

ANALYTICAL REPORT

Job Number: 410-81767-1

Job Description: fYNOP Monthly Surface Water

For:

Groundwater Sciences Corporation
2550 Interstate Drive
Suite 303
Harrisburg, PA 17110

Attention: Christopher O'Neil



Approved for release.
Marrison C Williams
Project Manager
5/9/2022 9:22 AM

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05/09/2022

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: 410-81767-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
^c	CCV Recovery is outside acceptance limits.
cn	Refer to Case Narrative for further detail
FH	MS and/or MSD recovery above control 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
410-81767-1

Receipt

The samples were received on 4/27/2022 6:27 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 6.1°C

Receipt Exceptions

The following samples were received at the laboratory outside the required temperature criteria: HD-COD-SW-6-0/1-0 (410-81767-1), HD-COD-SW-7-0/1-0 (410-81767-2), HD-COD-SW-8-0/1-0 (410-81767-3), HD-COD-SW-9-0/1-0 (410-81767-4), HD-COD-SW-13-0/1-0 (410-81767-5), HD-COD-SW-15-0/1-0 (410-81767-6), HD-COD-SW-15-0/1-0 (410-81767-6[MS]), HD-COD-SW-15-0/1-0 (410-81767-6[MSD]), HD-COD-SW-16-0/1-0 (410-81767-7), HD-COD-SW-17-0/1-0 (410-81767-8), HD-COD-SW-26-0/1-0 (410-81767-9), HD-COD-SW-27-0/1-0 (410-81767-10), HD-COD-SW-28-0/1-0 (410-81767-11), HD-COD-SW-29-0/1-0 (410-81767-12), HD-QC1-0/1-1 (410-81767-13) and HD-QC1-0/1-2 (410-81767-14). This does not meet regulatory requirements. The client was contacted regarding this issue, and the laboratory was instructed to proceed with analysis.

GC/MS VOA

Method 8260D_LL: The continuing calibration verification (CCV) associated with batch 410-250524 recovered outside acceptance criteria, low biased, for Bromomethane and Chloroethane. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Non-detections of the affected analytes are reported. Any detections are considered estimated.

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

Detection Summary

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

Job ID: 410-81767-1

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

Lab Sample ID: 410-81767-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.3	J	5.0	0.90	ug/L	1		8260D	Total/NA

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

Lab Sample ID: 410-81767-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.3	J	5.0	0.90	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.073	J	0.50	0.050	ug/L	1		8260D	Total/NA
Trichloroethene	0.082	J	0.50	0.060	ug/L	1		8260D	Total/NA

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

Lab Sample ID: 410-81767-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.1	J	5.0	0.90	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.094	J	0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.35	J	0.50	0.060	ug/L	1		8260D	Total/NA
Trichloroethene	0.099	J	0.50	0.060	ug/L	1		8260D	Total/NA

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

Lab Sample ID: 410-81767-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.2	J	5.0	0.90	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.10	J	0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.23	J	0.50	0.060	ug/L	1		8260D	Total/NA
Toluene	0.10	J	0.50	0.070	ug/L	1		8260D	Total/NA
Trichloroethene	0.11	J	0.50	0.060	ug/L	1		8260D	Total/NA

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

Lab Sample ID: 410-81767-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.2	J	5.0	0.90	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.087	J	0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.46	J	0.50	0.060	ug/L	1		8260D	Total/NA
Trichloroethene	0.10	J	0.50	0.060	ug/L	1		8260D	Total/NA

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

Lab Sample ID: 410-81767-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.32	J	0.50	0.060	ug/L	1		8260D	Total/NA
1,1-Dichloroethane	0.14	J	0.50	0.070	ug/L	1		8260D	Total/NA
1,1-Dichloroethene	0.17	J	0.50	0.060	ug/L	1		8260D	Total/NA
Chloroform	0.29	J	0.50	0.090	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	1.8	J	0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	6.0	J	0.50	0.060	ug/L	1		8260D	Total/NA
Trichloroethene	1.7	J	0.50	0.060	ug/L	1		8260D	Total/NA

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

Lab Sample ID: 410-81767-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.4	J	5.0	0.90	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.097	J	0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.76	J	0.50	0.060	ug/L	1		8260D	Total/NA
Trichloroethene	0.11	J	0.50	0.060	ug/L	1		8260D	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

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

Job ID: 410-81767-1

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

Lab Sample ID: 410-81767-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	6.8		0.50	0.060	ug/L	1		8260D	Total/NA
1,1-Dichloroethane	1.3		0.50	0.070	ug/L	1		8260D	Total/NA
1,1-Dichloroethene	0.58		0.50	0.060	ug/L	1		8260D	Total/NA
Chloroform	0.25	J	0.50	0.090	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	3.9		0.50	0.050	ug/L	1		8260D	Total/NA
Trichloroethene	4.8		0.50	0.060	ug/L	1		8260D	Total/NA
Tetrachloroethene - DL	77		5.0	0.60	ug/L	10		8260D	Total/NA

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

Lab Sample ID: 410-81767-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.11	J	0.50	0.060	ug/L	1		8260D	Total/NA
Acetone	0.95	J	5.0	0.90	ug/L	1		8260D	Total/NA
Chloroform	0.48	J	0.50	0.090	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.055	J	0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	2.9		0.50	0.060	ug/L	1		8260D	Total/NA
Trichloroethene	0.14	J	0.50	0.060	ug/L	1		8260D	Total/NA

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

Lab Sample ID: 410-81767-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.6	J	5.0	0.90	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.072	J	0.50	0.050	ug/L	1		8260D	Total/NA
Trichloroethene	0.089	J	0.50	0.060	ug/L	1		8260D	Total/NA

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

Lab Sample ID: 410-81767-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.8	J	5.0	0.90	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.098	J	0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.20	J	0.50	0.060	ug/L	1		8260D	Total/NA
Toluene	0.095	J	0.50	0.070	ug/L	1		8260D	Total/NA
Trichloroethene	0.11	J	0.50	0.060	ug/L	1		8260D	Total/NA

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

Lab Sample ID: 410-81767-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.5	J	5.0	0.90	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.089	J	0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.28	J	0.50	0.060	ug/L	1		8260D	Total/NA
Toluene	0.098	J	0.50	0.070	ug/L	1		8260D	Total/NA
Trichloroethene	0.11	J	0.50	0.060	ug/L	1		8260D	Total/NA

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

Lab Sample ID: 410-81767-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	6.7		0.50	0.060	ug/L	1		8260D	Total/NA
1,1-Dichloroethane	1.3		0.50	0.070	ug/L	1		8260D	Total/NA
1,1-Dichloroethene	0.58		0.50	0.060	ug/L	1		8260D	Total/NA
Chloroform	0.25	J	0.50	0.090	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	3.9		0.50	0.050	ug/L	1		8260D	Total/NA
Trichloroethene	4.8		0.50	0.060	ug/L	1		8260D	Total/NA
Tetrachloroethene - DL	77		5.0	0.60	ug/L	10		8260D	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

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

Job ID: 410-81767-1

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

Lab Sample ID: 410-81767-14

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Environment Testing, LLC

Client Sample Results

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

Job ID: 410-81767-1

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

Lab Sample ID: 410-81767-1

Date Collected: 04/26/22 10:30

Matrix: Water

Date Received: 04/27/22 18:27

Method: 8260D - 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			05/02/22 11:52	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			05/02/22 11:52	1
1,1,2,2-Tetrachloroethane	ND	*+	0.50	0.070	ug/L			05/02/22 11:52	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			05/02/22 11:52	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			05/02/22 11:52	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			05/02/22 11:52	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			05/02/22 11:52	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			05/02/22 11:52	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			05/02/22 11:52	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			05/02/22 11:52	1
2-Hexanone	ND		5.0	0.60	ug/L			05/02/22 11:52	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			05/02/22 11:52	1
Acetone	1.3	J	5.0	0.90	ug/L			05/02/22 11:52	1
Benzene	ND		0.50	0.050	ug/L			05/02/22 11:52	1
Bromochloromethane	ND		0.50	0.050	ug/L			05/02/22 11:52	1
Bromodichloromethane	ND		0.50	0.050	ug/L			05/02/22 11:52	1
Bromoform	ND		1.0	0.30	ug/L			05/02/22 11:52	1
Bromomethane	ND	^c cn	0.50	0.070	ug/L			05/02/22 11:52	1
Carbon disulfide	ND	*+	1.0	0.060	ug/L			05/02/22 11:52	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			05/02/22 11:52	1
Chlorobenzene	ND		0.50	0.060	ug/L			05/02/22 11:52	1
Chloroethane	ND	^c cn	0.50	0.070	ug/L			05/02/22 11:52	1
Chloroform	ND		0.50	0.090	ug/L			05/02/22 11:52	1
Chloromethane	ND		0.50	0.060	ug/L			05/02/22 11:52	1
cis-1,2-Dichloroethene	ND		0.50	0.050	ug/L			05/02/22 11:52	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			05/02/22 11:52	1
Dibromochloromethane	ND		0.50	0.070	ug/L			05/02/22 11:52	1
Ethylbenzene	ND		0.50	0.060	ug/L			05/02/22 11:52	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			05/02/22 11:52	1
Methylene Chloride	ND		0.50	0.070	ug/L			05/02/22 11:52	1
Styrene	ND		0.50	0.050	ug/L			05/02/22 11:52	1
Tetrachloroethene	ND		0.50	0.060	ug/L			05/02/22 11:52	1
Toluene	ND		0.50	0.070	ug/L			05/02/22 11:52	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			05/02/22 11:52	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			05/02/22 11:52	1
Trichloroethene	ND		0.50	0.060	ug/L			05/02/22 11:52	1
Vinyl chloride	ND		0.50	0.10	ug/L			05/02/22 11:52	1
Xylenes, Total	ND		1.0	0.15	ug/L			05/02/22 11:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		80 - 120		05/02/22 11:52	1
4-Bromofluorobenzene (Surr)	97		80 - 120		05/02/22 11:52	1
Dibromofluoromethane (Surr)	95		80 - 120		05/02/22 11:52	1
Toluene-d8 (Surr)	106		80 - 120		05/02/22 11:52	1

Client Sample Results

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

Job ID: 410-81767-1

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

Lab Sample ID: 410-81767-2

Date Collected: 04/26/22 11:40

Matrix: Water

Date Received: 04/27/22 18:27

Method: 8260D - 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			05/02/22 12:13	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			05/02/22 12:13	1
1,1,2,2-Tetrachloroethane	ND	*+	0.50	0.070	ug/L			05/02/22 12:13	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			05/02/22 12:13	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			05/02/22 12:13	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			05/02/22 12:13	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			05/02/22 12:13	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			05/02/22 12:13	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			05/02/22 12:13	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			05/02/22 12:13	1
2-Hexanone	ND		5.0	0.60	ug/L			05/02/22 12:13	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			05/02/22 12:13	1
Acetone	1.3	J	5.0	0.90	ug/L			05/02/22 12:13	1
Benzene	ND		0.50	0.050	ug/L			05/02/22 12:13	1
Bromochloromethane	ND		0.50	0.050	ug/L			05/02/22 12:13	1
Bromodichloromethane	ND		0.50	0.050	ug/L			05/02/22 12:13	1
Bromoform	ND		1.0	0.30	ug/L			05/02/22 12:13	1
Bromomethane	ND	^c cn	0.50	0.070	ug/L			05/02/22 12:13	1
Carbon disulfide	ND	*+	1.0	0.060	ug/L			05/02/22 12:13	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			05/02/22 12:13	1
Chlorobenzene	ND		0.50	0.060	ug/L			05/02/22 12:13	1
Chloroethane	ND	^c cn	0.50	0.070	ug/L			05/02/22 12:13	1
Chloroform	ND		0.50	0.090	ug/L			05/02/22 12:13	1
Chloromethane	ND		0.50	0.060	ug/L			05/02/22 12:13	1
cis-1,2-Dichloroethene	0.073	J	0.50	0.050	ug/L			05/02/22 12:13	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			05/02/22 12:13	1
Dibromochloromethane	ND		0.50	0.070	ug/L			05/02/22 12:13	1
Ethylbenzene	ND		0.50	0.060	ug/L			05/02/22 12:13	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			05/02/22 12:13	1
Methylene Chloride	ND		0.50	0.070	ug/L			05/02/22 12:13	1
Styrene	ND		0.50	0.050	ug/L			05/02/22 12:13	1
Tetrachloroethene	ND		0.50	0.060	ug/L			05/02/22 12:13	1
Toluene	ND		0.50	0.070	ug/L			05/02/22 12:13	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			05/02/22 12:13	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			05/02/22 12:13	1
Trichloroethene	0.082	J	0.50	0.060	ug/L			05/02/22 12:13	1
Vinyl chloride	ND		0.50	0.10	ug/L			05/02/22 12:13	1
Xylenes, Total	ND		1.0	0.15	ug/L			05/02/22 12:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		80 - 120		05/02/22 12:13	1
4-Bromofluorobenzene (Surr)	96		80 - 120		05/02/22 12:13	1
Dibromofluoromethane (Surr)	95		80 - 120		05/02/22 12:13	1
Toluene-d8 (Surr)	106		80 - 120		05/02/22 12:13	1

Client Sample Results

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

Job ID: 410-81767-1

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

Lab Sample ID: 410-81767-3

Date Collected: 04/26/22 09:15

Matrix: Water

Date Received: 04/27/22 18:27

Method: 8260D - 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			05/02/22 12:34	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			05/02/22 12:34	1
1,1,2,2-Tetrachloroethane	ND	*+	0.50	0.070	ug/L			05/02/22 12:34	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			05/02/22 12:34	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			05/02/22 12:34	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			05/02/22 12:34	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			05/02/22 12:34	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			05/02/22 12:34	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			05/02/22 12:34	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			05/02/22 12:34	1
2-Hexanone	ND		5.0	0.60	ug/L			05/02/22 12:34	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			05/02/22 12:34	1
Acetone	1.1	J	5.0	0.90	ug/L			05/02/22 12:34	1
Benzene	ND		0.50	0.050	ug/L			05/02/22 12:34	1
Bromochloromethane	ND		0.50	0.050	ug/L			05/02/22 12:34	1
Bromodichloromethane	ND		0.50	0.050	ug/L			05/02/22 12:34	1
Bromoform	ND		1.0	0.30	ug/L			05/02/22 12:34	1
Bromomethane	ND	^c cn	0.50	0.070	ug/L			05/02/22 12:34	1
Carbon disulfide	ND	*+	1.0	0.060	ug/L			05/02/22 12:34	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			05/02/22 12:34	1
Chlorobenzene	ND		0.50	0.060	ug/L			05/02/22 12:34	1
Chloroethane	ND	^c cn	0.50	0.070	ug/L			05/02/22 12:34	1
Chloroform	ND		0.50	0.090	ug/L			05/02/22 12:34	1
Chloromethane	ND		0.50	0.060	ug/L			05/02/22 12:34	1
cis-1,2-Dichloroethene	0.094	J	0.50	0.050	ug/L			05/02/22 12:34	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			05/02/22 12:34	1
Dibromochloromethane	ND		0.50	0.070	ug/L			05/02/22 12:34	1
Ethylbenzene	ND		0.50	0.060	ug/L			05/02/22 12:34	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			05/02/22 12:34	1
Methylene Chloride	ND		0.50	0.070	ug/L			05/02/22 12:34	1
Styrene	ND		0.50	0.050	ug/L			05/02/22 12:34	1
Tetrachloroethene	0.35	J	0.50	0.060	ug/L			05/02/22 12:34	1
Toluene	ND		0.50	0.070	ug/L			05/02/22 12:34	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			05/02/22 12:34	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			05/02/22 12:34	1
Trichloroethene	0.099	J	0.50	0.060	ug/L			05/02/22 12:34	1
Vinyl chloride	ND		0.50	0.10	ug/L			05/02/22 12:34	1
Xylenes, Total	ND		1.0	0.15	ug/L			05/02/22 12:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		80 - 120		05/02/22 12:34	1
4-Bromofluorobenzene (Surr)	97		80 - 120		05/02/22 12:34	1
Dibromofluoromethane (Surr)	95		80 - 120		05/02/22 12:34	1
Toluene-d8 (Surr)	106		80 - 120		05/02/22 12:34	1

Client Sample Results

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

Job ID: 410-81767-1

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

Lab Sample ID: 410-81767-4

Date Collected: 04/26/22 13:10

Matrix: Water

Date Received: 04/27/22 18:27

Method: 8260D - 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			05/02/22 12:55	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			05/02/22 12:55	1
1,1,2,2-Tetrachloroethane	ND	*+	0.50	0.070	ug/L			05/02/22 12:55	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			05/02/22 12:55	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			05/02/22 12:55	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			05/02/22 12:55	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			05/02/22 12:55	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			05/02/22 12:55	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			05/02/22 12:55	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			05/02/22 12:55	1
2-Hexanone	ND		5.0	0.60	ug/L			05/02/22 12:55	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			05/02/22 12:55	1
Acetone	2.2	J	5.0	0.90	ug/L			05/02/22 12:55	1
Benzene	ND		0.50	0.050	ug/L			05/02/22 12:55	1
Bromochloromethane	ND		0.50	0.050	ug/L			05/02/22 12:55	1
Bromodichloromethane	ND		0.50	0.050	ug/L			05/02/22 12:55	1
Bromoform	ND		1.0	0.30	ug/L			05/02/22 12:55	1
Bromomethane	ND	^c cn	0.50	0.070	ug/L			05/02/22 12:55	1
Carbon disulfide	ND	*+	1.0	0.060	ug/L			05/02/22 12:55	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			05/02/22 12:55	1
Chlorobenzene	ND		0.50	0.060	ug/L			05/02/22 12:55	1
Chloroethane	ND	^c cn	0.50	0.070	ug/L			05/02/22 12:55	1
Chloroform	ND		0.50	0.090	ug/L			05/02/22 12:55	1
Chloromethane	ND		0.50	0.060	ug/L			05/02/22 12:55	1
cis-1,2-Dichloroethene	0.10	J	0.50	0.050	ug/L			05/02/22 12:55	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			05/02/22 12:55	1
Dibromochloromethane	ND		0.50	0.070	ug/L			05/02/22 12:55	1
Ethylbenzene	ND		0.50	0.060	ug/L			05/02/22 12:55	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			05/02/22 12:55	1
Methylene Chloride	ND		0.50	0.070	ug/L			05/02/22 12:55	1
Styrene	ND		0.50	0.050	ug/L			05/02/22 12:55	1
Tetrachloroethene	0.23	J	0.50	0.060	ug/L			05/02/22 12:55	1
Toluene	0.10	J	0.50	0.070	ug/L			05/02/22 12:55	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			05/02/22 12:55	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			05/02/22 12:55	1
Trichloroethene	0.11	J	0.50	0.060	ug/L			05/02/22 12:55	1
Vinyl chloride	ND		0.50	0.10	ug/L			05/02/22 12:55	1
Xylenes, Total	ND		1.0	0.15	ug/L			05/02/22 12:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		80 - 120		05/02/22 12:55	1
4-Bromofluorobenzene (Surr)	96		80 - 120		05/02/22 12:55	1
Dibromofluoromethane (Surr)	95		80 - 120		05/02/22 12:55	1
Toluene-d8 (Surr)	106		80 - 120		05/02/22 12:55	1

Client Sample Results

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

Job ID: 410-81767-1

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

Lab Sample ID: 410-81767-5

Date Collected: 04/26/22 09:30

Matrix: Water

Date Received: 04/27/22 18:27

Method: 8260D - 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			05/02/22 13:16	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			05/02/22 13:16	1
1,1,2,2-Tetrachloroethane	ND	*+	0.50	0.070	ug/L			05/02/22 13:16	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			05/02/22 13:16	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			05/02/22 13:16	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			05/02/22 13:16	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			05/02/22 13:16	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			05/02/22 13:16	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			05/02/22 13:16	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			05/02/22 13:16	1
2-Hexanone	ND		5.0	0.60	ug/L			05/02/22 13:16	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			05/02/22 13:16	1
Acetone	1.2	J	5.0	0.90	ug/L			05/02/22 13:16	1
Benzene	ND		0.50	0.050	ug/L			05/02/22 13:16	1
Bromochloromethane	ND		0.50	0.050	ug/L			05/02/22 13:16	1
Bromodichloromethane	ND		0.50	0.050	ug/L			05/02/22 13:16	1
Bromoform	ND		1.0	0.30	ug/L			05/02/22 13:16	1
Bromomethane	ND	^c cn	0.50	0.070	ug/L			05/02/22 13:16	1
Carbon disulfide	ND	*+	1.0	0.060	ug/L			05/02/22 13:16	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			05/02/22 13:16	1
Chlorobenzene	ND		0.50	0.060	ug/L			05/02/22 13:16	1
Chloroethane	ND	^c cn	0.50	0.070	ug/L			05/02/22 13:16	1
Chloroform	ND		0.50	0.090	ug/L			05/02/22 13:16	1
Chloromethane	ND		0.50	0.060	ug/L			05/02/22 13:16	1
cis-1,2-Dichloroethene	0.087	J	0.50	0.050	ug/L			05/02/22 13:16	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			05/02/22 13:16	1
Dibromochloromethane	ND		0.50	0.070	ug/L			05/02/22 13:16	1
Ethylbenzene	ND		0.50	0.060	ug/L			05/02/22 13:16	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			05/02/22 13:16	1
Methylene Chloride	ND		0.50	0.070	ug/L			05/02/22 13:16	1
Styrene	ND		0.50	0.050	ug/L			05/02/22 13:16	1
Tetrachloroethene	0.46	J	0.50	0.060	ug/L			05/02/22 13:16	1
Toluene	ND		0.50	0.070	ug/L			05/02/22 13:16	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			05/02/22 13:16	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			05/02/22 13:16	1
Trichloroethene	0.10	J	0.50	0.060	ug/L			05/02/22 13:16	1
Vinyl chloride	ND		0.50	0.10	ug/L			05/02/22 13:16	1
Xylenes, Total	ND		1.0	0.15	ug/L			05/02/22 13:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		80 - 120		05/02/22 13:16	1
4-Bromofluorobenzene (Surr)	95		80 - 120		05/02/22 13:16	1
Dibromofluoromethane (Surr)	94		80 - 120		05/02/22 13:16	1
Toluene-d8 (Surr)	106		80 - 120		05/02/22 13:16	1

Client Sample Results

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

Job ID: 410-81767-1

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

Lab Sample ID: 410-81767-6

Date Collected: 04/26/22 12:05

Matrix: Water

Date Received: 04/27/22 18:27

Method: 8260D - 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			05/02/22 13:38	1
1,1,1-Trichloroethane	0.32	J	0.50	0.060	ug/L			05/02/22 13:38	1
1,1,2,2-Tetrachloroethane	ND	*+ FH	0.50	0.070	ug/L			05/02/22 13:38	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			05/02/22 13:38	1
1,1-Dichloroethane	0.14	J	0.50	0.070	ug/L			05/02/22 13:38	1
1,1-Dichloroethene	0.17	J	0.50	0.060	ug/L			05/02/22 13:38	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			05/02/22 13:38	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			05/02/22 13:38	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			05/02/22 13:38	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			05/02/22 13:38	1
2-Hexanone	ND		5.0	0.60	ug/L			05/02/22 13:38	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			05/02/22 13:38	1
Acetone	ND		5.0	0.90	ug/L			05/02/22 13:38	1
Benzene	ND		0.50	0.050	ug/L			05/02/22 13:38	1
Bromochloromethane	ND		0.50	0.050	ug/L			05/02/22 13:38	1
Bromodichloromethane	ND		0.50	0.050	ug/L			05/02/22 13:38	1
Bromoform	ND		1.0	0.30	ug/L			05/02/22 13:38	1
Bromomethane	ND	^c cn	0.50	0.070	ug/L			05/02/22 13:38	1
Carbon disulfide	ND	*+ FH	1.0	0.060	ug/L			05/02/22 13:38	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			05/02/22 13:38	1
Chlorobenzene	ND		0.50	0.060	ug/L			05/02/22 13:38	1
Chloroethane	ND	^c cn	0.50	0.070	ug/L			05/02/22 13:38	1
Chloroform	0.29	J	0.50	0.090	ug/L			05/02/22 13:38	1
Chloromethane	ND		0.50	0.060	ug/L			05/02/22 13:38	1
cis-1,2-Dichloroethene	1.8		0.50	0.050	ug/L			05/02/22 13:38	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			05/02/22 13:38	1
Dibromochloromethane	ND		0.50	0.070	ug/L			05/02/22 13:38	1
Ethylbenzene	ND		0.50	0.060	ug/L			05/02/22 13:38	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			05/02/22 13:38	1
Methylene Chloride	ND		0.50	0.070	ug/L			05/02/22 13:38	1
Styrene	ND		0.50	0.050	ug/L			05/02/22 13:38	1
Tetrachloroethene	6.0		0.50	0.060	ug/L			05/02/22 13:38	1
Toluene	ND		0.50	0.070	ug/L			05/02/22 13:38	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			05/02/22 13:38	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			05/02/22 13:38	1
Trichloroethene	1.7		0.50	0.060	ug/L			05/02/22 13:38	1
Vinyl chloride	ND		0.50	0.10	ug/L			05/02/22 13:38	1
Xylenes, Total	ND		1.0	0.15	ug/L			05/02/22 13:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		80 - 120		05/02/22 13:38	1
4-Bromofluorobenzene (Surr)	95		80 - 120		05/02/22 13:38	1
Dibromofluoromethane (Surr)	95		80 - 120		05/02/22 13:38	1
Toluene-d8 (Surr)	106		80 - 120		05/02/22 13:38	1

Client Sample Results

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

Job ID: 410-81767-1

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

Lab Sample ID: 410-81767-7

Date Collected: 04/26/22 10:00

Matrix: Water

Date Received: 04/27/22 18:27

Method: 8260D - 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			05/02/22 14:41	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			05/02/22 14:41	1
1,1,2,2-Tetrachloroethane	ND	*+	0.50	0.070	ug/L			05/02/22 14:41	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			05/02/22 14:41	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			05/02/22 14:41	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			05/02/22 14:41	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			05/02/22 14:41	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			05/02/22 14:41	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			05/02/22 14:41	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			05/02/22 14:41	1
2-Hexanone	ND		5.0	0.60	ug/L			05/02/22 14:41	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			05/02/22 14:41	1
Acetone	1.4	J	5.0	0.90	ug/L			05/02/22 14:41	1
Benzene	ND		0.50	0.050	ug/L			05/02/22 14:41	1
Bromochloromethane	ND		0.50	0.050	ug/L			05/02/22 14:41	1
Bromodichloromethane	ND		0.50	0.050	ug/L			05/02/22 14:41	1
Bromoform	ND		1.0	0.30	ug/L			05/02/22 14:41	1
Bromomethane	ND	^c cn	0.50	0.070	ug/L			05/02/22 14:41	1
Carbon disulfide	ND	*+	1.0	0.060	ug/L			05/02/22 14:41	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			05/02/22 14:41	1
Chlorobenzene	ND		0.50	0.060	ug/L			05/02/22 14:41	1
Chloroethane	ND	^c cn	0.50	0.070	ug/L			05/02/22 14:41	1
Chloroform	ND		0.50	0.090	ug/L			05/02/22 14:41	1
Chloromethane	ND		0.50	0.060	ug/L			05/02/22 14:41	1
cis-1,2-Dichloroethene	0.097	J	0.50	0.050	ug/L			05/02/22 14:41	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			05/02/22 14:41	1
Dibromochloromethane	ND		0.50	0.070	ug/L			05/02/22 14:41	1
Ethylbenzene	ND		0.50	0.060	ug/L			05/02/22 14:41	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			05/02/22 14:41	1
Methylene Chloride	ND		0.50	0.070	ug/L			05/02/22 14:41	1
Styrene	ND		0.50	0.050	ug/L			05/02/22 14:41	1
Tetrachloroethene	0.76		0.50	0.060	ug/L			05/02/22 14:41	1
Toluene	ND		0.50	0.070	ug/L			05/02/22 14:41	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			05/02/22 14:41	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			05/02/22 14:41	1
Trichloroethene	0.11	J	0.50	0.060	ug/L			05/02/22 14:41	1
Vinyl chloride	ND		0.50	0.10	ug/L			05/02/22 14:41	1
Xylenes, Total	ND		1.0	0.15	ug/L			05/02/22 14:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		80 - 120		05/02/22 14:41	1
4-Bromofluorobenzene (Surr)	97		80 - 120		05/02/22 14:41	1
Dibromofluoromethane (Surr)	95		80 - 120		05/02/22 14:41	1
Toluene-d8 (Surr)	106		80 - 120		05/02/22 14:41	1

Client Sample Results

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

Job ID: 410-81767-1

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

Lab Sample ID: 410-81767-8

Date Collected: 04/26/22 10:15

Matrix: Water

Date Received: 04/27/22 18:27

Method: 8260D - 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			05/02/22 15:02	1
1,1,1-Trichloroethane	6.8		0.50	0.060	ug/L			05/02/22 15:02	1
1,1,2,2-Tetrachloroethane	ND	*+	0.50	0.070	ug/L			05/02/22 15:02	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			05/02/22 15:02	1
1,1-Dichloroethane	1.3		0.50	0.070	ug/L			05/02/22 15:02	1
1,1-Dichloroethene	0.58		0.50	0.060	ug/L			05/02/22 15:02	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			05/02/22 15:02	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			05/02/22 15:02	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			05/02/22 15:02	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			05/02/22 15:02	1
2-Hexanone	ND		5.0	0.60	ug/L			05/02/22 15:02	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			05/02/22 15:02	1
Acetone	ND		5.0	0.90	ug/L			05/02/22 15:02	1
Benzene	ND		0.50	0.050	ug/L			05/02/22 15:02	1
Bromochloromethane	ND		0.50	0.050	ug/L			05/02/22 15:02	1
Bromodichloromethane	ND		0.50	0.050	ug/L			05/02/22 15:02	1
Bromoform	ND		1.0	0.30	ug/L			05/02/22 15:02	1
Bromomethane	ND	^c cn	0.50	0.070	ug/L			05/02/22 15:02	1
Carbon disulfide	ND	*+	1.0	0.060	ug/L			05/02/22 15:02	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			05/02/22 15:02	1
Chlorobenzene	ND		0.50	0.060	ug/L			05/02/22 15:02	1
Chloroethane	ND	^c cn	0.50	0.070	ug/L			05/02/22 15:02	1
Chloroform	0.25	J	0.50	0.090	ug/L			05/02/22 15:02	1
Chloromethane	ND		0.50	0.060	ug/L			05/02/22 15:02	1
cis-1,2-Dichloroethene	3.9		0.50	0.050	ug/L			05/02/22 15:02	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			05/02/22 15:02	1
Dibromochloromethane	ND		0.50	0.070	ug/L			05/02/22 15:02	1
Ethylbenzene	ND		0.50	0.060	ug/L			05/02/22 15:02	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			05/02/22 15:02	1
Methylene Chloride	ND		0.50	0.070	ug/L			05/02/22 15:02	1
Styrene	ND		0.50	0.050	ug/L			05/02/22 15:02	1
Toluene	ND		0.50	0.070	ug/L			05/02/22 15:02	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			05/02/22 15:02	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			05/02/22 15:02	1
Trichloroethene	4.8		0.50	0.060	ug/L			05/02/22 15:02	1
Vinyl chloride	ND		0.50	0.10	ug/L			05/02/22 15:02	1
Xylenes, Total	ND		1.0	0.15	ug/L			05/02/22 15:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		80 - 120		05/02/22 15:02	1
4-Bromofluorobenzene (Surr)	96		80 - 120		05/02/22 15:02	1
Dibromofluoromethane (Surr)	95		80 - 120		05/02/22 15:02	1
Toluene-d8 (Surr)	105		80 - 120		05/02/22 15:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	77		5.0	0.60	ug/L			05/05/22 18:25	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		80 - 120		05/05/22 18:25	10

Client Sample Results

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

Job ID: 410-81767-1

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

Lab Sample ID: 410-81767-8

Date Collected: 04/26/22 10:15

Matrix: Water

Date Received: 04/27/22 18:27

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		80 - 120		05/05/22 18:25	10
Dibromofluoromethane (Surr)	94		80 - 120		05/05/22 18:25	10
Toluene-d8 (Surr)	104		80 - 120		05/05/22 18:25	10

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

Lab Sample ID: 410-81767-9

Date Collected: 04/26/22 11:20

Matrix: Water

Date Received: 04/27/22 18:27

Method: 8260D - 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			05/02/22 15:23	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			05/02/22 15:23	1
1,1,2,2-Tetrachloroethane	ND	*+	0.50	0.070	ug/L			05/02/22 15:23	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			05/02/22 15:23	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			05/02/22 15:23	1
1,1-Dichloroethene	0.11	J	0.50	0.060	ug/L			05/02/22 15:23	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			05/02/22 15:23	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			05/02/22 15:23	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			05/02/22 15:23	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			05/02/22 15:23	1
2-Hexanone	ND		5.0	0.60	ug/L			05/02/22 15:23	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			05/02/22 15:23	1
Acetone	0.95	J	5.0	0.90	ug/L			05/02/22 15:23	1
Benzene	ND		0.50	0.050	ug/L			05/02/22 15:23	1
Bromochloromethane	ND		0.50	0.050	ug/L			05/02/22 15:23	1
Bromodichloromethane	ND		0.50	0.050	ug/L			05/02/22 15:23	1
Bromoform	ND		1.0	0.30	ug/L			05/02/22 15:23	1
Bromomethane	ND	^c cn	0.50	0.070	ug/L			05/02/22 15:23	1
Carbon disulfide	ND	*+	1.0	0.060	ug/L			05/02/22 15:23	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			05/02/22 15:23	1
Chlorobenzene	ND		0.50	0.060	ug/L			05/02/22 15:23	1
Chloroethane	ND	^c cn	0.50	0.070	ug/L			05/02/22 15:23	1
Chloroform	0.48	J	0.50	0.090	ug/L			05/02/22 15:23	1
Chloromethane	ND		0.50	0.060	ug/L			05/02/22 15:23	1
cis-1,2-Dichloroethene	0.055	J	0.50	0.050	ug/L			05/02/22 15:23	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			05/02/22 15:23	1
Dibromochloromethane	ND		0.50	0.070	ug/L			05/02/22 15:23	1
Ethylbenzene	ND		0.50	0.060	ug/L			05/02/22 15:23	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			05/02/22 15:23	1
Methylene Chloride	ND		0.50	0.070	ug/L			05/02/22 15:23	1
Styrene	ND		0.50	0.050	ug/L			05/02/22 15:23	1
Tetrachloroethene	2.9		0.50	0.060	ug/L			05/02/22 15:23	1
Toluene	ND		0.50	0.070	ug/L			05/02/22 15:23	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			05/02/22 15:23	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			05/02/22 15:23	1
Trichloroethene	0.14	J	0.50	0.060	ug/L			05/02/22 15:23	1
Vinyl chloride	ND		0.50	0.10	ug/L			05/02/22 15:23	1
Xylenes, Total	ND		1.0	0.15	ug/L			05/02/22 15:23	1

Client Sample Results

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

Job ID: 410-81767-1

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

Lab Sample ID: 410-81767-9

Date Collected: 04/26/22 11:20

Matrix: Water

Date Received: 04/27/22 18:27

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		80 - 120		05/02/22 15:23	1
4-Bromofluorobenzene (Surr)	96		80 - 120		05/02/22 15:23	1
Dibromofluoromethane (Surr)	95		80 - 120		05/02/22 15:23	1
Toluene-d8 (Surr)	105		80 - 120		05/02/22 15:23	1

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

Lab Sample ID: 410-81767-10

Date Collected: 04/26/22 11:55

Matrix: Water

Date Received: 04/27/22 18:27

Method: 8260D - 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			05/02/22 15:45	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			05/02/22 15:45	1
1,1,2,2-Tetrachloroethane	ND	*+	0.50	0.070	ug/L			05/02/22 15:45	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			05/02/22 15:45	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			05/02/22 15:45	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			05/02/22 15:45	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			05/02/22 15:45	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			05/02/22 15:45	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			05/02/22 15:45	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			05/02/22 15:45	1
2-Hexanone	ND		5.0	0.60	ug/L			05/02/22 15:45	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			05/02/22 15:45	1
Acetone	1.6	J	5.0	0.90	ug/L			05/02/22 15:45	1
Benzene	ND		0.50	0.050	ug/L			05/02/22 15:45	1
Bromochloromethane	ND		0.50	0.050	ug/L			05/02/22 15:45	1
Bromodichloromethane	ND		0.50	0.050	ug/L			05/02/22 15:45	1
Bromoform	ND		1.0	0.30	ug/L			05/02/22 15:45	1
Bromomethane	ND	^c cn	0.50	0.070	ug/L			05/02/22 15:45	1
Carbon disulfide	ND	*+	1.0	0.060	ug/L			05/02/22 15:45	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			05/02/22 15:45	1
Chlorobenzene	ND		0.50	0.060	ug/L			05/02/22 15:45	1
Chloroethane	ND	^c cn	0.50	0.070	ug/L			05/02/22 15:45	1
Chloroform	ND		0.50	0.090	ug/L			05/02/22 15:45	1
Chloromethane	ND		0.50	0.060	ug/L			05/02/22 15:45	1
cis-1,2-Dichloroethene	0.072	J	0.50	0.050	ug/L			05/02/22 15:45	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			05/02/22 15:45	1
Dibromochloromethane	ND		0.50	0.070	ug/L			05/02/22 15:45	1
Ethylbenzene	ND		0.50	0.060	ug/L			05/02/22 15:45	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			05/02/22 15:45	1
Methylene Chloride	ND		0.50	0.070	ug/L			05/02/22 15:45	1
Styrene	ND		0.50	0.050	ug/L			05/02/22 15:45	1
Tetrachloroethene	ND		0.50	0.060	ug/L			05/02/22 15:45	1
Toluene	ND		0.50	0.070	ug/L			05/02/22 15:45	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			05/02/22 15:45	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			05/02/22 15:45	1
Trichloroethene	0.089	J	0.50	0.060	ug/L			05/02/22 15:45	1
Vinyl chloride	ND		0.50	0.10	ug/L			05/02/22 15:45	1
Xylenes, Total	ND		1.0	0.15	ug/L			05/02/22 15:45	1

Client Sample Results

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

Job ID: 410-81767-1

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

Lab Sample ID: 410-81767-10

Date Collected: 04/26/22 11:55

Matrix: Water

Date Received: 04/27/22 18:27

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		80 - 120		05/02/22 15:45	1
4-Bromofluorobenzene (Surr)	96		80 - 120		05/02/22 15:45	1
Dibromofluoromethane (Surr)	95		80 - 120		05/02/22 15:45	1
Toluene-d8 (Surr)	107		80 - 120		05/02/22 15:45	1

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

Lab Sample ID: 410-81767-11

Date Collected: 04/26/22 13:20

Matrix: Water

Date Received: 04/27/22 18:27

Method: 8260D - 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			05/02/22 16:06	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			05/02/22 16:06	1
1,1,2,2-Tetrachloroethane	ND	*+	0.50	0.070	ug/L			05/02/22 16:06	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			05/02/22 16:06	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			05/02/22 16:06	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			05/02/22 16:06	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			05/02/22 16:06	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			05/02/22 16:06	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			05/02/22 16:06	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			05/02/22 16:06	1
2-Hexanone	ND		5.0	0.60	ug/L			05/02/22 16:06	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			05/02/22 16:06	1
Acetone	1.8	J	5.0	0.90	ug/L			05/02/22 16:06	1
Benzene	ND		0.50	0.050	ug/L			05/02/22 16:06	1
Bromochloromethane	ND		0.50	0.050	ug/L			05/02/22 16:06	1
Bromodichloromethane	ND		0.50	0.050	ug/L			05/02/22 16:06	1
Bromoform	ND		1.0	0.30	ug/L			05/02/22 16:06	1
Bromomethane	ND	^c cn	0.50	0.070	ug/L			05/02/22 16:06	1
Carbon disulfide	ND	*+	1.0	0.060	ug/L			05/02/22 16:06	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			05/02/22 16:06	1
Chlorobenzene	ND		0.50	0.060	ug/L			05/02/22 16:06	1
Chloroethane	ND	^c cn	0.50	0.070	ug/L			05/02/22 16:06	1
Chloroform	ND		0.50	0.090	ug/L			05/02/22 16:06	1
Chloromethane	ND		0.50	0.060	ug/L			05/02/22 16:06	1
cis-1,2-Dichloroethene	0.098	J	0.50	0.050	ug/L			05/02/22 16:06	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			05/02/22 16:06	1
Dibromochloromethane	ND		0.50	0.070	ug/L			05/02/22 16:06	1
Ethylbenzene	ND		0.50	0.060	ug/L			05/02/22 16:06	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			05/02/22 16:06	1
Methylene Chloride	ND		0.50	0.070	ug/L			05/02/22 16:06	1
Styrene	ND		0.50	0.050	ug/L			05/02/22 16:06	1
Tetrachloroethene	0.20	J	0.50	0.060	ug/L			05/02/22 16:06	1
Toluene	0.095	J	0.50	0.070	ug/L			05/02/22 16:06	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			05/02/22 16:06	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			05/02/22 16:06	1
Trichloroethene	0.11	J	0.50	0.060	ug/L			05/02/22 16:06	1
Vinyl chloride	ND		0.50	0.10	ug/L			05/02/22 16:06	1
Xylenes, Total	ND		1.0	0.15	ug/L			05/02/22 16:06	1

Client Sample Results

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

Job ID: 410-81767-1

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

Lab Sample ID: 410-81767-11

Date Collected: 04/26/22 13:20

Matrix: Water

Date Received: 04/27/22 18:27

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		80 - 120		05/02/22 16:06	1
4-Bromofluorobenzene (Surr)	95		80 - 120		05/02/22 16:06	1
Dibromofluoromethane (Surr)	94		80 - 120		05/02/22 16:06	1
Toluene-d8 (Surr)	105		80 - 120		05/02/22 16:06	1

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

Lab Sample ID: 410-81767-12

Date Collected: 04/26/22 09:00

Matrix: Water

Date Received: 04/27/22 18:27

Method: 8260D - 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			05/02/22 16:27	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			05/02/22 16:27	1
1,1,2,2-Tetrachloroethane	ND	*+	0.50	0.070	ug/L			05/02/22 16:27	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			05/02/22 16:27	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			05/02/22 16:27	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			05/02/22 16:27	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			05/02/22 16:27	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			05/02/22 16:27	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			05/02/22 16:27	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			05/02/22 16:27	1
2-Hexanone	ND		5.0	0.60	ug/L			05/02/22 16:27	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			05/02/22 16:27	1
Acetone	1.5	J	5.0	0.90	ug/L			05/02/22 16:27	1
Benzene	ND		0.50	0.050	ug/L			05/02/22 16:27	1
Bromochloromethane	ND		0.50	0.050	ug/L			05/02/22 16:27	1
Bromodichloromethane	ND		0.50	0.050	ug/L			05/02/22 16:27	1
Bromoform	ND		1.0	0.30	ug/L			05/02/22 16:27	1
Bromomethane	ND	^c cn	0.50	0.070	ug/L			05/02/22 16:27	1
Carbon disulfide	ND	*+	1.0	0.060	ug/L			05/02/22 16:27	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			05/02/22 16:27	1
Chlorobenzene	ND		0.50	0.060	ug/L			05/02/22 16:27	1
Chloroethane	ND	^c cn	0.50	0.070	ug/L			05/02/22 16:27	1
Chloroform	ND		0.50	0.090	ug/L			05/02/22 16:27	1
Chloromethane	ND		0.50	0.060	ug/L			05/02/22 16:27	1
cis-1,2-Dichloroethene	0.089	J	0.50	0.050	ug/L			05/02/22 16:27	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			05/02/22 16:27	1
Dibromochloromethane	ND		0.50	0.070	ug/L			05/02/22 16:27	1
Ethylbenzene	ND		0.50	0.060	ug/L			05/02/22 16:27	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			05/02/22 16:27	1
Methylene Chloride	ND		0.50	0.070	ug/L			05/02/22 16:27	1
Styrene	ND		0.50	0.050	ug/L			05/02/22 16:27	1
Tetrachloroethene	0.28	J	0.50	0.060	ug/L			05/02/22 16:27	1
Toluene	0.098	J	0.50	0.070	ug/L			05/02/22 16:27	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			05/02/22 16:27	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			05/02/22 16:27	1
Trichloroethene	0.11	J	0.50	0.060	ug/L			05/02/22 16:27	1
Vinyl chloride	ND		0.50	0.10	ug/L			05/02/22 16:27	1
Xylenes, Total	ND		1.0	0.15	ug/L			05/02/22 16:27	1

Client Sample Results

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

Job ID: 410-81767-1

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

Lab Sample ID: 410-81767-12

Date Collected: 04/26/22 09:00

Matrix: Water

Date Received: 04/27/22 18:27

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		80 - 120		05/02/22 16:27	1
4-Bromofluorobenzene (Surr)	97		80 - 120		05/02/22 16:27	1
Dibromofluoromethane (Surr)	95		80 - 120		05/02/22 16:27	1
Toluene-d8 (Surr)	107		80 - 120		05/02/22 16:27	1

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

Lab Sample ID: 410-81767-13

Date Collected: 04/26/22 12:00

Matrix: Water

Date Received: 04/27/22 18:27

Method: 8260D - 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			05/02/22 16:48	1
1,1,1-Trichloroethane	6.7		0.50	0.060	ug/L			05/02/22 16:48	1
1,1,2,2-Tetrachloroethane	ND	*+	0.50	0.070	ug/L			05/02/22 16:48	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			05/02/22 16:48	1
1,1-Dichloroethane	1.3		0.50	0.070	ug/L			05/02/22 16:48	1
1,1-Dichloroethene	0.58		0.50	0.060	ug/L			05/02/22 16:48	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			05/02/22 16:48	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			05/02/22 16:48	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			05/02/22 16:48	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			05/02/22 16:48	1
2-Hexanone	ND		5.0	0.60	ug/L			05/02/22 16:48	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			05/02/22 16:48	1
Acetone	ND		5.0	0.90	ug/L			05/02/22 16:48	1
Benzene	ND		0.50	0.050	ug/L			05/02/22 16:48	1
Bromochloromethane	ND		0.50	0.050	ug/L			05/02/22 16:48	1
Bromodichloromethane	ND		0.50	0.050	ug/L			05/02/22 16:48	1
Bromoform	ND		1.0	0.30	ug/L			05/02/22 16:48	1
Bromomethane	ND	^c cn	0.50	0.070	ug/L			05/02/22 16:48	1
Carbon disulfide	ND	*+	1.0	0.060	ug/L			05/02/22 16:48	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			05/02/22 16:48	1
Chlorobenzene	ND		0.50	0.060	ug/L			05/02/22 16:48	1
Chloroethane	ND	^c cn	0.50	0.070	ug/L			05/02/22 16:48	1
Chloroform	0.25	J	0.50	0.090	ug/L			05/02/22 16:48	1
Chloromethane	ND		0.50	0.060	ug/L			05/02/22 16:48	1
cis-1,2-Dichloroethene	3.9		0.50	0.050	ug/L			05/02/22 16:48	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			05/02/22 16:48	1
Dibromochloromethane	ND		0.50	0.070	ug/L			05/02/22 16:48	1
Ethylbenzene	ND		0.50	0.060	ug/L			05/02/22 16:48	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			05/02/22 16:48	1
Methylene Chloride	ND		0.50	0.070	ug/L			05/02/22 16:48	1
Styrene	ND		0.50	0.050	ug/L			05/02/22 16:48	1
Toluene	ND		0.50	0.070	ug/L			05/02/22 16:48	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			05/02/22 16:48	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			05/02/22 16:48	1
Trichloroethene	4.8		0.50	0.060	ug/L			05/02/22 16:48	1
Vinyl chloride	ND		0.50	0.10	ug/L			05/02/22 16:48	1
Xylenes, Total	ND		1.0	0.15	ug/L			05/02/22 16:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		80 - 120		05/02/22 16:48	1

Client Sample Results

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

Job ID: 410-81767-1

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

Lab Sample ID: 410-81767-13

Date Collected: 04/26/22 12:00

Matrix: Water

Date Received: 04/27/22 18:27

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		80 - 120		05/02/22 16:48	1
Dibromofluoromethane (Surr)	96		80 - 120		05/02/22 16:48	1
Toluene-d8 (Surr)	103		80 - 120		05/02/22 16:48	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	77		5.0	0.60	ug/L			05/05/22 18:46	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		80 - 120		05/05/22 18:46	10
4-Bromofluorobenzene (Surr)	96		80 - 120		05/05/22 18:46	10
Dibromofluoromethane (Surr)	94		80 - 120		05/05/22 18:46	10
Toluene-d8 (Surr)	104		80 - 120		05/05/22 18:46	10

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

Lab Sample ID: 410-81767-14

Date Collected: 04/26/22 00:00

Matrix: Water

Date Received: 04/27/22 18:27

Method: 8260D - 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			05/02/22 11:30	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			05/02/22 11:30	1
1,1,2,2-Tetrachloroethane	ND	*+	0.50	0.070	ug/L			05/02/22 11:30	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			05/02/22 11:30	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			05/02/22 11:30	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			05/02/22 11:30	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			05/02/22 11:30	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			05/02/22 11:30	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			05/02/22 11:30	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			05/02/22 11:30	1
2-Hexanone	ND		5.0	0.60	ug/L			05/02/22 11:30	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			05/02/22 11:30	1
Acetone	ND		5.0	0.90	ug/L			05/02/22 11:30	1
Benzene	ND		0.50	0.050	ug/L			05/02/22 11:30	1
Bromochloromethane	ND		0.50	0.050	ug/L			05/02/22 11:30	1
Bromodichloromethane	ND		0.50	0.050	ug/L			05/02/22 11:30	1
Bromoform	ND		1.0	0.30	ug/L			05/02/22 11:30	1
Bromomethane	ND	^c cn	0.50	0.070	ug/L			05/02/22 11:30	1
Carbon disulfide	ND	*+	1.0	0.060	ug/L			05/02/22 11:30	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			05/02/22 11:30	1
Chlorobenzene	ND		0.50	0.060	ug/L			05/02/22 11:30	1
Chloroethane	ND	^c cn	0.50	0.070	ug/L			05/02/22 11:30	1
Chloroform	ND		0.50	0.090	ug/L			05/02/22 11:30	1
Chloromethane	ND		0.50	0.060	ug/L			05/02/22 11:30	1
cis-1,2-Dichloroethene	ND		0.50	0.050	ug/L			05/02/22 11:30	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			05/02/22 11:30	1
Dibromochloromethane	ND		0.50	0.070	ug/L			05/02/22 11:30	1
Ethylbenzene	ND		0.50	0.060	ug/L			05/02/22 11:30	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			05/02/22 11:30	1
Methylene Chloride	ND		0.50	0.070	ug/L			05/02/22 11:30	1

Client Sample Results

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

Job ID: 410-81767-1

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

Lab Sample ID: 410-81767-14

Date Collected: 04/26/22 00:00

Matrix: Water

Date Received: 04/27/22 18:27

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		0.50	0.050	ug/L			05/02/22 11:30	1
Tetrachloroethene	ND		0.50	0.060	ug/L			05/02/22 11:30	1
Toluene	ND		0.50	0.070	ug/L			05/02/22 11:30	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			05/02/22 11:30	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			05/02/22 11:30	1
Trichloroethene	ND		0.50	0.060	ug/L			05/02/22 11:30	1
Vinyl chloride	ND		0.50	0.10	ug/L			05/02/22 11:30	1
Xylenes, Total	ND		1.0	0.15	ug/L			05/02/22 11:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		80 - 120		05/02/22 11:30	1
4-Bromofluorobenzene (Surr)	96		80 - 120		05/02/22 11:30	1
Dibromofluoromethane (Surr)	94		80 - 120		05/02/22 11:30	1
Toluene-d8 (Surr)	105		80 - 120		05/02/22 11:30	1

Default Detection Limits

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

Job ID: 410-81767-1

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

Analyte	RL	MDL	Units
1,1,1,2-Tetrachloroethane	0.50	0.070	ug/L
1,1,1-Trichloroethane	0.50	0.060	ug/L
1,1,2,2-Tetrachloroethane	0.50	0.070	ug/L
1,1,2-Trichloroethane	0.50	0.060	ug/L
1,1-Dichloroethane	0.50	0.070	ug/L
1,1-Dichloroethene	0.50	0.060	ug/L
1,2-Dibromoethane (EDB)	0.50	0.060	ug/L
1,2-Dichloroethane	0.50	0.050	ug/L
1,2-Dichloropropane	0.50	0.060	ug/L
2-Butanone (MEK)	5.0	0.60	ug/L
2-Hexanone	5.0	0.60	ug/L
4-Methyl-2-pentanone (MIBK)	5.0	0.70	ug/L
Acetone	5.0	0.90	ug/L
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: 410-81767-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (80-120)	BFB (80-120)	DBFM (80-120)	TOL (80-120)
410-81767-1	HD-COD-SW-6-0/1-0	105	97	95	106
410-81767-2	HD-COD-SW-7-0/1-0	106	96	95	106
410-81767-3	HD-COD-SW-8-0/1-0	107	97	95	106
410-81767-4	HD-COD-SW-9-0/1-0	106	96	95	106
410-81767-5	HD-COD-SW-13-0/1-0	105	95	94	106
410-81767-6	HD-COD-SW-15-0/1-0	108	95	95	106
410-81767-6 MS	HD-COD-SW-15-0/1-0	103	101	93	107
410-81767-6 MSD	HD-COD-SW-15-0/1-0	105	102	92	107
410-81767-7	HD-COD-SW-16-0/1-0	106	97	95	106
410-81767-8	HD-COD-SW-17-0/1-0	107	96	95	105
410-81767-8 - DL	HD-COD-SW-17-0/1-0	108	97	94	104
410-81767-9	HD-COD-SW-26-0/1-0	109	96	95	105
410-81767-10	HD-COD-SW-27-0/1-0	105	96	95	107
410-81767-11	HD-COD-SW-28-0/1-0	106	95	94	105
410-81767-12	HD-COD-SW-29-0/1-0	105	97	95	107
410-81767-13	HD-QC1-0/1-1	106	96	96	103
410-81767-13 - DL	HD-QC1-0/1-1	107	96	94	104
410-81767-14	HD-QC1-0/1-2	107	96	94	105
LCS 410-250524/4	Lab Control Sample	102	100	92	107
LCS 410-251841/4	Lab Control Sample	105	101	91	106
LCSD 410-250524/5	Lab Control Sample Dup	100	100	92	106
MB 410-250524/7	Method Blank	106	95	94	104
MB 410-251841/6	Method Blank	107	97	93	105

Surrogate Legend

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

QC Sample Results

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

Job ID: 410-81767-1

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

Lab Sample ID: MB 410-250524/7

Matrix: Water

Analysis Batch: 250524

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			05/02/22 11:09	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			05/02/22 11:09	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			05/02/22 11:09	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			05/02/22 11:09	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			05/02/22 11:09	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			05/02/22 11:09	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			05/02/22 11:09	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			05/02/22 11:09	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			05/02/22 11:09	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			05/02/22 11:09	1
2-Hexanone	ND		5.0	0.60	ug/L			05/02/22 11:09	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			05/02/22 11:09	1
Acetone	ND		5.0	0.90	ug/L			05/02/22 11:09	1
Benzene	ND		0.50	0.050	ug/L			05/02/22 11:09	1
Bromochloromethane	ND		0.50	0.050	ug/L			05/02/22 11:09	1
Bromodichloromethane	ND		0.50	0.050	ug/L			05/02/22 11:09	1
Bromoform	ND		1.0	0.30	ug/L			05/02/22 11:09	1
Bromomethane	ND		0.50	0.070	ug/L			05/02/22 11:09	1
Carbon disulfide	ND		1.0	0.060	ug/L			05/02/22 11:09	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			05/02/22 11:09	1
Chlorobenzene	ND		0.50	0.060	ug/L			05/02/22 11:09	1
Chloroethane	ND		0.50	0.070	ug/L			05/02/22 11:09	1
Chloroform	ND		0.50	0.090	ug/L			05/02/22 11:09	1
Chloromethane	ND		0.50	0.060	ug/L			05/02/22 11:09	1
cis-1,2-Dichloroethene	ND		0.50	0.050	ug/L			05/02/22 11:09	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			05/02/22 11:09	1
Dibromochloromethane	ND		0.50	0.070	ug/L			05/02/22 11:09	1
Ethylbenzene	ND		0.50	0.060	ug/L			05/02/22 11:09	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			05/02/22 11:09	1
Methylene Chloride	ND		0.50	0.070	ug/L			05/02/22 11:09	1
Styrene	ND		0.50	0.050	ug/L			05/02/22 11:09	1
Tetrachloroethene	ND		0.50	0.060	ug/L			05/02/22 11:09	1
Toluene	ND		0.50	0.070	ug/L			05/02/22 11:09	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			05/02/22 11:09	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			05/02/22 11:09	1
Trichloroethene	ND		0.50	0.060	ug/L			05/02/22 11:09	1
Vinyl chloride	ND		0.50	0.10	ug/L			05/02/22 11:09	1
Xylenes, Total	ND		1.0	0.15	ug/L			05/02/22 11:09	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	106		80 - 120		05/02/22 11:09	1
4-Bromofluorobenzene (Surr)	95		80 - 120		05/02/22 11:09	1
Dibromofluoromethane (Surr)	94		80 - 120		05/02/22 11:09	1
Toluene-d8 (Surr)	104		80 - 120		05/02/22 11:09	1

QC Sample Results

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

Job ID: 410-81767-1

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

Lab Sample ID: LCS 410-250524/4

Matrix: Water

Analysis Batch: 250524

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	5.28		ug/L		106	71 - 134
1,1,1-Trichloroethane	5.00	4.94		ug/L		99	78 - 126
1,1,2,2-Tetrachloroethane	5.00	6.53	*+	ug/L		131	75 - 123
1,1,2-Trichloroethane	5.00	5.93		ug/L		119	80 - 120
1,1-Dichloroethane	5.00	5.44		ug/L		109	74 - 120
1,1-Dichloroethene	5.00	5.32		ug/L		106	80 - 131
1,2-Dibromoethane (EDB)	5.00	5.68		ug/L		114	80 - 120
1,2-Dichloroethane	5.00	5.42		ug/L		108	69 - 122
1,2-Dichloropropane	5.00	5.81		ug/L		116	80 - 120
2-Butanone (MEK)	62.5	74.3		ug/L		119	59 - 141
2-Hexanone	62.5	77.4		ug/L		124	52 - 140
4-Methyl-2-pentanone (MIBK)	62.5	71.7		ug/L		115	55 - 140
Acetone	62.5	66.2		ug/L		106	60 - 146
Benzene	5.00	5.57		ug/L		111	80 - 120
Bromochloromethane	5.00	4.82		ug/L		96	80 - 120
Bromodichloromethane	5.00	5.41		ug/L		108	73 - 124
Bromoform	5.00	5.47		ug/L		109	49 - 144
Bromomethane	5.00	3.50		ug/L		70	60 - 136
Carbon disulfide	5.00	6.61	*+	ug/L		132	67 - 130
Carbon tetrachloride	5.00	4.74		ug/L		95	64 - 141
Chlorobenzene	5.00	5.36		ug/L		107	80 - 120
Chloroethane	5.00	4.07		ug/L		81	63 - 120
Chloroform	5.00	5.11		ug/L		102	80 - 120
Chloromethane	5.00	4.35		ug/L		87	56 - 124
cis-1,2-Dichloroethene	5.00	5.07		ug/L		101	80 - 122
cis-1,3-Dichloropropene	5.00	5.25		ug/L		105	67 - 121
Dibromochloromethane	5.00	5.43		ug/L		109	64 - 138
Ethylbenzene	5.00	5.75		ug/L		115	80 - 120
Methyl tert-butyl ether	5.00	5.35		ug/L		107	69 - 120
Methylene Chloride	5.00	5.48		ug/L		110	80 - 120
Styrene	5.00	5.55		ug/L		111	80 - 120
Tetrachloroethene	5.00	4.85		ug/L		97	80 - 120
Toluene	5.00	5.83		ug/L		117	80 - 120
trans-1,2-Dichloroethene	5.00	5.09		ug/L		102	80 - 122
trans-1,3-Dichloropropene	5.00	6.23		ug/L		125	61 - 129
Trichloroethene	5.00	5.00		ug/L		100	80 - 120
Vinyl chloride	5.00	4.09		ug/L		82	60 - 125
Xylenes, Total	15.0	16.2		ug/L		108	80 - 120

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	102		80 - 120
4-Bromofluorobenzene (Surr)	100		80 - 120
Dibromofluoromethane (Surr)	92		80 - 120
Toluene-d8 (Surr)	107		80 - 120

QC Sample Results

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

Job ID: 410-81767-1

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

Lab Sample ID: LCSD 410-250524/5

Matrix: Water

Analysis Batch: 250524

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	RPD Limit
							Limits	RPD		
1,1,1,2-Tetrachloroethane	5.00	5.10		ug/L		102	71 - 134	3	30	
1,1,1-Trichloroethane	5.00	4.92		ug/L		98	78 - 126	1	30	
1,1,2,2-Tetrachloroethane	5.00	6.64	*+	ug/L		133	75 - 123	2	30	
1,1,2-Trichloroethane	5.00	5.71		ug/L		114	80 - 120	4	30	
1,1-Dichloroethane	5.00	5.44		ug/L		109	74 - 120	0	30	
1,1-Dichloroethene	5.00	5.36		ug/L		107	80 - 131	1	30	
1,2-Dibromoethane (EDB)	5.00	5.56		ug/L		111	80 - 120	2	30	
1,2-Dichloroethane	5.00	5.18		ug/L		104	69 - 122	5	30	
1,2-Dichloropropane	5.00	5.72		ug/L		114	80 - 120	2	30	
2-Butanone (MEK)	62.5	72.7		ug/L		116	59 - 141	2	30	
2-Hexanone	62.5	77.0		ug/L		123	52 - 140	1	30	
4-Methyl-2-pentanone (MIBK)	62.5	71.2		ug/L		114	55 - 140	1	30	
Acetone	62.5	65.5		ug/L		105	60 - 146	1	30	
Benzene	5.00	5.47		ug/L		109	80 - 120	2	30	
Bromochloromethane	5.00	4.81		ug/L		96	80 - 120	0	30	
Bromodichloromethane	5.00	5.40		ug/L		108	73 - 124	0	30	
Bromoform	5.00	5.35		ug/L		107	49 - 144	2	30	
Bromomethane	5.00	3.43		ug/L		69	60 - 136	2	30	
Carbon disulfide	5.00	6.53	*+	ug/L		131	67 - 130	1	30	
Carbon tetrachloride	5.00	4.66		ug/L		93	64 - 141	2	30	
Chlorobenzene	5.00	5.37		ug/L		107	80 - 120	0	30	
Chloroethane	5.00	4.05		ug/L		81	63 - 120	0	30	
Chloroform	5.00	5.11		ug/L		102	80 - 120	0	30	
Chloromethane	5.00	4.42		ug/L		88	56 - 124	2	30	
cis-1,2-Dichloroethene	5.00	5.10		ug/L		102	80 - 122	1	30	
cis-1,3-Dichloropropene	5.00	5.19		ug/L		104	67 - 121	1	30	
Dibromochloromethane	5.00	5.27		ug/L		105	64 - 138	3	30	
Ethylbenzene	5.00	5.68		ug/L		114	80 - 120	1	30	
Methyl tert-butyl ether	5.00	5.27		ug/L		105	69 - 120	2	30	
Methylene Chloride	5.00	5.47		ug/L		109	80 - 120	0	30	
Styrene	5.00	5.52		ug/L		110	80 - 120	0	30	
Tetrachloroethene	5.00	4.78		ug/L		96	80 - 120	2	30	
Toluene	5.00	5.80		ug/L		116	80 - 120	0	30	
trans-1,2-Dichloroethene	5.00	5.07		ug/L		101	80 - 122	0	30	
trans-1,3-Dichloropropene	5.00	6.17		ug/L		123	61 - 129	1	30	
Trichloroethene	5.00	4.95		ug/L		99	80 - 120	1	30	
Vinyl chloride	5.00	4.13		ug/L		83	60 - 125	1	30	
Xylenes, Total	15.0	15.9		ug/L		106	80 - 120	2	30	

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	100		80 - 120
4-Bromofluorobenzene (Surr)	100		80 - 120
Dibromofluoromethane (Surr)	92		80 - 120
Toluene-d8 (Surr)	106		80 - 120

QC Sample Results

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

Job ID: 410-81767-1

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

Lab Sample ID: 410-81767-6 MS

Matrix: Water

Analysis Batch: 250524

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

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier					
1,1,1,2-Tetrachloroethane	ND		5.00	5.28		ug/L		105	71 - 134	
1,1,1-Trichloroethane	0.32	J	5.00	5.50		ug/L		103	78 - 126	
1,1,2,2-Tetrachloroethane	ND	*+ FH	5.00	6.29	FH	ug/L		126	75 - 123	
1,1,2-Trichloroethane	ND		5.00	5.75		ug/L		115	80 - 120	
1,1-Dichloroethane	0.14	J	5.00	5.78		ug/L		113	74 - 120	
1,1-Dichloroethene	0.17	J	5.00	5.97		ug/L		116	80 - 131	
1,2-Dibromoethane (EDB)	ND		5.00	5.51		ug/L		110	80 - 120	
1,2-Dichloroethane	ND		5.00	5.18		ug/L		103	69 - 122	
1,2-Dichloropropane	ND		5.00	5.84		ug/L		117	80 - 120	
2-Butanone (MEK)	ND		62.6	71.4		ug/L		114	59 - 141	
2-Hexanone	ND		62.6	71.8		ug/L		115	52 - 140	
4-Methyl-2-pentanone (MIBK)	ND		62.6	68.3		ug/L		109	55 - 140	
Acetone	ND		62.6	64.9		ug/L		104	60 - 146	
Benzene	ND		5.00	5.75		ug/L		115	80 - 120	
Bromochloromethane	ND		5.00	4.91		ug/L		98	80 - 120	
Bromodichloromethane	ND		5.00	5.47		ug/L		109	73 - 124	
Bromoform	ND		5.00	5.17		ug/L		103	49 - 144	
Bromomethane	ND	^c cn	5.00	3.69		ug/L		74	60 - 136	
Carbon disulfide	ND	*+ FH	5.00	7.12	FH	ug/L		142	67 - 130	
Carbon tetrachloride	ND		5.00	5.15		ug/L		103	64 - 141	
Chlorobenzene	ND		5.00	5.44		ug/L		109	80 - 120	
Chloroethane	ND	^c cn	5.00	4.40		ug/L		88	63 - 120	
Chloroform	0.29	J	5.00	5.56		ug/L		105	80 - 120	
Chloromethane	ND		5.00	4.79		ug/L		96	80 - 120	
cis-1,2-Dichloroethene	1.8		5.00	7.06		ug/L		105	80 - 122	
cis-1,3-Dichloropropene	ND		5.00	5.19		ug/L		104	67 - 121	
Dibromochloromethane	ND		5.00	5.30		ug/L		106	64 - 138	
Ethylbenzene	ND		5.00	5.86		ug/L		117	80 - 120	
Methyl tert-butyl ether	ND		5.00	5.29		ug/L		106	69 - 120	
Methylene Chloride	ND		5.00	5.65		ug/L		113	80 - 120	
Styrene	ND		5.00	5.61		ug/L		112	80 - 120	
Tetrachloroethene	6.0		5.00	11.0		ug/L		101	80 - 120	
Toluene	ND		5.00	5.99		ug/L		120	80 - 120	
trans-1,2-Dichloroethene	ND		5.00	5.35		ug/L		107	80 - 122	
trans-1,3-Dichloropropene	ND		5.00	6.09		ug/L		122	61 - 129	
Trichloroethene	1.7		5.00	6.98		ug/L		105	80 - 120	
Vinyl chloride	ND		5.00	4.58		ug/L		91	60 - 125	
Xylenes, Total	ND		15.0	16.5		ug/L		110	80 - 120	

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	103		80 - 120
4-Bromofluorobenzene (Surr)	101		80 - 120
Dibromofluoromethane (Surr)	93		80 - 120
Toluene-d8 (Surr)	107		80 - 120

QC Sample Results

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

Job ID: 410-81767-1

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

Lab Sample ID: 410-81767-6 MSD

Matrix: Water

Analysis Batch: 250524

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	5.15		ug/L		103	71 - 134	2	30
1,1,1-Trichloroethane	0.32	J	5.00	5.38		ug/L		101	78 - 126	2	30
1,1,2,2-Tetrachloroethane	ND	*+ FH	5.00	6.12		ug/L		122	75 - 123	3	30
1,1,2-Trichloroethane	ND		5.00	5.64		ug/L		113	80 - 120	2	30
1,1-Dichloroethane	0.14	J	5.00	5.75		ug/L		112	74 - 120	0	30
1,1-Dichloroethene	0.17	J	5.00	5.87		ug/L		114	80 - 131	2	30
1,2-Dibromoethane (EDB)	ND		5.00	5.44		ug/L		109	80 - 120	1	30
1,2-Dichloroethane	ND		5.00	5.27		ug/L		105	69 - 122	2	30
1,2-Dichloropropane	ND		5.00	5.75		ug/L		115	80 - 120	2	30
2-Butanone (MEK)	ND		62.6	68.7		ug/L		110	59 - 141	4	30
2-Hexanone	ND		62.6	72.2		ug/L		115	52 - 140	1	30
4-Methyl-2-pentanone (MIBK)	ND		62.6	67.1		ug/L		107	55 - 140	2	30
Acetone	ND		62.6	61.6		ug/L		99	60 - 146	5	30
Benzene	ND		5.00	5.61		ug/L		112	80 - 120	2	30
Bromochloromethane	ND		5.00	4.73		ug/L		94	80 - 120	4	30
Bromodichloromethane	ND		5.00	5.35		ug/L		107	73 - 124	2	30
Bromoform	ND		5.00	5.05		ug/L		101	49 - 144	2	30
Bromomethane	ND	^c cn	5.00	3.62		ug/L		72	60 - 136	2	30
Carbon disulfide	ND	*+ FH	5.00	6.93	FH	ug/L		138	67 - 130	3	30
Carbon tetrachloride	ND		5.00	5.05		ug/L		101	64 - 141	2	30
Chlorobenzene	ND		5.00	5.42		ug/L		108	80 - 120	0	30
Chloroethane	ND	^c cn	5.00	4.28		ug/L		86	63 - 120	3	30
Chloroform	0.29	J	5.00	5.45		ug/L		103	80 - 120	2	30
Chloromethane	ND		5.00	4.80		ug/L		96	80 - 120	0	30
cis-1,2-Dichloroethene	1.8		5.00	6.96		ug/L		103	80 - 122	1	30
cis-1,3-Dichloropropene	ND		5.00	5.19		ug/L		104	67 - 121	0	30
Dibromochloromethane	ND		5.00	5.23		ug/L		105	64 - 138	1	30
Ethylbenzene	ND		5.00	5.79		ug/L		116	80 - 120	1	30
Methyl tert-butyl ether	ND		5.00	5.21		ug/L		104	69 - 120	2	30
Methylene Chloride	ND		5.00	5.53		ug/L		111	80 - 120	2	30
Styrene	ND		5.00	5.52		ug/L		110	80 - 120	2	30
Tetrachloroethene	6.0		5.00	10.9		ug/L		98	80 - 120	1	30
Toluene	ND		5.00	5.89		ug/L		118	80 - 120	2	30
trans-1,2-Dichloroethene	ND		5.00	5.28		ug/L		106	80 - 122	1	30
trans-1,3-Dichloropropene	ND		5.00	6.07		ug/L		121	61 - 129	0	30
Trichloroethene	1.7		5.00	6.76		ug/L		101	80 - 120	3	30
Vinyl chloride	ND		5.00	4.47		ug/L		89	60 - 125	2	30
Xylenes, Total	ND		15.0	16.2		ug/L		108	80 - 120	2	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	105		80 - 120
4-Bromofluorobenzene (Surr)	102		80 - 120
Dibromofluoromethane (Surr)	92		80 - 120
Toluene-d8 (Surr)	107		80 - 120

QC Sample Results

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

Job ID: 410-81767-1

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

Lab Sample ID: MB 410-251841/6

Matrix: Water

Analysis Batch: 251841

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			05/05/22 10:17	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			05/05/22 10:17	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			05/05/22 10:17	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			05/05/22 10:17	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			05/05/22 10:17	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			05/05/22 10:17	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			05/05/22 10:17	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			05/05/22 10:17	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			05/05/22 10:17	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			05/05/22 10:17	1
2-Hexanone	ND		5.0	0.60	ug/L			05/05/22 10:17	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			05/05/22 10:17	1
Acetone	ND		5.0	0.90	ug/L			05/05/22 10:17	1
Benzene	ND		0.50	0.050	ug/L			05/05/22 10:17	1
Bromochloromethane	ND		0.50	0.050	ug/L			05/05/22 10:17	1
Bromodichloromethane	ND		0.50	0.050	ug/L			05/05/22 10:17	1
Bromoform	ND		1.0	0.30	ug/L			05/05/22 10:17	1
Bromomethane	ND		0.50	0.070	ug/L			05/05/22 10:17	1
Carbon disulfide	ND		1.0	0.060	ug/L			05/05/22 10:17	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			05/05/22 10:17	1
Chlorobenzene	ND		0.50	0.060	ug/L			05/05/22 10:17	1
Chloroethane	ND		0.50	0.070	ug/L			05/05/22 10:17	1
Chloroform	ND		0.50	0.090	ug/L			05/05/22 10:17	1
Chloromethane	ND		0.50	0.060	ug/L			05/05/22 10:17	1
cis-1,2-Dichloroethene	ND		0.50	0.050	ug/L			05/05/22 10:17	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			05/05/22 10:17	1
Dibromochloromethane	ND		0.50	0.070	ug/L			05/05/22 10:17	1
Ethylbenzene	ND		0.50	0.060	ug/L			05/05/22 10:17	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			05/05/22 10:17	1
Methylene Chloride	ND		0.50	0.070	ug/L			05/05/22 10:17	1
Styrene	ND		0.50	0.050	ug/L			05/05/22 10:17	1
Tetrachloroethene	ND		0.50	0.060	ug/L			05/05/22 10:17	1
Toluene	ND		0.50	0.070	ug/L			05/05/22 10:17	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			05/05/22 10:17	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			05/05/22 10:17	1
Trichloroethene	ND		0.50	0.060	ug/L			05/05/22 10:17	1
Vinyl chloride	ND		0.50	0.10	ug/L			05/05/22 10:17	1
Xylenes, Total	ND		1.0	0.15	ug/L			05/05/22 10:17	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	107		80 - 120		05/05/22 10:17	1
4-Bromofluorobenzene (Surr)	97		80 - 120		05/05/22 10:17	1
Dibromofluoromethane (Surr)	93		80 - 120		05/05/22 10:17	1
Toluene-d8 (Surr)	105		80 - 120		05/05/22 10:17	1

QC Sample Results

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

Job ID: 410-81767-1

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

Lab Sample ID: LCS 410-251841/4

Matrix: Water

Analysis Batch: 251841

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	4.81		ug/L		96	71 - 134
1,1,1-Trichloroethane	5.00	4.62		ug/L		92	78 - 126
1,1,2,2-Tetrachloroethane	5.00	5.89		ug/L		118	75 - 123
1,1,2-Trichloroethane	5.00	5.39		ug/L		108	80 - 120
1,1-Dichloroethane	5.00	5.06		ug/L		101	74 - 120
1,1-Dichloroethene	5.00	5.01		ug/L		100	80 - 131
1,2-Dibromoethane (EDB)	5.00	5.23		ug/L		105	80 - 120
1,2-Dichloroethane	5.00	4.80		ug/L		96	69 - 122
1,2-Dichloropropane	5.00	5.39		ug/L		108	80 - 120
2-Butanone (MEK)	62.5	71.8		ug/L		115	59 - 141
2-Hexanone	62.5	73.4		ug/L		117	52 - 140
4-Methyl-2-pentanone (MIBK)	62.5	69.6		ug/L		111	55 - 140
Acetone	62.5	61.6		ug/L		99	60 - 146
Benzene	5.00	5.16		ug/L		103	80 - 120
Bromochloromethane	5.00	4.50		ug/L		90	80 - 120
Bromodichloromethane	5.00	5.12		ug/L		102	73 - 124
Bromoform	5.00	4.96		ug/L		99	49 - 144
Bromomethane	5.00	3.47		ug/L		69	60 - 136
Carbon disulfide	5.00	6.14		ug/L		123	67 - 130
Carbon tetrachloride	5.00	4.40		ug/L		88	64 - 141
Chlorobenzene	5.00	4.97		ug/L		99	80 - 120
Chloroethane	5.00	4.09		ug/L		82	63 - 120
Chloroform	5.00	4.74		ug/L		95	80 - 120
Chloromethane	5.00	4.55		ug/L		91	56 - 124
cis-1,2-Dichloroethene	5.00	4.76		ug/L		95	80 - 122
cis-1,3-Dichloropropene	5.00	5.03		ug/L		101	67 - 121
Dibromochloromethane	5.00	5.02		ug/L		100	64 - 138
Ethylbenzene	5.00	5.30		ug/L		106	80 - 120
Methyl tert-butyl ether	5.00	5.09		ug/L		102	69 - 120
Methylene Chloride	5.00	5.08		ug/L		102	80 - 120
Styrene	5.00	5.13		ug/L		103	80 - 120
Tetrachloroethene	5.00	4.52		ug/L		90	80 - 120
Toluene	5.00	5.38		ug/L		108	80 - 120
trans-1,2-Dichloroethene	5.00	4.65		ug/L		93	80 - 122
trans-1,3-Dichloropropene	5.00	5.85		ug/L		117	61 - 129
Trichloroethene	5.00	4.66		ug/L		93	80 - 120
Vinyl chloride	5.00	4.19		ug/L		84	60 - 125
Xylenes, Total	15.0	14.9		ug/L		99	80 - 120

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	105		80 - 120
4-Bromofluorobenzene (Surr)	101		80 - 120
Dibromofluoromethane (Surr)	91		80 - 120
Toluene-d8 (Surr)	106		80 - 120

QC Association Summary

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

Job ID: 410-81767-1

GC/MS VOA

Analysis Batch: 250524

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-81767-1	HD-COD-SW-6-0/1-0	Total/NA	Water	8260D	
410-81767-2	HD-COD-SW-7-0/1-0	Total/NA	Water	8260D	
410-81767-3	HD-COD-SW-8-0/1-0	Total/NA	Water	8260D	
410-81767-4	HD-COD-SW-9-0/1-0	Total/NA	Water	8260D	
410-81767-5	HD-COD-SW-13-0/1-0	Total/NA	Water	8260D	
410-81767-6	HD-COD-SW-15-0/1-0	Total/NA	Water	8260D	
410-81767-7	HD-COD-SW-16-0/1-0	Total/NA	Water	8260D	
410-81767-8	HD-COD-SW-17-0/1-0	Total/NA	Water	8260D	
410-81767-9	HD-COD-SW-26-0/1-0	Total/NA	Water	8260D	
410-81767-10	HD-COD-SW-27-0/1-0	Total/NA	Water	8260D	
410-81767-11	HD-COD-SW-28-0/1-0	Total/NA	Water	8260D	
410-81767-12	HD-COD-SW-29-0/1-0	Total/NA	Water	8260D	
410-81767-13	HD-QC1-0/1-1	Total/NA	Water	8260D	
410-81767-14	HD-QC1-0/1-2	Total/NA	Water	8260D	
MB 410-250524/7	Method Blank	Total/NA	Water	8260D	
LCS 410-250524/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 410-250524/5	Lab Control Sample Dup	Total/NA	Water	8260D	
410-81767-6 MS	HD-COD-SW-15-0/1-0	Total/NA	Water	8260D	
410-81767-6 MSD	HD-COD-SW-15-0/1-0	Total/NA	Water	8260D	

Analysis Batch: 251841

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-81767-8 - DL	HD-COD-SW-17-0/1-0	Total/NA	Water	8260D	
410-81767-13 - DL	HD-QC1-0/1-1	Total/NA	Water	8260D	
MB 410-251841/6	Method Blank	Total/NA	Water	8260D	
LCS 410-251841/4	Lab Control Sample	Total/NA	Water	8260D	

Lab Chronicle

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

Job ID: 410-81767-1

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

Lab Sample ID: 410-81767-1

Date Collected: 04/26/22 10:30

Matrix: Water

Date Received: 04/27/22 18:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	250524	05/02/22 11:52	DVW2	ELLE

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

Lab Sample ID: 410-81767-2

Date Collected: 04/26/22 11:40

Matrix: Water

Date Received: 04/27/22 18:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	250524	05/02/22 12:13	DVW2	ELLE

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

Lab Sample ID: 410-81767-3

Date Collected: 04/26/22 09:15

Matrix: Water

Date Received: 04/27/22 18:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	250524	05/02/22 12:34	DVW2	ELLE

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

Lab Sample ID: 410-81767-4

Date Collected: 04/26/22 13:10

Matrix: Water

Date Received: 04/27/22 18:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	250524	05/02/22 12:55	DVW2	ELLE

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

Lab Sample ID: 410-81767-5

Date Collected: 04/26/22 09:30

Matrix: Water

Date Received: 04/27/22 18:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	250524	05/02/22 13:16	DVW2	ELLE

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

Lab Sample ID: 410-81767-6

Date Collected: 04/26/22 12:05

Matrix: Water

Date Received: 04/27/22 18:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	250524	05/02/22 13:38	DVW2	ELLE

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

Lab Sample ID: 410-81767-7

Date Collected: 04/26/22 10:00

Matrix: Water

Date Received: 04/27/22 18:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	250524	05/02/22 14:41	DVW2	ELLE

Lab Chronicle

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

Job ID: 410-81767-1

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

Lab Sample ID: 410-81767-8

Date Collected: 04/26/22 10:15

Matrix: Water

Date Received: 04/27/22 18:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	250524	05/02/22 15:02	DVW2	ELLE
Total/NA	Analysis	8260D	DL	10	251841	05/05/22 18:25	DVW2	ELLE

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

Lab Sample ID: 410-81767-9

Date Collected: 04/26/22 11:20

Matrix: Water

Date Received: 04/27/22 18:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	250524	05/02/22 15:23	DVW2	ELLE

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

Lab Sample ID: 410-81767-10

Date Collected: 04/26/22 11:55

Matrix: Water

Date Received: 04/27/22 18:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	250524	05/02/22 15:45	DVW2	ELLE

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

Lab Sample ID: 410-81767-11

Date Collected: 04/26/22 13:20

Matrix: Water

Date Received: 04/27/22 18:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	250524	05/02/22 16:06	DVW2	ELLE

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

Lab Sample ID: 410-81767-12

Date Collected: 04/26/22 09:00

Matrix: Water

Date Received: 04/27/22 18:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	250524	05/02/22 16:27	DVW2	ELLE

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

Lab Sample ID: 410-81767-13

Date Collected: 04/26/22 12:00

Matrix: Water

Date Received: 04/27/22 18:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	250524	05/02/22 16:48	DVW2	ELLE
Total/NA	Analysis	8260D	DL	10	251841	05/05/22 18:46	DVW2	ELLE

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

Lab Sample ID: 410-81767-14

Date Collected: 04/26/22 00:00

Matrix: Water

Date Received: 04/27/22 18:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	250524	05/02/22 11:30	DVW2	ELLE

Lab Chronicle

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

Job ID: 410-81767-1

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, 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: 410-81767-1

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

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

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-23

Method Summary

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

Job ID: 410-81767-1

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

Protocol References:

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

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, 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: 410-81767-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-81767-1	HD-COD-SW-6-0/1-0	Water	04/26/22 10:30	04/27/22 18:27
410-81767-2	HD-COD-SW-7-0/1-0	Water	04/26/22 11:40	04/27/22 18:27
410-81767-3	HD-COD-SW-8-0/1-0	Water	04/26/22 09:15	04/27/22 18:27
410-81767-4	HD-COD-SW-9-0/1-0	Water	04/26/22 13:10	04/27/22 18:27
410-81767-5	HD-COD-SW-13-0/1-0	Water	04/26/22 09:30	04/27/22 18:27
410-81767-6	HD-COD-SW-15-0/1-0	Water	04/26/22 12:05	04/27/22 18:27
410-81767-7	HD-COD-SW-16-0/1-0	Water	04/26/22 10:00	04/27/22 18:27
410-81767-8	HD-COD-SW-17-0/1-0	Water	04/26/22 10:15	04/27/22 18:27
410-81767-9	HD-COD-SW-26-0/1-0	Water	04/26/22 11:20	04/27/22 18:27
410-81767-10	HD-COD-SW-27-0/1-0	Water	04/26/22 11:55	04/27/22 18:27
410-81767-11	HD-COD-SW-28-0/1-0	Water	04/26/22 13:20	04/27/22 18:27
410-81767-12	HD-COD-SW-29-0/1-0	Water	04/26/22 09:00	04/27/22 18:27
410-81767-13	HD-QC1-0/1-1	Water	04/26/22 12:00	04/27/22 18:27
410-81767-14	HD-QC1-0/1-2	Water	04/26/22 00:00	04/27/22 18:27

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-81767-1

SDG No.: _____

Instrument ID: 19930 Analysis Batch Number: 233459Lab Sample ID: IC 410-233459/12 Client Sample ID: _____Date Analyzed: 03/15/22 01:15 Lab File ID: IM14I31.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methyl acetate	4.01	Incomplete Integration	kephartk	03/16/22 08:17
t-Butyl alcohol-d10 (IS)	4.23	Incomplete Integration	kephartk	03/16/22 08:17

Lab Sample ID: ICIS 410-233459/13 Client Sample ID: _____Date Analyzed: 03/15/22 01:36 Lab File ID: IM14I32.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methyl acetate	4.00	Baseline	kephartk	03/16/22 08:18
t-Butyl alcohol-d10 (IS)	4.23	Baseline	kephartk	03/16/22 08:18

Lab Sample ID: IC 410-233459/14 Client Sample ID: _____Date Analyzed: 03/15/22 01:58 Lab File ID: IM14I33.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.57	Incomplete Integration	kephartk	03/16/22 08:20
Methyl acetate	4.01	Incomplete Integration	kephartk	03/16/22 08:20
t-Butyl alcohol-d10 (IS)	4.21	Incomplete Integration	kephartk	03/16/22 08:20

Lab Sample ID: IC 410-233459/15 Client Sample ID: _____Date Analyzed: 03/15/22 02:19 Lab File ID: IM14I34.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methyl acetate	4.01	Incomplete Integration	kephartk	03/16/22 08:23
t-Butyl alcohol-d10 (IS)	4.21	Incomplete Integration	kephartk	03/16/22 08:24
1,4-Dioxane	8.60	Incomplete Integration	kephartk	03/16/22 08:24

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-81767-1

SDG No.: _____

Instrument ID: 19930 Analysis Batch Number: 233459Lab Sample ID: IC 410-233459/16 Client Sample ID: _____Date Analyzed: 03/15/22 02:40 Lab File ID: IM14I35.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.58	Incomplete Integration	kephartk	03/16/22 08:25
Methyl acetate	4.01	Incomplete Integration	kephartk	03/16/22 08:26
t-Butyl alcohol-d10 (IS)	4.23	Incomplete Integration	kephartk	03/16/22 08:26
1,4-Dioxane	8.62	Incomplete Integration	kephartk	03/16/22 08:26

Lab Sample ID: IC 410-233459/17 Client Sample ID: _____Date Analyzed: 03/15/22 03:01 Lab File ID: IM14I36.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
t-Butyl alcohol-d10 (IS)	4.23	Incomplete Integration	kephartk	03/16/22 08:27
Acrylonitrile	4.57	Incomplete Integration	kephartk	03/16/22 08:27
1,4-Dioxane	8.63	Incomplete Integration	kephartk	03/16/22 08:27

Lab Sample ID: IC 410-233459/18 Client Sample ID: _____Date Analyzed: 03/15/22 03:22 Lab File ID: IM14I37.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methyl iodide	3.75	Incomplete Integration	kephartk	03/16/22 08:28
Acrylonitrile	4.60	Incomplete Integration	kephartk	03/16/22 08:28
trans-1,2-Dichloroethene	4.65	Incomplete Integration	kephartk	03/16/22 08:28
cis-1,2-Dichloroethene	6.14	Incomplete Integration	kephartk	03/16/22 08:28
Methacrylonitrile	6.40	Incomplete Integration	kephartk	03/16/22 08:28
Bromochloromethane	6.46	Incomplete Integration	kephartk	03/16/22 08:28
Trichloroethene	8.18	Incomplete Integration	kephartk	03/16/22 08:29
Methyl methacrylate	8.60	Incomplete Integration	kephartk	03/16/22 08:29
1,4-Dioxane	8.63	Incomplete Integration	kephartk	03/16/22 08:29

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-81767-1

SDG No.: _____

Instrument ID: 19930 Analysis Batch Number: 233459

Lab Sample ID: ICV 410-233459/19 Client Sample ID: _____

Date Analyzed: 03/15/22 03:43 Lab File ID: IM14V01.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acrolein	3.40	Incomplete Integration	kephartk	03/16/22 08:30
Methyl acetate	4.00	Incomplete Integration	kephartk	03/16/22 08:30
1,4-Dioxane	8.60	Incomplete Integration	kephartk	03/16/22 08:31

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-81767-1

SDG No.: _____

Instrument ID: 19930 Analysis Batch Number: 250524Lab Sample ID: CCVIS 410-250524/3 Client Sample ID: _____Date Analyzed: 05/02/22 09:45 Lab File ID: IM02X02.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichlorofluoromethane	3.01	Incomplete Integration	kephartk	05/02/22 10:17
Acetone	3.58	Incomplete Integration	kephartk	05/02/22 10:20
Methyl acetate	4.01	Incomplete Integration	kephartk	05/02/22 10:16
t-Butyl alcohol	4.34	Incomplete Integration	kephartk	05/02/22 10:21
1,4-Dioxane	8.60	Incomplete Integration	kephartk	05/02/22 10:16

Lab Sample ID: LCS 410-250524/4 Client Sample ID: _____Date Analyzed: 05/02/22 10:06 Lab File ID: IM02X03.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.59	Incomplete Integration	kephartk	05/02/22 10:31

Lab Sample ID: LCSD 410-250524/5 Client Sample ID: _____Date Analyzed: 05/02/22 10:27 Lab File ID: IM02X04.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.58	Incomplete Integration	kephartk	05/02/22 10:52

Lab Sample ID: 410-81767-2 Client Sample ID: HD-COD-SW-7-0/1-0Date Analyzed: 05/02/22 12:13 Lab File ID: IM02X09.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Tetrachloroethene	10.35	Incomplete Integration	kaewrungr ueangp	05/03/22 10:35

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-81767-1

SDG No.: _____

Instrument ID: 19930 Analysis Batch Number: 250524Lab Sample ID: 410-81767-3 Client Sample ID: HD-COD-SW-8-0/1-0Date Analyzed: 05/02/22 12:34 Lab File ID: IM02X10.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
cis-1,2-Dichloroethene	6.14	Peak assignment corrected	kaewrungr ueangp	05/03/22 10:36

Lab Sample ID: 410-81767-4 Client Sample ID: HD-COD-SW-9-0/1-0Date Analyzed: 05/02/22 12:55 Lab File ID: IM02X11.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	2.16	Peak assignment corrected	kaewrungr ueangp	05/03/22 10:37

Lab Sample ID: 410-81767-6 Client Sample ID: HD-COD-SW-15-0/1-0Date Analyzed: 05/02/22 13:38 Lab File ID: IM02X13.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone		Invalid Compound ID	kaewrungr ueangp	05/03/22 10:38

Lab Sample ID: 410-81767-8 Client Sample ID: HD-COD-SW-17-0/1-0Date Analyzed: 05/02/22 15:02 Lab File ID: IM02X17.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
trans-1,2-Dichloroethene	4.64	Incomplete Integration	kaewrungr ueangp	05/03/22 10:46

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-81767-1

SDG No.: _____

Instrument ID: 19930 Analysis Batch Number: 250524

Lab Sample ID: 410-81767-13 Client Sample ID: HD-QC1-0/1-1

Date Analyzed: 05/02/22 16:48 Lab File ID: IM02X22.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
trans-1,2-Dichloroethene	4.65	Incomplete Integration	kaewrungr ueangp	05/03/22 10:51

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-81767-1

SDG No.: _____

Instrument ID: 19930 Analysis Batch Number: 251841

Lab Sample ID: CCVIS 410-251841/3 Client Sample ID: _____

Date Analyzed: 05/05/22 09:14 Lab File ID: IM05X02.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.59	Incomplete Integration	kephartk	05/05/22 09:48

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-81767-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
MSV_LCS_VOC#1_00044	04/13/22	03/14/22	Methanol, Lot EB679	25 mL	MSV_M_MIX1SEC_00048	1 mL	1,1,1,2-Tetrachloroethane	40 ug/mL
							1,1,1-Trichloroethane	40 ug/mL
							1,1,2,2-Tetrachloroethane	40 ug/mL
							1,1,2-Trichloroethane	40 ug/mL
							1,1-Dichloroethane	40 ug/mL
							1,1-Dichloroethene	40 ug/mL
							1,2-Dibromoethane (EDB)	40 ug/mL
							1,2-Dichloroethane	40 ug/mL
							1,2-Dichloropropane	40 ug/mL
							Benzene	40 ug/mL
							Bromochloromethane	40 ug/mL
							Bromodichloromethane	40 ug/mL
							Bromoform	40 ug/mL
							Carbon tetrachloride	40 ug/mL
							Chlorobenzene	40 ug/mL
							Chloroform	40 ug/mL
							cis-1,2-Dichloroethene	40 ug/mL
							cis-1,3-Dichloropropene	40 ug/mL
							Dibromochloromethane	40 ug/mL
							Ethylbenzene	40 ug/mL
							Methylene Chloride	40 ug/mL
							Styrene	40 ug/mL
							Tetrachloroethene	40 ug/mL
					Toluene	40 ug/mL		
					trans-1,2-Dichloroethene	40 ug/mL		
					trans-1,3-Dichloropropene	40 ug/mL		
					Trichloroethene	40 ug/mL		
MSV_M_MIX2SEC_00054	1 mL	Carbon disulfide	40 ug/mL					
		Methyl tert-butyl ether	40 ug/mL					
MSV_Q_Ketones_00053	1 mL	2-Butanone (MEK)	500 ug/mL					
		2-Hexanone	500 ug/mL					
		4-Methyl-2-pentanone (MIBK)	500 ug/mL					
		Acetone	500 ug/mL					
.MSV_M_MIX1SEC_00048	04/30/24		Restek, Lot A0171815		(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
							Bromochloromethane	1000 ug/mL
							Bromodichloromethane	1000 ug/mL
							Bromoform	1000 ug/mL
							Carbon tetrachloride	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-81767-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_M_MIX2SEC_00054	04/30/24		Restek, Lot A0171837		(Purchased Reagent)		Carbon disulfide	1000 ug/mL
							Methyl tert-butyl ether	1000 ug/mL
.MSV_Q_Ketones_00053	01/31/24		Restek, Lot A0167987		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
MSV_LCS_VOC#1_00052	05/25/22	04/25/22	Methanol, Lot EB679	25 mL	MSV_M_MIX1SEC_00060	1 mL	1,1,1,2-Tetrachloroethane	40 ug/mL
							1,1,1-Trichloroethane	40 ug/mL
							1,1,2,2-Tetrachloroethane	40 ug/mL
							1,1,2-Trichloroethane	40 ug/mL
							1,1-Dichloroethane	40 ug/mL
							1,1-Dichloroethene	40 ug/mL
							1,2-Dibromoethane (EDB)	40 ug/mL
							1,2-Dichloroethane	40 ug/mL
							1,2-Dichloropropane	40 ug/mL
							Benzene	40 ug/mL
							Bromochloromethane	40 ug/mL
							Bromodichloromethane	40 ug/mL
							Bromoform	40 ug/mL
							Carbon tetrachloride	40 ug/mL
							Chlorobenzene	40 ug/mL
							Chloroform	40 ug/mL
							cis-1,2-Dichloroethene	40 ug/mL
							cis-1,3-Dichloropropene	40 ug/mL
							Dibromochloromethane	40 ug/mL
							Ethylbenzene	40 ug/mL
							Methylene Chloride	40 ug/mL
							Styrene	40 ug/mL
							Tetrachloroethene	40 ug/mL
							Toluene	40 ug/mL
							trans-1,2-Dichloroethene	40 ug/mL
							trans-1,3-Dichloropropene	40 ug/mL
							Trichloroethene	40 ug/mL
					MSV_M_MIX2SEC_00060	1 mL	Carbon disulfide	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-81767-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					MSV_Q_Ketones_00060	1 mL	Methyl tert-butyl ether	40 ug/mL
							2-Butanone (MEK)	500 ug/mL
							2-Hexanone	500 ug/mL
							4-Methyl-2-pentanone (MIBK)	500 ug/mL
							Acetone	500 ug/mL
.MSV_M_MIX1SEC_00060	04/30/24		Restek, Lot A0171815			(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
							Bromochloromethane	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_M_MIX2SEC_00060	04/30/24		Restek, Lot A0171837			(Purchased Reagent)	Carbon disulfide	1000 ug/mL
							Methyl tert-butyl ether	1000 ug/mL
.MSV_Q_Ketones_00060	01/31/24		Restek, Lot A0167987			(Purchased Reagent)	2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
MSV_LCS_VOC#1_00053	06/01/22	05/02/22	Methanol, Lot EB679	25 mL	MSV_M_MIX1SEC_00061	1 mL	1,1,1,2-Tetrachloroethane	40 ug/mL
							1,1,1-Trichloroethane	40 ug/mL
							1,1,2,2-Tetrachloroethane	40 ug/mL
							1,1,2-Trichloroethane	40 ug/mL
							1,1-Dichloroethane	40 ug/mL
							1,1-Dichloroethene	40 ug/mL
							1,2-Dibromoethane (EDB)	40 ug/mL
							1,2-Dichloroethane	40 ug/mL
							1,2-Dichloropropane	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-81767-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration						
					Reagent ID	Volume Added								
							Benzene	40 ug/mL						
							Bromochloromethane	40 ug/mL						
							Bromodichloromethane	40 ug/mL						
							Bromoform	40 ug/mL						
							Carbon tetrachloride	40 ug/mL						
							Chlorobenzene	40 ug/mL						
							Chloroform	40 ug/mL						
							cis-1,2-Dichloroethene	40 ug/mL						
							cis-1,3-Dichloropropene	40 ug/mL						
							Dibromochloromethane	40 ug/mL						
							Ethylbenzene	40 ug/mL						
							Methylene Chloride	40 ug/mL						
							Styrene	40 ug/mL						
							Tetrachloroethene	40 ug/mL						
							Toluene	40 ug/mL						
							trans-1,2-Dichloroethene	40 ug/mL						
							trans-1,3-Dichloropropene	40 ug/mL						
							Trichloroethene	40 ug/mL						
							MSV_M_MIX2SEC_00061					1 mL	Carbon disulfide	40 ug/mL
							MSV_Q_Ketones_00061							Methyl tert-butyl ether
2-Butanone (MEK)	500 ug/mL													
2-Hexanone	500 ug/mL													
4-Methyl-2-pentanone (MIBK)	500 ug/mL													
.MSV_M_MIX1SEC_00061	04/30/24		Restek, Lot A0171815			(Purchased Reagent)	Acetone	500 ug/mL						
							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						
							Bromochloromethane	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													

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-81767-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.MSV_M_MIX2SEC_00061	04/30/24		Restek, Lot A0171837		(Purchased Reagent)		trans-1,2-Dichloroethene	1000 ug/mL
							trans-1,3-Dichloropropene	1000 ug/mL
							Trichloroethene	1000 ug/mL
							Carbon disulfide	1000 ug/mL
.MSV_Q_Ketones_00061	01/31/24		Restek, Lot A0167987		(Purchased Reagent)		Methyl tert-butyl ether	1000 ug/mL
							2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
MSV_LL_#1_524_00031	05/04/22	04/11/22	Methanol, Lot EB679	1 mL	MSV_CCV_VOC#1_00059	50 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
							Bromochloromethane	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		
					Carbon disulfide	50 ug/mL		
					Methyl tert-butyl ether	50 ug/mL		
					MSV_CCV_VOC#3_00058			
2-Hexanone	500 ug/mL							
4-Methyl-2-pentanone (MIBK)	500 ug/mL							
Acetone	500 ug/mL							
.MSV_CCV_VOC#1_00059	05/04/22	04/04/22	Methanol, Lot EB679	5 mL	MSV_MegaMIX#1_00058	1 mL	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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-81767-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
							Bromochloromethane	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_MegaMix#2_00057					1 mL	Carbon disulfide	1000 ug/mL	
MSV_MegaMIX#1_00058	05/04/22		Restek, Lot A0171634			(Purchased Reagent)	Methyl tert-butyl ether	1000 ug/mL
							1,1,1,2-Tetrachloroethane	5000 ug/mL
							1,1,1-Trichloroethane	5000 ug/mL
							1,1,2,2-Tetrachloroethane	5000 ug/mL
							1,1,2-Trichloroethane	5000 ug/mL
							1,1-Dichloroethane	5000 ug/mL
							1,1-Dichloroethene	5000 ug/mL
							1,2-Dibromoethane (EDB)	5000 ug/mL
							1,2-Dichloroethane	5000 ug/mL
							1,2-Dichloropropane	5000 ug/mL
							Benzene	5000 ug/mL
							Bromochloromethane	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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-81767-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							trans-1,2-Dichloroethene	5000 ug/mL
							trans-1,3-Dichloropropene	5000 ug/mL
							Trichloroethene	5000 ug/mL
..MSV_MegaMix#2_00057	05/04/22		Restek, Lot A0173454			(Purchased Reagent)	Carbon disulfide	5000 ug/mL
							Methyl tert-butyl ether	5000 ug/mL
.MSV_CCV_VOC#3_00058	05/04/22	04/04/22	Methanol, Lot EB679	5 mL	MSV_V_Ketones_00056	1 mL	2-Butanone (MEK)	2500 ug/mL
							2-Hexanone	2500 ug/mL
							4-Methyl-2-pentanone (MIBK)	2500 ug/mL
							Acetone	2500 ug/mL
..MSV_V_Ketones_00056	01/31/24		Restek, Lot A0174287			(Purchased Reagent)	2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
MSV_LL_#1_826_00038	04/09/22	03/14/22	Methanol, Lot EB679	1 mL	MSV_CCV_VOC#1_00056	50 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-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-Trimethylbenzene	50 ug/mL
							1,3-Dichlorobenzene	50 ug/mL
							1,3-Dichloropropane	50 ug/mL
							1,4-Dichlorobenzene	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
							Bromochloromethane	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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-81767-1

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
							1,1,2-Trichloro-1,2,2-trifluoroethane	50 ug/mL
							1,2,3-Trimethylbenzene	50 ug/mL
							1,3,5-Trichlorobenzene	50 ug/mL
							1,4-Dioxane	2500 ug/mL
							1-Chlorohexane	50 ug/mL
							2-Chloro-1,3-butadiene	50 ug/mL
							2-Methyl-2-propanol	1000 ug/mL
							2-Nitropropane	250 ug/mL
							3-Chloro-1-propene	50 ug/mL
							Acrylonitrile	125 ug/mL
							Benzyl chloride	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
							Isobutyl alcohol	2500 ug/mL
							Isopropyl ether	50 ug/mL
							Methacrylonitrile	500 ug/mL
							Methyl acetate	50 ug/mL
							Methyl methacrylate	50 ug/mL
							Methyl tert-butyl ether	50 ug/mL
							Methylcyclohexane	50 ug/mL
							n-Butanol	4375 ug/mL
							n-Heptane	50 ug/mL
							Propionitrile	1000 ug/mL
							Tert-amyl methyl ether	50 ug/mL
							Tert-butyl ethyl ether	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-81767-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					MSV_CCV_VOC#3_00055	200 uL	Tetrahydrofuran	250 ug/mL
							trans-1,4-Dichloro-2-butene	500 ug/mL
							Acrolein	2500.15 ug/mL
							2-Butanone (MEK)	500 ug/mL
							2-Hexanone	500 ug/mL
							4-Methyl-2-pentanone (MIBK)	500 ug/mL
							Acetone	500 ug/mL
					MSV_V_VOA2_00131	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	4375 ug/mL
							Propionitrile	1000 ug/mL
							trans-1,4-Dichloro-2-butene	500 ug/mL
.MSV_CCV_VOC#1_00056	04/13/22	03/14/22	Methanol, Lot EB679	5 mL	MSV_MegaMIX#1_00055	1 mL	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
							1,1-Dichloropropene	1000 ug/mL
							1,2,3-Trichlorobenzene	1000 ug/mL
							1,2,3-Trichloropropane	1000 ug/mL
							1,2,4-Trichlorobenzene	1000 ug/mL
							1,2,4-Trimethylbenzene	1000 ug/mL
							1,2-Dibromo-3-Chloropropane	1000 ug/mL
							1,2-Dibromoethane (EDB)	1000 ug/mL
							1,2-Dichlorobenzene	1000 ug/mL
							1,2-Dichloroethane	1000 ug/mL
							1,2-Dichloropropane	1000 ug/mL
							1,3,5-Trimethylbenzene	1000 ug/mL
							1,3-Dichlorobenzene	1000 ug/mL
							1,3-Dichloropropane	1000 ug/mL
							1,4-Dichlorobenzene	1000 ug/mL
							2,2-Dichloropropane	1000 ug/mL
							2-Chlorotoluene	1000 ug/mL
							4-Chlorotoluene	1000 ug/mL
							4-Isopropyltoluene	1000 ug/mL
							Benzene	1000 ug/mL
							Bromobenzene	1000 ug/mL
							Bromochloromethane	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							

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-81767-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dibromochloromethane	1000 ug/mL
							Dibromomethane	1000 ug/mL
							Ethylbenzene	1000 ug/mL
							Hexachlorobutadiene	1000 ug/mL
							Isopropylbenzene	1000 ug/mL
							m-Xylene & p-Xylene	2000 ug/mL
							Methylene Chloride	1000 ug/mL
							n-Butylbenzene	1000 ug/mL
							N-Propylbenzene	1000 ug/mL
							Naphthalene	1000 ug/mL
							o-Xylene	1000 ug/mL
							sec-Butylbenzene	1000 ug/mL
							Styrene	1000 ug/mL
							tert-Butylbenzene	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_MegaMix#2_00054	1 mL	1,1,2-Trichloro-1,2,2-trifluoroethane	1000 ug/mL
							1,2,3-Trimethylbenzene	1000 ug/mL
							1,3,5-Trichlorobenzene	1000 ug/mL
							1,4-Dioxane	12500 ug/mL
							1-Chlorohexane	1000 ug/mL
							2-Chloro-1,3-butadiene	1000 ug/mL
							2-Methyl-2-propanol	5000 ug/mL
							2-Nitropropane	5000 ug/mL
							3-Chloro-1-propene	1000 ug/mL
							Acrylonitrile	2500 ug/mL
							Benzyl chloride	1000 ug/mL
							Carbon disulfide	1000 ug/mL
							Cyclohexane	1000 ug/mL
							Ethyl methacrylate	1000 ug/mL
							Hexane	1000 ug/mL
							Iodomethane	1000 ug/mL
							Isobutyl alcohol	12500 ug/mL
							Isopropyl ether	1000 ug/mL
							Methacrylonitrile	2500 ug/mL
							Methyl acetate	1000 ug/mL
							Methyl methacrylate	1000 ug/mL
							Methyl tert-butyl ether	1000 ug/mL
							Methylcyclohexane	1000 ug/mL
							n-Butanol	12500 ug/mL
							n-Heptane	1000 ug/mL
							Propionitrile	5000 ug/mL
							Tert-amyl methyl ether	1000 ug/mL
							Tert-butyl ethyl ether	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-81767-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Tetrahydrofuran	5000 ug/mL
							trans-1,4-Dichloro-2-butene	2500 ug/mL
..MSV_MegaMIX#1_00055	04/13/22		Restek, Lot A0171634			(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-Trimethylbenzene	5000 ug/mL
							1,3-Dichlorobenzene	5000 ug/mL
							1,3-Dichloropropene	5000 ug/mL
							1,4-Dichlorobenzene	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
							Bromochloromethane	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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-81767-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_MegaMix#2_00054	04/13/22		Restek, Lot A0173454			(Purchased Reagent)	1,1,2-Trichloro-1,2,2-trifluoroethane	5000 ug/mL
							1,2,3-Trimethylbenzene	5000 ug/mL
							1,3,5-Trichlorobenzene	5000 ug/mL
							1,4-Dioxane	62500 ug/mL
							1-Chlorohexane	5000 ug/mL
							2-Chloro-1,3-butadiene	5000 ug/mL
							2-Methyl-2-propanol	25000 ug/mL
							2-Nitropropane	25000 ug/mL
							3-Chloro-1-propene	5000 ug/mL
							Acrylonitrile	12500 ug/mL
							Benzyl chloride	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
							Isobutyl alcohol	62500 ug/mL
							Isopropyl ether	5000 ug/mL
							Methacrylonitrile	12500 ug/mL
							Methyl acetate	5000 ug/mL
							Methyl methacrylate	5000 ug/mL
							Methyl tert-butyl ether	5000 ug/mL
							Methylcyclohexane	5000 ug/mL
							n-Butanol	62500 ug/mL
							n-Heptane	5000 ug/mL
							Propionitrile	25000 ug/mL
							Tert-amyl methyl ether	5000 ug/mL
							Tert-butyl ethyl ether	5000 ug/mL
							Tetrahydrofuran	25000 ug/mL
							trans-1,4-Dichloro-2-butene	12500 ug/mL
.MSV_CCV_VOC#3_00055	04/09/22	03/14/22	Methanol, Lot EB679	5 mL	MSV_CCV_ACR_00002	0.5 mL	Acrolein	12500.8 ug/mL
					MSV_V_Ketones_00053	1 mL	2-Butanone (MEK)	2500 ug/mL
							2-Hexanone	2500 ug/mL
							4-Methyl-2-pentanone (MIBK)	2500 ug/mL
							Acetone	2500 ug/mL
..MSV_CCV_ACR_00002	04/09/22	02/08/22	Methanol, Lot EB679	10 mL	MSV_VACR_STK_00024	9.222 mL	Acrolein	125008 ug/mL
...MSV_VACR_STK_00024	04/09/22	02/08/22	Methanol, Lot EB679	10 mL	MSV_ACROLEIN_00017	1.456 g	Acrolein	135554 ug/mL
...MSV_ACROLEIN_00017	11/30/22		Chem Service, Lot 12671800			(Purchased Reagent)	Acrolein	0.931 g/g
..MSV_V_Ketones_00053	01/31/24		Restek, Lot A0174287			(Purchased Reagent)	2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-81767-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration					
					Reagent ID	Volume Added							
.MSV_V_VOA2_00131	04/13/22	03/14/22	Methanol, Lot EB679	5 mL	MSV_V#2B_00260	1 mL	4-Methyl-2-pentanone (MIBK)	12500 ug/mL					
							Acetone	12500 ug/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					
..MSV_V#2B_00260	04/30/22		Restek, Lot A0171518		(Purchased Reagent)		Propionitrile	5000 ug/mL					
							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_LL_#1_826_00042	05/29/22	05/04/22	Methanol, Lot EB679	1 mL	MSV_CCV_VOC#1_00063	50 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					
							Bromochloromethane	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							
					Carbon disulfide	50 ug/mL							
					Methyl tert-butyl ether	50 ug/mL							
					MSV_CCV_VOC#3_00064						200 uL	2-Butanone (MEK)	500 ug/mL
												2-Hexanone	500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-81767-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Methyl-2-pentanone (MIBK)	500 ug/mL
							Acetone	500 ug/mL
.MSV_CCV_VOC#1_00063	06/01/22	05/02/22	Methanol, Lot EB679	5 mL	MSV_MegaMIX#1_00062	1 mL	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
							Bromochloromethane	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_MegaMix#2_00061	1 mL	Carbon disulfide	1000 ug/mL
							Methyl tert-butyl ether	1000 ug/mL
..MSV_MegaMIX#1_00062	06/01/22		Restek, Lot A0171634		(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
							Bromochloromethane	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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-81767-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_MegaMix#2_00061	06/01/22		Restek, Lot A0173454			(Purchased Reagent)	Carbon disulfide	5000 ug/mL
							Methyl tert-butyl ether	5000 ug/mL
.MSV_CCV_VOC#3_00064	05/29/22	05/02/22	Methanol, Lot EB679	5 mL	MSV_V_Ketones_00060	1 mL	2-Butanone (MEK)	2500 ug/mL
							2-Hexanone	2500 ug/mL
							4-Methyl-2-pentanone (MIBK)	2500 ug/mL
							Acetone	2500 ug/mL
..MSV_V_Ketones_00060	01/31/24		Restek, Lot A0174287			(Purchased Reagent)	2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
MSV_LL_#2_826_00042	03/24/22	03/14/22	Methanol, Lot EB679	1 mL	MSV_CCV_EE_00001	50 uL	Ethyl ether	49.9999 ug/mL
					MSV_V_PentaCL_00013	10 uL	Pentachloroethane	50 ug/mL
.MSV_CCV_EE_00001	05/29/22	11/29/21	Methanol, Lot EB679	50 mL	MSV_EE_MISCSK_00009	0.999 mL	Ethyl ether	999.999 ug/mL
..MSV_EE_MISCSK_00009	05/29/22	11/29/21	Methanol, Lot EB679	10 mL	MSV_EE_Neat_00006	0.5005 g	Ethyl ether	50050 ug/mL
..MSV_EE_Neat_00006	12/31/25		Chem Service, Lot 12123300			(Purchased Reagent)	Ethyl ether	1 g/g
.MSV_V_PentaCL_00013	04/02/22		Restek, Lot A0171341			(Purchased Reagent)	Pentachloroethane	5000 ug/mL
MSV_LL_GAS826_00072	03/21/22	03/14/22	Methanol, Lot EB679	1 mL	MSV_CCV_GASES_00158	25 uL	1,2-Dichloro-1,1,2-trifluoroethane	50 ug/mL
							Bromomethane	50 ug/mL
							Butadiene	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Dichlorodifluoromethane	50 ug/mL
							Dichlorofluoromethane	50 ug/mL
							Trichlorofluoromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.MSV_CCV_GASES_00158	03/21/22		Restek, Lot A0172364			(Purchased Reagent)	1,2-Dichloro-1,1,2-trifluoroethane	2000 ug/mL
							Bromomethane	2000 ug/mL
							Butadiene	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Dichlorodifluoromethane	2000 ug/mL
							Dichlorofluoromethane	2000 ug/mL
							Trichlorofluoromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
MSV_LL_GAS826_00081	05/02/22	04/25/22	Methanol, Lot EB679	1 mL	MSV_CCV_GASES_00180	25 uL	Bromomethane	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-81767-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration											
					Reagent ID	Volume Added													
.MSV_CCV_GASES_00180	05/02/22		Restek, Lot A0172364		(Purchased Reagent)		Chloroethane	50 ug/mL											
							Chloromethane	50 ug/mL											
							Vinyl chloride	50 ug/mL											
							Bromomethane	2000 ug/mL											
							Chloroethane	2000 ug/mL											
							Chloromethane	2000 ug/mL											
MSV_LL_GAS826_00083	05/10/22	05/03/22	Methanol, Lot EB679	1 mL	MSV_CCV_GASES_00187	25 uL	Bromomethane	50 ug/mL											
							Chloroethane	50 ug/mL											
							Chloromethane	50 ug/mL											
							Vinyl chloride	50 ug/mL											
							.MSV_CCV_GASES_00187	05/10/22		Restek, Lot A0172364		(Purchased Reagent)		Bromomethane	2000 ug/mL				
														Chloroethane	2000 ug/mL				
Chloromethane	2000 ug/mL																		
Vinyl chloride	2000 ug/mL																		
MSV_LLcentISS_00004	08/22/22	02/22/22	Methanol, Lot EB679	50 mL	MSV_8260_SS_00592	1 mL								1,2-Dichloroethane-d4 (Surr)	50 ug/mL				
														4-Bromofluorobenzene (Surr)	50 ug/mL				
							Dibromofluoromethane (Surr)	50 ug/mL											
							Toluene-d8 (Surr)	50 ug/mL											
							1,4-Dichlorobenzene-d4	50 ug/mL											
				MSV_Cus826_IS_00415					MSV_Cus826_IS_00415	1 mL	Chlorobenzene-d5 (IS)	50 ug/mL							
											Fluorobenzene (IS)	50 ug/mL							
											t-Butyl alcohol-d10 (IS)	250 ug/mL							
											.MSV_8260_SS_00592	08/22/22		Restek, Lot A0171410		(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_00415	08/22/22		Restek, Lot A0178373		(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_QC_Gas826_00070	03/21/22	03/14/22	Methanol, Lot EB679	1 mL	MSV_QC_2K_GAS_00079	20 uL	Bromomethane	40 ug/mL				
														Chloroethane	40 ug/mL				
Chloromethane	40 ug/mL																		
Vinyl chloride	40 ug/mL																		
.MSV_QC_2K_GAS_00079	03/21/22		Restek, Lot A0172021		(Purchased Reagent)									Bromomethane	2000 ug/mL				
														Chloroethane	2000 ug/mL				
							Chloromethane	2000 ug/mL											
							Vinyl chloride	2000 ug/mL											
							MSV_QC_Gas826_00078	05/02/22	04/25/22	Methanol, Lot EB679	1 mL	MSV_QC_2K_GAS_00086	20 uL	Bromomethane	40 ug/mL				
														Chloroethane	40 ug/mL				
Chloromethane	40 ug/mL																		
Vinyl chloride	40 ug/mL																		
.MSV_QC_2K_GAS_00086	05/02/24		Restek, Lot A0172021		(Purchased Reagent)									Bromomethane	2000 ug/mL				
														Chloroethane	2000 ug/mL				
							Chloromethane	2000 ug/mL											

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-81767-1

SDG No.: _____

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Vinyl chloride	2000 ug/mL
MSV_QC_Gas826_00079	05/09/22	05/03/22	Methanol, Lot EB679	1 mL	MSV_QC_2K_GAS_00087	20 uL	Bromomethane	40 ug/mL
							Chloroethane	40 ug/mL
							Chloromethane	40 ug/mL
							Vinyl chloride	40 ug/mL
.MSV_QC_2K_GAS_00087	05/09/22		Restek, Lot A0172021			(Purchased Reagent)	Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
MSV_V_BFB_00007							1,2-Dichloroethene, Total	
							1,3-Dichloropropene, Total	
							Tentatively Identified Compound	
							Xylenes, Total	
					MSV_VBFB_STK_00007	0.116 mL	BFB	50.0099 ug/mL
.MSV_VBFB_STK_00007	06/29/22	12/29/21	Methanol, Lot EB679	10 mL	MSV_4BFB_NEAT_00005	1.0778 g	BFB	107780 ug/mL
..MSV_4BFB_NEAT_00005	02/28/25		Chem Service, Lot 11130200			(Purchased Reagent)	BFB	1 g/g

Reagent

MSV_4BFB_NEAT_00005

CHEM SERVICE INC.

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

CERTIFICATE OF ANALYSIS

4-Bromofluorobenzene

CATALOG NUMBER	N-10809-1G ✓
LOT NUMBER	11130200 ✓
DATE CERTIFIED	02/03/20 ✓
EXPIRATION DATE	02/28/25 ✓
CAS NUMBER	460-00-4
MOLECULAR FORMULA	C6H4BrF
MOLECULAR WEIGHT	175.00
STORAGE	Store at room temperature (20 - 25 °C).
HANDLING	See Safety Data Sheet
INTENDED USE	For laboratory use only.

Analytical Test	Value
GC/MS SPECTRA ID	MATCHES NIST
FT-IR SPECTROSCOPY	CONFORMS TO STRUCTURE
% PURITY (GC/FID)	99.5
PHYSICAL APPEARANCE	COLORLESS LIQUID

WLR 2032
2-16-21

COA Form
Revision 3 (3/2015)



Print Date: 06/07/21

CHEM SERVICE INC.

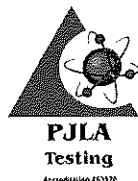
660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

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

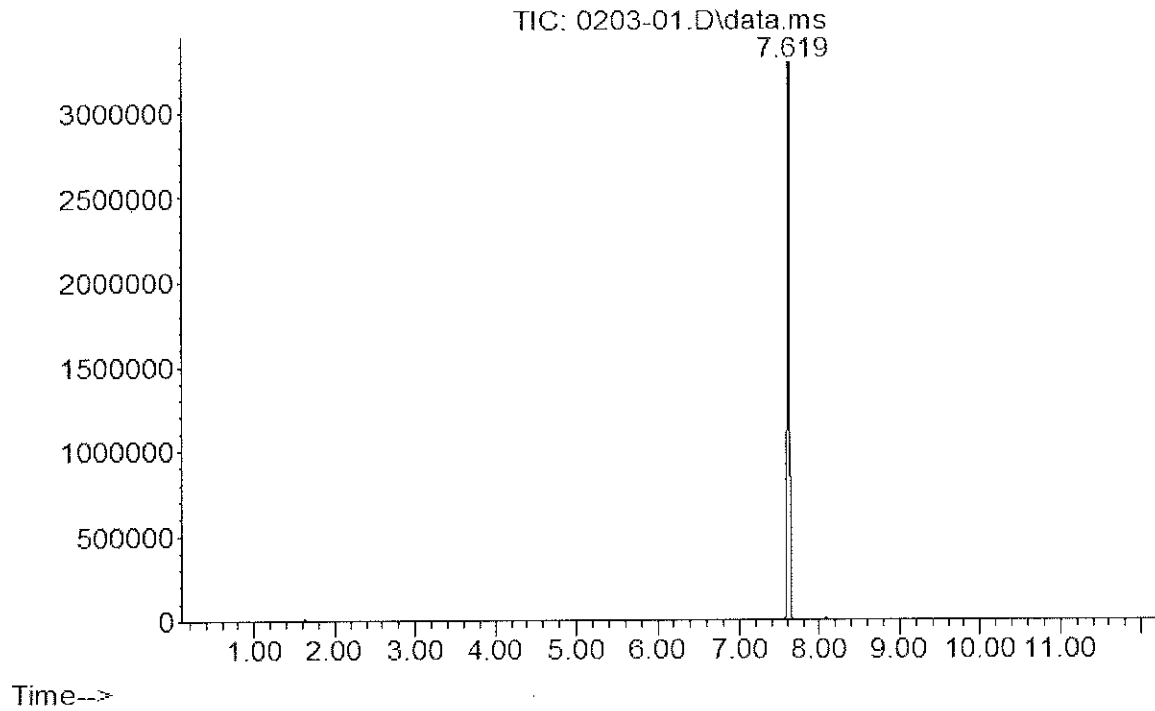
Mary Beth O'Donnell
CSM/TC



CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number: N-10809-1G
Description: 4-Bromofluorobenzene
Lot Number: 11130200
Expiration Date: 02/28/25
Abundance

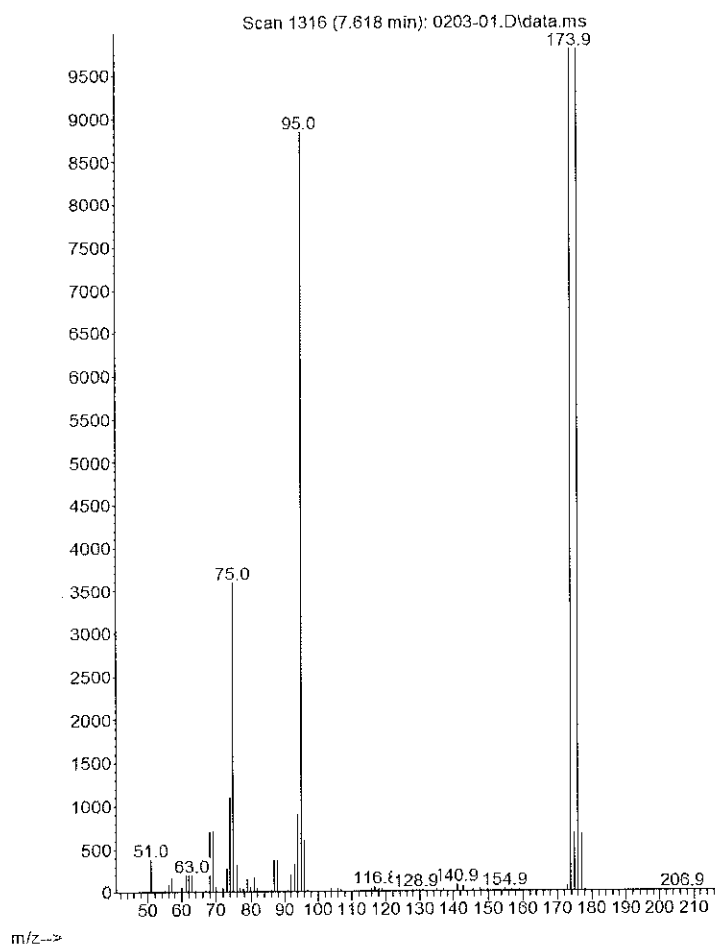


CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number: N-10809-1G
Description: 4-Bromofluorobenzene
Lot Number: 11130200
Expiration Date: 02/28/25

Abundance



CHEM SERVICE INC.

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: 11130200
Expiration Date: 02/28/25
Chem Service Inc Area Percent Report

Data File: D:\msdchem\2020 DATA\0220\0203-01.D
Acq On : 3 Feb 2020 10:08
Operator :
Sample : N-10809
Misc :
ALS Vial : 96

Integration Parameters: autoint1.e
Integrator: ChemStation

DataAcq Meth: METH1.M
Method : D:\msdchem\2020 DATA\0120\0122-03.D\M-CS5242M2.M

Signal : TIC: 0203-01.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	7.619	1306	1316	1331	BB	3424525	65045319	100.00%	100.000%

Sum of corrected areas: 65045319

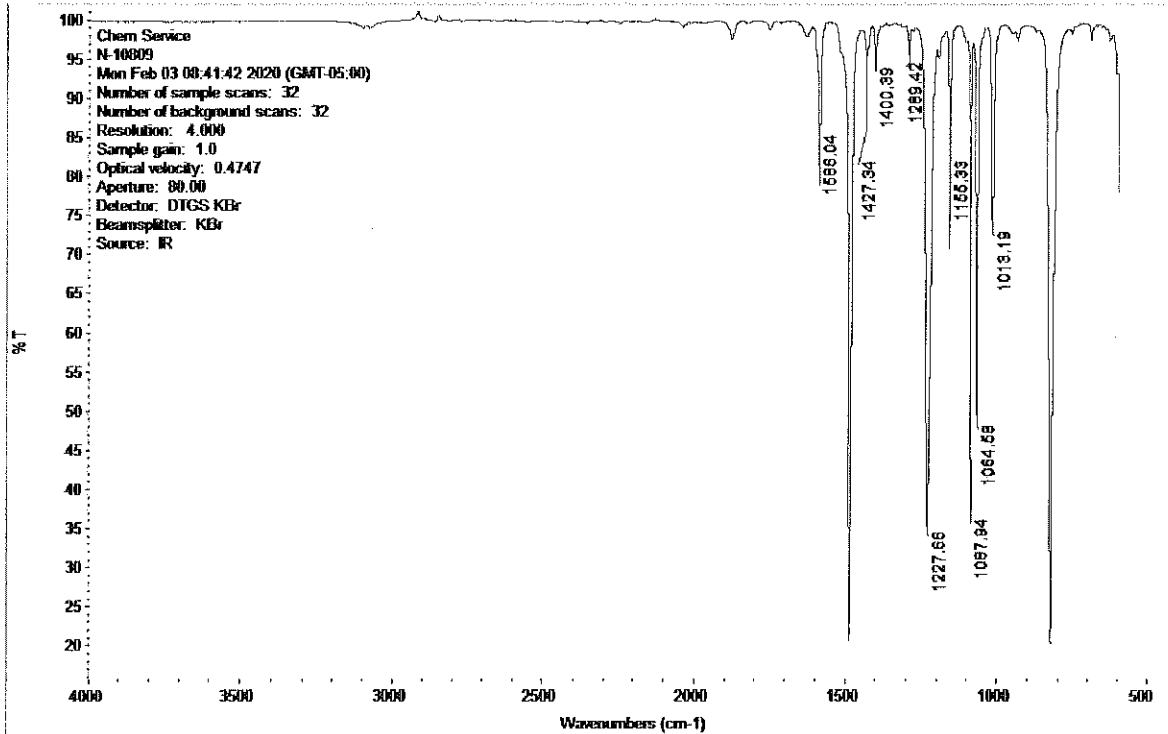
M-CS5242M2.M Mon Feb 03 10:28:54 2020



CERTIFICATE OF ANALYSIS

Analysis Method:

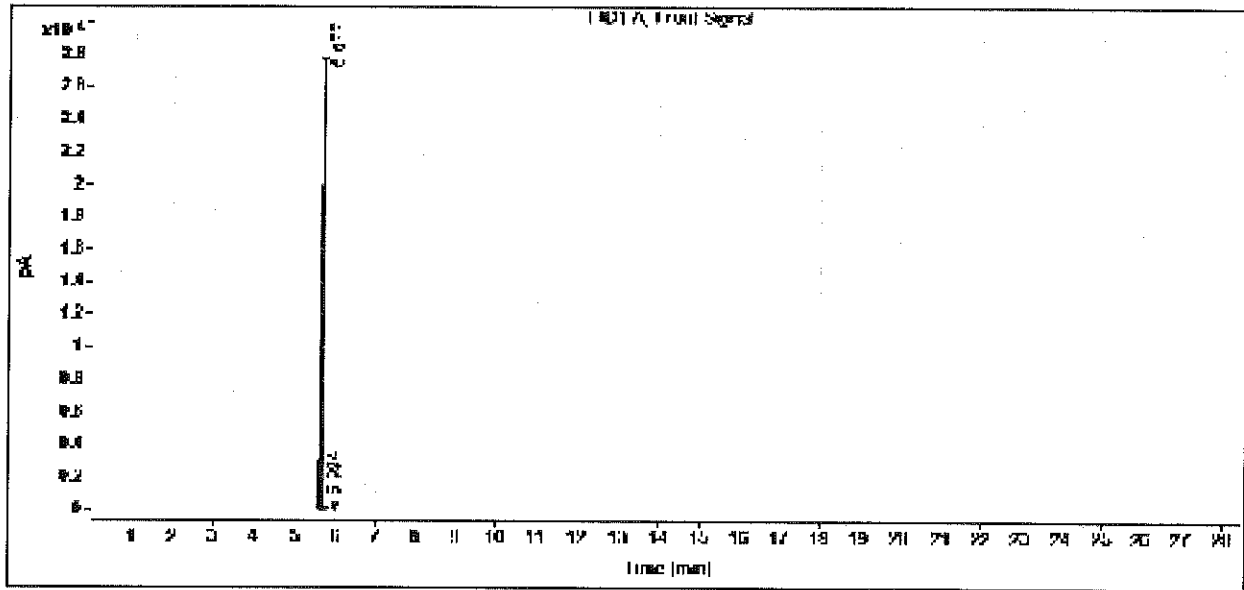
Catalog Number: N-10809-1G
Description: 4-Bromofluorobenzene
Lot Number: 11130200
Expiration Date: 02/28/25



CERTIFICATE OF ANALYSIS

Gas Chromatography / Flame Ionization Detector (GC/FID)

Data file: C:\CHEM32\1\DATA\2020 DATA\0220\013120 2020-01-31 16-11-28\141F0404.D
Sample name: N-10809
Instrument: GC 1 **Sample type:** Sample
Injection date: 1/31/2020 10:29:42 PM **Location:** Vial 141
Acq. method: SCREEN.M **Injection volume:** 1.0uL
Column name: Rxi-624Sil (30m x 0.32mm x 1.8um)



Signal: FID1 A, Front Signal

RT [min]	Type	Width [min]	Area	Height	Area%
5.677	BB S	0.0413	82400.8016	27241.2129	99.7369
5.924	VB	0.0298	217.3897	117.5644	0.2631
Sum			82617.9712		



Reagent

MSV_8260_SS_00592



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.:** A0171410

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 : April 30, 2024 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Dibromofluoromethane	2,509.0 µg/mL	+/-	14.7242	µg/mL	Gravimetric
	CAS # 1868-53-7 (Lot 0012016)		+/-	140.6914	µg/mL	Unstressed
	Purity 99%		+/-	143.9827	µg/mL	Stressed
2	1,2-Dichloroethane-d4	2,503.0 µg/mL	+/-	14.6890	µg/mL	Gravimetric
	CAS # 17060-07-0 (Lot PR-29377)		+/-	140.3549	µg/mL	Unstressed
	Purity 99%		+/-	143.6384	µg/mL	Stressed
3	Toluene-d8	2,501.5 µg/mL	+/-	14.6802	µg/mL	Gravimetric
	CAS # 2037-26-5 (Lot PR-31750)		+/-	140.2708	µg/mL	Unstressed
	Purity 99%		+/-	143.5523	µg/mL	Stressed
4	1-Bromo-4-fluorobenzene (BFB)	2,520.0 µg/mL	+/-	14.7888	µg/mL	Gravimetric
	CAS # 460-00-4 (Lot 20401KO)		+/-	141.3082	µg/mL	Unstressed
	Purity 99%		+/-	144.6140	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)

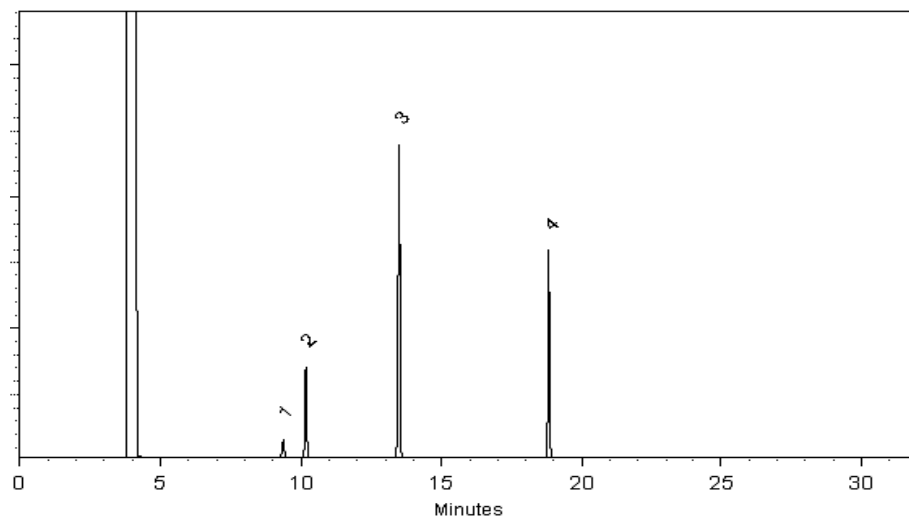
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

Inj. Temp:
200°C

Det. Temp:
250°C

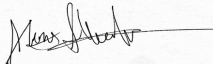
Det. Type:
FID



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.


Sam Moodler - Operations Tech I

Date Mixed: 16-Apr-2021 **Balance:** B707717271


Alexis Shelow - Operations Tech I

Date Passed: 19-Apr-2021

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) -20°C or colder (Deep 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.

Reagent

MSV_ACROLEIN_00017

CERTIFICATE OF ANALYSIS

Acrolein

CATALOG NUMBER RPN-11030-1G
LOT NUMBER 12671800
DATE CERTIFIED 11/30/21
EXPIRATION DATE 11/30/22
CAS NUMBER 107-02-8
MOLECULAR FORMULA C3H4O
MOLECULAR WEIGHT 56.06
STORAGE Refrigerator storage (2 - 8 °C)
HANDLING See Safety Data Sheet
INTENDED USE For laboratory use only.
NOTES Contains water and hydroquinone as an inhibitor.

<u>Analytical Test</u>	<u>Value</u>
% PURITY (GC/TCD)	93.1
% WATER (KARL FISCHER)	3.7

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 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015.



COA Form
Revision 3 (3/2015)

Print Date: 12/01/21

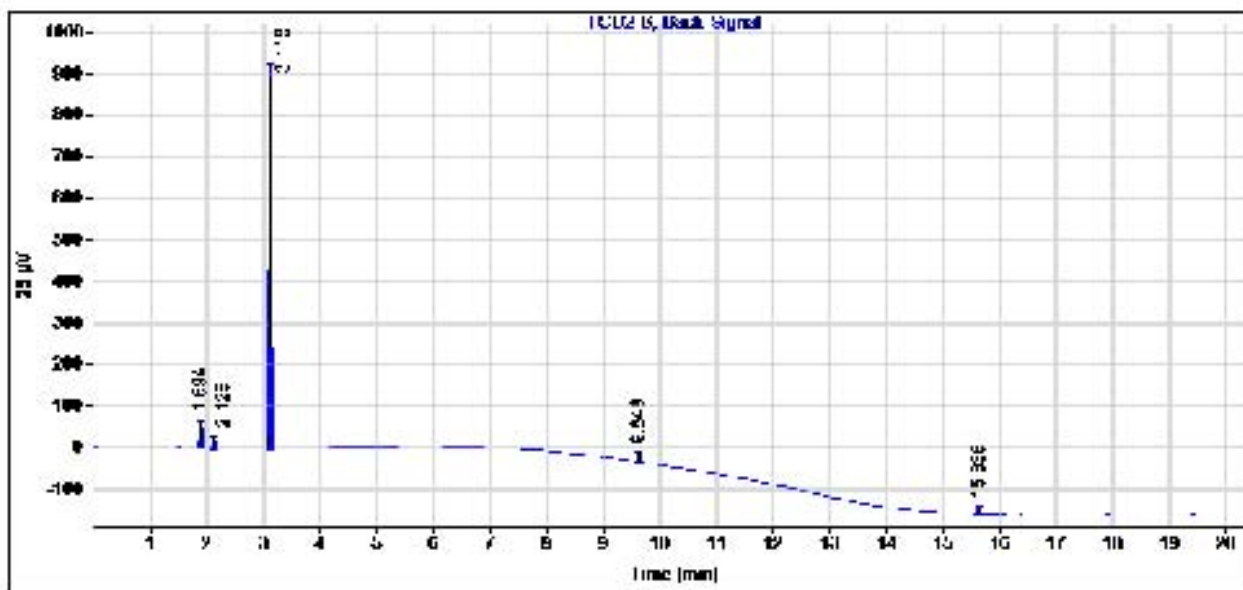
Page 77 of 693

05/09/2022

CERTIFICATE OF ANALYSIS

Gas Chromatography / Flame Ionization Detector (GC/FID)

Data file:	C:\CHEM32\1\DATA\2021 DATA\1121\SIG2022966.D		
Sample name:	Acrolein		
Instrument:	GC 1	Sample type:	Sample
Injection date:	11/30/2021 8:07:19 AM	Location:	Vial 1
Acq. method:	N-10129-TCD.M	Injection volume:	1.0uL
Column name:	DB-624 (30m x 0.53mm x 3.0um)		



Signal: TCD2 B, Back Signal

RT [min]	Type	Width [min]	Area	Height	Area%
1.894	BB	0.0219	75.2808	55.4051	3.7452
2.128	BB	0.0203	27.3468	20.9134	1.3605
3.116	BB	0.0328	1873.1121	917.3733	93.1873
9.648	BB	0.0286	23.4982	12.6856	1.1690
15.638	BB	0.0274	10.8118	6.1875	0.5379
Sum			2010.0498		

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



Reagent

MSV_CCV_GASES_00158



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. : 577488 Lot No.: A0172364

Description : Custom Gases Standard
Custom Gases Standard 2,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : May 31, 2024 Storage: 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)			
1	Dichlorodifluoromethane (CFC-12)	2,001.0 µg/mL	+/-	15.5104	µg/mL	Gravimetric
	CAS # 75-71-8 (Lot 00012554)		+/-	112.6642	µg/mL	Unstressed
	Purity 99%		+/-	115.2788	µg/mL	Stressed
2	Chloromethane (methyl chloride)	2,000.2 µg/mL	+/-	19.3792	µg/mL	Gravimetric
	CAS # 74-87-3 (Lot SHBK6571)		+/-	113.2161	µg/mL	Unstressed
	Purity 99%		+/-	115.8161	µg/mL	Stressed
3	Vinyl chloride	2,003.2 µg/mL	+/-	20.1104	µg/mL	Gravimetric
	CAS # 75-01-4 (Lot 00015559)		+/-	113.5093	µg/mL	Unstressed
	Purity 99%		+/-	116.1105	µg/mL	Stressed
4	1,3-Butadiene	1,999.6 µg/mL	+/-	14.5225	µg/mL	Gravimetric
	CAS # 106-99-0 (Lot 00019375)		+/-	112.4545	µg/mL	Unstressed
	Purity 99%		+/-	115.0702	µg/mL	Stressed
5	Bromomethane (methyl bromide)	2,002.8 µg/mL	+/-	14.8201	µg/mL	Gravimetric
	CAS # 74-83-9 (Lot 101604)		+/-	112.6669	µg/mL	Unstressed
	Purity 99%		+/-	115.2859	µg/mL	Stressed
6	Chloroethane (ethyl chloride)	2,001.0 µg/mL	+/-	14.9955	µg/mL	Gravimetric
	CAS # 75-00-3 (Lot 107-401039114-1)		+/-	112.5912	µg/mL	Unstressed
	Purity 99%		+/-	115.2073	µg/mL	Stressed
7	Dichlorofluoromethane (CFC-21)	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 75-43-4 (Lot 11778600)		+/-	112.1380	µg/mL	Unstressed
	Purity 99%		+/-	114.7619	µg/mL	Stressed

8	Trichlorofluoromethane (CFC-11)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 75-69-4 (Lot MKCJ8658)			+/-	112.1380	µg/mL	Unstressed
	Purity 99%			+/-	114.7619	µg/mL	Stressed
9	1,2-Dichloro-1,1,2-trifluoroethane (CFC-123a)	2,000.2	µg/mL	+/-	17.2773	µg/mL	Gravimetric
	CAS # 354-23-4 (Lot Q9B-64)			+/-	112.8726	µg/mL	Unstressed
	Purity 99%			+/-	115.4802	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 flow 2.0 mL/min.

Temp. Program:

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

Inj. Temp:

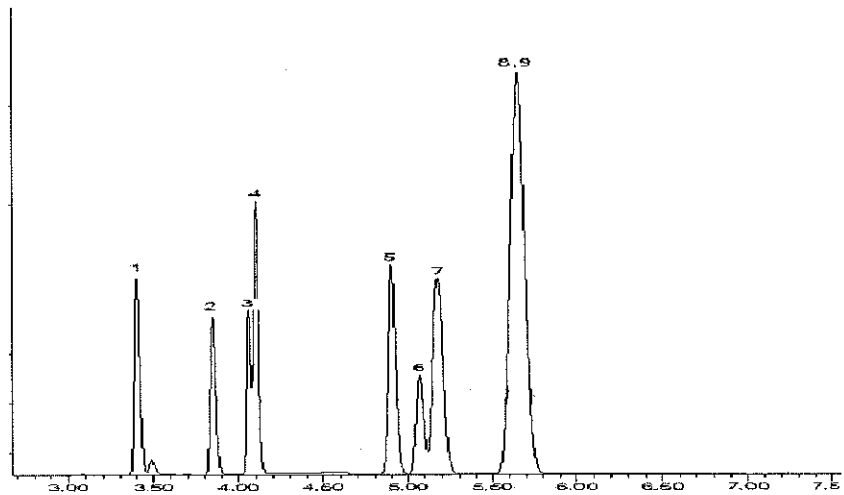
200°C

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.

[Signature]
 Tom Suckal - Mix Technician

Date Mixed: 13-May-2021 Balance: B251644995

[Signature]
 Alexis Shelow - Operations Tech I

Date Passed: 17-May-2021

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) -20°C or colder (Deep 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.

Reagent

MSV_CCV_GASES_00180



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. : 577488 Lot No.: A0172364

Description : Custom Gases Standard
Custom Gases Standard 2,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : May 31, 2024 Storage: 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)			
1	Dichlorodifluoromethane (CFC-12)	2,001.0 µg/mL	+/-	15.5104	µg/mL	Gravimetric
	CAS # 75-71-8 (Lot 00012554)		+/-	112.6642	µg/mL	Unstressed
	Purity 99%		+/-	115.2788	µg/mL	Stressed
2	Chloromethane (methyl chloride)	2,000.2 µg/mL	+/-	19.3792	µg/mL	Gravimetric
	CAS # 74-87-3 (Lot SHBK6571)		+/-	113.2161	µg/mL	Unstressed
	Purity 99%		+/-	115.8161	µg/mL	Stressed
3	Vinyl chloride	2,003.2 µg/mL	+/-	20.1104	µg/mL	Gravimetric
	CAS # 75-01-4 (Lot 00015559)		+/-	113.5093	µg/mL	Unstressed
	Purity 99%		+/-	116.1105	µg/mL	Stressed
4	1,3-Butadiene	1,999.6 µg/mL	+/-	14.5225	µg/mL	Gravimetric
	CAS # 106-99-0 (Lot 00019375)		+/-	112.4545	µg/mL	Unstressed
	Purity 99%		+/-	115.0702	µg/mL	Stressed
5	Bromomethane (methyl bromide)	2,002.8 µg/mL	+/-	14.8201	µg/mL	Gravimetric
	CAS # 74-83-9 (Lot 101604)		+/-	112.6669	µg/mL	Unstressed
	Purity 99%		+/-	115.2859	µg/mL	Stressed
6	Chloroethane (ethyl chloride)	2,001.0 µg/mL	+/-	14.9955	µg/mL	Gravimetric
	CAS # 75-00-3 (Lot 107-401039114-1)		+/-	112.5912	µg/mL	Unstressed
	Purity 99%		+/-	115.2073	µg/mL	Stressed
7	Dichlorofluoromethane (CFC-21)	2,000.0 µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 75-43-4 (Lot 11778600)		+/-	112.1380	µg/mL	Unstressed
	Purity 99%		+/-	114.7619	µg/mL	Stressed

8	Trichlorofluoromethane (CFC-11)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 75-69-4 (Lot MKCJ8658)			+/-	112.1380	µg/mL	Unstressed
	Purity 99%			+/-	114.7619	µg/mL	Stressed
9	1,2-Dichloro-1,1,2-trifluoroethane (CFC-123a)	2,000.2	µg/mL	+/-	17.2773	µg/mL	Gravimetric
	CAS # 354-23-4 (Lot Q9B-64)			+/-	112.8726	µg/mL	Unstressed
	Purity 99%			+/-	115.4802	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 flow 2.0 mL/min.

Temp. Program:

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

Inj. Temp:

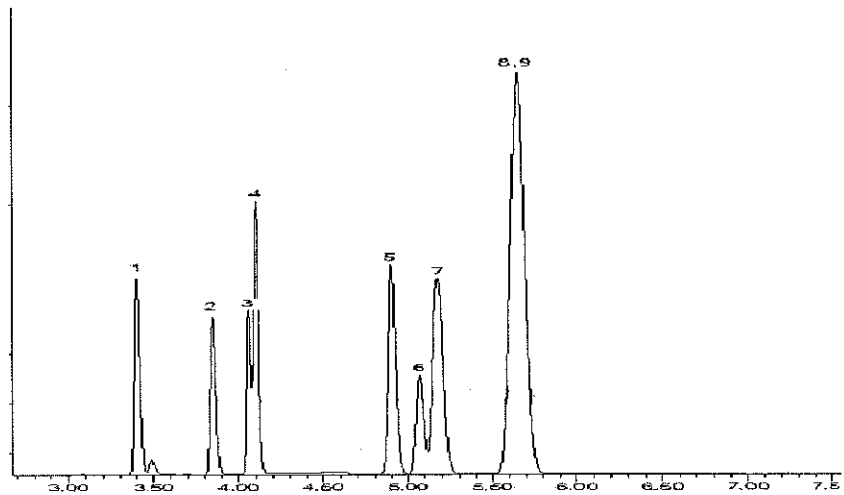
200°C

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.

[Signature]
 Tom Suckar - Mix Technician

Date Mixed: 13-May-2021 Balance: B251644995

[Signature]
 Alexis Shelow - Operations Tech I

Date Passed: 17-May-2021

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) -20°C or colder (Deep 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.

Reagent

MSV_CCV_GASES_00187



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.: 577488 Lot No.: A0172364
Description: Custom Gases Standard
Custom Gases Standard 2,000µg/mL, P&T Methanol, 1mL/ampul
Container Size: 2 mL Pkg Amt: > 1 mL
Expiration Date: May 31, 2024 Storage: 0°C or colder
Ship: Ambient

CERTIFIED VALUES

Table with 7 columns: Elution Order, Compound, Grav. Conc. (weight/volume), Expanded Uncertainty (95% C.L., K=2), and three additional columns for uncertainty values and stress conditions. Rows 1-7 list compounds like Dichlorodifluoromethane, Chloromethane, Vinyl chloride, 1,3-Butadiene, Bromomethane, Chloroethane, and Dichlorofluoromethane.

8	Trichlorofluoromethane (CFC-11)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 75-69-4 (Lot MKCJ8658)			+/-	112.1380	µg/mL	Unstressed
	Purity 99%			+/-	114.7619	µg/mL	Stressed
9	1,2-Dichloro-1,1,2-trifluoroethane (CFC-123a)	2,000.2	µg/mL	+/-	17.2773	µg/mL	Gravimetric
	CAS # 354-23-4 (Lot Q9B-64)			+/-	112.8726	µg/mL	Unstressed
	Purity 99%			+/-	115.4802	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 flow 2.0 mL/min.

Temp. Program:

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

Inj. Temp:

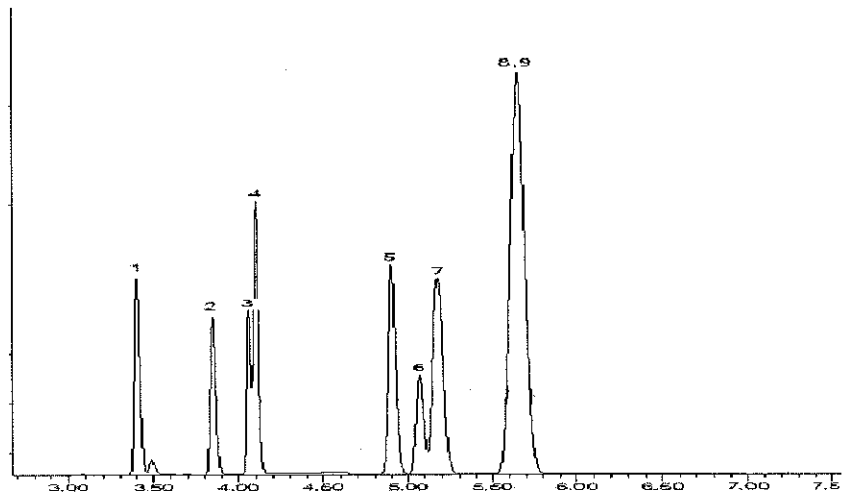
200°C

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.

[Signature]
 Tom Suckar - Mix Technician

Date Mixed: 13-May-2021 Balance: B251644995

[Signature]
 Alexis Shelow - Operations Tech I

Date Passed: 17-May-2021

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.
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Purity Notes:

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- 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.

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25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
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0°C or colder (Freezer) -20°C or colder (Deep 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:

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Reagent

MSV_Cus826_IS_00415



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. : 558267 **Lot No.:** A0178373

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 : November 30, 2024 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	2-Methyl-2-propanol-d10 CAS # 53001-22-2 (Lot I-433) Purity 99%	12,494.0 µg/mL	+/- 73.3218 µg/mL	+/- 267.6837 µg/mL	+/- 275.4550 µg/mL	Gravimetric Unstressed Stressed
2	Fluorobenzene CAS # 462-06-6 (Lot BCBZ5549) Purity 99%	2,508.0 µg/mL	+/- 14.8968 µg/mL	+/- 53.7830 µg/mL	+/- 55.3416 µg/mL	Gravimetric Unstressed Stressed
3	Chlorobenzene-d5 CAS # 3114-55-4 (Lot PR-29571) Purity 99%	2,514.0 µg/mL	+/- 14.9324 µg/mL	+/- 53.9117 µg/mL	+/- 55.4740 µg/mL	Gravimetric Unstressed Stressed
4	1,4-Dichlorobenzene-d4 CAS # 3855-82-1 (Lot PR-30447) Purity 99%	2,488.0 µg/mL	+/- 14.7780 µg/mL	+/- 53.3541 µg/mL	+/- 54.9003 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)

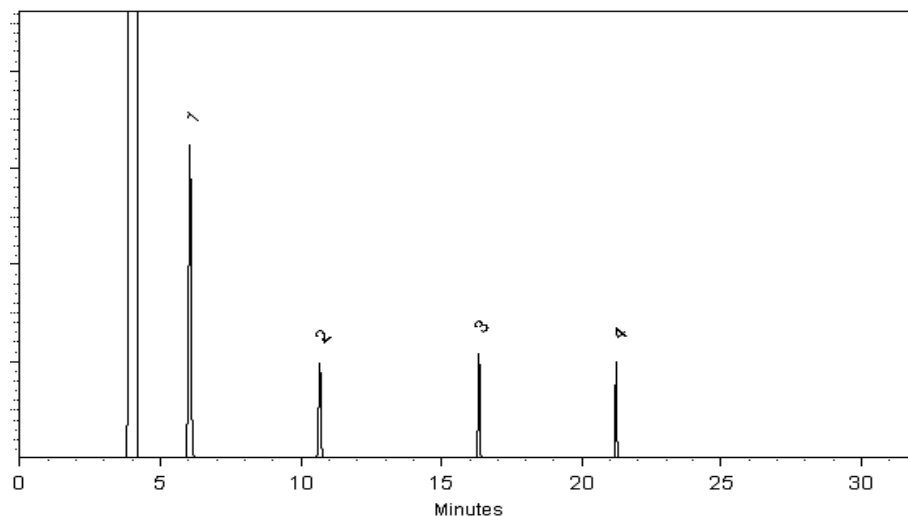
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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.


Morgan Craighead - Mix Technician

Date Mixed: 10-Nov-2021 **Balance:** B251644995


Clara Windle - Operations Technician I

Date Passed: 12-Nov-2021

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.
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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.

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0°C or colder (Freezer) -20°C or colder (Deep 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.
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Manufacturing Notes:

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Handling Notes:

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Reagent

MSV_EE_Neat_00006

CERTIFICATE OF ANALYSIS

Ethyl ether

CATALOG NUMBER N-11897-1G
LOT NUMBER 12123300
DATE CERTIFIED 12/04/20
EXPIRATION DATE 12/31/25
CAS NUMBER 60-29-7
MOLECULAR FORMULA C₄H₁₀O
MOLECULAR WEIGHT 74.12
STORAGE Refrigerator storage (2 - 8 °C)
HANDLING See Safety Data Sheet
INTENDED USE For laboratory use only.

<u>Analytical Test</u>	<u>Value</u>
% PURITY (GC/TCD)	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

COA Form
Revision 3 (3/2015)



Print Date: 07/26/21

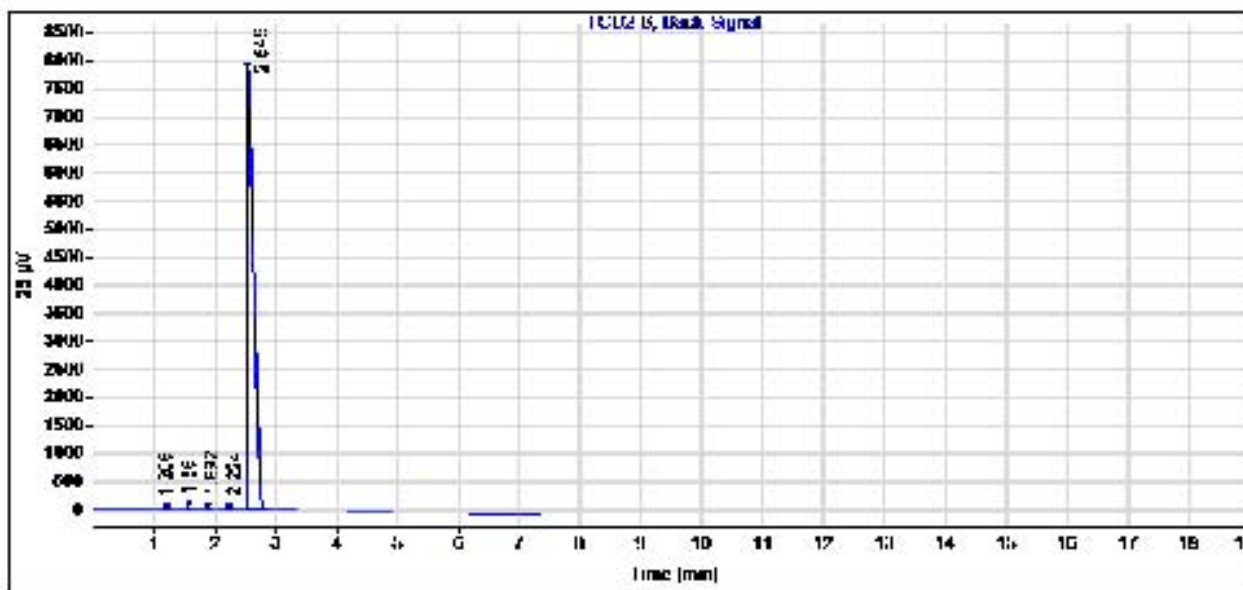
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05/09/2022

CERTIFICATE OF ANALYSIS

Gas Chromatography / Flame Ionization Detector (GC/FID)

Data file: C:\CHEM32\1\DATA\2020 DATA\1220\SIG2022771.D
Sample name: Ethylether
Instrument: GC 1 **Sample type:** Sample
Injection date: 12/4/2020 10:52:03 AM **Location:** Vial 21
Acq. method: TCD SCREEN.M **Injection volume:** 1.0uL
Column name: DB-624 (30m x 0.53mm x 3.0um)



Signal: TCD2 B, Back Signal

RT [min]	Type	Width [min]	Area	Height	Area%
1.206	BB	0.0364	16.2548	6.6898	0.0305
1.560	BB	0.0278	55.8996	29.9782	0.1049
1.892	BB	0.0328	64.6527	28.1084	0.1214
2.224	BB	0.0347	9.6188	4.3673	0.0181
2.545	BB S	0.0880	53125.6797	7942.5742	99.7251
Sum			53272.1055		



Reagent

MSV_M_MIX1SEC_00048



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. : 577493 **Lot No.:** A0171815

Description : Custom VOC MegaMix®.SEC #1 Standard
Custom VOC MegaMix®.SEC #1 Standard 1,000µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : April 30, 2024 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	1,1-Dichloroethene	1,003.8 µg/mL	+/-	7.1628	µg/mL	Gravimetric
	CAS # 75-35-4.SEC (Lot 9201700)		+/-	56.4323	µg/mL	Unstressed
	Purity 99%		+/-	57.7457	µg/mL	Stressed
2	Methylene chloride (dichloromethane)	1,001.8 µg/mL	+/-	7.1486	µg/mL	Gravimetric
	CAS # 75-09-2.SEC (Lot FGM02)		+/-	56.3199	µg/mL	Unstressed
	Purity 99%		+/-	57.6306	µg/mL	Stressed
3	trans-1,2-Dichloroethene	1,000.3 µg/mL	+/-	7.1382	µg/mL	Gravimetric
	CAS # 156-60-5.SEC (Lot TS5UB)		+/-	56.2383	µg/mL	Unstressed
	Purity 99%		+/-	57.5472	µg/mL	Stressed
4	1,1-Dichloroethane	1,002.0 µg/mL	+/-	7.1503	µg/mL	Gravimetric
	CAS # 75-34-3.SEC (Lot 7482000)		+/-	56.3339	µg/mL	Unstressed
	Purity 99%		+/-	57.6450	µg/mL	Stressed
5	2,2-Dichloropropane	1,000.0 µg/mL	+/-	7.1026	µg/mL	Gravimetric
	CAS # 594-20-7.SEC (Lot I7E8E)		+/-	56.2188	µg/mL	Unstressed
	Purity 98%		+/-	57.5274	µg/mL	Stressed
6	cis-1,2-Dichloroethene	1,000.1 µg/mL	+/-	7.1028	µg/mL	Gravimetric
	CAS # 156-59-2.SEC (Lot YZO5O)		+/-	56.2207	µg/mL	Unstressed
	Purity 99%		+/-	57.5294	µg/mL	Stressed
7	Chloroform	1,000.8 µg/mL	+/-	7.1414	µg/mL	Gravimetric
	CAS # 67-66-3.SEC (Lot 1297547)		+/-	56.2636	µg/mL	Unstressed
	Purity 99%		+/-	57.5731	µg/mL	Stressed

8	Bromochloromethane CAS # 74-97-5.SEC Purity 99%	(Lot 8529200)	1,000.1	µg/mL	+/- +/- +/-	7.1033 56.2242 57.5330	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	1,1,1-trichloroethane CAS # 71-55-6 Purity 98%	(Lot 190123CG)	1,000.3	µg/mL	+/- +/- +/-	7.1383 56.2391 57.5479	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	1,1-Dichloropropene CAS # 563-58-6.SEC Purity 95%	(Lot 8541600)	1,002.5	µg/mL	+/- +/- +/-	7.1204 56.3597 57.6716	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	Carbon tetrachloride CAS # 56-23-5.SEC Purity 99%	(Lot 11466)	1,000.8	µg/mL	+/- +/- +/-	7.1414 56.2636 57.5731	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	1,2-Dichloroethane CAS # 107-06-2.SEC Purity 99%	(Lot 00016165)	1,000.6	µg/mL	+/- +/- +/-	7.1407 56.2576 57.5669	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	Benzene CAS # 71-43-2.SEC Purity 99%	(Lot B28Y008)	1,000.1	µg/mL	+/- +/- +/-	7.1031 56.2228 57.5315	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	Trichloroethene CAS # 79-01-6.SEC Purity 99%	(Lot H04X050)	1,000.9	µg/mL	+/- +/- +/-	7.1423 56.2708 57.5804	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	1,2-Dichloropropane CAS # 78-87-5.SEC Purity 99%	(Lot ERRBI-RH)	1,000.1	µg/mL	+/- +/- +/-	7.1371 56.2293 57.5380	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	Bromodichloromethane CAS # 75-27-4.SEC Purity 99%	(Lot 13780)	1,000.8	µg/mL	+/- +/- +/-	7.1418 56.2662 57.5757	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	Dibromomethane CAS # 74-95-3.SEC Purity 99%	(Lot MOKKJ)	1,000.1	µg/mL	+/- +/- +/-	7.1033 56.2242 57.5330	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	cis-1,3-Dichloropropene CAS # 10061-01-5.SEC Purity 98%	(Lot 4870A)	1,000.9	µg/mL	+/- +/- +/-	7.1425 56.2723 57.5819	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	Toluene CAS # 108-88-3.SEC Purity 99%	(Lot YND2B-BD)	1,000.0	µg/mL	+/- +/- +/-	7.1026 56.2193 57.5279	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	trans-1,3-Dichloropropene CAS # 10061-02-6.SEC Purity 96%	(Lot ZDMSL)	1,002.1	µg/mL	+/- +/- +/-	7.1513 56.3417 57.6530	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
21	1,1,2-Trichloroethane CAS # 79-00-5.SEC Purity 99%	(Lot 7871500)	1,001.3	µg/mL	+/- +/- +/-	7.1450 56.2917 57.6018	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
22	1,3-Dichloropropane CAS # 142-28-9.SEC Purity 99%	(Lot AGN01-EFPC)	1,000.1	µg/mL	+/- +/- +/-	7.1031 56.2228 57.5315	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
23	Tetrachloroethene CAS # 127-18-4.SEC Purity 99%	(Lot F09W014)	1,000.2	µg/mL	+/- +/- +/-	7.1378 56.2350 57.5437	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

24	Dibromochloromethane CAS # 124-48-1.SEC Purity 97%	(Lot 10206360)	1,000.5	µg/mL	+/- +/- +/-	7.1396 56.2489 57.5580	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	1,2-Dibromoethane (EDB) CAS # 106-93-4.SEC Purity 99%	(Lot 7511900)	1,000.1	µg/mL	+/- +/- +/-	7.1032 56.2235 57.5322	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	Chlorobenzene CAS # 108-90-7.SEC Purity 99%	(Lot 1161936)	1,001.4	µg/mL	+/- +/- +/-	7.1460 56.2995 57.6098	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	1,1,1,2-Tetrachloroethane CAS # 630-20-6.SEC Purity 99%	(Lot GC01)	1,000.1	µg/mL	+/- +/- +/-	7.1032 56.2235 57.5322	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Ethylbenzene CAS # 100-41-4.SEC Purity 99%	(Lot PI4SE)	1,000.2	µg/mL	+/- +/- +/-	7.1035 56.2263 57.5351	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	m-Xylene CAS # 108-38-3.SEC Purity 99%	(Lot 7ZV6F)	1,000.2	µg/mL	+/- +/- +/-	7.1035 56.2263 57.5351	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	p-Xylene CAS # 106-42-3.SEC Purity 99%	(Lot D6UOA)	1,000.1	µg/mL	+/- +/- +/-	7.1027 56.2200 57.5286	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	o-Xylene CAS # 95-47-6.SEC Purity 99%	(Lot FGL01)	1,000.1	µg/mL	+/- +/- +/-	7.1028 56.2207 57.5294	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	Styrene CAS # 100-42-5.SEC Purity 99%	(Lot OFIOL-IA)	1,000.1	µg/mL	+/- +/- +/-	7.1033 56.2242 57.5330	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	Isopropylbenzene (cumene) CAS # 98-82-8.SEC Purity 99%	(Lot JN4EC)	1,000.0	µg/mL	+/- +/- +/-	7.1025 56.2179 57.5265	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	Bromoform CAS # 75-25-2.SEC Purity 99%	(Lot 9170700)	1,001.7	µg/mL	+/- +/- +/-	7.1485 56.3193 57.6300	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	1,1,1,2-Tetrachloroethane CAS # 79-34-5.SEC Purity 98%	(Lot BCCB0724)	1,001.6	µg/mL	+/- +/- +/-	7.1478 56.3139 57.6245	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	1,2,3-Trichloropropane CAS # 96-18-4.SEC Purity 99%	(Lot GUHZN)	1,000.0	µg/mL	+/- +/- +/-	7.1026 56.2193 57.5279	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	n-Propylbenzene CAS # 103-65-1.SEC Purity 99%	(Lot T2HFC)	1,000.1	µg/mL	+/- +/- +/-	7.1027 56.2200 57.5286	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
38	Bromobenzene CAS # 108-86-1.SEC Purity 99%	(Lot 8DKWJ)	1,000.2	µg/mL	+/- +/- +/-	7.1034 56.2256 57.5344	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
39	1,3,5-Trimethylbenzene CAS # 108-67-8.SEC Purity 99%	(Lot TOOOF)	1,000.1	µg/mL	+/- +/- +/-	7.1028 56.2207 57.5294	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

40	2-Chlorotoluene CAS # 95-49-8.SEC Purity 99%	(Lot BRHPM)	1,000.0	µg/mL	+/- 7.1025 +/- 56.2179 +/- 57.5265	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	4-Chlorotoluene CAS # 106-43-4.SEC Purity 99%	(Lot S5SKD)	1,000.1	µg/mL	+/- 7.1030 +/- 56.2221 +/- 57.5308	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	tert-Butylbenzene CAS # 98-06-6.SEC Purity 99%	(Lot D6OHC)	1,000.1	µg/mL	+/- 7.1029 +/- 56.2214 +/- 57.5301	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	1,2,4-Trimethylbenzene CAS # 95-63-6.SEC Purity 99%	(Lot JMIYD)	1,000.1	µg/mL	+/- 7.1031 +/- 56.2228 +/- 57.5315	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	sec-Butylbenzene CAS # 135-98-8.SEC Purity 99%	(Lot O4HRF)	1,000.1	µg/mL	+/- 7.1029 +/- 56.2214 +/- 57.5301	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	4-Isopropyltoluene (p-cymene) CAS # 99-87-6.SEC Purity 99%	(Lot 8380000)	1,000.1	µg/mL	+/- 7.1029 +/- 56.2214 +/- 57.5301	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	1,3-Dichlorobenzene CAS # 541-73-1.SEC Purity 99%	(Lot FMDFD)	1,000.1	µg/mL	+/- 7.1365 +/- 56.2251 +/- 57.5337	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	1,4-Dichlorobenzene CAS # 106-46-7.SEC Purity 99%	(Lot YWKDC-MK)	1,002.5	µg/mL	+/- 7.1538 +/- 56.3612 +/- 57.6729	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
48	n-Butylbenzene CAS # 104-51-8.SEC Purity 99%	(Lot MMPGA)	1,000.1	µg/mL	+/- 7.1031 +/- 56.2228 +/- 57.5315	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
49	1,2-Dichlorobenzene CAS # 95-50-1.SEC Purity 99%	(Lot R6QDM)	1,001.6	µg/mL	+/- 7.1475 +/- 56.3114 +/- 57.6220	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
50	1,2-Dibromo-3-chloropropane CAS # 96-12-8.SEC Purity 99%	(Lot Q135-105)	1,000.0	µg/mL	+/- 7.1025 +/- 56.2179 +/- 57.5265	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
51	1,2,4-Trichlorobenzene CAS # 120-82-1.SEC Purity 99%	(Lot IGLFA)	1,000.1	µg/mL	+/- 7.1027 +/- 56.2200 +/- 57.5286	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
52	Hexachlorobutadiene CAS # 87-68-3.SEC Purity 97%	(Lot 8532700)	1,000.8	µg/mL	+/- 7.1079 +/- 56.2614 +/- 57.5709	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
53	Naphthalene CAS # 91-20-3.SEC Purity 99%	(Lot SKZ5N)	1,000.1	µg/mL	+/- 7.1031 +/- 56.2228 +/- 57.5315	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
54	1,2,3-Trichlorobenzene CAS # 87-61-6.SEC Purity 98%	(Lot A0043055)	1,000.7	µg/mL	+/- 7.1076 +/- 56.2588 +/- 57.5683	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)

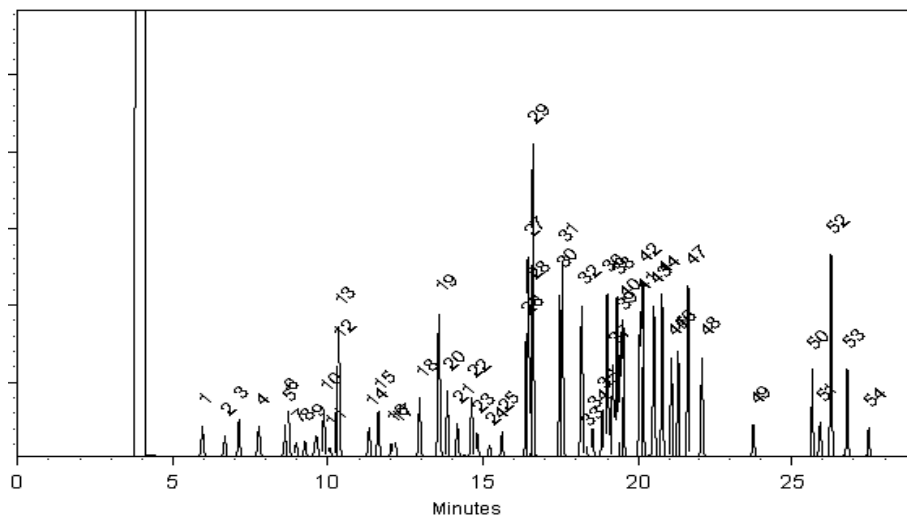
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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.

Bradley Meyer
Bradley Meyer - Mix Technician

Date Mixed: 28-Apr-2021 **Balance:** 1127510105

Alexis Shelow
Alexis Shelow - Operations Tech I

Date Passed: 30-Apr-2021

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) -20°C or colder (Deep 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.

Reagent

MSV_M_MIX1SEC_00060



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. : 577493 **Lot No.:** A0171815

Description : Custom VOC MegaMix®.SEC #1 Standard
Custom VOC MegaMix®.SEC #1 Standard 1,000µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : April 30, 2024 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	1,1-Dichloroethene	1,003.8 µg/mL	+/-	7.1628	µg/mL	Gravimetric
	CAS # 75-35-4.SEC (Lot 9201700)		+/-	56.4323	µg/mL	Unstressed
	Purity 99%		+/-	57.7457	µg/mL	Stressed
2	Methylene chloride (dichloromethane)	1,001.8 µg/mL	+/-	7.1486	µg/mL	Gravimetric
	CAS # 75-09-2.SEC (Lot FGM02)		+/-	56.3199	µg/mL	Unstressed
	Purity 99%		+/-	57.6306	µg/mL	Stressed
3	trans-1,2-Dichloroethene	1,000.3 µg/mL	+/-	7.1382	µg/mL	Gravimetric
	CAS # 156-60-5.SEC (Lot TS5UB)		+/-	56.2383	µg/mL	Unstressed
	Purity 99%		+/-	57.5472	µg/mL	Stressed
4	1,1-Dichloroethane	1,002.0 µg/mL	+/-	7.1503	µg/mL	Gravimetric
	CAS # 75-34-3.SEC (Lot 7482000)		+/-	56.3339	µg/mL	Unstressed
	Purity 99%		+/-	57.6450	µg/mL	Stressed
5	2,2-Dichloropropane	1,000.0 µg/mL	+/-	7.1026	µg/mL	Gravimetric
	CAS # 594-20-7.SEC (Lot I7E8E)		+/-	56.2188	µg/mL	Unstressed
	Purity 98%		+/-	57.5274	µg/mL	Stressed
6	cis-1,2-Dichloroethene	1,000.1 µg/mL	+/-	7.1028	µg/mL	Gravimetric
	CAS # 156-59-2.SEC (Lot YZO5O)		+/-	56.2207	µg/mL	Unstressed
	Purity 99%		+/-	57.5294	µg/mL	Stressed
7	Chloroform	1,000.8 µg/mL	+/-	7.1414	µg/mL	Gravimetric
	CAS # 67-66-3.SEC (Lot 1297547)		+/-	56.2636	µg/mL	Unstressed
	Purity 99%		+/-	57.5731	µg/mL	Stressed

8	Bromochloromethane CAS # 74-97-5.SEC Purity 99%	(Lot 8529200)	1,000.1	µg/mL	+/- 7.1033 +/- 56.2242 +/- 57.5330	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	1,1,1-trichloroethane CAS # 71-55-6 Purity 98%	(Lot 190123CG)	1,000.3	µg/mL	+/- 7.1383 +/- 56.2391 +/- 57.5479	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	1,1-Dichloropropene CAS # 563-58-6.SEC Purity 95%	(Lot 8541600)	1,002.5	µg/mL	+/- 7.1204 +/- 56.3597 +/- 57.6716	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	Carbon tetrachloride CAS # 56-23-5.SEC Purity 99%	(Lot 11466)	1,000.8	µg/mL	+/- 7.1414 +/- 56.2636 +/- 57.5731	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	1,2-Dichloroethane CAS # 107-06-2.SEC Purity 99%	(Lot 00016165)	1,000.6	µg/mL	+/- 7.1407 +/- 56.2576 +/- 57.5669	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	Benzene CAS # 71-43-2.SEC Purity 99%	(Lot B28Y008)	1,000.1	µg/mL	+/- 7.1031 +/- 56.2228 +/- 57.5315	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	Trichloroethene CAS # 79-01-6.SEC Purity 99%	(Lot H04X050)	1,000.9	µg/mL	+/- 7.1423 +/- 56.2708 +/- 57.5804	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	1,2-Dichloropropane CAS # 78-87-5.SEC Purity 99%	(Lot ERRBI-RH)	1,000.1	µg/mL	+/- 7.1371 +/- 56.2293 +/- 57.5380	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	Bromodichloromethane CAS # 75-27-4.SEC Purity 99%	(Lot 13780)	1,000.8	µg/mL	+/- 7.1418 +/- 56.2662 +/- 57.5757	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	Dibromomethane CAS # 74-95-3.SEC Purity 99%	(Lot MOKKJ)	1,000.1	µg/mL	+/- 7.1033 +/- 56.2242 +/- 57.5330	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	cis-1,3-Dichloropropene CAS # 10061-01-5.SEC Purity 98%	(Lot 4870A)	1,000.9	µg/mL	+/- 7.1425 +/- 56.2723 +/- 57.5819	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	Toluene CAS # 108-88-3.SEC Purity 99%	(Lot YND2B-BD)	1,000.0	µg/mL	+/- 7.1026 +/- 56.2193 +/- 57.5279	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	trans-1,3-Dichloropropene CAS # 10061-02-6.SEC Purity 96%	(Lot ZDMSL)	1,002.1	µg/mL	+/- 7.1513 +/- 56.3417 +/- 57.6530	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
21	1,1,2-Trichloroethane CAS # 79-00-5.SEC Purity 99%	(Lot 7871500)	1,001.3	µg/mL	+/- 7.1450 +/- 56.2917 +/- 57.6018	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
22	1,3-Dichloropropane CAS # 142-28-9.SEC Purity 99%	(Lot AGN01-EFPC)	1,000.1	µg/mL	+/- 7.1031 +/- 56.2228 +/- 57.5315	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
23	Tetrachloroethene CAS # 127-18-4.SEC Purity 99%	(Lot F09W014)	1,000.2	µg/mL	+/- 7.1378 +/- 56.2350 +/- 57.5437	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

24	Dibromochloromethane CAS # 124-48-1.SEC Purity 97%	(Lot 10206360)	1,000.5	µg/mL	+/-	7.1396 56.2489 57.5580	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	1,2-Dibromoethane (EDB) CAS # 106-93-4.SEC Purity 99%	(Lot 7511900)	1,000.1	µg/mL	+/-	7.1032 56.2235 57.5322	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	Chlorobenzene CAS # 108-90-7.SEC Purity 99%	(Lot 1161936)	1,001.4	µg/mL	+/-	7.1460 56.2995 57.6098	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	1,1,1,2-Tetrachloroethane CAS # 630-20-6.SEC Purity 99%	(Lot GC01)	1,000.1	µg/mL	+/-	7.1032 56.2235 57.5322	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Ethylbenzene CAS # 100-41-4.SEC Purity 99%	(Lot PI4SE)	1,000.2	µg/mL	+/-	7.1035 56.2263 57.5351	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	m-Xylene CAS # 108-38-3.SEC Purity 99%	(Lot 7ZV6F)	1,000.2	µg/mL	+/-	7.1035 56.2263 57.5351	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	p-Xylene CAS # 106-42-3.SEC Purity 99%	(Lot D6UOA)	1,000.1	µg/mL	+/-	7.1027 56.2200 57.5286	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	o-Xylene CAS # 95-47-6.SEC Purity 99%	(Lot FGL01)	1,000.1	µg/mL	+/-	7.1028 56.2207 57.5294	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	Styrene CAS # 100-42-5.SEC Purity 99%	(Lot OFIOL-IA)	1,000.1	µg/mL	+/-	7.1033 56.2242 57.5330	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	Isopropylbenzene (cumene) CAS # 98-82-8.SEC Purity 99%	(Lot JN4EC)	1,000.0	µg/mL	+/-	7.1025 56.2179 57.5265	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	Bromoform CAS # 75-25-2.SEC Purity 99%	(Lot 9170700)	1,001.7	µg/mL	+/-	7.1485 56.3193 57.6300	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	1,1,1,2,2-Tetrachloroethane CAS # 79-34-5.SEC Purity 98%	(Lot BCCB0724)	1,001.6	µg/mL	+/-	7.1478 56.3139 57.6245	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	1,2,3-Trichloropropane CAS # 96-18-4.SEC Purity 99%	(Lot GUHZN)	1,000.0	µg/mL	+/-	7.1026 56.2193 57.5279	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	n-Propylbenzene CAS # 103-65-1.SEC Purity 99%	(Lot T2HFC)	1,000.1	µg/mL	+/-	7.1027 56.2200 57.5286	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
38	Bromobenzene CAS # 108-86-1.SEC Purity 99%	(Lot 8DKWJ)	1,000.2	µg/mL	+/-	7.1034 56.2256 57.5344	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
39	1,3,5-Trimethylbenzene CAS # 108-67-8.SEC Purity 99%	(Lot TOOOF)	1,000.1	µg/mL	+/-	7.1028 56.2207 57.5294	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

40	2-Chlorotoluene CAS # 95-49-8.SEC Purity 99%	(Lot BRHPM)	1,000.0	µg/mL	+/-	7.1025 56.2179 57.5265	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	4-Chlorotoluene CAS # 106-43-4.SEC Purity 99%	(Lot S5SKD)	1,000.1	µg/mL	+/-	7.1030 56.2221 57.5308	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	tert-Butylbenzene CAS # 98-06-6.SEC Purity 99%	(Lot D6OHC)	1,000.1	µg/mL	+/-	7.1029 56.2214 57.5301	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	1,2,4-Trimethylbenzene CAS # 95-63-6.SEC Purity 99%	(Lot JMIYD)	1,000.1	µg/mL	+/-	7.1031 56.2228 57.5315	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	sec-Butylbenzene CAS # 135-98-8.SEC Purity 99%	(Lot O4HRF)	1,000.1	µg/mL	+/-	7.1029 56.2214 57.5301	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	4-Isopropyltoluene (p-cymene) CAS # 99-87-6.SEC Purity 99%	(Lot 8380000)	1,000.1	µg/mL	+/-	7.1029 56.2214 57.5301	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	1,3-Dichlorobenzene CAS # 541-73-1.SEC Purity 99%	(Lot FMDFD)	1,000.1	µg/mL	+/-	7.1365 56.2251 57.5337	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	1,4-Dichlorobenzene CAS # 106-46-7.SEC Purity 99%	(Lot YWKDC-MK)	1,002.5	µg/mL	+/-	7.1538 56.3612 57.6729	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
48	n-Butylbenzene CAS # 104-51-8.SEC Purity 99%	(Lot MMPGA)	1,000.1	µg/mL	+/-	7.1031 56.2228 57.5315	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
49	1,2-Dichlorobenzene CAS # 95-50-1.SEC Purity 99%	(Lot R6QDM)	1,001.6	µg/mL	+/-	7.1475 56.3114 57.6220	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
50	1,2-Dibromo-3-chloropropane CAS # 96-12-8.SEC Purity 99%	(Lot Q135-105)	1,000.0	µg/mL	+/-	7.1025 56.2179 57.5265	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
51	1,2,4-Trichlorobenzene CAS # 120-82-1.SEC Purity 99%	(Lot IGLFA)	1,000.1	µg/mL	+/-	7.1027 56.2200 57.5286	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
52	Hexachlorobutadiene CAS # 87-68-3.SEC Purity 97%	(Lot 8532700)	1,000.8	µg/mL	+/-	7.1079 56.2614 57.5709	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
53	Naphthalene CAS # 91-20-3.SEC Purity 99%	(Lot SKZ5N)	1,000.1	µg/mL	+/-	7.1031 56.2228 57.5315	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
54	1,2,3-Trichlorobenzene CAS # 87-61-6.SEC Purity 98%	(Lot A0043055)	1,000.7	µg/mL	+/-	7.1076 56.2588 57.5683	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)

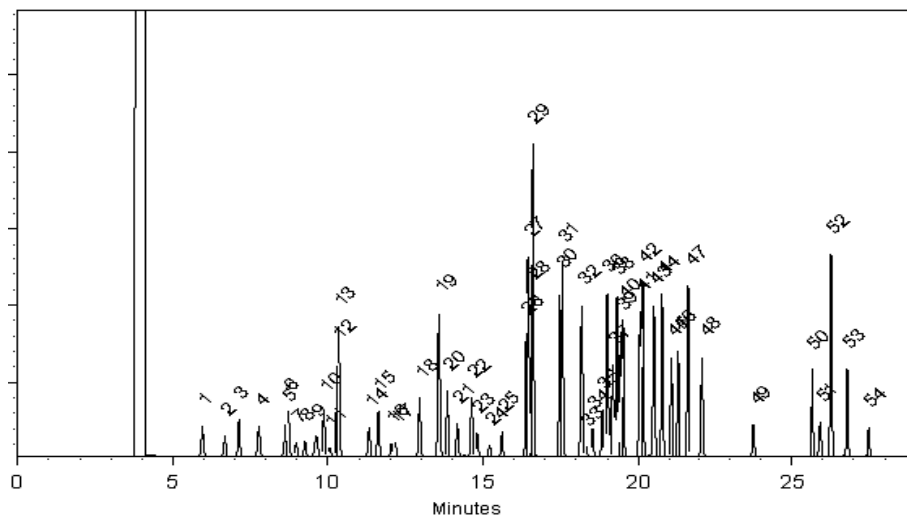
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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.

Bradley Meyer
Bradley Meyer - Mix Technician

Date Mixed: 28-Apr-2021 **Balance:** 1127510105

Alexis Shelow
Alexis Shelow - Operations Tech I

Date Passed: 30-Apr-2021

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) -20°C or colder (Deep 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.

Reagent

MSV_M_MIX1SEC_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. : 577493 **Lot No.:** A0171815

Description : Custom VOC MegaMix®.SEC #1 Standard
Custom VOC MegaMix®.SEC #1 Standard 1,000µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : April 30, 2024 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	1,1-Dichloroethene	1,003.8 µg/mL	+/-	7.1628	µg/mL	Gravimetric
	CAS # 75-35-4.SEC (Lot 9201700)		+/-	56.4323	µg/mL	Unstressed
	Purity 99%		+/-	57.7457	µg/mL	Stressed
2	Methylene chloride (dichloromethane)	1,001.8 µg/mL	+/-	7.1486	µg/mL	Gravimetric
	CAS # 75-09-2.SEC (Lot FGM02)		+/-	56.3199	µg/mL	Unstressed
	Purity 99%		+/-	57.6306	µg/mL	Stressed
3	trans-1,2-Dichloroethene	1,000.3 µg/mL	+/-	7.1382	µg/mL	Gravimetric
	CAS # 156-60-5.SEC (Lot TS5UB)		+/-	56.2383	µg/mL	Unstressed
	Purity 99%		+/-	57.5472	µg/mL	Stressed
4	1,1-Dichloroethane	1,002.0 µg/mL	+/-	7.1503	µg/mL	Gravimetric
	CAS # 75-34-3.SEC (Lot 7482000)		+/-	56.3339	µg/mL	Unstressed
	Purity 99%		+/-	57.6450	µg/mL	Stressed
5	2,2-Dichloropropane	1,000.0 µg/mL	+/-	7.1026	µg/mL	Gravimetric
	CAS # 594-20-7.SEC (Lot I7E8E)		+/-	56.2188	µg/mL	Unstressed
	Purity 98%		+/-	57.5274	µg/mL	Stressed
6	cis-1,2-Dichloroethene	1,000.1 µg/mL	+/-	7.1028	µg/mL	Gravimetric
	CAS # 156-59-2.SEC (Lot YZO5O)		+/-	56.2207	µg/mL	Unstressed
	Purity 99%		+/-	57.5294	µg/mL	Stressed
7	Chloroform	1,000.8 µg/mL	+/-	7.1414	µg/mL	Gravimetric
	CAS # 67-66-3.SEC (Lot 1297547)		+/-	56.2636	µg/mL	Unstressed
	Purity 99%		+/-	57.5731	µg/mL	Stressed

8	Bromochloromethane CAS # 74-97-5.SEC Purity 99%	(Lot 8529200)	1,000.1	µg/mL	+/-	7.1033 56.2242 57.5330	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	1,1,1-trichloroethane CAS # 71-55-6 Purity 98%	(Lot 190123CG)	1,000.3	µg/mL	+/-	7.1383 56.2391 57.5479	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	1,1-Dichloropropene CAS # 563-58-6.SEC Purity 95%	(Lot 8541600)	1,002.5	µg/mL	+/-	7.1204 56.3597 57.6716	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	Carbon tetrachloride CAS # 56-23-5.SEC Purity 99%	(Lot 11466)	1,000.8	µg/mL	+/-	7.1414 56.2636 57.5731	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	1,2-Dichloroethane CAS # 107-06-2.SEC Purity 99%	(Lot 00016165)	1,000.6	µg/mL	+/-	7.1407 56.2576 57.5669	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	Benzene CAS # 71-43-2.SEC Purity 99%	(Lot B28Y008)	1,000.1	µg/mL	+/-	7.1031 56.2228 57.5315	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	Trichloroethene CAS # 79-01-6.SEC Purity 99%	(Lot H04X050)	1,000.9	µg/mL	+/-	7.1423 56.2708 57.5804	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	1,2-Dichloropropane CAS # 78-87-5.SEC Purity 99%	(Lot ERRBI-RH)	1,000.1	µg/mL	+/-	7.1371 56.2293 57.5380	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	Bromodichloromethane CAS # 75-27-4.SEC Purity 99%	(Lot 13780)	1,000.8	µg/mL	+/-	7.1418 56.2662 57.5757	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	Dibromomethane CAS # 74-95-3.SEC Purity 99%	(Lot MOKKJ)	1,000.1	µg/mL	+/-	7.1033 56.2242 57.5330	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	cis-1,3-Dichloropropene CAS # 10061-01-5.SEC Purity 98%	(Lot 4870A)	1,000.9	µg/mL	+/-	7.1425 56.2723 57.5819	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	Toluene CAS # 108-88-3.SEC Purity 99%	(Lot YND2B-BD)	1,000.0	µg/mL	+/-	7.1026 56.2193 57.5279	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	trans-1,3-Dichloropropene CAS # 10061-02-6.SEC Purity 96%	(Lot ZDMSL)	1,002.1	µg/mL	+/-	7.1513 56.3417 57.6530	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
21	1,1,2-Trichloroethane CAS # 79-00-5.SEC Purity 99%	(Lot 7871500)	1,001.3	µg/mL	+/-	7.1450 56.2917 57.6018	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
22	1,3-Dichloropropane CAS # 142-28-9.SEC Purity 99%	(Lot AGN01-EFPC)	1,000.1	µg/mL	+/-	7.1031 56.2228 57.5315	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
23	Tetrachloroethene CAS # 127-18-4.SEC Purity 99%	(Lot F09W014)	1,000.2	µg/mL	+/-	7.1378 56.2350 57.5437	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

24	Dibromochloromethane CAS # 124-48-1.SEC Purity 97%	(Lot 10206360)	1,000.5	µg/mL	+/- +/- +/-	7.1396 56.2489 57.5580	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	1,2-Dibromoethane (EDB) CAS # 106-93-4.SEC Purity 99%	(Lot 7511900)	1,000.1	µg/mL	+/- +/- +/-	7.1032 56.2235 57.5322	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	Chlorobenzene CAS # 108-90-7.SEC Purity 99%	(Lot 1161936)	1,001.4	µg/mL	+/- +/- +/-	7.1460 56.2995 57.6098	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	1,1,1,2-Tetrachloroethane CAS # 630-20-6.SEC Purity 99%	(Lot GC01)	1,000.1	µg/mL	+/- +/- +/-	7.1032 56.2235 57.5322	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Ethylbenzene CAS # 100-41-4.SEC Purity 99%	(Lot PI4SE)	1,000.2	µg/mL	+/- +/- +/-	7.1035 56.2263 57.5351	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	m-Xylene CAS # 108-38-3.SEC Purity 99%	(Lot 7ZV6F)	1,000.2	µg/mL	+/- +/- +/-	7.1035 56.2263 57.5351	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	p-Xylene CAS # 106-42-3.SEC Purity 99%	(Lot D6UOA)	1,000.1	µg/mL	+/- +/- +/-	7.1027 56.2200 57.5286	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	o-Xylene CAS # 95-47-6.SEC Purity 99%	(Lot FGL01)	1,000.1	µg/mL	+/- +/- +/-	7.1028 56.2207 57.5294	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	Styrene CAS # 100-42-5.SEC Purity 99%	(Lot OFIOL-IA)	1,000.1	µg/mL	+/- +/- +/-	7.1033 56.2242 57.5330	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	Isopropylbenzene (cumene) CAS # 98-82-8.SEC Purity 99%	(Lot JN4EC)	1,000.0	µg/mL	+/- +/- +/-	7.1025 56.2179 57.5265	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	Bromoform CAS # 75-25-2.SEC Purity 99%	(Lot 9170700)	1,001.7	µg/mL	+/- +/- +/-	7.1485 56.3193 57.6300	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	1,1,1,2-Tetrachloroethane CAS # 79-34-5.SEC Purity 98%	(Lot BCCB0724)	1,001.6	µg/mL	+/- +/- +/-	7.1478 56.3139 57.6245	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	1,2,3-Trichloropropane CAS # 96-18-4.SEC Purity 99%	(Lot GUHZN)	1,000.0	µg/mL	+/- +/- +/-	7.1026 56.2193 57.5279	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	n-Propylbenzene CAS # 103-65-1.SEC Purity 99%	(Lot T2HFC)	1,000.1	µg/mL	+/- +/- +/-	7.1027 56.2200 57.5286	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
38	Bromobenzene CAS # 108-86-1.SEC Purity 99%	(Lot 8DKWJ)	1,000.2	µg/mL	+/- +/- +/-	7.1034 56.2256 57.5344	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
39	1,3,5-Trimethylbenzene CAS # 108-67-8.SEC Purity 99%	(Lot TOOOF)	1,000.1	µg/mL	+/- +/- +/-	7.1028 56.2207 57.5294	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

40	2-Chlorotoluene CAS # 95-49-8.SEC Purity 99%	(Lot BRHPM)	1,000.0	µg/mL	+/- +/- +/-	7.1025 56.2179 57.5265	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	4-Chlorotoluene CAS # 106-43-4.SEC Purity 99%	(Lot S5SKD)	1,000.1	µg/mL	+/- +/- +/-	7.1030 56.2221 57.5308	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	tert-Butylbenzene CAS # 98-06-6.SEC Purity 99%	(Lot D6OHC)	1,000.1	µg/mL	+/- +/- +/-	7.1029 56.2214 57.5301	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	1,2,4-Trimethylbenzene CAS # 95-63-6.SEC Purity 99%	(Lot JMIYD)	1,000.1	µg/mL	+/- +/- +/-	7.1031 56.2228 57.5315	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	sec-Butylbenzene CAS # 135-98-8.SEC Purity 99%	(Lot O4HRF)	1,000.1	µg/mL	+/- +/- +/-	7.1029 56.2214 57.5301	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	4-Isopropyltoluene (p-cymene) CAS # 99-87-6.SEC Purity 99%	(Lot 8380000)	1,000.1	µg/mL	+/- +/- +/-	7.1029 56.2214 57.5301	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	1,3-Dichlorobenzene CAS # 541-73-1.SEC Purity 99%	(Lot FMDFD)	1,000.1	µg/mL	+/- +/- +/-	7.1365 56.2251 57.5337	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	1,4-Dichlorobenzene CAS # 106-46-7.SEC Purity 99%	(Lot YWKDC-MK)	1,002.5	µg/mL	+/- +/- +/-	7.1538 56.3612 57.6729	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
48	n-Butylbenzene CAS # 104-51-8.SEC Purity 99%	(Lot MMPGA)	1,000.1	µg/mL	+/- +/- +/-	7.1031 56.2228 57.5315	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
49	1,2-Dichlorobenzene CAS # 95-50-1.SEC Purity 99%	(Lot R6QDM)	1,001.6	µg/mL	+/- +/- +/-	7.1475 56.3114 57.6220	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
50	1,2-Dibromo-3-chloropropane CAS # 96-12-8.SEC Purity 99%	(Lot Q135-105)	1,000.0	µg/mL	+/- +/- +/-	7.1025 56.2179 57.5265	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
51	1,2,4-Trichlorobenzene CAS # 120-82-1.SEC Purity 99%	(Lot IGLFA)	1,000.1	µg/mL	+/- +/- +/-	7.1027 56.2200 57.5286	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
52	Hexachlorobutadiene CAS # 87-68-3.SEC Purity 97%	(Lot 8532700)	1,000.8	µg/mL	+/- +/- +/-	7.1079 56.2614 57.5709	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
53	Naphthalene CAS # 91-20-3.SEC Purity 99%	(Lot SKZ5N)	1,000.1	µg/mL	+/- +/- +/-	7.1031 56.2228 57.5315	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
54	1,2,3-Trichlorobenzene CAS # 87-61-6.SEC Purity 98%	(Lot A0043055)	1,000.7	µg/mL	+/- +/- +/-	7.1076 56.2588 57.5683	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)

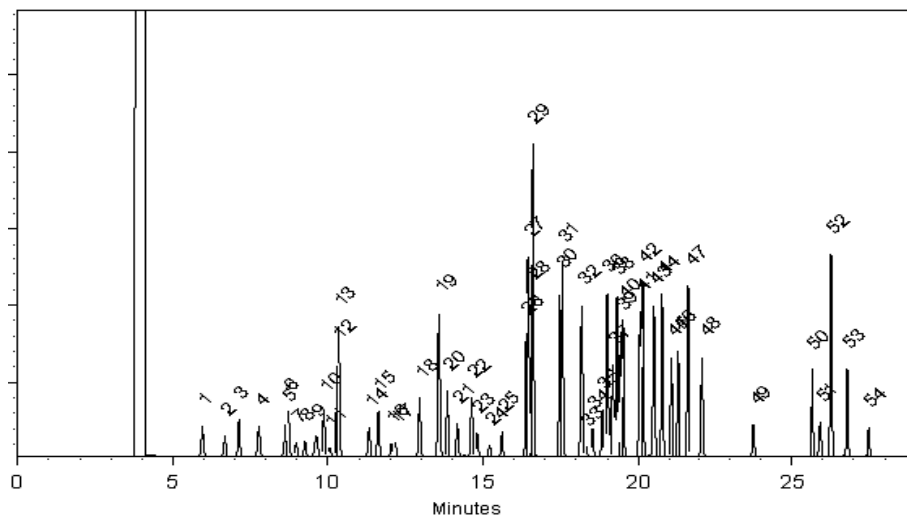
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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.

Bradley Meyer
Bradley Meyer - Mix Technician

Date Mixed: 28-Apr-2021 **Balance:** 1127510105

Alexis Shelow
Alexis Shelow - Operations Tech I

Date Passed: 30-Apr-2021

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) -20°C or colder (Deep 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.

Reagent

MSV_M_MIX2SEC_00054



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. : 577494 **Lot No.:** A0171837

Description : Custom VOC MegaMix®.SEC #2 Standard
Custom VOC MegaMix®.SEC #2 Standard 1,000-50,000µg/mL, P&T
Methanol, 1mL/ampul

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

Expiration Date : April 30, 2024 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	n-Pentane (C5)	1,002.0 µg/mL	+/- 5.8803 µg/mL Gravimetric	
	CAS # 109-66-0.SEC (Lot FGH02)			+/- 49.5732 µg/mL Unstressed
	Purity 99%			+/- 50.8056 µg/mL Stressed
2	2-Propanol (isopropanol)	7,501.5 µg/mL	+/- 43.9229 µg/mL Gravimetric	
	CAS # 67-63-0.SEC (Lot TFT5I)			+/- 371.1195 µg/mL Unstressed
	Purity 99%			+/- 380.3459 µg/mL Stressed
3	1,1,2-Trichlorotrifluoroethane (CFC-113)	1,002.0 µg/mL	+/- 5.8803 µg/mL Gravimetric	
	CAS # 76-13-1.SEC (Lot 18342)			+/- 49.5732 µg/mL Unstressed
	Purity 99%			+/- 50.8056 µg/mL Stressed
4	tert-Butanol (TBA)	10,001.0 µg/mL	+/- 58.5581 µg/mL Gravimetric	
	CAS # 75-65-0.SEC (Lot 5REPK)			+/- 494.7765 µg/mL Unstressed
	Purity 99%			+/- 507.0771 µg/mL Stressed
5	Methyl acetate	1,002.5 µg/mL	+/- 5.8832 µg/mL Gravimetric	
	CAS # 79-20-9.SEC (Lot YDGVD)			+/- 49.5980 µg/mL Unstressed
	Purity 99%			+/- 50.8309 µg/mL Stressed
6	Iodomethane (methyl iodide)	1,001.5 µg/mL	+/- 5.8774 µg/mL Gravimetric	
	CAS # 74-88-4.SEC (Lot Y25A027)			+/- 49.5485 µg/mL Unstressed
	Purity 99%			+/- 50.7802 µg/mL Stressed
7	Allyl chloride (3-chloropropene)	1,002.0 µg/mL	+/- 5.8803 µg/mL Gravimetric	
	CAS # 107-05-1.SEC (Lot H3HGC)			+/- 49.5732 µg/mL Unstressed
	Purity 99%			+/- 50.8056 µg/mL Stressed

8	Carbon disulfide CAS # 75-15-0.SEC Purity 99%	(Lot MKBL1376V)	1,001.5	µg/mL	+/-	5.8774 49.5485 50.7802	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Acrylonitrile CAS # 107-13-1.SEC Purity 99%	(Lot V54AD)	5,000.5	µg/mL	+/-	29.2790 247.3882 253.5386	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	Methyl-tert-butyl ether (MTBE) CAS # 1634-04-4.SEC Purity 99%	(Lot ZHKYA)	1,001.5	µg/mL	+/-	5.8774 49.5485 50.7802	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	n-Hexane (C6) CAS # 110-54-3.SEC Purity 99%	(Lot 10188491)	1,001.0	µg/mL	+/-	5.8744 49.5238 50.7549	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	Diisopropyl ether (DIPE) CAS # 108-20-3.SEC Purity 99%	(Lot LL7TN-SH)	1,003.0	µg/mL	+/-	5.8862 49.6227 50.8563	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	Chloroprene (2-chloro-1,3-butadiene) CAS # 126-99-8 Purity 99%	(Lot 210413JLM)	1,001.5	µg/mL	+/-	5.8774 49.5485 50.7802	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	Ethyl-tert-butyl ether (ETBE) CAS # 637-92-3.SEC Purity 98%	(Lot UC15B)	1,002.1	µg/mL	+/-	5.8806 49.5757 50.8081	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	Propionitrile CAS # 107-12-0.SEC Purity 99%	(Lot N44LF)	7,501.5	µg/mL	+/-	43.9229 371.1195 380.3459	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	Methacrylonitrile CAS # 126-98-7 Purity 99%	(Lot 1012014)	7,501.5	µg/mL	+/-	43.9229 371.1195 380.3459	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	Isobutanol (2-Methyl-1-propanol) CAS # 78-83-1.SEC Purity 99%	(Lot YNG3K)	25,001.0	µg/mL	+/-	146.3864 1,236.8670 1,267.6168	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	Tetrahydrofuran CAS # 109-99-9.SEC Purity 99%	(Lot 3NYHE)	5,000.5	µg/mL	+/-	29.2790 247.3882 253.5386	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	Cyclohexane CAS # 110-82-7.SEC Purity 99%	(Lot YADRA)	1,000.0	µg/mL	+/-	5.8686 49.4743 50.7042	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	1-Butanol CAS # 71-36-3.SEC Purity 99%	(Lot 6B6UL)	50,004.5	µg/mL	+/-	292.7722 2,473.8558 2,535.3586	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
21	tert-Amyl methyl ether (TAME) CAS # 994-05-8.SEC Purity 99%	(Lot 11010100)	1,001.0	µg/mL	+/-	5.8744 49.5238 50.7549	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
22	n-Heptane (C7) CAS # 142-82-5.SEC Purity 99%	(Lot TFHUC)	1,002.5	µg/mL	+/-	5.8832 49.5980 50.8309	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
23	tert-Amyl ethyl ether (TAEE) CAS # 919-94-8.SEC Purity 99%	(Lot 11370700)	1,000.5	µg/mL	+/-	5.8715 49.4990 50.7295	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

24	Methylcyclohexane CAS # 108-87-2.SEC Purity 99%	(Lot Q02QG)	1,001.0	µg/mL	+/- 5.8744 +/- 49.5238 +/- 50.7549	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	Methyl methacrylate CAS # 80-62-6.SEC Purity 99%	(Lot G01X021)	1,000.5	µg/mL	+/- 5.8715 +/- 49.4990 +/- 50.7295	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	1,4-Dioxane CAS # 123-91-1.SEC Purity 99%	(Lot KLE2K)	25,004.0	µg/mL	+/- 146.4039 +/- 1,237.0154 +/- 1,267.7689	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	2-Nitropropane CAS # 79-46-9.SEC Purity 99%	(Lot F43IA)	1,001.5	µg/mL	+/- 5.8774 +/- 49.5485 +/- 50.7802	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Ethyl methacrylate CAS # 97-63-2.SEC Purity 99%	(Lot MLWYK-LS)	1,000.0	µg/mL	+/- 5.8686 +/- 49.4743 +/- 50.7042	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	1-Chlorohexane CAS # 544-10-5.SEC Purity 99%	(Lot 8171700)	1,001.0	µg/mL	+/- 5.8744 +/- 49.5238 +/- 50.7549	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	trans-1,4-Dichloro-2-butene CAS # 110-57-6.SEC Purity 97%	(Lot 100700-3)	5,000.4	µg/mL	+/- 29.2781 +/- 247.3808 +/- 253.5310	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	1,2,3-Trimethylbenzene CAS # 526-73-8.SEC Purity 98%	(Lot 11386600)	1,001.1	µg/mL	+/- 5.8748 +/- 49.5272 +/- 50.7584	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	1,3-Diethylbenzene CAS # 141-93-5.SEC Purity 99%	(Lot 113566-1)	1,003.5	µg/mL	+/- 5.8891 +/- 49.6474 +/- 50.8816	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	Benzyl chloride CAS # 100-44-7.SEC Purity 99%	(Lot H29N03)	1,001.0	µg/mL	+/- 5.8744 +/- 49.5238 +/- 50.7549	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	1,4-Diethylbenzene CAS # 105-05-5.SEC Purity 98%	(Lot FBQ02)	1,002.1	µg/mL	+/- 5.8806 +/- 49.5757 +/- 50.8081	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	1,2-Diethylbenzene CAS # 135-01-3.SEC Purity 99%	(Lot BCBF3667V)	1,000.5	µg/mL	+/- 5.8715 +/- 49.4990 +/- 50.7295	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	1,3,5-Trichlorobenzene CAS # 108-70-3.SEC Purity 99%	(Lot I28U021)	1,001.5	µg/mL	+/- 5.8774 +/- 49.5485 +/- 50.7802	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	2-Methylnaphthalene CAS # 91-57-6.SEC Purity 99%	(Lot 76023-1)	1,000.0	µg/mL	+/- 5.8686 +/- 49.4743 +/- 50.7042	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

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

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

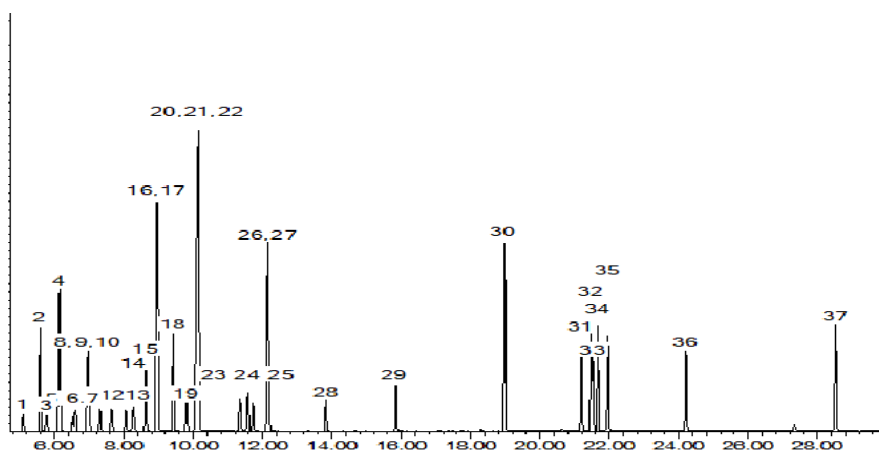
Carrier Gas:
helium-constant pressure 30 psi

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.

Michael Maje

Date Mixed: 28-Apr-2021 **Balance:** 1128353505

Alexis Shelow
Alexis Shelow - Operations Tech I

Date Passed: 04-May-2021

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) -20°C or colder (Deep 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.

Reagent

MSV_M_MIX2SEC_00060



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. : 577494 **Lot No.:** A0171837

Description : Custom VOC MegaMix®.SEC #2 Standard
Custom VOC MegaMix®.SEC #2 Standard 1,000-50,000µg/mL, P&T
Methanol, 1mL/ampul

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

Expiration Date : April 30, 2024 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	n-Pentane (C5)	1,002.0 µg/mL	+/-	5.8803	µg/mL	Gravimetric
	CAS # 109-66-0.SEC (Lot FGH02)		+/-	49.5732	µg/mL	Unstressed
	Purity 99%		+/-	50.8056	µg/mL	Stressed
2	2-Propanol (isopropanol)	7,501.5 µg/mL	+/-	43.9229	µg/mL	Gravimetric
	CAS # 67-63-0.SEC (Lot TFT5I)		+/-	371.1195	µg/mL	Unstressed
	Purity 99%		+/-	380.3459	µg/mL	Stressed
3	1,1,2-Trichlorotrifluoroethane (CFC-113)	1,002.0 µg/mL	+/-	5.8803	µg/mL	Gravimetric
	CAS # 76-13-1.SEC (Lot 18342)		+/-	49.5732	µg/mL	Unstressed
	Purity 99%		+/-	50.8056	µg/mL	Stressed
4	tert-Butanol (TBA)	10,001.0 µg/mL	+/-	58.5581	µg/mL	Gravimetric
	CAS # 75-65-0.SEC (Lot 5REPK)		+/-	494.7765	µg/mL	Unstressed
	Purity 99%		+/-	507.0771	µg/mL	Stressed
5	Methyl acetate	1,002.5 µg/mL	+/-	5.8832	µg/mL	Gravimetric
	CAS # 79-20-9.SEC (Lot YDGVD)		+/-	49.5980	µg/mL	Unstressed
	Purity 99%		+/-	50.8309	µg/mL	Stressed
6	Iodomethane (methyl iodide)	1,001.5 µg/mL	+/-	5.8774	µg/mL	Gravimetric
	CAS # 74-88-4.SEC (Lot Y25A027)		+/-	49.5485	µg/mL	Unstressed
	Purity 99%		+/-	50.7802	µg/mL	Stressed
7	Allyl chloride (3-chloropropene)	1,002.0 µg/mL	+/-	5.8803	µg/mL	Gravimetric
	CAS # 107-05-1.SEC (Lot H3HGC)		+/-	49.5732	µg/mL	Unstressed
	Purity 99%		+/-	50.8056	µg/mL	Stressed

8	Carbon disulfide CAS # 75-15-0.SEC Purity 99%	(Lot MKBL1376V)	1,001.5	µg/mL	+/- +/- +/-	5.8774 49.5485 50.7802	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Acrylonitrile CAS # 107-13-1.SEC Purity 99%	(Lot V54AD)	5,000.5	µg/mL	+/- +/- +/-	29.2790 247.3882 253.5386	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	Methyl-tert-butyl ether (MTBE) CAS # 1634-04-4.SEC Purity 99%	(Lot ZHKYA)	1,001.5	µg/mL	+/- +/- +/-	5.8774 49.5485 50.7802	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	n-Hexane (C6) CAS # 110-54-3.SEC Purity 99%	(Lot 10188491)	1,001.0	µg/mL	+/- +/- +/-	5.8744 49.5238 50.7549	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	Diisopropyl ether (DIPE) CAS # 108-20-3.SEC Purity 99%	(Lot LL7TN-SH)	1,003.0	µg/mL	+/- +/- +/-	5.8862 49.6227 50.8563	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	Chloroprene (2-chloro-1,3-butadiene) CAS # 126-99-8 Purity 99%	(Lot 210413JLM)	1,001.5	µg/mL	+/- +/- +/-	5.8774 49.5485 50.7802	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	Ethyl-tert-butyl ether (ETBE) CAS # 637-92-3.SEC Purity 98%	(Lot UC15B)	1,002.1	µg/mL	+/- +/- +/-	5.8806 49.5757 50.8081	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	Propionitrile CAS # 107-12-0.SEC Purity 99%	(Lot N44LF)	7,501.5	µg/mL	+/- +/- +/-	43.9229 371.1195 380.3459	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	Methacrylonitrile CAS # 126-98-7 Purity 99%	(Lot 1012014)	7,501.5	µg/mL	+/- +/- +/-	43.9229 371.1195 380.3459	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	Isobutanol (2-Methyl-1-propanol) CAS # 78-83-1.SEC Purity 99%	(Lot YNG3K)	25,001.0	µg/mL	+/- +/- +/-	146.3864 1,236.8670 1,267.6168	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	Tetrahydrofuran CAS # 109-99-9.SEC Purity 99%	(Lot 3NYHE)	5,000.5	µg/mL	+/- +/- +/-	29.2790 247.3882 253.5386	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	Cyclohexane CAS # 110-82-7.SEC Purity 99%	(Lot YADRA)	1,000.0	µg/mL	+/- +/- +/-	5.8686 49.4743 50.7042	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	1-Butanol CAS # 71-36-3.SEC Purity 99%	(Lot 6B6UL)	50,004.5	µg/mL	+/- +/- +/-	292.7722 2,473.8558 2,535.3586	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
21	tert-Amyl methyl ether (TAME) CAS # 994-05-8.SEC Purity 99%	(Lot 11010100)	1,001.0	µg/mL	+/- +/- +/-	5.8744 49.5238 50.7549	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
22	n-Heptane (C7) CAS # 142-82-5.SEC Purity 99%	(Lot TFHUC)	1,002.5	µg/mL	+/- +/- +/-	5.8832 49.5980 50.8309	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
23	tert-Amyl ethyl ether (TAEE) CAS # 919-94-8.SEC Purity 99%	(Lot 11370700)	1,000.5	µg/mL	+/- +/- +/-	5.8715 49.4990 50.7295	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

24	Methylcyclohexane CAS # 108-87-2.SEC Purity 99%	(Lot Q02QG)	1,001.0	µg/mL	+/- 5.8744 +/- 49.5238 +/- 50.7549	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	Methyl methacrylate CAS # 80-62-6.SEC Purity 99%	(Lot G01X021)	1,000.5	µg/mL	+/- 5.8715 +/- 49.4990 +/- 50.7295	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	1,4-Dioxane CAS # 123-91-1.SEC Purity 99%	(Lot KLE2K)	25,004.0	µg/mL	+/- 146.4039 +/- 1,237.0154 +/- 1,267.7689	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	2-Nitropropane CAS # 79-46-9.SEC Purity 99%	(Lot F43IA)	1,001.5	µg/mL	+/- 5.8774 +/- 49.5485 +/- 50.7802	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Ethyl methacrylate CAS # 97-63-2.SEC Purity 99%	(Lot MLWYK-LS)	1,000.0	µg/mL	+/- 5.8686 +/- 49.4743 +/- 50.7042	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	1-Chlorohexane CAS # 544-10-5.SEC Purity 99%	(Lot 8171700)	1,001.0	µg/mL	+/- 5.8744 +/- 49.5238 +/- 50.7549	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	trans-1,4-Dichloro-2-butene CAS # 110-57-6.SEC Purity 97%	(Lot 100700-3)	5,000.4	µg/mL	+/- 29.2781 +/- 247.3808 +/- 253.5310	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	1,2,3-Trimethylbenzene CAS # 526-73-8.SEC Purity 98%	(Lot 11386600)	1,001.1	µg/mL	+/- 5.8748 +/- 49.5272 +/- 50.7584	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	1,3-Diethylbenzene CAS # 141-93-5.SEC Purity 99%	(Lot 113566-1)	1,003.5	µg/mL	+/- 5.8891 +/- 49.6474 +/- 50.8816	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	Benzyl chloride CAS # 100-44-7.SEC Purity 99%	(Lot H29N03)	1,001.0	µg/mL	+/- 5.8744 +/- 49.5238 +/- 50.7549	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	1,4-Diethylbenzene CAS # 105-05-5.SEC Purity 98%	(Lot FBQ02)	1,002.1	µg/mL	+/- 5.8806 +/- 49.5757 +/- 50.8081	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	1,2-Diethylbenzene CAS # 135-01-3.SEC Purity 99%	(Lot BCBF3667V)	1,000.5	µg/mL	+/- 5.8715 +/- 49.4990 +/- 50.7295	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	1,3,5-Trichlorobenzene CAS # 108-70-3.SEC Purity 99%	(Lot I28U021)	1,001.5	µg/mL	+/- 5.8774 +/- 49.5485 +/- 50.7802	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	2-Methylnaphthalene CAS # 91-57-6.SEC Purity 99%	(Lot 76023-1)	1,000.0	µg/mL	+/- 5.8686 +/- 49.4743 +/- 50.7042	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

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

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

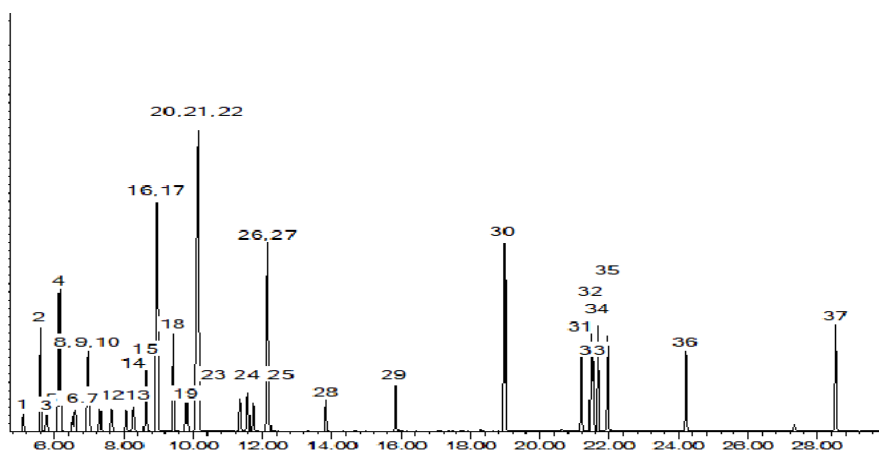
Carrier Gas:
helium-constant pressure 30 psi

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.

Michael Maje

Date Mixed: 28-Apr-2021 **Balance:** 1128353505

Alexis Shelow
Alexis Shelow - Operations Tech I

Date Passed: 04-May-2021

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) -20°C or colder (Deep 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.

Reagent

MSV_M_MIX2SEC_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. : 577494 **Lot No.:** A0171837

Description : Custom VOC MegaMix®.SEC #2 Standard
Custom VOC MegaMix®.SEC #2 Standard 1,000-50,000µg/mL, P&T
Methanol, 1mL/ampul

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

Expiration Date : April 30, 2024 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	n-Pentane (C5)	1,002.0 µg/mL	+/- 5.8803 µg/mL Gravimetric	
	CAS # 109-66-0.SEC (Lot FGH02)			+/- 49.5732 µg/mL Unstressed
	Purity 99%			+/- 50.8056 µg/mL Stressed
2	2-Propanol (isopropanol)	7,501.5 µg/mL	+/- 43.9229 µg/mL Gravimetric	
	CAS # 67-63-0.SEC (Lot TFT5I)			+/- 371.1195 µg/mL Unstressed
	Purity 99%			+/- 380.3459 µg/mL Stressed
3	1,1,2-Trichlorotrifluoroethane (CFC-113)	1,002.0 µg/mL	+/- 5.8803 µg/mL Gravimetric	
	CAS # 76-13-1.SEC (Lot 18342)			+/- 49.5732 µg/mL Unstressed
	Purity 99%			+/- 50.8056 µg/mL Stressed
4	tert-Butanol (TBA)	10,001.0 µg/mL	+/- 58.5581 µg/mL Gravimetric	
	CAS # 75-65-0.SEC (Lot 5REPK)			+/- 494.7765 µg/mL Unstressed
	Purity 99%			+/- 507.0771 µg/mL Stressed
5	Methyl acetate	1,002.5 µg/mL	+/- 5.8832 µg/mL Gravimetric	
	CAS # 79-20-9.SEC (Lot YDGVD)			+/- 49.5980 µg/mL Unstressed
	Purity 99%			+/- 50.8309 µg/mL Stressed
6	Iodomethane (methyl iodide)	1,001.5 µg/mL	+/- 5.8774 µg/mL Gravimetric	
	CAS # 74-88-4.SEC (Lot Y25A027)			+/- 49.5485 µg/mL Unstressed
	Purity 99%			+/- 50.7802 µg/mL Stressed
7	Allyl chloride (3-chloropropene)	1,002.0 µg/mL	+/- 5.8803 µg/mL Gravimetric	
	CAS # 107-05-1.SEC (Lot H3HGC)			+/- 49.5732 µg/mL Unstressed
	Purity 99%			+/- 50.8056 µg/mL Stressed

8	Carbon disulfide CAS # 75-15-0.SEC Purity 99%	(Lot MKBL1376V)	1,001.5	µg/mL	+/-	5.8774 49.5485 50.7802	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Acrylonitrile CAS # 107-13-1.SEC Purity 99%	(Lot V54AD)	5,000.5	µg/mL	+/-	29.2790 247.3882 253.5386	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	Methyl-tert-butyl ether (MTBE) CAS # 1634-04-4.SEC Purity 99%	(Lot ZHKYA)	1,001.5	µg/mL	+/-	5.8774 49.5485 50.7802	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	n-Hexane (C6) CAS # 110-54-3.SEC Purity 99%	(Lot 10188491)	1,001.0	µg/mL	+/-	5.8744 49.5238 50.7549	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	Diisopropyl ether (DIPE) CAS # 108-20-3.SEC Purity 99%	(Lot LL7TN-SH)	1,003.0	µg/mL	+/-	5.8862 49.6227 50.8563	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	Chloroprene (2-chloro-1,3-butadiene) CAS # 126-99-8 Purity 99%	(Lot 210413JLM)	1,001.5	µg/mL	+/-	5.8774 49.5485 50.7802	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	Ethyl-tert-butyl ether (ETBE) CAS # 637-92-3.SEC Purity 98%	(Lot UC15B)	1,002.1	µg/mL	+/-	5.8806 49.5757 50.8081	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	Propionitrile CAS # 107-12-0.SEC Purity 99%	(Lot N44LF)	7,501.5	µg/mL	+/-	43.9229 371.1195 380.3459	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	Methacrylonitrile CAS # 126-98-7 Purity 99%	(Lot 1012014)	7,501.5	µg/mL	+/-	43.9229 371.1195 380.3459	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	Isobutanol (2-Methyl-1-propanol) CAS # 78-83-1.SEC Purity 99%	(Lot YNG3K)	25,001.0	µg/mL	+/-	146.3864 1,236.8670 1,267.6168	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	Tetrahydrofuran CAS # 109-99-9.SEC Purity 99%	(Lot 3NYHE)	5,000.5	µg/mL	+/-	29.2790 247.3882 253.5386	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	Cyclohexane CAS # 110-82-7.SEC Purity 99%	(Lot YADRA)	1,000.0	µg/mL	+/-	5.8686 49.4743 50.7042	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	1-Butanol CAS # 71-36-3.SEC Purity 99%	(Lot 6B6UL)	50,004.5	µg/mL	+/-	292.7722 2,473.8558 2,535.3586	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
21	tert-Amyl methyl ether (TAME) CAS # 994-05-8.SEC Purity 99%	(Lot 11010100)	1,001.0	µg/mL	+/-	5.8744 49.5238 50.7549	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
22	n-Heptane (C7) CAS # 142-82-5.SEC Purity 99%	(Lot TFHUC)	1,002.5	µg/mL	+/-	5.8832 49.5980 50.8309	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
23	tert-Amyl ethyl ether (TAEE) CAS # 919-94-8.SEC Purity 99%	(Lot 11370700)	1,000.5	µg/mL	+/-	5.8715 49.4990 50.7295	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

24	Methylcyclohexane CAS # 108-87-2.SEC Purity 99%	(Lot Q02QG)	1,001.0	µg/mL	+/- 5.8744 +/- 49.5238 +/- 50.7549	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	Methyl methacrylate CAS # 80-62-6.SEC Purity 99%	(Lot G01X021)	1,000.5	µg/mL	+/- 5.8715 +/- 49.4990 +/- 50.7295	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	1,4-Dioxane CAS # 123-91-1.SEC Purity 99%	(Lot KLE2K)	25,004.0	µg/mL	+/- 146.4039 +/- 1,237.0154 +/- 1,267.7689	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	2-Nitropropane CAS # 79-46-9.SEC Purity 99%	(Lot F43IA)	1,001.5	µg/mL	+/- 5.8774 +/- 49.5485 +/- 50.7802	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Ethyl methacrylate CAS # 97-63-2.SEC Purity 99%	(Lot MLWYK-LS)	1,000.0	µg/mL	+/- 5.8686 +/- 49.4743 +/- 50.7042	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	1-Chlorohexane CAS # 544-10-5.SEC Purity 99%	(Lot 8171700)	1,001.0	µg/mL	+/- 5.8744 +/- 49.5238 +/- 50.7549	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	trans-1,4-Dichloro-2-butene CAS # 110-57-6.SEC Purity 97%	(Lot 100700-3)	5,000.4	µg/mL	+/- 29.2781 +/- 247.3808 +/- 253.5310	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	1,2,3-Trimethylbenzene CAS # 526-73-8.SEC Purity 98%	(Lot 11386600)	1,001.1	µg/mL	+/- 5.8748 +/- 49.5272 +/- 50.7584	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	1,3-Diethylbenzene CAS # 141-93-5.SEC Purity 99%	(Lot 113566-1)	1,003.5	µg/mL	+/- 5.8891 +/- 49.6474 +/- 50.8816	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	Benzyl chloride CAS # 100-44-7.SEC Purity 99%	(Lot H29N03)	1,001.0	µg/mL	+/- 5.8744 +/- 49.5238 +/- 50.7549	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	1,4-Diethylbenzene CAS # 105-05-5.SEC Purity 98%	(Lot FBQ02)	1,002.1	µg/mL	+/- 5.8806 +/- 49.5757 +/- 50.8081	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	1,2-Diethylbenzene CAS # 135-01-3.SEC Purity 99%	(Lot BCBF3667V)	1,000.5	µg/mL	+/- 5.8715 +/- 49.4990 +/- 50.7295	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	1,3,5-Trichlorobenzene CAS # 108-70-3.SEC Purity 99%	(Lot I28U021)	1,001.5	µg/mL	+/- 5.8774 +/- 49.5485 +/- 50.7802	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	2-Methylnaphthalene CAS # 91-57-6.SEC Purity 99%	(Lot 76023-1)	1,000.0	µg/mL	+/- 5.8686 +/- 49.4743 +/- 50.7042	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

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

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

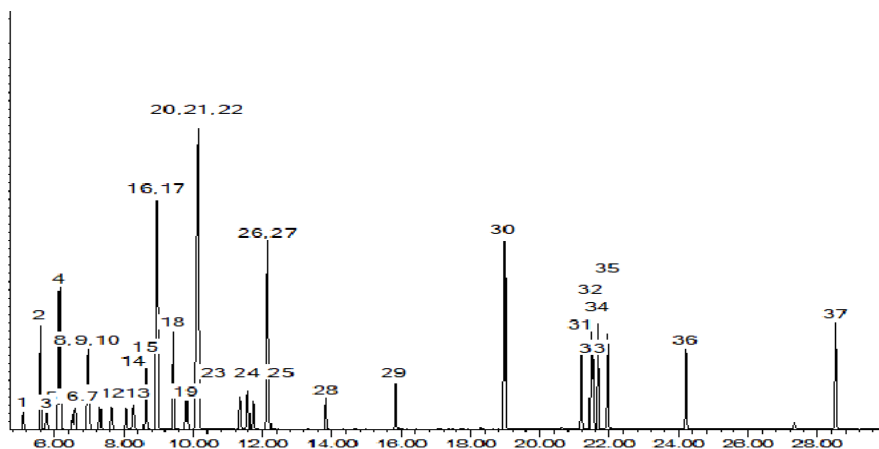
Carrier Gas:
helium-constant pressure 30 psi

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.

Michael Maje

Date Mixed: 28-Apr-2021 **Balance:** 1128353505

Alexis Shelow
Alexis Shelow - Operations Tech I

Date Passed: 04-May-2021

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) -20°C or colder (Deep 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.

Reagent

MSV_MegaMIX#1_00055



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. : 577486 **Lot No.:** A0171634

Description : Custom VOC MegaMix® #1 Standard
Custom VOC MegaMix® #1 Standard 5,000µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : April 30, 2024 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	1,1-dichloroethene	5,000.3 µg/mL	+/-	31.7051	µg/mL	Gravimetric
	CAS # 75-35-4 (Lot SHBK2437)		+/-	280.6478	µg/mL	Unstressed
	Purity 99%		+/-	287.2014	µg/mL	Stressed
2	Methylene chloride (dichloromethane)	5,000.3 µg/mL	+/-	31.7051	µg/mL	Gravimetric
	CAS # 75-09-2 (Lot SHBL6169)		+/-	280.6478	µg/mL	Unstressed
	Purity 99%		+/-	287.2014	µg/mL	Stressed
3	trans-1,2-Dichloroethene	5,000.3 µg/mL	+/-	31.7051	µg/mL	Gravimetric
	CAS # 156-60-5 (Lot MKBH9850V)		+/-	280.6478	µg/mL	Unstressed
	Purity 99%		+/-	287.2014	µg/mL	Stressed
4	1,1-Dichloroethane	5,000.8 µg/mL	+/-	31.7079	µg/mL	Gravimetric
	CAS # 75-34-3 (Lot 580900)		+/-	280.6723	µg/mL	Unstressed
	Purity 99%		+/-	287.2265	µg/mL	Stressed
5	2,2-Dichloropropane	5,000.8 µg/mL	+/-	31.8970	µg/mL	Gravimetric
	CAS # 594-20-7 (Lot RD201111)		+/-	280.6965	µg/mL	Unstressed
	Purity 99%		+/-	287.2503	µg/mL	Stressed
6	cis-1,2-Dichloroethene	5,000.6 µg/mL	+/-	31.8957	µg/mL	Gravimetric
	CAS # 156-59-2 (Lot MKCK1803)		+/-	280.6853	µg/mL	Unstressed
	Purity 99%		+/-	287.2388	µg/mL	Stressed
7	chloroform	5,000.6 µg/mL	+/-	31.7067	µg/mL	Gravimetric
	CAS # 67-66-3 (Lot SHBL6923)		+/-	280.6618	µg/mL	Unstressed
	Purity 99%		+/-	287.2158	µg/mL	Stressed

8	Bromochloromethane CAS # 74-97-5 Purity 99%	(Lot 00008541)	5,000.9	µg/mL	+/-	31.8976 280.7022 287.2560	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	1,1,1-trichloroethane CAS # 71-55-6 Purity 98%	(Lot 190123CG)	5,000.1	µg/mL	+/-	31.7041 280.6383 287.1917	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	1,1-Dichloropropene CAS # 563-58-6 Purity 99%	(Lot 201106JLM)	5,000.9	µg/mL	+/-	31.8976 280.7022 287.2560	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	carbon tetrachloride CAS # 56-23-5 Purity 99%	(Lot SHBJ2110)	5,000.5	µg/mL	+/-	31.7063 280.6583 287.2122	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	1,2-Dichloroethane CAS # 107-06-2 Purity 99%	(Lot MKCM8716)	5,000.4	µg/mL	+/-	31.7059 280.6548 287.2086	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	Benzene CAS # 71-43-2 Purity 99%	(Lot SHBM3620)	5,001.0	µg/mL	+/-	31.8982 280.7078 287.2618	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	Trichloroethene CAS # 79-01-6 Purity 99%	(Lot SHBL5816)	5,000.8	µg/mL	+/-	31.7079 280.6723 287.2265	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	1,2-Dichloropropane CAS # 78-87-5 Purity 99%	(Lot BCBR0882V)	5,001.1	µg/mL	+/-	31.7099 280.6899 287.2445	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	bromodichloromethane CAS # 75-27-4 Purity 99%	(Lot MKCK3742)	5,000.2	µg/mL	+/-	31.7043 280.6408 287.1942	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	Dibromomethane CAS # 74-95-3 Purity 99%	(Lot 10215970)	5,000.2	µg/mL	+/-	31.8931 280.6629 287.2158	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	cis-1,3-Dichloropropene CAS # 10061-01-5 Purity 99%	(Lot D26147-1217)	5,001.9	µg/mL	+/-	31.7154 280.7390 287.2947	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	Toluene CAS # 108-88-3 Purity 99%	(Lot SHBM6128)	5,001.3	µg/mL	+/-	31.9001 280.7246 287.2790	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	trans-1,3-Dichloropropene CAS # 10061-02-6 Purity 99%	(Lot RP201030)	5,000.5	µg/mL	+/-	31.7063 280.6583 287.2122	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
21	1,1,2-Trichloroethane CAS # 79-00-5 Purity 99%	(Lot FGB01)	5,000.9	µg/mL	+/-	31.7087 280.6794 287.2337	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
22	1,3-Dichloropropane CAS # 142-28-9 Purity 99%	(Lot BCBC6265)	5,000.5	µg/mL	+/-	31.8950 280.6797 287.2331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
23	Tetrachloroethene CAS # 127-18-4 Purity 99%	(Lot SHBJ7422)	5,000.8	µg/mL	+/-	31.7079 280.6723 287.2265	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

24	dibromochloromethane CAS # 124-48-1 Purity 99%	(Lot MKCK6472)	5,001.1	µg/mL	+/-	31.7099 280.6899 287.2445	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	1,2-Dibromoethane (EDB) CAS # 106-93-4 Purity 99%	(Lot BCBP2268V)	5,000.5	µg/mL	+/-	31.8950 280.6797 287.2331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	Chlorobenzene CAS # 108-90-7 Purity 99%	(Lot SHBL8110)	5,000.2	µg/mL	+/-	31.7043 280.6408 287.1942	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	1,1,1,2-Tetrachloroethane CAS # 630-20-6 Purity 99%	(Lot GC01)	5,000.9	µg/mL	+/-	31.8976 280.7022 287.2560	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Ethylbenzene CAS # 100-41-4 Purity 99%	(Lot SHBL9192)	5,000.8	µg/mL	+/-	31.8970 280.6965 287.2503	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	m-Xylene CAS # 108-38-3 Purity 99%	(Lot SHBM4841)	5,001.8	µg/mL	+/-	31.9033 280.7527 287.3077	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	p-Xylene CAS # 106-42-3 Purity 99%	(Lot SHBJ7329)	5,000.5	µg/mL	+/-	31.8950 280.6797 287.2331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	o-Xylene CAS # 95-47-6 Purity 98%	(Lot SHBL3963)	5,001.8	µg/mL	+/-	31.9035 280.7539 287.3090	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	Styrene CAS # 100-42-5 Purity 99%	(Lot MKCM3200)	5,001.7	µg/mL	+/-	31.9027 280.7471 287.3020	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	Isopropylbenzene (cumene) CAS # 98-82-8 Purity 99%	(Lot P15E008)	5,001.0	µg/mL	+/-	31.8982 280.7078 287.2618	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	bromoform CAS # 75-25-2 Purity 99%	(Lot SHBJ4835)	5,000.4	µg/mL	+/-	31.7055 280.6513 287.2050	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	1,1,1,2,2-Tetrachloroethane CAS # 79-34-5 Purity 99%	(Lot CFA4D)	5,000.4	µg/mL	+/-	31.7059 280.6548 287.2086	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	1,2,3-Trichloropropane CAS # 96-18-4 Purity 99%	(Lot BCBH8722V)	5,000.0	µg/mL	+/-	31.8918 280.6516 287.2044	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	n-Propylbenzene CAS # 103-65-1 Purity 99%	(Lot MKCM4174)	5,001.6	µg/mL	+/-	31.9021 280.7414 287.2963	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
38	Bromobenzene CAS # 108-86-1 Purity 99%	(Lot WXBC5147V)	5,001.1	µg/mL	+/-	31.8989 280.7134 287.2675	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
39	1,3,5-Trimethylbenzene CAS # 108-67-8 Purity 99%	(Lot BCCD0427)	5,001.6	µg/mL	+/-	31.9021 280.7414 287.2963	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

40	2-Chlorotoluene CAS # 95-49-8 Purity 99%	(Lot MKCF5243)	5,000.2	µg/mL	+/-	31.8931 280.6629 287.2158	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	4-Chlorotoluene CAS # 106-43-4 Purity 99%	(Lot MKCC8496)	5,000.1	µg/mL	+/-	31.8925 280.6572 287.2101	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	tert-Butylbenzene CAS # 98-06-6 Purity 99%	(Lot STBJ1937)	5,001.3	µg/mL	+/-	31.9001 280.7246 287.2790	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	1,2,4-Trimethylbenzene CAS # 95-63-6 Purity 98%	(Lot WXBC9428V)	5,000.6	µg/mL	+/-	31.8960 280.6879 287.2415	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	sec-Butylbenzene CAS # 135-98-8 Purity 99%	(Lot MKCN2920)	5,000.2	µg/mL	+/-	31.8931 280.6629 287.2158	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	p-Isopropyltoluene (p-Cymene) CAS # 99-87-6 Purity 99%	(Lot MKCN1411)	5,001.1	µg/mL	+/-	31.8989 280.7134 287.2675	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	1,3-Dichlorobenzene CAS # 541-73-1 Purity 99%	(Lot BCBZ7498)	5,000.5	µg/mL	+/-	31.7063 280.6583 287.2122	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	1,4-Dichlorobenzene CAS # 106-46-7 Purity 99%	(Lot MKBS4401V)	5,000.8	µg/mL	+/-	31.7083 280.6759 287.2301	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
48	n-Butylbenzene CAS # 104-51-8 Purity 99%	(Lot 09804AE)	5,001.6	µg/mL	+/-	31.9021 280.7414 287.2963	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
49	1,2-Dichlorobenzene CAS # 95-50-1 Purity 99%	(Lot SHBK7741)	5,000.1	µg/mL	+/-	31.7036 280.6338 287.1871	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
50	1,2-Dibromo-3-chloropropane CAS # 96-12-8 Purity 97%	(Lot FBL01)	5,000.3	µg/mL	+/-	31.8935 280.6658 287.2189	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
51	1,2,4-Trichlorobenzene CAS # 120-82-1 Purity 99%	(Lot SHBJ9215)	5,000.8	µg/mL	+/-	31.8970 280.6965 287.2503	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
52	Hexachlorobutadiene CAS # 87-68-3 Purity 99%	(Lot 664800)	5,001.3	µg/mL	+/-	31.9001 280.7246 287.2790	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
53	Naphthalene CAS # 91-20-3 Purity 99%	(Lot MKBZ8680V)	5,000.8	µg/mL	+/-	31.8970 280.6965 287.2503	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
54	1,2,3-Trichlorobenzene CAS # 87-61-6 Purity 99%	(Lot MKBX7627V)	5,000.4	µg/mL	+/-	31.8944 280.6741 287.2273	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)

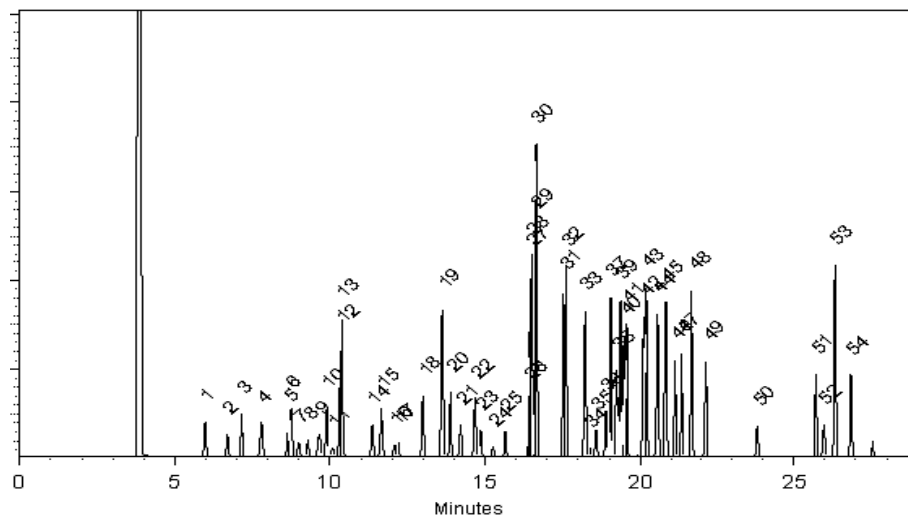
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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.


Walker Workman - Operations Technician I

Date Mixed: 22-Apr-2021 **Balance:** 1128360905


Alexis Shelow - Operations Tech I

Date Passed: 26-Apr-2021

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) -20°C or colder (Deep 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.

Reagent

MSV_MegaMIX#1_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. : 577486 **Lot No.:** A0171634

Description : Custom VOC MegaMix® #1 Standard
Custom VOC MegaMix® #1 Standard 5,000µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : April 30, 2024 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,1-dichloroethene	5,000.3 µg/mL	+/- 31.7051 µg/mL Gravimetric	
	CAS # 75-35-4 (Lot SHBK2437)			+/- 280.6478 µg/mL Unstressed
	Purity 99%			+/- 287.2014 µg/mL Stressed
2	Methylene chloride (dichloromethane)	5,000.3 µg/mL	+/- 31.7051 µg/mL Gravimetric	
	CAS # 75-09-2 (Lot SHBL6169)			+/- 280.6478 µg/mL Unstressed
	Purity 99%			+/- 287.2014 µg/mL Stressed
3	trans-1,2-Dichloroethene	5,000.3 µg/mL	+/- 31.7051 µg/mL Gravimetric	
	CAS # 156-60-5 (Lot MKBH9850V)			+/- 280.6478 µg/mL Unstressed
	Purity 99%			+/- 287.2014 µg/mL Stressed
4	1,1-Dichloroethane	5,000.8 µg/mL	+/- 31.7079 µg/mL Gravimetric	
	CAS # 75-34-3 (Lot 580900)			+/- 280.6723 µg/mL Unstressed
	Purity 99%			+/- 287.2265 µg/mL Stressed
5	2,2-Dichloropropane	5,000.8 µg/mL	+/- 31.8970 µg/mL Gravimetric	
	CAS # 594-20-7 (Lot RD201111)			+/- 280.6965 µg/mL Unstressed
	Purity 99%			+/- 287.2503 µg/mL Stressed
6	cis-1,2-Dichloroethene	5,000.6 µg/mL	+/- 31.8957 µg/mL Gravimetric	
	CAS # 156-59-2 (Lot MKCK1803)			+/- 280.6853 µg/mL Unstressed
	Purity 99%			+/- 287.2388 µg/mL Stressed
7	chloroform	5,000.6 µg/mL	+/- 31.7067 µg/mL Gravimetric	
	CAS # 67-66-3 (Lot SHBL6923)			+/- 280.6618 µg/mL Unstressed
	Purity 99%			+/- 287.2158 µg/mL Stressed

8	Bromochloromethane CAS # 74-97-5 Purity 99%	(Lot 00008541)	5,000.9	µg/mL	+/-	31.8976 280.7022 287.2560	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	1,1,1-trichloroethane CAS # 71-55-6 Purity 98%	(Lot 190123CG)	5,000.1	µg/mL	+/-	31.7041 280.6383 287.1917	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	1,1-Dichloropropene CAS # 563-58-6 Purity 99%	(Lot 201106JLM)	5,000.9	µg/mL	+/-	31.8976 280.7022 287.2560	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	carbon tetrachloride CAS # 56-23-5 Purity 99%	(Lot SHBJ2110)	5,000.5	µg/mL	+/-	31.7063 280.6583 287.2122	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	1,2-Dichloroethane CAS # 107-06-2 Purity 99%	(Lot MKCM8716)	5,000.4	µg/mL	+/-	31.7059 280.6548 287.2086	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	Benzene CAS # 71-43-2 Purity 99%	(Lot SHBM3620)	5,001.0	µg/mL	+/-	31.8982 280.7078 287.2618	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	Trichloroethene CAS # 79-01-6 Purity 99%	(Lot SHBL5816)	5,000.8	µg/mL	+/-	31.7079 280.6723 287.2265	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	1,2-Dichloropropane CAS # 78-87-5 Purity 99%	(Lot BCBR0882V)	5,001.1	µg/mL	+/-	31.7099 280.6899 287.2445	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	bromodichloromethane CAS # 75-27-4 Purity 99%	(Lot MKCK3742)	5,000.2	µg/mL	+/-	31.7043 280.6408 287.1942	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	Dibromomethane CAS # 74-95-3 Purity 99%	(Lot 10215970)	5,000.2	µg/mL	+/-	31.8931 280.6629 287.2158	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	cis-1,3-Dichloropropene CAS # 10061-01-5 Purity 99%	(Lot D26147-1217)	5,001.9	µg/mL	+/-	31.7154 280.7390 287.2947	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	Toluene CAS # 108-88-3 Purity 99%	(Lot SHBM6128)	5,001.3	µg/mL	+/-	31.9001 280.7246 287.2790	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	trans-1,3-Dichloropropene CAS # 10061-02-6 Purity 99%	(Lot RP201030)	5,000.5	µg/mL	+/-	31.7063 280.6583 287.2122	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
21	1,1,2-Trichloroethane CAS # 79-00-5 Purity 99%	(Lot FGB01)	5,000.9	µg/mL	+/-	31.7087 280.6794 287.2337	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
22	1,3-Dichloropropane CAS # 142-28-9 Purity 99%	(Lot BCBC6265)	5,000.5	µg/mL	+/-	31.8950 280.6797 287.2331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
23	Tetrachloroethene CAS # 127-18-4 Purity 99%	(Lot SHBJ7422)	5,000.8	µg/mL	+/-	31.7079 280.6723 287.2265	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

24	dibromochloromethane CAS # 124-48-1 Purity 99%	(Lot MKCK6472)	5,001.1	µg/mL	+/-	31.7099 280.6899 287.2445	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	1,2-Dibromoethane (EDB) CAS # 106-93-4 Purity 99%	(Lot BCBP2268V)	5,000.5	µg/mL	+/-	31.8950 280.6797 287.2331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	Chlorobenzene CAS # 108-90-7 Purity 99%	(Lot SHBL8110)	5,000.2	µg/mL	+/-	31.7043 280.6408 287.1942	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	1,1,1,2-Tetrachloroethane CAS # 630-20-6 Purity 99%	(Lot GC01)	5,000.9	µg/mL	+/-	31.8976 280.7022 287.2560	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Ethylbenzene CAS # 100-41-4 Purity 99%	(Lot SHBL9192)	5,000.8	µg/mL	+/-	31.8970 280.6965 287.2503	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	m-Xylene CAS # 108-38-3 Purity 99%	(Lot SHBM4841)	5,001.8	µg/mL	+/-	31.9033 280.7527 287.3077	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	p-Xylene CAS # 106-42-3 Purity 99%	(Lot SHBJ7329)	5,000.5	µg/mL	+/-	31.8950 280.6797 287.2331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	o-Xylene CAS # 95-47-6 Purity 98%	(Lot SHBL3963)	5,001.8	µg/mL	+/-	31.9035 280.7539 287.3090	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	Styrene CAS # 100-42-5 Purity 99%	(Lot MKCM3200)	5,001.7	µg/mL	+/-	31.9027 280.7471 287.3020	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	Isopropylbenzene (cumene) CAS # 98-82-8 Purity 99%	(Lot P15E008)	5,001.0	µg/mL	+/-	31.8982 280.7078 287.2618	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	bromoform CAS # 75-25-2 Purity 99%	(Lot SHBJ4835)	5,000.4	µg/mL	+/-	31.7055 280.6513 287.2050	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	1,1,1,2,2-Tetrachloroethane CAS # 79-34-5 Purity 99%	(Lot CFA4D)	5,000.4	µg/mL	+/-	31.7059 280.6548 287.2086	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	1,2,3-Trichloropropane CAS # 96-18-4 Purity 99%	(Lot BCBH8722V)	5,000.0	µg/mL	+/-	31.8918 280.6516 287.2044	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	n-Propylbenzene CAS # 103-65-1 Purity 99%	(Lot MKCM4174)	5,001.6	µg/mL	+/-	31.9021 280.7414 287.2963	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
38	Bromobenzene CAS # 108-86-1 Purity 99%	(Lot WXBC5147V)	5,001.1	µg/mL	+/-	31.8989 280.7134 287.2675	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
39	1,3,5-Trimethylbenzene CAS # 108-67-8 Purity 99%	(Lot BCCD0427)	5,001.6	µg/mL	+/-	31.9021 280.7414 287.2963	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

40	2-Chlorotoluene CAS # 95-49-8 Purity 99%	(Lot MKCF5243)	5,000.2	µg/mL	+/-	31.8931 280.6629 287.2158	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	4-Chlorotoluene CAS # 106-43-4 Purity 99%	(Lot MKCC8496)	5,000.1	µg/mL	+/-	31.8925 280.6572 287.2101	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	tert-Butylbenzene CAS # 98-06-6 Purity 99%	(Lot STBJ1937)	5,001.3	µg/mL	+/-	31.9001 280.7246 287.2790	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	1,2,4-Trimethylbenzene CAS # 95-63-6 Purity 98%	(Lot WXBC9428V)	5,000.6	µg/mL	+/-	31.8960 280.6879 287.2415	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	sec-Butylbenzene CAS # 135-98-8 Purity 99%	(Lot MKCN2920)	5,000.2	µg/mL	+/-	31.8931 280.6629 287.2158	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	p-Isopropyltoluene (p-Cymene) CAS # 99-87-6 Purity 99%	(Lot MKCN1411)	5,001.1	µg/mL	+/-	31.8989 280.7134 287.2675	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	1,3-Dichlorobenzene CAS # 541-73-1 Purity 99%	(Lot BCBZ7498)	5,000.5	µg/mL	+/-	31.7063 280.6583 287.2122	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	1,4-Dichlorobenzene CAS # 106-46-7 Purity 99%	(Lot MKBS4401V)	5,000.8	µg/mL	+/-	31.7083 280.6759 287.2301	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
48	n-Butylbenzene CAS # 104-51-8 Purity 99%	(Lot 09804AE)	5,001.6	µg/mL	+/-	31.9021 280.7414 287.2963	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
49	1,2-Dichlorobenzene CAS # 95-50-1 Purity 99%	(Lot SHBK7741)	5,000.1	µg/mL	+/-	31.7036 280.6338 287.1871	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
50	1,2-Dibromo-3-chloropropane CAS # 96-12-8 Purity 97%	(Lot FBL01)	5,000.3	µg/mL	+/-	31.8935 280.6658 287.2189	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
51	1,2,4-Trichlorobenzene CAS # 120-82-1 Purity 99%	(Lot SHBJ9215)	5,000.8	µg/mL	+/-	31.8970 280.6965 287.2503	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
52	Hexachlorobutadiene CAS # 87-68-3 Purity 99%	(Lot 664800)	5,001.3	µg/mL	+/-	31.9001 280.7246 287.2790	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
53	Naphthalene CAS # 91-20-3 Purity 99%	(Lot MKBZ8680V)	5,000.8	µg/mL	+/-	31.8970 280.6965 287.2503	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
54	1,2,3-Trichlorobenzene CAS # 87-61-6 Purity 99%	(Lot MKBX7627V)	5,000.4	µg/mL	+/-	31.8944 280.6741 287.2273	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)

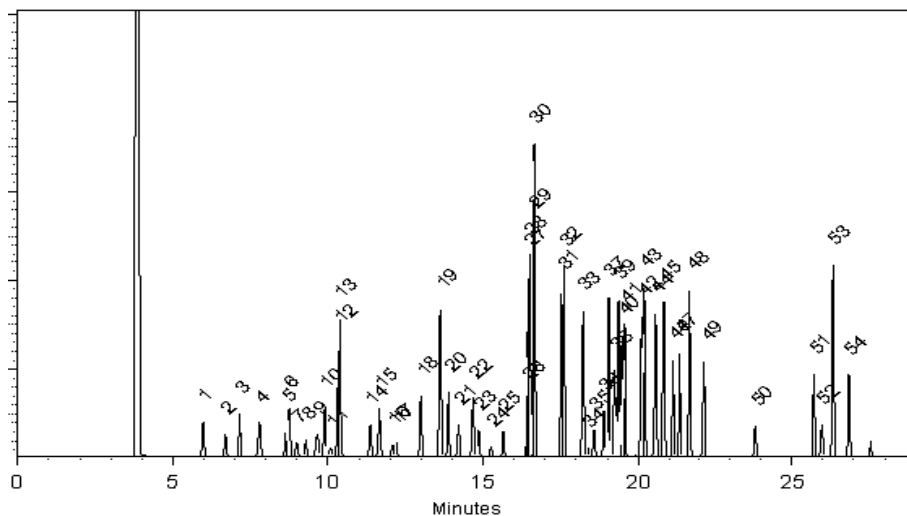
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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.


Walker Workman - Operations Technician I

Date Mixed: 22-Apr-2021 **Balance:** 1128360905


Alexis Shelow - Operations Tech I

Date Passed: 26-Apr-2021

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) -20°C or colder (Deep 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.

Reagent

MSV_MegaMIX#1_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. : 577486 **Lot No.:** A0171634

Description : Custom VOC MegaMix® #1 Standard
Custom VOC MegaMix® #1 Standard 5,000µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : April 30, 2024 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,1-dichloroethene	5,000.3 µg/mL	+/- 31.7051 µg/mL Gravimetric	
	CAS # 75-35-4 (Lot SHBK2437)			+/- 280.6478 µg/mL Unstressed
	Purity 99%			+/- 287.2014 µg/mL Stressed
2	Methylene chloride (dichloromethane)	5,000.3 µg/mL	+/- 31.7051 µg/mL Gravimetric	
	CAS # 75-09-2 (Lot SHBL6169)			+/- 280.6478 µg/mL Unstressed
	Purity 99%			+/- 287.2014 µg/mL Stressed
3	trans-1,2-Dichloroethene	5,000.3 µg/mL	+/- 31.7051 µg/mL Gravimetric	
	CAS # 156-60-5 (Lot MKBH9850V)			+/- 280.6478 µg/mL Unstressed
	Purity 99%			+/- 287.2014 µg/mL Stressed
4	1,1-Dichloroethane	5,000.8 µg/mL	+/- 31.7079 µg/mL Gravimetric	
	CAS # 75-34-3 (Lot 580900)			+/- 280.6723 µg/mL Unstressed
	Purity 99%			+/- 287.2265 µg/mL Stressed
5	2,2-Dichloropropane	5,000.8 µg/mL	+/- 31.8970 µg/mL Gravimetric	
	CAS # 594-20-7 (Lot RD201111)			+/- 280.6965 µg/mL Unstressed
	Purity 99%			+/- 287.2503 µg/mL Stressed
6	cis-1,2-Dichloroethene	5,000.6 µg/mL	+/- 31.8957 µg/mL Gravimetric	
	CAS # 156-59-2 (Lot MKCK1803)			+/- 280.6853 µg/mL Unstressed
	Purity 99%			+/- 287.2388 µg/mL Stressed
7	chloroform	5,000.6 µg/mL	+/- 31.7067 µg/mL Gravimetric	
	CAS # 67-66-3 (Lot SHBL6923)			+/- 280.6618 µg/mL Unstressed
	Purity 99%			+/- 287.2158 µg/mL Stressed

8	Bromochloromethane CAS # 74-97-5 Purity 99%	(Lot 00008541)	5,000.9	µg/mL	+/-	31.8976 280.7022 287.2560	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	1,1,1-trichloroethane CAS # 71-55-6 Purity 98%	(Lot 190123CG)	5,000.1	µg/mL	+/-	31.7041 280.6383 287.1917	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	1,1-Dichloropropene CAS # 563-58-6 Purity 99%	(Lot 201106JLM)	5,000.9	µg/mL	+/-	31.8976 280.7022 287.2560	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	carbon tetrachloride CAS # 56-23-5 Purity 99%	(Lot SHBJ2110)	5,000.5	µg/mL	+/-	31.7063 280.6583 287.2122	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	1,2-Dichloroethane CAS # 107-06-2 Purity 99%	(Lot MKCM8716)	5,000.4	µg/mL	+/-	31.7059 280.6548 287.2086	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	Benzene CAS # 71-43-2 Purity 99%	(Lot SHBM3620)	5,001.0	µg/mL	+/-	31.8982 280.7078 287.2618	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	Trichloroethene CAS # 79-01-6 Purity 99%	(Lot SHBL5816)	5,000.8	µg/mL	+/-	31.7079 280.6723 287.2265	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	1,2-Dichloropropane CAS # 78-87-5 Purity 99%	(Lot BCBR0882V)	5,001.1	µg/mL	+/-	31.7099 280.6899 287.2445	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	bromodichloromethane CAS # 75-27-4 Purity 99%	(Lot MKCK3742)	5,000.2	µg/mL	+/-	31.7043 280.6408 287.1942	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	Dibromomethane CAS # 74-95-3 Purity 99%	(Lot 10215970)	5,000.2	µg/mL	+/-	31.8931 280.6629 287.2158	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	cis-1,3-Dichloropropene CAS # 10061-01-5 Purity 99%	(Lot D26147-1217)	5,001.9	µg/mL	+/-	31.7154 280.7390 287.2947	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	Toluene CAS # 108-88-3 Purity 99%	(Lot SHBM6128)	5,001.3	µg/mL	+/-	31.9001 280.7246 287.2790	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	trans-1,3-Dichloropropene CAS # 10061-02-6 Purity 99%	(Lot RP201030)	5,000.5	µg/mL	+/-	31.7063 280.6583 287.2122	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
21	1,1,2-Trichloroethane CAS # 79-00-5 Purity 99%	(Lot FGB01)	5,000.9	µg/mL	+/-	31.7087 280.6794 287.2337	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
22	1,3-Dichloropropane CAS # 142-28-9 Purity 99%	(Lot BCBC6265)	5,000.5	µg/mL	+/-	31.8950 280.6797 287.2331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
23	Tetrachloroethene CAS # 127-18-4 Purity 99%	(Lot SHBJ7422)	5,000.8	µg/mL	+/-	31.7079 280.6723 287.2265	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

24	dibromochloromethane CAS # 124-48-1 Purity 99%	(Lot MKCK6472)	5,001.1	µg/mL	+/-	31.7099 280.6899 287.2445	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	1,2-Dibromoethane (EDB) CAS # 106-93-4 Purity 99%	(Lot BCBP2268V)	5,000.5	µg/mL	+/-	31.8950 280.6797 287.2331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	Chlorobenzene CAS # 108-90-7 Purity 99%	(Lot SHBL8110)	5,000.2	µg/mL	+/-	31.7043 280.6408 287.1942	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	1,1,1,2-Tetrachloroethane CAS # 630-20-6 Purity 99%	(Lot GC01)	5,000.9	µg/mL	+/-	31.8976 280.7022 287.2560	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Ethylbenzene CAS # 100-41-4 Purity 99%	(Lot SHBL9192)	5,000.8	µg/mL	+/-	31.8970 280.6965 287.2503	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	m-Xylene CAS # 108-38-3 Purity 99%	(Lot SHBM4841)	5,001.8	µg/mL	+/-	31.9033 280.7527 287.3077	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	p-Xylene CAS # 106-42-3 Purity 99%	(Lot SHBJ7329)	5,000.5	µg/mL	+/-	31.8950 280.6797 287.2331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	o-Xylene CAS # 95-47-6 Purity 98%	(Lot SHBL3963)	5,001.8	µg/mL	+/-	31.9035 280.7539 287.3090	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	Styrene CAS # 100-42-5 Purity 99%	(Lot MKCM3200)	5,001.7	µg/mL	+/-	31.9027 280.7471 287.3020	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	Isopropylbenzene (cumene) CAS # 98-82-8 Purity 99%	(Lot P15E008)	5,001.0	µg/mL	+/-	31.8982 280.7078 287.2618	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	bromoform CAS # 75-25-2 Purity 99%	(Lot SHBJ4835)	5,000.4	µg/mL	+/-	31.7055 280.6513 287.2050	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	1,1,1,2,2-Tetrachloroethane CAS # 79-34-5 Purity 99%	(Lot CFA4D)	5,000.4	µg/mL	+/-	31.7059 280.6548 287.2086	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	1,2,3-Trichloropropane CAS # 96-18-4 Purity 99%	(Lot BCBH8722V)	5,000.0	µg/mL	+/-	31.8918 280.6516 287.2044	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	n-Propylbenzene CAS # 103-65-1 Purity 99%	(Lot MKCM4174)	5,001.6	µg/mL	+/-	31.9021 280.7414 287.2963	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
38	Bromobenzene CAS # 108-86-1 Purity 99%	(Lot WXBC5147V)	5,001.1	µg/mL	+/-	31.8989 280.7134 287.2675	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
39	1,3,5-Trimethylbenzene CAS # 108-67-8 Purity 99%	(Lot BCCD0427)	5,001.6	µg/mL	+/-	31.9021 280.7414 287.2963	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

40	2-Chlorotoluene CAS # 95-49-8 Purity 99%	(Lot MKCF5243)	5,000.2	µg/mL	+/-	31.8931 280.6629 287.2158	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	4-Chlorotoluene CAS # 106-43-4 Purity 99%	(Lot MKCC8496)	5,000.1	µg/mL	+/-	31.8925 280.6572 287.2101	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	tert-Butylbenzene CAS # 98-06-6 Purity 99%	(Lot STBJ1937)	5,001.3	µg/mL	+/-	31.9001 280.7246 287.2790	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	1,2,4-Trimethylbenzene CAS # 95-63-6 Purity 98%	(Lot WXBC9428V)	5,000.6	µg/mL	+/-	31.8960 280.6879 287.2415	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	sec-Butylbenzene CAS # 135-98-8 Purity 99%	(Lot MKCN2920)	5,000.2	µg/mL	+/-	31.8931 280.6629 287.2158	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	p-Isopropyltoluene (p-Cymene) CAS # 99-87-6 Purity 99%	(Lot MKCN1411)	5,001.1	µg/mL	+/-	31.8989 280.7134 287.2675	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	1,3-Dichlorobenzene CAS # 541-73-1 Purity 99%	(Lot BCBZ7498)	5,000.5	µg/mL	+/-	31.7063 280.6583 287.2122	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	1,4-Dichlorobenzene CAS # 106-46-7 Purity 99%	(Lot MKBS4401V)	5,000.8	µg/mL	+/-	31.7083 280.6759 287.2301	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
48	n-Butylbenzene CAS # 104-51-8 Purity 99%	(Lot 09804AE)	5,001.6	µg/mL	+/-	31.9021 280.7414 287.2963	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
49	1,2-Dichlorobenzene CAS # 95-50-1 Purity 99%	(Lot SHBK7741)	5,000.1	µg/mL	+/-	31.7036 280.6338 287.1871	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
50	1,2-Dibromo-3-chloropropane CAS # 96-12-8 Purity 97%	(Lot FBL01)	5,000.3	µg/mL	+/-	31.8935 280.6658 287.2189	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
51	1,2,4-Trichlorobenzene CAS # 120-82-1 Purity 99%	(Lot SHBJ9215)	5,000.8	µg/mL	+/-	31.8970 280.6965 287.2503	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
52	Hexachlorobutadiene CAS # 87-68-3 Purity 99%	(Lot 664800)	5,001.3	µg/mL	+/-	31.9001 280.7246 287.2790	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
53	Naphthalene CAS # 91-20-3 Purity 99%	(Lot MKBZ8680V)	5,000.8	µg/mL	+/-	31.8970 280.6965 287.2503	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
54	1,2,3-Trichlorobenzene CAS # 87-61-6 Purity 99%	(Lot MKBX7627V)	5,000.4	µg/mL	+/-	31.8944 280.6741 287.2273	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)

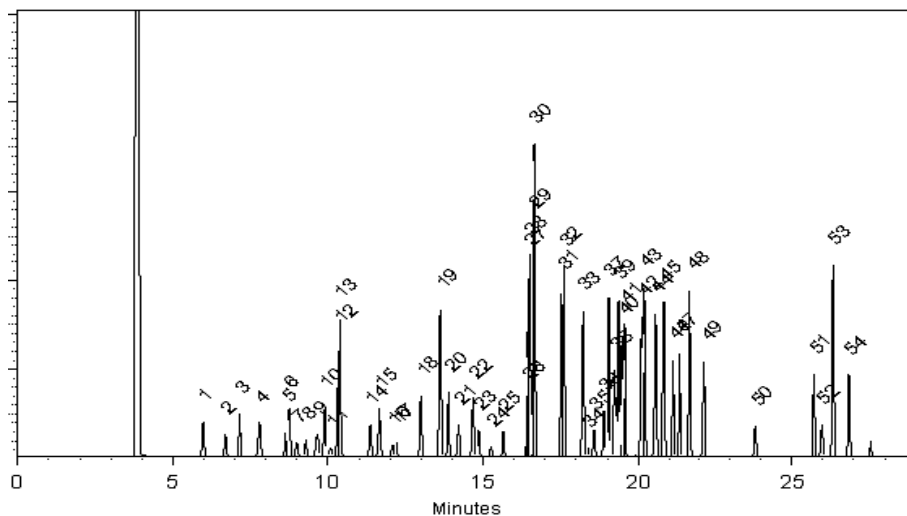
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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


Inj. Temp:
200°C

Det. Temp:
250°C

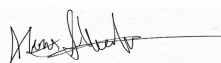
Det. Type:
FID



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.


Walker Workman - Operations Technician I

Date Mixed: 22-Apr-2021 **Balance:** 1128360905


Alexis Shelow - Operations Tech I

Date Passed: 26-Apr-2021

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) -20°C or colder (Deep 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.

Reagent

MSV_MegaMix#2_00054



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. : 577487 **Lot No.:** A0173454

Description : Custom VOC MegaMix® #2 Standard
Custom VOC MegaMix® #2 Standard 5000-62500µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : June 30, 2024 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	n-Pentane (C5)	5,000.8 µg/mL	+/-	34.9563	µg/mL	Gravimetric
	CAS # 109-66-0 (Lot SHBM6577)		+/-	248.1404	µg/mL	Unstressed
	Purity 99%		+/-	254.2734	µg/mL	Stressed
2	2-Propanol (isopropanol)	25,000.0 µg/mL	+/-	146.3805	µg/mL	Gravimetric
	CAS # 67-63-0 (Lot SHBH7211)		+/-	1,236.8175	µg/mL	Unstressed
	Purity 99%		+/-	1,267.5661	µg/mL	Stressed
3	1,1,2-Trichlorotrifluoroethane (CFC-113)	5,000.0 µg/mL	+/-	34.9505	µg/mL	Gravimetric
	CAS # 76-13-1 (Lot 00016133)		+/-	248.0991	µg/mL	Unstressed
	Purity 99%		+/-	254.2310	µg/mL	Stressed
4	tert-Butanol (TBA)	25,010.0 µg/mL	+/-	146.4390	µg/mL	Gravimetric
	CAS # 75-65-0 (Lot SHBM7694)		+/-	1,237.3122	µg/mL	Unstressed
	Purity 99%		+/-	1,268.0731	µg/mL	Stressed
5	Methyl acetate	5,000.2 µg/mL	+/-	34.9516	µg/mL	Gravimetric
	CAS # 79-20-9 (Lot SHBM1320)		+/-	248.1073	µg/mL	Unstressed
	Purity 99%		+/-	254.2395	µg/mL	Stressed
6	Iodomethane (methyl iodide)	5,001.7 µg/mL	+/-	34.9621	µg/mL	Gravimetric
	CAS # 74-88-4 (Lot RD210503)		+/-	248.1818	µg/mL	Unstressed
	Purity 99%		+/-	254.3157	µg/mL	Stressed
7	Allyl chloride (3-chloropropene)	5,000.7 µg/mL	+/-	34.9551	µg/mL	Gravimetric
	CAS # 107-05-1 (Lot RD210402)		+/-	248.1321	µg/mL	Unstressed
	Purity 99%		+/-	254.2649	µg/mL	Stressed

8	Carbon disulfide CAS # 75-15-0 Purity 99%	(Lot N28F701)	5,004.2	µg/mL	+/- +/- +/-	34.9796 248.3058 254.4428	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Acrylonitrile CAS # 107-13-1 Purity 99%	(Lot M25F024)	12,506.0	µg/mL	+/- +/- +/-	73.2254 618.7056 634.0873	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	Methyl-tert-butyl ether (MTBE) CAS # 1634-04-4 Purity 99%	(Lot SHBM3541)	5,000.8	µg/mL	+/- +/- +/-	34.9563 248.1404 254.2734	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	n-Hexane (C6) CAS # 110-54-3 Purity 99%	(Lot SHBL9879)	5,000.5	µg/mL	+/- +/- +/-	34.9540 248.1239 254.2564	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	Diisopropyl ether (DIPE) CAS # 108-20-3 Purity 99%	(Lot SHBH1927V)	5,003.3	µg/mL	+/- +/- +/-	34.9738 248.2645 254.4005	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	Chloroprene (2-chloro-1,3-butadiene) CAS # 126-99-8 Purity 99%	(Lot 210413JLM)	5,001.2	µg/mL	+/- +/- +/-	34.9586 248.1570 254.2903	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	Ethyl-tert-butyl ether (ETBE) CAS # 637-92-3 Purity 99%	(Lot MKCM3774)	5,001.7	µg/mL	+/- +/- +/-	34.9621 248.1818 254.3157	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	Propionitrile CAS # 107-12-0 Purity 99%	(Lot BCCC1173)	25,006.7	µg/mL	+/- +/- +/-	146.4195 1,237.1473 1,267.9041	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	Methacrylonitrile CAS # 126-98-7 Purity 99%	(Lot 1012020)	12,500.7	µg/mL	+/- +/- +/-	73.1942 618.4417 633.8168	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	Isobutanol (2-Methyl-1-propanol) CAS # 78-83-1 Purity 99%	(Lot SHBM4836)	62,500.7	µg/mL	+/- +/- +/-	365.9551 3,092.0767 3,168.9490	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	Tetrahydrofuran CAS # 109-99-9 Purity 99%	(Lot SHBM8962)	25,010.0	µg/mL	+/- +/- +/-	146.4390 1,237.3122 1,268.0731	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	Cyclohexane CAS # 110-82-7 Purity 99%	(Lot MKCF5831)	5,001.7	µg/mL	+/- +/- +/-	34.9621 248.1818 254.3157	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	1-Butanol CAS # 71-36-3 Purity 99%	(Lot SHBM5061)	62,504.0	µg/mL	+/- +/- +/-	365.9747 3,092.2416 3,169.1180	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
21	tert-Amyl methyl ether (TAME) CAS # 994-05-8 Purity 99%	(Lot HMBG7745V)	5,001.7	µg/mL	+/- +/- +/-	34.9621 248.1818 254.3157	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
22	n-Heptane (C7) CAS # 142-82-5 Purity 99%	(Lot SHBL9221)	5,002.3	µg/mL	+/- +/- +/-	34.9668 248.2148 254.3496	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
23	tert-Amyl ethyl ether (TAEE) CAS # 919-94-8 Purity 99%	(Lot 76U3A)	5,000.2	µg/mL	+/- +/- +/-	34.9516 248.1073 254.2395	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

24	Methylcyclohexane CAS # 108-87-2 Purity 99%	(Lot SHBL0078)	5,000.2	µg/mL	+/- +/- +/-	34.9516 248.1073 254.2395	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	Methyl methacrylate CAS # 80-62-6 Purity 99%	(Lot MKCN3027)	5,001.0	µg/mL	+/- +/- +/-	34.9574 248.1487 254.2818	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	1,4-Dioxane CAS # 123-91-1 Purity 99%	(Lot SHBM5092)	62,503.3	µg/mL	+/- +/- +/-	365.9708 3,092.2086 3,169.0842	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	2-Nitropropane CAS # 79-46-9 Purity 97%	(Lot BCCB9352)	25,000.8	µg/mL	+/- +/- +/-	146.3851 1,236.8561 1,267.6056	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Ethyl methacrylate CAS # 97-63-2 Purity 99%	(Lot MKCL0907)	5,000.8	µg/mL	+/- +/- +/-	34.9563 248.1404 254.2734	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	1-Chlorohexane CAS # 544-10-5 Purity 98%	(Lot BCBS3368V)	5,000.0	µg/mL	+/- +/- +/-	34.9502 248.0971 254.2290	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	trans-1,4-dichloro-2-butene CAS # 110-57-6 Purity 95%	(Lot RD210617)	12,510.9	µg/mL	+/- +/- +/-	73.2539 618.9463 634.3340	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	1,2,3-Trimethylbenzene CAS # 526-73-8 Purity 98%	(Lot 8776.10-36)	5,000.0	µg/mL	+/- +/- +/-	34.9502 248.0971 254.2290	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	1,3-Diethylbenzene CAS # 141-93-5 Purity 98%	(Lot BCBT8967)	5,000.9	µg/mL	+/- +/- +/-	34.9570 248.1457 254.2788	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	Benzyl chloride CAS # 100-44-7 Purity 99%	(Lot SHBH2102V)	5,000.8	µg/mL	+/- +/- +/-	34.9563 248.1404 254.2734	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	1,4-Diethylbenzene CAS # 105-05-5 Purity 98%	(Lot RLHJK)	5,001.4	µg/mL	+/- +/- +/-	34.9605 248.1700 254.3037	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	1,2-Diethylbenzene CAS # 135-01-3 Purity 99%	(Lot ECH2970181)	5,000.5	µg/mL	+/- +/- +/-	34.9540 248.1239 254.2564	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	1,3,5-Trichlorobenzene CAS # 108-70-3 Purity 99%	(Lot 11319AS)	5,000.2	µg/mL	+/- +/- +/-	34.9516 248.1073 254.2395	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	2-Methylnaphthalene CAS # 91-57-6 Purity 99%	(Lot STBG8884)	5,001.0	µg/mL	+/- +/- +/-	34.9574 248.1487 254.2818	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

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

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

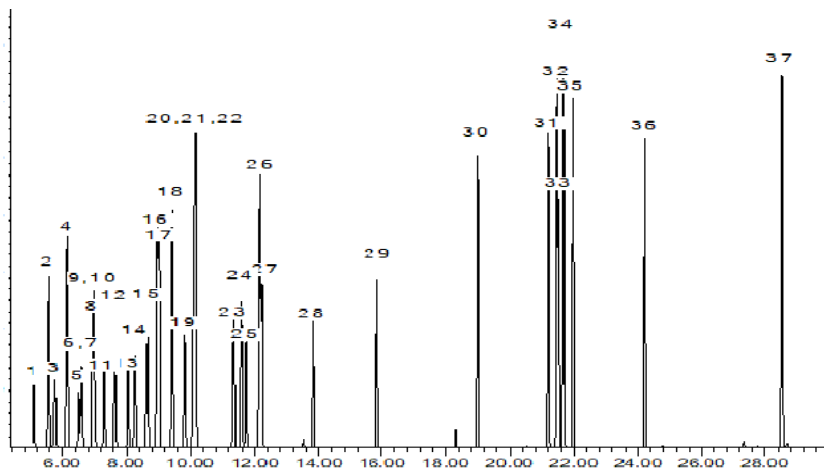
Carrier Gas:
helium-constant pressure 30 psi

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.

Russ Bookhamer - Operations Technician I

Date Mixed: 16-Jun-2021

Balance: B707717271

Alexis Shelow - Operations Tech I

Date Passed: 30-Jun-2021

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) -20°C or colder (Deep 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.

Reagent

MSV_MegaMix#2_00057



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. : 577487 **Lot No.:** A0173454

Description : Custom VOC MegaMix® #2 Standard
Custom VOC MegaMix® #2 Standard 5000-62500µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : June 30, 2024 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	n-Pentane (C5) CAS # 109-66-0 (Lot SHBM6577) Purity 99%	5,000.8 µg/mL	+/- 34.9563 µg/mL Gravimetric +/- 248.1404 µg/mL Unstressed +/- 254.2734 µg/mL Stressed
2	2-Propanol (isopropanol) CAS # 67-63-0 (Lot SHBH7211) Purity 99%	25,000.0 µg/mL	+/- 146.3805 µg/mL Gravimetric +/- 1,236.8175 µg/mL Unstressed +/- 1,267.5661 µg/mL Stressed
3	1,1,2-Trichlorotrifluoroethane (CFC-113) CAS # 76-13-1 (Lot 00016133) Purity 99%	5,000.0 µg/mL	+/- 34.9505 µg/mL Gravimetric +/- 248.0991 µg/mL Unstressed +/- 254.2310 µg/mL Stressed
4	tert-Butanol (TBA) CAS # 75-65-0 (Lot SHBM7694) Purity 99%	25,010.0 µg/mL	+/- 146.4390 µg/mL Gravimetric +/- 1,237.3122 µg/mL Unstressed +/- 1,268.0731 µg/mL Stressed
5	Methyl acetate CAS # 79-20-9 (Lot SHBM1320) Purity 99%	5,000.2 µg/mL	+/- 34.9516 µg/mL Gravimetric +/- 248.1073 µg/mL Unstressed +/- 254.2395 µg/mL Stressed
6	Iodomethane (methyl iodide) CAS # 74-88-4 (Lot RD210503) Purity 99%	5,001.7 µg/mL	+/- 34.9621 µg/mL Gravimetric +/- 248.1818 µg/mL Unstressed +/- 254.3157 µg/mL Stressed
7	Allyl chloride (3-chloropropene) CAS # 107-05-1 (Lot RD210402) Purity 99%	5,000.7 µg/mL	+/- 34.9551 µg/mL Gravimetric +/- 248.1321 µg/mL Unstressed +/- 254.2649 µg/mL Stressed

8	Carbon disulfide CAS # 75-15-0 Purity 99%	(Lot N28F701)	5,004.2	µg/mL	+/- +/- +/-	34.9796 248.3058 254.4428	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Acrylonitrile CAS # 107-13-1 Purity 99%	(Lot M25F024)	12,506.0	µg/mL	+/- +/- +/-	73.2254 618.7056 634.0873	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	Methyl-tert-butyl ether (MTBE) CAS # 1634-04-4 Purity 99%	(Lot SHBM3541)	5,000.8	µg/mL	+/- +/- +/-	34.9563 248.1404 254.2734	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	n-Hexane (C6) CAS # 110-54-3 Purity 99%	(Lot SHBL9879)	5,000.5	µg/mL	+/- +/- +/-	34.9540 248.1239 254.2564	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	Diisopropyl ether (DIPE) CAS # 108-20-3 Purity 99%	(Lot SHBH1927V)	5,003.3	µg/mL	+/- +/- +/-	34.9738 248.2645 254.4005	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	Chloroprene (2-chloro-1,3-butadiene) CAS # 126-99-8 Purity 99%	(Lot 210413JLM)	5,001.2	µg/mL	+/- +/- +/-	34.9586 248.1570 254.2903	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	Ethyl-tert-butyl ether (ETBE) CAS # 637-92-3 Purity 99%	(Lot MKCM3774)	5,001.7	µg/mL	+/- +/- +/-	34.9621 248.1818 254.3157	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	Propionitrile CAS # 107-12-0 Purity 99%	(Lot BCCC1173)	25,006.7	µg/mL	+/- +/- +/-	146.4195 1,237.1473 1,267.9041	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	Methacrylonitrile CAS # 126-98-7 Purity 99%	(Lot 1012020)	12,500.7	µg/mL	+/- +/- +/-	73.1942 618.4417 633.8168	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	Isobutanol (2-Methyl-1-propanol) CAS # 78-83-1 Purity 99%	(Lot SHBM4836)	62,500.7	µg/mL	+/- +/- +/-	365.9551 3,092.0767 3,168.9490	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	Tetrahydrofuran CAS # 109-99-9 Purity 99%	(Lot SHBM8962)	25,010.0	µg/mL	+/- +/- +/-	146.4390 1,237.3122 1,268.0731	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	Cyclohexane CAS # 110-82-7 Purity 99%	(Lot MKCF5831)	5,001.7	µg/mL	+/- +/- +/-	34.9621 248.1818 254.3157	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	1-Butanol CAS # 71-36-3 Purity 99%	(Lot SHBM5061)	62,504.0	µg/mL	+/- +/- +/-	365.9747 3,092.2416 3,169.1180	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
21	tert-Amyl methyl ether (TAME) CAS # 994-05-8 Purity 99%	(Lot HMBG7745V)	5,001.7	µg/mL	+/- +/- +/-	34.9621 248.1818 254.3157	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
22	n-Heptane (C7) CAS # 142-82-5 Purity 99%	(Lot SHBL9221)	5,002.3	µg/mL	+/- +/- +/-	34.9668 248.2148 254.3496	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
23	tert-Amyl ethyl ether (TAEE) CAS # 919-94-8 Purity 99%	(Lot 76U3A)	5,000.2	µg/mL	+/- +/- +/-	34.9516 248.1073 254.2395	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

24	Methylcyclohexane CAS # 108-87-2 Purity 99%	(Lot SHBL0078)	5,000.2	µg/mL	+/-	34.9516 248.1073 254.2395	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	Methyl methacrylate CAS # 80-62-6 Purity 99%	(Lot MKCN3027)	5,001.0	µg/mL	+/-	34.9574 248.1487 254.2818	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	1,4-Dioxane CAS # 123-91-1 Purity 99%	(Lot SHBM5092)	62,503.3	µg/mL	+/-	365.9708 3,092.2086 3,169.0842	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	2-Nitropropane CAS # 79-46-9 Purity 97%	(Lot BCCB9352)	25,000.8	µg/mL	+/-	146.3851 1,236.8561 1,267.6056	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Ethyl methacrylate CAS # 97-63-2 Purity 99%	(Lot MKCL0907)	5,000.8	µg/mL	+/-	34.9563 248.1404 254.2734	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	1-Chlorohexane CAS # 544-10-5 Purity 98%	(Lot BCBS3368V)	5,000.0	µg/mL	+/-	34.9502 248.0971 254.2290	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	trans-1,4-dichloro-2-butene CAS # 110-57-6 Purity 95%	(Lot RD210617)	12,510.9	µg/mL	+/-	73.2539 618.9463 634.3340	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	1,2,3-Trimethylbenzene CAS # 526-73-8 Purity 98%	(Lot 8776.10-36)	5,000.0	µg/mL	+/-	34.9502 248.0971 254.2290	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	1,3-Diethylbenzene CAS # 141-93-5 Purity 98%	(Lot BCBT8967)	5,000.9	µg/mL	+/-	34.9570 248.1457 254.2788	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	Benzyl chloride CAS # 100-44-7 Purity 99%	(Lot SHBH2102V)	5,000.8	µg/mL	+/-	34.9563 248.1404 254.2734	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	1,4-Diethylbenzene CAS # 105-05-5 Purity 98%	(Lot RLHJK)	5,001.4	µg/mL	+/-	34.9605 248.1700 254.3037	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	1,2-Diethylbenzene CAS # 135-01-3 Purity 99%	(Lot ECH2970181)	5,000.5	µg/mL	+/-	34.9540 248.1239 254.2564	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	1,3,5-Trichlorobenzene CAS # 108-70-3 Purity 99%	(Lot 11319AS)	5,000.2	µg/mL	+/-	34.9516 248.1073 254.2395	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	2-Methylnaphthalene CAS # 91-57-6 Purity 99%	(Lot STBG8884)	5,001.0	µg/mL	+/-	34.9574 248.1487 254.2818	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

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

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

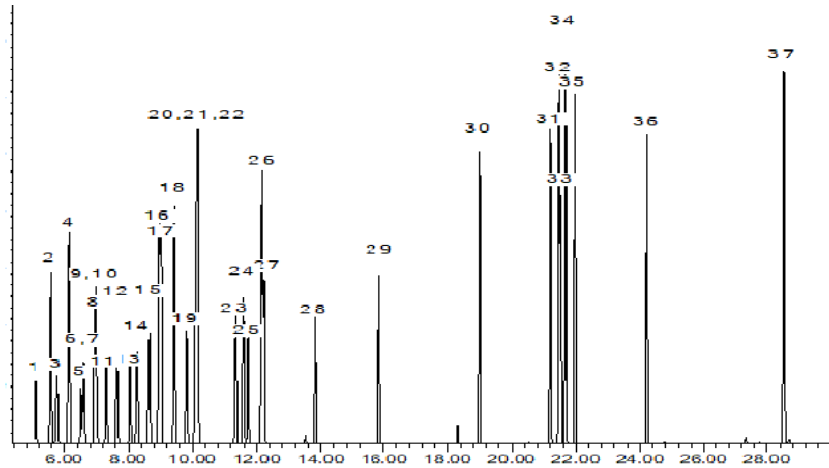
Carrier Gas:
helium-constant pressure 30 psi

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.

Russ Bookhamer - Operations Technician I

Date Mixed: 16-Jun-2021 **Balance:** B707717271

Alexis Shelow - Operations Tech I

Date Passed: 30-Jun-2021

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) -20°C or colder (Deep 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.

Reagent

MSV_MegaMix#2_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. : 577487 **Lot No.:** A0173454

Description : Custom VOC MegaMix® #2 Standard
Custom VOC MegaMix® #2 Standard 5000-62500µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : June 30, 2024 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	n-Pentane (C5)	5,000.8 µg/mL	+/-	34.9563	µg/mL	Gravimetric
	CAS # 109-66-0 (Lot SHBM6577)		+/-	248.1404	µg/mL	Unstressed
	Purity 99%		+/-	254.2734	µg/mL	Stressed
2	2-Propanol (isopropanol)	25,000.0 µg/mL	+/-	146.3805	µg/mL	Gravimetric
	CAS # 67-63-0 (Lot SHBH7211)		+/-	1,236.8175	µg/mL	Unstressed
	Purity 99%		+/-	1,267.5661	µg/mL	Stressed
3	1,1,2-Trichlorotrifluoroethane (CFC-113)	5,000.0 µg/mL	+/-	34.9505	µg/mL	Gravimetric
	CAS # 76-13-1 (Lot 00016133)		+/-	248.0991	µg/mL	Unstressed
	Purity 99%		+/-	254.2310	µg/mL	Stressed
4	tert-Butanol (TBA)	25,010.0 µg/mL	+/-	146.4390	µg/mL	Gravimetric
	CAS # 75-65-0 (Lot SHBM7694)		+/-	1,237.3122	µg/mL	Unstressed
	Purity 99%		+/-	1,268.0731	µg/mL	Stressed
5	Methyl acetate	5,000.2 µg/mL	+/-	34.9516	µg/mL	Gravimetric
	CAS # 79-20-9 (Lot SHBM1320)		+/-	248.1073	µg/mL	Unstressed
	Purity 99%		+/-	254.2395	µg/mL	Stressed
6	Iodomethane (methyl iodide)	5,001.7 µg/mL	+/-	34.9621	µg/mL	Gravimetric
	CAS # 74-88-4 (Lot RD210503)		+/-	248.1818	µg/mL	Unstressed
	Purity 99%		+/-	254.3157	µg/mL	Stressed
7	Allyl chloride (3-chloropropene)	5,000.7 µg/mL	+/-	34.9551	µg/mL	Gravimetric
	CAS # 107-05-1 (Lot RD210402)		+/-	248.1321	µg/mL	Unstressed
	Purity 99%		+/-	254.2649	µg/mL	Stressed

8	Carbon disulfide CAS # 75-15-0 Purity 99%	(Lot N28F701)	5,004.2	µg/mL	+/- +/- +/-	34.9796 248.3058 254.4428	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Acrylonitrile CAS # 107-13-1 Purity 99%	(Lot M25F024)	12,506.0	µg/mL	+/- +/- +/-	73.2254 618.7056 634.0873	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	Methyl-tert-butyl ether (MTBE) CAS # 1634-04-4 Purity 99%	(Lot SHBM3541)	5,000.8	µg/mL	+/- +/- +/-	34.9563 248.1404 254.2734	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	n-Hexane (C6) CAS # 110-54-3 Purity 99%	(Lot SHBL9879)	5,000.5	µg/mL	+/- +/- +/-	34.9540 248.1239 254.2564	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	Diisopropyl ether (DIPE) CAS # 108-20-3 Purity 99%	(Lot SHBH1927V)	5,003.3	µg/mL	+/- +/- +/-	34.9738 248.2645 254.4005	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	Chloroprene (2-chloro-1,3-butadiene) CAS # 126-99-8 Purity 99%	(Lot 210413JLM)	5,001.2	µg/mL	+/- +/- +/-	34.9586 248.1570 254.2903	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	Ethyl-tert-butyl ether (ETBE) CAS # 637-92-3 Purity 99%	(Lot MKCM3774)	5,001.7	µg/mL	+/- +/- +/-	34.9621 248.1818 254.3157	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	Propionitrile CAS # 107-12-0 Purity 99%	(Lot BCCC1173)	25,006.7	µg/mL	+/- +/- +/-	146.4195 1,237.1473 1,267.9041	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	Methacrylonitrile CAS # 126-98-7 Purity 99%	(Lot 1012020)	12,500.7	µg/mL	+/- +/- +/-	73.1942 618.4417 633.8168	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	Isobutanol (2-Methyl-1-propanol) CAS # 78-83-1 Purity 99%	(Lot SHBM4836)	62,500.7	µg/mL	+/- +/- +/-	365.9551 3,092.0767 3,168.9490	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
18	Tetrahydrofuran CAS # 109-99-9 Purity 99%	(Lot SHBM8962)	25,010.0	µg/mL	+/- +/- +/-	146.4390 1,237.3122 1,268.0731	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
19	Cyclohexane CAS # 110-82-7 Purity 99%	(Lot MKCF5831)	5,001.7	µg/mL	+/- +/- +/-	34.9621 248.1818 254.3157	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
20	1-Butanol CAS # 71-36-3 Purity 99%	(Lot SHBM5061)	62,504.0	µg/mL	+/- +/- +/-	365.9747 3,092.2416 3,169.1180	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
21	tert-Amyl methyl ether (TAME) CAS # 994-05-8 Purity 99%	(Lot HMBG7745V)	5,001.7	µg/mL	+/- +/- +/-	34.9621 248.1818 254.3157	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
22	n-Heptane (C7) CAS # 142-82-5 Purity 99%	(Lot SHBL9221)	5,002.3	µg/mL	+/- +/- +/-	34.9668 248.2148 254.3496	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
23	tert-Amyl ethyl ether (TAEE) CAS # 919-94-8 Purity 99%	(Lot 76U3A)	5,000.2	µg/mL	+/- +/- +/-	34.9516 248.1073 254.2395	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

24	Methylcyclohexane CAS # 108-87-2 Purity 99%	(Lot SHBL0078)	5,000.2	µg/mL	+/- +/- +/-	34.9516 248.1073 254.2395	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	Methyl methacrylate CAS # 80-62-6 Purity 99%	(Lot MKCN3027)	5,001.0	µg/mL	+/- +/- +/-	34.9574 248.1487 254.2818	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	1,4-Dioxane CAS # 123-91-1 Purity 99%	(Lot SHBM5092)	62,503.3	µg/mL	+/- +/- +/-	365.9708 3,092.2086 3,169.0842	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	2-Nitropropane CAS # 79-46-9 Purity 97%	(Lot BCCB9352)	25,000.8	µg/mL	+/- +/- +/-	146.3851 1,236.8561 1,267.6056	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Ethyl methacrylate CAS # 97-63-2 Purity 99%	(Lot MKCL0907)	5,000.8	µg/mL	+/- +/- +/-	34.9563 248.1404 254.2734	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	1-Chlorohexane CAS # 544-10-5 Purity 98%	(Lot BCBS3368V)	5,000.0	µg/mL	+/- +/- +/-	34.9502 248.0971 254.2290	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	trans-1,4-dichloro-2-butene CAS # 110-57-6 Purity 95%	(Lot RD210617)	12,510.9	µg/mL	+/- +/- +/-	73.2539 618.9463 634.3340	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	1,2,3-Trimethylbenzene CAS # 526-73-8 Purity 98%	(Lot 8776.10-36)	5,000.0	µg/mL	+/- +/- +/-	34.9502 248.0971 254.2290	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	1,3-Diethylbenzene CAS # 141-93-5 Purity 98%	(Lot BCBT8967)	5,000.9	µg/mL	+/- +/- +/-	34.9570 248.1457 254.2788	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	Benzyl chloride CAS # 100-44-7 Purity 99%	(Lot SHBH2102V)	5,000.8	µg/mL	+/- +/- +/-	34.9563 248.1404 254.2734	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	1,4-Diethylbenzene CAS # 105-05-5 Purity 98%	(Lot RLHJK)	5,001.4	µg/mL	+/- +/- +/-	34.9605 248.1700 254.3037	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	1,2-Diethylbenzene CAS # 135-01-3 Purity 99%	(Lot ECH2970181)	5,000.5	µg/mL	+/- +/- +/-	34.9540 248.1239 254.2564	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	1,3,5-Trichlorobenzene CAS # 108-70-3 Purity 99%	(Lot 11319AS)	5,000.2	µg/mL	+/- +/- +/-	34.9516 248.1073 254.2395	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	2-Methylnaphthalene CAS # 91-57-6 Purity 99%	(Lot STBG8884)	5,001.0	µg/mL	+/- +/- +/-	34.9574 248.1487 254.2818	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

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

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

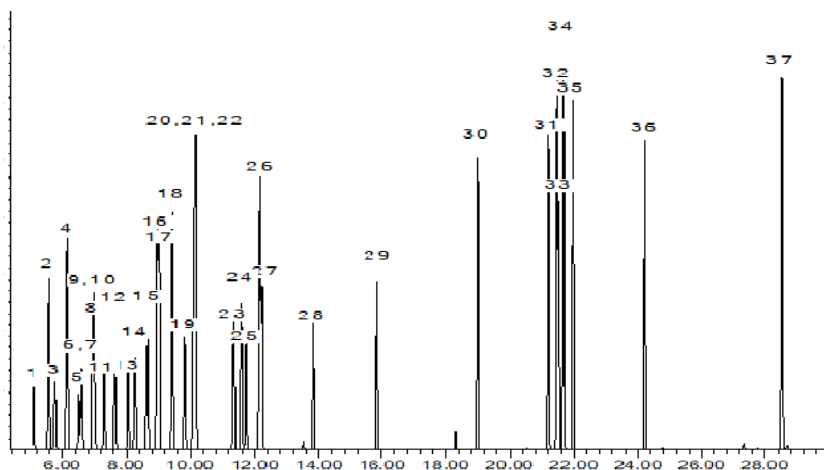
Carrier Gas:
helium-constant pressure 30 psi

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.

Russ Bookhamer - Operations Technician I

Date Mixed: 16-Jun-2021

Balance: B707717271

Alexis Shelow - Operations Tech I

Date Passed: 30-Jun-2021

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) -20°C or colder (Deep 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.

Reagent

MSV_Q_Ketones_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. : 569721.SEC **Lot No.:** A0167987

Description : 8260 List 1/ Std #2 Ketones (2015)
8260 List 1/ Std #2 Ketones (2015) 12,500µg/mL, P&T Methanol/Water (90:10), 1mL/ampul

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

Expiration Date : January 31, 2024 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Acetone	12,567.5 µg/mL	+/-	73.5855	µg/mL	Gravimetric
	CAS # 67-64-1.SEC (Lot S25F025)		+/-	758.3030	µg/mL	Unstressed
	Purity 99%		+/-	760.1031	µg/mL	Stressed
2	2-Butanone (MEK)	12,553.0 µg/mL	+/-	73.5006	µg/mL	Gravimetric
	CAS # 78-93-3.SEC (Lot RGZ2A)		+/-	757.4280	µg/mL	Unstressed
	Purity 99%		+/-	759.2261	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	12,563.5 µg/mL	+/-	73.5621	µg/mL	Gravimetric
	CAS # 108-10-1.SEC (Lot E29T040)		+/-	758.0616	µg/mL	Unstressed
	Purity 99%		+/-	759.8611	µg/mL	Stressed
4	2-Hexanone	12,527.8 µg/mL	+/-	73.3532	µg/mL	Gravimetric
	CAS # 591-78-6.SEC (Lot Y3TUO)		+/-	755.9093	µg/mL	Unstressed
	Purity 98%		+/-	757.7037	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)

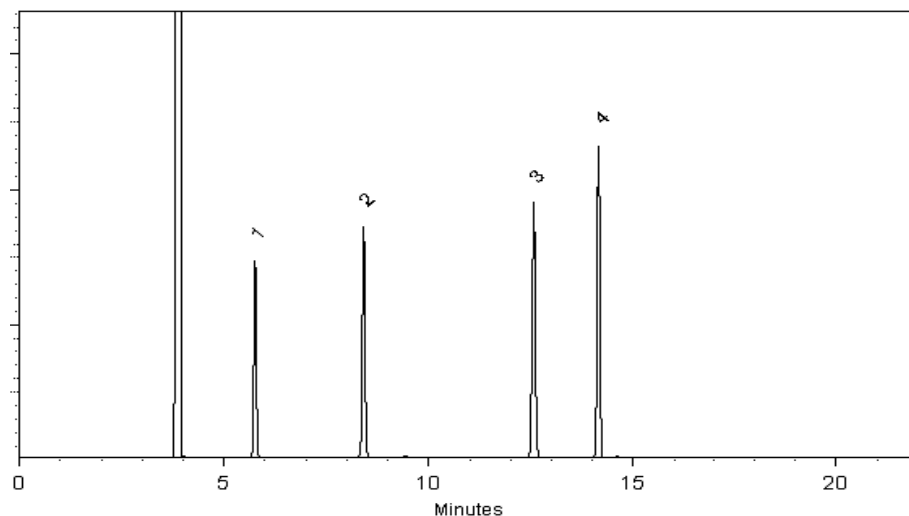
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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.


Cory Meyer - Operations Tech I

Date Mixed: 11-Jan-2021 **Balance:** 1127510105


Marlina Cowan - Operations Tech I

Date Passed: 14-Jan-2021

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) -20°C or colder (Deep 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.

Reagent

MSV_Q_Ketones_00060



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. : 569721.SEC **Lot No.:** A0167987

Description : 8260 List 1/ Std #2 Ketones (2015)
8260 List 1/ Std #2 Ketones (2015) 12,500µg/mL, P&T Methanol/Water (90:10), 1mL/ampul

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

Expiration Date : January 31, 2024 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Acetone	12,567.5 µg/mL	+/-	73.5855	µg/mL	Gravimetric
	CAS # 67-64-1.SEC (Lot S25F025)		+/-	758.3030	µg/mL	Unstressed
	Purity 99%		+/-	760.1031	µg/mL	Stressed
2	2-Butanone (MEK)	12,553.0 µg/mL	+/-	73.5006	µg/mL	Gravimetric
	CAS # 78-93-3.SEC (Lot RGZ2A)		+/-	757.4280	µg/mL	Unstressed
	Purity 99%		+/-	759.2261	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	12,563.5 µg/mL	+/-	73.5621	µg/mL	Gravimetric
	CAS # 108-10-1.SEC (Lot E29T040)		+/-	758.0616	µg/mL	Unstressed
	Purity 99%		+/-	759.8611	µg/mL	Stressed
4	2-Hexanone	12,527.8 µg/mL	+/-	73.3532	µg/mL	Gravimetric
	CAS # 591-78-6.SEC (Lot Y3TUO)		+/-	755.9093	µg/mL	Unstressed
	Purity 98%		+/-	757.7037	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)

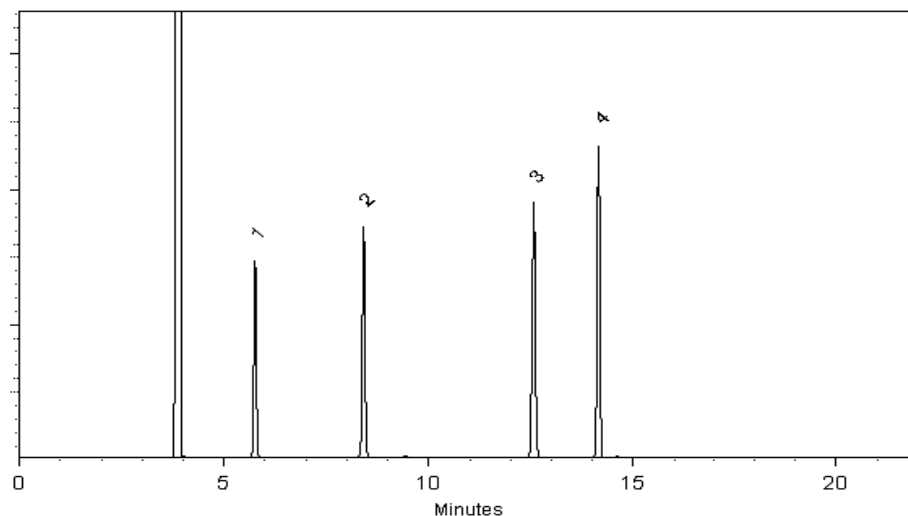
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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.


Cory Meyer - Operations Tech I

Date Mixed: 11-Jan-2021 **Balance:** 1127510105


Marlina Cowan - Operations Tech I

Date Passed: 14-Jan-2021

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) -20°C or colder (Deep 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.

Reagent

MSV_Q_Ketones_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. : 569721.SEC **Lot No.:** A0167987

Description : 8260 List 1/ Std #2 Ketones (2015)
8260 List 1/ Std #2 Ketones (2015) 12,500µg/mL, P&T Methanol/Water (90:10), 1mL/ampul

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

Expiration Date : January 31, 2024 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Acetone	12,567.5 µg/mL	+/-	73.5855	µg/mL	Gravimetric
	CAS # 67-64-1.SEC (Lot S25F025)		+/-	758.3030	µg/mL	Unstressed
	Purity 99%		+/-	760.1031	µg/mL	Stressed
2	2-Butanone (MEK)	12,553.0 µg/mL	+/-	73.5006	µg/mL	Gravimetric
	CAS # 78-93-3.SEC (Lot RGZ2A)		+/-	757.4280	µg/mL	Unstressed
	Purity 99%		+/-	759.2261	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	12,563.5 µg/mL	+/-	73.5621	µg/mL	Gravimetric
	CAS # 108-10-1.SEC (Lot E29T040)		+/-	758.0616	µg/mL	Unstressed
	Purity 99%		+/-	759.8611	µg/mL	Stressed
4	2-Hexanone	12,527.8 µg/mL	+/-	73.3532	µg/mL	Gravimetric
	CAS # 591-78-6.SEC (Lot Y3TUO)		+/-	755.9093	µg/mL	Unstressed
	Purity 98%		+/-	757.7037	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)

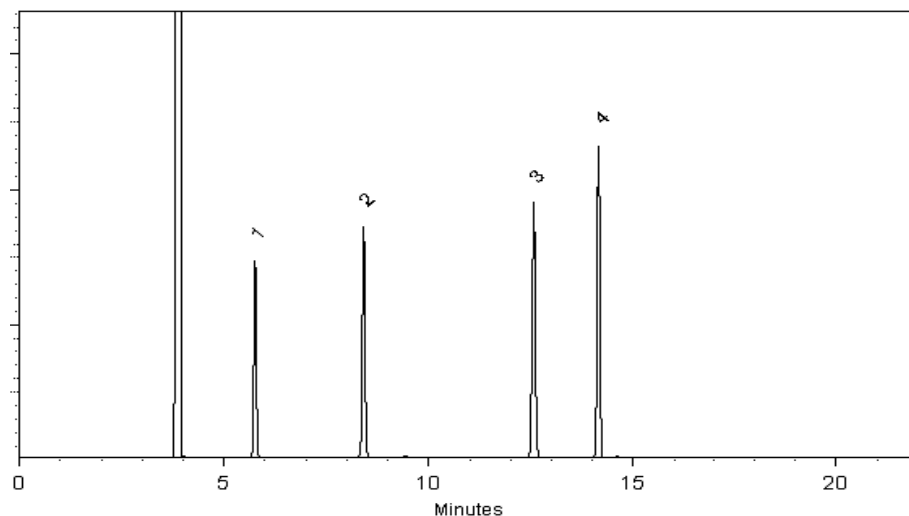
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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.


Cory Meyer - Operations Tech I

Date Mixed: 11-Jan-2021 **Balance:** 1127510105


Marlina Cowan - Operations Tech I

Date Passed: 14-Jan-2021

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) -20°C or colder (Deep 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.

Reagent

MSV_QC_2K_GAS_00079



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.: 577488.SEC Lot No.: A0172021
Description: Custom Gases.SEC Standard
Custom Gases.SEC Standard 2,000µg/mL, P&T Methanol, 1mL/ampul
Container Size: 2 mL Pkg Amt: > 1 mL
Expiration Date: May 31, 2024 Storage: 0°C or colder
Ship: Ambient

CERTIFIED VALUES

Table with 4 main columns: Elution Order, Compound, Grav. Conc. (weight/volume), and Expanded Uncertainty (95% C.L.; K=2). It lists 7 compounds including Dichlorodifluoromethane, Chloromethane, Vinyl chloride, 1,3-Butadiene, Bromomethane, Chloroethane, and Dichlorofluoromethane.

8	Trichlorofluoromethane (CFC-11)		2,010.6	µg/mL	+/-	32.3019	µg/mL	Gravimetric				
	CAS #	75-69-4.SEC (Lot 253600)							+/-	116.6827	µg/mL	Unstressed
	Purity	99%							+/-	119.2330	µg/mL	Stressed
9	1,2-Dichloro-1,1,2-trifluoroethane (CFC-123a)		2,020.4	µg/mL	+/-	21.8150	µg/mL	Gravimetric				
	CAS #	354-23-4 * (Lot Q9B-64)							+/-	114.7647	µg/mL	Unstressed
	Purity	99%							+/-	117.3819	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 flow 2.0 mL/min.

Temp. Program:

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

Inj. Temp:

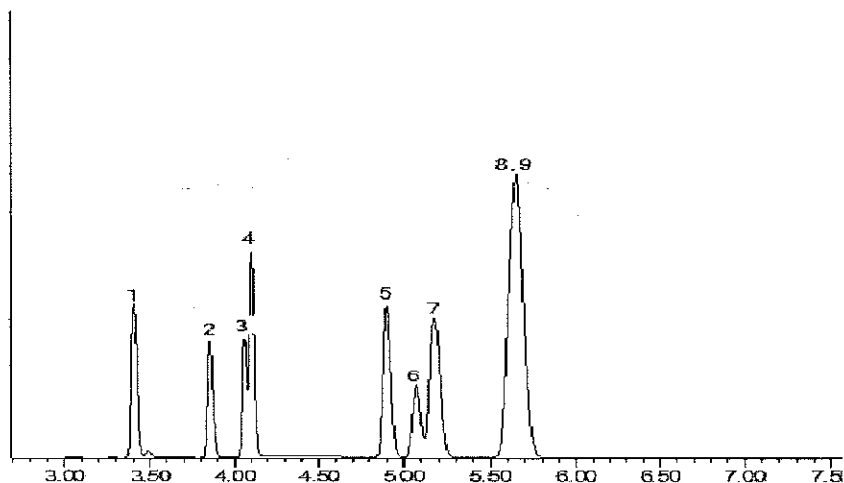
200°C

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: 04-May-2021 Balance: 1127510105

Alexis Shelow
Alexis Shelow - Operations Tech I

Date Passed: 17-May-2021

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) -20°C or colder (Deep 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.

Reagent

MSV_QC_2K_GAS_00086



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.: 577488.SEC Lot No.: A0172021
Description: Custom Gases.SEC Standard
Custom Gases.SEC Standard 2,000µg/mL, P&T Methanol, 1mL/ampul
Container Size: 2 mL Pkg Amt: > 1 mL
Expiration Date: May 31, 2024 Storage: 0°C or colder
Ship: Ambient

CERTIFIED VALUES

Table with 4 main columns: Elution Order, Compound, Grav. Conc. (weight/volume), and Expanded Uncertainty (95% C.L.; K=2). It lists 7 compounds including Dichlorodifluoromethane, Chloromethane, Vinyl chloride, 1,3-Butadiene, Bromomethane, Chloroethane, and Dichlorofluoromethane.

8	Trichlorofluoromethane (CFC-11)	2,010.6	µg/mL	+/-	32.3019	µg/mL	Gravimetric
	CAS # 75-69-4.SEC (Lot 253600)			+/-	116.6827	µg/mL	Unstressed
	Purity 99%			+/-	119.2330	µg/mL	Stressed
9	1,2-Dichloro-1,1,2-trifluoroethane (CFC-123a)	2,020.4	µg/mL	+/-	21.8150	µg/mL	Gravimetric
	CAS # 354-23-4 * (Lot Q9B-64)			+/-	114.7647	µg/mL	Unstressed
	Purity 99%			+/-	117.3819	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 flow 2.0 mL/min.

Temp. Program:

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

Inj. Temp:

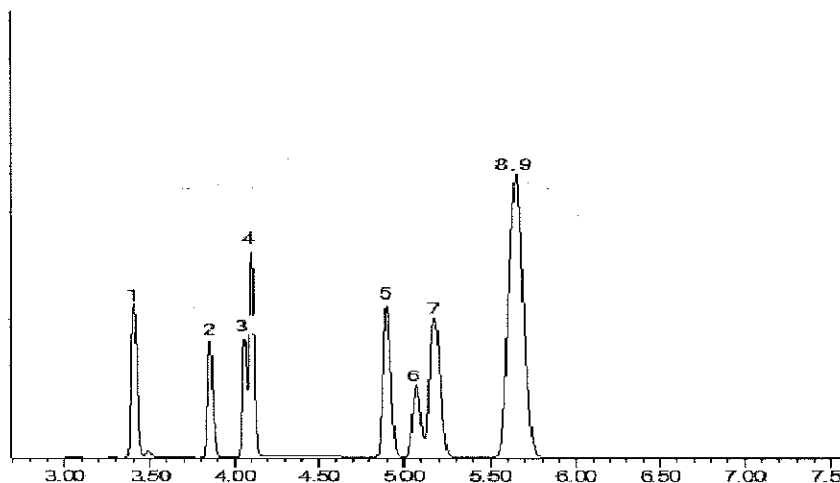
200°C

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: 04-May-2021 Balance: 1127510105

Alexis Shelow
Alexis Shelow - Operations Tech I

Date Passed: 17-May-2021

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) -20°C or colder (Deep 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.

Reagent

MSV_QC_2K_GAS_00087



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.: 577488.SEC Lot No.: A0172021
Description: Custom Gases.SEC Standard
Custom Gases.SEC Standard 2,000µg/mL, P&T Methanol, 1mL/ampul
Container Size: 2 mL Pkg Amt: > 1 mL
Expiration Date: May 31, 2024 Storage: 0°C or colder
Ship: Ambient

CERTIFIED VALUES

Table with 7 columns: Elution Order, Compound, Grav. Conc. (weight/volume), Expanded Uncertainty (95% C.L.; K=2), and three additional columns for measurement details. Rows 1-7 list compounds like Dichlorodifluoromethane, Chloromethane, Vinyl chloride, 1,3-Butadiene, Bromomethane, Chloroethane, and Dichlorofluoromethane.

8	Trichlorofluoromethane (CFC-11)		2,010.6	µg/mL	+/-	32.3019	µg/mL	Gravimetric				
	CAS #	75-69-4.SEC (Lot 253600)							+/-	116.6827	µg/mL	Unstressed
	Purity	99%							+/-	119.2330	µg/mL	Stressed
9	1,2-Dichloro-1,1,2-trifluoroethane (CFC-123a)		2,020.4	µg/mL	+/-	21.8150	µg/mL	Gravimetric				
	CAS #	354-23-4 * (Lot Q9B-64)							+/-	114.7647	µg/mL	Unstressed
	Purity	99%							+/-	117.3819	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 flow 2.0 mL/min.

Temp. Program:

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

Inj. Temp:

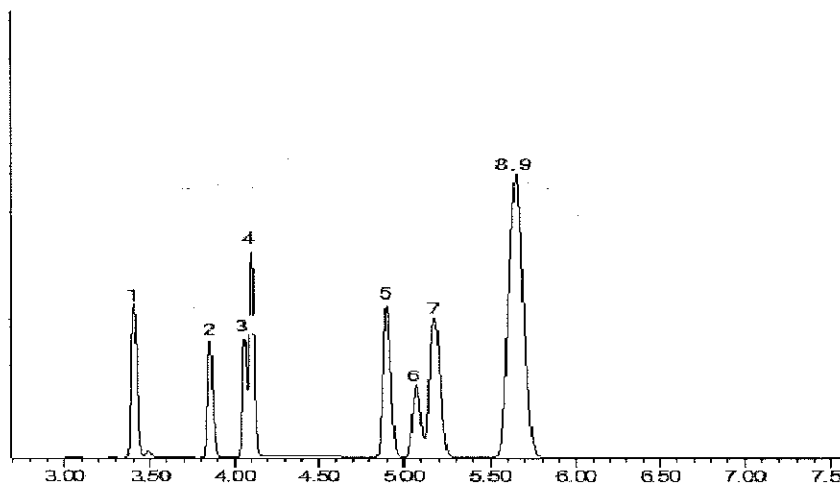
200°C

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: 04-May-2021 Balance: 1127510105

Alexis Shelow
Alexis Shelow - Operations Tech I

Date Passed: 17-May-2021

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) -20°C or colder (Deep 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.

Reagent

MSV_V#2B_00260



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.:** A0171518
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, 2023 **Storage:** 0°C or colder
Ship: Ambient

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%	25,038.0 µg/mL	+/- 146.6030 µg/mL
2	tert-Butanol (TBA)	75-65-0	99%	25,047.0 µg/mL	+/- 146.6557 µg/mL
3	Propionitrile	107-12-0	99%	25,015.0 µg/mL	+/- 146.4683 µg/mL
4	Methacrylonitrile	126-98-7	99%	12,515.0 µg/mL	+/- 73.2781 µg/mL
5	Isobutanol (2-Methyl-1-propanol)	78-83-1	99%	62,529.0 µg/mL	+/- 366.1210 µg/mL
6	1-Butanol	71-36-3	99%	125,072.0 µg/mL	+/- 732.2863 µg/mL
7	1,4-Dioxane	123-91-1	99%	62,509.0 µg/mL	+/- 366.0039 µg/mL
8	trans-1,4-dichloro-2-butene	110-57-6	95%	12,504.9 µg/mL	+/- 73.2186 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)

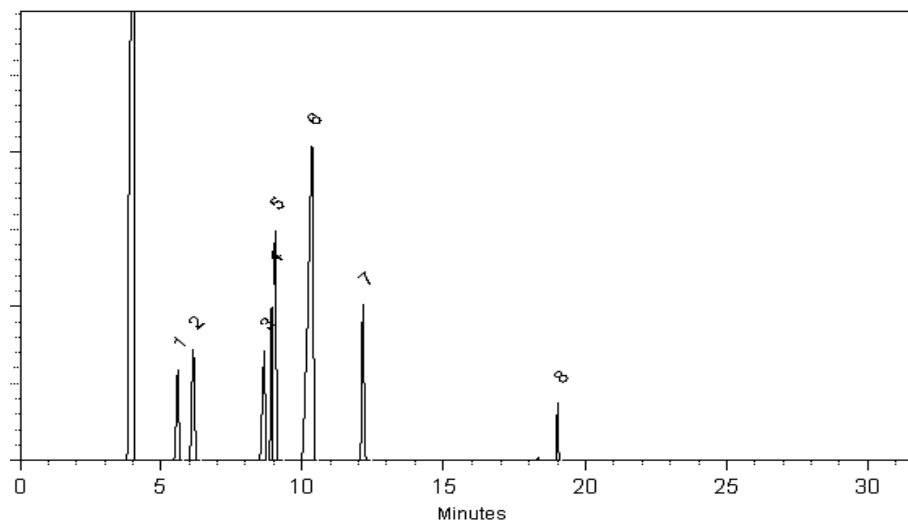
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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.


Erik Strommer - Operations Tech I

Date Mixed: 20-Apr-2021 **Balance:** B707717271


Marlina Cowan - Operations Tech I

Date Passed: 23-Apr-2021

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_Ketones_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. : 569721 **Lot No.:** A0174287

Description : 8260 List 1/ Std #2 Ketones (2015)
8260 List 1/ Std #2 Ketones (2015) 12,500µg/mL, P&T Methanol/Water (90:10), 1mL/ampul

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

Expiration Date : July 31, 2024 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Acetone	12,526.4 µg/mL	+/-	73.3448	µg/mL	Gravimetric
	CAS # 67-64-1 (Lot SHBN3661)		+/-	755.8230	µg/mL	Unstressed
	Purity 99%		+/-	757.6173	µg/mL	Stressed
2	2-Butanone (MEK)	12,543.6 µg/mL	+/-	73.4455	µg/mL	Gravimetric
	CAS # 78-93-3 (Lot SHBL5543)		+/-	756.8609	µg/mL	Unstressed
	Purity 99%		+/-	758.6575	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	12,534.8 µg/mL	+/-	73.3940	µg/mL	Gravimetric
	CAS # 108-10-1 (Lot SHBM7956)		+/-	756.3299	µg/mL	Unstressed
	Purity 99%		+/-	758.1253	µg/mL	Stressed
4	2-Hexanone	12,617.6 µg/mL	+/-	73.8788	µg/mL	Gravimetric
	CAS # 591-78-6 (Lot MKCL1599)		+/-	761.3259	µg/mL	Unstressed
	Purity 99%		+/-	763.1332	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)

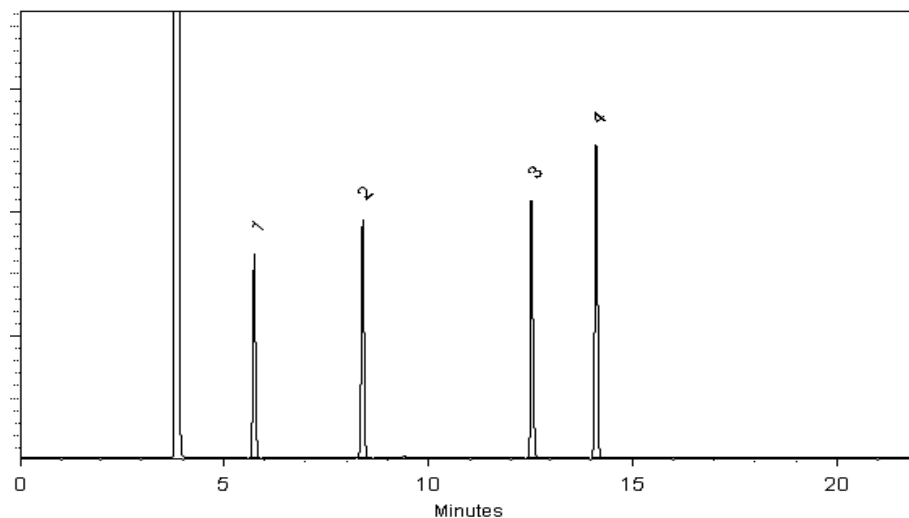
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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.

Sam Moodler
Sam Moodler - Operations Tech I

Date Mixed: 11-Jul-2021 **Balance:** B707717271

Marlina Cowan
Marlina Cowan - Operations Tech I

Date Passed: 13-Jul-2021

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) -20°C or colder (Deep 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.

Reagent

MSV_V_Ketones_00056



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. : 569721 **Lot No.:** A0174287

Description : 8260 List 1/ Std #2 Ketones (2015)
8260 List 1/ Std #2 Ketones (2015) 12,500µg/mL, P&T Methanol/Water (90:10), 1mL/ampul

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

Expiration Date : July 31, 2024 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Acetone	12,526.4 µg/mL	+/-	73.3448	µg/mL	Gravimetric
	CAS # 67-64-1 (Lot SHBN3661)		+/-	755.8230	µg/mL	Unstressed
	Purity 99%		+/-	757.6173	µg/mL	Stressed
2	2-Butanone (MEK)	12,543.6 µg/mL	+/-	73.4455	µg/mL	Gravimetric
	CAS # 78-93-3 (Lot SHBL5543)		+/-	756.8609	µg/mL	Unstressed
	Purity 99%		+/-	758.6575	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	12,534.8 µg/mL	+/-	73.3940	µg/mL	Gravimetric
	CAS # 108-10-1 (Lot SHBM7956)		+/-	756.3299	µg/mL	Unstressed
	Purity 99%		+/-	758.1253	µg/mL	Stressed
4	2-Hexanone	12,617.6 µg/mL	+/-	73.8788	µg/mL	Gravimetric
	CAS # 591-78-6 (Lot MKCL1599)		+/-	761.3259	µg/mL	Unstressed
	Purity 99%		+/-	763.1332	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)

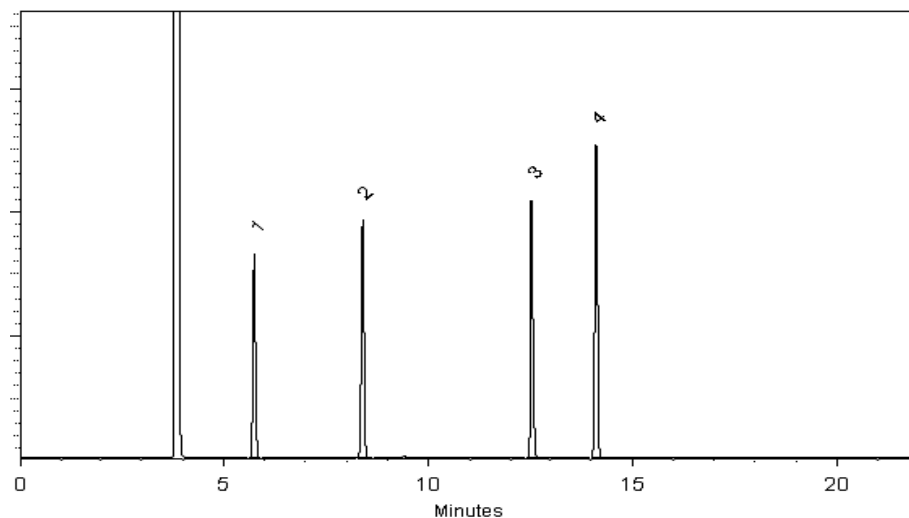
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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.

Sam Moodler
Sam Moodler - Operations Tech I

Date Mixed: 11-Jul-2021 **Balance:** B707717271

Marlina Cowan
Marlina Cowan - Operations Tech I

Date Passed: 13-Jul-2021

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) -20°C or colder (Deep 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.

Reagent

MSV_V_Ketones_00060



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. : 569721 **Lot No.:** A0174287

Description : 8260 List 1/ Std #2 Ketones (2015)
8260 List 1/ Std #2 Ketones (2015) 12,500µg/mL, P&T Methanol/Water (90:10), 1mL/ampul

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

Expiration Date : July 31, 2024 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Acetone	12,526.4 µg/mL	+/-	73.3448	µg/mL	Gravimetric
	CAS # 67-64-1 (Lot SHBN3661)		+/-	755.8230	µg/mL	Unstressed
	Purity 99%		+/-	757.6173	µg/mL	Stressed
2	2-Butanone (MEK)	12,543.6 µg/mL	+/-	73.4455	µg/mL	Gravimetric
	CAS # 78-93-3 (Lot SHBL5543)		+/-	756.8609	µg/mL	Unstressed
	Purity 99%		+/-	758.6575	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	12,534.8 µg/mL	+/-	73.3940	µg/mL	Gravimetric
	CAS # 108-10-1 (Lot SHBM7956)		+/-	756.3299	µg/mL	Unstressed
	Purity 99%		+/-	758.1253	µg/mL	Stressed
4	2-Hexanone	12,617.6 µg/mL	+/-	73.8788	µg/mL	Gravimetric
	CAS # 591-78-6 (Lot MKCL1599)		+/-	761.3259	µg/mL	Unstressed
	Purity 99%		+/-	763.1332	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)

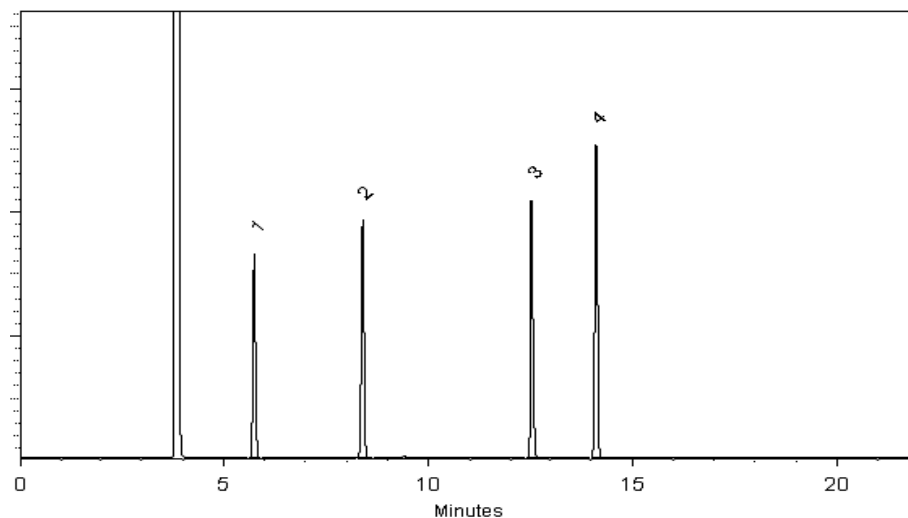
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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.

Sam Moodler
Sam Moodler - Operations Tech I

Date Mixed: 11-Jul-2021 **Balance:** B707717271

Marlina Cowan
Marlina Cowan - Operations Tech I

Date Passed: 13-Jul-2021

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) -20°C or colder (Deep 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.

Reagent

MSV_V_PentaCL_00013



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. : 577491 **Lot No.:** A0171341

Description : Custom Pentachloroethane Standard
Custom Pentachloroethane Standard 5,000µg/mL, P&T Methanol,
1mL/ampul

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

Expiration Date : April 30, 2024 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	Pentachloroethane CAS # 76-01-7 Purity 99% (Lot 10518800)	5,006.0 µg/mL	+/- 29.3780 µg/mL Gravimetric +/- 280.7099 µg/mL Unstressed +/- 287.2768 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)

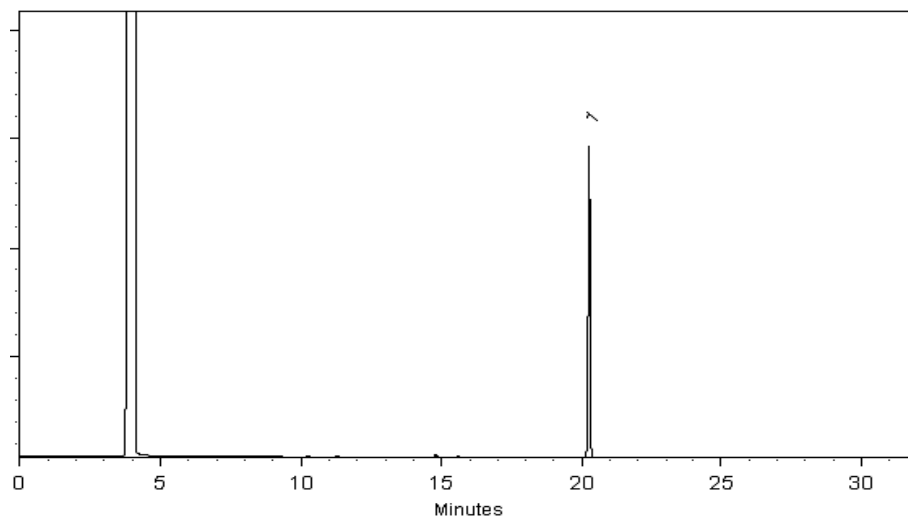
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

Inj. Temp:
200°C

Det. Temp:
250°C

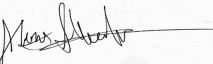
Det. Type:
FID



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.


Jeremy Warefield - Operations Tech I

Date Mixed: 14-Apr-2021 **Balance:** 1127510105


Alexis Shelow - Operations Tech I

Date Passed: 19-Apr-2021

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
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0°C or colder (Freezer) -20°C or colder (Deep 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.

Method 8260D Low Level

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

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-81767-1

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	410-81767-1	95	105	106	97
HD-COD-SW-7-0/1-0	410-81767-2	95	106	106	96
HD-COD-SW-8-0/1-0	410-81767-3	95	107	106	97
HD-COD-SW-9-0/1-0	410-81767-4	95	106	106	96
HD-COD-SW-13-0/1-0	410-81767-5	94	105	106	95
HD-COD-SW-15-0/1-0	410-81767-6	95	108	106	95
HD-COD-SW-16-0/1-0	410-81767-7	95	106	106	97
HD-COD-SW-17-0/1-0	410-81767-8	95	107	105	96
HD-COD-SW-17-0/1-0 DL	410-81767-8 DL	94	108	104	97
HD-COD-SW-26-0/1-0	410-81767-9	95	109	105	96
HD-COD-SW-27-0/1-0	410-81767-10	95	105	107	96
HD-COD-SW-28-0/1-0	410-81767-11	94	106	105	95
HD-COD-SW-29-0/1-0	410-81767-12	95	105	107	97
HD-QC1-0/1-1	410-81767-13	96	106	103	96
HD-QC1-0/1-1 DL	410-81767-13 DL	94	107	104	96
HD-QC1-0/1-2	410-81767-14	94	107	105	96
	MB 410-250524/7	94	106	104	95
	MB 410-251841/6	93	107	105	97
	LCS 410-250524/4	92	102	107	100
	LCS 410-251841/4	91	105	106	101
	LCSD 410-250524/5	92	100	106	100
HD-COD-SW-15-0/1-0 MS	410-81767-6 MS	93	103	107	101
HD-COD-SW-15-0/1-0 MSD	410-81767-6 MSD	92	105	107	102

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
Environment Testing, LLC

Job No.: 410-81767-1

SDG No.:

Matrix: Water Level: Low

Lab File ID: IM02X03.D

Lab ID: LCS 410-250524/4

Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	5.00	5.28	106	71-134	
1,1,1-Trichloroethane	5.00	4.94	99	78-126	
1,1,2,2-Tetrachloroethane	5.00	6.53	131	75-123	*+
1,1,2-Trichloroethane	5.00	5.93	119	80-120	
1,1-Dichloroethane	5.00	5.44	109	74-120	
1,1-Dichloroethene	5.00	5.32	106	80-131	
1,2-Dibromoethane (EDB)	5.00	5.68	114	80-120	
1,2-Dichloroethane	5.00	5.42	108	69-122	
1,2-Dichloropropane	5.00	5.81	116	80-120	
2-Butanone (MEK)	62.5	74.3	119	59-141	
2-Hexanone	62.5	77.4	124	52-140	
4-Methyl-2-pentanone (MIBK)	62.5	71.7	115	55-140	
Acetone	62.5	66.2	106	60-146	
Benzene	5.00	5.57	111	80-120	
Bromochloromethane	5.00	4.82	96	80-120	
Bromodichloromethane	5.00	5.41	108	73-124	
Bromoform	5.00	5.47	109	49-144	
Bromomethane	5.00	3.50	70	60-136	
Carbon disulfide	5.00	6.61	132	67-130	*+
Carbon tetrachloride	5.00	4.74	95	64-141	
Chlorobenzene	5.00	5.36	107	80-120	
Chloroethane	5.00	4.07	81	63-120	
Chloroform	5.00	5.11	102	80-120	
Chloromethane	5.00	4.35	87	56-124	
cis-1,2-Dichloroethene	5.00	5.07	101	80-122	
cis-1,3-Dichloropropene	5.00	5.25	105	67-121	
Dibromochloromethane	5.00	5.43	109	64-138	
Ethylbenzene	5.00	5.75	115	80-120	
Methyl tert-butyl ether	5.00	5.35	107	69-120	
Methylene Chloride	5.00	5.48	110	80-120	
Styrene	5.00	5.55	111	80-120	
Tetrachloroethene	5.00	4.85	97	80-120	
Toluene	5.00	5.83	117	80-120	
trans-1,2-Dichloroethene	5.00	5.09	102	80-122	
trans-1,3-Dichloropropene	5.00	6.23	125	61-129	
Trichloroethene	5.00	5.00	100	80-120	
Vinyl chloride	5.00	4.09	82	60-125	
Xylenes, Total	15.0	16.2	108	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
Environment Testing, LLC

Job No.: 410-81767-1

SDG No.:

Matrix: Water Level: Low

Lab File ID: IM05X03.D

Lab ID: LCS 410-251841/4

Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	5.00	4.81	96	71-134	
1,1,1-Trichloroethane	5.00	4.62	92	78-126	
1,1,2,2-Tetrachloroethane	5.00	5.89	118	75-123	
1,1,2-Trichloroethane	5.00	5.39	108	80-120	
1,1-Dichloroethane	5.00	5.06	101	74-120	
1,1-Dichloroethene	5.00	5.01	100	80-131	
1,2-Dibromoethane (EDB)	5.00	5.23	105	80-120	
1,2-Dichloroethane	5.00	4.80	96	69-122	
1,2-Dichloropropane	5.00	5.39	108	80-120	
2-Butanone (MEK)	62.5	71.8	115	59-141	
2-Hexanone	62.5	73.4	117	52-140	
4-Methyl-2-pentanone (MIBK)	62.5	69.6	111	55-140	
Acetone	62.5	61.6	99	60-146	
Benzene	5.00	5.16	103	80-120	
Bromochloromethane	5.00	4.50	90	80-120	
Bromodichloromethane	5.00	5.12	102	73-124	
Bromoform	5.00	4.96	99	49-144	
Bromomethane	5.00	3.47	69	60-136	
Carbon disulfide	5.00	6.14	123	67-130	
Carbon tetrachloride	5.00	4.40	88	64-141	
Chlorobenzene	5.00	4.97	99	80-120	
Chloroethane	5.00	4.09	82	63-120	
Chloroform	5.00	4.74	95	80-120	
Chloromethane	5.00	4.55	91	56-124	
cis-1,2-Dichloroethene	5.00	4.76	95	80-122	
cis-1,3-Dichloropropene	5.00	5.03	101	67-121	
Dibromochloromethane	5.00	5.02	100	64-138	
Ethylbenzene	5.00	5.30	106	80-120	
Methyl tert-butyl ether	5.00	5.09	102	69-120	
Methylene Chloride	5.00	5.08	102	80-120	
Styrene	5.00	5.13	103	80-120	
Tetrachloroethene	5.00	4.52	90	80-120	
Toluene	5.00	5.38	108	80-120	
trans-1,2-Dichloroethene	5.00	4.65	93	80-122	
trans-1,3-Dichloropropene	5.00	5.85	117	61-129	
Trichloroethene	5.00	4.66	93	80-120	
Vinyl chloride	5.00	4.19	84	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 DUPLICATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories
Environment Testing, LLC

Job No.: 410-81767-1

SDG No.:

Matrix: Water Level: Low

Lab File ID: IM02X04.D

Lab ID: LCSD 410-250524/5

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	5.10	102	3	30	71-134	
1,1,1-Trichloroethane	5.00	4.92	98	1	30	78-126	
1,1,2,2-Tetrachloroethane	5.00	6.64	133	2	30	75-123	**
1,1,2-Trichloroethane	5.00	5.71	114	4	30	80-120	
1,1-Dichloroethane	5.00	5.44	109	0	30	74-120	
1,1-Dichloroethene	5.00	5.36	107	1	30	80-131	
1,2-Dibromoethane (EDB)	5.00	5.56	111	2	30	80-120	
1,2-Dichloroethane	5.00	5.18	104	5	30	69-122	
1,2-Dichloropropane	5.00	5.72	114	2	30	80-120	
2-Butanone (MEK)	62.5	72.7	116	2	30	59-141	
2-Hexanone	62.5	77.0	123	1	30	52-140	
4-Methyl-2-pentanone (MIBK)	62.5	71.2	114	1	30	55-140	
Acetone	62.5	65.5	105	1	30	60-146	
Benzene	5.00	5.47	109	2	30	80-120	
Bromochloromethane	5.00	4.81	96	0	30	80-120	
Bromodichloromethane	5.00	5.40	108	0	30	73-124	
Bromoform	5.00	5.35	107	2	30	49-144	
Bromomethane	5.00	3.43	69	2	30	60-136	
Carbon disulfide	5.00	6.53	131	1	30	67-130	**
Carbon tetrachloride	5.00	4.66	93	2	30	64-141	
Chlorobenzene	5.00	5.37	107	0	30	80-120	
Chloroethane	5.00	4.05	81	0	30	63-120	
Chloroform	5.00	5.11	102	0	30	80-120	
Chloromethane	5.00	4.42	88	2	30	56-124	
cis-1,2-Dichloroethene	5.00	5.10	102	1	30	80-122	
cis-1,3-Dichloropropene	5.00	5.19	104	1	30	67-121	
Dibromochloromethane	5.00	5.27	105	3	30	64-138	
Ethylbenzene	5.00	5.68	114	1	30	80-120	
Methyl tert-butyl ether	5.00	5.27	105	2	30	69-120	
Methylene Chloride	5.00	5.47	109	0	30	80-120	
Styrene	5.00	5.52	110	0	30	80-120	
Tetrachloroethene	5.00	4.78	96	2	30	80-120	
Toluene	5.00	5.80	116	0	30	80-120	
trans-1,2-Dichloroethene	5.00	5.07	101	0	30	80-122	
trans-1,3-Dichloropropene	5.00	6.17	123	1	30	61-129	
Trichloroethene	5.00	4.95	99	1	30	80-120	
Vinyl chloride	5.00	4.13	83	1	30	60-125	
Xylenes, Total	15.0	15.9	106	2	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
Environment Testing, LLC

Job No.: 410-81767-1

SDG No.:

Matrix: Water Level: Low

Lab File ID: IM02X14.D

Lab ID: 410-81767-6 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	5.28	105	71-134	
1,1,1-Trichloroethane	5.00	0.32 J	5.50	103	78-126	
1,1,2,2-Tetrachloroethane	5.00	ND	6.29	126	75-123	FH
1,1,2-Trichloroethane	5.00	ND	5.75	115	80-120	
1,1-Dichloroethane	5.00	0.14 J	5.78	113	74-120	
1,1-Dichloroethene	5.00	0.17 J	5.97	116	80-131	
1,2-Dibromoethane (EDB)	5.00	ND	5.51	110	80-120	
1,2-Dichloroethane	5.00	ND	5.18	103	69-122	
1,2-Dichloropropane	5.00	ND	5.84	117	80-120	
2-Butanone (MEK)	62.6	ND	71.4	114	59-141	
2-Hexanone	62.6	ND	71.8	115	52-140	
4-Methyl-2-pentanone (MIBK)	62.6	ND	68.3	109	55-140	
Acetone	62.6	ND	64.9	104	60-146	
Benzene	5.00	ND	5.75	115	80-120	
Bromochloromethane	5.00	ND	4.91	98	80-120	
Bromodichloromethane	5.00	ND	5.47	109	73-124	
Bromoform	5.00	ND	5.17	103	49-144	
Bromomethane	5.00	ND	3.69	74	60-136	
Carbon disulfide	5.00	ND	7.12	142	67-130	FH
Carbon tetrachloride	5.00	ND	5.15	103	64-141	
Chlorobenzene	5.00	ND	5.44	109	80-120	
Chloroethane	5.00	ND	4.40	88	63-120	
Chloroform	5.00	0.29 J	5.56	105	80-120	
Chloromethane	5.00	ND	4.79	96	80-120	
cis-1,2-Dichloroethene	5.00	1.8	7.06	105	80-122	
cis-1,3-Dichloropropene	5.00	ND	5.19	104	67-121	
Dibromochloromethane	5.00	ND	5.30	106	64-138	
Ethylbenzene	5.00	ND	5.86	117	80-120	
Methyl tert-butyl ether	5.00	ND	5.29	106	69-120	
Methylene Chloride	5.00	ND	5.65	113	80-120	
Styrene	5.00	ND	5.61	112	80-120	
Tetrachloroethene	5.00	6.0	11.0	101	80-120	
Toluene	5.00	ND	5.99	120	80-120	
trans-1,2-Dichloroethene	5.00	ND	5.35	107	80-122	
trans-1,3-Dichloropropene	5.00	ND	6.09	122	61-129	
Trichloroethene	5.00	1.7	6.98	105	80-120	
Vinyl chloride	5.00	ND	4.58	91	60-125	
Xylenes, Total	15.0	ND	16.5	110	80-120	

Column to be used to flag recovery and RPD values

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories
Environment Testing, LLC

Job No.: 410-81767-1

SDG No.:

Matrix: Water Level: Low

Lab File ID: IM02X15.D

Lab ID: 410-81767-6 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	5.15	103	2	30	71-134	
1,1,1-Trichloroethane	5.00	5.38	101	2	30	78-126	
1,1,2,2-Tetrachloroethane	5.00	6.12	122	3	30	75-123	
1,1,2-Trichloroethane	5.00	5.64	113	2	30	80-120	
1,1-Dichloroethane	5.00	5.75	112	0	30	74-120	
1,1-Dichloroethene	5.00	5.87	114	2	30	80-131	
1,2-Dibromoethane (EDB)	5.00	5.44	109	1	30	80-120	
1,2-Dichloroethane	5.00	5.27	105	2	30	69-122	
1,2-Dichloropropane	5.00	5.75	115	2	30	80-120	
2-Butanone (MEK)	62.6	68.7	110	4	30	59-141	
2-Hexanone	62.6	72.2	115	1	30	52-140	
4-Methyl-2-pentanone (MIBK)	62.6	67.1	107	2	30	55-140	
Acetone	62.6	61.6	99	5	30	60-146	
Benzene	5.00	5.61	112	2	30	80-120	
Bromochloromethane	5.00	4.73	94	4	30	80-120	
Bromodichloromethane	5.00	5.35	107	2	30	73-124	
Bromoform	5.00	5.05	101	2	30	49-144	
Bromomethane	5.00	3.62	72	2	30	60-136	
Carbon disulfide	5.00	6.93	138	3	30	67-130	FH
Carbon tetrachloride	5.00	5.05	101	2	30	64-141	
Chlorobenzene	5.00	5.42	108	0	30	80-120	
Chloroethane	5.00	4.28	86	3	30	63-120	
Chloroform	5.00	5.45	103	2	30	80-120	
Chloromethane	5.00	4.80	96	0	30	80-120	
cis-1,2-Dichloroethene	5.00	6.96	103	1	30	80-122	
cis-1,3-Dichloropropene	5.00	5.19	104	0	30	67-121	
Dibromochloromethane	5.00	5.23	105	1	30	64-138	
Ethylbenzene	5.00	5.79	116	1	30	80-120	
Methyl tert-butyl ether	5.00	5.21	104	2	30	69-120	
Methylene Chloride	5.00	5.53	111	2	30	80-120	
Styrene	5.00	5.52	110	2	30	80-120	
Tetrachloroethene	5.00	10.9	98	1	30	80-120	
Toluene	5.00	5.89	118	2	30	80-120	
trans-1,2-Dichloroethene	5.00	5.28	106	1	30	80-122	
trans-1,3-Dichloropropene	5.00	6.07	121	0	30	61-129	
Trichloroethene	5.00	6.76	101	3	30	80-120	
Vinyl chloride	5.00	4.47	89	2	30	60-125	
Xylenes, Total	15.0	16.2	108	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
Environment Testing, LLC

Job No.: 410-81767-1

SDG No.:

Lab File ID: IM02X06.D

Lab Sample ID: MB 410-250524/7

Matrix: Water

Heated Purge: (Y/N) N

Instrument ID: 19930

Date Analyzed: 05/02/2022 11:09

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 410-250524/4	IM02X03.D	05/02/2022 10:06
	LCSD 410-250524/5	IM02X04.D	05/02/2022 10:27
HD-QC1-0/1-2	410-81767-14	IM02X07.D	05/02/2022 11:30
HD-COD-SW-6-0/1-0	410-81767-1	IM02X08.D	05/02/2022 11:52
HD-COD-SW-7-0/1-0	410-81767-2	IM02X09.D	05/02/2022 12:13
HD-COD-SW-8-0/1-0	410-81767-3	IM02X10.D	05/02/2022 12:34
HD-COD-SW-9-0/1-0	410-81767-4	IM02X11.D	05/02/2022 12:55
HD-COD-SW-13-0/1-0	410-81767-5	IM02X12.D	05/02/2022 13:16
HD-COD-SW-15-0/1-0	410-81767-6	IM02X13.D	05/02/2022 13:38
HD-COD-SW-15-0/1-0 MS	410-81767-6 MS	IM02X14.D	05/02/2022 13:59
HD-COD-SW-15-0/1-0 MSD	410-81767-6 MSD	IM02X15.D	05/02/2022 14:20
HD-COD-SW-16-0/1-0	410-81767-7	IM02X16.D	05/02/2022 14:41
HD-COD-SW-17-0/1-0	410-81767-8	IM02X17.D	05/02/2022 15:02
HD-COD-SW-26-0/1-0	410-81767-9	IM02X18.D	05/02/2022 15:23
HD-COD-SW-27-0/1-0	410-81767-10	IM02X19.D	05/02/2022 15:45
HD-COD-SW-28-0/1-0	410-81767-11	IM02X20.D	05/02/2022 16:06
HD-COD-SW-29-0/1-0	410-81767-12	IM02X21.D	05/02/2022 16:27
HD-QC1-0/1-1	410-81767-13	IM02X22.D	05/02/2022 16:48

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Lancaster Laboratories
Environment Testing, LLC

Job No.: 410-81767-1

SDG No.:

Lab File ID: IM05X05.D

Lab Sample ID: MB 410-251841/6

Matrix: Water

Heated Purge: (Y/N) N

Instrument ID: 19930

Date Analyzed: 05/05/2022 10:17

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 410-251841/4	IM05X03.D	05/05/2022 09:35
HD-COD-SW-17-0/1-0 DL	410-81767-8 DL	IM05X28.D	05/05/2022 18:25
HD-QC1-0/1-1 DL	410-81767-13 DL	IM05X29.D	05/05/2022 18:46

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

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1

SDG No.: _____

Lab File ID: IM14T01.D BFB Injection Date: 03/14/2022

Instrument ID: 19930 BFB Injection Time: 21:24

Analysis Batch No.: 233459

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.1	
75	30.0 - 60.0 % of mass 95	47.8	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	5.9	
173	Less than 2.0 % of mass 174	1.6	(1.6) 1
174	Greater than 50% of mass 95	100.6	
175	5.0 - 9.0 % of mass 174	7.4	(7.4) 1
176	95.0 - 101.0 % of mass 174	98.2	(97.6) 1
177	5.0 - 9.0 % of mass 176	6.9	(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 410-233459/12	IM14I31.D	03/15/2022	1:15
	ICIS 410-233459/13	IM14I32.D	03/15/2022	1:36
	IC 410-233459/14	IM14I33.D	03/15/2022	1:58
	IC 410-233459/15	IM14I34.D	03/15/2022	2:19
	IC 410-233459/16	IM14I35.D	03/15/2022	2:40
	IC 410-233459/17	IM14I36.D	03/15/2022	3:01
	IC 410-233459/18	IM14I37.D	03/15/2022	3:22
	ICV 410-233459/19	IM14V01.D	03/15/2022	3:43

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

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1

SDG No.: _____

Lab File ID: IM02T03.D BFB Injection Date: 05/02/2022

Instrument ID: 19930 BFB Injection Time: 09:06

Analysis Batch No.: 250524

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	18.4
75	30.0 - 60.0 % of mass 95	48.2
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	6.7
173	Less than 2.0 % of mass 174	1.3 (1.4) 1
174	Greater than 50% of mass 95	88.8
175	5.0 - 9.0 % of mass 174	6.7 (7.5) 1
176	95.0 - 101.0 % of mass 174	87.2 (98.3) 1
177	5.0 - 9.0 % of mass 176	5.8 (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 410-250524/3	IM02X02.D	05/02/2022	9:45
	LCS 410-250524/4	IM02X03.D	05/02/2022	10:06
	LCSD 410-250524/5	IM02X04.D	05/02/2022	10:27
	MB 410-250524/7	IM02X06.D	05/02/2022	11:09
HD-QC1-0/1-2	410-81767-14	IM02X07.D	05/02/2022	11:30
HD-COD-SW-6-0/1-0	410-81767-1	IM02X08.D	05/02/2022	11:52
HD-COD-SW-7-0/1-0	410-81767-2	IM02X09.D	05/02/2022	12:13
HD-COD-SW-8-0/1-0	410-81767-3	IM02X10.D	05/02/2022	12:34
HD-COD-SW-9-0/1-0	410-81767-4	IM02X11.D	05/02/2022	12:55
HD-COD-SW-13-0/1-0	410-81767-5	IM02X12.D	05/02/2022	13:16
HD-COD-SW-15-0/1-0	410-81767-6	IM02X13.D	05/02/2022	13:38
HD-COD-SW-15-0/1-0 MS	410-81767-6 MS	IM02X14.D	05/02/2022	13:59
HD-COD-SW-15-0/1-0 MSD	410-81767-6 MSD	IM02X15.D	05/02/2022	14:20
HD-COD-SW-16-0/1-0	410-81767-7	IM02X16.D	05/02/2022	14:41
HD-COD-SW-17-0/1-0	410-81767-8	IM02X17.D	05/02/2022	15:02
HD-COD-SW-26-0/1-0	410-81767-9	IM02X18.D	05/02/2022	15:23
HD-COD-SW-27-0/1-0	410-81767-10	IM02X19.D	05/02/2022	15:45
HD-COD-SW-28-0/1-0	410-81767-11	IM02X20.D	05/02/2022	16:06
HD-COD-SW-29-0/1-0	410-81767-12	IM02X21.D	05/02/2022	16:27
HD-QC1-0/1-1	410-81767-13	IM02X22.D	05/02/2022	16:48

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

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1

SDG No.: _____

Lab File ID: IM05T01.D BFB Injection Date: 05/05/2022

Instrument ID: 19930 BFB Injection Time: 08:40

Analysis Batch No.: 251841

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.5	
75	30.0 - 60.0 % of mass 95	47.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.3	
173	Less than 2.0 % of mass 174	1.0	(1.0) 1
174	Greater than 50% of mass 95	93.8	
175	5.0 - 9.0 % of mass 174	6.6	(7.1) 1
176	95.0 - 101.0 % of mass 174	90.6	(96.7) 1
177	5.0 - 9.0 % of mass 176	6.0	(6.6) 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 410-251841/3	IM05X02.D	05/05/2022	9:14
	LCS 410-251841/4	IM05X03.D	05/05/2022	9:35
	MB 410-251841/6	IM05X05.D	05/05/2022	10:17
HD-COD-SW-17-0/1-0 DL	410-81767-8 DL	IM05X28.D	05/05/2022	18:25
HD-QC1-0/1-1 DL	410-81767-13 DL	IM05X29.D	05/05/2022	18:46

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

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1
 SDG No.: _____
 Sample No.: ICIS 410-233459/13 Date Analyzed: 03/15/2022 01:36
 Instrument ID: 19930 GC Column: R-624SilMS 30m ID: 0.25 (mm)
 Lab File ID (Standard): IM14I32.D Heated Purge: (Y/N) N
 Calibration ID: 36162

	TBAd10		FB		CBZd5		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
INITIAL CALIBRATION MID-POINT	147286	4.23	2018353	7.70	1700909	11.16	
UPPER LIMIT	294572	4.73	4036706	8.20	3401818	11.66	
LOWER LIMIT	73643	3.73	1009177	7.20	850455	10.66	
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 410-233459/19		172755	4.22	2024993	7.70	1696187	11.16
CCVIS 410-250524/3		203457	4.23	2638395	7.70	2040688	11.16
CCVIS 410-251841/3		187773	4.23	2642874	7.70	2047023	11.16

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.: 410-81767-1
 SDG No.: _____
 Sample No.: ICIS 410-233459/13 Date Analyzed: 03/15/2022 01:36
 Instrument ID: 19930 GC Column: R-624SilMS 30m ID: 0.25 (mm)
 Lab File ID (Standard): IM14I32.D Heated Purge: (Y/N) N
 Calibration ID: 36162

	DCBd4		#	RT #	#	RT #
	AREA #	RT #				
INITIAL CALIBRATION MID-POINT	1049716	13.04				
UPPER LIMIT	2099432	13.54				
LOWER LIMIT	524858	12.54				
LAB SAMPLE ID	CLIENT SAMPLE ID					
ICV 410-233459/19		1033998	13.04			
CCVIS 410-250524/3		1153090	13.04			
CCVIS 410-251841/3		1144077	13.04			

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.: 410-81767-1
 SDG No.: _____
 Sample No.: CCVIS 410-250524/3 Date Analyzed: 05/02/2022 09:45
 Instrument ID: 19930 GC Column: R-624SilMS 30m ID: 0.25 (mm)
 Lab File ID (Standard): IM02X02.D Heated Purge: (Y/N) N
 Calibration ID: 36162

	TBAd10		FB		CBZd5		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	203457	4.23	2638395	7.70	2040688	11.16	
UPPER LIMIT	406914	4.73	5276790	8.20	4081376	11.66	
LOWER LIMIT	101729	3.73	1319198	7.20	1020344	10.66	
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-250524/4		188797	4.23	2511886	7.71	1914917	11.16
LCSD 410-250524/5		185514	4.22	2543157	7.70	1942950	11.16
MB 410-250524/7		184689	4.22	2580525	7.70	1980030	11.16
410-81767-14	HD-QC1-0/1-2	186870	4.24	2436115	7.71	1857822	11.16
410-81767-1	HD-COD-SW-6-0/1-0	181191	4.21	2458270	7.70	1870046	11.16
410-81767-2	HD-COD-SW-7-0/1-0	174792	4.25	2416304	7.71	1855214	11.16
410-81767-3	HD-COD-SW-8-0/1-0	184928	4.24	2439783	7.71	1863707	11.16
410-81767-4	HD-COD-SW-9-0/1-0	174892	4.24	2401913	7.71	1825811	11.16
410-81767-5	HD-COD-SW-13-0/1-0	175137	4.23	2383360	7.71	1830126	11.16
410-81767-6	HD-COD-SW-15-0/1-0	169797	4.24	2360634	7.71	1823807	11.16
410-81767-6 MS	HD-COD-SW-15-0/1-0 MS	183386	4.23	2483032	7.71	1903053	11.16
410-81767-6 MSD	HD-COD-SW-15-0/1-0 MSD	184840	4.22	2534934	7.70	1929341	11.16
410-81767-7	HD-COD-SW-16-0/1-0	189083	4.22	2453735	7.70	1869681	11.16
410-81767-8	HD-COD-SW-17-0/1-0	192069	4.23	2412413	7.70	1855203	11.16
410-81767-9	HD-COD-SW-26-0/1-0	182558	4.23	2428238	7.71	1860864	11.16
410-81767-10	HD-COD-SW-27-0/1-0	174713	4.23	2428829	7.70	1844372	11.16
410-81767-11	HD-COD-SW-28-0/1-0	181828	4.23	2440072	7.70	1869453	11.16
410-81767-12	HD-COD-SW-29-0/1-0	175954	4.22	2324111	7.70	1777161	11.16
410-81767-13	HD-QC1-0/1-1	182079	4.23	2394583	7.71	1861636	11.16

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.: 410-81767-1
 SDG No.: _____
 Sample No.: CCVIS 410-250524/3 Date Analyzed: 05/02/2022 09:45
 Instrument ID: 19930 GC Column: R-624SilMS 30m ID: 0.25 (mm)
 Lab File ID (Standard): IM02X02.D Heated Purge: (Y/N) N
 Calibration ID: 36162

		DCBd4					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		1153090	13.04				
UPPER LIMIT		2306180	13.54				
LOWER LIMIT		576545	12.54				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-250524/4		1073542	13.04				
LCSD 410-250524/5		1072537	13.04				
MB 410-250524/7		1052569	13.04				
410-81767-14	HD-QC1-0/1-2	995645	13.04				
410-81767-1	HD-COD-SW-6-0/1-0	1005098	13.04				
410-81767-2	HD-COD-SW-7-0/1-0	1016465	13.04				
410-81767-3	HD-COD-SW-8-0/1-0	1022204	13.04				
410-81767-4	HD-COD-SW-9-0/1-0	993102	13.04				
410-81767-5	HD-COD-SW-13-0/1-0	983105	13.04				
410-81767-6	HD-COD-SW-15-0/1-0	985435	13.04				
410-81767-6 MS	HD-COD-SW-15-0/1-0 MS	1070831	13.04				
410-81767-6 MSD	HD-COD-SW-15-0/1-0 MSD	1085648	13.04				
410-81767-7	HD-COD-SW-16-0/1-0	1027282	13.04				
410-81767-8	HD-COD-SW-17-0/1-0	984552	13.04				
410-81767-9	HD-COD-SW-26-0/1-0	1009048	13.04				
410-81767-10	HD-COD-SW-27-0/1-0	1010402	13.04				
410-81767-11	HD-COD-SW-28-0/1-0	1022431	13.04				
410-81767-12	HD-COD-SW-29-0/1-0	975533	13.04				
410-81767-13	HD-QC1-0/1-1	1011704	13.04				

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.: 410-81767-1
 SDG No.: _____
 Sample No.: CCVIS 410-251841/3 Date Analyzed: 05/05/2022 09:14
 Instrument ID: 19930 GC Column: R-624SilMS 30m ID: 0.25 (mm)
 Lab File ID (Standard): IM05X02.D Heated Purge: (Y/N) N
 Calibration ID: 36162

	TBAd10		FB		CBZd5		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	187773	4.23	2642874	7.70	2047023	11.16	
UPPER LIMIT	375546	4.73	5285748	8.20	4094046	11.66	
LOWER LIMIT	93887	3.73	1321437	7.20	1023512	10.66	
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-251841/4	184276	4.23	2603144	7.71	1999535	11.16	
MB 410-251841/6	199763	4.24	2569783	7.71	1965597	11.16	
410-81767-8 DL	HD-COD-SW-17-0/1-0 DL	188739	4.23	2328829	7.70	1799624	11.16
410-81767-13 DL	HD-QC1-0/1-1 DL	175345	4.24	2295504	7.70	1761528	11.16

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.: 410-81767-1
 SDG No.: _____
 Sample No.: CCVIS 410-251841/3 Date Analyzed: 05/05/2022 09:14
 Instrument ID: 19930 GC Column: R-624SilMS 30m ID: 0.25 (mm)
 Lab File ID (Standard): IM05X02.D Heated Purge: (Y/N) N
 Calibration ID: 36162

	DCBd4		#	RT #	#	RT #
	AREA #	RT #				
12/24 HOUR STD	1144077	13.04				
UPPER LIMIT	2288154	13.54				
LOWER LIMIT	572039	12.54				
LAB SAMPLE ID	CLIENT SAMPLE ID					
LCS 410-251841/4		1116429	13.04			
MB 410-251841/6		1083807	13.04			
410-81767-8 DL	HD-COD-SW-17-0/1-0 DL	969327	13.04			
410-81767-13 DL	HD-QC1-0/1-1 DL	949457	13.04			

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.: 410-81767-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-6-0/1-0 Lab Sample ID: 410-81767-1
 Matrix: Water Lab File ID: IM02X08.D
 Analysis Method: 8260D Date Collected: 04/26/2022 10:30
 Sample wt/vol: 25 (mL) Date Analyzed: 05/02/2022 11:52
 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.: 250524 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	1.3	J	5.0	0.90
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	^c cn	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	^c cn	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
79-01-6	Trichloroethene	ND		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-6-0/1-0 Lab Sample ID: 410-81767-1
 Matrix: Water Lab File ID: IM02X08.D
 Analysis Method: 8260D Date Collected: 04/26/2022 10:30
 Sample wt/vol: 25 (mL) Date Analyzed: 05/02/2022 11:52
 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.: 250524 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
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)	105		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	95		80-120
2037-26-5	Toluene-d8 (Surr)	106		80-120

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X08.D
 Lims ID: 410-81767-A-1
 Client ID: HD-COD-SW-6-0/1-0
 Sample Type: Client
 Inject. Date: 02-May-2022 11:52:30 ALS Bottle#: 8 Worklist Smp#: 9
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0056183-009
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 03-May-2022 10:33:51 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1607

First Level Reviewer: kaewrungrueangp Date: 03-May-2022 10:34:54

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50		2.166				ND	7
5 Vinyl chloride	62		2.282				ND	
7 Bromomethane	94		2.617				ND	
8 Chloroethane	64		2.696				ND	
14 1,1-Dichloroethene	96		3.556				ND	
15 Acetone	43	3.586	3.580	0.006	71	13016	1.32	
19 Carbon disulfide	76		3.861				ND	7
23 Methylene Chloride	84		4.221				ND	7
* 24 t-Butyl alcohol-d10 (IS)	65	4.214	4.227	-0.013	24	181191	50.0	
27 Methyl tert-butyl ether	73		4.623				ND	7
28 trans-1,2-Dichloroethene	96		4.641				ND	
31 1,1-Dichloroethane	63		5.294				ND	
36 2-Butanone (MEK)	43		6.086				ND	7
37 cis-1,2-Dichloroethene	96		6.123				ND	
43 Chlorobromomethane	128		6.458				ND	
45 Chloroform	83	6.604	6.604	0.000	90	3919	0.0291	
\$ 46 Dibromofluoromethane (Surr)	113	6.817	6.818	-0.001	94	632182	9.50	
47 1,1,1-Trichloroethane	97		6.830				ND	
50 Carbon tetrachloride	117		7.043				ND	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.262	7.263	-0.001	67	124929	10.5	
54 Benzene	78		7.299				ND	7
56 1,2-Dichloroethane	62		7.372				ND	
* 58 Fluorobenzene (IS)	96	7.701	7.702	-0.001	99	2458270	10.0	
61 Trichloroethene	95	8.183	8.183	0.000	90	2946	0.0354	
63 1,2-Dichloropropane	63		8.512				ND	
68 Dichlorobromomethane	83		8.854				ND	
73 cis-1,3-Dichloropropene	75		9.396				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	7
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	94	2412322	10.6	
76 Toluene	92	9.780	9.780	0.000	97	8766	0.0497	
78 trans-1,3-Dichloropropene	75		10.036				ND	
80 1,1,2-Trichloroethane	97		10.238				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166		10.329				ND	7
83 2-Hexanone	43		10.451				ND	
85 Chlorodibromomethane	129		10.616				ND	
86 Ethylene Dibromide	107		10.731				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	86	1870046	10.0	
90 Chlorobenzene	112		11.183				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.262				ND	
92 Ethylbenzene	91		11.268				ND	
93 m-Xylene & p-Xylene	106		11.384				ND	7
94 o-Xylene	106		11.713				ND	7
95 Styrene	104		11.725				ND	
96 Bromoform	173		11.884				ND	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	94	852512	9.66	
101 1,1,2,2-Tetrachloroethane	83		12.256				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	1005098	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_LLcentISS_00004

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X08.D

Injection Date: 02-May-2022 11:52:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: 410-81767-A-1

Lab Sample ID: 410-81767-1

Worklist Smp#: 9

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

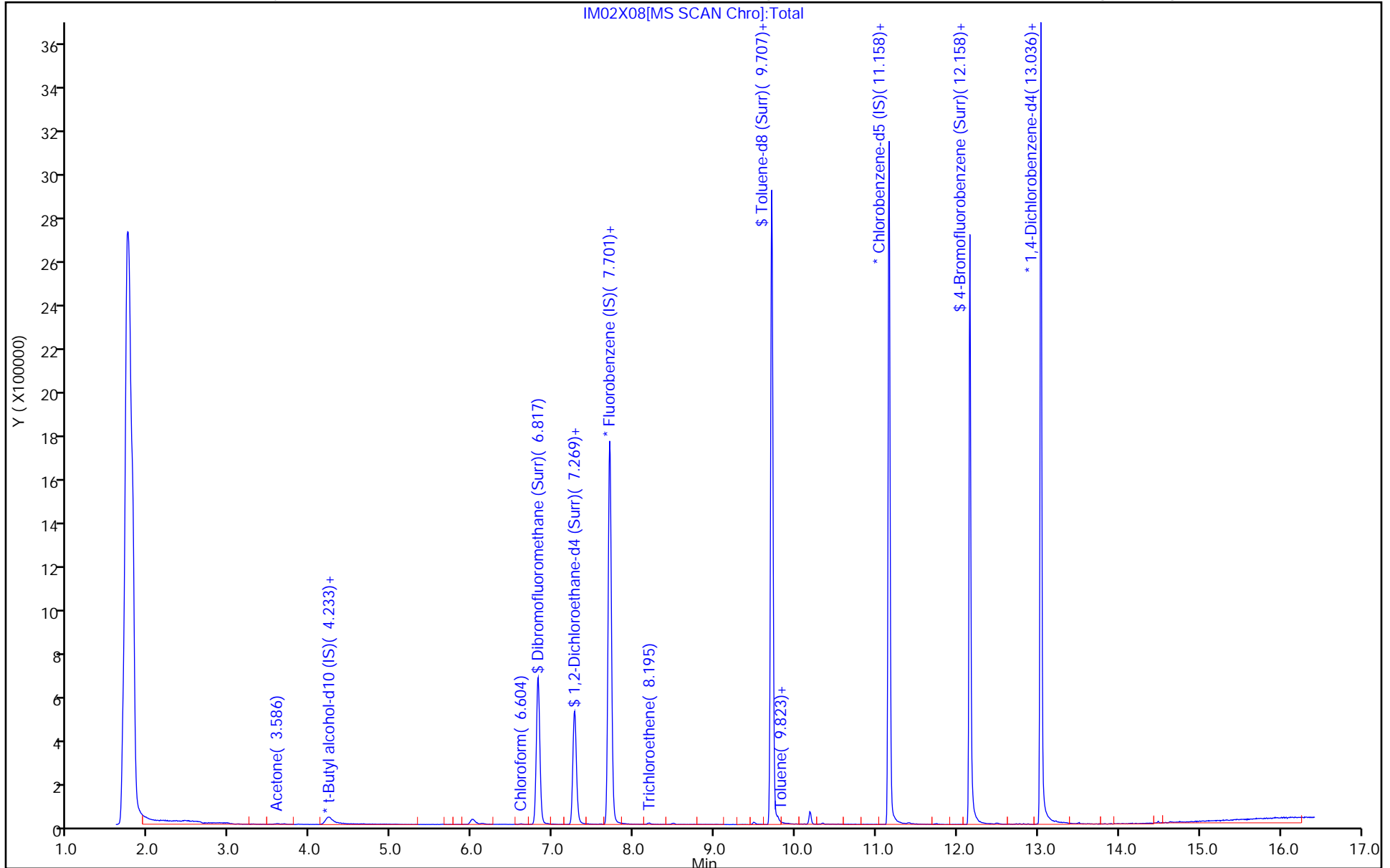
ALS Bottle#: 8

Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Environment Testing, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X08.D
 Lims ID: 410-81767-A-1
 Client ID: HD-COD-SW-6-0/1-0
 Sample Type: Client
 Inject. Date: 02-May-2022 11:52:30 ALS Bottle#: 8 Worklist Smp#: 9
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0056183-009
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 03-May-2022 10:33:51 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1607

First Level Reviewer: kaewrungrueangp

Date: 03-May-2022 10:34:54

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.50	95.00
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.5	105.39
\$ 75 Toluene-d8 (Surr)	10.0	10.6	106.00
\$ 100 4-Bromofluorobenzene (Surr)	10.0	9.66	96.60

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X08.D

Injection Date: 02-May-2022 11:52:30

Instrument ID: 19930

Lims ID: 410-81767-A-1

Lab Sample ID: 410-81767-1

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

Operator ID: KNK41612

ALS Bottle#: 8

Worklist Smp#: 9

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

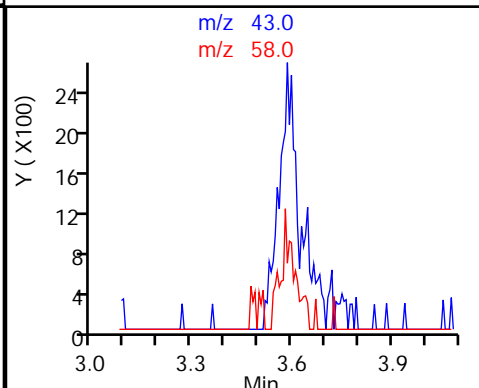
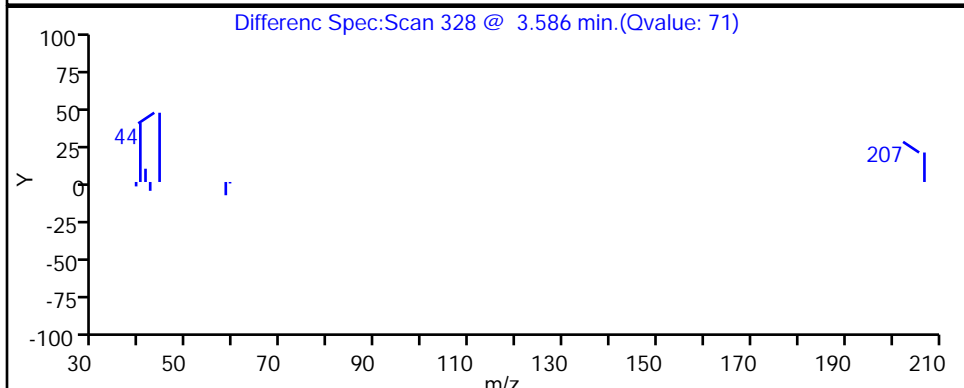
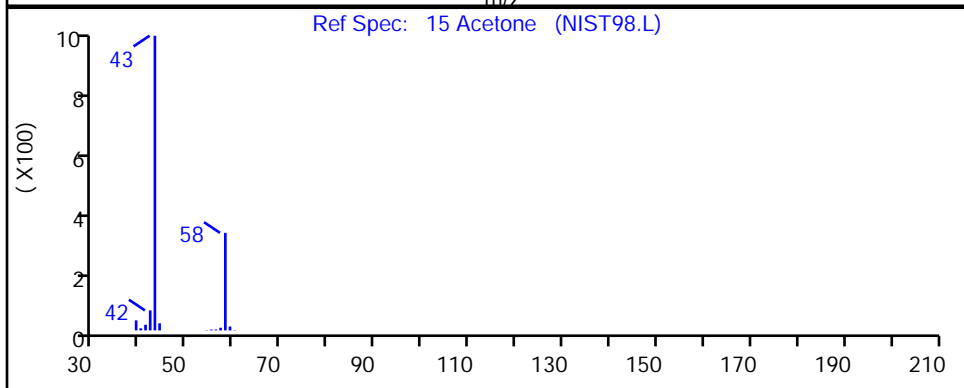
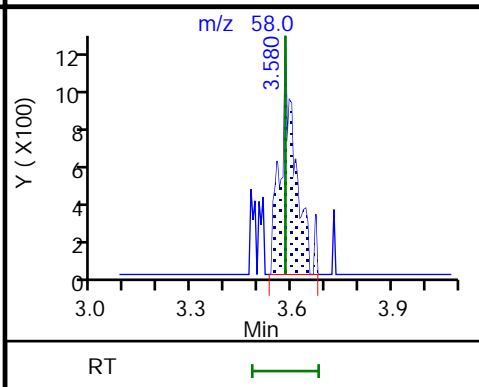
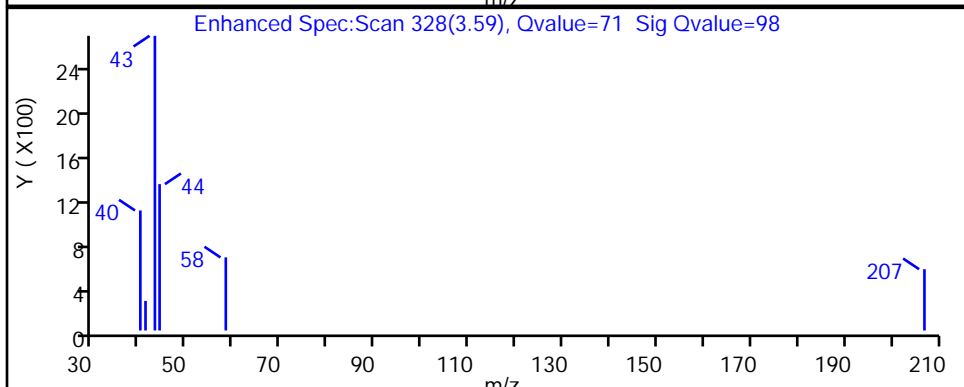
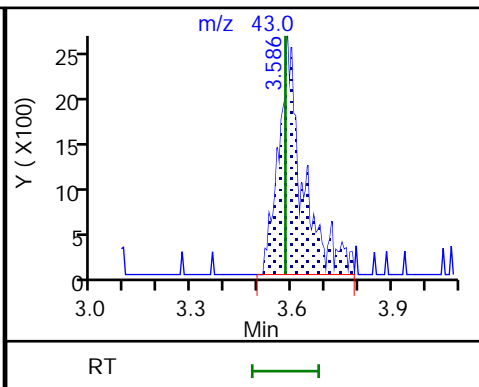
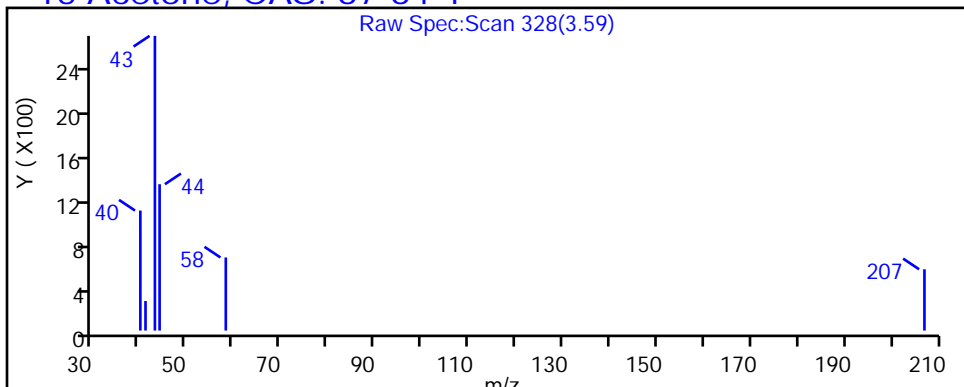
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

15 Acetone, CAS: 67-64-1



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-7-0/1-0 Lab Sample ID: 410-81767-2
 Matrix: Water Lab File ID: IM02X09.D
 Analysis Method: 8260D Date Collected: 04/26/2022 11:40
 Sample wt/vol: 25 (mL) Date Analyzed: 05/02/2022 12:13
 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.: 250524 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	1.3	J	5.0	0.90
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	^c cn	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	^c cn	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	0.073	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
79-01-6	Trichloroethene	0.082	J	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-7-0/1-0 Lab Sample ID: 410-81767-2
 Matrix: Water Lab File ID: IM02X09.D
 Analysis Method: 8260D Date Collected: 04/26/2022 11:40
 Sample wt/vol: 25 (mL) Date Analyzed: 05/02/2022 12:13
 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.: 250524 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
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)	106		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	95		80-120
2037-26-5	Toluene-d8 (Surr)	106		80-120

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X09.D
 Lims ID: 410-81767-A-2
 Client ID: HD-COD-SW-7-0/1-0
 Sample Type: Client
 Inject. Date: 02-May-2022 12:13:30 ALS Bottle#: 9 Worklist Smp#: 10
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0056183-010
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 03-May-2022 10:36:10 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1607

First Level Reviewer: kaewrungrueangp Date: 03-May-2022 10:36:10

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50	2.160	2.166	-0.006	1	2902	0.0312	
5 Vinyl chloride	62		2.282				ND	7
7 Bromomethane	94		2.617				ND	
8 Chloroethane	64		2.696				ND	
14 1,1-Dichloroethene	96		3.556				ND	
15 Acetone	43	3.599	3.580	0.019	97	12419	1.31	
19 Carbon disulfide	76	3.873	3.861	0.012	94	5112	0.0360	
23 Methylene Chloride	84		4.221				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.245	4.227	0.018	28	174792	50.0	
27 Methyl tert-butyl ether	73		4.623				ND	
28 trans-1,2-Dichloroethene	96		4.641				ND	
31 1,1-Dichloroethane	63		5.294				ND	
36 2-Butanone (MEK)	43		6.086				ND	7
37 cis-1,2-Dichloroethene	96	6.129	6.123	0.006	80	6018	0.0733	
43 Chlorobromomethane	128		6.458				ND	
45 Chloroform	83	6.610	6.604	0.006	91	6938	0.0524	
\$ 46 Dibromofluoromethane (Surr)	113	6.824	6.818	0.006	90	623036	9.53	
47 1,1,1-Trichloroethane	97		6.830				ND	
50 Carbon tetrachloride	117		7.043				ND	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.275	7.263	0.012	68	123879	10.6	
54 Benzene	78		7.299				ND	
56 1,2-Dichloroethane	62		7.372				ND	
* 58 Fluorobenzene (IS)	96	7.708	7.702	0.006	99	2416304	10.0	
61 Trichloroethene	95	8.189	8.183	0.006	95	6703	0.0819	
63 1,2-Dichloropropane	63		8.512				ND	
68 Dichlorobromomethane	83		8.854				ND	7
73 cis-1,3-Dichloropropene	75		9.396				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	94	2384546	10.6	
76 Toluene	92	9.780	9.780	0.000	96	9430	0.0539	
78 trans-1,3-Dichloropropene	75		10.036				ND	
80 1,1,2-Trichloroethane	97		10.238				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.347	10.329	0.018	95	4792	0.0476	M
83 2-Hexanone	43		10.451				ND	
85 Chlorodibromomethane	129		10.616				ND	
86 Ethylene Dibromide	107		10.731				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	86	1855214	10.0	
90 Chlorobenzene	112		11.183				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.262				ND	
92 Ethylbenzene	91		11.268				ND	7
93 m-Xylene & p-Xylene	106		11.384				ND	7
94 o-Xylene	106		11.713				ND	
95 Styrene	104		11.725				ND	
96 Bromoform	173		11.884				ND	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	94	843636	9.64	
101 1,1,2,2-Tetrachloroethane	83		12.256				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	1016465	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MSV_LLcentISS_00004

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X09.D

Injection Date: 02-May-2022 12:13:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: 410-81767-A-2

Lab Sample ID: 410-81767-2

Worklist Smp#: 10

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

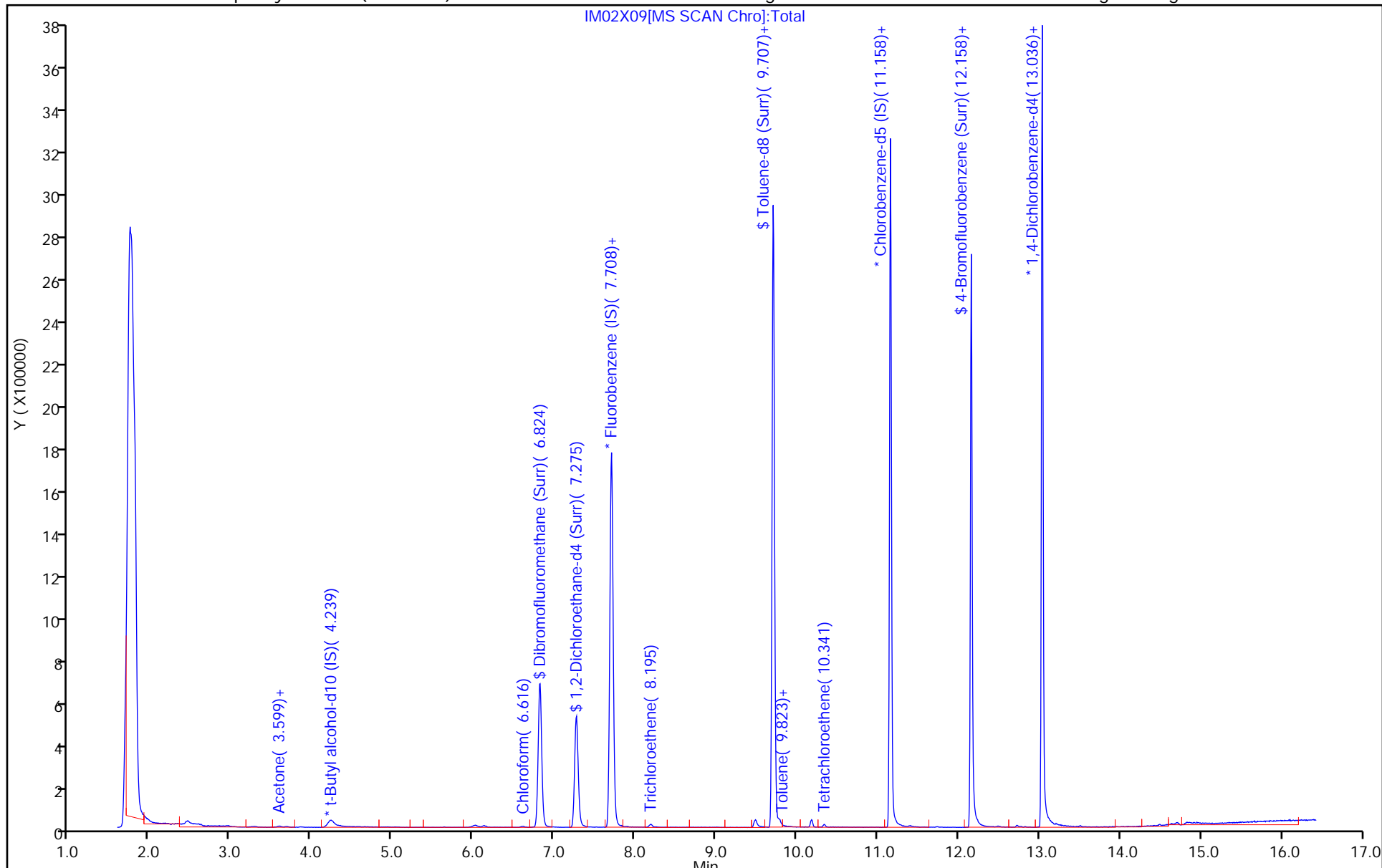
ALS Bottle#: 9

Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Environment Testing, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X09.D
 Lims ID: 410-81767-A-2
 Client ID: HD-COD-SW-7-0/1-0
 Sample Type: Client
 Inject. Date: 02-May-2022 12:13:30 ALS Bottle#: 9 Worklist Smp#: 10
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0056183-010
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 03-May-2022 10:36:10 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1607

First Level Reviewer: kaewrungrueangp

Date: 03-May-2022 10:36:10

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.53	95.25
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.6	106.32
\$ 75 Toluene-d8 (Surr)	10.0	10.6	105.62
\$ 100 4-Bromofluorobenzene (Surr)	10.0	9.64	96.36

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X09.D

Injection Date: 02-May-2022 12:13:30

Instrument ID: 19930

Lims ID: 410-81767-A-2

Lab Sample ID: 410-81767-2

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

Operator ID: KNK41612

ALS Bottle#: 9

Worklist Smp#: 10

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

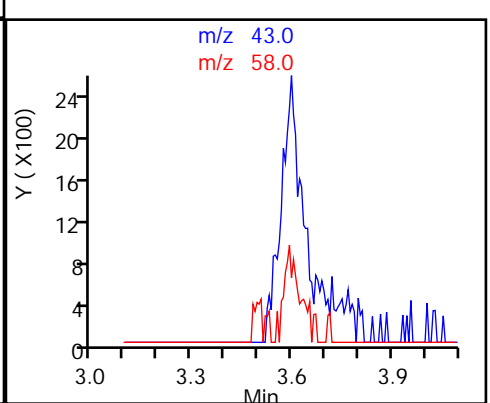
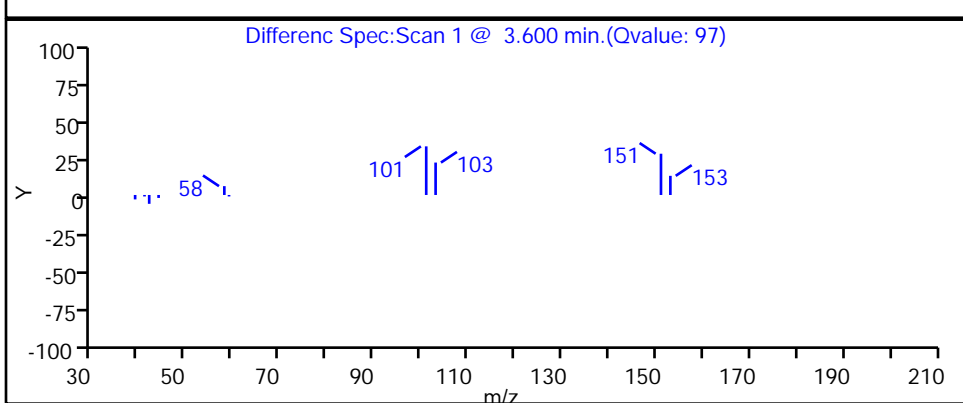
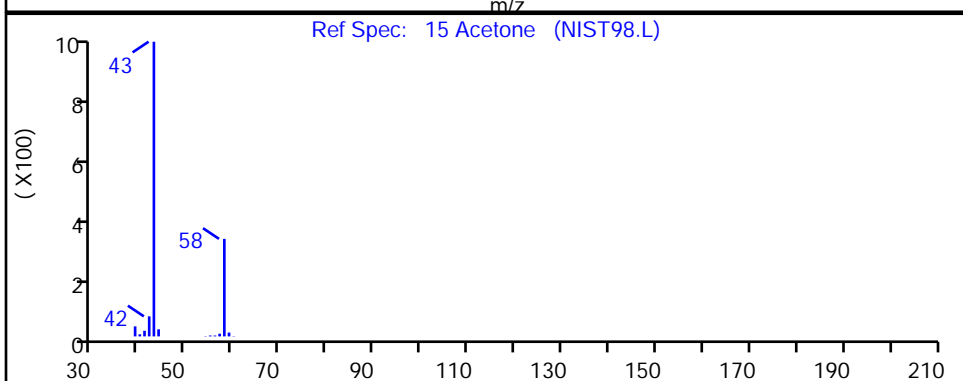
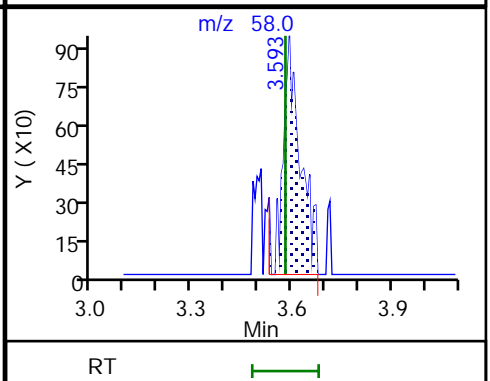
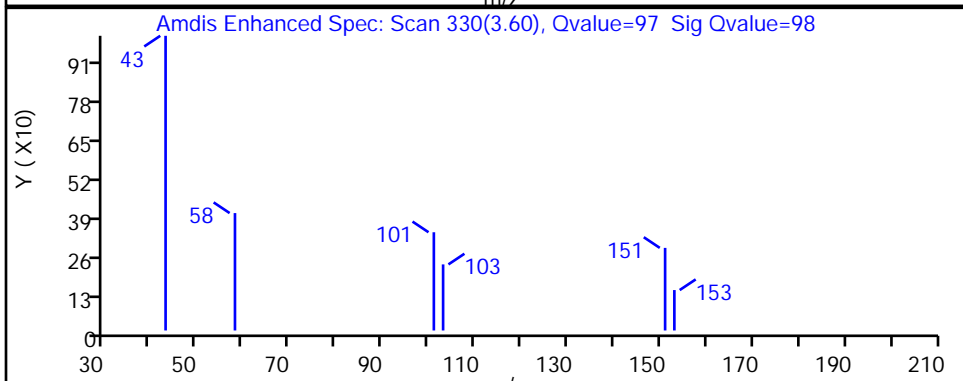
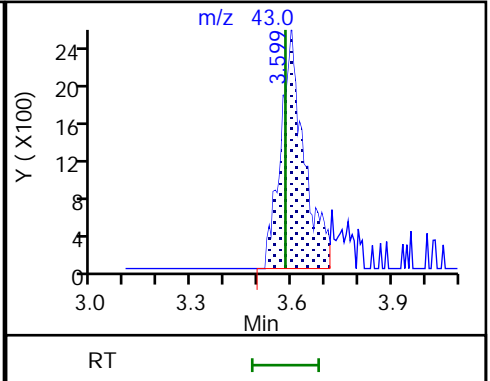
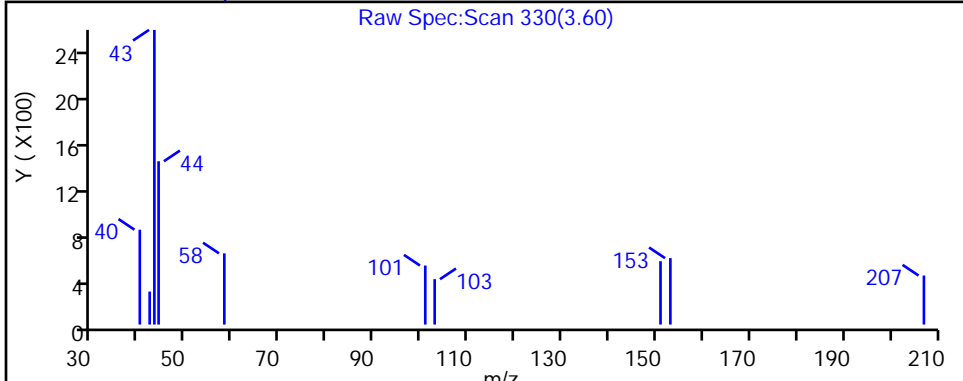
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

15 Acetone, CAS: 67-64-1



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X09.D

Injection Date: 02-May-2022 12:13:30

Instrument ID: 19930

Lims ID: 410-81767-A-2

Lab Sample ID: 410-81767-2

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

Operator ID: KNK41612

ALS Bottle#: 9

Worklist Smp#: 10

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

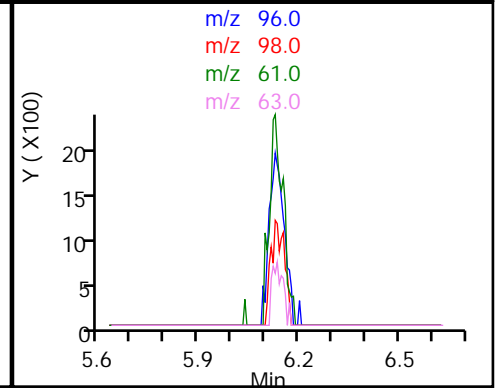
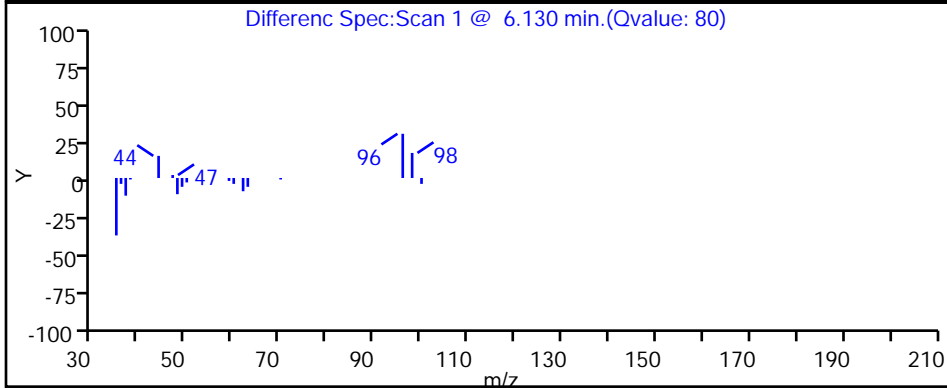
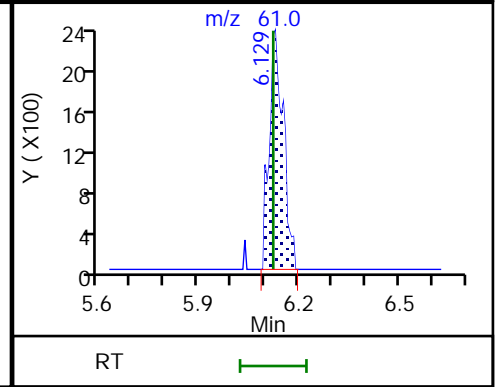
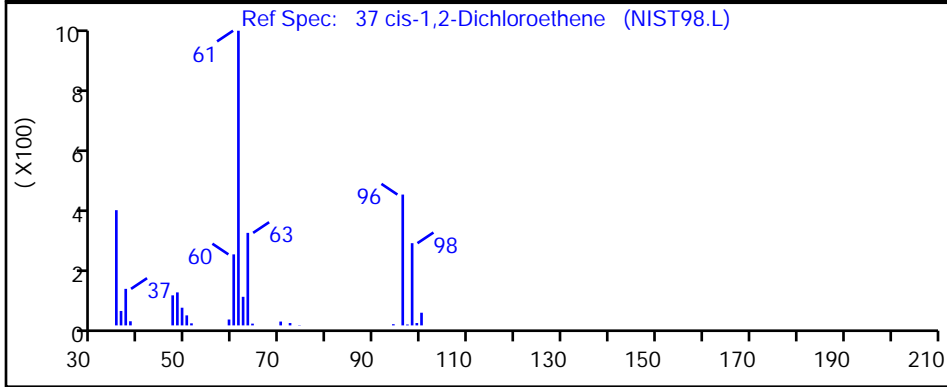
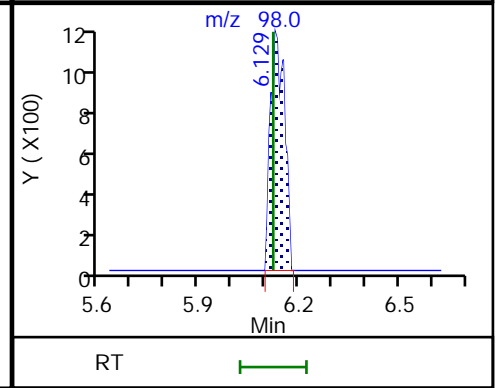
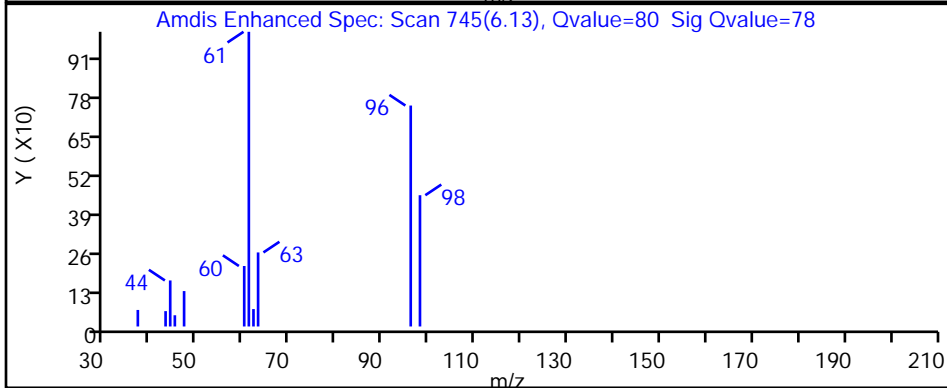
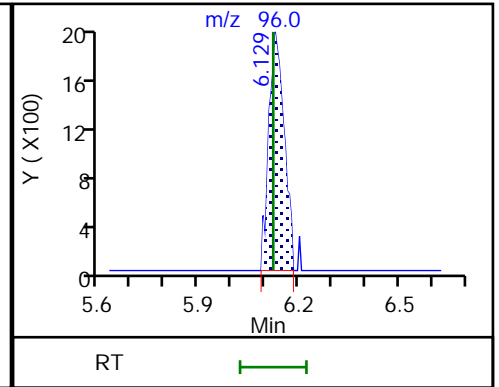
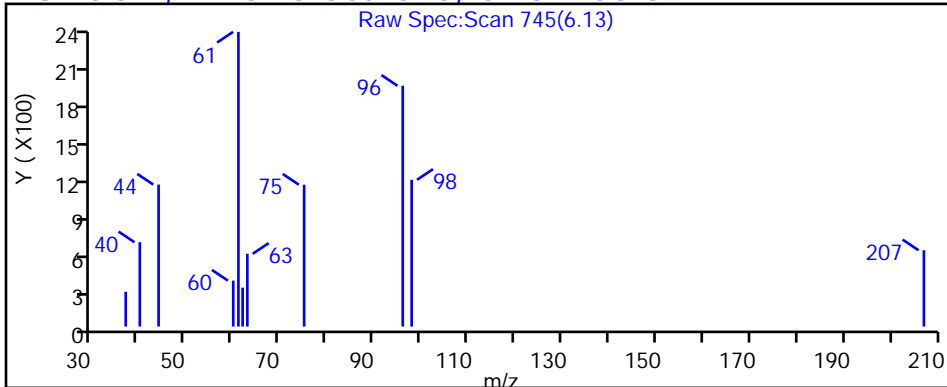
Method: 8260 25ml HP31

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



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X09.D

Injection Date: 02-May-2022 12:13:30

Instrument ID: 19930

Lims ID: 410-81767-A-2

Lab Sample ID: 410-81767-2

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

Operator ID: KNK41612

ALS Bottle#: 9

Worklist Smp#: 10

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

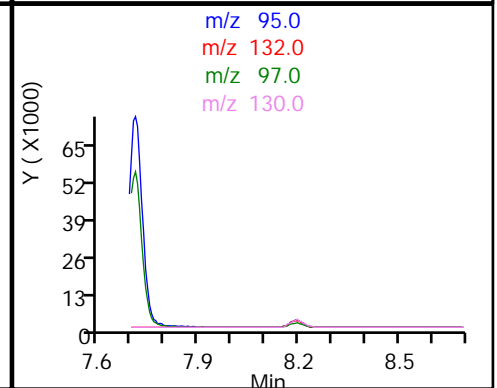
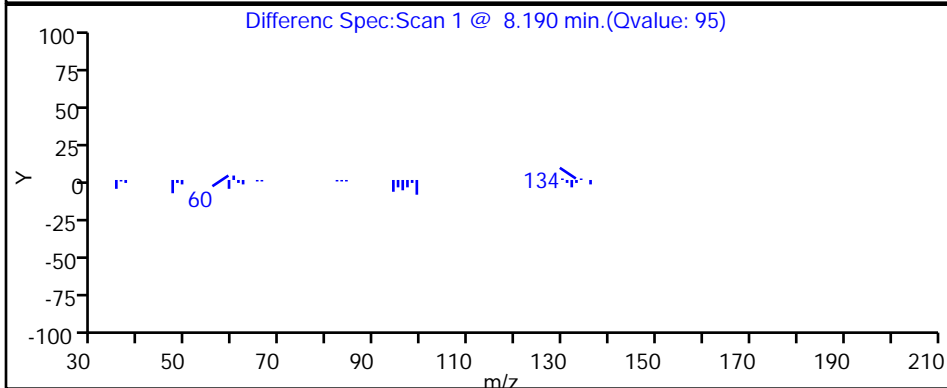
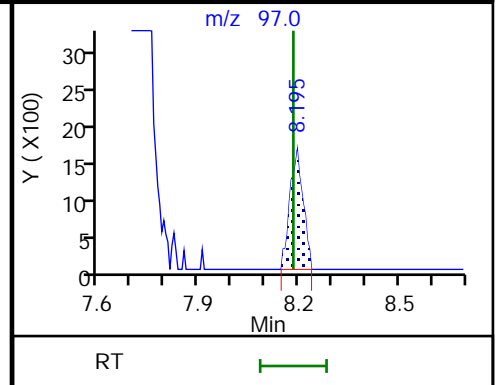
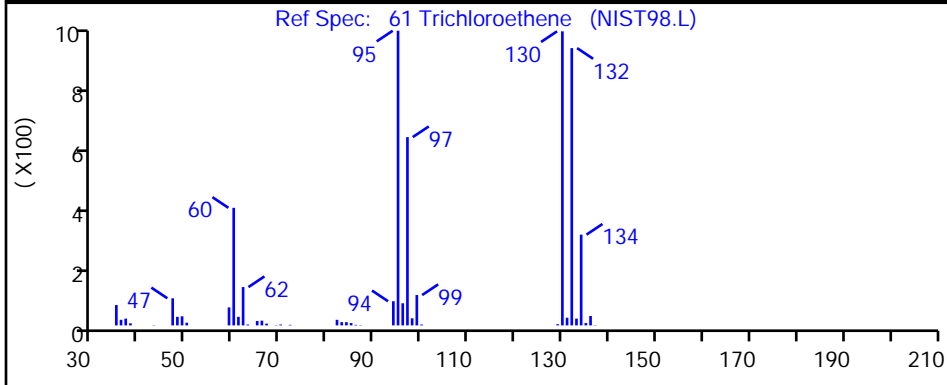
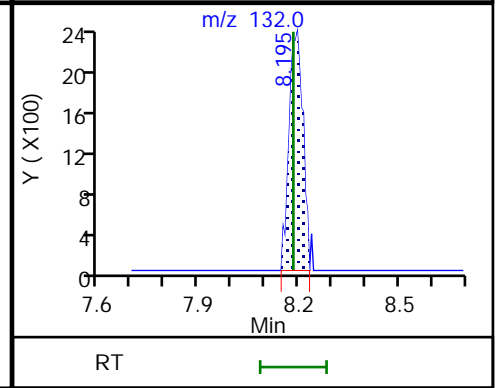
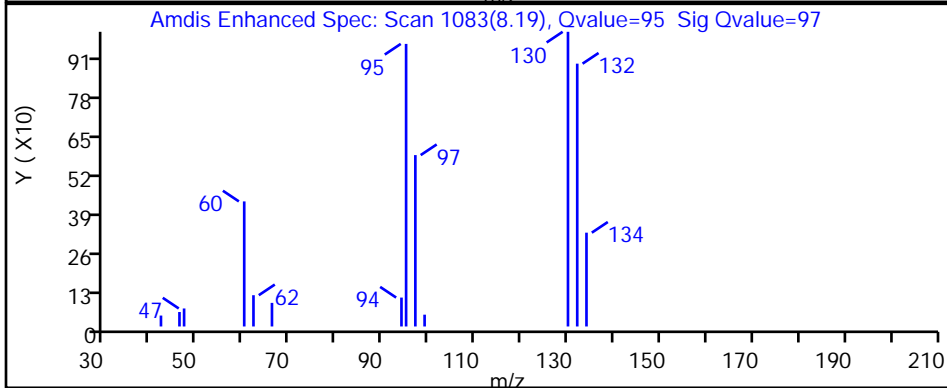
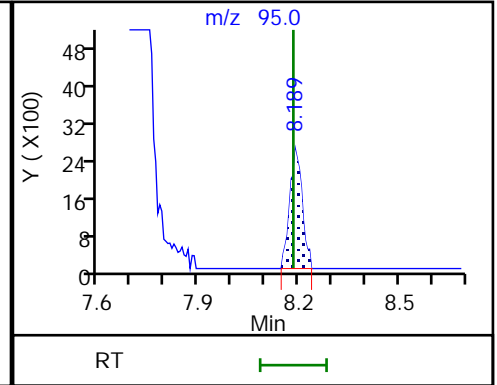
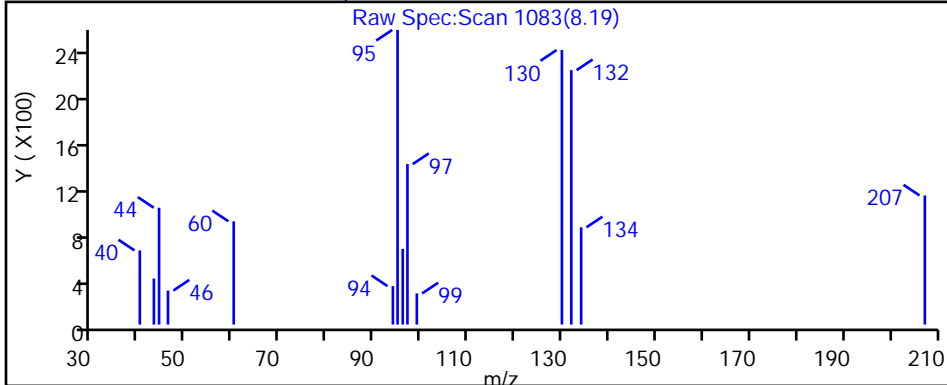
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

61 Trichloroethene, CAS: 79-01-6



Eurofins Lancaster Laboratories Environment Testing, LLC

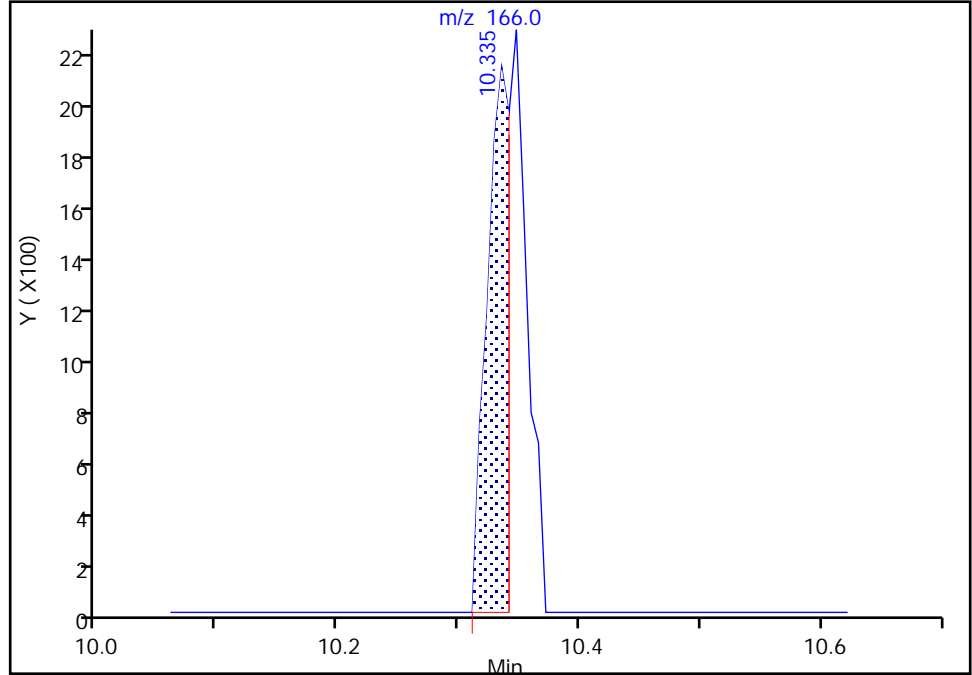
Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X09.D
Injection Date: 02-May-2022 12:13:30 Instrument ID: 19930
Lims ID: 410-81767-A-2 Lab Sample ID: 410-81767-2
Client ID: HD-COD-SW-7-0/1-0
Operator ID: KNK41612 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

81 Tetrachloroethene, CAS: 127-18-4

Signal: 1

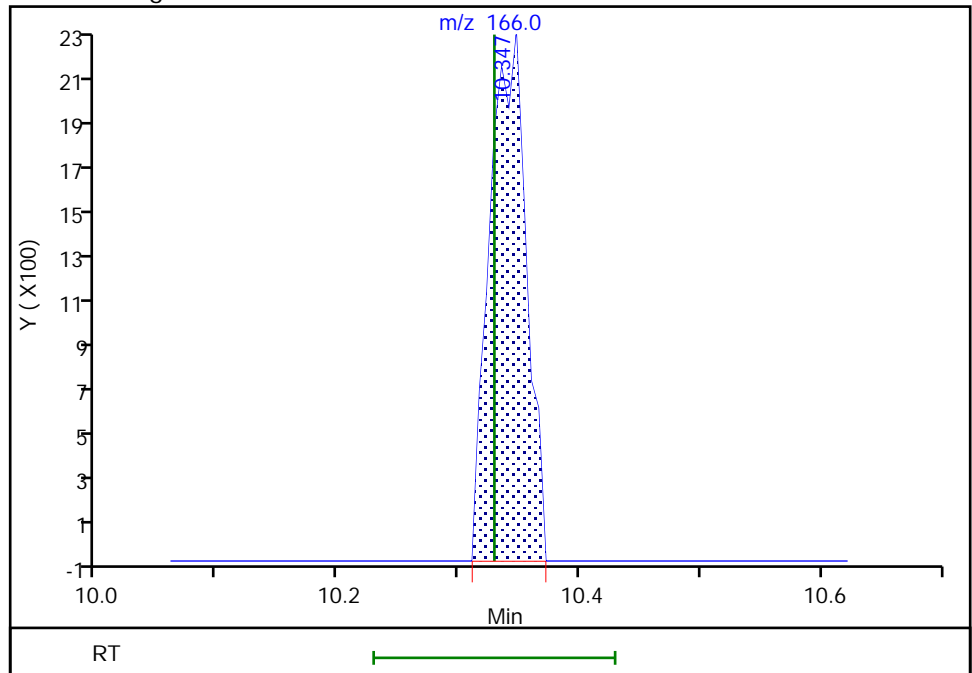
RT: 10.34
Area: 2857
Amount: 0.028388
Amount Units: ug/l

Processing Integration Results



RT: 10.35
Area: 4792
Amount: 0.047615
Amount Units: ug/l

Manual Integration Results



Reviewer: kaewrungrueangp, 03-May-2022 10:35:58
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-8-0/1-0 Lab Sample ID: 410-81767-3
 Matrix: Water Lab File ID: IM02X10.D
 Analysis Method: 8260D Date Collected: 04/26/2022 09:15
 Sample wt/vol: 25 (mL) Date Analyzed: 05/02/2022 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.: 250524 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	1.1	J	5.0	0.90
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	^c cn	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	^c cn	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	0.094	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	0.35	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
79-01-6	Trichloroethene	0.099	J	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-8-0/1-0 Lab Sample ID: 410-81767-3
 Matrix: Water Lab File ID: IM02X10.D
 Analysis Method: 8260D Date Collected: 04/26/2022 09:15
 Sample wt/vol: 25 (mL) Date Analyzed: 05/02/2022 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.: 250524 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
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
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	95		80-120
2037-26-5	Toluene-d8 (Surr)	106		80-120

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X10.D
 Lims ID: 410-81767-A-3
 Client ID: HD-COD-SW-8-0/1-0
 Sample Type: Client
 Inject. Date: 02-May-2022 12:34:30 ALS Bottle#: 10 Worklist Smp#: 11
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0056183-011
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 03-May-2022 10:36:57 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1607

First Level Reviewer: kaewrungrueangp Date: 03-May-2022 10:36:57

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50	2.148	2.166	-0.018	91	2980	0.0318	
5 Vinyl chloride	62		2.282				ND	7
7 Bromomethane	94		2.617				ND	
8 Chloroethane	64		2.696				ND	
14 1,1-Dichloroethene	96		3.556				ND	
15 Acetone	43	3.592	3.580	0.012	97	11335	1.13	
19 Carbon disulfide	76		3.861				ND	7
23 Methylene Chloride	84		4.221				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.239	4.227	0.012	28	184928	50.0	
27 Methyl tert-butyl ether	73		4.623				ND	
28 trans-1,2-Dichloroethene	96		4.641				ND	
31 1,1-Dichloroethane	63		5.294				ND	
36 2-Butanone (MEK)	43		6.086				ND	7
37 cis-1,2-Dichloroethene	96	6.141	6.123	0.018	75	7797	0.0940	a
43 Chlorobromomethane	128		6.458				ND	
45 Chloroform	83		6.604				ND	7
\$ 46 Dibromofluoromethane (Surr)	113	6.823	6.818	0.005	94	626805	9.49	
47 1,1,1-Trichloroethane	97		6.830				ND	7
50 Carbon tetrachloride	117		7.043				ND	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.269	7.263	0.006	68	125566	10.7	
54 Benzene	78		7.299				ND	7
56 1,2-Dichloroethane	62		7.372				ND	
* 58 Fluorobenzene (IS)	96	7.707	7.702	0.005	99	2439783	10.0	
61 Trichloroethene	95	8.189	8.183	0.006	94	8198	0.0993	
63 1,2-Dichloropropane	63		8.512				ND	
68 Dichlorobromomethane	83		8.854				ND	
73 cis-1,3-Dichloropropene	75		9.396				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	94	2404827	10.6	
76 Toluene	92	9.780	9.780	0.000	99	11955	0.0680	
78 trans-1,3-Dichloropropene	75		10.036				ND	
80 1,1,2-Trichloroethane	97		10.238				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.335	10.329	0.006	96	35665	0.3528	
83 2-Hexanone	43		10.451				ND	
85 Chlorodibromomethane	129		10.616				ND	
86 Ethylene Dibromide	107		10.731				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	86	1863707	10.0	
90 Chlorobenzene	112		11.183				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.262				ND	
92 Ethylbenzene	91		11.268				ND	7
93 m-Xylene & p-Xylene	106		11.384				ND	7
94 o-Xylene	106		11.713				ND	7
95 Styrene	104		11.725				ND	
96 Bromoform	173		11.884				ND	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	94	850936	9.67	
101 1,1,2,2-Tetrachloroethane	83		12.256				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	95	1022204	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

a - User Assigned ID

Reagents:

MSV_LLcentISS_00004

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X10.D

Injection Date: 02-May-2022 12:34:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: 410-81767-A-3

Lab Sample ID: 410-81767-3

Worklist Smp#: 11

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

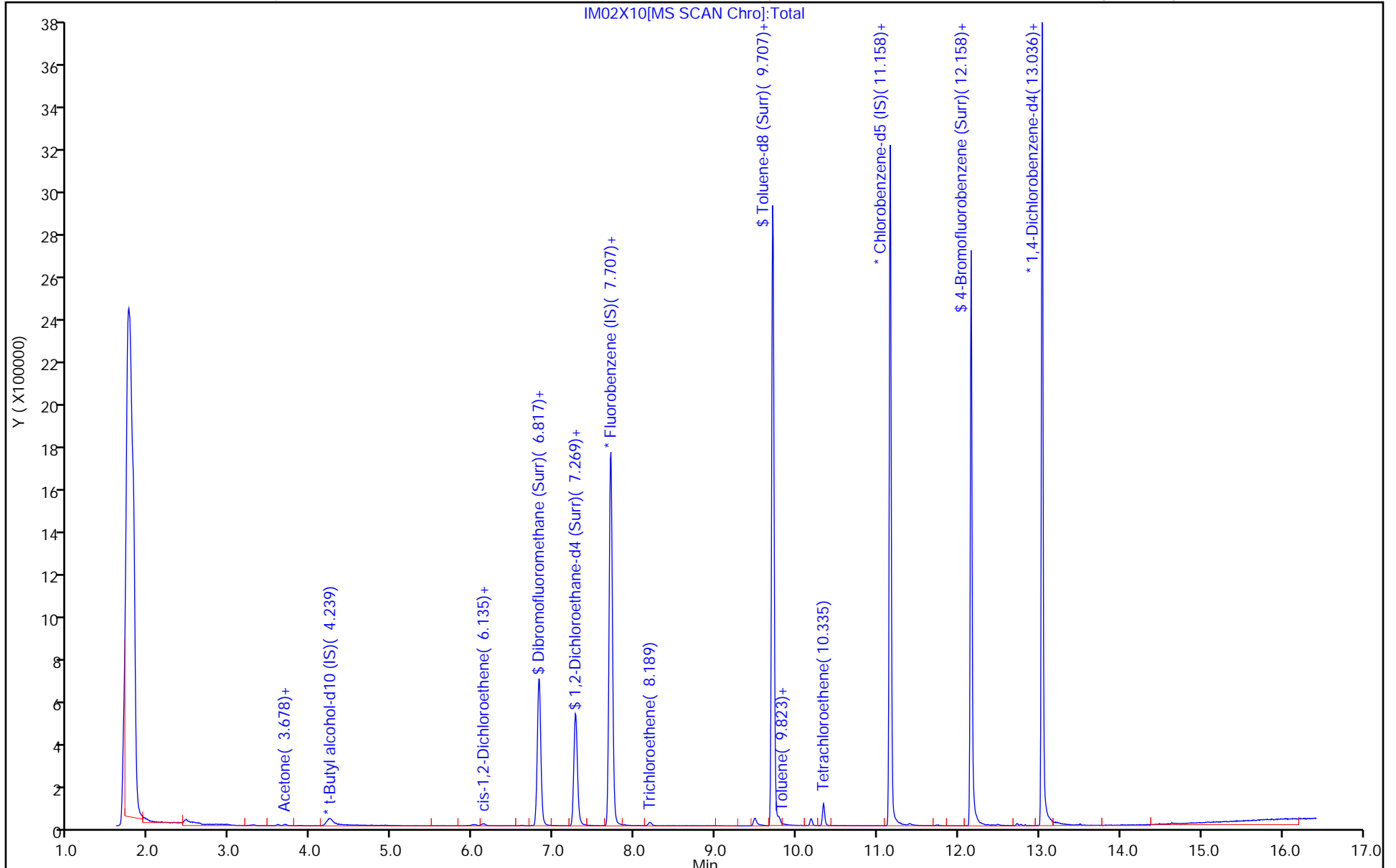
ALS Bottle#: 10

Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Environment Testing, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X10.D
 Lims ID: 410-81767-A-3
 Client ID: HD-COD-SW-8-0/1-0
 Sample Type: Client
 Inject. Date: 02-May-2022 12:34:30 ALS Bottle#: 10 Worklist Smp#: 11
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0056183-011
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 03-May-2022 10:36:57 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1607

First Level Reviewer: kaewrungrueangp

Date: 03-May-2022 10:36:57

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.49	94.91
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.7	106.73
\$ 75 Toluene-d8 (Surr)	10.0	10.6	106.03
\$ 100 4-Bromofluorobenzene (Surr)	10.0	9.67	96.75

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X10.D

Injection Date: 02-May-2022 12:34:30

Instrument ID: 19930

Lims ID: 410-81767-A-3

Lab Sample ID: 410-81767-3

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

Operator ID: KNK41612

ALS Bottle#: 10

Worklist Smp#: 11

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

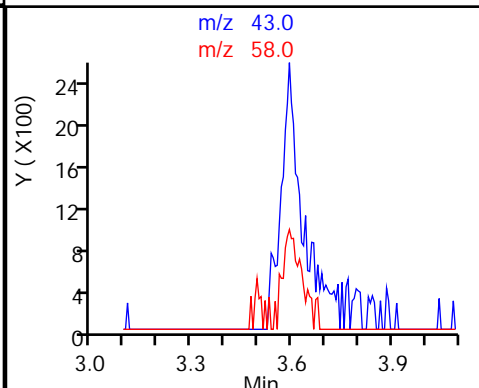
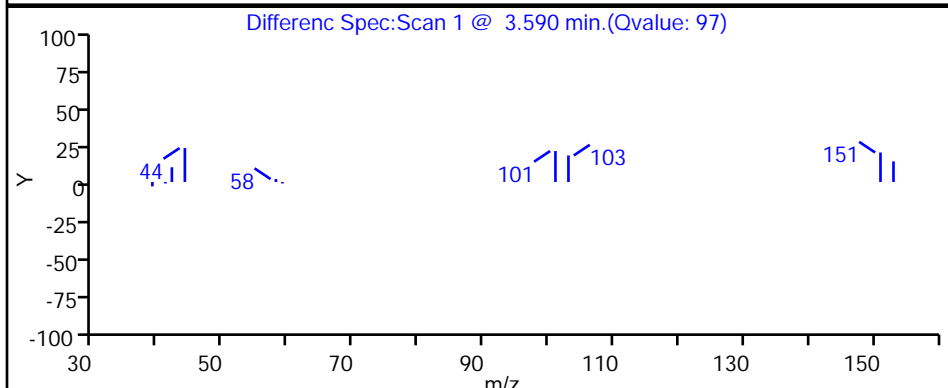
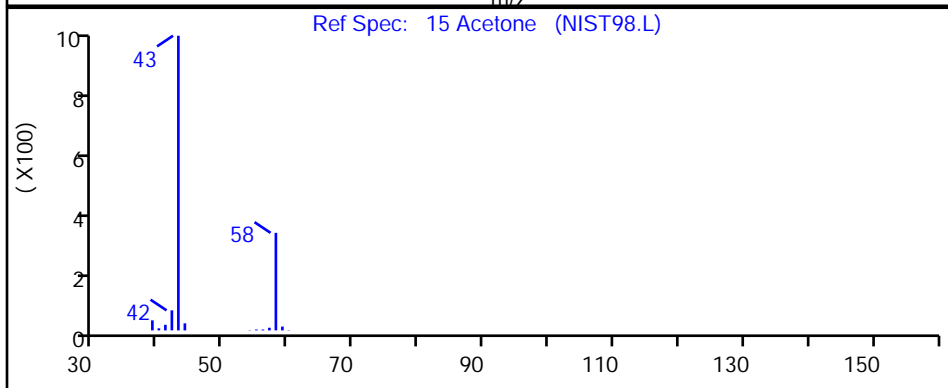
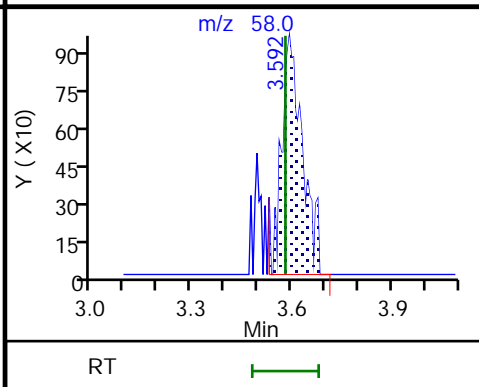
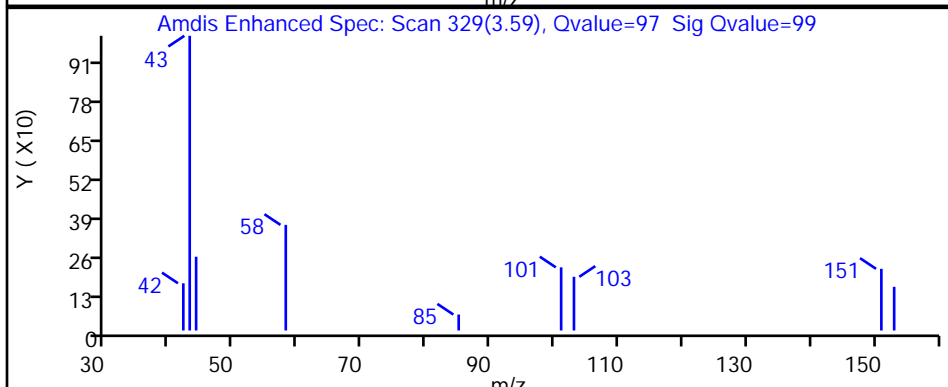
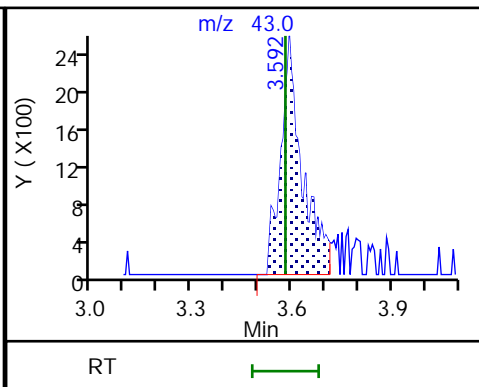
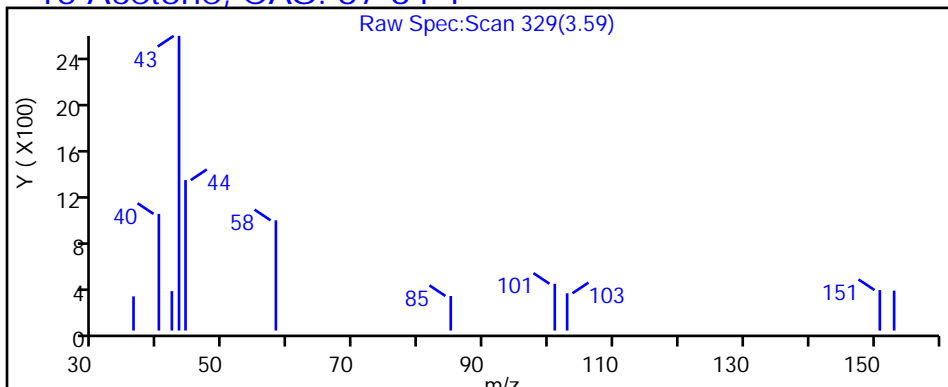
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

15 Acetone, CAS: 67-64-1



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X10.D

Injection Date: 02-May-2022 12:34:30

Instrument ID: 19930

Lims ID: 410-81767-A-3

Lab Sample ID: 410-81767-3

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

Operator ID: KNK41612

ALS Bottle#: 10

Worklist Smp#: 11

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

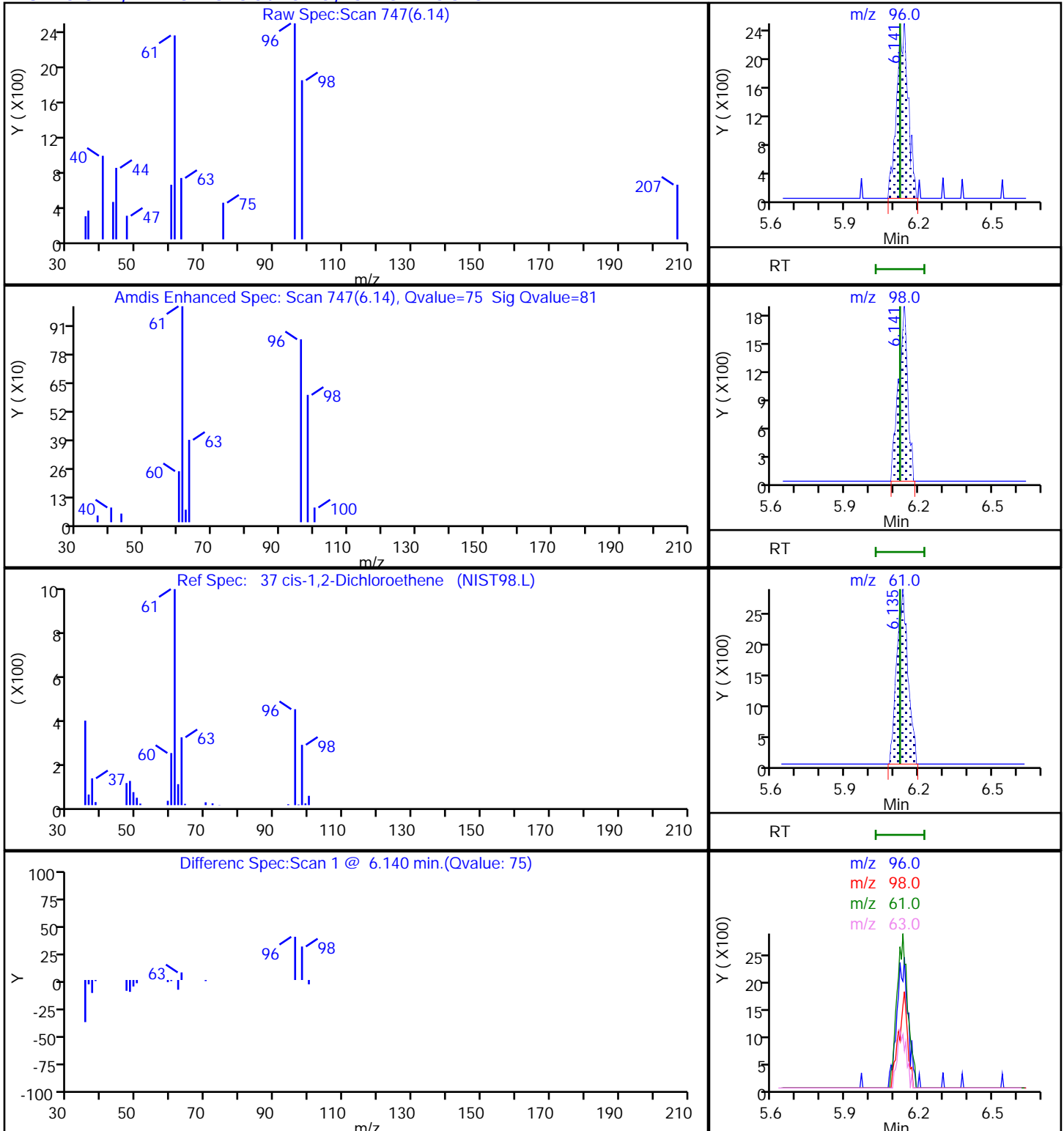
Method: 8260 25ml HP31

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



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X10.D

Injection Date: 02-May-2022 12:34:30

Instrument ID: 19930

Lims ID: 410-81767-A-3

Lab Sample ID: 410-81767-3

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

Operator ID: KNK41612

ALS Bottle#: 10

Worklist Smp#: 11

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

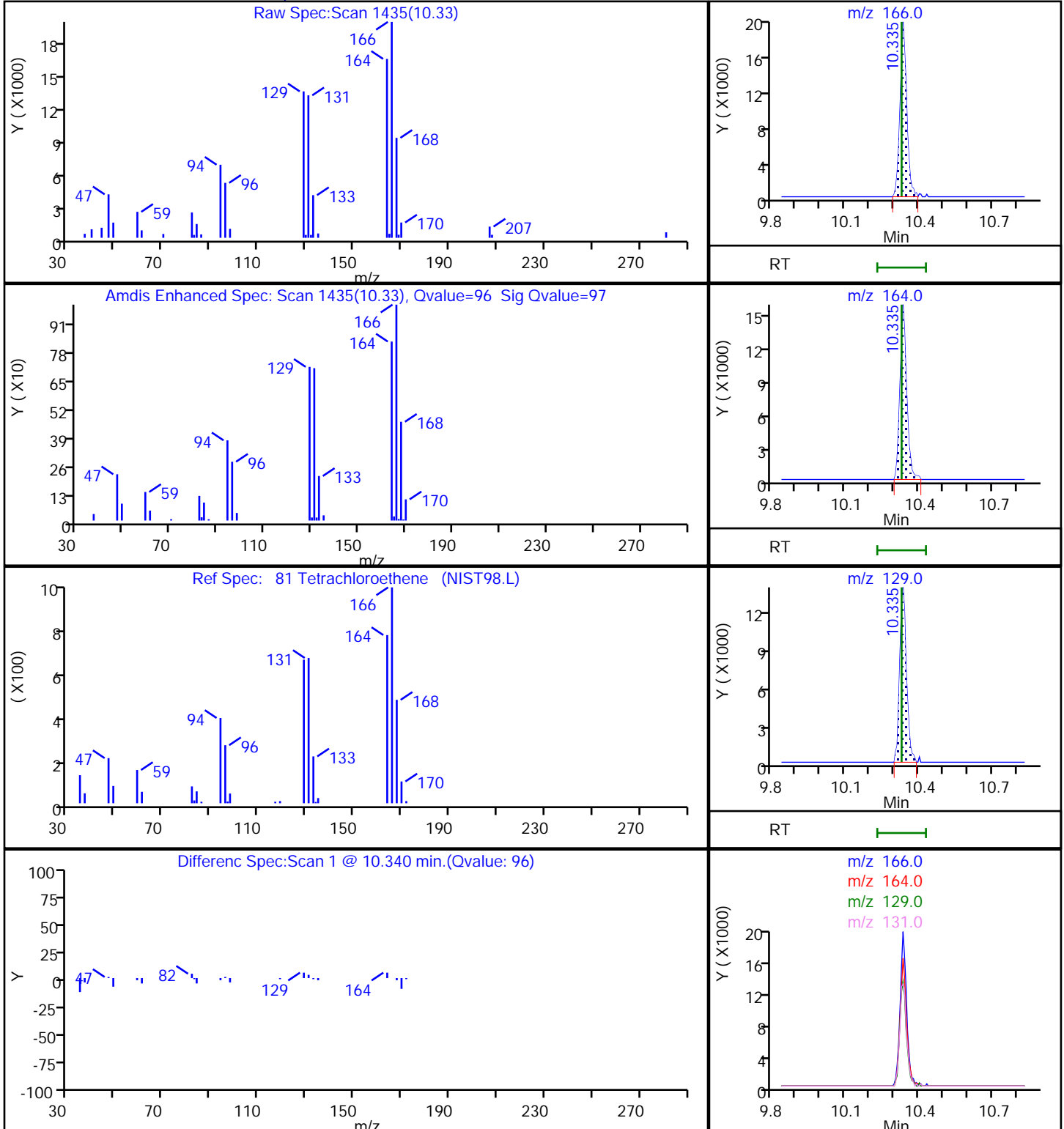
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

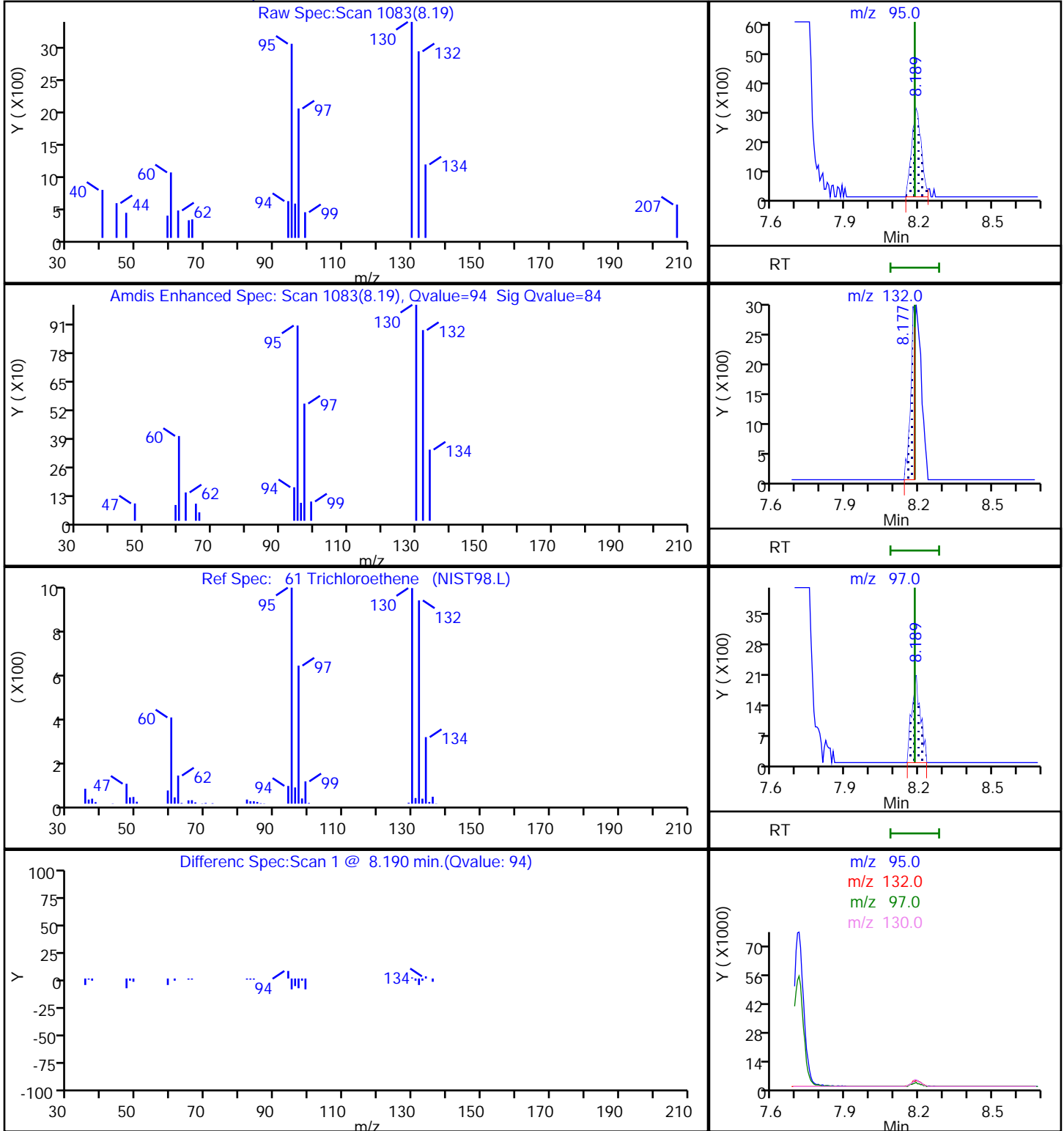
MS Quad

81 Tetrachloroethene, CAS: 127-18-4



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X10.D
Injection Date: 02-May-2022 12:34:30 Instrument ID: 19930
Lims ID: 410-81767-A-3 Lab Sample ID: 410-81767-3
Client ID: HD-COD-SW-8-0/1-0
Operator ID: KNK41612 ALS Bottle#: 10 Worklist Smp#: 11
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) MS Quad

61 Trichloroethene, CAS: 79-01-6



Euofins Lancaster Laboratories Environment Testing, LLC

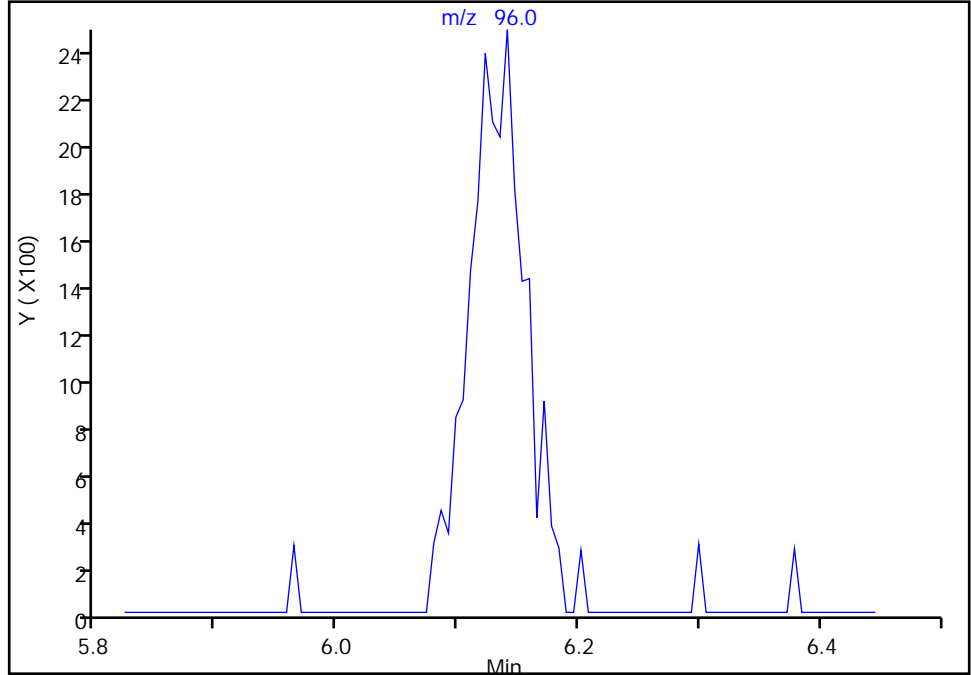
Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X10.D
Injection Date: 02-May-2022 12:34:30 Instrument ID: 19930
Lims ID: 410-81767-A-3 Lab Sample ID: 410-81767-3
Client ID: HD-COD-SW-8-0/1-0
Operator ID: KNK41612 ALS Bottle#: 10 Worklist Smp#: 11
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 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

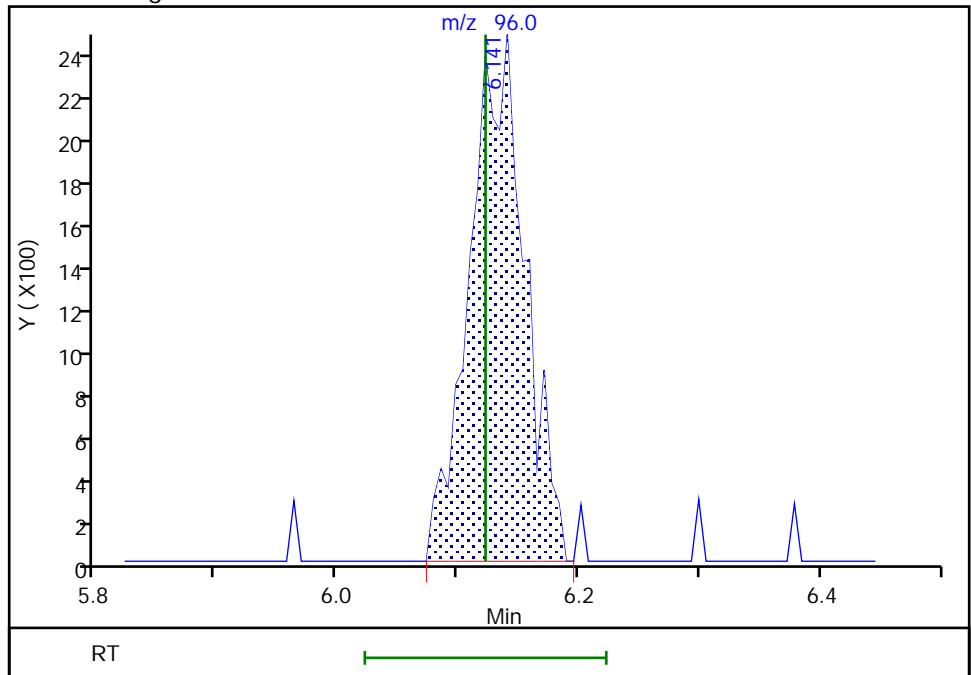
Not Detected
Expected RT: 6.12

Processing Integration Results



Manual Integration Results

RT: 6.14
Area: 7797
Amount: 0.094018
Amount Units: ug/l



Reviewer: kaewrungrueangp, 03-May-2022 10:36:33

Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-9-0/1-0 Lab Sample ID: 410-81767-4
 Matrix: Water Lab File ID: IM02X11.D
 Analysis Method: 8260D Date Collected: 04/26/2022 13:10
 Sample wt/vol: 25 (mL) Date Analyzed: 05/02/2022 12:55
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 250524 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
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	^c cn	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	^c cn	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	0.10	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	0.23	J	0.50	0.060
108-88-3	Toluene	0.10	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
79-01-6	Trichloroethene	0.11	J	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-9-0/1-0 Lab Sample ID: 410-81767-4
 Matrix: Water Lab File ID: IM02X11.D
 Analysis Method: 8260D Date Collected: 04/26/2022 13:10
 Sample wt/vol: 25 (mL) Date Analyzed: 05/02/2022 12:55
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 250524 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
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)	106		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	95		80-120
2037-26-5	Toluene-d8 (Surr)	106		80-120

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X11.D
 Lims ID: 410-81767-A-4
 Client ID: HD-COD-SW-9-0/1-0
 Sample Type: Client
 Inject. Date: 02-May-2022 12:55:30 ALS Bottle#: 11 Worklist Smp#: 12
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0056183-012
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 03-May-2022 10:37:59 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1607

First Level Reviewer: kaewrungrueangp

Date: 03-May-2022 10:37:59

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50	2.160	2.166	-0.006	49	3395	0.0367	a
5 Vinyl chloride	62		2.282				ND	
7 Bromomethane	94		2.617				ND	
8 Chloroethane	64		2.696				ND	
14 1,1-Dichloroethene	96		3.556				ND	
15 Acetone	43	3.605	3.580	0.025	97	20935	2.21	
19 Carbon disulfide	76	3.873	3.861	0.012	94	4239	0.0300	
23 Methylene Chloride	84		4.221				ND	7
* 24 t-Butyl alcohol-d10 (IS)	65	4.239	4.227	0.012	24	174892	50.0	
27 Methyl tert-butyl ether	73		4.623				ND	
28 trans-1,2-Dichloroethene	96		4.641				ND	
31 1,1-Dichloroethane	63		5.294				ND	
36 2-Butanone (MEK)	43		6.086				ND	7
37 cis-1,2-Dichloroethene	96	6.141	6.123	0.018	79	8492	0.1040	
43 Chlorobromomethane	128		6.458				ND	
45 Chloroform	83	6.610	6.604	0.006	91	9520	0.0723	
\$ 46 Dibromofluoromethane (Surr)	113	6.824	6.818	0.006	94	619420	9.53	
47 1,1,1-Trichloroethane	97		6.830				ND	7
50 Carbon tetrachloride	117		7.043				ND	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.269	7.263	0.006	68	123337	10.6	
54 Benzene	78		7.299				ND	
56 1,2-Dichloroethane	62		7.372				ND	
* 58 Fluorobenzene (IS)	96	7.708	7.702	0.006	99	2401913	10.0	
61 Trichloroethene	95	8.195	8.183	0.012	95	8616	0.1060	
63 1,2-Dichloropropane	63		8.512				ND	
68 Dichlorobromomethane	83		8.854				ND	7
73 cis-1,3-Dichloropropene	75		9.396				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	7
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	94	2353703	10.6	
76 Toluene	92	9.780	9.780	0.000	97	17458	0.1014	
78 trans-1,3-Dichloropropene	75		10.036				ND	
80 1,1,2-Trichloroethane	97		10.238				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.341	10.329	0.012	97	22900	0.2312	
83 2-Hexanone	43		10.451				ND	
85 Chlorodibromomethane	129		10.616				ND	
86 Ethylene Dibromide	107		10.731				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	86	1825811	10.0	
90 Chlorobenzene	112		11.183				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.262				ND	
92 Ethylbenzene	91		11.268				ND	7
93 m-Xylene & p-Xylene	106		11.384				ND	7
94 o-Xylene	106		11.713				ND	7
95 Styrene	104		11.725				ND	
96 Bromoform	173		11.884				ND	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	94	830867	9.64	
101 1,1,2,2-Tetrachloroethane	83		12.256				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	993102	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

a - User Assigned ID

Reagents:

MSV_LLcentISS_00004

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X11.D

Injection Date: 02-May-2022 12:55:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: 410-81767-A-4

Lab Sample ID: 410-81767-4

Worklist Smp#: 12

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

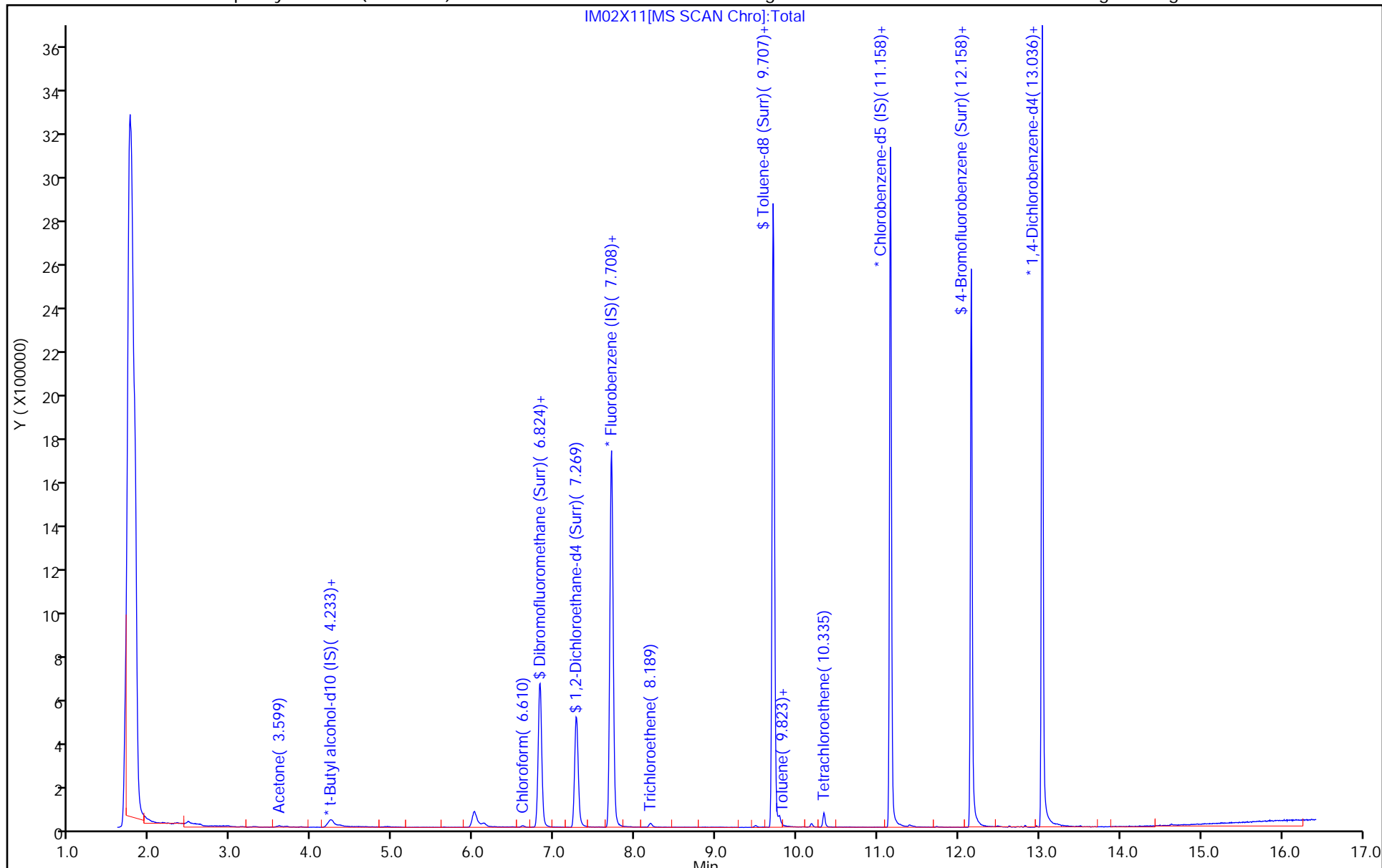
ALS Bottle#: 11

Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Environment Testing, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X11.D
 Lims ID: 410-81767-A-4
 Client ID: HD-COD-SW-9-0/1-0
 Sample Type: Client
 Inject. Date: 02-May-2022 12:55:30 ALS Bottle#: 11 Worklist Smp#: 12
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0056183-012
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 03-May-2022 10:37:59 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1607

First Level Reviewer: kaewrungrueangp

Date: 03-May-2022 10:37:59

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.53	95.27
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.6	106.49
\$ 75 Toluene-d8 (Surr)	10.0	10.6	105.93
\$ 100 4-Bromofluorobenzene (Surr)	10.0	9.64	96.43

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X11.D

Injection Date: 02-May-2022 12:55:30

Instrument ID: 19930

Lims ID: 410-81767-A-4

Lab Sample ID: 410-81767-4

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

Operator ID: KNK41612

ALS Bottle#: 11

Worklist Smp#: 12

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

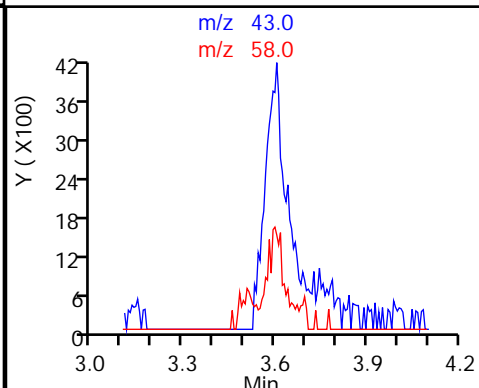
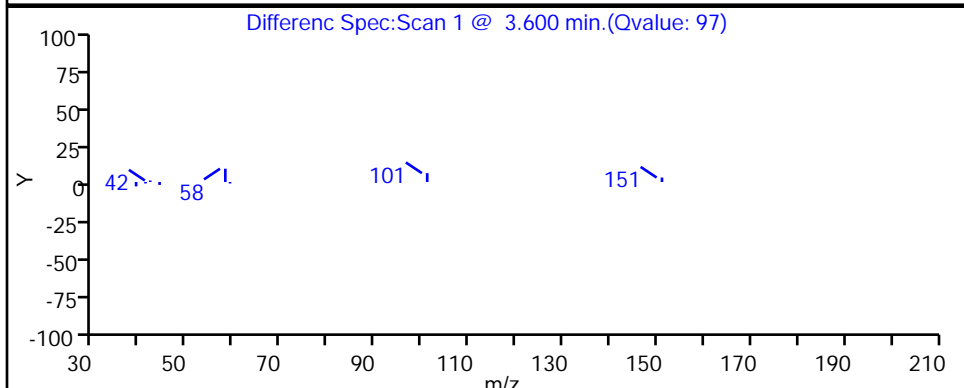
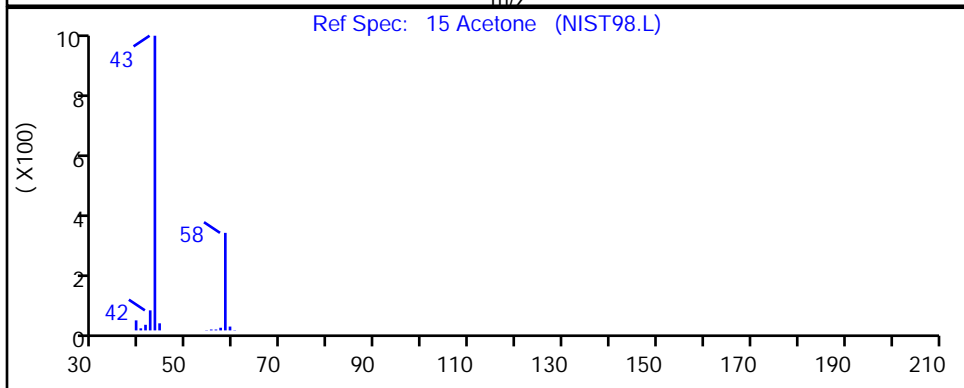
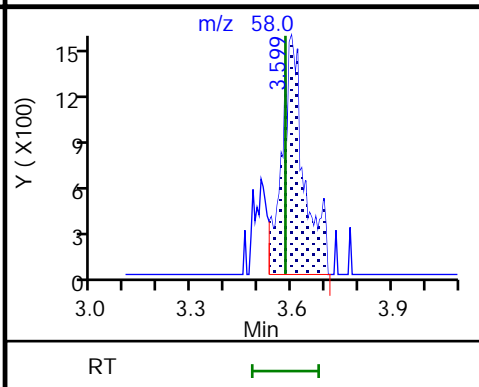
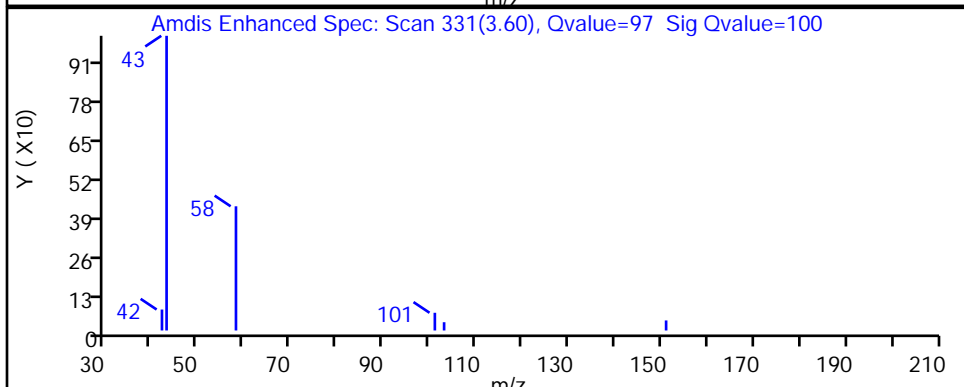
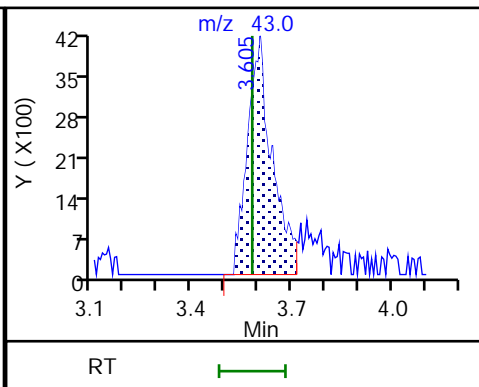
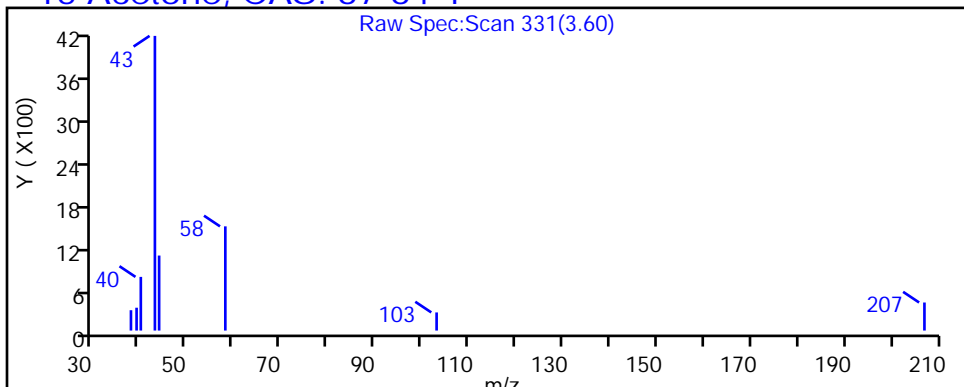
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

15 Acetone, CAS: 67-64-1



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X11.D

Injection Date: 02-May-2022 12:55:30

Instrument ID: 19930

Lims ID: 410-81767-A-4

Lab Sample ID: 410-81767-4

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

Operator ID: KNK41612

ALS Bottle#: 11

Worklist Smp#: 12

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

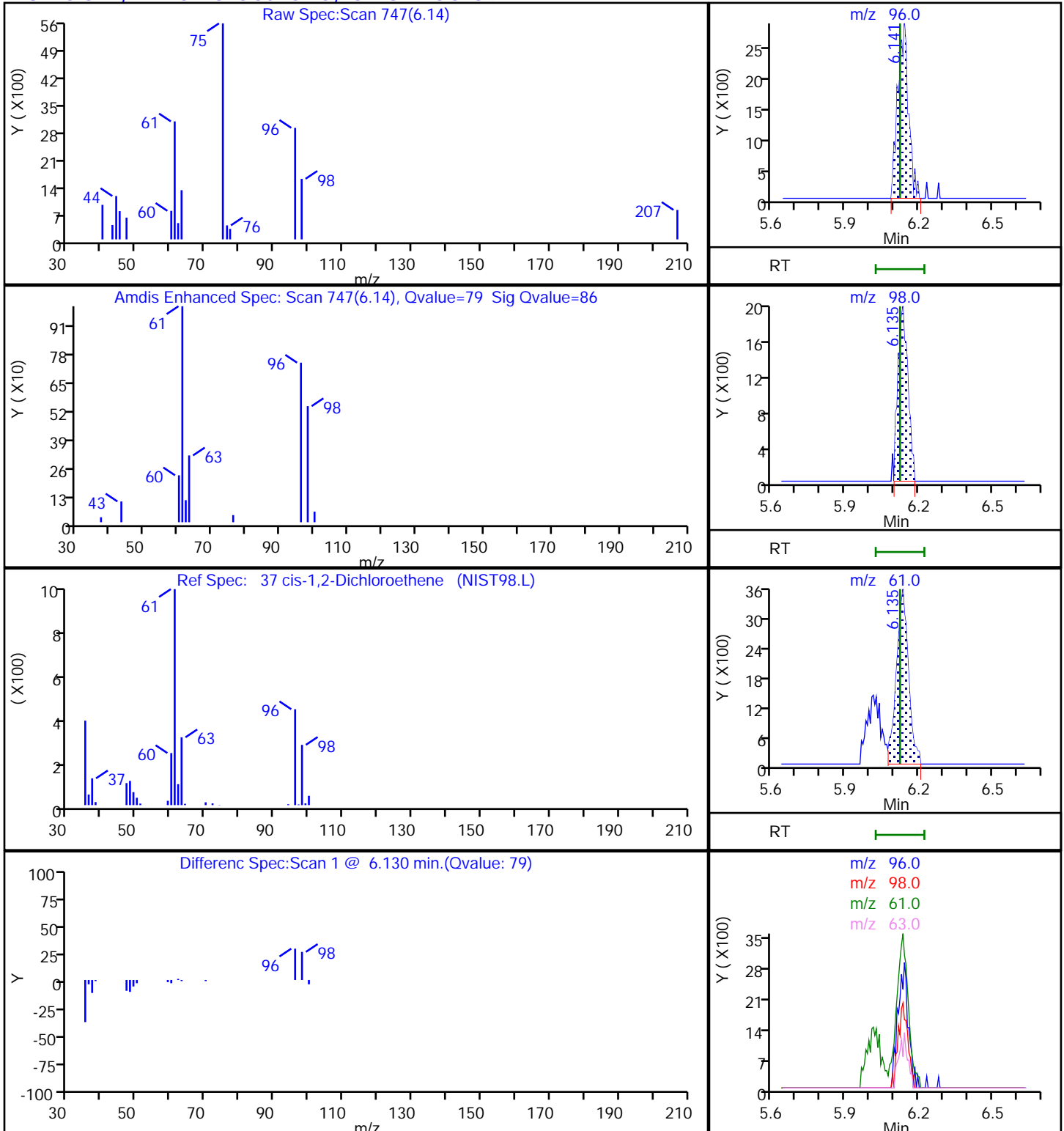
Method: 8260 25ml HP31

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



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X11.D

Injection Date: 02-May-2022 12:55:30

Instrument ID: 19930

Lims ID: 410-81767-A-4

Lab Sample ID: 410-81767-4

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

Operator ID: KNK41612

ALS Bottle#: 11

Worklist Smp#: 12

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

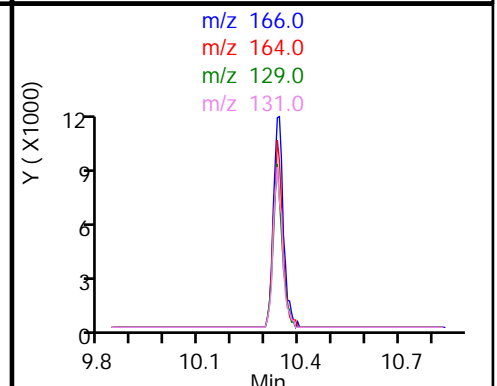
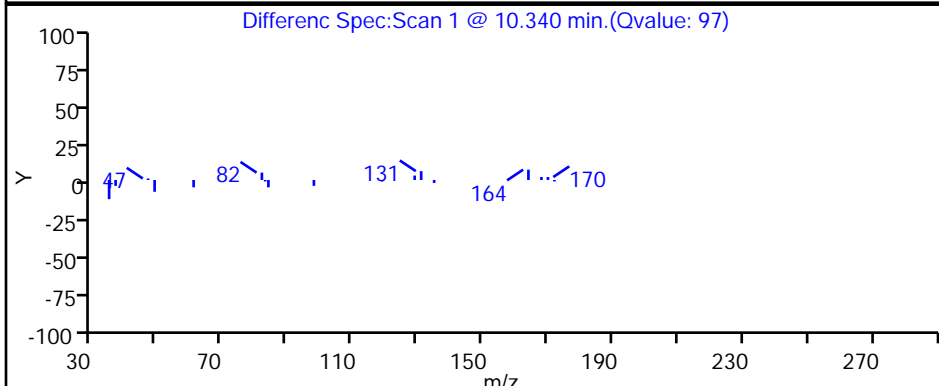
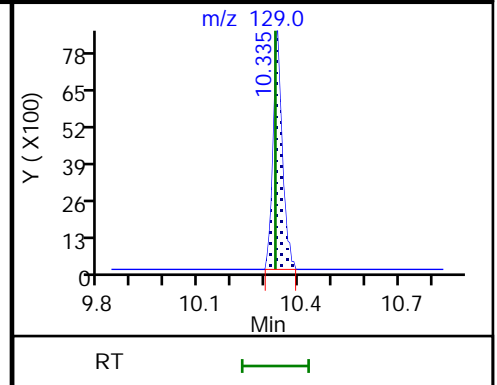
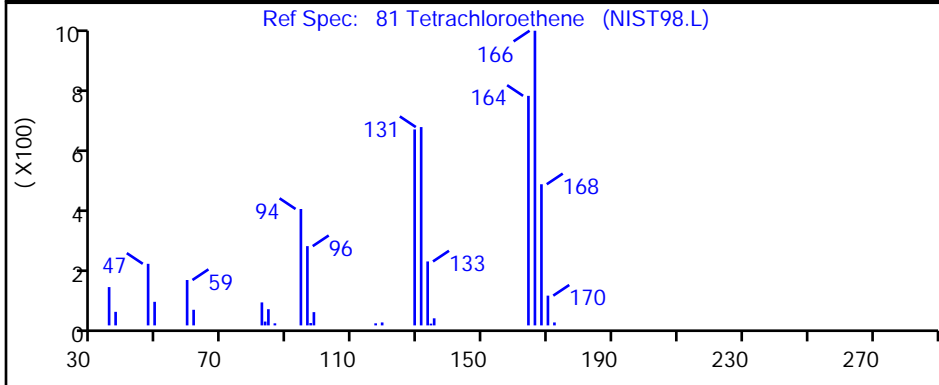
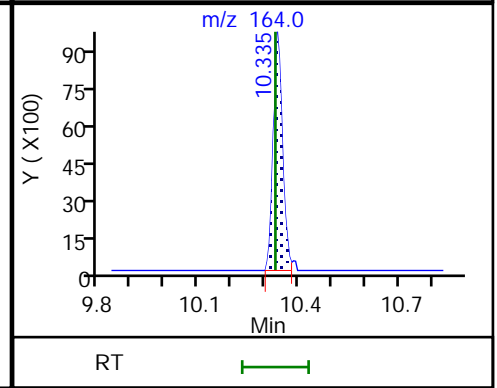
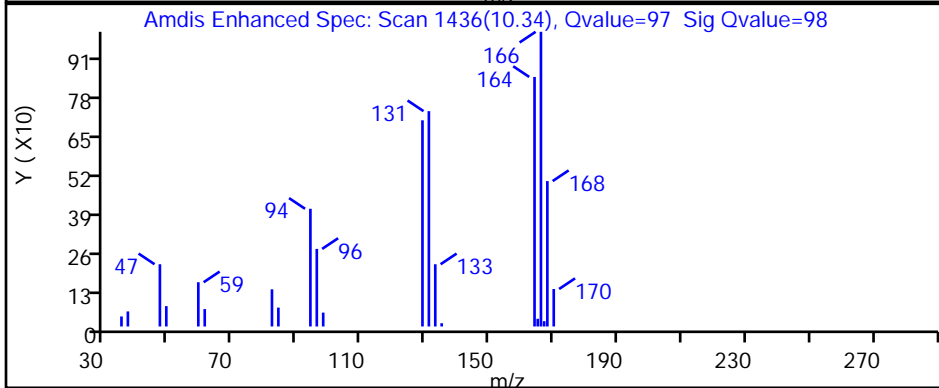
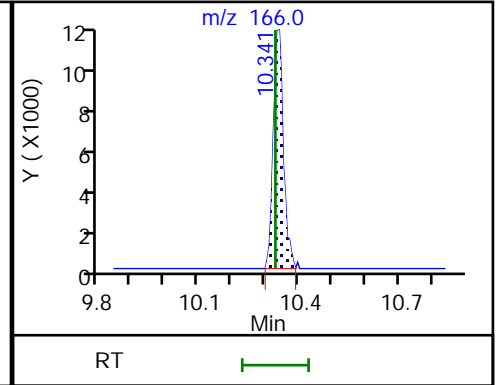
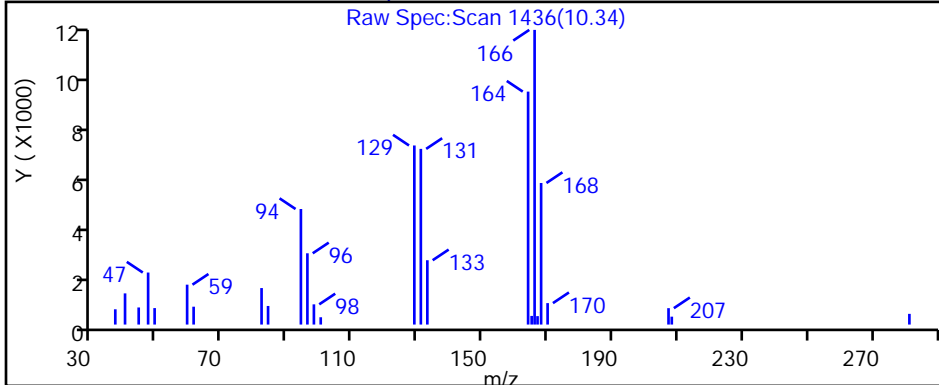
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

81 Tetrachloroethene, CAS: 127-18-4



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X11.D

Injection Date: 02-May-2022 12:55:30

Instrument ID: 19930

Lims ID: 410-81767-A-4

Lab Sample ID: 410-81767-4

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

Operator ID: KNK41612

ALS Bottle#: 11

Worklist Smp#: 12

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

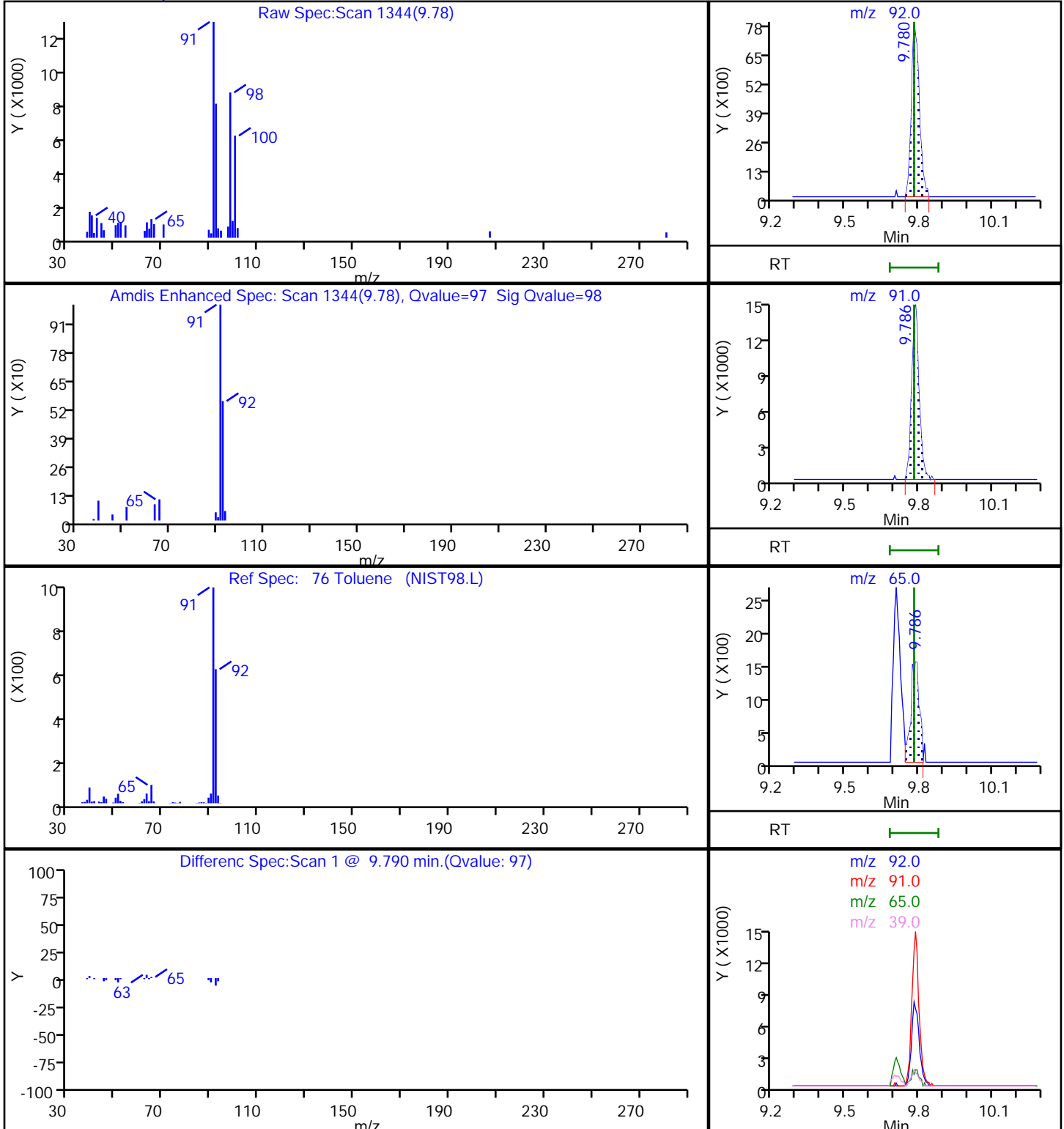
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

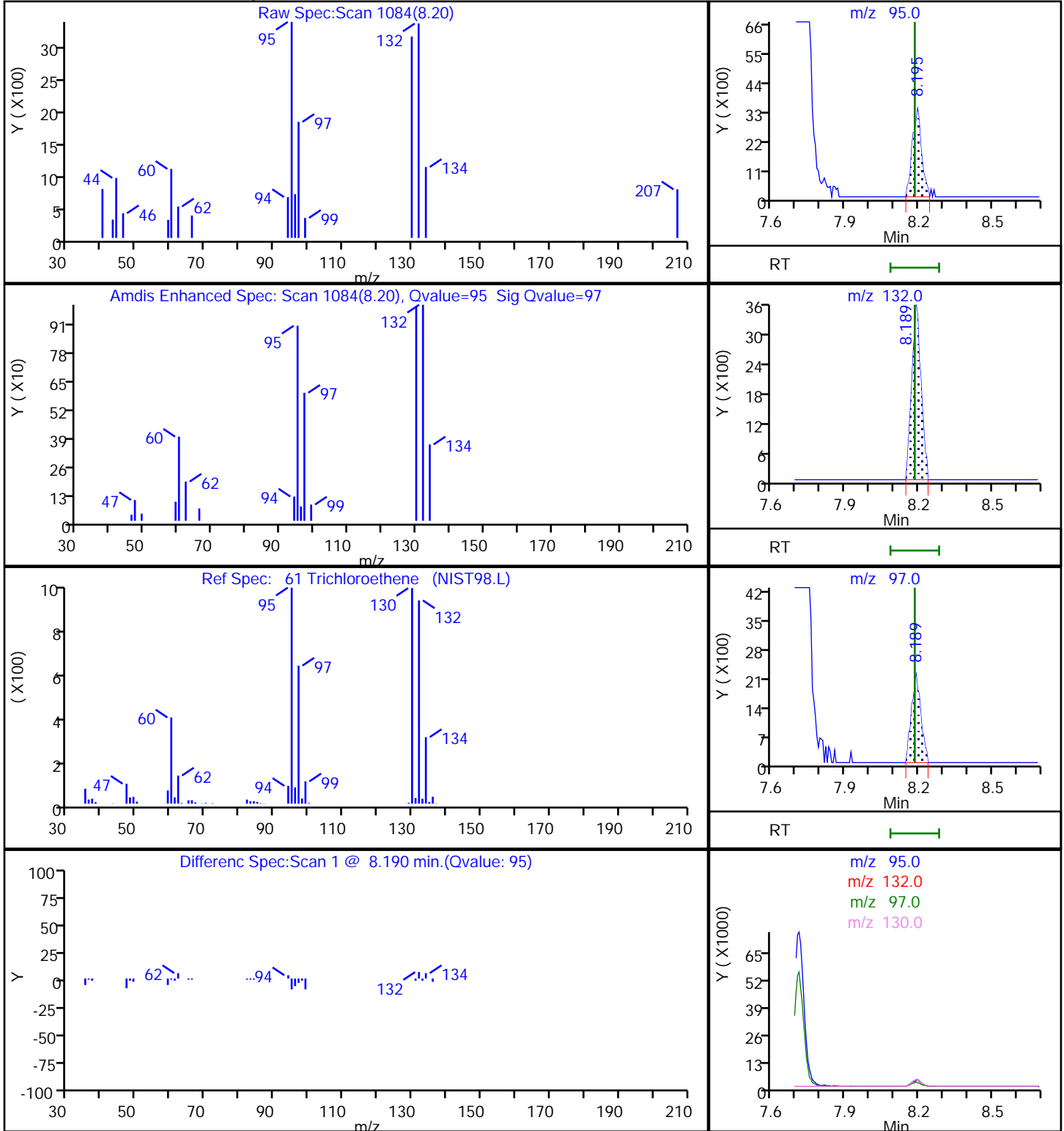
MS Quad

76 Toluene, CAS: 108-88-3



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X11.D
Injection Date: 02-May-2022 12:55:30 Instrument ID: 19930
Lims ID: 410-81767-A-4 Lab Sample ID: 410-81767-4
Client ID: HD-COD-SW-9-0/1-0
Operator ID: KNK41612 ALS Bottle#: 11 Worklist Smp#: 12
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) MS Quad

61 Trichloroethene, CAS: 79-01-6



Euofins Lancaster Laboratories Environment Testing, LLC

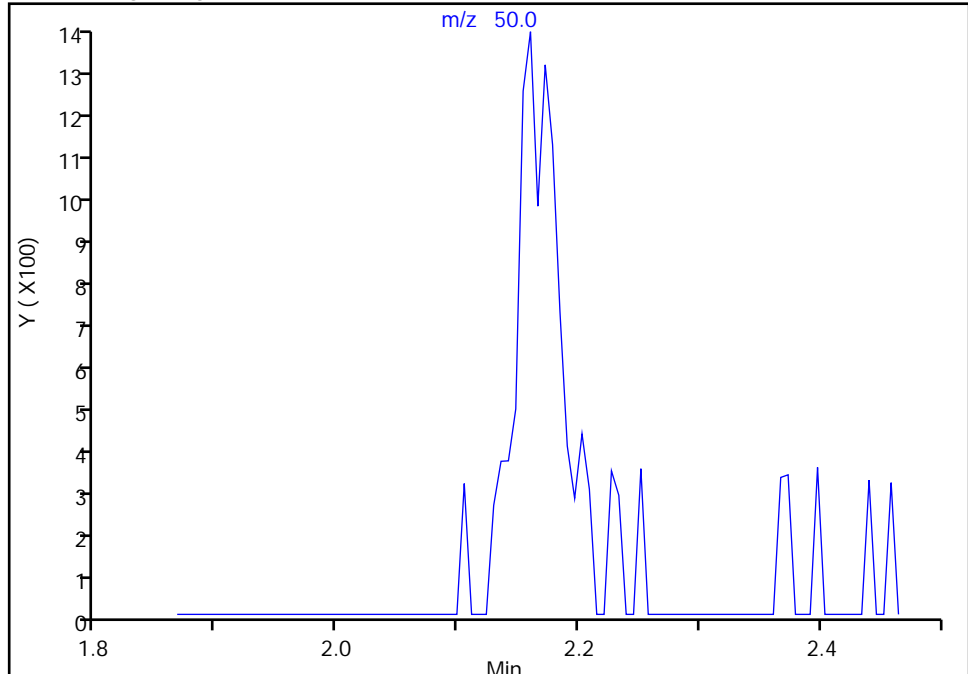
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Injection Date: 02-May-2022 12:55:30 Instrument ID: 19930
Lims ID: 410-81767-A-4 Lab Sample ID: 410-81767-4
Client ID: HD-COD-SW-9-0/1-0
Operator ID: KNK41612 ALS Bottle#: 11 Worklist Smp#: 12
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

4 Chloromethane, CAS: 74-87-3

Signal: 1

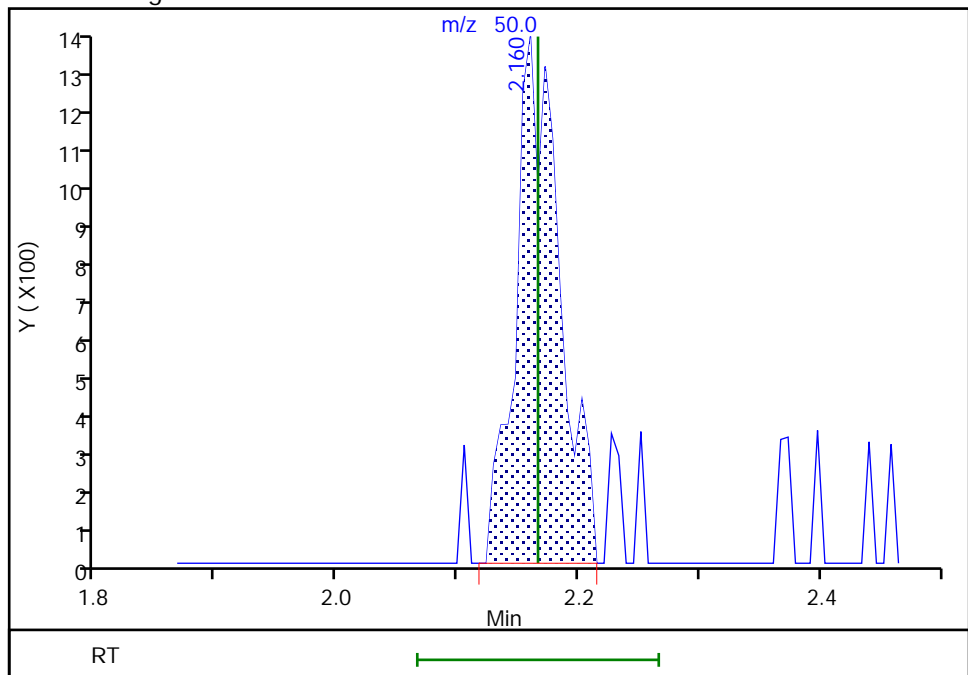
Not Detected
Expected RT: 2.17

Processing Integration Results



Manual Integration Results

RT: 2.16
Area: 3395
Amount: 0.036749
Amount Units: ug/l



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-13-0/1-0 Lab Sample ID: 410-81767-5
 Matrix: Water Lab File ID: IM02X12.D
 Analysis Method: 8260D Date Collected: 04/26/2022 09:30
 Sample wt/vol: 25 (mL) Date Analyzed: 05/02/2022 13:16
 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.: 250524 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	1.2	J	5.0	0.90
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	^c cn	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	^c cn	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	0.087	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	0.46	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
79-01-6	Trichloroethene	0.10	J	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-13-0/1-0 Lab Sample ID: 410-81767-5
 Matrix: Water Lab File ID: IM02X12.D
 Analysis Method: 8260D Date Collected: 04/26/2022 09:30
 Sample wt/vol: 25 (mL) Date Analyzed: 05/02/2022 13:16
 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.: 250524 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
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)	105		80-120
460-00-4	4-Bromofluorobenzene (Surr)	95		80-120
1868-53-7	Dibromofluoromethane (Surr)	94		80-120
2037-26-5	Toluene-d8 (Surr)	106		80-120

Eurofins Lancaster Laboratories Environment Testing, LLC
 Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X12.D
 Lims ID: 410-81767-A-5
 Client ID: HD-COD-SW-13-0/1-0
 Sample Type: Client
 Inject. Date: 02-May-2022 13:16:30 ALS Bottle#: 12 Worklist Smp#: 13
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0056183-013
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 03-May-2022 10:37:59 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1607

First Level Reviewer: kaewrungrueangp Date: 03-May-2022 10:38:36

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50		2.166				ND	7
5 Vinyl chloride	62		2.282				ND	
7 Bromomethane	94		2.617				ND	7
8 Chloroethane	64		2.696				ND	
14 1,1-Dichloroethene	96		3.556				ND	
15 Acetone	43	3.592	3.580	0.012	81	11795	1.24	
19 Carbon disulfide	76		3.861				ND	7
23 Methylene Chloride	84		4.221				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.233	4.227	0.006	29	175137	50.0	
27 Methyl tert-butyl ether	73		4.623				ND	
28 trans-1,2-Dichloroethene	96		4.641				ND	
31 1,1-Dichloroethane	63		5.294				ND	
36 2-Butanone (MEK)	43		6.086				ND	7
37 cis-1,2-Dichloroethene	96	6.141	6.123	0.018	77	7011	0.0865	
43 Chlorobromomethane	128		6.458				ND	
45 Chloroform	83		6.604				ND	7
\$ 46 Dibromofluoromethane (Surr)	113	6.817	6.818	-0.001	94	608201	9.43	
47 1,1,1-Trichloroethane	97	6.842	6.830	0.012	35	3856	0.0304	
50 Carbon tetrachloride	117		7.043				ND	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.269	7.263	0.006	68	120595	10.5	
54 Benzene	78		7.299				ND	7
56 1,2-Dichloroethane	62		7.372				ND	
* 58 Fluorobenzene (IS)	96	7.708	7.702	0.006	99	2383360	10.0	
61 Trichloroethene	95	8.183	8.183	0.000	94	8322	0.1031	
63 1,2-Dichloropropane	63		8.512				ND	
68 Dichlorobromomethane	83		8.854				ND	
73 cis-1,3-Dichloropropene	75		9.396				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	94	2349827	10.6	
76 Toluene	92	9.786	9.780	0.006	95	9984	0.0578	
78 trans-1,3-Dichloropropene	75		10.036				ND	
80 1,1,2-Trichloroethane	97		10.238				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.335	10.329	0.006	98	45486	0.4582	
83 2-Hexanone	43		10.451				ND	
85 Chlorodibromomethane	129		10.616				ND	
86 Ethylene Dibromide	107		10.731				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	86	1830126	10.0	
90 Chlorobenzene	112		11.183				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.262				ND	
92 Ethylbenzene	91		11.268				ND	7
93 m-Xylene & p-Xylene	106		11.384				ND	7
94 o-Xylene	106		11.713				ND	7
95 Styrene	104		11.725				ND	
96 Bromoform	173		11.884				ND	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	94	821144	9.51	
101 1,1,2,2-Tetrachloroethane	83		12.256				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	983105	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_LLcentISS_00004

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X12.D

Injection Date: 02-May-2022 13:16:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: 410-81767-A-5

Lab Sample ID: 410-81767-5

Worklist Smp#: 13

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

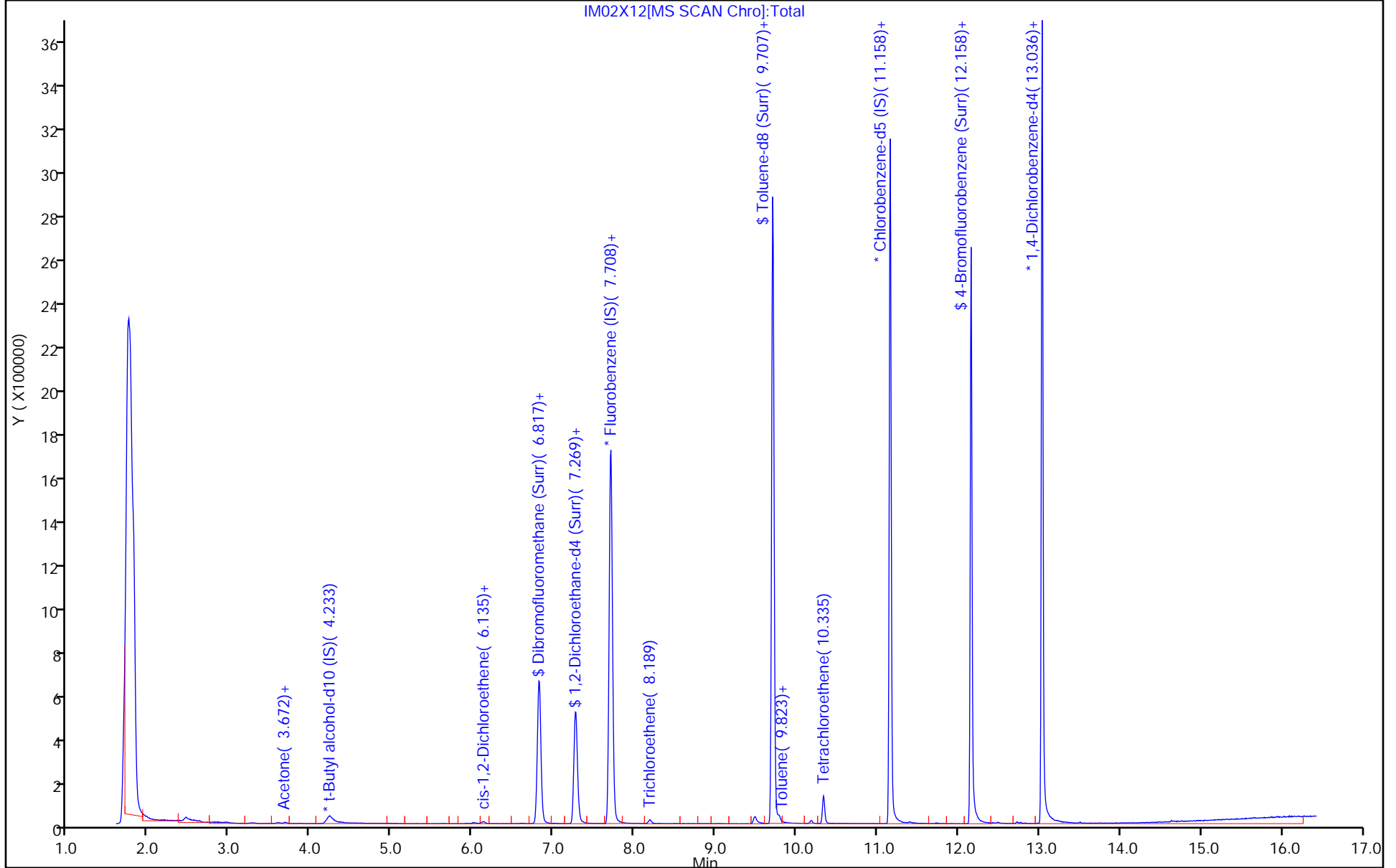
ALS Bottle#: 12

Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Environment Testing, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X12.D
 Lims ID: 410-81767-A-5
 Client ID: HD-COD-SW-13-0/1-0
 Sample Type: Client
 Inject. Date: 02-May-2022 13:16:30 ALS Bottle#: 12 Worklist Smp#: 13
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0056183-013
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 03-May-2022 10:37:59 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1607

First Level Reviewer: kaewrungrueangp

Date: 03-May-2022 10:38:36

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.43	94.27
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.5	104.93
\$ 75 Toluene-d8 (Surr)	10.0	10.6	105.51
\$ 100 4-Bromofluorobenzene (Surr)	10.0	9.51	95.07

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X12.D

Injection Date: 02-May-2022 13:16:30

Instrument ID: 19930

Lims ID: 410-81767-A-5

Lab Sample ID: 410-81767-5

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

Operator ID: KNK41612

ALS Bottle#: 12

Worklist Smp#: 13

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

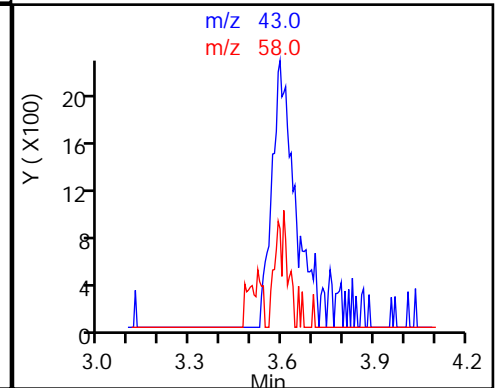
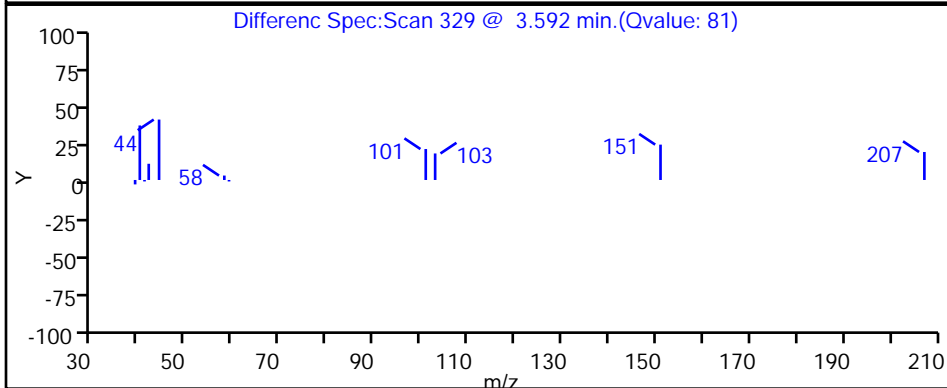
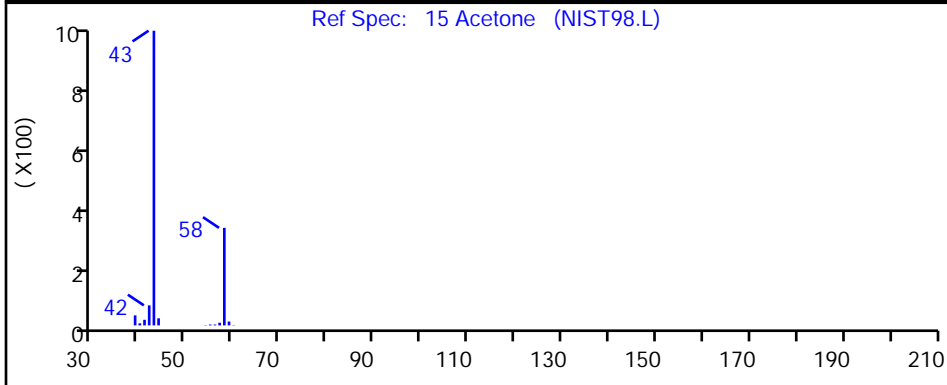
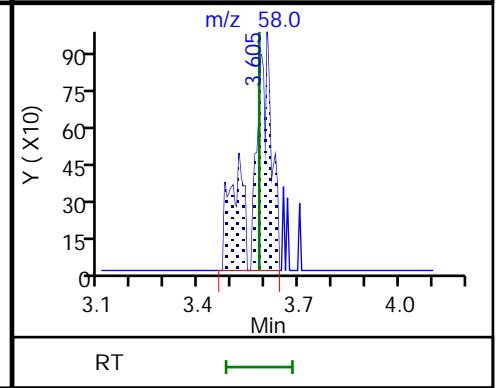
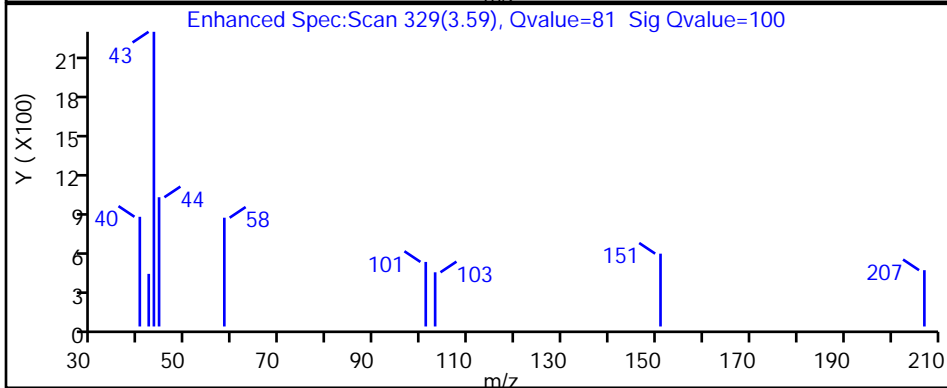
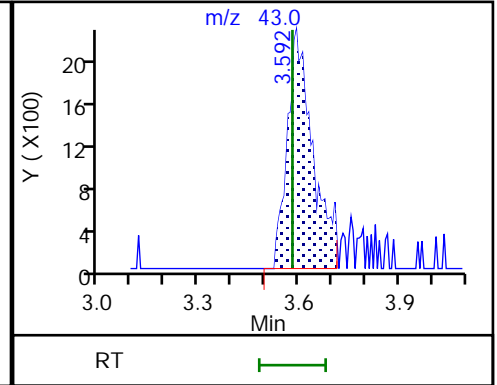
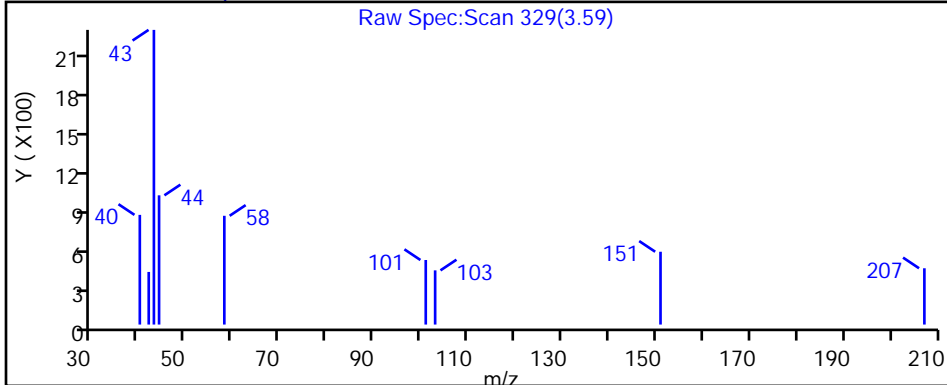
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

15 Acetone, CAS: 67-64-1



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X12.D

Injection Date: 02-May-2022 13:16:30

Instrument ID: 19930

Lims ID: 410-81767-A-5

Lab Sample ID: 410-81767-5

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

Operator ID: KNK41612

ALS Bottle#: 12

Worklist Smp#: 13

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

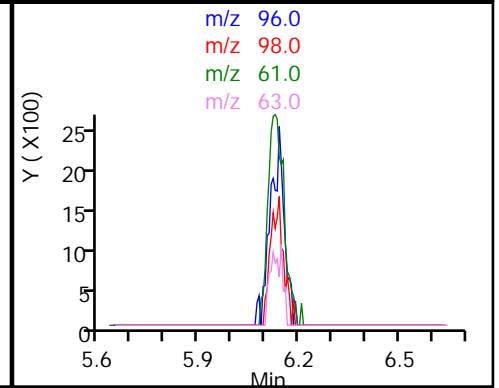
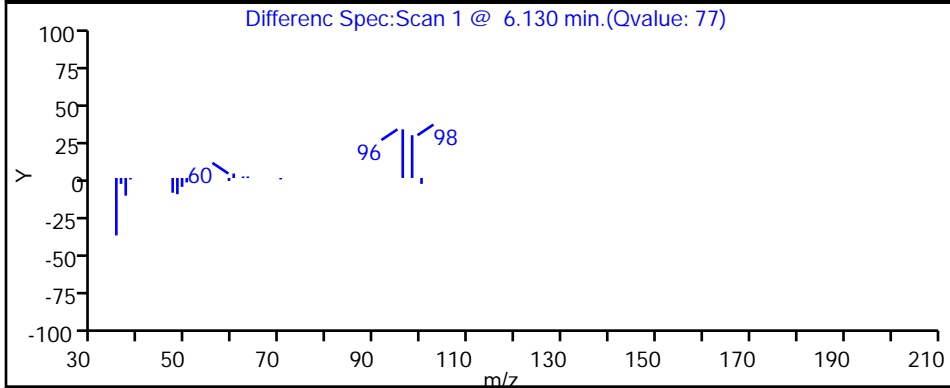
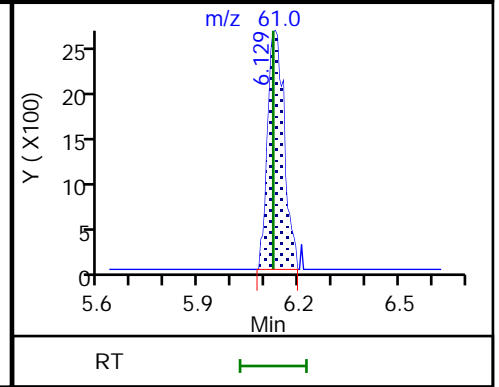
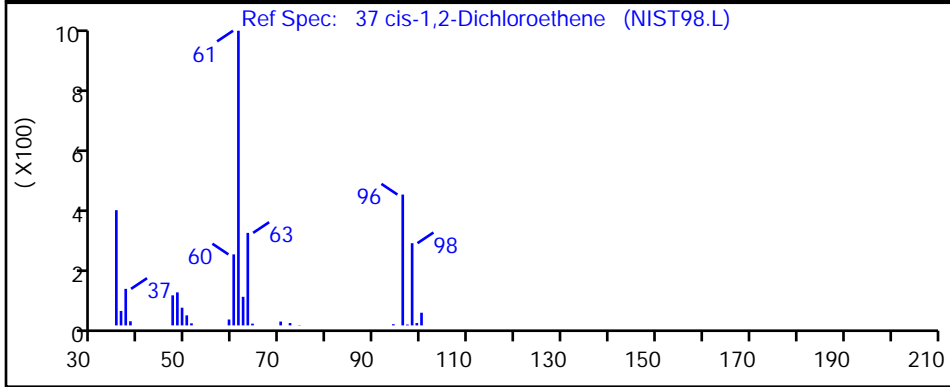
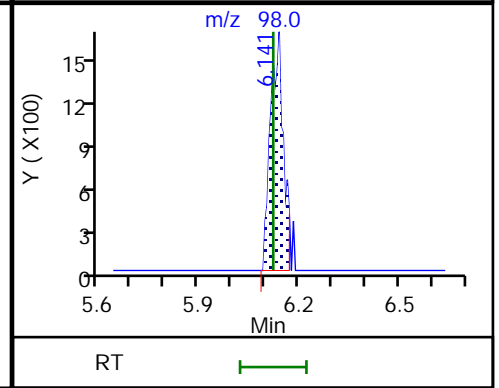
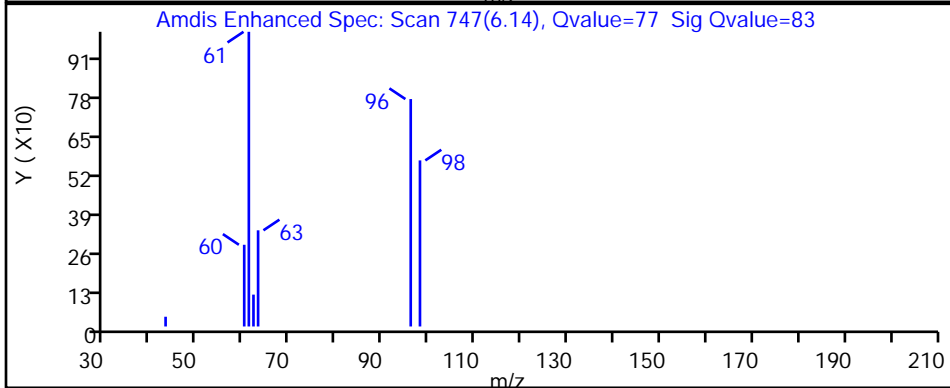
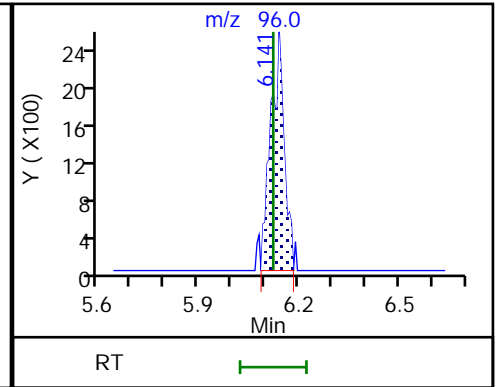
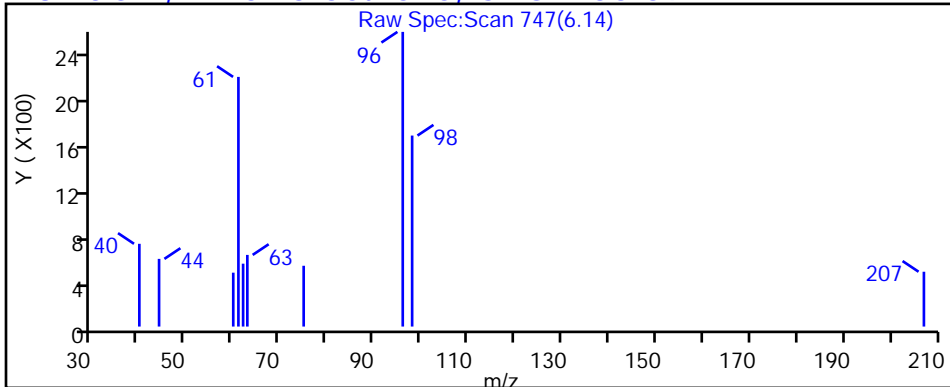
Method: 8260 25ml HP31

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



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X12.D

Injection Date: 02-May-2022 13:16:30

Instrument ID: 19930

Lims ID: 410-81767-A-5

Lab Sample ID: 410-81767-5

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

Operator ID: KNK41612

ALS Bottle#: 12

Worklist Smp#: 13

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

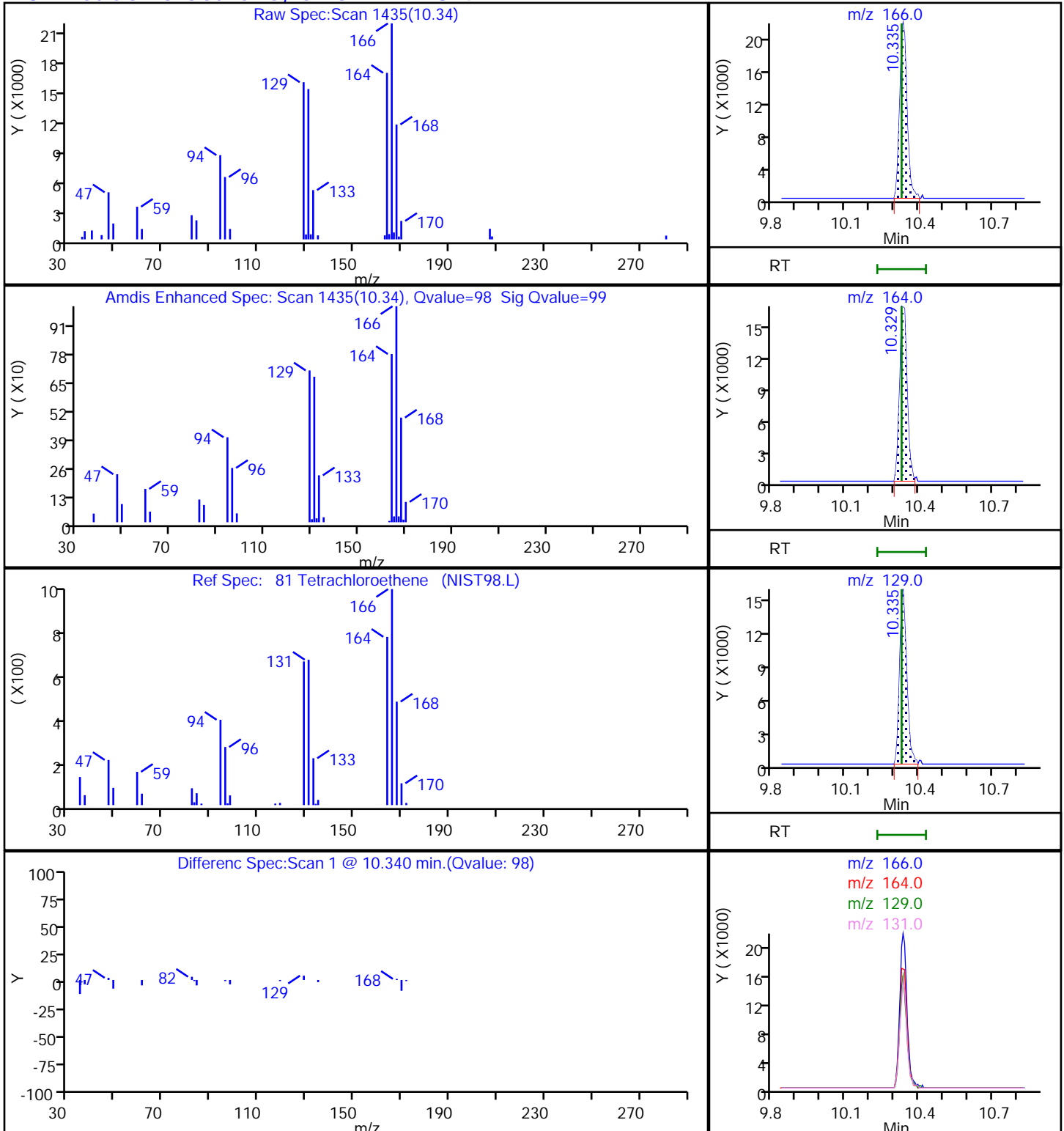
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

81 Tetrachloroethene, CAS: 127-18-4



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X12.D

Injection Date: 02-May-2022 13:16:30

Instrument ID: 19930

Lims ID: 410-81767-A-5

Lab Sample ID: 410-81767-5

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

Operator ID: KNK41612

ALS Bottle#: 12

Worklist Smp#: 13

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

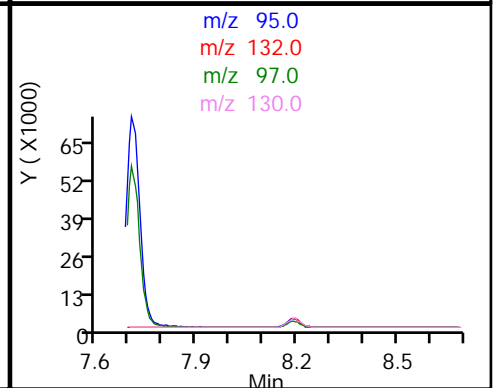
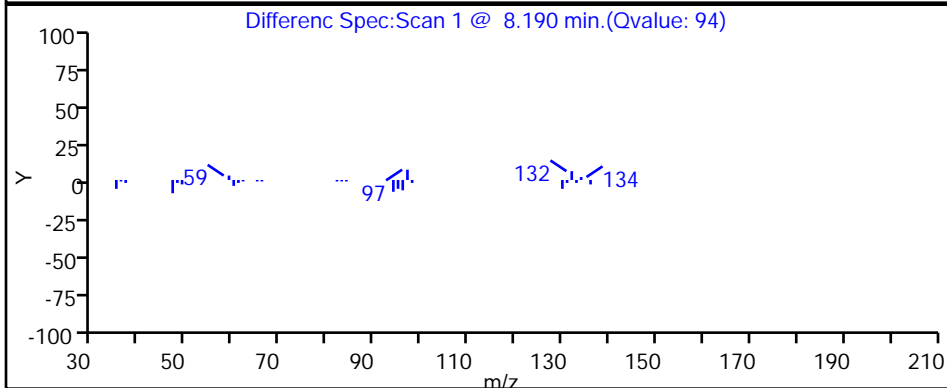
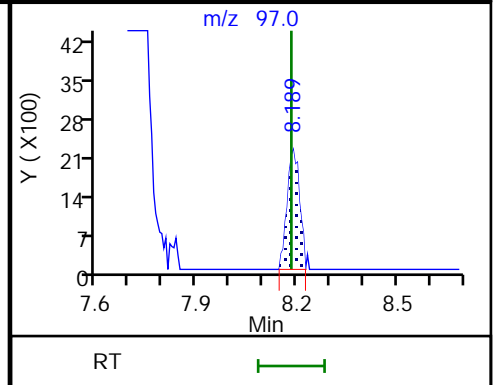
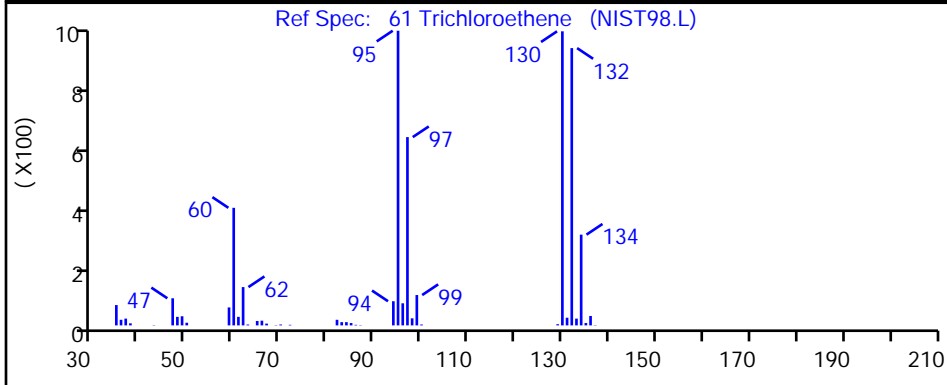
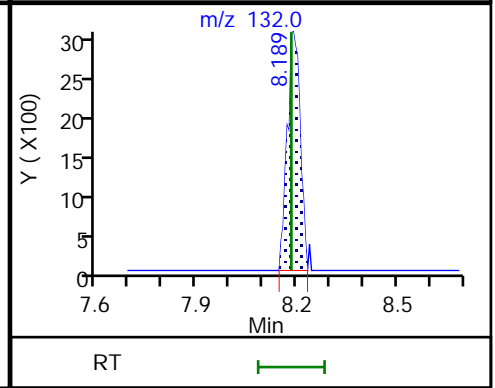
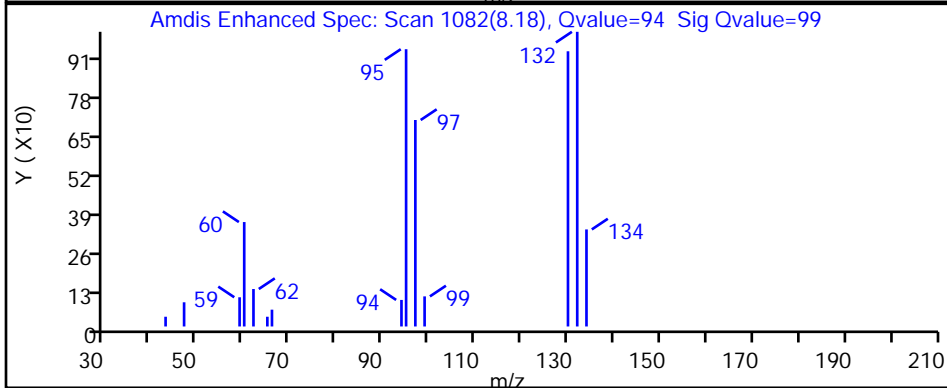
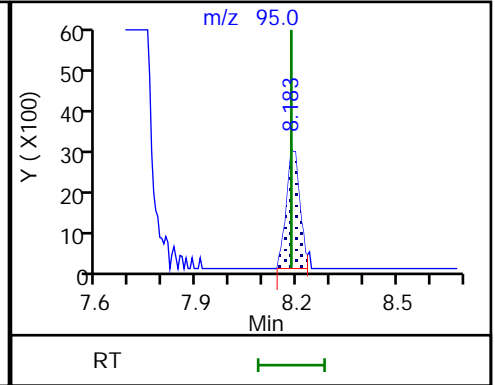
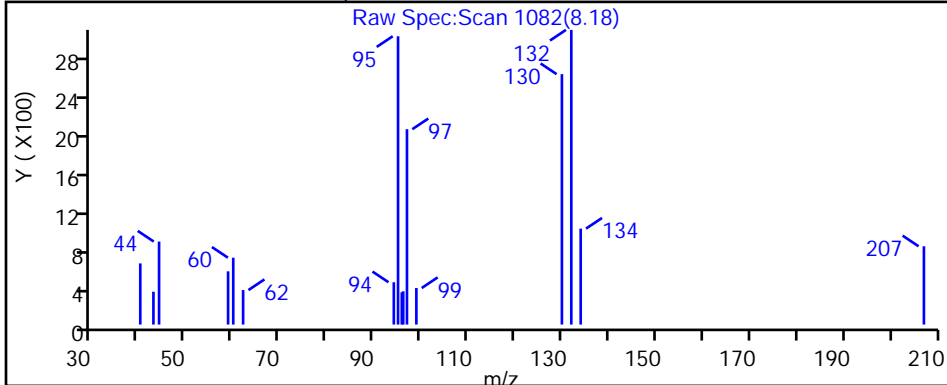
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

61 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-15-0/1-0 Lab Sample ID: 410-81767-6
 Matrix: Water Lab File ID: IM02X13.D
 Analysis Method: 8260D Date Collected: 04/26/2022 12:05
 Sample wt/vol: 25 (mL) Date Analyzed: 05/02/2022 13:38
 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.: 250524 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	0.32	J	0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND	*+ FH	0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.060
75-34-3	1,1-Dichloroethane	0.14	J	0.50	0.070
75-35-4	1,1-Dichloroethene	0.17	J	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
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	^c cn	0.50	0.070
75-15-0	Carbon disulfide	ND	*+ FH	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	^c cn	0.50	0.070
67-66-3	Chloroform	0.29	J	0.50	0.090
74-87-3	Chloromethane	ND		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	1.8		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	6.0		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
79-01-6	Trichloroethene	1.7		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-15-0/1-0 Lab Sample ID: 410-81767-6
 Matrix: Water Lab File ID: IM02X13.D
 Analysis Method: 8260D Date Collected: 04/26/2022 12:05
 Sample wt/vol: 25 (mL) Date Analyzed: 05/02/2022 13:38
 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.: 250524 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
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
460-00-4	4-Bromofluorobenzene (Surr)	95		80-120
1868-53-7	Dibromofluoromethane (Surr)	95		80-120
2037-26-5	Toluene-d8 (Surr)	106		80-120

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X13.D
 Lims ID: 410-81767-A-6
 Client ID: HD-COD-SW-15-0/1-0
 Sample Type: Client
 Inject. Date: 02-May-2022 13:38:30 ALS Bottle#: 13 Worklist Smp#: 14
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0056183-014
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 03-May-2022 10:40:37 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1607

First Level Reviewer: kaewrungrueangp Date: 03-May-2022 10:40:37

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85		1.965				ND	
2 Chlorodifluoromethane	51		1.971				ND	
3 Dimethyl ether	45		2.044				ND	
4 Chloromethane	50		2.166				ND	7
6 Butadiene	39		2.282				ND	7
5 Vinyl chloride	62		2.282				ND	
7 Bromomethane	94		2.617				ND	
8 Chloroethane	64		2.696				ND	
9 Dichlorofluoromethane	67		2.928				ND	7
10 Trichlorofluoromethane	101		3.007				ND	
11 Ethyl ether	59		3.245				ND	
T 200 Ethanol TIC	45		3.288				ND	7
12 1,2-Dichloro-1,1,2-trifluoroetha	67		3.330				ND	7
13 Acrolein	56		3.416				ND	
14 1,1-Dichloroethene	96	3.556	3.556	0.000	96	10528	0.1700	
15 Acetone	43		3.580				ND	U
16 112TCTFE	101		3.599				ND	
17 Iodomethane	142		3.751				ND	
18 Ethyl bromide	108		3.782				ND	
19 Carbon disulfide	76		3.861				ND	7
20 Acetonitrile	41		4.001				ND	
21 Methyl acetate	43		4.007				ND	
22 3-Chloro-1-propene	41		4.032				ND	
23 Methylene Chloride	84		4.221				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.239	4.227	0.012	30	169797	50.0	
25 2-Methyl-2-propanol	59		4.342				ND	
26 Acrylonitrile	53		4.556				ND	
27 Methyl tert-butyl ether	73	4.635	4.623	0.012	83	6457	0.0399	
28 trans-1,2-Dichloroethene	96		4.641				ND	7
29 Hexane	57		5.068				ND	
31 1,1-Dichloroethane	63	5.306	5.294	0.012	95	17001	0.1414	
30 Vinyl acetate	43		5.299				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
T 208 Vinyl acetate (TIC)	43		5.336				ND	
32 Isopropyl ether	45		5.354				ND	
33 2-Chloro-1,3-butadiene	53		5.409				ND	
34 Tert-butyl ethyl ether	59		5.885				ND	7
36 2-Butanone (MEK)	43		6.086				ND	
37 cis-1,2-Dichloroethene	96	6.135	6.123	0.012	79	142953	1.78	
38 2,2-Dichloropropane	77		6.141				ND	
S 35 1,2-Dichloroethene, Total	100				0		1.78	
39 Ethyl acetate	43		6.165				ND	
40 Propionitrile	54		6.171				ND	
41 Methyl acrylate	55		6.220				ND	
42 Methacrylonitrile	67		6.391				ND	
43 Chlorobromomethane	128		6.458				ND	
44 Tetrahydrofuran	71		6.464				ND	
45 Chloroform	83	6.604	6.604	0.000	92	37799	0.2920	
\$ 46 Dibromofluoromethane (Surr)	113	6.818	6.818	0.000	94	607844	9.51	
47 1,1,1-Trichloroethane	97	6.836	6.830	0.006	37	40103	0.3194	
48 Cyclohexane	56		6.933				ND	
49 1-Chlorobutane	56		7.019				ND	
51 1,1-Dichloropropene	75		7.043				ND	
50 Carbon tetrachloride	117	7.049	7.043	0.006	91	4526	0.0390	
52 Isobutyl alcohol	41		7.189				ND	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.275	7.263	0.012	68	122399	10.8	
54 Benzene	78		7.299				ND	
56 1,2-Dichloroethane	62		7.372				ND	
55 Isopropyl acetate	43		7.390				ND	
57 Tert-amyl methyl ether	73		7.488				ND	
* 58 Fluorobenzene (IS)	96	7.708	7.702	0.006	99	2360634	10.0	
59 n-Heptane	43		7.714				ND	7
60 n-Butanol	56		8.061				ND	
61 Trichloroethene	95	8.183	8.183	0.000	98	136288	1.71	
62 Methylcyclohexane	83		8.488				ND	
63 1,2-Dichloropropane	63		8.512				ND	
64 Methyl methacrylate	69		8.592				ND	
65 1,4-Dioxane	88		8.604				ND	
66 Dibromomethane	93		8.622				ND	
67 n-Propyl acetate	43		8.677				ND	
68 Dichlorobromomethane	83		8.854				ND	
69 2-Nitropropane	41		9.116				ND	
71 2-Chloroethyl vinyl ether	63		9.219				ND	
70 Chloroacetonitrile	75		9.226				ND	
72 1-Bromo-2-chloroethane	63		9.244				ND	
73 cis-1,3-Dichloropropene	75		9.396				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	94	2348725	10.6	
76 Toluene	92	9.786	9.780	0.006	97	6135	0.0357	
T 157 3-Chloro-1,2-propanediol TIC	44		10.000				ND	U
T 146 2,3-Dibromo-1-propanol TIC	57		10.000				ND	
T 147 2-Bromoethanol TIC	45		10.000				ND	U
T 156 2,3-Dibromopropene TIC	119		10.000				ND	U
T 149 2-Chloroethanol TIC	44		10.000				ND	
T 151 Chloroacetaldehyde TIC	50		10.000				ND	U

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
T 148 Monochloroacetic acid TIC	50		10.000				ND	U
T 154 2-Bromo-3-chloropropene TIC	75		10.000				ND	U
T 153 Epichlorohydrin TIC	57		10.000				ND	U
T 155 Ethylene oxide TIC	44		10.000				ND	
T 152 Vinyl bromide TIC	106		10.000				ND	U
T 150 Epibromohydrin TIC	57		10.000				ND	
78 trans-1,3-Dichloropropene	75		10.036				ND	
S 77 1,3-Dichloropropene, Total	100		10.060				ND	7
79 Ethyl methacrylate	69		10.097				ND	
80 1,1,2-Trichloroethane	97		10.238				ND	7
81 Tetrachloroethene	166	10.335	10.329	0.006	98	591687	5.98	
82 1,3-Dichloropropane	76		10.402				ND	
83 2-Hexanone	43		10.451				ND	
84 n-Butyl acetate	43		10.579				ND	
85 Chlorodibromomethane	129		10.616				ND	
86 Ethylene Dibromide	107		10.731				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	86	1823807	10.0	
88 1-Chlorohexane	91		11.164				ND	7
90 Chlorobenzene	112		11.183				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.262				ND	
92 Ethylbenzene	91		11.268				ND	7
93 m-Xylene & p-Xylene	106		11.384				ND	7
94 o-Xylene	106		11.713				ND	7
95 Styrene	104		11.725				ND	
96 Bromoform	173		11.884				ND	
97 Isopropylbenzene	105		12.012				ND	
98 cis-1,4-Dichloro-2-butene	88		12.060				ND	
99 Cyclohexanone	55		12.097				ND	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	94	818438	9.51	
101 1,1,2,2-Tetrachloroethane	83		12.256				ND	
102 Bromobenzene	156		12.274				ND	
103 trans-1,4-Dichloro-2-butene	53		12.280				ND	
104 1,2,3-Trichloropropane	110		12.298				ND	
105 N-Propylbenzene	91		12.341				ND	
106 2-Chlorotoluene	126		12.414				ND	
107 1,3,5-Trimethylbenzene	105		12.475				ND	
108 4-Chlorotoluene	126		12.506				ND	
109 tert-Butylbenzene	134		12.713				ND	
110 Pentachloroethane	167		12.749				ND	
111 1,2,4-Trimethylbenzene	105		12.755				ND	7
112 sec-Butylbenzene	105		12.877				ND	
113 1,3-Dichlorobenzene	146		12.981				ND	7
114 4-Isopropyltoluene	119		12.987				ND	7
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	985435	10.0	
116 1,4-Dichlorobenzene	146		13.054				ND	7
117 1,2,3-Trimethylbenzene	120		13.060				ND	7
118 Benzyl chloride	126		13.127				ND	
119 n-Butylbenzene	92		13.280				ND	
120 1,2-Dichlorobenzene	146		13.310				ND	
121 Hexachloroethane	117		13.542				ND	
122 1,2-Dibromo-3-Chloropropane	155		13.853				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
123 1,3,5-Trichlorobenzene	180		13.981				ND	
124 1,2,4-Trichlorobenzene	180		14.401				ND	
125 Hexachlorobutadiene	225		14.487				ND	
126 Naphthalene	128		14.584				ND	
127 1,2,3-Trichlorobenzene	180		14.725				ND	
128 Dodecane	57		0.000				ND	
136 2-Chloro-1,1,1-Trifluoroethane	1		0.000				ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	
205 1,1-Dichloroacetone	1		0.000				ND	
T 211 Nitrobenzene TIC	77		0.000				ND	
143 n-Decane	57		0.000				ND	
139 1-Bromo-3-Chloropropane	1		0.000				ND	
210 Hexachloroethane TIC	1		0.000				ND	
T 209 Decamethylcyclotetrasiloxane TIC	251		0.000				ND	
203 Propargyl alcohol TIC	1		0.000				ND	
202 1,3-Dichloro-2-propanol TIC	1		0.000				ND	
138 1,1-Dichloro-1-fluoroethane	1		0.000				ND	
137 2-Methylnaphthalene	142		0.000				ND	
135 p-Diethylbenzene	1		0.000				ND	
133 t-Amyl alcohol	1		0.000				ND	
132 Methylal	1		0.000				ND	
131 tert-Butyl Formate	1		0.000				ND	
142 2-Bromo-1-chloropropane	1		0.000				ND	
206 Pentachloroethane TIC	1		0.000				ND	
204 Pentane	43		0.000				ND	
T 212 Octamethylcyclotetrasiloxane TIC	281		0.000				ND	U
130 Chlorotrifluoroethene	1		0.000				ND	
207 Acetonitrile TIC	1		0.000				ND	
129 Propene oxide	1		0.000				ND	
141 1-Chloropropane	1		0.000				ND	
134 Isopropyl alcohol	45		0.000				ND	
T 201 Isopropyl alcohol TIC	45		0.000				ND	U
140 Ethanol	45		3.269				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

Reagents:

MSV_LLcentISS_00004

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X13.D

Injection Date: 02-May-2022 13:38:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: 410-81767-A-6

Lab Sample ID: 410-81767-6

Worklist Smp#: 14

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

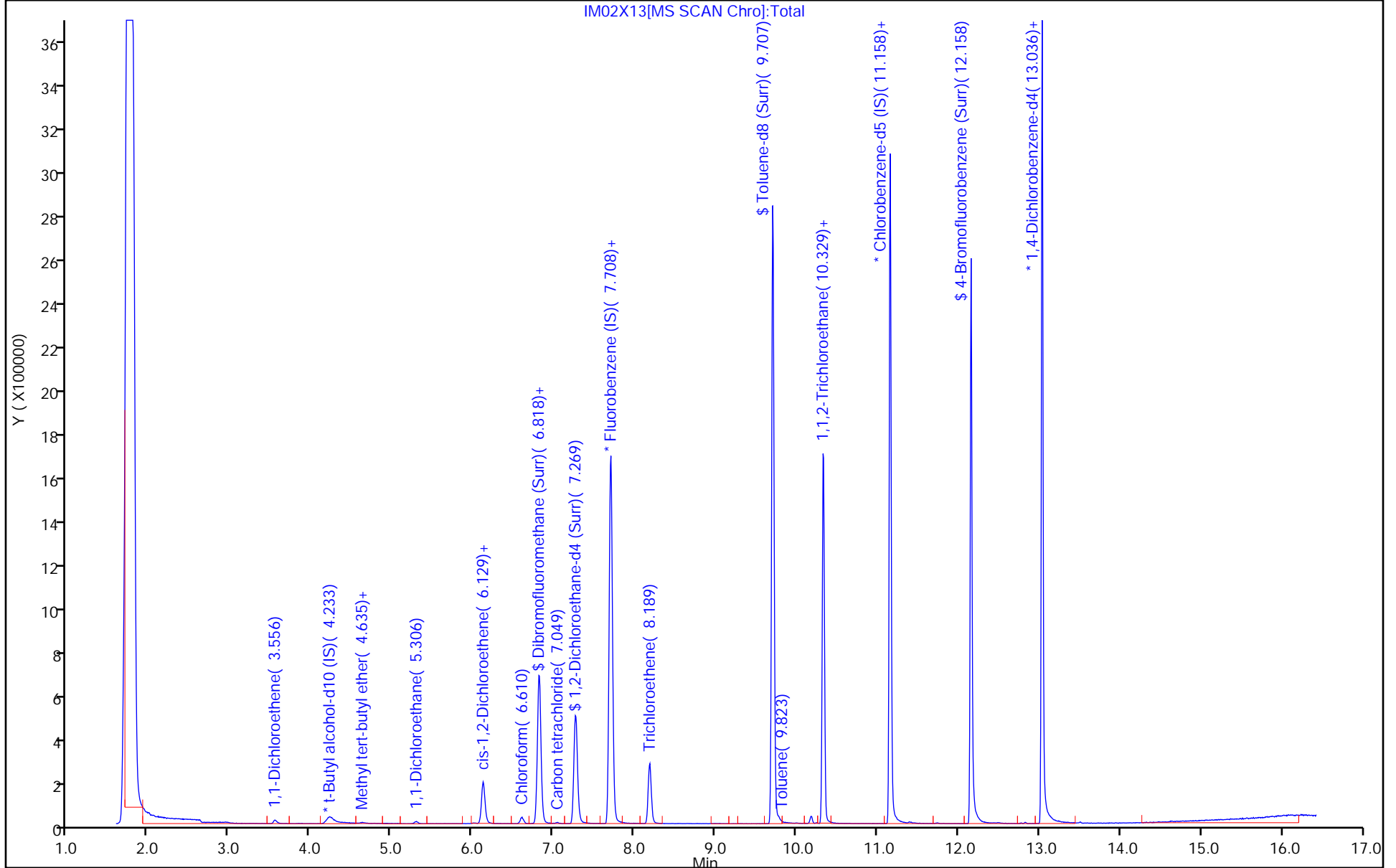
ALS Bottle#: 13

Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Environment Testing, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X13.D
 Lims ID: 410-81767-A-6
 Client ID: HD-COD-SW-15-0/1-0
 Sample Type: Client
 Inject. Date: 02-May-2022 13:38:30 ALS Bottle#: 13 Worklist Smp#: 14
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0056183-014
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 03-May-2022 10:40:37 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1607

First Level Reviewer: kaewrungrueangp

Date: 03-May-2022 10:40:37

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.51	95.12
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.8	107.53
\$ 75 Toluene-d8 (Surr)	10.0	10.6	105.82
\$ 100 4-Bromofluorobenzene (Surr)	10.0	9.51	95.09

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X13.D

Injection Date: 02-May-2022 13:38:30

Instrument ID: 19930

Lims ID: 410-81767-A-6

Lab Sample ID: 410-81767-6

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

Operator ID: KNK41612

ALS Bottle#: 13

Worklist Smp#: 14

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

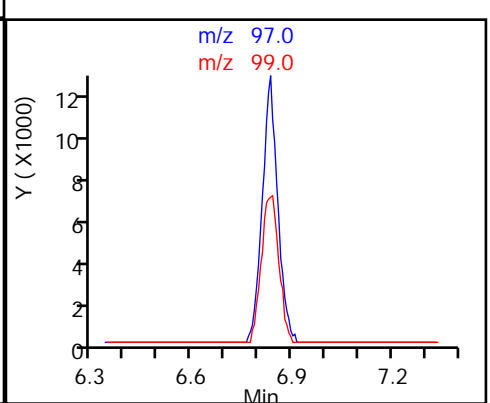
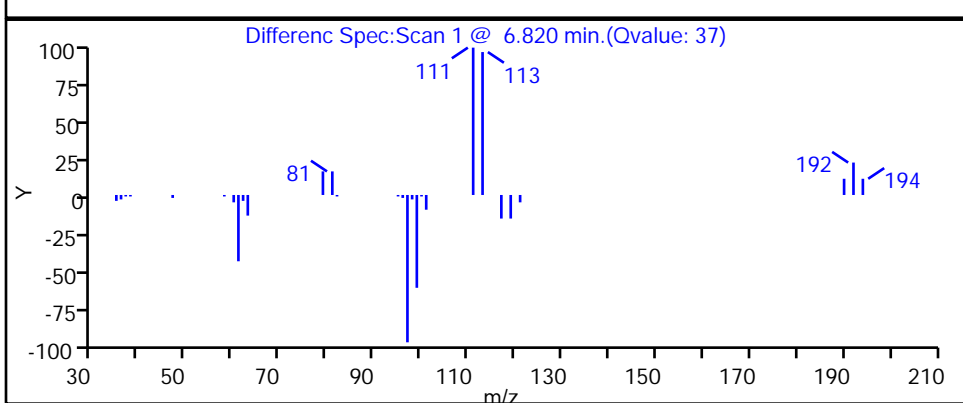
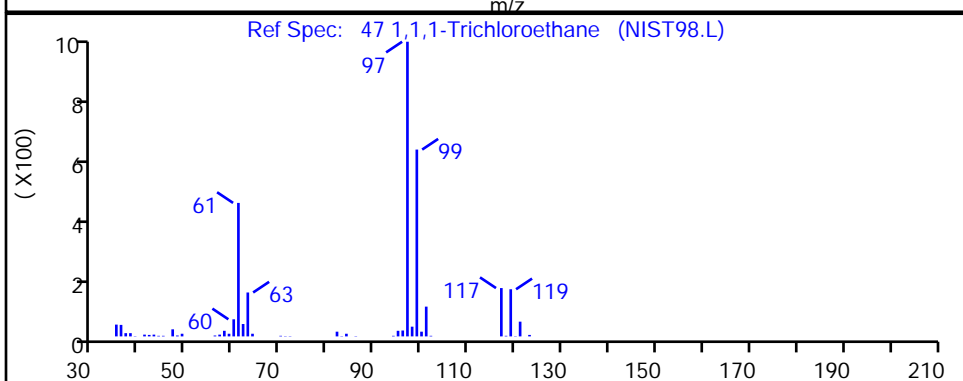
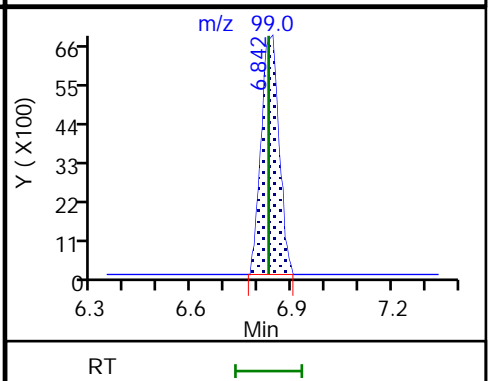
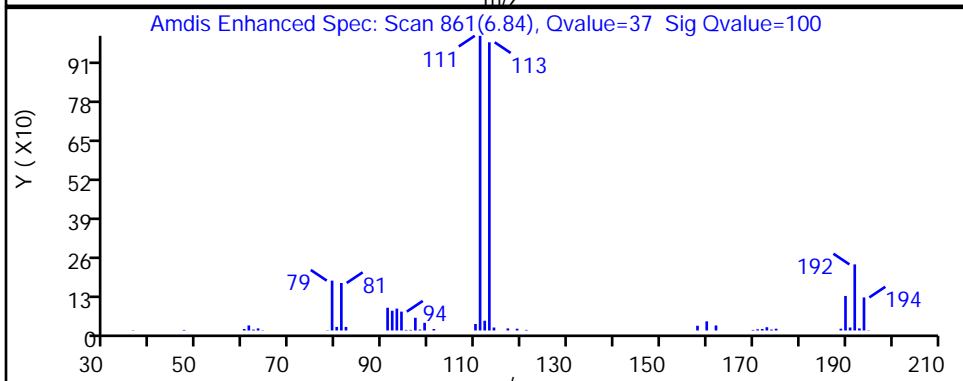
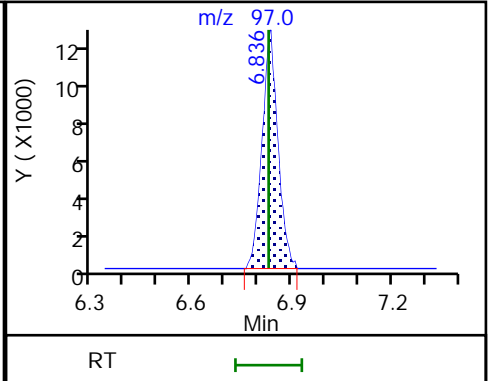
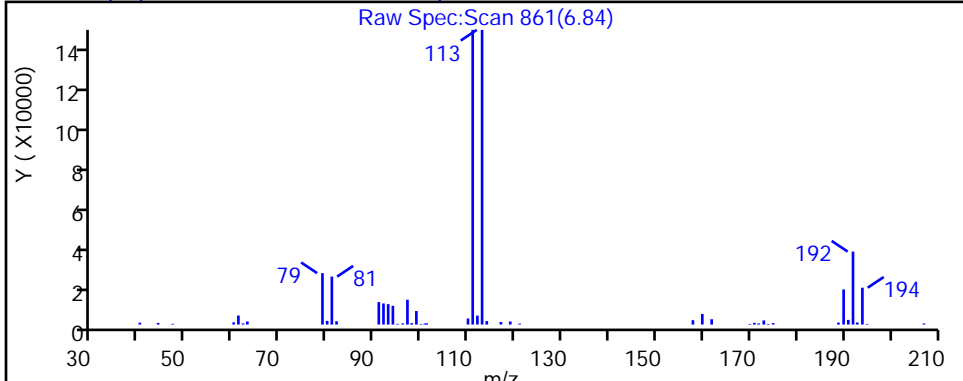
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

47 1,1,1-Trichloroethane, CAS: 71-55-6



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X13.D

Injection Date: 02-May-2022 13:38:30

Instrument ID: 19930

Lims ID: 410-81767-A-6

Lab Sample ID: 410-81767-6

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

Operator ID: KNK41612

ALS Bottle#: 13

Worklist Smp#: 14

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

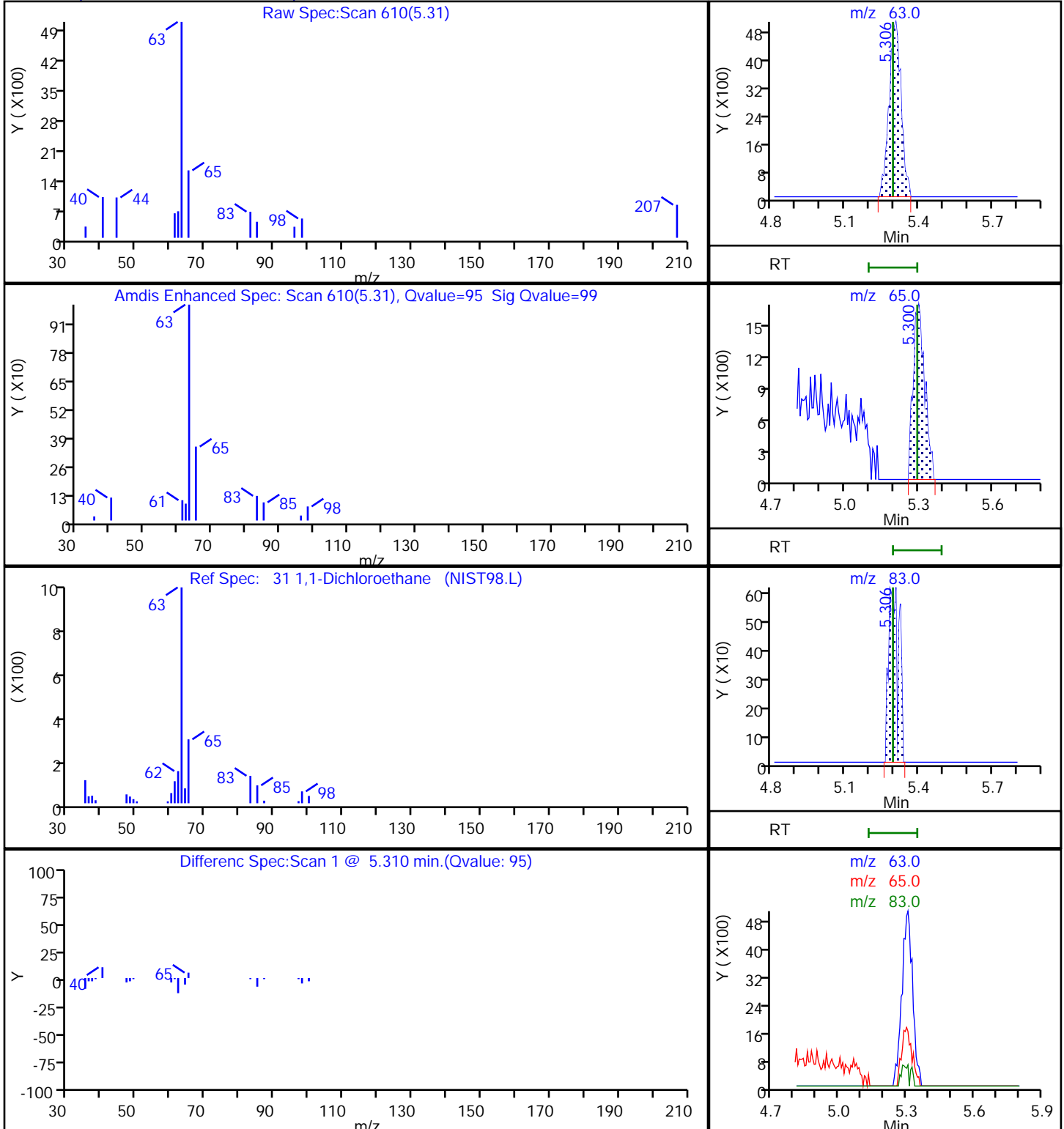
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

31 1,1-Dichloroethane, CAS: 75-34-3



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X13.D

Injection Date: 02-May-2022 13:38:30

Instrument ID: 19930

Lims ID: 410-81767-A-6

Lab Sample ID: 410-81767-6

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

Operator ID: KNK41612

ALS Bottle#: 13

Worklist Smp#: 14

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

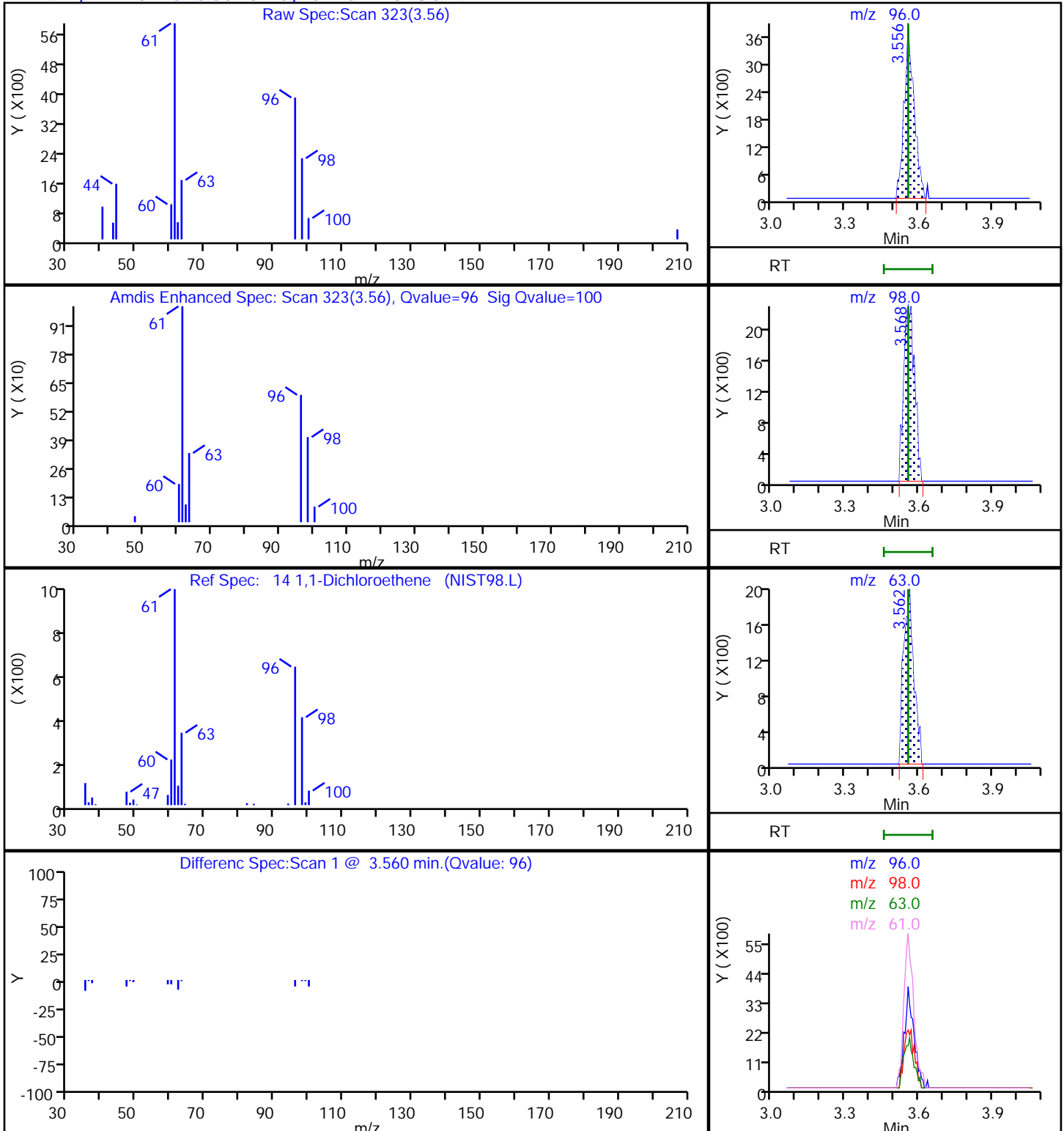
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

14 1,1-Dichloroethene, CAS: 75-35-4



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X13.D

Injection Date: 02-May-2022 13:38:30

Instrument ID: 19930

Lims ID: 410-81767-A-6

Lab Sample ID: 410-81767-6

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

Operator ID: KNK41612

ALS Bottle#: 13

Worklist Smp#: 14

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

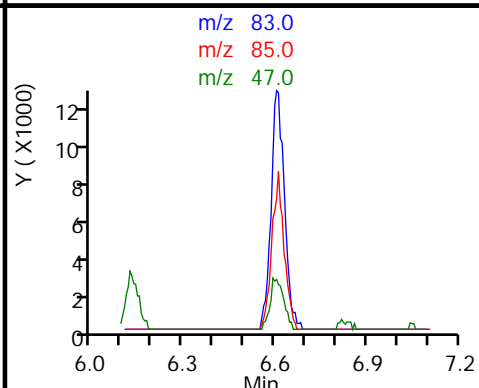
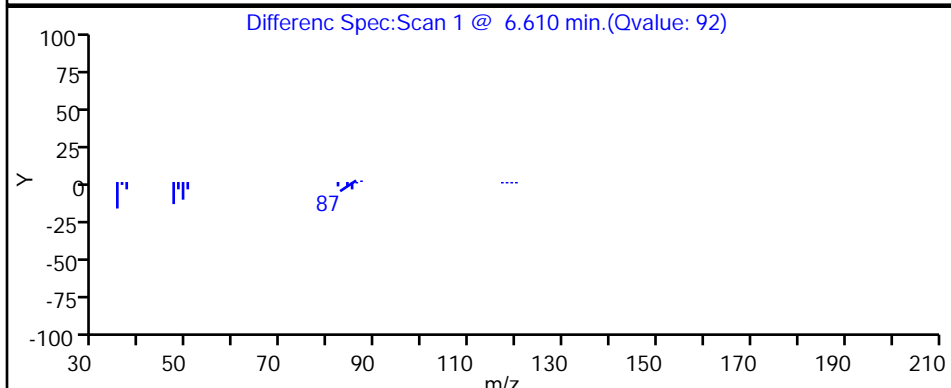
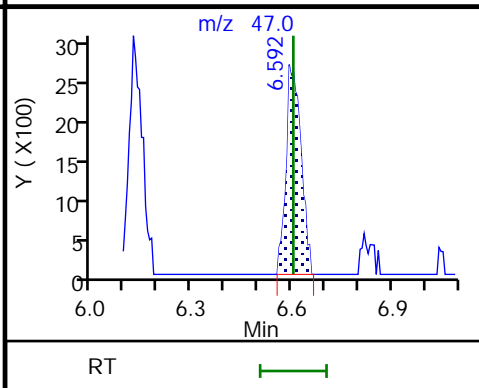
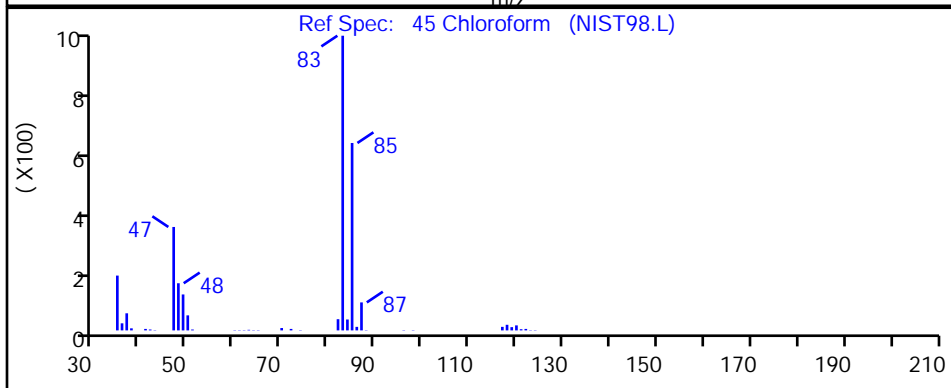
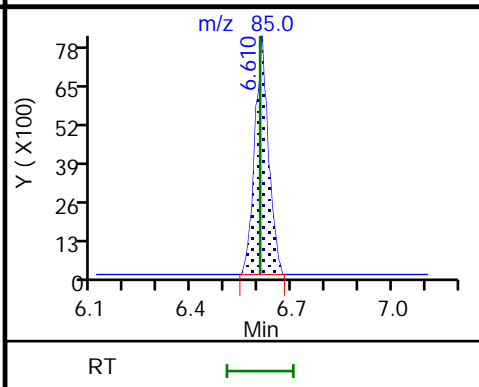
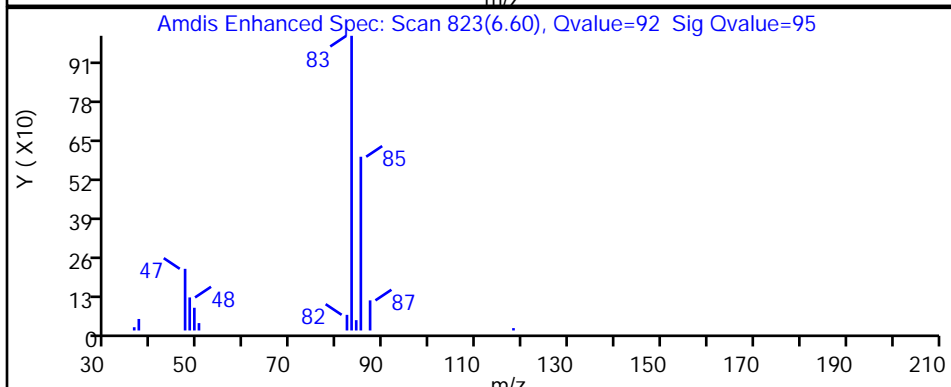
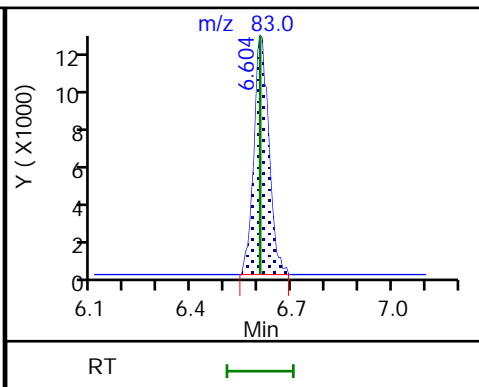
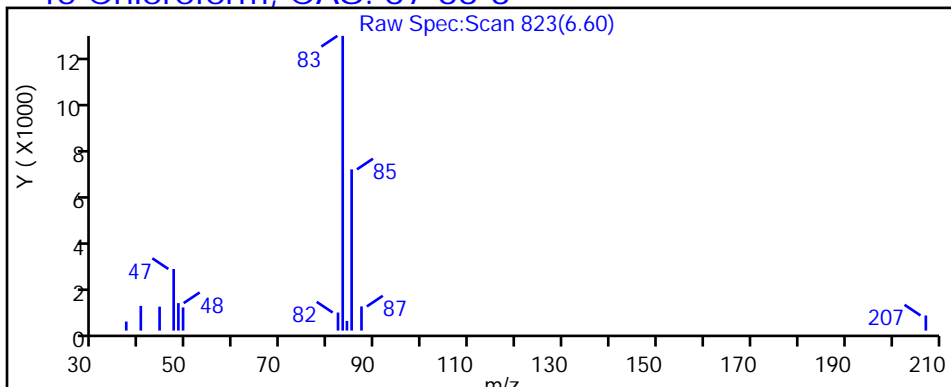
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

45 Chloroform, CAS: 67-66-3



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X13.D

Injection Date: 02-May-2022 13:38:30

Instrument ID: 19930

Lims ID: 410-81767-A-6

Lab Sample ID: 410-81767-6

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

Operator ID: KNK41612

ALS Bottle#: 13

Worklist Smp#: 14

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

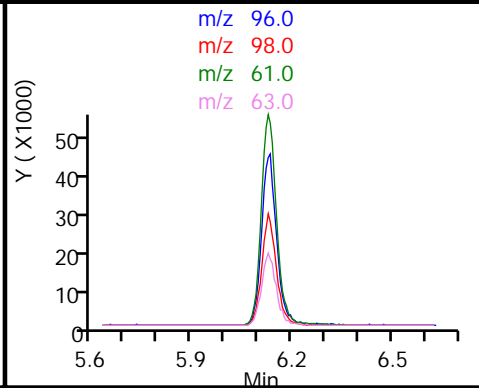
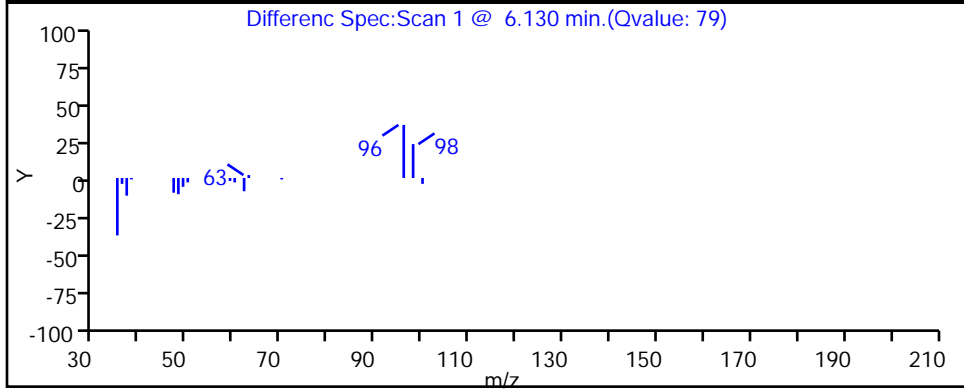
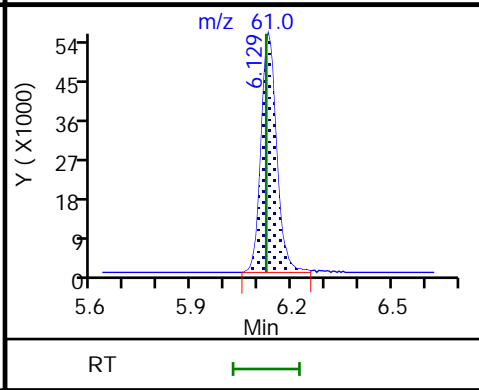
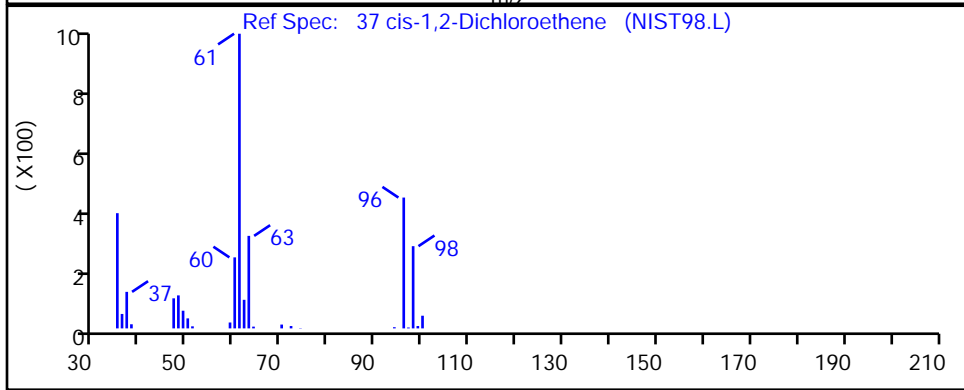
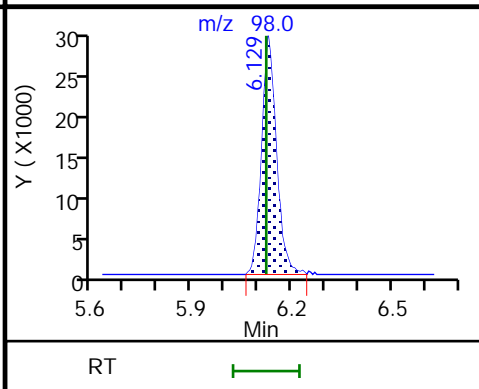
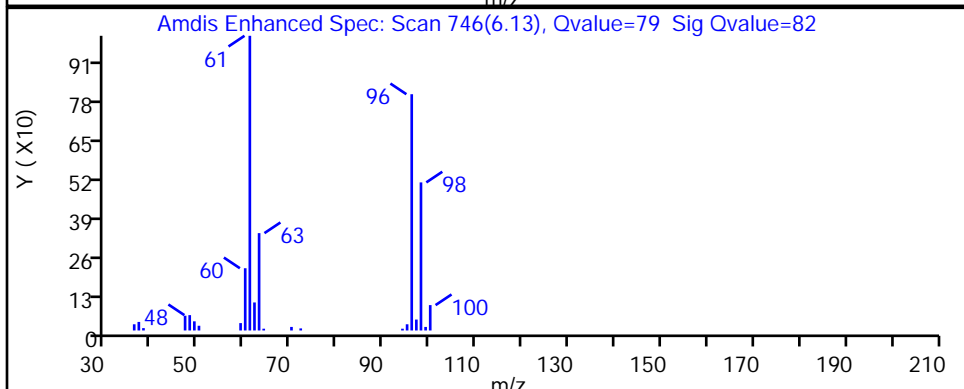
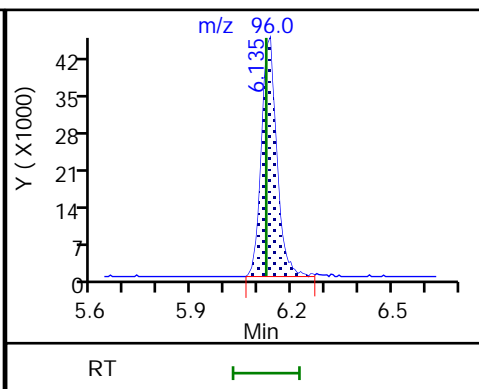
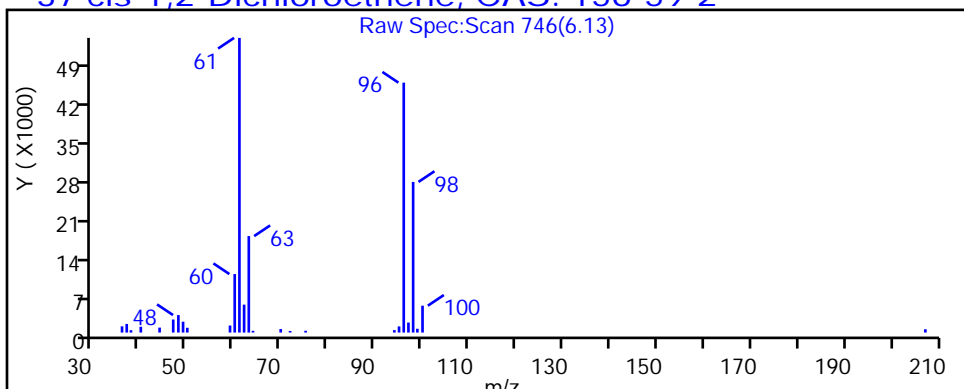
Method: 8260 25ml HP31

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



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X13.D

Injection Date: 02-May-2022 13:38:30

Instrument ID: 19930

Lims ID: 410-81767-A-6

Lab Sample ID: 410-81767-6

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

Operator ID: KNK41612

ALS Bottle#: 13

Worklist Smp#: 14

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

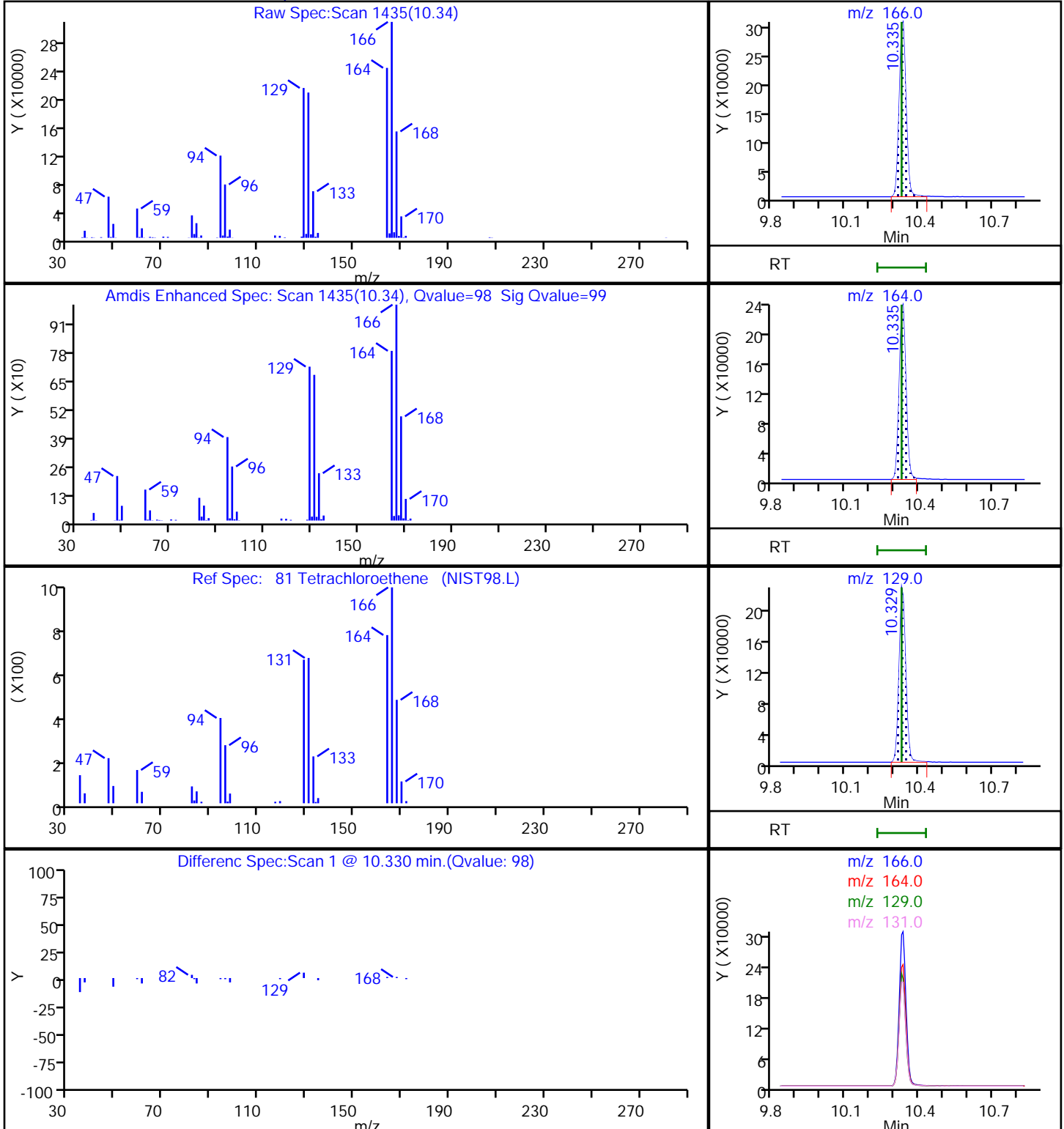
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

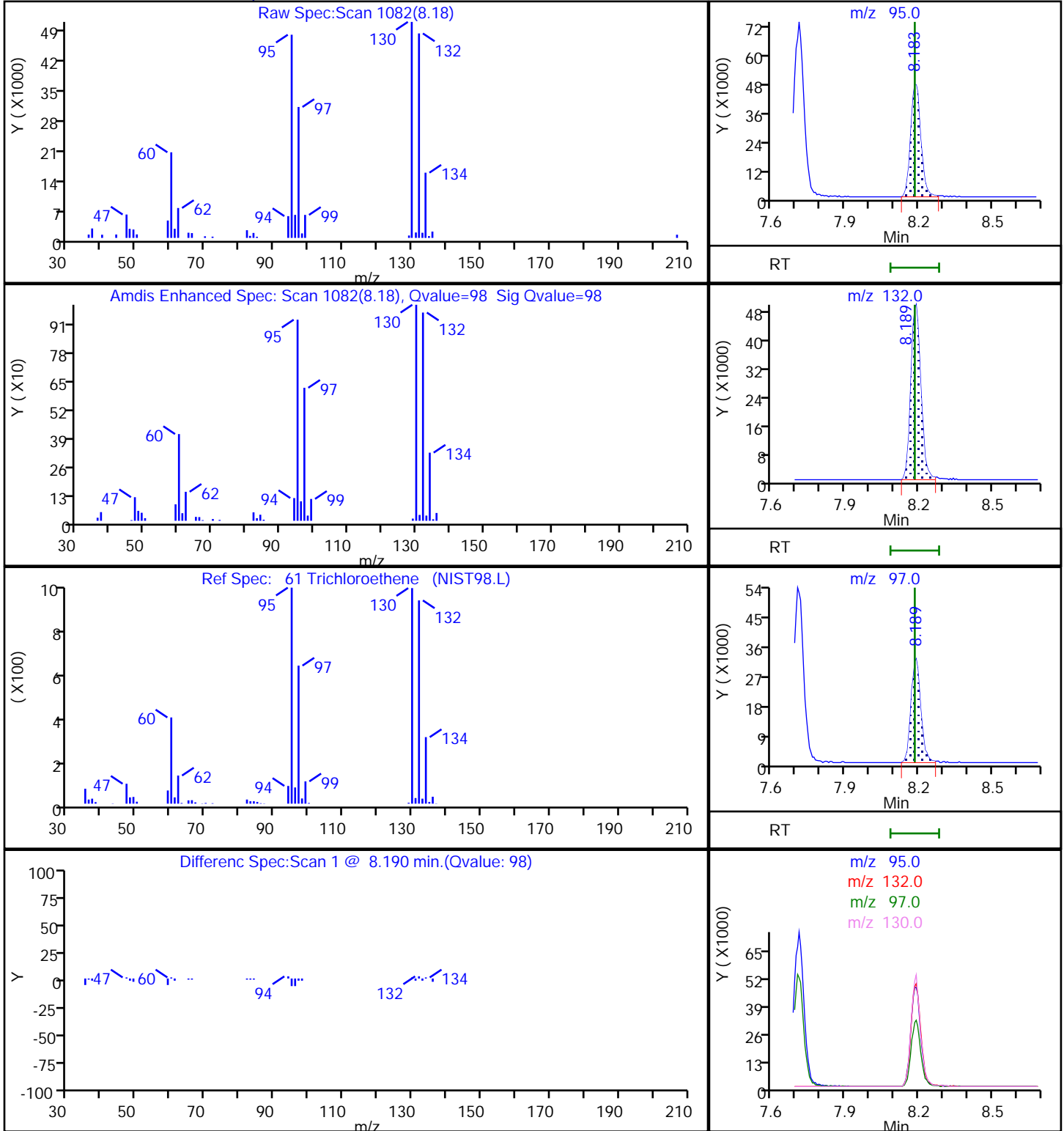
MS Quad

81 Tetrachloroethene, CAS: 127-18-4



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X13.D
Injection Date: 02-May-2022 13:38:30 Instrument ID: 19930
Lims ID: 410-81767-A-6 Lab Sample ID: 410-81767-6
Client ID: HD-COD-SW-15-0/1-0
Operator ID: KNK41612 ALS Bottle#: 13 Worklist Smp#: 14
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) MS Quad

61 Trichloroethene, CAS: 79-01-6

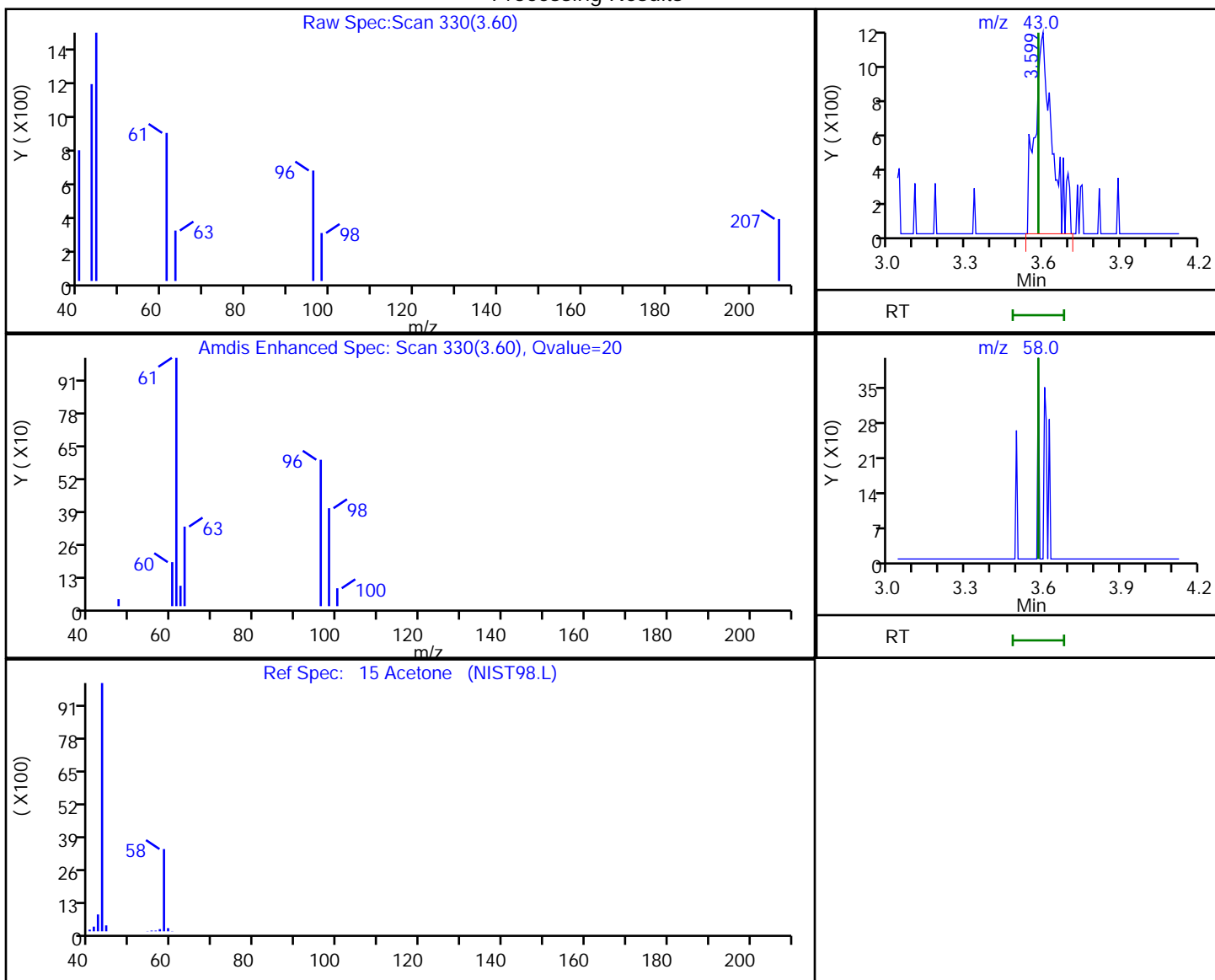


Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfms\Lancaster\ChromData\19930\20220502-56183.b\IM02X13.D
 Injection Date: 02-May-2022 13:38:30 Instrument ID: 19930
 Lims ID: 410-81767-A-6 Lab Sample ID: 410-81767-6
 Client ID: HD-COD-SW-15-0/1-0
 Operator ID: KNK41612 ALS Bottle#: 13 Worklist Smp#: 14
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
 Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

15 Acetone, CAS: 67-64-1

Processing Results



RT	Mass	Response	Amount
3.60	43.00	5303	0.575764
3.58	58.00	0	

Reviewer: kaewrungrueangp, 03-May-2022 10:38:58

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-16-0/1-0 Lab Sample ID: 410-81767-7
 Matrix: Water Lab File ID: IM02X16.D
 Analysis Method: 8260D Date Collected: 04/26/2022 10:00
 Sample wt/vol: 25 (mL) Date Analyzed: 05/02/2022 14:41
 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.: 250524 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	1.4	J	5.0	0.90
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	^c cn	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	^c cn	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	0.097	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	0.76		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
79-01-6	Trichloroethene	0.11	J	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-16-0/1-0 Lab Sample ID: 410-81767-7
 Matrix: Water Lab File ID: IM02X16.D
 Analysis Method: 8260D Date Collected: 04/26/2022 10:00
 Sample wt/vol: 25 (mL) Date Analyzed: 05/02/2022 14:41
 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.: 250524 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
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)	106		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	95		80-120
2037-26-5	Toluene-d8 (Surr)	106		80-120

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X16.D
 Lims ID: 410-81767-A-7
 Client ID: HD-COD-SW-16-0/1-0
 Sample Type: Client
 Inject. Date: 02-May-2022 14:41:30 ALS Bottle#: 16 Worklist Smp#: 17
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0056183-017
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 03-May-2022 10:44:37 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1607

First Level Reviewer: kaewrungrueangp

Date:

03-May-2022 10:45:55

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50	2.154	2.166	-0.012	95	3563	0.0378	
5 Vinyl chloride	62		2.282				ND	
7 Bromomethane	94		2.617				ND	
8 Chloroethane	64		2.696				ND	
14 1,1-Dichloroethene	96		3.556				ND	7
15 Acetone	43	3.580	3.580	0.000	94	14672	1.43	
19 Carbon disulfide	76	3.861	3.861	0.000	97	8059	0.0558	
23 Methylene Chloride	84		4.221				ND	7
* 24 t-Butyl alcohol-d10 (IS)	65	4.220	4.227	-0.007	28	189083	50.0	
27 Methyl tert-butyl ether	73		4.623				ND	
28 trans-1,2-Dichloroethene	96		4.641				ND	
31 1,1-Dichloroethane	63		5.294				ND	
36 2-Butanone (MEK)	43		6.086				ND	7
37 cis-1,2-Dichloroethene	96	6.129	6.123	0.006	80	8121	0.0974	
43 Chlorobromomethane	128		6.458				ND	
45 Chloroform	83	6.598	6.604	-0.006	92	3703	0.0275	
\$ 46 Dibromofluoromethane (Surr)	113	6.817	6.818	-0.001	94	627906	9.45	
47 1,1,1-Trichloroethane	97	6.830	6.830	0.000	51	7243	0.0555	
50 Carbon tetrachloride	117		7.043				ND	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.269	7.263	0.006	68	125109	10.6	
54 Benzene	78		7.299				ND	7
56 1,2-Dichloroethane	62		7.372				ND	
* 58 Fluorobenzene (IS)	96	7.701	7.702	-0.001	99	2453735	10.0	
61 Trichloroethene	95	8.183	8.183	0.000	95	8838	0.1064	
63 1,2-Dichloropropane	63		8.512				ND	
68 Dichlorobromomethane	83		8.854				ND	
73 cis-1,3-Dichloropropene	75		9.396				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	7
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	94	2414351	10.6	
76 Toluene	92	9.780	9.780	0.000	97	11175	0.0634	
78 trans-1,3-Dichloropropene	75		10.036				ND	
80 1,1,2-Trichloroethane	97		10.238				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.335	10.329	0.006	97	76906	0.7582	
83 2-Hexanone	43		10.451				ND	
85 Chlorodibromomethane	129		10.616				ND	
86 Ethylene Dibromide	107		10.731				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	86	1869681	10.0	
90 Chlorobenzene	112		11.183				ND	7
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.262				ND	
92 Ethylbenzene	91		11.268				ND	7
93 m-Xylene & p-Xylene	106		11.384				ND	7
94 o-Xylene	106		11.713				ND	7
95 Styrene	104		11.725				ND	
96 Bromoform	173		11.884				ND	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	94	855591	9.70	
101 1,1,2,2-Tetrachloroethane	83		12.256				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	95	1027282	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_LLcentISS_00004

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X16.D

Injection Date: 02-May-2022 14:41:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: 410-81767-A-7

Lab Sample ID: 410-81767-7

Worklist Smp#: 17

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

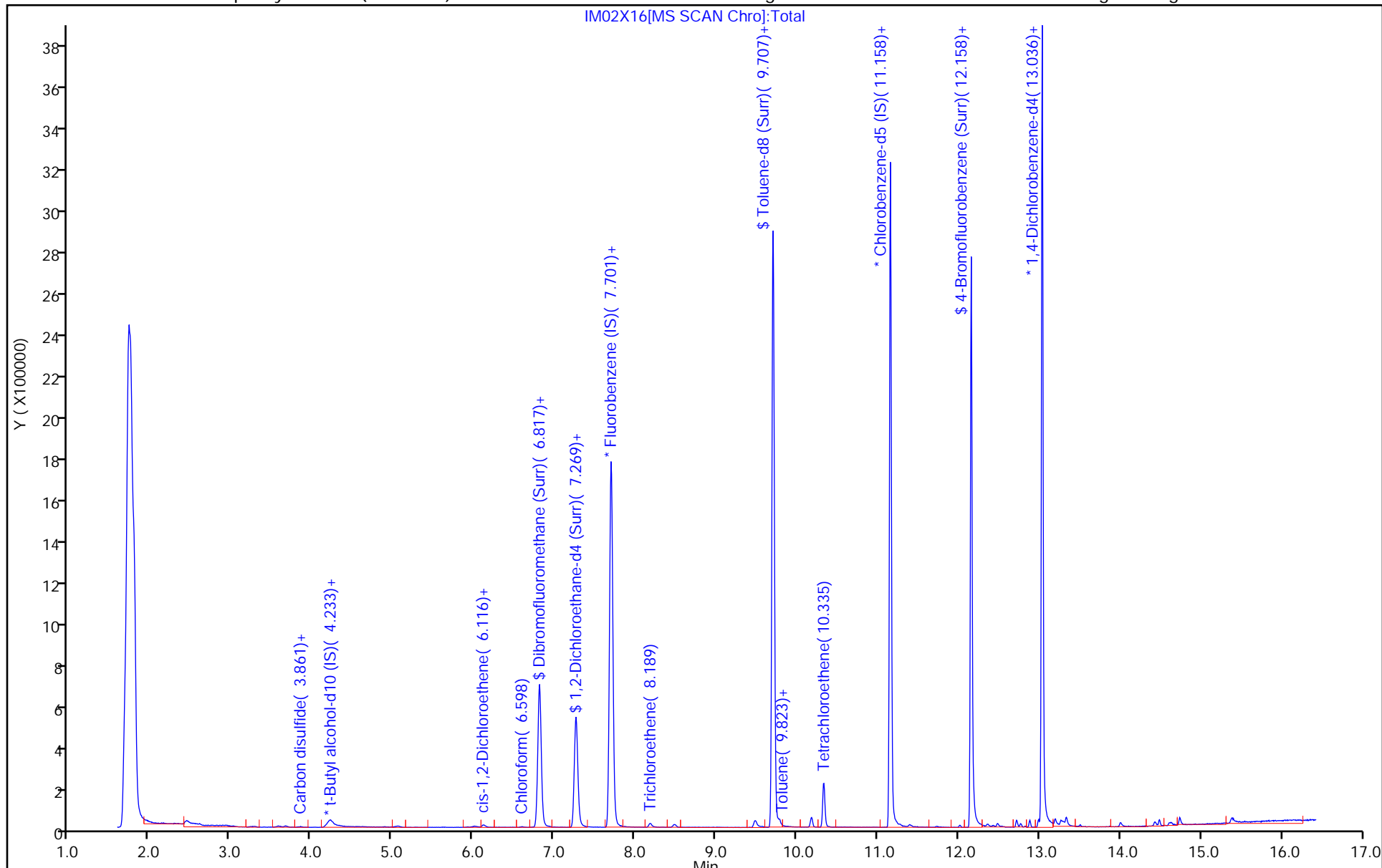
ALS Bottle#: 16

Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Environment Testing, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X16.D
 Lims ID: 410-81767-A-7
 Client ID: HD-COD-SW-16-0/1-0
 Sample Type: Client
 Inject. Date: 02-May-2022 14:41:30 ALS Bottle#: 16 Worklist Smp#: 17
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0056183-017
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 03-May-2022 10:44:37 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1607

First Level Reviewer: kaewrungrueangp Date: 03-May-2022 10:45:55

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.45	94.53
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.6	105.74
\$ 75 Toluene-d8 (Surr)	10.0	10.6	106.11
\$ 100 4-Bromofluorobenzene (Surr)	10.0	9.70	96.96

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X16.D

Injection Date: 02-May-2022 14:41:30

Instrument ID: 19930

Lims ID: 410-81767-A-7

Lab Sample ID: 410-81767-7

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

Operator ID: KNK41612

ALS Bottle#: 16

Worklist Smp#: 17

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

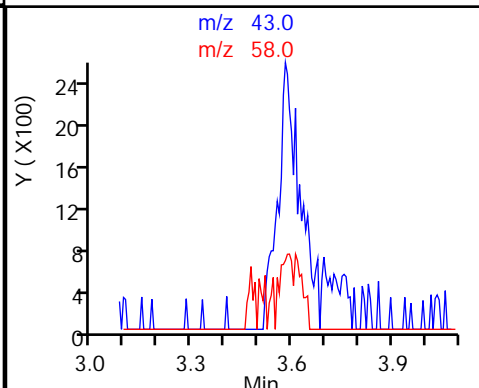
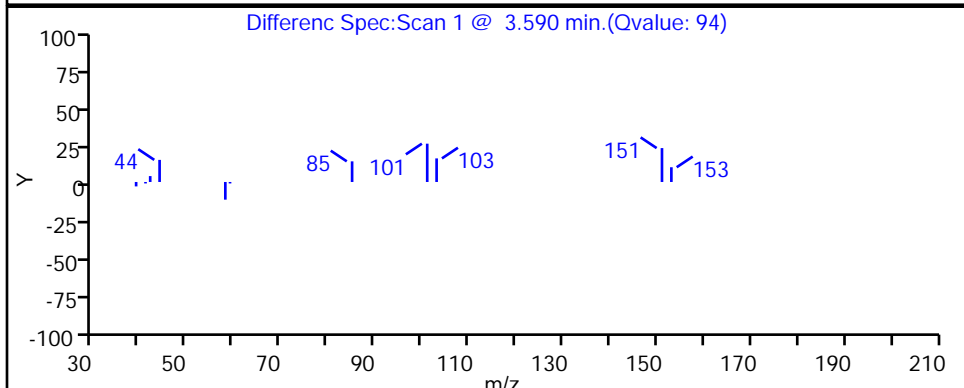
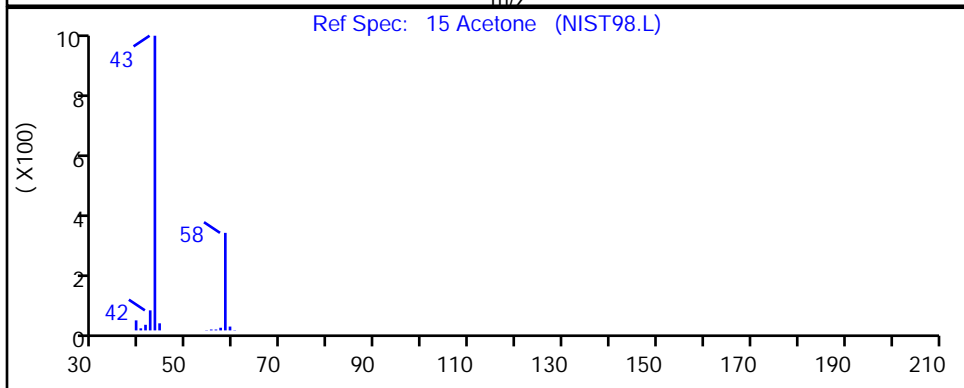
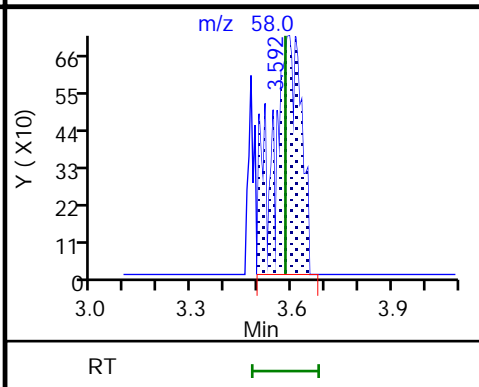
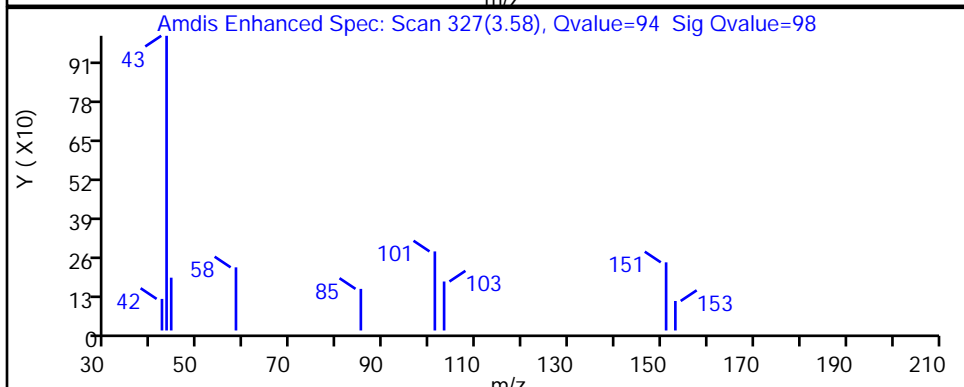
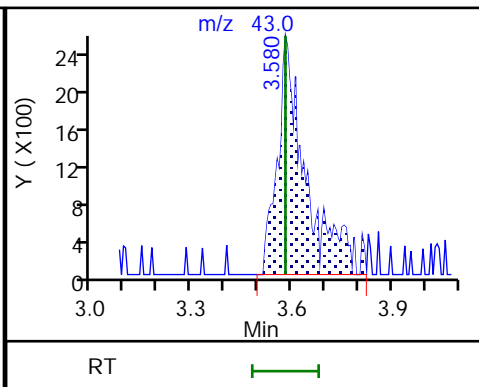
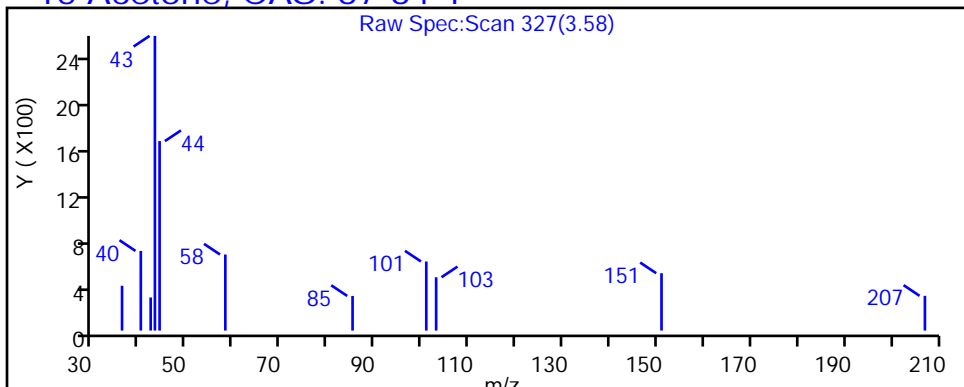
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

15 Acetone, CAS: 67-64-1



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X16.D

Injection Date: 02-May-2022 14:41:30

Instrument ID: 19930

Lims ID: 410-81767-A-7

Lab Sample ID: 410-81767-7

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

Operator ID: KNK41612

ALS Bottle#: 16

Worklist Smp#: 17

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

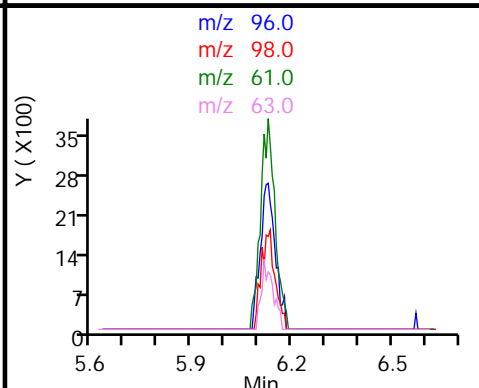
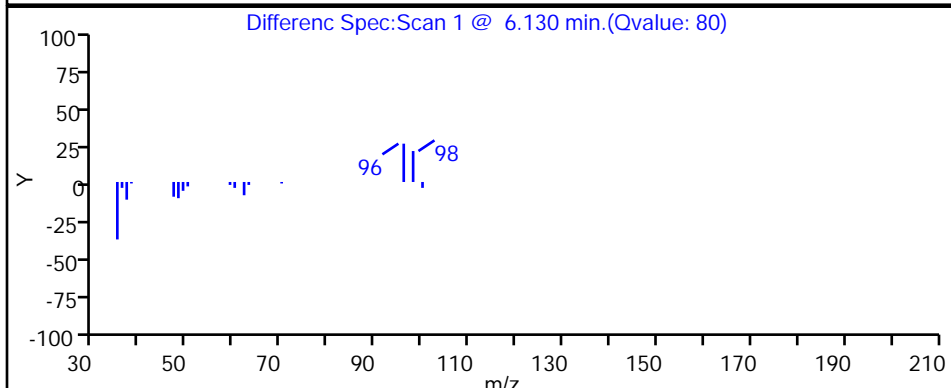
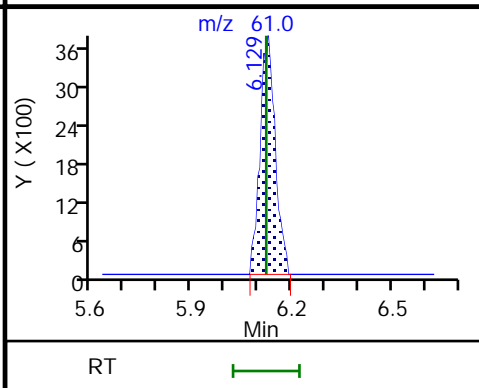
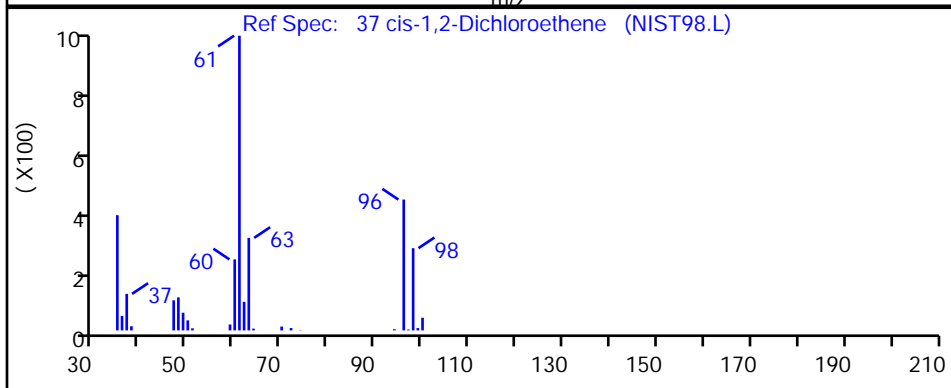
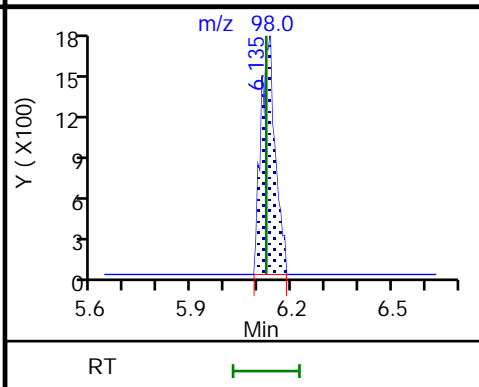
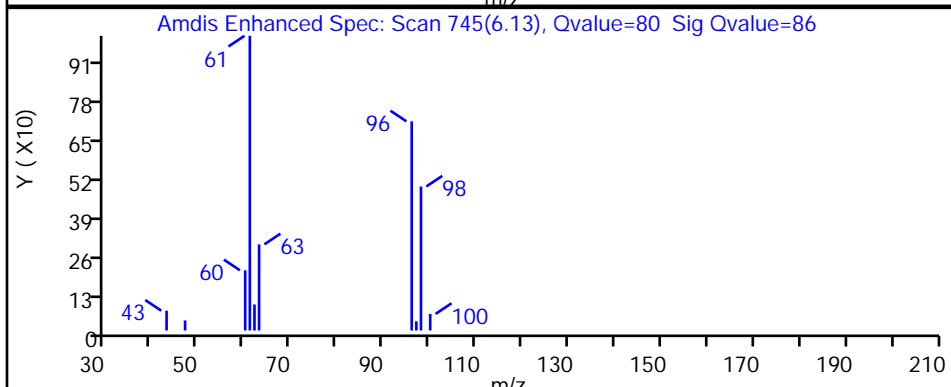
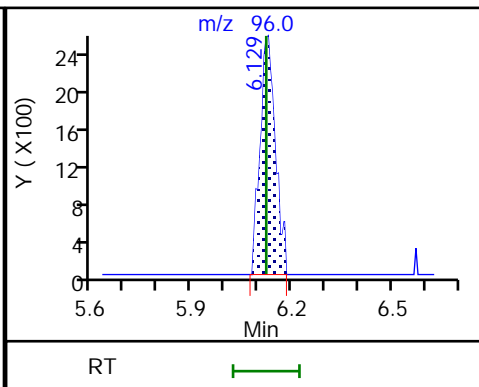
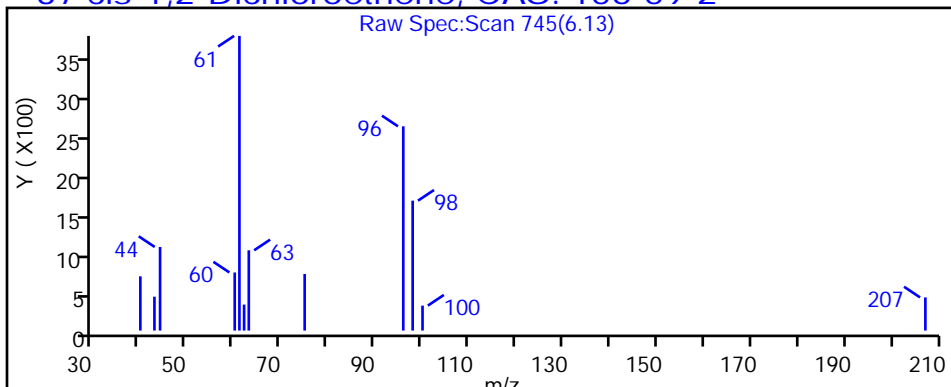
Method: 8260 25ml HP31

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



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X16.D

Injection Date: 02-May-2022 14:41:30

Instrument ID: 19930

Lims ID: 410-81767-A-7

Lab Sample ID: 410-81767-7

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

Operator ID: KNK41612

ALS Bottle#: 16

Worklist Smp#: 17

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

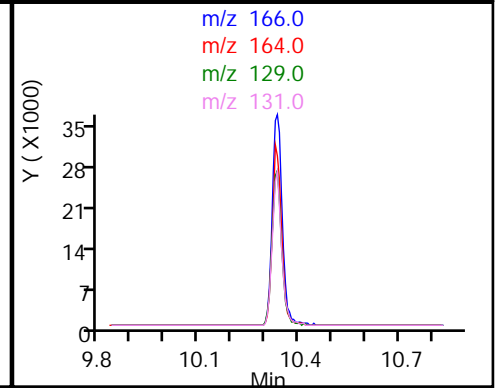
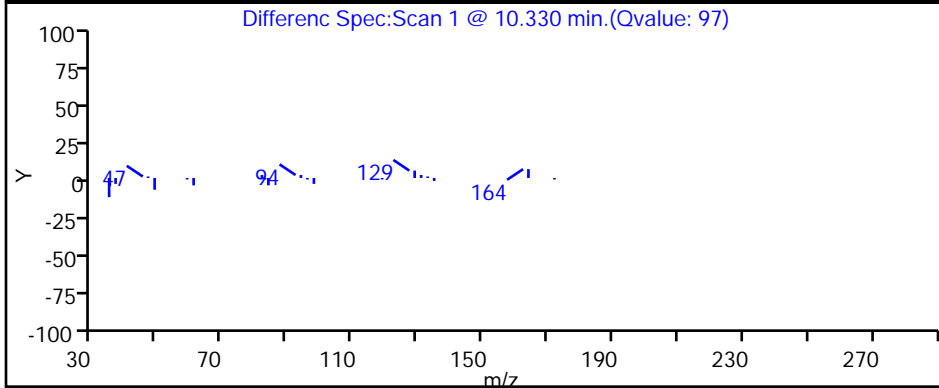
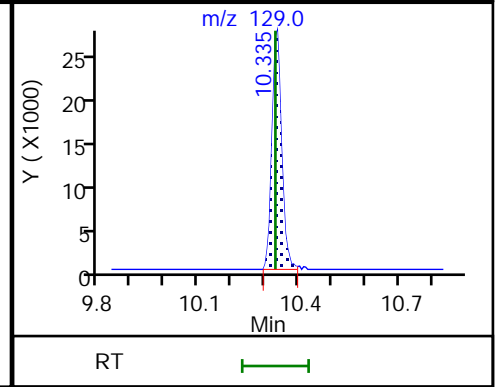
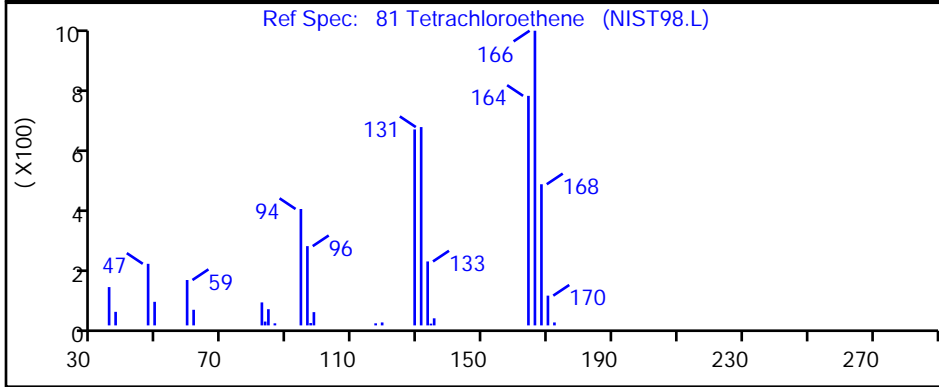
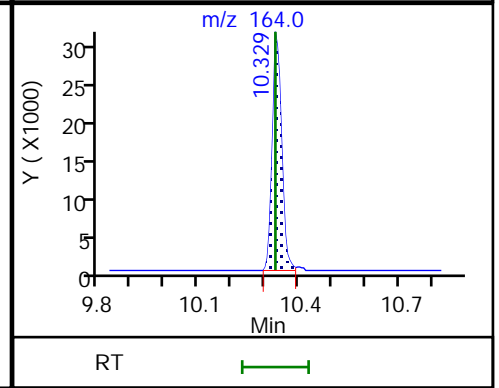
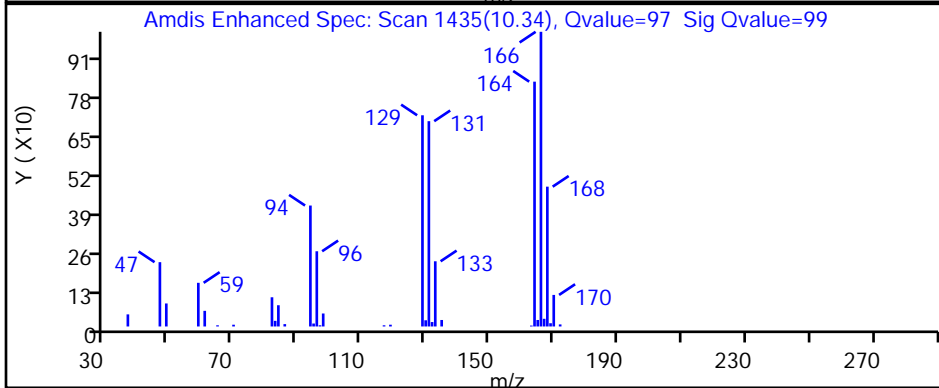
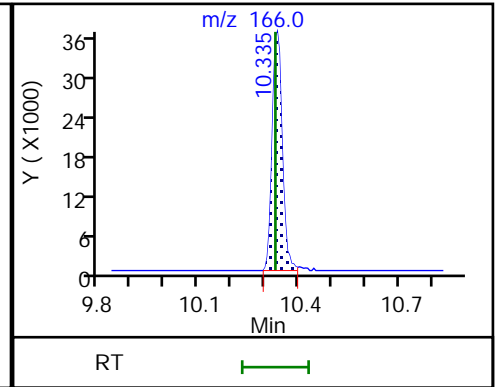
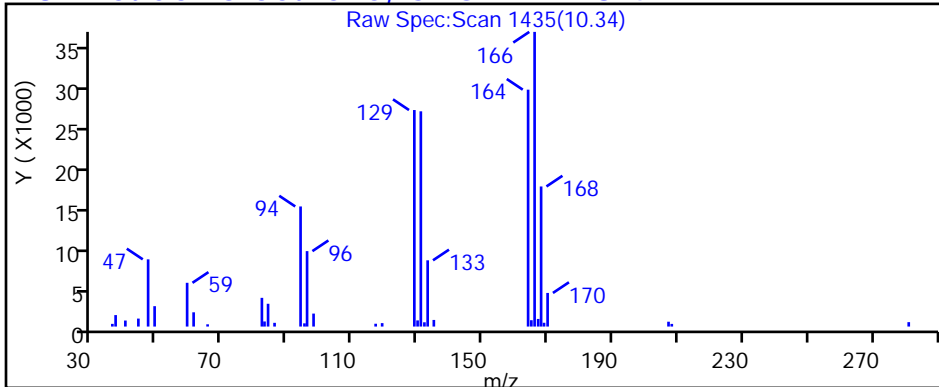
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

81 Tetrachloroethene, CAS: 127-18-4



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X16.D

Injection Date: 02-May-2022 14:41:30

Instrument ID: 19930

Lims ID: 410-81767-A-7

Lab Sample ID: 410-81767-7

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

Operator ID: KNK41612

ALS Bottle#: 16

Worklist Smp#: 17

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

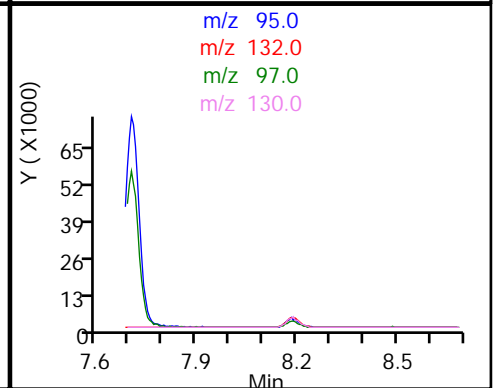
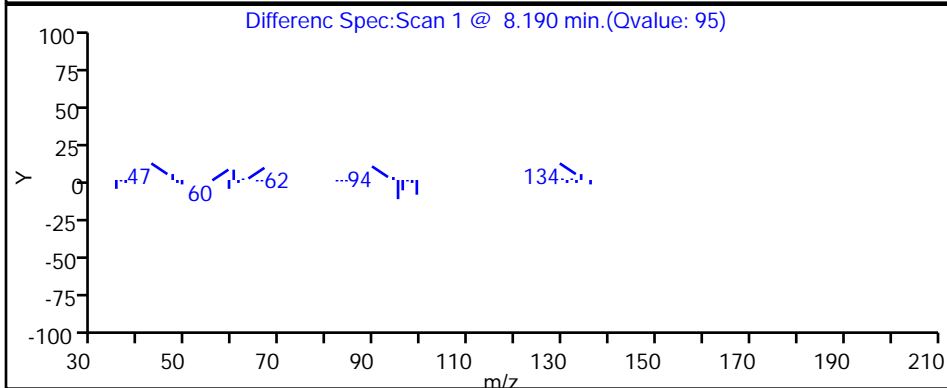
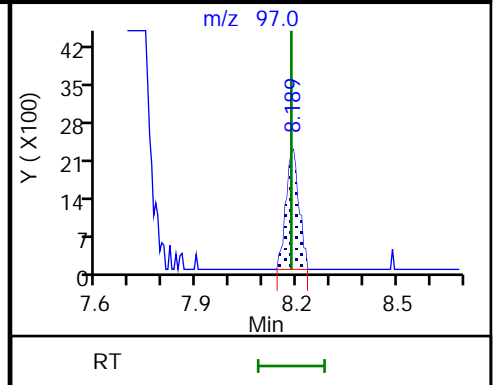
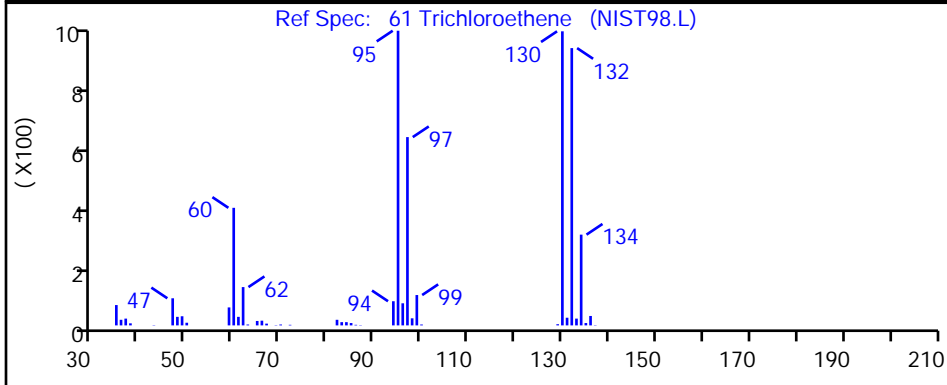
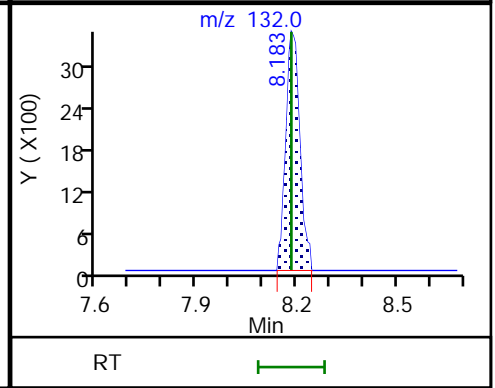
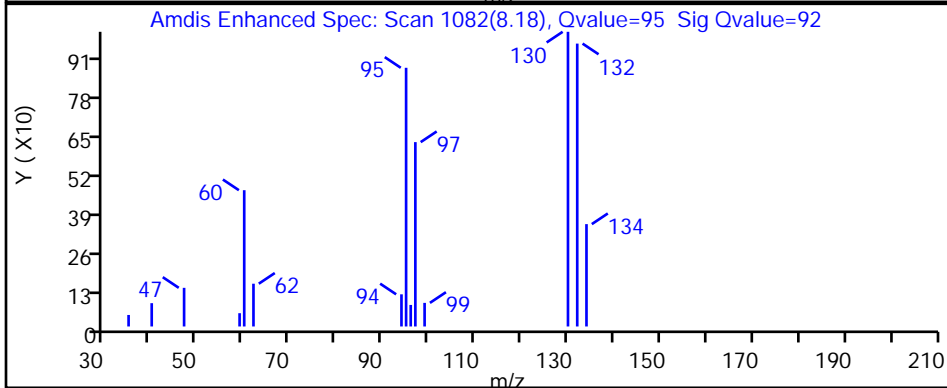
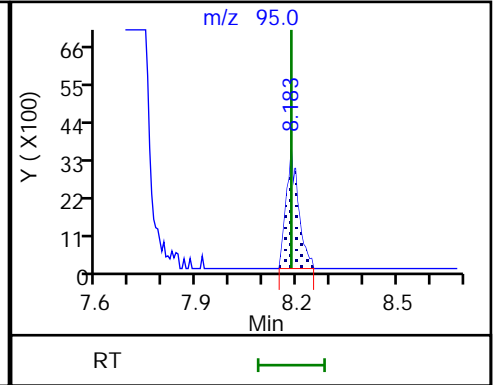
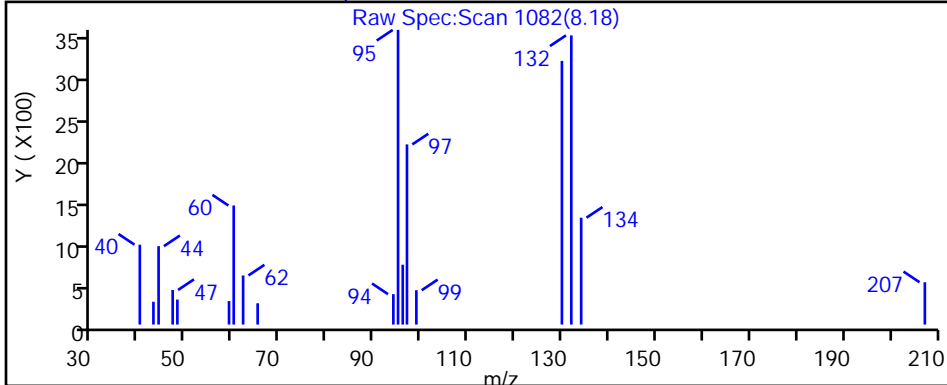
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

61 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-17-0/1-0 Lab Sample ID: 410-81767-8
 Matrix: Water Lab File ID: IM02X17.D
 Analysis Method: 8260D Date Collected: 04/26/2022 10:15
 Sample wt/vol: 25 (mL) Date Analyzed: 05/02/2022 15:02
 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.: 250524 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	6.8		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	1.3		0.50	0.070
75-35-4	1,1-Dichloroethene	0.58		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
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	^c cn	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	^c cn	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	3.9		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
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
79-01-6	Trichloroethene	4.8		0.50	0.060
75-01-4	Vinyl chloride	ND		0.50	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-17-0/1-0 Lab Sample ID: 410-81767-8
 Matrix: Water Lab File ID: IM02X17.D
 Analysis Method: 8260D Date Collected: 04/26/2022 10:15
 Sample wt/vol: 25 (mL) Date Analyzed: 05/02/2022 15:02
 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.: 250524 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
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
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	95		80-120
2037-26-5	Toluene-d8 (Surr)	105		80-120

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X17.D
 Lims ID: 410-81767-A-8
 Client ID: HD-COD-SW-17-0/1-0
 Sample Type: Client
 Inject. Date: 02-May-2022 15:02:30 ALS Bottle#: 17 Worklist Smp#: 18
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0056183-018
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 03-May-2022 10:47:21 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1607

First Level Reviewer: kaewrungrueangp Date: 03-May-2022 10:47:21

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50		2.166				ND	
5 Vinyl chloride	62		2.282				ND	7
7 Bromomethane	94		2.617				ND	
8 Chloroethane	64		2.696				ND	
14 1,1-Dichloroethene	96	3.556	3.556	0.000	97	36455	0.5760	
15 Acetone	43		3.580				ND	7
19 Carbon disulfide	76		3.861				ND	7
23 Methylene Chloride	84		4.221				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.233	4.227	0.006	30	192069	50.0	
27 Methyl tert-butyl ether	73	4.611	4.623	-0.012	58	5867	0.0355	
28 trans-1,2-Dichloroethene	96	4.641	4.641	0.000	96	3267	0.0455	M
31 1,1-Dichloroethane	63	5.299	5.294	0.005	97	159275	1.30	
36 2-Butanone (MEK)	43		6.086				ND	
37 cis-1,2-Dichloroethene	96	6.122	6.123	-0.001	79	320222	3.91	
43 Chlorobromomethane	128		6.458				ND	
45 Chloroform	83	6.604	6.604	0.000	93	33522	0.2534	
\$ 46 Dibromofluoromethane (Surr)	113	6.817	6.818	-0.001	94	623000	9.54	
47 1,1,1-Trichloroethane	97	6.830	6.830	0.000	98	869889	6.78	
50 Carbon tetrachloride	117	7.043	7.043	0.000	92	4396	0.0370	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.269	7.263	0.006	68	124150	10.7	
54 Benzene	78		7.299				ND	7
56 1,2-Dichloroethane	62		7.372				ND	
* 58 Fluorobenzene (IS)	96	7.701	7.702	-0.001	99	2412413	10.0	
61 Trichloroethene	95	8.183	8.183	0.000	98	392409	4.80	
63 1,2-Dichloropropane	63		8.512				ND	
68 Dichlorobromomethane	83		8.854				ND	
73 cis-1,3-Dichloropropene	75		9.396				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	94	2368068	10.5	
76 Toluene	92	9.786	9.780	0.006	98	6550	0.0374	
78 trans-1,3-Dichloropropene	75		10.036				ND	
80 1,1,2-Trichloroethane	97	10.238	10.238	0.000	13	1669	0.0348	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.329	10.329	0.000	97	9131451	90.7	E
83 2-Hexanone	43		10.451				ND	
85 Chlorodibromomethane	129		10.616				ND	
86 Ethylene Dibromide	107		10.731				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	86	1855203	10.0	
90 Chlorobenzene	112		11.183				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.262				ND	
92 Ethylbenzene	91		11.268				ND	7
93 m-Xylene & p-Xylene	106		11.384				ND	7
94 o-Xylene	106		11.713				ND	7
95 Styrene	104		11.725				ND	
96 Bromoform	173		11.884				ND	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	94	841051	9.61	
101 1,1,2,2-Tetrachloroethane	83		12.256				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	984552	10.0	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MSV_LLcentISS_00004

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X17.D

Injection Date: 02-May-2022 15:02:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: 410-81767-A-8

Lab Sample ID: 410-81767-8

Worklist Smp#: 18

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

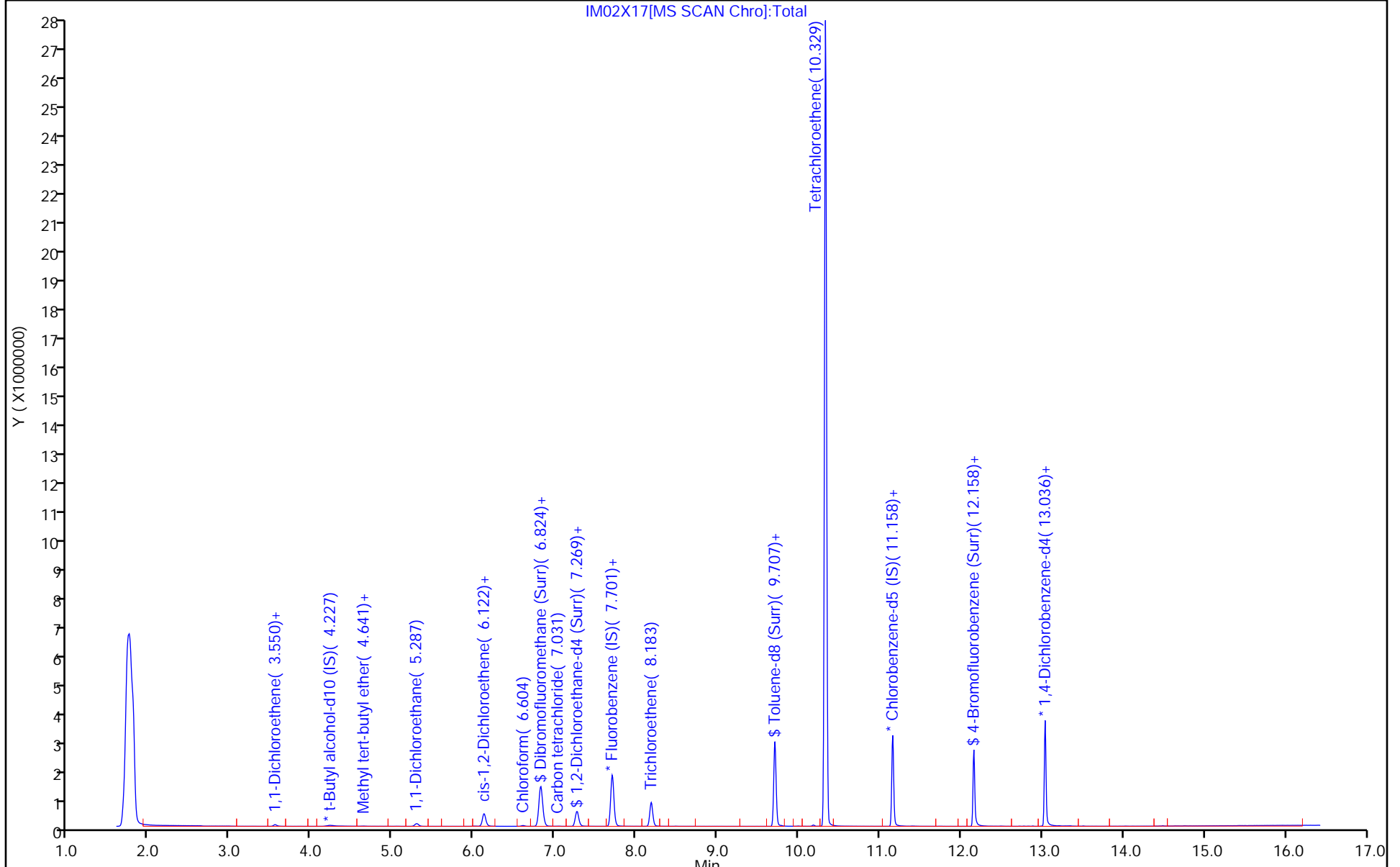
ALS Bottle#: 17

Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Environment Testing, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X17.D
 Lims ID: 410-81767-A-8
 Client ID: HD-COD-SW-17-0/1-0
 Sample Type: Client
 Inject. Date: 02-May-2022 15:02:30 ALS Bottle#: 17 Worklist Smp#: 18
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0056183-018
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 03-May-2022 10:47:21 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1607

First Level Reviewer: kaewrungrueangp

Date: 03-May-2022 10:47:21

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.54	95.40
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.7	106.72
\$ 75 Toluene-d8 (Surr)	10.0	10.5	104.89
\$ 100 4-Bromofluorobenzene (Surr)	10.0	9.61	96.06

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X17.D

Injection Date: 02-May-2022 15:02:30

Instrument ID: 19930

Lims ID: 410-81767-A-8

Lab Sample ID: 410-81767-8

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

Operator ID: KNK41612

ALS Bottle#: 17

Worklist Smp#: 18

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

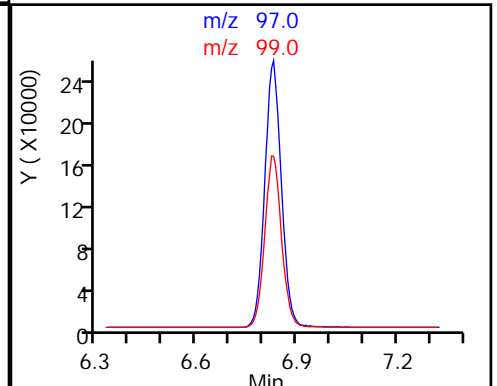
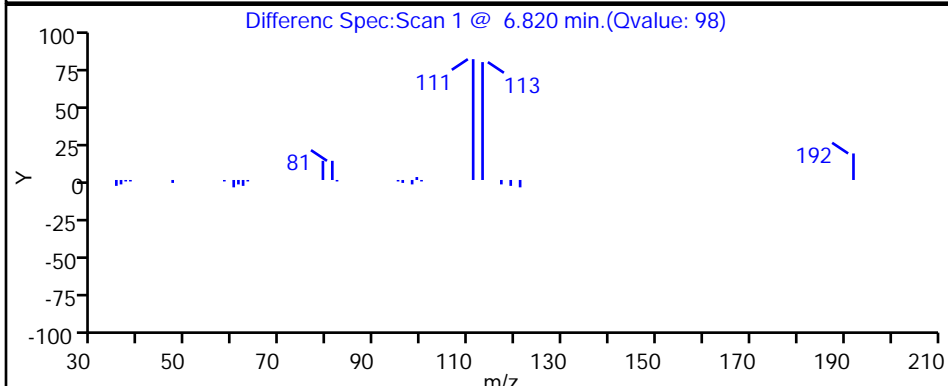
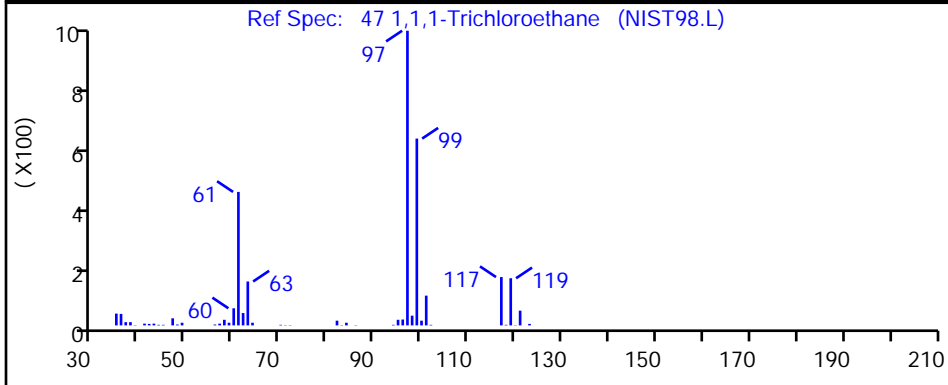
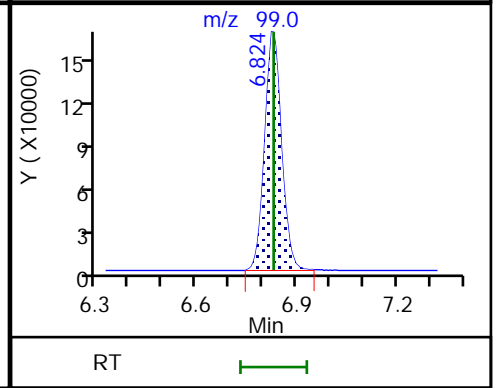
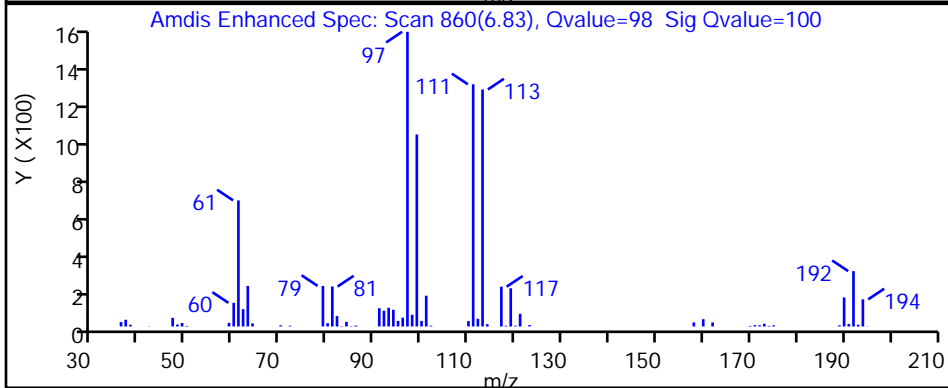
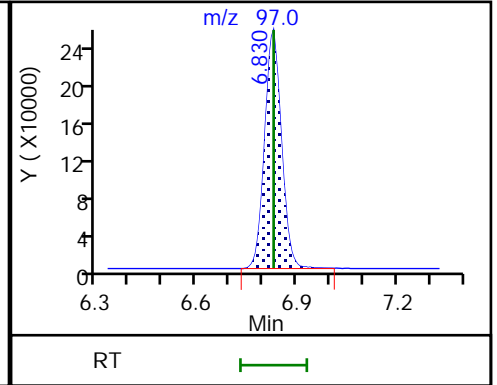
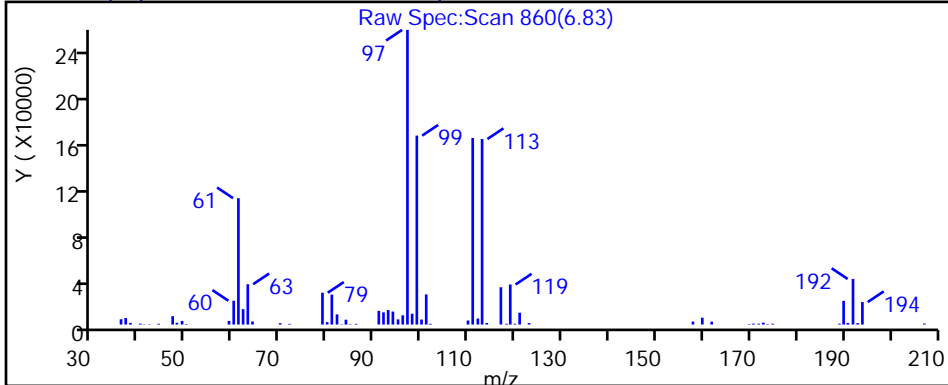
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

47 1,1,1-Trichloroethane, CAS: 71-55-6



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X17.D

Injection Date: 02-May-2022 15:02:30

Instrument ID: 19930

Lims ID: 410-81767-A-8

Lab Sample ID: 410-81767-8

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

Operator ID: KNK41612

ALS Bottle#: 17

Worklist Smp#: 18

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

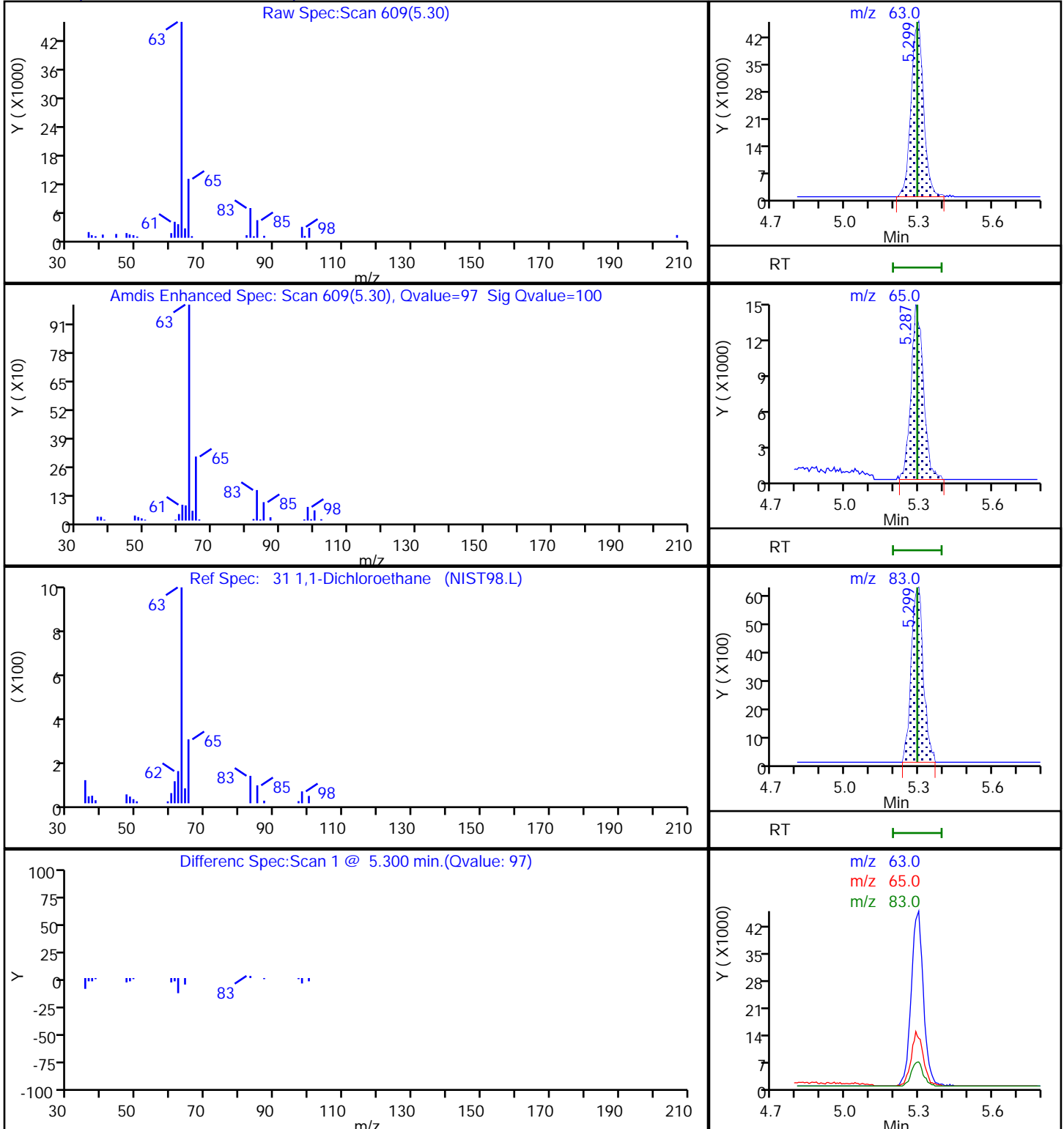
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

31 1,1-Dichloroethane, CAS: 75-34-3



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X17.D

Injection Date: 02-May-2022 15:02:30

Instrument ID: 19930

Lims ID: 410-81767-A-8

Lab Sample ID: 410-81767-8

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

Operator ID: KNK41612

ALS Bottle#: 17

Worklist Smp#: 18

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

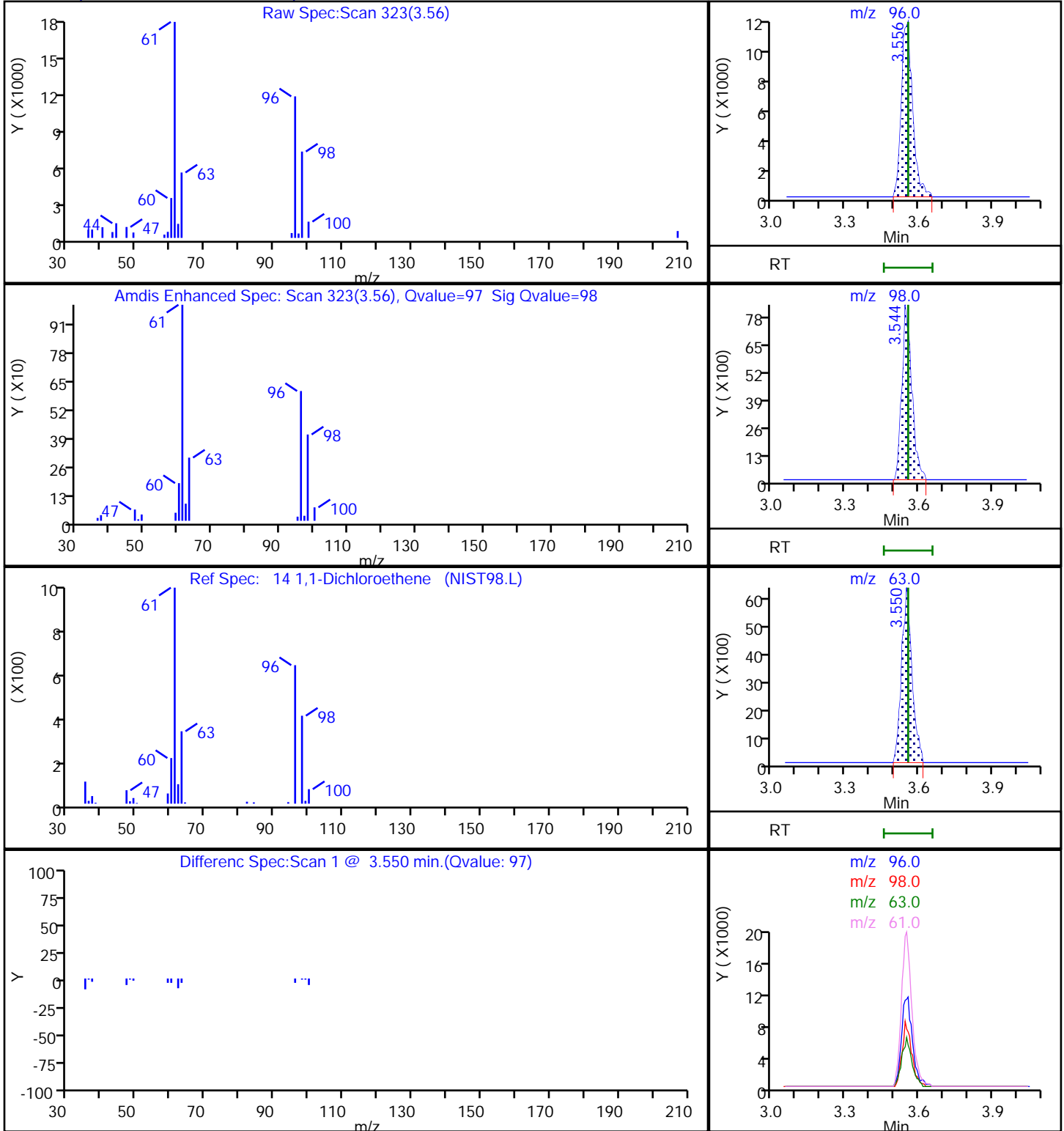
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

14 1,1-Dichloroethene, CAS: 75-35-4



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X17.D

Injection Date: 02-May-2022 15:02:30

Instrument ID: 19930

Lims ID: 410-81767-A-8

Lab Sample ID: 410-81767-8

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

Operator ID: KNK41612

ALS Bottle#: 17

Worklist Smp#: 18

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

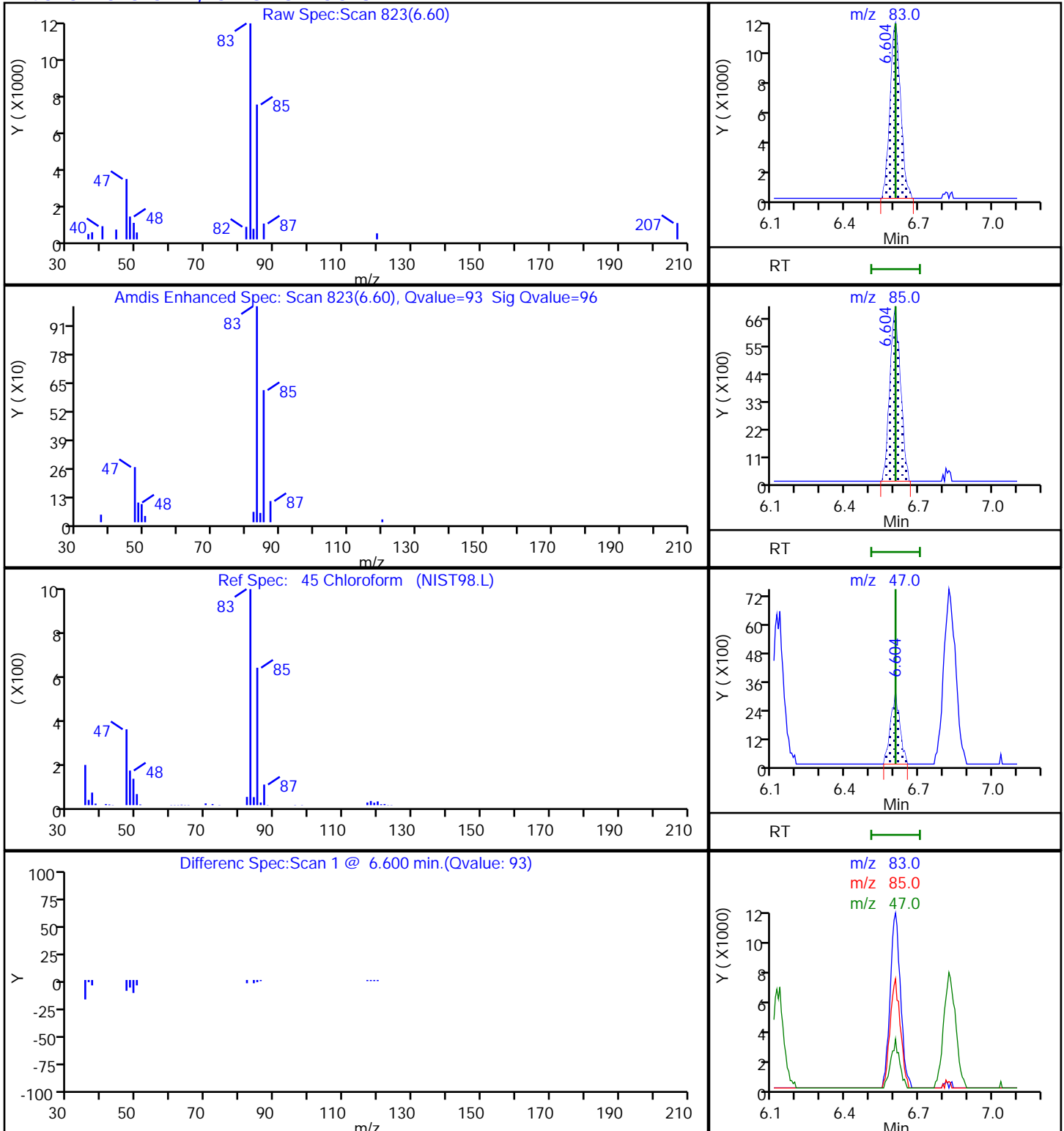
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

45 Chloroform, CAS: 67-66-3



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X17.D

Injection Date: 02-May-2022 15:02:30

Instrument ID: 19930

Lims ID: 410-81767-A-8

Lab Sample ID: 410-81767-8

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

Operator ID: KNK41612

ALS Bottle#: 17

Worklist Smp#: 18

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

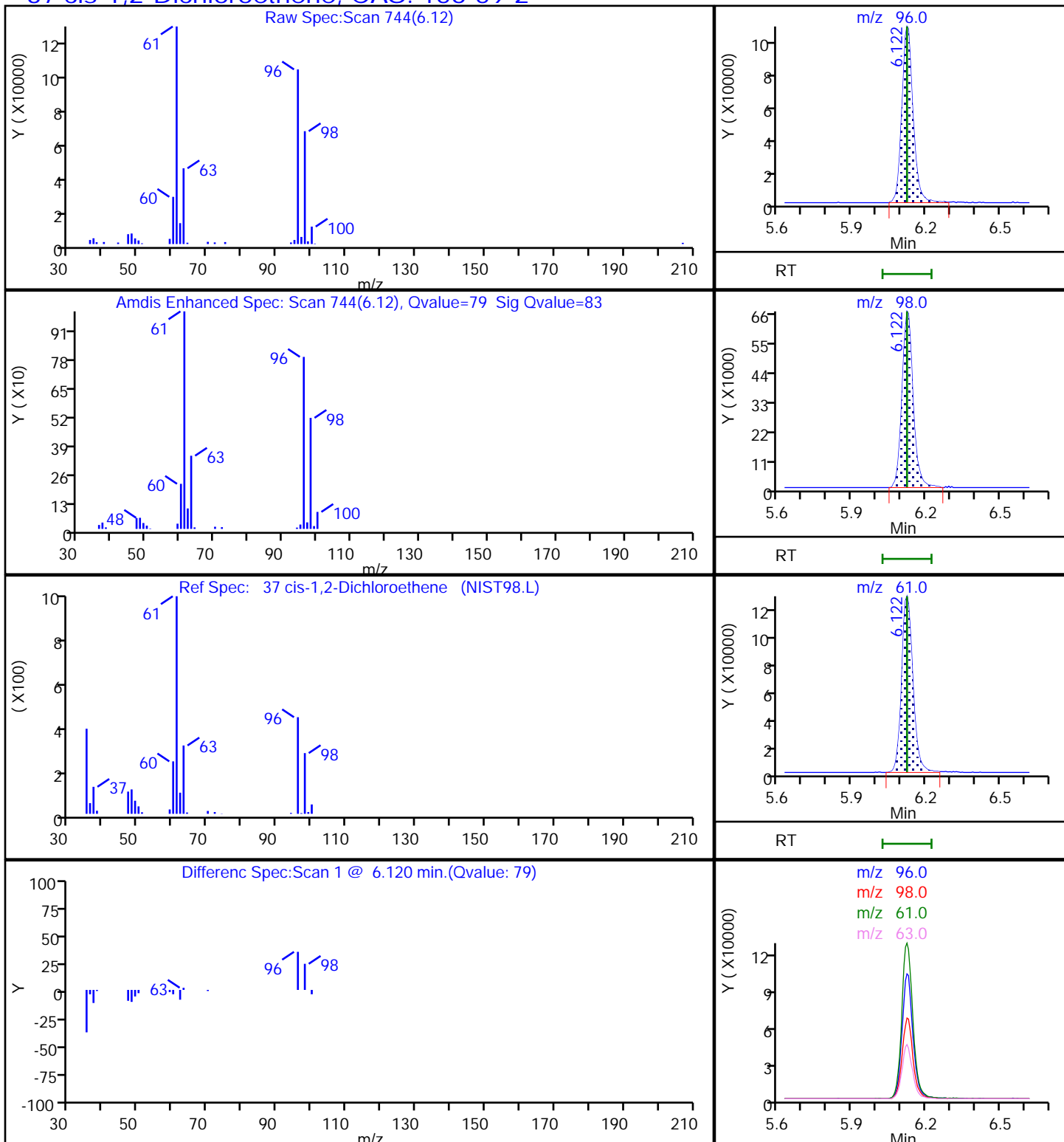
Method: 8260 25ml HP31

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



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X17.D

Injection Date: 02-May-2022 15:02:30

Instrument ID: 19930

Lims ID: 410-81767-A-8

Lab Sample ID: 410-81767-8

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

Operator ID: KNK41612

ALS Bottle#: 17

Worklist Smp#: 18

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

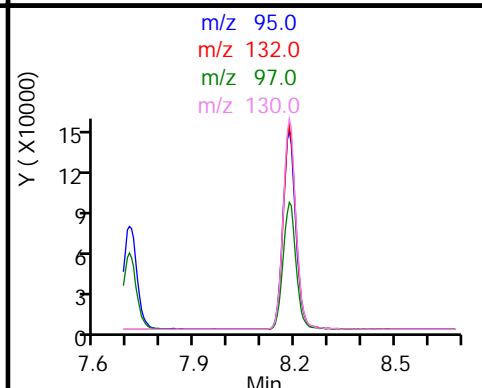
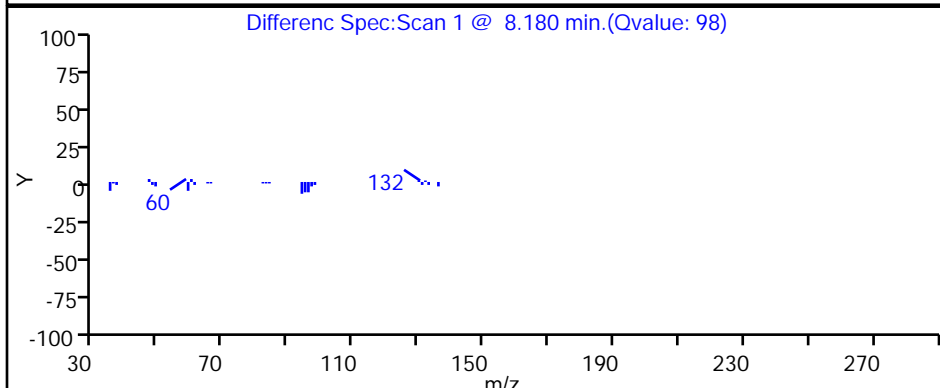
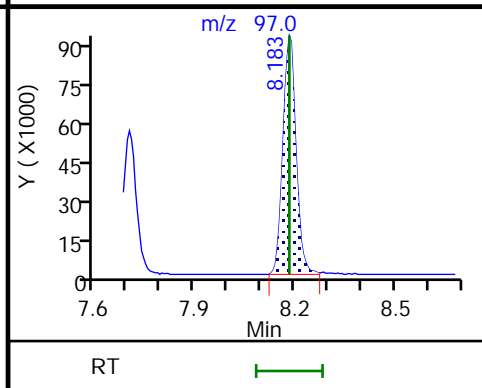
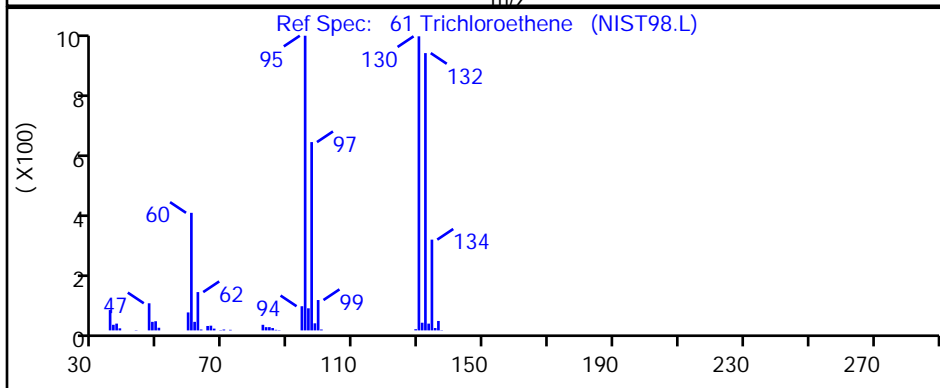
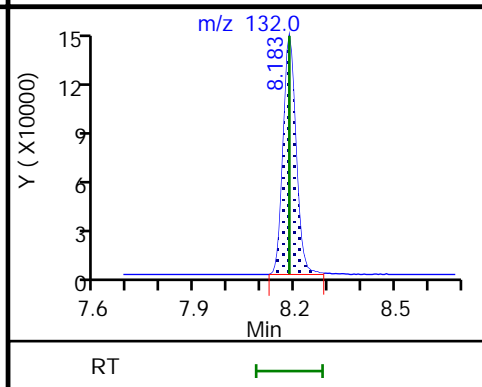
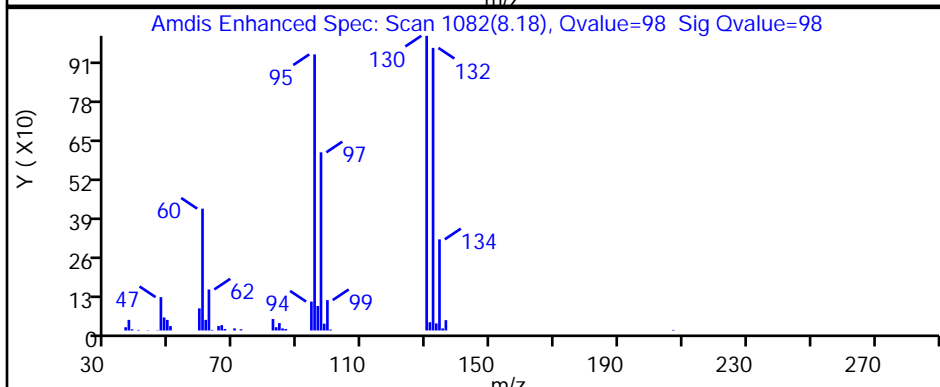
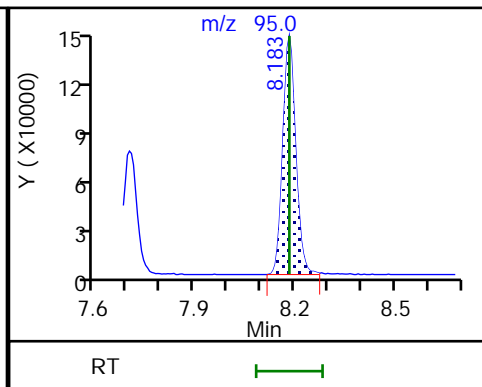
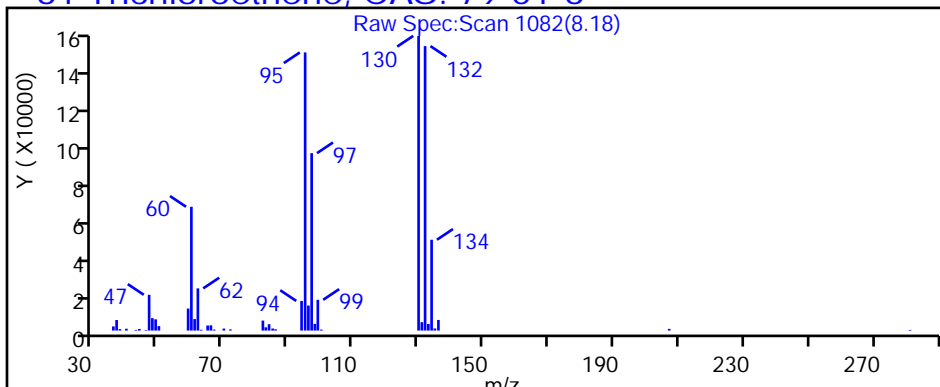
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

61 Trichloroethene, CAS: 79-01-6



Euofins Lancaster Laboratories Environment Testing, LLC

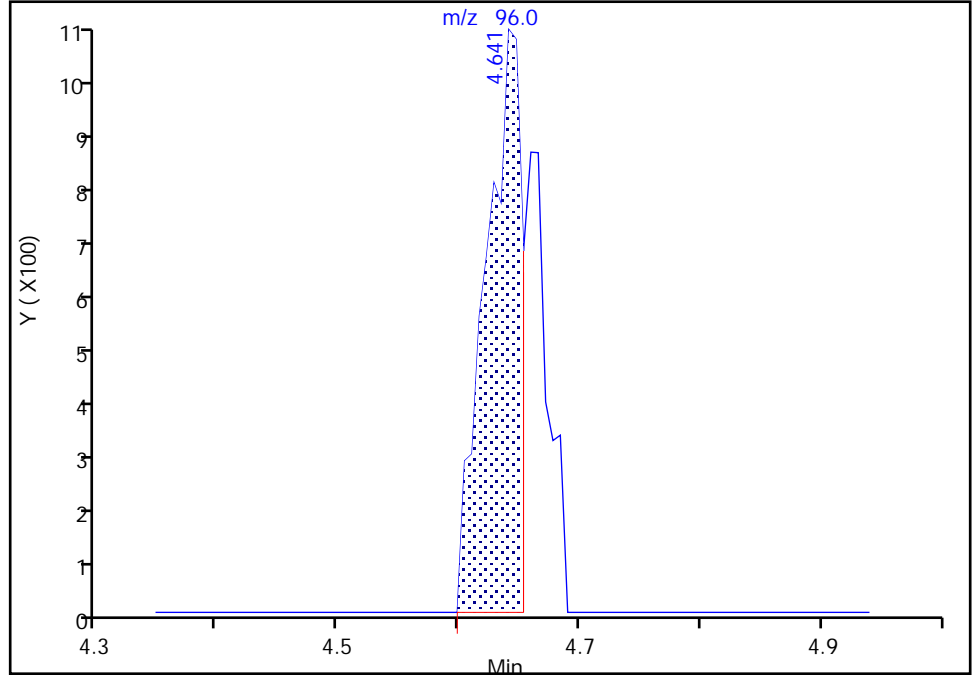
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Injection Date: 02-May-2022 15:02:30 Instrument ID: 19930
Lims ID: 410-81767-A-8 Lab Sample ID: 410-81767-8
Client ID: HD-COD-SW-17-0/1-0
Operator ID: KNK41612 ALS Bottle#: 17 Worklist Smp#: 18
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

28 trans-1,2-Dichloroethene, CAS: 156-60-5

Signal: 1

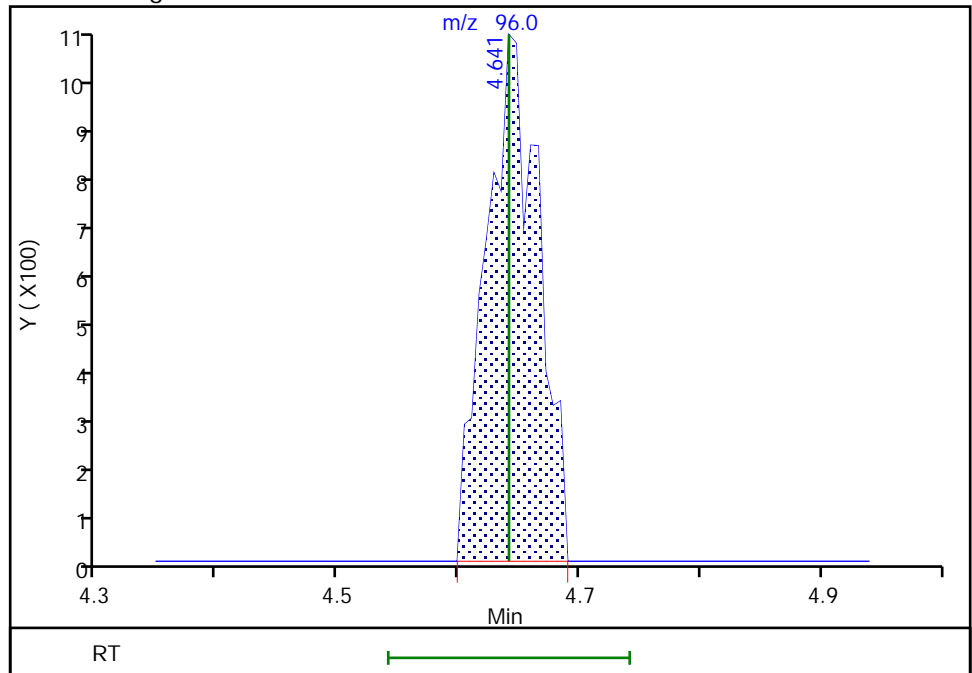
RT: 4.64
Area: 2259
Amount: 0.031474
Amount Units: ug/l

Processing Integration Results



RT: 4.64
Area: 3267
Amount: 0.045518
Amount Units: ug/l

Manual Integration Results



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-17-0/1-0 DL Lab Sample ID: 410-81767-8 DL
 Matrix: Water Lab File ID: IM05X28.D
 Analysis Method: 8260D Date Collected: 04/26/2022 10:15
 Sample wt/vol: 25 (mL) Date Analyzed: 05/05/2022 18:25
 Soil Aliquot Vol: _____ Dilution Factor: 10
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 251841 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
127-18-4	Tetrachloroethene	77		5.0	0.60

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	108		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	94		80-120
2037-26-5	Toluene-d8 (Surr)	104		80-120

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220505-56480.b\IM05X28.D
 Lims ID: 410-81767-B-8 DL
 Client ID: HD-COD-SW-17-0/1-0
 Sample Type: Client
 Inject. Date: 05-May-2022 18:25:30 ALS Bottle#: 28 Worklist Smp#: 29
 Purge Vol: 25.000 mL Dil. Factor: 10.0000
 Sample Info: 410-0056480-029
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220505-56480.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 06-May-2022 09:59:50 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1636

First Level Reviewer: kaewrungrueangp Date: 06-May-2022 10:01:59

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50		2.160				ND	
5 Vinyl chloride	62		2.276				ND	
7 Bromomethane	94		2.611				ND	
8 Chloroethane	64		2.690				ND	
14 1,1-Dichloroethene	96	3.562	3.556	0.006	95	2949	0.0483	
15 Acetone	43		3.586				ND	7
19 Carbon disulfide	76		3.861				ND	7
23 Methylene Chloride	84		4.227				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.226	4.233	-0.007	27	188739	50.0	
27 Methyl tert-butyl ether	73		4.629				ND	
28 trans-1,2-Dichloroethene	96		4.641				ND	
31 1,1-Dichloroethane	63	5.293	5.299	-0.006	95	14009	0.1181	
36 2-Butanone (MEK)	43		6.086				ND	
37 cis-1,2-Dichloroethene	96	6.122	6.129	-0.007	79	28486	0.3599	
43 Chlorobromomethane	128		6.458				ND	
45 Chloroform	83		6.604				ND	7
\$ 46 Dibromofluoromethane (Surr)	113	6.817	6.817	0.000	94	595519	9.45	
47 1,1,1-Trichloroethane	97	6.824	6.836	-0.012	42	70430	0.5686	
50 Carbon tetrachloride	117		7.043				ND	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.269	7.269	0.000	68	121825	10.8	
54 Benzene	78		7.305				ND	
56 1,2-Dichloroethane	62		7.372				ND	
* 58 Fluorobenzene (IS)	96	7.701	7.701	0.000	99	2328829	10.0	
61 Trichloroethene	95	8.189	8.183	0.006	98	32249	0.4091	
63 1,2-Dichloropropane	63		8.512				ND	
68 Dichlorobromomethane	83		8.854				ND	
73 cis-1,3-Dichloropropene	75		9.402				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	94	2271033	10.4	
76 Toluene	92		9.780				ND	7
78 trans-1,3-Dichloropropene	75		10.036				ND	
80 1,1,2-Trichloroethane	97		10.238				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.335	10.329	0.006	98	749228	7.67	
83 2-Hexanone	43		10.451				ND	
85 Chlorodibromomethane	129		10.616				ND	
86 Ethylene Dibromide	107		10.731				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	86	1799624	10.0	
90 Chlorobenzene	112		11.182				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.268				ND	
92 Ethylbenzene	91		11.268				ND	
93 m-Xylene & p-Xylene	106		11.384				ND	
94 o-Xylene	106		11.713				ND	
95 Styrene	104		11.725				ND	
96 Bromoform	173		11.884				ND	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	93	819878	9.65	
101 1,1,2,2-Tetrachloroethane	83		12.255				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	95	969327	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_LLcentISS_00004

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220505-56480.b\IM05X28.D

Injection Date: 05-May-2022 18:25:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: 410-81767-B-8 DL

Lab Sample ID: 410-81767-8

Worklist Smp#: 29

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

Purge Vol: 25.000 mL

Dil. Factor: 10.0000

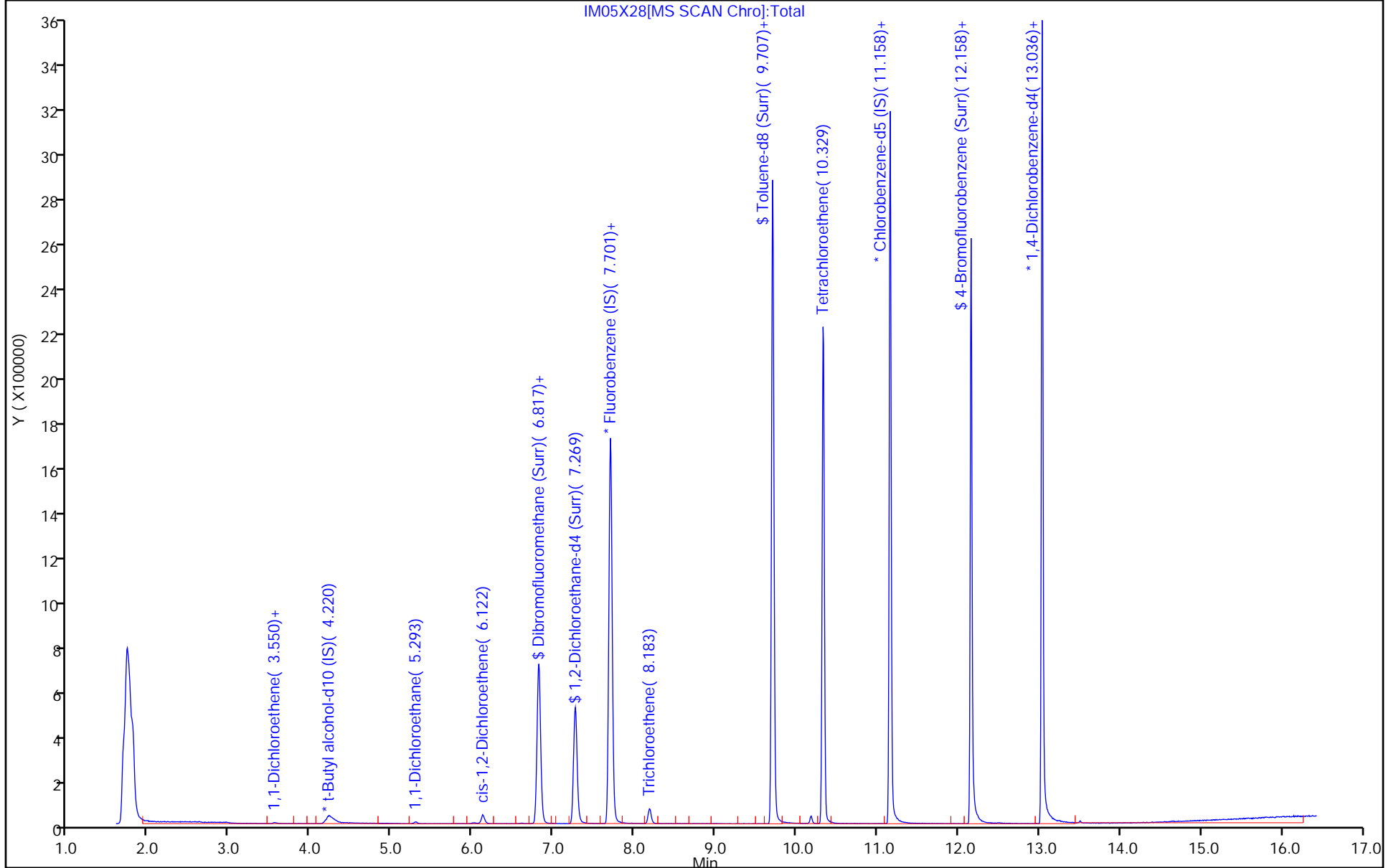
ALS Bottle#: 28

Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Environment Testing, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220505-56480.b\IM05X28.D
 Lims ID: 410-81767-B-8 DL
 Client ID: HD-COD-SW-17-0/1-0
 Sample Type: Client
 Inject. Date: 05-May-2022 18:25:30 ALS Bottle#: 28 Worklist Smp#: 29
 Purge Vol: 25.000 mL Dil. Factor: 10.0000
 Sample Info: 410-0056480-029
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220505-56480.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 06-May-2022 09:59:50 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1636

First Level Reviewer: kaewrungrueangp Date: 06-May-2022 10:01:59

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.45	94.47
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.8	108.48
\$ 75 Toluene-d8 (Surr)	10.0	10.4	103.70
\$ 100 4-Bromofluorobenzene (Surr)	10.0	9.65	96.53

Data File: \\chromfs\Lancaster\ChromData\19930\20220505-56480.b\IM05X28.D

Injection Date: 05-May-2022 18:25:30

Instrument ID: 19930

Lims ID: 410-81767-B-8 DL

Lab Sample ID: 410-81767-8

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

Operator ID: KNK41612

ALS Bottle#: 28

Worklist Smp#: 29

Purge Vol: 25.000 mL

Dil. Factor: 10.0000

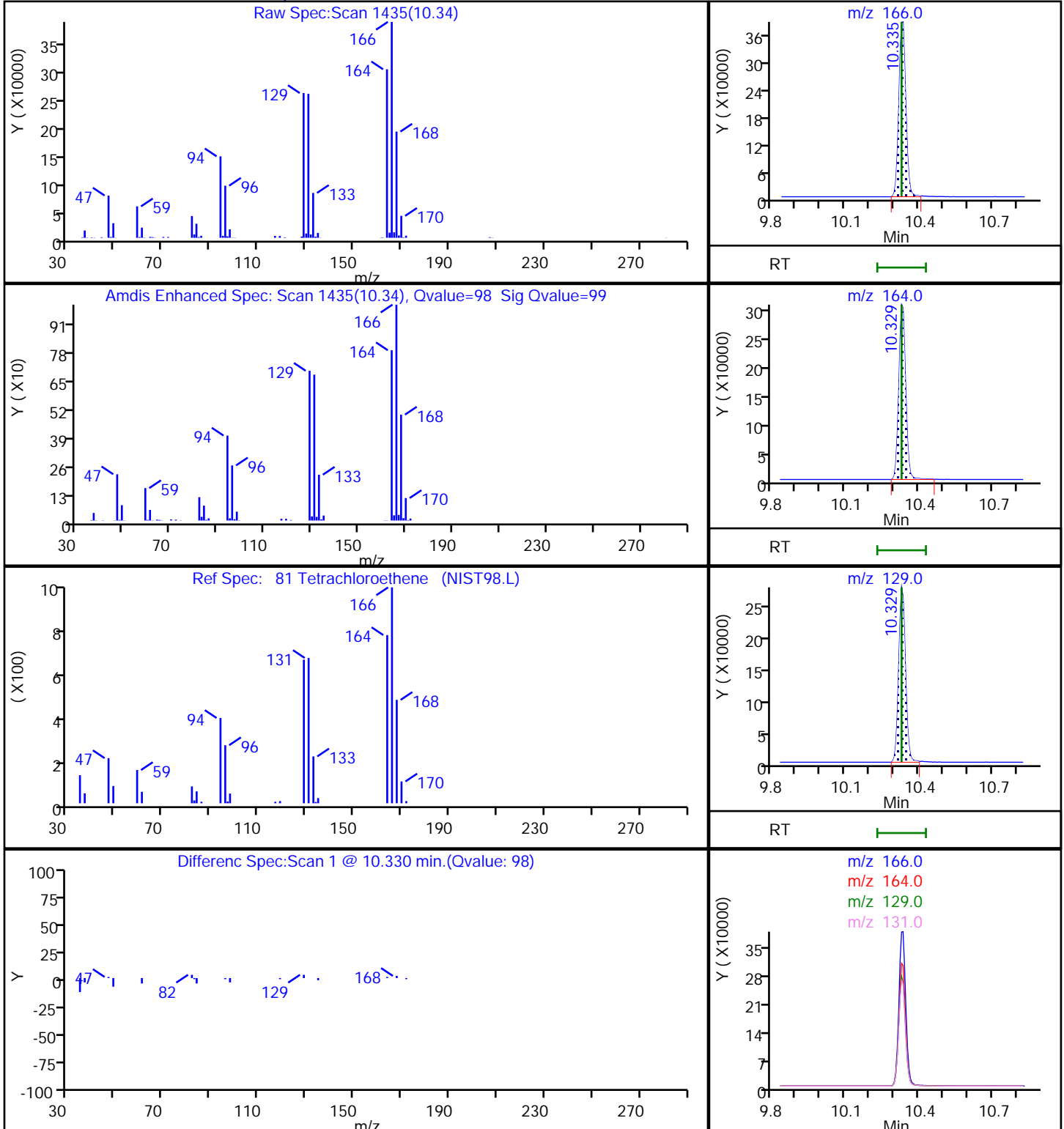
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

81 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-26-0/1-0 Lab Sample ID: 410-81767-9
 Matrix: Water Lab File ID: IM02X18.D
 Analysis Method: 8260D Date Collected: 04/26/2022 11:20
 Sample wt/vol: 25 (mL) Date Analyzed: 05/02/2022 15:23
 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.: 250524 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	0.11	J	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	0.95	J	5.0	0.90
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	^c cn	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	^c cn	0.50	0.070
67-66-3	Chloroform	0.48	J	0.50	0.090
74-87-3	Chloromethane	ND		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.055	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	2.9		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
79-01-6	Trichloroethene	0.14	J	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-26-0/1-0 Lab Sample ID: 410-81767-9
 Matrix: Water Lab File ID: IM02X18.D
 Analysis Method: 8260D Date Collected: 04/26/2022 11:20
 Sample wt/vol: 25 (mL) Date Analyzed: 05/02/2022 15:23
 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.: 250524 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
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)	109		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	95		80-120
2037-26-5	Toluene-d8 (Surr)	105		80-120

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X18.D
 Lims ID: 410-81767-A-9
 Client ID: HD-COD-SW-26-0/1-0
 Sample Type: Client
 Inject. Date: 02-May-2022 15:23:30 ALS Bottle#: 18 Worklist Smp#: 19
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0056183-019
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 03-May-2022 10:47:21 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1607

First Level Reviewer: kaewrungrueangp Date: 03-May-2022 10:48:09

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50		2.166				ND	
5 Vinyl chloride	62		2.282				ND	
7 Bromomethane	94		2.617				ND	
8 Chloroethane	64		2.696				ND	
14 1,1-Dichloroethene	96	3.556	3.556	0.000	94	7001	0.1099	
15 Acetone	43	3.599	3.580	0.019	69	9415	0.9508	
19 Carbon disulfide	76		3.861				ND	7
23 Methylene Chloride	84		4.221				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.233	4.227	0.006	24	182558	50.0	
27 Methyl tert-butyl ether	73		4.623				ND	7
28 trans-1,2-Dichloroethene	96		4.641				ND	
31 1,1-Dichloroethane	63		5.294				ND	
36 2-Butanone (MEK)	43		6.086				ND	7
37 cis-1,2-Dichloroethene	96	6.135	6.123	0.012	77	4549	0.0551	
43 Chlorobromomethane	128		6.458				ND	
45 Chloroform	83	6.610	6.604	0.006	94	63523	0.4771	
\$ 46 Dibromofluoromethane (Surr)	113	6.817	6.818	-0.001	94	624354	9.50	
47 1,1,1-Trichloroethane	97		6.830				ND	
50 Carbon tetrachloride	117		7.043				ND	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.269	7.263	0.006	67	127163	10.9	
54 Benzene	78		7.299				ND	7
56 1,2-Dichloroethane	62		7.372				ND	
* 58 Fluorobenzene (IS)	96	7.708	7.702	0.006	99	2428238	10.0	
61 Trichloroethene	95	8.189	8.183	0.006	94	11119	0.1353	
63 1,2-Dichloropropane	63		8.512				ND	
68 Dichlorobromomethane	83		8.854				ND	7
73 cis-1,3-Dichloropropene	75		9.396				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	94	2375743	10.5	
76 Toluene	92	9.780	9.780	0.000	95	7541	0.0430	
78 trans-1,3-Dichloropropene	75		10.036				ND	
80 1,1,2-Trichloroethane	97		10.238				ND	7

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.335	10.329	0.006	98	291577	2.89	
83 2-Hexanone	43		10.451				ND	
85 Chlorodibromomethane	129		10.616				ND	
86 Ethylene Dibromide	107		10.731				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	86	1860864	10.0	
90 Chlorobenzene	112		11.183				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.262				ND	
92 Ethylbenzene	91		11.268				ND	7
93 m-Xylene & p-Xylene	106		11.384				ND	7
94 o-Xylene	106		11.713				ND	7
95 Styrene	104		11.725				ND	
96 Bromoform	173		11.884				ND	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	94	844835	9.62	
101 1,1,2,2-Tetrachloroethane	83		12.256				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	1009048	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_LLcentISS_00004

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X18.D

Injection Date: 02-May-2022 15:23:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: 410-81767-A-9

Lab Sample ID: 410-81767-9

Worklist Smp#: 19

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

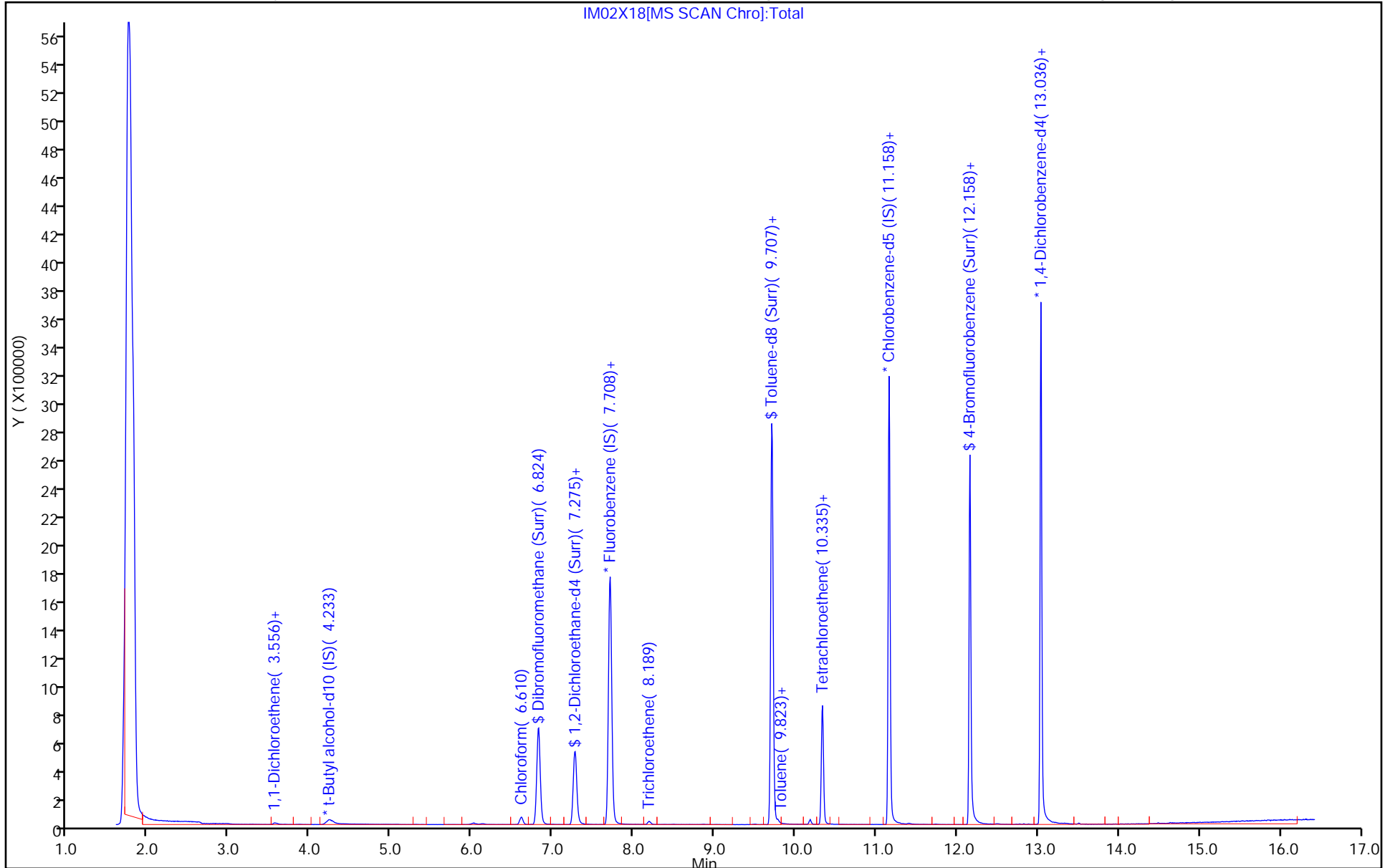
ALS Bottle#: 18

Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Environment Testing, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X18.D
 Lims ID: 410-81767-A-9
 Client ID: HD-COD-SW-26-0/1-0
 Sample Type: Client
 Inject. Date: 02-May-2022 15:23:30 ALS Bottle#: 18 Worklist Smp#: 19
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0056183-019
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 03-May-2022 10:47:21 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1607

First Level Reviewer: kaewrungrueangp

Date: 03-May-2022 10:48:09

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.50	94.98
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.9	108.60
\$ 75 Toluene-d8 (Surr)	10.0	10.5	104.91
\$ 100 4-Bromofluorobenzene (Surr)	10.0	9.62	96.20

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X18.D

Injection Date: 02-May-2022 15:23:30

Instrument ID: 19930

Lims ID: 410-81767-A-9

Lab Sample ID: 410-81767-9

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

Operator ID: KNK41612

ALS Bottle#: 18

Worklist Smp#: 19

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

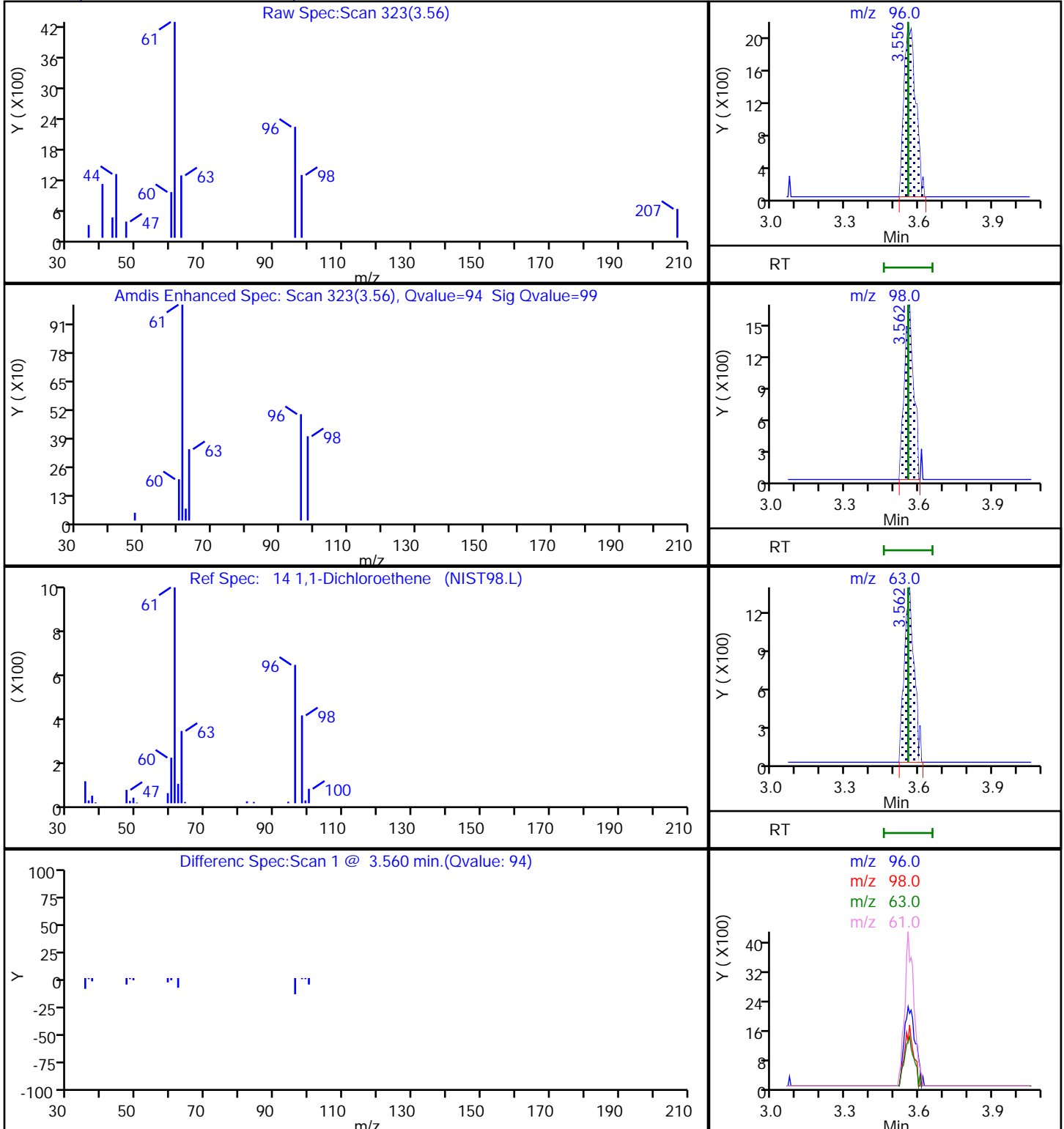
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

14 1,1-Dichloroethene, CAS: 75-35-4



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X18.D

Injection Date: 02-May-2022 15:23:30

Instrument ID: 19930

Lims ID: 410-81767-A-9

Lab Sample ID: 410-81767-9

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

Operator ID: KNK41612

ALS Bottle#: 18

Worklist Smp#: 19

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

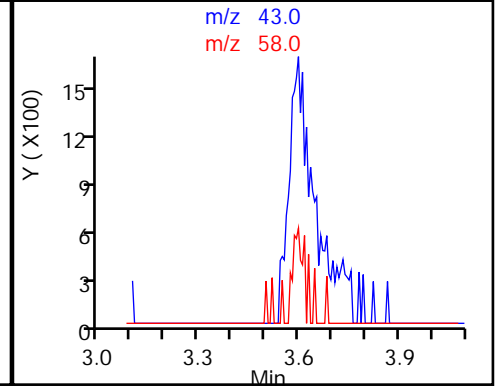
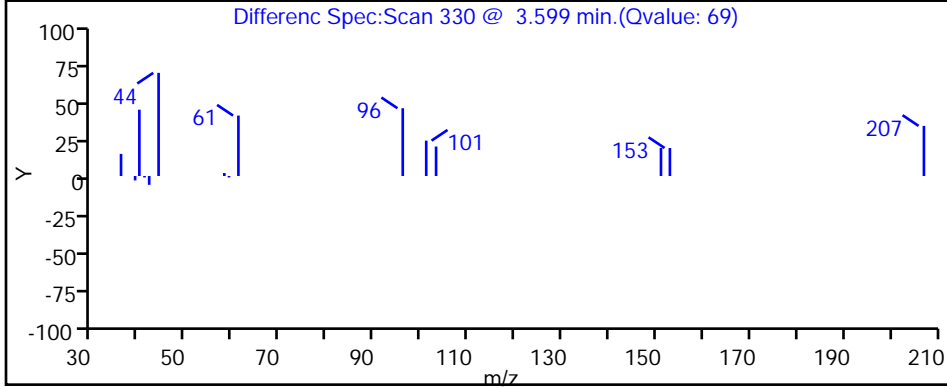
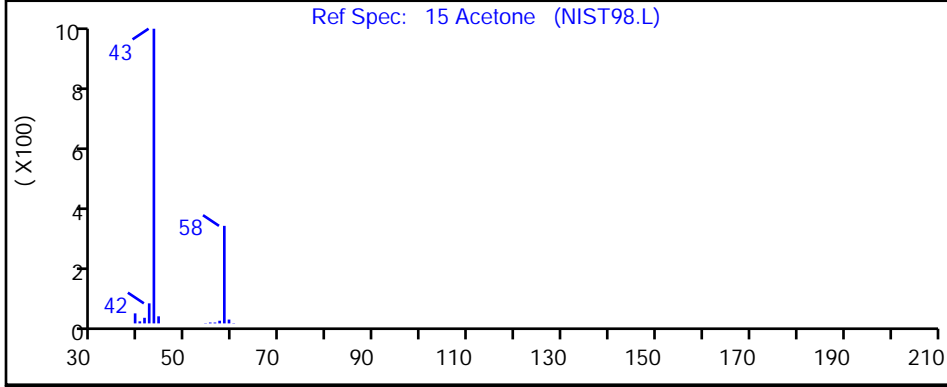
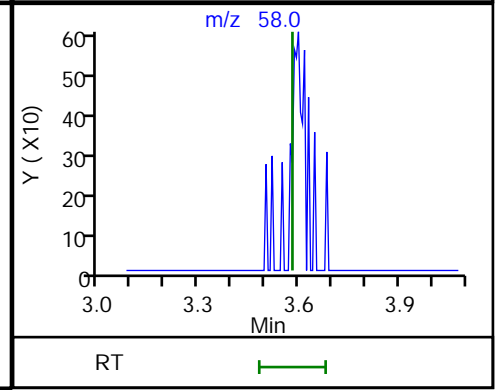
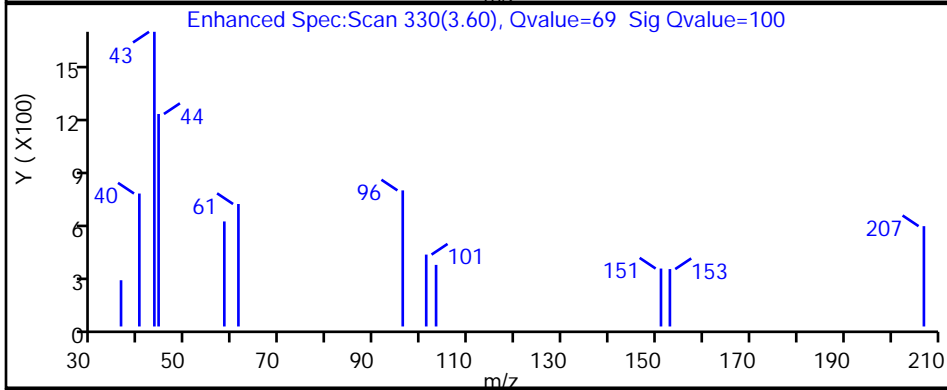
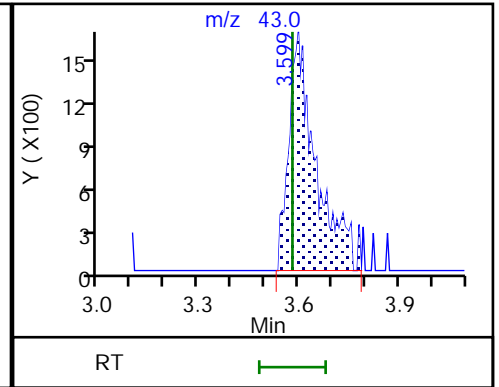
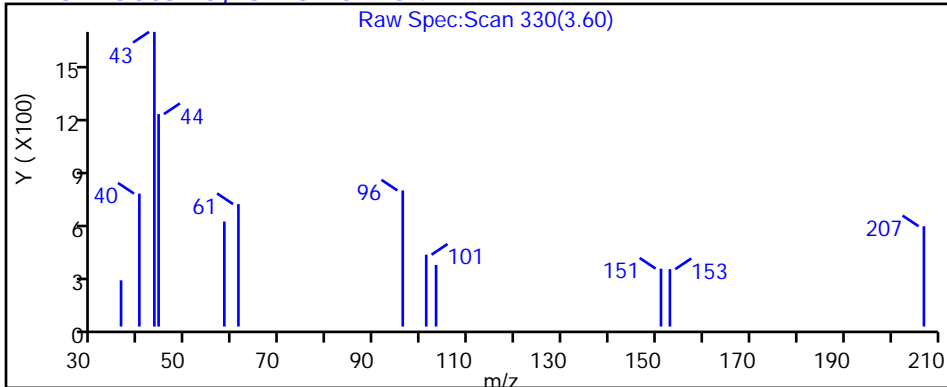
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

15 Acetone, CAS: 67-64-1



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X18.D

Injection Date: 02-May-2022 15:23:30

Instrument ID: 19930

Lims ID: 410-81767-A-9

Lab Sample ID: 410-81767-9

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

Operator ID: KNK41612

ALS Bottle#: 18

Worklist Smp#: 19

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

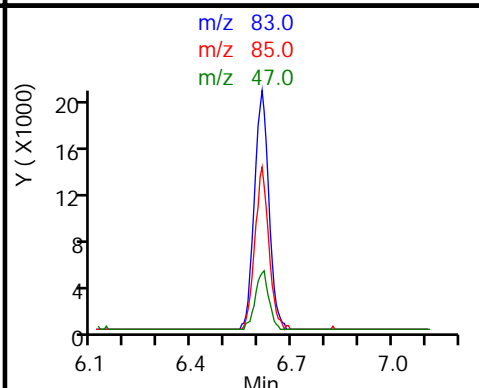
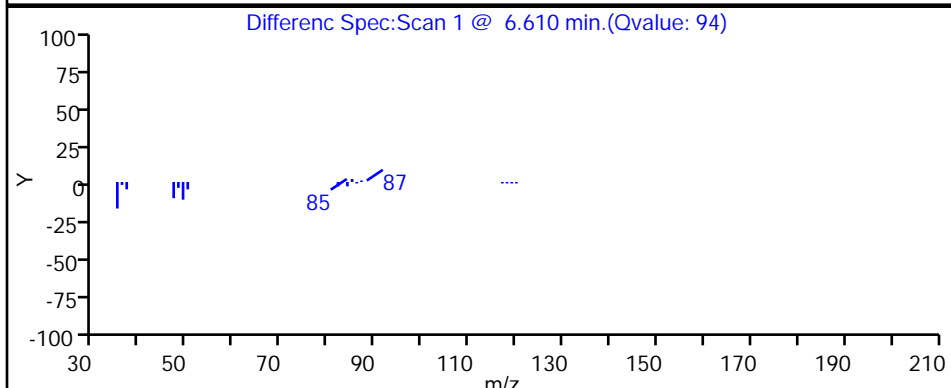
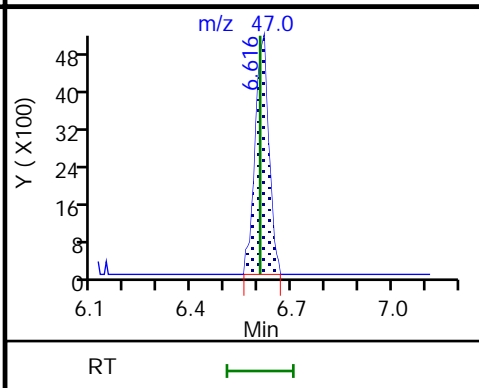
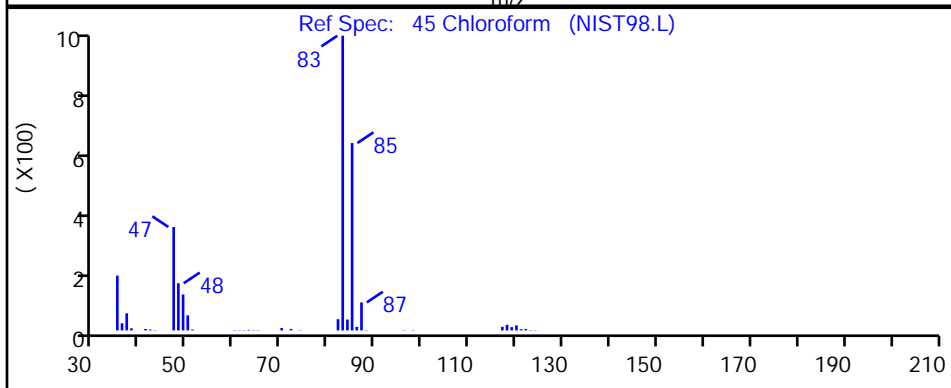
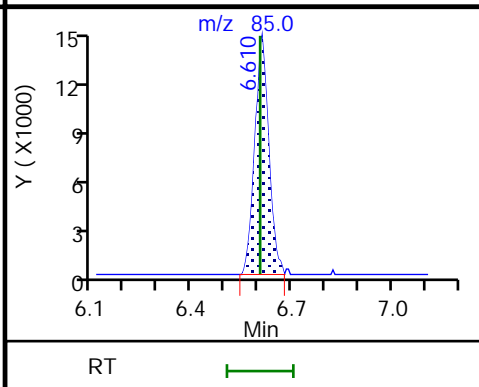
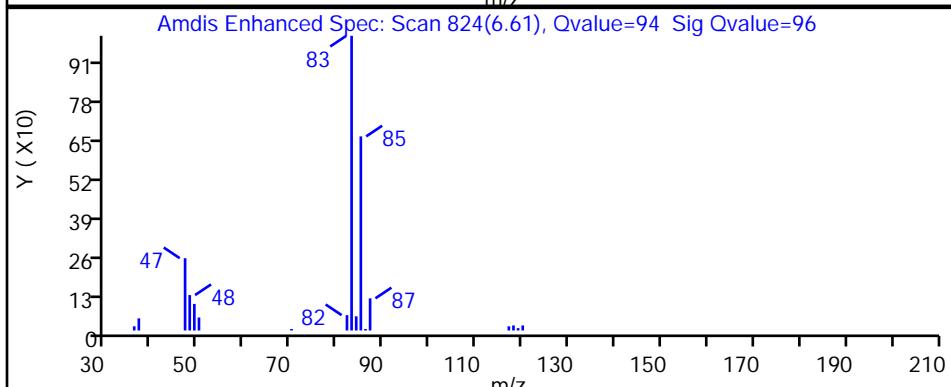
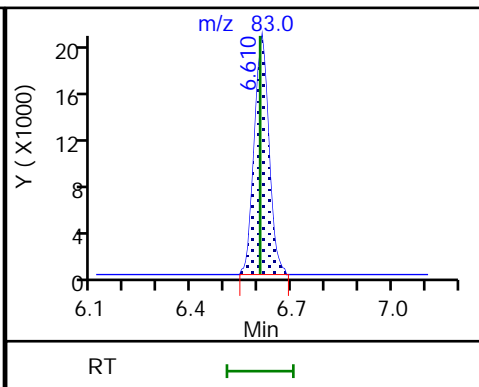
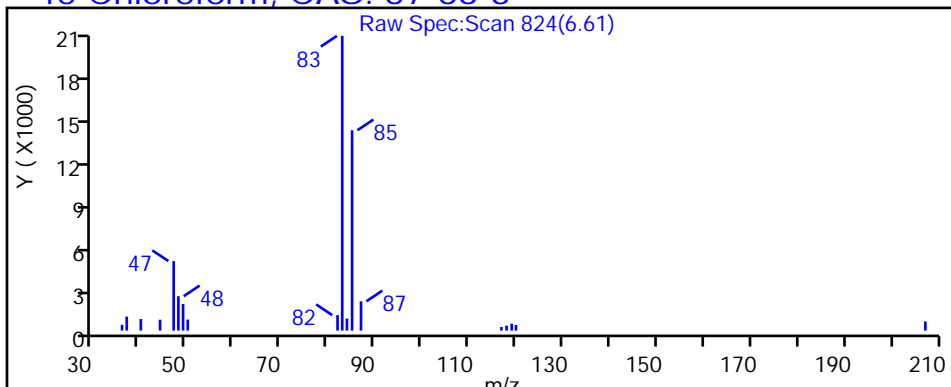
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

45 Chloroform, CAS: 67-66-3



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X18.D

Injection Date: 02-May-2022 15:23:30

Instrument ID: 19930

Lims ID: 410-81767-A-9

Lab Sample ID: 410-81767-9

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

Operator ID: KNK41612

ALS Bottle#: 18

Worklist Smp#: 19

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

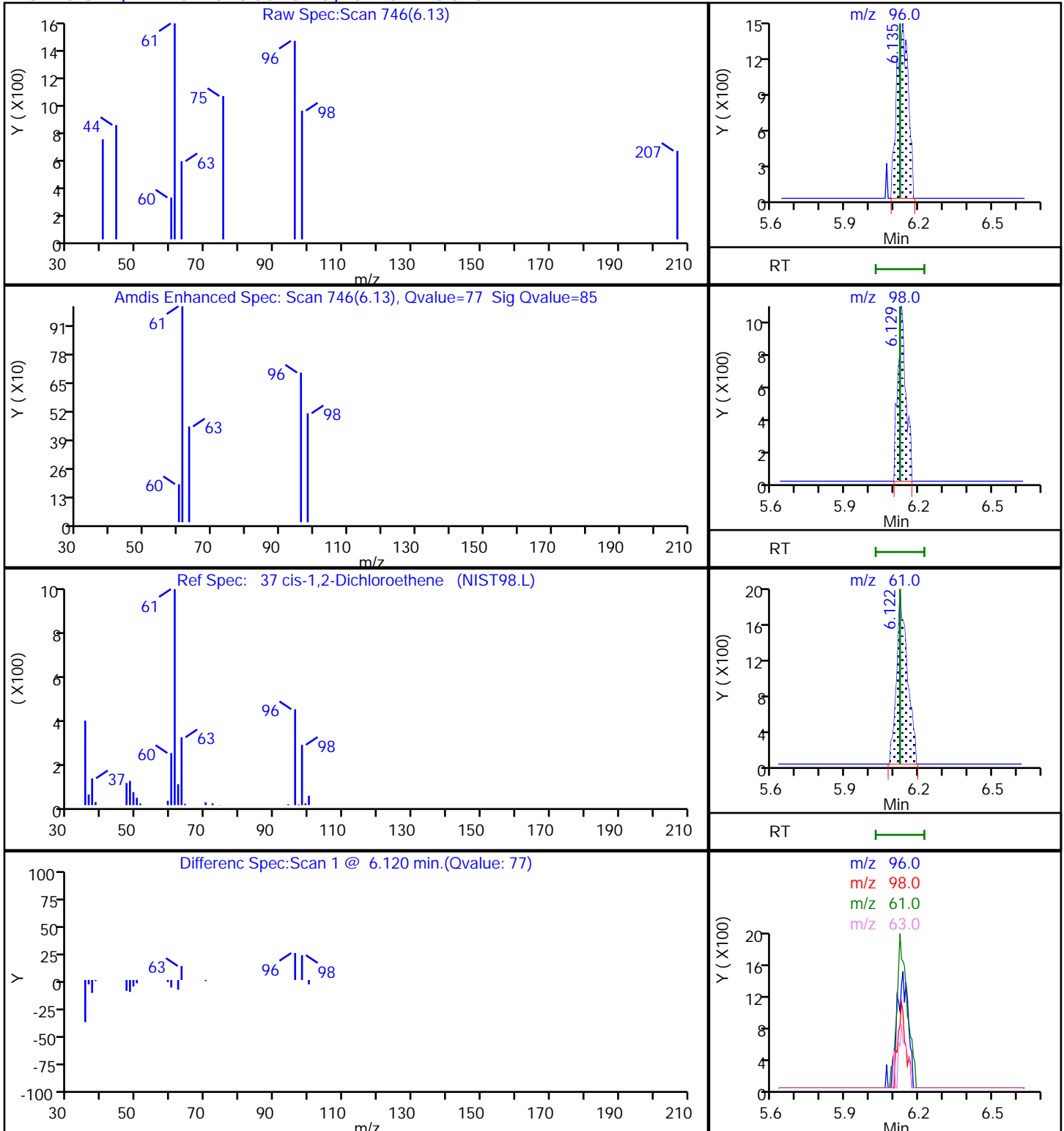
Method: 8260 25ml HP31

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



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X18.D

Injection Date: 02-May-2022 15:23:30

Instrument ID: 19930

Lims ID: 410-81767-A-9

Lab Sample ID: 410-81767-9

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

Operator ID: KNK41612

ALS Bottle#: 18

Worklist Smp#: 19

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

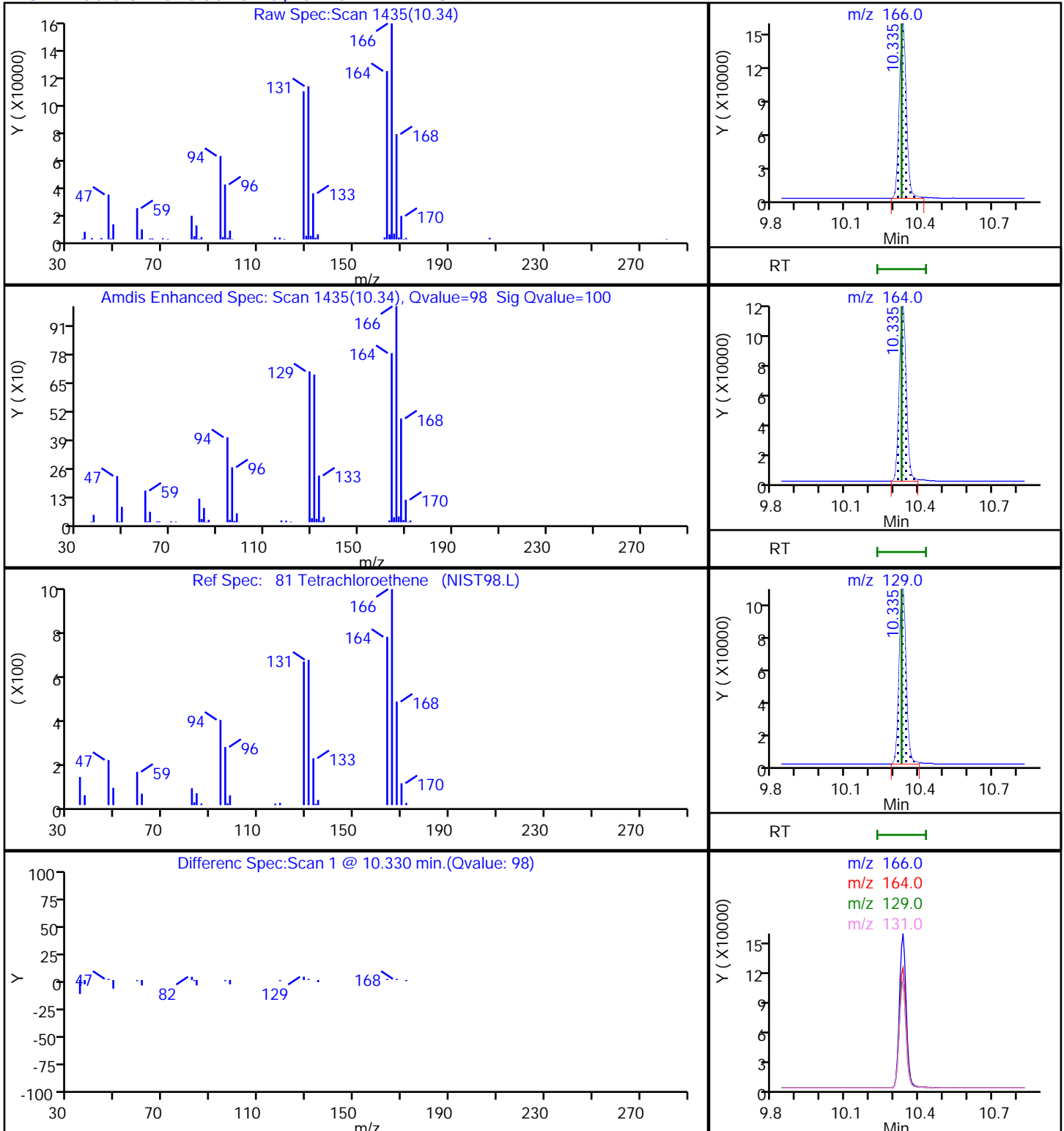
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

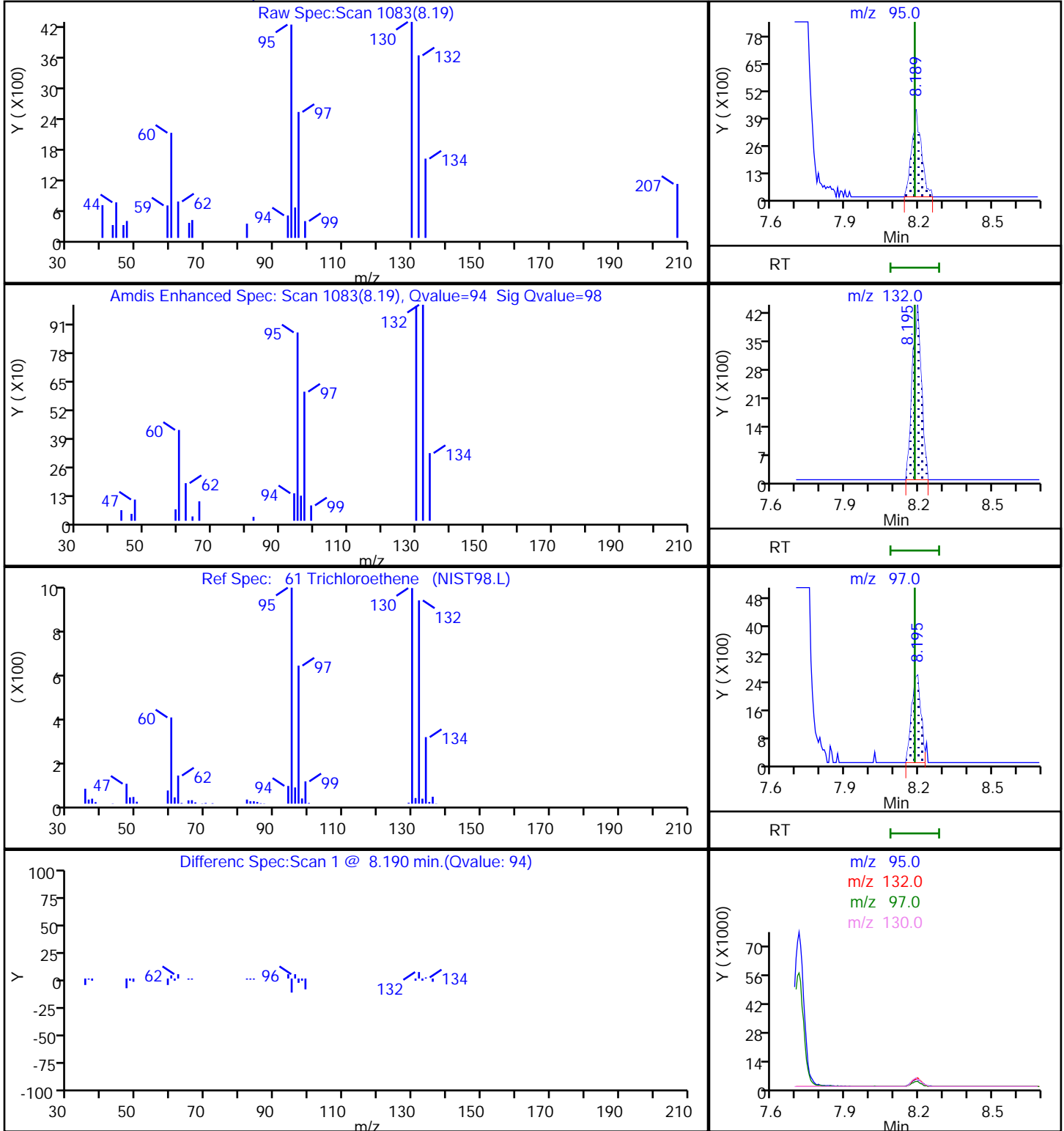
MS Quad

81 Tetrachloroethene, CAS: 127-18-4



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X18.D
Injection Date: 02-May-2022 15:23:30 Instrument ID: 19930
Lims ID: 410-81767-A-9 Lab Sample ID: 410-81767-9
Client ID: HD-COD-SW-26-0/1-0
Operator ID: KNK41612 ALS Bottle#: 18 Worklist Smp#: 19
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) MS Quad

61 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-27-0/1-0 Lab Sample ID: 410-81767-10
 Matrix: Water Lab File ID: IM02X19.D
 Analysis Method: 8260D Date Collected: 04/26/2022 11:55
 Sample wt/vol: 25 (mL) Date Analyzed: 05/02/2022 15:45
 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.: 250524 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	1.6	J	5.0	0.90
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	^c cn	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	^c cn	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	0.072	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
79-01-6	Trichloroethene	0.089	J	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-27-0/1-0 Lab Sample ID: 410-81767-10
 Matrix: Water Lab File ID: IM02X19.D
 Analysis Method: 8260D Date Collected: 04/26/2022 11:55
 Sample wt/vol: 25 (mL) Date Analyzed: 05/02/2022 15:45
 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.: 250524 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
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)	105		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	95		80-120
2037-26-5	Toluene-d8 (Surr)	107		80-120

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X19.D
 Lims ID: 410-81767-A-10
 Client ID: HD-COD-SW-27-0/1-0
 Sample Type: Client
 Inject. Date: 02-May-2022 15:45:30 ALS Bottle#: 19 Worklist Smp#: 20
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0056183-020
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 03-May-2022 10:47:21 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1607

First Level Reviewer: kaewrungrueangp

Date: 03-May-2022 10:48:51

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50	2.160	2.166	-0.006	91	2867	0.0307	
5 Vinyl chloride	62		2.282				ND	7
7 Bromomethane	94		2.617				ND	7
8 Chloroethane	64		2.696				ND	
14 1,1-Dichloroethene	96		3.556				ND	
15 Acetone	43	3.592	3.580	0.012	98	14786	1.56	
19 Carbon disulfide	76	3.855	3.861	-0.006	95	7372	0.0516	
23 Methylene Chloride	84		4.221				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.233	4.227	0.006	30	174713	50.0	
27 Methyl tert-butyl ether	73		4.623				ND	
28 trans-1,2-Dichloroethene	96		4.641				ND	
31 1,1-Dichloroethane	63		5.294				ND	
36 2-Butanone (MEK)	43		6.086				ND	7
37 cis-1,2-Dichloroethene	96	6.129	6.123	0.006	78	5962	0.0722	
43 Chlorobromomethane	128		6.458				ND	
45 Chloroform	83	6.610	6.604	0.006	90	5408	0.0406	
\$ 46 Dibromofluoromethane (Surr)	113	6.811	6.818	-0.007	94	622005	9.46	
47 1,1,1-Trichloroethane	97		6.830				ND	
50 Carbon tetrachloride	117		7.043				ND	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.269	7.263	0.006	68	123525	10.5	
54 Benzene	78		7.299				ND	7
56 1,2-Dichloroethane	62		7.372				ND	
* 58 Fluorobenzene (IS)	96	7.701	7.702	-0.001	99	2428829	10.0	
61 Trichloroethene	95	8.189	8.183	0.006	96	7315	0.0890	
63 1,2-Dichloropropane	63		8.512				ND	
68 Dichlorobromomethane	83		8.854				ND	7
73 cis-1,3-Dichloropropene	75		9.396				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	94	2407758	10.7	
76 Toluene	92	9.780	9.780	0.000	94	9674	0.0556	
78 trans-1,3-Dichloropropene	75		10.036				ND	
80 1,1,2-Trichloroethane	97		10.238				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.341	10.329	0.012	95	4842	0.0484	
83 2-Hexanone	43		10.451				ND	
85 Chlorodibromomethane	129		10.616				ND	
86 Ethylene Dibromide	107		10.731				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	86	1844372	10.0	
90 Chlorobenzene	112		11.183				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.262				ND	
92 Ethylbenzene	91		11.268				ND	7
93 m-Xylene & p-Xylene	106		11.384				ND	7
94 o-Xylene	106		11.713				ND	7
95 Styrene	104		11.725				ND	
96 Bromoform	173		11.884				ND	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	94	837896	9.63	
101 1,1,2,2-Tetrachloroethane	83		12.256				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	1010402	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_LLcentISS_00004

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X19.D

Injection Date: 02-May-2022 15:45:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: 410-81767-A-10

Lab Sample ID: 410-81767-10

Worklist Smp#: 20

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

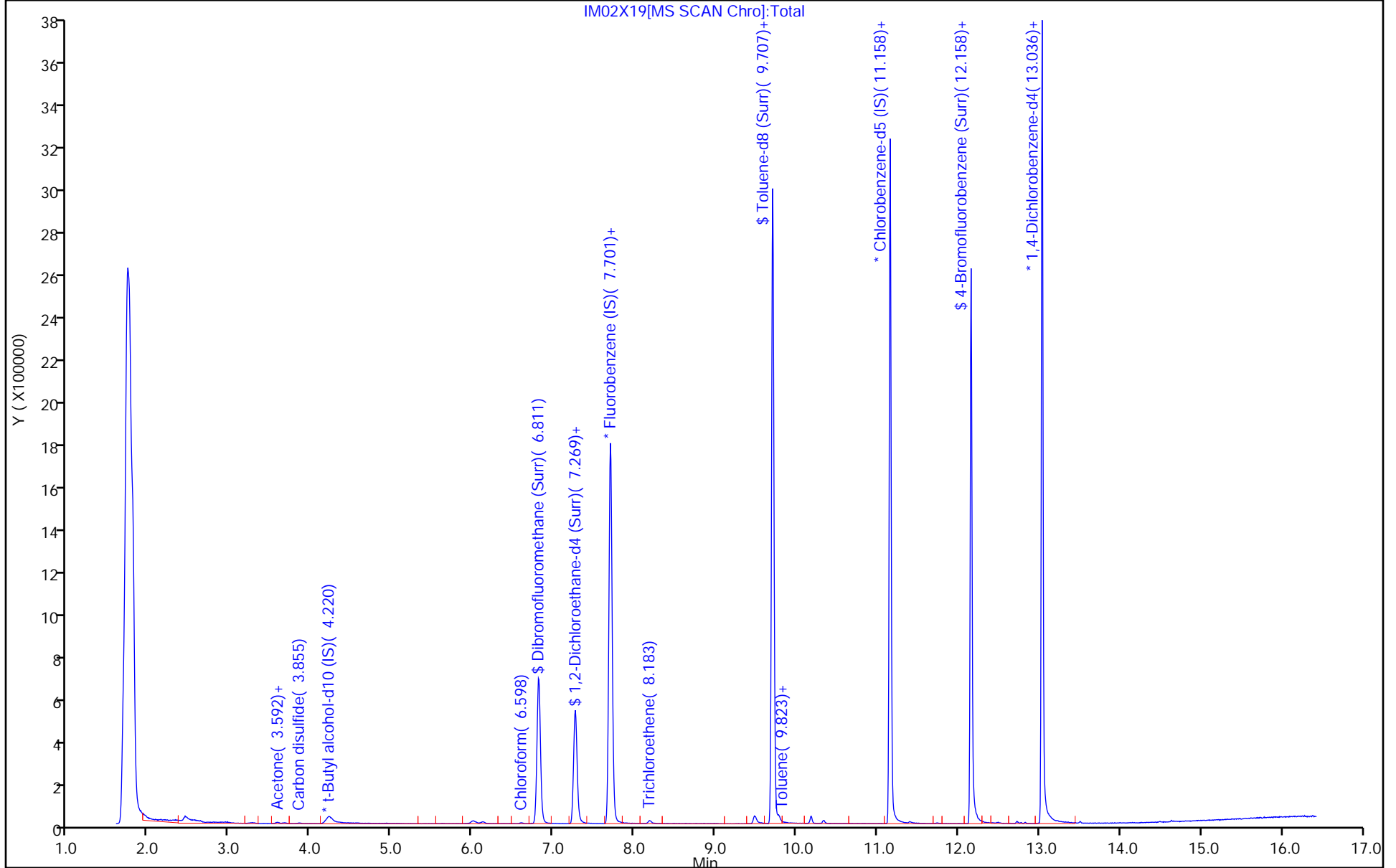
ALS Bottle#: 19

Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Environment Testing, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X19.D
 Lims ID: 410-81767-A-10
 Client ID: HD-COD-SW-27-0/1-0
 Sample Type: Client
 Inject. Date: 02-May-2022 15:45:30 ALS Bottle#: 19 Worklist Smp#: 20
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0056183-020
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 03-May-2022 10:47:21 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1607

First Level Reviewer: kaewrungrueangp Date: 03-May-2022 10:48:51

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.46	94.60
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.5	105.47
\$ 75 Toluene-d8 (Surr)	10.0	10.7	107.27
\$ 100 4-Bromofluorobenzene (Surr)	10.0	9.63	96.26

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X19.D

Injection Date: 02-May-2022 15:45:30

Instrument ID: 19930

Lims ID: 410-81767-A-10

Lab Sample ID: 410-81767-10

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

Operator ID: KNK41612

ALS Bottle#: 19

Worklist Smp#: 20

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

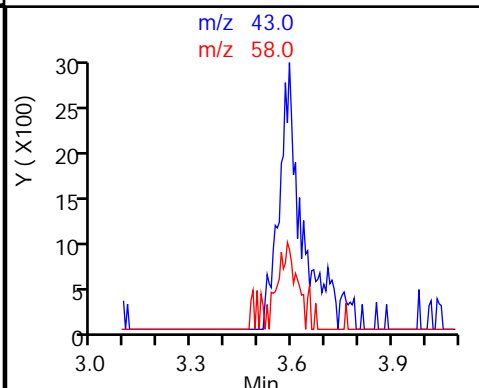
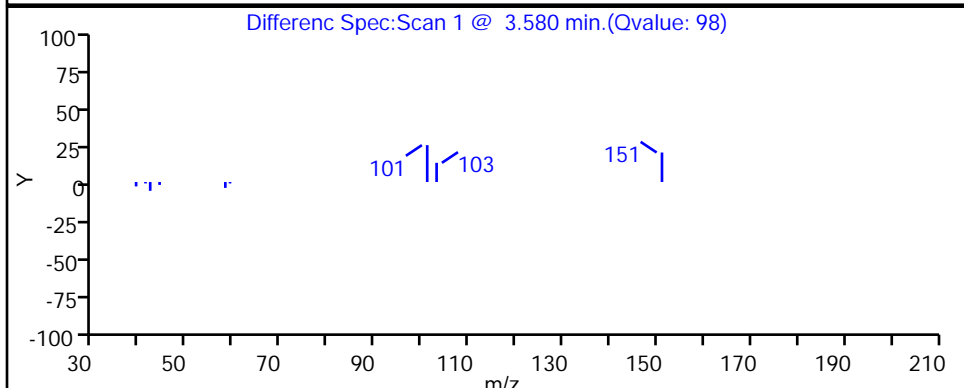
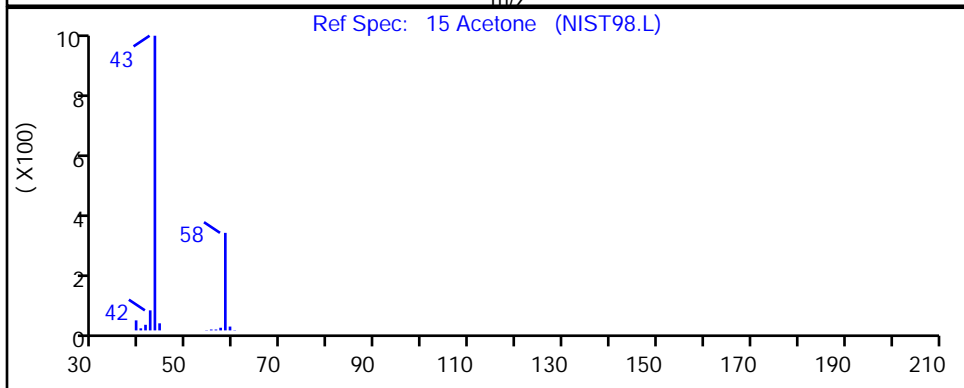
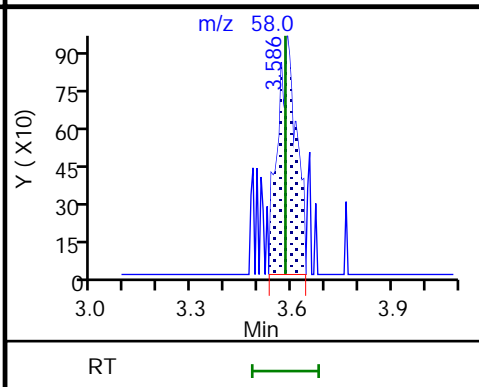
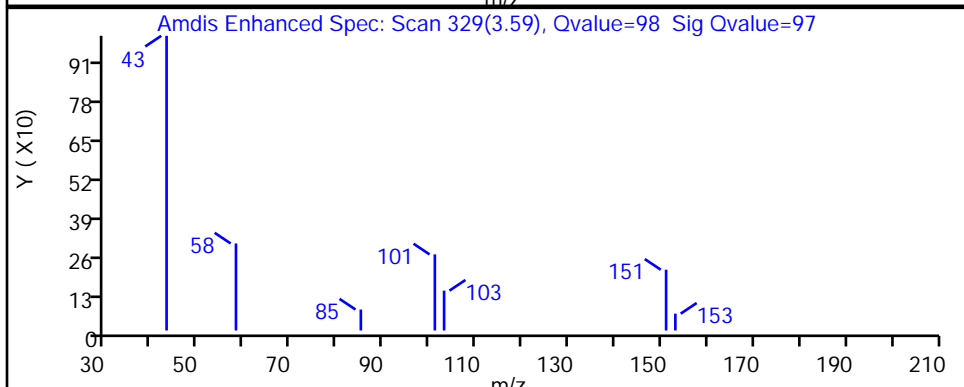
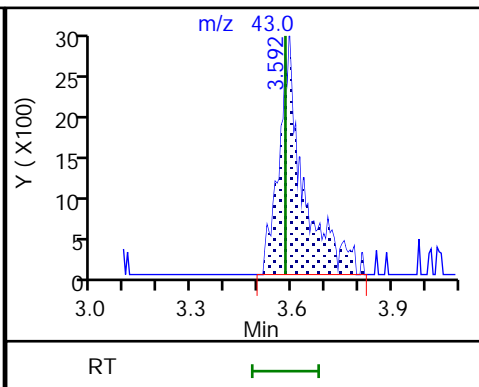
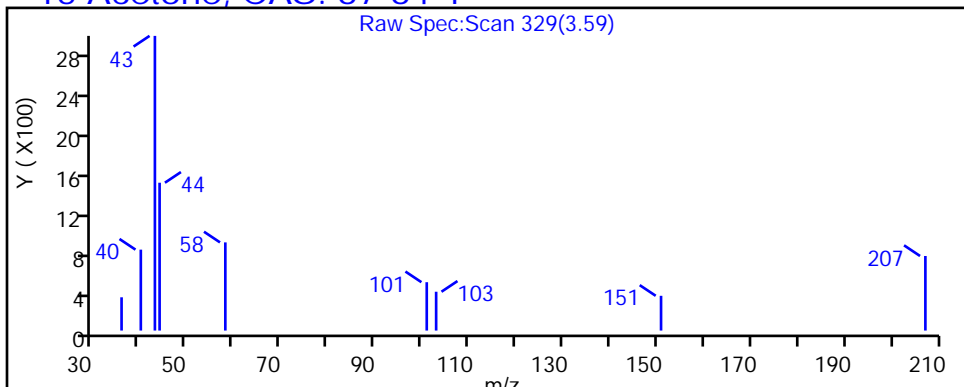
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

15 Acetone, CAS: 67-64-1



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X19.D

Injection Date: 02-May-2022 15:45:30

Instrument ID: 19930

Lims ID: 410-81767-A-10

Lab Sample ID: 410-81767-10

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

Operator ID: KNK41612

ALS Bottle#: 19

Worklist Smp#: 20

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

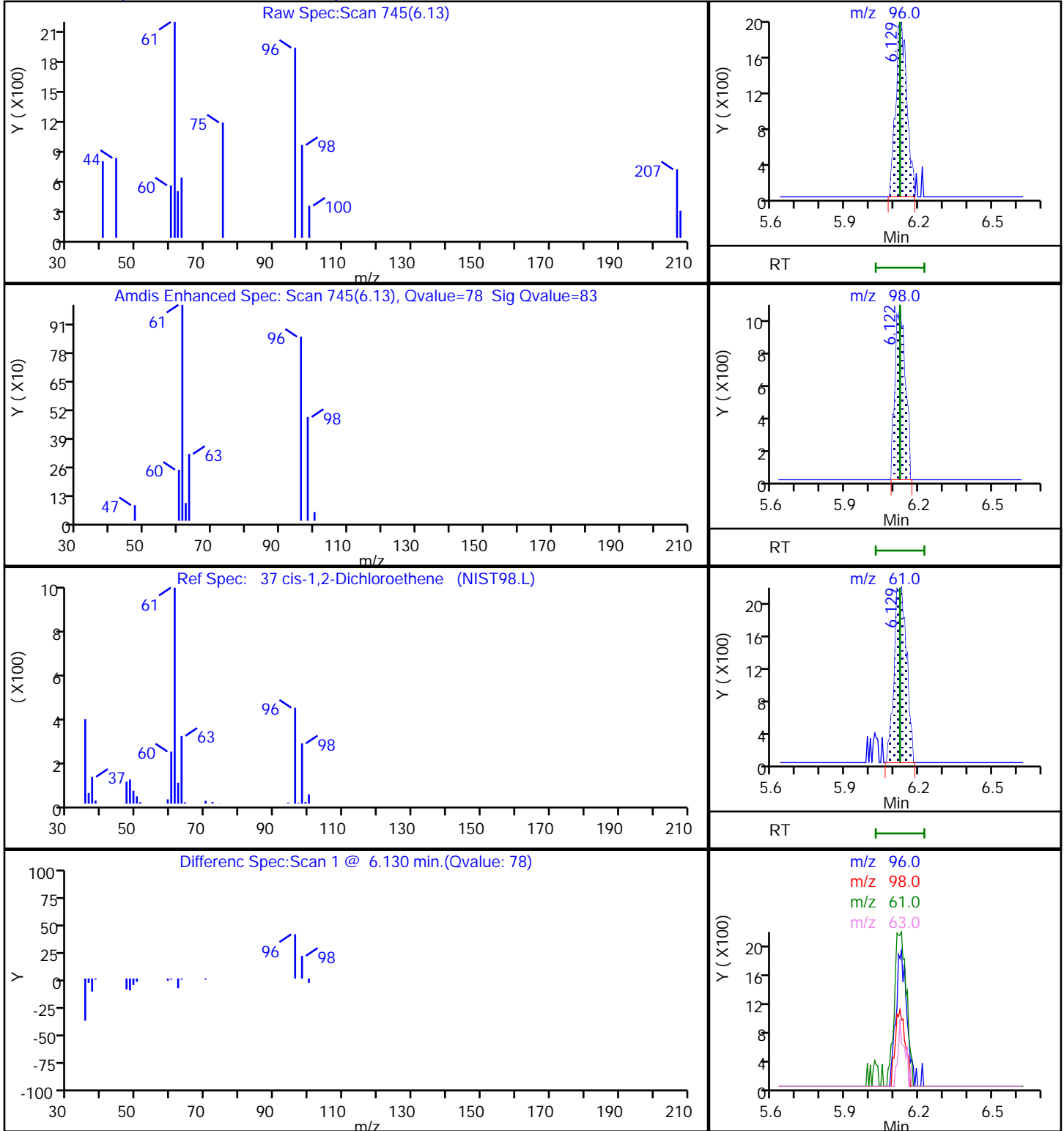
Method: 8260 25ml HP31

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



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X19.D

Injection Date: 02-May-2022 15:45:30

Instrument ID: 19930

Lims ID: 410-81767-A-10

Lab Sample ID: 410-81767-10

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

Operator ID: KNK41612

ALS Bottle#: 19

Worklist Smp#: 20

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

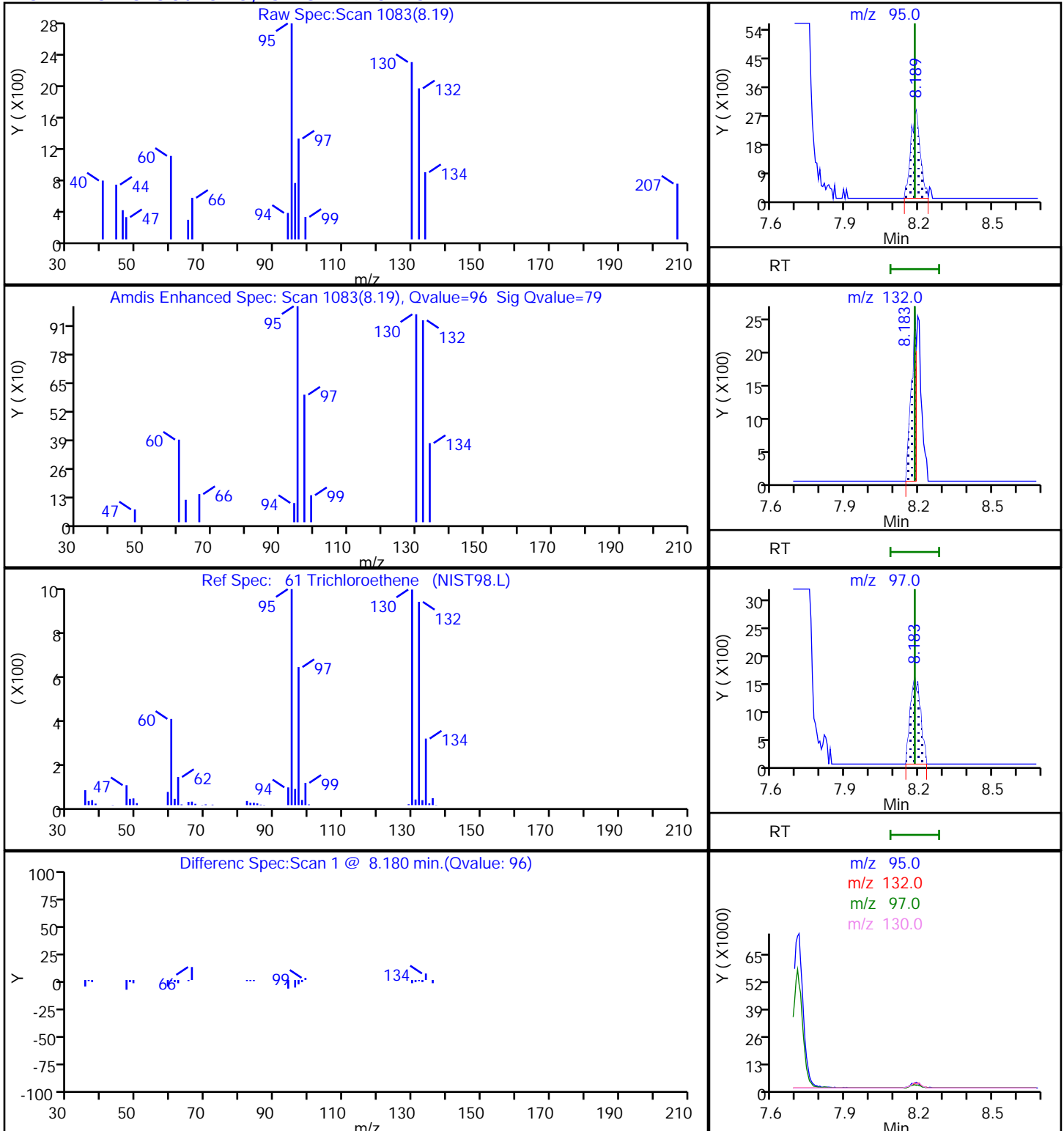
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

61 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-28-0/1-0 Lab Sample ID: 410-81767-11
 Matrix: Water Lab File ID: IM02X20.D
 Analysis Method: 8260D Date Collected: 04/26/2022 13:20
 Sample wt/vol: 25 (mL) Date Analyzed: 05/02/2022 16:06
 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.: 250524 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	1.8	J	5.0	0.90
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	^c cn	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	^c cn	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	0.098	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	0.20	J	0.50	0.060
108-88-3	Toluene	0.095	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
79-01-6	Trichloroethene	0.11	J	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-28-0/1-0 Lab Sample ID: 410-81767-11
 Matrix: Water Lab File ID: IM02X20.D
 Analysis Method: 8260D Date Collected: 04/26/2022 13:20
 Sample wt/vol: 25 (mL) Date Analyzed: 05/02/2022 16:06
 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.: 250524 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
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)	106		80-120
460-00-4	4-Bromofluorobenzene (Surr)	95		80-120
1868-53-7	Dibromofluoromethane (Surr)	94		80-120
2037-26-5	Toluene-d8 (Surr)	105		80-120

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X20.D
 Lims ID: 410-81767-A-11
 Client ID: HD-COD-SW-28-0/1-0
 Sample Type: Client
 Inject. Date: 02-May-2022 16:06:30 ALS Bottle#: 20 Worklist Smp#: 21
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0056183-021
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 03-May-2022 10:47:21 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1607

First Level Reviewer: kaewrungrueangp Date: 03-May-2022 10:49:34

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50	2.154	2.166	-0.012	1	3279	0.0349	
5 Vinyl chloride	62		2.282				ND	
7 Bromomethane	94		2.617				ND	
8 Chloroethane	64		2.696				ND	
14 1,1-Dichloroethene	96		3.556				ND	
15 Acetone	43	3.574	3.580	-0.006	94	17798	1.80	
19 Carbon disulfide	76		3.861				ND	7
23 Methylene Chloride	84		4.221				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.227	4.227	0.000	32	181828	50.0	
27 Methyl tert-butyl ether	73		4.623				ND	
28 trans-1,2-Dichloroethene	96		4.641				ND	
31 1,1-Dichloroethane	63		5.294				ND	
36 2-Butanone (MEK)	43		6.086				ND	7
37 cis-1,2-Dichloroethene	96	6.135	6.123	0.012	74	8091	0.0976	
43 Chlorobromomethane	128		6.458				ND	
45 Chloroform	83	6.598	6.604	-0.006	91	7824	0.0585	
\$ 46 Dibromofluoromethane (Surr)	113	6.818	6.818	0.000	94	622783	9.43	
47 1,1,1-Trichloroethane	97		6.830				ND	
50 Carbon tetrachloride	117		7.043				ND	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.263	7.263	0.000	68	124146	10.6	
54 Benzene	78		7.299				ND	7
56 1,2-Dichloroethane	62		7.372				ND	
* 58 Fluorobenzene (IS)	96	7.702	7.702	0.000	99	2440072	10.0	
61 Trichloroethene	95	8.177	8.183	-0.006	97	9136	0.1106	
63 1,2-Dichloropropane	63		8.512				ND	
68 Dichlorobromomethane	83		8.854				ND	7
73 cis-1,3-Dichloropropene	75		9.396				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	94	2385564	10.5	
76 Toluene	92	9.780	9.780	0.000	99	16809	0.0953	
78 trans-1,3-Dichloropropene	75		10.036				ND	
80 1,1,2-Trichloroethane	97		10.238				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.329	10.329	0.000	97	19900	0.1962	
83 2-Hexanone	43		10.451				ND	
85 Chlorodibromomethane	129		10.616				ND	
86 Ethylene Dibromide	107		10.731				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	86	1869453	10.0	
90 Chlorobenzene	112		11.183				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.262				ND	
92 Ethylbenzene	91		11.268				ND	7
93 m-Xylene & p-Xylene	106		11.384				ND	7
94 o-Xylene	106		11.713				ND	
95 Styrene	104		11.725				ND	7
96 Bromoform	173		11.884				ND	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	94	834379	9.46	
101 1,1,2,2-Tetrachloroethane	83		12.256				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	1022431	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_LLcentISS_00004

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X20.D

Injection Date: 02-May-2022 16:06:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: 410-81767-A-11

Lab Sample ID: 410-81767-11

Worklist Smp#: 21

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

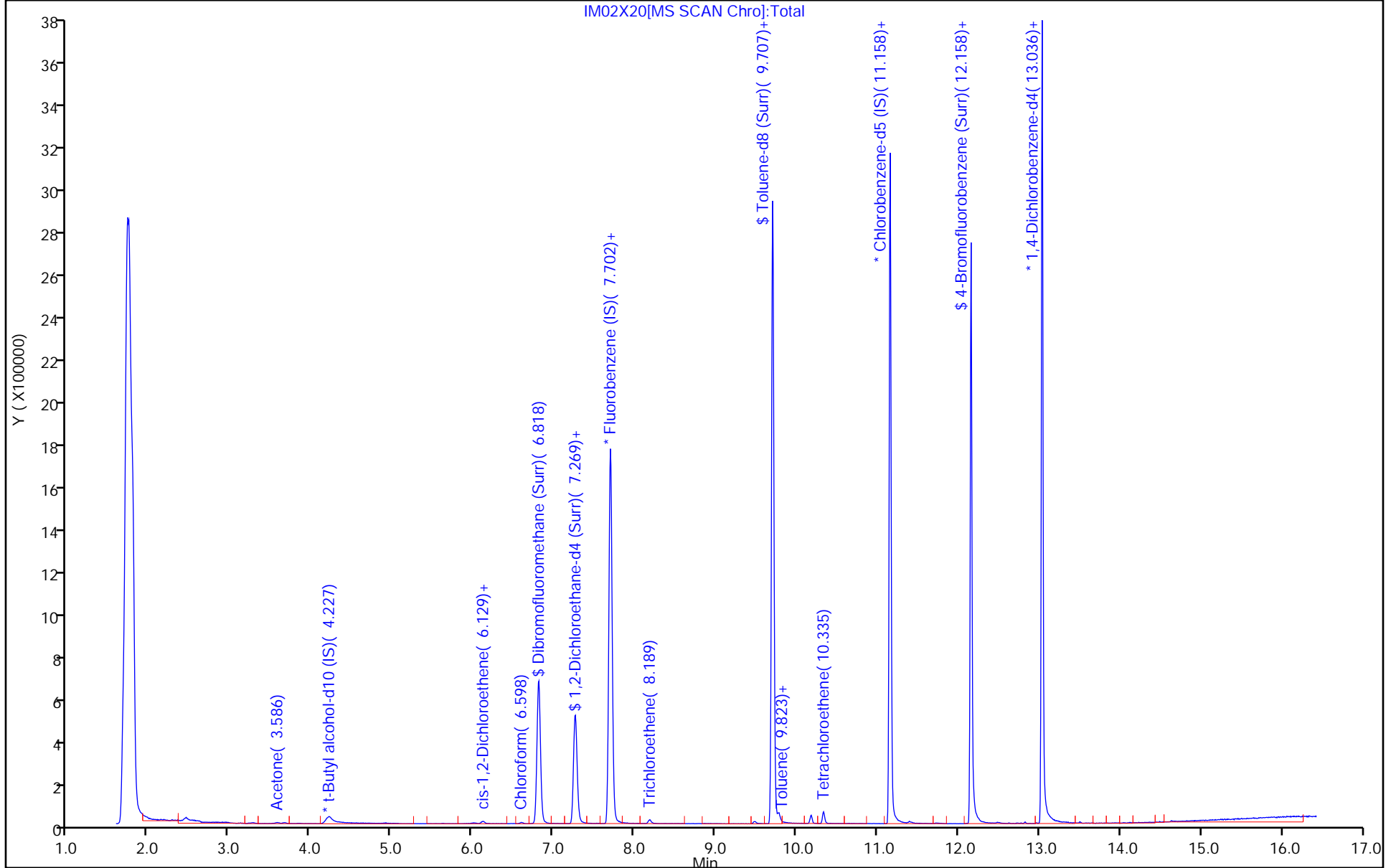
ALS Bottle#: 20

Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Environment Testing, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X20.D
 Lims ID: 410-81767-A-11
 Client ID: HD-COD-SW-28-0/1-0
 Sample Type: Client
 Inject. Date: 02-May-2022 16:06:30 ALS Bottle#: 20 Worklist Smp#: 21
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0056183-021
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 03-May-2022 10:47:21 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1607

First Level Reviewer: kaewrungrueangp

Date: 03-May-2022 10:49:34

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.43	94.29
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.6	105.51
\$ 75 Toluene-d8 (Surr)	10.0	10.5	104.86
\$ 100 4-Bromofluorobenzene (Surr)	10.0	9.46	94.57

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X20.D

Injection Date: 02-May-2022 16:06:30

Instrument ID: 19930

Lims ID: 410-81767-A-11

Lab Sample ID: 410-81767-11

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

Operator ID: KNK41612

ALS Bottle#: 20

Worklist Smp#: 21

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

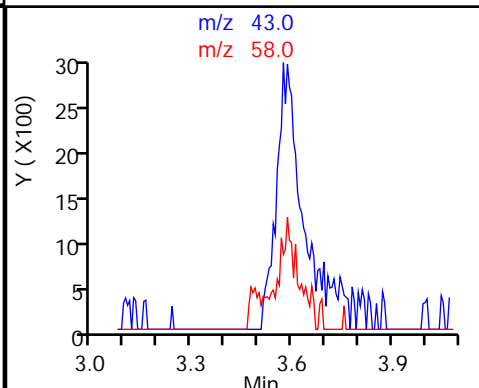
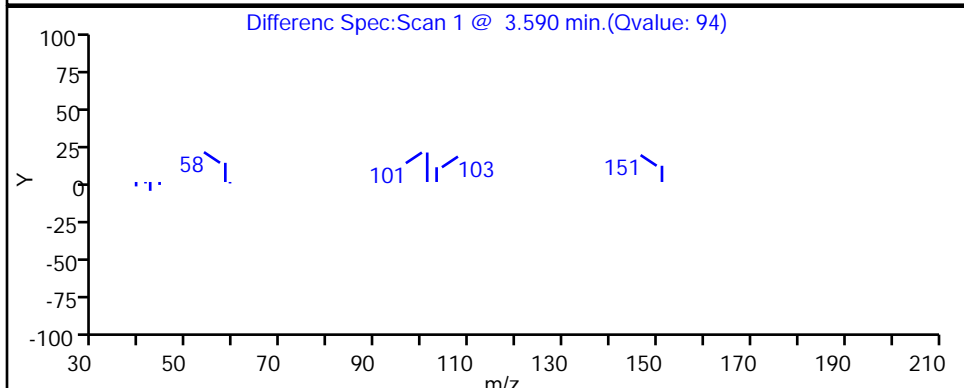
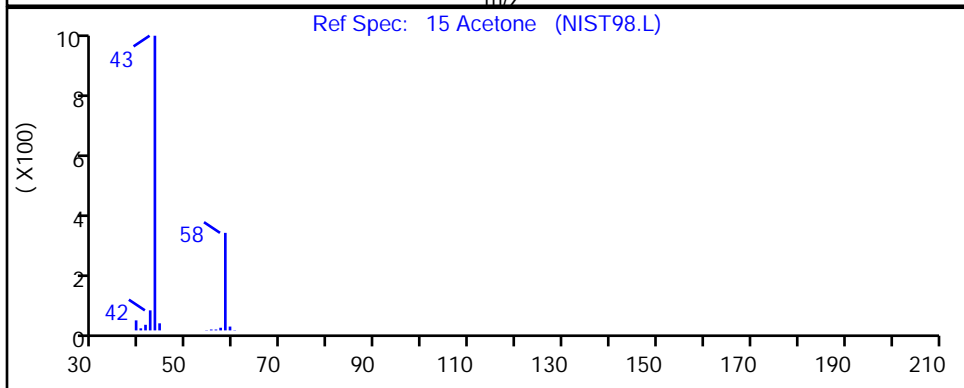
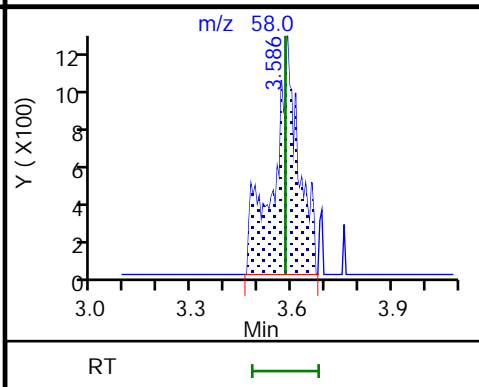
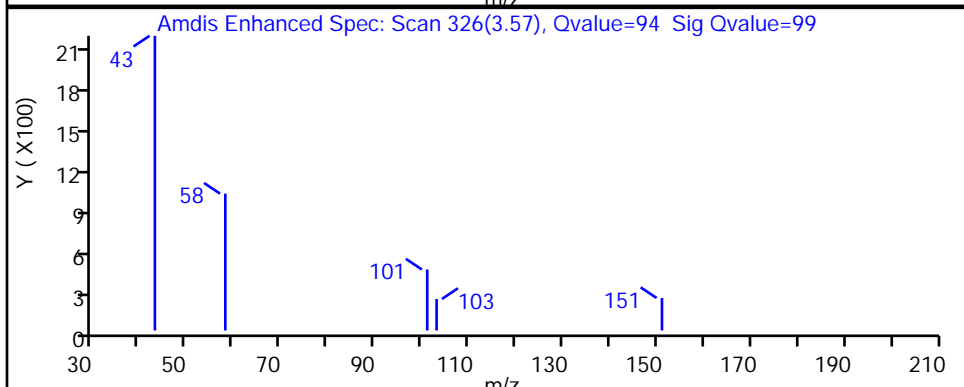
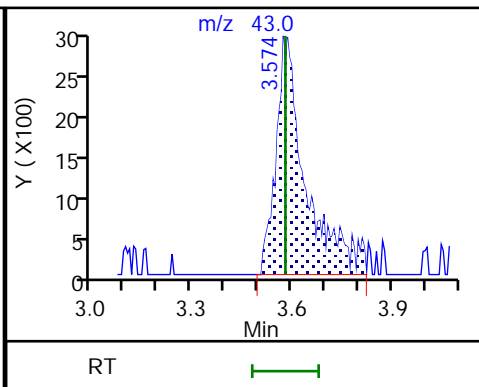
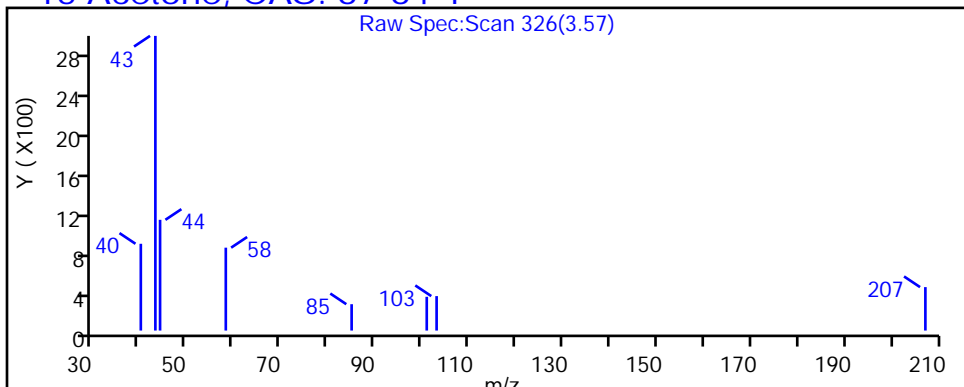
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

15 Acetone, CAS: 67-64-1



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X20.D

Injection Date: 02-May-2022 16:06:30

Instrument ID: 19930

Lims ID: 410-81767-A-11

Lab Sample ID: 410-81767-11

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

Operator ID: KNK41612

ALS Bottle#: 20

Worklist Smp#: 21

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

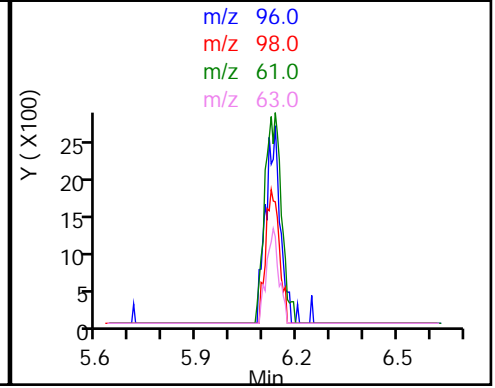
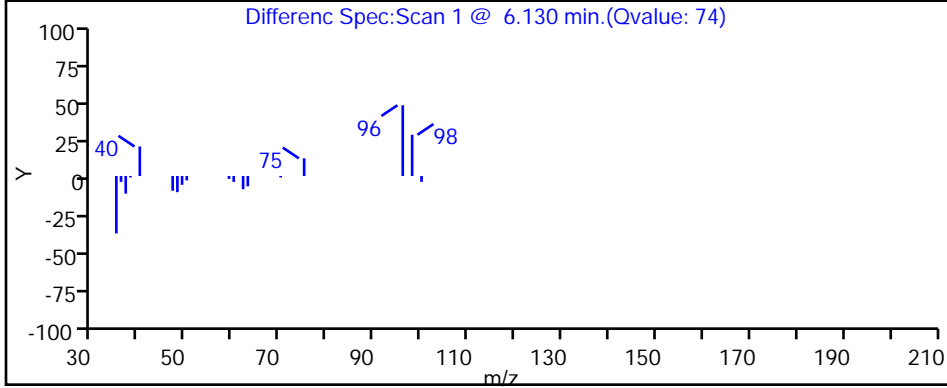
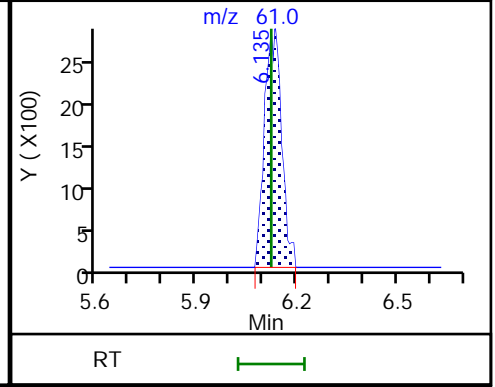
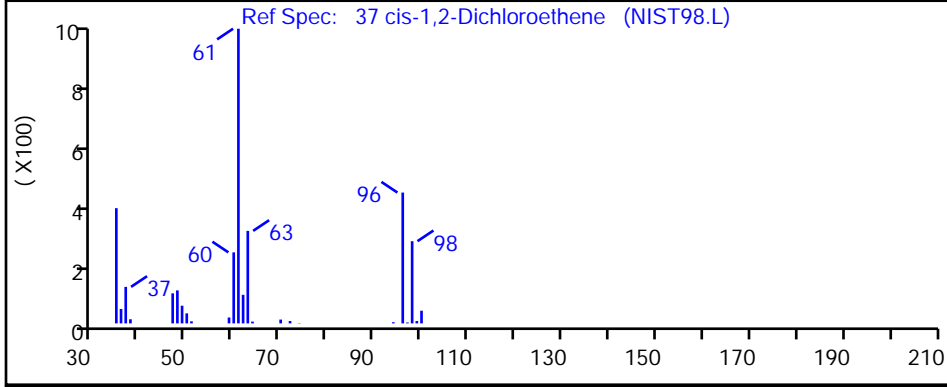
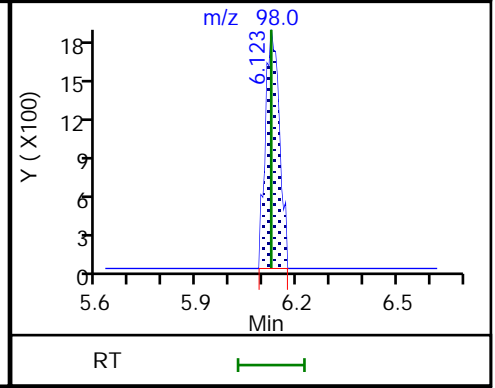
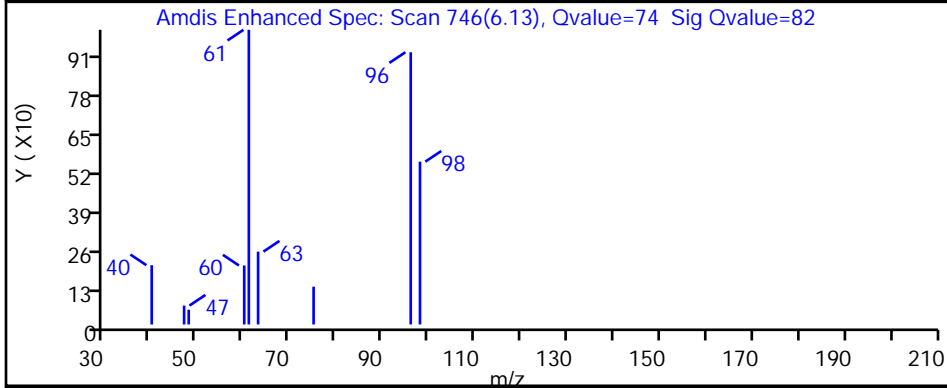
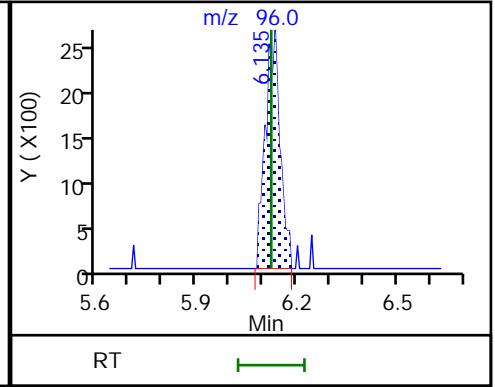
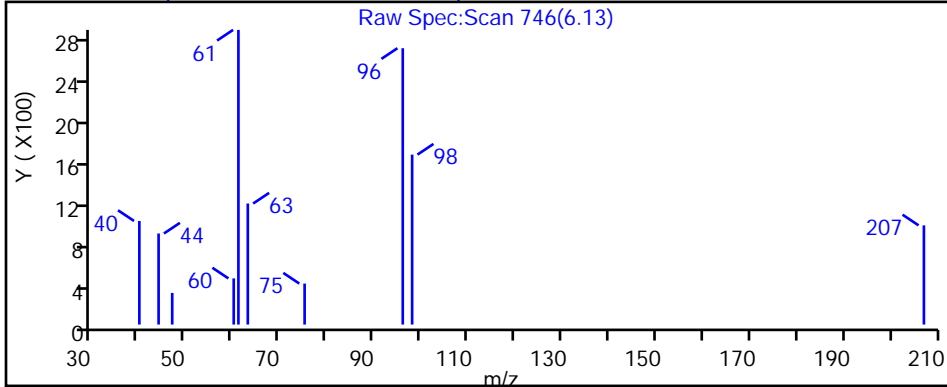
Method: 8260 25ml HP31

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



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X20.D

Injection Date: 02-May-2022 16:06:30 Instrument ID: 19930

Lims ID: 410-81767-A-11 Lab Sample ID: 410-81767-11

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

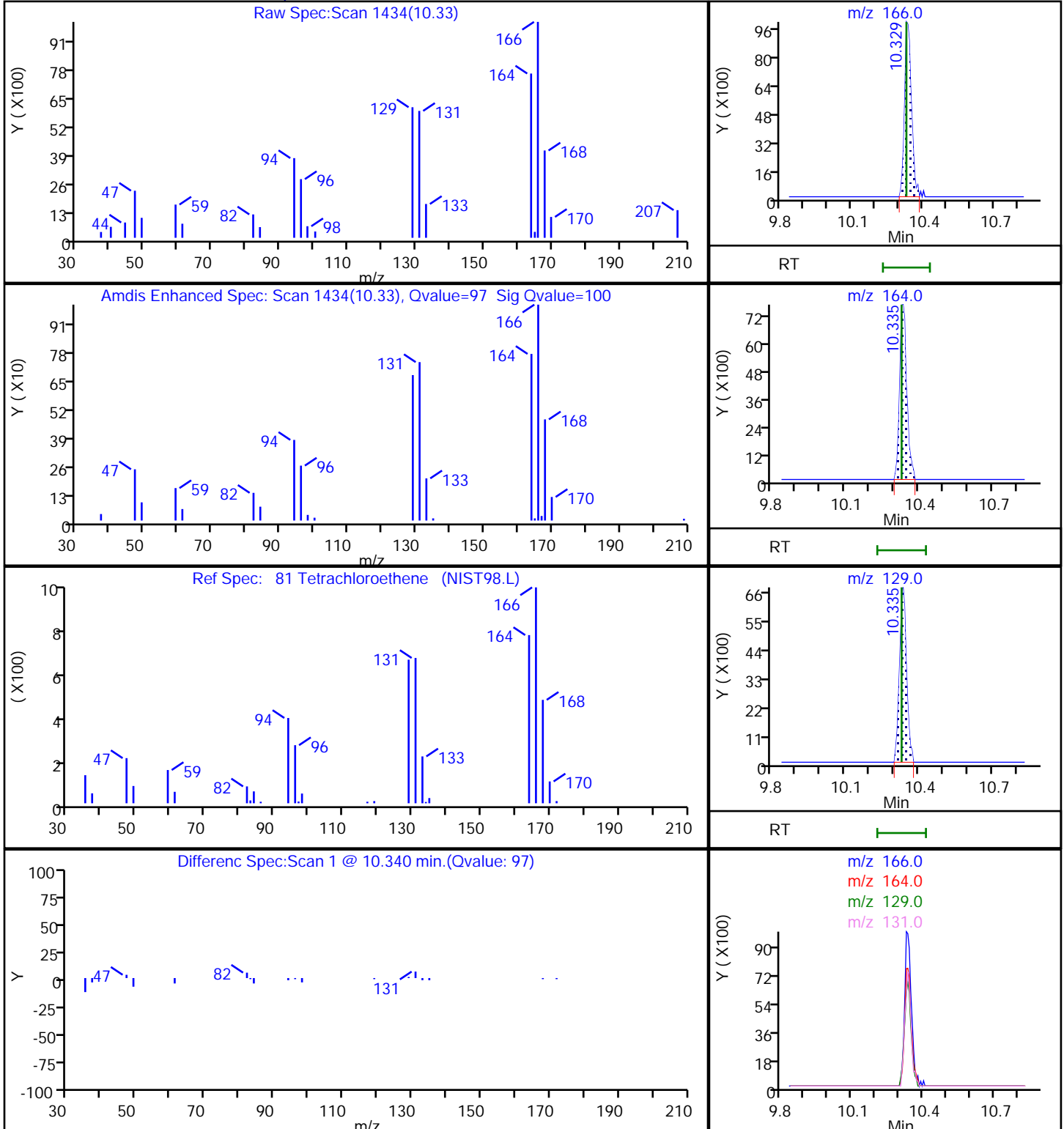
Operator ID: KNK41612 ALS Bottle#: 20 Worklist Smp#: 21

Purge Vol: 25.000 mL Dil. Factor: 1.0000

Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D

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

81 Tetrachloroethene, CAS: 127-18-4



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X20.D

Injection Date: 02-May-2022 16:06:30

Instrument ID: 19930

Lims ID: 410-81767-A-11

Lab Sample ID: 410-81767-11

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

Operator ID: KNK41612

ALS Bottle#: 20

Worklist Smp#: 21

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

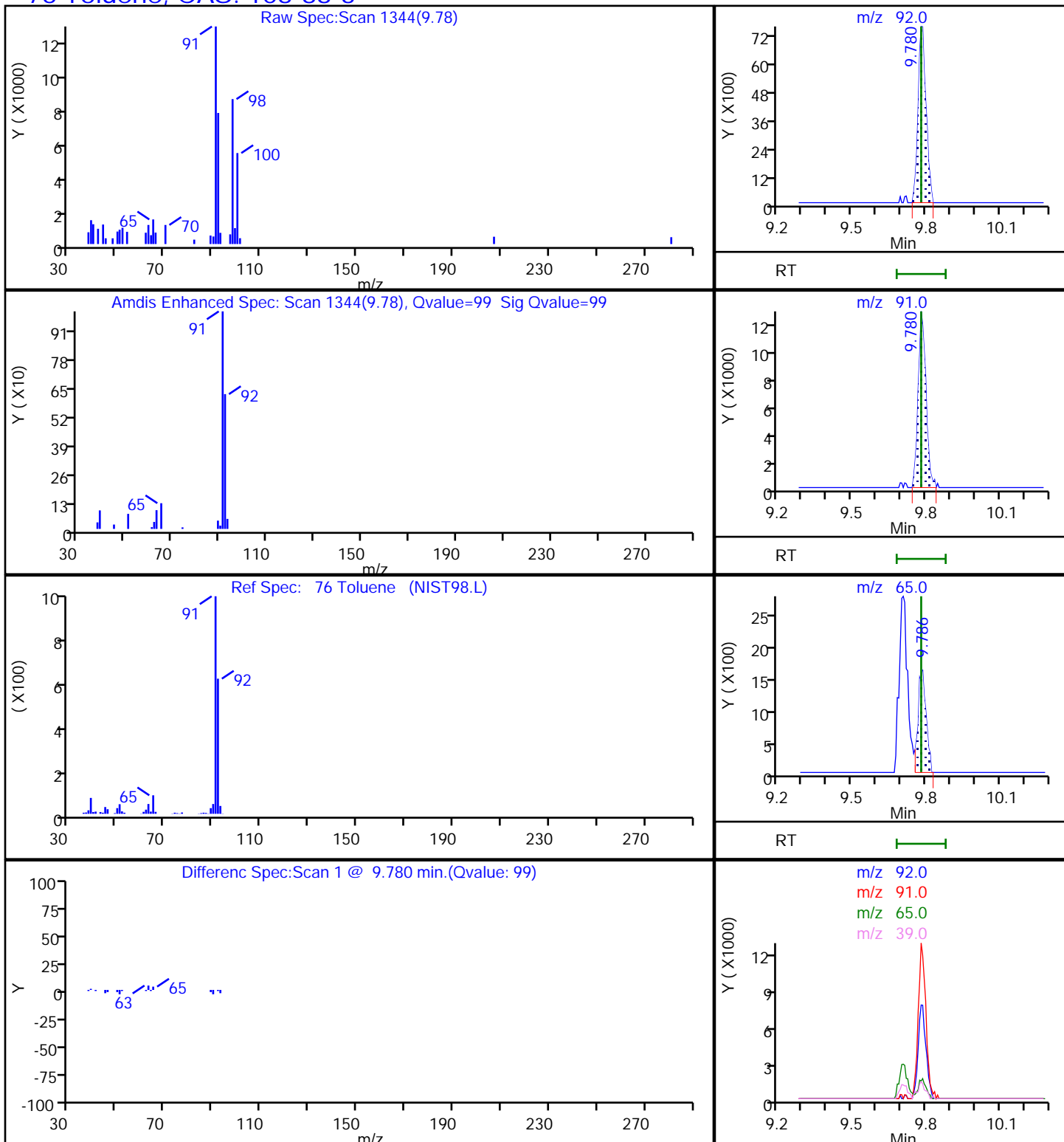
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

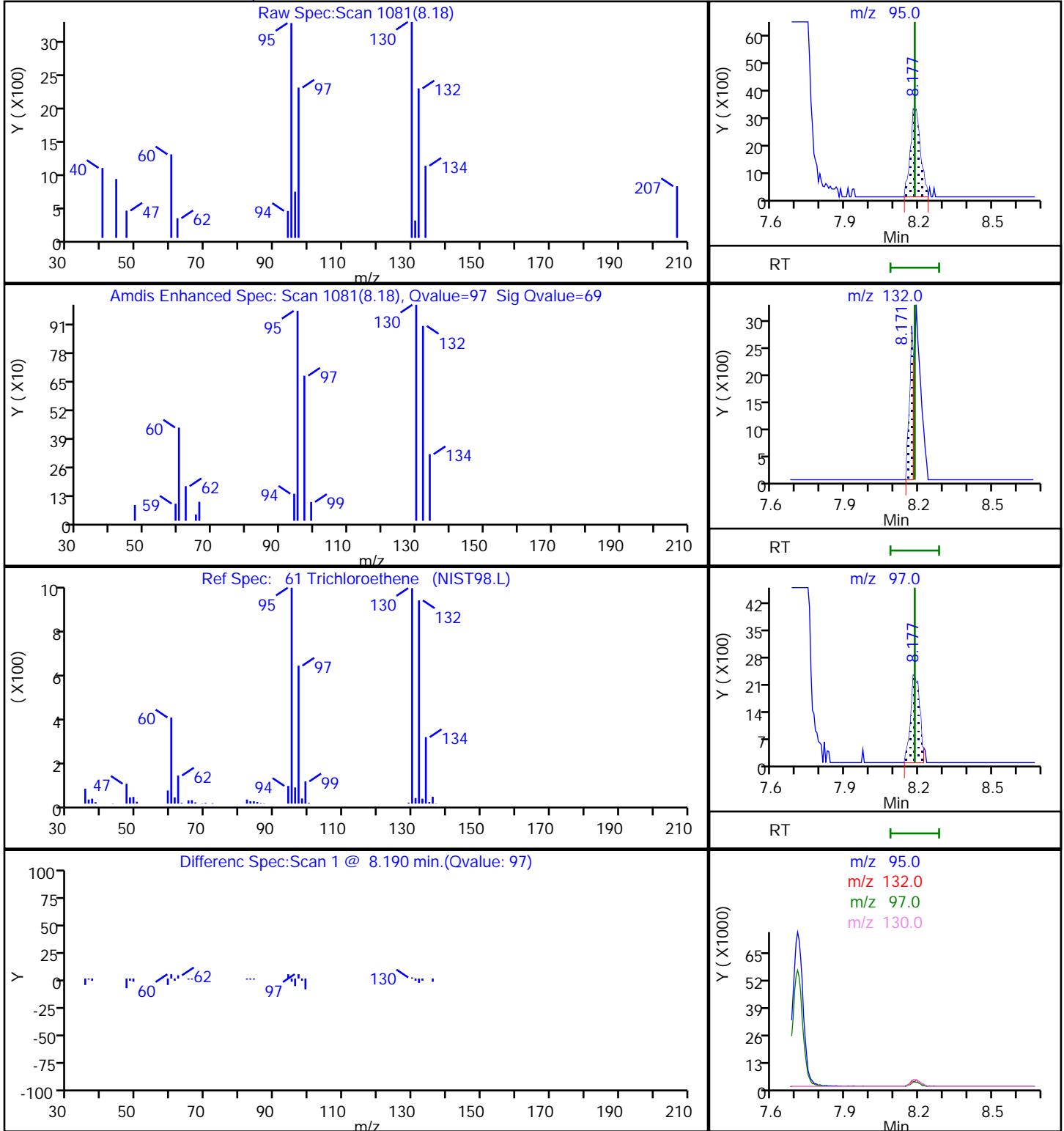
MS Quad

76 Toluene, CAS: 108-88-3



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X20.D
Injection Date: 02-May-2022 16:06:30 Instrument ID: 19930
Lims ID: 410-81767-A-11 Lab Sample ID: 410-81767-11
Client ID: HD-COD-SW-28-0/1-0
Operator ID: KNK41612 ALS Bottle#: 20 Worklist Smp#: 21
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) MS Quad

61 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-29-0/1-0 Lab Sample ID: 410-81767-12
 Matrix: Water Lab File ID: IM02X21.D
 Analysis Method: 8260D Date Collected: 04/26/2022 09:00
 Sample wt/vol: 25 (mL) Date Analyzed: 05/02/2022 16:27
 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.: 250524 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	1.5	J	5.0	0.90
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	^c cn	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	^c cn	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	0.089	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	0.28	J	0.50	0.060
108-88-3	Toluene	0.098	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
79-01-6	Trichloroethene	0.11	J	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-29-0/1-0 Lab Sample ID: 410-81767-12
 Matrix: Water Lab File ID: IM02X21.D
 Analysis Method: 8260D Date Collected: 04/26/2022 09:00
 Sample wt/vol: 25 (mL) Date Analyzed: 05/02/2022 16:27
 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.: 250524 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
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)	105		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	95		80-120
2037-26-5	Toluene-d8 (Surr)	107		80-120

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X21.D
 Lims ID: 410-81767-A-12
 Client ID: HD-COD-SW-29-0/1-0
 Sample Type: Client
 Inject. Date: 02-May-2022 16:27:30 ALS Bottle#: 21 Worklist Smp#: 22
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0056183-022
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 03-May-2022 10:47:21 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1607

First Level Reviewer: kaewrungrueangp Date: 03-May-2022 10:50:21

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50	2.166	2.166	0.000	1	2902	0.0325	
5 Vinyl chloride	62		2.282				ND	
7 Bromomethane	94		2.617				ND	
8 Chloroethane	64		2.696				ND	
14 1,1-Dichloroethene	96		3.556				ND	
15 Acetone	43	3.586	3.580	0.006	97	13978	1.46	
19 Carbon disulfide	76		3.861				ND	7
23 Methylene Chloride	84		4.221				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.220	4.227	-0.007	24	175954	50.0	
27 Methyl tert-butyl ether	73		4.623				ND	
28 trans-1,2-Dichloroethene	96		4.641				ND	
31 1,1-Dichloroethane	63		5.294				ND	
36 2-Butanone (MEK)	43		6.086				ND	7
37 cis-1,2-Dichloroethene	96	6.141	6.123	0.018	80	7061	0.0894	
43 Chlorobromomethane	128		6.458				ND	
45 Chloroform	83	6.610	6.604	0.006	18	3704	0.0291	
\$ 46 Dibromofluoromethane (Surr)	113	6.824	6.818	0.006	94	597883	9.50	
47 1,1,1-Trichloroethane	97		6.830				ND	7
50 Carbon tetrachloride	117		7.043				ND	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.275	7.263	0.012	68	118040	10.5	
54 Benzene	78		7.299				ND	7
56 1,2-Dichloroethane	62		7.372				ND	
* 58 Fluorobenzene (IS)	96	7.702	7.702	0.000	99	2324111	10.0	
61 Trichloroethene	95	8.189	8.183	0.006	93	8522	0.1083	
63 1,2-Dichloropropane	63		8.512				ND	
68 Dichlorobromomethane	83		8.854				ND	
73 cis-1,3-Dichloropropene	75		9.396				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	94	2303676	10.7	
76 Toluene	92	9.786	9.780	0.006	99	16412	0.0979	
78 trans-1,3-Dichloropropene	75		10.036				ND	
80 1,1,2-Trichloroethane	97		10.238				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.341	10.329	0.012	97	27387	0.2841	
83 2-Hexanone	43		10.451				ND	
85 Chlorodibromomethane	129		10.616				ND	
86 Ethylene Dibromide	107		10.731				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	86	1777161	10.0	
90 Chlorobenzene	112		11.183				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.262				ND	
92 Ethylbenzene	91		11.268				ND	
93 m-Xylene & p-Xylene	106		11.384				ND	7
94 o-Xylene	106		11.713				ND	
95 Styrene	104		11.725				ND	
96 Bromoform	173		11.884				ND	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	94	813329	9.70	
101 1,1,2,2-Tetrachloroethane	83		12.256				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	975533	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_LLcentISS_00004

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X21.D

Injection Date: 02-May-2022 16:27:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: 410-81767-A-12

Lab Sample ID: 410-81767-12

Worklist Smp#: 22

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

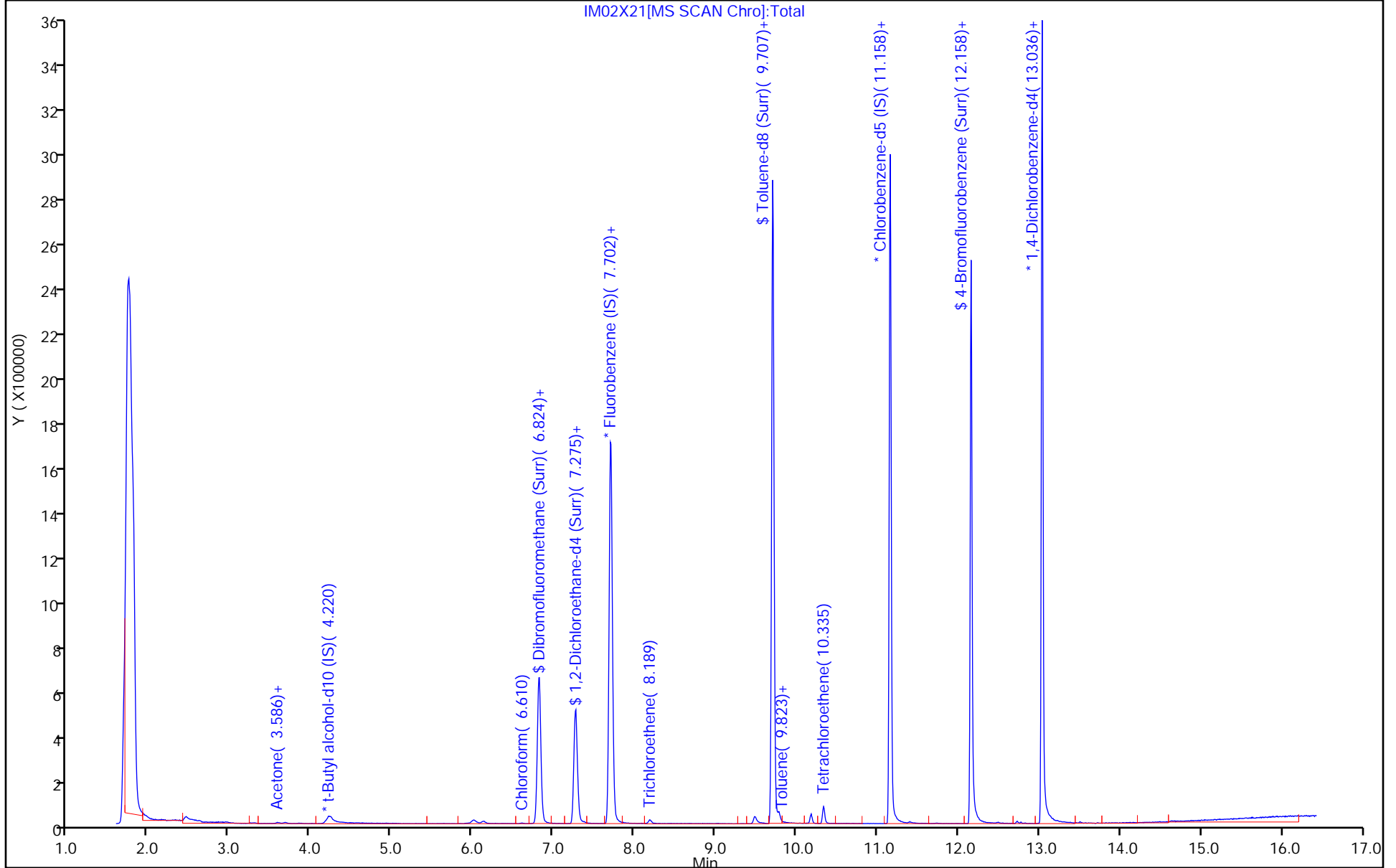
ALS Bottle#: 21

Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Environment Testing, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X21.D
 Lims ID: 410-81767-A-12
 Client ID: HD-COD-SW-29-0/1-0
 Sample Type: Client
 Inject. Date: 02-May-2022 16:27:30 ALS Bottle#: 21 Worklist Smp#: 22
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0056183-022
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 03-May-2022 10:47:21 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1607

First Level Reviewer: kaewrungrueangp

Date: 03-May-2022 10:50:21

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.50	95.03
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.5	105.33
\$ 75 Toluene-d8 (Surr)	10.0	10.7	106.52
\$ 100 4-Bromofluorobenzene (Surr)	10.0	9.70	96.97

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X21.D

Injection Date: 02-May-2022 16:27:30

Instrument ID: 19930

Lims ID: 410-81767-A-12

Lab Sample ID: 410-81767-12

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

Operator ID: KNK41612

ALS Bottle#: 21

Worklist Smp#: 22

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

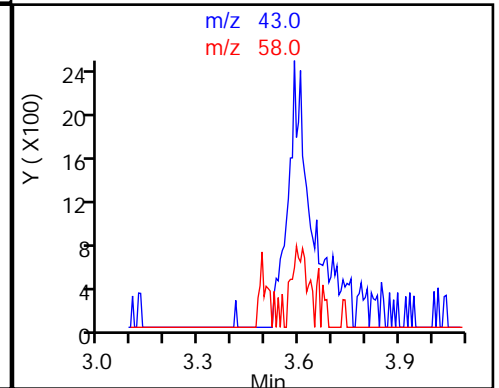
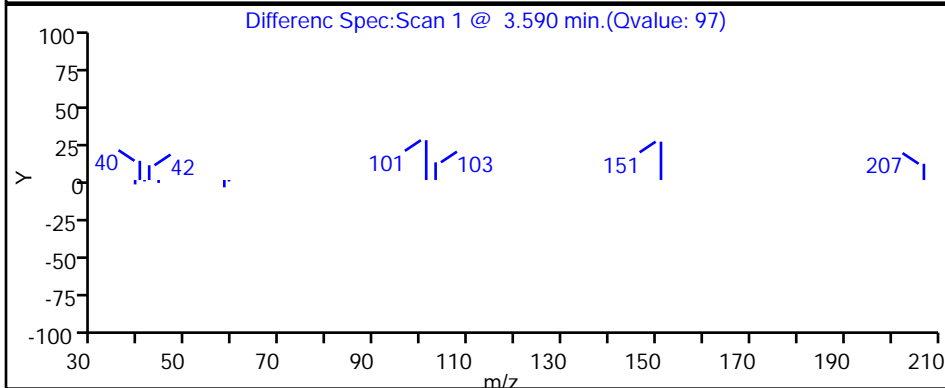
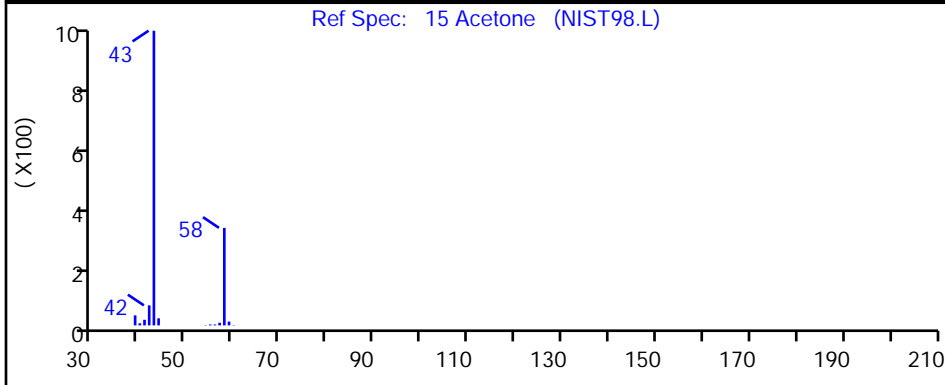
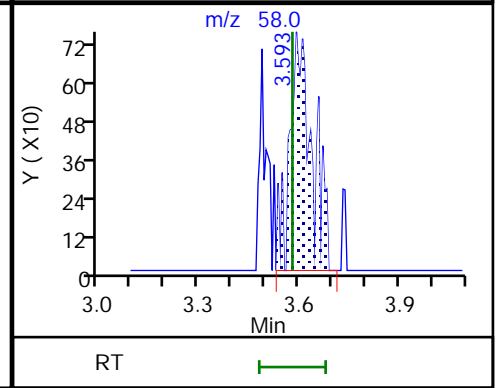
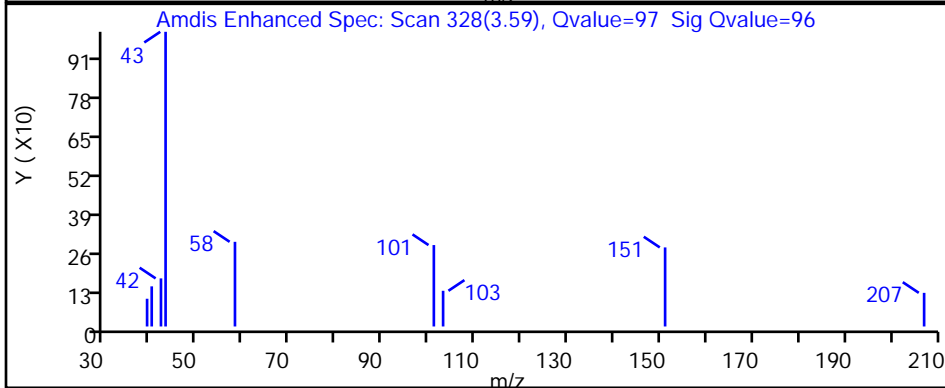
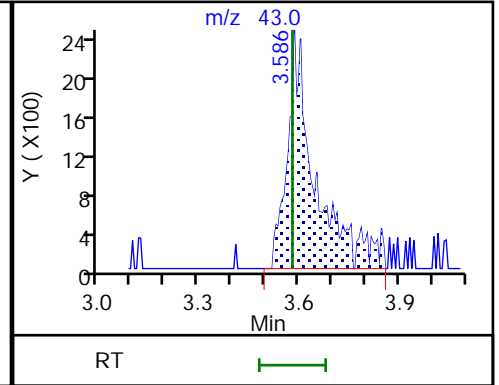
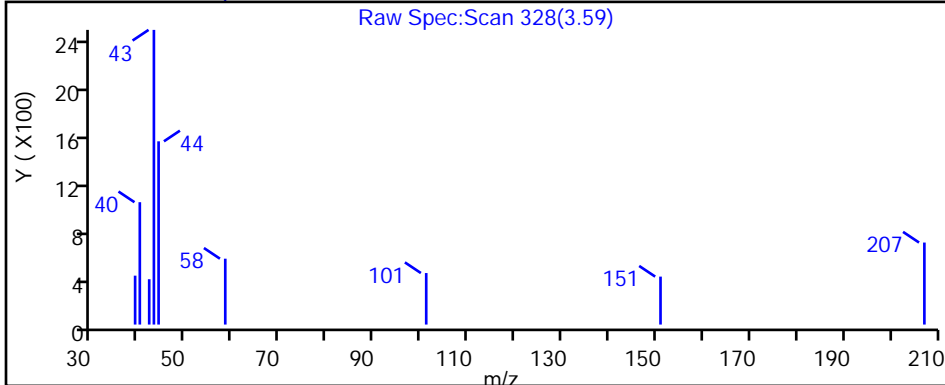
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

15 Acetone, CAS: 67-64-1



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X21.D

Injection Date: 02-May-2022 16:27:30

Instrument ID: 19930

Lims ID: 410-81767-A-12

Lab Sample ID: 410-81767-12

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

Operator ID: KNK41612

ALS Bottle#: 21

Worklist Smp#: 22

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

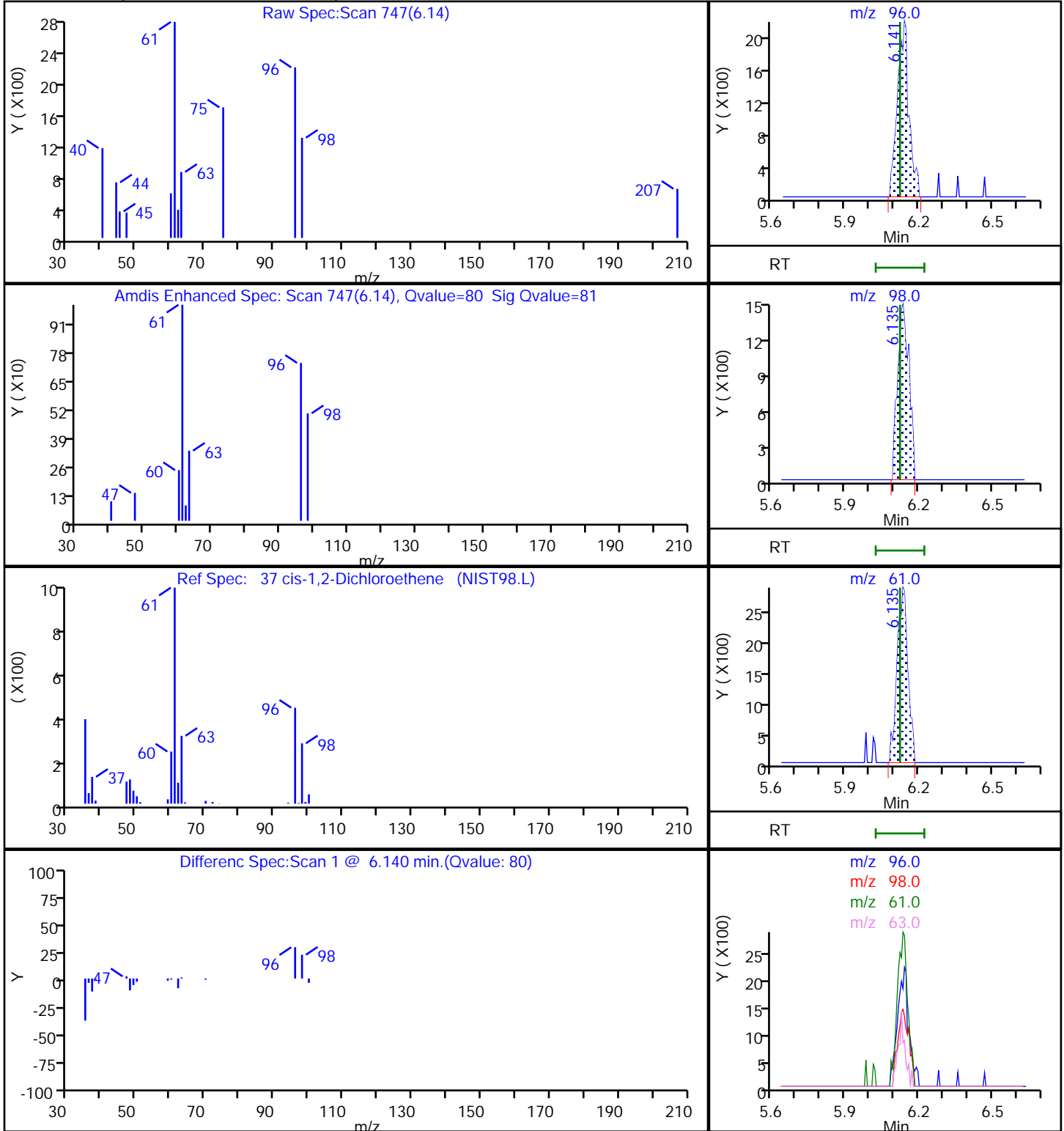
Method: 8260 25ml HP31

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



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X21.D

Injection Date: 02-May-2022 16:27:30

Instrument ID: 19930

Lims ID: 410-81767-A-12

Lab Sample ID: 410-81767-12

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

Operator ID: KNK41612

ALS Bottle#: 21

Worklist Smp#: 22

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

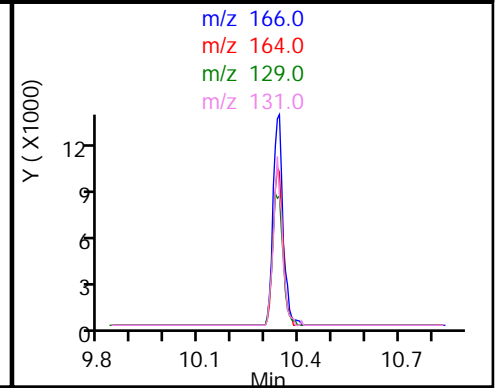
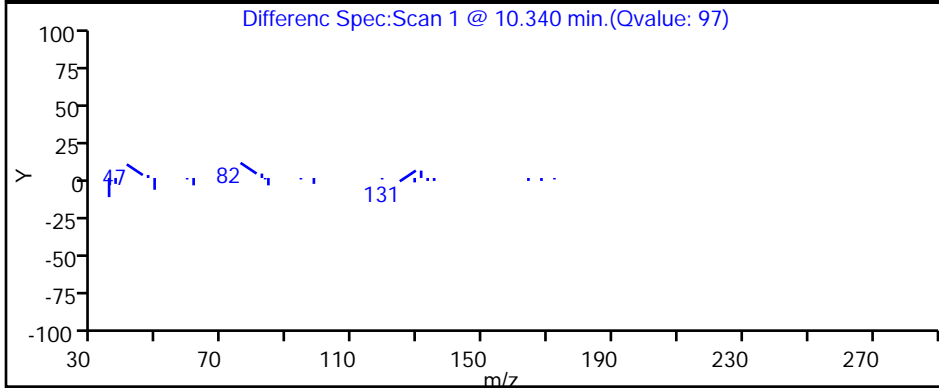
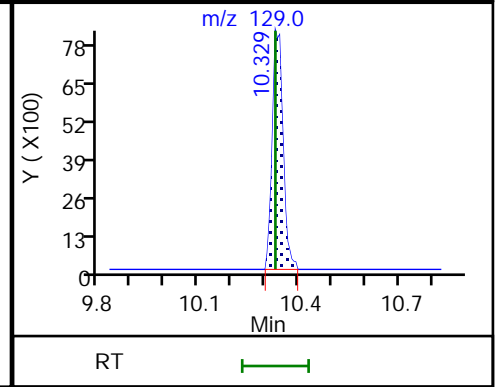
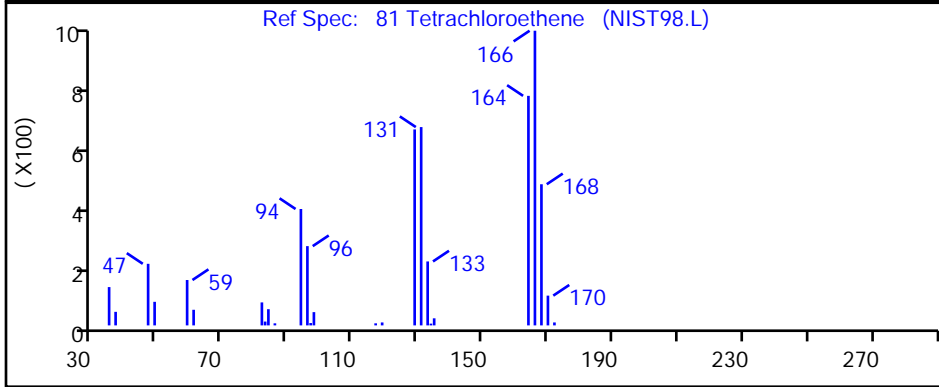
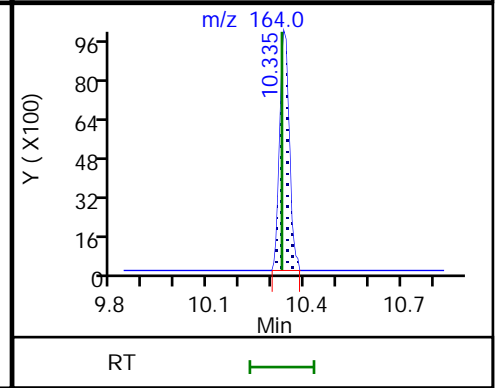
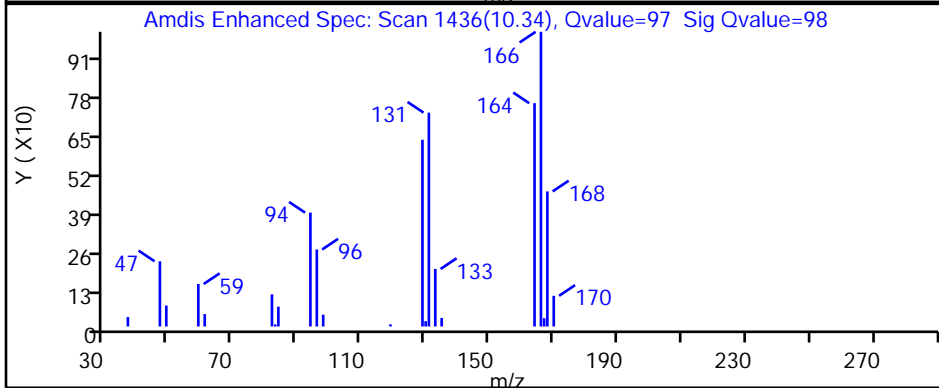
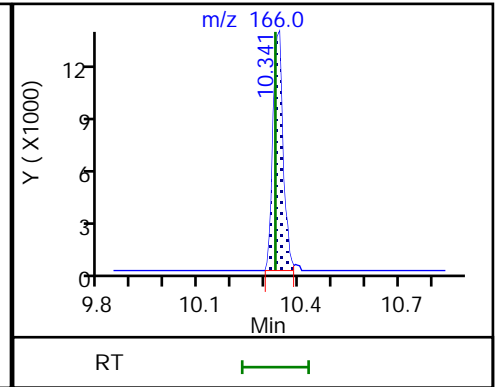
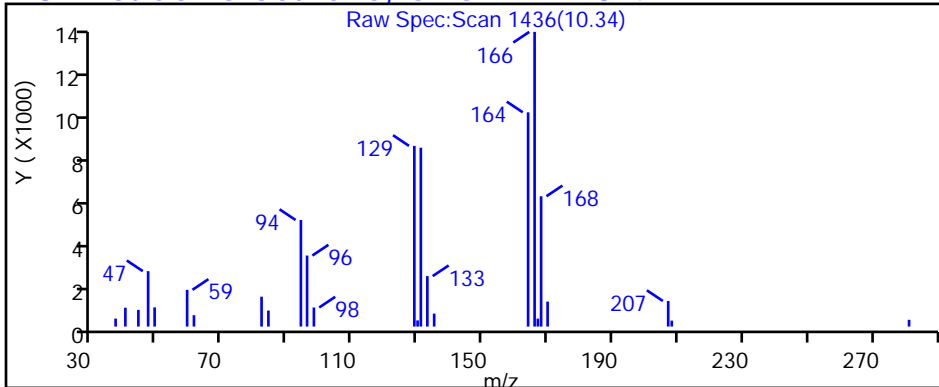
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

81 Tetrachloroethene, CAS: 127-18-4



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X21.D

Injection Date: 02-May-2022 16:27:30

Instrument ID: 19930

Lims ID: 410-81767-A-12

Lab Sample ID: 410-81767-12

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

Operator ID: KNK41612

ALS Bottle#: 21

Worklist Smp#: 22

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

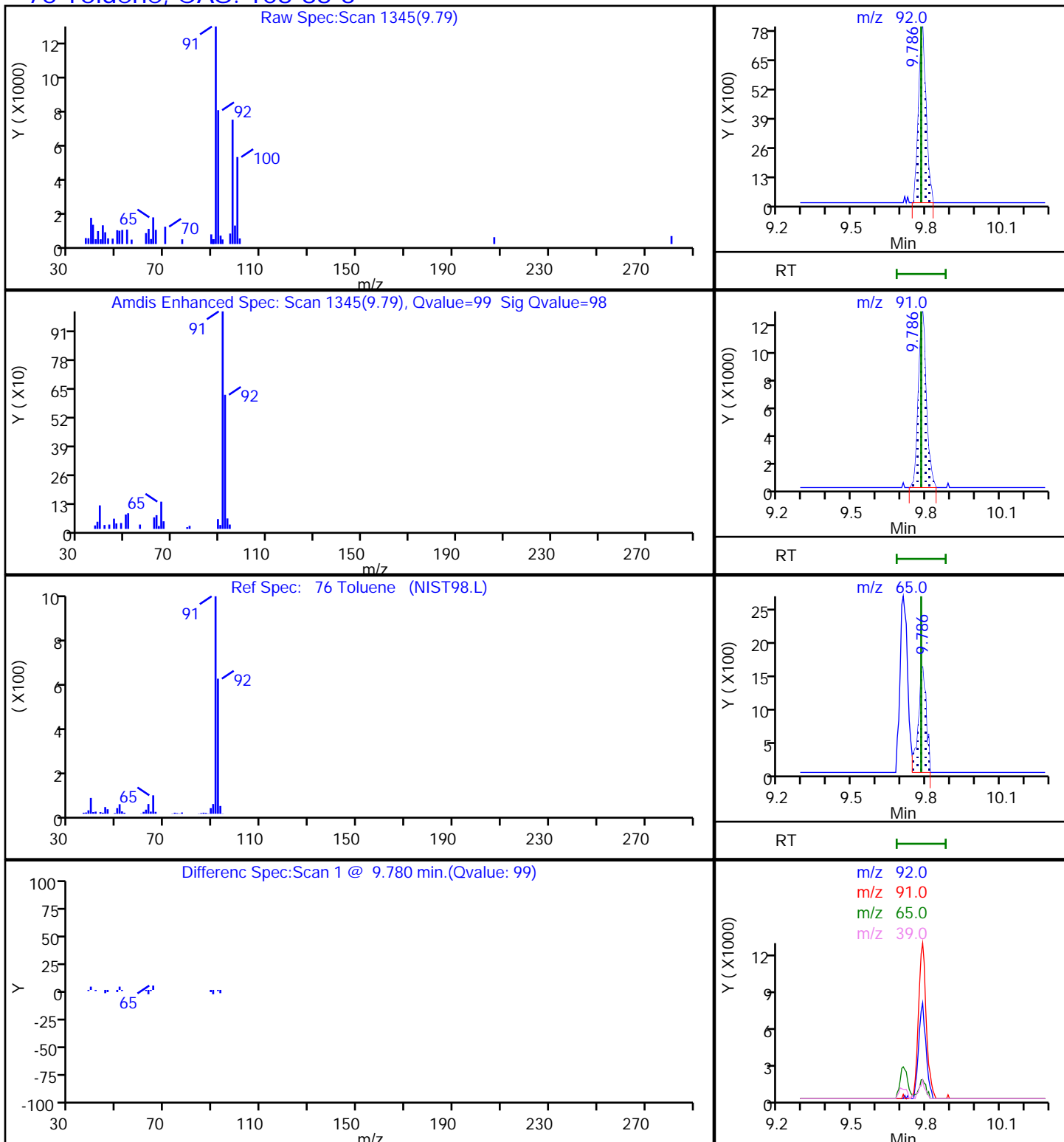
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

76 Toluene, CAS: 108-88-3



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X21.D

Injection Date: 02-May-2022 16:27:30

Instrument ID: 19930

Lims ID: 410-81767-A-12

Lab Sample ID: 410-81767-12

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

Operator ID: KNK41612

ALS Bottle#: 21

Worklist Smp#: 22

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

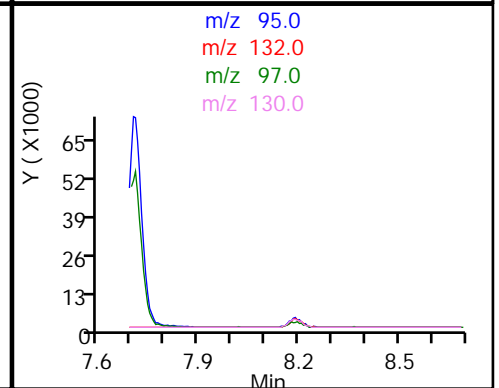
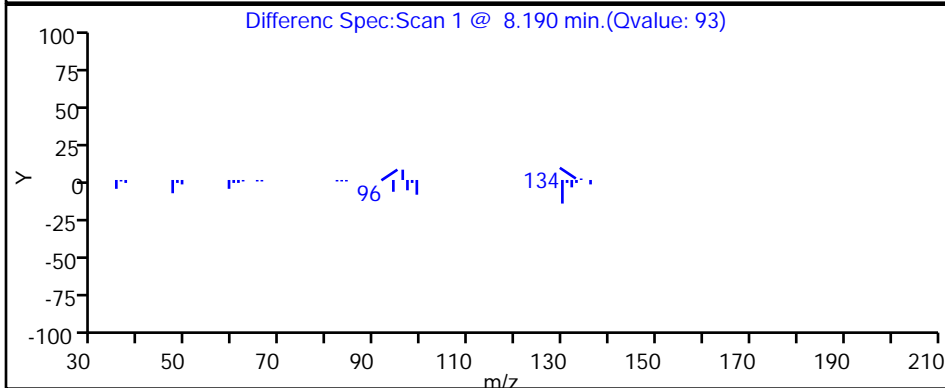
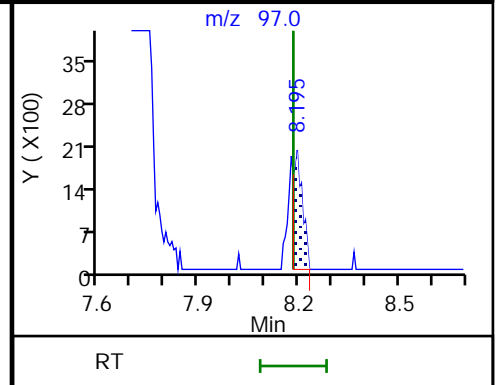
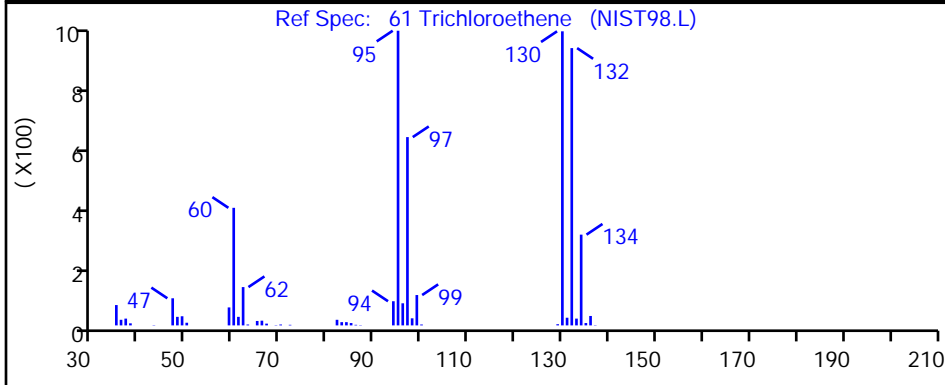
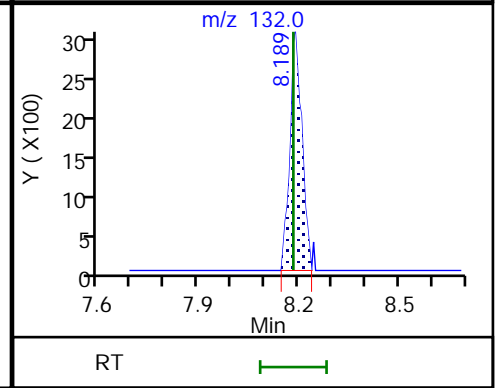
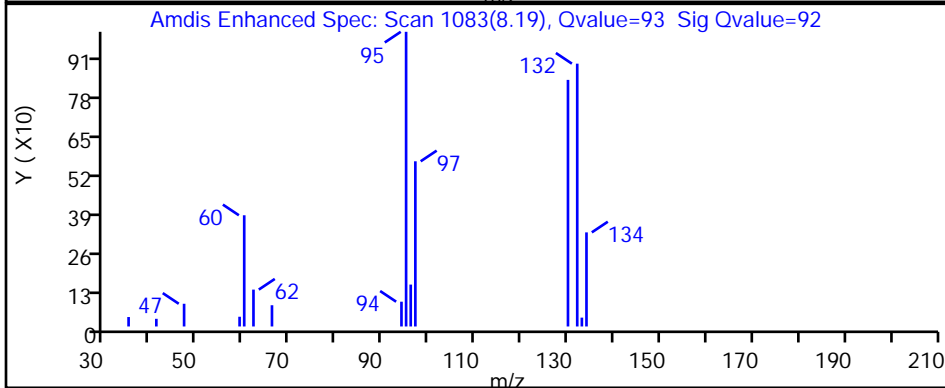
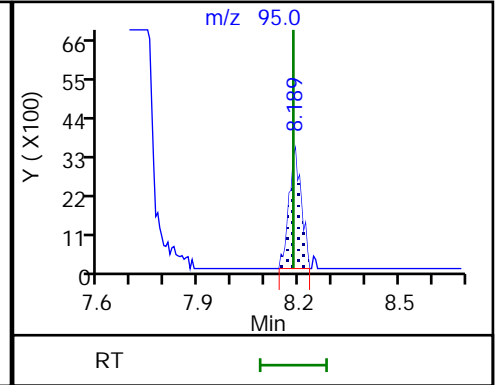
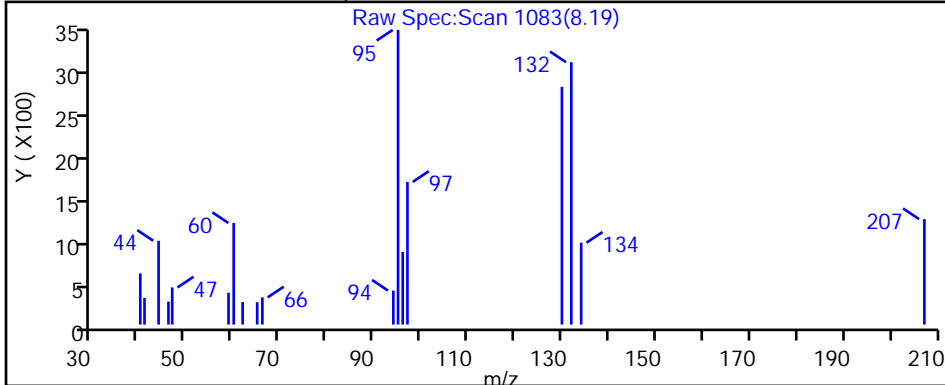
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

61 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1
 SDG No.: _____
 Client Sample ID: HD-QC1-0/1-1 Lab Sample ID: 410-81767-13
 Matrix: Water Lab File ID: IM02X22.D
 Analysis Method: 8260D Date Collected: 04/26/2022 12:00
 Sample wt/vol: 25 (mL) Date Analyzed: 05/02/2022 16:48
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 250524 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	6.7		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	1.3		0.50	0.070
75-35-4	1,1-Dichloroethene	0.58		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
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	^c cn	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	^c cn	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	3.9		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
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
79-01-6	Trichloroethene	4.8		0.50	0.060
75-01-4	Vinyl chloride	ND		0.50	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1
 SDG No.: _____
 Client Sample ID: HD-QC1-0/1-1 Lab Sample ID: 410-81767-13
 Matrix: Water Lab File ID: IM02X22.D
 Analysis Method: 8260D Date Collected: 04/26/2022 12:00
 Sample wt/vol: 25 (mL) Date Analyzed: 05/02/2022 16:48
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 250524 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1330-20-7	Xylenes, Total	ND		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	96		80-120
2037-26-5	Toluene-d8 (Surr)	103		80-120

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X22.D
 Lims ID: 410-81767-A-13
 Client ID: HD-QC1-0/1-1
 Sample Type: Client
 Inject. Date: 02-May-2022 16:48:30 ALS Bottle#: 22 Worklist Smp#: 23
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0056183-023
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 03-May-2022 10:52:23 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1607

First Level Reviewer: kaewrungrueangp

Date: 03-May-2022 10:52:42

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50		2.166				ND	7
5 Vinyl chloride	62		2.282				ND	7
7 Bromomethane	94		2.617				ND	
8 Chloroethane	64		2.696				ND	
14 1,1-Dichloroethene	96	3.562	3.556	0.006	97	36434	0.5800	
15 Acetone	43	3.605	3.580	0.025	35	5527	0.5596	
19 Carbon disulfide	76		3.861				ND	7
23 Methylene Chloride	84		4.221				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.227	4.227	0.000	29	182079	50.0	
27 Methyl tert-butyl ether	73	4.647	4.623	0.024	89	5903	0.0360	
28 trans-1,2-Dichloroethene	96	4.653	4.641	0.012	89	2987	0.0419	M
31 1,1-Dichloroethane	63	5.300	5.294	0.006	97	158023	1.30	
36 2-Butanone (MEK)	43		6.086				ND	7
37 cis-1,2-Dichloroethene	96	6.129	6.123	0.006	80	313820	3.86	
43 Chlorobromomethane	128		6.458				ND	
45 Chloroform	83	6.610	6.604	0.006	94	32623	0.2485	
\$ 46 Dibromofluoromethane (Surr)	113	6.818	6.818	0.000	94	622974	9.61	
47 1,1,1-Trichloroethane	97	6.830	6.830	0.000	98	858559	6.74	
50 Carbon tetrachloride	117	7.049	7.043	0.006	73	4975	0.0422	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.275	7.263	0.012	68	122648	10.6	
54 Benzene	78		7.299				ND	7
56 1,2-Dichloroethane	62		7.372				ND	7
* 58 Fluorobenzene (IS)	96	7.708	7.702	0.006	99	2394583	10.0	
61 Trichloroethene	95	8.183	8.183	0.000	98	386513	4.77	
63 1,2-Dichloropropane	63		8.512				ND	
68 Dichlorobromomethane	83		8.854				ND	
73 cis-1,3-Dichloropropene	75		9.396				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	7
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	94	2334915	10.3	
76 Toluene	92	9.793	9.780	0.013	98	7408	0.0422	
78 trans-1,3-Dichloropropene	75		10.036				ND	
80 1,1,2-Trichloroethane	97	10.244	10.238	0.006	16	1472	0.0306	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.335	10.329	0.006	97	8877913	87.9	E
83 2-Hexanone	43		10.451				ND	7
85 Chlorodibromomethane	129		10.616				ND	
86 Ethylene Dibromide	107		10.731				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	86	1861636	10.0	
90 Chlorobenzene	112		11.183				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.262				ND	
92 Ethylbenzene	91		11.268				ND	
93 m-Xylene & p-Xylene	106		11.384				ND	7
94 o-Xylene	106		11.713				ND	7
95 Styrene	104		11.725				ND	
96 Bromoform	173		11.884				ND	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	94	839230	9.55	
101 1,1,2,2-Tetrachloroethane	83		12.256				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	1011704	10.0	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MSV_LLcentISS_00004

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X22.D

Injection Date: 02-May-2022 16:48:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: 410-81767-A-13

Lab Sample ID: 410-81767-13

Worklist Smp#: 23

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

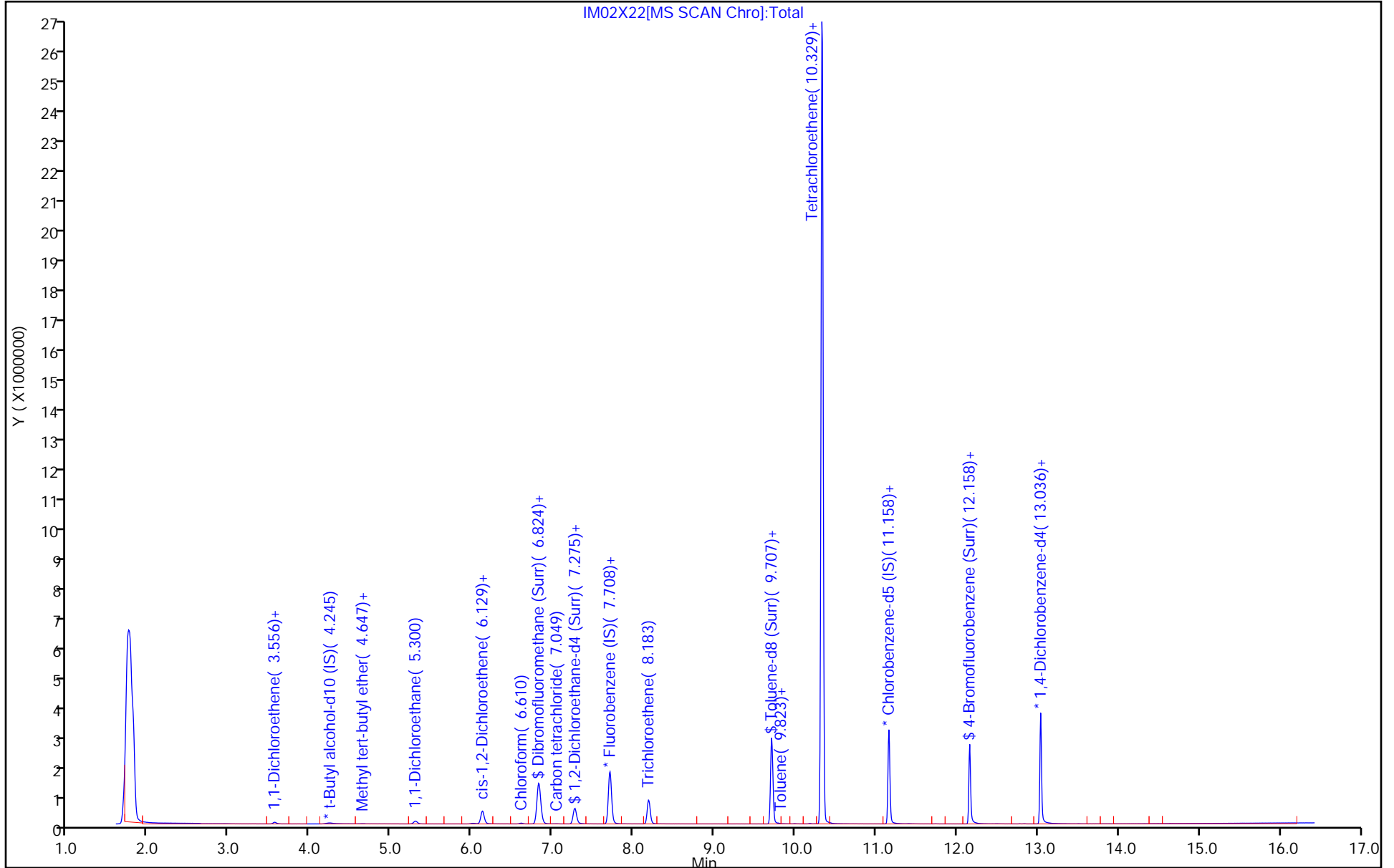
ALS Bottle#: 22

Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Environment Testing, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X22.D
 Lims ID: 410-81767-A-13
 Client ID: HD-QC1-0/1-1
 Sample Type: Client
 Inject. Date: 02-May-2022 16:48:30 ALS Bottle#: 22 Worklist Smp#: 23
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0056183-023
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 03-May-2022 10:52:23 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1607

First Level Reviewer: kaewrungrueangp

Date: 03-May-2022 10:52:42

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.61	96.11
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.6	106.22
\$ 75 Toluene-d8 (Surr)	10.0	10.3	103.06
\$ 100 4-Bromofluorobenzene (Surr)	10.0	9.55	95.52

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X22.D

Injection Date: 02-May-2022 16:48:30

Instrument ID: 19930

Lims ID: 410-81767-A-13

Lab Sample ID: 410-81767-13

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

Operator ID: KNK41612

ALS Bottle#: 22

Worklist Smp#: 23

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

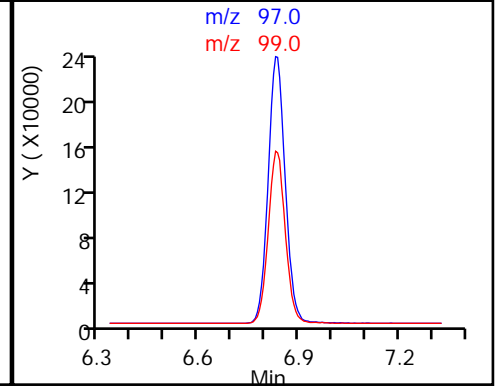
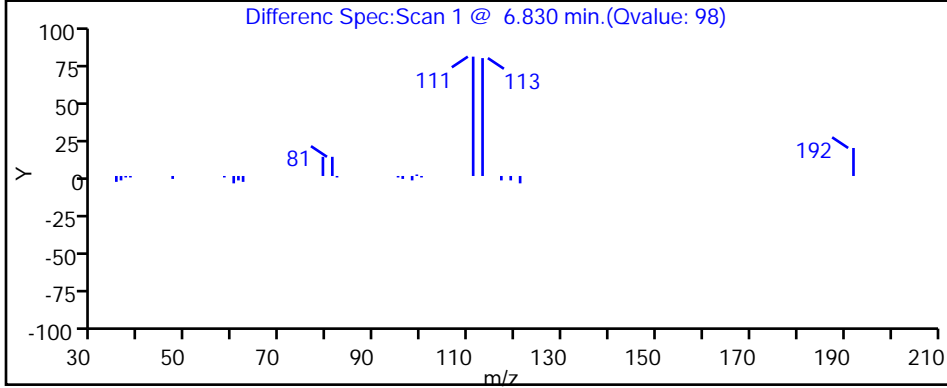
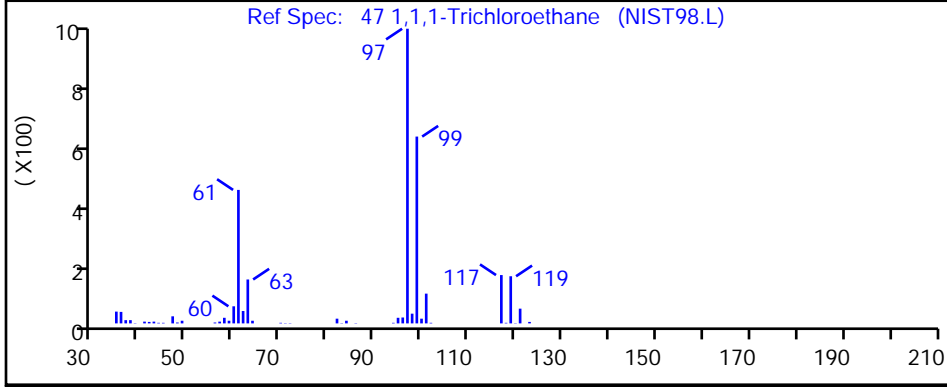
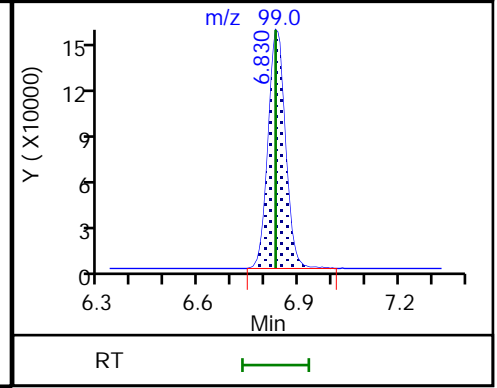
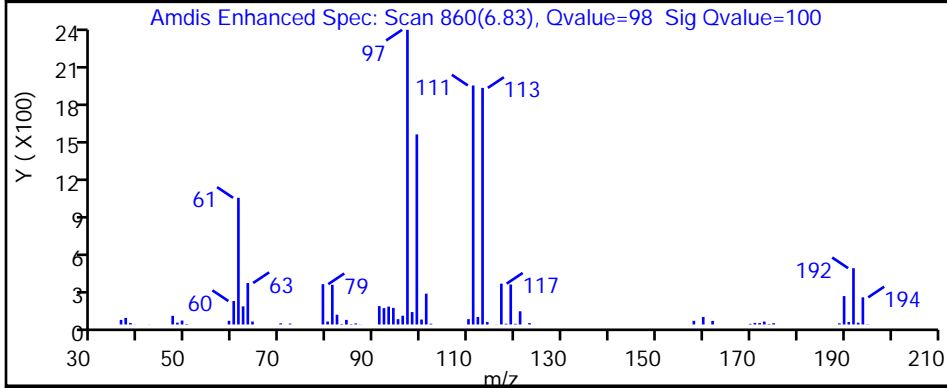
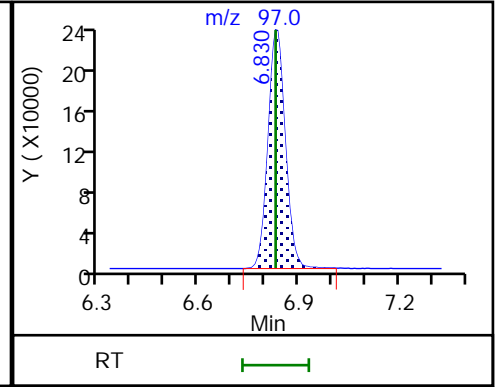
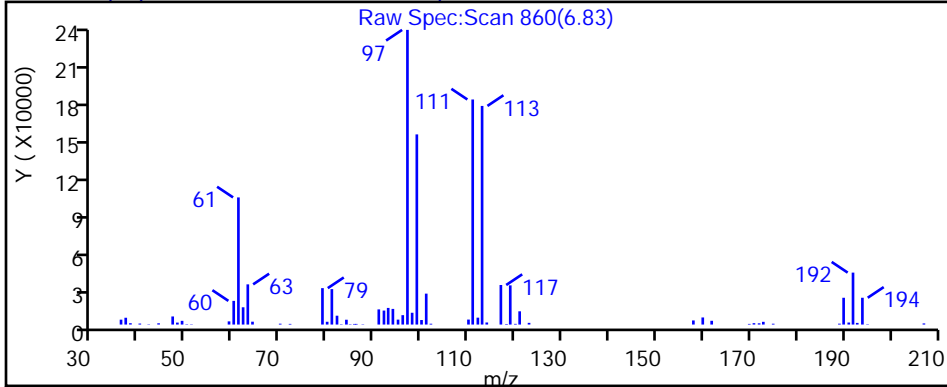
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

47 1,1,1-Trichloroethane, CAS: 71-55-6



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X22.D

Injection Date: 02-May-2022 16:48:30

Instrument ID: 19930

Lims ID: 410-81767-A-13

Lab Sample ID: 410-81767-13

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

Operator ID: KNK41612

ALS Bottle#: 22

Worklist Smp#: 23

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

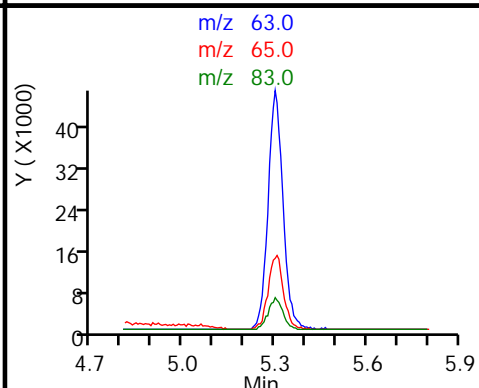
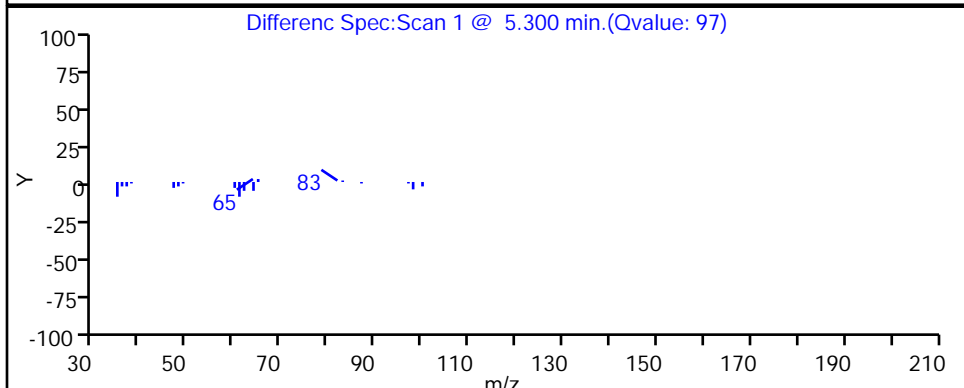
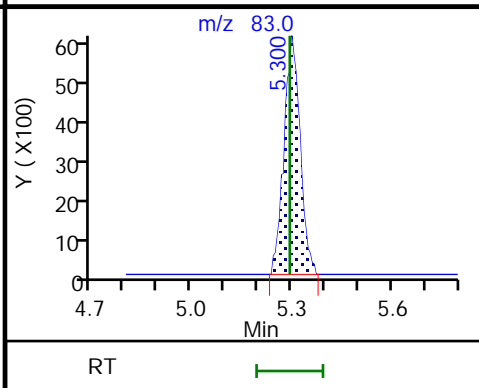
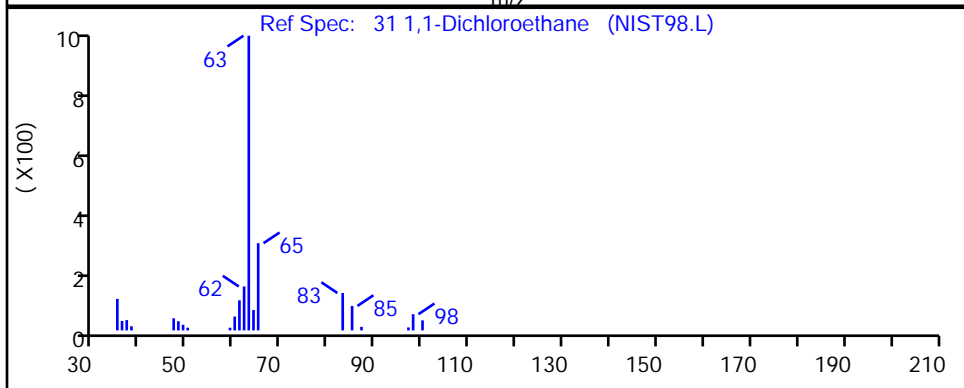
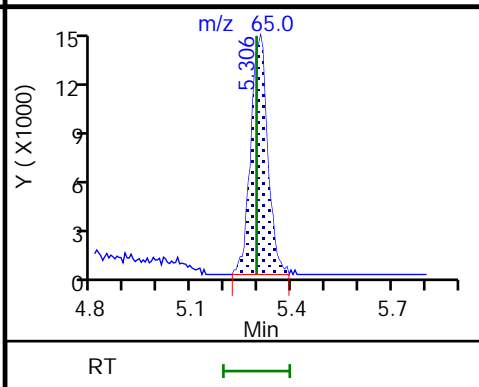
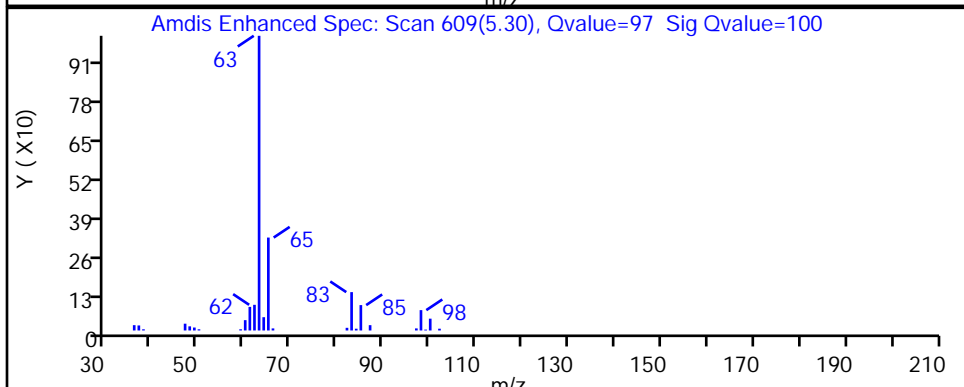
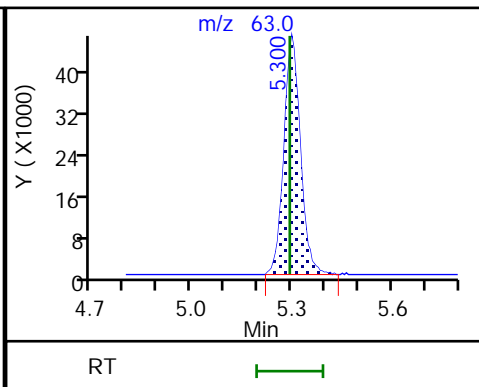
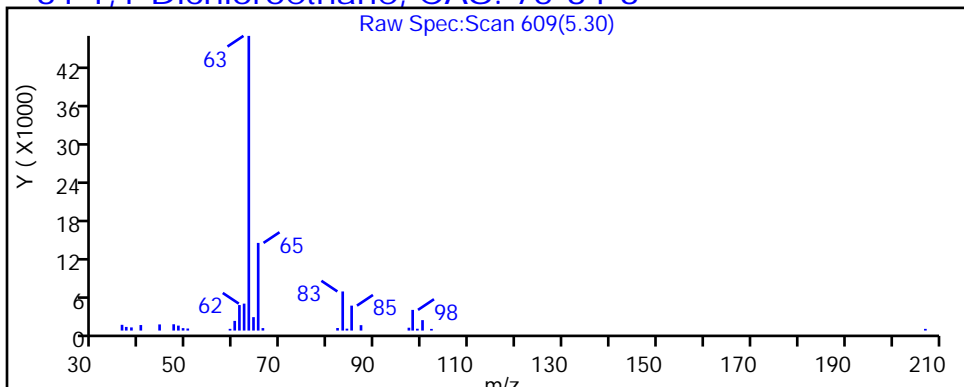
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

31 1,1-Dichloroethane, CAS: 75-34-3



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X22.D

Injection Date: 02-May-2022 16:48:30

Instrument ID: 19930

Lims ID: 410-81767-A-13

Lab Sample ID: 410-81767-13

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

Operator ID: KNK41612

ALS Bottle#: 22

Worklist Smp#: 23

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

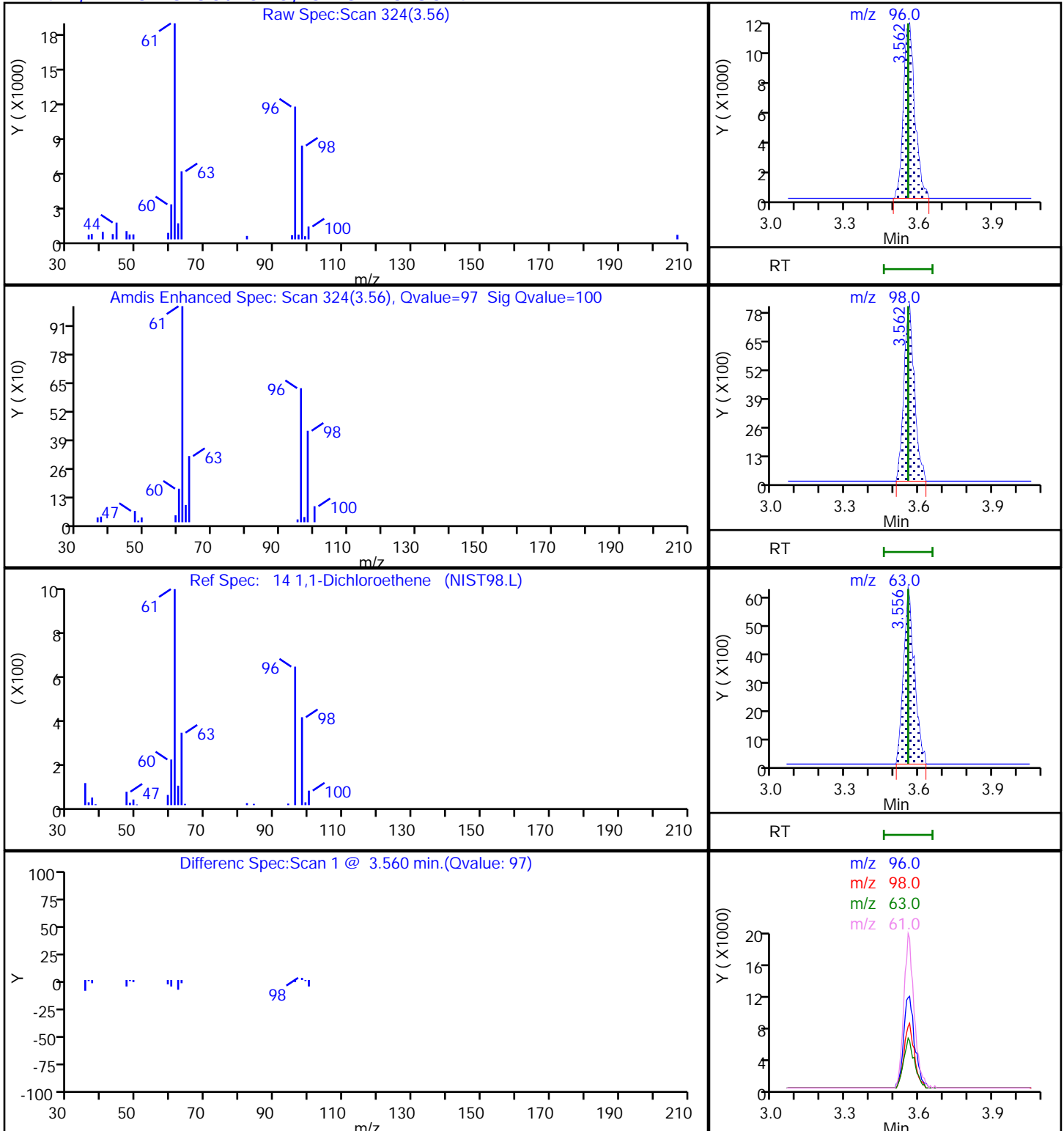
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

14 1,1-Dichloroethene, CAS: 75-35-4



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X22.D

Injection Date: 02-May-2022 16:48:30

Instrument ID: 19930

Lims ID: 410-81767-A-13

Lab Sample ID: 410-81767-13

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

Operator ID: KNK41612

ALS Bottle#: 22

Worklist Smp#: 23

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

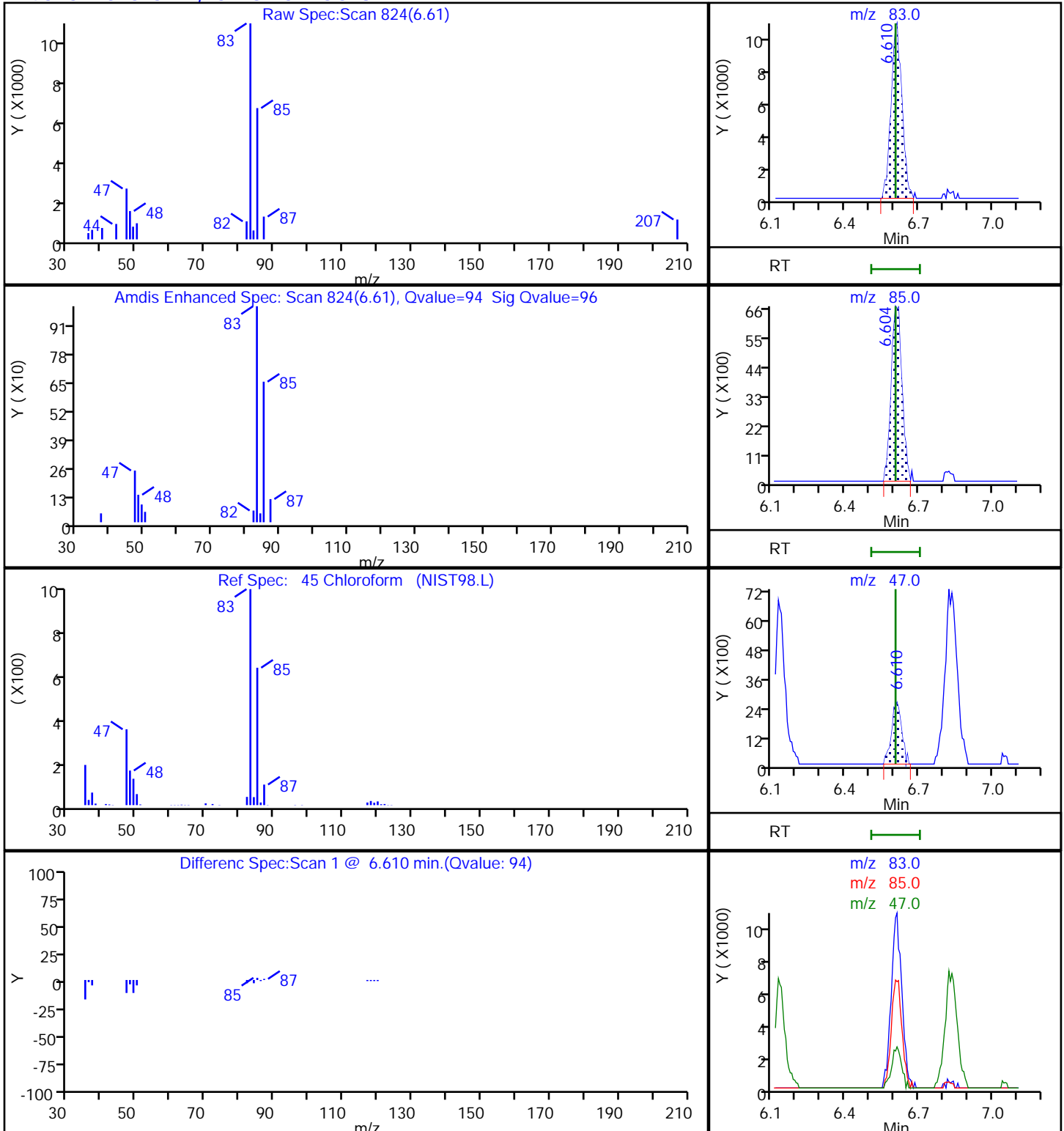
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

45 Chloroform, CAS: 67-66-3



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X22.D

Injection Date: 02-May-2022 16:48:30

Instrument ID: 19930

Lims ID: 410-81767-A-13

Lab Sample ID: 410-81767-13

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

Operator ID: KNK41612

ALS Bottle#: 22

Worklist Smp#: 23

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

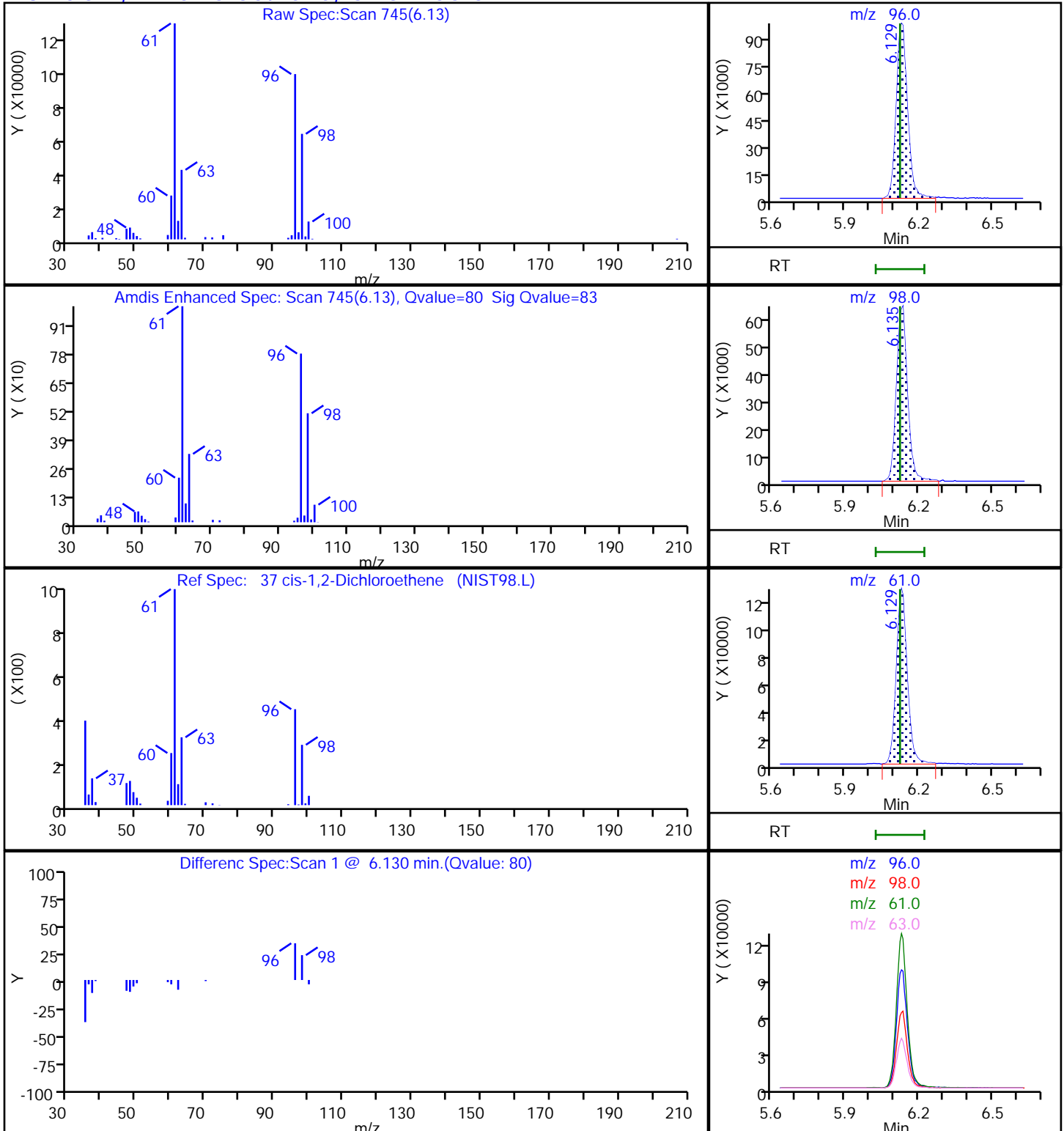
Method: 8260 25ml HP31

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



Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X22.D

Injection Date: 02-May-2022 16:48:30

Instrument ID: 19930

Lims ID: 410-81767-A-13

Lab Sample ID: 410-81767-13

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

Operator ID: KNK41612

ALS Bottle#: 22

Worklist Smp#: 23

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

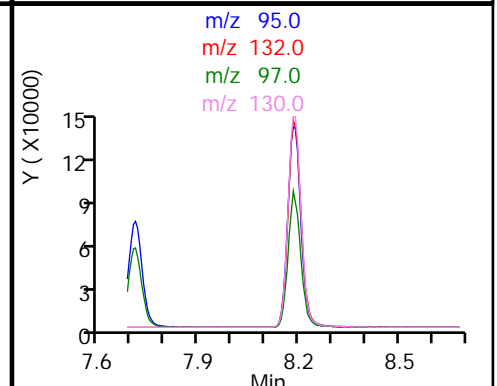
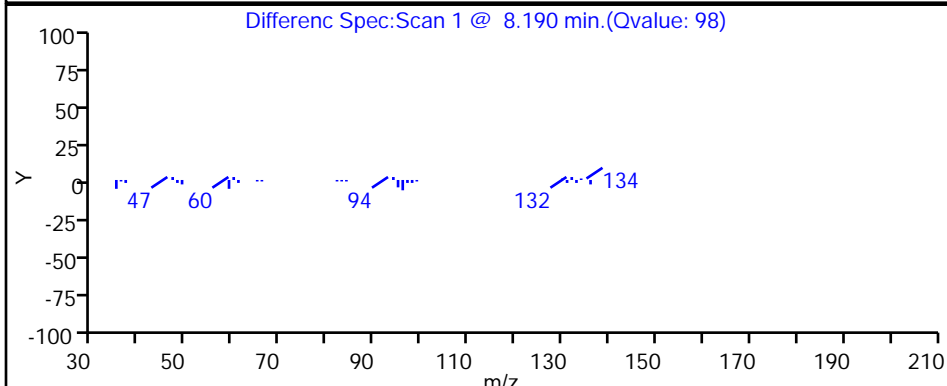
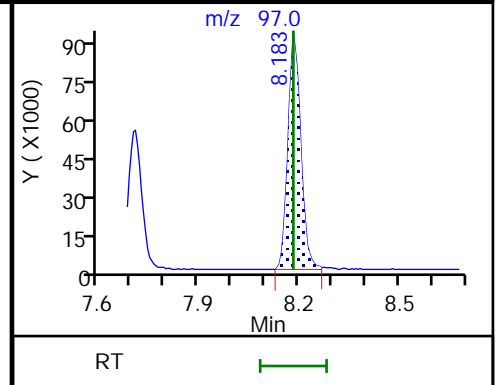
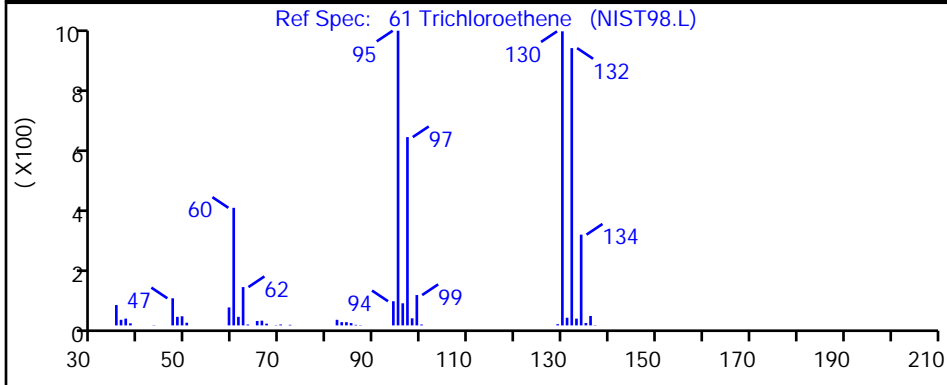
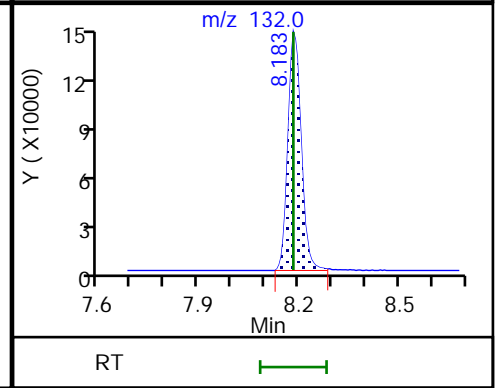
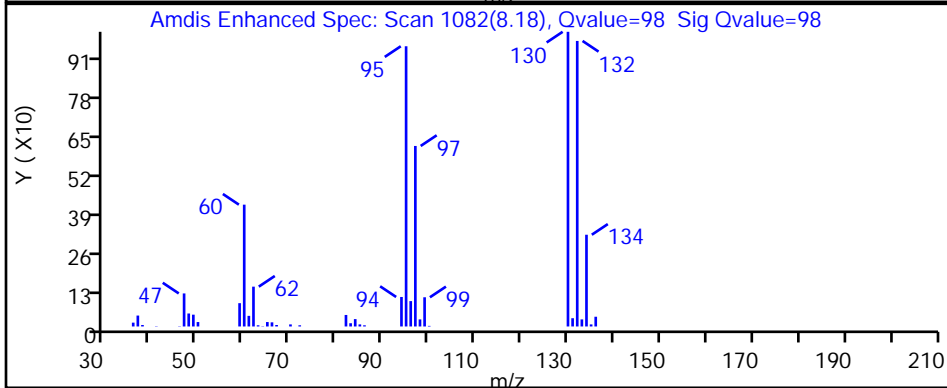
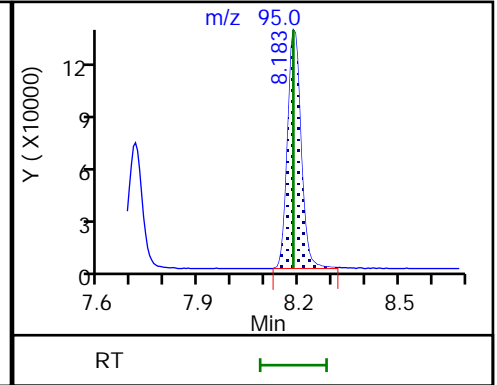
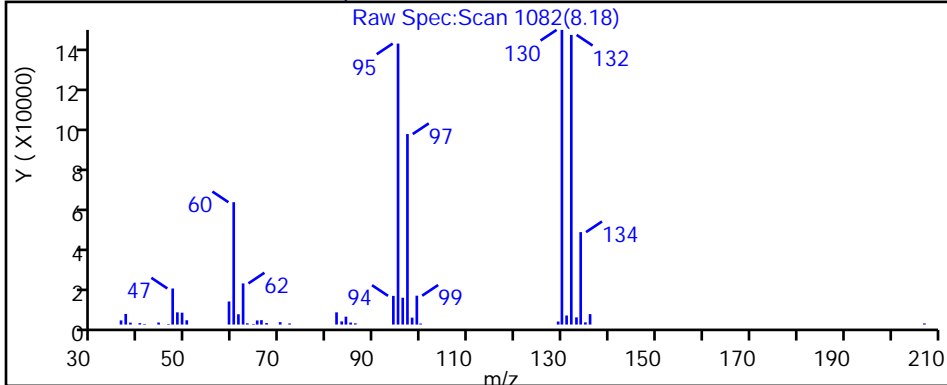
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

61 Trichloroethene, CAS: 79-01-6



Eurofins Lancaster Laboratories Environment Testing, LLC

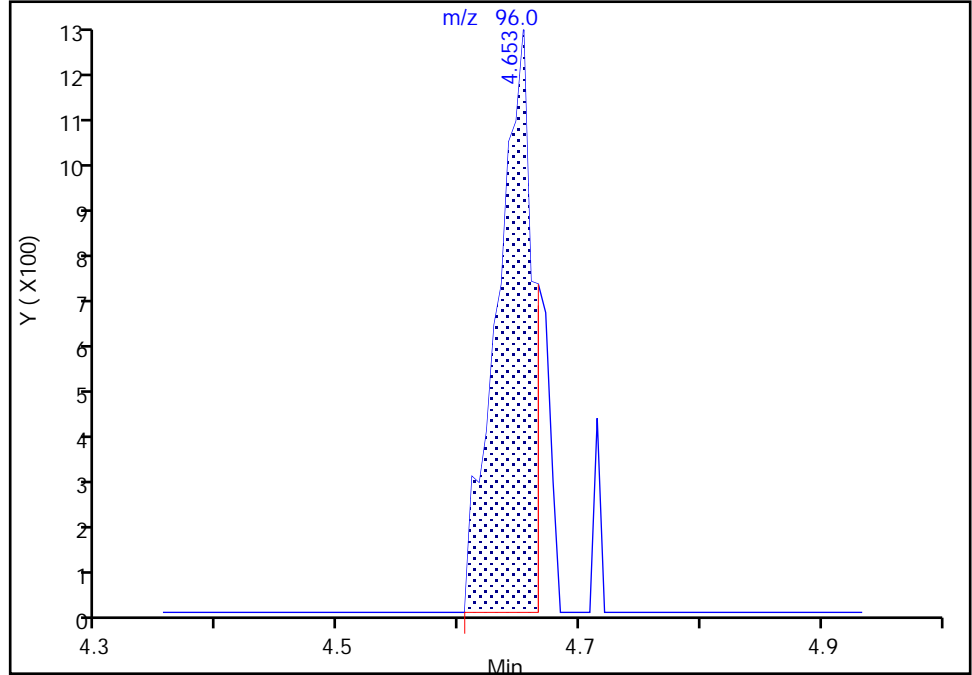
Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X22.D
Injection Date: 02-May-2022 16:48:30 Instrument ID: 19930
Lims ID: 410-81767-A-13 Lab Sample ID: 410-81767-13
Client ID: HD-QC1-0/1-1
Operator ID: KNK41612 ALS Bottle#: 22 Worklist Smp#: 23
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

28 trans-1,2-Dichloroethene, CAS: 156-60-5

Signal: 1

RT: 4.65
Area: 2639
Amount: 0.037042
Amount Units: ug/l

Processing Integration Results



RT: 4.65
Area: 2987
Amount: 0.041927
Amount Units: ug/l

Manual Integration Results



Reviewer: kaewrungrueangp, 03-May-2022 10:51:27

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1
 SDG No.: _____
 Client Sample ID: HD-QC1-0/1-1 DL Lab Sample ID: 410-81767-13 DL
 Matrix: Water Lab File ID: IM05X29.D
 Analysis Method: 8260D Date Collected: 04/26/2022 12:00
 Sample wt/vol: 25 (mL) Date Analyzed: 05/05/2022 18:46
 Soil Aliquot Vol: _____ Dilution Factor: 10
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 251841 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
127-18-4	Tetrachloroethene	77		5.0	0.60

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	94		80-120
2037-26-5	Toluene-d8 (Surr)	104		80-120

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220505-56480.b\IM05X29.D
 Lims ID: 410-81767-B-13 DL
 Client ID: HD-QC1-0/1-1
 Sample Type: Client
 Inject. Date: 05-May-2022 18:46:30 ALS Bottle#: 29 Worklist Smp#: 30
 Purge Vol: 25.000 mL Dil. Factor: 10.0000
 Sample Info: 410-0056480-030
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220505-56480.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 06-May-2022 10:02:46 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1636

First Level Reviewer: kaewrungrueangp Date: 06-May-2022 10:02:46

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50		2.160				ND	
5 Vinyl chloride	62		2.276				ND	
7 Bromomethane	94		2.611				ND	7
8 Chloroethane	64		2.690				ND	
14 1,1-Dichloroethene	96	3.562	3.556	0.006	96	2414	0.0401	
15 Acetone	43	3.599	3.586	0.013	51	4297	0.4518	
19 Carbon disulfide	76		3.861				ND	
23 Methylene Chloride	84		4.227				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.239	4.233	0.006	24	175345	50.0	
27 Methyl tert-butyl ether	73		4.629				ND	
28 trans-1,2-Dichloroethene	96		4.641				ND	
31 1,1-Dichloroethane	63	5.299	5.299	0.000	94	13863	0.1186	
36 2-Butanone (MEK)	43		6.086				ND	
37 cis-1,2-Dichloroethene	96	6.135	6.129	0.006	81	27733	0.3554	
43 Chlorobromomethane	128		6.458				ND	
45 Chloroform	83		6.604				ND	7
\$ 46 Dibromofluoromethane (Surr)	113	6.817	6.817	0.000	94	586266	9.43	
47 1,1,1-Trichloroethane	97	6.830	6.836	-0.006	41	71369	0.5845	
50 Carbon tetrachloride	117		7.043				ND	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.269	7.269	0.000	68	118879	10.7	
54 Benzene	78		7.305				ND	
56 1,2-Dichloroethane	62		7.372				ND	
* 58 Fluorobenzene (IS)	96	7.701	7.701	0.000	99	2295504	10.0	
61 Trichloroethene	95	8.189	8.183	0.006	97	32304	0.4157	
63 1,2-Dichloropropane	63		8.512				ND	
68 Dichlorobromomethane	83		8.854				ND	
73 cis-1,3-Dichloropropene	75		9.402				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	94	2238137	10.4	
76 Toluene	92		9.780				ND	7
78 trans-1,3-Dichloropropene	75		10.036				ND	
80 1,1,2-Trichloroethane	97		10.238				ND	U

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.335	10.329	0.006	98	731581	7.66	
83 2-Hexanone	43		10.451				ND	
85 Chlorodibromomethane	129		10.616				ND	
86 Ethylene Dibromide	107		10.731				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	86	1761528	10.0	
90 Chlorobenzene	112		11.182				ND	7
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.268				ND	
92 Ethylbenzene	91		11.268				ND	
93 m-Xylene & p-Xylene	106		11.384				ND	
94 o-Xylene	106		11.713				ND	
95 Styrene	104		11.725				ND	
96 Bromoform	173		11.884				ND	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	94	795048	9.56	
101 1,1,2,2-Tetrachloroethane	83		12.255				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	95	949457	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

Reagents:

MSV_LLcentISS_00004

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220505-56480.b\IM05X29.D

Injection Date: 05-May-2022 18:46:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: 410-81767-B-13 DL

Lab Sample ID: 410-81767-13

Worklist Smp#: 30

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

Purge Vol: 25.000 mL

Dil. Factor: 10.0000

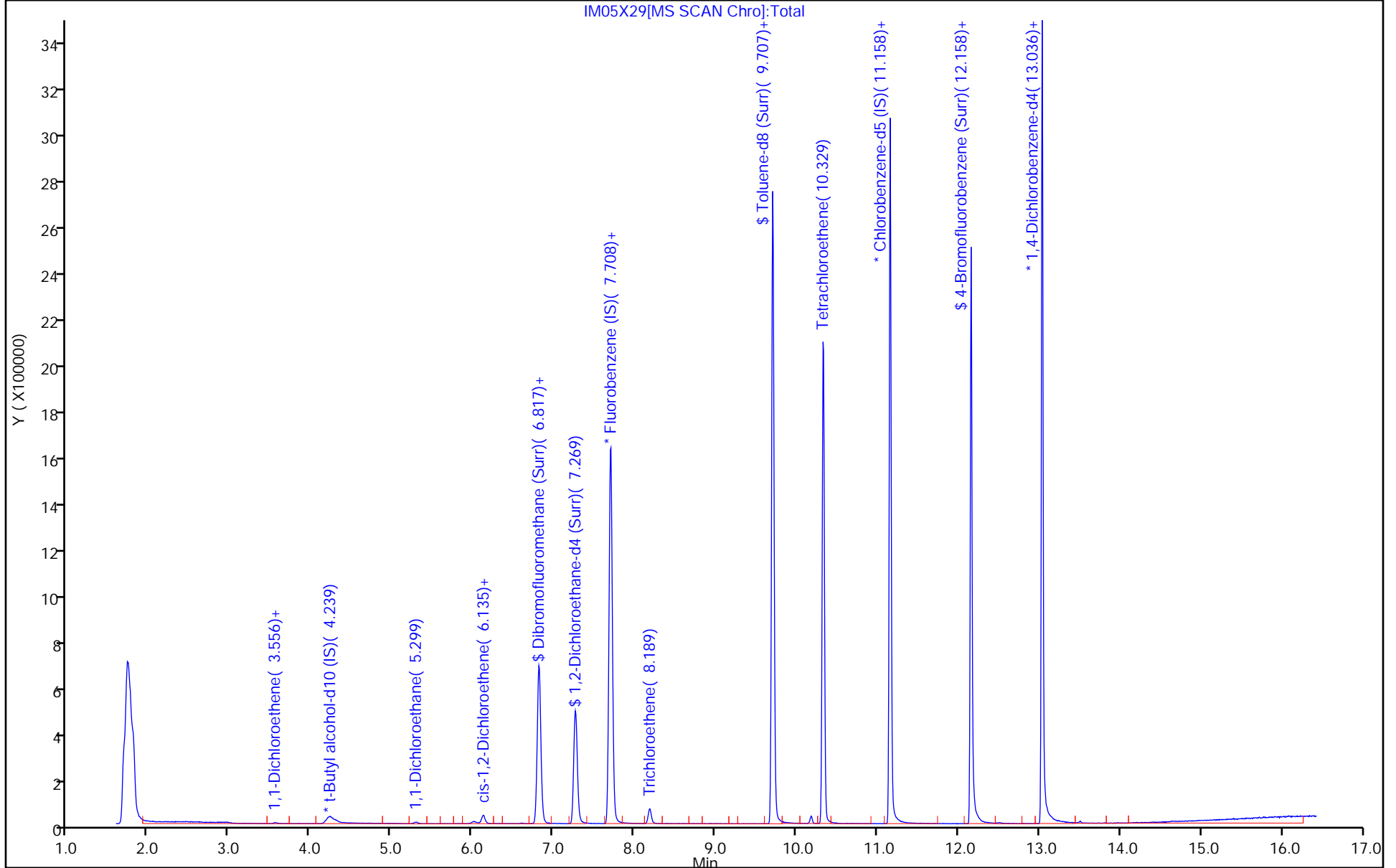
ALS Bottle#: 29

Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Environment Testing, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220505-56480.b\IM05X29.D
 Lims ID: 410-81767-B-13 DL
 Client ID: HD-QC1-0/1-1
 Sample Type: Client
 Inject. Date: 05-May-2022 18:46:30 ALS Bottle#: 29 Worklist Smp#: 30
 Purge Vol: 25.000 mL Dil. Factor: 10.0000
 Sample Info: 410-0056480-030
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220505-56480.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 06-May-2022 10:02:46 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1636

First Level Reviewer: kaewrungrueangp

Date: 06-May-2022 10:02:46

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.43	94.35
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.7	107.40
\$ 75 Toluene-d8 (Surr)	10.0	10.4	104.41
\$ 100 4-Bromofluorobenzene (Surr)	10.0	9.56	95.64

Data File: \\chromfs\Lancaster\ChromData\19930\20220505-56480.b\IM05X29.D

Injection Date: 05-May-2022 18:46:30

Instrument ID: 19930

Lims ID: 410-81767-B-13 DL

Lab Sample ID: 410-81767-13

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

Operator ID: KNK41612

ALS Bottle#: 29

Worklist Smp#: 30

Purge Vol: 25.000 mL

Dil. Factor: 10.0000

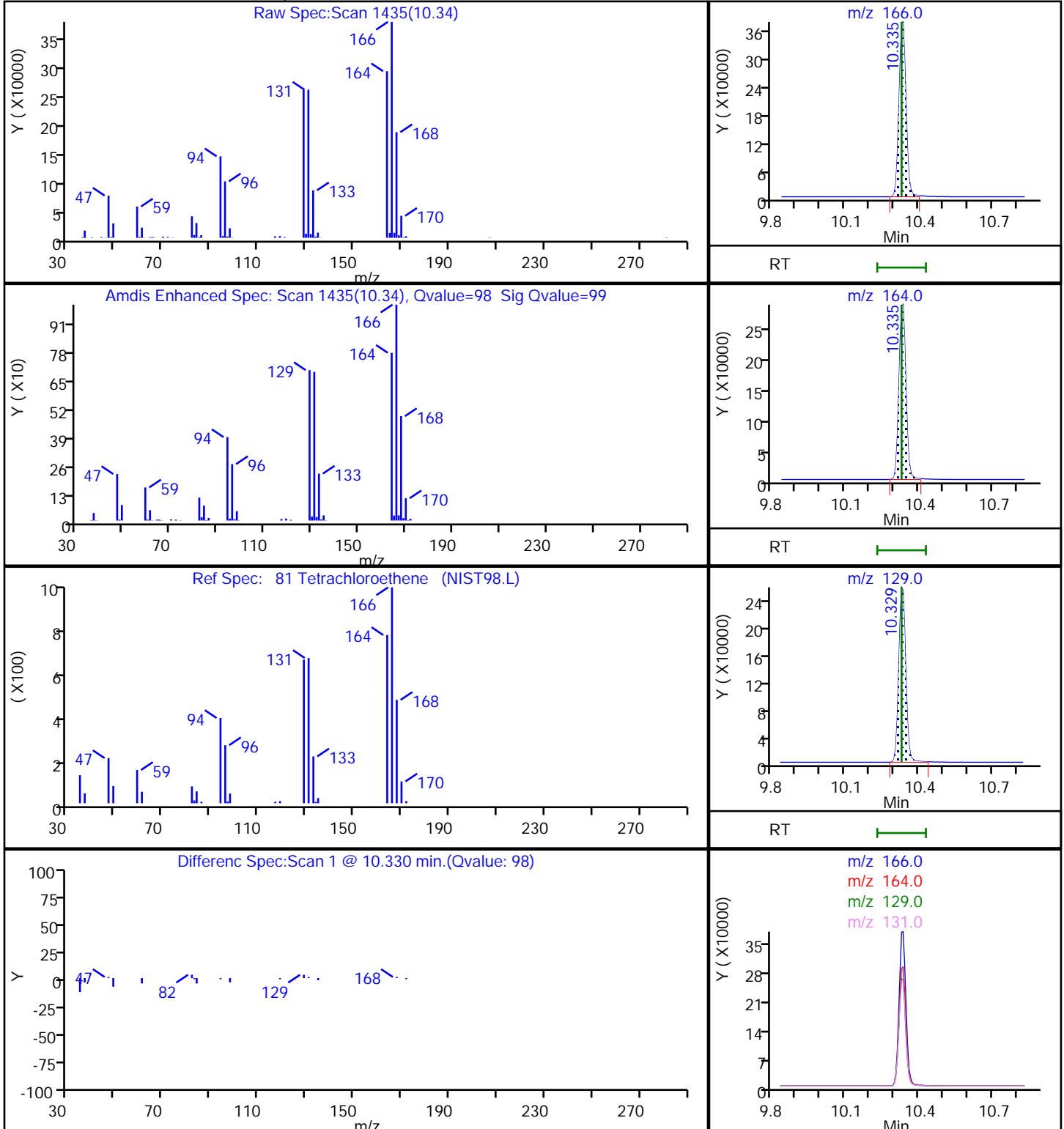
Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

MS Quad

81 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1
 SDG No.: _____
 Client Sample ID: HD-QC1-0/1-2 Lab Sample ID: 410-81767-14
 Matrix: Water Lab File ID: IM02X07.D
 Analysis Method: 8260D Date Collected: 04/26/2022 00:00
 Sample wt/vol: 25 (mL) Date Analyzed: 05/02/2022 11:30
 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.: 250524 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
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	^c cn	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	^c cn	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
79-01-6	Trichloroethene	ND		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1
 SDG No.: _____
 Client Sample ID: HD-QC1-0/1-2 Lab Sample ID: 410-81767-14
 Matrix: Water Lab File ID: IM02X07.D
 Analysis Method: 8260D Date Collected: 04/26/2022 00:00
 Sample wt/vol: 25 (mL) Date Analyzed: 05/02/2022 11:30
 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.: 250524 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
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
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	94		80-120
2037-26-5	Toluene-d8 (Surr)	105		80-120

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X07.D
 Lims ID: 410-81767-A-14
 Client ID: HD-QC1-0/1-2
 Sample Type: Client
 Inject. Date: 02-May-2022 11:30:30 ALS Bottle#: 7 Worklist Smp#: 8
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0056183-008
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 03-May-2022 10:33:51 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1607

First Level Reviewer: kaewrungrueangp Date: 03-May-2022 10:34:18

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50		2.166				ND	
5 Vinyl chloride	62		2.282				ND	
7 Bromomethane	94		2.617				ND	
8 Chloroethane	64		2.696				ND	
14 1,1-Dichloroethene	96		3.556				ND	
15 Acetone	43	3.599	3.580	0.019	52	5774	0.5696	
19 Carbon disulfide	76		3.861				ND	7
23 Methylene Chloride	84		4.221				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.239	4.227	0.012	27	186870	50.0	
27 Methyl tert-butyl ether	73		4.623				ND	
28 trans-1,2-Dichloroethene	96		4.641				ND	
31 1,1-Dichloroethane	63		5.294				ND	
36 2-Butanone (MEK)	43		6.086				ND	7
37 cis-1,2-Dichloroethene	96		6.123				ND	
43 Chlorobromomethane	128		6.458				ND	
45 Chloroform	83		6.604				ND	
\$ 46 Dibromofluoromethane (Surr)	113	6.818	6.818	0.000	94	617734	9.37	
47 1,1,1-Trichloroethane	97		6.830				ND	
50 Carbon tetrachloride	117		7.043				ND	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.269	7.263	0.006	68	125418	10.7	
54 Benzene	78		7.299				ND	
56 1,2-Dichloroethane	62		7.372				ND	7
* 58 Fluorobenzene (IS)	96	7.708	7.702	0.006	99	2436115	10.0	
61 Trichloroethene	95		8.183				ND	
63 1,2-Dichloropropane	63		8.512				ND	
68 Dichlorobromomethane	83		8.854				ND	
73 cis-1,3-Dichloropropene	75		9.396				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.567				ND	7
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	94	2368865	10.5	
76 Toluene	92		9.780				ND	7
78 trans-1,3-Dichloropropene	75		10.036				ND	
80 1,1,2-Trichloroethane	97		10.238				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166		10.329				ND	
83 2-Hexanone	43		10.451				ND	
85 Chlorodibromomethane	129		10.616				ND	
86 Ethylene Dibromide	107		10.731				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	86	1857822	10.0	
90 Chlorobenzene	112		11.183				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.262				ND	
92 Ethylbenzene	91		11.268				ND	
93 m-Xylene & p-Xylene	106		11.384				ND	
94 o-Xylene	106		11.713				ND	
95 Styrene	104		11.725				ND	
96 Bromoform	173		11.884				ND	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	94	844502	9.63	
101 1,1,2,2-Tetrachloroethane	83		12.256				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	995645	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_LLcentISS_00004

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X07.D

Injection Date: 02-May-2022 11:30:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: 410-81767-A-14

Lab Sample ID: 410-81767-14

Worklist Smp#: 8

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

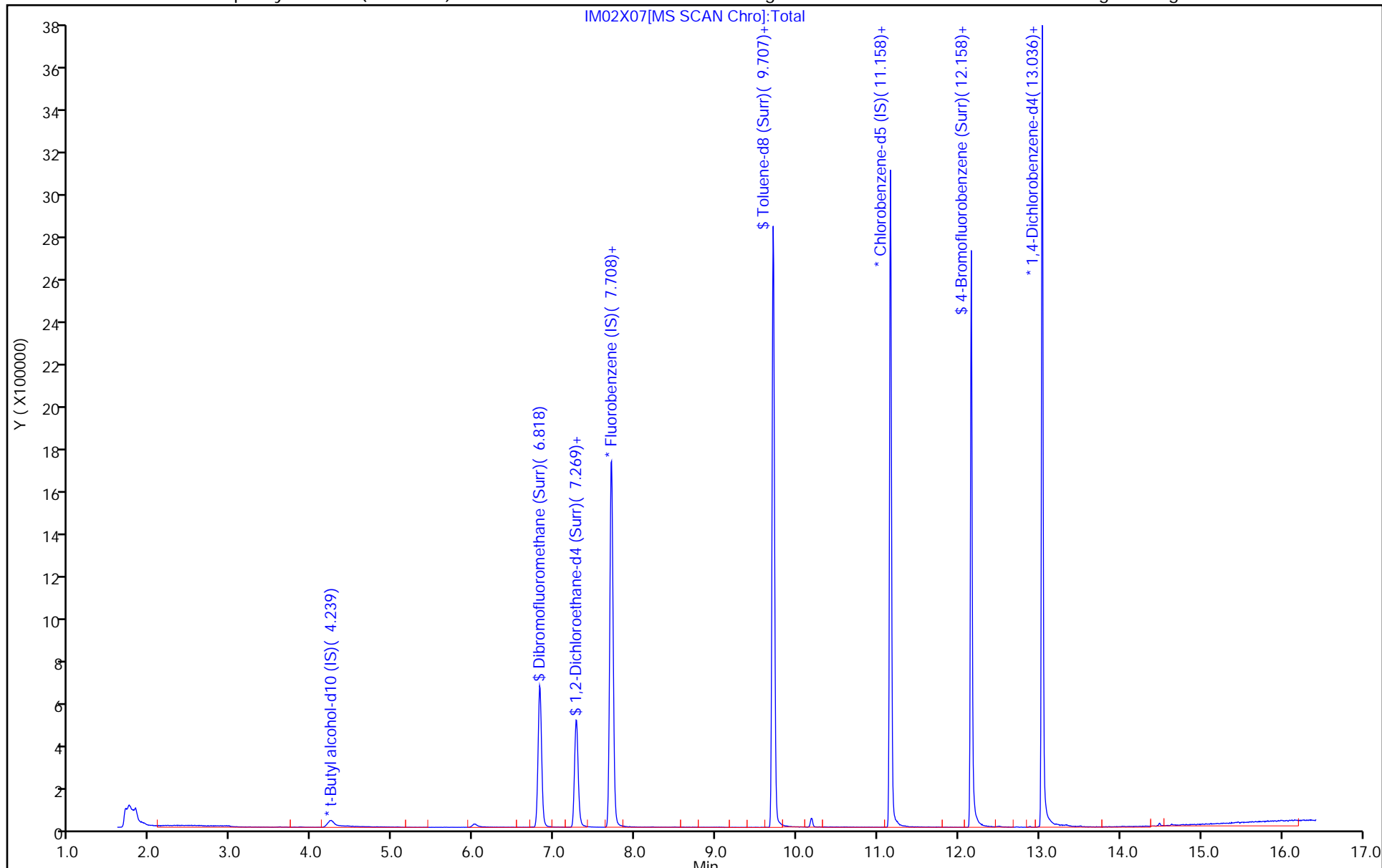
ALS Bottle#: 7

Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Environment Testing, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X07.D
 Lims ID: 410-81767-A-14
 Client ID: HD-QC1-0/1-2
 Sample Type: Client
 Inject. Date: 02-May-2022 11:30:30 ALS Bottle#: 7 Worklist Smp#: 8
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0056183-008
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 03-May-2022 10:33:51 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1607

First Level Reviewer: kaewrungrueangp

Date: 03-May-2022 10:34:18

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.37	93.67
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.7	106.76
\$ 75 Toluene-d8 (Surr)	10.0	10.5	104.78
\$ 100 4-Bromofluorobenzene (Surr)	10.0	9.63	96.32

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-81767-1 Analy Batch No.: 233459

SDG No.: _____

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/15/2022 01:15 Calibration End Date: 03/15/2022 03:22 Calibration ID: 36162

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-233459/18	IM14I37.D
Level 2	IC 410-233459/17	IM14I36.D
Level 3	IC 410-233459/16	IM14I35.D
Level 4	IC 410-233459/15	IM14I34.D
Level 5	IC 410-233459/14	IM14I33.D
Level 6	ICIS 410-233459/13	IM14I32.D
Level 7	IC 410-233459/12	IM14I31.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	0.3011 0.3842	0.3801 0.3920	0.3865	0.3775	0.3902	Ave	0.373 1			0.1000	8.6		20.0				
Chloromethane	0.4254 0.3802	0.3926 0.3584	0.3727	0.3809	0.3822	Ave	0.384 6			0.1000	5.4		20.0				
Vinyl chloride	0.3822 0.4141	0.4239 0.3907	0.4120	0.4014	0.4196	Ave	0.406 3			0.1000	3.8		20.0				
1,3-Butadiene	0.3767 0.3958	0.4022 0.3600	0.4194	0.4245	0.4021	Ave	0.397 2				5.7		20.0				
Bromomethane	0.3542 0.3367	0.3425 0.3484	0.3251	0.3188	0.3294	Ave	0.336 4			0.1000	3.8		20.0				
Chloroethane	0.2378 0.2504	0.2567 0.2541	0.2407	0.2422	0.2483	Ave	0.247 1			0.1000	2.9		20.0				
Dichlorofluoromethane	0.6593 0.6273	0.6161 0.6121	0.6149	0.6102	0.6105	Ave	0.621 5			0.1000	2.8		20.0				
Trichlorofluoromethane	0.5469 0.6167	0.6013 0.6152	0.6074	0.6163	0.6238	Ave	0.603 9			0.1000	4.3		20.0				
Ethyl ether	0.1678 0.1658	0.1686 0.1665	0.1679	0.1638	0.1673	Ave	0.166 8				1.0		20.0				
Freon 123a	0.3590 0.3366	0.3494 0.3433	0.3595	0.3391	0.3415	Ave	0.346 9				2.7		20.0				
Acrolein	1.9983 2.0487	2.0765 1.8583	2.0078	2.0934	1.9682	Ave	2.007 3				4.0		20.0				
1,1-Dichloroethene	0.2637 0.2528	0.2595 0.2590	0.2766	0.2603	0.2645	Ave	0.262 3			0.1000	2.8		20.0				
Acetone	3.2498 2.4723	2.9711 2.1504	2.8622	2.6413	2.6381	Ave	2.712 2			0.1000	13.1		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.: 410-81767-1 Analy Batch No.: 233459

SDG No.: _____

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/15/2022 01:15 Calibration End Date: 03/15/2022 03:22 Calibration ID: 36162

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															
Freon 113	0.2524 0.2702	0.2634 0.2797	0.2950	0.2805	0.2865	Ave		0.275 4		0.1000	5.2		20.0				
Methyl iodide	0.5613 0.5170	0.5149 0.5320	0.5645	0.5432	0.5311	Ave		0.537 7			3.7		20.0				
Carbon disulfide	0.5906 0.5774	0.5642 0.6030	0.5958	0.5921	0.5943	Ave		0.588 2		0.1000	2.2		20.0				
Methyl acetate	12.030 6.3273	6.7384 6.5299	7.6667	6.9772	7.0272	Lin	0.886 4	6.472 5		0.1000				1.0000		0.9900	
Allyl chloride	0.3769 0.3642	0.3736 0.3634	0.3821	0.3726	0.3688	Ave		0.371 7			1.8		20.0				
Methylene Chloride	0.2981 0.2635	0.2670 0.2652	0.2805	0.2761	0.2694	Ave		0.274 3		0.1000	4.4		20.0				
t-Butyl alcohol	0.9726 1.0500	1.1813 0.8808	0.8615	1.0659	0.9976	Ave		1.001 4			11.1		20.0				
Acrylonitrile	2.8240 3.3265	3.5581 2.9550	3.2612	3.1381	3.2819	Ave		3.192 1			7.7		20.0				
Methyl tert-butyl ether	0.7542 0.6648	0.6563 0.6715	0.6905	0.6830	0.6756	Ave		0.685 1		0.1000	4.7		20.0				
trans-1,2-Dichloroethene	0.3136 0.2849	0.2990 0.2909	0.3109	0.2929	0.2905	Ave		0.297 5		0.1000	3.7		20.0				
n-Hexane	0.3211 0.3585	0.3453 0.3651	0.3827	0.3778	0.3746	Ave		0.360 7			6.0		20.0				
1,1-Dichloroethane	0.5155 0.4924	0.5068 0.4993	0.5267	0.5190	0.5048	Ave		0.509 2		0.2000	2.3		20.0				
di-Isopropyl ether	0.7959 0.7964	0.7623 0.7935	0.8140	0.8000	0.8033	Ave		0.795 0			2.0		20.0				
2-Chloro-1,3-butadiene	0.4256 0.4054	0.4003 0.4221	0.4225	0.4087	0.4182	Ave		0.414 7			2.4		20.0				
Ethyl t-butyl ether	0.8380 0.7916	0.8000 0.7975	0.8351	0.8002	0.8026	Ave		0.809 3			2.3		20.0				
2-Butanone (MEK)	4.4038 4.7114	4.9328 4.2757	5.0509	4.7925	4.7412	Ave		4.701 2		0.1000	5.9		20.0				
cis-1,2-Dichloroethene	0.3816 0.3192	0.3394 0.3239	0.3563	0.3343	0.3246	Ave		0.339 9		0.1000	6.5		20.0				
2,2-Dichloropropane	0.4622 0.4664	0.4607 0.4787	0.4847	0.4782	0.4749	Ave		0.472 3			1.9		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.: 410-81767-1 Analy Batch No.: 233459

SDG No.: _____

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/15/2022 01:15 Calibration End Date: 03/15/2022 03:22 Calibration ID: 36162

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															
Propionitrile	1.1029 1.2342	1.2203 1.1677	1.3151	1.2122	1.1743	Ave		1.203 8			5.5		20.0				
Methacrylonitrile	4.6645 4.7701	4.8939 4.5187	5.2061	4.9035	4.7214	Ave		4.811 2			4.6		20.0				
Bromochloromethane	0.1604 0.1494	0.1553 0.1527	0.1678	0.1521	0.1534	Ave		0.155 9			4.0		20.0				
Tetrahydrofuran	1.3127 1.3305	1.3853 1.2091	1.3375	1.3797	1.3529	Ave		1.329 7			4.5		20.0				
Chloroform	0.5772 0.5301	0.5380 0.5406	0.5700	0.5422	0.5403	Ave		0.548 3		0.2000	3.3		20.0				
1,1,1-Trichloroethane	0.5511 0.5140	0.5209 0.5282	0.5448	0.5366	0.5276	Ave		0.531 9		0.1000	2.5		20.0				
Cyclohexane	0.4020 0.4464	0.4075 0.4616	0.4838	0.4700	0.4586	Ave		0.447 1		0.1000	7.0		20.0				
1,1-Dichloropropene	0.4295 0.4009	0.3877 0.4188	0.4120	0.4130	0.4104	Ave		0.410 3			3.2		20.0				
Carbon tetrachloride	0.4781 0.4837	0.4760 0.5093	0.5083	0.4923	0.4957	Ave		0.491 9		0.1000	2.7		20.0				
Isobutyl alcohol	0.3691 0.3373	0.3333 0.3028	0.3509	0.3238	0.3463	Ave		0.337 7			6.2		20.0				
Benzene	1.2210 1.1436	1.1535 1.1814	1.2007	1.1793	1.1691	Ave		1.178 4		0.5000	2.3		20.0				
1,2-Dichloroethane	0.3619 0.3155	0.3191 0.3253	0.3476	0.3136	0.3165	Ave		0.328 5		0.1000	5.7		20.0				
t-Amyl methyl ether	0.7849 0.7399	0.7368 0.7533	0.7751	0.7507	0.7456	Ave		0.755 2			2.4		20.0				
n-Heptane	0.4023 0.3706	0.3824 0.3790	0.3878	0.3837	0.3913	Ave		0.385 3			2.6		20.0				
n-Butanol	0.1983 0.3182	0.2706 0.2575	0.2440	0.2752	0.3057	Ave		0.267 1			14.9		20.0				
Trichloroethene	0.3557 0.3278	0.3269 0.3411	0.3510	0.3344	0.3329	Ave		0.338 5		0.2000	3.3		20.0				
Methylcyclohexane	0.4889 0.5363	0.4996 0.5559	0.5781	0.5672	0.5533	Ave		0.539 9		0.1000	6.3		20.0				
1,2-Dichloropropane	0.2689 0.2821	0.2706 0.2930	0.2850	0.2872	0.2896	Ave		0.282 4		0.1000	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.: 410-81767-1 Analy Batch No.: 233459

SDG No.: _____

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/15/2022 01:15 Calibration End Date: 03/15/2022 03:22 Calibration ID: 36162

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 methacrylate	7.8711 9.1053	9.7706 9.0719	9.3729	9.4215	9.1953	Ave		9.115 5			6.6		20.0				
1,4-Dioxane	++++ 0.0750	0.0730 0.0591	0.0630	0.0730	0.0699	Ave		0.068 8		0.0050	9.2		20.0				
Dibromomethane	0.1599 0.1521	0.1660 0.1542	0.1580	0.1491	0.1547	Ave		0.156 3			3.6		20.0				
Bromodichloromethane	0.3585 0.3757	0.3589 0.3917	0.3791	0.3728	0.3734	Ave		0.372 9		0.2000	3.1		20.0				
2-Nitropropane	2.5621 2.9053	2.8969 2.9155	2.8473	2.8480	2.8494	Ave		2.832 1			4.3		20.0				
cis-1,3-Dichloropropene	0.4284 0.4471	0.4074 0.4655	0.4407	0.4352	0.4491	Ave		0.439 1		0.2000	4.2		20.0				
4-Methyl-2-pentanone (MIBK)	10.693 12.715	13.024 12.580	12.812	12.596	12.612	Ave		12.43 3		0.1000	6.3		20.0				
Toluene	0.9770 0.9160	0.9402 0.9423	0.9662	0.9309	0.9310	Ave		0.943 4		0.4000	2.3		20.0				
trans-1,3-Dichloropropene	0.3652 0.4437	0.4047 0.4606	0.4228	0.4268	0.4422	Ave		0.423 7		0.1000	7.4		20.0				
Ethyl methacrylate	0.2824 0.3462	0.3145 0.3586	0.3261	0.3259	0.3465	Ave		0.328 6			7.7		20.0				
1,1,2-Trichloroethane	0.2606 0.2482	0.2629 0.2528	0.2793	0.2551	0.2509	Ave		0.258 5		0.1000	4.1		20.0				
Tetrachloroethene	0.5377 0.5324	0.5311 0.5426	0.5650	0.5478	0.5408	Ave		0.542 5		0.2000	2.1		20.0				
1,3-Dichloropropane	0.4132 0.4082	0.4100 0.4143	0.4260	0.4173	0.4209	Ave		0.415 7			1.5		20.0				
2-Hexanone	6.2452 9.0742	8.5380 9.1007	8.2483	8.5857	8.6622	Ave		8.350 6		0.1000	11.7		20.0				
Dibromochloromethane	0.3371 0.3562	0.3394 0.3771	0.3428	0.3463	0.3565	Ave		0.350 8			4.0		20.0				
1,2-Dibromoethane (EDB)	0.2222 0.2531	0.2507 0.2596	0.2588	0.2507	0.2620	Ave		0.251 0		0.1000	5.4		20.0				
1-Chlorohexane	0.6418 0.5478	0.5691 0.5619	0.5717	0.5528	0.5551	Ave		0.571 5			5.6		20.0				
Chlorobenzene	1.0923 1.0813	1.1540 1.1210	1.1594	1.0988	1.1089	Ave		1.116 5		0.5000	2.7		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.: 410-81767-1 Analy Batch No.: 233459

SDG No.: _____

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/15/2022 01:15 Calibration End Date: 03/15/2022 03:22 Calibration ID: 36162

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
1,1,1,2-Tetrachloroethane	0.3662 0.4157	0.4098 0.4394	0.4211	0.4151	0.4191	Ave		0.412 3			5.4		20.0				
Ethylbenzene	1.8717 1.8307	1.8632 1.8970	1.9194	1.8337	1.8500	Ave		1.866 5		0.1000	1.7		20.0				
m&p-Xylene	0.7528 0.7526	0.7563 0.7897	0.7837	0.7548	0.7611	Ave		0.764 5		0.1000	2.0		20.0				
o-Xylene	0.7383 0.7366	0.7597 0.7786	0.7699	0.7415	0.7422	Ave		0.752 4		0.3000	2.2		20.0				
Styrene	1.1177 1.1852	1.1305 1.2603	1.1798	1.1512	1.1761	Ave		1.171 5		0.3000	4.0		20.0				
Bromoform	0.1853 0.2344	0.2026 0.2468	0.2074	0.2106	0.2252	Ave		0.216 0		0.1000	9.6		20.0				
Isopropylbenzene	1.9114 1.9540	1.9695 1.9998	2.0024	1.9541	1.9548	Ave		1.963 7		0.1000	1.6		20.0				
1,1,2,2-Tetrachloroethane	0.5149 0.5194	0.5384 0.5439	0.5413	0.5102	0.5359	Ave		0.529 1		0.3000	2.6		20.0				
Bromobenzene	0.8424 0.8034	0.8567 0.8593	0.8596	0.8237	0.8446	Ave		0.841 4			2.5		20.0				
trans-1,4-Dichloro-2-butene	2.9110 5.1398	4.3318 5.4265	4.3068	4.5578	4.7266	Ave		4.485 8			18.0		20.0				
1,2,3-Trichloropropane	0.1466 0.1500	0.1753 0.1524	0.1620	0.1524	0.1577	Ave		0.156 6			6.2		20.0				
N-Propylbenzene	3.6220 3.5982	3.6888 3.6614	3.7469	3.6310	3.7431	Ave		3.670 2			1.6		20.0				
2-Chlorotoluene	0.7506 0.7749	0.8439 0.8110	0.8380	0.8180	0.8124	Ave		0.807 0			4.1		20.0				
1,3,5-Trimethylbenzene	2.5950 2.6716	2.7845 2.7943	2.7379	2.6861	2.7424	Ave		2.716 0			2.6		20.0				
4-Chlorotoluene	0.8438 0.7965	0.8738 0.8272	0.7985	0.8147	0.8172	Ave		0.824 5			3.3		20.0				
tert-Butylbenzene	0.6716 0.6311	0.6547 0.6582	0.6489	0.6574	0.6597	Ave		0.654 5			1.9		20.0				
Pentachloroethane	0.4761 0.5599	0.5079 0.6042	0.5105	0.5374	0.5673	Ave		0.537 6			8.0		20.0				
1,2,4-Trimethylbenzene	2.5223 2.7253	2.7720 2.8577	2.7882	2.7337	2.7729	Ave		2.738 9			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.: 410-81767-1 Analy Batch No.: 233459

SDG No.: _____

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/15/2022 01:15 Calibration End Date: 03/15/2022 03:22 Calibration ID: 36162

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															
sec-Butylbenzene	3.3368 3.4146	3.4904 3.5024	3.5435	3.4656	3.5139	Ave		3.466 7			2.0		20.0				
1,3-Dichlorobenzene	1.5686 1.6017	1.7033 1.7059	1.6613	1.6055	1.6225	Ave		1.638 4		0.6000	3.2		20.0				
p-Isopropyltoluene	2.9708 3.0857	3.1564 3.2540	3.1523	3.0919	3.1277	Ave		3.119 8			2.8		20.0				
1,4-Dichlorobenzene	1.7310 1.6048	1.7426 1.6935	1.6531	1.6495	1.6403	Ave		1.673 5		0.5000	3.0		20.0				
1,2,3-Trimethylbenzene	1.2689 1.2160	1.3393 1.2992	1.2740	1.2179	1.2430	Ave		1.265 5			3.5		20.0				
Benzyl chloride	0.1789 0.2319	0.1925 0.2512	0.2022	0.2061	0.2354	Ave		0.214 0			12.1		20.0				
n-Butylbenzene	1.2216 1.4268	1.3349 1.5379	1.3822	1.3808	1.4096	Ave		1.384 8			6.9		20.0				
1,2-Dichlorobenzene	1.4265 1.4744	1.5306 1.5609	1.5095	1.4616	1.4900	Ave		1.493 4		0.4000	3.0		20.0				
1,2-Dibromo-3-Chloropropane	0.0558 0.0906	0.0854 0.0970	0.0841	0.0860	0.0936	Ave		0.084 6		0.0500	16.0		20.0				
1,3,5-Trichlorobenzene	1.1286 1.2290	1.2521 1.2559	1.2330	1.2376	1.2287	Ave		1.223 5			3.5		20.0				
1,2,4-Trichlorobenzene	0.9509 1.0527	0.9810 1.0707	1.0538	1.0294	1.0781	Ave		1.031 0		0.2000	4.6		20.0				
Hexachlorobutadiene	0.5538 0.4439	0.4520 0.4573	0.4724	0.4527	0.4407	Ave		0.467 6			8.4		20.0				
Naphthalene	1.6404 1.7690	1.7693 1.7731	1.7762	1.7871	1.8317	Ave		1.763 8			3.3		20.0				
1,2,3-Trichlorobenzene	0.9214 0.8866	0.9035 0.8834	0.9279	0.8889	0.9085	Ave		0.902 9			1.9		20.0				
Dibromofluoromethane (Surr)	0.2708 0.2702	0.2693 0.2713	0.2721	0.2718	0.2693	Ave		0.270 7			0.4		20.0				
1,2-Dichloroethane-d4 (Surr)	0.0497 0.0476	0.0491 0.0483	0.0478	0.0477	0.0473	Ave		0.048 2			1.8		20.0				
Toluene-d8 (Surr)	1.2218 1.2157	1.2150 1.2048	1.2157	1.2264	1.2192	Ave		1.216 9			0.6		20.0				
4-Bromofluorobenzene (Surr)	0.4759 0.4695	0.4711 0.4686	0.4731	0.4754	0.4700	Ave		0.471 9			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.: 410-81767-1 Analy Batch No.: 233459

SDG No.: _____

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/15/2022 01:15 Calibration End Date: 03/15/2022 03:22 Calibration ID: 36162

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-233459/18	IM14I37.D
Level 2	IC 410-233459/17	IM14I36.D
Level 3	IC 410-233459/16	IM14I35.D
Level 4	IC 410-233459/15	IM14I34.D
Level 5	IC 410-233459/14	IM14I33.D
Level 6	ICIS 410-233459/13	IM14I32.D
Level 7	IC 410-233459/12	IM14I31.D

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			
Dichlorodifluoromethane	FB	Ave	12174 775367	38342 1940345	77703	151440	391871	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Chloromethane	FB	Ave	17202 767362	39601 1774005	74938	152777	383740	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Vinyl chloride	FB	Ave	15454 835832	42756 1934005	82830	161037	421383	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,3-Butadiene	FB	Ave	15233 798845	40566 1781874	84313	170292	403813	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Bromomethane	FB	Ave	14324 679556	34546 1724314	65359	127889	330801	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Chloroethane	FB	Ave	9614 505348	25889 1257515	48387	97172	249286	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Dichlorofluoromethane	FB	Ave	26658 1266108	62146 3029501	123616	244787	613064	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Trichlorofluoromethane	FB	Ave	22113 1244670	60650 3044874	122112	247207	626391	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Ethyl ether	FB	Ave	6784 334626	17004 823941	33746	65699	168002	0.200 10.00	0.500 25.0	1.000	2.00	5.00
Freon 123a	FB	Ave	14515 679412	35242 1698938	72278	136009	342871	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Acrolein	TBAd 10	Ave	62205 3017661	139607 6990883	289265	590057	1475679	10.0 500	25.0 1250	50.0	100	250
1,1-Dichloroethene	FB	Ave	10662 510336	26177 1281845	55619	104409	265552	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Acetone	TBAd 10	Ave	20231	39948	82464	148892	395553	2.00	5.00	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.: 410-81767-1

Analy Batch No.: 233459

SDG No.:

Instrument ID: 19930

GC Column: R-624SilMS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 03/15/2022 01:15

Calibration End Date: 03/15/2022 03:22

Calibration ID: 36162

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
			728270	1617920				100	250			
Freon 113	FB	Ave	10208 545338	26572 1384320	59314	112525	287670	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Methyl iodide	FB	Ave	22696 1043578	51940 2633227	113489	217917	533265	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Carbon disulfide	FB	Ave	23883 1165433	56905 2984590	119785	237527	596804	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Methyl acetate	TBAd 10	Lin	7489 186384	9060 491288	22089	39331	105367	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Allyl chloride	FB	Ave	15242 735174	37686 1798703	76818	149475	370309	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Methylene Chloride	FB	Ave	12056 531797	26934 1312595	56397	110744	270557	0.200 10.0	0.500 25.0	1.00	2.00	5.00
t-Butyl alcohol	TBAd 10	Ave	12109 618605	31765 1325434	49640	120168	299177	4.00 200	10.0 500	20.0	40.0	100
Acrylonitrile	TBAd 10	Ave	4395 244970	11960 555811	23490	44225	123024	0.500 25.0	1.25 62.5	2.50	5.00	12.5
Methyl tert-butyl ether	FB	Ave	30498 1341869	66197 3323390	138822	273994	678446	0.200 10.0	0.500 25.0	1.00	2.00	5.00
trans-1,2-Dichloroethene	FB	Ave	12680 574992	30157 1439651	62513	117480	291715	0.200 10.0	0.500 25.0	1.00	2.00	5.00
n-Hexane	FB	Ave	12983 723629	34826 1806929	76935	151532	376145	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1-Dichloroethane	FB	Ave	20843 993908	51123 2471272	105889	208183	506938	0.200 10.0	0.500 25.0	1.00	2.00	5.00
di-Isopropyl ether	FB	Ave	32182 1607499	76892 3927371	163646	320905	806621	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2-Chloro-1,3-butadiene	FB	Ave	17211 818283	40379 2089215	84943	163958	419888	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Ethyl t-butyl ether	FB	Ave	33885 1597708	80698 3947072	167888	321001	805906	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2-Butanone (MEK)	TBAd 10	Ave	27415	66323	145525	270158	710896	2.00	5.00	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.: 410-81767-1

Analy Batch No.: 233459

SDG No.:

Instrument ID: 19930

GC Column: R-624SilMS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 03/15/2022 01:15

Calibration End Date: 03/15/2022 03:22

Calibration ID: 36162

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
			1387836	3216854				100	250			
cis-1,2-Dichloroethene	FB	Ave	15432 644276	34237 1603024	71636	134101	325971	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2,2-Dichloropropane	FB	Ave	18690 941433	46465 2369416	97449	191828	476899	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Propionitrile	TBAd 10	Ave	13732 727147	32816 1757061	75781	136671	352145	4.00 200	10.0 500	20.0	40.0	100
Methacrylonitrile	TBAd 10	Ave	29038 1405130	65801 3399707	149998	276412	707937	2.00 100	5.00 250	10.0	20.0	50.0
Bromochloromethane	FB	Ave	6487 301613	15669 755832	33730	61031	153997	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Tetrahydrofuran	TBAd 10	Ave	4086 195966	9313 454844	19268	38887	101424	1.00 50.0	2.50 125	5.00	10.0	25.0
Chloroform	FB	Ave	23341 1069836	54271 2675658	114605	217483	542529	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1,1-Trichloroethane	FB	Ave	22284 1037449	52545 2614158	109534	215247	529783	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Cyclohexane	FB	Ave	16256 901090	41104 2284509	97272	188548	460490	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1-Dichloropropene	FB	Ave	17366 809214	39107 2073084	82831	165673	412120	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Carbon tetrachloride	FB	Ave	19333 976207	48008 2520671	102183	197475	497787	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Isobutyl alcohol	TBAd 10	Ave	11490 496869	22406 1139036	50547	91271	259655	10.0 500	25.0 1250	50.0	100	250
Benzene	FB	Ave	49374 2308112	116345 5847262	241399	473085	1173966	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2-Dichloroethane	FB	Ave	14632 636810	32183 1610330	69891	125787	317860	0.200 10.0	0.500 25.0	1.00	2.00	5.00
t-Amyl methyl ether	FB	Ave	31737 1493443	74320 3728390	155828	301152	748734	0.200 10.0	0.500 25.0	1.00	2.00	5.00
n-Heptane	FB	Ave	16268	38570	77970	153938	392950	0.200	0.500	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.: 410-81767-1

Analy Batch No.: 233459

SDG No.:

Instrument ID: 19930

GC Column: R-624SilMS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 03/15/2022 01:15

Calibration End Date: 03/15/2022 03:22

Calibration ID: 36162

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	
			748067	1876111					10.0	25.0			
n-Butanol	TBAd 10	Ave	10801	31832	61521	135748	401095		17.5	43.8	87.5	175	438
			820288	1695501					875	2188			
Trichloroethene	FB	Ave	14385	32974	70571	134124	334265		0.200	0.500	1.00	2.00	5.00
			661523	1688115					10.0	25.0			
Methylcyclohexane	FB	Ave	19770	50397	116232	227524	555609		0.200	0.500	1.00	2.00	5.00
			1082507	2751245					10.0	25.0			
1,2-Dichloropropane	FB	Ave	10875	27296	57297	115228	290817		0.200	0.500	1.00	2.00	5.00
			569329	1450382					10.0	25.0			
Methyl methacrylate	TBAd 10	Ave	4900	13137	27005	53110	137875		0.200	0.500	1.00	2.00	5.00
			268217	682538					10.0	25.0			
1,4-Dioxane	TBAd 10	Ave	+++++	4908	9072	20566	52415		+++++	25.0	50.0	100	250
			110430	222411					500	1250			
Dibromomethane	FB	Ave	6467	16746	31772	59795	155310		0.200	0.500	1.00	2.00	5.00
			307015	763014					10.0	25.0			
Bromodichloromethane	FB	Ave	14496	36200	76212	149556	374926		0.200	0.500	1.00	2.00	5.00
			758285	1938816					10.0	25.0			
2-Nitropropane	TBAd 10	Ave	7975	19475	41018	80273	213622		1.00	2.50	5.00	10.0	25.0
			427911	1096762					50.0	125			
cis-1,3-Dichloropropene	FB	Ave	17322	41097	88594	174580	450984		0.200	0.500	1.00	2.00	5.00
			902444	2303922					10.0	25.0			
4-Methyl-2-pentanone (MIBK)	TBAd 10	Ave	66567	175115	369128	710069	1890983		2.00	5.00	10.0	20.0	50.0
			3745376	9464495					100	250			
Toluene	CBZd 5	Ave	32803	78723	161808	310732	784204		0.200	0.500	1.00	2.00	5.00
			1558024	3999921					10.0	25.0			
trans-1,3-Dichloropropene	CBZd 5	Ave	12263	33885	70803	142453	372452		0.200	0.500	1.00	2.00	5.00
			754768	1955314					10.0	25.0			
Ethyl methacrylate	CBZd 5	Ave	9480	26333	54614	108772	291895		0.200	0.500	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.: 410-81767-1 Analy Batch No.: 233459

SDG No.: _____

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/15/2022 01:15 Calibration End Date: 03/15/2022 03:22 Calibration ID: 36162

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
			588856	1522306				10.0	25.0			
1,1,2-Trichloroethane	CBZd 5	Ave	8749	22015	46767	85157	211303	0.200	0.500	1.00	2.00	5.00
			422109	1072964				10.0	25.0			
Tetrachloroethene	CBZd 5	Ave	18053	44469	94610	182846	455530	0.200	0.500	1.00	2.00	5.00
			905603	2303151				10.0	25.0			
1,3-Dichloropropane	CBZd 5	Ave	13872	34333	71340	139306	354541	0.200	0.500	1.00	2.00	5.00
			694300	1758682				10.0	25.0			
2-Hexanone	TBAd 10	Ave	38878	114797	237649	483982	1298814	2.00	5.00	10.0	20.0	50.0
			2672997	6847069				100	250			
Dibromochloromethane	CBZd 5	Ave	11317	28417	57407	115590	300253	0.200	0.500	1.00	2.00	5.00
			605912	1600637				10.0	25.0			
1,2-Dibromoethane (EDB)	CBZd 5	Ave	7460	20990	43335	83682	220656	0.200	0.500	1.00	2.00	5.00
			430495	1101758				10.0	25.0			
1-Chlorohexane	CBZd 5	Ave	21550	47652	95733	184524	467596	0.200	0.500	1.00	2.00	5.00
			931799	2384893				10.0	25.0			
Chlorobenzene	CBZd 5	Ave	36676	96628	194153	366783	933989	0.200	0.500	1.00	2.00	5.00
			1839209	4758275				10.0	25.0			
1,1,1,2-Tetrachloroethane	CBZd 5	Ave	12294	34314	70523	138560	353025	0.200	0.500	1.00	2.00	5.00
			707043	1865047				10.0	25.0			
Ethylbenzene	CBZd 5	Ave	62844	156010	321428	612096	1558260	0.200	0.500	1.00	2.00	5.00
			3113773	8052347				10.0	25.0			
m&p-Xylene	CBZd 5	Ave	50551	126661	262497	503919	1282219	0.400	1.00	2.00	4.00	10.0
			2560376	6704068				20.0	50.0			
o-Xylene	CBZd 5	Ave	24789	63612	128931	247504	625138	0.200	0.500	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.: 410-81767-1 Analy Batch No.: 233459

SDG No.: _____

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/15/2022 01:15 Calibration End Date: 03/15/2022 03:22 Calibration ID: 36162

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
			1252820	3304917				10.0	25.0			
Styrene	CBZd 5	Ave	37528	94656	197567	384280	990642	0.200	0.500	1.00	2.00	5.00
			2015851	5349467				10.0	25.0			
Bromoform	CBZd 5	Ave	6223	16961	34732	70310	189692	0.200	0.500	1.00	2.00	5.00
			398616	1047560				10.0	25.0			
Isopropylbenzene	CBZd 5	Ave	64175	164910	335336	652274	1646507	0.200	0.500	1.00	2.00	5.00
			3323539	8488413				10.0	25.0			
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	10440	27127	54800	103362	272342	0.200	0.500	1.00	2.00	5.00
			545272	1413094				10.0	25.0			
Bromobenzene	DCBd 4	Ave	17078	43168	87022	166897	429256	0.200	0.500	1.00	2.00	5.00
			843377	2232497				10.0	25.0			
trans-1,4-Dichloro-2-butene	TBAd 10	Ave	18122	58243	124086	256925	708706	2.00	5.00	10.0	20.0	50.0
			1514033	4082743				100	250			
1,2,3-Trichloropropane	DCBd 4	Ave	2972	8831	16398	30887	80120	0.200	0.500	1.00	2.00	5.00
			157407	396072				10.0	25.0			
N-Propylbenzene	DCBd 4	Ave	73431	185867	379299	735673	1902259	0.200	0.500	1.00	2.00	5.00
			3777132	9513016				10.0	25.0			
2-Chlorotoluene	DCBd 4	Ave	15217	42524	84829	165738	412847	0.200	0.500	1.00	2.00	5.00
			813415	2107004				10.0	25.0			
1,3,5-Trimethylbenzene	DCBd 4	Ave	52611	140301	277155	544217	1393730	0.200	0.500	1.00	2.00	5.00
			2804438	7260173				10.0	25.0			
4-Chlorotoluene	DCBd 4	Ave	17108	44030	80828	165055	415311	0.200	0.500	1.00	2.00	5.00
			836084	2149136				10.0	25.0			
tert-Butylbenzene	DCBd 4	Ave	13616	32989	65689	133195	335259	0.200	0.500	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.: 410-81767-1 Analy Batch No.: 233459

SDG No.: _____

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/15/2022 01:15 Calibration End Date: 03/15/2022 03:22 Calibration ID: 36162

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
			662432	1710155				10.0	25.0			
Pentachloroethane	DCBd 4	Ave	9652	25590	51676	108889	288333	0.200	0.500	1.00	2.00	5.00
			587717	1569725				10.0	25.0			
1,2,4-Trimethylbenzene	DCBd 4	Ave	51136	139673	282251	553867	1409233	0.200	0.500	1.00	2.00	5.00
			2860782	7424779				10.0	25.0			
sec-Butylbenzene	DCBd 4	Ave	67649	175873	358710	702149	1785777	0.200	0.500	1.00	2.00	5.00
			3584310	9099816				10.0	25.0			
1,3-Dichlorobenzene	DCBd 4	Ave	31802	85825	168169	325278	824593	0.200	0.500	1.00	2.00	5.00
			1681322	4432211				10.0	25.0			
p-Isopropyltoluene	DCBd 4	Ave	60230	159043	319108	626442	1589520	0.200	0.500	1.00	2.00	5.00
			3239138	8454498				10.0	25.0			
1,4-Dichlorobenzene	DCBd 4	Ave	35095	87803	167339	334191	833641	0.200	0.500	1.00	2.00	5.00
			1684578	4400002				10.0	25.0			
1,2,3-Trimethylbenzene	DCBd 4	Ave	25725	67484	128963	246753	631723	0.200	0.500	1.00	2.00	5.00
			1276413	3375478				10.0	25.0			
Benzyl chloride	DCBd 4	Ave	3627	9700	20470	41765	119615	0.200	0.500	1.00	2.00	5.00
			243381	652676				10.0	25.0			
n-Butylbenzene	DCBd 4	Ave	24766	67261	139920	279757	716377	0.200	0.500	1.00	2.00	5.00
			1497756	3995744				10.0	25.0			
1,2-Dichlorobenzene	DCBd 4	Ave	28920	77120	152809	296139	757252	0.200	0.500	1.00	2.00	5.00
			1547734	4055635				10.0	25.0			
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	1132	4305	8509	17417	47557	0.200	0.500	1.00	2.00	5.00
			95086	252108				10.0	25.0			
1,3,5-Trichlorobenzene	DCBd 4	Ave	22882	63089	124815	250743	624432	0.200	0.500	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.: 410-81767-1 Analy Batch No.: 233459

SDG No.: _____

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/15/2022 01:15 Calibration End Date: 03/15/2022 03:22 Calibration ID: 36162

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
			1290067	3263029				10.0	25.0			
1,2,4-Trichlorobenzene	DCBd 4	Ave	19278	49430	106675	208572	547927	0.200	0.500	1.00	2.00	5.00
			1105018	2781903				10.0	25.0			
Hexachlorobutadiene	DCBd 4	Ave	11228	22776	47822	91714	223993	0.200	0.500	1.00	2.00	5.00
			466003	1188278				10.0	25.0			
Naphthalene	DCBd 4	Ave	33257	89149	179802	362073	930872	0.200	0.500	1.00	2.00	5.00
			1856952	4606935				10.0	25.0			
1,2,3-Trichlorobenzene	DCBd 4	Ave	18681	45526	93928	180095	461720	0.200	0.500	1.00	2.00	5.00
			930716	2295134				10.0	25.0			
Dibromofluoromethane (Surr)	FB	Ave	547531	543314	546963	545251	540907	10.0	10.0	10.0	10.0	10.0
			545283	537217				10.0	10.0			
1,2-Dichloroethane-d4 (Surr)	FB	Ave	100556	98965	96046	95723	95088	10.0	10.0	10.0	10.0	10.0
			96026	95694				10.0	10.0			
Toluene-d8 (Surr)	CBZd 5	Ave	2051196	2034623	2035925	2046750	2053919	10.0	10.0	10.0	10.0	10.0
			2067816	2045611				10.0	10.0			
4-Bromofluorobenzene (Surr)	CBZd 5	Ave	798883	788876	792251	793453	791795	10.0	10.0	10.0	10.0	10.0
			798597	795598				10.0	10.0			

Curve Type Legend

Ave = Average ISTD
Lin = Linear ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-81767-1 Analy Batch No.: 233459

SDG No.: _____

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/15/2022 01:15 Calibration End Date: 03/15/2022 03:22 Calibration ID: 36162

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-233459/18	IM14I37.D
Level 2	IC 410-233459/17	IM14I36.D
Level 3	IC 410-233459/16	IM14I35.D
Level 4	IC 410-233459/15	IM14I34.D
Level 5	IC 410-233459/14	IM14I33.D
Level 6	ICIS 410-233459/13	IM14I32.D
Level 7	IC 410-233459/12	IM14I31.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Dichlorodifluoromethane	-19.3 5.1	1.9	3.6	1.2	4.6	3.0	50 30	30	30	30	30	30
Chloromethane	10.6 -6.8	2.1	-3.1	-1.0	-0.6	-1.2	50 30	30	30	30	30	30
Vinyl chloride	-5.9 -3.8	4.3	1.4	-1.2	3.3	1.9	50 30	30	30	30	30	30
1,3-Butadiene	-5.2 -9.4	1.2	5.6	6.9	1.2	-0.4	50 30	30	30	30	30	30
Bromomethane	5.3 3.5	1.8	-3.4	-5.2	-2.1	0.1	50 30	30	30	30	30	30
Chloroethane	-3.8 2.8	3.9	-2.6	-2.0	0.4	1.3	50 30	30	30	30	30	30
Dichlorofluoromethane	6.1 -1.5	-0.9	-1.1	-1.8	-1.8	0.9	50 30	30	30	30	30	30
Trichlorofluoromethane	-9.4 1.9	-0.4	0.6	2.0	3.3	2.1	50 30	30	30	30	30	30
Ethyl ether	0.6 -0.2	1.1	0.6	-1.8	0.3	-0.6	50 30	30	30	30	30	30
Freon 123a	3.5 -1.0	0.7	3.6	-2.3	-1.6	-3.0	50 30	30	30	30	30	30
Acrolein	-0.4 -7.4	3.4	0.0	4.3	-1.9	2.1	50 30	30	30	30	30	30
1,1-Dichloroethene	0.5 -1.3	-1.1	5.5	-0.8	0.8	-3.6	50 30	30	30	30	30	30
Acetone	19.8 -20.7	9.5	5.5	-2.6	-2.7	-8.8	50 30	30	30	30	30	30
Freon 113	-8.3 1.6	-4.3	7.1	1.9	4.0	-1.9	50 30	30	30	30	30	30

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-81767-1

Analy Batch No.: 233459

SDG No.:

Instrument ID: 19930

GC Column: R-624SilMS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 03/15/2022 01:15

Calibration End Date: 03/15/2022 03:22

Calibration ID: 36162

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Methyl iodide	4.4 -1.1	-4.2	5.0	1.0	-1.2	-3.8	50 30	30	30	30	30	30
Carbon disulfide	0.4 2.5	-4.1	1.3	0.7	1.0	-1.8	50 30	30	30	30	30	30
Methyl acetate	17.4 0.3	-23.3	4.8	0.9	5.8	-3.6	50 30	30	30	30	30	30
Allyl chloride	1.4 -2.2	0.5	2.8	0.3	-0.8	-2.0	50 30	30	30	30	30	30
Methylene Chloride	8.7 -3.3	-2.6	2.3	0.7	-1.8	-3.9	50 30	30	30	30	30	30
t-Butyl alcohol	-2.9 -12.0	18.0	-14.0	6.4	-0.4	4.9	50 30	30	30	30	30	30
Acrylonitrile	-11.5 -7.4	11.5	2.2	-1.7	2.8	4.2	50 30	30	30	30	30	30
Methyl tert-butyl ether	10.1 -2.0	-4.2	0.8	-0.3	-1.4	-3.0	50 30	30	30	30	30	30
trans-1,2-Dichloroethene	5.4 -2.2	0.5	4.5	-1.6	-2.4	-4.2	50 30	30	30	30	30	30
n-Hexane	-11.0 1.2	-4.3	6.1	4.7	3.8	-0.6	50 30	30	30	30	30	30
1,1-Dichloroethane	1.2 -1.9	-0.5	3.4	1.9	-0.9	-3.3	50 30	30	30	30	30	30
di-Isopropyl ether	0.1 -0.2	-4.1	2.4	0.6	1.0	0.2	50 30	30	30	30	30	30
2-Chloro-1,3-butadiene	2.6 1.8	-3.5	1.9	-1.4	0.8	-2.2	50 30	30	30	30	30	30
Ethyl t-butyl ether	3.5 -1.5	-1.1	3.2	-1.1	-0.8	-2.2	50 30	30	30	30	30	30
2-Butanone (MEK)	-6.3 -9.1	4.9	7.4	1.9	0.9	0.2	50 30	30	30	30	30	30
cis-1,2-Dichloroethene	12.3 -4.7	-0.1	4.8	-1.7	-4.5	-6.1	50 30	30	30	30	30	30
2,2-Dichloropropane	-2.1 1.4	-2.5	2.6	1.3	0.6	-1.2	50 30	30	30	30	30	30
Propionitrile	-8.4 -3.0	1.4	9.2	0.7	-2.5	2.5	50 30	30	30	30	30	30
Methacrylonitrile	-3.0 -6.1	1.7	8.2	1.9	-1.9	-0.9	50 30	30	30	30	30	30

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-81767-1

Analy Batch No.: 233459

SDG No.: _____

Instrument ID: 19930

GC Column: R-624SilMS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 03/15/2022 01:15

Calibration End Date: 03/15/2022 03:22

Calibration ID: 36162

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Bromochloromethane	2.9 -2.0	-0.3	7.6	-2.4	-1.6	-4.1	50 30	30	30	30	30	30
Tetrahydrofuran	-1.3 -9.1	4.2	0.6	3.8	1.7	0.1	50 30	30	30	30	30	30
Chloroform	5.3 -1.4	-1.9	4.0	-1.1	-1.5	-3.3	50 30	30	30	30	30	30
1,1,1-Trichloroethane	3.6 -0.7	-2.1	2.4	0.9	-0.8	-3.4	50 30	30	30	30	30	30
Cyclohexane	-10.1 3.2	-8.9	8.2	5.1	2.6	-0.2	50 30	30	30	30	30	30
1,1-Dichloropropene	4.7 2.1	-5.5	0.4	0.6	0.0	-2.3	50 30	30	30	30	30	30
Carbon tetrachloride	-2.8 3.5	-3.2	3.3	0.1	0.8	-1.7	50 30	30	30	30	30	30
Isobutyl alcohol	9.3 -10.3	-1.3	3.9	-4.1	2.6	-0.1	50 30	30	30	30	30	30
Benzene	3.6 0.3	-2.1	1.9	0.1	-0.8	-3.0	50 30	30	30	30	30	30
1,2-Dichloroethane	10.2 -1.0	-2.9	5.8	-4.5	-3.6	-4.0	50 30	30	30	30	30	30
t-Amyl methyl ether	3.9 -0.3	-2.4	2.6	-0.6	-1.3	-2.0	50 30	30	30	30	30	30
n-Heptane	4.4 -1.6	-0.8	0.6	-0.4	1.6	-3.8	50 30	30	30	30	30	30
n-Butanol	-25.8 -3.6	1.3	-8.6	3.0	14.5	19.2	50 30	30	30	30	30	30
Trichloroethene	5.1 0.7	-3.4	3.7	-1.2	-1.7	-3.2	50 30	30	30	30	30	30
Methylcyclohexane	-9.4 3.0	-7.5	7.1	5.1	2.5	-0.7	50 30	30	30	30	30	30
1,2-Dichloropropane	-4.8 3.8	-4.2	0.9	1.7	2.6	-0.1	50 30	30	30	30	30	30
Methyl methacrylate	-13.7 -0.5	7.2	2.8	3.4	0.9	-0.1	50 30	30	30	30	30	30
1,4-Dioxane	++++ -14.1	6.1	-8.5	6.0	1.6	8.9	30	50	30	30	30	30
Dibromomethane	2.3 -1.4	6.2	1.1	-4.6	-1.0	-2.7	50 30	30	30	30	30	30

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-81767-1

Analy Batch No.: 233459

SDG No.: _____

Instrument ID: 19930

GC Column: R-624SilMS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 03/15/2022 01:15

Calibration End Date: 03/15/2022 03:22

Calibration ID: 36162

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Bromodichloromethane	-3.9 5.1	-3.7	1.7	0.0	0.1	0.8	50 30	30	30	30	30	30
2-Nitropropane	-9.5 2.9	2.3	0.5	0.6	0.6	2.6	50 30	30	30	30	30	30
cis-1,3-Dichloropropene	-2.4 6.0	-7.2	0.4	-0.9	2.3	1.8	50 30	30	30	30	30	30
4-Methyl-2-pentanone (MIBK)	-14.0 1.2	4.8	3.0	1.3	1.4	2.3	50 30	30	30	30	30	30
Toluene	3.6 -0.1	-0.3	2.4	-1.3	-1.3	-2.9	50 30	30	30	30	30	30
trans-1,3-Dichloropropene	-13.8 8.7	-4.5	-0.2	0.7	4.4	4.7	50 30	30	30	30	30	30
Ethyl methacrylate	-14.1 9.1	-4.3	-0.8	-0.8	5.5	5.4	50 30	30	30	30	30	30
1,1,2-Trichloroethane	0.8 -2.2	1.7	8.0	-1.3	-3.0	-4.0	50 30	30	30	30	30	30
Tetrachloroethene	-0.9 0.0	-2.1	4.1	1.0	-0.3	-1.9	50 30	30	30	30	30	30
1,3-Dichloropropane	-0.6 -0.3	-1.4	2.5	0.4	1.3	-1.8	50 30	30	30	30	30	30
2-Hexanone	-25.2 9.0	2.2	-1.2	2.8	3.7	8.7	50 30	30	30	30	30	30
Dibromochloromethane	-3.9 7.5	-3.2	-2.3	-1.3	1.6	1.6	50 30	30	30	30	30	30
1,2-Dibromoethane (EDB)	-11.5 3.4	-0.1	3.1	-0.1	4.4	0.8	50 30	30	30	30	30	30
1-Chlorohexane	12.3 -1.7	-0.4	0.0	-3.3	-2.9	-4.1	50 30	30	30	30	30	30
Chlorobenzene	-2.2 0.4	3.4	3.8	-1.6	-0.7	-3.2	50 30	30	30	30	30	30
1,1,1,2-Tetrachloroethane	-11.2 6.6	-0.6	2.1	0.7	1.6	0.8	50 30	30	30	30	30	30
Ethylbenzene	0.3 1.6	-0.2	2.8	-1.8	-0.9	-1.9	50 30	30	30	30	30	30
m&p-Xylene	-1.5 3.3	-1.1	2.5	-1.3	-0.4	-1.5	50 30	30	30	30	30	30
o-Xylene	-1.9 3.5	1.0	2.3	-1.4	-1.4	-2.1	50 30	30	30	30	30	30

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-81767-1 Analy Batch No.: 233459

SDG No.: _____

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/15/2022 01:15 Calibration End Date: 03/15/2022 03:22 Calibration ID: 36162

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Styrene	-4.6 7.6	-3.5	0.7	-1.7	0.4	1.2	50 30	30	30	30	30	30
Bromoform	-14.2 14.2	-6.2	-4.0	-2.5	4.2	8.5	50 30	30	30	30	30	30
Isopropylbenzene	-2.7 1.8	0.3	2.0	-0.5	-0.5	-0.5	50 30	30	30	30	30	30
1,1,2,2-Tetrachloroethane	-2.7 2.8	1.7	2.3	-3.6	1.3	-1.8	50 30	30	30	30	30	30
Bromobenzene	0.1 2.1	1.8	2.2	-2.1	0.4	-4.5	50 30	30	30	30	30	30
trans-1,4-Dichloro-2-butene	-35.1 21.0	-3.4	-4.0	1.6	5.4	14.6	50 30	30	30	30	30	30
1,2,3-Trichloropropane	-6.4 -2.7	11.9	3.4	-2.7	0.7	-4.3	50 30	30	30	30	30	30
N-Propylbenzene	-1.3 -0.2	0.5	2.1	-1.1	2.0	-2.0	50 30	30	30	30	30	30
2-Chlorotoluene	-7.0 0.5	4.6	3.8	1.4	0.7	-4.0	50 30	30	30	30	30	30
1,3,5-Trimethylbenzene	-4.5 2.9	2.5	0.8	-1.1	1.0	-1.6	50 30	30	30	30	30	30
4-Chlorotoluene	2.3 0.3	6.0	-3.2	-1.2	-0.9	-3.4	50 30	30	30	30	30	30
tert-Butylbenzene	2.6 0.6	0.0	-0.9	0.4	0.8	-3.6	50 30	30	30	30	30	30
Pentachloroethane	-11.4 12.4	-5.5	-5.0	0.0	5.5	4.1	50 30	30	30	30	30	30
1,2,4-Trimethylbenzene	-7.9 4.3	1.2	1.8	-0.2	1.2	-0.5	50 30	30	30	30	30	30
sec-Butylbenzene	-3.7 1.0	0.7	2.2	0.0	1.4	-1.5	50 30	30	30	30	30	30
1,3-Dichlorobenzene	-4.3 4.1	4.0	1.4	-2.0	-1.0	-2.2	50 30	30	30	30	30	30
p-Isopropyltoluene	-4.8 4.3	1.2	1.0	-0.9	0.3	-1.1	50 30	30	30	30	30	30
1,4-Dichlorobenzene	3.4 1.2	4.1	-1.2	-1.4	-2.0	-4.1	50 30	30	30	30	30	30
1,2,3-Trimethylbenzene	0.3 2.7	5.8	0.7	-3.8	-1.8	-3.9	50 30	30	30	30	30	30

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-81767-1 Analy Batch No.: 233459

SDG No.: _____

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/15/2022 01:15 Calibration End Date: 03/15/2022 03:22 Calibration ID: 36162

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Benzyl chloride	-16.4 17.4	-10.1	-5.5	-3.7	10.0	8.3	50 30	30	30	30	30	30
n-Butylbenzene	-11.8 11.1	-3.6	-0.2	-0.3	1.8	3.0	50 30	30	30	30	30	30
1,2-Dichlorobenzene	-4.5 4.5	2.5	1.1	-2.1	-0.2	-1.3	50 30	30	30	30	30	30
1,2-Dibromo-3-Chloropropane	-34.0 14.6	0.9	-0.7	1.6	10.6	7.0	50 30	30	30	30	30	30
1,3,5-Trichlorobenzene	-7.8 2.6	2.3	0.8	1.1	0.4	0.4	50 30	30	30	30	30	30
1,2,4-Trichlorobenzene	-7.8 3.9	-4.8	2.2	-0.1	4.6	2.1	50 30	30	30	30	30	30
Hexachlorobutadiene	18.4 -2.2	-3.3	1.0	-3.2	-5.7	-5.1	50 30	30	30	30	30	30
Naphthalene	-7.0 0.5	0.3	0.7	1.3	3.8	0.3	50 30	30	30	30	30	30
1,2,3-Trichlorobenzene	2.1 -2.2	0.1	2.8	-1.6	0.6	-1.8	50 30	30	30	30	30	30
Dibromofluoromethane (Surr)	0.0 0.2	-0.5	0.5	0.4	-0.5	-0.2	50 30	30	30	30	30	30
1,2-Dichloroethane-d4 (Surr)	3.1 0.2	1.7	-0.9	-1.0	-1.8	-1.3	50 30	30	30	30	30	30
Toluene-d8 (Surr)	0.4 -1.0	-0.2	-0.1	0.8	0.2	-0.1	50 30	30	30	30	30	30
4-Bromofluorobenzene (Surr)	0.8 -0.7	-0.2	0.2	0.7	-0.4	-0.5	50 30	30	30	30	30	30

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14131.D
 Lims ID: IC std7
 Client ID:
 Sample Type: IC Calib Level: 7
 Inject. Date: 15-Mar-2022 01:15:30 ALS Bottle#: 11 Worklist Smp#: 12
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0052441-012
 Misc. Info.: IC STD7
 Operator ID: mec29284 Instrument ID: 19930
 Sublist: chrom-8260 25ml HP31*sub2
 Method: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 16-Mar-2022 10:11:24 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1676

First Level Reviewer: kephartk

Date: 16-Mar-2022 08:18:15

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	1940345	25.0	26.3	
4 Chloromethane	50	2.154	2.142	0.012	99	1774005	25.0	23.3	
5 Vinyl chloride	62	2.276	2.264	0.012	98	1934005	25.0	24.0	
6 Butadiene	39	2.276	2.264	0.012	92	1781874	25.0	22.7	
7 Bromomethane	94	2.605	2.599	0.006	92	1724314	25.0	25.9	
8 Chloroethane	64	2.684	2.678	0.006	99	1257515	25.0	25.7	
9 Dichlorofluoromethane	67	2.922	2.916	0.006	98	3029501	25.0	24.6	
10 Trichlorofluoromethane	101	2.934	2.928	0.006	97	3044874	25.0	25.5	
11 Ethyl ether	59	3.245	3.233	0.012	90	823941	25.0	25.0	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.324	3.312	0.012	88	1698938	25.0	24.7	
13 Acrolein	56	3.410	3.404	0.006	99	6990883	1250.1	1157.2	
14 1,1-Dichloroethene	96	3.550	3.544	0.006	98	1281845	25.0	24.7	
15 Acetone	43	3.580	3.580	0.000	98	1617920	250.0	198.2	
16 112TCTFE	101	3.586	3.580	0.006	89	1384320	25.0	25.4	
17 Iodomethane	142	3.745	3.739	0.006	99	2633227	25.0	24.7	
18 Ethyl bromide	108	3.775	3.769	0.006	99	1232809	25.0	24.9	
19 Carbon disulfide	76	3.855	3.849	0.006	100	2984590	25.0	25.6	
21 Methyl acetate	43	4.007	4.007	0.000	97	491288	25.0	25.1	M
22 3-Chloro-1-propene	41	4.025	4.025	0.000	88	1798703	25.0	24.4	
23 Methylene Chloride	84	4.220	4.214	0.006	90	1312595	25.0	24.2	
* 24 t-Butyl alcohol-d10 (IS)	65	4.227	4.263	-0.036	95	150473	50.0	50.0	M
25 2-Methyl-2-propanol	59	4.348	4.342	0.006	99	1325434	500.0	439.8	
26 Acrylonitrile	53	4.556	4.562	-0.006	99	555811	62.5	57.9	
27 Methyl tert-butyl ether	73	4.629	4.617	0.012	95	3323390	25.0	24.5	
28 trans-1,2-Dichloroethene	96	4.641	4.629	0.012	98	1439651	25.0	24.4	
29 Hexane	57	5.062	5.056	0.006	93	1806929	25.0	25.3	
31 1,1-Dichloroethane	63	5.293	5.287	0.006	96	2471272	25.0	24.5	
32 Isopropyl ether	45	5.354	5.354	0.000	92	3927371	25.0	25.0	
33 2-Chloro-1,3-butadiene	53	5.409	5.403	0.006	92	2089215	25.0	25.4	
34 Tert-butyl ethyl ether	59	5.891	5.879	0.012	96	3947072	25.0	24.6	

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	6.086	6.080	0.006	99	3216854	250.0	227.4	
37 cis-1,2-Dichloroethene	96	6.129	6.123	0.006	82	1603024	25.0	23.8	
38 2,2-Dichloropropane	77	6.135	6.135	0.000	87	2369416	25.0	25.3	
S 35 1,2-Dichloroethene, Total	100				0			48.3	
40 Propionitrile	54	6.171	6.177	-0.006	99	1757061	500.0	485.0	
42 Methacrylonitrile	67	6.391	6.379	0.012	91	3399707	250.0	234.8	
43 Chlorobromomethane	128	6.458	6.446	0.012	87	755832	25.0	24.5	
44 Tetrahydrofuran	71	6.476	6.458	0.018	77	454844	125.0	113.7	
45 Chloroform	83	6.604	6.604	0.000	94	2675658	25.0	24.6	
\$ 46 Dibromofluoromethane (Surr)	113	6.824	6.812	0.012	93	537217	10.0	10.0	
47 1,1,1-Trichloroethane	97	6.830	6.830	0.000	98	2614158	25.0	24.8	
48 Cyclohexane	56	6.927	6.927	0.000	90	2284509	25.0	25.8	
50 Carbon tetrachloride	117	7.043	7.037	0.006	96	2520671	25.0	25.9	
51 1,1-Dichloropropene	75	7.043	7.037	0.006	93	2073084	25.0	25.5	
52 Isobutyl alcohol	41	7.189	7.189	0.000	92	1139036	1250.0	1120.9	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.269	7.257	0.012	78	95694	10.0	10.0	
54 Benzene	78	7.305	7.299	0.006	96	5847262	25.0	25.1	
56 1,2-Dichloroethane	62	7.372	7.366	0.006	97	1610330	25.0	24.8	
57 Tert-amyl methyl ether	73	7.494	7.488	0.006	98	3728390	25.0	24.9	
* 58 Fluorobenzene (IS)	96	7.701	7.701	0.000	99	1979820	10.0	10.0	
59 n-Heptane	43	7.714	7.708	0.006	90	1876111	25.0	24.6	
60 n-Butanol	56	8.067	8.073	-0.006	89	1695501	2187.5	2109.4	
61 Trichloroethene	95	8.183	8.177	0.006	95	1688115	25.0	25.2	
62 Methylcyclohexane	83	8.494	8.482	0.012	90	2751245	25.0	25.7	
63 1,2-Dichloropropane	63	8.512	8.500	0.012	85	1450382	25.0	25.9	
64 Methyl methacrylate	69	8.592	8.592	0.000	88	682538	25.0	24.9	
65 1,4-Dioxane	88	8.604	8.604	0.000	33	222411	1250.0	1073.8	
66 Dibromomethane	93	8.622	8.610	0.012	90	763014	25.0	24.7	
68 Dichlorobromomethane	83	8.854	8.854	0.000	99	1938816	25.0	26.3	
69 2-Nitropropane	41	9.122	9.116	0.006	100	1096762	125.0	128.7	
72 1-Bromo-2-chloroethane	63	9.250	9.244	0.006	99	1377982	25.0	26.0	
73 cis-1,3-Dichloropropene	75	9.396	9.396	0.000	95	2303922	25.0	26.5	
74 4-Methyl-2-pentanone (MIBK)	43	9.567	9.567	0.000	97	9464495	250.0	252.9	
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2045611	10.0	9.90	
76 Toluene	92	9.780	9.780	0.000	98	3999921	25.0	25.0	
78 trans-1,3-Dichloropropene	75	10.036	10.036	0.000	93	1955314	25.0	27.2	
S 77 1,3-Dichloropropene, Total	100				0			53.7	
79 Ethyl methacrylate	69	10.097	10.097	0.000	87	1522306	25.0	27.3	
80 1,1,2-Trichloroethane	97	10.244	10.244	0.000	91	1072964	25.0	24.4	
81 Tetrachloroethene	166	10.335	10.329	0.006	98	2303151	25.0	25.0	
82 1,3-Dichloropropane	76	10.402	10.402	0.000	90	1758682	25.0	24.9	
83 2-Hexanone	43	10.451	10.451	0.000	97	6847069	250.0	272.5	
85 Chlorodibromomethane	129	10.616	10.616	0.000	89	1600637	25.0	26.9	
86 Ethylene Dibromide	107	10.731	10.731	0.000	99	1101758	25.0	25.9	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	84	1697885	10.0	10.0	
88 1-Chlorohexane	91	11.164	11.164	0.000	95	2384893	25.0	24.6	
90 Chlorobenzene	112	11.183	11.183	0.000	96	4758275	25.0	25.1	
S 89 Xylenes, Total	106				0			77.5	
91 1,1,1,2-Tetrachloroethane	131	11.268	11.268	0.000	95	1865047	25.0	26.6	
92 Ethylbenzene	91	11.268	11.268	0.000	98	8052347	25.0	25.4	
93 m-Xylene & p-Xylene	106	11.384	11.384	0.000	99	6704068	50.0	51.7	
94 o-Xylene	106	11.713	11.713	0.000	96	3304917	25.0	25.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
95 Styrene	104	11.725	11.731	-0.006	93	5349467	25.0	26.9	
96 Bromoform	173	11.884	11.890	-0.006	98	1047560	25.0	28.6	
97 Isopropylbenzene	105	12.012	12.012	0.000	96	8488413	25.0	25.5	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	97	795598	10.0	9.93	
101 1,1,2,2-Tetrachloroethane	83	12.255	12.256	-0.001	95	1413094	25.0	25.7	
102 Bromobenzene	156	12.274	12.274	0.000	97	2232497	25.0	25.5	
103 trans-1,4-Dichloro-2-butene	53	12.280	12.280	0.000	92	4082743	250.0	302.4	
104 1,2,3-Trichloropropane	110	12.304	12.298	0.006	84	396072	25.0	24.3	
105 N-Propylbenzene	91	12.341	12.341	0.000	98	9513016	25.0	24.9	
106 2-Chlorotoluene	126	12.420	12.414	0.006	98	2107004	25.0	25.1	
107 1,3,5-Trimethylbenzene	105	12.475	12.475	0.000	94	7260173	25.0	25.7	
108 4-Chlorotoluene	126	12.512	12.512	0.000	97	2149136	25.0	25.1	
109 tert-Butylbenzene	134	12.719	12.719	0.000	93	1710155	25.0	25.1	
110 Pentachloroethane	167	12.749	12.749	0.000	93	1569725	25.0	28.1	
111 1,2,4-Trimethylbenzene	105	12.761	12.762	-0.001	97	7424779	25.0	26.1	
112 sec-Butylbenzene	105	12.883	12.877	0.006	94	9099816	25.0	25.3	
113 1,3-Dichlorobenzene	146	12.981	12.981	0.000	99	4432211	25.0	26.0	
114 4-Isopropyltoluene	119	12.987	12.987	0.000	96	8454498	25.0	26.1	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	92	1039276	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.054	13.054	0.000	95	4400002	25.0	25.3	
117 1,2,3-Trimethylbenzene	120	13.060	13.060	0.000	98	3375478	25.0	25.7	
118 Benzyl chloride	126	13.127	13.133	-0.006	98	652676	25.0	29.3	
119 n-Butylbenzene	92	13.280	13.280	0.000	97	3995744	25.0	27.8	
120 1,2-Dichlorobenzene	146	13.310	13.316	-0.006	99	4055635	25.0	26.1	
122 1,2-Dibromo-3-Chloropropane	155	13.853	13.859	-0.006	90	252108	25.0	28.7	
123 1,3,5-Trichlorobenzene	180	13.981	13.981	0.000	98	3263029	25.0	25.7	
124 1,2,4-Trichlorobenzene	180	14.401	14.408	-0.007	94	2781903	25.0	26.0	
125 Hexachlorobutadiene	225	14.487	14.487	0.000	95	1188278	25.0	24.5	
126 Naphthalene	128	14.584	14.584	0.000	97	4606935	25.0	25.1	
127 1,2,3-Trichlorobenzene	180	14.725	14.725	-0.001	95	2295134	25.0	24.5	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
137 2-Methylnaphthalene	142		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	
134 Isopropyl alcohol	45		0.000				ND	ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MSV_LL_#1_826_00038	Amount Added: 25.00	Units: uL	
MSV_LL_#2_826_00042	Amount Added: 25.00	Units: uL	
MSV_LL_GAS826_00072	Amount Added: 25.00	Units: uL	
MSV_LLcentISS_00004	Amount Added: 5.00	Units: uL	Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14131.D

Injection Date: 15-Mar-2022 01:15:30

Instrument ID: 19930

Operator ID: mec29284

Lims ID: IC std7

Worklist Smp#: 12

Client ID:

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

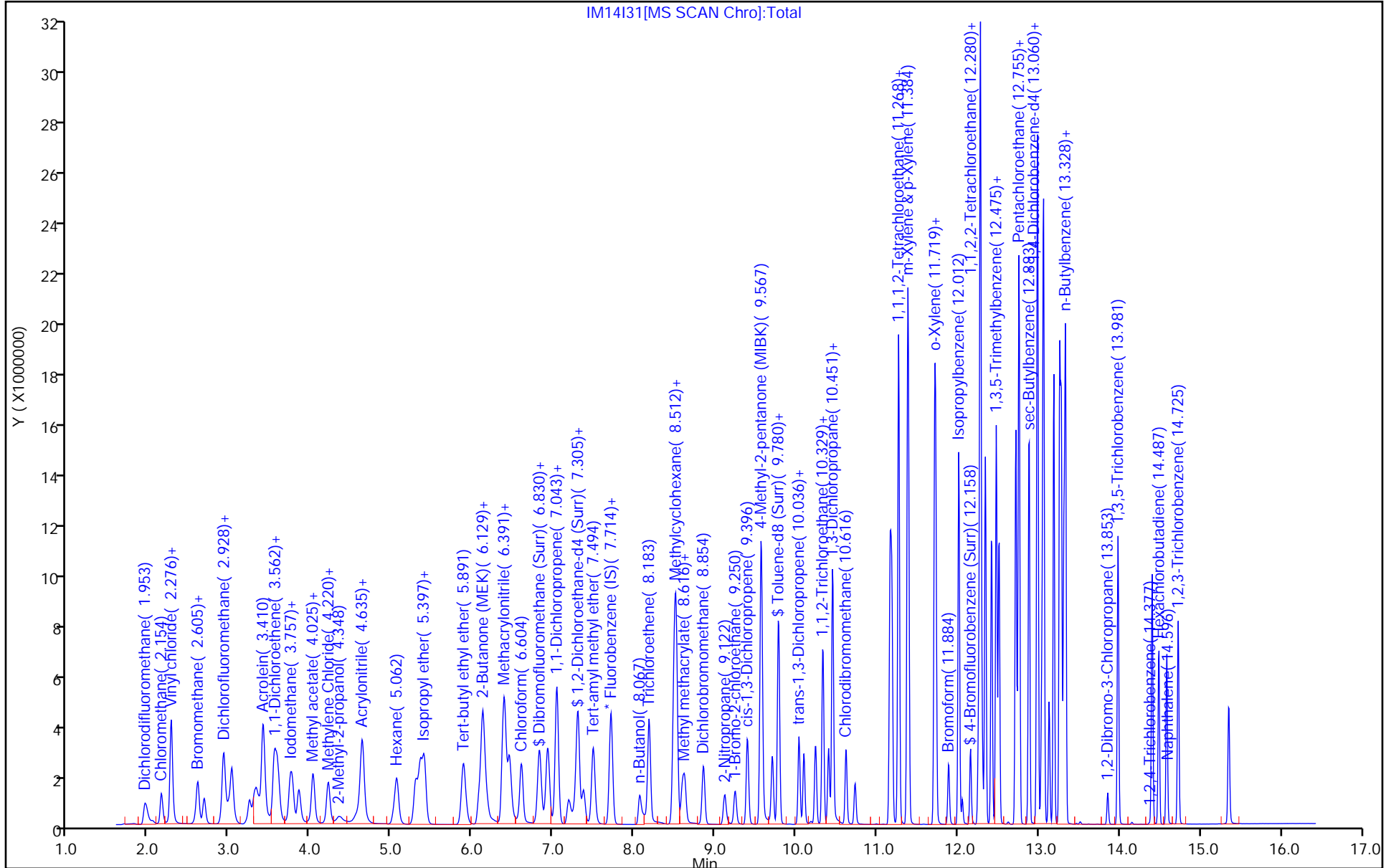
ALS Bottle#: 11

Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

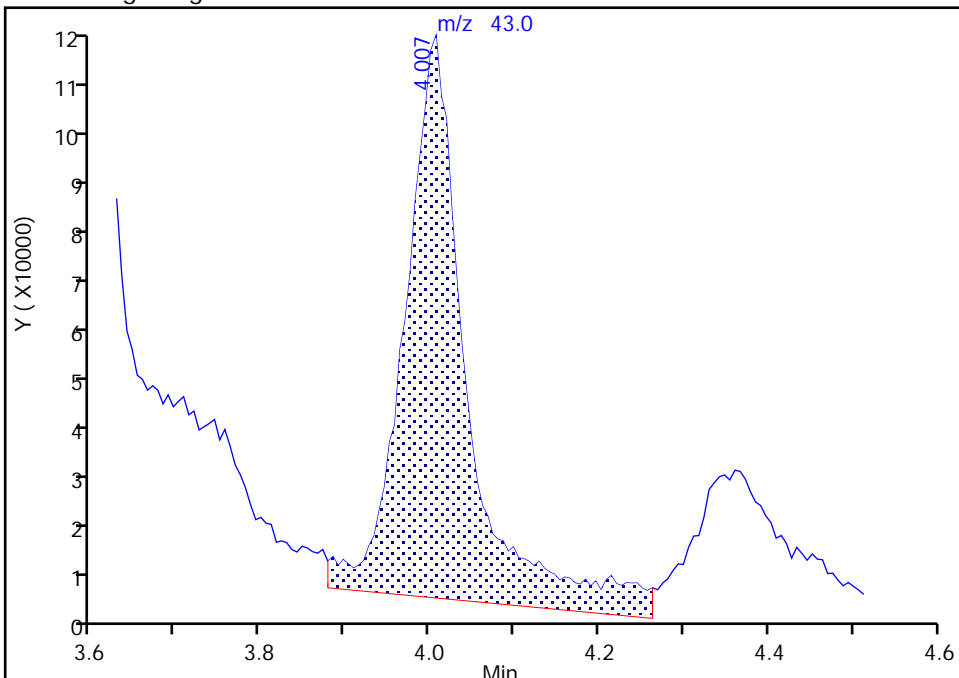
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Injection Date: 15-Mar-2022 01:15:30 Instrument ID: 19930
Lims ID: IC std7
Client ID:
Operator ID: mec29284 ALS Bottle#: 11 Worklist Smp#: 12
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

21 Methyl acetate, CAS: 79-20-9

Signal: 1

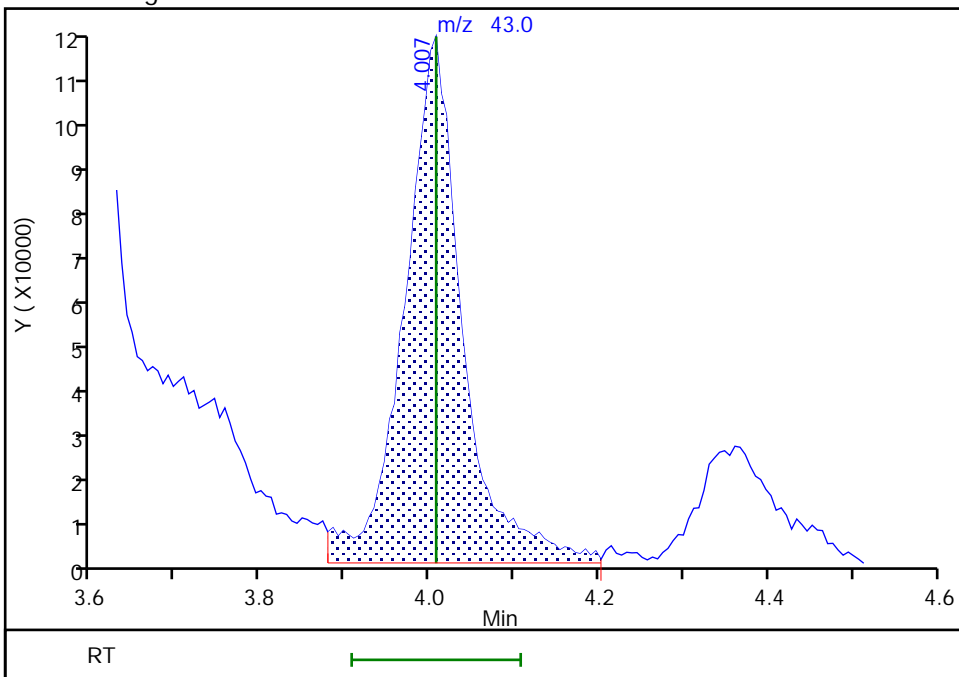
RT: 4.01
Area: 537135
Amount: 22.911080
Amount Units: ug/l

Processing Integration Results



RT: 4.01
Area: 491288
Amount: 25.084836
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 16-Mar-2022 08:17:09
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

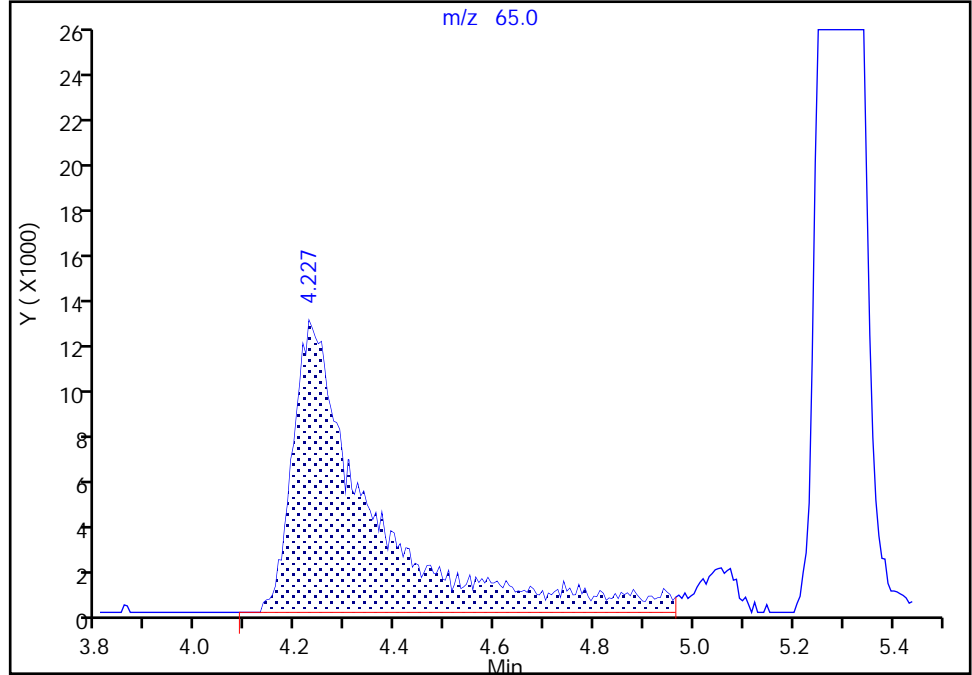
Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14131.D
Injection Date: 15-Mar-2022 01:15:30 Instrument ID: 19930
Lims ID: IC std7
Client ID:
Operator ID: mec29284 ALS Bottle#: 11 Worklist Smp#: 12
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 24 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2
Signal: 1

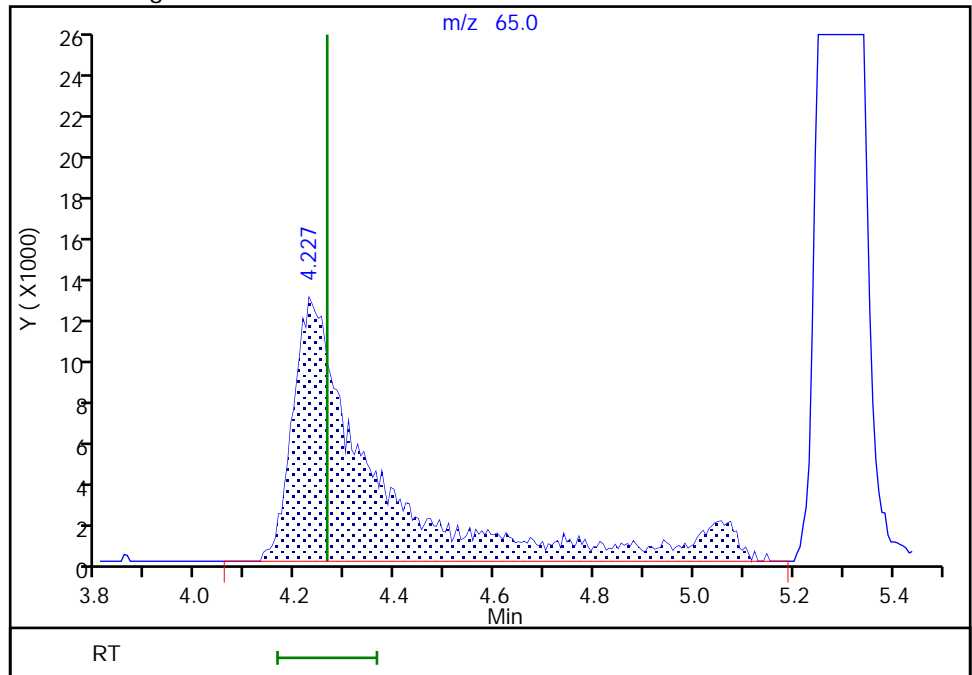
RT: 4.23
Area: 139456
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.23
Area: 150473
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 16-Mar-2022 08:17:22
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14132.D
 Lims ID: ICIS - LG
 Client ID:
 Sample Type: ICIS Calib Level: 6
 Inject. Date: 15-Mar-2022 01:36:30 ALS Bottle#: 12 Worklist Smp#: 13
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0052441-013
 Misc. Info.: ICIS - LG
 Operator ID: mec29284 Instrument ID: 19930
 Sublist: chrom-8260 25ml HP31*sub2

Method: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 16-Mar-2022 10:11:28 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1676

First Level Reviewer: kephartk

Date: 16-Mar-2022 08:19:26

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	775367	10.0	10.3	
4 Chloromethane	50	2.148	2.148	0.000	99	767362	10.0	9.88	
5 Vinyl chloride	62	2.263	2.263	0.000	98	835832	10.0	10.2	
6 Butadiene	39	2.270	2.270	0.000	95	798845	10.0	9.96	
7 Bromomethane	94	2.599	2.599	0.000	92	679556	10.0	10.0	
8 Chloroethane	64	2.678	2.678	0.000	99	505348	10.0	10.1	
9 Dichlorofluoromethane	67	2.910	2.910	0.000	97	1266108	10.0	10.1	
10 Trichlorofluoromethane	101	2.928	2.928	0.000	97	1244670	10.0	10.2	
11 Ethyl ether	59	3.239	3.239	0.000	91	334626	10.0	9.94	
12 1,2-Dichloro-1,1,2-trifluoroethane	67	3.306	3.306	0.000	88	679412	10.0	9.70	
13 Acrolein	56	3.403	3.403	0.000	99	3017661	500.0	510.3	
14 1,1-Dichloroethene	96	3.544	3.544	0.000	98	510336	10.0	9.64	
15 Acetone	43	3.574	3.574	0.000	100	728270	100.0	91.2	
16 112TCTFE	101	3.580	3.580	0.000	90	545338	10.0	9.81	
17 Iodomethane	142	3.739	3.739	0.000	99	1043578	10.0	9.62	
18 Ethyl bromide	108	3.769	3.769	0.000	99	487922	10.0	9.65	
19 Carbon disulfide	76	3.848	3.848	0.000	100	1165433	10.0	9.82	
21 Methyl acetate	43	3.995	3.995	0.000	96	186384	10.0	9.64	M
22 3-Chloro-1-propene	41	4.019	4.019	0.000	88	735174	10.0	9.80	
23 Methylene Chloride	84	4.208	4.208	0.000	90	531797	10.0	9.61	
* 24 t-Butyl alcohol-d10 (IS)	65	4.226	4.226	0.000	95	147286	50.0	50.0	M
25 2-Methyl-2-propanol	59	4.354	4.354	0.000	99	618605	200.0	209.7	
26 Acrylonitrile	53	4.550	4.550	0.000	98	244970	25.0	26.1	
27 Methyl tert-butyl ether	73	4.617	4.617	0.000	94	1341869	10.0	9.70	
28 trans-1,2-Dichloroethene	96	4.629	4.629	0.000	97	574992	10.0	9.58	
29 Hexane	57	5.056	5.056	0.000	93	723629	10.0	9.94	
31 1,1-Dichloroethane	63	5.287	5.287	0.000	96	993908	10.0	9.67	
32 Isopropyl ether	45	5.348	5.348	0.000	92	1607499	10.0	10.0	
33 2-Chloro-1,3-butadiene	53	5.403	5.403	0.000	92	818283	10.0	9.78	
34 Tert-butyl ethyl ether	59	5.885	5.885	0.000	97	1597708	10.0	9.78	

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	6.074	6.074	0.000	99	1387836	100.0	100.2	
37 cis-1,2-Dichloroethene	96	6.122	6.122	0.000	81	644276	10.0	9.39	
38 2,2-Dichloropropane	77	6.135	6.135	0.000	87	941433	10.0	9.88	
40 Propionitrile	54	6.165	6.165	0.000	98	727147	200.0	205.1	
42 Methacrylonitrile	67	6.378	6.378	0.000	91	1405130	100.0	99.1	
43 Chlorobromomethane	128	6.446	6.446	0.000	87	301613	10.0	9.59	
44 Tetrahydrofuran	71	6.458	6.458	0.000	78	195966	50.0	50.0	
45 Chloroform	83	6.598	6.598	0.000	94	1069836	10.0	9.67	
\$ 46 Dibromofluoromethane (Surr)	113	6.817	6.817	0.000	93	545283	10.0	9.98	
47 1,1,1-Trichloroethane	97	6.824	6.824	0.000	98	1037449	10.0	9.66	
48 Cyclohexane	56	6.927	6.927	0.000	91	901090	10.0	9.98	
50 Carbon tetrachloride	117	7.037	7.037	0.000	96	976207	10.0	9.83	
51 1,1-Dichloropropene	75	7.043	7.043	0.000	93	809214	10.0	9.77	
52 Isobutyl alcohol	41	7.183	7.183	0.000	93	496869	500.0	499.5	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.256	7.256	0.000	90	96026	10.0	9.87	
54 Benzene	78	7.299	7.299	0.000	97	2308112	10.0	9.70	
56 1,2-Dichloroethane	62	7.366	7.366	0.000	98	636810	10.0	9.60	
57 Tert-amyl methyl ether	73	7.488	7.488	0.000	98	1493443	10.0	9.80	
* 58 Fluorobenzene (IS)	96	7.701	7.701	0.000	99	2018353	10.0	10.0	
59 n-Heptane	43	7.714	7.714	0.000	89	748067	10.0	9.62	
60 n-Butanol	56	8.061	8.061	0.000	89	820288	875.0	1042.6	
61 Trichloroethene	95	8.177	8.177	0.000	96	661523	10.0	9.68	
62 Methylcyclohexane	83	8.488	8.488	0.000	90	1082507	10.0	9.93	
63 1,2-Dichloropropane	63	8.506	8.506	0.000	93	569329	10.0	9.99	
64 Methyl methacrylate	69	8.591	8.591	0.000	84	268217	10.0	9.99	
65 1,4-Dioxane	88	8.604	8.604	0.000	39	110430	500.0	544.7	
66 Dibromomethane	93	8.616	8.616	0.000	91	307015	10.0	9.73	
68 Dichlorobromomethane	83	8.854	8.854	0.000	99	758285	10.0	10.1	
69 2-Nitropropane	41	9.116	9.116	0.000	100	427911	50.0	51.3	
72 1-Bromo-2-chloroethane	63	9.244	9.244	0.000	99	545876	10.0	10.1	
73 cis-1,3-Dichloropropene	75	9.396	9.396	0.000	95	902444	10.0	10.2	
74 4-Methyl-2-pentanone (MIBK)	43	9.567	9.567	0.000	97	3745376	100.0	102.3	
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	94	2067816	10.0	9.99	
76 Toluene	92	9.780	9.780	0.000	98	1558024	10.0	9.71	
78 trans-1,3-Dichloropropene	75	10.036	10.036	0.000	94	754768	10.0	10.5	
79 Ethyl methacrylate	69	10.097	10.097	0.000	87	588856	10.0	10.5	
80 1,1,2-Trichloroethane	97	10.237	10.237	0.000	92	422109	10.0	9.60	
81 Tetrachloroethene	166	10.329	10.329	0.000	98	905603	10.0	9.81	
82 1,3-Dichloropropane	76	10.402	10.402	0.000	89	694300	10.0	9.82	
83 2-Hexanone	43	10.451	10.451	0.000	97	2672997	100.0	108.7	
85 Chlorodibromomethane	129	10.615	10.615	0.000	89	605912	10.0	10.2	
86 Ethylene Dibromide	107	10.731	10.731	0.000	98	430495	10.0	10.1	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	84	1700909	10.0	10.0	
88 1-Chlorohexane	91	11.164	11.164	0.000	95	931799	10.0	9.59	
90 Chlorobenzene	112	11.182	11.182	0.000	97	1839209	10.0	9.68	
91 1,1,1,2-Tetrachloroethane	131	11.268	11.268	0.000	95	707043	10.0	10.1	
92 Ethylbenzene	91	11.268	11.268	0.000	98	3113773	10.0	9.81	
93 m-Xylene & p-Xylene	106	11.384	11.384	0.000	99	2560376	20.0	19.7	
94 o-Xylene	106	11.713	11.713	0.000	95	1252820	10.0	9.79	
95 Styrene	104	11.725	11.725	0.000	94	2015851	10.0	10.1	
96 Bromoform	173	11.890	11.890	0.000	98	398616	10.0	10.8	
97 Isopropylbenzene	105	12.012	12.012	0.000	96	3323539	10.0	9.95	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
\$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	96	798597	10.0	9.95	
101 1,1,2,2-Tetrachloroethane	83	12.255	12.255	0.000	95	545272	10.0	9.82	
102 Bromobenzene	156	12.274	12.274	0.000	97	843377	10.0	9.55	
103 trans-1,4-Dichloro-2-butene	53	12.280	12.280	0.000	92	1514033	100.0	114.6	
104 1,2,3-Trichloropropane	110	12.304	12.304	0.000	85	157407	10.0	9.57	
105 N-Propylbenzene	91	12.341	12.341	0.000	98	3777132	10.0	9.80	
106 2-Chlorotoluene	126	12.414	12.414	0.000	97	813415	10.0	9.60	
107 1,3,5-Trimethylbenzene	105	12.475	12.475	0.000	94	2804438	10.0	9.84	
108 4-Chlorotoluene	126	12.511	12.511	0.000	97	836084	10.0	9.66	
109 tert-Butylbenzene	134	12.719	12.719	0.000	93	662432	10.0	9.64	
110 Pentachloroethane	167	12.749	12.749	0.000	93	587717	10.0	10.4	
111 1,2,4-Trimethylbenzene	105	12.755	12.755	0.000	97	2860782	10.0	9.95	
112 sec-Butylbenzene	105	12.877	12.877	0.000	94	3584310	10.0	9.85	
113 1,3-Dichlorobenzene	146	12.981	12.981	0.000	99	1681322	10.0	9.78	
114 4-Isopropyltoluene	119	12.987	12.987	0.000	97	3239138	10.0	9.89	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	93	1049716	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.054	13.054	0.000	95	1684578	10.0	9.59	
117 1,2,3-Trimethylbenzene	120	13.060	13.060	0.000	98	1276413	10.0	9.61	
118 Benzyl chloride	126	13.127	13.127	0.000	98	243381	10.0	10.8	
119 n-Butylbenzene	92	13.280	13.280	0.000	97	1497756	10.0	10.3	
120 1,2-Dichlorobenzene	146	13.310	13.310	0.000	99	1547734	10.0	9.87	
122 1,2-Dibromo-3-Chloropropane	155	13.853	13.853	0.000	90	95086	10.0	10.7	
123 1,3,5-Trichlorobenzene	180	13.981	13.981	0.000	98	1290067	10.0	10.0	
124 1,2,4-Trichlorobenzene	180	14.401	14.401	0.000	94	1105018	10.0	10.2	
125 Hexachlorobutadiene	225	14.487	14.487	0.000	95	466003	10.0	9.49	
126 Naphthalene	128	14.584	14.584	0.000	97	1856952	10.0	10.0	
127 1,2,3-Trichlorobenzene	180	14.724	14.724	0.000	95	930716	10.0	9.82	
137 2-Methylnaphthalene	142		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	
134 Isopropyl alcohol	45		0.000				ND	ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MSV_LL_#1_826_00038

Amount Added: 10.00

Units: uL

MSV_LL_#2_826_00042

Amount Added: 10.00

Units: uL

MSV_LL_GAS826_00072

Amount Added: 10.00

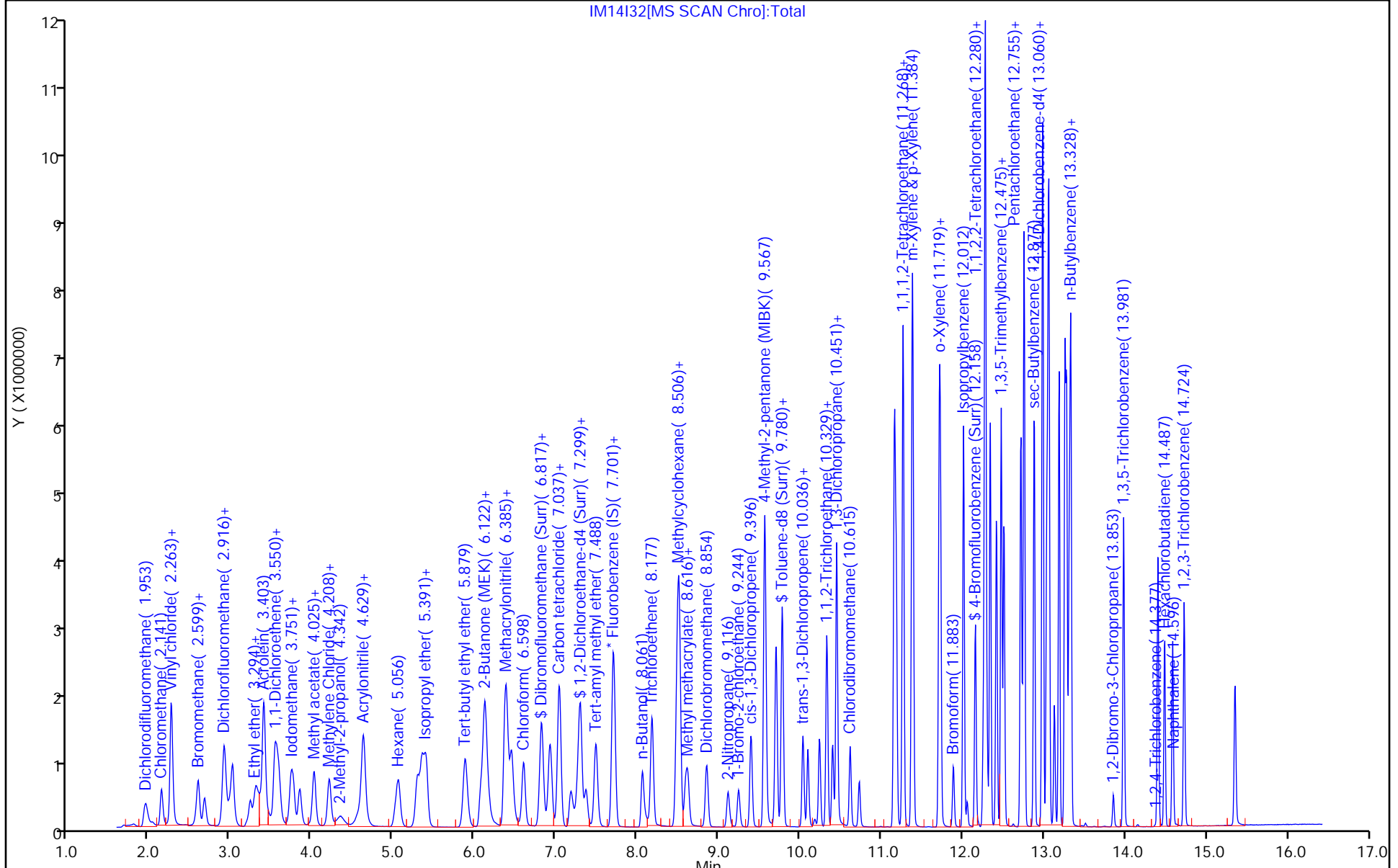
Units: uL

MSV_LLcentISS_00004

Amount Added: 5.00

Units: uL

Run Reagent



Euofins Lancaster Laboratories Env, LLC

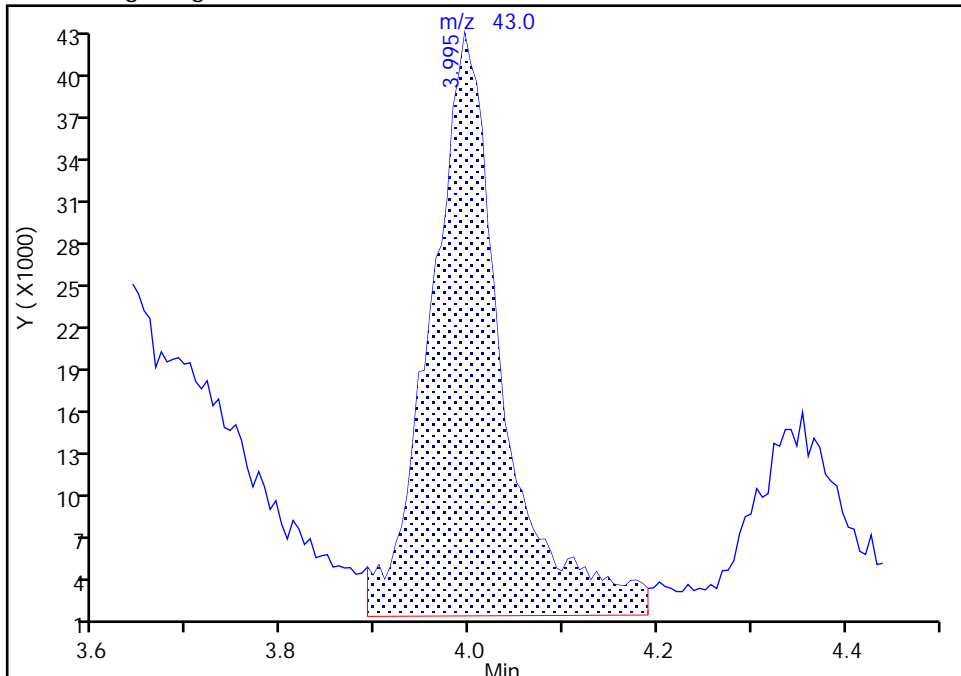
Data File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\1M14132.D
Injection Date: 15-Mar-2022 01:36:30 Instrument ID: 19930
Lims ID: ICIS - LG
Client ID:
Operator ID: mec29284 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

21 Methyl acetate, CAS: 79-20-9

Signal: 1

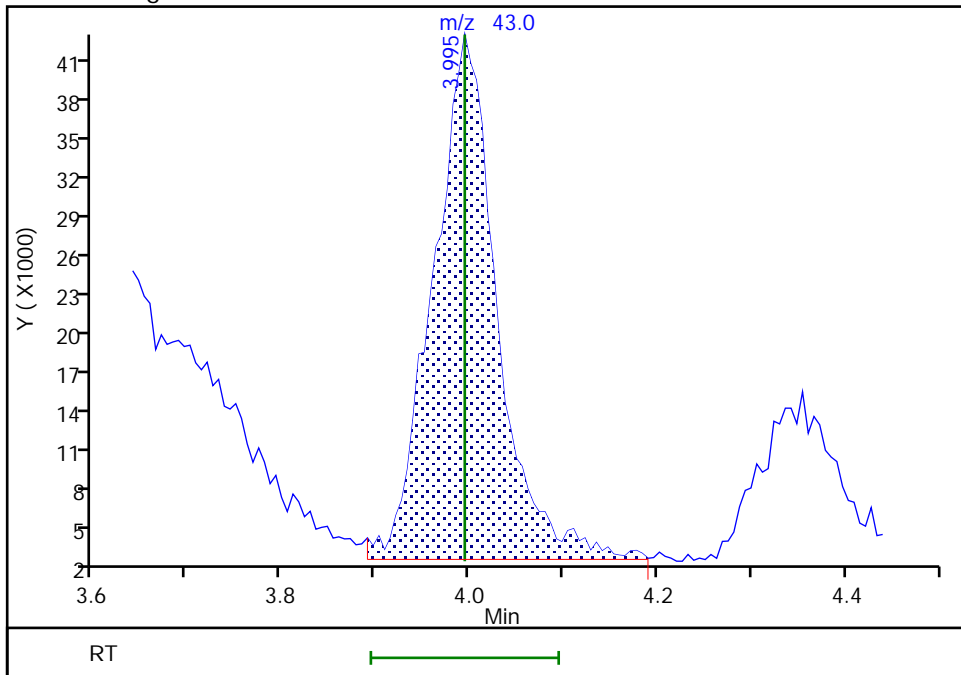
RT: 3.99
Area: 220010
Amount: 11.108859
Amount Units: ug/l

Processing Integration Results



RT: 3.99
Area: 186384
Amount: 9.638692
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 16-Mar-2022 08:18:41
Audit Action: Assigned New Baseline

Audit Reason: Baseline
Page 431 of 693

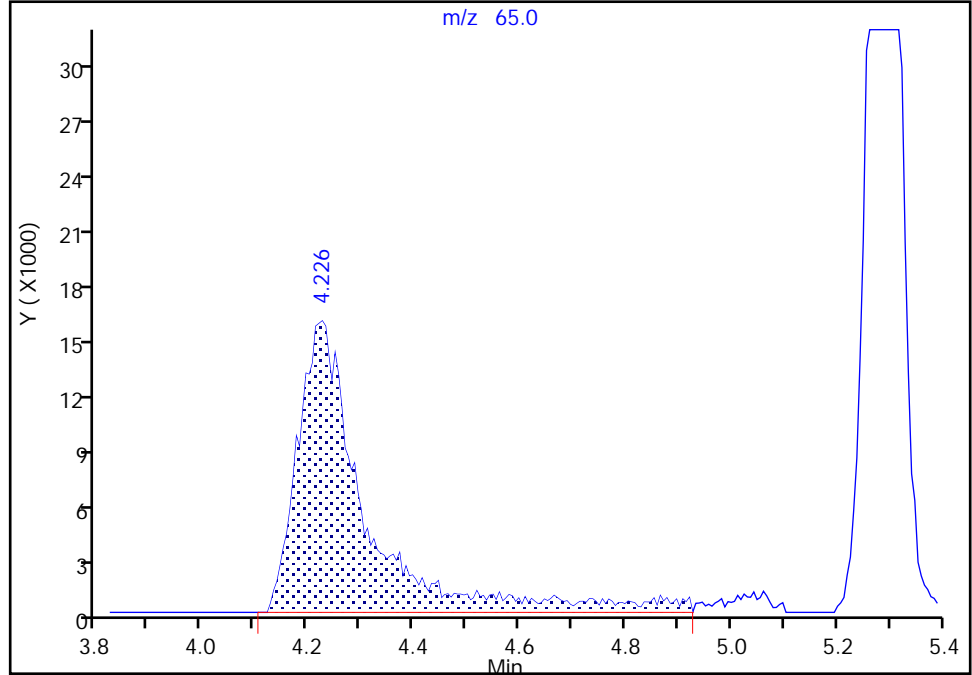
Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14132.D
Injection Date: 15-Mar-2022 01:36:30 Instrument ID: 19930
Lims ID: ICIS - LG
Client ID:
Operator ID: mec29284 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 24 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2
Signal: 1

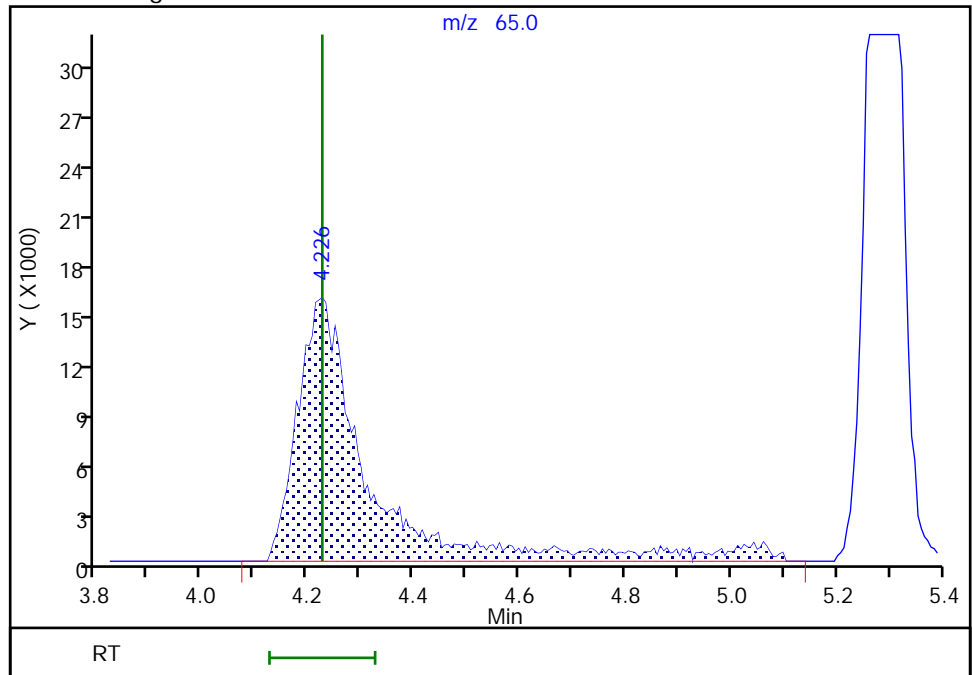
RT: 4.23
Area: 140812
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.23
Area: 147286
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 16-Mar-2022 08:18:48
Audit Action: Manually Integrated

Audit Reason: Baseline
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Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14133.D
 Lims ID: IC std5
 Client ID:
 Sample Type: IC Calib Level: 5
 Inject. Date: 15-Mar-2022 01:58:30 ALS Bottle#: 13 Worklist Smp#: 14
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0052441-014
 Misc. Info.: IC STD5
 Operator ID: mec29284 Instrument ID: 19930
 Sublist: chrom-8260 25ml HP31*sub2

Method: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 16-Mar-2022 10:11:32 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1676

First Level Reviewer: kephartk

Date: 16-Mar-2022 08:23:07

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	0.001	99	391871	5.00	5.23	
4 Chloromethane	50	2.148	2.148	0.000	99	383740	5.00	4.97	
5 Vinyl chloride	62	2.264	2.263	0.001	84	421383	5.00	5.16	
6 Butadiene	39	2.270	2.270	0.000	93	403813	5.00	5.06	
7 Bromomethane	94	2.599	2.599	0.000	92	330801	5.00	4.90	
8 Chloroethane	64	2.678	2.678	0.000	99	249286	5.00	5.02	
9 Dichlorofluoromethane	67	2.916	2.910	0.006	98	613064	5.00	4.91	
10 Trichlorofluoromethane	101	2.928	2.928	0.000	97	626391	5.00	5.16	
11 Ethyl ether	59	3.239	3.239	0.000	90	168002	5.00	5.02	
12 1,2-Dichloro-1,1,2-trifluoroethane	67	3.306	3.306	0.000	88	342871	5.00	4.92	
13 Acrolein	56	3.404	3.403	0.001	99	1475679	250.0	245.1	
14 1,1-Dichloroethene	96	3.544	3.544	0.000	97	265552	5.00	5.04	
15 Acetone	43	3.574	3.574	0.000	81	395553	50.0	48.6	M
16 112TCTFE	101	3.586	3.580	0.006	89	287670	5.00	5.20	
17 Iodomethane	142	3.739	3.739	0.000	100	533265	5.00	4.94	
18 Ethyl bromide	108	3.769	3.769	0.000	99	256852	5.00	5.11	
19 Carbon disulfide	76	3.849	3.848	0.001	100	596804	5.00	5.05	
21 Methyl acetate	43	4.013	3.995	0.018	97	105367	5.00	5.29	M
22 3-Chloro-1-propene	41	4.025	4.019	0.006	88	370309	5.00	4.96	
23 Methylene Chloride	84	4.214	4.208	0.006	92	270557	5.00	4.91	
* 24 t-Butyl alcohol-d10 (IS)	65	4.214	4.226	-0.012	97	149941	50.0	50.0	M
25 2-Methyl-2-propanol	59	4.349	4.354	-0.006	99	299177	100.0	99.6	
26 Acrylonitrile	53	4.550	4.550	0.000	97	123024	12.5	12.9	
27 Methyl tert-butyl ether	73	4.623	4.617	0.006	94	678446	5.00	4.93	
28 trans-1,2-Dichloroethene	96	4.635	4.629	0.006	97	291715	5.00	4.88	
29 Hexane	57	5.062	5.056	0.006	93	376145	5.00	5.19	
31 1,1-Dichloroethane	63	5.287	5.287	0.000	96	506938	5.00	4.96	
32 Isopropyl ether	45	5.348	5.348	0.000	92	806621	5.00	5.05	
33 2-Chloro-1,3-butadiene	53	5.397	5.403	-0.006	91	419888	5.00	5.04	
34 Tert-butyl ethyl ether	59	5.879	5.885	-0.006	97	805906	5.00	4.96	

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	6.080	6.074	0.006	99	710896	50.0	50.4	
37 cis-1,2-Dichloroethene	96	6.123	6.122	0.001	81	325971	5.00	4.78	
38 2,2-Dichloropropane	77	6.135	6.135	0.000	88	476899	5.00	5.03	
S 35 1,2-Dichloroethene, Total	100				0			9.66	
40 Propionitrile	54	6.171	6.165	0.006	98	352145	100.0	97.5	
42 Methacrylonitrile	67	6.385	6.378	0.007	94	707937	50.0	49.1	
43 Chlorobromomethane	128	6.452	6.446	0.006	86	153997	5.00	4.92	
44 Tetrahydrofuran	71	6.464	6.458	0.006	88	101424	25.0	25.4	
45 Chloroform	83	6.598	6.598	0.000	94	542529	5.00	4.93	
\$ 46 Dibromofluoromethane (Surr)	113	6.811	6.817	-0.006	94	540907	10.0	9.95	
47 1,1,1-Trichloroethane	97	6.830	6.824	0.006	97	529783	5.00	4.96	
48 Cyclohexane	56	6.927	6.927	0.000	90	460490	5.00	5.13	
50 Carbon tetrachloride	117	7.043	7.037	0.006	96	497787	5.00	5.04	
51 1,1-Dichloropropene	75	7.037	7.043	-0.006	93	412120	5.00	5.00	
52 Isobutyl alcohol	41	7.177	7.183	-0.006	92	259655	250.0	256.4	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.263	7.256	0.007	86	95088	10.0	9.82	
54 Benzene	78	7.299	7.299	0.000	97	1173966	5.00	4.96	
56 1,2-Dichloroethane	62	7.366	7.366	0.000	97	317860	5.00	4.82	
57 Tert-amyl methyl ether	73	7.488	7.488	0.000	98	748734	5.00	4.94	
* 58 Fluorobenzene (IS)	96	7.702	7.701	0.001	99	2008310	10.0	10.0	
59 n-Heptane	43	7.714	7.714	0.000	91	392950	5.00	5.08	
60 n-Butanol	56	8.061	8.061	0.000	89	401095	437.5	500.8	
61 Trichloroethene	95	8.177	8.177	0.000	95	334265	5.00	4.92	
62 Methylcyclohexane	83	8.488	8.488	0.000	91	555609	5.00	5.12	
63 1,2-Dichloropropane	63	8.506	8.506	0.000	92	290817	5.00	5.13	
64 Methyl methacrylate	69	8.592	8.591	0.001	88	137875	5.00	5.04	
65 1,4-Dioxane	88	8.604	8.604	0.000	40	52415	250.0	253.9	
66 Dibromomethane	93	8.622	8.616	0.006	91	155310	5.00	4.95	
68 Dichlorobromomethane	83	8.854	8.854	0.000	99	374926	5.00	5.01	
69 2-Nitropropane	41	9.116	9.116	0.000	99	213622	25.0	25.2	
72 1-Bromo-2-chloroethane	63	9.244	9.244	0.000	98	273832	5.00	5.10	
73 cis-1,3-Dichloropropene	75	9.396	9.396	0.000	95	450984	5.00	5.11	
74 4-Methyl-2-pentanone (MIBK)	43	9.567	9.567	0.000	97	1890983	50.0	50.7	
\$ 75 Toluene-d8 (Surr)	98	9.701	9.707	-0.006	93	2053919	10.0	10.0	
76 Toluene	92	9.780	9.780	0.000	98	784204	5.00	4.93	
78 trans-1,3-Dichloropropene	75	10.036	10.036	0.000	93	372452	5.00	5.22	
S 77 1,3-Dichloropropene, Total	100				0			10.3	
79 Ethyl methacrylate	69	10.097	10.097	0.000	88	291895	5.00	5.27	
80 1,1,2-Trichloroethane	97	10.238	10.237	0.001	92	211303	5.00	4.85	
81 Tetrachloroethene	166	10.329	10.329	0.000	98	455530	5.00	4.98	
82 1,3-Dichloropropane	76	10.402	10.402	0.000	90	354541	5.00	5.06	
83 2-Hexanone	43	10.451	10.451	0.000	97	1298814	50.0	51.9	
85 Chlorodibromomethane	129	10.616	10.615	0.001	89	300253	5.00	5.08	
86 Ethylene Dibromide	107	10.731	10.731	0.000	98	220656	5.00	5.22	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	84	1684584	10.0	10.0	
88 1-Chlorohexane	91	11.164	11.164	0.000	94	467596	5.00	4.86	
90 Chlorobenzene	112	11.183	11.182	0.001	96	933989	5.00	4.97	
S 89 Xylenes, Total	106				0			14.9	
91 1,1,1,2-Tetrachloroethane	131	11.268	11.268	0.000	95	353025	5.00	5.08	
92 Ethylbenzene	91	11.268	11.268	0.000	98	1558260	5.00	4.96	
93 m-Xylene & p-Xylene	106	11.384	11.384	0.000	99	1282219	10.0	9.96	
94 o-Xylene	106	11.713	11.713	0.000	96	625138	5.00	4.93	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
95 Styrene	104	11.731	11.725	0.006	95	990642	5.00	5.02	
96 Bromoform	173	11.890	11.890	0.000	98	189692	5.00	5.21	
97 Isopropylbenzene	105	12.012	12.012	0.000	95	1646507	5.00	4.98	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	97	791795	10.0	9.96	
101 1,1,2,2-Tetrachloroethane	83	12.256	12.255	0.001	94	272342	5.00	5.06	
102 Bromobenzene	156	12.274	12.274	0.000	95	429256	5.00	5.02	
103 trans-1,4-Dichloro-2-butene	53	12.280	12.280	0.000	95	708706	50.0	52.7	
104 1,2,3-Trichloropropane	110	12.304	12.304	0.000	84	80120	5.00	5.03	
105 N-Propylbenzene	91	12.341	12.341	0.000	99	1902259	5.00	5.10	
106 2-Chlorotoluene	126	12.414	12.414	0.000	98	412847	5.00	5.03	
107 1,3,5-Trimethylbenzene	105	12.475	12.475	0.000	95	1393730	5.00	5.05	
108 4-Chlorotoluene	126	12.512	12.511	0.001	96	415311	5.00	4.96	
109 tert-Butylbenzene	134	12.719	12.719	0.000	92	335259	5.00	5.04	
110 Pentachloroethane	167	12.749	12.749	0.000	91	288333	5.00	5.28	
111 1,2,4-Trimethylbenzene	105	12.762	12.755	0.007	97	1409233	5.00	5.06	
112 sec-Butylbenzene	105	12.877	12.877	0.000	94	1785777	5.00	5.07	
113 1,3-Dichlorobenzene	146	12.981	12.981	0.000	99	824593	5.00	4.95	
114 4-Isopropyltoluene	119	12.987	12.987	0.000	97	1589520	5.00	5.01	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	93	1016421	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.054	13.054	0.000	95	833641	5.00	4.90	
117 1,2,3-Trimethylbenzene	120	13.060	13.060	0.000	98	631723	5.00	4.91	
118 Benzyl chloride	126	13.127	13.127	0.000	98	119615	5.00	5.50	
119 n-Butylbenzene	92	13.280	13.280	0.000	97	716377	5.00	5.09	
120 1,2-Dichlorobenzene	146	13.310	13.310	0.000	99	757252	5.00	4.99	
122 1,2-Dibromo-3-Chloropropane	155	13.859	13.853	0.006	89	47557	5.00	5.53	
123 1,3,5-Trichlorobenzene	180	13.981	13.981	0.000	98	624432	5.00	5.02	
124 1,2,4-Trichlorobenzene	180	14.401	14.401	0.000	94	547927	5.00	5.23	
125 Hexachlorobutadiene	225	14.487	14.487	0.000	95	223993	5.00	4.71	
126 Naphthalene	128	14.584	14.584	0.000	97	930872	5.00	5.19	
127 1,2,3-Trichlorobenzene	180	14.725	14.724	0.001	96	461720	5.00	5.03	
137 2-Methylnaphthalene	142		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	
134 Isopropyl alcohol	45		0.000				ND	ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MSV_LL_#1_826_00038	Amount Added: 5.00	Units: uL	
MSV_LL_#2_826_00042	Amount Added: 5.00	Units: uL	
MSV_LL_GAS826_00072	Amount Added: 5.00	Units: uL	
MSV_LLcentISS_00004	Amount Added: 5.00	Units: uL	Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14133.D

Injection Date: 15-Mar-2022 01:58:30

Instrument ID: 19930

Operator ID: mec29284

Lims ID: IC std5

Worklist Smp#: 14

Client ID:

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

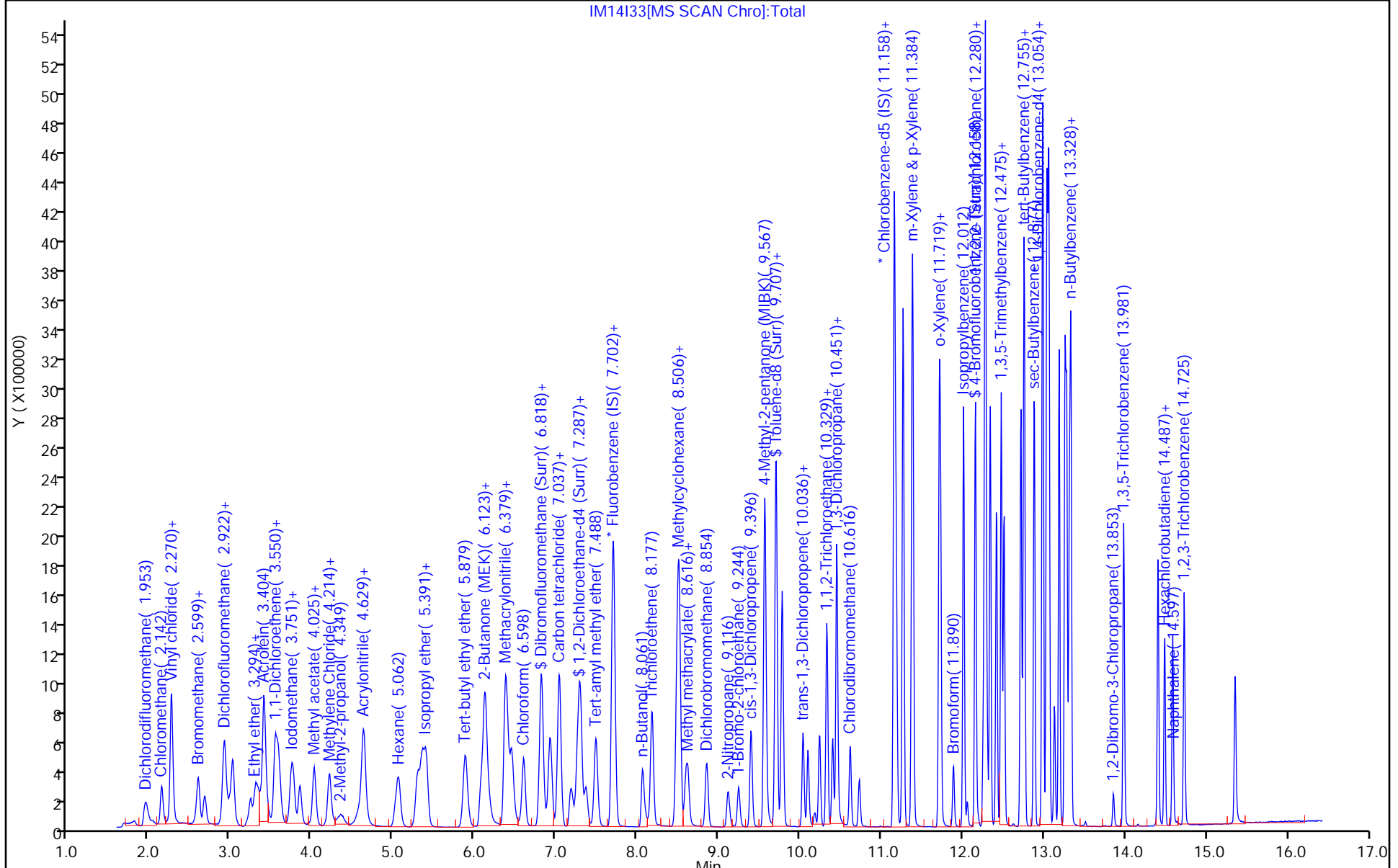
ALS Bottle#: 13

Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

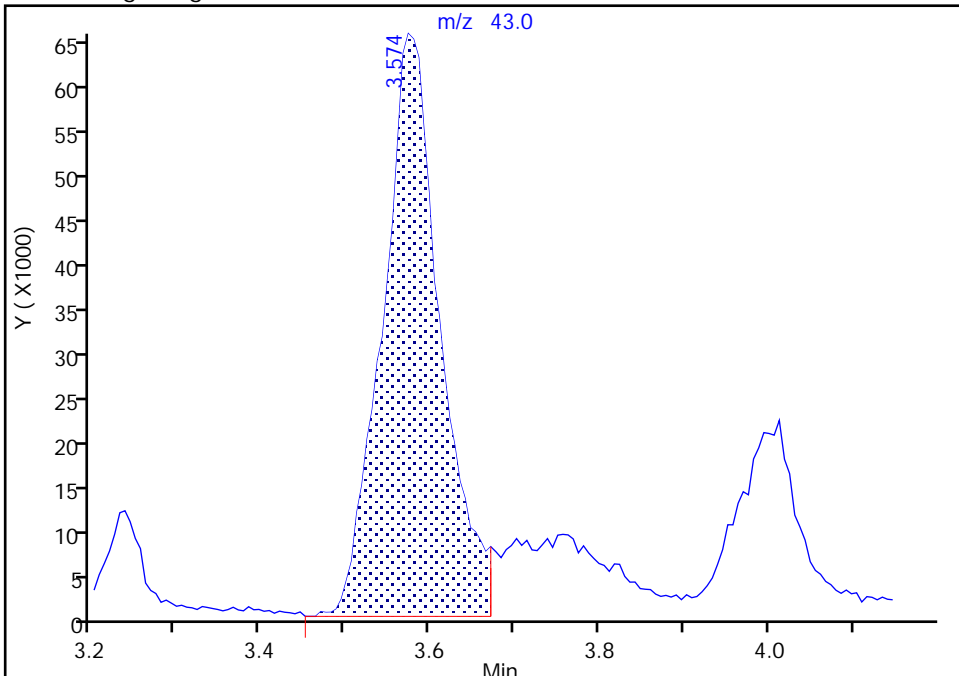
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Injection Date: 15-Mar-2022 01:58:30 Instrument ID: 19930
Lims ID: IC std5
Client ID:
Operator ID: mec29284 ALS Bottle#: 13 Worklist Smp#: 14
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

15 Acetone, CAS: 67-64-1

Signal: 1

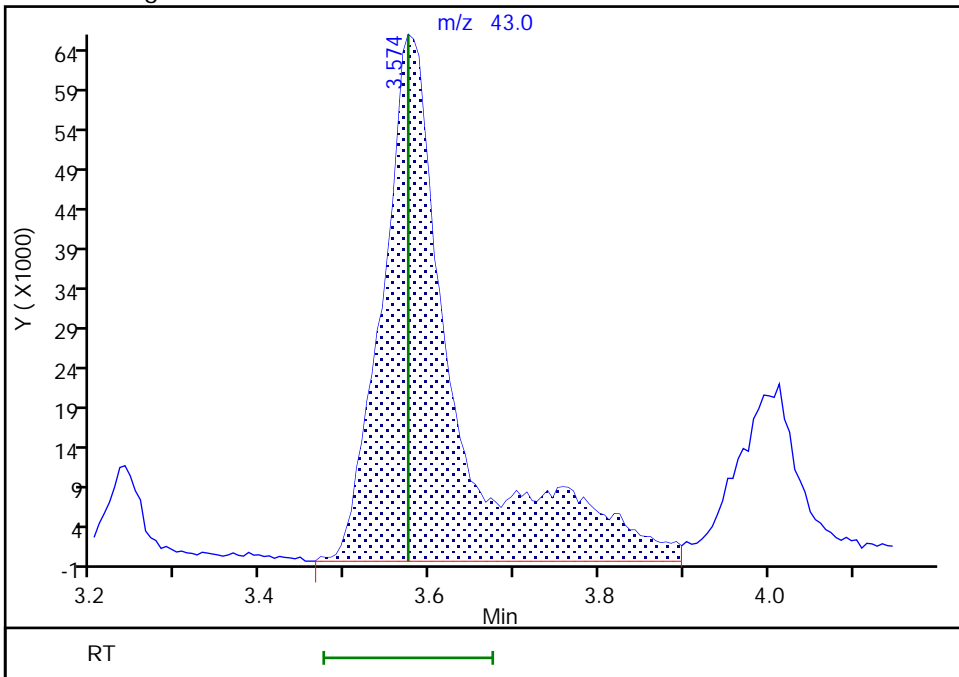
RT: 3.57
Area: 313372
Amount: 41.169443
Amount Units: ug/l

Processing Integration Results



RT: 3.57
Area: 395553
Amount: 48.633680
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 16-Mar-2022 08:20:05
Audit Action: Assigned New Baseline

Audit Reason: Incomplete Integration

Euofins Lancaster Laboratories Env, LLC

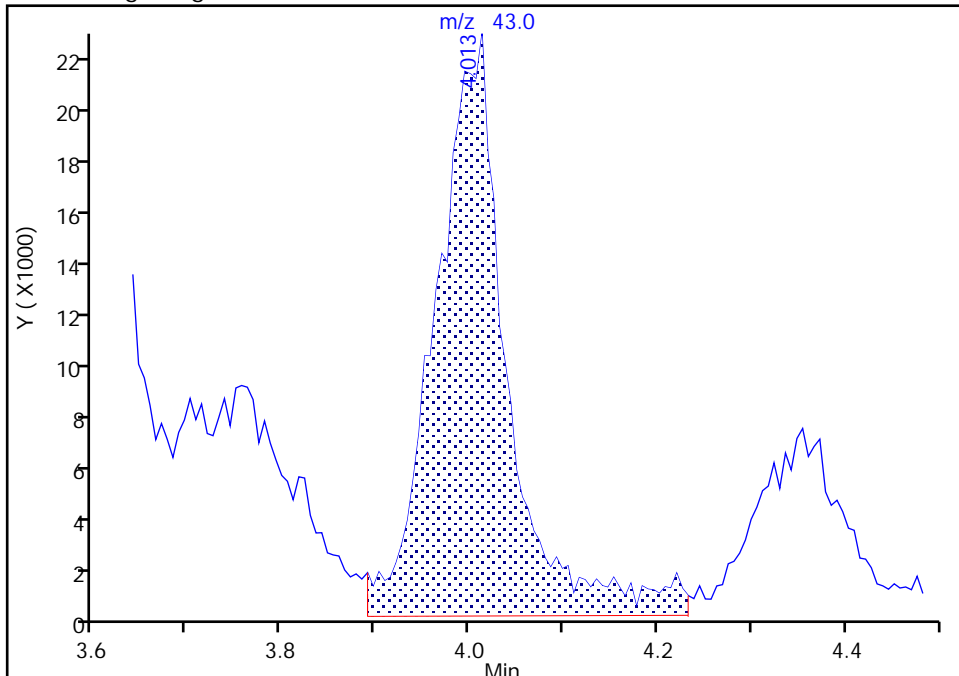
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Injection Date: 15-Mar-2022 01:58:30 Instrument ID: 19930
Lims ID: IC std5
Client ID:
Operator ID: mec29284 ALS Bottle#: 13 Worklist Smp#: 14
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

21 Methyl acetate, CAS: 79-20-9

Signal: 1

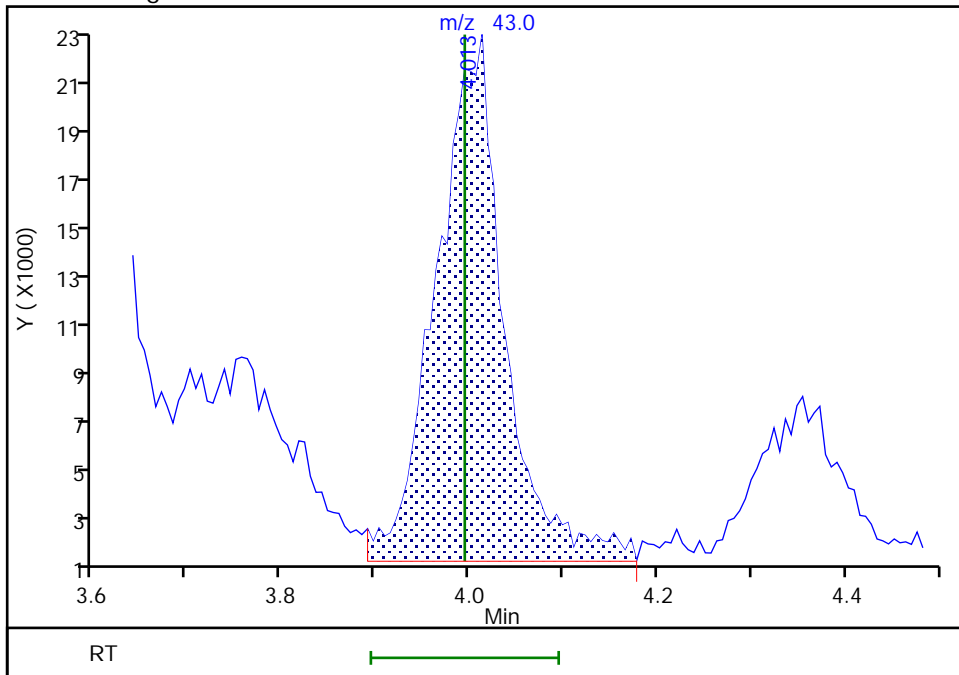
RT: 4.01
Area: 113696
Amount: 5.683993
Amount Units: ug/l

Processing Integration Results



RT: 4.01
Area: 105367
Amount: 5.291579
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 16-Mar-2022 08:20:33
Audit Action: Assigned New Baseline

Audit Reason: Incomplete Integration

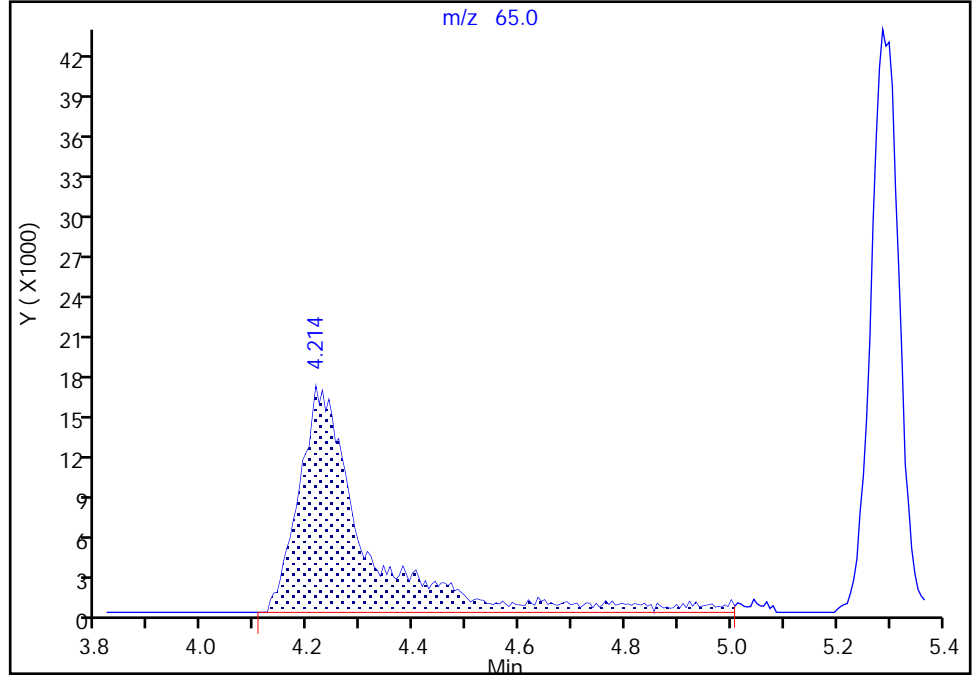
Eurofins Lancaster Laboratories Env, LLC

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Injection Date: 15-Mar-2022 01:58:30 Instrument ID: 19930
Lims ID: IC std5
Client ID:
Operator ID: mec29284 ALS Bottle#: 13 Worklist Smp#: 14
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 24 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2
Signal: 1

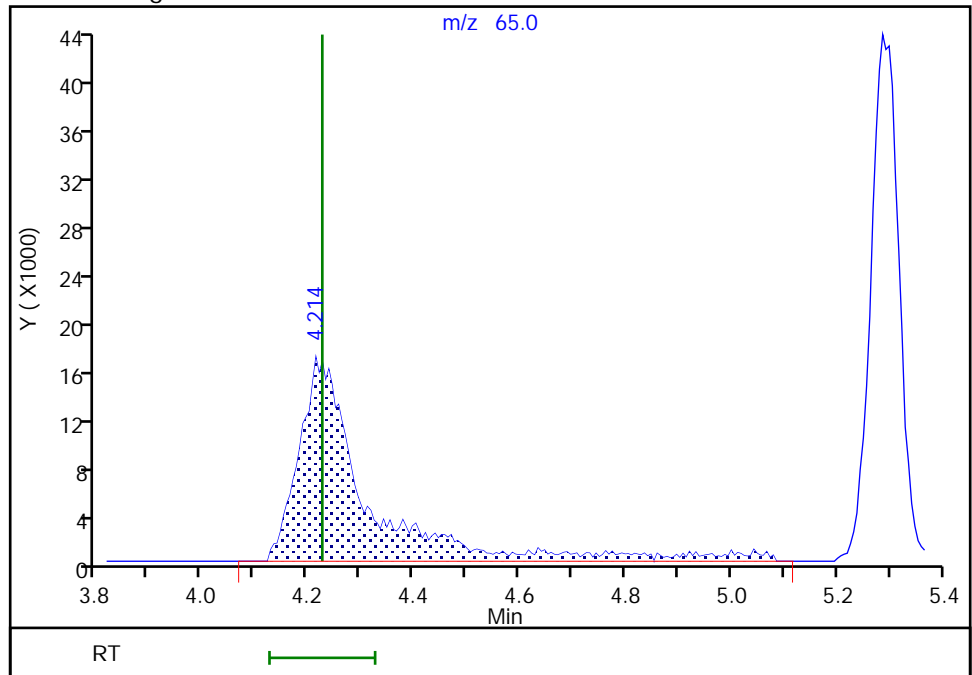
RT: 4.21
Area: 147454
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.21
Area: 149941
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 16-Mar-2022 08:20:41
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14134.D
 Lims ID: IC std4
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 15-Mar-2022 02:19:30 ALS Bottle#: 14 Worklist Smp#: 15
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0052441-015
 Misc. Info.: IC STD4
 Operator ID: mec29284 Instrument ID: 19930
 Sublist: chrom-8260 25ml HP31*sub2
 Method: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 16-Mar-2022 10:11:37 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1676

First Level Reviewer: kephartk

Date: 16-Mar-2022 08:25:02

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	151440	2.00	2.02	
4 Chloromethane	50	2.142	2.142	0.000	99	152777	2.00	1.98	
5 Vinyl chloride	62	2.264	2.264	0.000	89	161037	2.00	1.98	
6 Butadiene	39	2.264	2.264	0.000	92	170292	2.00	2.14	
7 Bromomethane	94	2.599	2.599	0.000	92	127889	2.00	1.90	
8 Chloroethane	64	2.678	2.678	0.000	99	97172	2.00	1.96	
9 Dichlorofluoromethane	67	2.916	2.916	0.000	97	244787	2.00	1.96	
10 Trichlorofluoromethane	101	2.928	2.928	0.000	94	247207	2.00	2.04	
11 Ethyl ether	59	3.233	3.233	0.000	89	65699	2.00	1.96	
12 1,2-Dichloro-1,1,2-trifluoroethane	67	3.312	3.312	0.000	93	136009	2.00	1.95	
13 Acrolein	56	3.404	3.404	0.000	99	590057	100.0	104.3	
14 1,1-Dichloroethene	96	3.544	3.544	0.000	98	104409	2.00	1.98	
15 Acetone	43	3.580	3.580	0.000	96	148892	20.0	19.5	
16 112TCTFE	101	3.580	3.580	0.000	88	112525	2.00	2.04	
17 Iodomethane	142	3.739	3.739	0.000	99	217917	2.00	2.02	
18 Ethyl bromide	108	3.769	3.769	0.000	99	99603	2.00	1.98	
19 Carbon disulfide	76	3.849	3.849	0.000	100	237527	2.00	2.01	
21 Methyl acetate	43	4.007	4.007	0.000	20	39331	2.00	2.02	M
22 3-Chloro-1-propene	41	4.025	4.025	0.000	88	149475	2.00	2.01	
23 Methylene Chloride	84	4.214	4.214	0.000	89	110744	2.00	2.01	
* 24 t-Butyl alcohol-d10 (IS)	65	4.214	4.214	0.000	97	140927	50.0	50.0	M
25 2-Methyl-2-propanol	59	4.342	4.342	0.000	99	120168	40.0	42.6	
26 Acrylonitrile	53	4.562	4.562	0.000	97	44225	5.00	4.92	
27 Methyl tert-butyl ether	73	4.617	4.617	0.000	95	273994	2.00	1.99	
28 trans-1,2-Dichloroethene	96	4.629	4.629	0.000	98	117480	2.00	1.97	
29 Hexane	57	5.056	5.056	0.000	95	151532	2.00	2.09	
31 1,1-Dichloroethane	63	5.287	5.287	0.000	96	208183	2.00	2.04	
32 Isopropyl ether	45	5.354	5.354	0.000	91	320905	2.00	2.01	
33 2-Chloro-1,3-butadiene	53	5.403	5.403	0.000	92	163958	2.00	1.97	
34 Tert-butyl ethyl ether	59	5.879	5.879	0.000	96	321001	2.00	1.98	

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	6.080	6.080	0.000	100	270158	20.0	20.4	
37 cis-1,2-Dichloroethene	96	6.123	6.123	0.000	81	134101	2.00	1.97	
38 2,2-Dichloropropane	77	6.135	6.135	0.000	78	191828	2.00	2.03	
S 35 1,2-Dichloroethene, Total	100				0			3.94	
40 Propionitrile	54	6.177	6.177	0.000	99	136671	40.0	40.3	
42 Methacrylonitrile	67	6.379	6.379	0.000	89	276412	20.0	20.4	
43 Chlorobromomethane	128	6.446	6.446	0.000	87	61031	2.00	1.95	
44 Tetrahydrofuran	71	6.458	6.458	0.000	74	38887	10.0	10.4	
45 Chloroform	83	6.604	6.604	0.000	93	217483	2.00	1.98	
\$ 46 Dibromofluoromethane (Surr)	113	6.812	6.812	0.000	94	545251	10.0	10.0	
47 1,1,1-Trichloroethane	97	6.830	6.830	0.000	59	215247	2.00	2.02	
48 Cyclohexane	56	6.927	6.927	0.000	90	188548	2.00	2.10	
50 Carbon tetrachloride	117	7.037	7.037	0.000	96	197475	2.00	2.00	
51 1,1-Dichloropropene	75	7.037	7.037	0.000	93	165673	2.00	2.01	
52 Isobutyl alcohol	41	7.189	7.189	0.000	94	91271	100.0	95.9	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.257	7.257	0.000	73	95723	10.0	9.90	
54 Benzene	78	7.299	7.299	0.000	97	473085	2.00	2.00	
56 1,2-Dichloroethane	62	7.366	7.366	0.000	97	125787	2.00	1.91	
57 Tert-amyl methyl ether	73	7.488	7.488	0.000	98	301152	2.00	1.99	
* 58 Fluorobenzene (IS)	96	7.695	7.695	0.000	99	2005717	10.0	10.0	
59 n-Heptane	43	7.708	7.708	0.000	85	153938	2.00	1.99	
60 n-Butanol	56	8.073	8.073	0.000	92	135748	175.0	180.3	
61 Trichloroethene	95	8.177	8.177	0.000	95	134124	2.00	1.98	
62 Methylcyclohexane	83	8.482	8.482	0.000	91	227524	2.00	2.10	
63 1,2-Dichloropropane	63	8.500	8.500	0.000	88	115228	2.00	2.03	
64 Methyl methacrylate	69	8.592	8.592	0.000	84	53110	2.00	2.07	
65 1,4-Dioxane	88	8.604	8.604	0.000	32	20566	100.0	106.0	M
66 Dibromomethane	93	8.610	8.610	0.000	90	59795	2.00	1.91	
68 Dichlorobromomethane	83	8.854	8.854	0.000	99	149556	2.00	2.00	
69 2-Nitropropane	41	9.116	9.116	0.000	98	80273	10.0	10.1	
72 1-Bromo-2-chloroethane	63	9.244	9.244	0.000	98	107071	2.00	2.00	
73 cis-1,3-Dichloropropene	75	9.396	9.396	0.000	95	174580	2.00	1.98	
74 4-Methyl-2-pentanone (MIBK)	43	9.567	9.567	0.000	97	710069	20.0	20.3	
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2046750	10.0	10.1	
76 Toluene	92	9.780	9.780	0.000	98	310732	2.00	1.97	
78 trans-1,3-Dichloropropene	75	10.036	10.036	0.000	93	142453	2.00	2.01	
S 77 1,3-Dichloropropene, Total	100				0			4.00	
79 Ethyl methacrylate	69	10.097	10.097	0.000	88	108772	2.00	1.98	
80 1,1,2-Trichloroethane	97	10.244	10.244	0.000	91	85157	2.00	1.97	
81 Tetrachloroethene	166	10.329	10.329	0.000	98	182846	2.00	2.02	
82 1,3-Dichloropropane	76	10.402	10.402	0.000	90	139306	2.00	2.01	
83 2-Hexanone	43	10.451	10.451	0.000	97	483982	20.0	20.6	
85 Chlorodibromomethane	129	10.616	10.616	0.000	89	115590	2.00	1.97	
86 Ethylene Dibromide	107	10.731	10.731	0.000	99	83682	2.00	2.00	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	84	1668976	10.0	10.0	
88 1-Chlorohexane	91	11.164	11.164	0.000	95	184524	2.00	1.93	
90 Chlorobenzene	112	11.183	11.183	0.000	97	366783	2.00	1.97	
S 89 Xylenes, Total	106				0			5.92	
91 1,1,1,2-Tetrachloroethane	131	11.268	11.268	0.000	95	138560	2.00	2.01	
92 Ethylbenzene	91	11.268	11.268	0.000	98	612096	2.00	1.96	
93 m-Xylene & p-Xylene	106	11.384	11.384	0.000	100	503919	4.00	3.95	
94 o-Xylene	106	11.713	11.713	0.000	96	247504	2.00	1.97	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
95 Styrene	104	11.731	11.731	0.000	95	384280	2.00	1.97	
96 Bromoform	173	11.890	11.890	0.000	98	70310	2.00	1.95	
97 Isopropylbenzene	105	12.012	12.012	0.000	95	652274	2.00	1.99	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	97	793453	10.0	10.1	
101 1,1,2,2-Tetrachloroethane	83	12.256	12.256	0.000	94	103362	2.00	1.93	
102 Bromobenzene	156	12.274	12.274	0.000	92	166897	2.00	1.96	
103 trans-1,4-Dichloro-2-butene	53	12.280	12.280	0.000	95	256925	20.0	20.3	
104 1,2,3-Trichloropropane	110	12.298	12.298	0.000	82	30887	2.00	1.95	
105 N-Propylbenzene	91	12.341	12.341	0.000	98	735673	2.00	1.98	
106 2-Chlorotoluene	126	12.414	12.414	0.000	98	165738	2.00	2.03	
107 1,3,5-Trimethylbenzene	105	12.475	12.475	0.000	94	544217	2.00	1.98	
108 4-Chlorotoluene	126	12.512	12.512	0.000	96	165055	2.00	1.98	
109 tert-Butylbenzene	134	12.719	12.719	0.000	92	133195	2.00	2.01	
110 Pentachloroethane	167	12.749	12.749	0.000	91	108889	2.00	2.00	
111 1,2,4-Trimethylbenzene	105	12.762	12.762	0.000	96	553867	2.00	2.00	
112 sec-Butylbenzene	105	12.877	12.877	0.000	94	702149	2.00	2.00	
113 1,3-Dichlorobenzene	146	12.981	12.981	0.000	99	325278	2.00	1.96	
114 4-Isopropyltoluene	119	12.987	12.987	0.000	98	626442	2.00	1.98	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	93	1013034	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.054	13.054	0.000	97	334191	2.00	1.97	
117 1,2,3-Trimethylbenzene	120	13.060	13.060	0.000	98	246753	2.00	1.92	
118 Benzyl chloride	126	13.133	13.133	0.000	98	41765	2.00	1.93	
119 n-Butylbenzene	92	13.280	13.280	0.000	96	279757	2.00	1.99	
120 1,2-Dichlorobenzene	146	13.316	13.316	0.000	99	296139	2.00	1.96	
122 1,2-Dibromo-3-Chloropropane	155	13.859	13.859	0.000	88	17417	2.00	2.03	
123 1,3,5-Trichlorobenzene	180	13.981	13.981	0.000	98	250743	2.00	2.02	
124 1,2,4-Trichlorobenzene	180	14.408	14.408	0.000	92	208572	2.00	2.00	
125 Hexachlorobutadiene	225	14.487	14.487	0.000	96	91714	2.00	1.94	
126 Naphthalene	128	14.584	14.584	0.000	96	362073	2.00	2.03	
127 1,2,3-Trichlorobenzene	180	14.725	14.725	0.000	95	180095	2.00	1.97	
137 2-Methylnaphthalene	142		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
134 Isopropyl alcohol	45		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MSV_LL_#1_826_00038	Amount Added: 2.00	Units: uL	
MSV_LL_#2_826_00042	Amount Added: 2.00	Units: uL	
MSV_LL_GAS826_00072	Amount Added: 2.00	Units: uL	
MSV_LLcentISS_00004	Amount Added: 5.00	Units: uL	Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14134.D

Injection Date: 15-Mar-2022 02:19:30

Instrument ID: 19930

Operator ID: mec29284

Lims ID: IC std4

Worklist Smp#: 15

Client ID:

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

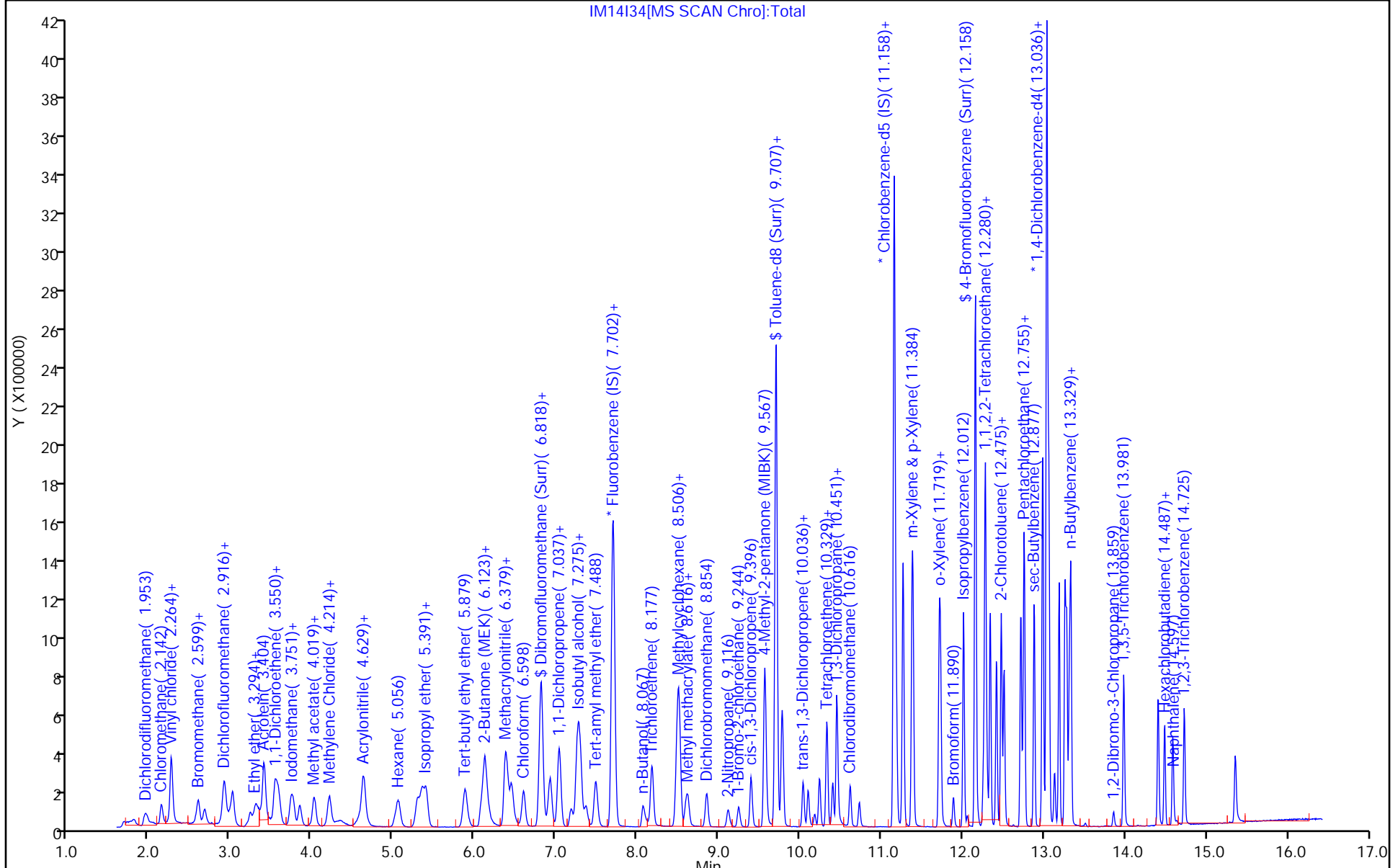
ALS Bottle#: 14

Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

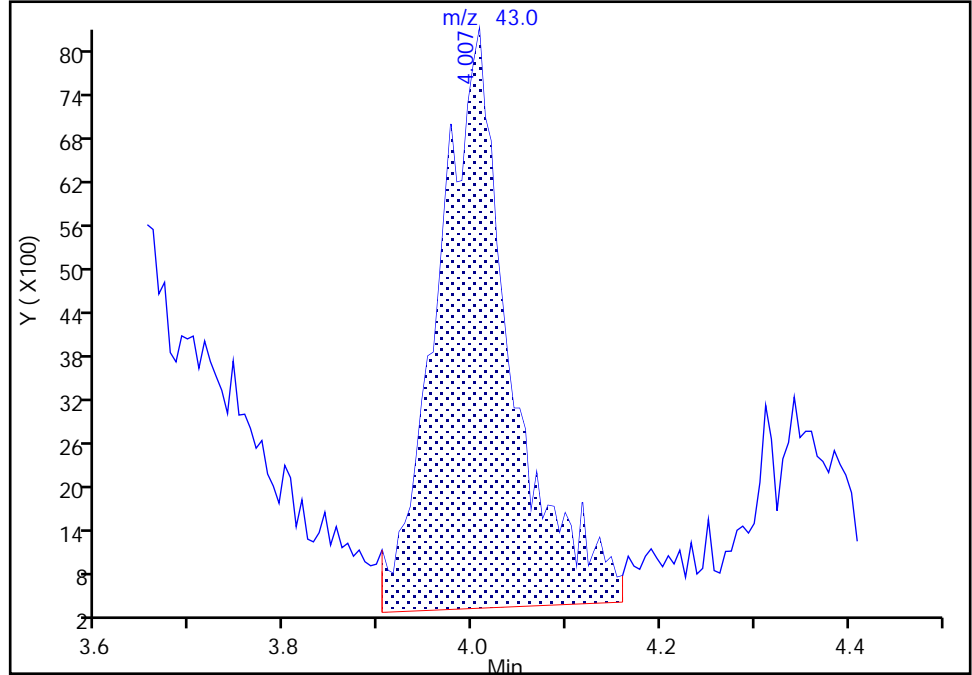
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Injection Date: 15-Mar-2022 02:19:30 Instrument ID: 19930
Lims ID: IC std4
Client ID:
Operator ID: mec29284 ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

21 Methyl acetate, CAS: 79-20-9

Signal: 1

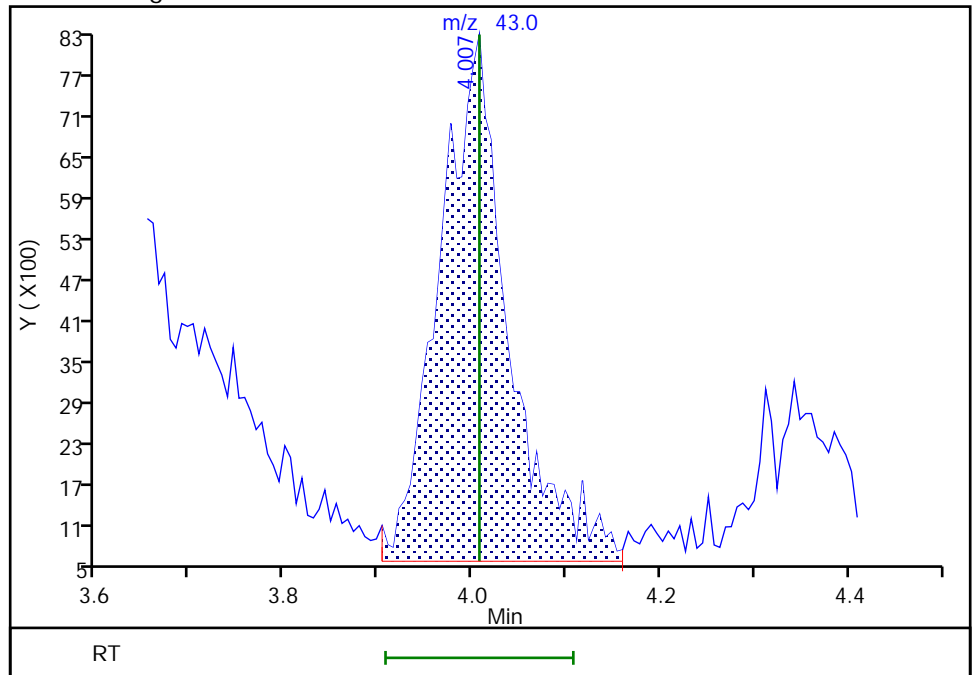
RT: 4.01
Area: 43562
Amount: 2.317954
Amount Units: ug/l

Processing Integration Results



RT: 4.01
Area: 39331
Amount: 2.018997
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 16-Mar-2022 08:23:51
Audit Action: Assigned New Baseline

Audit Reason: Incomplete Integration

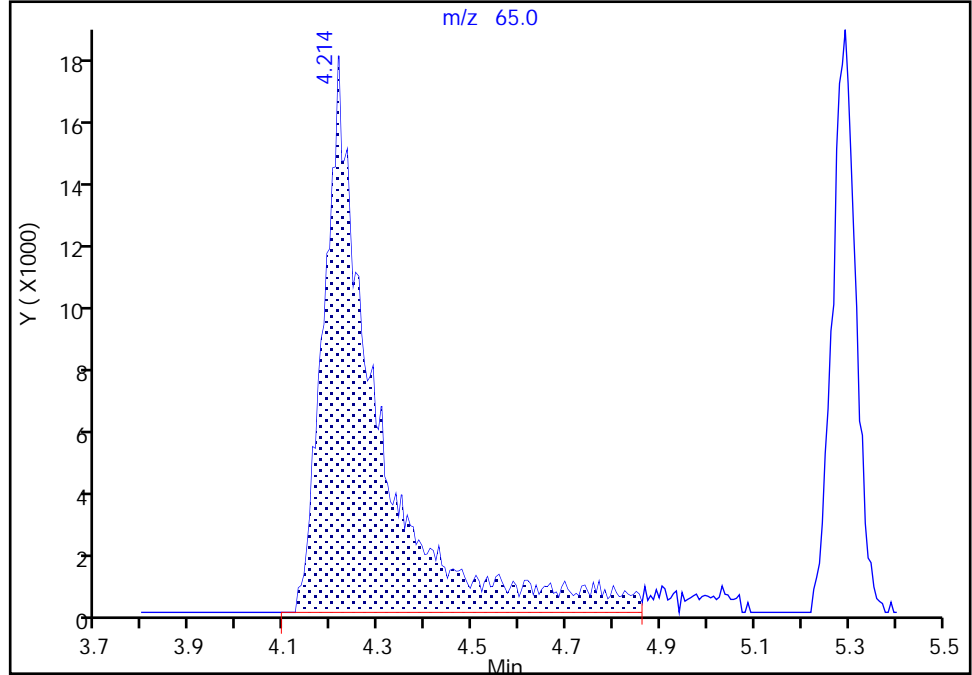
Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14134.D
Injection Date: 15-Mar-2022 02:19:30 Instrument ID: 19930
Lims ID: IC std4
Client ID:
Operator ID: mec29284 ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 24 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2
Signal: 1

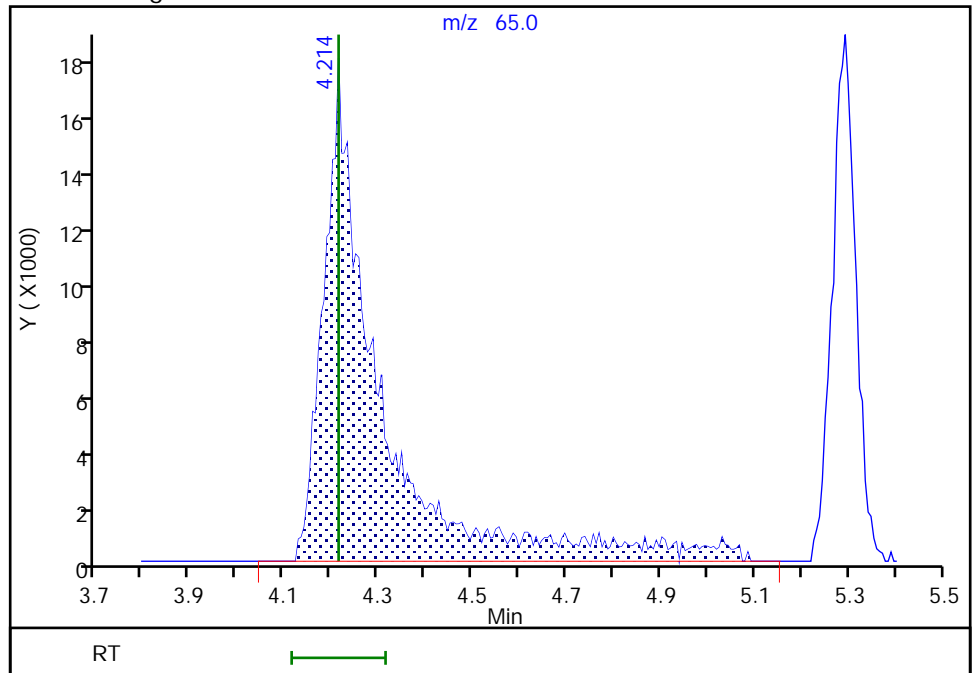
RT: 4.21
Area: 134392
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.21
Area: 140927
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 16-Mar-2022 08:24:09
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

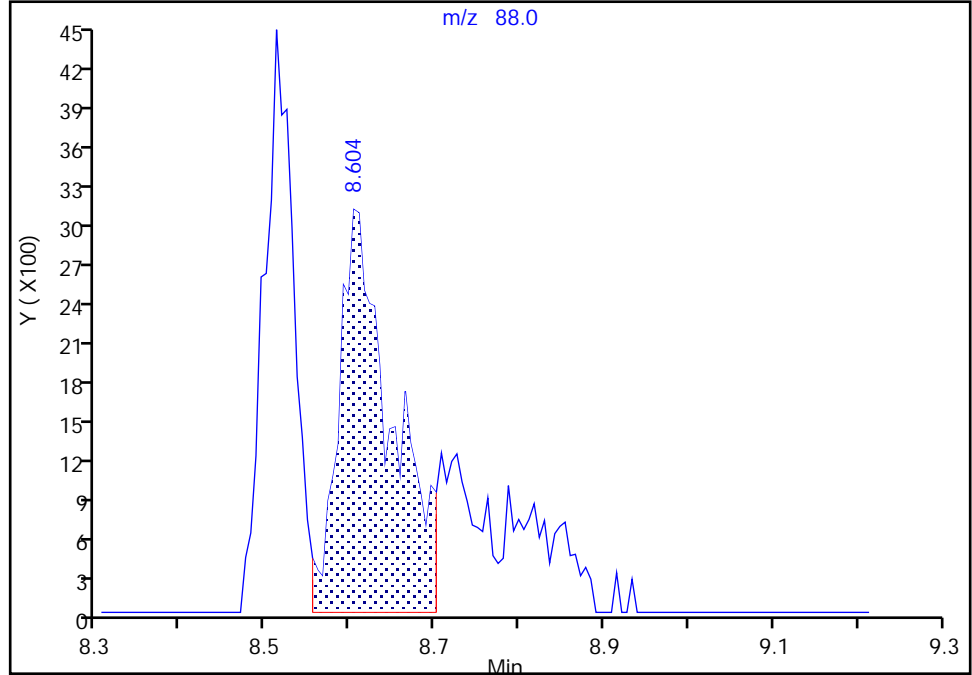
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Injection Date: 15-Mar-2022 02:19:30 Instrument ID: 19930
Lims ID: IC std4
Client ID:
Operator ID: mec29284 ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

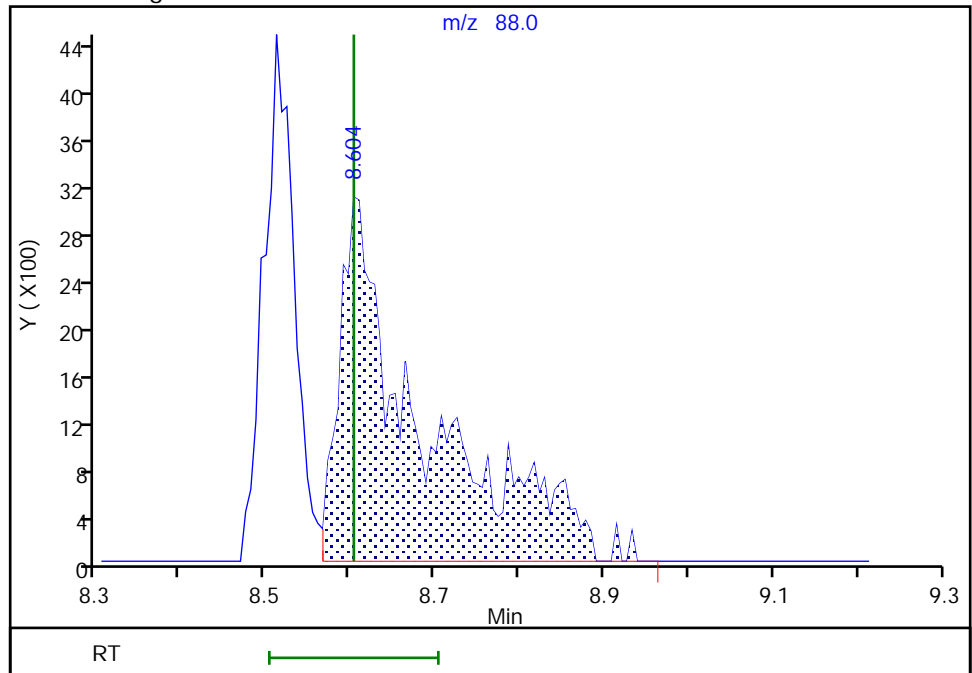
RT: 8.60
Area: 13292
Amount: 77.783149
Amount Units: ug/l

Processing Integration Results



RT: 8.60
Area: 20566
Amount: 106.0150
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 16-Mar-2022 08:24:35
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14135.D
 Lims ID: IC std3
 Client ID:
 Sample Type: IC Calib Level: 3
 Inject. Date: 15-Mar-2022 02:40:30 ALS Bottle#: 15 Worklist Smp#: 16
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0052441-016
 Misc. Info.: IC STD3
 Operator ID: mec29284 Instrument ID: 19930
 Sublist: chrom-8260 25ml HP31*sub2

Method: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 16-Mar-2022 10:11:42 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1676

First Level Reviewer: kephartk

Date: 16-Mar-2022 08:27:03

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.953	1.953	0.000	99	77703	1.00	1.04	
4 Chloromethane	50	2.148	2.142	0.006	98	74938	1.00	0.9691	
5 Vinyl chloride	62	2.276	2.264	0.012	88	82830	1.00	1.01	
6 Butadiene	39	2.276	2.264	0.012	92	84313	1.00	1.06	
7 Bromomethane	94	2.605	2.599	0.006	92	65359	1.00	0.9663	
8 Chloroethane	64	2.684	2.678	0.006	99	48387	1.00	0.9738	
9 Dichlorofluoromethane	67	2.922	2.916	0.006	97	123616	1.00	0.9894	
10 Trichlorofluoromethane	101	2.934	2.928	0.006	97	122112	1.00	1.01	
11 Ethyl ether	59	3.245	3.233	0.012	90	33746	1.00	1.01	
12 1,2-Dichloro-1,1,2-trifluoroethane	67	3.312	3.312	0.000	84	72278	1.00	1.04	
13 Acrolein	56	3.410	3.404	0.006	98	289265	50.0	50.0	
14 1,1-Dichloroethene	96	3.550	3.544	0.006	97	55619	1.00	1.05	
15 Acetone	43	3.580	3.580	0.000	71	82464	10.0	10.6	M
16 112TCTFE	101	3.593	3.580	0.013	87	59314	1.00	1.07	
17 Iodomethane	142	3.745	3.739	0.006	100	113489	1.00	1.05	
18 Ethyl bromide	108	3.776	3.769	0.007	97	50833	1.00	1.01	
19 Carbon disulfide	76	3.855	3.849	0.006	100	119785	1.00	1.01	
21 Methyl acetate	43	4.013	4.007	0.006	98	22089	1.00	1.05	M
22 3-Chloro-1-propene	41	4.038	4.025	0.013	89	76818	1.00	1.03	
23 Methylene Chloride	84	4.221	4.214	0.007	90	56397	1.00	1.02	
* 24 t-Butyl alcohol-d10 (IS)	65	4.233	4.214	0.019	94	144059	50.0	50.0	M
25 2-Methyl-2-propanol	59	4.342	4.342	0.000	99	49640	20.0	17.2	
26 Acrylonitrile	53	4.568	4.562	0.006	91	23490	2.50	2.55	
27 Methyl tert-butyl ether	73	4.623	4.617	0.006	91	138822	1.00	1.01	
28 trans-1,2-Dichloroethene	96	4.641	4.629	0.012	98	62513	1.00	1.05	
29 Hexane	57	5.068	5.056	0.012	91	76935	1.00	1.06	
31 1,1-Dichloroethane	63	5.294	5.287	0.007	96	105889	1.00	1.03	
32 Isopropyl ether	45	5.354	5.354	0.000	92	163646	1.00	1.02	
33 2-Chloro-1,3-butadiene	53	5.409	5.403	0.006	92	84943	1.00	1.02	
34 Tert-butyl ethyl ether	59	5.891	5.879	0.012	97	167888	1.00	1.03	

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	6.086	6.080	0.006	100	145525	10.0	10.7	
37 cis-1,2-Dichloroethene	96	6.123	6.123	0.000	80	71636	1.00	1.05	
38 2,2-Dichloropropane	77	6.135	6.135	0.000	82	97449	1.00	1.03	
S 35 1,2-Dichloroethene, Total	100				0			2.09	
40 Propionitrile	54	6.190	6.177	0.013	96	75781	20.0	21.8	
42 Methacrylonitrile	67	6.391	6.379	0.012	90	149998	10.0	10.8	
43 Chlorobromomethane	128	6.452	6.446	0.006	83	33730	1.00	1.08	
44 Tetrahydrofuran	71	6.458	6.458	0.000	73	19268	5.00	5.03	
45 Chloroform	83	6.610	6.604	0.006	93	114605	1.00	1.04	
\$ 46 Dibromofluoromethane (Surr)	113	6.812	6.812	0.000	94	546963	10.0	10.1	
47 1,1,1-Trichloroethane	97	6.836	6.830	0.006	96	109534	1.00	1.02	
48 Cyclohexane	56	6.927	6.927	0.000	89	97272	1.00	1.08	
50 Carbon tetrachloride	117	7.043	7.037	0.006	96	102183	1.00	1.03	
51 1,1-Dichloropropene	75	7.043	7.037	0.006	93	82831	1.00	1.00	
52 Isobutyl alcohol	41	7.196	7.189	0.007	90	50547	50.0	52.0	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.263	7.257	0.006	71	96046	10.0	9.91	
54 Benzene	78	7.305	7.299	0.006	96	241399	1.00	1.02	
56 1,2-Dichloroethane	62	7.366	7.366	0.000	97	69891	1.00	1.06	
57 Tert-amyl methyl ether	73	7.494	7.488	0.006	99	155828	1.00	1.03	
* 58 Fluorobenzene (IS)	96	7.702	7.695	0.007	99	2010448	10.0	10.0	
59 n-Heptane	43	7.714	7.708	0.006	48	77970	1.00	1.01	
60 n-Butanol	56	8.080	8.073	0.007	89	61521	87.5	79.9	
61 Trichloroethene	95	8.177	8.177	0.000	95	70571	1.00	1.04	
62 Methylcyclohexane	83	8.488	8.482	0.006	91	116232	1.00	1.07	
63 1,2-Dichloropropane	63	8.512	8.500	0.012	72	57297	1.00	1.01	
64 Methyl methacrylate	69	8.604	8.592	0.012	84	27005	1.00	1.03	
65 1,4-Dioxane	88	8.622	8.604	0.018	32	9072	50.0	45.7	M
66 Dibromomethane	93	8.616	8.610	0.006	88	31772	1.00	1.01	
68 Dichlorobromomethane	83	8.854	8.854	0.000	98	76212	1.00	1.02	
69 2-Nitropropane	41	9.116	9.116	0.000	96	41018	5.00	5.03	
72 1-Bromo-2-chloroethane	63	9.250	9.244	0.006	98	54686	1.00	1.02	
73 cis-1,3-Dichloropropene	75	9.402	9.396	0.006	95	88594	1.00	1.00	
74 4-Methyl-2-pentanone (MIBK)	43	9.567	9.567	0.000	96	369128	10.0	10.3	
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2035925	10.0	10.0	
76 Toluene	92	9.780	9.780	0.000	97	161808	1.00	1.02	
78 trans-1,3-Dichloropropene	75	10.043	10.036	0.007	93	70803	1.00	1.00	
S 77 1,3-Dichloropropene, Total	100				0			2.00	
79 Ethyl methacrylate	69	10.104	10.097	0.007	88	54614	1.00	0.99	
80 1,1,2-Trichloroethane	97	10.244	10.244	0.000	89	46767	1.00	1.08	
81 Tetrachloroethene	166	10.335	10.329	0.006	97	94610	1.00	1.04	
82 1,3-Dichloropropane	76	10.402	10.402	0.000	90	71340	1.00	1.02	
83 2-Hexanone	43	10.457	10.451	0.006	97	237649	10.0	9.88	
85 Chlorodibromomethane	129	10.616	10.616	0.000	90	57407	1.00	0.9773	
86 Ethylene Dibromide	107	10.731	10.731	0.000	97	43335	1.00	1.03	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	84	1674640	10.0	10.0	
88 1-Chlorohexane	91	11.164	11.164	0.000	95	95733	1.00	1.00	
90 Chlorobenzene	112	11.183	11.183	0.000	97	194153	1.00	1.04	
S 89 Xylenes, Total	106				0			3.07	
91 1,1,1,2-Tetrachloroethane	131	11.268	11.268	0.000	93	70523	1.00	1.02	
92 Ethylbenzene	91	11.268	11.268	0.000	98	321428	1.00	1.03	
93 m-Xylene & p-Xylene	106	11.384	11.384	0.000	99	262497	2.00	2.05	
94 o-Xylene	106	11.713	11.713	0.000	96	128931	1.00	1.02	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
95 Styrene	104	11.731	11.731	0.000	95	197567	1.00	1.01	
96 Bromoform	173	11.890	11.890	0.000	98	34732	1.00	0.9600	
97 Isopropylbenzene	105	12.012	12.012	0.000	95	335336	1.00	1.02	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	97	792251	10.0	10.0	
101 1,1,2,2-Tetrachloroethane	83	12.256	12.256	0.000	94	54800	1.00	1.02	
102 Bromobenzene	156	12.274	12.274	0.000	94	87022	1.00	1.02	
103 trans-1,4-Dichloro-2-butene	53	12.280	12.280	0.000	91	124086	10.0	9.60	
104 1,2,3-Trichloropropane	110	12.298	12.298	0.000	79	16398	1.00	1.03	
105 N-Propylbenzene	91	12.341	12.341	0.000	98	379299	1.00	1.02	
106 2-Chlorotoluene	126	12.420	12.414	0.006	98	84829	1.00	1.04	
107 1,3,5-Trimethylbenzene	105	12.475	12.475	0.000	95	277155	1.00	1.01	
108 4-Chlorotoluene	126	12.512	12.512	0.000	96	80828	1.00	0.9684	
109 tert-Butylbenzene	134	12.719	12.719	0.000	92	65689	1.00	0.99	
110 Pentachloroethane	167	12.749	12.749	0.000	77	51676	1.00	0.9495	
111 1,2,4-Trimethylbenzene	105	12.762	12.762	0.000	97	282251	1.00	1.02	
112 sec-Butylbenzene	105	12.884	12.877	0.007	94	358710	1.00	1.02	
113 1,3-Dichlorobenzene	146	12.981	12.981	0.000	98	168169	1.00	1.01	
114 4-Isopropyltoluene	119	12.987	12.987	0.000	97	319108	1.00	1.01	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	93	1012300	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.054	13.054	0.000	97	167339	1.00	0.9878	
117 1,2,3-Trimethylbenzene	120	13.060	13.060	0.000	97	128963	1.00	1.01	
118 Benzyl chloride	126	13.133	13.133	0.000	98	20470	1.00	0.9448	
119 n-Butylbenzene	92	13.280	13.280	0.000	97	139920	1.00	1.00	
120 1,2-Dichlorobenzene	146	13.316	13.316	0.000	98	152809	1.00	1.01	
122 1,2-Dibromo-3-Chloropropane	155	13.865	13.859	0.006	91	8509	1.00	0.99	
123 1,3,5-Trichlorobenzene	180	13.987	13.981	0.006	97	124815	1.00	1.01	
124 1,2,4-Trichlorobenzene	180	14.408	14.408	0.000	93	106675	1.00	1.02	
125 Hexachlorobutadiene	225	14.487	14.487	0.000	96	47822	1.00	1.01	
126 Naphthalene	128	14.590	14.584	0.006	96	179802	1.00	1.01	
127 1,2,3-Trichlorobenzene	180	14.731	14.725	0.006	96	93928	1.00	1.03	
137 2-Methylnaphthalene	142		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
134 Isopropyl alcohol	45		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	

QC Flag Legend

Processing Flags

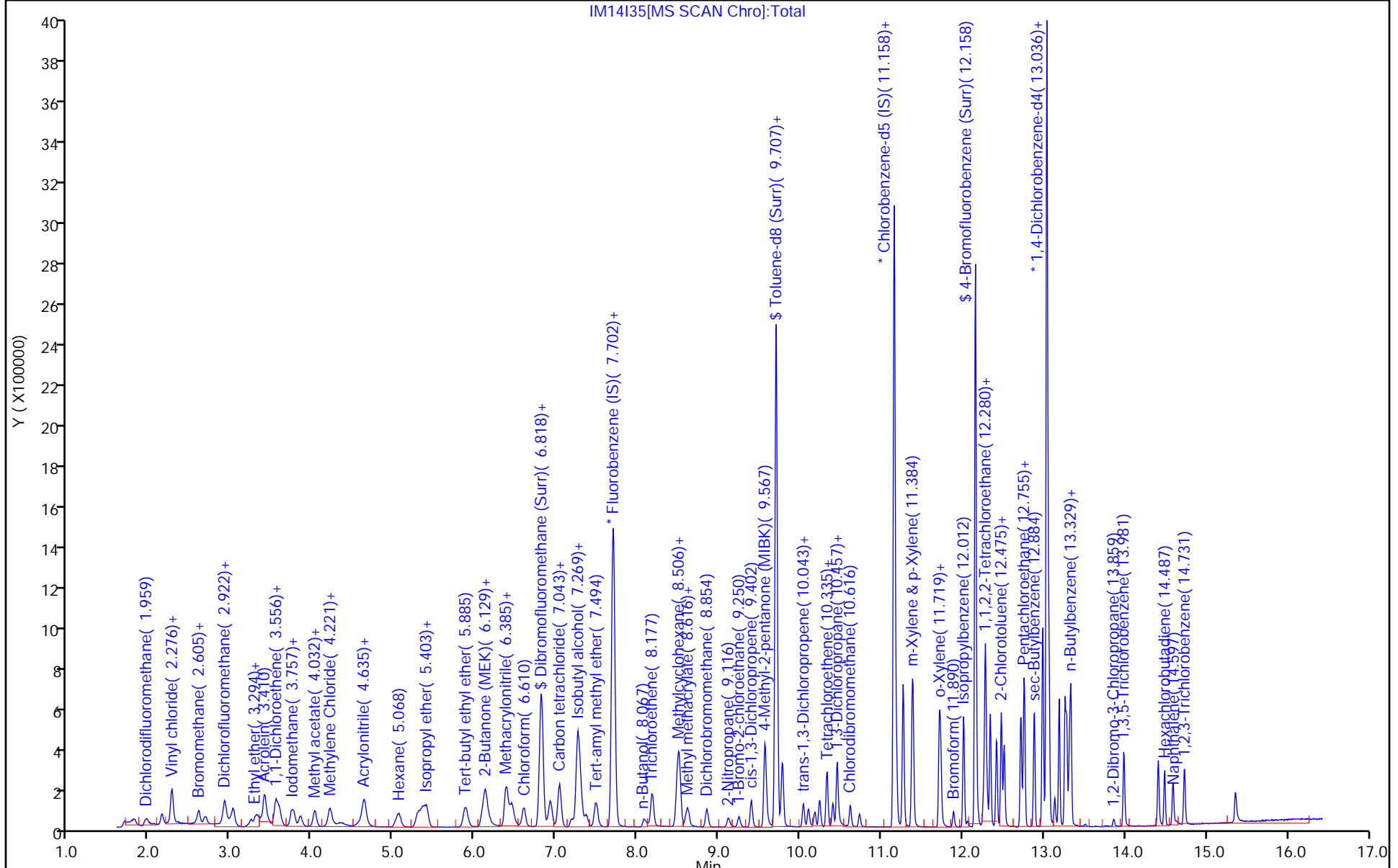
ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MSV_LL_#1_826_00038	Amount Added: 2.00	Units: uL	
MSV_LL_#2_826_00042	Amount Added: 2.00	Units: uL	
MSV_LL_GAS826_00072	Amount Added: 2.00	Units: uL	
MSV_LLcentISS_00004	Amount Added: 5.00	Units: uL	Run Reagent



IM14135[MS SCAN Chro]:Total

Eurofins Lancaster Laboratories Env, LLC

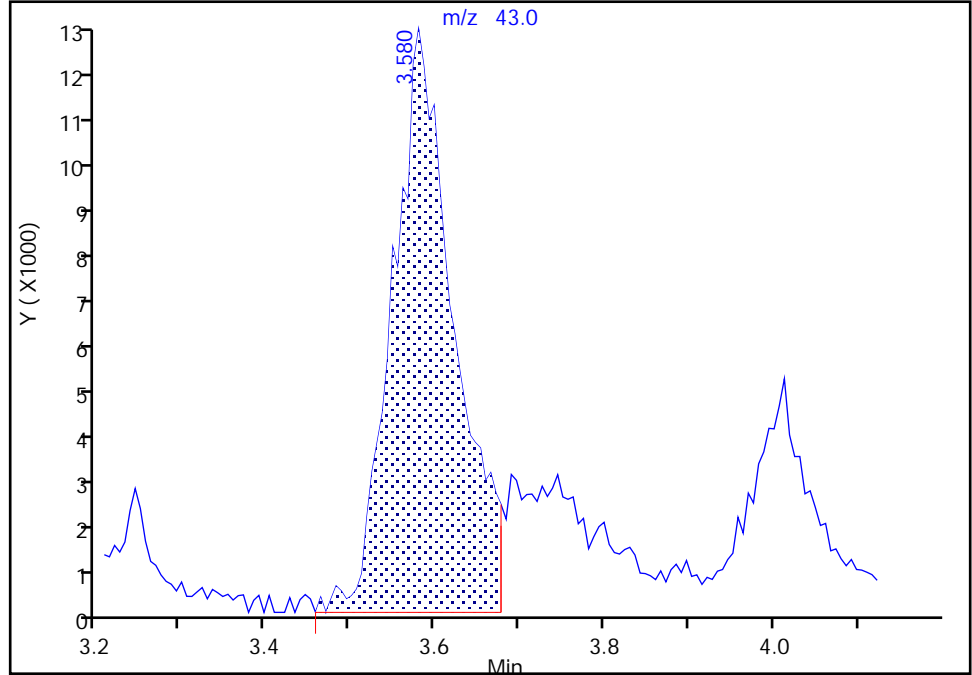
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Injection Date: 15-Mar-2022 02:40:30 Instrument ID: 19930
Lims ID: IC std3
Client ID:
Operator ID: mec29284 ALS Bottle#: 15 Worklist Smp#: 16
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

15 Acetone, CAS: 67-64-1

Signal: 1

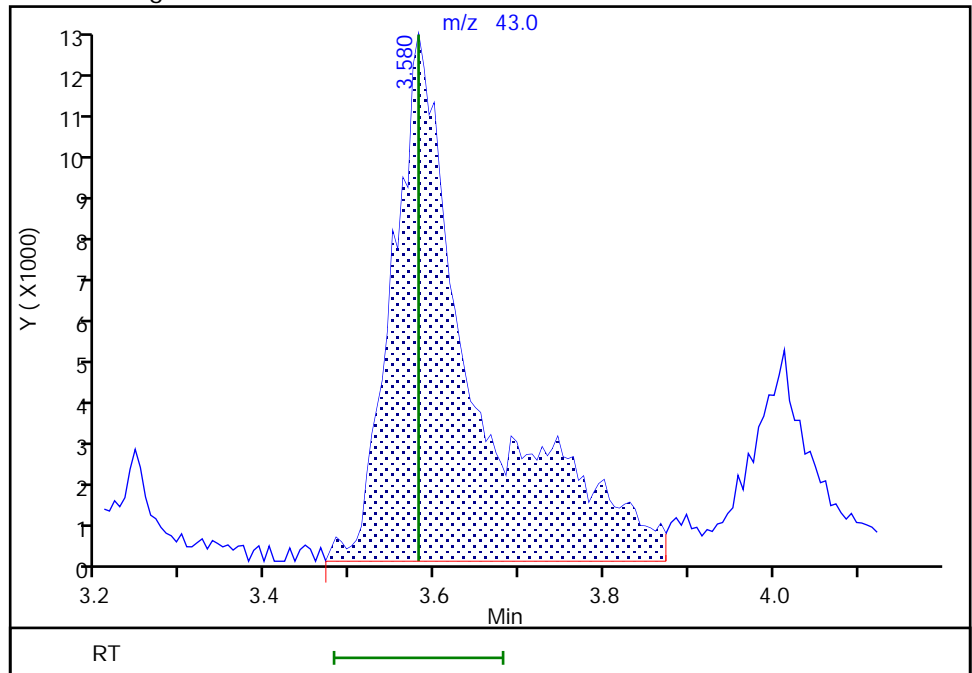
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Area: 61598
Amount: 8.235946
Amount Units: ug/l

Processing Integration Results



RT: 3.58
Area: 82464
Amount: 10.553022
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 16-Mar-2022 08:25:53
Audit Action: Assigned New Baseline

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

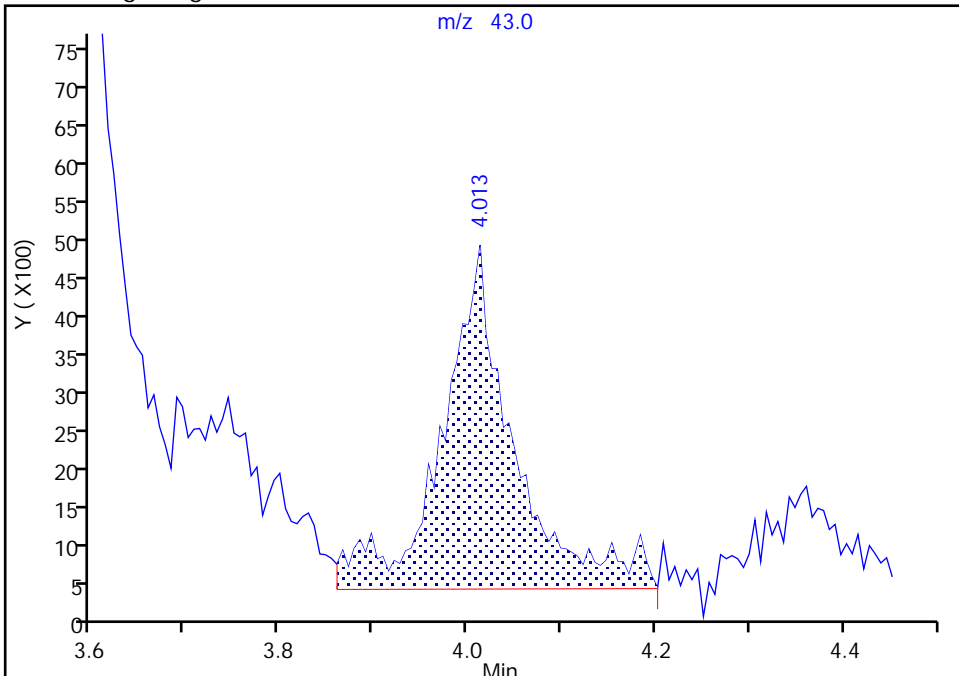
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Lims ID: IC std3
Client ID:
Operator ID: mec29284 ALS Bottle#: 15 Worklist Smp#: 16
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

21 Methyl acetate, CAS: 79-20-9

Signal: 1

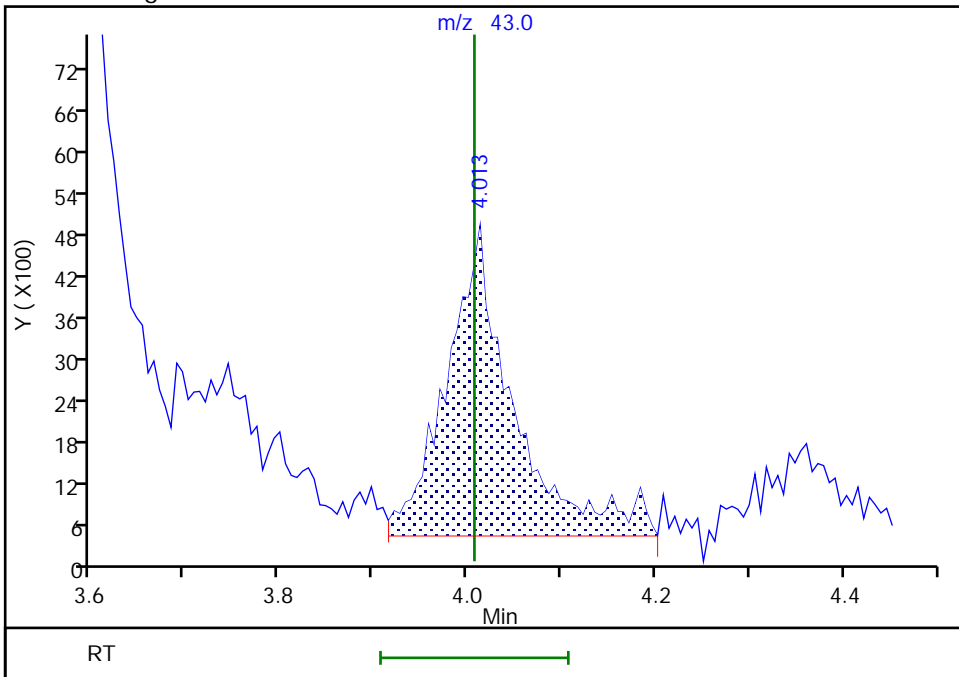
RT: 4.01
Area: 23787
Amount: 1.130695
Amount Units: ug/l

Processing Integration Results



RT: 4.01
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Amount: 1.047542
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 16-Mar-2022 08:26:17
Audit Action: Assigned New Baseline

Audit Reason: Incomplete Integration

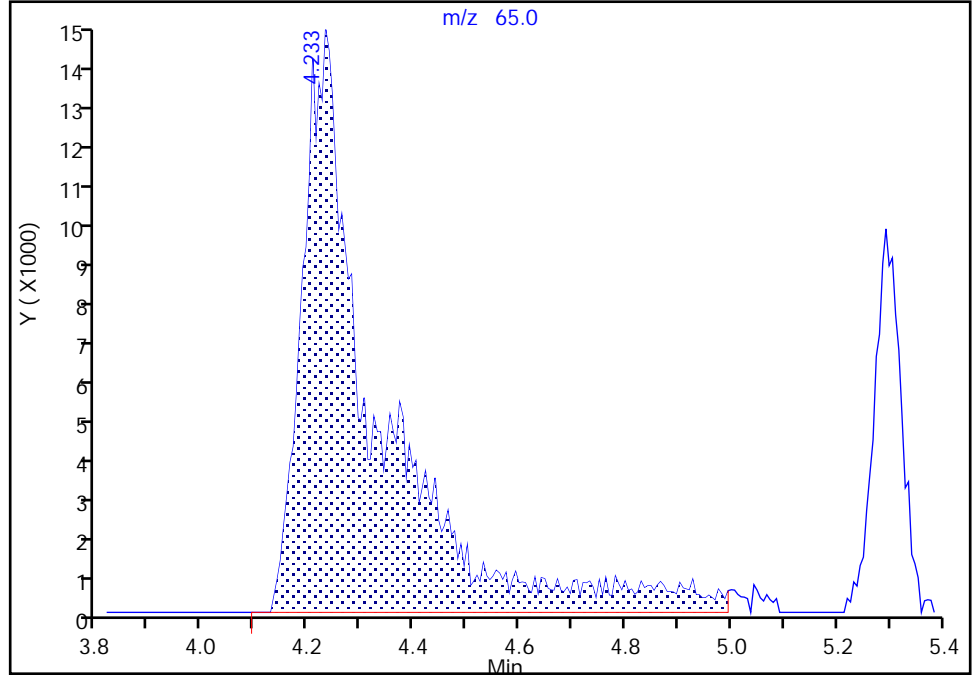
Eurofins Lancaster Laboratories Env, LLC

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Injection Date: 15-Mar-2022 02:40:30 Instrument ID: 19930
Lims ID: IC std3
Client ID:
Operator ID: mec29284 ALS Bottle#: 15 Worklist Smp#: 16
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 24 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2
Signal: 1

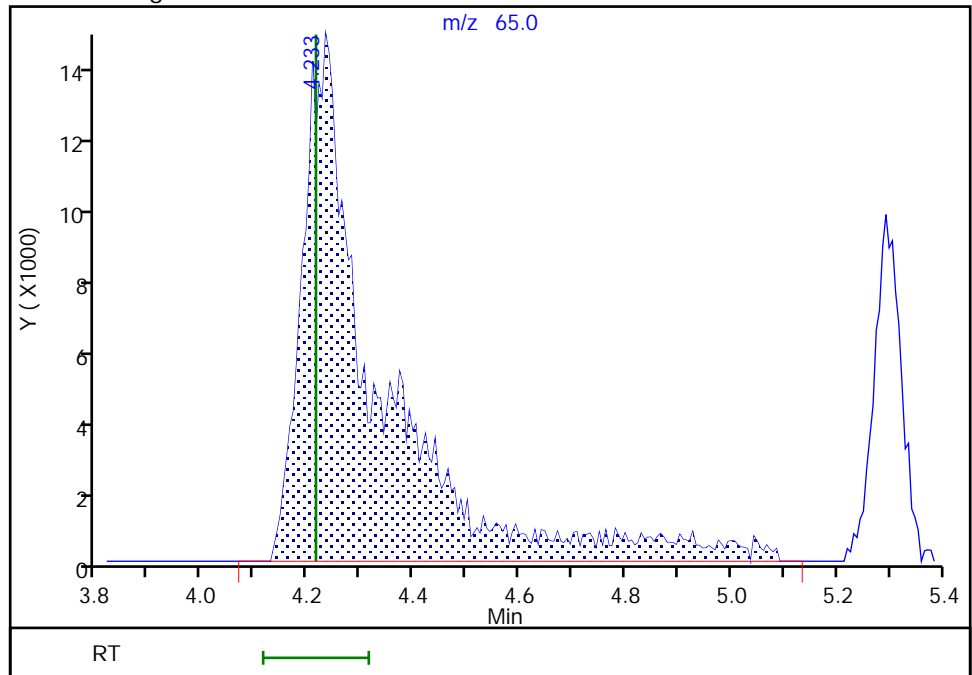
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Area: 141867
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.23
Area: 144059
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 16-Mar-2022 08:26:25
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Euofins Lancaster Laboratories Env, LLC

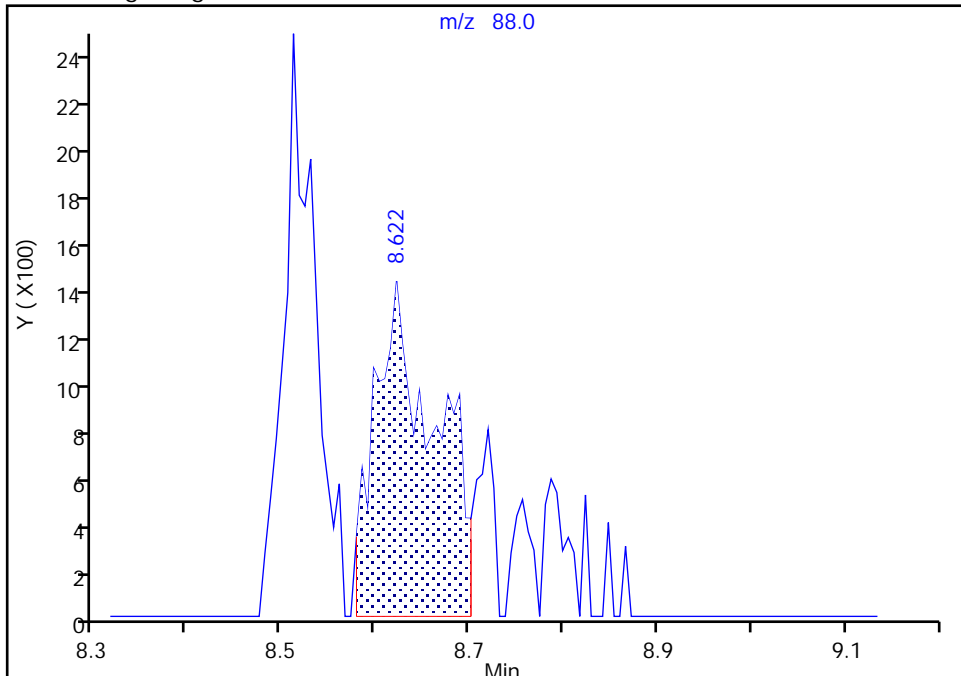
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Injection Date: 15-Mar-2022 02:40:30 Instrument ID: 19930
Lims ID: IC std3
Client ID:
Operator ID: mec29284 ALS Bottle#: 15 Worklist Smp#: 16
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

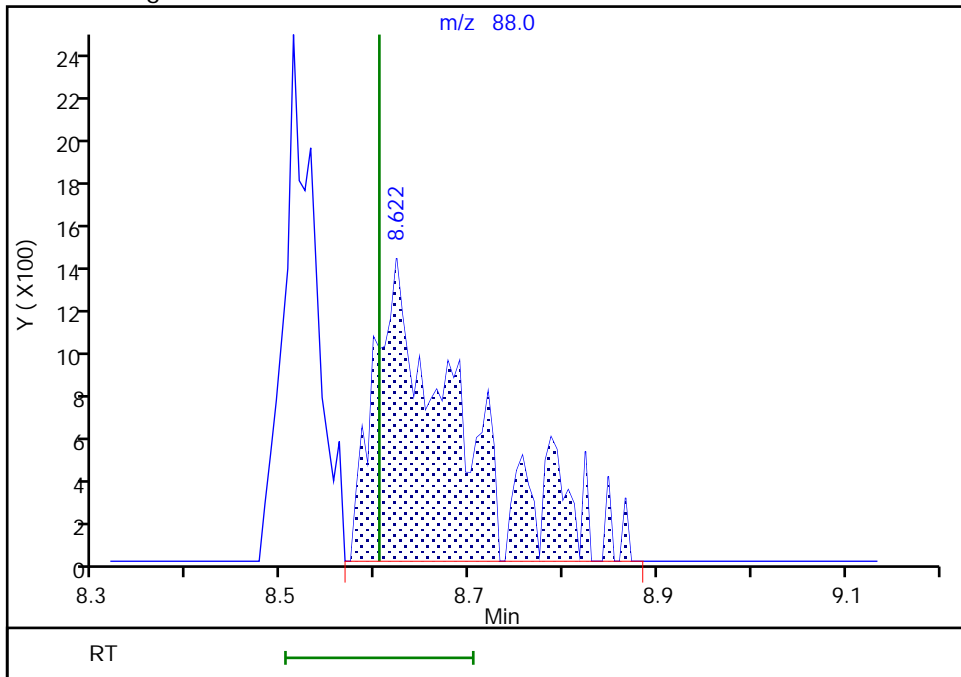
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Area: 6211
Amount: 41.639336
Amount Units: ug/l

Processing Integration Results



RT: 8.62
Area: 9072
Amount: 45.748252
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 16-Mar-2022 08:26:43
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14136.D
 Lims ID: IC std2
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 15-Mar-2022 03:01:30 ALS Bottle#: 16 Worklist Smp#: 17
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0052441-017
 Misc. Info.: IC STD2
 Operator ID: mec29284 Instrument ID: 19930
 Sublist: chrom-8260 25ml HP31*sub2

Method: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 16-Mar-2022 10:11:46 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1676

First Level Reviewer: kephartk

Date: 16-Mar-2022 08:28:10

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	1.953	0.006	99	38342	0.5000	0.5094	
4 Chloromethane	50	2.154	2.142	0.012	99	39601	0.5000	0.5104	
5 Vinyl chloride	62	2.276	2.264	0.012	95	42756	0.5000	0.5217	
6 Butadiene	39	2.276	2.264	0.012	90	40566	0.5000	0.5062	
7 Bromomethane	94	2.599	2.599	0.000	92	34546	0.5000	0.5090	
8 Chloroethane	64	2.678	2.678	0.000	99	25889	0.5000	0.5193	
9 Dichlorofluoromethane	67	2.928	2.916	0.012	96	62146	0.5000	0.4957	
10 Trichlorofluoromethane	101	2.940	2.928	0.012	94	60650	0.5000	0.4978	
11 Ethyl ether	59	3.245	3.233	0.012	91	17004	0.5000	0.5054	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.318	3.312	0.006	90	35242	0.5000	0.5036	
13 Acrolein	56	3.422	3.404	0.018	99	139607	25.0	25.9	
14 1,1-Dichloroethene	96	3.550	3.544	0.006	97	26177	0.5000	0.4946	
15 Acetone	43	3.586	3.580	0.006	96	39948	5.00	5.48	
16 112TCTFE	101	3.605	3.580	0.025	91	26572	0.5000	0.4783	
17 Iodomethane	142	3.751	3.739	0.012	99	51940	0.5000	0.4788	
18 Ethyl bromide	108	3.775	3.769	0.006	99	25501	0.4998	0.5047	
19 Carbon disulfide	76	3.861	3.849	0.012	100	56905	0.5000	0.4796	
21 Methyl acetate	43	4.037	4.007	0.030	25	9060	0.5000	0.3836	
22 3-Chloro-1-propene	41	4.031	4.025	0.006	87	37686	0.5000	0.5026	
23 Methylene Chloride	84	4.214	4.214	0.000	90	26934	0.5000	0.4868	
* 24 t-Butyl alcohol-d10 (IS)	65	4.233	4.214	0.019	93	134454	50.0	50.0	M
25 2-Methyl-2-propanol	59	4.373	4.342	0.031	96	31765	10.0	11.8	
26 Acrylonitrile	53	4.568	4.562	0.006	18	11960	1.25	1.39	M
27 Methyl tert-butyl ether	73	4.635	4.617	0.018	89	66197	0.5000	0.4789	
28 trans-1,2-Dichloroethene	96	4.647	4.629	0.018	96	30157	0.5000	0.5025	
29 Hexane	57	5.062	5.056	0.006	93	34826	0.5000	0.4786	
31 1,1-Dichloroethane	63	5.306	5.287	0.019	96	51123	0.5000	0.4977	
32 Isopropyl ether	45	5.360	5.354	0.006	91	76892	0.5000	0.4794	
33 2-Chloro-1,3-butadiene	53	5.415	5.403	0.012	92	40379	0.5000	0.4827	
34 Tert-butyl ethyl ether	59	5.891	5.879	0.012	96	80698	0.5000	0.4943	

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	6.098	6.080	0.018	100	66323	5.00	5.25	
37 cis-1,2-Dichloroethene	96	6.135	6.123	0.012	80	34237	0.5000	0.4993	
38 2,2-Dichloropropane	77	6.141	6.135	0.006	74	46465	0.5000	0.4877	
S 35 1,2-Dichloroethene, Total	100				0			1.00	
40 Propionitrile	54	6.183	6.177	0.006	97	32816	10.0	10.1	
42 Methacrylonitrile	67	6.391	6.379	0.012	88	65801	5.00	5.09	
43 Chlorobromomethane	128	6.458	6.446	0.012	75	15669	0.5000	0.4983	
44 Tetrahydrofuran	71	6.476	6.458	0.018	66	9313	2.50	2.60	
45 Chloroform	83	6.610	6.604	0.006	93	54271	0.5000	0.4906	
\$ 46 Dibromofluoromethane (Surr)	113	6.817	6.812	0.005	94	543314	10.0	9.95	
47 1,1,1-Trichloroethane	97	6.836	6.830	0.006	98	52545	0.5000	0.4897	
48 Cyclohexane	56	6.921	6.927	-0.006	88	41104	0.5000	0.4557	
50 Carbon tetrachloride	117	7.043	7.037	0.006	88	48008	0.5000	0.4838	
51 1,1-Dichloropropene	75	7.049	7.037	0.012	85	39107	0.5000	0.4724	
52 Isobutyl alcohol	41	7.195	7.189	0.006	79	22406	25.0	24.7	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.269	7.257	0.012	81	98965	10.0	10.2	
54 Benzene	78	7.299	7.299	0.000	95	116345	0.5000	0.4894	
56 1,2-Dichloroethane	62	7.378	7.366	0.012	91	32183	0.5000	0.4856	
57 Tert-amyl methyl ether	73	7.488	7.488	0.000	98	74320	0.5000	0.4878	
* 58 Fluorobenzene (IS)	96	7.701	7.695	0.006	99	2017326	10.0	10.0	
59 n-Heptane	43	7.720	7.708	0.012	37	38570	0.5000	0.4962	
60 n-Butanol	56	8.085	8.073	0.012	90	31832	43.8	44.3	
61 Trichloroethene	95	8.183	8.177	0.006	94	32974	0.5000	0.4828	
62 Methylcyclohexane	83	8.494	8.482	0.012	92	50397	0.5000	0.4627	
63 1,2-Dichloropropane	63	8.512	8.500	0.012	72	27296	0.5000	0.4792	
64 Methyl methacrylate	69	8.598	8.592	0.006	84	13137	0.5000	0.5359	
65 1,4-Dioxane	88	8.634	8.604	0.030	31	4908	25.0	26.5	M
66 Dibromomethane	93	8.622	8.610	0.012	92	16746	0.5000	0.5312	
68 Dichlorobromomethane	83	8.860	8.854	0.006	98	36200	0.5000	0.4813	
69 2-Nitropropane	41	9.116	9.116	0.000	97	19475	2.50	2.56	
72 1-Bromo-2-chloroethane	63	9.250	9.244	0.006	97	25181	0.5000	0.4672	
73 cis-1,3-Dichloropropene	75	9.402	9.396	0.006	95	41097	0.5000	0.4640	
74 4-Methyl-2-pentanone (MIBK)	43	9.567	9.567	0.000	96	175115	5.00	5.24	
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2034623	10.0	9.98	
76 Toluene	92	9.780	9.780	0.000	97	78723	0.5000	0.4983	
78 trans-1,3-Dichloropropene	75	10.042	10.036	0.006	92	33885	0.5000	0.4775	
S 77 1,3-Dichloropropene, Total	100				0			0.9415	
79 Ethyl methacrylate	69	10.109	10.097	0.012	87	26333	0.5000	0.4785	
80 1,1,2-Trichloroethane	97	10.244	10.244	0.000	92	22015	0.5000	0.5085	
81 Tetrachloroethene	166	10.335	10.329	0.006	97	44469	0.5000	0.4895	
82 1,3-Dichloropropane	76	10.408	10.402	0.006	90	34333	0.5000	0.4932	
83 2-Hexanone	43	10.457	10.451	0.006	96	114797	5.00	5.11	
85 Chlorodibromomethane	129	10.622	10.616	0.006	89	28417	0.5000	0.4838	
86 Ethylene Dibromide	107	10.731	10.731	0.000	99	20990	0.5000	0.4994	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	84	1674650	10.0	10.0	
88 1-Chlorohexane	91	11.164	11.164	0.000	94	47652	0.5000	0.4979	
90 Chlorobenzene	112	11.189	11.183	0.006	97	96628	0.5000	0.5168	
S 89 Xylenes, Total	106				0			1.49	
91 1,1,1,2-Tetrachloroethane	131	11.268	11.268	0.000	91	34314	0.5000	0.4969	
92 Ethylbenzene	91	11.274	11.268	0.006	98	156010	0.5000	0.4991	
93 m-Xylene & p-Xylene	106	11.384	11.384	0.000	99	126661	1.00	0.9894	
94 o-Xylene	106	11.713	11.713	0.000	97	63612	0.5000	0.5049	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
95 Styrene	104	11.731	11.731	0.000	95	94656	0.5000	0.4825	
96 Bromoform	173	11.890	11.890	0.000	97	16961	0.5000	0.4688	
97 Isopropylbenzene	105	12.012	12.012	0.000	95	164910	0.5000	0.5015	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	96	788876	10.0	9.98	
101 1,1,2,2-Tetrachloroethane	83	12.255	12.256	-0.001	94	27127	0.5000	0.5087	
102 Bromobenzene	156	12.274	12.274	0.000	93	43168	0.5000	0.5091	
103 trans-1,4-Dichloro-2-butene	53	12.286	12.280	0.006	91	58243	5.00	4.83	
104 1,2,3-Trichloropropane	110	12.304	12.298	0.006	82	8831	0.5000	0.5595	
105 N-Propylbenzene	91	12.341	12.341	0.000	98	185867	0.5000	0.5025	
106 2-Chlorotoluene	126	12.420	12.414	0.006	97	42524	0.5000	0.5229	
107 1,3,5-Trimethylbenzene	105	12.475	12.475	0.000	95	140301	0.5000	0.5126	
108 4-Chlorotoluene	126	12.518	12.512	0.006	95	44030	0.5000	0.5299	
109 tert-Butylbenzene	134	12.719	12.719	0.000	92	32989	0.5000	0.5002	
110 Pentachloroethane	167	12.749	12.749	0.000	80	25590	0.5000	0.4723	
111 1,2,4-Trimethylbenzene	105	12.761	12.762	-0.001	97	139673	0.5000	0.5060	
112 sec-Butylbenzene	105	12.883	12.877	0.006	94	175873	0.5000	0.5034	
113 1,3-Dichlorobenzene	146	12.981	12.981	0.000	98	85825	0.5000	0.5198	
114 4-Isopropyltoluene	119	12.987	12.987	0.000	97	159043	0.5000	0.5059	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	93	1007739	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.054	13.054	0.000	96	87803	0.5000	0.5206	
117 1,2,3-Trimethylbenzene	120	13.066	13.060	0.006	96	67484	0.5000	0.5292	
118 Benzyl chloride	126	13.139	13.133	0.006	98	9700	0.5000	0.4497	
119 n-Butylbenzene	92	13.280	13.280	0.000	97	67261	0.5000	0.4820	
120 1,2-Dichlorobenzene	146	13.316	13.316	0.000	98	77120	0.5000	0.5124	
122 1,2-Dibromo-3-Chloropropane	155	13.859	13.859	0.000	81	4305	0.5000	0.5047	
123 1,3,5-Trichlorobenzene	180	13.987	13.981	0.006	97	63089	0.5000	0.5117	
124 1,2,4-Trichlorobenzene	180	14.407	14.408	-0.001	94	49430	0.5000	0.4758	
125 Hexachlorobutadiene	225	14.487	14.487	0.000	95	22776	0.5000	0.4834	
126 Naphthalene	128	14.590	14.584	0.006	96	89149	0.5000	0.5016	
127 1,2,3-Trichlorobenzene	180	14.731	14.725	0.006	94	45526	0.5000	0.5004	
137 2-Methylnaphthalene	142		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
134 Isopropyl alcohol	45		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	

QC Flag Legend

Processing Flags

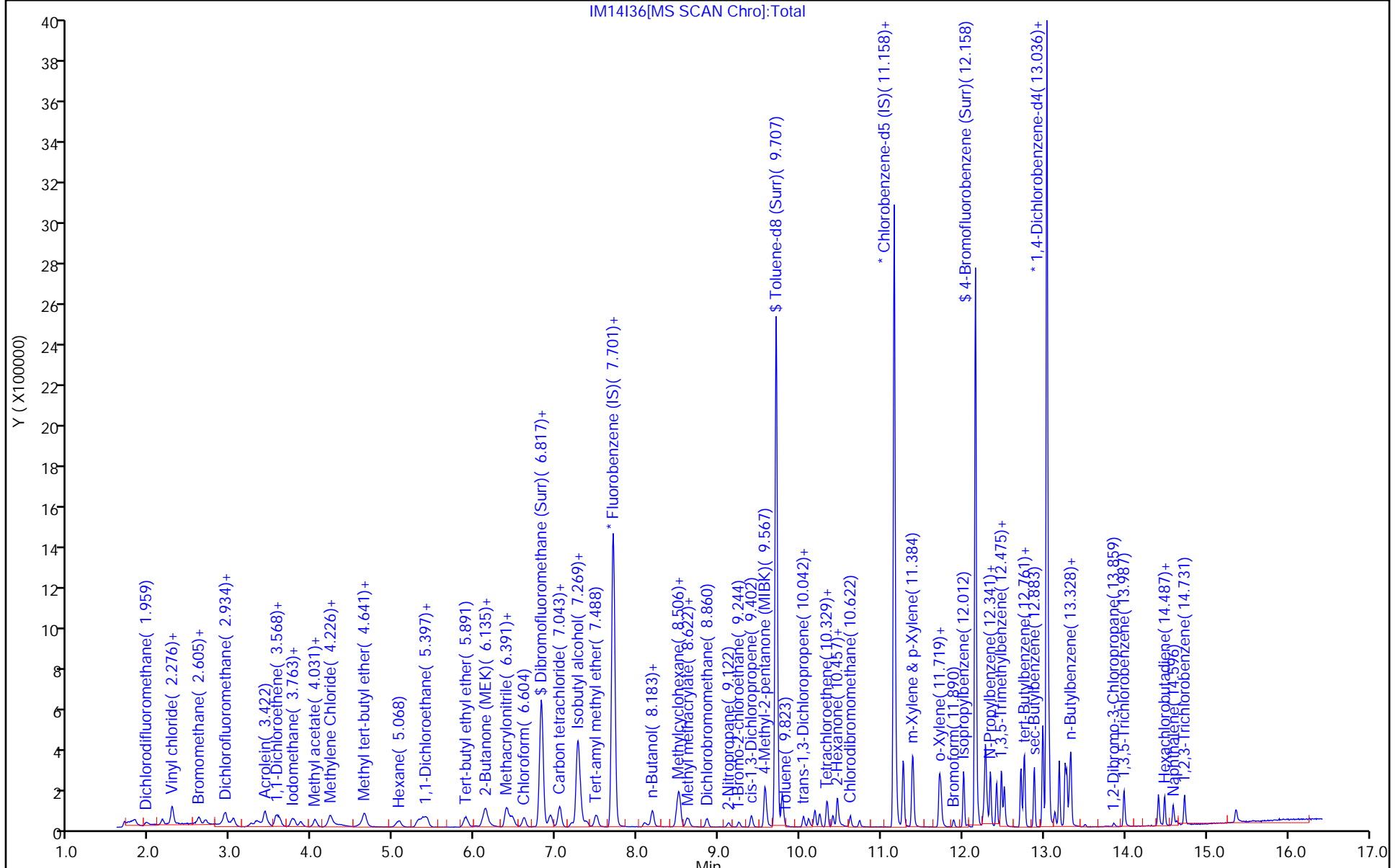
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Review Flags

M - Manually Integrated

Reagents:

MSV_LL_#1_826_00038	Amount Added: 2.00	Units: uL	
MSV_LL_#2_826_00042	Amount Added: 2.00	Units: uL	
MSV_LL_GAS826_00072	Amount Added: 2.00	Units: uL	
MSV_LLcentISS_00004	Amount Added: 5.00	Units: uL	Run Reagent



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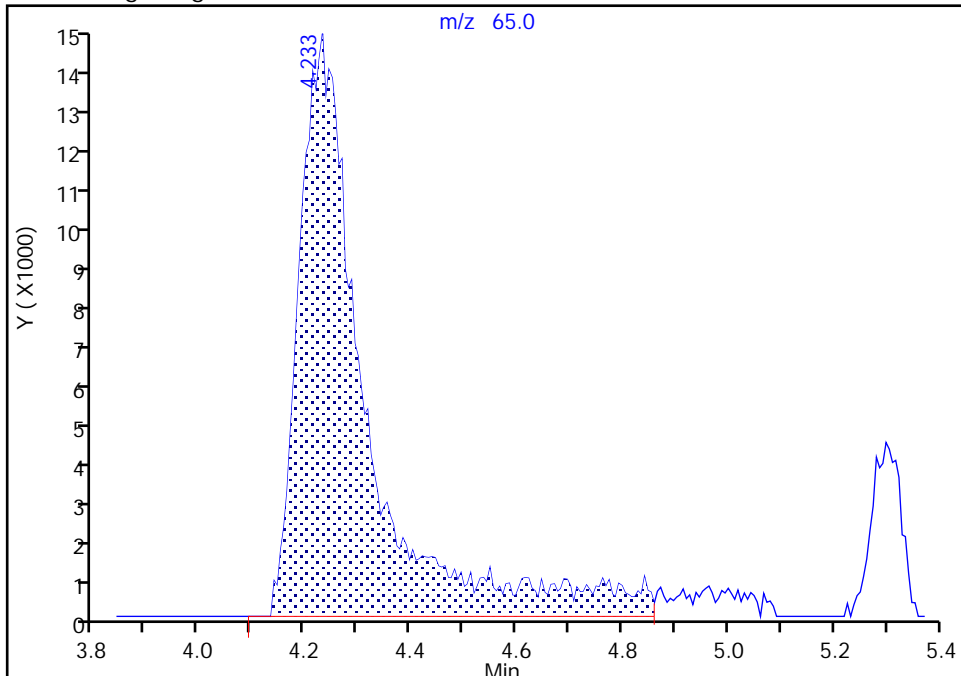
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Injection Date: 15-Mar-2022 03:01:30 Instrument ID: 19930
Lims ID: IC std2
Client ID:
Operator ID: mec29284 ALS Bottle#: 16 Worklist Smp#: 17
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

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

Signal: 1

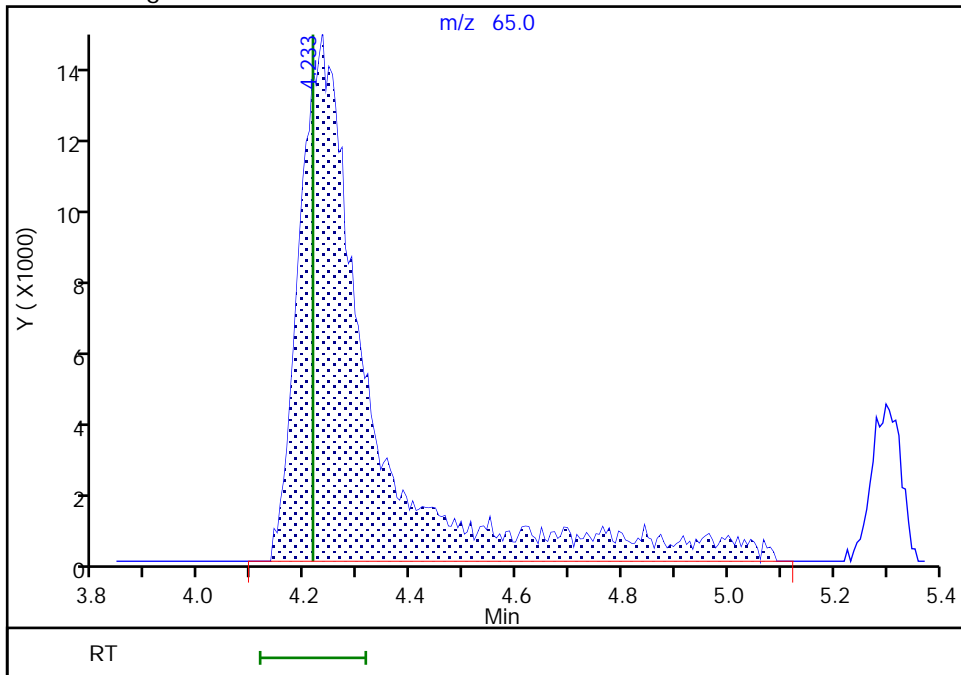
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Area: 127672
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.23
Area: 134454
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 16-Mar-2022 08:27:27
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

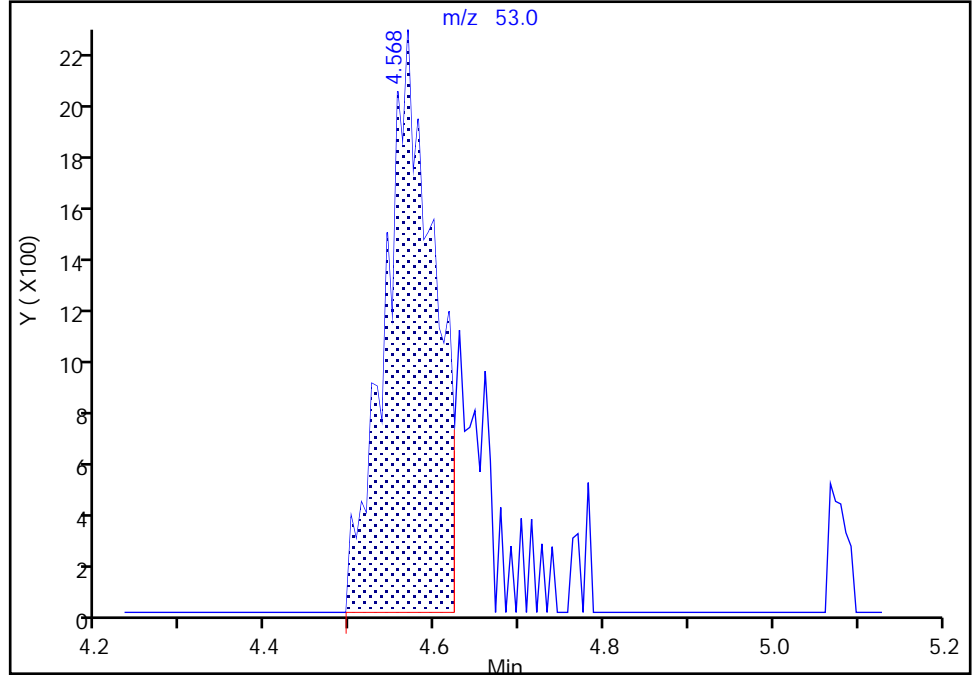
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Lims ID: IC std2
Client ID:
Operator ID: mec29284 ALS Bottle#: 16 Worklist Smp#: 17
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

26 Acrylonitrile, CAS: 107-13-1

Signal: 1

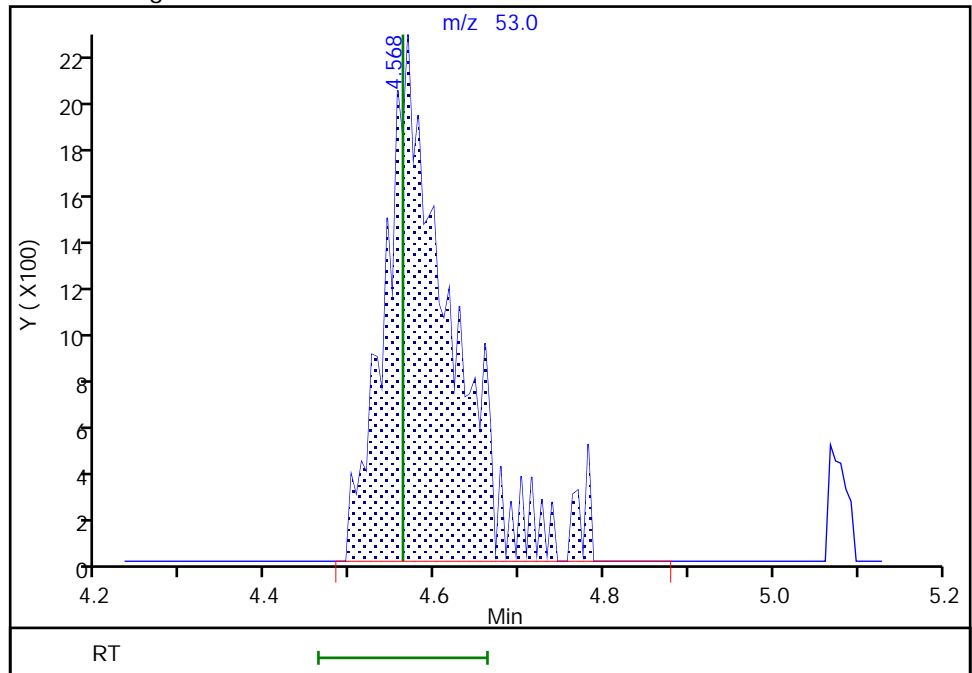
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Amount: 1.142354
Amount Units: ug/l

Processing Integration Results



RT: 4.57
Area: 11960
Amount: 1.393316
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 16-Mar-2022 08:27:32
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Euofins Lancaster Laboratories Env, LLC

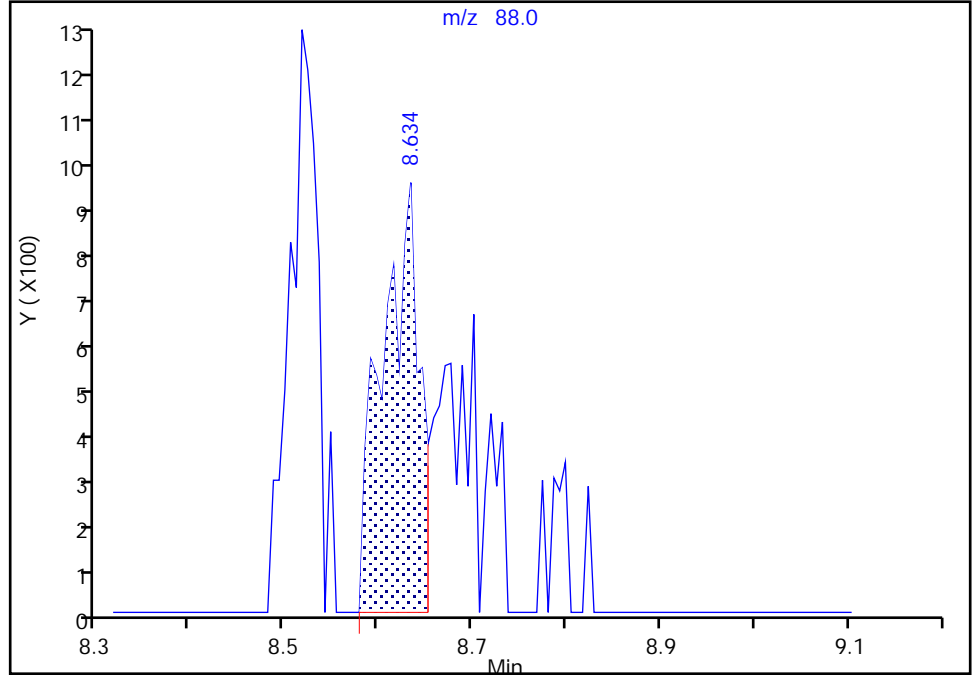
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Lims ID: IC std2
Client ID:
Operator ID: mec29284 ALS Bottle#: 16 Worklist Smp#: 17
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

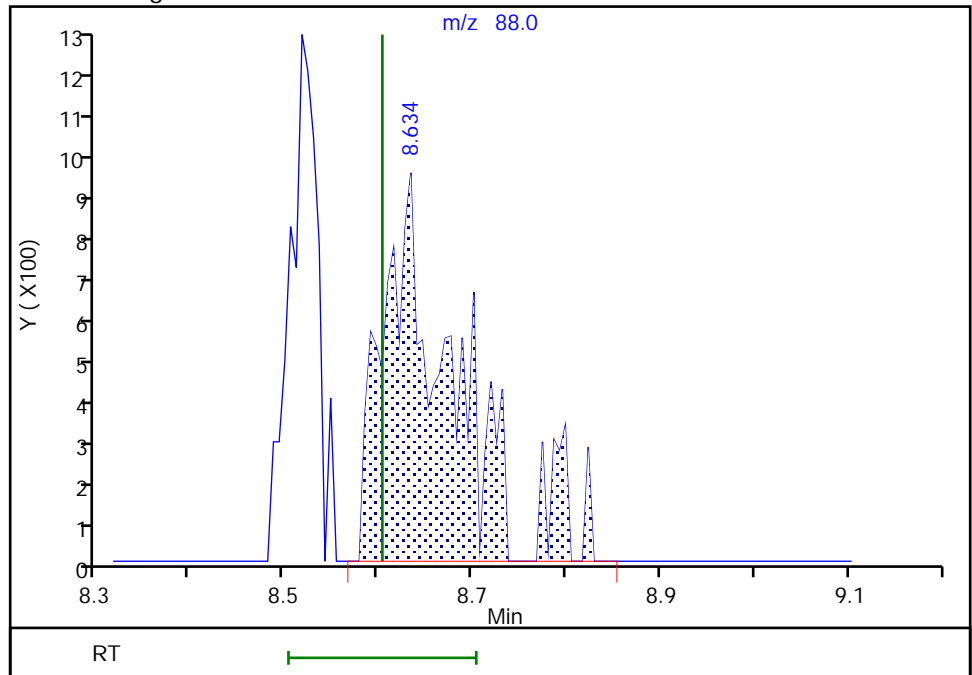
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Amount: 24.612667
Amount Units: ug/l

Processing Integration Results



RT: 8.63
Area: 4908
Amount: 26.518117
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 16-Mar-2022 08:27:48
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Lims ID: IC std1
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 15-Mar-2022 03:22:30 ALS Bottle#: 17 Worklist Smp#: 18
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0052441-018
 Misc. Info.: IC STD1
 Operator ID: mec29284 Instrument ID: 19930
 Sublist: chrom-8260 25ml HP31*sub2

Method: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 16-Mar-2022 10:11:50 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1676

First Level Reviewer: kephartk

Date: 16-Mar-2022 08:29:47

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	97	12174	0.2000	0.1614	
4 Chloromethane	50	2.154	2.142	0.012	99	17202	0.2000	0.2212	
5 Vinyl chloride	62	2.270	2.264	0.006	89	15454	0.2000	0.1881	
6 Butadiene	39	2.264	2.264	0.000	97	15233	0.2000	0.1897	
7 Bromomethane	94	2.599	2.599	0.000	92	14324	0.2000	0.2106	
8 Chloroethane	64	2.678	2.678	0.000	98	9614	0.2000	0.1924	
9 Dichlorofluoromethane	67	2.916	2.916	0.000	95	26658	0.2000	0.2122	
10 Trichlorofluoromethane	101	2.928	2.928	0.000	50	22113	0.2000	0.1811	
11 Ethyl ether	59	3.245	3.233	0.012	85	6784	0.2000	0.2012	
12 1,2-Dichloro-1,1,2-trifluoroethane	67	3.312	3.312	0.000	89	14515	0.2000	0.2070	
13 Acrolein	56	3.422	3.404	0.018	99	62205	10.0	9.96	
14 1,1-Dichloroethene	96	3.550	3.544	0.006	98	10662	0.2000	0.2010	
15 Acetone	43	3.580	3.580	0.000	72	20231	2.00	2.40	
16 112TCTFE	101	3.593	3.580	0.013	58	10208	0.2000	0.1833	
17 Iodomethane	142	3.751	3.739	0.012	72	22696	0.2000	0.2088	M
18 Ethyl bromide	108	3.775	3.769	0.006	95	10187	0.1999	0.2012	
19 Carbon disulfide	76	3.855	3.849	0.006	99	23883	0.2000	0.2008	
21 Methyl acetate	43	4.025	4.007	0.018	27	7489	0.2000	0.2348	
22 3-Chloro-1-propene	41	4.032	4.025	0.007	84	15242	0.2000	0.2028	
23 Methylene Chloride	84	4.227	4.214	0.013	82	12056	0.2000	0.2174	
* 24 t-Butyl alcohol-d10 (IS)	65	4.257	4.214	0.043	66	155632	50.0	50.0	
25 2-Methyl-2-propanol	59	4.373	4.342	0.031	29	12109	4.00	3.88	
26 Acrylonitrile	53	4.598	4.562	0.036	22	4395	0.5000	0.4423	M
27 Methyl tert-butyl ether	73	4.629	4.617	0.012	92	30498	0.2000	0.2202	
28 trans-1,2-Dichloroethene	96	4.647	4.629	0.018	95	12680	0.2000	0.2108	M
29 Hexane	57	5.056	5.056	0.000	91	12983	0.2000	0.1780	
31 1,1-Dichloroethane	63	5.300	5.287	0.013	95	20843	0.2000	0.2024	
32 Isopropyl ether	45	5.354	5.354	0.000	90	32182	0.2000	0.2002	
33 2-Chloro-1,3-butadiene	53	5.415	5.403	0.012	93	17211	0.2000	0.2053	
34 Tert-butyl ethyl ether	59	5.885	5.879	0.006	97	33885	0.2000	0.2071	

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	6.104	6.080	0.024	99	27415	2.00	1.87	
37 cis-1,2-Dichloroethene	96	6.135	6.123	0.012	63	15432	0.2000	0.2245	M
38 2,2-Dichloropropane	77	6.123	6.135	-0.012	73	18690	0.2000	0.1957	
S 35 1,2-Dichloroethene, Total	100				0			0.4353	
40 Propionitrile	54	6.190	6.177	0.013	97	13732	4.00	3.66	
42 Methacrylonitrile	67	6.397	6.379	0.018	85	29038	2.00	1.94	M
43 Chlorobromomethane	128	6.458	6.446	0.012	72	6487	0.2000	0.2058	M
44 Tetrahydrofuran	71	6.470	6.458	0.012	57	4086	1.00	0.9872	
45 Chloroform	83	6.610	6.604	0.006	90	23341	0.2000	0.2105	
\$ 46 Dibromofluoromethane (Surr)	113	6.818	6.812	0.006	94	547531	10.0	10.0	
47 1,1,1-Trichloroethane	97	6.830	6.830	0.000	56	22284	0.2000	0.2072	
48 Cyclohexane	56	6.927	6.927	0.000	93	16256	0.2000	0.1798	
50 Carbon tetrachloride	117	7.049	7.037	0.012	95	19333	0.2000	0.1944	
51 1,1-Dichloropropene	75	7.037	7.037	0.000	92	17366	0.2000	0.2093	
52 Isobutyl alcohol	41	7.202	7.189	0.013	92	11490	10.0	10.9	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.269	7.257	0.012	67	100556	10.0	10.3	
54 Benzene	78	7.299	7.299	0.000	94	49374	0.2000	0.2072	
56 1,2-Dichloroethane	62	7.366	7.366	0.000	96	14632	0.2000	0.2203	
57 Tert-amyl methyl ether	73	7.494	7.488	0.006	98	31737	0.2000	0.2079	
* 58 Fluorobenzene (IS)	96	7.695	7.695	0.000	99	2021821	10.0	10.0	
59 n-Heptane	43	7.714	7.708	0.006	37	16268	0.2000	0.2088	
60 n-Butanol	56	8.116	8.073	0.043	68	10801	17.5	13.0	
61 Trichloroethene	95	8.183	8.177	0.006	93	14385	0.2000	0.2102	M
62 Methylcyclohexane	83	8.482	8.482	0.000	90	19770	0.2000	0.1811	
63 1,2-Dichloropropane	63	8.500	8.500	0.000	72	10875	0.2000	0.1905	
64 Methyl methacrylate	69	8.604	8.592	0.012	91	4900	0.2000	0.1727	M
65 1,4-Dioxane	88	8.634	8.604	0.030	28	447	10.0	2.09	M
66 Dibromomethane	93	8.622	8.610	0.012	90	6467	0.2000	0.2047	
68 Dichlorobromomethane	83	8.854	8.854	0.000	97	14496	0.2000	0.1923	
69 2-Nitropropane	41	9.116	9.116	0.000	96	7975	1.00	0.9047	
72 1-Bromo-2-chloroethane	63	9.244	9.244	0.000	97	10522	0.2000	0.1948	
73 cis-1,3-Dichloropropene	75	9.402	9.396	0.006	96	17322	0.2000	0.1951	
74 4-Methyl-2-pentanone (MIBK)	43	9.573	9.567	0.006	97	66567	2.00	1.72	
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2051196	10.0	10.0	
76 Toluene	92	9.786	9.780	0.006	97	32803	0.2000	0.2071	
78 trans-1,3-Dichloropropene	75	10.049	10.036	0.013	93	12263	0.2000	0.1724	
S 77 1,3-Dichloropropene, Total	100				0			0.3675	
79 Ethyl methacrylate	69	10.110	10.097	0.013	83	9480	0.2000	0.1718	
80 1,1,2-Trichloroethane	97	10.238	10.244	-0.006	91	8749	0.2000	0.2016	
81 Tetrachloroethene	166	10.335	10.329	0.006	96	18053	0.2000	0.1982	
82 1,3-Dichloropropane	76	10.408	10.402	0.006	92	13872	0.2000	0.1988	
83 2-Hexanone	43	10.463	10.451	0.012	95	38878	2.00	1.50	
85 Chlorodibromomethane	129	10.616	10.616	0.000	88	11317	0.2000	0.1922	
86 Ethylene Dibromide	107	10.738	10.731	0.007	96	7460	0.2000	0.1770	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	84	1678767	10.0	10.0	
88 1-Chlorohexane	91	11.170	11.164	0.006	34	21550	0.2000	0.2246	
90 Chlorobenzene	112	11.183	11.183	0.000	95	36676	0.2000	0.1957	
S 89 Xylenes, Total	106				0			0.5902	
91 1,1,1,2-Tetrachloroethane	131	11.268	11.268	0.000	81	12294	0.2000	0.1776	
92 Ethylbenzene	91	11.274	11.268	0.006	98	62844	0.2000	0.2006	
93 m-Xylene & p-Xylene	106	11.384	11.384	0.000	99	50551	0.4000	0.3939	
94 o-Xylene	106	11.719	11.713	0.006	95	24789	0.2000	0.1963	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
95 Styrene	104	11.737	11.731	0.006	94	37528	0.2000	0.1908	
96 Bromoform	173	11.890	11.890	0.000	95	6223	0.2000	0.1716	
97 Isopropylbenzene	105	12.012	12.012	0.000	95	64175	0.2000	0.1947	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	97	798883	10.0	10.1	
101 1,1,2,2-Tetrachloroethane	83	12.256	12.256	0.000	94	10440	0.2000	0.1946	
102 Bromobenzene	156	12.274	12.274	0.000	93	17078	0.2000	0.2002	
103 trans-1,4-Dichloro-2-butene	53	12.286	12.280	0.006	90	18122	2.00	1.30	
104 1,2,3-Trichloropropane	110	12.304	12.298	0.006	74	2972	0.2000	0.1872	
105 N-Propylbenzene	91	12.341	12.341	0.000	98	73431	0.2000	0.1974	
106 2-Chlorotoluene	126	12.420	12.414	0.006	96	15217	0.2000	0.1860	
107 1,3,5-Trimethylbenzene	105	12.475	12.475	0.000	94	52611	0.2000	0.1911	
108 4-Chlorotoluene	126	12.518	12.512	0.006	96	17108	0.2000	0.2047	
109 tert-Butylbenzene	134	12.719	12.719	0.000	92	13616	0.2000	0.2052	
110 Pentachloroethane	167	12.749	12.749	0.000	77	9652	0.2000	0.1771	
111 1,2,4-Trimethylbenzene	105	12.762	12.762	0.000	97	51136	0.2000	0.1842	
112 sec-Butylbenzene	105	12.883	12.877	0.006	94	67649	0.2000	0.1925	
113 1,3-Dichlorobenzene	146	12.987	12.981	0.006	98	31802	0.2000	0.1915	
114 4-Isopropyltoluene	119	12.987	12.987	0.000	97	60230	0.2000	0.1904	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	93	1013693	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.054	13.054	0.000	93	35095	0.2000	0.2069	
117 1,2,3-Trimethylbenzene	120	13.066	13.060	0.006	94	25725	0.2000	0.2005	
118 Benzyl chloride	126	13.139	13.133	0.006	95	3627	0.2000	0.1672	
119 n-Butylbenzene	92	13.280	13.280	0.000	96	24766	0.2000	0.1764	
120 1,2-Dichlorobenzene	146	13.316	13.316	0.000	98	28920	0.2000	0.1910	
122 1,2-Dibromo-3-Chloropropane	155	13.865	13.859	0.006	89	1132	0.2000	0.1319	
123 1,3,5-Trichlorobenzene	180	13.987	13.981	0.006	95	22882	0.2000	0.1845	
124 1,2,4-Trichlorobenzene	180	14.414	14.408	0.006	93	19278	0.2000	0.1845	
125 Hexachlorobutadiene	225	14.487	14.487	0.000	93	11228	0.2000	0.2369	
126 Naphthalene	128	14.597	14.584	0.013	97	33257	0.2000	0.1860	
127 1,2,3-Trichlorobenzene	180	14.731	14.725	0.006	93	18681	0.2000	0.2041	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
137 2-Methylnaphthalene	142		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	
134 Isopropyl alcohol	45		0.000				ND	ND	

QC Flag Legend

Processing Flags

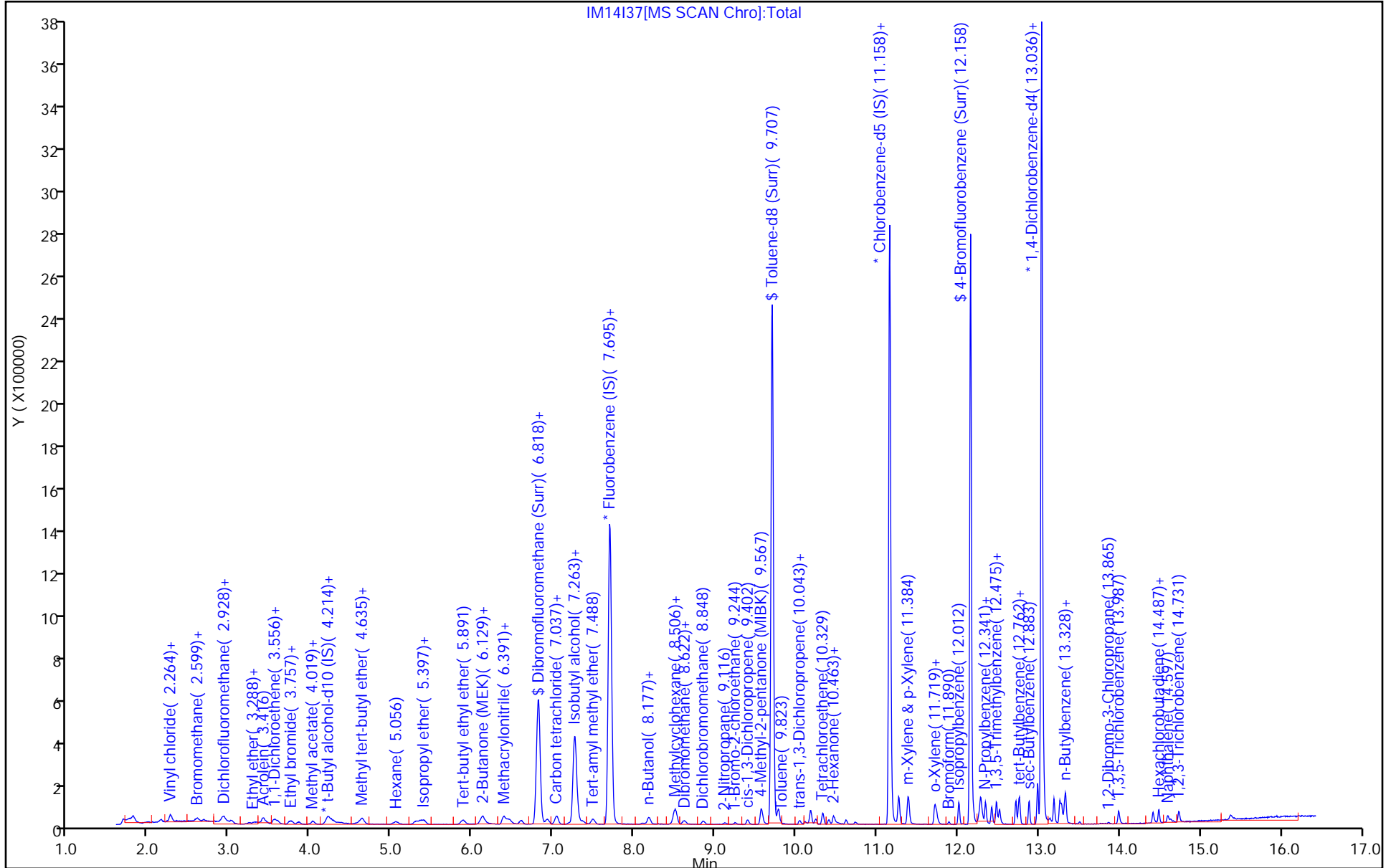
ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

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MSV_LL_#2_826_00042	Amount Added: 2.00	Units: uL	
MSV_LL_GAS826_00072	Amount Added: 2.00	Units: uL	
MSV_LLcentISS_00004	Amount Added: 5.00	Units: uL	Run Reagent



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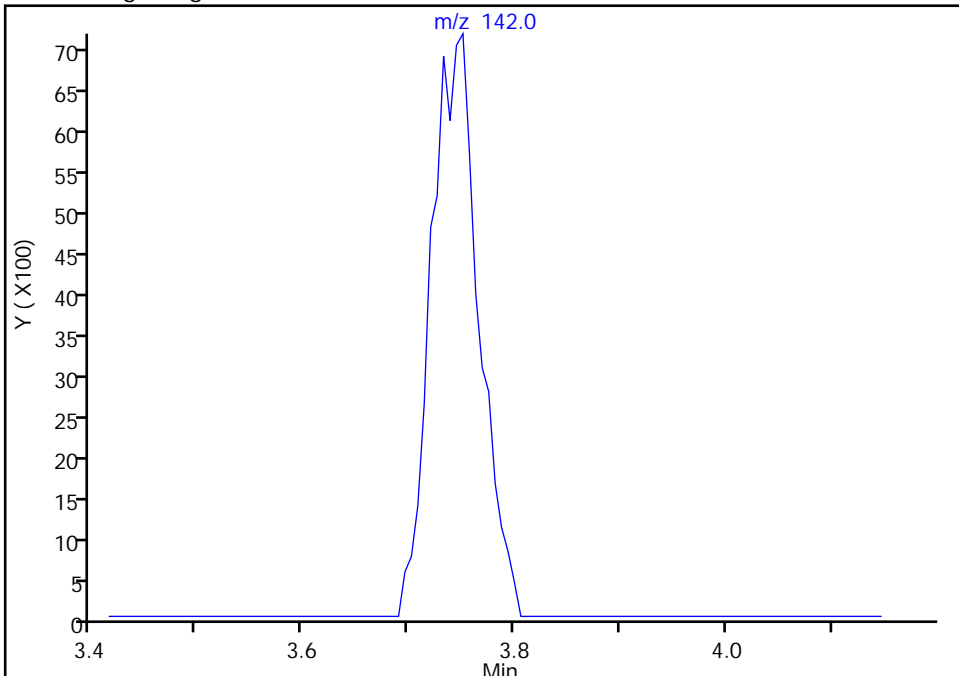
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Injection Date: 15-Mar-2022 03:22:30 Instrument ID: 19930
Lims ID: IC std1
Client ID:
Operator ID: mec29284 ALS Bottle#: 17 Worklist Smp#: 18
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

17 Iodomethane, CAS: 74-88-4

Signal: 1

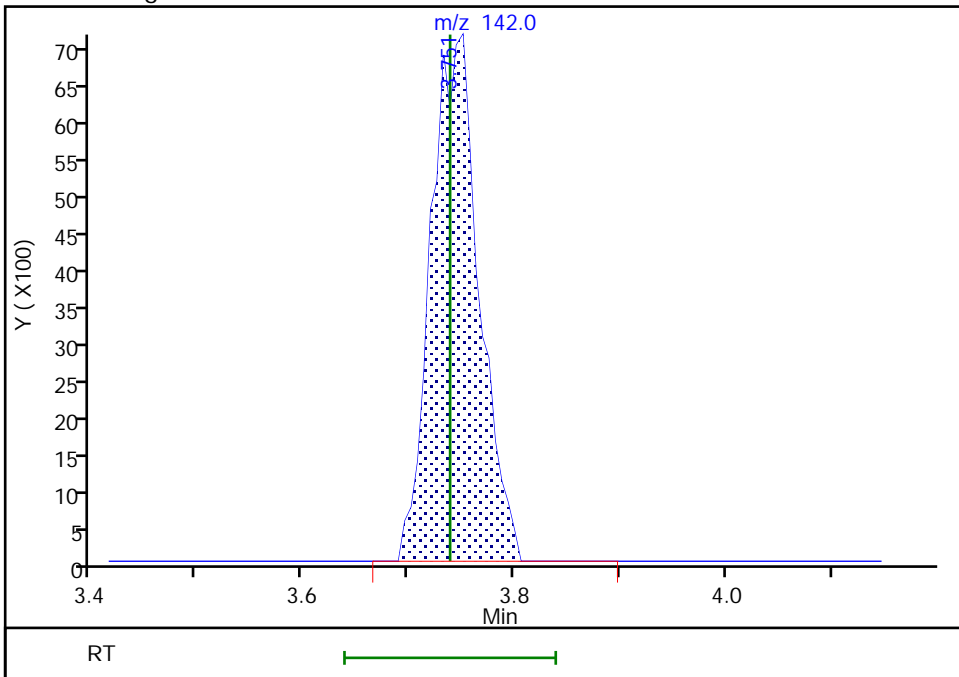
Not Detected
Expected RT: 3.74

Processing Integration Results



Manual Integration Results

RT: 3.75
Area: 22696
Amount: 0.208760
Amount Units: ug/l



Reviewer: kephartk, 16-Mar-2022 08:28:28
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 466 of 693

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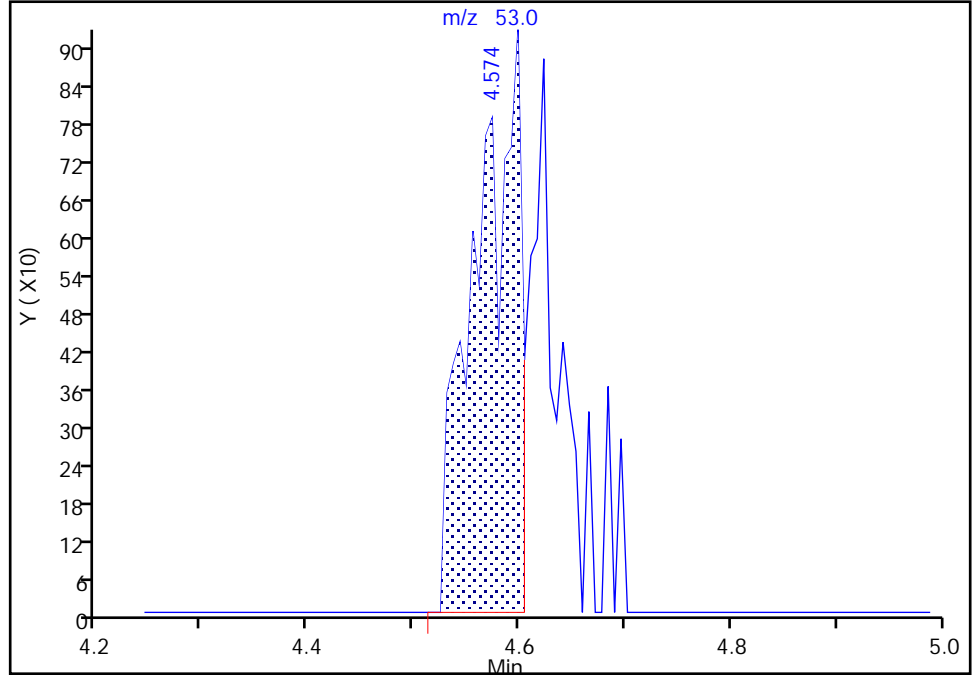
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Injection Date: 15-Mar-2022 03:22:30 Instrument ID: 19930
Lims ID: IC std1
Client ID:
Operator ID: mec29284 ALS Bottle#: 17 Worklist Smp#: 18
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

26 Acrylonitrile, CAS: 107-13-1

Signal: 1

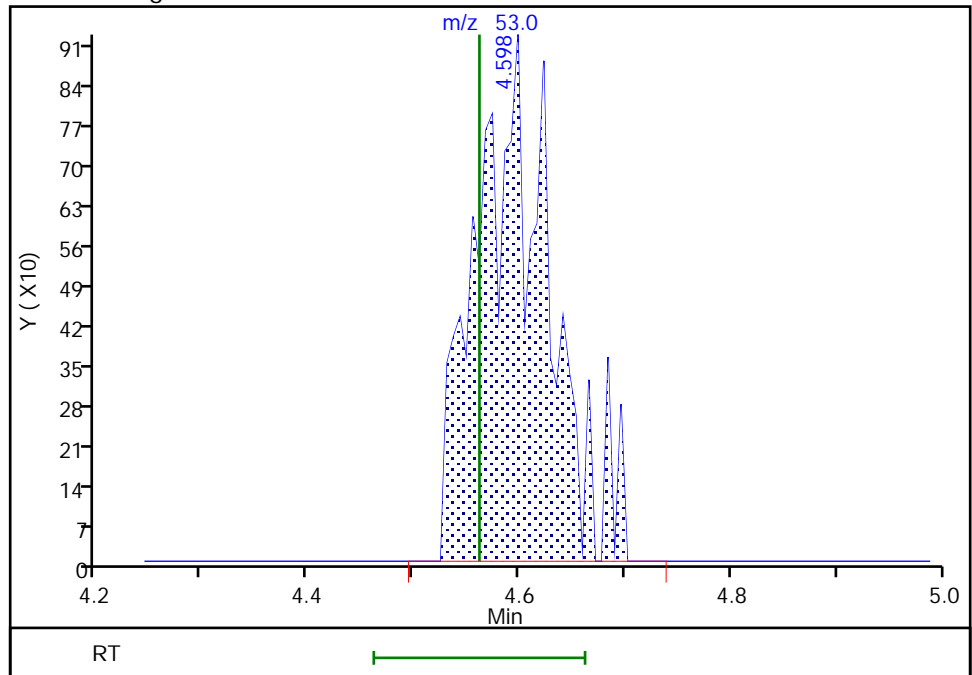
RT: 4.57
Area: 2692
Amount: 0.284888
Amount Units: ug/l

Processing Integration Results



RT: 4.60
Area: 4395
Amount: 0.442336
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 16-Mar-2022 08:28:36
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

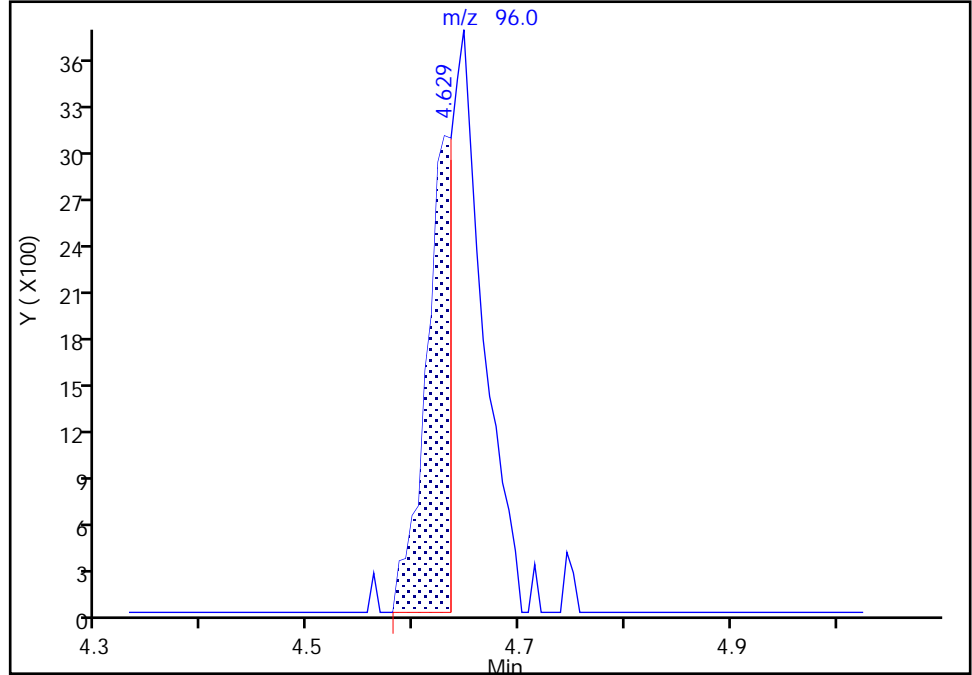
Data File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\1M14137.D
Injection Date: 15-Mar-2022 03:22:30 Instrument ID: 19930
Lims ID: IC std1
Client ID:
Operator ID: mec29284 ALS Bottle#: 17 Worklist Smp#: 18
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

28 trans-1,2-Dichloroethene, CAS: 156-60-5

Signal: 1

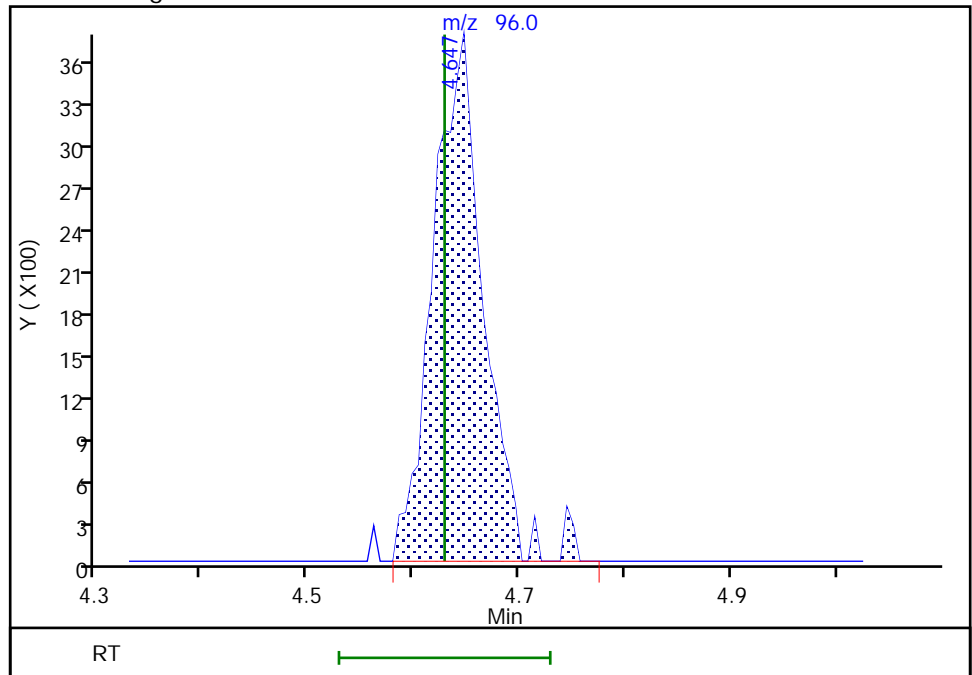
RT: 4.63
Area: 5365
Amount: 0.115492
Amount Units: ug/l

Processing Integration Results



RT: 4.65
Area: 12680
Amount: 0.210797
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 16-Mar-2022 08:28:41
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

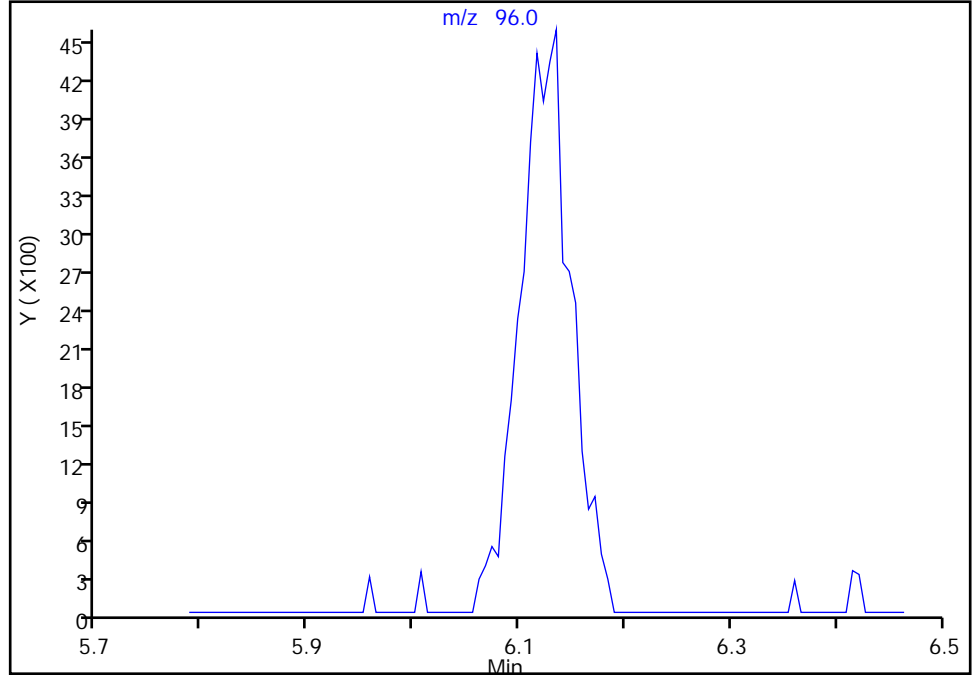
Data File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\1M14137.D
Injection Date: 15-Mar-2022 03:22:30 Instrument ID: 19930
Lims ID: IC std1
Client ID:
Operator ID: mec29284 ALS Bottle#: 17 Worklist Smp#: 18
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

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

Signal: 1

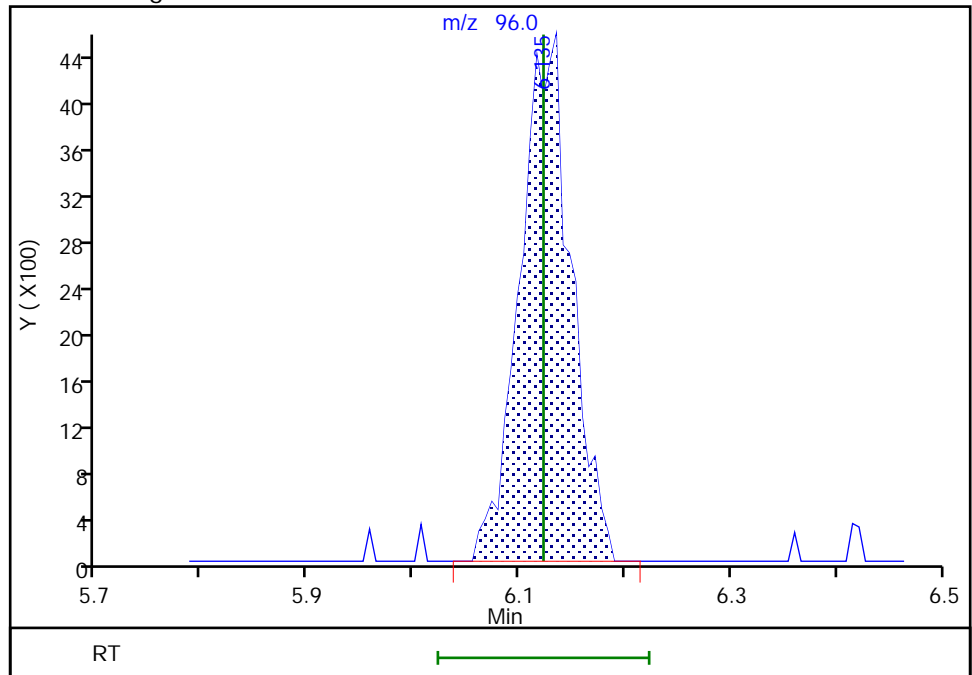
Not Detected
Expected RT: 6.12

Processing Integration Results



Manual Integration Results

RT: 6.13
Area: 15432
Amount: 0.224550
Amount Units: ug/l



Reviewer: kephartk, 16-Mar-2022 08:28:48
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

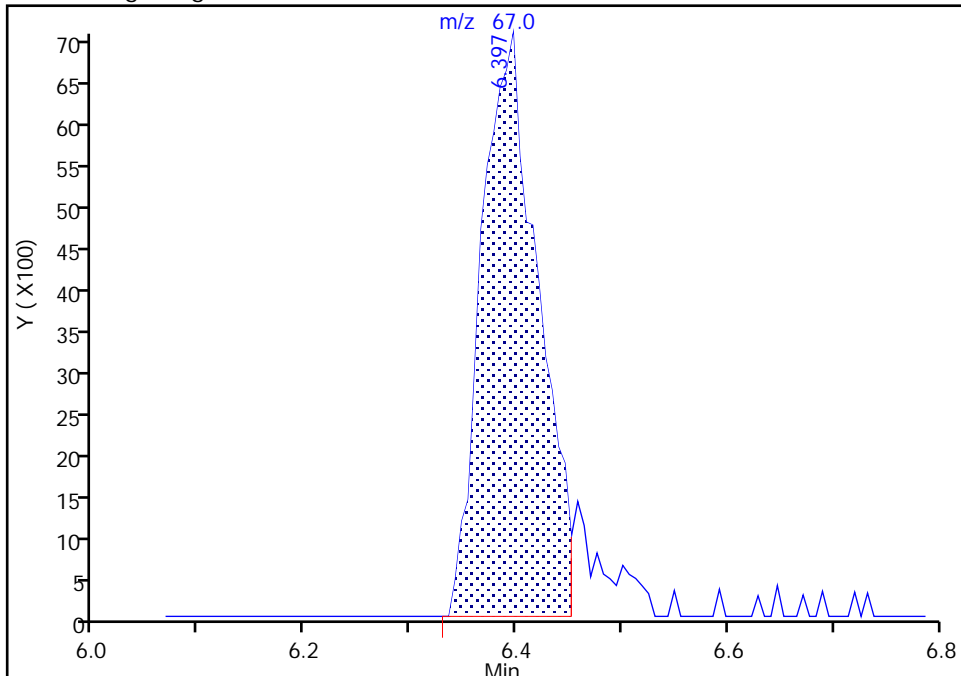
Data File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
Injection Date: 15-Mar-2022 03:22:30 Instrument ID: 19930
Lims ID: IC std1
Client ID:
Operator ID: mec29284 ALS Bottle#: 17 Worklist Smp#: 18
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

42 Methacrylonitrile, CAS: 126-98-7

Signal: 1

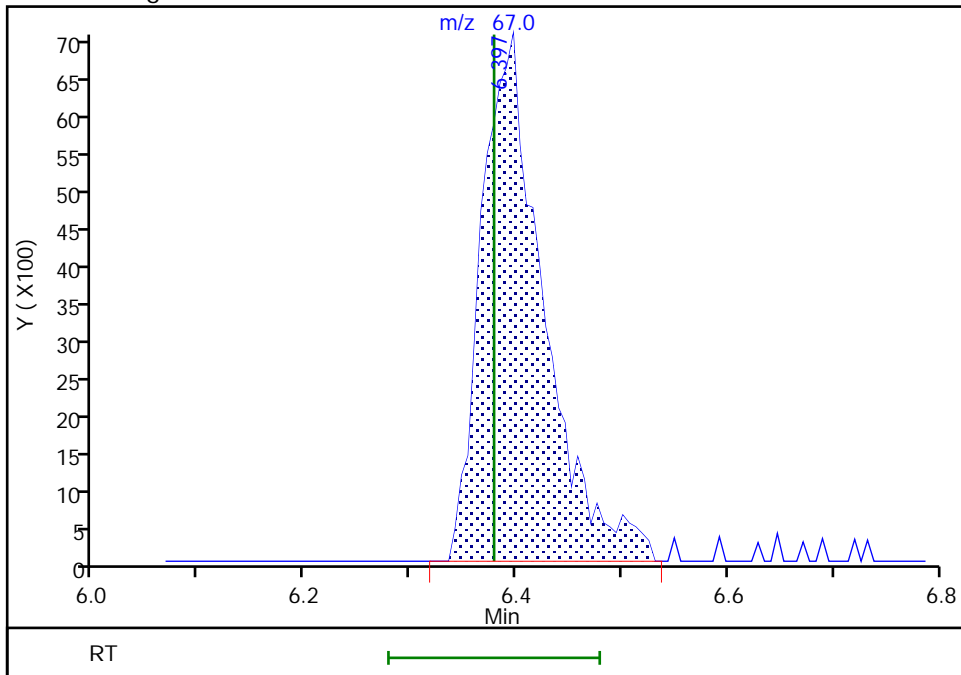
RT: 6.40
Area: 26356
Amount: 1.782750
Amount Units: ug/l

Processing Integration Results



RT: 6.40
Area: 29038
Amount: 1.939037
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 16-Mar-2022 08:28:53
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
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Eurofins Lancaster Laboratories Env, LLC

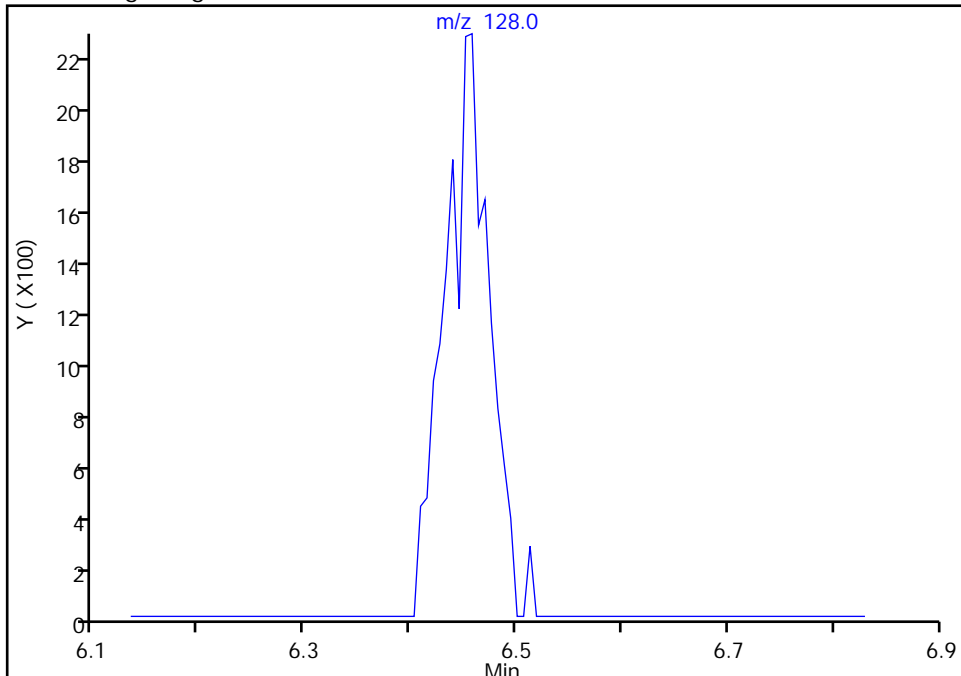
Data File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
Injection Date: 15-Mar-2022 03:22:30 Instrument ID: 19930
Lims ID: IC std1
Client ID:
Operator ID: mec29284 ALS Bottle#: 17 Worklist Smp#: 18
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

43 Chlorobromomethane, CAS: 74-97-5

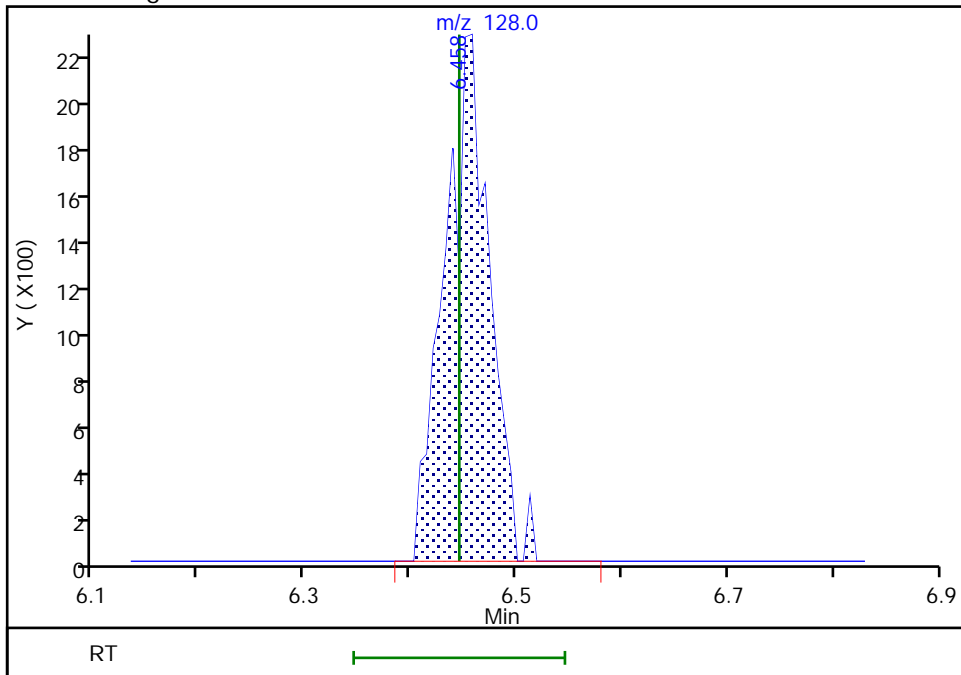
Signal: 1

Not Detected
Expected RT: 6.45

Processing Integration Results



Manual Integration Results



RT: 6.46
Area: 6487
Amount: 0.205826
Amount Units: ug/l

Eurofins Lancaster Laboratories Env, LLC

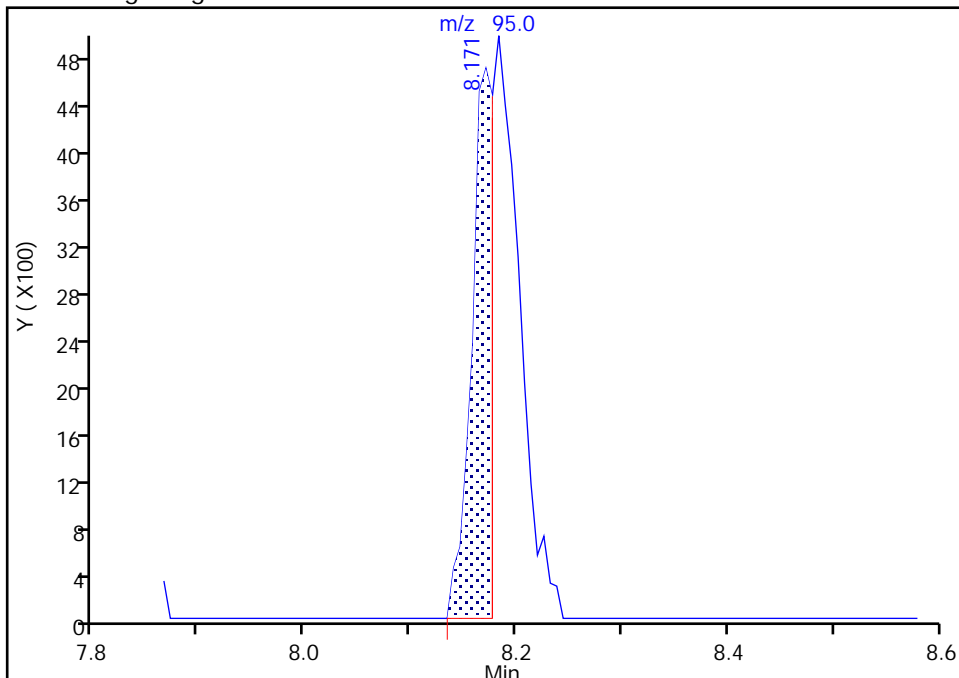
Data File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
Injection Date: 15-Mar-2022 03:22:30 Instrument ID: 19930
Lims ID: IC std1
Client ID:
Operator ID: mec29284 ALS Bottle#: 17 Worklist Smp#: 18
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

61 Trichloroethene, CAS: 79-01-6

Signal: 1

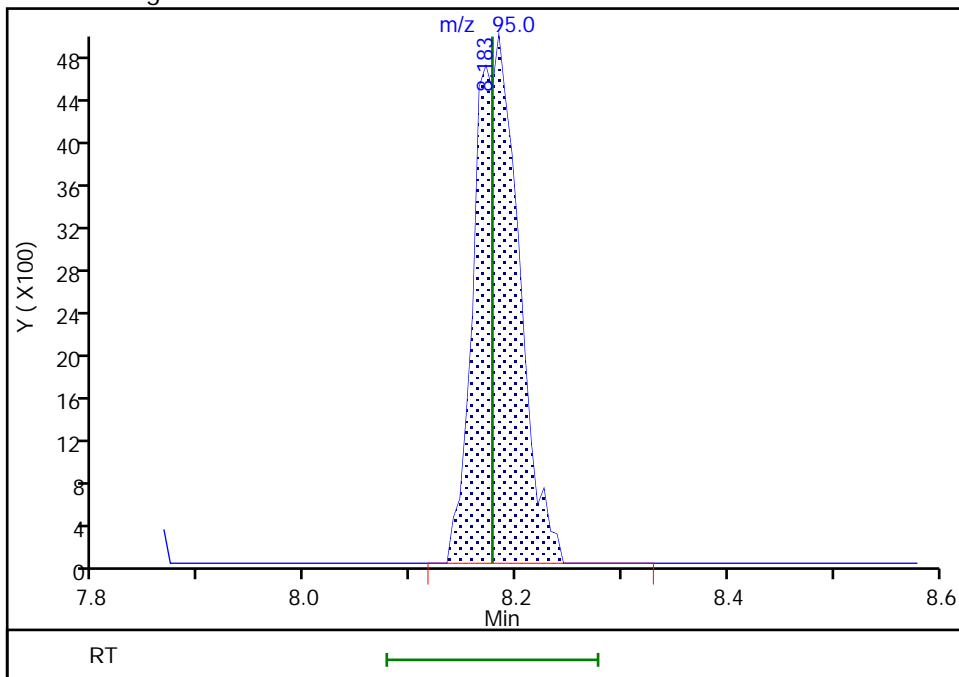
RT: 8.17
Area: 6687
Amount: 0.181941
Amount Units: ug/l

Processing Integration Results



RT: 8.18
Area: 14385
Amount: 0.210168
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 16-Mar-2022 08:29:07
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
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Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\1M14137.D

Injection Date: 15-Mar-2022 03:22:30 Instrument ID: 19930

Lims ID: IC std1

Client ID:

Operator ID: mec29284 ALS Bottle#: 17 Worklist Smp#: 18

Purge Vol: 25.000 mL Dil. Factor: 1.0000

Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D

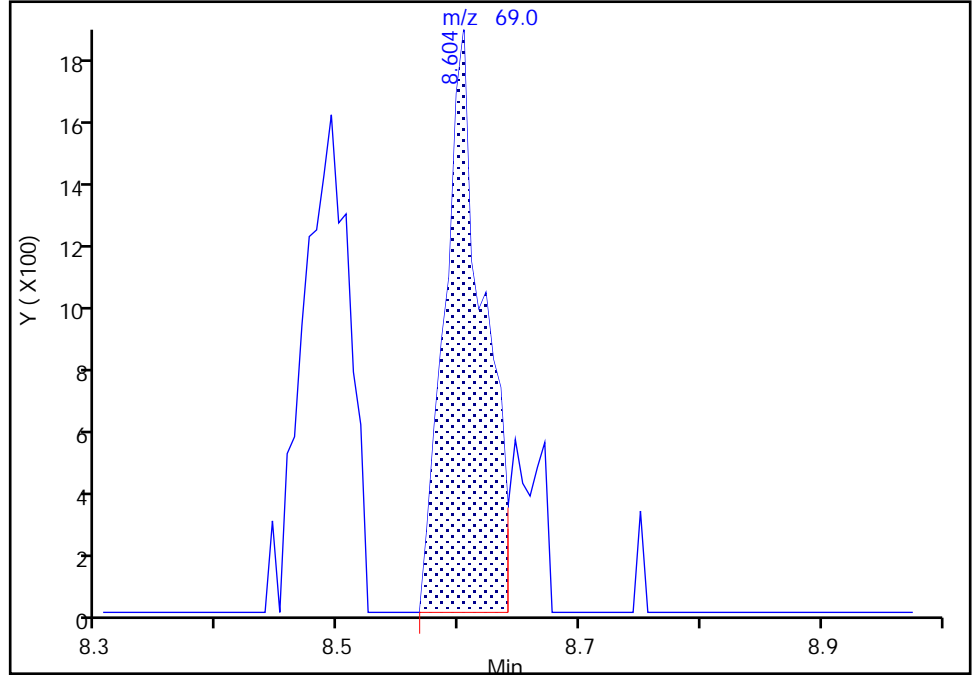
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

64 Methyl methacrylate, CAS: 80-62-6

Signal: 1

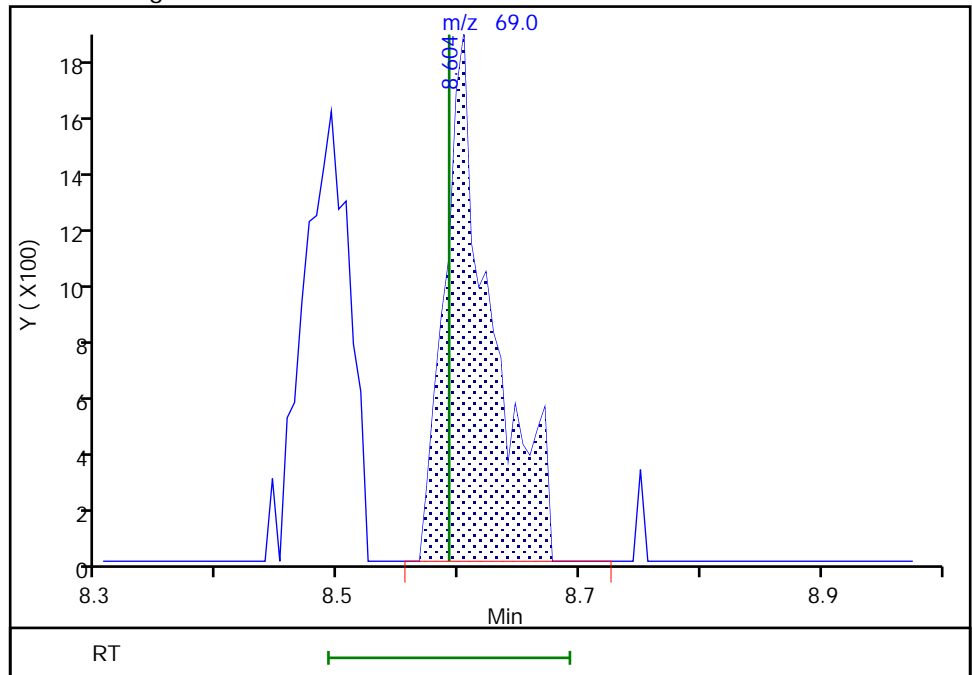
RT: 8.60
Area: 4059
Amount: 0.146151
Amount Units: ug/l

Processing Integration Results



RT: 8.60
Area: 4900
Amount: 0.172697
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 16-Mar-2022 08:29:15
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

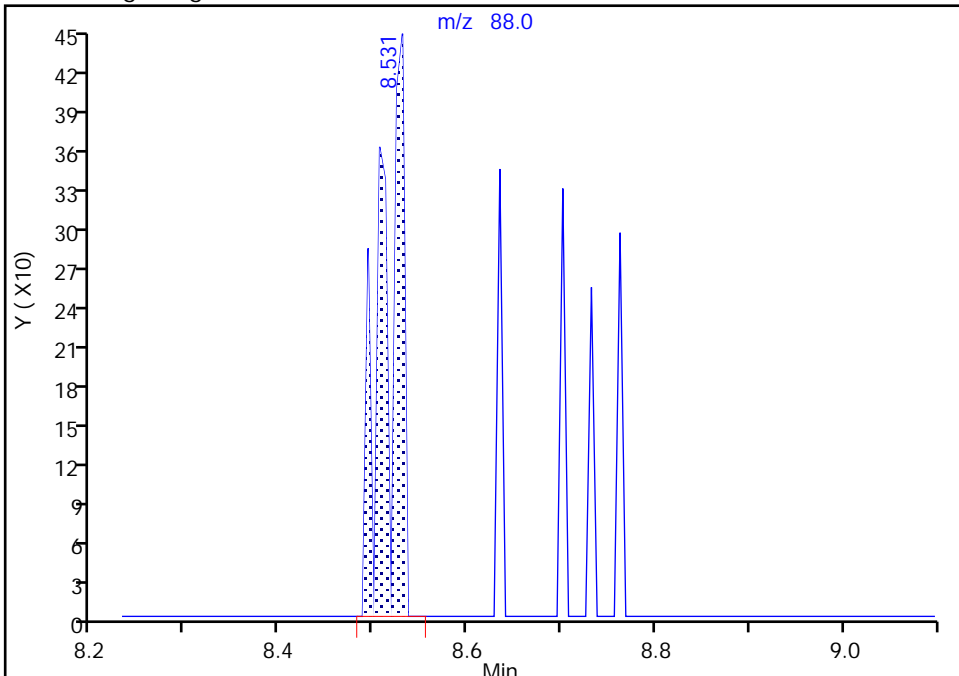
Data File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
Injection Date: 15-Mar-2022 03:22:30 Instrument ID: 19930
Lims ID: IC std1
Client ID:
Operator ID: mec29284 ALS Bottle#: 17 Worklist Smp#: 18
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

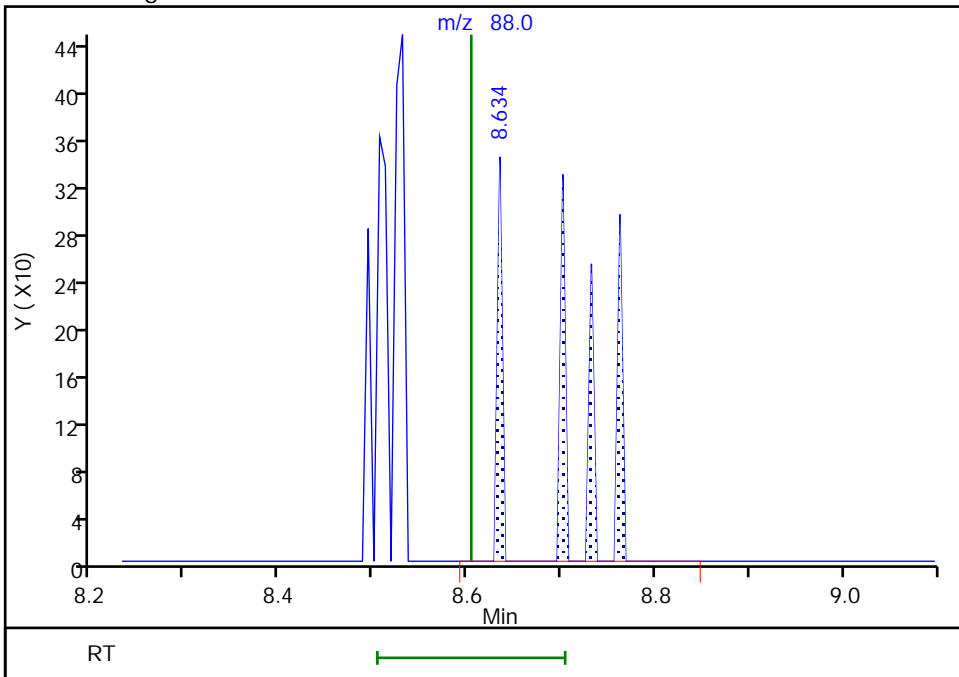
RT: 8.53
Area: 670
Amount: 12.995507
Amount Units: ug/l

Processing Integration Results



RT: 8.63
Area: 447
Amount: 2.086510
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 16-Mar-2022 08:29:17
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Calibration

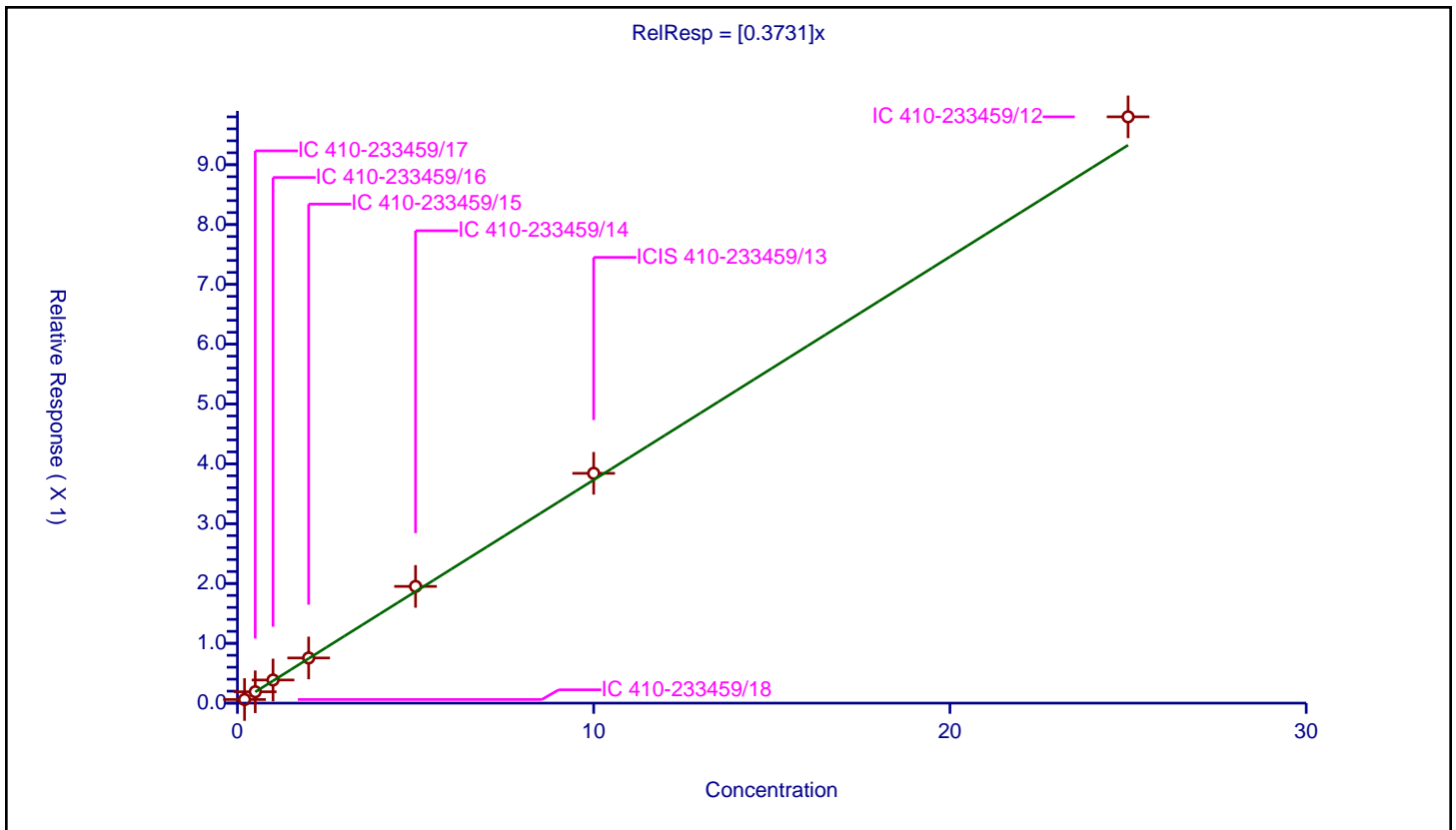
/ Dichlorodifluoromethane

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3731

Error Coefficients	
Standard Error:	871000
Relative Standard Error:	8.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.060213	10.0	2021821.0	0.301065	Y
2	IC 410-233459/17	0.5	0.190063	10.0	2017326.0	0.380127	Y
3	IC 410-233459/16	1.0	0.386496	10.0	2010448.0	0.386496	Y
4	IC 410-233459/15	2.0	0.755042	10.0	2005717.0	0.377521	Y
5	IC 410-233459/14	5.0	1.951248	10.0	2008310.0	0.39025	Y
6	ICIS 410-233459/13	10.0	3.841583	10.0	2018353.0	0.384158	Y
7	IC 410-233459/12	25.0	9.800613	10.0	1979820.0	0.392025	Y



Calibration

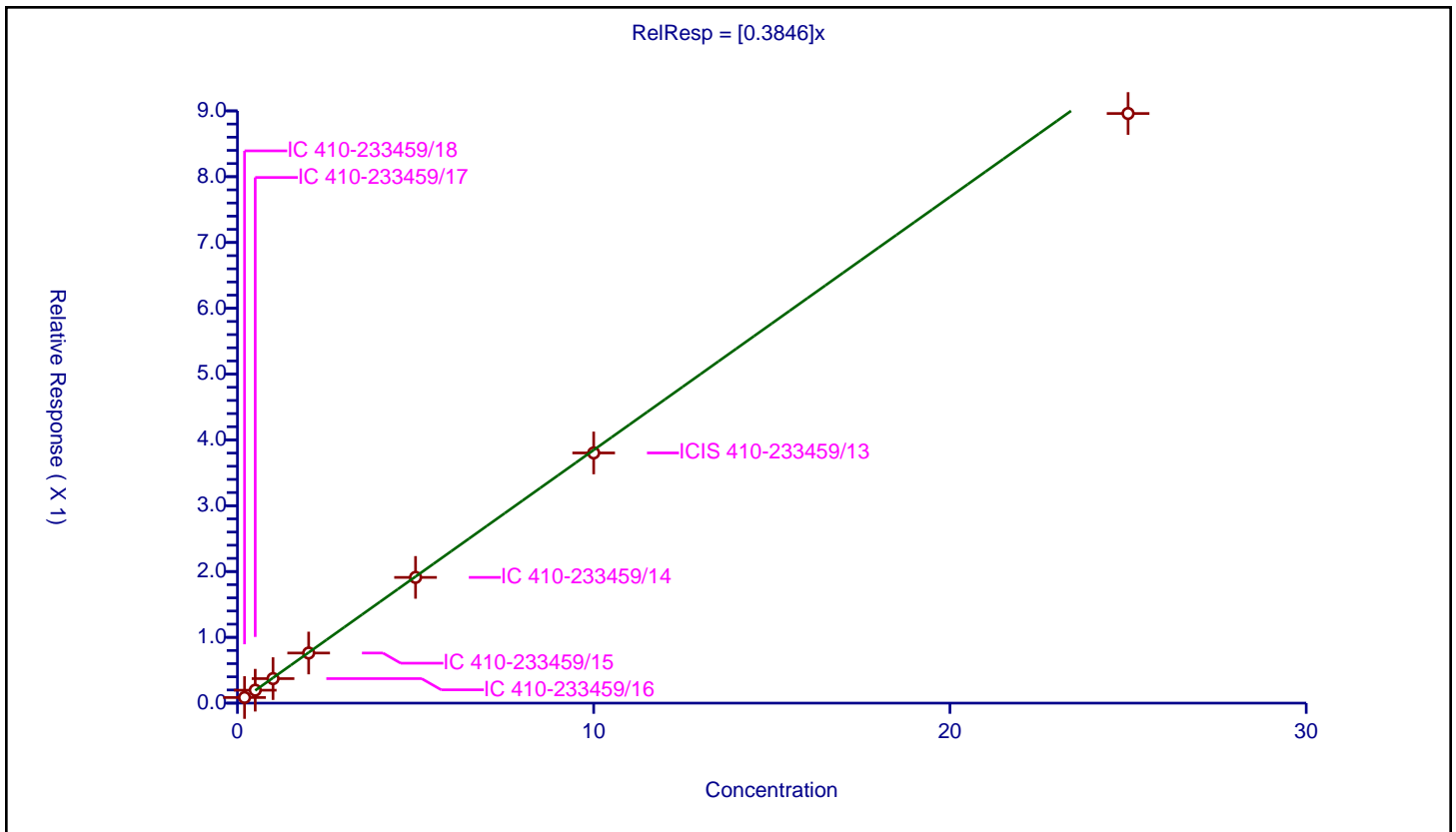
/ Chloromethane

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3846

Error Coefficients	
Standard Error:	808000
Relative Standard Error:	5.4
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.085082	10.0	2021821.0	0.425409	Y
2	IC 410-233459/17	0.5	0.196304	10.0	2017326.0	0.392609	Y
3	IC 410-233459/16	1.0	0.372743	10.0	2010448.0	0.372743	Y
4	IC 410-233459/15	2.0	0.761708	10.0	2005717.0	0.380854	Y
5	IC 410-233459/14	5.0	1.910761	10.0	2008310.0	0.382152	Y
6	ICIS 410-233459/13	10.0	3.801922	10.0	2018353.0	0.380192	Y
7	IC 410-233459/12	25.0	8.960436	10.0	1979820.0	0.358417	Y



Calibration

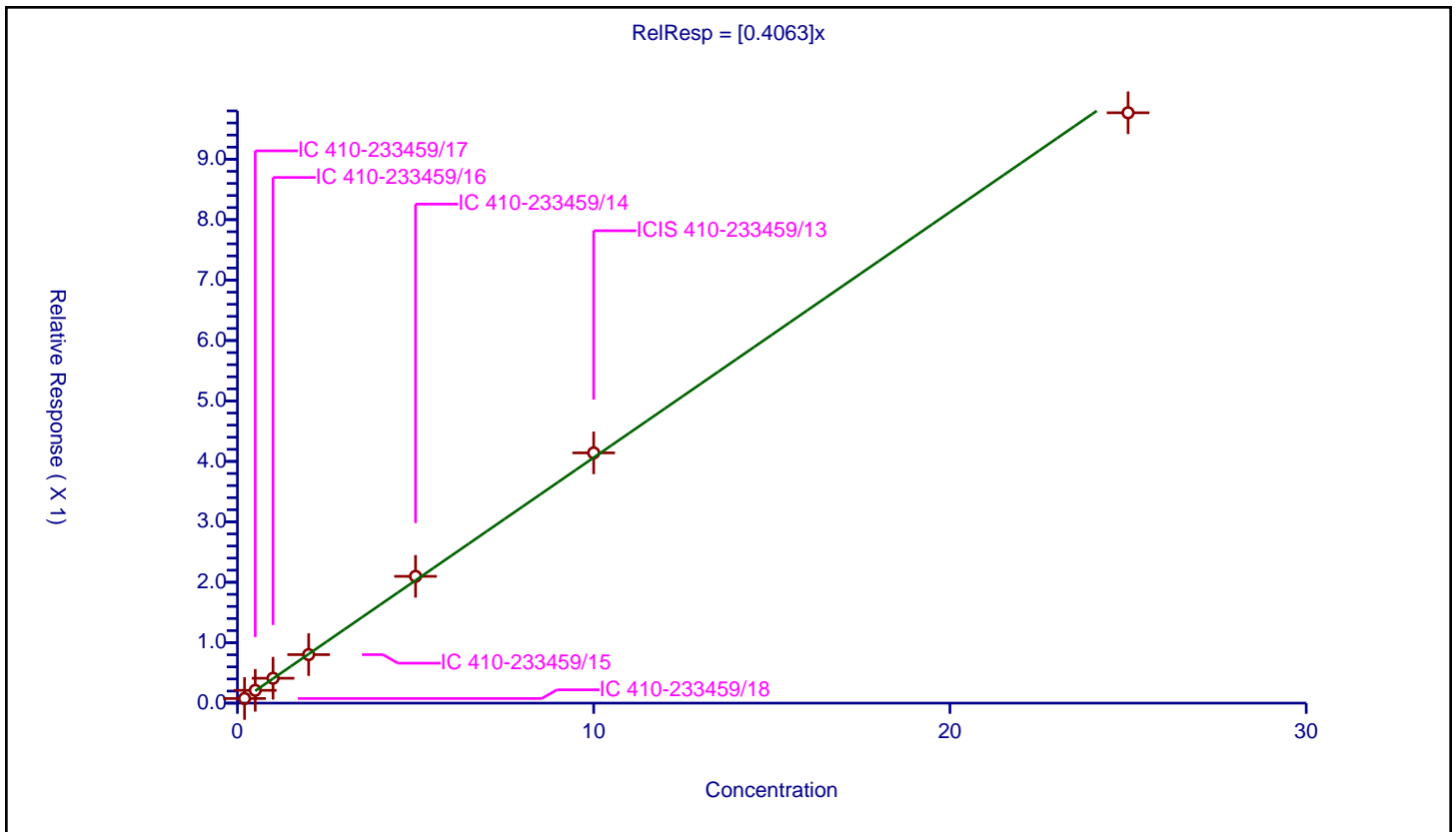
/ Vinyl chloride

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4063

Error Coefficients	
Standard Error:	880000
Relative Standard Error:	3.8
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.076436	10.0	2021821.0	0.38218	Y
2	IC 410-233459/17	0.5	0.211944	10.0	2017326.0	0.423888	Y
3	IC 410-233459/16	1.0	0.411998	10.0	2010448.0	0.411998	Y
4	IC 410-233459/15	2.0	0.80289	10.0	2005717.0	0.401445	Y
5	IC 410-233459/14	5.0	2.098197	10.0	2008310.0	0.419639	Y
6	ICIS 410-233459/13	10.0	4.141159	10.0	2018353.0	0.414116	Y
7	IC 410-233459/12	25.0	9.76859	10.0	1979820.0	0.390744	Y



Calibration

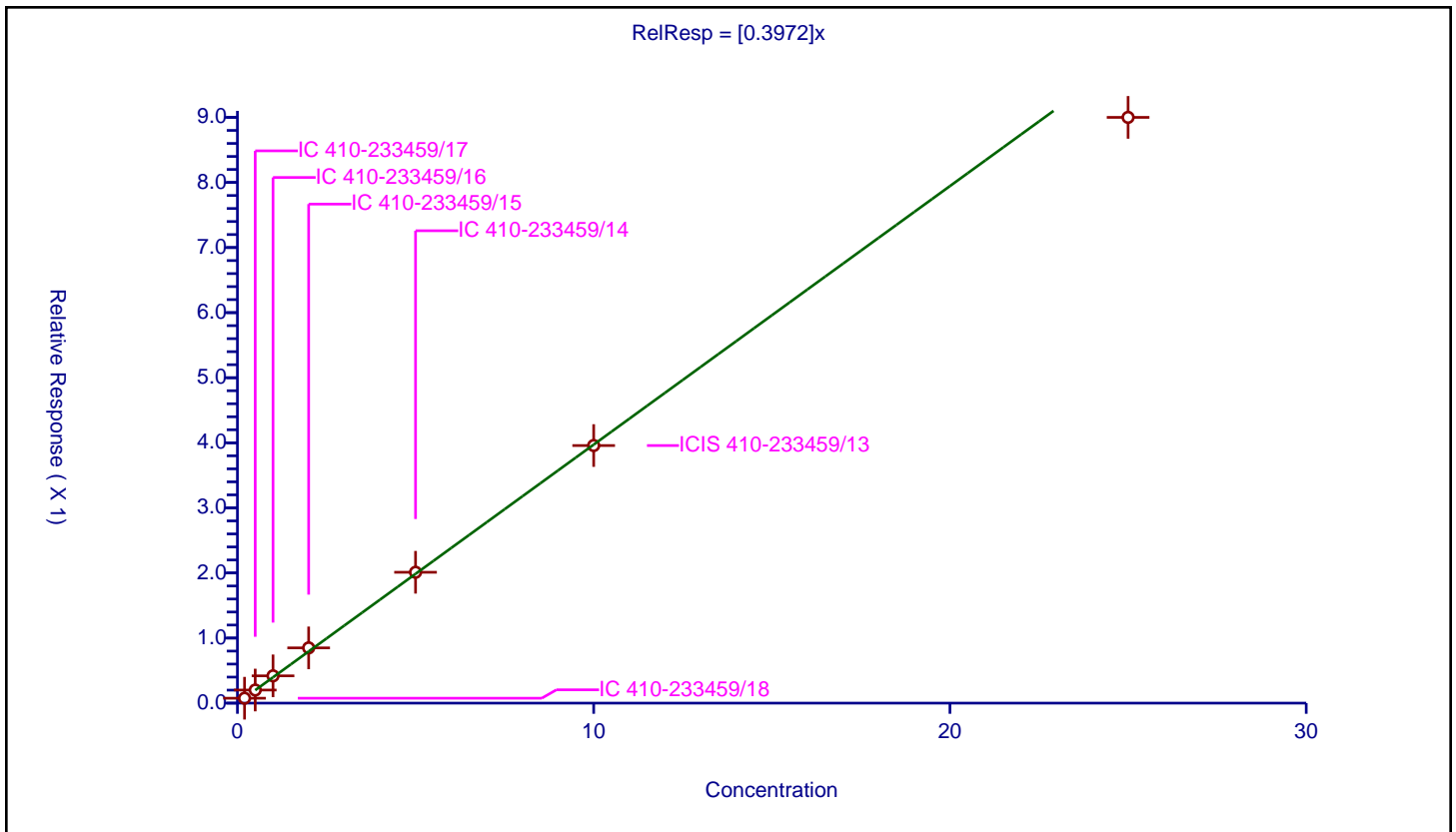
/ Butadiene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3972

Error Coefficients	
Standard Error:	818000
Relative Standard Error:	5.7
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.075343	10.0	2021821.0	0.376715	Y
2	IC 410-233459/17	0.5	0.201088	10.0	2017326.0	0.402176	Y
3	IC 410-233459/16	1.0	0.419374	10.0	2010448.0	0.419374	Y
4	IC 410-233459/15	2.0	0.849033	10.0	2005717.0	0.424517	Y
5	IC 410-233459/14	5.0	2.01071	10.0	2008310.0	0.402142	Y
6	ICIS 410-233459/13	10.0	3.957905	10.0	2018353.0	0.395791	Y
7	IC 410-233459/12	25.0	9.000182	10.0	1979820.0	0.360007	Y



Calibration

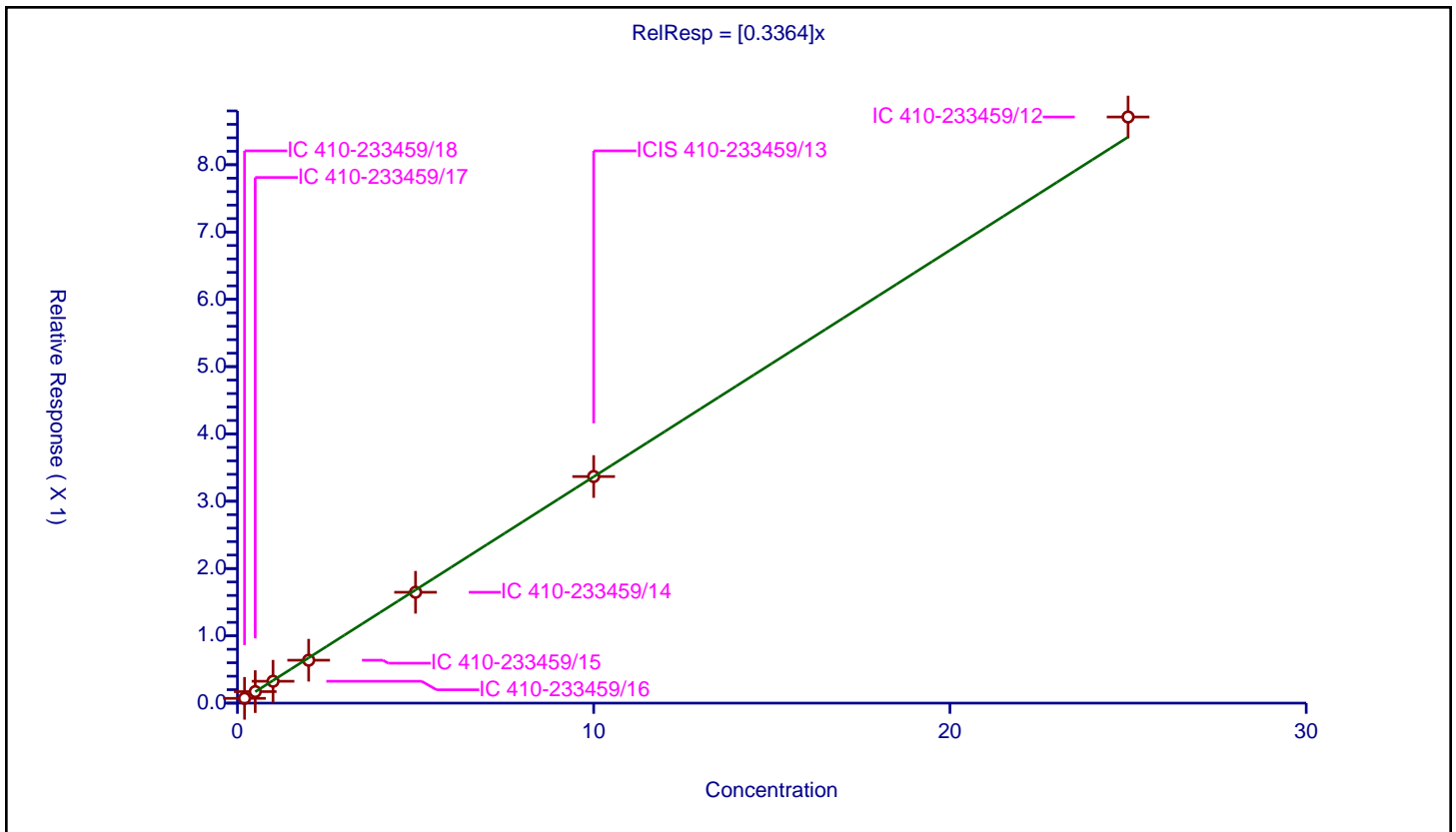
/ Bromomethane

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3364

Error Coefficients	
Standard Error:	771000
Relative Standard Error:	3.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.070847	10.0	2021821.0	0.354235	Y
2	IC 410-233459/17	0.5	0.171246	10.0	2017326.0	0.342493	Y
3	IC 410-233459/16	1.0	0.325097	10.0	2010448.0	0.325097	Y
4	IC 410-233459/15	2.0	0.637622	10.0	2005717.0	0.318811	Y
5	IC 410-233459/14	5.0	1.647161	10.0	2008310.0	0.329432	Y
6	ICIS 410-233459/13	10.0	3.366884	10.0	2018353.0	0.336688	Y
7	IC 410-233459/12	25.0	8.709448	10.0	1979820.0	0.348378	Y



Calibration

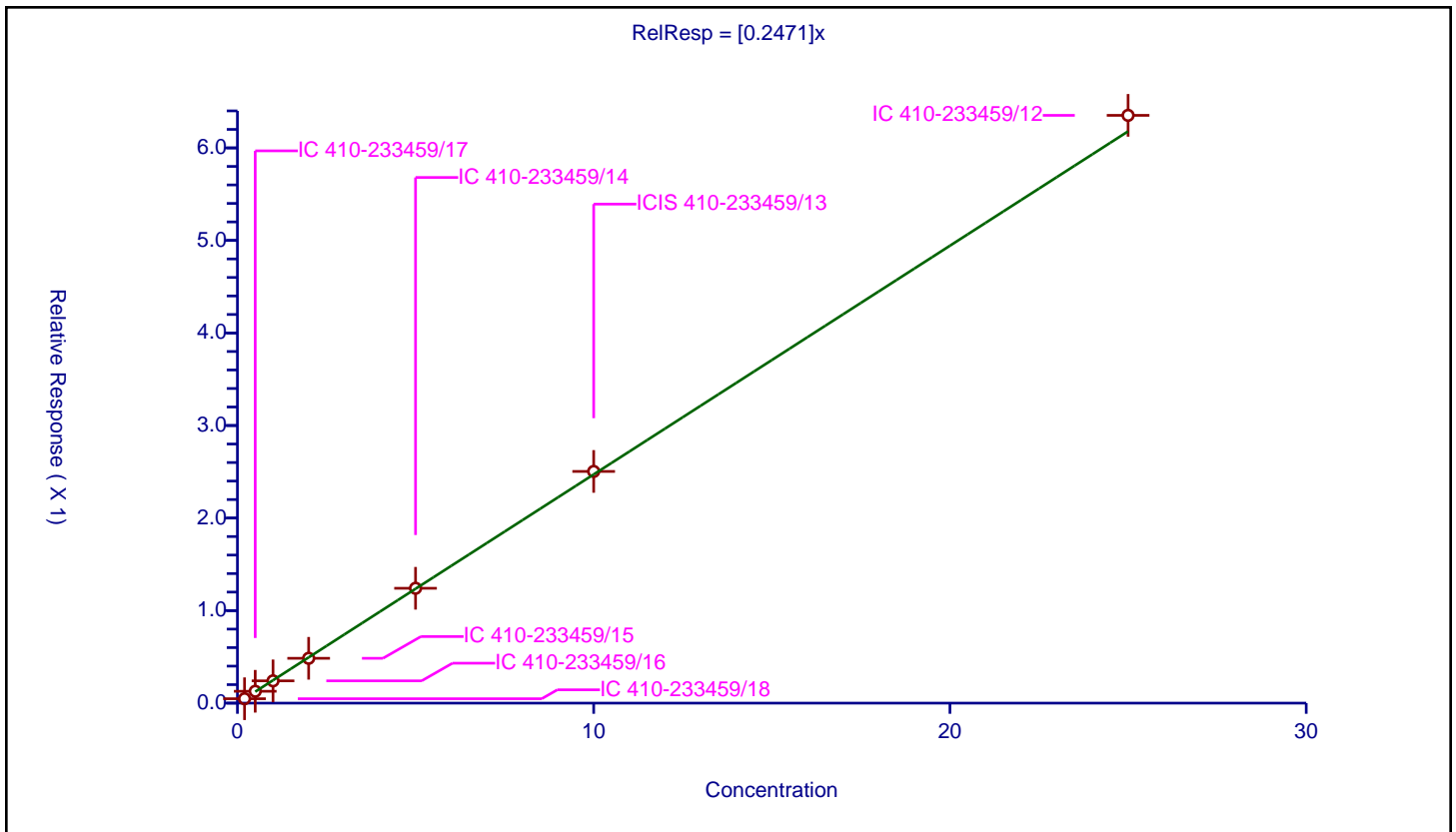
/ Chloroethane

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2471

Error Coefficients	
Standard Error:	564000
Relative Standard Error:	2.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.047551	10.0	2021821.0	0.237756	Y
2	IC 410-233459/17	0.5	0.128333	10.0	2017326.0	0.256666	Y
3	IC 410-233459/16	1.0	0.240678	10.0	2010448.0	0.240678	Y
4	IC 410-233459/15	2.0	0.484475	10.0	2005717.0	0.242238	Y
5	IC 410-233459/14	5.0	1.241273	10.0	2008310.0	0.248255	Y
6	ICIS 410-233459/13	10.0	2.503764	10.0	2018353.0	0.250376	Y
7	IC 410-233459/12	25.0	6.351663	10.0	1979820.0	0.254067	Y



Calibration

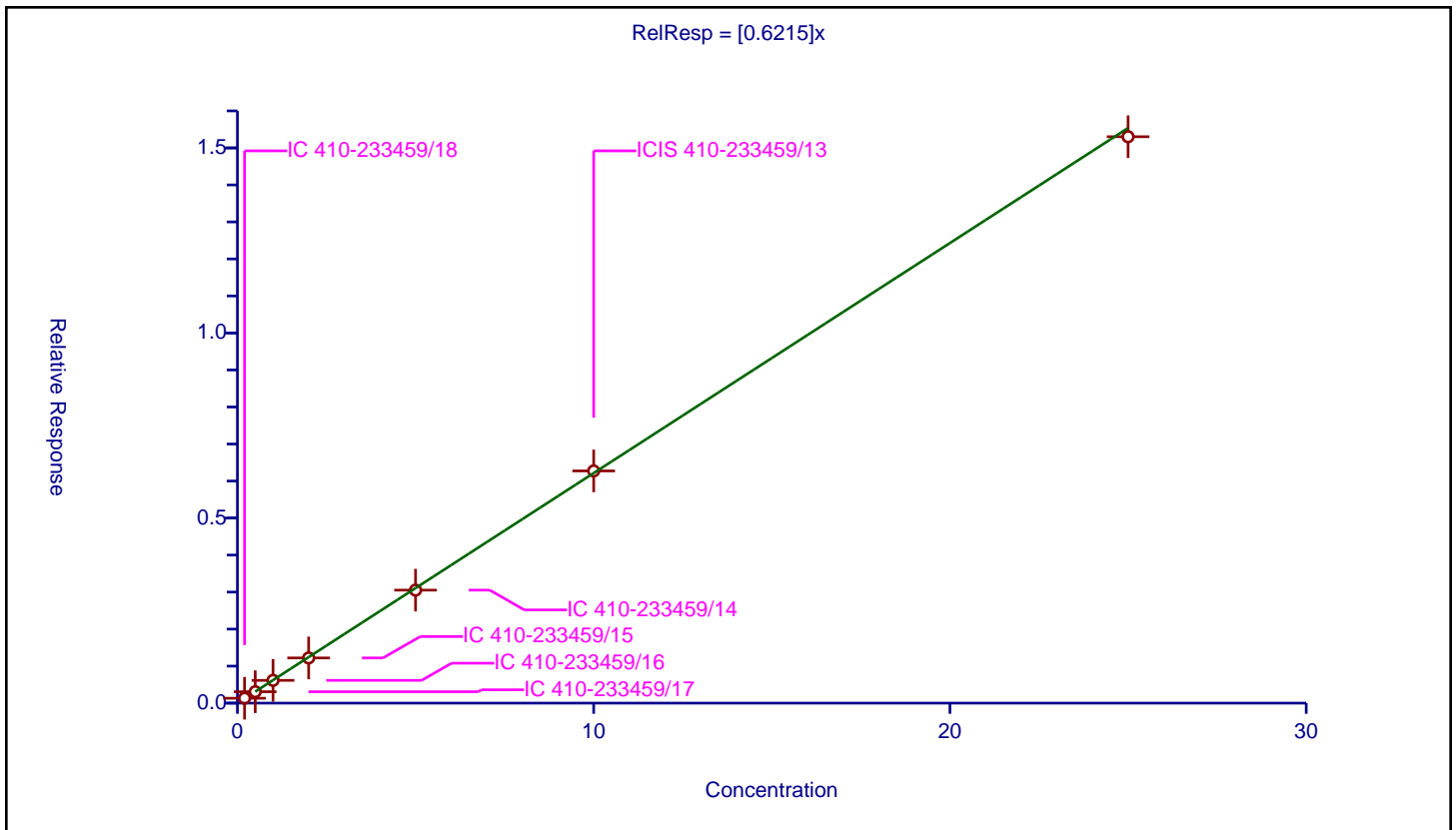
/ Dichlorofluoromethane

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.6215

Error Coefficients	
Standard Error:	1370000
Relative Standard Error:	2.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.131851	10.0	2021821.0	0.659257	Y
2	IC 410-233459/17	0.5	0.308061	10.0	2017326.0	0.616123	Y
3	IC 410-233459/16	1.0	0.614868	10.0	2010448.0	0.614868	Y
4	IC 410-233459/15	2.0	1.220446	10.0	2005717.0	0.610223	Y
5	IC 410-233459/14	5.0	3.052636	10.0	2008310.0	0.610527	Y
6	ICIS 410-233459/13	10.0	6.272976	10.0	2018353.0	0.627298	Y
7	IC 410-233459/12	25.0	15.301901	10.0	1979820.0	0.612076	Y



Calibration

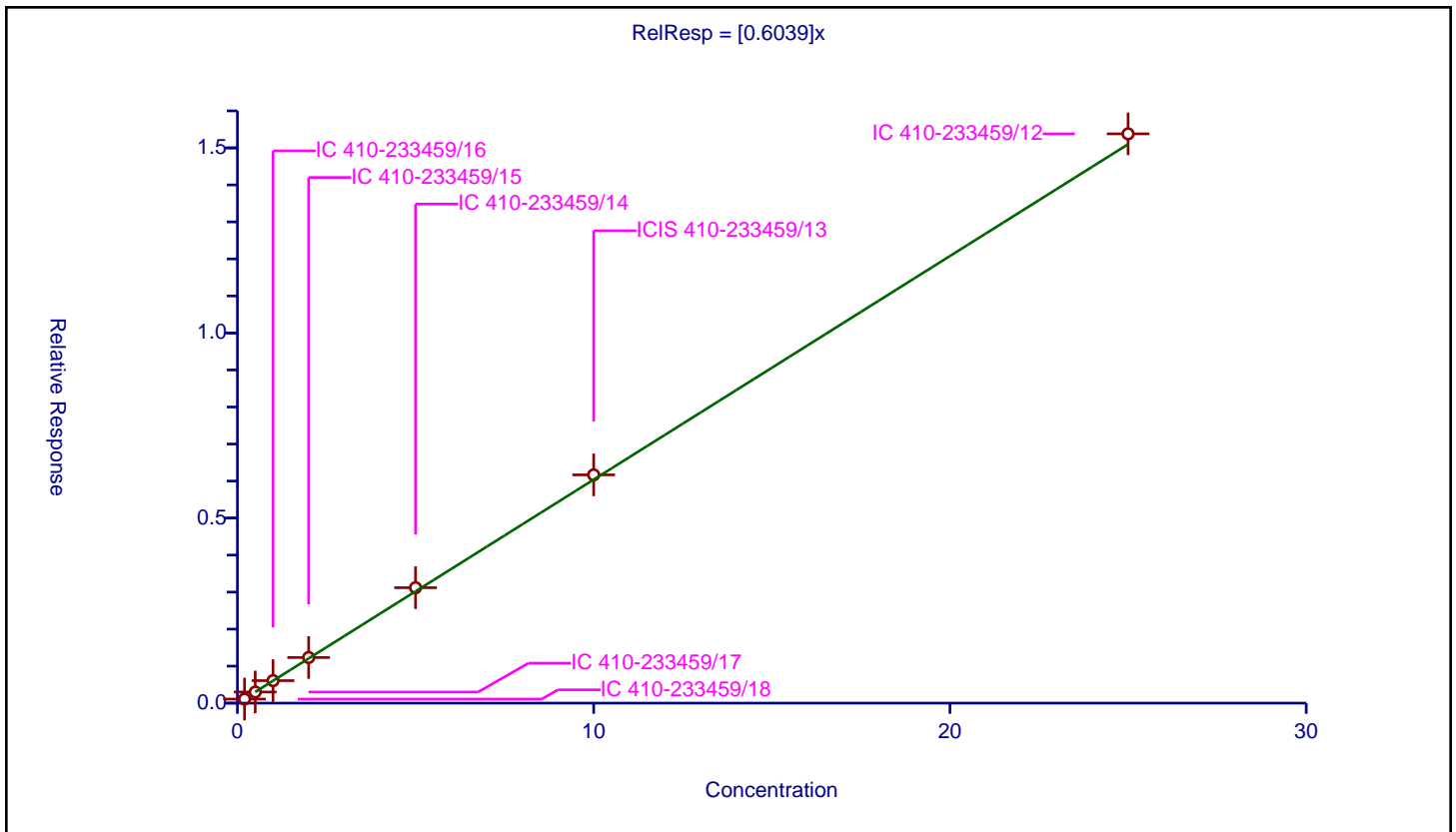
/ Trichlorofluoromethane

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.6039

Error Coefficients	
Standard Error:	1370000
Relative Standard Error:	4.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.109372	10.0	2021821.0	0.546859	Y
2	IC 410-233459/17	0.5	0.300646	10.0	2017326.0	0.601291	Y
3	IC 410-233459/16	1.0	0.607387	10.0	2010448.0	0.607387	Y
4	IC 410-233459/15	2.0	1.232512	10.0	2005717.0	0.616256	Y
5	IC 410-233459/14	5.0	3.118996	10.0	2008310.0	0.623799	Y
6	ICIS 410-233459/13	10.0	6.166761	10.0	2018353.0	0.616676	Y
7	IC 410-233459/12	25.0	15.37955	10.0	1979820.0	0.615182	Y



Calibration

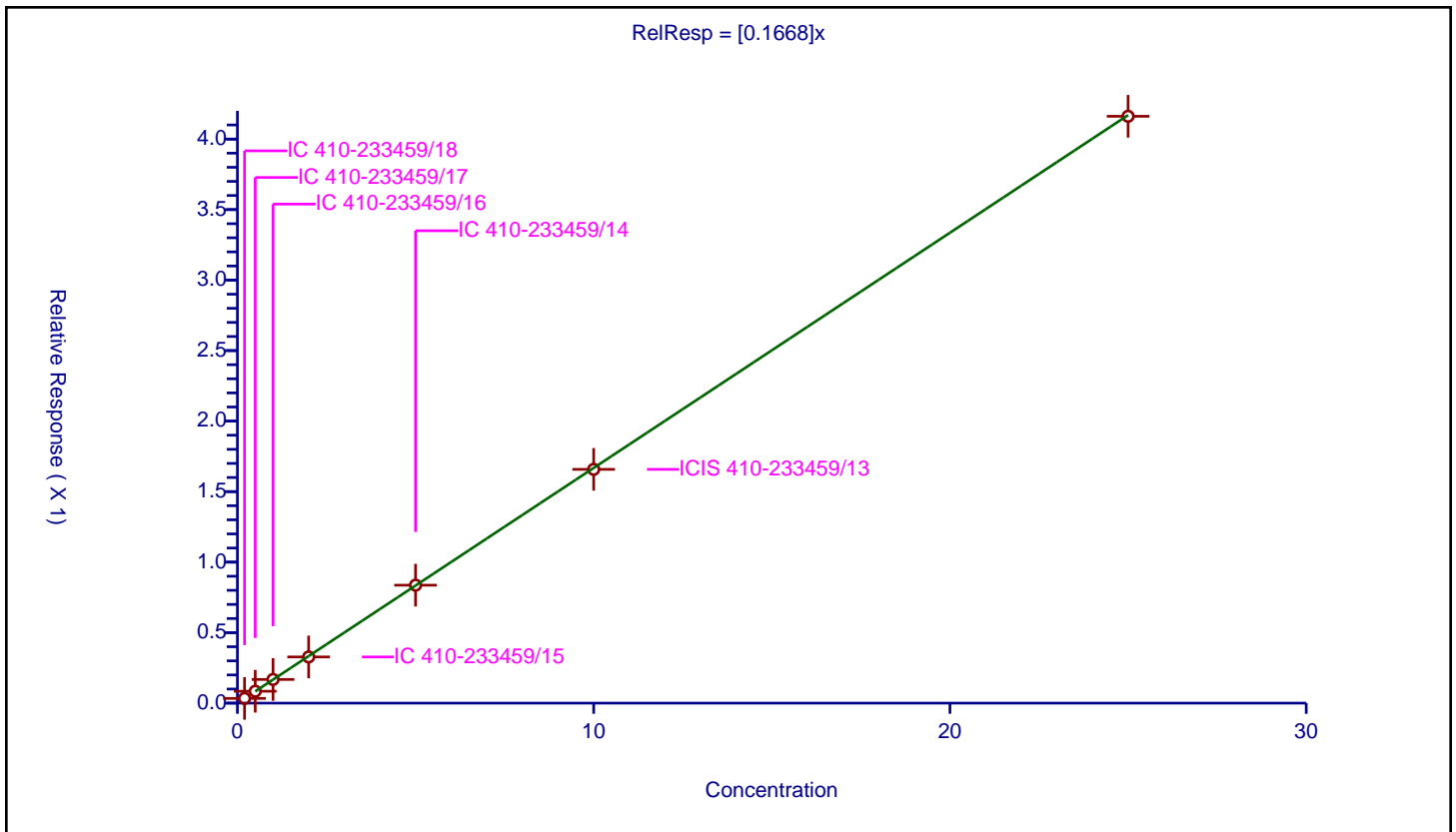
/ Ethyl ether

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.1668

Error Coefficients	
Standard Error:	371000
Relative Standard Error:	1.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.033554	10.0	2021821.0	0.16777	Y
2	IC 410-233459/17	0.5	0.08429	10.0	2017326.0	0.16858	Y
3	IC 410-233459/16	0.999999	0.167853	10.0	2010448.0	0.167853	Y
4	IC 410-233459/15	1.999998	0.327559	10.0	2005717.0	0.16378	Y
5	IC 410-233459/14	4.999995	0.836534	10.0	2008310.0	0.167307	Y
6	ICIS 410-233459/13	9.99999	1.657916	10.0	2018353.0	0.165792	Y
7	IC 410-233459/12	24.999975	4.161697	10.0	1979820.0	0.166468	Y



Calibration

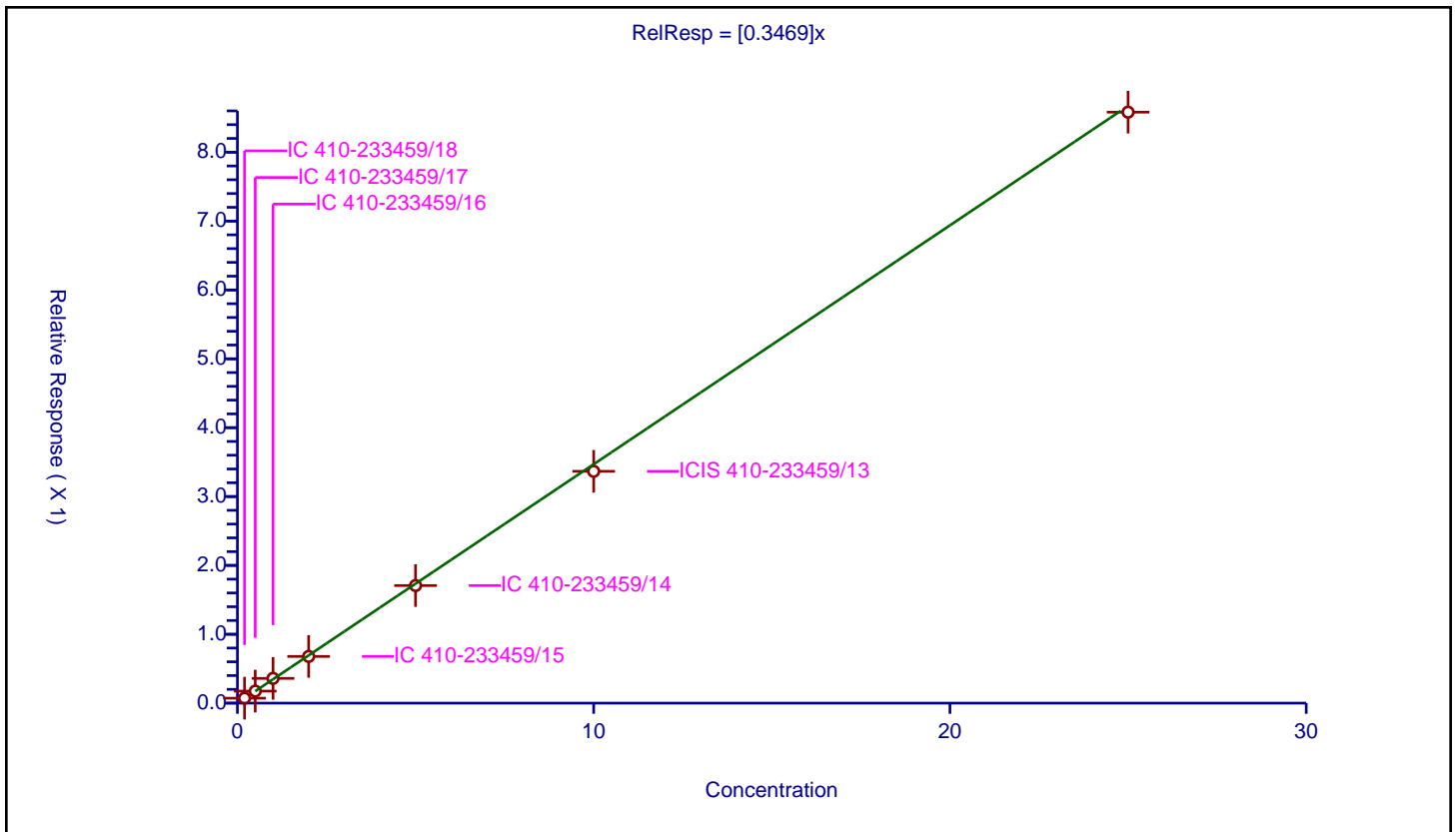
/ 1,2-Dichloro-1,1,2-trifluoroethane

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3469

Error Coefficients	
Standard Error:	763000
Relative Standard Error:	2.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.071792	10.0	2021821.0	0.358959	Y
2	IC 410-233459/17	0.5	0.174697	10.0	2017326.0	0.349393	Y
3	IC 410-233459/16	1.0	0.359512	10.0	2010448.0	0.359512	Y
4	IC 410-233459/15	2.0	0.678107	10.0	2005717.0	0.339053	Y
5	IC 410-233459/14	5.0	1.707261	10.0	2008310.0	0.341452	Y
6	ICIS 410-233459/13	10.0	3.36617	10.0	2018353.0	0.336617	Y
7	IC 410-233459/12	25.0	8.581275	10.0	1979820.0	0.343251	Y



Calibration

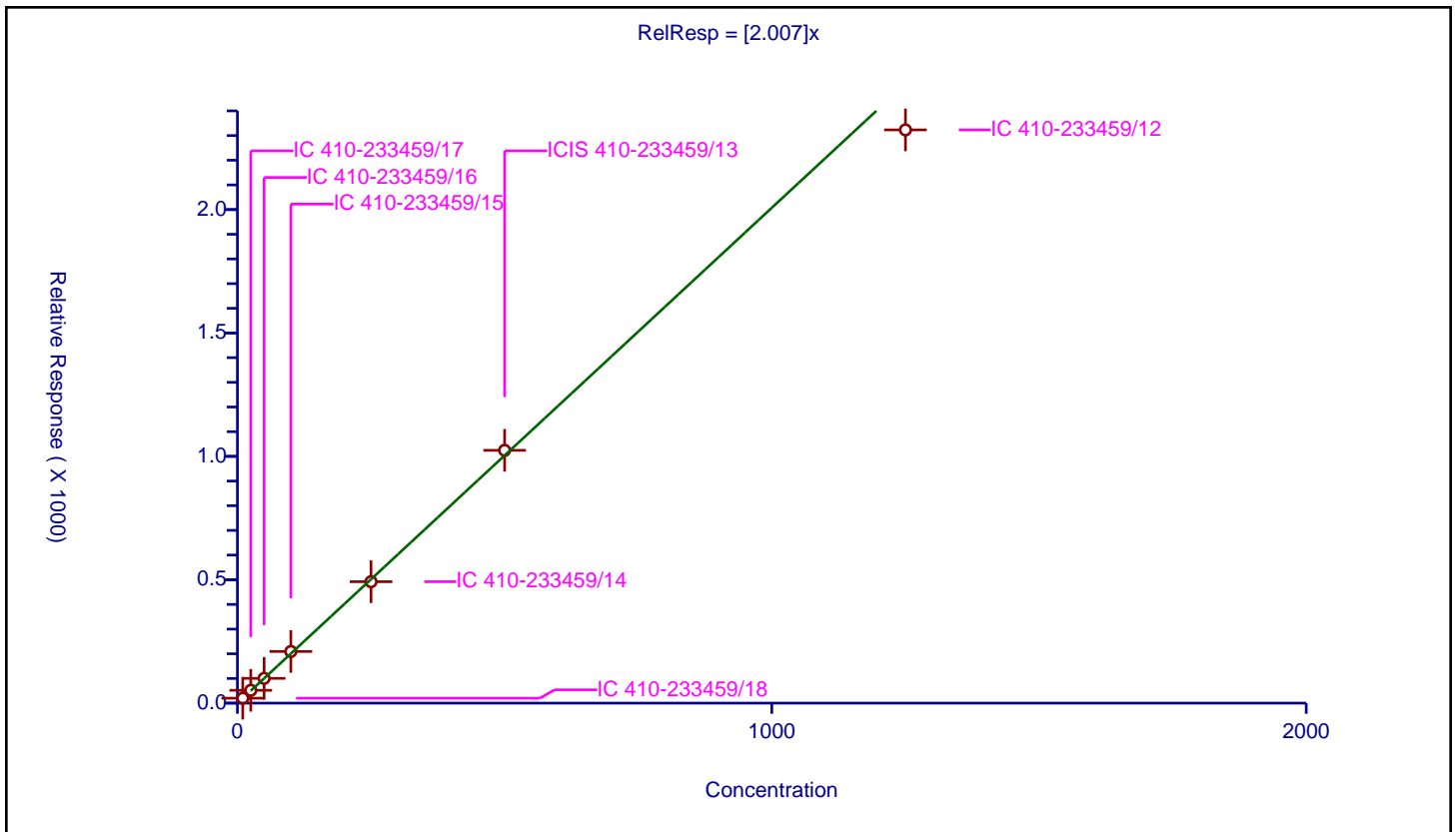
/ Acrolein

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	2.007

Error Coefficients	
Standard Error:	3180000
Relative Standard Error:	4.0
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	10.000602	19.984643	50.0	155632.0	1.998344	Y
2	IC 410-233459/17	25.001506	51.916269	50.0	134454.0	2.076526	Y
3	IC 410-233459/16	50.003012	100.398101	50.0	144059.0	2.007841	Y
4	IC 410-233459/15	100.006024	209.348457	50.0	140927.0	2.093358	Y
5	IC 410-233459/14	250.01506	492.086554	50.0	149941.0	1.968228	Y
6	ICIS 410-233459/13	500.03012	1024.422213	50.0	147286.0	2.048721	Y
7	IC 410-233459/12	1250.075299	2322.969237	50.0	150473.0	1.858263	Y



Calibration

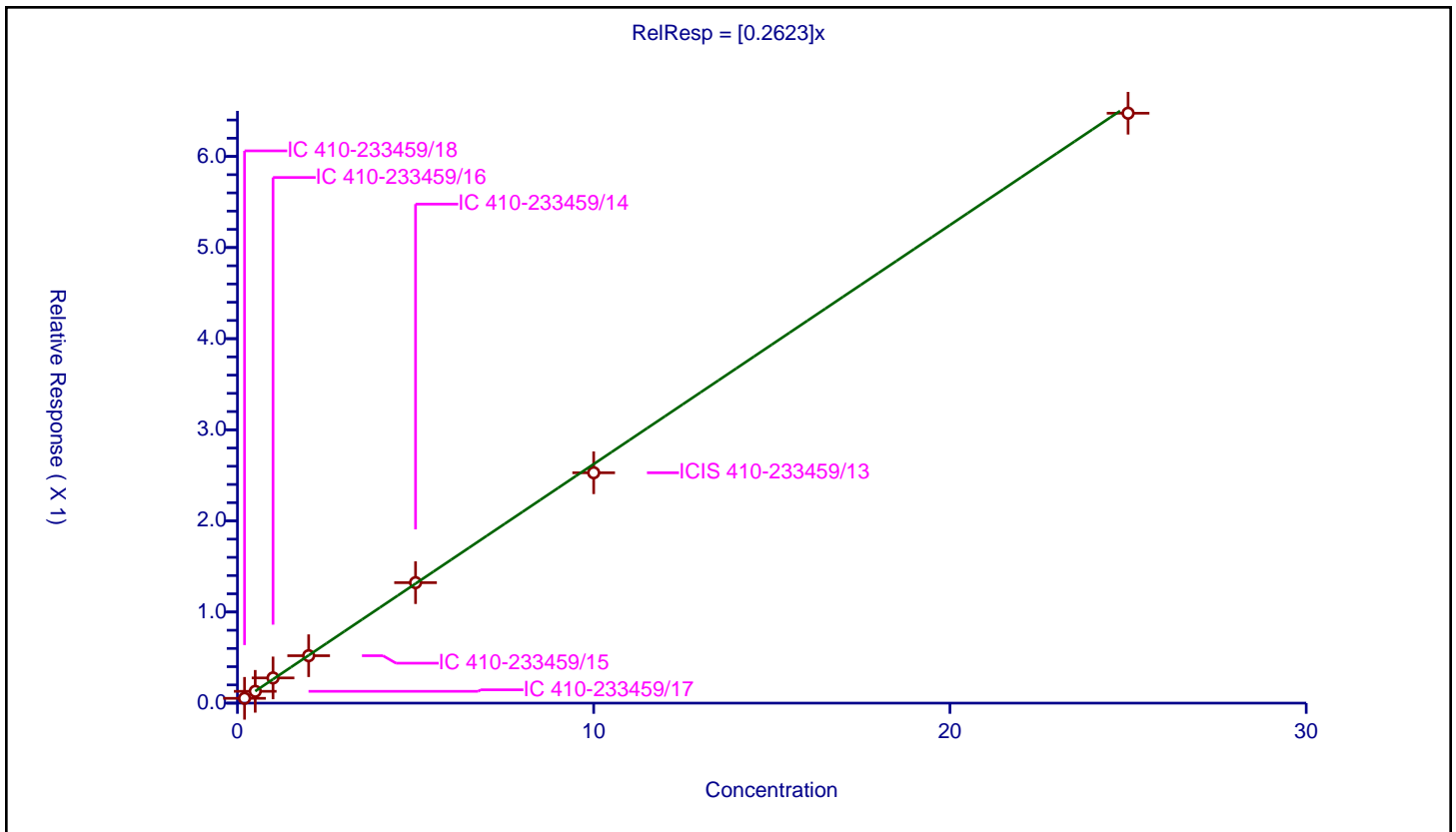
/ 1,1-Dichloroethene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2623

Error Coefficients	
Standard Error:	576000
Relative Standard Error:	2.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.052735	10.0	2021821.0	0.263673	Y
2	IC 410-233459/17	0.5	0.129761	10.0	2017326.0	0.259522	Y
3	IC 410-233459/16	1.0	0.27665	10.0	2010448.0	0.27665	Y
4	IC 410-233459/15	2.0	0.520557	10.0	2005717.0	0.260278	Y
5	IC 410-233459/14	5.0	1.322266	10.0	2008310.0	0.264453	Y
6	ICIS 410-233459/13	10.0	2.528477	10.0	2018353.0	0.252848	Y
7	IC 410-233459/12	25.0	6.474553	10.0	1979820.0	0.258982	Y



Calibration

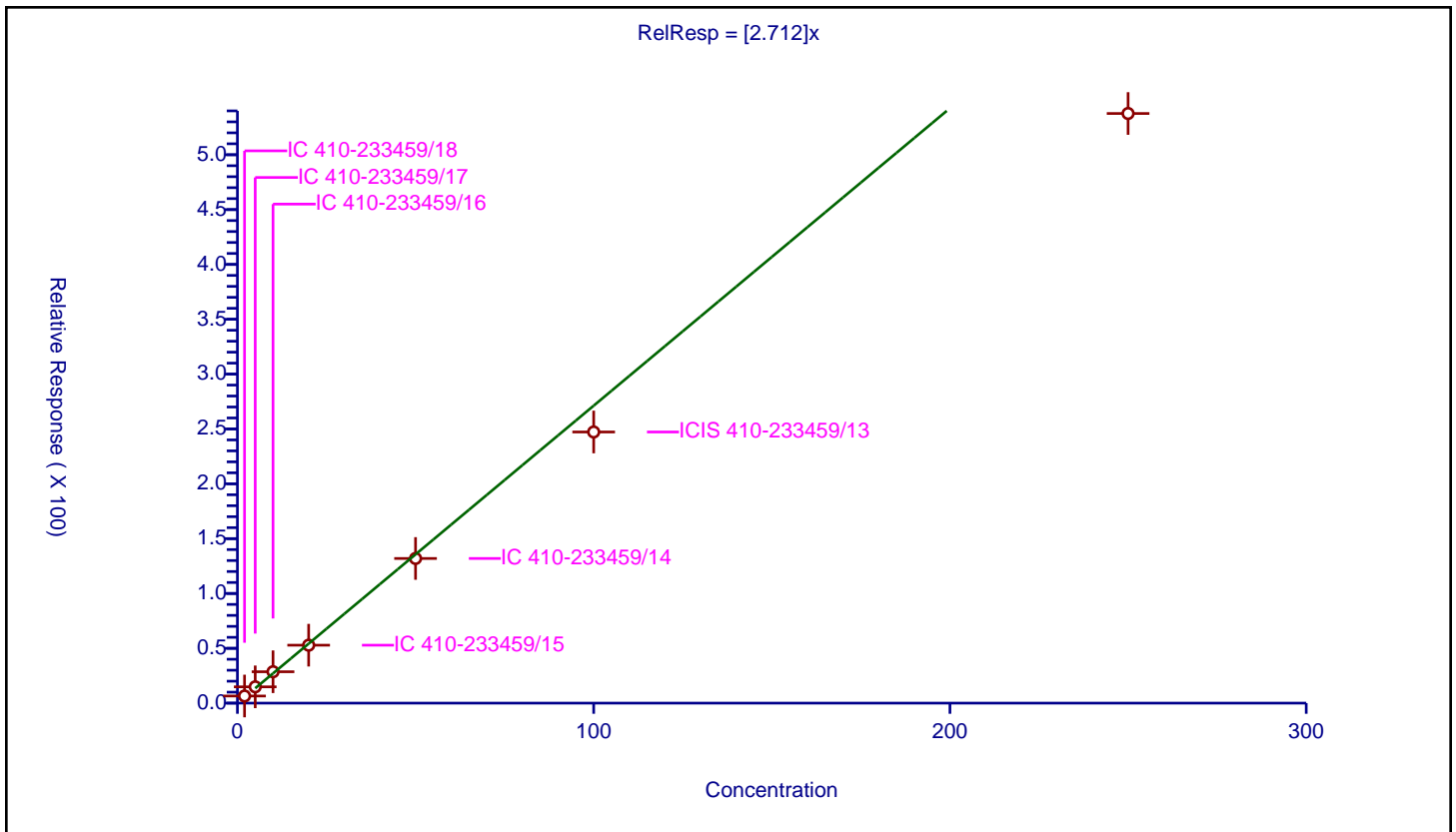
/ Acetone

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	2.712

Error Coefficients	
Standard Error:	745000
Relative Standard Error:	13.1
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.973

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	2.0	6.499627	50.0	155632.0	3.249814	Y
2	IC 410-233459/17	5.0	14.855638	50.0	134454.0	2.971128	Y
3	IC 410-233459/16	10.0	28.621606	50.0	144059.0	2.862161	Y
4	IC 410-233459/15	20.0	52.825931	50.0	140927.0	2.641297	Y
5	IC 410-233459/14	50.0	131.902882	50.0	149941.0	2.638058	Y
6	ICIS 410-233459/13	100.0	247.229879	50.0	147286.0	2.472299	Y
7	IC 410-233459/12	250.0	537.611399	50.0	150473.0	2.150446	Y



Calibration

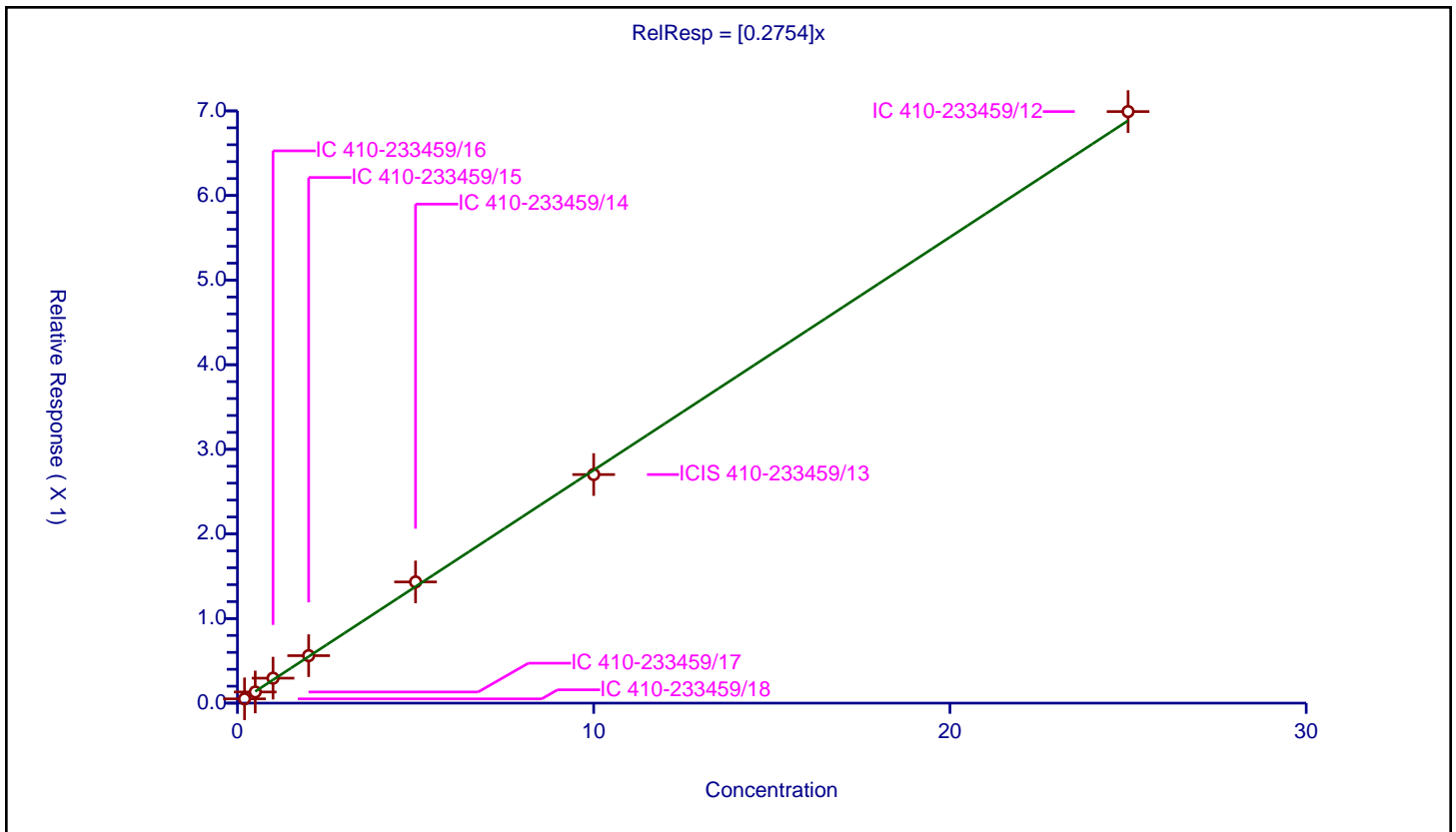
/ 1,1,2-Trichloro-1,2,2-trifluoroethane

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2754

Error Coefficients	
Standard Error:	621000
Relative Standard Error:	5.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.050489	10.0	2021821.0	0.252446	Y
2	IC 410-233459/17	0.5	0.131719	10.0	2017326.0	0.263438	Y
3	IC 410-233459/16	1.0	0.295029	10.0	2010448.0	0.295029	Y
4	IC 410-233459/15	2.0	0.561021	10.0	2005717.0	0.280511	Y
5	IC 410-233459/14	5.0	1.432398	10.0	2008310.0	0.28648	Y
6	ICIS 410-233459/13	10.0	2.701896	10.0	2018353.0	0.27019	Y
7	IC 410-233459/12	25.0	6.992151	10.0	1979820.0	0.279686	Y



Calibration

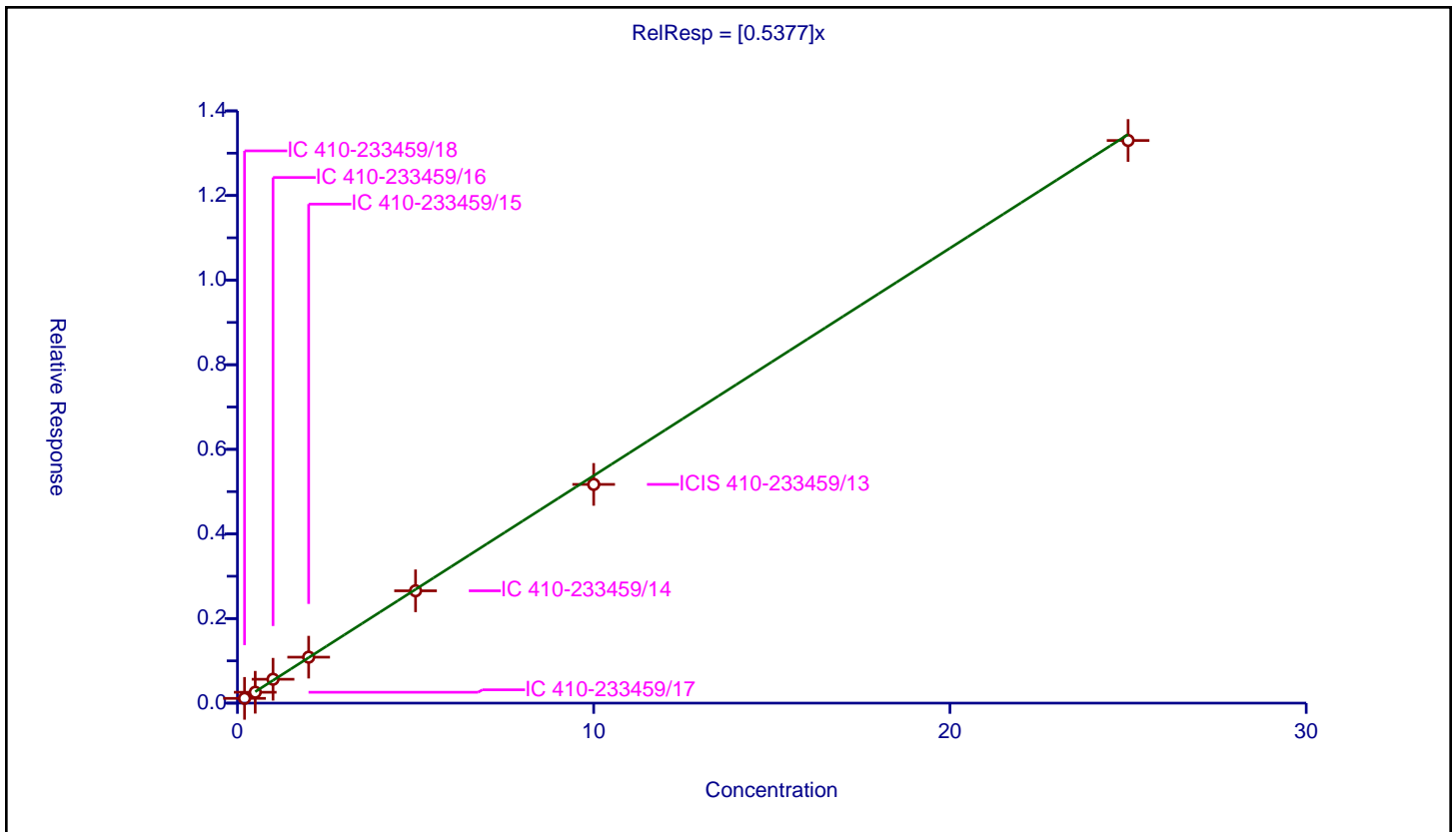
/ Iodomethane

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.5377

Error Coefficients	
Standard Error:	1180000
Relative Standard Error:	3.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.112255	10.0	2021821.0	0.561276	Y
2	IC 410-233459/17	0.5	0.25747	10.0	2017326.0	0.514939	Y
3	IC 410-233459/16	1.0	0.564496	10.0	2010448.0	0.564496	Y
4	IC 410-233459/15	2.0	1.086479	10.0	2005717.0	0.54324	Y
5	IC 410-233459/14	5.0	2.655292	10.0	2008310.0	0.531058	Y
6	ICIS 410-233459/13	10.0	5.170443	10.0	2018353.0	0.517044	Y
7	IC 410-233459/12	25.0	13.300335	10.0	1979820.0	0.532013	Y



Calibration

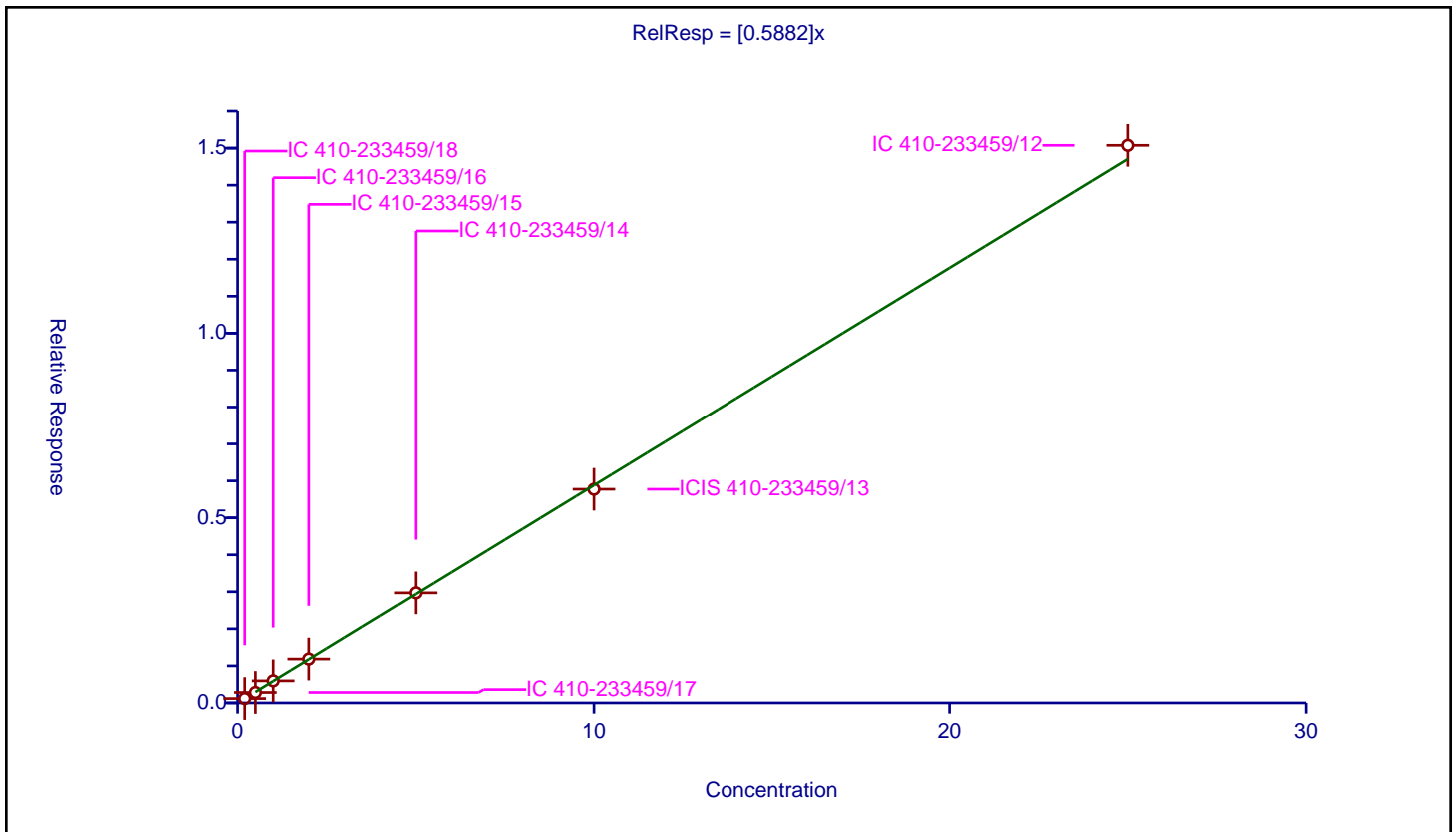
/ Carbon disulfide

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.5882

Error Coefficients	
Standard Error:	1340000
Relative Standard Error:	2.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.118126	10.0	2021821.0	0.590631	Y
2	IC 410-233459/17	0.5	0.282081	10.0	2017326.0	0.564163	Y
3	IC 410-233459/16	1.0	0.595812	10.0	2010448.0	0.595812	Y
4	IC 410-233459/15	2.0	1.18425	10.0	2005717.0	0.592125	Y
5	IC 410-233459/14	5.0	2.971673	10.0	2008310.0	0.594335	Y
6	ICIS 410-233459/13	10.0	5.774178	10.0	2018353.0	0.577418	Y
7	IC 410-233459/12	25.0	15.075057	10.0	1979820.0	0.603002	Y



Calibration

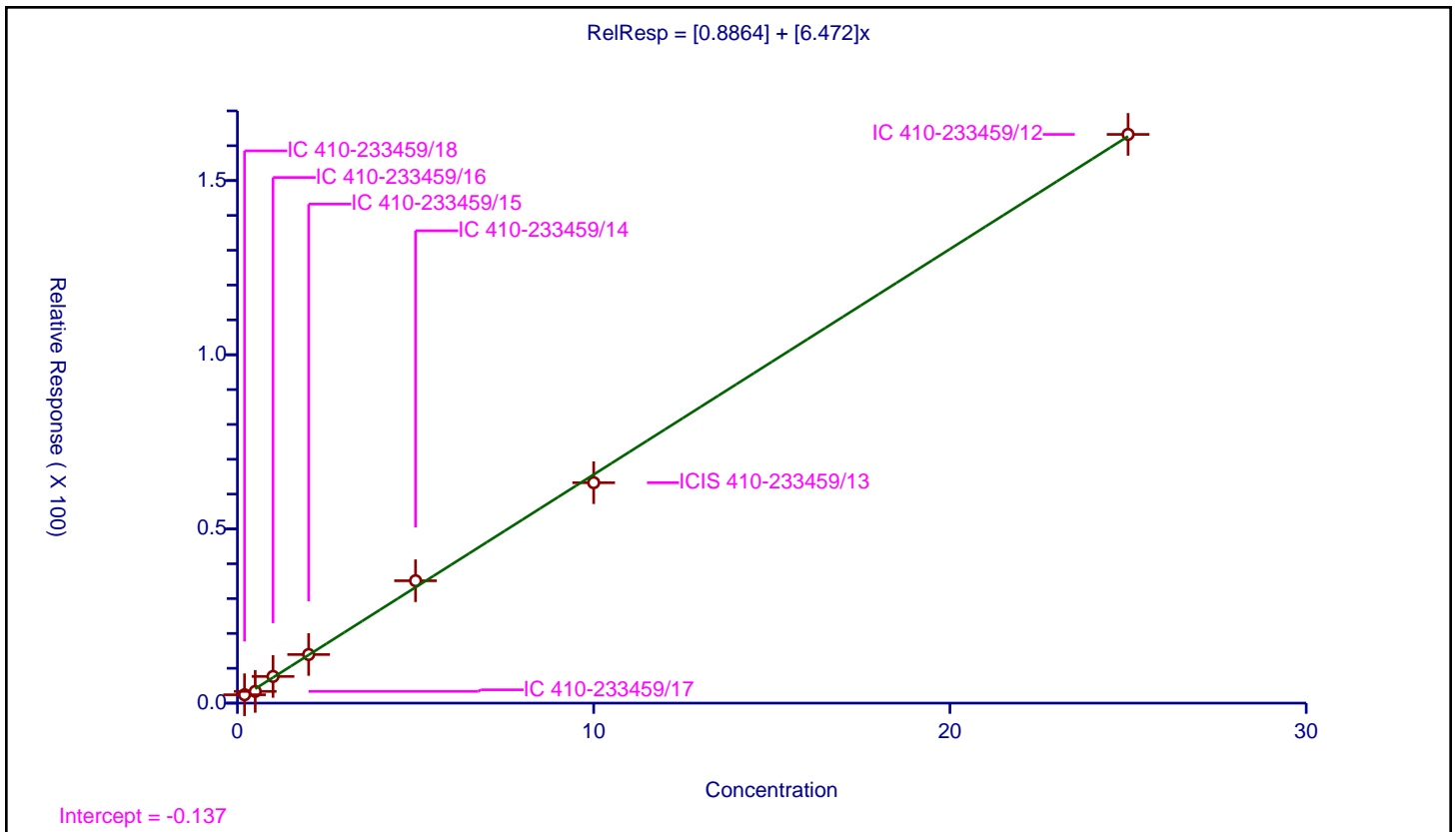
/ Methyl acetate

Curve Type: Linear
 Weighting: None
 Origin: None
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0.8864
Slope:	6.472

Error Coefficients	
Standard Error:	240000
Relative Standard Error:	13.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	2.405996	50.0	155632.0	12.029981	Y
2	IC 410-233459/17	0.5	3.369182	50.0	134454.0	6.738364	Y
3	IC 410-233459/16	1.0	7.66665	50.0	144059.0	7.66665	Y
4	IC 410-233459/15	2.0	13.954388	50.0	140927.0	6.977194	Y
5	IC 410-233459/14	5.0	35.136154	50.0	149941.0	7.027231	Y
6	ICIS 410-233459/13	10.0	63.272816	50.0	147286.0	6.327282	Y
7	IC 410-233459/12	25.0	163.247892	50.0	150473.0	6.529916	Y



Calibration

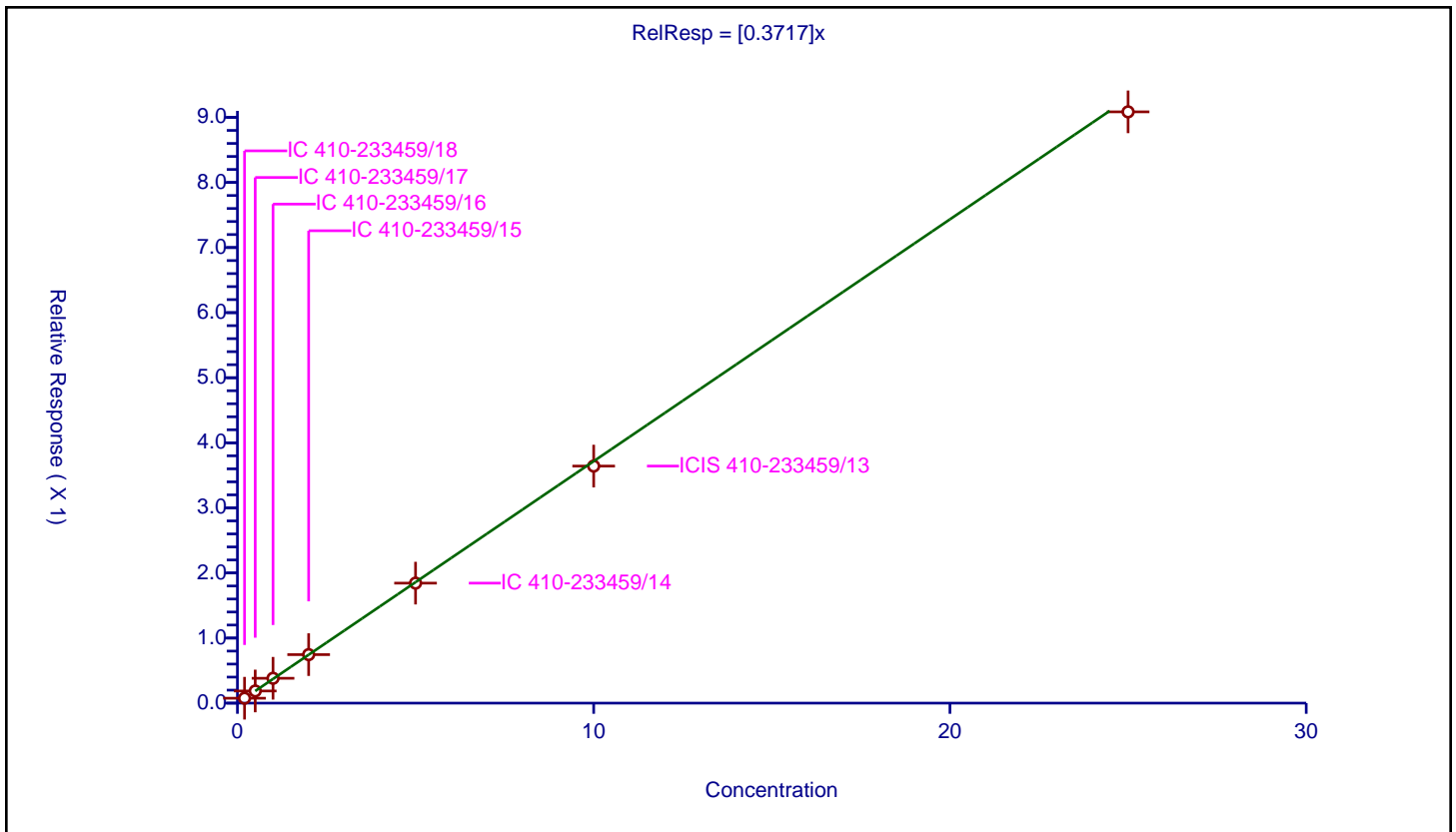
/ 3-Chloro-1-propene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3717

Error Coefficients	
Standard Error:	811000
Relative Standard Error:	1.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.075387	10.0	2021821.0	0.376937	Y
2	IC 410-233459/17	0.5	0.186812	10.0	2017326.0	0.373623	Y
3	IC 410-233459/16	1.0	0.382094	10.0	2010448.0	0.382094	Y
4	IC 410-233459/15	2.0	0.745245	10.0	2005717.0	0.372622	Y
5	IC 410-233459/14	5.0	1.843884	10.0	2008310.0	0.368777	Y
6	ICIS 410-233459/13	10.0	3.642445	10.0	2018353.0	0.364245	Y
7	IC 410-233459/12	25.0	9.085185	10.0	1979820.0	0.363407	Y



Calibration

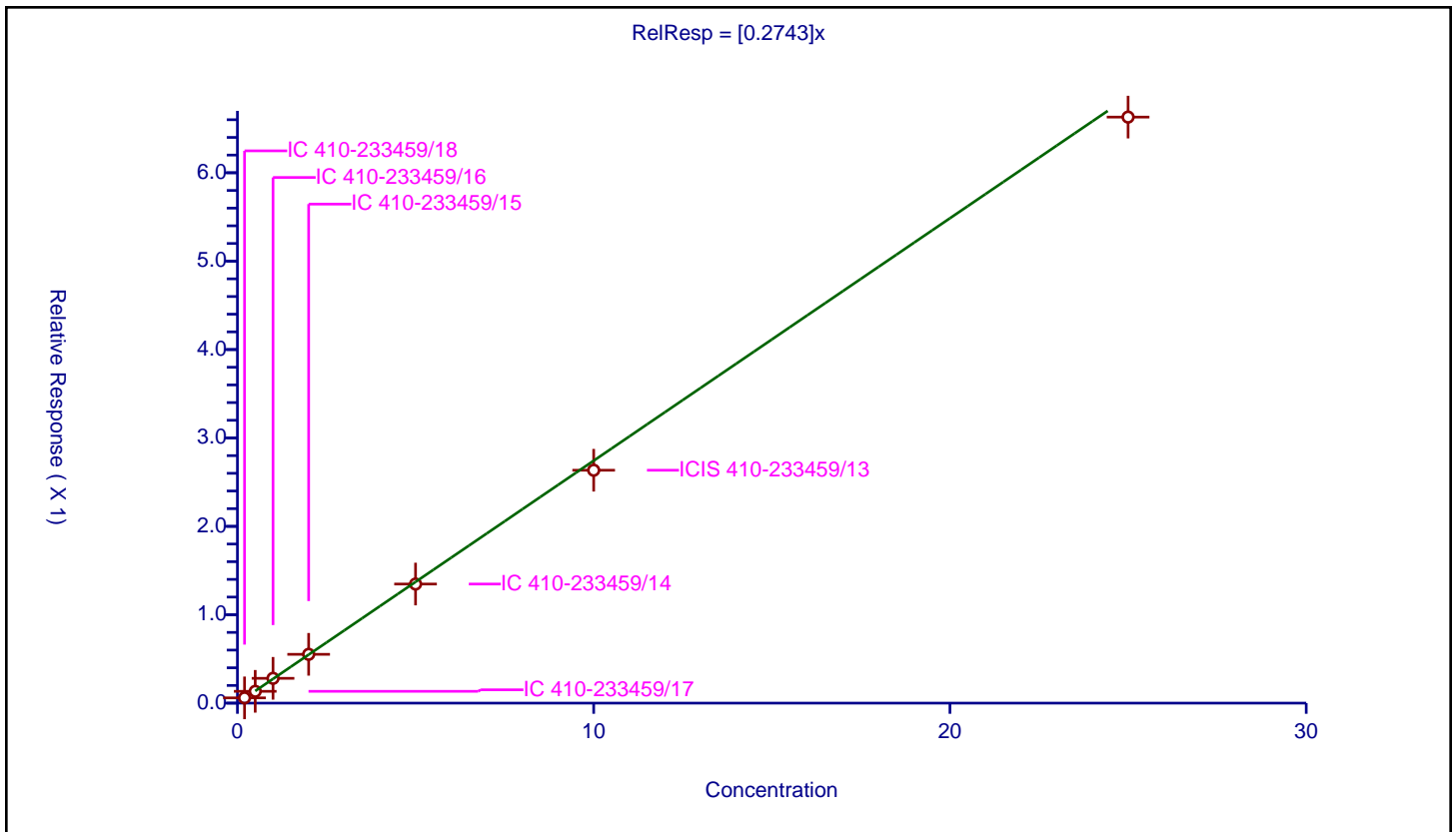
/ Methylene Chloride

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2743

Error Coefficients	
Standard Error:	591000
Relative Standard Error:	4.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.059629	10.0	2021821.0	0.298147	Y
2	IC 410-233459/17	0.5	0.133513	10.0	2017326.0	0.267027	Y
3	IC 410-233459/16	1.0	0.28052	10.0	2010448.0	0.28052	Y
4	IC 410-233459/15	2.0	0.552142	10.0	2005717.0	0.276071	Y
5	IC 410-233459/14	5.0	1.347187	10.0	2008310.0	0.269437	Y
6	ICIS 410-233459/13	10.0	2.634807	10.0	2018353.0	0.263481	Y
7	IC 410-233459/12	25.0	6.62987	10.0	1979820.0	0.265195	Y



Calibration

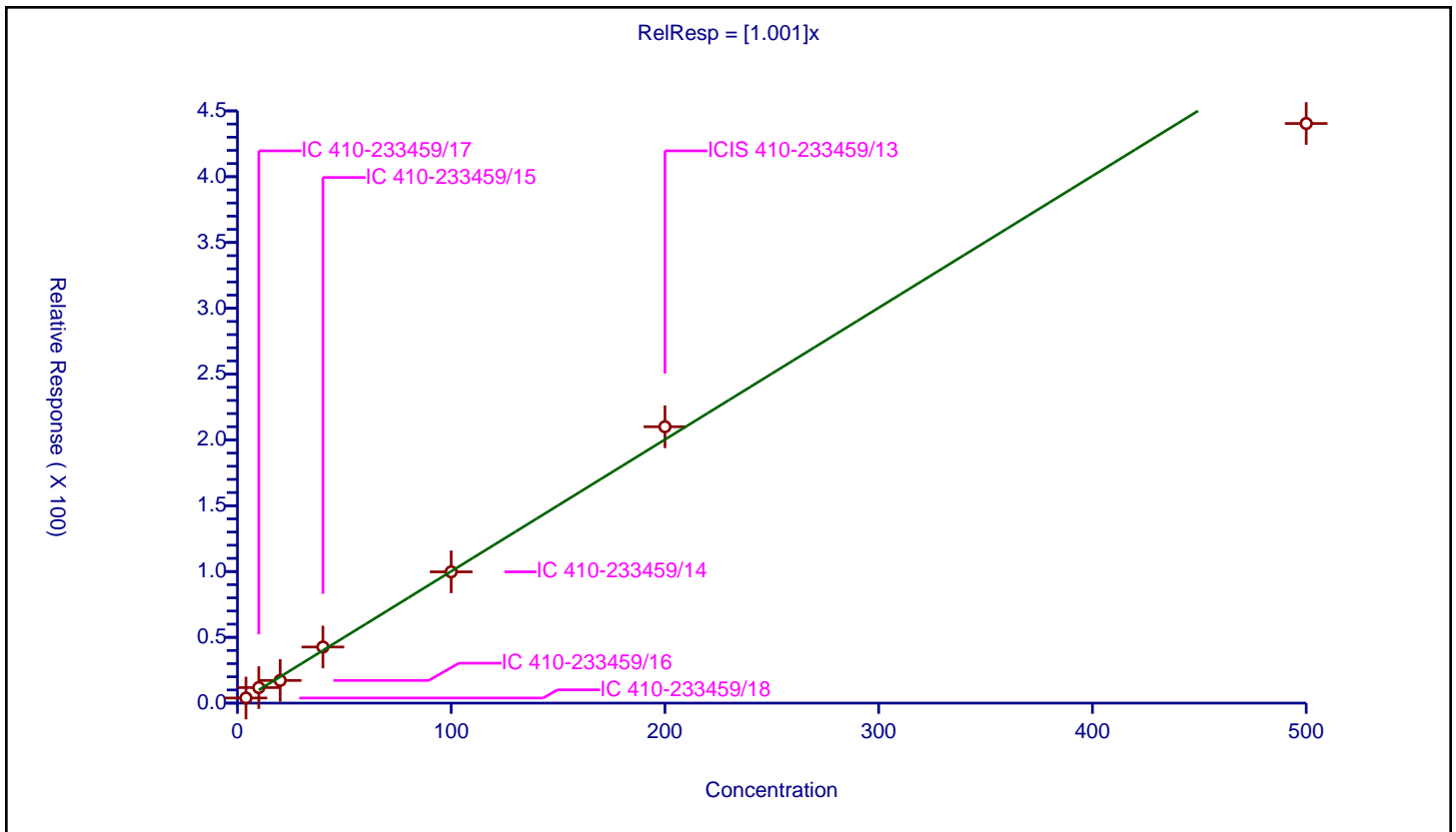
/ 2-Methyl-2-propanol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.001

Error Coefficients	
Standard Error:	612000
Relative Standard Error:	11.1
Correlation Coefficient:	0.995
Coefficient of Determination (Adjusted):	0.983

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	4.0	3.890267	50.0	155632.0	0.972567	Y
2	IC 410-233459/17	10.0	11.81259	50.0	134454.0	1.181259	Y
3	IC 410-233459/16	20.0	17.229052	50.0	144059.0	0.861453	Y
4	IC 410-233459/15	40.0	42.634839	50.0	140927.0	1.065871	Y
5	IC 410-233459/14	100.0	99.764908	50.0	149941.0	0.997649	Y
6	ICIS 410-233459/13	200.0	210.00129	50.0	147286.0	1.050006	Y
7	IC 410-233459/12	500.0	440.422534	50.0	150473.0	0.880845	Y



Calibration

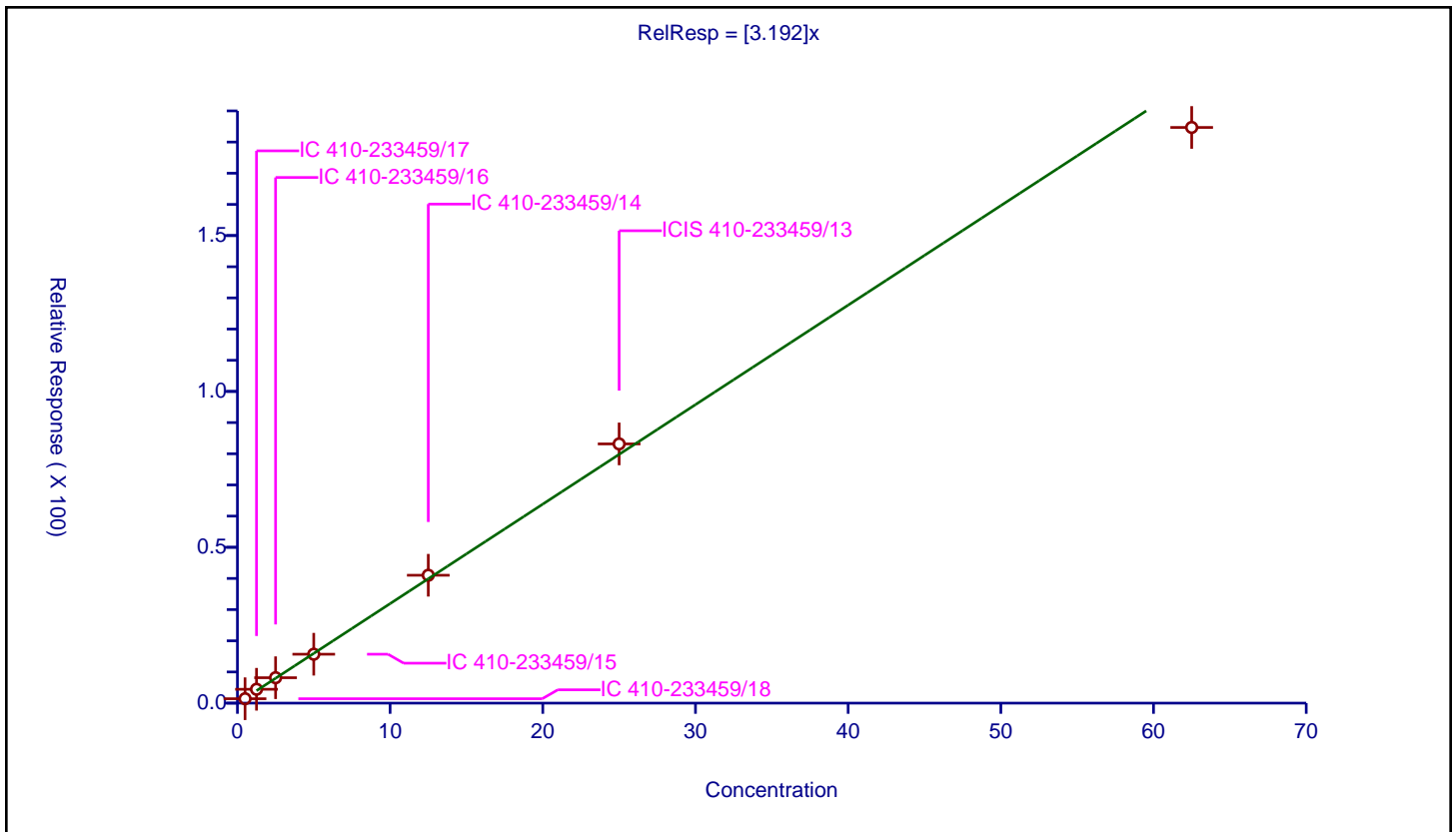
/ Acrylonitrile

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	3.192

Error Coefficients	
Standard Error:	254000
Relative Standard Error:	7.7
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.5	1.411985	50.0	155632.0	2.823969	Y
2	IC 410-233459/17	1.25	4.447618	50.0	134454.0	3.558094	Y
3	IC 410-233459/16	2.5	8.15291	50.0	144059.0	3.261164	Y
4	IC 410-233459/15	5.0	15.690748	50.0	140927.0	3.13815	Y
5	IC 410-233459/14	12.5	41.024136	50.0	149941.0	3.281931	Y
6	ICIS 410-233459/13	25.0	83.161332	50.0	147286.0	3.326453	Y
7	IC 410-233459/12	62.5	184.687951	50.0	150473.0	2.955007	Y



Calibration

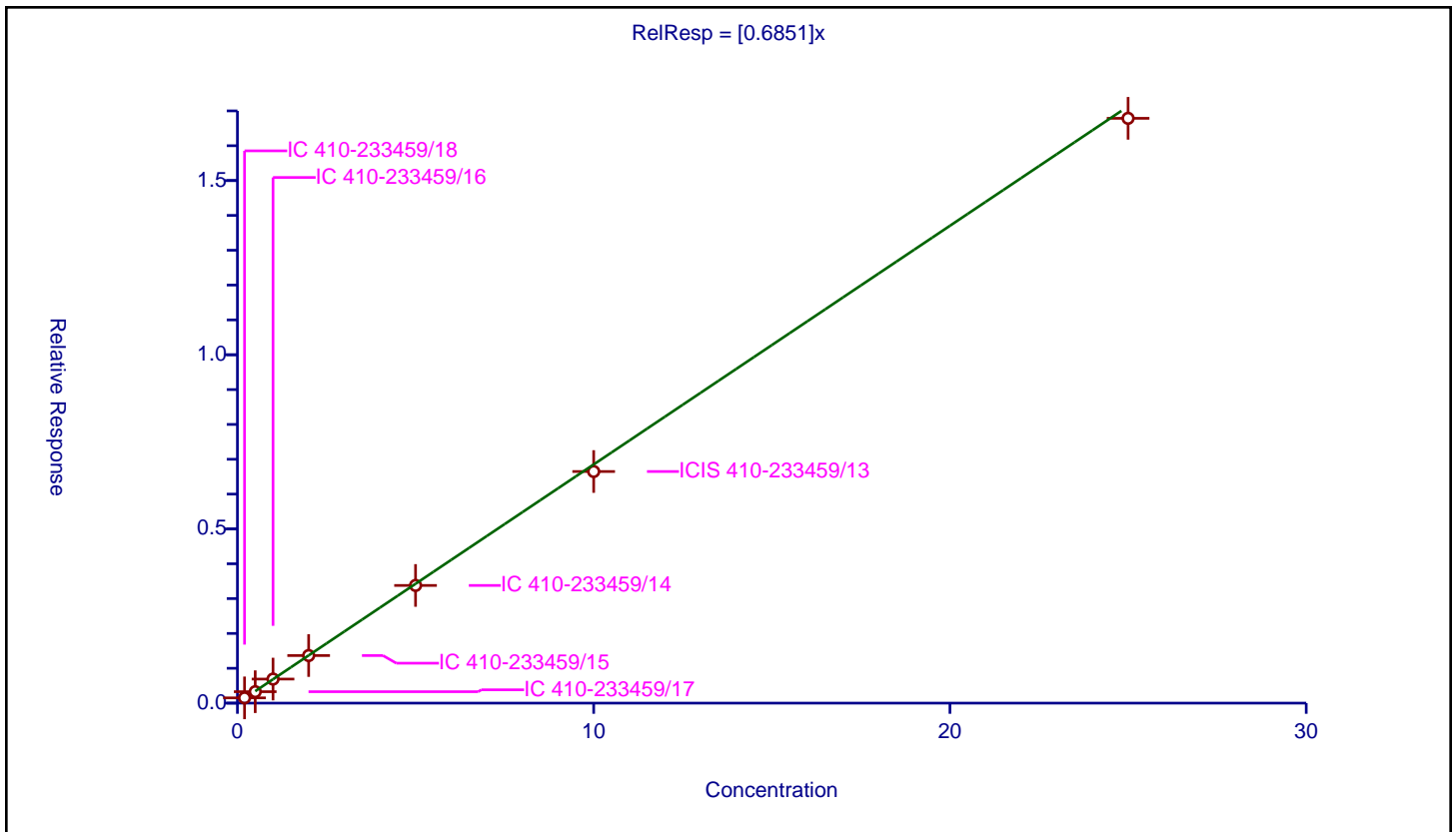
/ Methyl tert-butyl ether

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.6851

Error Coefficients	
Standard Error:	1490000
Relative Standard Error:	4.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.150844	10.0	2021821.0	0.754221	Y
2	IC 410-233459/17	0.5	0.328142	10.0	2017326.0	0.656285	Y
3	IC 410-233459/16	1.0	0.690503	10.0	2010448.0	0.690503	Y
4	IC 410-233459/15	2.0	1.366065	10.0	2005717.0	0.683033	Y
5	IC 410-233459/14	5.0	3.378194	10.0	2008310.0	0.675639	Y
6	ICIS 410-233459/13	10.0	6.648337	10.0	2018353.0	0.664834	Y
7	IC 410-233459/12	25.0	16.786324	10.0	1979820.0	0.671453	Y



Calibration

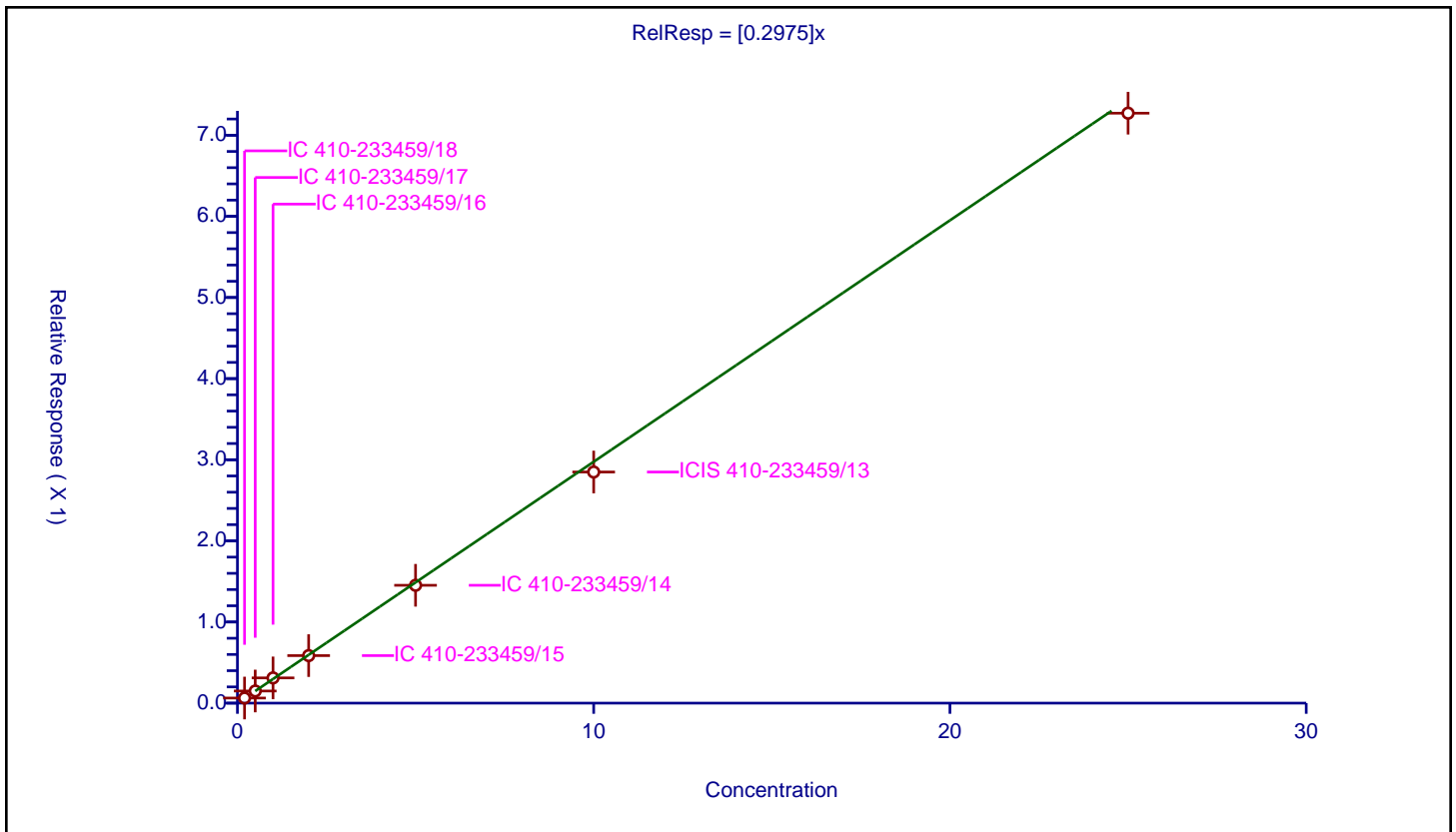
/ trans-1,2-Dichloroethene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2975

Error Coefficients	
Standard Error:	646000
Relative Standard Error:	3.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.062716	10.0	2021821.0	0.313579	Y
2	IC 410-233459/17	0.5	0.14949	10.0	2017326.0	0.29898	Y
3	IC 410-233459/16	1.0	0.310941	10.0	2010448.0	0.310941	Y
4	IC 410-233459/15	2.0	0.585726	10.0	2005717.0	0.292863	Y
5	IC 410-233459/14	5.0	1.45254	10.0	2008310.0	0.290508	Y
6	ICIS 410-233459/13	10.0	2.848818	10.0	2018353.0	0.284882	Y
7	IC 410-233459/12	25.0	7.271626	10.0	1979820.0	0.290865	Y



Calibration

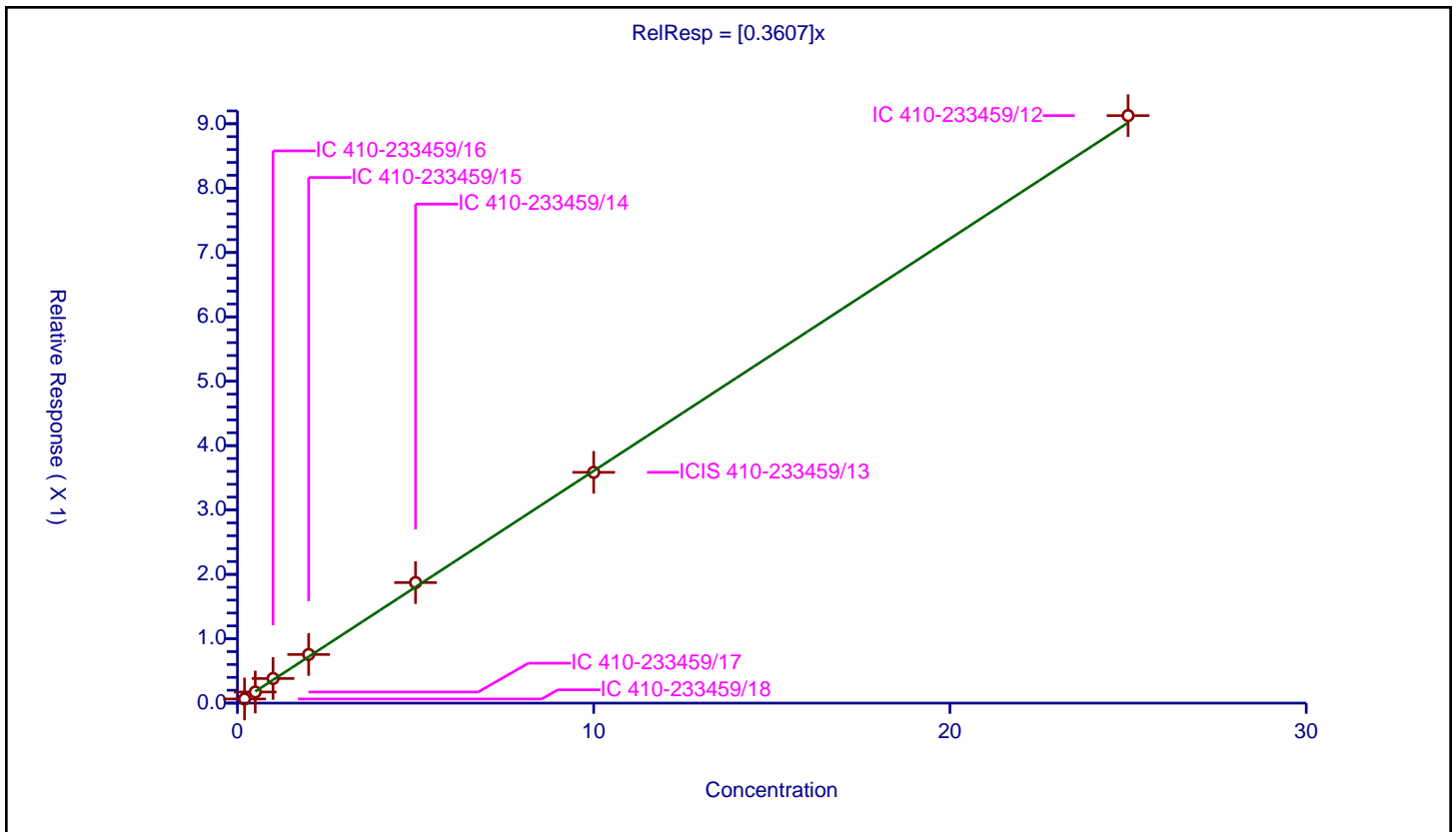
/ Hexane

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3607

Error Coefficients	
Standard Error:	812000
Relative Standard Error:	6.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.064214	10.0	2021821.0	0.321072	Y
2	IC 410-233459/17	0.5	0.172634	10.0	2017326.0	0.345269	Y
3	IC 410-233459/16	1.0	0.382676	10.0	2010448.0	0.382676	Y
4	IC 410-233459/15	2.0	0.7555	10.0	2005717.0	0.37775	Y
5	IC 410-233459/14	5.0	1.872943	10.0	2008310.0	0.374589	Y
6	ICIS 410-233459/13	10.0	3.585245	10.0	2018353.0	0.358524	Y
7	IC 410-233459/12	25.0	9.126734	10.0	1979820.0	0.365069	Y



Calibration

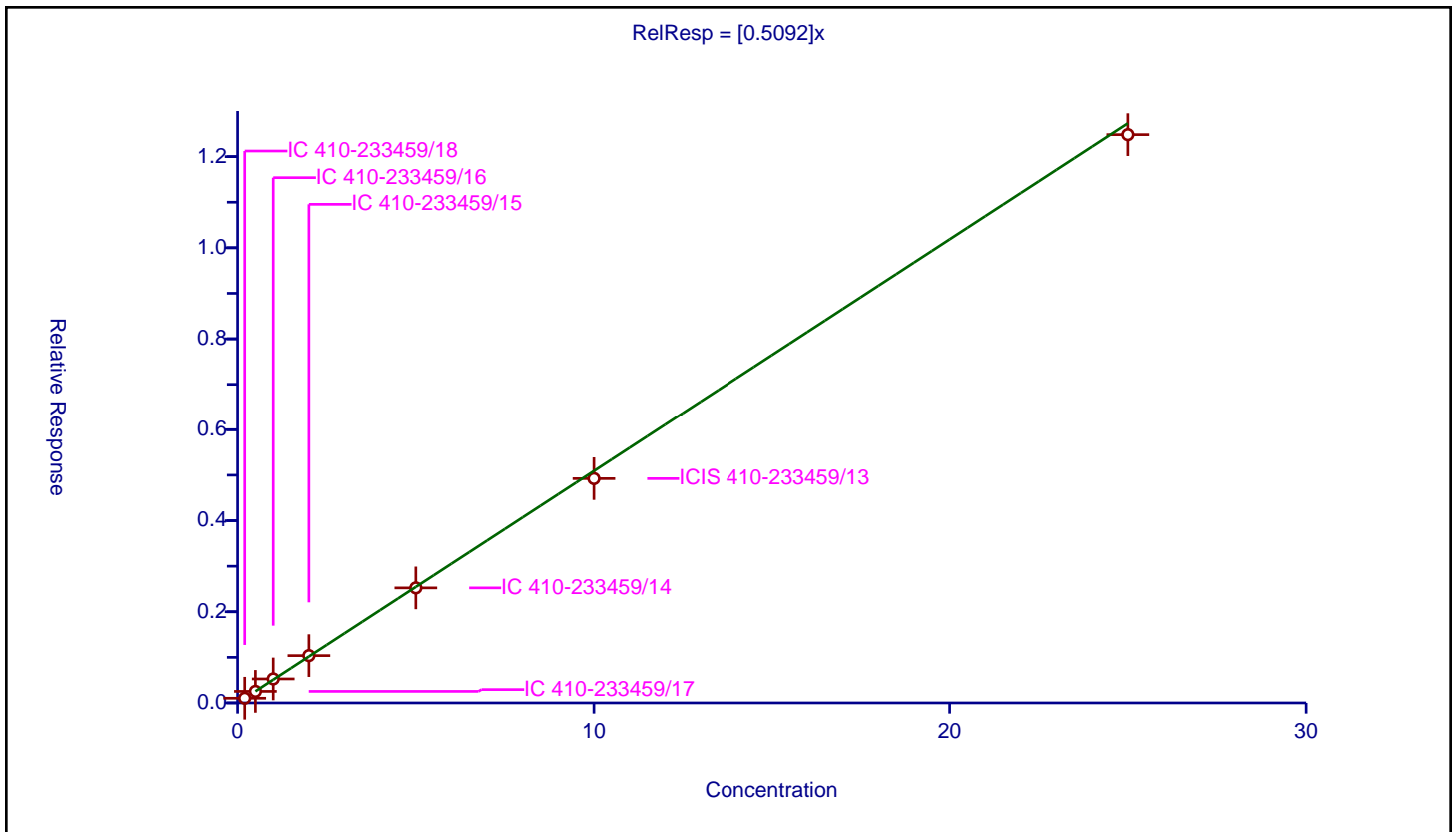
/ 1,1-Dichloroethane

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.5092

Error Coefficients	
Standard Error:	1110000
Relative Standard Error:	2.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.10309	10.0	2021821.0	0.515451	Y
2	IC 410-233459/17	0.5	0.25342	10.0	2017326.0	0.506839	Y
3	IC 410-233459/16	1.0	0.526694	10.0	2010448.0	0.526694	Y
4	IC 410-233459/15	2.0	1.037948	10.0	2005717.0	0.518974	Y
5	IC 410-233459/14	5.0	2.524202	10.0	2008310.0	0.50484	Y
6	ICIS 410-233459/13	10.0	4.924352	10.0	2018353.0	0.492435	Y
7	IC 410-233459/12	25.0	12.482306	10.0	1979820.0	0.499292	Y



Calibration

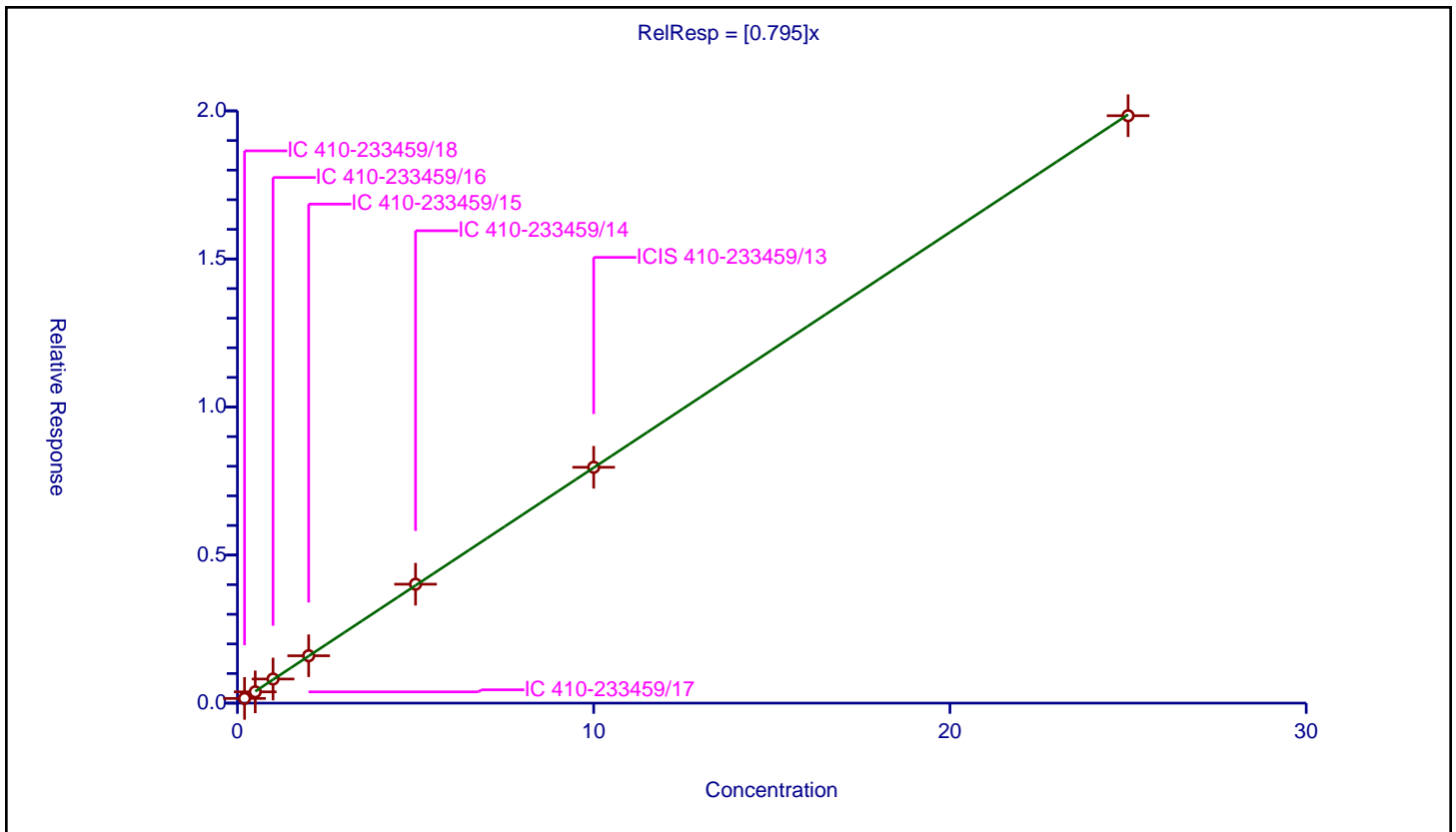
/ Isopropyl ether

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.795

Error Coefficients	
Standard Error:	1770000
Relative Standard Error:	2.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.159173	10.0	2021821.0	0.795867	Y
2	IC 410-233459/17	0.5	0.381158	10.0	2017326.0	0.762316	Y
3	IC 410-233459/16	1.0	0.813978	10.0	2010448.0	0.813978	Y
4	IC 410-233459/15	2.0	1.599952	10.0	2005717.0	0.799976	Y
5	IC 410-233459/14	5.0	4.016417	10.0	2008310.0	0.803283	Y
6	ICIS 410-233459/13	10.0	7.96441	10.0	2018353.0	0.796441	Y
7	IC 410-233459/12	25.0	19.83701	10.0	1979820.0	0.79348	Y



Calibration

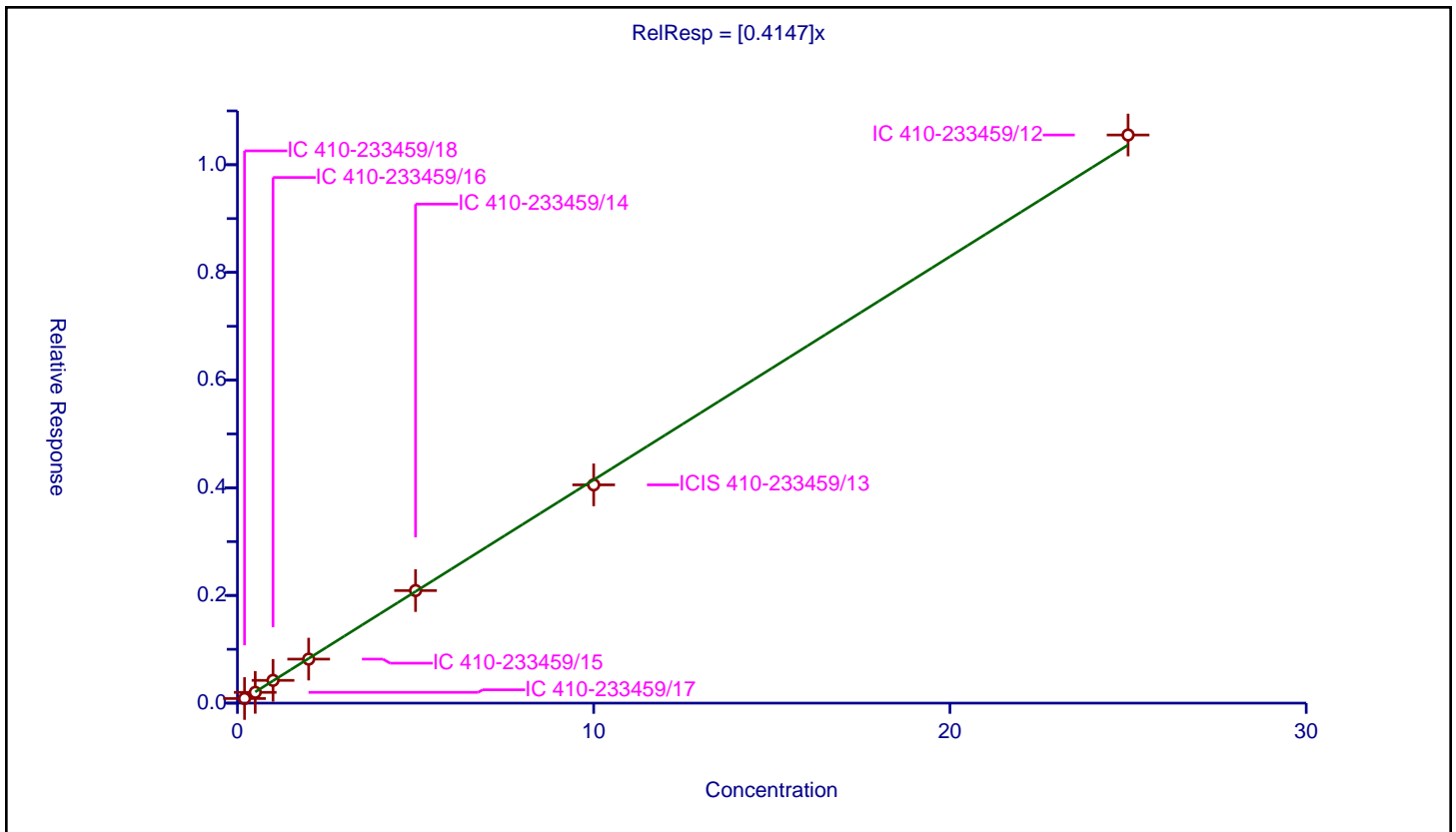
/ 2-Chloro-1,3-butadiene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4147

Error Coefficients	
Standard Error:	935000
Relative Standard Error:	2.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.085126	10.0	2021821.0	0.425631	Y
2	IC 410-233459/17	0.5	0.200161	10.0	2017326.0	0.400322	Y
3	IC 410-233459/16	1.0	0.422508	10.0	2010448.0	0.422508	Y
4	IC 410-233459/15	2.0	0.817453	10.0	2005717.0	0.408727	Y
5	IC 410-233459/14	5.0	2.090753	10.0	2008310.0	0.418151	Y
6	ICIS 410-233459/13	10.0	4.054212	10.0	2018353.0	0.405421	Y
7	IC 410-233459/12	25.0	10.55255	10.0	1979820.0	0.422102	Y



Calibration

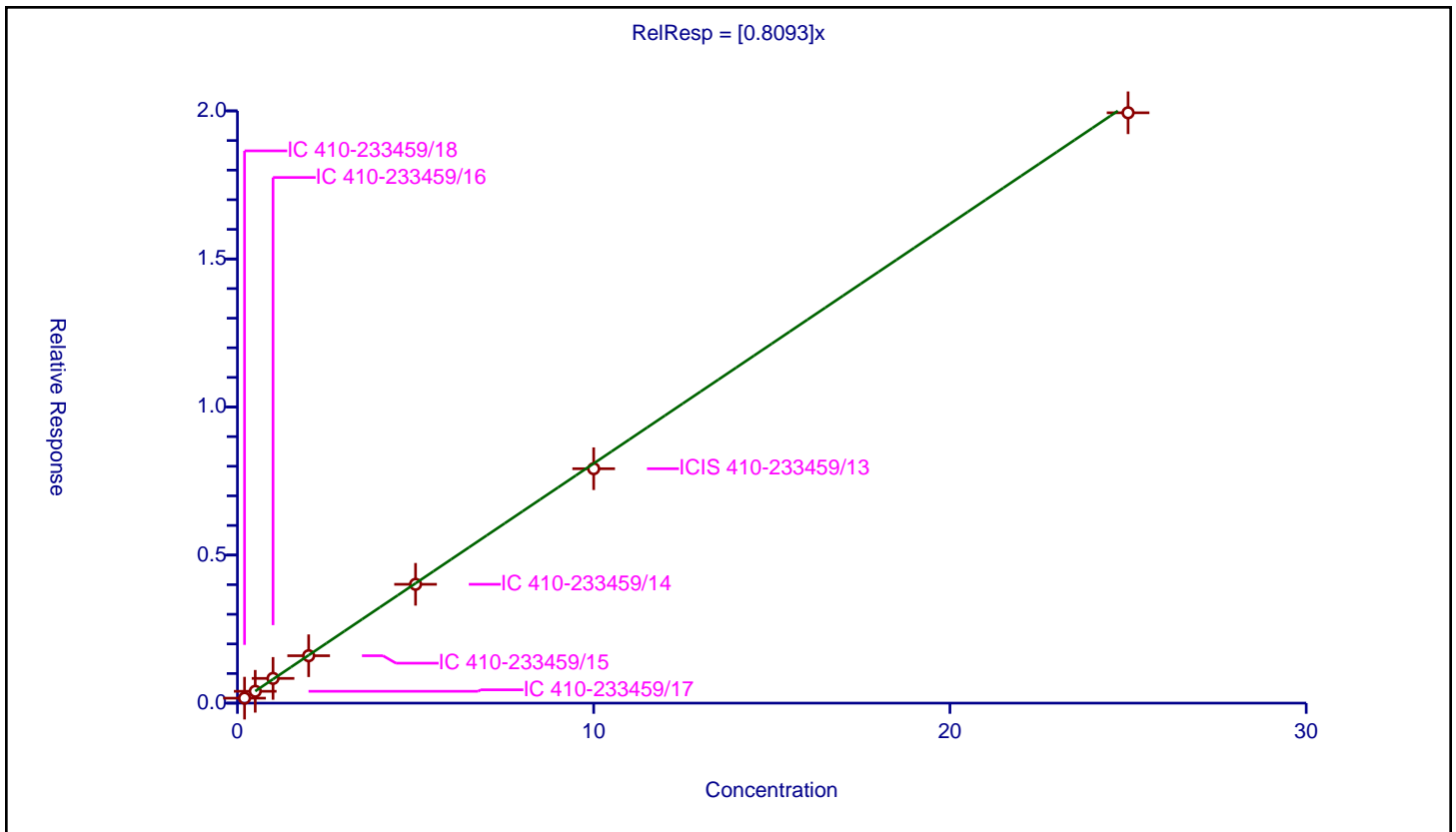
/ Tert-butyl ethyl ether

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.8093

Error Coefficients	
Standard Error:	1780000
Relative Standard Error:	2.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.167596	10.0	2021821.0	0.837982	Y
2	IC 410-233459/17	0.5	0.400025	10.0	2017326.0	0.800049	Y
3	IC 410-233459/16	1.0	0.835078	10.0	2010448.0	0.835078	Y
4	IC 410-233459/15	2.0	1.60043	10.0	2005717.0	0.800215	Y
5	IC 410-233459/14	5.0	4.012857	10.0	2008310.0	0.802571	Y
6	ICIS 410-233459/13	10.0	7.9159	10.0	2018353.0	0.79159	Y
7	IC 410-233459/12	25.0	19.936519	10.0	1979820.0	0.797461	Y



Calibration

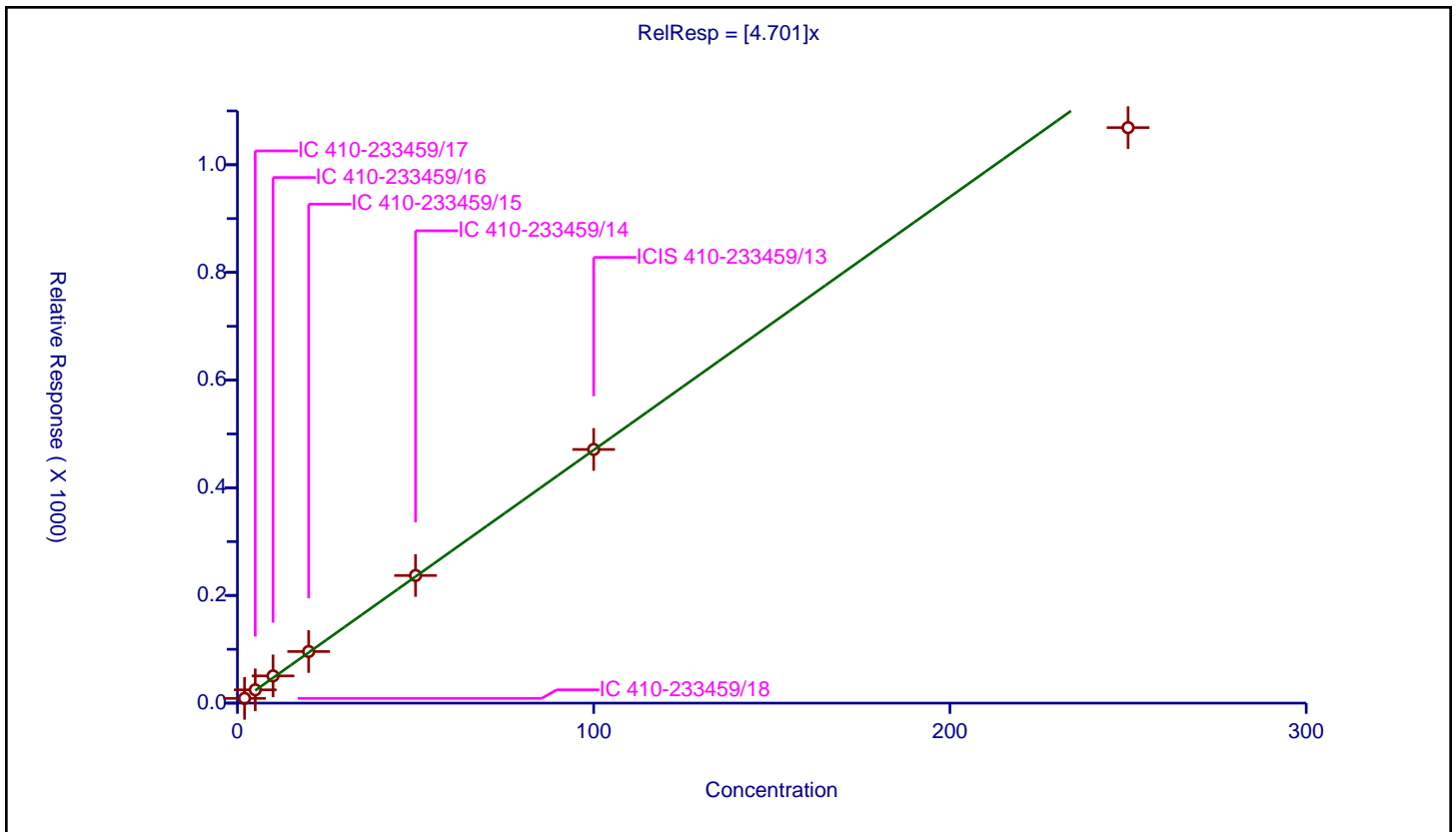
/ 2-Butanone (MEK)

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	4.701

Error Coefficients	
Standard Error:	1460000
Relative Standard Error:	5.9
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	2.0	8.807636	50.0	155632.0	4.403818	Y
2	IC 410-233459/17	5.0	24.663826	50.0	134454.0	4.932765	Y
3	IC 410-233459/16	10.0	50.508819	50.0	144059.0	5.050882	Y
4	IC 410-233459/15	20.0	95.850334	50.0	140927.0	4.792517	Y
5	IC 410-233459/14	50.0	237.058576	50.0	149941.0	4.741172	Y
6	ICIS 410-233459/13	100.0	471.136428	50.0	147286.0	4.711364	Y
7	IC 410-233459/12	250.0	1068.914024	50.0	150473.0	4.275656	Y



Calibration

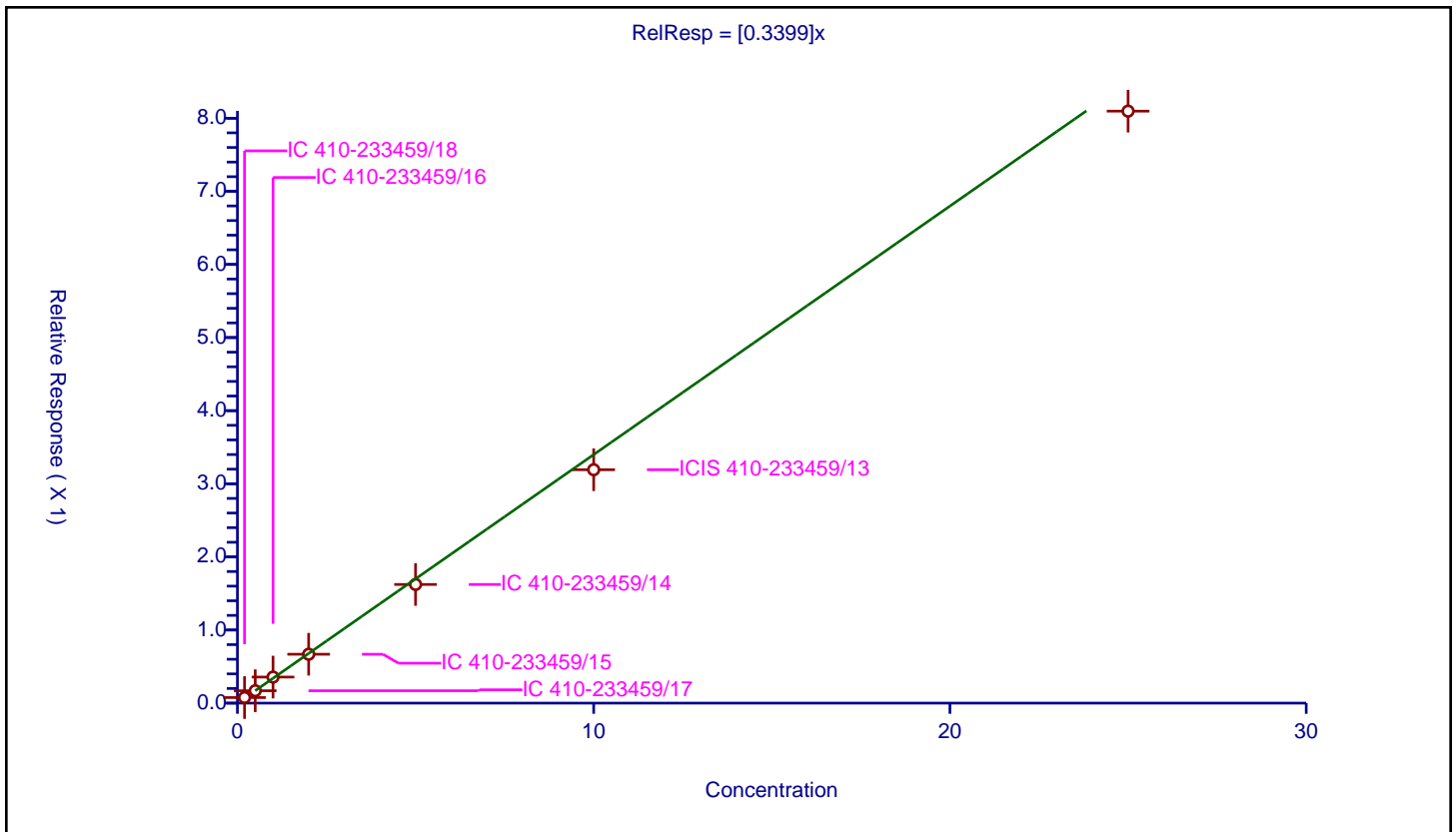
/ cis-1,2-Dichloroethene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3399

Error Coefficients	
Standard Error:	721000
Relative Standard Error:	6.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.076327	10.0	2021821.0	0.381636	Y
2	IC 410-233459/17	0.5	0.169715	10.0	2017326.0	0.33943	Y
3	IC 410-233459/16	1.0	0.356319	10.0	2010448.0	0.356319	Y
4	IC 410-233459/15	2.0	0.668594	10.0	2005717.0	0.334297	Y
5	IC 410-233459/14	5.0	1.623111	10.0	2008310.0	0.324622	Y
6	ICIS 410-233459/13	10.0	3.192088	10.0	2018353.0	0.319209	Y
7	IC 410-233459/12	25.0	8.096817	10.0	1979820.0	0.323873	Y



Calibration

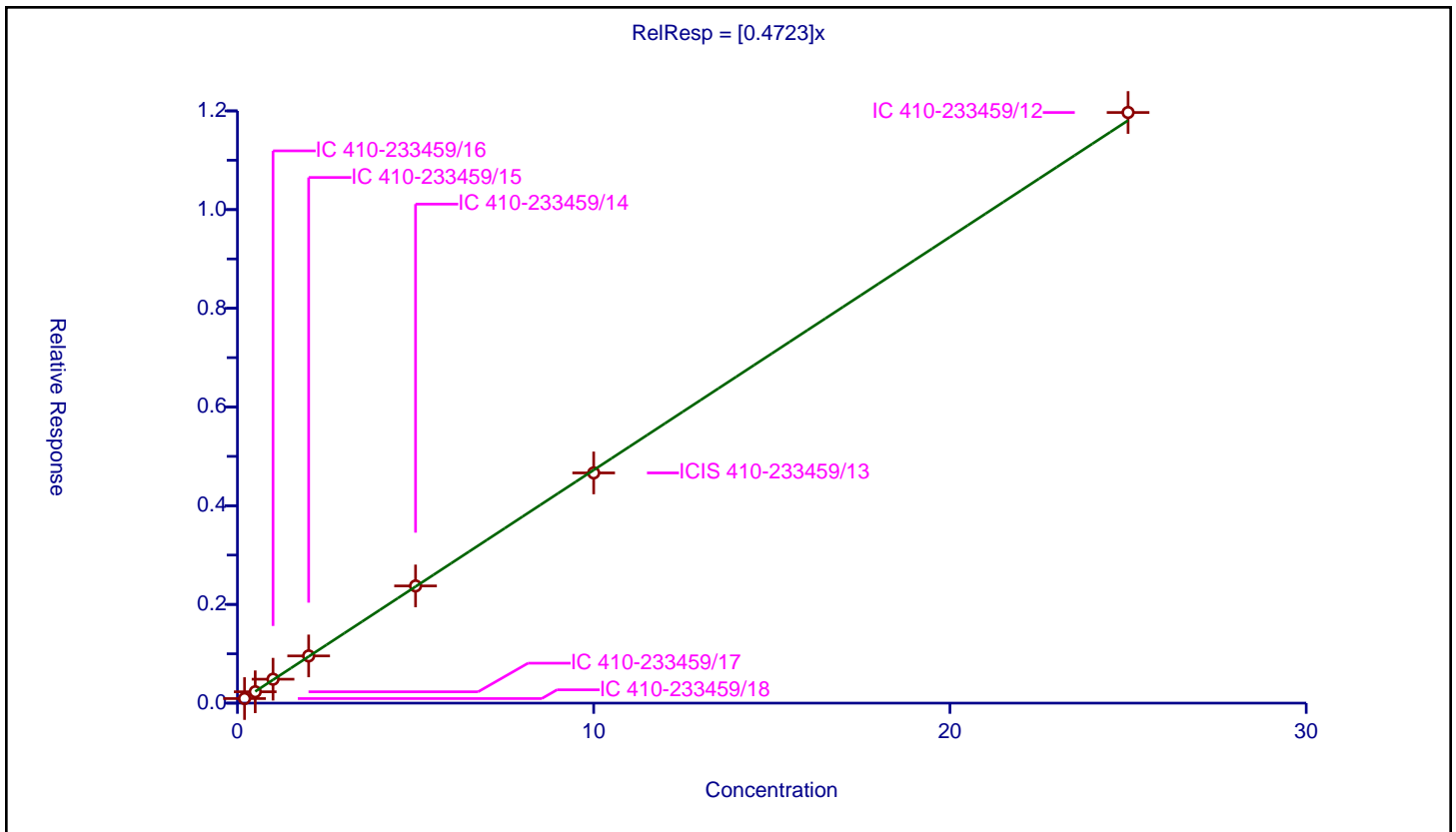
/ 2,2-Dichloropropane

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4723

Error Coefficients	
Standard Error:	1060000
Relative Standard Error:	1.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.092441	10.0	2021821.0	0.462207	Y
2	IC 410-233459/17	0.5	0.23033	10.0	2017326.0	0.460659	Y
3	IC 410-233459/16	1.0	0.484713	10.0	2010448.0	0.484713	Y
4	IC 410-233459/15	2.0	0.956406	10.0	2005717.0	0.478203	Y
5	IC 410-233459/14	5.0	2.374628	10.0	2008310.0	0.474926	Y
6	ICIS 410-233459/13	10.0	4.664362	10.0	2018353.0	0.466436	Y
7	IC 410-233459/12	25.0	11.967835	10.0	1979820.0	0.478713	Y



Calibration

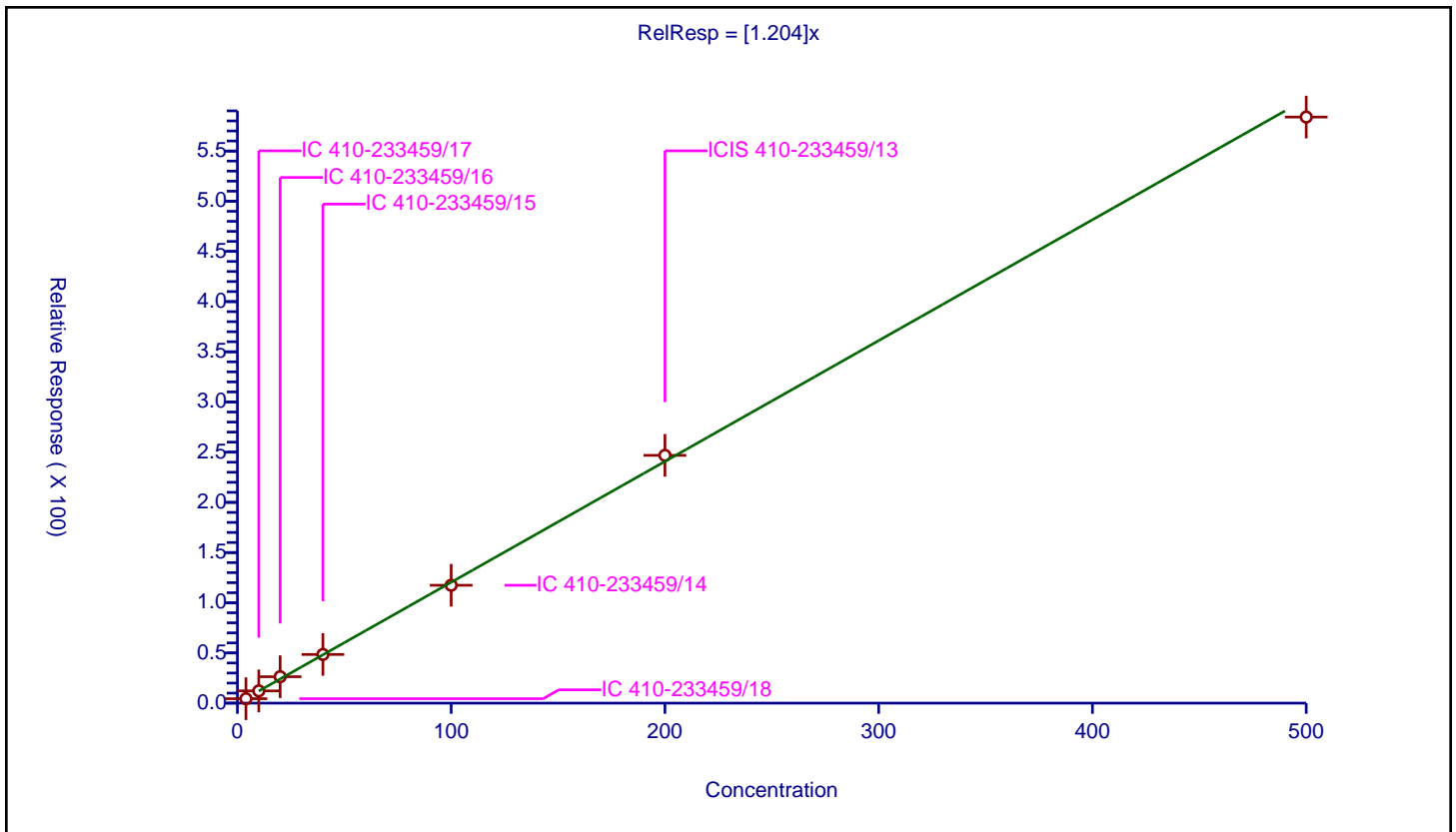
/ Propionitrile

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.204

Error Coefficients	
Standard Error:	792000
Relative Standard Error:	5.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	4.0	4.411689	50.0	155632.0	1.102922	Y
2	IC 410-233459/17	10.0	12.20343	50.0	134454.0	1.220343	Y
3	IC 410-233459/16	20.0	26.302071	50.0	144059.0	1.315104	Y
4	IC 410-233459/15	40.0	48.489998	50.0	140927.0	1.21225	Y
5	IC 410-233459/14	100.0	117.427855	50.0	149941.0	1.174279	Y
6	ICIS 410-233459/13	200.0	246.848648	50.0	147286.0	1.234243	Y
7	IC 410-233459/12	500.0	583.845939	50.0	150473.0	1.167692	Y



Calibration

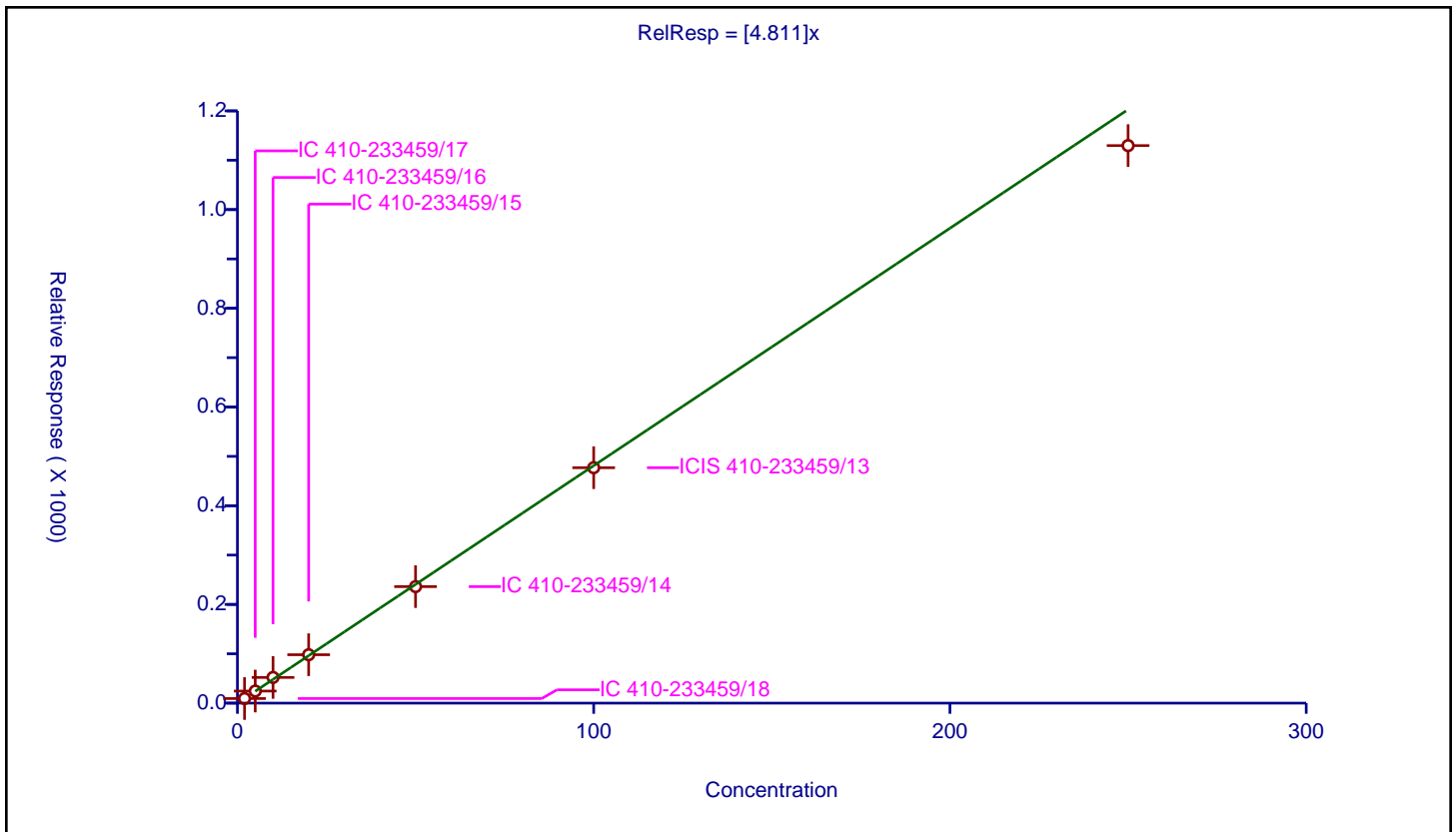
/ Methacrylonitrile

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	4.811

Error Coefficients	
Standard Error:	1530000
Relative Standard Error:	4.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	2.0	9.329058	50.0	155632.0	4.664529	Y
2	IC 410-233459/17	5.0	24.469707	50.0	134454.0	4.893941	Y
3	IC 410-233459/16	10.0	52.061308	50.0	144059.0	5.206131	Y
4	IC 410-233459/15	20.0	98.069213	50.0	140927.0	4.903461	Y
5	IC 410-233459/14	50.0	236.071855	50.0	149941.0	4.721437	Y
6	ICIS 410-233459/13	100.0	477.007319	50.0	147286.0	4.770073	Y
7	IC 410-233459/12	250.0	1129.67343	50.0	150473.0	4.518694	Y



Calibration

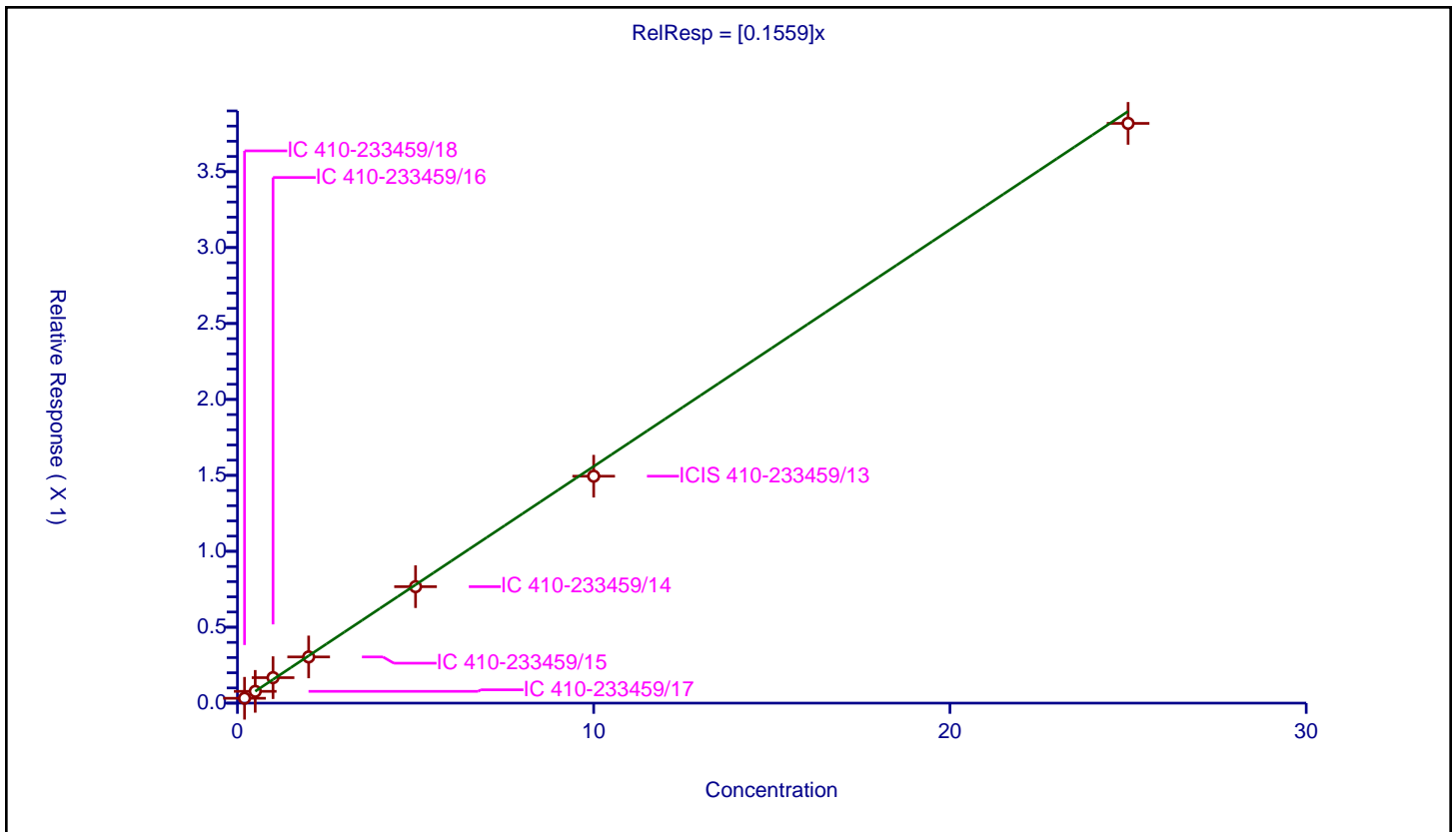
/ Chlorobromomethane

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.1559

Error Coefficients	
Standard Error:	339000
Relative Standard Error:	4.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.032085	10.0	2021821.0	0.160425	Y
2	IC 410-233459/17	0.5	0.077672	10.0	2017326.0	0.155344	Y
3	IC 410-233459/16	1.0	0.167774	10.0	2010448.0	0.167774	Y
4	IC 410-233459/15	2.0	0.304285	10.0	2005717.0	0.152143	Y
5	IC 410-233459/14	5.0	0.766799	10.0	2008310.0	0.15336	Y
6	ICIS 410-233459/13	10.0	1.494352	10.0	2018353.0	0.149435	Y
7	IC 410-233459/12	25.0	3.81768	10.0	1979820.0	0.152707	Y



Calibration

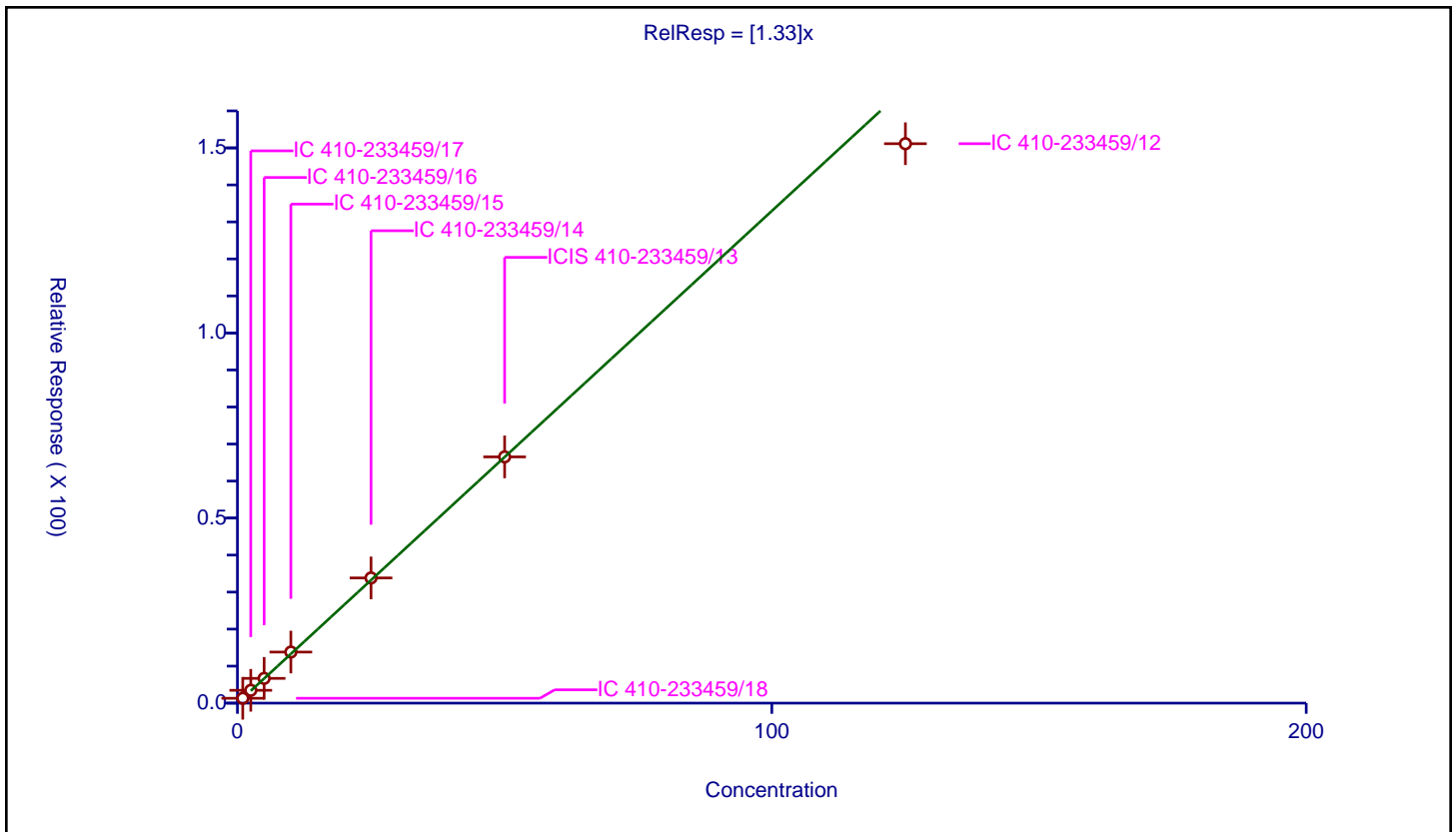
/ Tetrahydrofuran

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.33

Error Coefficients	
Standard Error:	207000
Relative Standard Error:	4.5
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	1.0	1.312712	50.0	155632.0	1.312712	Y
2	IC 410-233459/17	2.5	3.463266	50.0	134454.0	1.385306	Y
3	IC 410-233459/16	5.0	6.687538	50.0	144059.0	1.337508	Y
4	IC 410-233459/15	10.0	13.796859	50.0	140927.0	1.379686	Y
5	IC 410-233459/14	25.0	33.821303	50.0	149941.0	1.352852	Y
6	ICIS 410-233459/13	50.0	66.525671	50.0	147286.0	1.330513	Y
7	IC 410-233459/12	125.0	151.138078	50.0	150473.0	1.209105	Y



Calibration

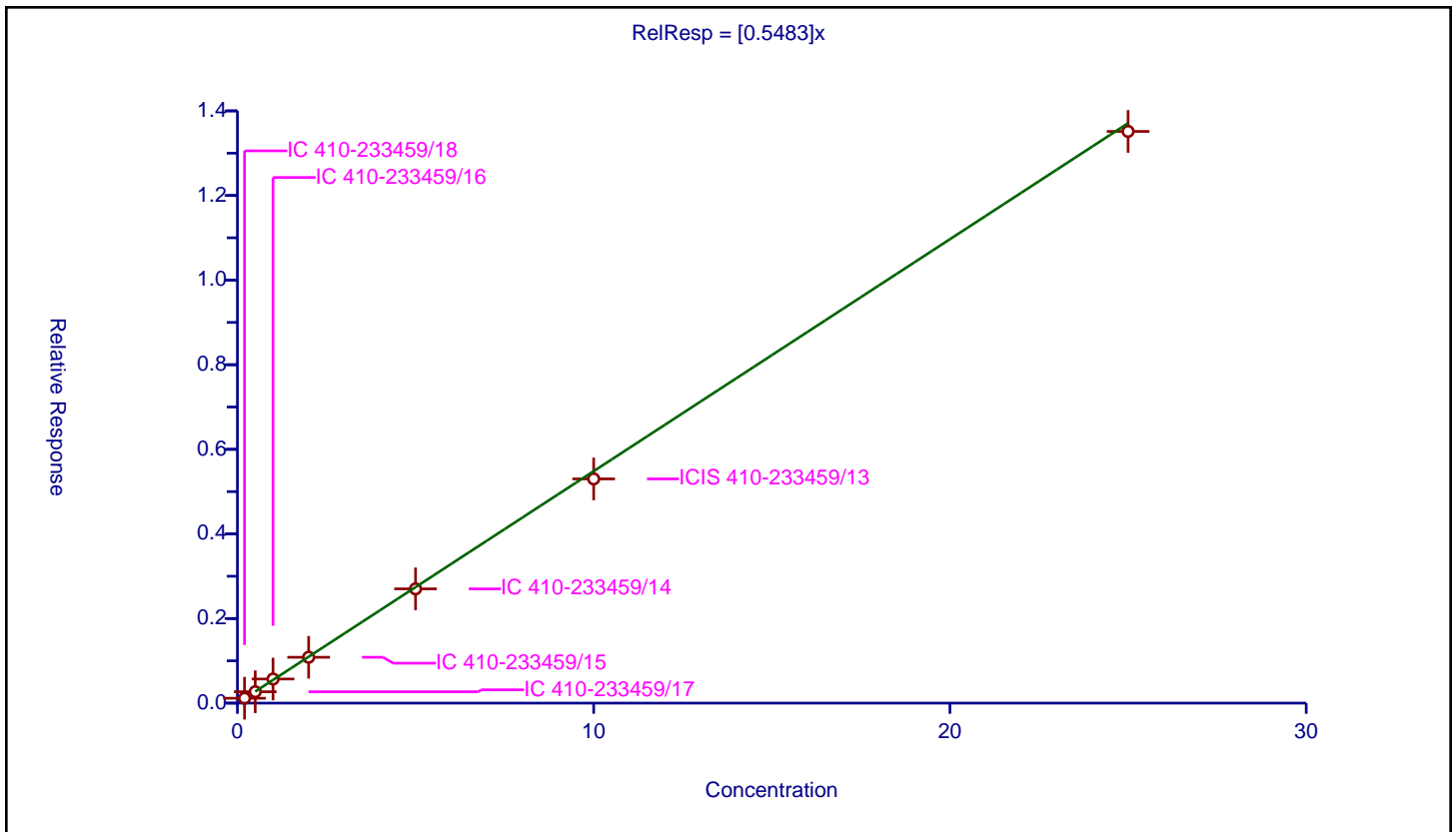
/ Chloroform

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.5483

Error Coefficients	
Standard Error:	1200000
Relative Standard Error:	3.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.115445	10.0	2021821.0	0.577227	Y
2	IC 410-233459/17	0.5	0.269024	10.0	2017326.0	0.538049	Y
3	IC 410-233459/16	1.0	0.570047	10.0	2010448.0	0.570047	Y
4	IC 410-233459/15	2.0	1.084315	10.0	2005717.0	0.542158	Y
5	IC 410-233459/14	5.0	2.701421	10.0	2008310.0	0.540284	Y
6	ICIS 410-233459/13	10.0	5.30054	10.0	2018353.0	0.530054	Y
7	IC 410-233459/12	25.0	13.514653	10.0	1979820.0	0.540586	Y



Calibration

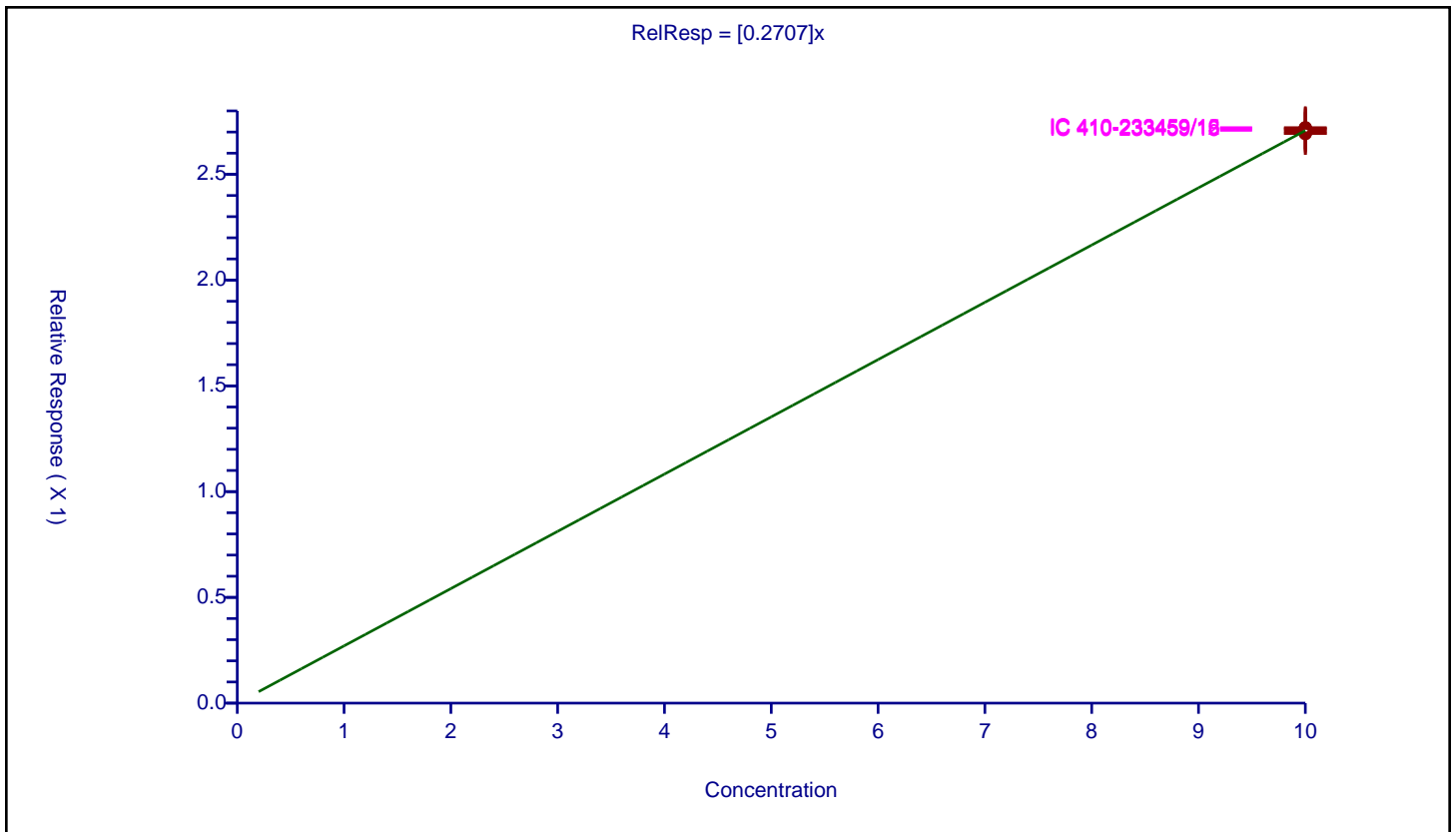
/ Dibromofluoromethane (Surr)

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2707

Error Coefficients	
Standard Error:	587000
Relative Standard Error:	0.4
Correlation Coefficient:	0.00000000000000000000
Coefficient of Determination (Adjusted):	0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/12	10.0	2.713464	10.0	1979820.0	0.271346	Y
2	ICIS 410-233459/13	10.0	2.701624	10.0	2018353.0	0.270162	Y
3	IC 410-233459/14	10.0	2.693344	10.0	2008310.0	0.269334	Y
4	IC 410-233459/15	10.0	2.718484	10.0	2005717.0	0.271848	Y
5	IC 410-233459/16	10.0	2.720603	10.0	2010448.0	0.27206	Y
6	IC 410-233459/17	10.0	2.693238	10.0	2017326.0	0.269324	Y
7	IC 410-233459/18	10.0	2.708108	10.0	2021821.0	0.270811	Y



Calibration

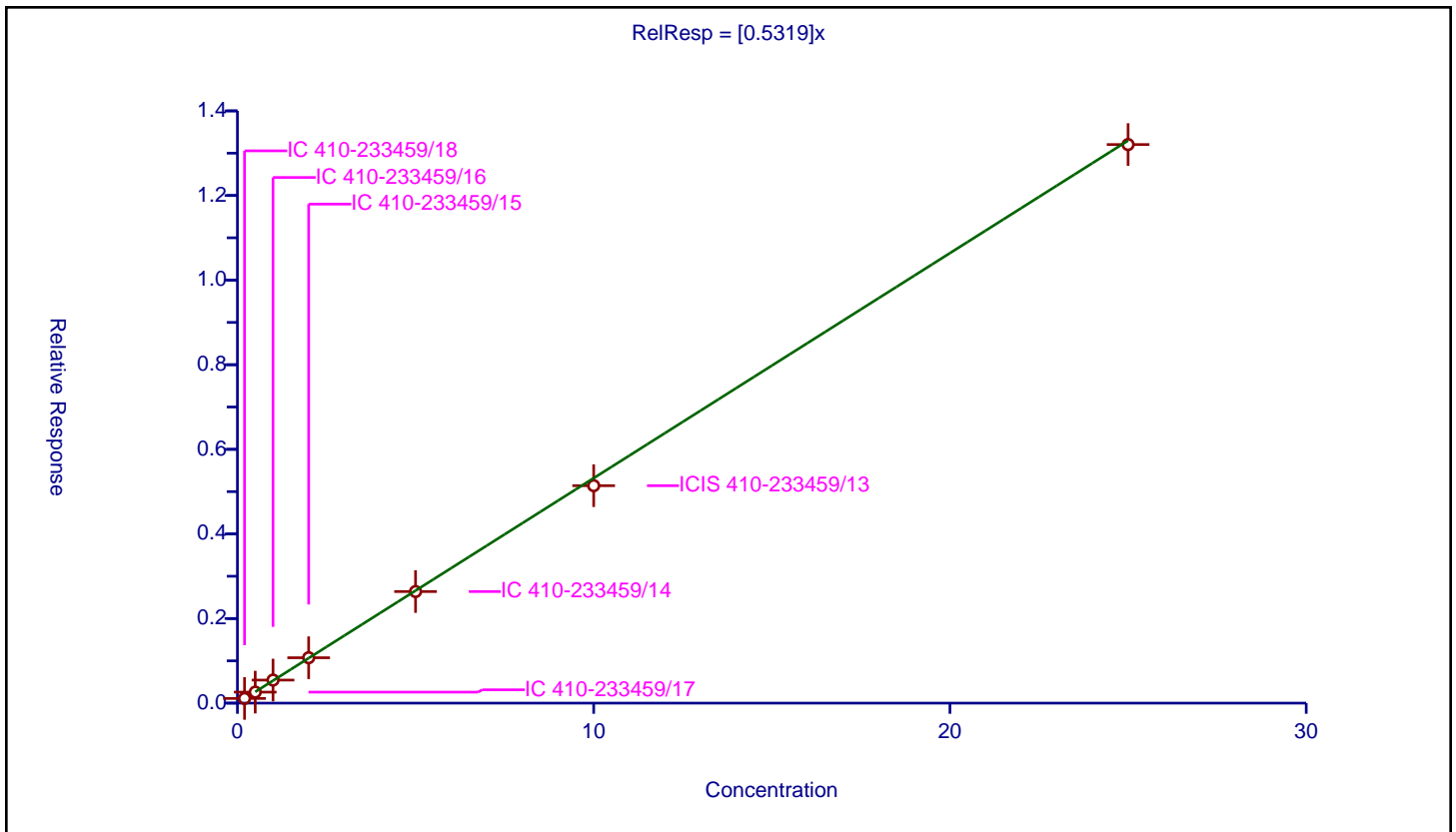
/ 1,1,1-Trichloroethane

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.5319

Error Coefficients	
Standard Error:	1170000
Relative Standard Error:	2.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.110217	10.0	2021821.0	0.551087	Y
2	IC 410-233459/17	0.5	0.260469	10.0	2017326.0	0.520937	Y
3	IC 410-233459/16	1.0	0.544824	10.0	2010448.0	0.544824	Y
4	IC 410-233459/15	2.0	1.073167	10.0	2005717.0	0.536584	Y
5	IC 410-233459/14	5.0	2.637954	10.0	2008310.0	0.527591	Y
6	ICIS 410-233459/13	10.0	5.140077	10.0	2018353.0	0.514008	Y
7	IC 410-233459/12	25.0	13.204019	10.0	1979820.0	0.528161	Y



Calibration

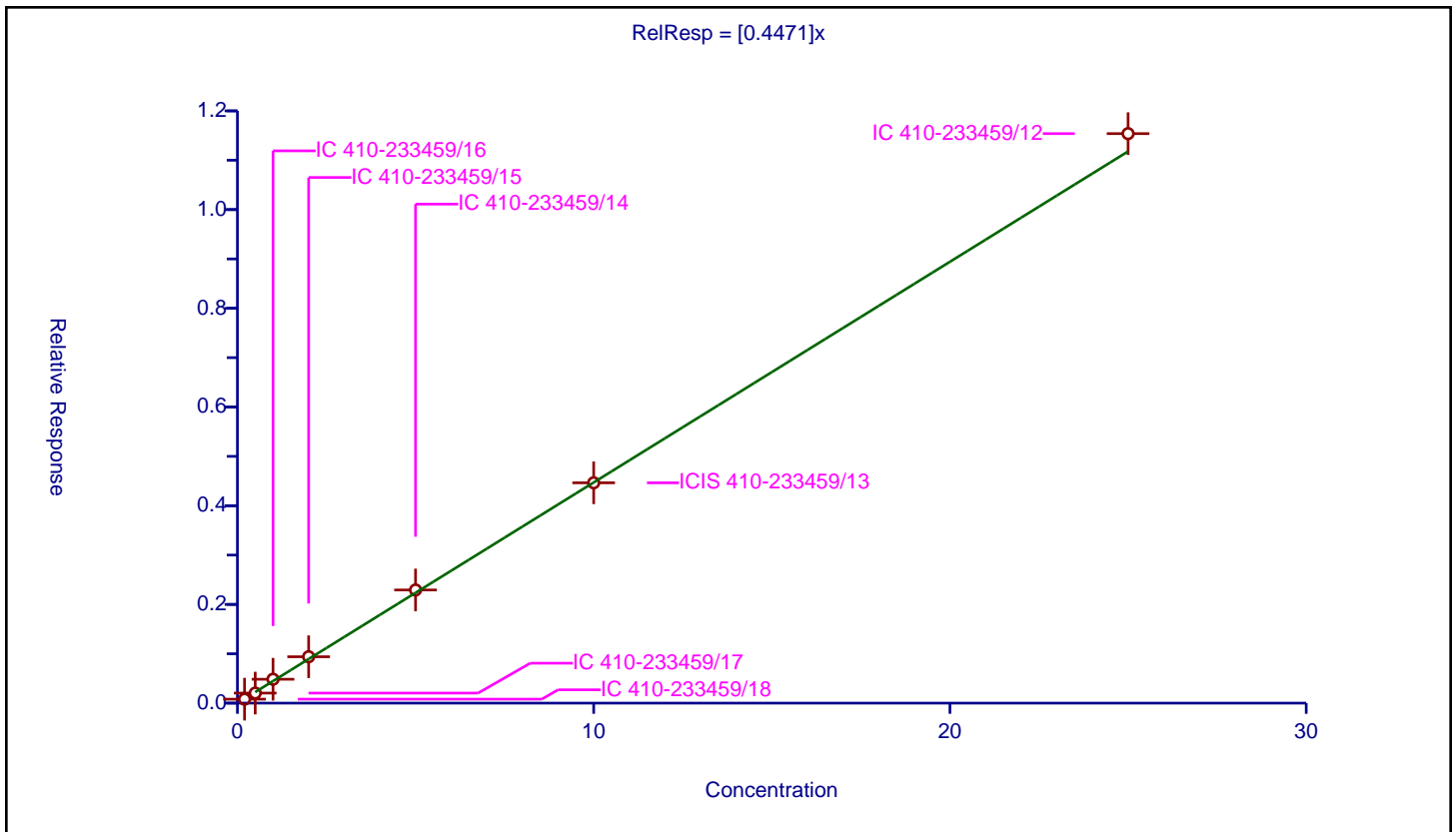
/ Cyclohexane

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4471

Error Coefficients	
Standard Error:	1020000
Relative Standard Error:	7.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.080403	10.0	2021821.0	0.402014	Y
2	IC 410-233459/17	0.5	0.203755	10.0	2017326.0	0.40751	Y
3	IC 410-233459/16	1.0	0.483832	10.0	2010448.0	0.483832	Y
4	IC 410-233459/15	2.0	0.940053	10.0	2005717.0	0.470026	Y
5	IC 410-233459/14	5.0	2.292923	10.0	2008310.0	0.458585	Y
6	ICIS 410-233459/13	10.0	4.464482	10.0	2018353.0	0.446448	Y
7	IC 410-233459/12	25.0	11.538973	10.0	1979820.0	0.461559	Y



Calibration

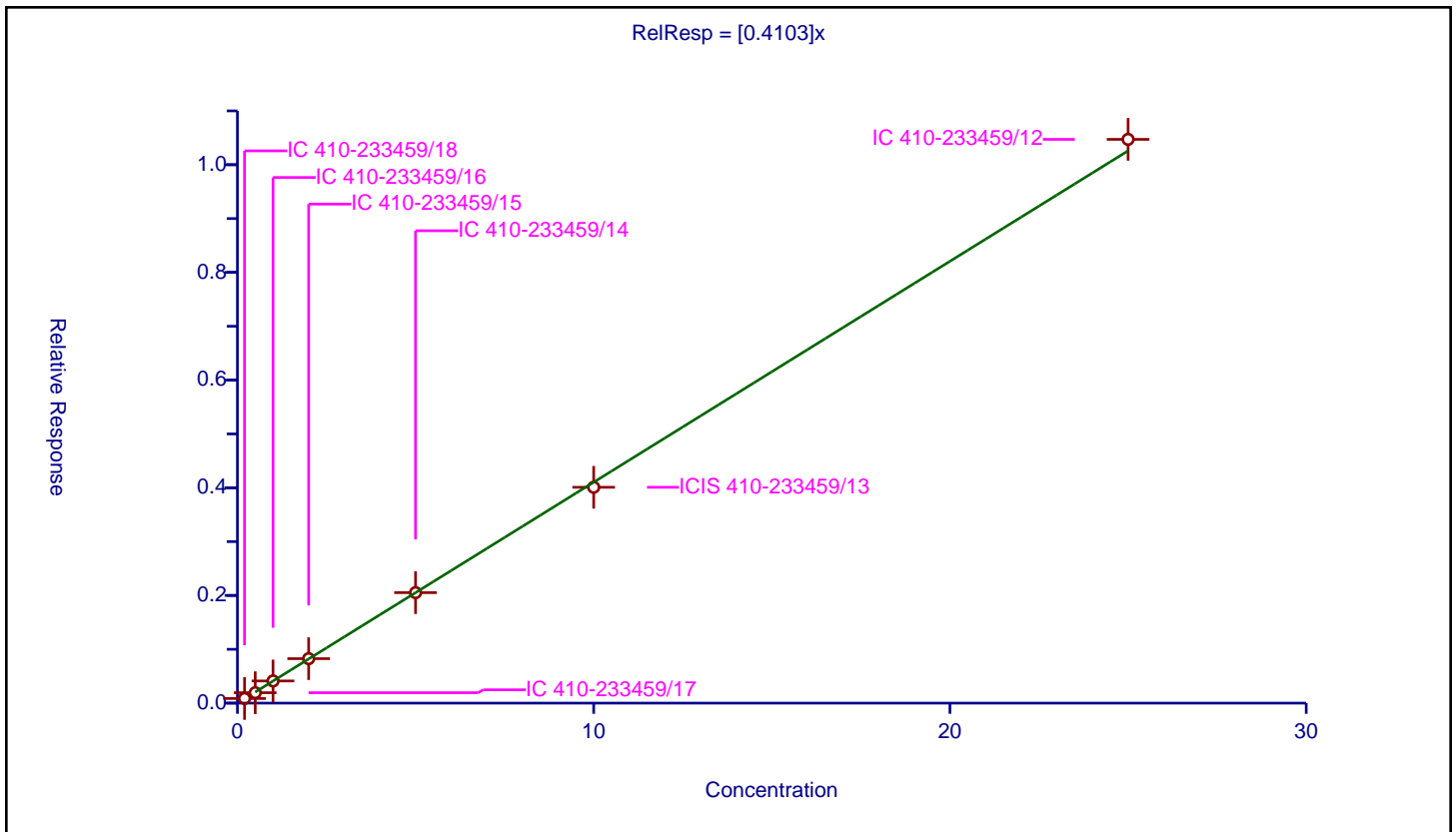
/ 1,1-Dichloropropene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4103

Error Coefficients	
Standard Error:	927000
Relative Standard Error:	3.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.085893	10.0	2021821.0	0.429464	Y
2	IC 410-233459/17	0.5	0.193856	10.0	2017326.0	0.387711	Y
3	IC 410-233459/16	1.0	0.412003	10.0	2010448.0	0.412003	Y
4	IC 410-233459/15	2.0	0.826004	10.0	2005717.0	0.413002	Y
5	IC 410-233459/14	5.0	2.052074	10.0	2008310.0	0.410415	Y
6	ICIS 410-233459/13	10.0	4.009279	10.0	2018353.0	0.400928	Y
7	IC 410-233459/12	25.0	10.471073	10.0	1979820.0	0.418843	Y



Calibration

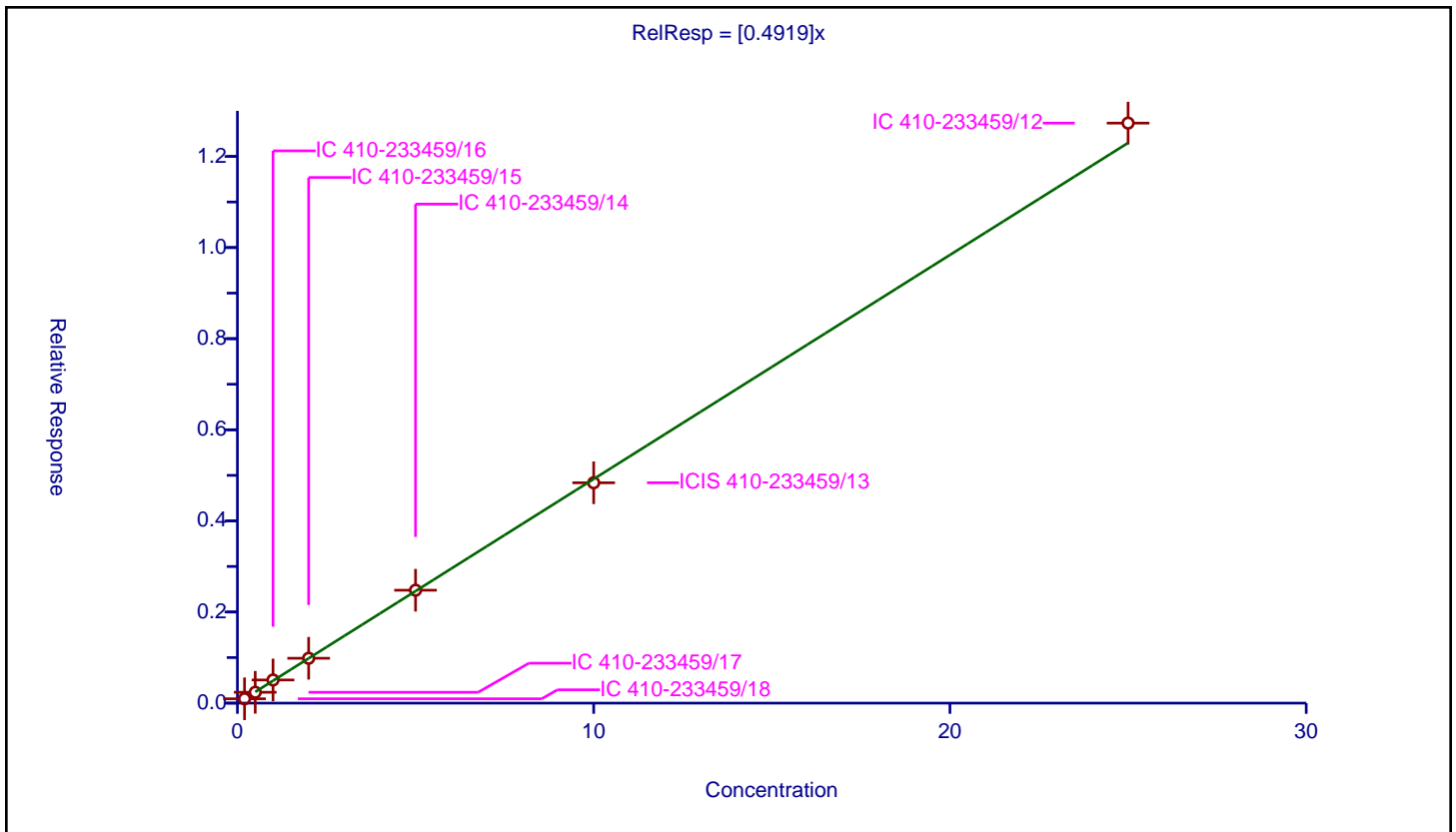
/ Carbon tetrachloride

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4919

Error Coefficients	
Standard Error:	1130000
Relative Standard Error:	2.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.095622	10.0	2021821.0	0.478109	Y
2	IC 410-233459/17	0.5	0.237978	10.0	2017326.0	0.475957	Y
3	IC 410-233459/16	1.0	0.50826	10.0	2010448.0	0.50826	Y
4	IC 410-233459/15	2.0	0.984561	10.0	2005717.0	0.49228	Y
5	IC 410-233459/14	5.0	2.478636	10.0	2008310.0	0.495727	Y
6	ICIS 410-233459/13	10.0	4.836651	10.0	2018353.0	0.483665	Y
7	IC 410-233459/12	25.0	12.731819	10.0	1979820.0	0.509273	Y



Calibration

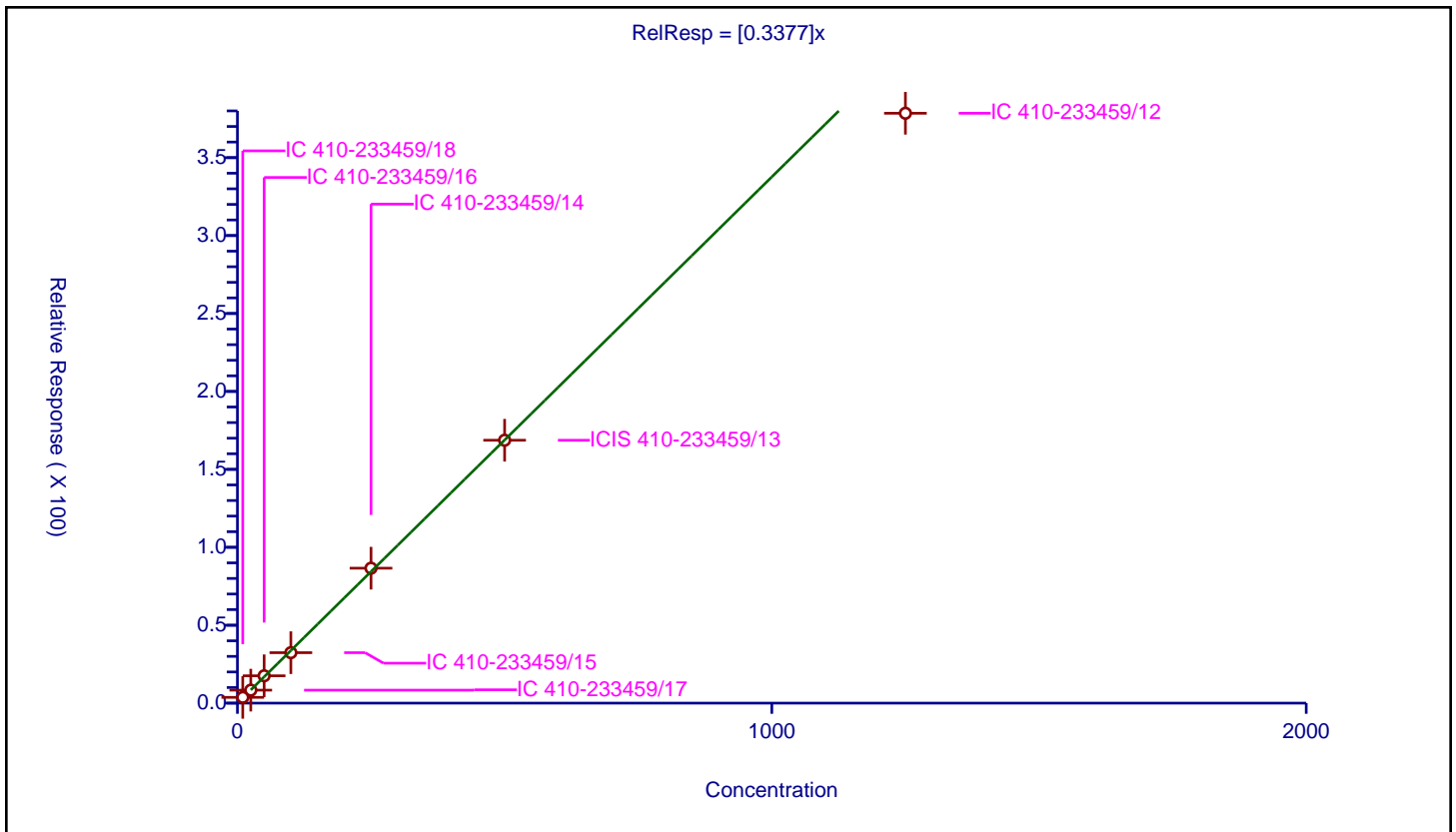
/ Isobutyl alcohol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3377

Error Coefficients	
Standard Error:	520000
Relative Standard Error:	6.2
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	10.0	3.6914	50.0	155632.0	0.36914	Y
2	IC 410-233459/17	25.0	8.332218	50.0	134454.0	0.333289	Y
3	IC 410-233459/16	50.0	17.543854	50.0	144059.0	0.350877	Y
4	IC 410-233459/15	100.0	32.382368	50.0	140927.0	0.323824	Y
5	IC 410-233459/14	250.0	86.585724	50.0	149941.0	0.346343	Y
6	ICIS 410-233459/13	500.0	168.674891	50.0	147286.0	0.33735	Y
7	IC 410-233459/12	1250.0	378.485177	50.0	150473.0	0.302788	Y



Calibration

/ 1,2-Dichloroethane-d4 (Surr)

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

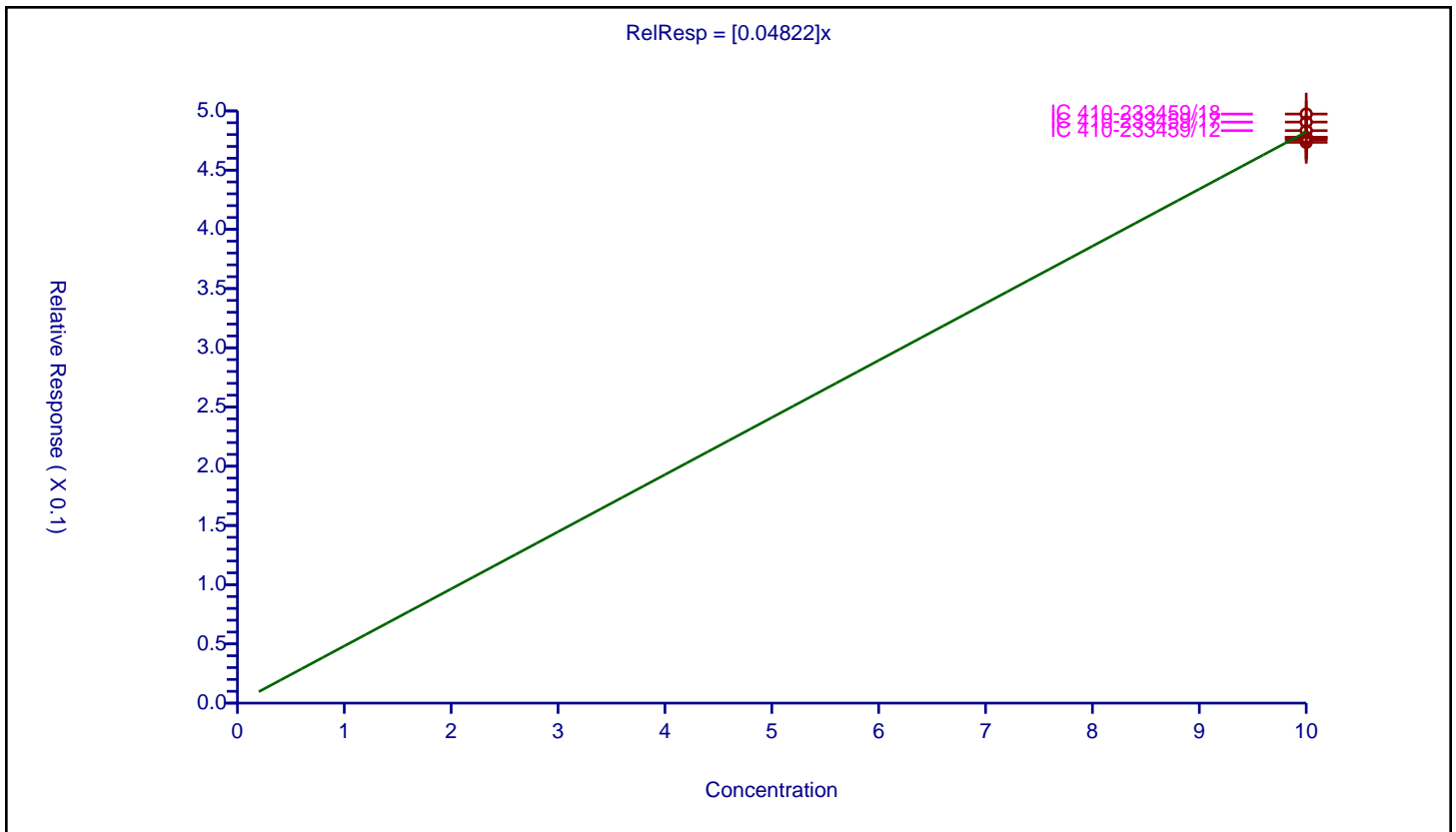
Curve Coefficients

Intercept: 0
 Slope: 0.04822

Error Coefficients

Standard Error: 105000
 Relative Standard Error: 1.8
 Correlation Coefficient: 0.00000000000000000000
 Coefficient of Determination (Adjusted): 0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/12	10.0	0.483347	10.0	1979820.0	0.048335	Y
2	ICIS 410-233459/13	10.0	0.475764	10.0	2018353.0	0.047576	Y
3	IC 410-233459/14	10.0	0.473473	10.0	2008310.0	0.047347	Y
4	IC 410-233459/15	10.0	0.477251	10.0	2005717.0	0.047725	Y
5	IC 410-233459/16	10.0	0.477734	10.0	2010448.0	0.047773	Y
6	IC 410-233459/17	10.0	0.490575	10.0	2017326.0	0.049058	Y
7	IC 410-233459/18	10.0	0.497354	10.0	2021821.0	0.049735	Y



Calibration

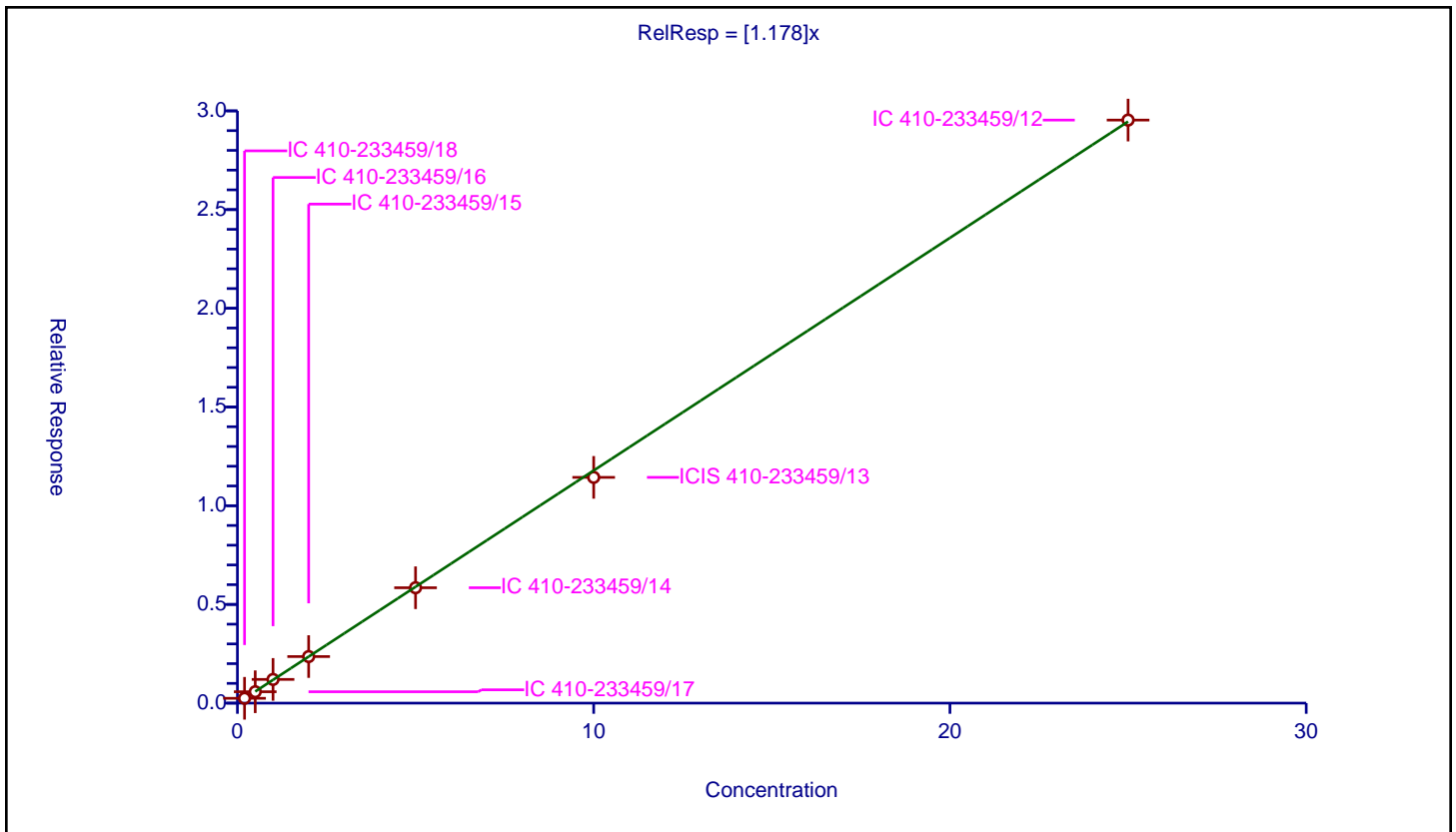
/ Benzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.178

Error Coefficients	
Standard Error:	2620000
Relative Standard Error:	2.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.244206	10.0	2021821.0	1.221028	Y
2	IC 410-233459/17	0.5	0.576729	10.0	2017326.0	1.153458	Y
3	IC 410-233459/16	1.0	1.200722	10.0	2010448.0	1.200722	Y
4	IC 410-233459/15	2.0	2.358683	10.0	2005717.0	1.179341	Y
5	IC 410-233459/14	5.0	5.845542	10.0	2008310.0	1.169108	Y
6	ICIS 410-233459/13	10.0	11.435621	10.0	2018353.0	1.143562	Y
7	IC 410-233459/12	25.0	29.534311	10.0	1979820.0	1.181372	Y



Calibration

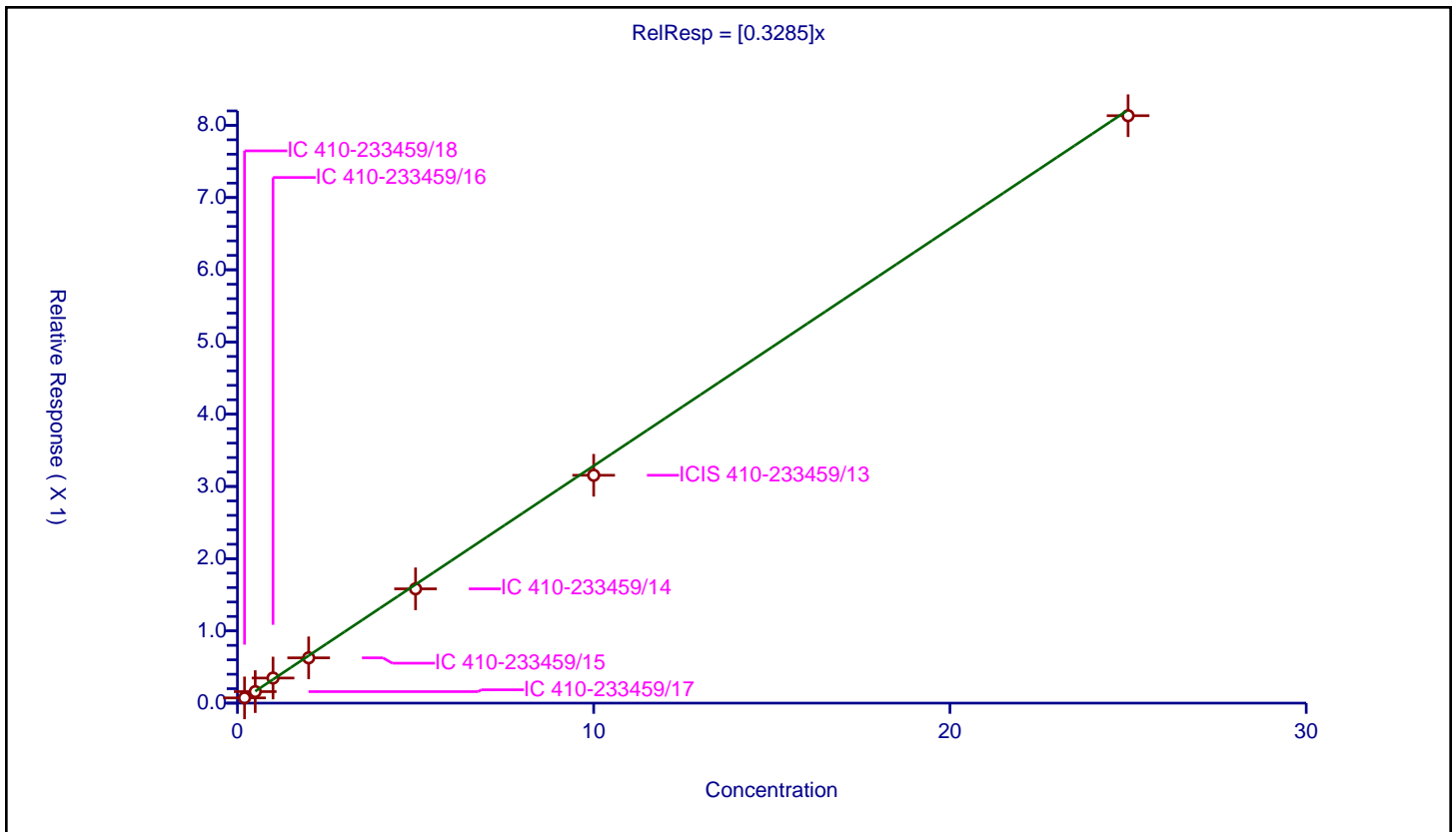
/ 1,2-Dichloroethane

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3285

Error Coefficients	
Standard Error:	721000
Relative Standard Error:	5.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.07237	10.0	2021821.0	0.361852	Y
2	IC 410-233459/17	0.5	0.159533	10.0	2017326.0	0.319066	Y
3	IC 410-233459/16	1.0	0.347639	10.0	2010448.0	0.347639	Y
4	IC 410-233459/15	2.0	0.627142	10.0	2005717.0	0.313571	Y
5	IC 410-233459/14	5.0	1.582724	10.0	2008310.0	0.316545	Y
6	ICIS 410-233459/13	10.0	3.155097	10.0	2018353.0	0.31551	Y
7	IC 410-233459/12	25.0	8.133719	10.0	1979820.0	0.325349	Y



Calibration

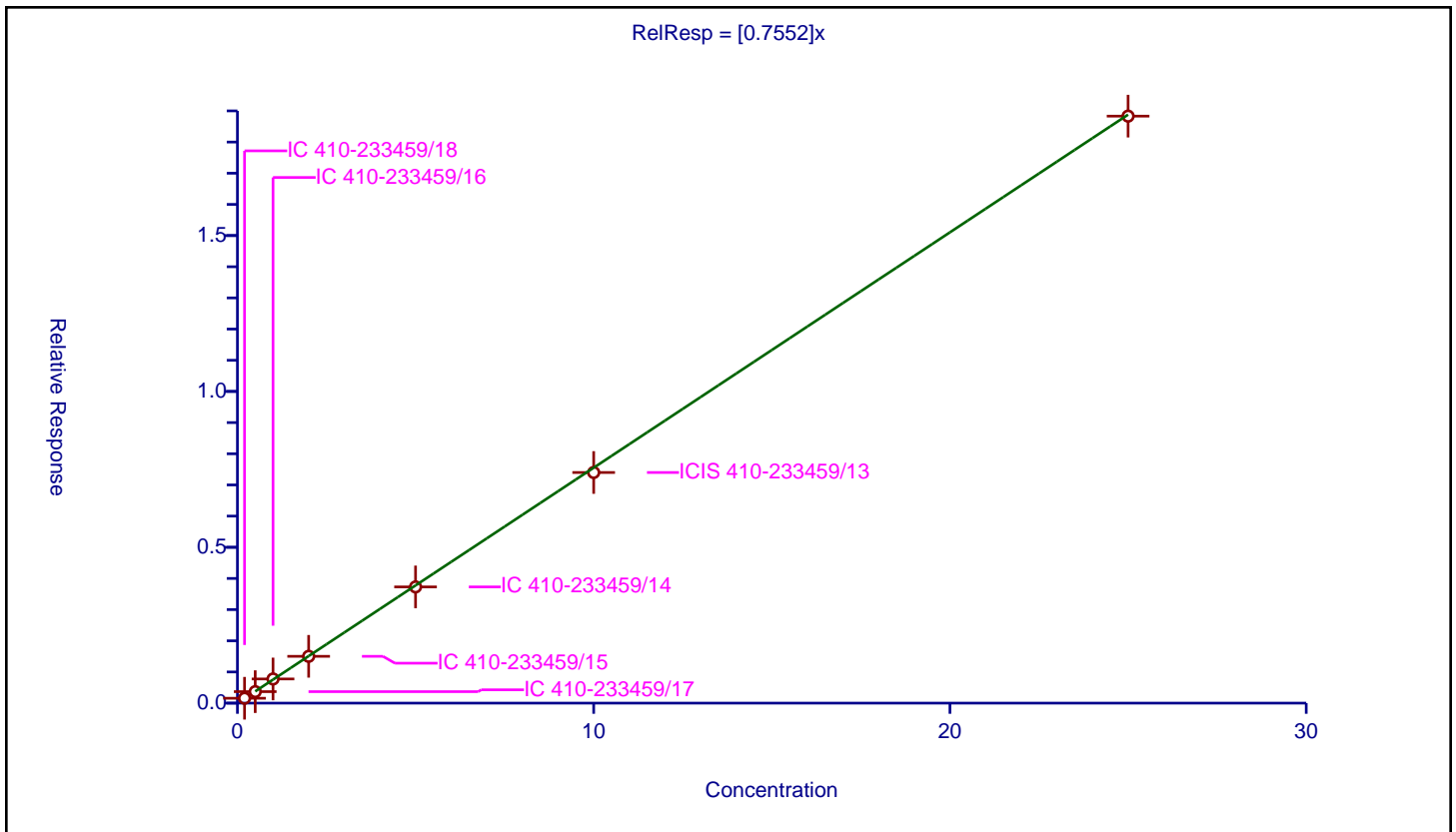
/ Tert-amyl methyl ether

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.7552

Error Coefficients	
Standard Error:	1670000
Relative Standard Error:	2.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.156972	10.0	2021821.0	0.784862	Y
2	IC 410-233459/17	0.5	0.368408	10.0	2017326.0	0.736817	Y
3	IC 410-233459/16	1.0	0.775091	10.0	2010448.0	0.775091	Y
4	IC 410-233459/15	2.0	1.501468	10.0	2005717.0	0.750734	Y
5	IC 410-233459/14	5.0	3.728179	10.0	2008310.0	0.745636	Y
6	ICIS 410-233459/13	10.0	7.399315	10.0	2018353.0	0.739932	Y
7	IC 410-233459/12	25.0	18.831965	10.0	1979820.0	0.753279	Y



Calibration

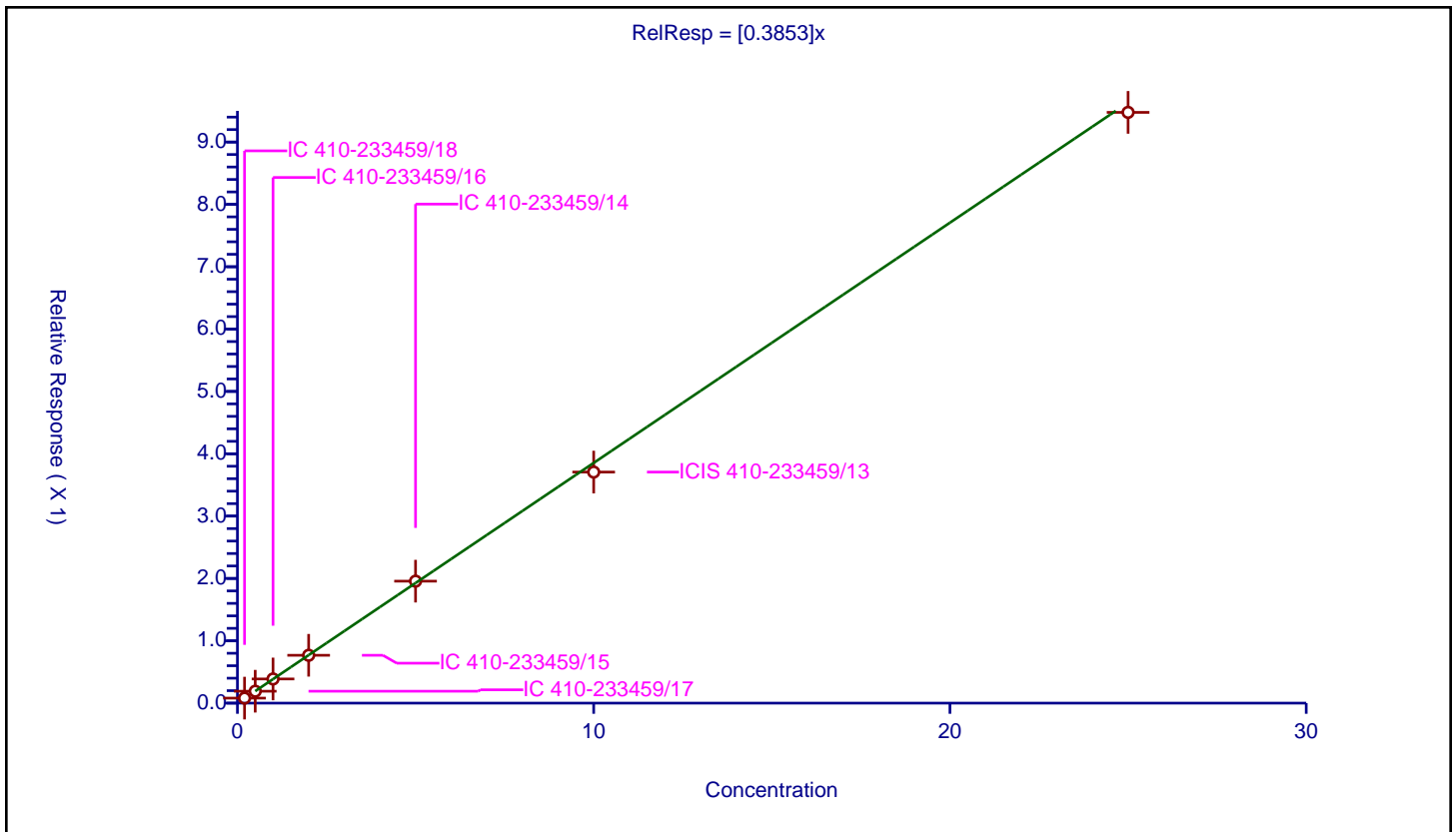
/ n-Heptane

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3853

Error Coefficients	
Standard Error:	843000
Relative Standard Error:	2.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.080462	10.0	2021821.0	0.402311	Y
2	IC 410-233459/17	0.5	0.191194	10.0	2017326.0	0.382387	Y
3	IC 410-233459/16	1.0	0.387824	10.0	2010448.0	0.387824	Y
4	IC 410-233459/15	2.0	0.767496	10.0	2005717.0	0.383748	Y
5	IC 410-233459/14	5.0	1.95662	10.0	2008310.0	0.391324	Y
6	ICIS 410-233459/13	10.0	3.706324	10.0	2018353.0	0.370632	Y
7	IC 410-233459/12	25.0	9.47617	10.0	1979820.0	0.379047	Y



Calibration

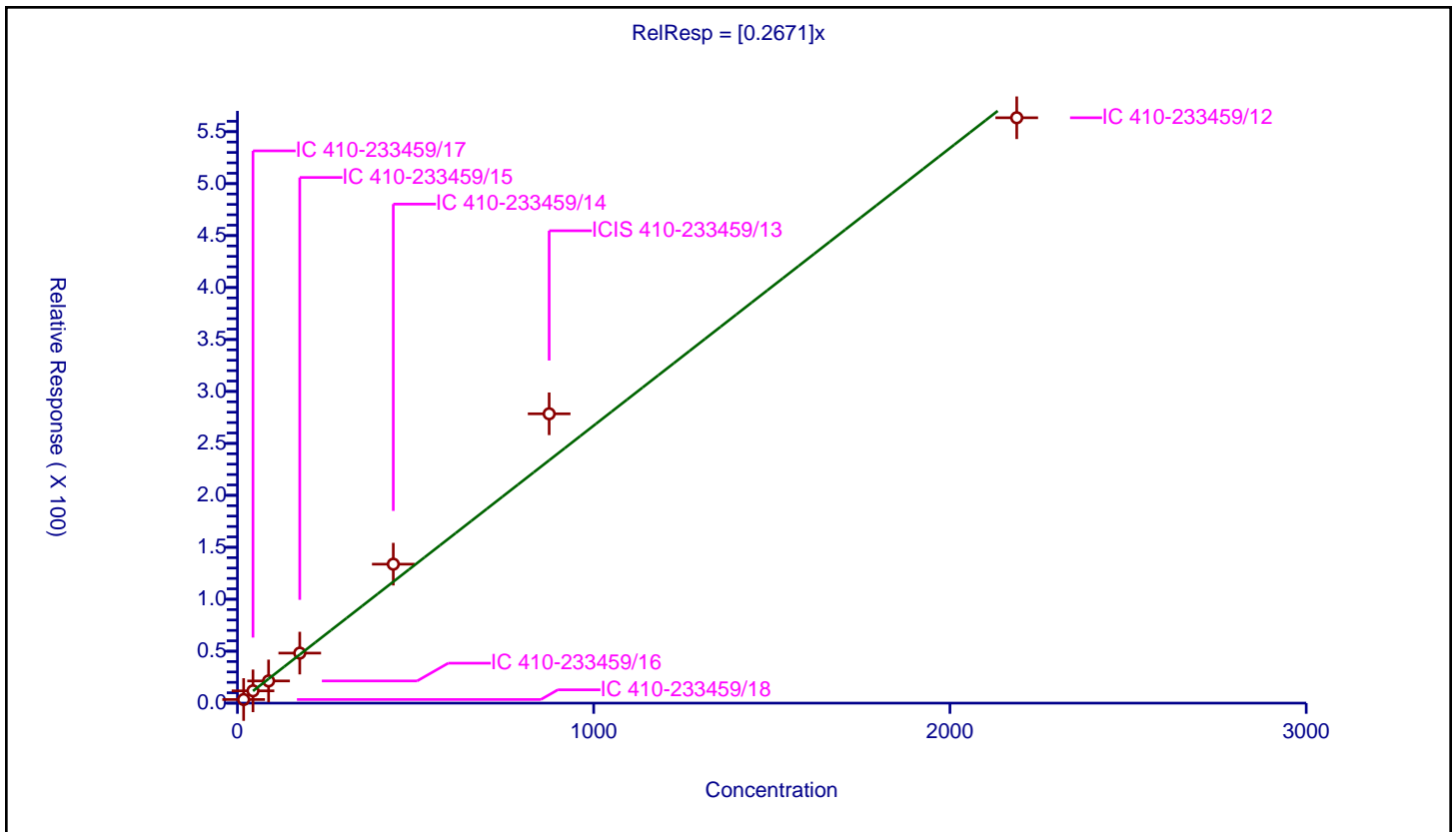
/ n-Butanol

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2671

Error Coefficients	
Standard Error:	788000
Relative Standard Error:	14.9
Correlation Coefficient:	0.992
Coefficient of Determination (Adjusted):	0.975

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	17.5	3.470045	50.0	155632.0	0.198288	Y
2	IC 410-233459/17	43.75	11.837506	50.0	134454.0	0.270572	Y
3	IC 410-233459/16	87.5	21.35271	50.0	144059.0	0.244031	Y
4	IC 410-233459/15	175.0	48.162524	50.0	140927.0	0.275214	Y
5	IC 410-233459/14	437.5	133.750942	50.0	149941.0	0.305716	Y
6	ICIS 410-233459/13	875.0	278.467743	50.0	147286.0	0.318249	Y
7	IC 410-233459/12	2187.5	563.390442	50.0	150473.0	0.25755	Y



Calibration

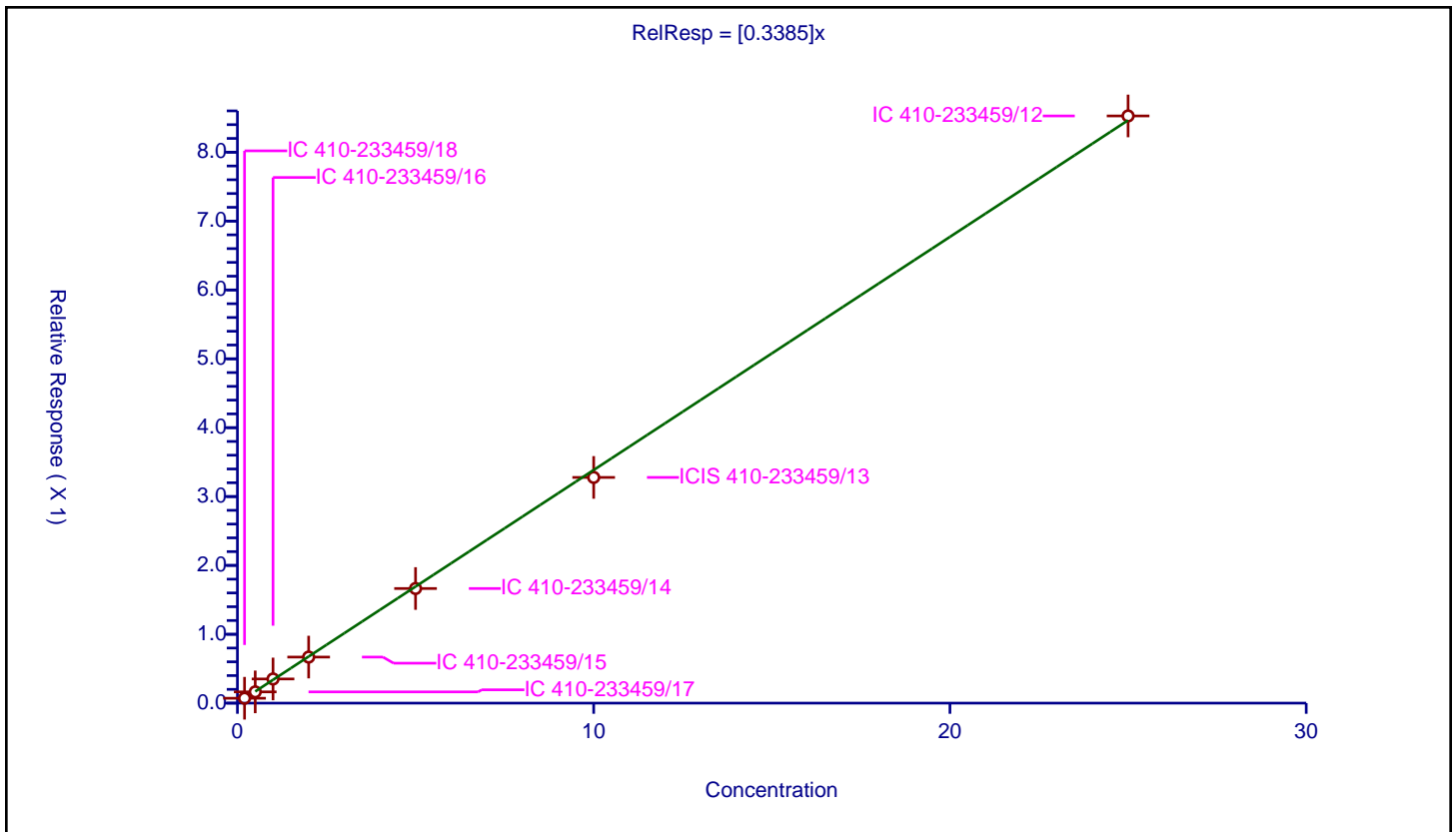
/ Trichloroethene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3385

Error Coefficients	
Standard Error:	755000
Relative Standard Error:	3.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.071149	10.0	2021821.0	0.355744	Y
2	IC 410-233459/17	0.5	0.163454	10.0	2017326.0	0.326908	Y
3	IC 410-233459/16	1.0	0.351021	10.0	2010448.0	0.351021	Y
4	IC 410-233459/15	2.0	0.668708	10.0	2005717.0	0.334354	Y
5	IC 410-233459/14	5.0	1.664409	10.0	2008310.0	0.332882	Y
6	ICIS 410-233459/13	10.0	3.277539	10.0	2018353.0	0.327754	Y
7	IC 410-233459/12	25.0	8.526608	10.0	1979820.0	0.341064	Y



Calibration

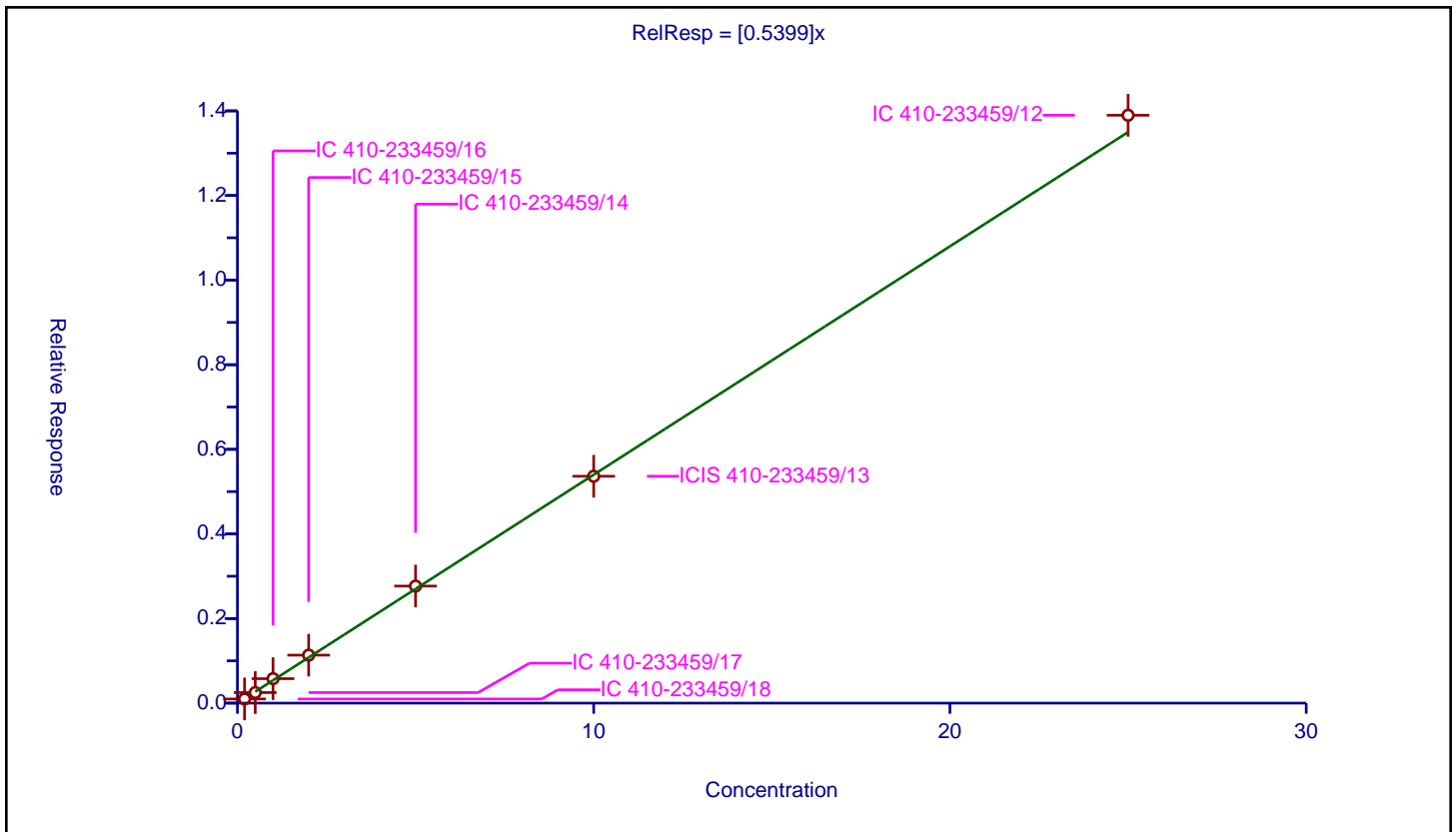
/ Methylcyclohexane

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.5399

Error Coefficients	
Standard Error:	1230000
Relative Standard Error:	6.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.097783	10.0	2021821.0	0.488916	Y
2	IC 410-233459/17	0.5	0.249821	10.0	2017326.0	0.499642	Y
3	IC 410-233459/16	1.0	0.57814	10.0	2010448.0	0.57814	Y
4	IC 410-233459/15	2.0	1.134377	10.0	2005717.0	0.567189	Y
5	IC 410-233459/14	5.0	2.76655	10.0	2008310.0	0.55331	Y
6	ICIS 410-233459/13	10.0	5.363319	10.0	2018353.0	0.536332	Y
7	IC 410-233459/12	25.0	13.89644	10.0	1979820.0	0.555858	Y



Calibration

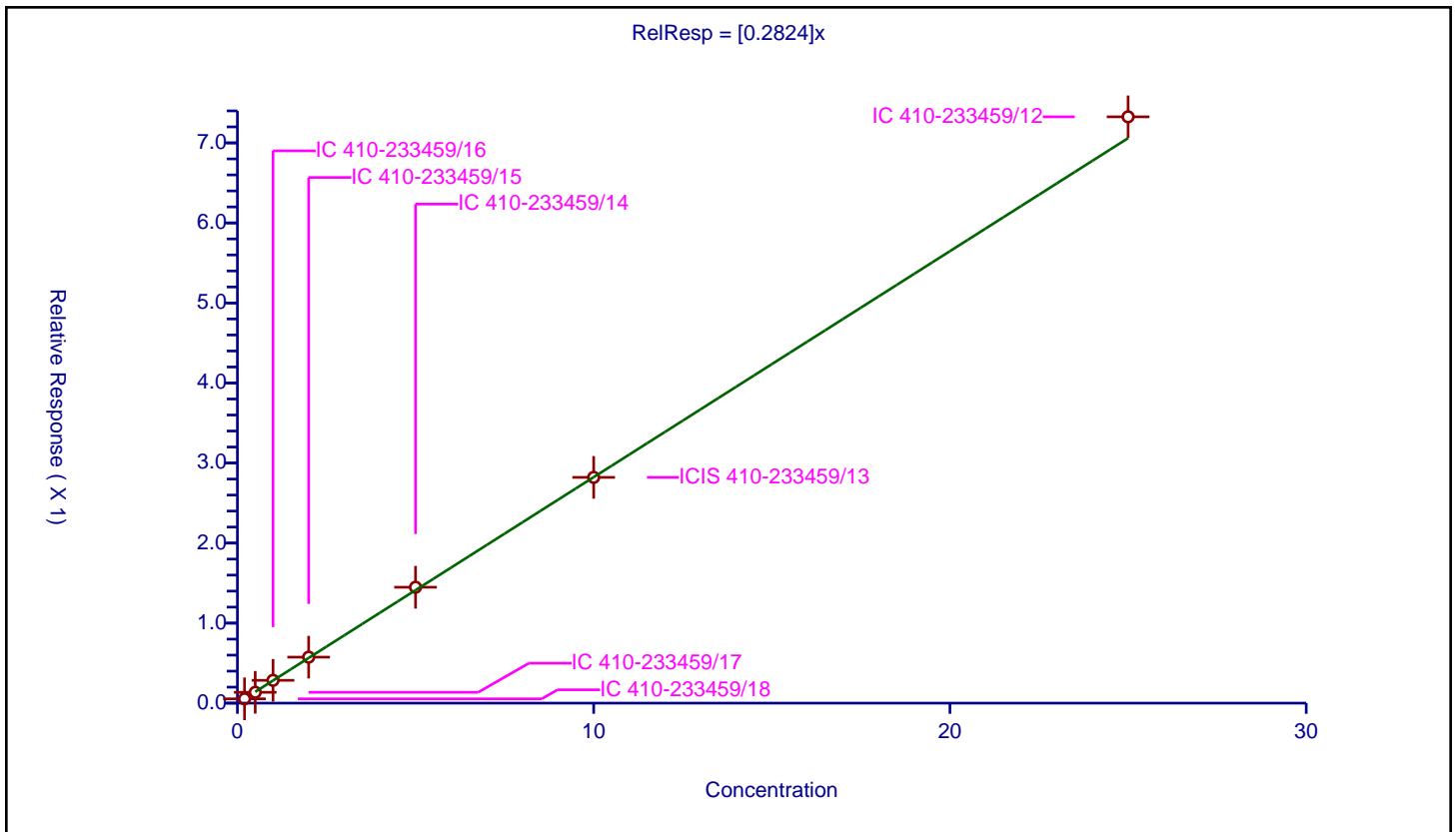
/ 1,2-Dichloropropane

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2824

Error Coefficients	
Standard Error:	649000
Relative Standard Error:	3.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.053788	10.0	2021821.0	0.268941	Y
2	IC 410-233459/17	0.5	0.135308	10.0	2017326.0	0.270616	Y
3	IC 410-233459/16	1.0	0.284996	10.0	2010448.0	0.284996	Y
4	IC 410-233459/15	2.0	0.574498	10.0	2005717.0	0.287249	Y
5	IC 410-233459/14	5.0	1.448068	10.0	2008310.0	0.289614	Y
6	ICIS 410-233459/13	10.0	2.82076	10.0	2018353.0	0.282076	Y
7	IC 410-233459/12	25.0	7.325828	10.0	1979820.0	0.293033	Y



Calibration

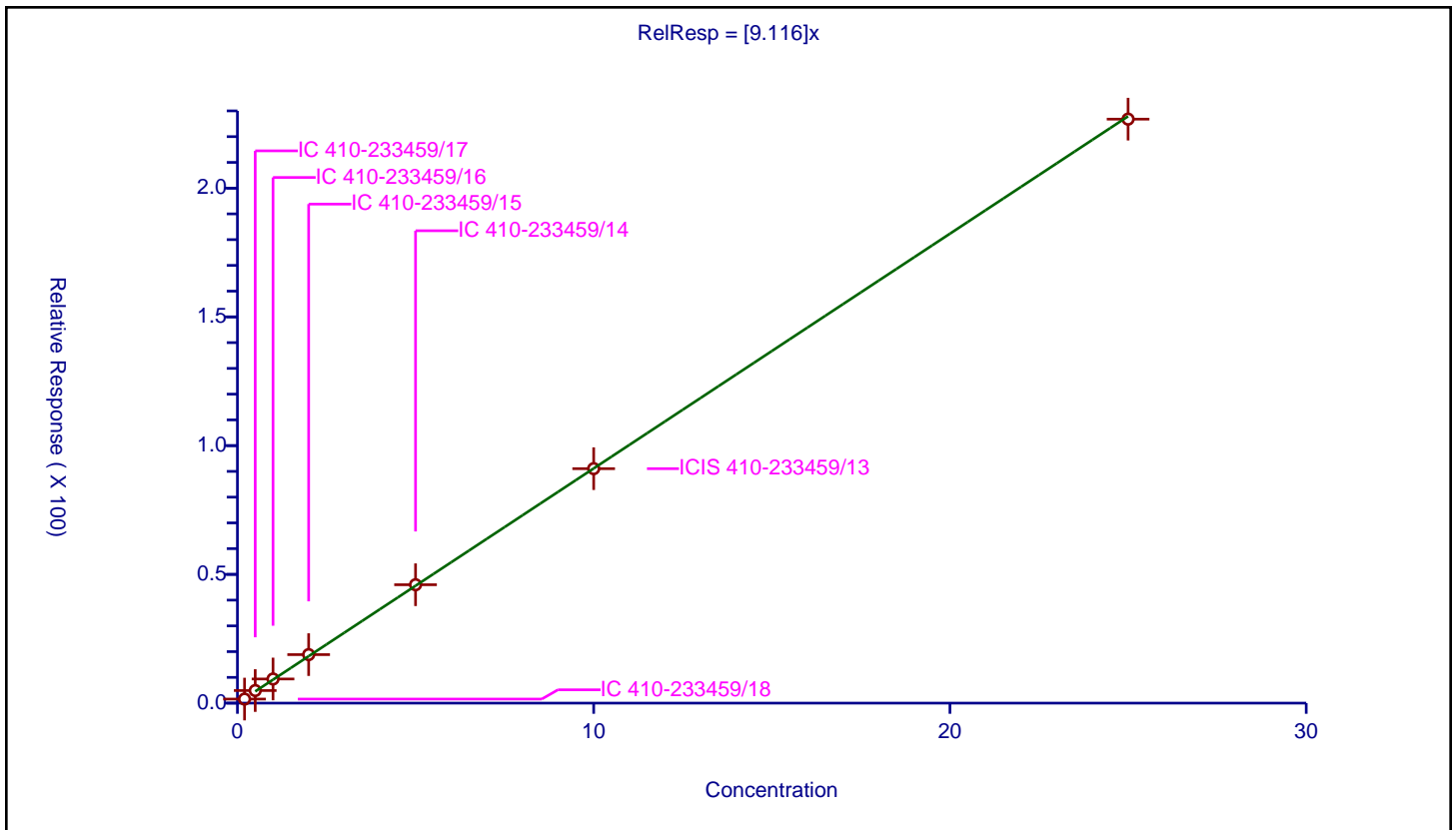
/ Methyl methacrylate

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	9.116

Error Coefficients	
Standard Error:	306000
Relative Standard Error:	6.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	1.574226	50.0	155632.0	7.871132	Y
2	IC 410-233459/17	0.5	4.885314	50.0	134454.0	9.770628	Y
3	IC 410-233459/16	1.0	9.372896	50.0	144059.0	9.372896	Y
4	IC 410-233459/15	2.0	18.843089	50.0	140927.0	9.421544	Y
5	IC 410-233459/14	5.0	45.976417	50.0	149941.0	9.195283	Y
6	ICIS 410-233459/13	10.0	91.053121	50.0	147286.0	9.105312	Y
7	IC 410-233459/12	25.0	226.797499	50.0	150473.0	9.0719	Y



Calibration

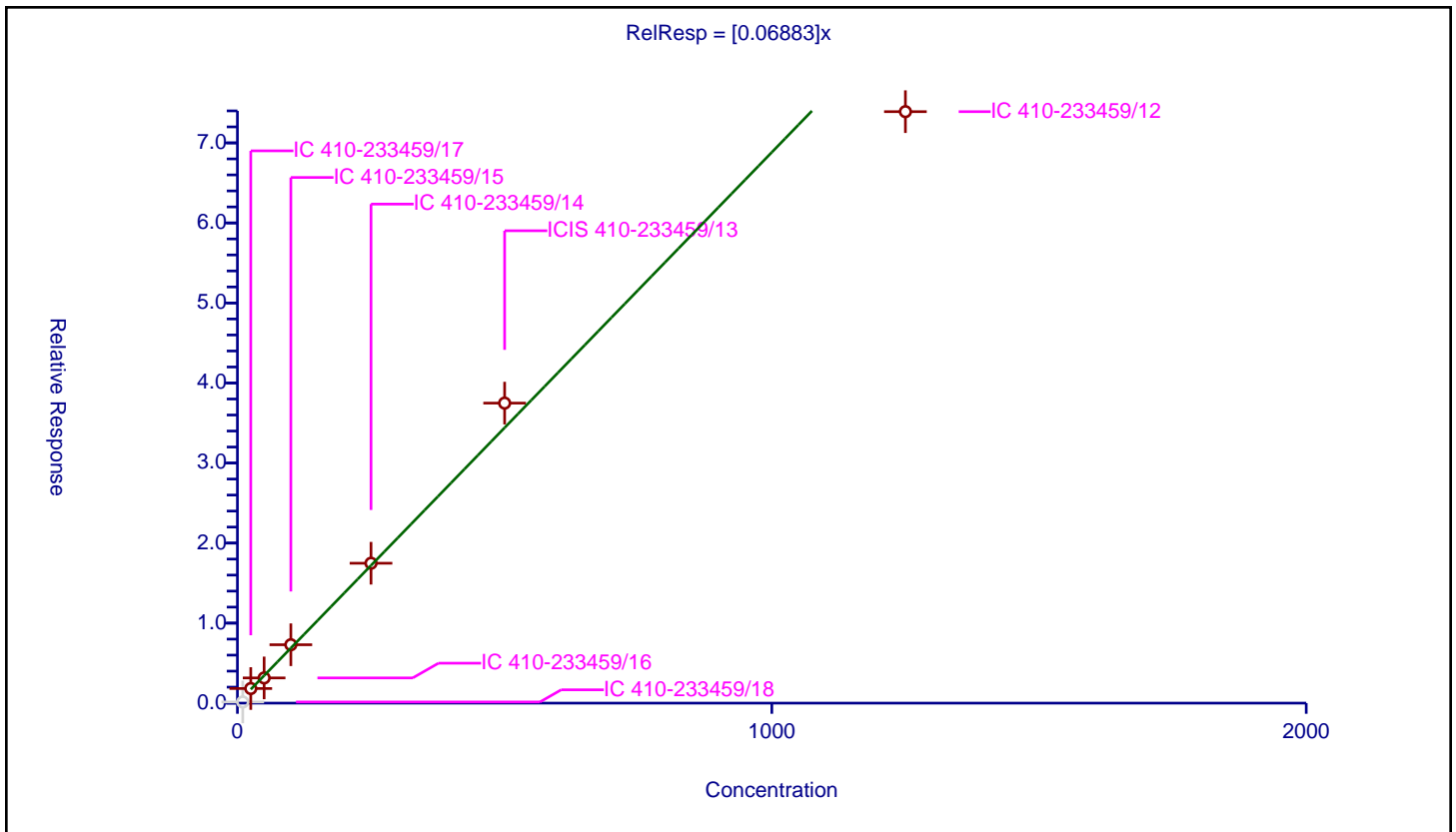
/ 1,4-Dioxane

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.06883

Error Coefficients	
Standard Error:	114000
Relative Standard Error:	9.2
Correlation Coefficient:	0.990
Coefficient of Determination (Adjusted):	0.986

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	10.0	0.143608	50.0	155632.0	0.014361	N
2	IC 410-233459/17	25.0	1.82516	50.0	134454.0	0.073006	Y
3	IC 410-233459/16	50.0	3.14871	50.0	144059.0	0.062974	Y
4	IC 410-233459/15	100.0	7.296686	50.0	140927.0	0.072967	Y
5	IC 410-233459/14	250.0	17.478542	50.0	149941.0	0.069914	Y
6	ICIS 410-233459/13	500.0	37.488288	50.0	147286.0	0.074977	Y
7	IC 410-233459/12	1250.0	73.903956	50.0	150473.0	0.059123	Y



Calibration

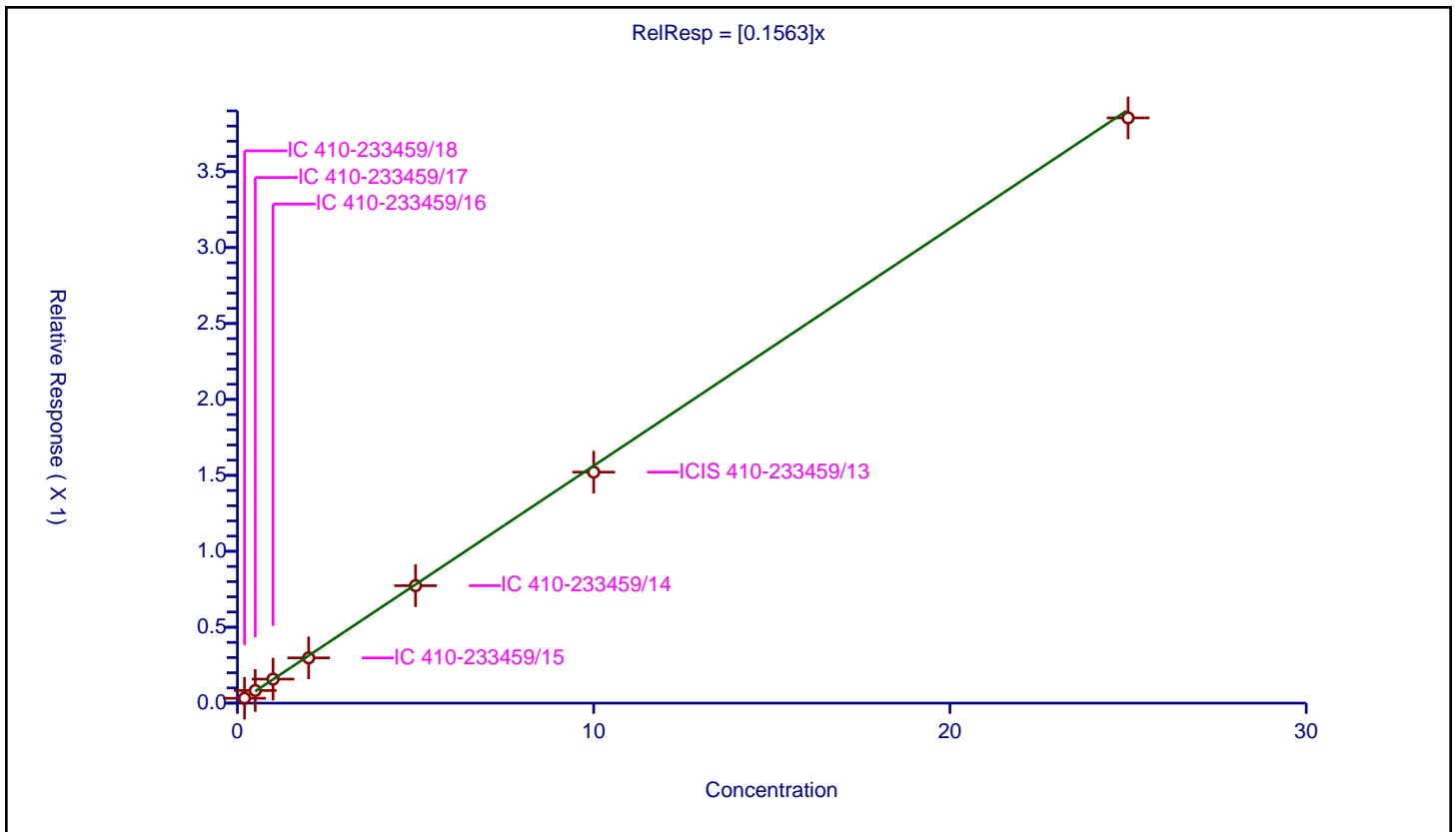
/ Dibromomethane

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.1563

Error Coefficients	
Standard Error:	343000
Relative Standard Error:	3.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.031986	10.0	2021821.0	0.15993	Y
2	IC 410-233459/17	0.5	0.083011	10.0	2017326.0	0.166022	Y
3	IC 410-233459/16	1.0	0.158034	10.0	2010448.0	0.158034	Y
4	IC 410-233459/15	2.0	0.298123	10.0	2005717.0	0.149061	Y
5	IC 410-233459/14	5.0	0.773337	10.0	2008310.0	0.154667	Y
6	ICIS 410-233459/13	10.0	1.521116	10.0	2018353.0	0.152112	Y
7	IC 410-233459/12	25.0	3.853956	10.0	1979820.0	0.154158	Y



Calibration

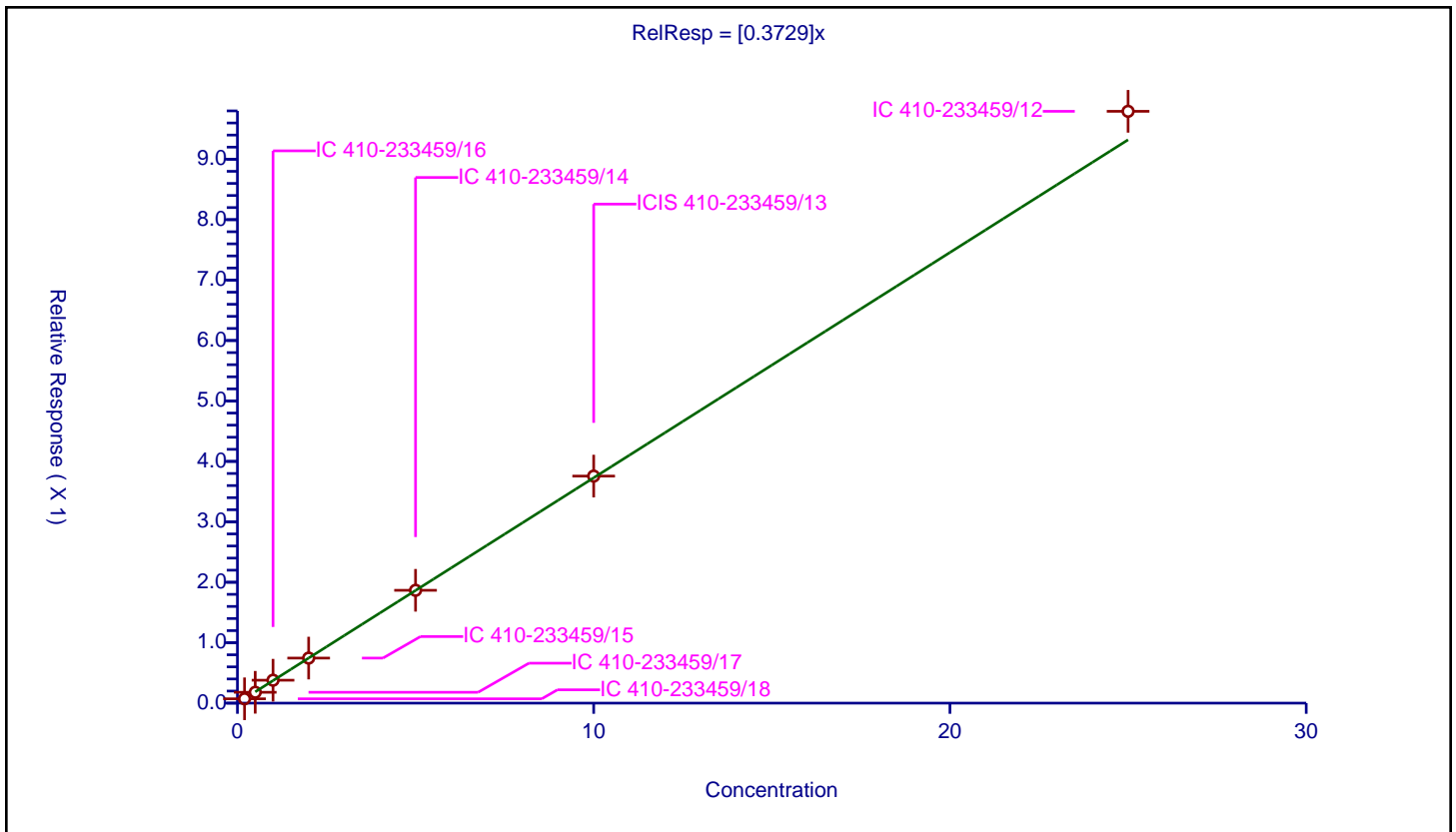
/ Dichlorobromomethane

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3729

Error Coefficients	
Standard Error:	866000
Relative Standard Error:	3.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.071698	10.0	2021821.0	0.358489	Y
2	IC 410-233459/17	0.5	0.179445	10.0	2017326.0	0.358891	Y
3	IC 410-233459/16	1.0	0.37908	10.0	2010448.0	0.37908	Y
4	IC 410-233459/15	2.0	0.745649	10.0	2005717.0	0.372824	Y
5	IC 410-233459/14	5.0	1.866873	10.0	2008310.0	0.373375	Y
6	ICIS 410-233459/13	10.0	3.756949	10.0	2018353.0	0.375695	Y
7	IC 410-233459/12	25.0	9.79289	10.0	1979820.0	0.391716	Y



Calibration

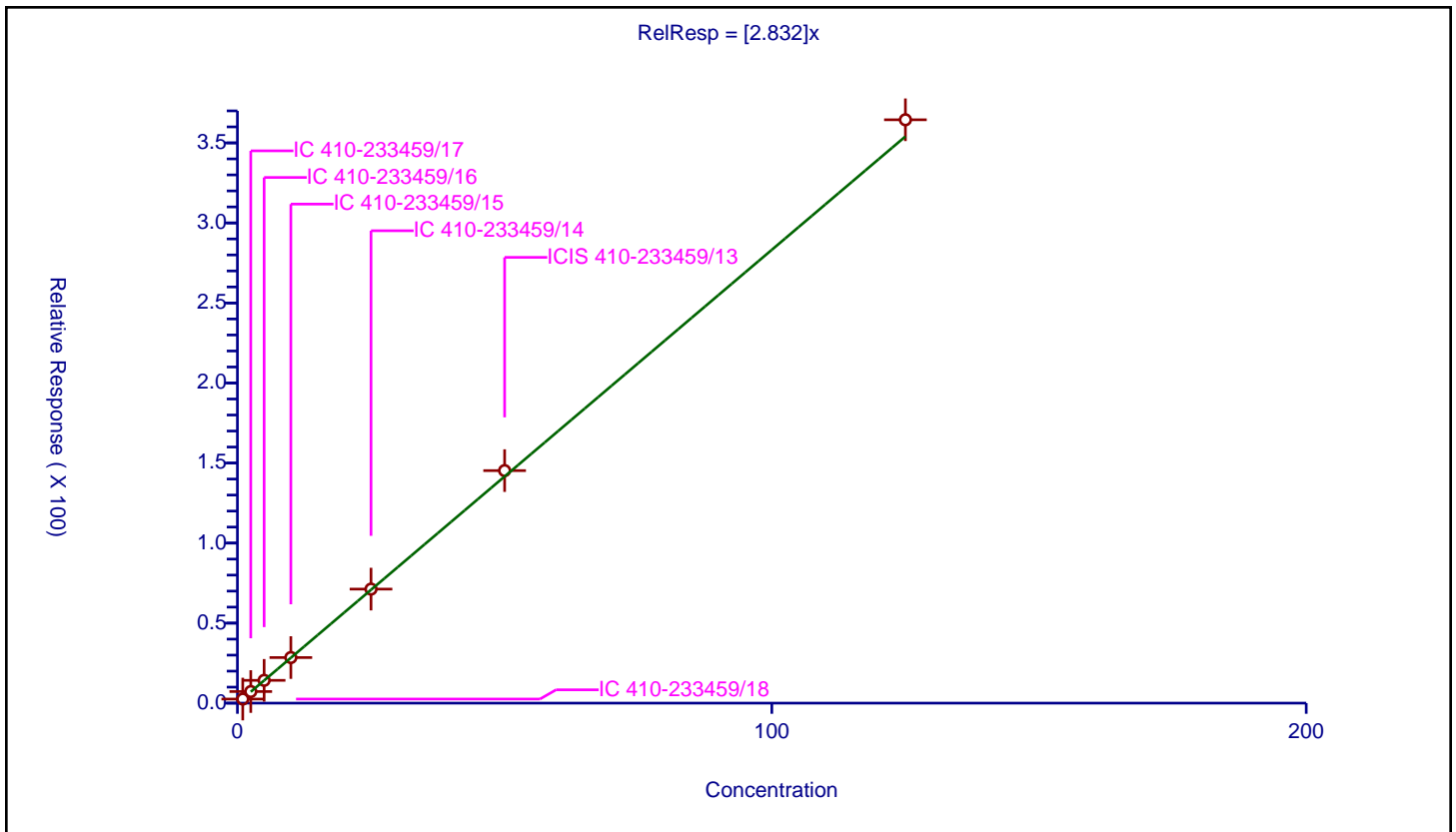
/ 2-Nitropropane

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	2.832

Error Coefficients	
Standard Error:	490000
Relative Standard Error:	4.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	1.0	2.562134	50.0	155632.0	2.562134	Y
2	IC 410-233459/17	2.5	7.242254	50.0	134454.0	2.896902	Y
3	IC 410-233459/16	5.0	14.236528	50.0	144059.0	2.847306	Y
4	IC 410-233459/15	10.0	28.480348	50.0	140927.0	2.848035	Y
5	IC 410-233459/14	25.0	71.235353	50.0	149941.0	2.849414	Y
6	ICIS 410-233459/13	50.0	145.265334	50.0	147286.0	2.905307	Y
7	IC 410-233459/12	125.0	364.438138	50.0	150473.0	2.915505	Y



Calibration

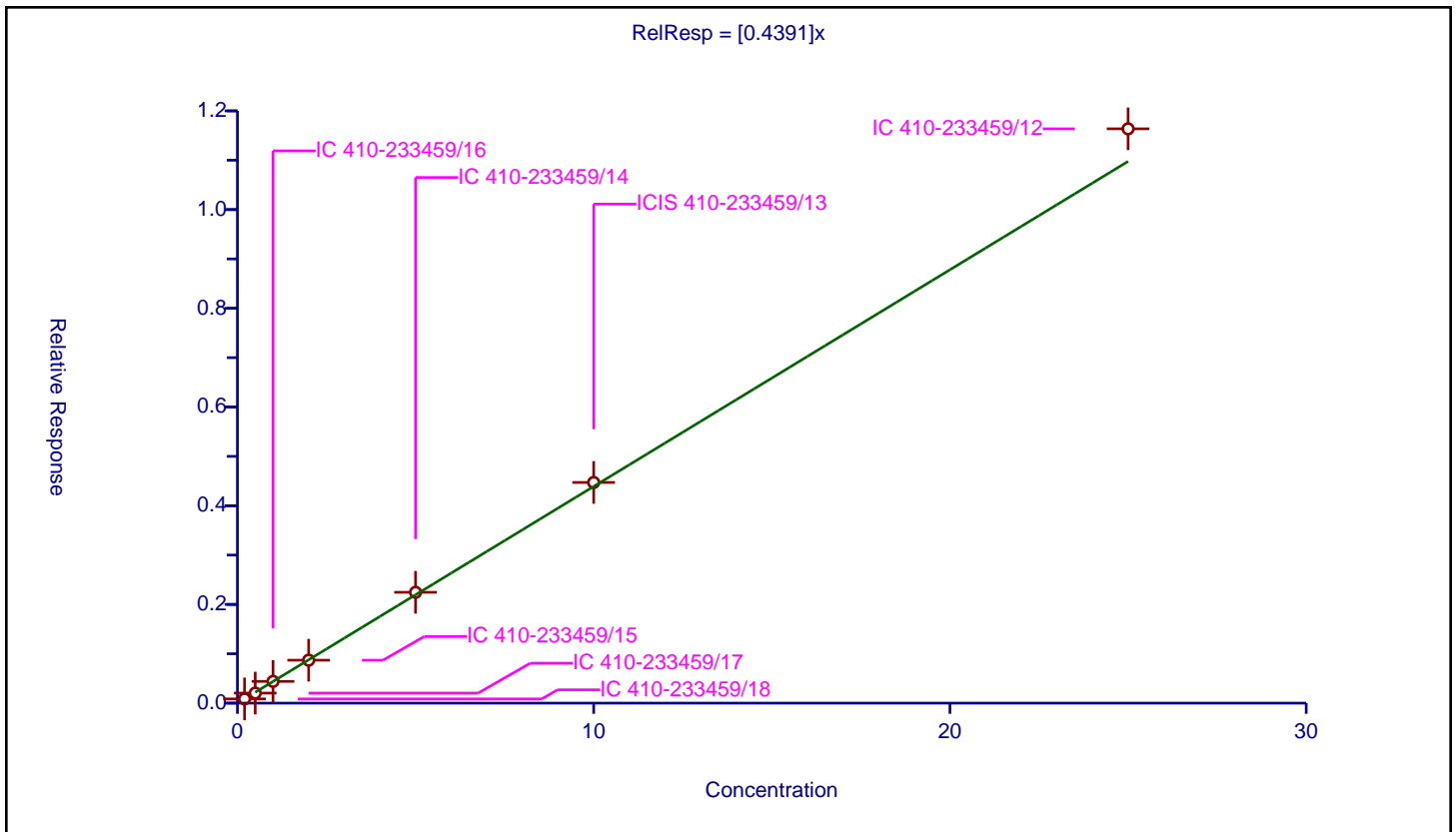
/ cis-1,3-Dichloropropene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4391

Error Coefficients	
Standard Error:	1030000
Relative Standard Error:	4.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.085675	10.0	2021821.0	0.428376	Y
2	IC 410-233459/17	0.5	0.20372	10.0	2017326.0	0.40744	Y
3	IC 410-233459/16	1.0	0.440668	10.0	2010448.0	0.440668	Y
4	IC 410-233459/15	2.0	0.870412	10.0	2005717.0	0.435206	Y
5	IC 410-233459/14	5.0	2.24559	10.0	2008310.0	0.449118	Y
6	ICIS 410-233459/13	10.0	4.47119	10.0	2018353.0	0.447119	Y
7	IC 410-233459/12	25.0	11.637028	10.0	1979820.0	0.465481	Y



Calibration

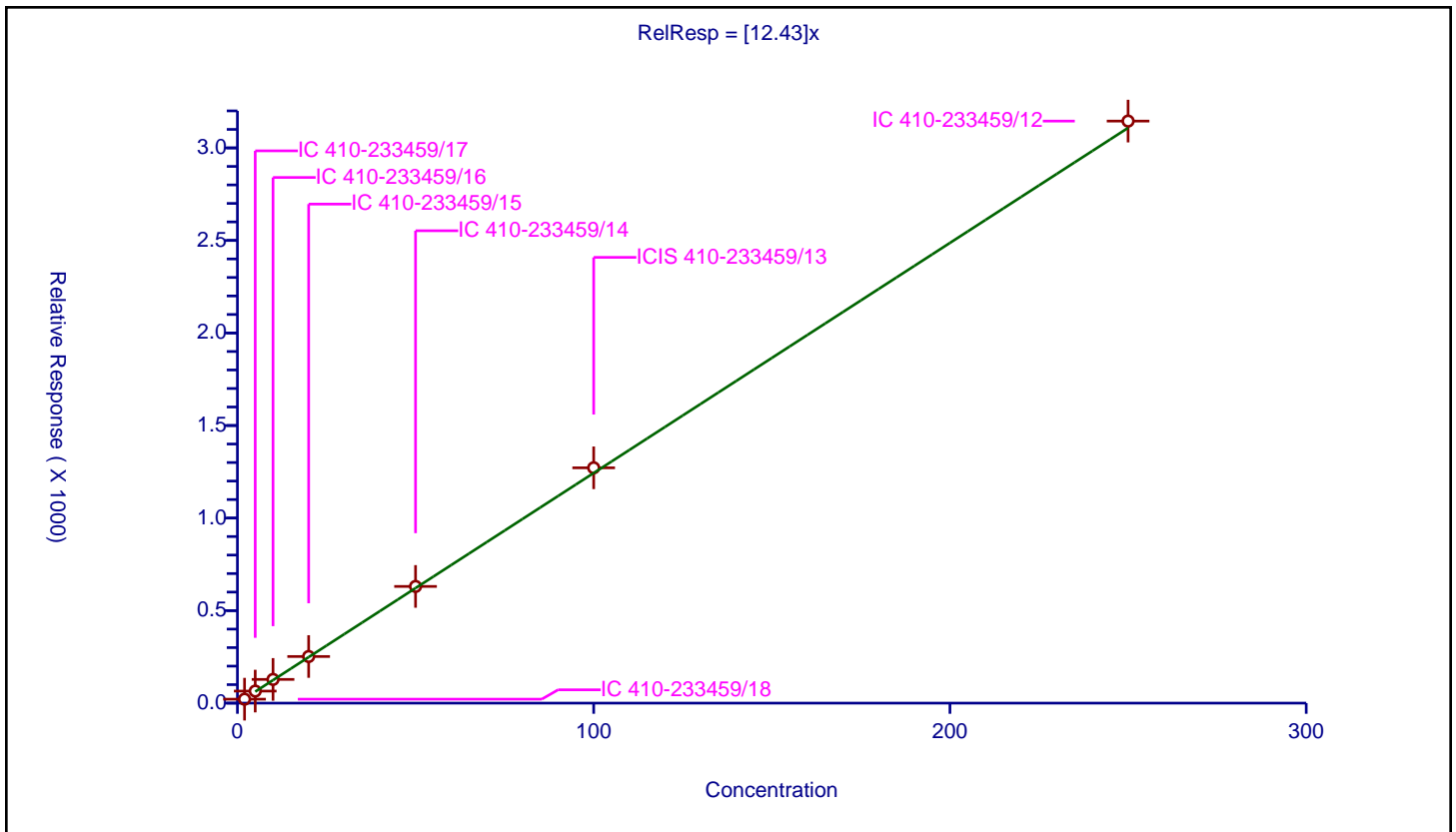
/ 4-Methyl-2-pentanone (MIBK)

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	12.43

Error Coefficients	
Standard Error:	4240000
Relative Standard Error:	6.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	2.0	21.386026	50.0	155632.0	10.693013	Y
2	IC 410-233459/17	5.0	65.120785	50.0	134454.0	13.024157	Y
3	IC 410-233459/16	10.0	128.116952	50.0	144059.0	12.811695	Y
4	IC 410-233459/15	20.0	251.927949	50.0	140927.0	12.596397	Y
5	IC 410-233459/14	50.0	630.575693	50.0	149941.0	12.611514	Y
6	ICIS 410-233459/13	100.0	1271.463683	50.0	147286.0	12.714637	Y
7	IC 410-233459/12	250.0	3144.914702	50.0	150473.0	12.579659	Y



Calibration

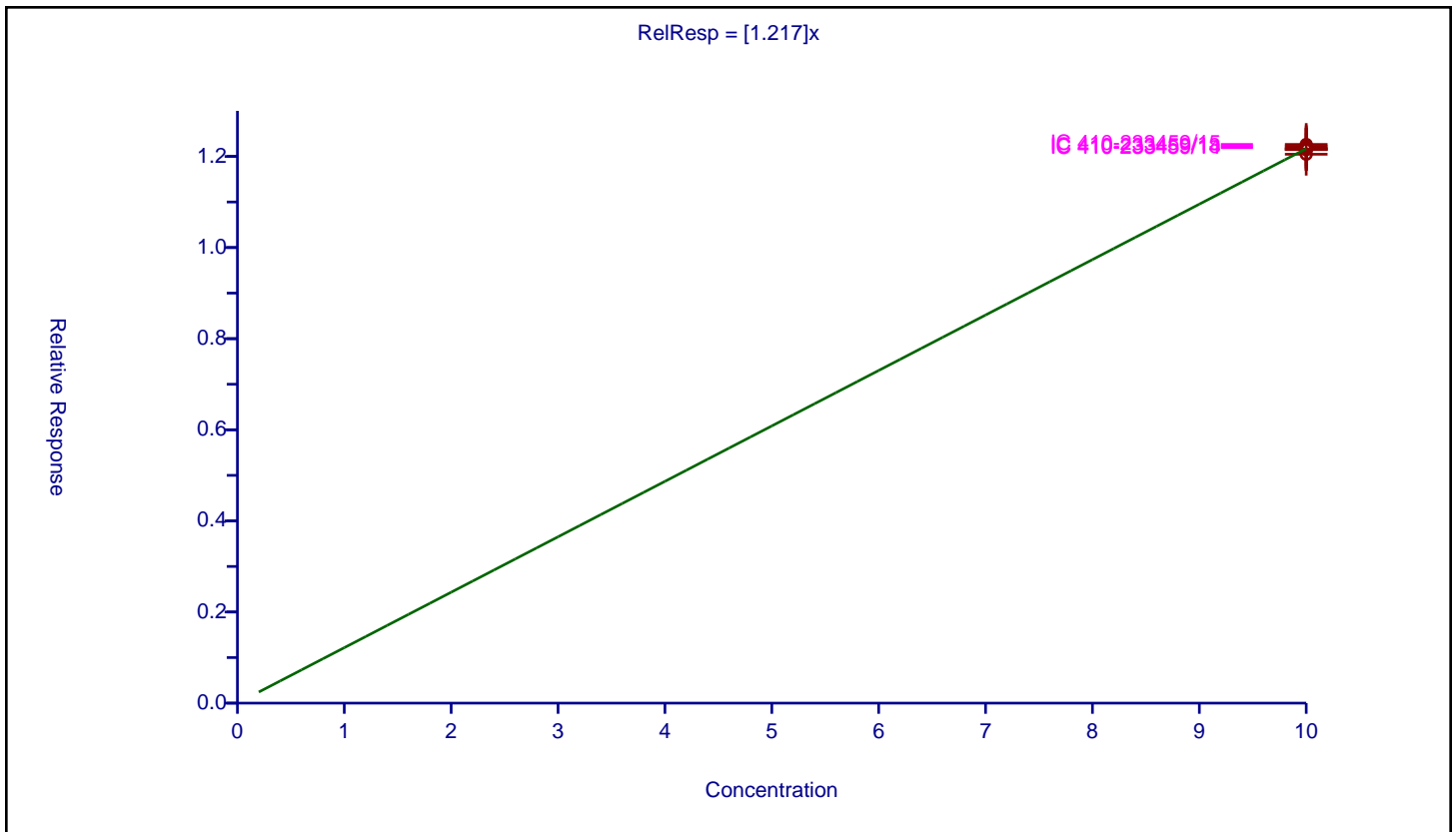
/ Toluene-d8 (Surr)

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.217

Error Coefficients	
Standard Error:	2210000
Relative Standard Error:	0.6
Correlation Coefficient:	0.00000000000000000000
Coefficient of Determination (Adjusted):	0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/12	10.0	12.047995	10.0	1697885.0	1.2048	Y
2	ICIS 410-233459/13	10.0	12.157123	10.0	1700909.0	1.215712	Y
3	IC 410-233459/14	10.0	12.19244	10.0	1684584.0	1.219244	Y
4	IC 410-233459/15	10.0	12.263508	10.0	1668976.0	1.226351	Y
5	IC 410-233459/16	10.0	12.157389	10.0	1674640.0	1.215739	Y
6	IC 410-233459/17	10.0	12.149542	10.0	1674650.0	1.214954	Y
7	IC 410-233459/18	10.0	12.218467	10.0	1678767.0	1.221847	Y



Calibration

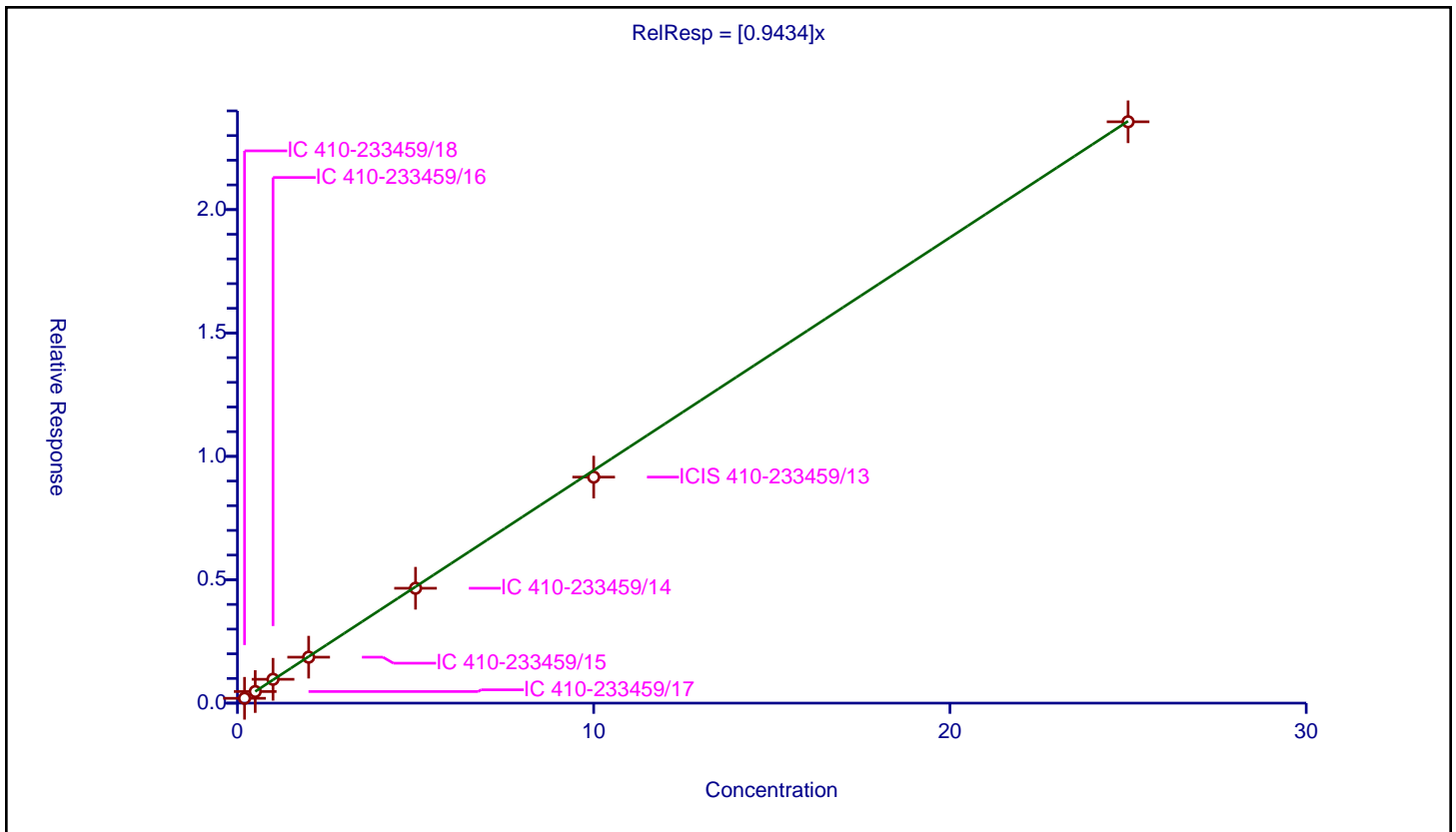
/ Toluene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.9434

Error Coefficients	
Standard Error:	1790000
Relative Standard Error:	2.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.195399	10.0	1678767.0	0.976997	Y
2	IC 410-233459/17	0.5	0.470086	10.0	1674650.0	0.940173	Y
3	IC 410-233459/16	1.0	0.966226	10.0	1674640.0	0.966226	Y
4	IC 410-233459/15	2.0	1.861812	10.0	1668976.0	0.930906	Y
5	IC 410-233459/14	5.0	4.655179	10.0	1684584.0	0.931036	Y
6	ICIS 410-233459/13	10.0	9.159949	10.0	1700909.0	0.915995	Y
7	IC 410-233459/12	25.0	23.558256	10.0	1697885.0	0.94233	Y



Calibration

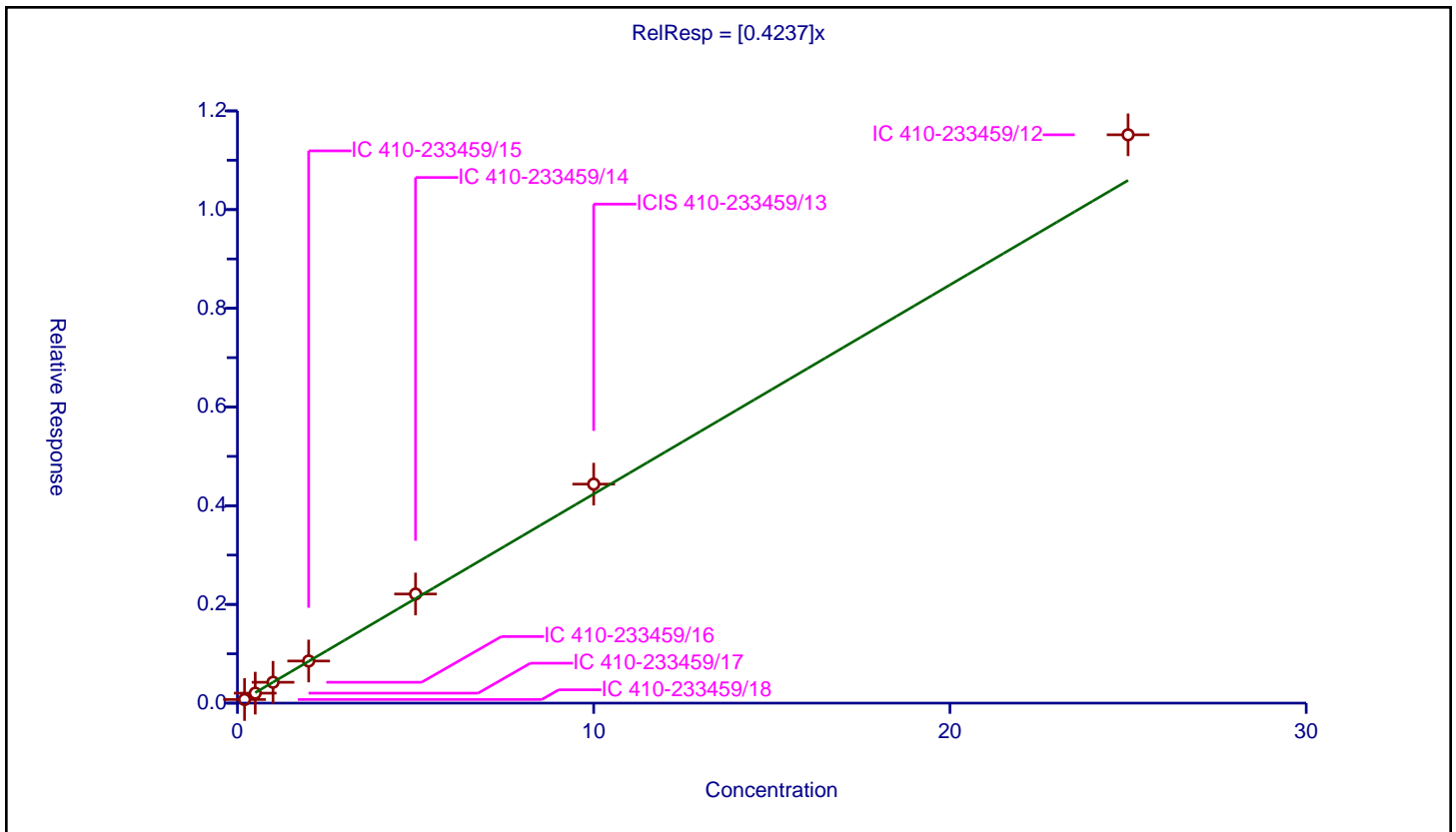
/ trans-1,3-Dichloropropene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4237

Error Coefficients	
Standard Error:	872000
Relative Standard Error:	7.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.073048	10.0	1678767.0	0.365238	Y
2	IC 410-233459/17	0.5	0.202341	10.0	1674650.0	0.404682	Y
3	IC 410-233459/16	1.0	0.422795	10.0	1674640.0	0.422795	Y
4	IC 410-233459/15	2.0	0.853535	10.0	1668976.0	0.426768	Y
5	IC 410-233459/14	5.0	2.210943	10.0	1684584.0	0.442189	Y
6	ICIS 410-233459/13	10.0	4.437439	10.0	1700909.0	0.443744	Y
7	IC 410-233459/12	25.0	11.516175	10.0	1697885.0	0.460647	Y



Calibration

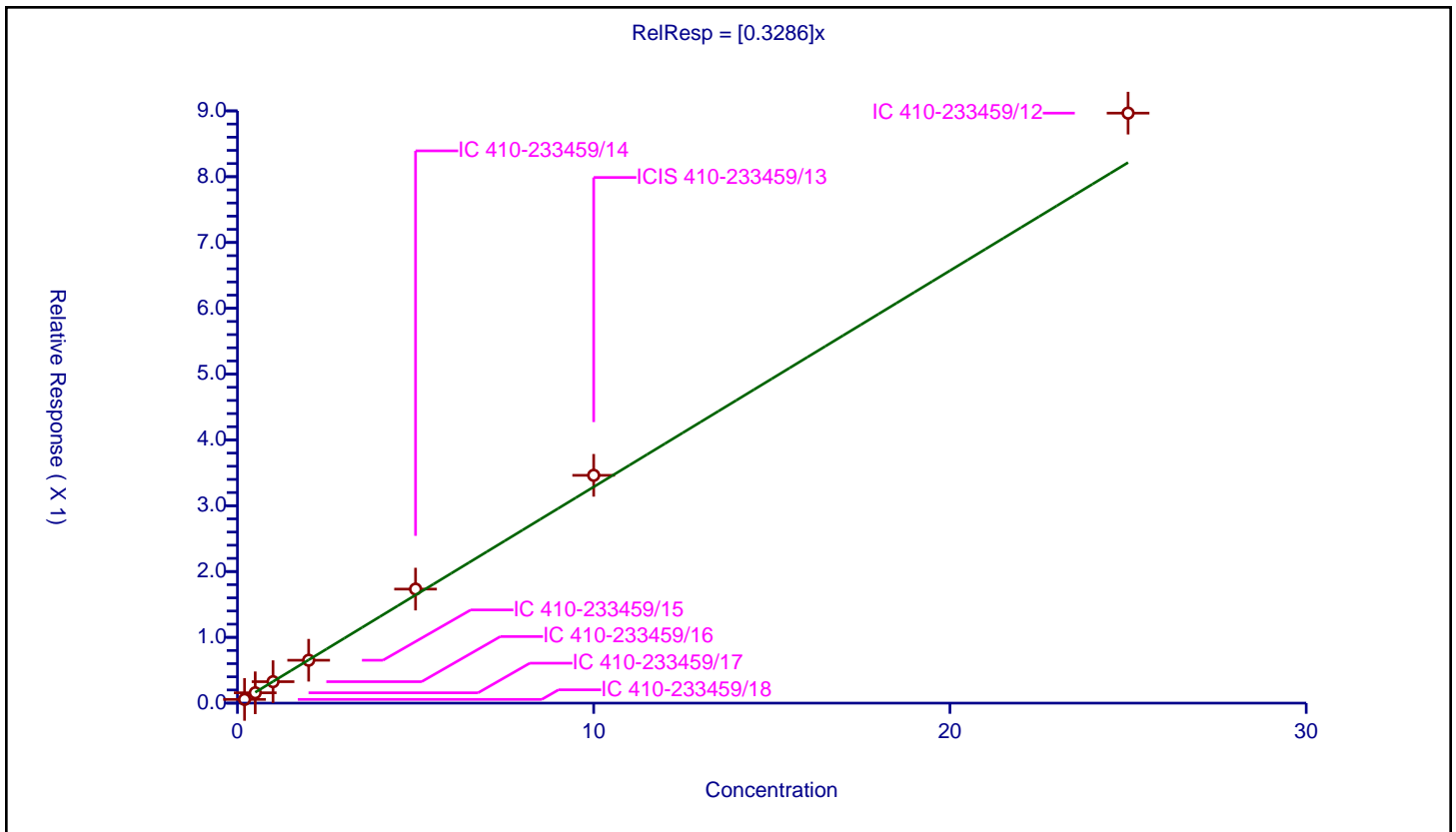
/ Ethyl methacrylate

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3286

Error Coefficients	
Standard Error:	679000
Relative Standard Error:	7.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.05647	10.0	1678767.0	0.28235	Y
2	IC 410-233459/17	0.5	0.157245	10.0	1674650.0	0.31449	Y
3	IC 410-233459/16	1.0	0.326124	10.0	1674640.0	0.326124	Y
4	IC 410-233459/15	2.0	0.651729	10.0	1668976.0	0.325864	Y
5	IC 410-233459/14	5.0	1.732742	10.0	1684584.0	0.346548	Y
6	ICIS 410-233459/13	10.0	3.462008	10.0	1700909.0	0.346201	Y
7	IC 410-233459/12	25.0	8.965896	10.0	1697885.0	0.358636	Y



Calibration

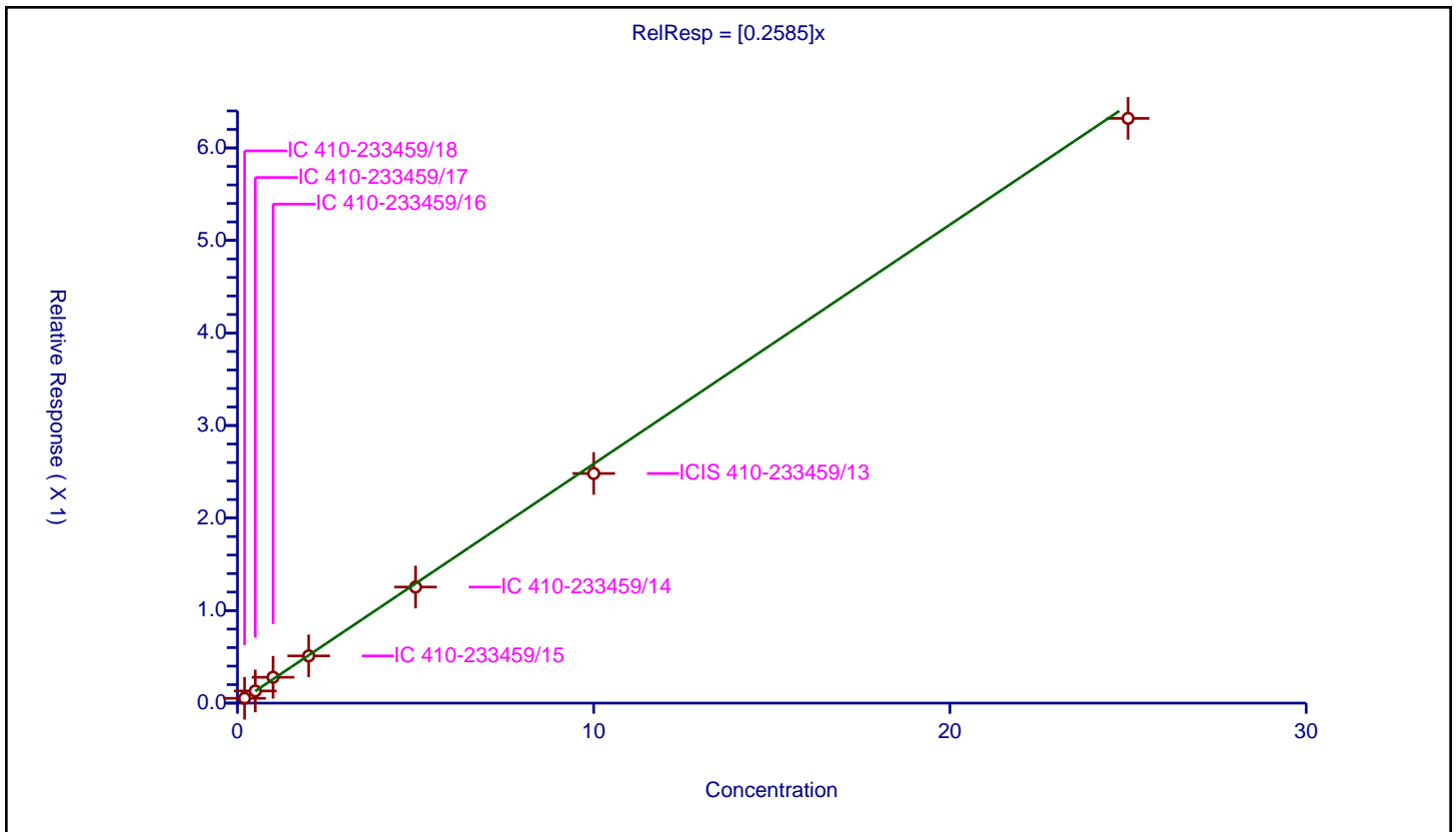
/ 1,1,2-Trichloroethane

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2585

Error Coefficients	
Standard Error:	480000
Relative Standard Error:	4.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.052116	10.0	1678767.0	0.260578	Y
2	IC 410-233459/17	0.5	0.13146	10.0	1674650.0	0.262921	Y
3	IC 410-233459/16	1.0	0.279266	10.0	1674640.0	0.279266	Y
4	IC 410-233459/15	2.0	0.510235	10.0	1668976.0	0.255118	Y
5	IC 410-233459/14	5.0	1.254333	10.0	1684584.0	0.250867	Y
6	ICIS 410-233459/13	10.0	2.481667	10.0	1700909.0	0.248167	Y
7	IC 410-233459/12	25.0	6.319415	10.0	1697885.0	0.252777	Y



Calibration

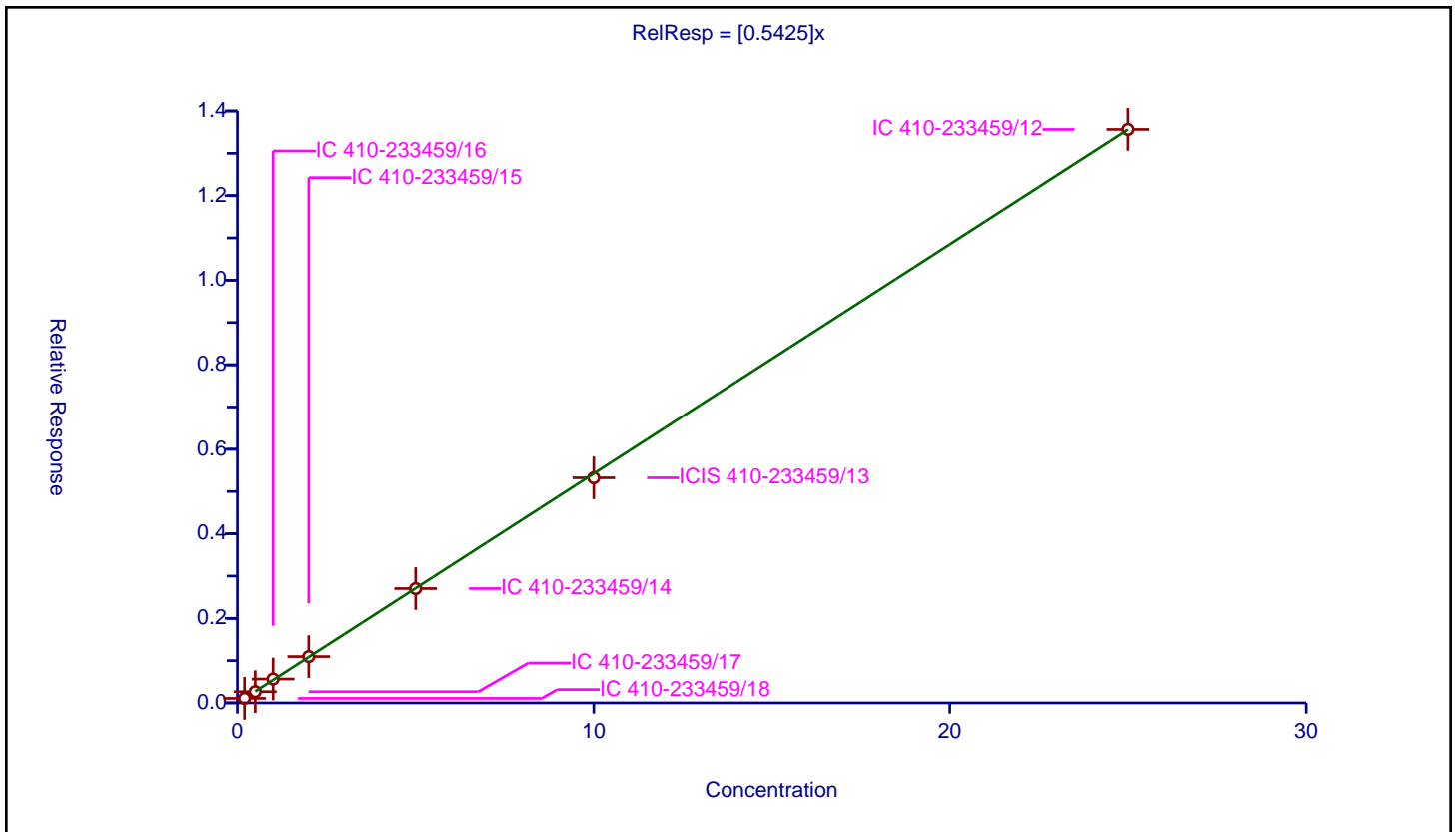
/ Tetrachloroethene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.5425

Error Coefficients	
Standard Error:	1030000
Relative Standard Error:	2.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.107537	10.0	1678767.0	0.537686	Y
2	IC 410-233459/17	0.5	0.265542	10.0	1674650.0	0.531084	Y
3	IC 410-233459/16	1.0	0.564957	10.0	1674640.0	0.564957	Y
4	IC 410-233459/15	2.0	1.095558	10.0	1668976.0	0.547779	Y
5	IC 410-233459/14	5.0	2.70411	10.0	1684584.0	0.540822	Y
6	ICIS 410-233459/13	10.0	5.32423	10.0	1700909.0	0.532423	Y
7	IC 410-233459/12	25.0	13.564823	10.0	1697885.0	0.542593	Y



Calibration

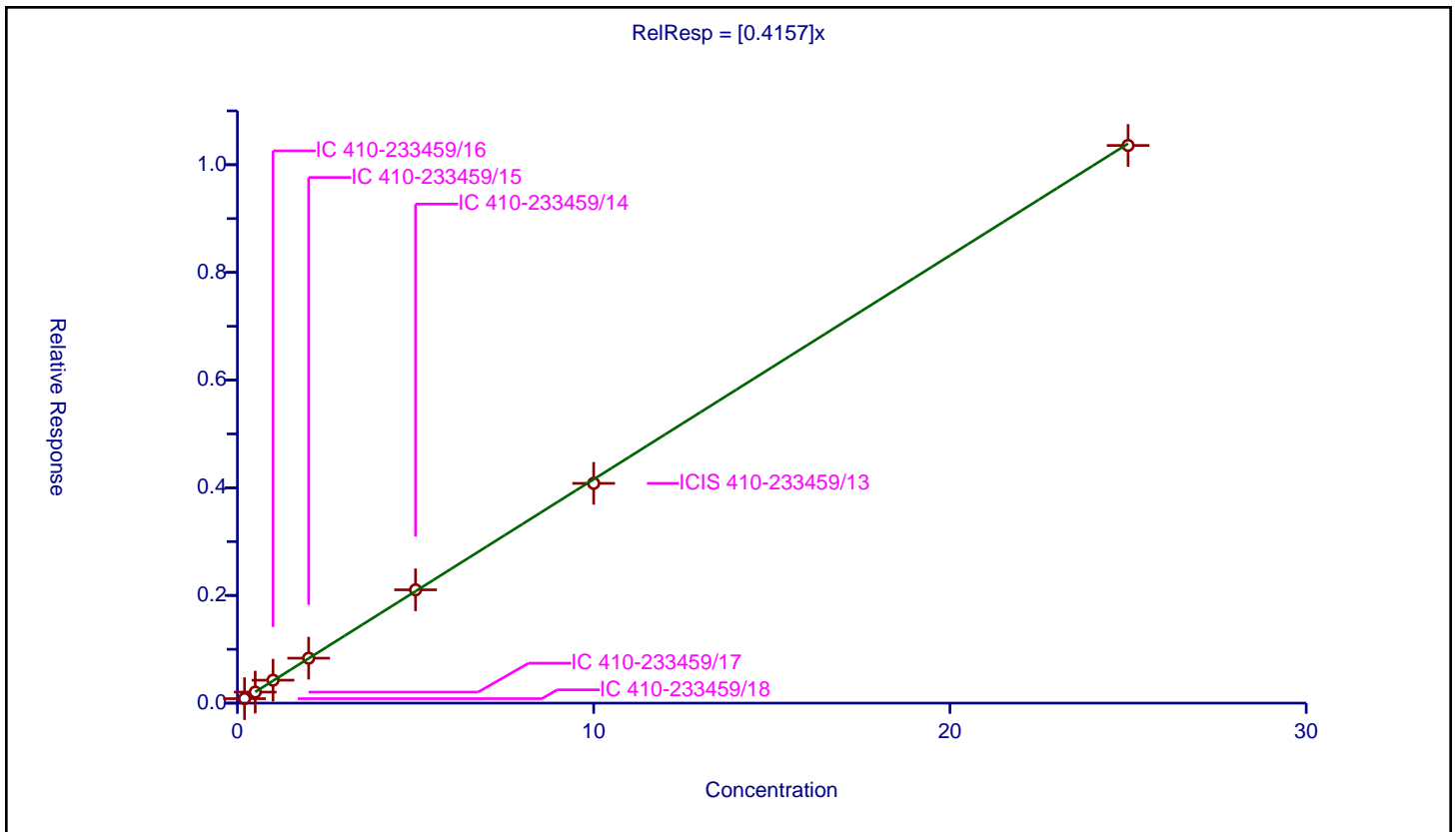
/ 1,3-Dichloropropane

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4157

Error Coefficients	
Standard Error:	788000
Relative Standard Error:	1.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.082632	10.0	1678767.0	0.41316	Y
2	IC 410-233459/17	0.5	0.205016	10.0	1674650.0	0.410032	Y
3	IC 410-233459/16	1.0	0.426002	10.0	1674640.0	0.426002	Y
4	IC 410-233459/15	2.0	0.834679	10.0	1668976.0	0.41734	Y
5	IC 410-233459/14	5.0	2.10462	10.0	1684584.0	0.420924	Y
6	ICIS 410-233459/13	10.0	4.081935	10.0	1700909.0	0.408194	Y
7	IC 410-233459/12	25.0	10.358075	10.0	1697885.0	0.414323	Y



Calibration

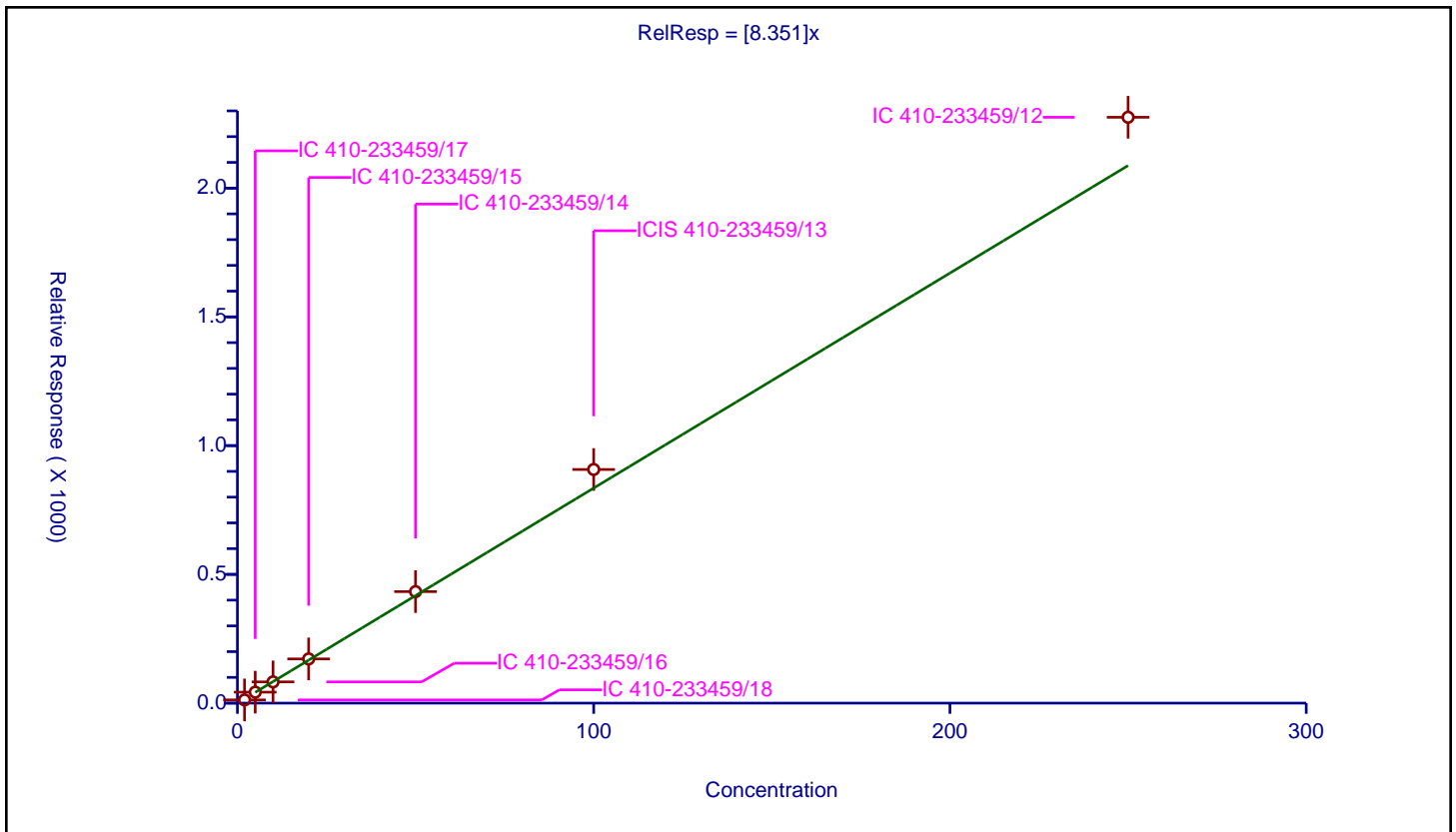
/ 2-Hexanone

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	8.351

Error Coefficients	
Standard Error:	3050000
Relative Standard Error:	11.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.984

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	2.0	12.490362	50.0	155632.0	6.245181	Y
2	IC 410-233459/17	5.0	42.690065	50.0	134454.0	8.538013	Y
3	IC 410-233459/16	10.0	82.483219	50.0	144059.0	8.248322	Y
4	IC 410-233459/15	20.0	171.713724	50.0	140927.0	8.585686	Y
5	IC 410-233459/14	50.0	433.108356	50.0	149941.0	8.662167	Y
6	ICIS 410-233459/13	100.0	907.417202	50.0	147286.0	9.074172	Y
7	IC 410-233459/12	250.0	2275.181926	50.0	150473.0	9.100728	Y



Calibration

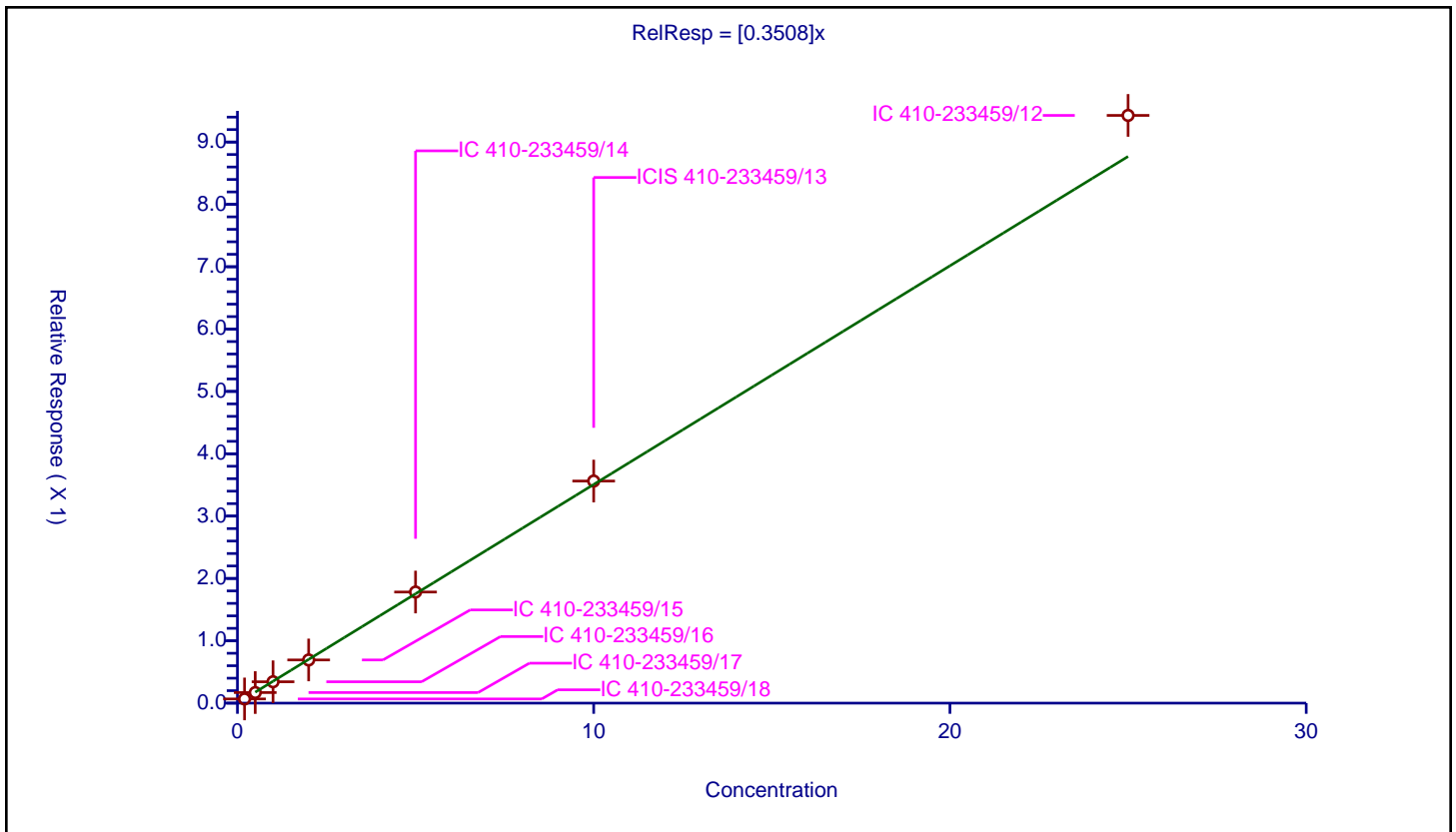
/ Chlorodibromomethane

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3508

Error Coefficients	
Standard Error:	711000
Relative Standard Error:	4.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.067413	10.0	1678767.0	0.337063	Y
2	IC 410-233459/17	0.5	0.169689	10.0	1674650.0	0.339378	Y
3	IC 410-233459/16	1.0	0.342802	10.0	1674640.0	0.342802	Y
4	IC 410-233459/15	2.0	0.69258	10.0	1668976.0	0.34629	Y
5	IC 410-233459/14	5.0	1.782357	10.0	1684584.0	0.356471	Y
6	ICIS 410-233459/13	10.0	3.562283	10.0	1700909.0	0.356228	Y
7	IC 410-233459/12	25.0	9.42724	10.0	1697885.0	0.37709	Y



Calibration

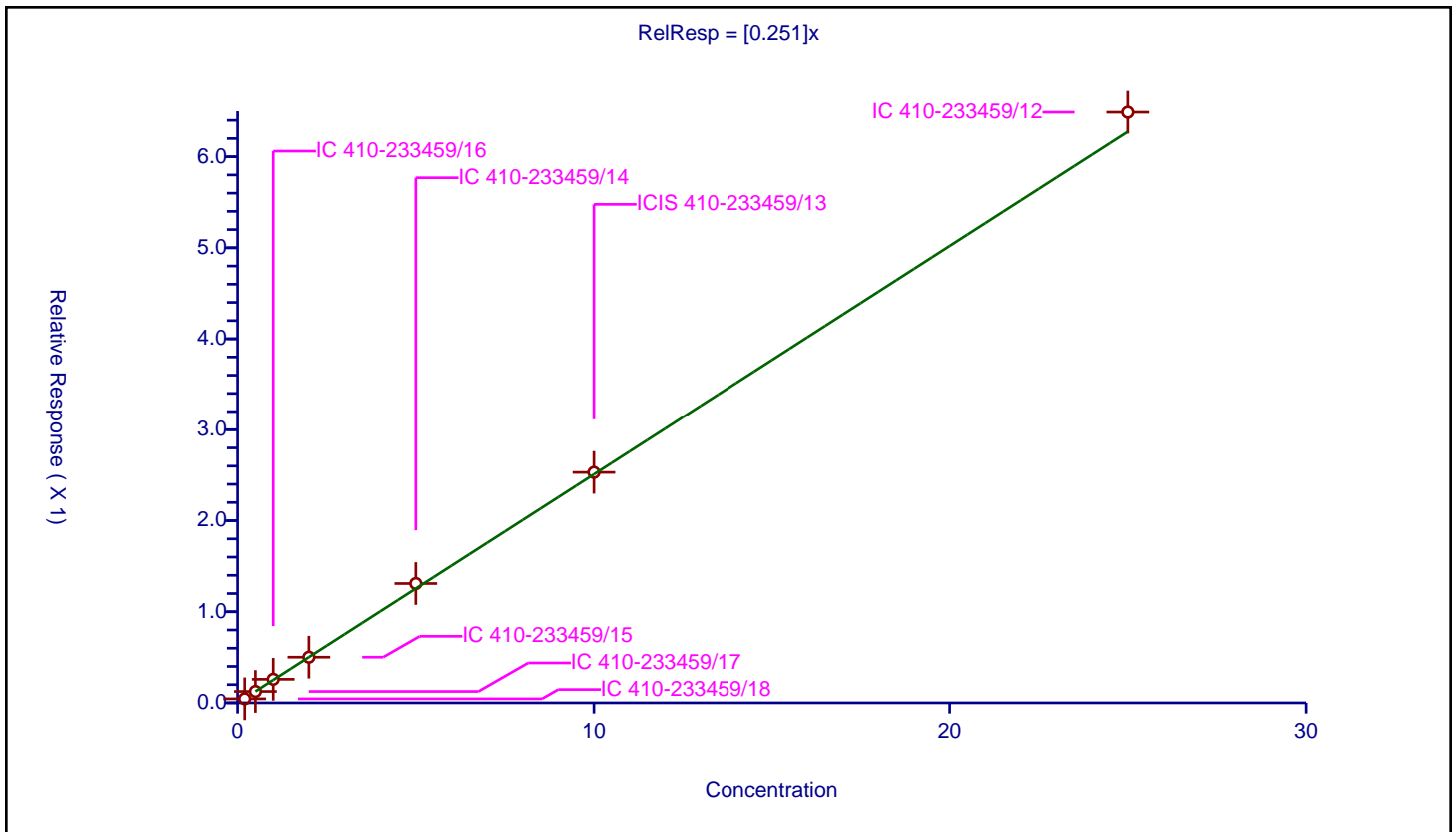
/ Ethylene Dibromide

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.251

Error Coefficients	
Standard Error:	493000
Relative Standard Error:	5.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.044437	10.0	1678767.0	0.222187	Y
2	IC 410-233459/17	0.5	0.12534	10.0	1674650.0	0.250679	Y
3	IC 410-233459/16	1.0	0.258772	10.0	1674640.0	0.258772	Y
4	IC 410-233459/15	2.0	0.501397	10.0	1668976.0	0.250699	Y
5	IC 410-233459/14	5.0	1.309855	10.0	1684584.0	0.261971	Y
6	ICIS 410-233459/13	10.0	2.53097	10.0	1700909.0	0.253097	Y
7	IC 410-233459/12	25.0	6.489002	10.0	1697885.0	0.25956	Y



Calibration

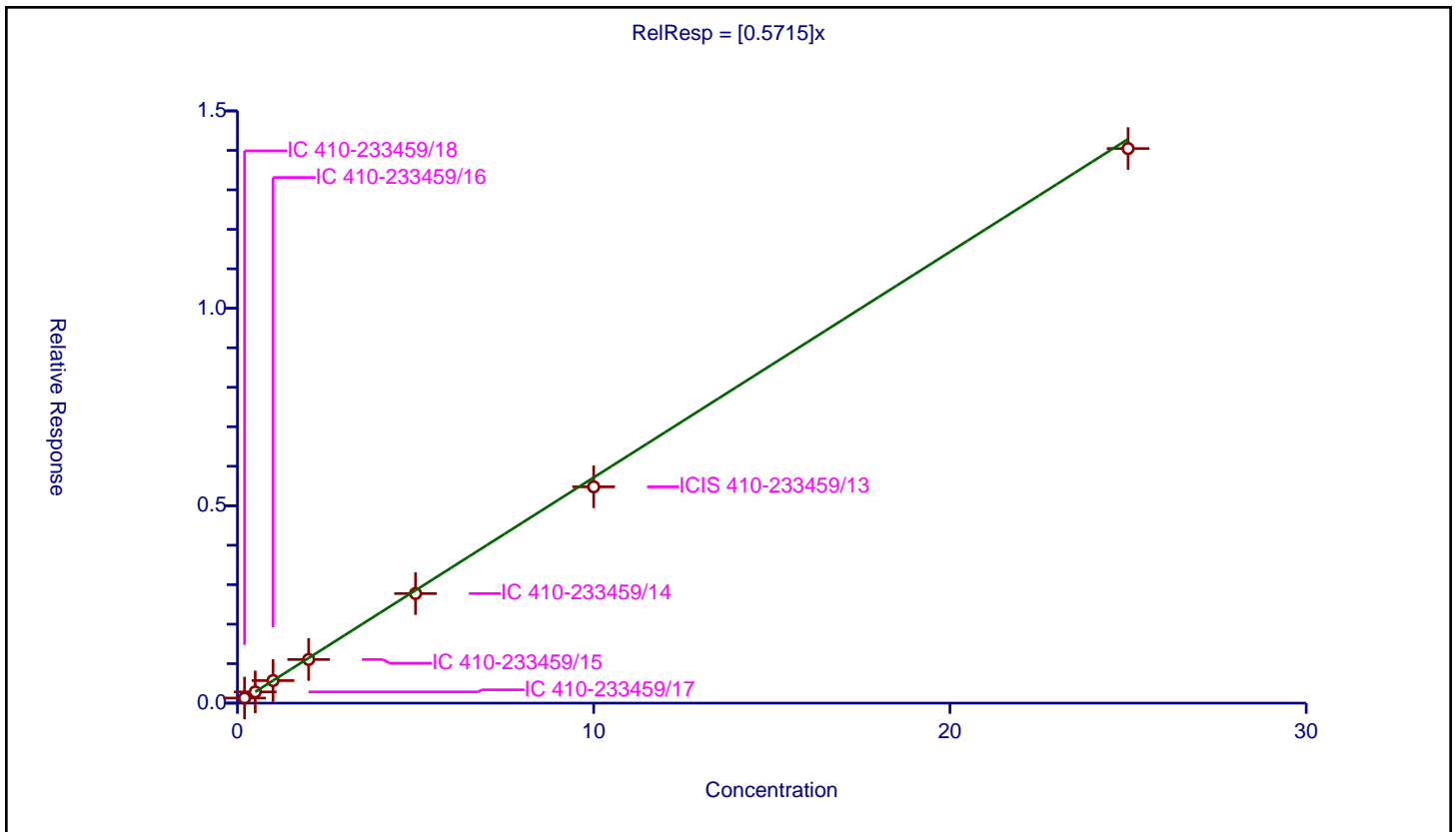
/ 1-Chlorohexane

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.5715

Error Coefficients	
Standard Error:	1070000
Relative Standard Error:	5.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.128368	10.0	1678767.0	0.64184	Y
2	IC 410-233459/17	0.5	0.284549	10.0	1674650.0	0.569098	Y
3	IC 410-233459/16	1.0	0.571663	10.0	1674640.0	0.571663	Y
4	IC 410-233459/15	2.0	1.105612	10.0	1668976.0	0.552806	Y
5	IC 410-233459/14	5.0	2.775736	10.0	1684584.0	0.555147	Y
6	ICIS 410-233459/13	10.0	5.478241	10.0	1700909.0	0.547824	Y
7	IC 410-233459/12	25.0	14.046258	10.0	1697885.0	0.56185	Y



Calibration

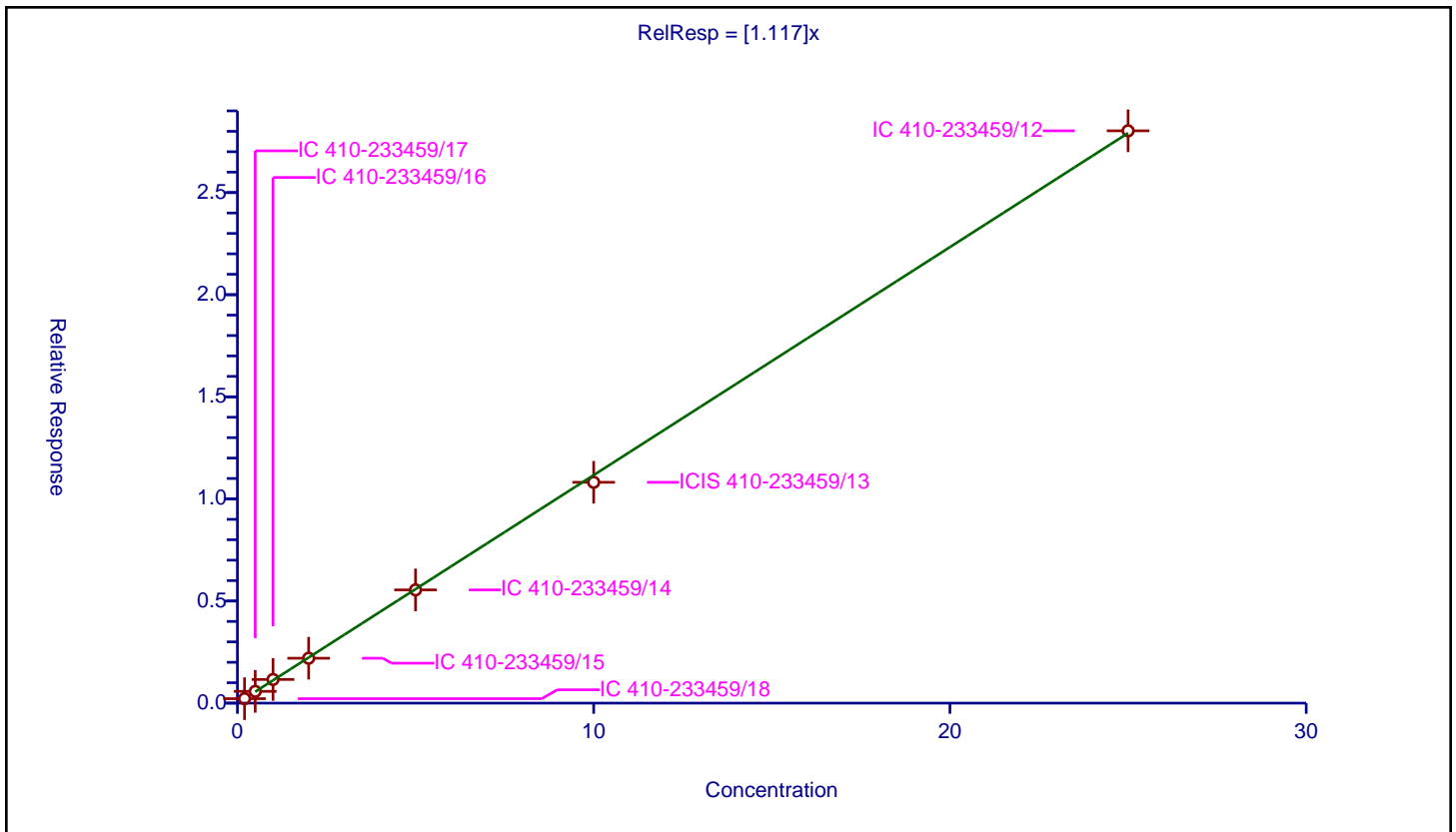
/ Chlorobenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.117

Error Coefficients	
Standard Error:	2120000
Relative Standard Error:	2.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.21847	10.0	1678767.0	1.092349	Y
2	IC 410-233459/17	0.5	0.577004	10.0	1674650.0	1.154008	Y
3	IC 410-233459/16	1.0	1.159372	10.0	1674640.0	1.159372	Y
4	IC 410-233459/15	2.0	2.197653	10.0	1668976.0	1.098826	Y
5	IC 410-233459/14	5.0	5.54433	10.0	1684584.0	1.108866	Y
6	ICIS 410-233459/13	10.0	10.813095	10.0	1700909.0	1.081309	Y
7	IC 410-233459/12	25.0	28.024719	10.0	1697885.0	1.120989	Y



Calibration

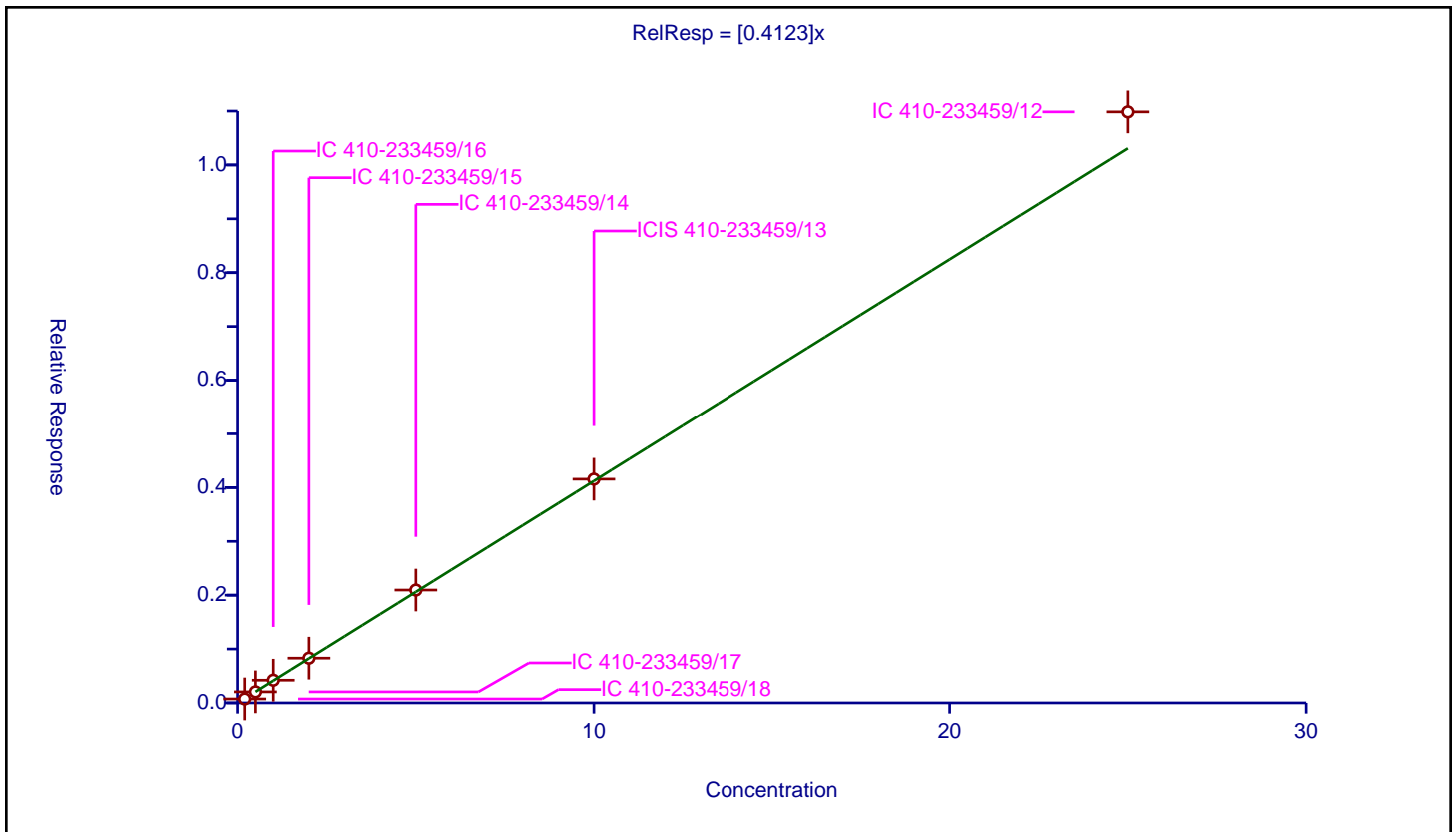
/ 1,1,1,2-Tetrachloroethane

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4123

Error Coefficients	
Standard Error:	829000
Relative Standard Error:	5.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.073232	10.0	1678767.0	0.366162	Y
2	IC 410-233459/17	0.5	0.204903	10.0	1674650.0	0.409805	Y
3	IC 410-233459/16	1.0	0.421123	10.0	1674640.0	0.421123	Y
4	IC 410-233459/15	2.0	0.83021	10.0	1668976.0	0.415105	Y
5	IC 410-233459/14	5.0	2.095621	10.0	1684584.0	0.419124	Y
6	ICIS 410-233459/13	10.0	4.156854	10.0	1700909.0	0.415685	Y
7	IC 410-233459/12	25.0	10.984531	10.0	1697885.0	0.439381	Y



Calibration

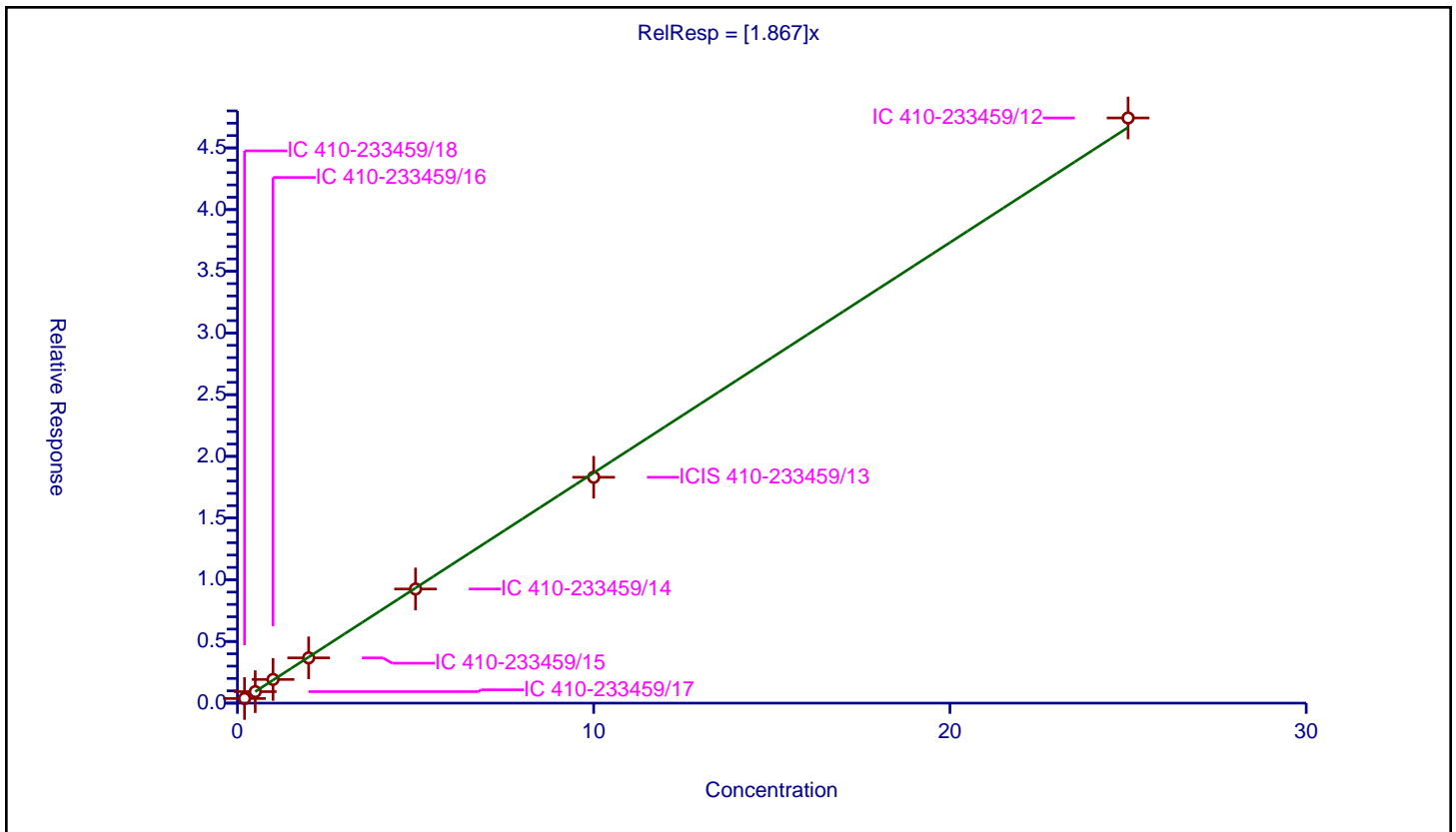
/ Ethylbenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.867

Error Coefficients	
Standard Error:	3590000
Relative Standard Error:	1.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.374346	10.0	1678767.0	1.871731	Y
2	IC 410-233459/17	0.5	0.931598	10.0	1674650.0	1.863195	Y
3	IC 410-233459/16	1.0	1.919386	10.0	1674640.0	1.919386	Y
4	IC 410-233459/15	2.0	3.667494	10.0	1668976.0	1.833747	Y
5	IC 410-233459/14	5.0	9.250118	10.0	1684584.0	1.850024	Y
6	ICIS 410-233459/13	10.0	18.306523	10.0	1700909.0	1.830652	Y
7	IC 410-233459/12	25.0	47.42575	10.0	1697885.0	1.89703	Y



Calibration

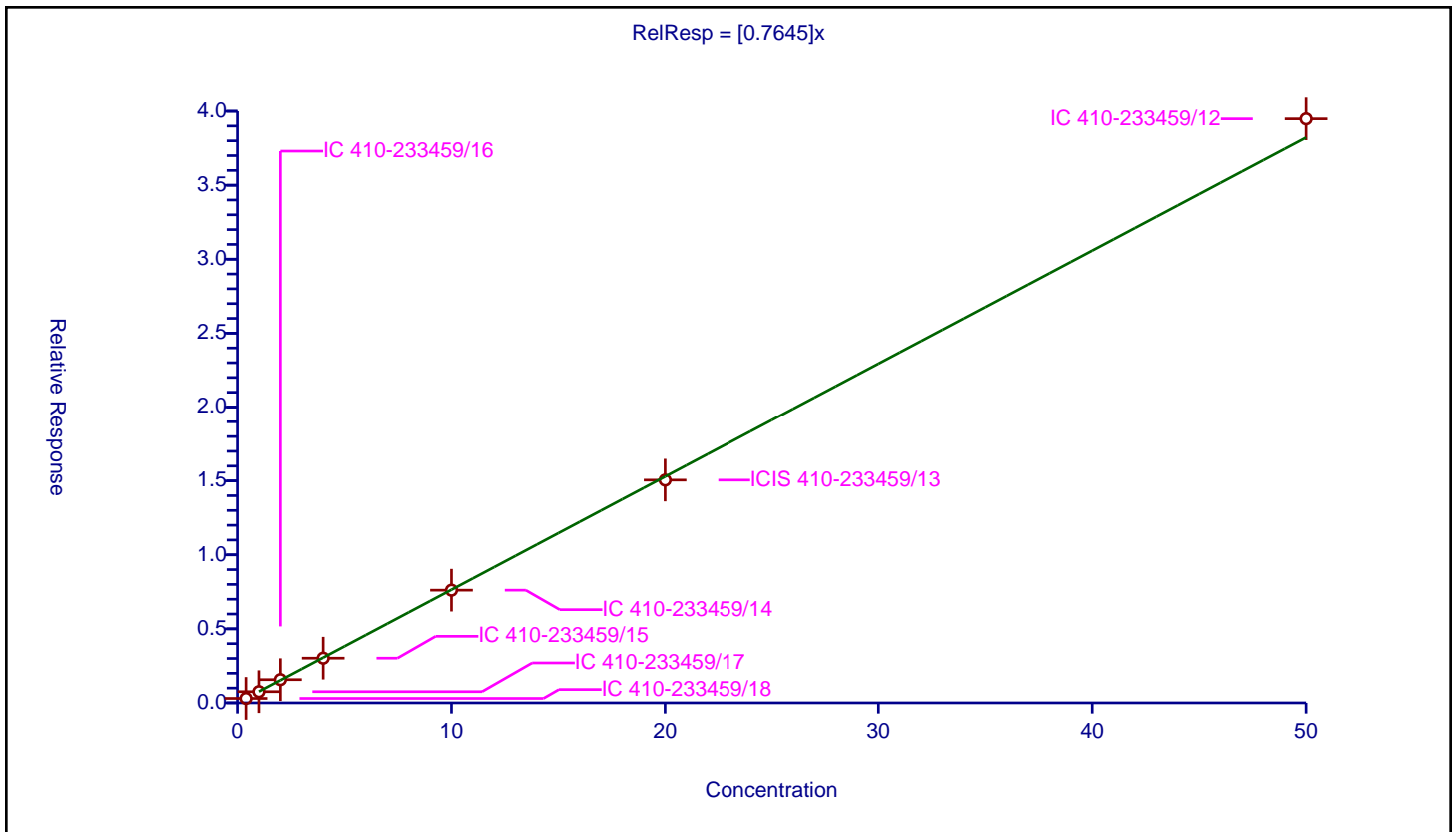
/ m-Xylene & p-Xylene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.7645

Error Coefficients	
Standard Error:	2990000
Relative Standard Error:	2.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.4	0.30112	10.0	1678767.0	0.7528	Y
2	IC 410-233459/17	1.0	0.756343	10.0	1674650.0	0.756343	Y
3	IC 410-233459/16	2.0	1.567483	10.0	1674640.0	0.783742	Y
4	IC 410-233459/15	4.0	3.01933	10.0	1668976.0	0.754833	Y
5	IC 410-233459/14	10.0	7.611487	10.0	1684584.0	0.761149	Y
6	ICIS 410-233459/13	20.0	15.052986	10.0	1700909.0	0.752649	Y
7	IC 410-233459/12	50.0	39.484818	10.0	1697885.0	0.789696	Y



Calibration

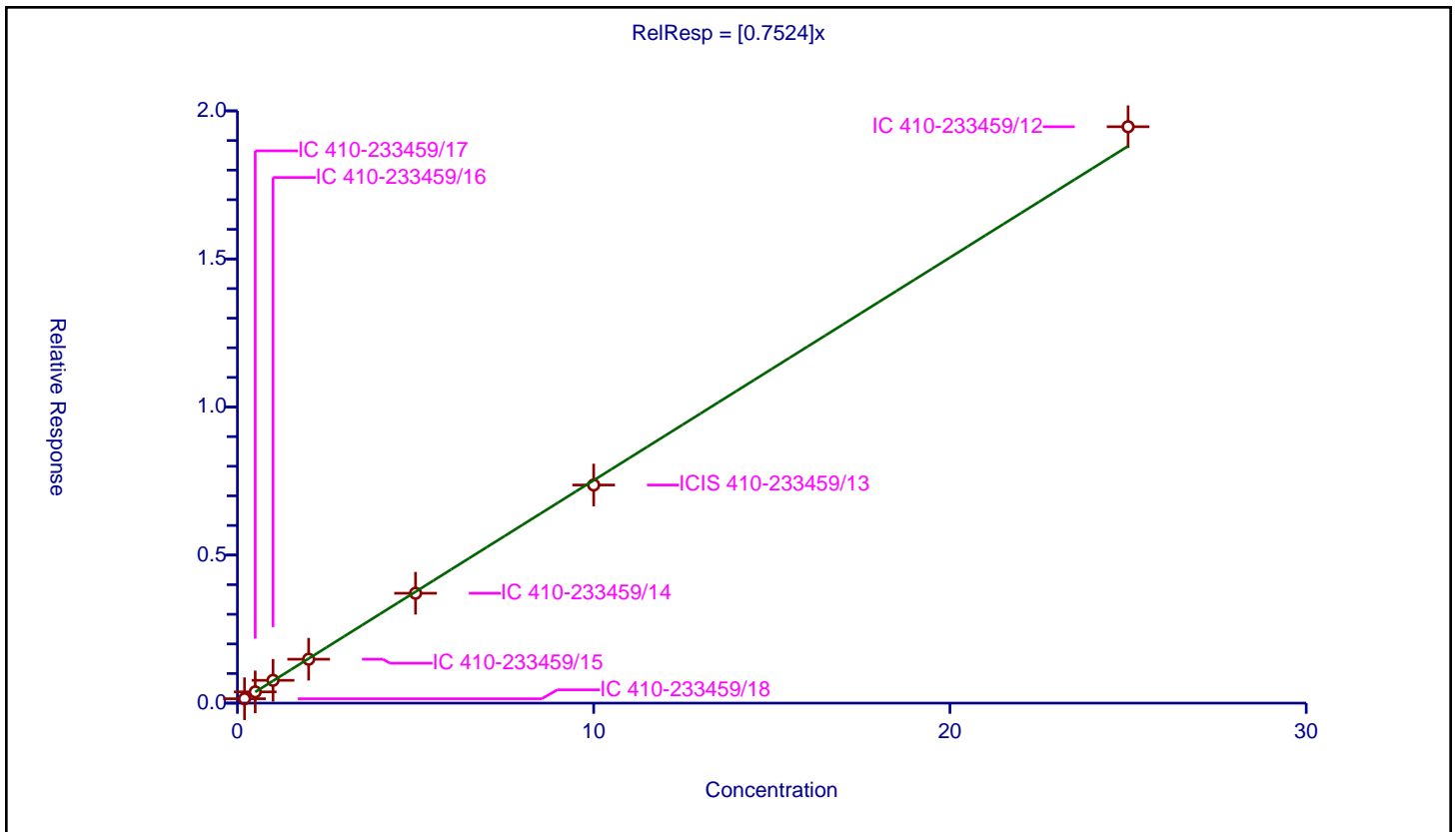
/ o-Xylene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.7524

Error Coefficients	
Standard Error:	1470000
Relative Standard Error:	2.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.147662	10.0	1678767.0	0.73831	Y
2	IC 410-233459/17	0.5	0.379853	10.0	1674650.0	0.759705	Y
3	IC 410-233459/16	1.0	0.769903	10.0	1674640.0	0.769903	Y
4	IC 410-233459/15	2.0	1.482969	10.0	1668976.0	0.741485	Y
5	IC 410-233459/14	5.0	3.710934	10.0	1684584.0	0.742187	Y
6	ICIS 410-233459/13	10.0	7.365591	10.0	1700909.0	0.736559	Y
7	IC 410-233459/12	25.0	19.464905	10.0	1697885.0	0.778596	Y



Calibration

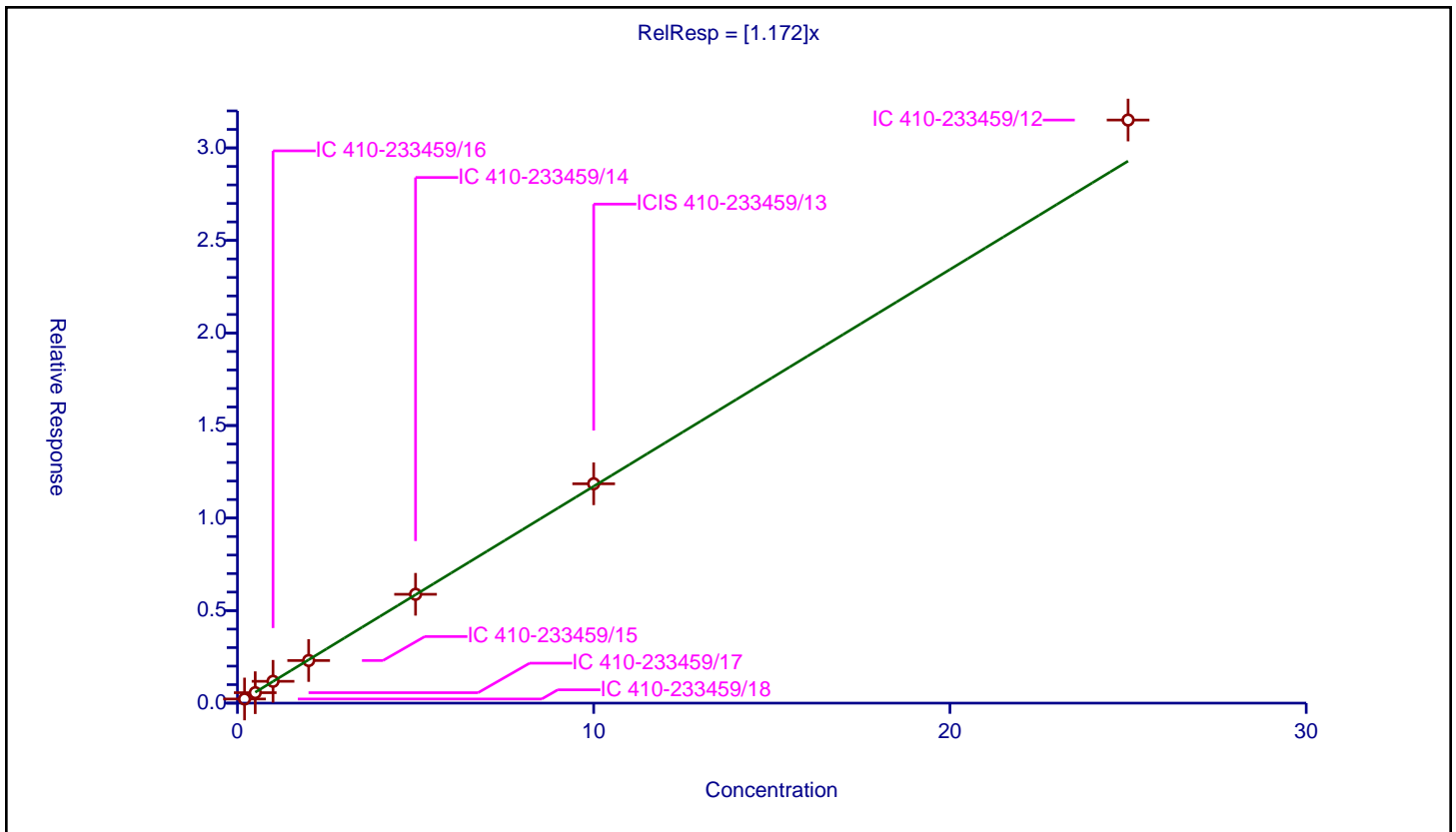
/ Styrene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.172

Error Coefficients	
Standard Error:	2380000
Relative Standard Error:	4.0
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.223545	10.0	1678767.0	1.117725	Y
2	IC 410-233459/17	0.5	0.565229	10.0	1674650.0	1.130457	Y
3	IC 410-233459/16	1.0	1.179758	10.0	1674640.0	1.179758	Y
4	IC 410-233459/15	2.0	2.30249	10.0	1668976.0	1.151245	Y
5	IC 410-233459/14	5.0	5.880633	10.0	1684584.0	1.176127	Y
6	ICIS 410-233459/13	10.0	11.85161	10.0	1700909.0	1.185161	Y
7	IC 410-233459/12	25.0	31.506651	10.0	1697885.0	1.260266	Y



Calibration

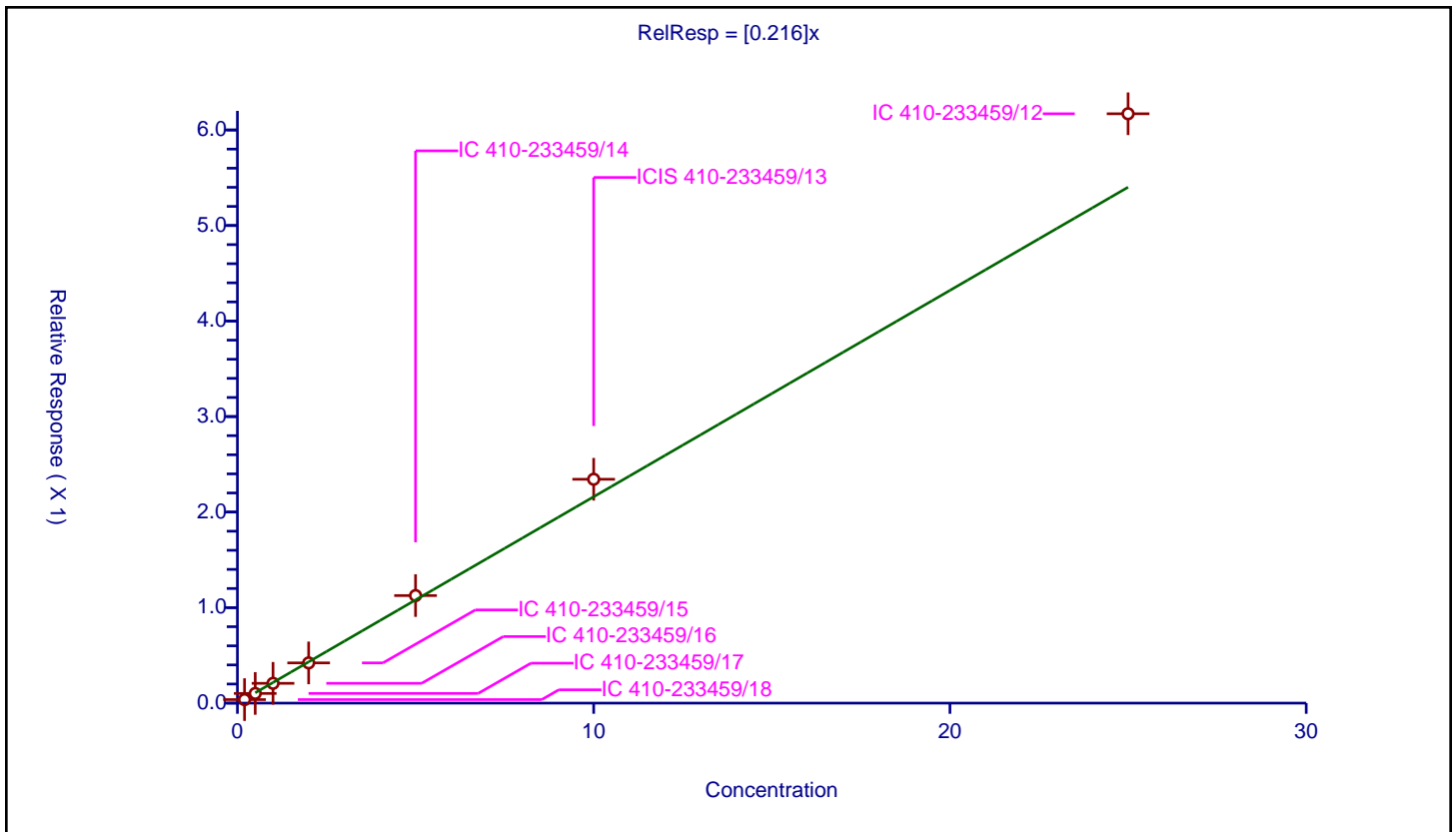
/ Bromoform

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.216

Error Coefficients	
Standard Error:	465000
Relative Standard Error:	9.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.989

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.037069	10.0	1678767.0	0.185344	Y
2	IC 410-233459/17	0.5	0.101281	10.0	1674650.0	0.202562	Y
3	IC 410-233459/16	1.0	0.2074	10.0	1674640.0	0.2074	Y
4	IC 410-233459/15	2.0	0.421276	10.0	1668976.0	0.210638	Y
5	IC 410-233459/14	5.0	1.126047	10.0	1684584.0	0.225209	Y
6	ICIS 410-233459/13	10.0	2.343547	10.0	1700909.0	0.234355	Y
7	IC 410-233459/12	25.0	6.169794	10.0	1697885.0	0.246792	Y



Calibration

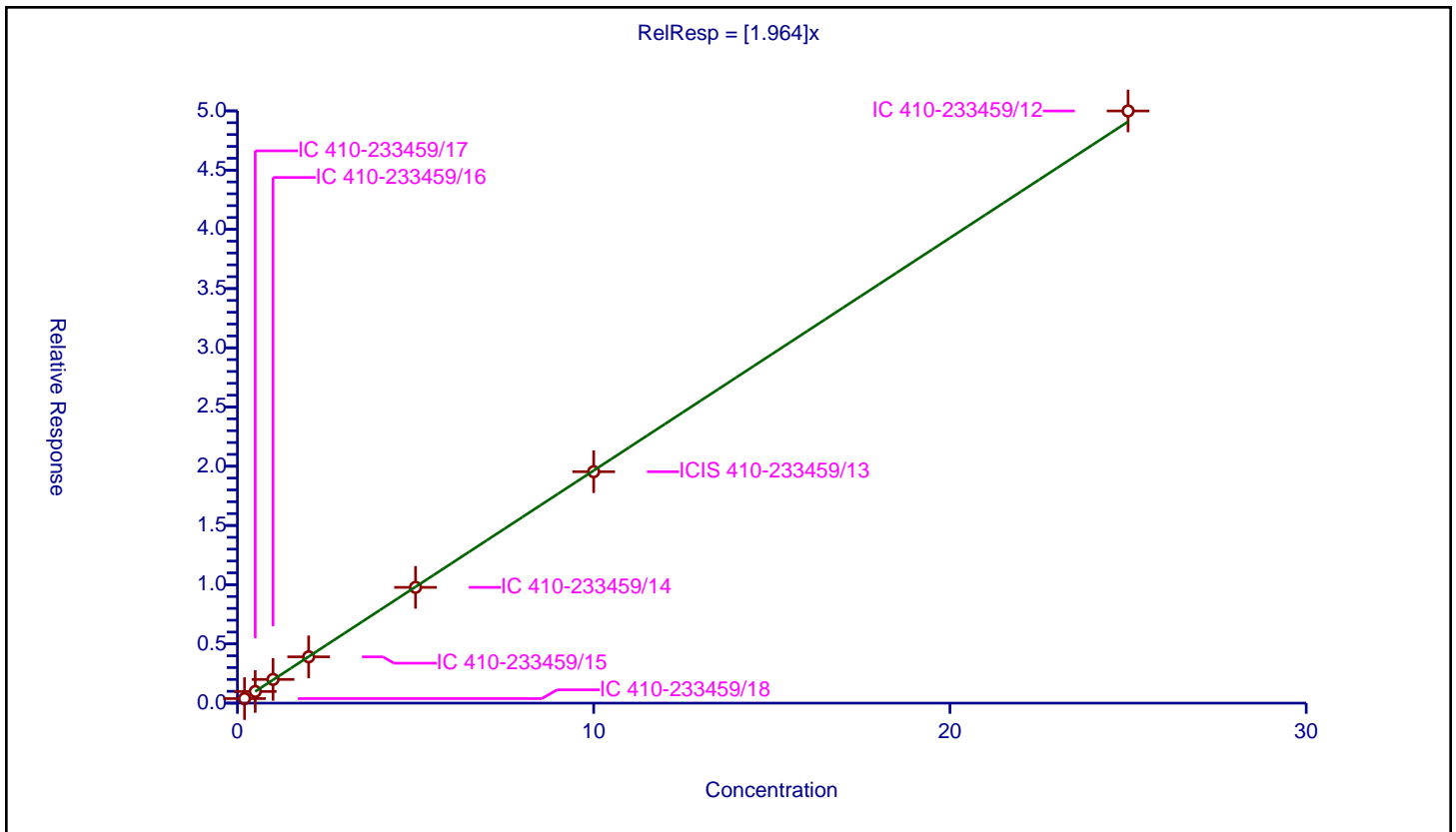
/ Isopropylbenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.964

Error Coefficients	
Standard Error:	3790000
Relative Standard Error:	1.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.382275	10.0	1678767.0	1.911373	Y
2	IC 410-233459/17	0.5	0.984743	10.0	1674650.0	1.969486	Y
3	IC 410-233459/16	1.0	2.002436	10.0	1674640.0	2.002436	Y
4	IC 410-233459/15	2.0	3.908229	10.0	1668976.0	1.954114	Y
5	IC 410-233459/14	5.0	9.773968	10.0	1684584.0	1.954794	Y
6	ICIS 410-233459/13	10.0	19.539781	10.0	1700909.0	1.953978	Y
7	IC 410-233459/12	25.0	49.99404	10.0	1697885.0	1.999762	Y



Calibration

/ 4-Bromofluorobenzene (Surr)

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

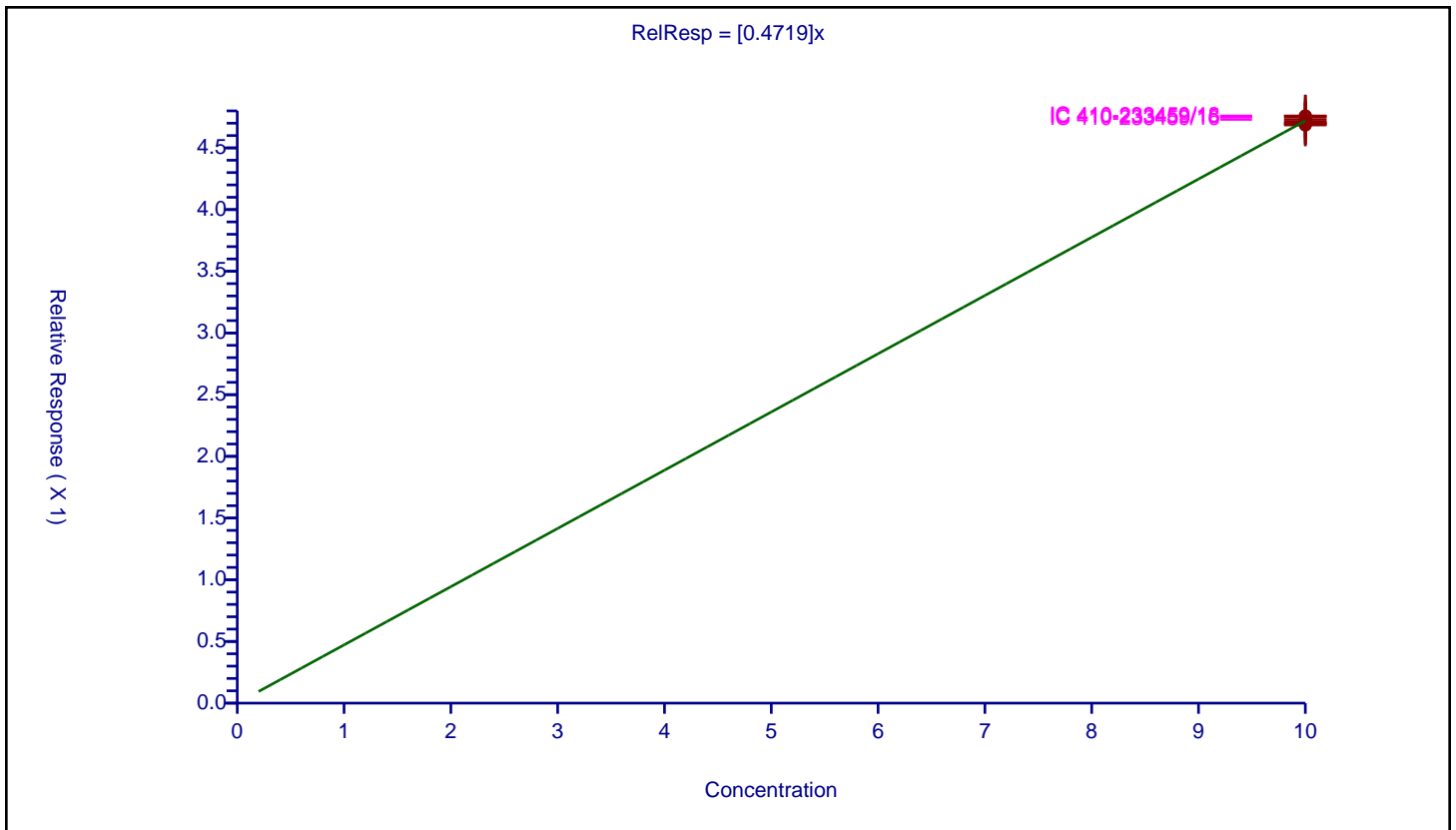
Curve Coefficients

Intercept: 0
 Slope: 0.4719

Error Coefficients

Standard Error: 858000
 Relative Standard Error: 0.6
 Correlation Coefficient: NA
 Coefficient of Determination (Adjusted): 0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/12	10.0	4.685818	10.0	1697885.0	0.468582	Y
2	ICIS 410-233459/13	10.0	4.695119	10.0	1700909.0	0.469512	Y
3	IC 410-233459/14	10.0	4.700241	10.0	1684584.0	0.470024	Y
4	IC 410-233459/15	10.0	4.754131	10.0	1668976.0	0.475413	Y
5	IC 410-233459/16	10.0	4.730874	10.0	1674640.0	0.473087	Y
6	IC 410-233459/17	10.0	4.710692	10.0	1674650.0	0.471069	Y
7	IC 410-233459/18	10.0	4.758749	10.0	1678767.0	0.475875	Y



Calibration

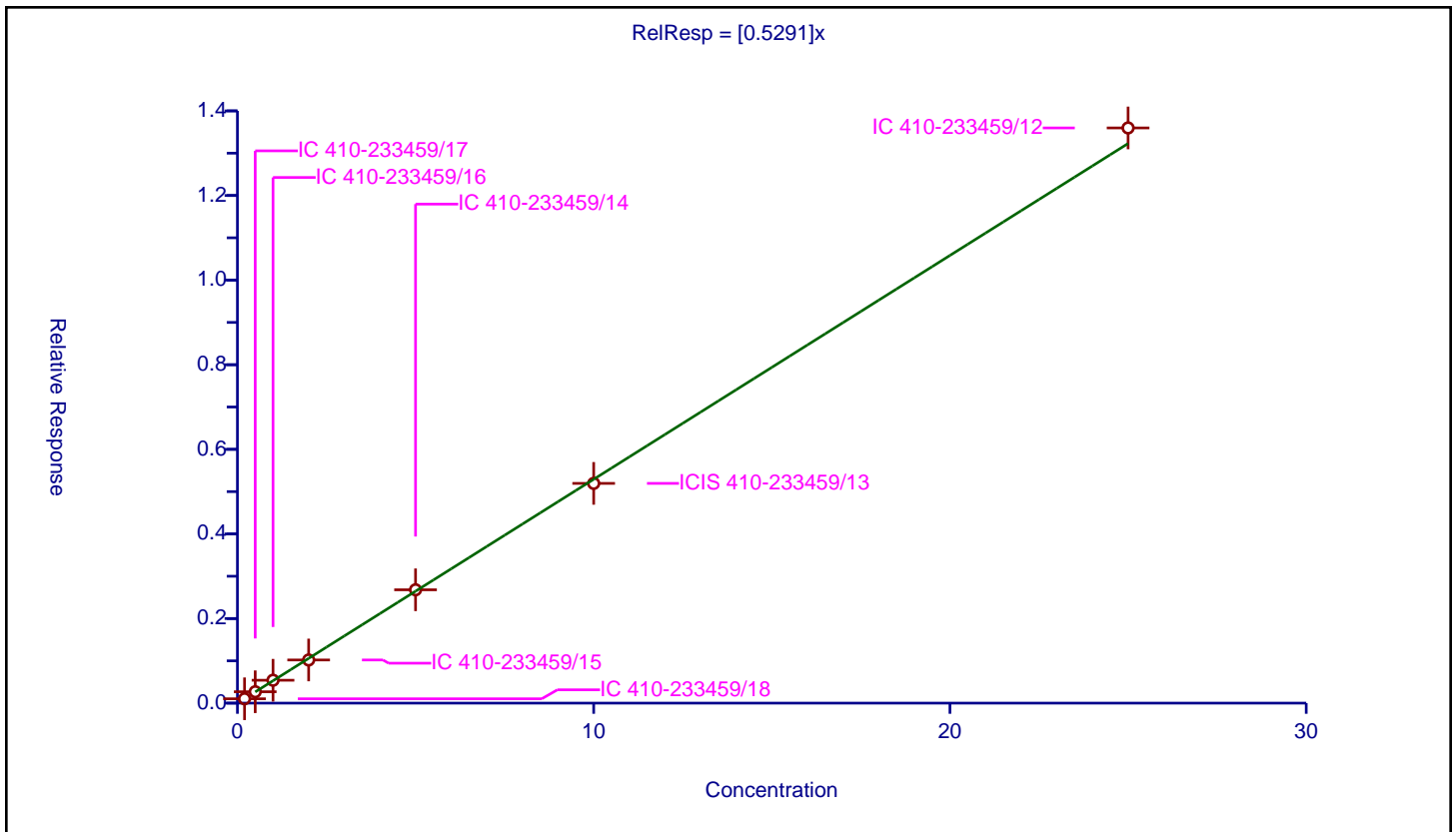
/ 1,1,2,2-Tetrachloroethane

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.5291

Error Coefficients	
Standard Error:	630000
Relative Standard Error:	2.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.10299	10.0	1013693.0	0.514949	Y
2	IC 410-233459/17	0.5	0.269187	10.0	1007739.0	0.538374	Y
3	IC 410-233459/16	1.0	0.541341	10.0	1012300.0	0.541341	Y
4	IC 410-233459/15	2.0	1.020321	10.0	1013034.0	0.510161	Y
5	IC 410-233459/14	5.0	2.679421	10.0	1016421.0	0.535884	Y
6	ICIS 410-233459/13	10.0	5.194472	10.0	1049716.0	0.519447	Y
7	IC 410-233459/12	25.0	13.596908	10.0	1039276.0	0.543876	Y



Calibration

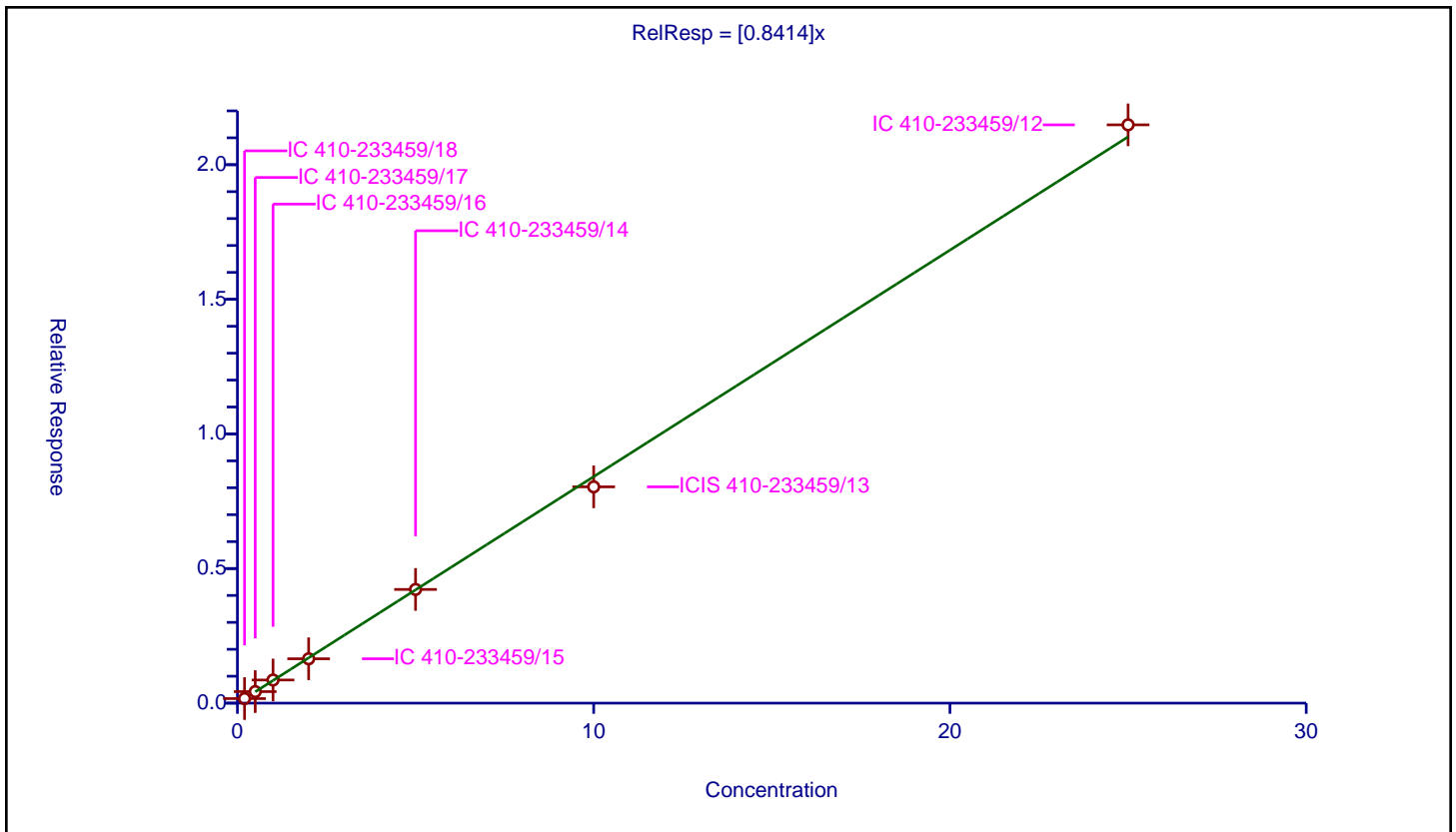
/ Bromobenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.8414

Error Coefficients	
Standard Error:	993000
Relative Standard Error:	2.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.168473	10.0	1013693.0	0.842365	Y
2	IC 410-233459/17	0.5	0.428365	10.0	1007739.0	0.85673	Y
3	IC 410-233459/16	1.0	0.859646	10.0	1012300.0	0.859646	Y
4	IC 410-233459/15	2.0	1.647497	10.0	1013034.0	0.823748	Y
5	IC 410-233459/14	5.0	4.223211	10.0	1016421.0	0.844642	Y
6	ICIS 410-233459/13	10.0	8.034335	10.0	1049716.0	0.803434	Y
7	IC 410-233459/12	25.0	21.481272	10.0	1039276.0	0.859251	Y



Calibration

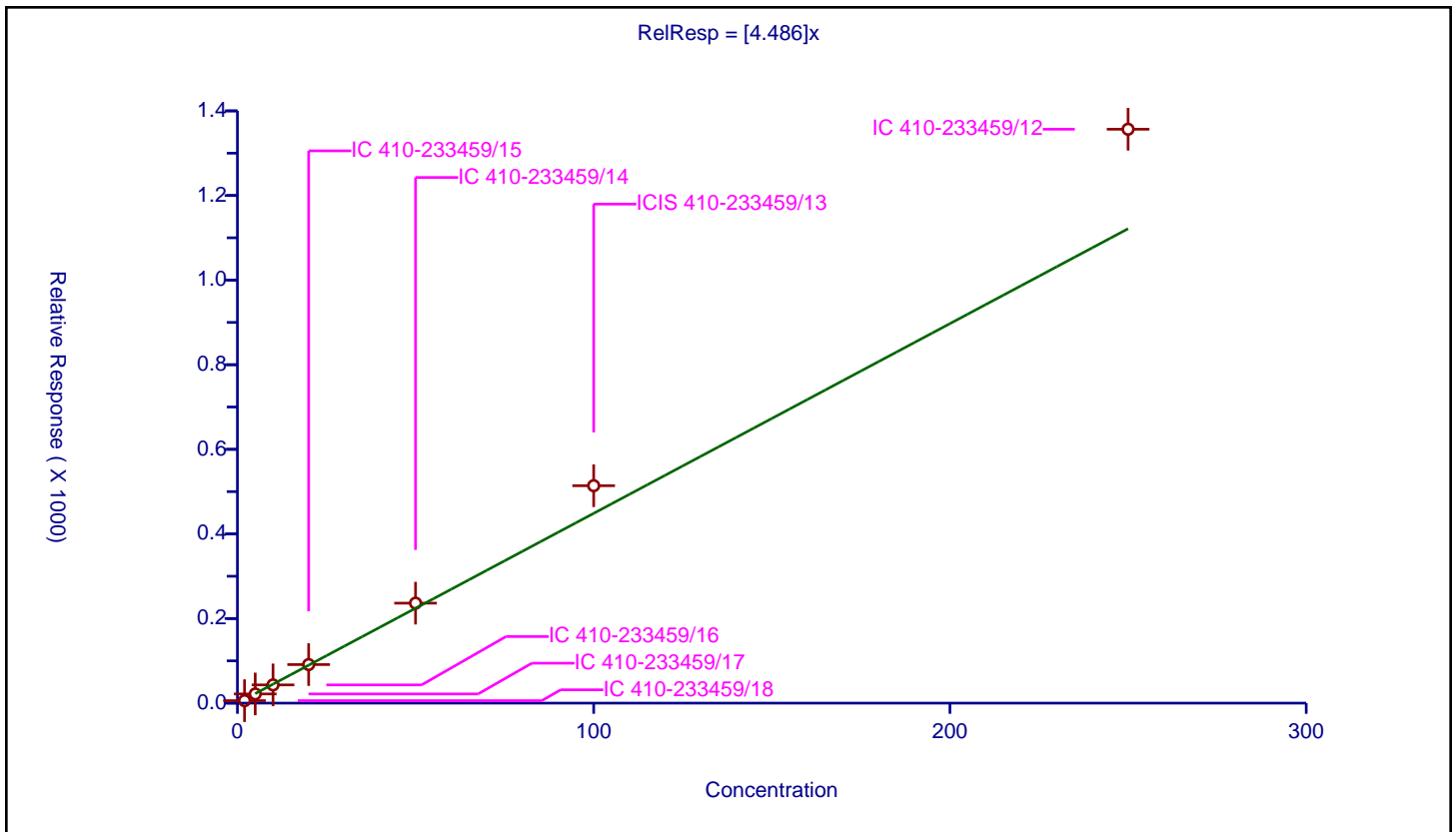
/ trans-1,4-Dichloro-2-butene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	4.486

Error Coefficients	
Standard Error:	1800000
Relative Standard Error:	18.0
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.965

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	2.0	5.822067	50.0	155632.0	2.911034	Y
2	IC 410-233459/17	5.0	21.65908	50.0	134454.0	4.331816	Y
3	IC 410-233459/16	10.0	43.067771	50.0	144059.0	4.306777	Y
4	IC 410-233459/15	20.0	91.15535	50.0	140927.0	4.557767	Y
5	IC 410-233459/14	50.0	236.328289	50.0	149941.0	4.726566	Y
6	ICIS 410-233459/13	100.0	513.977228	50.0	147286.0	5.139772	Y
7	IC 410-233459/12	250.0	1356.636407	50.0	150473.0	5.426546	Y



Calibration

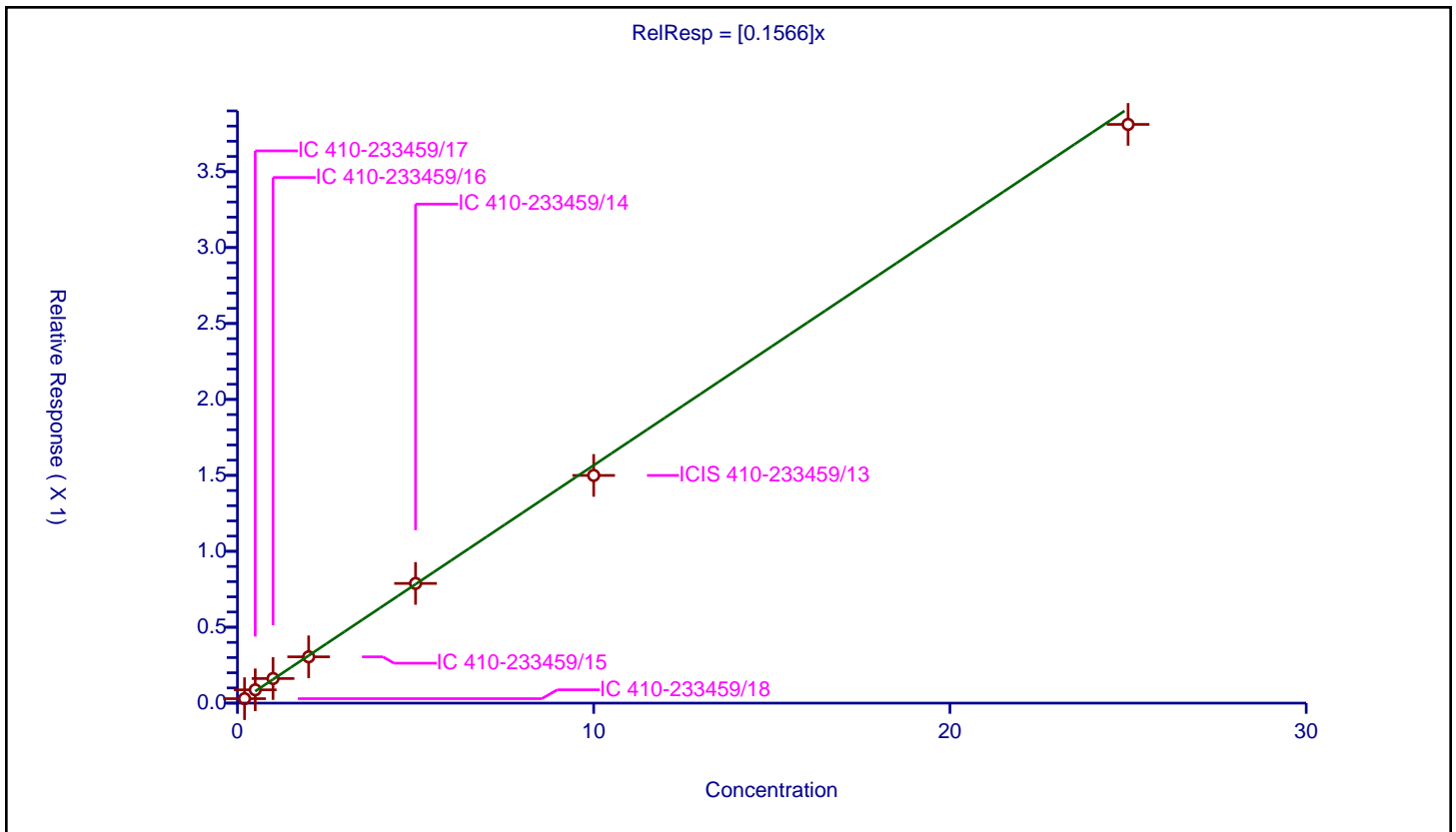
/ 1,2,3-Trichloropropane

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.1566

Error Coefficients	
Standard Error:	178000
Relative Standard Error:	6.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.029319	10.0	1013693.0	0.146593	Y
2	IC 410-233459/17	0.5	0.087632	10.0	1007739.0	0.175264	Y
3	IC 410-233459/16	1.0	0.161988	10.0	1012300.0	0.161988	Y
4	IC 410-233459/15	2.0	0.304896	10.0	1013034.0	0.152448	Y
5	IC 410-233459/14	5.0	0.788256	10.0	1016421.0	0.157651	Y
6	ICIS 410-233459/13	10.0	1.49952	10.0	1049716.0	0.149952	Y
7	IC 410-233459/12	25.0	3.811038	10.0	1039276.0	0.152442	Y



Calibration

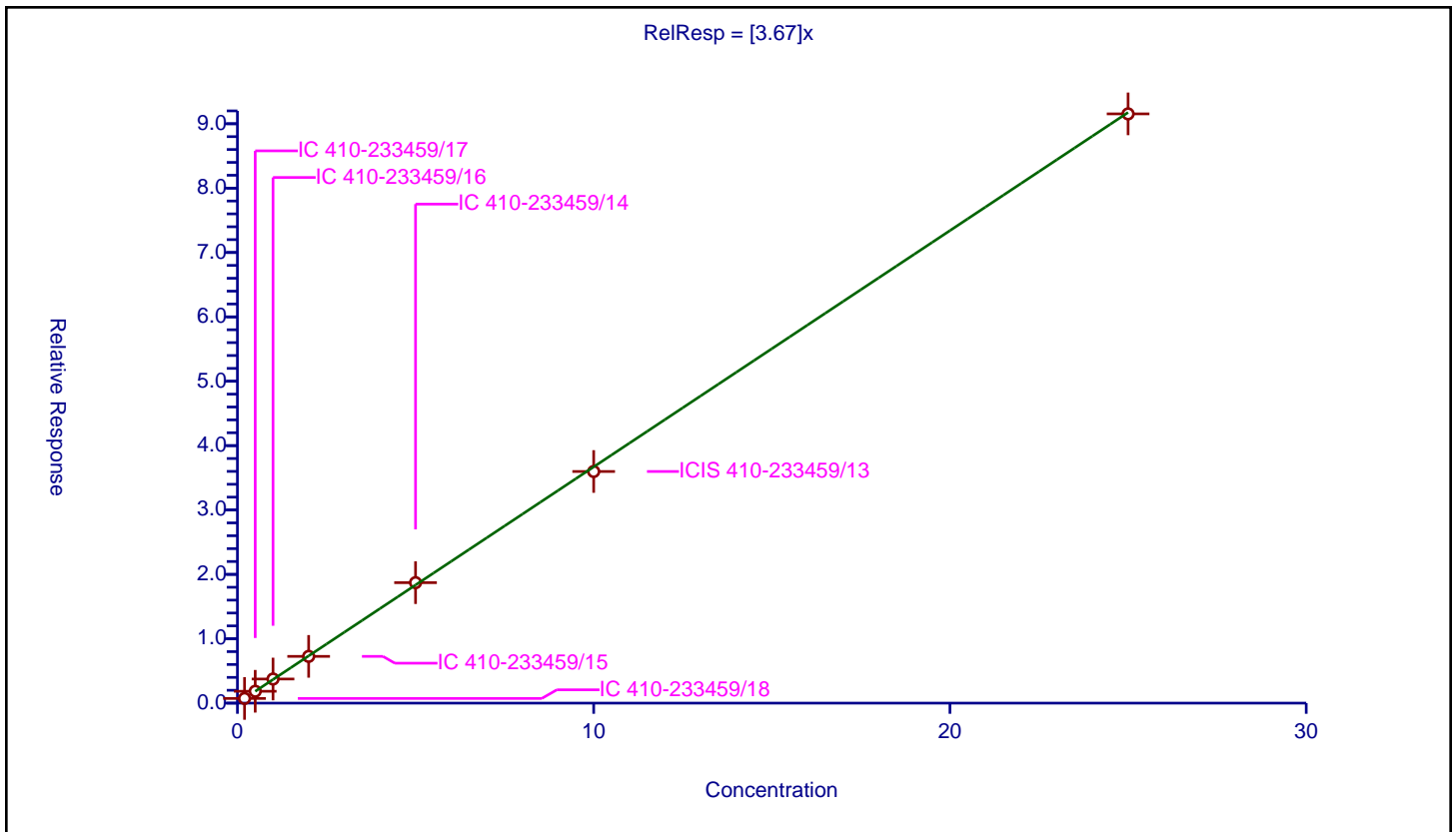
/ N-Propylbenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	3.67

Error Coefficients	
Standard Error:	4260000
Relative Standard Error:	1.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.724391	10.0	1013693.0	3.621955	Y
2	IC 410-233459/17	0.5	1.844396	10.0	1007739.0	3.688792	Y
3	IC 410-233459/16	1.0	3.746903	10.0	1012300.0	3.746903	Y
4	IC 410-233459/15	2.0	7.262076	10.0	1013034.0	3.631038	Y
5	IC 410-233459/14	5.0	18.715267	10.0	1016421.0	3.743053	Y
6	ICIS 410-233459/13	10.0	35.982418	10.0	1049716.0	3.598242	Y
7	IC 410-233459/12	25.0	91.53503	10.0	1039276.0	3.661401	Y



Calibration

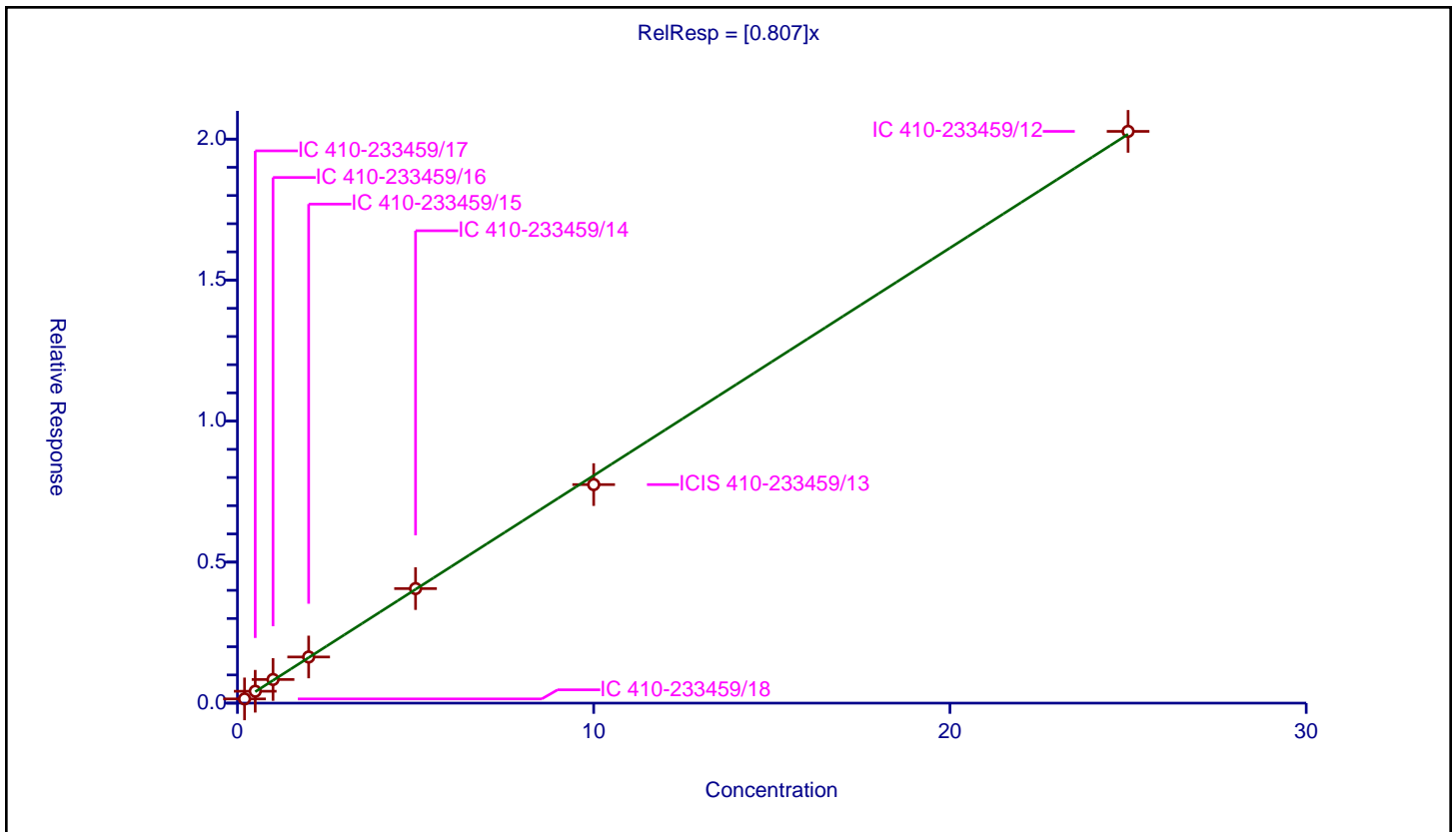
/ 2-Chlorotoluene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.807

Error Coefficients	
Standard Error:	941000
Relative Standard Error:	4.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.150114	10.0	1013693.0	0.750572	Y
2	IC 410-233459/17	0.5	0.421974	10.0	1007739.0	0.843949	Y
3	IC 410-233459/16	1.0	0.837983	10.0	1012300.0	0.837983	Y
4	IC 410-233459/15	2.0	1.636056	10.0	1013034.0	0.818028	Y
5	IC 410-233459/14	5.0	4.061772	10.0	1016421.0	0.812354	Y
6	ICIS 410-233459/13	10.0	7.748905	10.0	1049716.0	0.774891	Y
7	IC 410-233459/12	25.0	20.273768	10.0	1039276.0	0.810951	Y



Calibration

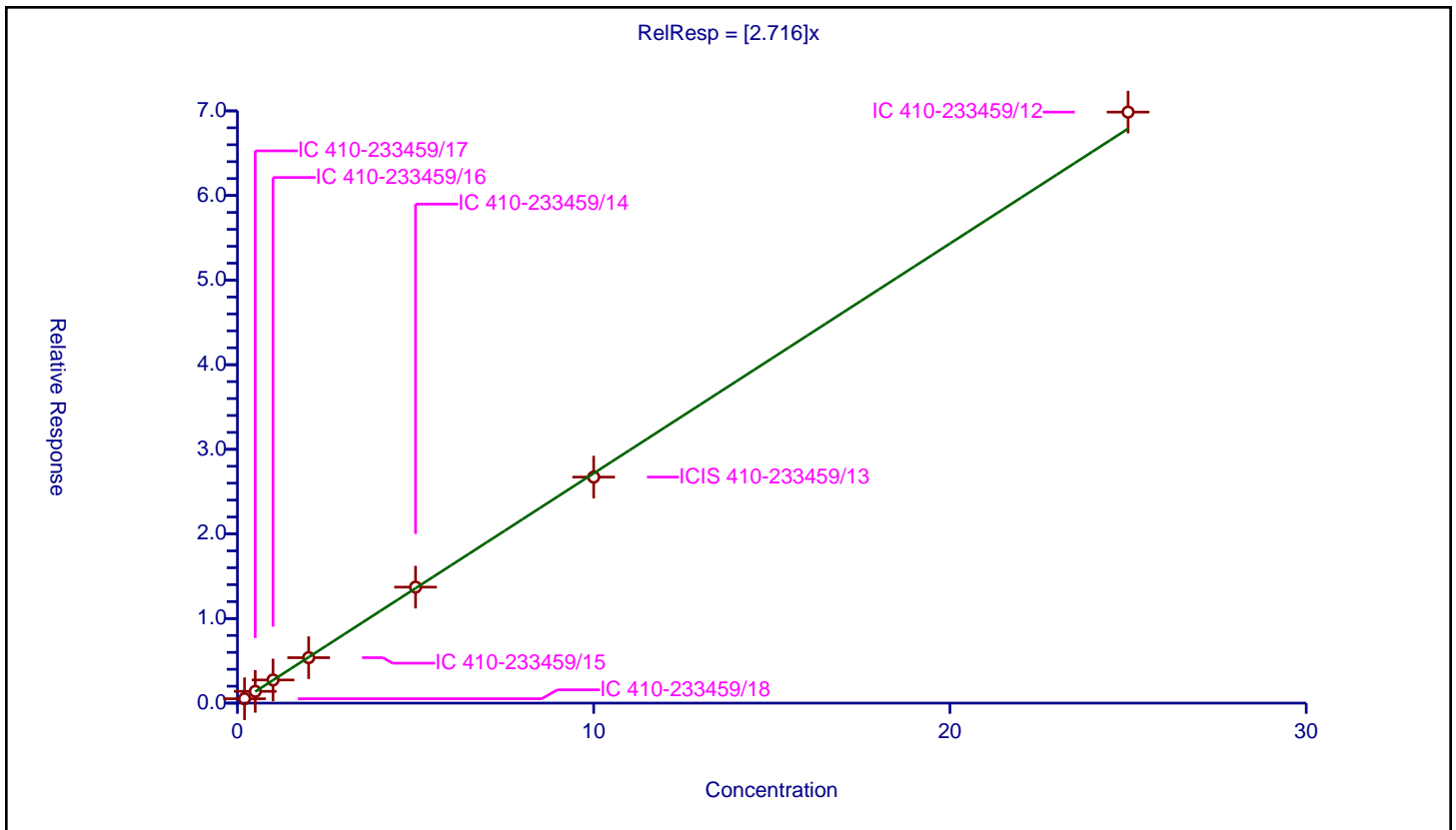
/ 1,3,5-Trimethylbenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	2.716

Error Coefficients	
Standard Error:	3240000
Relative Standard Error:	2.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.519003	10.0	1013693.0	2.595016	Y
2	IC 410-233459/17	0.5	1.392235	10.0	1007739.0	2.784471	Y
3	IC 410-233459/16	1.0	2.737874	10.0	1012300.0	2.737874	Y
4	IC 410-233459/15	2.0	5.372149	10.0	1013034.0	2.686075	Y
5	IC 410-233459/14	5.0	13.712133	10.0	1016421.0	2.742427	Y
6	ICIS 410-233459/13	10.0	26.716159	10.0	1049716.0	2.671616	Y
7	IC 410-233459/12	25.0	69.857988	10.0	1039276.0	2.79432	Y



Calibration

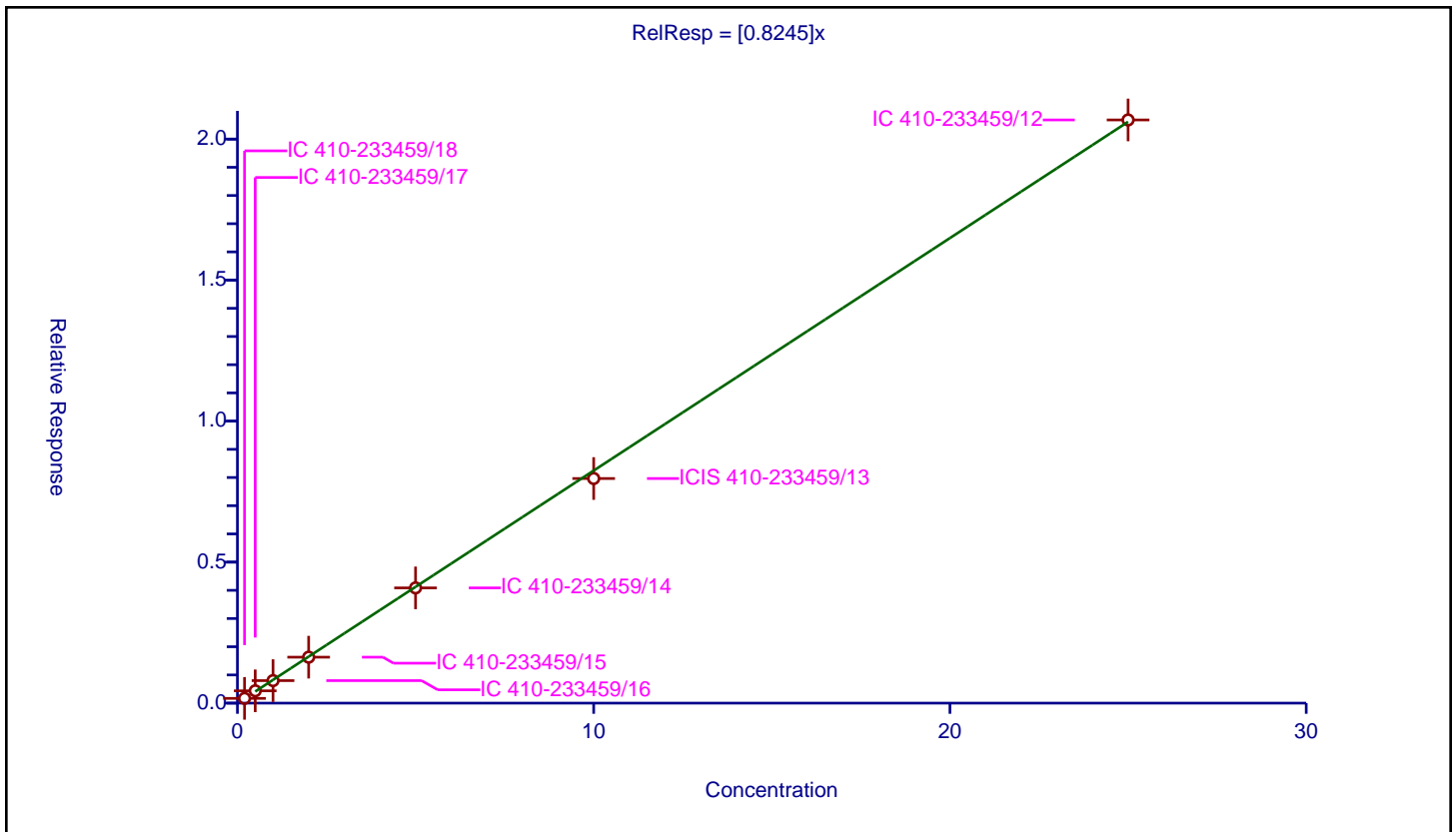
/ 4-Chlorotoluene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.8245

Error Coefficients	
Standard Error:	960000
Relative Standard Error:	3.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.168769	10.0	1013693.0	0.843845	Y
2	IC 410-233459/17	0.5	0.436919	10.0	1007739.0	0.873837	Y
3	IC 410-233459/16	1.0	0.798459	10.0	1012300.0	0.798459	Y
4	IC 410-233459/15	2.0	1.629314	10.0	1013034.0	0.814657	Y
5	IC 410-233459/14	5.0	4.086014	10.0	1016421.0	0.817203	Y
6	ICIS 410-233459/13	10.0	7.964859	10.0	1049716.0	0.796486	Y
7	IC 410-233459/12	25.0	20.679165	10.0	1039276.0	0.827167	Y



Calibration

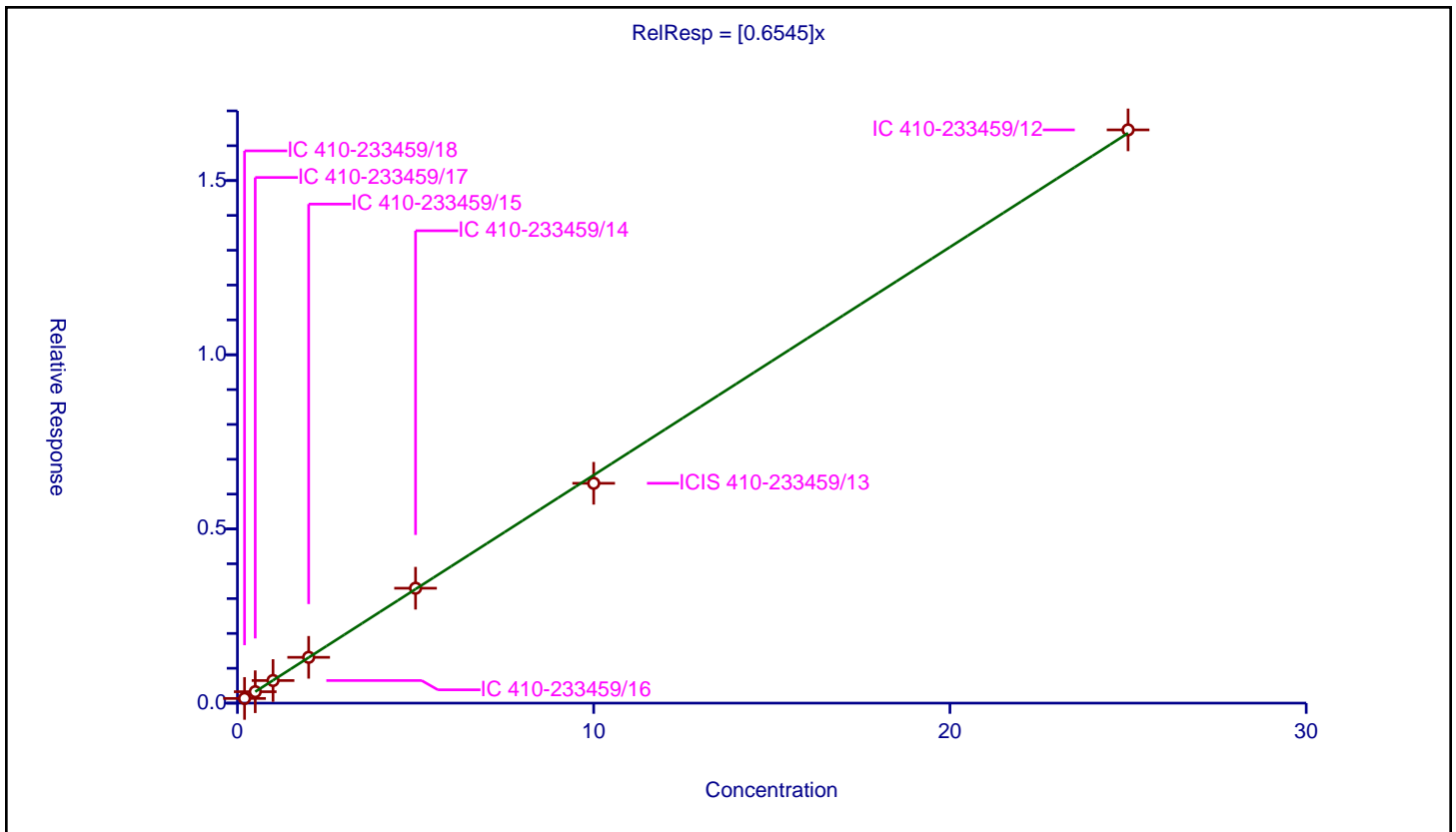
/ tert-Butylbenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.6545

Error Coefficients	
Standard Error:	764000
Relative Standard Error:	1.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.134321	10.0	1013693.0	0.671604	Y
2	IC 410-233459/17	0.5	0.327357	10.0	1007739.0	0.654713	Y
3	IC 410-233459/16	1.0	0.648908	10.0	1012300.0	0.648908	Y
4	IC 410-233459/15	2.0	1.314813	10.0	1013034.0	0.657406	Y
5	IC 410-233459/14	5.0	3.298427	10.0	1016421.0	0.659685	Y
6	ICIS 410-233459/13	10.0	6.310583	10.0	1049716.0	0.631058	Y
7	IC 410-233459/12	25.0	16.455253	10.0	1039276.0	0.65821	Y



Calibration

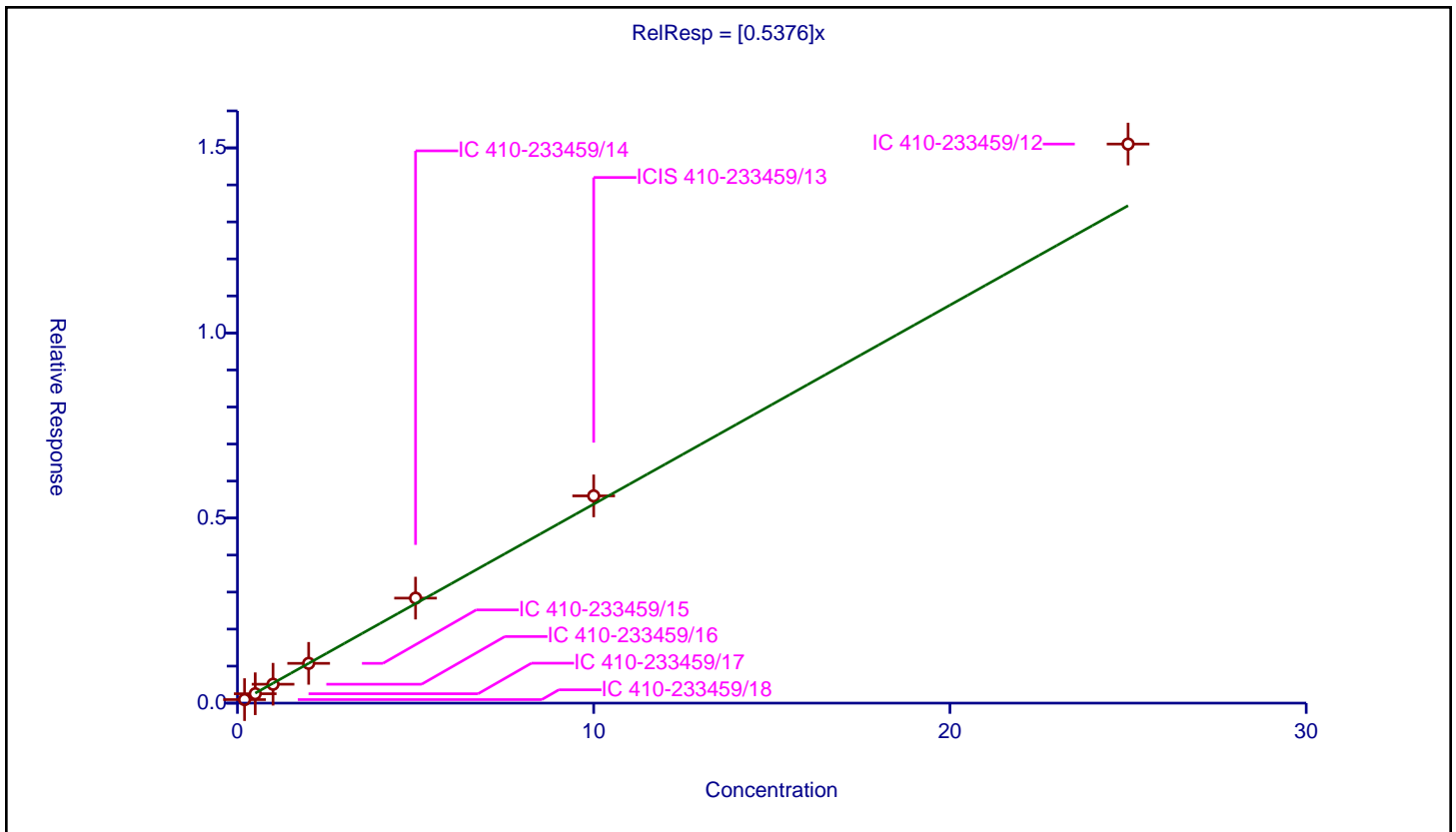
/ Pentachloroethane

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.5376

Error Coefficients	
Standard Error:	696000
Relative Standard Error:	8.0
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.095216	10.0	1013693.0	0.476081	Y
2	IC 410-233459/17	0.5	0.253935	10.0	1007739.0	0.50787	Y
3	IC 410-233459/16	1.0	0.510481	10.0	1012300.0	0.510481	Y
4	IC 410-233459/15	2.0	1.07488	10.0	1013034.0	0.53744	Y
5	IC 410-233459/14	5.0	2.836748	10.0	1016421.0	0.56735	Y
6	ICIS 410-233459/13	10.0	5.598819	10.0	1049716.0	0.559882	Y
7	IC 410-233459/12	25.0	15.104024	10.0	1039276.0	0.604161	Y



Calibration

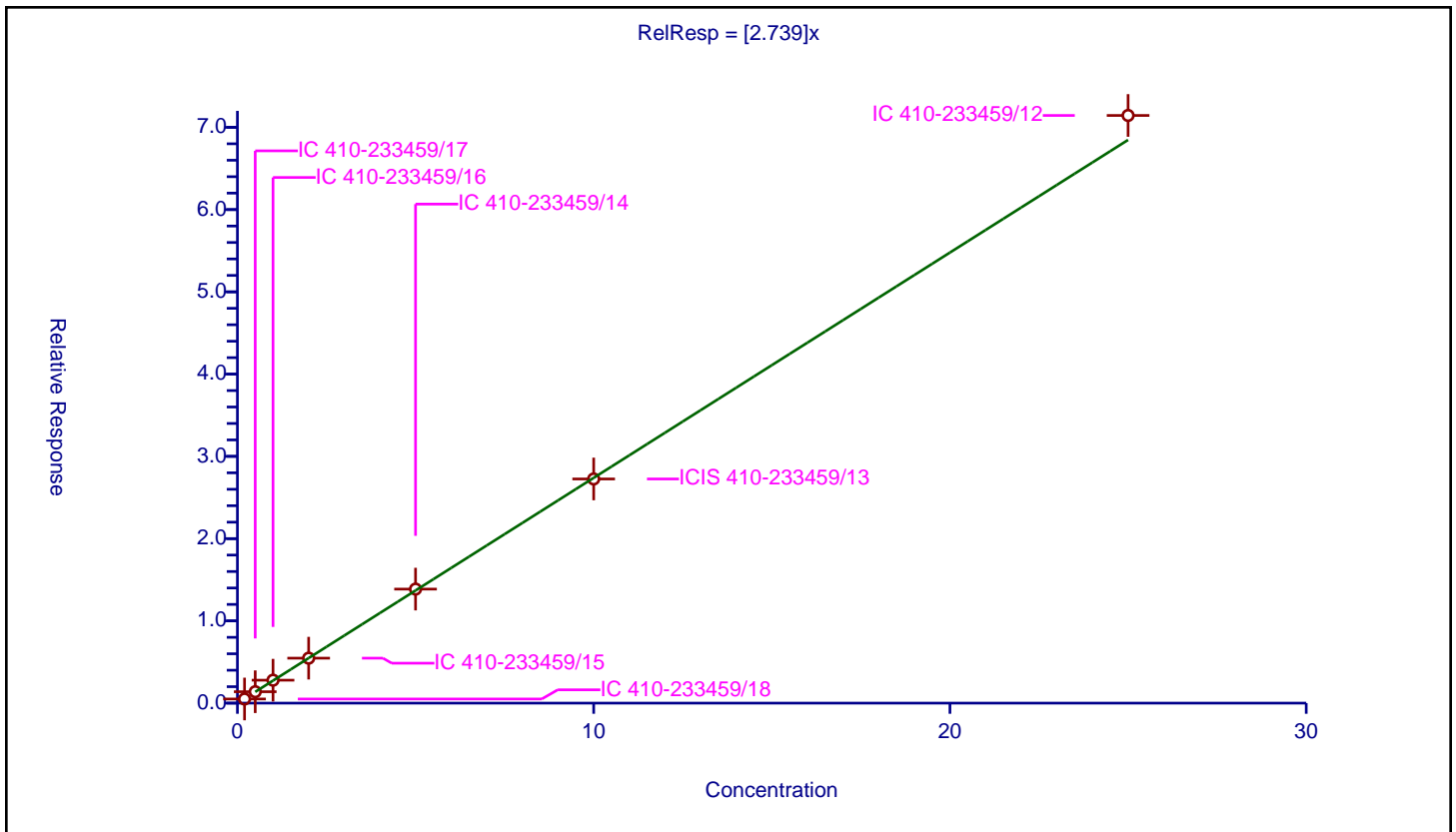
/ 1,2,4-Trimethylbenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	2.739

Error Coefficients	
Standard Error:	3310000
Relative Standard Error:	3.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.504453	10.0	1013693.0	2.522263	Y
2	IC 410-233459/17	0.5	1.386004	10.0	1007739.0	2.772007	Y
3	IC 410-233459/16	1.0	2.788215	10.0	1012300.0	2.788215	Y
4	IC 410-233459/15	2.0	5.467408	10.0	1013034.0	2.733704	Y
5	IC 410-233459/14	5.0	13.864658	10.0	1016421.0	2.772932	Y
6	ICIS 410-233459/13	10.0	27.252914	10.0	1049716.0	2.725291	Y
7	IC 410-233459/12	25.0	71.44184	10.0	1039276.0	2.857674	Y



Calibration

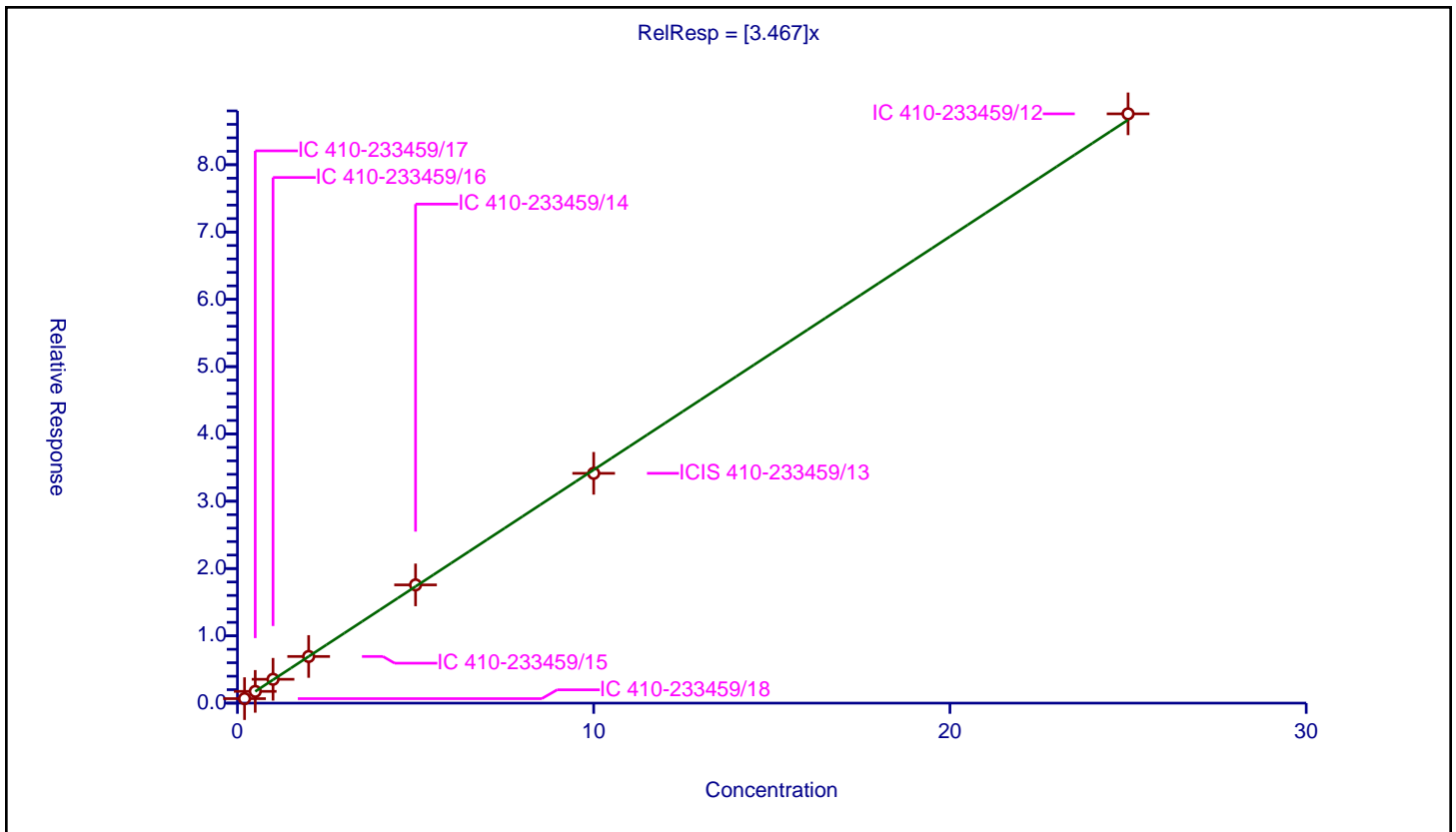
/ sec-Butylbenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	3.467

Error Coefficients	
Standard Error:	4070000
Relative Standard Error:	2.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.667352	10.0	1013693.0	3.33676	Y
2	IC 410-233459/17	0.5	1.745224	10.0	1007739.0	3.490447	Y
3	IC 410-233459/16	1.0	3.543515	10.0	1012300.0	3.543515	Y
4	IC 410-233459/15	2.0	6.931149	10.0	1013034.0	3.465575	Y
5	IC 410-233459/14	5.0	17.569265	10.0	1016421.0	3.513853	Y
6	ICIS 410-233459/13	10.0	34.145521	10.0	1049716.0	3.414552	Y
7	IC 410-233459/12	25.0	87.559185	10.0	1039276.0	3.502367	Y



Calibration

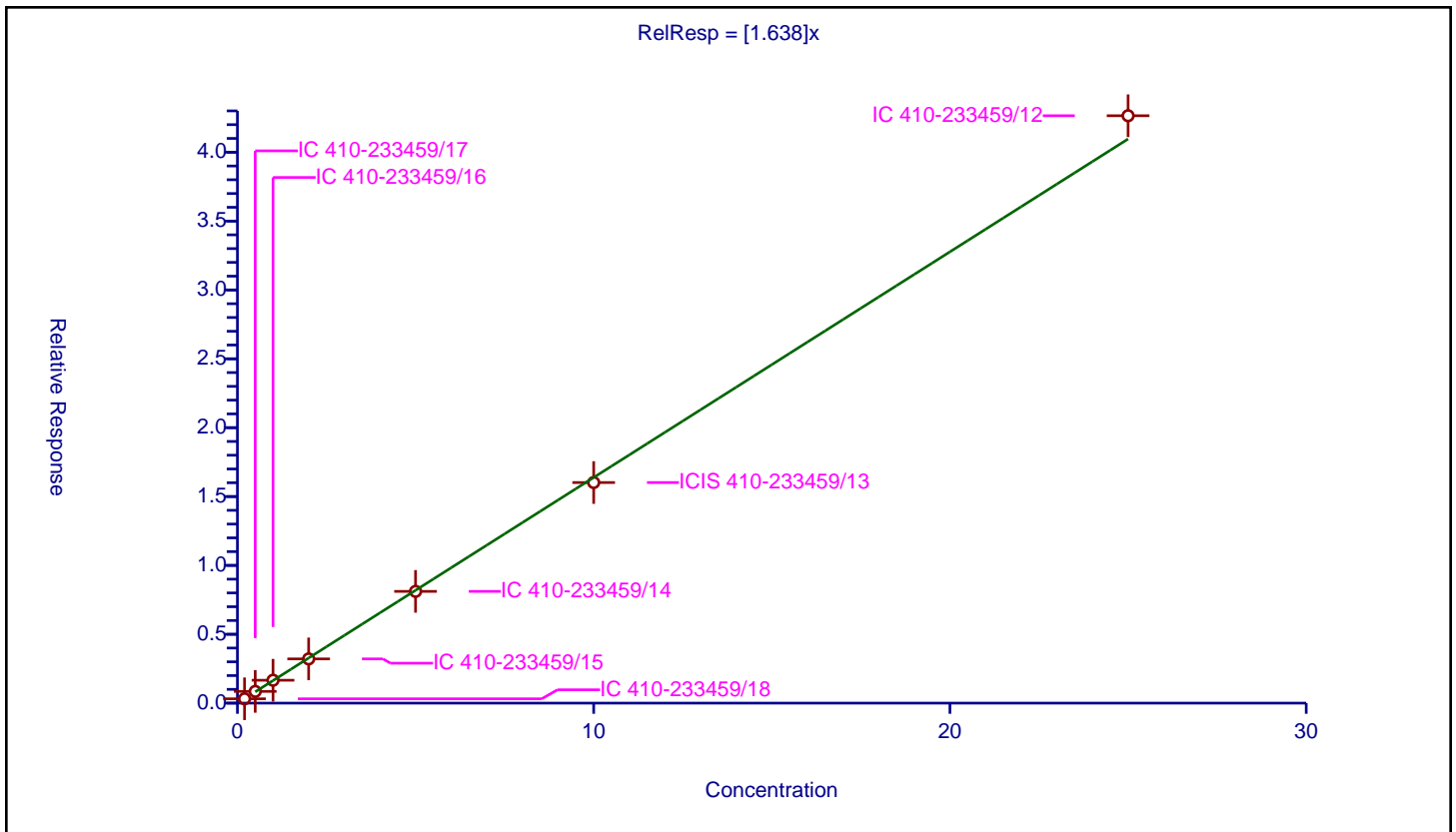
/ 1,3-Dichlorobenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.638

Error Coefficients	
Standard Error:	1970000
Relative Standard Error:	3.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.313724	10.0	1013693.0	1.568621	Y
2	IC 410-233459/17	0.5	0.851659	10.0	1007739.0	1.703318	Y
3	IC 410-233459/16	1.0	1.661257	10.0	1012300.0	1.661257	Y
4	IC 410-233459/15	2.0	3.210929	10.0	1013034.0	1.605464	Y
5	IC 410-233459/14	5.0	8.112711	10.0	1016421.0	1.622542	Y
6	ICIS 410-233459/13	10.0	16.016923	10.0	1049716.0	1.601692	Y
7	IC 410-233459/12	25.0	42.647102	10.0	1039276.0	1.705884	Y



Calibration

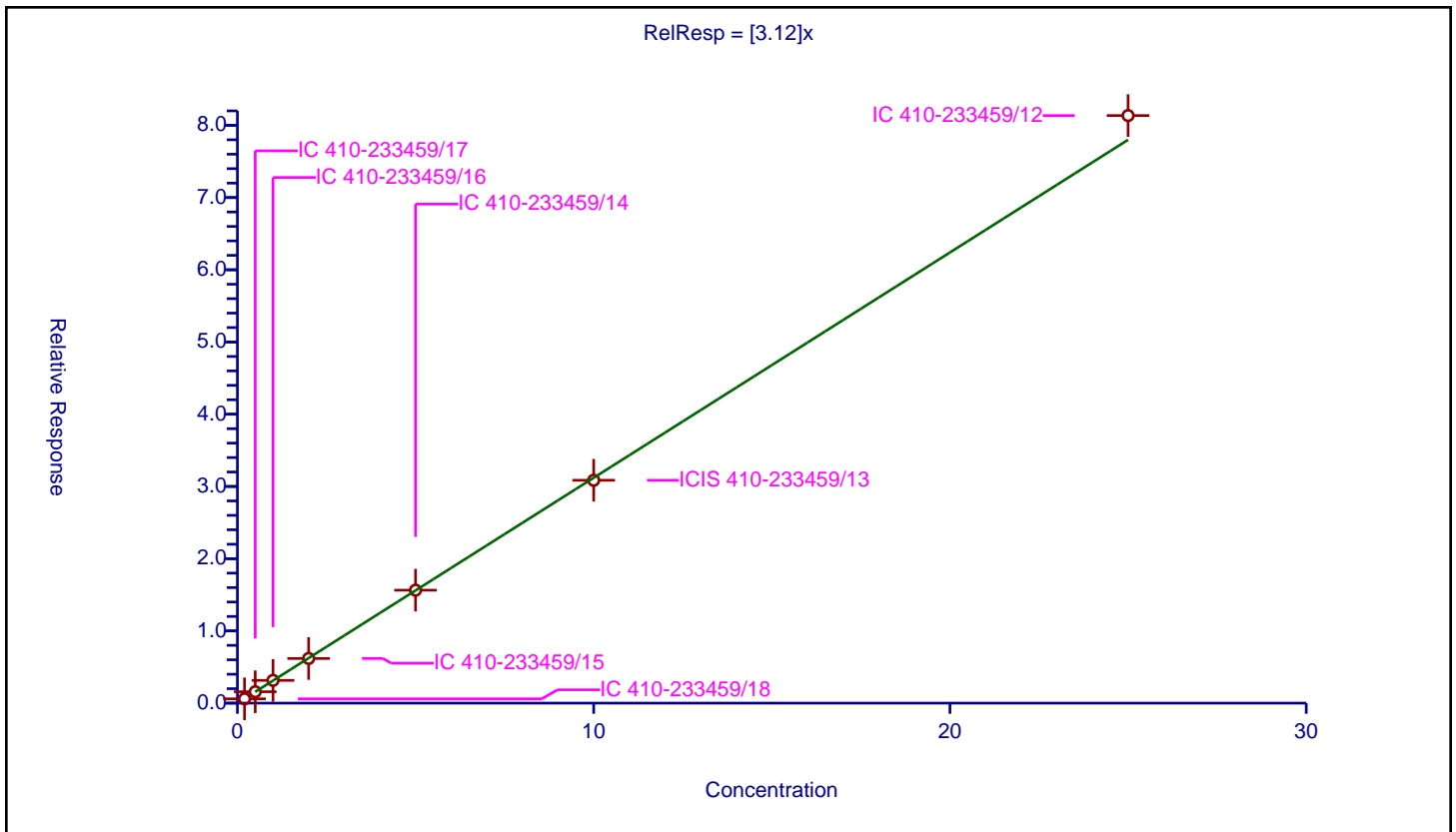
/ 4-Isopropyltoluene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	3.12

Error Coefficients	
Standard Error:	3760000
Relative Standard Error:	2.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.594164	10.0	1013693.0	2.970821	Y
2	IC 410-233459/17	0.5	1.578216	10.0	1007739.0	3.156432	Y
3	IC 410-233459/16	1.0	3.152307	10.0	1012300.0	3.152307	Y
4	IC 410-233459/15	2.0	6.18382	10.0	1013034.0	3.09191	Y
5	IC 410-233459/14	5.0	15.638402	10.0	1016421.0	3.12768	Y
6	ICIS 410-233459/13	10.0	30.857279	10.0	1049716.0	3.085728	Y
7	IC 410-233459/12	25.0	81.349882	10.0	1039276.0	3.253995	Y



Calibration

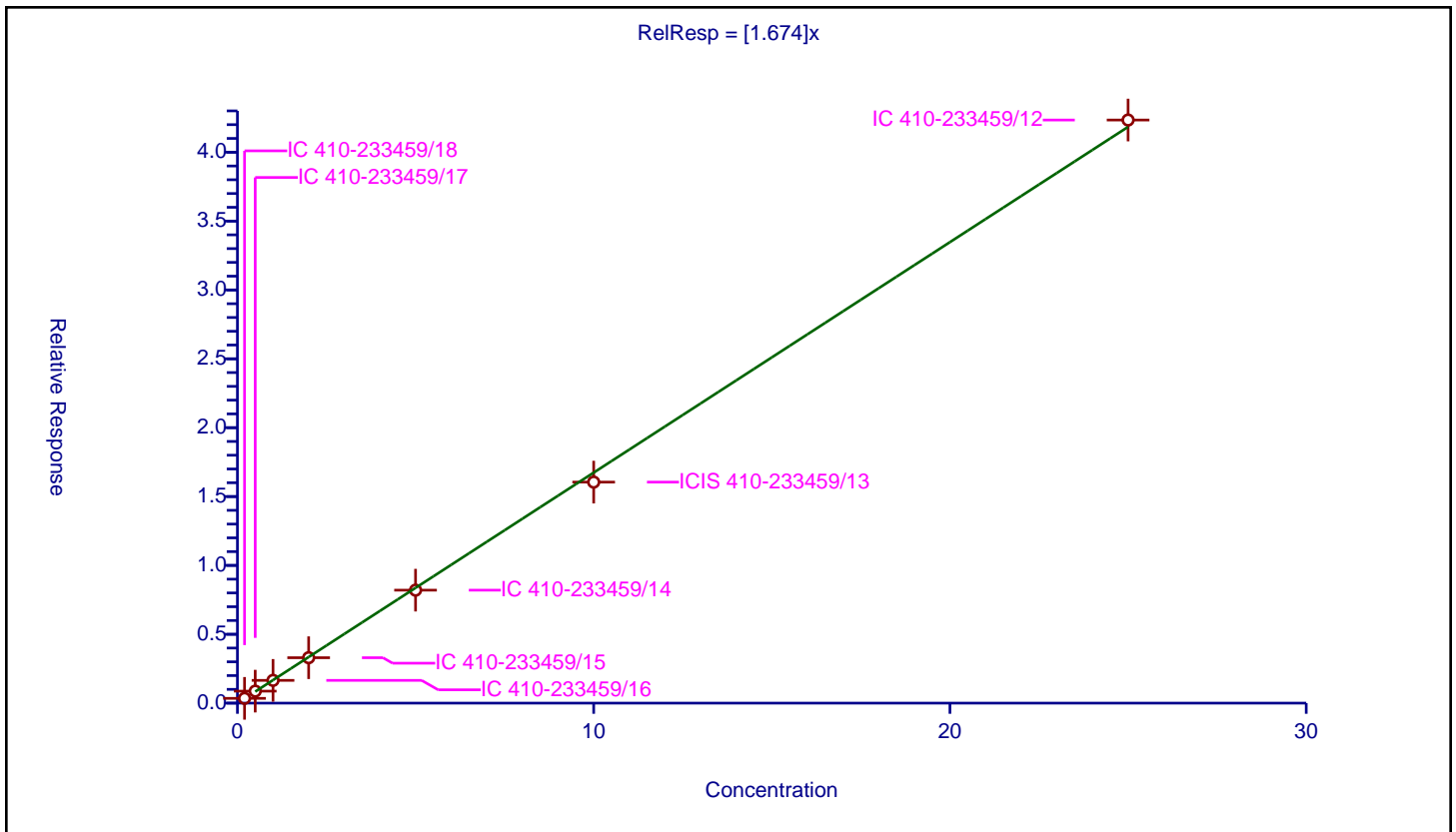
/ 1,4-Dichlorobenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.674

Error Coefficients	
Standard Error:	1960000
Relative Standard Error:	3.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.346209	10.0	1013693.0	1.731047	Y
2	IC 410-233459/17	0.5	0.871287	10.0	1007739.0	1.742574	Y
3	IC 410-233459/16	1.0	1.653057	10.0	1012300.0	1.653057	Y
4	IC 410-233459/15	2.0	3.298912	10.0	1013034.0	1.649456	Y
5	IC 410-233459/14	5.0	8.201729	10.0	1016421.0	1.640346	Y
6	ICIS 410-233459/13	10.0	16.047941	10.0	1049716.0	1.604794	Y
7	IC 410-233459/12	25.0	42.337185	10.0	1039276.0	1.693487	Y



Calibration

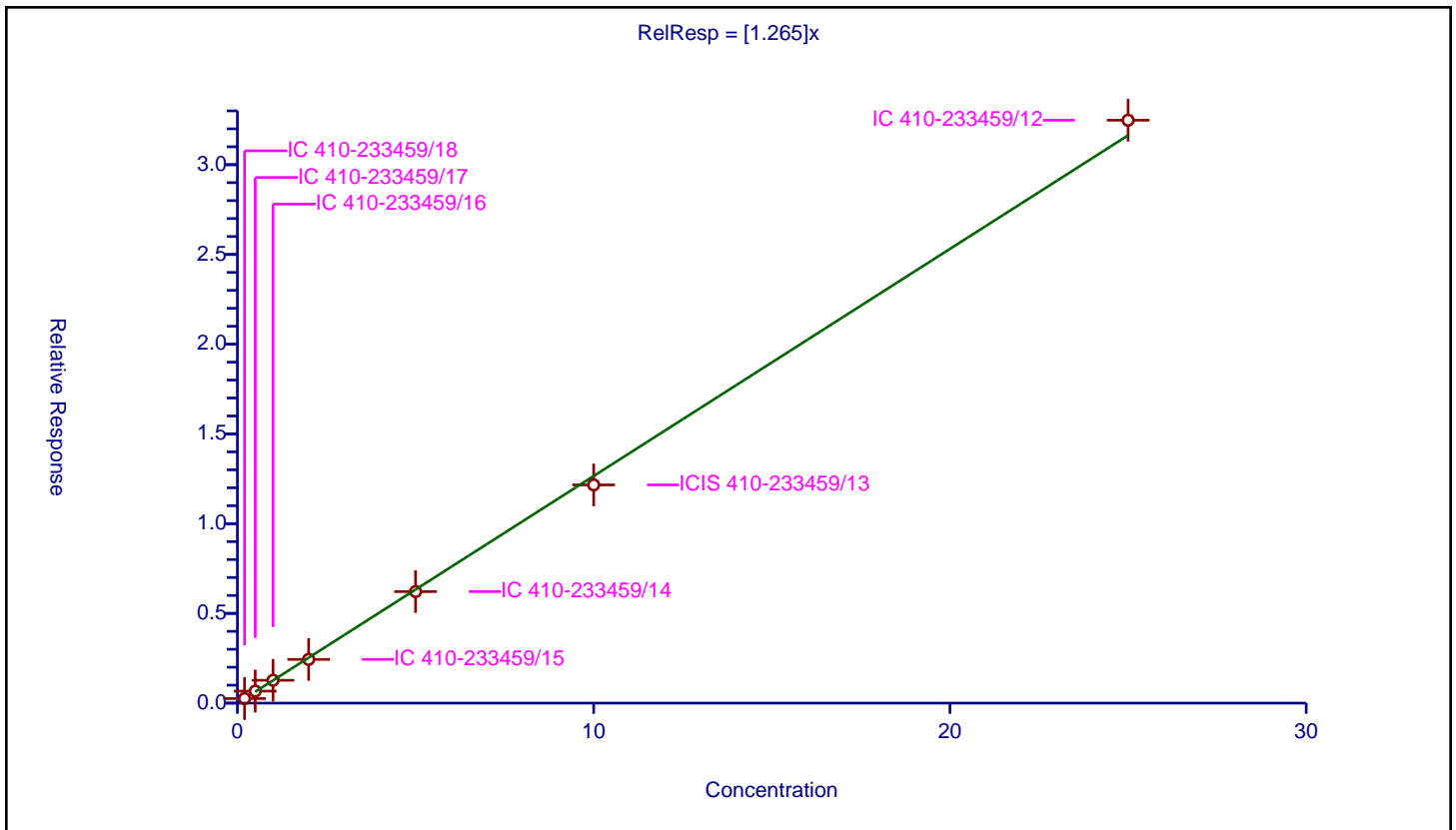
/ 1,2,3-Trimethylbenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.265

Error Coefficients	
Standard Error:	1500000
Relative Standard Error:	3.5
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.253775	10.0	1013693.0	1.268875	Y
2	IC 410-233459/17	0.5	0.669658	10.0	1007739.0	1.339315	Y
3	IC 410-233459/16	1.0	1.27396	10.0	1012300.0	1.27396	Y
4	IC 410-233459/15	2.0	2.435782	10.0	1013034.0	1.217891	Y
5	IC 410-233459/14	5.0	6.215171	10.0	1016421.0	1.243034	Y
6	ICIS 410-233459/13	10.0	12.159603	10.0	1049716.0	1.21596	Y
7	IC 410-233459/12	25.0	32.47913	10.0	1039276.0	1.299165	Y



Calibration

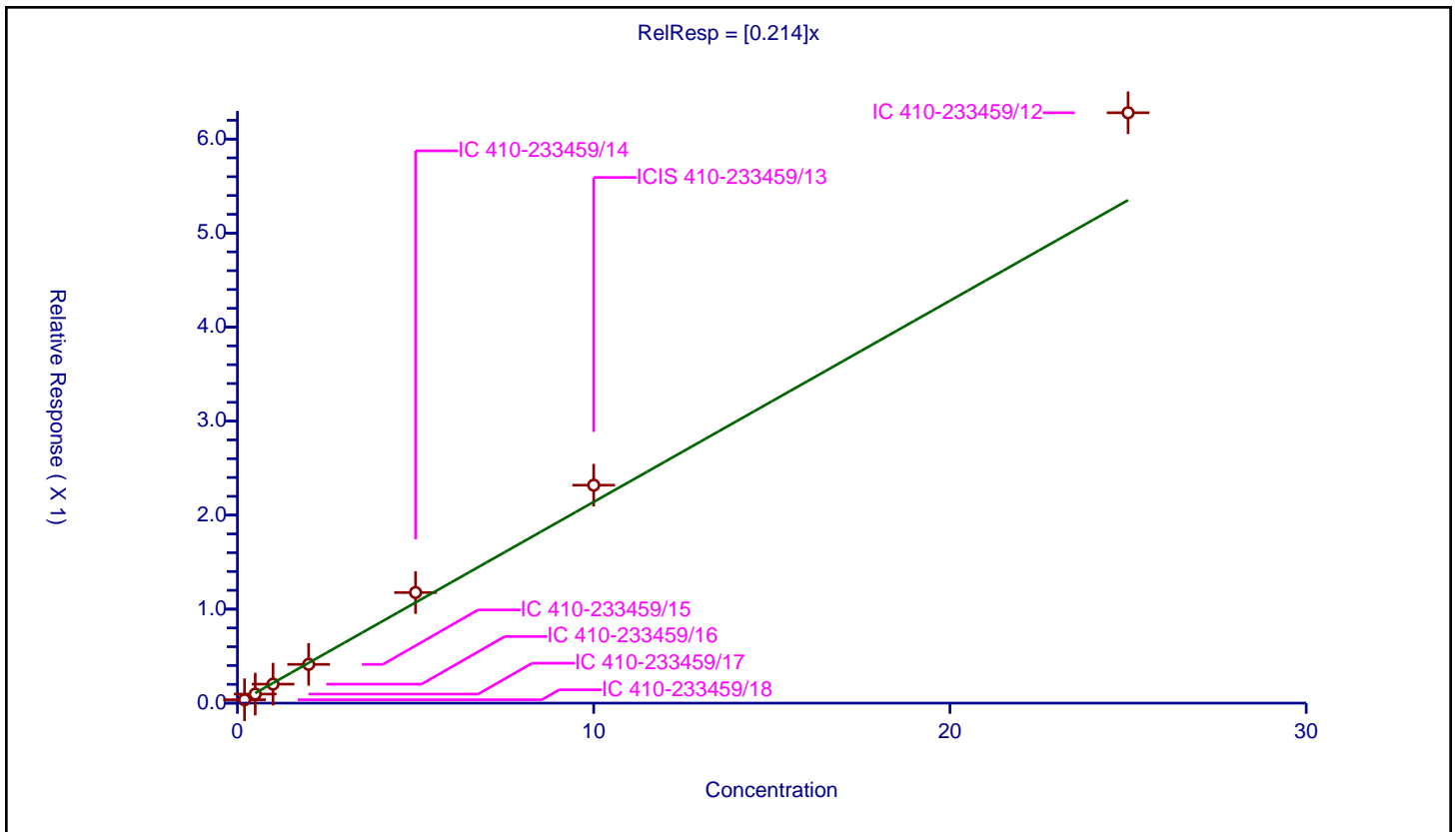
/ Benzyl chloride

Curve Type: Average
Weighting: Conc_Sq
Origin: Force
Dependency: Response
Calib Mode: ISTD
Response Base: AREA
RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.214

Error Coefficients	
Standard Error:	289000
Relative Standard Error:	12.1
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.983

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.03578	10.0	1013693.0	0.1789	Y
2	IC 410-233459/17	0.5	0.096255	10.0	1007739.0	0.19251	Y
3	IC 410-233459/16	1.0	0.202213	10.0	1012300.0	0.202213	Y
4	IC 410-233459/15	2.0	0.412276	10.0	1013034.0	0.206138	Y
5	IC 410-233459/14	5.0	1.176825	10.0	1016421.0	0.235365	Y
6	ICIS 410-233459/13	10.0	2.318541	10.0	1049716.0	0.231854	Y
7	IC 410-233459/12	25.0	6.280103	10.0	1039276.0	0.251204	Y



Calibration

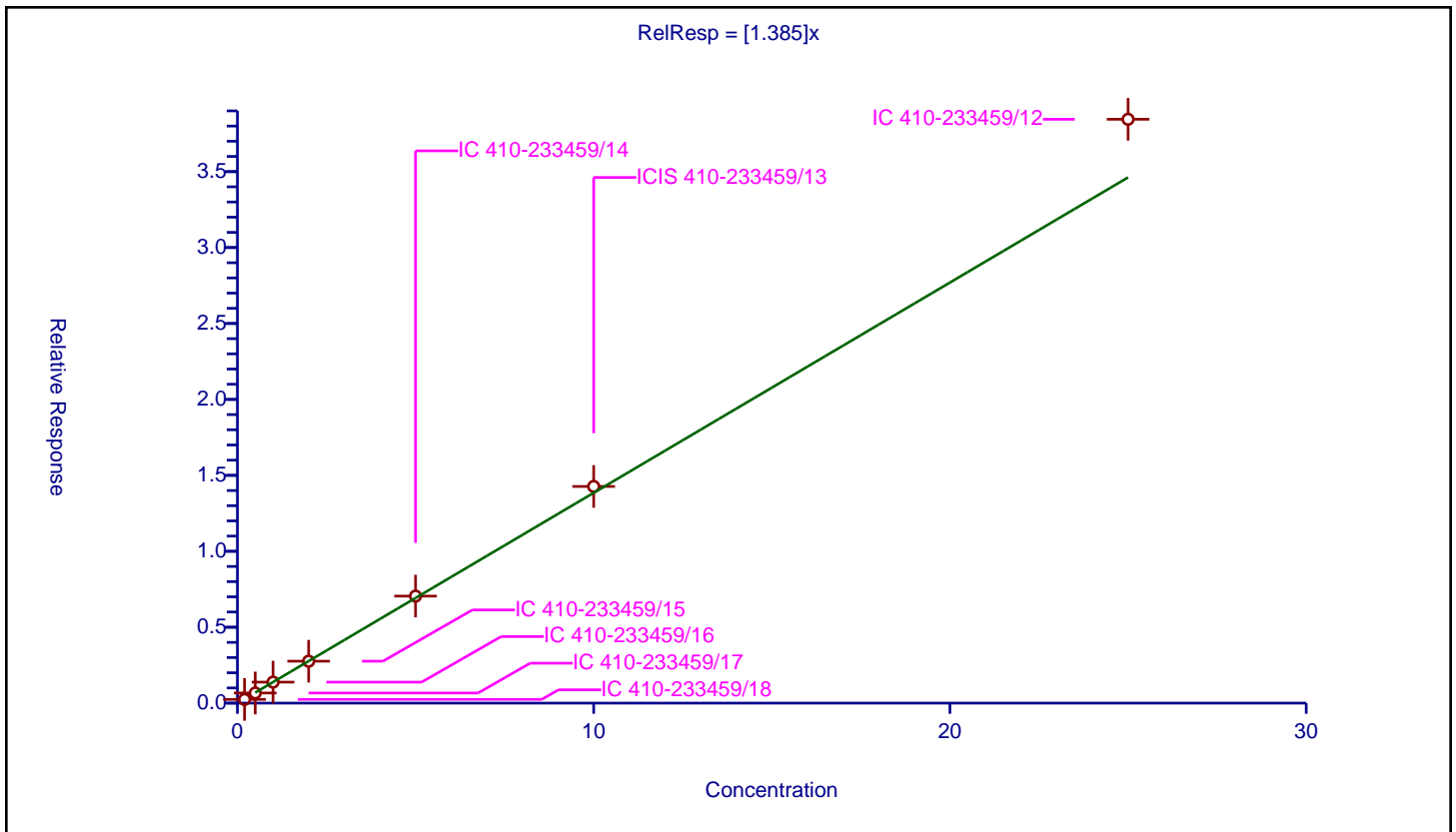
/ n-Butylbenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.385

Error Coefficients	
Standard Error:	1770000
Relative Standard Error:	6.9
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.244315	10.0	1013693.0	1.221573	Y
2	IC 410-233459/17	0.5	0.667445	10.0	1007739.0	1.334889	Y
3	IC 410-233459/16	1.0	1.382199	10.0	1012300.0	1.382199	Y
4	IC 410-233459/15	2.0	2.761576	10.0	1013034.0	1.380788	Y
5	IC 410-233459/14	5.0	7.048034	10.0	1016421.0	1.409607	Y
6	ICIS 410-233459/13	10.0	14.268202	10.0	1049716.0	1.42682	Y
7	IC 410-233459/12	25.0	38.447381	10.0	1039276.0	1.537895	Y



Calibration

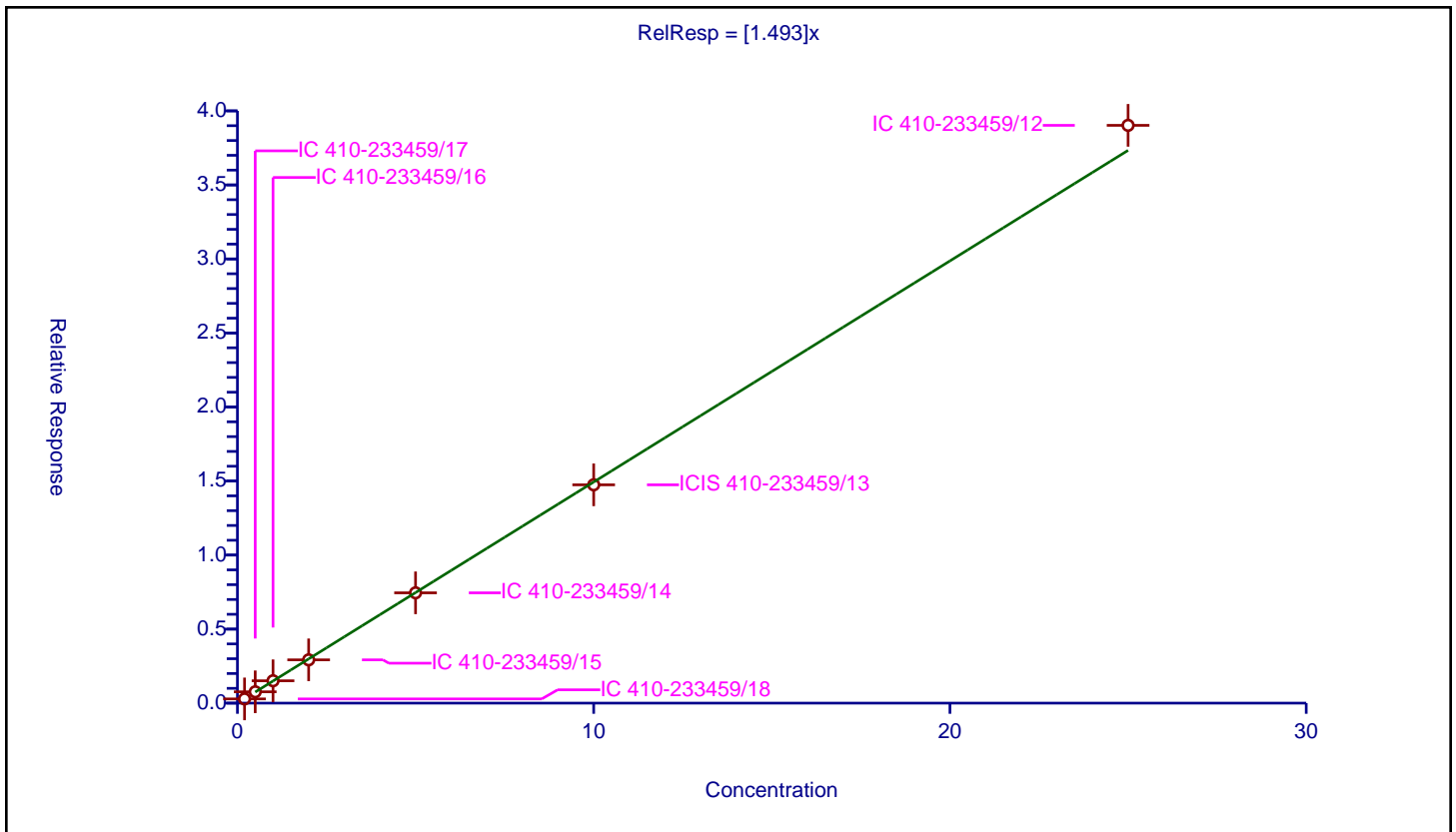
/ 1,2-Dichlorobenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.493

Error Coefficients	
Standard Error:	1800000
Relative Standard Error:	3.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.285293	10.0	1013693.0	1.426467	Y
2	IC 410-233459/17	0.5	0.765278	10.0	1007739.0	1.530555	Y
3	IC 410-233459/16	1.0	1.509523	10.0	1012300.0	1.509523	Y
4	IC 410-233459/15	2.0	2.923288	10.0	1013034.0	1.461644	Y
5	IC 410-233459/14	5.0	7.450181	10.0	1016421.0	1.490036	Y
6	ICIS 410-233459/13	10.0	14.744312	10.0	1049716.0	1.474431	Y
7	IC 410-233459/12	25.0	39.023657	10.0	1039276.0	1.560946	Y



Calibration

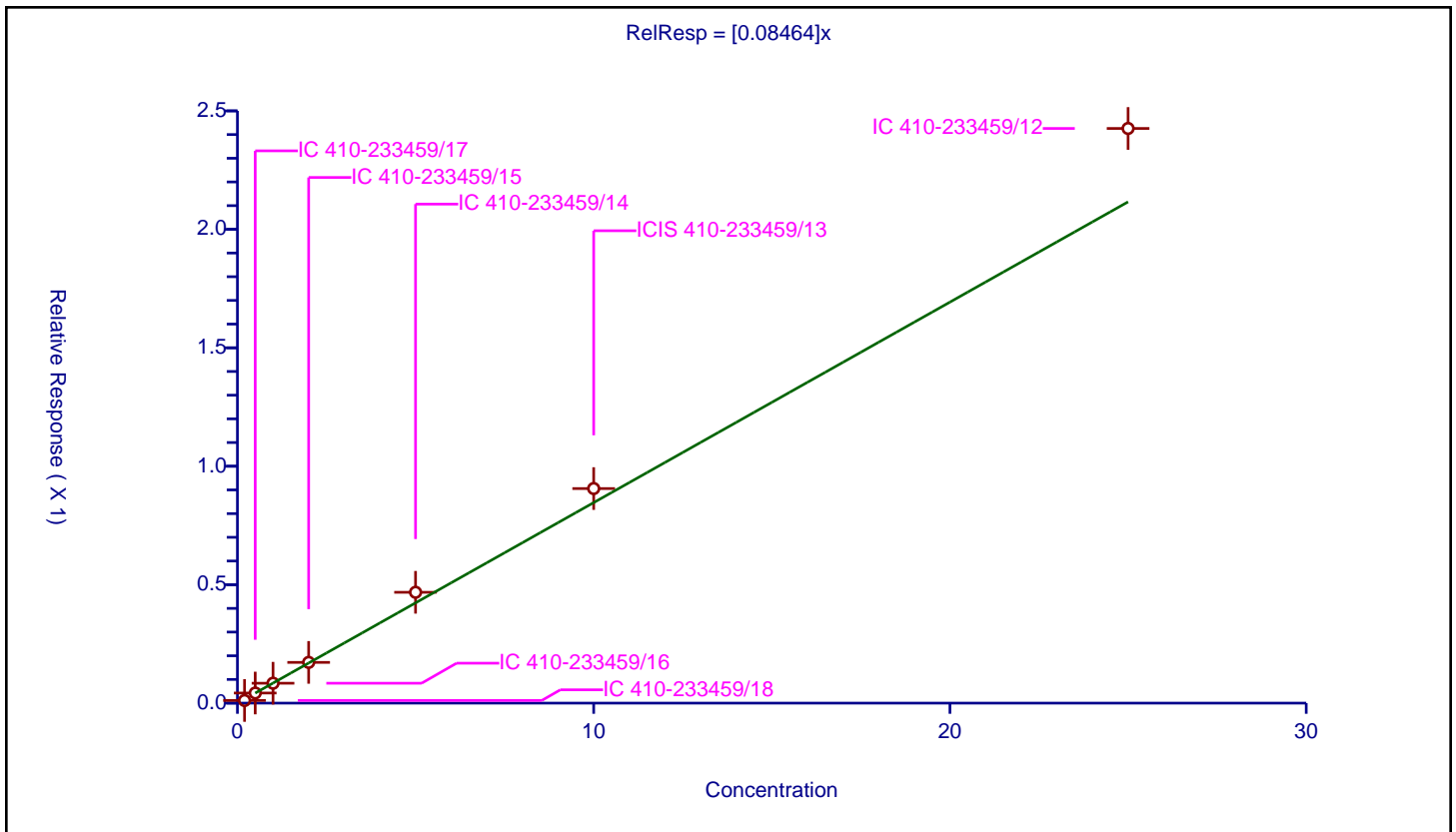
/ 1,2-Dibromo-3-Chloropropane

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.08464

Error Coefficients	
Standard Error:	112000
Relative Standard Error:	16.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.972

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.011167	10.0	1013693.0	0.055835	Y
2	IC 410-233459/17	0.5	0.042719	10.0	1007739.0	0.085439	Y
3	IC 410-233459/16	1.0	0.084056	10.0	1012300.0	0.084056	Y
4	IC 410-233459/15	2.0	0.171929	10.0	1013034.0	0.085965	Y
5	IC 410-233459/14	5.0	0.467887	10.0	1016421.0	0.093577	Y
6	ICIS 410-233459/13	10.0	0.905826	10.0	1049716.0	0.090583	Y
7	IC 410-233459/12	25.0	2.425804	10.0	1039276.0	0.097032	Y



Calibration

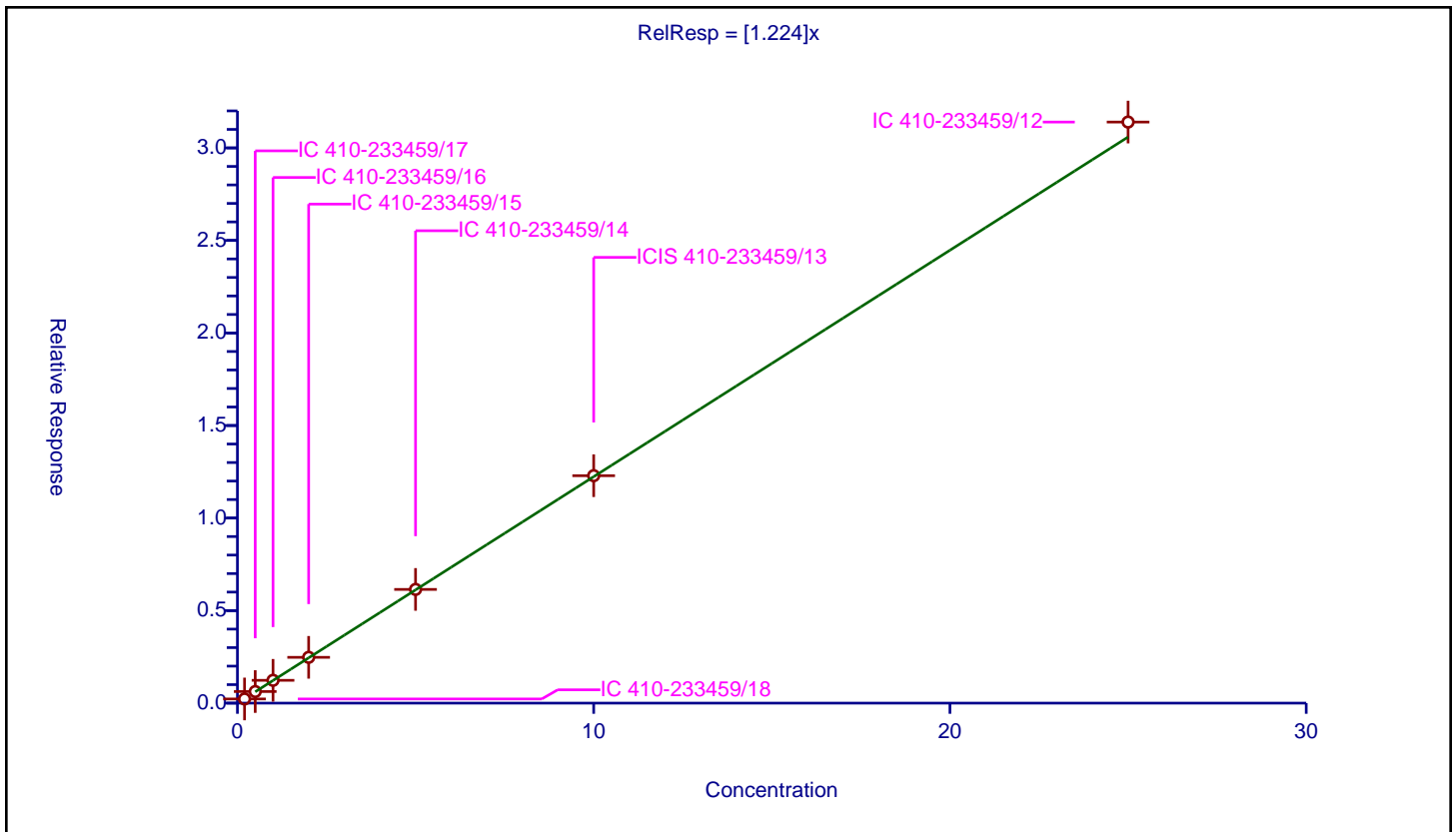
/ 1,3,5-Trichlorobenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.224

Error Coefficients	
Standard Error:	1460000
Relative Standard Error:	3.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.225729	10.0	1013693.0	1.128645	Y
2	IC 410-233459/17	0.5	0.626045	10.0	1007739.0	1.25209	Y
3	IC 410-233459/16	1.0	1.232984	10.0	1012300.0	1.232984	Y
4	IC 410-233459/15	2.0	2.475169	10.0	1013034.0	1.237584	Y
5	IC 410-233459/14	5.0	6.143439	10.0	1016421.0	1.228688	Y
6	ICIS 410-233459/13	10.0	12.289676	10.0	1049716.0	1.228968	Y
7	IC 410-233459/12	25.0	31.397136	10.0	1039276.0	1.255885	Y



Calibration

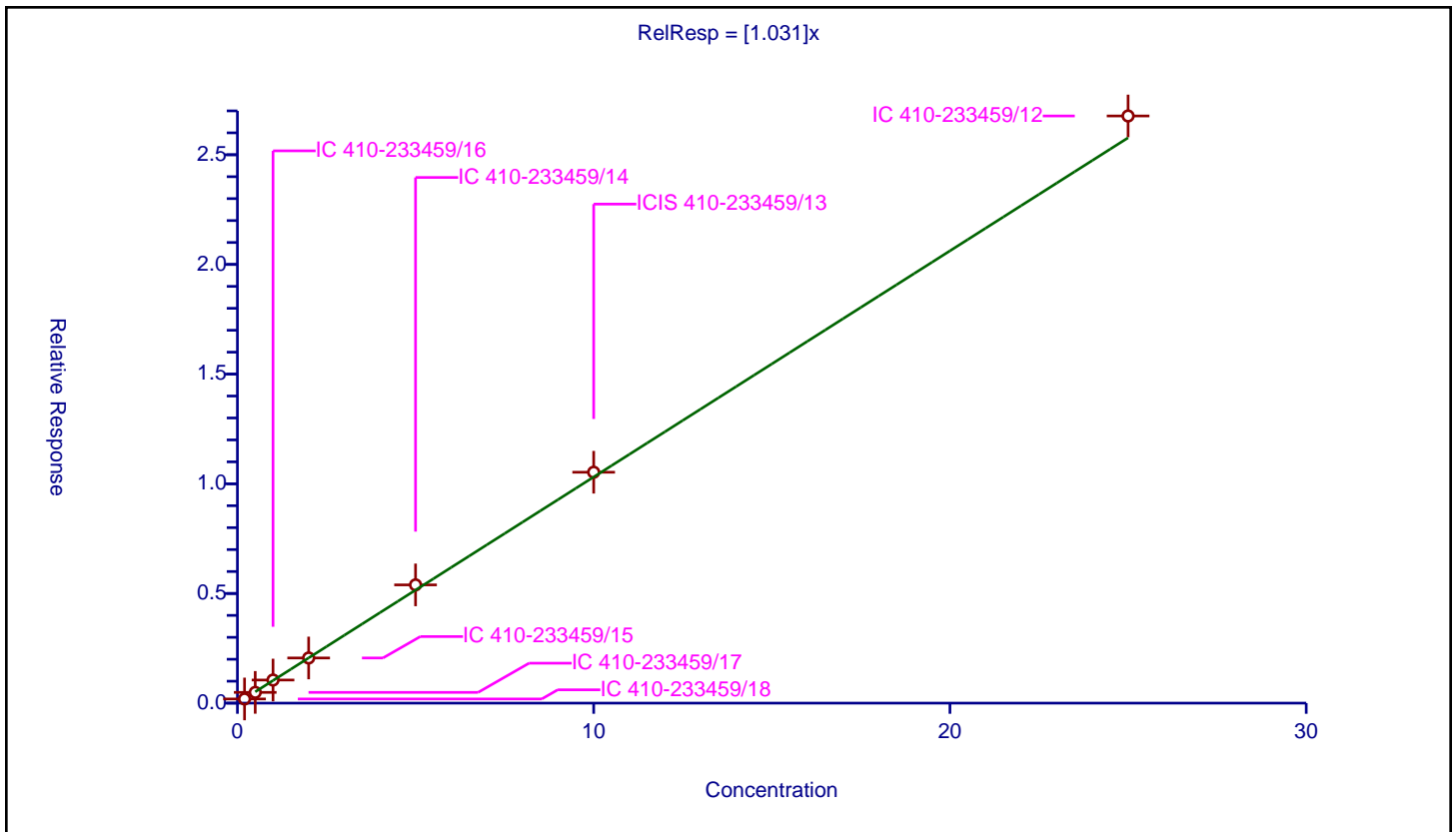
/ 1,2,4-Trichlorobenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.031

Error Coefficients	
Standard Error:	1250000
Relative Standard Error:	4.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.190176	10.0	1013693.0	0.95088	Y
2	IC 410-233459/17	0.5	0.490504	10.0	1007739.0	0.981008	Y
3	IC 410-233459/16	1.0	1.053788	10.0	1012300.0	1.053788	Y
4	IC 410-233459/15	2.0	2.058884	10.0	1013034.0	1.029442	Y
5	IC 410-233459/14	5.0	5.390749	10.0	1016421.0	1.07815	Y
6	ICIS 410-233459/13	10.0	10.526828	10.0	1049716.0	1.052683	Y
7	IC 410-233459/12	25.0	26.767702	10.0	1039276.0	1.070708	Y



Calibration

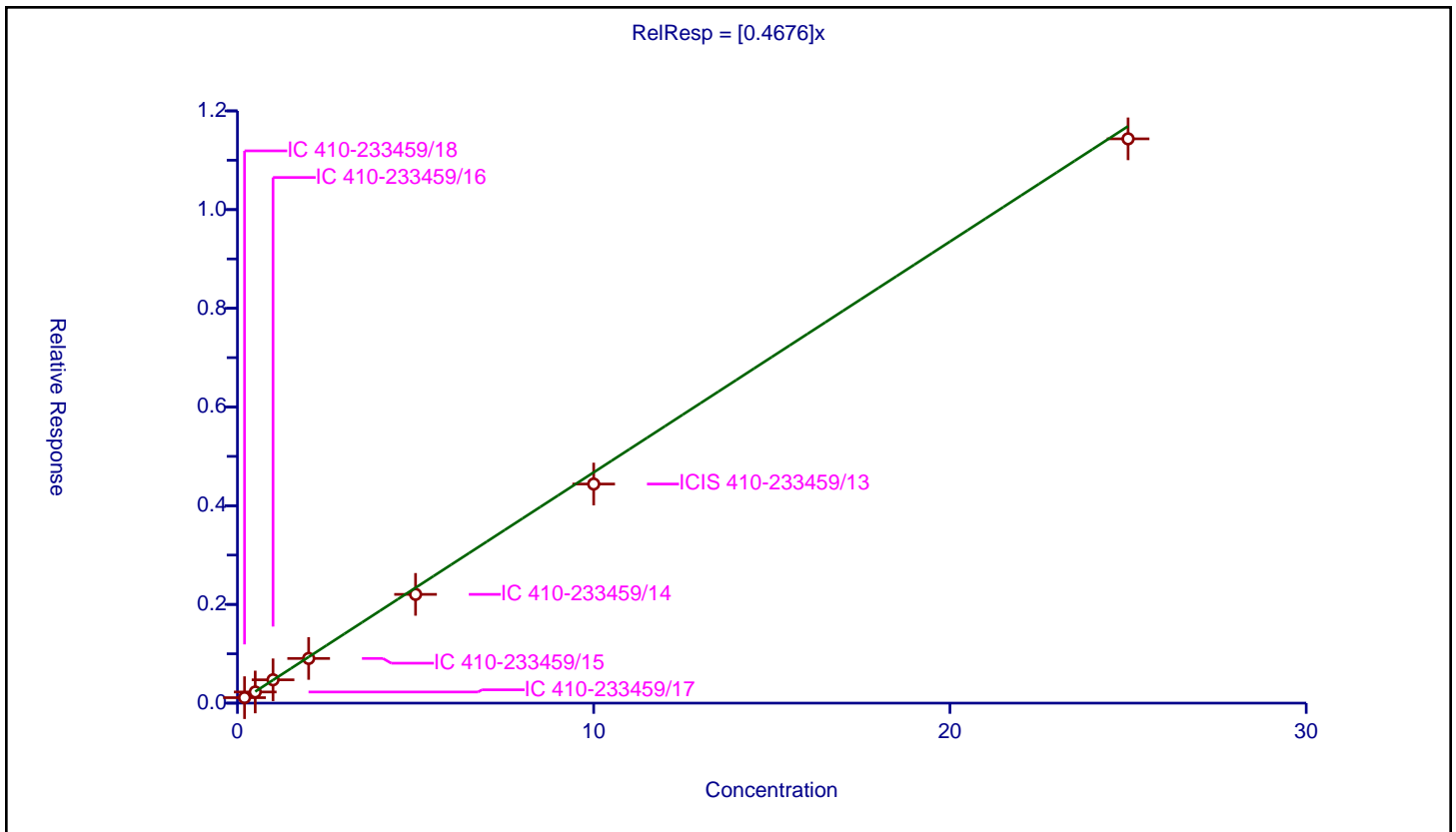
/ Hexachlorobutadiene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4676

Error Coefficients	
Standard Error:	531000
Relative Standard Error:	8.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.989

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.110763	10.0	1013693.0	0.553817	Y
2	IC 410-233459/17	0.5	0.226011	10.0	1007739.0	0.452022	Y
3	IC 410-233459/16	1.0	0.472409	10.0	1012300.0	0.472409	Y
4	IC 410-233459/15	2.0	0.90534	10.0	1013034.0	0.45267	Y
5	IC 410-233459/14	5.0	2.203742	10.0	1016421.0	0.440748	Y
6	ICIS 410-233459/13	10.0	4.439325	10.0	1049716.0	0.443932	Y
7	IC 410-233459/12	25.0	11.43371	10.0	1039276.0	0.457348	Y



Calibration

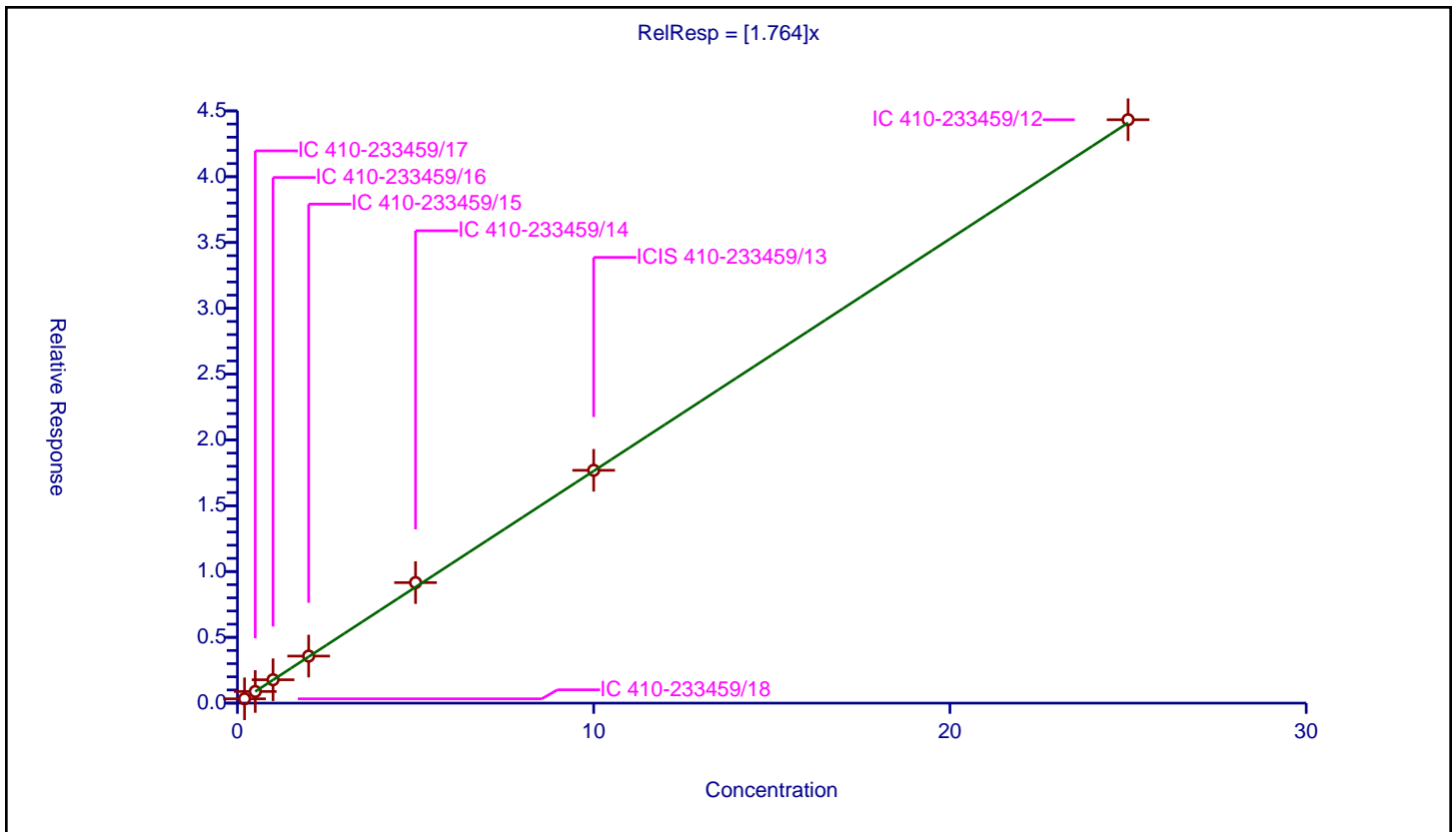
/ Naphthalene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.764

Error Coefficients	
Standard Error:	2070000
Relative Standard Error:	3.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.328078	10.0	1013693.0	1.640388	Y
2	IC 410-233459/17	0.5	0.884644	10.0	1007739.0	1.769287	Y
3	IC 410-233459/16	1.0	1.776173	10.0	1012300.0	1.776173	Y
4	IC 410-233459/15	2.0	3.574145	10.0	1013034.0	1.787072	Y
5	IC 410-233459/14	5.0	9.158331	10.0	1016421.0	1.831666	Y
6	ICIS 410-233459/13	10.0	17.690042	10.0	1049716.0	1.769004	Y
7	IC 410-233459/12	25.0	44.328311	10.0	1039276.0	1.773132	Y



Calibration

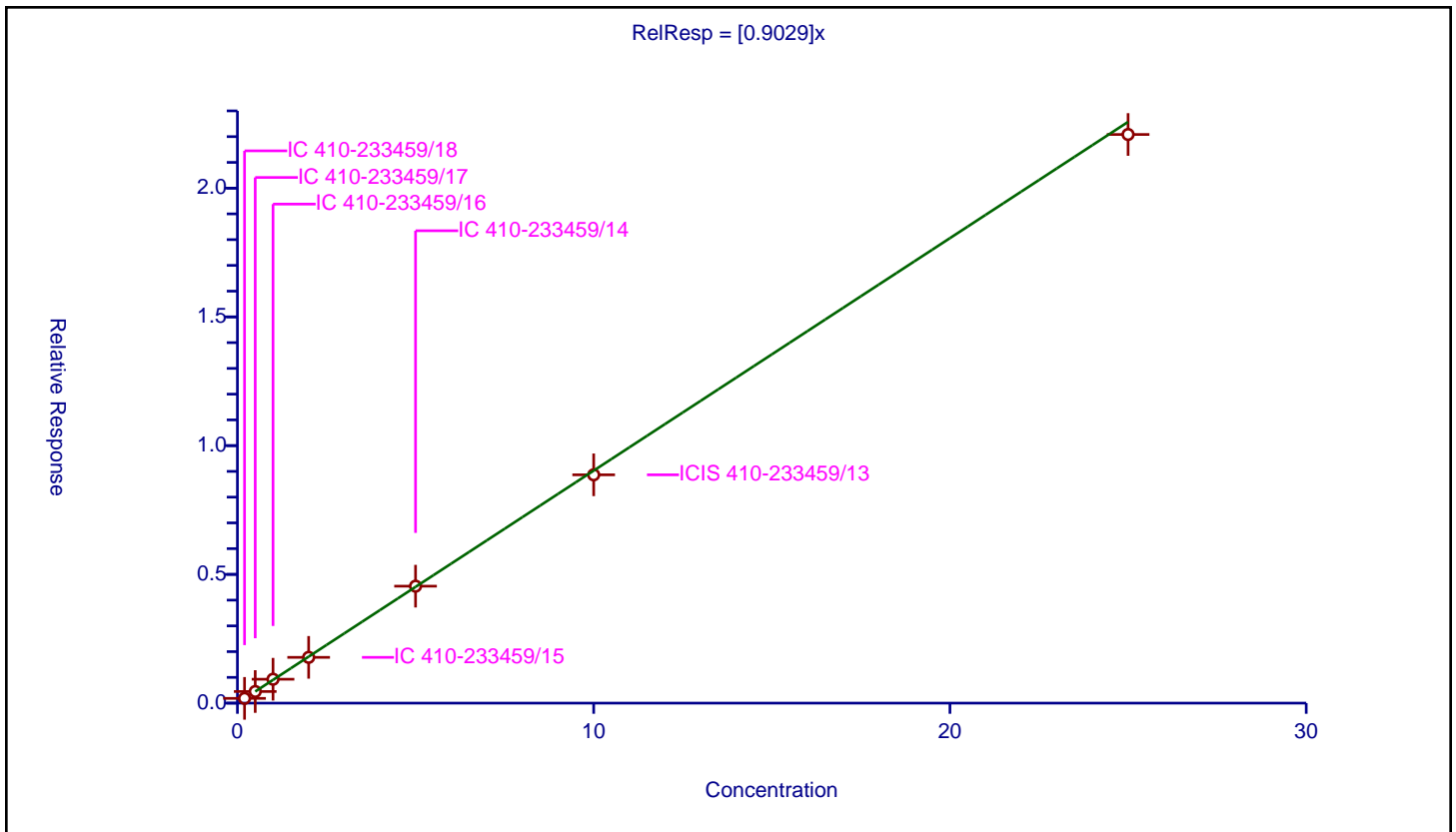
/ 1,2,3-Trichlorobenzene

Curve Type: Average
 Weighting: Conc_Sq
 Origin: Force
 Dependency: Response
 Calib Mode: ISTD
 Response Base: AREA
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.9029

Error Coefficients	
Standard Error:	1030000
Relative Standard Error:	1.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-233459/18	0.2	0.184287	10.0	1013693.0	0.921433	Y
2	IC 410-233459/17	0.5	0.451764	10.0	1007739.0	0.903528	Y
3	IC 410-233459/16	1.0	0.927867	10.0	1012300.0	0.927867	Y
4	IC 410-233459/15	2.0	1.777778	10.0	1013034.0	0.888889	Y
5	IC 410-233459/14	5.0	4.542606	10.0	1016421.0	0.908521	Y
6	ICIS 410-233459/13	10.0	8.86636	10.0	1049716.0	0.886636	Y
7	IC 410-233459/12	25.0	22.08397	10.0	1039276.0	0.883359	Y



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-81767-1

SDG No.: _____

Lab Sample ID: ICV 410-233459/19 Calibration Date: 03/15/2022 03:43

Instrument ID: 19930 Calib Start Date: 03/15/2022 01:15

GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 03/15/2022 03:22

Lab File ID: IM14V01.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	0.3731	0.3868	0.1000	5.18	5.00	3.7	30.0
Chloromethane	Ave	0.3846	0.4119	0.1000	5.36	5.00	7.1	30.0
1,3-Butadiene	Ave	0.3972	0.3596		4.53	5.00	-9.5	30.0
Vinyl chloride	Ave	0.4063	0.4167	0.1000	5.13	5.00	2.6	30.0
Bromomethane	Ave	0.3364	0.3496	0.1000	5.20	5.00	3.9	30.0
Chloroethane	Ave	0.2471	0.2666	0.1000	5.39	5.00	7.9	30.0
Dichlorofluoromethane	Ave	0.6215	0.6867		5.52	5.00	10.5	30.0
Trichlorofluoromethane	Ave	0.6039	0.6244	0.1000	5.17	5.00	3.4	30.0
Ethyl ether	Ave	0.1668	0.1983		5.91	4.97	18.9	30.0
Freon 123a	Ave	0.3469	0.3579		5.16	5.00	3.2	30.0
Acrolein	Ave	2.007	1.763		32.9	37.5	-12.2	30.0
1,1-Dichloroethene	Ave	0.2623	0.2973	0.1000	5.67	5.00	13.3	30.0
Acetone	Ave	2.712	2.153	0.1000	49.6	62.5	-20.6	30.0
Freon 113	Ave	0.2754	0.3084	0.1000	5.60	5.00	12.0	30.0
Methyl iodide	Ave	0.5377	0.6268		5.83	5.00	16.6	30.0
Ethyl bromide	Ave	0.2505	0.2357		4.70	4.99	-5.9	30.0
Carbon disulfide	Ave	0.5882	0.7190	0.1000	6.11	5.00	22.2	30.0
Methyl acetate	Lin		6.030	0.1000	4.52	5.00	-9.6	30.0
Allyl chloride	Ave	0.3717	0.4119		5.54	5.00	10.8	30.0
Methylene Chloride	Ave	0.2743	0.2827	0.1000	5.15	5.00	3.1	30.0
t-Butyl alcohol	Ave	1.001	1.005		50.2	50.0	0.4	30.0
Acrylonitrile	Ave	3.192	3.006		23.5	25.0	-5.8	30.0
Methyl tert-butyl ether	Ave	0.6851	0.6992	0.1000	5.10	5.00	2.1	30.0
trans-1,2-Dichloroethene	Ave	0.2975	0.3144	0.1000	5.28	5.00	5.7	30.0
n-Hexane	Ave	0.3607	0.3601		4.99	5.00	-0.2	30.0
1,1-Dichloroethane	Ave	0.5092	0.5256	0.2000	5.16	5.00	3.2	30.0
di-Isopropyl ether	Ave	0.7950	0.8073		5.08	5.00	1.5	30.0
2-Chloro-1,3-butadiene	Ave	0.4147	0.4667		5.63	5.00	12.5	30.0
Ethyl t-butyl ether	Ave	0.8093	0.8163		5.04	5.00	0.9	30.0
2-Butanone (MEK)	Ave	4.701	4.063	0.1000	54.0	62.5	-13.6	30.0
cis-1,2-Dichloroethene	Ave	0.3399	0.3487	0.1000	5.13	5.00	2.6	30.0
2,2-Dichloropropane	Ave	0.4723	0.5134		5.44	5.00	8.7	30.0
Propionitrile	Ave	1.204	1.141		35.5	37.5	-5.2	30.0
Methacrylonitrile	Ave	4.811	4.140		32.3	37.5	-13.9	30.0
Bromochloromethane	Ave	0.1559	0.1579		5.06	5.00	1.3	30.0
Tetrahydrofuran	Ave	1.330	1.253		23.6	25.0	-5.8	30.0
Chloroform	Ave	0.5483	0.5589	0.2000	5.10	5.00	1.9	30.0
1,1,1-Trichloroethane	Ave	0.5319	0.5591	0.1000	5.26	5.00	5.1	30.0
Cyclohexane	Ave	0.4471	0.4575	0.1000	5.12	5.00	2.3	30.0
1,1-Dichloropropene	Ave	0.4103	0.4378		5.34	5.00	6.7	30.0
Carbon tetrachloride	Ave	0.4919	0.5169	0.1000	5.25	5.00	5.1	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-81767-1

SDG No.: _____

Lab Sample ID: ICV 410-233459/19 Calibration Date: 03/15/2022 03:43

Instrument ID: 19930 Calib Start Date: 03/15/2022 01:15

GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 03/15/2022 03:22

Lab File ID: IM14V01.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	0.3377	0.2997		111	125	-11.2	30.0
Benzene	Ave	1.178	1.245	0.5000	5.28	5.00	5.7	30.0
1,2-Dichloroethane	Ave	0.3285	0.3232	0.1000	4.92	5.00	-1.6	30.0
t-Amyl methyl ether	Ave	0.7552	0.7502		4.97	5.00	-0.7	30.0
n-Heptane	Ave	0.3853	0.3523		4.57	5.00	-8.6	30.0
n-Butanol	Ave	0.2671	0.2605		244	250	-2.5	30.0
Trichloroethene	Ave	0.3385	0.3552	0.2000	5.25	5.00	4.9	30.0
Methylcyclohexane	Ave	0.5399	0.5327	0.1000	4.93	5.00	-1.3	30.0
1,2-Dichloropropane	Ave	0.2824	0.2888	0.1000	5.11	5.00	2.3	30.0
Methyl methacrylate	Ave	9.116	7.928		4.35	5.00	-13.0	30.0
1,4-Dioxane	Ave	0.0688	0.0665	0.0050	121	125	-3.4	30.0
Dibromomethane	Ave	0.1563	0.1513		4.84	5.00	-3.2	30.0
Bromodichloromethane	Ave	0.3729	0.3791	0.2000	5.08	5.00	1.7	30.0
2-Nitropropane	Ave	2.832	2.162		3.82	5.00	-23.7	30.0
1-Bromo-2-chloroethane	Ave	0.2672	0.2650		4.96	5.00	-0.8	30.0
cis-1,3-Dichloropropene	Ave	0.4391	0.4306	0.2000	4.90	5.00	-1.9	30.0
4-Methyl-2-pentanone (MIBK)	Ave	12.43	10.66	0.1000	53.6	62.5	-14.3	30.0
Toluene	Ave	0.9434	0.9707	0.4000	5.14	5.00	2.9	30.0
trans-1,3-Dichloropropene	Ave	0.4237	0.4340	0.1000	5.12	5.00	2.4	30.0
Ethyl methacrylate	Ave	0.3286	0.3487		5.31	5.00	6.1	30.0
1,1,2-Trichloroethane	Ave	0.2585	0.2547	0.1000	4.93	5.00	-1.5	30.0
Tetrachloroethene	Ave	0.5425	0.5722	0.2000	5.27	5.00	5.5	30.0
1,3-Dichloropropane	Ave	0.4157	0.4103		4.94	5.00	-1.3	30.0
2-Hexanone	Ave	8.351	7.519	0.1000	56.3	62.5	-10.0	30.0
Dibromochloromethane	Ave	0.3508	0.3511		5.01	5.00	0.1	30.0
1,2-Dibromoethane (EDB)	Ave	0.2510	0.2475	0.1000	4.93	5.00	-1.4	30.0
1-Chlorohexane	Ave	0.5715	0.5576		4.88	5.00	-2.4	30.0
Chlorobenzene	Ave	1.117	1.144	0.5000	5.13	5.00	2.5	30.0
1,1,1,2-Tetrachloroethane	Ave	0.4123	0.4225		5.12	5.00	2.5	30.0
Ethylbenzene	Ave	1.867	1.938	0.1000	5.19	5.00	3.8	30.0
m&p-Xylene	Ave	0.7645	0.7974	0.1000	10.4	10.0	4.3	30.0
o-Xylene	Ave	0.7524	0.7708	0.3000	5.12	5.00	2.4	30.0
Styrene	Ave	1.172	1.184	0.3000	5.06	5.00	1.1	30.0
Bromoform	Ave	0.2160	0.2183	0.1000	5.05	5.00	1.0	30.0
Isopropylbenzene	Ave	1.964	2.085	0.1000	5.31	5.00	6.2	30.0
1,1,2,2-Tetrachloroethane	Ave	0.5291	0.5164	0.3000	4.88	5.00	-2.4	30.0
Bromobenzene	Ave	0.8414	0.8458		5.03	5.00	0.5	30.0
trans-1,4-Dichloro-2-butene	Ave	4.486	3.765		21.0	25.0	-16.1	30.0
1,2,3-Trichloropropane	Ave	0.1566	0.1565		5.00	5.00	-0.0	30.0
N-Propylbenzene	Ave	3.670	3.776		5.14	5.00	2.9	30.0
2-Chlorotoluene	Ave	0.8070	0.8289		5.14	5.00	2.7	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-81767-1
 SDG No.: _____
 Lab Sample ID: ICV 410-233459/19 Calibration Date: 03/15/2022 03:43
 Instrument ID: 19930 Calib Start Date: 03/15/2022 01:15
 GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 03/15/2022 03:22
 Lab File ID: IM14V01.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	2.716	2.801		5.16	5.00	3.1	30.0
4-Chlorotoluene	Ave	0.8245	0.8343		5.06	5.00	1.2	30.0
tert-Butylbenzene	Ave	0.6545	0.6660		5.09	5.00	1.8	30.0
Pentachloroethane	Ave	0.5376	0.5377		5.00	5.00	0.0	30.0
1,2,4-Trimethylbenzene	Ave	2.739	2.791		5.09	5.00	1.9	30.0
sec-Butylbenzene	Ave	3.467	3.548		5.12	5.00	2.4	30.0
1,3-Dichlorobenzene	Ave	1.638	1.614	0.6000	4.93	5.00	-1.5	30.0
p-Isopropyltoluene	Ave	3.120	3.151		5.05	5.00	1.0	30.0
1,4-Dichlorobenzene	Ave	1.674	1.609	0.5000	4.81	5.00	-3.9	30.0
1,2,3-Trimethylbenzene	Ave	1.265	1.259		4.97	5.00	-0.5	30.0
Benzyl chloride	Ave	0.2140	0.2147		5.02	5.00	0.3	30.0
n-Butylbenzene	Ave	1.385	1.370		4.95	5.00	-1.1	30.0
1,2-Dichlorobenzene	Ave	1.493	1.467	0.4000	4.91	5.00	-1.8	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.0846	0.0855	0.0500	5.05	5.00	1.0	30.0
1,3,5-Trichlorobenzene	Ave	1.224	1.204		4.92	5.00	-1.6	30.0
1,2,4-Trichlorobenzene	Ave	1.031	0.9849	0.2000	4.78	5.00	-4.5	30.0
Hexachlorobutadiene	Ave	0.4676	0.4272		4.57	5.00	-8.6	30.0
Naphthalene	Ave	1.764	1.678		4.76	5.00	-4.9	30.0
1,2,3-Trichlorobenzene	Ave	0.9029	0.8252		4.57	5.00	-8.6	30.0
Dibromofluoromethane (Surr)	Ave	0.2707	0.2738		10.1	10.0	1.1	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0482	0.0489		10.1	10.0	1.5	30.0
Toluene-d8 (Surr)	Ave	1.217	1.212		9.96	10.0	-0.4	30.0
4-Bromofluorobenzene (Surr)	Ave	0.4719	0.4666		9.89	10.0	-1.1	30.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14V01.D
 Lims ID: ICV LG
 Client ID:
 Sample Type: ICV
 Inject. Date: 15-Mar-2022 03:43:30 ALS Bottle#: 18 Worklist Smp#: 19
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0052441-019
 Misc. Info.: ICV LG
 Operator ID: mec29284 Instrument ID: 19930
 Sublist:

Method: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 16-Mar-2022 10:12:27 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1676

First Level Reviewer: kephartk

Date: 16-Mar-2022 09:28:32

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	391626	5.00	5.18	
4 Chloromethane	50	2.148	2.142	0.006	99	417083	5.00	5.36	
5 Vinyl chloride	62	2.264	2.264	0.000	98	421931	5.00	5.13	
6 Butadiene	39	2.264	2.264	0.000	92	364080	5.00	4.53	
7 Bromomethane	94	2.593	2.599	-0.006	91	353983	5.00	5.20	
8 Chloroethane	64	2.672	2.678	-0.006	100	269930	5.00	5.39	
9 Dichlorofluoromethane	67	2.916	2.916	0.000	97	695272	5.00	5.52	
10 Trichlorofluoromethane	101	2.928	2.928	0.000	96	632229	5.00	5.17	
11 Ethyl ether	59	3.239	3.233	0.006	90	199646	4.97	5.91	
12 1,2-Dichloro-1,1,2-trifluoroethane	67	3.306	3.312	-0.006	90	362421	5.00	5.16	
13 Acrolein	56	3.404	3.404	0.000	99	228413	37.5	32.9	M
14 1,1-Dichloroethene	96	3.544	3.544	0.000	97	300976	5.00	5.67	
15 Acetone	43	3.574	3.580	-0.006	100	464976	62.5	49.6	
16 112TCTFE	101	3.580	3.580	0.000	87	312269	5.00	5.60	
17 Iodomethane	142	3.739	3.739	0.000	99	634607	5.00	5.83	
18 Ethyl bromide	108	3.769	3.769	0.000	98	238211	4.99	4.70	
19 Carbon disulfide	76	3.849	3.849	0.000	99	727940	5.00	6.11	
21 Methyl acetate	43	4.001	4.007	-0.006	97	104171	5.00	4.52	M
22 3-Chloro-1-propene	41	4.019	4.025	-0.006	89	417022	5.00	5.54	
23 Methylene Chloride	84	4.208	4.214	-0.006	89	286197	5.00	5.15	
* 24 t-Butyl alcohol-d10 (IS)	65	4.221	4.214	0.007	96	172755	50.0	50.0	M
25 2-Methyl-2-propanol	59	4.361	4.342	0.019	98	173676	50.0	50.2	
26 Acrylonitrile	53	4.550	4.562	-0.012	99	259613	25.0	23.5	
27 Methyl tert-butyl ether	73	4.623	4.617	0.006	88	707946	5.00	5.10	
28 trans-1,2-Dichloroethene	96	4.629	4.629	0.000	97	318354	5.00	5.28	
29 Hexane	57	5.056	5.056	0.000	93	364605	5.00	4.99	
31 1,1-Dichloroethane	63	5.287	5.287	0.000	96	532140	5.00	5.16	
32 Isopropyl ether	45	5.348	5.354	-0.006	92	817397	5.00	5.08	
33 2-Chloro-1,3-butadiene	53	5.397	5.403	-0.006	91	472535	5.00	5.63	
34 Tert-butyl ethyl ether	59	5.879	5.879	0.000	96	826518	5.00	5.04	

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	6.074	6.080	-0.006	99	877328	62.5	54.0	
37 cis-1,2-Dichloroethene	96	6.117	6.123	-0.006	81	353042	5.00	5.13	
38 2,2-Dichloropropane	77	6.129	6.135	-0.006	90	519821	5.00	5.44	
40 Propionitrile	54	6.171	6.177	-0.006	97	147842	37.5	35.5	
42 Methacrylonitrile	67	6.385	6.379	0.006	90	536438	37.5	32.3	
43 Chlorobromomethane	128	6.446	6.446	0.000	86	159843	5.00	5.06	
44 Tetrahydrofuran	71	6.458	6.458	0.000	77	108236	25.0	23.6	
45 Chloroform	83	6.604	6.604	0.000	93	565843	5.00	5.10	
\$ 46 Dibromofluoromethane (Surr)	113	6.812	6.812	0.000	94	554386	10.0	10.1	
47 1,1,1-Trichloroethane	97	6.824	6.830	-0.006	98	566116	5.00	5.26	
48 Cyclohexane	56	6.927	6.927	0.000	89	463244	5.00	5.12	
50 Carbon tetrachloride	117	7.037	7.037	0.000	96	523410	5.00	5.25	
51 1,1-Dichloropropene	75	7.037	7.037	0.000	94	443314	5.00	5.34	
52 Isobutyl alcohol	41	7.183	7.189	-0.006	94	129452	125.0	111.0	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.263	7.257	0.006	86	99080	10.0	10.1	
54 Benzene	78	7.299	7.299	0.000	97	1260758	5.00	5.28	
56 1,2-Dichloroethane	62	7.366	7.366	0.000	98	327234	5.00	4.92	
57 Tert-amyl methyl ether	73	7.488	7.488	0.000	98	759582	5.00	4.97	
* 58 Fluorobenzene (IS)	96	7.702	7.695	0.007	99	2024993	10.0	10.0	
59 n-Heptane	43	7.708	7.708	0.000	91	356744	5.00	4.57	
60 n-Butanol	56	8.061	8.073	-0.012	89	224975	250.0	243.8	
61 Trichloroethene	95	8.177	8.177	0.000	95	359614	5.00	5.25	
62 Methylcyclohexane	83	8.488	8.482	0.006	90	539338	5.00	4.93	
63 1,2-Dichloropropane	63	8.512	8.500	0.012	81	292448	5.00	5.11	
64 Methyl methacrylate	69	8.592	8.592	0.000	87	136965	5.00	4.35	
65 1,4-Dioxane	88	8.604	8.604	0.000	30	28722	125.0	120.8	M
66 Dibromomethane	93	8.622	8.610	0.012	90	153201	5.00	4.84	
68 Dichlorobromomethane	83	8.854	8.854	0.000	99	383843	5.00	5.08	
69 2-Nitropropane	41	9.116	9.116	0.000	100	37353	5.00	3.82	
72 1-Bromo-2-chloroethane	63	9.244	9.244	0.000	99	268265	5.00	4.96	
73 cis-1,3-Dichloropropene	75	9.396	9.396	0.000	96	435933	5.00	4.90	
74 4-Methyl-2-pentanone (MIBK)	43	9.567	9.567	0.000	97	2301440	62.5	53.6	
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2055897	10.0	9.96	
76 Toluene	92	9.780	9.780	0.000	98	823207	5.00	5.14	
78 trans-1,3-Dichloropropene	75	10.037	10.036	0.001	93	368088	5.00	5.12	
79 Ethyl methacrylate	69	10.098	10.097	0.001	87	295740	5.00	5.31	
80 1,1,2-Trichloroethane	97	10.238	10.244	-0.006	91	216044	5.00	4.93	
81 Tetrachloroethene	166	10.329	10.329	0.000	98	485305	5.00	5.27	
82 1,3-Dichloropropane	76	10.402	10.402	0.000	89	348014	5.00	4.94	
83 2-Hexanone	43	10.451	10.451	0.000	96	1623765	62.5	56.3	
85 Chlorodibromomethane	129	10.616	10.616	0.000	89	297793	5.00	5.01	
86 Ethylene Dibromide	107	10.732	10.731	0.001	100	209865	5.00	4.93	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	84	1696187	10.0	10.0	
88 1-Chlorohexane	91	11.164	11.164	0.000	95	472917	5.00	4.88	
90 Chlorobenzene	112	11.183	11.183	0.000	97	970605	5.00	5.13	
91 1,1,1,2-Tetrachloroethane	131	11.268	11.268	0.000	94	358355	5.00	5.12	
92 Ethylbenzene	91	11.268	11.268	0.000	98	1643933	5.00	5.19	
93 m-Xylene & p-Xylene	106	11.384	11.384	0.000	99	1352568	10.0	10.4	
94 o-Xylene	106	11.713	11.713	0.000	97	653686	5.00	5.12	
95 Styrene	104	11.725	11.731	-0.006	95	1004508	5.00	5.06	
96 Bromoform	173	11.890	11.890	0.000	98	185099	5.00	5.05	
97 Isopropylbenzene	105	12.012	12.012	0.000	95	1768391	5.00	5.31	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
\$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	97	791466	10.0	9.89	
101 1,1,2,2-Tetrachloroethane	83	12.256	12.256	0.000	94	266979	5.00	4.88	
102 Bromobenzene	156	12.274	12.274	0.000	93	437274	5.00	5.03	
103 trans-1,4-Dichloro-2-butene	53	12.280	12.280	0.000	93	325176	25.0	21.0	
104 1,2,3-Trichloropropane	110	12.298	12.298	0.000	84	80935	5.00	5.00	
105 N-Propylbenzene	91	12.341	12.341	0.000	98	1951973	5.00	5.14	
106 2-Chlorotoluene	126	12.414	12.414	0.000	98	428523	5.00	5.14	
107 1,3,5-Trimethylbenzene	105	12.475	12.475	0.000	94	1447933	5.00	5.16	
108 4-Chlorotoluene	126	12.512	12.512	0.000	96	431319	5.00	5.06	
109 tert-Butylbenzene	134	12.719	12.719	0.000	92	344319	5.00	5.09	
110 Pentachloroethane	167	12.749	12.749	0.000	91	277987	5.00	5.00	
111 1,2,4-Trimethylbenzene	105	12.762	12.762	0.000	97	1442855	5.00	5.09	
112 sec-Butylbenzene	105	12.877	12.877	0.000	94	1834487	5.00	5.12	
113 1,3-Dichlorobenzene	146	12.981	12.981	0.000	98	834688	5.00	4.93	
114 4-Isopropyltoluene	119	12.987	12.987	0.000	97	1629109	5.00	5.05	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	93	1033998	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.054	13.054	0.000	95	831667	5.00	4.81	
117 1,2,3-Trimethylbenzene	120	13.060	13.060	0.000	98	650650	5.00	4.97	
118 Benzyl chloride	126	13.127	13.133	-0.006	98	111006	5.00	5.02	
119 n-Butylbenzene	92	13.280	13.280	0.000	97	708182	5.00	4.95	
120 1,2-Dichlorobenzene	146	13.310	13.316	-0.006	99	758484	5.00	4.91	
122 1,2-Dibromo-3-Chloropropane	155	13.859	13.859	0.000	90	44189	5.00	5.05	
123 1,3,5-Trichlorobenzene	180	13.981	13.981	0.000	98	622686	5.00	4.92	
124 1,2,4-Trichlorobenzene	180	14.402	14.408	-0.006	94	509192	5.00	4.78	
125 Hexachlorobutadiene	225	14.487	14.487	0.000	95	220875	5.00	4.57	
126 Naphthalene	128	14.584	14.584	0.000	96	867528	5.00	4.76	
127 1,2,3-Trichlorobenzene	180	14.725	14.725	0.000	95	426620	5.00	4.57	
137 2-Methylnaphthalene	142		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	
134 Isopropyl alcohol	45		0.000				ND	ND	

QC Flag Legend

Processing Flags

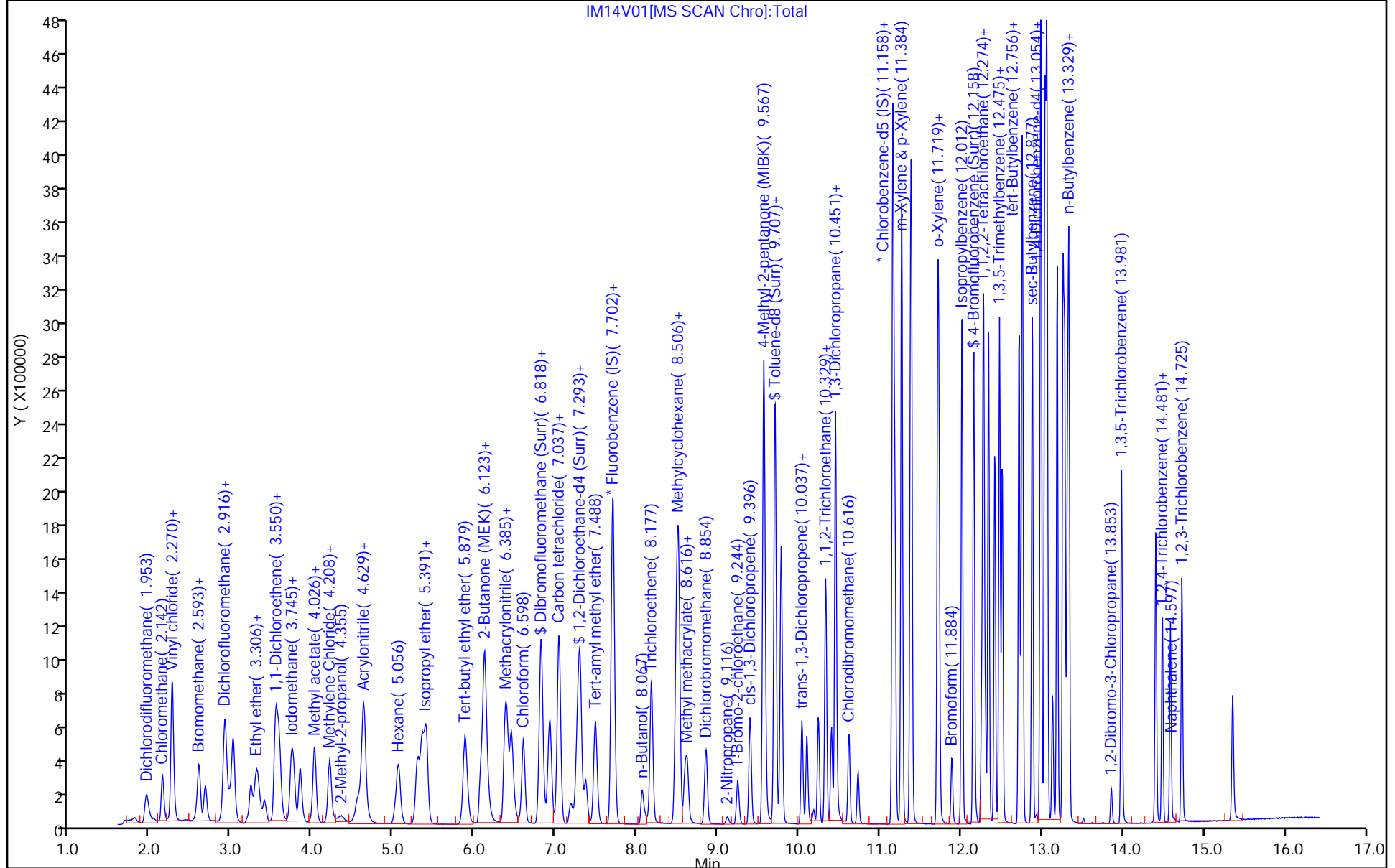
ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

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MSV_LCS_VOC#1_00044	Amount Added: 12.50	Units: uL	
MSV_LCS_ACROL_00048	Amount Added: 12.50	Units: uL	
MSV_LCS_Penta_00013	Amount Added: 12.50	Units: uL	
MSV_QC_Gas826_00070	Amount Added: 12.50	Units: uL	
MSV_LCS_ETBR_00001	Amount Added: 12.50	Units: uL	
MSV_LLcentISS_00004	Amount Added: 5.00	Units: uL	Run Reagent



Eurofins Lancaster Laboratories Env, LLC

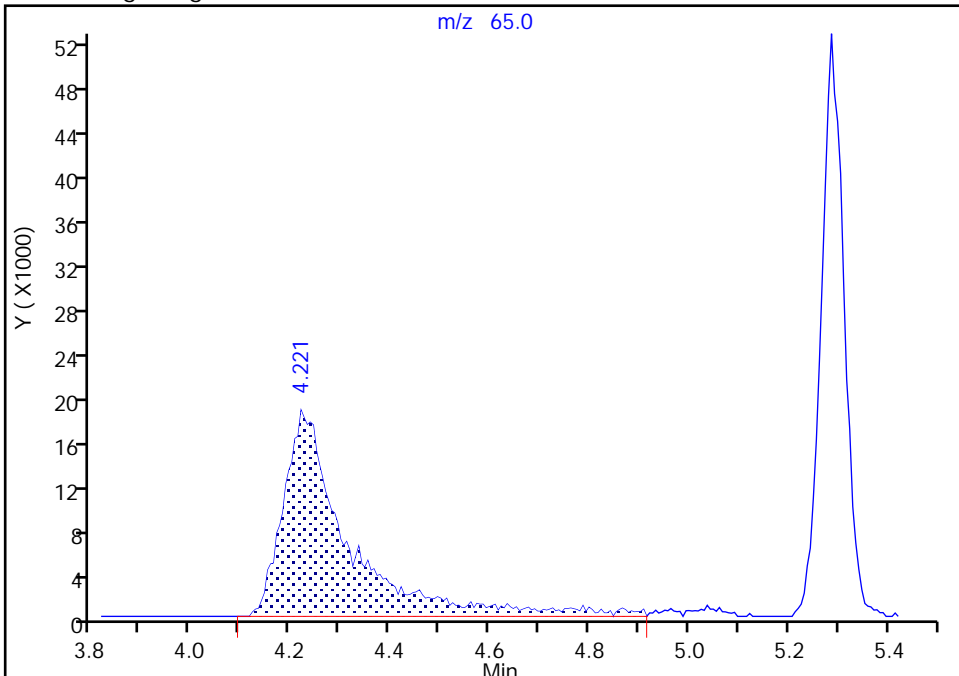
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Lims ID: ICV LG
Client ID:
Operator ID: mec29284 ALS Bottle#: 18 Worklist Smp#: 19
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

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

Signal: 1

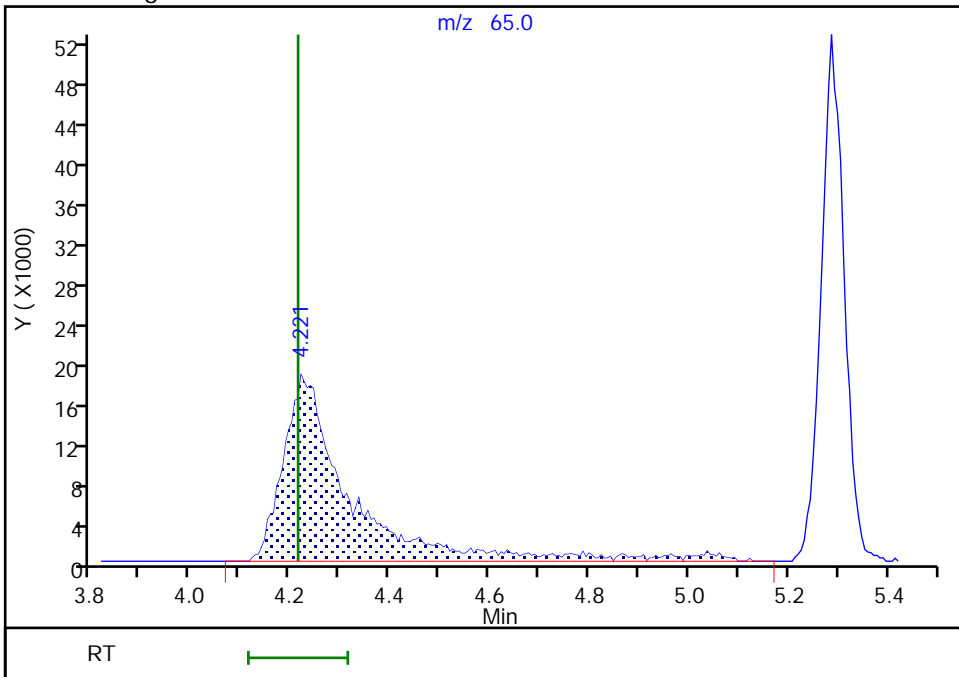
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Area: 167496
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.22
Area: 172755
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 16-Mar-2022 08:30:47
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration
Page 585 of 693

Eurofins Lancaster Laboratories Env, LLC

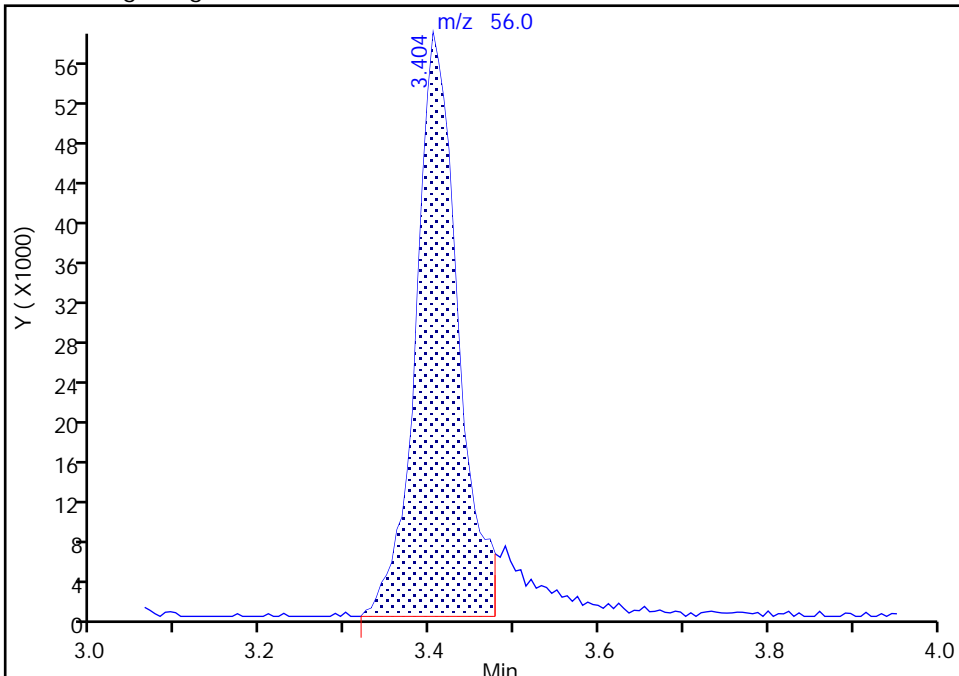
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Lims ID: ICV LG
Client ID:
Operator ID: mec29284 ALS Bottle#: 18 Worklist Smp#: 19
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

13 Acrolein, CAS: 107-02-8

Signal: 1

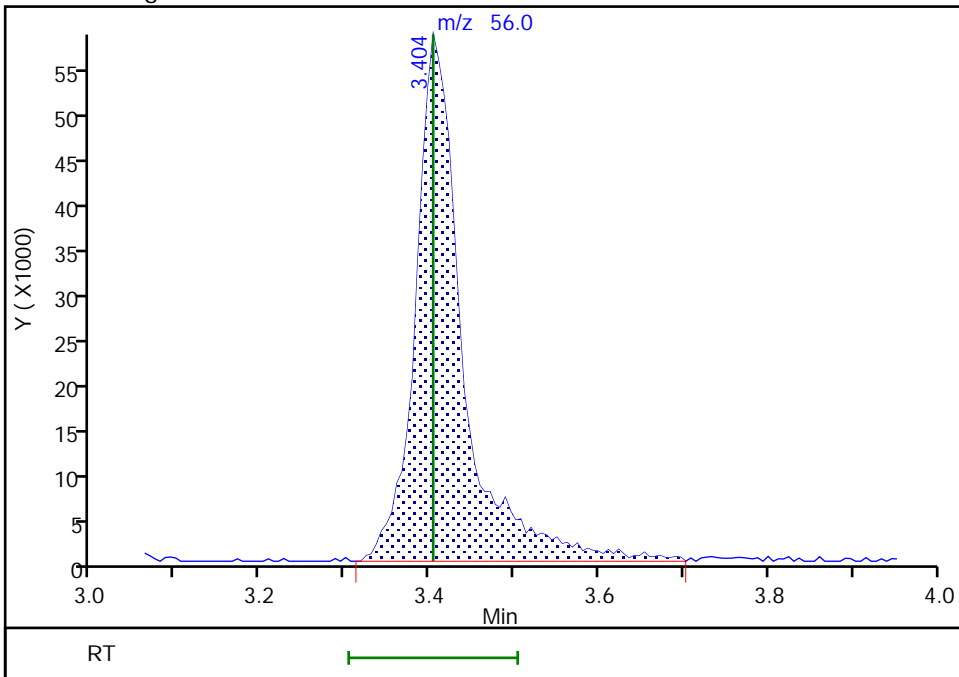
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Area: 202235
Amount: 30.074886
Amount Units: ug/l

Processing Integration Results



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Amount: 32.933835
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 16-Mar-2022 08:30:15
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Euofins Lancaster Laboratories Env, LLC

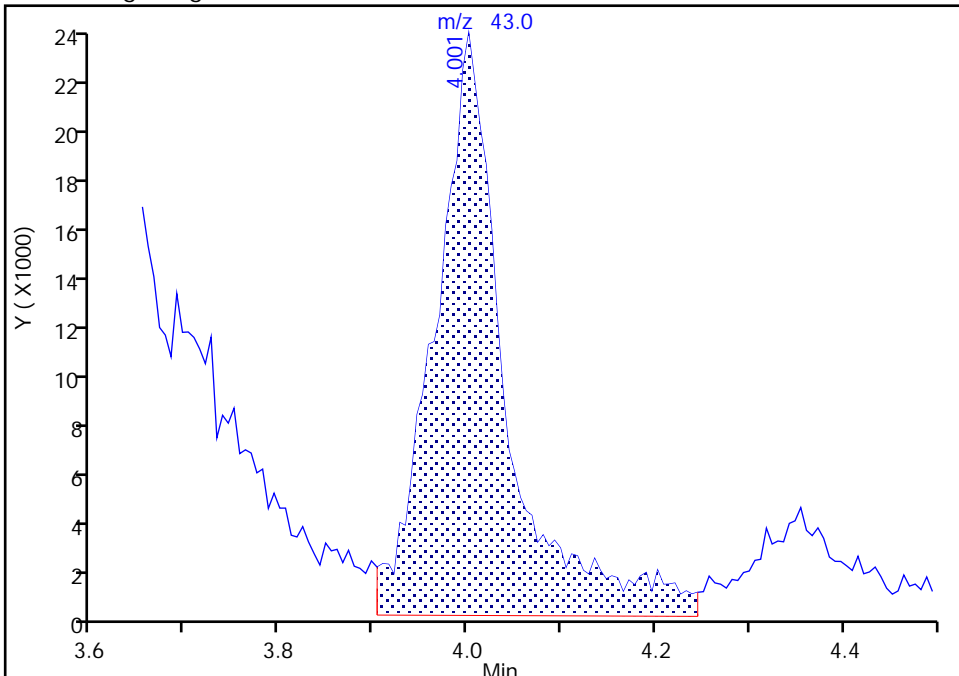
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Lims ID: ICV LG
Client ID:
Operator ID: mec29284 ALS Bottle#: 18 Worklist Smp#: 19
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

21 Methyl acetate, CAS: 79-20-9

Signal: 1

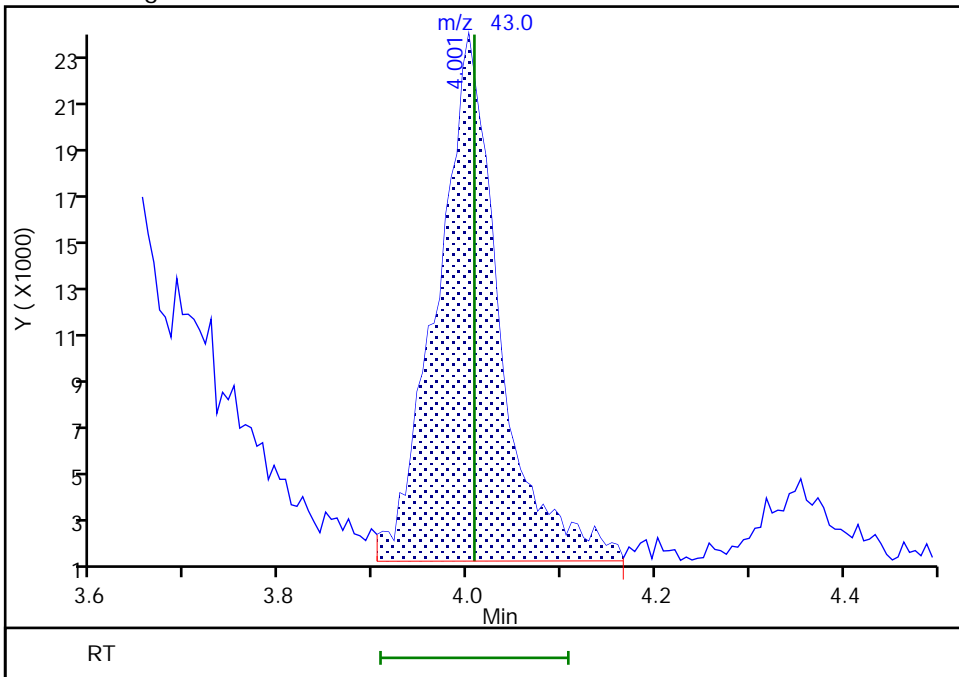
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Amount: 5.541261
Amount Units: ug/l

Processing Integration Results



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Amount: 4.521206
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 16-Mar-2022 08:30:39
Audit Action: Assigned New Baseline

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

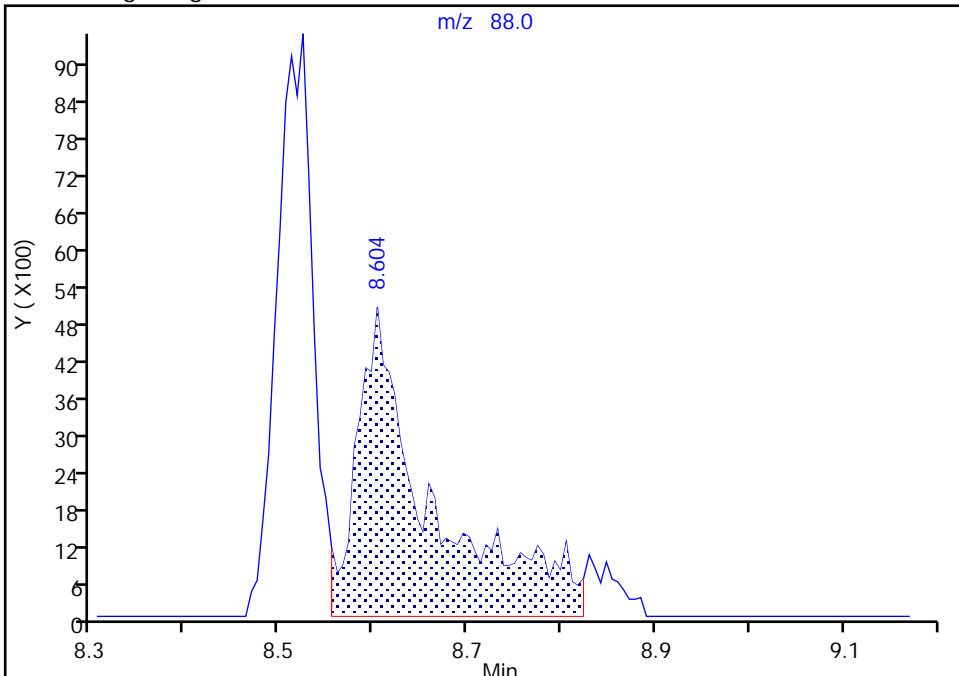
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Injection Date: 15-Mar-2022 03:43:30 Instrument ID: 19930
Lims ID: ICV LG
Client ID:
Operator ID: mec29284 ALS Bottle#: 18 Worklist Smp#: 19
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

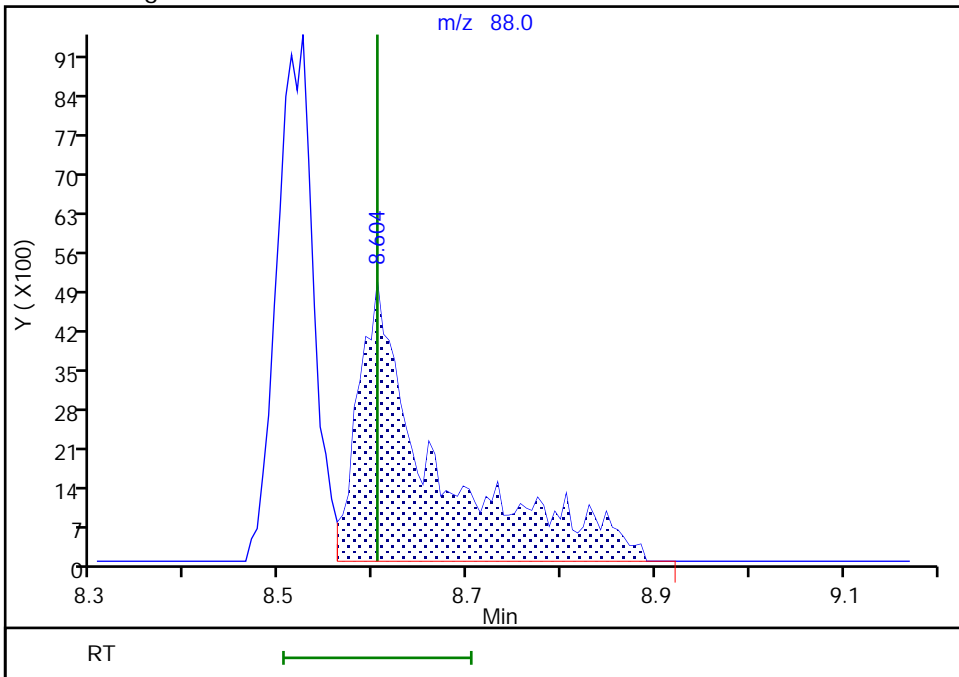
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Amount: 105.8270
Amount Units: ug/l

Processing Integration Results



RT: 8.60
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Amount: 120.7802
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 16-Mar-2022 08:31:09
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-81767-1
 SDG No.: _____
 Lab Sample ID: CCVIS 410-250524/3 Calibration Date: 05/02/2022 09:45
 Instrument ID: 19930 Calib Start Date: 03/15/2022 01:15
 GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 03/15/2022 03:22
 Lab File ID: IM02X02.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	0.3731	0.2911	0.1000	9.75	12.5	-22.0*	20.0
Chloromethane	Ave	0.3846	0.3369	0.1000	10.9	12.5	-12.4	20.0
1,3-Butadiene	Ave	0.3972	0.3562		11.2	12.5	-10.3	20.0
Vinyl chloride	Ave	0.4063	0.3346	0.1000	10.3	12.5	-17.6	20.0
Bromomethane	Ave	0.3364	0.2268	0.1000	8.43	12.5	-32.6*	20.0
Chloroethane	Ave	0.2471	0.1887	0.1000	9.54	12.5	-23.7*	20.0
Dichlorofluoromethane	Ave	0.6215	0.4670		9.39	12.5	-24.9*	20.0
Trichlorofluoromethane	Ave	0.6039	0.4545	0.1000	9.41	12.5	-24.7*	20.0
Ethyl ether	Ave	0.1668	0.1850		13.9	12.5	10.9	20.0
Freon 123a	Ave	0.3469	0.3427		12.3	12.5	-1.2	20.0
Acrolein	Ave	2.007	1.641		511	625	-18.3	20.0
1,1-Dichloroethene	Ave	0.2623	0.2412	0.1000	11.5	12.5	-8.0	20.0
Acetone	Ave	2.712	2.313	0.1000	107	125	-14.7	20.0
Freon 113	Ave	0.2754	0.2260	0.1000	10.3	12.5	-17.9	20.0
Methyl iodide	Ave	0.5377	0.4245		9.87	12.5	-21.1*	20.0
Ethyl bromide	Ave	0.2505	0.2245		11.2	12.5	-10.4	20.0
Carbon disulfide	Ave	0.5882	0.6002	0.1000	12.8	12.5	2.0	20.0
Methyl acetate	Lin		7.005	0.1000	13.4	12.5	7.1	20.0
Allyl chloride	Ave	0.3717	0.3888		13.1	12.5	4.6	20.0
Methylene Chloride	Ave	0.2743	0.2610	0.1000	11.9	12.5	-4.8	20.0
t-Butyl alcohol	Ave	1.001	0.7889		197	250	-21.2*	20.0
Acrylonitrile	Ave	3.192	3.340		32.7	31.3	4.6	20.0
Methyl tert-butyl ether	Ave	0.6851	0.6345	0.1000	11.6	12.5	-7.4	20.0
trans-1,2-Dichloroethene	Ave	0.2975	0.2707	0.1000	11.4	12.5	-9.0	20.0
n-Hexane	Ave	0.3607	0.3405		11.8	12.5	-5.6	20.0
1,1-Dichloroethane	Ave	0.5092	0.5070	0.2000	12.4	12.5	-0.4	20.0
di-Isopropyl ether	Ave	0.7950	0.8332		13.1	12.5	4.8	20.0
2-Chloro-1,3-butadiene	Ave	0.4147	0.4072		12.3	12.5	-1.8	20.0
Ethyl t-butyl ether	Ave	0.8093	0.7626		11.8	12.5	-5.8	20.0
2-Butanone (MEK)	Ave	4.701	4.559	0.1000	121	125	-3.0	20.0
cis-1,2-Dichloroethene	Ave	0.3399	0.2984	0.1000	11.0	12.5	-12.2	20.0
2,2-Dichloropropane	Ave	0.4723	0.4223		11.2	12.5	-10.6	20.0
Propionitrile	Ave	1.204	1.350		280	250	12.1	20.0
Methacrylonitrile	Ave	4.811	4.586		119	125	-4.7	20.0
Bromochloromethane	Ave	0.1559	0.1301		10.4	12.5	-16.5	20.0
Tetrahydrofuran	Ave	1.330	1.281		60.2	62.5	-3.7	20.0
Chloroform	Ave	0.5483	0.5032	0.2000	11.5	12.5	-8.2	20.0
1,1,1-Trichloroethane	Ave	0.5319	0.4667	0.1000	11.0	12.5	-12.3	20.0
Cyclohexane	Ave	0.4471	0.4394	0.1000	12.3	12.5	-1.7	20.0
1,1-Dichloropropene	Ave	0.4103	0.3919		11.9	12.5	-4.5	20.0
Carbon tetrachloride	Ave	0.4919	0.4147	0.1000	10.5	12.5	-15.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-81767-1

SDG No.: _____

Lab Sample ID: CCVIS 410-250524/3 Calibration Date: 05/02/2022 09:45

Instrument ID: 19930 Calib Start Date: 03/15/2022 01:15

GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 03/15/2022 03:22

Lab File ID: IM02X02.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	0.3377	0.3453		639	625	2.3	20.0
Benzene	Ave	1.178	1.156	0.5000	12.3	12.5	-1.9	20.0
1,2-Dichloroethane	Ave	0.3285	0.3115	0.1000	11.9	12.5	-5.2	20.0
t-Amyl methyl ether	Ave	0.7552	0.6991		11.6	12.5	-7.4	20.0
n-Heptane	Ave	0.3853	0.3648		11.8	12.5	-5.3	20.0
n-Butanol	Ave	0.2671	0.3054		1250	1090	14.3	20.0
Trichloroethene	Ave	0.3385	0.3123	0.2000	11.5	12.5	-7.7	20.0
Methylcyclohexane	Ave	0.5399	0.4673	0.1000	10.8	12.5	-13.4	20.0
1,2-Dichloropropane	Ave	0.2824	0.2960	0.1000	13.1	12.5	4.8	20.0
Methyl methacrylate	Ave	9.116	8.355		11.5	12.5	-8.3	20.0
1,4-Dioxane	Ave	0.0688	0.0692	0.0050	628	625	0.5	20.0
Dibromomethane	Ave	0.1563	0.1393		11.1	12.5	-10.9	20.0
Bromodichloromethane	Ave	0.3729	0.3610	0.2000	12.1	12.5	-3.2	20.0
2-Nitropropane	Ave	2.832	2.651		58.5	62.5	-6.4	20.0
1-Bromo-2-chloroethane	Ave	0.2672	0.3076		14.4	12.5	15.1	20.0
cis-1,3-Dichloropropene	Ave	0.4391	0.4340	0.2000	12.4	12.5	-1.2	20.0
4-Methyl-2-pentanone (MIBK)	Ave	12.43	12.05	0.1000	121	125	-3.1	20.0
Toluene	Ave	0.9434	0.9769	0.4000	12.9	12.5	3.6	20.0
trans-1,3-Dichloropropene	Ave	0.4237	0.4697	0.1000	13.9	12.5	10.9	20.0
Ethyl methacrylate	Ave	0.3286	0.3672		14.0	12.5	11.8	20.0
1,1,2-Trichloroethane	Ave	0.2585	0.2645	0.1000	12.8	12.5	2.3	20.0
Tetrachloroethene	Ave	0.5425	0.4856	0.2000	11.2	12.5	-10.5	20.0
1,3-Dichloropropane	Ave	0.4157	0.4513		13.6	12.5	8.6	20.0
2-Hexanone	Ave	8.351	8.653	0.1000	130	125	3.6	20.0
Dibromochloromethane	Ave	0.3508	0.3477		12.4	12.5	-0.9	20.0
1,2-Dibromoethane (EDB)	Ave	0.2510	0.2552	0.1000	12.7	12.5	1.7	20.0
1-Chlorohexane	Ave	0.5715	0.5336		11.7	12.5	-6.6	20.0
Chlorobenzene	Ave	1.117	1.082	0.5000	12.1	12.5	-3.1	20.0
1,1,1,2-Tetrachloroethane	Ave	0.4123	0.3898		11.8	12.5	-5.5	20.0
Ethylbenzene	Ave	1.867	1.936	0.1000	13.0	12.5	3.7	20.0
m&p-Xylene	Ave	0.7645	0.7547	0.1000	24.7	25.0	-1.3	20.0
o-Xylene	Ave	0.7524	0.7326	0.3000	12.2	12.5	-2.6	20.0
Styrene	Ave	1.172	1.203	0.3000	12.8	12.5	2.7	20.0
Bromoform	Ave	0.2160	0.2156	0.1000	12.5	12.5	-0.2	20.0
Isopropylbenzene	Ave	1.964	1.953	0.1000	12.4	12.5	-0.5	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5291	0.6075	0.3000	14.4	12.5	14.8	20.0
Bromobenzene	Ave	0.8414	0.8160		12.1	12.5	-3.0	20.0
trans-1,4-Dichloro-2-butene	Ave	4.486	4.322		120	125	-3.6	20.0
1,2,3-Trichloropropane	Ave	0.1566	0.1663		13.3	12.5	6.2	20.0
N-Propylbenzene	Ave	3.670	4.097		14.0	12.5	11.6	20.0
2-Chlorotoluene	Ave	0.8070	0.8018		12.4	12.5	-0.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-81767-1

SDG No.: _____

Lab Sample ID: CCVIS 410-250524/3 Calibration Date: 05/02/2022 09:45

Instrument ID: 19930 Calib Start Date: 03/15/2022 01:15

GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 03/15/2022 03:22

Lab File ID: IM02X02.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	2.716	2.922		13.4	12.5	7.6	20.0
4-Chlorotoluene	Ave	0.8245	0.8189		12.4	12.5	-0.7	20.0
tert-Butylbenzene	Ave	0.6545	0.6337		12.1	12.5	-3.2	20.0
Pentachloroethane	Ave	0.5376	0.5473		12.7	12.5	1.8	20.0
1,2,4-Trimethylbenzene	Ave	2.739	2.973		13.6	12.5	8.5	20.0
sec-Butylbenzene	Ave	3.467	3.676		13.3	12.5	6.0	20.0
1,3-Dichlorobenzene	Ave	1.638	1.621	0.6000	12.4	12.5	-1.1	20.0
p-Isopropyltoluene	Ave	3.120	3.245		13.0	12.5	4.0	20.0
1,4-Dichlorobenzene	Ave	1.674	1.622	0.5000	12.1	12.5	-3.1	20.0
1,2,3-Trimethylbenzene	Ave	1.265	1.253		12.4	12.5	-1.0	20.0
Benzyl chloride	Ave	0.2140	0.2395		14.0	12.5	11.9	20.0
n-Butylbenzene	Ave	1.385	1.550		14.0	12.5	11.9	20.0
1,2-Dichlorobenzene	Ave	1.493	1.493	0.4000	12.5	12.5	-0.0	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.0846	0.0932	0.0500	13.8	12.5	10.1	20.0
1,3,5-Trichlorobenzene	Ave	1.224	1.172		12.0	12.5	-4.2	20.0
1,2,4-Trichlorobenzene	Ave	1.031	1.017	0.2000	12.3	12.5	-1.4	20.0
Hexachlorobutadiene	Ave	0.4676	0.4214		11.3	12.5	-9.9	20.0
Naphthalene	Ave	1.764	1.874		13.3	12.5	6.2	20.0
1,2,3-Trichlorobenzene	Ave	0.9029	0.8647		12.0	12.5	-4.2	20.0
Dibromofluoromethane (Surr)	Ave	0.2707	0.2448		9.04	10.0	-9.6	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0482	0.0486		10.1	10.0	0.7	20.0
Toluene-d8 (Surr)	Ave	1.217	1.279		10.5	10.0	5.1	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4719	0.4749		10.1	10.0	0.6	20.0

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X02.D
 Lims ID: CCVIS VSTD12.5
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 02-May-2022 09:45:30 ALS Bottle#: 2 Worklist Smp#: 3
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0056183-003
 Misc. Info.: RB
 Operator ID: KNK41612 Instrument ID: 19930
 Sublist: chrom-8260 25ml HP31*sub2
 Method: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 02-May-2022 10:54:51 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1622

First Level Reviewer: kephartk

Date: 02-May-2022 10:19:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.965	1.965	0.000	99	960193	12.5	9.75	
4 Chloromethane	50	2.166	2.166	0.000	99	1110965	12.5	10.9	
6 Butadiene	39	2.282	2.282	0.000	91	1174677	12.5	11.2	
5 Vinyl chloride	62	2.282	2.282	0.000	88	1103581	12.5	10.3	
7 Bromomethane	94	2.617	2.617	0.000	91	747976	12.5	8.43	
8 Chloroethane	64	2.696	2.696	0.000	100	622254	12.5	9.54	
9 Dichlorofluoromethane	67	2.928	2.928	0.000	97	1540286	12.5	9.39	
10 Trichlorofluoromethane	101	3.007	3.007	0.000	98	1498920	12.5	9.41	M
11 Ethyl ether	59	3.245	3.245	0.000	92	610190	12.5	13.9	
12 1,2-Dichloro-1,1,2-trifluoroethane	67	3.330	3.330	0.000	96	1130187	12.5	12.3	
13 Acrolein	56	3.416	3.416	0.000	100	4172007	625.0	510.8	
14 1,1-Dichloroethene	96	3.556	3.556	0.000	98	795622	12.5	11.5	
15 Acetone	43	3.580	3.580	0.000	100	1176394	125.0	106.6	M
16 112TCTFE	101	3.599	3.599	0.000	91	745459	12.5	10.3	
17 Iodomethane	142	3.751	3.751	0.000	100	1400103	12.5	9.87	
18 Ethyl bromide	108	3.782	3.782	0.000	99	740131	12.5	11.2	
19 Carbon disulfide	76	3.861	3.861	0.000	99	1979577	12.5	12.8	
21 Methyl acetate	43	4.007	4.007	0.000	98	356294	12.5	13.4	M
22 3-Chloro-1-propene	41	4.032	4.032	0.000	92	1282163	12.5	13.1	
23 Methylene Chloride	84	4.221	4.221	0.000	93	860702	12.5	11.9	
* 24 t-Butyl alcohol-d10 (IS)	65	4.227	4.227	0.000	93	203457	50.0	50.0	M
25 2-Methyl-2-propanol	59	4.342	4.342	0.000	98	802510	250.0	196.9	M
26 Acrylonitrile	53	4.556	4.556	0.000	99	424681	31.3	32.7	
27 Methyl tert-butyl ether	73	4.623	4.623	0.000	96	2092527	12.5	11.6	
28 trans-1,2-Dichloroethene	96	4.641	4.641	0.000	99	892710	12.5	11.4	
29 Hexane	57	5.068	5.068	0.000	93	1123110	12.5	11.8	
31 1,1-Dichloroethane	63	5.294	5.294	0.000	96	1671941	12.5	12.4	
32 Isopropyl ether	45	5.354	5.354	0.000	94	2747907	12.5	13.1	
33 2-Chloro-1,3-butadiene	53	5.409	5.409	0.000	91	1343030	12.5	12.3	
34 Tert-butyl ethyl ether	59	5.885	5.885	0.000	97	2515014	12.5	11.8	

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	6.086	6.086	0.000	100	2319024	125.0	121.2	
37 cis-1,2-Dichloroethene	96	6.123	6.123	0.000	82	984220	12.5	11.0	
38 2,2-Dichloropropane	77	6.141	6.141	0.000	88	1392653	12.5	11.2	
40 Propionitrile	54	6.171	6.171	0.000	99	1373238	250.0	280.3	
42 Methacrylonitrile	67	6.391	6.391	0.000	92	2332465	125.0	119.1	
43 Chlorobromomethane	128	6.458	6.458	0.000	94	429053	12.5	10.4	
44 Tetrahydrofuran	71	6.464	6.464	0.000	93	325744	62.5	60.2	
45 Chloroform	83	6.604	6.604	0.000	93	1659679	12.5	11.5	
\$ 46 Dibromofluoromethane (Surr)	113	6.818	6.818	0.000	94	645962	10.0	9.04	
47 1,1,1-Trichloroethane	97	6.830	6.830	0.000	98	1539104	12.5	11.0	
48 Cyclohexane	56	6.933	6.933	0.000	91	1448990	12.5	12.3	
51 1,1-Dichloropropene	75	7.043	7.043	0.000	95	1292397	12.5	11.9	
50 Carbon tetrachloride	117	7.043	7.043	0.000	89	1367714	12.5	10.5	
52 Isobutyl alcohol	41	7.189	7.189	0.000	94	878158	625.0	639.1	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.263	7.263	0.000	91	128152	10.0	10.1	
54 Benzene	78	7.299	7.299	0.000	97	3811444	12.5	12.3	
56 1,2-Dichloroethane	62	7.372	7.372	0.000	97	1027352	12.5	11.9	
57 Tert-amyl methyl ether	73	7.488	7.488	0.000	99	2305639	12.5	11.6	
* 58 Fluorobenzene (IS)	96	7.702	7.702	0.000	99	2638395	10.0	10.0	
59 n-Heptane	43	7.714	7.714	0.000	92	1203005	12.5	11.8	
60 n-Butanol	56	8.061	8.061	0.000	89	1359207	1093.8	1250.6	
61 Trichloroethene	95	8.183	8.183	0.000	98	1030087	12.5	11.5	
62 Methylcyclohexane	83	8.488	8.488	0.000	94	1541160	12.5	10.8	
63 1,2-Dichloropropane	63	8.512	8.512	0.000	86	976167	12.5	13.1	
64 Methyl methacrylate	69	8.592	8.592	0.000	92	424979	12.5	11.5	
65 1,4-Dioxane	88	8.604	8.604	0.000	33	175941	625.0	628.2	M
66 Dibromomethane	93	8.622	8.622	0.000	93	459425	12.5	11.1	
68 Dichlorobromomethane	83	8.854	8.854	0.000	99	1190638	12.5	12.1	
69 2-Nitropropane	41	9.116	9.116	0.000	98	674167	62.5	58.5	
72 1-Bromo-2-chloroethane	63	9.244	9.244	0.000	99	1014302	12.5	14.4	
73 cis-1,3-Dichloropropene	75	9.396	9.396	0.000	96	1431343	12.5	12.4	
74 4-Methyl-2-pentanone (MIBK)	43	9.567	9.567	0.000	97	6130610	125.0	121.2	
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2610293	10.0	10.5	
76 Toluene	92	9.780	9.780	0.000	98	2491994	12.5	12.9	
78 trans-1,3-Dichloropropene	75	10.036	10.036	0.000	92	1198201	12.5	13.9	
79 Ethyl methacrylate	69	10.097	10.097	0.000	89	936794	12.5	14.0	
80 1,1,2-Trichloroethane	97	10.238	10.238	0.000	91	674646	12.5	12.8	
81 Tetrachloroethene	166	10.329	10.329	0.000	98	1238601	12.5	11.2	
82 1,3-Dichloropropane	76	10.402	10.402	0.000	91	1151143	12.5	13.6	
83 2-Hexanone	43	10.451	10.451	0.000	96	4401184	125.0	129.5	
85 Chlorodibromomethane	129	10.616	10.616	0.000	89	886921	12.5	12.4	
86 Ethylene Dibromide	107	10.731	10.731	0.000	99	650857	12.5	12.7	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	85	2040688	10.0	10.0	
88 1-Chlorohexane	91	11.164	11.164	0.000	98	1361252	12.5	11.7	
90 Chlorobenzene	112	11.183	11.183	0.000	95	2759454	12.5	12.1	
91 1,1,1,2-Tetrachloroethane	131	11.262	11.262	0.000	95	994428	12.5	11.8	
92 Ethylbenzene	91	11.268	11.268	0.000	98	4937891	12.5	13.0	
93 m-Xylene & p-Xylene	106	11.384	11.384	0.000	99	3850348	25.0	24.7	
94 o-Xylene	106	11.713	11.713	0.000	96	1868727	12.5	12.2	
95 Styrene	104	11.725	11.725	0.000	94	3068966	12.5	12.8	
96 Bromoform	173	11.884	11.884	0.000	98	549929	12.5	12.5	
97 Isopropylbenzene	105	12.012	12.012	0.000	96	4982247	12.5	12.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
\$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	95	969078	10.0	10.1	
101 1,1,2,2-Tetrachloroethane	83	12.256	12.256	0.000	93	875596	12.5	14.4	
102 Bromobenzene	156	12.274	12.274	0.000	95	1176143	12.5	12.1	
103 trans-1,4-Dichloro-2-butene	53	12.280	12.280	0.000	93	2198405	125.0	120.4	
104 1,2,3-Trichloropropane	110	12.298	12.298	0.000	80	239695	12.5	13.3	
105 N-Propylbenzene	91	12.341	12.341	0.000	99	5905693	12.5	14.0	
106 2-Chlorotoluene	126	12.414	12.414	0.000	97	1155689	12.5	12.4	
107 1,3,5-Trimethylbenzene	105	12.475	12.475	0.000	94	4211843	12.5	13.4	
108 4-Chlorotoluene	126	12.506	12.506	0.000	98	1180364	12.5	12.4	
109 tert-Butylbenzene	134	12.713	12.713	0.000	93	913367	12.5	12.1	
110 Pentachloroethane	167	12.749	12.749	0.000	92	788859	12.5	12.7	
111 1,2,4-Trimethylbenzene	105	12.755	12.755	0.000	97	4285022	12.5	13.6	
112 sec-Butylbenzene	105	12.877	12.877	0.000	94	5298388	12.5	13.3	
113 1,3-Dichlorobenzene	146	12.981	12.981	0.000	98	2336330	12.5	12.4	
114 4-Isopropyltoluene	119	12.987	12.987	0.000	97	4677348	12.5	13.0	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	93	1153090	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.054	13.054	0.000	94	2337922	12.5	12.1	
117 1,2,3-Trimethylbenzene	120	13.060	13.060	0.000	99	1806274	12.5	12.4	
118 Benzyl chloride	126	13.127	13.127	0.000	99	345211	12.5	14.0	
119 n-Butylbenzene	92	13.280	13.280	0.000	97	2233861	12.5	14.0	
120 1,2-Dichlorobenzene	146	13.310	13.310	0.000	99	2151606	12.5	12.5	
122 1,2-Dibromo-3-Chloropropane	155	13.853	13.853	0.000	88	134302	12.5	13.8	
123 1,3,5-Trichlorobenzene	180	13.981	13.981	0.000	98	1689404	12.5	12.0	
124 1,2,4-Trichlorobenzene	180	14.401	14.401	0.000	94	1465333	12.5	12.3	
125 Hexachlorobutadiene	225	14.487	14.487	0.000	96	607393	12.5	11.3	
126 Naphthalene	128	14.584	14.584	0.000	97	2700601	12.5	13.3	
127 1,2,3-Trichlorobenzene	180	14.725	14.725	0.000	96	1246368	12.5	12.0	
137 2-Methylnaphthalene	142		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
134 Isopropyl alcohol	45		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MSV_LL_#2_826_00046

Amount Added: 25.00

Units: uL

MSV_LL_#1_524_00031

Amount Added: 25.00

Units: uL

MSV_LL_GAS826_00081

Amount Added: 25.00

Units: uL

MSV_LLcentISS_00004

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X02.D

Injection Date: 02-May-2022 09:45:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: CCVIS VSTD12.5

Worklist Smp#: 3

Client ID:

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

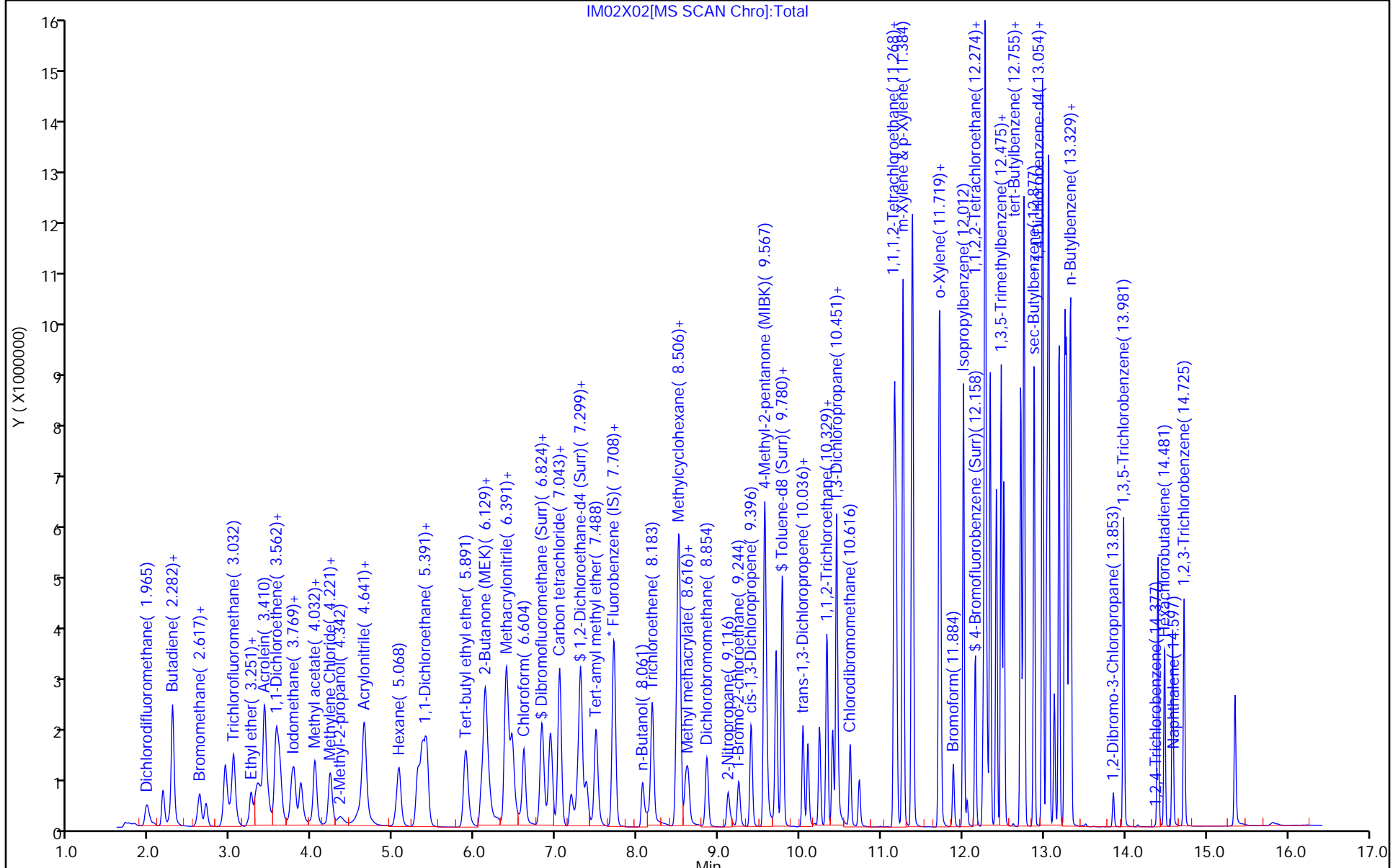
ALS Bottle#: 2

Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



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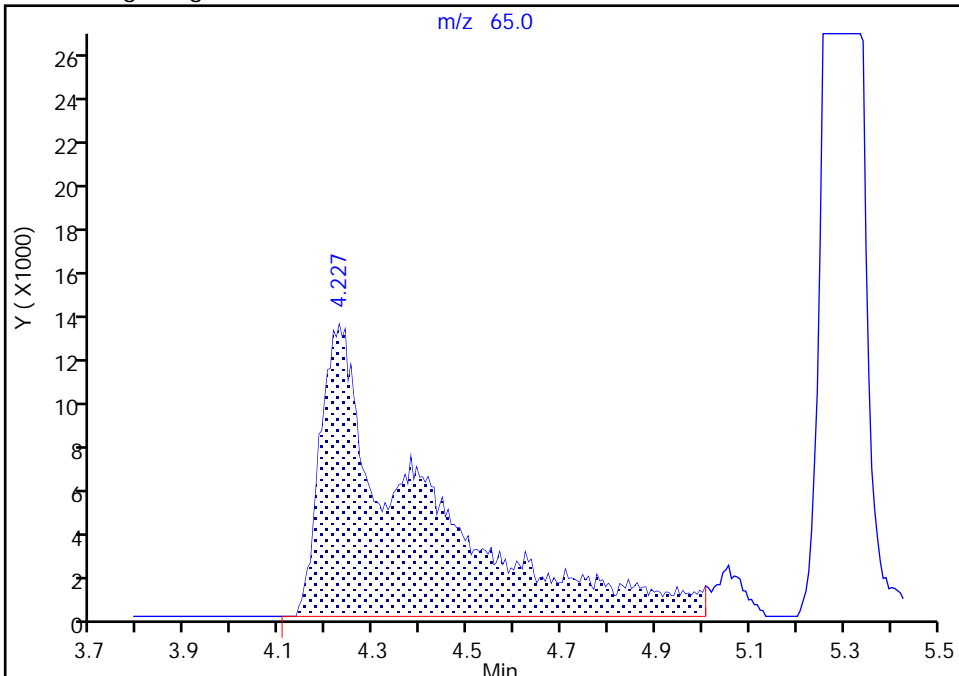
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Injection Date:	02-May-2022 09:45:30	Instrument ID:	19930
Lims ID:	CCVIS VSTD12.5		
Client ID:			
Operator ID:	KNK41612	ALS Bottle#:	2
Purge Vol:	25.000 mL	Dil. Factor:	1.0000
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D
Column:	Rxi-624Sil MS Capillary Column (0.25mm ID)	Detector:	MS Quad
		Worklist Smp#:	3

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

Signal: 1

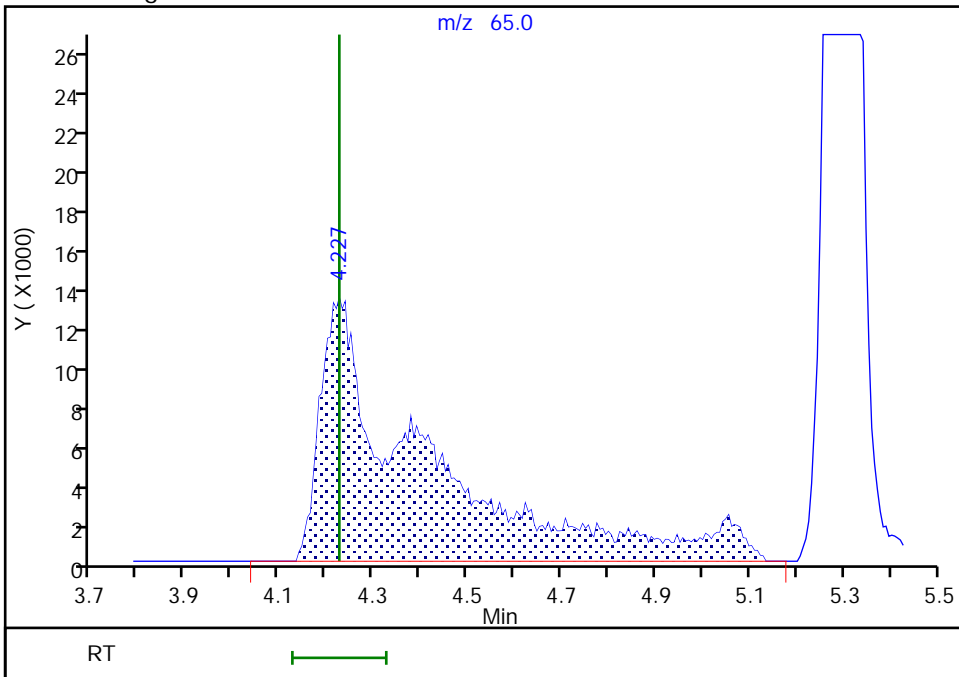
RT: 4.23
 Area: 194010
 Amount: 50.000000
 Amount Units: ug/l

Processing Integration Results



RT: 4.23
 Area: 203457
 Amount: 50.000000
 Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 02-May-2022 10:16:22
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Environment Testing, LLC

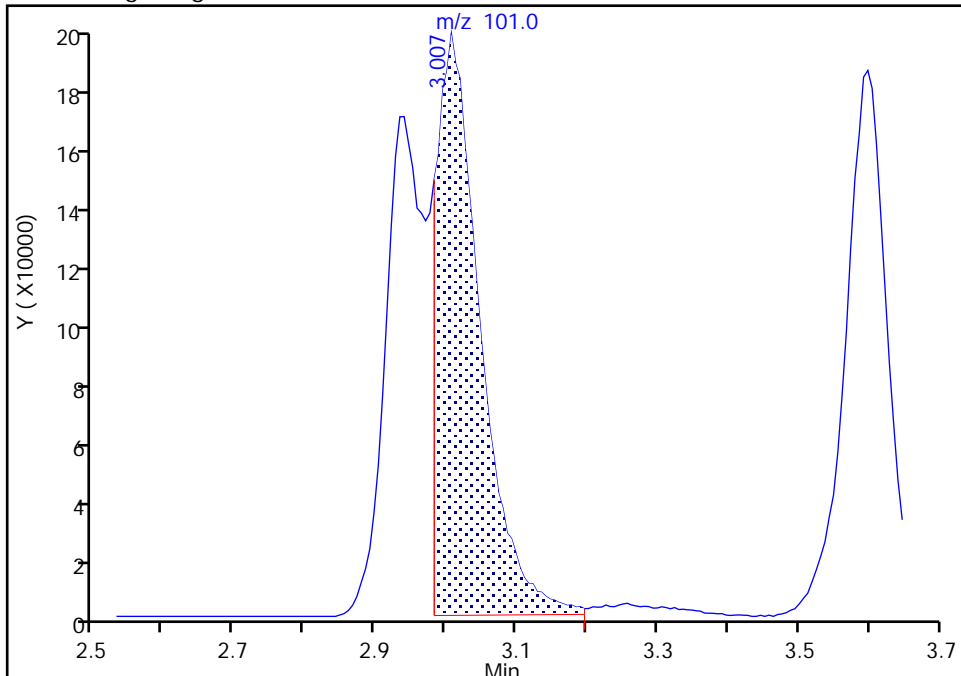
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Injection Date:	02-May-2022 09:45:30	Instrument ID:	19930
Lims ID:	CCVIS VSTD12.5		
Client ID:			
Operator ID:	KNK41612	ALS Bottle#:	2
Purge Vol:	25.000 mL	Dil. Factor:	1.0000
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D
Column:	Rxi-624Sil MS Capillary Column (0.25mm ID)	Detector:	MS Quad
		Worklist Smp#:	3

10 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

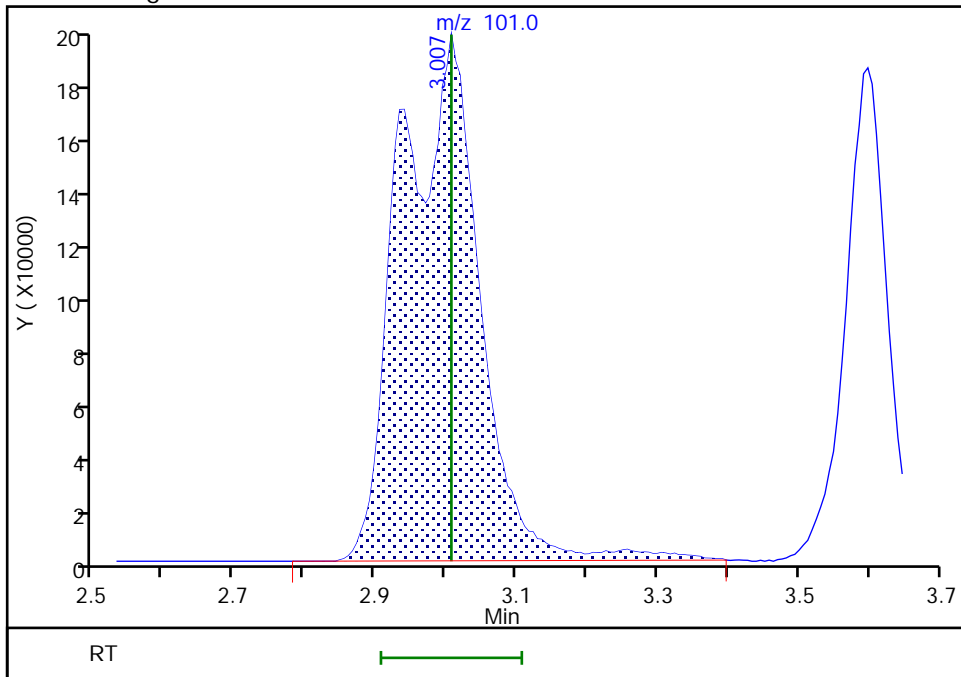
RT: 3.01
 Area: 824828
 Amount: 5.176583
 Amount Units: ug/l

Processing Integration Results



RT: 3.01
 Area: 1498920
 Amount: 9.407154
 Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 02-May-2022 10:17:43
 Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Environment Testing, LLC

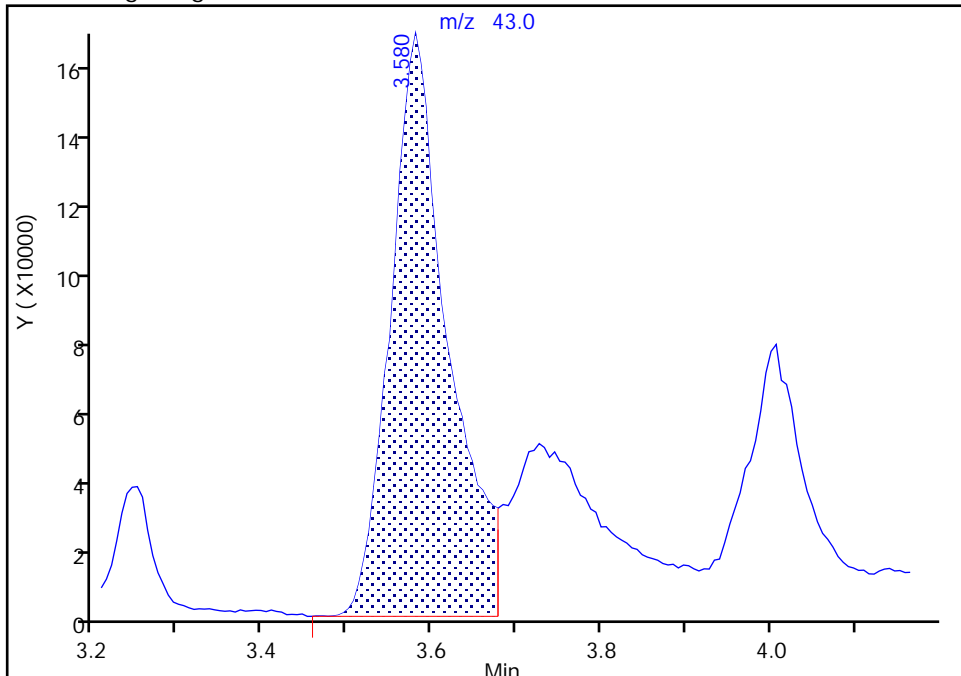
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Injection Date:	02-May-2022 09:45:30	Instrument ID:	19930
Lims ID:	CCVIS VSTD12.5		
Client ID:			
Operator ID:	KNK41612	ALS Bottle#:	2
Purge Vol:	25.000 mL	Dil. Factor:	1.0000
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D
Column:	Rxi-624Sil MS Capillary Column (0.25mm ID)	Detector:	MS Quad
		Worklist Smp#:	3

15 Acetone, CAS: 67-64-1

Signal: 1

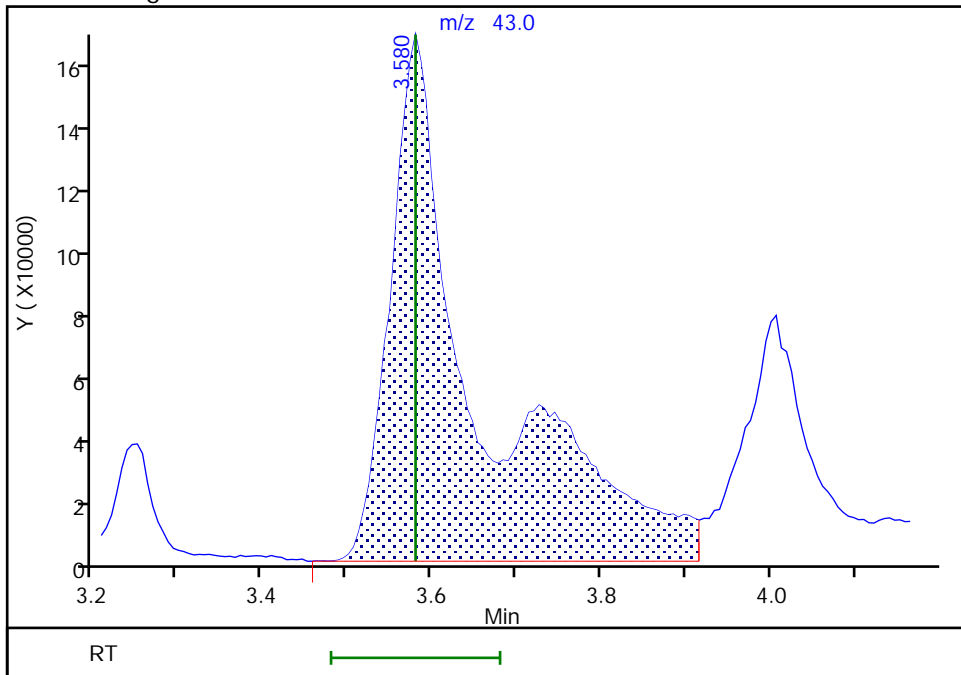
RT: 3.58
 Area: 772833
 Amount: 70.027057
 Amount Units: ug/l

Processing Integration Results



RT: 3.58
 Area: 1176394
 Amount: 106.5941
 Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 02-May-2022 10:20:44
 Audit Action: Assigned New Baseline

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Environment Testing, LLC

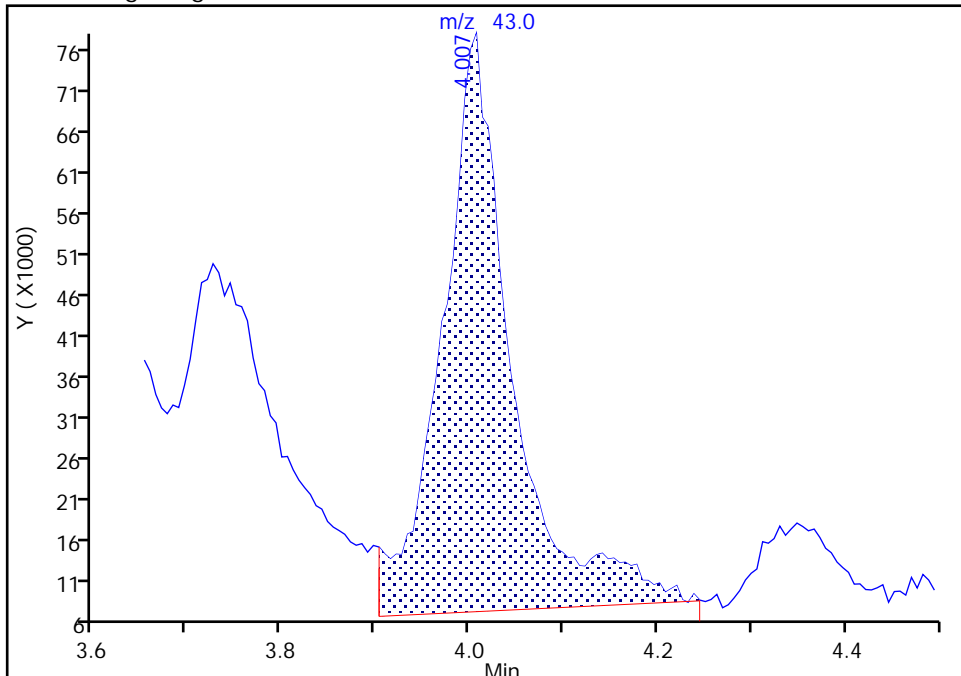
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 Injection Date: 02-May-2022 09:45:30 Instrument ID: 19930
 Lims ID: CCVIS VSTD12.5
 Client ID:
 Operator ID: KNK41612 ALS Bottle#: 2 Worklist Smp#: 3
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
 Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

21 Methyl acetate, CAS: 79-20-9

Signal: 1

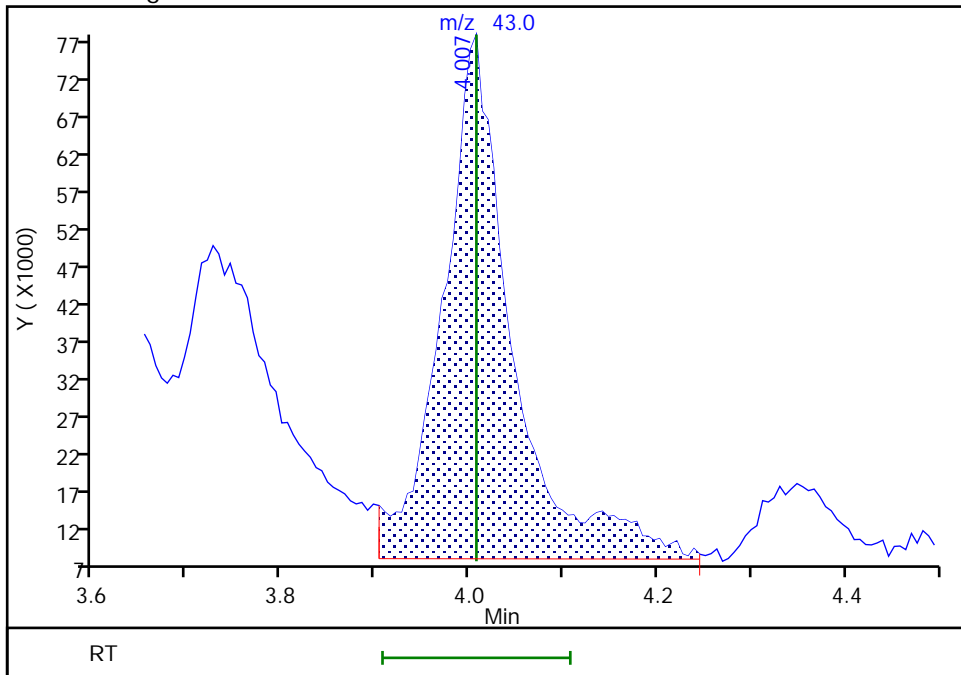
RT: 4.01
 Area: 364998
 Amount: 13.721544
 Amount Units: ug/l

Processing Integration Results



RT: 4.01
 Area: 356294
 Amount: 13.391064
 Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 02-May-2022 10:16:34
 Audit Action: Assigned New Baseline

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Environment Testing, LLC

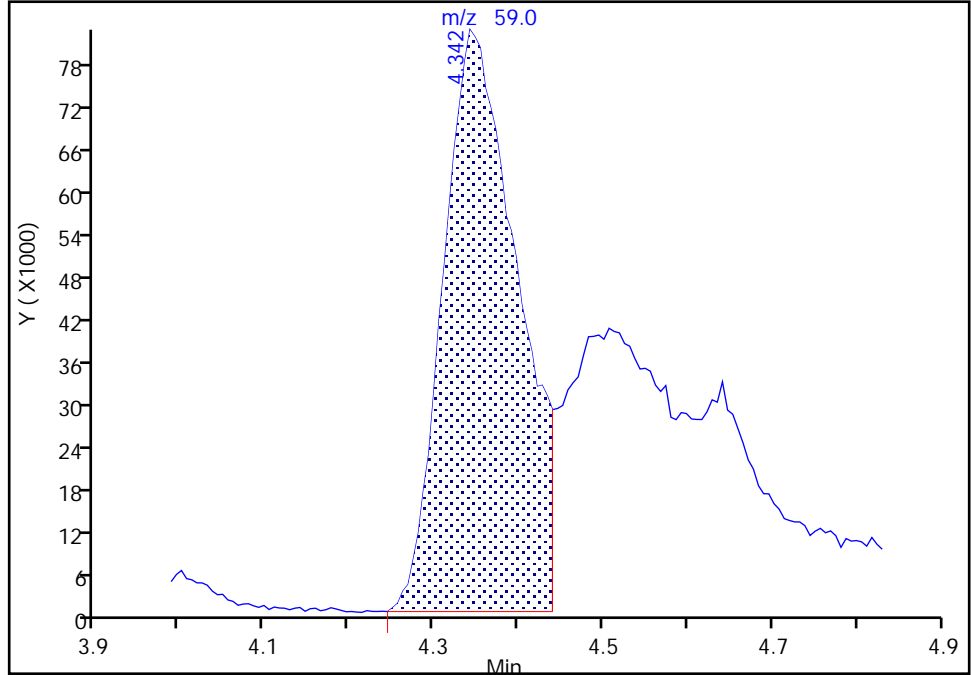
Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X02.D
Injection Date: 02-May-2022 09:45:30 Instrument ID: 19930
Lims ID: CCVIS VSTD12.5
Client ID:
Operator ID: KNK41612 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

25 2-Methyl-2-propanol, CAS: 75-65-0

Signal: 1

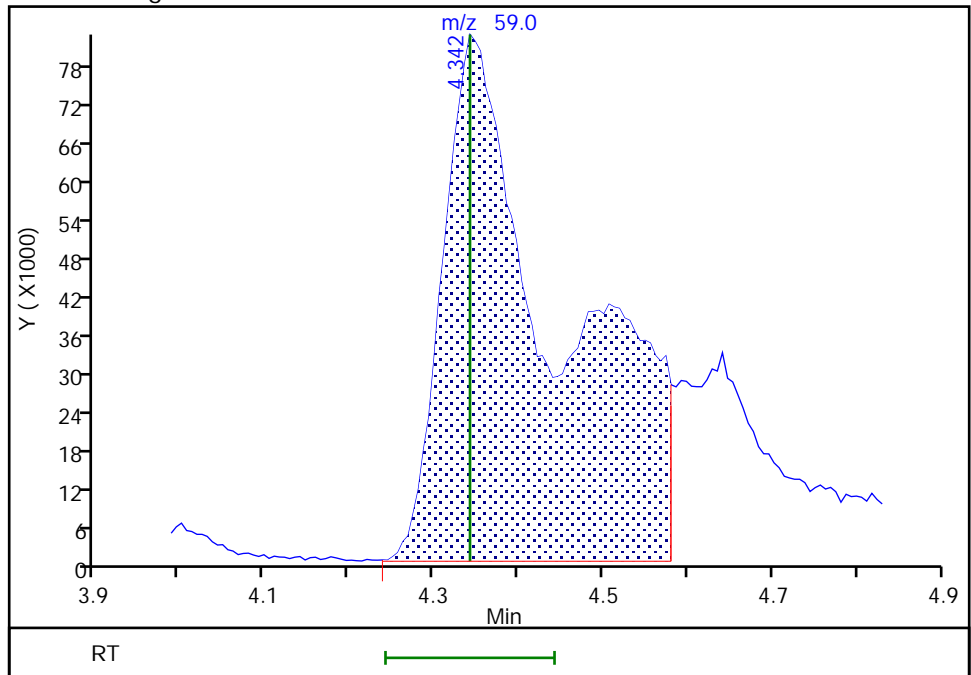
RT: 4.34
Area: 505969
Amount: 124.1718
Amount Units: ug/l

Processing Integration Results



RT: 4.34
Area: 802510
Amount: 196.9471
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 02-May-2022 10:21:02
Audit Action: Assigned New Baseline

Audit Reason: Incomplete Integration

Euofins Lancaster Laboratories Environment Testing, LLC

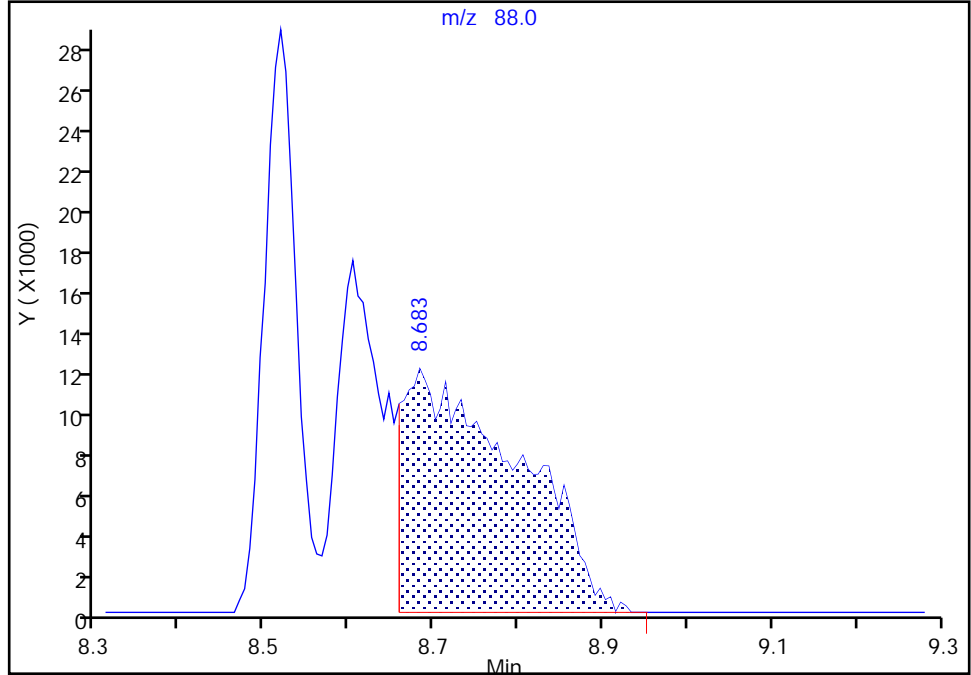
Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X02.D
Injection Date: 02-May-2022 09:45:30 Instrument ID: 19930
Lims ID: CCVIS VSTD12.5
Client ID:
Operator ID: KNK41612 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

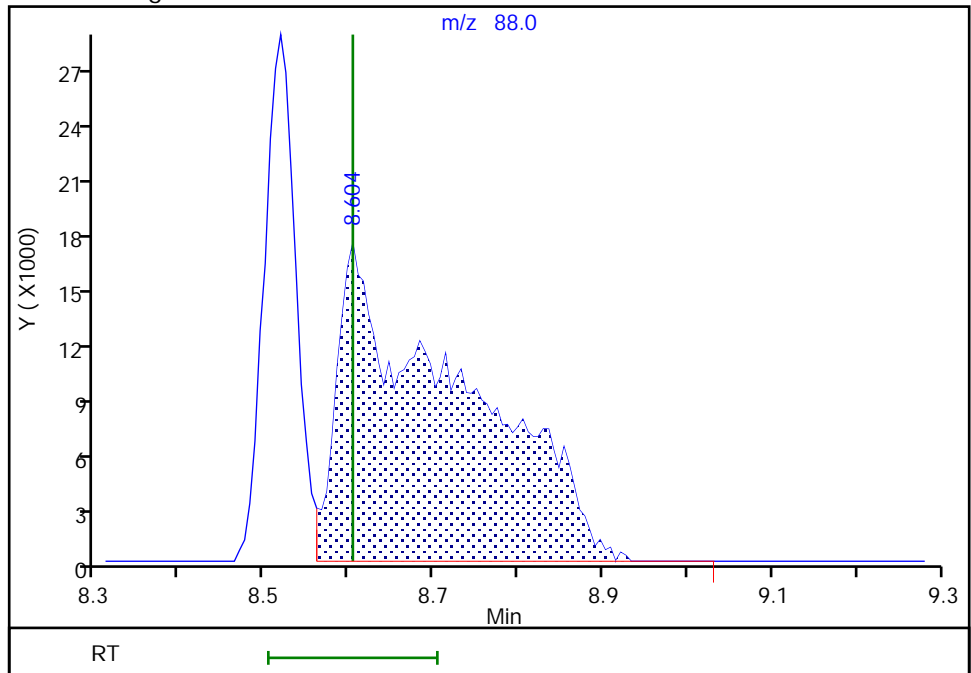
RT: 8.68
Area: 113204
Amount: 404.2044
Amount Units: ug/l

Processing Integration Results



RT: 8.60
Area: 175941
Amount: 628.2121
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 02-May-2022 10:16:46
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-81767-1

SDG No.: _____

Lab Sample ID: CCVIS 410-251841/3 Calibration Date: 05/05/2022 09:14

Instrument ID: 19930 Calib Start Date: 03/15/2022 01:15

GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 03/15/2022 03:22

Lab File ID: IM05X02.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	0.3731	0.2947	0.1000	7.90	10.0	-21.0*	20.0
Chloromethane	Ave	0.3846	0.3473	0.1000	9.03	10.0	-9.7	20.0
Vinyl chloride	Ave	0.4063	0.3309	0.1000	8.14	10.0	-18.6	20.0
1,3-Butadiene	Ave	0.3972	0.3898		9.81	10.0	-1.9	20.0
Bromomethane	Ave	0.3364	0.2276	0.1000	6.76	10.0	-32.4*	20.0
Chloroethane	Ave	0.2471	0.1940	0.1000	7.85	10.0	-21.5*	20.0
Dichlorofluoromethane	Ave	0.6215	0.4733		7.62	10.0	-23.8*	20.0
Trichlorofluoromethane	Ave	0.6039	0.4535	0.1000	7.51	10.0	-24.9*	20.0
Ethyl ether	Ave	0.1668	0.1816		10.9	10.0	8.9	20.0
Freon 123a	Ave	0.3469	0.3327		9.59	10.0	-4.1	20.0
Acrolein	Ave	2.007	1.688		421	500	-15.9	20.0
1,1-Dichloroethene	Ave	0.2623	0.2471	0.1000	9.42	10.0	-5.8	20.0
Acetone	Ave	2.712	2.559	0.1000	94.3	100	-5.7	20.0
Freon 113	Ave	0.2754	0.2359	0.1000	8.57	10.0	-14.3	20.0
Methyl iodide	Ave	0.5377	0.4393		8.17	10.0	-18.3	20.0
Ethyl bromide	Ave	0.2505	0.2152		8.59	10.0	-14.1	20.0
Carbon disulfide	Ave	0.5882	0.6405	0.1000	10.9	10.0	8.9	20.0
Methyl acetate	Lin		6.554	0.1000	9.99	10.0	-0.1	20.0
Allyl chloride	Ave	0.3717	0.4082		11.0	10.0	9.8	20.0
Methylene Chloride	Ave	0.2743	0.2669	0.1000	9.73	10.0	-2.7	20.0
t-Butyl alcohol	Ave	1.001	0.8676		173	200	-13.4	20.0
Acrylonitrile	Ave	3.192	3.595		28.2	25.0	12.6	20.0
Methyl tert-butyl ether	Ave	0.6851	0.6554	0.1000	9.57	10.0	-4.3	20.0
trans-1,2-Dichloroethene	Ave	0.2975	0.2764	0.1000	9.29	10.0	-7.1	20.0
n-Hexane	Ave	0.3607	0.3708		10.3	10.0	2.8	20.0
1,1-Dichloroethane	Ave	0.5092	0.5088	0.2000	9.99	10.0	-0.0	20.0
di-Isopropyl ether	Ave	0.7950	0.8594		10.8	10.0	8.1	20.0
2-Chloro-1,3-butadiene	Ave	0.4147	0.4198		10.1	10.0	1.2	20.0
Ethyl t-butyl ether	Ave	0.8093	0.7901		9.76	10.0	-2.4	20.0
2-Butanone (MEK)	Ave	4.701	5.123	0.1000	109	100	9.0	20.0
cis-1,2-Dichloroethene	Ave	0.3399	0.3006	0.1000	8.84	10.0	-11.6	20.0
2,2-Dichloropropane	Ave	0.4723	0.4329		9.17	10.0	-8.3	20.0
Propionitrile	Ave	1.204	1.424		236	200	18.2	20.0
Methacrylonitrile	Ave	4.811	4.963		103	100	3.2	20.0
Bromochloromethane	Ave	0.1559	0.1295		8.31	10.0	-16.9	20.0
Tetrahydrofuran	Ave	1.330	1.437		54.0	50.0	8.1	20.0
Chloroform	Ave	0.5483	0.5026	0.2000	9.17	10.0	-8.3	20.0
1,1,1-Trichloroethane	Ave	0.5319	0.4698	0.1000	8.83	10.0	-11.7	20.0
Cyclohexane	Ave	0.4471	0.4570	0.1000	10.2	10.0	2.2	20.0
1,1-Dichloropropene	Ave	0.4103	0.4000		9.75	10.0	-2.5	20.0
Carbon tetrachloride	Ave	0.4919	0.4175	0.1000	8.49	10.0	-15.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-81767-1

SDG No.: _____

Lab Sample ID: CCVIS 410-251841/3 Calibration Date: 05/05/2022 09:14

Instrument ID: 19930 Calib Start Date: 03/15/2022 01:15

GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 03/15/2022 03:22

Lab File ID: IM05X02.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	0.3377	0.3398		503	500	0.6	20.0
Benzene	Ave	1.178	1.163	0.5000	9.87	10.0	-1.3	20.0
1,2-Dichloroethane	Ave	0.3285	0.3160	0.1000	9.62	10.0	-3.8	20.0
t-Amyl methyl ether	Ave	0.7552	0.7228		9.57	10.0	-4.3	20.0
n-Heptane	Ave	0.3853	0.3917		10.2	10.0	1.7	20.0
n-Butanol	Ave	0.2671	0.3205		1050	875	20.0	20.0
Trichloroethene	Ave	0.3385	0.3121	0.2000	9.22	10.0	-7.8	20.0
Methylcyclohexane	Ave	0.5399	0.4835	0.1000	8.96	10.0	-10.4	20.0
1,2-Dichloropropane	Ave	0.2824	0.2932	0.1000	10.4	10.0	3.8	20.0
Methyl methacrylate	Ave	9.116	9.347		10.3	10.0	2.5	20.0
1,4-Dioxane	Ave	0.0688	0.0658	0.0050	478	500	-4.4	20.0
Dibromomethane	Ave	0.1563	0.1399		8.95	10.0	-10.5	20.0
Bromodichloromethane	Ave	0.3729	0.3597	0.2000	9.65	10.0	-3.5	20.0
2-Nitropropane	Ave	2.832	2.926		51.7	50.0	3.3	20.0
1-Bromo-2-chloroethane	Ave	0.2672	0.3084		11.5	10.0	15.4	20.0
cis-1,3-Dichloropropene	Ave	0.4391	0.4446	0.2000	10.1	10.0	1.3	20.0
4-Methyl-2-pentanone (MIBK)	Ave	12.43	13.55	0.1000	109	100	9.0	20.0
Toluene	Ave	0.9434	0.9736	0.4000	10.3	10.0	3.2	20.0
trans-1,3-Dichloropropene	Ave	0.4237	0.4765	0.1000	11.2	10.0	12.4	20.0
Ethyl methacrylate	Ave	0.3286	0.3746		11.4	10.0	14.0	20.0
1,1,2-Trichloroethane	Ave	0.2585	0.2654	0.1000	10.3	10.0	2.6	20.0
Tetrachloroethene	Ave	0.5425	0.4844	0.2000	8.93	10.0	-10.7	20.0
1,3-Dichloropropane	Ave	0.4157	0.4492		10.8	10.0	8.0	20.0
2-Hexanone	Ave	8.351	9.655	0.1000	116	100	15.6	20.0
Dibromochloromethane	Ave	0.3508	0.3449		9.83	10.0	-1.7	20.0
1,2-Dibromoethane (EDB)	Ave	0.2510	0.2565	0.1000	10.2	10.0	2.2	20.0
1-Chlorohexane	Ave	0.5715	0.5365		9.39	10.0	-6.1	20.0
Chlorobenzene	Ave	1.117	1.069	0.5000	9.57	10.0	-4.3	20.0
1,1,1,2-Tetrachloroethane	Ave	0.4123	0.3822		9.27	10.0	-7.3	20.0
Ethylbenzene	Ave	1.867	1.909	0.1000	10.2	10.0	2.3	20.0
m&p-Xylene	Ave	0.7645	0.7435	0.1000	19.5	20.0	-2.7	20.0
o-Xylene	Ave	0.7524	0.7152	0.3000	9.51	10.0	-4.9	20.0
Styrene	Ave	1.172	1.183	0.3000	10.1	10.0	1.0	20.0
Bromoform	Ave	0.2160	0.2127	0.1000	9.84	10.0	-1.6	20.0
Isopropylbenzene	Ave	1.964	1.909	0.1000	9.72	10.0	-2.8	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5291	0.5995	0.3000	11.3	10.0	13.3	20.0
Bromobenzene	Ave	0.8414	0.8040		9.56	10.0	-4.4	20.0
trans-1,4-Dichloro-2-butene	Ave	4.486	4.291		95.6	100	-4.4	20.0
1,2,3-Trichloropropane	Ave	0.1566	0.1627		10.4	10.0	3.9	20.0
N-Propylbenzene	Ave	3.670	4.039		11.0	10.0	10.1	20.0
2-Chlorotoluene	Ave	0.8070	0.7855		9.73	10.0	-2.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-81767-1
 SDG No.: _____
 Lab Sample ID: CCVIS 410-251841/3 Calibration Date: 05/05/2022 09:14
 Instrument ID: 19930 Calib Start Date: 03/15/2022 01:15
 GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 03/15/2022 03:22
 Lab File ID: IM05X02.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	2.716	2.885		10.6	10.0	6.2	20.0
4-Chlorotoluene	Ave	0.8245	0.8025		9.73	10.0	-2.7	20.0
tert-Butylbenzene	Ave	0.6545	0.6244		9.54	10.0	-4.6	20.0
Pentachloroethane	Ave	0.5376	0.5386		10.0	10.0	0.2	20.0
1,2,4-Trimethylbenzene	Ave	2.739	2.904		10.6	10.0	6.0	20.0
sec-Butylbenzene	Ave	3.467	3.608		10.4	10.0	4.1	20.0
1,3-Dichlorobenzene	Ave	1.638	1.583	0.6000	9.66	10.0	-3.4	20.0
p-Isopropyltoluene	Ave	3.120	3.163		10.1	10.0	1.4	20.0
1,4-Dichlorobenzene	Ave	1.674	1.580	0.5000	9.44	10.0	-5.6	20.0
1,2,3-Trimethylbenzene	Ave	1.265	1.218		9.63	10.0	-3.7	20.0
Benzyl chloride	Ave	0.2140	0.2443		11.4	10.0	14.1	20.0
n-Butylbenzene	Ave	1.385	1.510		10.9	10.0	9.0	20.0
1,2-Dichlorobenzene	Ave	1.493	1.454	0.4000	9.74	10.0	-2.6	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.0846	0.0920	0.0500	10.9	10.0	8.7	20.0
1,3,5-Trichlorobenzene	Ave	1.224	1.138		9.30	10.0	-7.0	20.0
1,2,4-Trichlorobenzene	Ave	1.031	0.9635	0.2000	9.35	10.0	-6.5	20.0
Hexachlorobutadiene	Ave	0.4676	0.4030		8.62	10.0	-13.8	20.0
Naphthalene	Ave	1.764	1.827		10.4	10.0	3.6	20.0
1,2,3-Trichlorobenzene	Ave	0.9029	0.8300		9.19	10.0	-8.1	20.0
Dibromofluoromethane (Surr)	Ave	0.2707	0.2466		9.11	10.0	-8.9	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0482	0.0496		10.3	10.0	2.8	20.0
Toluene-d8 (Surr)	Ave	1.217	1.287		10.6	10.0	5.7	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4719	0.4776		10.1	10.0	1.2	20.0

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220505-56480.b\IM05X02.D
 Lims ID: CCVIS VSTD10
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 05-May-2022 09:14:30 ALS Bottle#: 2 Worklist Smp#: 3
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0056480-003
 Misc. Info.: CCVIS
 Operator ID: KNK41612 Instrument ID: 19930
 Sublist: chrom-8260 25ml HP31*sub2
 Method: \\chromfs\Lancaster\ChromData\19930\20220505-56480.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 05-May-2022 11:03:39 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1630

First Level Reviewer: kephartk

Date: 05-May-2022 09:51:23

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	778726	10.0	7.90	
4 Chloromethane	50	2.160	2.160	0.000	99	917787	10.0	9.03	
5 Vinyl chloride	62	2.276	2.276	0.000	98	874444	10.0	8.14	
6 Butadiene	39	2.282	2.282	0.000	91	1030063	10.0	9.81	
7 Bromomethane	94	2.611	2.611	0.000	91	601515	10.0	6.76	
8 Chloroethane	64	2.690	2.690	0.000	100	512724	10.0	7.85	
9 Dichlorofluoromethane	67	2.928	2.928	0.000	97	1250811	10.0	7.62	
10 Trichlorofluoromethane	101	3.007	3.007	0.000	98	1198489	10.0	7.51	
11 Ethyl ether	59	3.251	3.251	0.000	92	479986	10.0	10.9	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.330	3.330	0.000	92	879257	10.0	9.59	
13 Acrolein	56	3.416	3.416	0.000	99	3170181	500.0	420.5	
14 1,1-Dichloroethene	96	3.556	3.556	0.000	98	653087	10.0	9.42	
15 Acetone	43	3.586	3.586	0.000	100	960980	100.0	94.3	M
16 112TCTFE	101	3.599	3.599	0.000	91	623567	10.0	8.57	
17 Iodomethane	142	3.751	3.751	0.000	99	1161068	10.0	8.17	
18 Ethyl bromide	108	3.781	3.781	0.000	99	568547	10.0	8.59	
19 Carbon disulfide	76	3.861	3.861	0.000	99	1692780	10.0	10.9	
21 Methyl acetate	43	4.007	4.007	0.000	97	246140	10.0	9.99	
22 3-Chloro-1-propene	41	4.038	4.038	0.000	92	1078787	10.0	11.0	
23 Methylene Chloride	84	4.227	4.227	0.000	92	705445	10.0	9.73	
* 24 t-Butyl alcohol-d10 (IS)	65	4.233	4.233	0.000	94	187773	50.0	50.0	M
25 2-Methyl-2-propanol	59	4.348	4.348	0.000	99	651679	200.0	173.3	
26 Acrylonitrile	53	4.562	4.562	0.000	97	337486	25.0	28.2	
27 Methyl tert-butyl ether	73	4.629	4.629	0.000	95	1732254	10.0	9.57	
28 trans-1,2-Dichloroethene	96	4.641	4.641	0.000	99	730513	10.0	9.29	
29 Hexane	57	5.068	5.068	0.000	93	979921	10.0	10.3	
31 1,1-Dichloroethane	63	5.299	5.299	0.000	96	1344639	10.0	10.0	
32 Isopropyl ether	45	5.354	5.354	0.000	94	2271221	10.0	10.8	
33 2-Chloro-1,3-butadiene	53	5.409	5.409	0.000	91	1109360	10.0	10.1	
34 Tert-butyl ethyl ether	59	5.891	5.891	0.000	98	2088028	10.0	9.76	

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	6.086	6.086	0.000	100	1923837	100.0	109.0	
37 cis-1,2-Dichloroethene	96	6.129	6.129	0.000	83	794533	10.0	8.84	
38 2,2-Dichloropropane	77	6.141	6.141	0.000	88	1144021	10.0	9.17	
40 Propionitrile	54	6.171	6.171	0.000	99	1069194	200.0	236.5	
42 Methacrylonitrile	67	6.391	6.391	0.000	92	1863911	100.0	103.2	
43 Chlorobromomethane	128	6.458	6.458	0.000	94	342267	10.0	8.31	
44 Tetrahydrofuran	71	6.470	6.470	0.000	78	269843	50.0	54.0	
45 Chloroform	83	6.604	6.604	0.000	94	1328321	10.0	9.17	
\$ 46 Dibromofluoromethane (Surr)	113	6.817	6.817	0.000	94	651709	10.0	9.11	
47 1,1,1-Trichloroethane	97	6.836	6.836	0.000	99	1241614	10.0	8.83	
48 Cyclohexane	56	6.933	6.933	0.000	92	1207913	10.0	10.2	
51 1,1-Dichloropropene	75	7.043	7.043	0.000	95	1057151	10.0	9.75	
50 Carbon tetrachloride	117	7.043	7.043	0.000	90	1103513	10.0	8.49	
52 Isobutyl alcohol	41	7.183	7.183	0.000	94	638061	500.0	503.2	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.269	7.269	0.000	98	130958	10.0	10.3	
54 Benzene	78	7.305	7.305	0.000	96	3072746	10.0	9.87	
56 1,2-Dichloroethane	62	7.372	7.372	0.000	98	835222	10.0	9.62	
57 Tert-amyl methyl ether	73	7.494	7.494	0.000	99	1910203	10.0	9.57	
* 58 Fluorobenzene (IS)	96	7.701	7.701	0.000	99	2642874	10.0	10.0	
59 n-Heptane	43	7.720	7.720	0.000	93	1035288	10.0	10.2	
60 n-Butanol	56	8.061	8.061	0.000	89	1053122	875.0	1049.9	
61 Trichloroethene	95	8.183	8.183	0.000	98	824779	10.0	9.22	
62 Methylcyclohexane	83	8.494	8.494	0.000	92	1277847	10.0	8.96	
63 1,2-Dichloropropane	63	8.512	8.512	0.000	86	774951	10.0	10.4	
64 Methyl methacrylate	69	8.592	8.592	0.000	91	351036	10.0	10.3	
65 1,4-Dioxane	88	8.604	8.604	0.000	38	123497	500.0	477.8	
66 Dibromomethane	93	8.622	8.622	0.000	94	369701	10.0	8.95	
68 Dichlorobromomethane	83	8.854	8.854	0.000	99	950739	10.0	9.65	
69 2-Nitropropane	41	9.116	9.116	0.000	99	549360	50.0	51.7	
72 1-Bromo-2-chloroethane	63	9.250	9.250	0.000	99	814938	10.0	11.5	
73 cis-1,3-Dichloropropene	75	9.402	9.402	0.000	96	1174961	10.0	10.1	
74 4-Methyl-2-pentanone (MIBK)	43	9.567	9.567	0.000	97	5087206	100.0	109.0	
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	94	2634177	10.0	10.6	
76 Toluene	92	9.780	9.780	0.000	98	1992926	10.0	10.3	
78 trans-1,3-Dichloropropene	75	10.036	10.036	0.000	93	975334	10.0	11.2	
79 Ethyl methacrylate	69	10.097	10.097	0.000	89	766804	10.0	11.4	
80 1,1,2-Trichloroethane	97	10.238	10.238	0.000	91	543220	10.0	10.3	
81 Tetrachloroethene	166	10.329	10.329	0.000	99	991521	10.0	8.93	
82 1,3-Dichloropropane	76	10.402	10.402	0.000	91	919464	10.0	10.8	
83 2-Hexanone	43	10.451	10.451	0.000	97	3625933	100.0	115.6	
85 Chlorodibromomethane	129	10.616	10.616	0.000	90	705926	10.0	9.83	
86 Ethylene Dibromide	107	10.731	10.731	0.000	98	525122	10.0	10.2	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	86	2047023	10.0	10.0	
88 1-Chlorohexane	91	11.164	11.164	0.000	98	1098218	10.0	9.39	
90 Chlorobenzene	112	11.182	11.182	0.000	95	2188335	10.0	9.57	
91 1,1,1,2-Tetrachloroethane	131	11.268	11.268	0.000	94	782379	10.0	9.27	
92 Ethylbenzene	91	11.268	11.268	0.000	98	3907360	10.0	10.2	
93 m-Xylene & p-Xylene	106	11.384	11.384	0.000	99	3043764	20.0	19.5	
94 o-Xylene	106	11.713	11.713	0.000	96	1463954	10.0	9.51	
95 Styrene	104	11.725	11.725	0.000	94	2421588	10.0	10.1	
96 Bromoform	173	11.884	11.884	0.000	97	435339	10.0	9.84	
97 Isopropylbenzene	105	12.012	12.012	0.000	96	3908430	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
\$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	94	977720	10.0	10.1	
101 1,1,2,2-Tetrachloroethane	83	12.255	12.255	0.000	93	685837	10.0	11.3	
102 Bromobenzene	156	12.274	12.274	0.000	96	919871	10.0	9.56	
103 trans-1,4-Dichloro-2-butene	53	12.280	12.280	0.000	94	1611310	100.0	95.6	
104 1,2,3-Trichloropropane	110	12.298	12.298	0.000	80	186184	10.0	10.4	
105 N-Propylbenzene	91	12.341	12.341	0.000	99	4621032	10.0	11.0	
106 2-Chlorotoluene	126	12.414	12.414	0.000	96	898680	10.0	9.73	
107 1,3,5-Trimethylbenzene	105	12.475	12.475	0.000	93	3301076	10.0	10.6	
108 4-Chlorotoluene	126	12.505	12.505	0.000	98	918152	10.0	9.73	
109 tert-Butylbenzene	134	12.719	12.719	0.000	93	714309	10.0	9.54	
110 Pentachloroethane	167	12.749	12.749	0.000	93	616182	10.0	10.0	
111 1,2,4-Trimethylbenzene	105	12.755	12.755	0.000	97	3322699	10.0	10.6	
112 sec-Butylbenzene	105	12.877	12.877	0.000	94	4128223	10.0	10.4	
113 1,3-Dichlorobenzene	146	12.981	12.981	0.000	98	1811168	10.0	9.66	
114 4-Isopropyltoluene	119	12.987	12.987	0.000	97	3618735	10.0	10.1	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	1144077	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.054	13.054	0.000	94	1807519	10.0	9.44	
117 1,2,3-Trimethylbenzene	120	13.060	13.060	0.000	99	1393592	10.0	9.63	
118 Benzyl chloride	126	13.127	13.127	0.000	99	279448	10.0	11.4	
119 n-Butylbenzene	92	13.280	13.280	0.000	97	1727417	10.0	10.9	
120 1,2-Dichlorobenzene	146	13.310	13.310	0.000	99	1663858	10.0	9.74	
122 1,2-Dibromo-3-Chloropropane	155	13.853	13.853	0.000	88	105222	10.0	10.9	
123 1,3,5-Trichlorobenzene	180	13.981	13.981	0.000	98	1302027	10.0	9.30	
124 1,2,4-Trichlorobenzene	180	14.401	14.401	0.000	94	1102264	10.0	9.35	
125 Hexachlorobutadiene	225	14.487	14.487	0.000	96	461019	10.0	8.62	
126 Naphthalene	128	14.584	14.584	0.000	97	2090032	10.0	10.4	
127 1,2,3-Trichlorobenzene	180	14.724	14.724	0.000	96	949625	10.0	9.19	
137 2-Methylnaphthalene	142		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
134 Isopropyl alcohol	45		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MSV_LL_#2_826_00046

Amount Added: 20.00

Units: uL

MSV_LL_GAS826_00083

Amount Added: 20.00

Units: uL

MSV_LL_#1_826_00042

Amount Added: 20.00

Units: uL

MSV_LLcentISS_00004

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220505-56480.b\IM05X02.D

Injection Date: 05-May-2022 09:14:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: CCVIS VSTD10

Worklist Smp#: 3

Client ID:

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

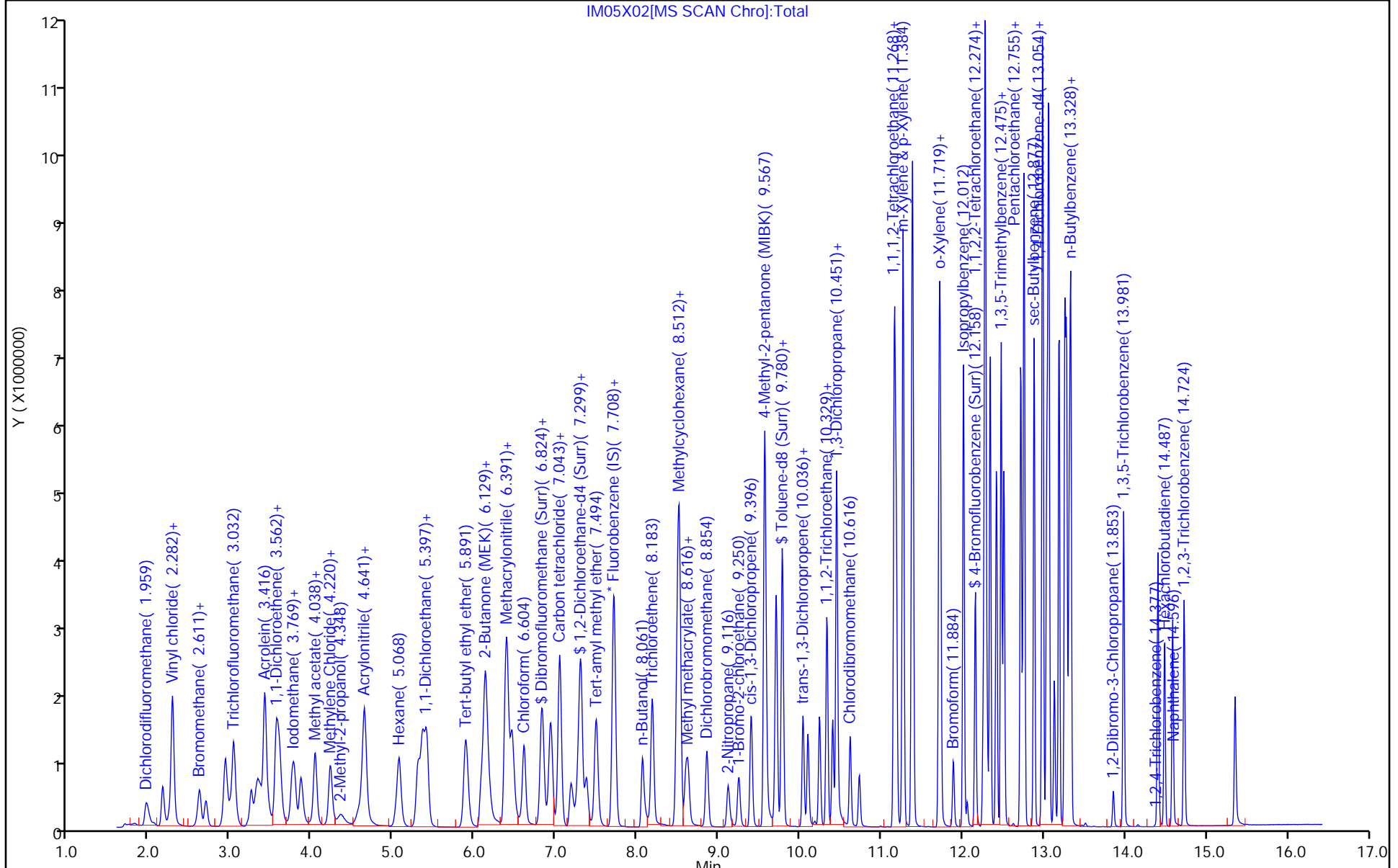
ALS Bottle#: 2

Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



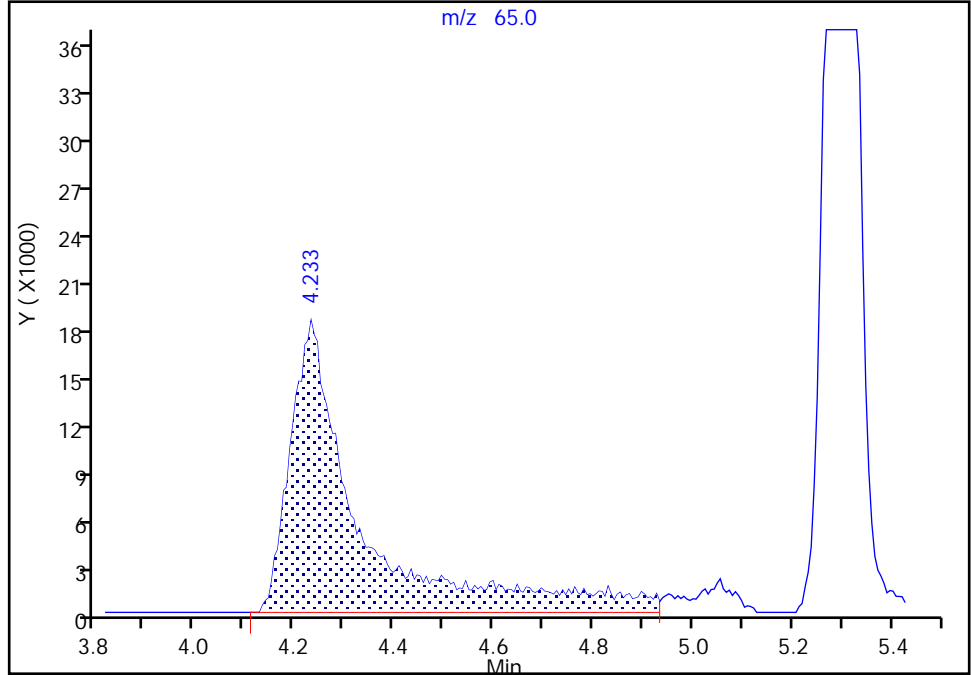
Euofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220505-56480.b\IM05X02.D
Injection Date: 05-May-2022 09:14:30 Instrument ID: 19930
Lims ID: CCVIS VSTD10
Client ID:
Operator ID: KNK41612 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 24 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2
Signal: 1

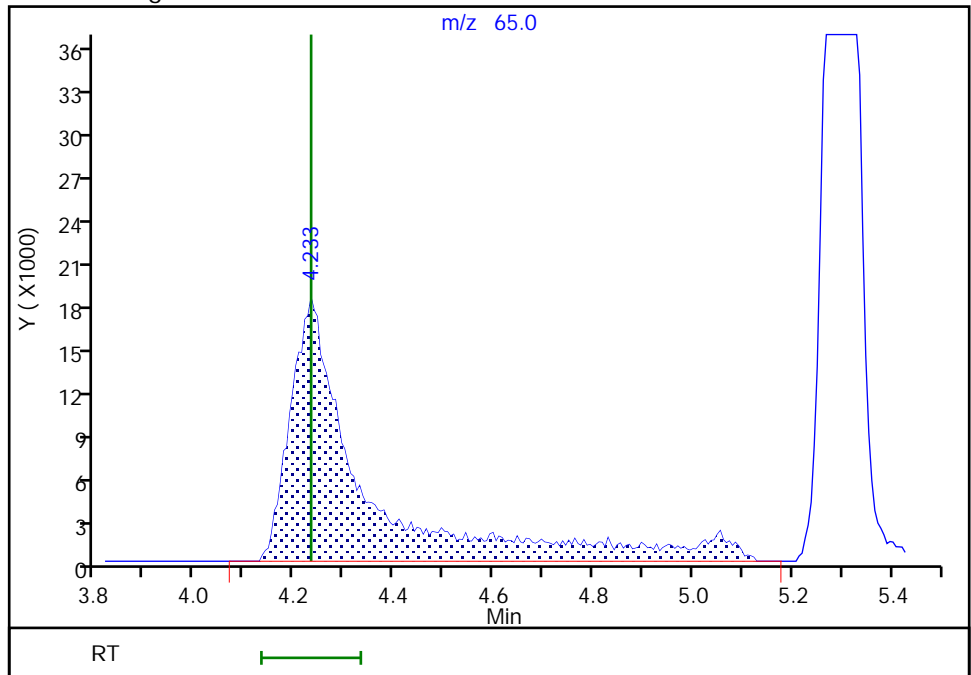
RT: 4.23
Area: 175850
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.23
Area: 187773
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Eurofins Lancaster Laboratories Environment Testing, LLC

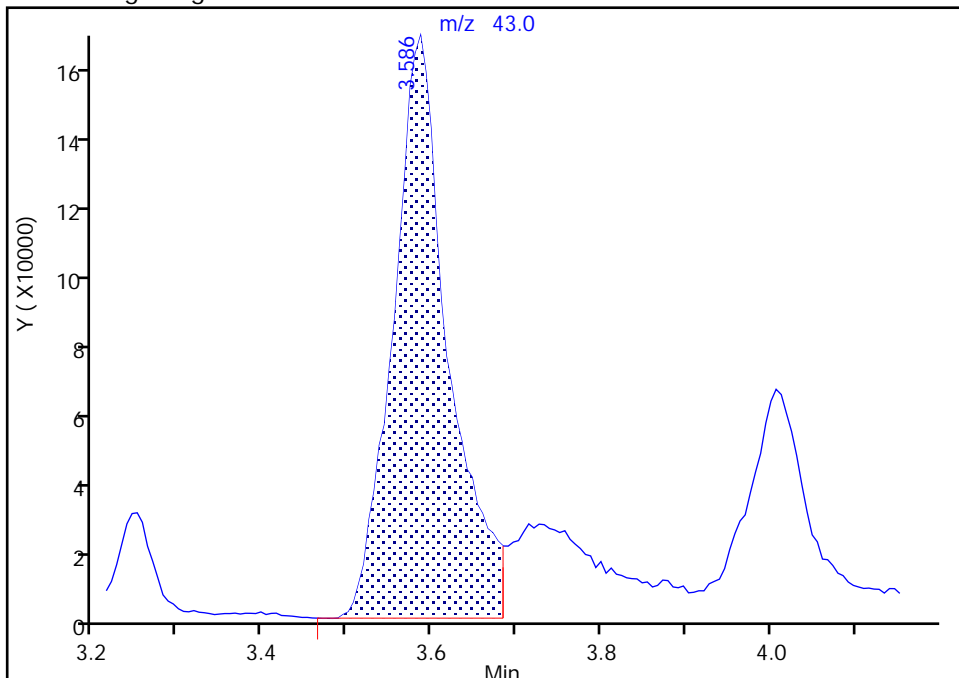
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Injection Date: 05-May-2022 09:14:30 Instrument ID: 19930
Lims ID: CCVIS VSTD10
Client ID:
Operator ID: KNK41612 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

15 Acetone, CAS: 67-64-1

Signal: 1

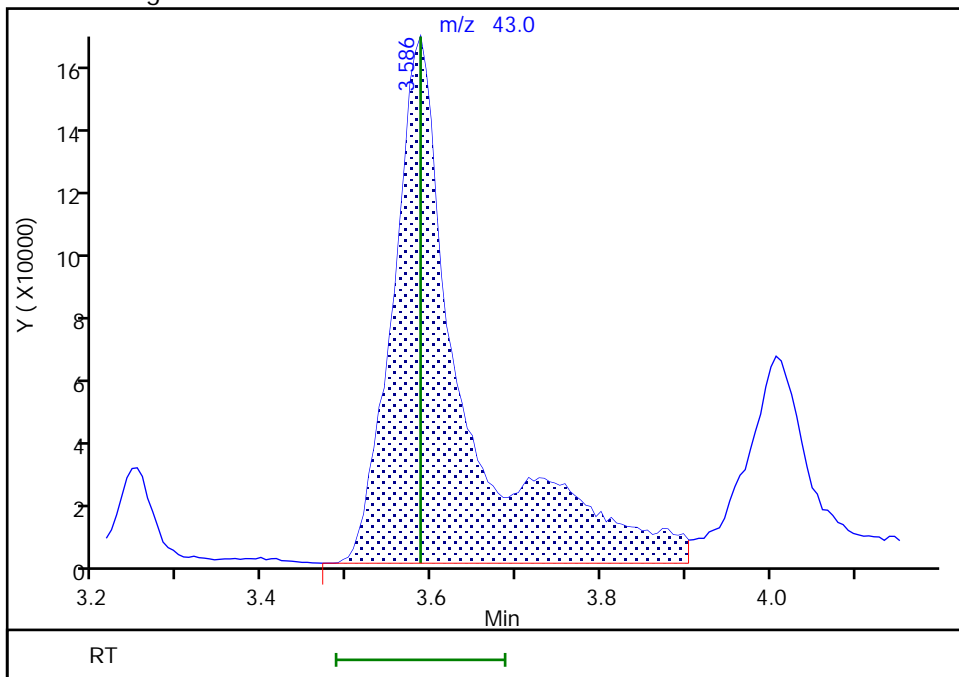
RT: 3.59
Area: 741584
Amount: 77.744707
Amount Units: ug/l

Processing Integration Results



RT: 3.59
Area: 960980
Amount: 94.348296
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 05-May-2022 09:48:55
Audit Action: Assigned New Baseline

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
 Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14T01.D
 Lims ID: bfb
 Client ID:
 Sample Type: BFB
 Inject. Date: 14-Mar-2022 21:24:30 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 1.0 uL Dil. Factor: 1.0000
 Sample Info: 410-0052441-001
 Misc. Info.: BFB
 Operator ID: mec29284 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 16-Mar-2022 10:12:27 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14I37.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1676

First Level Reviewer: campbellme Date: 14-Mar-2022 21:42:20

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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\$ 145 BFB	95	5.172	5.172	0.000	0	134505	NR	NR	
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QC Flag Legend

Processing Flags

NR - Missing Quant Standard

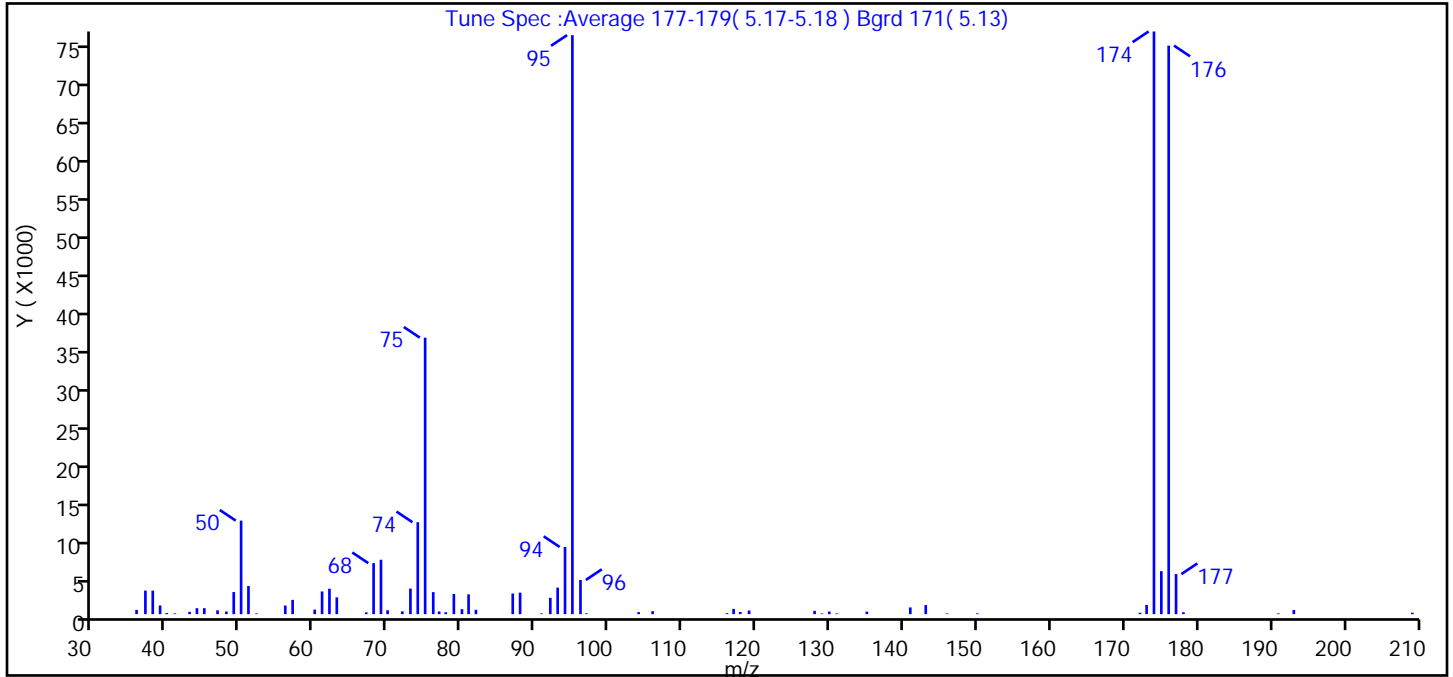
Reagents:

MSV_V_BFB_00007 Amount Added: 1.00 Units: uL

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14T01.D
 Injection Date: 14-Mar-2022 21:24:30 Instrument ID: 19930
 Lims ID: bfb
 Client ID:
 Operator ID: mec29284 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 1.0 uL Dil. Factor: 1.0000
 Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
 Tune Method: BFB Method 8260

\$ 145 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	16.1
75	30 to 60% of m/z 95	47.8
96	5 to 9% of m/z 95	5.9
173	Less than 2% of m/z 174	1.6 (1.6)
174	50 to 120% of m/z 95	100.6
175	5 to 9% of m/z 174	7.4 (7.4)
176	Greater than 95% but less than 101% of m/z 174	98.2 (97.6)
177	5 to 9% of m/z 176	6.9 (7.0)

Data File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14T01.D\8260 25ml HP31.rsl\spectra.d
 Injection Date: 14-Mar-2022 21:24:30
 Spectrum: Tune Spec :Average 177-179(5.17-5.18) Bgrd 171(5.13)
 Base Peak: 174.00
 Minimum % Base Peak: 0
 Number of Points: 70

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	561	61.00	2979	87.00	2708	131.00	92
37.00	3093	62.00	3331	88.00	2819	135.00	335
38.00	3084	63.00	2200	91.00	96	141.00	880
39.00	1137	67.00	230	92.00	2140	143.00	1190
40.00	156	68.00	6693	93.00	3482	146.00	89
41.00	99	69.00	7135	94.00	8811	150.00	104
43.00	303	70.00	511	95.00	75960	172.00	182
44.00	784	72.00	362	96.00	4482	173.00	1206
45.00	787	73.00	3353	97.00	105	174.00	76440
47.00	504	74.00	12059	104.00	265	175.00	5638
48.00	346	75.00	36272	106.00	394	176.00	74584
49.00	2901	76.00	2888	116.00	130	177.00	5256
50.00	12267	77.00	352	117.00	687	178.00	251
51.00	3684	78.00	253	118.00	280	191.00	97
52.00	93	79.00	2648	119.00	478	193.00	548
56.00	1133	80.00	654	128.00	429	209.00	189
57.00	1870	81.00	2592	129.00	92		
60.00	599	82.00	572	130.00	342		

Report Date: 16-Mar-2022 10:12:27

Chrom Revision: 2.3 16-Feb-2022 17:52:00

Euofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14T01.D

Injection Date: 14-Mar-2022 21:24:30

Instrument ID: 19930

Operator ID: mec29284

Lims ID: bfb

Worklist Smp#: 1

Client ID:

Injection Vol: 1.0 uL

Dil. Factor: 1.0000

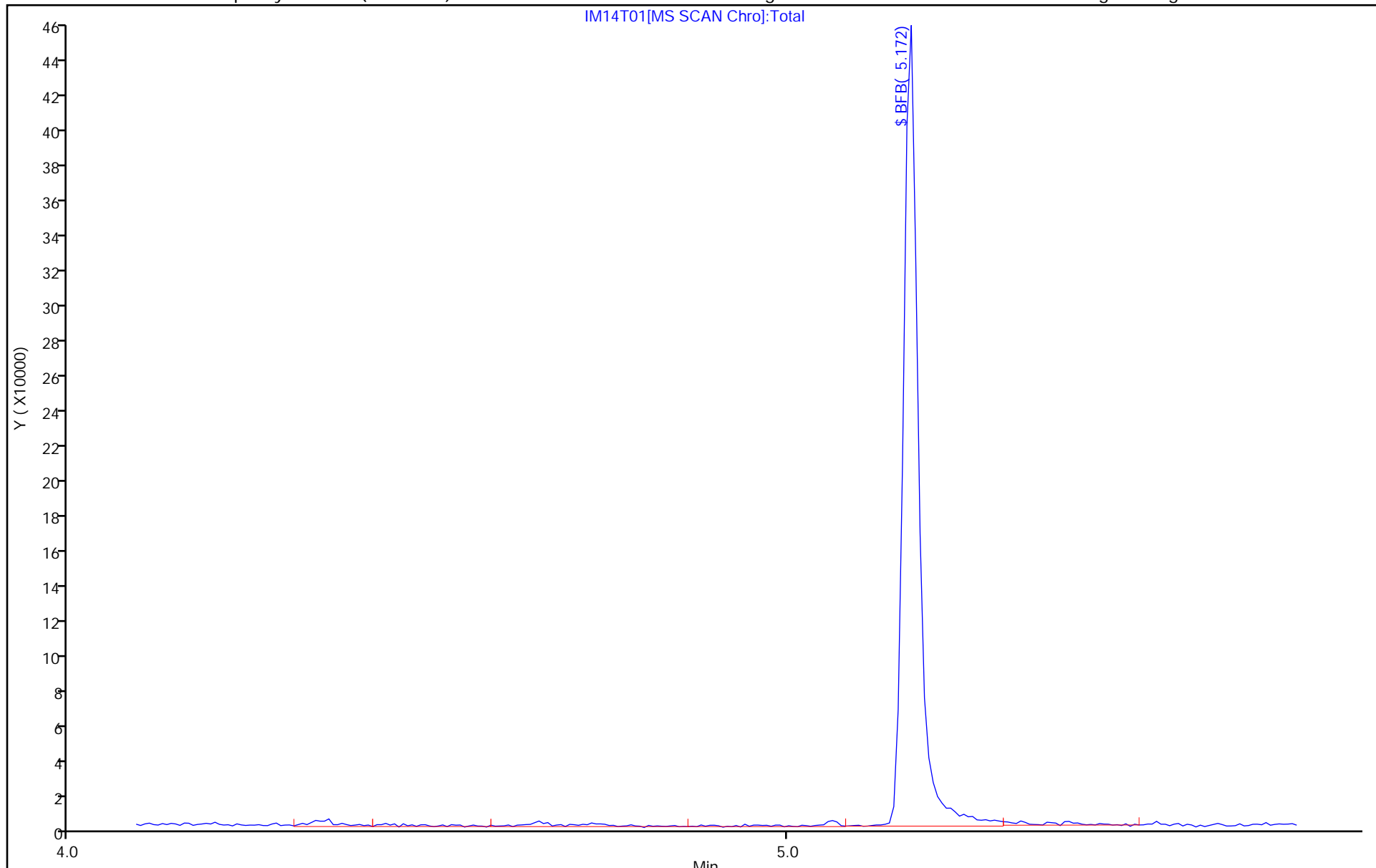
ALS Bottle#: 1

Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Environment Testing, LLC
 Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02T03.D
 Lims ID: BFB
 Client ID:
 Sample Type: BFB
 Inject. Date: 02-May-2022 09:06:30 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 1.0 uL Dil. Factor: 1.0000
 Sample Info: 410-0056183-001
 Misc. Info.: BFB
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 02-May-2022 10:55:04 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1622

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
\$ 145 BFB	95	5.166	5.166	0.000	91	432083	NR	NR	

QC Flag Legend

Processing Flags
 NR - Missing Quant Standard

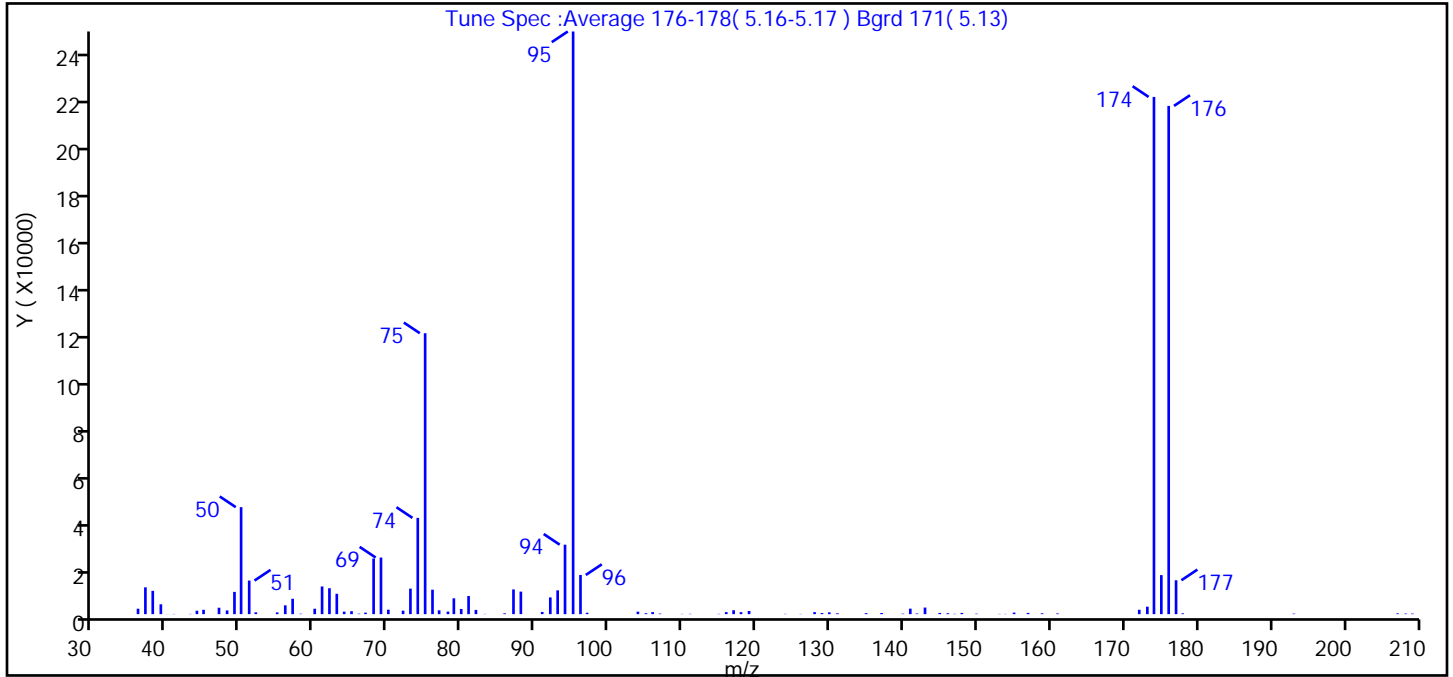
Reagents:

MSV_V_BFB_00007 Amount Added: 1.00 Units: uL

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02T03.D
 Injection Date: 02-May-2022 09:06:30 Instrument ID: 19930
 Lims ID: BFB
 Client ID:
 Operator ID: KNK41612 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 1.0 uL Dil. Factor: 1.0000
 Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
 Tune Method: BFB Method 8260

\$ 145 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	18.4
75	30 to 60% of m/z 95	48.2
96	5 to 9% of m/z 95	6.7
173	Less than 2% of m/z 174	1.3 (1.4)
174	50 to 120% of m/z 95	88.8
175	5 to 9% of m/z 174	6.7 (7.5)
176	Greater than 95% but less than 101% of m/z 174	87.2 (98.3)
177	5 to 9% of m/z 176	5.8 (6.7)

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02T03.D\8260 25ml HP31.rsl\spectra.d
Injection Date: 02-May-2022 09:06:30
Spectrum: Tune Spec :Average 176-178(5.16-5.17) Bgrd 171(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	2244	66.00	193	96.00	16206	145.00	497
37.00	11089	67.00	635	97.00	581	146.00	390
38.00	9636	68.00	23024	104.00	1029	147.00	131
39.00	4071	69.00	23416	105.00	384	148.00	504
40.00	47	70.00	1842	106.00	849	150.00	189
41.00	87	72.00	1440	107.00	235	153.00	101
43.00	97	73.00	10556	110.00	96	154.00	93
44.00	1409	74.00	39816	111.00	131	155.00	631
45.00	1809	75.00	116208	115.00	129	157.00	505
47.00	2649	76.00	10120	116.00	847	159.00	345
48.00	1538	77.00	1586	117.00	1619	161.00	295
49.00	9202	78.00	1042	118.00	839	172.00	1810
50.00	44256	79.00	6554	119.00	1310	173.00	3083
51.00	13889	80.00	2145	124.00	115	174.00	213952
52.00	749	81.00	7512	126.00	85	175.00	16146
55.00	718	82.00	1754	128.00	840	176.00	210240
56.00	3651	83.00	92	129.00	456	177.00	14016
57.00	6371	86.00	344	130.00	737	178.00	325
58.00	175	87.00	10225	131.00	347	193.00	217
60.00	2247	88.00	9318	135.00	421	207.00	319
61.00	11448	91.00	913	137.00	473	208.00	235
62.00	10722	92.00	6921	140.00	197	209.00	241
63.00	8423	93.00	9839	141.00	2265		
64.00	1036	94.00	28736	142.00	257		
65.00	1224	95.00	241024	143.00	2724		

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02T03.D

Injection Date: 02-May-2022 09:06:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 1.0 uL

Dil. Factor: 1.0000

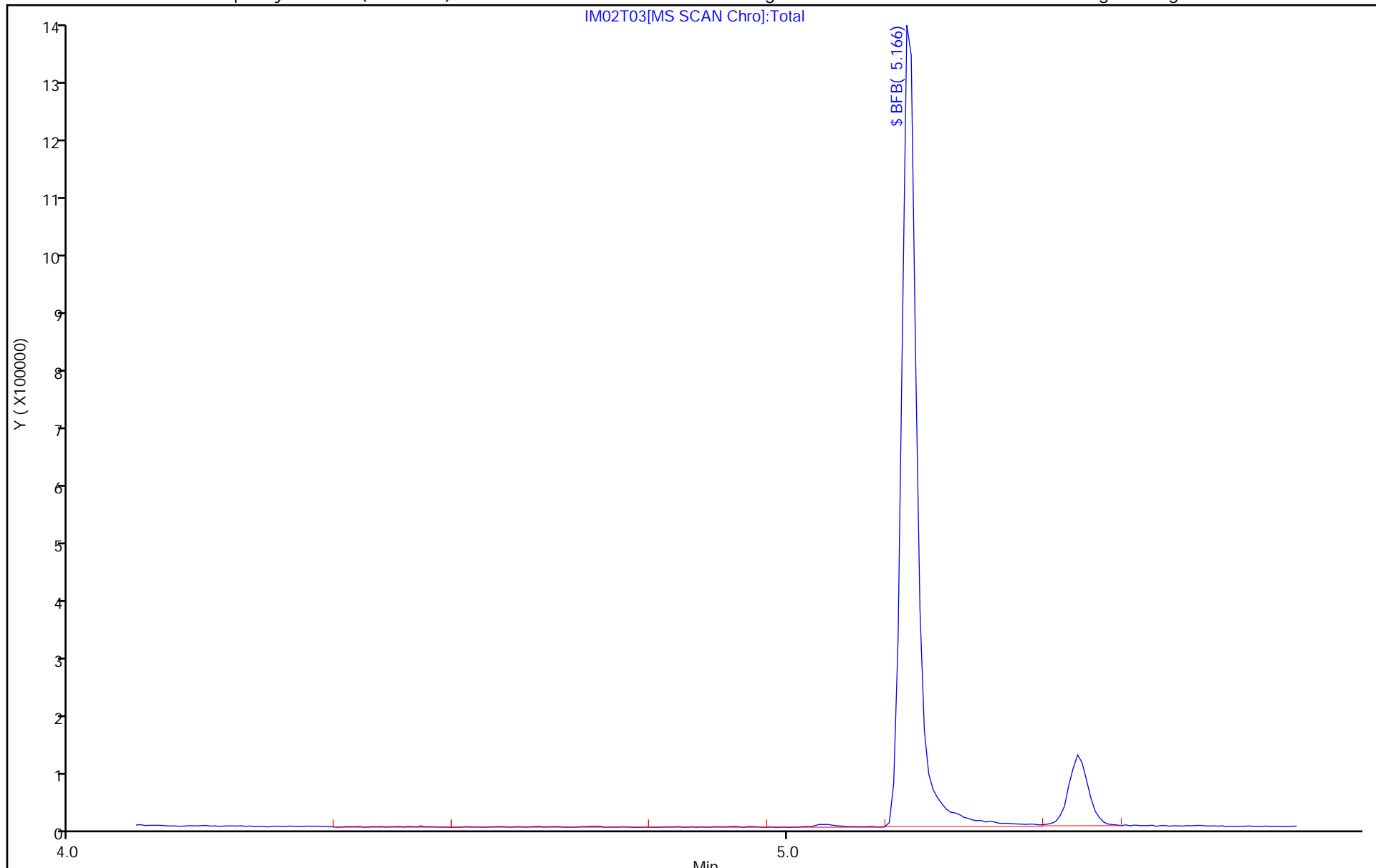
ALS Bottle#: 1

Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Environment Testing, LLC
 Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220505-56480.b\IM05T01.D
 Lims ID: BFB
 Client ID:
 Sample Type: BFB
 Inject. Date: 05-May-2022 08:40:30 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 1.0 uL Dil. Factor: 1.0000
 Sample Info: 410-0056480-001
 Misc. Info.: BFB
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220505-56480.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 05-May-2022 11:03:54 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14I37.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1630

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
\$ 145 BFB	95	5.172	5.172	0.000	0	340325	NR	NR	

QC Flag Legend

Processing Flags
 NR - Missing Quant Standard

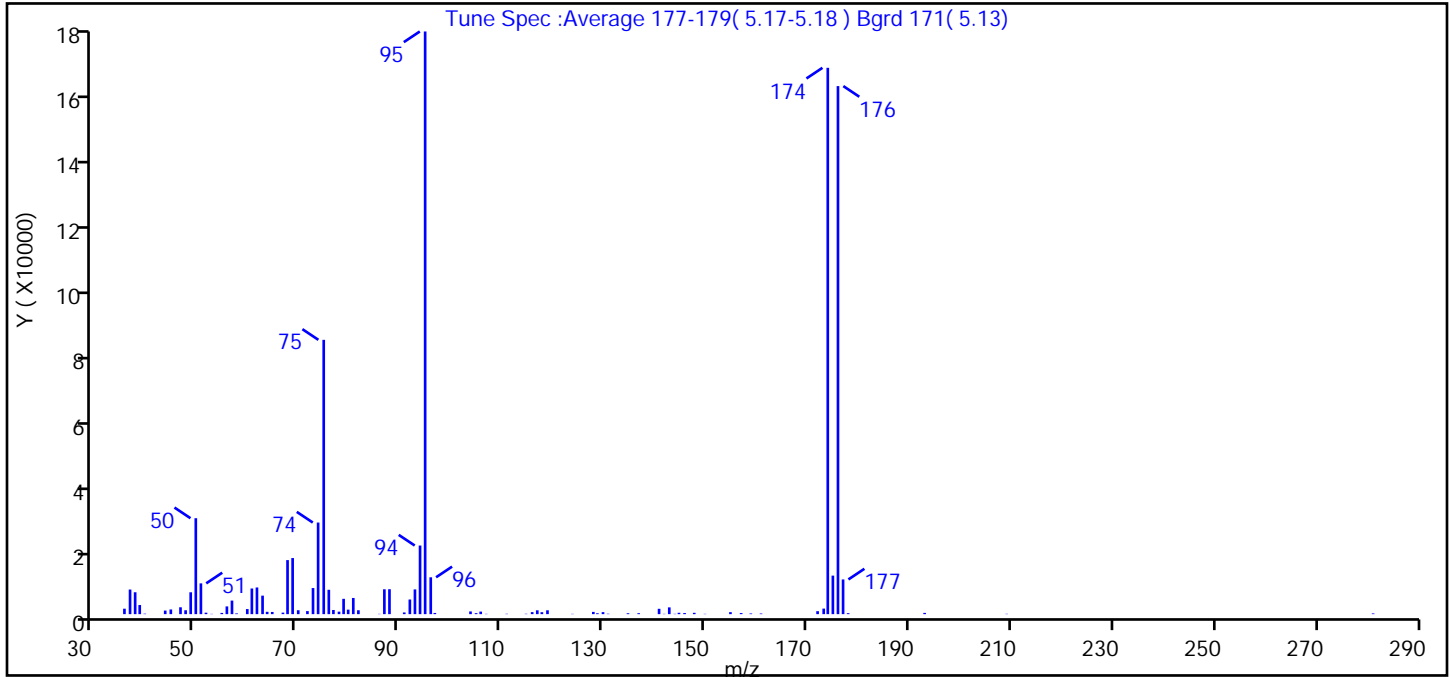
Reagents:

MSV_V_BFB_00007 Amount Added: 1.00 Units: uL

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220505-56480.b\IM05T01.D
 Injection Date: 05-May-2022 08:40:30 Instrument ID: 19930
 Lims ID: BFB
 Client ID:
 Operator ID: KNK41612 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 1.0 uL Dil. Factor: 1.0000
 Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
 Tune Method: BFB Method 8260

\$ 145 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	16.5
75	30 to 60% of m/z 95	47.1
96	5 to 9% of m/z 95	6.3
173	Less than 2% of m/z 174	1.0 (1.0)
174	50 to 120% of m/z 95	93.8
175	5 to 9% of m/z 174	6.6 (7.1)
176	Greater than 95% but less than 101% of m/z 174	90.6 (96.7)
177	5 to 9% of m/z 176	6.0 (6.6)

Data File: \\chromfs\Lancaster\ChromData\19930\20220505-56480.b\IM05T01.D\8260 25ml HP31.rsl\spectra.d
Injection Date: 05-May-2022 08:40:30
Spectrum: Tune Spec :Average 177-179(5.17-5.18) Bgrd 171(5.13)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 88

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1676	64.00	719	93.00	7625	141.00	1645
37.00	7587	65.00	674	94.00	21144	142.00	88
38.00	6747	67.00	466	95.00	179584	143.00	2085
39.00	2812	68.00	16656	96.00	11359	144.00	97
40.00	145	69.00	17288	97.00	368	145.00	419
44.00	1101	70.00	1206	104.00	831	146.00	339
45.00	1439	72.00	942	105.00	308	148.00	409
47.00	2117	73.00	8043	106.00	785	150.00	91
48.00	1195	74.00	28232	107.00	88	155.00	612
49.00	6738	75.00	84544	111.00	109	157.00	338
50.00	29568	76.00	7507	115.00	113	159.00	209
51.00	9488	77.00	1282	116.00	625	161.00	194
52.00	450	78.00	768	117.00	1185	172.00	915
53.00	84	79.00	4721	118.00	601	173.00	1708
55.00	381	80.00	1387	119.00	1187	174.00	168384
56.00	2383	81.00	4986	124.00	89	175.00	11874
57.00	4177	82.00	1198	128.00	693	176.00	162752
58.00	221	86.00	90	129.00	269	177.00	10694
60.00	1566	87.00	7664	130.00	618	178.00	295
61.00	7904	88.00	7683	131.00	125	193.00	384
62.00	8220	91.00	518	135.00	275	209.00	98
63.00	5702	92.00	4515	137.00	287	281.00	217

Report Date: 05-May-2022 11:03:54

Chrom Revision: 2.3 12-Apr-2022 20:29:44

Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220505-56480.b\IM05T01.D

Injection Date: 05-May-2022 08:40:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 1.0 uL

Dil. Factor: 1.0000

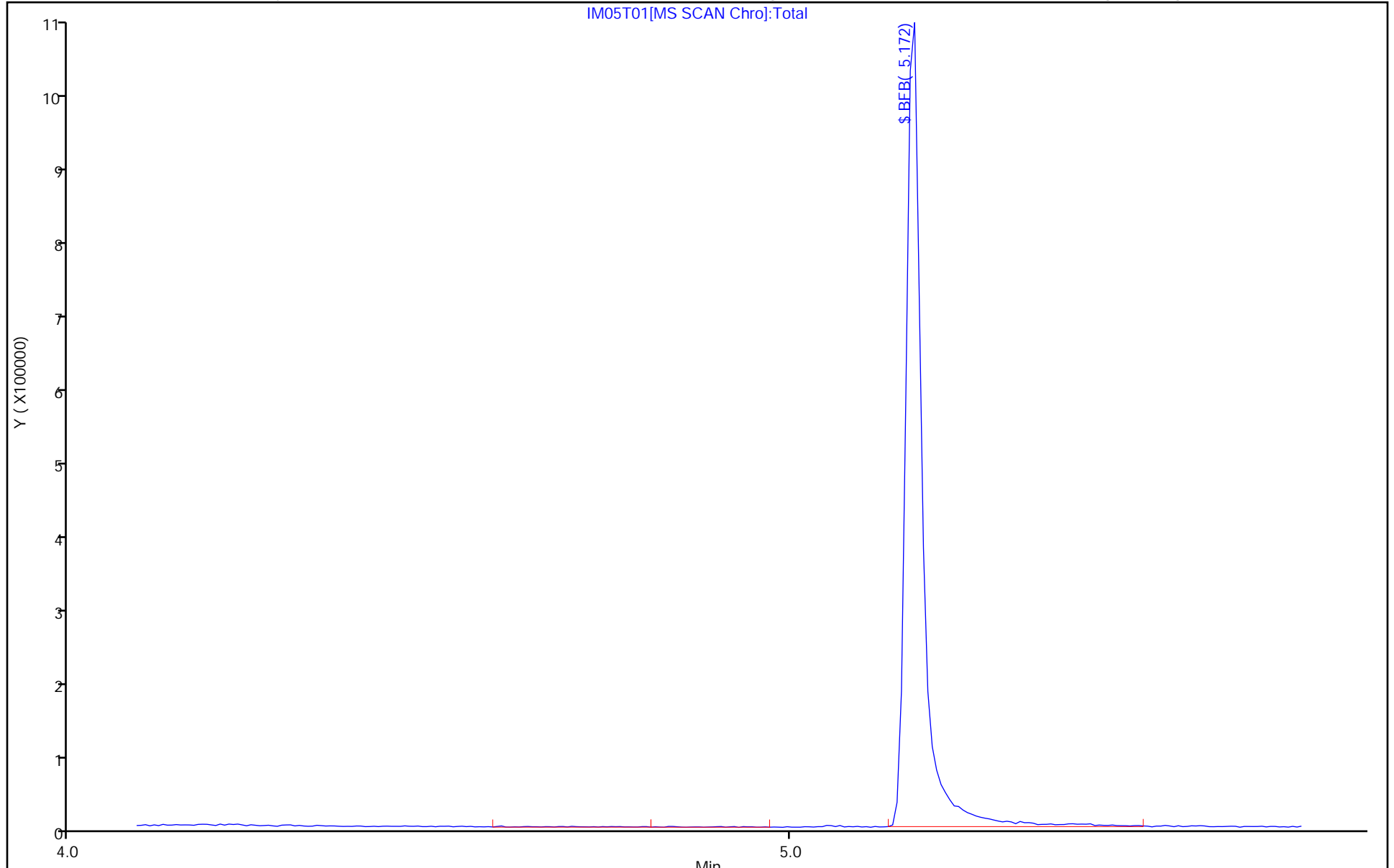
ALS Bottle#: 1

Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 410-250524/7
 Matrix: Water Lab File ID: IM02X06.D
 Analysis Method: 8260D Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 05/02/2022 11:09
 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.: 250524 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
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
79-01-6	Trichloroethene	ND		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 410-250524/7
 Matrix: Water Lab File ID: IM02X06.D
 Analysis Method: 8260D Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 05/02/2022 11:09
 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.: 250524 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
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)	106		80-120
460-00-4	4-Bromofluorobenzene (Surr)	95		80-120
1868-53-7	Dibromofluoromethane (Surr)	94		80-120
2037-26-5	Toluene-d8 (Surr)	104		80-120

Eurofins Lancaster Laboratories Environment Testing, LLC
 Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X06.D
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 02-May-2022 11:09:30 ALS Bottle#: 6 Worklist Smp#: 7
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0056183-007
 Misc. Info.: MB
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 03-May-2022 10:33:51 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1607

First Level Reviewer: kephartk Date: 02-May-2022 11:53:03

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85		1.965					ND	
2 Chlorodifluoromethane	51		1.971					ND	
3 Dimethyl ether	45		2.044					ND	
4 Chloromethane	50		2.166					ND	
6 Butadiene	39		2.282					ND	7
5 Vinyl chloride	62		2.282					ND	
7 Bromomethane	94		2.617					ND	
8 Chloroethane	64		2.696					ND	
9 Dichlorofluoromethane	67		2.928					ND	
10 Trichlorofluoromethane	101		3.007					ND	
11 Ethyl ether	59		3.245					ND	
12 1,2-Dichloro-1,1,2-trifluoroethane	67		3.330					ND	
13 Acrolein	56		3.416					ND	
14 1,1-Dichloroethene	96		3.556					ND	
15 Acetone	43	3.593	3.580	0.013	58	5769		0.5759	
16 112TCTFE	101		3.599					ND	
17 Iodomethane	142		3.751					ND	
18 Ethyl bromide	108		3.782					ND	
19 Carbon disulfide	76		3.861					ND	7
20 Acetonitrile	41		4.001					ND	
21 Methyl acetate	43		4.007					ND	
22 3-Chloro-1-propene	41		4.032					ND	
23 Methylene Chloride	84		4.221					ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.220	4.227	-0.007	26	184689	50.0	50.0	
25 2-Methyl-2-propanol	59		4.342					ND	
26 Acrylonitrile	53		4.556					ND	
27 Methyl tert-butyl ether	73		4.623					ND	
28 trans-1,2-Dichloroethene	96		4.641					ND	
29 Hexane	57		5.068					ND	7
31 1,1-Dichloroethane	63		5.294					ND	
30 Vinyl acetate	43		5.299					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
32 Isopropyl ether	45		5.354					ND	
33 2-Chloro-1,3-butadiene	53		5.409					ND	
34 Tert-butyl ethyl ether	59		5.885					ND	
36 2-Butanone (MEK)	43		6.086					ND	
37 cis-1,2-Dichloroethene	96		6.123					ND	
38 2,2-Dichloropropane	77		6.141					ND	
S 35 1,2-Dichloroethene, Total	100		6.155					ND	7
39 Ethyl acetate	43		6.165					ND	
40 Propionitrile	54		6.171					ND	
41 Methyl acrylate	55		6.220					ND	
42 Methacrylonitrile	67		6.391					ND	
43 Chlorobromomethane	128		6.458					ND	
44 Tetrahydrofuran	71		6.464					ND	
45 Chloroform	83		6.604					ND	
\$ 46 Dibromofluoromethane (Surr)	113	6.818	6.818	0.000	94	657445	10.0	9.41	
47 1,1,1-Trichloroethane	97		6.830					ND	
48 Cyclohexane	56		6.933					ND	
49 1-Chlorobutane	56		7.019					ND	
51 1,1-Dichloropropene	75		7.043					ND	
50 Carbon tetrachloride	117		7.043					ND	
52 Isobutyl alcohol	41		7.189					ND	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.269	7.263	0.006	68	131555	10.0	10.6	
54 Benzene	78		7.299					ND	
56 1,2-Dichloroethane	62		7.372					ND	
55 Isopropyl acetate	43		7.390					ND	
57 Tert-amyl methyl ether	73		7.488					ND	
* 58 Fluorobenzene (IS)	96	7.701	7.702	-0.001	99	2580525	10.0	10.0	
59 n-Heptane	43		7.714					ND	U
60 n-Butanol	56		8.061					ND	
61 Trichloroethene	95		8.183					ND	
62 Methylcyclohexane	83		8.488					ND	7
63 1,2-Dichloropropane	63		8.512					ND	
64 Methyl methacrylate	69		8.592					ND	
65 1,4-Dioxane	88		8.604					ND	
66 Dibromomethane	93		8.622					ND	
67 n-Propyl acetate	43		8.677					ND	
68 Dichlorobromomethane	83		8.854					ND	
69 2-Nitropropane	41		9.116					ND	
71 2-Chloroethyl vinyl ether	63		9.219					ND	
70 Chloroacetonitrile	75		9.226					ND	
72 1-Bromo-2-chloroethane	63		9.244					ND	
73 cis-1,3-Dichloropropene	75		9.396					ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.567					ND	
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	94	2501892	10.0	10.4	
76 Toluene	92		9.780					ND	
78 trans-1,3-Dichloropropene	75		10.036					ND	
S 77 1,3-Dichloropropene, Total	100		10.060					ND	7
79 Ethyl methacrylate	69		10.097					ND	
80 1,1,2-Trichloroethane	97		10.238					ND	
81 Tetrachloroethene	166		10.329					ND	
82 1,3-Dichloropropane	76		10.402					ND	
83 2-Hexanone	43		10.451					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
84 n-Butyl acetate	43		10.579					ND	
85 Chlorodibromomethane	129		10.616					ND	
86 Ethylene Dibromide	107		10.731					ND	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	86	1980030	10.0	10.0	
88 1-Chlorohexane	91		11.164					ND	7
90 Chlorobenzene	112		11.183					ND	
S 89 Xylenes, Total	106		11.245					ND	7
91 1,1,1,2-Tetrachloroethane	131		11.262					ND	
92 Ethylbenzene	91		11.268					ND	
93 m-Xylene & p-Xylene	106		11.384					ND	
94 o-Xylene	106		11.713					ND	
95 Styrene	104		11.725					ND	
96 Bromoform	173		11.884					ND	
97 Isopropylbenzene	105		12.012					ND	
98 cis-1,4-Dichloro-2-butene	88		12.060					ND	U
99 Cyclohexanone	55		12.097					ND	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	94	887361	10.0	9.50	
101 1,1,2,2-Tetrachloroethane	83		12.256					ND	
102 Bromobenzene	156		12.274					ND	
103 trans-1,4-Dichloro-2-butene	53		12.280					ND	
104 1,2,3-Trichloropropane	110		12.298					ND	
105 N-Propylbenzene	91		12.341					ND	
106 2-Chlorotoluene	126		12.414					ND	
107 1,3,5-Trimethylbenzene	105		12.475					ND	7
108 4-Chlorotoluene	126		12.506					ND	
109 tert-Butylbenzene	134		12.713					ND	7
110 Pentachloroethane	167		12.749					ND	
111 1,2,4-Trimethylbenzene	105		12.755					ND	7
112 sec-Butylbenzene	105		12.877					ND	7
113 1,3-Dichlorobenzene	146		12.981					ND	7
114 4-Isopropyltoluene	119		12.987					ND	7
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	95	1052569	10.0	10.0	
116 1,4-Dichlorobenzene	146		13.054					ND	7
117 1,2,3-Trimethylbenzene	120		13.060					ND	7
118 Benzyl chloride	126		13.127					ND	
119 n-Butylbenzene	92		13.280					ND	7
120 1,2-Dichlorobenzene	146		13.310					ND	
121 Hexachloroethane	117		13.542					ND	
122 1,2-Dibromo-3-Chloropropane	155		13.853					ND	
123 1,3,5-Trichlorobenzene	180		13.981					ND	7
124 1,2,4-Trichlorobenzene	180		14.401					ND	7
125 Hexachlorobutadiene	225	14.493	14.487	0.006	93	3475		0.0706	
126 Naphthalene	128		14.584					ND	7
127 1,2,3-Trichlorobenzene	180	14.755	14.725	0.030	90	3910		0.0411	
128 Dodecane	57		0.000					ND	
203 Propargyl alcohol TIC	1		0.000					ND	
202 1,3-Dichloro-2-propanol TIC	1		0.000					ND	
138 1,1-Dichloro-1-fluoroethane	1		0.000					ND	
137 2-Methylnaphthalene	142		0.000					ND	
135 p-Diethylbenzene	1		0.000					ND	
136 2-Chloro-1,1,1-Trifluoroethane	1		0.000					ND	
144 2-ethoxy-2-methyl butane	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
205 1,1-Dichloroacetone	1		0.000					ND	
143 n-Decane	57		0.000					ND	
139 1-Bromo-3-Chloropropane	1		0.000					ND	
210 Hexachloroethane TIC	1		0.000					ND	
204 Pentane	43		0.000					ND	
130 Chlorotrifluoroethene	1		0.000					ND	
207 Acetonitrile TIC	1		0.000					ND	
129 Propene oxide	1		0.000					ND	
141 1-Chloropropane	1		0.000					ND	
134 Isopropyl alcohol	45		0.000					ND	
133 t-Amyl alcohol	1		0.000					ND	
132 Methylal	1		0.000					ND	
131 tert-Butyl Formate	1		0.000					ND	
142 2-Bromo-1-chloropropane	1		0.000					ND	
206 Pentachloroethane TIC	1		0.000					ND	
140 Ethanol	45		3.269					ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

Reagents:

MSV_LLcentISS_00004

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X06.D

Injection Date: 02-May-2022 11:09:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: MB

Worklist Smp#: 7

Client ID:

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

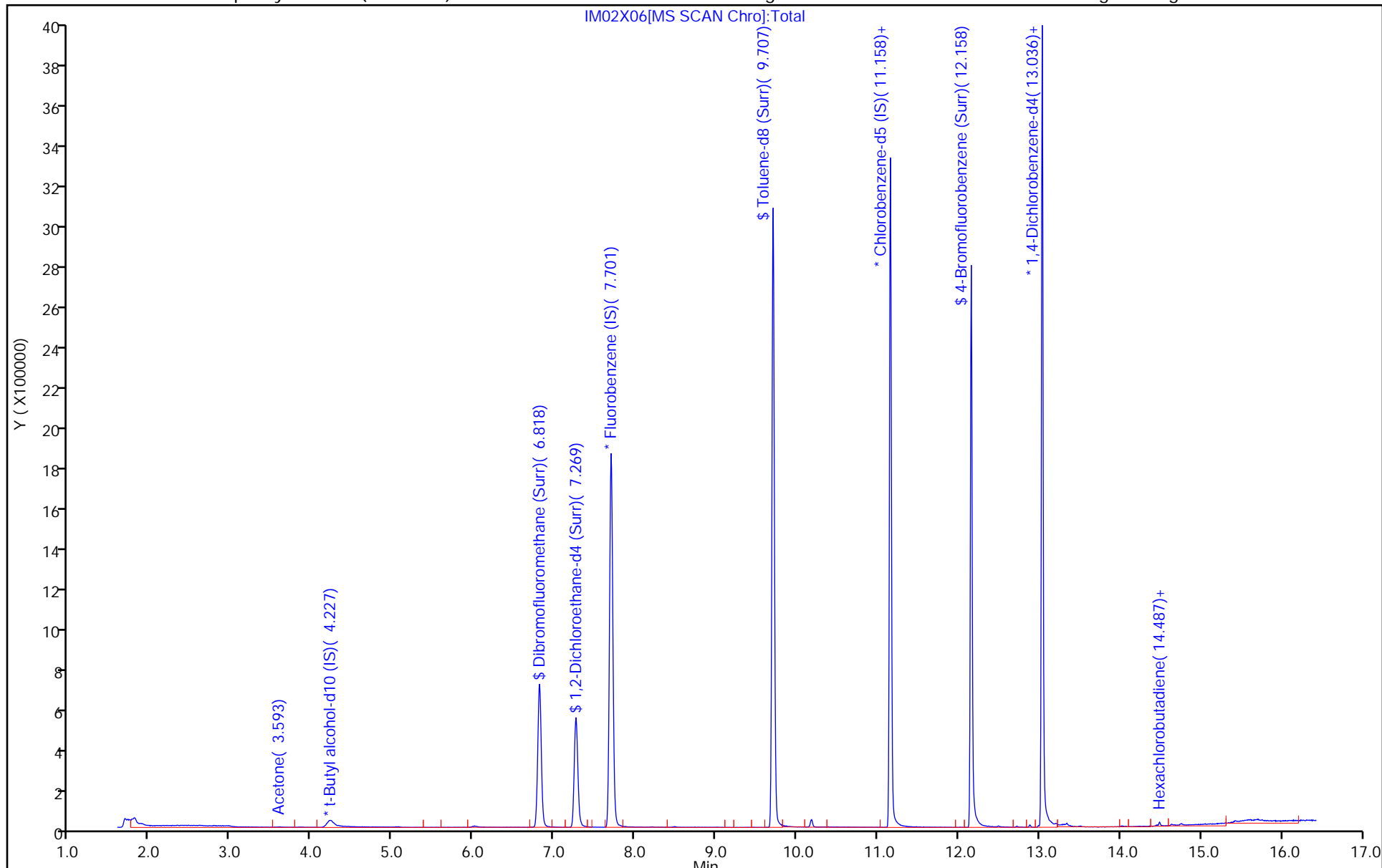
ALS Bottle#: 6

Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Environment Testing, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X06.D
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 02-May-2022 11:09:30 ALS Bottle#: 6 Worklist Smp#: 7
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0056183-007
 Misc. Info.: MB
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 03-May-2022 10:33:51 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1607

First Level Reviewer: kephartk

Date: 02-May-2022 11:53:03

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.41	94.12
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.6	105.72
\$ 75 Toluene-d8 (Surr)	10.0	10.4	103.83
\$ 100 4-Bromofluorobenzene (Surr)	10.0	9.50	94.96

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 410-251841/6
 Matrix: Water Lab File ID: IM05X05.D
 Analysis Method: 8260D Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 05/05/2022 10:17
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 251841 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
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
79-01-6	Trichloroethene	ND		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 410-251841/6
 Matrix: Water Lab File ID: IM05X05.D
 Analysis Method: 8260D Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 05/05/2022 10:17
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: R-624SilMS 30m ID: 0.25 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 251841 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
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
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	93		80-120
2037-26-5	Toluene-d8 (Surr)	105		80-120

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220505-56480.b\IM05X05.D
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 05-May-2022 10:17:30 ALS Bottle#: 5 Worklist Smp#: 6
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0056480-006
 Misc. Info.: MB
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220505-56480.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 06-May-2022 09:45:06 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1636

First Level Reviewer: kephartk

Date: 05-May-2022 11:03:31

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					ND	
2 Chlorodifluoromethane	51		1.971					ND	
3 Dimethyl ether	45		2.044					ND	
4 Chloromethane	50		2.160					ND	
5 Vinyl chloride	62		2.276					ND	
6 Butadiene	39		2.282					ND	7
7 Bromomethane	94		2.611					ND	
8 Chloroethane	64		2.690					ND	
9 Dichlorofluoromethane	67		2.928					ND	
10 Trichlorofluoromethane	101		3.007					ND	
11 Ethyl ether	59		3.251					ND	
12 1,2-Dichloro-1,1,2-trifluoroethane	67		3.330					ND	
13 Acrolein	56		3.416					ND	7
14 1,1-Dichloroethene	96		3.556					ND	
15 Acetone	43		3.586					ND	7
16 112TCTFE	101		3.599					ND	
17 Iodomethane	142		3.751					ND	
18 Ethyl bromide	108		3.781					ND	
19 Carbon disulfide	76		3.861					ND	7
20 Acetonitrile	41		4.001					ND	
21 Methyl acetate	43		4.007					ND	
22 3-Chloro-1-propene	41		4.038					ND	
23 Methylene Chloride	84		4.227					ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.239	4.233	0.006	24	199763	50.0	50.0	
25 2-Methyl-2-propanol	59		4.348					ND	
26 Acrylonitrile	53		4.562					ND	
27 Methyl tert-butyl ether	73		4.629					ND	
28 trans-1,2-Dichloroethene	96		4.641					ND	
29 Hexane	57		5.068					ND	7
30 Vinyl acetate	43		5.299					ND	
31 1,1-Dichloroethane	63		5.299					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
32 Isopropyl ether	45		5.354					ND	
33 2-Chloro-1,3-butadiene	53		5.409					ND	
34 Tert-butyl ethyl ether	59		5.891					ND	
36 2-Butanone (MEK)	43		6.086					ND	
37 cis-1,2-Dichloroethene	96		6.129					ND	
38 2,2-Dichloropropane	77		6.141					ND	
S 35 1,2-Dichloroethene, Total	100		6.155					ND	7
39 Ethyl acetate	43		6.165					ND	
40 Propionitrile	54		6.171					ND	
41 Methyl acrylate	55		6.220					ND	
42 Methacrylonitrile	67		6.391					ND	
43 Chlorobromomethane	128		6.458					ND	
44 Tetrahydrofuran	71		6.470					ND	
45 Chloroform	83		6.604					ND	
\$ 46 Dibromofluoromethane (Surr)	113	6.824	6.817	0.007	94	645924	10.0	9.29	
47 1,1,1-Trichloroethane	97		6.836					ND	
48 Cyclohexane	56		6.933					ND	
49 1-Chlorobutane	56		7.019					ND	
51 1,1-Dichloropropene	75		7.043					ND	
50 Carbon tetrachloride	117		7.043					ND	
52 Isobutyl alcohol	41		7.183					ND	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.269	7.269	0.000	68	132927	10.0	10.7	
54 Benzene	78		7.305					ND	
56 1,2-Dichloroethane	62		7.372					ND	
55 Isopropyl acetate	43		7.390					ND	
57 Tert-amyl methyl ether	73		7.494					ND	
* 58 Fluorobenzene (IS)	96	7.708	7.701	0.007	99	2569783	10.0	10.0	
59 n-Heptane	43		7.720					ND	U
60 n-Butanol	56		8.061					ND	
61 Trichloroethene	95		8.183					ND	
62 Methylcyclohexane	83		8.494					ND	7
63 1,2-Dichloropropane	63		8.512					ND	
64 Methyl methacrylate	69		8.592					ND	
65 1,4-Dioxane	88		8.604					ND	
66 Dibromomethane	93		8.622					ND	
67 n-Propyl acetate	43		8.677					ND	
68 Dichlorobromomethane	83		8.854					ND	
69 2-Nitropropane	41		9.116					ND	
71 2-Chloroethyl vinyl ether	63		9.219					ND	
70 Chloroacetonitrile	75		9.226					ND	
72 1-Bromo-2-chloroethane	63		9.250					ND	
73 cis-1,3-Dichloropropene	75		9.402					ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.567					ND	
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	94	2515738	10.0	10.5	
76 Toluene	92		9.780					ND	
78 trans-1,3-Dichloropropene	75		10.036					ND	
S 77 1,3-Dichloropropene, Total	100		10.060					ND	7
79 Ethyl methacrylate	69		10.097					ND	
80 1,1,2-Trichloroethane	97		10.238					ND	
81 Tetrachloroethene	166		10.329					ND	
82 1,3-Dichloropropane	76		10.402					ND	
83 2-Hexanone	43		10.451					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
84 n-Butyl acetate	43		10.579					ND	
85 Chlorodibromomethane	129		10.616					ND	
86 Ethylene Dibromide	107		10.731					ND	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	86	1965597	10.0	10.0	
88 1-Chlorohexane	91		11.164					ND	7
90 Chlorobenzene	112		11.182					ND	
S 89 Xylenes, Total	106		11.245					ND	7
91 1,1,1,2-Tetrachloroethane	131		11.268					ND	
92 Ethylbenzene	91		11.268					ND	
93 m-Xylene & p-Xylene	106		11.384					ND	
94 o-Xylene	106		11.713					ND	
95 Styrene	104		11.725					ND	
96 Bromoform	173		11.884					ND	
97 Isopropylbenzene	105		12.012					ND	
98 cis-1,4-Dichloro-2-butene	88		12.060					ND	U
99 Cyclohexanone	55		12.097					ND	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	93	901405	10.0	9.72	
101 1,1,2,2-Tetrachloroethane	83		12.255					ND	
102 Bromobenzene	156		12.274					ND	
103 trans-1,4-Dichloro-2-butene	53		12.280					ND	
104 1,2,3-Trichloropropane	110		12.298					ND	
105 N-Propylbenzene	91		12.341					ND	
106 2-Chlorotoluene	126		12.414					ND	
107 1,3,5-Trimethylbenzene	105		12.475					ND	
108 4-Chlorotoluene	126		12.505					ND	
109 tert-Butylbenzene	134		12.719					ND	7
110 Pentachloroethane	167		12.749					ND	
111 1,2,4-Trimethylbenzene	105		12.755					ND	7
112 sec-Butylbenzene	105		12.877					ND	7
113 1,3-Dichlorobenzene	146		12.981					ND	
114 4-Isopropyltoluene	119		12.987					ND	7
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	1083807	10.0	10.0	
116 1,4-Dichlorobenzene	146		13.054					ND	7
117 1,2,3-Trimethylbenzene	120		13.060					ND	7
118 Benzyl chloride	126		13.127					ND	7
119 n-Butylbenzene	92		13.280					ND	7
120 1,2-Dichlorobenzene	146		13.310					ND	
121 Hexachloroethane	117		13.542					ND	
122 1,2-Dibromo-3-Chloropropane	155		13.853					ND	
123 1,3,5-Trichlorobenzene	180		13.981					ND	7
124 1,2,4-Trichlorobenzene	180		14.401					ND	7
125 Hexachlorobutadiene	225	14.487	14.487	0.000	90	2607		0.0514	
126 Naphthalene	128		14.584					ND	7
127 1,2,3-Trichlorobenzene	180	14.749	14.724	0.025	84	3905		0.0399	
128 Dodecane	57		0.000					ND	
137 2-Methylnaphthalene	142		0.000					ND	
135 p-Diethylbenzene	1		0.000					ND	
136 2-Chloro-1,1,1-Trifluoroethane	1		0.000					ND	
144 2-ethoxy-2-methyl butane	1		0.000					ND	
205 1,1-Dichloroacetone	1		0.000					ND	
143 n-Decane	57		0.000					ND	
139 1-Bromo-3-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
210 Hexachloroethane TIC	1		0.000					ND	
203 Propargyl alcohol TIC	1		0.000					ND	
202 1,3-Dichloro-2-propanol TIC	1		0.000					ND	
138 1,1-Dichloro-1-fluoroethane	1		0.000					ND	
131 tert-Butyl Formate	1		0.000					ND	
142 2-Bromo-1-chloropropane	1		0.000					ND	
206 Pentachloroethane TIC	1		0.000					ND	
204 Pentane	43		0.000					ND	
130 Chlorotrifluoroethene	1		0.000					ND	
207 Acetonitrile TIC	1		0.000					ND	
129 Propene oxide	1		0.000					ND	
141 1-Chloropropane	1		0.000					ND	
134 Isopropyl alcohol	45		0.000					ND	
133 t-Amyl alcohol	1		0.000					ND	
132 Methylal	1		0.000					ND	
140 Ethanol	45		3.269					ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

Reagents:

MSV_LLcentISS_00004

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220505-56480.b\IM05X05.D

Injection Date: 05-May-2022 10:17:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: MB

Worklist Smp#: 6

Client ID:

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

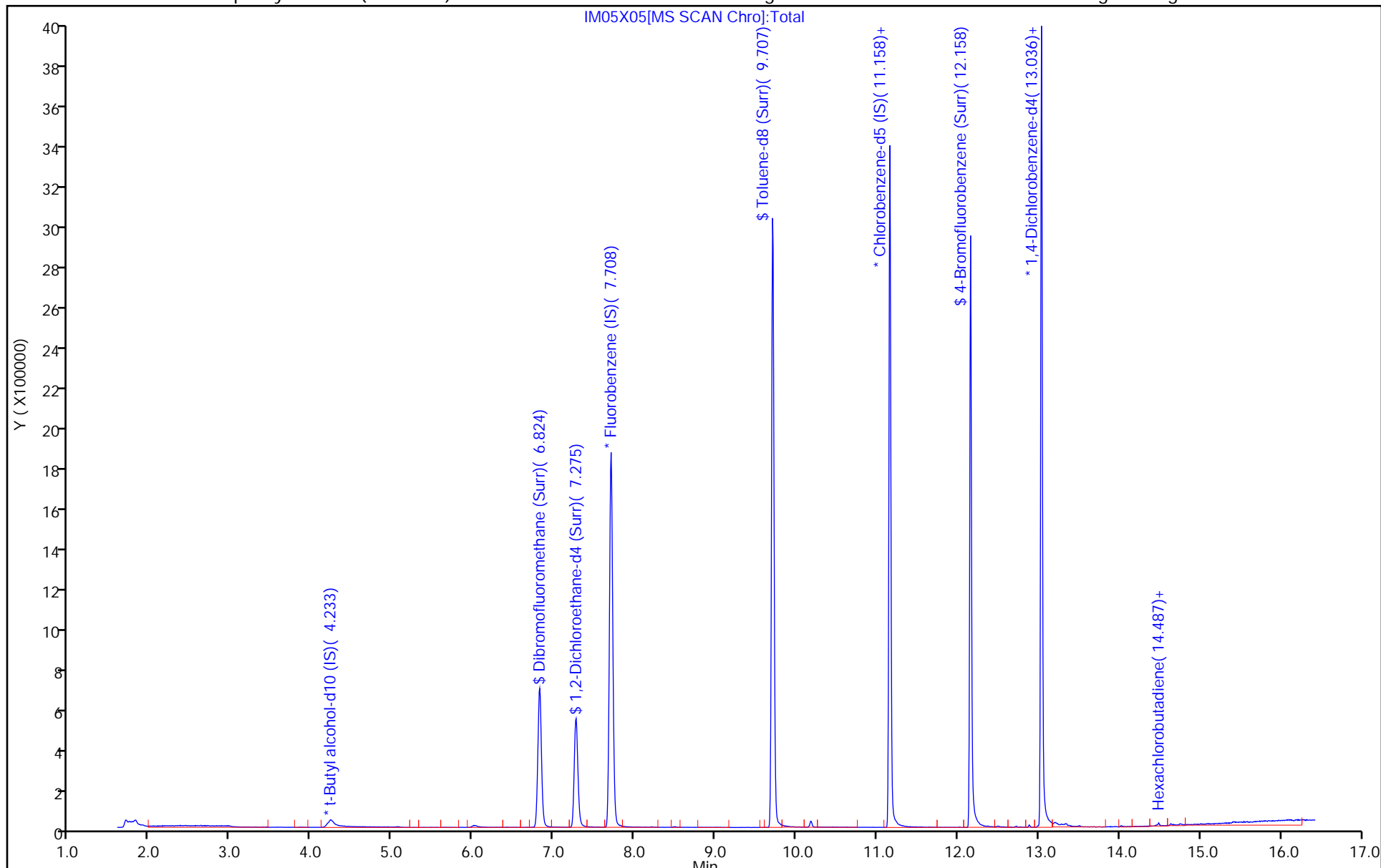
ALS Bottle#: 5

Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Environment Testing, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220505-56480.b\IM05X05.D
 Lims ID: MB
 Client ID:
 Sample Type: MB
 Inject. Date: 05-May-2022 10:17:30 ALS Bottle#: 5 Worklist Smp#: 6
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0056480-006
 Misc. Info.: MB
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220505-56480.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 06-May-2022 09:45:06 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1636

First Level Reviewer: kephartk

Date: 05-May-2022 11:03:31

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.29	92.85
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.7	107.27
\$ 75 Toluene-d8 (Surr)	10.0	10.5	105.17
\$ 100 4-Bromofluorobenzene (Surr)	10.0	9.72	97.17

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 410-250524/4
 Matrix: Water Lab File ID: IM02X03.D
 Analysis Method: 8260D Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 05/02/2022 10:06
 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.: 250524 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.28		0.50	0.070
71-55-6	1,1,1-Trichloroethane	4.94		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	6.53		0.50	0.070
79-00-5	1,1,2-Trichloroethane	5.93		0.50	0.060
75-34-3	1,1-Dichloroethane	5.44		0.50	0.070
75-35-4	1,1-Dichloroethene	5.32		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	5.68		0.50	0.060
107-06-2	1,2-Dichloroethane	5.42		0.50	0.050
78-87-5	1,2-Dichloropropane	5.81		0.50	0.060
78-93-3	2-Butanone (MEK)	74.3		5.0	0.60
591-78-6	2-Hexanone	77.4		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	71.7		5.0	0.70
67-64-1	Acetone	66.2		5.0	0.90
71-43-2	Benzene	5.57		0.50	0.050
74-97-5	Bromochloromethane	4.82		0.50	0.050
75-27-4	Bromodichloromethane	5.41		0.50	0.050
75-25-2	Bromoform	5.47		1.0	0.30
74-83-9	Bromomethane	3.50		0.50	0.070
75-15-0	Carbon disulfide	6.61		1.0	0.060
56-23-5	Carbon tetrachloride	4.74		0.50	0.070
108-90-7	Chlorobenzene	5.36		0.50	0.060
75-00-3	Chloroethane	4.07		0.50	0.070
67-66-3	Chloroform	5.11		0.50	0.090
74-87-3	Chloromethane	4.35		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	5.07		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	5.25		0.50	0.050
124-48-1	Dibromochloromethane	5.43		0.50	0.070
100-41-4	Ethylbenzene	5.75		0.50	0.060
1634-04-4	Methyl tert-butyl ether	5.35		0.50	0.050
75-09-2	Methylene Chloride	5.48		0.50	0.070
100-42-5	Styrene	5.55		0.50	0.050
127-18-4	Tetrachloroethene	4.85		0.50	0.060
108-88-3	Toluene	5.83		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	5.09		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	6.23		0.50	0.060
79-01-6	Trichloroethene	5.00		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 410-250524/4
 Matrix: Water Lab File ID: IM02X03.D
 Analysis Method: 8260D Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 05/02/2022 10:06
 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.: 250524 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	4.09		0.50	0.10
1330-20-7	Xylenes, Total	16.2		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		80-120
460-00-4	4-Bromofluorobenzene (Surr)	100		80-120
1868-53-7	Dibromofluoromethane (Surr)	92		80-120
2037-26-5	Toluene-d8 (Surr)	107		80-120

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X03.D
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 02-May-2022 10:06:30 ALS Bottle#: 3 Worklist Smp#: 4
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0056183-004
 Misc. Info.: LCS
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 03-May-2022 10:31:35 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1607

First Level Reviewer: kephartk

Date: 02-May-2022 10:31:40

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.965	1.965	0.000	99	330601	5.00	3.53	
4 Chloromethane	50	2.166	2.166	0.000	99	420391	5.00	4.35	
6 Butadiene	39	2.282	2.282	0.000	91	404383	5.00	4.05	
5 Vinyl chloride	62	2.282	2.282	0.000	98	417565	5.00	4.09	
7 Bromomethane	94	2.611	2.617	-0.006	92	296036	5.00	3.50	
8 Chloroethane	64	2.690	2.696	-0.006	100	252432	5.00	4.07	
9 Dichlorofluoromethane	67	2.928	2.928	0.000	97	648367	5.00	4.15	
10 Trichlorofluoromethane	101	3.007	3.007	0.000	98	575825	5.00	3.80	
11 Ethyl ether	59	3.251	3.245	0.006	91	159299	4.97	3.80	
12 1,2-Dichloro-1,1,2-trifluoroethane	67	3.330	3.330	0.000	92	447708	5.00	5.14	
13 Acrolein	56	3.422	3.416	0.006	99	288647	37.5	38.1	
14 1,1-Dichloroethene	96	3.556	3.556	0.000	98	350336	5.00	5.32	
15 Acetone	43	3.586	3.580	0.006	100	678022	62.5	66.2	M
16 112TCTFE	101	3.605	3.599	0.006	91	353992	5.00	5.12	
17 Iodomethane	142	3.757	3.751	0.006	100	647775	5.00	4.80	
18 Ethyl bromide	108	3.781	3.782	-0.001	99	286321	4.99	4.55	
19 Carbon disulfide	76	3.861	3.861	0.000	99	976896	5.00	6.61	
21 Methyl acetate	43	4.013	4.007	0.006	98	140010	5.00	5.59	
22 3-Chloro-1-propene	41	4.037	4.032	0.005	92	584912	5.00	6.27	
23 Methylene Chloride	84	4.226	4.221	0.005	93	377700	5.00	5.48	
* 24 t-Butyl alcohol-d10 (IS)	65	4.226	4.227	-0.001	94	188797	50.0	50.0	M
25 2-Methyl-2-propanol	59	4.354	4.342	0.012	99	163541	50.0	43.3	
26 Acrylonitrile	53	4.562	4.556	0.006	99	385171	25.0	32.0	
27 Methyl tert-butyl ether	73	4.635	4.623	0.012	96	920869	5.00	5.35	
28 trans-1,2-Dichloroethene	96	4.647	4.641	0.006	99	380406	5.00	5.09	
29 Hexane	57	5.068	5.068	0.000	93	484634	5.00	5.35	
31 1,1-Dichloroethane	63	5.299	5.294	0.005	96	695905	5.00	5.44	
32 Isopropyl ether	45	5.360	5.354	0.006	93	1188733	5.00	5.95	
33 2-Chloro-1,3-butadiene	53	5.409	5.409	0.000	91	603073	5.00	5.79	
34 Tert-butyl ethyl ether	59	5.891	5.885	0.006	97	1116274	5.00	5.49	
36 2-Butanone (MEK)	43	6.092	6.086	0.006	100	1319517	62.5	74.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
37 cis-1,2-Dichloroethene	96	6.129	6.123	0.005	82	432924	5.00	5.07	
38 2,2-Dichloropropane	77	6.135	6.141	-0.006	88	618927	5.00	5.22	
40 Propionitrile	54	6.177	6.171	0.006	99	201902	37.5	44.4	
42 Methacrylonitrile	67	6.397	6.391	0.006	92	768064	37.5	42.3	
43 Chlorobromomethane	128	6.458	6.458	0.000	93	188605	5.00	4.82	
44 Tetrahydrofuran	71	6.470	6.464	0.006	83	150218	25.0	29.9	
45 Chloroform	83	6.610	6.604	0.006	93	703704	5.00	5.11	
\$ 46 Dibromofluoromethane (Surr)	113	6.817	6.818	-0.001	94	625864	10.0	9.20	
47 1,1,1-Trichloroethane	97	6.836	6.830	0.006	98	660424	5.00	4.94	
48 Cyclohexane	56	6.933	6.933	0.000	91	615895	5.00	5.48	
51 1,1-Dichloropropene	75	7.043	7.043	0.000	95	556288	5.00	5.40	
50 Carbon tetrachloride	117	7.043	7.043	0.000	96	585107	5.00	4.74	
52 Isobutyl alcohol	41	7.189	7.189	0.000	93	204305	125.0	160.2	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.275	7.263	0.012	95	123974	10.0	10.2	
54 Benzene	78	7.305	7.299	0.006	97	1648956	5.00	5.57	
56 1,2-Dichloroethane	62	7.378	7.372	0.006	97	446860	5.00	5.42	
57 Tert-amyl methyl ether	73	7.494	7.488	0.006	98	997111	5.00	5.26	
* 58 Fluorobenzene (IS)	96	7.707	7.702	0.005	99	2511886	10.0	10.0	
59 n-Heptane	43	7.720	7.714	0.006	92	518652	5.00	5.36	
60 n-Butanol	56	8.067	8.061	0.006	91	367090	250.0	364.0	
61 Trichloroethene	95	8.183	8.183	0.000	98	424838	5.00	5.00	
62 Methylcyclohexane	83	8.494	8.488	0.006	94	659600	5.00	4.86	
63 1,2-Dichloropropane	63	8.512	8.512	0.000	90	412237	5.00	5.81	
64 Methyl methacrylate	69	8.591	8.592	-0.001	92	185869	5.00	5.40	
65 1,4-Dioxane	88	8.604	8.604	0.000	31	42399	125.0	163.1	M
66 Dibromomethane	93	8.628	8.622	0.006	93	192578	5.00	4.91	
68 Dichlorobromomethane	83	8.854	8.854	0.000	99	506369	5.00	5.41	
69 2-Nitropropane	41	9.122	9.116	0.006	97	55409	5.00	5.18	
72 1-Bromo-2-chloroethane	63	9.250	9.244	0.006	99	393354	5.00	5.86	
73 cis-1,3-Dichloropropene	75	9.402	9.396	0.006	96	579270	5.00	5.25	
74 4-Methyl-2-pentanone (MIBK)	43	9.567	9.567	0.000	97	3367302	62.5	71.7	
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	93	2484332	10.0	10.7	
76 Toluene	92	9.786	9.780	0.006	98	1052844	5.00	5.83	
78 trans-1,3-Dichloropropene	75	10.036	10.036	0.000	93	505815	5.00	6.23	
79 Ethyl methacrylate	69	10.097	10.097	0.000	90	390164	5.00	6.20	
80 1,1,2-Trichloroethane	97	10.237	10.238	-0.001	91	293525	5.00	5.93	
81 Tetrachloroethene	166	10.329	10.329	0.000	99	504295	5.00	4.85	
82 1,3-Dichloropropane	76	10.402	10.402	0.000	90	484434	5.00	6.09	
83 2-Hexanone	43	10.451	10.451	0.000	96	2440750	62.5	77.4	
85 Chlorodibromomethane	129	10.615	10.616	-0.001	89	364439	5.00	5.43	
86 Ethylene Dibromide	107	10.731	10.731	0.000	98	273218	5.00	5.68	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	86	1914917	10.0	10.0	
88 1-Chlorohexane	91	11.164	11.164	0.000	98	566299	5.00	5.17	
90 Chlorobenzene	112	11.182	11.183	-0.001	95	1146425	5.00	5.36	
91 1,1,1,2-Tetrachloroethane	131	11.268	11.262	0.006	96	417253	5.00	5.28	
92 Ethylbenzene	91	11.268	11.268	0.000	98	2054643	5.00	5.75	
93 m-Xylene & p-Xylene	106	11.384	11.384	0.000	99	1600451	10.0	10.9	
94 o-Xylene	106	11.713	11.713	0.000	96	762386	5.00	5.29	
95 Styrene	104	11.725	11.725	0.000	95	1244047	5.00	5.55	
96 Bromoform	173	11.883	11.884	-0.001	98	226196	5.00	5.47	
97 Isopropylbenzene	105	12.012	12.012	0.000	96	2084328	5.00	5.54	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	94	903908	10.0	10.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
101 1,1,2,2-Tetrachloroethane	83	12.255	12.256	-0.001	94	370704	5.00	6.53	
102 Bromobenzene	156	12.274	12.274	0.000	96	500451	5.00	5.54	
103 trans-1,4-Dichloro-2-butene	53	12.280	12.280	0.000	92	446973	25.0	26.4	
104 1,2,3-Trichloropropane	110	12.298	12.298	0.000	82	100726	5.00	5.99	
105 N-Propylbenzene	91	12.341	12.341	0.000	99	2442415	5.00	6.20	
106 2-Chlorotoluene	126	12.414	12.414	0.000	96	480968	5.00	5.55	
107 1,3,5-Trimethylbenzene	105	12.475	12.475	0.000	94	1717936	5.00	5.89	
108 4-Chlorotoluene	126	12.511	12.506	0.005	97	484222	5.00	5.47	
109 tert-Butylbenzene	134	12.713	12.713	0.000	93	358957	5.00	5.11	
111 1,2,4-Trimethylbenzene	105	12.755	12.755	0.000	98	1747362	5.00	5.94	
112 sec-Butylbenzene	105	12.877	12.877	0.000	94	2232487	5.00	6.00	
113 1,3-Dichlorobenzene	146	12.981	12.981	0.000	98	955182	5.00	5.43	
114 4-Isopropyltoluene	119	12.987	12.987	0.000	97	1919614	5.00	5.73	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	1073542	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.054	13.054	0.000	94	972070	5.00	5.41	
117 1,2,3-Trimethylbenzene	120	13.060	13.060	0.000	99	753952	5.00	5.55	
118 Benzyl chloride	126	13.133	13.127	0.006	99	141311	5.00	6.15	
119 n-Butylbenzene	92	13.280	13.280	0.000	97	886610	5.00	5.96	
120 1,2-Dichlorobenzene	146	13.310	13.310	0.000	98	889445	5.00	5.55	
122 1,2-Dibromo-3-Chloropropane	155	13.853	13.853	0.000	87	56991	5.00	6.27	
123 1,3,5-Trichlorobenzene	180	13.981	13.981	0.000	98	701421	5.00	5.34	
124 1,2,4-Trichlorobenzene	180	14.401	14.401	0.000	94	596614	5.00	5.39	
125 Hexachlorobutadiene	225	14.487	14.487	0.000	96	246157	5.00	4.90	
126 Naphthalene	128	14.584	14.584	0.000	97	1148222	5.00	6.06	
127 1,2,3-Trichlorobenzene	180	14.724	14.725	-0.001	95	540501	5.00	5.58	
137 2-Methylnaphthalene	142		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	
134 Isopropyl alcohol	45		0.000				ND	ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MSV_LCS_EE_00002	Amount Added: 12.50	Units: uL	
MSV_LCS_ETBR_00001	Amount Added: 12.50	Units: uL	
MSV_LCS_ACROL_00055	Amount Added: 12.50	Units: uL	
MSV_QC_Gas826_00078	Amount Added: 12.50	Units: uL	
MSV_LCS_VOC#1_00052	Amount Added: 12.50	Units: uL	
MSV_LLcentISS_00004	Amount Added: 5.00	Units: uL	Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X03.D

Injection Date: 02-May-2022 10:06:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: LCS

Worklist Smp#: 4

Client ID:

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

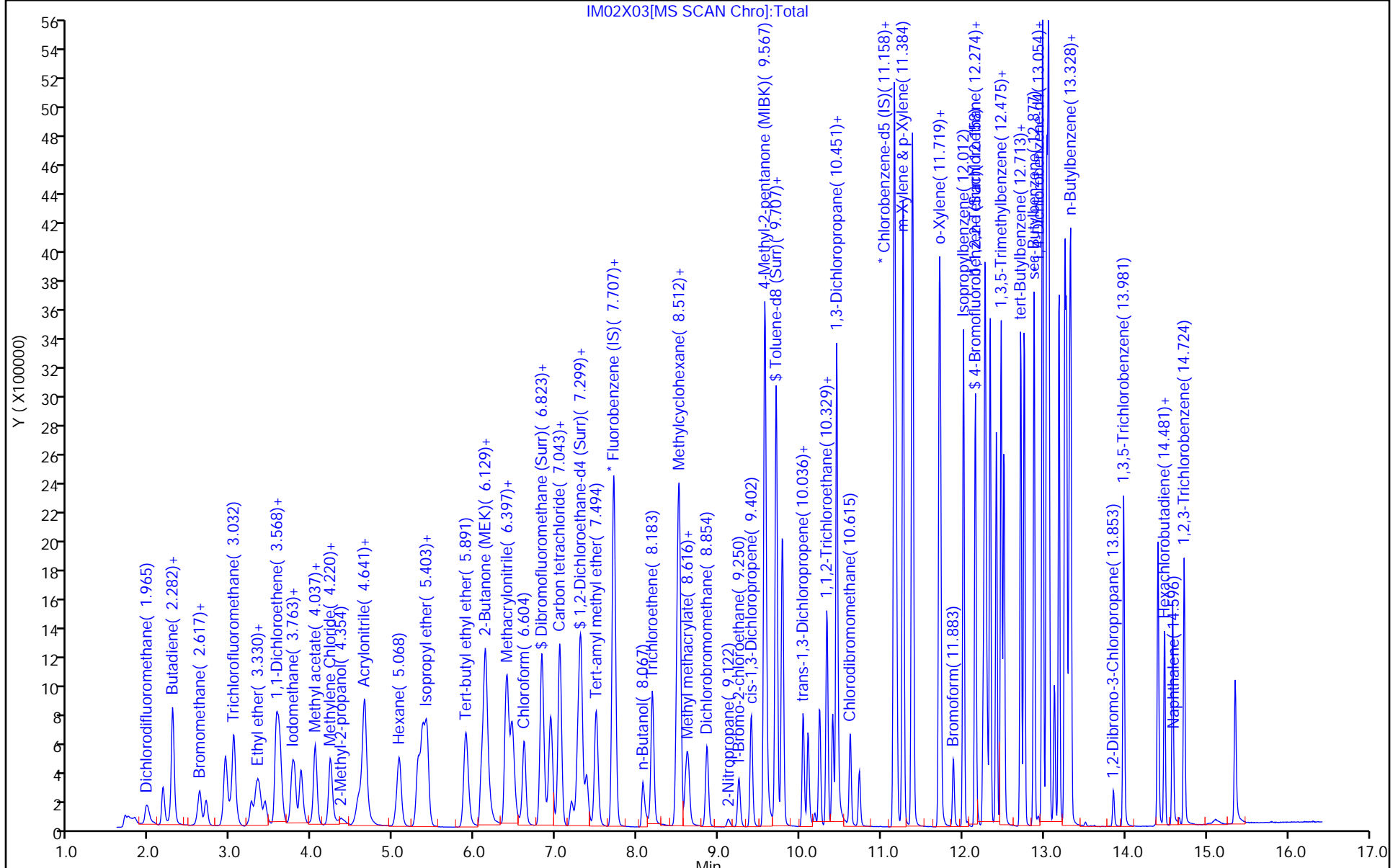
ALS Bottle#: 3

Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Environment Testing, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X03.D
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 02-May-2022 10:06:30 ALS Bottle#: 3 Worklist Smp#: 4
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0056183-004
 Misc. Info.: LCS
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 03-May-2022 10:31:35 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1607

First Level Reviewer: kephartk Date: 02-May-2022 10:31:40

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.20	92.04
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.2	102.35
\$ 75 Toluene-d8 (Surr)	10.0	10.7	106.61
\$ 100 4-Bromofluorobenzene (Surr)	10.0	10.0	100.02

Eurofins Lancaster Laboratories Environment Testing, LLC

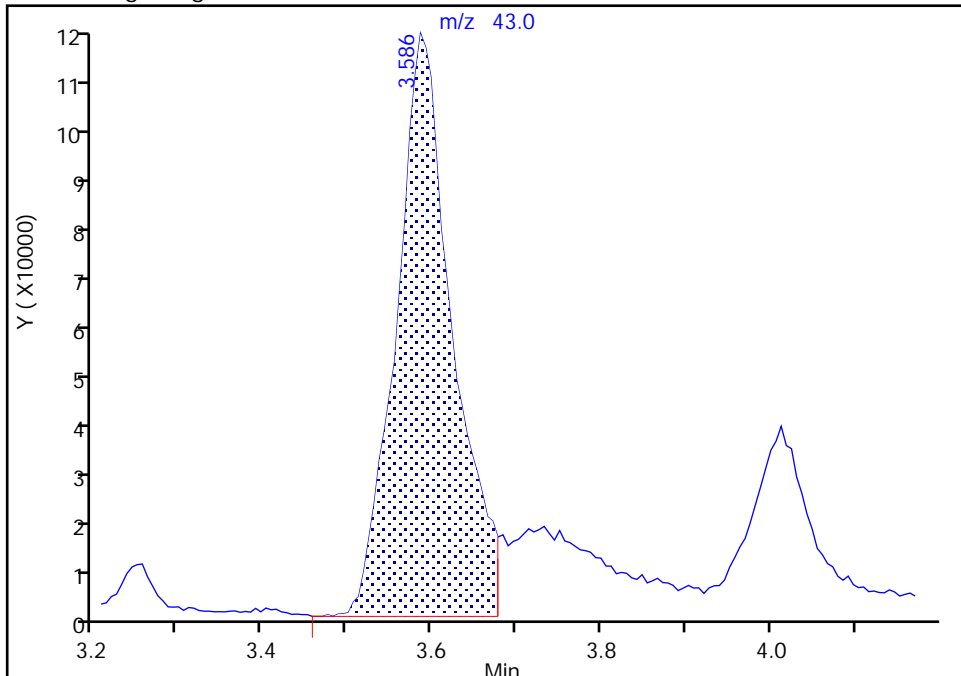
Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X03.D
Injection Date: 02-May-2022 10:06:30 Instrument ID: 19930
Lims ID: LCS
Client ID:
Operator ID: KNK41612 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

15 Acetone, CAS: 67-64-1

Signal: 1

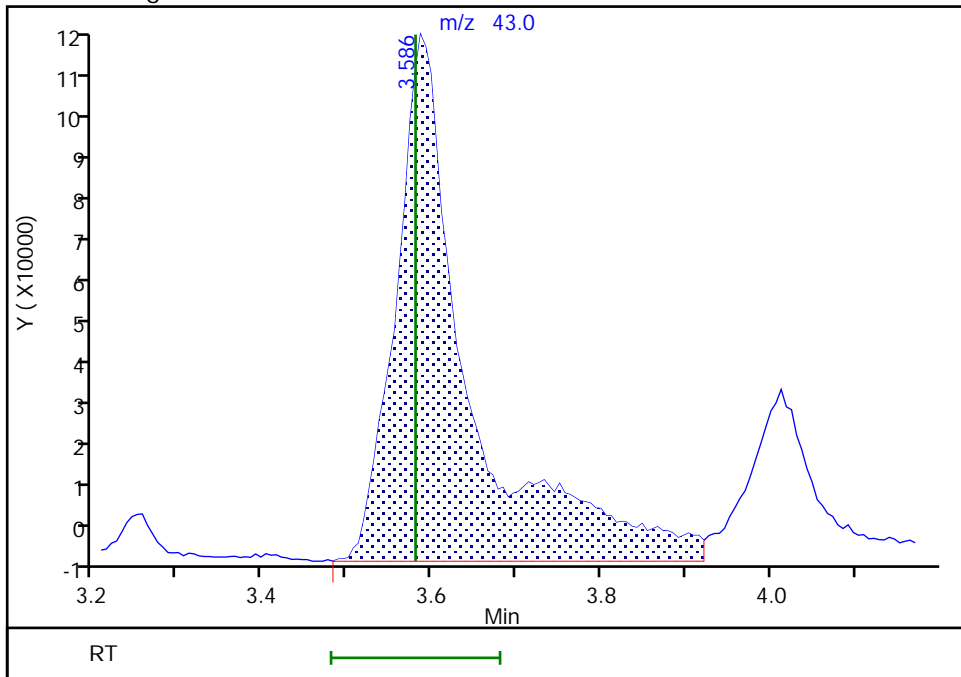
RT: 3.59
Area: 520526
Amount: 52.705616
Amount Units: ug/l

Processing Integration Results



RT: 3.59
Area: 678022
Amount: 66.206641
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 02-May-2022 10:31:08
Audit Action: Assigned New Baseline

Audit Reason: Incomplete Integration

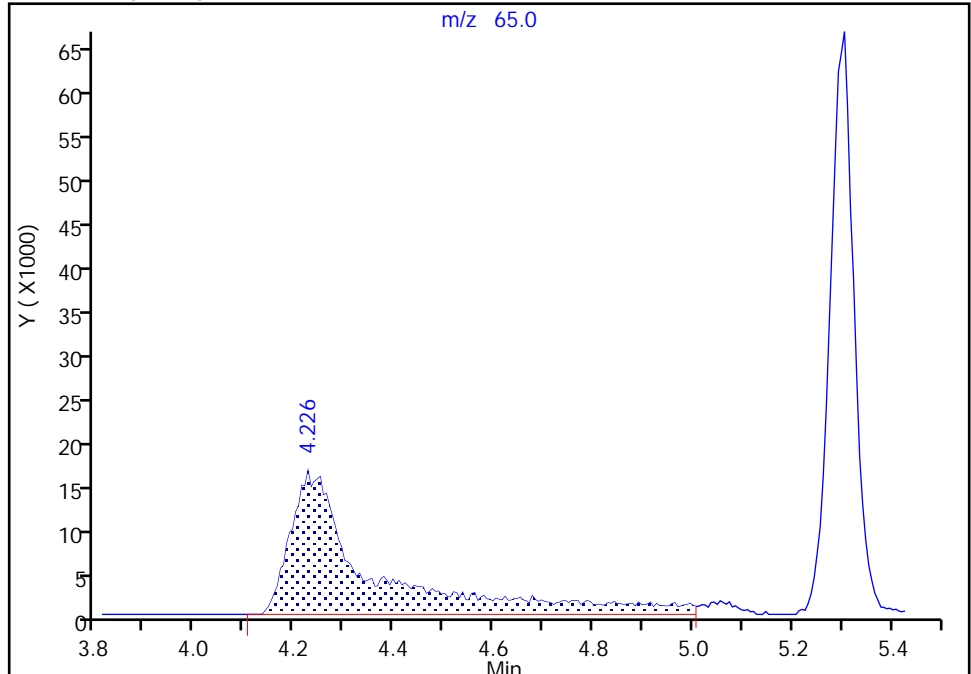
Eurofins Lancaster Laboratories Environment Testing, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X03.D
Injection Date: 02-May-2022 10:06:30 Instrument ID: 19930
Lims ID: LCS
Client ID:
Operator ID: KNK41612 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

* 24 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2
Signal: 1

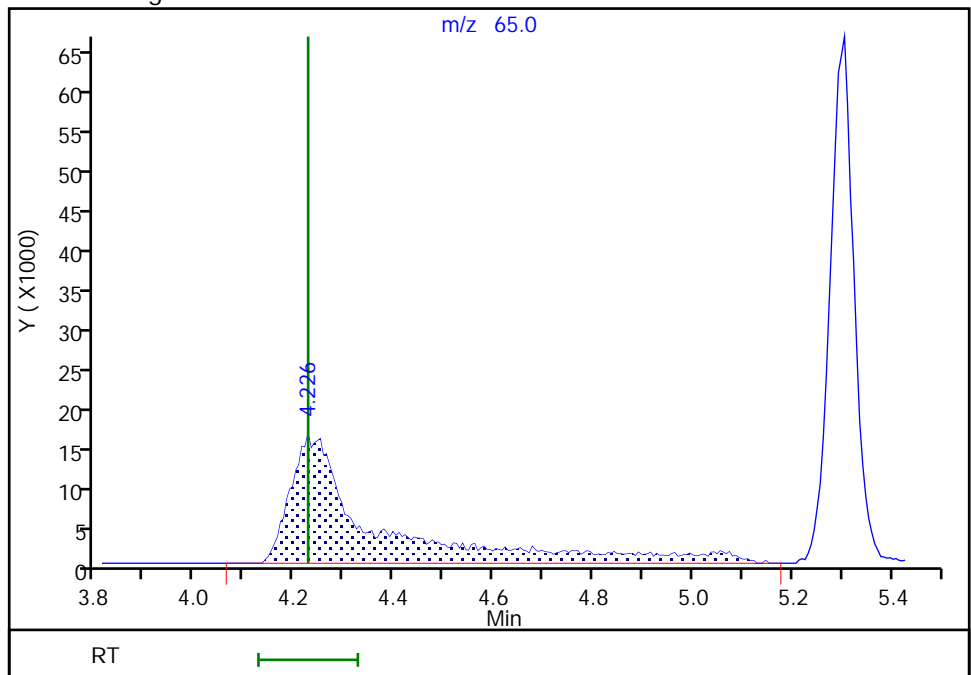
RT: 4.23
Area: 182070
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.23
Area: 188797
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 02-May-2022 10:31:17
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 410-251841/4
 Matrix: Water Lab File ID: IM05X03.D
 Analysis Method: 8260D Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 05/05/2022 09:35
 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.: 251841 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.81		0.50	0.070
71-55-6	1,1,1-Trichloroethane	4.62		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	5.89		0.50	0.070
79-00-5	1,1,2-Trichloroethane	5.39		0.50	0.060
75-34-3	1,1-Dichloroethane	5.06		0.50	0.070
75-35-4	1,1-Dichloroethene	5.01		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	5.23		0.50	0.060
107-06-2	1,2-Dichloroethane	4.80		0.50	0.050
78-87-5	1,2-Dichloropropane	5.39		0.50	0.060
78-93-3	2-Butanone (MEK)	71.8		5.0	0.60
591-78-6	2-Hexanone	73.4		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	69.6		5.0	0.70
67-64-1	Acetone	61.6		5.0	0.90
71-43-2	Benzene	5.16		0.50	0.050
74-97-5	Bromochloromethane	4.50		0.50	0.050
75-27-4	Bromodichloromethane	5.12		0.50	0.050
75-25-2	Bromoform	4.96		1.0	0.30
74-83-9	Bromomethane	3.47		0.50	0.070
75-15-0	Carbon disulfide	6.14		1.0	0.060
56-23-5	Carbon tetrachloride	4.40		0.50	0.070
108-90-7	Chlorobenzene	4.97		0.50	0.060
75-00-3	Chloroethane	4.09		0.50	0.070
67-66-3	Chloroform	4.74		0.50	0.090
74-87-3	Chloromethane	4.55		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	4.76		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	5.03		0.50	0.050
124-48-1	Dibromochloromethane	5.02		0.50	0.070
100-41-4	Ethylbenzene	5.30		0.50	0.060
1634-04-4	Methyl tert-butyl ether	5.09		0.50	0.050
75-09-2	Methylene Chloride	5.08		0.50	0.070
100-42-5	Styrene	5.13		0.50	0.050
127-18-4	Tetrachloroethene	4.52		0.50	0.060
108-88-3	Toluene	5.38		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	4.65		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	5.85		0.50	0.060
79-01-6	Trichloroethene	4.66		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 410-251841/4
 Matrix: Water Lab File ID: IM05X03.D
 Analysis Method: 8260D Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 05/05/2022 09:35
 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.: 251841 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	4.19		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)	105		80-120
460-00-4	4-Bromofluorobenzene (Surr)	101		80-120
1868-53-7	Dibromofluoromethane (Surr)	91		80-120
2037-26-5	Toluene-d8 (Surr)	106		80-120

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220505-56480.b\IM05X03.D
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 05-May-2022 09:35:30 ALS Bottle#: 3 Worklist Smp#: 4
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0056480-004
 Misc. Info.: LCS
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220505-56480.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 05-May-2022 11:03:39 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1630

First Level Reviewer: kephartk Date: 05-May-2022 10:05:31

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.971	1.959	0.012	99	390891	5.00	4.02	
4 Chloromethane	50	2.166	2.160	0.006	99	455372	5.00	4.55	
5 Vinyl chloride	62	2.276	2.276	0.000	96	442709	5.00	4.19	
6 Butadiene	39	2.282	2.282	0.000	93	454786	5.00	4.40	
7 Bromomethane	94	2.617	2.611	0.006	92	303532	5.00	3.47	
8 Chloroethane	64	2.696	2.690	0.006	100	263385	5.00	4.09	
9 Dichlorofluoromethane	67	2.934	2.928	0.006	97	662957	5.00	4.10	
10 Trichlorofluoromethane	101	3.007	3.007	0.000	98	604686	5.00	3.85	
11 Ethyl ether	59	3.251	3.251	0.000	92	299073	4.97	6.89	
12 1,2-Dichloro-1,1,2-trifluoroethane	67	3.330	3.330	0.000	92	461029	5.00	5.11	
13 Acrolein	56	3.422	3.416	0.006	98	286439	37.5	38.7	
14 1,1-Dichloroethene	96	3.562	3.556	0.006	98	342035	5.00	5.01	
15 Acetone	43	3.586	3.586	0.000	100	616219	62.5	61.6	
16 112TCTFE	101	3.599	3.599	0.000	91	346827	5.00	4.84	
17 Iodomethane	142	3.757	3.751	0.006	99	631882	5.00	4.51	
18 Ethyl bromide	108	3.788	3.781	0.007	99	278032	4.99	4.26	
19 Carbon disulfide	76	3.867	3.861	0.006	99	939471	5.00	6.14	
21 Methyl acetate	43	4.019	4.007	0.012	97	144883	5.00	5.94	M
22 3-Chloro-1-propene	41	4.044	4.038	0.006	92	574087	5.00	5.93	
23 Methylene Chloride	84	4.227	4.227	-0.001	93	362566	5.00	5.08	
* 24 t-Butyl alcohol-d10 (IS)	65	4.233	4.233	0.000	95	184276	50.0	50.0	M
25 2-Methyl-2-propanol	59	4.361	4.348	0.013	99	186875	50.0	50.6	
26 Acrylonitrile	53	4.568	4.562	0.006	99	357899	25.0	30.4	
27 Methyl tert-butyl ether	73	4.635	4.629	0.006	95	908465	5.00	5.09	
28 trans-1,2-Dichloroethene	96	4.647	4.641	0.006	98	360434	5.00	4.65	
29 Hexane	57	5.068	5.068	0.000	93	505018	5.00	5.38	
31 1,1-Dichloroethane	63	5.306	5.299	0.007	96	671123	5.00	5.06	
32 Isopropyl ether	45	5.360	5.354	0.006	94	1174556	5.00	5.68	
33 2-Chloro-1,3-butadiene	53	5.415	5.409	0.006	91	585056	5.00	5.42	
34 Tert-butyl ethyl ether	59	5.891	5.891	0.000	97	1106111	5.00	5.25	
36 2-Butanone (MEK)	43	6.092	6.086	0.006	100	1244236	62.5	71.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
37 cis-1,2-Dichloroethene	96	6.129	6.129	0.000	83	420992	5.00	4.76	
38 2,2-Dichloropropane	77	6.147	6.141	0.006	88	609230	5.00	4.96	
40 Propionitrile	54	6.183	6.171	0.012	99	187237	37.5	42.2	
42 Methacrylonitrile	67	6.391	6.391	0.000	92	735018	37.5	41.5	
43 Chlorobromomethane	128	6.458	6.458	0.000	94	182482	5.00	4.50	
44 Tetrahydrofuran	71	6.476	6.470	0.006	82	139448	25.0	28.5	
45 Chloroform	83	6.610	6.604	0.006	93	676798	5.00	4.74	
\$ 46 Dibromofluoromethane (Surr)	113	6.824	6.817	0.007	94	644117	10.0	9.14	
47 1,1,1-Trichloroethane	97	6.836	6.836	0.000	98	640113	5.00	4.62	
48 Cyclohexane	56	6.933	6.933	0.000	92	622295	5.00	5.35	
51 1,1-Dichloropropene	75	7.043	7.043	0.000	95	539433	5.00	5.05	
50 Carbon tetrachloride	117	7.043	7.043	0.000	90	562776	5.00	4.40	
52 Isobutyl alcohol	41	7.189	7.183	0.006	95	159370	125.0	128.1	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.275	7.269	0.006	93	131237	10.0	10.5	
54 Benzene	78	7.305	7.305	0.000	97	1584000	5.00	5.16	
56 1,2-Dichloroethane	62	7.378	7.372	0.006	98	410157	5.00	4.80	
57 Tert-amyl methyl ether	73	7.494	7.494	0.000	99	984851	5.00	5.01	
* 58 Fluorobenzene (IS)	96	7.708	7.701	0.007	99	2603144	10.0	10.0	
59 n-Heptane	43	7.720	7.720	0.000	92	531070	5.00	5.29	
60 n-Butanol	56	8.073	8.061	0.012	90	305148	250.0	310.0	
61 Trichloroethene	95	8.183	8.183	0.000	98	410861	5.00	4.66	
62 Methylcyclohexane	83	8.494	8.494	0.000	94	660177	5.00	4.70	
63 1,2-Dichloropropane	63	8.512	8.512	0.000	95	396201	5.00	5.39	
64 Methyl methacrylate	69	8.598	8.592	0.006	92	176791	5.00	5.26	
65 1,4-Dioxane	88	8.604	8.604	0.000	32	36203	125.0	142.7	M
66 Dibromomethane	93	8.622	8.622	0.000	94	187517	5.00	4.61	
68 Dichlorobromomethane	83	8.854	8.854	0.000	99	497174	5.00	5.12	
69 2-Nitropropane	41	9.116	9.116	0.000	99	50203	5.00	4.81	
72 1-Bromo-2-chloroethane	63	9.250	9.250	0.000	99	409886	5.00	5.89	
73 cis-1,3-Dichloropropene	75	9.402	9.402	0.000	96	574688	5.00	5.03	
74 4-Methyl-2-pentanone (MIBK)	43	9.567	9.567	0.000	97	3191368	62.5	69.6	
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	94	2577695	10.0	10.6	
76 Toluene	92	9.786	9.780	0.006	98	1015297	5.00	5.38	
78 trans-1,3-Dichloropropene	75	10.036	10.036	0.000	93	495276	5.00	5.85	
79 Ethyl methacrylate	69	10.097	10.097	0.000	90	378690	5.00	5.76	
80 1,1,2-Trichloroethane	97	10.244	10.238	0.006	91	278730	5.00	5.39	
81 Tetrachloroethene	166	10.335	10.329	0.006	99	489800	5.00	4.52	
82 1,3-Dichloropropane	76	10.402	10.402	0.000	91	469055	5.00	5.64	
83 2-Hexanone	43	10.451	10.451	0.000	96	2259467	62.5	73.4	
85 Chlorodibromomethane	129	10.616	10.616	0.000	90	352178	5.00	5.02	
86 Ethylene Dibromide	107	10.731	10.731	0.000	99	262334	5.00	5.23	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	86	1999535	10.0	10.0	
88 1-Chlorohexane	91	11.164	11.164	0.000	99	550900	5.00	4.82	
90 Chlorobenzene	112	11.182	11.182	0.000	95	1109621	5.00	4.97	
91 1,1,1,2-Tetrachloroethane	131	11.268	11.268	0.000	95	396207	5.00	4.81	
92 Ethylbenzene	91	11.268	11.268	0.000	98	1976847	5.00	5.30	
93 m-Xylene & p-Xylene	106	11.384	11.384	0.000	99	1533692	10.0	10.0	
94 o-Xylene	106	11.713	11.713	0.000	97	732865	5.00	4.87	
95 Styrene	104	11.725	11.725	0.000	94	1202392	5.00	5.13	
96 Bromoform	173	11.890	11.884	0.006	98	214331	5.00	4.96	
97 Isopropylbenzene	105	12.012	12.012	0.000	96	2018321	5.00	5.14	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	94	955689	10.0	10.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
101 1,1,2,2-Tetrachloroethane	83	12.255	12.255	0.000	94	348035	5.00	5.89	
102 Bromobenzene	156	12.274	12.274	0.000	95	479571	5.00	5.11	
103 trans-1,4-Dichloro-2-butene	53	12.280	12.280	0.000	93	381354	25.0	23.1	
104 1,2,3-Trichloropropane	110	12.304	12.298	0.006	84	95299	5.00	5.45	
105 N-Propylbenzene	91	12.341	12.341	0.000	99	2353837	5.00	5.74	
106 2-Chlorotoluene	126	12.420	12.414	0.006	97	461002	5.00	5.12	
107 1,3,5-Trimethylbenzene	105	12.475	12.475	0.000	94	1656283	5.00	5.46	
108 4-Chlorotoluene	126	12.511	12.505	0.006	97	462887	5.00	5.03	
109 tert-Butylbenzene	134	12.719	12.719	0.000	93	352233	5.00	4.82	
111 1,2,4-Trimethylbenzene	105	12.761	12.755	0.006	97	1656696	5.00	5.42	
112 sec-Butylbenzene	105	12.877	12.877	0.000	94	2135167	5.00	5.52	
113 1,3-Dichlorobenzene	146	12.981	12.981	0.000	98	910166	5.00	4.98	
114 4-Isopropyltoluene	119	12.987	12.987	0.000	97	1847252	5.00	5.30	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	1116429	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.054	13.054	0.000	95	915387	5.00	4.90	
117 1,2,3-Trimethylbenzene	120	13.060	13.060	0.000	98	714362	5.00	5.06	
118 Benzyl chloride	126	13.133	13.127	0.006	98	137464	5.00	5.75	
119 n-Butylbenzene	92	13.280	13.280	0.000	97	860072	5.00	5.56	
120 1,2-Dichlorobenzene	146	13.310	13.310	0.000	99	839158	5.00	5.03	
122 1,2-Dibromo-3-Chloropropane	155	13.859	13.853	0.006	88	47453	5.00	5.02	
123 1,3,5-Trichlorobenzene	180	13.981	13.981	0.000	98	669002	5.00	4.90	
124 1,2,4-Trichlorobenzene	180	14.407	14.401	0.006	94	560911	5.00	4.87	
125 Hexachlorobutadiene	225	14.487	14.487	0.000	96	238134	5.00	4.56	
126 Naphthalene	128	14.584	14.584	0.000	97	1041526	5.00	5.29	
127 1,2,3-Trichlorobenzene	180	14.724	14.724	0.000	95	491804	5.00	4.88	
137 2-Methylnaphthalene	142		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
134 Isopropyl alcohol	45		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MSV_LCS_EE_00002	Amount Added: 12.50	Units: uL	
MSV_LCS_ETBR_00001	Amount Added: 12.50	Units: uL	
MSV_LCS_ACROL_00056	Amount Added: 12.50	Units: uL	
MSV_QC_Gas826_00079	Amount Added: 12.50	Units: uL	
MSV_LCS_VOC#1_00053	Amount Added: 12.50	Units: uL	
MSV_LLcentISS_00004	Amount Added: 5.00	Units: uL	Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220505-56480.b\IM05X03.D

Injection Date: 05-May-2022 09:35:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: LCS

Worklist Smp#: 4

Client ID:

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

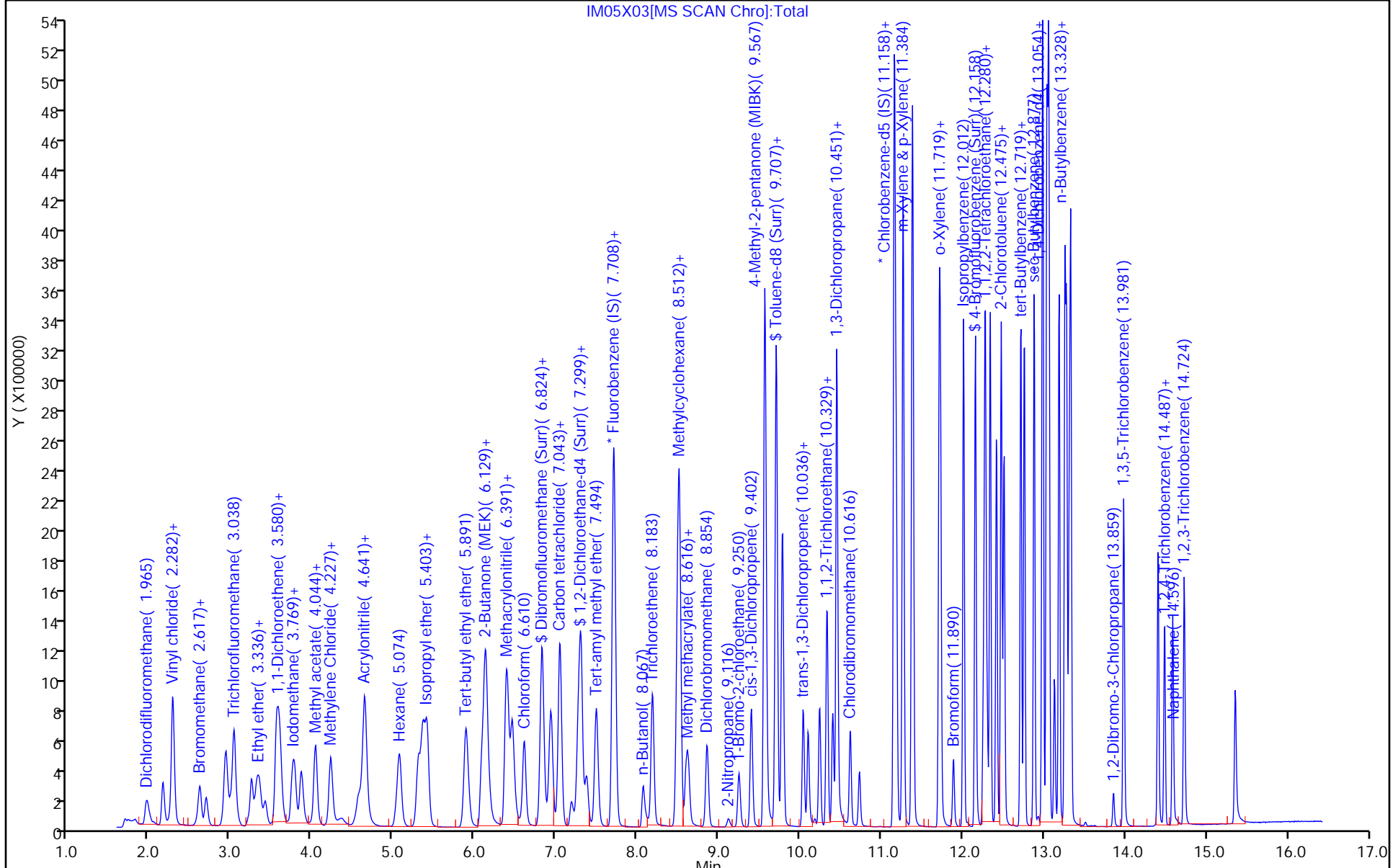
ALS Bottle#: 3

Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Environment Testing, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220505-56480.b\IM05X03.D
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 05-May-2022 09:35:30 ALS Bottle#: 3 Worklist Smp#: 4
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0056480-004
 Misc. Info.: LCS
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220505-56480.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 05-May-2022 11:03:39 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14I37.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1630

First Level Reviewer: kephartk Date: 05-May-2022 10:05:31

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.14	91.41
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.5	104.55
\$ 75 Toluene-d8 (Surr)	10.0	10.6	105.93
\$ 100 4-Bromofluorobenzene (Surr)	10.0	10.1	101.28

Eurofins Lancaster Laboratories Environment Testing, LLC

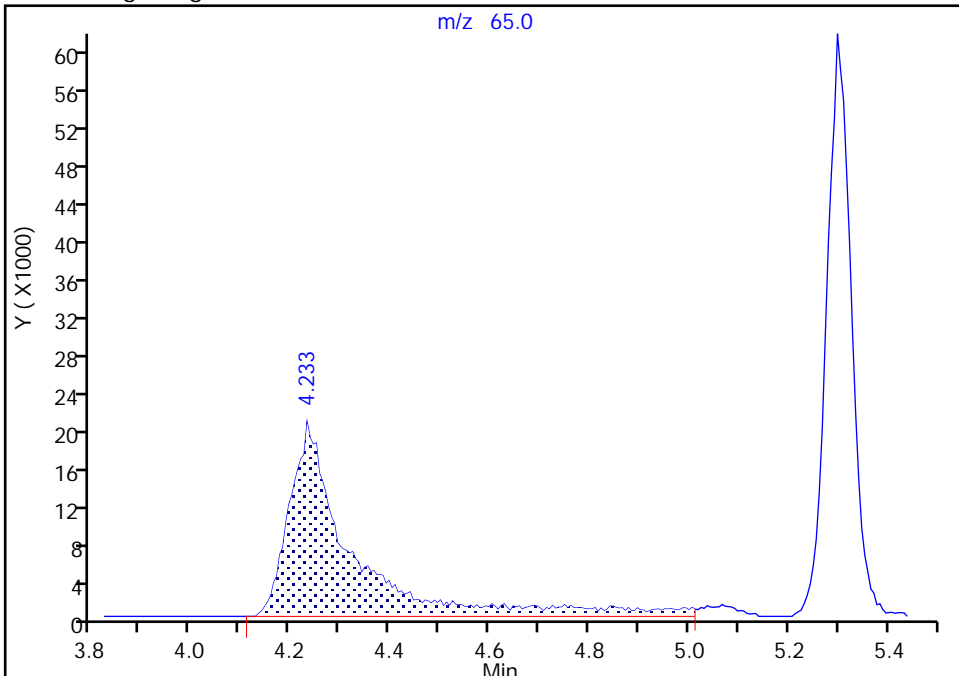
Data File: \\chromfs\Lancaster\ChromData\19930\20220505-56480.b\IM05X03.D
Injection Date: 05-May-2022 09:35:30 Instrument ID: 19930
Lims ID: LCS
Client ID:
Operator ID: KNK41612 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

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

Signal: 1

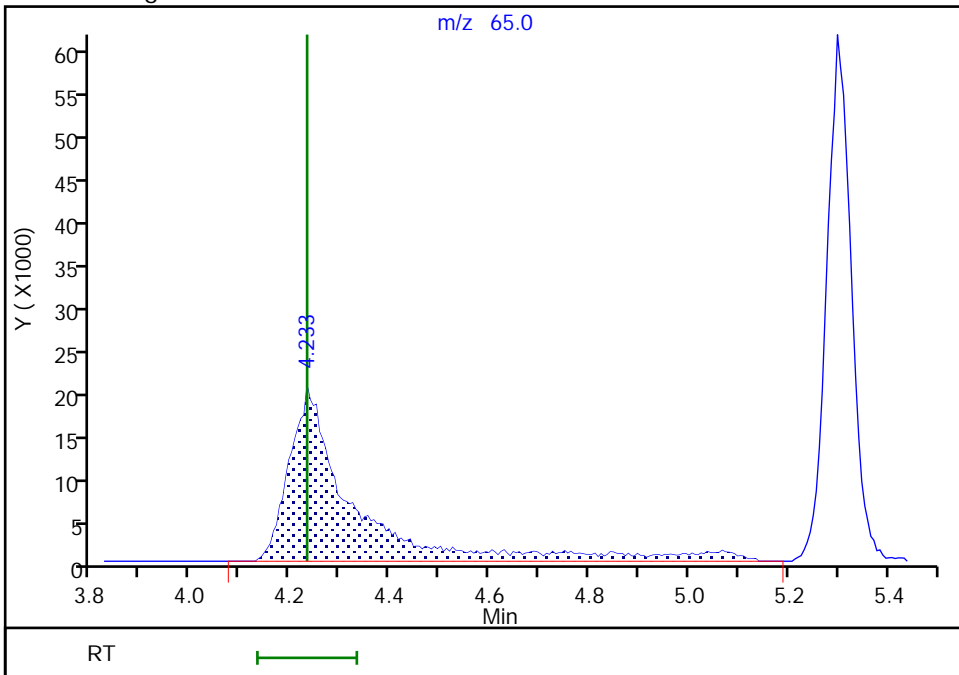
RT: 4.23
Area: 178486
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.23
Area: 184276
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 05-May-2022 10:04:57
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCSD 410-250524/5
 Matrix: Water Lab File ID: IM02X04.D
 Analysis Method: 8260D Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 05/02/2022 10:27
 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.: 250524 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.10		0.50	0.070
71-55-6	1,1,1-Trichloroethane	4.92		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	6.64		0.50	0.070
79-00-5	1,1,2-Trichloroethane	5.71		0.50	0.060
75-34-3	1,1-Dichloroethane	5.44		0.50	0.070
75-35-4	1,1-Dichloroethene	5.36		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	5.56		0.50	0.060
107-06-2	1,2-Dichloroethane	5.18		0.50	0.050
78-87-5	1,2-Dichloropropane	5.72		0.50	0.060
78-93-3	2-Butanone (MEK)	72.7		5.0	0.60
591-78-6	2-Hexanone	77.0		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	71.2		5.0	0.70
67-64-1	Acetone	65.5		5.0	0.90
71-43-2	Benzene	5.47		0.50	0.050
74-97-5	Bromochloromethane	4.81		0.50	0.050
75-27-4	Bromodichloromethane	5.40		0.50	0.050
75-25-2	Bromoform	5.35		1.0	0.30
74-83-9	Bromomethane	3.43		0.50	0.070
75-15-0	Carbon disulfide	6.53		1.0	0.060
56-23-5	Carbon tetrachloride	4.66		0.50	0.070
108-90-7	Chlorobenzene	5.37		0.50	0.060
75-00-3	Chloroethane	4.05		0.50	0.070
67-66-3	Chloroform	5.11		0.50	0.090
74-87-3	Chloromethane	4.42		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	5.10		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	5.19		0.50	0.050
124-48-1	Dibromochloromethane	5.27		0.50	0.070
100-41-4	Ethylbenzene	5.68		0.50	0.060
1634-04-4	Methyl tert-butyl ether	5.27		0.50	0.050
75-09-2	Methylene Chloride	5.47		0.50	0.070
100-42-5	Styrene	5.52		0.50	0.050
127-18-4	Tetrachloroethene	4.78		0.50	0.060
108-88-3	Toluene	5.80		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	5.07		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	6.17		0.50	0.060
79-01-6	Trichloroethene	4.95		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCSD 410-250524/5
 Matrix: Water Lab File ID: IM02X04.D
 Analysis Method: 8260D Date Collected: _____
 Sample wt/vol: 25 (mL) Date Analyzed: 05/02/2022 10:27
 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.: 250524 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	4.13		0.50	0.10
1330-20-7	Xylenes, Total	15.9		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		80-120
460-00-4	4-Bromofluorobenzene (Surr)	100		80-120
1868-53-7	Dibromofluoromethane (Surr)	92		80-120
2037-26-5	Toluene-d8 (Surr)	106		80-120

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X04.D
 Lims ID: LCSD
 Client ID:
 Sample Type: LCSD
 Inject. Date: 02-May-2022 10:27:30 ALS Bottle#: 4 Worklist Smp#: 5
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0056183-005
 Misc. Info.: LCSD
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 02-May-2022 10:54:51 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1622

First Level Reviewer: kephartk

Date: 02-May-2022 10:54:43

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.959	1.965	-0.006	99	324327	5.00	3.42	
4 Chloromethane	50	2.166	2.166	0.000	99	432517	5.00	4.42	
6 Butadiene	39	2.282	2.282	0.000	91	402834	5.00	3.99	
5 Vinyl chloride	62	2.276	2.282	-0.006	92	426322	5.00	4.13	
7 Bromomethane	94	2.611	2.617	-0.006	91	293102	5.00	3.43	
8 Chloroethane	64	2.690	2.696	-0.006	100	254722	5.00	4.05	
9 Dichlorofluoromethane	67	2.922	2.928	-0.006	97	651909	5.00	4.12	
10 Trichlorofluoromethane	101	3.007	3.007	0.000	98	592046	5.00	3.85	M
11 Ethyl ether	59	3.251	3.245	0.006	91	161481	4.97	3.81	
12 1,2-Dichloro-1,1,2-trifluoroethane	67	3.330	3.330	0.000	92	447432	5.00	5.07	
13 Acrolein	56	3.416	3.416	0.000	98	265170	37.5	35.6	
14 1,1-Dichloroethene	96	3.556	3.556	0.000	98	357800	5.00	5.36	
15 Acetone	43	3.580	3.580	0.000	100	658992	62.5	65.5	M
16 112TCTFE	101	3.592	3.599	-0.007	91	352812	5.00	5.04	
17 Iodomethane	142	3.745	3.751	-0.006	99	661443	5.00	4.84	
18 Ethyl bromide	108	3.781	3.782	-0.001	99	291358	4.99	4.57	
19 Carbon disulfide	76	3.861	3.861	0.000	99	976139	5.00	6.53	
21 Methyl acetate	43	4.007	4.007	0.000	98	155970	5.00	6.36	
22 3-Chloro-1-propene	41	4.031	4.032	-0.001	92	596431	5.00	6.31	
23 Methylene Chloride	84	4.220	4.221	-0.001	93	381369	5.00	5.47	
* 24 t-Butyl alcohol-d10 (IS)	65	4.220	4.227	-0.007	94	185514	50.0	50.0	M
25 2-Methyl-2-propanol	59	4.348	4.342	0.006	98	175486	50.0	47.2	
26 Acrylonitrile	53	4.562	4.556	0.006	98	369417	25.0	31.2	
27 Methyl tert-butyl ether	73	4.629	4.623	0.006	96	917920	5.00	5.27	
28 trans-1,2-Dichloroethene	96	4.641	4.641	0.000	99	383990	5.00	5.07	
29 Hexane	57	5.068	5.068	0.000	93	477894	5.00	5.21	
31 1,1-Dichloroethane	63	5.299	5.294	0.005	96	704803	5.00	5.44	
32 Isopropyl ether	45	5.360	5.354	0.006	94	1195057	5.00	5.91	
33 2-Chloro-1,3-butadiene	53	5.409	5.409	0.000	92	608162	5.00	5.77	
34 Tert-butyl ethyl ether	59	5.891	5.885	0.006	98	1123575	5.00	5.46	
36 2-Butanone (MEK)	43	6.092	6.086	0.006	100	1268630	62.5	72.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
37 cis-1,2-Dichloroethene	96	6.122	6.123	-0.001	82	440645	5.00	5.10	
38 2,2-Dichloropropane	77	6.135	6.141	-0.006	89	617058	5.00	5.14	
40 Propionitrile	54	6.183	6.171	0.012	99	198600	37.5	44.5	
42 Methacrylonitrile	67	6.397	6.391	0.006	92	751661	37.5	42.1	
43 Chlorobromomethane	128	6.458	6.458	0.000	94	190720	5.00	4.81	
44 Tetrahydrofuran	71	6.470	6.464	0.006	85	141167	25.0	28.6	
45 Chloroform	83	6.604	6.604	0.000	93	712593	5.00	5.11	
\$ 46 Dibromofluoromethane (Surr)	113	6.817	6.818	-0.001	94	632895	10.0	9.19	
47 1,1,1-Trichloroethane	97	6.830	6.830	0.000	98	665008	5.00	4.92	
48 Cyclohexane	56	6.933	6.933	0.000	91	620076	5.00	5.45	
51 1,1-Dichloropropene	75	7.043	7.043	0.000	95	556698	5.00	5.33	
50 Carbon tetrachloride	117	7.043	7.043	0.000	91	582738	5.00	4.66	
52 Isobutyl alcohol	41	7.189	7.189	0.000	93	192004	125.0	153.3	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.275	7.263	0.012	97	122496	10.0	9.99	
54 Benzene	78	7.305	7.299	0.006	97	1640606	5.00	5.47	
56 1,2-Dichloroethane	62	7.372	7.372	0.000	98	432354	5.00	5.18	
57 Tert-amyl methyl ether	73	7.494	7.488	0.006	98	989673	5.00	5.15	
* 58 Fluorobenzene (IS)	96	7.701	7.702	-0.001	99	2543157	10.0	10.0	
59 n-Heptane	43	7.714	7.714	0.000	93	513517	5.00	5.24	
60 n-Butanol	56	8.073	8.061	0.012	89	351868	250.0	355.1	
61 Trichloroethene	95	8.183	8.183	0.000	98	426364	5.00	4.95	
62 Methylcyclohexane	83	8.494	8.488	0.006	92	654138	5.00	4.76	
63 1,2-Dichloropropane	63	8.512	8.512	0.000	86	410445	5.00	5.72	
64 Methyl methacrylate	69	8.591	8.592	-0.001	90	179858	5.00	5.32	
65 1,4-Dioxane	88	8.604	8.604	0.000	33	45770	125.0	179.2	
66 Dibromomethane	93	8.622	8.622	0.000	94	196182	5.00	4.94	
68 Dichlorobromomethane	83	8.854	8.854	0.000	99	511646	5.00	5.40	
69 2-Nitropropane	41	9.116	9.116	0.000	97	50798	5.00	4.83	
72 1-Bromo-2-chloroethane	63	9.244	9.244	0.000	99	391967	5.00	5.77	
73 cis-1,3-Dichloropropene	75	9.402	9.396	0.006	96	579450	5.00	5.19	
74 4-Methyl-2-pentanone (MIBK)	43	9.567	9.567	0.000	97	3282959	62.5	71.2	
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	94	2512961	10.0	10.6	
76 Toluene	92	9.780	9.780	0.000	98	1063364	5.00	5.80	
78 trans-1,3-Dichloropropene	75	10.036	10.036	0.000	93	507911	5.00	6.17	
79 Ethyl methacrylate	69	10.097	10.097	0.000	90	380502	5.00	5.96	
80 1,1,2-Trichloroethane	97	10.244	10.238	0.006	91	286593	5.00	5.71	
81 Tetrachloroethene	166	10.329	10.329	0.000	98	503597	5.00	4.78	
82 1,3-Dichloropropane	76	10.402	10.402	0.000	90	482481	5.00	5.97	
83 2-Hexanone	43	10.451	10.451	0.000	96	2385259	62.5	77.0	
85 Chlorodibromomethane	129	10.615	10.616	-0.001	90	359315	5.00	5.27	
86 Ethylene Dibromide	107	10.731	10.731	0.000	99	271349	5.00	5.56	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	86	1942950	10.0	10.0	
88 1-Chlorohexane	91	11.164	11.164	0.000	98	560790	5.00	5.05	
90 Chlorobenzene	112	11.182	11.183	-0.001	95	1164517	5.00	5.37	
91 1,1,1,2-Tetrachloroethane	131	11.262	11.262	0.000	94	408940	5.00	5.10	
92 Ethylbenzene	91	11.268	11.268	0.000	98	2059315	5.00	5.68	
93 m-Xylene & p-Xylene	106	11.384	11.384	0.000	99	1595326	10.0	10.7	
94 o-Xylene	106	11.713	11.713	0.000	96	760712	5.00	5.20	
95 Styrene	104	11.725	11.725	0.000	95	1256132	5.00	5.52	
96 Bromoform	173	11.884	11.884	0.000	97	224669	5.00	5.35	
97 Isopropylbenzene	105	12.012	12.012	0.000	96	2069342	5.00	5.42	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	94	912833	10.0	9.96	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
101 1,1,2,2-Tetrachloroethane	83	12.255	12.256	-0.001	93	376845	5.00	6.64	
102 Bromobenzene	156	12.274	12.274	0.000	95	497328	5.00	5.51	
103 trans-1,4-Dichloro-2-butene	53	12.280	12.280	0.000	91	437601	25.0	26.3	
104 1,2,3-Trichloropropane	110	12.298	12.298	0.000	81	98937	5.00	5.89	
105 N-Propylbenzene	91	12.341	12.341	0.000	99	2427764	5.00	6.17	
106 2-Chlorotoluene	126	12.414	12.414	0.000	96	471489	5.00	5.45	
107 1,3,5-Trimethylbenzene	105	12.475	12.475	0.000	94	1711218	5.00	5.87	
108 4-Chlorotoluene	126	12.511	12.506	0.005	97	487452	5.00	5.51	
109 tert-Butylbenzene	134	12.719	12.713	0.006	93	361450	5.00	5.15	
111 1,2,4-Trimethylbenzene	105	12.755	12.755	0.000	98	1748422	5.00	5.95	
112 sec-Butylbenzene	105	12.877	12.877	0.000	94	2217179	5.00	5.96	
113 1,3-Dichlorobenzene	146	12.981	12.981	0.000	98	959055	5.00	5.46	
114 4-Isopropyltoluene	119	12.987	12.987	0.000	97	1905131	5.00	5.69	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	1072537	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.054	13.054	0.000	94	979953	5.00	5.46	
117 1,2,3-Trimethylbenzene	120	13.060	13.060	0.000	98	748607	5.00	5.52	
118 Benzyl chloride	126	13.133	13.127	0.006	99	136616	5.00	5.95	
119 n-Butylbenzene	92	13.280	13.280	0.000	96	887712	5.00	5.98	
120 1,2-Dichlorobenzene	146	13.310	13.310	0.000	99	884596	5.00	5.52	
122 1,2-Dibromo-3-Chloropropane	155	13.859	13.853	0.006	86	52259	5.00	5.76	
123 1,3,5-Trichlorobenzene	180	13.981	13.981	0.000	98	685676	5.00	5.22	
124 1,2,4-Trichlorobenzene	180	14.401	14.401	0.000	94	580798	5.00	5.25	
125 Hexachlorobutadiene	225	14.487	14.487	0.000	96	240884	5.00	4.80	
126 Naphthalene	128	14.584	14.584	0.000	97	1086160	5.00	5.74	
127 1,2,3-Trichlorobenzene	180	14.724	14.725	-0.001	96	513728	5.00	5.31	
137 2-Methylnaphthalene	142		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
134 Isopropyl alcohol	45		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MSV_LCS_ACROL_00055	Amount Added: 12.50	Units: uL	
MSV_LCS_EE_00002	Amount Added: 12.50	Units: uL	
MSV_LCS_ETBR_00001	Amount Added: 12.50	Units: uL	
MSV_LCS_VOC#1_00052	Amount Added: 12.50	Units: uL	
MSV_QC_Gas826_00078	Amount Added: 12.50	Units: uL	
MSV_LLcentISS_00004	Amount Added: 5.00	Units: uL	Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X04.D

Injection Date: 02-May-2022 10:27:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: LCSD

Worklist Smp#: 5

Client ID:

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

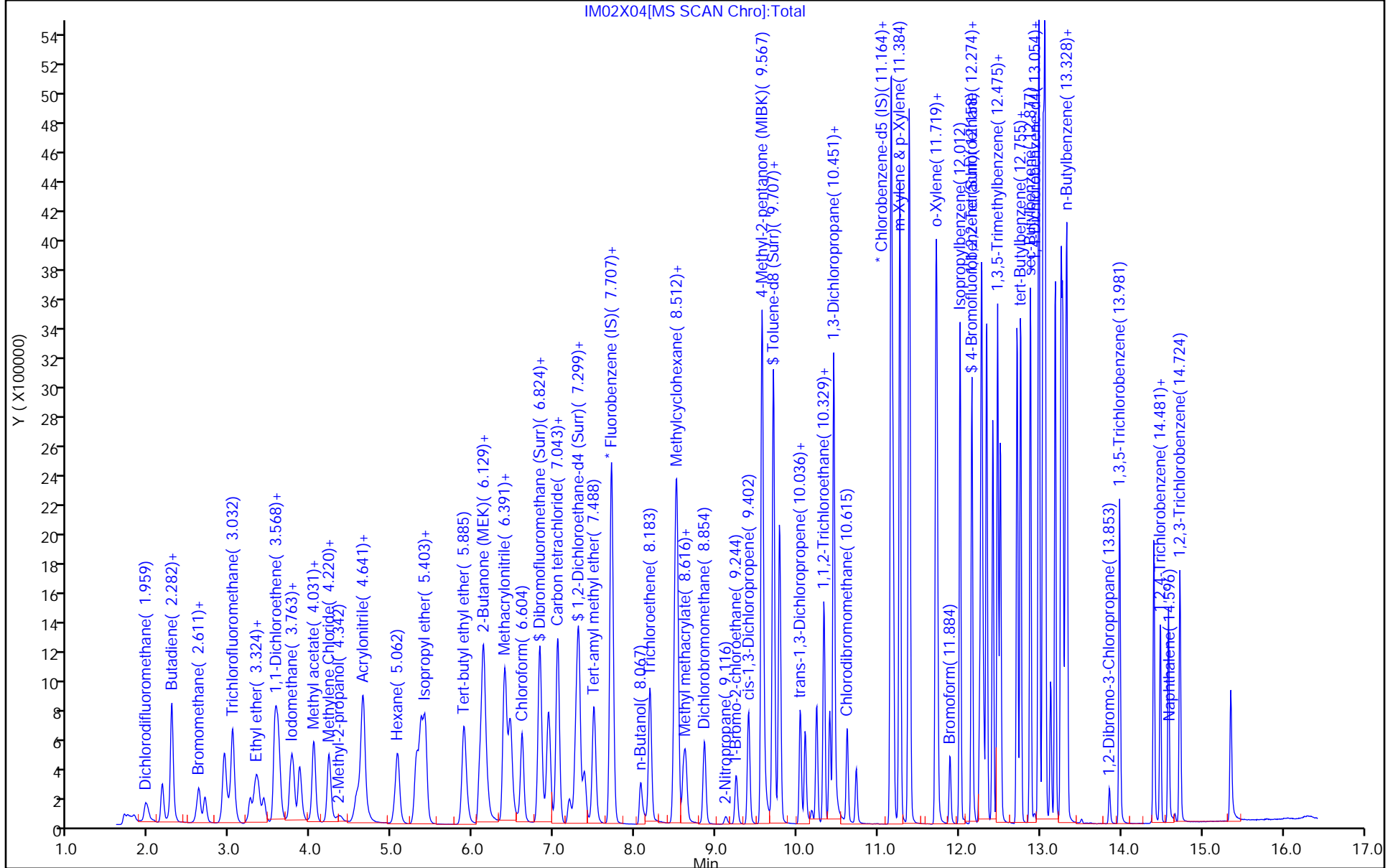
ALS Bottle#: 4

Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



IM02X04[MS SCAN Chrom]:Total

Eurofins Lancaster Laboratories Environment Testing, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X04.D
 Lims ID: LCSD
 Client ID:
 Sample Type: LCSD
 Inject. Date: 02-May-2022 10:27:30 ALS Bottle#: 4 Worklist Smp#: 5
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0056183-005
 Misc. Info.: LCSD
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 02-May-2022 10:54:51 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1622

First Level Reviewer: kephartk

Date: 02-May-2022 10:54:43

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.19	91.93
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	9.99	99.89
\$ 75 Toluene-d8 (Surr)	10.0	10.6	106.28
\$ 100 4-Bromofluorobenzene (Surr)	10.0	9.96	99.55

Eurofins Lancaster Laboratories Environment Testing, LLC

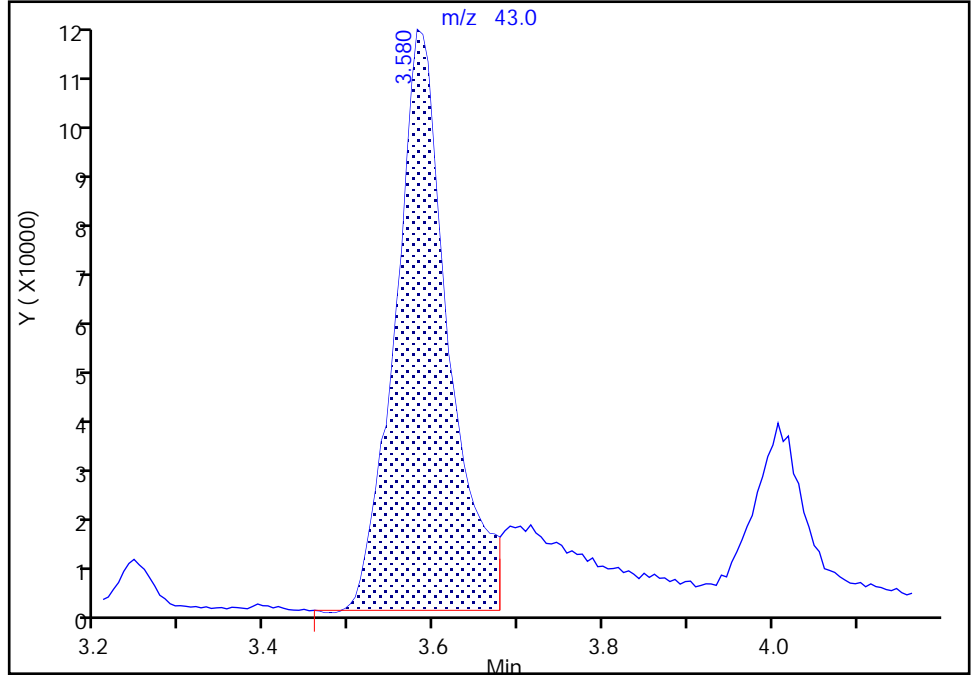
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Injection Date: 02-May-2022 10:27:30 Instrument ID: 19930
Lims ID: LCSD
Client ID:
Operator ID: KNK41612 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

15 Acetone, CAS: 67-64-1

Signal: 1

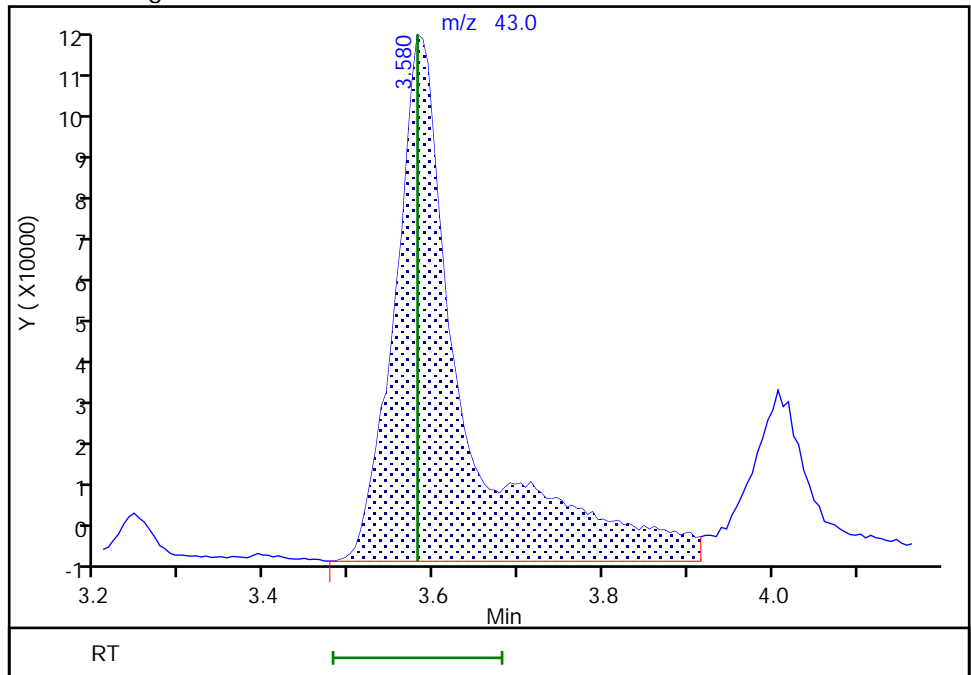
RT: 3.58
Area: 503430
Amount: 50.028244
Amount Units: ug/l

Processing Integration Results



RT: 3.58
Area: 658992
Amount: 65.487183
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 02-May-2022 10:52:15
Audit Action: Assigned New Baseline

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Environment Testing, LLC

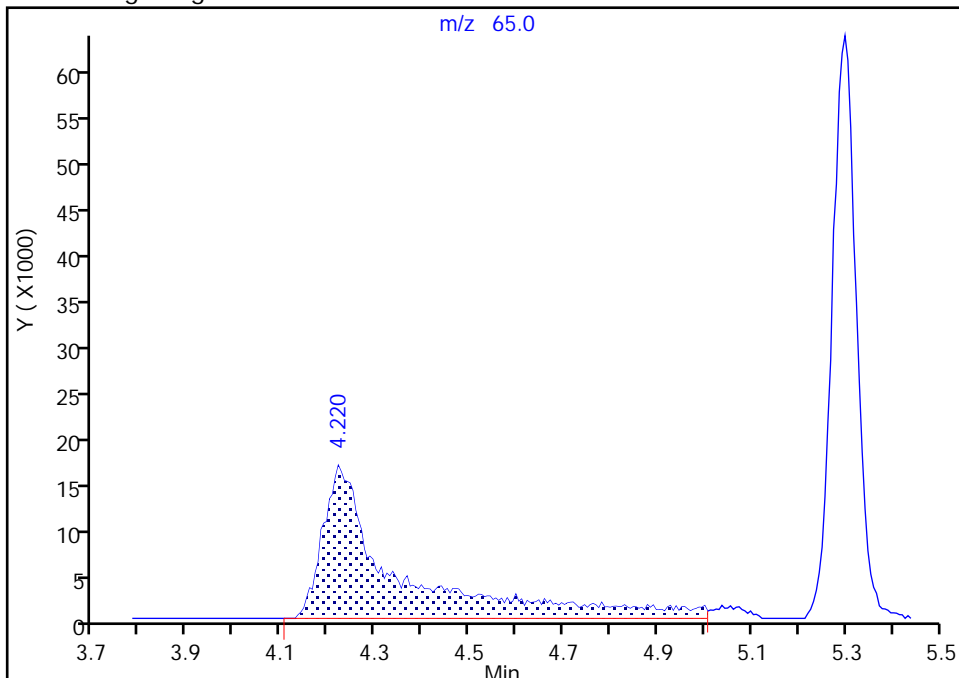
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Injection Date: 02-May-2022 10:27:30 Instrument ID: 19930
Lims ID: LCSD
Client ID:
Operator ID: KNK41612 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

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

Signal: 1

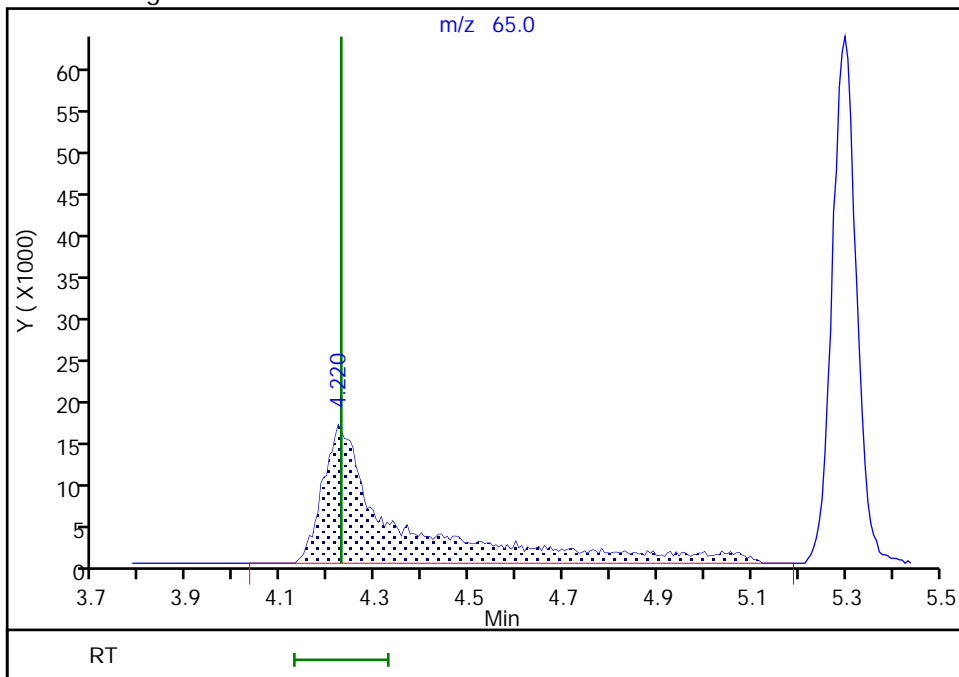
RT: 4.22
Area: 179506
Amount: 50.000000
Amount Units: ug/l

Processing Integration Results



RT: 4.22
Area: 185514
Amount: 50.000000
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 02-May-2022 10:50:42
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-15-0/1-0 MS Lab Sample ID: 410-81767-6 MS
 Matrix: Water Lab File ID: IM02X14.D
 Analysis Method: 8260D Date Collected: 04/26/2022 12:05
 Sample wt/vol: 25 (mL) Date Analyzed: 05/02/2022 13:59
 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.: 250524 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.28		0.50	0.070
71-55-6	1,1,1-Trichloroethane	5.50		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	6.29		0.50	0.070
79-00-5	1,1,2-Trichloroethane	5.75		0.50	0.060
75-34-3	1,1-Dichloroethane	5.78		0.50	0.070
75-35-4	1,1-Dichloroethene	5.97		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	5.51		0.50	0.060
107-06-2	1,2-Dichloroethane	5.18		0.50	0.050
78-87-5	1,2-Dichloropropane	5.84		0.50	0.060
78-93-3	2-Butanone (MEK)	71.4		5.0	0.60
591-78-6	2-Hexanone	71.8		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	68.3		5.0	0.70
67-64-1	Acetone	64.9		5.0	0.90
71-43-2	Benzene	5.75		0.50	0.050
74-97-5	Bromochloromethane	4.91		0.50	0.050
75-27-4	Bromodichloromethane	5.47		0.50	0.050
75-25-2	Bromoform	5.17		1.0	0.30
74-83-9	Bromomethane	3.69		0.50	0.070
75-15-0	Carbon disulfide	7.12		1.0	0.060
56-23-5	Carbon tetrachloride	5.15		0.50	0.070
108-90-7	Chlorobenzene	5.44		0.50	0.060
75-00-3	Chloroethane	4.40		0.50	0.070
67-66-3	Chloroform	5.56		0.50	0.090
74-87-3	Chloromethane	4.79		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	7.06		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	5.19		0.50	0.050
124-48-1	Dibromochloromethane	5.30		0.50	0.070
100-41-4	Ethylbenzene	5.86		0.50	0.060
1634-04-4	Methyl tert-butyl ether	5.29		0.50	0.050
75-09-2	Methylene Chloride	5.65		0.50	0.070
100-42-5	Styrene	5.61		0.50	0.050
127-18-4	Tetrachloroethene	11.0		0.50	0.060
108-88-3	Toluene	5.99		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	5.35		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	6.09		0.50	0.060
79-01-6	Trichloroethene	6.98		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-15-0/1-0 MS Lab Sample ID: 410-81767-6 MS
 Matrix: Water Lab File ID: IM02X14.D
 Analysis Method: 8260D Date Collected: 04/26/2022 12:05
 Sample wt/vol: 25 (mL) Date Analyzed: 05/02/2022 13:59
 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.: 250524 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	4.58		0.50	0.10
1330-20-7	Xylenes, Total	16.5		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		80-120
460-00-4	4-Bromofluorobenzene (Surr)	101		80-120
1868-53-7	Dibromofluoromethane (Surr)	93		80-120
2037-26-5	Toluene-d8 (Surr)	107		80-120

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X14.D
 Lims ID: 410-81767-A-6 MS
 Client ID: HD-COD-SW-15-0/1-0
 Sample Type: MS
 Inject. Date: 02-May-2022 13:59:30 ALS Bottle#: 14 Worklist Smp#: 15
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0056183-015
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 03-May-2022 10:44:37 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1607

First Level Reviewer: kaewrungrueangp

Date: 03-May-2022 10:44:37

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.965	1.965	0.000	99	411726	5.00	4.44	
4 Chloromethane	50	2.166	2.166	0.000	99	457661	5.00	4.79	
6 Butadiene	39	2.282	2.282	0.000	91	471022	5.00	4.78	
5 Vinyl chloride	62	2.282	2.282	0.000	97	461855	5.00	4.58	
7 Bromomethane	94	2.617	2.617	0.000	91	308505	5.00	3.69	
8 Chloroethane	64	2.690	2.696	-0.006	100	270191	5.00	4.40	
9 Dichlorofluoromethane	67	2.934	2.928	0.006	97	683760	5.00	4.43	
10 Trichlorofluoromethane	101	3.013	3.007	0.006	98	675537	5.00	4.50	M
11 Ethyl ether	59	3.251	3.245	0.006	92	162135	4.98	3.91	
12 1,2-Dichloro-1,1,2-trifluoroethane	67	3.324	3.330	-0.006	92	495812	5.00	5.76	
13 Acrolein	56	3.422	3.416	0.006	99	300238	37.5	40.8	
14 1,1-Dichloroethene	96	3.556	3.556	0.000	98	389211	5.00	5.97	
15 Acetone	43	3.586	3.580	0.006	100	645315	62.6	64.9	
16 112TCTFE	101	3.598	3.599	-0.001	91	431712	5.00	6.31	
17 Iodomethane	142	3.751	3.751	0.000	100	666391	5.00	4.99	
18 Ethyl bromide	108	3.781	3.782	-0.001	99	303354	5.00	4.88	
19 Carbon disulfide	76	3.867	3.861	0.006	99	1040550	5.00	7.12	
21 Methyl acetate	43	4.007	4.007	0.000	98	147575	5.00	6.08	M
22 3-Chloro-1-propene	41	4.037	4.032	0.005	91	603277	5.00	6.54	
23 Methylene Chloride	84	4.226	4.221	0.005	93	384704	5.00	5.65	
* 24 t-Butyl alcohol-d10 (IS)	65	4.233	4.227	0.006	94	183386	50.0	50.0	
25 2-Methyl-2-propanol	59	4.361	4.342	0.019	97	177523	50.0	48.3	
26 Acrylonitrile	53	4.562	4.556	0.006	99	362489	25.0	31.0	
27 Methyl tert-butyl ether	73	4.635	4.623	0.012	96	900423	5.00	5.29	
28 trans-1,2-Dichloroethene	96	4.647	4.641	0.006	99	395422	5.00	5.35	
29 Hexane	57	5.074	5.068	0.006	93	603535	5.00	6.74	
31 1,1-Dichloroethane	63	5.299	5.294	0.005	96	730534	5.00	5.78	
32 Isopropyl ether	45	5.360	5.354	0.006	93	1177054	5.00	5.96	
33 2-Chloro-1,3-butadiene	53	5.409	5.409	0.000	91	635283	5.00	6.17	
34 Tert-butyl ethyl ether	59	5.891	5.885	0.006	97	1081782	5.00	5.38	
36 2-Butanone (MEK)	43	6.098	6.086	0.012	100	1231796	62.6	71.4	
37 cis-1,2-Dichloroethene	96	6.128	6.123	0.005	83	595878	5.00	7.06	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
38 2,2-Dichloropropane	77	6.141	6.141	0.000	89	643446	5.00	5.49	
40 Propionitrile	54	6.183	6.171	0.012	98	204295	37.5	46.3	
42 Methacrylonitrile	67	6.397	6.391	0.006	92	725051	37.5	41.1	
43 Chlorobromomethane	128	6.458	6.458	0.000	94	190050	5.00	4.91	
44 Tetrahydrofuran	71	6.476	6.464	0.012	84	141531	25.0	29.0	
45 Chloroform	83	6.604	6.604	0.000	94	757016	5.00	5.56	
\$ 46 Dibromofluoromethane (Surr)	113	6.817	6.818	-0.001	94	624399	10.0	9.29	
47 1,1,1-Trichloroethane	97	6.830	6.830	0.000	98	725962	5.00	5.50	
48 Cyclohexane	56	6.933	6.933	0.000	92	731368	5.00	6.59	
51 1,1-Dichloropropene	75	7.049	7.043	0.006	95	589321	5.00	5.78	
50 Carbon tetrachloride	117	7.049	7.043	0.006	91	628914	5.00	5.15	
52 Isobutyl alcohol	41	7.183	7.189	-0.006	94	150955	125.1	121.9	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.275	7.263	0.012	93	123046	10.0	10.3	
54 Benzene	78	7.305	7.299	0.006	97	1681900	5.00	5.75	
56 1,2-Dichloroethane	62	7.378	7.372	0.006	97	422207	5.00	5.18	
57 Tert-amyl methyl ether	73	7.494	7.488	0.006	98	955983	5.00	5.10	
* 58 Fluorobenzene (IS)	96	7.707	7.702	0.005	99	2483032	10.0	10.0	
59 n-Heptane	43	7.720	7.714	0.006	93	644264	5.00	6.73	
60 n-Butanol	56	8.073	8.061	0.012	90	294353	250.2	300.5	
61 Trichloroethene	95	8.189	8.183	0.006	98	586561	5.00	6.98	
62 Methylcyclohexane	83	8.494	8.488	0.006	93	780925	5.00	5.83	
63 1,2-Dichloropropane	63	8.512	8.512	0.000	94	409781	5.00	5.84	
64 Methyl methacrylate	69	8.598	8.592	0.006	92	167591	5.00	5.01	
65 1,4-Dioxane	88	8.604	8.604	0.000	32	40129	125.1	159.0	M
66 Dibromomethane	93	8.628	8.622	0.006	93	190821	5.00	4.92	
68 Dichlorobromomethane	83	8.860	8.854	0.006	99	506253	5.00	5.47	
69 2-Nitropropane	41	9.122	9.116	0.006	99	48872	5.00	4.70	
72 1-Bromo-2-chloroethane	63	9.250	9.244	0.006	99	391889	5.00	5.91	
73 cis-1,3-Dichloropropene	75	9.402	9.396	0.006	96	565347	5.00	5.19	
74 4-Methyl-2-pentanone (MIBK)	43	9.567	9.567	0.000	97	3112762	62.6	68.3	
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	94	2471173	10.0	10.7	
76 Toluene	92	9.786	9.780	0.006	98	1075797	5.00	5.99	
78 trans-1,3-Dichloropropene	75	10.036	10.036	0.000	93	490902	5.00	6.09	
79 Ethyl methacrylate	69	10.097	10.097	0.000	90	365781	5.00	5.85	
80 1,1,2-Trichloroethane	97	10.244	10.238	0.006	91	282923	5.00	5.75	
81 Tetrachloroethene	166	10.335	10.329	0.006	99	1137066	5.00	11.0	
82 1,3-Dichloropropane	76	10.402	10.402	0.000	90	478313	5.00	6.05	
83 2-Hexanone	43	10.451	10.451	0.000	96	2199039	62.6	71.8	
85 Chlorodibromomethane	129	10.615	10.616	-0.001	89	354088	5.00	5.30	
86 Ethylene Dibromide	107	10.731	10.731	0.000	98	263419	5.00	5.51	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	86	1903053	10.0	10.0	
88 1-Chlorohexane	91	11.164	11.164	0.000	98	594479	5.00	5.47	
90 Chlorobenzene	112	11.182	11.183	-0.001	96	1156678	5.00	5.44	
91 1,1,1,2-Tetrachloroethane	131	11.268	11.262	0.006	94	414085	5.00	5.28	
92 Ethylbenzene	91	11.268	11.268	0.000	98	2080273	5.00	5.86	
93 m-Xylene & p-Xylene	106	11.384	11.384	0.000	99	1625760	10.0	11.2	
94 o-Xylene	106	11.713	11.713	0.000	96	762024	5.00	5.32	
95 Styrene	104	11.725	11.725	0.000	95	1250259	5.00	5.61	
96 Bromoform	173	11.890	11.884	0.006	98	212506	5.00	5.17	
97 Isopropylbenzene	105	12.011	12.012	-0.001	96	2101067	5.00	5.62	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	94	903573	10.0	10.1	
101 1,1,2,2-Tetrachloroethane	83	12.255	12.256	-0.001	94	356350	5.00	6.29	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
102 Bromobenzene	156	12.274	12.274	0.000	95	500151	5.00	5.55	
103 trans-1,4-Dichloro-2-butene	53	12.280	12.280	0.000	92	389817	25.0	23.7	
104 1,2,3-Trichloropropane	110	12.304	12.298	0.006	84	97662	5.00	5.82	
105 N-Propylbenzene	91	12.341	12.341	0.000	99	2456998	5.00	6.25	
106 2-Chlorotoluene	126	12.414	12.414	0.000	97	483361	5.00	5.59	
107 1,3,5-Trimethylbenzene	105	12.475	12.475	0.000	94	1730780	5.00	5.95	
108 4-Chlorotoluene	126	12.511	12.506	0.005	97	488703	5.00	5.54	
109 tert-Butylbenzene	134	12.719	12.713	0.006	93	365813	5.00	5.22	
111 1,2,4-Trimethylbenzene	105	12.761	12.755	0.006	97	1727822	5.00	5.89	
112 sec-Butylbenzene	105	12.877	12.877	0.000	94	2246748	5.00	6.05	
113 1,3-Dichlorobenzene	146	12.981	12.981	0.000	98	946026	5.00	5.39	
114 4-Isopropyltoluene	119	12.987	12.987	0.000	97	1935558	5.00	5.79	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	1070831	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.054	13.054	0.000	95	967249	5.00	5.40	
117 1,2,3-Trimethylbenzene	120	13.060	13.060	0.000	98	739915	5.00	5.46	
118 Benzyl chloride	126	13.127	13.127	0.000	99	133600	5.00	5.83	
119 n-Butylbenzene	92	13.280	13.280	0.000	97	897023	5.00	6.05	
120 1,2-Dichlorobenzene	146	13.310	13.310	0.000	99	860485	5.00	5.38	
122 1,2-Dibromo-3-Chloropropane	155	13.859	13.853	0.006	92	46982	5.00	5.18	
123 1,3,5-Trichlorobenzene	180	13.981	13.981	0.000	98	685883	5.00	5.23	
124 1,2,4-Trichlorobenzene	180	14.401	14.401	0.000	94	559137	5.00	5.06	
125 Hexachlorobutadiene	225	14.487	14.487	0.000	96	254307	5.00	5.08	
126 Naphthalene	128	14.584	14.584	0.000	97	981675	5.00	5.20	
127 1,2,3-Trichlorobenzene	180	14.724	14.725	-0.001	95	486942	5.00	5.04	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
137 2-Methylnaphthalene	142		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	
134 Isopropyl alcohol	45		0.000				ND	ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MSV_LCS_EE_00002	Amount Added: 5.38	Units: uL	
MSV_LCS_ETBR_00001	Amount Added: 5.38	Units: uL	
MSV_LCS_VOC#1_00052	Amount Added: 5.38	Units: uL	
MSV_QC_Gas826_00078	Amount Added: 5.38	Units: uL	
MSV_LCS_ACROL_00055	Amount Added: 5.38	Units: uL	
MSV_LLcentISS_00004	Amount Added: 5.00	Units: uL	Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X14.D

Injection Date: 02-May-2022 13:59:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: 410-81767-A-6 MS

Worklist Smp#: 15

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

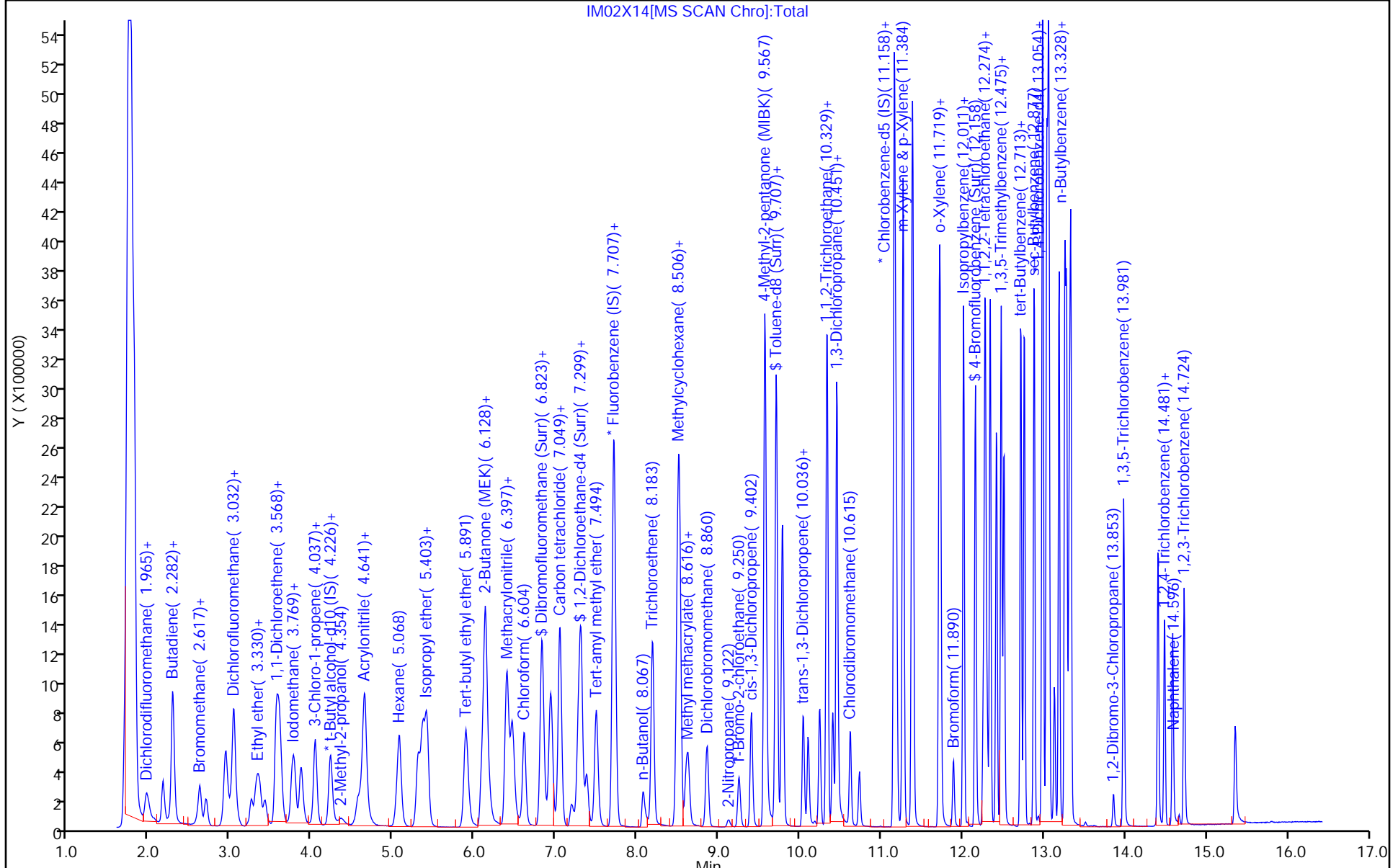
ALS Bottle#: 14

Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Environment Testing, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X14.D
 Lims ID: 410-81767-A-6 MS
 Client ID: HD-COD-SW-15-0/1-0
 Sample Type: MS
 Inject. Date: 02-May-2022 13:59:30 ALS Bottle#: 14 Worklist Smp#: 15
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0056183-015
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 03-May-2022 10:44:37 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14I37.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1607

First Level Reviewer: kaewrungrueangp Date: 03-May-2022 10:44:37

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.29	92.90
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.3	102.77
\$ 75 Toluene-d8 (Surr)	10.0	10.7	106.70
\$ 100 4-Bromofluorobenzene (Surr)	10.0	10.1	100.61

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-15-0/1-0 MSD Lab Sample ID: 410-81767-6 MSD
 Matrix: Water Lab File ID: IM02X15.D
 Analysis Method: 8260D Date Collected: 04/26/2022 12:05
 Sample wt/vol: 25 (mL) Date Analyzed: 05/02/2022 14:20
 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.: 250524 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.15		0.50	0.070
71-55-6	1,1,1-Trichloroethane	5.38		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	6.12		0.50	0.070
79-00-5	1,1,2-Trichloroethane	5.64		0.50	0.060
75-34-3	1,1-Dichloroethane	5.75		0.50	0.070
75-35-4	1,1-Dichloroethene	5.87		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	5.44		0.50	0.060
107-06-2	1,2-Dichloroethane	5.27		0.50	0.050
78-87-5	1,2-Dichloropropane	5.75		0.50	0.060
78-93-3	2-Butanone (MEK)	68.7		5.0	0.60
591-78-6	2-Hexanone	72.2		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	67.1		5.0	0.70
67-64-1	Acetone	61.6		5.0	0.90
71-43-2	Benzene	5.61		0.50	0.050
74-97-5	Bromochloromethane	4.73		0.50	0.050
75-27-4	Bromodichloromethane	5.35		0.50	0.050
75-25-2	Bromoform	5.05		1.0	0.30
74-83-9	Bromomethane	3.62		0.50	0.070
75-15-0	Carbon disulfide	6.93		1.0	0.060
56-23-5	Carbon tetrachloride	5.05		0.50	0.070
108-90-7	Chlorobenzene	5.42		0.50	0.060
75-00-3	Chloroethane	4.28		0.50	0.070
67-66-3	Chloroform	5.45		0.50	0.090
74-87-3	Chloromethane	4.80		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	6.96		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	5.19		0.50	0.050
124-48-1	Dibromochloromethane	5.23		0.50	0.070
100-41-4	Ethylbenzene	5.79		0.50	0.060
1634-04-4	Methyl tert-butyl ether	5.21		0.50	0.050
75-09-2	Methylene Chloride	5.53		0.50	0.070
100-42-5	Styrene	5.52		0.50	0.050
127-18-4	Tetrachloroethene	10.9		0.50	0.060
108-88-3	Toluene	5.89		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	5.28		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	6.07		0.50	0.060
79-01-6	Trichloroethene	6.76		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-81767-1
 SDG No.: _____
 Client Sample ID: HD-COD-SW-15-0/1-0 MSD Lab Sample ID: 410-81767-6 MSD
 Matrix: Water Lab File ID: IM02X15.D
 Analysis Method: 8260D Date Collected: 04/26/2022 12:05
 Sample wt/vol: 25 (mL) Date Analyzed: 05/02/2022 14:20
 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.: 250524 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	4.47		0.50	0.10
1330-20-7	Xylenes, Total	16.2		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		80-120
460-00-4	4-Bromofluorobenzene (Surr)	102		80-120
1868-53-7	Dibromofluoromethane (Surr)	92		80-120
2037-26-5	Toluene-d8 (Surr)	107		80-120

Eurofins Lancaster Laboratories Environment Testing, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X15.D
 Lims ID: 410-81767-A-6 MSD
 Client ID: HD-COD-SW-15-0/1-0
 Sample Type: MSD
 Inject. Date: 02-May-2022 14:20:30 ALS Bottle#: 15 Worklist Smp#: 16
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0056183-016
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 03-May-2022 10:44:37 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1607

First Level Reviewer: kaewrungrueangp

Date: 03-May-2022 10:45:07

Compound	Sig	RT (min.)	Exp RT (min.)	Diff RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.959	1.965	-0.006	99	421335	5.00	4.45	
4 Chloromethane	50	2.154	2.166	-0.012	99	468431	5.00	4.80	
6 Butadiene	39	2.276	2.282	-0.006	91	477639	5.00	4.74	
5 Vinyl chloride	62	2.270	2.282	-0.012	98	460830	5.00	4.47	
7 Bromomethane	94	2.611	2.617	-0.006	91	308675	5.00	3.62	
8 Chloroethane	64	2.684	2.696	-0.012	100	268324	5.00	4.28	
9 Dichlorofluoromethane	67	2.922	2.928	-0.006	97	685701	5.00	4.35	
10 Trichlorofluoromethane	101	3.001	3.007	-0.006	98	689363	5.00	4.50	M
11 Ethyl ether	59	3.239	3.245	-0.006	93	162748	4.98	3.85	
12 1,2-Dichloro-1,1,2-trifluoroethane	67	3.324	3.330	-0.006	92	500268	5.00	5.69	
13 Acrolein	56	3.410	3.416	-0.006	99	277453	37.5	37.4	
14 1,1-Dichloroethene	96	3.550	3.556	-0.006	98	390603	5.00	5.87	
15 Acetone	43	3.574	3.580	-0.006	100	617862	62.6	61.6	
16 112TCTFE	101	3.586	3.599	-0.013	91	423164	5.00	6.06	
17 Iodomethane	142	3.745	3.751	-0.006	100	666556	5.00	4.89	
18 Ethyl bromide	108	3.769	3.782	-0.013	99	303766	5.00	4.78	
19 Carbon disulfide	76	3.855	3.861	-0.006	99	1032996	5.00	6.93	
21 Methyl acetate	43	4.007	4.007	0.000	98	141508	5.00	5.78	M
22 3-Chloro-1-propene	41	4.025	4.032	-0.007	92	608415	5.00	6.46	
23 Methylene Chloride	84	4.214	4.221	-0.007	92	384754	5.00	5.53	
* 24 t-Butyl alcohol-d10 (IS)	65	4.220	4.227	-0.007	94	184840	50.0	50.0	
25 2-Methyl-2-propanol	59	4.349	4.342	0.006	99	165618	50.0	44.7	
26 Acrylonitrile	53	4.550	4.556	-0.006	98	363109	25.0	30.8	
27 Methyl tert-butyl ether	73	4.623	4.623	0.000	96	905066	5.00	5.21	
28 trans-1,2-Dichloroethene	96	4.635	4.641	-0.006	99	398239	5.00	5.28	
29 Hexane	57	5.056	5.068	-0.012	94	602612	5.00	6.59	
31 1,1-Dichloroethane	63	5.293	5.294	-0.001	96	742608	5.00	5.75	
32 Isopropyl ether	45	5.354	5.354	0.000	94	1174310	5.00	5.83	
33 2-Chloro-1,3-butadiene	53	5.403	5.409	-0.006	91	632338	5.00	6.02	
34 Tert-butyl ethyl ether	59	5.885	5.885	0.000	98	1099234	5.00	5.36	
36 2-Butanone (MEK)	43	6.080	6.086	-0.006	100	1194162	62.6	68.7	
37 cis-1,2-Dichloroethene	96	6.123	6.123	0.000	82	599420	5.00	6.96	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
38 2,2-Dichloropropane	77	6.129	6.141	-0.012	87	653539	5.00	5.46	
40 Propionitrile	54	6.171	6.171	0.000	98	193786	37.5	43.5	
42 Methacrylonitrile	67	6.391	6.391	0.000	92	718220	37.5	40.4	
43 Chlorobromomethane	128	6.452	6.458	-0.006	94	186844	5.00	4.73	
44 Tetrahydrofuran	71	6.464	6.464	0.000	82	140627	25.0	28.6	
45 Chloroform	83	6.598	6.604	-0.006	93	757241	5.00	5.45	
\$ 46 Dibromofluoromethane (Surr)	113	6.818	6.818	0.000	94	632371	10.0	9.22	
47 1,1,1-Trichloroethane	97	6.830	6.830	0.000	98	725914	5.00	5.38	
48 Cyclohexane	56	6.933	6.933	0.000	91	738180	5.00	6.51	
51 1,1-Dichloropropene	75	7.043	7.043	0.000	95	586641	5.00	5.64	
50 Carbon tetrachloride	117	7.043	7.043	0.000	90	629322	5.00	5.05	
52 Isobutyl alcohol	41	7.183	7.189	-0.006	93	153538	125.1	123.0	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.269	7.263	0.006	91	128309	10.0	10.5	
54 Benzene	78	7.299	7.299	0.000	97	1676048	5.00	5.61	
56 1,2-Dichloroethane	62	7.372	7.372	0.000	98	439139	5.00	5.27	
57 Tert-amyl methyl ether	73	7.488	7.488	0.000	98	960763	5.00	5.02	
* 58 Fluorobenzene (IS)	96	7.702	7.702	0.000	99	2534934	10.0	10.0	
59 n-Heptane	43	7.714	7.714	0.000	92	640260	5.00	6.55	
60 n-Butanol	56	8.067	8.061	0.006	90	291477	250.2	295.2	
61 Trichloroethene	95	8.183	8.183	0.000	98	580384	5.00	6.76	
62 Methylcyclohexane	83	8.488	8.488	0.000	94	791209	5.00	5.78	
63 1,2-Dichloropropane	63	8.506	8.512	-0.006	93	411495	5.00	5.75	
64 Methyl methacrylate	69	8.598	8.592	0.006	90	167510	5.00	4.97	
65 1,4-Dioxane	88	8.604	8.604	0.000	31	40919	125.1	160.8	
66 Dibromomethane	93	8.622	8.622	0.000	93	191234	5.00	4.83	
68 Dichlorobromomethane	83	8.854	8.854	0.000	99	505446	5.00	5.35	
69 2-Nitropropane	41	9.122	9.116	0.006	100	47593	5.00	4.55	
72 1-Bromo-2-chloroethane	63	9.244	9.244	0.000	99	400388	5.00	5.91	
73 cis-1,3-Dichloropropene	75	9.402	9.396	0.006	96	577100	5.00	5.19	
74 4-Methyl-2-pentanone (MIBK)	43	9.567	9.567	0.000	97	3086255	62.6	67.1	
\$ 75 Toluene-d8 (Surr)	98	9.707	9.707	0.000	94	2517086	10.0	10.7	
76 Toluene	92	9.780	9.780	0.000	98	1072051	5.00	5.89	
78 trans-1,3-Dichloropropene	75	10.036	10.036	0.000	93	496467	5.00	6.07	
79 Ethyl methacrylate	69	10.097	10.097	0.000	89	369464	5.00	5.83	
80 1,1,2-Trichloroethane	97	10.238	10.238	0.000	92	281362	5.00	5.64	
81 Tetrachloroethene	166	10.329	10.329	0.000	99	1139633	5.00	10.9	
82 1,3-Dichloropropane	76	10.402	10.402	0.000	91	475452	5.00	5.93	
83 2-Hexanone	43	10.451	10.451	0.000	97	2228024	62.6	72.2	
85 Chlorodibromomethane	129	10.616	10.616	0.000	90	354074	5.00	5.23	
86 Ethylene Dibromide	107	10.731	10.731	0.000	99	263635	5.00	5.44	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	86	1929341	10.0	10.0	
88 1-Chlorohexane	91	11.164	11.164	0.000	99	596023	5.00	5.41	
90 Chlorobenzene	112	11.183	11.183	0.000	95	1167765	5.00	5.42	
91 1,1,1,2-Tetrachloroethane	131	11.262	11.262	0.000	95	409586	5.00	5.15	
92 Ethylbenzene	91	11.268	11.268	0.000	98	2085769	5.00	5.79	
93 m-Xylene & p-Xylene	106	11.384	11.384	0.000	99	1619766	10.0	11.0	
94 o-Xylene	106	11.713	11.713	0.000	96	761334	5.00	5.24	
95 Styrene	104	11.725	11.725	0.000	95	1246694	5.00	5.52	
96 Bromoform	173	11.884	11.884	0.000	98	210362	5.00	5.05	
97 Isopropylbenzene	105	12.012	12.012	0.000	96	2110887	5.00	5.57	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.158	12.158	0.000	93	925319	10.0	10.2	
101 1,1,2,2-Tetrachloroethane	83	12.256	12.256	0.000	94	351684	5.00	6.12	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
102 Bromobenzene	156	12.274	12.274	0.000	95	498962	5.00	5.46	
103 trans-1,4-Dichloro-2-butene	53	12.280	12.280	0.000	94	392305	25.0	23.7	
104 1,2,3-Trichloropropane	110	12.298	12.298	0.000	82	97193	5.00	5.72	
105 N-Propylbenzene	91	12.341	12.341	0.000	99	2484354	5.00	6.23	
106 2-Chlorotoluene	126	12.414	12.414	0.000	96	471790	5.00	5.39	
107 1,3,5-Trimethylbenzene	105	12.475	12.475	0.000	94	1721823	5.00	5.84	
108 4-Chlorotoluene	126	12.512	12.506	0.006	97	492997	5.00	5.51	
109 tert-Butylbenzene	134	12.719	12.713	0.006	93	368432	5.00	5.19	
111 1,2,4-Trimethylbenzene	105	12.755	12.755	0.000	98	1739267	5.00	5.85	
112 sec-Butylbenzene	105	12.877	12.877	0.000	94	2269005	5.00	6.03	
113 1,3-Dichlorobenzene	146	12.981	12.981	0.000	98	947614	5.00	5.33	
114 4-Isopropyltoluene	119	12.987	12.987	0.000	97	1941181	5.00	5.73	
* 115 1,4-Dichlorobenzene-d4	152	13.036	13.036	0.000	94	1085648	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.054	13.054	0.000	95	975998	5.00	5.37	
117 1,2,3-Trimethylbenzene	120	13.060	13.060	0.000	98	748402	5.00	5.45	
118 Benzyl chloride	126	13.127	13.127	0.000	99	131681	5.00	5.67	
119 n-Butylbenzene	92	13.280	13.280	0.000	97	907261	5.00	6.03	
120 1,2-Dichlorobenzene	146	13.310	13.310	0.000	99	875037	5.00	5.40	
122 1,2-Dibromo-3-Chloropropane	155	13.859	13.853	0.006	86	44967	5.00	4.89	
123 1,3,5-Trichlorobenzene	180	13.981	13.981	0.000	98	685420	5.00	5.16	
124 1,2,4-Trichlorobenzene	180	14.401	14.401	0.000	94	557098	5.00	4.98	
125 Hexachlorobutadiene	225	14.487	14.487	0.000	96	253995	5.00	5.00	
126 Naphthalene	128	14.584	14.584	0.000	97	1002253	5.00	5.23	
127 1,2,3-Trichlorobenzene	180	14.725	14.725	0.000	96	499208	5.00	5.09	
135 p-Diethylbenzene	1		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
137 2-Methylnaphthalene	142		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	
134 Isopropyl alcohol	45		0.000				ND	ND	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

MSV_LCS_EE_00002	Amount Added: 5.38	Units: uL	
MSV_LCS_ETBR_00001	Amount Added: 5.38	Units: uL	
MSV_LCS_VOC#1_00052	Amount Added: 5.38	Units: uL	
MSV_QC_Gas826_00078	Amount Added: 5.38	Units: uL	
MSV_LCS_ACROL_00055	Amount Added: 5.38	Units: uL	
MSV_LLcentISS_00004	Amount Added: 5.00	Units: uL	Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X15.D

Injection Date: 02-May-2022 14:20:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: 410-81767-A-6 MSD

Worklist Smp#: 16

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

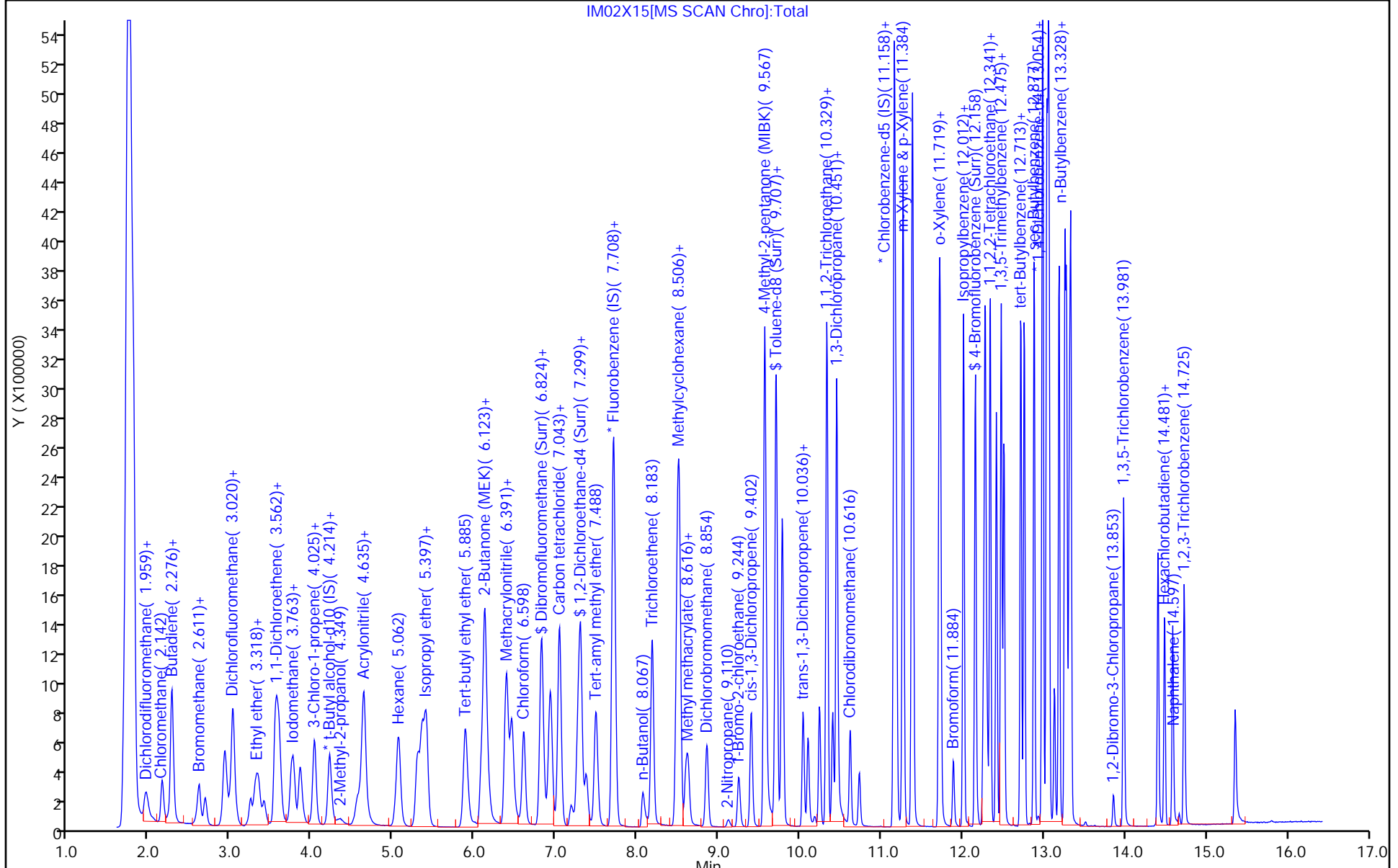
ALS Bottle#: 15

Method: 8260 25ml HP31

Limit Group: MSV - 8260C_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



IM02X15[MS SCAN Chrom]:Total

Eurofins Lancaster Laboratories Environment Testing, LLC
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\IM02X15.D
 Lims ID: 410-81767-A-6 MSD
 Client ID: HD-COD-SW-15-0/1-0
 Sample Type: MSD
 Inject. Date: 02-May-2022 14:20:30 ALS Bottle#: 15 Worklist Smp#: 16
 Purge Vol: 25.000 mL Dil. Factor: 1.0000
 Sample Info: 410-0056183-016
 Operator ID: KNK41612 Instrument ID: 19930
 Method: \\chromfs\Lancaster\ChromData\19930\20220502-56183.b\8260 25ml HP31.m
 Limit Group: MSV - 8260C_D
 Last Update: 03-May-2022 10:44:37 Calib Date: 15-Mar-2022 03:22:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20220314-52441.b\IM14137.D
 Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
 Process Host: CTX1607

First Level Reviewer: kaewrungrueangp

Date: 03-May-2022 10:45:07

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.22	92.16
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.5	104.97
\$ 75 Toluene-d8 (Surr)	10.0	10.7	107.21
\$ 100 4-Bromofluorobenzene (Surr)	10.0	10.2	101.62

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-81767-1

SDG No.: _____

Instrument ID: 19930Start Date: 03/14/2022 21:24Analysis Batch Number: 233459End Date: 03/15/2022 03:43

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-233459/1		03/14/2022 21:24	1	IM14T01.D	R-624SilMS 30m 0.25 (mm)
IC 410-233459/3		03/14/2022 22:05	1		R-624SilMS 30m 0.25 (mm)
IC 410-233459/4		03/14/2022 22:26	1		R-624SilMS 30m 0.25 (mm)
IC 410-233459/5		03/14/2022 22:47	1		R-624SilMS 30m 0.25 (mm)
IC 410-233459/6		03/14/2022 23:08	1		R-624SilMS 30m 0.25 (mm)
IC 410-233459/7		03/14/2022 23:29	1		R-624SilMS 30m 0.25 (mm)
IC 410-233459/8		03/14/2022 23:50	1		R-624SilMS 30m 0.25 (mm)
IC 410-233459/9		03/15/2022 00:12	1		R-624SilMS 30m 0.25 (mm)
ICV 410-233459/10		03/15/2022 00:33	1		R-624SilMS 30m 0.25 (mm)
IC 410-233459/12		03/15/2022 01:15	1	IM14I31.D	R-624SilMS 30m 0.25 (mm)
ICIS 410-233459/13		03/15/2022 01:36	1	IM14I32.D	R-624SilMS 30m 0.25 (mm)
IC 410-233459/14		03/15/2022 01:58	1	IM14I33.D	R-624SilMS 30m 0.25 (mm)
IC 410-233459/15		03/15/2022 02:19	1	IM14I34.D	R-624SilMS 30m 0.25 (mm)
IC 410-233459/16		03/15/2022 02:40	1	IM14I35.D	R-624SilMS 30m 0.25 (mm)
IC 410-233459/17		03/15/2022 03:01	1	IM14I36.D	R-624SilMS 30m 0.25 (mm)
IC 410-233459/18		03/15/2022 03:22	1	IM14I37.D	R-624SilMS 30m 0.25 (mm)
ICV 410-233459/19		03/15/2022 03:43	1	IM14V01.D	R-624SilMS 30m 0.25 (mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-81767-1

SDG No.: _____

Instrument ID: 19930Start Date: 05/02/2022 09:06Analysis Batch Number: 250524End Date: 05/02/2022 17:52

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-250524/1		05/02/2022 09:06	1	IM02T03.D	R-624SilMS 30m 0.25 (mm)
CCVIS 410-250524/3		05/02/2022 09:45	1	IM02X02.D	R-624SilMS 30m 0.25 (mm)
LCS 410-250524/4		05/02/2022 10:06	1	IM02X03.D	R-624SilMS 30m 0.25 (mm)
LCSD 410-250524/5		05/02/2022 10:27	1	IM02X04.D	R-624SilMS 30m 0.25 (mm)
ZZZZZ		05/02/2022 10:48	1		R-624SilMS 30m 0.25 (mm)
MB 410-250524/7		05/02/2022 11:09	1	IM02X06.D	R-624SilMS 30m 0.25 (mm)
410-81767-14	HD-QC1-0/1-2	05/02/2022 11:30	1	IM02X07.D	R-624SilMS 30m 0.25 (mm)
410-81767-1	HD-COD-SW-6-0/1-0	05/02/2022 11:52	1	IM02X08.D	R-624SilMS 30m 0.25 (mm)
410-81767-2	HD-COD-SW-7-0/1-0	05/02/2022 12:13	1	IM02X09.D	R-624SilMS 30m 0.25 (mm)
410-81767-3	HD-COD-SW-8-0/1-0	05/02/2022 12:34	1	IM02X10.D	R-624SilMS 30m 0.25 (mm)
410-81767-4	HD-COD-SW-9-0/1-0	05/02/2022 12:55	1	IM02X11.D	R-624SilMS 30m 0.25 (mm)
410-81767-5	HD-COD-SW-13-0/1-0	05/02/2022 13:16	1	IM02X12.D	R-624SilMS 30m 0.25 (mm)
410-81767-6	HD-COD-SW-15-0/1-0	05/02/2022 13:38	1	IM02X13.D	R-624SilMS 30m 0.25 (mm)
410-81767-6 MS	HD-COD-SW-15-0/1-0 MS	05/02/2022 13:59	1	IM02X14.D	R-624SilMS 30m 0.25 (mm)
410-81767-6 MSD	HD-COD-SW-15-0/1-0 MSD	05/02/2022 14:20	1	IM02X15.D	R-624SilMS 30m 0.25 (mm)
410-81767-7	HD-COD-SW-16-0/1-0	05/02/2022 14:41	1	IM02X16.D	R-624SilMS 30m 0.25 (mm)
410-81767-8	HD-COD-SW-17-0/1-0	05/02/2022 15:02	1	IM02X17.D	R-624SilMS 30m 0.25 (mm)
410-81767-9	HD-COD-SW-26-0/1-0	05/02/2022 15:23	1	IM02X18.D	R-624SilMS 30m 0.25 (mm)
410-81767-10	HD-COD-SW-27-0/1-0	05/02/2022 15:45	1	IM02X19.D	R-624SilMS 30m 0.25 (mm)
410-81767-11	HD-COD-SW-28-0/1-0	05/02/2022 16:06	1	IM02X20.D	R-624SilMS 30m 0.25 (mm)
410-81767-12	HD-COD-SW-29-0/1-0	05/02/2022 16:27	1	IM02X21.D	R-624SilMS 30m 0.25 (mm)
410-81767-13	HD-QC1-0/1-1	05/02/2022 16:48	1	IM02X22.D	R-624SilMS 30m 0.25 (mm)
ZZZZZ		05/02/2022 17:09	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		05/02/2022 17:30	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		05/02/2022 17:52	1		R-624SilMS 30m 0.25 (mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Envi Job No.: 410-81767-1

SDG No.: _____

Instrument ID: 19930 Start Date: 05/05/2022 08:40

Analysis Batch Number: 251841 End Date: 05/05/2022 18:46

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-251841/1		05/05/2022 08:40	1	IM05T01.D	R-624silMS 30m 0.25 (mm)
CCVIS 410-251841/3		05/05/2022 09:14	1	IM05X02.D	R-624silMS 30m 0.25 (mm)
LCS 410-251841/4		05/05/2022 09:35	1	IM05X03.D	R-624silMS 30m 0.25 (mm)
ZZZZZ		05/05/2022 09:56	1		R-624silMS 30m 0.25 (mm)
MB 410-251841/6		05/05/2022 10:17	1	IM05X05.D	R-624silMS 30m 0.25 (mm)
ZZZZZ		05/05/2022 10:38	1		R-624silMS 30m 0.25 (mm)
ZZZZZ		05/05/2022 11:00	1		R-624silMS 30m 0.25 (mm)
ZZZZZ		05/05/2022 11:21	1		R-624silMS 30m 0.25 (mm)
ZZZZZ		05/05/2022 11:42	1		R-624silMS 30m 0.25 (mm)
ZZZZZ		05/05/2022 12:04	1		R-624silMS 30m 0.25 (mm)
ZZZZZ		05/05/2022 12:25	1		R-624silMS 30m 0.25 (mm)
ZZZZZ		05/05/2022 12:46	1		R-624silMS 30m 0.25 (mm)
ZZZZZ		05/05/2022 13:07	1		R-624silMS 30m 0.25 (mm)
ZZZZZ		05/05/2022 13:28	1		R-624silMS 30m 0.25 (mm)
ZZZZZ		05/05/2022 13:49	1		R-624silMS 30m 0.25 (mm)
ZZZZZ		05/05/2022 14:10	50		R-624silMS 30m 0.25 (mm)
ZZZZZ		05/05/2022 14:32	50		R-624silMS 30m 0.25 (mm)
ZZZZZ		05/05/2022 14:53	50		R-624silMS 30m 0.25 (mm)
ZZZZZ		05/05/2022 15:35	500		R-624silMS 30m 0.25 (mm)
ZZZZZ		05/05/2022 15:57	1		R-624silMS 30m 0.25 (mm)
ZZZZZ		05/05/2022 16:18	1		R-624silMS 30m 0.25 (mm)
ZZZZZ		05/05/2022 16:39	1		R-624silMS 30m 0.25 (mm)
ZZZZZ		05/05/2022 17:00	1		R-624silMS 30m 0.25 (mm)
ZZZZZ		05/05/2022 17:21	1		R-624silMS 30m 0.25 (mm)
ZZZZZ		05/05/2022 17:42	1		R-624silMS 30m 0.25 (mm)
ZZZZZ		05/05/2022 18:04	1		R-624silMS 30m 0.25 (mm)
410-81767-8 DL	HD-COD-SW-17-0/1-0 DL	05/05/2022 18:25	10	IM05X28.D	R-624silMS 30m 0.25 (mm)
410-81767-13 DL	HD-QC1-0/1-1 DL	05/05/2022 18:46	10	IM05X29.D	R-624silMS 30m 0.25 (mm)

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-81767-1

SDG No.: _____

Batch Number: 233459 Batch Start Date: 03/14/22 21:24 Batch Analyst: Kephart, Kayla

Batch Method: 8260D Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Lot#Vial	MSV_LCS_ACROL 00048	MSV_LCS_EE 00002	MSV_LCS_ETBR 00001
BFB 410-233459/1		8260D		1 uL	1 uL				
IC 410-233459/12		8260D		25 mL	25 mL	2622			
ICIS 410-233459/13		8260D		25 mL	25 mL	2622			
IC 410-233459/14		8260D		25 mL	25 mL	2622			
IC 410-233459/15		8260D		25 mL	25 mL	2622			
IC 410-233459/16		8260D		25 mL	25 mL	2622			
IC 410-233459/17		8260D		25 mL	25 mL	2622			
IC 410-233459/18		8260D		25 mL	25 mL	2622			
ICV 410-233459/19		8260D		25 mL	25 mL	2622	12.5 uL	12.5 uL	12.5 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_LCS_Penta 00013	MSV_LCS_VOC#1 00044	MSV_LL_#1_826 00038	MSV_LL_#2_826 00042	MSV_LL_GAS826 00072	MSV_LLcentISS 00004
BFB 410-233459/1		8260D							
IC 410-233459/12		8260D				25 uL	25 uL	25 uL	5 uL
ICIS 410-233459/13		8260D				10 uL	10 uL	10 uL	5 uL
IC 410-233459/14		8260D				5 uL	5 uL	5 uL	5 uL
IC 410-233459/15		8260D				2 uL	2 uL	2 uL	5 uL
IC 410-233459/16		8260D				2 uL	2 uL	2 uL	5 uL
IC 410-233459/17		8260D				2 uL	2 uL	2 uL	5 uL
IC 410-233459/18		8260D				2 uL	2 uL	2 uL	5 uL
ICV 410-233459/19		8260D		12.5 uL	12.5 uL				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.: 410-81767-1

SDG No.: _____

Batch Number: 233459 Batch Start Date: 03/14/22 21:24 Batch Analyst: Kephart, Kayla

Batch Method: 8260D Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_QC_Gas826 00070	MSV_V_BFB 00007				
BFB 410-233459/1		8260D			1 uL				
IC 410-233459/12		8260D							
ICIS 410-233459/13		8260D							
IC 410-233459/14		8260D							
IC 410-233459/15		8260D							
IC 410-233459/16		8260D							
IC 410-233459/17		8260D							
IC 410-233459/18		8260D							
ICV 410-233459/19		8260D		12.5 uL					

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.: 410-81767-1

SDG No.: _____

Batch Number: 250524 Batch Start Date: 05/02/22 09:06 Batch Analyst: Kephart, Kayla

Batch Method: 8260D Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	ResidualChloChe ck	Headspace	Lot#Vial
BFB 410-250524/1		8260D		1 uL	1 uL				
CCVIS 410-250524/3		8260D		25 mL	25 mL				2639
LCS 410-250524/4		8260D		25 mL	25 mL				2639
LCS 410-250524/5		8260D		25 mL	25 mL				2639
MB 410-250524/7		8260D		25 mL	25 mL				2639
410-81767-A-14	HD-QC1-0/1-2	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-81767-A-1	HD-COD-SW-6-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-81767-A-2	HD-COD-SW-7-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-81767-A-3	HD-COD-SW-8-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-81767-A-4	HD-COD-SW-9-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-81767-A-5	HD-COD-SW-13-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-81767-A-6	HD-COD-SW-15-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-81767-A-6 MS	HD-COD-SW-15-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-81767-A-6 MSD	HD-COD-SW-15-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-81767-A-7	HD-COD-SW-16-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-81767-A-8	HD-COD-SW-17-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-81767-A-9	HD-COD-SW-26-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-81767-A-10	HD-COD-SW-27-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-81767-A-11	HD-COD-SW-28-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-81767-A-12	HD-COD-SW-29-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-81767-A-13	HD-QC1-0/1-1	8260D	T	25 mL	25 mL	<2 SU	N	N	

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.: 410-81767-1

SDG No.: _____

Batch Number: 250524 Batch Start Date: 05/02/22 09:06 Batch Analyst: Kephart, Kayla

Batch Method: 8260D Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_LCS_ACROL 00055	MSV_LCS_EE 00002	MSV_LCS_ETBR 00001	MSV_LCS_VOC#1 00052	MSV_LL #1_524 00031	MSV_LL #2_826 00046
BFB 410-250524/1		8260D							
CCVIS 410-250524/3		8260D						25 uL	25 uL
LCS 410-250524/4		8260D		12.5 uL	12.5 uL	12.5 uL	12.5 uL		
LCS 410-250524/5		8260D		12.5 uL	12.5 uL	12.5 uL	12.5 uL		
MB 410-250524/7		8260D							
410-81767-A-14	HD-QC1-0/1-2	8260D	T						
410-81767-A-1	HD-COD-SW-6-0/1-0	8260D	T						
410-81767-A-2	HD-COD-SW-7-0/1-0	8260D	T						
410-81767-A-3	HD-COD-SW-8-0/1-0	8260D	T						
410-81767-A-4	HD-COD-SW-9-0/1-0	8260D	T						
410-81767-A-5	HD-COD-SW-13-0/1-0	8260D	T						
410-81767-A-6	HD-COD-SW-15-0/1-0	8260D	T						
410-81767-A-6 MS	HD-COD-SW-15-0/1-0	8260D	T	5.38 uL	5.38 uL	5.38 uL	5.38 uL		
410-81767-A-6 MSD	HD-COD-SW-15-0/1-0	8260D	T	5.38 uL	5.38 uL	5.38 uL	5.38 uL		
410-81767-A-7	HD-COD-SW-16-0/1-0	8260D	T						
410-81767-A-8	HD-COD-SW-17-0/1-0	8260D	T						
410-81767-A-9	HD-COD-SW-26-0/1-0	8260D	T						
410-81767-A-10	HD-COD-SW-27-0/1-0	8260D	T						
410-81767-A-11	HD-COD-SW-28-0/1-0	8260D	T						
410-81767-A-12	HD-COD-SW-29-0/1-0	8260D	T						
410-81767-A-13	HD-QC1-0/1-1	8260D	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.: 410-81767-1

SDG No.: _____

Batch Number: 250524 Batch Start Date: 05/02/22 09:06 Batch Analyst: Kephart, Kayla

Batch Method: 8260D Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_LL_GAS826 00081	MSV_LLcentISS 00004	MSV_QC_Gas826 00078	MSV_V_BFB 00007		
BFB 410-250524/1		8260D					1 uL		
CCVIS 410-250524/3		8260D		25 uL	5 uL				
LCS 410-250524/4		8260D			5 uL	12.5 uL			
LCS 410-250524/5		8260D			5 uL	12.5 uL			
MB 410-250524/7		8260D			5 uL				
410-81767-A-14	HD-QC1-0/1-2	8260D	T		5 uL				
410-81767-A-1	HD-COD-SW-6-0/1-0	8260D	T		5 uL				
410-81767-A-2	HD-COD-SW-7-0/1-0	8260D	T		5 uL				
410-81767-A-3	HD-COD-SW-8-0/1-0	8260D	T		5 uL				
410-81767-A-4	HD-COD-SW-9-0/1-0	8260D	T		5 uL				
410-81767-A-5	HD-COD-SW-13-0/1-0	8260D	T		5 uL				
410-81767-A-6	HD-COD-SW-15-0/1-0	8260D	T		5 uL				
410-81767-A-6 MS	HD-COD-SW-15-0/1-0	8260D	T		5 uL	5.38 uL			
410-81767-A-6 MSD	HD-COD-SW-15-0/1-0	8260D	T		5 uL	5.38 uL			
410-81767-A-7	HD-COD-SW-16-0/1-0	8260D	T		5 uL				
410-81767-A-8	HD-COD-SW-17-0/1-0	8260D	T		5 uL				
410-81767-A-9	HD-COD-SW-26-0/1-0	8260D	T		5 uL				
410-81767-A-10	HD-COD-SW-27-0/1-0	8260D	T		5 uL				
410-81767-A-11	HD-COD-SW-28-0/1-0	8260D	T		5 uL				
410-81767-A-12	HD-COD-SW-29-0/1-0	8260D	T		5 uL				
410-81767-A-13	HD-QC1-0/1-1	8260D	T		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.: 410-81767-1

SDG No.: _____

Batch Number: 250524 Batch Start Date: 05/02/22 09:06 Batch Analyst: Kephart, Kayla

Batch Method: 8260D Batch End Date: _____

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.: 410-81767-1

SDG No.: _____

Batch Number: 251841 Batch Start Date: 05/05/22 08:40 Batch Analyst: Kephart, Kayla

Batch Method: 8260D Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	ResidualChloChe ck	Headspace	Lot#Vial
BFB 410-251841/1		8260D		1 uL	1 uL				
CCVIS 410-251841/3		8260D		25 mL	25 mL				2639
LCS 410-251841/4		8260D		25 mL	25 mL				2639
MB 410-251841/6		8260D		25 mL	25 mL				2639
410-81767-B-8	HD-COD-SW-17-0/1 -0	8260D	T	25 mL	25 mL	<2 SU	N	N	2639
410-81767-B-13	HD-QC1-0/1-1	8260D	T	25 mL	25 mL	<2 SU	N	N	2639

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_LCS_ACROL 00056	MSV_LCS_EE 00002	MSV_LCS_ETBR 00001	MSV_LCS_VOC#1 00053	MSV_LL #1_826 00042	MSV_LL #2_826 00046
BFB 410-251841/1		8260D							
CCVIS 410-251841/3		8260D						20 uL	20 uL
LCS 410-251841/4		8260D		12.5 uL	12.5 uL	12.5 uL	12.5 uL		
MB 410-251841/6		8260D							
410-81767-B-8	HD-COD-SW-17-0/1 -0	8260D	T						
410-81767-B-13	HD-QC1-0/1-1	8260D	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_LL_GAS826 00083	MSV_LLcentISS 00004	MSV_QC_Gas826 00079	MSV_V_BFB 00007		
BFB 410-251841/1		8260D					1 uL		
CCVIS 410-251841/3		8260D		20 uL	5 uL				
LCS 410-251841/4		8260D			5 uL	12.5 uL			
MB 410-251841/6		8260D			5 uL				
410-81767-B-8	HD-COD-SW-17-0/1 -0	8260D	T		5 uL				
410-81767-B-13	HD-QC1-0/1-1	8260D	T		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.: 410-81767-1

SDG No.: _____

Batch Number: 251841 Batch Start Date: 05/05/22 08:40 Batch Analyst: Kephart, Kayla

Batch Method: 8260D Batch End Date: _____

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

180504 E Harrisburg, PA



410-81767 Chain of Custody

Analysis Request/Chain of Custody

1 of 2

Client: _____ 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. #: 10012.49		<input type="checkbox"/> Potable	<input type="checkbox"/> NPDES	<input type="checkbox"/> Water											SCR #: _____							
Sampler: Casey Littlefield / Erin Peeling		PWSID #: N/A		<input type="checkbox"/> Sediment			Total # of Containers	Aqueous VOCs via 8260D (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"/> Other:																Remarks				
State where samples were collected: York, PA		For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Collection		Grab												Composite						
		Date	Time																					
HD-COD-SW-6-0/1-0		4/26/22	1030	X														3	X					
HD-COD-SW-7-0/1-0			1140	X														3	X					
HD-COD-SW-8-0/1-0			0915	X														3	X					
HD-COD-SW-9-0/1-0			1310	X														3	X					
HD-COD-SW-13-0/1-0			0930	X														3	X					
HD-COD-SW-15-0/1-0			1205	X														3	X					
HD-COD-SW-15-0/1-0 MS			1205	X			3	X																
HD-COD-SW-15-0/1-0 MSD			1205	X			3	X																
HD-COD-SW-16-0/1-0			1000	X			3	X																
HD-COD-SW-17-0/1-0			1015	X			3	X																
Turnaround Time Requested (TAT) (please check): Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>				Relinquished by: <i>[Signature]</i>		Date: 4/26/22		Time: 1405		Received by: <i>[Signature]</i>		Date: 4/26/22		Time: 1405										
(Rush TAT is subject to laboratory approval and surcharges.)				Relinquished by: <i>[Signature]</i>		Date: 4/27/22		Time: 1145		Received by: <i>[Signature]</i>		Date: 4/27/22		Time: 1145										
Date results are needed:				Relinquished by: <i>[Signature]</i>		Date: 4/27/22		Time: 1816		Received by: <i>[Signature]</i>		Date: _____		Time: _____										
Rush results requested by (please check): E-Mail <input type="checkbox"/> Phone <input type="checkbox"/>				Relinquished by: <i>[Signature]</i>		Date: _____		Time: _____		Received by: <i>[Signature]</i>		Date: 4/27/22		Time: 1827										
E-mail Address:				Relinquished by: <i>[Signature]</i>		Date: _____		Time: _____		Received by: <i>[Signature]</i>		Date: _____		Time: _____										
Phone:				Relinquished by: <i>[Signature]</i>		Date: _____		Time: _____		Received by: <i>[Signature]</i>		Date: _____		Time: _____										
Data Package Options (please check if required)				Relinquished by: <i>[Signature]</i>		Date: _____		Time: _____		Received by: <i>[Signature]</i>		Date: _____		Time: _____										
Type I (Validation/non-CLP) <input type="checkbox"/>		MA MCP <input type="checkbox"/>		Relinquished by: <i>[Signature]</i>		Date: _____		Time: _____		Received by: <i>[Signature]</i>		Date: _____		Time: _____										
Type III (Reduced non-CLP) <input type="checkbox"/>		CT RCP <input type="checkbox"/>		Relinquished by: <i>[Signature]</i>		Date: _____		Time: _____		Received by: <i>[Signature]</i>		Date: _____		Time: _____										
Type VI (Raw Data Only) <input type="checkbox"/>		TX TRRP-13 <input type="checkbox"/>		Relinquished by: <i>[Signature]</i>		Date: _____		Time: _____		Received by: <i>[Signature]</i>		Date: _____		Time: _____										
NJ DWR <input type="checkbox"/>		NYSDEC Category <input type="checkbox"/> A or <input type="checkbox"/> B		Relinquished by: <i>[Signature]</i>		Date: _____		Time: _____		Received by: <i>[Signature]</i>		Date: _____		Time: _____										
CLP Like Deliverables, Project Specific Analyte				Relinquished by: <i>[Signature]</i>		Date: _____		Time: _____		Received by: <i>[Signature]</i>		Date: _____		Time: _____										
EDD Required? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				Relinquished by: <i>[Signature]</i>		Date: _____		Time: _____		Received by: <i>[Signature]</i>		Date: _____		Time: _____										
If yes, format: _____ List _____				Relinquished by: <i>[Signature]</i>		Date: _____		Time: _____		Received by: <i>[Signature]</i>		Date: _____		Time: _____										
UPS _____ FedEx _____ Other _____				Relinquished by: <i>[Signature]</i>		Date: _____		Time: _____		Received by: <i>[Signature]</i>		Date: _____		Time: _____										
Temperature upon receipt: 6.1 - 8.6°C				Relinquished by: <i>[Signature]</i>		Date: _____		Time: _____		Received by: <i>[Signature]</i>		Date: _____		Time: _____										

B.G

180504 Environmental Analysis Request/Chain of Custody

Harrisburg, PA

2 of 2



Lancaster Laboratories
Environmental

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"/> Soil	<input type="checkbox"/> Tissue	<input type="checkbox"/> Polable	<input type="checkbox"/> Ground	<input checked="" type="checkbox"/> Surface	Preservation Codes						SF #: _____	
Project Manager: Chris O'Neil		P.O. #: 10012 49		<input type="checkbox"/> Water	<input type="checkbox"/> NPDES	<input type="checkbox"/> Other: Trip Blank	Total # of Containers	H						SCR #: _____		
Sampler: Casey Littlefield / Erin Peeling		PWSID #: N/A						Aqueous VOCs via 8260D (low level - 25 ml purge)						Preservation Codes		
Phone #: (717) 901-8176 / (717) 756-1246		Quote #:											H = HCl T = Thiosulfate N = HNO ₃ B = NaOH S = H ₂ SO ₄ P = H ₃ PO ₄ O = Other			
State where samples were collected: York, PA		For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>											Remarks			
Sample Identification		Collection		Grab	Composite				Total # of Containers							
Date	Time															
HD-COD-SW-26-0/1-0	4/26/22	1120	X			X			3	X						
HD-COD-SW-27-0/1-0	↓	1155	X			X			3	X						
HD-COD-SW-28-0/1-0	↓	1320	X			X			3	X						
HD-COD-SW-29-0/1-0	↓	0900	X			X			3	X						
HD-QC1-0/1-1	↓	1200	X			X			3	X						
HD-QC1-0/1-2	↓	—	X				X		2	X						Trip Blank
Turnaround Time Requested (TAT) (please check):				Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>		Relinquished by:		Date	Time	Received by:		Date	Time			
(Rush TAT is subject to laboratory approval and surcharges.)						<i>[Signature]</i>		4/26/22	1405	<i>[Signature]</i>		4/26/22	1405			
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"/>		<i>[Signature]</i>		4/27/22	1145	<i>[Signature]</i>		4/27/22	1145			
E-mail Address:						Relinquished by:		Date	Time	Received by:		Date	Time			
Phone:						<i>[Signature]</i>		4/27/22	1816							
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										
CLP Like Deliverables, Project Specific Analyte						Relinquished by Commercial Carrier:										
EDD Required? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				If yes, format: _____ List		UPS _____ FedEx _____ Other _____						Temperature upon receipt		6.1-8.6 °C		

Login Sample Receipt Checklist

Client: Groundwater Sciences Corporation

Job Number: 410-81767-1

Login Number: 81767

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

List Number: 1

Creator: Metzger, Katherine A

Question	Answer	Comment
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).	False	Received same day of collection; chilling process has begun.
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	
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	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	True	