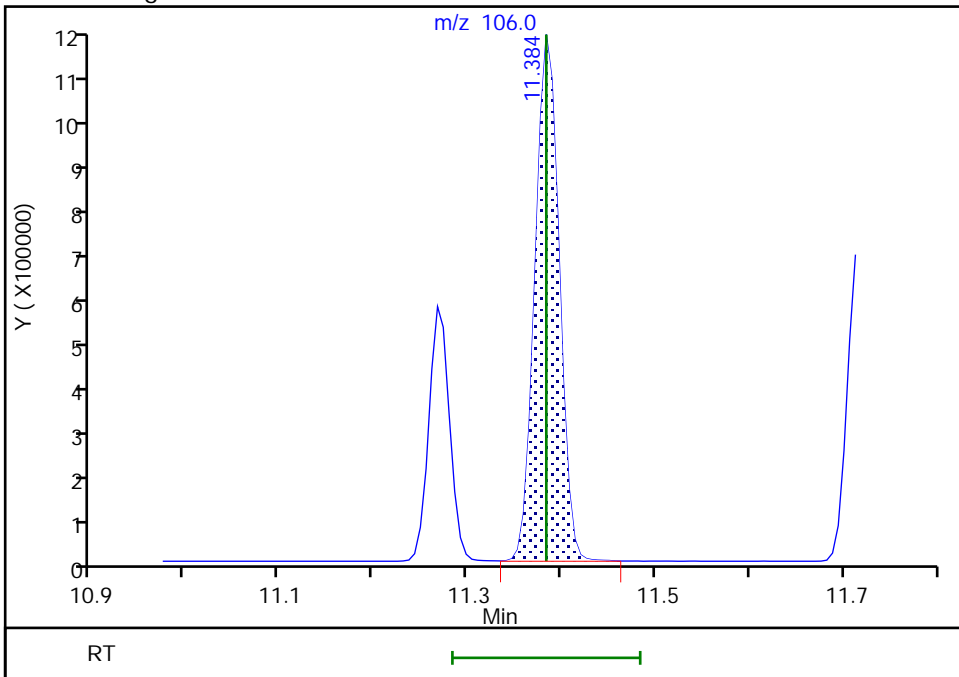
RT: 11.27
Area: 858784
Amount: 20.000000
Amount Units: ug/l

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

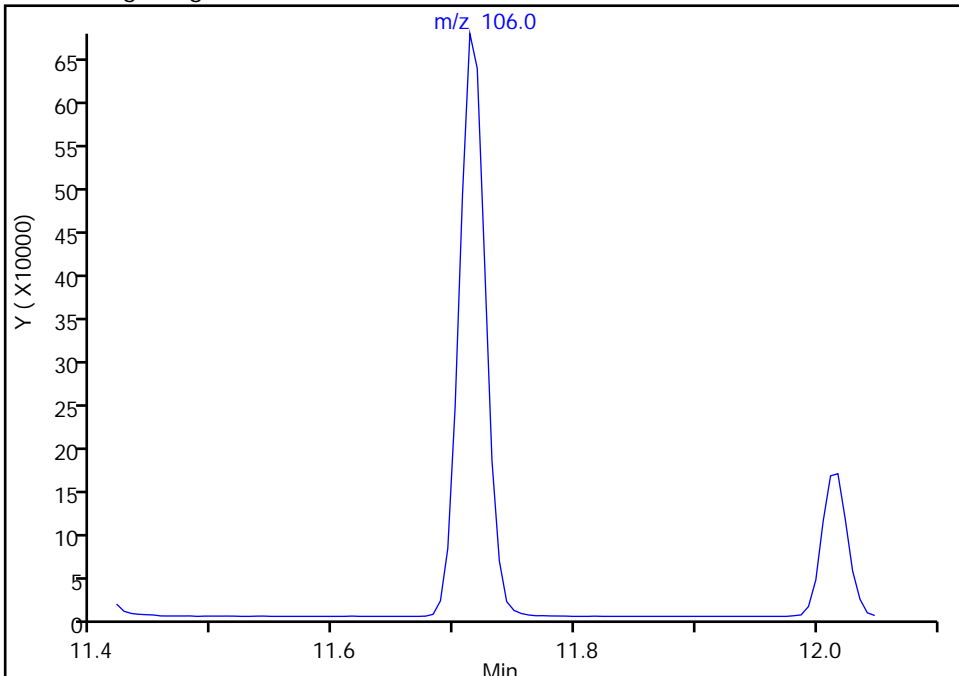
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

102 o-Xylene, CAS: 95-47-6

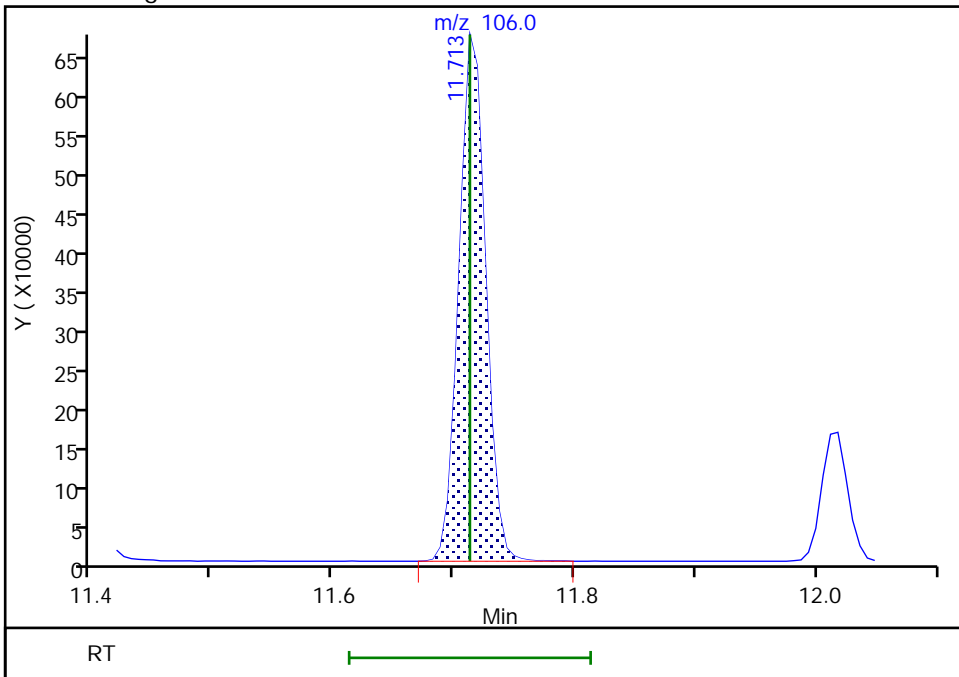
Signal: 1

Not Detected
Expected RT: 11.71

Processing Integration Results



Manual Integration Results



RT: 11.71
Area: 1031124
Amount: 10.507421
Amount Units: ug/l

Reviewer: howej, 12-Jun-2020 13:36:36
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

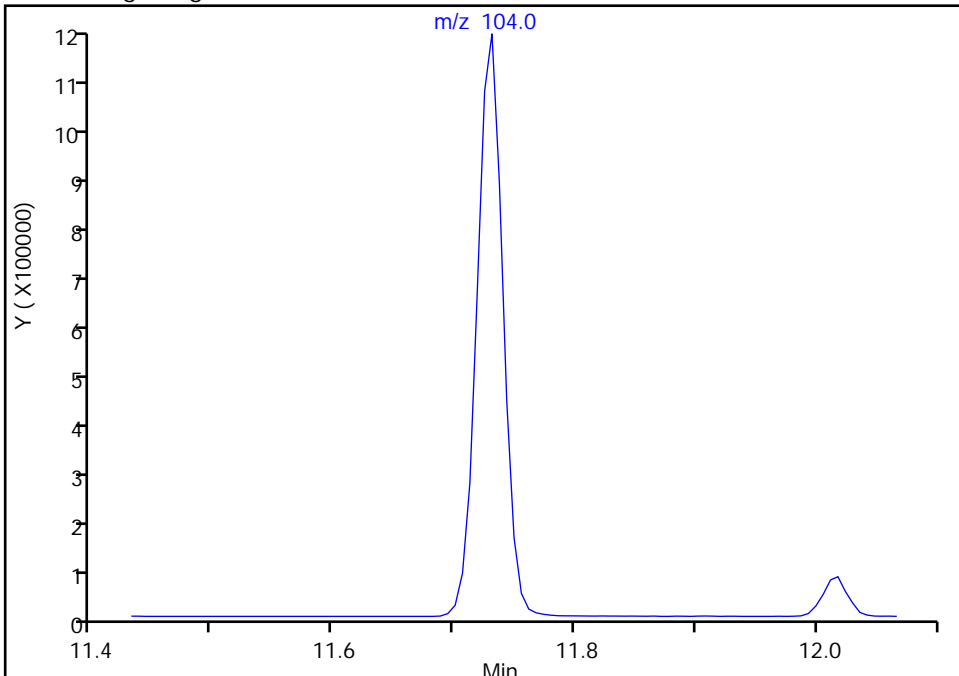
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

103 Styrene, CAS: 100-42-5

Signal: 1

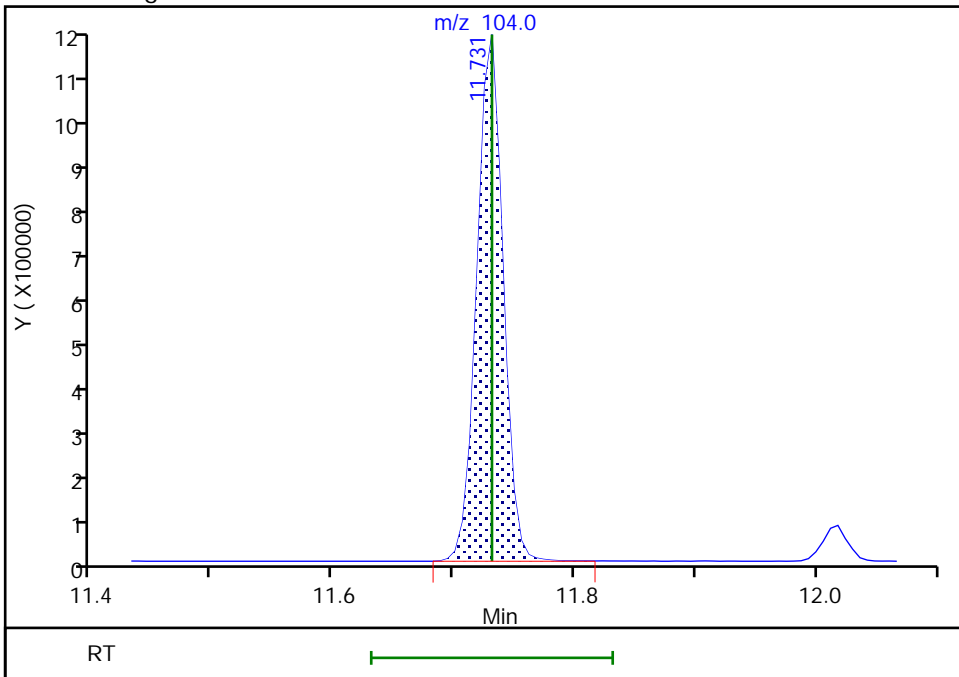
Not Detected
Expected RT: 11.73

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

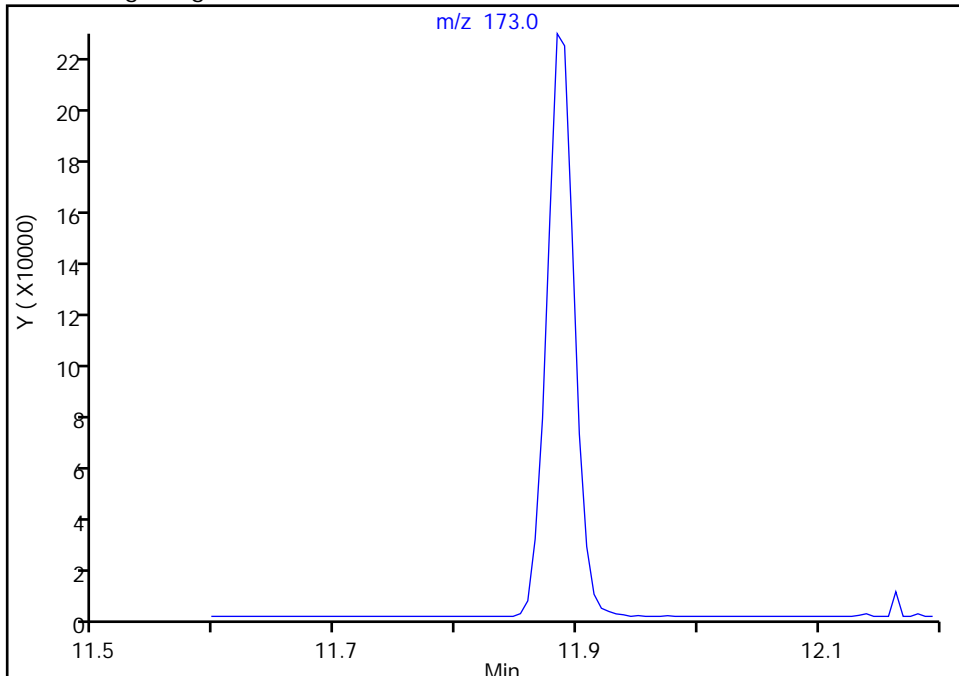
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I02.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

104 Bromoform, CAS: 75-25-2

Signal: 1

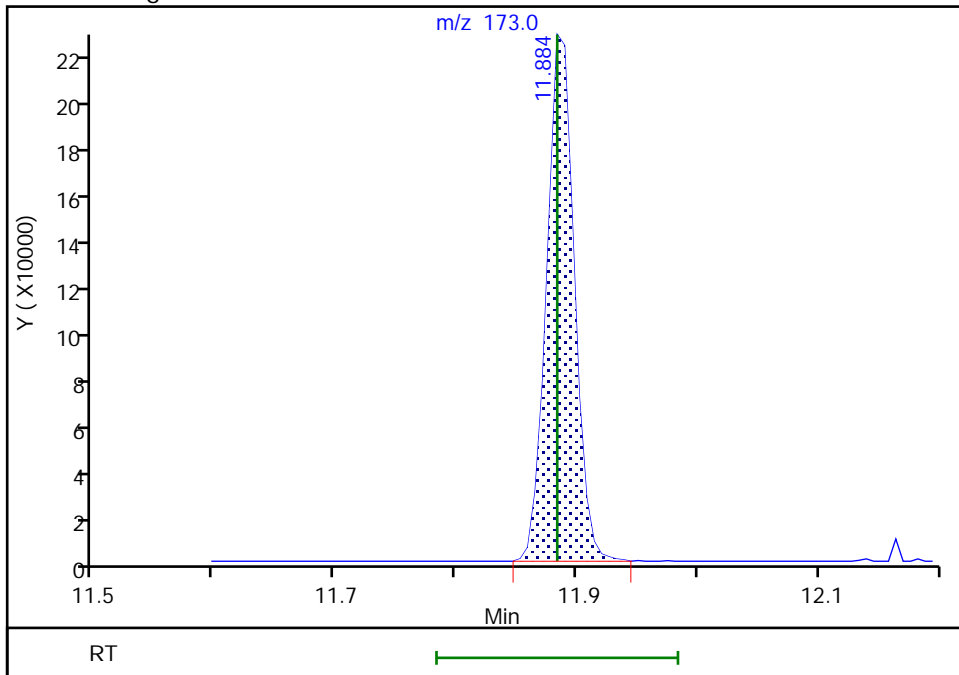
Not Detected
Expected RT: 11.88

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

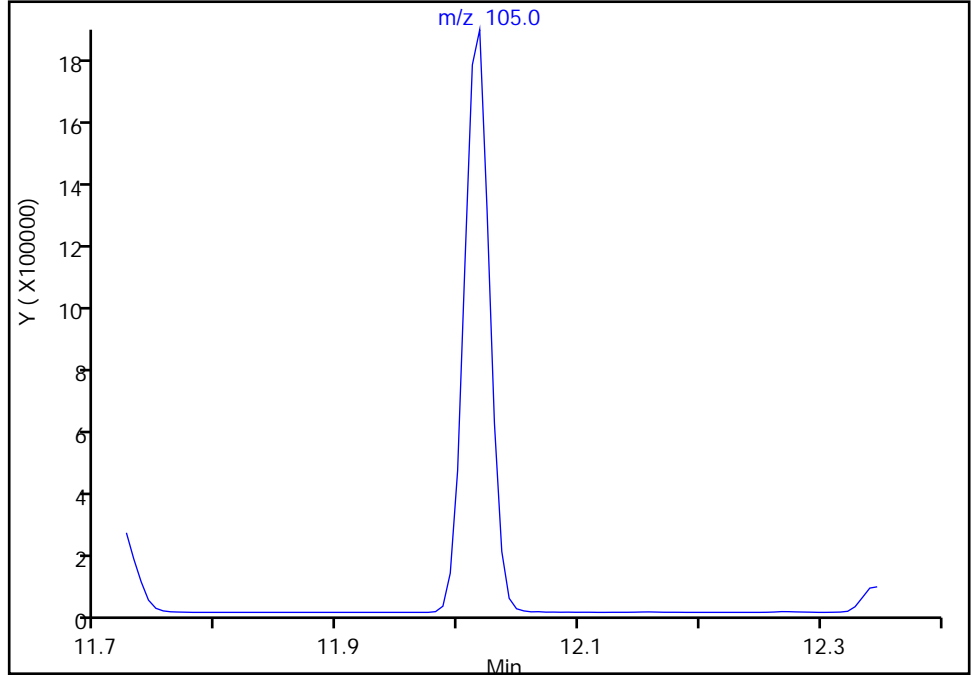
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

105 Isopropylbenzene, CAS: 98-82-8

Signal: 1

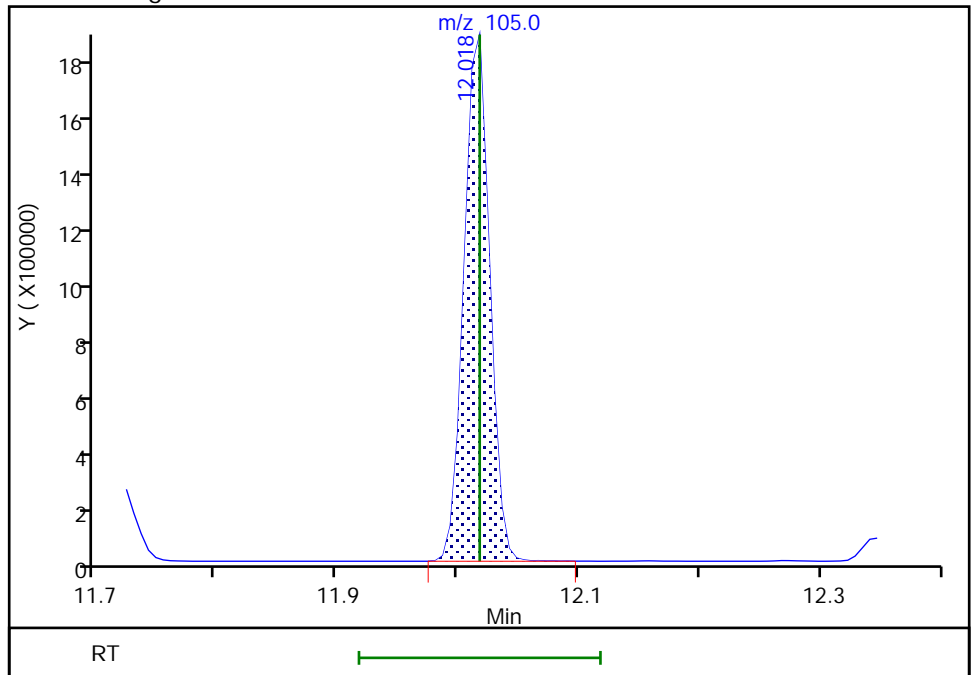
Not Detected
Expected RT: 12.02

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

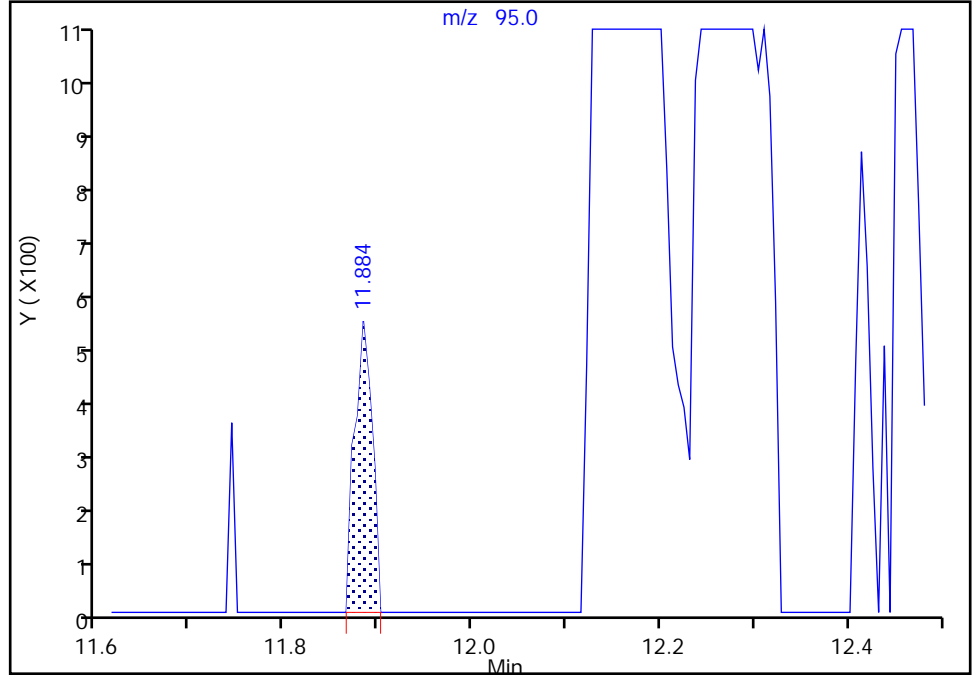
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

\$ 108 4-Bromofluorobenzene (Surr), CAS: 460-00-4

Signal: 1

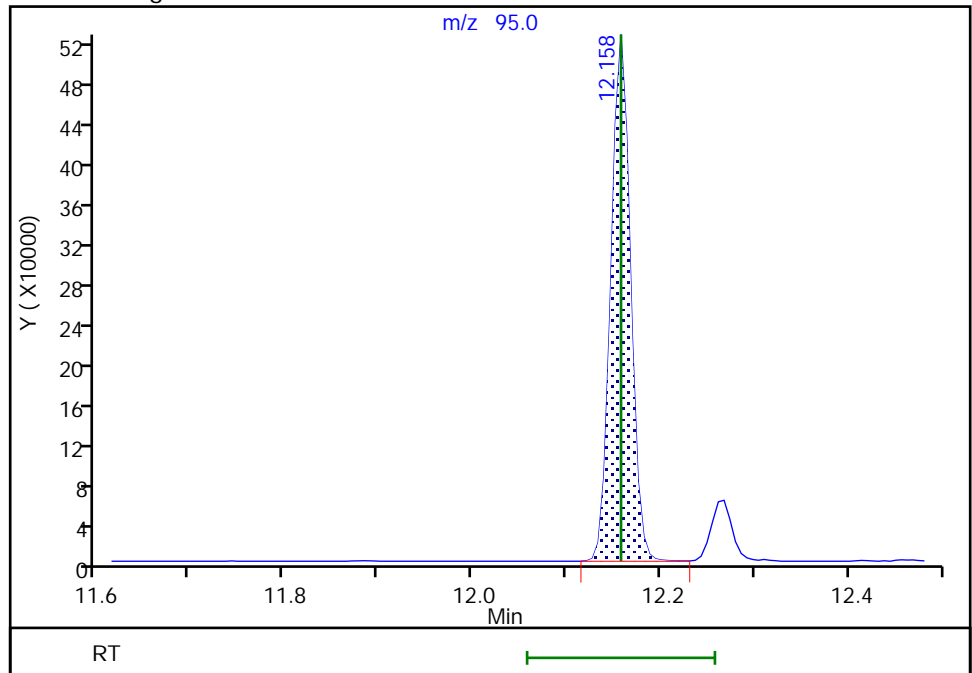
RT: 11.88
Area: 686
Amount: 10.000000
Amount Units: ug/l

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

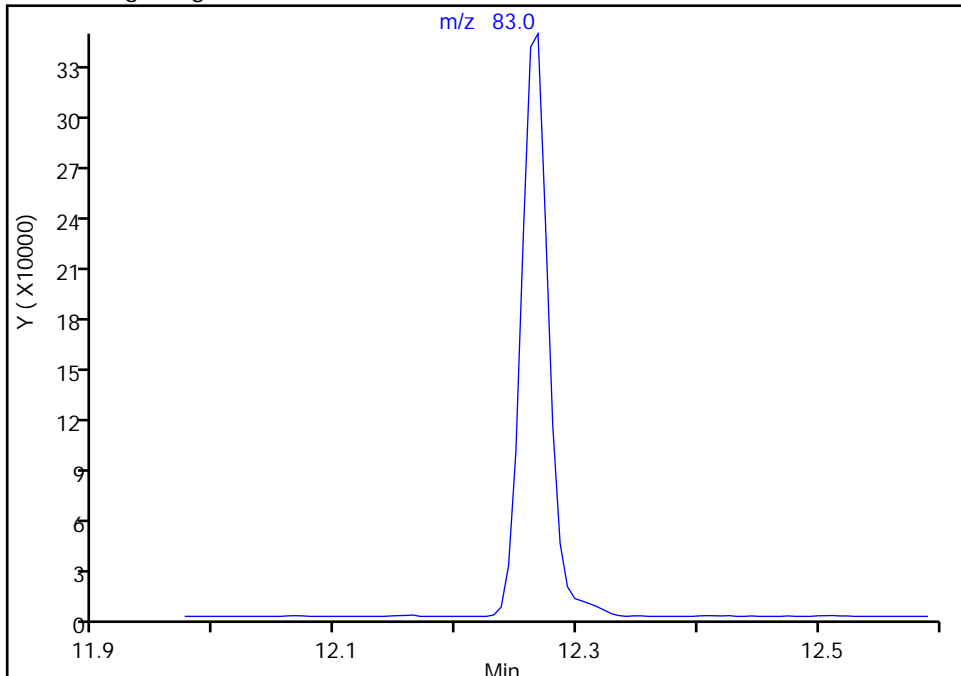
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

109 1,1,2,2-Tetrachloroethane, CAS: 79-34-5

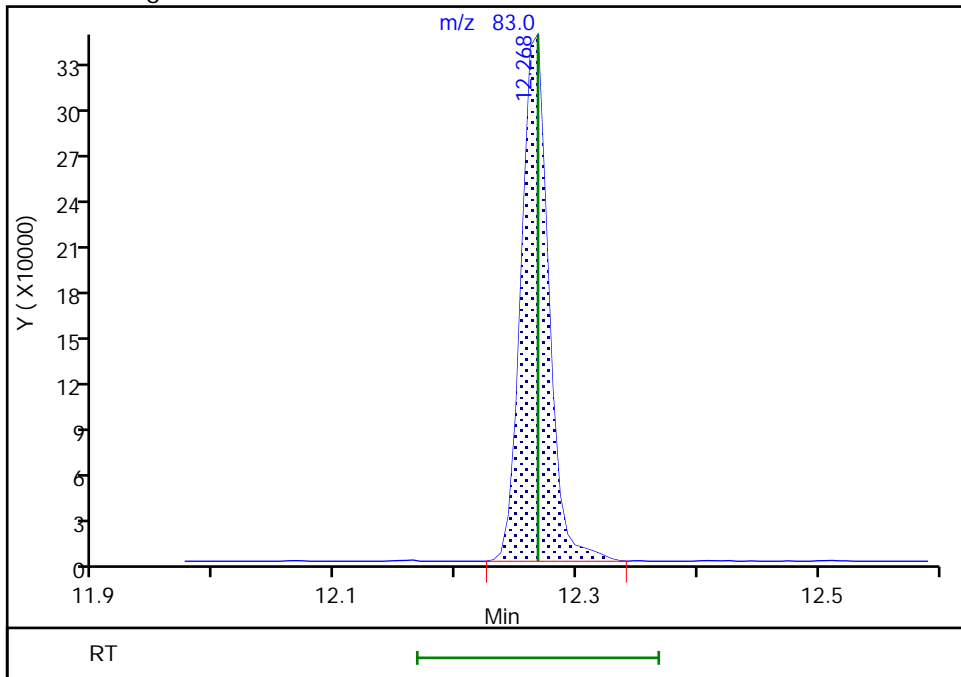
Signal: 1

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

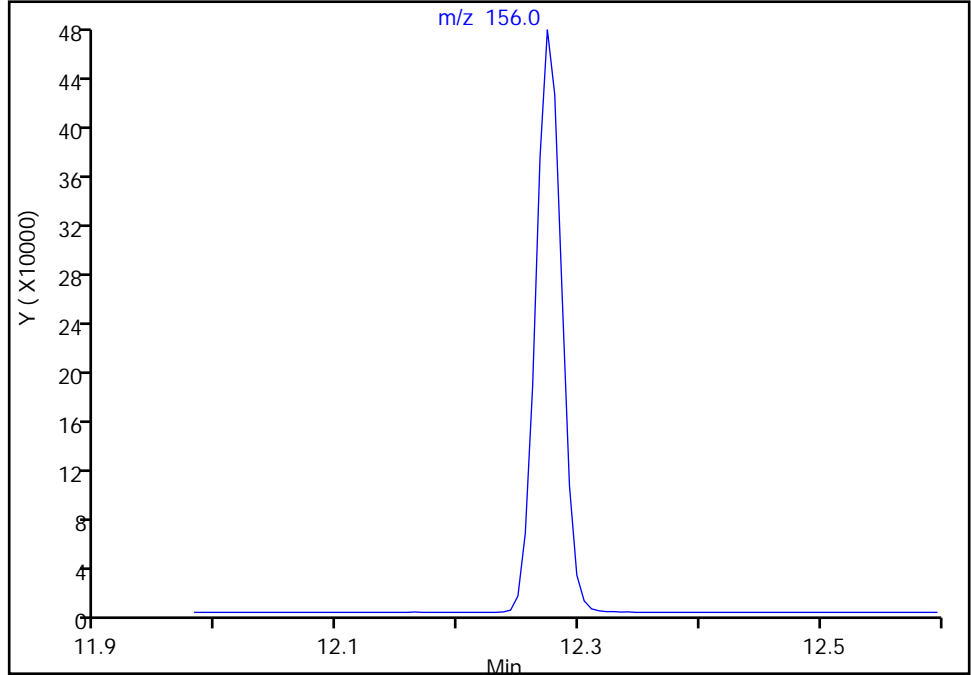
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

110 Bromobenzene, CAS: 108-86-1

Signal: 1

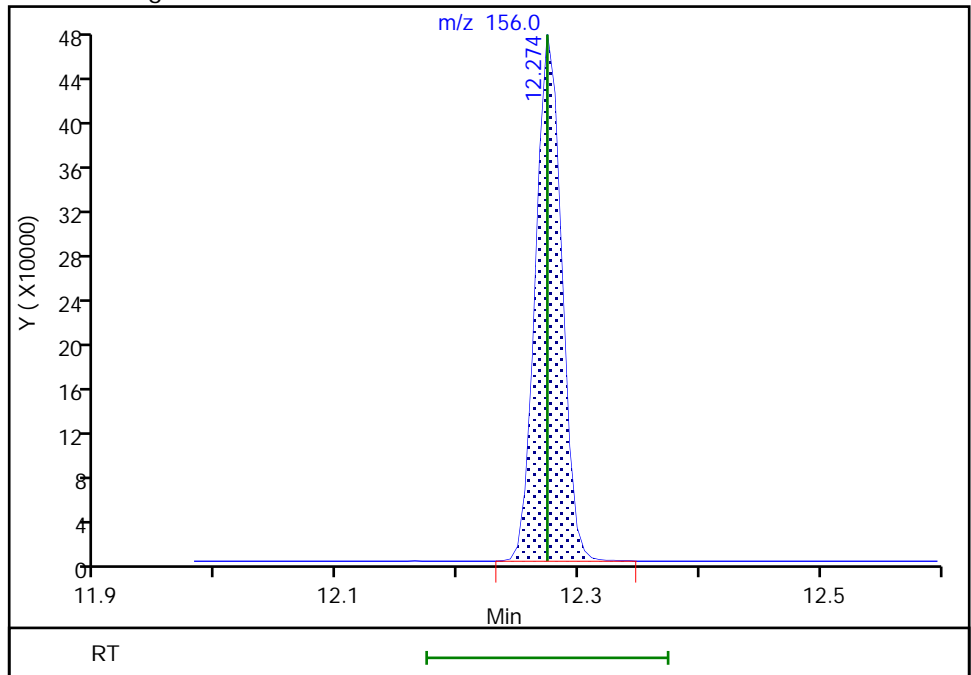
Not Detected
Expected RT: 12.27

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

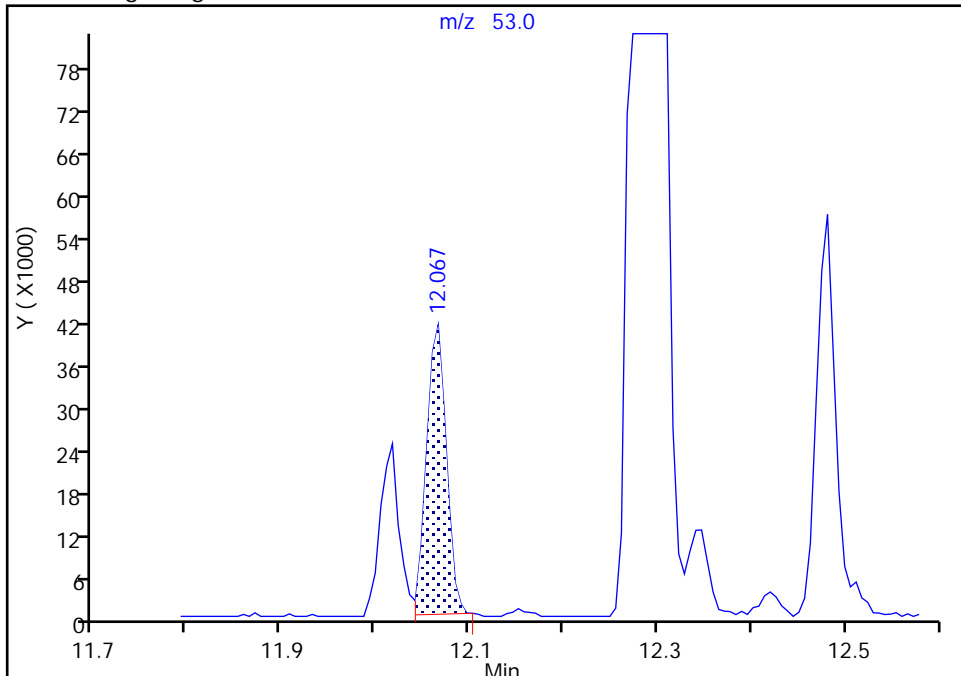
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I02.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

111 trans-1,4-Dichloro-2-butene, CAS: 110-57-6

Signal: 1

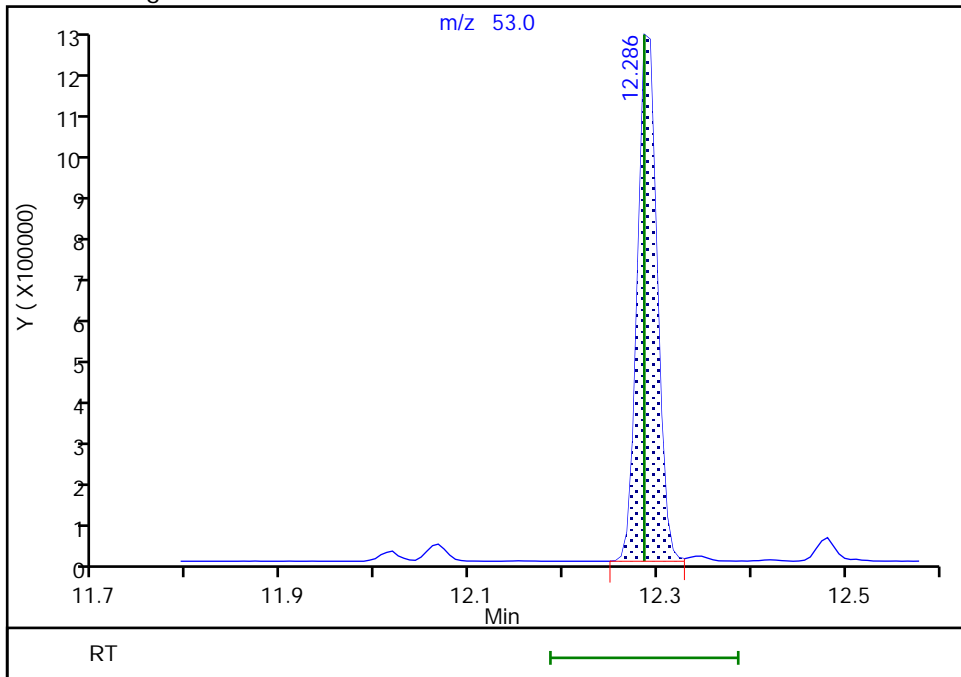
RT: 12.07
Area: 59334
Amount: 100.0000
Amount Units: ug/l

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

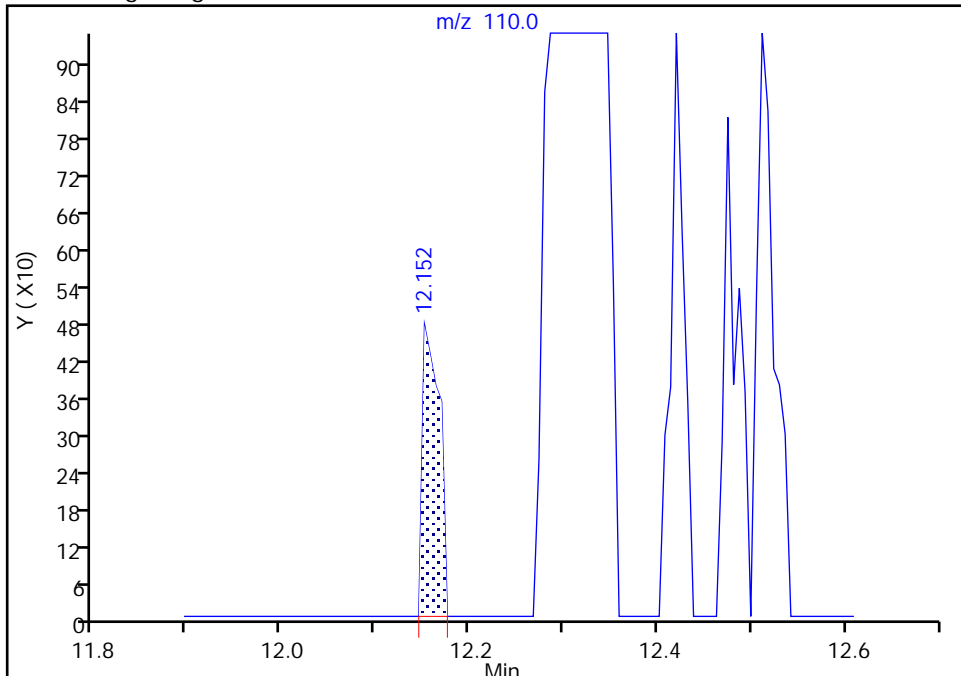
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

112 1,2,3-Trichloropropane, CAS: 96-18-4

Signal: 1

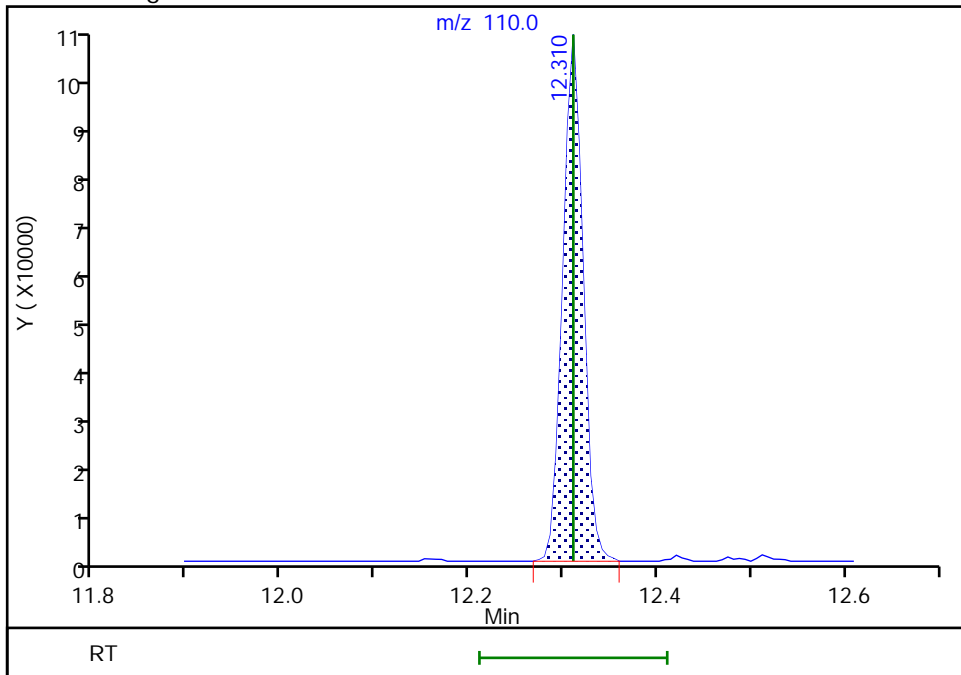
RT: 12.15
Area: 594
Amount: 10.000000
Amount Units: ug/l

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

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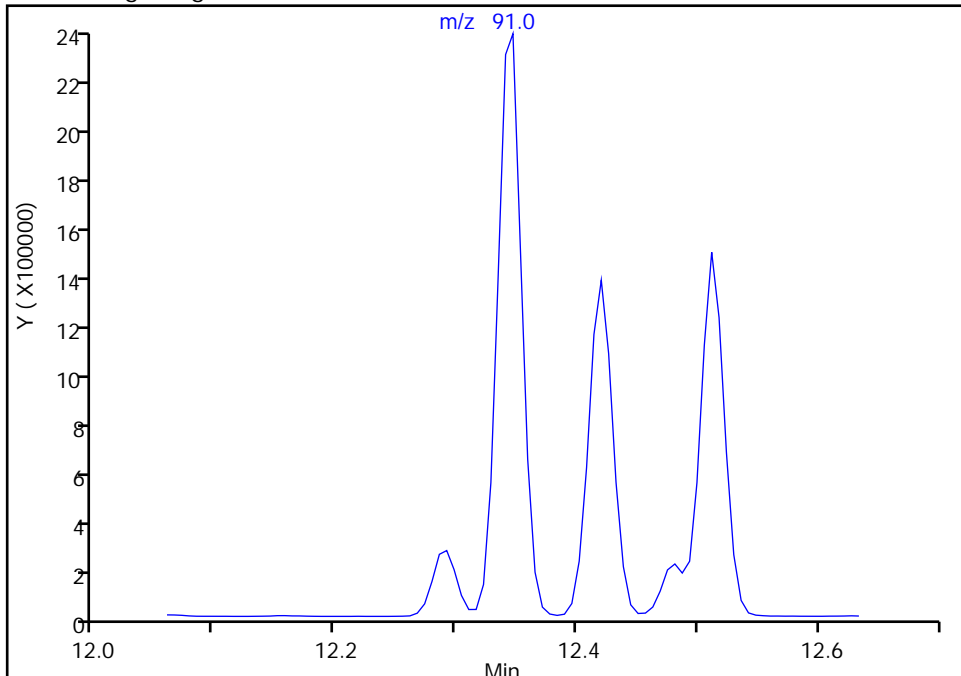
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

113 N-Propylbenzene, CAS: 103-65-1

Signal: 1

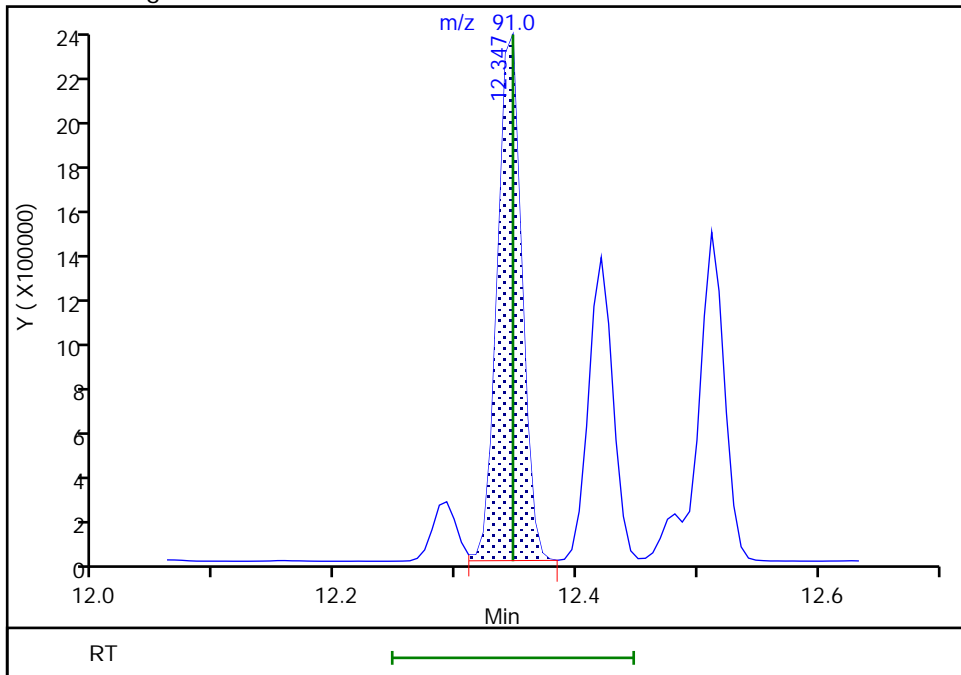
Not Detected
Expected RT: 12.35

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

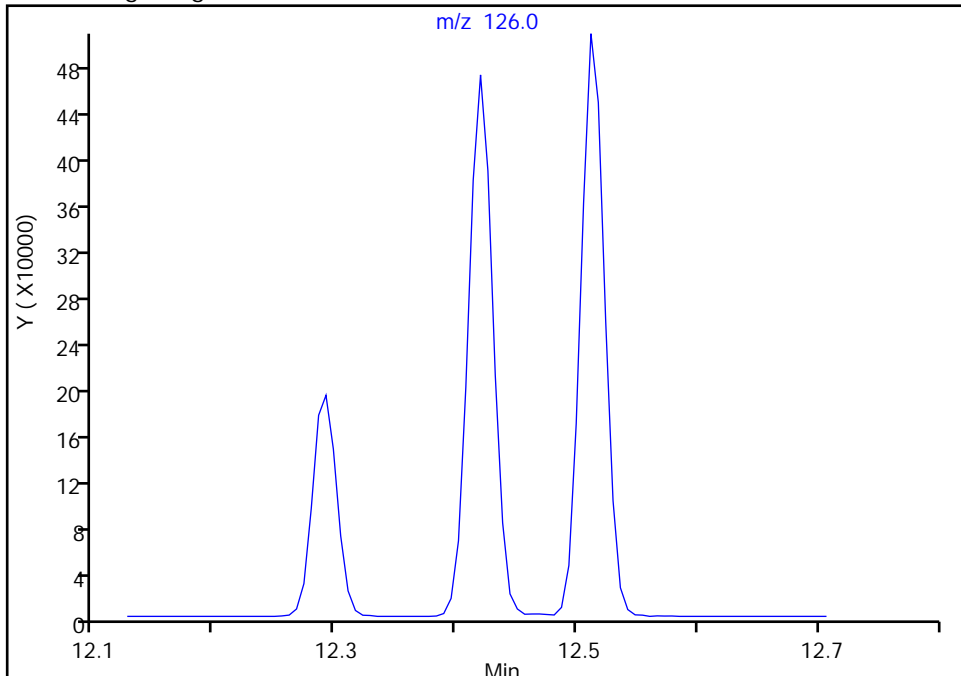
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

114 2-Chlorotoluene, CAS: 95-49-8

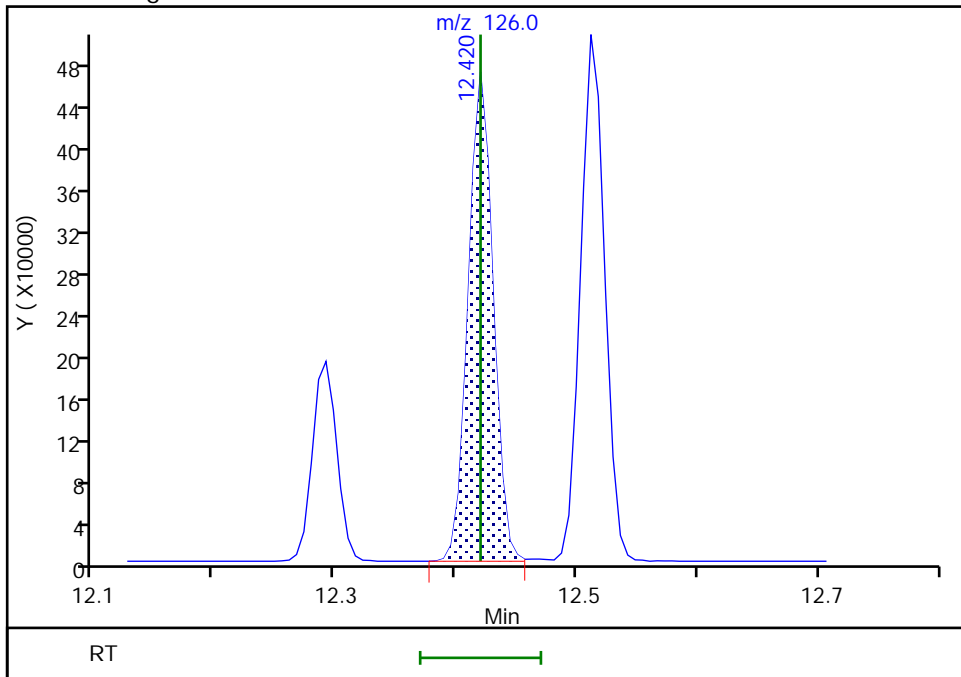
Signal: 1

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

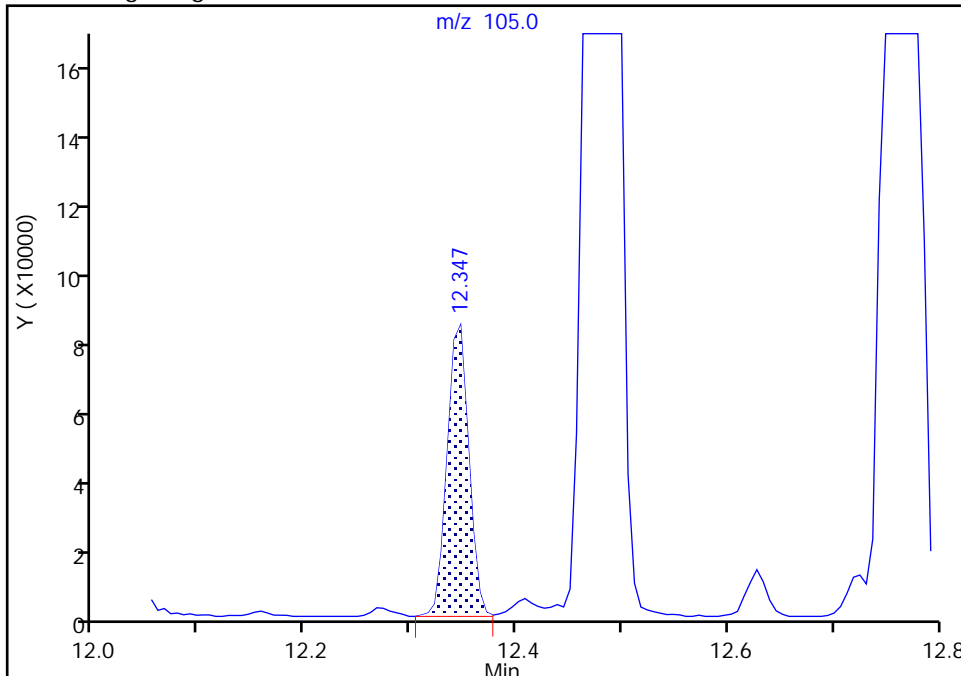
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I02.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

115 1,3,5-Trimethylbenzene, CAS: 108-67-8

Signal: 1

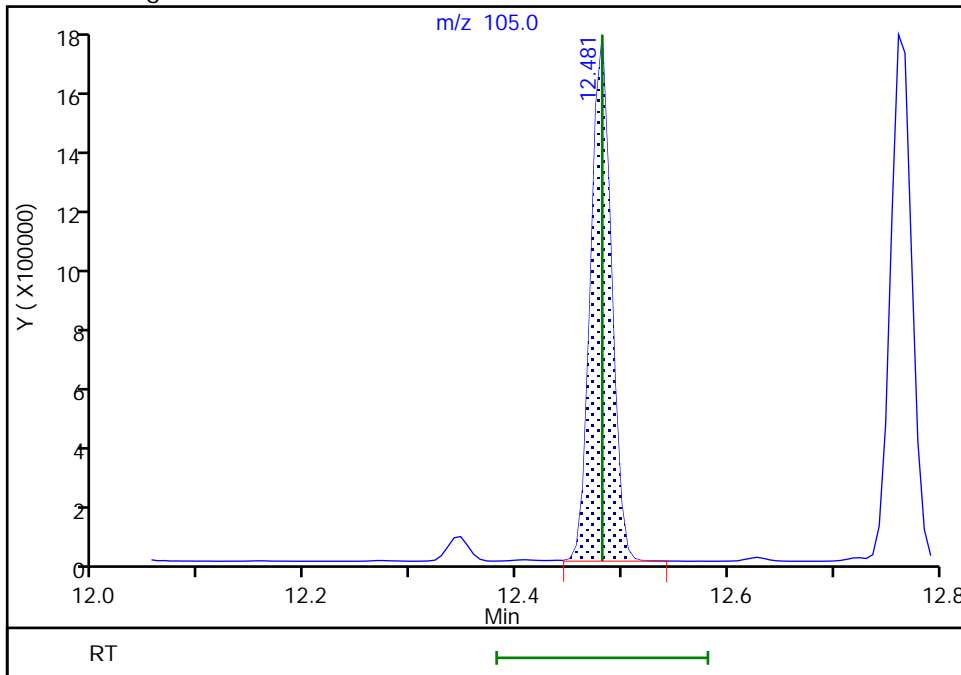
RT: 12.35
Area: 116540
Amount: 10.000000
Amount Units: ug/l

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

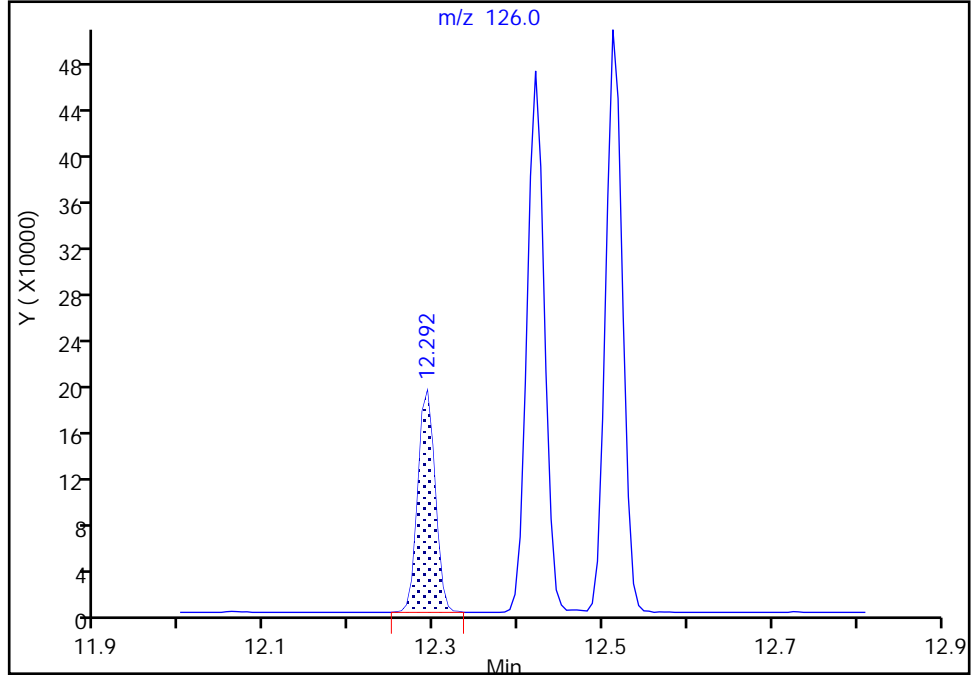
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

116 4-Chlorotoluene, CAS: 106-43-4

Signal: 1

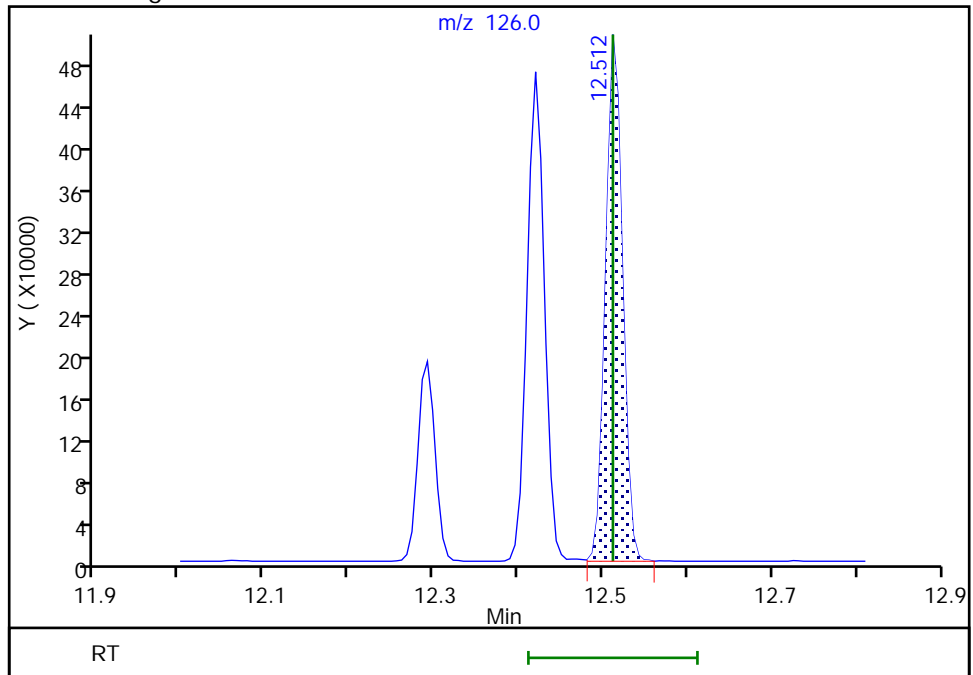
RT: 12.29
Area: 268625
Amount: 10.000000
Amount Units: ug/l

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

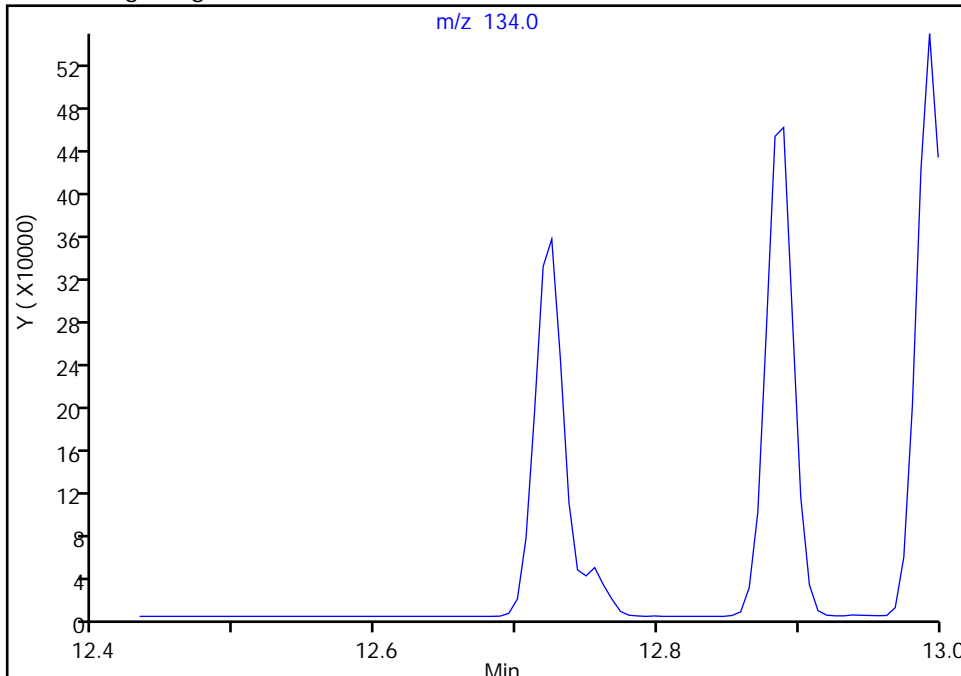
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

118 tert-Butylbenzene, CAS: 98-06-6

Signal: 1

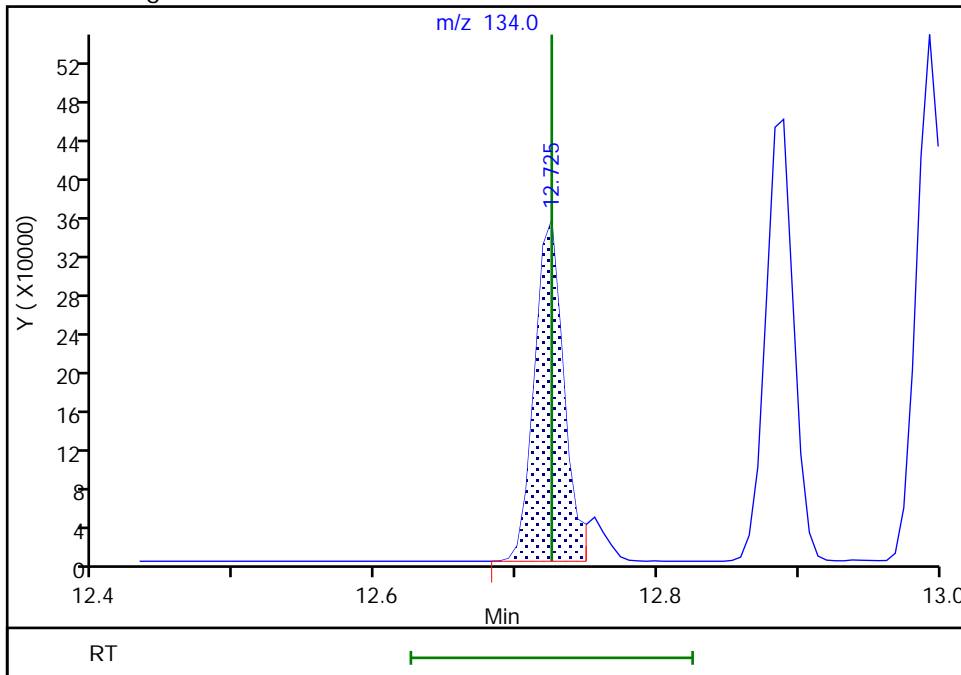
Not Detected
Expected RT: 12.72

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

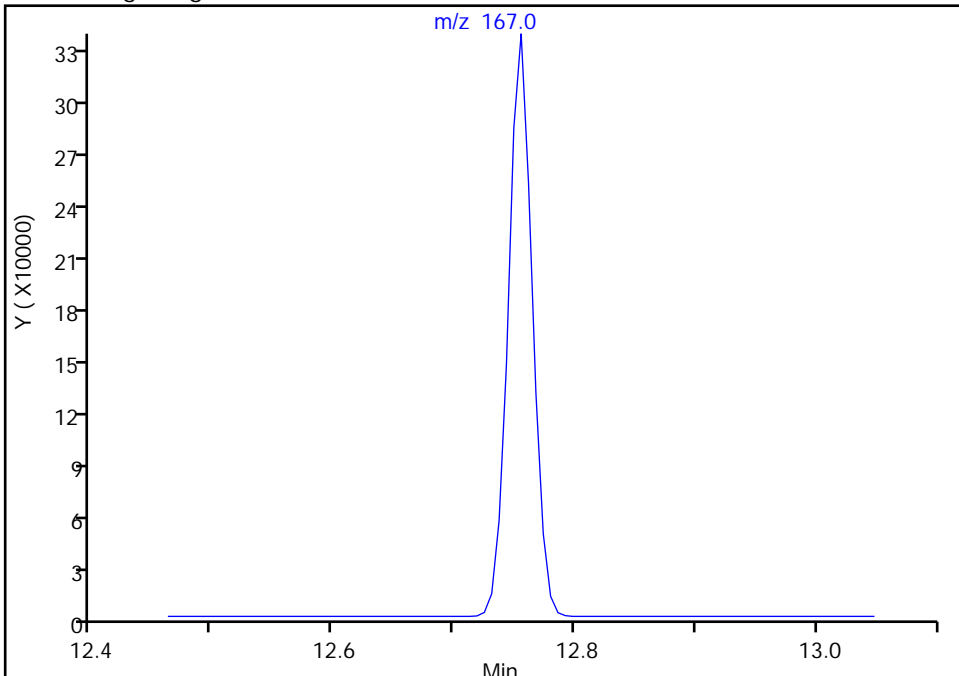
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

120 Pentachloroethane, CAS: 76-01-7

Signal: 1

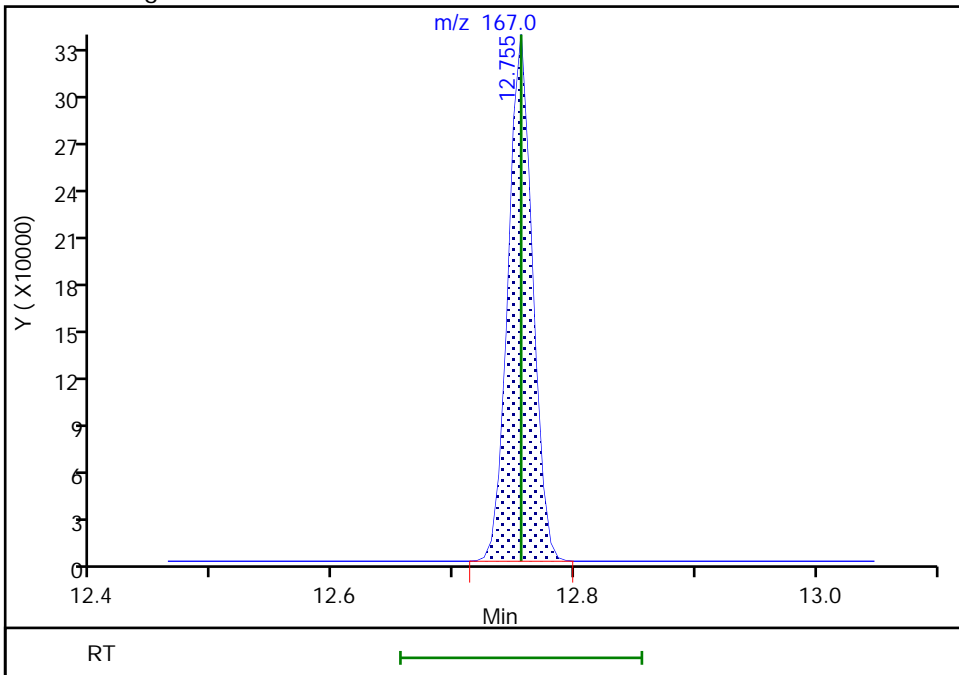
Not Detected
Expected RT: 12.76

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

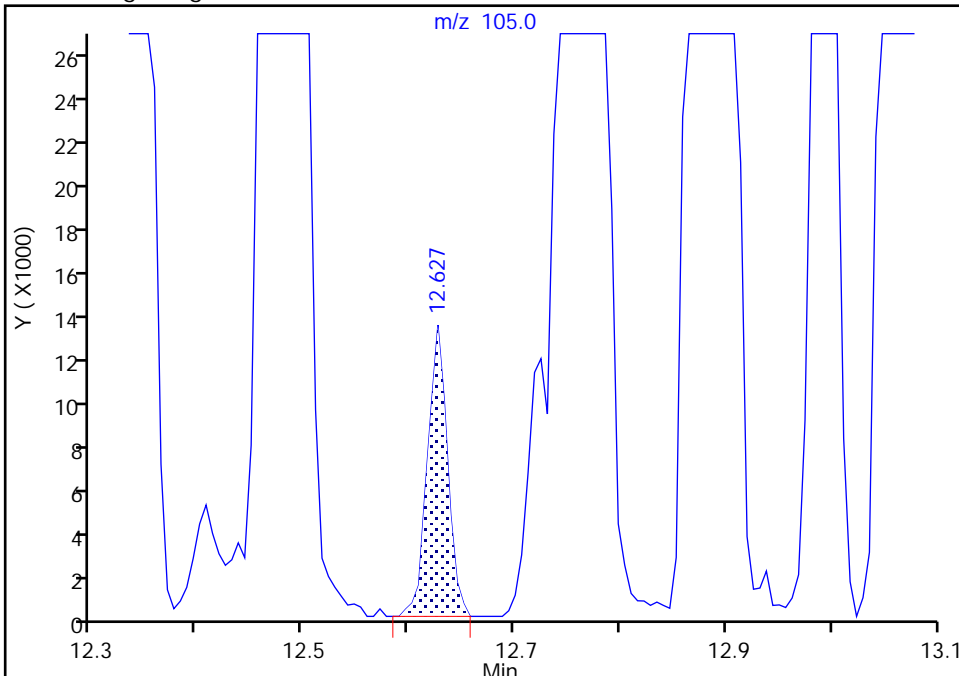
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

119 1,2,4-Trimethylbenzene, CAS: 95-63-6

Signal: 1

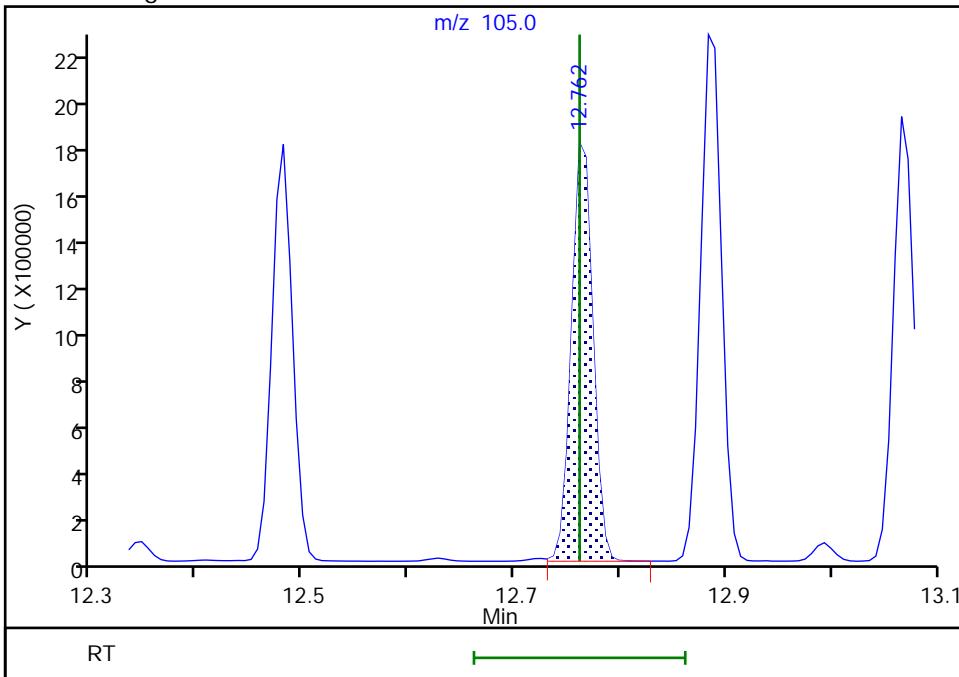
RT: 12.63
Area: 17283
Amount: 10.000000
Amount Units: ug/l

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

Eurofins Lancaster Laboratories Env, LLC

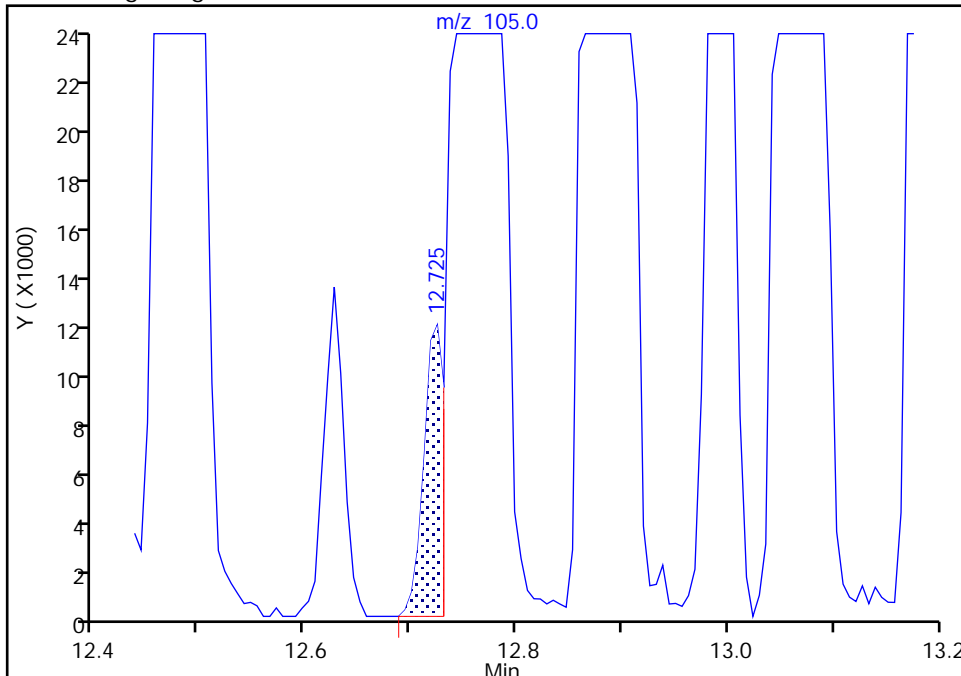
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I02.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

121 sec-Butylbenzene, CAS: 135-98-8

Signal: 1

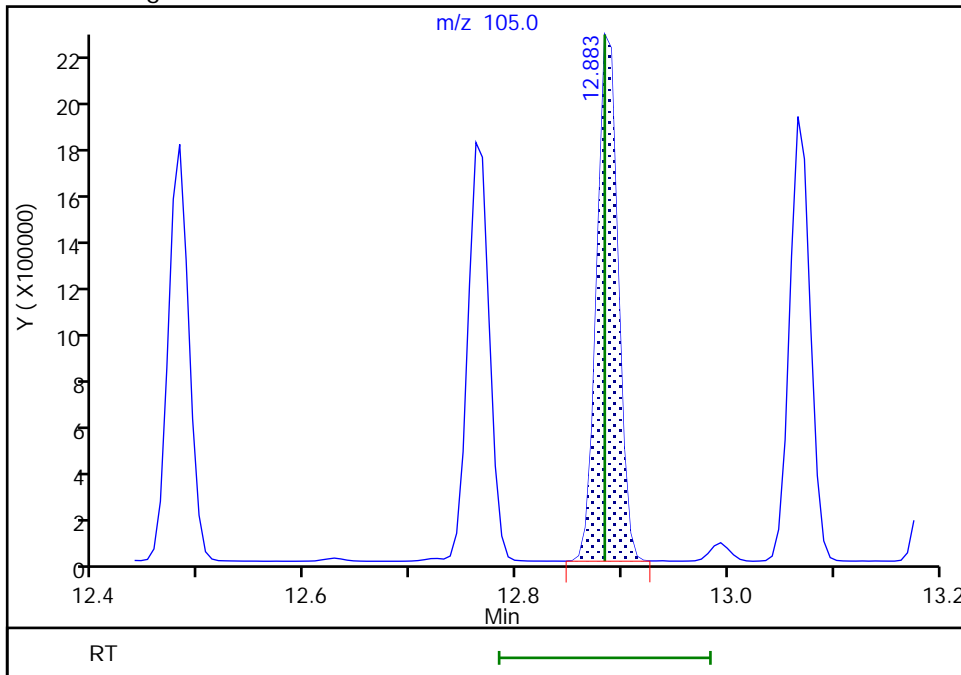
RT: 12.72
Area: 15507
Amount: 10.000000
Amount Units: ug/l

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

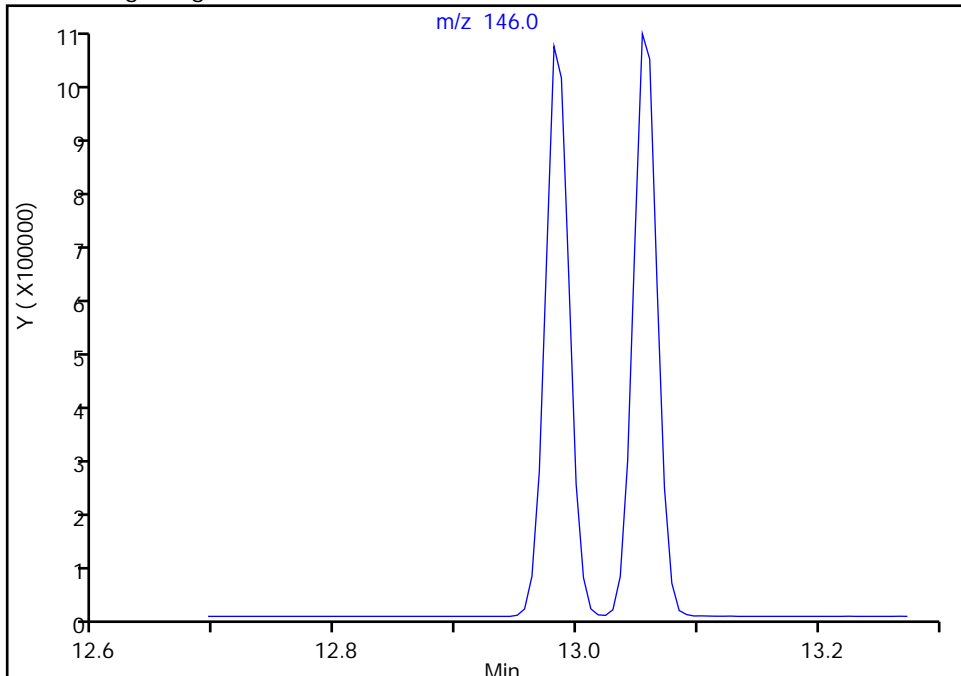
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

122 1,3-Dichlorobenzene, CAS: 541-73-1

Signal: 1

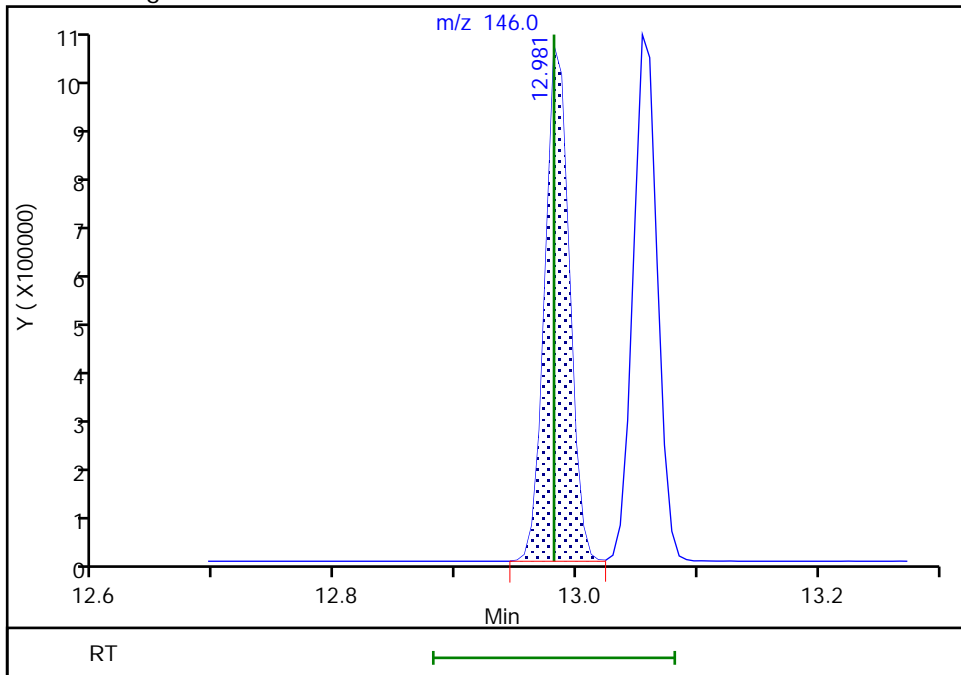
Not Detected
Expected RT: 12.98

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

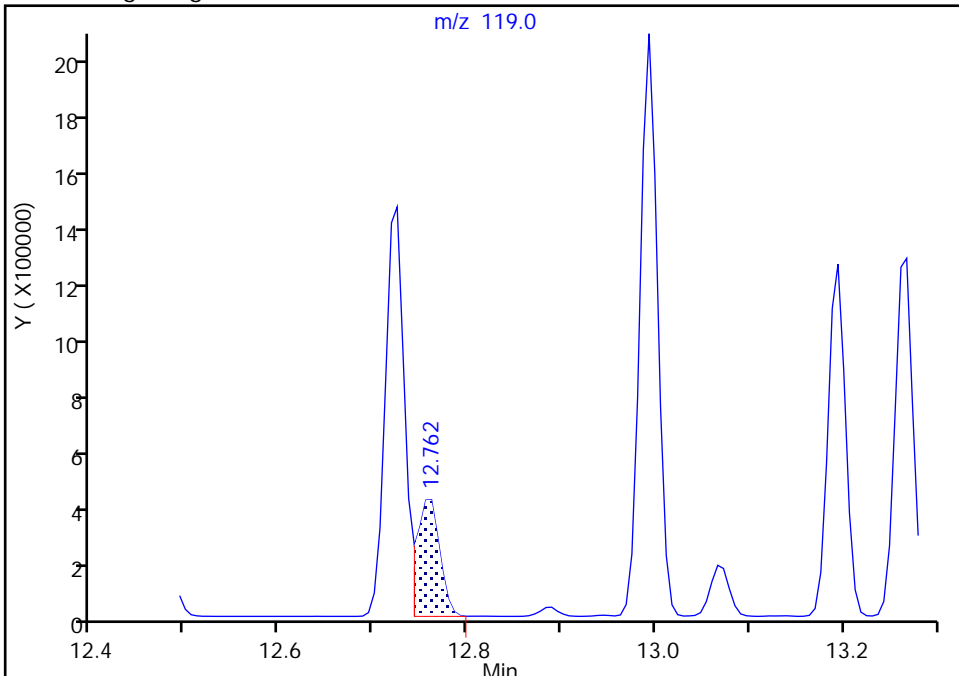
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

123 4-Isopropyltoluene, CAS: 99-87-6

Signal: 1

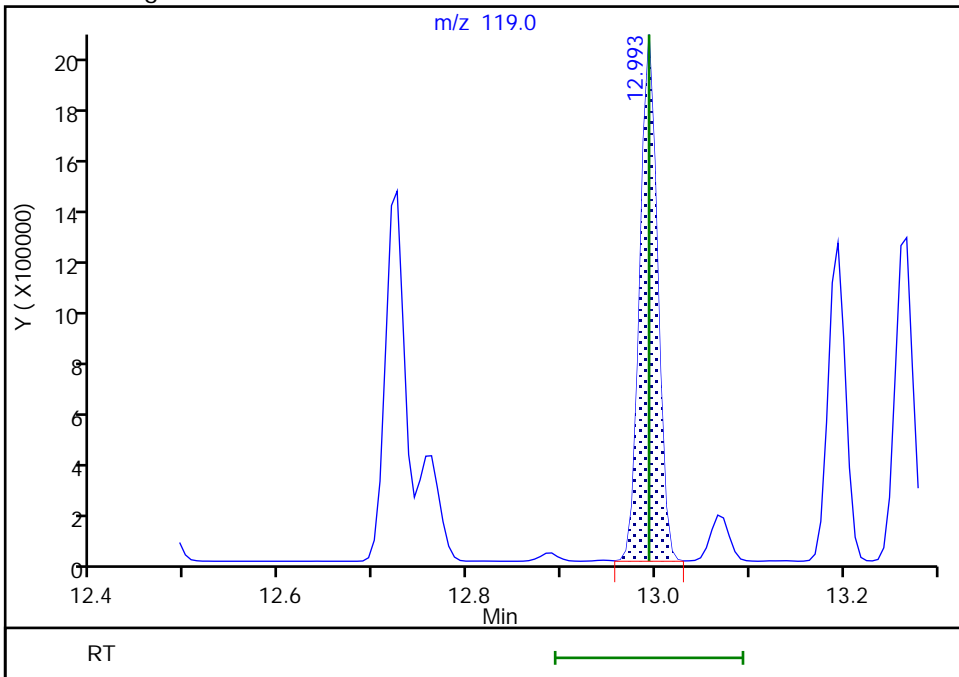
RT: 12.76
Area: 704489
Amount: 10.000000
Amount Units: ug/l

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

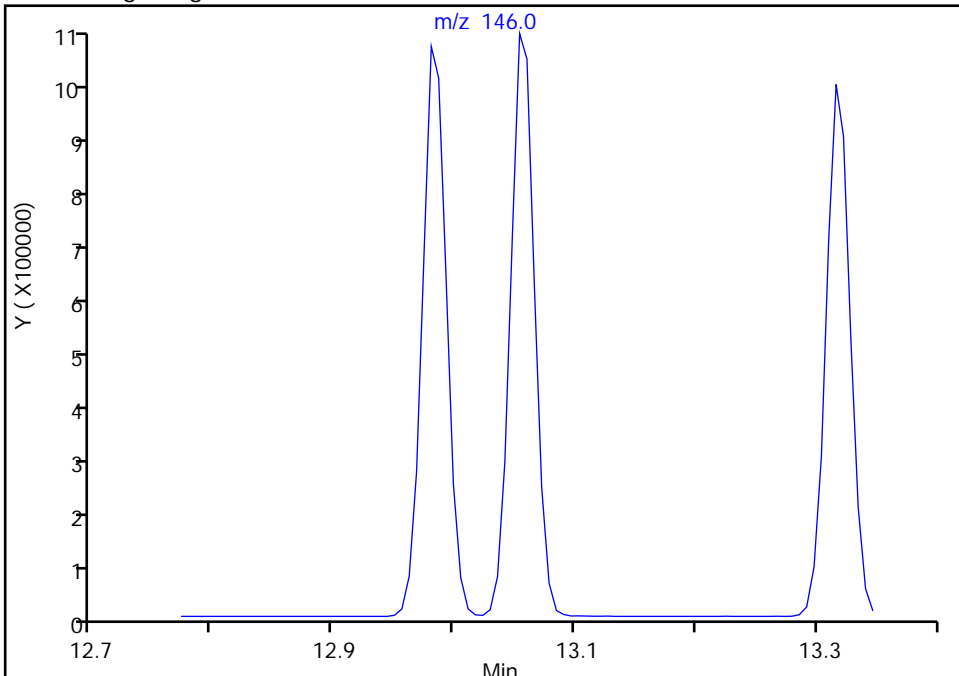
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

125 1,4-Dichlorobenzene, CAS: 106-46-7

Signal: 1

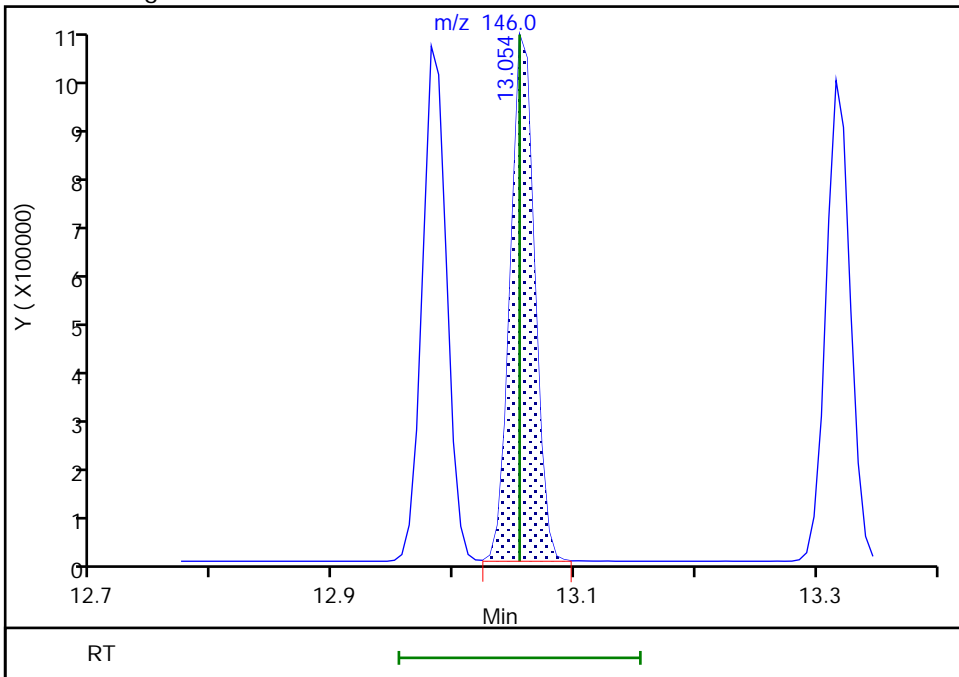
Not Detected
Expected RT: 13.05

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

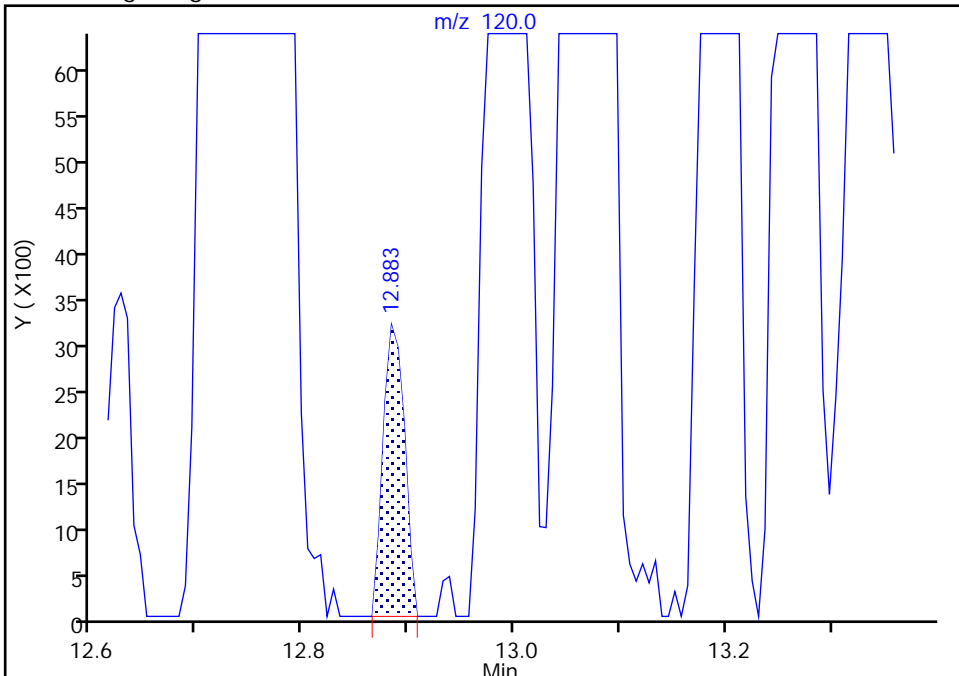
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I02.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

126 1,2,3-Trimethylbenzene, CAS: 526-73-8

Signal: 1

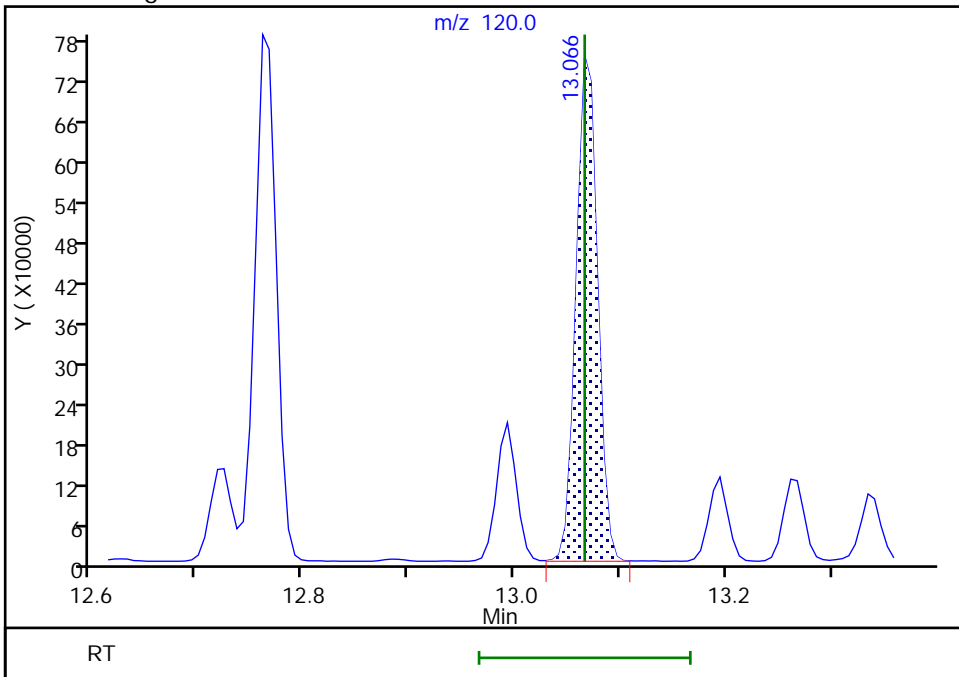
RT: 12.88
Area: 4450
Amount: 10.000000
Amount Units: ug/l

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

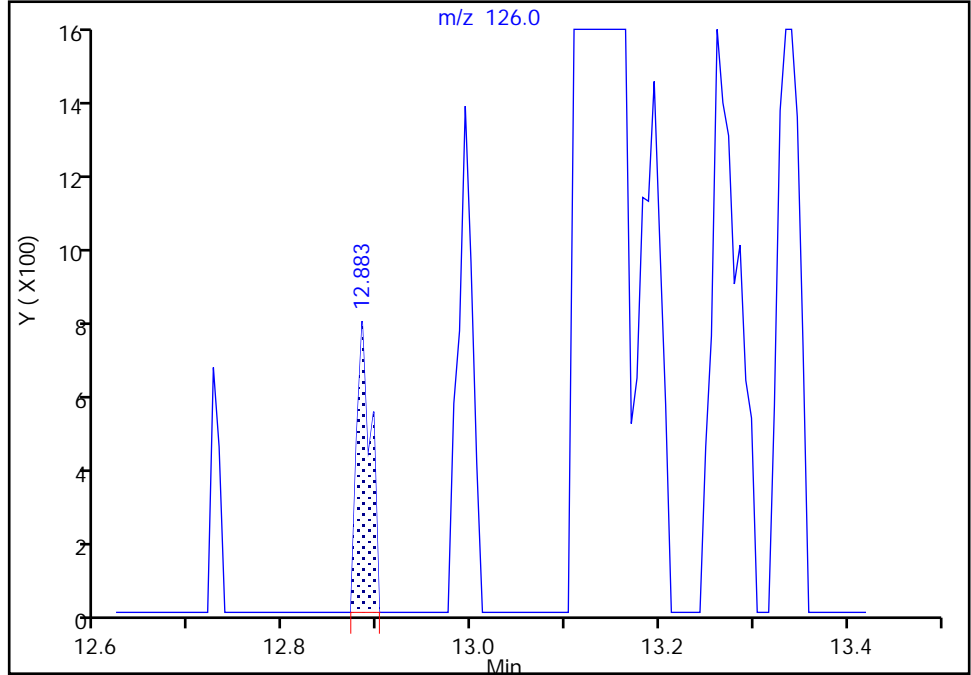
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

127 Benzyl chloride, CAS: 100-44-7

Signal: 1

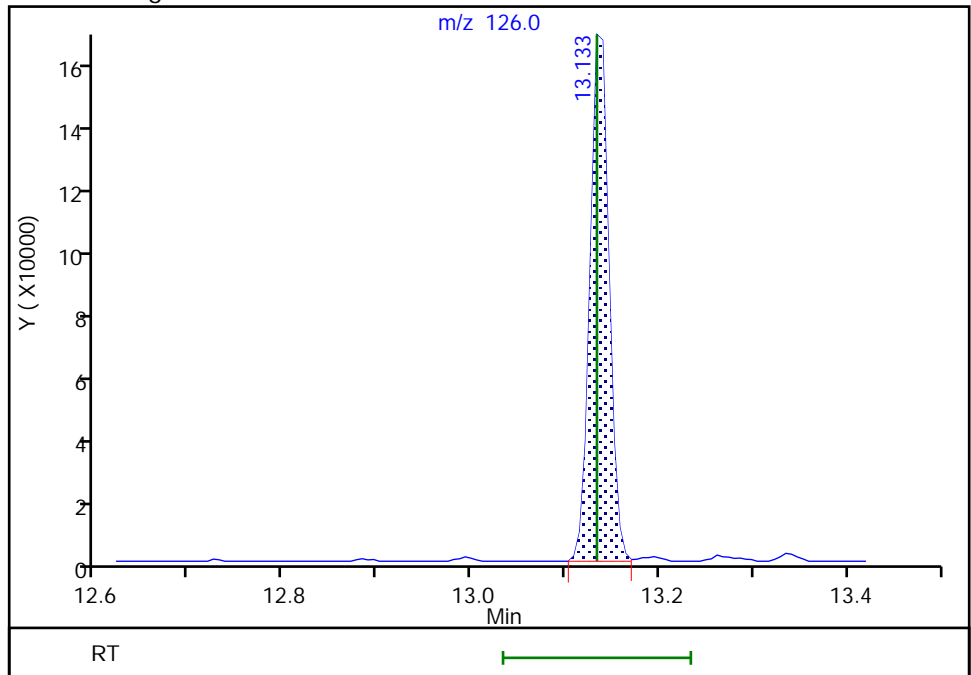
RT: 12.88
Area: 801
Amount: 10.000000
Amount Units: ug/l

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

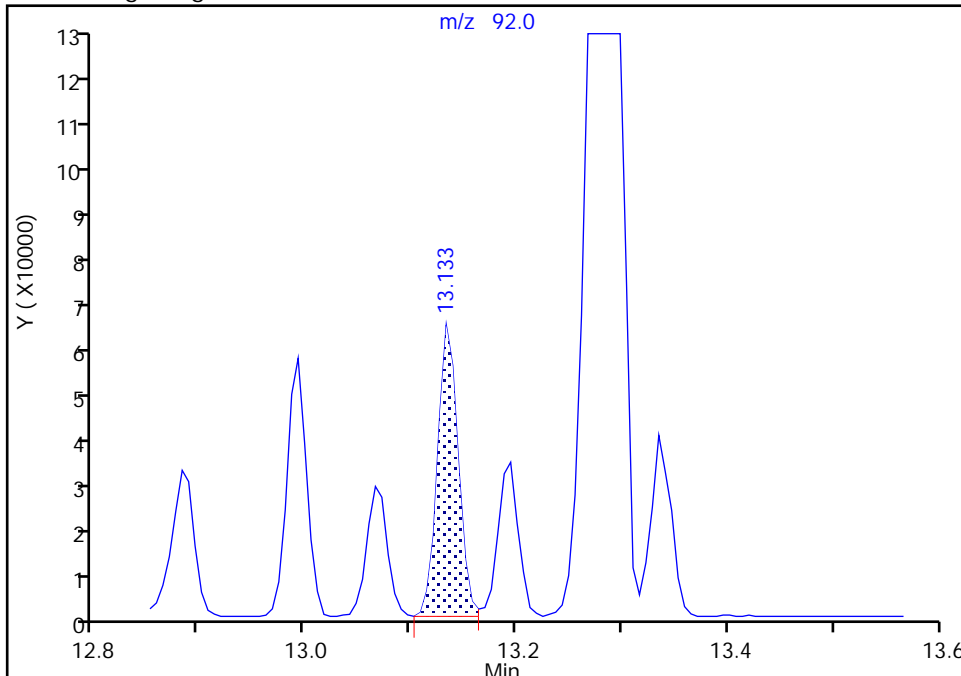
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

130 n-Butylbenzene, CAS: 104-51-8

Signal: 1

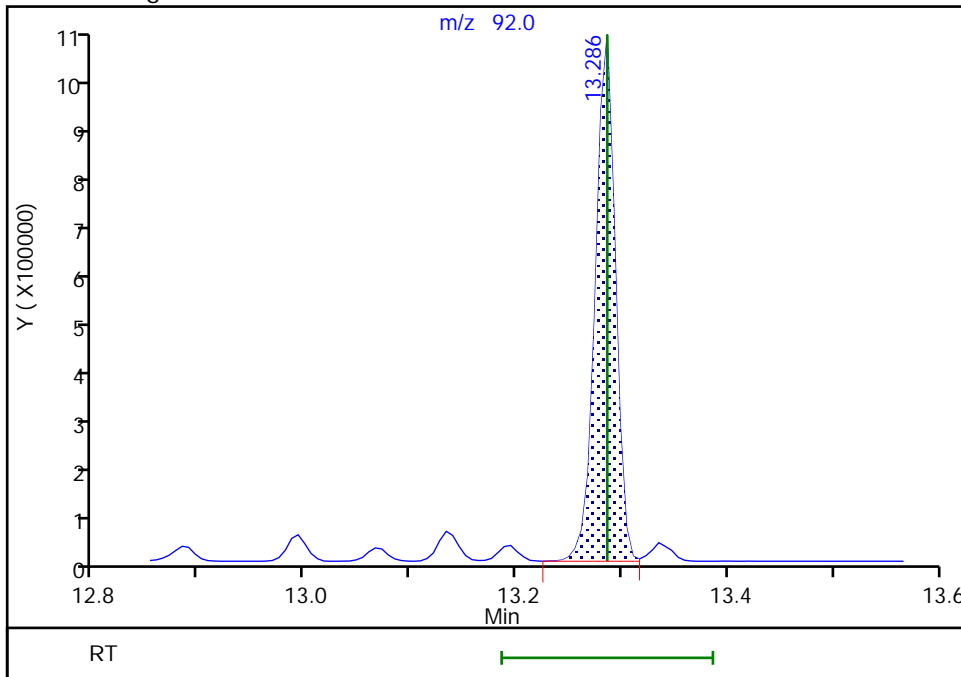
RT: 13.13
Area: 82028
Amount: 10.000000
Amount Units: ug/l

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

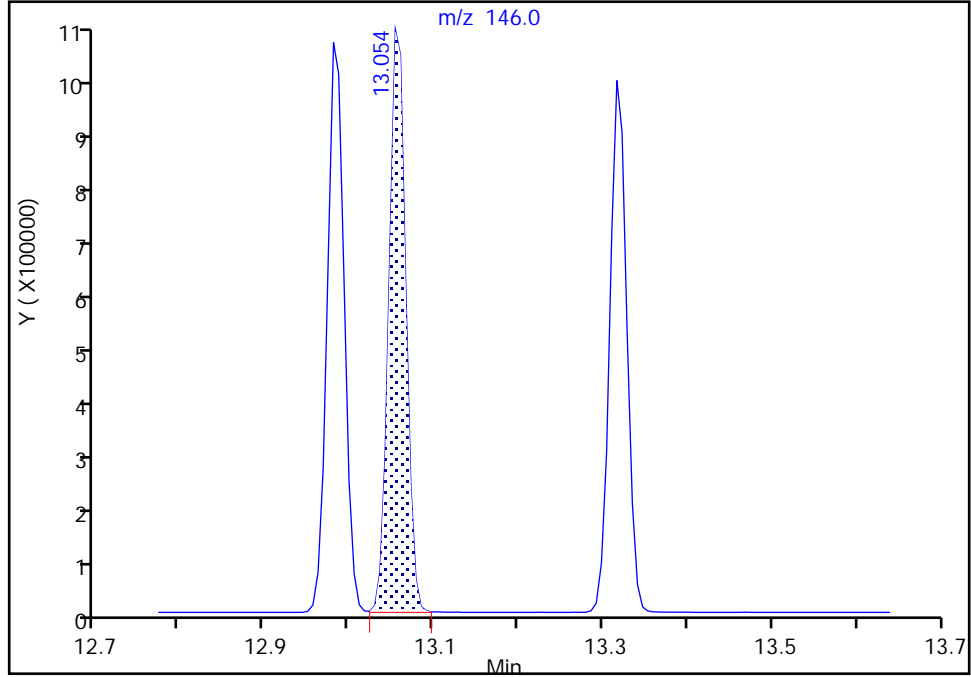
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

131 1,2-Dichlorobenzene, CAS: 95-50-1

Signal: 1

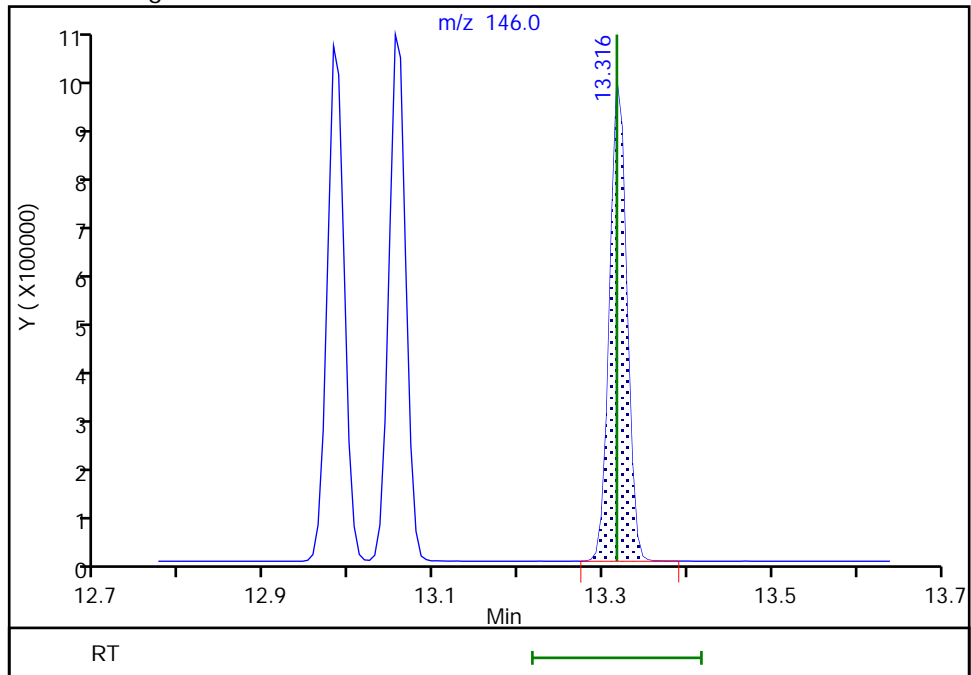
RT: 13.05
Area: 1411779
Amount: 10.000000
Amount Units: ug/l

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

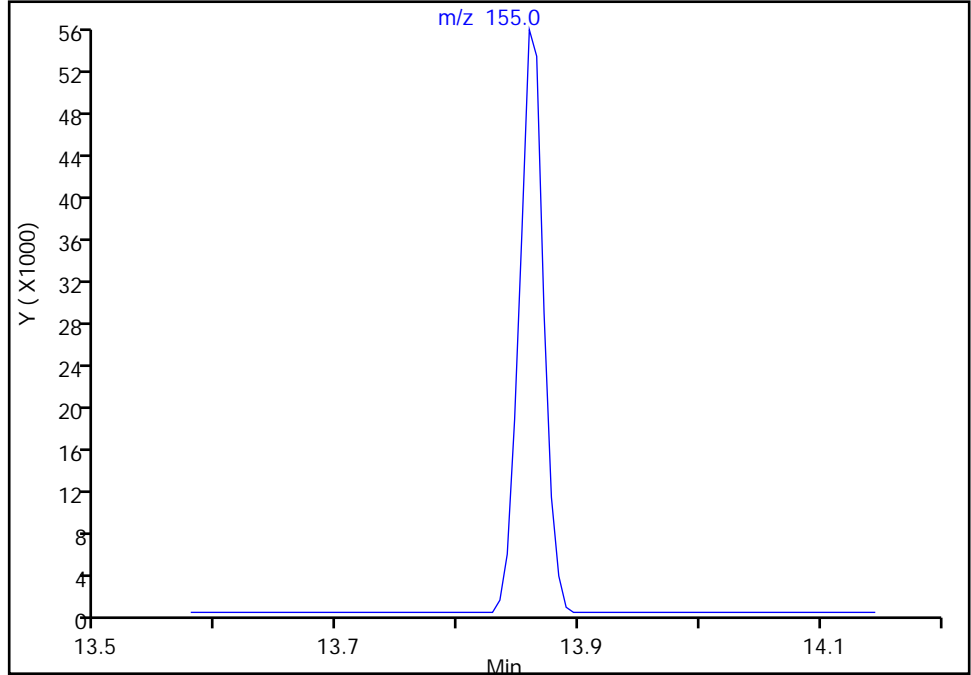
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I02.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

134 1,2-Dibromo-3-Chloropropane, CAS: 96-12-8

Signal: 1

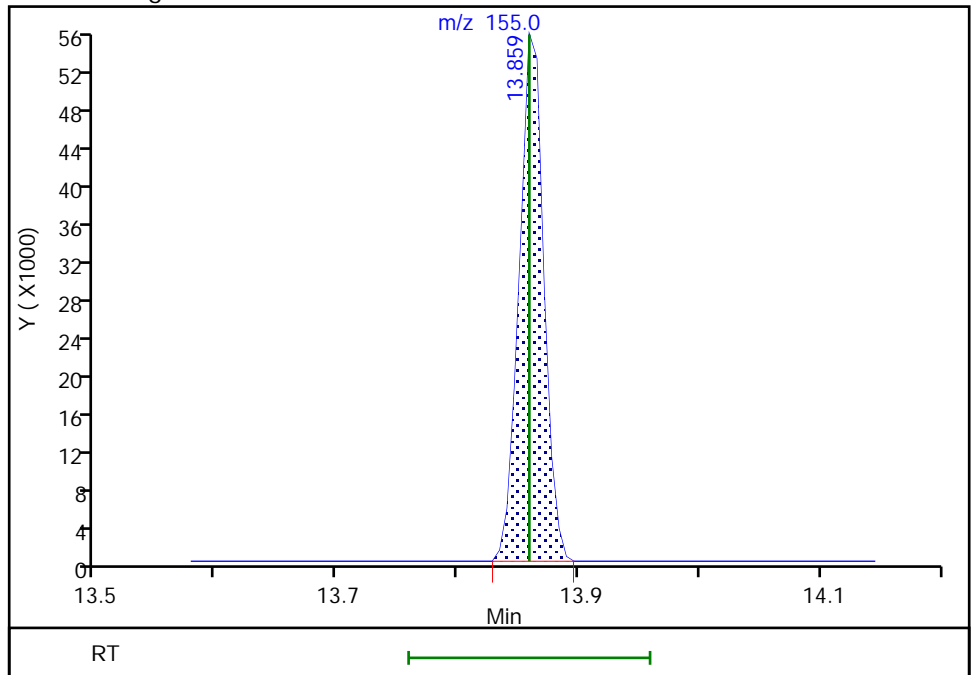
Not Detected
Expected RT: 13.86

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

Eurofins Lancaster Laboratories Env, LLC

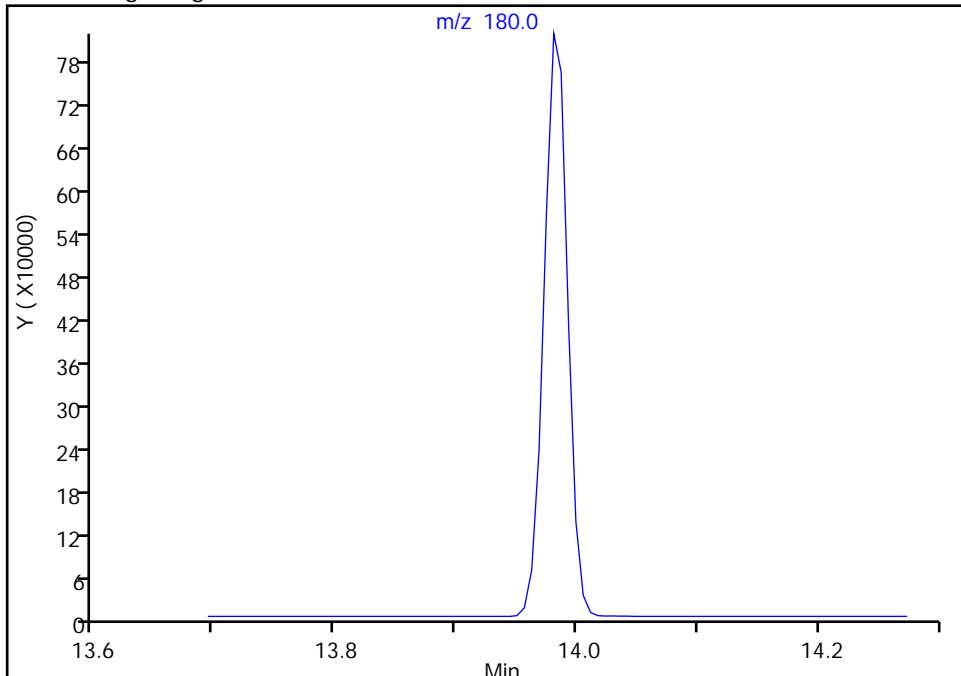
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

135 1,3,5-Trichlorobenzene, CAS: 108-70-3

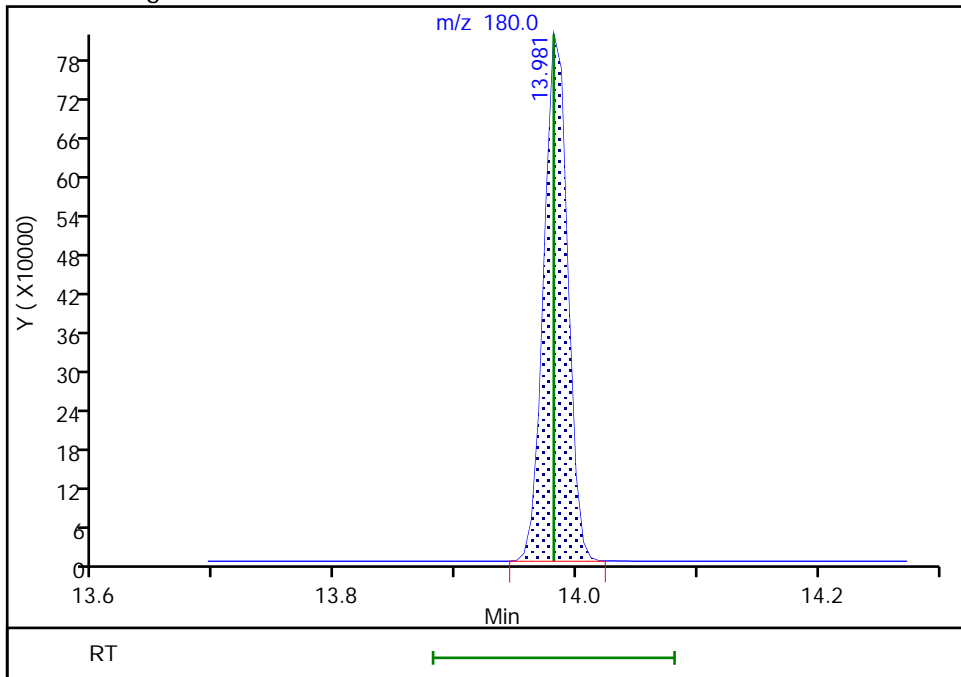
Signal: 1

Not Detected
Expected RT: 13.98

Processing Integration Results



Manual Integration Results



RT: 13.98
Area: 1103506
Amount: 10.539794
Amount Units: ug/l

Reviewer: howej, 12-Jun-2020 13:33:39
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

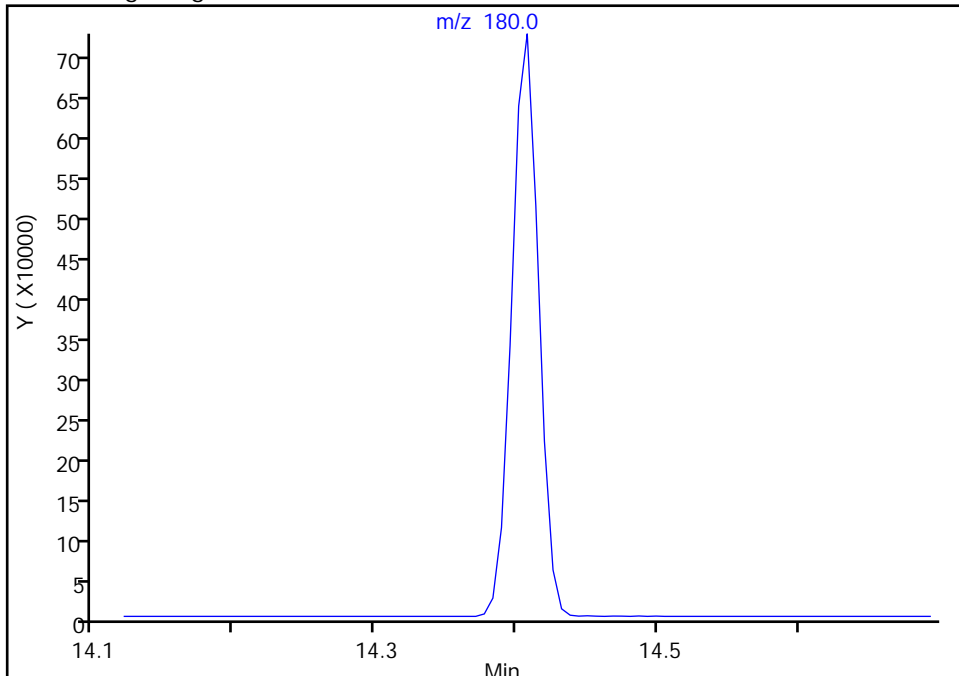
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

136 1,2,4-Trichlorobenzene, CAS: 120-82-1

Signal: 1

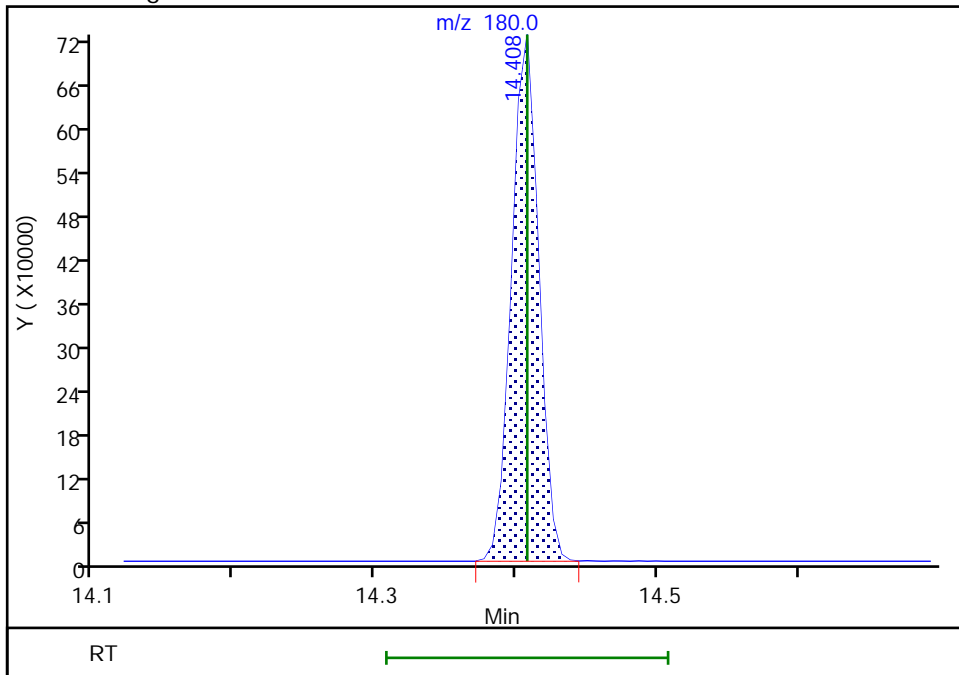
Not Detected
Expected RT: 14.41

Processing Integration Results



Manual Integration Results

RT: 14.41
Area: 963858
Amount: 10.713762
Amount Units: ug/l



Reviewer: howej, 12-Jun-2020 13:33:35
Audit Action: Assigned Compound ID

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

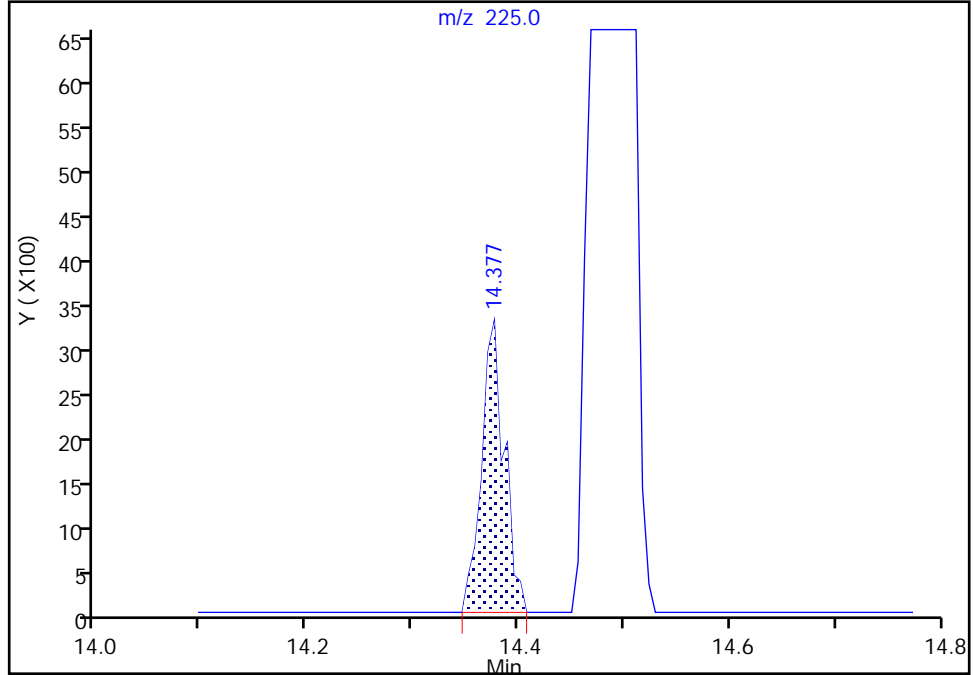
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

137 Hexachlorobutadiene, CAS: 87-68-3

Signal: 1

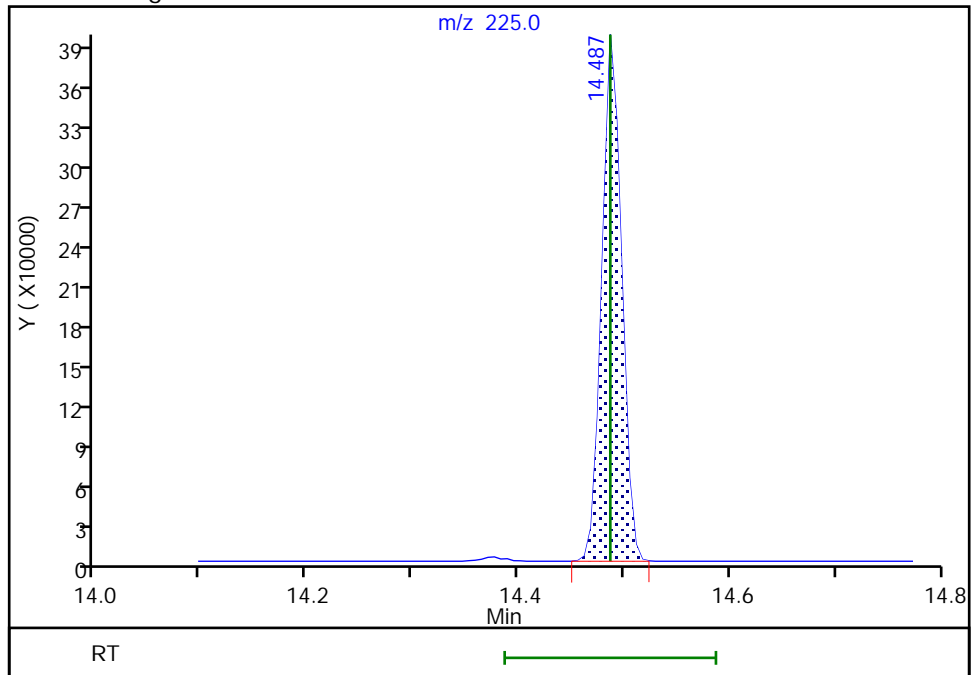
RT: 14.38
Area: 4823
Amount: 10.000000
Amount Units: ug/l

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

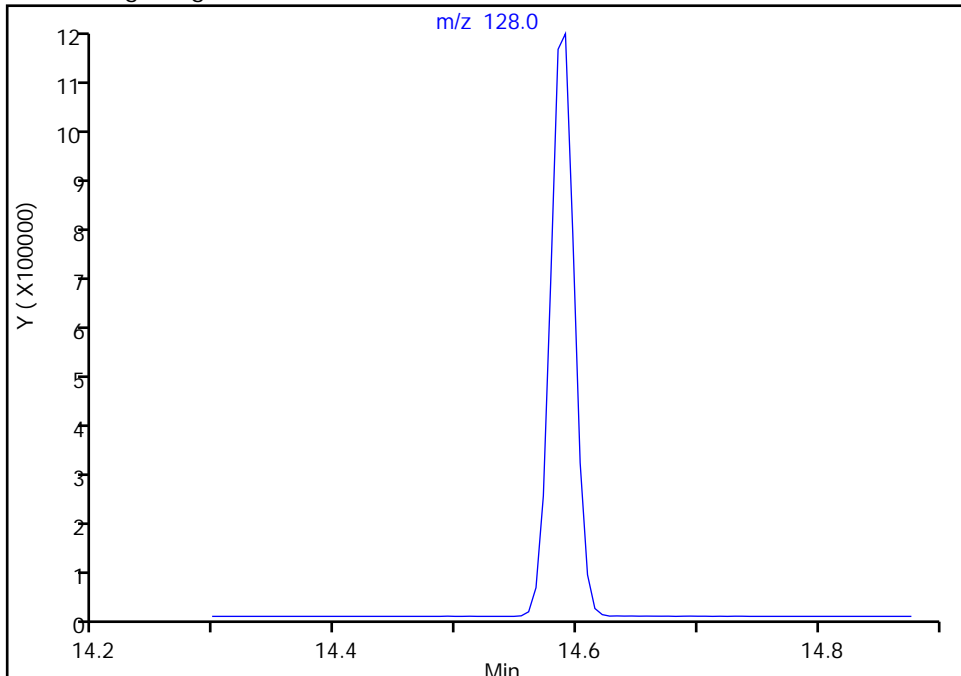
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

138 Naphthalene, CAS: 91-20-3

Signal: 1

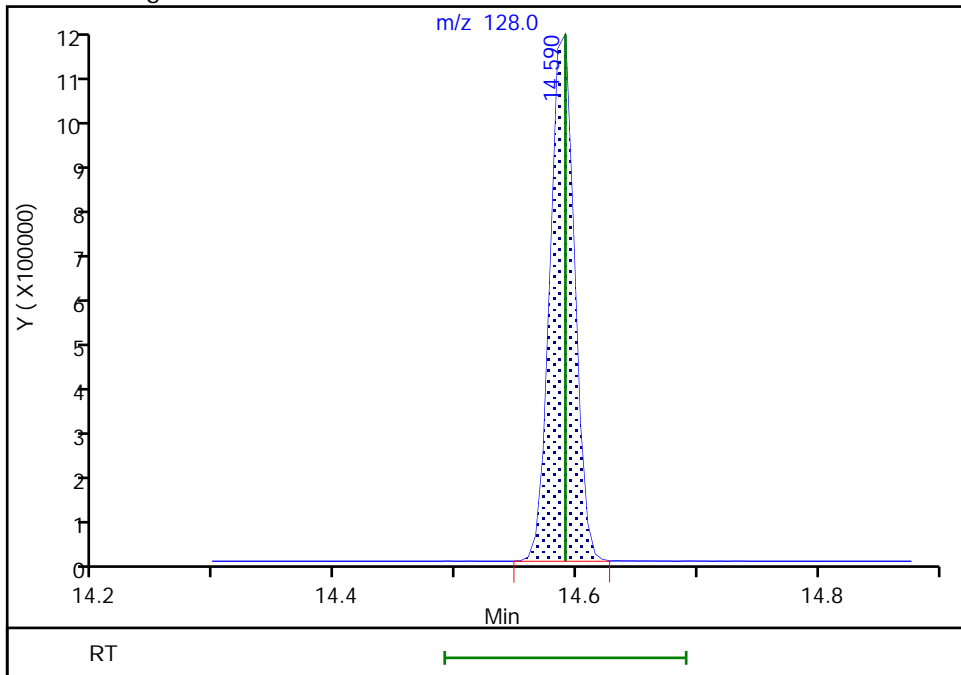
Not Detected
Expected RT: 14.59

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

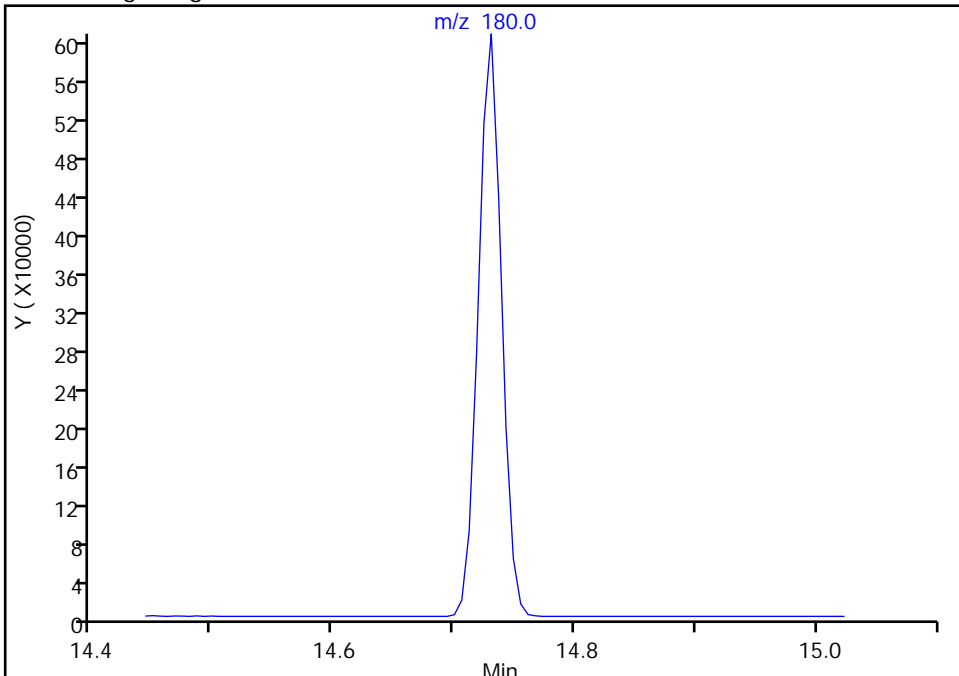
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11102.D
Injection Date: 11-Jun-2020 14:44:30 Instrument ID: 16334
Lims ID: ICIS std6
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

139 1,2,3-Trichlorobenzene, CAS: 87-61-6

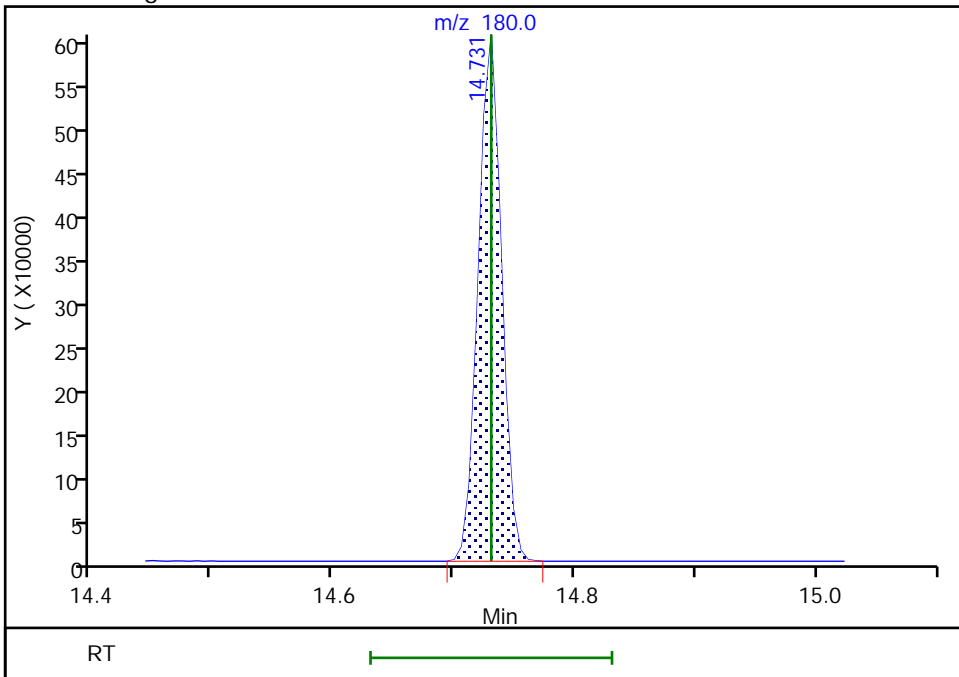
Signal: 1

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

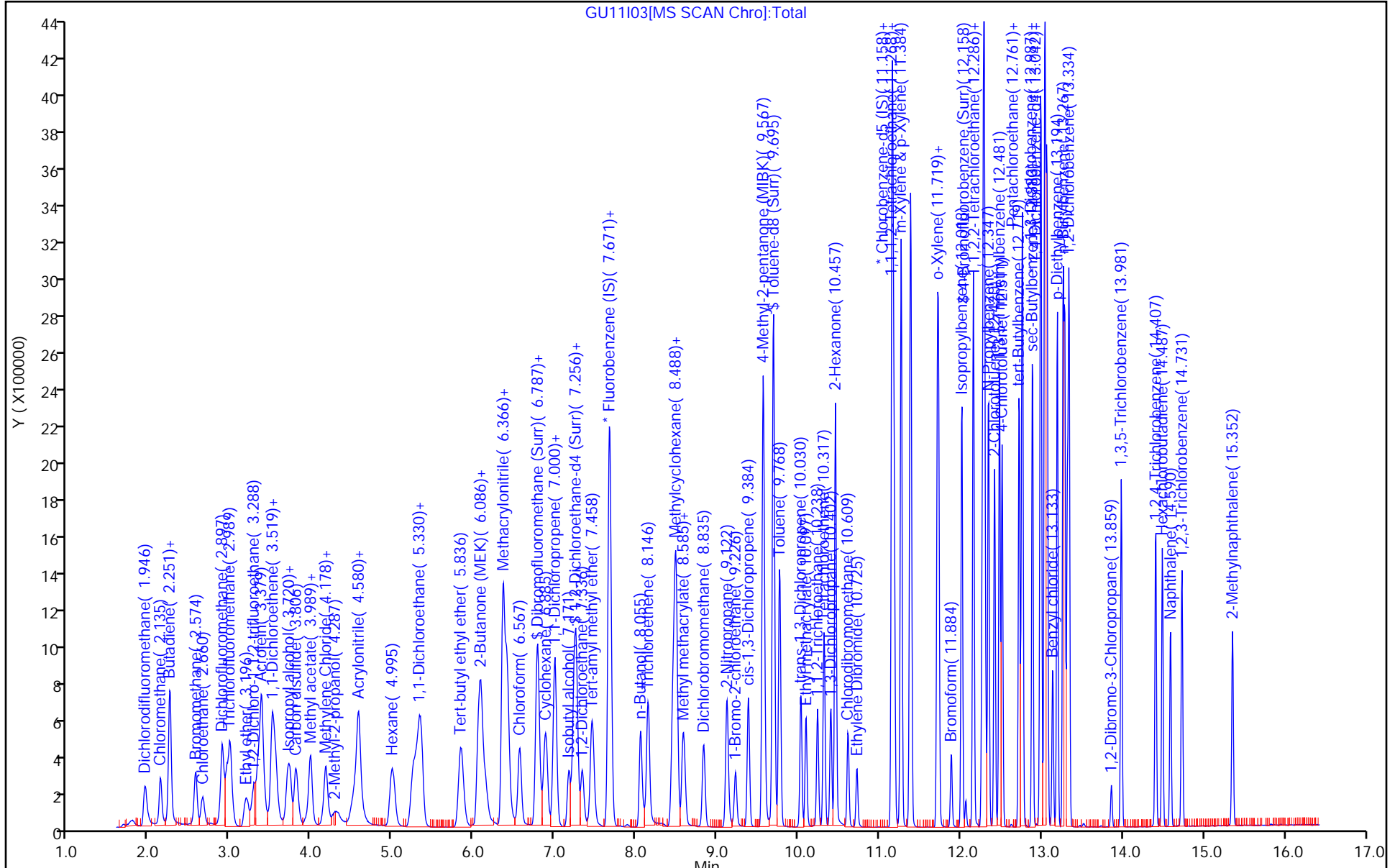
Units: uL

MSV_29_826ISS_00007

Amount Added: 1.00

Units: uL

Run Reagent



Eurofins Lancaster Laboratories Env, LLC

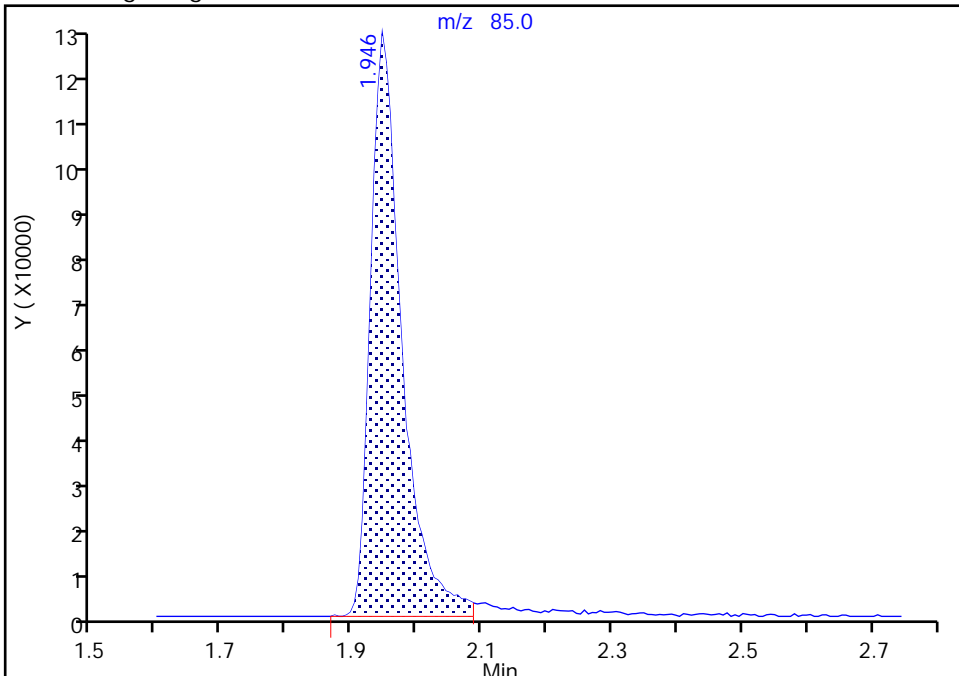
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Injection Date: 11-Jun-2020 15:06:30 Instrument ID: 16334
Lims ID: IC std5
Client ID:
Operator ID: DVV10203 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

1 Dichlorodifluoromethane, CAS: 75-71-8

Signal: 1

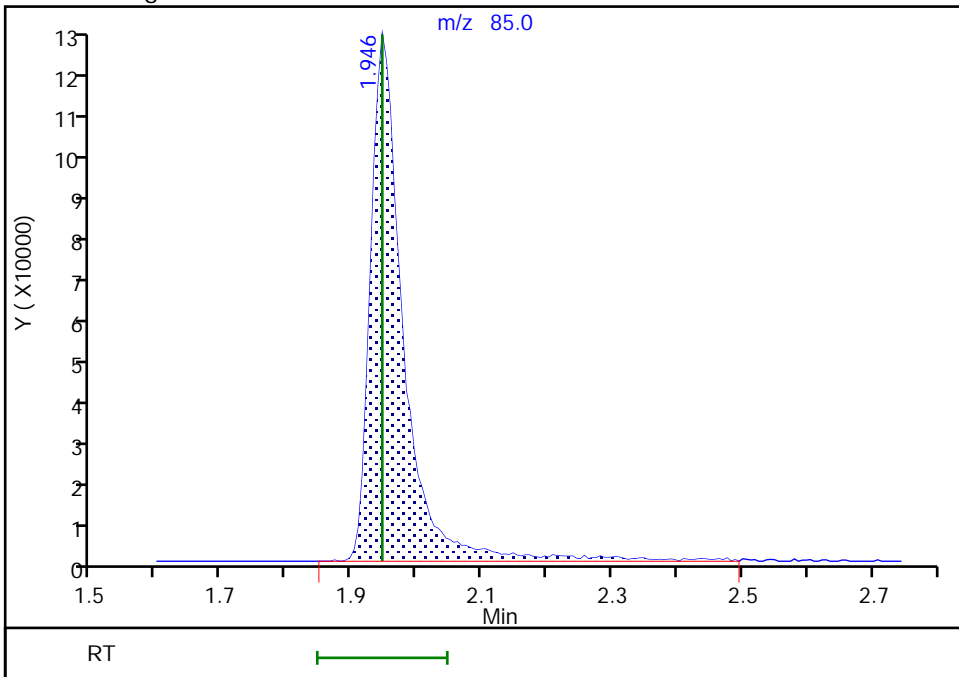
RT: 1.95
Area: 404628
Amount: 4.750930
Amount Units: ug/l

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

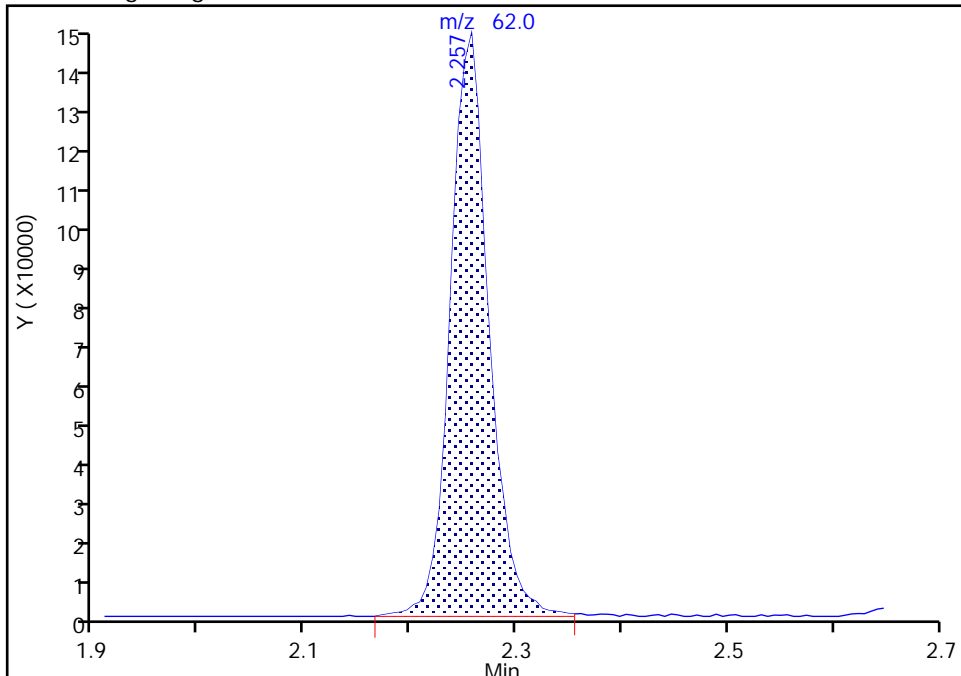
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Lims ID: IC std5
Client ID:
Operator ID: DVV10203 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

7 Vinyl chloride, CAS: 75-01-4

Signal: 1

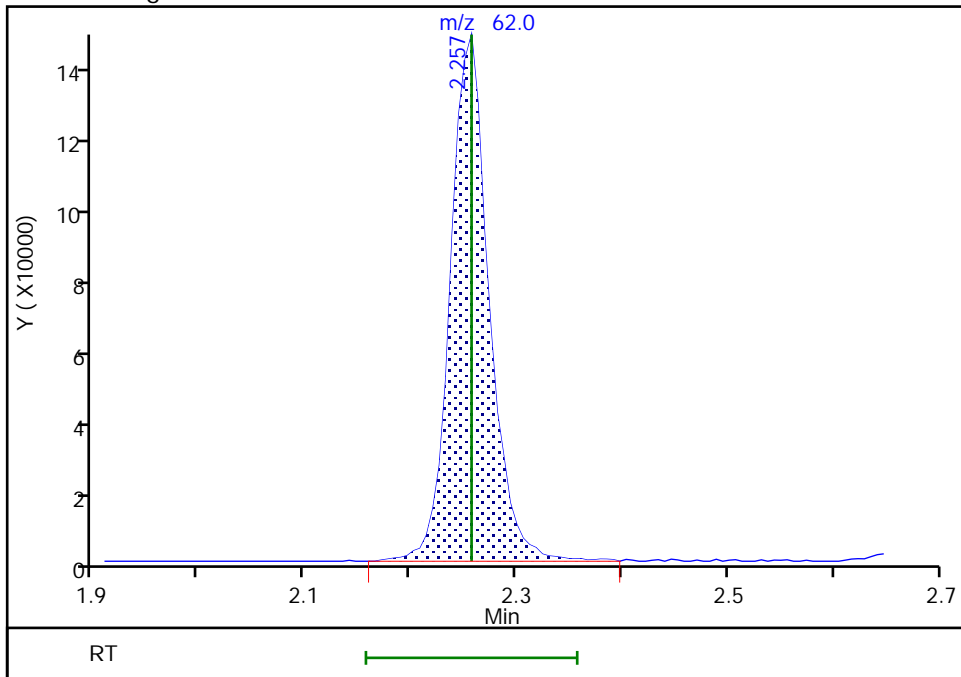
RT: 2.26
Area: 367854
Amount: 4.824772
Amount Units: ug/l

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

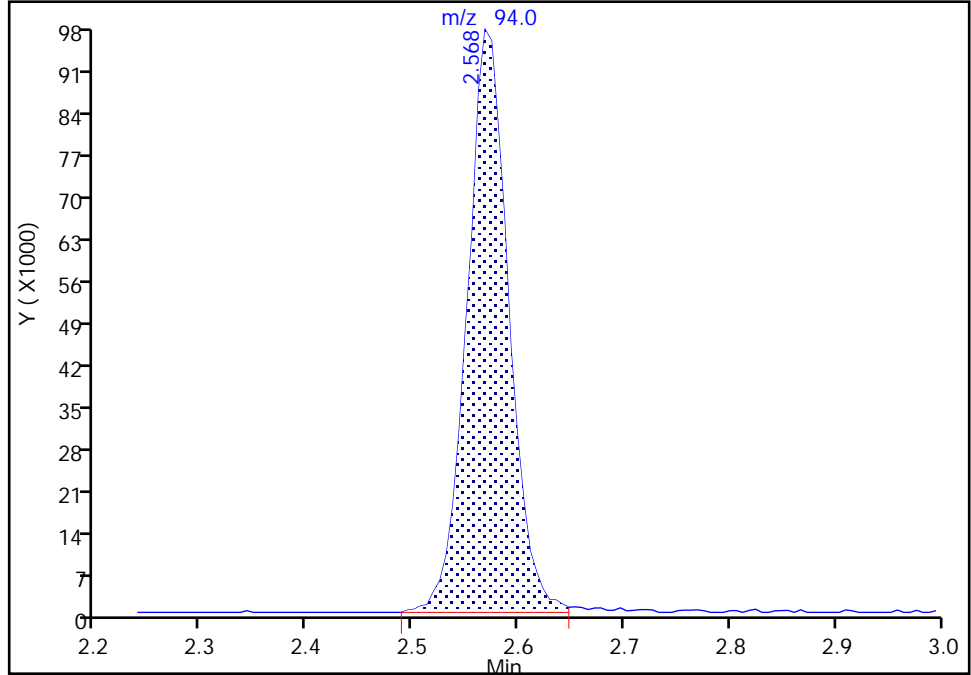
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Injection Date: 11-Jun-2020 15:06:30 Instrument ID: 16334
Lims ID: IC std5
Client ID:
Operator ID: DVV10203 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

9 Bromomethane, CAS: 74-83-9

Signal: 1

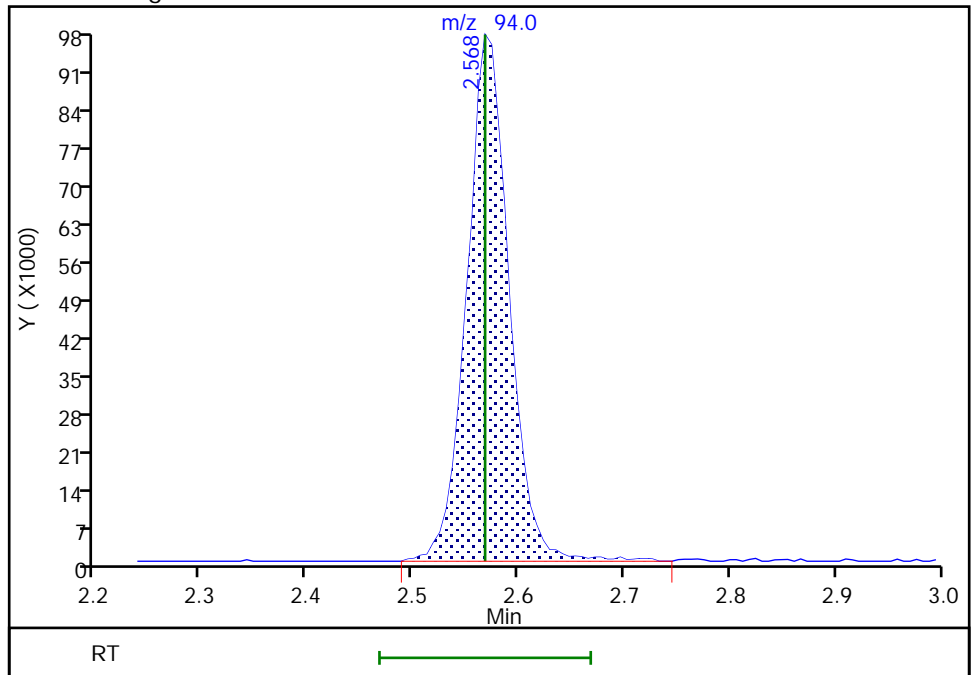
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Area: 267927
Amount: 4.660935
Amount Units: ug/l

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

Eurofins Lancaster Laboratories Env, LLC

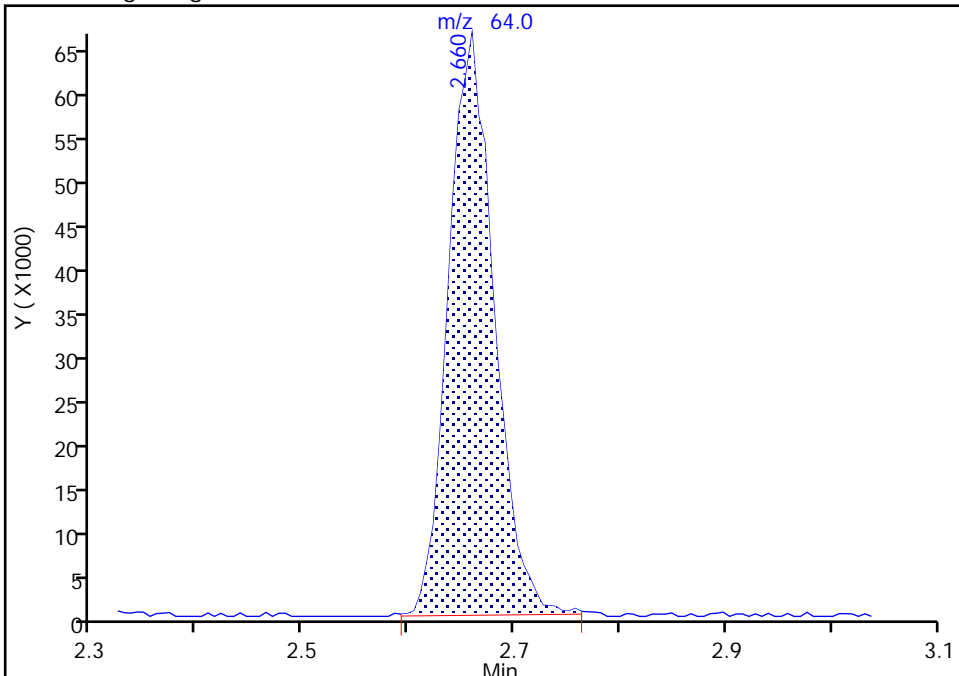
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Injection Date: 11-Jun-2020 15:06:30 Instrument ID: 16334
Lims ID: IC std5
Client ID:
Operator ID: DVV10203 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

10 Chloroethane, CAS: 75-00-3

Signal: 1

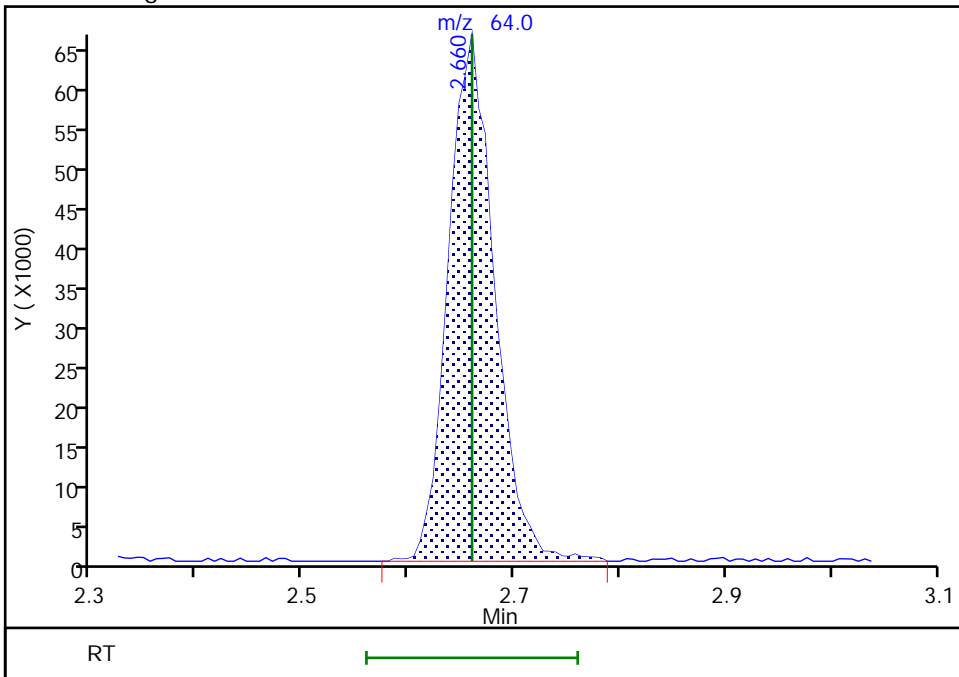
RT: 2.66
Area: 200499
Amount: 4.583821
Amount Units: ug/l

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

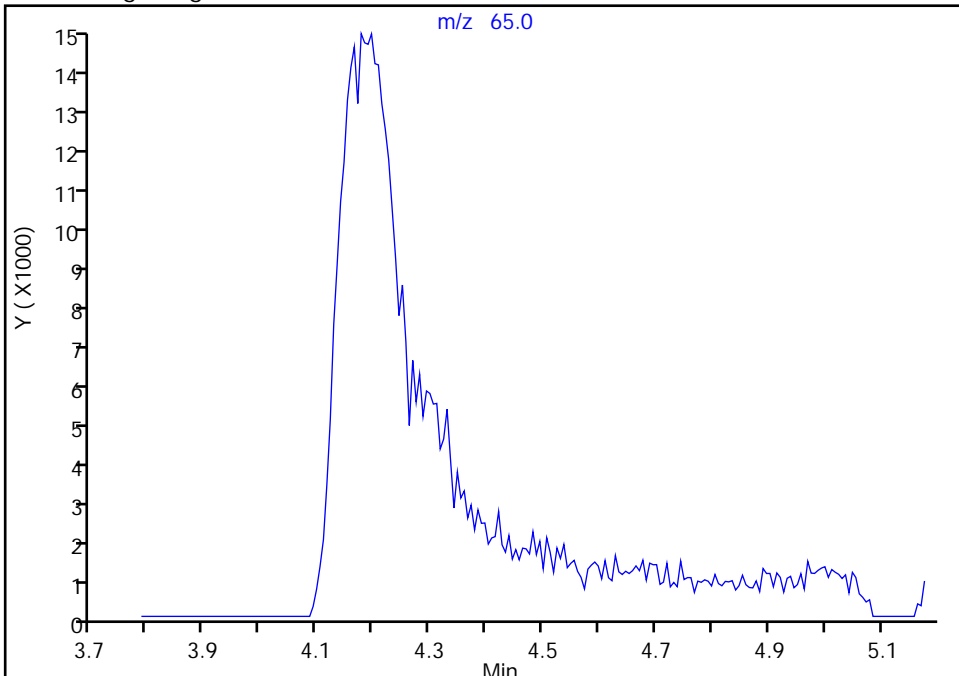
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Injection Date: 11-Jun-2020 15:06:30 Instrument ID: 16334
Lims ID: IC std5
Client ID:
Operator ID: DVV10203 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 29 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

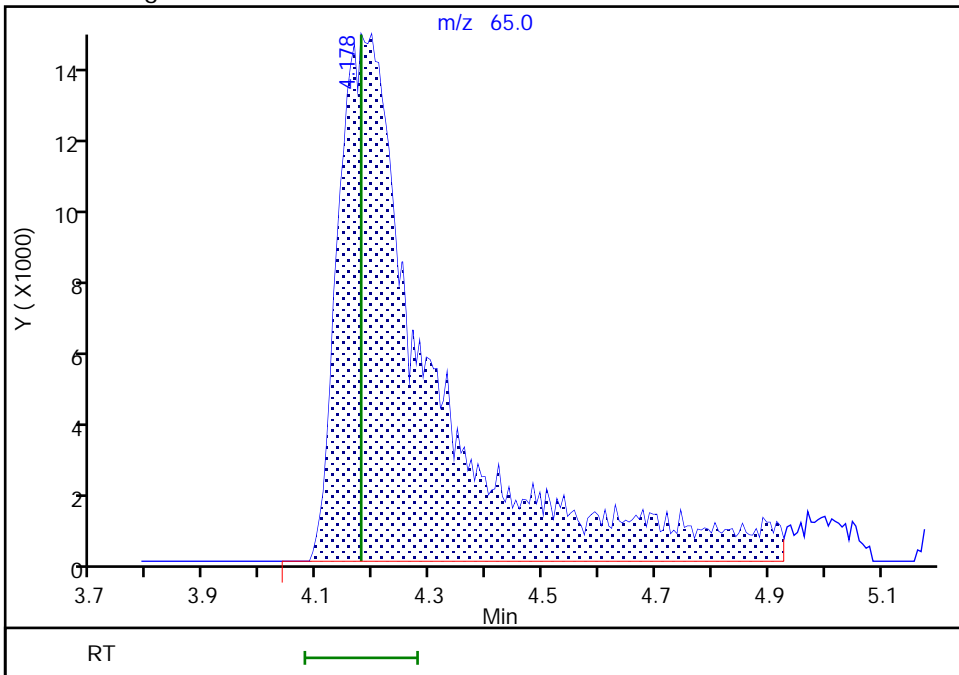
Not Detected
Expected RT: 4.18

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

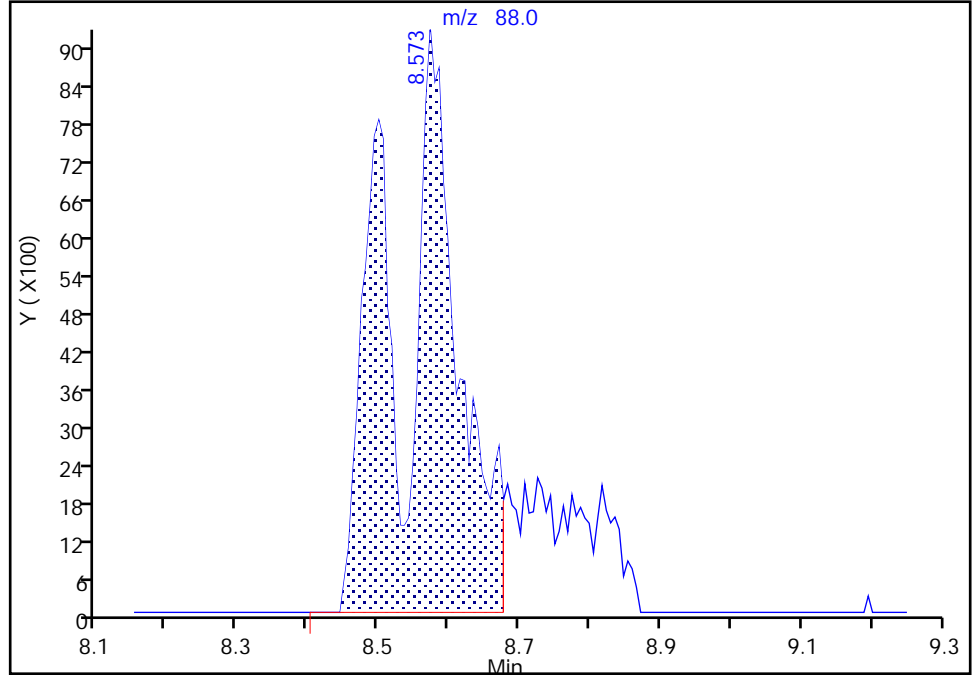
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Injection Date: 11-Jun-2020 15:06:30 Instrument ID: 16334
Lims ID: IC std5
Client ID:
Operator ID: DVV10203 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

72 1,4-Dioxane, CAS: 123-91-1

Signal: 1

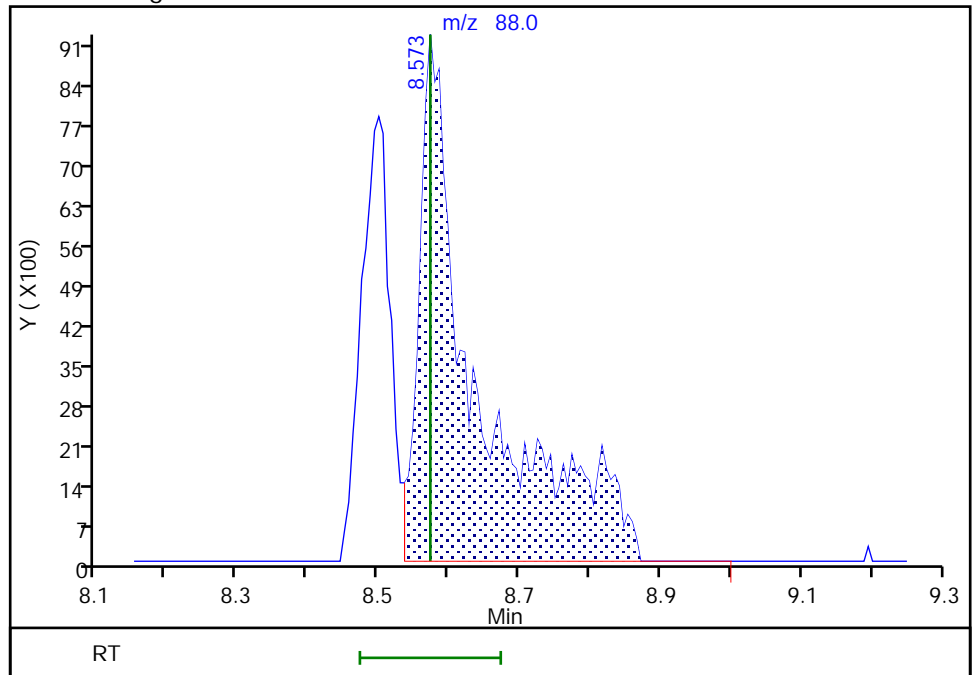
RT: 8.57
Area: 57846
Amount: 200.7449
Amount Units: ug/l

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

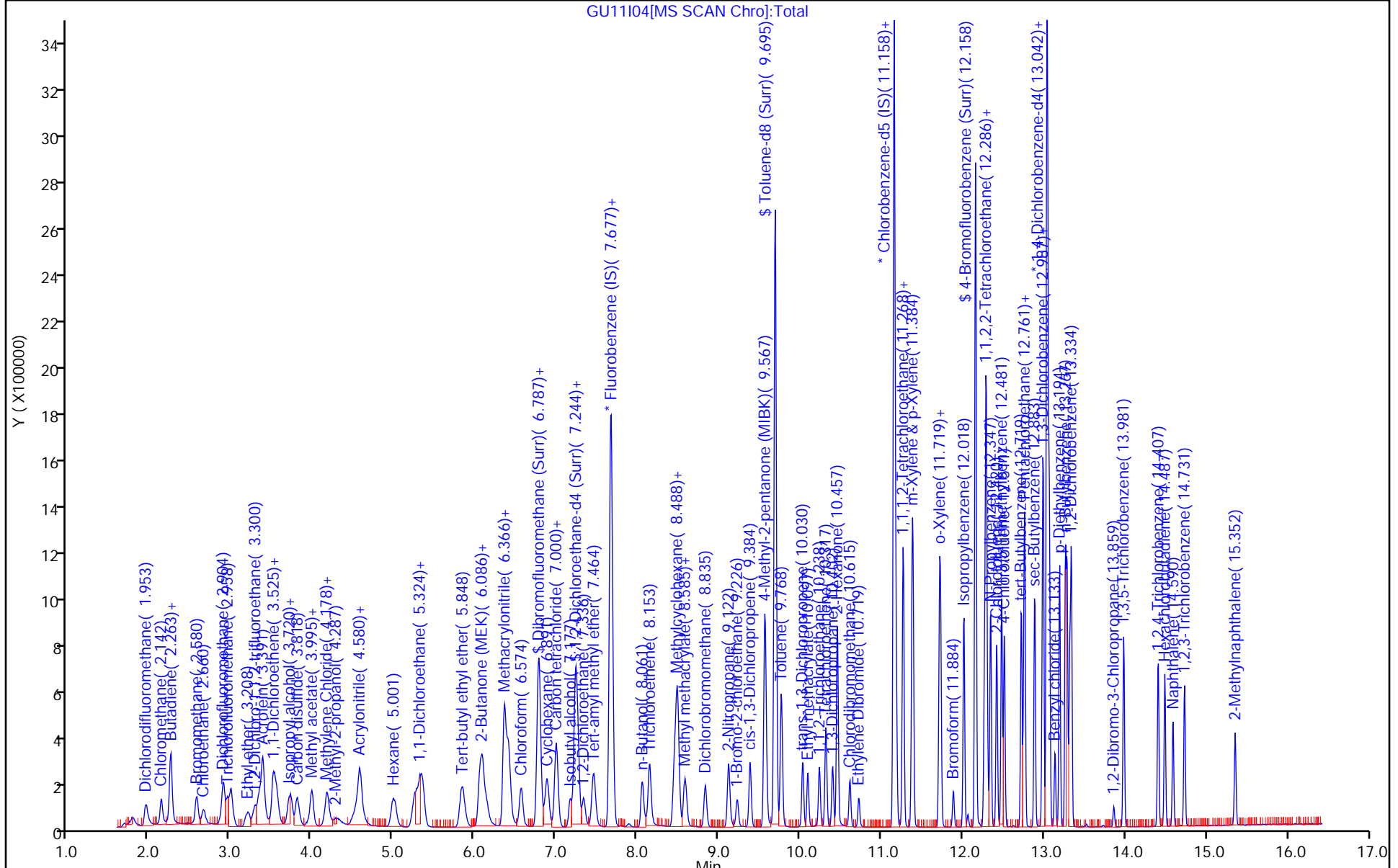
Units: uL

MSV_29_826ISS_00007

Amount Added: 1.00

Units: uL

Run Reagent



Eurofins Lancaster Laboratories Env, LLC

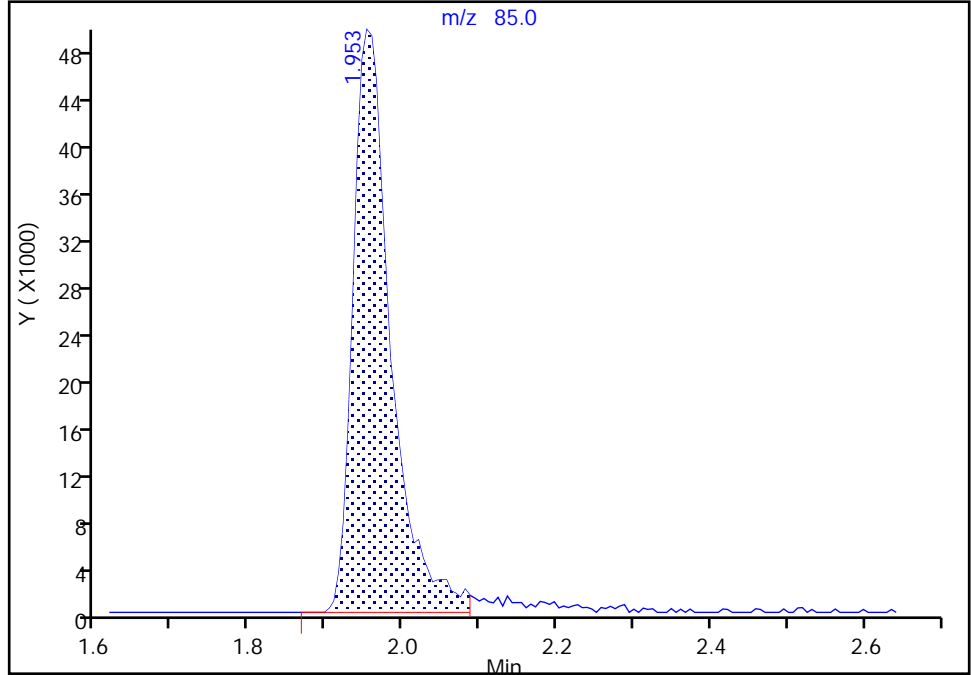
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Injection Date: 11-Jun-2020 15:28:30 Instrument ID: 16334
Lims ID: IC std4
Client ID:
Operator ID: DVV10203 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

1 Dichlorodifluoromethane, CAS: 75-71-8

Signal: 1

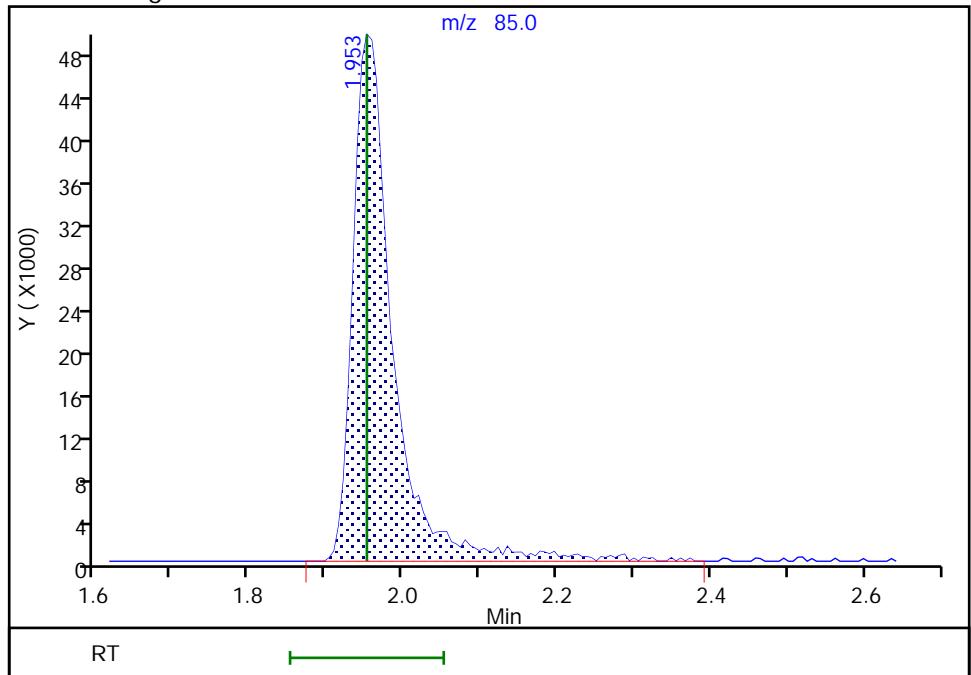
RT: 1.95
Area: 169829
Amount: 2.061926
Amount Units: ug/l

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

Eurofins Lancaster Laboratories Env, LLC

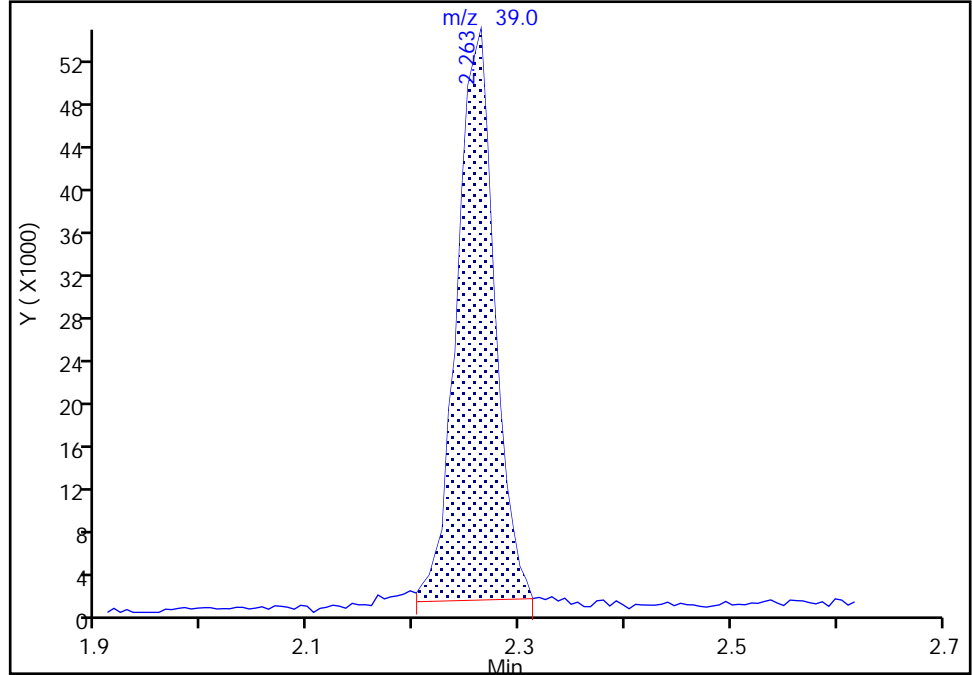
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Lims ID: IC std4
Client ID:
Operator ID: DVV10203 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

6 Butadiene, CAS: 106-99-0

Signal: 1

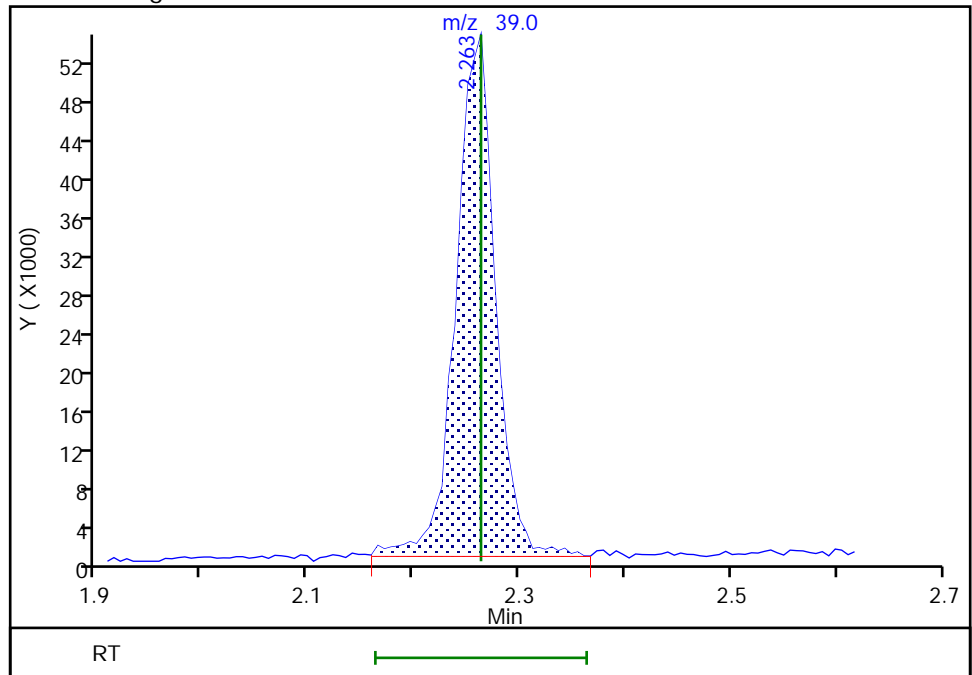
RT: 2.26
Area: 131478
Amount: 1.937402
Amount Units: ug/l

Processing Integration Results



RT: 2.26
Area: 140128
Amount: 2.100210
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:52:36
Audit Action: Assigned New Baseline

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

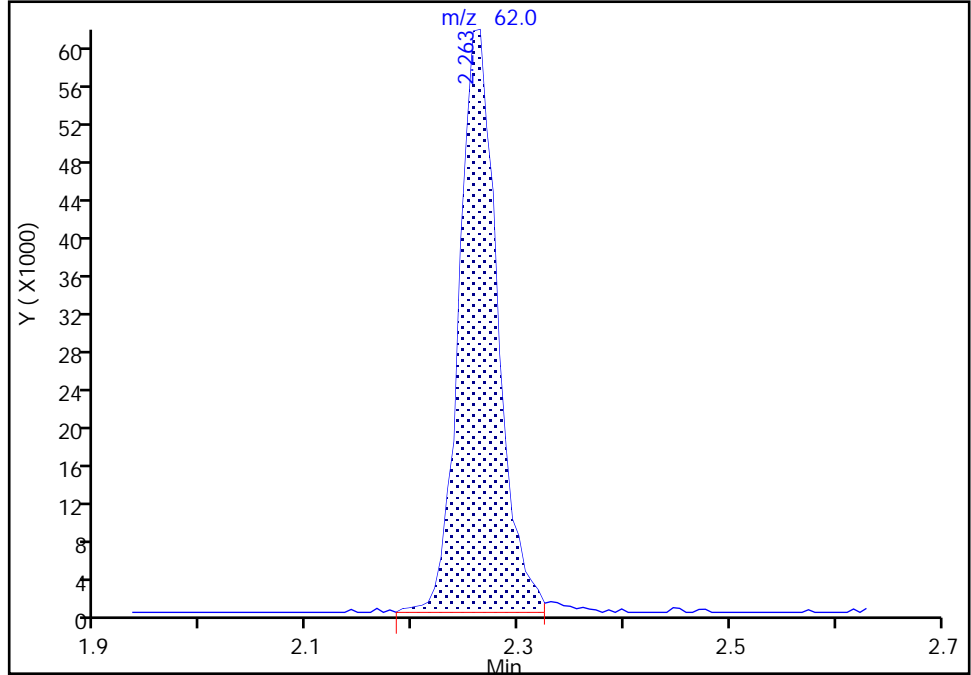
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Injection Date: 11-Jun-2020 15:28:30 Instrument ID: 16334
Lims ID: IC std4
Client ID:
Operator ID: DVV10203 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

7 Vinyl chloride, CAS: 75-01-4

Signal: 1

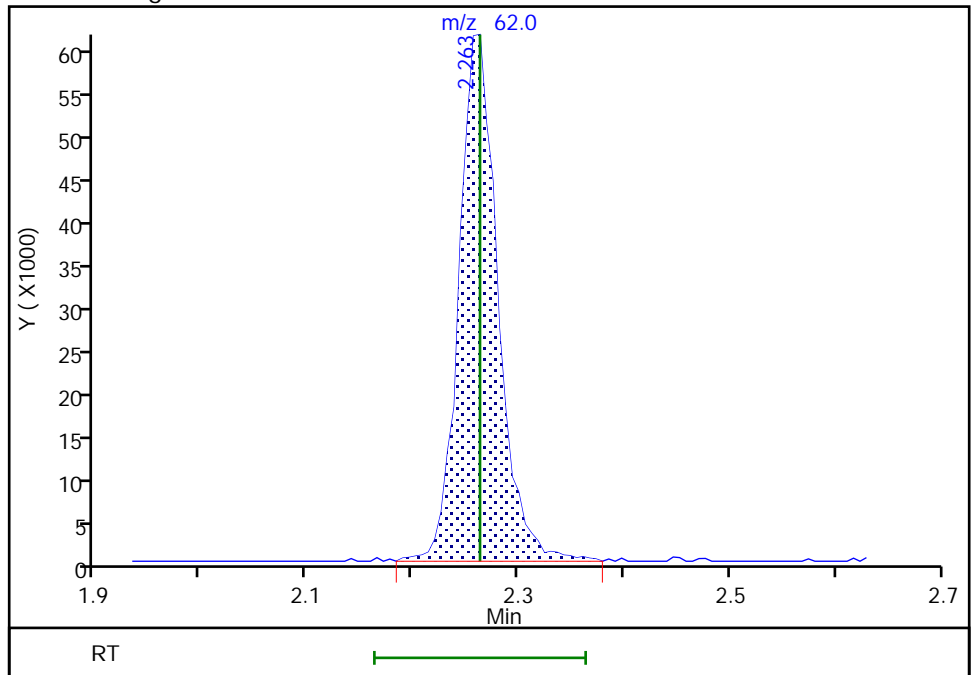
RT: 2.26
Area: 155012
Amount: 2.117240
Amount Units: ug/l

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

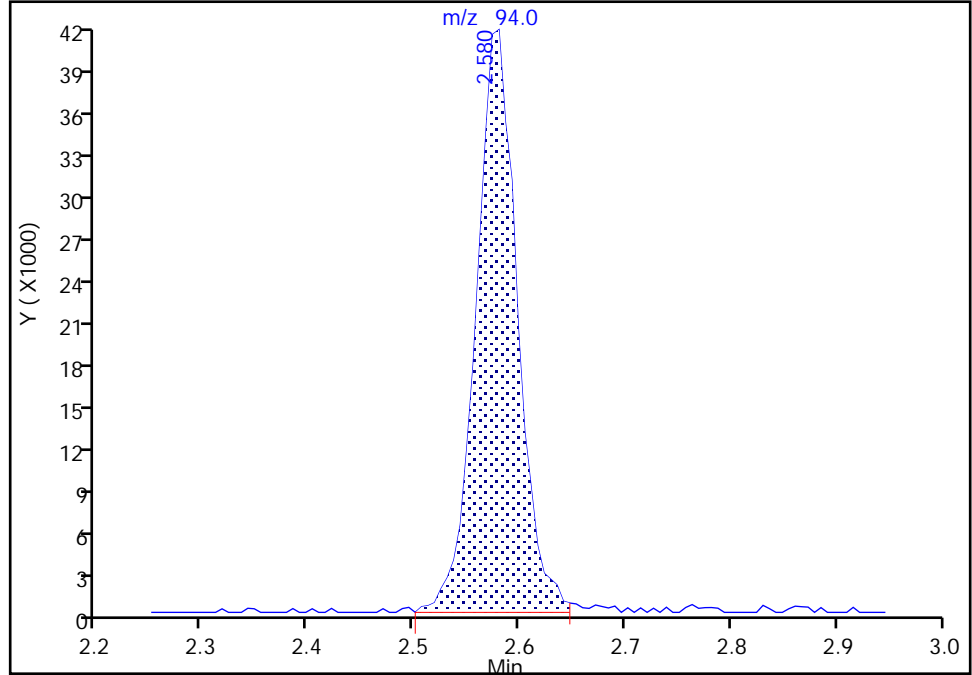
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Injection Date: 11-Jun-2020 15:28:30 Instrument ID: 16334
Lims ID: IC std4
Client ID:
Operator ID: DVV10203 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

9 Bromomethane, CAS: 74-83-9

Signal: 1

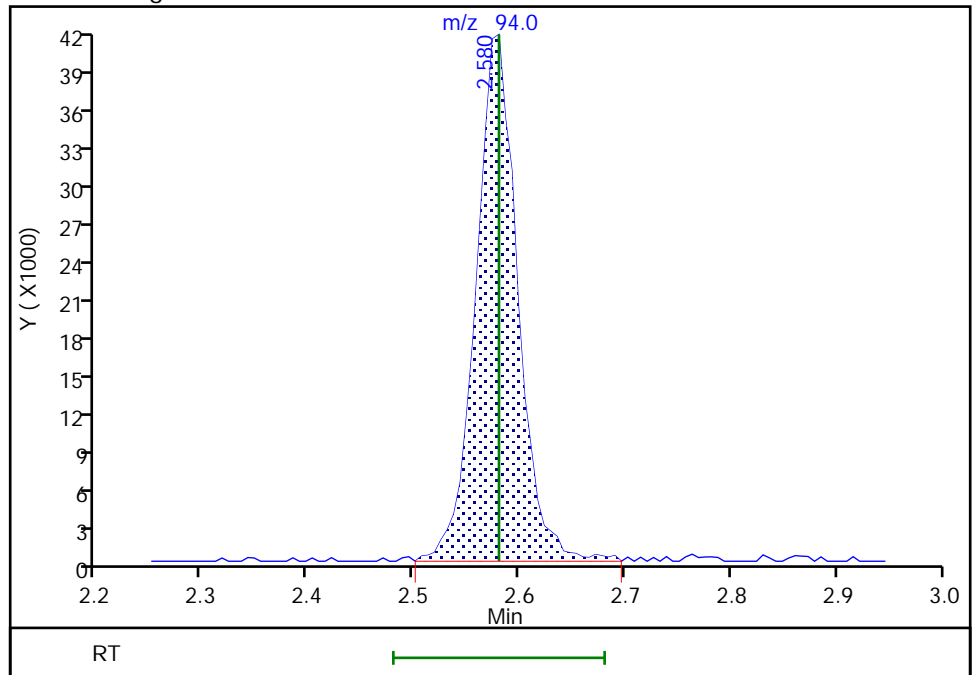
RT: 2.58
Area: 111971
Amount: 2.026635
Amount Units: ug/l

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

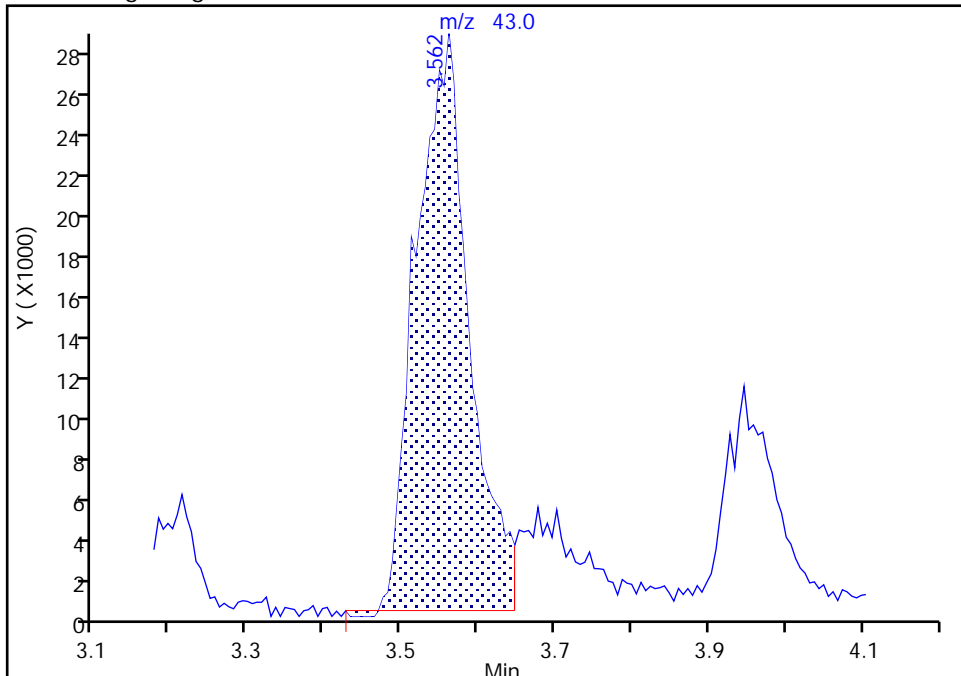
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Injection Date: 11-Jun-2020 15:28:30 Instrument ID: 16334
Lims ID: IC std4
Client ID:
Operator ID: DVV10203 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

20 Acetone, CAS: 67-64-1

Signal: 1

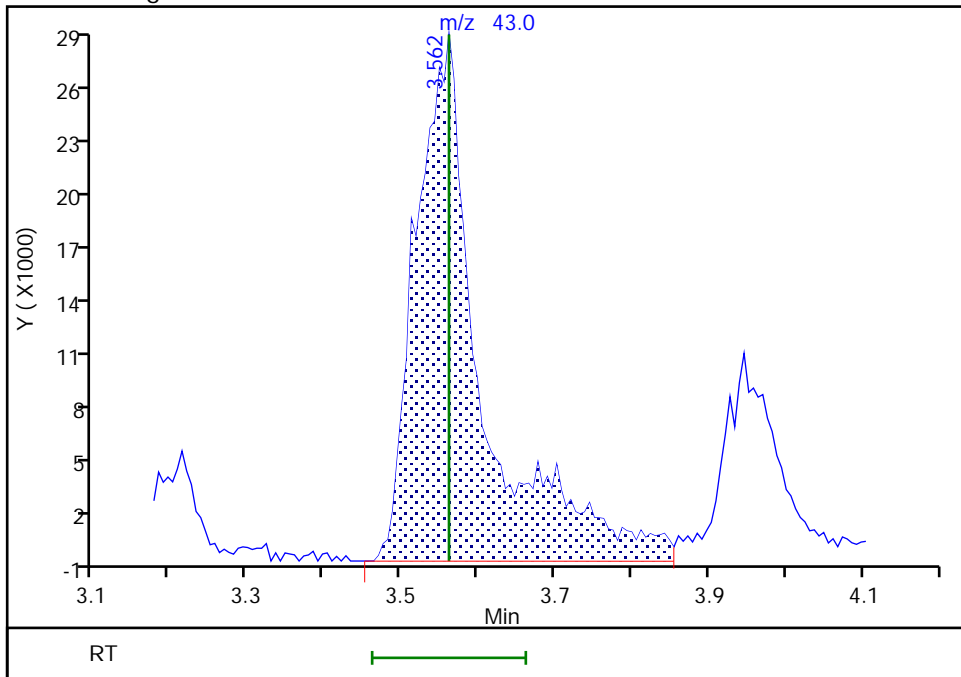
RT: 3.56
Area: 134636
Amount: 16.721655
Amount Units: ug/l

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

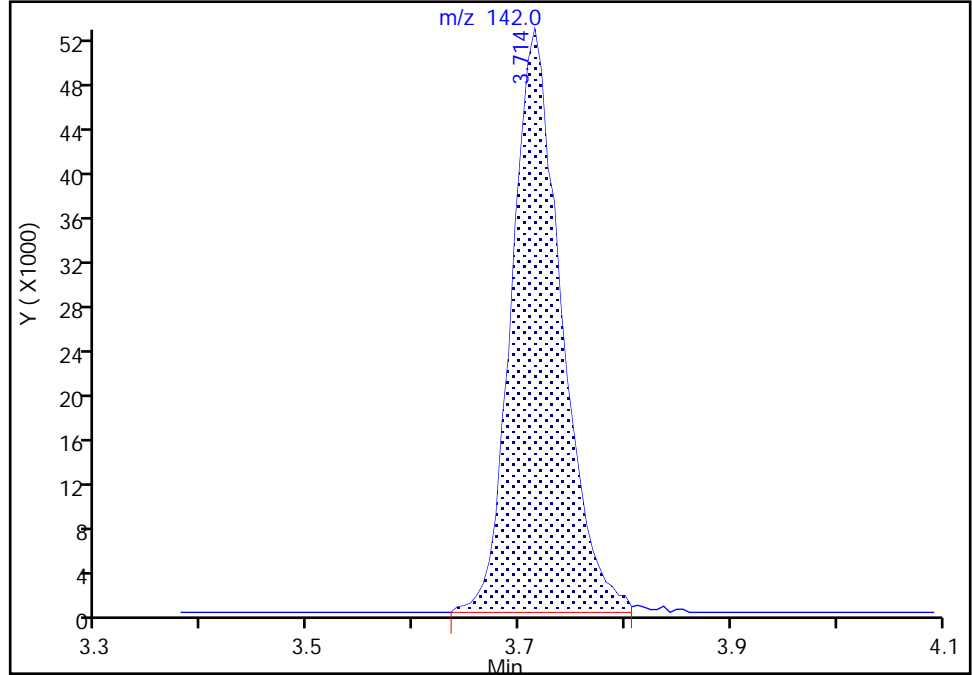
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Injection Date: 11-Jun-2020 15:28:30 Instrument ID: 16334
Lims ID: IC std4
Client ID:
Operator ID: DVV10203 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

22 Iodomethane, CAS: 74-88-4

Signal: 1

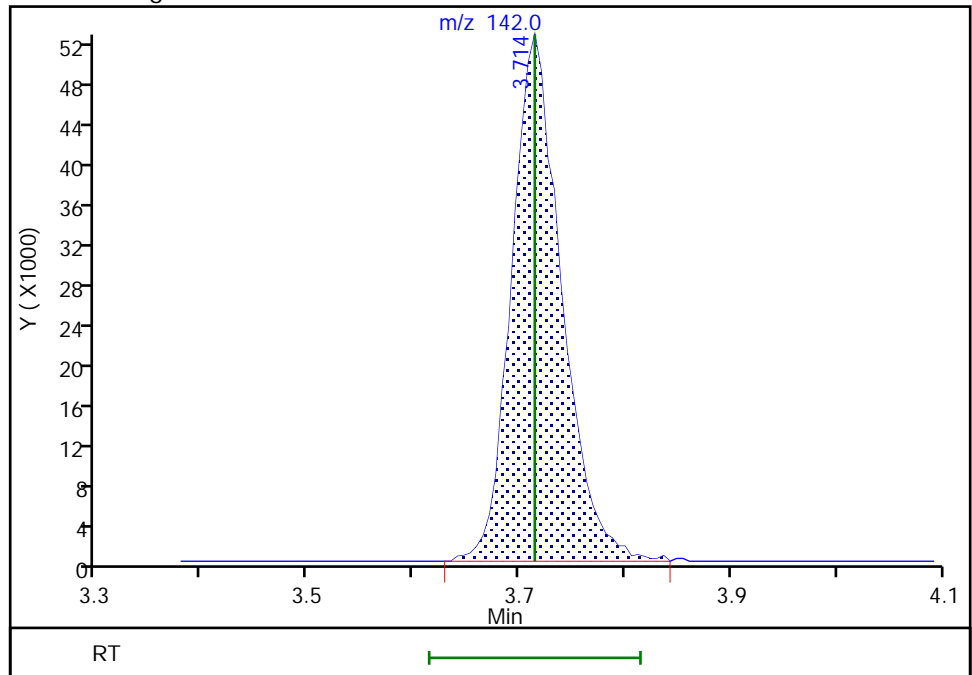
RT: 3.71
Area: 172938
Amount: 1.997918
Amount Units: ug/l

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

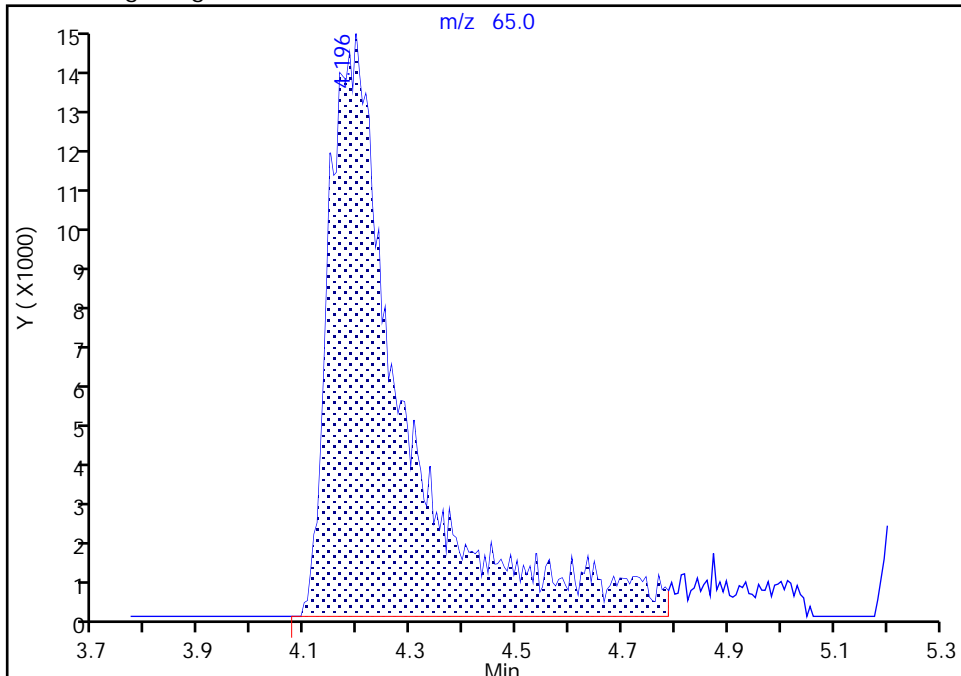
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Lims ID: IC std4
Client ID:
Operator ID: DVV10203 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 29 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

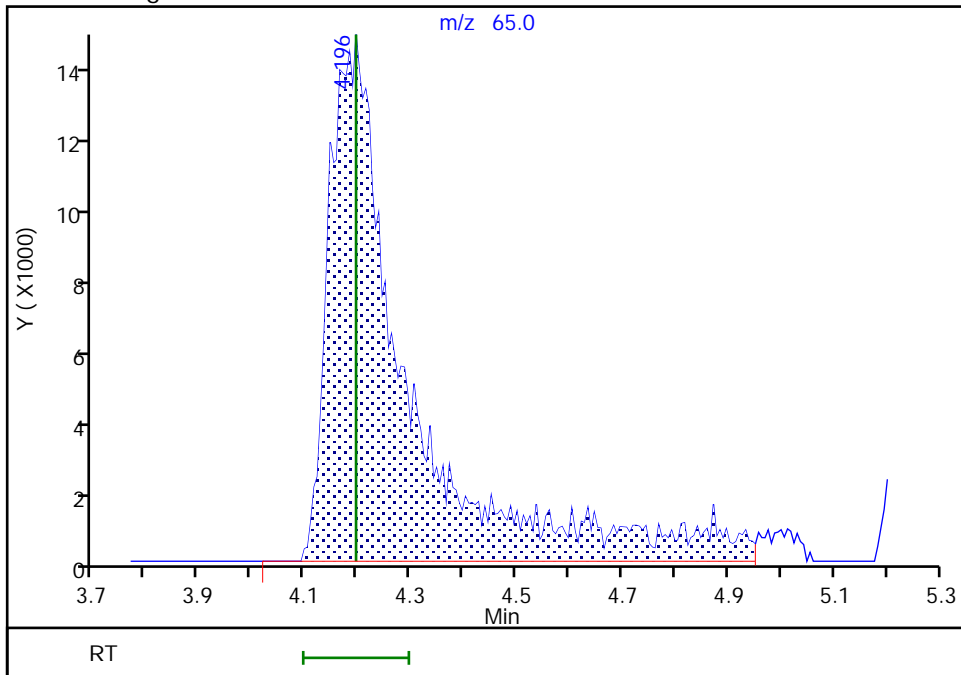
RT: 4.20
Area: 145422
Amount: 50.000000
Amount Units: ug/l

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

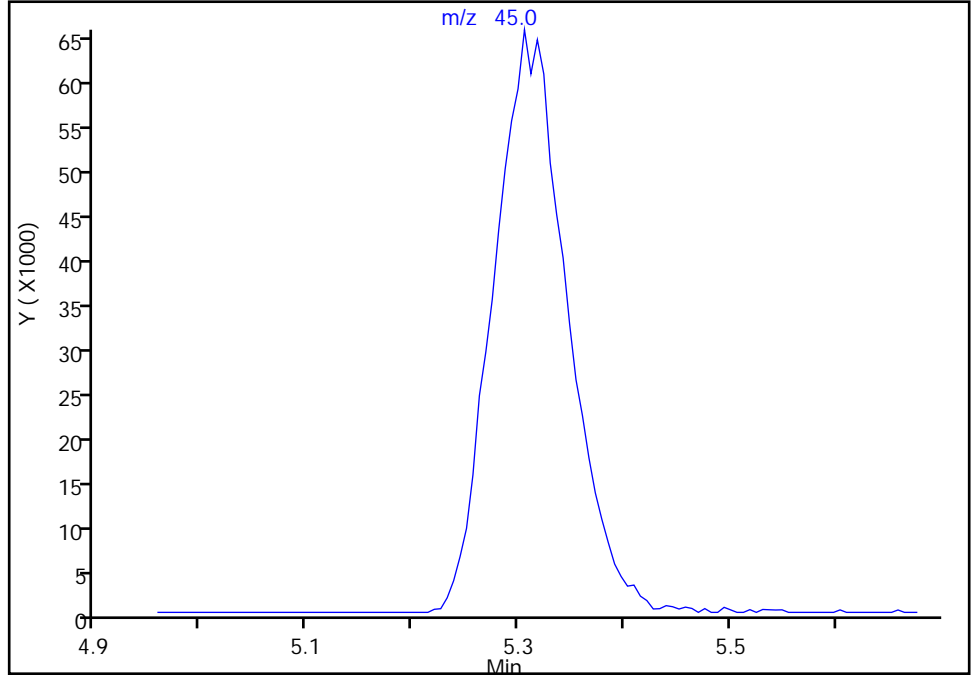
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Client ID:
Operator ID: DVV10203 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

37 Isopropyl ether, CAS: 108-20-3

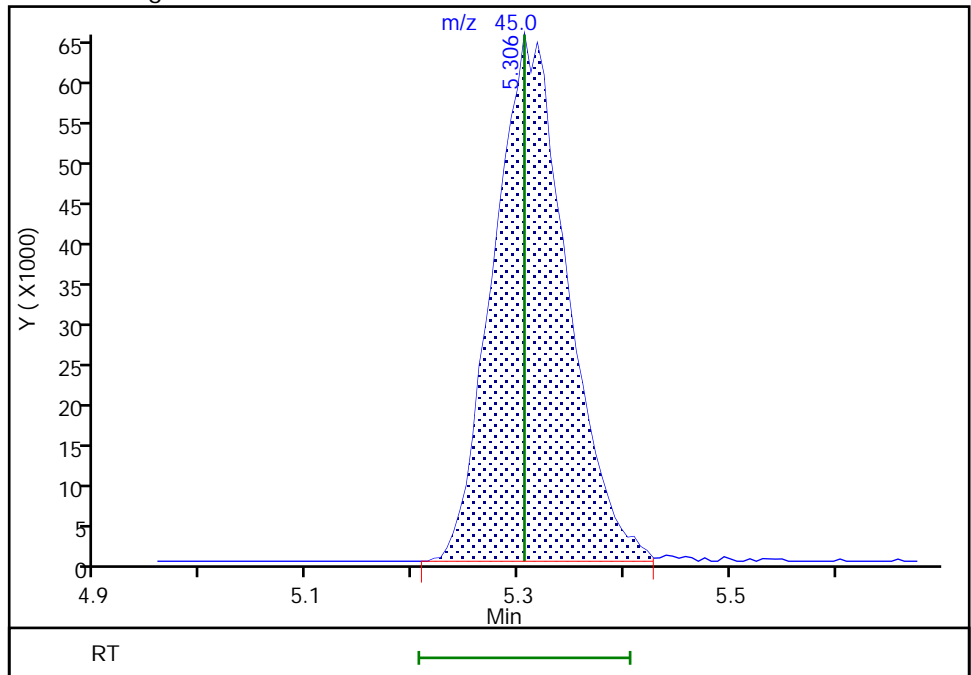
Signal: 1

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

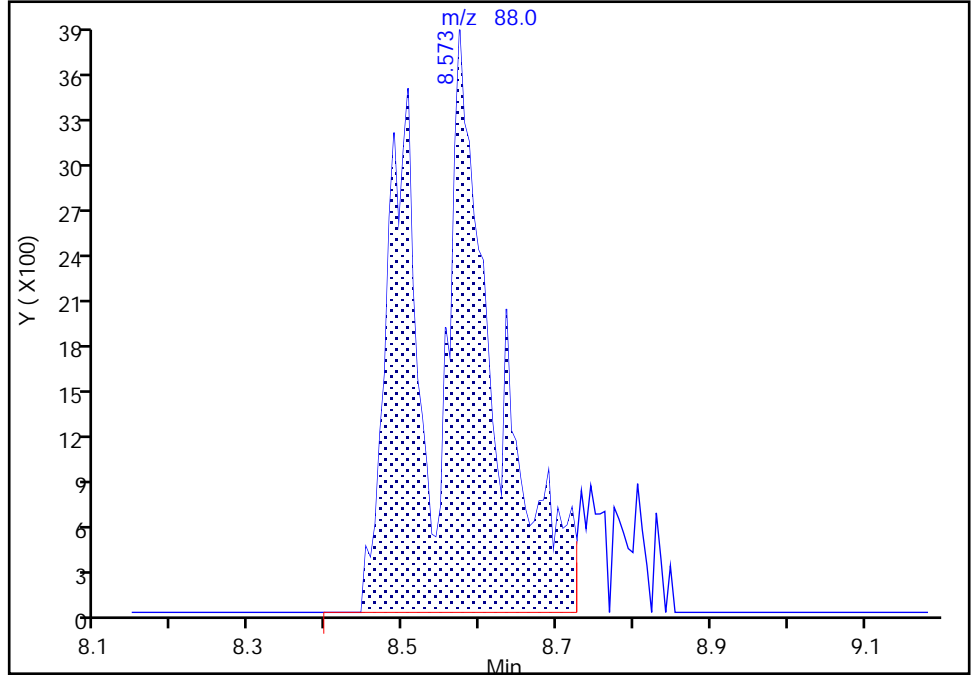
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Injection Date: 11-Jun-2020 15:28:30 Instrument ID: 16334
Lims ID: IC std4
Client ID:
Operator ID: DVV10203 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

72 1,4-Dioxane, CAS: 123-91-1

Signal: 1

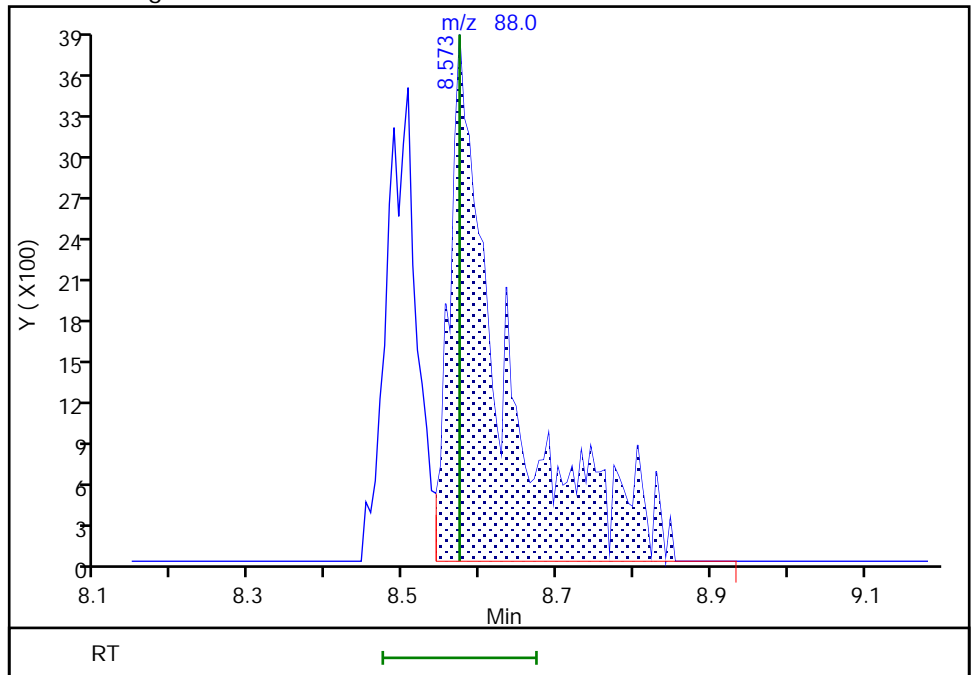
RT: 8.57
Area: 25162
Amount: 102.2730
Amount Units: ug/l

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

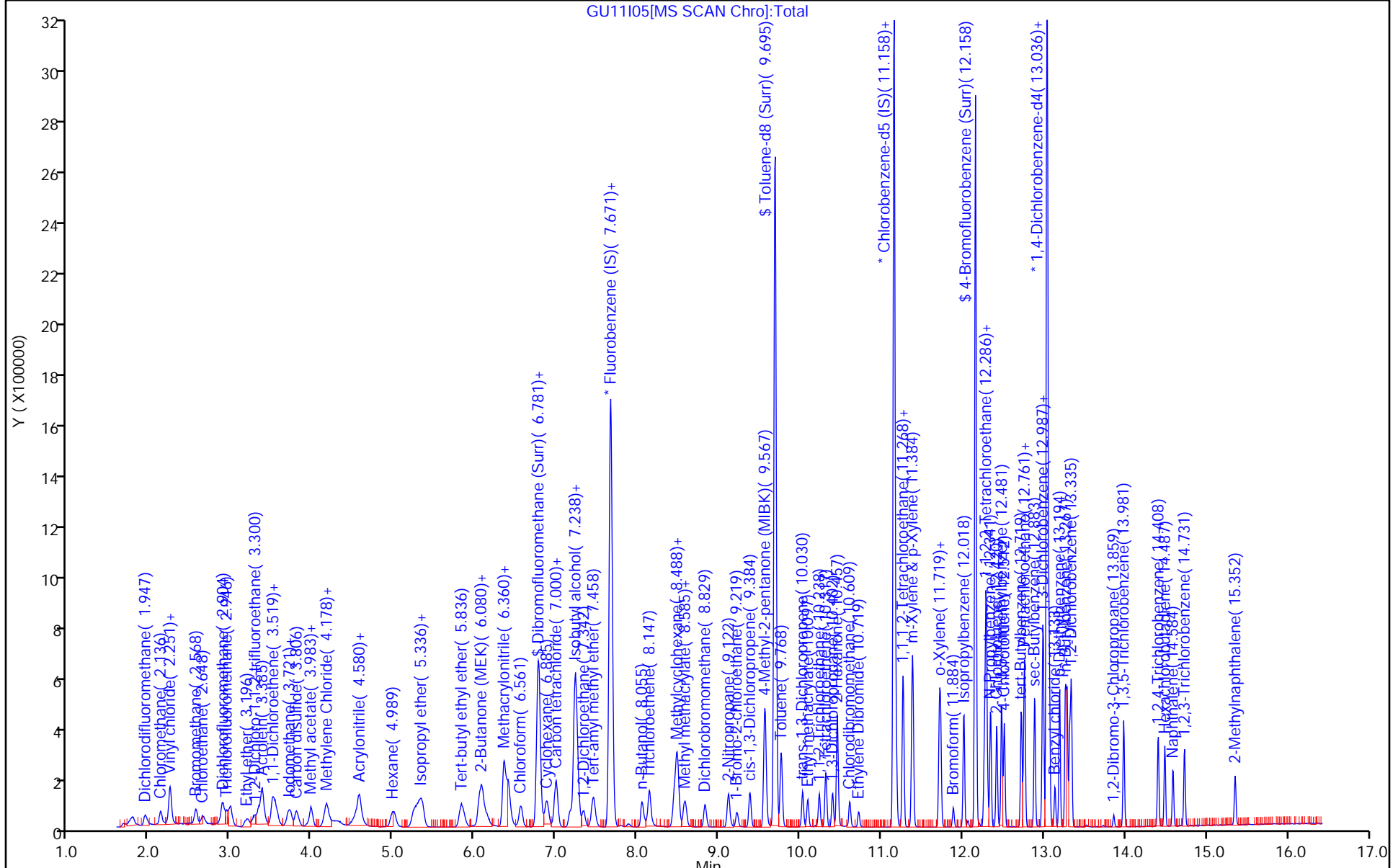
Units: uL

MSV_29_826ISS_00007

Amount Added: 1.00

Units: uL

Run Reagent



Eurofins Lancaster Laboratories Env, LLC

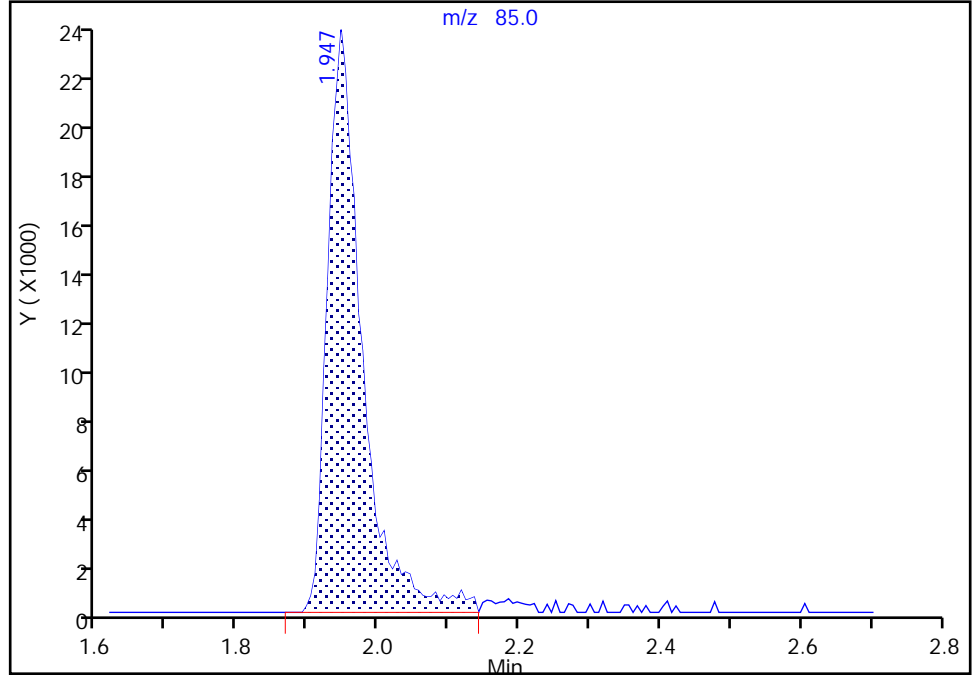
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Injection Date: 11-Jun-2020 15:51:30 Instrument ID: 16334
Lims ID: IC std3
Client ID:
Operator ID: DVV10203 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

1 Dichlorodifluoromethane, CAS: 75-71-8

Signal: 1

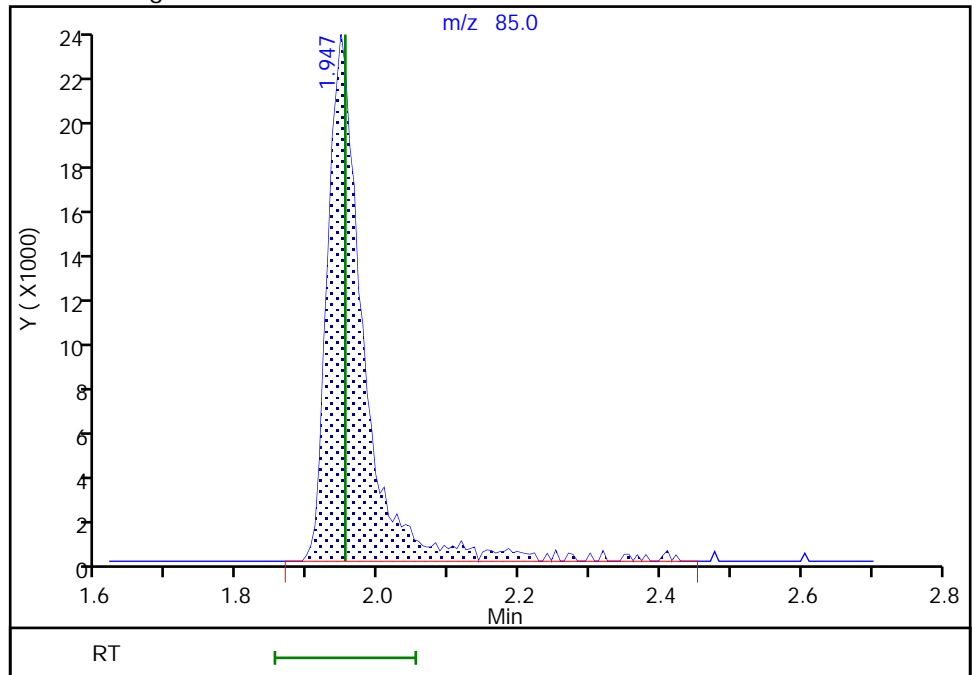
RT: 1.95
Area: 80243
Amount: 0.993810
Amount Units: ug/l

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

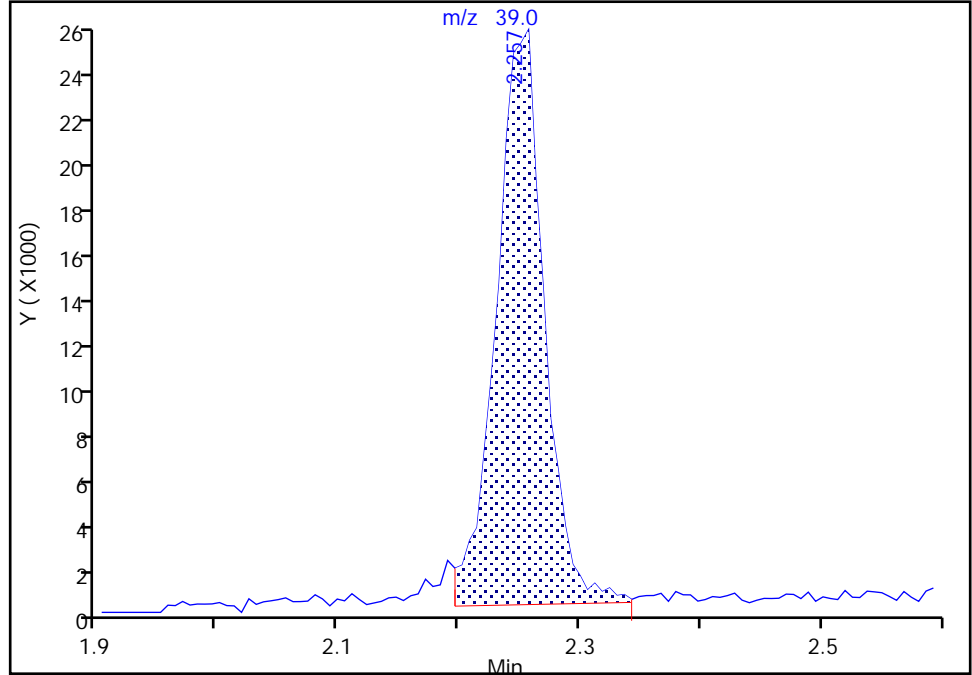
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Injection Date: 11-Jun-2020 15:51:30 Instrument ID: 16334
Lims ID: IC std3
Client ID:
Operator ID: DVV10203 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

6 Butadiene, CAS: 106-99-0

Signal: 1

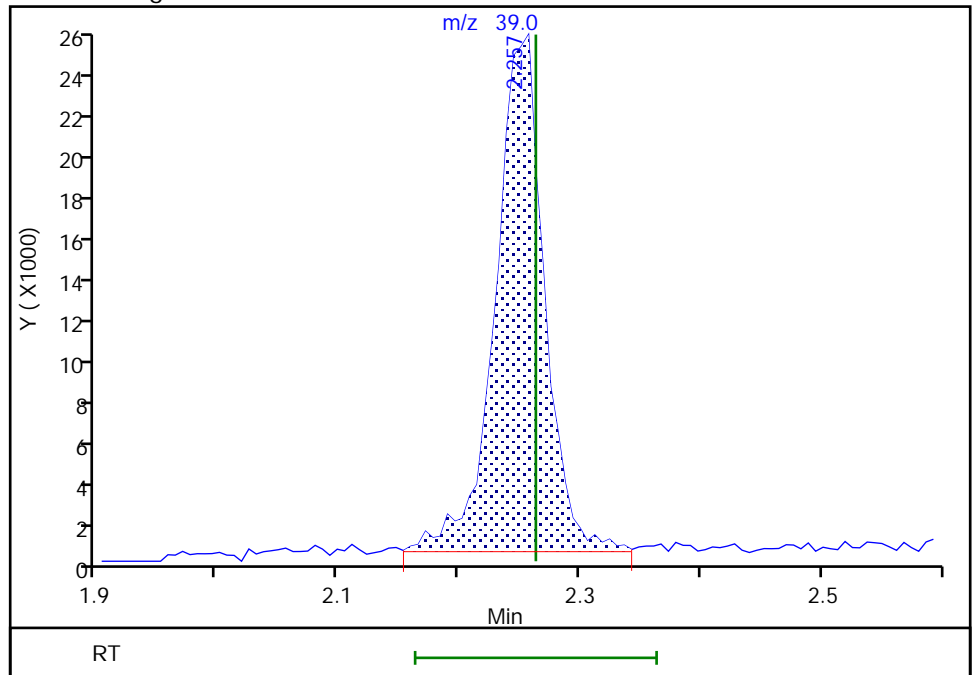
RT: 2.26
Area: 71010
Amount: 1.065937
Amount Units: ug/l

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

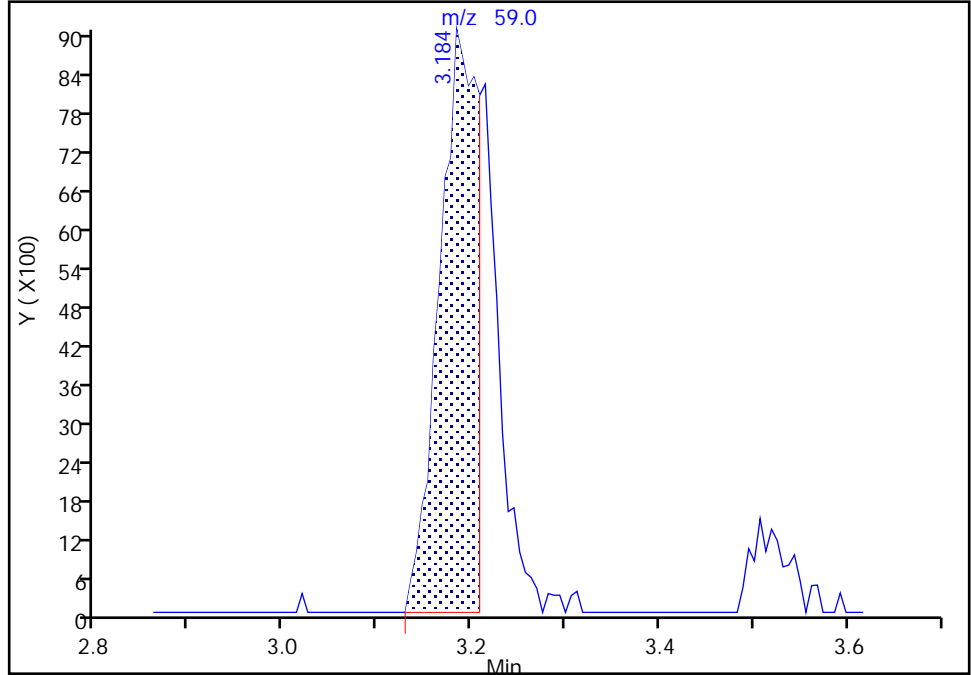
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Injection Date: 11-Jun-2020 15:51:30 Instrument ID: 16334
Lims ID: IC std3
Client ID:
Operator ID: DVV10203 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

15 Ethyl ether, CAS: 60-29-7

Signal: 1

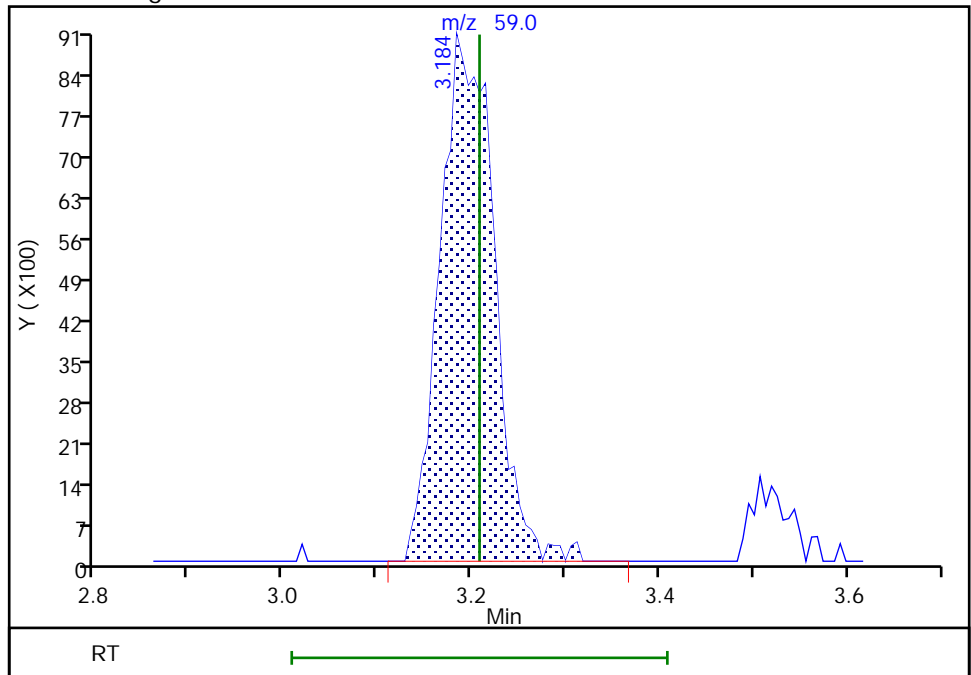
RT: 3.18
Area: 25764
Amount: 0.868093
Amount Units: ug/l

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

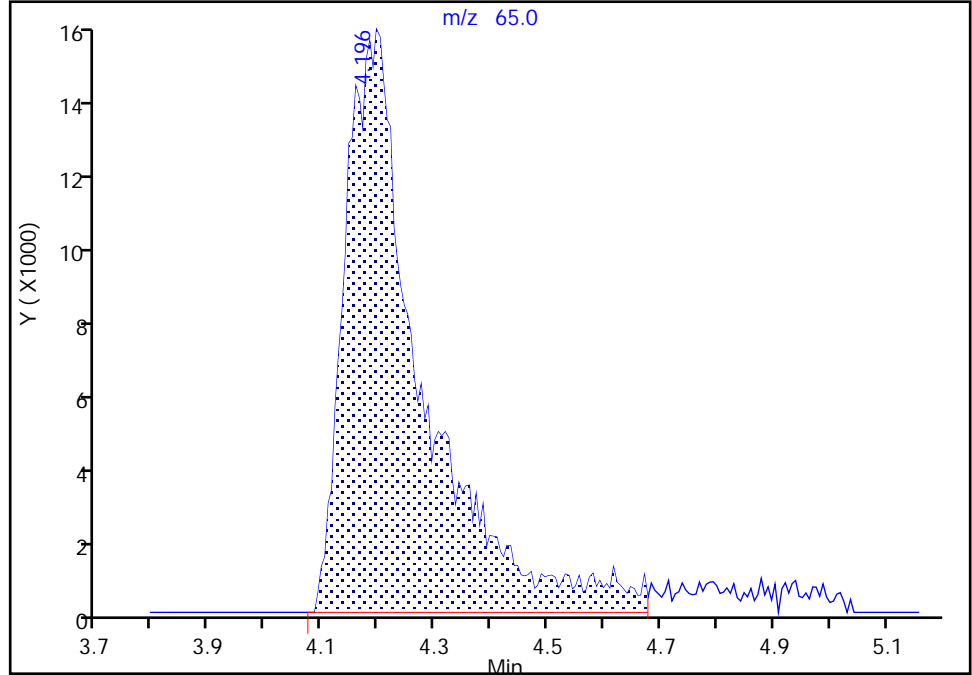
Eurofins Lancaster Laboratories Env, LLC

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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

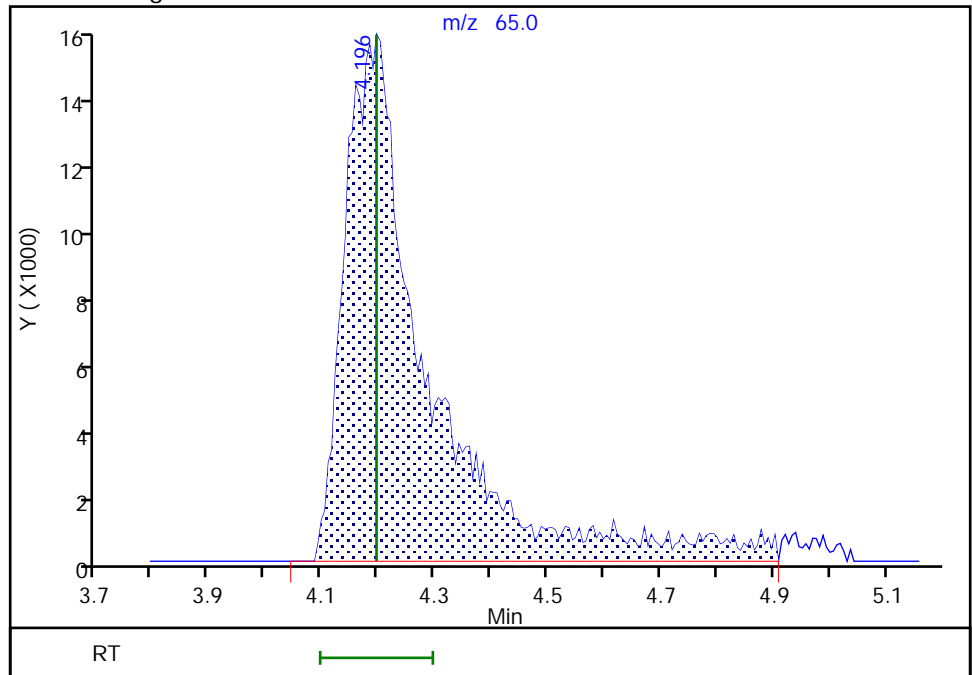
RT: 4.20
Area: 149005
Amount: 50.000000
Amount Units: ug/l

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

Eurofins Lancaster Laboratories Env, LLC

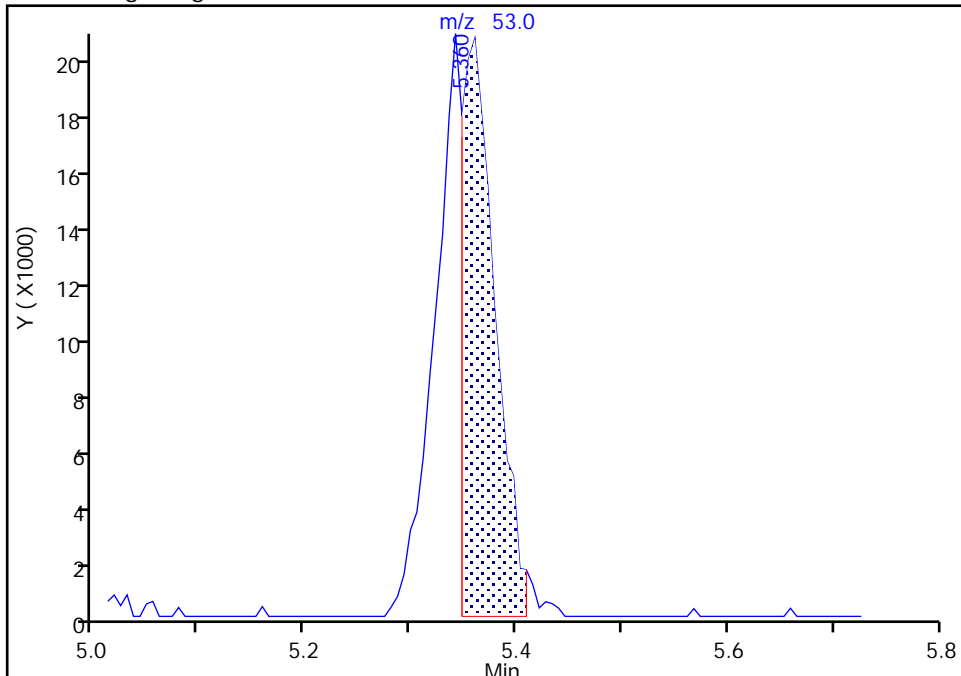
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Injection Date: 11-Jun-2020 15:51:30 Instrument ID: 16334
Lims ID: IC std3
Client ID:
Operator ID: DVV10203 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

38 2-Chloro-1,3-butadiene, CAS: 126-99-8

Signal: 1

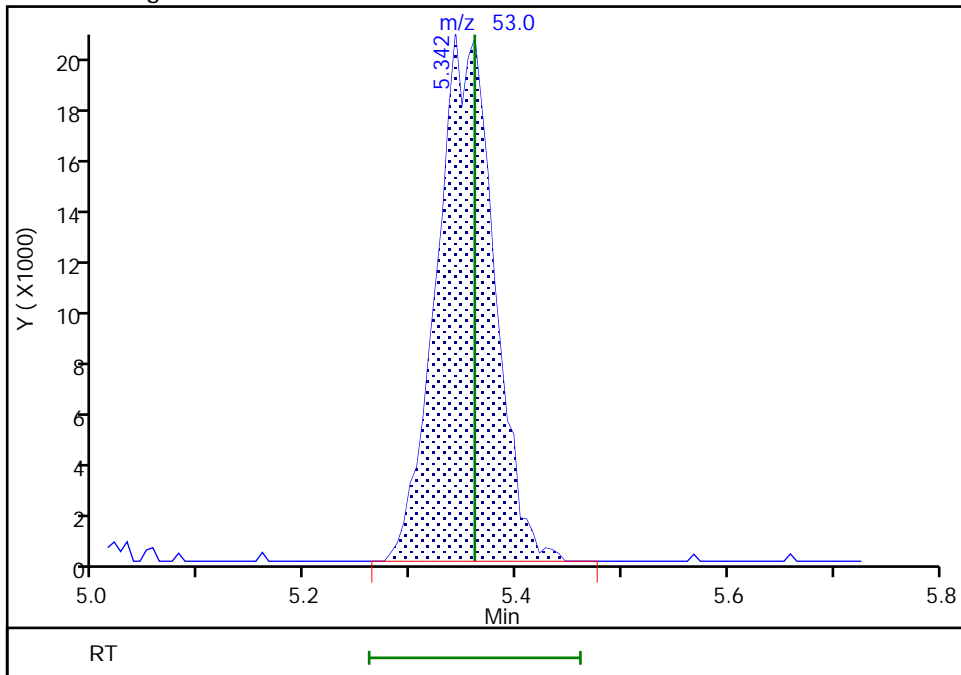
RT: 5.36
Area: 45947
Amount: 0.710066
Amount Units: ug/l

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

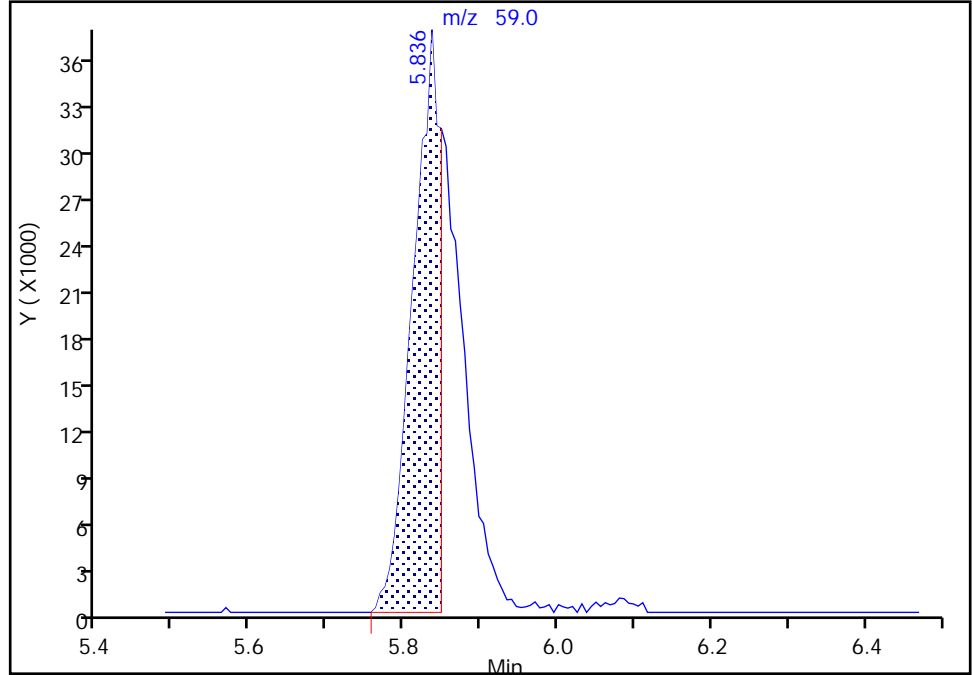
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11105.D
Injection Date: 11-Jun-2020 15:51:30 Instrument ID: 16334
Lims ID: IC std3
Client ID:
Operator ID: DVV10203 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

39 Tert-butyl ethyl ether, CAS: 637-92-3

Signal: 1

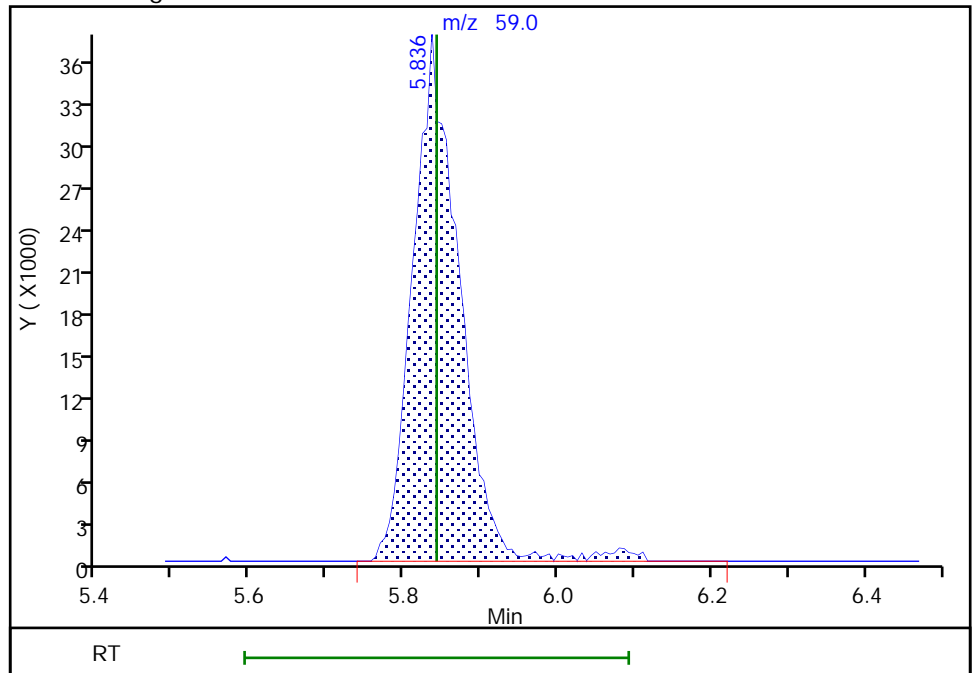
RT: 5.84
Area: 94797
Amount: 0.694627
Amount Units: ug/l

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

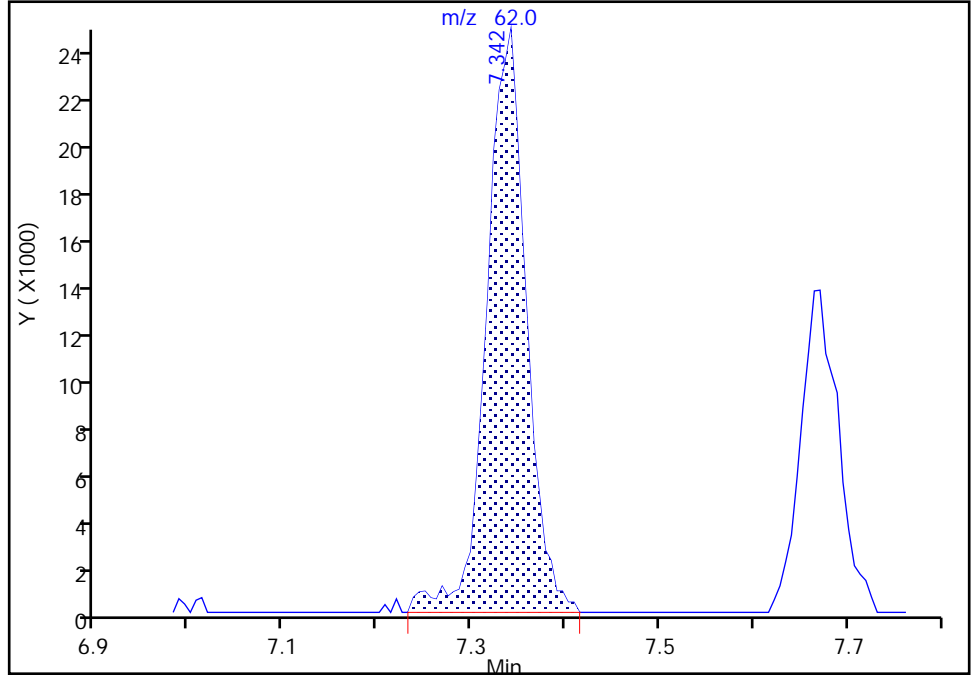
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Injection Date: 11-Jun-2020 15:51:30 Instrument ID: 16334
Lims ID: IC std3
Client ID:
Operator ID: DVV10203 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

60 1,2-Dichloroethane, CAS: 107-06-2

Signal: 1

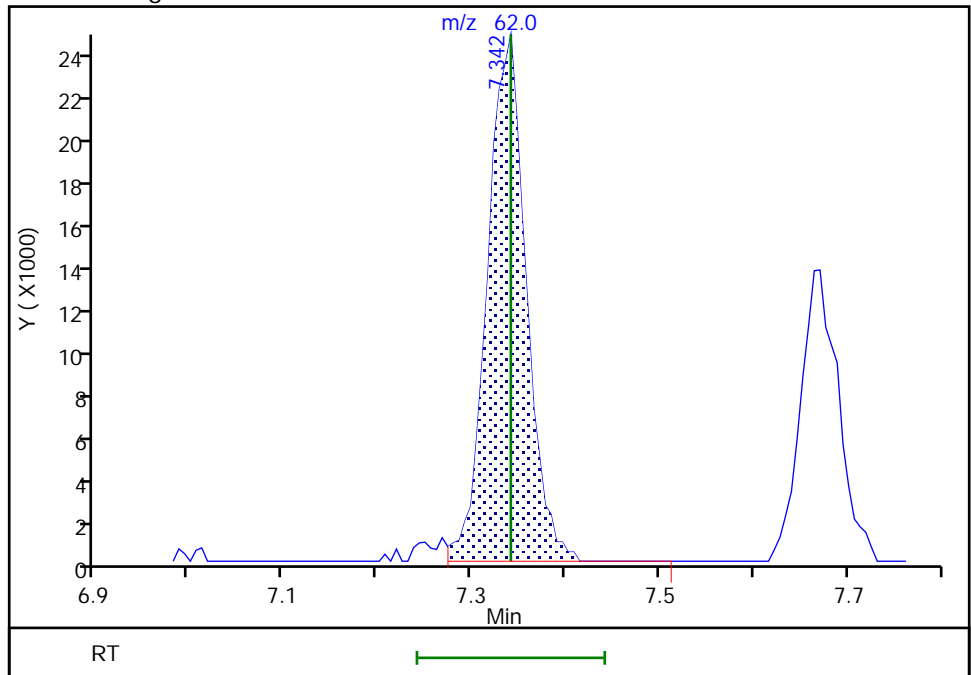
RT: 7.34
Area: 72232
Amount: 1.015934
Amount Units: ug/l

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

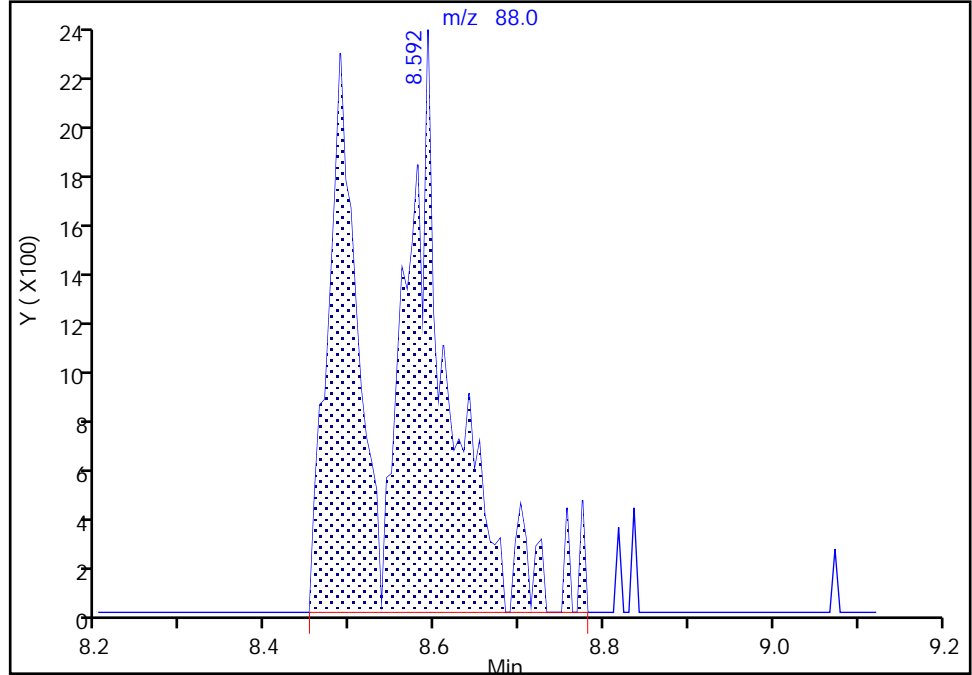
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Injection Date: 11-Jun-2020 15:51:30 Instrument ID: 16334
Lims ID: IC std3
Client ID:
Operator ID: DVV10203 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

72 1,4-Dioxane, CAS: 123-91-1

Signal: 1

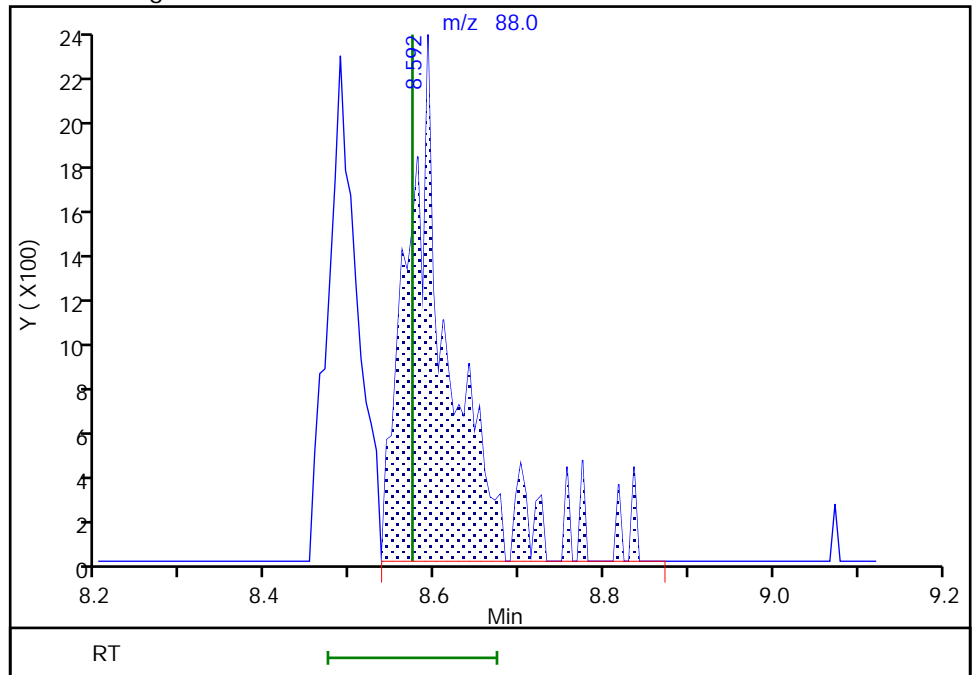
RT: 8.59
Area: 13840
Amount: 57.595832
Amount Units: ug/l

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

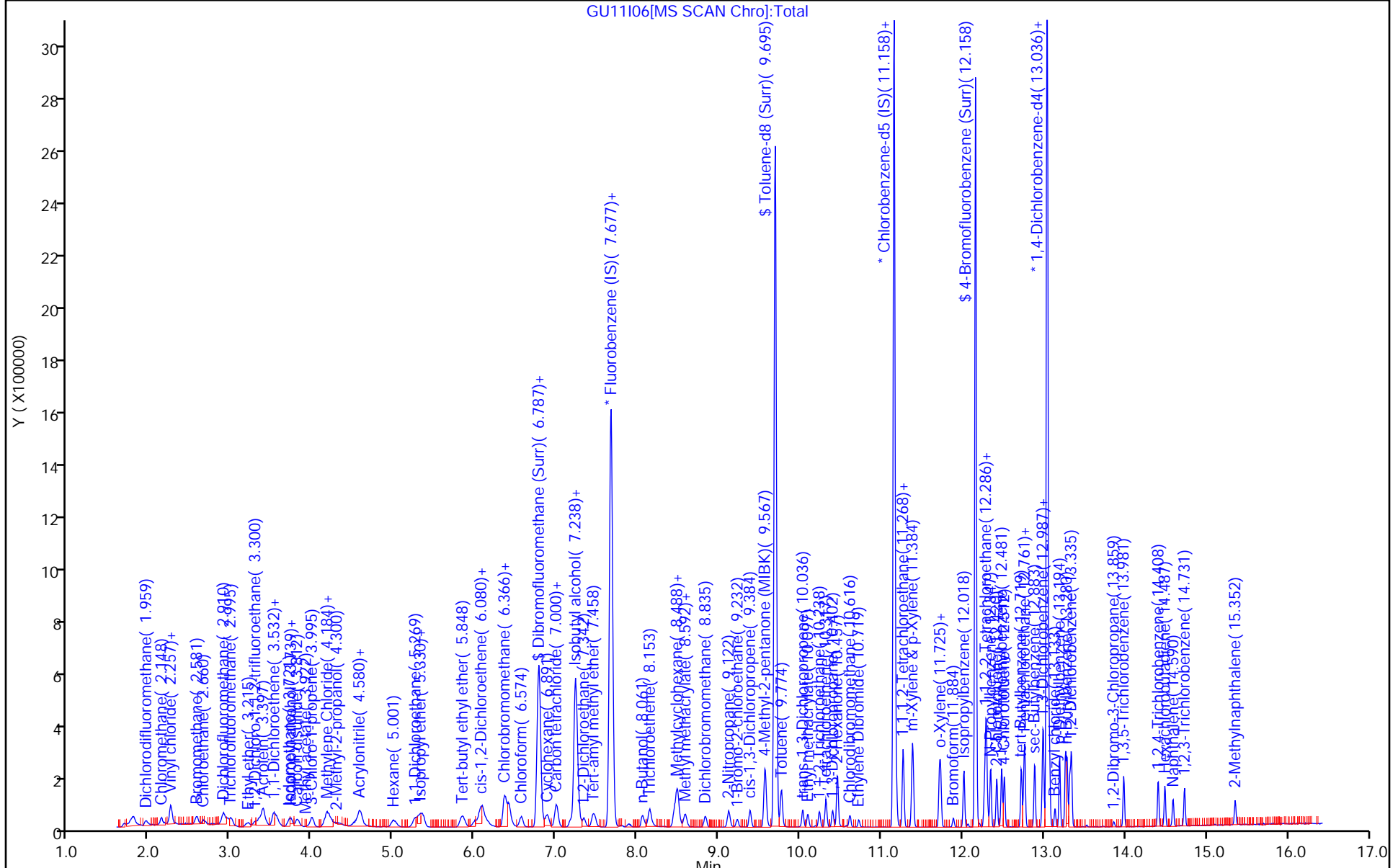
Units: uL

MSV_29_826ISS_00007

Amount Added: 1.00

Units: uL

Run Reagent



Eurofins Lancaster Laboratories Env, LLC

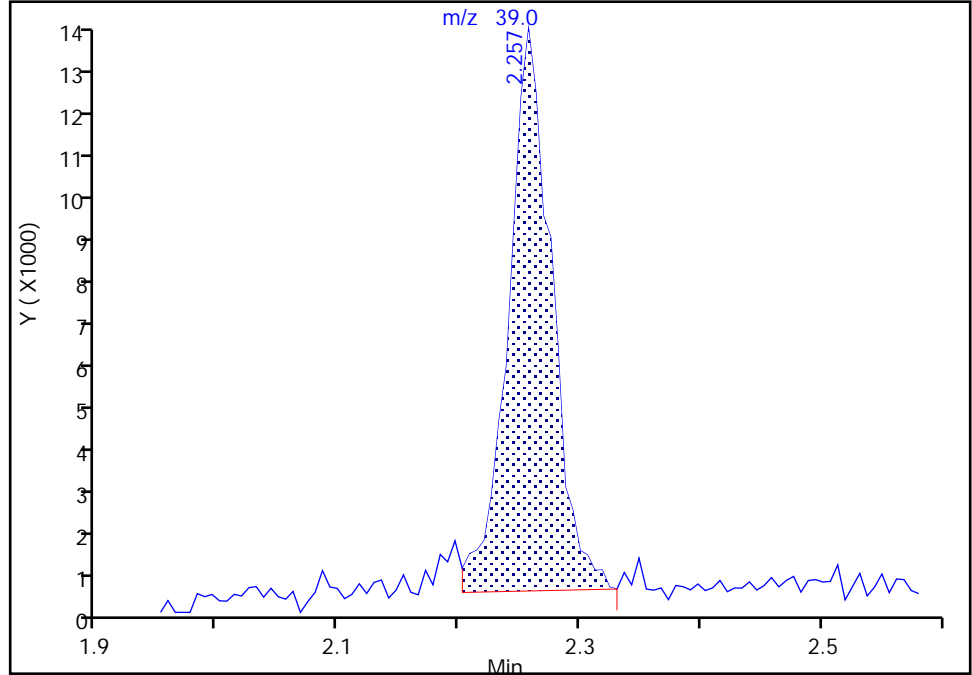
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Injection Date: 11-Jun-2020 16:13:30 Instrument ID: 16334
Lims ID: IC std2
Client ID:
Operator ID: DVV10203 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

6 Butadiene, CAS: 106-99-0

Signal: 1

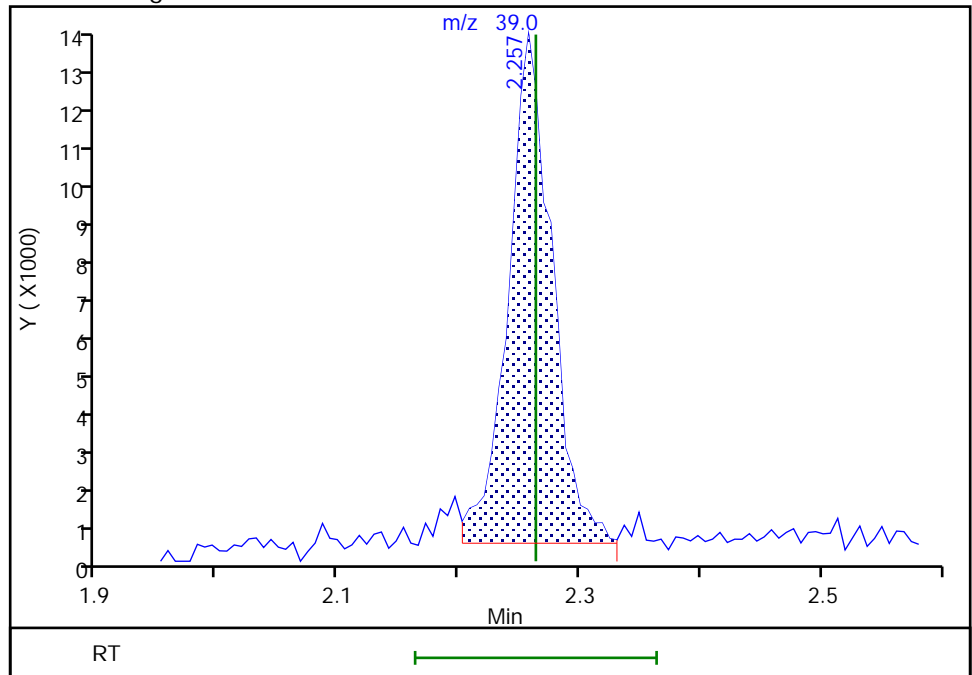
RT: 2.26
Area: 32767
Amount: 0.490920
Amount Units: ug/l

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

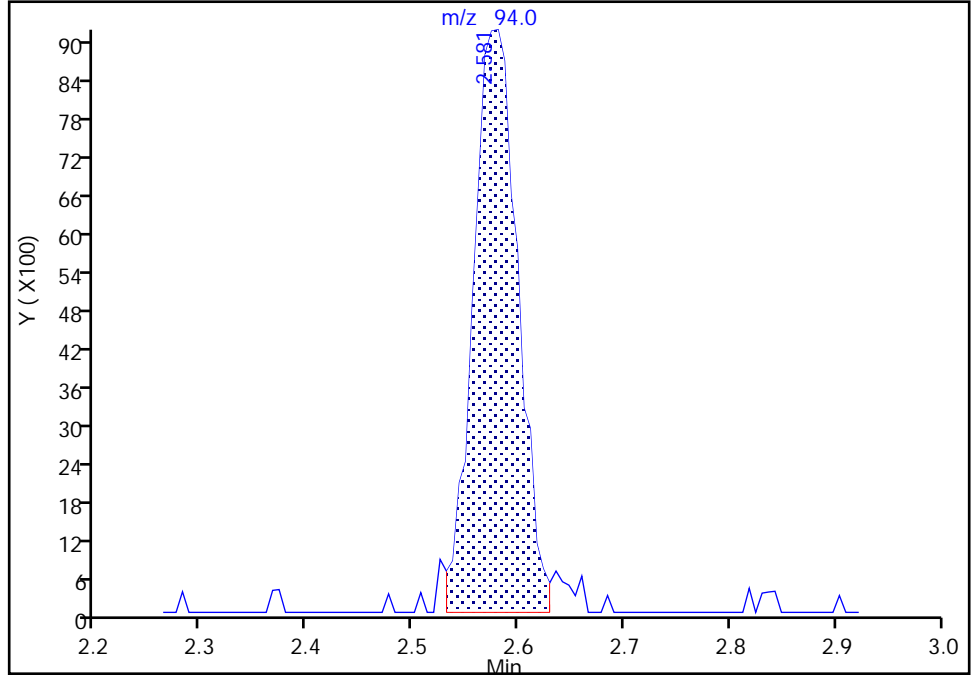
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Injection Date: 11-Jun-2020 16:13:30 Instrument ID: 16334
Lims ID: IC std2
Client ID:
Operator ID: DVV10203 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

9 Bromomethane, CAS: 74-83-9

Signal: 1

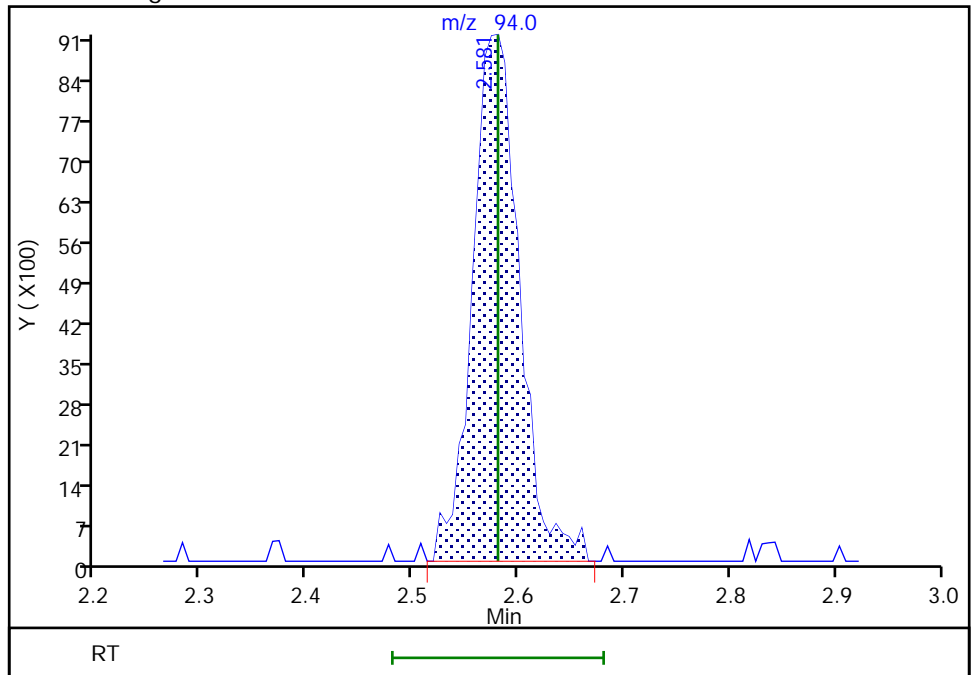
RT: 2.58
Area: 27017
Amount: 0.501883
Amount Units: ug/l

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

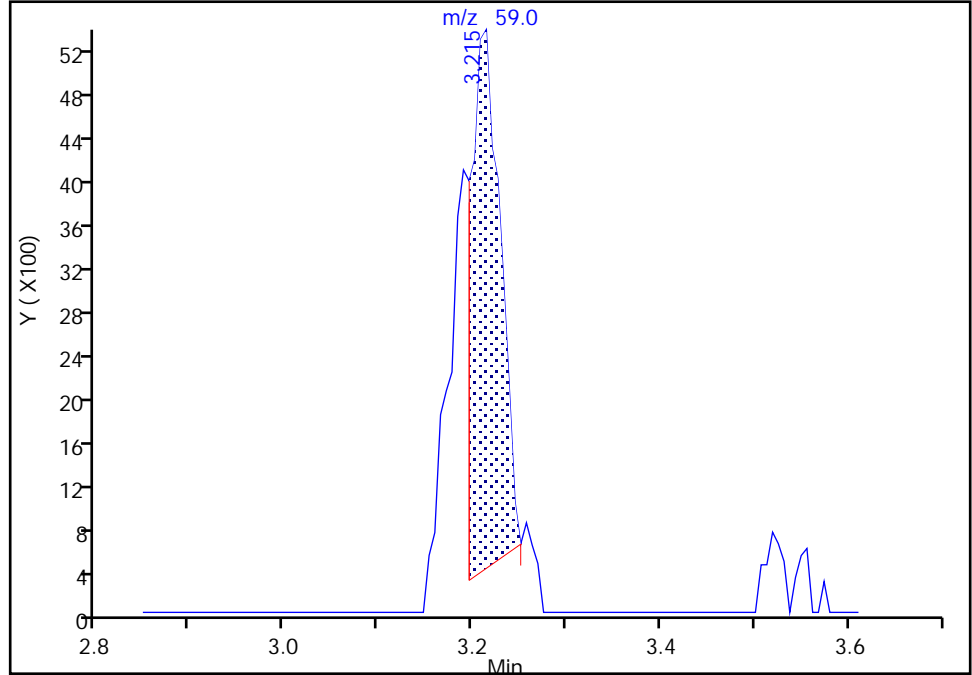
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Injection Date: 11-Jun-2020 16:13:30 Instrument ID: 16334
Lims ID: IC std2
Client ID:
Operator ID: DVV10203 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

15 Ethyl ether, CAS: 60-29-7

Signal: 1

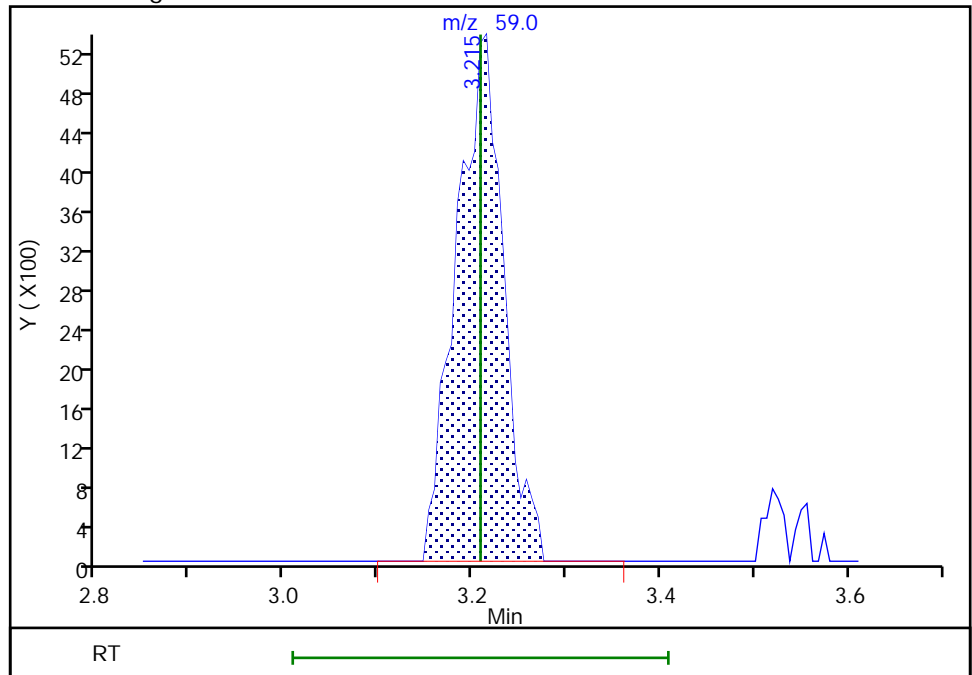
RT: 3.21
Area: 10633
Amount: 0.382527
Amount Units: ug/l

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

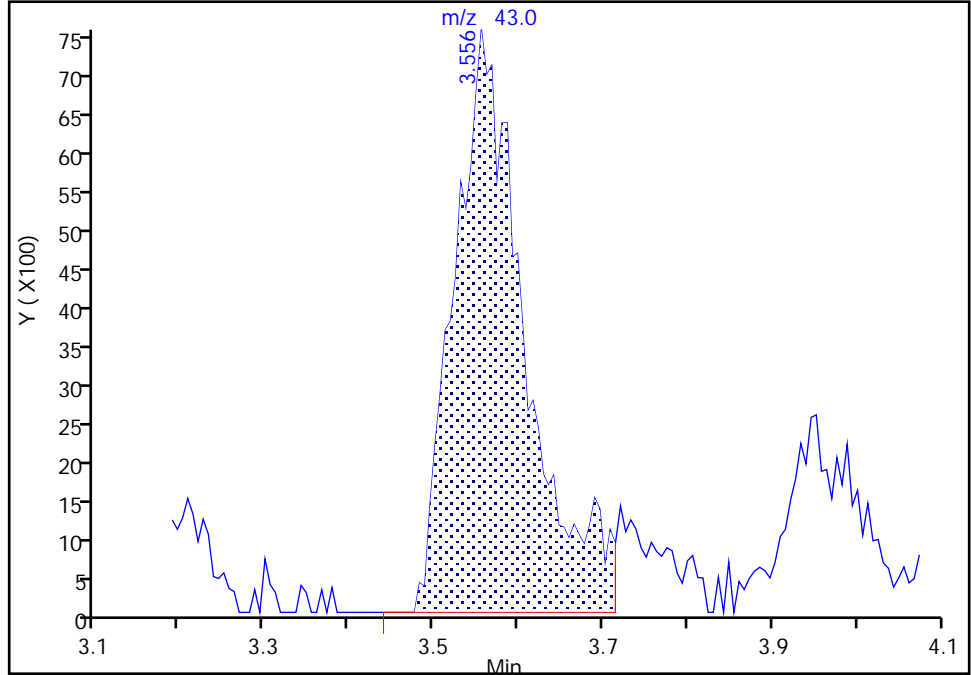
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Injection Date: 11-Jun-2020 16:13:30 Instrument ID: 16334
Lims ID: IC std2
Client ID:
Operator ID: DVV10203 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

20 Acetone, CAS: 67-64-1

Signal: 1

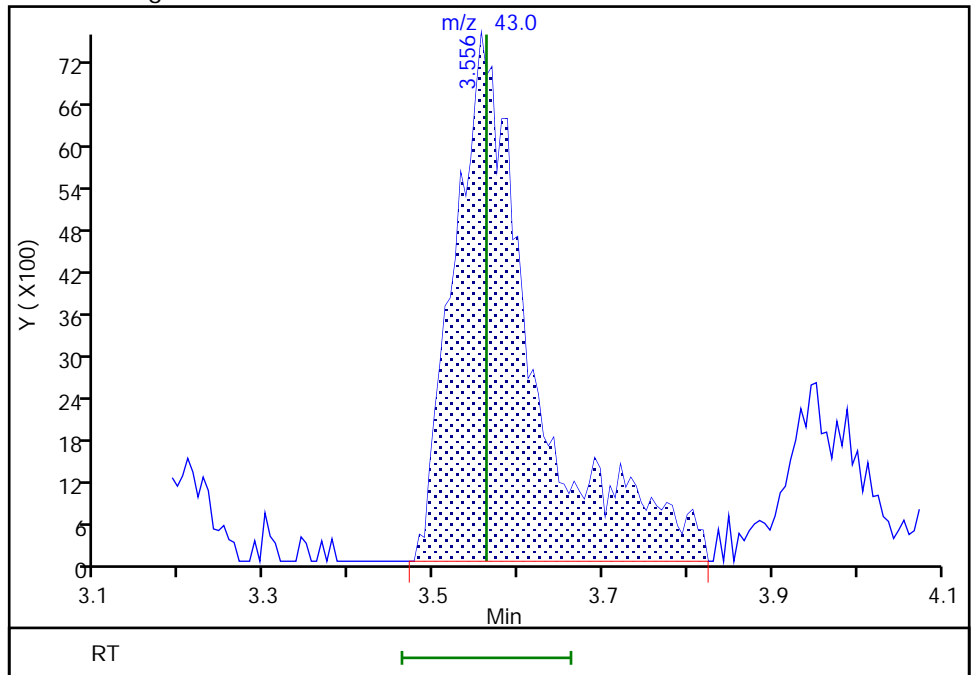
RT: 3.56
Area: 44056
Amount: 5.107733
Amount Units: ug/l

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

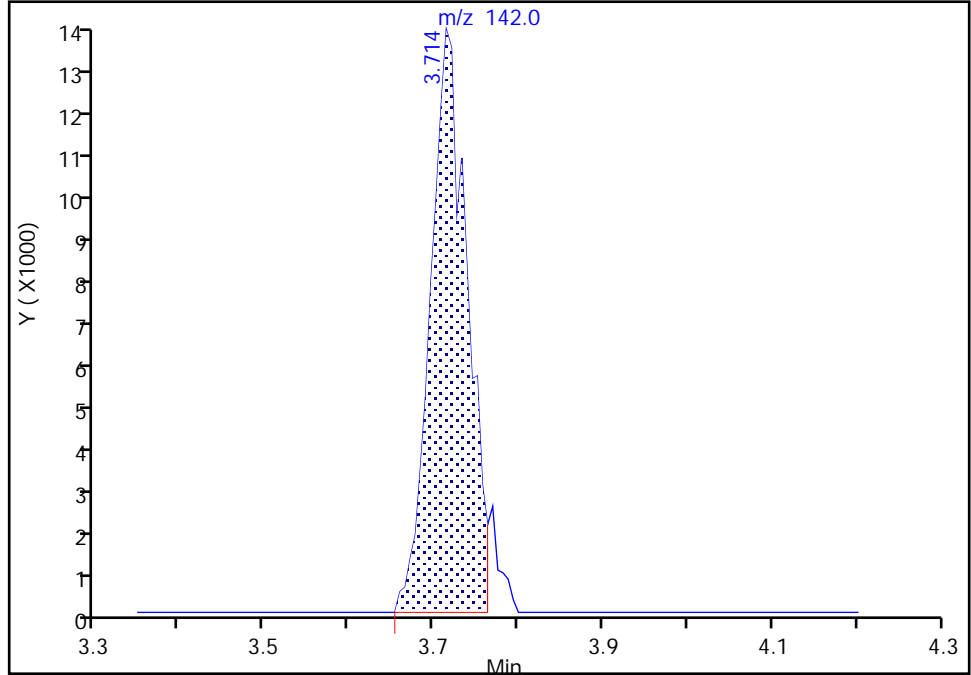
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11106.D
Injection Date: 11-Jun-2020 16:13:30 Instrument ID: 16334
Lims ID: IC std2
Client ID:
Operator ID: DVV10203 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

22 Iodomethane, CAS: 74-88-4

Signal: 1

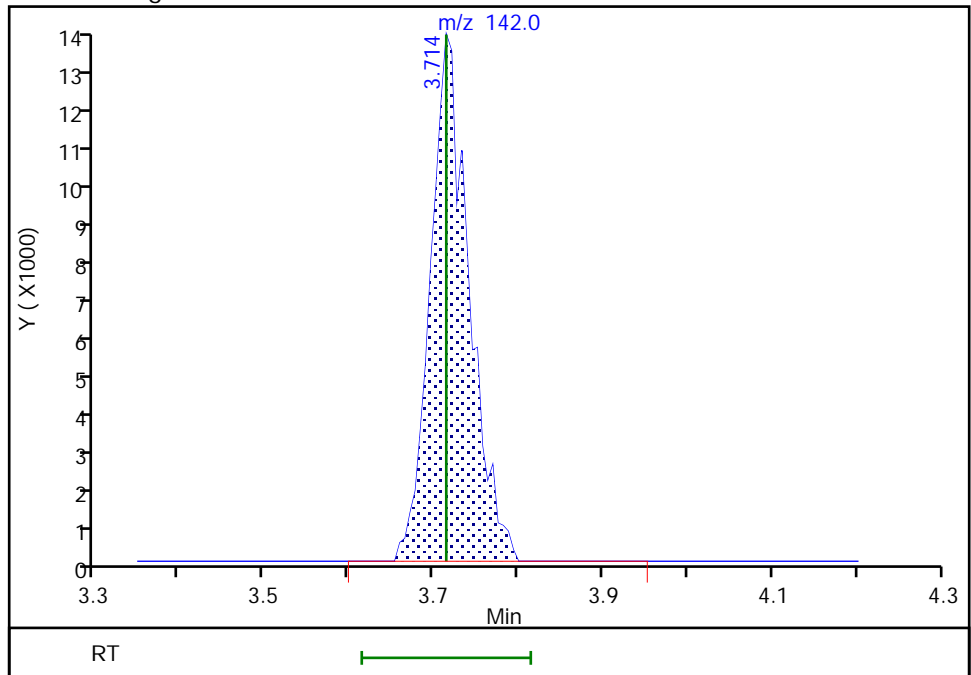
RT: 3.71
Area: 39552
Amount: 0.469258
Amount Units: ug/l

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

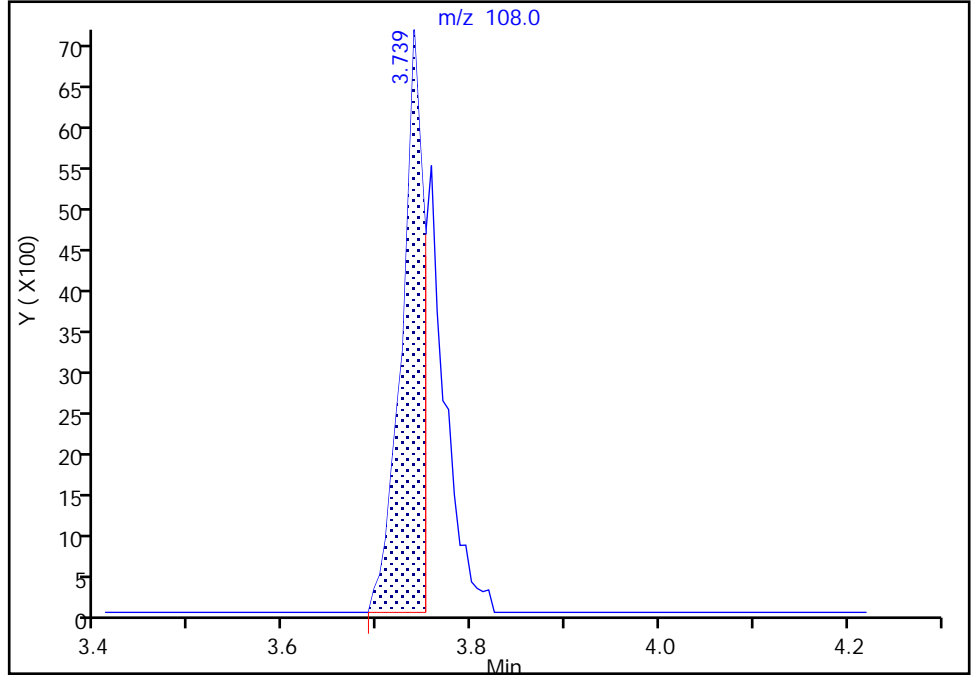
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I06.D
Injection Date: 11-Jun-2020 16:13:30 Instrument ID: 16334
Lims ID: IC std2
Client ID:
Operator ID: DVV10203 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

24 Ethyl bromide, CAS: 74-96-4

Signal: 1

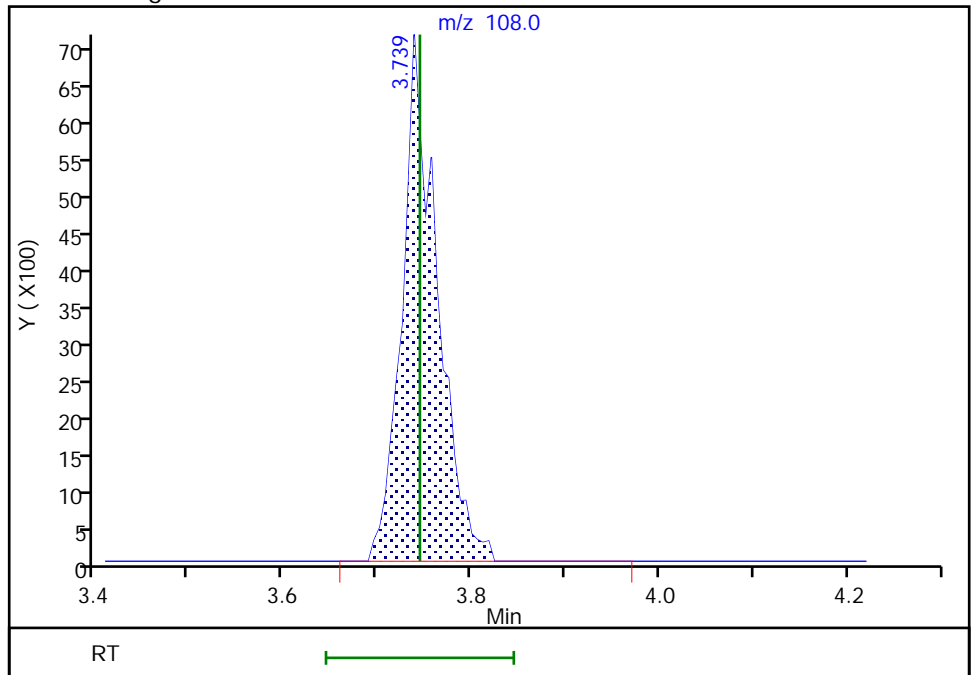
RT: 3.74
Area: 11692
Amount: 0.368177
Amount Units: ug/l

Processing Integration Results



RT: 3.74
Area: 18486
Amount: 0.507116
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 13:59:37
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

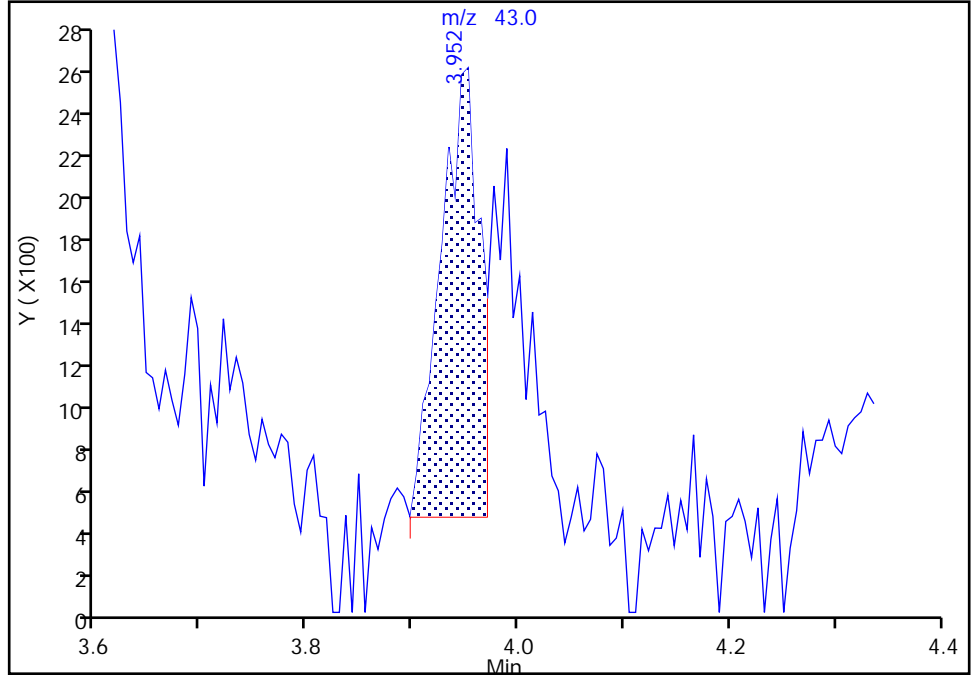
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I06.D
Injection Date: 11-Jun-2020 16:13:30 Instrument ID: 16334
Lims ID: IC std2
Client ID:
Operator ID: DVV10203 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

26 Methyl acetate, CAS: 79-20-9

Signal: 1

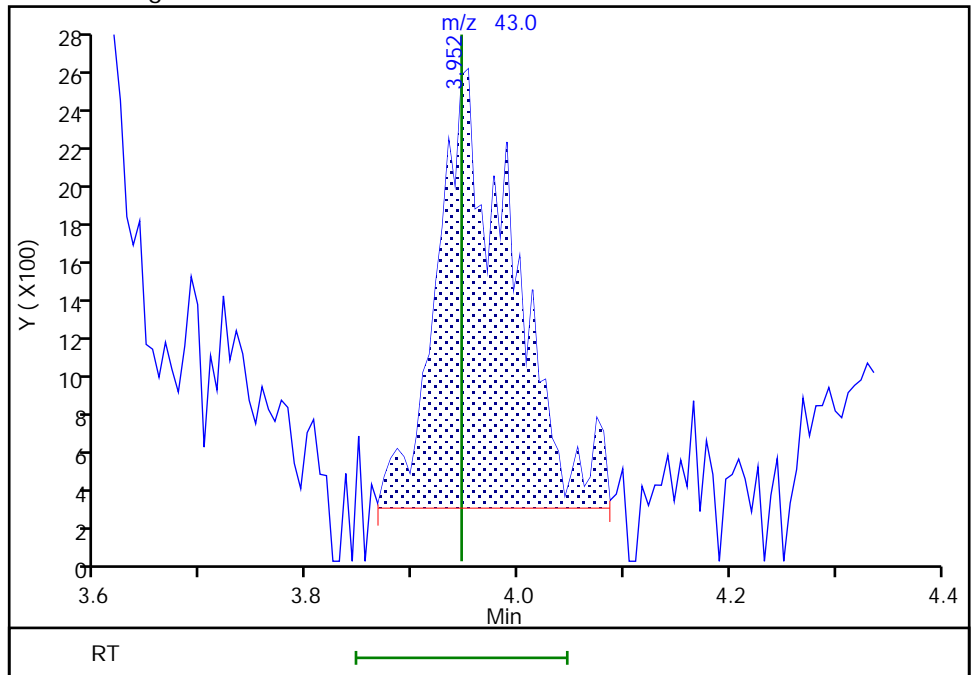
RT: 3.95
Area: 5440
Amount: 0.674632
Amount Units: ug/l

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

Euofins Lancaster Laboratories Env, LLC

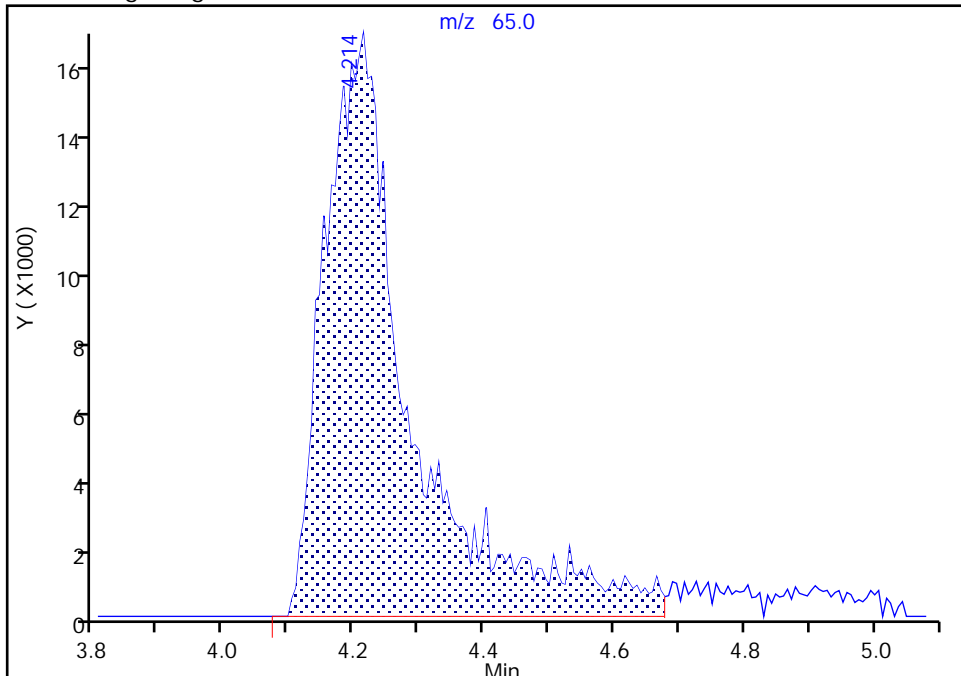
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11106.D
Injection Date: 11-Jun-2020 16:13:30 Instrument ID: 16334
Lims ID: IC std2
Client ID:
Operator ID: DVV10203 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 29 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

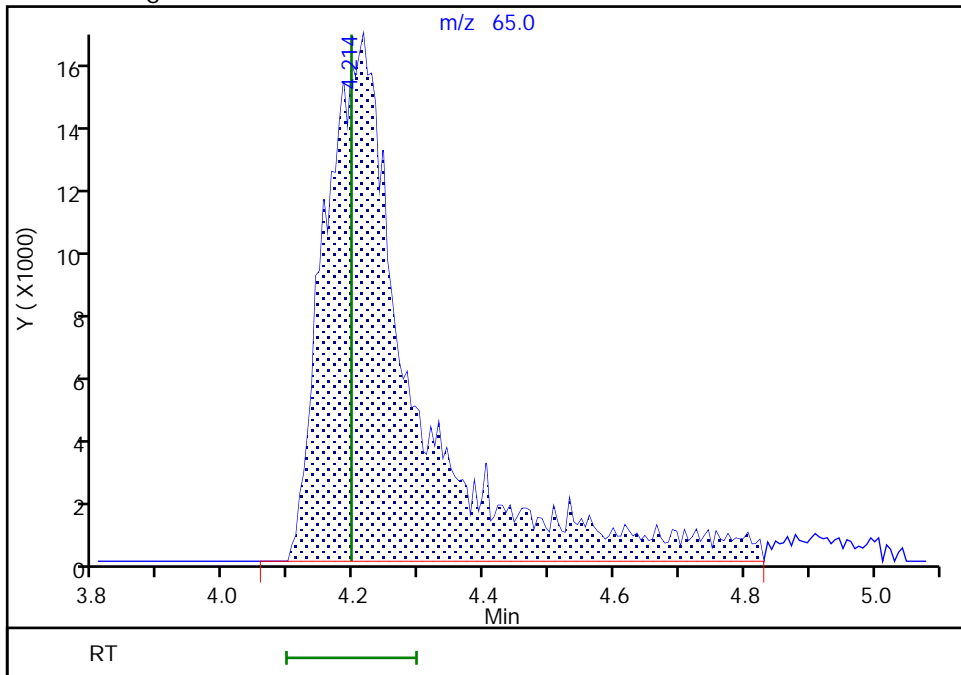
RT: 4.21
Area: 153188
Amount: 50.000000
Amount Units: ug/l

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

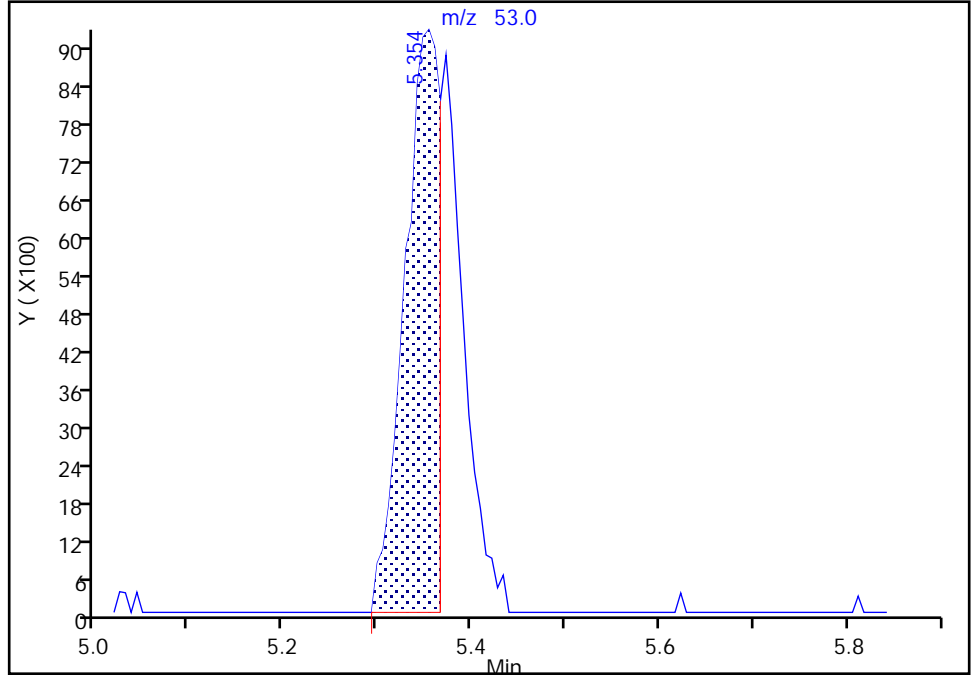
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11106.D
Injection Date: 11-Jun-2020 16:13:30 Instrument ID: 16334
Lims ID: IC std2
Client ID:
Operator ID: DVV10203 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

38 2-Chloro-1,3-butadiene, CAS: 126-99-8

Signal: 1

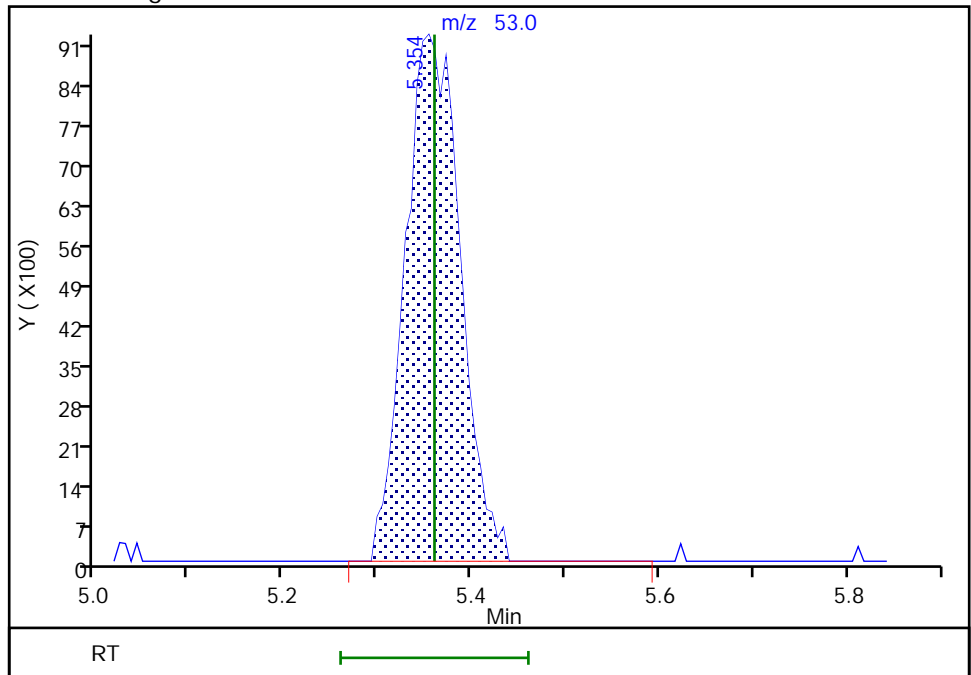
RT: 5.35
Area: 24084
Amount: 0.310607
Amount Units: ug/l

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

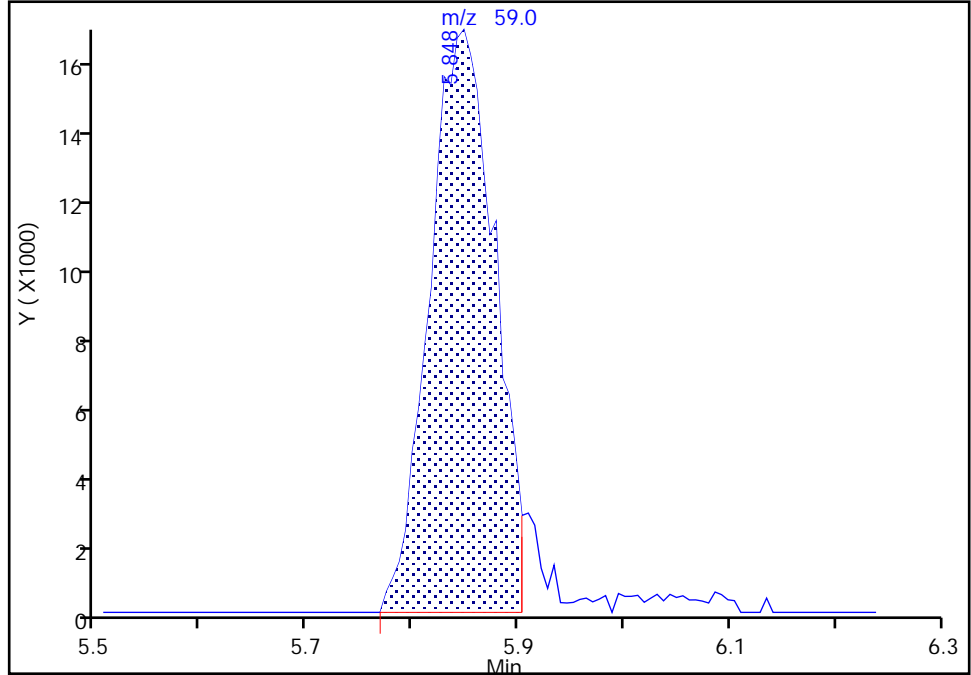
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11106.D
Injection Date: 11-Jun-2020 16:13:30 Instrument ID: 16334
Lims ID: IC std2
Client ID:
Operator ID: DVV10203 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

39 Tert-butyl ethyl ether, CAS: 637-92-3

Signal: 1

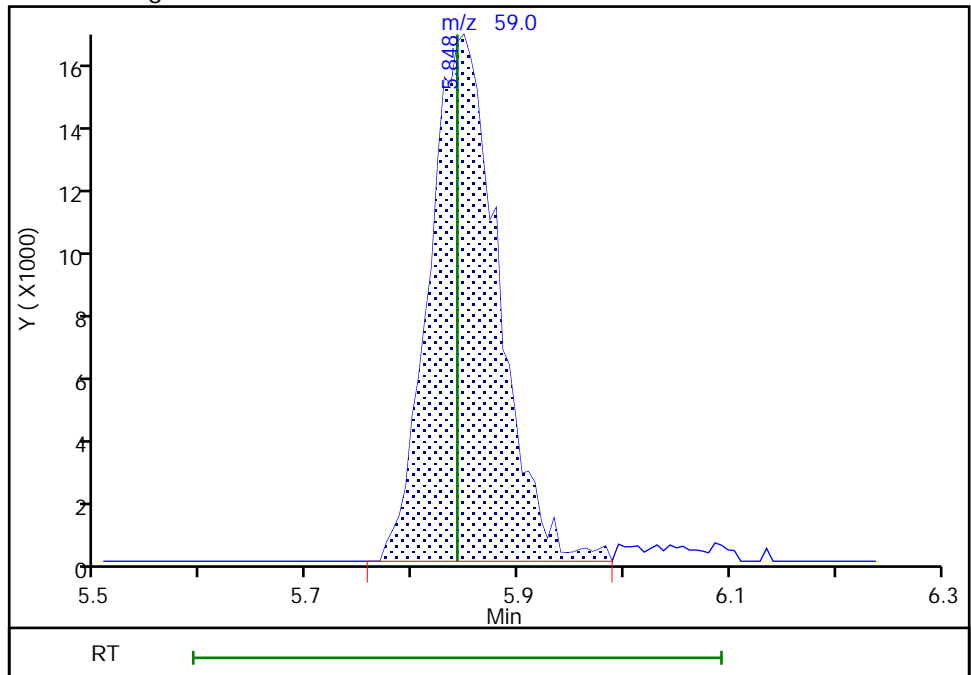
RT: 5.85
Area: 69898
Amount: 0.479990
Amount Units: ug/l

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

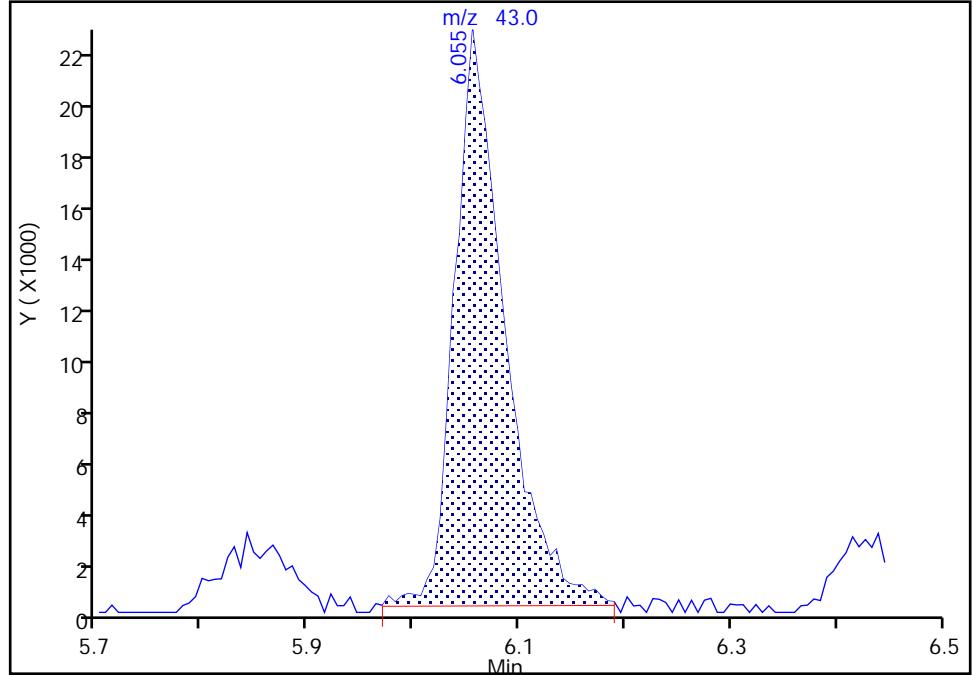
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11106.D
Injection Date: 11-Jun-2020 16:13:30 Instrument ID: 16334
Lims ID: IC std2
Client ID:
Operator ID: DVV10203 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

40 2-Butanone (MEK), CAS: 78-93-3

Signal: 1

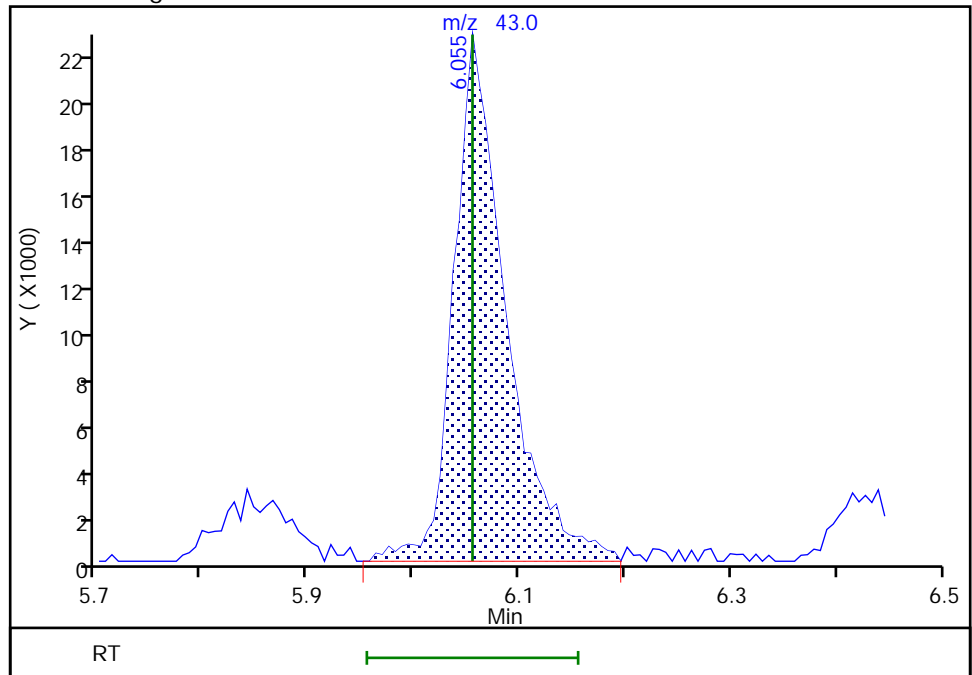
RT: 6.06
Area: 73449
Amount: 4.614245
Amount Units: ug/l

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

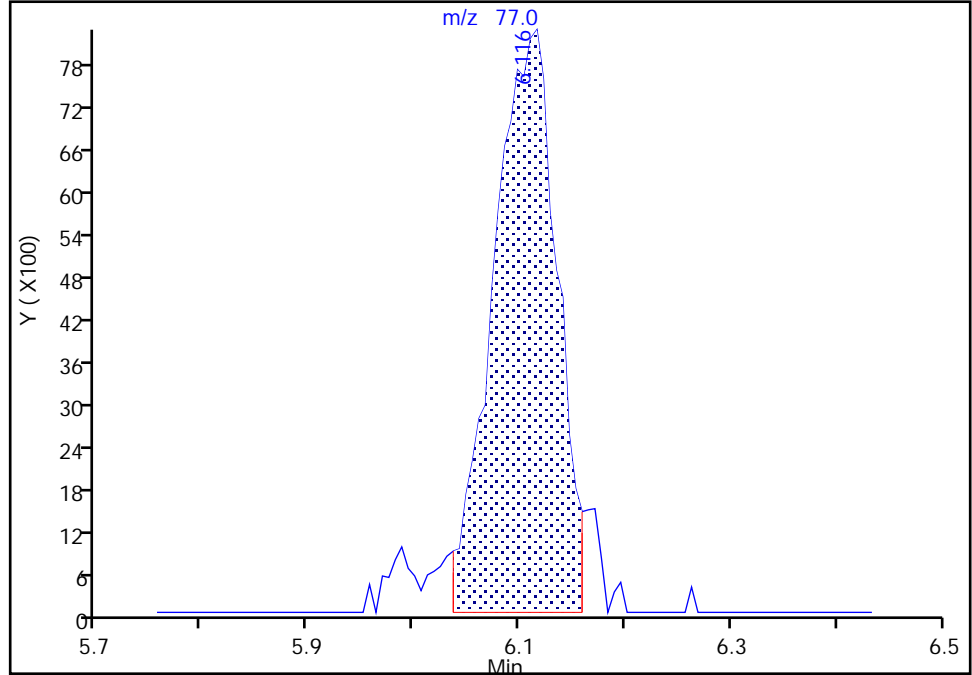
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I06.D
Injection Date: 11-Jun-2020 16:13:30 Instrument ID: 16334
Lims ID: IC std2
Client ID:
Operator ID: DVV10203 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

42 2,2-Dichloropropane, CAS: 594-20-7

Signal: 1

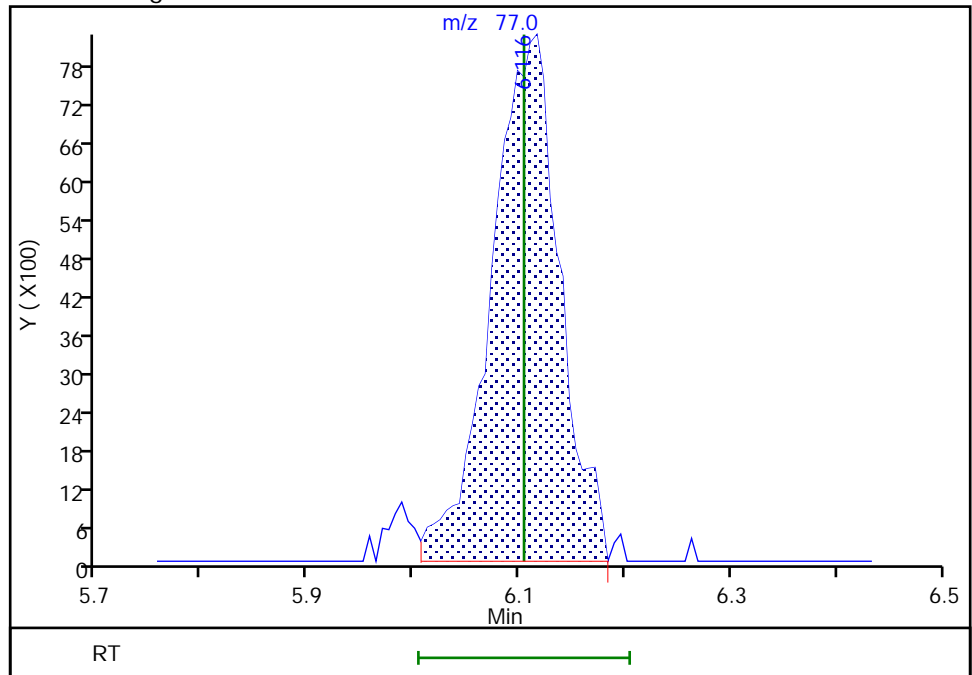
RT: 6.12
Area: 34848
Amount: 0.478877
Amount Units: ug/l

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

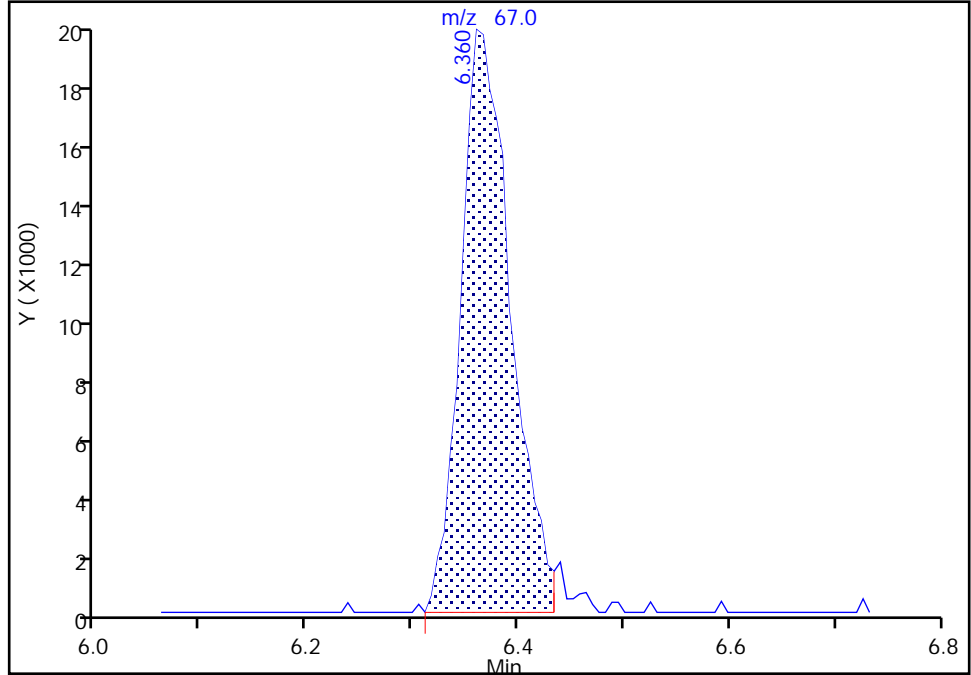
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I06.D
Injection Date: 11-Jun-2020 16:13:30 Instrument ID: 16334
Lims ID: IC std2
Client ID:
Operator ID: DVV10203 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

46 Methacrylonitrile, CAS: 126-98-7

Signal: 1

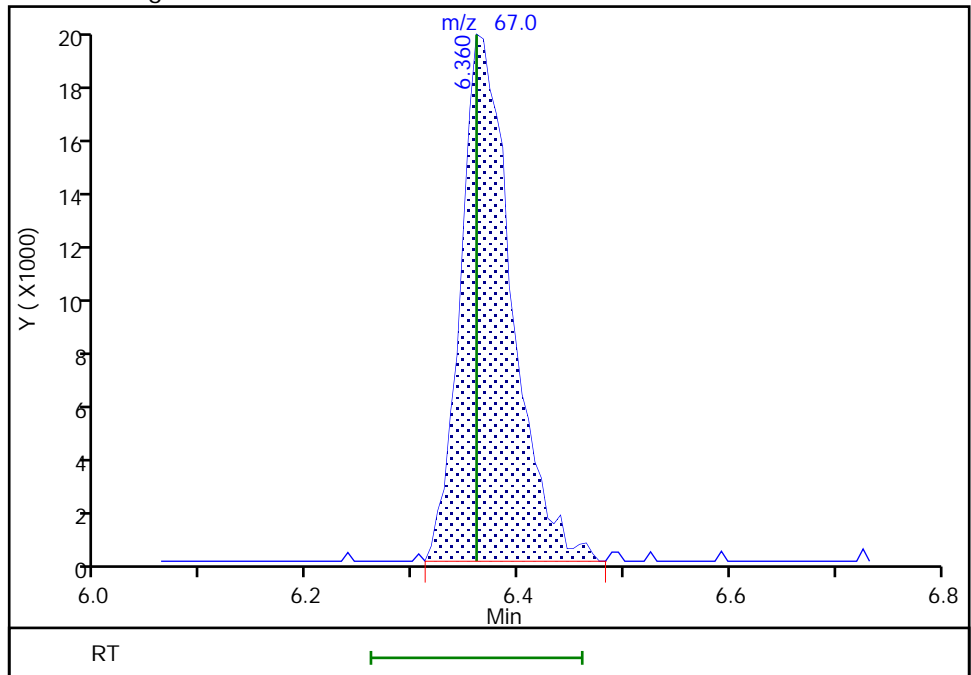
RT: 6.36
Area: 62982
Amount: 4.827464
Amount Units: ug/l

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

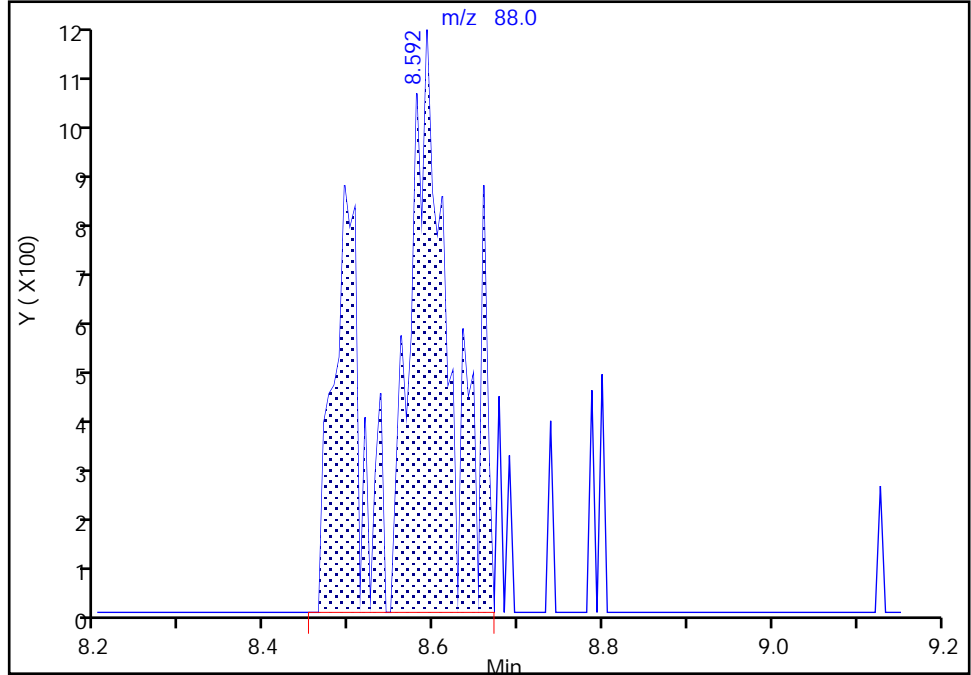
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11I06.D
Injection Date: 11-Jun-2020 16:13:30 Instrument ID: 16334
Lims ID: IC std2
Client ID:
Operator ID: DVV10203 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

72 1,4-Dioxane, CAS: 123-91-1

Signal: 1

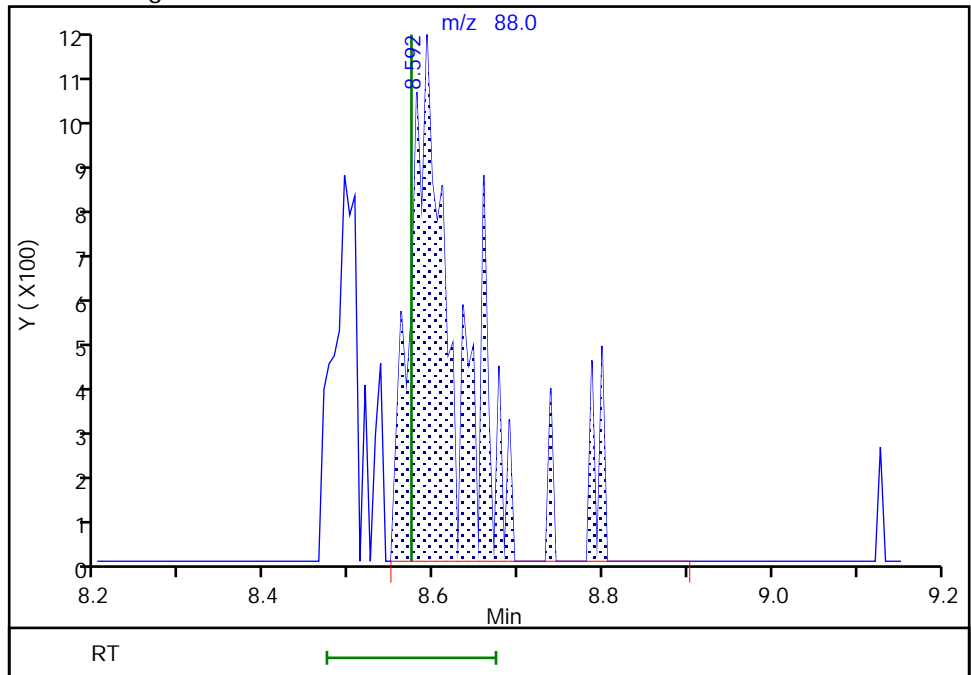
RT: 8.59
Area: 5846
Amount: 7.637195
Amount Units: ug/l

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

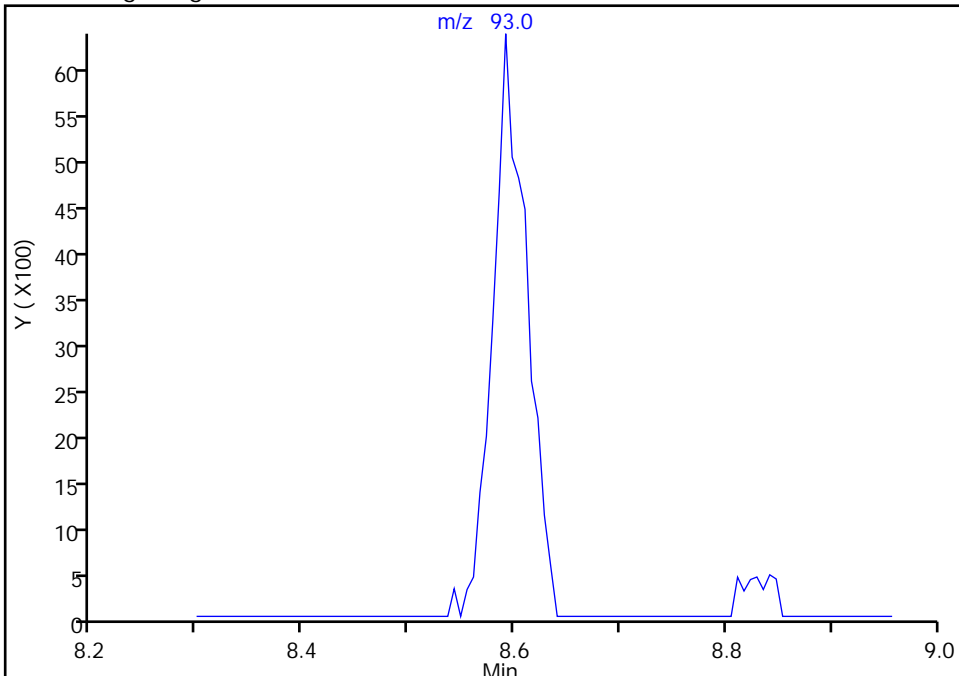
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11106.D
Injection Date: 11-Jun-2020 16:13:30 Instrument ID: 16334
Lims ID: IC std2
Client ID:
Operator ID: DVV10203 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

73 Dibromomethane, CAS: 74-95-3

Signal: 1

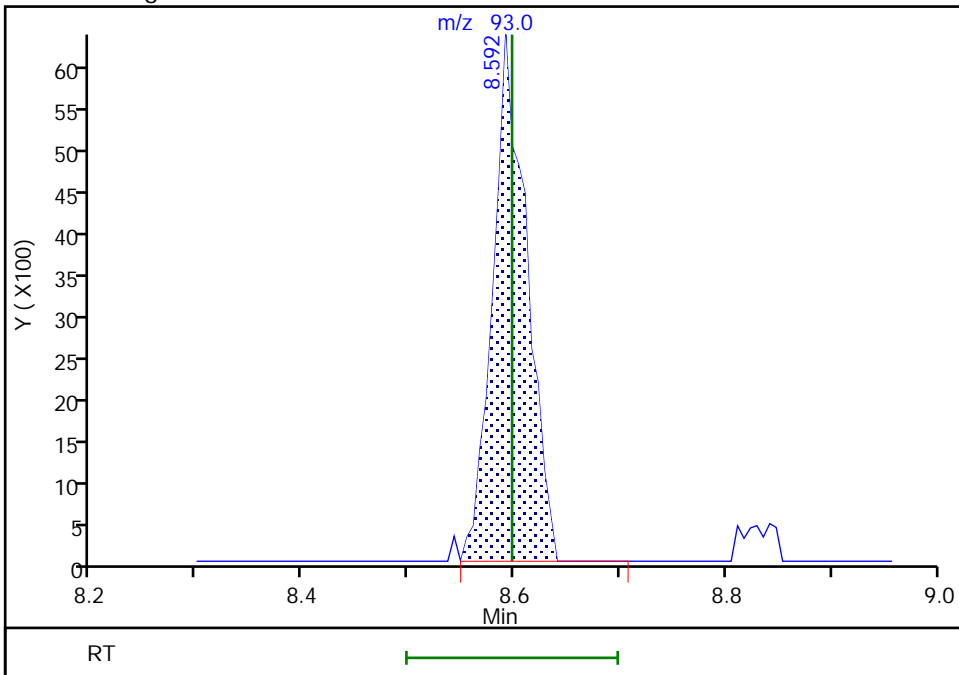
Not Detected
Expected RT: 8.60

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-trifluoroetha	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

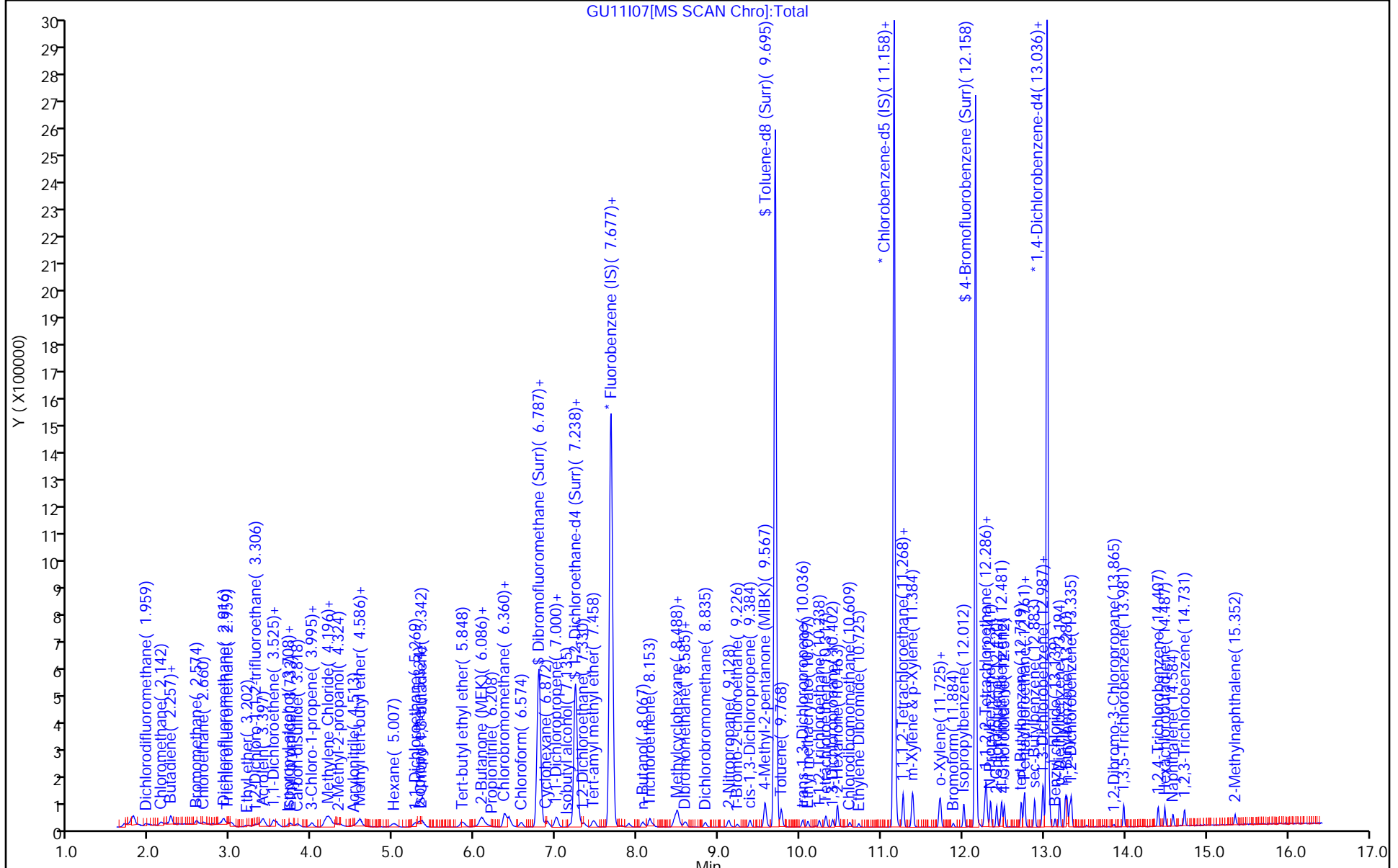
Units: uL

MSV_29_826ISS_00007

Amount Added: 1.00

Units: uL

Run Reagent



Eurofins Lancaster Laboratories Env, LLC

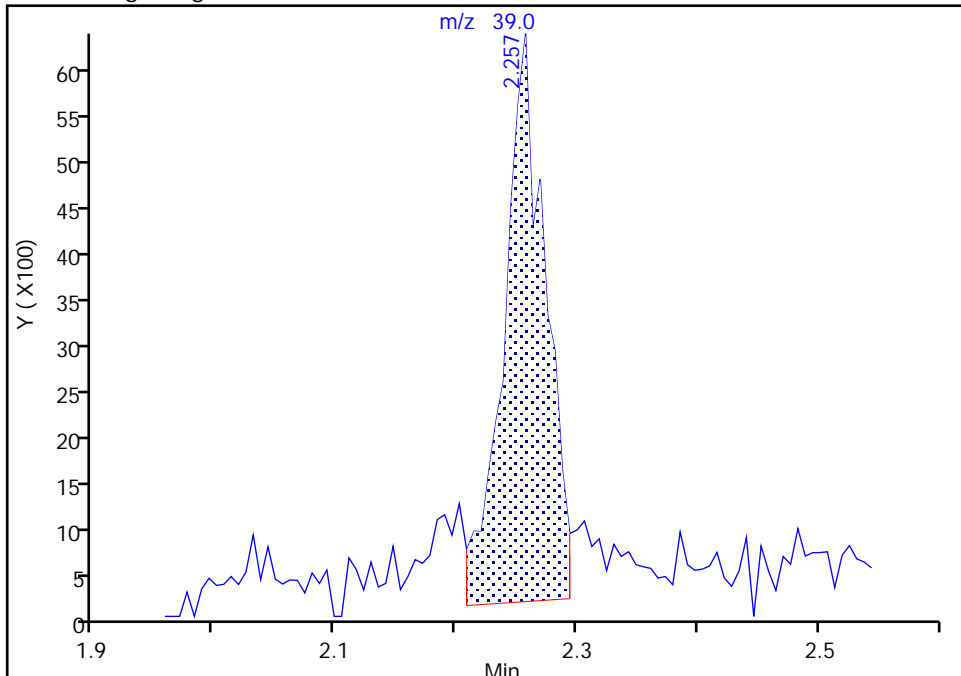
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Injection Date:	11-Jun-2020 16:35:30	Instrument ID:	16334
Lims ID:	IC std1		
Client ID:			
Operator ID:	DVV10203	ALS Bottle#:	8
Purge Vol:	25.000 mL	Dil. Factor:	1.0000
Method:	MSV_16334_25mL	Limit Group:	MSV - 8260C_D
Column:	Rxi-624Sil MS Capillary Column (0.25mm ID)	Detector:	MS Quad
		Worklist Smp#:	9

6 Butadiene, CAS: 106-99-0

Signal: 1

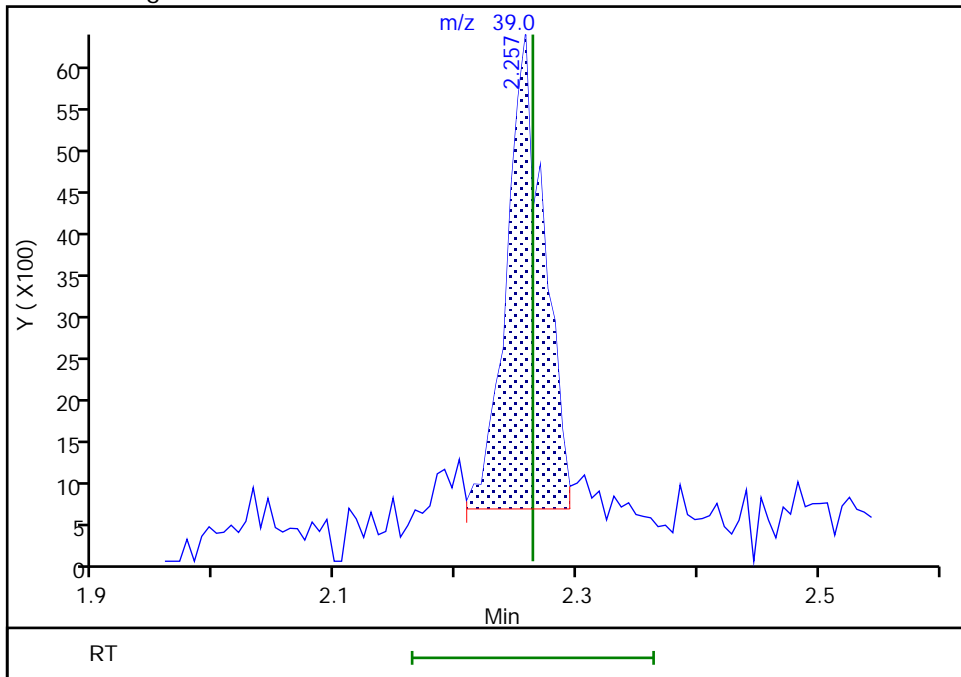
RT: 2.26
 Area: 14827
 Amount: 0.228694
 Amount Units: ug/l

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

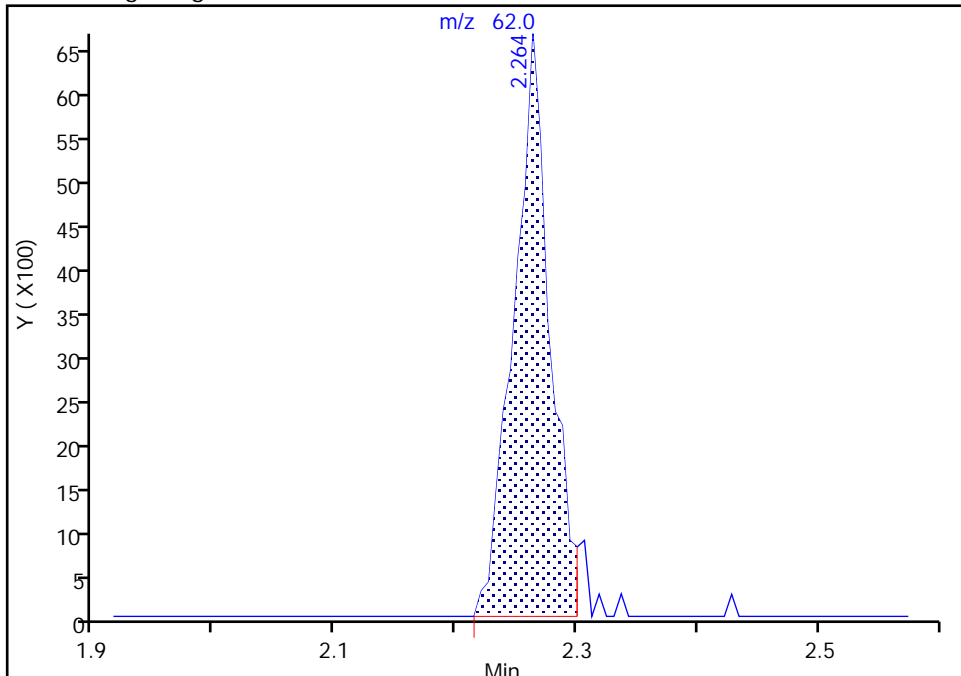
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Injection Date: 11-Jun-2020 16:35:30 Instrument ID: 16334
Lims ID: IC std1
Client ID:
Operator ID: DVV10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

7 Vinyl chloride, CAS: 75-01-4

Signal: 1

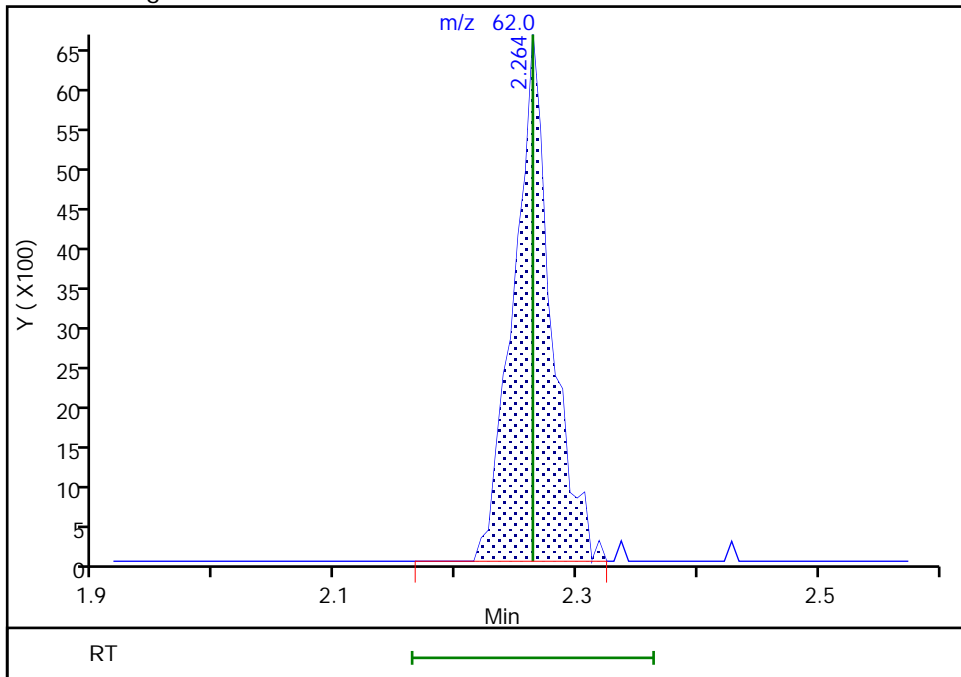
RT: 2.26
Area: 13811
Amount: 0.199506
Amount Units: ug/l

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

Eurofins Lancaster Laboratories Env, LLC

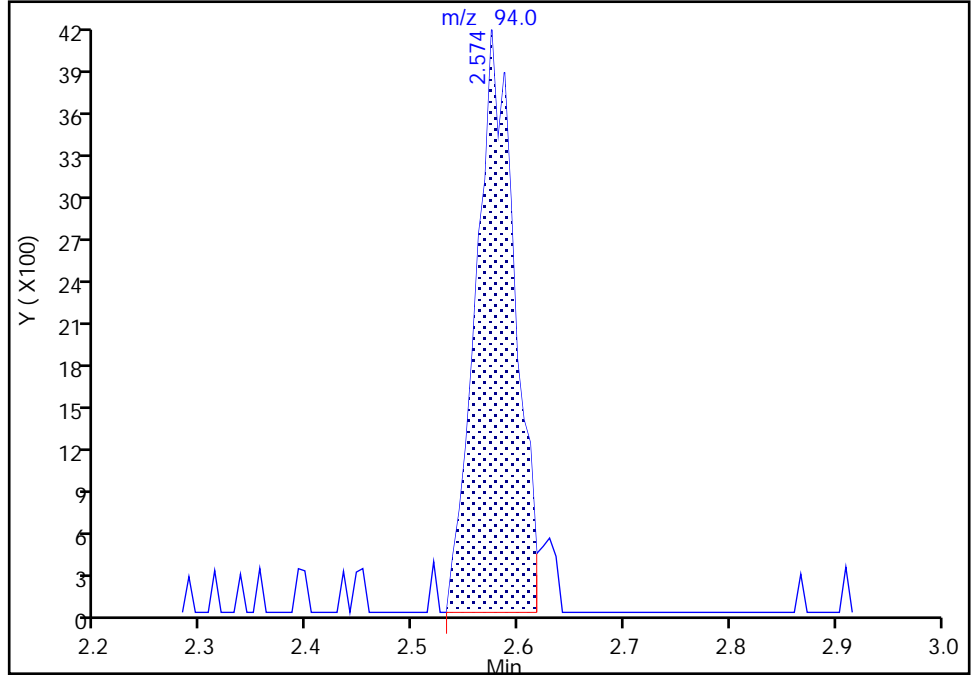
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Injection Date: 11-Jun-2020 16:35:30 Instrument ID: 16334
Lims ID: IC std1
Client ID:
Operator ID: DVV10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

9 Bromomethane, CAS: 74-83-9

Signal: 1

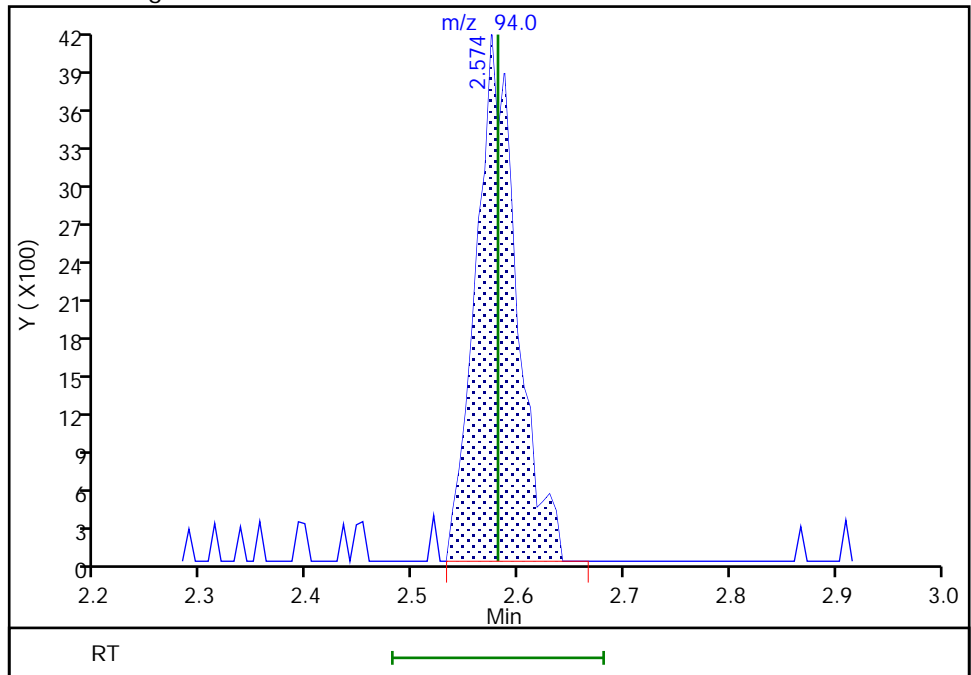
RT: 2.57
Area: 10513
Amount: 0.200079
Amount Units: ug/l

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

Eurofins Lancaster Laboratories Env, LLC

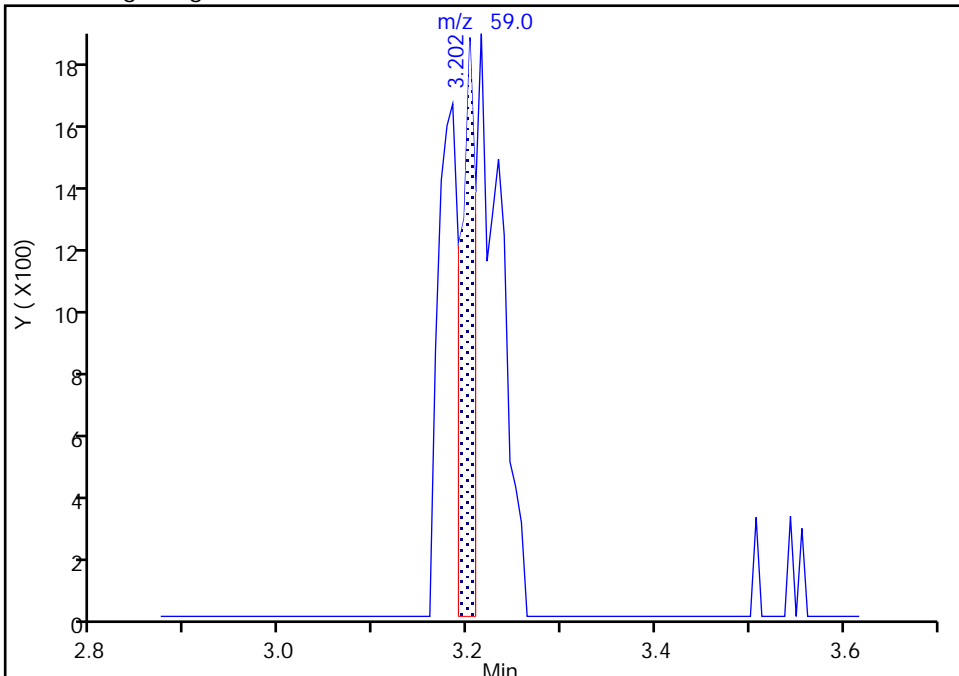
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Injection Date: 11-Jun-2020 16:35:30 Instrument ID: 16334
Lims ID: IC std1
Client ID:
Operator ID: DVV10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

15 Ethyl ether, CAS: 60-29-7

Signal: 1

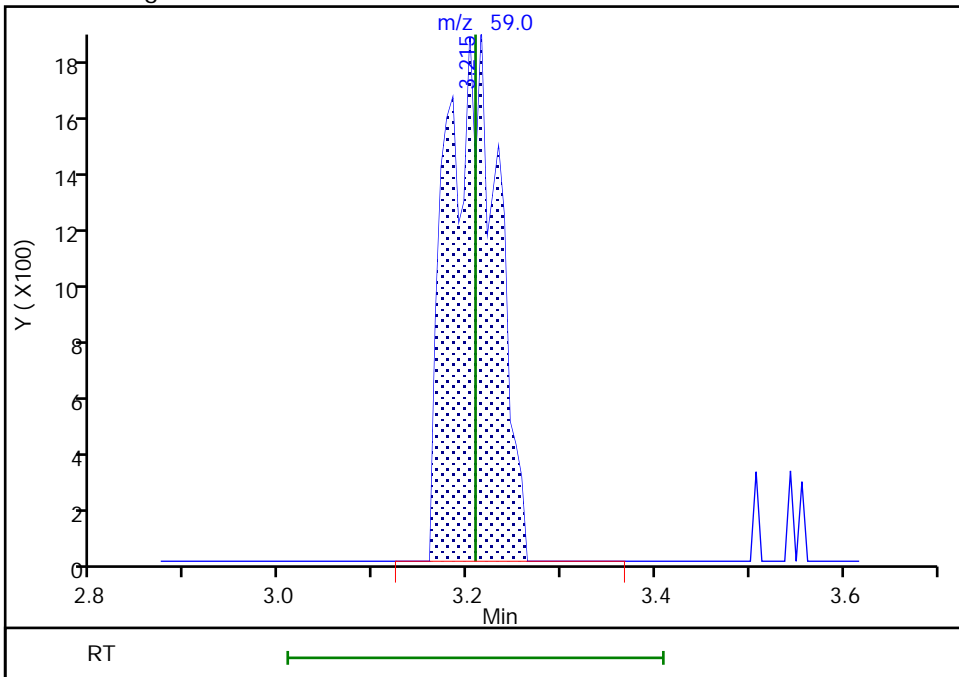
RT: 3.20
Area: 2003
Amount: 0.094450
Amount Units: ug/l

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

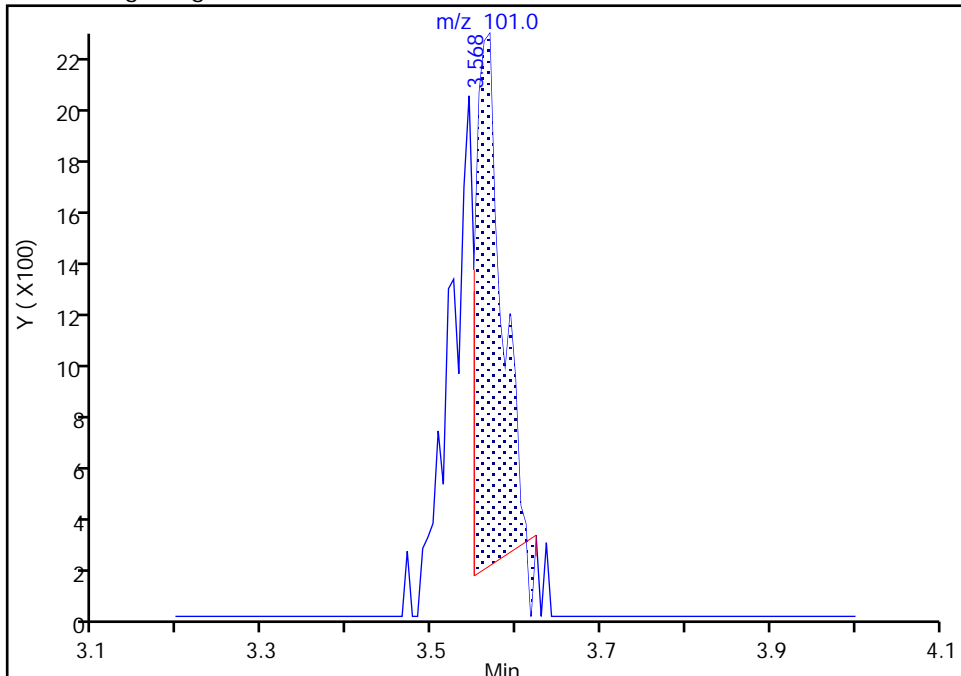
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Injection Date: 11-Jun-2020 16:35:30 Instrument ID: 16334
Lims ID: IC std1
Client ID:
Operator ID: DVV10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

21 112TCTFE, CAS: 76-13-1

Signal: 1

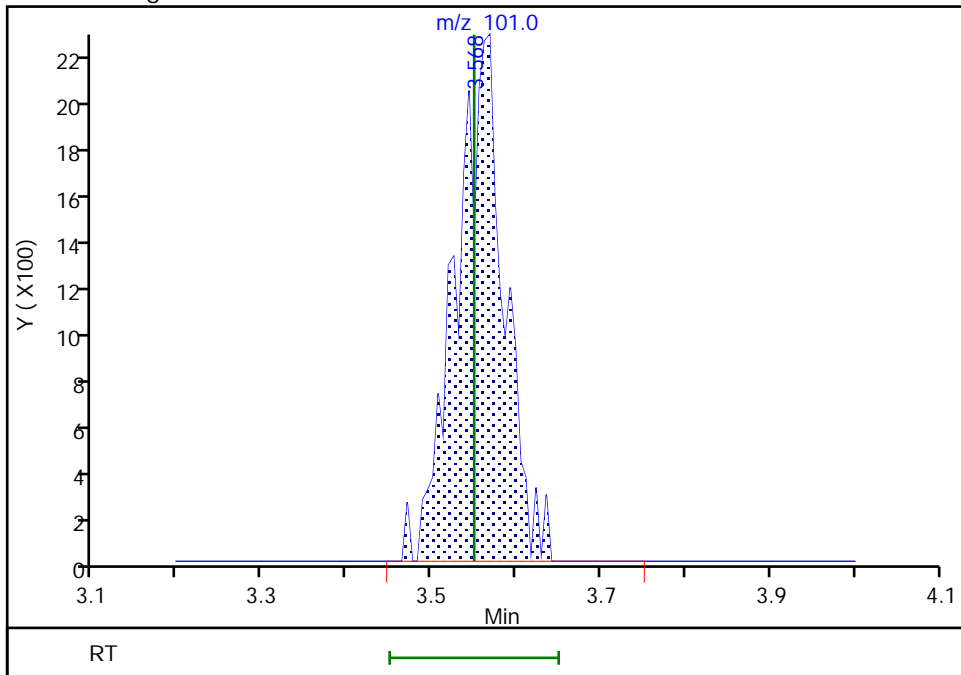
RT: 3.57
Area: 4271
Amount: 0.139953
Amount Units: ug/l

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

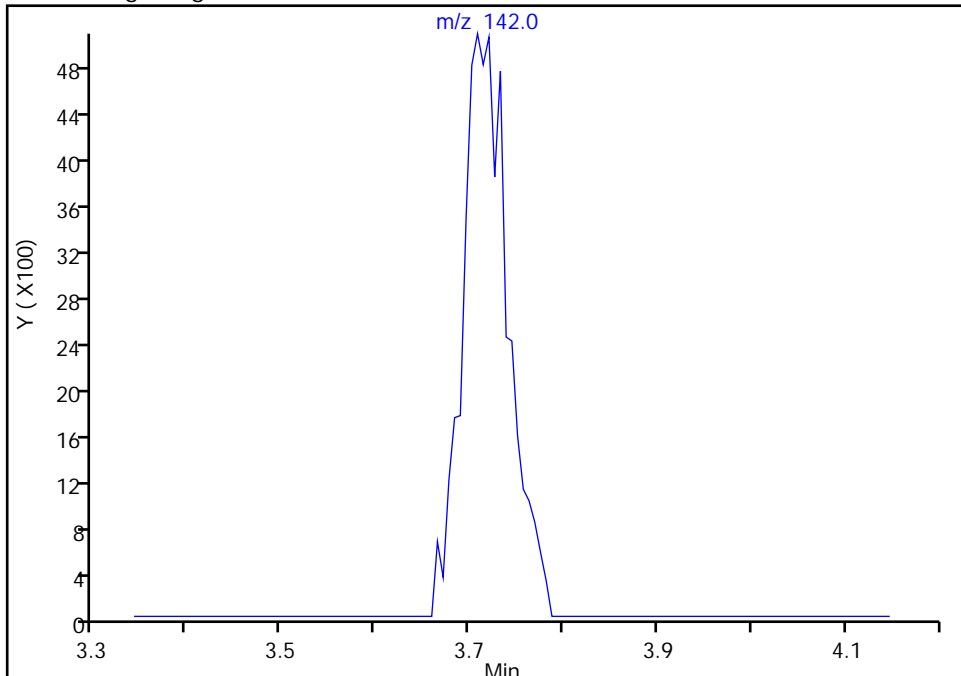
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Injection Date: 11-Jun-2020 16:35:30 Instrument ID: 16334
Lims ID: IC std1
Client ID:
Operator ID: DVV10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

22 Iodomethane, CAS: 74-88-4

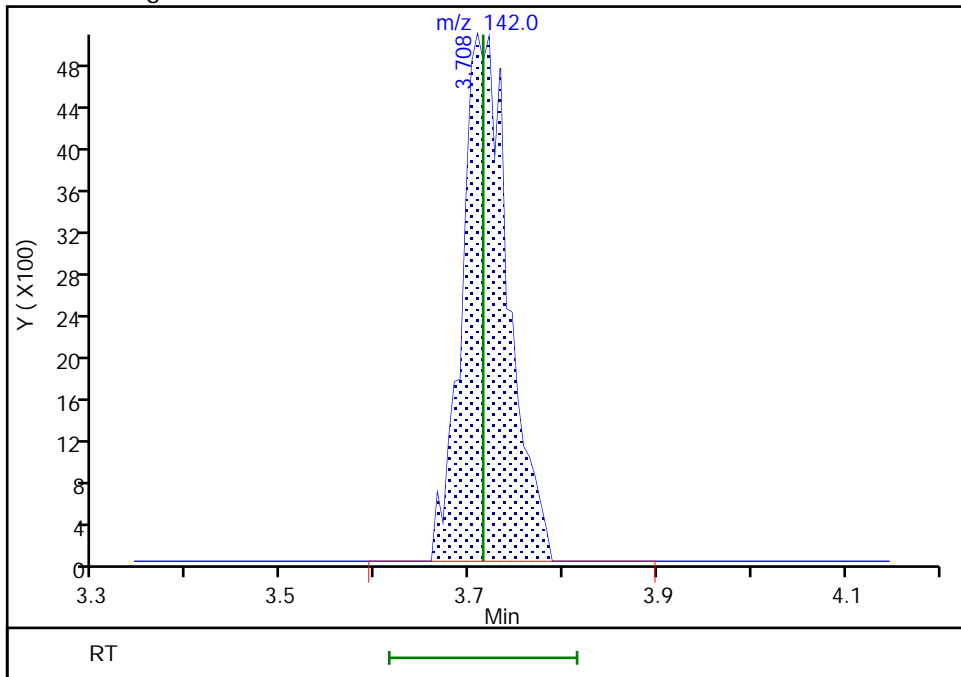
Signal: 1

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

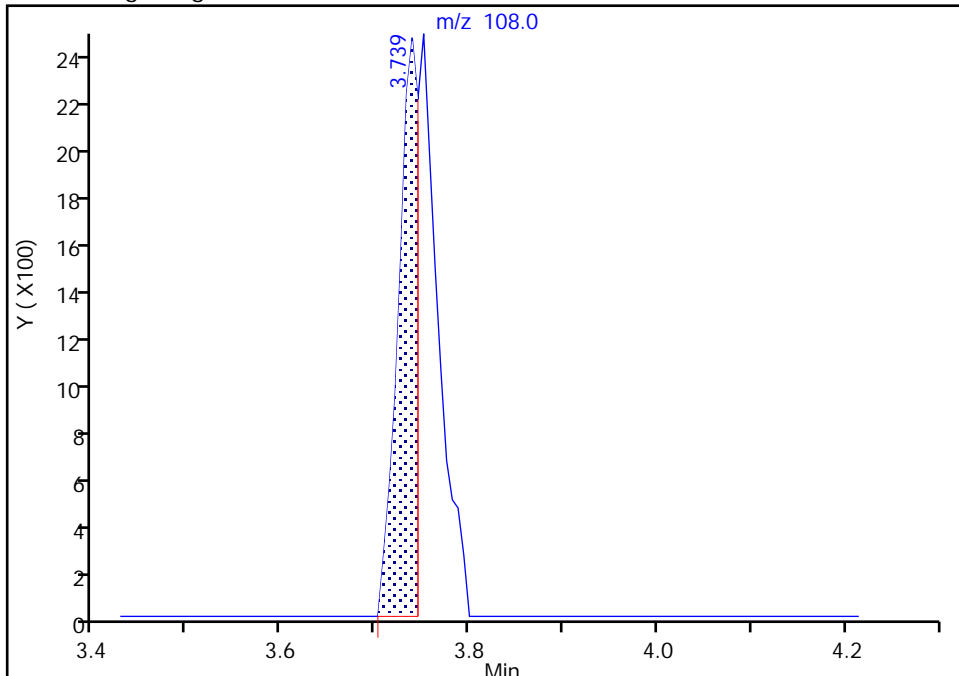
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Injection Date: 11-Jun-2020 16:35:30 Instrument ID: 16334
Lims ID: IC std1
Client ID:
Operator ID: DVV10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

24 Ethyl bromide, CAS: 74-96-4

Signal: 1

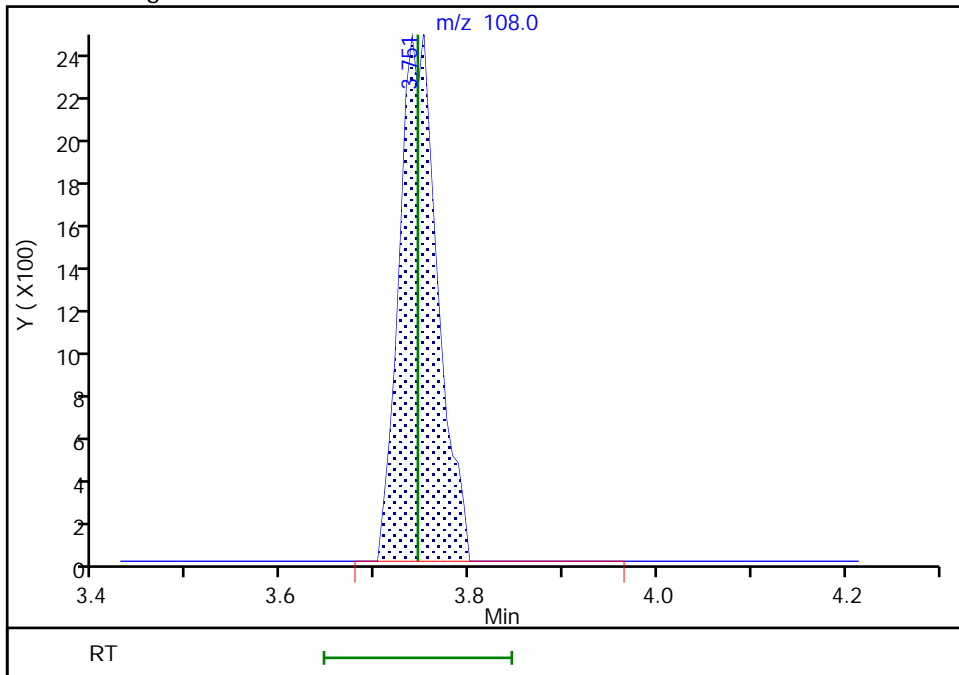
RT: 3.74
Area: 3712
Amount: 0.112321
Amount Units: ug/l

Processing Integration Results



RT: 3.75
Area: 6951
Amount: 0.196575
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 12-Jun-2020 14:03:11
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

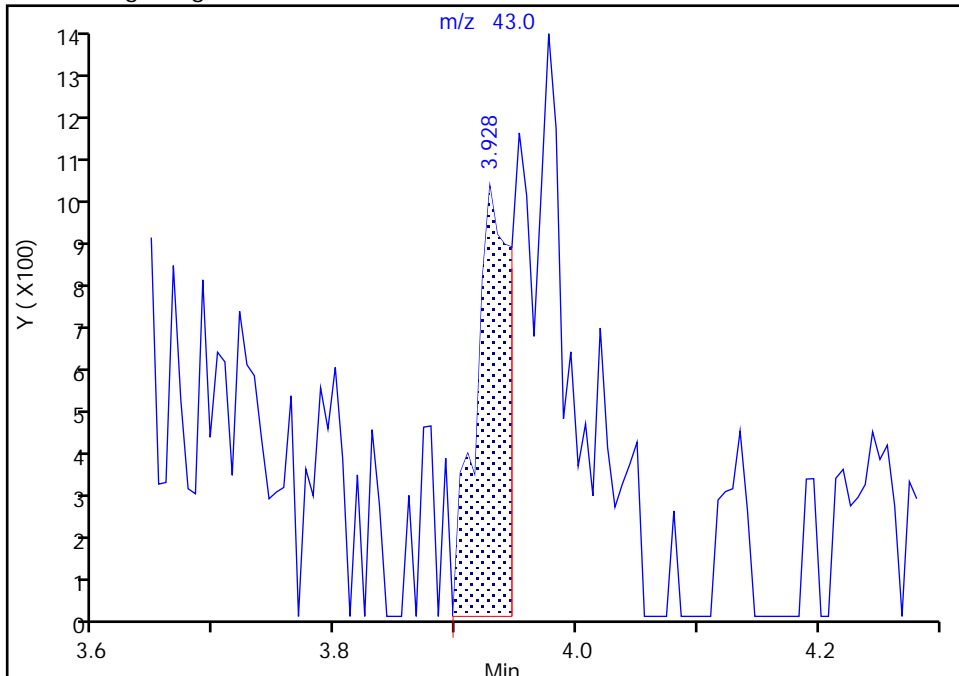
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Injection Date: 11-Jun-2020 16:35:30 Instrument ID: 16334
Lims ID: IC std1
Client ID:
Operator ID: DVV10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

26 Methyl acetate, CAS: 79-20-9

Signal: 1

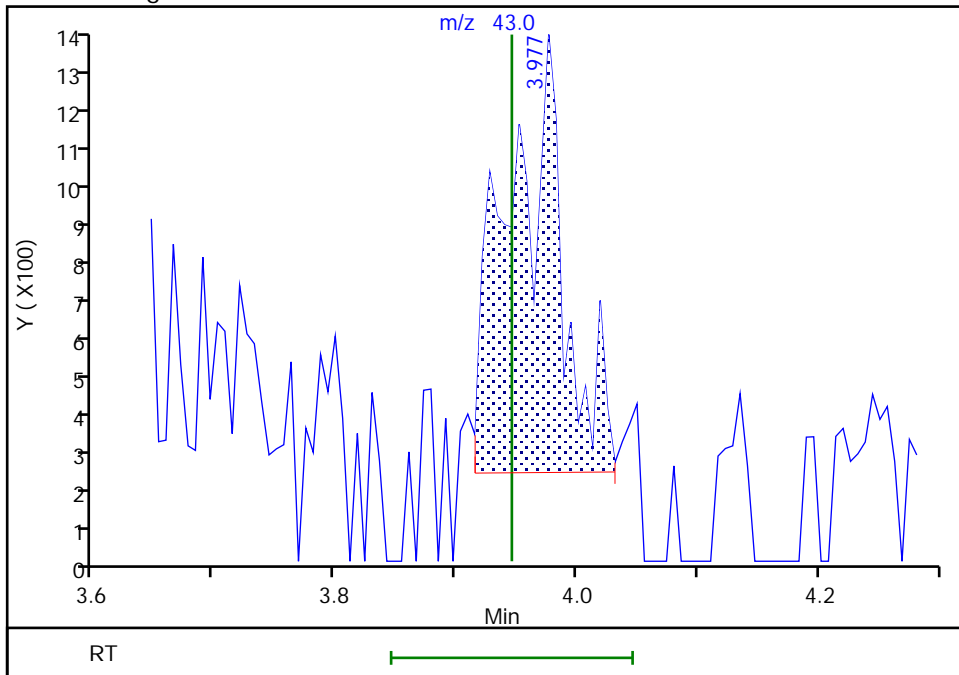
RT: 3.93
Area: 2042
Amount: 0.458044
Amount Units: ug/l

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

Eurofins Lancaster Laboratories Env, LLC

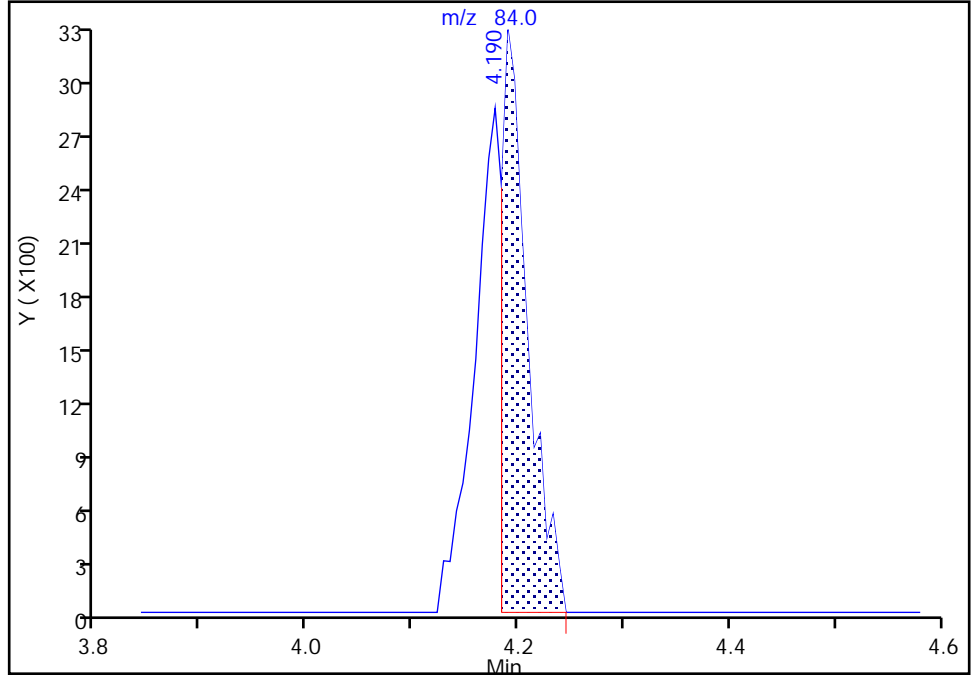
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Injection Date: 11-Jun-2020 16:35:30 Instrument ID: 16334
Lims ID: IC std1
Client ID:
Operator ID: DVV10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

28 Methylene Chloride, CAS: 75-09-2

Signal: 1

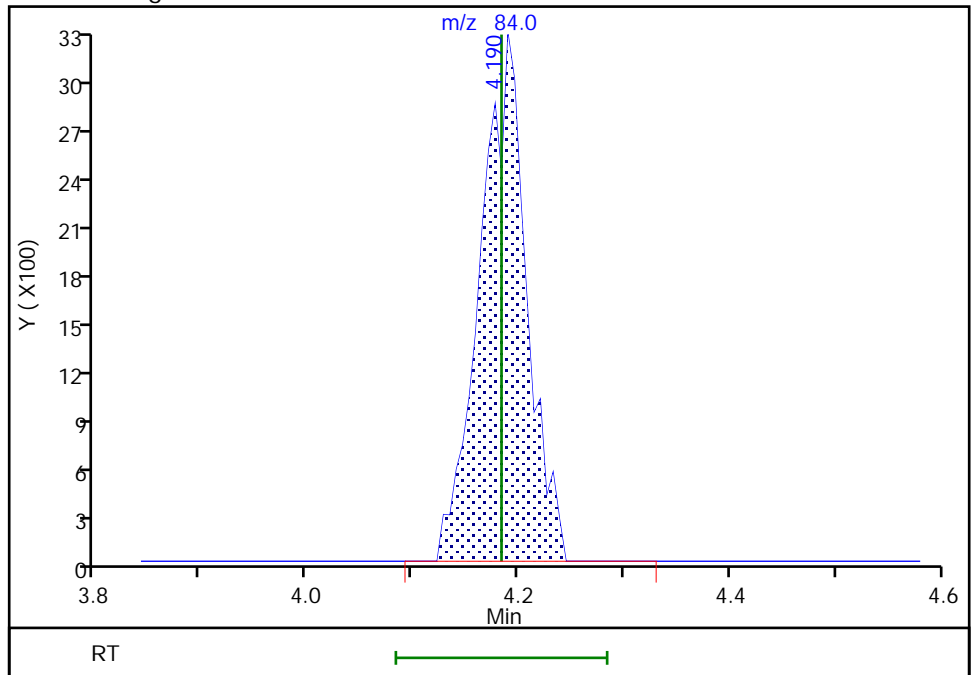
RT: 4.19
Area: 5663
Amount: 0.134063
Amount Units: ug/l

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

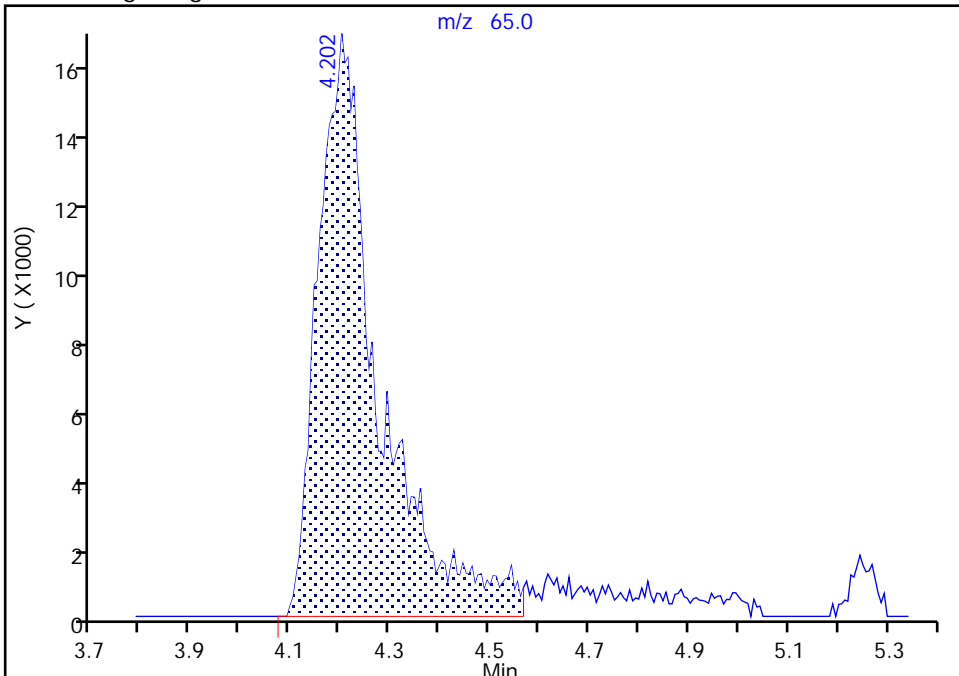
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11107.D
Injection Date: 11-Jun-2020 16:35:30 Instrument ID: 16334
Lims ID: IC std1
Client ID:
Operator ID: DVV10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 29 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

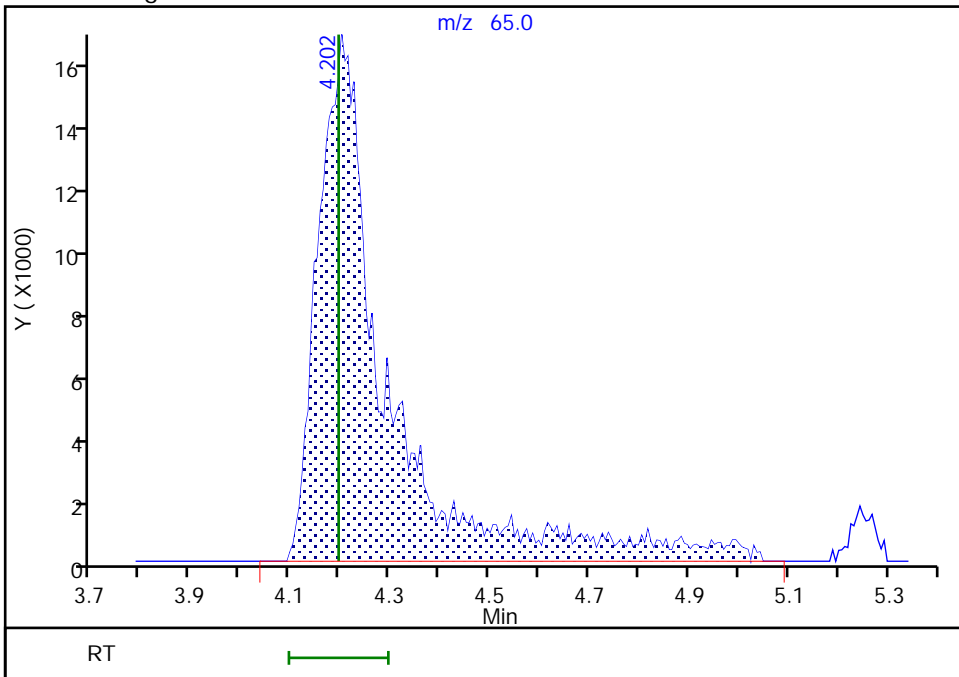
RT: 4.20
Area: 135062
Amount: 50.000000
Amount Units: ug/l

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

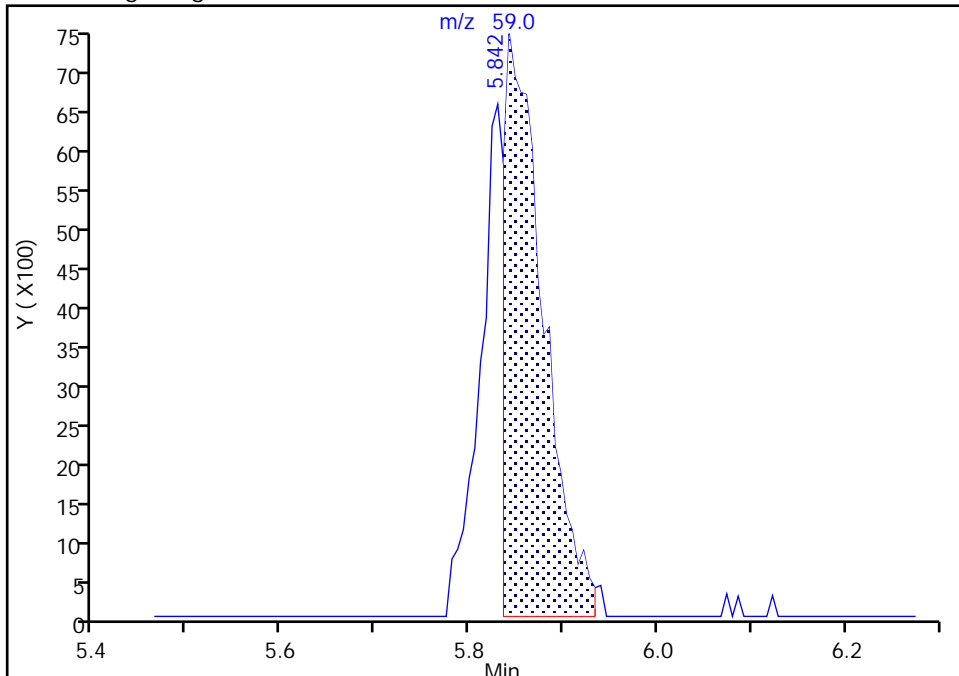
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Lims ID: IC std1
Client ID:
Operator ID: DVV10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

39 Tert-butyl ethyl ether, CAS: 637-92-3

Signal: 1

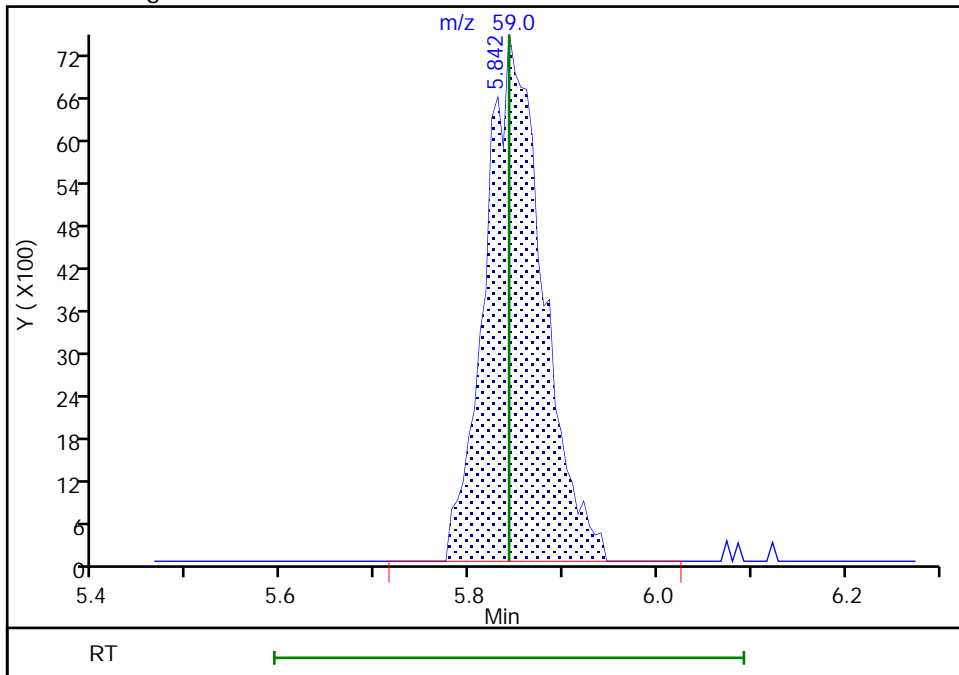
RT: 5.84
Area: 21869
Amount: 0.153582
Amount Units: ug/l

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

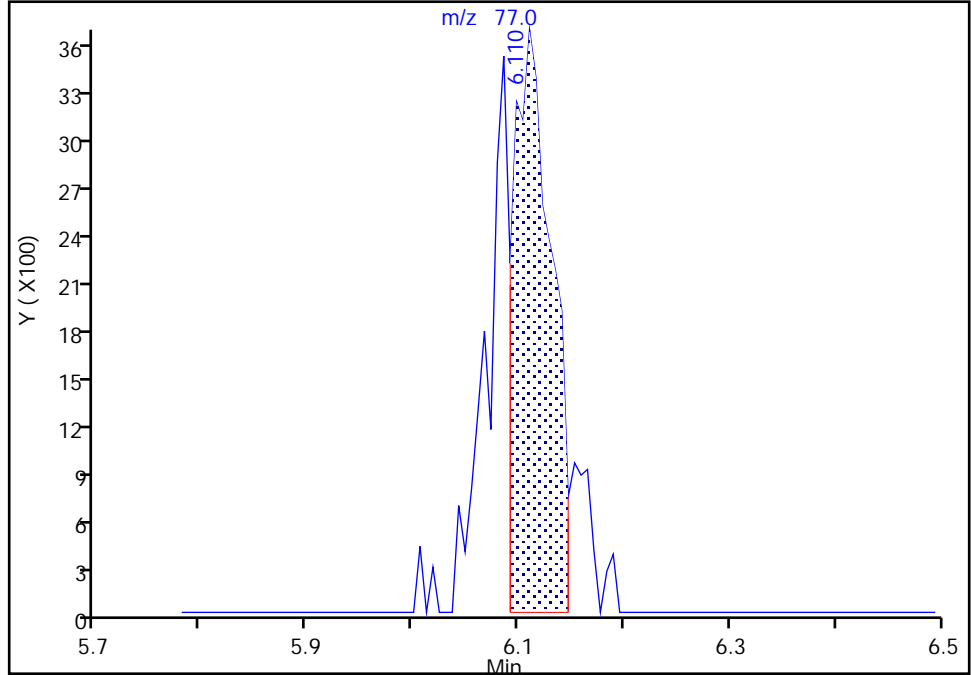
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Lims ID: IC std1
Client ID:
Operator ID: DVV10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

42 2,2-Dichloropropane, CAS: 594-20-7

Signal: 1

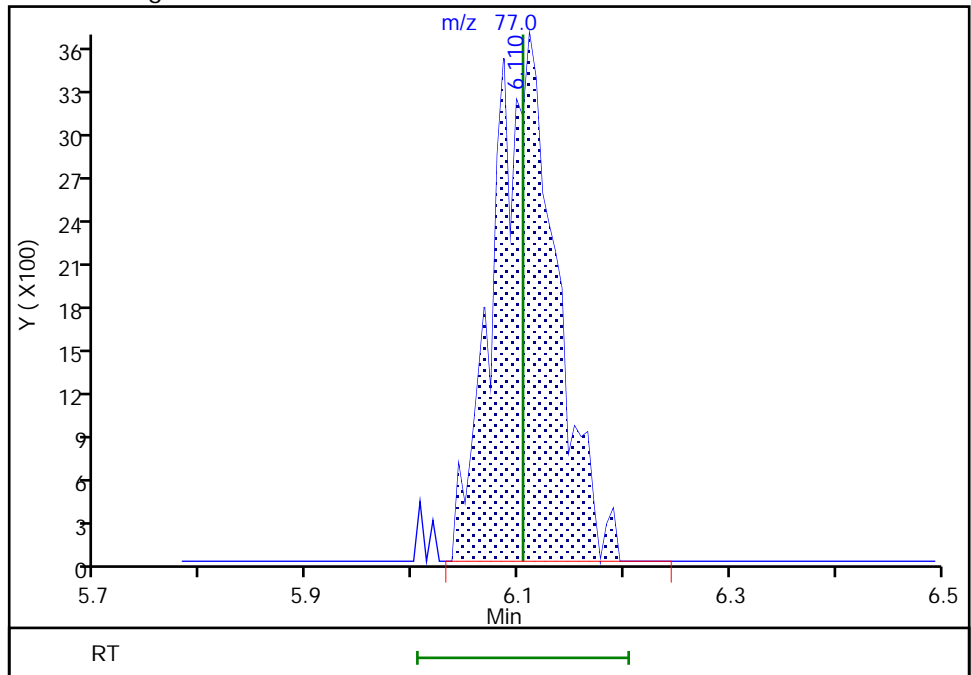
RT: 6.11
Area: 9280
Amount: 0.130236
Amount Units: ug/l

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

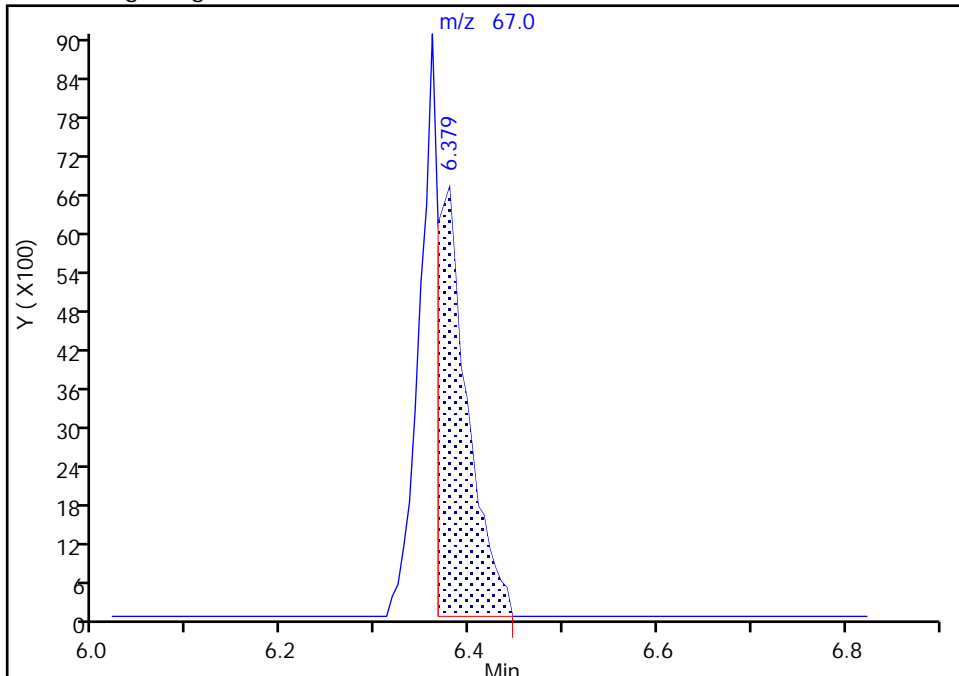
Data File:	\\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11107.D		
Injection Date:	11-Jun-2020 16:35:30	Instrument ID:	16334
Lims ID:	IC std1		
Client ID:			
Operator ID:	DVV10203	ALS Bottle#:	8
Purge Vol:	25.000 mL	Dil. Factor:	1.0000
Method:	MSV_16334_25mL	Limit Group:	MSV - 8260C_D
Column:	Rxi-624Sil MS Capillary Column (0.25mm ID)	Detector:	MS Quad

46 Methacrylonitrile, CAS: 126-98-7

Signal: 1

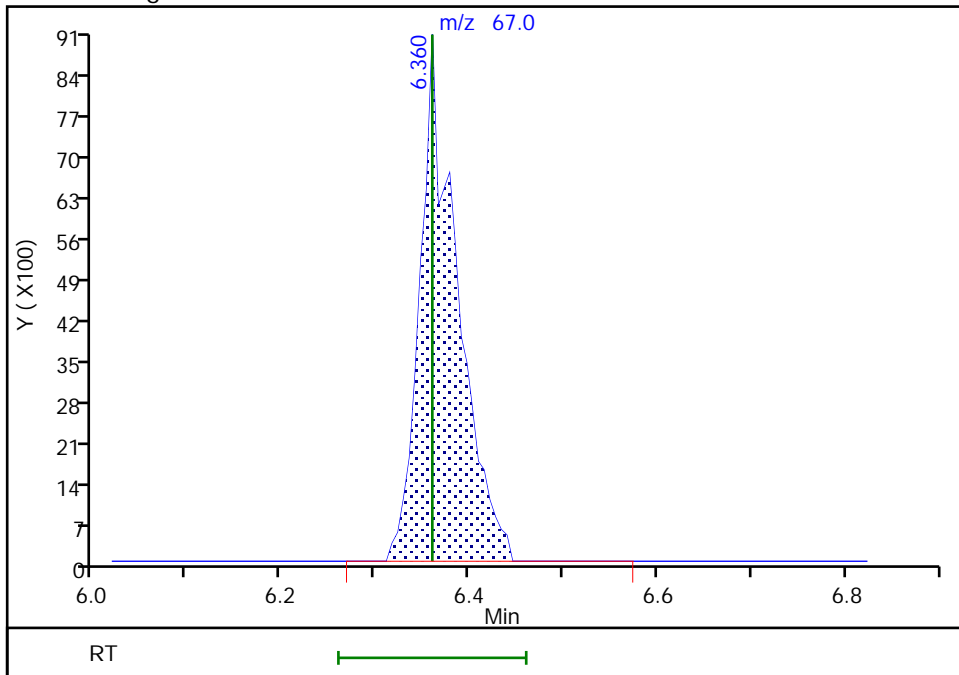
RT: 6.38
 Area: 14785
 Amount: 1.199784
 Amount Units: ug/l

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

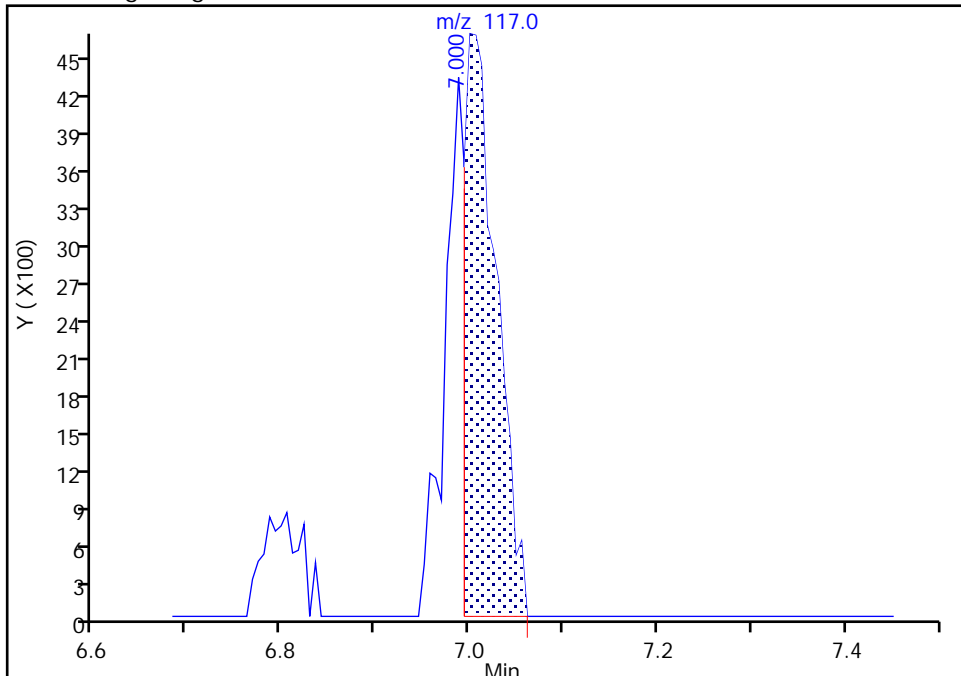
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11107.D
Injection Date: 11-Jun-2020 16:35:30 Instrument ID: 16334
Lims ID: IC std1
Client ID:
Operator ID: DVV10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

56 Carbon tetrachloride, CAS: 56-23-5

Signal: 1

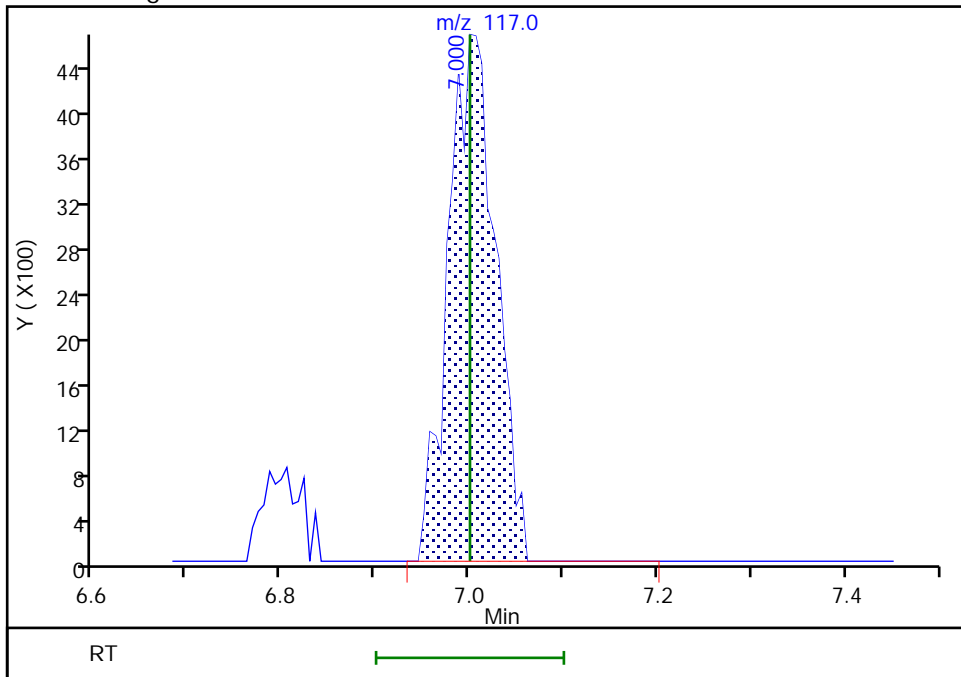
RT: 7.00
Area: 11090
Amount: 0.154451
Amount Units: ug/l

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

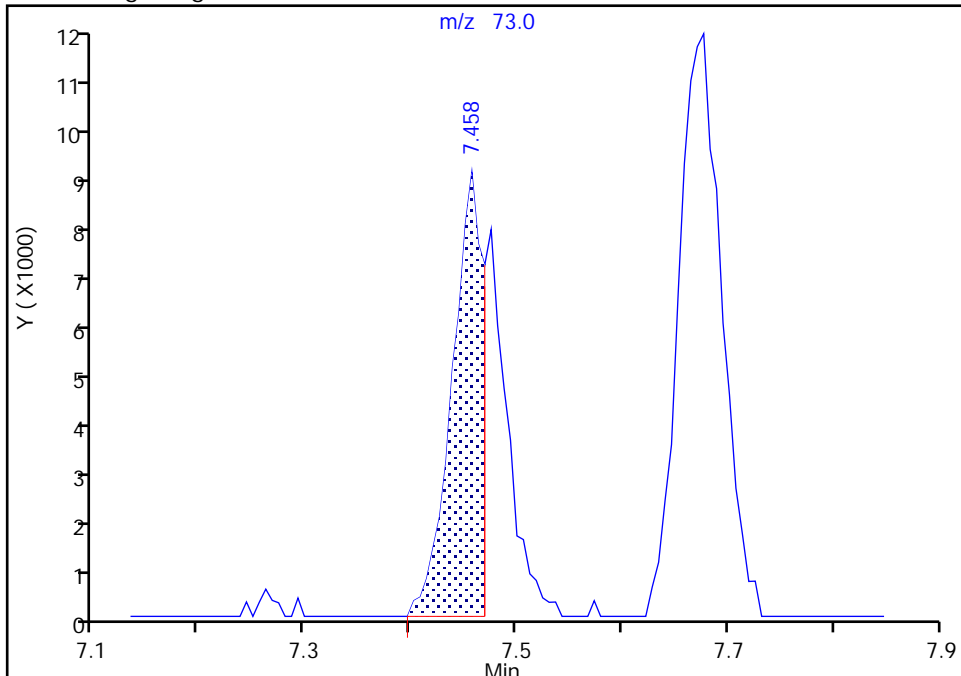
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Injection Date: 11-Jun-2020 16:35:30 Instrument ID: 16334
Lims ID: IC std1
Client ID:
Operator ID: DVV10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

62 Tert-amyl methyl ether, CAS: 994-05-8

Signal: 1

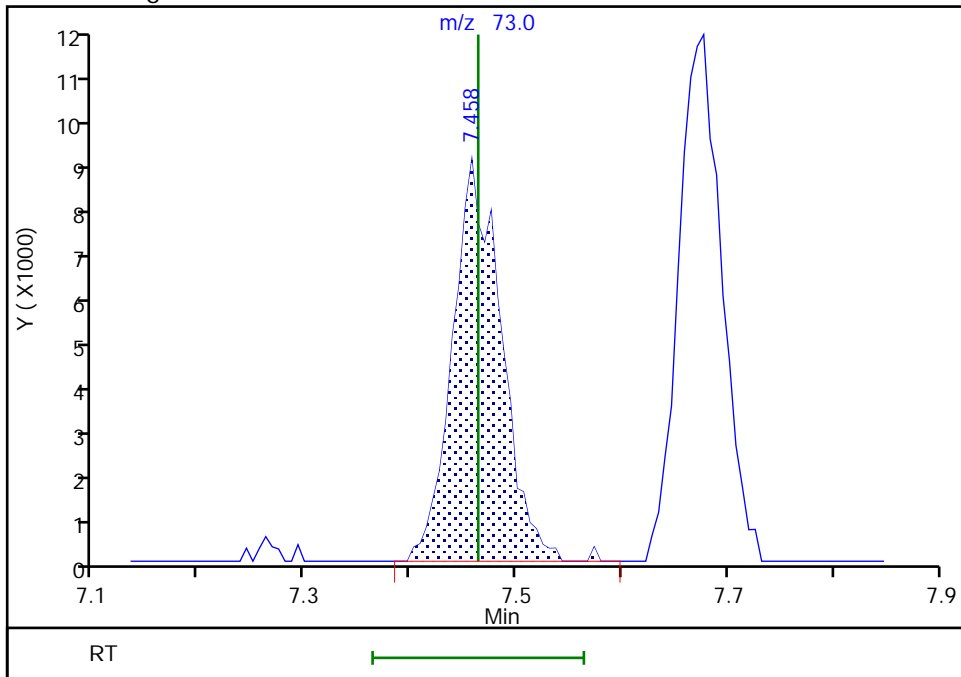
RT: 7.46
Area: 17544
Amount: 0.137754
Amount Units: ug/l

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

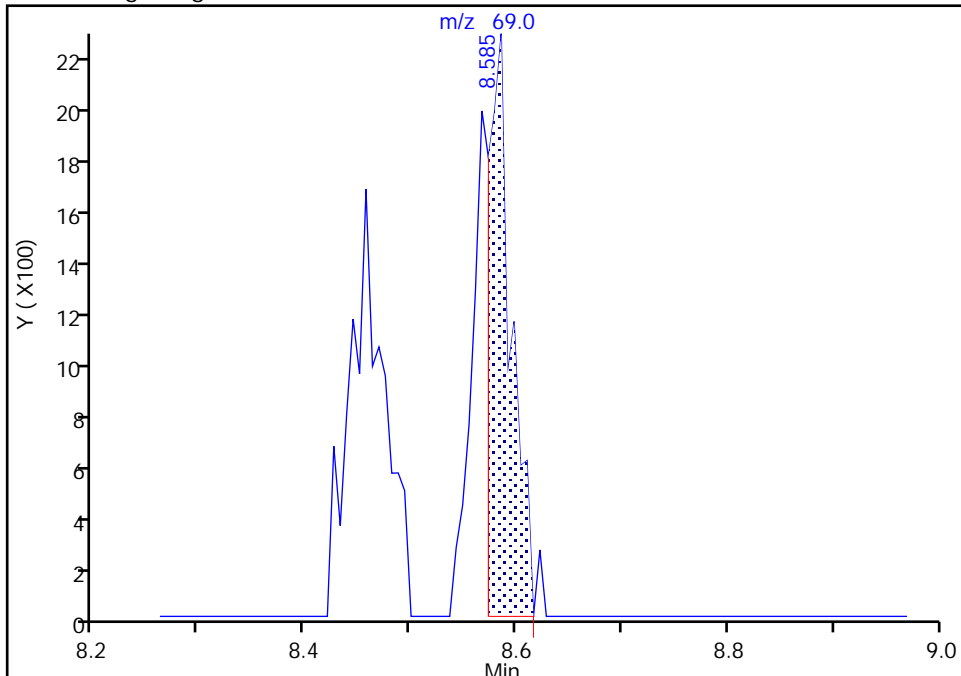
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Injection Date: 11-Jun-2020 16:35:30 Instrument ID: 16334
Lims ID: IC std1
Client ID:
Operator ID: DVV10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

71 Methyl methacrylate, CAS: 80-62-6

Signal: 1

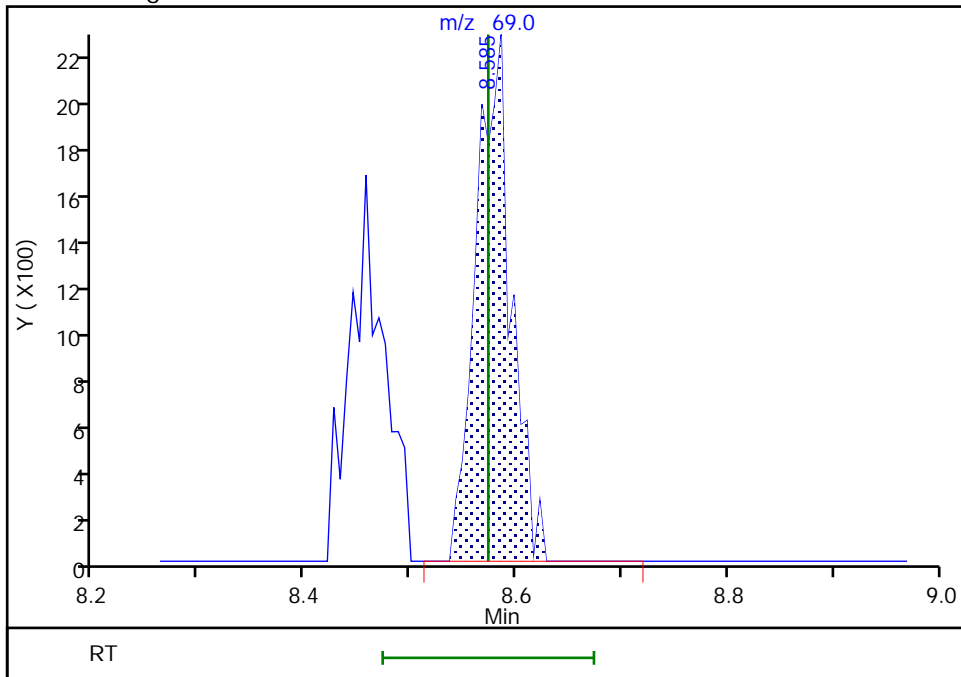
RT: 8.59
Area: 3432
Amount: 0.136712
Amount Units: ug/l

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

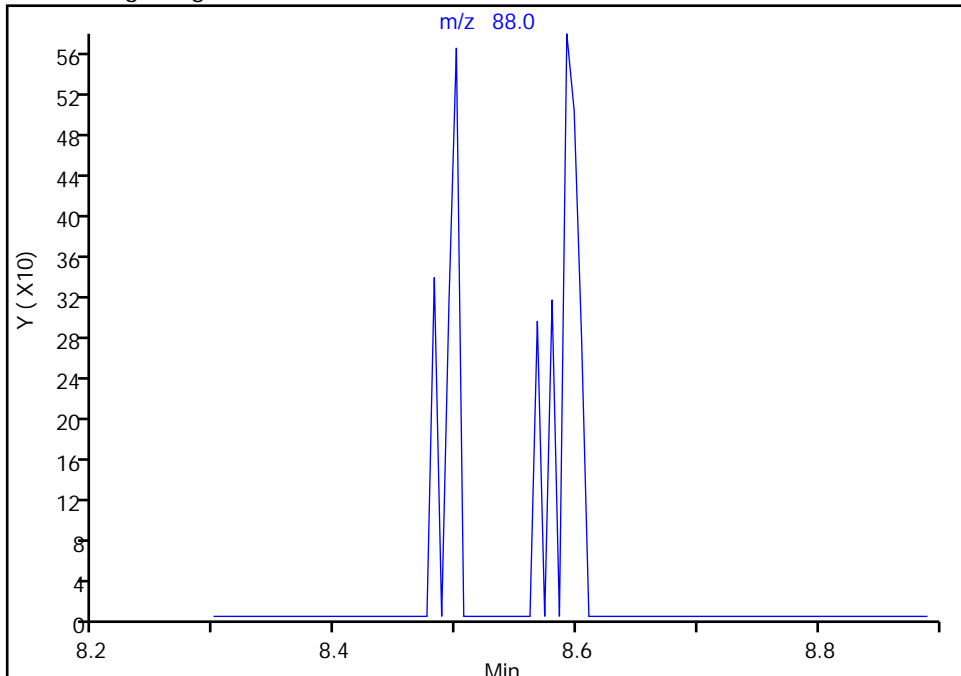
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Injection Date: 11-Jun-2020 16:35:30 Instrument ID: 16334
Lims ID: IC std1
Client ID:
Operator ID: DVV10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

72 1,4-Dioxane, CAS: 123-91-1

Signal: 1

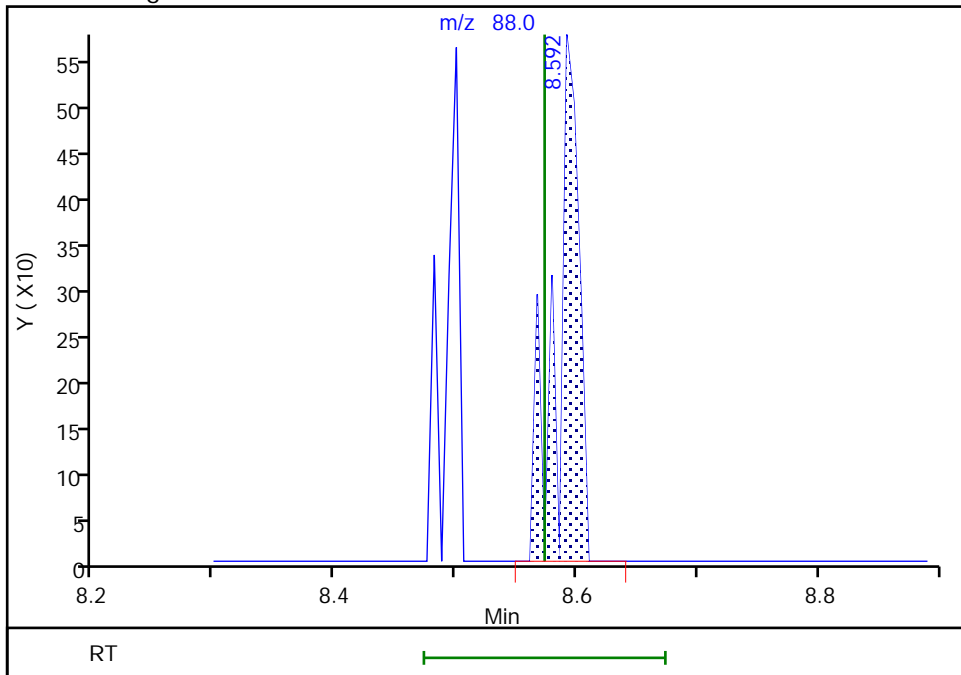
Not Detected
Expected RT: 8.57

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

Eurofins Lancaster Laboratories Env, LLC

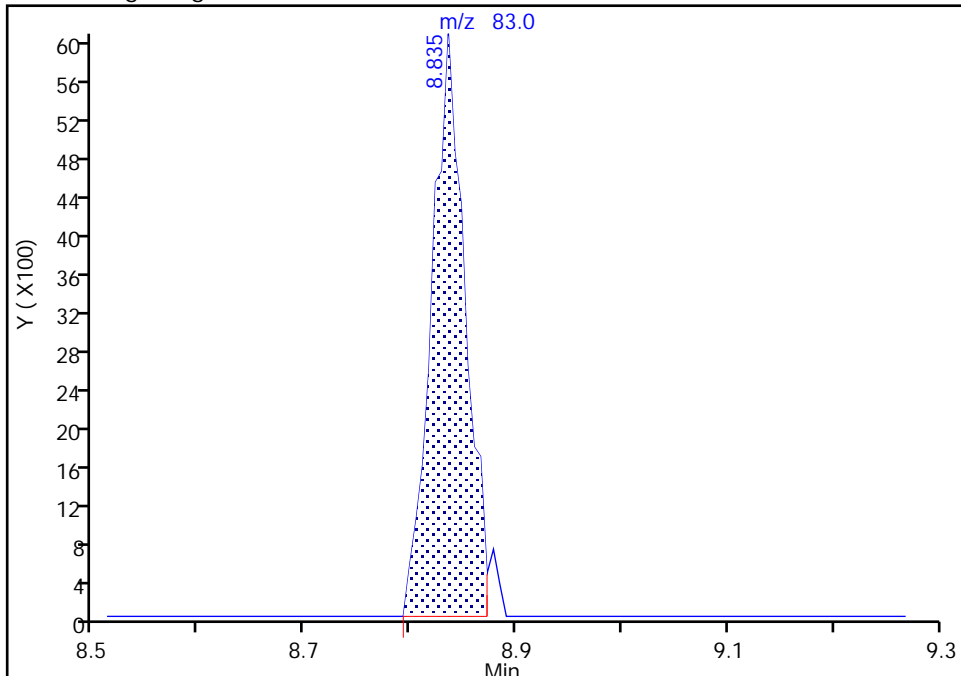
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11107.D
Injection Date: 11-Jun-2020 16:35:30 Instrument ID: 16334
Lims ID: IC std1
Client ID:
Operator ID: DVV10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

75 Dichlorobromomethane, CAS: 75-27-4

Signal: 1

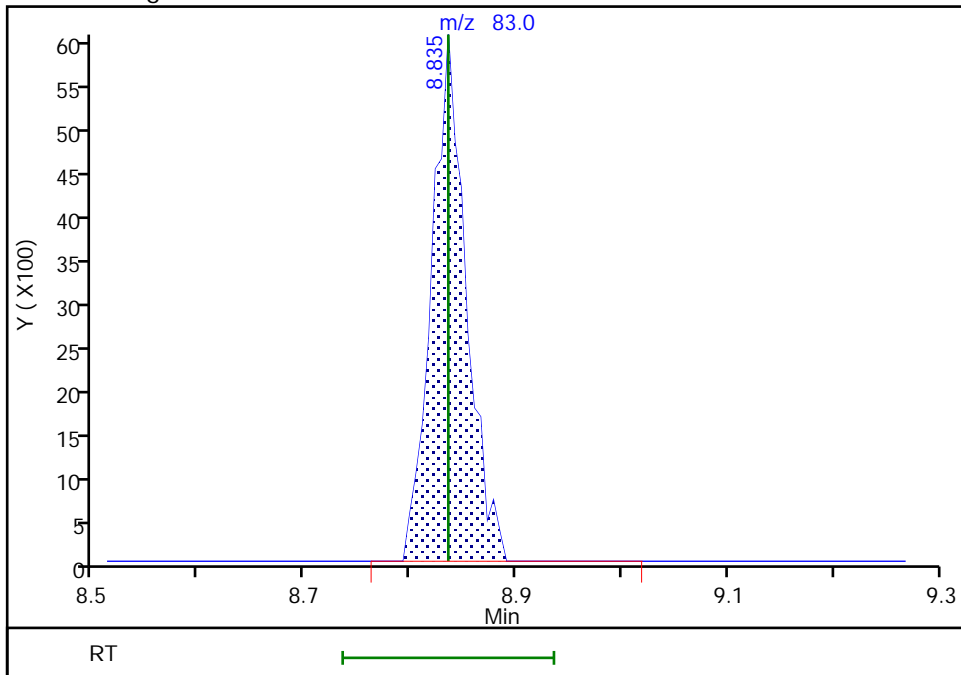
RT: 8.84
Area: 13311
Amount: 0.193985
Amount Units: ug/l

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

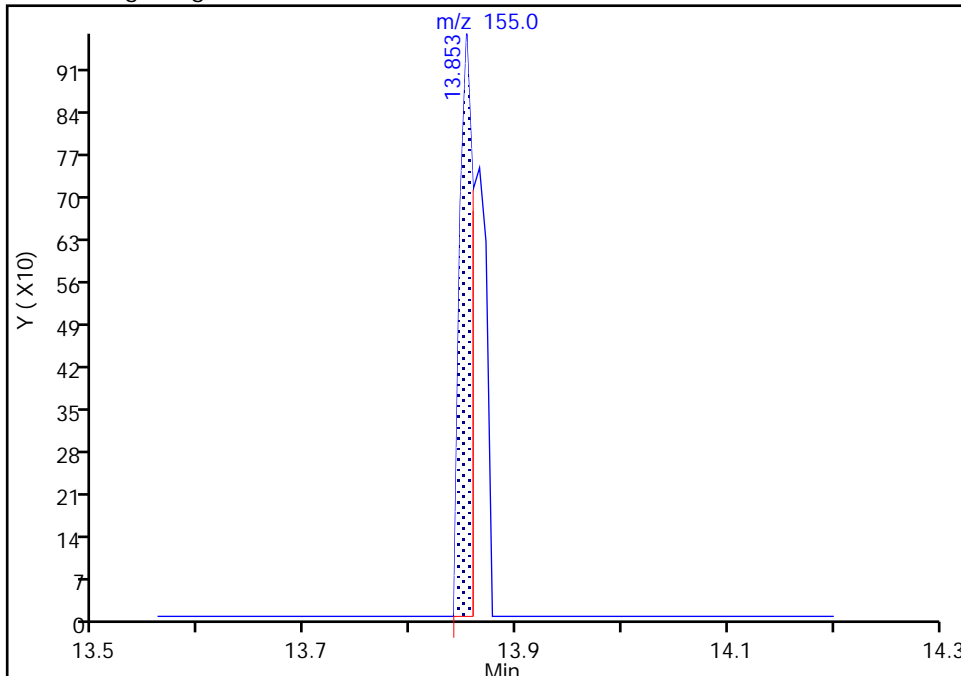
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Injection Date: 11-Jun-2020 16:35:30 Instrument ID: 16334
Lims ID: IC std1
Client ID:
Operator ID: DVV10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

134 1,2-Dibromo-3-Chloropropane, CAS: 96-12-8

Signal: 1

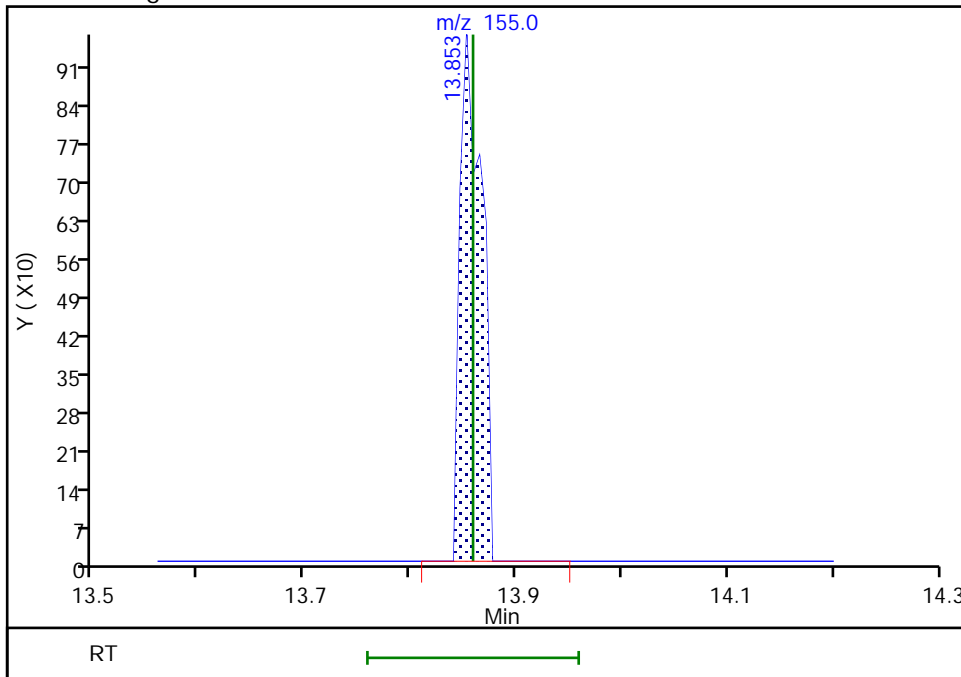
RT: 13.85
Area: 865
Amount: 0.128957
Amount Units: ug/l

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.: 410-19023-1

SDG No.: _____

Lab Sample ID: ICV 410-39724/10 Calibration Date: 09/01/2020 16:10

Instrument ID: 10193 Calib Start Date: 09/01/2020 13:35

GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 09/01/2020 15:48

Lab File ID: CS01V01.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	0.3227	0.2655	0.1000	4.11	5.00	-17.7	30.0
Chloromethane	Ave	0.3804	0.3562	0.1000	4.68	5.00	-6.4	30.0
1,3-Butadiene	Ave	0.3578	0.2620		3.66	5.00	-26.8	30.0
Vinyl chloride	Ave	0.3517	0.3461	0.1000	4.92	5.00	-1.6	30.0
Bromomethane	Ave	0.2482	0.2411	0.1000	4.86	5.00	-2.9	30.0
Chloroethane	Ave	0.2173	0.2006	0.1000	4.62	5.00	-7.7	30.0
Dichlorofluoromethane	Ave	0.4713	0.4600		4.88	5.00	-2.4	30.0
Trichlorofluoromethane	Ave	0.4575	0.4312	0.1000	4.71	5.00	-5.8	30.0
Ethyl ether	Ave	0.2318	0.2359		5.09	5.01	1.8	30.0
Freon 123a	Ave	0.3397	0.3020		4.45	5.00	-11.1	30.0
Acrolein	Ave	2.001	1.892		35.5	37.5	-5.4	30.0
1,1-Dichloroethene	Ave	0.2312	0.2117	0.1000	4.58	5.00	-8.4	30.0
Freon 113	Ave	0.2352	0.1884	0.1000	4.01	5.00	-19.9	30.0
Acetone	Ave	2.125	2.093	0.1000	36.9	37.5	-1.5	30.0
Methyl iodide	Ave	0.4567	0.3802		4.16	5.00	-16.8	30.0
Ethyl bromide	Ave	0.1920	0.1921		4.94	4.93	0.0	30.0
Carbon disulfide	Ave	0.8167	0.6841	0.1000	4.19	5.00	-16.2	30.0
Methyl acetate	Ave	8.350	6.856	0.1000	4.11	5.00	-17.9	30.0
Allyl chloride	Ave	0.4045	0.3946		4.88	5.00	-2.5	30.0
Methylene Chloride	Ave	0.2573	0.2481	0.1000	4.82	5.00	-3.6	30.0
t-Butyl alcohol	Ave	0.996	0.9520		47.8	50.0	-4.4	30.0
Acrylonitrile	Ave	3.375	3.260		24.1	25.0	-3.4	30.0
Methyl tert-butyl ether	Ave	0.7484	0.6818	0.1000	4.55	5.00	-8.9	30.0
trans-1,2-Dichloroethene	Ave	0.2703	0.2572	0.1000	4.76	5.00	-4.8	30.0
n-Hexane	Ave	0.3811	0.3137		4.12	5.00	-17.7	30.0
1,1-Dichloroethane	Ave	0.4975	0.4811	0.2000	4.84	5.00	-3.3	30.0
di-Isopropyl ether	Ave	0.9484	0.8957		4.72	5.00	-5.6	30.0
2-Chloro-1,3-butadiene	Ave	0.4688	0.4198		4.48	5.00	-10.5	30.0
Ethyl t-butyl ether	Ave	0.9061	0.8489		4.68	5.00	-6.3	30.0
2-Butanone (MEK)	Ave	4.984	4.790	0.1000	36.0	37.5	-3.9	30.0
cis-1,2-Dichloroethene	Ave	0.3064	0.3042	0.1000	4.96	5.00	-0.7	30.0
2,2-Dichloropropane	Ave	0.4293	0.4087		4.76	5.00	-4.8	30.0
Propionitrile	Ave	1.265	1.271		37.7	37.5	0.5	30.0
Methacrylonitrile	Ave	4.902	4.714		36.1	37.5	-3.8	30.0
Bromochloromethane	Ave	0.1349	0.1264		4.68	5.00	-6.3	30.0
Tetrahydrofuran	Ave	1.410	1.351		24.0	25.0	-4.2	30.0
Chloroform	Ave	0.4930	0.4756	0.2000	4.82	5.00	-3.5	30.0
1,1,1-Trichloroethane	Ave	0.4442	0.4159	0.1000	4.68	5.00	-6.4	30.0
Cyclohexane	Ave	0.4697	0.4135	0.1000	4.40	5.00	-12.0	30.0
Carbon tetrachloride	Ave	0.3722	0.3538	0.1000	4.75	5.00	-4.9	30.0
1,1-Dichloropropene	Ave	0.3988	0.3706		4.65	5.00	-7.1	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-19023-1

SDG No.: _____

Lab Sample ID: ICV 410-39724/10 Calibration Date: 09/01/2020 16:10

Instrument ID: 10193 Calib Start Date: 09/01/2020 13:35

GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 09/01/2020 15:48

Lab File ID: CS01V01.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	0.3229	0.2828		109	125	-12.4	30.0
Benzene	Ave	1.149	1.092	0.5000	4.75	5.00	-5.0	30.0
1,2-Dichloroethane	Ave	0.3462	0.3217	0.1000	4.65	5.00	-7.1	30.0
t-Amyl methyl ether	Ave	0.8253	0.7936		4.81	5.00	-3.8	30.0
n-Heptane	Ave	0.4242	0.3694		4.35	5.00	-12.9	30.0
n-Butanol	Ave	0.2676	0.2616		244	250	-2.2	30.0
Trichloroethene	Ave	0.2961	0.2842	0.2000	4.80	5.00	-4.0	30.0
Methylcyclohexane	Ave	0.4535	0.4365	0.1000	4.81	5.00	-3.7	30.0
1,2-Dichloropropane	Ave	0.2950	0.2906	0.1000	4.93	5.00	-1.5	30.0
Methyl methacrylate	Ave	10.45	10.05		4.81	5.00	-3.8	30.0
Dibromomethane	Ave	0.1443	0.1405		4.87	5.00	-2.6	30.0
1,4-Dioxane	Ave	0.0533	0.0559	0.0050	131	125	5.0	30.0
Bromodichloromethane	Ave	0.3561	0.3507	0.2000	4.92	5.00	-1.5	30.0
2-Nitropropane	Ave	3.241	2.885		4.45	5.00	-11.0	30.0
1-Bromo-2-chloroethane	Ave	0.3051	0.3043		4.99	5.00	-0.2	30.0
cis-1,3-Dichloropropene	Ave	0.4426	0.4313	0.2000	4.87	5.00	-2.5	30.0
4-Methyl-2-pentanone (MIBK)	Ave	14.48	13.77	0.1000	23.8	25.0	-4.9	30.0
Toluene	Ave	0.9823	0.9494	0.4000	4.83	5.00	-3.4	30.0
trans-1,3-Dichloropropene	Ave	0.4919	0.4842	0.1000	4.92	5.00	-1.6	30.0
Ethyl methacrylate	Ave	0.4151	0.4260		5.13	5.00	2.6	30.0
1,1,2-Trichloroethane	Ave	0.2713	0.2787	0.1000	5.14	5.00	2.7	30.0
Tetrachloroethene	Ave	0.4389	0.4223	0.2000	4.81	5.00	-3.8	30.0
1,3-Dichloropropane	Ave	0.4783	0.4650		4.86	5.00	-2.8	30.0
2-Hexanone	Ave	10.23	10.23	0.1000	25.0	25.0	-0.0	30.0
Dibromochloromethane	Ave	0.3148	0.3277		5.21	5.00	4.1	30.0
1,2-Dibromoethane (EDB)	Ave	0.2679	0.2650	0.1000	4.95	5.00	-1.1	30.0
1-Chlorohexane	Ave	0.5609	0.5151		4.59	5.00	-8.2	30.0
Chlorobenzene	Ave	1.109	1.087	0.5000	4.90	5.00	-2.0	30.0
1,1,1,2-Tetrachloroethane	Ave	0.3774	0.3730		4.94	5.00	-1.2	30.0
Ethylbenzene	Ave	1.947	1.889	0.1000	4.85	5.00	-3.0	30.0
m&p-Xylene	Ave	0.7608	0.7544	0.1000	9.92	10.0	-0.8	30.0
o-Xylene	Ave	0.7453	0.7426	0.3000	4.98	5.00	-0.4	30.0
Styrene	Ave	1.251	1.265	0.3000	5.06	5.00	1.2	30.0
Bromoform	Ave	0.1748	0.1830	0.1000	5.23	5.00	4.7	30.0
Isopropylbenzene	Ave	1.971	1.961	0.1000	4.97	5.00	-0.6	30.0
1,1,2,2-Tetrachloroethane	Ave	0.6245	0.6168	0.3000	4.94	5.00	-1.2	30.0
Bromobenzene	Ave	0.8574	0.8335		4.86	5.00	-2.8	30.0
trans-1,4-Dichloro-2-butene	Ave	0.1729	0.1773		25.6	25.0	2.5	30.0
1,2,3-Trichloropropane	Ave	0.1700	0.1678		4.94	5.00	-1.3	30.0
N-Propylbenzene	Ave	4.026	4.008		4.98	5.00	-0.5	30.0
2-Chlorotoluene	Ave	0.8233	0.8004		4.86	5.00	-2.8	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-19023-1
 SDG No.: _____
 Lab Sample ID: ICV 410-39724/10 Calibration Date: 09/01/2020 16:10
 Instrument ID: 10193 Calib Start Date: 09/01/2020 13:35
 GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 09/01/2020 15:48
 Lab File ID: CS01V01.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	2.982	2.928		4.91	5.00	-1.8	30.0
4-Chlorotoluene	Ave	0.8558	0.8396		4.91	5.00	-1.9	30.0
tert-Butylbenzene	Ave	0.6485	0.6174		4.76	5.00	-4.8	30.0
Pentachloroethane	Ave	0.4842	0.4885		5.04	5.00	0.9	30.0
1,2,4-Trimethylbenzene	Ave	3.060	2.989		4.88	5.00	-2.3	30.0
sec-Butylbenzene	Ave	3.843	3.781		4.92	5.00	-1.6	30.0
1,3-Dichlorobenzene	Ave	1.713	1.693	0.6000	4.94	5.00	-1.1	30.0
p-Isopropyltoluene	Ave	3.351	3.368		5.03	5.00	0.5	30.0
1,4-Dichlorobenzene	Ave	1.763	1.744	0.5000	4.95	5.00	-1.1	30.0
1,2,3-Trimethylbenzene	Ave	1.343	1.414		5.26	5.00	5.3	30.0
Benzyl chloride	Ave	0.2484	0.2561		5.16	5.00	3.1	30.0
n-Butylbenzene	Ave	1.698	1.693		4.99	5.00	-0.3	30.0
1,2-Dichlorobenzene	Ave	1.616	1.619	0.4000	5.01	5.00	0.2	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.0856	0.0908	0.0500	5.30	5.00	6.0	30.0
1,3,5-Trichlorobenzene	Ave	1.397	1.368		4.89	5.00	-2.1	30.0
1,2,4-Trichlorobenzene	Ave	1.254	1.256	0.2000	5.01	5.00	0.2	30.0
Hexachlorobutadiene	Ave	0.6122	0.6020		4.92	5.00	-1.7	30.0
Naphthalene	Ave	2.236	2.184		4.88	5.00	-2.4	30.0
1,2,3-Trichlorobenzene	Ave	1.110	1.084		4.88	5.00	-2.4	30.0
Dibromofluoromethane (Surr)	Ave	0.2376	0.2368		9.97	10.0	-0.3	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0484	0.0489		10.1	10.0	1.0	30.0
Toluene-d8 (Surr)	Ave	1.306	1.306		10.0	10.0	0.0	30.0
4-Bromofluorobenzene (Surr)	Ave	0.4909	0.4964		10.1	10.0	1.1	30.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\CS01V01.D
 Lims ID: ICV
 Client ID:
 Sample Type: ICV
 Inject. Date: 01-Sep-2020 16:10:30 ALS Bottle#: 9 Worklist Smp#: 10
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: ICV
 Misc. Info.: 410-0009503-010
 Operator ID: dvv10203 Instrument ID: 10193
 Sublist:
 Method: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\MSV_10193_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 01-Sep-2020 20:14:46 Calib Date: 01-Sep-2020 19:09:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\CS01I17.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1048

First Level Reviewer: campbellme

Date: 01-Sep-2020 17:33:29

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	1.916	1.910	0.006	99	264279	5.00	4.11	M
3 Chloromethane	50	2.105	2.099	0.006	99	354625	5.00	4.68	
4 Butadiene	39	2.209	2.209	0.000	94	260871	5.00	3.66	M
5 Vinyl chloride	62	2.215	2.215	0.000	98	344571	5.00	4.92	
6 Bromomethane	94	2.520	2.520	0.000	91	240018	5.00	4.86	
7 Chloroethane	64	2.605	2.605	0.000	99	199689	5.00	4.62	
8 Dichlorofluoromethane	67	2.837	2.837	0.000	97	457908	5.00	4.88	
9 Trichlorofluoromethane	101	2.897	2.898	-0.001	99	429242	5.00	4.71	
11 Ethyl ether	59	3.135	3.135	0.000	92	235125	5.01	5.09	
12 1,2-Dichloro-1,1,2-trifluoroethane	67	3.221	3.208	0.013	92	300678	5.00	4.45	
13 Acrolein	56	3.306	3.306	0.000	98	210460	37.5	35.5	
14 1,1-Dichloroethene	96	3.434	3.428	0.006	96	210789	5.00	4.58	
15 112TCTFE	101	3.464	3.464	0.000	92	187589	5.00	4.01	M
16 Acetone	43	3.471	3.471	0.000	99	232764	37.5	36.9	
17 Iodomethane	142	3.623	3.617	0.006	99	378488	5.00	4.16	
19 Ethyl bromide	108	3.647	3.641	0.006	99	188731	4.93	4.94	
18 Isopropyl alcohol	45	3.629	3.647	-0.018	72	39562	37.5	36.3	
20 Carbon disulfide	76	3.714	3.708	0.006	100	681004	5.00	4.19	
22 Methyl acetate	43	3.867	3.867	0.000	98	101664	5.00	4.11	
23 3-Chloro-1-propene	41	3.885	3.891	-0.006	88	392813	5.00	4.88	
24 Methylene Chloride	84	4.074	4.074	0.000	95	247001	5.00	4.82	
* 25 t-Butyl alcohol-d10 (IS)	65	4.111	4.117	-0.006	98	148288	50.0	50.0	M
26 2-Methyl-2-propanol	59	4.227	4.227	0.000	97	141172	50.0	47.8	
27 Acrylonitrile	53	4.409	4.409	0.000	99	241713	25.0	24.1	
28 Methyl tert-butyl ether	73	4.464	4.464	0.000	97	678723	5.00	4.55	
29 trans-1,2-Dichloroethene	96	4.470	4.470	0.000	98	256056	5.00	4.76	
30 Hexane	57	4.897	4.897	0.000	95	312253	5.00	4.12	
32 1,1-Dichloroethane	63	5.135	5.135	0.000	96	478958	5.00	4.84	
33 Isopropyl ether	45	5.196	5.196	0.000	93	891675	5.00	4.72	
34 2-Chloro-1,3-butadiene	53	5.245	5.251	-0.006	93	417876	5.00	4.48	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 Tert-butyl ethyl ether	59	5.732	5.732	0.000	97	845060	5.00	4.68	
36 2-Butanone (MEK)	43	5.946	5.946	0.000	100	532750	37.5	36.0	
37 cis-1,2-Dichloroethene	96	5.976	5.970	0.006	84	302828	5.00	4.96	
38 2,2-Dichloropropane	77	5.988	5.988	0.000	71	406838	5.00	4.76	
40 Propionitrile	54	6.049	6.049	0.000	97	141387	37.5	37.7	M
43 Methacrylonitrile	67	6.250	6.251	0.000	94	524313	37.5	36.1	
44 Chlorobromomethane	128	6.311	6.305	0.006	94	125796	5.00	4.68	
45 Tetrahydrofuran	71	6.311	6.305	0.006	91	100170	25.0	24.0	
46 Chloroform	83	6.464	6.464	0.000	94	473508	5.00	4.82	
\$ 47 Dibromofluoromethane (Surr)	113	6.683	6.683	0.000	93	471541	10.0	9.97	
48 1,1,1-Trichloroethane	97	6.683	6.683	0.000	99	414044	5.00	4.68	
49 Cyclohexane	56	6.769	6.775	-0.006	93	411644	5.00	4.40	
50 Carbon tetrachloride	117	6.891	6.891	0.000	95	352249	5.00	4.75	
51 1,1-Dichloropropene	75	6.897	6.897	0.000	94	368901	5.00	4.65	
52 Isobutyl alcohol	41	7.080	7.086	-0.006	94	104834	125.0	109.5	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.134	7.134	0.000	0	97321	10.0	10.1	
54 Benzene	78	7.159	7.159	0.000	97	1086680	5.00	4.75	
55 1,2-Dichloroethane	62	7.238	7.238	0.000	97	320287	5.00	4.65	
56 Tert-amyl methyl ether	73	7.354	7.360	-0.006	98	790095	5.00	4.81	
* 57 Fluorobenzene (IS)	96	7.573	7.567	0.006	98	1991070	10.0	10.0	
58 n-Heptane	43	7.580	7.580	0.000	93	367740	5.00	4.35	
59 n-Butanol	56	7.976	7.976	0.000	91	193947	250.0	244.4	M
60 Trichloroethene	95	8.049	8.049	0.000	97	282972	5.00	4.80	
61 Methylcyclohexane	83	8.354	8.354	0.000	92	434594	5.00	4.81	
62 1,2-Dichloropropane	63	8.390	8.390	0.000	93	289309	5.00	4.93	
63 2-ethoxy-2-methyl butane	87	8.396	8.396	0.000	91	450498	5.00	4.93	
64 Methyl methacrylate	69	8.482	8.482	0.000	92	149094	5.00	4.81	
66 Dibromomethane	93	8.500	8.494	0.006	96	139880	5.00	4.87	
65 1,4-Dioxane	88	8.506	8.506	0.000	29	20737	125.0	131.2	M
67 Dichlorobromomethane	83	8.738	8.738	0.000	99	349091	5.00	4.92	
68 2-Nitropropane	41	9.024	9.024	0.000	98	42778	5.00	4.45	
69 2-Chloroethyl vinyl ether	63		9.116				ND	ND	
71 1-Bromo-2-chloroethane	63	9.134	9.134	0.000	99	302961	5.00	4.99	
72 cis-1,3-Dichloropropene	75	9.299	9.299	0.000	93	429373	5.00	4.87	
73 4-Methyl-2-pentanone (MIBK)	43	9.488	9.488	0.000	98	1020805	25.0	23.8	
\$ 74 Toluene-d8 (Surr)	98	9.610	9.610	0.000	94	1974214	10.0	10.0	
75 Toluene	92	9.689	9.689	0.000	97	717293	5.00	4.83	
76 trans-1,3-Dichloropropene	75	9.957	9.957	0.000	96	365821	5.00	4.92	
78 Ethyl methacrylate	69	10.024	10.024	0.000	90	321895	5.00	5.13	
79 1,1,2-Trichloroethane	97	10.164	10.164	0.000	91	210589	5.00	5.14	
80 Tetrachloroethene	166	10.244	10.250	-0.006	97	319078	5.00	4.81	
81 1,3-Dichloropropane	76	10.329	10.329	0.000	94	351288	5.00	4.86	
82 2-Hexanone	43	10.390	10.396	-0.006	97	758216	25.0	25.0	
83 Chlorodibromomethane	129	10.548	10.548	0.000	90	247564	5.00	5.21	
84 Ethylene Dibromide	107	10.658	10.658	0.000	99	200231	5.00	4.95	
* 85 Chlorobenzene-d5 (IS)	117	11.097	11.097	0.000	87	1511072	10.0	10.0	
86 1-Chlorohexane	91	11.109	11.109	0.000	98	389170	5.00	4.59	
87 Chlorobenzene	112	11.121	11.122	-0.001	94	821508	5.00	4.90	
89 1,1,1,2-Tetrachloroethane	131	11.207	11.207	0.000	94	281793	5.00	4.94	
90 Ethylbenzene	91	11.213	11.213	0.000	98	1427334	5.00	4.85	
91 m-Xylene & p-Xylene	106	11.329	11.329	0.000	0	1139958	10.0	9.92	
92 o-Xylene	106	11.658	11.664	-0.006	97	561093	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
93 Styrene	104	11.676	11.676	0.000	95	956073	5.00	5.06	
94 Bromoform	173	11.835	11.835	0.000	96	138272	5.00	5.23	
95 Isopropylbenzene	105	11.963	11.969	-0.006	96	1481268	5.00	4.97	
\$ 98 4-Bromofluorobenzene (Surr)	95	12.109	12.109	0.000	91	750136	10.0	10.1	
99 1,1,2,2-Tetrachloroethane	83	12.219	12.219	0.000	94	271685	5.00	4.94	
100 Bromobenzene	156	12.225	12.231	-0.006	95	367124	5.00	4.86	
101 trans-1,4-Dichloro-2-butene	53	12.243	12.243	0.000	93	390404	25.0	25.6	
102 1,2,3-Trichloropropane	110	12.262	12.268	-0.006	83	73933	5.00	4.94	
103 N-Propylbenzene	91	12.298	12.298	0.000	99	1765255	5.00	4.98	
104 2-Chlorotoluene	126	12.371	12.377	-0.006	96	352540	5.00	4.86	
105 1,3,5-Trimethylbenzene	105	12.438	12.438	0.000	94	1289854	5.00	4.91	
106 4-Chlorotoluene	126	12.469	12.469	0.000	98	369849	5.00	4.91	
107 tert-Butylbenzene	134	12.682	12.682	0.000	93	271974	5.00	4.76	
108 Pentachloroethane	167	12.713	12.713	0.000	92	215173	5.00	5.04	
109 1,2,4-Trimethylbenzene	105	12.725	12.725	0.000	97	1316654	5.00	4.88	
110 sec-Butylbenzene	105	12.847	12.847	0.000	94	1665555	5.00	4.92	
111 1,3-Dichlorobenzene	146	12.944	12.944	0.000	98	745869	5.00	4.94	
112 4-Isopropyltoluene	119	12.957	12.957	-0.001	97	1483427	5.00	5.03	
* 113 1,4-Dichlorobenzene-d4	152	12.999	12.999	0.000	96	880960	10.0	10.0	
114 1,4-Dichlorobenzene	146	13.017	13.017	0.000	95	768103	5.00	4.95	
115 1,2,3-Trimethylbenzene	120	13.030	13.030	0.000	99	622827	5.00	5.26	
116 Benzyl chloride	126	13.097	13.103	-0.006	99	112804	5.00	5.16	
119 n-Butylbenzene	92	13.249	13.249	0.000	97	745894	5.00	4.99	
120 1,2-Dichlorobenzene	146	13.280	13.286	-0.006	98	713058	5.00	5.01	
118 p-Diethylbenzene	119	13.304	13.304	0.000	0	749866	5.00	5.00	
123 1,2-Dibromo-3-Chloropropane	155	13.834	13.834	0.000	86	39996	5.00	5.30	
124 1,3,5-Trichlorobenzene	180	13.956	13.956	0.000	97	602454	5.00	4.89	
125 1,2,4-Trichlorobenzene	180	14.383	14.383	0.000	94	553460	5.00	5.01	
126 Hexachlorobutadiene	225	14.468	14.468	0.000	98	265181	5.00	4.92	
127 Naphthalene	128	14.566	14.566	0.000	97	961807	5.00	4.88	
128 1,2,3-Trichlorobenzene	180	14.712	14.712	0.000	96	477279	5.00	4.88	
129 2-Methylnaphthalene	142	15.334	15.340	-0.006	0	607671	5.00	4.56	

QC Flag Legend

Processing Flags

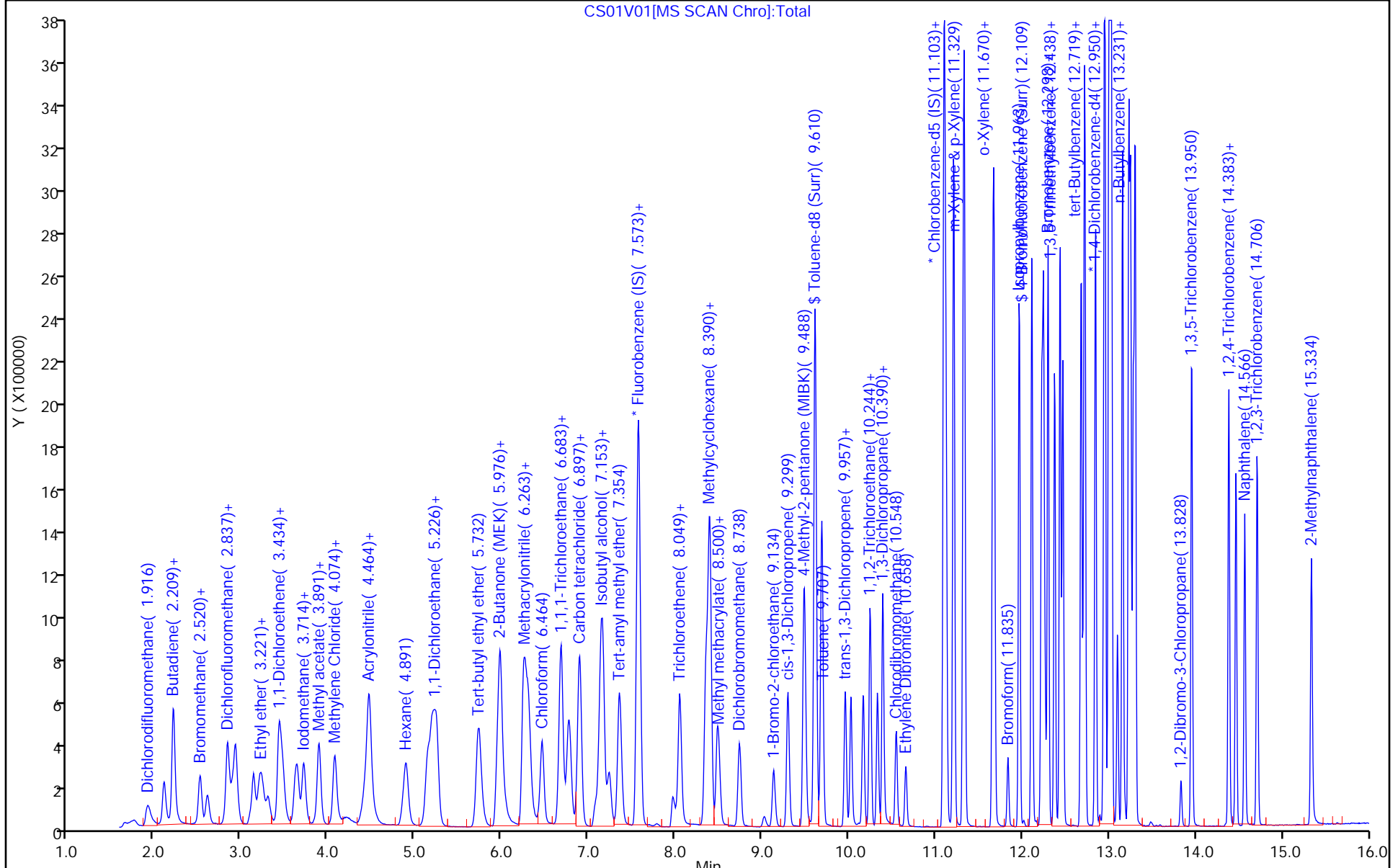
ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

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MSV_Q_QVOA6_00041	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_00069	Amount Added: 12.50	Units: uL	
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Eurofins Lancaster Laboratories Env, LLC

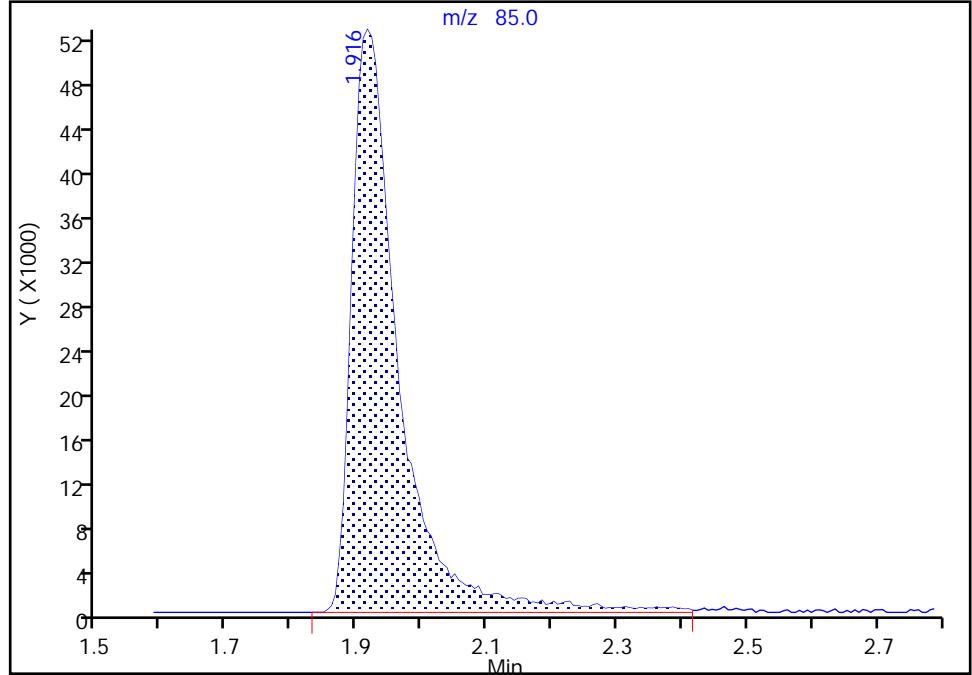
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Injection Date: 01-Sep-2020 16:10:30 Instrument ID: 10193
Lims ID: ICV
Client ID:
Operator ID: dvv10203 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

2 Dichlorodifluoromethane, CAS: 75-71-8

Signal: 1

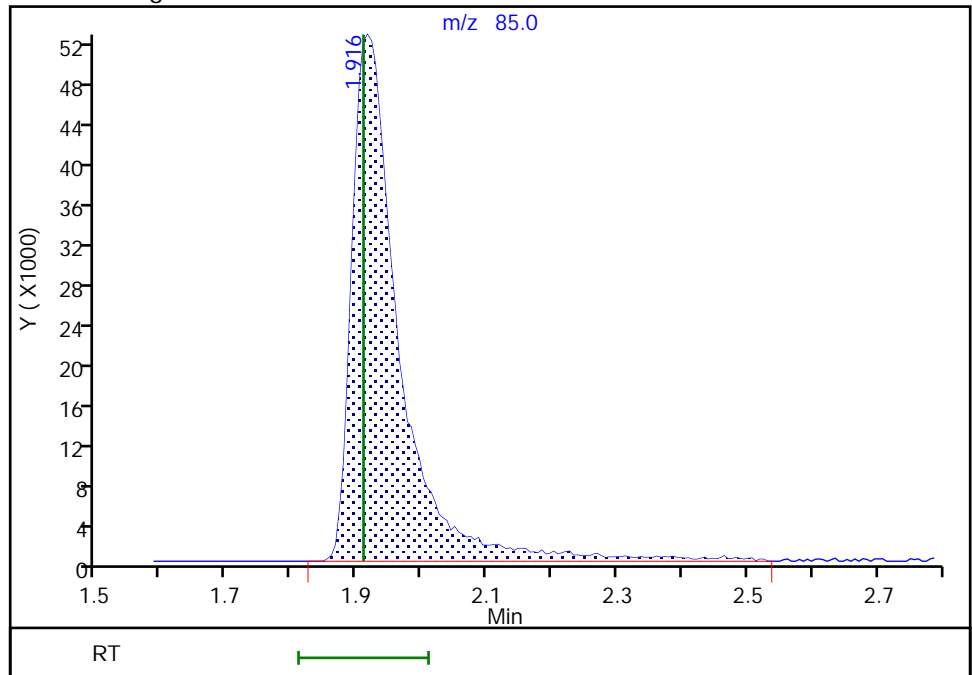
RT: 1.92
Area: 262611
Amount: 4.087385
Amount Units: ug/l

Processing Integration Results



RT: 1.92
Area: 264279
Amount: 4.113346
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 01-Sep-2020 17:26:05
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

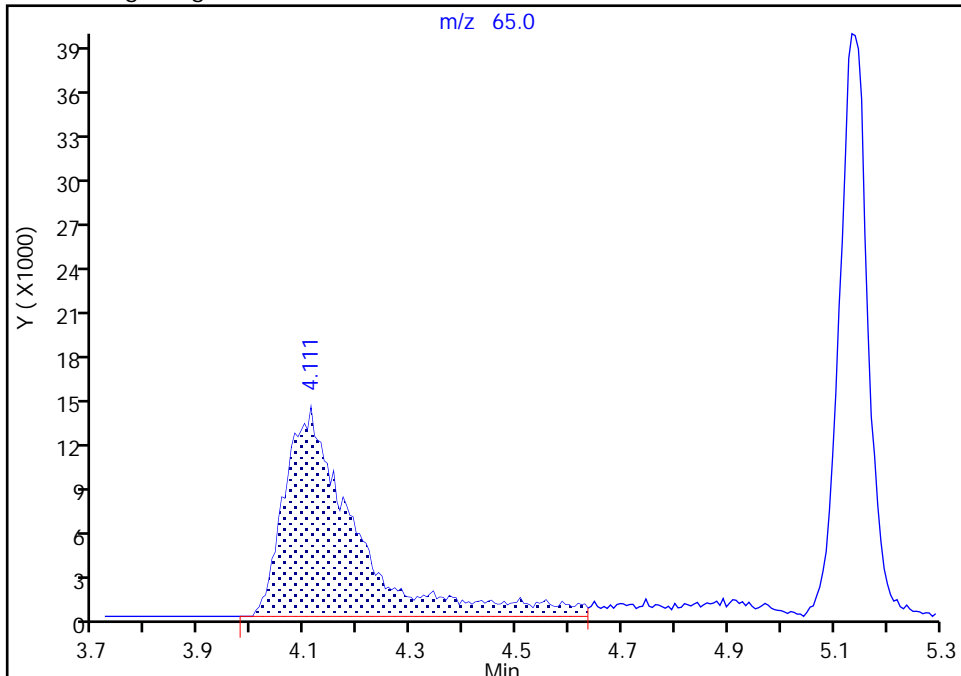
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Injection Date: 01-Sep-2020 16:10:30 Instrument ID: 10193
Lims ID: ICV
Client ID:
Operator ID: dvv10203 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 25 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

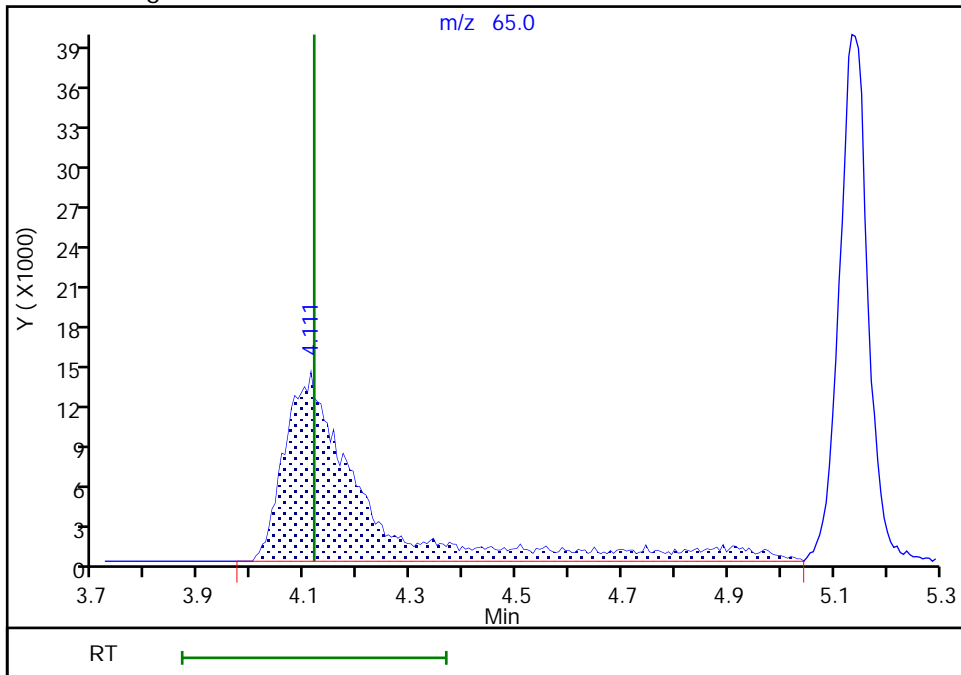
RT: 4.11
Area: 131313
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.11
Area: 148288
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 01-Sep-2020 17:26:30

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

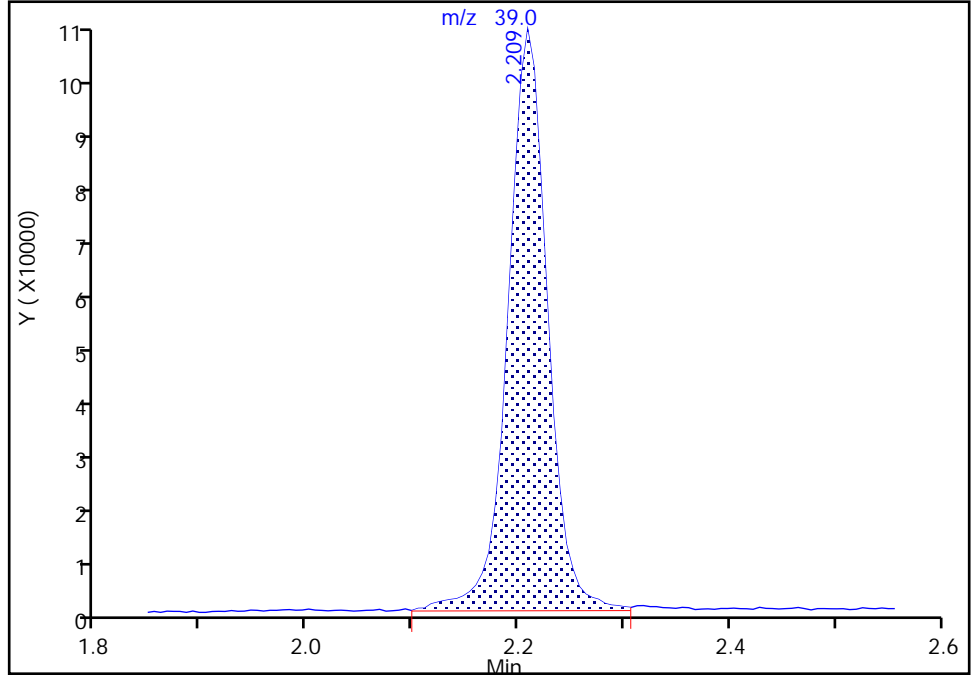
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Injection Date: 01-Sep-2020 16:10:30 Instrument ID: 10193
Lims ID: ICV
Client ID:
Operator ID: dvv10203 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

4 Butadiene, CAS: 106-99-0

Signal: 1

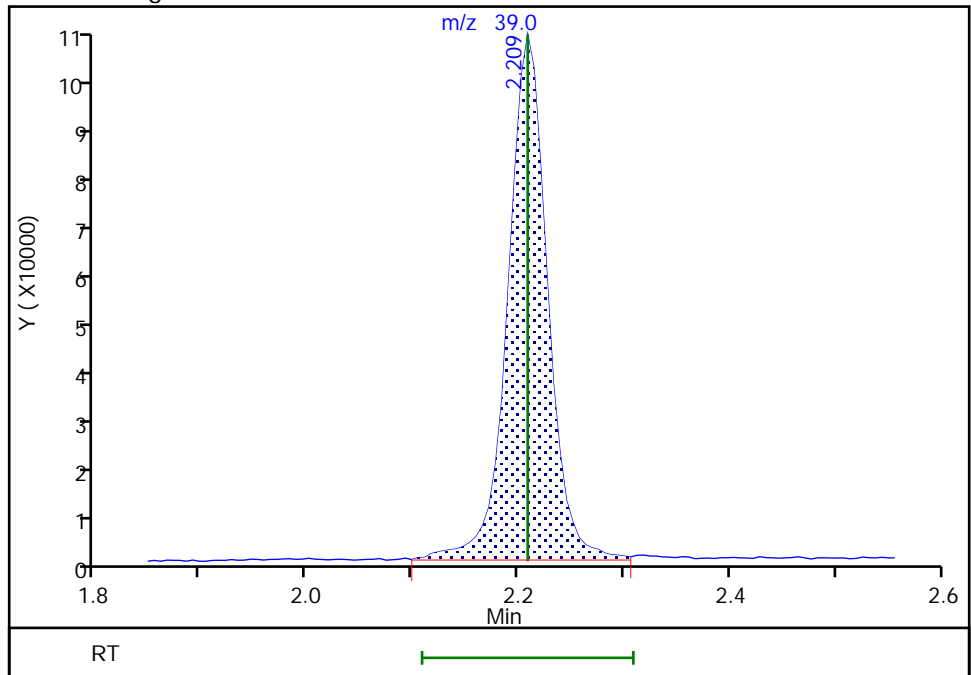
RT: 2.21
Area: 260372
Amount: 3.654662
Amount Units: ug/l

Processing Integration Results



RT: 2.21
Area: 260871
Amount: 3.661667
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 01-Sep-2020 17:30:49

Audit Action: Assigned New Baseline

Audit Reason: Baseline

Euofins Lancaster Laboratories Env, LLC

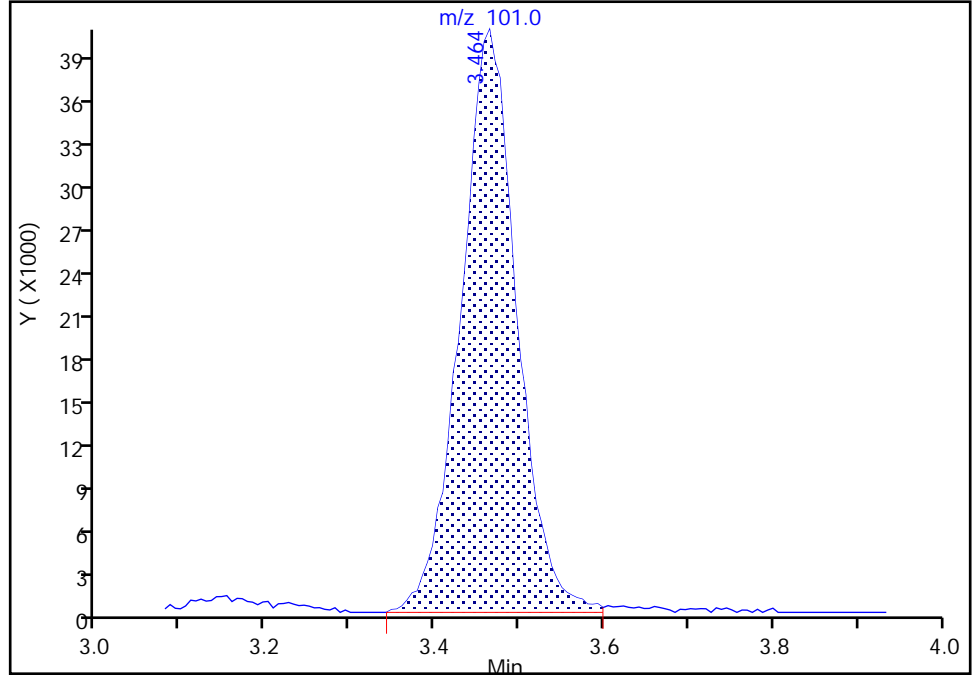
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Injection Date: 01-Sep-2020 16:10:30 Instrument ID: 10193
Lims ID: ICV
Client ID:
Operator ID: dvv10203 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

15 112TCTFE, CAS: 76-13-1

Signal: 1

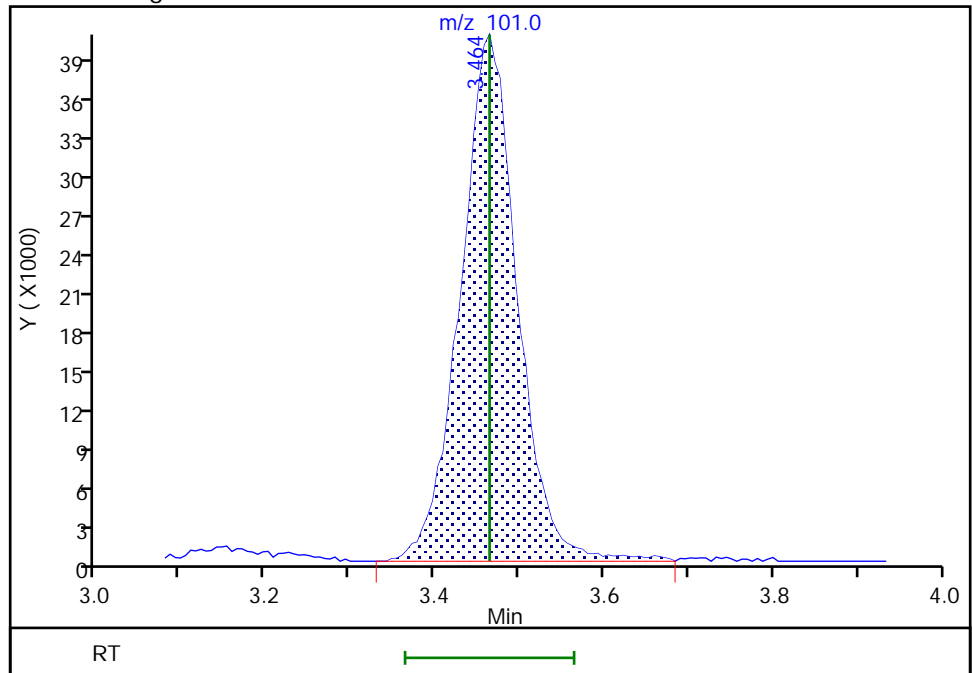
RT: 3.46
Area: 185974
Amount: 3.971572
Amount Units: ug/l

Processing Integration Results



RT: 3.46
Area: 187589
Amount: 4.006061
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 01-Sep-2020 17:31:05
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

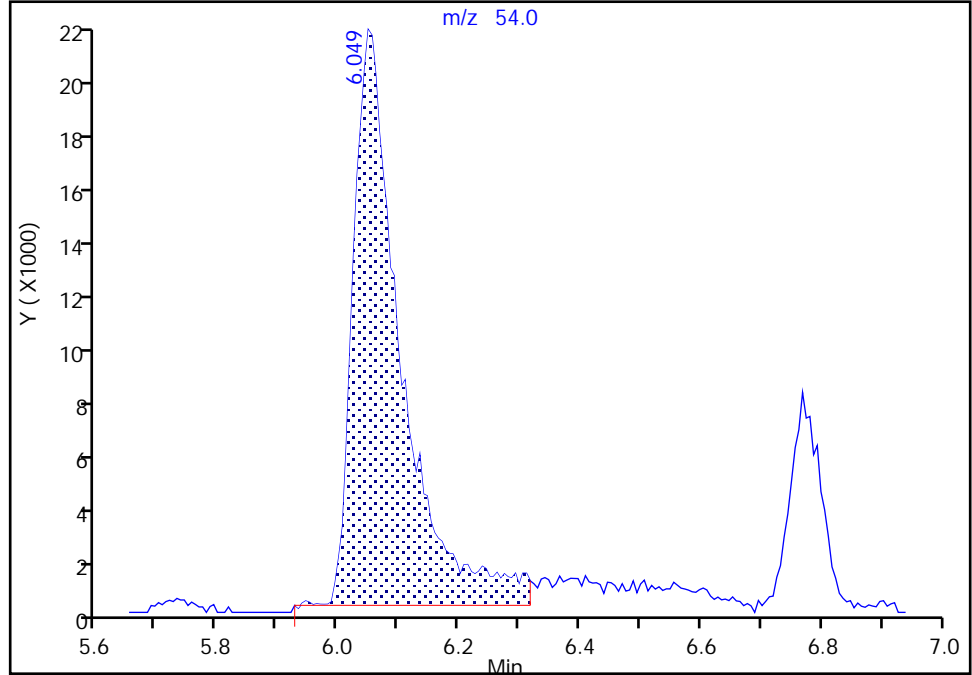
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Injection Date: 01-Sep-2020 16:10:30 Instrument ID: 10193
Lims ID: ICV
Client ID:
Operator ID: dvv10203 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

40 Propionitrile, CAS: 107-12-0

Signal: 1

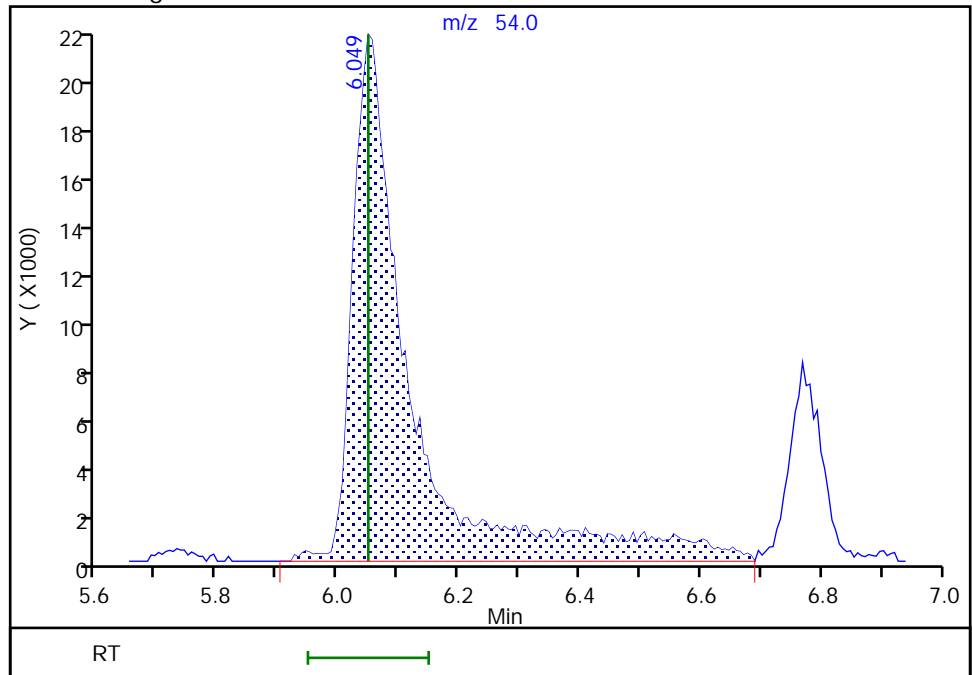
RT: 6.05
Area: 115982
Amount: 30.917165
Amount Units: ug/l

Processing Integration Results



RT: 6.05
Area: 141387
Amount: 37.689341
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 01-Sep-2020 17:27:06
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

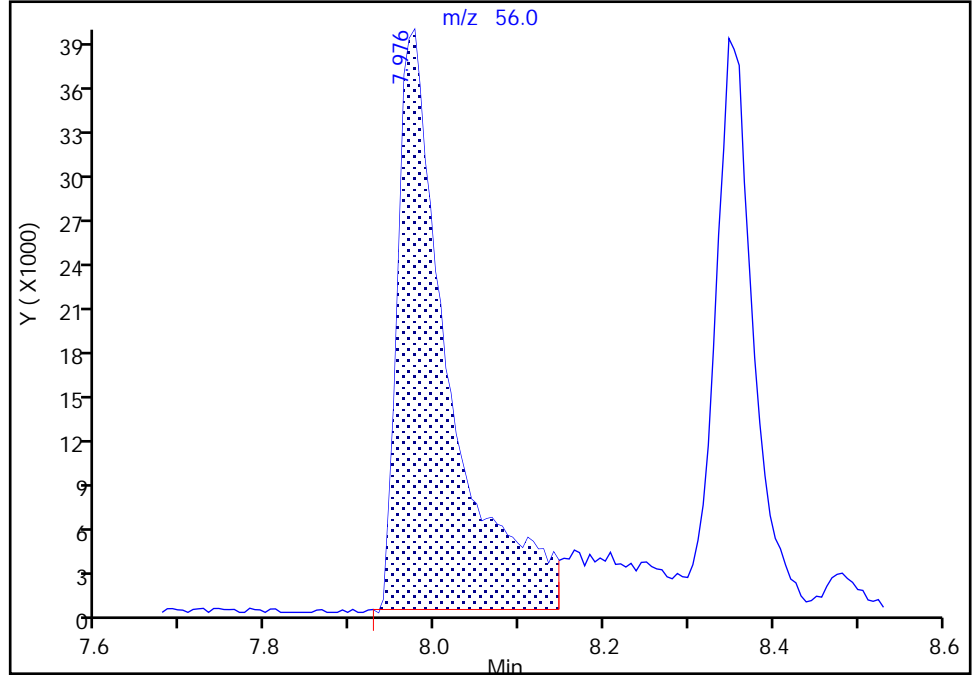
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Injection Date: 01-Sep-2020 16:10:30 Instrument ID: 10193
Lims ID: ICV
Client ID:
Operator ID: dvv10203 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

59 n-Butanol, CAS: 71-36-3

Signal: 1

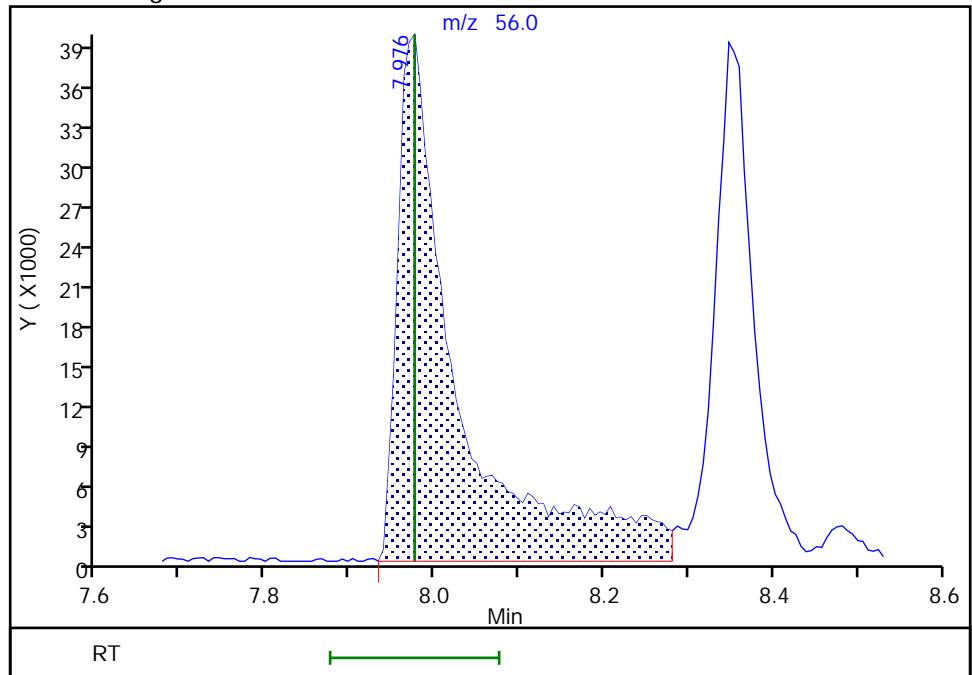
RT: 7.98
Area: 164567
Amount: 207.3677
Amount Units: ug/l

Processing Integration Results



RT: 7.98
Area: 193947
Amount: 244.3889
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 01-Sep-2020 17:28:44
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

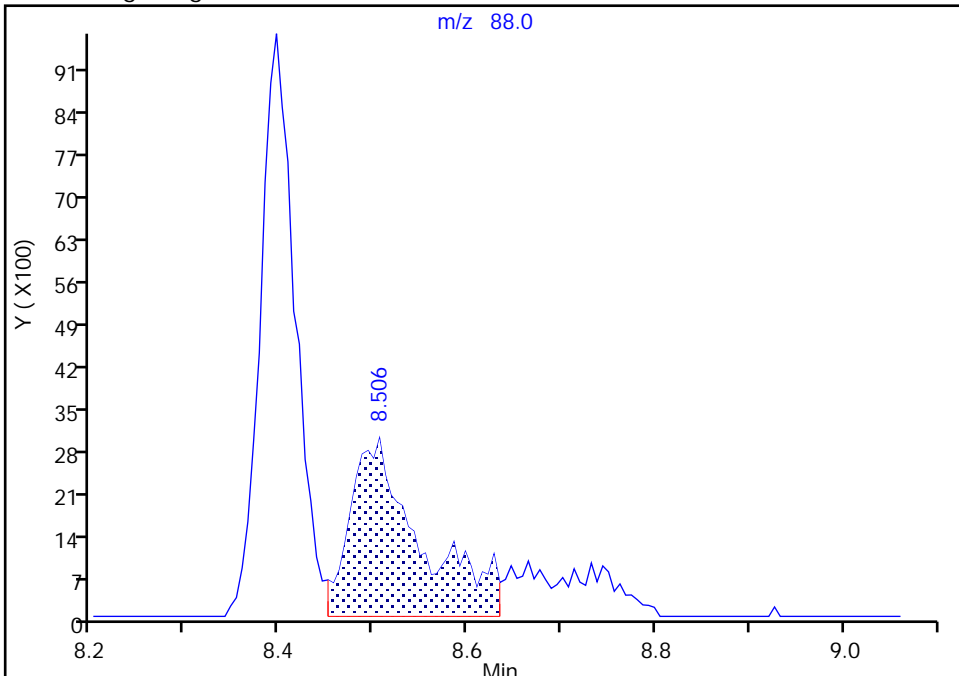
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Injection Date: 01-Sep-2020 16:10:30 Instrument ID: 10193
Lims ID: ICV
Client ID:
Operator ID: dvv10203 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

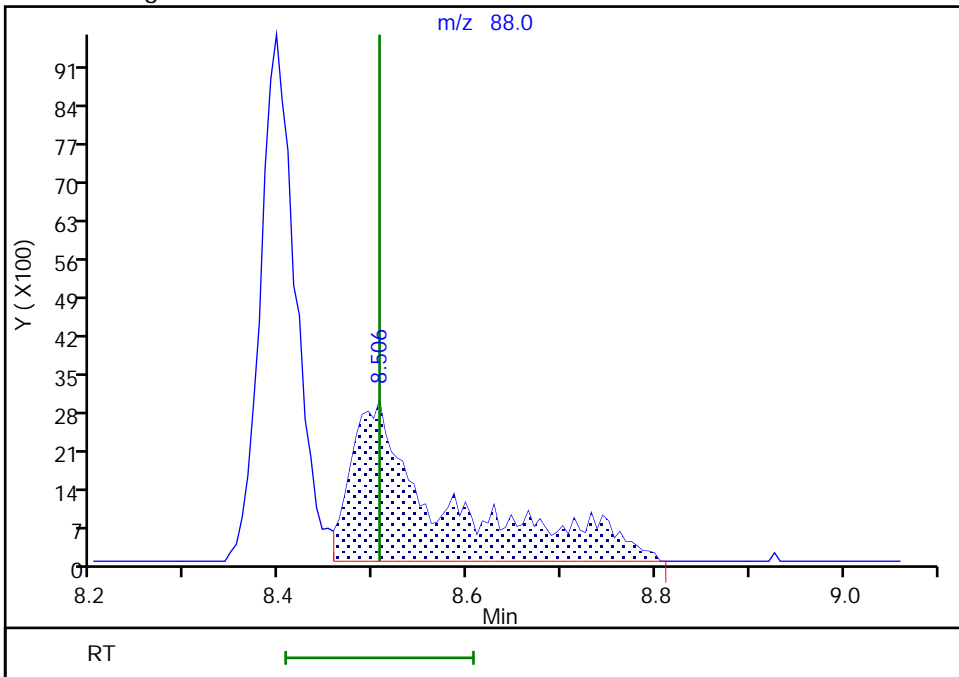
RT: 8.51
Area: 15392
Amount: 97.407800
Amount Units: ug/l

Processing Integration Results



RT: 8.51
Area: 20737
Amount: 131.2335
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 01-Sep-2020 17:26:53
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.: 410-19023-1

SDG No.: _____

Lab Sample ID: CCVIS 410-62460/3 Calibration Date: 11/05/2020 09:32

Instrument ID: 10193 Calib Start Date: 09/01/2020 13:35

GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 09/01/2020 15:48

Lab File ID: Cn05C01.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	0.3227	0.2771	0.1000	8.59	10.0	-14.1	20.0
Chloromethane	Ave	0.3804	0.3062	0.1000	8.05	10.0	-19.5	20.0
1,3-Butadiene	Ave	0.3578	0.4761		13.3	10.0	33.1*	20.0
Vinyl chloride	Ave	0.3517	0.2899	0.1000	8.24	10.0	-17.6	20.0
Bromomethane	Ave	0.2482	0.2121	0.1000	8.54	10.0	-14.6	20.0
Chloroethane	Ave	0.2173	0.1822	0.1000	8.39	10.0	-16.1	20.0
Dichlorofluoromethane	Ave	0.4713	0.4256		9.03	10.0	-9.7	20.0
Trichlorofluoromethane	Ave	0.4575	0.3891	0.1000	8.51	10.0	-14.9	20.0
Ethyl ether	Ave	0.2318	0.2123		9.16	10.0	-8.4	20.0
Freon 123a	Ave	0.3397	0.2597		7.65	10.0	-23.5*	20.0
Acrolein	Ave	2.001	1.802		451	501	-9.9	20.0
1,1-Dichloroethene	Ave	0.2312	0.2171	0.1000	9.39	10.0	-6.1	20.0
Acetone	Ave	2.125	2.045	0.1000	96.2	100	-3.8	20.0
Freon 113	Ave	0.2352	0.2309	0.1000	9.82	10.0	-1.8	20.0
Methyl iodide	Ave	0.4567	0.4543		9.95	10.0	-0.5	20.0
Ethyl bromide	Ave	0.1920	0.2061		10.7	10.0	7.4	20.0
Carbon disulfide	Ave	0.8167	0.7632	0.1000	9.34	10.0	-6.6	20.0
Methyl acetate	Ave	8.350	8.219	0.1000	9.84	10.0	-1.6	20.0
Allyl chloride	Ave	0.4045	0.3619		8.95	10.0	-10.5	20.0
Methylene Chloride	Ave	0.2573	0.2484	0.1000	9.65	10.0	-3.5	20.0
t-Butyl alcohol	Ave	0.996	0.7578		152	200	-23.9*	20.0
Acrylonitrile	Ave	3.375	3.599		53.3	50.0	6.6	20.0
Methyl tert-butyl ether	Ave	0.7484	0.6893	0.1000	9.21	10.0	-7.9	20.0
trans-1,2-Dichloroethene	Ave	0.2703	0.2528	0.1000	9.35	10.0	-6.5	20.0
n-Hexane	Ave	0.3811	0.3612		9.48	10.0	-5.2	20.0
1,1-Dichloroethane	Ave	0.4975	0.4278	0.2000	8.60	10.0	-14.0	20.0
di-Isopropyl ether	Ave	0.9484	0.8121		8.56	10.0	-14.4	20.0
2-Chloro-1,3-butadiene	Ave	0.4688	0.3907		8.33	10.0	-16.7	20.0
Ethyl t-butyl ether	Ave	0.9061	0.7754		8.56	10.0	-14.4	20.0
2-Butanone (MEK)	Ave	4.984	4.911	0.1000	98.5	100	-1.5	20.0
cis-1,2-Dichloroethene	Ave	0.3064	0.2893	0.1000	9.44	10.0	-5.6	20.0
2,2-Dichloropropane	Ave	0.4293	0.3622		8.44	10.0	-15.6	20.0
Propionitrile	Ave	1.265	1.395		221	200	10.3	20.0
Methacrylonitrile	Ave	4.902	4.598		93.8	100	-6.2	20.0
Bromochloromethane	Ave	0.1349	0.1414		10.5	10.0	4.9	20.0
Tetrahydrofuran	Ave	1.410	1.456		103	100	3.3	20.0
Chloroform	Ave	0.4930	0.4431	0.2000	8.99	10.0	-10.1	20.0
1,1,1-Trichloroethane	Ave	0.4442	0.3833	0.1000	8.63	10.0	-13.7	20.0
Cyclohexane	Ave	0.4697	0.4287	0.1000	9.13	10.0	-8.7	20.0
Carbon tetrachloride	Ave	0.3722	0.3254	0.1000	8.74	10.0	-12.6	20.0
1,1-Dichloropropene	Ave	0.3988	0.3450		8.65	10.0	-13.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-19023-1

SDG No.: _____

Lab Sample ID: CCVIS 410-62460/3 Calibration Date: 11/05/2020 09:32

Instrument ID: 10193 Calib Start Date: 09/01/2020 13:35

GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 09/01/2020 15:48

Lab File ID: Cn05C01.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	0.3229	0.3512		544	500	8.8	20.0
Benzene	Ave	1.149	1.087	0.5000	9.46	10.0	-5.4	20.0
1,2-Dichloroethane	Ave	0.3462	0.3006	0.1000	8.68	10.0	-13.2	20.0
t-Amyl methyl ether	Ave	0.8253	0.7497		9.08	10.0	-9.2	20.0
n-Heptane	Ave	0.4242	0.3973		9.37	10.0	-6.3	20.0
n-Butanol	Ave	0.2676	0.3434		1280	1000	28.3*	20.0
Trichloroethene	Ave	0.2961	0.2784	0.2000	9.41	10.0	-5.9	20.0
Methylcyclohexane	Ave	0.4535	0.4717	0.1000	10.4	10.0	4.0	20.0
1,2-Dichloropropane	Ave	0.2950	0.2685	0.1000	9.10	10.0	-9.0	20.0
1,4-Dioxane	Ave	0.0533	0.0744	0.0050	698	500	39.6*	20.0
Methyl methacrylate	Ave	10.45	9.169		8.77	10.0	-12.3	20.0
Dibromomethane	Ave	0.1443	0.1426		9.88	10.0	-1.2	20.0
Bromodichloromethane	Ave	0.3561	0.3373	0.2000	9.47	10.0	-5.3	20.0
2-Nitropropane	Ave	3.241	2.887		89.1	100	-10.9	20.0
1-Bromo-2-chloroethane	Ave	0.3051	0.3050		10.0	10.0	-0.0	20.0
cis-1,3-Dichloropropene	Ave	0.4426	0.4178	0.2000	9.44	10.0	-5.6	20.0
4-Methyl-2-pentanone (MIBK)	Ave	14.48	13.01	0.1000	89.9	100	-10.1	20.0
Toluene	Ave	0.9823	0.9224	0.4000	9.39	10.0	-6.1	20.0
trans-1,3-Dichloropropene	Ave	0.4919	0.4653	0.1000	9.46	10.0	-5.4	20.0
Ethyl methacrylate	Ave	0.4151	0.4110		9.90	10.0	-1.0	20.0
1,1,2-Trichloroethane	Ave	0.2713	0.2774	0.1000	10.2	10.0	2.2	20.0
Tetrachloroethene	Ave	0.4389	0.4271	0.2000	9.73	10.0	-2.7	20.0
1,3-Dichloropropane	Ave	0.4783	0.4548		9.51	10.0	-4.9	20.0
2-Hexanone	Ave	10.23	9.567	0.1000	93.5	100	-6.5	20.0
Dibromochloromethane	Ave	0.3148	0.3383		10.7	10.0	7.5	20.0
1,2-Dibromoethane (EDB)	Ave	0.2679	0.2758	0.1000	10.3	10.0	2.9	20.0
1-Chlorohexane	Ave	0.5609	0.5049		9.00	10.0	-10.0	20.0
Chlorobenzene	Ave	1.109	1.071	0.5000	9.66	10.0	-3.4	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3774	0.3718		9.85	10.0	-1.5	20.0
Ethylbenzene	Ave	1.947	1.819	0.1000	9.35	10.0	-6.5	20.0
m&p-Xylene	Ave	0.7608	0.7261	0.1000	19.1	20.0	-4.6	20.0
o-Xylene	Ave	0.7453	0.7046	0.3000	9.45	10.0	-5.5	20.0
Styrene	Ave	1.251	1.237	0.3000	9.89	10.0	-1.1	20.0
Bromoform	Ave	0.1748	0.2195	0.1000	12.6	10.0	25.5*	20.0
Isopropylbenzene	Ave	1.971	1.846	0.1000	9.36	10.0	-6.4	20.0
1,1,2,2-Tetrachloroethane	Ave	0.6245	0.6291	0.3000	10.1	10.0	0.7	20.0
Bromobenzene	Ave	0.8574	0.8776		10.2	10.0	2.3	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1729	0.1202		69.5	100	-30.5*	20.0
1,2,3-Trichloropropane	Ave	0.1700	0.1760		10.4	10.0	3.5	20.0
N-Propylbenzene	Ave	4.026	3.798		9.43	10.0	-5.7	20.0
2-Chlorotoluene	Ave	0.8233	0.8259		10.0	10.0	0.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-19023-1
 SDG No.: _____
 Lab Sample ID: CCVIS 410-62460/3 Calibration Date: 11/05/2020 09:32
 Instrument ID: 10193 Calib Start Date: 09/01/2020 13:35
 GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 09/01/2020 15:48
 Lab File ID: Cn05C01.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	2.982	2.818		9.45	10.0	-5.5	20.0
4-Chlorotoluene	Ave	0.8558	0.8737		10.2	10.0	2.1	20.0
tert-Butylbenzene	Ave	0.6485	0.6708		10.3	10.0	3.4	20.0
Pentachloroethane	Ave	0.4842	0.5276		10.9	10.0	9.0	20.0
1,2,4-Trimethylbenzene	Ave	3.060	2.978		9.73	10.0	-2.7	20.0
sec-Butylbenzene	Ave	3.843	3.658		9.52	10.0	-4.8	20.0
1,3-Dichlorobenzene	Ave	1.713	1.709	0.6000	9.98	10.0	-0.2	20.0
p-Isopropyltoluene	Ave	3.351	3.230		9.64	10.0	-3.6	20.0
1,4-Dichlorobenzene	Ave	1.763	1.754	0.5000	9.95	10.0	-0.5	20.0
1,2,3-Trimethylbenzene	Ave	1.343	1.324		9.86	10.0	-1.4	20.0
Benzyl chloride	Ave	0.2484	0.2985		12.0	10.0	20.2*	20.0
n-Butylbenzene	Ave	1.698	1.606		9.46	10.0	-5.4	20.0
1,2-Dichlorobenzene	Ave	1.616	1.627	0.4000	10.1	10.0	0.6	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.0856	0.1032	0.0500	12.1	10.0	20.6*	20.0
1,3,5-Trichlorobenzene	Ave	1.397	1.436		10.3	10.0	2.8	20.0
1,2,4-Trichlorobenzene	Ave	1.254	1.241	0.2000	9.90	10.0	-1.0	20.0
Hexachlorobutadiene	Ave	0.6122	0.5704		9.32	10.0	-6.8	20.0
Naphthalene	Ave	2.236	2.218		9.92	10.0	-0.8	20.0
1,2,3-Trichlorobenzene	Ave	1.110	1.062		9.57	10.0	-4.3	20.0
Dibromofluoromethane (Surr)	Ave	0.2376	0.2318		9.75	10.0	-2.5	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0484	0.0500		10.3	10.0	3.3	20.0
Toluene-d8 (Surr)	Ave	1.306	1.247		9.54	10.0	-4.6	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4909	0.4759		9.69	10.0	-3.1	20.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\10193\20201105-14733.b\Cn05C01.D
 Lims ID: CCVIS VSTD010
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 05-Nov-2020 09:32:30 ALS Bottle#: 2 Worklist Smp#: 3
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014733-003
 Misc. Info.: CCVIS VSTD010
 Operator ID: jkh09052 Instrument ID: 10193
 Sublist: chrom-MSV_10193_25mL*sub1
 Method: \\chromfs\Lancaster\ChromData\10193\20201105-14733.b\MSV_10193_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 05-Nov-2020 11:28:16 Calib Date: 01-Sep-2020 19:09:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\CS01117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1002

First Level Reviewer: howej

Date: 05-Nov-2020 10:27:51

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	1.886	1.886	0.000	99	487999	10.0	8.59	
3 Chloromethane	50	2.075	2.075	0.000	99	539372	10.0	8.05	
4 Butadiene	39	2.184	2.184	0.000	94	838487	10.0	13.3	M
5 Vinyl chloride	62	2.184	2.184	0.000	74	510525	10.0	8.24	
6 Bromomethane	94	2.495	2.495	0.000	90	373517	10.0	8.54	M
7 Chloroethane	64	2.581	2.581	0.000	100	320858	10.0	8.39	M
8 Dichlorofluoromethane	67	2.806	2.806	0.000	97	749667	10.0	9.03	
9 Trichlorofluoromethane	101	2.867	2.867	0.000	97	685334	10.0	8.51	
11 Ethyl ether	59	3.093	3.093	0.000	92	374047	10.0	9.16	
12 1,2-Dichloro-1,1,2-trifluoroethane	67	3.190	3.190	0.000	90	457456	10.0	7.65	
13 Acrolein	56	3.263	3.263	0.000	99	2715936	500.9	451.3	
14 1,1-Dichloroethene	96	3.391	3.391	0.000	97	382425	10.0	9.39	
15 112TCTFE	101	3.428	3.428	0.000	91	406610	10.0	9.82	
16 Acetone	43	3.428	3.428	0.000	100	615198	100.0	96.2	
17 Iodomethane	142	3.574	3.574	0.000	97	800091	10.0	9.95	
18 Isopropyl alcohol	45	3.599	3.599	0.000	46	196671	200.0	157.3	
19 Ethyl bromide	108	3.605	3.605	0.000	98	363015	10.0	10.7	
20 Carbon disulfide	76	3.672	3.672	0.000	99	1344123	10.0	9.34	
22 Methyl acetate	43	3.824	3.824	0.000	97	247254	10.0	9.84	M
23 3-Chloro-1-propene	41	3.849	3.849	0.000	91	637374	10.0	8.95	
24 Methylene Chloride	84	4.025	4.025	0.000	90	437456	10.0	9.65	
* 25 t-Butyl alcohol-d10 (IS)	65	4.056	4.056	0.000	0	150419	50.0	50.0	
26 2-Methyl-2-propanol	59	4.172	4.172	0.000	99	455924	200.0	152.2	
27 Acrylonitrile	53	4.361	4.361	0.000	100	541388	50.0	53.3	
28 Methyl tert-butyl ether	73	4.410	4.410	0.000	96	1214033	10.0	9.21	
29 trans-1,2-Dichloroethene	96	4.416	4.416	0.000	99	445203	10.0	9.35	
30 Hexane	57	4.842	4.842	0.000	93	636150	10.0	9.48	
32 1,1-Dichloroethane	63	5.086	5.086	0.000	96	753484	10.0	8.60	
33 Isopropyl ether	45	5.147	5.147	0.000	93	1430377	10.0	8.56	
34 2-Chloro-1,3-butadiene	53	5.196	5.196	0.000	91	688120	10.0	8.33	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 Tert-butyl ethyl ether	59	5.684	5.684	0.000	97	1365622	10.0	8.56	
36 2-Butanone (MEK)	43	5.903	5.903	0.000	99	1477265	100.0	98.5	
37 cis-1,2-Dichloroethene	96	5.928	5.928	0.000	81	509454	10.0	9.44	
38 2,2-Dichloropropane	77	5.940	5.940	0.000	88	637834	10.0	8.44	
40 Propionitrile	54	5.995	5.995	0.000	99	839261	200.0	220.6	
43 Methacrylonitrile	67	6.214	6.214	0.000	93	1383306	100.0	93.8	
44 Chlorobromomethane	128	6.263	6.263	0.000	93	249078	10.0	10.5	
45 Tetrahydrofuran	71	6.269	6.269	0.000	88	438042	100.0	103.3	
46 Chloroform	83	6.421	6.421	0.000	93	780331	10.0	8.99	
\$ 47 Dibromofluoromethane (Surr)	113	6.635	6.635	0.000	94	408251	10.0	9.75	
48 1,1,1-Trichloroethane	97	6.641	6.641	0.000	98	675003	10.0	8.63	
49 Cyclohexane	56	6.726	6.726	0.000	91	755121	10.0	9.13	
50 Carbon tetrachloride	117	6.848	6.848	0.000	95	573032	10.0	8.74	
51 1,1-Dichloropropene	75	6.854	6.854	0.000	95	607630	10.0	8.65	
52 Isobutyl alcohol	41	7.037	7.037	0.000	95	528297	500.0	543.8	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.092	7.092	0.000	0	88032	10.0	10.3	
54 Benzene	78	7.116	7.116	0.000	97	1913873	10.0	9.46	
55 1,2-Dichloroethane	62	7.196	7.196	0.000	97	529489	10.0	8.68	
56 Tert-amyl methyl ether	73	7.311	7.311	0.000	98	1320353	10.0	9.08	
* 57 Fluorobenzene (IS)	96	7.531	7.531	0.000	99	1761239	10.0	10.0	
58 n-Heptane	43	7.537	7.537	0.000	92	699806	10.0	9.37	
59 n-Butanol	56	7.921	7.921	0.000	89	1033037	1000.0	1283.3	
60 Trichloroethene	95	8.013	8.013	0.000	96	490415	10.0	9.41	
61 Methylcyclohexane	83	8.311	8.311	0.000	90	830759	10.0	10.4	
62 1,2-Dichloropropane	63	8.348	8.348	0.000	95	472840	10.0	9.10	
63 2-ethoxy-2-methyl butane	87	8.360	8.360	0.000	94	726342	10.0	8.99	
65 1,4-Dioxane	88	8.439	8.439	0.000	34	111896	500.0	698.1	M
64 Methyl methacrylate	69	8.445	8.445	0.000	92	275833	10.0	8.77	
66 Dibromomethane	93	8.464	8.464	0.000	91	251142	10.0	9.88	
67 Dichlorobromomethane	83	8.701	8.701	0.000	100	594010	10.0	9.47	
68 2-Nitropropane	41	8.982	8.982	0.000	99	868523	100.0	89.1	
71 1-Bromo-2-chloroethane	63	9.092	9.092	0.000	98	537193	10.0	10.0	
72 cis-1,3-Dichloropropene	75	9.262	9.262	0.000	95	735851	10.0	9.44	
73 4-Methyl-2-pentanone (MIBK)	43	9.451	9.451	0.000	97	3915103	100.0	89.9	
\$ 74 Toluene-d8 (Surr)	98	9.579	9.579	0.000	94	1719487	10.0	9.54	
75 Toluene	92	9.652	9.652	0.000	98	1272342	10.0	9.39	
76 trans-1,3-Dichloropropene	75	9.927	9.927	0.000	93	641876	10.0	9.46	
78 Ethyl methacrylate	69	9.994	9.994	0.000	89	566901	10.0	9.90	
79 1,1,2-Trichloroethane	97	10.134	10.134	0.000	90	382604	10.0	10.2	
80 Tetrachloroethene	166	10.213	10.213	0.000	98	589192	10.0	9.73	
81 1,3-Dichloropropane	76	10.299	10.299	0.000	92	627374	10.0	9.51	
82 2-Hexanone	43	10.360	10.360	0.000	97	2878102	100.0	93.5	
83 Chlorodibromomethane	129	10.518	10.518	0.000	90	466640	10.0	10.7	
84 Ethylene Dibromide	107	10.628	10.628	0.000	98	380371	10.0	10.3	
* 85 Chlorobenzene-d5 (IS)	117	11.067	11.067	0.000	84	1379391	10.0	10.0	
86 1-Chlorohexane	91	11.079	11.079	0.000	98	696520	10.0	9.00	
87 Chlorobenzene	112	11.097	11.097	0.000	96	1477505	10.0	9.66	
89 1,1,1,2-Tetrachloroethane	131	11.183	11.183	0.000	95	512825	10.0	9.85	
90 Ethylbenzene	91	11.183	11.183	0.000	98	2509683	10.0	9.35	
91 m-Xylene & p-Xylene	106	11.305	11.305	0.000	0	2003260	20.0	19.1	
92 o-Xylene	106	11.634	11.634	0.000	97	971899	10.0	9.45	
93 Styrene	104	11.652	11.652	0.000	95	1706044	10.0	9.89	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
94 Bromoform	173	11.811	11.811	0.000	98	302761	10.0	12.6	
95 Isopropylbenzene	105	11.939	11.939	0.000	95	2545788	10.0	9.36	
\$ 98 4-Bromofluorobenzene (Surr)	95	12.085	12.085	0.000	95	656430	10.0	9.69	
99 1,1,2,2-Tetrachloroethane	83	12.195	12.195	0.000	94	497482	10.0	10.1	
100 Bromobenzene	156	12.201	12.201	0.000	96	694010	10.0	10.2	
101 trans-1,4-Dichloro-2-butene	53	12.219	12.219	0.000	95	950647	100.0	69.5	
102 1,2,3-Trichloropropane	110	12.237	12.237	0.000	81	139148	10.0	10.4	
103 N-Propylbenzene	91	12.274	12.274	0.000	99	3003622	10.0	9.43	
104 2-Chlorotoluene	126	12.347	12.347	0.000	97	653096	10.0	10.0	
105 1,3,5-Trimethylbenzene	105	12.414	12.414	0.000	94	2228636	10.0	9.45	
106 4-Chlorotoluene	126	12.445	12.445	0.000	97	690944	10.0	10.2	
107 tert-Butylbenzene	134	12.658	12.658	0.000	93	530463	10.0	10.3	
108 Pentachloroethane	167	12.688	12.688	0.000	93	417201	10.0	10.9	
109 1,2,4-Trimethylbenzene	105	12.701	12.701	0.000	97	2354864	10.0	9.73	
110 sec-Butylbenzene	105	12.823	12.823	0.000	94	2892704	10.0	9.52	
111 1,3-Dichlorobenzene	146	12.920	12.920	0.000	99	1351361	10.0	9.98	
112 4-Isopropyltoluene	119	12.932	12.932	0.000	97	2554054	10.0	9.64	
* 113 1,4-Dichlorobenzene-d4	152	12.975	12.975	0.000	94	790810	10.0	10.0	
114 1,4-Dichlorobenzene	146	12.993	12.993	0.000	96	1387153	10.0	9.95	
115 1,2,3-Trimethylbenzene	120	13.005	13.005	0.000	98	1046669	10.0	9.86	
116 Benzyl chloride	126	13.073	13.073	0.000	98	236085	10.0	12.0	
119 n-Butylbenzene	92	13.225	13.225	0.000	97	1270035	10.0	9.46	
120 1,2-Dichlorobenzene	146	13.261	13.261	0.000	99	1286377	10.0	10.1	
118 p-Diethylbenzene	119	13.280	13.280	0.000	86	1302953	10.0	9.68	
123 1,2-Dibromo-3-Chloropropane	155	13.810	13.810	0.000	90	81650	10.0	12.1	
124 1,3,5-Trichlorobenzene	180	13.932	13.932	0.000	98	1135701	10.0	10.3	
125 1,2,4-Trichlorobenzene	180	14.359	14.359	0.000	94	981168	10.0	9.90	
126 Hexachlorobutadiene	225	14.444	14.444	0.000	97	451113	10.0	9.32	
127 Naphthalene	128	14.542	14.542	0.000	96	1753799	10.0	9.92	
128 1,2,3-Trichlorobenzene	180	14.688	14.688	0.000	96	839948	10.0	9.57	
129 2-Methylnaphthalene	142	15.310	15.310	0.000	92	973102	10.0	8.14	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_RV1_826_00026

Amount Added: 20.00

Units: uL

MSV_RV4_826_00031

Amount Added: 20.00

Units: uL

MSV_RV4GAS826_00090

Amount Added: 20.00

Units: uL

MSV_HP25_ISSS_00017

Amount Added: 1.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\10193\20201105-14733.b\Cn05C01.D

Injection Date: 05-Nov-2020 09:32:30

Instrument ID: 10193

Operator ID: jkh09052

Lims ID: CCVIS VSTD010

Worklist Smp#: 3

Client ID:

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

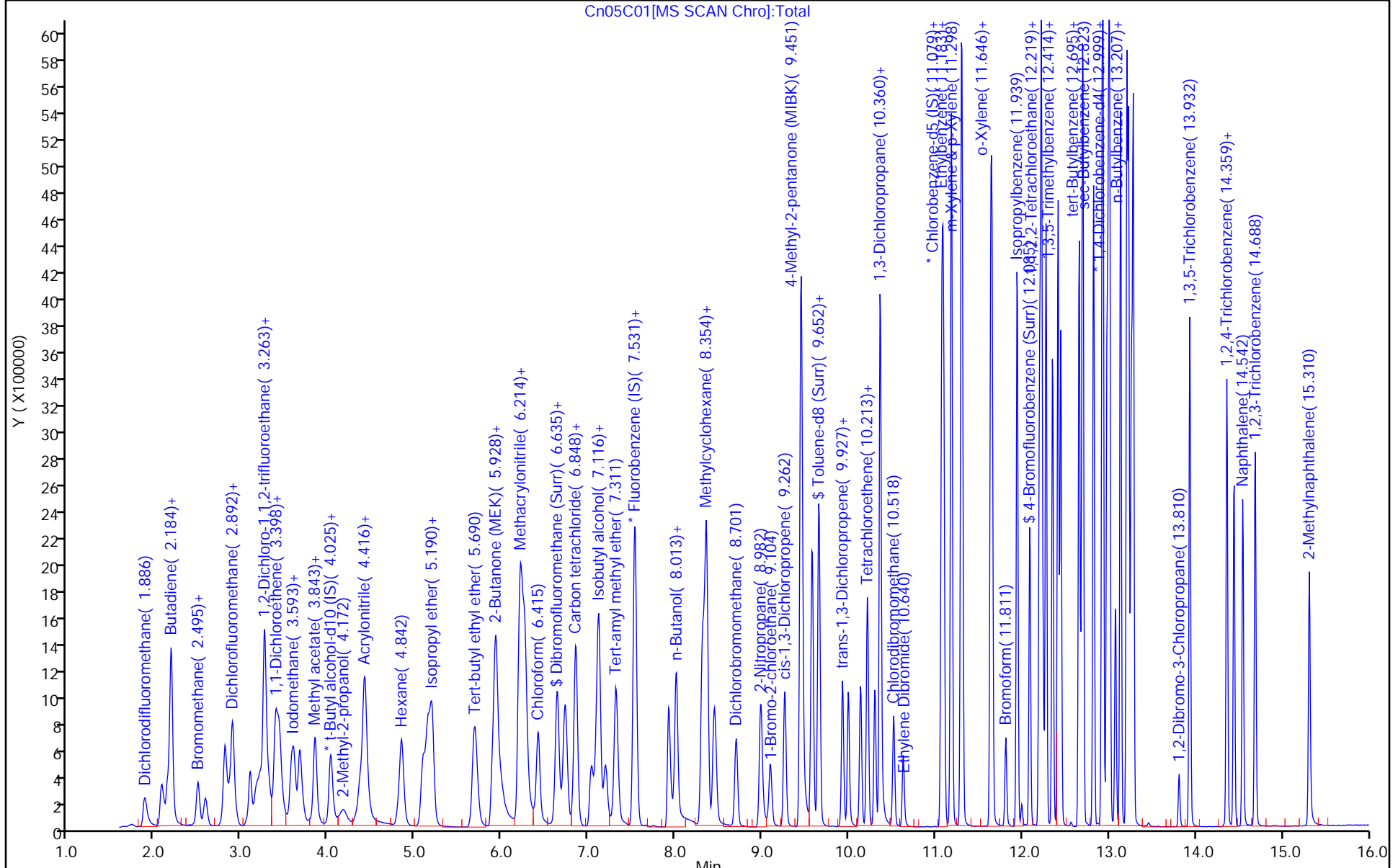
ALS Bottle#: 2

Method: MSV_10193_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



Euofins Lancaster Laboratories Env, LLC

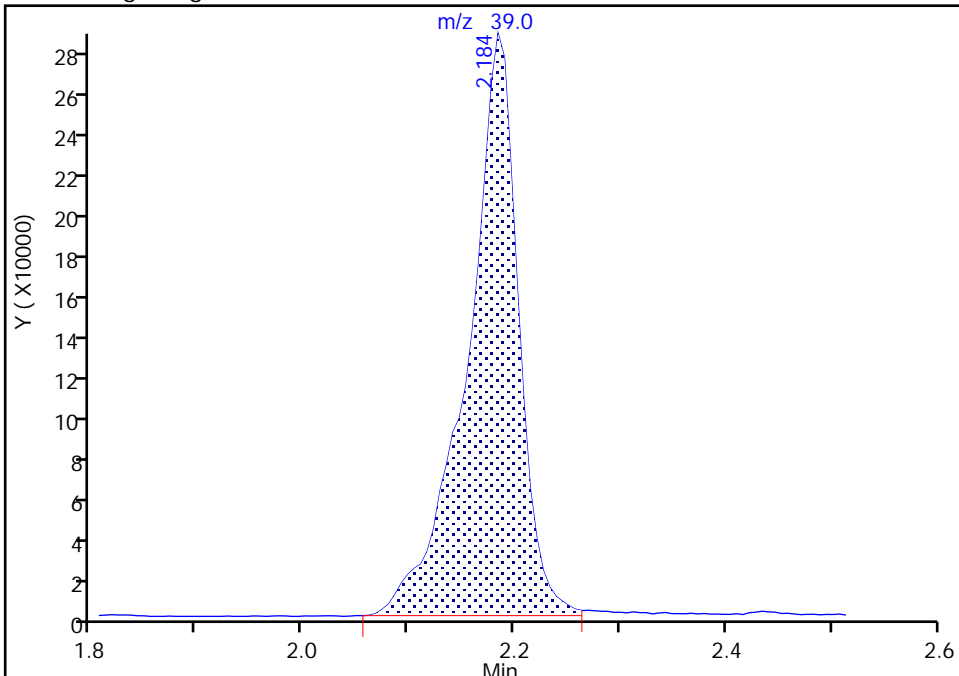
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Injection Date: 05-Nov-2020 09:32:30 Instrument ID: 10193
Lims ID: CCVIS VSTD010
Client ID:
Operator ID: jkh09052 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

4 Butadiene, CAS: 106-99-0

Signal: 1

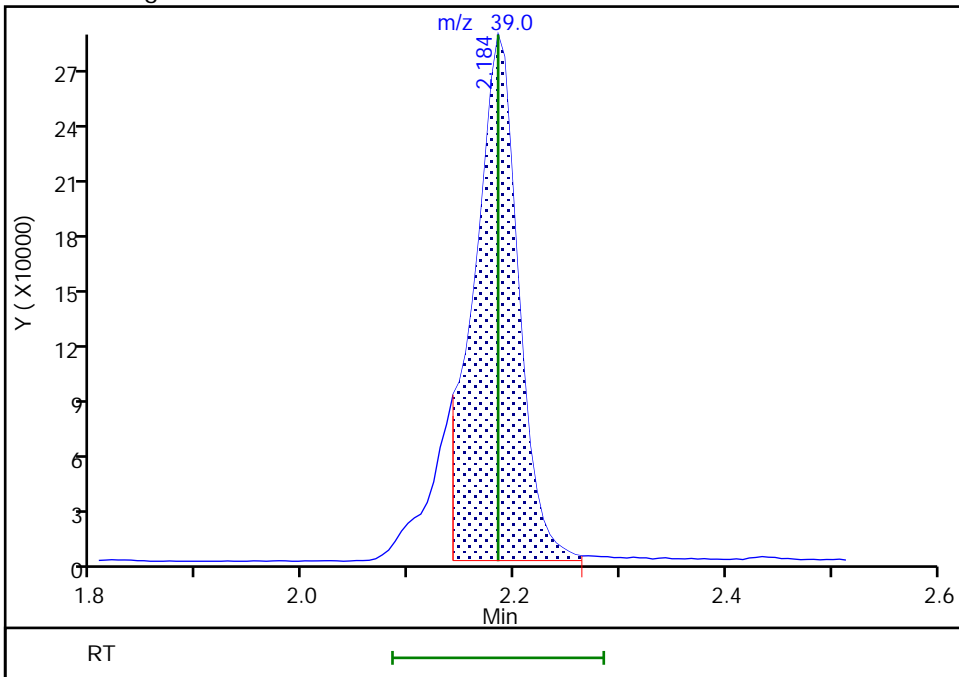
RT: 2.18
Area: 953149
Amount: 15.124535
Amount Units: ug/l

Processing Integration Results



RT: 2.18
Area: 838487
Amount: 13.305082
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 05-Nov-2020 09:58:04
Audit Action: Split an Integrated Peak

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

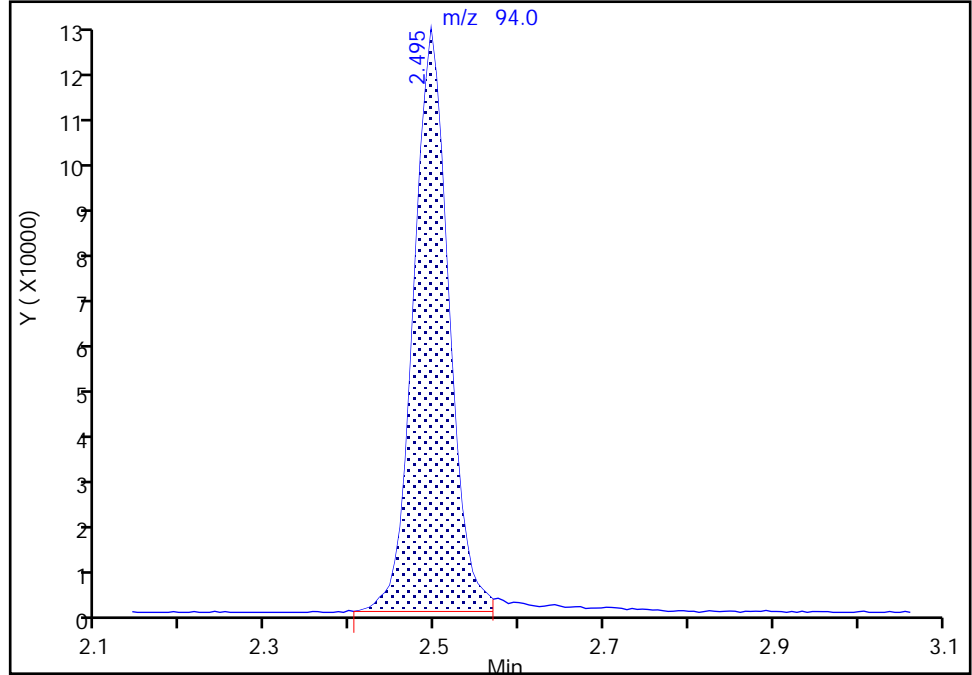
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Injection Date: 05-Nov-2020 09:32:30 Instrument ID: 10193
Lims ID: CCVIS VSTD010
Client ID:
Operator ID: jkh09052 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

6 Bromomethane, CAS: 74-83-9

Signal: 1

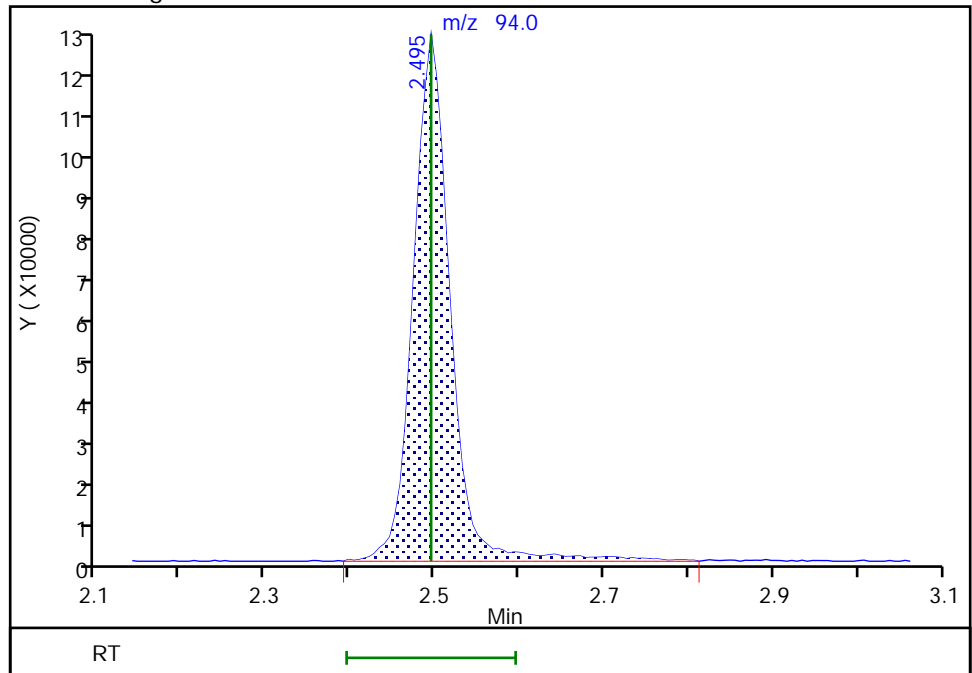
RT: 2.50
Area: 356038
Amount: 8.144373
Amount Units: ug/l

Processing Integration Results



RT: 2.50
Area: 373517
Amount: 8.544206
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 05-Nov-2020 09:58:21
Audit Action: Manually Integrated

Audit Reason: Other

Euofins Lancaster Laboratories Env, LLC

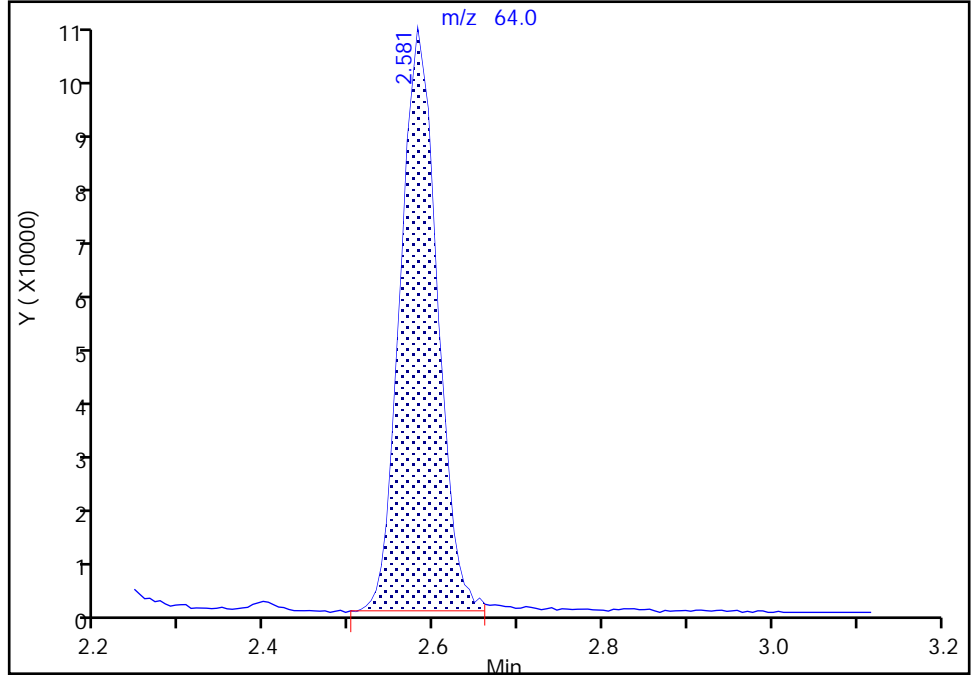
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Injection Date: 05-Nov-2020 09:32:30 Instrument ID: 10193
Lims ID: CCVIS VSTD010
Client ID:
Operator ID: jkh09052 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

7 Chloroethane, CAS: 75-00-3

Signal: 1

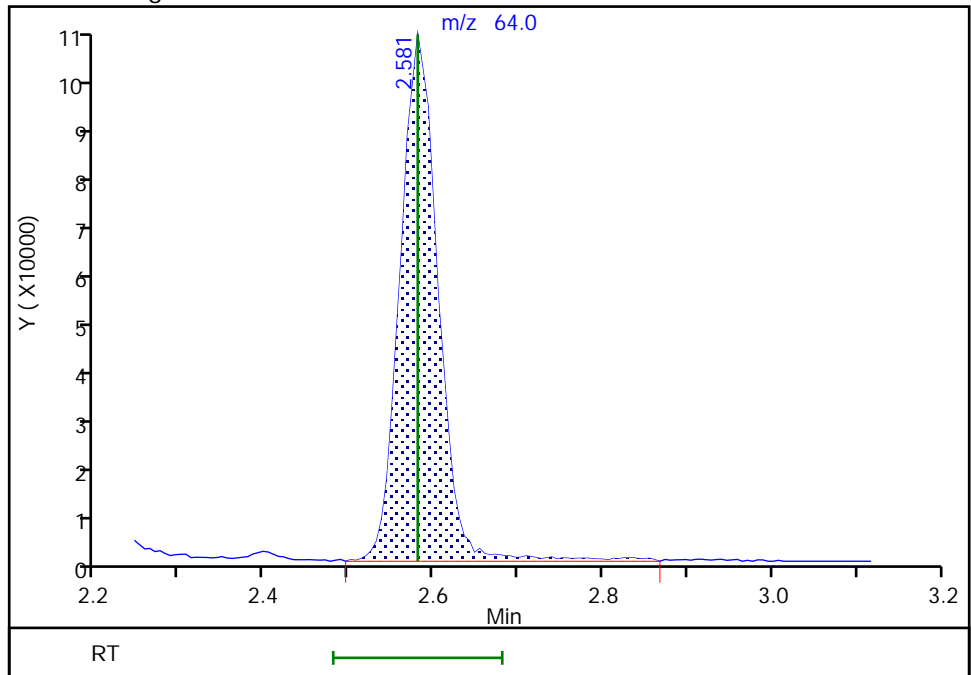
RT: 2.58
Area: 310202
Amount: 8.106754
Amount Units: ug/l

Processing Integration Results



RT: 2.58
Area: 320858
Amount: 8.385236
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 05-Nov-2020 09:58:35
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

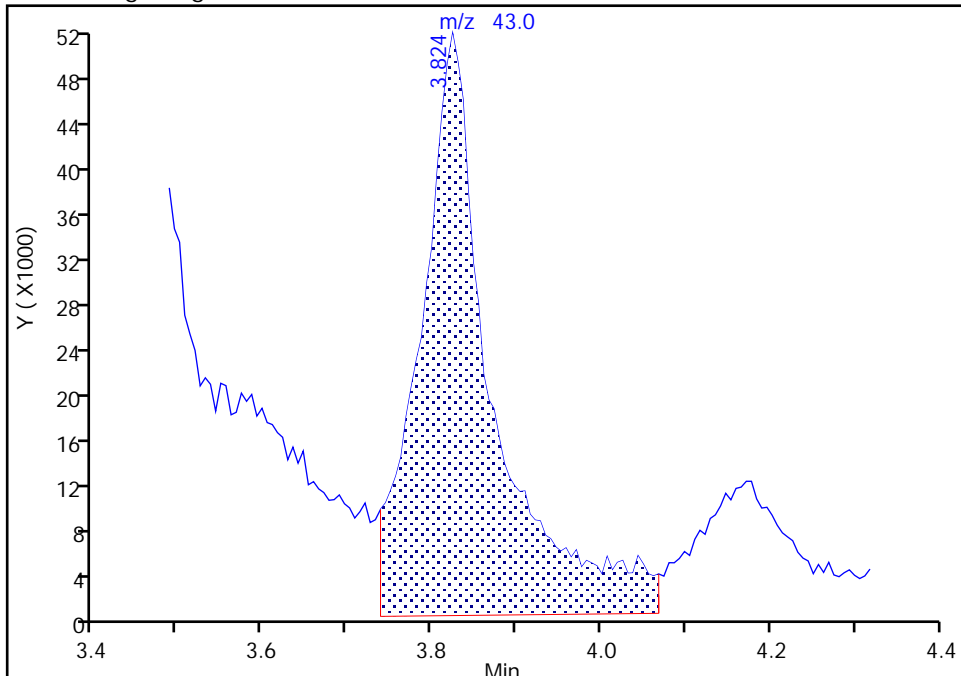
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 Injection Date: 05-Nov-2020 09:32:30 Instrument ID: 10193
 Lims ID: CCVIS VSTD010
 Client ID:
 Operator ID: jkh09052 ALS Bottle#: 2 Worklist Smp#: 3
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
 Column: Rxi-624Sil MS Capillary Column (0.25mm i.d.) Detector: MS Quad

22 Methyl acetate, CAS: 79-20-9

Signal: 1

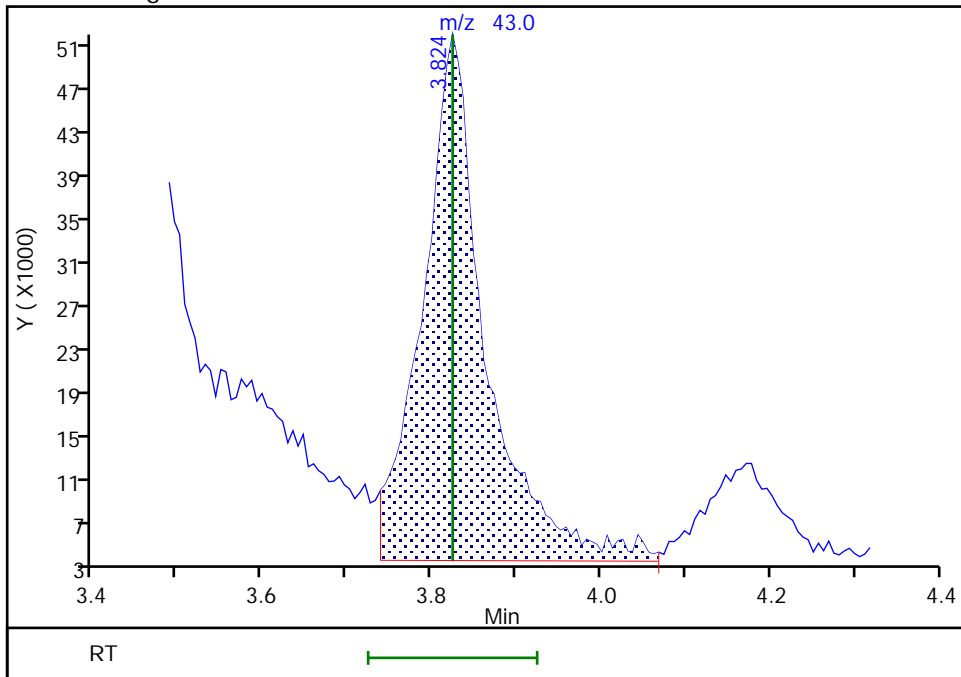
RT: 3.82
 Area: 302980
 Amount: 12.061153
 Amount Units: ug/l

Processing Integration Results



RT: 3.82
 Area: 247254
 Amount: 9.842790
 Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 05-Nov-2020 09:58:55
 Audit Action: Assigned New Baseline

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

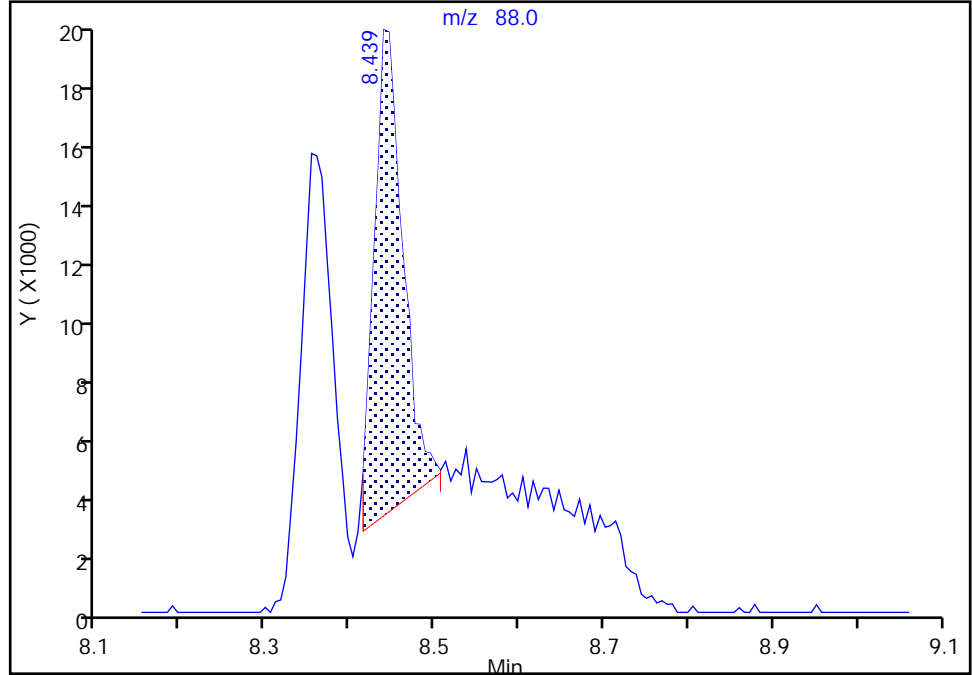
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Injection Date: 05-Nov-2020 09:32:30 Instrument ID: 10193
Lims ID: CCVIS VSTD010
Client ID:
Operator ID: jkh09052 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

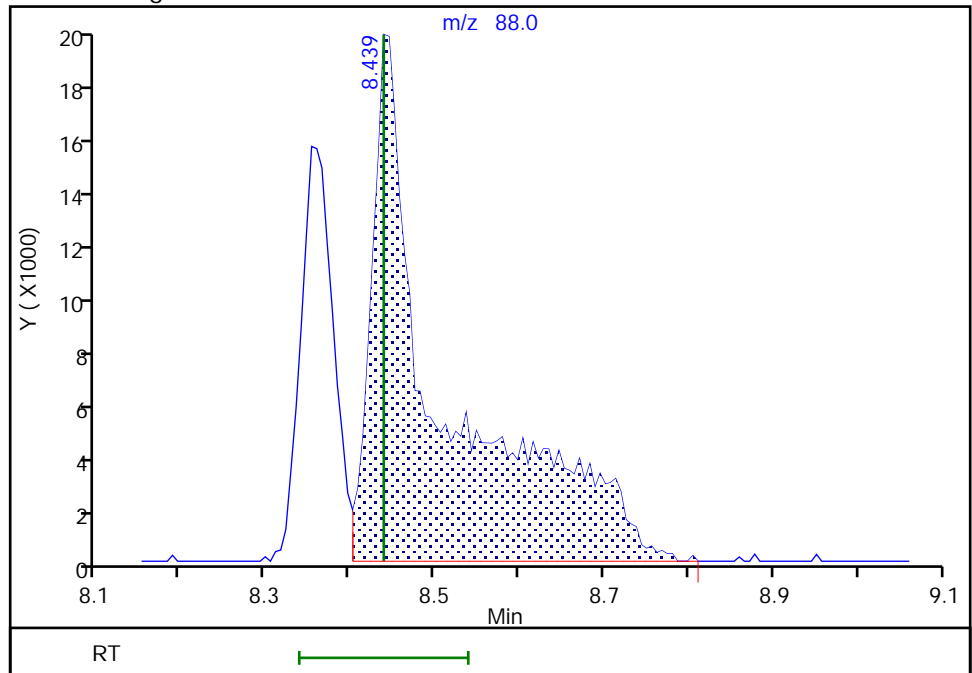
RT: 8.44
Area: 37342
Amount: 232.9698
Amount Units: ug/l

Processing Integration Results



RT: 8.44
Area: 111896
Amount: 698.0983
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 05-Nov-2020 09:59:21
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.: 410-19023-1

SDG No.: _____

Lab Sample ID: CCVIS 410-63387/3 Calibration Date: 11/08/2020 11:28

Instrument ID: 10193 Calib Start Date: 09/01/2020 13:35

GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 09/01/2020 15:48

Lab File ID: CN08C01.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	0.3227	0.2720	0.1000	8.43	10.0	-15.7	20.0
Chloromethane	Ave	0.3804	0.3090	0.1000	8.12	10.0	-18.8	20.0
1,3-Butadiene	Ave	0.3578	0.4198		11.7	10.0	17.3	20.0
Vinyl chloride	Ave	0.3517	0.2864	0.1000	8.14	10.0	-18.6	20.0
Bromomethane	Ave	0.2482	0.2131	0.1000	8.58	10.0	-14.2	20.0
Chloroethane	Ave	0.2173	0.1797	0.1000	8.27	10.0	-17.3	20.0
Dichlorofluoromethane	Ave	0.4713	0.4293		9.11	10.0	-8.9	20.0
Trichlorofluoromethane	Ave	0.4575	0.3816	0.1000	8.34	10.0	-16.6	20.0
Ethyl ether	Ave	0.2318	0.2037		8.79	10.0	-12.1	20.0
Freon 123a	Ave	0.3397	0.2594		7.63	10.0	-23.7*	20.0
Acrolein	Ave	2.001	2.135		535	501	6.7	20.0
1,1-Dichloroethene	Ave	0.2312	0.2190	0.1000	9.47	10.0	-5.3	20.0
Acetone	Ave	2.125	2.629	0.1000	124	100	23.7*	20.0
Freon 113	Ave	0.2352	0.2186	0.1000	9.29	10.0	-7.1	20.0
Methyl iodide	Ave	0.4567	0.4601		10.1	10.0	0.7	20.0
Ethyl bromide	Ave	0.1920	0.2072		10.8	10.0	7.9	20.0
Carbon disulfide	Ave	0.8167	0.7599	0.1000	9.30	10.0	-7.0	20.0
Methyl acetate	Ave	8.350	8.988	0.1000	10.8	10.0	7.6	20.0
Allyl chloride	Ave	0.4045	0.3453		8.54	10.0	-14.6	20.0
Methylene Chloride	Ave	0.2573	0.2513	0.1000	9.77	10.0	-2.3	20.0
t-Butyl alcohol	Ave	0.996	0.8038		161	200	-19.3	20.0
Acrylonitrile	Ave	3.375	3.909		57.9	50.0	15.8	20.0
Methyl tert-butyl ether	Ave	0.7484	0.6736	0.1000	9.00	10.0	-10.0	20.0
trans-1,2-Dichloroethene	Ave	0.2703	0.2574	0.1000	9.52	10.0	-4.8	20.0
n-Hexane	Ave	0.3811	0.3217		8.44	10.0	-15.6	20.0
1,1-Dichloroethane	Ave	0.4975	0.4300	0.2000	8.64	10.0	-13.6	20.0
di-Isopropyl ether	Ave	0.9484	0.7720		8.14	10.0	-18.6	20.0
2-Chloro-1,3-butadiene	Ave	0.4688	0.3838		8.19	10.0	-18.1	20.0
Ethyl t-butyl ether	Ave	0.9061	0.7516		8.30	10.0	-17.0	20.0
2-Butanone (MEK)	Ave	4.984	5.297	0.1000	106	100	6.3	20.0
cis-1,2-Dichloroethene	Ave	0.3064	0.2932	0.1000	9.57	10.0	-4.3	20.0
2,2-Dichloropropane	Ave	0.4293	0.3614		8.42	10.0	-15.8	20.0
Propionitrile	Ave	1.265	1.525		241	200	20.6*	20.0
Methacrylonitrile	Ave	4.902	5.346		109	100	9.1	20.0
Bromochloromethane	Ave	0.1349	0.1417		10.5	10.0	5.1	20.0
Tetrahydrofuran	Ave	1.410	1.566		111	100	11.1	20.0
Chloroform	Ave	0.4930	0.4413	0.2000	8.95	10.0	-10.5	20.0
1,1,1-Trichloroethane	Ave	0.4442	0.3826	0.1000	8.61	10.0	-13.9	20.0
Cyclohexane	Ave	0.4697	0.3992	0.1000	8.50	10.0	-15.0	20.0
1,1-Dichloropropene	Ave	0.3988	0.3475		8.71	10.0	-12.9	20.0
Carbon tetrachloride	Ave	0.3722	0.3252	0.1000	8.74	10.0	-12.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-19023-1
 SDG No.: _____
 Lab Sample ID: CCVIS 410-63387/3 Calibration Date: 11/08/2020 11:28
 Instrument ID: 10193 Calib Start Date: 09/01/2020 13:35
 GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 09/01/2020 15:48
 Lab File ID: CN08C01.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	0.3229	0.3167		490	500	-1.9	20.0
Benzene	Ave	1.149	1.092	0.5000	9.51	10.0	-4.9	20.0
1,2-Dichloroethane	Ave	0.3462	0.2894	0.1000	8.36	10.0	-16.4	20.0
t-Amyl methyl ether	Ave	0.8253	0.7384		8.95	10.0	-10.5	20.0
n-Heptane	Ave	0.4242	0.3503		8.26	10.0	-17.4	20.0
n-Butanol	Ave	0.2676	0.3620		1350	1000	35.3*	20.0
Trichloroethene	Ave	0.2961	0.2818	0.2000	9.52	10.0	-4.8	20.0
Methylcyclohexane	Ave	0.4535	0.4354	0.1000	9.60	10.0	-4.0	20.0
1,2-Dichloropropane	Ave	0.2950	0.2686	0.1000	9.10	10.0	-9.0	20.0
Methyl methacrylate	Ave	10.45	10.45		10.0	10.0	-0.0	20.0
1,4-Dioxane	Ave	0.0533	0.0677	0.0050	635	500	27.1*	20.0
Dibromomethane	Ave	0.1443	0.1382		9.57	10.0	-4.3	20.0
Bromodichloromethane	Ave	0.3561	0.3347	0.2000	9.40	10.0	-6.0	20.0
2-Nitropropane	Ave	3.241	3.183		98.2	100	-1.8	20.0
1-Bromo-2-chloroethane	Ave	0.3051	0.2946		9.66	10.0	-3.4	20.0
cis-1,3-Dichloropropene	Ave	0.4426	0.4189	0.2000	9.47	10.0	-5.3	20.0
4-Methyl-2-pentanone (MIBK)	Ave	14.48	14.57	0.1000	101	100	0.7	20.0
Toluene	Ave	0.9823	0.9078	0.4000	9.24	10.0	-7.6	20.0
trans-1,3-Dichloropropene	Ave	0.4919	0.4477	0.1000	9.10	10.0	-9.0	20.0
Ethyl methacrylate	Ave	0.4151	0.3973		9.57	10.0	-4.3	20.0
1,1,2-Trichloroethane	Ave	0.2713	0.2704	0.1000	9.97	10.0	-0.3	20.0
Tetrachloroethene	Ave	0.4389	0.4253	0.2000	9.69	10.0	-3.1	20.0
1,3-Dichloropropane	Ave	0.4783	0.4463		9.33	10.0	-6.7	20.0
2-Hexanone	Ave	10.23	10.57	0.1000	103	100	3.4	20.0
Dibromochloromethane	Ave	0.3148	0.3350		10.6	10.0	6.4	20.0
1,2-Dibromoethane (EDB)	Ave	0.2679	0.2720	0.1000	10.2	10.0	1.5	20.0
1-Chlorohexane	Ave	0.5609	0.4946		8.82	10.0	-11.8	20.0
Chlorobenzene	Ave	1.109	1.074	0.5000	9.68	10.0	-3.2	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3774	0.3705		9.82	10.0	-1.8	20.0
Ethylbenzene	Ave	1.947	1.787	0.1000	9.18	10.0	-8.2	20.0
m&p-Xylene	Ave	0.7608	0.7219	0.1000	19.0	20.0	-5.1	20.0
o-Xylene	Ave	0.7453	0.6989	0.3000	9.38	10.0	-6.2	20.0
Styrene	Ave	1.251	1.225	0.3000	9.80	10.0	-2.0	20.0
Bromoform	Ave	0.1748	0.2205	0.1000	12.6	10.0	26.1*	20.0
Isopropylbenzene	Ave	1.971	1.824	0.1000	9.25	10.0	-7.5	20.0
1,1,2,2-Tetrachloroethane	Ave	0.6245	0.6107	0.3000	9.78	10.0	-2.2	20.0
Bromobenzene	Ave	0.8574	0.8678		10.1	10.0	1.2	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1729	0.1286		74.4	100	-25.6*	20.0
1,2,3-Trichloropropane	Ave	0.1700	0.1693		9.96	10.0	-0.4	20.0
N-Propylbenzene	Ave	4.026	3.742		9.30	10.0	-7.0	20.0
2-Chlorotoluene	Ave	0.8233	0.8164		9.92	10.0	-0.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-19023-1
 SDG No.: _____
 Lab Sample ID: CCVIS 410-63387/3 Calibration Date: 11/08/2020 11:28
 Instrument ID: 10193 Calib Start Date: 09/01/2020 13:35
 GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 09/01/2020 15:48
 Lab File ID: CN08C01.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	2.982	2.787		9.34	10.0	-6.6	20.0
4-Chlorotoluene	Ave	0.8558	0.8580		10.0	10.0	0.2	20.0
tert-Butylbenzene	Ave	0.6485	0.6130		9.45	10.0	-5.5	20.0
Pentachloroethane	Ave	0.4842	0.5285		10.9	10.0	9.1	20.0
1,2,4-Trimethylbenzene	Ave	3.060	2.929		9.57	10.0	-4.3	20.0
sec-Butylbenzene	Ave	3.843	3.621		9.42	10.0	-5.8	20.0
1,3-Dichlorobenzene	Ave	1.713	1.704	0.6000	9.95	10.0	-0.5	20.0
p-Isopropyltoluene	Ave	3.351	3.202		9.56	10.0	-4.4	20.0
1,4-Dichlorobenzene	Ave	1.763	1.743	0.5000	9.89	10.0	-1.1	20.0
1,2,3-Trimethylbenzene	Ave	1.343	1.294		9.64	10.0	-3.6	20.0
Benzyl chloride	Ave	0.2484	0.2885		11.6	10.0	16.1	20.0
n-Butylbenzene	Ave	1.698	1.598		9.41	10.0	-5.9	20.0
1,2-Dichlorobenzene	Ave	1.616	1.616	0.4000	10.0	10.0	-0.0	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.0856	0.0991	0.0500	11.6	10.0	15.7	20.0
1,3,5-Trichlorobenzene	Ave	1.397	1.426		10.2	10.0	2.1	20.0
1,2,4-Trichlorobenzene	Ave	1.254	1.250	0.2000	9.97	10.0	-0.3	20.0
Hexachlorobutadiene	Ave	0.6122	0.5907		9.65	10.0	-3.5	20.0
Naphthalene	Ave	2.236	2.191		9.79	10.0	-2.1	20.0
1,2,3-Trichlorobenzene	Ave	1.110	1.054		9.50	10.0	-5.0	20.0
Dibromofluoromethane (Surr)	Ave	0.2376	0.2355		9.91	10.0	-0.9	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0484	0.0504		10.4	10.0	4.2	20.0
Toluene-d8 (Surr)	Ave	1.306	1.223		9.36	10.0	-6.4	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4909	0.4740		9.66	10.0	-3.4	20.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\10193\20201108-14932.b\CN08C01.D
 Lims ID: CCVIS VSTD010
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 08-Nov-2020 11:28:30 ALS Bottle#: 2 Worklist Smp#: 3
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014932-003
 Misc. Info.: CCVIS VSTD010
 Operator ID: dvv10203 Instrument ID: 10193
 Sublist: chrom-MSV_10193_25mL*sub1
 Method: \\chromfs\Lancaster\ChromData\10193\20201108-14932.b\MSV_10193_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 08-Nov-2020 13:05:00 Calib Date: 01-Sep-2020 19:09:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\CS01117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1011

First Level Reviewer: virayd

Date: 08-Nov-2020 12:13:51

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	1.892	1.892	0.000	99	520377	10.0	8.43	
3 Chloromethane	50	2.087	2.087	0.000	99	591125	10.0	8.12	
5 Vinyl chloride	62	2.196	2.196	0.000	83	547922	10.0	8.14	
4 Butadiene	39	2.196	2.196	0.000	91	803303	10.0	11.7	
6 Bromomethane	94	2.507	2.507	0.000	90	407681	10.0	8.58	
7 Chloroethane	64	2.593	2.593	0.000	99	343765	10.0	8.27	
8 Dichlorofluoromethane	67	2.818	2.818	0.000	97	821432	10.0	9.11	
9 Trichlorofluoromethane	101	2.873	2.873	0.000	98	730184	10.0	8.34	
11 Ethyl ether	59	3.105	3.105	0.000	90	389874	10.0	8.79	
12 1,2-Dichloro-1,1,2-trifluoroethane	67	3.196	3.196	0.000	90	496252	10.0	7.63	
13 Acrolein	56	3.276	3.276	0.000	99	2952092	500.9	534.5	
14 1,1-Dichloroethene	96	3.404	3.404	0.000	97	419019	10.0	9.47	
16 Acetone	43	3.440	3.440	0.000	100	725887	100.0	123.7	
15 112TCTFE	101	3.446	3.446	0.000	88	418195	10.0	9.29	
17 Iodomethane	142	3.586	3.586	0.000	97	880404	10.0	10.1	
18 Isopropyl alcohol	45	3.605	3.605	0.000	39	231888	200.0	200.6	
19 Ethyl bromide	108	3.617	3.617	0.000	98	396345	10.0	10.8	
20 Carbon disulfide	76	3.678	3.678	0.000	99	1453961	10.0	9.30	
22 Methyl acetate	43	3.842	3.842	0.000	97	248143	10.0	10.8	M
23 3-Chloro-1-propene	41	3.861	3.861	0.000	91	660676	10.0	8.54	
24 Methylene Chloride	84	4.038	4.038	0.000	89	480778	10.0	9.77	
* 25 t-Butyl alcohol-d10 (IS)	65	4.050	4.050	0.000	0	138035	50.0	50.0	M
26 2-Methyl-2-propanol	59	4.178	4.178	0.000	99	443798	200.0	161.4	
27 Acrylonitrile	53	4.373	4.373	0.000	98	539571	50.0	57.9	
28 Methyl tert-butyl ether	73	4.422	4.422	0.000	95	1288835	10.0	9.00	
29 trans-1,2-Dichloroethene	96	4.434	4.434	0.000	98	492490	10.0	9.52	
30 Hexane	57	4.848	4.848	0.000	93	615547	10.0	8.44	
32 1,1-Dichloroethane	63	5.098	5.098	0.000	96	822651	10.0	8.64	
33 Isopropyl ether	45	5.159	5.159	0.000	93	1477133	10.0	8.14	
34 2-Chloro-1,3-butadiene	53	5.208	5.208	0.000	91	734265	10.0	8.19	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
35 Tert-butyl ethyl ether	59	5.696	5.696	0.000	97	1438130	10.0	8.30	
36 2-Butanone (MEK)	43	5.903	5.903	0.000	99	1462243	100.0	106.3	
37 cis-1,2-Dichloroethene	96	5.934	5.934	0.000	80	561028	10.0	9.57	
38 2,2-Dichloropropane	77	5.946	5.946	0.000	87	691478	10.0	8.42	
40 Propionitrile	54	6.007	6.007	0.000	99	842219	200.0	241.2	
43 Methacrylonitrile	67	6.214	6.214	0.000	91	1475829	100.0	109.1	
44 Chlorobromomethane	128	6.269	6.269	0.000	93	271130	10.0	10.5	
45 Tetrahydrofuran	71	6.275	6.275	0.000	87	432257	100.0	111.1	
46 Chloroform	83	6.421	6.421	0.000	93	844284	10.0	8.95	
\$ 47 Dibromofluoromethane (Surr)	113	6.641	6.641	0.000	94	450610	10.0	9.91	
48 1,1,1-Trichloroethane	97	6.647	6.647	0.000	98	732096	10.0	8.61	
49 Cyclohexane	56	6.732	6.732	0.000	90	763721	10.0	8.50	
50 Carbon tetrachloride	117	6.854	6.854	0.000	97	622291	10.0	8.74	
51 1,1-Dichloropropene	75	6.854	6.854	0.000	95	664877	10.0	8.71	
52 Isobutyl alcohol	41	7.037	7.037	0.000	94	437156	500.0	490.4	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.104	7.104	0.000	0	96508	10.0	10.4	
54 Benzene	78	7.122	7.122	0.000	96	2089315	10.0	9.51	
55 1,2-Dichloroethane	62	7.202	7.202	0.000	98	553618	10.0	8.36	
56 Tert-amyl methyl ether	73	7.317	7.317	0.000	99	1412877	10.0	8.95	
* 57 Fluorobenzene (IS)	96	7.531	7.531	0.000	99	1913315	10.0	10.0	
58 n-Heptane	43	7.543	7.543	0.000	91	670265	10.0	8.26	
59 n-Butanol	56	7.927	7.927	0.000	89	999415	1000.0	1352.9	
60 Trichloroethene	95	8.012	8.012	0.000	97	539163	10.0	9.52	
61 Methylcyclohexane	83	8.317	8.317	0.000	89	833094	10.0	9.60	
62 1,2-Dichloropropane	63	8.348	8.348	0.000	96	513849	10.0	9.10	
63 2-ethoxy-2-methyl butane	87	8.366	8.366	0.000	95	790727	10.0	9.00	
64 Methyl methacrylate	69	8.445	8.445	0.000	90	288414	10.0	10.0	
65 1,4-Dioxane	88	8.457	8.457	0.000	31	93466	500.0	635.4	M
66 Dibromomethane	93	8.464	8.464	0.000	91	264377	10.0	9.57	
67 Dichlorobromomethane	83	8.701	8.701	0.000	99	640376	10.0	9.40	
68 2-Nitropropane	41	8.988	8.988	0.000	98	878608	100.0	98.2	
71 1-Bromo-2-chloroethane	63	9.098	9.098	0.000	98	563629	10.0	9.66	
72 cis-1,3-Dichloropropene	75	9.262	9.262	0.000	96	801505	10.0	9.47	
73 4-Methyl-2-pentanone (MIBK)	43	9.451	9.451	0.000	96	4023708	100.0	100.7	
\$ 74 Toluene-d8 (Surr)	98	9.579	9.579	0.000	93	1868721	10.0	9.36	
75 Toluene	92	9.658	9.658	0.000	98	1387139	10.0	9.24	
76 trans-1,3-Dichloropropene	75	9.933	9.933	0.000	93	684083	10.0	9.10	
78 Ethyl methacrylate	69	9.994	9.994	0.000	88	607151	10.0	9.57	
79 1,1,2-Trichloroethane	97	10.134	10.134	0.000	90	413178	10.0	9.97	
80 Tetrachloroethene	166	10.219	10.219	0.000	98	649932	10.0	9.69	
81 1,3-Dichloropropane	76	10.305	10.305	0.000	91	681939	10.0	9.33	
82 2-Hexanone	43	10.366	10.366	0.000	96	2918881	100.0	103.4	
83 Chlorodibromomethane	129	10.518	10.518	0.000	89	511849	10.0	10.6	
84 Ethylene Dibromide	107	10.628	10.628	0.000	98	415589	10.0	10.2	
* 85 Chlorobenzene-d5 (IS)	117	11.067	11.067	0.000	84	1528037	10.0	10.0	
86 1-Chlorohexane	91	11.079	11.079	0.000	97	755752	10.0	8.82	
87 Chlorobenzene	112	11.097	11.097	0.000	96	1640812	10.0	9.68	
89 1,1,1,2-Tetrachloroethane	131	11.182	11.182	0.000	96	566108	10.0	9.82	
90 Ethylbenzene	91	11.182	11.182	0.000	98	2730224	10.0	9.18	
91 m-Xylene & p-Xylene	106	11.304	11.304	0.000	0	2206265	20.0	19.0	
92 o-Xylene	106	11.634	11.634	0.000	96	1067874	10.0	9.38	
93 Styrene	104	11.652	11.652	0.000	95	1872504	10.0	9.80	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
94 Bromoform	173	11.810	11.810	0.000	98	336992	10.0	12.6	
95 Isopropylbenzene	105	11.938	11.938	0.000	96	2787520	10.0	9.25	
\$ 98 4-Bromofluorobenzene (Surr)	95	12.085	12.085	0.000	95	724264	10.0	9.66	
99 1,1,2,2-Tetrachloroethane	83	12.194	12.194	0.000	93	540562	10.0	9.78	
100 Bromobenzene	156	12.201	12.201	0.000	95	768137	10.0	10.1	
101 trans-1,4-Dichloro-2-butene	53	12.219	12.219	0.000	94	1138132	100.0	74.4	
102 1,2,3-Trichloropropane	110	12.237	12.237	0.000	80	149812	10.0	9.96	
103 N-Propylbenzene	91	12.274	12.274	0.000	99	3312256	10.0	9.30	
104 2-Chlorotoluene	126	12.353	12.353	0.000	98	722589	10.0	9.92	
105 1,3,5-Trimethylbenzene	105	12.414	12.414	0.000	94	2466657	10.0	9.34	
106 4-Chlorotoluene	126	12.444	12.444	0.000	97	759392	10.0	10.0	
107 tert-Butylbenzene	134	12.658	12.658	0.000	93	542554	10.0	9.45	
108 Pentachloroethane	167	12.688	12.688	0.000	92	467791	10.0	10.9	
109 1,2,4-Trimethylbenzene	105	12.700	12.700	0.000	97	2592217	10.0	9.57	
110 sec-Butylbenzene	105	12.822	12.822	0.000	94	3204973	10.0	9.42	
111 1,3-Dichlorobenzene	146	12.920	12.920	0.000	99	1507977	10.0	9.95	
112 4-Isopropyltoluene	119	12.932	12.932	0.000	97	2834371	10.0	9.56	
* 113 1,4-Dichlorobenzene-d4	152	12.975	12.975	0.000	93	885110	10.0	10.0	
114 1,4-Dichlorobenzene	146	12.993	12.993	0.000	96	1542966	10.0	9.89	
115 1,2,3-Trimethylbenzene	120	13.005	13.005	0.000	98	1145326	10.0	9.64	
116 Benzyl chloride	126	13.078	13.078	0.000	98	255333	10.0	11.6	
119 n-Butylbenzene	92	13.225	13.225	0.000	96	1414337	10.0	9.41	
120 1,2-Dichlorobenzene	146	13.255	13.255	0.000	99	1430291	10.0	10.0	
118 p-Diethylbenzene	119	13.280	13.280	0.000	86	1455984	10.0	9.67	
123 1,2-Dibromo-3-Chloropropane	155	13.810	13.810	0.000	89	87731	10.0	11.6	
124 1,3,5-Trichlorobenzene	180	13.932	13.932	0.000	98	1262165	10.0	10.2	
125 1,2,4-Trichlorobenzene	180	14.359	14.359	0.000	94	1106204	10.0	9.97	
126 Hexachlorobutadiene	225	14.444	14.444	0.000	96	522813	10.0	9.65	
127 Naphthalene	128	14.542	14.542	0.000	96	1938925	10.0	9.79	
128 1,2,3-Trichlorobenzene	180	14.688	14.688	0.000	96	933343	10.0	9.50	
129 2-Methylnaphthalene	142	15.310	15.310	0.000	92	1043158	10.0	7.79	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_RV1_826_00026

Amount Added: 20.00

Units: uL

MSV_RV4_826_00031

Amount Added: 20.00

Units: uL

MSV_RV4GAS826_00090

Amount Added: 20.00

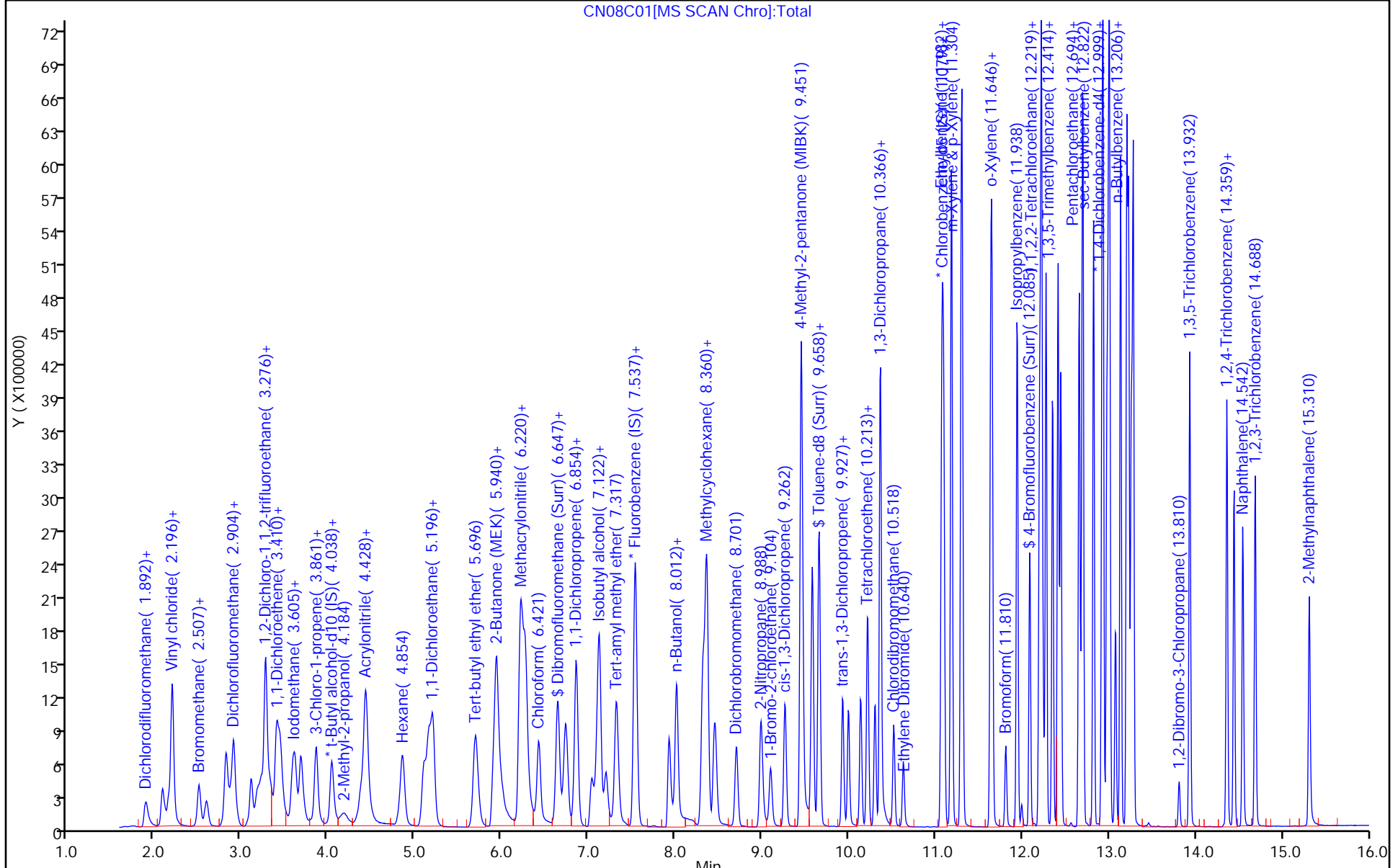
Units: uL

MSV_HP25_ISSS_00017

Amount Added: 1.00

Units: uL

Run Reagent



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\10193\20201108-14932.b\CN08C01.D

Injection Date: 08-Nov-2020 11:28:30 Instrument ID: 10193

Lims ID: CCVIS VSTD010

Client ID:

Operator ID: dvv10203 ALS Bottle#: 2 Worklist Smp#: 3

Purge Vol: 25.000 mL Dil. Factor: 1.0000

Method: MSV_10193_25mL Limit Group: MSV - 8260C_D

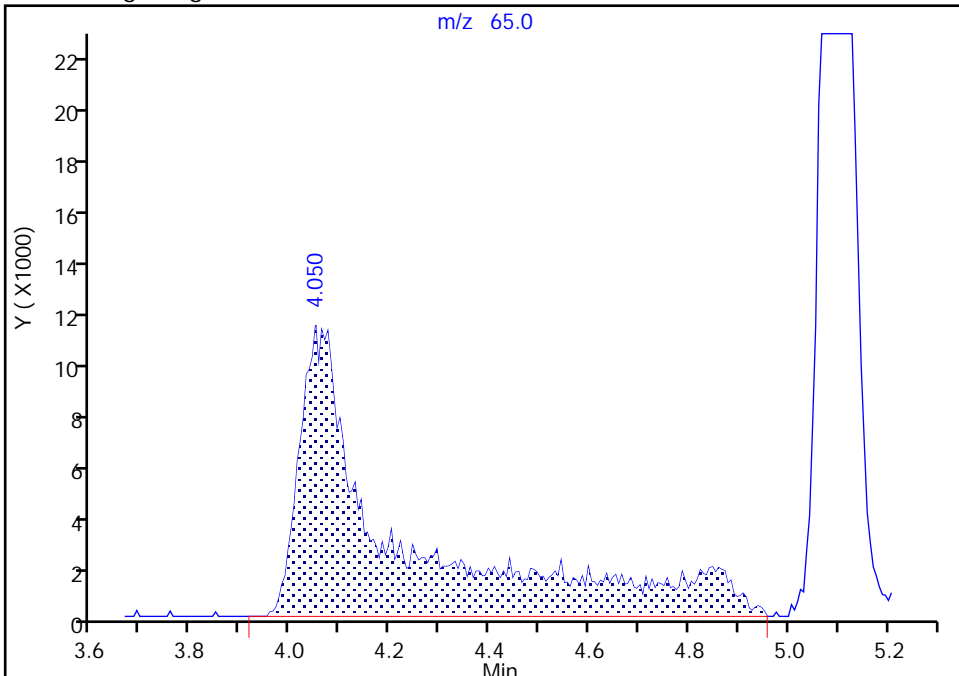
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 25 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

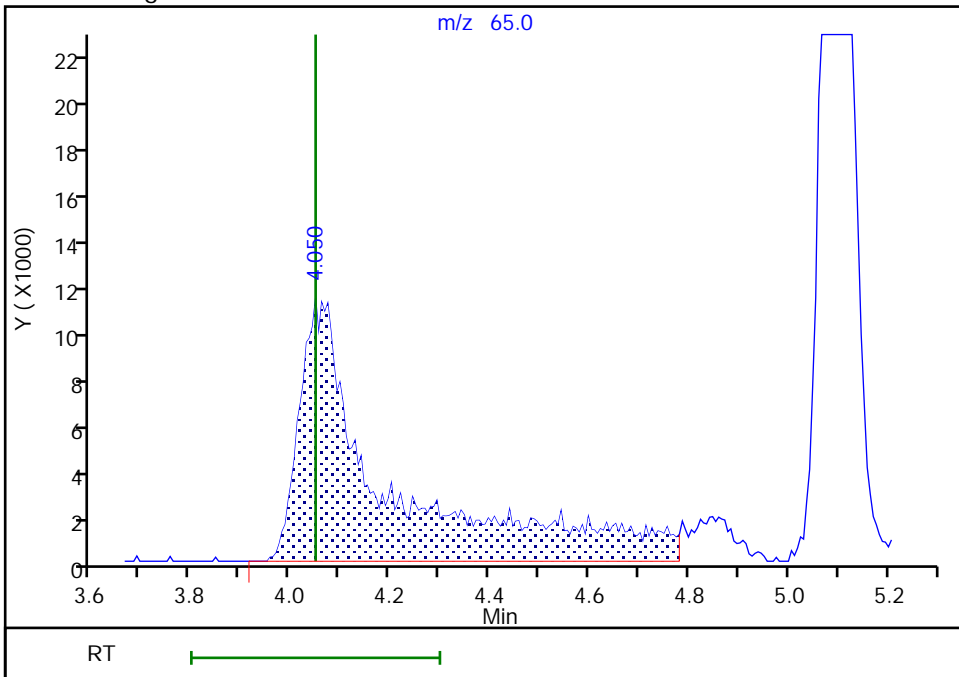
RT: 4.05
Area: 150219
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.05
Area: 138035
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: virayd, 08-Nov-2020 12:11:00
Audit Action: Split an Integrated Peak

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

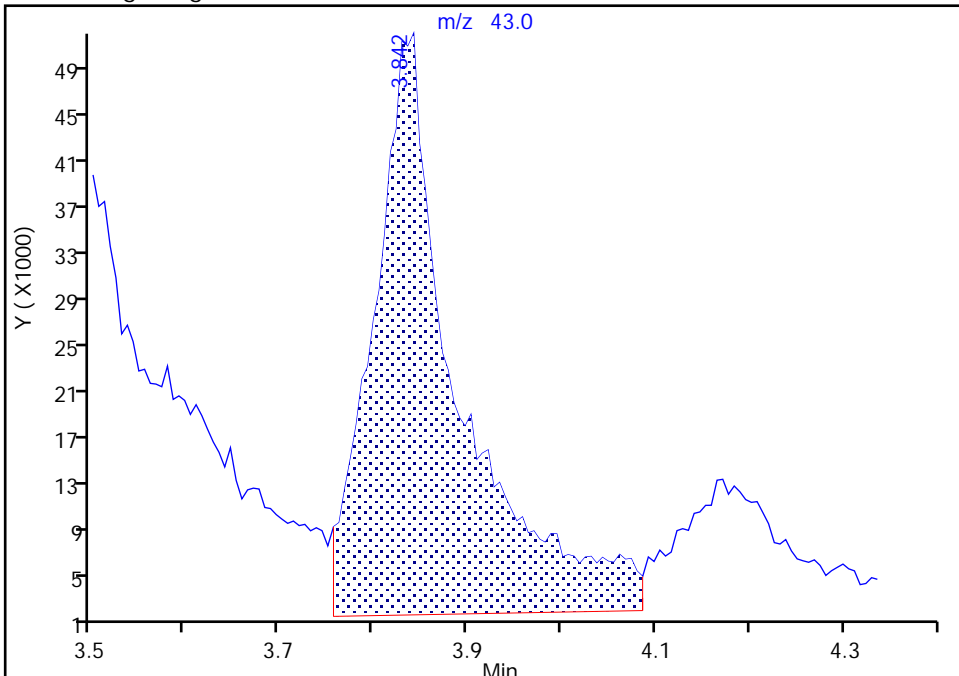
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Injection Date: 08-Nov-2020 11:28:30 Instrument ID: 10193
Lims ID: CCVIS VSTD010
Client ID:
Operator ID: dvv10203 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

22 Methyl acetate, CAS: 79-20-9

Signal: 1

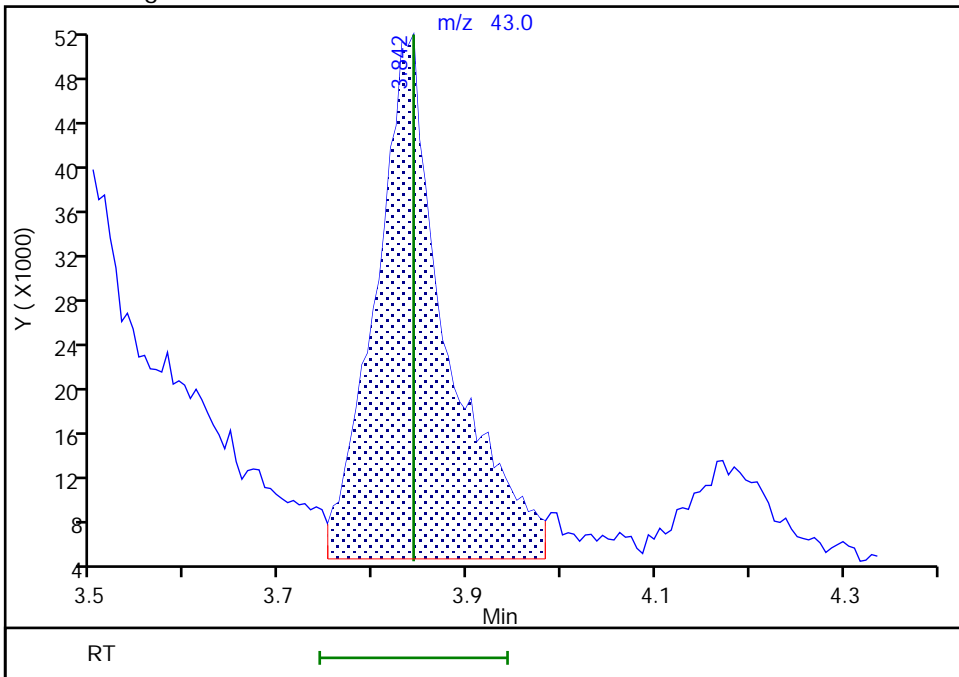
RT: 3.84
Area: 313827
Amount: 12.509588
Amount Units: ug/l

Processing Integration Results



RT: 3.84
Area: 248143
Amount: 10.764414
Amount Units: ug/l

Manual Integration Results



Reviewer: virayd, 08-Nov-2020 12:10:48
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

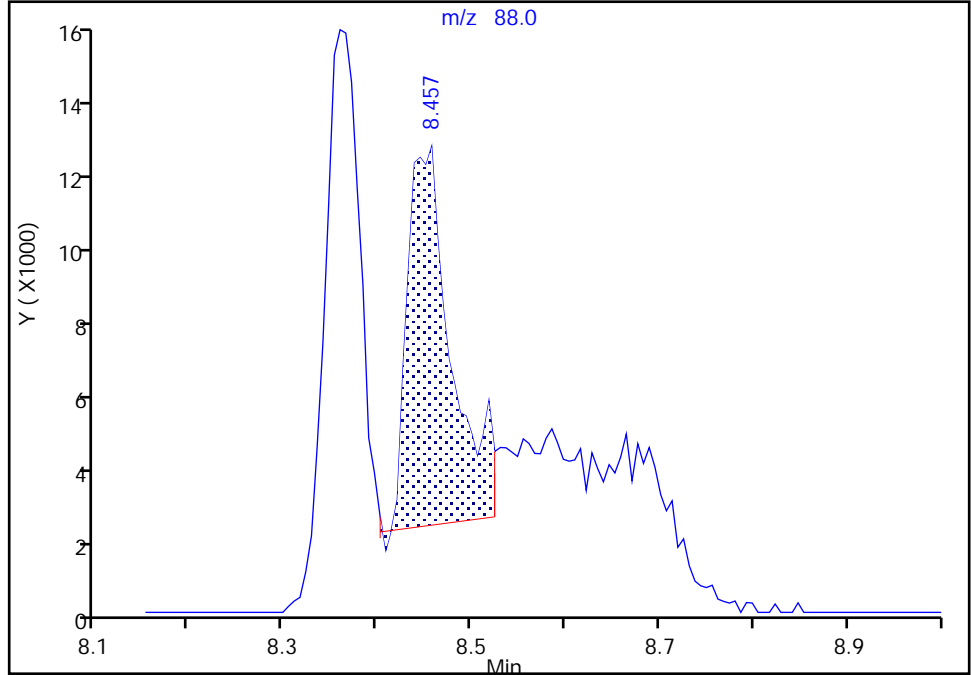
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Injection Date: 08-Nov-2020 11:28:30 Instrument ID: 10193
Lims ID: CCVIS VSTD010
Client ID:
Operator ID: dvv10203 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

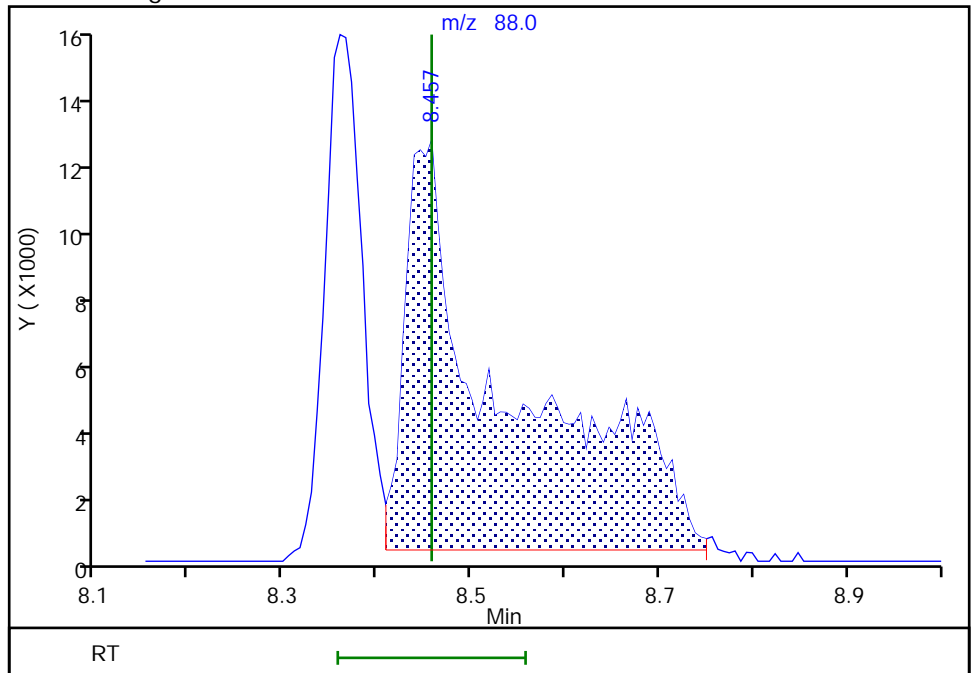
RT: 8.46
Area: 33447
Amount: 227.3907
Amount Units: ug/l

Processing Integration Results



RT: 8.46
Area: 93466
Amount: 635.4321
Amount Units: ug/l

Manual Integration Results



Reviewer: virayd, 08-Nov-2020 12:11:21
Audit Action: Manually Integrated

Audit Reason: Other

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-19023-1

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.: 410-19023-1
 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	0.1403		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	0.9342	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.: 410-19023-1
 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

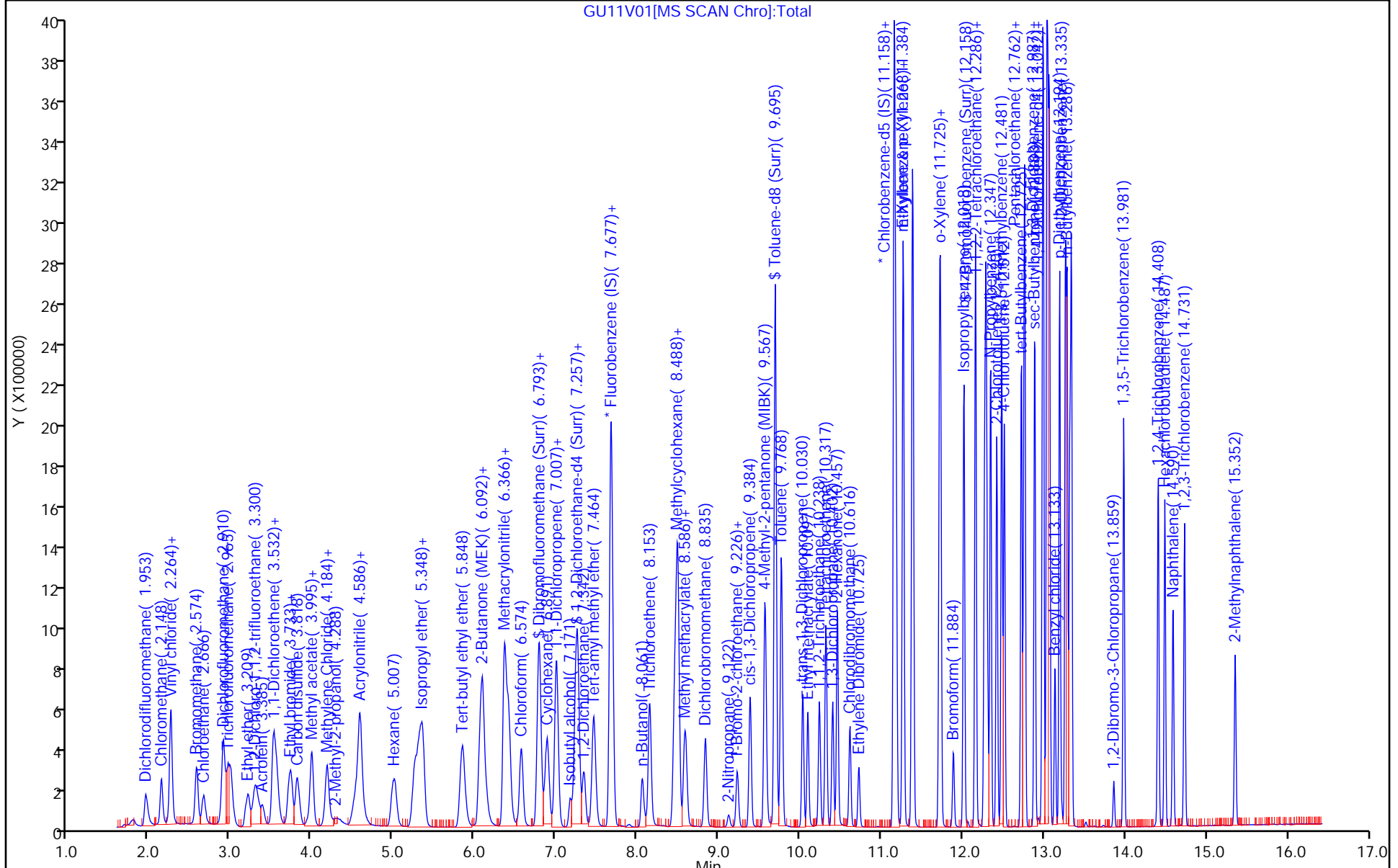
ALS Bottle#: 9

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



Eurofins Lancaster Laboratories Env, LLC

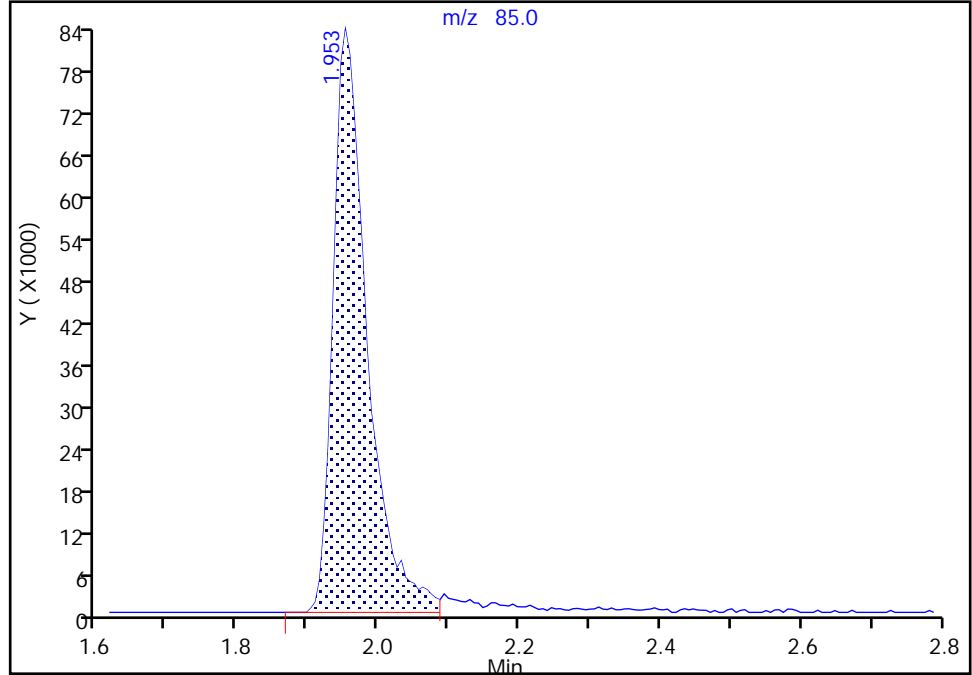
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Injection Date: 11-Jun-2020 16:57:30 Instrument ID: 16334
Lims ID: ICV
Client ID:
Operator ID: DVV10203 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

1 Dichlorodifluoromethane, CAS: 75-71-8

Signal: 1

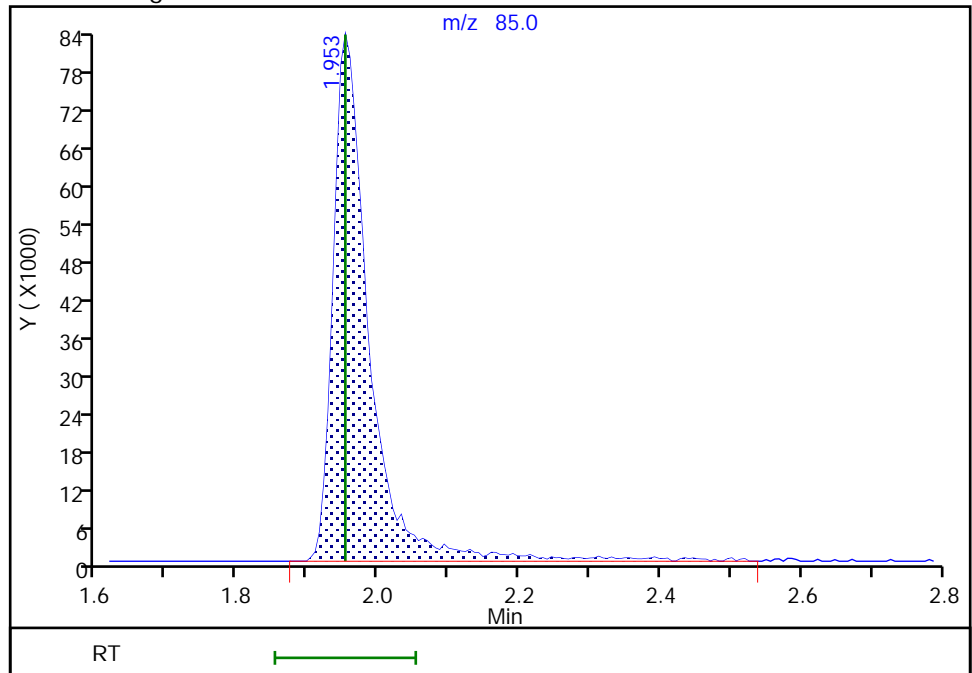
RT: 1.95
Area: 279914
Amount: 3.365908
Amount Units: ug/l

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

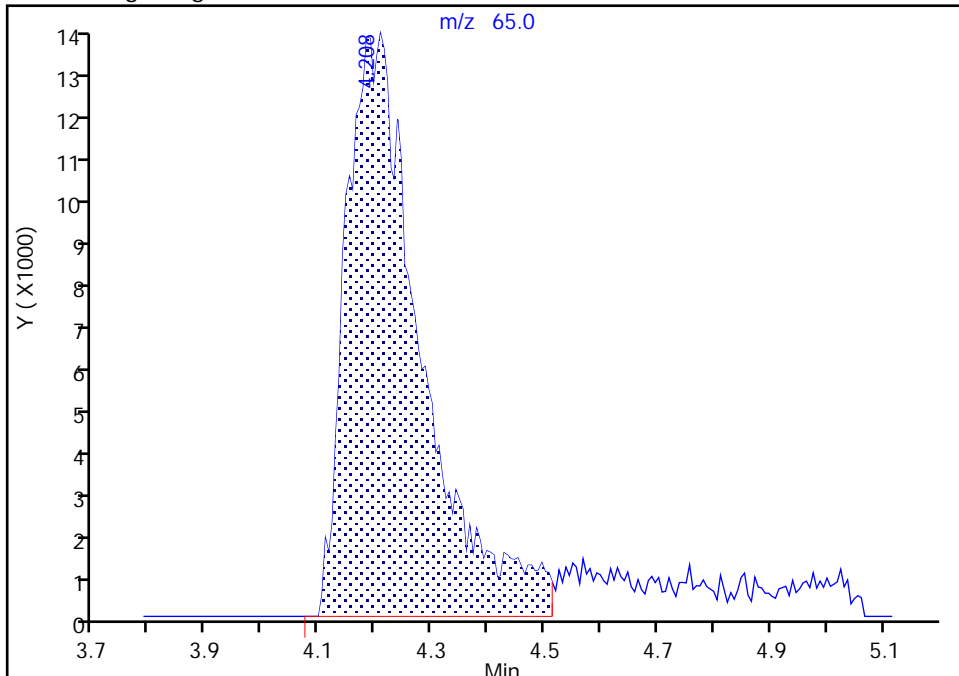
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Injection Date: 11-Jun-2020 16:57:30 Instrument ID: 16334
Lims ID: ICV
Client ID:
Operator ID: DVV10203 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 29 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

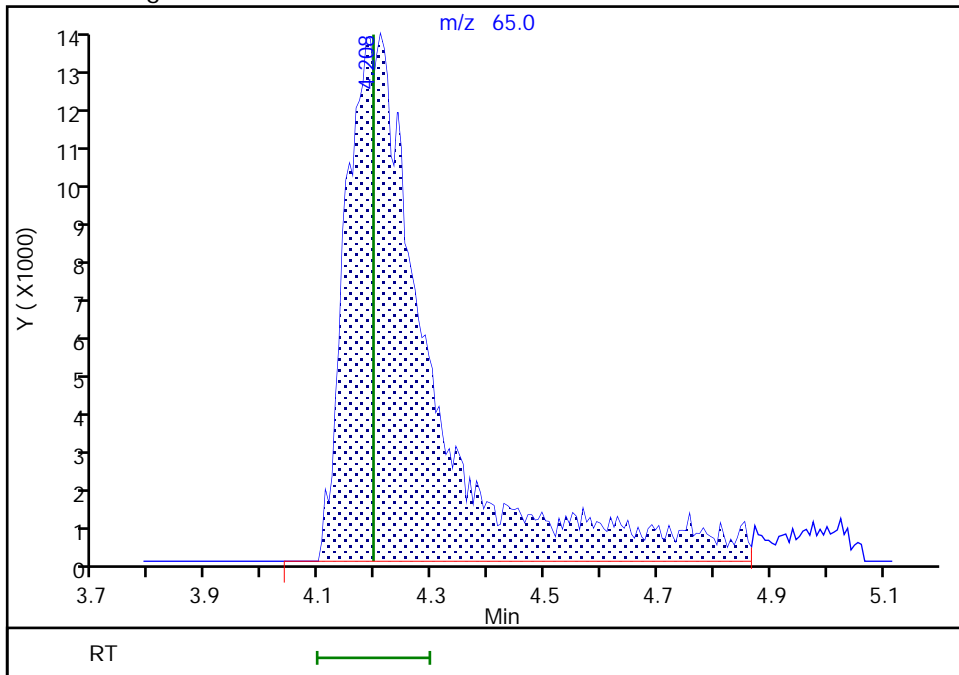
RT: 4.21
Area: 124580
Amount: 50.000000
Amount Units: ug/l

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

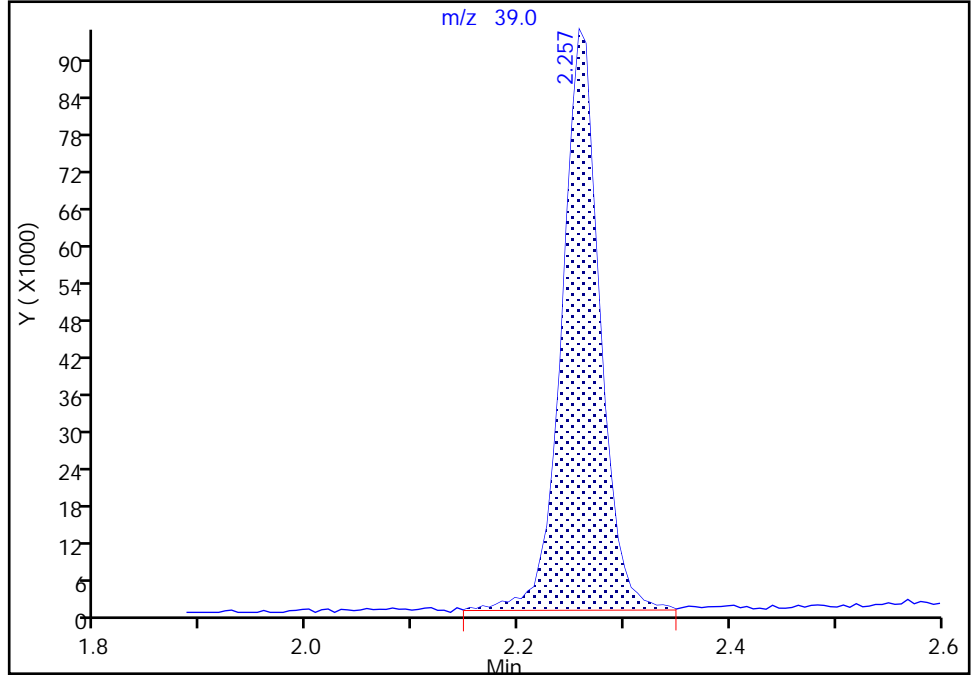
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Injection Date: 11-Jun-2020 16:57:30 Instrument ID: 16334
Lims ID: ICV
Client ID:
Operator ID: DVV10203 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

6 Butadiene, CAS: 106-99-0

Signal: 1

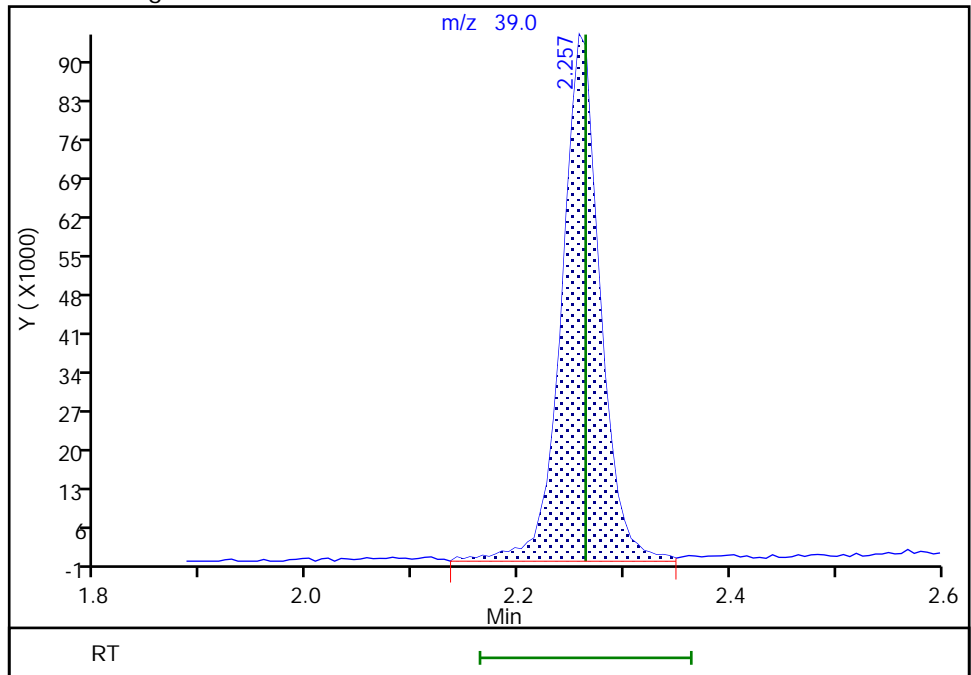
RT: 2.26
Area: 233349
Amount: 3.538315
Amount Units: ug/l

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

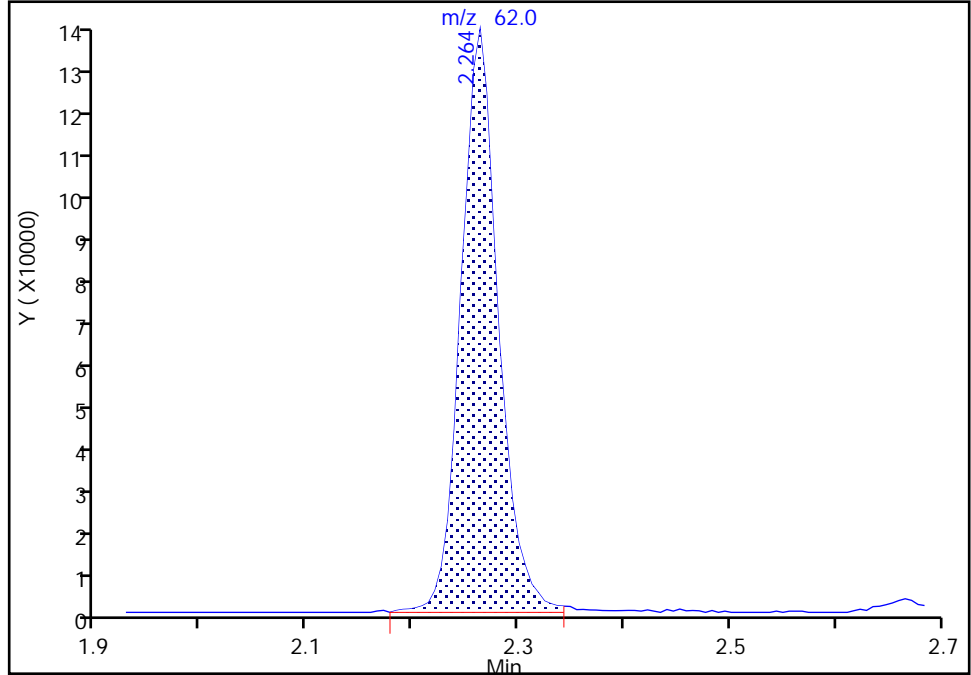
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Injection Date: 11-Jun-2020 16:57:30 Instrument ID: 16334
Lims ID: ICV
Client ID:
Operator ID: DVV10203 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

7 Vinyl chloride, CAS: 75-01-4

Signal: 1

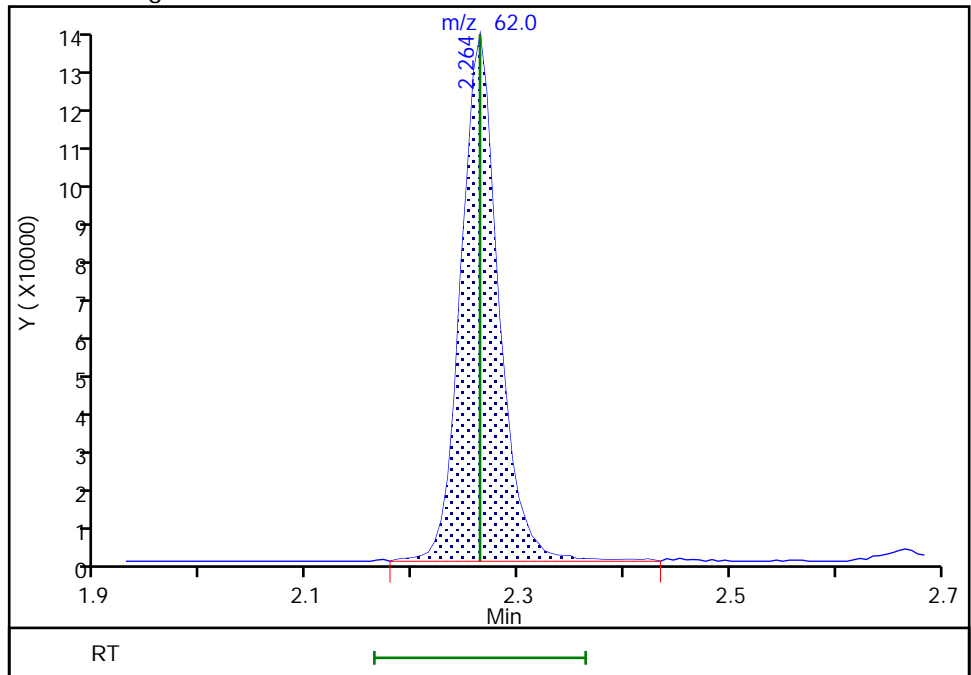
RT: 2.26
Area: 333925
Amount: 4.586729
Amount Units: ug/l

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

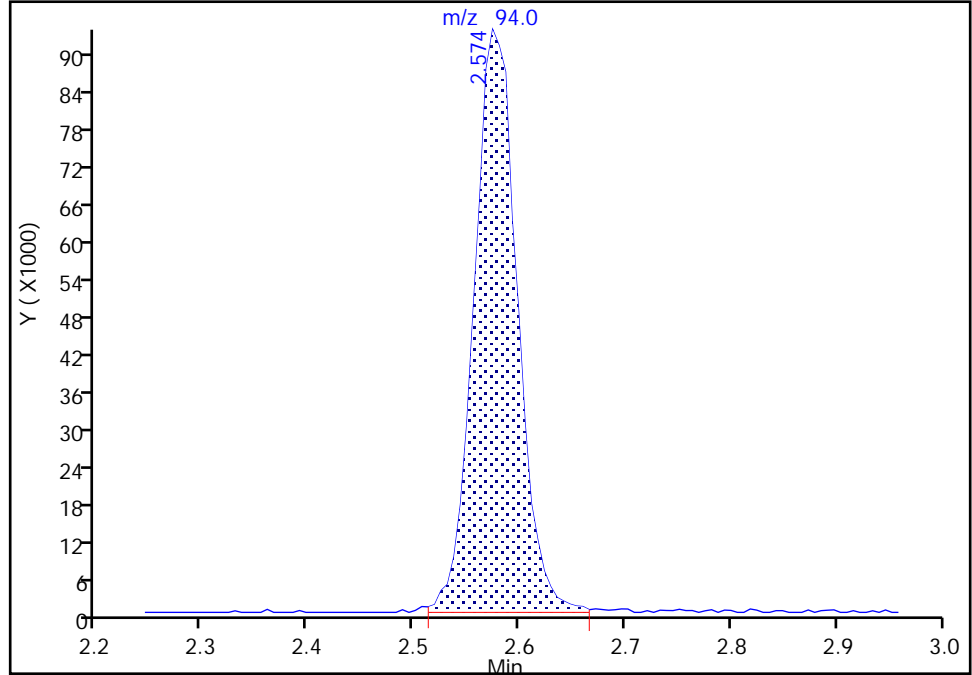
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Injection Date: 11-Jun-2020 16:57:30 Instrument ID: 16334
Lims ID: ICV
Client ID:
Operator ID: DVV10203 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

9 Bromomethane, CAS: 74-83-9

Signal: 1

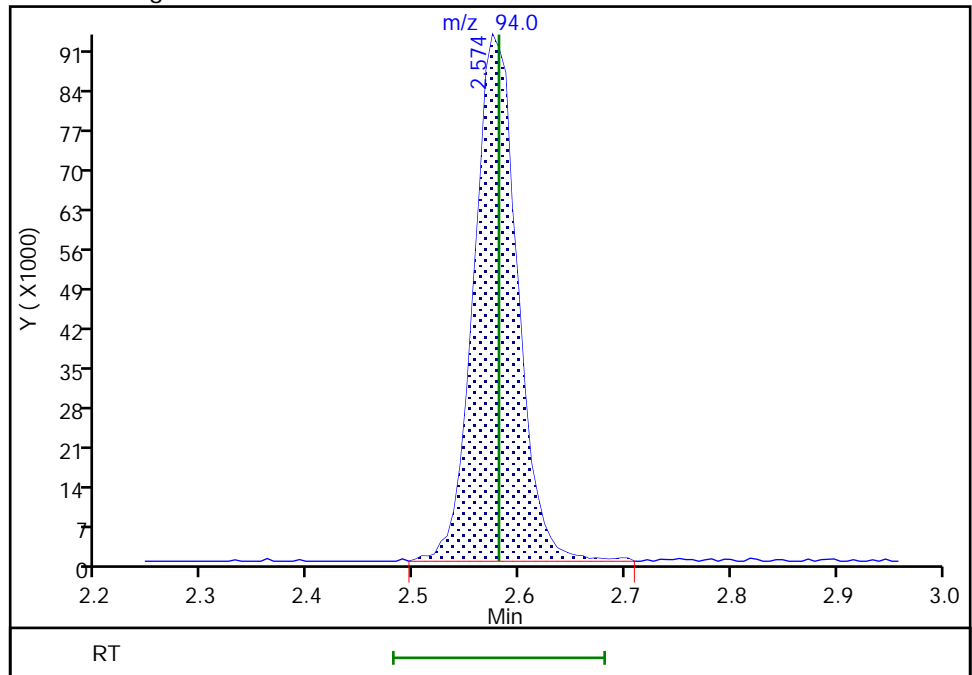
RT: 2.57
Area: 266365
Amount: 4.807552
Amount Units: ug/l

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

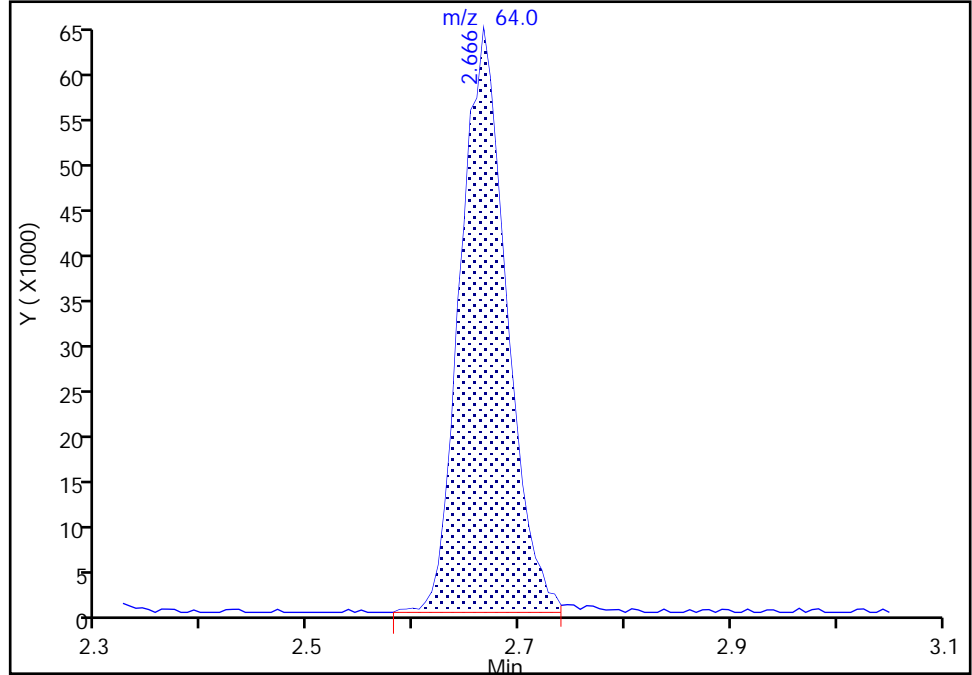
Data File: \\chromfs\Lancaster\ChromData\16334\20200611-3178.b\GU11V01.D
Injection Date: 11-Jun-2020 16:57:30 Instrument ID: 16334
Lims ID: ICV
Client ID:
Operator ID: DVV10203 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

10 Chloroethane, CAS: 75-00-3

Signal: 1

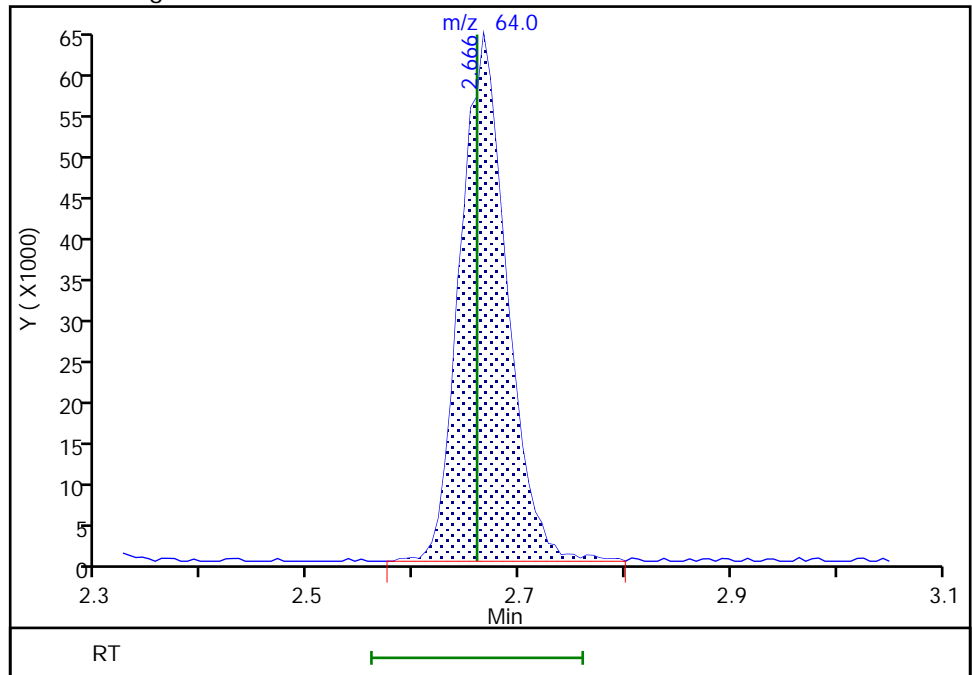
RT: 2.67
Area: 197214
Amount: 4.745244
Amount Units: ug/l

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

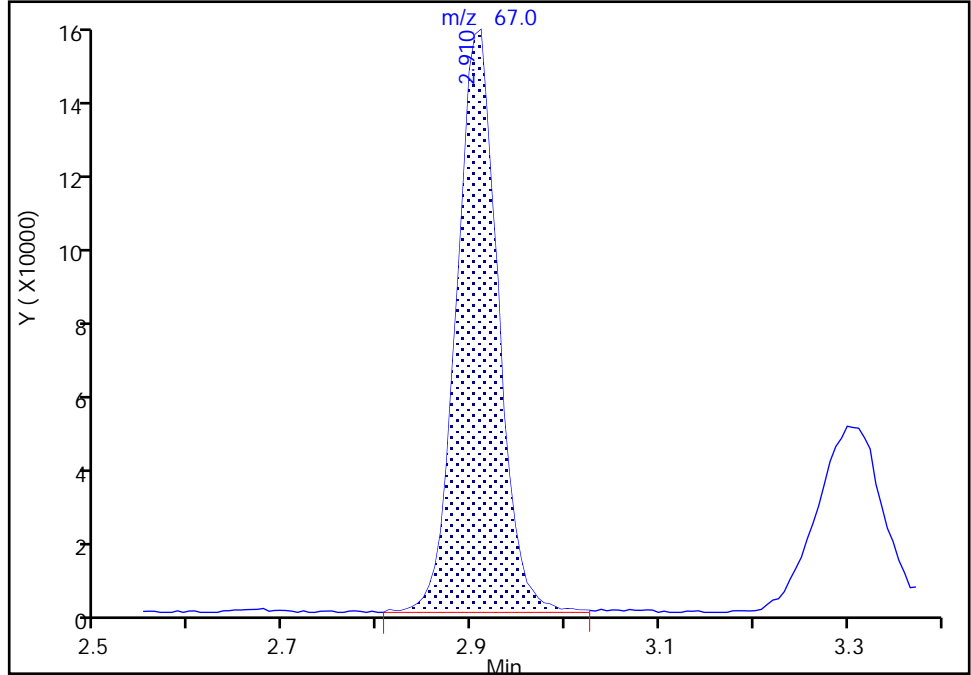
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Injection Date: 11-Jun-2020 16:57:30 Instrument ID: 16334
Lims ID: ICV
Client ID:
Operator ID: DVV10203 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

11 Dichlorofluoromethane, CAS: 75-43-4

Signal: 1

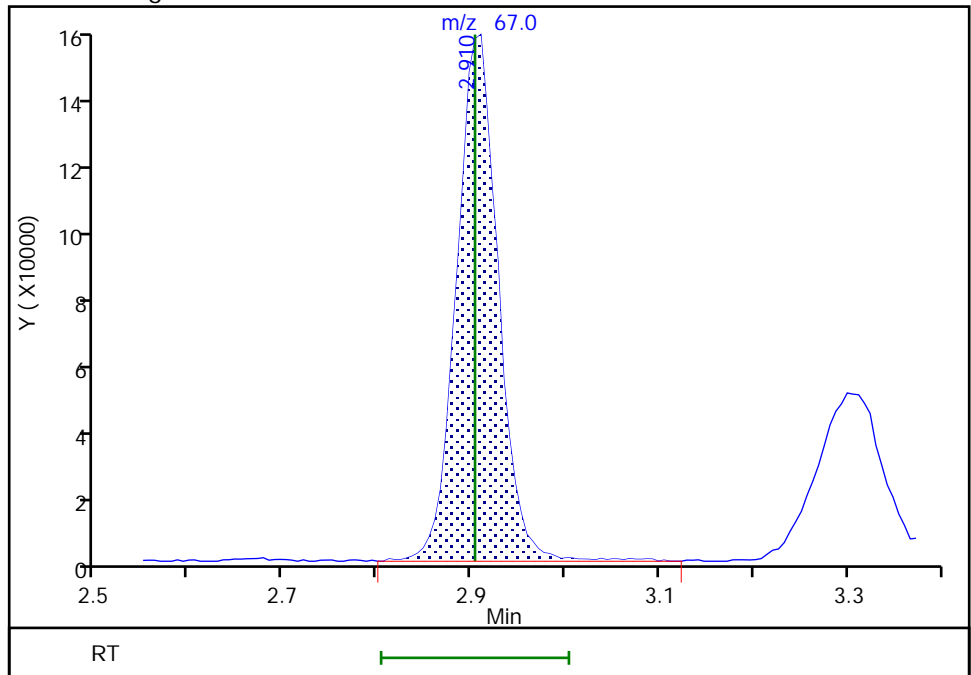
RT: 2.91
Area: 483477
Amount: 4.916032
Amount Units: ug/l

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

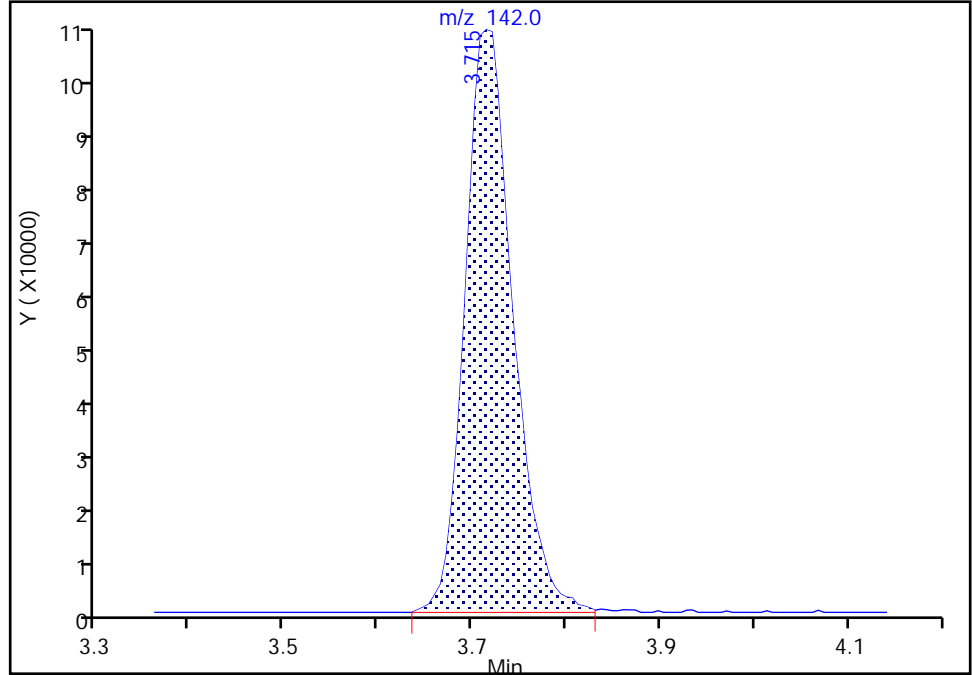
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Injection Date: 11-Jun-2020 16:57:30 Instrument ID: 16334
Lims ID: ICV
Client ID:
Operator ID: DVV10203 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

22 Iodomethane, CAS: 74-88-4

Signal: 1

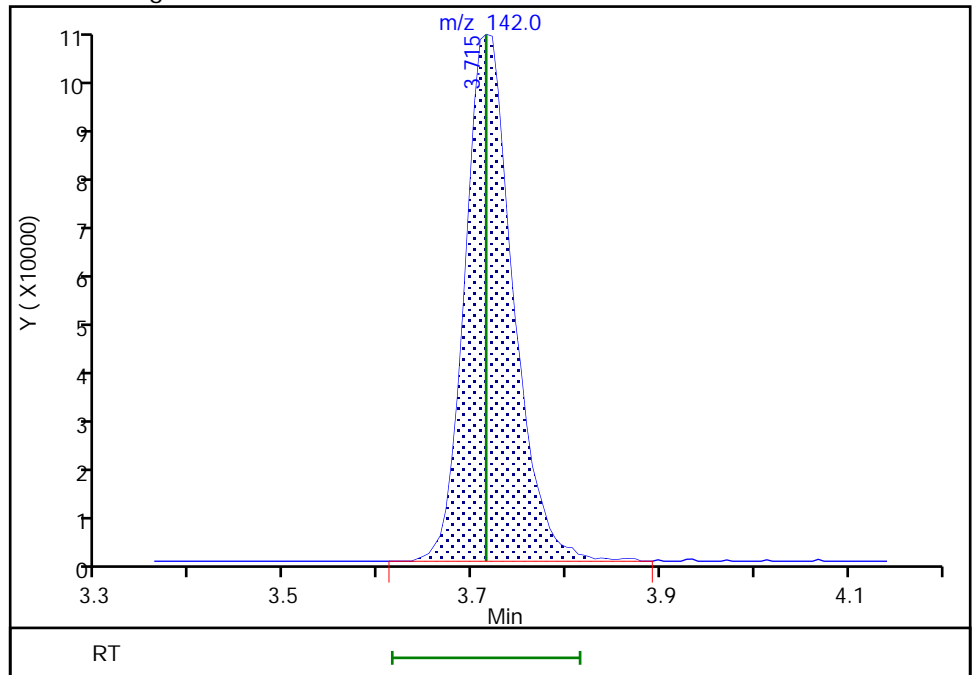
RT: 3.71
Area: 364152
Amount: 4.184440
Amount Units: ug/l

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

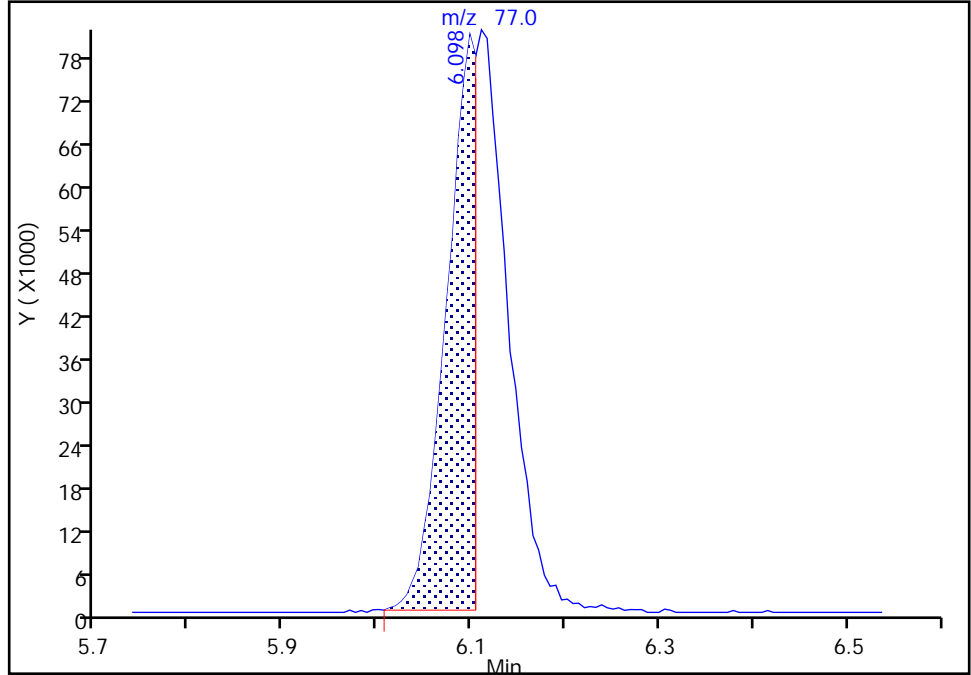
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Injection Date: 11-Jun-2020 16:57:30 Instrument ID: 16334
Lims ID: ICV
Client ID:
Operator ID: DVV10203 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

42 2,2-Dichloropropane, CAS: 594-20-7

Signal: 1

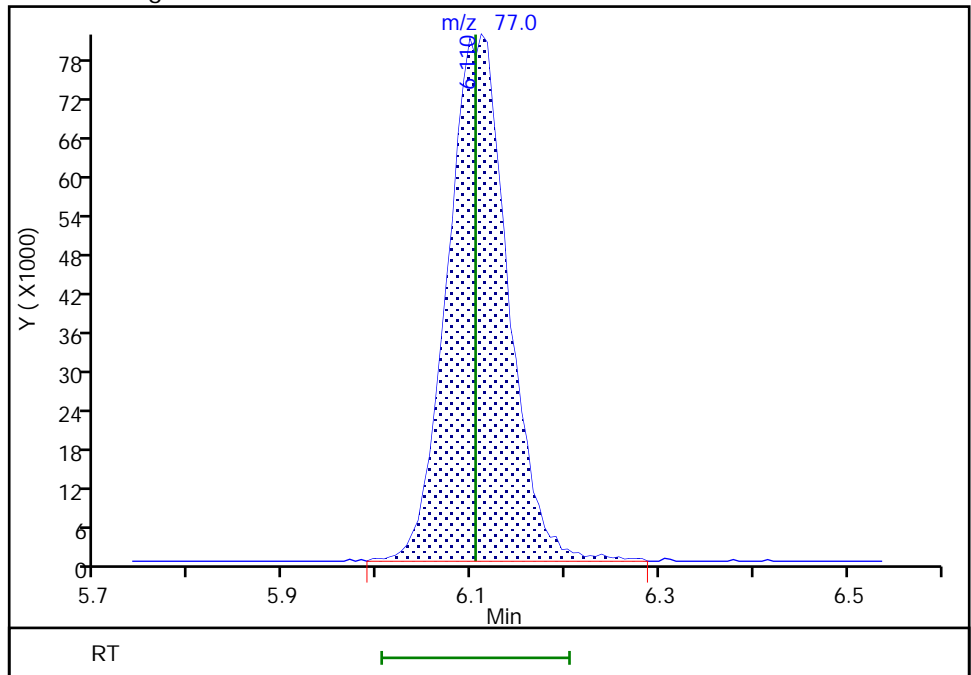
RT: 6.10
Area: 180505
Amount: 2.283555
Amount Units: ug/l

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

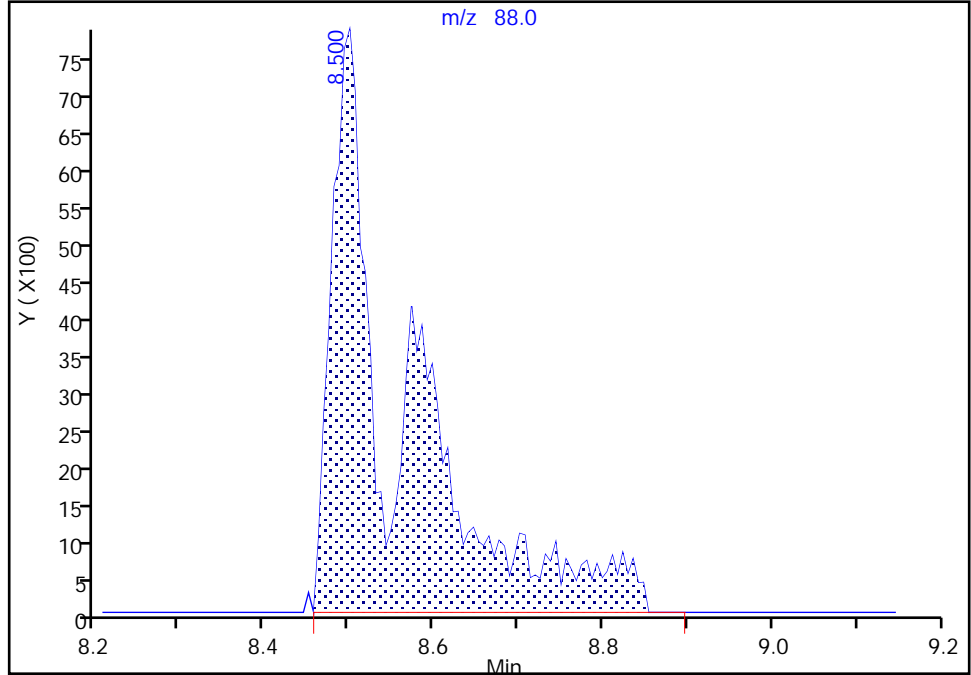
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Injection Date: 11-Jun-2020 16:57:30 Instrument ID: 16334
Lims ID: ICV
Client ID:
Operator ID: DVV10203 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

72 1,4-Dioxane, CAS: 123-91-1

Signal: 1

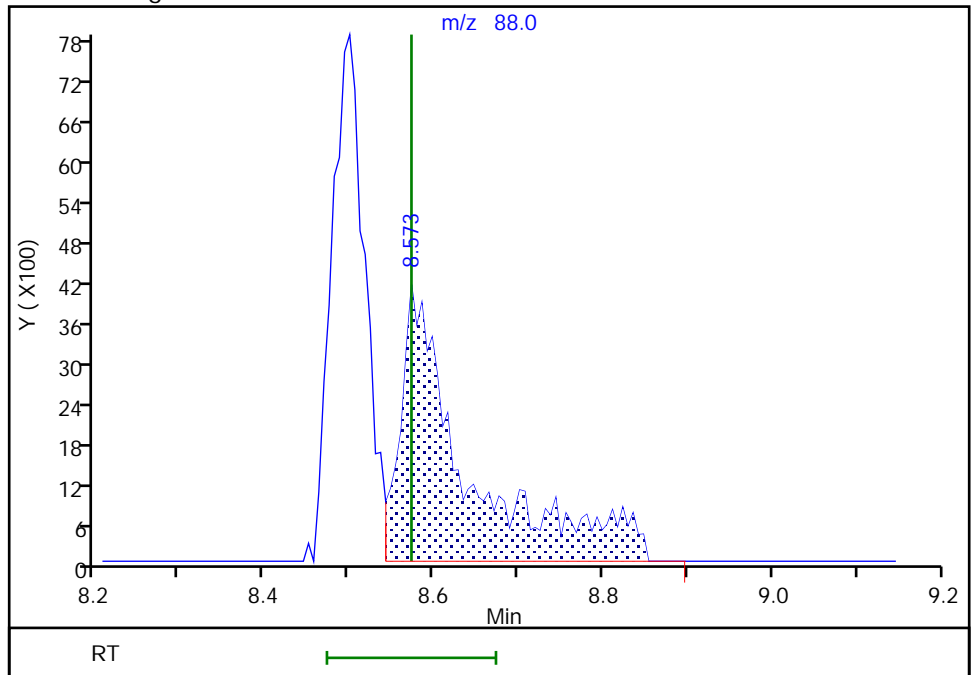
RT: 8.50
Area: 43802
Amount: 251.3466
Amount Units: ug/l

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.: 410-19023-1

SDG No.: _____

Lab Sample ID: CCVIS 410-61951/3 Calibration Date: 11/04/2020 08:59

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: GC30C01.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	0.3107	0.1000	7.44	10.0	-25.6*	20.0
Chloromethane	Ave	0.3870	0.3350	0.1000	8.66	10.0	-13.4	20.0
1,3-Butadiene	Ave	0.3310	0.3483		10.5	10.0	5.2	20.0
Vinyl chloride	Ave	0.3653	0.3074	0.1000	8.41	10.0	-15.9	20.0
Bromomethane	Ave	0.2780	0.2266	0.1000	8.15	10.0	-18.5	20.0
Chloroethane	Ave	0.2086	0.1943	0.1000	9.32	10.0	-6.8	20.0
Dichlorofluoromethane	Ave	0.4935	0.4526		9.17	10.0	-8.3	20.0
Trichlorofluoromethane	Ave	0.4890	0.4360	0.1000	8.91	10.0	-10.9	20.0
Ethyl ether	Ave	0.1811	0.1927		10.6	10.0	6.4	20.0
Freon 123a	Ave	0.2821	0.2807		9.95	10.0	-0.5	20.0
Acrolein	Ave	1.763	1.293		367	501	-26.7*	20.0
1,1-Dichloroethene	Ave	0.2121	0.2073	0.1000	9.78	10.0	-2.2	20.0
Acetone	Ave	2.792	2.343	0.1000	83.9	100	-16.1	20.0
Freon 113	Ave	0.2338	0.2333	0.1000	9.98	10.0	-0.2	20.0
Methyl iodide	Ave	0.4367	0.3920		8.98	10.0	-10.2	20.0
Ethyl bromide	Ave	0.1858	0.1885		10.1	10.0	1.5	20.0
Carbon disulfide	Ave	0.7439	0.7770	0.1000	10.4	10.0	4.5	20.0
Methyl acetate	Ave	6.615	7.116	0.1000	10.8	10.0	7.6	20.0
Allyl chloride	Ave	0.3517	0.3502		9.96	10.0	-0.4	20.0
Methylene Chloride	Ave	0.2381	0.2308	0.1000	9.70	10.0	-3.0	20.0
t-Butyl alcohol	Ave	0.8900	0.8704		196	200	-2.2	20.0
Acrylonitrile	Ave	3.004	3.074		51.2	50.0	2.3	20.0
Methyl tert-butyl ether	Ave	0.6518	0.6427	0.1000	9.86	10.0	-1.4	20.0
trans-1,2-Dichloroethene	Ave	0.2394	0.2395	0.1000	10.0	10.0	0.0	20.0
n-Hexane	Ave	0.3153	0.3692		11.7	10.0	17.1	20.0
1,1-Dichloroethane	Ave	0.4511	0.4373	0.2000	9.70	10.0	-3.0	20.0
di-Isopropyl ether	Ave	0.8017	0.7808		9.74	10.0	-2.6	20.0
2-Chloro-1,3-butadiene	Ave	0.4150	0.4033		9.72	10.0	-2.8	20.0
Ethyl t-butyl ether	Ave	0.7853	0.7573		9.64	10.0	-3.6	20.0
2-Butanone (MEK)	Ave	4.792	4.476	0.1000	93.4	100	-6.6	20.0
cis-1,2-Dichloroethene	Ave	0.2773	0.2696	0.1000	9.72	10.0	-2.8	20.0
2,2-Dichloropropane	Ave	0.3967	0.3801		9.58	10.0	-4.2	20.0
Propionitrile	Ave	1.093	0.8006		146	200	-26.8*	20.0
Methacrylonitrile	Ave	4.170	4.225		101	100	1.3	20.0
Bromochloromethane	Ave	0.1314	0.1229		9.36	10.0	-6.4	20.0
Tetrahydrofuran	Ave	1.254	1.196		95.4	100	-4.6	20.0
Chloroform	Ave	0.4846	0.4468	0.2000	9.22	10.0	-7.8	20.0
1,1,1-Trichloroethane	Ave	0.4438	0.3960	0.1000	8.92	10.0	-10.8	20.0
Cyclohexane	Ave	0.3844	0.4218	0.1000	11.0	10.0	9.7	20.0
Carbon tetrachloride	Ave	0.3967	0.3400	0.1000	8.57	10.0	-14.3	20.0
1,1-Dichloropropene	Ave	0.3578	0.3552		9.93	10.0	-0.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-19023-1

SDG No.: _____

Lab Sample ID: CCVIS 410-61951/3 Calibration Date: 11/04/2020 08:59

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: GC30C01.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	0.0048		427	500	-14.5	20.0
Benzene	Ave	0.998	1.006	0.5000	10.1	10.0	0.8	20.0
1,2-Dichloroethane	Ave	0.3613	0.3093	0.1000	8.56	10.0	-14.4	20.0
t-Amyl methyl ether	Ave	0.7055	0.6966		9.87	10.0	-1.3	20.0
n-Heptane	Ave	0.3645	0.3988		10.9	10.0	9.4	20.0
n-Butanol	Ave	0.2728	0.3201		1170	1000	17.3	20.0
Trichloroethene	Ave	0.2780	0.2673	0.2000	9.61	10.0	-3.9	20.0
Methylcyclohexane	Ave	0.4088	0.4476	0.1000	10.9	10.0	9.5	20.0
1,2-Dichloropropane	Ave	0.2533	0.2599	0.1000	10.3	10.0	2.6	20.0
1,4-Dioxane	Ave	0.0605	0.0753	0.0050	622	500	24.4*	20.0
Methyl methacrylate	Ave	8.438	8.253		9.78	10.0	-2.2	20.0
Dibromomethane	Ave	0.1462	0.1313		8.99	10.0	-10.1	20.0
Bromodichloromethane	Ave	0.3620	0.3402	0.2000	9.40	10.0	-6.0	20.0
2-Nitropropane	Ave	3.520	3.015		85.6	100	-14.4	20.0
1-Bromo-2-chloroethane	Ave	0.2779	0.2901		10.4	10.0	4.4	20.0
cis-1,3-Dichloropropene	Ave	0.4004	0.4193	0.2000	10.5	10.0	4.7	20.0
4-Methyl-2-pentanone (MIBK)	Ave	12.51	12.05	0.1000	96.3	100	-3.7	20.0
Toluene	Ave	0.8261	0.8586	0.4000	10.4	10.0	3.9	20.0
trans-1,3-Dichloropropene	Ave	0.4691	0.4810	0.1000	10.3	10.0	2.6	20.0
Ethyl methacrylate	Ave	0.3647	0.3777		10.4	10.0	3.6	20.0
1,1,2-Trichloroethane	Ave	0.2539	0.2535	0.1000	9.98	10.0	-0.2	20.0
Tetrachloroethene	Ave	0.4042	0.3827	0.2000	9.47	10.0	-5.3	20.0
1,3-Dichloropropane	Ave	0.4381	0.4490		10.2	10.0	2.5	20.0
2-Hexanone	Ave	9.098	8.726	0.1000	95.9	100	-4.1	20.0
Dibromochloromethane	Ave	0.3287	0.3173		9.65	10.0	-3.5	20.0
1,2-Dibromoethane (EDB)	Ave	0.2555	0.2526	0.1000	9.89	10.0	-1.1	20.0
1-Chlorohexane	Ave	0.5118	0.4925		9.62	10.0	-3.8	20.0
Chlorobenzene	Ave	0.9791	0.9524	0.5000	9.73	10.0	-2.7	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3673	0.3369		9.17	10.0	-8.3	20.0
Ethylbenzene	Ave	1.717	1.709	0.1000	9.95	10.0	-0.5	20.0
m&p-Xylene	Ave	0.6383	0.6508	0.1000	20.4	20.0	2.0	20.0
o-Xylene	Ave	0.6245	0.6356	0.3000	10.2	10.0	1.8	20.0
Styrene	Ave	1.029	1.082	0.3000	10.5	10.0	5.1	20.0
Bromoform	Ave	0.2074	0.1932	0.1000	9.31	10.0	-6.9	20.0
Isopropylbenzene	Ave	1.670	1.663	0.1000	9.96	10.0	-0.4	20.0
1,1,2,2-Tetrachloroethane	Ave	0.6058	0.6526	0.3000	10.8	10.0	7.7	20.0
Bromobenzene	Ave	0.8025	0.8091		10.1	10.0	0.8	20.0
trans-1,4-Dichloro-2-butene	Ave	5.031	3.337		66.3	100	-33.7*	20.0
1,2,3-Trichloropropane	Ave	0.1697	0.1727		10.2	10.0	1.8	20.0
N-Propylbenzene	Ave	3.713	3.995		10.8	10.0	7.6	20.0
2-Chlorotoluene	Ave	0.7377	0.7691		10.4	10.0	4.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-19023-1
 SDG No.: _____
 Lab Sample ID: CCVIS 410-61951/3 Calibration Date: 11/04/2020 08:59
 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: GC30C01.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	2.830		11.0	10.0	9.5	20.0
4-Chlorotoluene	Ave	0.7845	0.8044		10.3	10.0	2.5	20.0
tert-Butylbenzene	Ave	0.5753	0.6317		11.0	10.0	9.8	20.0
Pentachloroethane	Ave	0.5078	0.5057		9.96	10.0	-0.4	20.0
1,2,4-Trimethylbenzene	Ave	2.701	2.923		10.8	10.0	8.2	20.0
sec-Butylbenzene	Ave	3.399	3.647		10.7	10.0	7.3	20.0
1,3-Dichlorobenzene	Ave	1.554	1.561	0.6000	10.0	10.0	0.5	20.0
p-Isopropyltoluene	Ave	2.917	3.082		10.6	10.0	5.7	20.0
1,4-Dichlorobenzene	Ave	1.577	1.577	0.5000	10.0	10.0	0.0	20.0
1,2,3-Trimethylbenzene	Ave	1.183	1.220		10.3	10.0	3.1	20.0
Benzyl chloride	Ave	0.2263	0.2558		11.3	10.0	13.0	20.0
n-Butylbenzene	Ave	1.518	1.630		10.7	10.0	7.4	20.0
1,2-Dichlorobenzene	Ave	1.450	1.409	0.4000	9.71	10.0	-2.9	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.0877	0.0793	0.0500	9.04	10.0	-9.6	20.0
1,3,5-Trichlorobenzene	Ave	1.214	1.143		9.42	10.0	-5.8	20.0
1,2,4-Trichlorobenzene	Ave	1.043	0.9164	0.2000	8.79	10.0	-12.1	20.0
Hexachlorobutadiene	Ave	0.5694	0.5208		9.15	10.0	-8.5	20.0
Naphthalene	Ave	1.701	1.470		8.64	10.0	-13.6	20.0
1,2,3-Trichlorobenzene	Ave	0.8757	0.7191		8.21	10.0	-17.9	20.0
Dibromofluoromethane (Surr)	Ave	0.2671	0.2420		9.06	10.0	-9.4	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0509	0.0504		9.90	10.0	-1.0	20.0
Toluene-d8 (Surr)	Ave	1.309	1.322		10.1	10.0	1.0	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4862	0.4809		9.89	10.0	-1.1	20.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\GC30C01.D
 Lims ID: CCVIS VSTD10
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 04-Nov-2020 08:59:30 ALS Bottle#: 2 Worklist Smp#: 3
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014632-003
 Misc. Info.: CCVIS VSTD10
 Operator ID: jkh09052 Instrument ID: 16334
 Sublist: chrom-MSV_16334_25mL*sub4

Method: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 04-Nov-2020 13:28:20 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\GU11117.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1010

First Level Reviewer: howej

Date: 04-Nov-2020 09:53:22

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.947	1.947	0.000	99	716782	10.0	7.44	M
5 Chloromethane	50	2.142	2.142	0.000	99	772864	10.0	8.66	
6 Butadiene	39	2.257	2.257	0.000	91	803654	10.0	10.5	M
7 Vinyl chloride	62	2.257	2.257	0.000	87	709245	10.0	8.41	
9 Bromomethane	94	2.581	2.581	0.000	91	522748	10.0	8.15	
10 Chloroethane	64	2.660	2.660	0.000	100	448327	10.0	9.32	
11 Dichlorofluoromethane	67	2.898	2.898	0.000	97	1044191	10.0	9.17	
13 Trichlorofluoromethane	101	2.965	2.965	0.000	97	1005922	10.0	8.91	
15 Ethyl ether	59	3.209	3.209	0.000	92	444651	10.0	10.6	
16 1,2-Dichloro-1,1,2-trifluoroethane	67	3.294	3.294	0.000	93	647589	10.0	9.95	
18 Acrolein	56	3.379	3.379	0.000	99	2390770	500.9	367.3	
19 1,1-Dichloroethene	96	3.507	3.507	0.000	97	478332	10.0	9.78	
20 Acetone	43	3.544	3.544	0.000	99	864959	100.0	83.9	
21 112TCTFE	101	3.550	3.550	0.000	93	538357	10.0	9.98	
23 Isopropyl alcohol	45	3.702	3.702	0.000	79	182423	200.0	118.0	
22 Iodomethane	142	3.702	3.702	0.000	99	904412	10.0	8.98	
24 Ethyl bromide	108	3.733	3.733	0.000	98	434954	10.0	10.1	
25 Carbon disulfide	76	3.800	3.800	0.000	100	1792809	10.0	10.4	
26 Methyl acetate	43	3.958	3.958	0.000	98	262751	10.0	10.8	M
27 3-Chloro-1-propene	41	3.983	3.983	0.000	90	808039	10.0	9.96	
28 Methylene Chloride	84	4.172	4.172	0.000	92	532510	10.0	9.70	
* 29 t-Butyl alcohol-d10 (IS)	65	4.184	4.184	0.000	0	184611	50.0	50.0	M
30 2-Methyl-2-propanol	59	4.306	4.306	0.000	99	642717	200.0	195.6	M
31 Acrylonitrile	53	4.519	4.519	0.000	98	567430	50.0	51.2	
32 Methyl tert-butyl ether	73	4.568	4.568	0.000	95	1482910	10.0	9.86	
33 trans-1,2-Dichloroethene	96	4.574	4.574	0.000	99	552521	10.0	10.0	
34 Hexane	57	5.001	5.001	0.000	96	851754	10.0	11.7	
36 1,1-Dichloroethane	63	5.245	5.245	0.000	96	1009068	10.0	9.70	
37 Isopropyl ether	45	5.306	5.306	0.000	93	1801570	10.0	9.74	
38 2-Chloro-1,3-butadiene	53	5.354	5.354	0.000	93	930443	10.0	9.72	

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	1747405	10.0	9.64	
40 2-Butanone (MEK)	43	6.056	6.056	0.000	100	1652587	100.0	93.4	
41 cis-1,2-Dichloroethene	96	6.080	6.080	0.000	83	622156	10.0	9.72	
42 2,2-Dichloropropane	77	6.098	6.098	0.000	89	876980	10.0	9.58	
44 Propionitrile	54	6.153	6.153	0.000	98	591179	200.0	146.4	
46 Methacrylonitrile	67	6.366	6.366	0.000	93	1560065	100.0	101.3	
48 Chlorobromomethane	128	6.415	6.415	0.000	96	283647	10.0	9.36	
47 Tetrahydrofuran	71	6.421	6.421	0.000	88	441517	100.0	95.4	
50 Chloroform	83	6.568	6.568	0.000	94	1030886	10.0	9.22	
\$ 52 Dibromofluoromethane (Surr)	113	6.781	6.781	0.000	94	558337	10.0	9.06	
51 1,1,1-Trichloroethane	97	6.793	6.793	0.000	99	913599	10.0	8.92	
53 Cyclohexane	56	6.885	6.885	0.000	92	973157	10.0	11.0	
56 Carbon tetrachloride	117	6.994	6.994	0.000	93	784387	10.0	8.57	
55 1,1-Dichloropropene	75	7.007	7.007	0.000	96	819613	10.0	9.93	
57 Isobutyl alcohol	41	7.171	7.171	0.000	94	548467	500.0	427.3	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.238	7.238	0.000	0	116194	10.0	9.90	
59 Benzene	78	7.269	7.269	0.000	97	2321614	10.0	10.1	
60 1,2-Dichloroethane	62	7.342	7.342	0.000	98	713531	10.0	8.56	
62 Tert-amyl methyl ether	73	7.458	7.458	0.000	98	1607186	10.0	9.87	
* 63 Fluorobenzene (IS)	96	7.671	7.671	0.000	99	2307293	10.0	10.0	
64 n-Heptane	43	7.683	7.683	0.000	91	920057	10.0	10.9	
65 n-Butanol	56	8.055	8.055	0.000	90	1181698	1000.0	1173.0	
67 Trichloroethene	95	8.153	8.153	0.000	98	616649	10.0	9.61	
68 Methylcyclohexane	83	8.451	8.451	0.000	92	1032718	10.0	10.9	
69 1,2-Dichloropropane	63	8.488	8.488	0.000	94	599696	10.0	10.3	
70 2-ethoxy-2-methyl butane	87	8.500	8.500	0.000	92	912636	10.0	10.1	
71 Methyl methacrylate	69	8.573	8.573	0.000	92	304714	10.0	9.78	
72 1,4-Dioxane	88	8.573	8.573	0.000	35	139014	500.0	621.9	M
73 Dibromomethane	93	8.598	8.598	0.000	95	303011	10.0	8.99	
75 Dichlorobromomethane	83	8.835	8.835	0.000	99	784947	10.0	9.40	
76 2-Nitropropane	41	9.116	9.116	0.000	98	1113165	100.0	85.6	
79 1-Bromo-2-chloroethane	63	9.226	9.226	0.000	99	669238	10.0	10.4	
80 cis-1,3-Dichloropropene	75	9.384	9.384	0.000	95	967353	10.0	10.5	
81 4-Methyl-2-pentanone (MIBK)	43	9.567	9.567	0.000	97	4448789	100.0	96.3	
\$ 82 Toluene-d8 (Surr)	98	9.689	9.689	0.000	94	2292383	10.0	10.1	
83 Toluene	92	9.768	9.768	0.000	97	1488396	10.0	10.4	
84 trans-1,3-Dichloropropene	75	10.030	10.030	0.000	95	833882	10.0	10.3	
85 Ethyl methacrylate	69	10.091	10.091	0.000	89	654685	10.0	10.4	
86 1,1,2-Trichloroethane	97	10.238	10.238	0.000	92	439443	10.0	9.98	
88 Tetrachloroethene	166	10.317	10.317	0.000	98	663380	10.0	9.47	
89 1,3-Dichloropropane	76	10.396	10.396	0.000	92	778310	10.0	10.2	
91 2-Hexanone	43	10.451	10.451	0.000	97	3221752	100.0	95.9	
93 Chlorodibromomethane	129	10.610	10.610	0.000	90	550058	10.0	9.65	
94 Ethylene Dibromide	107	10.719	10.719	0.000	99	437873	10.0	9.89	
* 95 Chlorobenzene-d5 (IS)	117	11.152	11.152	0.000	87	1733504	10.0	10.0	
96 1-Chlorohexane	91	11.164	11.164	0.000	98	853670	10.0	9.62	
97 Chlorobenzene	112	11.176	11.176	0.000	93	1650945	10.0	9.73	
98 1,1,1,2-Tetrachloroethane	131	11.262	11.262	0.000	95	583941	10.0	9.17	
99 Ethylbenzene	91	11.262	11.262	0.000	98	2962673	10.0	9.95	
100 m-Xylene & p-Xylene	106	11.378	11.378	0.000	0	2256269	20.0	20.4	
102 o-Xylene	106	11.707	11.707	0.000	97	1101786	10.0	10.2	
103 Styrene	104	11.725	11.725	0.000	94	1874791	10.0	10.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 Bromoform	173	11.878	11.878	0.000	96	334831	10.0	9.31	
105 Isopropylbenzene	105	12.006	12.006	0.000	96	2883169	10.0	9.96	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	90	833696	10.0	9.89	
109 1,1,2,2-Tetrachloroethane	83	12.256	12.256	0.000	93	568394	10.0	10.8	
110 Bromobenzene	156	12.268	12.268	0.000	95	704751	10.0	10.1	
111 trans-1,4-Dichloro-2-butene	53	12.280	12.280	0.000	93	1232052	100.0	66.3	
112 1,2,3-Trichloropropane	110	12.298	12.298	0.000	81	150376	10.0	10.2	
113 N-Propylbenzene	91	12.335	12.335	0.000	99	3479478	10.0	10.8	
114 2-Chlorotoluene	126	12.408	12.408	0.000	96	669882	10.0	10.4	
115 1,3,5-Trimethylbenzene	105	12.469	12.469	0.000	93	2464835	10.0	11.0	
116 4-Chlorotoluene	126	12.505	12.505	0.000	98	700632	10.0	10.3	
118 tert-Butylbenzene	134	12.713	12.713	0.000	93	550203	10.0	11.0	
120 Pentachloroethane	167	12.743	12.743	0.000	93	440479	10.0	9.96	
119 1,2,4-Trimethylbenzene	105	12.755	12.755	0.000	97	2545774	10.0	10.8	
121 sec-Butylbenzene	105	12.871	12.871	0.000	95	3176047	10.0	10.7	
122 1,3-Dichlorobenzene	146	12.969	12.969	0.000	98	1359732	10.0	10.0	
123 4-Isopropyltoluene	119	12.981	12.981	0.000	97	2684480	10.0	10.6	
* 124 1,4-Dichlorobenzene-d4	152	13.024	13.024	0.000	96	870981	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.042	13.042	0.000	93	1373932	10.0	10.0	
126 1,2,3-Trimethylbenzene	120	13.054	13.054	0.000	99	1062797	10.0	10.3	
127 Benzyl chloride	126	13.121	13.121	0.000	99	222837	10.0	11.3	
129 p-Diethylbenzene	119	13.182	13.182	0.000	91	1590745	10.0	10.3	
130 n-Butylbenzene	92	13.268	13.268	0.000	97	1419485	10.0	10.7	
131 1,2-Dichlorobenzene	146	13.304	13.304	0.000	98	1227011	10.0	9.71	
134 1,2-Dibromo-3-Chloropropane	155	13.847	13.847	0.000	89	69034	10.0	9.04	
135 1,3,5-Trichlorobenzene	180	13.963	13.963	0.000	97	995651	10.0	9.42	
136 1,2,4-Trichlorobenzene	180	14.389	14.389	0.000	94	798143	10.0	8.79	
137 Hexachlorobutadiene	225	14.469	14.469	0.000	97	453572	10.0	9.15	
138 Naphthalene	128	14.566	14.566	0.000	97	1280178	10.0	8.64	
139 1,2,3-Trichlorobenzene	180	14.706	14.706	0.000	95	626332	10.0	8.21	
140 2-Methylnaphthalene	142	15.322	15.322	0.000	91	478559	10.0	5.54	

QC Flag Legend

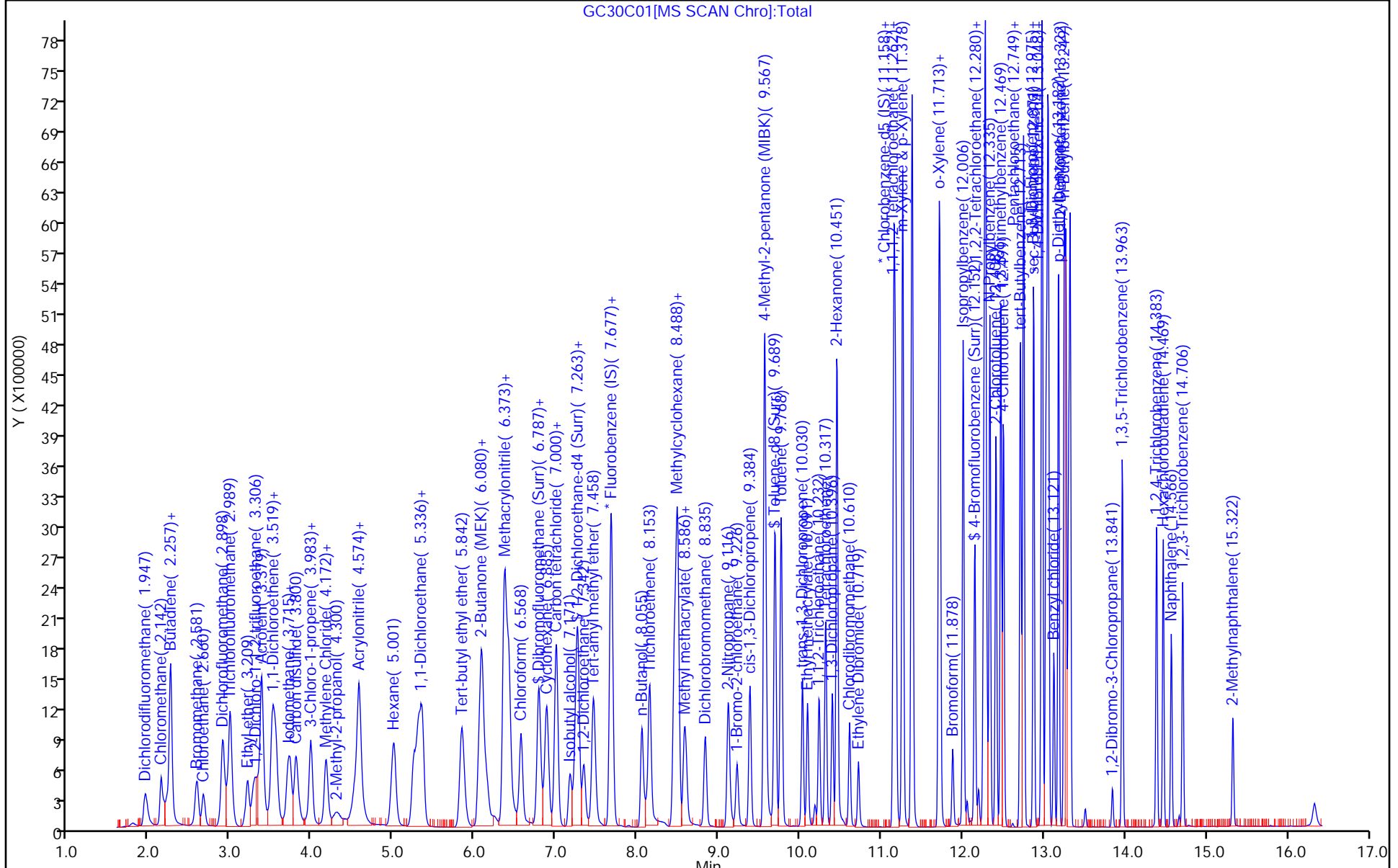
Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_RV4_826_00031	Amount Added: 20.00	Units: uL	
MSV_RV1_826_00027	Amount Added: 20.00	Units: uL	
MSV_RV4GAS826_00090	Amount Added: 20.00	Units: uL	
MSV_29_826ISS_00010	Amount Added: 1.00	Units: uL	Run Reagent



Eurofins Lancaster Laboratories Env, LLC

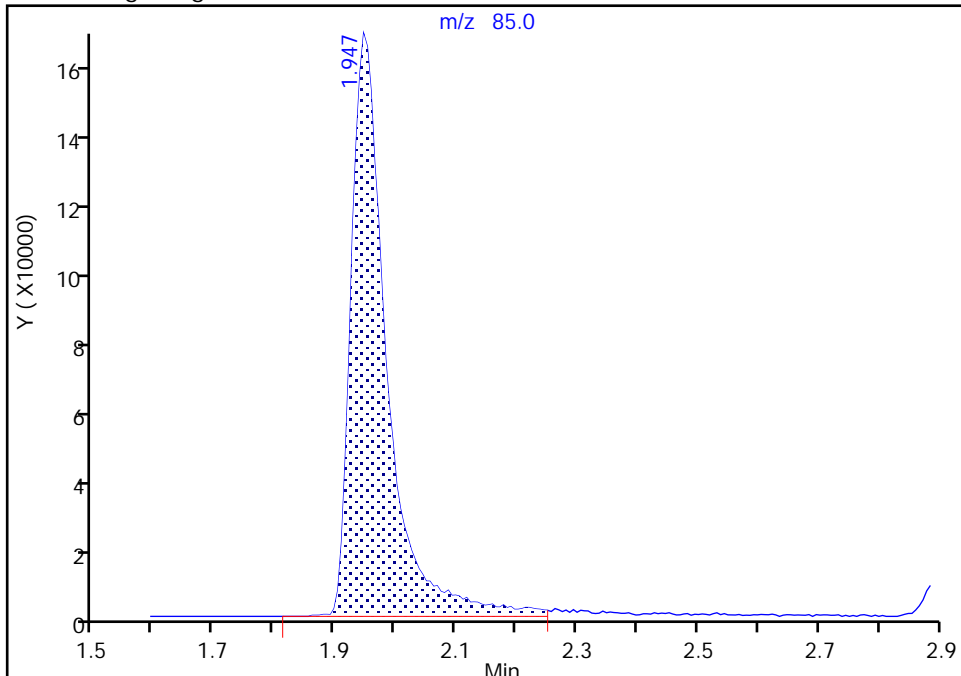
Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\GC30C01.D
Injection Date: 04-Nov-2020 08:59:30 Instrument ID: 16334
Lims ID: CCVIS VSTD10
Client ID:
Operator ID: jkh09052 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

1 Dichlorodifluoromethane, CAS: 75-71-8

Signal: 1

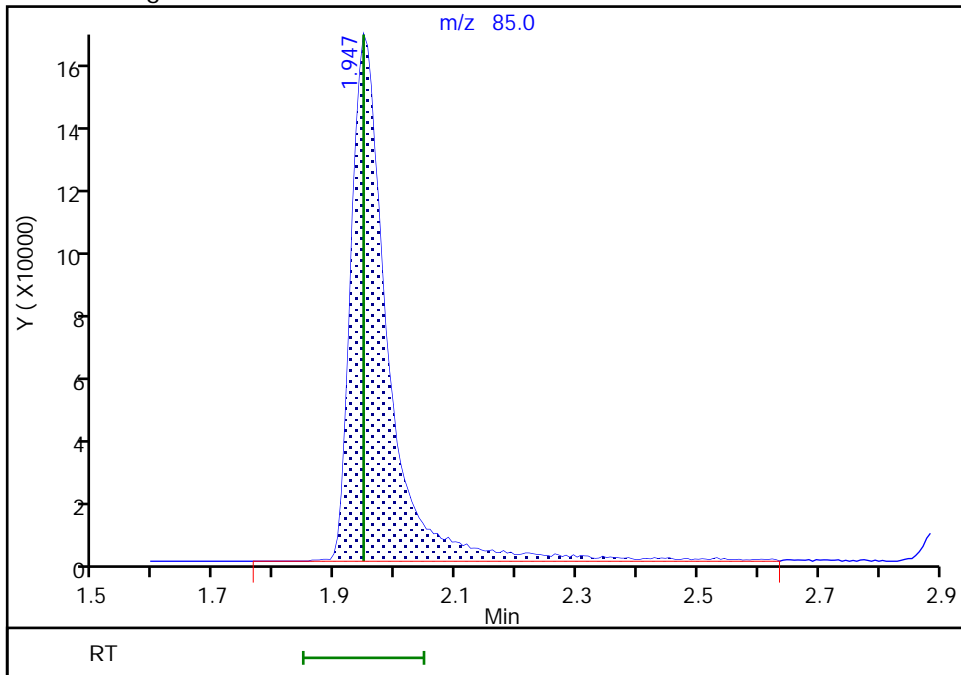
RT: 1.95
Area: 697149
Amount: 7.240042
Amount Units: ug/l

Processing Integration Results



RT: 1.95
Area: 716782
Amount: 7.443935
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 04-Nov-2020 09:30:32
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\GC30C01.D

Injection Date: 04-Nov-2020 08:59:30

Instrument ID: 16334

Lims ID: CCVIS VSTD10

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)

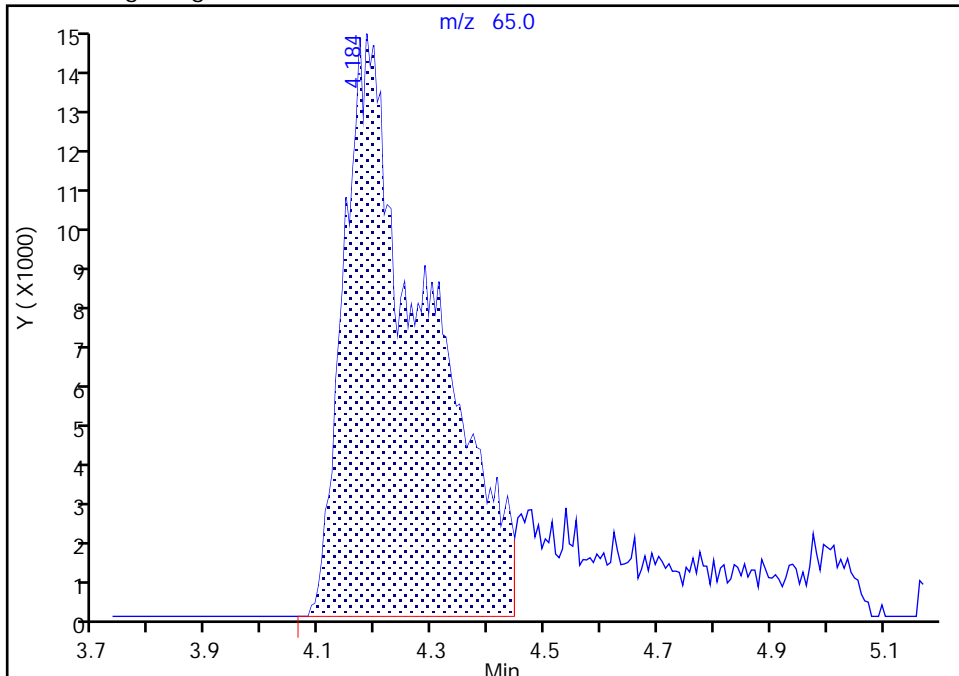
MS Quad

* 29 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

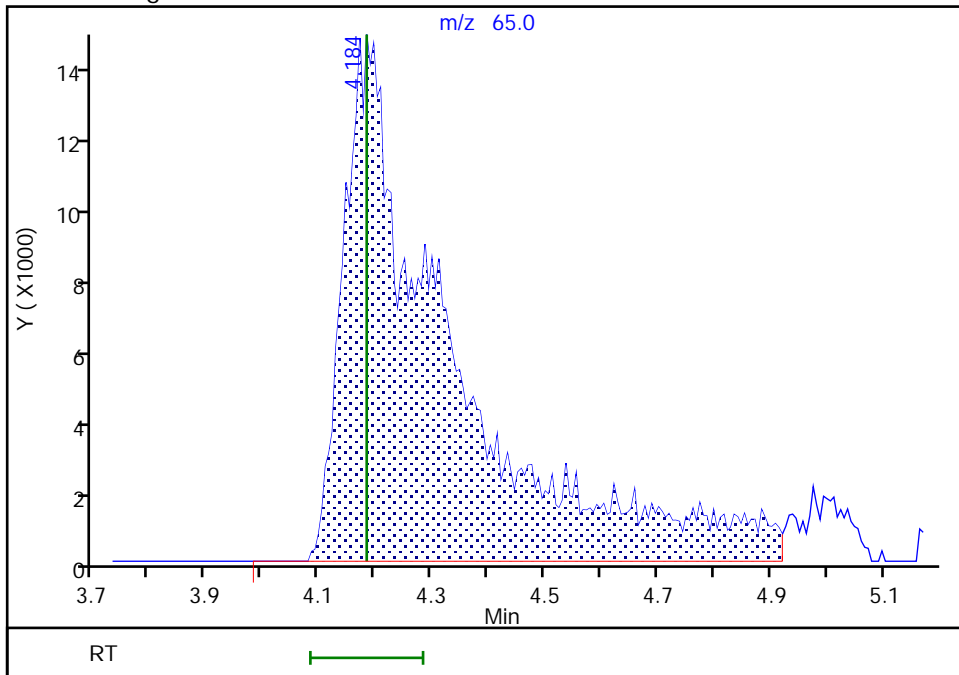
RT: 4.18
Area: 144039
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.18
Area: 184611
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 04-Nov-2020 09:31:26
Audit Action: Split an Integrated Peak

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

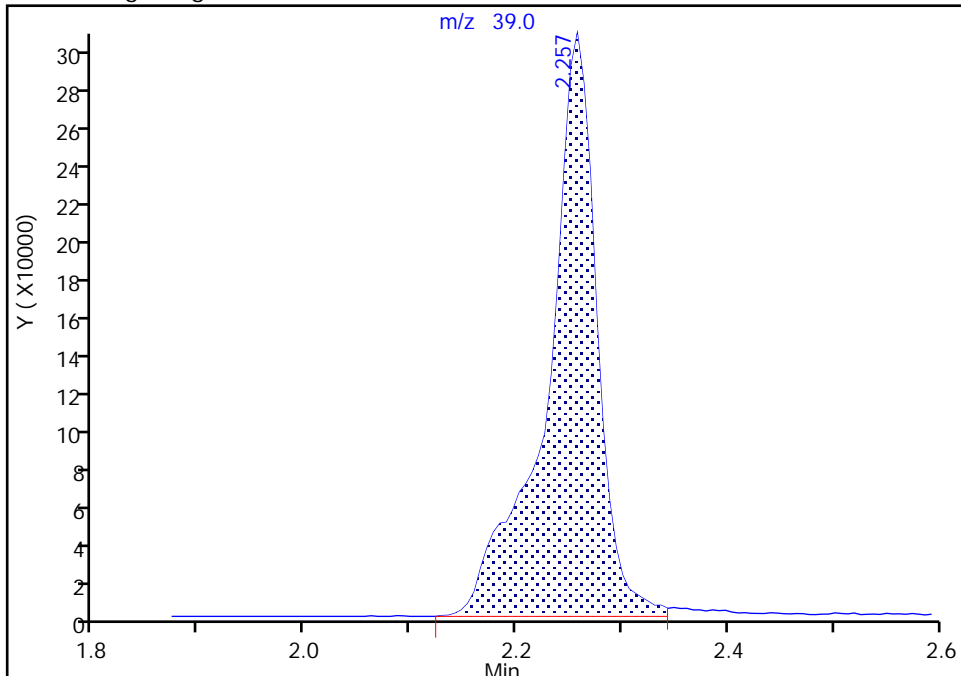
Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\GC30C01.D
Injection Date: 04-Nov-2020 08:59:30 Instrument ID: 16334
Lims ID: CCVIS VSTD10
Client ID:
Operator ID: jkh09052 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

6 Butadiene, CAS: 106-99-0

Signal: 1

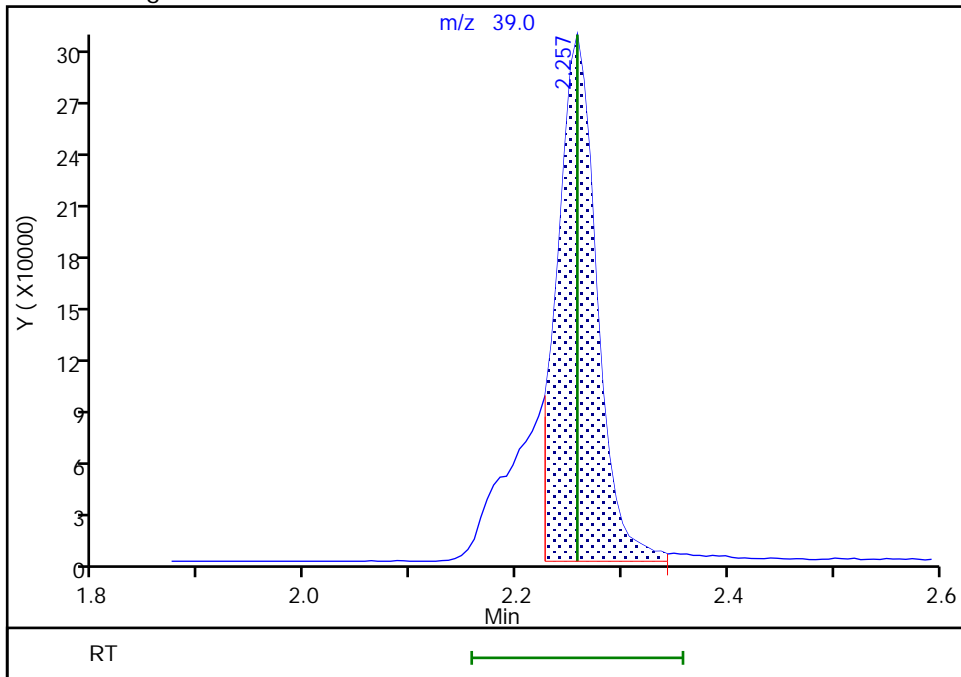
RT: 2.26
Area: 1017222
Amount: 13.321225
Amount Units: ug/l

Processing Integration Results



RT: 2.26
Area: 803654
Amount: 10.524404
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 04-Nov-2020 09:30:42
Audit Action: Split an Integrated Peak

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\GC30C01.D

Injection Date: 04-Nov-2020 08:59:30

Instrument ID: 16334

Lims ID: CCVIS VSTD10

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)

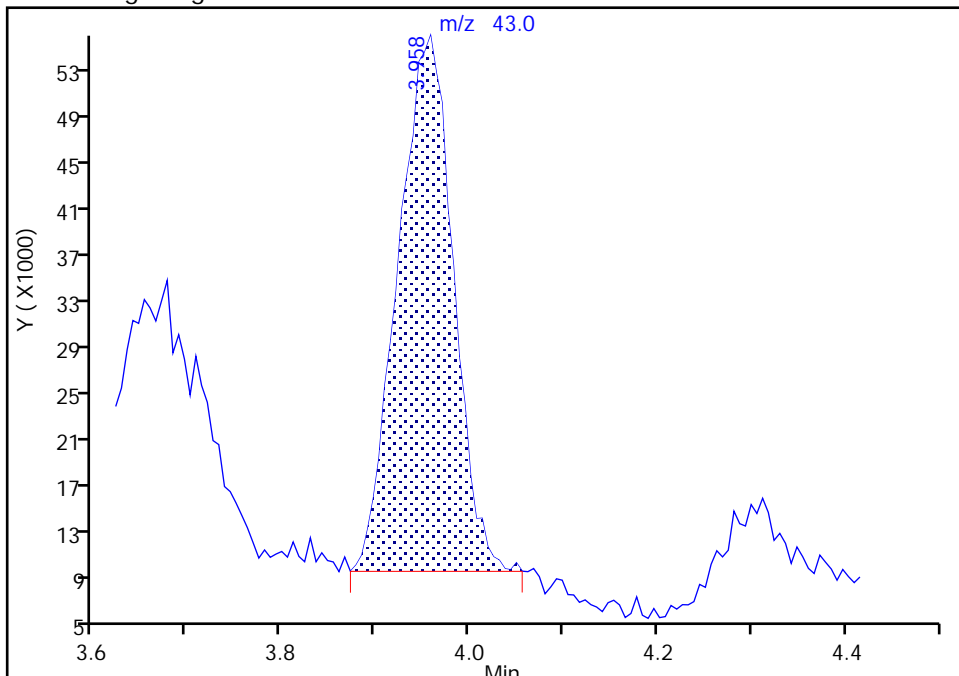
MS Quad

26 Methyl acetate, CAS: 79-20-9

Signal: 1

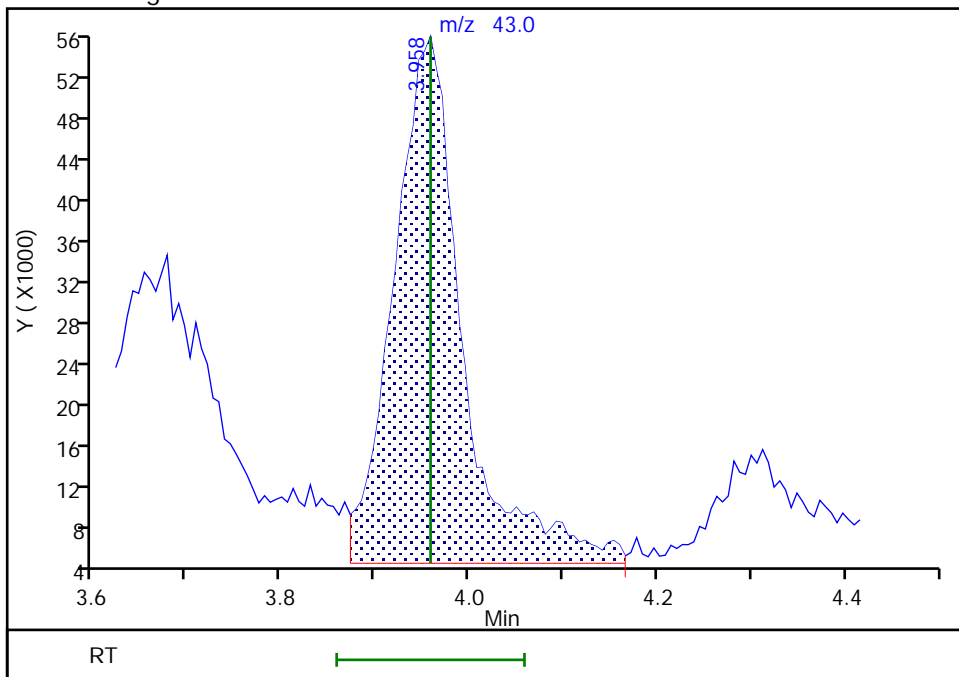
RT: 3.96
Area: 191100
Amount: 7.824012
Amount Units: ug/l

Processing Integration Results



RT: 3.96
Area: 262751
Amount: 10.757546
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 04-Nov-2020 09:31:49

Audit Action: Assigned New Baseline

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\GC30C01.D

Injection Date: 04-Nov-2020 08:59:30

Instrument ID: 16334

Lims ID: CCVIS VSTD10

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)

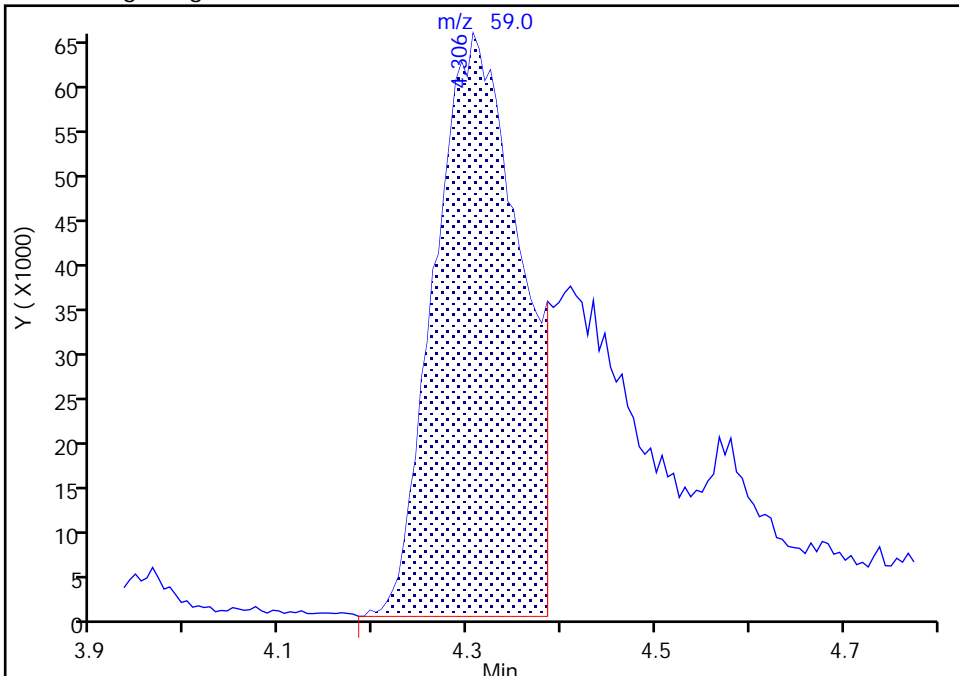
Detector: MS Quad

30 2-Methyl-2-propanol, CAS: 75-65-0

Signal: 1

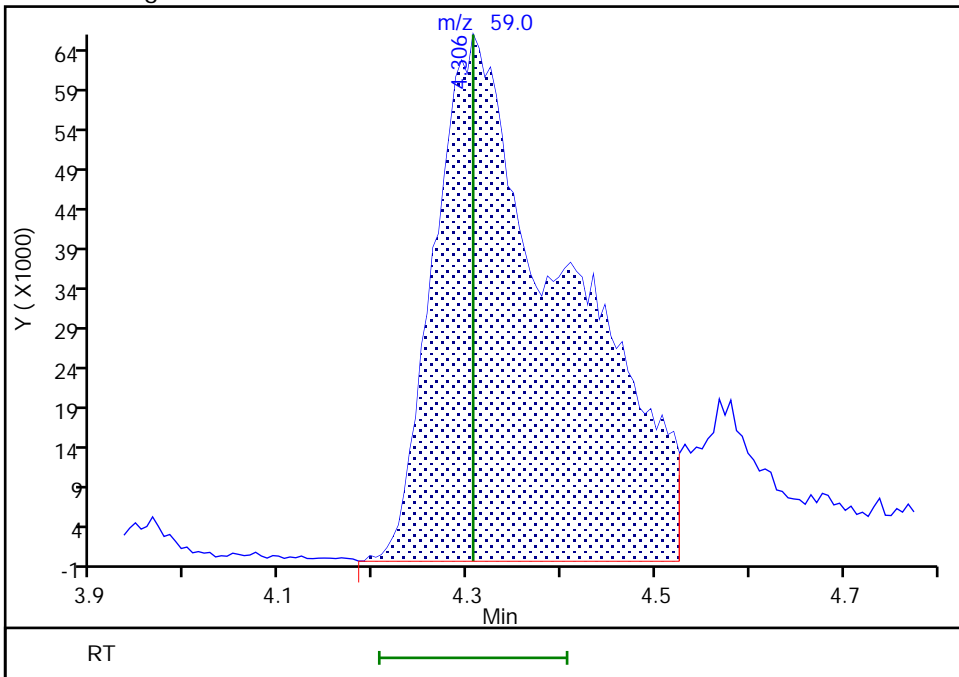
RT: 4.31
Area: 419985
Amount: 127.8119
Amount Units: ug/l

Processing Integration Results



RT: 4.31
Area: 642717
Amount: 195.5948
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 04-Nov-2020 09:32:07
Audit Action: Assigned New Baseline

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\GC30C01.D

Injection Date: 04-Nov-2020 08:59:30

Instrument ID: 16334

Lims ID: CCVIS VSTD10

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)

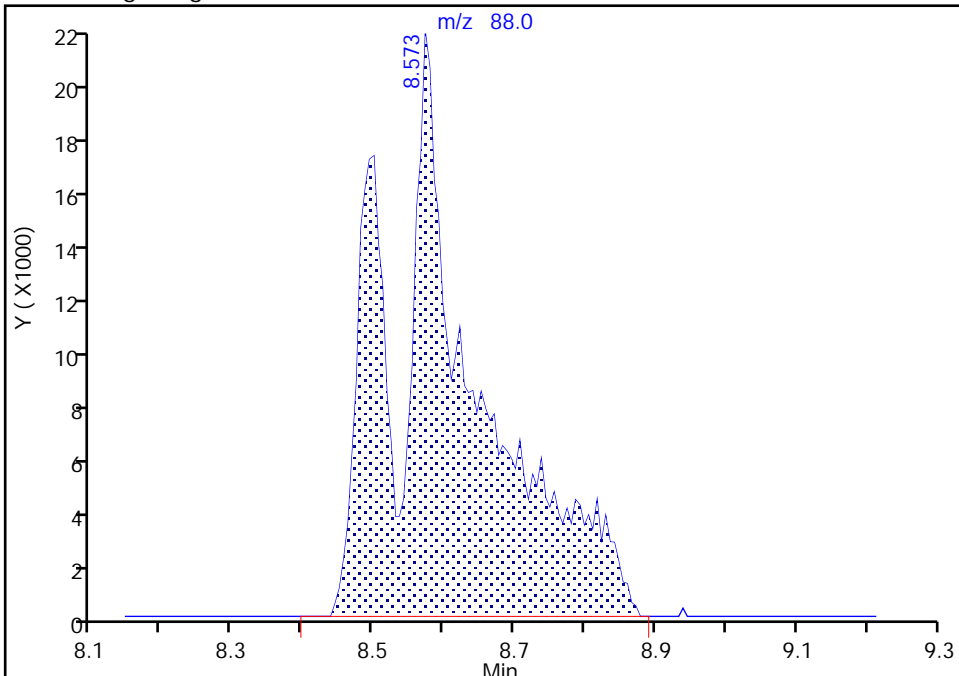
Detector: MS Quad

72 1,4-Dioxane, CAS: 123-91-1

Signal: 1

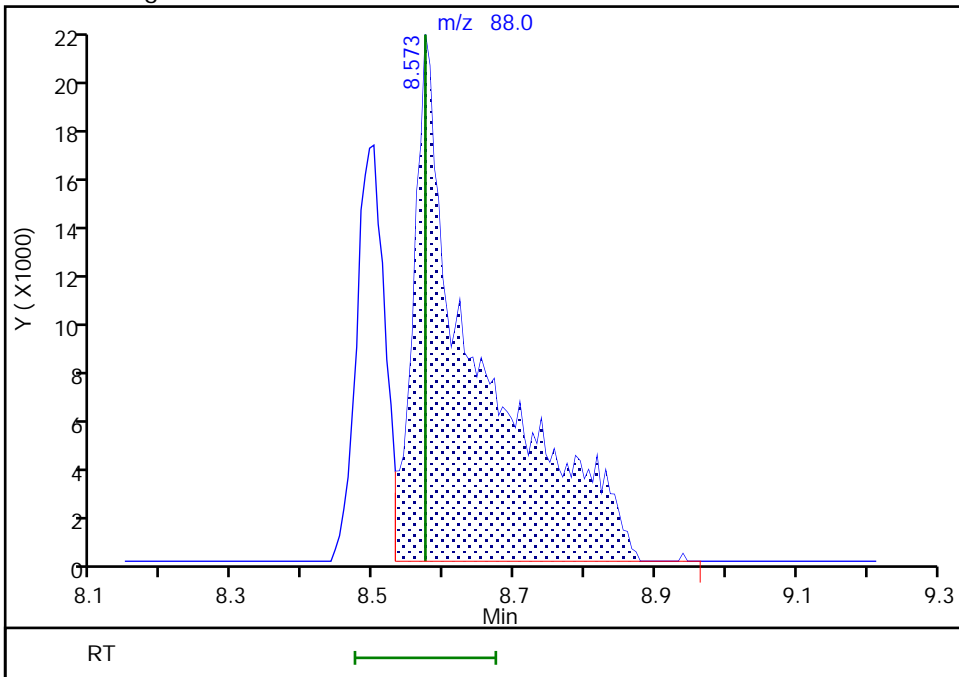
RT: 8.57
Area: 185808
Amount: 831.1964
Amount Units: ug/l

Processing Integration Results



RT: 8.57
Area: 139014
Amount: 621.8674
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 04-Nov-2020 09:32:36
Audit Action: Split an Integrated Peak

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\CS01T01.D
 Lims ID: BFB
 Client ID:
 Sample Type: BFB
 Inject. Date: 01-Sep-2020 12:45:30 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 1.0 uL Dil. Factor: 1.0000
 Sample Info: BFB
 Misc. Info.: 410-0009503-001
 Operator ID: dvv10203 Instrument ID: 10193
 Method: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\MSV_10193_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 01-Sep-2020 20:14:46 Calib Date: 01-Sep-2020 19:09:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\CS01I17.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1059

First Level Reviewer: virayd Date: 01-Sep-2020 12:56:16

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	5.160	5.160	0.000	88	127617	NR	NR	
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QC Flag Legend

Processing Flags

NR - Missing Quant Standard

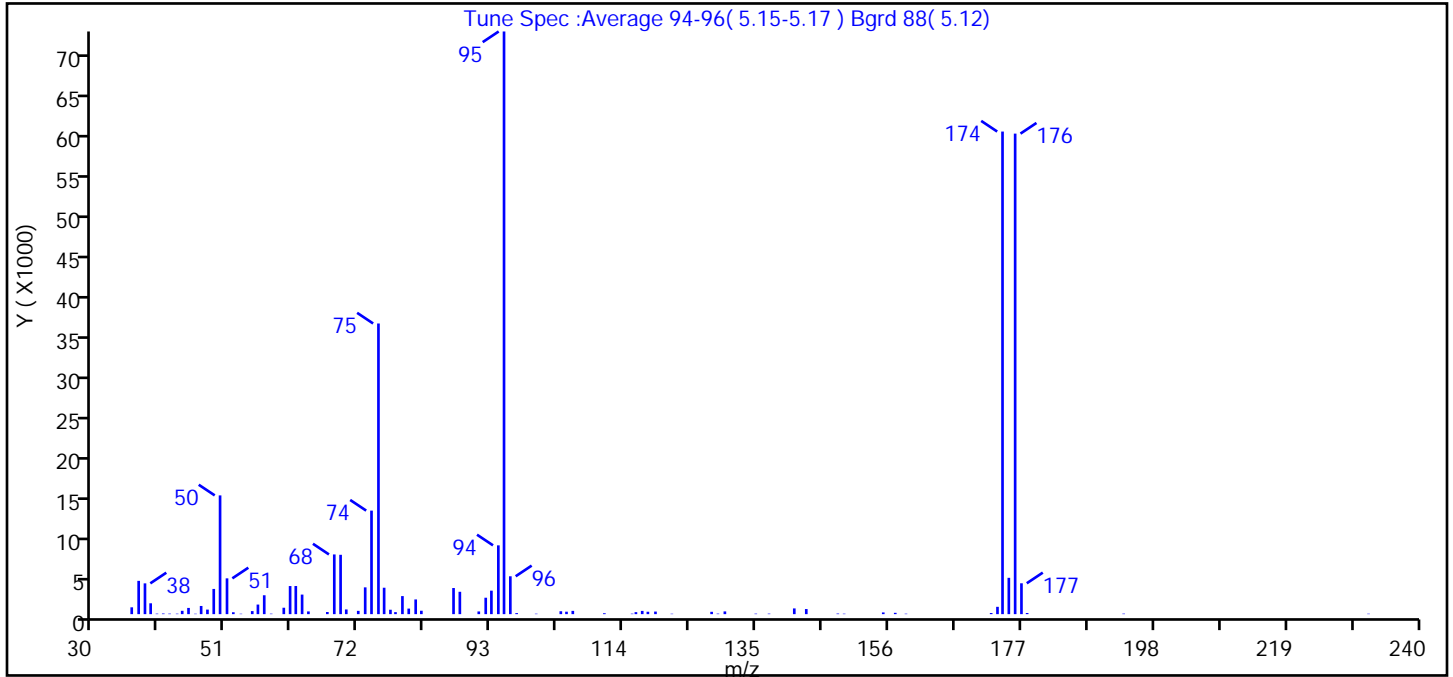
Reagents:

MSV_V_BFB_00003 Amount Added: 1.00 Units: uL

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\CS01T01.D
 Injection Date: 01-Sep-2020 12:45:30 Instrument ID: 10193
 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_10193_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	20.4
75	30 to 60% of m/z 95	49.9
96	5 to 9% of m/z 95	6.5
173	Less than 2% of m/z 174	1.3 (1.5)
174	50 to 120% of m/z 95	82.8
175	5 to 9% of m/z 174	6.2 (7.5)
176	Greater than 95% but less than 101% of m/z 174	82.5 (99.6)
177	5 to 9% of m/z 176	5.3 (6.4)

Data File: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\CS01T01.D\MSV_10193_25mL.rslt\spectra.d
Injection Date: 01-Sep-2020 12:45:30
Spectrum: Tune Spec :Average 94-96(5.15-5.17) Bgrd 88(5.12)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 83

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	849	58.00	59	87.00	3249	129.00	66
37.00	4140	60.00	797	88.00	2781	130.00	340
38.00	3829	61.00	3495	91.00	335	135.00	62
39.00	1350	62.00	3499	92.00	2042	137.00	64
40.00	62	63.00	2433	93.00	2922	141.00	712
41.00	79	64.00	339	94.00	8556	143.00	634
42.00	64	67.00	265	95.00	72472	148.00	75
43.00	58	68.00	7426	96.00	4710	149.00	56
44.00	414	69.00	7382	97.00	129	155.00	212
45.00	774	70.00	584	100.00	53	157.00	165
46.00	51	72.00	409	104.00	361	159.00	55
47.00	1016	73.00	3331	105.00	305	172.00	140
48.00	566	74.00	12877	106.00	407	173.00	911
49.00	3135	75.00	36152	111.00	112	174.00	60024
50.00	14770	76.00	3285	115.00	61	175.00	4518
51.00	4452	77.00	548	116.00	250	176.00	59768
52.00	235	78.00	250	117.00	403	177.00	3839
53.00	51	79.00	2245	118.00	298	178.00	141
55.00	379	80.00	691	119.00	321	193.00	64
56.00	1192	81.00	1829	122.00	51	232.00	52
57.00	2349	82.00	424	128.00	291		

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\CS01T01.D

Injection Date: 01-Sep-2020 12:45:30

Instrument ID: 10193

Operator ID: dvv10203

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 1.0 uL

Dil. Factor: 1.0000

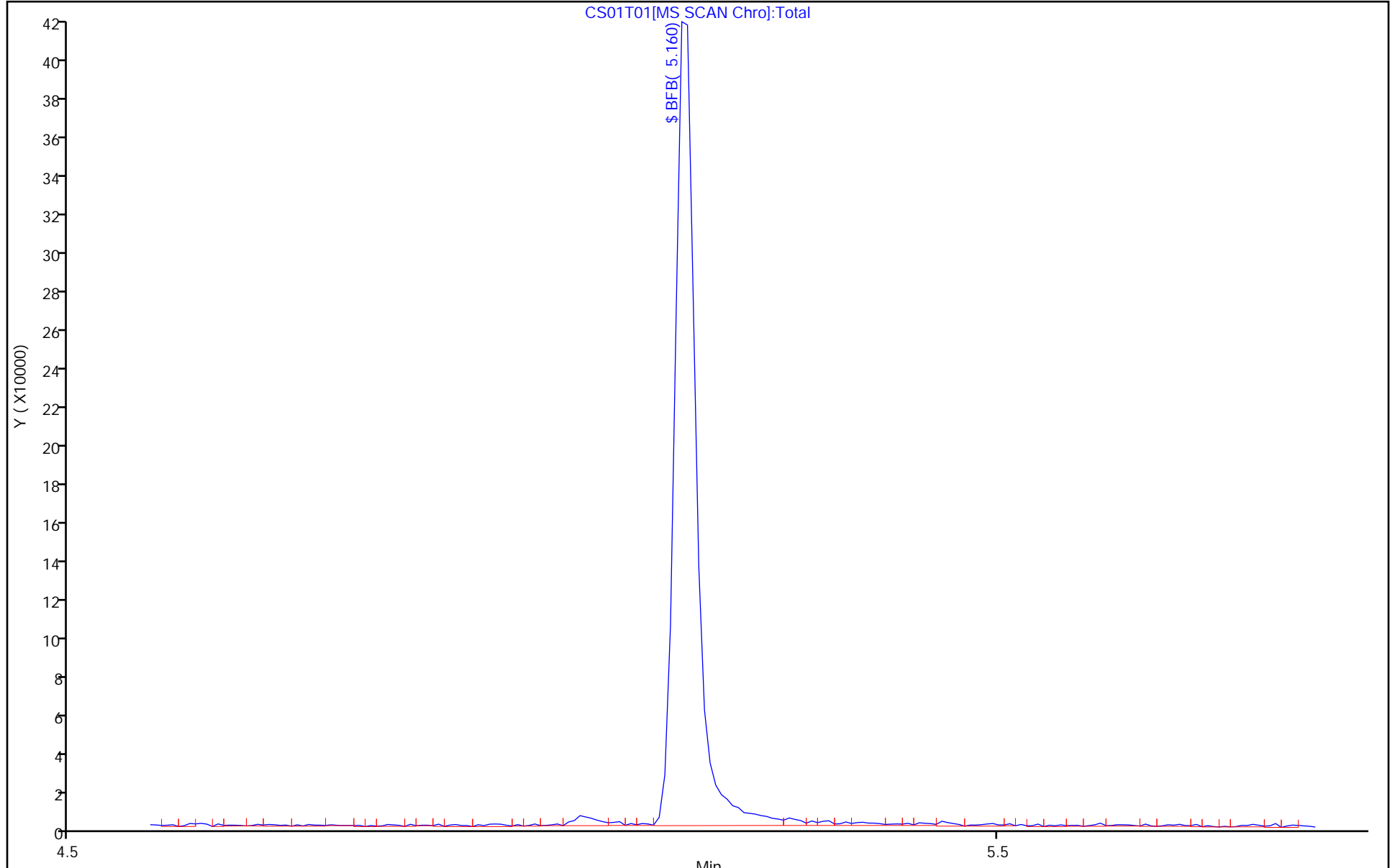
ALS Bottle#: 1

Method: MSV_10193_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\10193\20201105-14733.b\CN05T02.D
 Lims ID: BFB
 Client ID:
 Sample Type: BFB
 Inject. Date: 05-Nov-2020 08:55:30 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 1.0 uL Dil. Factor: 1.0000
 Sample Info: 410-0014733-001
 Misc. Info.: BFB
 Operator ID: jkh09052 Instrument ID: 10193
 Method: \\chromfs\Lancaster\ChromData\10193\20201105-14733.b\MSV_10193_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 05-Nov-2020 11:29:09 Calib Date: 01-Sep-2020 19:09:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\CS01117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1002

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	5.142	5.142	0.000	94	173965	NR	NR	
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QC Flag Legend

Processing Flags

NR - Missing Quant Standard

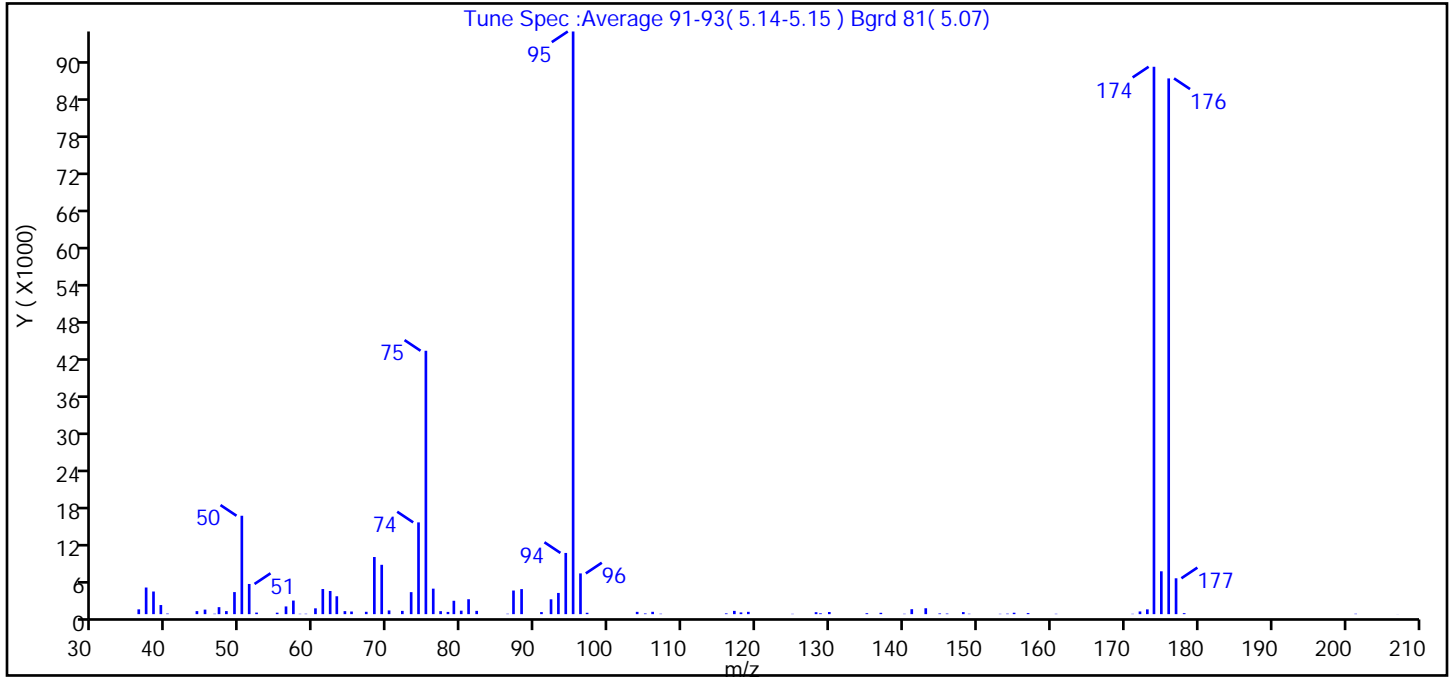
Reagents:

MSV_V_BFB_00003 Amount Added: 1.00 Units: uL

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\10193\20201105-14733.b\CN05T02.D
 Injection Date: 05-Nov-2020 08:55:30 Instrument ID: 10193
 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_10193_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	16.9
75	30 to 60% of m/z 95	45.2
96	5 to 9% of m/z 95	7.0
173	Less than 2% of m/z 174	0.8 (0.9)
174	50 to 120% of m/z 95	93.9
175	5 to 9% of m/z 174	7.4 (7.8)
176	Greater than 95% but less than 101% of m/z 174	91.9 (97.9)
177	5 to 9% of m/z 176	6.2 (6.7)

Data File: \\chromfs\Lancaster\ChromData\10193\20201105-14733.b\CN05T02.D\MSV_10193_25mL.rsl\spectra.d
 Injection Date: 05-Nov-2020 08:55:30
 Spectrum: Tune Spec :Average 91-93(5.14-5.15) Bgrd 81(5.07)
 Base Peak: 95.10
 Minimum % Base Peak: 0
 Number of Points: 86

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	782	63.00	2915	92.00	2418	143.00	962
37.00	4340	64.00	490	93.00	3456	145.00	117
38.00	3689	65.00	428	94.00	9976	146.00	96
39.00	1484	67.00	385	95.00	94968	148.00	333
40.00	94	68.00	9311	96.00	6640	149.00	62
44.00	494	69.00	8041	97.00	224	153.00	53
45.00	738	70.00	605	104.00	374	154.00	80
46.00	68	72.00	533	105.00	110	155.00	231
47.00	1138	73.00	3586	106.00	381	157.00	177
48.00	497	74.00	14956	107.00	68	161.00	56
49.00	3595	75.00	42928	116.00	126	171.00	53
50.00	16037	76.00	4155	117.00	534	172.00	439
51.00	4918	77.00	486	118.00	283	173.00	778
52.00	254	78.00	364	119.00	376	174.00	89216
55.00	237	79.00	2181	125.00	51	175.00	6984
56.00	1256	80.00	566	128.00	319	176.00	87320
57.00	2213	81.00	2432	129.00	138	177.00	5845
58.00	55	82.00	534	130.00	349	178.00	160
59.00	64	86.00	65	135.00	154	201.00	65
60.00	948	87.00	3849	137.00	218	207.00	11
61.00	4094	88.00	4082	140.00	60		
62.00	3773	91.00	336	141.00	809		

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\10193\20201105-14733.b\CN05T02.D

Injection Date: 05-Nov-2020 08:55:30

Instrument ID: 10193

Operator ID: jkh09052

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 1.0 uL

Dil. Factor: 1.0000

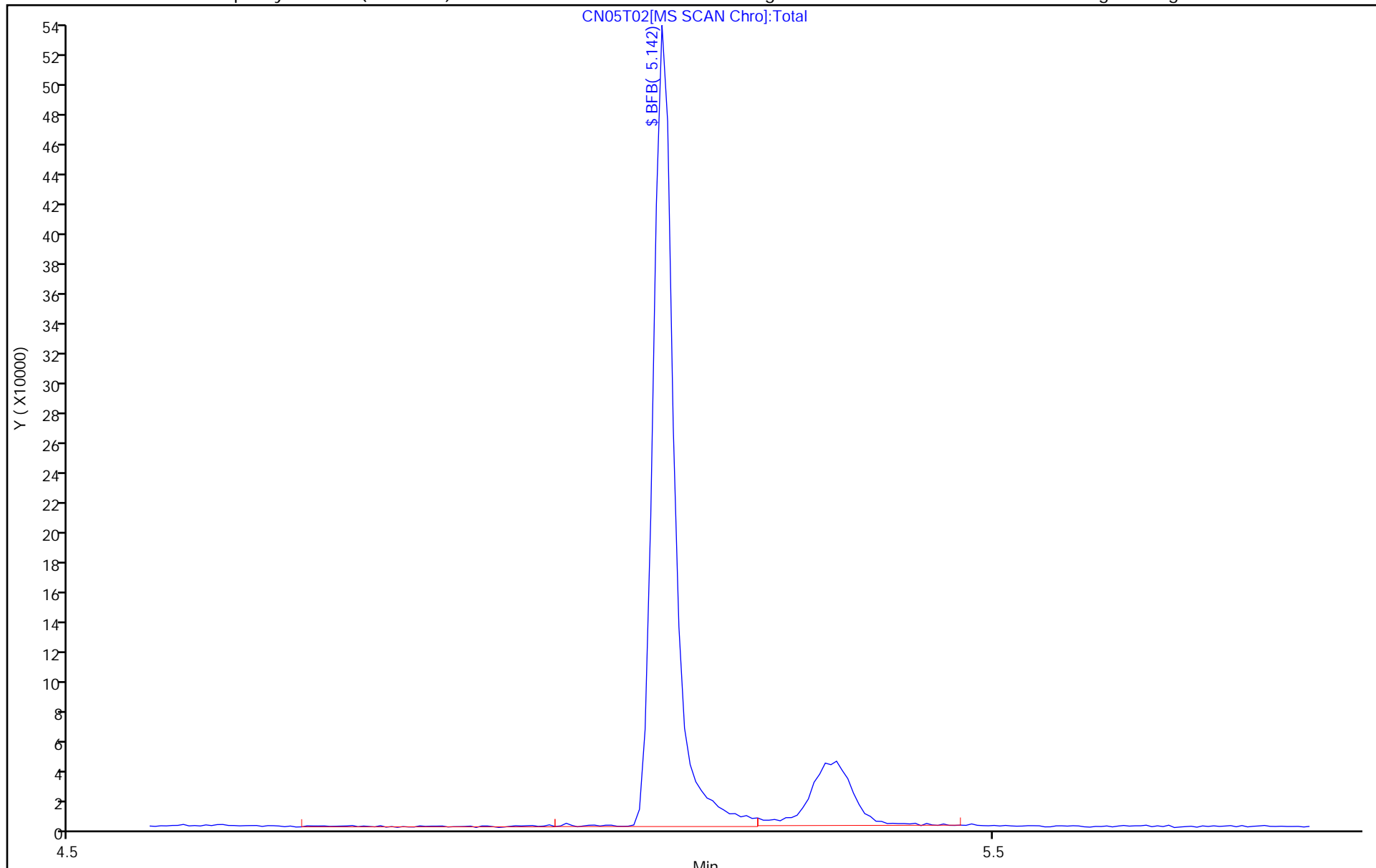
ALS Bottle#: 1

Method: MSV_10193_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\10193\20201108-14932.b\CN08T01.D
 Lims ID: BFB
 Client ID:
 Sample Type: BFB
 Inject. Date: 08-Nov-2020 10:50:30 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 1.0 uL Dil. Factor: 1.0000
 Sample Info: 410-0014932-001
 Misc. Info.: BFB
 Operator ID: dvv10203 Instrument ID: 10193
 Method: \\chromfs\Lancaster\ChromData\10193\20201108-14932.b\MSV_10193_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 08-Nov-2020 13:05:26 Calib Date: 01-Sep-2020 19:09:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\CS01117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1011

First Level Reviewer: virayd Date: 08-Nov-2020 11:01:37

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	5.142	5.142	0.000	94	189900	NR	NR	
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QC Flag Legend

Processing Flags

NR - Missing Quant Standard

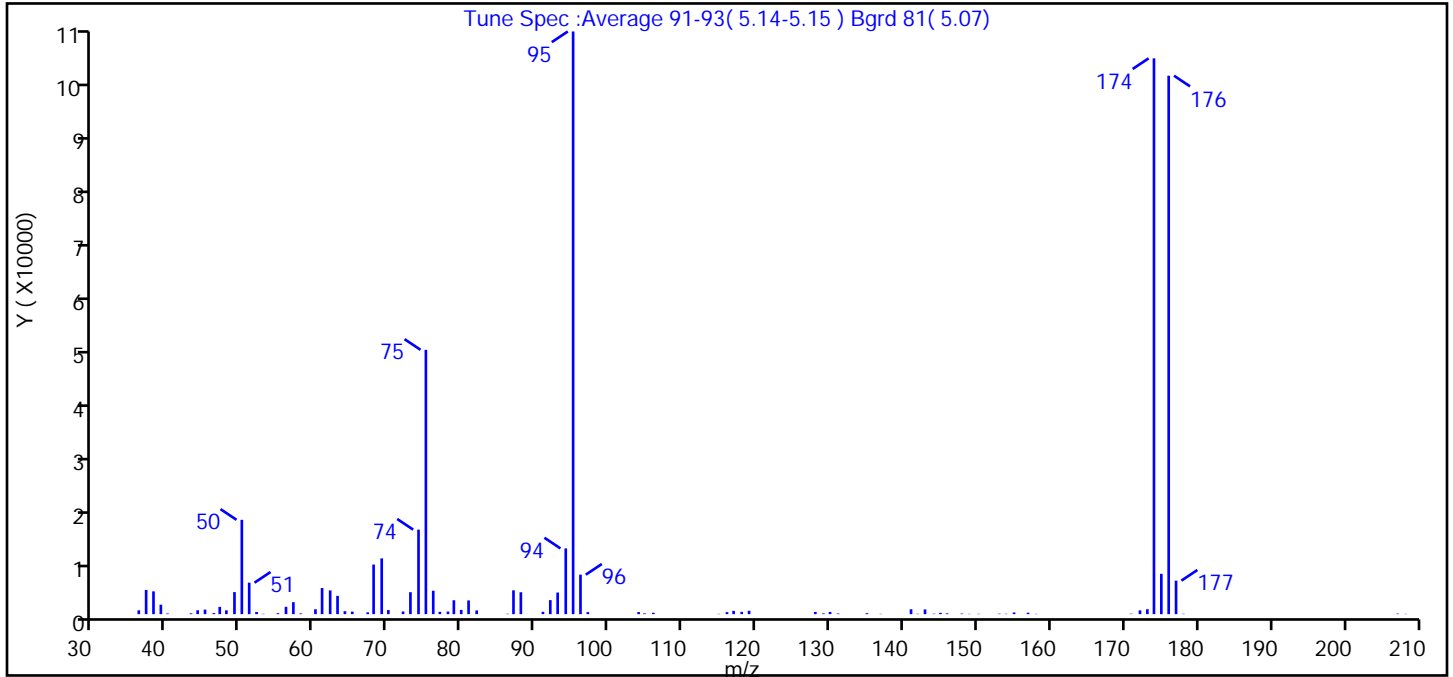
Reagents:

MSV_V_BFB_00003 Amount Added: 1.00 Units: uL

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\10193\20201108-14932.b\CN08T01.D
 Injection Date: 08-Nov-2020 10:50:30 Instrument ID: 10193
 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_10193_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	16.2
75	30 to 60% of m/z 95	45.4
96	5 to 9% of m/z 95	6.8
173	Less than 2% of m/z 174	0.8 (0.9)
174	50 to 120% of m/z 95	95.4
175	5 to 9% of m/z 174	6.9 (7.3)
176	Greater than 95% but less than 101% of m/z 174	92.4 (96.9)
177	5 to 9% of m/z 176	5.7 (6.2)

Data File: \\chromfs\Lancaster\ChromData\10193\20201108-14932.b\CN08T01.D\MSV_10193_25mL.rsl\spectra.d
 Injection Date: 08-Nov-2020 10:50:30
 Spectrum: Tune Spec :Average 91-93(5.14-5.15) Bgrd 81(5.07)
 Base Peak: 95.10
 Minimum % Base Peak: 0
 Number of Points: 89

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	677	63.00	3243	93.00	3836	145.00	238
37.00	4291	64.00	526	94.00	11674	146.00	141
38.00	4047	65.00	447	95.00	103464	148.00	107
39.00	1681	67.00	320	96.00	7011	149.00	50
40.00	117	68.00	8808	97.00	356	150.00	63
43.00	149	69.00	9902	104.00	363	153.00	82
44.00	693	70.00	727	105.00	137	154.00	68
45.00	808	72.00	469	106.00	239	155.00	297
46.00	193	73.00	3899	115.00	55	157.00	255
47.00	1294	74.00	15005	116.00	358	158.00	54
48.00	677	75.00	46936	117.00	581	171.00	78
49.00	3918	76.00	4154	118.00	404	172.00	673
50.00	16752	77.00	410	119.00	597	173.00	873
51.00	5588	78.00	455	128.00	395	174.00	98696
52.00	379	79.00	2468	129.00	136	175.00	7160
53.00	63	80.00	751	130.00	391	176.00	95608
55.00	167	81.00	2440	131.00	110	177.00	5949
56.00	1303	82.00	662	135.00	171	178.00	67
57.00	2127	86.00	69	137.00	54	207.00	97
58.00	131	87.00	4231	141.00	868	208.00	50
60.00	868	88.00	3888	142.00	65		
61.00	4639	91.00	414	143.00	839		
62.00	4210	92.00	2491	144.00	75		

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\10193\20201108-14932.b\CN08T01.D

Injection Date: 08-Nov-2020 10:50:30

Instrument ID: 10193

Operator ID: dvv10203

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 1.0 uL

Dil. Factor: 1.0000

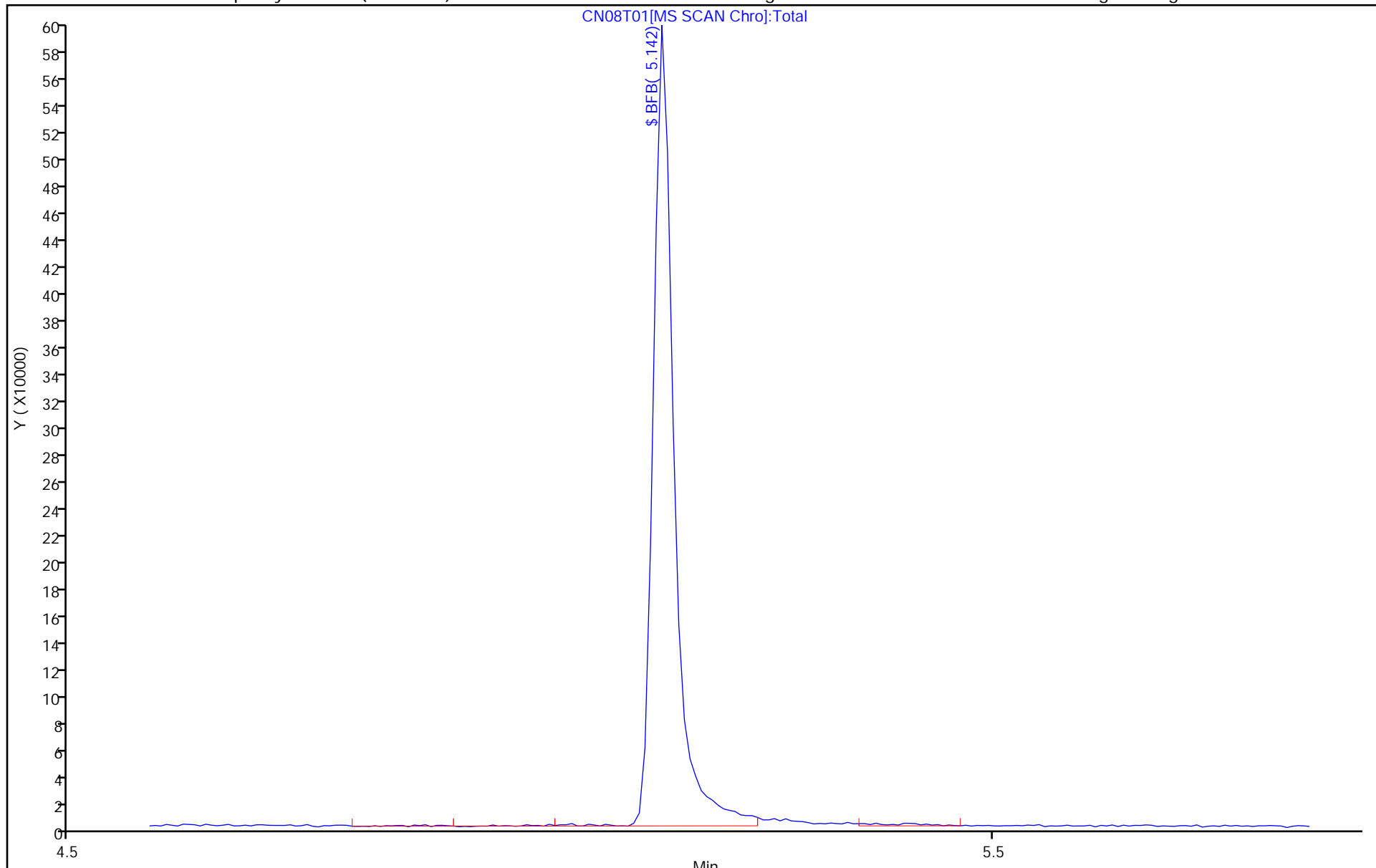
ALS Bottle#: 1

Method: MSV_10193_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\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

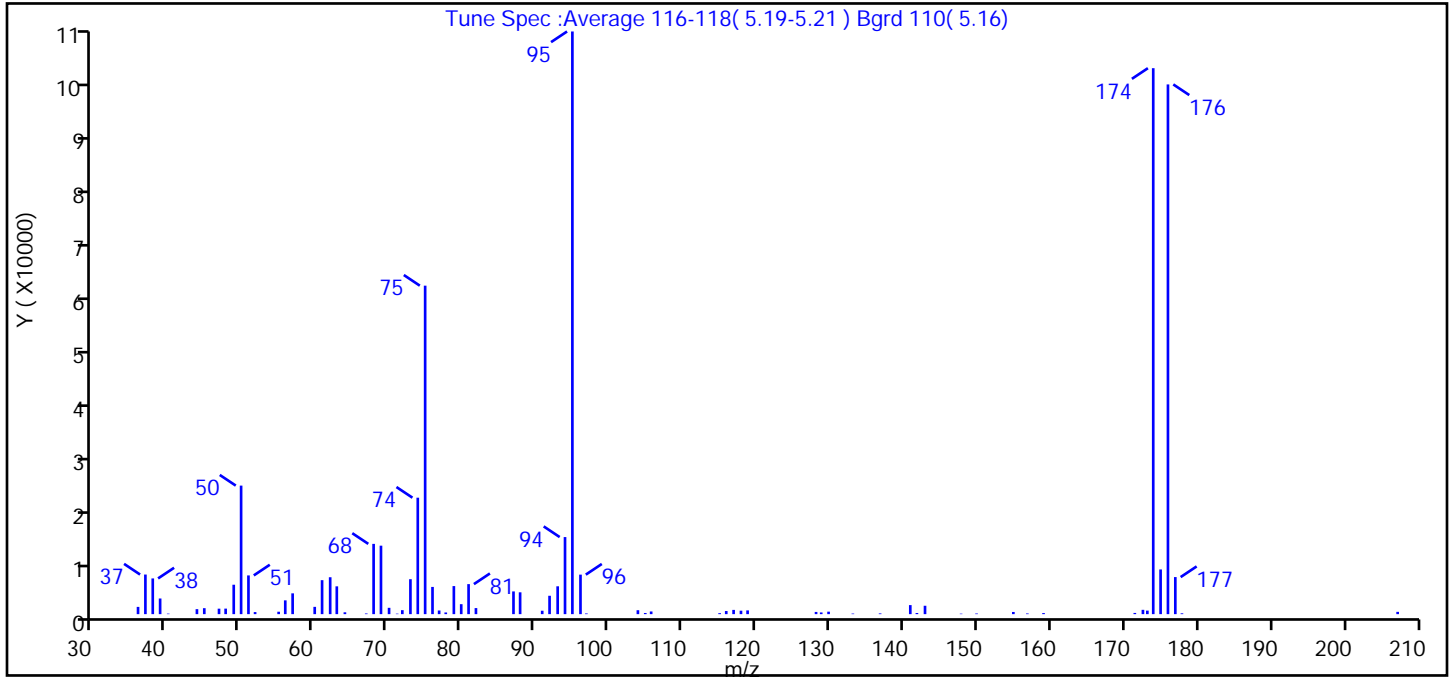
Amount Added: 1.00

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

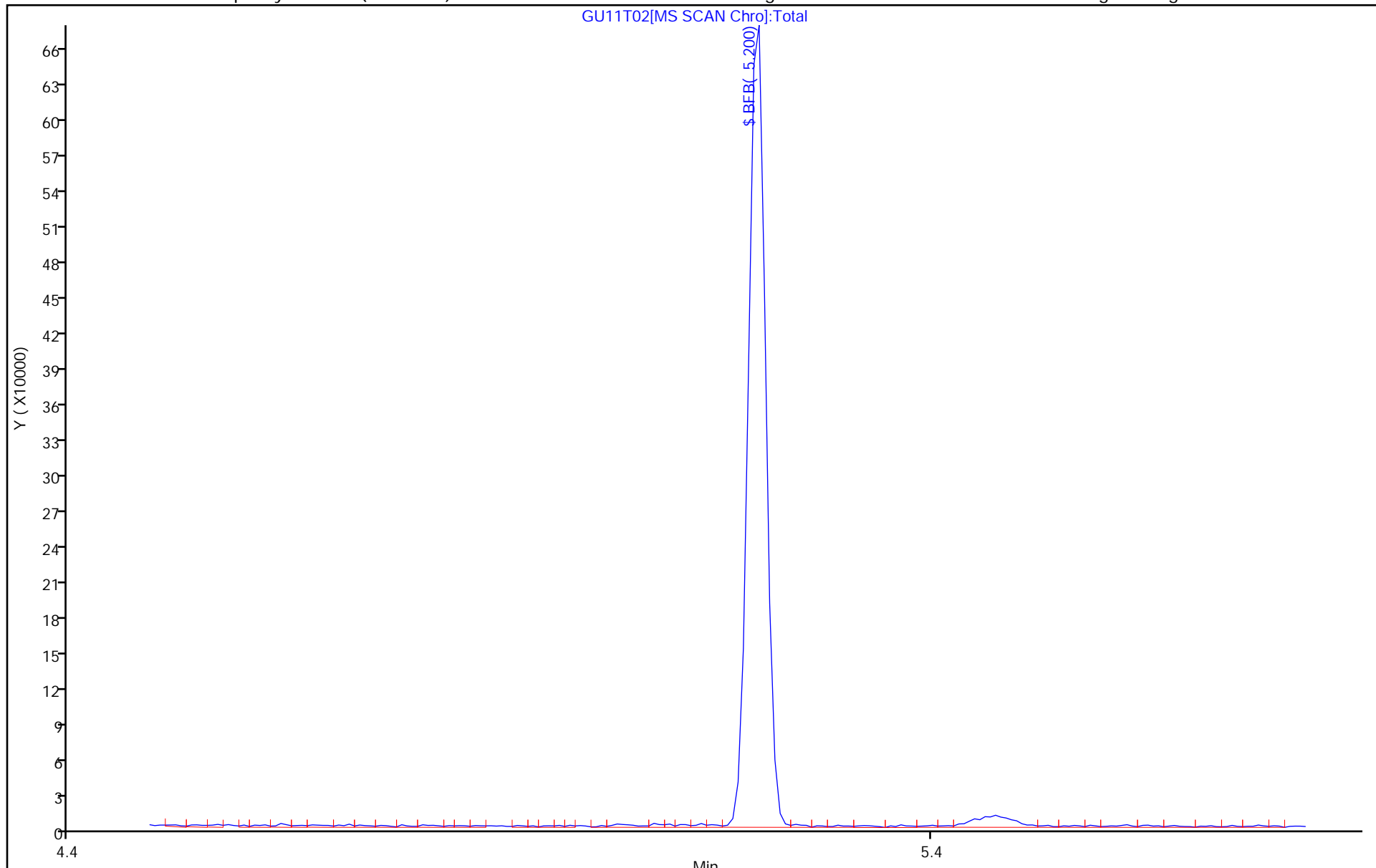
ALS Bottle#: 1

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\20201104-14632.b\GN04T01.D
 Lims ID: BFB
 Client ID:
 Sample Type: BFB
 Inject. Date: 04-Nov-2020 08:22:30 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 1.0 uL Dil. Factor: 1.0000
 Sample Info: 410-0014632-001
 Misc. Info.: BFB
 Operator ID: jkh09052 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 04-Nov-2020 13:28:57 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: CTX1010

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	91	521494	NR	NR	
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QC Flag Legend

Processing Flags

NR - Missing Quant Standard

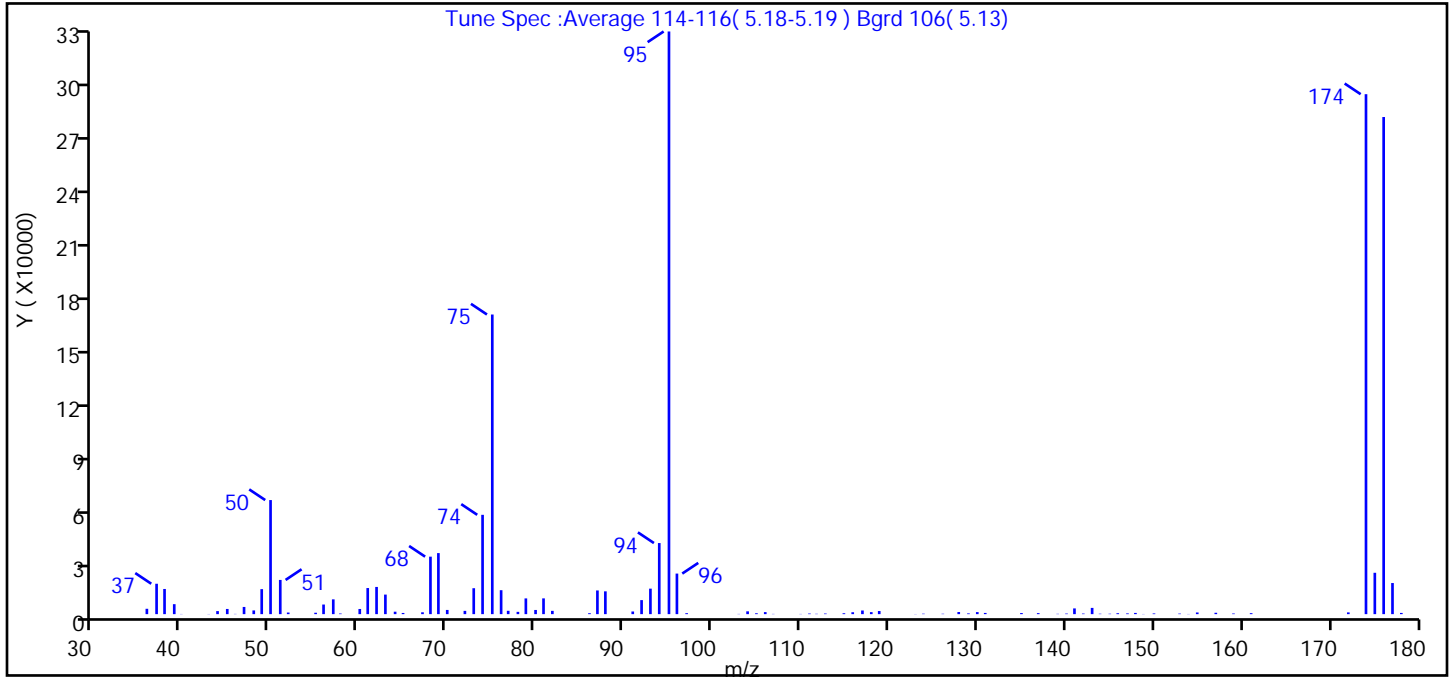
Reagents:

MSV_V_BFB_00003 Amount Added: 1.00 Units: uL

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\GN04T01.D
 Injection Date: 04-Nov-2020 08:22:30 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	19.6
75	30 to 60% of m/z 95	51.4
96	5 to 9% of m/z 95	7.0
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	89.2
175	5 to 9% of m/z 174	7.1 (8.0)
176	Greater than 95% but less than 101% of m/z 174	85.3 (95.6)
177	5 to 9% of m/z 176	5.3 (6.3)

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\GN04T01.D\MSV_16334_25mL.rsl\spectra.d
 Injection Date: 04-Nov-2020 08:22:30
 Spectrum: Tune Spec :Average 114-116(5.18-5.19) Bgrd 106(5.13)
 Base Peak: 95.10
 Minimum % Base Peak: 0
 Number of Points: 97

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2975	67.00	1032	103.00	123	141.00	3183
37.00	16872	68.00	31912	104.00	1560	142.00	328
38.00	13973	69.00	33888	105.00	492	143.00	3468
39.00	5539	70.00	2330	106.00	1129	144.00	232
40.00	100	72.00	1815	107.00	131	145.00	225
43.00	87	73.00	14394	110.00	115	146.00	520
44.00	1689	74.00	55136	111.00	337	147.00	410
45.00	2879	75.00	166336	112.00	189	148.00	680
46.00	132	76.00	13294	113.00	337	149.00	94
47.00	3993	77.00	1857	115.00	502	150.00	394
48.00	2068	78.00	1274	116.00	1061	153.00	308
49.00	13875	79.00	8737	117.00	2029	154.00	96
50.00	63328	80.00	2319	118.00	1116	155.00	931
51.00	18992	81.00	8752	119.00	1728	157.00	761
52.00	895	82.00	1826	123.00	84	159.00	358
55.00	779	86.00	517	124.00	254	161.00	541
56.00	5340	87.00	13151	126.00	214	172.00	975
57.00	8214	88.00	12659	128.00	1177	174.00	288640
58.00	344	91.00	1476	129.00	413	175.00	22960
60.00	2866	92.00	7790	130.00	1141	176.00	275968
61.00	14490	93.00	14152	131.00	673	177.00	17272
62.00	15101	94.00	39464	135.00	601	178.00	678
63.00	10856	95.00	323456	137.00	563		
64.00	1361	96.00	22520	139.00	174		
65.00	656	97.00	529	140.00	320		

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\GN04T01.D

Injection Date: 04-Nov-2020 08:22:30

Instrument ID: 16334

Operator ID: jkh09052

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 1.0 uL

Dil. Factor: 1.0000

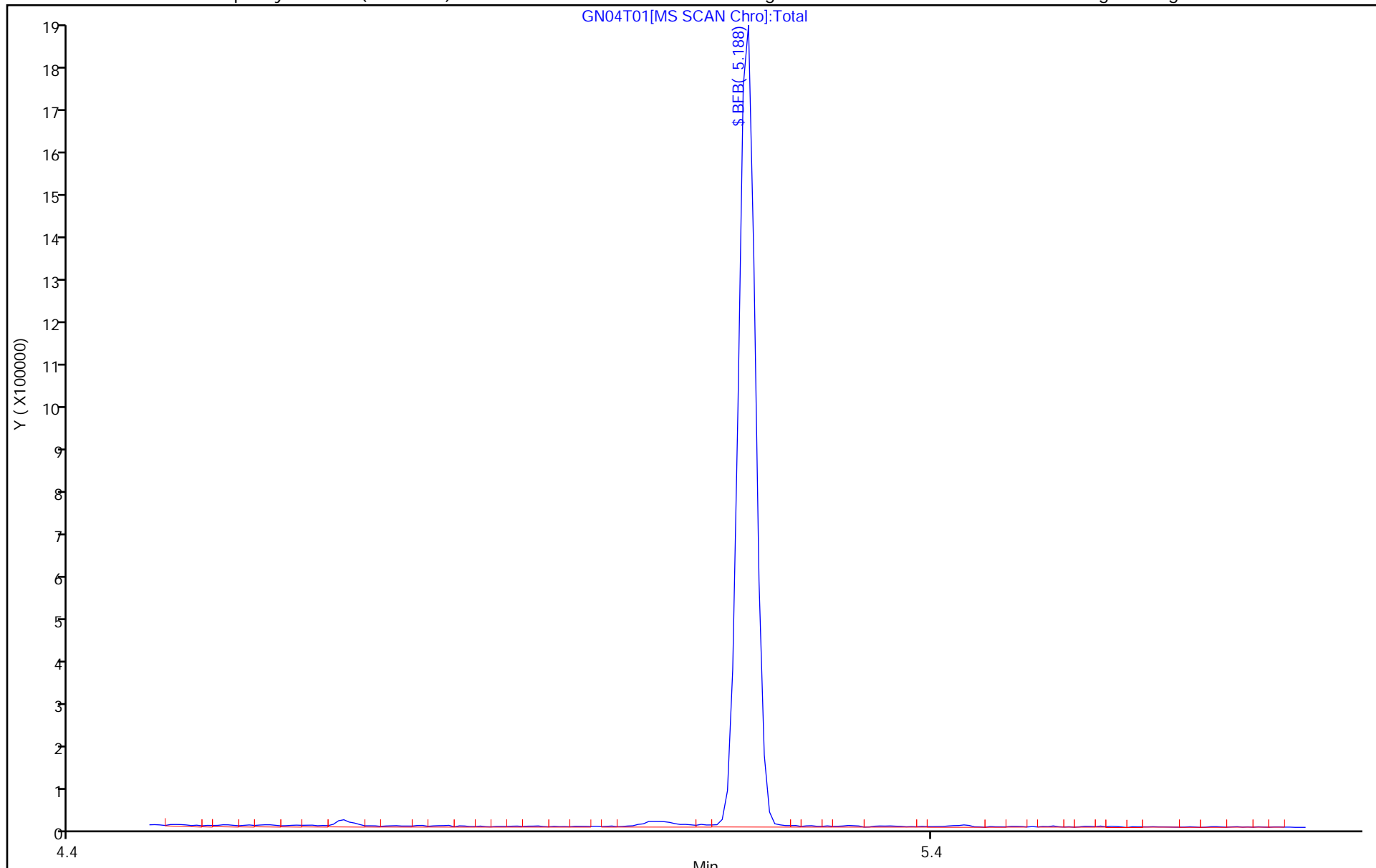
ALS Bottle#: 1

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.: 410-19023-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 410-61951/6
 Matrix: Water Lab File ID: GC30B01.D
 Analysis Method: 8260C LL Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 11/04/2020 10:05
 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.: 61951 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND		0.50	0.060
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
106-93-4	1,2-Dibromoethane (EDB)	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
74-97-5	Bromochloromethane	ND		0.50	0.050
75-27-4	Bromodichloromethane	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	0.293	J	1.0	0.060
56-23-5	Carbon tetrachloride	ND		0.50	0.070
108-90-7	Chlorobenzene	ND		0.50	0.060
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
124-48-1	Dibromochloromethane	ND		0.50	0.070
100-41-4	Ethylbenzene	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.: 410-19023-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 410-61951/6
 Matrix: Water Lab File ID: GC30B01.D
 Analysis Method: 8260C LL Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 11/04/2020 10:05
 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.: 61951 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
1868-53-7	Dibromofluoromethane (Surr)	92		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\GC30B01.D
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 04-Nov-2020 10:05:30 ALS Bottle#: 6 Worklist Smp#: 6
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014632-006
 Misc. Info.: MB
 Operator ID: jkh09052 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 04-Nov-2020 13:28:20 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\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1010

First Level Reviewer: howej Date: 04-Nov-2020 13:28:07

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		1.947					ND	
4 Chlorodifluoromethane	51		1.965					ND	
2 Dimethyl ether	45		2.014					ND	7
5 Chloromethane	50		2.142					ND	
8 2-Chloro-1,1,1-Trifluoroethane	118		2.233					ND	
6 Butadiene	39		2.257					ND	7
7 Vinyl chloride	62		2.257					ND	
9 Bromomethane	94		2.581					ND	
10 Chloroethane	64		2.660					ND	7
11 Dichlorofluoromethane	67		2.898					ND	
13 Trichlorofluoromethane	101		2.965					ND	
17 Ethanol	45		3.111					ND	
15 Ethyl ether	59		3.209					ND	
16 1,2-Dichloro-1,1,2-trifluoroethane	67		3.294					ND	
18 Acrolein	56		3.379					ND	7
19 1,1-Dichloroethene	96		3.507					ND	
20 Acetone	43		3.544					ND	
21 112TCTFE	101		3.550					ND	
23 Isopropyl alcohol	45		3.702					ND	
22 Iodomethane	142		3.702					ND	
24 Ethyl bromide	108		3.733					ND	
25 Carbon disulfide	76	3.812	3.800	0.012	100	48073		0.2930	
14 Acetonitrile	41		3.928					ND	
26 Methyl acetate	43		3.958					ND	
27 3-Chloro-1-propene	41		3.983					ND	
28 Methylene Chloride	84		4.172					ND	
* 29 t-Butyl alcohol-d10 (IS)	65	4.184	4.184	0.000	0	182257	50.0	50.0	M
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		5.842					ND	
40 2-Butanone (MEK)	43		6.056					ND	
41 cis-1,2-Dichloroethene	96		6.080					ND	
42 2,2-Dichloropropane	77		6.098					ND	
43 Ethyl acetate	43		6.116					ND	
44 Propionitrile	54		6.153					ND	
S 49 1,2-Dichloroethene, Total	100		6.155					ND	7
45 Methyl acrylate	55		6.177					ND	
46 Methacrylonitrile	67		6.366					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	6.781	0.006	93	541536	10.0	9.19	
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	7.238	7.238	0.000	0	112756	10.0	10.0	
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		7.458					ND	
* 63 Fluorobenzene (IS)	96	7.677	7.671	0.006	99	2205619	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		8.451					ND	
69 1,2-Dichloropropane	63		8.488					ND	
70 2-ethoxy-2-methyl butane	87		8.500					ND	
71 Methyl methacrylate	69		8.573					ND	
72 1,4-Dioxane	88		8.573					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		9.116					ND	
78 2-Chloroethyl vinyl ether	63		9.201					ND	
77 Chloroacetonitrile	75		9.201					ND	
79 1-Bromo-2-chloroethane	63		9.226					ND	
80 cis-1,3-Dichloropropene	75		9.384					ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.567					ND	
\$ 82 Toluene-d8 (Surr)	98	9.695	9.689	0.006	94	2182400	10.0	10.1	
83 Toluene	92		9.768					ND	7
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	7
85 Ethyl methacrylate	69		10.091					ND	
86 1,1,2-Trichloroethane	97		10.238					ND	
88 Tetrachloroethene	166		10.317					ND	
89 1,3-Dichloropropane	76		10.396					ND	
91 2-Hexanone	43		10.451					ND	
92 n-Butyl acetate	43		10.573					ND	
93 Chlorodibromomethane	129		10.610					ND	
94 Ethylene Dibromide	107		10.719					ND	
* 95 Chlorobenzene-d5 (IS)	117	11.152	11.152	0.000	87	1654055	10.0	10.0	
96 1-Chlorohexane	91		11.164					ND	7
97 Chlorobenzene	112		11.176					ND	
S 101 Xylenes, Total	106		11.245					ND	7
98 1,1,1,2-Tetrachloroethane	131		11.262					ND	
99 Ethylbenzene	91		11.262					ND	
100 m-Xylene & p-Xylene	106		11.378					ND	7
102 o-Xylene	106		11.707					ND	
103 Styrene	104		11.725					ND	
104 Bromoform	173		11.878					ND	
105 Isopropylbenzene	105		12.006					ND	
106 cis-1,4-Dichloro-2-butene	88		12.067					ND	U
107 Cyclohexanone	55		12.097					ND	U
\$ 108 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	90	774470	10.0	9.63	
109 1,1,2,2-Tetrachloroethane	83		12.256					ND	
110 Bromobenzene	156		12.268					ND	
111 trans-1,4-Dichloro-2-butene	53		12.280					ND	
112 1,2,3-Trichloropropane	110		12.298					ND	
113 N-Propylbenzene	91		12.335					ND	
114 2-Chlorotoluene	126		12.408					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		12.871					ND	
122 1,3-Dichlorobenzene	146		12.969					ND	7
123 4-Isopropyltoluene	119		12.981					ND	
* 124 1,4-Dichlorobenzene-d4	152	13.030	13.024	0.006	96	824463	10.0	10.0	
125 1,4-Dichlorobenzene	146		13.042					ND	7
126 1,2,3-Trimethylbenzene	120		13.054					ND	7
127 Benzyl chloride	126		13.121					ND	
129 p-Diethylbenzene	119		13.182					ND	U
130 n-Butylbenzene	92		13.268					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		13.963					ND	7
136 1,2,4-Trichlorobenzene	180		14.389					ND	7
137 Hexachlorobutadiene	225		14.469					ND	7
138 Naphthalene	128		14.566					ND	7
139 1,2,3-Trichlorobenzene	180		14.706					ND	
140 2-Methylnaphthalene	142		15.322					ND	U

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\GC30B01.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_00010

Amount Added: 1.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\GC30B01.D

Injection Date: 04-Nov-2020 10:05:30

Instrument ID: 16334

Operator ID: jkh09052

Lims ID: MB

Worklist Smp#: 6

Client ID:

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

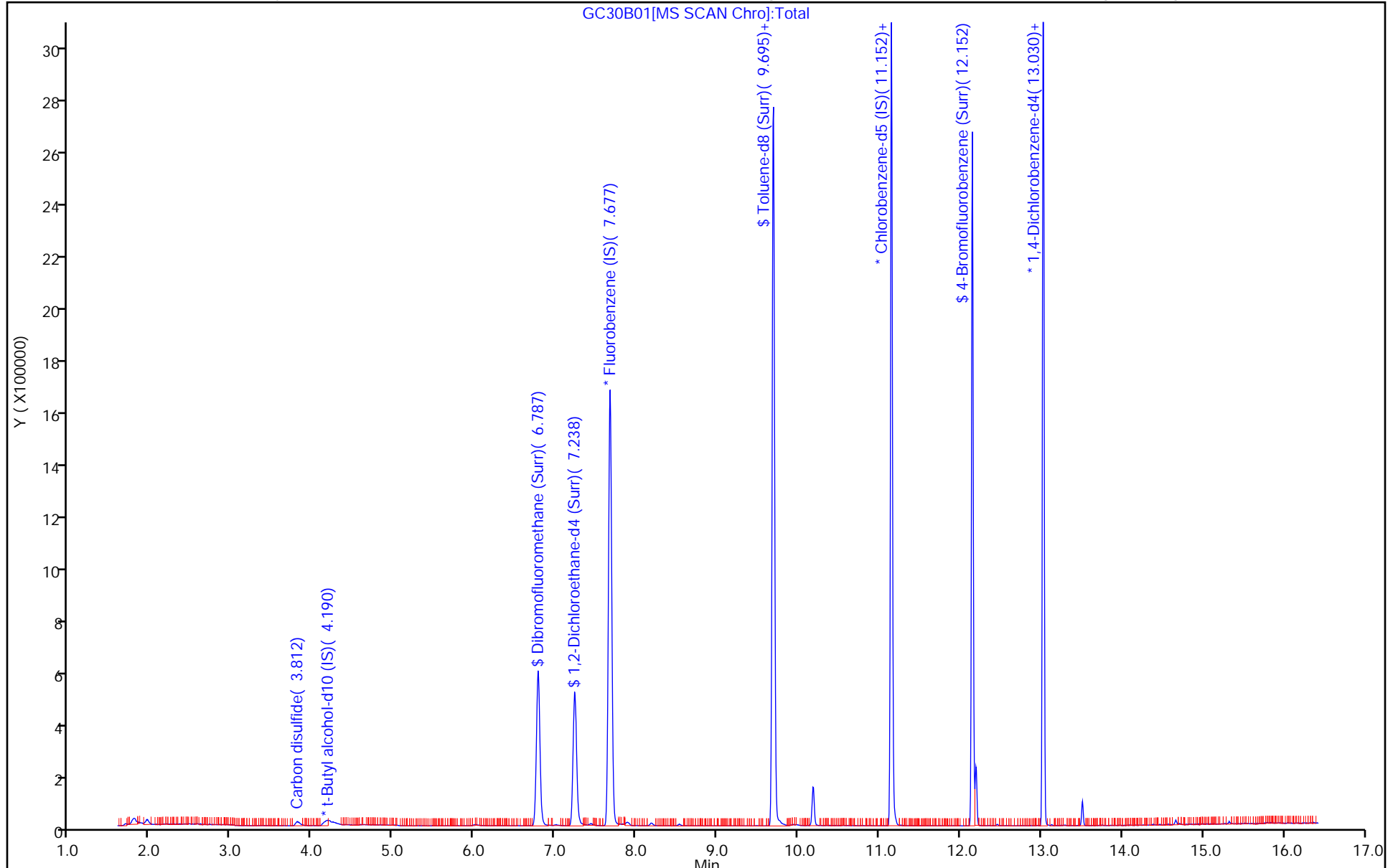
ALS Bottle#: 6

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\20201104-14632.b\GC30B01.D
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 04-Nov-2020 10:05:30 ALS Bottle#: 6 Worklist Smp#: 6
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014632-006
 Misc. Info.: MB
 Operator ID: jkh09052 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 04-Nov-2020 13:28:20 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\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1010

First Level Reviewer: howej Date: 04-Nov-2020 13:28:07

Compound	Amount Added	Amount Recovered	% Rec.
\$ 52 Dibromofluoromethane (Surr)	10.0	9.19	91.91
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.0	100.48
\$ 82 Toluene-d8 (Surr)	10.0	10.1	100.79
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.63	96.31

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\GC30B01.D

Injection Date: 04-Nov-2020 10:05:30

Instrument ID: 16334

Lims ID: MB

Client ID:

Operator ID: jkh09052

ALS Bottle#: 6

Worklist Smp#: 6

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

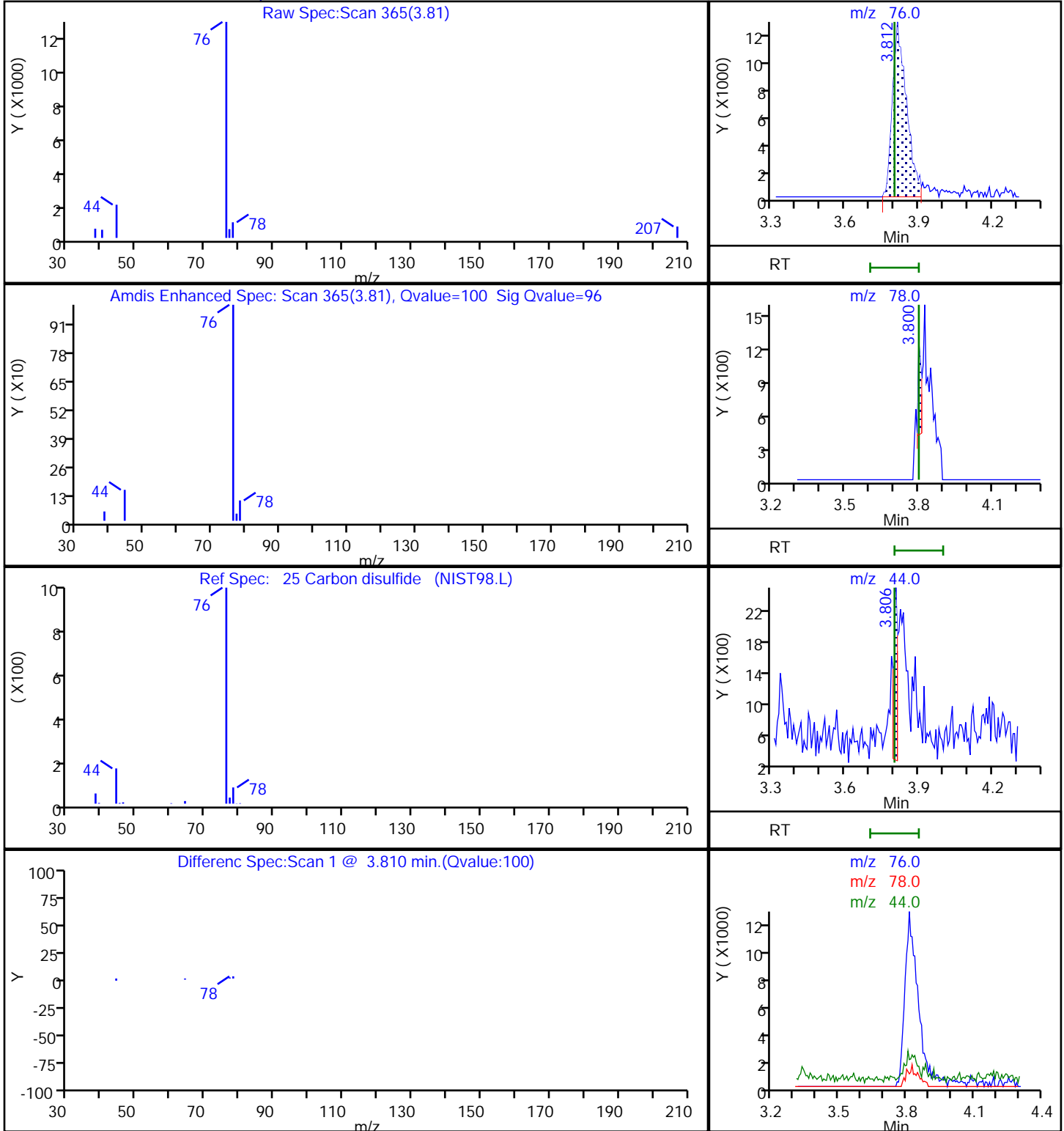
Method: MSV_16334_25mL

Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm ID)

MS Quad

25 Carbon disulfide, CAS: 75-15-0



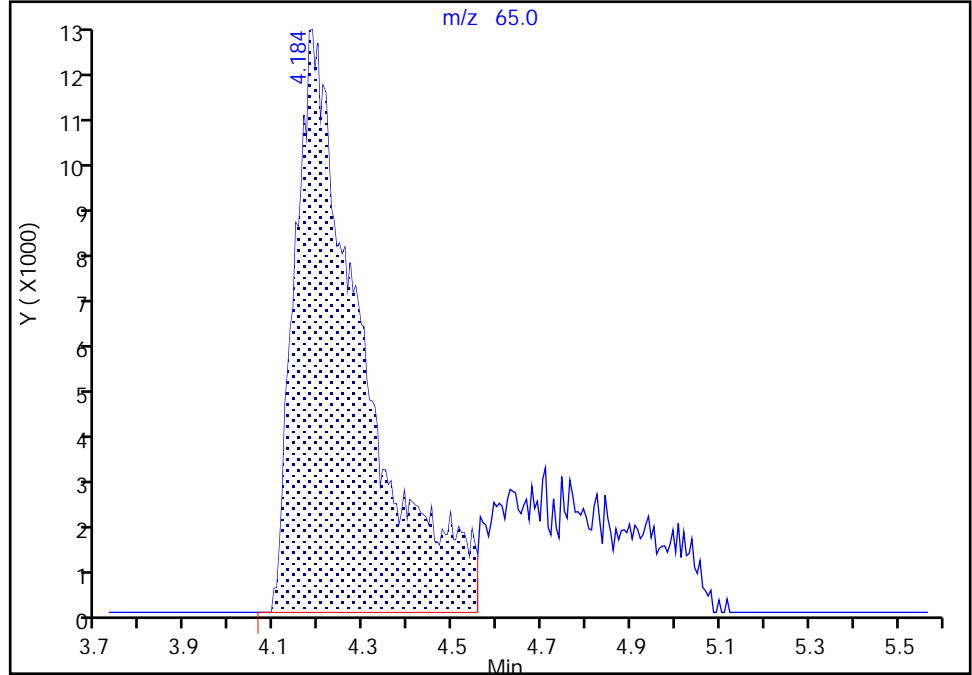
Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\GC30B01.D
Injection Date: 04-Nov-2020 10:05:30 Instrument ID: 16334
Lims ID: MB
Client ID:
Operator ID: jkh09052 ALS Bottle#: 6 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

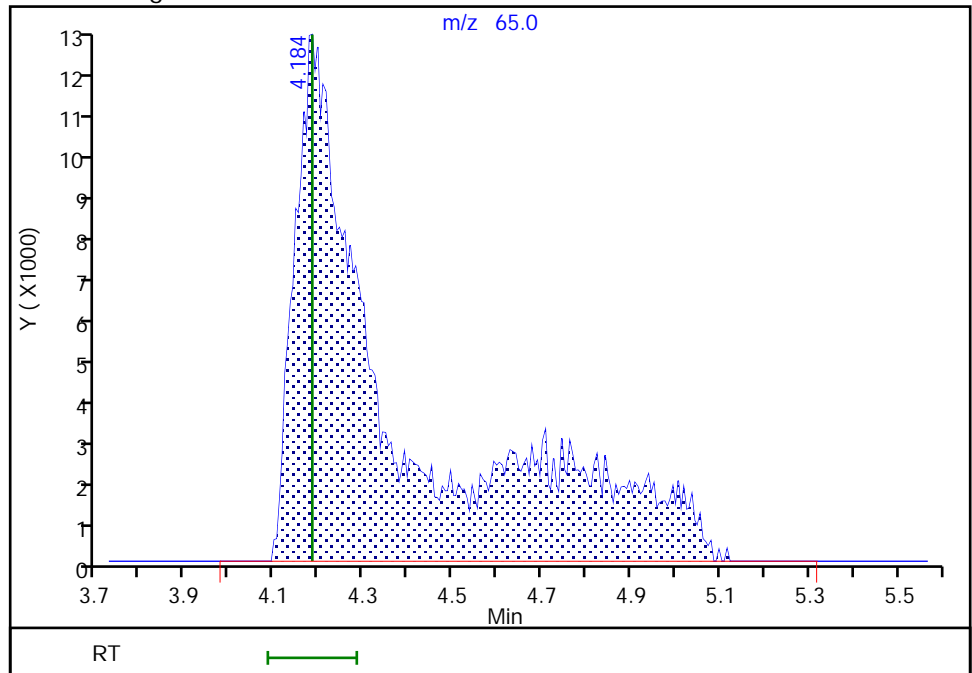
RT: 4.18
Area: 125659
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.18
Area: 182257
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 04-Nov-2020 10:28:56
Audit Action: Manually Integrated

Audit Reason: Other

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-19023-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 410-62460/7
 Matrix: Water Lab File ID: Cn05B31.D
 Analysis Method: 8260C LL Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 11/05/2020 11:01
 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.: 62460 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND		0.50	0.060
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
106-93-4	1,2-Dibromoethane (EDB)	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
74-97-5	Bromochloromethane	ND		0.50	0.050
75-27-4	Bromodichloromethane	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
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
124-48-1	Dibromochloromethane	ND		0.50	0.070
100-41-4	Ethylbenzene	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.: 410-19023-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 410-62460/7
 Matrix: Water Lab File ID: Cn05B31.D
 Analysis Method: 8260C LL Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 11/05/2020 11:01
 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.: 62460 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)	107		80-120
1868-53-7	Dibromofluoromethane (Surr)	100		80-120
2037-26-5	Toluene-d8 (Surr)	94		80-120
460-00-4	4-Bromofluorobenzene (Surr)	92		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\10193\20201105-14733.b\Cn05B31.D
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 05-Nov-2020 11:01:30 ALS Bottle#: 6 Worklist Smp#: 7
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014733-007
 Misc. Info.: MB
 Operator ID: jkh09052 Instrument ID: 10193
 Method: \\chromfs\Lancaster\ChromData\10193\20201105-14733.b\MSV_10193_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 05-Nov-2020 11:28:16 Calib Date: 01-Sep-2020 19:09:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\CS01117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1002

First Level Reviewer: howej

Date: 05-Nov-2020 11:28:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85		1.886					ND	
1 Chlorodifluoromethane	51		1.928					ND	7
140 Dimethyl ether	45		1.993					ND	7
3 Chloromethane	50		2.075					ND	
4 Butadiene	39		2.184					ND	7
5 Vinyl chloride	62		2.184					ND	
6 Bromomethane	94		2.495					ND	7
7 Chloroethane	64		2.581					ND	
8 Dichlorofluoromethane	67		2.806					ND	
9 Trichlorofluoromethane	101		2.867					ND	
11 Ethyl ether	59		3.093					ND	
12 1,2-Dichloro-1,1,2-trifluoroetha	67		3.190					ND	
13 Acrolein	56		3.263					ND	7
14 1,1-Dichloroethene	96		3.391					ND	
15 112TCTFE	101		3.428					ND	
16 Acetone	43		3.428					ND	7
17 Iodomethane	142		3.574					ND	
18 Isopropyl alcohol	45		3.599					ND	
19 Ethyl bromide	108		3.605					ND	
20 Carbon disulfide	76		3.672					ND	7
22 Methyl acetate	43		3.824					ND	
21 Acetonitrile	41		3.836					ND	
23 3-Chloro-1-propene	41		3.849					ND	
24 Methylene Chloride	84		4.025					ND	
* 25 t-Butyl alcohol-d10 (IS)	65	4.086	4.056	0.030	0	149676	50.0	50.0	
26 2-Methyl-2-propanol	59		4.172					ND	
27 Acrylonitrile	53		4.361					ND	
28 Methyl tert-butyl ether	73		4.410					ND	
29 trans-1,2-Dichloroethene	96		4.416					ND	
30 Hexane	57		4.842					ND	
32 1,1-Dichloroethane	63		5.086					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
31 Vinyl acetate	43		5.135					ND	
33 Isopropyl ether	45		5.147					ND	
34 2-Chloro-1,3-butadiene	53		5.196					ND	
35 Tert-butyl ethyl ether	59		5.684					ND	
36 2-Butanone (MEK)	43		5.903					ND	
37 cis-1,2-Dichloroethene	96		5.928					ND	
38 2,2-Dichloropropane	77		5.940					ND	
40 Propionitrile	54		5.995					ND	
39 Ethyl acetate	43		6.013					ND	
41 Methyl acrylate	55		6.074					ND	
S 42 1,2-Dichloroethene, Total	100		6.155					ND	7
43 Methacrylonitrile	67		6.214					ND	
44 Chlorobromomethane	128		6.263					ND	
45 Tetrahydrofuran	71		6.269					ND	
46 Chloroform	83		6.421					ND	
\$ 47 Dibromofluoromethane (Surr)	113	6.641	6.635	0.006	94	417384	10.0	10.0	
48 1,1,1-Trichloroethane	97		6.641					ND	
49 Cyclohexane	56		6.726					ND	
145 1-Chlorobutane	56		6.842					ND	
50 Carbon tetrachloride	117		6.848					ND	
51 1,1-Dichloropropene	75		6.854					ND	
52 Isobutyl alcohol	41		7.037					ND	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.092	7.092	0.000	0	91038	10.0	10.7	
54 Benzene	78		7.116					ND	
55 1,2-Dichloroethane	62		7.196					ND	
152 Isopropyl acetate	43		7.257					ND	
56 Tert-amyl methyl ether	73		7.311					ND	
* 57 Fluorobenzene (IS)	96	7.531	7.531	0.000	99	1754135	10.0	10.0	
58 n-Heptane	43		7.537					ND	7
59 n-Butanol	56		7.921					ND	
60 Trichloroethene	95		8.013					ND	
61 Methylcyclohexane	83		8.311					ND	
62 1,2-Dichloropropane	63		8.348					ND	
63 2-ethoxy-2-methyl butane	87		8.360					ND	
65 1,4-Dioxane	88		8.439					ND	
64 Methyl methacrylate	69		8.445					ND	
66 Dibromomethane	93		8.464					ND	
160 n-Propyl acetate	61		8.561					ND	
67 Dichlorobromomethane	83		8.701					ND	
68 2-Nitropropane	41		8.982					ND	7
71 1-Bromo-2-chloroethane	63		9.092					ND	
69 2-Chloroethyl vinyl ether	63		9.116					ND	
70 Chloroacetonitrile	75		9.116					ND	
72 cis-1,3-Dichloropropene	75		9.262					ND	
73 4-Methyl-2-pentanone (MIBK)	43		9.451					ND	
\$ 74 Toluene-d8 (Surr)	98	9.579	9.579	0.000	93	1682842	10.0	9.44	
75 Toluene	92		9.652					ND	7
76 trans-1,3-Dichloropropene	75		9.927					ND	
78 Ethyl methacrylate	69		9.994					ND	
S 77 1,3-Dichloropropene, Total	100		10.060					ND	7
79 1,1,2-Trichloroethane	97		10.134					ND	
80 Tetrachloroethene	166		10.213					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
81 1,3-Dichloropropane	76		10.299					ND	
82 2-Hexanone	43		10.360					ND	
161 n-Butyl acetate	43		10.512					ND	
83 Chlorodibromomethane	129		10.518					ND	
84 Ethylene Dibromide	107		10.628					ND	
* 85 Chlorobenzene-d5 (IS)	117	11.073	11.067	0.006	85	1364620	10.0	10.0	
86 1-Chlorohexane	91		11.079					ND	7
87 Chlorobenzene	112		11.097					ND	
89 1,1,1,2-Tetrachloroethane	131		11.183					ND	
90 Ethylbenzene	91		11.183					ND	
S 88 Xylenes, Total	106		11.245					ND	7
91 m-Xylene & p-Xylene	106		11.305					ND	7
92 o-Xylene	106		11.634					ND	
93 Styrene	104		11.652					ND	
94 Bromoform	173		11.811					ND	
95 Isopropylbenzene	105		11.939					ND	
96 cis-1,4-Dichloro-2-butene	88		12.018					ND	U
97 Cyclohexanone	55		12.048					ND	
\$ 98 4-Bromofluorobenzene (Surr)	95	12.085	12.085	0.000	95	613970	10.0	9.17	
99 1,1,2,2-Tetrachloroethane	83		12.195					ND	
100 Bromobenzene	156		12.201					ND	
101 trans-1,4-Dichloro-2-butene	53		12.219					ND	
102 1,2,3-Trichloropropane	110		12.237					ND	
103 N-Propylbenzene	91		12.274					ND	
104 2-Chlorotoluene	126		12.347					ND	
105 1,3,5-Trimethylbenzene	105		12.414					ND	
106 4-Chlorotoluene	126		12.445					ND	
107 tert-Butylbenzene	134		12.658					ND	
108 Pentachloroethane	167		12.688					ND	
109 1,2,4-Trimethylbenzene	105		12.701					ND	
110 sec-Butylbenzene	105		12.823					ND	
111 1,3-Dichlorobenzene	146		12.920					ND	7
112 4-Isopropyltoluene	119		12.932					ND	7
* 113 1,4-Dichlorobenzene-d4	152	12.975	12.975	0.000	94	733830	10.0	10.0	
114 1,4-Dichlorobenzene	146		12.993					ND	7
115 1,2,3-Trimethylbenzene	120		13.005					ND	7
116 Benzyl chloride	126		13.073					ND	7
119 n-Butylbenzene	92		13.225					ND	
120 1,2-Dichlorobenzene	146		13.261					ND	
118 p-Diethylbenzene	119		13.280					ND	
122 Hexachloroethane	117		13.475					ND	
123 1,2-Dibromo-3-Chloropropane	155		13.810					ND	
124 1,3,5-Trichlorobenzene	180		13.932					ND	7
125 1,2,4-Trichlorobenzene	180		14.359					ND	7
126 Hexachlorobutadiene	225		14.444					ND	7
127 Naphthalene	128		14.542					ND	7
128 1,2,3-Trichlorobenzene	180		14.688					ND	7
129 2-Methylnaphthalene	142		15.310					ND	U
130 Dodecane	57		0.000					ND	
159 tert-Butyl Formate	1		0.000					ND	
131 2-Bromo-1-chloropropane	1		0.000					ND	
133 1-Chloropropane	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
136 Methylal	1		0.000					ND	
138 n-Decane	57		0.000					ND	
142 1-Bromo-3-Chloropropane	1		0.000					ND	
155 2-Chloro-1,1,1-Trifluoroethane	1		0.000					ND	
149 Chlorotrifluoroethene	1		0.000					ND	
151 Propene oxide	1		0.000					ND	
157 t-Amyl alcohol	1		0.000					ND	
158 1,1-Dichloro-1-fluoroethane	1		0.000					ND	
162 Ethanol	45		0.000					ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

Reagents:

MSV_HP25_ISSS_00017

Amount Added: 1.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\10193\20201105-14733.b\Cn05B31.D

Injection Date: 05-Nov-2020 11:01:30

Instrument ID: 10193

Operator ID: jkh09052

Lims ID: MB

Worklist Smp#: 7

Client ID:

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

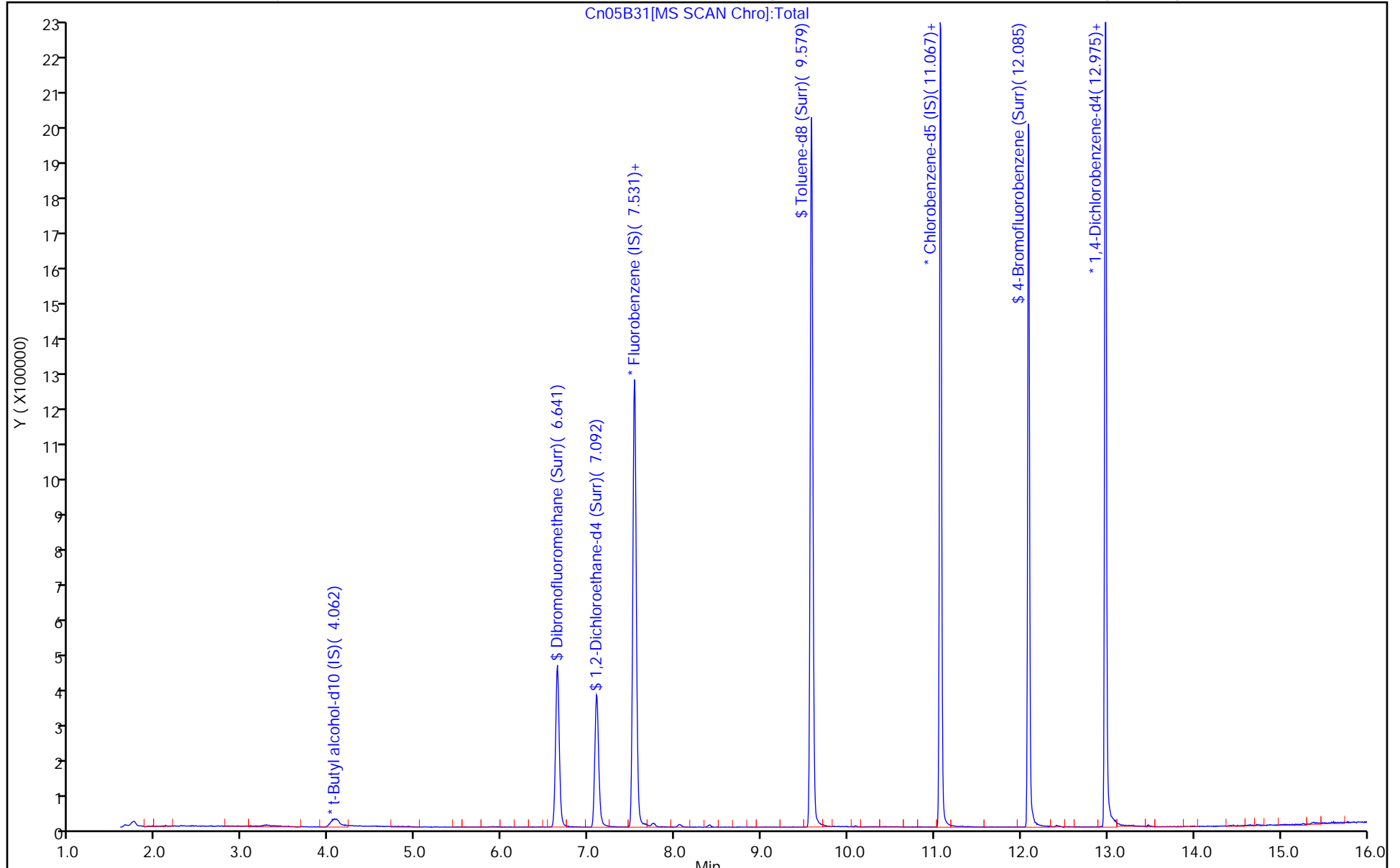
ALS Bottle#: 6

Method: MSV_10193_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\10193\20201105-14733.b\Cn05B31.D
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 05-Nov-2020 11:01:30 ALS Bottle#: 6 Worklist Smp#: 7
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014733-007
 Misc. Info.: MB
 Operator ID: jkh09052 Instrument ID: 10193
 Method: \\chromfs\Lancaster\ChromData\10193\20201105-14733.b\MSV_10193_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 05-Nov-2020 11:28:16 Calib Date: 01-Sep-2020 19:09:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\CS01117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1002

First Level Reviewer: howej

Date: 05-Nov-2020 11:28:06

Compound	Amount Added	Amount Recovered	% Rec.
\$ 47 Dibromofluoromethane (Surr)	10.0	10.0	100.14
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.7	107.21
\$ 74 Toluene-d8 (Surr)	10.0	9.44	94.42
\$ 98 4-Bromofluorobenzene (Surr)	10.0	9.17	91.65

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-19023-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 410-63387/6
 Matrix: Water Lab File ID: CN08B01.D
 Analysis Method: 8260C LL Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 11/08/2020 12:34
 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.: 63387 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND		0.50	0.060
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
106-93-4	1,2-Dibromoethane (EDB)	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
74-97-5	Bromochloromethane	ND		0.50	0.050
75-27-4	Bromodichloromethane	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
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
124-48-1	Dibromochloromethane	ND		0.50	0.070
100-41-4	Ethylbenzene	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.: 410-19023-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 410-63387/6
 Matrix: Water Lab File ID: CN08B01.D
 Analysis Method: 8260C LL Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 11/08/2020 12:34
 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.: 63387 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)	108		80-120
1868-53-7	Dibromofluoromethane (Surr)	101		80-120
2037-26-5	Toluene-d8 (Surr)	93		80-120
460-00-4	4-Bromofluorobenzene (Surr)	91		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\10193\20201108-14932.b\CN08B01.D
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 08-Nov-2020 12:34:30 ALS Bottle#: 5 Worklist Smp#: 6
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014932-006
 Misc. Info.: MB
 Operator ID: dvv10203 Instrument ID: 10193
 Method: \\chromfs\Lancaster\ChromData\10193\20201108-14932.b\MSV_10193_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 08-Nov-2020 13:05:00 Calib Date: 01-Sep-2020 19:09:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\CS01117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1011

First Level Reviewer: virayd

Date: 08-Nov-2020 13:04:34

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85		1.892					ND	
1 Chlorodifluoromethane	51		1.928					ND	7
140 Dimethyl ether	45		1.993					ND	
3 Chloromethane	50		2.087					ND	
5 Vinyl chloride	62		2.196					ND	
4 Butadiene	39		2.196					ND	7
6 Bromomethane	94		2.507					ND	
7 Chloroethane	64		2.593					ND	
8 Dichlorofluoromethane	67		2.818					ND	
9 Trichlorofluoromethane	101		2.873					ND	
11 Ethyl ether	59		3.105					ND	
12 1,2-Dichloro-1,1,2-trifluoroethane	67		3.196					ND	
13 Acrolein	56		3.276					ND	7
14 1,1-Dichloroethene	96		3.404					ND	
16 Acetone	43		3.440					ND	7
15 112TCTFE	101		3.446					ND	
17 Iodomethane	142		3.586					ND	
18 Isopropyl alcohol	45		3.605					ND	
19 Ethyl bromide	108		3.617					ND	
20 Carbon disulfide	76	3.666	3.678	-0.012	9	1888		0.0124	7M
21 Acetonitrile	41		3.836					ND	
22 Methyl acetate	43		3.842					ND	
23 3-Chloro-1-propene	41		3.861					ND	
24 Methylene Chloride	84		4.038					ND	
* 25 t-Butyl alcohol-d10 (IS)	65	4.080	4.050	0.030	0	152599	50.0	50.0	
26 2-Methyl-2-propanol	59		4.178					ND	
27 Acrylonitrile	53		4.373					ND	
28 Methyl tert-butyl ether	73		4.422					ND	
29 trans-1,2-Dichloroethene	96		4.434					ND	
30 Hexane	57		4.848					ND	
32 1,1-Dichloroethane	63		5.098					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
31 Vinyl acetate	43		5.135					ND	
33 Isopropyl ether	45		5.159					ND	
34 2-Chloro-1,3-butadiene	53		5.208					ND	
35 Tert-butyl ethyl ether	59		5.696					ND	
36 2-Butanone (MEK)	43		5.903					ND	
37 cis-1,2-Dichloroethene	96		5.934					ND	
38 2,2-Dichloropropane	77		5.946					ND	
40 Propionitrile	54		6.007					ND	
39 Ethyl acetate	43		6.013					ND	7
41 Methyl acrylate	55		6.074					ND	
S 42 1,2-Dichloroethene, Total	100		6.155					ND	7
43 Methacrylonitrile	67		6.214					ND	
44 Chlorobromomethane	128		6.269					ND	
45 Tetrahydrofuran	71		6.275					ND	
46 Chloroform	83		6.421					ND	
\$ 47 Dibromofluoromethane (Surr)	113	6.641	6.641	0.000	94	444537	10.0	10.1	
48 1,1,1-Trichloroethane	97		6.647					ND	
49 Cyclohexane	56		6.732					ND	
145 1-Chlorobutane	56		6.842					ND	
50 Carbon tetrachloride	117		6.854					ND	
51 1,1-Dichloropropene	75		6.854					ND	
52 Isobutyl alcohol	41		7.037					ND	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.092	7.104	-0.012	0	97093	10.0	10.8	
54 Benzene	78		7.122					ND	
55 1,2-Dichloroethane	62	7.214	7.202	0.012	10	1885		0.0293	M
152 Isopropyl acetate	43		7.257					ND	
56 Tert-amyl methyl ether	73		7.317					ND	
* 57 Fluorobenzene (IS)	96	7.531	7.531	0.000	99	1860087	10.0	10.0	
58 n-Heptane	43		7.543					ND	7
59 n-Butanol	56		7.927					ND	
60 Trichloroethene	95		8.012					ND	
61 Methylcyclohexane	83		8.317					ND	
62 1,2-Dichloropropane	63		8.348					ND	
63 2-ethoxy-2-methyl butane	87		8.366					ND	
64 Methyl methacrylate	69		8.445					ND	
65 1,4-Dioxane	88		8.457					ND	
66 Dibromomethane	93		8.464					ND	
160 n-Propyl acetate	61		8.561					ND	
67 Dichlorobromomethane	83		8.701					ND	
68 2-Nitropropane	41		8.988					ND	7
71 1-Bromo-2-chloroethane	63		9.098					ND	
69 2-Chloroethyl vinyl ether	63		9.116					ND	
70 Chloroacetonitrile	75		9.116					ND	
72 cis-1,3-Dichloropropene	75		9.262					ND	
73 4-Methyl-2-pentanone (MIBK)	43		9.451					ND	
\$ 74 Toluene-d8 (Surr)	98	9.579	9.579	0.000	93	1781364	10.0	9.30	
75 Toluene	92		9.658					ND	
76 trans-1,3-Dichloropropene	75		9.933					ND	
78 Ethyl methacrylate	69		9.994					ND	7
S 77 1,3-Dichloropropene, Total	100		10.060					ND	7
79 1,1,2-Trichloroethane	97		10.134					ND	
80 Tetrachloroethene	166		10.219					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
81 1,3-Dichloropropane	76		10.305					ND	
82 2-Hexanone	43		10.366					ND	
161 n-Butyl acetate	43		10.512					ND	
83 Chlorodibromomethane	129		10.518					ND	
84 Ethylene Dibromide	107		10.628					ND	
* 85 Chlorobenzene-d5 (IS)	117	11.067	11.067	0.000	84	1467277	10.0	10.0	
86 1-Chlorohexane	91		11.079					ND	7
87 Chlorobenzene	112		11.097					ND	
89 1,1,1,2-Tetrachloroethane	131		11.182					ND	
90 Ethylbenzene	91		11.182					ND	
S 88 Xylenes, Total	106		11.245					ND	7
91 m-Xylene & p-Xylene	106		11.304					ND	
92 o-Xylene	106		11.634					ND	
93 Styrene	104		11.652					ND	
94 Bromoform	173		11.810					ND	
95 Isopropylbenzene	105		11.938					ND	
96 cis-1,4-Dichloro-2-butene	88		12.018					ND	U
97 Cyclohexanone	55		12.048					ND	
\$ 98 4-Bromofluorobenzene (Surr)	95	12.085	12.085	0.000	96	658806	10.0	9.15	
99 1,1,2,2-Tetrachloroethane	83		12.194					ND	
100 Bromobenzene	156		12.201					ND	
101 trans-1,4-Dichloro-2-butene	53		12.219					ND	
102 1,2,3-Trichloropropane	110		12.237					ND	
103 N-Propylbenzene	91		12.274					ND	
104 2-Chlorotoluene	126		12.353					ND	
105 1,3,5-Trimethylbenzene	105		12.414					ND	
106 4-Chlorotoluene	126		12.444					ND	
107 tert-Butylbenzene	134		12.658					ND	
108 Pentachloroethane	167		12.688					ND	
109 1,2,4-Trimethylbenzene	105		12.700					ND	
110 sec-Butylbenzene	105		12.822					ND	
111 1,3-Dichlorobenzene	146		12.920					ND	
112 4-Isopropyltoluene	119		12.932					ND	7
* 113 1,4-Dichlorobenzene-d4	152	12.981	12.975	0.006	94	787724	10.0	10.0	
114 1,4-Dichlorobenzene	146		12.993					ND	7
115 1,2,3-Trimethylbenzene	120		13.005					ND	7
116 Benzyl chloride	126		13.078					ND	
119 n-Butylbenzene	92		13.225					ND	
120 1,2-Dichlorobenzene	146		13.255					ND	
118 p-Diethylbenzene	119		13.280					ND	
122 Hexachloroethane	117		13.475					ND	
123 1,2-Dibromo-3-Chloropropane	155		13.810					ND	
124 1,3,5-Trichlorobenzene	180		13.932					ND	7
125 1,2,4-Trichlorobenzene	180		14.359					ND	7
126 Hexachlorobutadiene	225		14.444					ND	7
127 Naphthalene	128		14.542					ND	7
128 1,2,3-Trichlorobenzene	180		14.688					ND	7
129 2-Methylnaphthalene	142	15.383	15.310	0.073	0	2466		0.0207	
130 Dodecane	57		0.000					ND	
159 tert-Butyl Formate	1		0.000					ND	
131 2-Bromo-1-chloropropane	1		0.000					ND	
133 1-Chloropropane	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
136 Methylal	1		0.000					ND	
138 n-Decane	57		0.000					ND	
142 1-Bromo-3-Chloropropane	1		0.000					ND	
155 2-Chloro-1,1,1-Trifluoroethane	1		0.000					ND	
149 Chlorotrifluoroethene	1		0.000					ND	
151 Propene oxide	1		0.000					ND	
157 t-Amyl alcohol	1		0.000					ND	
158 1,1-Dichloro-1-fluoroethane	1		0.000					ND	
162 Ethanol	45		0.000					ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

U - Marked Undetected

Reagents:

MSV_HP25_ISSS_00017

Amount Added: 1.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\10193\20201108-14932.b\CN08B01.D

Injection Date: 08-Nov-2020 12:34:30

Instrument ID: 10193

Operator ID: dvv10203

Lims ID: MB

Worklist Smp#: 6

Client ID:

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

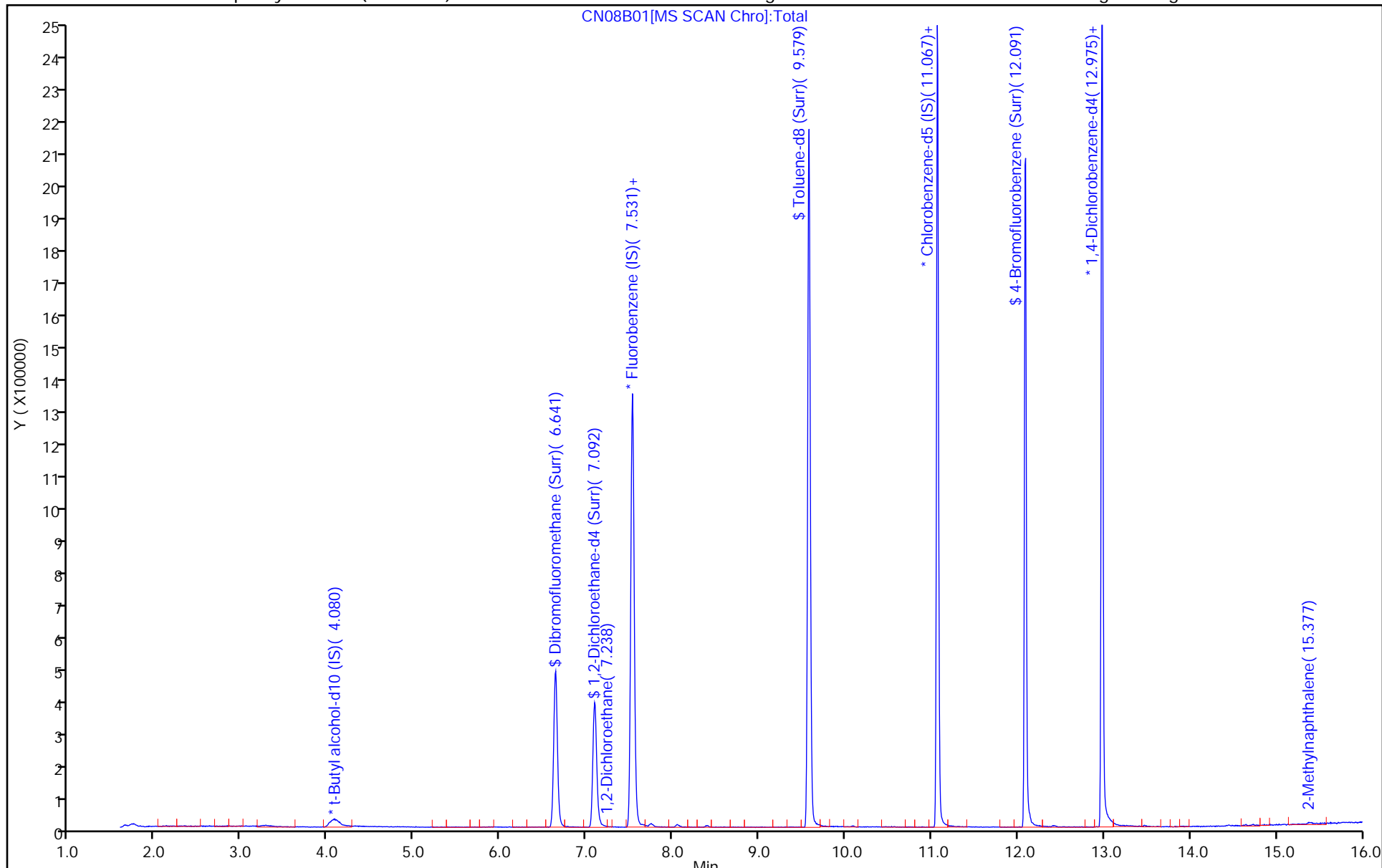
ALS Bottle#: 5

Method: MSV_10193_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\10193\20201108-14932.b\CN08B01.D
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 08-Nov-2020 12:34:30 ALS Bottle#: 5 Worklist Smp#: 6
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014932-006
 Misc. Info.: MB
 Operator ID: dvv10203 Instrument ID: 10193
 Method: \\chromfs\Lancaster\ChromData\10193\20201108-14932.b\MSV_10193_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 08-Nov-2020 13:05:00 Calib Date: 01-Sep-2020 19:09:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\CS01117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1011

First Level Reviewer: virayd

Date: 08-Nov-2020 13:04:34

Compound	Amount Added	Amount Recovered	% Rec.
\$ 47 Dibromofluoromethane (Surr)	10.0	10.1	100.58
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.8	107.83
\$ 74 Toluene-d8 (Surr)	10.0	9.30	92.96
\$ 98 4-Bromofluorobenzene (Surr)	10.0	9.15	91.47

Eurofins Lancaster Laboratories Env, LLC

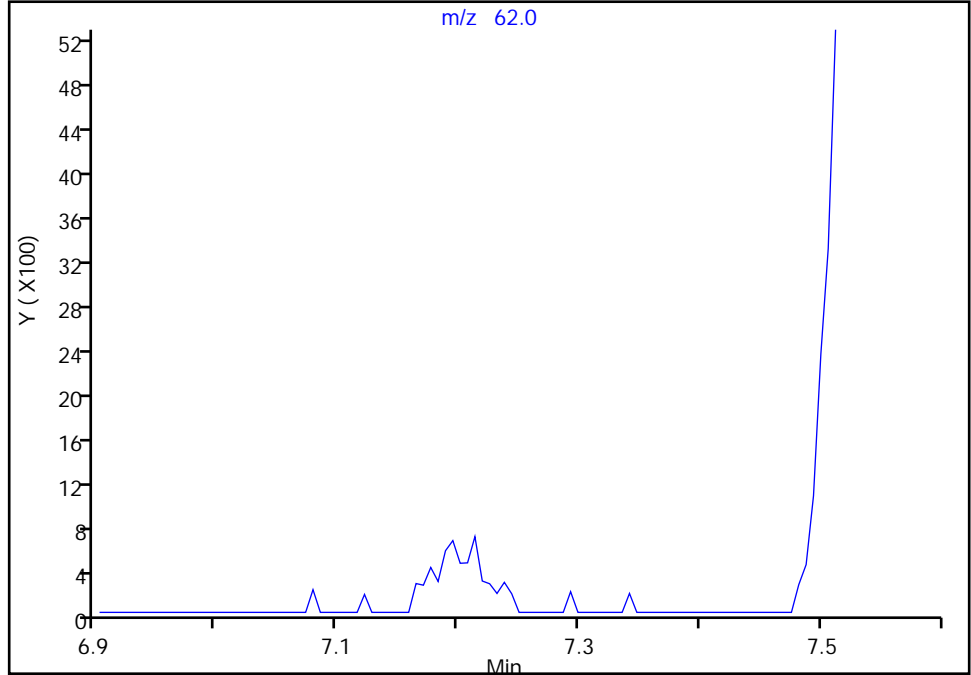
Data File: \\chromfs\Lancaster\ChromData\10193\20201108-14932.b\CN08B01.D
Injection Date: 08-Nov-2020 12:34:30 Instrument ID: 10193
Lims ID: MB
Client ID:
Operator ID: dvv10203 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

55 1,2-Dichloroethane, CAS: 107-06-2

Signal: 1

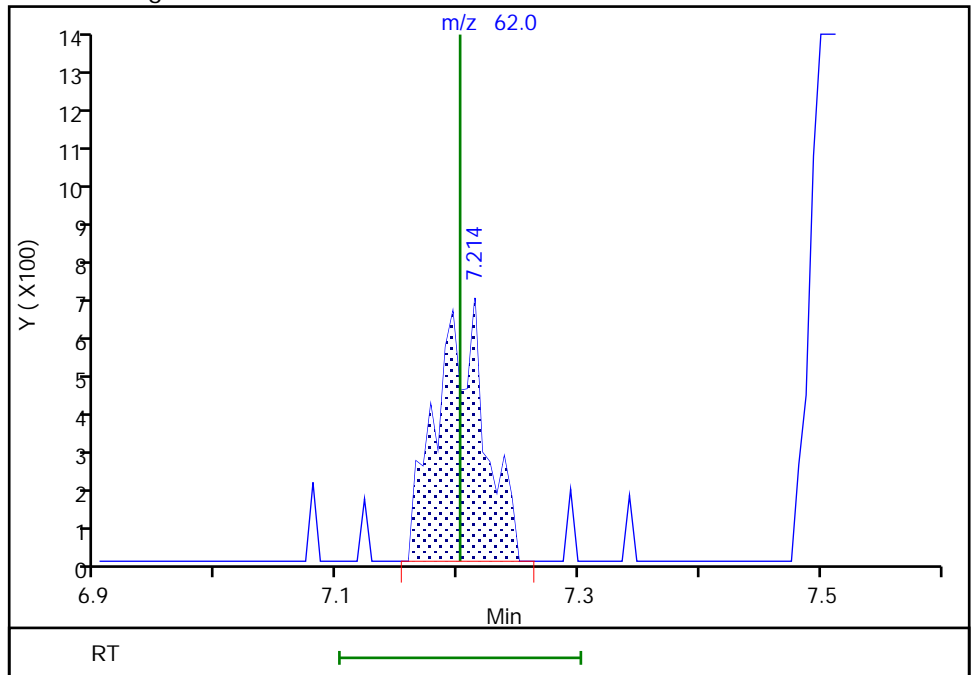
Not Detected
Expected RT: 7.20

Processing Integration Results



Manual Integration Results

RT: 7.21
Area: 1885
Amount: 0.029269
Amount Units: ug/l



Reviewer: virayd, 08-Nov-2020 13:03:41
Audit Action: Manually Integrated

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

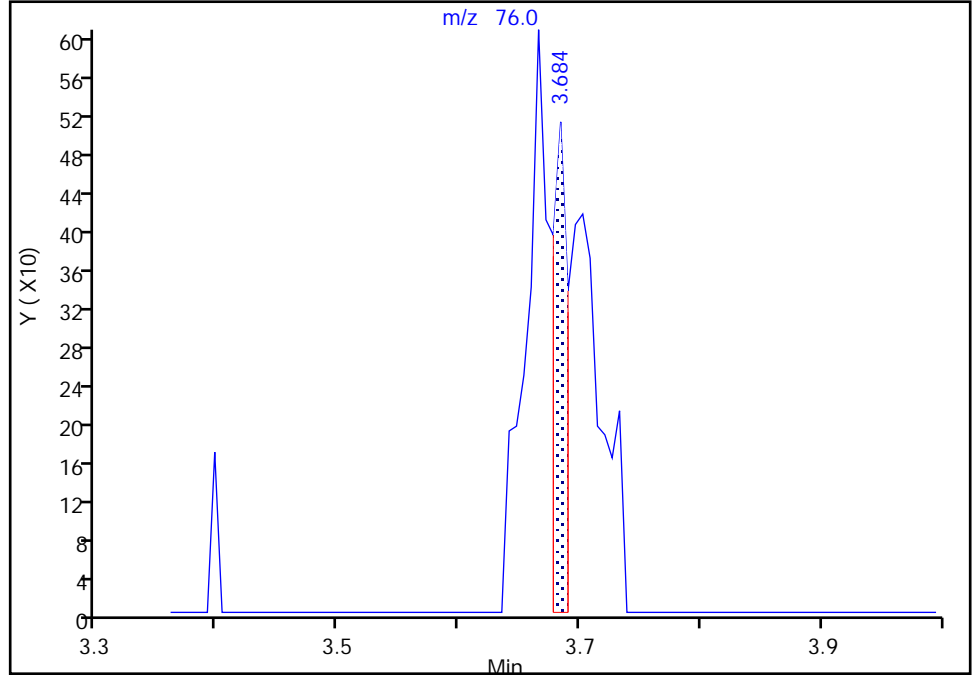
Data File: \\chromfs\Lancaster\ChromData\10193\20201108-14932.b\CN08B01.D
Injection Date: 08-Nov-2020 12:34:30 Instrument ID: 10193
Lims ID: MB
Client ID:
Operator ID: dvv10203 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

20 Carbon disulfide, CAS: 75-15-0

Signal: 1

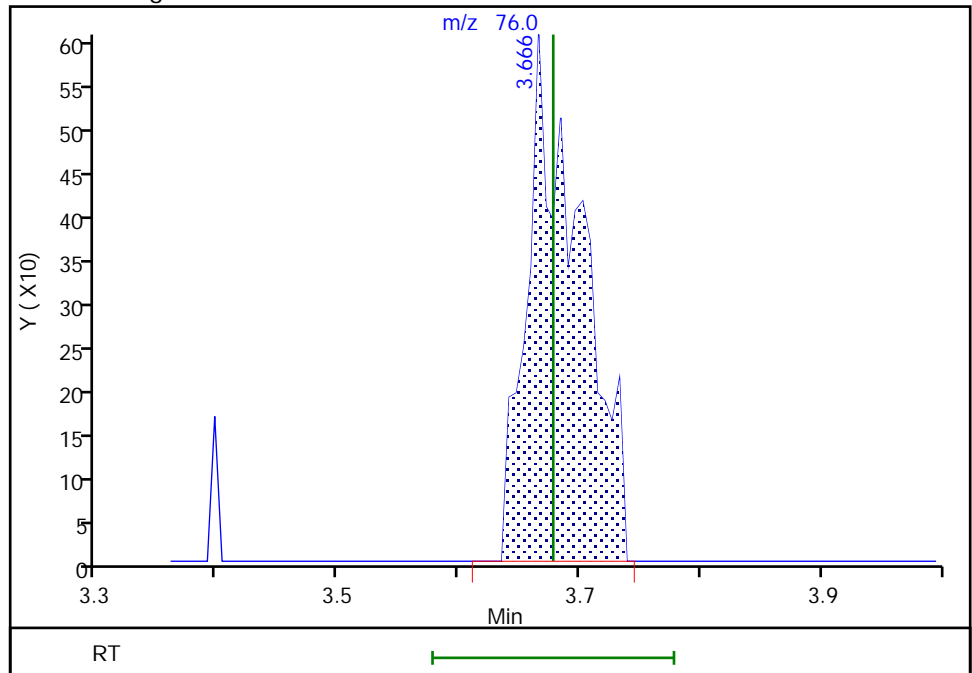
RT: 3.68
Area: 453
Amount: 0.002982
Amount Units: ug/l

Processing Integration Results



RT: 3.67
Area: 1888
Amount: 0.012428
Amount Units: ug/l

Manual Integration Results



Reviewer: virayd, 08-Nov-2020 13:03:30
Audit Action: Manually Integrated

Audit Reason: Other

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-19023-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 410-61951/4
 Matrix: Water Lab File ID: GC30L01.D
 Analysis Method: 8260C LL Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 11/04/2020 09:21
 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.: 61951 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.49		0.50	0.070
71-55-6	1,1,1-Trichloroethane	4.29		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	5.20		0.50	0.070
79-00-5	1,1,2-Trichloroethane	5.21		0.50	0.060
75-34-3	1,1-Dichloroethane	4.87		0.50	0.070
75-35-4	1,1-Dichloroethene	4.67		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	4.97		0.50	0.060
107-06-2	1,2-Dichloroethane	4.40		0.50	0.050
78-87-5	1,2-Dichloropropane	5.22		0.50	0.060
78-93-3	2-Butanone (MEK)	33.1		5.0	0.60
591-78-6	2-Hexanone	21.4		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	21.2		5.0	0.70
67-64-1	Acetone	29.2		5.0	0.90
107-13-1	Acrylonitrile	25.4		5.0	0.40
71-43-2	Benzene	4.94		0.50	0.050
74-97-5	Bromochloromethane	4.32		0.50	0.050
75-27-4	Bromodichloromethane	4.69		0.50	0.050
75-25-2	Bromoform	4.36		1.0	0.30
74-83-9	Bromomethane	4.02		0.50	0.070
75-15-0	Carbon disulfide	5.02		1.0	0.060
56-23-5	Carbon tetrachloride	4.02		0.50	0.070
108-90-7	Chlorobenzene	4.93		0.50	0.060
75-00-3	Chloroethane	4.42		0.50	0.070
67-66-3	Chloroform	4.56		0.50	0.090
74-87-3	Chloromethane	4.12		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	5.11		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	4.91		0.50	0.050
124-48-1	Dibromochloromethane	4.80		0.50	0.070
100-41-4	Ethylbenzene	4.84		0.50	0.060
1634-04-4	Methyl tert-butyl ether	4.74		0.50	0.050
75-09-2	Methylene Chloride	4.93		0.50	0.070
100-42-5	Styrene	5.00		0.50	0.050
127-18-4	Tetrachloroethene	4.48		0.50	0.060
108-88-3	Toluene	5.11		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	4.91		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	4.76		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-19023-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 410-61951/4
 Matrix: Water Lab File ID: GC30L01.D
 Analysis Method: 8260C LL Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 11/04/2020 09:21
 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.: 61951 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	4.62		0.50	0.060
75-01-4	Vinyl chloride	3.96		0.50	0.10
1330-20-7	Xylenes, Total	14.9		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		80-120
1868-53-7	Dibromofluoromethane (Surr)	92		80-120
2037-26-5	Toluene-d8 (Surr)	102		80-120
460-00-4	4-Bromofluorobenzene (Surr)	99		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\GC30L01.D
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 04-Nov-2020 09:21:30 ALS Bottle#: 3 Worklist Smp#: 4
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014632-004
 Misc. Info.: LCS
 Operator ID: jkh09052 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 04-Nov-2020 13:28:20 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\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1010

First Level Reviewer: howej

Date: 04-Nov-2020 09:55:20

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	1.947	-0.007	99	243881	5.00	2.56	
5 Chloromethane	50	2.135	2.142	-0.007	99	363865	5.00	4.12	
6 Butadiene	39	2.257	2.257	0.000	92	338434	5.00	4.48	M
7 Vinyl chloride	62	2.251	2.257	-0.006	91	329696	5.00	3.96	
9 Bromomethane	94	2.574	2.581	-0.007	91	254580	5.00	4.02	
10 Chloroethane	64	2.654	2.660	-0.006	100	210112	5.00	4.42	
11 Dichlorofluoromethane	67	2.898	2.898	0.000	97	489678	5.00	4.35	
13 Trichlorofluoromethane	101	2.958	2.965	-0.007	97	448175	5.00	4.02	
15 Ethyl ether	59	3.202	3.209	-0.007	91	238996	5.00	5.79	
16 1,2-Dichloro-1,1,2-trifluoroethane	67	3.300	3.294	0.006	94	296816	5.00	4.61	
18 Acrolein	56	3.373	3.379	-0.006	98	174304	37.5	24.6	
19 1,1-Dichloroethene	96	3.507	3.507	0.000	97	225977	5.00	4.67	
20 Acetone	43	3.538	3.544	-0.006	95	327546	37.5	29.2	
21 112TCTFE	101	3.544	3.550	-0.006	93	216779	5.00	4.07	
23 Isopropyl alcohol	45	3.714	3.702	0.012	29	29483	37.5	19.3	
22 Iodomethane	142	3.696	3.702	-0.006	100	407935	5.00	4.10	
24 Ethyl bromide	108	3.721	3.733	-0.012	98	200823	5.01	4.74	
25 Carbon disulfide	76	3.800	3.800	0.000	99	851409	5.00	5.02	
26 Methyl acetate	43	3.958	3.958	0.000	98	108802	5.00	4.09	
27 3-Chloro-1-propene	41	3.977	3.983	-0.006	90	370448	5.00	4.62	
28 Methylene Chloride	84	4.159	4.172	-0.013	92	267445	5.00	4.93	
* 29 t-Butyl alcohol-d10 (IS)	65	4.172	4.184	-0.012	0	201022	50.0	50.0	M
30 2-Methyl-2-propanol	59	4.306	4.306	0.000	91	121610	50.0	34.0	
31 Acrylonitrile	53	4.513	4.519	-0.006	96	307170	25.0	25.4	
32 Methyl tert-butyl ether	73	4.568	4.568	0.000	91	704178	5.00	4.74	
33 trans-1,2-Dichloroethene	96	4.568	4.574	-0.006	98	267743	5.00	4.91	
34 Hexane	57	5.001	5.001	0.000	94	352997	5.00	4.91	
36 1,1-Dichloroethane	63	5.239	5.245	-0.006	96	500488	5.00	4.87	
37 Isopropyl ether	45	5.306	5.306	0.000	93	853233	5.00	4.67	
38 2-Chloro-1,3-butadiene	53	5.348	5.354	-0.006	93	417766	5.00	4.42	
39 Tert-butyl ethyl ether	59	5.836	5.842	-0.006	98	839000	5.00	4.69	

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	6.049	6.056	-0.007	99	638345	37.5	33.1	
41 cis-1,2-Dichloroethene	96	6.080	6.080	0.000	83	322798	5.00	5.11	
42 2,2-Dichloropropane	77	6.098	6.098	0.000	87	421184	5.00	4.66	
44 Propionitrile	54	6.159	6.153	0.006	98	152432	37.5	34.7	
46 Methacrylonitrile	67	6.366	6.366	0.000	92	554876	37.5	33.1	
48 Chlorobromomethane	128	6.409	6.415	-0.006	93	129406	5.00	4.32	
47 Tetrahydrofuran	71	6.421	6.421	0.000	74	126521	25.0	25.1	
50 Chloroform	83	6.568	6.568	0.000	94	504118	5.00	4.56	
\$ 52 Dibromofluoromethane (Surr)	113	6.781	6.781	0.000	93	558096	10.0	9.16	
51 1,1,1-Trichloroethane	97	6.793	6.793	0.000	77	434471	5.00	4.29	
53 Cyclohexane	56	6.885	6.885	0.000	90	407514	5.00	4.65	
56 Carbon tetrachloride	117	7.000	6.994	0.006	96	363648	5.00	4.02	
55 1,1-Dichloropropene	75	7.000	7.007	-0.007	95	377765	5.00	4.63	
57 Isobutyl alcohol	41	7.171	7.171	0.000	92	111602	125.0	88.0	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.232	7.238	-0.006	0	116815	10.0	10.1	
59 Benzene	78	7.269	7.269	0.000	97	1123645	5.00	4.94	
60 1,2-Dichloroethane	62	7.342	7.342	0.000	97	362134	5.00	4.40	M
62 Tert-amyl methyl ether	73	7.458	7.458	0.000	98	780779	5.00	4.85	
* 63 Fluorobenzene (IS)	96	7.671	7.671	0.000	98	2280091	10.0	10.0	
64 n-Heptane	43	7.677	7.683	-0.006	90	382258	5.00	4.60	
65 n-Butanol	56	8.055	8.055	0.000	89	267521	250.0	243.9	
67 Trichloroethene	95	8.153	8.153	0.000	98	292744	5.00	4.62	
68 Methylcyclohexane	83	8.451	8.451	0.000	93	426371	5.00	4.57	
69 1,2-Dichloropropane	63	8.488	8.488	0.000	93	301570	5.00	5.22	
70 2-ethoxy-2-methyl butane	87	8.494	8.500	-0.006	92	450485	5.00	5.06	
71 Methyl methacrylate	69	8.573	8.573	0.000	91	145975	5.00	4.30	
72 1,4-Dioxane	88	8.573	8.573	0.000	30	31972	125.0	131.3	M
73 Dibromomethane	93	8.598	8.598	0.000	96	148455	5.00	4.45	
75 Dichlorobromomethane	83	8.835	8.835	0.000	99	386965	5.00	4.69	
76 2-Nitropropane	41	9.116	9.116	0.000	98	45597	5.00	3.22	
78 2-Chloroethyl vinyl ether	63		9.201				ND	ND	
79 1-Bromo-2-chloroethane	63	9.226	9.226	0.000	99	323444	5.00	5.10	
80 cis-1,3-Dichloropropene	75	9.384	9.384	0.000	95	448547	5.00	4.91	
81 4-Methyl-2-pentanone (MIBK)	43	9.567	9.567	0.000	97	1063984	25.0	21.2	
\$ 82 Toluene-d8 (Surr)	98	9.689	9.689	0.000	94	2288906	10.0	10.2	
83 Toluene	92	9.768	9.768	0.000	97	720298	5.00	5.11	
84 trans-1,3-Dichloropropene	75	10.030	10.030	0.000	95	381505	5.00	4.76	
85 Ethyl methacrylate	69	10.091	10.091	0.000	89	313239	5.00	5.03	
86 1,1,2-Trichloroethane	97	10.231	10.238	-0.007	91	226071	5.00	5.21	
88 Tetrachloroethene	166	10.317	10.317	0.000	96	308944	5.00	4.48	
89 1,3-Dichloropropane	76	10.396	10.396	0.000	93	377065	5.00	5.04	
91 2-Hexanone	43	10.457	10.451	0.006	97	784186	25.0	21.4	
93 Chlorodibromomethane	129	10.609	10.610	-0.001	89	269456	5.00	4.80	
94 Ethylene Dibromide	107	10.719	10.719	0.000	98	216942	5.00	4.97	
* 95 Chlorobenzene-d5 (IS)	117	11.152	11.152	0.000	87	1707152	10.0	10.0	
96 1-Chlorohexane	91	11.158	11.164	-0.006	98	385162	5.00	4.41	
97 Chlorobenzene	112	11.176	11.176	0.000	94	824020	5.00	4.93	
98 1,1,1,2-Tetrachloroethane	131	11.262	11.262	0.000	95	281469	5.00	4.49	
99 Ethylbenzene	91	11.262	11.262	0.000	98	1418665	5.00	4.84	
100 m-Xylene & p-Xylene	106	11.378	11.378	0.000	0	1083839	10.0	9.95	
102 o-Xylene	106	11.707	11.707	0.000	97	530143	5.00	4.97	
103 Styrene	104	11.725	11.725	0.000	94	878288	5.00	5.00	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 Bromoform	173	11.877	11.878	-0.001	96	154181	5.00	4.36	
105 Isopropylbenzene	105	12.005	12.006	-0.001	96	1353348	5.00	4.75	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	91	818585	10.0	9.86	
109 1,1,2,2-Tetrachloroethane	83	12.255	12.256	-0.001	95	270678	5.00	5.20	
110 Bromobenzene	156	12.268	12.268	0.000	95	342765	5.00	4.97	
111 trans-1,4-Dichloro-2-butene	53	12.280	12.280	0.000	88	191883	25.0	9.49	
112 1,2,3-Trichloropropane	110	12.298	12.298	0.000	84	75948	5.00	5.21	
113 N-Propylbenzene	91	12.335	12.335	0.000	99	1653507	5.00	5.18	
114 2-Chlorotoluene	126	12.408	12.408	0.000	96	322187	5.00	5.08	
115 1,3,5-Trimethylbenzene	105	12.469	12.469	0.000	93	1171560	5.00	5.28	
116 4-Chlorotoluene	126	12.505	12.505	0.000	98	337235	5.00	5.00	
118 tert-Butylbenzene	134	12.713	12.713	0.000	92	255573	5.00	5.17	
120 Pentachloroethane	167	12.743	12.743	0.000	93	202811	5.00	4.65	
119 1,2,4-Trimethylbenzene	105	12.755	12.755	0.000	97	1208137	5.00	5.21	
121 sec-Butylbenzene	105	12.871	12.871	0.000	95	1483601	5.00	5.08	
122 1,3-Dichlorobenzene	146	12.969	12.969	0.000	98	659914	5.00	4.94	
123 4-Isopropyltoluene	119	12.981	12.981	0.000	97	1249974	5.00	4.99	
* 124 1,4-Dichlorobenzene-d4	152	13.024	13.024	0.000	96	858948	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.042	13.042	0.000	93	671826	5.00	4.96	
126 1,2,3-Trimethylbenzene	120	13.054	13.054	0.000	99	536651	5.00	5.28	
127 Benzyl chloride	126	13.121	13.121	0.000	99	107232	5.00	5.52	
129 p-Diethylbenzene	119	13.182	13.182	0.000	90	744523	5.00	4.87	
130 n-Butylbenzene	92	13.267	13.268	-0.001	97	650235	5.00	4.99	
131 1,2-Dichlorobenzene	146	13.304	13.304	0.000	97	599360	5.00	4.81	
134 1,2-Dibromo-3-Chloropropane	155	13.847	13.847	0.000	81	35689	5.00	4.74	
135 1,3,5-Trichlorobenzene	180	13.962	13.963	-0.001	97	471150	5.00	4.52	
136 1,2,4-Trichlorobenzene	180	14.389	14.389	0.000	94	384092	5.00	4.29	
137 Hexachlorobutadiene	225	14.468	14.469	-0.001	97	211488	5.00	4.32	
138 Naphthalene	128	14.566	14.566	0.000	97	637616	5.00	4.37	
139 1,2,3-Trichlorobenzene	180	14.706	14.706	0.000	95	310223	5.00	4.12	
140 2-Methylnaphthalene	142	15.322	15.322	0.000	91	268235	5.00	3.15	

QC Flag Legend

Processing Flags

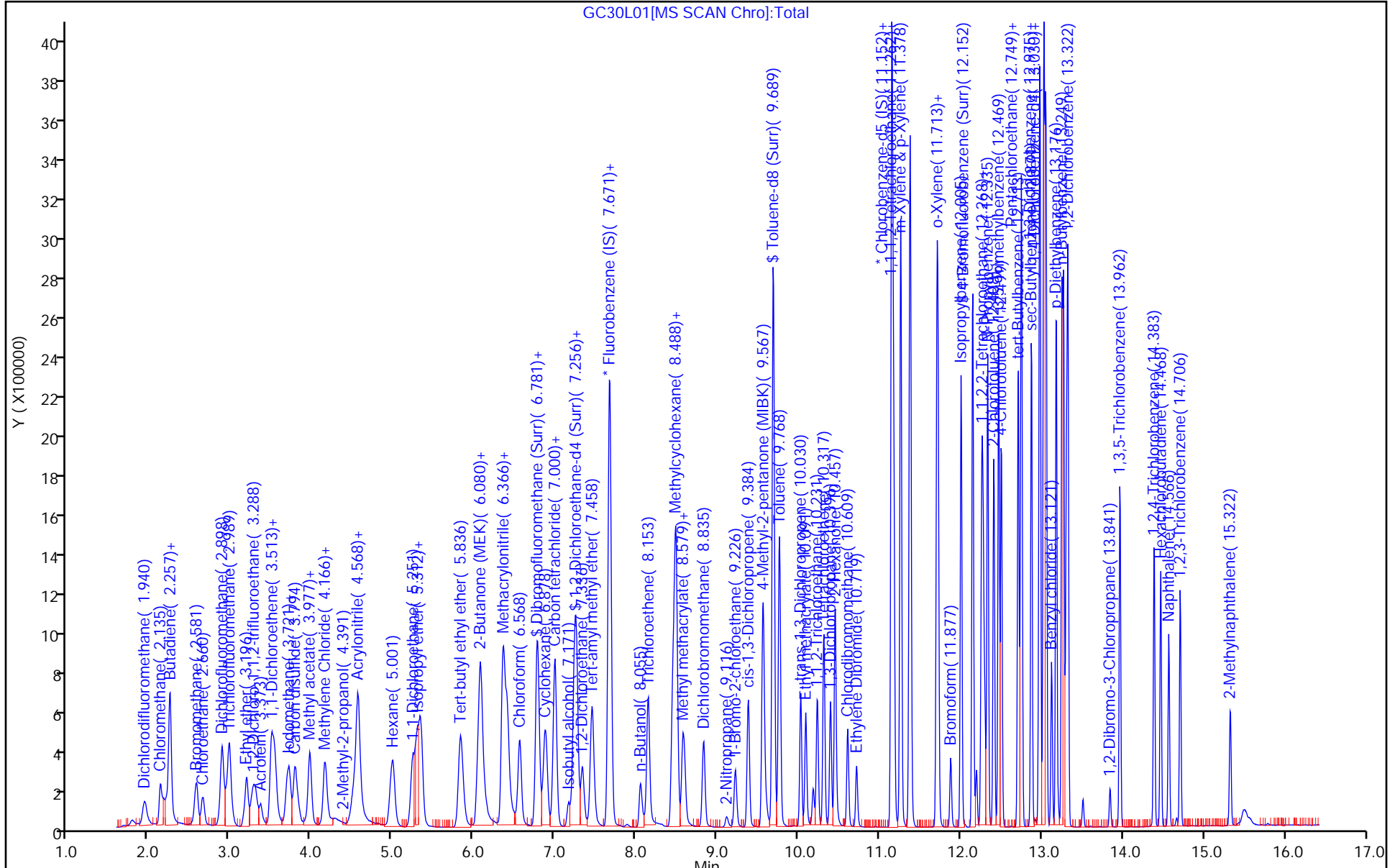
ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MSV_Q_QVOA1_00053	Amount Added: 12.50	Units: uL	
MSV_Q_QARC_00052	Amount Added: 12.50	Units: uL	
MSV_Q_EE_00003	Amount Added: 12.50	Units: uL	
MSV_Q_QVOA6_00050	Amount Added: 12.50	Units: uL	
MSV_Q_ETBR_00005	Amount Added: 12.50	Units: uL	
MSV_QGAS_826_00086	Amount Added: 12.50	Units: uL	
MSV_29_826ISS_00010	Amount Added: 1.00	Units: uL	Run Reagent



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\GC30L01.D
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 04-Nov-2020 09:21:30 ALS Bottle#: 3 Worklist Smp#: 4
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014632-004
 Misc. Info.: LCS
 Operator ID: jkh09052 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 04-Nov-2020 13:28:20 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\GU11117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1010

First Level Reviewer: howej

Date: 04-Nov-2020 09:55:20

Compound	Amount Added	Amount Recovered	% Rec.
\$ 52 Dibromofluoromethane (Surr)	10.0	9.16	91.63
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.1	100.70
\$ 82 Toluene-d8 (Surr)	10.0	10.2	102.42
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.86	98.63

Eurofins Lancaster Laboratories Env, LLC

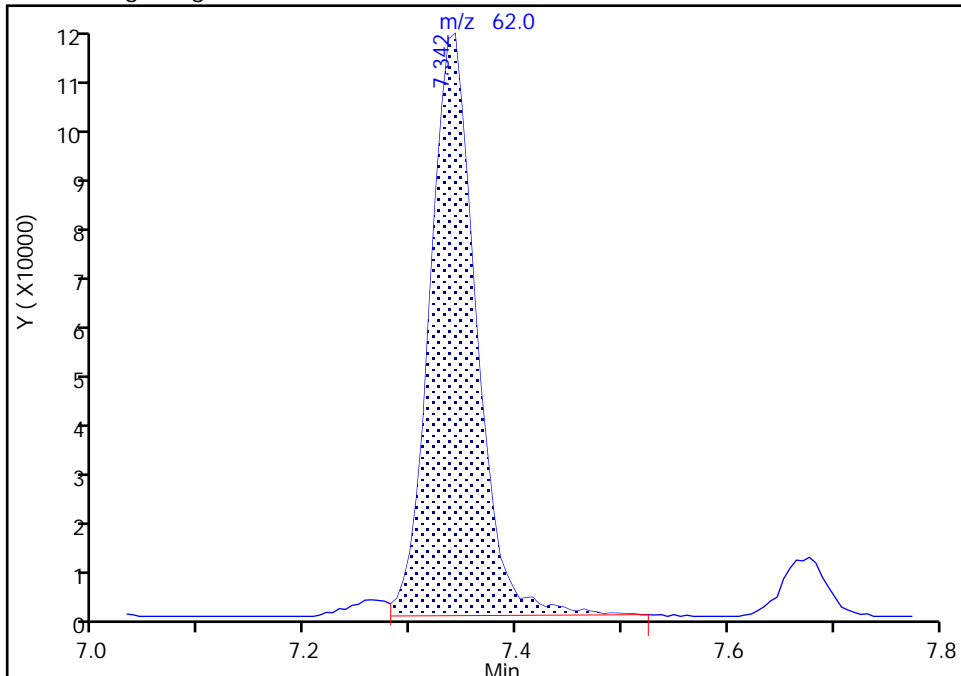
Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\GC30L01.D
Injection Date: 04-Nov-2020 09:21:30 Instrument ID: 16334
Lims ID: LCS
Client ID:
Operator ID: jkh09052 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

60 1,2-Dichloroethane, CAS: 107-06-2

Signal: 1

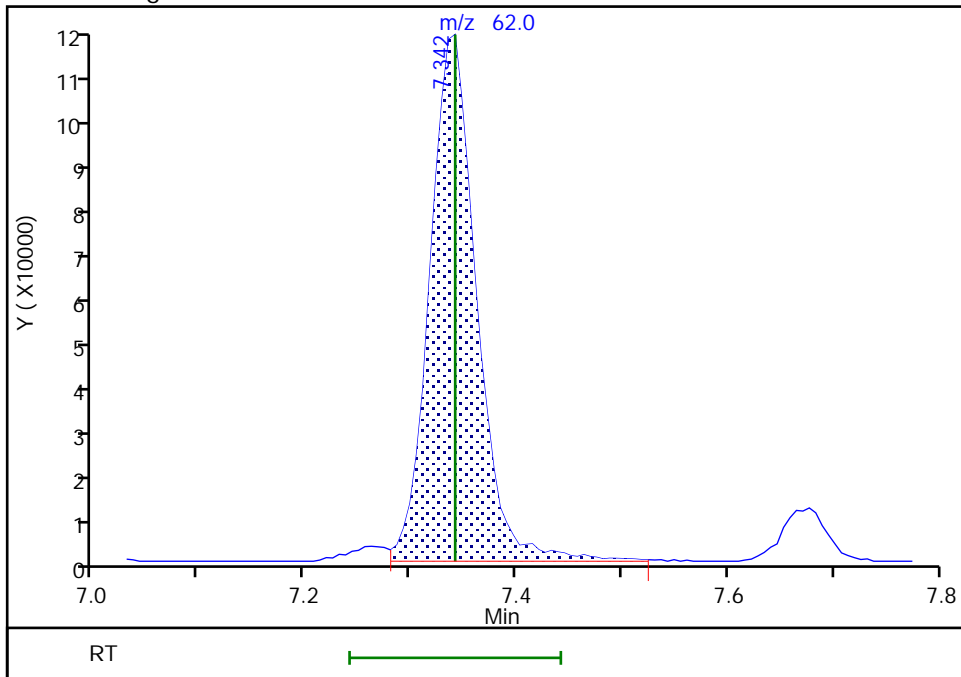
RT: 7.34
Area: 359030
Amount: 4.358224
Amount Units: ug/l

Processing Integration Results



RT: 7.34
Area: 362134
Amount: 4.395903
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 04-Nov-2020 09:54:40
Audit Action: Assigned New Baseline

Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

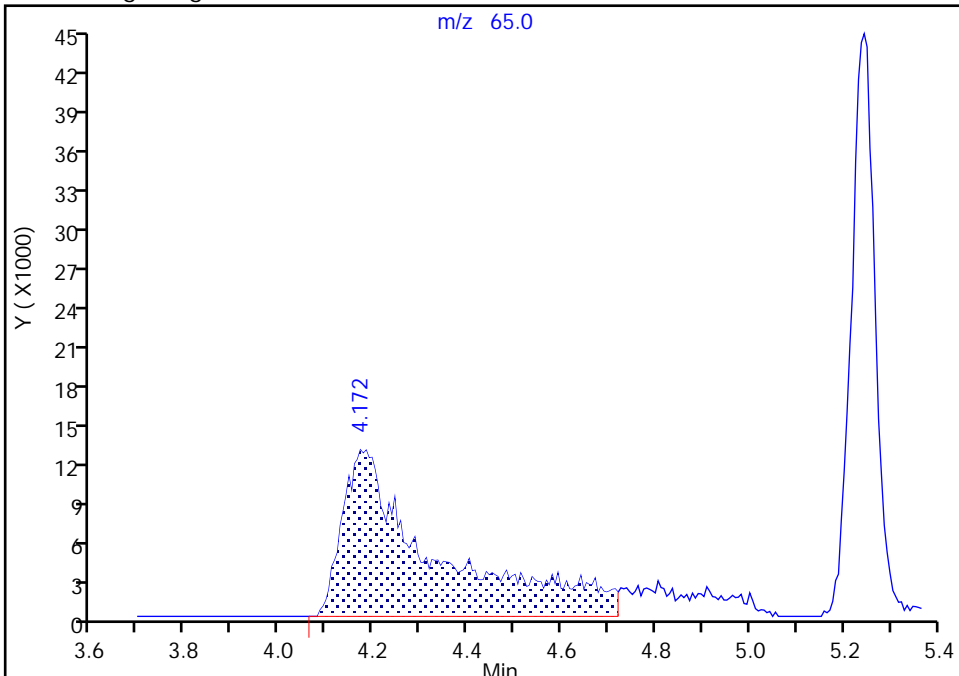
Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\GC30L01.D
Injection Date: 04-Nov-2020 09:21:30 Instrument ID: 16334
Lims ID: LCS
Client ID:
Operator ID: jkh09052 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 29 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

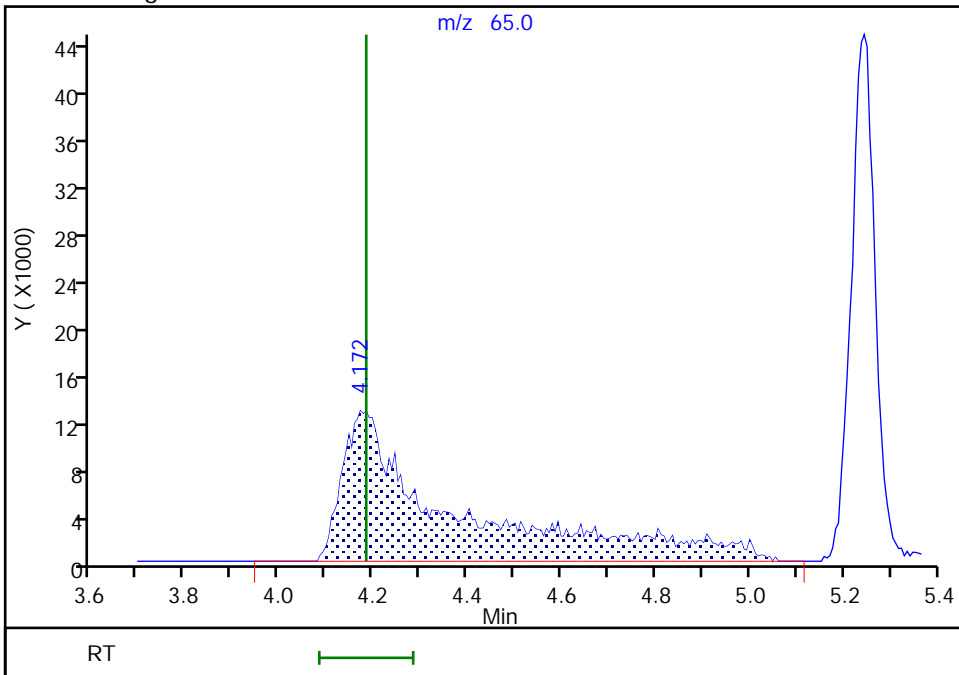
RT: 4.17
Area: 170895
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.17
Area: 201022
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 04-Nov-2020 09:54:22
Audit Action: Manually Integrated

Audit Reason: Other

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-19023-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 410-62460/4
 Matrix: Water Lab File ID: Cn05L01.D
 Analysis Method: 8260C LL Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 11/05/2020 09:54
 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.: 62460 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.76		0.50	0.070
71-55-6	1,1,1-Trichloroethane	4.25		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	5.00		0.50	0.070
79-00-5	1,1,2-Trichloroethane	5.22		0.50	0.060
75-34-3	1,1-Dichloroethane	4.39		0.50	0.070
75-35-4	1,1-Dichloroethene	4.60		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	5.06		0.50	0.060
107-06-2	1,2-Dichloroethane	4.32		0.50	0.050
78-87-5	1,2-Dichloropropane	4.64		0.50	0.060
78-93-3	2-Butanone (MEK)	38.5		5.0	0.60
591-78-6	2-Hexanone	23.1		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	22.2		5.0	0.70
67-64-1	Acetone	46.5		5.0	0.90
107-13-1	Acrylonitrile	27.6		5.0	0.40
71-43-2	Benzene	4.70		0.50	0.050
74-97-5	Bromochloromethane	4.86		0.50	0.050
75-27-4	Bromodichloromethane	4.72		0.50	0.050
75-25-2	Bromoform	5.91		1.0	0.30
74-83-9	Bromomethane	4.46		0.50	0.070
75-15-0	Carbon disulfide	4.53		1.0	0.060
56-23-5	Carbon tetrachloride	4.26		0.50	0.070
108-90-7	Chlorobenzene	4.79		0.50	0.060
75-00-3	Chloroethane	4.10		0.50	0.070
67-66-3	Chloroform	4.46		0.50	0.090
74-87-3	Chloromethane	4.30		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	4.94		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	4.47		0.50	0.050
124-48-1	Dibromochloromethane	5.26		0.50	0.070
100-41-4	Ethylbenzene	4.56		0.50	0.060
1634-04-4	Methyl tert-butyl ether	4.38		0.50	0.050
75-09-2	Methylene Chloride	4.96		0.50	0.070
100-42-5	Styrene	4.77		0.50	0.050
127-18-4	Tetrachloroethene	4.79		0.50	0.060
108-88-3	Toluene	4.63		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	4.68		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	4.48		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-19023-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 410-62460/4
 Matrix: Water Lab File ID: Cn05L01.D
 Analysis Method: 8260C LL Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 11/05/2020 09:54
 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.: 62460 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	4.69		0.50	0.060
75-01-4	Vinyl chloride	4.31		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)	106		80-120
1868-53-7	Dibromofluoromethane (Surr)	99		80-120
2037-26-5	Toluene-d8 (Surr)	95		80-120
460-00-4	4-Bromofluorobenzene (Surr)	95		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\10193\20201105-14733.b\Cn05L01.D
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 05-Nov-2020 09:54:30 ALS Bottle#: 3 Worklist Smp#: 4
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014733-004
 Misc. Info.: LCS
 Operator ID: jkh09052 Instrument ID: 10193
 Method: \\chromfs\Lancaster\ChromData\10193\20201105-14733.b\MSV_10193_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 06-Nov-2020 12:42:22 Calib Date: 01-Sep-2020 19:09:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\CS01117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1010

First Level Reviewer: howej

Date: 05-Nov-2020 10:46:46

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	1.886	1.886	0.000	99	223794	5.00	3.88	
3 Chloromethane	50	2.075	2.075	0.000	99	292493	5.00	4.30	
4 Butadiene	39	2.190	2.184	0.006	92	356229	5.00	5.57	
5 Vinyl chloride	62	2.190	2.184	0.006	90	270942	5.00	4.31	
6 Bromomethane	94	2.501	2.495	0.006	90	198009	5.00	4.46	
7 Chloroethane	64	2.587	2.581	0.006	100	159311	5.00	4.10	
8 Dichlorofluoromethane	67	2.812	2.806	0.006	97	376003	5.00	4.46	
9 Trichlorofluoromethane	101	2.867	2.867	0.000	100	339694	5.00	4.15	
11 Ethyl ether	59	3.099	3.093	0.006	93	209062	5.00	5.04	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.196	3.190	0.006	91	241266	5.00	3.97	M
13 Acrolein	56	3.269	3.263	0.006	98	195138	37.5	33.1	
14 1,1-Dichloroethene	96	3.391	3.391	0.000	98	190032	5.00	4.60	
15 112TCTFE	101	3.440	3.428	0.012	89	178522	5.00	4.25	
16 Acetone	43	3.434	3.428	0.006	99	291225	37.5	46.5	
17 Iodomethane	142	3.580	3.574	0.006	97	376270	5.00	4.61	
18 Isopropyl alcohol	45	3.586	3.599	-0.013	30	39424	37.5	36.4	
19 Ethyl bromide	108	3.611	3.605	0.006	98	171579	5.01	5.00	
20 Carbon disulfide	76	3.672	3.672	0.000	99	662094	5.00	4.53	
22 Methyl acetate	43	3.836	3.824	0.012	98	130231	5.00	5.29	
23 3-Chloro-1-propene	41	3.855	3.849	0.006	92	327756	5.00	4.53	
24 Methylene Chloride	84	4.031	4.025	0.006	91	228273	5.00	4.96	
* 25 t-Butyl alcohol-d10 (IS)	65	4.062	4.056	0.006	0	147458	50.0	50.0	
26 2-Methyl-2-propanol	59	4.190	4.172	0.018	99	119254	50.0	40.6	
27 Acrylonitrile	53	4.367	4.361	0.006	99	274830	25.0	27.6	
28 Methyl tert-butyl ether	73	4.416	4.410	0.006	95	585690	5.00	4.38	
29 trans-1,2-Dichloroethene	96	4.422	4.416	0.006	99	226156	5.00	4.68	
30 Hexane	57	4.842	4.842	0.000	93	290933	5.00	4.27	
32 1,1-Dichloroethane	63	5.086	5.086	0.000	96	390199	5.00	4.39	
33 Isopropyl ether	45	5.153	5.147	0.006	93	714796	5.00	4.22	
34 2-Chloro-1,3-butadiene	53	5.196	5.196	0.000	91	331723	5.00	3.96	
35 Tert-butyl ethyl ether	59	5.690	5.684	0.006	98	679941	5.00	4.20	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 2-Butanone (MEK)	43	5.903	5.903	0.000	99	565229	37.5	38.5	
37 cis-1,2-Dichloroethene	96	5.927	5.928	-0.001	81	270492	5.00	4.94	
38 2,2-Dichloropropane	77	5.940	5.940	0.000	90	328036	5.00	4.27	
40 Propionitrile	54	6.001	5.995	0.006	99	164388	37.5	44.1	
43 Methacrylonitrile	67	6.208	6.214	-0.006	92	531598	37.5	36.8	
44 Chlorobromomethane	128	6.263	6.263	0.000	96	117235	5.00	4.86	
45 Tetrahydrofuran	71	6.269	6.269	0.000	78	109782	25.0	26.4	
46 Chloroform	83	6.421	6.421	0.000	94	393206	5.00	4.46	
\$ 47 Dibromofluoromethane (Surr)	113	6.635	6.635	0.000	94	421056	10.0	9.91	
48 1,1,1-Trichloroethane	97	6.641	6.641	0.000	75	337768	5.00	4.25	
49 Cyclohexane	56	6.732	6.726	0.006	91	350430	5.00	4.17	
50 Carbon tetrachloride	117	6.848	6.848	0.000	96	283643	5.00	4.26	
51 1,1-Dichloropropene	75	6.854	6.854	0.000	95	304925	5.00	4.28	
52 Isobutyl alcohol	41	7.037	7.037	0.000	91	116532	125.0	122.4	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.098	7.092	0.006	0	91535	10.0	10.6	
54 Benzene	78	7.116	7.116	0.000	97	964539	5.00	4.70	
55 1,2-Dichloroethane	62	7.189	7.196	-0.007	98	267441	5.00	4.32	
56 Tert-amyl methyl ether	73	7.317	7.311	0.006	98	649673	5.00	4.40	
* 57 Fluorobenzene (IS)	96	7.531	7.531	0.000	99	1787901	10.0	10.0	
58 n-Heptane	43	7.537	7.537	0.000	94	327773	5.00	4.32	
59 n-Butanol	56	7.933	7.921	0.012	89	243889	250.0	309.0	
60 Trichloroethene	95	8.012	8.013	0.000	97	248191	5.00	4.69	
61 Methylcyclohexane	83	8.317	8.311	0.006	92	384031	5.00	4.74	
62 1,2-Dichloropropane	63	8.348	8.348	0.000	96	244859	5.00	4.64	
63 2-ethoxy-2-methyl butane	87	8.360	8.360	0.000	93	365185	5.00	4.45	
65 1,4-Dioxane	88	8.439	8.439	0.000	30	28123	125.0	179.0	M
64 Methyl methacrylate	69	8.445	8.445	0.000	93	131608	5.00	4.27	
66 Dibromomethane	93	8.464	8.464	0.000	92	122713	5.00	4.76	
67 Dichlorobromomethane	83	8.701	8.701	0.000	99	300223	5.00	4.72	
68 2-Nitropropane	41	8.988	8.982	0.006	99	38363	5.00	4.01	
71 1-Bromo-2-chloroethane	63	9.098	9.092	0.006	98	267877	5.00	4.91	
69 2-Chloroethyl vinyl ether	63		9.116				ND	ND	
72 cis-1,3-Dichloropropene	75	9.262	9.262	0.000	95	353318	5.00	4.47	
73 4-Methyl-2-pentanone (MIBK)	43	9.451	9.451	0.000	97	946282	25.0	22.2	
\$ 74 Toluene-d8 (Surr)	98	9.579	9.579	0.000	94	1732115	10.0	9.48	
75 Toluene	92	9.652	9.652	0.000	99	637194	5.00	4.63	
76 trans-1,3-Dichloropropene	75	9.927	9.927	0.000	93	308201	5.00	4.48	
78 Ethyl methacrylate	69	9.994	9.994	0.000	89	270089	5.00	4.65	
79 1,1,2-Trichloroethane	97	10.134	10.134	0.000	90	198338	5.00	5.22	
80 Tetrachloroethene	166	10.213	10.213	0.000	98	294210	5.00	4.79	
81 1,3-Dichloropropane	76	10.299	10.299	0.000	92	315476	5.00	4.71	
82 2-Hexanone	43	10.366	10.360	0.006	97	698004	25.0	23.1	
83 Chlorodibromomethane	129	10.518	10.518	0.000	90	231519	5.00	5.26	
84 Ethylene Dibromide	107	10.628	10.628	0.000	98	189922	5.00	5.06	
* 85 Chlorobenzene-d5 (IS)	117	11.067	11.067	0.000	84	1399629	10.0	10.0	
86 1-Chlorohexane	91	11.079	11.079	0.000	98	331291	5.00	4.22	
87 Chlorobenzene	112	11.097	11.097	0.000	95	744325	5.00	4.79	
89 1,1,1,2-Tetrachloroethane	131	11.183	11.183	-0.001	97	251270	5.00	4.76	
90 Ethylbenzene	91	11.183	11.183	-0.001	98	1241573	5.00	4.56	
91 m-Xylene & p-Xylene	106	11.304	11.305	-0.001	0	995051	10.0	9.35	
92 o-Xylene	106	11.634	11.634	0.000	97	483302	5.00	4.63	
93 Styrene	104	11.652	11.652	0.000	95	835014	5.00	4.77	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
94 Bromoform	173	11.810	11.811	-0.001	98	144589	5.00	5.91	
95 Isopropylbenzene	105	11.945	11.939	0.006	95	1248513	5.00	4.52	
\$ 98 4-Bromofluorobenzene (Surr)	95	12.085	12.085	0.000	95	649310	10.0	9.45	
99 1,1,2,2-Tetrachloroethane	83	12.194	12.195	-0.001	94	243984	5.00	5.00	
100 Bromobenzene	156	12.207	12.201	0.006	92	343373	5.00	5.12	
101 trans-1,4-Dichloro-2-butene	53	12.219	12.219	0.000	88	187476	25.0	13.9	
102 1,2,3-Trichloropropane	110	12.237	12.237	0.000	83	68956	5.00	5.19	
103 N-Propylbenzene	91	12.274	12.274	0.000	99	1480149	5.00	4.70	
104 2-Chlorotoluene	126	12.353	12.347	0.006	98	321841	5.00	5.00	
105 1,3,5-Trimethylbenzene	105	12.414	12.414	0.000	95	1096129	5.00	4.70	
106 4-Chlorotoluene	126	12.444	12.445	-0.001	97	336751	5.00	5.03	
107 tert-Butylbenzene	134	12.658	12.658	0.000	93	256181	5.00	5.05	
108 Pentachloroethane	167	12.688	12.688	0.000	92	199977	5.00	5.28	
109 1,2,4-Trimethylbenzene	105	12.700	12.701	-0.001	97	1134194	5.00	4.74	
110 sec-Butylbenzene	105	12.822	12.823	-0.001	94	1409747	5.00	4.69	
111 1,3-Dichlorobenzene	146	12.920	12.920	0.000	99	671839	5.00	5.02	
112 4-Isopropyltoluene	119	12.932	12.932	0.000	97	1258379	5.00	4.80	
* 113 1,4-Dichlorobenzene-d4	152	12.975	12.975	0.000	95	781884	10.0	10.0	
114 1,4-Dichlorobenzene	146	12.993	12.993	0.000	95	685712	5.00	4.98	
115 1,2,3-Trimethylbenzene	120	13.005	13.005	0.000	98	523321	5.00	4.98	
116 Benzyl chloride	126	13.078	13.073	0.006	98	112252	5.00	5.78	
119 n-Butylbenzene	92	13.225	13.225	0.000	96	620566	5.00	4.67	
120 1,2-Dichlorobenzene	146	13.255	13.261	-0.006	99	634633	5.00	5.02	
118 p-Diethylbenzene	119	13.280	13.280	0.000	86	632721	5.00	4.76	
123 1,2-Dibromo-3-Chloropropane	155	13.810	13.810	0.000	89	39086	5.00	5.84	
124 1,3,5-Trichlorobenzene	180	13.932	13.932	0.000	97	556369	5.00	5.09	
125 1,2,4-Trichlorobenzene	180	14.359	14.359	0.000	94	496884	5.00	5.07	
126 Hexachlorobutadiene	225	14.444	14.444	0.000	96	231409	5.00	4.83	
127 Naphthalene	128	14.542	14.542	0.000	96	872819	5.00	4.99	
128 1,2,3-Trichlorobenzene	180	14.688	14.688	0.000	96	442157	5.00	5.10	
129 2-Methylnaphthalene	142	15.310	15.310	0.000	92	507038	5.00	4.29	

QC Flag Legend

Processing Flags

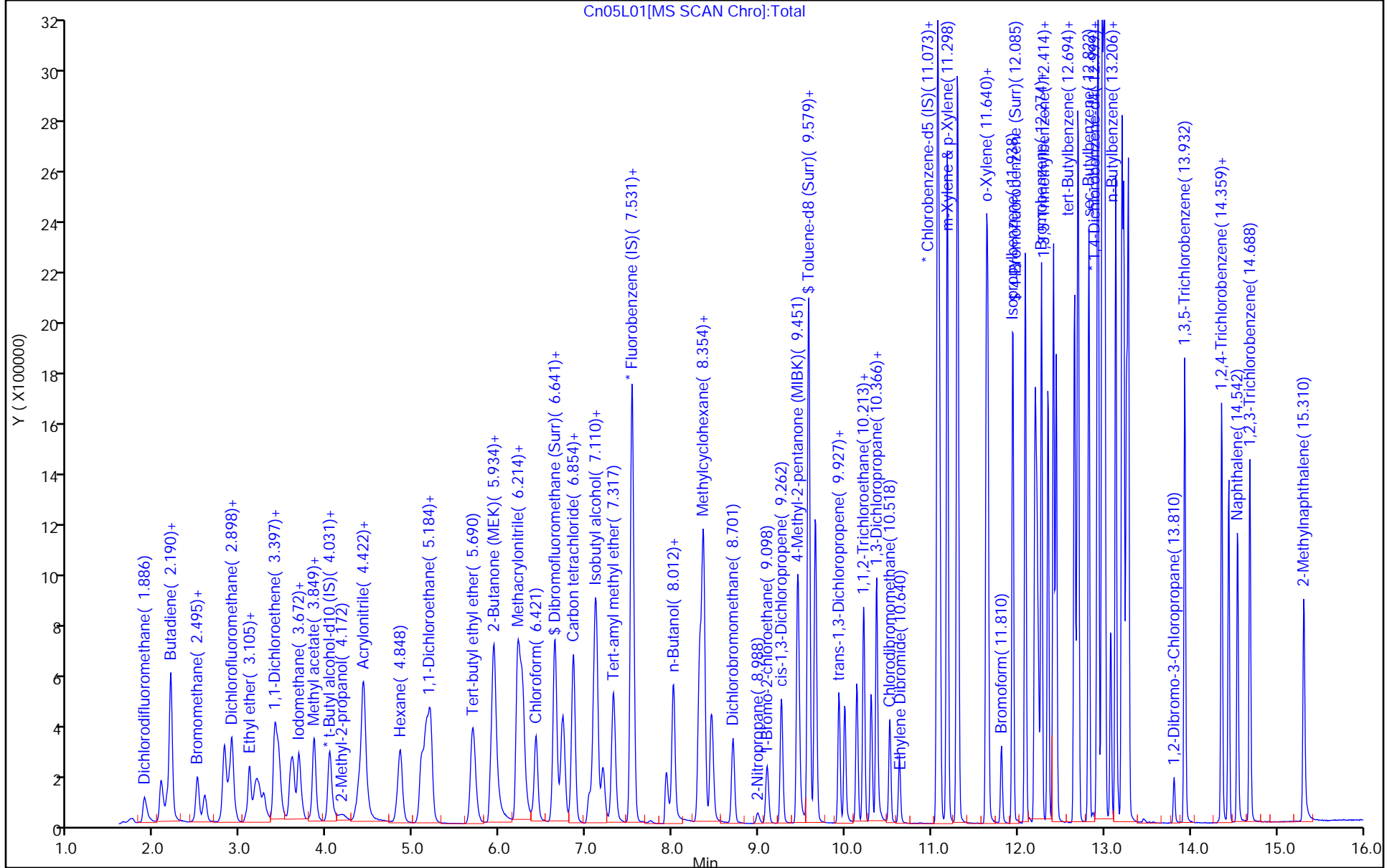
ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MSV_Q_EE_00003	Amount Added: 12.50	Units: uL	
MSV_Q_QVOA6_00051	Amount Added: 12.50	Units: uL	
MSV_Q_ETBR_00005	Amount Added: 12.50	Units: uL	
MSV_Q_QVOA1_00053	Amount Added: 12.50	Units: uL	
MSV_Q_QARC_00052	Amount Added: 12.50	Units: uL	
MSV_QGAS_826_00086	Amount Added: 12.50	Units: uL	
MSV_HP25_ISSS_00017	Amount Added: 1.00	Units: uL	Run Reagent



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\10193\20201105-14733.b\Cn05L01.D
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 05-Nov-2020 09:54:30 ALS Bottle#: 3 Worklist Smp#: 4
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014733-004
 Misc. Info.: LCS
 Operator ID: jkh09052 Instrument ID: 10193
 Method: \\chromfs\Lancaster\ChromData\10193\20201105-14733.b\MSV_10193_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 06-Nov-2020 12:42:22 Calib Date: 01-Sep-2020 19:09:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\CS01117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1010

First Level Reviewer: howej Date: 05-Nov-2020 10:46:46

Compound	Amount Added	Amount Recovered	% Rec.
\$ 47 Dibromofluoromethane (Surr)	10.0	9.91	99.11
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.6	105.76
\$ 74 Toluene-d8 (Surr)	10.0	9.48	94.75
\$ 98 4-Bromofluorobenzene (Surr)	10.0	9.45	94.50

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-19023-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 410-63387/4
 Matrix: Water Lab File ID: CN08L01.D
 Analysis Method: 8260C LL Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 11/08/2020 11:50
 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.: 63387 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.69		0.50	0.070
71-55-6	1,1,1-Trichloroethane	4.21		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	4.72		0.50	0.070
79-00-5	1,1,2-Trichloroethane	5.15		0.50	0.060
75-34-3	1,1-Dichloroethane	4.23		0.50	0.070
75-35-4	1,1-Dichloroethene	4.78		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	4.88		0.50	0.060
107-06-2	1,2-Dichloroethane	4.22		0.50	0.050
78-87-5	1,2-Dichloropropane	4.49		0.50	0.060
78-93-3	2-Butanone (MEK)	35.9		5.0	0.60
591-78-6	2-Hexanone	24.1		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	22.7		5.0	0.70
67-64-1	Acetone	41.4		5.0	0.90
107-13-1	Acrylonitrile	26.4		5.0	0.40
71-43-2	Benzene	4.63		0.50	0.050
74-97-5	Bromochloromethane	5.09		0.50	0.050
75-27-4	Bromodichloromethane	4.66		0.50	0.050
75-25-2	Bromoform	5.98		1.0	0.30
74-83-9	Bromomethane	4.40		0.50	0.070
75-15-0	Carbon disulfide	4.52		1.0	0.060
56-23-5	Carbon tetrachloride	4.32		0.50	0.070
108-90-7	Chlorobenzene	4.71		0.50	0.060
75-00-3	Chloroethane	4.17		0.50	0.070
67-66-3	Chloroform	4.42		0.50	0.090
74-87-3	Chloromethane	4.22		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	4.89		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	4.50		0.50	0.050
124-48-1	Dibromochloromethane	5.14		0.50	0.070
100-41-4	Ethylbenzene	4.44		0.50	0.060
1634-04-4	Methyl tert-butyl ether	4.21		0.50	0.050
75-09-2	Methylene Chloride	4.84		0.50	0.070
100-42-5	Styrene	4.71		0.50	0.050
127-18-4	Tetrachloroethene	4.89		0.50	0.060
108-88-3	Toluene	4.53		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	4.67		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	4.37		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-19023-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 410-63387/4
 Matrix: Water Lab File ID: CN08L01.D
 Analysis Method: 8260C LL Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 11/08/2020 11:50
 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.: 63387 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	4.63		0.50	0.060
75-01-4	Vinyl chloride	4.38		0.50	0.10
1330-20-7	Xylenes, Total	13.8		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		80-120
1868-53-7	Dibromofluoromethane (Surr)	101		80-120
2037-26-5	Toluene-d8 (Surr)	96		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\10193\20201108-14932.b\CN08L01.D
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 08-Nov-2020 11:50:30 ALS Bottle#: 3 Worklist Smp#: 4
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014932-004
 Misc. Info.: LCS
 Operator ID: dvv10203 Instrument ID: 10193
 Method: \\chromfs\Lancaster\ChromData\10193\20201108-14932.b\MSV_10193_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 08-Nov-2020 13:05:00 Calib Date: 01-Sep-2020 19:09:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\CS01117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1011

First Level Reviewer: virayd

Date: 08-Nov-2020 12:37:43

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	1.892	1.892	0.000	100	243980	5.00	3.86	
3 Chloromethane	50	2.081	2.087	-0.006	99	314535	5.00	4.22	
5 Vinyl chloride	62	2.190	2.196	-0.006	95	301700	5.00	4.38	
4 Butadiene	39	2.196	2.196	0.000	93	329366	5.00	4.70	
6 Bromomethane	94	2.501	2.507	-0.006	90	213927	5.00	4.40	
7 Chloroethane	64	2.587	2.593	-0.006	100	177694	5.00	4.17	
8 Dichlorofluoromethane	67	2.812	2.818	-0.006	97	419454	5.00	4.54	
9 Trichlorofluoromethane	101	2.867	2.873	-0.006	97	379754	5.00	4.24	
11 Ethyl ether	59	3.099	3.105	-0.006	90	222912	5.00	4.91	
12 1,2-Dichloro-1,1,2-trifluoroethane	67	3.196	3.196	0.000	93	258507	5.00	3.88	
13 Acrolein	56	3.269	3.276	-0.007	98	208013	37.5	36.0	
14 1,1-Dichloroethene	96	3.391	3.404	-0.013	97	216358	5.00	4.78	
16 Acetone	43	3.434	3.440	-0.006	93	254012	37.5	41.4	
15 112TCTFE	101	3.440	3.446	-0.006	89	198827	5.00	4.32	
17 Iodomethane	142	3.580	3.586	-0.006	96	411839	5.00	4.60	
18 Isopropyl alcohol	45	3.580	3.605	-0.025	27	44462	37.5	41.1	
19 Ethyl bromide	108	3.611	3.617	-0.006	98	198659	5.01	5.28	
20 Carbon disulfide	76	3.678	3.678	0.000	99	722989	5.00	4.52	
22 Methyl acetate	43	3.830	3.842	-0.012	98	114324	5.00	4.74	M
23 3-Chloro-1-propene	41	3.848	3.861	-0.013	91	351771	5.00	4.44	
24 Methylene Chloride	84	4.031	4.038	-0.007	89	243984	5.00	4.84	
* 25 t-Butyl alcohol-d10 (IS)	65	4.050	4.050	0.000	0	144412	50.0	50.0	M
26 2-Methyl-2-propanol	59	4.172	4.178	-0.006	99	118693	50.0	41.3	
27 Acrylonitrile	53	4.367	4.373	-0.006	100	257244	25.0	26.4	
28 Methyl tert-butyl ether	73	4.415	4.422	-0.007	90	617109	5.00	4.21	
29 trans-1,2-Dichloroethene	96	4.422	4.434	-0.012	99	247088	5.00	4.67	
30 Hexane	57	4.848	4.848	0.000	92	308205	5.00	4.13	
32 1,1-Dichloroethane	63	5.092	5.098	-0.006	96	412308	5.00	4.23	
33 Isopropyl ether	45	5.153	5.159	-0.006	93	731235	5.00	3.94	
34 2-Chloro-1,3-butadiene	53	5.196	5.208	-0.012	91	355109	5.00	3.87	
35 Tert-butyl ethyl ether	59	5.696	5.696	0.000	98	707457	5.00	3.99	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 2-Butanone (MEK)	43	5.903	5.903	0.000	99	516157	37.5	35.9	
37 cis-1,2-Dichloroethene	96	5.933	5.934	-0.001	83	293590	5.00	4.89	
38 2,2-Dichloropropane	77	5.946	5.946	0.000	89	361193	5.00	4.29	
40 Propionitrile	54	6.007	6.007	0.000	98	165252	37.5	45.2	
43 Methacrylonitrile	67	6.220	6.214	0.006	92	532808	37.5	37.6	
44 Chlorobromomethane	128	6.263	6.269	-0.006	87	134627	5.00	5.09	
45 Tetrahydrofuran	71	6.275	6.275	0.000	77	111553	25.0	27.4	
46 Chloroform	83	6.421	6.421	0.000	93	427229	5.00	4.42	
\$ 47 Dibromofluoromethane (Surr)	113	6.635	6.641	-0.006	94	468668	10.0	10.1	
48 1,1,1-Trichloroethane	97	6.641	6.647	-0.006	98	366561	5.00	4.21	
49 Cyclohexane	56	6.738	6.732	0.006	90	379752	5.00	4.13	
50 Carbon tetrachloride	117	6.848	6.854	-0.006	97	315038	5.00	4.32	
51 1,1-Dichloropropene	75	6.860	6.854	0.006	95	332640	5.00	4.26	
52 Isobutyl alcohol	41	7.037	7.037	0.000	94	99801	125.0	107.0	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.092	7.104	-0.012	0	101296	10.0	10.7	
54 Benzene	78	7.116	7.122	-0.006	97	1040991	5.00	4.63	
55 1,2-Dichloroethane	62	7.195	7.202	-0.007	98	286274	5.00	4.22	
56 Tert-amyl methyl ether	73	7.317	7.317	0.000	98	681724	5.00	4.22	
* 57 Fluorobenzene (IS)	96	7.531	7.531	0.000	99	1959162	10.0	10.0	
58 n-Heptane	43	7.537	7.543	-0.006	91	340197	5.00	4.09	
59 n-Butanol	56	7.927	7.927	0.000	90	215157	250.0	278.4	
60 Trichloroethene	95	8.012	8.012	0.000	97	268527	5.00	4.63	
61 Methylcyclohexane	83	8.317	8.317	0.000	90	439248	5.00	4.94	
62 1,2-Dichloropropane	63	8.354	8.348	0.006	95	259388	5.00	4.49	
63 2-ethoxy-2-methyl butane	87	8.360	8.366	-0.006	93	390596	5.00	4.34	
64 Methyl methacrylate	69	8.445	8.445	0.000	90	140916	5.00	4.67	
65 1,4-Dioxane	88	8.445	8.457	-0.012	30	27403	125.0	178.1	M
66 Dibromomethane	93	8.457	8.464	-0.007	93	135280	5.00	4.78	
67 Dichlorobromomethane	83	8.701	8.701	0.000	99	325273	5.00	4.66	
68 2-Nitropropane	41	8.988	8.988	0.000	97	39104	5.00	4.18	
71 1-Bromo-2-chloroethane	63	9.097	9.098	-0.001	98	289767	5.00	4.85	
69 2-Chloroethyl vinyl ether	63		9.116				ND	ND	
72 cis-1,3-Dichloropropene	75	9.262	9.262	0.000	95	390325	5.00	4.50	
73 4-Methyl-2-pentanone (MIBK)	43	9.451	9.451	0.000	96	948675	25.0	22.7	
\$ 74 Toluene-d8 (Surr)	98	9.579	9.579	0.000	93	1930021	10.0	9.58	
75 Toluene	92	9.658	9.658	0.000	98	686912	5.00	4.53	
76 trans-1,3-Dichloropropene	75	9.927	9.933	-0.006	93	331303	5.00	4.37	
78 Ethyl methacrylate	69	9.994	9.994	0.000	89	282910	5.00	4.42	
79 1,1,2-Trichloroethane	97	10.134	10.134	0.000	89	215454	5.00	5.15	
80 Tetrachloroethene	166	10.219	10.219	0.000	97	331088	5.00	4.89	
81 1,3-Dichloropropane	76	10.298	10.305	-0.007	91	338279	5.00	4.59	
82 2-Hexanone	43	10.366	10.366	0.000	96	710919	25.0	24.1	
83 Chlorodibromomethane	129	10.518	10.518	0.000	90	249661	5.00	5.14	
84 Ethylene Dibromide	107	10.628	10.628	0.000	100	201809	5.00	4.88	
* 85 Chlorobenzene-d5 (IS)	117	11.067	11.067	0.000	84	1542583	10.0	10.0	
86 1-Chlorohexane	91	11.085	11.079	0.006	97	367134	5.00	4.24	
87 Chlorobenzene	112	11.097	11.097	0.000	96	806800	5.00	4.71	
89 1,1,1,2-Tetrachloroethane	131	11.182	11.182	0.000	96	273149	5.00	4.69	
90 Ethylbenzene	91	11.182	11.182	0.000	98	1334757	5.00	4.44	
91 m-Xylene & p-Xylene	106	11.304	11.304	0.000	0	1084883	10.0	9.24	
92 o-Xylene	106	11.634	11.634	0.000	97	528927	5.00	4.60	
93 Styrene	104	11.652	11.652	0.000	94	909855	5.00	4.71	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
94 Bromoform	173	11.810	11.810	0.000	98	161356	5.00	5.98	
95 Isopropylbenzene	105	11.938	11.938	0.000	95	1368693	5.00	4.50	
\$ 98 4-Bromofluorobenzene (Surr)	95	12.085	12.085	0.000	96	732660	10.0	9.68	
99 1,1,2,2-Tetrachloroethane	83	12.194	12.194	0.000	94	262430	5.00	4.72	
100 Bromobenzene	156	12.201	12.201	0.000	93	382110	5.00	5.00	
101 trans-1,4-Dichloro-2-butene	53	12.219	12.219	0.000	92	240932	25.0	15.6	
102 1,2,3-Trichloropropane	110	12.243	12.237	0.006	84	73082	5.00	4.83	
103 N-Propylbenzene	91	12.274	12.274	0.000	99	1622426	5.00	4.52	
104 2-Chlorotoluene	126	12.353	12.353	0.000	98	345828	5.00	4.71	
105 1,3,5-Trimethylbenzene	105	12.414	12.414	0.000	94	1187677	5.00	4.47	
106 4-Chlorotoluene	126	12.444	12.444	0.000	97	370688	5.00	4.86	
107 tert-Butylbenzene	134	12.658	12.658	0.000	93	261373	5.00	4.52	
108 Pentachloroethane	167	12.688	12.688	0.000	92	225041	5.00	5.22	
109 1,2,4-Trimethylbenzene	105	12.700	12.700	0.000	97	1233620	5.00	4.53	
110 sec-Butylbenzene	105	12.822	12.822	0.000	94	1550049	5.00	4.53	
111 1,3-Dichlorobenzene	146	12.920	12.920	0.000	99	737295	5.00	4.83	
112 4-Isopropyltoluene	119	12.932	12.932	0.000	97	1379052	5.00	4.62	
* 113 1,4-Dichlorobenzene-d4	152	12.975	12.975	0.000	94	890934	10.0	10.0	
114 1,4-Dichlorobenzene	146	12.993	12.993	0.000	96	769525	5.00	4.90	
115 1,2,3-Trimethylbenzene	120	13.005	13.005	0.000	98	596611	5.00	4.99	
116 Benzyl chloride	126	13.078	13.078	0.000	98	121848	5.00	5.51	
119 n-Butylbenzene	92	13.225	13.225	0.000	96	673646	5.00	4.45	
120 1,2-Dichlorobenzene	146	13.261	13.255	0.006	99	693472	5.00	4.82	
118 p-Diethylbenzene	119	13.280	13.280	0.000	86	718949	5.00	4.74	
123 1,2-Dibromo-3-Chloropropane	155	13.810	13.810	0.000	88	43511	5.00	5.70	
124 1,3,5-Trichlorobenzene	180	13.932	13.932	0.000	98	616798	5.00	4.95	
125 1,2,4-Trichlorobenzene	180	14.359	14.359	0.000	94	549113	5.00	4.92	
126 Hexachlorobutadiene	225	14.444	14.444	0.000	96	270050	5.00	4.95	
127 Naphthalene	128	14.548	14.542	0.006	96	943518	5.00	4.74	
128 1,2,3-Trichlorobenzene	180	14.688	14.688	0.000	96	485207	5.00	4.91	
129 2-Methylnaphthalene	142	15.310	15.310	0.000	93	579029	5.00	4.30	

QC Flag Legend

Processing Flags

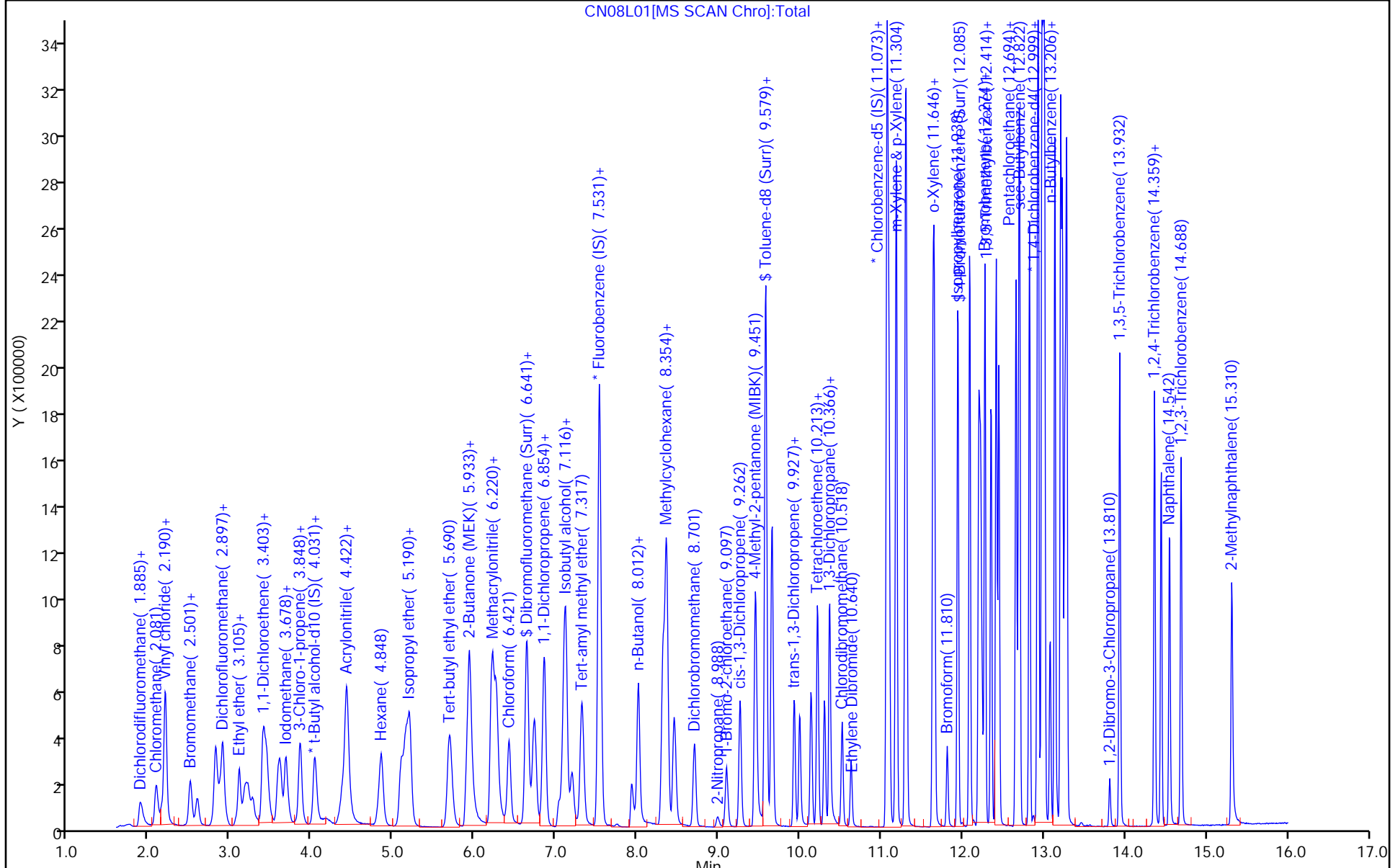
ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MSV_Q_EE_00003	Amount Added: 12.50	Units: uL	
MSV_Q_QVOA6_00051	Amount Added: 12.50	Units: uL	
MSV_Q_ETBR_00005	Amount Added: 12.50	Units: uL	
MSV_Q_QVOA1_00053	Amount Added: 12.50	Units: uL	
MSV_Q_QARC_00052	Amount Added: 12.50	Units: uL	
MSV_QGAS_826_00086	Amount Added: 12.50	Units: uL	
MSV_HP25_ISSS_00017	Amount Added: 1.00	Units: uL	Run Reagent



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\10193\20201108-14932.b\CN08L01.D
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 08-Nov-2020 11:50:30 ALS Bottle#: 3 Worklist Smp#: 4
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014932-004
 Misc. Info.: LCS
 Operator ID: dvv10203 Instrument ID: 10193
 Method: \\chromfs\Lancaster\ChromData\10193\20201108-14932.b\MSV_10193_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 08-Nov-2020 13:05:00 Calib Date: 01-Sep-2020 19:09:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\CS01117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1011

First Level Reviewer: virayd

Date: 08-Nov-2020 12:37:43

Compound	Amount Added	Amount Recovered	% Rec.
\$ 47 Dibromofluoromethane (Surr)	10.0	10.1	100.67
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.7	106.81
\$ 74 Toluene-d8 (Surr)	10.0	9.58	95.80
\$ 98 4-Bromofluorobenzene (Surr)	10.0	9.68	96.75

Eurofins Lancaster Laboratories Env, LLC

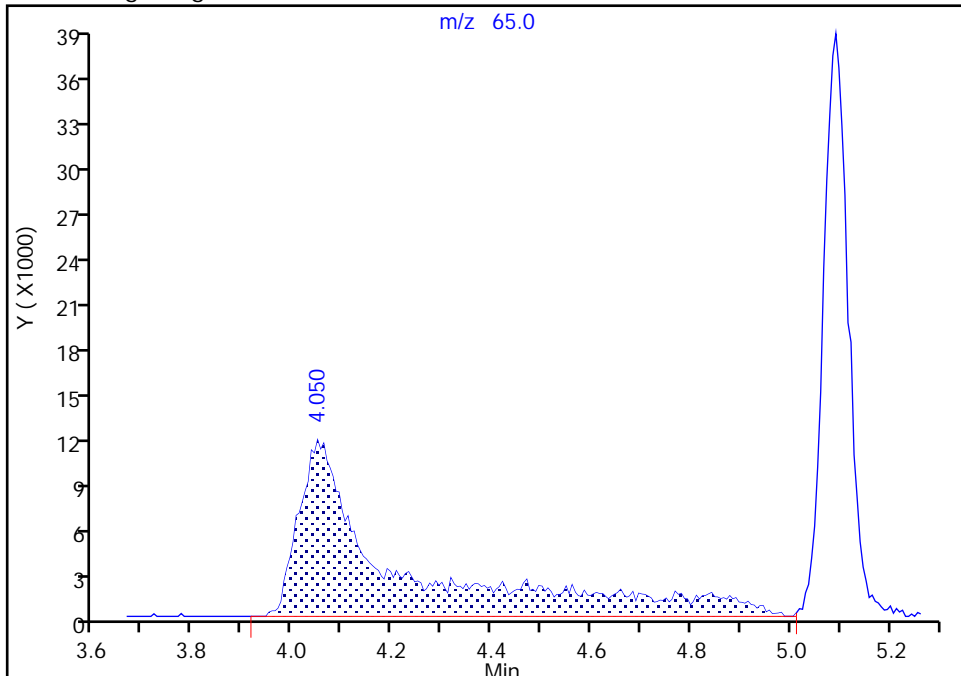
Data File: \\chromfs\Lancaster\ChromData\10193\20201108-14932.b\CN08L01.D
Injection Date: 08-Nov-2020 11:50:30 Instrument ID: 10193
Lims ID: LCS
Client ID:
Operator ID: dvv10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_10193_25mL Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 25 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

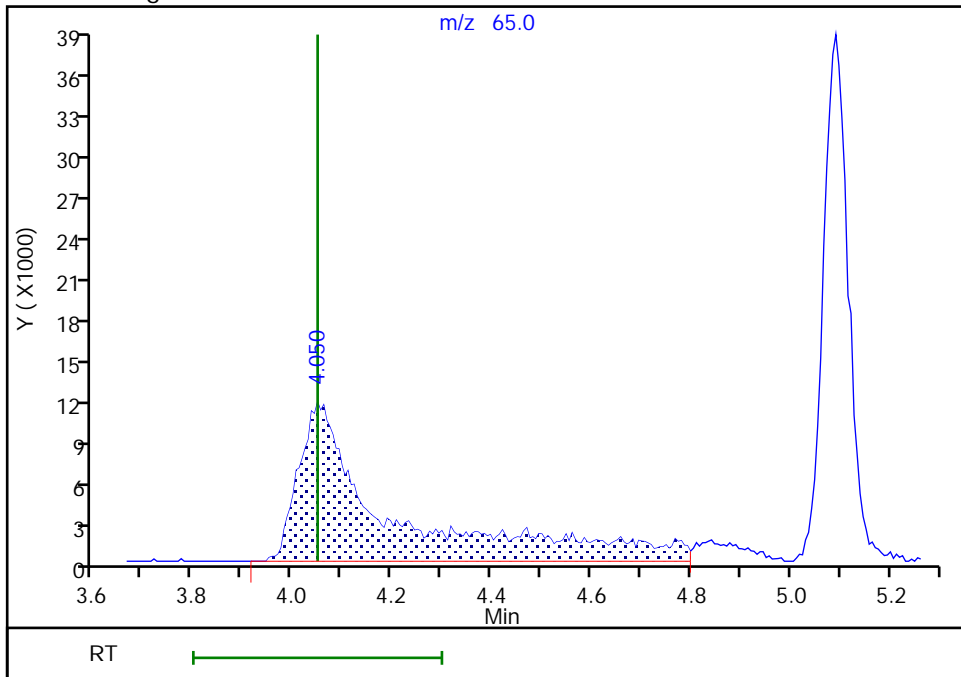
RT: 4.05
Area: 154408
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.05
Area: 144412
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: virayd, 08-Nov-2020 12:15:51
Audit Action: Split an Integrated Peak

Audit Reason: Other

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-19023-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCSD 410-62460/5
 Matrix: Water Lab File ID: Cn05L02.D
 Analysis Method: 8260C LL Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 11/05/2020 10:16
 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.: 62460 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.84		0.50	0.070
71-55-6	1,1,1-Trichloroethane	4.16		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	5.00		0.50	0.070
79-00-5	1,1,2-Trichloroethane	5.24		0.50	0.060
75-34-3	1,1-Dichloroethane	4.47		0.50	0.070
75-35-4	1,1-Dichloroethene	4.60		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	5.04		0.50	0.060
107-06-2	1,2-Dichloroethane	4.31		0.50	0.050
78-87-5	1,2-Dichloropropane	4.62		0.50	0.060
78-93-3	2-Butanone (MEK)	36.9		5.0	0.60
591-78-6	2-Hexanone	22.2		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	21.3		5.0	0.70
67-64-1	Acetone	44.0		5.0	0.90
107-13-1	Acrylonitrile	27.0		5.0	0.40
71-43-2	Benzene	4.68		0.50	0.050
74-97-5	Bromochloromethane	4.89		0.50	0.050
75-27-4	Bromodichloromethane	4.71		0.50	0.050
75-25-2	Bromoform	5.91		1.0	0.30
74-83-9	Bromomethane	4.36		0.50	0.070
75-15-0	Carbon disulfide	4.45		1.0	0.060
56-23-5	Carbon tetrachloride	4.27		0.50	0.070
108-90-7	Chlorobenzene	4.79		0.50	0.060
75-00-3	Chloroethane	4.08		0.50	0.070
67-66-3	Chloroform	4.48		0.50	0.090
74-87-3	Chloromethane	4.46		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	4.94		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	4.54		0.50	0.050
124-48-1	Dibromochloromethane	5.22		0.50	0.070
100-41-4	Ethylbenzene	4.57		0.50	0.060
1634-04-4	Methyl tert-butyl ether	4.35		0.50	0.050
75-09-2	Methylene Chloride	5.00		0.50	0.070
100-42-5	Styrene	4.77		0.50	0.050
127-18-4	Tetrachloroethene	4.80		0.50	0.060
108-88-3	Toluene	4.66		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	4.74		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	4.49		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-19023-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCSD 410-62460/5
 Matrix: Water Lab File ID: Cn05L02.D
 Analysis Method: 8260C LL Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 11/05/2020 10:16
 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.: 62460 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	4.66		0.50	0.060
75-01-4	Vinyl chloride	4.39		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)	104		80-120
1868-53-7	Dibromofluoromethane (Surr)	98		80-120
2037-26-5	Toluene-d8 (Surr)	96		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\10193\20201105-14733.b\Cn05L02.D
 Lims ID: LCSD
 Client ID:
 Sample Type: LCSD
 Inject. Date: 05-Nov-2020 10:16:30 ALS Bottle#: 4 Worklist Smp#: 5
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014733-005
 Misc. Info.: LCSD
 Operator ID: jkh09052 Instrument ID: 10193
 Method: \\chromfs\Lancaster\ChromData\10193\20201105-14733.b\MSV_10193_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 06-Nov-2020 12:42:22 Calib Date: 01-Sep-2020 19:09:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\CS01117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1010

First Level Reviewer: howej

Date: 06-Nov-2020 12:42:22

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	1.892	1.886	0.006	99	225902	5.00	3.88	
3 Chloromethane	50	2.087	2.075	0.012	99	306469	5.00	4.46	
4 Butadiene	39	2.197	2.184	0.013	93	321482	5.00	4.98	M
5 Vinyl chloride	62	2.197	2.184	0.013	90	278611	5.00	4.39	
6 Bromomethane	94	2.507	2.495	0.012	90	195646	5.00	4.36	
7 Chloroethane	64	2.593	2.581	0.012	100	159905	5.00	4.08	
8 Dichlorofluoromethane	67	2.818	2.806	0.012	97	386326	5.00	4.54	
9 Trichlorofluoromethane	101	2.873	2.867	0.006	97	340011	5.00	4.12	
11 Ethyl ether	59	3.111	3.093	0.018	92	211315	5.00	5.05	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.190	3.190	0.000	91	241195	5.00	3.93	M
13 Acrolein	56	3.276	3.263	0.013	99	196224	37.5	31.1	
14 1,1-Dichloroethene	96	3.398	3.391	0.007	98	191966	5.00	4.60	
15 112TCTFE	101	3.440	3.428	0.012	90	173225	5.00	4.08	
16 Acetone	43	3.434	3.428	0.006	100	294716	37.5	44.0	
17 Iodomethane	142	3.587	3.574	0.013	97	378948	5.00	4.59	
18 Isopropyl alcohol	45	3.611	3.599	0.012	35	44316	37.5	38.0	
19 Ethyl bromide	108	3.617	3.605	0.012	98	175098	5.01	5.05	
20 Carbon disulfide	76	3.684	3.672	0.012	99	655765	5.00	4.45	
22 Methyl acetate	43	3.836	3.824	0.012	97	107965	5.00	4.11	
23 3-Chloro-1-propene	41	3.855	3.849	0.006	91	335049	5.00	4.59	
24 Methylene Chloride	84	4.038	4.025	0.013	91	232425	5.00	5.00	
* 25 t-Butyl alcohol-d10 (IS)	65	4.068	4.056	0.012	0	157451	50.0	50.0	
26 2-Methyl-2-propanol	59	4.184	4.172	0.012	100	117860	50.0	37.6	
27 Acrylonitrile	53	4.367	4.361	0.006	99	286841	25.0	27.0	
28 Methyl tert-butyl ether	73	4.422	4.410	0.012	96	587783	5.00	4.35	
29 trans-1,2-Dichloroethene	96	4.434	4.416	0.018	99	231234	5.00	4.74	
30 Hexane	57	4.855	4.842	0.013	93	284069	5.00	4.13	
32 1,1-Dichloroethane	63	5.098	5.086	0.012	96	401988	5.00	4.47	
33 Isopropyl ether	45	5.153	5.147	0.006	93	726520	5.00	4.24	
34 2-Chloro-1,3-butadiene	53	5.202	5.196	0.006	91	335012	5.00	3.96	
35 Tert-butyl ethyl ether	59	5.690	5.684	0.006	97	683288	5.00	4.18	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
36 2-Butanone (MEK)	43	5.909	5.903	0.006	100	579533	37.5	36.9	
37 cis-1,2-Dichloroethene	96	5.940	5.928	0.012	81	273515	5.00	4.94	
38 2,2-Dichloropropane	77	5.946	5.940	0.006	87	331216	5.00	4.27	
40 Propionitrile	54	6.007	5.995	0.012	97	159413	37.5	40.0	
43 Methacrylonitrile	67	6.214	6.214	0.000	92	536534	37.5	34.8	
44 Chlorobromomethane	128	6.269	6.263	0.006	92	119174	5.00	4.89	
45 Tetrahydrofuran	71	6.281	6.269	0.012	76	115015	25.0	25.9	
46 Chloroform	83	6.427	6.421	0.006	94	399292	5.00	4.48	
\$ 47 Dibromofluoromethane (Surr)	113	6.641	6.635	0.006	94	422557	10.0	9.85	
48 1,1,1-Trichloroethane	97	6.647	6.641	0.006	74	333416	5.00	4.16	
49 Cyclohexane	56	6.732	6.726	0.006	91	352950	5.00	4.16	
50 Carbon tetrachloride	117	6.848	6.848	0.000	95	287043	5.00	4.27	
51 1,1-Dichloropropene	75	6.860	6.854	0.006	95	304940	5.00	4.23	
52 Isobutyl alcohol	41	7.043	7.037	0.006	95	100975	125.0	99.3	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.098	7.092	0.006	0	91109	10.0	10.4	
54 Benzene	78	7.122	7.116	0.006	97	970262	5.00	4.68	
55 1,2-Dichloroethane	62	7.202	7.196	0.006	98	269172	5.00	4.31	
56 Tert-amyl methyl ether	73	7.318	7.311	0.007	98	663822	5.00	4.45	
* 57 Fluorobenzene (IS)	96	7.531	7.531	0.000	99	1805787	10.0	10.0	
58 n-Heptane	43	7.537	7.537	0.000	90	322453	5.00	4.21	
59 n-Butanol	56	7.933	7.921	0.012	90	204853	250.0	243.1	
60 Trichloroethene	95	8.013	8.013	0.000	97	249118	5.00	4.66	
61 Methylcyclohexane	83	8.317	8.311	0.006	91	384622	5.00	4.70	
62 1,2-Dichloropropane	63	8.354	8.348	0.006	94	246043	5.00	4.62	
63 2-ethoxy-2-methyl butane	87	8.360	8.360	0.000	92	370482	5.00	4.47	
65 1,4-Dioxane	88	8.451	8.439	0.012	29	28322	125.0	168.8	M
64 Methyl methacrylate	69	8.445	8.445	0.000	91	135880	5.00	4.13	
66 Dibromomethane	93	8.464	8.464	0.000	92	125597	5.00	4.82	
67 Dichlorobromomethane	83	8.701	8.701	0.000	99	302856	5.00	4.71	
68 2-Nitropropane	41	8.994	8.982	0.012	98	37495	5.00	3.67	
71 1-Bromo-2-chloroethane	63	9.098	9.092	0.006	98	271200	5.00	4.92	
69 2-Chloroethyl vinyl ether	63		9.116				ND	ND	
72 cis-1,3-Dichloropropene	75	9.262	9.262	0.000	96	362899	5.00	4.54	
73 4-Methyl-2-pentanone (MIBK)	43	9.451	9.451	0.000	97	972445	25.0	21.3	
\$ 74 Toluene-d8 (Surr)	98	9.579	9.579	0.000	93	1752456	10.0	9.60	
75 Toluene	92	9.659	9.652	0.007	98	640270	5.00	4.66	
76 trans-1,3-Dichloropropene	75	9.927	9.927	0.000	94	309041	5.00	4.49	
78 Ethyl methacrylate	69	9.994	9.994	0.000	89	274751	5.00	4.73	
79 1,1,2-Trichloroethane	97	10.140	10.134	0.006	91	198695	5.00	5.24	
80 Tetrachloroethene	166	10.219	10.213	0.006	98	294738	5.00	4.80	
81 1,3-Dichloropropane	76	10.305	10.299	0.006	92	316550	5.00	4.73	
82 2-Hexanone	43	10.366	10.360	0.006	96	714103	25.0	22.2	
83 Chlorodibromomethane	129	10.518	10.518	0.000	90	229806	5.00	5.22	
84 Ethylene Dibromide	107	10.628	10.628	0.000	98	188810	5.00	5.04	
* 85 Chlorobenzene-d5 (IS)	117	11.067	11.067	0.000	85	1398208	10.0	10.0	
86 1-Chlorohexane	91	11.079	11.079	0.000	98	331512	5.00	4.23	
87 Chlorobenzene	112	11.097	11.097	0.000	95	743477	5.00	4.79	
89 1,1,1,2-Tetrachloroethane	131	11.177	11.183	-0.006	95	255583	5.00	4.84	
90 Ethylbenzene	91	11.183	11.183	0.000	98	1244053	5.00	4.57	
91 m-Xylene & p-Xylene	106	11.305	11.305	0.000	0	998127	10.0	9.38	
92 o-Xylene	106	11.634	11.634	0.000	97	489249	5.00	4.70	
93 Styrene	104	11.652	11.652	0.000	95	833760	5.00	4.77	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
94 Bromoform	173	11.811	11.811	0.000	98	144360	5.00	5.91	
95 Isopropylbenzene	105	11.939	11.939	0.000	96	1258249	5.00	4.56	
\$ 98 4-Bromofluorobenzene (Surr)	95	12.085	12.085	0.000	94	660228	10.0	9.62	
99 1,1,2,2-Tetrachloroethane	83	12.195	12.195	0.000	95	244987	5.00	5.00	
100 Bromobenzene	156	12.201	12.201	0.000	92	348906	5.00	5.18	
101 trans-1,4-Dichloro-2-butene	53	12.219	12.219	0.000	89	194080	25.0	14.3	
102 1,2,3-Trichloropropane	110	12.237	12.237	0.000	84	70868	5.00	5.31	
103 N-Propylbenzene	91	12.274	12.274	0.000	99	1486253	5.00	4.70	
104 2-Chlorotoluene	126	12.353	12.347	0.006	98	321863	5.00	4.98	
105 1,3,5-Trimethylbenzene	105	12.414	12.414	0.000	94	1106894	5.00	4.73	
106 4-Chlorotoluene	126	12.445	12.445	0.000	97	337376	5.00	5.02	
107 tert-Butylbenzene	134	12.658	12.658	0.000	93	242372	5.00	4.76	
108 Pentachloroethane	167	12.688	12.688	0.000	92	196996	5.00	5.18	
109 1,2,4-Trimethylbenzene	105	12.701	12.701	0.000	97	1154502	5.00	4.81	
110 sec-Butylbenzene	105	12.823	12.823	0.000	94	1419169	5.00	4.71	
111 1,3-Dichlorobenzene	146	12.920	12.920	0.000	99	681923	5.00	5.07	
112 4-Isopropyltoluene	119	12.932	12.932	0.000	97	1264547	5.00	4.81	
* 113 1,4-Dichlorobenzene-d4	152	12.975	12.975	0.000	94	784881	10.0	10.0	
114 1,4-Dichlorobenzene	146	12.993	12.993	0.000	96	706194	5.00	5.10	
115 1,2,3-Trimethylbenzene	120	13.005	13.005	0.000	97	540519	5.00	5.13	
116 Benzyl chloride	126	13.079	13.073	0.007	98	110720	5.00	5.68	
119 n-Butylbenzene	92	13.225	13.225	0.000	97	619433	5.00	4.65	
120 1,2-Dichlorobenzene	146	13.261	13.261	0.000	99	638551	5.00	5.03	
118 p-Diethylbenzene	119	13.280	13.280	0.000	86	637184	5.00	4.77	
123 1,2-Dibromo-3-Chloropropane	155	13.810	13.810	0.000	89	40952	5.00	6.09	
124 1,3,5-Trichlorobenzene	180	13.932	13.932	0.000	98	564105	5.00	5.14	
125 1,2,4-Trichlorobenzene	180	14.359	14.359	0.000	94	496651	5.00	5.05	
126 Hexachlorobutadiene	225	14.444	14.444	0.000	96	231832	5.00	4.82	
127 Naphthalene	128	14.542	14.542	0.000	97	869051	5.00	4.95	
128 1,2,3-Trichlorobenzene	180	14.688	14.688	0.000	95	432777	5.00	4.97	
129 2-Methylnaphthalene	142	15.310	15.310	0.000	92	472316	5.00	3.98	

QC Flag Legend

Processing Flags

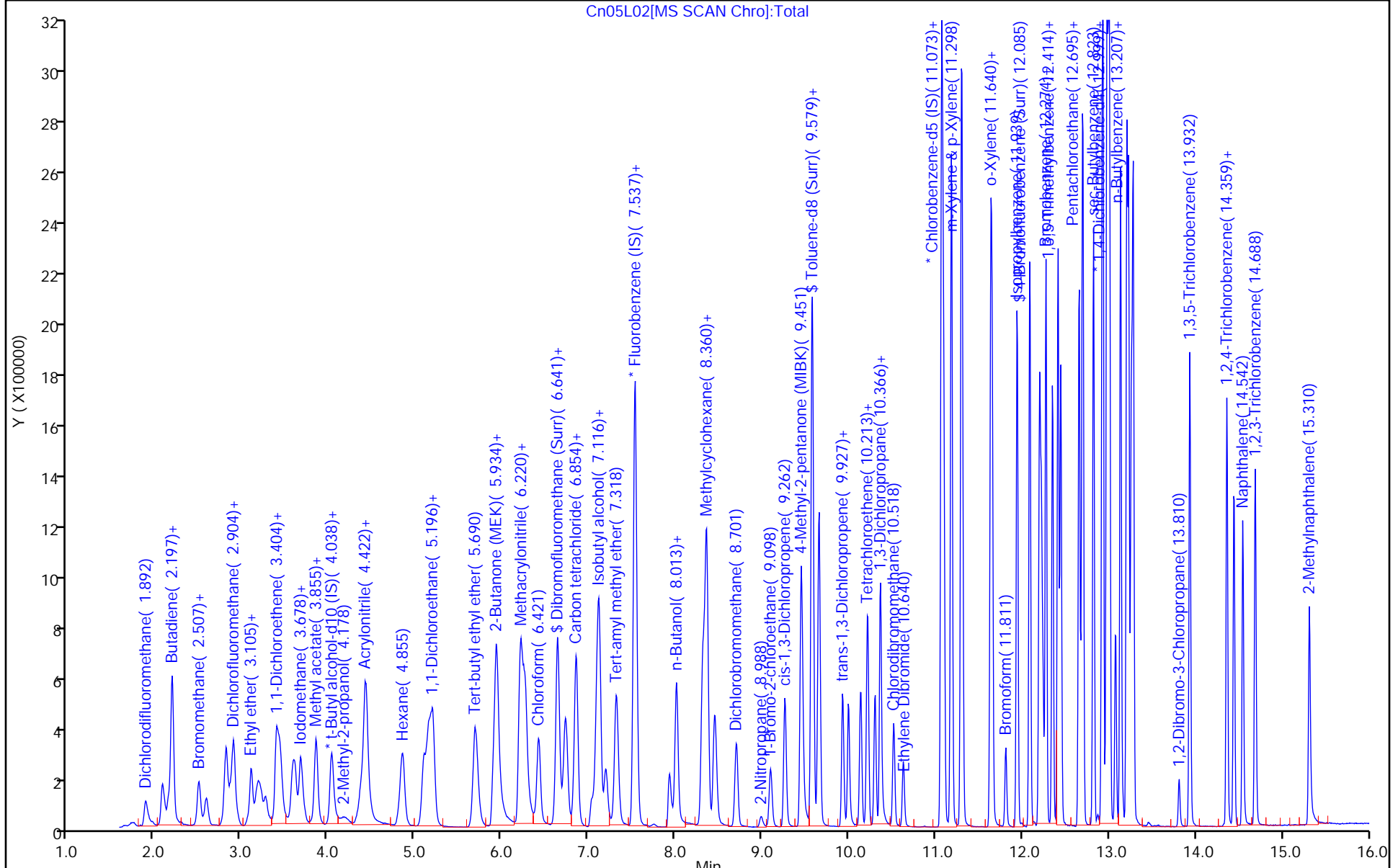
ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MSV_Q_EE_00003	Amount Added: 12.50	Units: uL	
MSV_Q_ETBR_00005	Amount Added: 12.50	Units: uL	
MSV_Q_QVOA1_00053	Amount Added: 12.50	Units: uL	
MSV_Q_QARC_00052	Amount Added: 12.50	Units: uL	
MSV_QGAS_826_00086	Amount Added: 12.50	Units: uL	
MSV_Q_QVOA6_00051	Amount Added: 12.50	Units: uL	
MSV_HP25_ISSS_00017	Amount Added: 1.00	Units: uL	Run Reagent



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\10193\20201105-14733.b\Cn05L02.D
 Lims ID: LCSD
 Client ID:
 Sample Type: LCSD
 Inject. Date: 05-Nov-2020 10:16:30 ALS Bottle#: 4 Worklist Smp#: 5
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014733-005
 Misc. Info.: LCSD
 Operator ID: jkh09052 Instrument ID: 10193
 Method: \\chromfs\Lancaster\ChromData\10193\20201105-14733.b\MSV_10193_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 06-Nov-2020 12:42:22 Calib Date: 01-Sep-2020 19:09:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\10193\20200901-9503.b\CS01117.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1010

First Level Reviewer: howej

Date: 06-Nov-2020 12:42:22

Compound	Amount Added	Amount Recovered	% Rec.
\$ 47 Dibromofluoromethane (Surr)	10.0	9.85	98.48
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.4	104.23
\$ 74 Toluene-d8 (Surr)	10.0	9.60	95.97
\$ 98 4-Bromofluorobenzene (Surr)	10.0	9.62	96.19

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-19023-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-15-0/1-0 MS Lab Sample ID: 410-19023-6 MS
 Matrix: Water Lab File ID: Gn04S11.D
 Analysis Method: 8260C LL Date Collected: 10/29/2020 11:25
 Sample wt/vol: 25 (mL) Date Analyzed: 11/04/2020 14:07
 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.: 61951 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.55		0.50	0.070
71-55-6	1,1,1-Trichloroethane	4.63		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	5.23		0.50	0.070
79-00-5	1,1,2-Trichloroethane	5.18		0.50	0.060
75-34-3	1,1-Dichloroethane	5.17		0.50	0.070
75-35-4	1,1-Dichloroethene	5.28		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	4.79		0.50	0.060
107-06-2	1,2-Dichloroethane	4.25		0.50	0.050
78-87-5	1,2-Dichloropropane	5.40		0.50	0.060
78-93-3	2-Butanone (MEK)	39.4		5.0	0.60
591-78-6	2-Hexanone	27.1		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	25.9		5.0	0.70
67-64-1	Acetone	32.5		5.0	0.90
107-13-1	Acrylonitrile	27.3		5.0	0.40
71-43-2	Benzene	5.18		0.50	0.050
74-97-5	Bromochloromethane	4.49		0.50	0.050
75-27-4	Bromodichloromethane	4.75		0.50	0.050
75-25-2	Bromoform	4.05		1.0	0.30
74-83-9	Bromomethane	4.04		0.50	0.070
75-15-0	Carbon disulfide	5.35		1.0	0.060
56-23-5	Carbon tetrachloride	4.45		0.50	0.070
108-90-7	Chlorobenzene	5.03		0.50	0.060
75-00-3	Chloroethane	4.62		0.50	0.070
67-66-3	Chloroform	5.00		0.50	0.090
74-87-3	Chloromethane	4.13		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	5.98		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	4.97		0.50	0.050
124-48-1	Dibromochloromethane	4.68		0.50	0.070
100-41-4	Ethylbenzene	5.13		0.50	0.060
1634-04-4	Methyl tert-butyl ether	4.61		0.50	0.050
75-09-2	Methylene Chloride	5.08		0.50	0.070
100-42-5	Styrene	5.25		0.50	0.050
127-18-4	Tetrachloroethene	6.89		0.50	0.060
108-88-3	Toluene	5.46		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	5.26		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	4.71		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-19023-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-15-0/1-0 MS Lab Sample ID: 410-19023-6 MS
 Matrix: Water Lab File ID: Gn04S11.D
 Analysis Method: 8260C LL Date Collected: 10/29/2020 11:25
 Sample wt/vol: 25 (mL) Date Analyzed: 11/04/2020 14:07
 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.: 61951 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	5.83		0.50	0.060
75-01-4	Vinyl chloride	4.31		0.50	0.10
1330-20-7	Xylenes, Total	15.8		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		80-120
1868-53-7	Dibromofluoromethane (Surr)	92		80-120
2037-26-5	Toluene-d8 (Surr)	103		80-120
460-00-4	4-Bromofluorobenzene (Surr)	99		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S11.D
 Lims ID: 410-19023-A-6 MS
 Client ID: HD-COD-SW-15-0/1-0
 Sample Type: MS
 Inject. Date: 04-Nov-2020 14:07:30 ALS Bottle#: 17 Worklist Smp#: 17
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014632-017
 Misc. Info.: 410-19023-A-6 MSD
 Operator ID: jkh09052 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 05-Nov-2020 13:13:18 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: CTX1002

First Level Reviewer: howej

Date: 04-Nov-2020 14:32:22

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.946	1.947	-0.001	99	256888	5.00	2.73	
5 Chloromethane	50	2.141	2.142	-0.001	99	359861	5.00	4.13	
6 Butadiene	39	2.257	2.257	0.000	91	467332	5.00	6.27	M
7 Vinyl chloride	62	2.251	2.257	-0.006	80	354909	5.00	4.31	
9 Bromomethane	94	2.580	2.581	-0.001	91	253063	5.00	4.04	
10 Chloroethane	64	2.660	2.660	0.000	100	217030	5.00	4.62	
11 Dichlorofluoromethane	67	2.897	2.898	-0.001	97	526309	5.00	4.74	
13 Trichlorofluoromethane	101	2.965	2.965	-0.001	98	504496	5.00	4.58	
15 Ethyl ether	59	3.196	3.209	-0.013	91	246207	5.01	6.04	
16 1,2-Dichloro-1,1,2-trifluoroethane	67	3.294	3.294	0.000	94	342714	5.00	5.39	
18 Acrolein	56	3.373	3.379	-0.006	99	154526	37.5	29.7	
19 1,1-Dichloroethene	96	3.513	3.507	0.006	97	252238	5.00	5.28	
20 Acetone	43	3.538	3.544	-0.006	74	267572	37.5	32.5	
21 112TCTFE	101	3.550	3.550	0.000	93	252842	5.00	4.80	
23 Isopropyl alcohol	45	3.702	3.702	0.000	27	44204	37.5	29.3	M
22 Iodomethane	142	3.696	3.702	-0.006	100	415279	5.00	4.22	
24 Ethyl bromide	108	3.733	3.733	0.000	98	211347	5.01	5.05	
25 Carbon disulfide	76	3.800	3.800	0.000	99	896982	5.00	5.35	
26 Methyl acetate	43	3.946	3.958	-0.012	98	104734	5.00	5.37	
27 3-Chloro-1-propene	41	3.977	3.983	-0.007	90	395910	5.00	5.00	
28 Methylene Chloride	84	4.172	4.172	0.000	93	272151	5.00	5.08	
* 29 t-Butyl alcohol-d10 (IS)	65	4.184	4.184	0.000	0	147545	50.0	50.0	M
30 2-Methyl-2-propanol	59	4.294	4.306	-0.012	99	112183	50.0	42.7	M
31 Acrylonitrile	53	4.513	4.519	-0.006	100	241946	25.0	27.3	
32 Methyl tert-butyl ether	73	4.574	4.568	0.006	98	677290	5.00	4.61	
33 trans-1,2-Dichloroethene	96	4.574	4.574	0.000	98	283511	5.00	5.26	
34 Hexane	57	5.001	5.001	0.000	94	417284	5.00	5.88	
36 1,1-Dichloroethane	63	5.245	5.245	0.000	96	525563	5.00	5.17	
37 Isopropyl ether	45	5.306	5.306	0.000	95	861952	5.00	4.77	
38 2-Chloro-1,3-butadiene	53	5.354	5.354	0.000	93	462438	5.00	4.95	
39 Tert-butyl ethyl ether	59	5.836	5.842	-0.006	98	832137	5.00	4.71	

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	6.043	6.056	-0.013	100	556873	37.5	39.4	
41 cis-1,2-Dichloroethene	96	6.080	6.080	0.000	83	373299	5.00	5.98	
42 2,2-Dichloropropane	77	6.098	6.098	0.000	88	446761	5.00	5.00	
44 Propionitrile	54	6.153	6.153	0.000	98	119601	37.5	37.1	
46 Methacrylonitrile	67	6.360	6.366	-0.006	92	528163	37.5	42.9	
48 Chlorobromomethane	128	6.409	6.415	-0.006	93	132882	5.00	4.49	
47 Tetrahydrofuran	71	6.409	6.421	-0.012	76	104562	25.0	28.3	
50 Chloroform	83	6.567	6.568	-0.001	94	545409	5.00	5.00	
\$ 52 Dibromofluoromethane (Surr)	113	6.781	6.781	0.000	93	553538	10.0	9.20	
51 1,1,1-Trichloroethane	97	6.787	6.793	-0.006	98	462488	5.00	4.63	
53 Cyclohexane	56	6.884	6.885	-0.001	92	485078	5.00	5.60	
56 Carbon tetrachloride	117	7.000	6.994	0.006	94	397177	5.00	4.45	
55 1,1-Dichloropropene	75	7.000	7.007	-0.007	95	416564	5.00	5.17	
57 Isobutyl alcohol	41	7.165	7.171	-0.006	91	105311	125.1	84.1	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.232	7.238	-0.006	0	112144	10.0	9.79	
59 Benzene	78	7.262	7.269	-0.007	98	1165555	5.00	5.18	
60 1,2-Dichloroethane	62	7.342	7.342	0.000	98	345610	5.00	4.25	
62 Tert-amyl methyl ether	73	7.458	7.458	0.000	98	757356	5.00	4.77	
* 63 Fluorobenzene (IS)	96	7.671	7.671	0.000	99	2251786	10.0	10.0	
64 n-Heptane	43	7.677	7.683	-0.006	89	463908	5.00	5.65	
65 n-Butanol	56	8.055	8.055	0.000	89	205742	250.2	255.5	
67 Trichloroethene	95	8.146	8.153	-0.007	98	365065	5.00	5.83	
68 Methylcyclohexane	83	8.457	8.451	0.006	92	534455	5.00	5.81	
69 1,2-Dichloropropane	63	8.488	8.488	0.000	96	308047	5.00	5.40	
70 2-ethoxy-2-methyl butane	87	8.494	8.500	-0.006	93	447117	5.00	5.09	
71 Methyl methacrylate	69	8.573	8.573	0.000	92	140311	5.00	5.63	
72 1,4-Dioxane	88	8.573	8.573	0.000	29	22652	125.1	126.8	M
73 Dibromomethane	93	8.591	8.598	-0.007	96	145566	5.00	4.42	
75 Dichlorobromomethane	83	8.835	8.835	0.000	99	387334	5.00	4.75	
76 2-Nitropropane	41	9.116	9.116	0.000	99	44531	5.00	4.29	
78 2-Chloroethyl vinyl ether	63		9.201				ND	ND	
79 1-Bromo-2-chloroethane	63	9.225	9.226	-0.001	99	314779	5.00	5.03	
80 cis-1,3-Dichloropropene	75	9.384	9.384	0.000	94	448086	5.00	4.97	
81 4-Methyl-2-pentanone (MIBK)	43	9.567	9.567	0.000	97	955082	25.0	25.9	
\$ 82 Toluene-d8 (Surr)	98	9.689	9.689	0.000	95	2264734	10.0	10.3	
83 Toluene	92	9.768	9.768	0.000	97	759788	5.00	5.46	
84 trans-1,3-Dichloropropene	75	10.030	10.030	0.000	95	372452	5.00	4.71	
85 Ethyl methacrylate	69	10.091	10.091	0.000	88	308961	5.00	5.03	
86 1,1,2-Trichloroethane	97	10.237	10.238	-0.001	92	221529	5.00	5.18	
88 Tetrachloroethene	166	10.317	10.317	0.000	97	469390	5.00	6.89	
89 1,3-Dichloropropane	76	10.396	10.396	0.000	93	373792	5.00	5.06	
91 2-Hexanone	43	10.457	10.451	0.006	97	726356	25.0	27.1	
93 Chlorodibromomethane	129	10.609	10.610	-0.001	90	258989	5.00	4.68	
94 Ethylene Dibromide	107	10.719	10.719	0.000	98	206117	5.00	4.79	
* 95 Chlorobenzene-d5 (IS)	117	11.152	11.152	0.000	87	1684760	10.0	10.0	
96 1-Chlorohexane	91	11.164	11.164	0.000	98	427041	5.00	4.95	
97 Chlorobenzene	112	11.176	11.176	0.000	93	829722	5.00	5.03	
98 1,1,1,2-Tetrachloroethane	131	11.262	11.262	0.000	95	281261	5.00	4.55	
99 Ethylbenzene	91	11.262	11.262	0.000	99	1483484	5.00	5.13	
100 m-Xylene & p-Xylene	106	11.378	11.378	0.000	0	1144966	10.0	10.6	
102 o-Xylene	106	11.707	11.707	0.000	97	543459	5.00	5.17	
103 Styrene	104	11.725	11.725	0.000	94	910892	5.00	5.25	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 Bromoform	173	11.877	11.878	-0.001	96	141383	5.00	4.05	
105 Isopropylbenzene	105	12.005	12.006	-0.001	96	1441372	5.00	5.12	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	90	810209	10.0	9.89	
109 1,1,2,2-Tetrachloroethane	83	12.255	12.256	-0.001	94	264852	5.00	5.23	
110 Bromobenzene	156	12.268	12.268	0.000	95	348019	5.00	5.19	
111 trans-1,4-Dichloro-2-butene	53	12.280	12.280	0.000	81	119676	25.0	8.06	
112 1,2,3-Trichloropropane	110	12.298	12.298	0.000	85	69818	5.00	4.92	
113 N-Propylbenzene	91	12.335	12.335	0.000	99	1733136	5.00	5.58	
114 2-Chlorotoluene	126	12.408	12.408	0.000	96	330726	5.00	5.36	
115 1,3,5-Trimethylbenzene	105	12.469	12.469	0.000	93	1220005	5.00	5.65	
116 4-Chlorotoluene	126	12.505	12.505	0.000	98	351846	5.00	5.36	
118 tert-Butylbenzene	134	12.713	12.713	0.000	93	269845	5.00	5.61	
120 Pentachloroethane	167	12.743	12.743	0.000	91	202079	5.00	4.76	
119 1,2,4-Trimethylbenzene	105	12.755	12.755	0.000	98	1237358	5.00	5.48	
121 sec-Butylbenzene	105	12.871	12.871	0.000	95	1581976	5.00	5.57	
122 1,3-Dichlorobenzene	146	12.975	12.969	0.006	98	663662	5.00	5.11	
123 4-Isopropyltoluene	119	12.981	12.981	0.000	97	1319082	5.00	5.41	
* 124 1,4-Dichlorobenzene-d4	152	13.030	13.024	0.006	95	836157	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.042	13.042	0.000	94	679828	5.00	5.16	
126 1,2,3-Trimethylbenzene	120	13.054	13.054	0.000	99	532005	5.00	5.38	
127 Benzyl chloride	126	13.121	13.121	0.000	99	92723	5.00	4.90	
129 p-Diethylbenzene	119	13.182	13.182	0.000	91	765304	5.00	5.14	
130 n-Butylbenzene	92	13.267	13.268	-0.001	96	678197	5.00	5.34	
131 1,2-Dichlorobenzene	146	13.304	13.304	0.000	97	594524	5.00	4.90	
134 1,2-Dibromo-3-Chloropropane	155	13.840	13.847	-0.007	82	30544	5.00	4.17	
135 1,3,5-Trichlorobenzene	180	13.962	13.963	-0.001	97	458500	5.00	4.52	
136 1,2,4-Trichlorobenzene	180	14.389	14.389	0.000	94	361707	5.00	4.15	
137 Hexachlorobutadiene	225	14.468	14.469	-0.001	97	216465	5.00	4.55	
138 Naphthalene	128	14.566	14.566	0.000	97	546449	5.00	3.84	
139 1,2,3-Trichlorobenzene	180	14.706	14.706	0.000	95	272332	5.00	3.72	
140 2-Methylnaphthalene	142	15.322	15.322	0.000	92	167578	5.00	2.02	

QC Flag Legend

Processing Flags

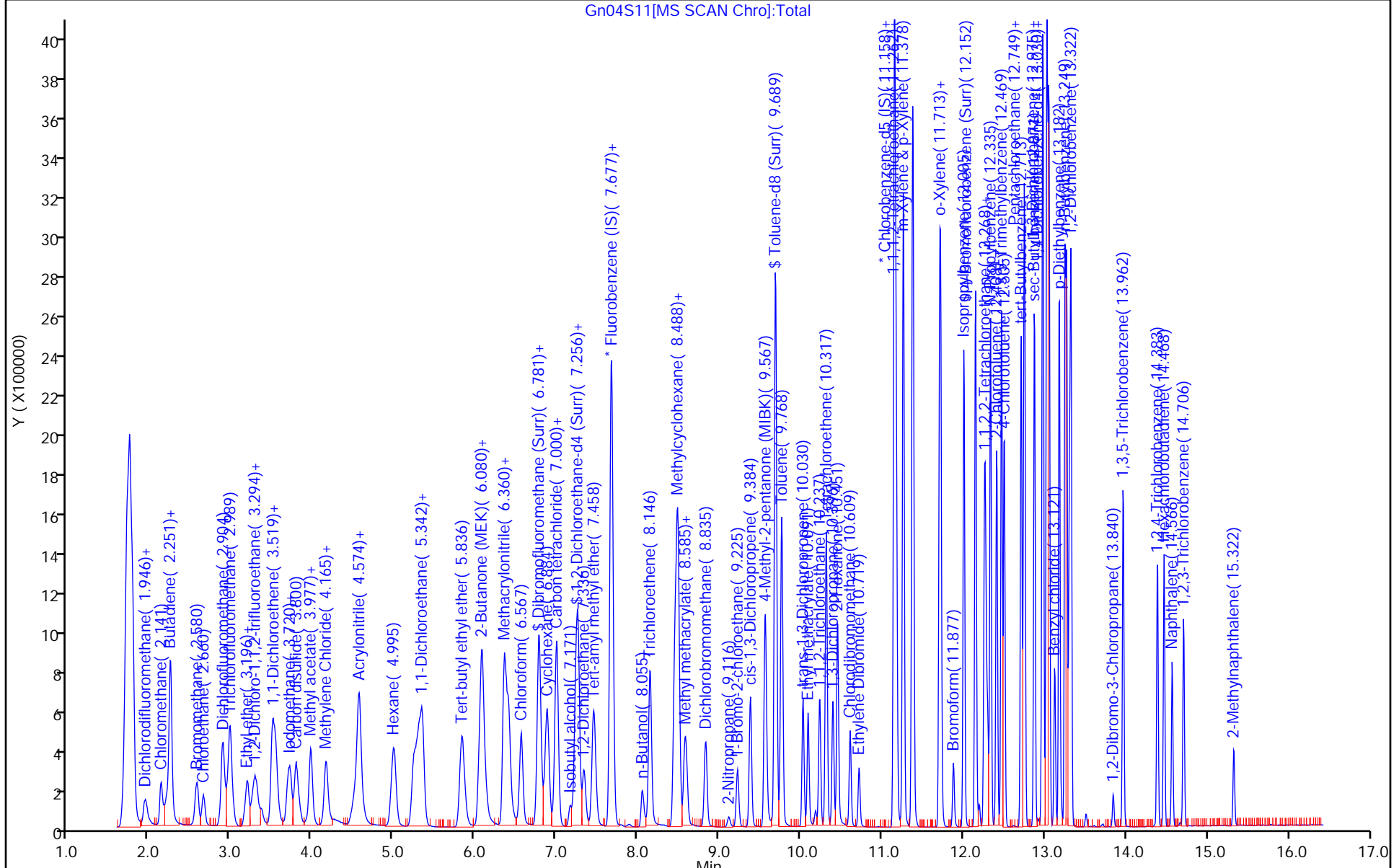
ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MSV_Q_QVOA1_00053	Amount Added: 5.38	Units: uL	
MSV_Q_QARC_00052	Amount Added: 5.38	Units: uL	
MSV_Q_EE_00003	Amount Added: 5.38	Units: uL	
MSV_Q_QVOA6_00050	Amount Added: 5.38	Units: uL	
MSV_Q_ETBR_00005	Amount Added: 5.38	Units: uL	
MSV_QGAS_826_00086	Amount Added: 5.38	Units: uL	
MSV_29_826ISS_00010	Amount Added: 1.00	Units: uL	Run Reagent



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S11.D
 Lims ID: 410-19023-A-6 MS
 Client ID: HD-COD-SW-15-0/1-0
 Sample Type: MS
 Inject. Date: 04-Nov-2020 14:07:30 ALS Bottle#: 17 Worklist Smp#: 17
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014632-017
 Misc. Info.: 410-19023-A-6 MSD
 Operator ID: jkh09052 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 05-Nov-2020 13:13:18 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: CTX1002

First Level Reviewer: howej

Date: 04-Nov-2020 14:32:22

Compound	Amount Added	Amount Recovered	% Rec.
\$ 52 Dibromofluoromethane (Surr)	10.0	9.20	92.02
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	9.79	97.89
\$ 82 Toluene-d8 (Surr)	10.0	10.3	102.69
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.89	98.92

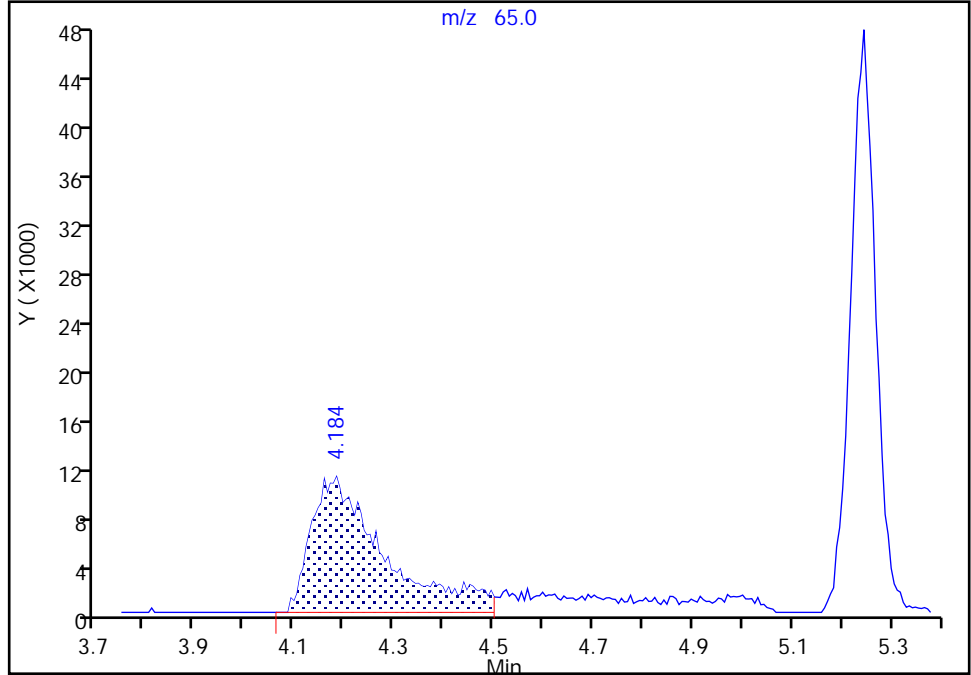
Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S11.D
Injection Date: 04-Nov-2020 14:07:30 Instrument ID: 16334
Lims ID: 410-19023-A-6 MS
Client ID: HD-COD-SW-15-0/1-0
Operator ID: jkh09052 ALS Bottle#: 17 Worklist Smp#: 17
Purge Vol: 25.000 mL Dil. 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

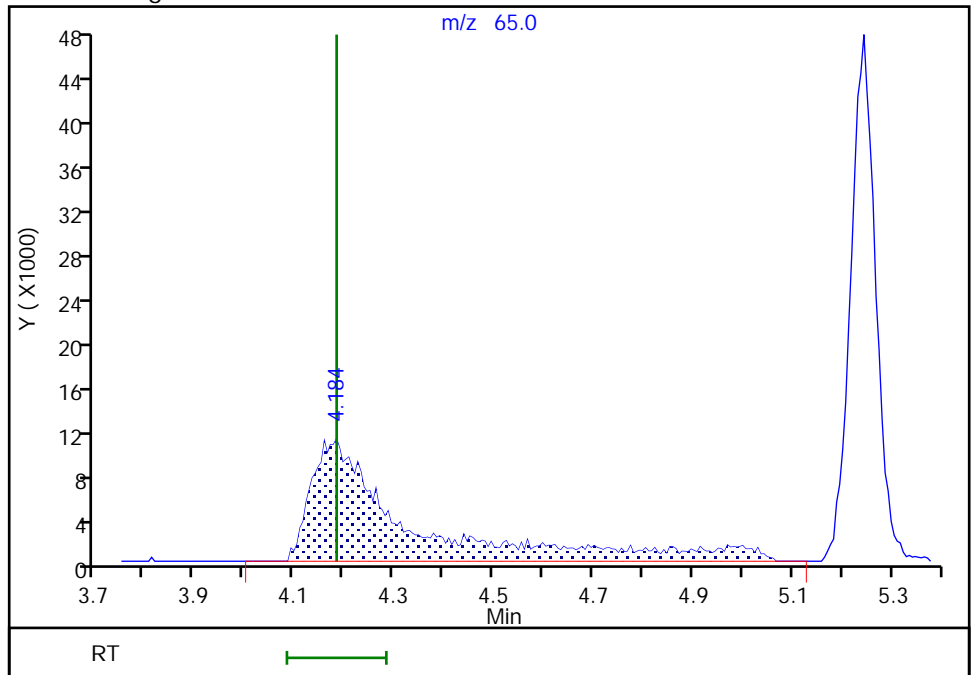
RT: 4.18
Area: 110591
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.18
Area: 147545
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 05-Nov-2020 12:31:48
Audit Action: Manually Integrated

Audit Reason: Other

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-19023-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-15-0/1-0 MSD Lab Sample ID: 410-19023-6 MSD
 Matrix: Water Lab File ID: Gn04S12.D
 Analysis Method: 8260C LL Date Collected: 10/29/2020 11:25
 Sample wt/vol: 25 (mL) Date Analyzed: 11/04/2020 14:29
 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.: 61951 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.76		0.50	0.070
71-55-6	1,1,1-Trichloroethane	4.67		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	5.22		0.50	0.070
79-00-5	1,1,2-Trichloroethane	5.29		0.50	0.060
75-34-3	1,1-Dichloroethane	5.23		0.50	0.070
75-35-4	1,1-Dichloroethene	5.26		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	4.82		0.50	0.060
107-06-2	1,2-Dichloroethane	4.39		0.50	0.050
78-87-5	1,2-Dichloropropane	5.38		0.50	0.060
78-93-3	2-Butanone (MEK)	33.2		5.0	0.60
591-78-6	2-Hexanone	22.3		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	22.0		5.0	0.70
67-64-1	Acetone	31.0		5.0	0.90
107-13-1	Acrylonitrile	26.2		5.0	0.40
71-43-2	Benzene	5.18		0.50	0.050
74-97-5	Bromochloromethane	4.56		0.50	0.050
75-27-4	Bromodichloromethane	4.77		0.50	0.050
75-25-2	Bromoform	4.22		1.0	0.30
74-83-9	Bromomethane	4.11		0.50	0.070
75-15-0	Carbon disulfide	5.38		1.0	0.060
56-23-5	Carbon tetrachloride	4.48		0.50	0.070
108-90-7	Chlorobenzene	5.14		0.50	0.060
75-00-3	Chloroethane	4.61		0.50	0.070
67-66-3	Chloroform	5.05		0.50	0.090
74-87-3	Chloromethane	4.12		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	5.92		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	4.93		0.50	0.050
124-48-1	Dibromochloromethane	4.80		0.50	0.070
100-41-4	Ethylbenzene	5.13		0.50	0.060
1634-04-4	Methyl tert-butyl ether	4.77		0.50	0.050
75-09-2	Methylene Chloride	5.22		0.50	0.070
100-42-5	Styrene	5.30		0.50	0.050
127-18-4	Tetrachloroethene	6.87		0.50	0.060
108-88-3	Toluene	5.46		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	5.20		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	4.70		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-19023-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-15-0/1-0 MSD Lab Sample ID: 410-19023-6 MSD
 Matrix: Water Lab File ID: Gn04S12.D
 Analysis Method: 8260C LL Date Collected: 10/29/2020 11:25
 Sample wt/vol: 25 (mL) Date Analyzed: 11/04/2020 14:29
 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.: 61951 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	5.79		0.50	0.060
75-01-4	Vinyl chloride	4.21		0.50	0.10
1330-20-7	Xylenes, Total	16.0		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		80-120
1868-53-7	Dibromofluoromethane (Surr)	92		80-120
2037-26-5	Toluene-d8 (Surr)	103		80-120
460-00-4	4-Bromofluorobenzene (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S12.D
 Lims ID: 410-19023-A-6 MSD
 Client ID: HD-COD-SW-15-0/1-0
 Sample Type: MSD
 Inject. Date: 04-Nov-2020 14:29:30 ALS Bottle#: 18 Worklist Smp#: 18
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014632-018
 Misc. Info.: 410-19023-A-7
 Operator ID: jkh09052 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 05-Nov-2020 13:13:18 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: CTX1002

First Level Reviewer: howej

Date: 05-Nov-2020 12:59:59

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.952	1.947	0.005	99	272697	5.00	2.91	M
5 Chloromethane	50	2.148	2.142	0.006	99	358847	5.00	4.12	
6 Butadiene	39	2.257	2.257	0.000	91	492496	5.00	6.62	M
7 Vinyl chloride	62	2.263	2.257	0.006	83	345679	5.00	4.21	
9 Bromomethane	94	2.586	2.581	0.005	92	256952	5.00	4.11	
10 Chloroethane	64	2.666	2.660	0.006	100	216421	5.00	4.61	
11 Dichlorofluoromethane	67	2.904	2.898	0.006	97	530517	5.00	4.78	
13 Trichlorofluoromethane	101	2.964	2.965	-0.001	96	488860	5.00	4.44	
15 Ethyl ether	59	3.208	3.209	-0.001	92	238584	5.01	5.86	
16 1,2-Dichloro-1,1,2-trifluoroethane	67	3.306	3.294	0.012	93	340044	5.00	5.36	
18 Acrolein	56	3.379	3.379	0.000	96	175094	37.5	26.5	
19 1,1-Dichloroethene	96	3.513	3.507	0.006	98	251110	5.00	5.26	
20 Acetone	43	3.544	3.544	0.000	73	324211	37.5	31.0	
21 112TCTFE	101	3.550	3.550	0.000	95	253796	5.00	4.83	
23 Isopropyl alcohol	45	3.696	3.702	-0.006	36	44498	37.5	29.5	M
22 Iodomethane	142	3.702	3.702	0.000	99	412493	5.00	4.20	
24 Ethyl bromide	108	3.739	3.733	0.006	98	214130	5.01	5.12	
25 Carbon disulfide	76	3.806	3.800	0.006	99	900950	5.00	5.38	
26 Methyl acetate	43	3.946	3.958	-0.012	98	86970	5.00	3.51	
27 3-Chloro-1-propene	41	3.983	3.983	0.000	90	394895	5.00	4.99	
28 Methylene Chloride	84	4.172	4.172	0.000	92	279262	5.00	5.22	
* 29 t-Butyl alcohol-d10 (IS)	65	4.172	4.184	-0.012	0	187066	50.0	50.0	M
30 2-Methyl-2-propanol	59	4.300	4.306	-0.006	99	114697	50.0	34.4	
31 Acrylonitrile	53	4.519	4.519	0.000	98	294109	25.0	26.2	
32 Methyl tert-butyl ether	73	4.562	4.568	-0.006	91	699226	5.00	4.77	
33 trans-1,2-Dichloroethene	96	4.574	4.574	0.000	98	280064	5.00	5.20	
34 Hexane	57	5.001	5.001	0.000	94	406394	5.00	5.73	
36 1,1-Dichloroethane	63	5.245	5.245	-0.001	96	530699	5.00	5.23	
37 Isopropyl ether	45	5.299	5.306	-0.007	94	870535	5.00	4.83	
38 2-Chloro-1,3-butadiene	53	5.354	5.354	0.000	93	455817	5.00	4.88	
39 Tert-butyl ethyl ether	59	5.842	5.842	0.000	98	840034	5.00	4.76	

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	6.049	6.056	-0.007	100	594651	37.5	33.2	
41 cis-1,2-Dichloroethene	96	6.086	6.080	0.006	84	369205	5.00	5.92	
42 2,2-Dichloropropane	77	6.098	6.098	0.000	0	443473	5.00	4.97	M
44 Propionitrile	54	6.147	6.153	-0.006	97	164447	37.5	40.2	
46 Methacrylonitrile	67	6.360	6.366	-0.006	93	572366	37.5	36.7	
48 Chlorobromomethane	128	6.409	6.415	-0.006	93	134752	5.00	4.56	
47 Tetrahydrofuran	71	6.421	6.421	0.000	74	107795	25.0	23.0	
50 Chloroform	83	6.567	6.568	-0.001	94	549948	5.00	5.05	
\$ 52 Dibromofluoromethane (Surr)	113	6.781	6.781	0.000	93	554759	10.0	9.23	
51 1,1,1-Trichloroethane	97	6.799	6.793	0.006	98	465666	5.00	4.67	
53 Cyclohexane	56	6.884	6.885	-0.001	91	491513	5.00	5.68	
56 Carbon tetrachloride	117	6.994	6.994	0.000	94	399260	5.00	4.48	
55 1,1-Dichloropropene	75	7.006	7.007	-0.001	95	417222	5.00	5.18	
57 Isobutyl alcohol	41	7.177	7.171	0.006	92	92400	125.1	73.8	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.238	7.238	0.000	0	112607	10.0	9.84	
59 Benzene	78	7.269	7.269	-0.001	97	1163651	5.00	5.18	
60 1,2-Dichloroethane	62	7.336	7.342	-0.006	97	356548	5.00	4.39	M
62 Tert-amyl methyl ether	73	7.457	7.458	-0.001	98	778747	5.00	4.91	
* 63 Fluorobenzene (IS)	96	7.671	7.671	0.000	99	2249130	10.0	10.0	
64 n-Heptane	43	7.677	7.683	-0.006	91	461766	5.00	5.63	
65 n-Butanol	56	8.061	8.055	0.006	90	232457	250.2	227.7	
67 Trichloroethene	95	8.146	8.153	-0.007	98	362306	5.00	5.79	
68 Methylcyclohexane	83	8.457	8.451	0.006	94	531151	5.00	5.78	
69 1,2-Dichloropropane	63	8.482	8.488	-0.006	94	306211	5.00	5.38	
70 2-ethoxy-2-methyl butane	87	8.494	8.500	-0.006	93	444863	5.00	5.07	
71 Methyl methacrylate	69	8.573	8.573	0.000	90	140790	5.00	4.46	
72 1,4-Dioxane	88	8.573	8.573	0.000	28	23317	125.1	102.9	M
73 Dibromomethane	93	8.598	8.598	0.000	97	150236	5.00	4.57	
75 Dichlorobromomethane	83	8.835	8.835	0.000	99	388628	5.00	4.77	
76 2-Nitropropane	41	9.116	9.116	0.000	99	48484	5.00	3.68	
78 2-Chloroethyl vinyl ether	63		9.201				ND	ND	
79 1-Bromo-2-chloroethane	63	9.225	9.226	-0.001	99	320542	5.00	5.13	
80 cis-1,3-Dichloropropene	75	9.384	9.384	0.000	95	443623	5.00	4.93	
81 4-Methyl-2-pentanone (MIBK)	43	9.567	9.567	0.000	97	1032054	25.0	22.0	
\$ 82 Toluene-d8 (Surr)	98	9.695	9.689	0.006	94	2249303	10.0	10.3	
83 Toluene	92	9.768	9.768	0.000	97	754089	5.00	5.46	
84 trans-1,3-Dichloropropene	75	10.030	10.030	0.000	95	368762	5.00	4.70	
85 Ethyl methacrylate	69	10.091	10.091	0.000	89	310281	5.00	5.09	
86 1,1,2-Trichloroethane	97	10.237	10.238	-0.001	91	224626	5.00	5.29	
88 Tetrachloroethene	166	10.317	10.317	0.000	97	464417	5.00	6.87	
89 1,3-Dichloropropane	76	10.396	10.396	0.000	92	373402	5.00	5.10	
91 2-Hexanone	43	10.457	10.451	0.006	97	757806	25.0	22.3	
93 Chlorodibromomethane	129	10.609	10.610	-0.001	89	263602	5.00	4.80	
94 Ethylene Dibromide	107	10.719	10.719	0.000	100	205885	5.00	4.82	
* 95 Chlorobenzene-d5 (IS)	117	11.152	11.152	0.000	87	1671711	10.0	10.0	
96 1-Chlorohexane	91	11.164	11.164	0.000	98	428222	5.00	5.00	
97 Chlorobenzene	112	11.176	11.176	0.000	93	840723	5.00	5.14	
98 1,1,1,2-Tetrachloroethane	131	11.262	11.262	0.000	95	291997	5.00	4.76	
99 Ethylbenzene	91	11.262	11.262	0.000	99	1472643	5.00	5.13	
100 m-Xylene & p-Xylene	106	11.377	11.378	-0.001	0	1148467	10.0	10.8	
102 o-Xylene	106	11.707	11.707	0.000	97	547357	5.00	5.24	
103 Styrene	104	11.725	11.725	0.000	94	911621	5.00	5.30	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 Bromoform	173	11.877	11.878	-0.001	96	146144	5.00	4.22	
105 Isopropylbenzene	105	12.005	12.006	-0.001	96	1444427	5.00	5.17	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	91	822700	10.0	10.1	
109 1,1,2,2-Tetrachloroethane	83	12.255	12.256	-0.001	94	268181	5.00	5.22	
110 Bromobenzene	156	12.268	12.268	0.000	95	349831	5.00	5.14	
111 trans-1,4-Dichloro-2-butene	53	12.280	12.280	0.000	76	122617	25.0	6.51	
112 1,2,3-Trichloropropane	110	12.298	12.298	0.000	85	74779	5.00	5.20	
113 N-Propylbenzene	91	12.335	12.335	0.000	99	1763812	5.00	5.60	
114 2-Chlorotoluene	126	12.414	12.408	0.006	96	338031	5.00	5.40	
115 1,3,5-Trimethylbenzene	105	12.469	12.469	0.000	94	1214892	5.00	5.54	
116 4-Chlorotoluene	126	12.505	12.505	0.000	98	350006	5.00	5.26	
118 tert-Butylbenzene	134	12.713	12.713	0.000	92	275965	5.00	5.66	
120 Pentachloroethane	167	12.743	12.743	0.000	91	208297	5.00	4.84	
119 1,2,4-Trimethylbenzene	105	12.755	12.755	0.000	97	1250225	5.00	5.46	
121 sec-Butylbenzene	105	12.877	12.871	0.006	95	1591980	5.00	5.52	
122 1,3-Dichlorobenzene	146	12.975	12.969	0.006	97	671895	5.00	5.10	
123 4-Isopropyltoluene	119	12.981	12.981	0.000	97	1322099	5.00	5.34	
* 124 1,4-Dichlorobenzene-d4	152	13.030	13.024	0.006	94	848255	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.042	13.042	0.000	94	680473	5.00	5.09	
126 1,2,3-Trimethylbenzene	120	13.054	13.054	0.000	99	549571	5.00	5.48	
127 Benzyl chloride	126	13.121	13.121	0.000	99	95338	5.00	4.97	
129 p-Diethylbenzene	119	13.182	13.182	0.000	91	779683	5.00	5.17	
130 n-Butylbenzene	92	13.267	13.268	-0.001	98	692667	5.00	5.38	
131 1,2-Dichlorobenzene	146	13.304	13.304	0.000	97	608782	5.00	4.95	
134 1,2-Dibromo-3-Chloropropane	155	13.840	13.847	-0.007	81	34520	5.00	4.64	
135 1,3,5-Trichlorobenzene	180	13.968	13.963	0.005	97	482101	5.00	4.68	
136 1,2,4-Trichlorobenzene	180	14.389	14.389	0.000	93	387882	5.00	4.38	
137 Hexachlorobutadiene	225	14.468	14.469	-0.001	97	220773	5.00	4.57	
138 Naphthalene	128	14.566	14.566	0.000	97	611545	5.00	4.24	
139 1,2,3-Trichlorobenzene	180	14.706	14.706	0.000	95	301936	5.00	4.06	
140 2-Methylnaphthalene	142	15.328	15.322	0.006	91	227644	5.00	2.71	

QC Flag Legend

Processing Flags

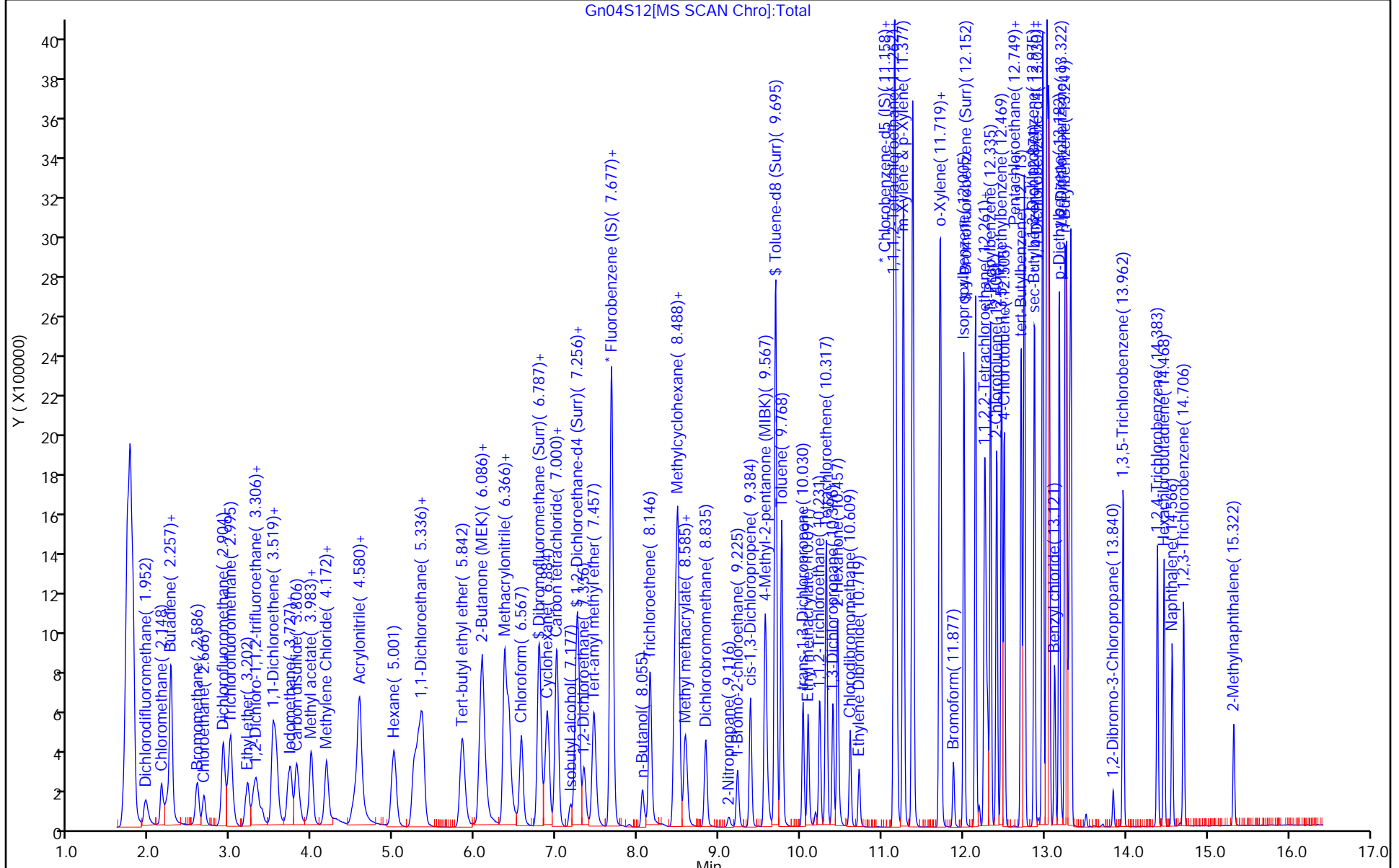
ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MSV_Q_QARC_00052	Amount Added: 5.38	Units: uL	
MSV_Q_EE_00003	Amount Added: 5.38	Units: uL	
MSV_Q_QVOA6_00050	Amount Added: 5.38	Units: uL	
MSV_Q_ETBR_00005	Amount Added: 5.38	Units: uL	
MSV_QGAS_826_00086	Amount Added: 5.38	Units: uL	
MSV_Q_QVOA1_00053	Amount Added: 5.38	Units: uL	
MSV_29_826ISS_00010	Amount Added: 1.00	Units: uL	Run Reagent



Eurofins Lancaster Laboratories Env, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S12.D
 Lims ID: 410-19023-A-6 MSD
 Client ID: HD-COD-SW-15-0/1-0
 Sample Type: MSD
 Inject. Date: 04-Nov-2020 14:29:30 ALS Bottle#: 18 Worklist Smp#: 18
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0014632-018
 Misc. Info.: 410-19023-A-7
 Operator ID: jkh09052 Instrument ID: 16334
 Method: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\MSV_16334_25mL.m
 Limit Group: MSV - 8260C_D
 Last Update: 05-Nov-2020 13:13:18 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: CTX1002

First Level Reviewer: howej Date: 05-Nov-2020 12:59:59

Compound	Amount Added	Amount Recovered	% Rec.
\$ 52 Dibromofluoromethane (Surr)	10.0	9.23	92.34
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	9.84	98.41
\$ 82 Toluene-d8 (Surr)	10.0	10.3	102.78
\$ 108 4-Bromofluorobenzene (Surr)	10.0	10.1	101.23

Eurofins Lancaster Laboratories Env, LLC

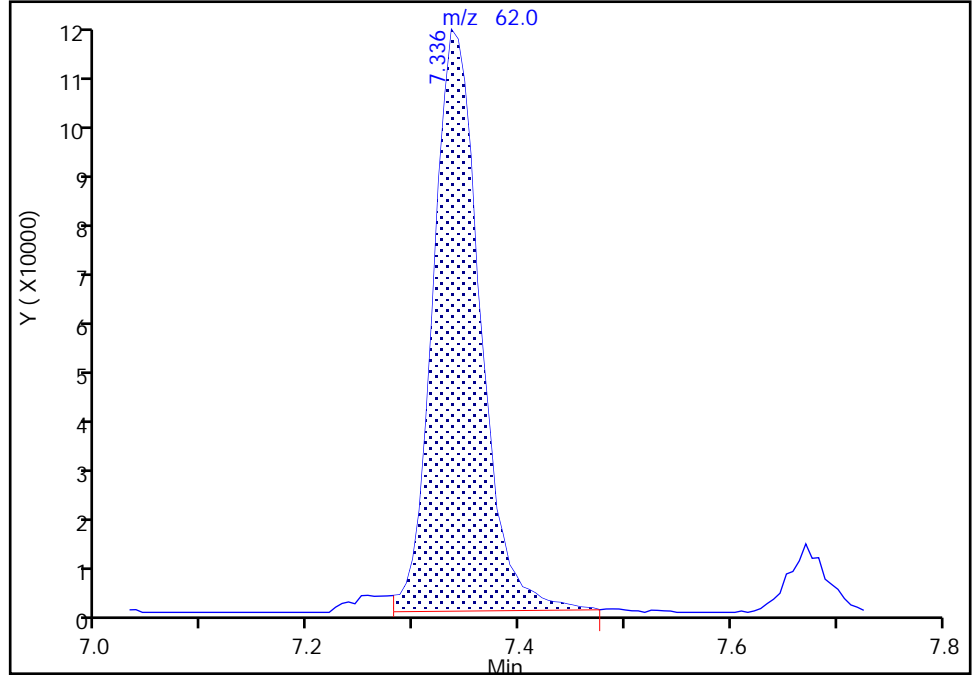
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Injection Date: 04-Nov-2020 14:29:30 Instrument ID: 16334
Lims ID: 410-19023-A-6 MSD
Client ID: HD-COD-SW-15-0/1-0
Operator ID: jkh09052 ALS Bottle#: 18 Worklist Smp#: 18
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: MSV_16334_25mL Limit Group: 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

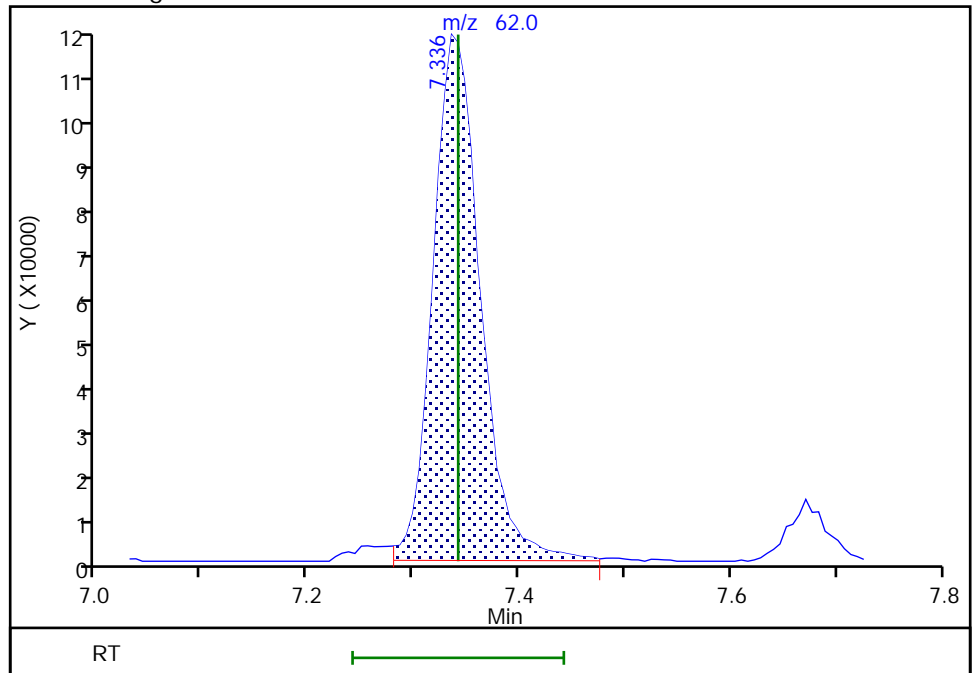
RT: 7.34
Area: 354563
Amount: 4.363248
Amount Units: ug/l

Processing Integration Results



RT: 7.34
Area: 356548
Amount: 4.387675
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 05-Nov-2020 12:58:53
Audit Action: Assigned New Baseline

Audit Reason: Other

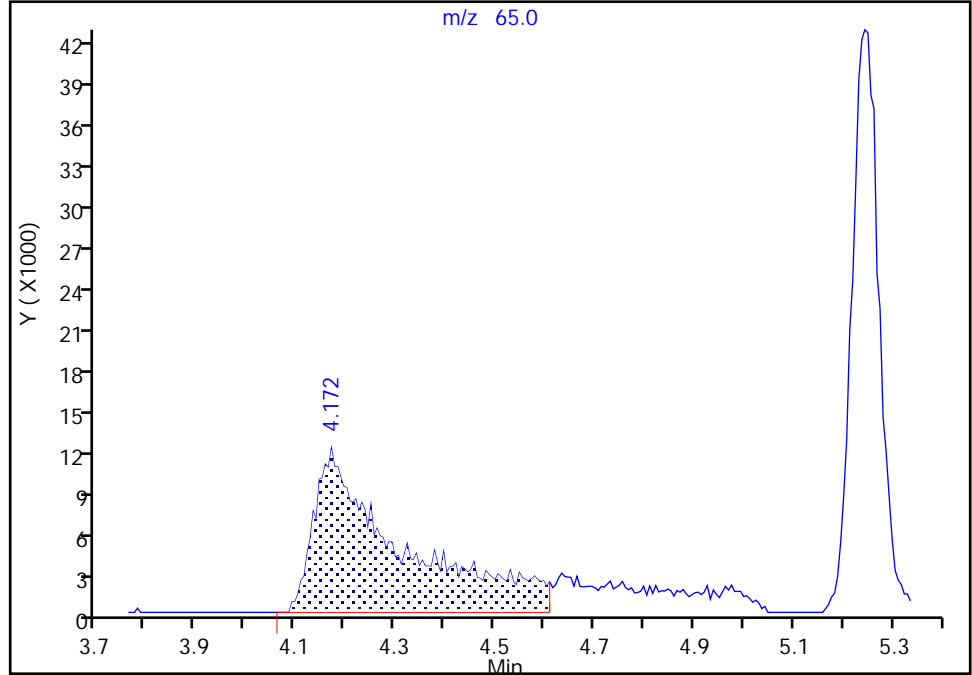
Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\16334\20201104-14632.b\Gn04S12.D
Injection Date: 04-Nov-2020 14:29:30 Instrument ID: 16334
Lims ID: 410-19023-A-6 MSD
Client ID: HD-COD-SW-15-0/1-0
Operator ID: jkh09052 ALS Bottle#: 18 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

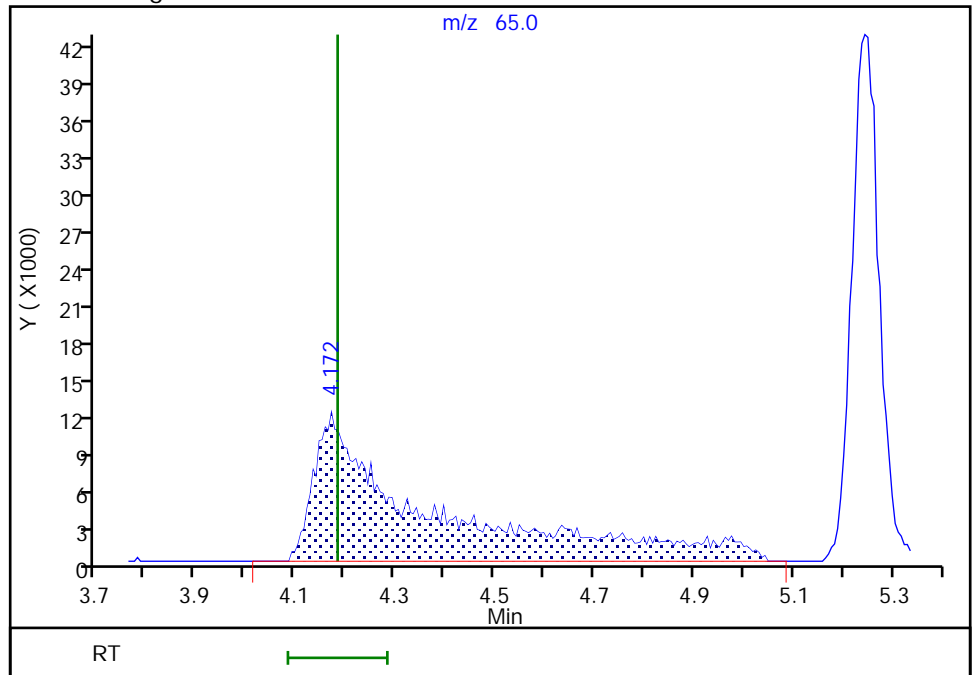
RT: 4.17
Area: 144024
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.17
Area: 187066
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: howej, 05-Nov-2020 12:58:16
Audit Action: Manually Integrated

Audit Reason: Other

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-19023-1

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.: 410-19023-1

SDG No.: _____

Instrument ID: 10193Start Date: 09/01/2020 12:45Analysis Batch Number: 39724End Date: 09/01/2020 19:31

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-39724/1		09/01/2020 12:45	1	CS01T01.D	R-624SilMS 30m 0.25 (mm)
IC 410-39724/3		09/01/2020 13:35	1	CS01I01.D	R-624SilMS 30m 0.25 (mm)
ICIS 410-39724/4		09/01/2020 13:57	1	CS01I02.D	R-624SilMS 30m 0.25 (mm)
IC 410-39724/5		09/01/2020 14:19	1	CS01I03.D	R-624SilMS 30m 0.25 (mm)
IC 410-39724/6		09/01/2020 14:42	1	CS01I04.D	R-624SilMS 30m 0.25 (mm)
IC 410-39724/7		09/01/2020 15:04	1	CS01I05.D	R-624SilMS 30m 0.25 (mm)
IC 410-39724/8		09/01/2020 15:26	1	CS01I06.D	R-624SilMS 30m 0.25 (mm)
IC 410-39724/9		09/01/2020 15:48	1	CS01I07.D	R-624SilMS 30m 0.25 (mm)
ICV 410-39724/10		09/01/2020 16:10	1	CS01V01.D	R-624SilMS 30m 0.25 (mm)
IC 410-39724/12		09/01/2020 16:55	1		R-624SilMS 30m 0.25 (mm)
IC 410-39724/13		09/01/2020 17:17	1		R-624SilMS 30m 0.25 (mm)
IC 410-39724/14		09/01/2020 17:39	1		R-624SilMS 30m 0.25 (mm)
IC 410-39724/15		09/01/2020 18:02	1		R-624SilMS 30m 0.25 (mm)
IC 410-39724/16		09/01/2020 18:24	1		R-624SilMS 30m 0.25 (mm)
IC 410-39724/17		09/01/2020 18:46	1		R-624SilMS 30m 0.25 (mm)
IC 410-39724/18		09/01/2020 19:09	1		R-624SilMS 30m 0.25 (mm)
ICV 410-39724/19		09/01/2020 19:31	1		R-624SilMS 30m 0.25 (mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-19023-1

SDG No.: _____

Instrument ID: 16334Start Date: 11/04/2020 08:22Analysis Batch Number: 61951End Date: 11/04/2020 19:38

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-61951/1		11/04/2020 08:22	1	GN04T01.D	R-624SilMS 30m 0.25 (mm)
CCVIS 410-61951/3		11/04/2020 08:59	1	GC30C01.D	R-624SilMS 30m 0.25 (mm)
LCS 410-61951/4		11/04/2020 09:21	1	GC30L01.D	R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/04/2020 09:43	1		R-624SilMS 30m 0.25 (mm)
MB 410-61951/6		11/04/2020 10:05	1	GC30B01.D	R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/04/2020 10:27	1		R-624SilMS 30m 0.25 (mm)
410-19023-13	HD-QC1-0/1-1	11/04/2020 10:49	1	Gn04S02.D	R-624SilMS 30m 0.25 (mm)
410-19023-14	HD-QC1-0/1-2	11/04/2020 11:11	1	Gn04S03.D	R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/04/2020 11:33	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/04/2020 11:55	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/04/2020 12:17	1		R-624SilMS 30m 0.25 (mm)
410-19023-3	HD-COD-SW-8-0/1-0	11/04/2020 12:39	1	Gn04S07.D	R-624SilMS 30m 0.25 (mm)
410-19023-4	HD-COD-SW-9-0/1-0	11/04/2020 13:01	1	Gn04S08.D	R-624SilMS 30m 0.25 (mm)
410-19023-5	HD-COD-SW-13-0/1-0	11/04/2020 13:23	1	Gn04S09.D	R-624SilMS 30m 0.25 (mm)
410-19023-6	HD-COD-SW-15-0/1-0	11/04/2020 13:45	1	Gn04S10.D	R-624SilMS 30m 0.25 (mm)
410-19023-6 MS	HD-COD-SW-15-0/1-0 MS	11/04/2020 14:07	1	Gn04S11.D	R-624SilMS 30m 0.25 (mm)
410-19023-6 MSD	HD-COD-SW-15-0/1-0 MSD	11/04/2020 14:29	1	Gn04S12.D	R-624SilMS 30m 0.25 (mm)
410-19023-7	HD-COD-SW-16-0/1-0	11/04/2020 14:51	1	Gn04S13.D	R-624SilMS 30m 0.25 (mm)
410-19023-8	HD-COD-SW-17-0/1-0	11/04/2020 15:13	1	Gn04S14.D	R-624SilMS 30m 0.25 (mm)
410-19023-9	HD-COD-SW-26-0/1-0	11/04/2020 15:36	1	Gn04S15.D	R-624SilMS 30m 0.25 (mm)
410-19023-10	HD-COD-SW-27-0/1-0	11/04/2020 15:58	1	Gn04S16.D	R-624SilMS 30m 0.25 (mm)
410-19023-11	HD-COD-SW-28-0/1-0	11/04/2020 16:20	1	Gn04S17.D	R-624SilMS 30m 0.25 (mm)
410-19023-12	HD-COD-SW-29-0/1-0	11/04/2020 16:42	1	Gn04S18.D	R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/04/2020 17:04	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/04/2020 17:26	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/04/2020 17:48	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/04/2020 18:10	20		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/04/2020 18:32	2		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/04/2020 18:54	10		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/04/2020 19:38	1		R-624SilMS 30m 0.25 (mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-19023-1

SDG No.: _____

Instrument ID: 10193 Start Date: 11/05/2020 08:55

Analysis Batch Number: 62460 End Date: 11/05/2020 20:18

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-62460/1		11/05/2020 08:55	1	CN05T02.D	R-624SilMS 30m 0.25 (mm)
CCVIS 410-62460/3		11/05/2020 09:32	1	Cn05C01.D	R-624SilMS 30m 0.25 (mm)
LCS 410-62460/4		11/05/2020 09:54	1	Cn05L01.D	R-624SilMS 30m 0.25 (mm)
LCSD 410-62460/5		11/05/2020 10:16	1	Cn05L02.D	R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/05/2020 10:39	1		R-624SilMS 30m 0.25 (mm)
MB 410-62460/7		11/05/2020 11:01	1	Cn05B31.D	R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/05/2020 11:23	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/05/2020 11:46	1		R-624SilMS 30m 0.25 (mm)
410-19023-1	HD-COD-SW-6-0/1-0	11/05/2020 12:53	1	Cn05S05.D	R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/05/2020 13:15	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/05/2020 13:37	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/05/2020 13:59	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/05/2020 14:22	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/05/2020 14:44	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/05/2020 15:06	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/05/2020 15:28	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/05/2020 15:51	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/05/2020 16:13	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/05/2020 16:35	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/05/2020 16:57	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/05/2020 17:20	10		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/05/2020 17:42	2		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/05/2020 18:05	20		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/05/2020 18:27	100		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/05/2020 19:55	10		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/05/2020 20:18	100		R-624SilMS 30m 0.25 (mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-19023-1

SDG No.: _____

Instrument ID: 10193 Start Date: 11/08/2020 10:50

Analysis Batch Number: 63387 End Date: 11/08/2020 21:48

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-63387/1		11/08/2020 10:50	1	CN08T01.D	R-624SilMS 30m 0.25 (mm)
CCVIS 410-63387/3		11/08/2020 11:28	1	CN08C01.D	R-624SilMS 30m 0.25 (mm)
LCS 410-63387/4		11/08/2020 11:50	1	CN08L01.D	R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/08/2020 12:12	1		R-624SilMS 30m 0.25 (mm)
MB 410-63387/6		11/08/2020 12:34	1	CN08B01.D	R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/08/2020 12:56	200		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/08/2020 13:40	2000		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/08/2020 14:02	1		R-624SilMS 30m 0.25 (mm)
410-19023-2	HD-COD-SW-7-0/1-0	11/08/2020 14:24	1	CN08S06.D	R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/08/2020 14:46	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/08/2020 15:09	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/08/2020 15:31	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/08/2020 15:53	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/08/2020 16:16	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/08/2020 16:38	10		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/08/2020 17:00	10		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/08/2020 17:22	10		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/08/2020 17:44	100		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/08/2020 18:06	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/08/2020 18:28	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/08/2020 18:51	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/08/2020 19:13	10		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/08/2020 19:35	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/08/2020 19:57	10		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/08/2020 20:20	200		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/08/2020 20:42	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/08/2020 21:04	10		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/08/2020 21:26	10		R-624SilMS 30m 0.25 (mm)
ZZZZZ		11/08/2020 21:48	100		R-624SilMS 30m 0.25 (mm)

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-19023-1

SDG No.: _____

Batch Number: 12269 Batch Start Date: 06/11/20 13:27 Batch Analyst: Viray, Don V

Batch Method: 8260C LL 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		8260C LL		1 uL	1 uL				
IC 410-12269/3		8260C LL		25 mL	25 mL	1 uL			
ICIS 410-12269/4		8260C LL		25 mL	25 mL	1 uL			
IC 410-12269/5		8260C LL		25 mL	25 mL	1 uL			
IC 410-12269/6		8260C LL		25 mL	25 mL	1 uL			
IC 410-12269/7		8260C LL		25 mL	25 mL	1 uL			
IC 410-12269/8		8260C LL		25 mL	25 mL	1 uL			
IC 410-12269/9		8260C LL		25 mL	25 mL	1 uL			
ICV 410-12269/10		8260C LL		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		8260C LL							
IC 410-12269/3		8260C LL					25 uL	25 uL	25 uL
ICIS 410-12269/4		8260C LL					10 uL	10 uL	10 uL
IC 410-12269/5		8260C LL					5 uL	5 uL	5 uL
IC 410-12269/6		8260C LL					2 uL	2 uL	2 uL
IC 410-12269/7		8260C LL					2 uL	2 uL	2 uL
IC 410-12269/8		8260C LL					2 uL	2 uL	2 uL
IC 410-12269/9		8260C LL					2 uL	2 uL	2 uL
ICV 410-12269/10		8260C LL		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		8260C LL		1 uL					
IC 410-12269/3		8260C LL							
ICIS 410-12269/4		8260C LL							
IC 410-12269/5		8260C LL							
IC 410-12269/6		8260C LL							

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.: 410-19023-1

SDG No.: _____

Batch Number: 12269 Batch Start Date: 06/11/20 13:27 Batch Analyst: Viray, Don V

Batch Method: 8260C LL Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_V_BFB 00002					
IC 410-12269/7		8260C LL							
IC 410-12269/8		8260C LL							
IC 410-12269/9		8260C LL							
ICV 410-12269/10		8260C LL							

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.: 410-19023-1

SDG No.: _____

Batch Number: 39724 Batch Start Date: 09/01/20 12:45 Batch Analyst: Campbell, Miranda E

Batch Method: 8260C LL Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MSV_25_826ISS 00001	MSV_Q_EE 00002	MSV_Q_ETBR 00003	MSV_Q_QARC 00043
BFB 410-39724/1		8260C LL		1 uL	1 uL				
IC 410-39724/3		8260C LL		25 mL	25 mL	1 uL			
ICIS 410-39724/4		8260C LL		25 mL	25 mL	1 uL			
IC 410-39724/5		8260C LL		25 mL	25 mL	1 uL			
IC 410-39724/6		8260C LL		25 mL	25 mL	1 uL			
IC 410-39724/7		8260C LL		25 mL	25 mL	1 uL			
IC 410-39724/8		8260C LL		25 mL	25 mL	1 uL			
IC 410-39724/9		8260C LL		25 mL	25 mL	1 uL			
ICV 410-39724/10		8260C LL		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 00044	MSV_Q_QVOA6 00041	MSV_QGAS 826 00069	MSV_RV1 826 00022	MSV_RV4_826 00024	MSV_RV4GAS826 00072
BFB 410-39724/1		8260C LL							
IC 410-39724/3		8260C LL					25 uL	25 uL	25 uL
ICIS 410-39724/4		8260C LL					10 uL	10 uL	10 uL
IC 410-39724/5		8260C LL					5 uL	5 uL	5 uL
IC 410-39724/6		8260C LL					2 uL	2 uL	2 uL
IC 410-39724/7		8260C LL					2 uL	2 uL	2 uL
IC 410-39724/8		8260C LL					2 uL	2 uL	2 uL
IC 410-39724/9		8260C LL					2 uL	2 uL	2 uL
ICV 410-39724/10		8260C LL		12.5 uL	12.5 uL	12.5 uL			

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_V_BFB 00003					
BFB 410-39724/1		8260C LL		1 uL					
IC 410-39724/3		8260C LL							
ICIS 410-39724/4		8260C LL							
IC 410-39724/5		8260C LL							
IC 410-39724/6		8260C LL							

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.: 410-19023-1

SDG No.: _____

Batch Number: 39724 Batch Start Date: 09/01/20 12:45 Batch Analyst: Campbell, Miranda E

Batch Method: 8260C LL Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_V_BFB 00003					
IC 410-39724/7		8260C LL							
IC 410-39724/8		8260C LL							
IC 410-39724/9		8260C LL							
ICV 410-39724/10		8260C LL							

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.: 410-19023-1

SDG No.: _____

Batch Number: 61951 Batch Start Date: 11/04/20 08:22 Batch Analyst: Howe, Jennifer K

Batch Method: 8260C LL Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	ResidualChloChe ck	Headspace	MSV 29 826ISS 00010
BFB 410-61951/1		8260C LL		1 uL	1 uL				
CCVIS 410-61951/3		8260C LL		25 mL	25 mL				1 uL
LCS 410-61951/4		8260C LL		25 mL	25 mL				1 uL
MB 410-61951/6		8260C LL		25 mL	25 mL				1 uL
410-19023-A-13	HD-QC1-0/1-1	8260C LL	T	25 mL	25 mL	<2 SU	N	N	1 uL
410-19023-A-14	HD-QC1-0/1-2	8260C LL	T	25 mL	25 mL	<2 SU	N	N	1 uL
410-19023-A-3	HD-COD-SW-8-0/1-0	8260C LL	T	25 mL	25 mL	<2 SU	N	N	1 uL
410-19023-A-4	HD-COD-SW-9-0/1-0	8260C LL	T	25 mL	25 mL	<2 SU	N	N	1 uL
410-19023-A-5	HD-COD-SW-13-0/1-0	8260C LL	T	25 mL	25 mL	<2 SU	N	N	1 uL
410-19023-A-6	HD-COD-SW-15-0/1-0	8260C LL	T	25 mL	25 mL	<2 SU	N	N	1 uL
410-19023-A-6 MS	HD-COD-SW-15-0/1-0	8260C LL	T	25 mL	25 mL	<2 SU	N	N	1 uL
410-19023-A-6 MSD	HD-COD-SW-15-0/1-0	8260C LL	T	25 mL	25 mL	<2 SU	N	N	1 uL
410-19023-A-7	HD-COD-SW-16-0/1-0	8260C LL	T	25 mL	25 mL	<2 SU	N	N	1 uL
410-19023-A-8	HD-COD-SW-17-0/1-0	8260C LL	T	25 mL	25 mL	<2 SU	N	N	1 uL
410-19023-A-9	HD-COD-SW-26-0/1-0	8260C LL	T	25 mL	25 mL	<2 SU	N	N	1 uL
410-19023-A-10	HD-COD-SW-27-0/1-0	8260C LL	T	25 mL	25 mL	<2 SU	N	N	1 uL
410-19023-A-11	HD-COD-SW-28-0/1-0	8260C LL	T	25 mL	25 mL	<2 SU	N	N	1 uL
410-19023-A-12	HD-COD-SW-29-0/1-0	8260C LL	T	25 mL	25 mL	<2 SU	N	N	1 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_Q_EE 00003	MSV_Q_ETBR 00005	MSV_Q_QARC 00052	MSV_Q_QVOA1 00053	MSV_Q_QVOA6 00050	MSV_QGAS 826 00086
BFB 410-61951/1		8260C LL							
CCVIS 410-61951/3		8260C LL							
LCS 410-61951/4		8260C LL		12.5 uL	12.5 uL	12.5 uL	12.5 uL	12.5 uL	12.5 uL

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.: 410-19023-1

SDG No.: _____

Batch Number: 61951 Batch Start Date: 11/04/20 08:22 Batch Analyst: Howe, Jennifer K

Batch Method: 8260C LL Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_Q_EE 00003	MSV_Q_ETBR 00005	MSV_Q_QARC 00052	MSV_Q_QVOA1 00053	MSV_Q_QVOA6 00050	MSV_QGAS_826 00086
MB 410-61951/6		8260C LL							
410-19023-A-13	HD-QC1-0/1-1	8260C LL	T						
410-19023-A-14	HD-QC1-0/1-2	8260C LL	T						
410-19023-A-3	HD-COD-SW-8-0/1-0	8260C LL	T						
410-19023-A-4	HD-COD-SW-9-0/1-0	8260C LL	T						
410-19023-A-5	HD-COD-SW-13-0/1-0	8260C LL	T						
410-19023-A-6	HD-COD-SW-15-0/1-0	8260C LL	T						
410-19023-A-6 MS	HD-COD-SW-15-0/1-0	8260C LL	T	5.38 uL	5.38 uL	5.38 uL	5.38 uL	5.38 uL	5.38 uL
410-19023-A-6 MSD	HD-COD-SW-15-0/1-0	8260C LL	T	5.38 uL	5.38 uL	5.38 uL	5.38 uL	5.38 uL	5.38 uL
410-19023-A-7	HD-COD-SW-16-0/1-0	8260C LL	T						
410-19023-A-8	HD-COD-SW-17-0/1-0	8260C LL	T						
410-19023-A-9	HD-COD-SW-26-0/1-0	8260C LL	T						
410-19023-A-10	HD-COD-SW-27-0/1-0	8260C LL	T						
410-19023-A-11	HD-COD-SW-28-0/1-0	8260C LL	T						
410-19023-A-12	HD-COD-SW-29-0/1-0	8260C LL	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_RV1_826 00027	MSV_RV4_826 00031	MSV_RV4GAS826 00090	MSV_V_BFB 00003		
BFB 410-61951/1		8260C LL					1 uL		
CCVIS 410-61951/3		8260C LL		20 uL	20 uL	20 uL			
LCS 410-61951/4		8260C LL							
MB 410-61951/6		8260C LL							
410-19023-A-13	HD-QC1-0/1-1	8260C LL	T						
410-19023-A-14	HD-QC1-0/1-2	8260C LL	T						

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.: 410-19023-1

SDG No.: _____

Batch Number: 61951 Batch Start Date: 11/04/20 08:22 Batch Analyst: Howe, Jennifer K

Batch Method: 8260C LL Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_RV1 826 00027	MSV_RV4 826 00031	MSV_RV4GAS826 00090	MSV_V_BFB 00003		
410-19023-A-3	HD-COD-SW-8-0/1-0	8260C LL	T						
410-19023-A-4	HD-COD-SW-9-0/1-0	8260C LL	T						
410-19023-A-5	HD-COD-SW-13-0/1-0	8260C LL	T						
410-19023-A-6	HD-COD-SW-15-0/1-0	8260C LL	T						
410-19023-A-6 MS	HD-COD-SW-15-0/1-0	8260C LL	T						
410-19023-A-6 MSD	HD-COD-SW-15-0/1-0	8260C LL	T						
410-19023-A-7	HD-COD-SW-16-0/1-0	8260C LL	T						
410-19023-A-8	HD-COD-SW-17-0/1-0	8260C LL	T						
410-19023-A-9	HD-COD-SW-26-0/1-0	8260C LL	T						
410-19023-A-10	HD-COD-SW-27-0/1-0	8260C LL	T						
410-19023-A-11	HD-COD-SW-28-0/1-0	8260C LL	T						
410-19023-A-12	HD-COD-SW-29-0/1-0	8260C LL	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.: 410-19023-1

SDG No.: _____

Batch Number: 62460 Batch Start Date: 11/05/20 08:55 Batch Analyst: Howe, Jennifer K

Batch Method: 8260C LL Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	ResidualChloChe ck	Headspace	MSV_HP25_ISSS 00017
BFB 410-62460/1		8260C LL		1 uL	1 uL				
CCVIS 410-62460/3		8260C LL		25 mL	25 mL				1 uL
LCS 410-62460/4		8260C LL		25 mL	25 mL				1 uL
LCSD 410-62460/5		8260C LL		25 mL	25 mL				1 uL
MB 410-62460/7		8260C LL		25 mL	25 mL				1 uL
410-19023-B-1	HD-COD-SW-6-0/1- 0	8260C LL	T	25 mL	25 mL	<2 SU	N	N	1 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_Q_EE 00003	MSV_Q_ETBR 00005	MSV_Q_QARC 00052	MSV_Q_QVOA1 00053	MSV_Q_QVOA6 00051	MSV_QGAS 826 00086
BFB 410-62460/1		8260C LL							
CCVIS 410-62460/3		8260C LL							
LCS 410-62460/4		8260C LL		12.5 uL	12.5 uL	12.5 uL	12.5 uL	12.5 uL	12.5 uL
LCSD 410-62460/5		8260C LL		12.5 uL	12.5 uL	12.5 uL	12.5 uL	12.5 uL	12.5 uL
MB 410-62460/7		8260C LL							
410-19023-B-1	HD-COD-SW-6-0/1- 0	8260C LL	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_RV1 826 00026	MSV_RV4 826 0003I	MSV_RV4GAS826 00090	MSV_V_BFB 00003		
BFB 410-62460/1		8260C LL					1 uL		
CCVIS 410-62460/3		8260C LL		20 uL	20 uL	20 uL			
LCS 410-62460/4		8260C LL							
LCSD 410-62460/5		8260C LL							
MB 410-62460/7		8260C LL							
410-19023-B-1	HD-COD-SW-6-0/1- 0	8260C LL	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.: 410-19023-1

SDG No.: _____

Batch Number: 62460 Batch Start Date: 11/05/20 08:55 Batch Analyst: Howe, Jennifer K

Batch Method: 8260C LL 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.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-19023-1

SDG No.: _____

Batch Number: 63387 Batch Start Date: 11/08/20 10:50 Batch Analyst: Viray, Don V

Batch Method: 8260C LL Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	ResidualChloChe ck	Headspace	MSV_HP25_ISSS 00017
BFB 410-63387/1		8260C LL		1 uL	1 uL				
CCVIS 410-63387/3		8260C LL		25 mL	25 mL				1 uL
LCS 410-63387/4		8260C LL		25 mL	25 mL				1 uL
MB 410-63387/6		8260C LL		25 mL	25 mL				1 uL
410-19023-C-2	HD-COD-SW-7-0/1-0	8260C LL	T	25 mL	25 mL	<2 SU	N	N	1 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_Q_EE 00003	MSV_Q_ETBR 00005	MSV_Q_QARC 00052	MSV_Q_QVOA1 00053	MSV_Q_QVOA6 00051	MSV_QGAS 826 00086
BFB 410-63387/1		8260C LL							
CCVIS 410-63387/3		8260C LL							
LCS 410-63387/4		8260C LL		12.5 uL	12.5 uL	12.5 uL	12.5 uL	12.5 uL	12.5 uL
MB 410-63387/6		8260C LL							
410-19023-C-2	HD-COD-SW-7-0/1-0	8260C LL	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_RV1 826 00026	MSV_RV4 826 00031	MSV_RV4GAS826 00090	MSV_V_BFB 00003	AnalysisComment
BFB 410-63387/1		8260C LL					1 uL	
CCVIS 410-63387/3		8260C LL		20 uL	20 uL	20 uL		
LCS 410-63387/4		8260C LL						
MB 410-63387/6		8260C LL						
410-19023-C-2	HD-COD-SW-7-0/1-0	8260C LL	T					9179

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.

Shipping and Receiving Documents



Lancaster Laboratories
Environmental

Environm



410-19023 Chain of Custody

uest/Chain of Custody

PAGE 1 of 2

Acct. #

e #

Client: Groundwater Sciences Corporation				Matrix			Analyses Requested						For Lab Use Only																																																													
Project Name/#: YNOP Monthly Surface Water		Site ID #: YNOP, 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	<input type="checkbox"/> Other:	<table border="1"> <tr> <th>H</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>						H																								SCR #: _____																																					
H																																																																										
Sampler: Casey Littlefield		PWSID #: N/A		<input type="checkbox"/> Sediment	<input type="checkbox"/> Water	<input type="checkbox"/> Other:	<table border="1"> <tr> <th colspan="12">Preservation Codes</th> </tr> <tr> <td colspan="6">H = HCl</td> <td colspan="6">T = Thiosulfate</td> </tr> <tr> <td colspan="6">N = HNO₃</td> <td colspan="6">B = NaOH</td> </tr> <tr> <td colspan="6">S = H₂SO₄</td> <td colspan="6">P = H₃PO₄</td> </tr> <tr> <td colspan="12">O = Other</td> </tr> </table>						Preservation Codes												H = HCl						T = Thiosulfate						N = HNO ₃						B = NaOH						S = H ₂ SO ₄						P = H ₃ PO ₄						O = Other												Remarks	
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 #:		<input type="checkbox"/> Soil	<input type="checkbox"/> Composite	<input type="checkbox"/> Other:	<table border="1"> <tr> <th colspan="12">Total # of Containers</th> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>						Total # of Containers																																																													
Total # of Containers																																																																										
State where samples were collected: York, PA		For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Collection		Date		Time		Grab	Composite	<table border="1"> <tr> <th colspan="12">Aqueous VOCs via 8260C (low level - 25 ml purge)</th> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>						Aqueous VOCs via 8260C (low level - 25 ml purge)																																																								
Aqueous VOCs via 8260C (low level - 25 ml purge)																																																																										
Sample Identification		Date: 10/29/20		Time: 1015		Grab	Composite																																																																			
HD-COD-SW-6-0/1-0		10/29/20		1015		X																																																																				
HD-COD-SW-7-0/1-0		1100		1100		X																																																																				
HD-COD-SW-8-0/1-0		0900		0900		X																																																																				
HD-COD-SW-9-0/1-0		1145		1145		X																																																																				
HD-COD-SW-13-0/1-0		0920		0920		X																																																																				
HD-COD-SW-15-0/1-0		1125		1125		X																																																																				
HD-COD-SW-15-0/1-0 MS		1125		1125		X																																																																				
HD-COD-SW-15-0/1-0 MSD		1125		1125		X																																																																				
HD-COD-SW-16-0/1-0		0940		0940		X																																																																				
HD-COD-SW-17-0/1-0		0950		0950		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.)						Chris Littlefield		10/30/20		1040		Chris Littlefield		10/30/20		1040																																																										
Date results are needed:						Relinquished by:		Date		Time		Received by:		Date		Time																																																										
Rush results requested by (please check):				E-Mail <input type="checkbox"/> Phone <input type="checkbox"/>		Chris Littlefield		10/30/20		1550																																																																
E-mail Address:						Relinquished by:		Date		Time		Received by:		Date		Time																																																										
Phone:																																																																										
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"/>																																																																								
Type III (Reduced non-CLP) <input type="checkbox"/>		CT RCP <input type="checkbox"/>																																																																								
Type VI (Raw Data Only) <input type="checkbox"/>		TX TRRP-13 <input type="checkbox"/>																																																																								
NJ DKQP <input type="checkbox"/>		NYSDEC Category <input type="checkbox"/> A or <input type="checkbox"/> B																																																																								
EDD Required? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				If yes, format: _____		Relinquished by Commercial Carrier:		Date		Time		Received by:		Date		Time																																																										
CLP Like Deliverables, Project Specific Analyte List						Chris Littlefield		10/30/20		1600		Chris Littlefield		10/30/20		1600																																																										
UPS _____ FedEx _____ Other _____																																																																										
Temperature upon receipt <u>1.0</u> °C																																																																										

Environmental Analysis Request/Chain of Custody



Lancaster Laboratories
Environmental

PAGE 2 of 2

Acct. # _____ Group # _____ 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	<input type="checkbox"/> Trip Blank	H						SCR #: _____			
Sampler: Casey Littlefield		PWSID #: N/A		<input type="checkbox"/> Water			Aqueous VOCs via 8260C (low level - 25 ml purge)						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 #:		<input type="checkbox"/> Sediment			Total # of Containers									
State where samples were collected: York, PA		For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		<input type="checkbox"/> Composite			Remarks									
Sample Identification		Collection		Grab	Composite	Soil	Water	Other	Total # of Containers							
		Date	Time													
HD-COD-SW-26-0/1-0		10/29/20	1035	X			X		3	X						
HD-COD-SW-27-0/1-0			1115	X			X		3	X						
HD-COD-SW-28-0/1-0			1155	X			X		3	X						
HD-COD-SW-29-0/1-0			0845	X			X		3	X						
HD-QC1-0/1-1			1200	X			X		3	X						
HD-QC1-0/1-2				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.)						C. [Signature]		10/30/20	1040	J. [Signature]		10/30/20	1040			
Date results are needed:						Relinquished by:		Date	Time	Received by:		Date	Time			
Rush results requested by (please check):				E-Mail <input type="checkbox"/>	Phone <input type="checkbox"/>	G. [Signature]		10/30/20	1550							
E-mail Address:						Relinquished by:		Date	Time	Received by:		Date	Time			
Phone:																
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"/>													
Type III (Reduced non-CLP)	<input type="checkbox"/>	CT RCP	<input type="checkbox"/>													
Type VI (Raw Data Only)	<input type="checkbox"/>	TX TRRP-13	<input type="checkbox"/>													
NJ DKQP	<input type="checkbox"/>	NYSDEC Category	<input type="checkbox"/> A or <input type="checkbox"/> B													
EDD Required? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				If yes, format: _____		Relinquished by Commercial Carrier:				Temperature upon receipt		1.0 °C				
CLP Like Deliverables, Project Specific Analyte List						UPS _____ FedEx _____ Other _____										

Login Sample Receipt Checklist

Client: Groundwater Sciences Corporation

Job Number: 410-19023-1

Login Number: 19023

List Source: Eurofins Lancaster Laboratories Env

List Number: 1

Creator: Jeremiah, Cory T

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.	True	
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	

Login Sample Receipt Checklist

Client: Groundwater Sciences Corporation

Job Number: 410-19023-1

Login Number: 19023

List Source: Eurofins Lancaster Laboratories Env

List Number: 2

Creator: Knoedler, Christine M

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.		
The cooler's custody seal, if present, is intact.		
Sample custody seals, if present, are intact.		
The cooler or samples do not appear to have been compromised or tampered with.		
Samples were received on ice.		
Cooler Temperature is acceptable.		
Cooler Temperature is recorded.		
COC is present.		
COC is filled out in ink and legible.		
COC is filled out with all pertinent information.		
Is the Field Sampler's name present on COC?		
There are no discrepancies between the containers received and the COC.		
Samples are received within Holding Time (excluding tests with immediate HTs)		
Sample containers have legible labels.		
Containers are not broken or leaking.		
Sample collection date/times are provided.		
Appropriate sample containers are used.		
Sample bottles are completely filled.		
Sample Preservation Verified.		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs		
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").		
Multiphasic samples are not present.		
Samples do not require splitting or compositing.		
Residual Chlorine Checked.		