

## ANALYTICAL REPORT

Job Number: 410-71043-1

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  
2/4/2022 9:53 AM

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02/04/2022

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

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

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# Definitions/Glossary

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

Job ID: 410-71043-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
^c	CCV Recovery is outside acceptance limits.
cn	Refer to Case Narrative for further detail
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**  
**410-71043-1**

**Receipt**

The samples were received on 1/27/2022 6:25 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 1.1°C

**GC/MS VOA**

Method 8260D\_LL: The continuing calibration verification (CCV) associated with batch 410-220509 recovered outside acceptance criteria, low biased, for 2-Hexanone and 4-Methyl-2-pentanone (MIBK). 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.

Method 8260D\_LL: The following volatiles sample was diluted due to foaming at the time of purging during the original sample analysis: HD-QC1-0/1-1 (410-71043-13). Elevated reporting limits (RLs) are provided.

Method 8260D\_LL: The continuing calibration verification (CCV) associated with batch 410-220519 recovered above the upper control limit for Bromoform. Non-detections of the affected analytes are reported. Any detections are considered estimated.

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

# Detection Summary

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

Job ID: 410-71043-1

## Client Sample ID: HD-COD-SW-6-01/1-0

## Lab Sample ID: 410-71043-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.072	J cn	0.50	0.050	ug/L	1		8260D	Total/NA
Trichloroethene	0.11	J cn	0.50	0.060	ug/L	1		8260D	Total/NA

## Client Sample ID: HD-COD-SW-7-01/1-0

## Lab Sample ID: 410-71043-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.094	J cn	0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.062	J cn	0.50	0.060	ug/L	1		8260D	Total/NA
Trichloroethene	0.16	J cn	0.50	0.060	ug/L	1		8260D	Total/NA

## Client Sample ID: HD-COD-SW-8-01/1-0

## Lab Sample ID: 410-71043-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.94	J cn	5.0	0.90	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.12	J cn	0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.52	cn	0.50	0.060	ug/L	1		8260D	Total/NA
Trichloroethene	0.18	J cn	0.50	0.060	ug/L	1		8260D	Total/NA

## Client Sample ID: HD-COD-SW-9-01/1-0

## Lab Sample ID: 410-71043-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.8	J cn	5.0	0.90	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.093	J cn	0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.20	J cn	0.50	0.060	ug/L	1		8260D	Total/NA
Toluene	0.090	J cn	0.50	0.070	ug/L	1		8260D	Total/NA
Trichloroethene	0.13	J cn	0.50	0.060	ug/L	1		8260D	Total/NA

## Client Sample ID: HD-COD-SW-13-01/1-0

## Lab Sample ID: 410-71043-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.1	J cn	5.0	0.90	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.13	J cn	0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.67	cn	0.50	0.060	ug/L	1		8260D	Total/NA
Trichloroethene	0.20	J cn	0.50	0.060	ug/L	1		8260D	Total/NA

## Client Sample ID: HD-COD-SW-15-01/1-0

## Lab Sample ID: 410-71043-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.24	J cn	0.50	0.060	ug/L	1		8260D	Total/NA
1,1-Dichloroethane	0.13	J cn	0.50	0.070	ug/L	1		8260D	Total/NA
1,1-Dichloroethene	0.13	J cn	0.50	0.060	ug/L	1		8260D	Total/NA
Chloroform	0.24	J cn	0.50	0.090	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	1.5	cn	0.50	0.050	ug/L	1		8260D	Total/NA
Methyl tert-butyl ether	0.051	J cn	0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	6.1	cn	0.50	0.060	ug/L	1		8260D	Total/NA
Trichloroethene	1.4	cn	0.50	0.060	ug/L	1		8260D	Total/NA

## Client Sample ID: HD-COD-SW-16-01/1-0

## Lab Sample ID: 410-71043-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.062	J cn	0.50	0.060	ug/L	1		8260D	Total/NA
Acetone	1.2	J cn	5.0	0.90	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.14	J cn	0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.99	cn	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: 410-71043-1

## Client Sample ID: HD-COD-SW-16-01/1-0 (Continued)

Lab Sample ID: 410-71043-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	0.20	J cn	0.50	0.060	ug/L	1		8260D	Total/NA

## Client Sample ID: HD-COD-SW-17-01/1-0

Lab Sample ID: 410-71043-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	7.1	cn	0.50	0.060	ug/L	1		8260D	Total/NA
1,1-Dichloroethane	1.3	cn	0.50	0.070	ug/L	1		8260D	Total/NA
1,1-Dichloroethene	0.57	cn	0.50	0.060	ug/L	1		8260D	Total/NA
Chloroform	0.22	J cn	0.50	0.090	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	4.7	cn	0.50	0.050	ug/L	1		8260D	Total/NA
Methyl tert-butyl ether	0.054	J cn	0.50	0.050	ug/L	1		8260D	Total/NA
Trichloroethene	6.3	cn	0.50	0.060	ug/L	1		8260D	Total/NA
Tetrachloroethene - DL	80		10	1.2	ug/L	20		8260D	Total/NA

## Client Sample ID: HD-COD-SW-26-01/1-0

Lab Sample ID: 410-71043-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.11	J cn	0.50	0.060	ug/L	1		8260D	Total/NA
Chloroform	0.69	cn	0.50	0.090	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.053	J cn	0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	3.3	cn	0.50	0.060	ug/L	1		8260D	Total/NA
Trichloroethene	0.14	J cn	0.50	0.060	ug/L	1		8260D	Total/NA

## Client Sample ID: HD-COD-SW-27-01/1-0

Lab Sample ID: 410-71043-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.1	J cn	5.0	0.90	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.082	J cn	0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.070	J cn	0.50	0.060	ug/L	1		8260D	Total/NA
Trichloroethene	0.14	J cn	0.50	0.060	ug/L	1		8260D	Total/NA

## Client Sample ID: HD-COD-SW-28-01/1-0

Lab Sample ID: 410-71043-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.1	J cn	5.0	0.90	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.11	J cn	0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.24	J cn	0.50	0.060	ug/L	1		8260D	Total/NA
Toluene	0.15	J cn	0.50	0.070	ug/L	1		8260D	Total/NA
Trichloroethene	0.16	J cn	0.50	0.060	ug/L	1		8260D	Total/NA

## Client Sample ID: HD-COD-SW-29-01/1-0

Lab Sample ID: 410-71043-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.5	J cn	5.0	0.90	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.13	J cn	0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.39	J cn	0.50	0.060	ug/L	1		8260D	Total/NA
Trichloroethene	0.19	J cn	0.50	0.060	ug/L	1		8260D	Total/NA

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

Lab Sample ID: 410-71043-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	7.0	cn	5.0	0.60	ug/L	10		8260D	Total/NA
1,1-Dichloroethane	1.2	J cn	5.0	0.70	ug/L	10		8260D	Total/NA
cis-1,2-Dichloroethene	4.6	J cn	5.0	0.50	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: 410-71043-1

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

Lab Sample ID: 410-71043-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	94	cn	5.0	0.60	ug/L	10		8260D	Total/NA
Trichloroethene	6.1	cn	5.0	0.60	ug/L	10		8260D	Total/NA

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

Lab Sample ID: 410-71043-14

No Detections.

This Detection Summary does not include radiochemical test results.

# Client Sample Results

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

Job ID: 410-71043-1

**Client Sample ID: HD-COD-SW-6-01/1-0**

**Lab Sample ID: 410-71043-1**

**Date Collected: 01/27/22 10:45**

**Matrix: Water**

**Date Received: 01/27/22 18:25**

**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	cn	0.50	0.070	ug/L			02/03/22 14:26	1
1,1,1-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/03/22 14:26	1
1,1,2,2-Tetrachloroethane	ND	cn	0.50	0.070	ug/L			02/03/22 14:26	1
1,1,2-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/03/22 14:26	1
1,1-Dichloroethane	ND	cn	0.50	0.070	ug/L			02/03/22 14:26	1
1,1-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/03/22 14:26	1
1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060	ug/L			02/03/22 14:26	1
1,2-Dichloroethane	ND	cn	0.50	0.050	ug/L			02/03/22 14:26	1
1,2-Dichloropropane	ND	cn	0.50	0.060	ug/L			02/03/22 14:26	1
2-Butanone (MEK)	ND	cn	5.0	0.60	ug/L			02/03/22 14:26	1
2-Hexanone	ND	^c cn	5.0	0.60	ug/L			02/03/22 14:26	1
4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70	ug/L			02/03/22 14:26	1
Acetone	ND	cn	5.0	0.90	ug/L			02/03/22 14:26	1
Benzene	ND	cn	0.50	0.050	ug/L			02/03/22 14:26	1
Bromochloromethane	ND	cn	0.50	0.050	ug/L			02/03/22 14:26	1
Bromodichloromethane	ND	cn	0.50	0.050	ug/L			02/03/22 14:26	1
Bromoform	ND	cn	1.0	0.30	ug/L			02/03/22 14:26	1
Bromomethane	ND	cn	0.50	0.070	ug/L			02/03/22 14:26	1
Carbon disulfide	ND	cn	1.0	0.060	ug/L			02/03/22 14:26	1
Carbon tetrachloride	ND	cn	0.50	0.070	ug/L			02/03/22 14:26	1
Chlorobenzene	ND	cn	0.50	0.060	ug/L			02/03/22 14:26	1
Chloroethane	ND	cn	0.50	0.070	ug/L			02/03/22 14:26	1
Chloroform	ND	cn	0.50	0.090	ug/L			02/03/22 14:26	1
Chloromethane	ND	cn	0.50	0.060	ug/L			02/03/22 14:26	1
<b>cis-1,2-Dichloroethene</b>	<b>0.072</b>	<b>J cn</b>	0.50	0.050	ug/L			02/03/22 14:26	1
cis-1,3-Dichloropropene	ND	cn	0.50	0.050	ug/L			02/03/22 14:26	1
Dibromochloromethane	ND	cn	0.50	0.070	ug/L			02/03/22 14:26	1
Ethylbenzene	ND	cn	0.50	0.060	ug/L			02/03/22 14:26	1
Methyl tert-butyl ether	ND	cn	0.50	0.050	ug/L			02/03/22 14:26	1
Methylene Chloride	ND	cn	0.50	0.070	ug/L			02/03/22 14:26	1
Styrene	ND	cn	0.50	0.050	ug/L			02/03/22 14:26	1
Tetrachloroethene	ND	cn	0.50	0.060	ug/L			02/03/22 14:26	1
Toluene	ND	cn	0.50	0.070	ug/L			02/03/22 14:26	1
trans-1,2-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/03/22 14:26	1
trans-1,3-Dichloropropene	ND	cn	0.50	0.060	ug/L			02/03/22 14:26	1
<b>Trichloroethene</b>	<b>0.11</b>	<b>J cn</b>	0.50	0.060	ug/L			02/03/22 14:26	1
Vinyl chloride	ND	cn	0.50	0.10	ug/L			02/03/22 14:26	1
Xylenes, Total	ND	cn	1.0	0.15	ug/L			02/03/22 14:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102	cn	80 - 120		02/03/22 14:26	1
4-Bromofluorobenzene (Surr)	99	cn	80 - 120		02/03/22 14:26	1
Dibromofluoromethane (Surr)	94	cn	80 - 120		02/03/22 14:26	1
Toluene-d8 (Surr)	100	cn	80 - 120		02/03/22 14:26	1

# Client Sample Results

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

Job ID: 410-71043-1

**Client Sample ID: HD-COD-SW-7-01/1-0**

**Lab Sample ID: 410-71043-2**

Date Collected: 01/27/22 11:20

Matrix: Water

Date Received: 01/27/22 18:25

**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	cn	0.50	0.070	ug/L			02/03/22 14:47	1
1,1,1-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/03/22 14:47	1
1,1,2,2-Tetrachloroethane	ND	cn	0.50	0.070	ug/L			02/03/22 14:47	1
1,1,2-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/03/22 14:47	1
1,1-Dichloroethane	ND	cn	0.50	0.070	ug/L			02/03/22 14:47	1
1,1-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/03/22 14:47	1
1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060	ug/L			02/03/22 14:47	1
1,2-Dichloroethane	ND	cn	0.50	0.050	ug/L			02/03/22 14:47	1
1,2-Dichloropropane	ND	cn	0.50	0.060	ug/L			02/03/22 14:47	1
2-Butanone (MEK)	ND	cn	5.0	0.60	ug/L			02/03/22 14:47	1
2-Hexanone	ND	^c cn	5.0	0.60	ug/L			02/03/22 14:47	1
4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70	ug/L			02/03/22 14:47	1
Acetone	ND	cn	5.0	0.90	ug/L			02/03/22 14:47	1
Benzene	ND	cn	0.50	0.050	ug/L			02/03/22 14:47	1
Bromochloromethane	ND	cn	0.50	0.050	ug/L			02/03/22 14:47	1
Bromodichloromethane	ND	cn	0.50	0.050	ug/L			02/03/22 14:47	1
Bromoform	ND	cn	1.0	0.30	ug/L			02/03/22 14:47	1
Bromomethane	ND	cn	0.50	0.070	ug/L			02/03/22 14:47	1
Carbon disulfide	ND	cn	1.0	0.060	ug/L			02/03/22 14:47	1
Carbon tetrachloride	ND	cn	0.50	0.070	ug/L			02/03/22 14:47	1
Chlorobenzene	ND	cn	0.50	0.060	ug/L			02/03/22 14:47	1
Chloroethane	ND	cn	0.50	0.070	ug/L			02/03/22 14:47	1
Chloroform	ND	cn	0.50	0.090	ug/L			02/03/22 14:47	1
Chloromethane	ND	cn	0.50	0.060	ug/L			02/03/22 14:47	1
<b>cis-1,2-Dichloroethene</b>	<b>0.094</b>	<b>J cn</b>	0.50	0.050	ug/L			02/03/22 14:47	1
cis-1,3-Dichloropropene	ND	cn	0.50	0.050	ug/L			02/03/22 14:47	1
Dibromochloromethane	ND	cn	0.50	0.070	ug/L			02/03/22 14:47	1
Ethylbenzene	ND	cn	0.50	0.060	ug/L			02/03/22 14:47	1
Methyl tert-butyl ether	ND	cn	0.50	0.050	ug/L			02/03/22 14:47	1
Methylene Chloride	ND	cn	0.50	0.070	ug/L			02/03/22 14:47	1
Styrene	ND	cn	0.50	0.050	ug/L			02/03/22 14:47	1
<b>Tetrachloroethene</b>	<b>0.062</b>	<b>J cn</b>	0.50	0.060	ug/L			02/03/22 14:47	1
Toluene	ND	cn	0.50	0.070	ug/L			02/03/22 14:47	1
trans-1,2-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/03/22 14:47	1
trans-1,3-Dichloropropene	ND	cn	0.50	0.060	ug/L			02/03/22 14:47	1
<b>Trichloroethene</b>	<b>0.16</b>	<b>J cn</b>	0.50	0.060	ug/L			02/03/22 14:47	1
Vinyl chloride	ND	cn	0.50	0.10	ug/L			02/03/22 14:47	1
Xylenes, Total	ND	cn	1.0	0.15	ug/L			02/03/22 14:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100	cn	80 - 120		02/03/22 14:47	1
4-Bromofluorobenzene (Surr)	99	cn	80 - 120		02/03/22 14:47	1
Dibromofluoromethane (Surr)	95	cn	80 - 120		02/03/22 14:47	1
Toluene-d8 (Surr)	100	cn	80 - 120		02/03/22 14:47	1

# Client Sample Results

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

Job ID: 410-71043-1

**Client Sample ID: HD-COD-SW-8-01/1-0**

**Lab Sample ID: 410-71043-3**

Date Collected: 01/27/22 09:10

Matrix: Water

Date Received: 01/27/22 18:25

**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	cn	0.50	0.070	ug/L			02/03/22 15:07	1
1,1,1-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/03/22 15:07	1
1,1,2,2-Tetrachloroethane	ND	cn	0.50	0.070	ug/L			02/03/22 15:07	1
1,1,2-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/03/22 15:07	1
1,1-Dichloroethane	ND	cn	0.50	0.070	ug/L			02/03/22 15:07	1
1,1-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/03/22 15:07	1
1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060	ug/L			02/03/22 15:07	1
1,2-Dichloroethane	ND	cn	0.50	0.050	ug/L			02/03/22 15:07	1
1,2-Dichloropropane	ND	cn	0.50	0.060	ug/L			02/03/22 15:07	1
2-Butanone (MEK)	ND	cn	5.0	0.60	ug/L			02/03/22 15:07	1
2-Hexanone	ND	^c cn	5.0	0.60	ug/L			02/03/22 15:07	1
4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70	ug/L			02/03/22 15:07	1
<b>Acetone</b>	<b>0.94</b>	<b>J cn</b>	5.0	0.90	ug/L			02/03/22 15:07	1
Benzene	ND	cn	0.50	0.050	ug/L			02/03/22 15:07	1
Bromochloromethane	ND	cn	0.50	0.050	ug/L			02/03/22 15:07	1
Bromodichloromethane	ND	cn	0.50	0.050	ug/L			02/03/22 15:07	1
Bromoform	ND	cn	1.0	0.30	ug/L			02/03/22 15:07	1
Bromomethane	ND	cn	0.50	0.070	ug/L			02/03/22 15:07	1
Carbon disulfide	ND	cn	1.0	0.060	ug/L			02/03/22 15:07	1
Carbon tetrachloride	ND	cn	0.50	0.070	ug/L			02/03/22 15:07	1
Chlorobenzene	ND	cn	0.50	0.060	ug/L			02/03/22 15:07	1
Chloroethane	ND	cn	0.50	0.070	ug/L			02/03/22 15:07	1
Chloroform	ND	cn	0.50	0.090	ug/L			02/03/22 15:07	1
Chloromethane	ND	cn	0.50	0.060	ug/L			02/03/22 15:07	1
<b>cis-1,2-Dichloroethene</b>	<b>0.12</b>	<b>J cn</b>	0.50	0.050	ug/L			02/03/22 15:07	1
cis-1,3-Dichloropropene	ND	cn	0.50	0.050	ug/L			02/03/22 15:07	1
Dibromochloromethane	ND	cn	0.50	0.070	ug/L			02/03/22 15:07	1
Ethylbenzene	ND	cn	0.50	0.060	ug/L			02/03/22 15:07	1
Methyl tert-butyl ether	ND	cn	0.50	0.050	ug/L			02/03/22 15:07	1
Methylene Chloride	ND	cn	0.50	0.070	ug/L			02/03/22 15:07	1
Styrene	ND	cn	0.50	0.050	ug/L			02/03/22 15:07	1
<b>Tetrachloroethene</b>	<b>0.52</b>	<b>cn</b>	0.50	0.060	ug/L			02/03/22 15:07	1
Toluene	ND	cn	0.50	0.070	ug/L			02/03/22 15:07	1
trans-1,2-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/03/22 15:07	1
trans-1,3-Dichloropropene	ND	cn	0.50	0.060	ug/L			02/03/22 15:07	1
<b>Trichloroethene</b>	<b>0.18</b>	<b>J cn</b>	0.50	0.060	ug/L			02/03/22 15:07	1
Vinyl chloride	ND	cn	0.50	0.10	ug/L			02/03/22 15:07	1
Xylenes, Total	ND	cn	1.0	0.15	ug/L			02/03/22 15:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102	cn	80 - 120		02/03/22 15:07	1
4-Bromofluorobenzene (Surr)	99	cn	80 - 120		02/03/22 15:07	1
Dibromofluoromethane (Surr)	95	cn	80 - 120		02/03/22 15:07	1
Toluene-d8 (Surr)	100	cn	80 - 120		02/03/22 15:07	1

# Client Sample Results

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

Job ID: 410-71043-1

**Client Sample ID: HD-COD-SW-9-01/1-0**

**Lab Sample ID: 410-71043-4**

**Date Collected: 01/27/22 12:45**

**Matrix: Water**

**Date Received: 01/27/22 18:25**

**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	cn	0.50	0.070	ug/L			02/03/22 15:28	1
1,1,1-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/03/22 15:28	1
1,1,2,2-Tetrachloroethane	ND	cn	0.50	0.070	ug/L			02/03/22 15:28	1
1,1,2-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/03/22 15:28	1
1,1-Dichloroethane	ND	cn	0.50	0.070	ug/L			02/03/22 15:28	1
1,1-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/03/22 15:28	1
1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060	ug/L			02/03/22 15:28	1
1,2-Dichloroethane	ND	cn	0.50	0.050	ug/L			02/03/22 15:28	1
1,2-Dichloropropane	ND	cn	0.50	0.060	ug/L			02/03/22 15:28	1
2-Butanone (MEK)	ND	cn	5.0	0.60	ug/L			02/03/22 15:28	1
2-Hexanone	ND	^c cn	5.0	0.60	ug/L			02/03/22 15:28	1
4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70	ug/L			02/03/22 15:28	1
<b>Acetone</b>	<b>1.8</b>	<b>J cn</b>	5.0	0.90	ug/L			02/03/22 15:28	1
Benzene	ND	cn	0.50	0.050	ug/L			02/03/22 15:28	1
Bromochloromethane	ND	cn	0.50	0.050	ug/L			02/03/22 15:28	1
Bromodichloromethane	ND	cn	0.50	0.050	ug/L			02/03/22 15:28	1
Bromoform	ND	cn	1.0	0.30	ug/L			02/03/22 15:28	1
Bromomethane	ND	cn	0.50	0.070	ug/L			02/03/22 15:28	1
Carbon disulfide	ND	cn	1.0	0.060	ug/L			02/03/22 15:28	1
Carbon tetrachloride	ND	cn	0.50	0.070	ug/L			02/03/22 15:28	1
Chlorobenzene	ND	cn	0.50	0.060	ug/L			02/03/22 15:28	1
Chloroethane	ND	cn	0.50	0.070	ug/L			02/03/22 15:28	1
Chloroform	ND	cn	0.50	0.090	ug/L			02/03/22 15:28	1
Chloromethane	ND	cn	0.50	0.060	ug/L			02/03/22 15:28	1
<b>cis-1,2-Dichloroethene</b>	<b>0.093</b>	<b>J cn</b>	0.50	0.050	ug/L			02/03/22 15:28	1
cis-1,3-Dichloropropene	ND	cn	0.50	0.050	ug/L			02/03/22 15:28	1
Dibromochloromethane	ND	cn	0.50	0.070	ug/L			02/03/22 15:28	1
Ethylbenzene	ND	cn	0.50	0.060	ug/L			02/03/22 15:28	1
Methyl tert-butyl ether	ND	cn	0.50	0.050	ug/L			02/03/22 15:28	1
Methylene Chloride	ND	cn	0.50	0.070	ug/L			02/03/22 15:28	1
Styrene	ND	cn	0.50	0.050	ug/L			02/03/22 15:28	1
<b>Tetrachloroethene</b>	<b>0.20</b>	<b>J cn</b>	0.50	0.060	ug/L			02/03/22 15:28	1
<b>Toluene</b>	<b>0.090</b>	<b>J cn</b>	0.50	0.070	ug/L			02/03/22 15:28	1
trans-1,2-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/03/22 15:28	1
trans-1,3-Dichloropropene	ND	cn	0.50	0.060	ug/L			02/03/22 15:28	1
<b>Trichloroethene</b>	<b>0.13</b>	<b>J cn</b>	0.50	0.060	ug/L			02/03/22 15:28	1
Vinyl chloride	ND	cn	0.50	0.10	ug/L			02/03/22 15:28	1
Xylenes, Total	ND	cn	1.0	0.15	ug/L			02/03/22 15:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101	cn	80 - 120		02/03/22 15:28	1
4-Bromofluorobenzene (Surr)	100	cn	80 - 120		02/03/22 15:28	1
Dibromofluoromethane (Surr)	95	cn	80 - 120		02/03/22 15:28	1
Toluene-d8 (Surr)	100	cn	80 - 120		02/03/22 15:28	1



# Client Sample Results

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

Job ID: 410-71043-1

**Client Sample ID: HD-COD-SW-13-01/1-0**

**Lab Sample ID: 410-71043-5**

Date Collected: 01/27/22 09:30

Matrix: Water

Date Received: 01/27/22 18:25

**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	cn	0.50	0.070	ug/L			02/03/22 15:49	1
1,1,1-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/03/22 15:49	1
1,1,2,2-Tetrachloroethane	ND	cn	0.50	0.070	ug/L			02/03/22 15:49	1
1,1,2-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/03/22 15:49	1
1,1-Dichloroethane	ND	cn	0.50	0.070	ug/L			02/03/22 15:49	1
1,1-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/03/22 15:49	1
1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060	ug/L			02/03/22 15:49	1
1,2-Dichloroethane	ND	cn	0.50	0.050	ug/L			02/03/22 15:49	1
1,2-Dichloropropane	ND	cn	0.50	0.060	ug/L			02/03/22 15:49	1
2-Butanone (MEK)	ND	cn	5.0	0.60	ug/L			02/03/22 15:49	1
2-Hexanone	ND	^c cn	5.0	0.60	ug/L			02/03/22 15:49	1
4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70	ug/L			02/03/22 15:49	1
<b>Acetone</b>	<b>1.1</b>	<b>J cn</b>	5.0	0.90	ug/L			02/03/22 15:49	1
Benzene	ND	cn	0.50	0.050	ug/L			02/03/22 15:49	1
Bromochloromethane	ND	cn	0.50	0.050	ug/L			02/03/22 15:49	1
Bromodichloromethane	ND	cn	0.50	0.050	ug/L			02/03/22 15:49	1
Bromoform	ND	cn	1.0	0.30	ug/L			02/03/22 15:49	1
Bromomethane	ND	cn	0.50	0.070	ug/L			02/03/22 15:49	1
Carbon disulfide	ND	cn	1.0	0.060	ug/L			02/03/22 15:49	1
Carbon tetrachloride	ND	cn	0.50	0.070	ug/L			02/03/22 15:49	1
Chlorobenzene	ND	cn	0.50	0.060	ug/L			02/03/22 15:49	1
Chloroethane	ND	cn	0.50	0.070	ug/L			02/03/22 15:49	1
Chloroform	ND	cn	0.50	0.090	ug/L			02/03/22 15:49	1
Chloromethane	ND	cn	0.50	0.060	ug/L			02/03/22 15:49	1
<b>cis-1,2-Dichloroethene</b>	<b>0.13</b>	<b>J cn</b>	0.50	0.050	ug/L			02/03/22 15:49	1
cis-1,3-Dichloropropene	ND	cn	0.50	0.050	ug/L			02/03/22 15:49	1
Dibromochloromethane	ND	cn	0.50	0.070	ug/L			02/03/22 15:49	1
Ethylbenzene	ND	cn	0.50	0.060	ug/L			02/03/22 15:49	1
Methyl tert-butyl ether	ND	cn	0.50	0.050	ug/L			02/03/22 15:49	1
Methylene Chloride	ND	cn	0.50	0.070	ug/L			02/03/22 15:49	1
Styrene	ND	cn	0.50	0.050	ug/L			02/03/22 15:49	1
<b>Tetrachloroethene</b>	<b>0.67</b>	<b>cn</b>	0.50	0.060	ug/L			02/03/22 15:49	1
Toluene	ND	cn	0.50	0.070	ug/L			02/03/22 15:49	1
trans-1,2-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/03/22 15:49	1
trans-1,3-Dichloropropene	ND	cn	0.50	0.060	ug/L			02/03/22 15:49	1
<b>Trichloroethene</b>	<b>0.20</b>	<b>J cn</b>	0.50	0.060	ug/L			02/03/22 15:49	1
Vinyl chloride	ND	cn	0.50	0.10	ug/L			02/03/22 15:49	1
Xylenes, Total	ND	cn	1.0	0.15	ug/L			02/03/22 15:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105	cn	80 - 120		02/03/22 15:49	1
4-Bromofluorobenzene (Surr)	99	cn	80 - 120		02/03/22 15:49	1
Dibromofluoromethane (Surr)	96	cn	80 - 120		02/03/22 15:49	1
Toluene-d8 (Surr)	101	cn	80 - 120		02/03/22 15:49	1

# Client Sample Results

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

Job ID: 410-71043-1

**Client Sample ID: HD-COD-SW-15-01/1-0**

**Lab Sample ID: 410-71043-6**

Date Collected: 01/27/22 11:45

Matrix: Water

Date Received: 01/27/22 18:25

**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	cn	0.50	0.070	ug/L			02/03/22 16:09	1
<b>1,1,1-Trichloroethane</b>	<b>0.24</b>	<b>J cn</b>	0.50	0.060	ug/L			02/03/22 16:09	1
1,1,2,2-Tetrachloroethane	ND	cn	0.50	0.070	ug/L			02/03/22 16:09	1
1,1,2-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/03/22 16:09	1
<b>1,1-Dichloroethane</b>	<b>0.13</b>	<b>J cn</b>	0.50	0.070	ug/L			02/03/22 16:09	1
<b>1,1-Dichloroethene</b>	<b>0.13</b>	<b>J cn</b>	0.50	0.060	ug/L			02/03/22 16:09	1
1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060	ug/L			02/03/22 16:09	1
1,2-Dichloroethane	ND	cn	0.50	0.050	ug/L			02/03/22 16:09	1
1,2-Dichloropropane	ND	cn	0.50	0.060	ug/L			02/03/22 16:09	1
2-Butanone (MEK)	ND	cn	5.0	0.60	ug/L			02/03/22 16:09	1
2-Hexanone	ND	^c cn	5.0	0.60	ug/L			02/03/22 16:09	1
4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70	ug/L			02/03/22 16:09	1
Acetone	ND	cn	5.0	0.90	ug/L			02/03/22 16:09	1
Benzene	ND	cn	0.50	0.050	ug/L			02/03/22 16:09	1
Bromochloromethane	ND	cn	0.50	0.050	ug/L			02/03/22 16:09	1
Bromodichloromethane	ND	cn	0.50	0.050	ug/L			02/03/22 16:09	1
Bromoform	ND	cn	1.0	0.30	ug/L			02/03/22 16:09	1
Bromomethane	ND	cn	0.50	0.070	ug/L			02/03/22 16:09	1
Carbon disulfide	ND	cn	1.0	0.060	ug/L			02/03/22 16:09	1
Carbon tetrachloride	ND	cn	0.50	0.070	ug/L			02/03/22 16:09	1
Chlorobenzene	ND	cn	0.50	0.060	ug/L			02/03/22 16:09	1
Chloroethane	ND	cn	0.50	0.070	ug/L			02/03/22 16:09	1
<b>Chloroform</b>	<b>0.24</b>	<b>J cn</b>	0.50	0.090	ug/L			02/03/22 16:09	1
Chloromethane	ND	cn	0.50	0.060	ug/L			02/03/22 16:09	1
<b>cis-1,2-Dichloroethene</b>	<b>1.5</b>	<b>cn</b>	0.50	0.050	ug/L			02/03/22 16:09	1
cis-1,3-Dichloropropene	ND	cn	0.50	0.050	ug/L			02/03/22 16:09	1
Dibromochloromethane	ND	cn	0.50	0.070	ug/L			02/03/22 16:09	1
Ethylbenzene	ND	cn	0.50	0.060	ug/L			02/03/22 16:09	1
<b>Methyl tert-butyl ether</b>	<b>0.051</b>	<b>J cn</b>	0.50	0.050	ug/L			02/03/22 16:09	1
Methylene Chloride	ND	cn	0.50	0.070	ug/L			02/03/22 16:09	1
Styrene	ND	cn	0.50	0.050	ug/L			02/03/22 16:09	1
<b>Tetrachloroethene</b>	<b>6.1</b>	<b>cn</b>	0.50	0.060	ug/L			02/03/22 16:09	1
Toluene	ND	cn	0.50	0.070	ug/L			02/03/22 16:09	1
trans-1,2-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/03/22 16:09	1
trans-1,3-Dichloropropene	ND	cn	0.50	0.060	ug/L			02/03/22 16:09	1
<b>Trichloroethene</b>	<b>1.4</b>	<b>cn</b>	0.50	0.060	ug/L			02/03/22 16:09	1
Vinyl chloride	ND	cn	0.50	0.10	ug/L			02/03/22 16:09	1
Xylenes, Total	ND	cn	1.0	0.15	ug/L			02/03/22 16:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100	cn	80 - 120		02/03/22 16:09	1
4-Bromofluorobenzene (Surr)	100	cn	80 - 120		02/03/22 16:09	1
Dibromofluoromethane (Surr)	95	cn	80 - 120		02/03/22 16:09	1
Toluene-d8 (Surr)	100	cn	80 - 120		02/03/22 16:09	1

# Client Sample Results

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

Job ID: 410-71043-1

**Client Sample ID: HD-COD-SW-16-01/1-0**

**Lab Sample ID: 410-71043-7**

**Date Collected: 01/27/22 10:00**

**Matrix: Water**

**Date Received: 01/27/22 18:25**

**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	cn	0.50	0.070	ug/L			02/03/22 17:31	1
<b>1,1,1-Trichloroethane</b>	<b>0.062</b>	<b>J cn</b>	0.50	0.060	ug/L			02/03/22 17:31	1
1,1,2,2-Tetrachloroethane	ND	cn	0.50	0.070	ug/L			02/03/22 17:31	1
1,1,2-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/03/22 17:31	1
1,1-Dichloroethane	ND	cn	0.50	0.070	ug/L			02/03/22 17:31	1
1,1-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/03/22 17:31	1
1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060	ug/L			02/03/22 17:31	1
1,2-Dichloroethane	ND	cn	0.50	0.050	ug/L			02/03/22 17:31	1
1,2-Dichloropropane	ND	cn	0.50	0.060	ug/L			02/03/22 17:31	1
2-Butanone (MEK)	ND	cn	5.0	0.60	ug/L			02/03/22 17:31	1
2-Hexanone	ND	^c cn	5.0	0.60	ug/L			02/03/22 17:31	1
4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70	ug/L			02/03/22 17:31	1
<b>Acetone</b>	<b>1.2</b>	<b>J cn</b>	5.0	0.90	ug/L			02/03/22 17:31	1
Benzene	ND	cn	0.50	0.050	ug/L			02/03/22 17:31	1
Bromochloromethane	ND	cn	0.50	0.050	ug/L			02/03/22 17:31	1
Bromodichloromethane	ND	cn	0.50	0.050	ug/L			02/03/22 17:31	1
Bromoform	ND	cn	1.0	0.30	ug/L			02/03/22 17:31	1
Bromomethane	ND	cn	0.50	0.070	ug/L			02/03/22 17:31	1
Carbon disulfide	ND	cn	1.0	0.060	ug/L			02/03/22 17:31	1
Carbon tetrachloride	ND	cn	0.50	0.070	ug/L			02/03/22 17:31	1
Chlorobenzene	ND	cn	0.50	0.060	ug/L			02/03/22 17:31	1
Chloroethane	ND	cn	0.50	0.070	ug/L			02/03/22 17:31	1
Chloroform	ND	cn	0.50	0.090	ug/L			02/03/22 17:31	1
Chloromethane	ND	cn	0.50	0.060	ug/L			02/03/22 17:31	1
<b>cis-1,2-Dichloroethene</b>	<b>0.14</b>	<b>J cn</b>	0.50	0.050	ug/L			02/03/22 17:31	1
cis-1,3-Dichloropropene	ND	cn	0.50	0.050	ug/L			02/03/22 17:31	1
Dibromochloromethane	ND	cn	0.50	0.070	ug/L			02/03/22 17:31	1
Ethylbenzene	ND	cn	0.50	0.060	ug/L			02/03/22 17:31	1
Methyl tert-butyl ether	ND	cn	0.50	0.050	ug/L			02/03/22 17:31	1
Methylene Chloride	ND	cn	0.50	0.070	ug/L			02/03/22 17:31	1
Styrene	ND	cn	0.50	0.050	ug/L			02/03/22 17:31	1
<b>Tetrachloroethene</b>	<b>0.99</b>	<b>cn</b>	0.50	0.060	ug/L			02/03/22 17:31	1
Toluene	ND	cn	0.50	0.070	ug/L			02/03/22 17:31	1
trans-1,2-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/03/22 17:31	1
trans-1,3-Dichloropropene	ND	cn	0.50	0.060	ug/L			02/03/22 17:31	1
<b>Trichloroethene</b>	<b>0.20</b>	<b>J cn</b>	0.50	0.060	ug/L			02/03/22 17:31	1
Vinyl chloride	ND	cn	0.50	0.10	ug/L			02/03/22 17:31	1
Xylenes, Total	ND	cn	1.0	0.15	ug/L			02/03/22 17:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99	cn	80 - 120		02/03/22 17:31	1
4-Bromofluorobenzene (Surr)	99	cn	80 - 120		02/03/22 17:31	1
Dibromofluoromethane (Surr)	96	cn	80 - 120		02/03/22 17:31	1
Toluene-d8 (Surr)	99	cn	80 - 120		02/03/22 17:31	1

# Client Sample Results

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

Job ID: 410-71043-1

**Client Sample ID: HD-COD-SW-17-01/1-0**

**Lab Sample ID: 410-71043-8**

Date Collected: 01/27/22 10:20

Matrix: Water

Date Received: 01/27/22 18:25

**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	cn	0.50	0.070	ug/L			02/03/22 17:52	1
<b>1,1,1-Trichloroethane</b>	<b>7.1</b>	<b>cn</b>	0.50	0.060	ug/L			02/03/22 17:52	1
1,1,2,2-Tetrachloroethane	ND	cn	0.50	0.070	ug/L			02/03/22 17:52	1
1,1,2-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/03/22 17:52	1
<b>1,1-Dichloroethane</b>	<b>1.3</b>	<b>cn</b>	0.50	0.070	ug/L			02/03/22 17:52	1
<b>1,1-Dichloroethene</b>	<b>0.57</b>	<b>cn</b>	0.50	0.060	ug/L			02/03/22 17:52	1
1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060	ug/L			02/03/22 17:52	1
1,2-Dichloroethane	ND	cn	0.50	0.050	ug/L			02/03/22 17:52	1
1,2-Dichloropropane	ND	cn	0.50	0.060	ug/L			02/03/22 17:52	1
2-Butanone (MEK)	ND	cn	5.0	0.60	ug/L			02/03/22 17:52	1
2-Hexanone	ND	^c cn	5.0	0.60	ug/L			02/03/22 17:52	1
4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70	ug/L			02/03/22 17:52	1
Acetone	ND	cn	5.0	0.90	ug/L			02/03/22 17:52	1
Benzene	ND	cn	0.50	0.050	ug/L			02/03/22 17:52	1
Bromochloromethane	ND	cn	0.50	0.050	ug/L			02/03/22 17:52	1
Bromodichloromethane	ND	cn	0.50	0.050	ug/L			02/03/22 17:52	1
Bromoform	ND	cn	1.0	0.30	ug/L			02/03/22 17:52	1
Bromomethane	ND	cn	0.50	0.070	ug/L			02/03/22 17:52	1
Carbon disulfide	ND	cn	1.0	0.060	ug/L			02/03/22 17:52	1
Carbon tetrachloride	ND	cn	0.50	0.070	ug/L			02/03/22 17:52	1
Chlorobenzene	ND	cn	0.50	0.060	ug/L			02/03/22 17:52	1
Chloroethane	ND	cn	0.50	0.070	ug/L			02/03/22 17:52	1
<b>Chloroform</b>	<b>0.22</b>	<b>J cn</b>	0.50	0.090	ug/L			02/03/22 17:52	1
Chloromethane	ND	cn	0.50	0.060	ug/L			02/03/22 17:52	1
<b>cis-1,2-Dichloroethene</b>	<b>4.7</b>	<b>cn</b>	0.50	0.050	ug/L			02/03/22 17:52	1
cis-1,3-Dichloropropene	ND	cn	0.50	0.050	ug/L			02/03/22 17:52	1
Dibromochloromethane	ND	cn	0.50	0.070	ug/L			02/03/22 17:52	1
Ethylbenzene	ND	cn	0.50	0.060	ug/L			02/03/22 17:52	1
<b>Methyl tert-butyl ether</b>	<b>0.054</b>	<b>J cn</b>	0.50	0.050	ug/L			02/03/22 17:52	1
Methylene Chloride	ND	cn	0.50	0.070	ug/L			02/03/22 17:52	1
Styrene	ND	cn	0.50	0.050	ug/L			02/03/22 17:52	1
Toluene	ND	cn	0.50	0.070	ug/L			02/03/22 17:52	1
trans-1,2-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/03/22 17:52	1
trans-1,3-Dichloropropene	ND	cn	0.50	0.060	ug/L			02/03/22 17:52	1
<b>Trichloroethene</b>	<b>6.3</b>	<b>cn</b>	0.50	0.060	ug/L			02/03/22 17:52	1
Vinyl chloride	ND	cn	0.50	0.10	ug/L			02/03/22 17:52	1
Xylenes, Total	ND	cn	1.0	0.15	ug/L			02/03/22 17:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102	cn	80 - 120		02/03/22 17:52	1
4-Bromofluorobenzene (Surr)	98	cn	80 - 120		02/03/22 17:52	1
Dibromofluoromethane (Surr)	95	cn	80 - 120		02/03/22 17:52	1
Toluene-d8 (Surr)	99	cn	80 - 120		02/03/22 17:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Tetrachloroethene</b>	<b>80</b>		10	1.2	ug/L			02/03/22 18:12	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		80 - 120		02/03/22 18:12	20

# Client Sample Results

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

Job ID: 410-71043-1

**Client Sample ID: HD-COD-SW-17-01/1-0**

**Lab Sample ID: 410-71043-8**

Date Collected: 01/27/22 10:20

Matrix: Water

Date Received: 01/27/22 18:25

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		80 - 120		02/03/22 18:12	20
Dibromofluoromethane (Surr)	95		80 - 120		02/03/22 18:12	20
Toluene-d8 (Surr)	100		80 - 120		02/03/22 18:12	20

**Client Sample ID: HD-COD-SW-26-01/1-0**

**Lab Sample ID: 410-71043-9**

Date Collected: 01/27/22 11:05

Matrix: Water

Date Received: 01/27/22 18:25

**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	cn	0.50	0.070	ug/L			02/03/22 18:33	1
1,1,1-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/03/22 18:33	1
1,1,2,2-Tetrachloroethane	ND	cn	0.50	0.070	ug/L			02/03/22 18:33	1
1,1,2-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/03/22 18:33	1
1,1-Dichloroethane	ND	cn	0.50	0.070	ug/L			02/03/22 18:33	1
<b>1,1-Dichloroethene</b>	<b>0.11</b>	<b>J cn</b>	0.50	0.060	ug/L			02/03/22 18:33	1
1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060	ug/L			02/03/22 18:33	1
1,2-Dichloroethane	ND	cn	0.50	0.050	ug/L			02/03/22 18:33	1
1,2-Dichloropropane	ND	cn	0.50	0.060	ug/L			02/03/22 18:33	1
2-Butanone (MEK)	ND	cn	5.0	0.60	ug/L			02/03/22 18:33	1
2-Hexanone	ND	^c cn	5.0	0.60	ug/L			02/03/22 18:33	1
4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70	ug/L			02/03/22 18:33	1
Acetone	ND	cn	5.0	0.90	ug/L			02/03/22 18:33	1
Benzene	ND	cn	0.50	0.050	ug/L			02/03/22 18:33	1
Bromochloromethane	ND	cn	0.50	0.050	ug/L			02/03/22 18:33	1
Bromodichloromethane	ND	cn	0.50	0.050	ug/L			02/03/22 18:33	1
Bromoform	ND	cn	1.0	0.30	ug/L			02/03/22 18:33	1
Bromomethane	ND	cn	0.50	0.070	ug/L			02/03/22 18:33	1
Carbon disulfide	ND	cn	1.0	0.060	ug/L			02/03/22 18:33	1
Carbon tetrachloride	ND	cn	0.50	0.070	ug/L			02/03/22 18:33	1
Chlorobenzene	ND	cn	0.50	0.060	ug/L			02/03/22 18:33	1
Chloroethane	ND	cn	0.50	0.070	ug/L			02/03/22 18:33	1
<b>Chloroform</b>	<b>0.69</b>	<b>cn</b>	0.50	0.090	ug/L			02/03/22 18:33	1
Chloromethane	ND	cn	0.50	0.060	ug/L			02/03/22 18:33	1
<b>cis-1,2-Dichloroethene</b>	<b>0.053</b>	<b>J cn</b>	0.50	0.050	ug/L			02/03/22 18:33	1
cis-1,3-Dichloropropene	ND	cn	0.50	0.050	ug/L			02/03/22 18:33	1
Dibromochloromethane	ND	cn	0.50	0.070	ug/L			02/03/22 18:33	1
Ethylbenzene	ND	cn	0.50	0.060	ug/L			02/03/22 18:33	1
Methyl tert-butyl ether	ND	cn	0.50	0.050	ug/L			02/03/22 18:33	1
Methylene Chloride	ND	cn	0.50	0.070	ug/L			02/03/22 18:33	1
Styrene	ND	cn	0.50	0.050	ug/L			02/03/22 18:33	1
<b>Tetrachloroethene</b>	<b>3.3</b>	<b>cn</b>	0.50	0.060	ug/L			02/03/22 18:33	1
Toluene	ND	cn	0.50	0.070	ug/L			02/03/22 18:33	1
trans-1,2-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/03/22 18:33	1
trans-1,3-Dichloropropene	ND	cn	0.50	0.060	ug/L			02/03/22 18:33	1
<b>Trichloroethene</b>	<b>0.14</b>	<b>J cn</b>	0.50	0.060	ug/L			02/03/22 18:33	1
Vinyl chloride	ND	cn	0.50	0.10	ug/L			02/03/22 18:33	1
Xylenes, Total	ND	cn	1.0	0.15	ug/L			02/03/22 18:33	1

# Client Sample Results

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

Job ID: 410-71043-1

**Client Sample ID: HD-COD-SW-26-01/1-0**

**Lab Sample ID: 410-71043-9**

Date Collected: 01/27/22 11:05

Matrix: Water

Date Received: 01/27/22 18:25

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102	cn	80 - 120		02/03/22 18:33	1
4-Bromofluorobenzene (Surr)	100	cn	80 - 120		02/03/22 18:33	1
Dibromofluoromethane (Surr)	95	cn	80 - 120		02/03/22 18:33	1
Toluene-d8 (Surr)	100	cn	80 - 120		02/03/22 18:33	1

**Client Sample ID: HD-COD-SW-27-01/1-0**

**Lab Sample ID: 410-71043-10**

Date Collected: 01/27/22 11:35

Matrix: Water

Date Received: 01/27/22 18:25

**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	cn	0.50	0.070	ug/L			02/03/22 18:53	1
1,1,1-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/03/22 18:53	1
1,1,2,2-Tetrachloroethane	ND	cn	0.50	0.070	ug/L			02/03/22 18:53	1
1,1,2-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/03/22 18:53	1
1,1-Dichloroethane	ND	cn	0.50	0.070	ug/L			02/03/22 18:53	1
1,1-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/03/22 18:53	1
1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060	ug/L			02/03/22 18:53	1
1,2-Dichloroethane	ND	cn	0.50	0.050	ug/L			02/03/22 18:53	1
1,2-Dichloropropane	ND	cn	0.50	0.060	ug/L			02/03/22 18:53	1
2-Butanone (MEK)	ND	cn	5.0	0.60	ug/L			02/03/22 18:53	1
2-Hexanone	ND	^c cn	5.0	0.60	ug/L			02/03/22 18:53	1
4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70	ug/L			02/03/22 18:53	1
<b>Acetone</b>	<b>1.1</b>	<b>J cn</b>	5.0	0.90	ug/L			02/03/22 18:53	1
Benzene	ND	cn	0.50	0.050	ug/L			02/03/22 18:53	1
Bromochloromethane	ND	cn	0.50	0.050	ug/L			02/03/22 18:53	1
Bromodichloromethane	ND	cn	0.50	0.050	ug/L			02/03/22 18:53	1
Bromoform	ND	cn	1.0	0.30	ug/L			02/03/22 18:53	1
Bromomethane	ND	cn	0.50	0.070	ug/L			02/03/22 18:53	1
Carbon disulfide	ND	cn	1.0	0.060	ug/L			02/03/22 18:53	1
Carbon tetrachloride	ND	cn	0.50	0.070	ug/L			02/03/22 18:53	1
Chlorobenzene	ND	cn	0.50	0.060	ug/L			02/03/22 18:53	1
Chloroethane	ND	cn	0.50	0.070	ug/L			02/03/22 18:53	1
Chloroform	ND	cn	0.50	0.090	ug/L			02/03/22 18:53	1
Chloromethane	ND	cn	0.50	0.060	ug/L			02/03/22 18:53	1
<b>cis-1,2-Dichloroethene</b>	<b>0.082</b>	<b>J cn</b>	0.50	0.050	ug/L			02/03/22 18:53	1
cis-1,3-Dichloropropene	ND	cn	0.50	0.050	ug/L			02/03/22 18:53	1
Dibromochloromethane	ND	cn	0.50	0.070	ug/L			02/03/22 18:53	1
Ethylbenzene	ND	cn	0.50	0.060	ug/L			02/03/22 18:53	1
Methyl tert-butyl ether	ND	cn	0.50	0.050	ug/L			02/03/22 18:53	1
Methylene Chloride	ND	cn	0.50	0.070	ug/L			02/03/22 18:53	1
Styrene	ND	cn	0.50	0.050	ug/L			02/03/22 18:53	1
<b>Tetrachloroethene</b>	<b>0.070</b>	<b>J cn</b>	0.50	0.060	ug/L			02/03/22 18:53	1
Toluene	ND	cn	0.50	0.070	ug/L			02/03/22 18:53	1
trans-1,2-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/03/22 18:53	1
trans-1,3-Dichloropropene	ND	cn	0.50	0.060	ug/L			02/03/22 18:53	1
<b>Trichloroethene</b>	<b>0.14</b>	<b>J cn</b>	0.50	0.060	ug/L			02/03/22 18:53	1
Vinyl chloride	ND	cn	0.50	0.10	ug/L			02/03/22 18:53	1
Xylenes, Total	ND	cn	1.0	0.15	ug/L			02/03/22 18:53	1



# Client Sample Results

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

Job ID: 410-71043-1

**Client Sample ID: HD-COD-SW-27-01/1-0**

**Lab Sample ID: 410-71043-10**

Date Collected: 01/27/22 11:35

Matrix: Water

Date Received: 01/27/22 18:25

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105	cn	80 - 120		02/03/22 18:53	1
4-Bromofluorobenzene (Surr)	100	cn	80 - 120		02/03/22 18:53	1
Dibromofluoromethane (Surr)	95	cn	80 - 120		02/03/22 18:53	1
Toluene-d8 (Surr)	100	cn	80 - 120		02/03/22 18:53	1

**Client Sample ID: HD-COD-SW-28-01/1-0**

**Lab Sample ID: 410-71043-11**

Date Collected: 01/27/22 13:00

Matrix: Water

Date Received: 01/27/22 18:25

**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	cn	0.50	0.070	ug/L			02/03/22 13:25	1
1,1,1-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/03/22 13:25	1
1,1,2,2-Tetrachloroethane	ND	cn	0.50	0.070	ug/L			02/03/22 13:25	1
1,1,2-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/03/22 13:25	1
1,1-Dichloroethane	ND	cn	0.50	0.070	ug/L			02/03/22 13:25	1
1,1-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/03/22 13:25	1
1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060	ug/L			02/03/22 13:25	1
1,2-Dichloroethane	ND	cn	0.50	0.050	ug/L			02/03/22 13:25	1
1,2-Dichloropropane	ND	cn	0.50	0.060	ug/L			02/03/22 13:25	1
2-Butanone (MEK)	ND	cn	5.0	0.60	ug/L			02/03/22 13:25	1
2-Hexanone	ND	cn	5.0	0.60	ug/L			02/03/22 13:25	1
4-Methyl-2-pentanone (MIBK)	ND	cn	5.0	0.70	ug/L			02/03/22 13:25	1
<b>Acetone</b>	<b>2.1</b>	<b>J cn</b>	5.0	0.90	ug/L			02/03/22 13:25	1
Benzene	ND	cn	0.50	0.050	ug/L			02/03/22 13:25	1
Bromochloromethane	ND	cn	0.50	0.050	ug/L			02/03/22 13:25	1
Bromodichloromethane	ND	cn	0.50	0.050	ug/L			02/03/22 13:25	1
Bromoform	ND	^c cn	1.0	0.30	ug/L			02/03/22 13:25	1
Bromomethane	ND	cn	0.50	0.070	ug/L			02/03/22 13:25	1
Carbon disulfide	ND	cn	1.0	0.060	ug/L			02/03/22 13:25	1
Carbon tetrachloride	ND	cn	0.50	0.070	ug/L			02/03/22 13:25	1
Chlorobenzene	ND	cn	0.50	0.060	ug/L			02/03/22 13:25	1
Chloroethane	ND	cn	0.50	0.070	ug/L			02/03/22 13:25	1
Chloroform	ND	cn	0.50	0.090	ug/L			02/03/22 13:25	1
Chloromethane	ND	cn	0.50	0.060	ug/L			02/03/22 13:25	1
<b>cis-1,2-Dichloroethene</b>	<b>0.11</b>	<b>J cn</b>	0.50	0.050	ug/L			02/03/22 13:25	1
cis-1,3-Dichloropropene	ND	cn	0.50	0.050	ug/L			02/03/22 13:25	1
Dibromochloromethane	ND	cn	0.50	0.070	ug/L			02/03/22 13:25	1
Ethylbenzene	ND	cn	0.50	0.060	ug/L			02/03/22 13:25	1
Methyl tert-butyl ether	ND	cn	0.50	0.050	ug/L			02/03/22 13:25	1
Methylene Chloride	ND	cn	0.50	0.070	ug/L			02/03/22 13:25	1
Styrene	ND	cn	0.50	0.050	ug/L			02/03/22 13:25	1
<b>Tetrachloroethene</b>	<b>0.24</b>	<b>J cn</b>	0.50	0.060	ug/L			02/03/22 13:25	1
<b>Toluene</b>	<b>0.15</b>	<b>J cn</b>	0.50	0.070	ug/L			02/03/22 13:25	1
trans-1,2-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/03/22 13:25	1
trans-1,3-Dichloropropene	ND	cn	0.50	0.060	ug/L			02/03/22 13:25	1
<b>Trichloroethene</b>	<b>0.16</b>	<b>J cn</b>	0.50	0.060	ug/L			02/03/22 13:25	1
Vinyl chloride	ND	cn	0.50	0.10	ug/L			02/03/22 13:25	1
Xylenes, Total	ND	cn	1.0	0.15	ug/L			02/03/22 13:25	1

# Client Sample Results

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

Job ID: 410-71043-1

**Client Sample ID: HD-COD-SW-28-01/1-0**

**Lab Sample ID: 410-71043-11**

Date Collected: 01/27/22 13:00

Matrix: Water

Date Received: 01/27/22 18:25

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104	cn	80 - 120		02/03/22 13:25	1
4-Bromofluorobenzene (Surr)	94	cn	80 - 120		02/03/22 13:25	1
Dibromofluoromethane (Surr)	101	cn	80 - 120		02/03/22 13:25	1
Toluene-d8 (Surr)	101	cn	80 - 120		02/03/22 13:25	1

**Client Sample ID: HD-COD-SW-29-01/1-0**

**Lab Sample ID: 410-71043-12**

Date Collected: 01/27/22 08:30

Matrix: Water

Date Received: 01/27/22 18:25

**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	cn	0.50	0.070	ug/L			02/03/22 13:46	1
1,1,1-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/03/22 13:46	1
1,1,2,2-Tetrachloroethane	ND	cn	0.50	0.070	ug/L			02/03/22 13:46	1
1,1,2-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/03/22 13:46	1
1,1-Dichloroethane	ND	cn	0.50	0.070	ug/L			02/03/22 13:46	1
1,1-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/03/22 13:46	1
1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060	ug/L			02/03/22 13:46	1
1,2-Dichloroethane	ND	cn	0.50	0.050	ug/L			02/03/22 13:46	1
1,2-Dichloropropane	ND	cn	0.50	0.060	ug/L			02/03/22 13:46	1
2-Butanone (MEK)	ND	cn	5.0	0.60	ug/L			02/03/22 13:46	1
2-Hexanone	ND	cn	5.0	0.60	ug/L			02/03/22 13:46	1
4-Methyl-2-pentanone (MIBK)	ND	cn	5.0	0.70	ug/L			02/03/22 13:46	1
<b>Acetone</b>	<b>1.5</b>	<b>J cn</b>	5.0	0.90	ug/L			02/03/22 13:46	1
Benzene	ND	cn	0.50	0.050	ug/L			02/03/22 13:46	1
Bromochloromethane	ND	cn	0.50	0.050	ug/L			02/03/22 13:46	1
Bromodichloromethane	ND	cn	0.50	0.050	ug/L			02/03/22 13:46	1
Bromoform	ND	^c cn	1.0	0.30	ug/L			02/03/22 13:46	1
Bromomethane	ND	cn	0.50	0.070	ug/L			02/03/22 13:46	1
Carbon disulfide	ND	cn	1.0	0.060	ug/L			02/03/22 13:46	1
Carbon tetrachloride	ND	cn	0.50	0.070	ug/L			02/03/22 13:46	1
Chlorobenzene	ND	cn	0.50	0.060	ug/L			02/03/22 13:46	1
Chloroethane	ND	cn	0.50	0.070	ug/L			02/03/22 13:46	1
Chloroform	ND	cn	0.50	0.090	ug/L			02/03/22 13:46	1
Chloromethane	ND	cn	0.50	0.060	ug/L			02/03/22 13:46	1
<b>cis-1,2-Dichloroethene</b>	<b>0.13</b>	<b>J cn</b>	0.50	0.050	ug/L			02/03/22 13:46	1
cis-1,3-Dichloropropene	ND	cn	0.50	0.050	ug/L			02/03/22 13:46	1
Dibromochloromethane	ND	cn	0.50	0.070	ug/L			02/03/22 13:46	1
Ethylbenzene	ND	cn	0.50	0.060	ug/L			02/03/22 13:46	1
Methyl tert-butyl ether	ND	cn	0.50	0.050	ug/L			02/03/22 13:46	1
Methylene Chloride	ND	cn	0.50	0.070	ug/L			02/03/22 13:46	1
Styrene	ND	cn	0.50	0.050	ug/L			02/03/22 13:46	1
<b>Tetrachloroethene</b>	<b>0.39</b>	<b>J cn</b>	0.50	0.060	ug/L			02/03/22 13:46	1
Toluene	ND	cn	0.50	0.070	ug/L			02/03/22 13:46	1
trans-1,2-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/03/22 13:46	1
trans-1,3-Dichloropropene	ND	cn	0.50	0.060	ug/L			02/03/22 13:46	1
<b>Trichloroethene</b>	<b>0.19</b>	<b>J cn</b>	0.50	0.060	ug/L			02/03/22 13:46	1
Vinyl chloride	ND	cn	0.50	0.10	ug/L			02/03/22 13:46	1
Xylenes, Total	ND	cn	1.0	0.15	ug/L			02/03/22 13:46	1



# Client Sample Results

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

Job ID: 410-71043-1

**Client Sample ID: HD-COD-SW-29-01/1-0**

**Lab Sample ID: 410-71043-12**

Date Collected: 01/27/22 08:30

Matrix: Water

Date Received: 01/27/22 18:25

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102	cn	80 - 120		02/03/22 13:46	1
4-Bromofluorobenzene (Surr)	93	cn	80 - 120		02/03/22 13:46	1
Dibromofluoromethane (Surr)	101	cn	80 - 120		02/03/22 13:46	1
Toluene-d8 (Surr)	101	cn	80 - 120		02/03/22 13:46	1

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

**Lab Sample ID: 410-71043-13**

Date Collected: 01/27/22 12:00

Matrix: Water

Date Received: 01/27/22 18:25

**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	cn	5.0	0.70	ug/L			02/03/22 17:40	10
<b>1,1,1-Trichloroethane</b>	<b>7.0</b>	<b>cn</b>	5.0	0.60	ug/L			02/03/22 17:40	10
1,1,2,2-Tetrachloroethane	ND	cn	5.0	0.70	ug/L			02/03/22 17:40	10
1,1,2-Trichloroethane	ND	cn	5.0	0.60	ug/L			02/03/22 17:40	10
<b>1,1-Dichloroethane</b>	<b>1.2</b>	<b>J cn</b>	5.0	0.70	ug/L			02/03/22 17:40	10
1,1-Dichloroethene	ND	cn	5.0	0.60	ug/L			02/03/22 17:40	10
1,2-Dibromoethane (EDB)	ND	cn	5.0	0.60	ug/L			02/03/22 17:40	10
1,2-Dichloroethane	ND	cn	5.0	0.50	ug/L			02/03/22 17:40	10
1,2-Dichloropropane	ND	cn	5.0	0.60	ug/L			02/03/22 17:40	10
2-Butanone (MEK)	ND	cn	50	6.0	ug/L			02/03/22 17:40	10
2-Hexanone	ND	cn	50	6.0	ug/L			02/03/22 17:40	10
4-Methyl-2-pentanone (MIBK)	ND	cn	50	7.0	ug/L			02/03/22 17:40	10
Acetone	ND	cn	50	9.0	ug/L			02/03/22 17:40	10
Benzene	ND	cn	5.0	0.50	ug/L			02/03/22 17:40	10
Bromochloromethane	ND	cn	5.0	0.50	ug/L			02/03/22 17:40	10
Bromodichloromethane	ND	cn	5.0	0.50	ug/L			02/03/22 17:40	10
Bromoform	ND	^c cn	10	3.0	ug/L			02/03/22 17:40	10
Bromomethane	ND	cn	5.0	0.70	ug/L			02/03/22 17:40	10
Carbon disulfide	ND	cn	10	0.60	ug/L			02/03/22 17:40	10
Carbon tetrachloride	ND	cn	5.0	0.70	ug/L			02/03/22 17:40	10
Chlorobenzene	ND	cn	5.0	0.60	ug/L			02/03/22 17:40	10
Chloroethane	ND	cn	5.0	0.70	ug/L			02/03/22 17:40	10
Chloroform	ND	cn	5.0	0.90	ug/L			02/03/22 17:40	10
Chloromethane	ND	cn	5.0	0.60	ug/L			02/03/22 17:40	10
<b>cis-1,2-Dichloroethene</b>	<b>4.6</b>	<b>J cn</b>	5.0	0.50	ug/L			02/03/22 17:40	10
cis-1,3-Dichloropropene	ND	cn	5.0	0.50	ug/L			02/03/22 17:40	10
Dibromochloromethane	ND	cn	5.0	0.70	ug/L			02/03/22 17:40	10
Ethylbenzene	ND	cn	5.0	0.60	ug/L			02/03/22 17:40	10
Methyl tert-butyl ether	ND	cn	5.0	0.50	ug/L			02/03/22 17:40	10
Methylene Chloride	ND	cn	5.0	0.70	ug/L			02/03/22 17:40	10
Styrene	ND	cn	5.0	0.50	ug/L			02/03/22 17:40	10
<b>Tetrachloroethene</b>	<b>94</b>	<b>cn</b>	5.0	0.60	ug/L			02/03/22 17:40	10
Toluene	ND	cn	5.0	0.70	ug/L			02/03/22 17:40	10
trans-1,2-Dichloroethene	ND	cn	5.0	0.60	ug/L			02/03/22 17:40	10
trans-1,3-Dichloropropene	ND	cn	5.0	0.60	ug/L			02/03/22 17:40	10
<b>Trichloroethene</b>	<b>6.1</b>	<b>cn</b>	5.0	0.60	ug/L			02/03/22 17:40	10
Vinyl chloride	ND	cn	5.0	1.0	ug/L			02/03/22 17:40	10
Xylenes, Total	ND	cn	10	1.5	ug/L			02/03/22 17:40	10

# Client Sample Results

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

Job ID: 410-71043-1

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

**Lab Sample ID: 410-71043-13**

**Date Collected: 01/27/22 12:00**

**Matrix: Water**

**Date Received: 01/27/22 18:25**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102	cn	80 - 120		02/03/22 17:40	10
4-Bromofluorobenzene (Surr)	94	cn	80 - 120		02/03/22 17:40	10
Dibromofluoromethane (Surr)	99	cn	80 - 120		02/03/22 17:40	10
Toluene-d8 (Surr)	99	cn	80 - 120		02/03/22 17:40	10

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

**Lab Sample ID: 410-71043-14**

**Date Collected: 01/27/22 00:00**

**Matrix: Water**

**Date Received: 01/27/22 18:25**

**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	cn	0.50	0.070	ug/L			02/03/22 11:18	1
1,1,1-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/03/22 11:18	1
1,1,2,2-Tetrachloroethane	ND	cn	0.50	0.070	ug/L			02/03/22 11:18	1
1,1,2-Trichloroethane	ND	cn	0.50	0.060	ug/L			02/03/22 11:18	1
1,1-Dichloroethane	ND	cn	0.50	0.070	ug/L			02/03/22 11:18	1
1,1-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/03/22 11:18	1
1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060	ug/L			02/03/22 11:18	1
1,2-Dichloroethane	ND	cn	0.50	0.050	ug/L			02/03/22 11:18	1
1,2-Dichloropropane	ND	cn	0.50	0.060	ug/L			02/03/22 11:18	1
2-Butanone (MEK)	ND	cn	5.0	0.60	ug/L			02/03/22 11:18	1
2-Hexanone	ND	cn	5.0	0.60	ug/L			02/03/22 11:18	1
4-Methyl-2-pentanone (MIBK)	ND	cn	5.0	0.70	ug/L			02/03/22 11:18	1
Acetone	ND	cn	5.0	0.90	ug/L			02/03/22 11:18	1
Benzene	ND	cn	0.50	0.050	ug/L			02/03/22 11:18	1
Bromochloromethane	ND	cn	0.50	0.050	ug/L			02/03/22 11:18	1
Bromodichloromethane	ND	cn	0.50	0.050	ug/L			02/03/22 11:18	1
Bromoform	ND	^c cn	1.0	0.30	ug/L			02/03/22 11:18	1
Bromomethane	ND	cn	0.50	0.070	ug/L			02/03/22 11:18	1
Carbon disulfide	ND	cn	1.0	0.060	ug/L			02/03/22 11:18	1
Carbon tetrachloride	ND	cn	0.50	0.070	ug/L			02/03/22 11:18	1
Chlorobenzene	ND	cn	0.50	0.060	ug/L			02/03/22 11:18	1
Chloroethane	ND	cn	0.50	0.070	ug/L			02/03/22 11:18	1
Chloroform	ND	cn	0.50	0.090	ug/L			02/03/22 11:18	1
Chloromethane	ND	cn	0.50	0.060	ug/L			02/03/22 11:18	1
cis-1,2-Dichloroethene	ND	cn	0.50	0.050	ug/L			02/03/22 11:18	1
cis-1,3-Dichloropropene	ND	cn	0.50	0.050	ug/L			02/03/22 11:18	1
Dibromochloromethane	ND	cn	0.50	0.070	ug/L			02/03/22 11:18	1
Ethylbenzene	ND	cn	0.50	0.060	ug/L			02/03/22 11:18	1
Methyl tert-butyl ether	ND	cn	0.50	0.050	ug/L			02/03/22 11:18	1
Methylene Chloride	ND	cn	0.50	0.070	ug/L			02/03/22 11:18	1
Styrene	ND	cn	0.50	0.050	ug/L			02/03/22 11:18	1
Tetrachloroethene	ND	cn	0.50	0.060	ug/L			02/03/22 11:18	1
Toluene	ND	cn	0.50	0.070	ug/L			02/03/22 11:18	1
trans-1,2-Dichloroethene	ND	cn	0.50	0.060	ug/L			02/03/22 11:18	1
trans-1,3-Dichloropropene	ND	cn	0.50	0.060	ug/L			02/03/22 11:18	1
Trichloroethene	ND	cn	0.50	0.060	ug/L			02/03/22 11:18	1
Vinyl chloride	ND	cn	0.50	0.10	ug/L			02/03/22 11:18	1
Xylenes, Total	ND	cn	1.0	0.15	ug/L			02/03/22 11:18	1

# Client Sample Results

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

Job ID: 410-71043-1

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

**Lab Sample ID: 410-71043-14**

**Date Collected: 01/27/22 00:00**

**Matrix: Water**

**Date Received: 01/27/22 18:25**

<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
1,2-Dichloroethane-d4 (Surr)	104	cn	80 - 120		02/03/22 11:18	1
4-Bromofluorobenzene (Surr)	96	cn	80 - 120		02/03/22 11:18	1
Dibromofluoromethane (Surr)	100	cn	80 - 120		02/03/22 11:18	1
Toluene-d8 (Surr)	101	cn	80 - 120		02/03/22 11:18	1

## Default Detection Limits

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

Job ID: 410-71043-1

### 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: 410-71043-1

## 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)
410-71043-1	HD-COD-SW-6-01/1-0	102 cn	99 cn	94 cn	100 cn
410-71043-2	HD-COD-SW-7-01/1-0	100 cn	99 cn	95 cn	100 cn
410-71043-3	HD-COD-SW-8-01/1-0	102 cn	99 cn	95 cn	100 cn
410-71043-4	HD-COD-SW-9-01/1-0	101 cn	100 cn	95 cn	100 cn
410-71043-5	HD-COD-SW-13-01/1-0	105 cn	99 cn	96 cn	101 cn
410-71043-6	HD-COD-SW-15-01/1-0	100 cn	100 cn	95 cn	100 cn
410-71043-6 MS	HD-COD-SW-15-01/1-0 MS	104	101	96	101
410-71043-6 MSD	HD-COD-SW-15-01/1-0 MSD	101	101	95	101
410-71043-7	HD-COD-SW-16-01/1-0	99 cn	99 cn	96 cn	99 cn
410-71043-8	HD-COD-SW-17-01/1-0	102 cn	98 cn	95 cn	99 cn
410-71043-8 - DL	HD-COD-SW-17-01/1-0	101	99	95	100
410-71043-9	HD-COD-SW-26-01/1-0	102 cn	100 cn	95 cn	100 cn
410-71043-10	HD-COD-SW-27-01/1-0	105 cn	100 cn	95 cn	100 cn
410-71043-11	HD-COD-SW-28-01/1-0	104 cn	94 cn	101 cn	101 cn
410-71043-12	HD-COD-SW-29-01/1-0	102 cn	93 cn	101 cn	101 cn
410-71043-13	HD-QC1-0/1-1	102 cn	94 cn	99 cn	99 cn
410-71043-14	HD-QC1-0/1-2	104 cn	96 cn	100 cn	101 cn
LCS 410-220509/4	Lab Control Sample	100	101	95	102
LCS 410-220519/4	Lab Control Sample	106	97	99	100
LCSD 410-220509/5	Lab Control Sample Dup	102	100	96	101
LCSD 410-220519/5	Lab Control Sample Dup	100	98	100	101
MB 410-220509/7	Method Blank	101	99	94	100
MB 410-220519/7	Method Blank	102	95	100	102

### 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: 410-71043-1

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

**Lab Sample ID: MB 410-220509/7**

**Matrix: Water**

**Analysis Batch: 220509**

**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			02/03/22 11:42	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			02/03/22 11:42	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			02/03/22 11:42	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			02/03/22 11:42	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			02/03/22 11:42	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			02/03/22 11:42	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			02/03/22 11:42	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			02/03/22 11:42	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			02/03/22 11:42	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			02/03/22 11:42	1
2-Hexanone	ND		5.0	0.60	ug/L			02/03/22 11:42	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			02/03/22 11:42	1
Acetone	ND		5.0	0.90	ug/L			02/03/22 11:42	1
Benzene	ND		0.50	0.050	ug/L			02/03/22 11:42	1
Bromochloromethane	ND		0.50	0.050	ug/L			02/03/22 11:42	1
Bromodichloromethane	ND		0.50	0.050	ug/L			02/03/22 11:42	1
Bromoform	ND		1.0	0.30	ug/L			02/03/22 11:42	1
Bromomethane	ND		0.50	0.070	ug/L			02/03/22 11:42	1
Carbon disulfide	ND		1.0	0.060	ug/L			02/03/22 11:42	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			02/03/22 11:42	1
Chlorobenzene	ND		0.50	0.060	ug/L			02/03/22 11:42	1
Chloroethane	ND		0.50	0.070	ug/L			02/03/22 11:42	1
Chloroform	ND		0.50	0.090	ug/L			02/03/22 11:42	1
Chloromethane	ND		0.50	0.060	ug/L			02/03/22 11:42	1
cis-1,2-Dichloroethene	ND		0.50	0.050	ug/L			02/03/22 11:42	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			02/03/22 11:42	1
Dibromochloromethane	ND		0.50	0.070	ug/L			02/03/22 11:42	1
Ethylbenzene	ND		0.50	0.060	ug/L			02/03/22 11:42	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			02/03/22 11:42	1
Methylene Chloride	ND		0.50	0.070	ug/L			02/03/22 11:42	1
Styrene	ND		0.50	0.050	ug/L			02/03/22 11:42	1
Tetrachloroethene	ND		0.50	0.060	ug/L			02/03/22 11:42	1
Toluene	ND		0.50	0.070	ug/L			02/03/22 11:42	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			02/03/22 11:42	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			02/03/22 11:42	1
Trichloroethene	ND		0.50	0.060	ug/L			02/03/22 11:42	1
Vinyl chloride	ND		0.50	0.10	ug/L			02/03/22 11:42	1
Xylenes, Total	ND		1.0	0.15	ug/L			02/03/22 11:42	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	101		80 - 120		02/03/22 11:42	1
4-Bromofluorobenzene (Surr)	99		80 - 120		02/03/22 11:42	1
Dibromofluoromethane (Surr)	94		80 - 120		02/03/22 11:42	1
Toluene-d8 (Surr)	100		80 - 120		02/03/22 11:42	1

# QC Sample Results

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

Job ID: 410-71043-1

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

**Lab Sample ID: LCS 410-220509/4**

**Matrix: Water**

**Analysis Batch: 220509**

**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	4.91		ug/L		98	71 - 134
1,1,1-Trichloroethane	5.00	4.68		ug/L		94	78 - 126
1,1,2,2-Tetrachloroethane	5.00	5.40		ug/L		108	75 - 123
1,1,2-Trichloroethane	5.00	5.21		ug/L		104	80 - 120
1,1-Dichloroethane	5.00	5.05		ug/L		101	74 - 120
1,1-Dichloroethene	5.00	4.79		ug/L		96	80 - 131
1,2-Dibromoethane (EDB)	5.00	5.22		ug/L		104	80 - 120
1,2-Dichloroethane	5.00	4.93		ug/L		99	69 - 122
1,2-Dichloropropane	5.00	5.20		ug/L		104	80 - 120
2-Butanone (MEK)	62.5	55.5		ug/L		89	59 - 141
2-Hexanone	62.5	52.0		ug/L		83	52 - 140
4-Methyl-2-pentanone (MIBK)	62.5	49.4		ug/L		79	55 - 140
Acetone	62.5	53.0		ug/L		85	60 - 146
Benzene	5.00	5.09		ug/L		102	80 - 120
Bromochloromethane	5.00	4.98		ug/L		100	80 - 120
Bromodichloromethane	5.00	5.23		ug/L		105	73 - 124
Bromoform	5.00	6.07		ug/L		121	49 - 144
Bromomethane	5.00	4.73		ug/L		95	60 - 136
Carbon disulfide	5.00	5.53		ug/L		111	67 - 130
Carbon tetrachloride	5.00	4.52		ug/L		90	64 - 141
Chlorobenzene	5.00	5.01		ug/L		100	80 - 120
Chloroethane	5.00	5.25		ug/L		105	63 - 120
Chloroform	5.00	4.93		ug/L		99	80 - 120
Chloromethane	5.00	4.93		ug/L		99	56 - 124
cis-1,2-Dichloroethene	5.00	5.07		ug/L		101	80 - 122
cis-1,3-Dichloropropene	5.00	5.11		ug/L		102	67 - 121
Dibromochloromethane	5.00	5.53		ug/L		111	64 - 138
Ethylbenzene	5.00	5.17		ug/L		103	80 - 120
Methyl tert-butyl ether	5.00	5.12		ug/L		102	69 - 120
Methylene Chloride	5.00	4.89		ug/L		98	80 - 120
Styrene	5.00	5.22		ug/L		104	80 - 120
Tetrachloroethene	5.00	4.87		ug/L		97	80 - 120
Toluene	5.00	5.13		ug/L		103	80 - 120
trans-1,2-Dichloroethene	5.00	4.87		ug/L		97	80 - 122
trans-1,3-Dichloropropene	5.00	5.46		ug/L		109	61 - 129
Trichloroethene	5.00	4.95		ug/L		99	80 - 120
Vinyl chloride	5.00	4.62		ug/L		92	60 - 125
Xylenes, Total	15.0	15.3		ug/L		102	80 - 120

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	100		80 - 120
4-Bromofluorobenzene (Surr)	101		80 - 120
Dibromofluoromethane (Surr)	95		80 - 120
Toluene-d8 (Surr)	102		80 - 120

# QC Sample Results

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

Job ID: 410-71043-1

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

**Lab Sample ID: LCSD 410-220509/5**

**Matrix: Water**

**Analysis Batch: 220509**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	5.00	4.74		ug/L		95	71 - 134	3	30
1,1,1-Trichloroethane	5.00	4.54		ug/L		91	78 - 126	3	30
1,1,2,2-Tetrachloroethane	5.00	5.38		ug/L		108	75 - 123	0	30
1,1,2-Trichloroethane	5.00	5.23		ug/L		105	80 - 120	0	30
1,1-Dichloroethane	5.00	4.98		ug/L		100	74 - 120	1	30
1,1-Dichloroethene	5.00	4.74		ug/L		95	80 - 131	1	30
1,2-Dibromoethane (EDB)	5.00	5.05		ug/L		101	80 - 120	3	30
1,2-Dichloroethane	5.00	4.81		ug/L		96	69 - 122	2	30
1,2-Dichloropropane	5.00	5.21		ug/L		104	80 - 120	0	30
2-Butanone (MEK)	62.5	51.9		ug/L		83	59 - 141	7	30
2-Hexanone	62.5	49.6		ug/L		79	52 - 140	5	30
4-Methyl-2-pentanone (MIBK)	62.5	46.9		ug/L		75	55 - 140	5	30
Acetone	62.5	50.9		ug/L		81	60 - 146	4	30
Benzene	5.00	5.05		ug/L		101	80 - 120	1	30
Bromochloromethane	5.00	4.92		ug/L		98	80 - 120	1	30
Bromodichloromethane	5.00	5.19		ug/L		104	73 - 124	1	30
Bromoform	5.00	5.94		ug/L		119	49 - 144	2	30
Bromomethane	5.00	4.63		ug/L		93	60 - 136	2	30
Carbon disulfide	5.00	5.47		ug/L		109	67 - 130	1	30
Carbon tetrachloride	5.00	4.43		ug/L		89	64 - 141	2	30
Chlorobenzene	5.00	4.92		ug/L		98	80 - 120	2	30
Chloroethane	5.00	5.10		ug/L		102	63 - 120	3	30
Chloroform	5.00	4.83		ug/L		97	80 - 120	2	30
Chloromethane	5.00	4.82		ug/L		96	56 - 124	2	30
cis-1,2-Dichloroethene	5.00	4.98		ug/L		100	80 - 122	2	30
cis-1,3-Dichloropropene	5.00	5.08		ug/L		102	67 - 121	1	30
Dibromochloromethane	5.00	5.41		ug/L		108	64 - 138	2	30
Ethylbenzene	5.00	5.02		ug/L		100	80 - 120	3	30
Methyl tert-butyl ether	5.00	5.07		ug/L		101	69 - 120	1	30
Methylene Chloride	5.00	4.78		ug/L		96	80 - 120	2	30
Styrene	5.00	5.12		ug/L		102	80 - 120	2	30
Tetrachloroethene	5.00	4.75		ug/L		95	80 - 120	2	30
Toluene	5.00	5.09		ug/L		102	80 - 120	1	30
trans-1,2-Dichloroethene	5.00	4.73		ug/L		95	80 - 122	3	30
trans-1,3-Dichloropropene	5.00	5.39		ug/L		108	61 - 129	1	30
Trichloroethene	5.00	4.91		ug/L		98	80 - 120	1	30
Vinyl chloride	5.00	4.52		ug/L		90	60 - 125	2	30
Xylenes, Total	15.0	14.9		ug/L		99	80 - 120	3	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	102		80 - 120
4-Bromofluorobenzene (Surr)	100		80 - 120
Dibromofluoromethane (Surr)	96		80 - 120
Toluene-d8 (Surr)	101		80 - 120



# QC Sample Results

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

Job ID: 410-71043-1

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

**Lab Sample ID: 410-71043-6 MS**

**Matrix: Water**

**Analysis Batch: 220509**

**Client Sample ID: HD-COD-SW-15-01/1-0 MS**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier		Added	Result				
1,1,1,2-Tetrachloroethane	ND	cn	5.00	4.96		ug/L		99	71 - 134
1,1,1-Trichloroethane	0.24	J cn	5.00	5.26		ug/L		100	78 - 126
1,1,2,2-Tetrachloroethane	ND	cn	5.00	5.28		ug/L		106	75 - 123
1,1,2-Trichloroethane	ND	cn	5.00	5.21		ug/L		104	80 - 120
1,1-Dichloroethane	0.13	J cn	5.00	5.45		ug/L		106	74 - 120
1,1-Dichloroethene	0.13	J cn	5.00	5.50		ug/L		107	80 - 131
1,2-Dibromoethane (EDB)	ND	cn	5.00	5.06		ug/L		101	80 - 120
1,2-Dichloroethane	ND	cn	5.00	4.90		ug/L		98	69 - 122
1,2-Dichloropropane	ND	cn	5.00	5.35		ug/L		107	80 - 120
2-Butanone (MEK)	ND	cn	62.6	47.4		ug/L		76	59 - 141
2-Hexanone	ND	^c cn	62.6	45.8		ug/L		73	52 - 140
4-Methyl-2-pentanone (MIBK)	ND	^c cn	62.6	43.8		ug/L		70	55 - 140
Acetone	ND	cn	62.6	48.4		ug/L		77	60 - 146
Benzene	ND	cn	5.00	5.38		ug/L		108	80 - 120
Bromochloromethane	ND	cn	5.00	5.01		ug/L		100	80 - 120
Bromodichloromethane	ND	cn	5.00	5.33		ug/L		106	73 - 124
Bromoform	ND	cn	5.00	5.71		ug/L		114	49 - 144
Bromomethane	ND	cn	5.00	4.96		ug/L		99	60 - 136
Carbon disulfide	ND	cn	5.00	6.03		ug/L		120	67 - 130
Carbon tetrachloride	ND	cn	5.00	5.04		ug/L		101	64 - 141
Chlorobenzene	ND	cn	5.00	5.15		ug/L		103	80 - 120
Chloroethane	ND	cn	5.00	5.46		ug/L		109	63 - 120
Chloroform	0.24	J cn	5.00	5.41		ug/L		103	80 - 120
Chloromethane	ND	cn	5.00	5.12		ug/L		102	80 - 120
cis-1,2-Dichloroethene	1.5	cn	5.00	6.84		ug/L		108	80 - 122
cis-1,3-Dichloropropene	ND	cn	5.00	5.12		ug/L		102	67 - 121
Dibromochloromethane	ND	cn	5.00	5.43		ug/L		108	64 - 138
Ethylbenzene	ND	cn	5.00	5.40		ug/L		108	80 - 120
Methyl tert-butyl ether	0.051	J cn	5.00	5.18		ug/L		102	69 - 120
Methylene Chloride	ND	cn	5.00	5.02		ug/L		100	80 - 120
Styrene	ND	cn	5.00	5.32		ug/L		106	80 - 120
Tetrachloroethene	6.1	cn	5.00	11.3		ug/L		103	80 - 120
Toluene	ND	cn	5.00	5.38		ug/L		107	80 - 120
trans-1,2-Dichloroethene	ND	cn	5.00	5.27		ug/L		105	80 - 122
trans-1,3-Dichloropropene	ND	cn	5.00	5.29		ug/L		106	61 - 129
Trichloroethene	1.4	cn	5.00	6.73		ug/L		107	80 - 120
Vinyl chloride	ND	cn	5.00	5.04		ug/L		101	60 - 125
Xylenes, Total	ND	cn	15.0	15.8		ug/L		105	80 - 120

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	104		80 - 120
4-Bromofluorobenzene (Surr)	101		80 - 120
Dibromofluoromethane (Surr)	96		80 - 120
Toluene-d8 (Surr)	101		80 - 120

# QC Sample Results

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

Job ID: 410-71043-1

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

**Lab Sample ID: 410-71043-6 MSD**

**Matrix: Water**

**Analysis Batch: 220509**

**Client Sample ID: HD-COD-SW-15-01/1-0 MSD**

**Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier		Added	Result				Qualifier		Limits
1,1,1,2-Tetrachloroethane	ND	cn	5.00	4.94		ug/L		99	71 - 134	1	30
1,1,1-Trichloroethane	0.24	J cn	5.00	5.21		ug/L		99	78 - 126	1	30
1,1,2,2-Tetrachloroethane	ND	cn	5.00	5.31		ug/L		106	75 - 123	1	30
1,1,2-Trichloroethane	ND	cn	5.00	5.21		ug/L		104	80 - 120	0	30
1,1-Dichloroethane	0.13	J cn	5.00	5.35		ug/L		104	74 - 120	2	30
1,1-Dichloroethene	0.13	J cn	5.00	5.42		ug/L		106	80 - 131	2	30
1,2-Dibromoethane (EDB)	ND	cn	5.00	4.97		ug/L		99	80 - 120	2	30
1,2-Dichloroethane	ND	cn	5.00	4.79		ug/L		96	69 - 122	2	30
1,2-Dichloropropane	ND	cn	5.00	5.30		ug/L		106	80 - 120	1	30
2-Butanone (MEK)	ND	cn	62.6	53.2		ug/L		85	59 - 141	11	30
2-Hexanone	ND	^c cn	62.6	50.3		ug/L		80	52 - 140	9	30
4-Methyl-2-pentanone (MIBK)	ND	^c cn	62.6	47.3		ug/L		76	55 - 140	8	30
Acetone	ND	cn	62.6	50.4		ug/L		81	60 - 146	4	30
Benzene	ND	cn	5.00	5.30		ug/L		106	80 - 120	2	30
Bromochloromethane	ND	cn	5.00	4.97		ug/L		99	80 - 120	1	30
Bromodichloromethane	ND	cn	5.00	5.22		ug/L		104	73 - 124	2	30
Bromoform	ND	cn	5.00	5.62		ug/L		112	49 - 144	2	30
Bromomethane	ND	cn	5.00	5.05		ug/L		101	60 - 136	2	30
Carbon disulfide	ND	cn	5.00	6.05		ug/L		121	67 - 130	0	30
Carbon tetrachloride	ND	cn	5.00	5.00		ug/L		100	64 - 141	1	30
Chlorobenzene	ND	cn	5.00	5.12		ug/L		102	80 - 120	1	30
Chloroethane	ND	cn	5.00	5.56		ug/L		111	63 - 120	2	30
Chloroform	0.24	J cn	5.00	5.25		ug/L		100	80 - 120	3	30
Chloromethane	ND	cn	5.00	5.38		ug/L		108	80 - 120	5	30
cis-1,2-Dichloroethene	1.5	cn	5.00	6.71		ug/L		105	80 - 122	2	30
cis-1,3-Dichloropropene	ND	cn	5.00	5.12		ug/L		102	67 - 121	0	30
Dibromochloromethane	ND	cn	5.00	5.40		ug/L		108	64 - 138	0	30
Ethylbenzene	ND	cn	5.00	5.36		ug/L		107	80 - 120	1	30
Methyl tert-butyl ether	0.051	J cn	5.00	5.17		ug/L		102	69 - 120	0	30
Methylene Chloride	ND	cn	5.00	4.94		ug/L		99	80 - 120	2	30
Styrene	ND	cn	5.00	5.27		ug/L		105	80 - 120	1	30
Tetrachloroethene	6.1	cn	5.00	11.4		ug/L		106	80 - 120	1	30
Toluene	ND	cn	5.00	5.33		ug/L		106	80 - 120	1	30
trans-1,2-Dichloroethene	ND	cn	5.00	5.20		ug/L		104	80 - 122	1	30
trans-1,3-Dichloropropene	ND	cn	5.00	5.34		ug/L		107	61 - 129	1	30
Trichloroethene	1.4	cn	5.00	6.62		ug/L		105	80 - 120	2	30
Vinyl chloride	ND	cn	5.00	5.23		ug/L		104	60 - 125	4	30
Xylenes, Total	ND	cn	15.0	15.7		ug/L		105	80 - 120	1	30

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	101		80 - 120
4-Bromofluorobenzene (Surr)	101		80 - 120
Dibromofluoromethane (Surr)	95		80 - 120
Toluene-d8 (Surr)	101		80 - 120

# QC Sample Results

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

Job ID: 410-71043-1

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

**Lab Sample ID: MB 410-220519/7**

**Matrix: Water**

**Analysis Batch: 220519**

**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			02/03/22 10:57	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			02/03/22 10:57	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			02/03/22 10:57	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			02/03/22 10:57	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			02/03/22 10:57	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			02/03/22 10:57	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			02/03/22 10:57	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			02/03/22 10:57	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			02/03/22 10:57	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			02/03/22 10:57	1
2-Hexanone	ND		5.0	0.60	ug/L			02/03/22 10:57	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			02/03/22 10:57	1
Acetone	ND		5.0	0.90	ug/L			02/03/22 10:57	1
Benzene	ND		0.50	0.050	ug/L			02/03/22 10:57	1
Bromochloromethane	ND		0.50	0.050	ug/L			02/03/22 10:57	1
Bromodichloromethane	ND		0.50	0.050	ug/L			02/03/22 10:57	1
Bromoform	ND		1.0	0.30	ug/L			02/03/22 10:57	1
Bromomethane	ND		0.50	0.070	ug/L			02/03/22 10:57	1
Carbon disulfide	ND		1.0	0.060	ug/L			02/03/22 10:57	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			02/03/22 10:57	1
Chlorobenzene	ND		0.50	0.060	ug/L			02/03/22 10:57	1
Chloroethane	ND		0.50	0.070	ug/L			02/03/22 10:57	1
Chloroform	ND		0.50	0.090	ug/L			02/03/22 10:57	1
Chloromethane	ND		0.50	0.060	ug/L			02/03/22 10:57	1
cis-1,2-Dichloroethene	ND		0.50	0.050	ug/L			02/03/22 10:57	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			02/03/22 10:57	1
Dibromochloromethane	ND		0.50	0.070	ug/L			02/03/22 10:57	1
Ethylbenzene	ND		0.50	0.060	ug/L			02/03/22 10:57	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			02/03/22 10:57	1
Methylene Chloride	ND		0.50	0.070	ug/L			02/03/22 10:57	1
Styrene	ND		0.50	0.050	ug/L			02/03/22 10:57	1
Tetrachloroethene	ND		0.50	0.060	ug/L			02/03/22 10:57	1
Toluene	ND		0.50	0.070	ug/L			02/03/22 10:57	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			02/03/22 10:57	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			02/03/22 10:57	1
Trichloroethene	ND		0.50	0.060	ug/L			02/03/22 10:57	1
Vinyl chloride	ND		0.50	0.10	ug/L			02/03/22 10:57	1
Xylenes, Total	ND		1.0	0.15	ug/L			02/03/22 10:57	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	102		80 - 120		02/03/22 10:57	1
4-Bromofluorobenzene (Surr)	95		80 - 120		02/03/22 10:57	1
Dibromofluoromethane (Surr)	100		80 - 120		02/03/22 10:57	1
Toluene-d8 (Surr)	102		80 - 120		02/03/22 10:57	1

# QC Sample Results

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

Job ID: 410-71043-1

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

**Lab Sample ID: LCS 410-220519/4**

**Matrix: Water**

**Analysis Batch: 220519**

**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	5.31		ug/L		106	71 - 134
1,1,1-Trichloroethane	5.00	5.10		ug/L		102	78 - 126
1,1,2,2-Tetrachloroethane	5.00	6.02		ug/L		120	75 - 123
1,1,2-Trichloroethane	5.00	5.88		ug/L		118	80 - 120
1,1-Dichloroethane	5.00	5.43		ug/L		109	74 - 120
1,1-Dichloroethene	5.00	5.43		ug/L		109	80 - 131
1,2-Dibromoethane (EDB)	5.00	5.84		ug/L		117	80 - 120
1,2-Dichloroethane	5.00	5.37		ug/L		107	69 - 122
1,2-Dichloropropane	5.00	5.96		ug/L		119	80 - 120
2-Butanone (MEK)	62.5	70.0		ug/L		112	59 - 141
2-Hexanone	62.5	70.6		ug/L		113	52 - 140
4-Methyl-2-pentanone (MIBK)	62.5	67.4		ug/L		108	55 - 140
Acetone	62.5	60.6		ug/L		97	60 - 146
Benzene	5.00	5.65		ug/L		113	80 - 120
Bromochloromethane	5.00	5.63		ug/L		113	80 - 120
Bromodichloromethane	5.00	5.85		ug/L		117	73 - 124
Bromoform	5.00	6.23		ug/L		125	49 - 144
Bromomethane	5.00	4.60		ug/L		92	60 - 136
Carbon disulfide	5.00	5.44		ug/L		109	67 - 130
Carbon tetrachloride	5.00	5.34		ug/L		107	64 - 141
Chlorobenzene	5.00	5.46		ug/L		109	80 - 120
Chloroethane	5.00	4.68		ug/L		94	63 - 120
Chloroform	5.00	5.41		ug/L		108	80 - 120
Chloromethane	5.00	4.98		ug/L		100	56 - 124
cis-1,2-Dichloroethene	5.00	5.48		ug/L		110	80 - 122
cis-1,3-Dichloropropene	5.00	5.92		ug/L		118	67 - 121
Dibromochloromethane	5.00	5.86		ug/L		117	64 - 138
Ethylbenzene	5.00	5.38		ug/L		108	80 - 120
Methyl tert-butyl ether	5.00	5.30		ug/L		106	69 - 120
Methylene Chloride	5.00	5.45		ug/L		109	80 - 120
Styrene	5.00	5.36		ug/L		107	80 - 120
Tetrachloroethene	5.00	5.50		ug/L		110	80 - 120
Toluene	5.00	5.42		ug/L		108	80 - 120
trans-1,2-Dichloroethene	5.00	5.28		ug/L		106	80 - 122
trans-1,3-Dichloropropene	5.00	5.96		ug/L		119	61 - 129
Trichloroethene	5.00	5.51		ug/L		110	80 - 120
Vinyl chloride	5.00	4.83		ug/L		97	60 - 125
Xylenes, Total	15.0	16.0		ug/L		106	80 - 120

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	106		80 - 120
4-Bromofluorobenzene (Surr)	97		80 - 120
Dibromofluoromethane (Surr)	99		80 - 120
Toluene-d8 (Surr)	100		80 - 120

# QC Sample Results

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

Job ID: 410-71043-1

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

**Lab Sample ID: LCSD 410-220519/5**

**Matrix: Water**

**Analysis Batch: 220519**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	5.00	5.38		ug/L		108	71 - 134	1	30
1,1,1-Trichloroethane	5.00	5.03		ug/L		101	78 - 126	1	30
1,1,2,2-Tetrachloroethane	5.00	5.96		ug/L		119	75 - 123	1	30
1,1,2-Trichloroethane	5.00	5.84		ug/L		117	80 - 120	1	30
1,1-Dichloroethane	5.00	5.31		ug/L		106	74 - 120	2	30
1,1-Dichloroethene	5.00	5.39		ug/L		108	80 - 131	1	30
1,2-Dibromoethane (EDB)	5.00	5.80		ug/L		116	80 - 120	1	30
1,2-Dichloroethane	5.00	5.33		ug/L		107	69 - 122	1	30
1,2-Dichloropropane	5.00	5.98		ug/L		120	80 - 120	0	30
2-Butanone (MEK)	62.5	63.5		ug/L		102	59 - 141	10	30
2-Hexanone	62.5	63.8		ug/L		102	52 - 140	10	30
4-Methyl-2-pentanone (MIBK)	62.5	61.1		ug/L		98	55 - 140	10	30
Acetone	62.5	55.4		ug/L		89	60 - 146	9	30
Benzene	5.00	5.59		ug/L		112	80 - 120	1	30
Bromochloromethane	5.00	5.64		ug/L		113	80 - 120	0	30
Bromodichloromethane	5.00	5.82		ug/L		116	73 - 124	0	30
Bromoform	5.00	5.96		ug/L		119	49 - 144	4	30
Bromomethane	5.00	4.47		ug/L		89	60 - 136	3	30
Carbon disulfide	5.00	5.33		ug/L		107	67 - 130	2	30
Carbon tetrachloride	5.00	5.26		ug/L		105	64 - 141	2	30
Chlorobenzene	5.00	5.42		ug/L		108	80 - 120	1	30
Chloroethane	5.00	4.61		ug/L		92	63 - 120	2	30
Chloroform	5.00	5.27		ug/L		105	80 - 120	3	30
Chloromethane	5.00	5.03		ug/L		101	56 - 124	1	30
cis-1,2-Dichloroethene	5.00	5.46		ug/L		109	80 - 122	0	30
cis-1,3-Dichloropropene	5.00	5.82		ug/L		116	67 - 121	2	30
Dibromochloromethane	5.00	5.85		ug/L		117	64 - 138	0	30
Ethylbenzene	5.00	5.38		ug/L		108	80 - 120	0	30
Methyl tert-butyl ether	5.00	5.29		ug/L		106	69 - 120	0	30
Methylene Chloride	5.00	5.38		ug/L		108	80 - 120	1	30
Styrene	5.00	5.33		ug/L		107	80 - 120	1	30
Tetrachloroethene	5.00	5.44		ug/L		109	80 - 120	1	30
Toluene	5.00	5.39		ug/L		108	80 - 120	1	30
trans-1,2-Dichloroethene	5.00	5.18		ug/L		104	80 - 122	2	30
trans-1,3-Dichloropropene	5.00	6.00		ug/L		120	61 - 129	1	30
Trichloroethene	5.00	5.44		ug/L		109	80 - 120	1	30
Vinyl chloride	5.00	4.75		ug/L		95	60 - 125	2	30
Xylenes, Total	15.0	15.8		ug/L		105	80 - 120	1	30

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	100		80 - 120
4-Bromofluorobenzene (Surr)	98		80 - 120
Dibromofluoromethane (Surr)	100		80 - 120
Toluene-d8 (Surr)	101		80 - 120

# QC Association Summary

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

Job ID: 410-71043-1

## GC/MS VOA

### Analysis Batch: 220509

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-71043-1	HD-COD-SW-6-01/1-0	Total/NA	Water	8260D	
410-71043-2	HD-COD-SW-7-01/1-0	Total/NA	Water	8260D	
410-71043-3	HD-COD-SW-8-01/1-0	Total/NA	Water	8260D	
410-71043-4	HD-COD-SW-9-01/1-0	Total/NA	Water	8260D	
410-71043-5	HD-COD-SW-13-01/1-0	Total/NA	Water	8260D	
410-71043-6	HD-COD-SW-15-01/1-0	Total/NA	Water	8260D	
410-71043-7	HD-COD-SW-16-01/1-0	Total/NA	Water	8260D	
410-71043-8	HD-COD-SW-17-01/1-0	Total/NA	Water	8260D	
410-71043-8 - DL	HD-COD-SW-17-01/1-0	Total/NA	Water	8260D	
410-71043-9	HD-COD-SW-26-01/1-0	Total/NA	Water	8260D	
410-71043-10	HD-COD-SW-27-01/1-0	Total/NA	Water	8260D	
MB 410-220509/7	Method Blank	Total/NA	Water	8260D	
LCS 410-220509/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 410-220509/5	Lab Control Sample Dup	Total/NA	Water	8260D	
410-71043-6 MS	HD-COD-SW-15-01/1-0 MS	Total/NA	Water	8260D	
410-71043-6 MSD	HD-COD-SW-15-01/1-0 MSD	Total/NA	Water	8260D	

### Analysis Batch: 220519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-71043-11	HD-COD-SW-28-01/1-0	Total/NA	Water	8260D	
410-71043-12	HD-COD-SW-29-01/1-0	Total/NA	Water	8260D	
410-71043-13	HD-QC1-0/1-1	Total/NA	Water	8260D	
410-71043-14	HD-QC1-0/1-2	Total/NA	Water	8260D	
MB 410-220519/7	Method Blank	Total/NA	Water	8260D	
LCS 410-220519/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 410-220519/5	Lab Control Sample Dup	Total/NA	Water	8260D	

# Lab Chronicle

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

Job ID: 410-71043-1

**Client Sample ID: HD-COD-SW-6-01/1-0**

**Lab Sample ID: 410-71043-1**

Date Collected: 01/27/22 10:45

Matrix: Water

Date Received: 01/27/22 18:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	220509	02/03/22 14:26	DVW2	ELLE

**Client Sample ID: HD-COD-SW-7-01/1-0**

**Lab Sample ID: 410-71043-2**

Date Collected: 01/27/22 11:20

Matrix: Water

Date Received: 01/27/22 18:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	220509	02/03/22 14:47	DVW2	ELLE

**Client Sample ID: HD-COD-SW-8-01/1-0**

**Lab Sample ID: 410-71043-3**

Date Collected: 01/27/22 09:10

Matrix: Water

Date Received: 01/27/22 18:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	220509	02/03/22 15:07	DVW2	ELLE

**Client Sample ID: HD-COD-SW-9-01/1-0**

**Lab Sample ID: 410-71043-4**

Date Collected: 01/27/22 12:45

Matrix: Water

Date Received: 01/27/22 18:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	220509	02/03/22 15:28	DVW2	ELLE

**Client Sample ID: HD-COD-SW-13-01/1-0**

**Lab Sample ID: 410-71043-5**

Date Collected: 01/27/22 09:30

Matrix: Water

Date Received: 01/27/22 18:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	220509	02/03/22 15:49	DVW2	ELLE

**Client Sample ID: HD-COD-SW-15-01/1-0**

**Lab Sample ID: 410-71043-6**

Date Collected: 01/27/22 11:45

Matrix: Water

Date Received: 01/27/22 18:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	220509	02/03/22 16:09	DVW2	ELLE

**Client Sample ID: HD-COD-SW-16-01/1-0**

**Lab Sample ID: 410-71043-7**

Date Collected: 01/27/22 10:00

Matrix: Water

Date Received: 01/27/22 18:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	220509	02/03/22 17:31	DVW2	ELLE

# Lab Chronicle

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

Job ID: 410-71043-1

**Client Sample ID: HD-COD-SW-17-01/1-0**

**Lab Sample ID: 410-71043-8**

Date Collected: 01/27/22 10:20

Matrix: Water

Date Received: 01/27/22 18:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	220509	02/03/22 17:52	DVW2	ELLE
Total/NA	Analysis	8260D	DL	20	220509	02/03/22 18:12	DVW2	ELLE

**Client Sample ID: HD-COD-SW-26-01/1-0**

**Lab Sample ID: 410-71043-9**

Date Collected: 01/27/22 11:05

Matrix: Water

Date Received: 01/27/22 18:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	220509	02/03/22 18:33	DVW2	ELLE

**Client Sample ID: HD-COD-SW-27-01/1-0**

**Lab Sample ID: 410-71043-10**

Date Collected: 01/27/22 11:35

Matrix: Water

Date Received: 01/27/22 18:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	220509	02/03/22 18:53	DVW2	ELLE

**Client Sample ID: HD-COD-SW-28-01/1-0**

**Lab Sample ID: 410-71043-11**

Date Collected: 01/27/22 13:00

Matrix: Water

Date Received: 01/27/22 18:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	220519	02/03/22 13:25	DVW2	ELLE

**Client Sample ID: HD-COD-SW-29-01/1-0**

**Lab Sample ID: 410-71043-12**

Date Collected: 01/27/22 08:30

Matrix: Water

Date Received: 01/27/22 18:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	220519	02/03/22 13:46	DVW2	ELLE

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

**Lab Sample ID: 410-71043-13**

Date Collected: 01/27/22 12:00

Matrix: Water

Date Received: 01/27/22 18:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		10	220519	02/03/22 17:40	DVW2	ELLE

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

**Lab Sample ID: 410-71043-14**

Date Collected: 01/27/22 00:00

Matrix: Water

Date Received: 01/27/22 18:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	220519	02/03/22 11:18	DVW2	ELLE



# Lab Chronicle

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

Job ID: 410-71043-1

**Laboratory References:**

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

# Accreditation/Certification Summary

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

Job ID: 410-71043-1

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## Laboratory: Eurofins Lancaster Laboratories Env, LLC

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

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<b>Authority</b>	<b>Program</b>	<b>Identification Number</b>	<b>Expiration Date</b>
Pennsylvania	NELAP	36-00037	01-31-23

# Method Summary

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

Job ID: 410-71043-1

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

**Protocol References:**

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

**Laboratory References:**

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

# Sample Summary

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

Job ID: 410-71043-1

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-71043-1	HD-COD-SW-6-01/1-0	Water	01/27/22 10:45	01/27/22 18:25
410-71043-2	HD-COD-SW-7-01/1-0	Water	01/27/22 11:20	01/27/22 18:25
410-71043-3	HD-COD-SW-8-01/1-0	Water	01/27/22 09:10	01/27/22 18:25
410-71043-4	HD-COD-SW-9-01/1-0	Water	01/27/22 12:45	01/27/22 18:25
410-71043-5	HD-COD-SW-13-01/1-0	Water	01/27/22 09:30	01/27/22 18:25
410-71043-6	HD-COD-SW-15-01/1-0	Water	01/27/22 11:45	01/27/22 18:25
410-71043-7	HD-COD-SW-16-01/1-0	Water	01/27/22 10:00	01/27/22 18:25
410-71043-8	HD-COD-SW-17-01/1-0	Water	01/27/22 10:20	01/27/22 18:25
410-71043-9	HD-COD-SW-26-01/1-0	Water	01/27/22 11:05	01/27/22 18:25
410-71043-10	HD-COD-SW-27-01/1-0	Water	01/27/22 11:35	01/27/22 18:25
410-71043-11	HD-COD-SW-28-01/1-0	Water	01/27/22 13:00	01/27/22 18:25
410-71043-12	HD-COD-SW-29-01/1-0	Water	01/27/22 08:30	01/27/22 18:25
410-71043-13	HD-QC1-0/1-1	Water	01/27/22 12:00	01/27/22 18:25
410-71043-14	HD-QC1-0/1-2	Water	01/27/22 00:00	01/27/22 18:25

## GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-71043-1

SDG No.: \_\_\_\_\_

Instrument ID: 19094 Analysis Batch Number: 207981Lab Sample ID: IC 410-207981/14 Client Sample ID: \_\_\_\_\_Date Analyzed: 12/21/21 18:35 Lab File ID: HD21I11.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
sec-Butylbenzene	12.85	Peak assignment corrected	campbellme	12/21/21 20:39

Lab Sample ID: ICIS 410-207981/15 Client Sample ID: \_\_\_\_\_Date Analyzed: 12/21/21 18:56 Lab File ID: HD21I12.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.59	Split Peak	campbellme	12/21/21 20:40

Lab Sample ID: IC 410-207981/16 Client Sample ID: \_\_\_\_\_Date Analyzed: 12/21/21 19:16 Lab File ID: HD21I13.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methyl acetate	3.96	Incomplete Integration	campbellme	12/21/21 20:41

Lab Sample ID: IC 410-207981/17 Client Sample ID: \_\_\_\_\_Date Analyzed: 12/21/21 19:37 Lab File ID: HD21I14.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
n-Butanol	8.04	Incomplete Integration	campbellme	12/21/21 21:07
1,4-Dioxane	8.59	Incomplete Integration	campbellme	12/21/21 20:42

## GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-71043-1

SDG No.: \_\_\_\_\_

Instrument ID: 19094 Analysis Batch Number: 207981Lab Sample ID: IC 410-207981/18 Client Sample ID: \_\_\_\_\_Date Analyzed: 12/21/21 19:57 Lab File ID: HD21I15.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3-Butadiene	2.26	Baseline	kellerk	12/27/21 09:08
Vinyl chloride	2.26	Incomplete Integration	campbellm e	12/21/21 20:42
Bromomethane	2.59	Incomplete Integration	campbellm e	12/21/21 20:43

Lab Sample ID: IC 410-207981/19 Client Sample ID: \_\_\_\_\_Date Analyzed: 12/21/21 20:18 Lab File ID: HD21I16.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3-Butadiene	2.26	Baseline	kellerk	12/27/21 09:09
Methyl acetate	4.00	Incomplete Integration	campbellm e	12/21/21 20:44
Isobutyl alcohol	7.19	Incomplete Integration	campbellm e	12/21/21 20:44
n-Butanol	8.08	Incomplete Integration	campbellm e	12/21/21 21:08

## GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-71043-1

SDG No.: \_\_\_\_\_

Instrument ID: 19094 Analysis Batch Number: 207981Lab Sample ID: IC 410-207981/20 Client Sample ID: \_\_\_\_\_Date Analyzed: 12/21/21 20:38 Lab File ID: HD21I17.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromomethane	2.58	Incomplete Integration	campbellme	12/21/21 21:02
t-Butyl alcohol	4.29	Incomplete Integration	campbellme	12/21/21 21:03
Acrylonitrile	4.55	Incomplete Integration	campbellme	12/21/21 21:03
Methacrylonitrile	6.37	Incomplete Integration	campbellme	12/21/21 21:03
Isobutyl alcohol	7.16	Incomplete Integration	campbellme	12/21/21 21:03
n-Butanol	8.07	Incomplete Integration	campbellme	12/21/21 21:04
1,4-Dioxane	8.60	Incomplete Integration	campbellme	12/21/21 21:04
2-Nitropropane	9.09	Incomplete Integration	campbellme	12/21/21 21:04
1,1,2,2-Tetrachloroethane	12.23	Incomplete Integration	campbellme	12/21/21 21:04

Lab Sample ID: ICV 410-207981/21 Client Sample ID: \_\_\_\_\_Date Analyzed: 12/21/21 21:20 Lab File ID: HD21V11.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.58	Incomplete Integration	campbellme	12/21/21 22:23

## GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-71043-1

SDG No.: \_\_\_\_\_

Instrument ID: 19094 Analysis Batch Number: 220509Lab Sample ID: CCVIS 410-220509/3 Client Sample ID: \_\_\_\_\_Date Analyzed: 02/03/22 10:20 Lab File ID: HF03X02.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methyl acetate	3.99	Incomplete Integration	kephartk	02/03/22 10:52

Lab Sample ID: 410-71043-1 Client Sample ID: HD-COD-SW-6-01/1-0Date Analyzed: 02/03/22 14:26 Lab File ID: HF03X14.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.57	Split Peak	beckerk	02/03/22 16:56
Trichloroethene	8.15	Incomplete Integration	beckerk	02/03/22 17:17

Lab Sample ID: 410-71043-2 Client Sample ID: HD-COD-SW-7-01/1-0Date Analyzed: 02/03/22 14:47 Lab File ID: HF03X15.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.58	Split Peak	beckerk	02/03/22 17:19

Lab Sample ID: 410-71043-3 Client Sample ID: HD-COD-SW-8-01/1-0Date Analyzed: 02/03/22 15:07 Lab File ID: HF03X16.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.61	Split Peak	beckerk	02/03/22 17:20

Lab Sample ID: 410-71043-4 Client Sample ID: HD-COD-SW-9-01/1-0Date Analyzed: 02/03/22 15:28 Lab File ID: HF03X17.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.57	Split Peak	beckerk	02/03/22 17:21



## GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-71043-1

SDG No.: \_\_\_\_\_

Instrument ID: 19094 Analysis Batch Number: 220509Lab Sample ID: 410-71043-7 Client Sample ID: HD-COD-SW-16-01/1-0Date Analyzed: 02/03/22 17:31 Lab File ID: HF03X23.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.59	Split Peak	beckerk	02/03/22 18:32

Lab Sample ID: 410-71043-8 Client Sample ID: HD-COD-SW-17-01/1-0Date Analyzed: 02/03/22 17:52 Lab File ID: HF03X24.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Butanone (MEK)		Invalid Compound ID	beckerk	02/03/22 18:34
Acetone		Invalid Compound ID	beckerk	02/03/22 18:34
Chloromethane		Invalid Compound ID	beckerk	02/03/22 18:33

Lab Sample ID: 410-71043-9 Client Sample ID: HD-COD-SW-26-01/1-0Date Analyzed: 02/03/22 18:33 Lab File ID: HF03X26.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1,2-Trichloroethane		Invalid Compound ID	beckerk	02/03/22 19:07

Lab Sample ID: 410-71043-10 Client Sample ID: HD-COD-SW-27-01/1-0Date Analyzed: 02/03/22 18:53 Lab File ID: HF03X27.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.57	Split Peak	beckerk	02/03/22 19:43

## GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-71043-1

SDG No.: \_\_\_\_\_

Instrument ID: 19930 Analysis Batch Number: 163707Lab Sample ID: IC 410-163707/12 Client Sample ID: \_\_\_\_\_Date Analyzed: 08/24/21 00:45 Lab File ID: IG23I01.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.63	Incomplete Integration	longj	08/24/21 15:03

Lab Sample ID: IC 410-163707/14 Client Sample ID: \_\_\_\_\_Date Analyzed: 08/24/21 01:27 Lab File ID: IG23I03.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.63	Incomplete Integration	longj	08/24/21 15:02

Lab Sample ID: IC 410-163707/15 Client Sample ID: \_\_\_\_\_Date Analyzed: 08/24/21 01:48 Lab File ID: IG23I04.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
t-Butyl alcohol-d10 (IS)	4.26	Incomplete Integration	longj	08/24/21 15:16
1,4-Dioxane	8.64	Split Peak	longj	08/24/21 15:15

Lab Sample ID: IC 410-163707/16 Client Sample ID: \_\_\_\_\_Date Analyzed: 08/24/21 02:09 Lab File ID: IG23I05.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.62	Baseline	longj	08/24/21 15:05
1,4-Dioxane	8.65	Incomplete Integration	longj	08/24/21 15:17

## GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-71043-1

SDG No.: \_\_\_\_\_

Instrument ID: 19930 Analysis Batch Number: 163707Lab Sample ID: IC 410-163707/17 Client Sample ID: \_\_\_\_\_Date Analyzed: 08/24/21 02:30 Lab File ID: IG23I06.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methyl acetate	4.05	Baseline	longj	08/24/21 15:07
1,4-Dioxane	8.64	Incomplete Integration	longj	08/24/21 15:07

Lab Sample ID: IC 410-163707/18 Client Sample ID: \_\_\_\_\_Date Analyzed: 08/24/21 02:52 Lab File ID: IG23I07.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methyl acetate	4.03	Split Peak	longj	08/24/21 15:08

Lab Sample ID: ICV 410-163707/19 Client Sample ID: \_\_\_\_\_Date Analyzed: 08/24/21 03:13 Lab File ID: IG23V01.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.63	Incomplete Integration	longj	08/24/21 15:37

## GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-71043-1

SDG No.: \_\_\_\_\_

Instrument ID: 19930 Analysis Batch Number: 220519Lab Sample ID: CCVIS 410-220519/3 Client Sample ID: \_\_\_\_\_Date Analyzed: 02/03/22 09:32 Lab File ID: IF03X02.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.60	Incomplete Integration	kephartk	02/03/22 09:56
Methyl acetate	4.02	Incomplete Integration	kephartk	02/03/22 09:56
1,4-Dioxane	8.61	Incomplete Integration	kephartk	02/03/22 09:56

Lab Sample ID: LCSD 410-220519/5 Client Sample ID: \_\_\_\_\_Date Analyzed: 02/03/22 10:14 Lab File ID: IF03X04.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	02/03/22 10:47

Lab Sample ID: 410-71043-14 Client Sample ID: HD-QC1-0/1-2Date Analyzed: 02/03/22 11:18 Lab File ID: IF03X07.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Butanone (MEK)		Invalid Compound ID	beckerk	02/03/22 16:27

Lab Sample ID: 410-71043-11 Client Sample ID: HD-COD-SW-28-01/1-0Date Analyzed: 02/03/22 13:25 Lab File ID: IF03X13.D GC Column: R-624SilMS 30 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	2.16	Split Peak	beckerk	02/03/22 16:32
Acetone	3.60	Split Peak	beckerk	02/03/22 16:32

## GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-71043-1

SDG No.: \_\_\_\_\_

Instrument ID: 19930 Analysis Batch Number: 220519Lab Sample ID: 410-71043-12 Client Sample ID: HD-COD-SW-29-01/1-0Date Analyzed: 02/03/22 13:46 Lab File ID: IF03X14.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
cis-1,2-Dichloroethene	6.13	Peak assignment corrected	beckerk	02/03/22 16:33

Lab Sample ID: 410-71043-13 Client Sample ID: HD-QC1-0/1-1Date Analyzed: 02/03/22 17:40 Lab File ID: IF03X25.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethane	5.31	Peak assignment corrected	beckerk	02/03/22 18:38
1,1,2-Trichloroethane		Invalid Compound ID	beckerk	02/03/22 18:38

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-71043-1

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_00015	09/22/21	08/23/21	Methanol, Lot DZ644	25 mL	MSV_M_MIX1SEC_00019	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_00028	1 mL	Carbon disulfide	40 ug/mL
Methyl tert-butyl ether	40 ug/mL							
MSV_Q_Ketones_00019	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_00019	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.: 410-71043-1

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_00028	04/30/24		Restek, Lot A0171837		(Purchased Reagent)		Carbon disulfide	1000 ug/mL
							Methyl tert-butyl ether	1000 ug/mL
.MSV_Q_Ketones_00019	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
<b>MSV_LCS_VOC#1_00032</b>	01/20/22	12/21/21	Methanol, Lot EB679	25 mL	MSV_M_MIX1SEC_00039	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_00041	1 mL	Carbon disulfide	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-71043-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					MSV_Q_Ketones_00040	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_00039	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_00041	04/30/24		Restek, Lot A0171837		(Purchased Reagent)		Carbon disulfide	1000 ug/mL
							Methyl tert-butyl ether	1000 ug/mL
.MSV_Q_Ketones_00040	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_00038	03/02/22	01/31/22	Methanol, Lot EB679	25 mL	MSV_M_MIX1SEC_00054	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.: 410-71043-1

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_00048					1 mL	Carbon disulfide	40 ug/mL
							MSV_Q_Ketones_00047						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													
.MSV_M_MIX1SEC_00054	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.: 410-71043-1

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	1000 ug/mL
							trans-1,3-Dichloropropene	1000 ug/mL
							Trichloroethene	1000 ug/mL
.MSV_M_MIX2SEC_00048	04/30/24		Restek, Lot A0171837		(Purchased Reagent)		Carbon disulfide	1000 ug/mL
							Methyl tert-butyl ether	1000 ug/mL
.MSV_Q_Ketones_00047	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_LL_#1_826_00015	09/07/21	08/23/21	Methanol, Lot DZ644	1 mL	MSV_CCV_VOC#1_00017	50 uL	Ethyl methacrylate	50.0022 ug/mL
							1,1,1,2-Tetrachloroethane	50 ug/mL
							1,1,1-Trichloroethane	50 ug/mL
							1,1,2,2-Tetrachloroethane	50 ug/mL
							1,1,2-Trichloroethane	50 ug/mL
							1,1-Dichloroethane	50 ug/mL
							1,1-Dichloroethene	50 ug/mL
							1,1-Dichloropropene	50 ug/mL
							1,2,3-Trichlorobenzene	50 ug/mL
							1,2,3-Trichloropropane	50 ug/mL
							1,2,4-Trichlorobenzene	50 ug/mL
							1,2,4-Trimethylbenzene	50 ug/mL
							1,2-Dibromo-3-Chloropropane	50 ug/mL
							1,2-Dibromoethane (EDB)	50 ug/mL
							1,2-Dichlorobenzene	50 ug/mL
							1,2-Dichloroethane	50 ug/mL
							1,2-Dichloropropane	50 ug/mL
							1,3,5-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
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-71043-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
							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
							Tetrahydrofuran	250 ug/mL
							trans-1,4-Dichloro-2-butene	500 ug/mL
					MSV_CCV_VOC#3_00016	200 uL	2-Butanone (MEK)	500 ug/mL
							2-Hexanone	500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-71043-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration		
					Reagent ID	Volume Added				
					MSV_V_VOA2_00101	150 uL	4-Methyl-2-pentanone (MIBK)	500 ug/mL		
							Acetone	500 ug/mL		
							Acrolein	2499.93 ug/mL		
							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		
.MSV_CCV_VOC#1_00017	09/22/21	08/23/21	Methanol, Lot DZ644	5 mL	MSV_EM Work 00001	1 mL	Ethyl methacrylate	1000.04 ug/mL		
							MSV_MegaMIX#1_00015	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									
Dibromochloromethane	1000 ug/mL									
Dibromomethane	1000 ug/mL									
Ethylbenzene	1000 ug/mL									

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-71043-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00015	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
							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
							Tetrahydrofuran	5000 ug/mL
							trans-1,4-Dichloro-2-butene	2500 ug/mL
..MSV_EM Work 00001	11/24/21	05/24/21	Methanol, Lot DZ644	50 mL	MSV_EthylM St 00001	4.938 mL	Ethyl methacrylate	5000.22 ug/mL
...MSV_EthylM_St_00001	11/24/21	05/24/21	Methanol, Lot DZ644	10 mL	MSV_EthylMeth_00001	0.5063 g	Ethyl methacrylate	50630 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-71043-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
...MSV EthylMeth 00001	01/31/23		Chem Service, Lot 11325900			(Purchased Reagent)	Ethyl methacrylate	1 g/g
..MSV_MegaMIX#1_00015	09/22/21		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-Dichloropropane	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
							Styrene	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-71043-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00015	09/22/21		Restek, Lot A0172089		(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
							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_00016	09/07/21	08/23/21	Methanol, Lot DZ644	5 mL	MSV_V_Ketones_00014	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 VACR 00018	0.5 mL	Acrolein	12499.6 ug/mL
..MSV_V_Ketones_00014	01/31/24		Restek, Lot A0168313		(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 VACR 00018	09/08/21	07/09/21	Methanol, Lot DZ644	10 mL	MSV VACR STK 00020	9.253 mL	Acrolein	124996 ug/mL
...MSV VACR STK 00020	09/08/21	07/09/21	Methanol, Lot DZ644	10 mL	MSV ACROLEIN 00013	1.4417 g	Acrolein	135087 ug/mL
...MSV ACROLEIN 00013	09/30/21		Chem Service, Lot 10804400		(Purchased Reagent)		Acrolein	0.937 g/g

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-71043-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.MSV_V_VOA2_00101	09/22/21	08/23/21	Methanol, Lot DZ644	5 mL	MSV_V#2B_00231	1 mL	1,4-Dioxane	12500 ug/mL
							2-Methyl-2-propanol	5000 ug/mL
							Isobutyl alcohol	12500 ug/mL
							Methacrylonitrile	2500 ug/mL
							n-Butanol	25000 ug/mL
							Propionitrile	5000 ug/mL
							trans-1,4-Dichloro-2-butene	2500 ug/mL
..MSV_V#2B_00231	04/30/22		Restek, Lot A0171518		(Purchased Reagent)		1,4-Dioxane	62500 ug/mL
							2-Methyl-2-propanol	25000 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Methacrylonitrile	12500 ug/mL
							n-Butanol	125000 ug/mL
							Propionitrile	25000 ug/mL
							trans-1,4-Dichloro-2-butene	12500 ug/mL
MSV_LL_#1_826_00027	12/25/21	12/06/21	Methanol, Lot EB679	1 mL	MSV_CCV_VOC#1_00040	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
							1,1-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							



REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-71043-1

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	50 ug/mL
							Dibromochloromethane	50 ug/mL
							Dibromomethane	50 ug/mL
							Ethylbenzene	50 ug/mL
							Hexachlorobutadiene	50 ug/mL
							Isopropylbenzene	50 ug/mL
							m-Xylene & p-Xylene	100 ug/mL
							Methylene Chloride	50 ug/mL
							n-Butylbenzene	50 ug/mL
							N-Propylbenzene	50 ug/mL
							Naphthalene	50 ug/mL
							o-Xylene	50 ug/mL
							sec-Butylbenzene	50 ug/mL
							Styrene	50 ug/mL
							tert-Butylbenzene	50 ug/mL
							Tetrachloroethene	50 ug/mL
							Toluene	50 ug/mL
							trans-1,2-Dichloroethene	50 ug/mL
							trans-1,3-Dichloropropene	50 ug/mL
							Trichloroethene	50 ug/mL
							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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-71043-1

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_00039	200 uL	Tert-butyl ethyl ether	50 ug/mL
							Tetrahydrofuran	250 ug/mL
							trans-1,4-Dichloro-2-butene	500 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_00117	150 uL	Acrolein	2505.38 ug/mL
							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
.MSV_CCV_VOC#1_00040	01/05/22	12/06/21	Methanol, Lot EB679	5 mL	MSV_MegaMIX#1_00038	1 mL	trans-1,4-Dichloro-2-butene	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
							1,1-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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-71043-1

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	1000 ug/mL
							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_00038	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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-71043-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..MSV_MegaMIX#1_00038	01/06/22		Restek, Lot A0171634			(Purchased Reagent)	Tert-butyl ethyl ether	1000 ug/mL
							Tetrahydrofuran	5000 ug/mL
							trans-1,4-Dichloro-2-butene	2500 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
							1,1-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-Dichloropropane	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							

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-71043-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							sec-Butylbenzene	5000 ug/mL
							Styrene	5000 ug/mL
							tert-Butylbenzene	5000 ug/mL
							Tetrachloroethene	5000 ug/mL
							Toluene	5000 ug/mL
							trans-1,2-Dichloroethene	5000 ug/mL
							trans-1,3-Dichloropropene	5000 ug/mL
							Trichloroethene	5000 ug/mL
..MSV_MegaMix#2_00038	01/06/22		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_00039	12/25/21	12/06/21	Methanol, Lot EB679	5 mL	MSV_V_Ketones_00037	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_VACR_00020	0.5 mL	Acrolein	12526.9 ug/mL
..MSV_V_Ketones_00037	01/31/24		Restek, Lot A0168313		(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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-71043-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..MSV VACR 00020	12/25/21	10/26/21	Methanol, Lot EB679	10 mL	MSV VACR STK 00022	9.252 mL	Acrolein	125269 ug/mL
...MSV VACR STK 00022	12/25/21	10/26/21	Methanol, Lot EB679	10 mL	MSV ACROLEIN 00015	1.445 g	Acrolein	135397 ug/mL
...MSV ACROLEIN 00015	12/31/21		Chem Service, Lot 12255200		(Purchased Reagent)		Acrolein	0.937 g/g
.MSV_V_VOA2_00117	01/05/22	12/06/21	Methanol, Lot EB679	5 mL	MSV_V#2B_00246	1 mL	1,4-Dioxane	12500 ug/mL
							2-Methyl-2-propanol	5000 ug/mL
							Isobutyl alcohol	12500 ug/mL
							Methacrylonitrile	2500 ug/mL
							n-Butanol	25000 ug/mL
							Propionitrile	5000 ug/mL
							trans-1,4-Dichloro-2-butene	2500 ug/mL
..MSV_V#2B_00246	04/30/22		Restek, Lot A0171518		(Purchased Reagent)		1,4-Dioxane	62500 ug/mL
							2-Methyl-2-propanol	25000 ug/mL
							Isobutyl alcohol	62500 ug/mL
							Methacrylonitrile	12500 ug/mL
							n-Butanol	125000 ug/mL
							Propionitrile	25000 ug/mL
							trans-1,4-Dichloro-2-butene	12500 ug/mL
MSV_LL_#1_826_00032	02/09/22	01/10/22	Methanol, Lot EB679	1 mL	MSV_CCV_VOC#1_00047	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_00046	200 uL	2-Butanone (MEK)	500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-71043-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Hexanone	500 ug/mL
							4-Methyl-2-pentanone (MIBK)	500 ug/mL
							Acetone	500 ug/mL
.MSV_CCV_VOC#1_00047	02/09/22	01/10/22	Methanol, Lot EB679	5 mL	MSV_MegaMIX#1_00045	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_00045	1 mL	Carbon disulfide	1000 ug/mL
							Methyl tert-butyl ether	1000 ug/mL
..MSV_MegaMIX#1_00045	02/09/22		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

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-71043-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							cis-1,2-Dichloroethene	5000 ug/mL
							cis-1,3-Dichloropropene	5000 ug/mL
							Dibromochloromethane	5000 ug/mL
							Ethylbenzene	5000 ug/mL
							Methylene Chloride	5000 ug/mL
							Styrene	5000 ug/mL
							Tetrachloroethene	5000 ug/mL
							Toluene	5000 ug/mL
							trans-1,2-Dichloroethene	5000 ug/mL
							trans-1,3-Dichloropropene	5000 ug/mL
							Trichloroethene	5000 ug/mL
..MSV_MegaMix#2_00045	02/09/22		Restek, Lot A0173454			(Purchased Reagent)	Carbon disulfide	5000 ug/mL
							Methyl tert-butyl ether	5000 ug/mL
.MSV_CCV_VOC#3_00046	02/09/22	01/10/22	Methanol, Lot EB679	5 mL	MSV_V_Ketones_00044	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_00044	01/31/24		Restek, Lot A0168313			(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
<b>MSV_LL_#2_826_00015</b>	09/01/21	08/23/21	Methanol, Lot DZ644	1 mL	MSV_V_EE_00005	50 uL	Ethyl ether	50.0035 ug/mL
					MSV_V_PentaCL_00005	10 uL	Pentachloroethane	50 ug/mL
.MSV_V_EE_00005	10/14/21	04/14/21	Methanol, Lot DZ644	100 mL	MSV_EE_MISCSK_00006	1.989 mL	Ethyl ether	1000.07 ug/mL
..MSV_EE_MISCSK_00006	10/14/21	04/14/21	Methanol, Lot DZ644	10 mL	MSV_EE_Neat_00005	0.5028 g	Ethyl ether	50280 ug/mL
...MSV_EE_Neat_00005	11/30/21		Chem Service, Lot 11028800			(Purchased Reagent)	Ethyl ether	1 g/g
.MSV_V_PentaCL_00005	09/15/21		Restek, Lot A0171341			(Purchased Reagent)	Pentachloroethane	5000 ug/mL
<b>MSV_LL_#2_826_00031</b>	12/22/21	12/06/21	Methanol, Lot EB679	1 mL	MSV_CCV_EE_00001	50 uL	Ethyl ether	49.9999 ug/mL
					MSV_V_PentaCL_00009	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_00009	12/29/21		Restek, Lot A0171341			(Purchased Reagent)	Pentachloroethane	5000 ug/mL
<b>MSV_LL_GAS826_00027</b>	08/30/21	08/23/21	Methanol, Lot DZ644	1 mL	MSV_CCV_GASES_00060	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_00060	08/30/21		Restek, Lot A0172364			(Purchased Reagent)	1,2-Dichloro-1,1,2-trifluoroethane	2000 ug/mL
							Bromomethane	2000 ug/mL
							Butadiene	2000 ug/mL



REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-71043-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00056	12/27/21	12/20/21	Methanol, Lot EB679	1 mL	MSV_CCV_GASES_00123	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_00123	12/27/21		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_00062	02/03/22	01/27/22	Methanol, Lot EB679	1 mL	MSV_CCV_GASES_00139	25 uL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL
							Vinyl chloride	50 ug/mL
.MSV_CCV_GASES_00139	02/03/22		Restek, Lot A0172364			(Purchased Reagent)	Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
MSV_LLcentISS_00001	11/25/21	05/25/21	Methanol, Lot DZ644	50 mL	MSV_8260_SS_00366	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
					MSV_Cus826_IS_00310	1 mL	1,4-Dichlorobenzene-d4	50 ug/mL
							Chlorobenzene-d5 (IS)	50 ug/mL
							Fluorobenzene (IS)	50 ug/mL
							t-Butyl alcohol-d10 (IS)	250 ug/mL
.MSV_8260_SS_00366	03/31/22		Restek, Lot A0146938			(Purchased Reagent)	1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
.MSV_Cus826_IS_00310	05/31/23		Restek, Lot A0160586			(Purchased Reagent)	1,4-Dichlorobenzene-d4	2500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-71043-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chlorobenzene-d5 (IS)	2500 ug/mL
							Fluorobenzene (IS)	2500 ug/mL
							t-Butyl alcohol-d10 (IS)	12500 ug/mL
<b>MSV_LLcentISS_00002</b>	04/18/22	10/18/21	Methanol, Lot EB679	50 mL	MSV_8260_SS_00493	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
					MSV_Cus826_IS_00361	1 mL	1,4-Dichlorobenzene-d4	50 ug/mL
							Chlorobenzene-d5 (IS)	50 ug/mL
							Fluorobenzene (IS)	50 ug/mL
							t-Butyl alcohol-d10 (IS)	250 ug/mL
.MSV_8260_SS_00493	04/30/24		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_00361	08/31/24		Restek, Lot A0175453			(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
<b>MSV_QC_Gas826_00026</b>	08/30/21	08/23/21	Methanol, Lot DZ644	1 mL	MSV_QC_2K_GAS_00030	20 uL	Bromomethane	40 ug/mL
							Chloroethane	40 ug/mL
							Chloromethane	40 ug/mL
							Vinyl chloride	40 ug/mL
.MSV_QC_2K_GAS_00030	08/30/21		Restek, Lot A0172021			(Purchased Reagent)	Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
<b>MSV_QC_Gas826_00056</b>	12/23/21	12/20/21	Methanol, Lot EB679	1 mL	MSV_QC_2K_GAS_00063	20 uL	Bromomethane	40 ug/mL
							Chloroethane	40 ug/mL
							Chloromethane	40 ug/mL
							Vinyl chloride	40 ug/mL
.MSV_QC_2K_GAS_00063	12/23/21		Restek, Lot A0172021			(Purchased Reagent)	Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
<b>MSV_QC_Gas826_00063</b>	02/07/22	01/31/22	Methanol, Lot EB679	1 mL	MSV_QC_2K_GAS_00073	20 uL	Bromomethane	40 ug/mL
							Chloroethane	40 ug/mL
							Chloromethane	40 ug/mL
							Vinyl chloride	40 ug/mL
.MSV_QC_2K_GAS_00073	02/07/22		Restek, Lot A0172021			(Purchased Reagent)	Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
<b>MSV_V_BFB_00006</b>							1,2-Dichloroethene, Total	
							1,3-Dichloropropene, Total	

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-71043-1

SDG No.: \_\_\_\_\_

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Tentatively Identified Compound	
							Xylenes, Total	
.MSV VBFB STK 00006	01/07/22	07/07/21	Methanol, Lot DZ644	10 mL	MSV VBFB STK 00006	0.129 mL	BFB	49.8611 ug/mL
..MSV 4BFB NEAT 00006	02/28/25		Chem Service, Lot 10727100		MSV 4BFB NEAT 00006	0.9663 g	BFB	96630 ug/mL
							(Purchased Reagent)	BFB
								1 g/g
<b>MSV_V_BFB_00007</b>							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

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**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](mailto:info@chemservice.com) • [www.chemservice.com](http://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](mailto:info@chemservice.com) • [www.chemservice.com](http://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*

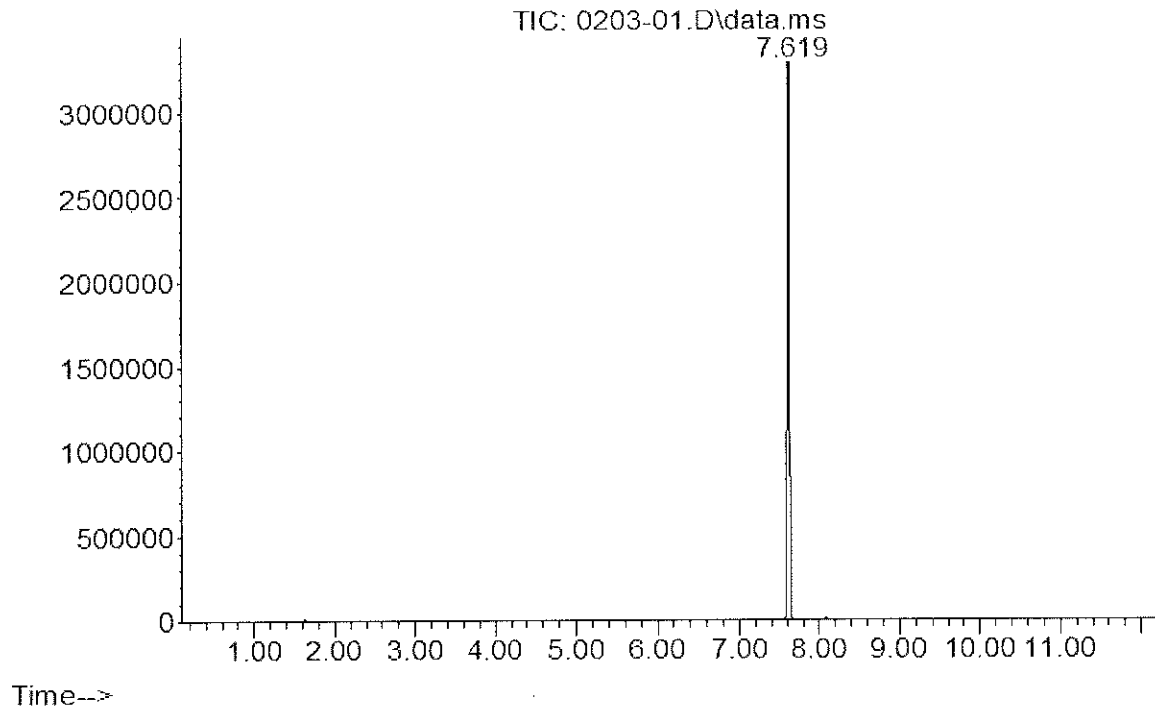
Mary Beth O'Donnell  
CSM/TC



## CERTIFICATE OF ANALYSIS

### Analysis Method:

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

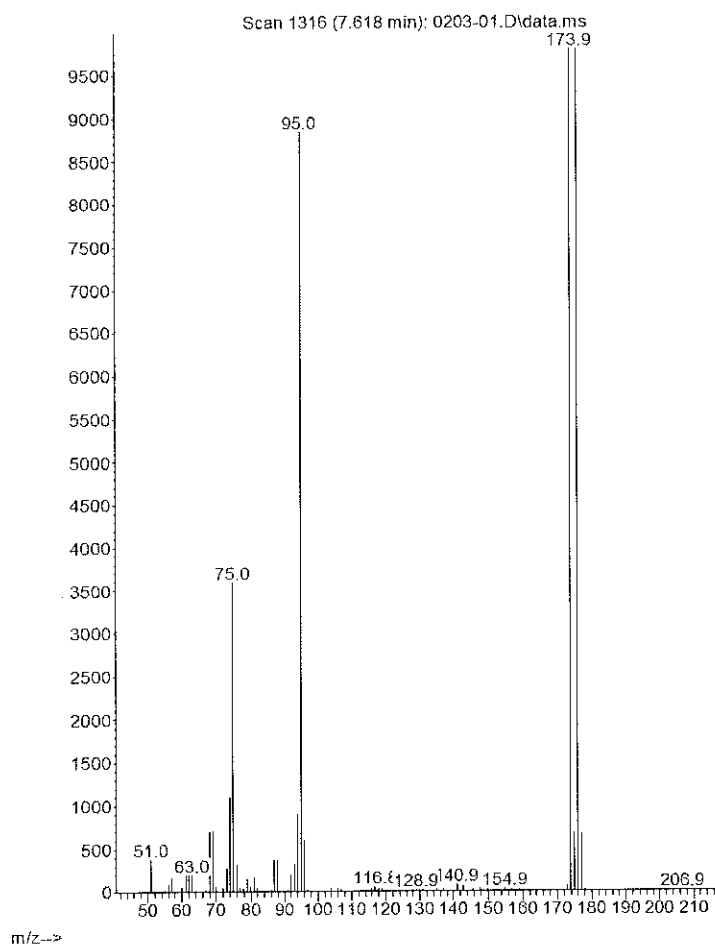


## CERTIFICATE OF ANALYSIS

### 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](mailto:info@chemservice.com) • [www.chemservice.com](http://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

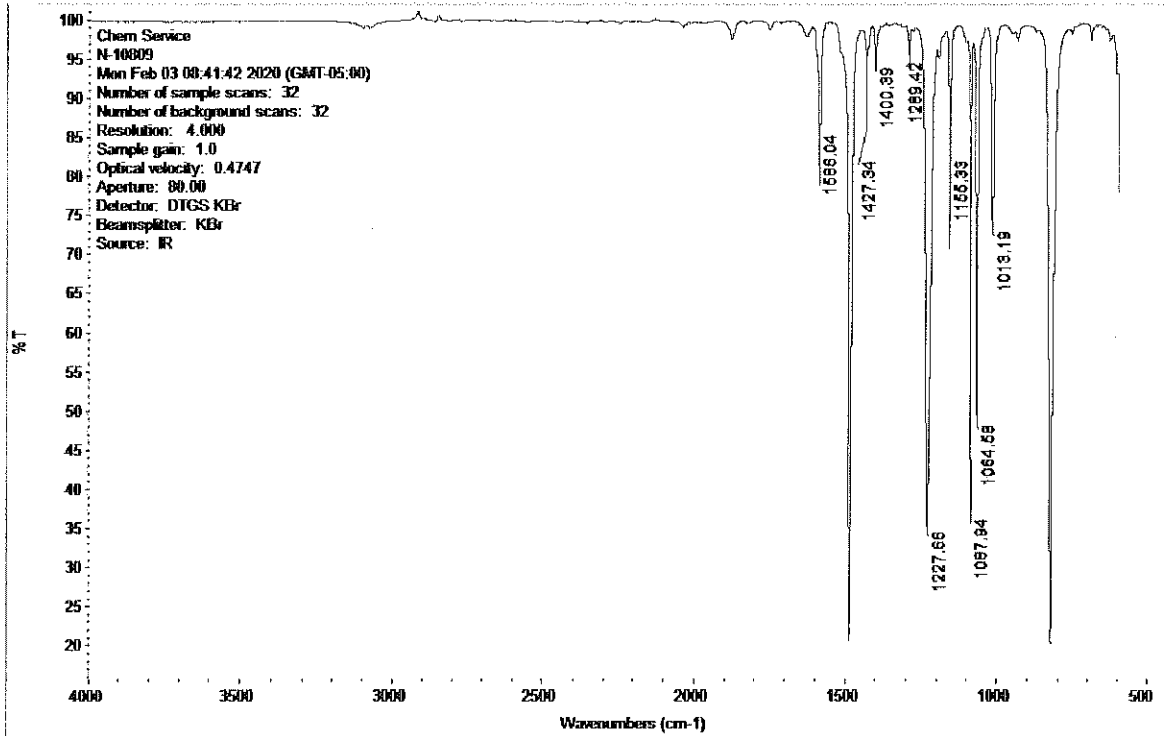
M-CS5242M2.M Mon Feb 03 10:28:54 2020



## CERTIFICATE OF ANALYSIS

### Analysis Method:

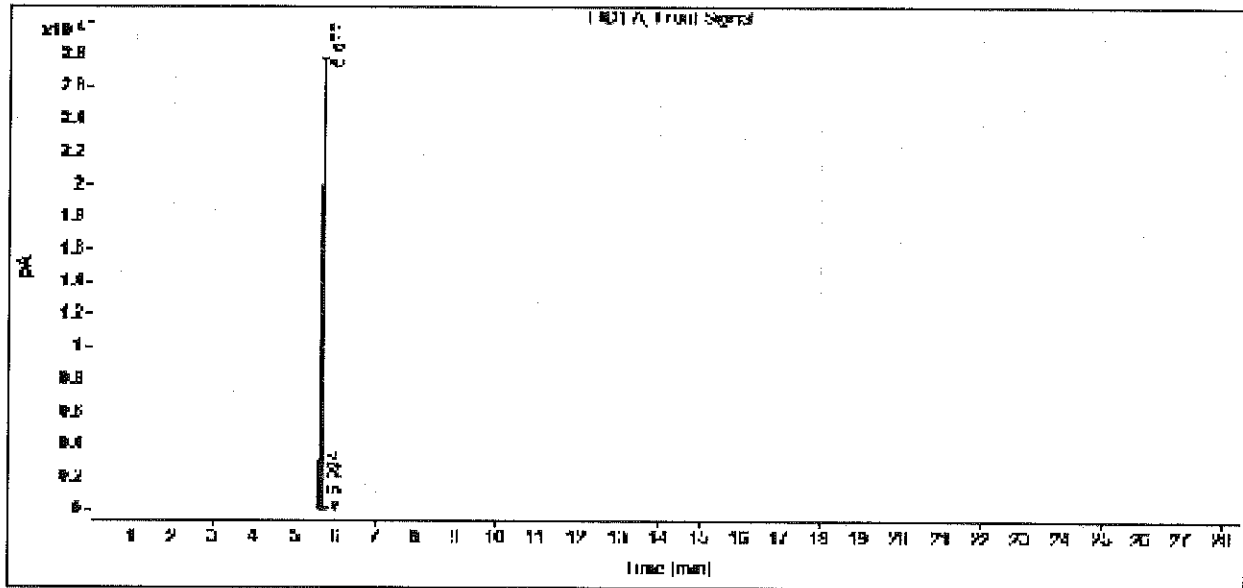
Catalog Number: N-10809-1G  
Description: 4-Bromofluorobenzene  
Lot Number: 11130200  
Expiration Date: 02/28/25



## CERTIFICATE OF ANALYSIS

Gas Chromatography / Flame Ionization Detector (GC/FID)

Data file: C:\CHEM321\DATA\2020 DATA\0220\013120 2020-01-31 16-11-28\141F0404.D  
Sample name: N-10809  
Instrument: GC 1  
Injection date: 1/31/2020 10:29:42 PM  
Acq. method: SCREEN.M  
Column name: Rxi-624Sil (30m x 0.32mm x 1.8um)  
Sample type: Sample  
Location: Vial 141  
Injection volume: 1.0uL



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	0.0296	217.3897	117.5644	0.2631
Sum			82617.9712		



Reagent

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**MSV\_8260\_SS\_00366**



# CERTIFIED REFERENCE MATERIAL

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

www.restek.com

## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

**Catalog No. :** 55671 **Lot No.:** A0146938

**Description :** 8260A Surrogate Mix  
8260A Surrogate Mix 2,500µg/mL, P&T Methanol, 1mL/ampul

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

**Expiration Date :** March 31, 2022 **Storage:** 0°C or colder

### CERTIFIED VALUES

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

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

**Column:**

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

**Carrier Gas:**

hydrogen-constant pressure 11.0 psi.

**Temp. Program:**

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

**Inj. Temp:**

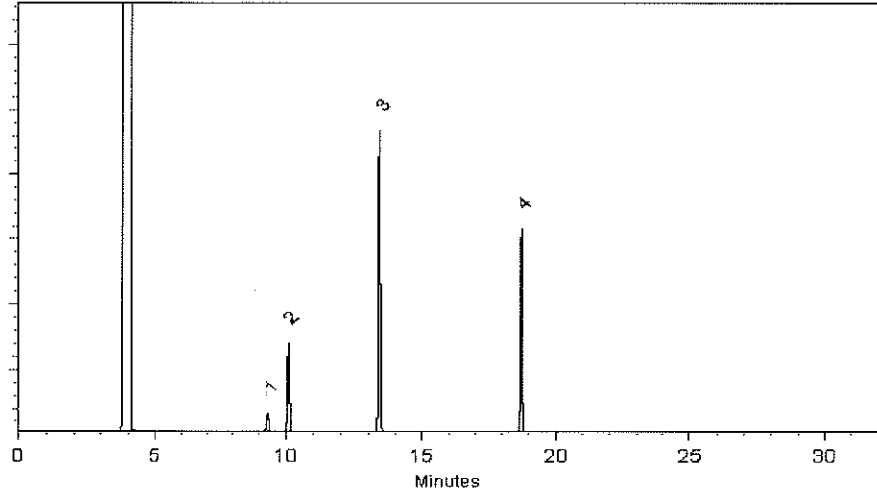
200°C

**Det. Temp:**

250°C

**Det. Type:**

FID



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

*Maggie Wang*

Maggie Wang - Operations Technician I

Date Mixed: 12-Mar-2019

Balance: 1128342314

*Jennifer J Pollino*

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 15-Mar-2019

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

## General Certified Reference Material Notes

### Expiration Notes:

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

### Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ $\mu$ 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](http://www.restek.com/Contact-Us) for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

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

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

### Manufacturing Notes:

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

### Handling Notes:

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





Reagent

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**MSV\_8260\_SS\_00493**



# 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)

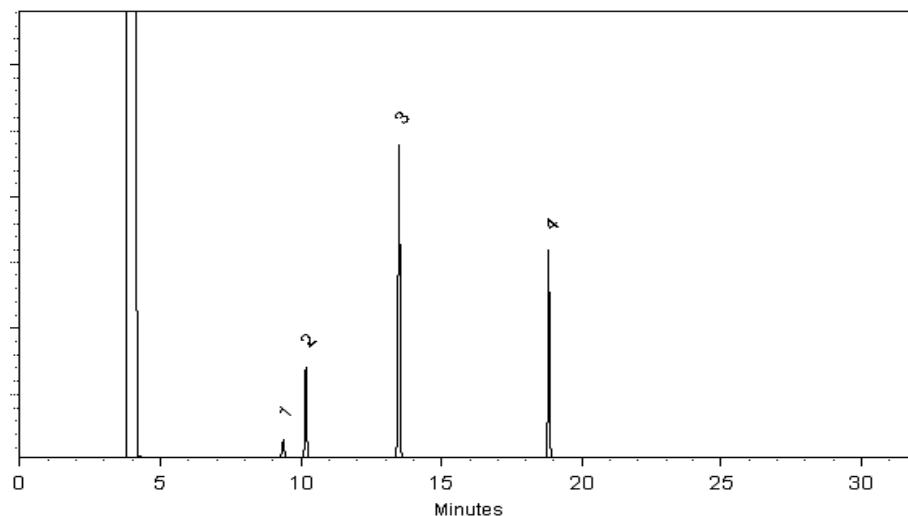
**Carrier Gas:**  
hydrogen-constant pressure 11.0 psi.

**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*  
Sam Moodler - Operations Tech I

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

*Alexis Shelov*  
Alexis Shelov - 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](http://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](http://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

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**MSV\_ACROLEIN\_00015**

## CERTIFICATE OF ANALYSIS

### Acrolein

CATALOG NUMBER RPN-11030-1G  
LOT NUMBER 12255200  
DATE CERTIFIED 12/04/20  
EXPIRATION DATE 12/31/21  
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.

Analytical Test	Value
% PURITY (GC/TCD)	93.5

# 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](mailto:info@chemservice.com) • [www.chemservice.com](http://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*

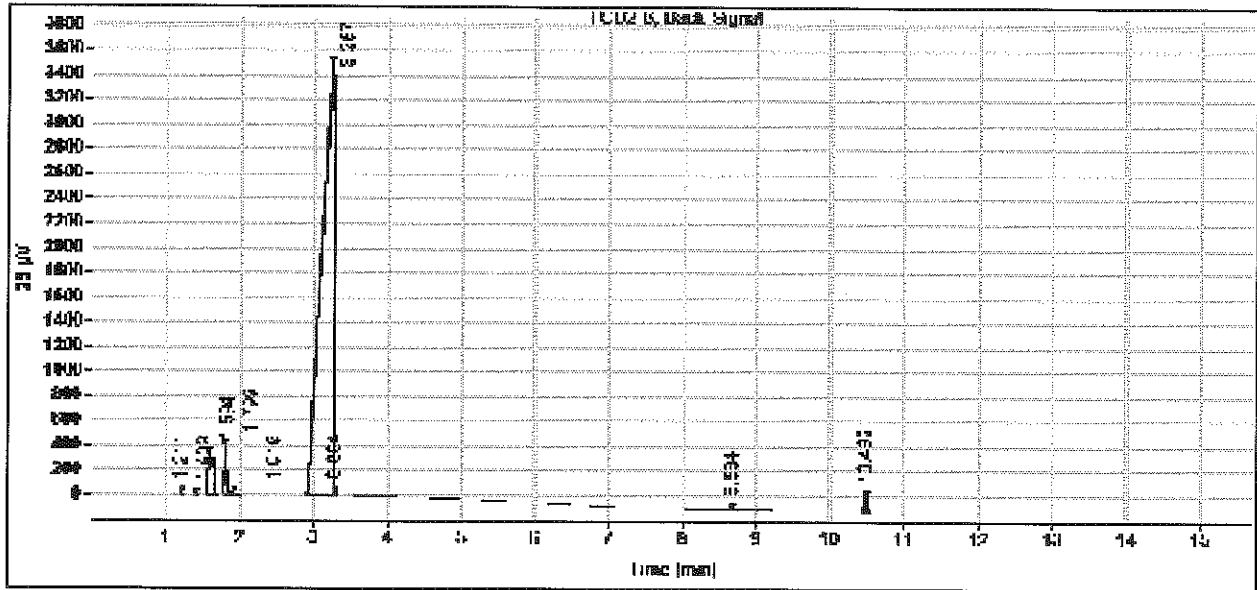
Mary Beth O'Donnell  
CSM/TC



## CERTIFICATE OF ANALYSIS

Gas Chromatography / Flame Ionization Detector (GC/FID)

Data file: C:\CHEM32\1\DATA\2020\DATA\1220\SIG2022772.D  
 Sample name: Acrolein  
 Instrument: GC 1  
 Injection date: 12/4/2020 1:45:52 PM  
 Acq. method: TCD SCREEN.M  
 Column name: DB-624 (30m x 0.53mm x 3.0um)  
 Sample type: Sample  
 Location: Vial 31  
 Injection volume: 1.0uL



Signal: TCD2 B, Back Signal

RT [min]	Type	Width [min]	Area	Height	Area%
1.211	BB	0.0235	14.3391	9.5447	0.0342
1.409	BB	0.0247	7.8905	4.7989	0.0184
1.504	BB	0.0629	1551.1411	329.7883	3.7040
1.799	BB	0.0279	730.9922	389.9341	1.7456
1.919	BB	0.0458	50.7625	15.2495	0.1212
3.257	BV	0.1398	39170.9805	3495.0222	93.5384
3.304	VB	0.0208	34.7462	26.0533	0.0830
8.684	BB	0.0316	26.4009	13.0682	0.0630
10.492	BB	0.0367	290.9437	124.5451	0.8021

Sun





Reagent

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**MSV\_CCV\_GASES\_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.: 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:**

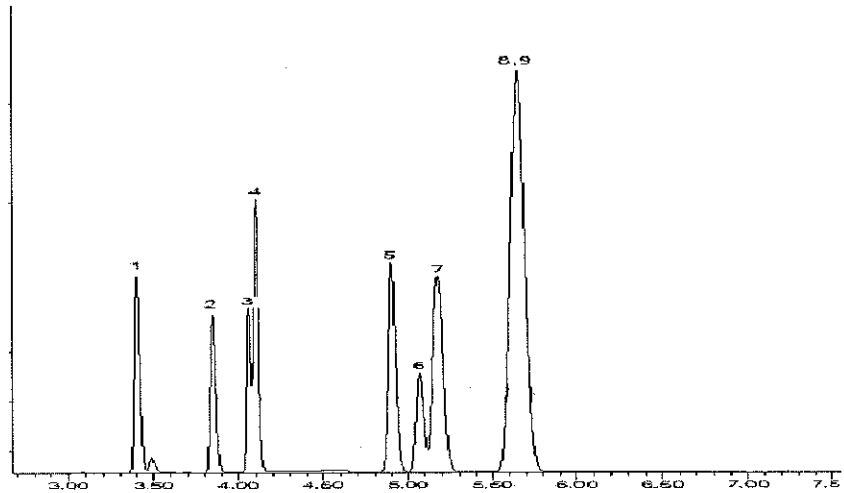
200°C

**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 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/ $\mu$ 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](http://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](http://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

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**MSV\_CCV\_GASES\_00123**



# 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:**

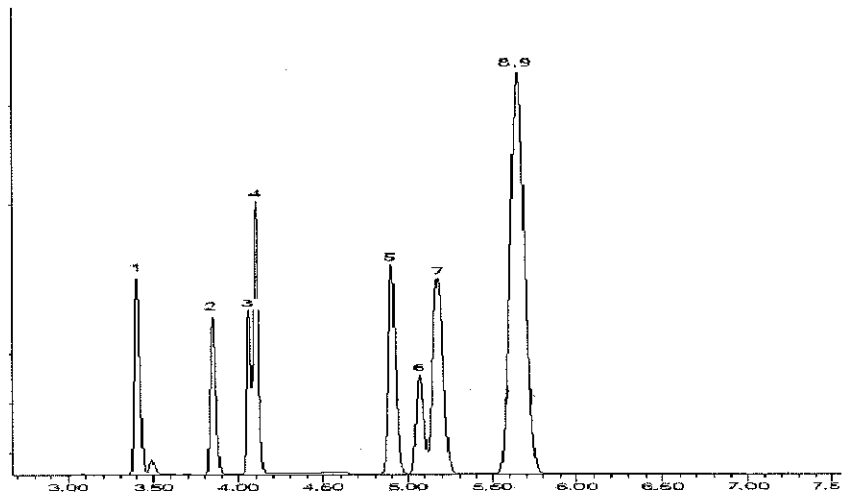
200°C

**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/ $\mu$ 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](http://www.restek.com/Contact-Us) for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
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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](http://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

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**MSV\_CCV\_GASES\_00139**



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)

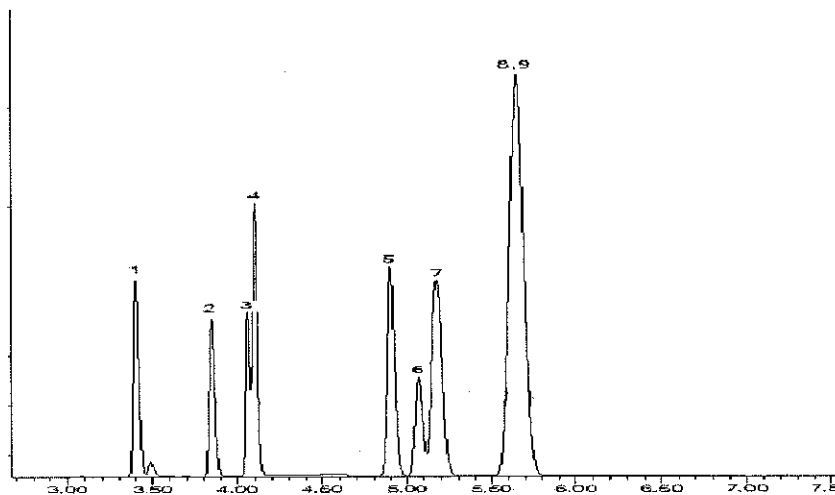
**Carrier Gas:**  
helium-constant flow 2.0 mL/min.

**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 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/ $\mu$ 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](http://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](http://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

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**MSV\_Cus826\_IS\_00310**



# CERTIFIED REFERENCE MATERIAL

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

www.restek.com

## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

**Catalog No. :** 558267 **Lot No.:** A0160586

**Description :** Custom 8260A IS Mix  
Custom 8260A IS Mix 2,500-12,500µg/mL, P&T Methanol, 1mL/ampul

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

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

### CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	tert-Butyl Alcohol-d10 CAS # 53001-22-2 (Lot PR-27803B) Purity 99%	12,518.0 µg/mL	+/- 73.2956 µg/mL +/- 268.1522 µg/mL +/- 275.9398 µg/mL	Gravimetric Unstressed Stressed	
2	Fluorobenzene CAS # 462-06-6 (Lot BCBZ5549) Purity 99%	2,506.0 µg/mL	+/- 14.7066 µg/mL +/- 53.6910 µg/mL +/- 55.2497 µg/mL	Gravimetric Unstressed Stressed	
3	Chlorobenzene-d5 CAS # 3114-55-4 (Lot PR-29571) Purity 99%	2,512.0 µg/mL	+/- 14.7418 µg/mL +/- 53.8195 µg/mL +/- 55.3820 µg/mL	Gravimetric Unstressed Stressed	
4	1,4-Dichlorobenzene-d4 CAS # 3855-82-1 (Lot PR-30447) Purity 99%	2,520.0 µg/mL	+/- 14.7888 µg/mL +/- 53.9909 µg/mL +/- 55.5584 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)

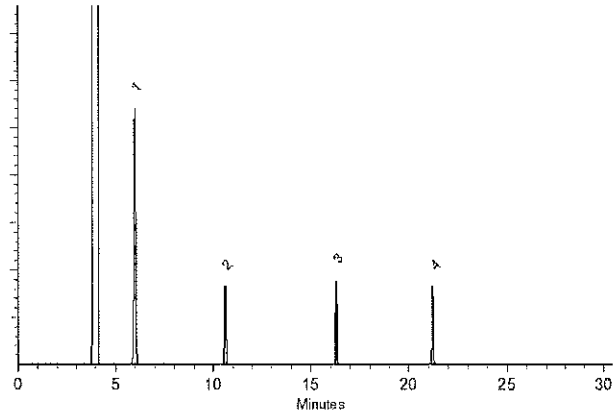
**Carrier Gas:**  
hydrogen-constant pressure 11.0 psi.

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

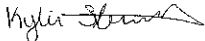
**Inj. Temp:**  
200°C

**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.

  
Kylie Struble - Operations Technician I

**Date Mixed:** 05-May-2020      **Balance:** B707717271

  
Justine Albertson - Operations Tech-ARM QC

**Date Passed:** 06-May-2020

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

## General Certified Reference Material Notes

### Expiration Notes:

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

### Purity Notes:

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

### Certified Uncertainty Value Notes:

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

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

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

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

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

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

### Manufacturing Notes:

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

### Handling Notes:

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



Reagent

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**MSV\_Cus826\_IS\_00361**



# CERTIFIED REFERENCE MATERIAL

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

www.restek.com

## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

**Catalog No. :** 558267 **Lot No.:** A0175453

**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 :** August 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	2-Methyl-2-propanol-d10 CAS # 53001-22-2 (Lot I-433) Purity 99%	12,519.0 µg/mL	+/- 73.3015 µg/mL	+/- 268.1736 µg/mL	+/- 275.9618 µg/mL	Gravimetric Unstressed Stressed
2	Fluorobenzene CAS # 462-06-6 (Lot BCBZ5549) Purity 99%	2,505.0 µg/mL	+/- 14.7007 µg/mL	+/- 53.6696 µg/mL	+/- 55.2277 µg/mL	Gravimetric Unstressed Stressed
3	Chlorobenzene-d5 CAS # 3114-55-4 (Lot PR-29571) Purity 99%	2,509.0 µg/mL	+/- 14.7242 µg/mL	+/- 53.7553 µg/mL	+/- 55.3159 µg/mL	Gravimetric Unstressed Stressed
4	1,4-Dichlorobenzene-d4 CAS # 3855-82-1 (Lot PR-30447) Purity 99%	2,516.0 µg/mL	+/- 14.7653 µg/mL	+/- 53.9052 µg/mL	+/- 55.4702 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)

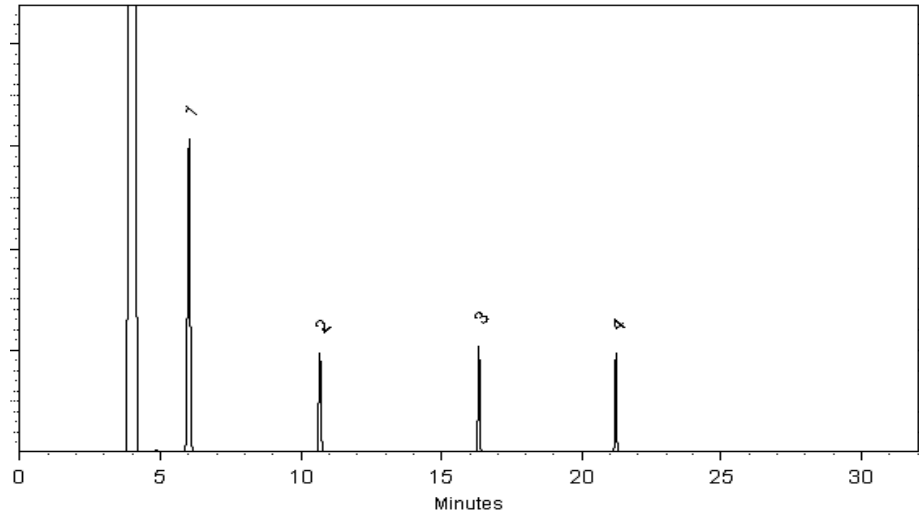
**Carrier Gas:**  
hydrogen-constant pressure 11.0 psi.

**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.

*Jeremy Warefield*  
Jeremy Warefield - Operations Tech I

**Date Mixed:** 16-Aug-2021      **Balance:** 1128342314

*Marlina Cowan*  
Marlina Cowan - Operations Tech I

**Date Passed:** 18-Aug-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](http://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](http://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

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**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 C<sub>4</sub>H<sub>10</sub>O  
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

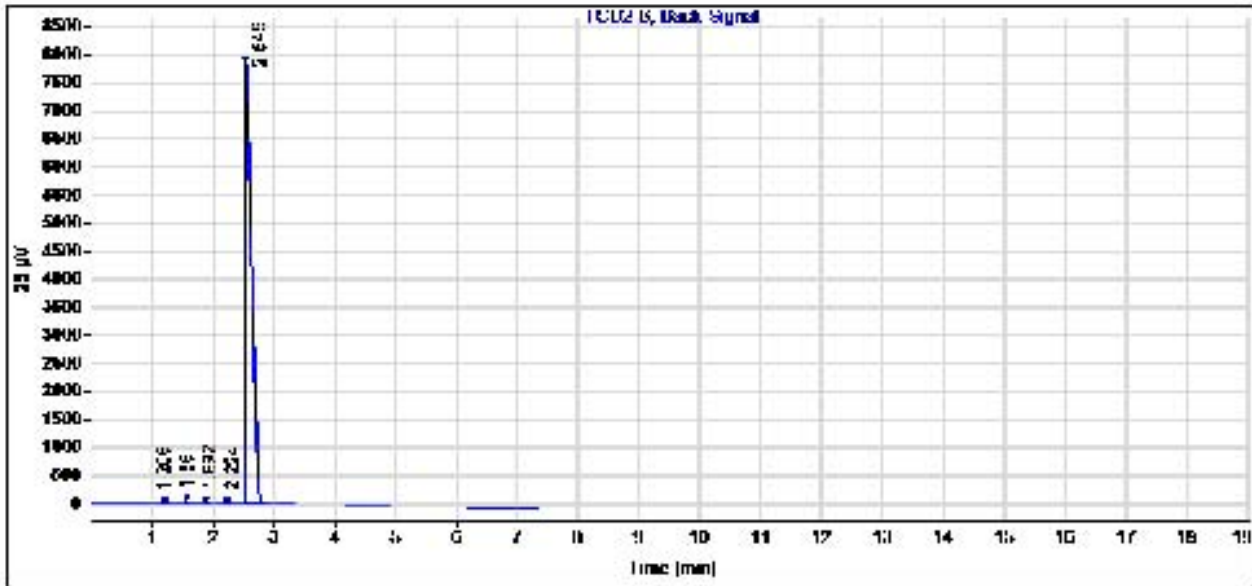
Page 114 of 901

02/04/2022

## 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  
Injection date: 12/4/2020 10:52:03 AM  
Acq. method: TCD SCREEN.M  
Column name: DB-624 (30m x 0.53mm x 3.0um)  
Sample type: Sample  
Location: Vial 21  
Injection volume: 1.0uL



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

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**MSV\_EthylMeth\_00001**



## CERTIFICATE OF ANALYSIS

### Ethyl methacrylate

CATALOG NUMBER N-11903-1G  
LOT NUMBER 11325900  
DATE CERTIFIED 01/03/19  
EXPIRATION DATE 01/31/23  
CAS NUMBER 97-63-2  
MOLECULAR FORMULA C<sub>6</sub>H<sub>10</sub>O<sub>2</sub>  
MOLECULAR WEIGHT 114.16  
STORAGE Refrigerator storage (2 - 8 °C)  
HANDLING See Safety Data Sheet  
INTENDED USE For laboratory use only.

✓ Rec'd  
5/21/2021  
JMW3

Analytical Test	Value
% PURITY (GC/FID)	99.5

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

Certified By:

*Mary Beth O'Donnell*

Mary Beth O'Donnell  
CSM/TC

COA Form  
Revision 3 (3/2015)

Print Date: 05/20/21



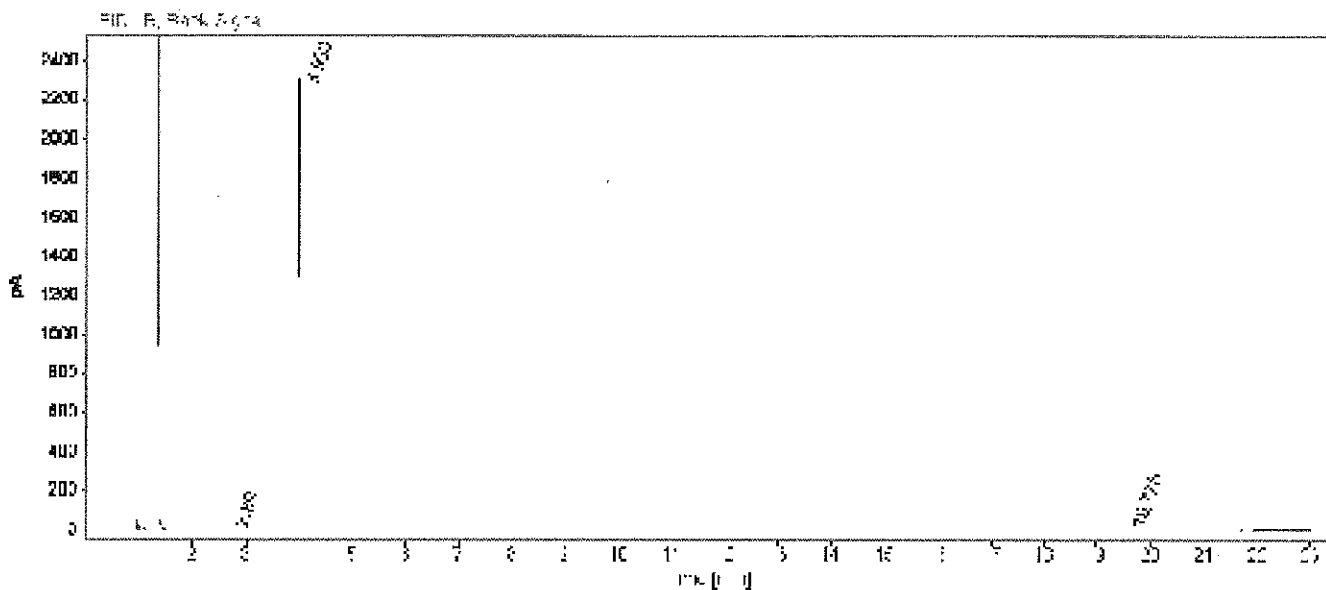
660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599  
 1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729  
[info@chemservice.com](mailto:info@chemservice.com) • [www.chemservice.com](http://www.chemservice.com)

## CERTIFICATE OF ANALYSIS

Gas Chromatography / Flame Ionization Detector (GC/FID)

Data file: C:\CHEM32\1\DATA\2018 DATA\1118\W-11803.D  
 Sample name: ethyl methacrylate  
 Description:  
 Acq. method: MIX1.M  
 Instrument: GC3  
 Injection date: 1/3/2019 7:57:33 AM  
 Column name: HP-5ms Ultra Inert Diameter 250.000 Length 30.000 Particle Size 0.250

Location: 201  
 Injection Vol: 1.000  
 # Of Injections: 1



Signal: FID1 B, Back Signal

RT [min]	Type	Width [min]	Area	Height	Area%
2.800	BB	0.0189	3.0313	2.2234	0.0820
3.983	BB	0.0236	3687.9575	2288.7249	99.8245
19.775	BB	0.0395	3.4535	1.2477	0.0935
Sum			3694.4423		



Reagent

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**MSV\_M\_MIX1SEC\_00019**



# 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 <b>CAS #</b> 74-97-5.SEC <b>Purity</b> 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 <b>CAS #</b> 71-55-6 <b>Purity</b> 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 <b>CAS #</b> 563-58-6.SEC <b>Purity</b> 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 <b>CAS #</b> 56-23-5.SEC <b>Purity</b> 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 <b>CAS #</b> 107-06-2.SEC <b>Purity</b> 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 <b>CAS #</b> 71-43-2.SEC <b>Purity</b> 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 <b>CAS #</b> 79-01-6.SEC <b>Purity</b> 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 <b>CAS #</b> 78-87-5.SEC <b>Purity</b> 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 <b>CAS #</b> 75-27-4.SEC <b>Purity</b> 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 <b>CAS #</b> 74-95-3.SEC <b>Purity</b> 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 <b>CAS #</b> 10061-01-5.SEC <b>Purity</b> 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 <b>CAS #</b> 108-88-3.SEC <b>Purity</b> 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 <b>CAS #</b> 10061-02-6.SEC <b>Purity</b> 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 <b>CAS #</b> 79-00-5.SEC <b>Purity</b> 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 <b>CAS #</b> 142-28-9.SEC <b>Purity</b> 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 <b>CAS #</b> 127-18-4.SEC <b>Purity</b> 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 <b>CAS #</b> 124-48-1.SEC <b>Purity</b> 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) <b>CAS #</b> 106-93-4.SEC <b>Purity</b> 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 <b>CAS #</b> 108-90-7.SEC <b>Purity</b> 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 <b>CAS #</b> 630-20-6.SEC <b>Purity</b> 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 <b>CAS #</b> 100-41-4.SEC <b>Purity</b> 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 <b>CAS #</b> 108-38-3.SEC <b>Purity</b> 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 <b>CAS #</b> 106-42-3.SEC <b>Purity</b> 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 <b>CAS #</b> 95-47-6.SEC <b>Purity</b> 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 <b>CAS #</b> 100-42-5.SEC <b>Purity</b> 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) <b>CAS #</b> 98-82-8.SEC <b>Purity</b> 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 <b>CAS #</b> 75-25-2.SEC <b>Purity</b> 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 <b>CAS #</b> 79-34-5.SEC <b>Purity</b> 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 <b>CAS #</b> 96-18-4.SEC <b>Purity</b> 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 <b>CAS #</b> 103-65-1.SEC <b>Purity</b> 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 <b>CAS #</b> 108-86-1.SEC <b>Purity</b> 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 <b>CAS #</b> 108-67-8.SEC <b>Purity</b> 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 <b>CAS #</b> 95-49-8.SEC <b>Purity</b> 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 <b>CAS #</b> 106-43-4.SEC <b>Purity</b> 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 <b>CAS #</b> 98-06-6.SEC <b>Purity</b> 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 <b>CAS #</b> 95-63-6.SEC <b>Purity</b> 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 <b>CAS #</b> 135-98-8.SEC <b>Purity</b> 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) <b>CAS #</b> 99-87-6.SEC <b>Purity</b> 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 <b>CAS #</b> 541-73-1.SEC <b>Purity</b> 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 <b>CAS #</b> 106-46-7.SEC <b>Purity</b> 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 <b>CAS #</b> 104-51-8.SEC <b>Purity</b> 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 <b>CAS #</b> 95-50-1.SEC <b>Purity</b> 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 <b>CAS #</b> 96-12-8.SEC <b>Purity</b> 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 <b>CAS #</b> 120-82-1.SEC <b>Purity</b> 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 <b>CAS #</b> 87-68-3.SEC <b>Purity</b> 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 <b>CAS #</b> 91-20-3.SEC <b>Purity</b> 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 <b>CAS #</b> 87-61-6.SEC <b>Purity</b> 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)

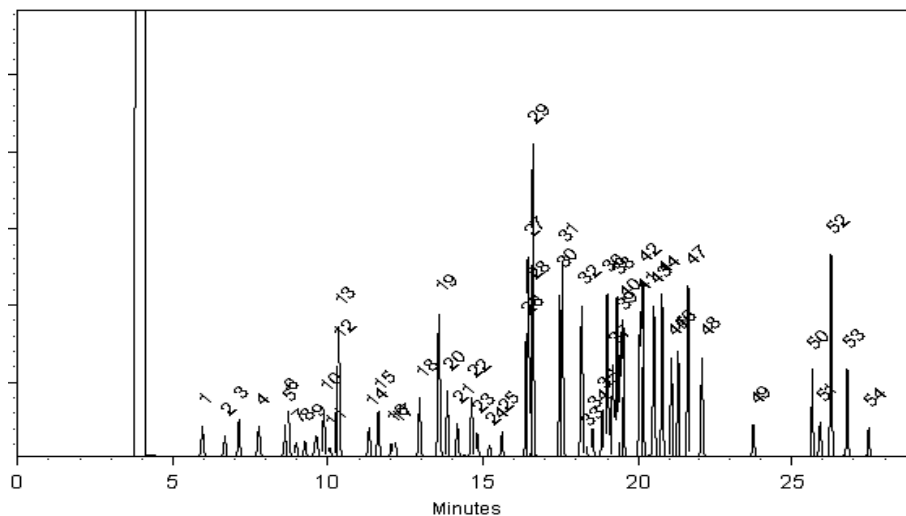
**Carrier Gas:**  
hydrogen-constant pressure 11.0 psi.

**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](http://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](http://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

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**MSV\_M\_MIX1SEC\_00039**



# 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 <b>CAS #</b> 74-97-5.SEC <b>Purity</b> 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 <b>CAS #</b> 71-55-6 <b>Purity</b> 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 <b>CAS #</b> 563-58-6.SEC <b>Purity</b> 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 <b>CAS #</b> 56-23-5.SEC <b>Purity</b> 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 <b>CAS #</b> 107-06-2.SEC <b>Purity</b> 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 <b>CAS #</b> 71-43-2.SEC <b>Purity</b> 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 <b>CAS #</b> 79-01-6.SEC <b>Purity</b> 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 <b>CAS #</b> 78-87-5.SEC <b>Purity</b> 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 <b>CAS #</b> 75-27-4.SEC <b>Purity</b> 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 <b>CAS #</b> 74-95-3.SEC <b>Purity</b> 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 <b>CAS #</b> 10061-01-5.SEC <b>Purity</b> 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 <b>CAS #</b> 108-88-3.SEC <b>Purity</b> 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 <b>CAS #</b> 10061-02-6.SEC <b>Purity</b> 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 <b>CAS #</b> 79-00-5.SEC <b>Purity</b> 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 <b>CAS #</b> 142-28-9.SEC <b>Purity</b> 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 <b>CAS #</b> 127-18-4.SEC <b>Purity</b> 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 <b>CAS #</b> 124-48-1.SEC <b>Purity</b> 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) <b>CAS #</b> 106-93-4.SEC <b>Purity</b> 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 <b>CAS #</b> 108-90-7.SEC <b>Purity</b> 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 <b>CAS #</b> 630-20-6.SEC <b>Purity</b> 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 <b>CAS #</b> 100-41-4.SEC <b>Purity</b> 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 <b>CAS #</b> 108-38-3.SEC <b>Purity</b> 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 <b>CAS #</b> 106-42-3.SEC <b>Purity</b> 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 <b>CAS #</b> 95-47-6.SEC <b>Purity</b> 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 <b>CAS #</b> 100-42-5.SEC <b>Purity</b> 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) <b>CAS #</b> 98-82-8.SEC <b>Purity</b> 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 <b>CAS #</b> 75-25-2.SEC <b>Purity</b> 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 <b>CAS #</b> 79-34-5.SEC <b>Purity</b> 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 <b>CAS #</b> 96-18-4.SEC <b>Purity</b> 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 <b>CAS #</b> 103-65-1.SEC <b>Purity</b> 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 <b>CAS #</b> 108-86-1.SEC <b>Purity</b> 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 <b>CAS #</b> 108-67-8.SEC <b>Purity</b> 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 <b>CAS #</b> 95-49-8.SEC <b>Purity</b> 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 <b>CAS #</b> 106-43-4.SEC <b>Purity</b> 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 <b>CAS #</b> 98-06-6.SEC <b>Purity</b> 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 <b>CAS #</b> 95-63-6.SEC <b>Purity</b> 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 <b>CAS #</b> 135-98-8.SEC <b>Purity</b> 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) <b>CAS #</b> 99-87-6.SEC <b>Purity</b> 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 <b>CAS #</b> 541-73-1.SEC <b>Purity</b> 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 <b>CAS #</b> 106-46-7.SEC <b>Purity</b> 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 <b>CAS #</b> 104-51-8.SEC <b>Purity</b> 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 <b>CAS #</b> 95-50-1.SEC <b>Purity</b> 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 <b>CAS #</b> 96-12-8.SEC <b>Purity</b> 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 <b>CAS #</b> 120-82-1.SEC <b>Purity</b> 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 <b>CAS #</b> 87-68-3.SEC <b>Purity</b> 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 <b>CAS #</b> 91-20-3.SEC <b>Purity</b> 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 <b>CAS #</b> 87-61-6.SEC <b>Purity</b> 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)

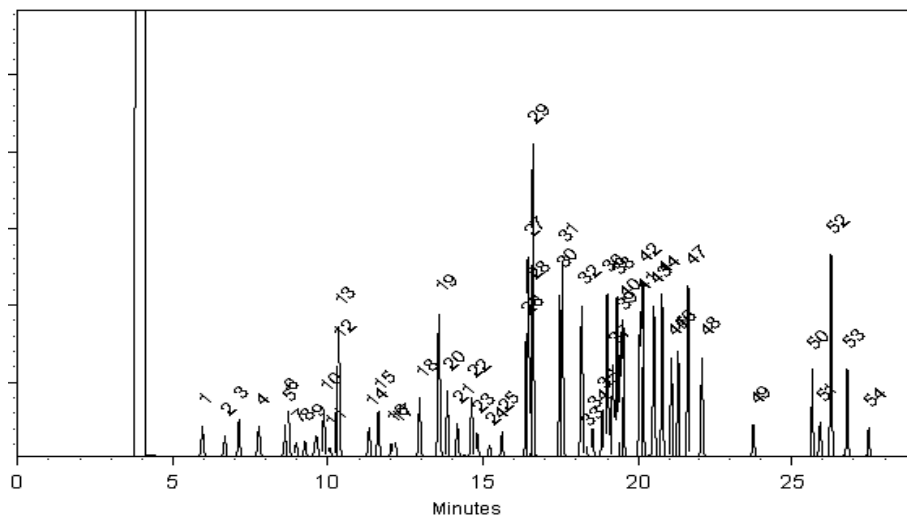
**Carrier Gas:**  
hydrogen-constant pressure 11.0 psi.

**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](http://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](http://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

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**MSV\_M\_MIX1SEC\_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. :** 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
	<b>CAS #</b> 75-35-4.SEC (Lot 9201700)		+/-	56.4323	µg/mL	Unstressed
	<b>Purity</b> 99%		+/-	57.7457	µg/mL	Stressed
2	Methylene chloride (dichloromethane)	1,001.8 µg/mL	+/-	7.1486	µg/mL	Gravimetric
	<b>CAS #</b> 75-09-2.SEC (Lot FGM02)		+/-	56.3199	µg/mL	Unstressed
	<b>Purity</b> 99%		+/-	57.6306	µg/mL	Stressed
3	trans-1,2-Dichloroethene	1,000.3 µg/mL	+/-	7.1382	µg/mL	Gravimetric
	<b>CAS #</b> 156-60-5.SEC (Lot TS5UB)		+/-	56.2383	µg/mL	Unstressed
	<b>Purity</b> 99%		+/-	57.5472	µg/mL	Stressed
4	1,1-Dichloroethane	1,002.0 µg/mL	+/-	7.1503	µg/mL	Gravimetric
	<b>CAS #</b> 75-34-3.SEC (Lot 7482000)		+/-	56.3339	µg/mL	Unstressed
	<b>Purity</b> 99%		+/-	57.6450	µg/mL	Stressed
5	2,2-Dichloropropane	1,000.0 µg/mL	+/-	7.1026	µg/mL	Gravimetric
	<b>CAS #</b> 594-20-7.SEC (Lot I7E8E)		+/-	56.2188	µg/mL	Unstressed
	<b>Purity</b> 98%		+/-	57.5274	µg/mL	Stressed
6	cis-1,2-Dichloroethene	1,000.1 µg/mL	+/-	7.1028	µg/mL	Gravimetric
	<b>CAS #</b> 156-59-2.SEC (Lot YZO5O)		+/-	56.2207	µg/mL	Unstressed
	<b>Purity</b> 99%		+/-	57.5294	µg/mL	Stressed
7	Chloroform	1,000.8 µg/mL	+/-	7.1414	µg/mL	Gravimetric
	<b>CAS #</b> 67-66-3.SEC (Lot 1297547)		+/-	56.2636	µg/mL	Unstressed
	<b>Purity</b> 99%		+/-	57.5731	µg/mL	Stressed

8	Bromochloromethane <b>CAS #</b> 74-97-5.SEC <b>Purity</b> 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 <b>CAS #</b> 71-55-6 <b>Purity</b> 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 <b>CAS #</b> 563-58-6.SEC <b>Purity</b> 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 <b>CAS #</b> 56-23-5.SEC <b>Purity</b> 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 <b>CAS #</b> 107-06-2.SEC <b>Purity</b> 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 <b>CAS #</b> 71-43-2.SEC <b>Purity</b> 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 <b>CAS #</b> 79-01-6.SEC <b>Purity</b> 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 <b>CAS #</b> 78-87-5.SEC <b>Purity</b> 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 <b>CAS #</b> 75-27-4.SEC <b>Purity</b> 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 <b>CAS #</b> 74-95-3.SEC <b>Purity</b> 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 <b>CAS #</b> 10061-01-5.SEC <b>Purity</b> 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 <b>CAS #</b> 108-88-3.SEC <b>Purity</b> 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 <b>CAS #</b> 10061-02-6.SEC <b>Purity</b> 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 <b>CAS #</b> 79-00-5.SEC <b>Purity</b> 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 <b>CAS #</b> 142-28-9.SEC <b>Purity</b> 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 <b>CAS #</b> 127-18-4.SEC <b>Purity</b> 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 <b>CAS #</b> 124-48-1.SEC <b>Purity</b> 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) <b>CAS #</b> 106-93-4.SEC <b>Purity</b> 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 <b>CAS #</b> 108-90-7.SEC <b>Purity</b> 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 <b>CAS #</b> 630-20-6.SEC <b>Purity</b> 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 <b>CAS #</b> 100-41-4.SEC <b>Purity</b> 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 <b>CAS #</b> 108-38-3.SEC <b>Purity</b> 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 <b>CAS #</b> 106-42-3.SEC <b>Purity</b> 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 <b>CAS #</b> 95-47-6.SEC <b>Purity</b> 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 <b>CAS #</b> 100-42-5.SEC <b>Purity</b> 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) <b>CAS #</b> 98-82-8.SEC <b>Purity</b> 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 <b>CAS #</b> 75-25-2.SEC <b>Purity</b> 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 <b>CAS #</b> 79-34-5.SEC <b>Purity</b> 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 <b>CAS #</b> 96-18-4.SEC <b>Purity</b> 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 <b>CAS #</b> 103-65-1.SEC <b>Purity</b> 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 <b>CAS #</b> 108-86-1.SEC <b>Purity</b> 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 <b>CAS #</b> 108-67-8.SEC <b>Purity</b> 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 <b>CAS #</b> 95-49-8.SEC <b>Purity</b> 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 <b>CAS #</b> 106-43-4.SEC <b>Purity</b> 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 <b>CAS #</b> 98-06-6.SEC <b>Purity</b> 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 <b>CAS #</b> 95-63-6.SEC <b>Purity</b> 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 <b>CAS #</b> 135-98-8.SEC <b>Purity</b> 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) <b>CAS #</b> 99-87-6.SEC <b>Purity</b> 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 <b>CAS #</b> 541-73-1.SEC <b>Purity</b> 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 <b>CAS #</b> 106-46-7.SEC <b>Purity</b> 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 <b>CAS #</b> 104-51-8.SEC <b>Purity</b> 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 <b>CAS #</b> 95-50-1.SEC <b>Purity</b> 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 <b>CAS #</b> 96-12-8.SEC <b>Purity</b> 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 <b>CAS #</b> 120-82-1.SEC <b>Purity</b> 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 <b>CAS #</b> 87-68-3.SEC <b>Purity</b> 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 <b>CAS #</b> 91-20-3.SEC <b>Purity</b> 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 <b>CAS #</b> 87-61-6.SEC <b>Purity</b> 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)

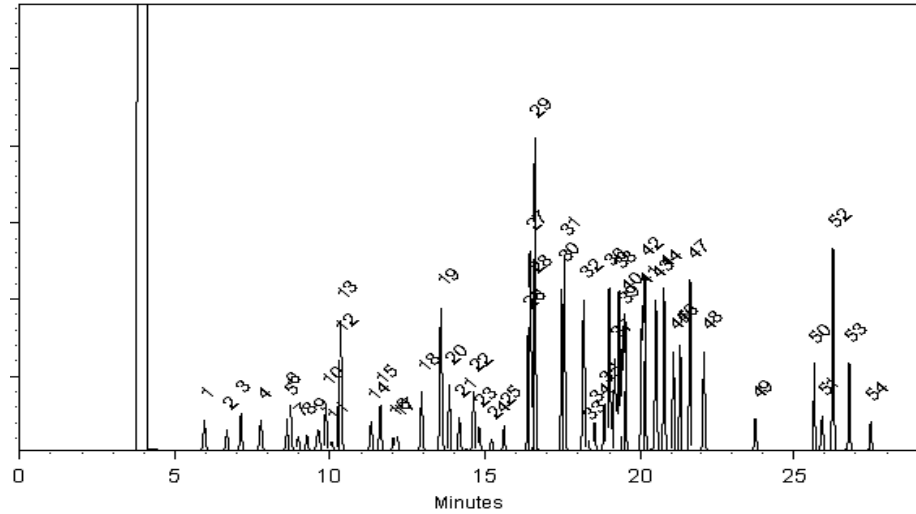
**Carrier Gas:**  
hydrogen-constant pressure 11.0 psi.

**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](http://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](http://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

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**MSV\_M\_MIX2SEC\_00028**





# 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 <b>CAS #</b> 75-15-0.SEC <b>Purity</b> 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 <b>CAS #</b> 107-13-1.SEC <b>Purity</b> 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 ) <b>CAS #</b> 1634-04-4.SEC <b>Purity</b> 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) <b>CAS #</b> 110-54-3.SEC <b>Purity</b> 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 ) <b>CAS #</b> 108-20-3.SEC <b>Purity</b> 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) <b>CAS #</b> 126-99-8 <b>Purity</b> 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) <b>CAS #</b> 637-92-3.SEC <b>Purity</b> 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 <b>CAS #</b> 107-12-0.SEC <b>Purity</b> 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 <b>CAS #</b> 126-98-7 <b>Purity</b> 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) <b>CAS #</b> 78-83-1.SEC <b>Purity</b> 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 <b>CAS #</b> 109-99-9.SEC <b>Purity</b> 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 <b>CAS #</b> 110-82-7.SEC <b>Purity</b> 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 <b>CAS #</b> 71-36-3.SEC <b>Purity</b> 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) <b>CAS #</b> 994-05-8.SEC <b>Purity</b> 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) <b>CAS #</b> 142-82-5.SEC <b>Purity</b> 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) <b>CAS #</b> 919-94-8.SEC <b>Purity</b> 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 <b>CAS #</b> 108-87-2.SEC <b>Purity</b> 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 <b>CAS #</b> 80-62-6.SEC <b>Purity</b> 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 <b>CAS #</b> 123-91-1.SEC <b>Purity</b> 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 <b>CAS #</b> 79-46-9.SEC <b>Purity</b> 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 <b>CAS #</b> 97-63-2.SEC <b>Purity</b> 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 <b>CAS #</b> 544-10-5.SEC <b>Purity</b> 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 <b>CAS #</b> 110-57-6.SEC <b>Purity</b> 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 <b>CAS #</b> 526-73-8.SEC <b>Purity</b> 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 <b>CAS #</b> 141-93-5.SEC <b>Purity</b> 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 <b>CAS #</b> 100-44-7.SEC <b>Purity</b> 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 <b>CAS #</b> 105-05-5.SEC <b>Purity</b> 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 <b>CAS #</b> 135-01-3.SEC <b>Purity</b> 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 <b>CAS #</b> 108-70-3.SEC <b>Purity</b> 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 <b>CAS #</b> 91-57-6.SEC <b>Purity</b> 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)

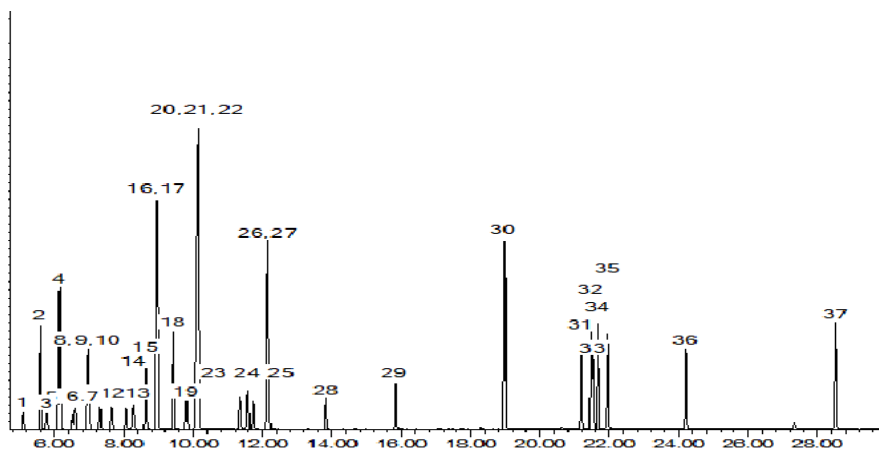
**Carrier Gas:**  
helium-constant pressure 30 psi

**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](http://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](http://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

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**MSV\_M\_MIX2SEC\_00041**



# CERTIFIED REFERENCE MATERIAL

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

www.restek.com

## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

**Catalog No. :** 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 <b>CAS #</b> 75-15-0.SEC <b>Purity</b> 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 <b>CAS #</b> 107-13-1.SEC <b>Purity</b> 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 ) <b>CAS #</b> 1634-04-4.SEC <b>Purity</b> 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) <b>CAS #</b> 110-54-3.SEC <b>Purity</b> 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 ) <b>CAS #</b> 108-20-3.SEC <b>Purity</b> 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) <b>CAS #</b> 126-99-8 <b>Purity</b> 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) <b>CAS #</b> 637-92-3.SEC <b>Purity</b> 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 <b>CAS #</b> 107-12-0.SEC <b>Purity</b> 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 <b>CAS #</b> 126-98-7 <b>Purity</b> 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) <b>CAS #</b> 78-83-1.SEC <b>Purity</b> 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 <b>CAS #</b> 109-99-9.SEC <b>Purity</b> 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 <b>CAS #</b> 110-82-7.SEC <b>Purity</b> 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 <b>CAS #</b> 71-36-3.SEC <b>Purity</b> 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) <b>CAS #</b> 994-05-8.SEC <b>Purity</b> 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) <b>CAS #</b> 142-82-5.SEC <b>Purity</b> 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) <b>CAS #</b> 919-94-8.SEC <b>Purity</b> 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 <b>CAS #</b> 108-87-2.SEC <b>Purity</b> 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 <b>CAS #</b> 80-62-6.SEC <b>Purity</b> 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 <b>CAS #</b> 123-91-1.SEC <b>Purity</b> 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 <b>CAS #</b> 79-46-9.SEC <b>Purity</b> 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 <b>CAS #</b> 97-63-2.SEC <b>Purity</b> 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 <b>CAS #</b> 544-10-5.SEC <b>Purity</b> 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 <b>CAS #</b> 110-57-6.SEC <b>Purity</b> 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 <b>CAS #</b> 526-73-8.SEC <b>Purity</b> 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 <b>CAS #</b> 141-93-5.SEC <b>Purity</b> 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 <b>CAS #</b> 100-44-7.SEC <b>Purity</b> 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 <b>CAS #</b> 105-05-5.SEC <b>Purity</b> 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 <b>CAS #</b> 135-01-3.SEC <b>Purity</b> 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 <b>CAS #</b> 108-70-3.SEC <b>Purity</b> 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 <b>CAS #</b> 91-57-6.SEC <b>Purity</b> 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)

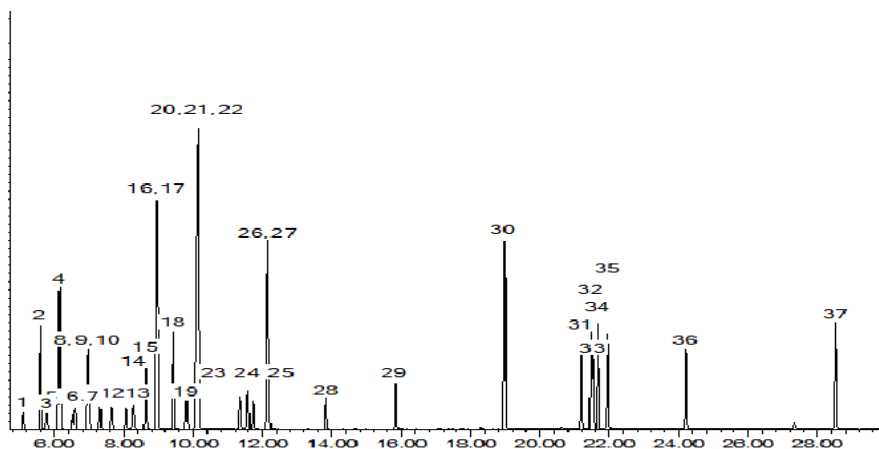
**Carrier Gas:**  
helium-constant pressure 30 psi

**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](http://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](http://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

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**MSV\_M\_MIX2SEC\_00048**



# CERTIFIED REFERENCE MATERIAL

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

www.restek.com

## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

**Catalog No. :** 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 <b>CAS #</b> 75-15-0.SEC <b>Purity</b> 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 <b>CAS #</b> 107-13-1.SEC <b>Purity</b> 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 ) <b>CAS #</b> 1634-04-4.SEC <b>Purity</b> 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) <b>CAS #</b> 110-54-3.SEC <b>Purity</b> 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 ) <b>CAS #</b> 108-20-3.SEC <b>Purity</b> 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) <b>CAS #</b> 126-99-8 <b>Purity</b> 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) <b>CAS #</b> 637-92-3.SEC <b>Purity</b> 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 <b>CAS #</b> 107-12-0.SEC <b>Purity</b> 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 <b>CAS #</b> 126-98-7 <b>Purity</b> 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) <b>CAS #</b> 78-83-1.SEC <b>Purity</b> 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 <b>CAS #</b> 109-99-9.SEC <b>Purity</b> 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 <b>CAS #</b> 110-82-7.SEC <b>Purity</b> 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 <b>CAS #</b> 71-36-3.SEC <b>Purity</b> 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) <b>CAS #</b> 994-05-8.SEC <b>Purity</b> 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) <b>CAS #</b> 142-82-5.SEC <b>Purity</b> 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) <b>CAS #</b> 919-94-8.SEC <b>Purity</b> 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 <b>CAS #</b> 108-87-2.SEC <b>Purity</b> 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 <b>CAS #</b> 80-62-6.SEC <b>Purity</b> 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 <b>CAS #</b> 123-91-1.SEC <b>Purity</b> 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 <b>CAS #</b> 79-46-9.SEC <b>Purity</b> 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 <b>CAS #</b> 97-63-2.SEC <b>Purity</b> 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 <b>CAS #</b> 544-10-5.SEC <b>Purity</b> 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 <b>CAS #</b> 110-57-6.SEC <b>Purity</b> 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 <b>CAS #</b> 526-73-8.SEC <b>Purity</b> 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 <b>CAS #</b> 141-93-5.SEC <b>Purity</b> 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 <b>CAS #</b> 100-44-7.SEC <b>Purity</b> 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 <b>CAS #</b> 105-05-5.SEC <b>Purity</b> 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 <b>CAS #</b> 135-01-3.SEC <b>Purity</b> 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 <b>CAS #</b> 108-70-3.SEC <b>Purity</b> 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 <b>CAS #</b> 91-57-6.SEC <b>Purity</b> 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)

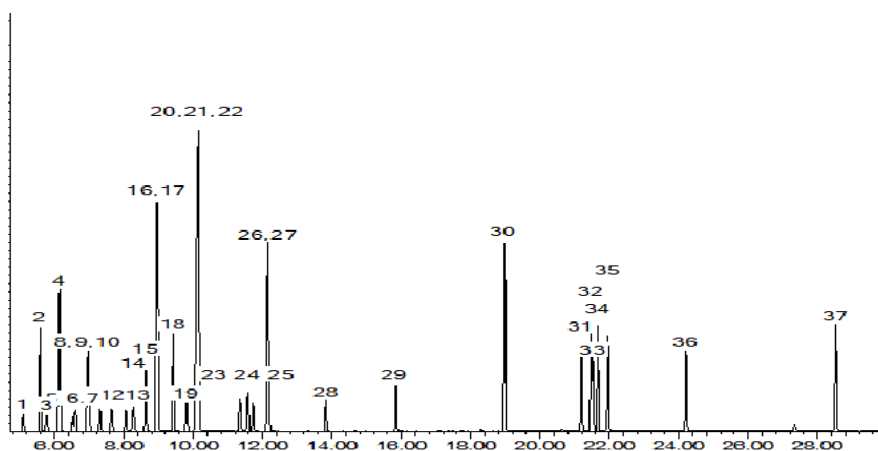
**Carrier Gas:**  
helium-constant pressure 30 psi

**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](http://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](http://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

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**MSV\_MegaMIX#1\_00015**



# CERTIFIED REFERENCE MATERIAL

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

www.restek.com

## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

**Catalog No. :** 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 <b>CAS #</b> 74-97-5 <b>Purity</b> 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 <b>CAS #</b> 71-55-6 <b>Purity</b> 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 <b>CAS #</b> 563-58-6 <b>Purity</b> 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 <b>CAS #</b> 56-23-5 <b>Purity</b> 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 <b>CAS #</b> 107-06-2 <b>Purity</b> 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 <b>CAS #</b> 71-43-2 <b>Purity</b> 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 <b>CAS #</b> 79-01-6 <b>Purity</b> 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 <b>CAS #</b> 78-87-5 <b>Purity</b> 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 <b>CAS #</b> 75-27-4 <b>Purity</b> 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 <b>CAS #</b> 74-95-3 <b>Purity</b> 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 <b>CAS #</b> 10061-01-5 <b>Purity</b> 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 <b>CAS #</b> 108-88-3 <b>Purity</b> 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 <b>CAS #</b> 10061-02-6 <b>Purity</b> 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 <b>CAS #</b> 79-00-5 <b>Purity</b> 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 <b>CAS #</b> 142-28-9 <b>Purity</b> 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 <b>CAS #</b> 127-18-4 <b>Purity</b> 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 <b>CAS #</b> 124-48-1 <b>Purity</b> 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) <b>CAS #</b> 106-93-4 <b>Purity</b> 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 <b>CAS #</b> 108-90-7 <b>Purity</b> 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 <b>CAS #</b> 630-20-6 <b>Purity</b> 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 <b>CAS #</b> 100-41-4 <b>Purity</b> 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 <b>CAS #</b> 108-38-3 <b>Purity</b> 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 <b>CAS #</b> 106-42-3 <b>Purity</b> 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 <b>CAS #</b> 95-47-6 <b>Purity</b> 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 <b>CAS #</b> 100-42-5 <b>Purity</b> 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) <b>CAS #</b> 98-82-8 <b>Purity</b> 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 <b>CAS #</b> 75-25-2 <b>Purity</b> 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 <b>CAS #</b> 79-34-5 <b>Purity</b> 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 <b>CAS #</b> 96-18-4 <b>Purity</b> 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 <b>CAS #</b> 103-65-1 <b>Purity</b> 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 <b>CAS #</b> 108-86-1 <b>Purity</b> 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 <b>CAS #</b> 108-67-8 <b>Purity</b> 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 <b>CAS #</b> 95-49-8 <b>Purity</b> 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 <b>CAS #</b> 106-43-4 <b>Purity</b> 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 <b>CAS #</b> 98-06-6 <b>Purity</b> 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 <b>CAS #</b> 95-63-6 <b>Purity</b> 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 <b>CAS #</b> 135-98-8 <b>Purity</b> 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) <b>CAS #</b> 99-87-6 <b>Purity</b> 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 <b>CAS #</b> 541-73-1 <b>Purity</b> 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 <b>CAS #</b> 106-46-7 <b>Purity</b> 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 <b>CAS #</b> 104-51-8 <b>Purity</b> 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 <b>CAS #</b> 95-50-1 <b>Purity</b> 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 <b>CAS #</b> 96-12-8 <b>Purity</b> 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 <b>CAS #</b> 120-82-1 <b>Purity</b> 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 <b>CAS #</b> 87-68-3 <b>Purity</b> 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 <b>CAS #</b> 91-20-3 <b>Purity</b> 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 <b>CAS #</b> 87-61-6 <b>Purity</b> 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)

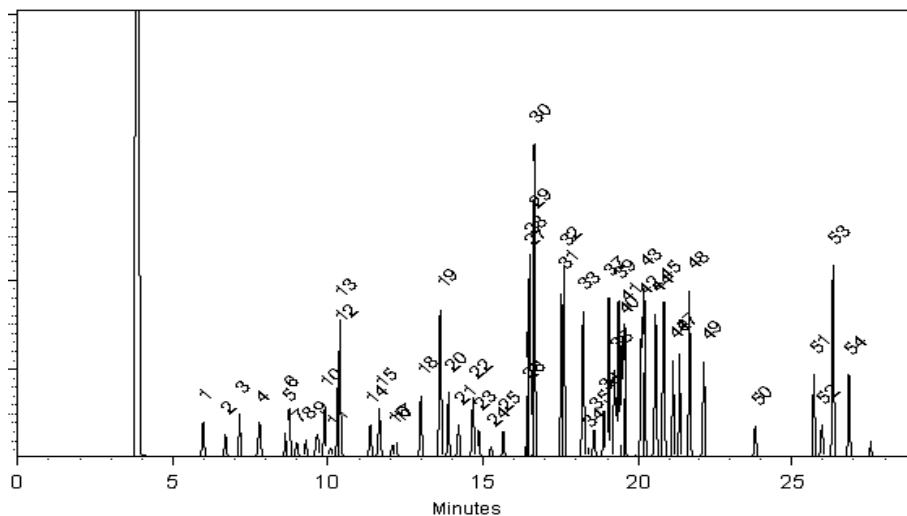
**Carrier Gas:**  
hydrogen-constant pressure 11.0 psi.

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

**Inj. Temp:**  
200°C

**Det. Temp:**  
250°C

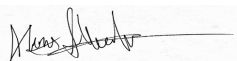
**Det. Type:**  
FID



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](http://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](http://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

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**MSV\_MegaMIX#1\_00038**



# CERTIFIED REFERENCE MATERIAL

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

www.restek.com

## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

**Catalog No. :** 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 <b>CAS #</b> 74-97-5 <b>Purity</b> 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 <b>CAS #</b> 71-55-6 <b>Purity</b> 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 <b>CAS #</b> 563-58-6 <b>Purity</b> 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 <b>CAS #</b> 56-23-5 <b>Purity</b> 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 <b>CAS #</b> 107-06-2 <b>Purity</b> 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 <b>CAS #</b> 71-43-2 <b>Purity</b> 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 <b>CAS #</b> 79-01-6 <b>Purity</b> 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 <b>CAS #</b> 78-87-5 <b>Purity</b> 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 <b>CAS #</b> 75-27-4 <b>Purity</b> 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 <b>CAS #</b> 74-95-3 <b>Purity</b> 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 <b>CAS #</b> 10061-01-5 <b>Purity</b> 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 <b>CAS #</b> 108-88-3 <b>Purity</b> 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 <b>CAS #</b> 10061-02-6 <b>Purity</b> 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 <b>CAS #</b> 79-00-5 <b>Purity</b> 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 <b>CAS #</b> 142-28-9 <b>Purity</b> 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 <b>CAS #</b> 127-18-4 <b>Purity</b> 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 <b>CAS #</b> 124-48-1 <b>Purity</b> 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) <b>CAS #</b> 106-93-4 <b>Purity</b> 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 <b>CAS #</b> 108-90-7 <b>Purity</b> 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 <b>CAS #</b> 630-20-6 <b>Purity</b> 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 <b>CAS #</b> 100-41-4 <b>Purity</b> 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 <b>CAS #</b> 108-38-3 <b>Purity</b> 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 <b>CAS #</b> 106-42-3 <b>Purity</b> 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 <b>CAS #</b> 95-47-6 <b>Purity</b> 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 <b>CAS #</b> 100-42-5 <b>Purity</b> 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) <b>CAS #</b> 98-82-8 <b>Purity</b> 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 <b>CAS #</b> 75-25-2 <b>Purity</b> 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 <b>CAS #</b> 79-34-5 <b>Purity</b> 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 <b>CAS #</b> 96-18-4 <b>Purity</b> 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 <b>CAS #</b> 103-65-1 <b>Purity</b> 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 <b>CAS #</b> 108-86-1 <b>Purity</b> 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 <b>CAS #</b> 108-67-8 <b>Purity</b> 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 <b>CAS #</b> 95-49-8 <b>Purity</b> 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 <b>CAS #</b> 106-43-4 <b>Purity</b> 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 <b>CAS #</b> 98-06-6 <b>Purity</b> 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 <b>CAS #</b> 95-63-6 <b>Purity</b> 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 <b>CAS #</b> 135-98-8 <b>Purity</b> 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) <b>CAS #</b> 99-87-6 <b>Purity</b> 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 <b>CAS #</b> 541-73-1 <b>Purity</b> 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 <b>CAS #</b> 106-46-7 <b>Purity</b> 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 <b>CAS #</b> 104-51-8 <b>Purity</b> 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 <b>CAS #</b> 95-50-1 <b>Purity</b> 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 <b>CAS #</b> 96-12-8 <b>Purity</b> 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 <b>CAS #</b> 120-82-1 <b>Purity</b> 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 <b>CAS #</b> 87-68-3 <b>Purity</b> 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 <b>CAS #</b> 91-20-3 <b>Purity</b> 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 <b>CAS #</b> 87-61-6 <b>Purity</b> 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)

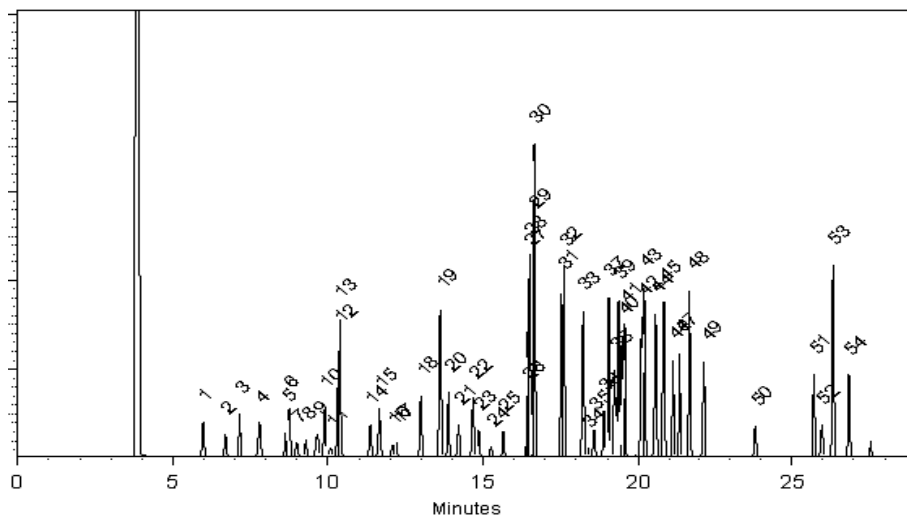
**Carrier Gas:**  
hydrogen-constant pressure 11.0 psi.

**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](http://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](http://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

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**MSV\_MegaMIX#1\_00045**





# 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 <b>CAS #</b> 74-97-5 <b>Purity</b> 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 <b>CAS #</b> 71-55-6 <b>Purity</b> 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 <b>CAS #</b> 563-58-6 <b>Purity</b> 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 <b>CAS #</b> 56-23-5 <b>Purity</b> 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 <b>CAS #</b> 107-06-2 <b>Purity</b> 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 <b>CAS #</b> 71-43-2 <b>Purity</b> 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 <b>CAS #</b> 79-01-6 <b>Purity</b> 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 <b>CAS #</b> 78-87-5 <b>Purity</b> 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 <b>CAS #</b> 75-27-4 <b>Purity</b> 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 <b>CAS #</b> 74-95-3 <b>Purity</b> 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 <b>CAS #</b> 10061-01-5 <b>Purity</b> 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 <b>CAS #</b> 108-88-3 <b>Purity</b> 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 <b>CAS #</b> 10061-02-6 <b>Purity</b> 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 <b>CAS #</b> 79-00-5 <b>Purity</b> 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 <b>CAS #</b> 142-28-9 <b>Purity</b> 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 <b>CAS #</b> 127-18-4 <b>Purity</b> 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 <b>CAS #</b> 124-48-1 <b>Purity</b> 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) <b>CAS #</b> 106-93-4 <b>Purity</b> 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 <b>CAS #</b> 108-90-7 <b>Purity</b> 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 <b>CAS #</b> 630-20-6 <b>Purity</b> 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 <b>CAS #</b> 100-41-4 <b>Purity</b> 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 <b>CAS #</b> 108-38-3 <b>Purity</b> 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 <b>CAS #</b> 106-42-3 <b>Purity</b> 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 <b>CAS #</b> 95-47-6 <b>Purity</b> 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 <b>CAS #</b> 100-42-5 <b>Purity</b> 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) <b>CAS #</b> 98-82-8 <b>Purity</b> 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 <b>CAS #</b> 75-25-2 <b>Purity</b> 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-Tetrachloroethane <b>CAS #</b> 79-34-5 <b>Purity</b> 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 <b>CAS #</b> 96-18-4 <b>Purity</b> 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 <b>CAS #</b> 103-65-1 <b>Purity</b> 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 <b>CAS #</b> 108-86-1 <b>Purity</b> 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 <b>CAS #</b> 108-67-8 <b>Purity</b> 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 <b>CAS #</b> 95-49-8 <b>Purity</b> 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 <b>CAS #</b> 106-43-4 <b>Purity</b> 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 <b>CAS #</b> 98-06-6 <b>Purity</b> 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 <b>CAS #</b> 95-63-6 <b>Purity</b> 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 <b>CAS #</b> 135-98-8 <b>Purity</b> 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) <b>CAS #</b> 99-87-6 <b>Purity</b> 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 <b>CAS #</b> 541-73-1 <b>Purity</b> 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 <b>CAS #</b> 106-46-7 <b>Purity</b> 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 <b>CAS #</b> 104-51-8 <b>Purity</b> 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 <b>CAS #</b> 95-50-1 <b>Purity</b> 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 <b>CAS #</b> 96-12-8 <b>Purity</b> 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 <b>CAS #</b> 120-82-1 <b>Purity</b> 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 <b>CAS #</b> 87-68-3 <b>Purity</b> 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 <b>CAS #</b> 91-20-3 <b>Purity</b> 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 <b>CAS #</b> 87-61-6 <b>Purity</b> 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)

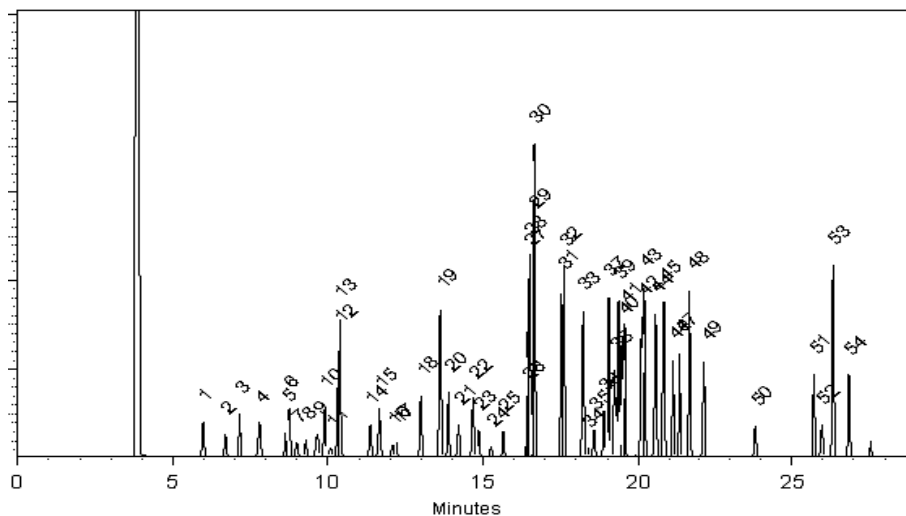
**Carrier Gas:**  
hydrogen-constant pressure 11.0 psi.

**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](http://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](http://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

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**MSV\_MegaMix#2\_00015**



# CERTIFIED REFERENCE MATERIAL

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

www.restek.com

## Certificate of Analysis



ISO 17034 Accredited  
Reference Material Producer  
Certificate #3222.01



ISO/IEC 17025 Accredited  
Testing Laboratory  
Certificate #3222.02

### 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.: A0172089

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

Ship: Ambient

X8  
5/12/21

### 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 SHBM2439) Purity 99%	5,015.5 µg/mL	+/-	31.9907	µg/mL Gravimetric
			+/-	248.4545	µg/mL Unstressed
			+/-	254.6155	µg/mL Stressed
2	2-Propanol (isopropanol) CAS # 67-63-0 (Lot SHBM4333) Purity 99%	25,058.5 µg/mL	+/-	146.7230	µg/mL Gravimetric
			+/-	1,239.7116	µg/mL Unstressed
			+/-	1,270.5322	µg/mL Stressed
3	1,1,2-Trichlorotrifluoroethane (CFC-113) CAS # 76-13-1 (Lot 00016133) Purity 99%	5,011.5 µg/mL	+/-	31.9652	µg/mL Gravimetric
			+/-	248.2564	µg/mL Unstressed
			+/-	254.4124	µg/mL Stressed
4	tert-Butanol (TBA) CAS # 75-65-0 (Lot SHBM7694) Purity 99%	25,047.5 µg/mL	+/-	146.6586	µg/mL Gravimetric
			+/-	1,239.1674	µg/mL Unstressed
			+/-	1,269.9744	µg/mL Stressed
5	Methyl acetate CAS # 79-20-9 (Lot SHBK5436) Purity 99%	5,006.8 µg/mL	+/-	31.9354	µg/mL Gravimetric
			+/-	248.0252	µg/mL Unstressed
			+/-	254.1755	µg/mL Stressed
6	Iodomethane (methyl iodide) CAS # 74-88-4 (Lot RD210503) Purity 99%	5,011.2 µg/mL	+/-	31.9631	µg/mL Gravimetric
			+/-	248.2399	µg/mL Unstressed
			+/-	254.3955	µg/mL Stressed
7	Allyl chloride ( 3-chloropropene ) CAS # 107-05-1 (Lot RD210402) Purity 99%	5,007.0 µg/mL	+/-	31.9365	µg/mL Gravimetric
			+/-	248.0335	µg/mL Unstressed
			+/-	254.1839	µg/mL Stressed



8	Carbon disulfide		5,014.7	µg/mL	+/-	31.9854	µg/mL	Gravimetric
	<b>CAS #</b>	75-15-0	(Lot N28F701)		+/-	248.4132	µg/mL	Unstressed
	<b>Purity</b>	99%			+/-	254.5731	µg/mL	Stressed
9	Acrylonitrile		12,548.0	µg/mL	+/-	73.4713	µg/mL	Gravimetric
	<b>CAS #</b>	107-13-1	(Lot M25F024)		+/-	620.7834	µg/mL	Unstressed
	<b>Purity</b>	99%			+/-	636.2168	µg/mL	Stressed
10	Methyl-tert-butyl ether ( MTBE )		5,010.0	µg/mL	+/-	31.9556	µg/mL	Gravimetric
	<b>CAS #</b>	1634-04-4	(Lot SHBM3541)		+/-	248.1821	µg/mL	Unstressed
	<b>Purity</b>	99%			+/-	254.3362	µg/mL	Stressed
11	n-Hexane (C6)		5,009.3	µg/mL	+/-	31.9514	µg/mL	Gravimetric
	<b>CAS #</b>	110-54-3	(Lot SHBL9879)		+/-	248.1490	µg/mL	Unstressed
	<b>Purity</b>	99%			+/-	254.3024	µg/mL	Stressed
12	Diisopropyl ether ( DIPE )		5,015.0	µg/mL	+/-	31.9875	µg/mL	Gravimetric
	<b>CAS #</b>	108-20-3	(Lot SHBH1927V)		+/-	248.4298	µg/mL	Unstressed
	<b>Purity</b>	99%			+/-	254.5901	µg/mL	Stressed
13	Chloroprene (2-chloro-1,3-butadiene)		5,015.0	µg/mL	+/-	31.9875	µg/mL	Gravimetric
	<b>CAS #</b>	126-99-8	(Lot 210413JLM)		+/-	248.4298	µg/mL	Unstressed
	<b>Purity</b>	99%			+/-	254.5901	µg/mL	Stressed
14	Ethyl-tert-butyl ether (ETBE)		5,011.5	µg/mL	+/-	31.9652	µg/mL	Gravimetric
	<b>CAS #</b>	637-92-3	(Lot MKCM3774)		+/-	248.2564	µg/mL	Unstressed
	<b>Purity</b>	99%			+/-	254.4124	µg/mL	Stressed
15	Propionitrile		25,085.0	µg/mL	+/-	146.8782	µg/mL	Gravimetric
	<b>CAS #</b>	107-12-0	(Lot BCBW0865)		+/-	1,241.0227	µg/mL	Unstressed
	<b>Purity</b>	99%			+/-	1,271.8758	µg/mL	Stressed
16	Methacrylonitrile		12,528.0	µg/mL	+/-	73.3542	µg/mL	Gravimetric
	<b>CAS #</b>	126-98-7	(Lot 1012014)		+/-	619.7940	µg/mL	Unstressed
	<b>Purity</b>	99%			+/-	635.2027	µg/mL	Stressed
17	Isobutanol (2-Methyl-1-propanol)		62,555.0	µg/mL	+/-	366.2544	µg/mL	Gravimetric
	<b>CAS #</b>	78-83-1	(Lot SHBM4836)		+/-	3,094.7625	µg/mL	Unstressed
	<b>Purity</b>	99%			+/-	3,171.7016	µg/mL	Stressed
18	Tetrahydrofuran		25,050.5	µg/mL	+/-	146.6762	µg/mL	Gravimetric
	<b>CAS #</b>	109-99-9	(Lot SHBM0434)		+/-	1,239.3159	µg/mL	Unstressed
	<b>Purity</b>	99%			+/-	1,270.1266	µg/mL	Stressed
19	Cyclohexane		5,017.5	µg/mL	+/-	32.0035	µg/mL	Gravimetric
	<b>CAS #</b>	110-82-7	(Lot MKCF5831)		+/-	248.5536	µg/mL	Unstressed
	<b>Purity</b>	99%			+/-	254.7170	µg/mL	Stressed
20	1-Butanol		62,574.0	µg/mL	+/-	366.3656	µg/mL	Gravimetric
	<b>CAS #</b>	71-36-3	(Lot SHBM5061)		+/-	3,095.7025	µg/mL	Unstressed
	<b>Purity</b>	99%			+/-	3,172.6650	µg/mL	Stressed
21	tert-Amyl methyl ether (TAME)		5,012.5	µg/mL	+/-	31.9716	µg/mL	Gravimetric
	<b>CAS #</b>	994-05-8	(Lot HMBG7745V)		+/-	248.3059	µg/mL	Unstressed
	<b>Purity</b>	99%			+/-	254.4632	µg/mL	Stressed
22	n-Heptane (C7)		5,012.5	µg/mL	+/-	31.9716	µg/mL	Gravimetric
	<b>CAS #</b>	142-82-5	(Lot SHBL9221)		+/-	248.3059	µg/mL	Unstressed
	<b>Purity</b>	99%			+/-	254.4632	µg/mL	Stressed
23	tert-Amyl ethyl ether (TAEE)		5,012.7	µg/mL	+/-	31.9726	µg/mL	Gravimetric
	<b>CAS #</b>	919-94-8	(Lot 76U3A)		+/-	248.3142	µg/mL	Unstressed
	<b>Purity</b>	99%			+/-	254.4716	µg/mL	Stressed

24	Methylcyclohexane CAS # 108-87-2 Purity 99%	(Lot SHBL0078)	5,015.2 µg/mL	+/- 31.9886 +/- 248.4380 +/- 254.5985	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	Methyl methacrylate CAS # 80-62-6 Purity 99%	(Lot MKCN3027)	5,016.5 µg/mL	+/- 31.9971 +/- 248.5041 +/- 254.6662	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	1,4-Dioxane CAS # 123-91-1 Purity 99%	(Lot SHBM5092)	62,582.5 µg/mL	+/- 366.4154 +/- 3,096.1230 +/- 3,173.0960	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	2-Nitropropane CAS # 79-46-9 Purity 97%	(Lot BCCB9352)	25,020.2 µg/mL	+/- 146.4987 +/- 1,237.8158 +/- 1,268.5893	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	1-Chlorohexane CAS # 544-10-5 Purity 98%	(Lot BCBS3368V)	5,012.5 µg/mL	+/- 31.9718 +/- 248.3077 +/- 254.4650	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	trans-1,4-dichloro-2-butene CAS # 110-57-6 Purity 95%	(Lot RD210331)	12,532.9 µg/mL	+/- 73.3827 +/- 620.0352 +/- 635.4499	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	1,2,3-Trimethylbenzene CAS # 526-73-8 Purity 98%	(Lot 8776.10-36)	5,009.9 µg/mL	+/- 31.9551 +/- 248.1783 +/- 254.3323	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	1,3-Diethylbenzene CAS # 141-93-5 Purity 98%	(Lot BCBT8967)	5,010.6 µg/mL	+/- 31.9593 +/- 248.2106 +/- 254.3655	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	Benzyl chloride CAS # 100-44-7 Purity 99%	(Lot SHBH2102V)	5,011.7 µg/mL	+/- 31.9663 +/- 248.2646 +/- 254.4209	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	1,4-Diethylbenzene CAS # 105-05-5 Purity 98%	(Lot RLHJK)	5,008.5 µg/mL	+/- 31.9458 +/- 248.1055 +/- 254.2577	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	1,2-Diethylbenzene CAS # 135-01-3 Purity 99%	(Lot ECH2970181)	5,010.2 µg/mL	+/- 31.9567 +/- 248.1903 +/- 254.3447	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	1,3,5-Trichlorobenzene CAS # 108-70-3 Purity 99%	(Lot I1319AS)	5,012.0 µg/mL	+/- 31.9684 +/- 248.2811 +/- 254.4378	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	2-Methylnaphthalene CAS # 91-57-6 Purity 99%	(Lot STBG8884)	5,009.0 µg/mL	+/- 31.9493 +/- 248.1325 +/- 254.2855	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
<b>Solvent:</b>	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:**

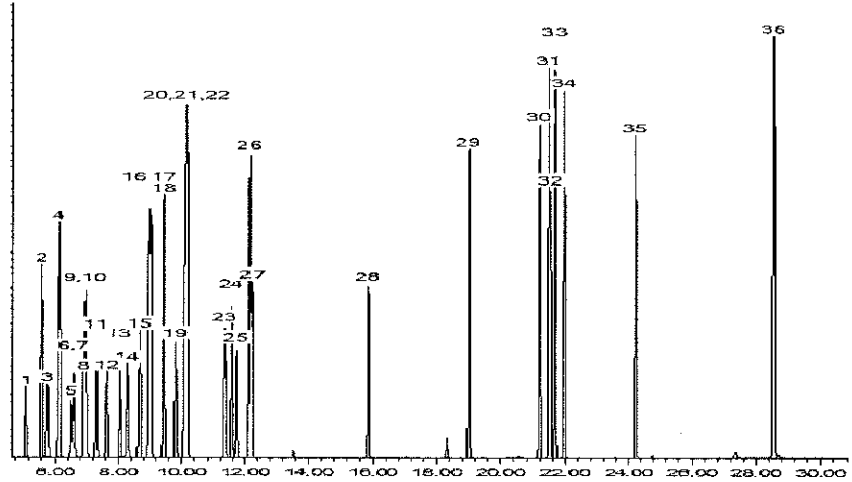
200°C

**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.

*Miranda Kline*

Miranda Kline - Operations Technician I

Date Mixed: 05-May-2021

Balance: B251644995

*Alexis Shelov*

Alexis Shelov - Operations Tech I

Date Passed: 11-May-2021

<p>Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397</p>
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## 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/ $\mu$ 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](http://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](http://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

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**MSV\_MegaMix#2\_00038**



# CERTIFIED REFERENCE MATERIAL

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

www.restek.com

## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

**Catalog No. :** 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 <b>CAS #</b> 75-15-0 <b>Purity</b> 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 <b>CAS #</b> 107-13-1 <b>Purity</b> 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 ) <b>CAS #</b> 1634-04-4 <b>Purity</b> 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) <b>CAS #</b> 110-54-3 <b>Purity</b> 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 ) <b>CAS #</b> 108-20-3 <b>Purity</b> 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) <b>CAS #</b> 126-99-8 <b>Purity</b> 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) <b>CAS #</b> 637-92-3 <b>Purity</b> 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 <b>CAS #</b> 107-12-0 <b>Purity</b> 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 <b>CAS #</b> 126-98-7 <b>Purity</b> 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) <b>CAS #</b> 78-83-1 <b>Purity</b> 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 <b>CAS #</b> 109-99-9 <b>Purity</b> 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 <b>CAS #</b> 110-82-7 <b>Purity</b> 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 <b>CAS #</b> 71-36-3 <b>Purity</b> 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) <b>CAS #</b> 994-05-8 <b>Purity</b> 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) <b>CAS #</b> 142-82-5 <b>Purity</b> 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) <b>CAS #</b> 919-94-8 <b>Purity</b> 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 <b>CAS #</b> 108-87-2 <b>Purity</b> 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 <b>CAS #</b> 80-62-6 <b>Purity</b> 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 <b>CAS #</b> 123-91-1 <b>Purity</b> 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 <b>CAS #</b> 79-46-9 <b>Purity</b> 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 <b>CAS #</b> 97-63-2 <b>Purity</b> 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 <b>CAS #</b> 544-10-5 <b>Purity</b> 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 <b>CAS #</b> 110-57-6 <b>Purity</b> 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 <b>CAS #</b> 526-73-8 <b>Purity</b> 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 <b>CAS #</b> 141-93-5 <b>Purity</b> 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 <b>CAS #</b> 100-44-7 <b>Purity</b> 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 <b>CAS #</b> 105-05-5 <b>Purity</b> 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 <b>CAS #</b> 135-01-3 <b>Purity</b> 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 <b>CAS #</b> 108-70-3 <b>Purity</b> 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 <b>CAS #</b> 91-57-6 <b>Purity</b> 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)

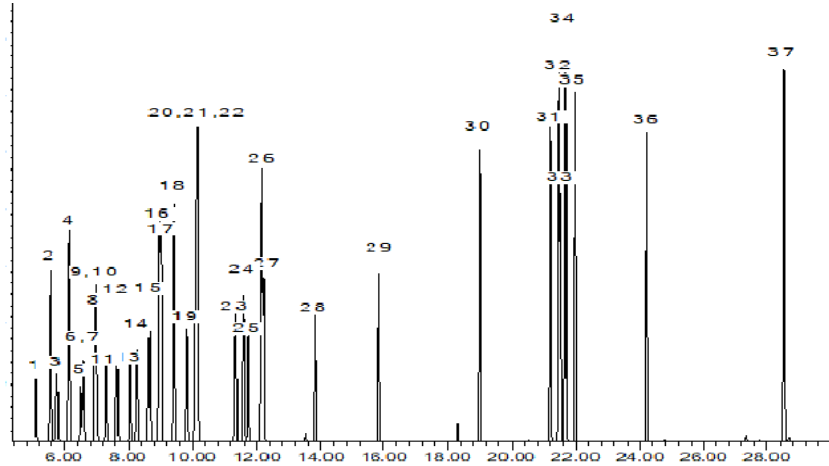
**Carrier Gas:**  
helium-constant pressure 30 psi

**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](http://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](http://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

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**MSV\_MegaMix#2\_00045**



# 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 <b>CAS #</b> 75-15-0 <b>Purity</b> 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 <b>CAS #</b> 107-13-1 <b>Purity</b> 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 ) <b>CAS #</b> 1634-04-4 <b>Purity</b> 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) <b>CAS #</b> 110-54-3 <b>Purity</b> 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 ) <b>CAS #</b> 108-20-3 <b>Purity</b> 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) <b>CAS #</b> 126-99-8 <b>Purity</b> 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) <b>CAS #</b> 637-92-3 <b>Purity</b> 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 <b>CAS #</b> 107-12-0 <b>Purity</b> 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 <b>CAS #</b> 126-98-7 <b>Purity</b> 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) <b>CAS #</b> 78-83-1 <b>Purity</b> 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 <b>CAS #</b> 109-99-9 <b>Purity</b> 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 <b>CAS #</b> 110-82-7 <b>Purity</b> 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 <b>CAS #</b> 71-36-3 <b>Purity</b> 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) <b>CAS #</b> 994-05-8 <b>Purity</b> 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) <b>CAS #</b> 142-82-5 <b>Purity</b> 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) <b>CAS #</b> 919-94-8 <b>Purity</b> 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 <b>CAS #</b> 108-87-2 <b>Purity</b> 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 <b>CAS #</b> 80-62-6 <b>Purity</b> 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 <b>CAS #</b> 123-91-1 <b>Purity</b> 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 <b>CAS #</b> 79-46-9 <b>Purity</b> 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 <b>CAS #</b> 97-63-2 <b>Purity</b> 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 <b>CAS #</b> 544-10-5 <b>Purity</b> 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 <b>CAS #</b> 110-57-6 <b>Purity</b> 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 <b>CAS #</b> 526-73-8 <b>Purity</b> 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 <b>CAS #</b> 141-93-5 <b>Purity</b> 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 <b>CAS #</b> 100-44-7 <b>Purity</b> 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 <b>CAS #</b> 105-05-5 <b>Purity</b> 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 <b>CAS #</b> 135-01-3 <b>Purity</b> 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 <b>CAS #</b> 108-70-3 <b>Purity</b> 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 <b>CAS #</b> 91-57-6 <b>Purity</b> 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)

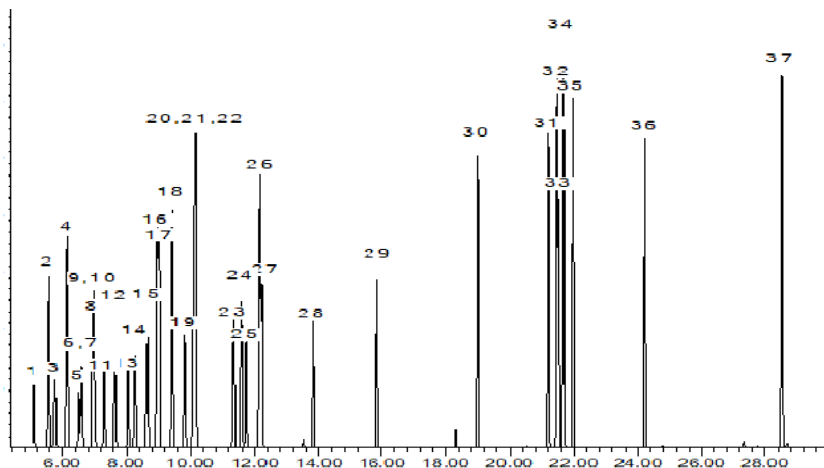
**Carrier Gas:**  
helium-constant pressure 30 psi

**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](http://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](http://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

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**MSV\_Q\_Ketones\_00019**



# 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
	<b>CAS #</b> 67-64-1.SEC (Lot S25F025)		+/-	758.3030	µg/mL	Unstressed
	<b>Purity</b> 99%		+/-	760.1031	µg/mL	Stressed
2	2-Butanone (MEK)	12,553.0 µg/mL	+/-	73.5006	µg/mL	Gravimetric
	<b>CAS #</b> 78-93-3.SEC (Lot RGZ2A)		+/-	757.4280	µg/mL	Unstressed
	<b>Purity</b> 99%		+/-	759.2261	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	12,563.5 µg/mL	+/-	73.5621	µg/mL	Gravimetric
	<b>CAS #</b> 108-10-1.SEC (Lot E29T040)		+/-	758.0616	µg/mL	Unstressed
	<b>Purity</b> 99%		+/-	759.8611	µg/mL	Stressed
4	2-Hexanone	12,527.8 µg/mL	+/-	73.3532	µg/mL	Gravimetric
	<b>CAS #</b> 591-78-6.SEC (Lot Y3TUO)		+/-	755.9093	µg/mL	Unstressed
	<b>Purity</b> 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)

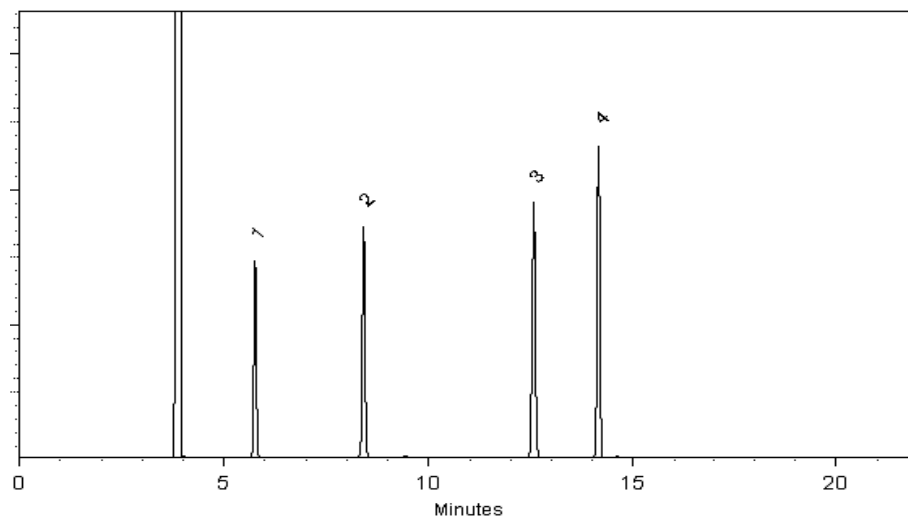
**Carrier Gas:**  
hydrogen-constant pressure 11.0 psi.

**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](http://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](http://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

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**MSV\_Q\_Ketones\_00040**



# 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
	<b>CAS #</b> 67-64-1.SEC (Lot S25F025)		+/-	758.3030	µg/mL	Unstressed
	<b>Purity</b> 99%		+/-	760.1031	µg/mL	Stressed
2	2-Butanone (MEK)	12,553.0 µg/mL	+/-	73.5006	µg/mL	Gravimetric
	<b>CAS #</b> 78-93-3.SEC (Lot RGZ2A)		+/-	757.4280	µg/mL	Unstressed
	<b>Purity</b> 99%		+/-	759.2261	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	12,563.5 µg/mL	+/-	73.5621	µg/mL	Gravimetric
	<b>CAS #</b> 108-10-1.SEC (Lot E29T040)		+/-	758.0616	µg/mL	Unstressed
	<b>Purity</b> 99%		+/-	759.8611	µg/mL	Stressed
4	2-Hexanone	12,527.8 µg/mL	+/-	73.3532	µg/mL	Gravimetric
	<b>CAS #</b> 591-78-6.SEC (Lot Y3TUO)		+/-	755.9093	µg/mL	Unstressed
	<b>Purity</b> 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)

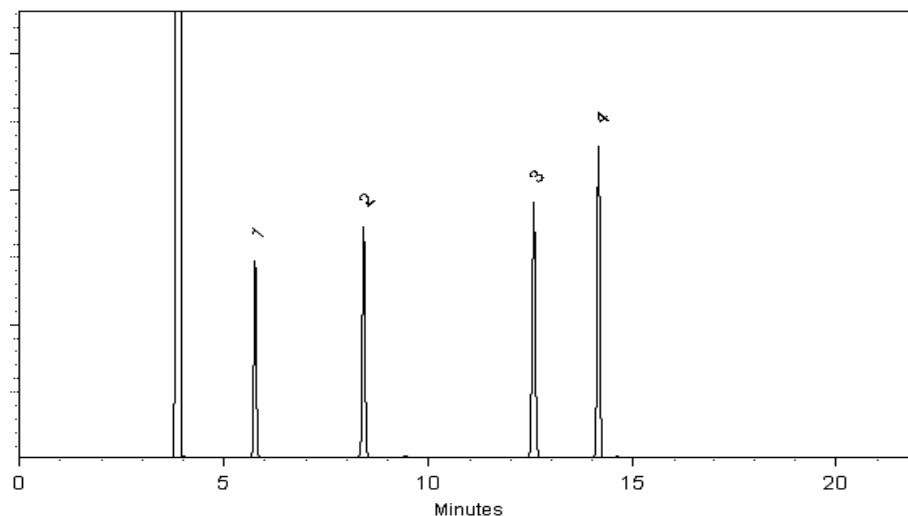
**Carrier Gas:**  
hydrogen-constant pressure 11.0 psi.

**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](http://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](http://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

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**MSV\_Q\_Ketones\_00047**



# CERTIFIED REFERENCE MATERIAL

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

www.restek.com

## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

**Catalog No. :** 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)

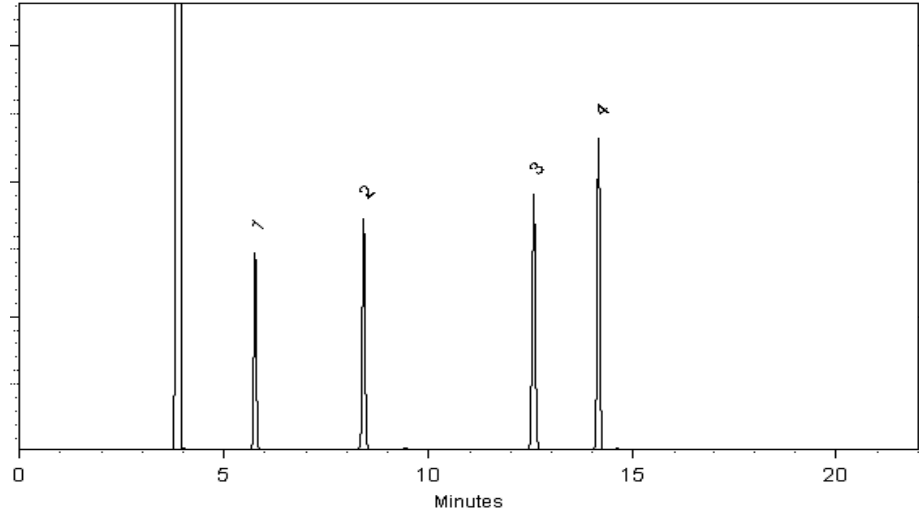
**Carrier Gas:**  
hydrogen-constant pressure 11.0 psi.

**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](http://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](http://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

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**MSV\_QC\_2K\_GAS\_00030**



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
<b>Solvent:</b>		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:**

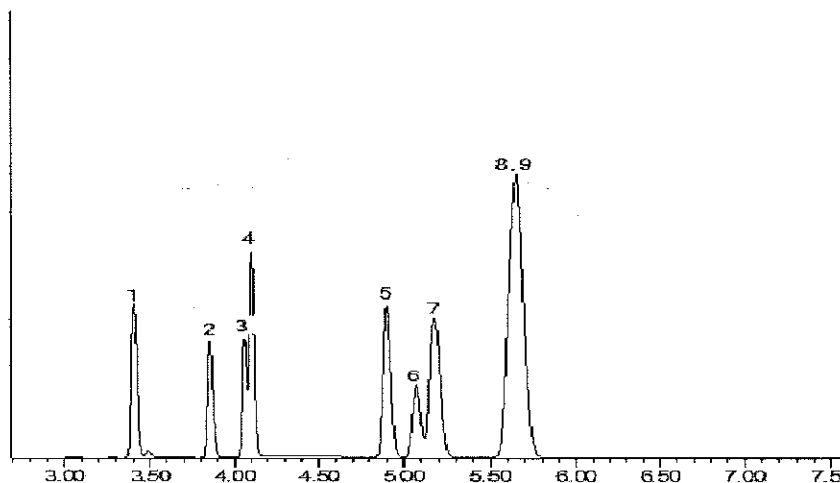
200°C

**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](http://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](http://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

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**MSV\_QC\_2K\_GAS\_00063**



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
<b>Solvent:</b>	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:

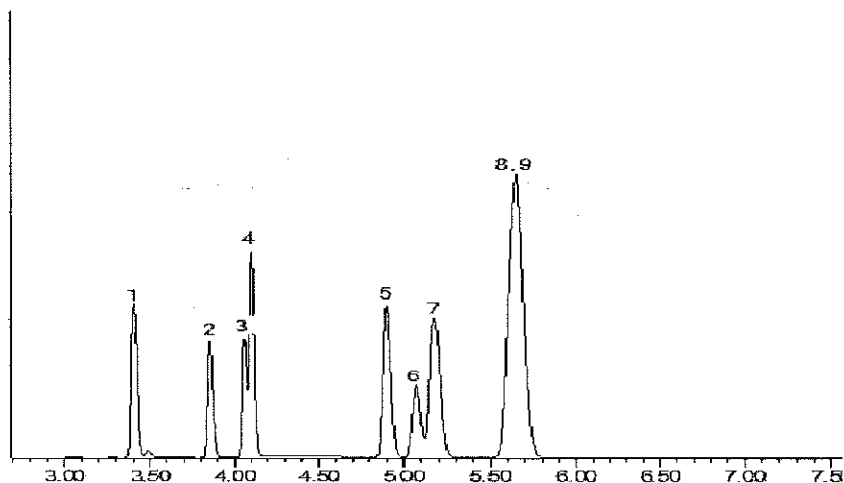
200°C

#### 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](http://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](http://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

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**MSV\_QC\_2K\_GAS\_00073**



CERTIFIED REFERENCE MATERIAL

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

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No.: 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
<b>Solvent:</b>	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:

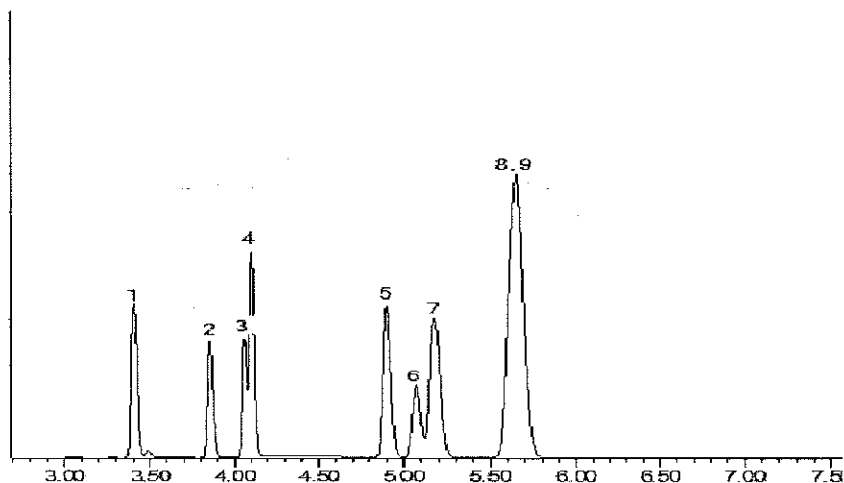
200°C

#### 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](http://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](http://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

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**MSV\_V#2B\_00231**



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
<b>Solvent:</b>	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)

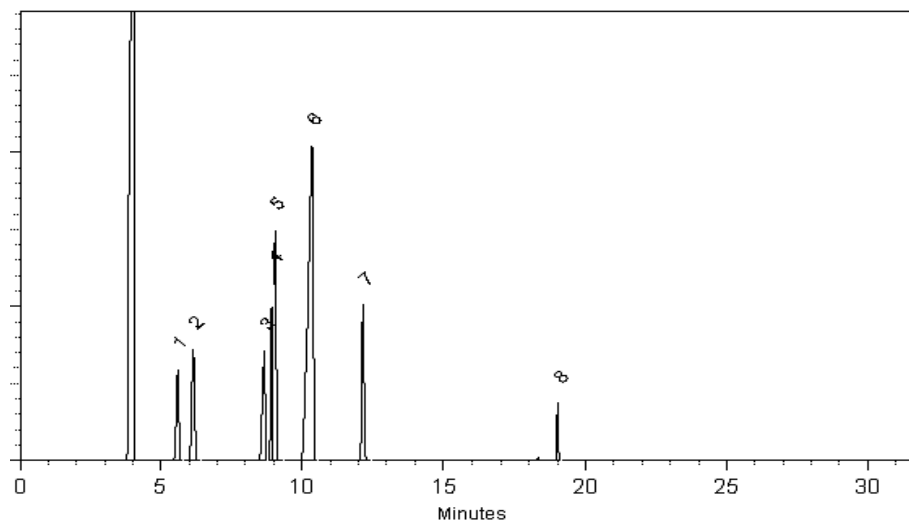
**Carrier Gas:**  
hydrogen-constant pressure 11.0 psi.

**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/ $\mu$ 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

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**MSV\_V#2B\_00246**



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
<b>Solvent:</b>	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)

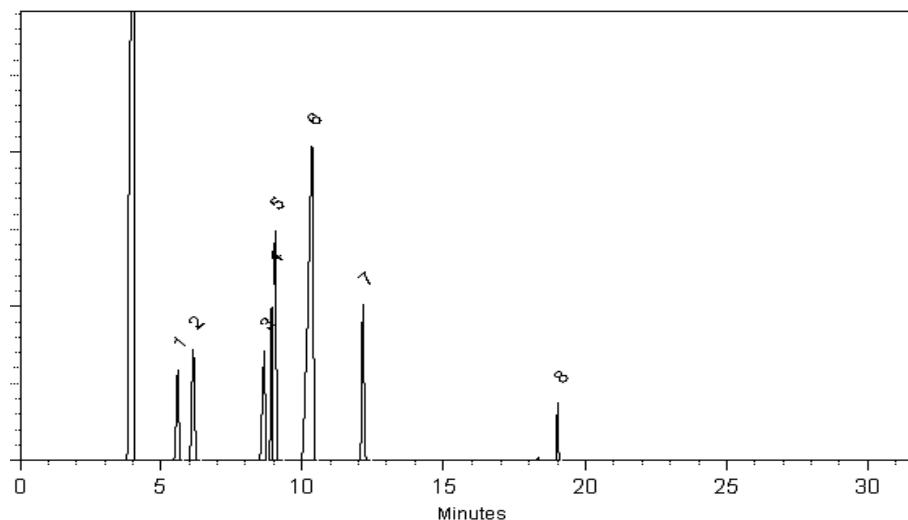
**Carrier Gas:**  
hydrogen-constant pressure 11.0 psi.

**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/ $\mu$ 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

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**MSV\_V\_Ketones\_00014**



# 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.:** A0168313

**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	12,516.4 µg/mL	+/-	73.2863	µg/mL	Gravimetric
	<b>CAS #</b> 67-64-1 (Lot SHBM6699)		+/-	755.2197	µg/mL	Unstressed
	<b>Purity</b> 99%		+/-	757.0124	µg/mL	Stressed
2	2-Butanone (MEK)	12,515.2 µg/mL	+/-	73.2792	µg/mL	Gravimetric
	<b>CAS #</b> 78-93-3 (Lot SHBL6194)		+/-	755.1473	µg/mL	Unstressed
	<b>Purity</b> 99%		+/-	756.9399	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	12,512.0 µg/mL	+/-	73.2605	µg/mL	Gravimetric
	<b>CAS #</b> 108-10-1 (Lot SHBM2797)		+/-	754.9542	µg/mL	Unstressed
	<b>Purity</b> 99%		+/-	756.7463	µg/mL	Stressed
4	2-Hexanone	12,504.4 µg/mL	+/-	73.2160	µg/mL	Gravimetric
	<b>CAS #</b> 591-78-6 (Lot MKCL1599)		+/-	754.4956	µg/mL	Unstressed
	<b>Purity</b> 99%		+/-	756.2867	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)

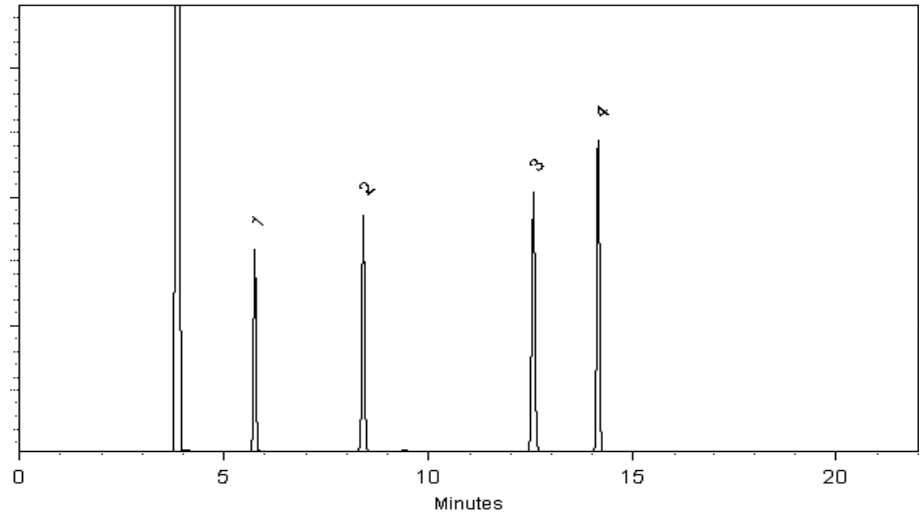
**Carrier Gas:**  
hydrogen-constant pressure 11.0 psi.

**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

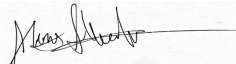


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

  
Cathleen Soltis - Mix Technician

**Date Mixed:** 20-Jan-2021

**Balance:** B251644995

  
Alexis Shelov - Operations Tech I

**Date Passed:** 21-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](http://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](http://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

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**MSV\_V\_Ketones\_00037**



# CERTIFIED REFERENCE MATERIAL

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

www.restek.com

## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

**Catalog No. :** 569721 **Lot No.:** A0168313

**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	12,516.4 µg/mL	+/-	73.2863	µg/mL	Gravimetric
	CAS # 67-64-1 (Lot SHBM6699)		+/-	755.2197	µg/mL	Unstressed
	Purity 99%		+/-	757.0124	µg/mL	Stressed
2	2-Butanone (MEK)	12,515.2 µg/mL	+/-	73.2792	µg/mL	Gravimetric
	CAS # 78-93-3 (Lot SHBL6194)		+/-	755.1473	µg/mL	Unstressed
	Purity 99%		+/-	756.9399	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	12,512.0 µg/mL	+/-	73.2605	µg/mL	Gravimetric
	CAS # 108-10-1 (Lot SHBM2797)		+/-	754.9542	µg/mL	Unstressed
	Purity 99%		+/-	756.7463	µg/mL	Stressed
4	2-Hexanone	12,504.4 µg/mL	+/-	73.2160	µg/mL	Gravimetric
	CAS # 591-78-6 (Lot MKCL1599)		+/-	754.4956	µg/mL	Unstressed
	Purity 99%		+/-	756.2867	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)

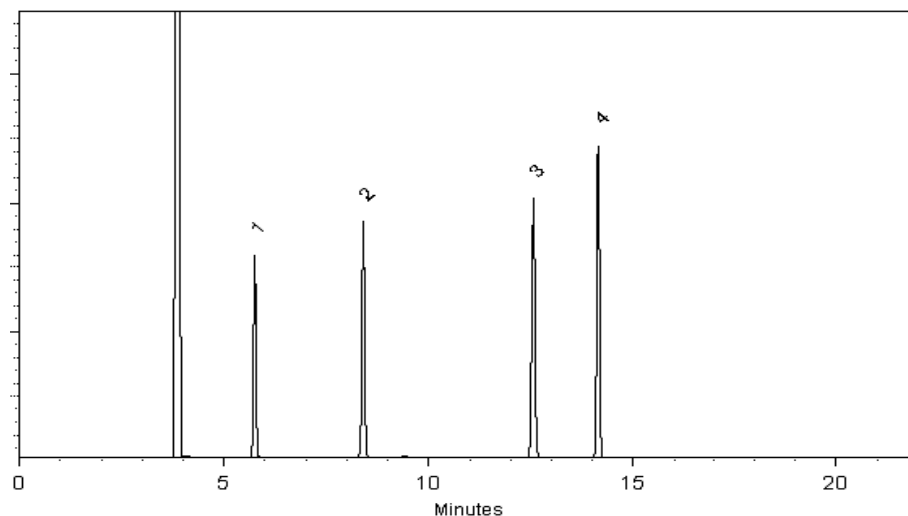
**Carrier Gas:**  
hydrogen-constant pressure 11.0 psi.

**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.

  
Cathleen Soltis - Mix Technician

**Date Mixed:** 20-Jan-2021      **Balance:** B251644995

  
Alexis Shelov - Operations Tech I

**Date Passed:** 21-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](http://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](http://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

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**MSV\_V\_Ketones\_00044**



# CERTIFIED REFERENCE MATERIAL

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

www.restek.com

## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

**Catalog No. :** 569721 **Lot No.:** A0168313

**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	12,516.4 µg/mL	+/-	73.2863	µg/mL	Gravimetric
	<b>CAS #</b> 67-64-1 (Lot SHBM6699)		+/-	755.2197	µg/mL	Unstressed
	<b>Purity</b> 99%		+/-	757.0124	µg/mL	Stressed
2	2-Butanone (MEK)	12,515.2 µg/mL	+/-	73.2792	µg/mL	Gravimetric
	<b>CAS #</b> 78-93-3 (Lot SHBL6194)		+/-	755.1473	µg/mL	Unstressed
	<b>Purity</b> 99%		+/-	756.9399	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	12,512.0 µg/mL	+/-	73.2605	µg/mL	Gravimetric
	<b>CAS #</b> 108-10-1 (Lot SHBM2797)		+/-	754.9542	µg/mL	Unstressed
	<b>Purity</b> 99%		+/-	756.7463	µg/mL	Stressed
4	2-Hexanone	12,504.4 µg/mL	+/-	73.2160	µg/mL	Gravimetric
	<b>CAS #</b> 591-78-6 (Lot MKCL1599)		+/-	754.4956	µg/mL	Unstressed
	<b>Purity</b> 99%		+/-	756.2867	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)

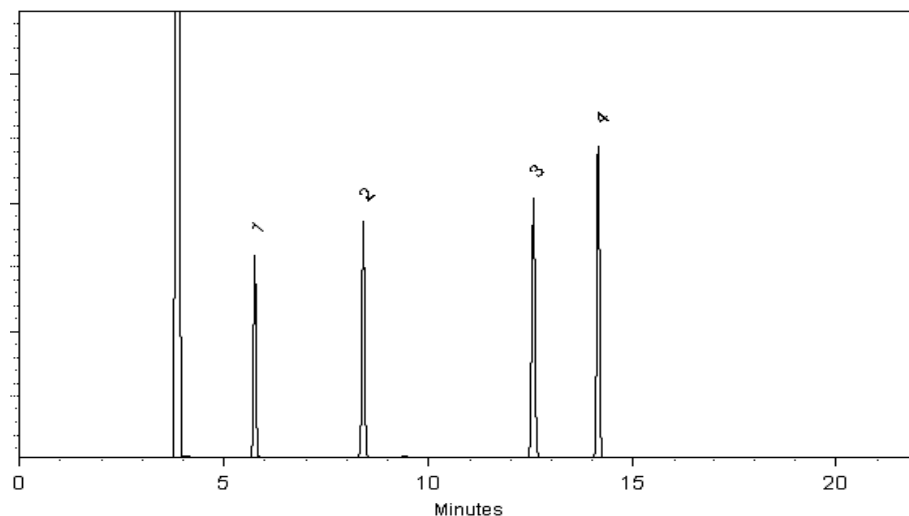
**Carrier Gas:**  
hydrogen-constant pressure 11.0 psi.

**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

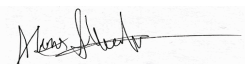


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

  
Cathleen Soltis - Mix Technician

**Date Mixed:** 20-Jan-2021

**Balance:** B251644995

  
Alexis Shelov - Operations Tech I

**Date Passed:** 21-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](http://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](http://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

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**MSV\_V\_PentaCL\_00005**



# 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)

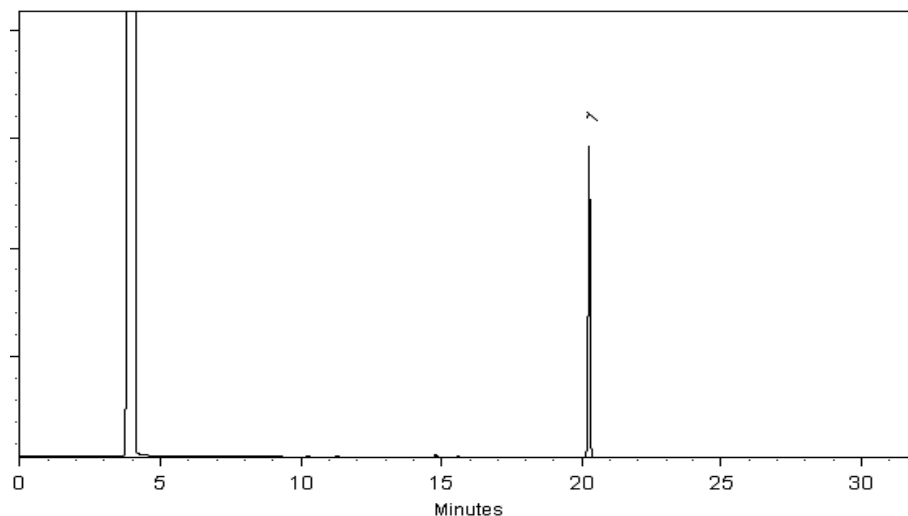
**Carrier Gas:**  
hydrogen-constant pressure 11.0 psi.

**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](http://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](http://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

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**MSV\_V\_PentaCL\_00009**



# 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)

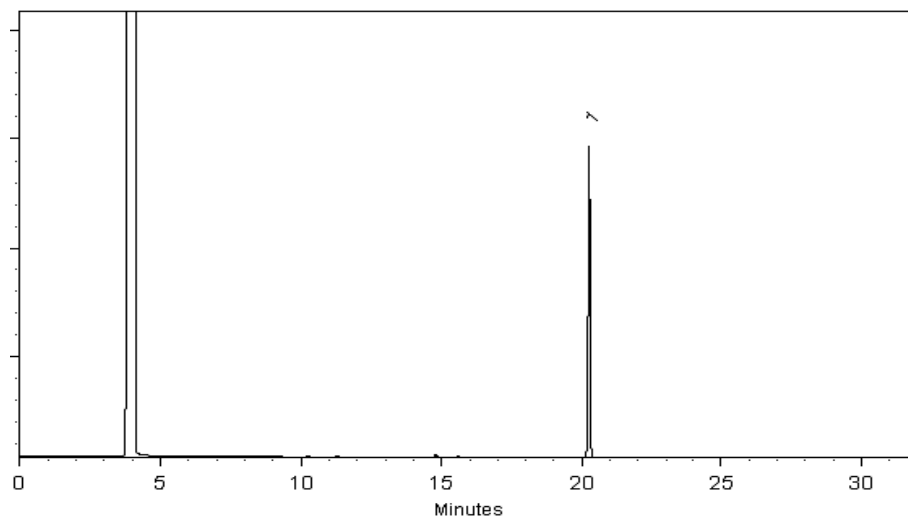
**Carrier Gas:**  
hydrogen-constant pressure 11.0 psi.

**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](http://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](http://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

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

FORM II  
GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-71043-1

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-6-01/1-0	410-71043-1	94 cn	102 cn	100 cn	99 cn
HD-COD-SW-7-01/1-0	410-71043-2	95 cn	100 cn	100 cn	99 cn
HD-COD-SW-8-01/1-0	410-71043-3	95 cn	102 cn	100 cn	99 cn
HD-COD-SW-9-01/1-0	410-71043-4	95 cn	101 cn	100 cn	100 cn
HD-COD-SW-13-01/1-0	410-71043-5	96 cn	105 cn	101 cn	99 cn
HD-COD-SW-15-01/1-0	410-71043-6	95 cn	100 cn	100 cn	100 cn
HD-COD-SW-16-01/1-0	410-71043-7	96 cn	99 cn	99 cn	99 cn
HD-COD-SW-17-01/1-0	410-71043-8	95 cn	102 cn	99 cn	98 cn
HD-COD-SW-17-01/1-0 DL	410-71043-8 DL	95	101	100	99
HD-COD-SW-26-01/1-0	410-71043-9	95 cn	102 cn	100 cn	100 cn
HD-COD-SW-27-01/1-0	410-71043-10	95 cn	105 cn	100 cn	100 cn
HD-COD-SW-28-01/1-0	410-71043-11	101 cn	104 cn	101 cn	94 cn
HD-COD-SW-29-01/1-0	410-71043-12	101 cn	102 cn	101 cn	93 cn
HD-QC1-0/1-1	410-71043-13	99 cn	102 cn	99 cn	94 cn
HD-QC1-0/1-2	410-71043-14	100 cn	104 cn	101 cn	96 cn
	MB 410-220509/7	94	101	100	99
	MB 410-220519/7	100	102	102	95
	LCS 410-220509/4	95	100	102	101
	LCS 410-220519/4	99	106	100	97
	LCSD 410-220509/5	96	102	101	100
	LCSD 410-220519/5	100	100	101	98
HD-COD-SW-15-01/1-0 MS MS	410-71043-6 MS	96	104	101	101
HD-COD-SW-15-01/1-0 MSD MSD	410-71043-6 MSD	95	101	101	101

QC LIMITS

DBFM = Dibromofluoromethane (Surr)	80-120
DCA = 1,2-Dichloroethane-d4 (Surr)	80-120
TOL = Toluene-d8 (Surr)	80-120
BFB = 4-Bromofluorobenzene (Surr)	80-120

# Column to be used to flag recovery values

FORM III  
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Lancaster Laboratories  
Env, LLC

Job No.: 410-71043-1

SDG No.:

Matrix: Water Level: Low

Lab File ID: HF03X03.D

Lab ID: LCS 410-220509/4

Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	5.00	4.91	98	71-134	
1,1,1-Trichloroethane	5.00	4.68	94	78-126	
1,1,2,2-Tetrachloroethane	5.00	5.40	108	75-123	
1,1,2-Trichloroethane	5.00	5.21	104	80-120	
1,1-Dichloroethane	5.00	5.05	101	74-120	
1,1-Dichloroethene	5.00	4.79	96	80-131	
1,2-Dibromoethane (EDB)	5.00	5.22	104	80-120	
1,2-Dichloroethane	5.00	4.93	99	69-122	
1,2-Dichloropropane	5.00	5.20	104	80-120	
2-Butanone (MEK)	62.5	55.5	89	59-141	
2-Hexanone	62.5	52.0	83	52-140	
4-Methyl-2-pentanone (MIBK)	62.5	49.4	79	55-140	
Acetone	62.5	53.0	85	60-146	
Benzene	5.00	5.09	102	80-120	
Bromochloromethane	5.00	4.98	100	80-120	
Bromodichloromethane	5.00	5.23	105	73-124	
Bromoform	5.00	6.07	121	49-144	
Bromomethane	5.00	4.73	95	60-136	
Carbon disulfide	5.00	5.53	111	67-130	
Carbon tetrachloride	5.00	4.52	90	64-141	
Chlorobenzene	5.00	5.01	100	80-120	
Chloroethane	5.00	5.25	105	63-120	
Chloroform	5.00	4.93	99	80-120	
Chloromethane	5.00	4.93	99	56-124	
cis-1,2-Dichloroethene	5.00	5.07	101	80-122	
cis-1,3-Dichloropropene	5.00	5.11	102	67-121	
Dibromochloromethane	5.00	5.53	111	64-138	
Ethylbenzene	5.00	5.17	103	80-120	
Methyl tert-butyl ether	5.00	5.12	102	69-120	
Methylene Chloride	5.00	4.89	98	80-120	
Styrene	5.00	5.22	104	80-120	
Tetrachloroethene	5.00	4.87	97	80-120	
Toluene	5.00	5.13	103	80-120	
trans-1,2-Dichloroethene	5.00	4.87	97	80-122	
trans-1,3-Dichloropropene	5.00	5.46	109	61-129	
Trichloroethene	5.00	4.95	99	80-120	
Vinyl chloride	5.00	4.62	92	60-125	
Xylenes, Total	15.0	15.3	102	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  
Env, LLC

Job No.: 410-71043-1

SDG No.:

Matrix: Water Level: Low

Lab File ID: IF03X03.D

Lab ID: LCS 410-220519/4

Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	5.00	5.31	106	71-134	
1,1,1-Trichloroethane	5.00	5.10	102	78-126	
1,1,2,2-Tetrachloroethane	5.00	6.02	120	75-123	
1,1,2-Trichloroethane	5.00	5.88	118	80-120	
1,1-Dichloroethane	5.00	5.43	109	74-120	
1,1-Dichloroethene	5.00	5.43	109	80-131	
1,2-Dibromoethane (EDB)	5.00	5.84	117	80-120	
1,2-Dichloroethane	5.00	5.37	107	69-122	
1,2-Dichloropropane	5.00	5.96	119	80-120	
2-Butanone (MEK)	62.5	70.0	112	59-141	
2-Hexanone	62.5	70.6	113	52-140	
4-Methyl-2-pentanone (MIBK)	62.5	67.4	108	55-140	
Acetone	62.5	60.6	97	60-146	
Benzene	5.00	5.65	113	80-120	
Bromochloromethane	5.00	5.63	113	80-120	
Bromodichloromethane	5.00	5.85	117	73-124	
Bromoform	5.00	6.23	125	49-144	
Bromomethane	5.00	4.60	92	60-136	
Carbon disulfide	5.00	5.44	109	67-130	
Carbon tetrachloride	5.00	5.34	107	64-141	
Chlorobenzene	5.00	5.46	109	80-120	
Chloroethane	5.00	4.68	94	63-120	
Chloroform	5.00	5.41	108	80-120	
Chloromethane	5.00	4.98	100	56-124	
cis-1,2-Dichloroethene	5.00	5.48	110	80-122	
cis-1,3-Dichloropropene	5.00	5.92	118	67-121	
Dibromochloromethane	5.00	5.86	117	64-138	
Ethylbenzene	5.00	5.38	108	80-120	
Methyl tert-butyl ether	5.00	5.30	106	69-120	
Methylene Chloride	5.00	5.45	109	80-120	
Styrene	5.00	5.36	107	80-120	
Tetrachloroethene	5.00	5.50	110	80-120	
Toluene	5.00	5.42	108	80-120	
trans-1,2-Dichloroethene	5.00	5.28	106	80-122	
trans-1,3-Dichloropropene	5.00	5.96	119	61-129	
Trichloroethene	5.00	5.51	110	80-120	
Vinyl chloride	5.00	4.83	97	60-125	
Xylenes, Total	15.0	16.0	106	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  
Env, LLC

Job No.: 410-71043-1

SDG No.:

Matrix: Water Level: Low

Lab File ID: HF03X04.D

Lab ID: LCSD 410-220509/5

Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
1,1,1,2-Tetrachloroethane	5.00	4.74	95	3	30	71-134	
1,1,1-Trichloroethane	5.00	4.54	91	3	30	78-126	
1,1,2,2-Tetrachloroethane	5.00	5.38	108	0	30	75-123	
1,1,2-Trichloroethane	5.00	5.23	105	0	30	80-120	
1,1-Dichloroethane	5.00	4.98	100	1	30	74-120	
1,1-Dichloroethene	5.00	4.74	95	1	30	80-131	
1,2-Dibromoethane (EDB)	5.00	5.05	101	3	30	80-120	
1,2-Dichloroethane	5.00	4.81	96	2	30	69-122	
1,2-Dichloropropane	5.00	5.21	104	0	30	80-120	
2-Butanone (MEK)	62.5	51.9	83	7	30	59-141	
2-Hexanone	62.5	49.6	79	5	30	52-140	
4-Methyl-2-pentanone (MIBK)	62.5	46.9	75	5	30	55-140	
Acetone	62.5	50.9	81	4	30	60-146	
Benzene	5.00	5.05	101	1	30	80-120	
Bromochloromethane	5.00	4.92	98	1	30	80-120	
Bromodichloromethane	5.00	5.19	104	1	30	73-124	
Bromoform	5.00	5.94	119	2	30	49-144	
Bromomethane	5.00	4.63	93	2	30	60-136	
Carbon disulfide	5.00	5.47	109	1	30	67-130	
Carbon tetrachloride	5.00	4.43	89	2	30	64-141	
Chlorobenzene	5.00	4.92	98	2	30	80-120	
Chloroethane	5.00	5.10	102	3	30	63-120	
Chloroform	5.00	4.83	97	2	30	80-120	
Chloromethane	5.00	4.82	96	2	30	56-124	
cis-1,2-Dichloroethene	5.00	4.98	100	2	30	80-122	
cis-1,3-Dichloropropene	5.00	5.08	102	1	30	67-121	
Dibromochloromethane	5.00	5.41	108	2	30	64-138	
Ethylbenzene	5.00	5.02	100	3	30	80-120	
Methyl tert-butyl ether	5.00	5.07	101	1	30	69-120	
Methylene Chloride	5.00	4.78	96	2	30	80-120	
Styrene	5.00	5.12	102	2	30	80-120	
Tetrachloroethene	5.00	4.75	95	2	30	80-120	
Toluene	5.00	5.09	102	1	30	80-120	
trans-1,2-Dichloroethene	5.00	4.73	95	3	30	80-122	
trans-1,3-Dichloropropene	5.00	5.39	108	1	30	61-129	
Trichloroethene	5.00	4.91	98	1	30	80-120	
Vinyl chloride	5.00	4.52	90	2	30	60-125	
Xylenes, Total	15.0	14.9	99	3	30	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  
Env, LLC

Job No.: 410-71043-1

SDG No.:

Matrix: Water Level: Low

Lab File ID: IF03X04.D

Lab ID: LCSD 410-220519/5

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	5.38	108	1	30	71-134	
1,1,1-Trichloroethane	5.00	5.03	101	1	30	78-126	
1,1,2,2-Tetrachloroethane	5.00	5.96	119	1	30	75-123	
1,1,2-Trichloroethane	5.00	5.84	117	1	30	80-120	
1,1-Dichloroethane	5.00	5.31	106	2	30	74-120	
1,1-Dichloroethene	5.00	5.39	108	1	30	80-131	
1,2-Dibromoethane (EDB)	5.00	5.80	116	1	30	80-120	
1,2-Dichloroethane	5.00	5.33	107	1	30	69-122	
1,2-Dichloropropane	5.00	5.98	120	0	30	80-120	
2-Butanone (MEK)	62.5	63.5	102	10	30	59-141	
2-Hexanone	62.5	63.8	102	10	30	52-140	
4-Methyl-2-pentanone (MIBK)	62.5	61.1	98	10	30	55-140	
Acetone	62.5	55.4	89	9	30	60-146	
Benzene	5.00	5.59	112	1	30	80-120	
Bromochloromethane	5.00	5.64	113	0	30	80-120	
Bromodichloromethane	5.00	5.82	116	0	30	73-124	
Bromoform	5.00	5.96	119	4	30	49-144	
Bromomethane	5.00	4.47	89	3	30	60-136	
Carbon disulfide	5.00	5.33	107	2	30	67-130	
Carbon tetrachloride	5.00	5.26	105	2	30	64-141	
Chlorobenzene	5.00	5.42	108	1	30	80-120	
Chloroethane	5.00	4.61	92	2	30	63-120	
Chloroform	5.00	5.27	105	3	30	80-120	
Chloromethane	5.00	5.03	101	1	30	56-124	
cis-1,2-Dichloroethene	5.00	5.46	109	0	30	80-122	
cis-1,3-Dichloropropene	5.00	5.82	116	2	30	67-121	
Dibromochloromethane	5.00	5.85	117	0	30	64-138	
Ethylbenzene	5.00	5.38	108	0	30	80-120	
Methyl tert-butyl ether	5.00	5.29	106	0	30	69-120	
Methylene Chloride	5.00	5.38	108	1	30	80-120	
Styrene	5.00	5.33	107	1	30	80-120	
Tetrachloroethene	5.00	5.44	109	1	30	80-120	
Toluene	5.00	5.39	108	1	30	80-120	
trans-1,2-Dichloroethene	5.00	5.18	104	2	30	80-122	
trans-1,3-Dichloropropene	5.00	6.00	120	1	30	61-129	
Trichloroethene	5.00	5.44	109	1	30	80-120	
Vinyl chloride	5.00	4.75	95	2	30	60-125	
Xylenes, Total	15.0	15.8	105	1	30	80-120	

# Column to be used to flag recovery and RPD values

FORM III  
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Lancaster Laboratories  
Env, LLC

Job No.: 410-71043-1

SDG No.:

Matrix: Water Level: Low

Lab File ID: HF03X20.D

Lab ID: 410-71043-6 MS

Client ID: HD-COD-SW-15-01/1-0 MS MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	5.00	ND	4.96	99	71-134	
1,1,1-Trichloroethane	5.00	0.24 J	5.26	100	78-126	
1,1,2,2-Tetrachloroethane	5.00	ND	5.28	106	75-123	
1,1,2-Trichloroethane	5.00	ND	5.21	104	80-120	
1,1-Dichloroethane	5.00	0.13 J	5.45	106	74-120	
1,1-Dichloroethene	5.00	0.13 J	5.50	107	80-131	
1,2-Dibromoethane (EDB)	5.00	ND	5.06	101	80-120	
1,2-Dichloroethane	5.00	ND	4.90	98	69-122	
1,2-Dichloropropane	5.00	ND	5.35	107	80-120	
2-Butanone (MEK)	62.6	ND	47.4	76	59-141	
2-Hexanone	62.6	ND	45.8	73	52-140	
4-Methyl-2-pentanone (MIBK)	62.6	ND	43.8	70	55-140	
Acetone	62.6	ND	48.4	77	60-146	
Benzene	5.00	ND	5.38	108	80-120	
Bromochloromethane	5.00	ND	5.01	100	80-120	
Bromodichloromethane	5.00	ND	5.33	106	73-124	
Bromoform	5.00	ND	5.71	114	49-144	
Bromomethane	5.00	ND	4.96	99	60-136	
Carbon disulfide	5.00	ND	6.03	120	67-130	
Carbon tetrachloride	5.00	ND	5.04	101	64-141	
Chlorobenzene	5.00	ND	5.15	103	80-120	
Chloroethane	5.00	ND	5.46	109	63-120	
Chloroform	5.00	0.24 J	5.41	103	80-120	
Chloromethane	5.00	ND	5.12	102	80-120	
cis-1,2-Dichloroethene	5.00	1.5	6.84	108	80-122	
cis-1,3-Dichloropropene	5.00	ND	5.12	102	67-121	
Dibromochloromethane	5.00	ND	5.43	108	64-138	
Ethylbenzene	5.00	ND	5.40	108	80-120	
Methyl tert-butyl ether	5.00	0.051 J	5.18	102	69-120	
Methylene Chloride	5.00	ND	5.02	100	80-120	
Styrene	5.00	ND	5.32	106	80-120	
Tetrachloroethene	5.00	6.1	11.3	103	80-120	
Toluene	5.00	ND	5.38	107	80-120	
trans-1,2-Dichloroethene	5.00	ND	5.27	105	80-122	
trans-1,3-Dichloropropene	5.00	ND	5.29	106	61-129	
Trichloroethene	5.00	1.4	6.73	107	80-120	
Vinyl chloride	5.00	ND	5.04	101	60-125	
Xylenes, Total	15.0	ND	15.8	105	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  
Env, LLC

Job No.: 410-71043-1

SDG No.:

Matrix: Water Level: Low

Lab File ID: HF03X21.D

Lab ID: 410-71043-6 MSD

Client ID: HD-COD-SW-15-01/1-0 MSD MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
1,1,1,2-Tetrachloroethane	5.00	4.94	99	1	30	71-134	
1,1,1-Trichloroethane	5.00	5.21	99	1	30	78-126	
1,1,2,2-Tetrachloroethane	5.00	5.31	106	1	30	75-123	
1,1,2-Trichloroethane	5.00	5.21	104	0	30	80-120	
1,1-Dichloroethane	5.00	5.35	104	2	30	74-120	
1,1-Dichloroethene	5.00	5.42	106	2	30	80-131	
1,2-Dibromoethane (EDB)	5.00	4.97	99	2	30	80-120	
1,2-Dichloroethane	5.00	4.79	96	2	30	69-122	
1,2-Dichloropropane	5.00	5.30	106	1	30	80-120	
2-Butanone (MEK)	62.6	53.2	85	11	30	59-141	
2-Hexanone	62.6	50.3	80	9	30	52-140	
4-Methyl-2-pentanone (MIBK)	62.6	47.3	76	8	30	55-140	
Acetone	62.6	50.4	81	4	30	60-146	
Benzene	5.00	5.30	106	2	30	80-120	
Bromochloromethane	5.00	4.97	99	1	30	80-120	
Bromodichloromethane	5.00	5.22	104	2	30	73-124	
Bromoform	5.00	5.62	112	2	30	49-144	
Bromomethane	5.00	5.05	101	2	30	60-136	
Carbon disulfide	5.00	6.05	121	0	30	67-130	
Carbon tetrachloride	5.00	5.00	100	1	30	64-141	
Chlorobenzene	5.00	5.12	102	1	30	80-120	
Chloroethane	5.00	5.56	111	2	30	63-120	
Chloroform	5.00	5.25	100	3	30	80-120	
Chloromethane	5.00	5.38	108	5	30	80-120	
cis-1,2-Dichloroethene	5.00	6.71	105	2	30	80-122	
cis-1,3-Dichloropropene	5.00	5.12	102	0	30	67-121	
Dibromochloromethane	5.00	5.40	108	0	30	64-138	
Ethylbenzene	5.00	5.36	107	1	30	80-120	
Methyl tert-butyl ether	5.00	5.17	102	0	30	69-120	
Methylene Chloride	5.00	4.94	99	2	30	80-120	
Styrene	5.00	5.27	105	1	30	80-120	
Tetrachloroethene	5.00	11.4	106	1	30	80-120	
Toluene	5.00	5.33	106	1	30	80-120	
trans-1,2-Dichloroethene	5.00	5.20	104	1	30	80-122	
trans-1,3-Dichloropropene	5.00	5.34	107	1	30	61-129	
Trichloroethene	5.00	6.62	105	2	30	80-120	
Vinyl chloride	5.00	5.23	104	4	30	60-125	
Xylenes, Total	15.0	15.7	105	1	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  
Env, LLC

Job No.: 410-71043-1

SDG No.:

Lab File ID: IF03X06.D

Lab Sample ID: MB 410-220519/7

Matrix: Water

Heated Purge: (Y/N) N

Instrument ID: 19930

Date Analyzed: 02/03/2022 10:57

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 410-220519/4	IF03X03.D	02/03/2022 09:53
	LCSD 410-220519/5	IF03X04.D	02/03/2022 10:14
HD-QC1-0/1-2	410-71043-14	IF03X07.D	02/03/2022 11:18
HD-COD-SW-28-01/1-0	410-71043-11	IF03X13.D	02/03/2022 13:25
HD-COD-SW-29-01/1-0	410-71043-12	IF03X14.D	02/03/2022 13:46
HD-QC1-0/1-1	410-71043-13	IF03X25.D	02/03/2022 17:40

FORM IV  
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-71043-1  
Env, LLC

SDG No.: \_\_\_\_\_

Lab File ID: HF03X06.D Lab Sample ID: MB 410-220509/7

Matrix: Water Heated Purge: (Y/N) N

Instrument ID: 19094 Date Analyzed: 02/03/2022 11:42

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 410-220509/4	HF03X03.D	02/03/2022 10:41
	LCSD 410-220509/5	HF03X04.D	02/03/2022 11:01
HD-COD-SW-6-01/1-0	410-71043-1	HF03X14.D	02/03/2022 14:26
HD-COD-SW-7-01/1-0	410-71043-2	HF03X15.D	02/03/2022 14:47
HD-COD-SW-8-01/1-0	410-71043-3	HF03X16.D	02/03/2022 15:07
HD-COD-SW-9-01/1-0	410-71043-4	HF03X17.D	02/03/2022 15:28
HD-COD-SW-13-01/1-0	410-71043-5	HF03X18.D	02/03/2022 15:49
HD-COD-SW-15-01/1-0	410-71043-6	HF03X19.D	02/03/2022 16:09
HD-COD-SW-15-01/1-0 MS MS	410-71043-6 MS	HF03X20.D	02/03/2022 16:30
HD-COD-SW-15-01/1-0 MSD MSD	410-71043-6 MSD	HF03X21.D	02/03/2022 16:50
HD-COD-SW-16-01/1-0	410-71043-7	HF03X23.D	02/03/2022 17:31
HD-COD-SW-17-01/1-0	410-71043-8	HF03X24.D	02/03/2022 17:52
HD-COD-SW-17-01/1-0 DL	410-71043-8 DL	HF03X25.D	02/03/2022 18:12
HD-COD-SW-26-01/1-0	410-71043-9	HF03X26.D	02/03/2022 18:33
HD-COD-SW-27-01/1-0	410-71043-10	HF03X27.D	02/03/2022 18:53

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

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-71043-1

SDG No.: \_\_\_\_\_

Lab File ID: HD21T01.D BFB Injection Date: 12/21/2021

Instrument ID: 19094 BFB Injection Time: 14:04

Analysis Batch No.: 207981

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	17.7
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	0.8 (0.9) 1
174	Greater than 50% of mass 95	87.5
175	5.0 - 9.0 % of mass 174	6.3 (7.2) 1
176	95.0 - 101.0 % of mass 174	84.1 (96.1) 1
177	5.0 - 9.0 % of mass 176	5.6 (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
	IC 410-207981/14	HD21I11.D	12/21/2021	18:35
	ICIS 410-207981/15	HD21I12.D	12/21/2021	18:56
	IC 410-207981/16	HD21I13.D	12/21/2021	19:16
	IC 410-207981/17	HD21I14.D	12/21/2021	19:37
	IC 410-207981/18	HD21I15.D	12/21/2021	19:57
	IC 410-207981/19	HD21I16.D	12/21/2021	20:18
	IC 410-207981/20	HD21I17.D	12/21/2021	20:38
	ICV 410-207981/21	HD21V11.D	12/21/2021	21:20

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

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-71043-1

SDG No.: \_\_\_\_\_

Lab File ID: HF03T01.D BFB Injection Date: 02/03/2022

Instrument ID: 19094 BFB Injection Time: 09:46

Analysis Batch No.: 220509

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	17.0
75	30.0 - 60.0 % of mass 95	47.6
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	6.6
173	Less than 2.0 % of mass 174	0.3 (0.3) 1
174	Greater than 50% of mass 95	87.3
175	5.0 - 9.0 % of mass 174	6.5 (7.4) 1
176	95.0 - 101.0 % of mass 174	85.2 (97.6) 1
177	5.0 - 9.0 % of mass 176	5.7 (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 410-220509/3	HF03X02.D	02/03/2022	10:20
	LCS 410-220509/4	HF03X03.D	02/03/2022	10:41
	LCSD 410-220509/5	HF03X04.D	02/03/2022	11:01
	MB 410-220509/7	HF03X06.D	02/03/2022	11:42
HD-COD-SW-6-01/1-0	410-71043-1	HF03X14.D	02/03/2022	14:26
HD-COD-SW-7-01/1-0	410-71043-2	HF03X15.D	02/03/2022	14:47
HD-COD-SW-8-01/1-0	410-71043-3	HF03X16.D	02/03/2022	15:07
HD-COD-SW-9-01/1-0	410-71043-4	HF03X17.D	02/03/2022	15:28
HD-COD-SW-13-01/1-0	410-71043-5	HF03X18.D	02/03/2022	15:49
HD-COD-SW-15-01/1-0	410-71043-6	HF03X19.D	02/03/2022	16:09
HD-COD-SW-15-01/1-0 MS MS	410-71043-6 MS	HF03X20.D	02/03/2022	16:30
HD-COD-SW-15-01/1-0 MSD MSD	410-71043-6 MSD	HF03X21.D	02/03/2022	16:50
HD-COD-SW-16-01/1-0	410-71043-7	HF03X23.D	02/03/2022	17:31
HD-COD-SW-17-01/1-0	410-71043-8	HF03X24.D	02/03/2022	17:52
HD-COD-SW-17-01/1-0 DL	410-71043-8 DL	HF03X25.D	02/03/2022	18:12
HD-COD-SW-26-01/1-0	410-71043-9	HF03X26.D	02/03/2022	18:33
HD-COD-SW-27-01/1-0	410-71043-10	HF03X27.D	02/03/2022	18:53



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

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-71043-1

SDG No.: \_\_\_\_\_

Lab File ID: IG23T01.D BFB Injection Date: 08/23/2021

Instrument ID: 19930 BFB Injection Time: 20:56

Analysis Batch No.: 163707

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.7	
75	30.0 - 60.0 % of mass 95	46.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	1.1	(1.2) 1
174	Greater than 50% of mass 95	92.2	
175	5.0 - 9.0 % of mass 174	7.2	(7.8) 1
176	95.0 - 101.0 % of mass 174	87.7	(95.2) 1
177	5.0 - 9.0 % of mass 176	5.6	(6.4) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 410-163707/12	IG23I01.D	08/24/2021	0:45
	ICIS 410-163707/13	IG23I02.D	08/24/2021	1:06
	IC 410-163707/14	IG23I03.D	08/24/2021	1:27
	IC 410-163707/15	IG23I04.D	08/24/2021	1:48
	IC 410-163707/16	IG23I05.D	08/24/2021	2:09
	IC 410-163707/17	IG23I06.D	08/24/2021	2:30
	IC 410-163707/18	IG23I07.D	08/24/2021	2:52
	ICV 410-163707/19	IG23V01.D	08/24/2021	3:13

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

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-71043-1

SDG No.: \_\_\_\_\_

Lab File ID: IF03T02.D BFB Injection Date: 02/03/2022

Instrument ID: 19930 BFB Injection Time: 09:00

Analysis Batch No.: 220519

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	45.9
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	6.1
173	Less than 2.0 % of mass 174	0.5 (0.6) 1
174	Greater than 50% of mass 95	84.1
175	5.0 - 9.0 % of mass 174	7.0 (8.3) 1
176	95.0 - 101.0 % of mass 174	83.1 (98.8) 1
177	5.0 - 9.0 % of mass 176	5.5 (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 410-220519/3	IF03X02.D	02/03/2022	9:32
	LCS 410-220519/4	IF03X03.D	02/03/2022	9:53
	LCSD 410-220519/5	IF03X04.D	02/03/2022	10:14
	MB 410-220519/7	IF03X06.D	02/03/2022	10:57
HD-QC1-0/1-2	410-71043-14	IF03X07.D	02/03/2022	11:18
HD-COD-SW-28-01/1-0	410-71043-11	IF03X13.D	02/03/2022	13:25
HD-COD-SW-29-01/1-0	410-71043-12	IF03X14.D	02/03/2022	13:46
HD-QC1-0/1-1	410-71043-13	IF03X25.D	02/03/2022	17:40

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

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: ICIS 410-207981/15 Date Analyzed: 12/21/2021 18:56  
 Instrument ID: 19094 GC Column: R-624SilMS 30m ID: 0.25 (mm)  
 Lab File ID (Standard): HD21I12.D Heated Purge: (Y/N) N  
 Calibration ID: 34118

	TBAd10		FB		CBZd5	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT	82456	4.20	2239692	7.68	1825218	11.13
UPPER LIMIT	164912	4.70	4479384	8.18	3650436	11.63
LOWER LIMIT	41228	3.70	1119846	7.18	912609	10.63
LAB SAMPLE ID	CLIENT SAMPLE ID					
ICV 410-207981/21	100224	4.21	2203408	7.68	1877825	11.13
CCVIS 410-220509/3	88848	4.19	1914694	7.68	1548277	11.13

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.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: ICIS 410-207981/15 Date Analyzed: 12/21/2021 18:56  
 Instrument ID: 19094 GC Column: R-624SilMS 30m ID: 0.25 (mm)  
 Lab File ID (Standard): HD21I12.D Heated Purge: (Y/N) N  
 Calibration ID: 34118

	DCBd4		#	RT #	#	RT #
	AREA #	RT #				
INITIAL CALIBRATION MID-POINT	1033132	13.01				
UPPER LIMIT	2066264	13.51				
LOWER LIMIT	516566	12.51				
LAB SAMPLE ID	CLIENT SAMPLE ID					
ICV 410-207981/21		1070076	13.01			
CCVIS 410-220509/3		872545	13.01			

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.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 410-220509/3 Date Analyzed: 02/03/2022 10:20  
 Instrument ID: 19094 GC Column: R-624SilMS 30m ID: 0.25 (mm)  
 Lab File ID (Standard): HF03X02.D Heated Purge: (Y/N) N  
 Calibration ID: 34118

	TBAd10		FB		CBZd5		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	88848	4.19	1914694	7.68	1548277	11.13	
UPPER LIMIT	177696	4.69	3829388	8.18	3096554	11.63	
LOWER LIMIT	44424	3.69	957347	7.18	774139	10.63	
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-220509/4		88903	4.20	1877275	7.68	1506951	11.13
LCSD 410-220509/5		93825	4.21	1895982	7.68	1546060	11.13
MB 410-220509/7		85926	4.19	1918578	7.68	1555470	11.13
410-71043-1	HD-COD-SW-6-01/1-0	91557	4.20	1895604	7.68	1551615	11.13
410-71043-2	HD-COD-SW-7-01/1-0	91845	4.19	1867235	7.68	1516886	11.13
410-71043-3	HD-COD-SW-8-01/1-0	94046	4.20	1922531	7.68	1562163	11.13
410-71043-4	HD-COD-SW-9-01/1-0	92428	4.21	1933486	7.68	1571245	11.13
410-71043-5	HD-COD-SW-13-01/1-0	90069	4.20	1954281	7.68	1603226	11.13
410-71043-6	HD-COD-SW-15-01/1-0	95495	4.18	1944149	7.68	1571566	11.13
410-71043-6 MS	HD-COD-SW-15-01/1-0 MS MS	101518	4.21	1965768	7.68	1597666	11.13
410-71043-6 MSD	HD-COD-SW-15-01/1-0 MSD MSD	92718	4.20	1969551	7.68	1586699	11.13
410-71043-7	HD-COD-SW-16-01/1-0	91408	4.20	1901939	7.68	1551312	11.13
410-71043-8	HD-COD-SW-17-01/1-0	89962	4.20	1918923	7.68	1578160	11.13
410-71043-8 DL	HD-COD-SW-17-01/1-0 DL	87372	4.21	1920454	7.68	1563139	11.13
410-71043-9	HD-COD-SW-26-01/1-0	95154	4.21	1926562	7.68	1563134	11.13
410-71043-10	HD-COD-SW-27-01/1-0	94915	4.20	1938068	7.68	1579181	11.13

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.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 410-220509/3 Date Analyzed: 02/03/2022 10:20  
 Instrument ID: 19094 GC Column: R-624SilMS 30m ID: 0.25 (mm)  
 Lab File ID (Standard): HF03X02.D Heated Purge: (Y/N) N  
 Calibration ID: 34118

		DCBd4					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		872545	13.01				
UPPER LIMIT		1745090	13.51				
LOWER LIMIT		436273	12.51				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-220509/4		850473	13.01				
LCSD 410-220509/5		858599	13.01				
MB 410-220509/7		866669	13.01				
410-71043-1	HD-COD-SW-6-01/1-0	848448	13.01				
410-71043-2	HD-COD-SW-7-01/1-0	842873	13.01				
410-71043-3	HD-COD-SW-8-01/1-0	863525	13.01				
410-71043-4	HD-COD-SW-9-01/1-0	877298	13.01				
410-71043-5	HD-COD-SW-13-01/1-0	890038	13.01				
410-71043-6	HD-COD-SW-15-01/1-0	877522	13.01				
410-71043-6 MS	HD-COD-SW-15-01/1-0 MS MS	883824	13.01				
410-71043-6 MSD	HD-COD-SW-15-01/1-0 MSD MSD	877303	13.01				
410-71043-7	HD-COD-SW-16-01/1-0	859242	13.01				
410-71043-8	HD-COD-SW-17-01/1-0	862073	13.01				
410-71043-8 DL	HD-COD-SW-17-01/1-0 DL	867941	13.01				
410-71043-9	HD-COD-SW-26-01/1-0	875027	13.01				
410-71043-10	HD-COD-SW-27-01/1-0	877009	13.01				

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.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: ICIS 410-163707/13 Date Analyzed: 08/24/2021 01:06  
 Instrument ID: 19930 GC Column: R-624SilMS 30m ID: 0.25 (mm)  
 Lab File ID (Standard): IG23I02.D Heated Purge: (Y/N) N  
 Calibration ID: 29976

	TBAd10		FB		CBZd5		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
INITIAL CALIBRATION MID-POINT	165205	4.27	2122537	7.74	1640634	11.18	
UPPER LIMIT	330410	4.77	4245074	8.24	3281268	11.68	
LOWER LIMIT	82603	3.77	1061269	7.24	820317	10.68	
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 410-163707/19		170769	4.26	2182088	7.74	1693972	11.18
CCVIS 410-220519/3		177014	4.25	1890991	7.71	1529097	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.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: ICIS 410-163707/13 Date Analyzed: 08/24/2021 01:06  
 Instrument ID: 19930 GC Column: R-624SilMS 30m ID: 0.25 (mm)  
 Lab File ID (Standard): IG23I02.D Heated Purge: (Y/N) N  
 Calibration ID: 29976

	DCBd4		#	RT #	#	RT #
	AREA #	RT #				
INITIAL CALIBRATION MID-POINT	963407	13.06				
UPPER LIMIT	1926814	13.56				
LOWER LIMIT	481704	12.56				
LAB SAMPLE ID	CLIENT SAMPLE ID					
ICV 410-163707/19		994893	13.06			
CCVIS 410-220519/3		848326	13.03			

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area  
 RT Limit = ± 0.5 minutes of internal standard RT

# Column used to flag values outside QC limits



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

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 410-220519/3 Date Analyzed: 02/03/2022 09:32  
 Instrument ID: 19930 GC Column: R-624SilMS 30m ID: 0.25 (mm)  
 Lab File ID (Standard): IF03X02.D Heated Purge: (Y/N) N  
 Calibration ID: 29976

	TBAd10		FB		CBZd5		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	177014	4.25	1890991	7.71	1529097	11.16	
UPPER LIMIT	354028	4.75	3781982	8.21	3058194	11.66	
LOWER LIMIT	88507	3.75	945496	7.21	764549	10.66	
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-220519/4		160516	4.27	1905371	7.71	1531554	11.16
LCSD 410-220519/5		178957	4.25	1918302	7.71	1540515	11.16
MB 410-220519/7		170959	4.28	1930430	7.71	1535037	11.16
410-71043-14	HD-QC1-0/1-2	164844	4.27	1930031	7.72	1531608	11.16
410-71043-11	HD-COD-SW-28-01/1-0	167066	4.26	1842705	7.71	1485044	11.16
410-71043-12	HD-COD-SW-29-01/1-0	165661	4.25	1855470	7.71	1478055	11.16
410-71043-13	HD-QC1-0/1-1	113921	4.25	1859852	7.71	1501857	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.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Sample No.: CCVIS 410-220519/3 Date Analyzed: 02/03/2022 09:32  
 Instrument ID: 19930 GC Column: R-624SilMS 30m ID: 0.25 (mm)  
 Lab File ID (Standard): IF03X02.D Heated Purge: (Y/N) N  
 Calibration ID: 29976

	DCBd4		#	RT #	#	RT #
	AREA #	RT #				
12/24 HOUR STD	848326	13.03				
UPPER LIMIT	1696652	13.53				
LOWER LIMIT	424163	12.53				
LAB SAMPLE ID	CLIENT SAMPLE ID					
LCS 410-220519/4		843406	13.03			
LCSD 410-220519/5		847416	13.03			
MB 410-220519/7		820377	13.03			
410-71043-14	HD-QC1-0/1-2	825407	13.03			
410-71043-11	HD-COD-SW-28-01/1-0	789568	13.03			
410-71043-12	HD-COD-SW-29-01/1-0	799047	13.03			
410-71043-13	HD-QC1-0/1-1	795835	13.03			

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area  
 RT Limit = ± 0.5 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-6-01/1-0 Lab Sample ID: 410-71043-1  
 Matrix: Water Lab File ID: HF03X14.D  
 Analysis Method: 8260D Date Collected: 01/27/2022 10:45  
 Sample wt/vol: 25 (mL) Date Analyzed: 02/03/2022 14:26  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: R-624SilMS 30m ID: 0.25 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 220509 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND	cn	0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND	cn	0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND	cn	0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND	cn	0.50	0.060
75-34-3	1,1-Dichloroethane	ND	cn	0.50	0.070
75-35-4	1,1-Dichloroethene	ND	cn	0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060
107-06-2	1,2-Dichloroethane	ND	cn	0.50	0.050
78-87-5	1,2-Dichloropropane	ND	cn	0.50	0.060
78-93-3	2-Butanone (MEK)	ND	cn	5.0	0.60
591-78-6	2-Hexanone	ND	^c cn	5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70
67-64-1	Acetone	ND	cn	5.0	0.90
71-43-2	Benzene	ND	cn	0.50	0.050
74-97-5	Bromochloromethane	ND	cn	0.50	0.050
75-27-4	Bromodichloromethane	ND	cn	0.50	0.050
75-25-2	Bromoform	ND	cn	1.0	0.30
74-83-9	Bromomethane	ND	cn	0.50	0.070
75-15-0	Carbon disulfide	ND	cn	1.0	0.060
56-23-5	Carbon tetrachloride	ND	cn	0.50	0.070
108-90-7	Chlorobenzene	ND	cn	0.50	0.060
75-00-3	Chloroethane	ND	cn	0.50	0.070
67-66-3	Chloroform	ND	cn	0.50	0.090
74-87-3	Chloromethane	ND	cn	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.072	J cn	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND	cn	0.50	0.050
124-48-1	Dibromochloromethane	ND	cn	0.50	0.070
100-41-4	Ethylbenzene	ND	cn	0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND	cn	0.50	0.050
75-09-2	Methylene Chloride	ND	cn	0.50	0.070
100-42-5	Styrene	ND	cn	0.50	0.050
127-18-4	Tetrachloroethene	ND	cn	0.50	0.060
108-88-3	Toluene	ND	cn	0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND	cn	0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND	cn	0.50	0.060
79-01-6	Trichloroethene	0.11	J cn	0.50	0.060

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-6-01/1-0 Lab Sample ID: 410-71043-1  
 Matrix: Water Lab File ID: HF03X14.D  
 Analysis Method: 8260D Date Collected: 01/27/2022 10:45  
 Sample wt/vol: 25 (mL) Date Analyzed: 02/03/2022 14:26  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: R-624SilMS 30m ID: 0.25 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 220509 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	ND	cn	0.50	0.10
1330-20-7	Xylenes, Total	ND	cn	1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102	cn	80-120
460-00-4	4-Bromofluorobenzene (Surr)	99	cn	80-120
1868-53-7	Dibromofluoromethane (Surr)	94	cn	80-120
2037-26-5	Toluene-d8 (Surr)	100	cn	80-120

Eurofins Lancaster Laboratories Env, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X14.D  
 Lims ID: 410-71043-A-1  
 Client ID: HD-COD-SW-6-01/1-0  
 Sample Type: Client  
 Inject. Date: 03-Feb-2022 14:26:30 ALS Bottle#: 14 Worklist Smp#: 15  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0049665-015  
 Operator ID: KNK41612 Instrument ID: 19094  
 Method: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\MSV\_19094\_25mL.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 17:23:59 Calib Date: 21-Dec-2021 20:38:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21117.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1662

First Level Reviewer: beckerk

Date: 03-Feb-2022 17:18:13

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Chloromethane	50	2.123	2.148	-0.025	1	2423	0.0321	
7 Vinyl chloride	62		2.264				ND	
9 Bromomethane	94		2.599				ND	
10 Chloroethane	64		2.690				ND	
18 1,1-Dichloroethene	96		3.544				ND	
19 Acetone	43	3.568	3.562	0.006	95	6998	0.8435	M
24 Carbon disulfide	76		3.849				ND	7
* 28 t-Butyl alcohol-d10 (IS)	65	4.196	4.190	0.006	91	91557	50.0	
29 Methylene Chloride	84		4.202				ND	
32 Methyl tert-butyl ether	73		4.611				ND	
33 trans-1,2-Dichloroethene	96		4.623				ND	
35 1,1-Dichloroethane	63		5.275				ND	
41 2-Butanone (MEK)	43		6.056				ND	7
42 cis-1,2-Dichloroethene	96	6.098	6.098	0.000	79	4253	0.0716	
48 Chlorobromomethane	128		6.434				ND	
50 Chloroform	83	6.580	6.580	0.000	88	4751	0.0486	
\$ 51 Dibromofluoromethane (Surr)	113	6.787	6.793	-0.006	94	469856	9.40	
52 1,1,1-Trichloroethane	97		6.812				ND	
56 Carbon tetrachloride	117		7.025				ND	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.244	7.244	0.000	70	94910	10.2	
59 Benzene	78		7.281				ND	7
60 1,2-Dichloroethane	62		7.348				ND	7
* 65 Fluorobenzene (IS)	96	7.677	7.683	-0.006	99	1895604	10.0	
67 Trichloroethene	95	8.153	8.159	-0.006	94	6674	0.1110	M
70 1,2-Dichloropropane	63		8.488				ND	
75 Dichlorobromomethane	83		8.829				ND	7
80 cis-1,3-Dichloropropene	75		9.378				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.543				ND	7
\$ 82 Toluene-d8 (Surr)	98	9.683	9.683	0.000	93	2007025	9.96	
83 Toluene	92	9.762	9.762	0.000	99	5662	0.0391	
85 trans-1,3-Dichloropropene	75		10.012				ND	
87 1,1,2-Trichloroethane	97		10.219				ND	7

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
88 Tetrachloroethene	166	10.311	10.311	0.000	90	2077	0.0301	
91 2-Hexanone	43		10.427				ND	
93 Chlorodibromomethane	129		10.597				ND	
94 Ethylene Dibromide	107		10.707				ND	
* 97 Chlorobenzene-d5 (IS)	117	11.134	11.134	0.000	86	1551615	10.0	
98 Chlorobenzene	112		11.158				ND	
99 1,1,1,2-Tetrachloroethane	131		11.244				ND	
S 95 Xylenes, Total	106		11.245				ND	7
100 Ethylbenzene	91		11.250				ND	7
101 m-Xylene & p-Xylene	106		11.359				ND	7
102 o-Xylene	106		11.689				ND	7
103 Styrene	104		11.701				ND	7
104 Bromoform	173		11.859				ND	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.134	12.128	0.006	91	770572	9.88	
109 1,1,2,2-Tetrachloroethane	83		12.231				ND	
* 124 1,4-Dichlorobenzene-d4	152	13.005	13.005	0.000	95	848448	10.0	

### QC Flag Legend

#### Processing Flags

7 - Failed Limit of Detection

#### Review Flags

M - Manually Integrated

### Reagents:

MSV\_LLcentISS\_00002

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X14.D

Injection Date: 03-Feb-2022 14:26:30

Instrument ID: 19094

Operator ID: KNK41612

Lims ID: 410-71043-A-1

Lab Sample ID: 410-71043-1

Worklist Smp#: 15

Client ID: HD-COD-SW-6-01/1-0

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

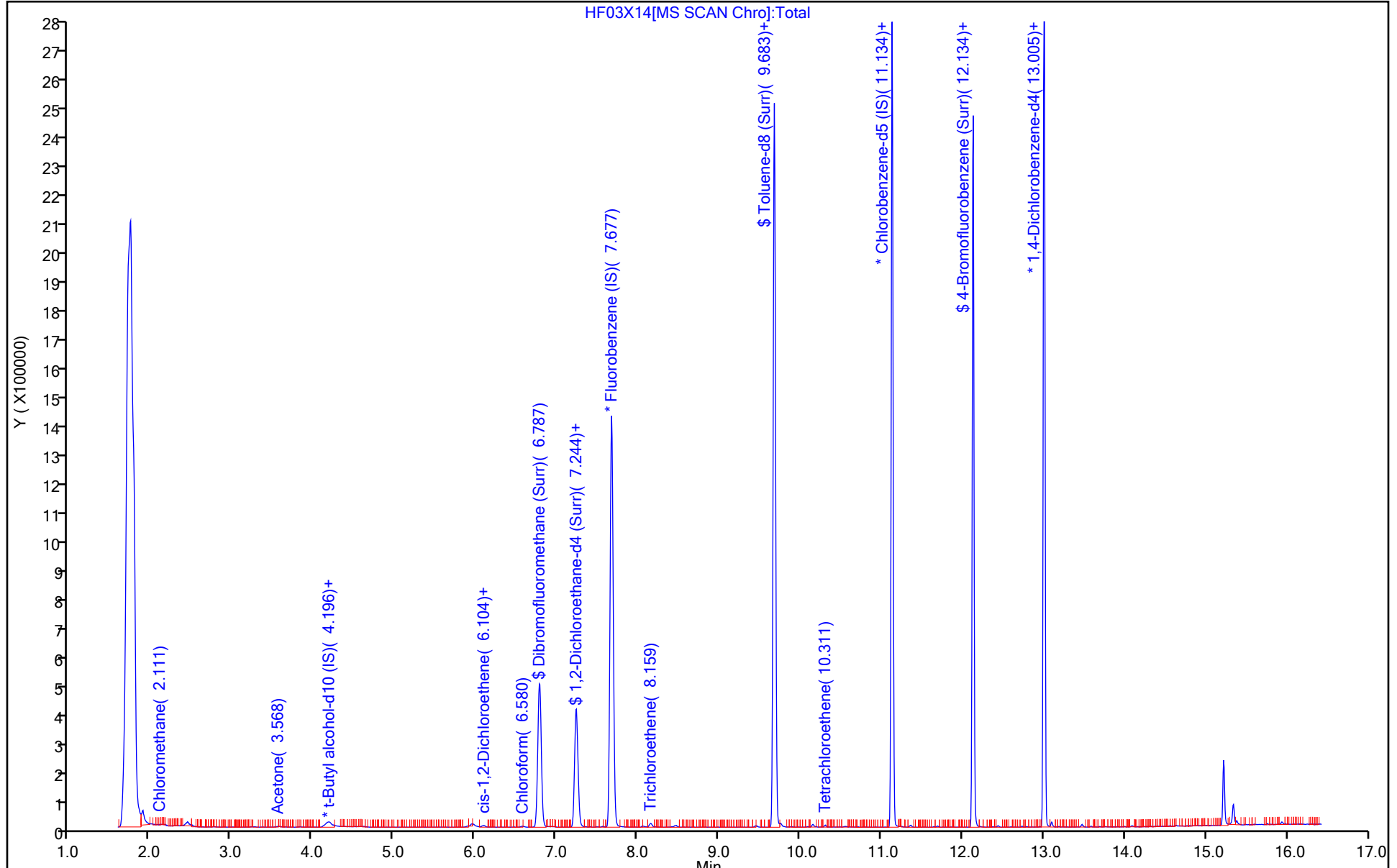
ALS Bottle#: 14

Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X14.D  
 Lims ID: 410-71043-A-1  
 Client ID: HD-COD-SW-6-01/1-0  
 Sample Type: Client  
 Inject. Date: 03-Feb-2022 14:26:30 ALS Bottle#: 14 Worklist Smp#: 15  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0049665-015  
 Operator ID: KNK41612 Instrument ID: 19094  
 Method: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\MSV\_19094\_25mL.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 17:23:59 Calib Date: 21-Dec-2021 20:38:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1662

First Level Reviewer: beckerk

Date: 03-Feb-2022 17:18:13

Compound	Amount Added	Amount Recovered	% Rec.
\$ 51 Dibromofluoromethane (Surr)	10.0	9.40	93.96
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.2	101.82
\$ 82 Toluene-d8 (Surr)	10.0	9.96	99.58
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.88	98.80



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X14.D

Injection Date: 03-Feb-2022 14:26:30

Instrument ID: 19094

Lims ID: 410-71043-A-1

Lab Sample ID: 410-71043-1

Client ID: HD-COD-SW-6-01/1-0

Operator ID: KNK41612

ALS Bottle#: 14

Worklist Smp#: 15

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

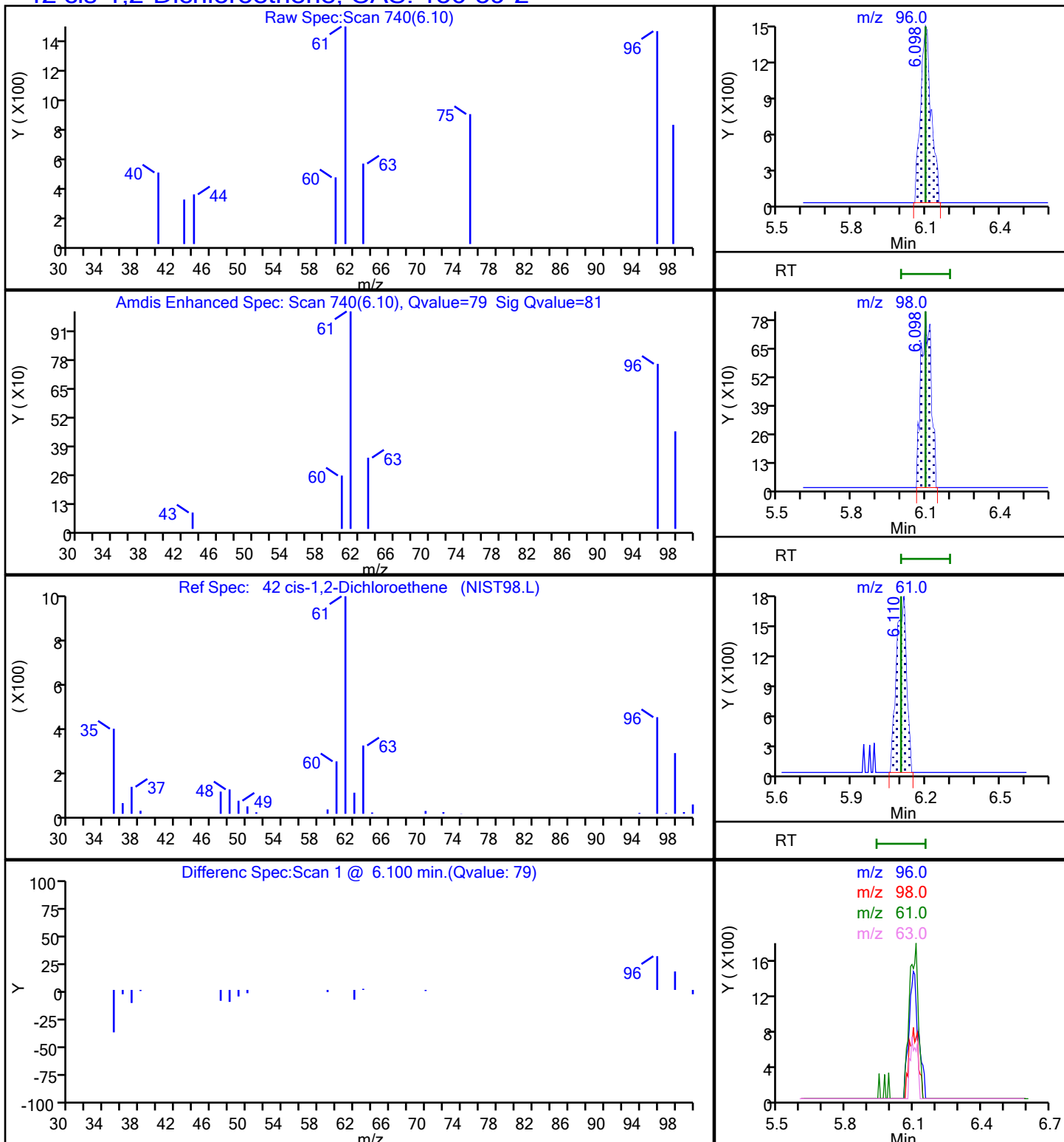
Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

MS Quad

**42 cis-1,2-Dichloroethene, CAS: 156-59-2**



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X14.D

Injection Date: 03-Feb-2022 14:26:30

Instrument ID: 19094

Lims ID: 410-71043-A-1

Lab Sample ID: 410-71043-1

Client ID: HD-COD-SW-6-01/1-0

Operator ID: KNK41612

ALS Bottle#: 14

Worklist Smp#: 15

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

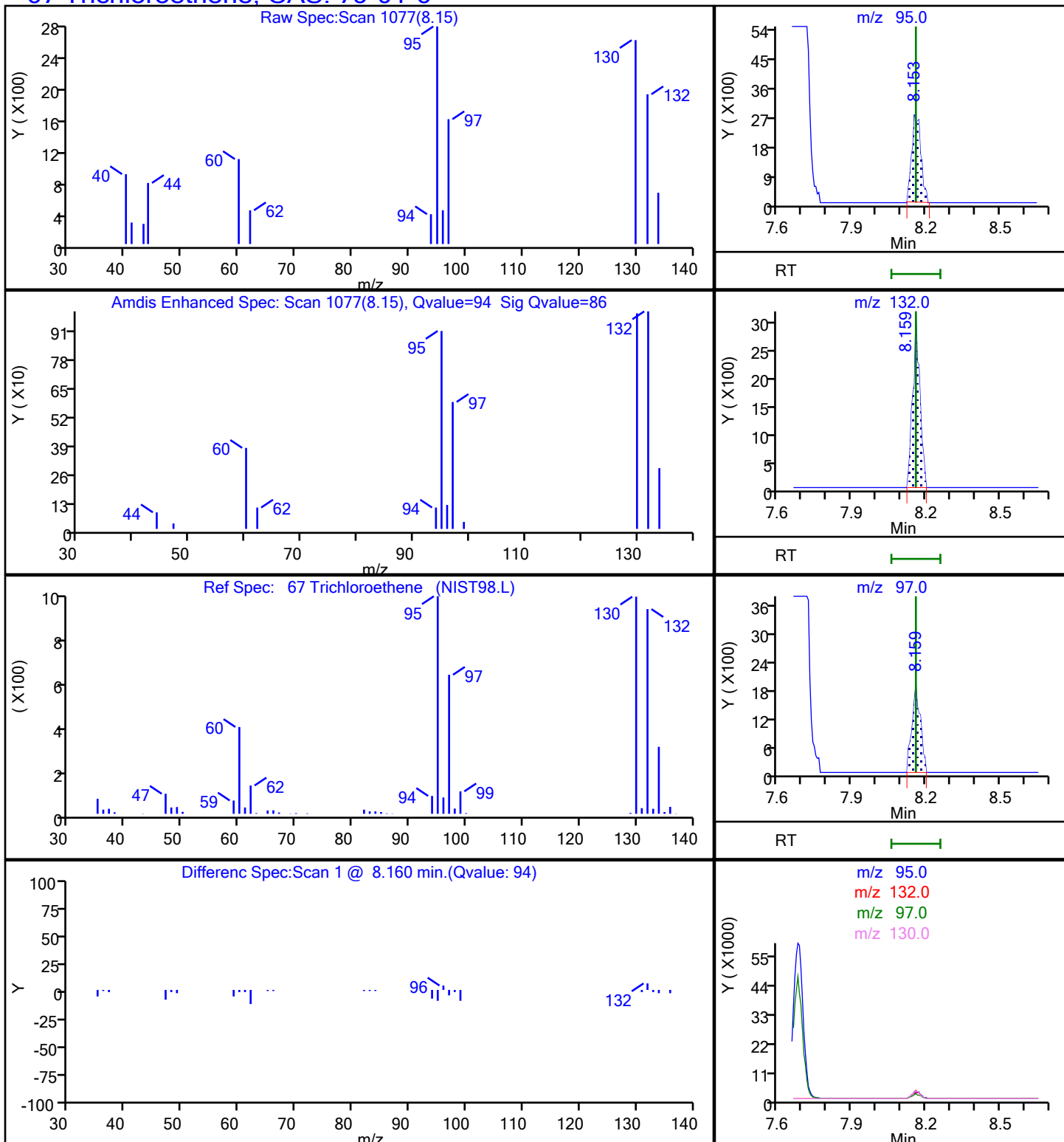
Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

MS Quad

**67 Trichloroethene, CAS: 79-01-6**



Eurofins Lancaster Laboratories Env, LLC

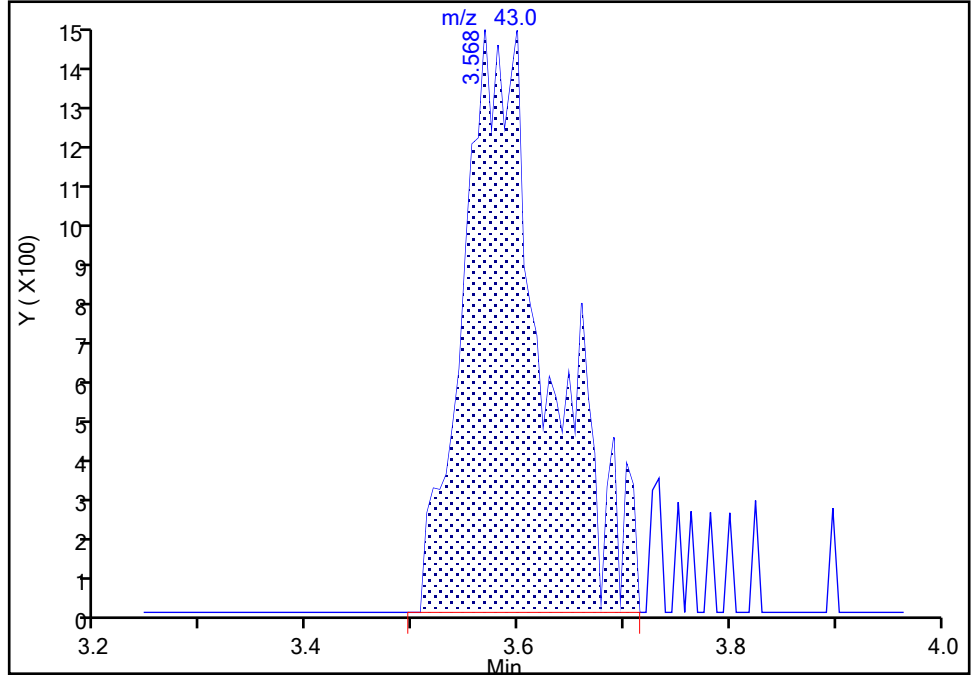
Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X14.D  
Injection Date: 03-Feb-2022 14:26:30 Instrument ID: 19094  
Lims ID: 410-71043-A-1 Lab Sample ID: 410-71043-1  
Client ID: HD-COD-SW-6-01/1-0  
Operator ID: KNK41612 ALS Bottle#: 14 Worklist Smp#: 15  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: MSV\_19094\_25mL Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column ( 0.25mm ID) Detector: MS Quad

19 Acetone, CAS: 67-64-1

Signal: 1

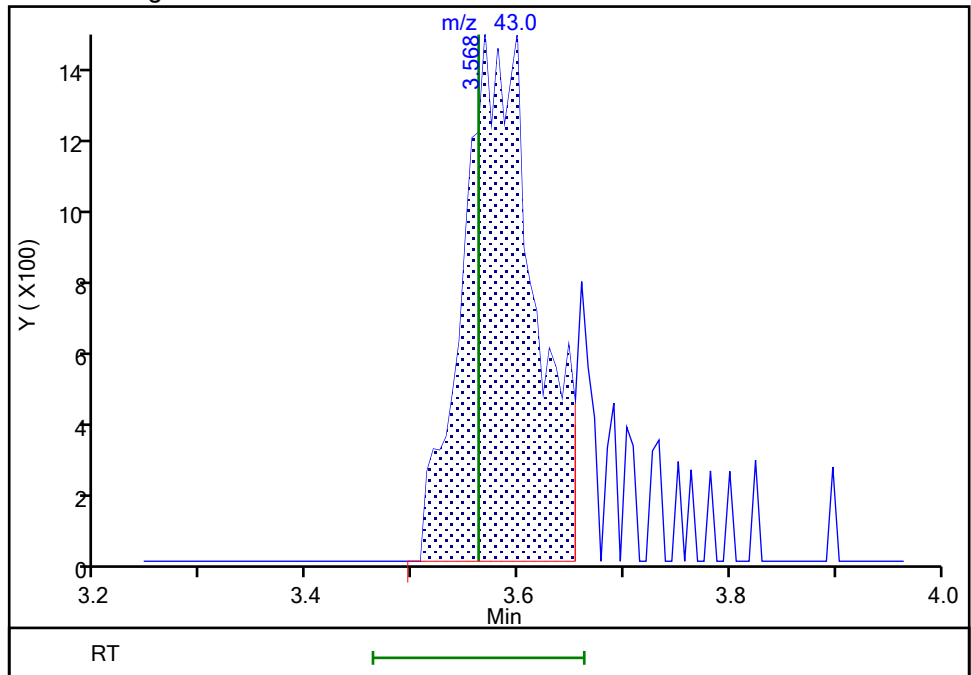
RT: 3.57  
Area: 8159  
Amount: 0.983398  
Amount Units: ug/l

Processing Integration Results



RT: 3.57  
Area: 6998  
Amount: 0.843463  
Amount Units: ug/l

Manual Integration Results



Reviewer: beckerk, 03-Feb-2022 16:56:18  
Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

Eurofins Lancaster Laboratories Env, LLC

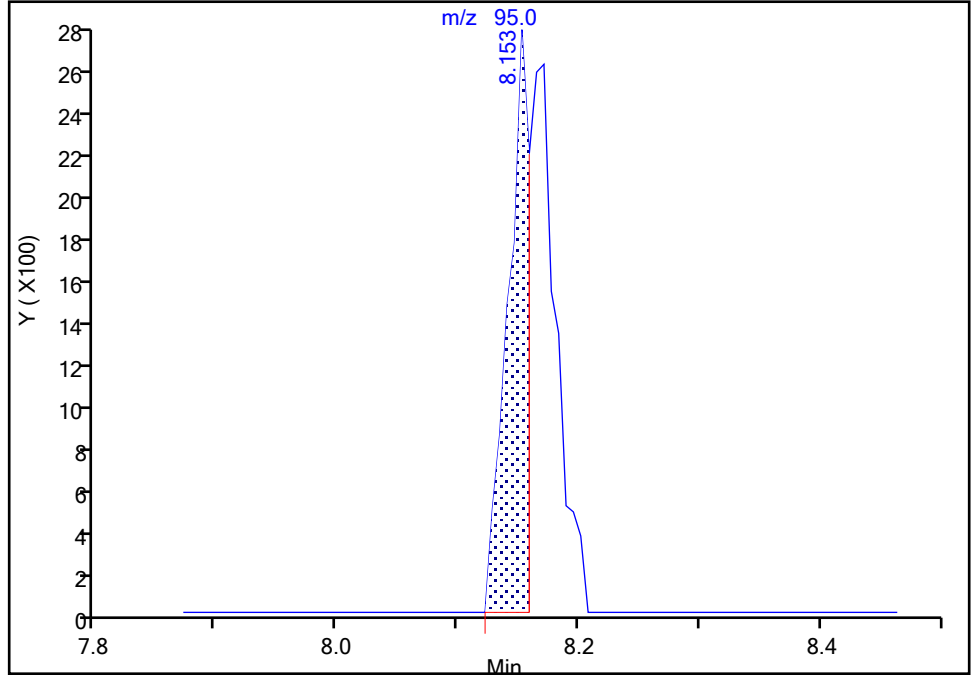
Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X14.D  
Injection Date: 03-Feb-2022 14:26:30 Instrument ID: 19094  
Lims ID: 410-71043-A-1 Lab Sample ID: 410-71043-1  
Client ID: HD-COD-SW-6-01/1-0  
Operator ID: KNK41612 ALS Bottle#: 14 Worklist Smp#: 15  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: MSV\_19094\_25mL Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column ( 0.25mm ID) Detector: MS Quad

67 Trichloroethene, CAS: 79-01-6

Signal: 1

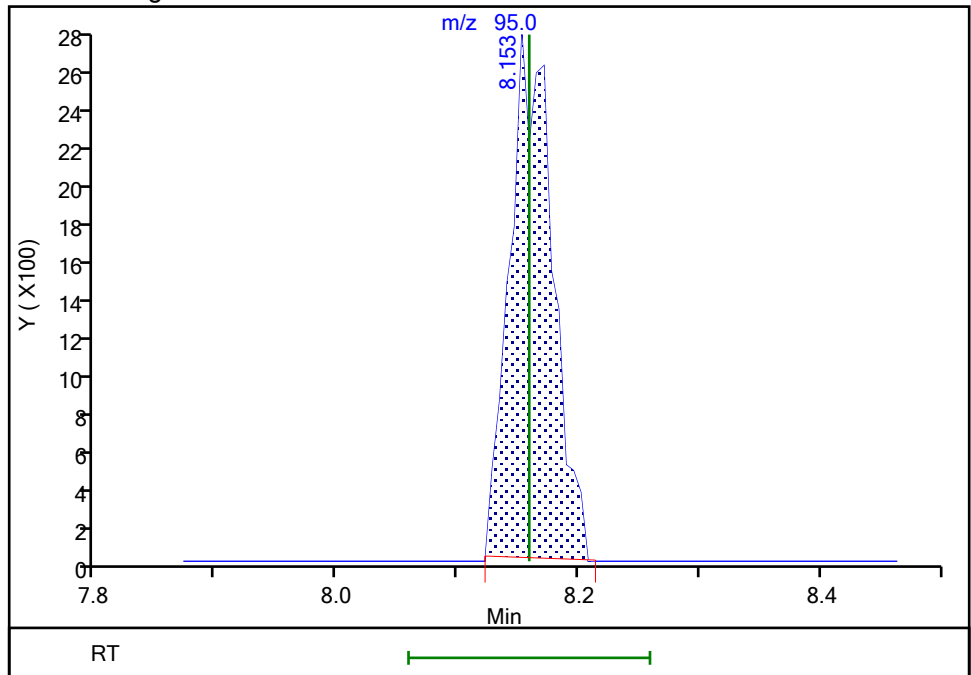
RT: 8.15  
Area: 3410  
Amount: 0.056713  
Amount Units: ug/l

Processing Integration Results



RT: 8.15  
Area: 6674  
Amount: 0.110997  
Amount Units: ug/l

Manual Integration Results



Reviewer: beckerk, 03-Feb-2022 17:17:45  
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-7-01/1-0 Lab Sample ID: 410-71043-2  
 Matrix: Water Lab File ID: HF03X15.D  
 Analysis Method: 8260D Date Collected: 01/27/2022 11:20  
 Sample wt/vol: 25 (mL) Date Analyzed: 02/03/2022 14:47  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: R-624SilMS 30m ID: 0.25 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 220509 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND	cn	0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND	cn	0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND	cn	0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND	cn	0.50	0.060
75-34-3	1,1-Dichloroethane	ND	cn	0.50	0.070
75-35-4	1,1-Dichloroethene	ND	cn	0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060
107-06-2	1,2-Dichloroethane	ND	cn	0.50	0.050
78-87-5	1,2-Dichloropropane	ND	cn	0.50	0.060
78-93-3	2-Butanone (MEK)	ND	cn	5.0	0.60
591-78-6	2-Hexanone	ND	^c cn	5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70
67-64-1	Acetone	ND	cn	5.0	0.90
71-43-2	Benzene	ND	cn	0.50	0.050
74-97-5	Bromochloromethane	ND	cn	0.50	0.050
75-27-4	Bromodichloromethane	ND	cn	0.50	0.050
75-25-2	Bromoform	ND	cn	1.0	0.30
74-83-9	Bromomethane	ND	cn	0.50	0.070
75-15-0	Carbon disulfide	ND	cn	1.0	0.060
56-23-5	Carbon tetrachloride	ND	cn	0.50	0.070
108-90-7	Chlorobenzene	ND	cn	0.50	0.060
75-00-3	Chloroethane	ND	cn	0.50	0.070
67-66-3	Chloroform	ND	cn	0.50	0.090
74-87-3	Chloromethane	ND	cn	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.094	J cn	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND	cn	0.50	0.050
124-48-1	Dibromochloromethane	ND	cn	0.50	0.070
100-41-4	Ethylbenzene	ND	cn	0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND	cn	0.50	0.050
75-09-2	Methylene Chloride	ND	cn	0.50	0.070
100-42-5	Styrene	ND	cn	0.50	0.050
127-18-4	Tetrachloroethene	0.062	J cn	0.50	0.060
108-88-3	Toluene	ND	cn	0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND	cn	0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND	cn	0.50	0.060
79-01-6	Trichloroethene	0.16	J cn	0.50	0.060

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-7-01/1-0 Lab Sample ID: 410-71043-2  
 Matrix: Water Lab File ID: HF03X15.D  
 Analysis Method: 8260D Date Collected: 01/27/2022 11:20  
 Sample wt/vol: 25 (mL) Date Analyzed: 02/03/2022 14:47  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: R-624SilMS 30m ID: 0.25 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 220509 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	ND	cn	0.50	0.10
1330-20-7	Xylenes, Total	ND	cn	1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100	cn	80-120
460-00-4	4-Bromofluorobenzene (Surr)	99	cn	80-120
1868-53-7	Dibromofluoromethane (Surr)	95	cn	80-120
2037-26-5	Toluene-d8 (Surr)	100	cn	80-120

Eurofins Lancaster Laboratories Env, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X15.D  
 Lims ID: 410-71043-A-2  
 Client ID: HD-COD-SW-7-01/1-0  
 Sample Type: Client  
 Inject. Date: 03-Feb-2022 14:47:30 ALS Bottle#: 15 Worklist Smp#: 16  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0049665-016  
 Operator ID: KNK41612 Instrument ID: 19094  
 Method: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\MSV\_19094\_25mL.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 17:23:59 Calib Date: 21-Dec-2021 20:38:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21117.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1662

First Level Reviewer: beckerk

Date: 03-Feb-2022 17:19:27

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Chloromethane	50	2.135	2.148	-0.013	1	2273	0.0306	
7 Vinyl chloride	62		2.264				ND	
9 Bromomethane	94		2.599				ND	
10 Chloroethane	64		2.690				ND	
18 1,1-Dichloroethene	96		3.544				ND	
19 Acetone	43	3.580	3.562	0.018	98	7151	0.8592	M
24 Carbon disulfide	76		3.849				ND	7
* 28 t-Butyl alcohol-d10 (IS)	65	4.190	4.190	0.000	90	91845	50.0	
29 Methylene Chloride	84		4.202				ND	
32 Methyl tert-butyl ether	73		4.611				ND	7
33 trans-1,2-Dichloroethene	96		4.623				ND	
35 1,1-Dichloroethane	63		5.275				ND	
41 2-Butanone (MEK)	43		6.056				ND	7
42 cis-1,2-Dichloroethene	96	6.098	6.098	0.000	75	5503	0.0941	
48 Chlorobromomethane	128		6.434				ND	
50 Chloroform	83	6.580	6.580	0.000	91	6904	0.0717	
\$ 51 Dibromofluoromethane (Surr)	113	6.793	6.793	0.000	93	466696	9.47	
52 1,1,1-Trichloroethane	97		6.812				ND	
56 Carbon tetrachloride	117		7.025				ND	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.238	7.244	-0.006	84	92046	10.0	
59 Benzene	78	7.281	7.281	0.000	84	6717	0.0298	
60 1,2-Dichloroethane	62		7.348				ND	7
* 65 Fluorobenzene (IS)	96	7.677	7.683	-0.006	99	1867235	10.0	
67 Trichloroethene	95	8.165	8.159	0.006	94	9372	0.1582	
70 1,2-Dichloropropane	63		8.488				ND	
75 Dichlorobromomethane	83		8.829				ND	7
80 cis-1,3-Dichloropropene	75		9.378				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.543				ND	
\$ 82 Toluene-d8 (Surr)	98	9.683	9.683	0.000	94	1979400	10.0	
83 Toluene	92	9.768	9.762	0.006	95	4738	0.0334	
85 trans-1,3-Dichloropropene	75		10.012				ND	
87 1,1,2-Trichloroethane	97		10.219				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
88 Tetrachloroethene	166	10.311	10.311	0.000	94	4199	0.0622	
91 2-Hexanone	43		10.427				ND	
93 Chlorodibromomethane	129		10.597				ND	
94 Ethylene Dibromide	107		10.707				ND	
* 97 Chlorobenzene-d5 (IS)	117	11.134	11.134	0.000	86	1516886	10.0	
98 Chlorobenzene	112		11.158				ND	
99 1,1,1,2-Tetrachloroethane	131		11.244				ND	
S 95 Xylenes, Total	106		11.245				ND	7
100 Ethylbenzene	91		11.250				ND	7
101 m-Xylene & p-Xylene	106		11.359				ND	7
102 o-Xylene	106		11.689				ND	7
103 Styrene	104		11.701				ND	7
104 Bromoform	173		11.859				ND	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.134	12.128	0.006	92	754198	9.89	
109 1,1,2,2-Tetrachloroethane	83		12.231				ND	
* 124 1,4-Dichlorobenzene-d4	152	13.011	13.005	0.006	95	842873	10.0	

**QC Flag Legend**

## Processing Flags

7 - Failed Limit of Detection

## Review Flags

M - Manually Integrated

**Reagents:**

MSV\_LLcentISS\_00002

Amount Added: 5.00

Units: uL

Run Reagent



Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X15.D

Injection Date: 03-Feb-2022 14:47:30

Instrument ID: 19094

Operator ID: KNK41612

Lims ID: 410-71043-A-2

Lab Sample ID: 410-71043-2

Worklist Smp#: 16

Client ID: HD-COD-SW-7-01/1-0

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

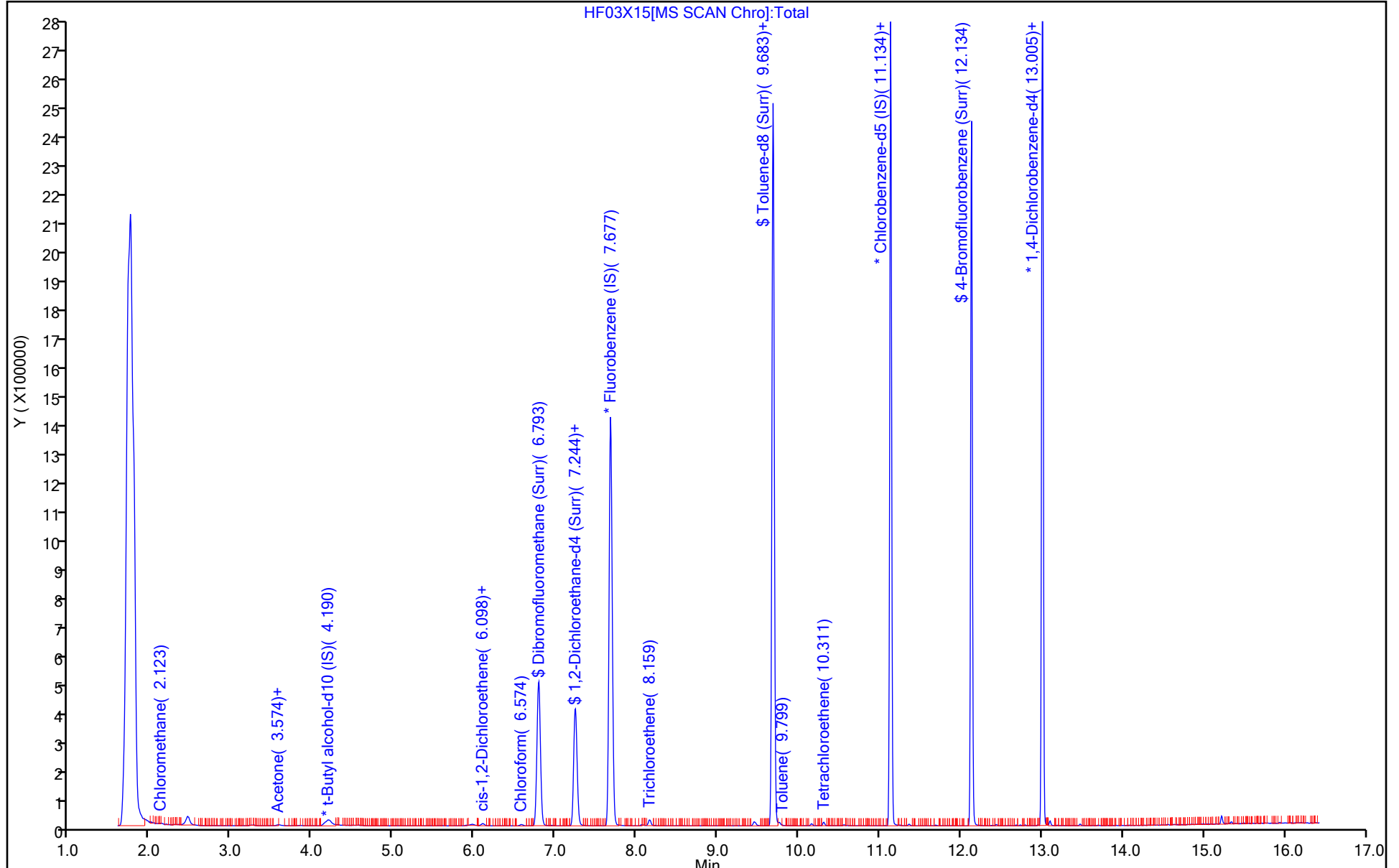
ALS Bottle#: 15

Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X15.D  
 Lims ID: 410-71043-A-2  
 Client ID: HD-COD-SW-7-01/1-0  
 Sample Type: Client  
 Inject. Date: 03-Feb-2022 14:47:30 ALS Bottle#: 15 Worklist Smp#: 16  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0049665-016  
 Operator ID: KNK41612 Instrument ID: 19094  
 Method: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\MSV\_19094\_25mL.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 17:23:59 Calib Date: 21-Dec-2021 20:38:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1662

First Level Reviewer: beckerk

Date: 03-Feb-2022 17:19:27

Compound	Amount Added	Amount Recovered	% Rec.
\$ 51 Dibromofluoromethane (Surr)	10.0	9.47	94.74
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.0	100.25
\$ 82 Toluene-d8 (Surr)	10.0	10.0	100.46
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.89	98.91

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X15.D

Injection Date: 03-Feb-2022 14:47:30

Instrument ID: 19094

Lims ID: 410-71043-A-2

Lab Sample ID: 410-71043-2

Client ID: HD-COD-SW-7-01/1-0

Operator ID: KNK41612

ALS Bottle#: 15

Worklist Smp#: 16

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

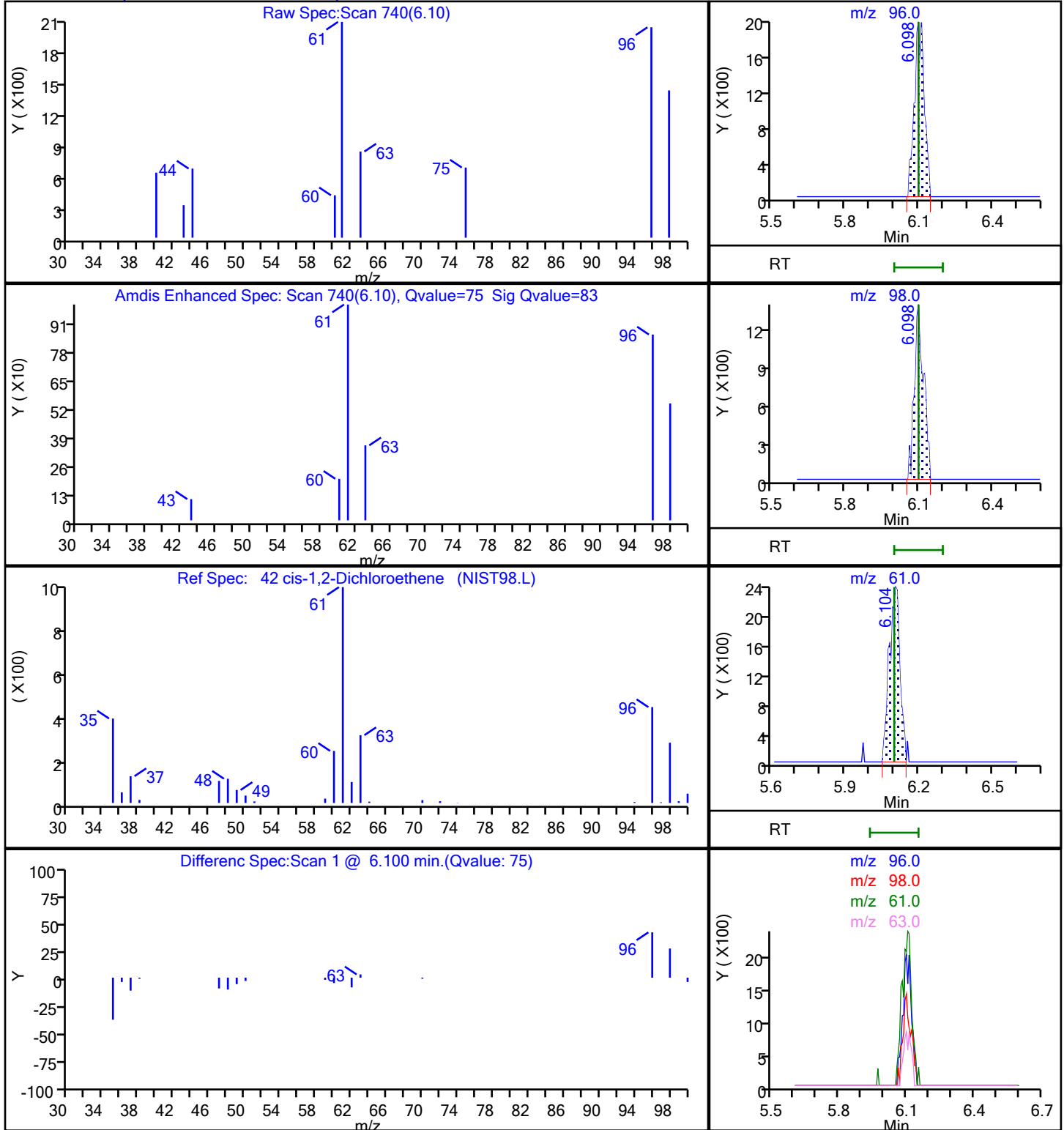
Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

MS Quad

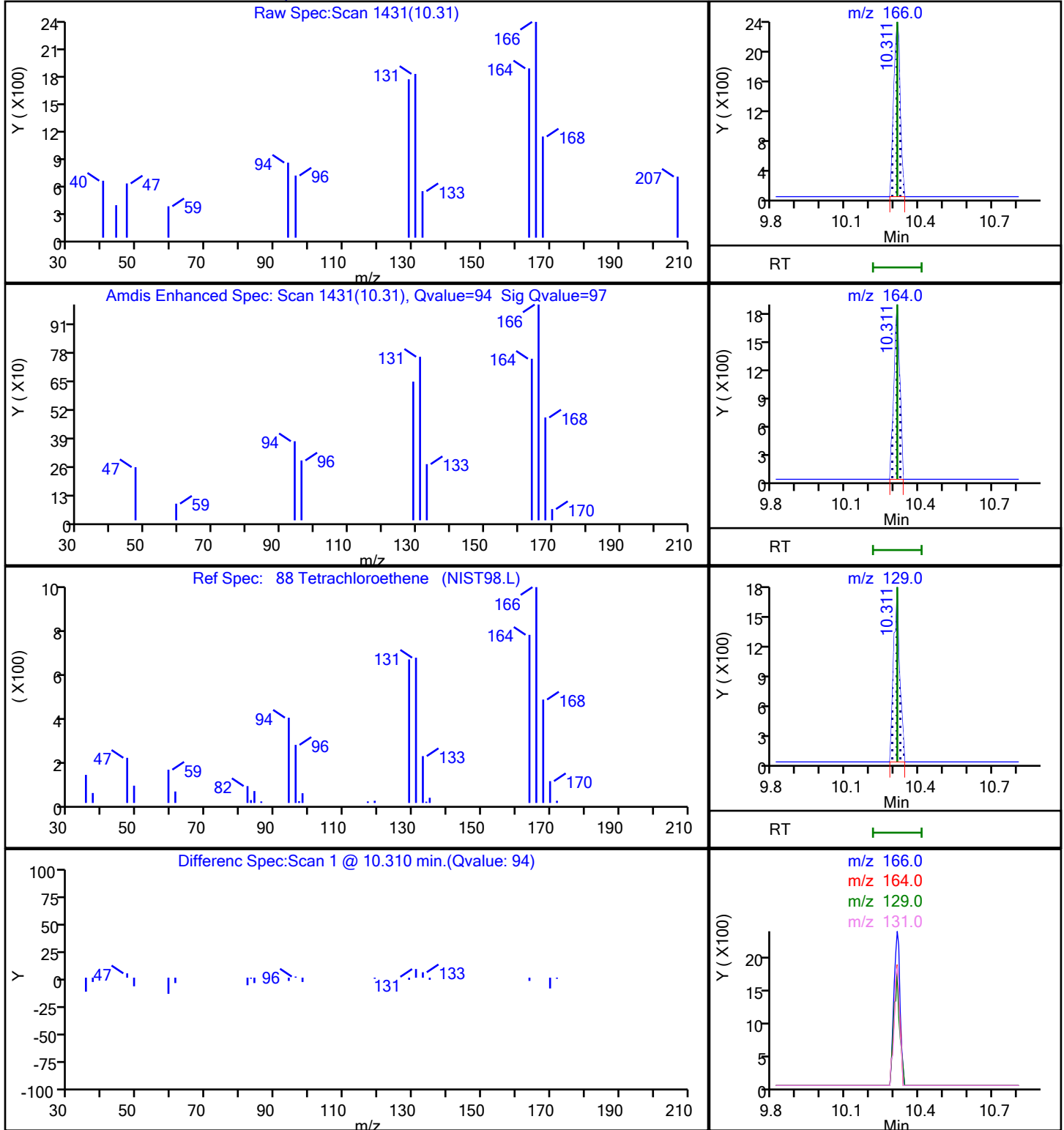
42 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X15.D  
Injection Date: 03-Feb-2022 14:47:30 Instrument ID: 19094  
Lims ID: 410-71043-A-2 Lab Sample ID: 410-71043-2  
Client ID: HD-COD-SW-7-01/1-0  
Operator ID: KNK41612 ALS Bottle#: 15 Worklist Smp#: 16  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: MSV\_19094\_25mL Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) MS Quad

### 88 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X15.D

Injection Date: 03-Feb-2022 14:47:30

Instrument ID: 19094

Lims ID: 410-71043-A-2

Lab Sample ID: 410-71043-2

Client ID: HD-COD-SW-7-01/1-0

Operator ID: KNK41612

ALS Bottle#: 15

Worklist Smp#: 16

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

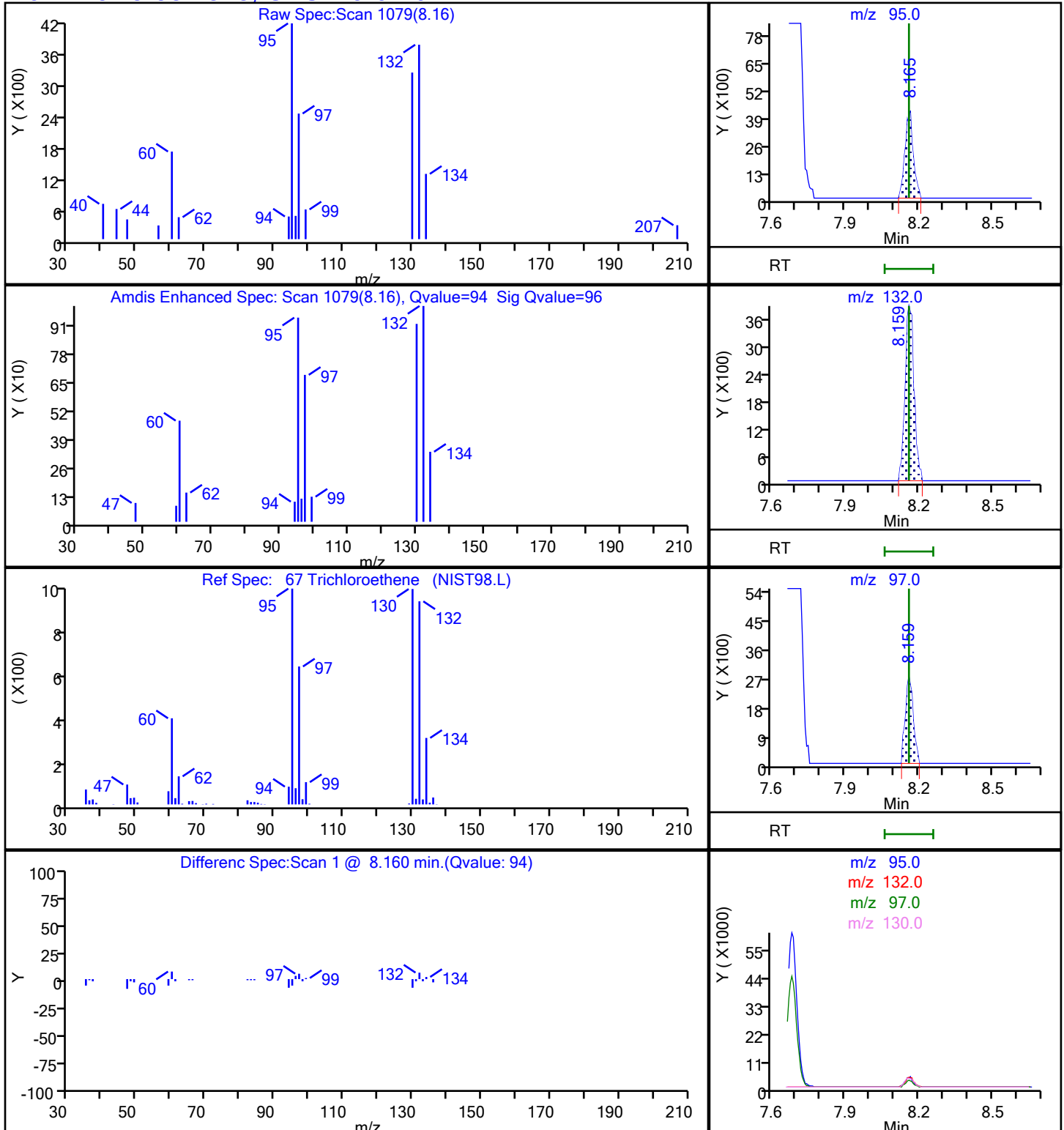
Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

MS Quad

### 67 Trichloroethene, CAS: 79-01-6



Eurofins Lancaster Laboratories Env, LLC

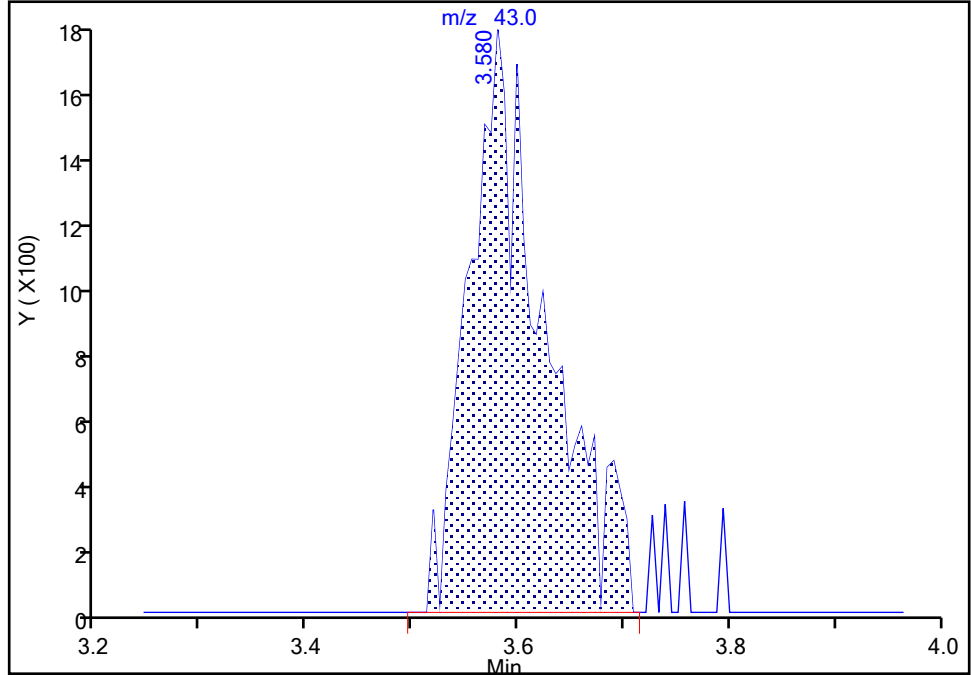
Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X15.D  
Injection Date: 03-Feb-2022 14:47:30 Instrument ID: 19094  
Lims ID: 410-71043-A-2 Lab Sample ID: 410-71043-2  
Client ID: HD-COD-SW-7-01/1-0  
Operator ID: KNK41612 ALS Bottle#: 15 Worklist Smp#: 16  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: MSV\_19094\_25mL Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

19 Acetone, CAS: 67-64-1

Signal: 1

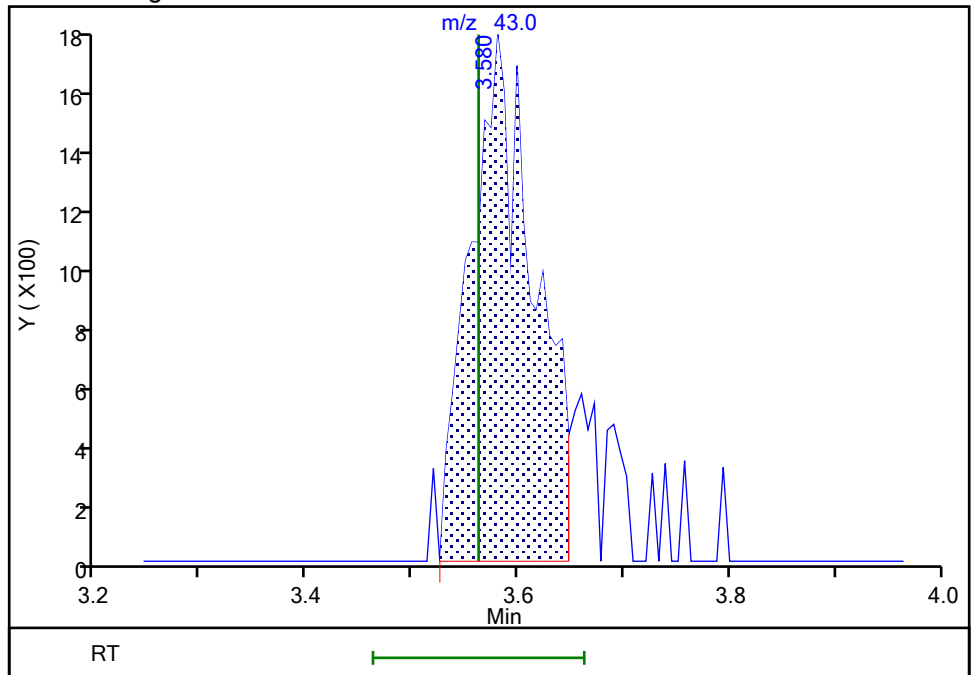
RT: 3.58  
Area: 8530  
Amount: 1.024890  
Amount Units: ug/l

Processing Integration Results



RT: 3.58  
Area: 7151  
Amount: 0.859202  
Amount Units: ug/l

Manual Integration Results



Reviewer: beckerk, 03-Feb-2022 17:19:02  
Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-8-01/1-0 Lab Sample ID: 410-71043-3  
 Matrix: Water Lab File ID: HF03X16.D  
 Analysis Method: 8260D Date Collected: 01/27/2022 09:10  
 Sample wt/vol: 25 (mL) Date Analyzed: 02/03/2022 15:07  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: R-624SilMS 30m ID: 0.25 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 220509 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND	cn	0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND	cn	0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND	cn	0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND	cn	0.50	0.060
75-34-3	1,1-Dichloroethane	ND	cn	0.50	0.070
75-35-4	1,1-Dichloroethene	ND	cn	0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060
107-06-2	1,2-Dichloroethane	ND	cn	0.50	0.050
78-87-5	1,2-Dichloropropane	ND	cn	0.50	0.060
78-93-3	2-Butanone (MEK)	ND	cn	5.0	0.60
591-78-6	2-Hexanone	ND	^c cn	5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70
67-64-1	Acetone	0.94	J cn	5.0	0.90
71-43-2	Benzene	ND	cn	0.50	0.050
74-97-5	Bromochloromethane	ND	cn	0.50	0.050
75-27-4	Bromodichloromethane	ND	cn	0.50	0.050
75-25-2	Bromoform	ND	cn	1.0	0.30
74-83-9	Bromomethane	ND	cn	0.50	0.070
75-15-0	Carbon disulfide	ND	cn	1.0	0.060
56-23-5	Carbon tetrachloride	ND	cn	0.50	0.070
108-90-7	Chlorobenzene	ND	cn	0.50	0.060
75-00-3	Chloroethane	ND	cn	0.50	0.070
67-66-3	Chloroform	ND	cn	0.50	0.090
74-87-3	Chloromethane	ND	cn	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.12	J cn	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND	cn	0.50	0.050
124-48-1	Dibromochloromethane	ND	cn	0.50	0.070
100-41-4	Ethylbenzene	ND	cn	0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND	cn	0.50	0.050
75-09-2	Methylene Chloride	ND	cn	0.50	0.070
100-42-5	Styrene	ND	cn	0.50	0.050
127-18-4	Tetrachloroethene	0.52	cn	0.50	0.060
108-88-3	Toluene	ND	cn	0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND	cn	0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND	cn	0.50	0.060
79-01-6	Trichloroethene	0.18	J cn	0.50	0.060

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-8-01/1-0 Lab Sample ID: 410-71043-3  
 Matrix: Water Lab File ID: HF03X16.D  
 Analysis Method: 8260D Date Collected: 01/27/2022 09:10  
 Sample wt/vol: 25 (mL) Date Analyzed: 02/03/2022 15:07  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: R-624SilMS 30m ID: 0.25 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 220509 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	ND	cn	0.50	0.10
1330-20-7	Xylenes, Total	ND	cn	1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102	cn	80-120
460-00-4	4-Bromofluorobenzene (Surr)	99	cn	80-120
1868-53-7	Dibromofluoromethane (Surr)	95	cn	80-120
2037-26-5	Toluene-d8 (Surr)	100	cn	80-120



Eurofins Lancaster Laboratories Env, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X16.D  
 Lims ID: 410-71043-A-3  
 Client ID: HD-COD-SW-8-01/1-0  
 Sample Type: Client  
 Inject. Date: 03-Feb-2022 15:07:30 ALS Bottle#: 16 Worklist Smp#: 17  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0049665-017  
 Operator ID: KNK41612 Instrument ID: 19094  
 Method: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\MSV\_19094\_25mL.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 17:23:59 Calib Date: 21-Dec-2021 20:38:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21117.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1662

First Level Reviewer: beckerk

Date: 03-Feb-2022 17:20:39

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Chloromethane	50	2.141	2.148	-0.007	6	3160	0.0413	
7 Vinyl chloride	62		2.264				ND	
9 Bromomethane	94		2.599				ND	
10 Chloroethane	64		2.690				ND	
18 1,1-Dichloroethene	96		3.544				ND	
19 Acetone	43	3.605	3.562	0.043	98	8029	0.9421	M
24 Carbon disulfide	76		3.849				ND	7
* 28 t-Butyl alcohol-d10 (IS)	65	4.196	4.190	0.006	89	94046	50.0	
29 Methylene Chloride	84		4.202				ND	
32 Methyl tert-butyl ether	73		4.611				ND	
33 trans-1,2-Dichloroethene	96		4.623				ND	
35 1,1-Dichloroethane	63		5.275				ND	7
41 2-Butanone (MEK)	43		6.056				ND	
42 cis-1,2-Dichloroethene	96	6.110	6.098	0.012	76	7391	0.1228	
48 Chlorobromomethane	128		6.434				ND	
50 Chloroform	83	6.574	6.580	-0.006	86	3922	0.0396	
\$ 51 Dibromofluoromethane (Surr)	113	6.793	6.793	0.000	94	481533	9.49	
52 1,1,1-Trichloroethane	97	6.805	6.812	-0.007	70	2855	0.0313	
56 Carbon tetrachloride	117		7.025				ND	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.244	7.244	0.000	46	96811	10.2	
59 Benzene	78	7.281	7.281	0.000	40	5886	0.0254	
60 1,2-Dichloroethane	62		7.348				ND	7
* 65 Fluorobenzene (IS)	96	7.683	7.683	0.000	99	1922531	10.0	
67 Trichloroethene	95	8.159	8.159	0.000	96	10779	0.1768	
70 1,2-Dichloropropane	63		8.488				ND	
75 Dichlorobromomethane	83		8.829				ND	7
80 cis-1,3-Dichloropropene	75		9.378				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.543				ND	
\$ 82 Toluene-d8 (Surr)	98	9.683	9.683	0.000	93	2038223	10.0	
83 Toluene	92	9.762	9.762	0.000	97	4385	0.0300	
85 trans-1,3-Dichloropropene	75		10.012				ND	
87 1,1,2-Trichloroethane	97		10.219				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
88 Tetrachloroethene	166	10.311	10.311	0.000	97	36355	0.5231	
91 2-Hexanone	43		10.427				ND	
93 Chlorodibromomethane	129		10.597				ND	
94 Ethylene Dibromide	107		10.707				ND	
* 97 Chlorobenzene-d5 (IS)	117	11.134	11.134	0.000	86	1562163	10.0	
98 Chlorobenzene	112		11.158				ND	
99 1,1,1,2-Tetrachloroethane	131		11.244				ND	
S 95 Xylenes, Total	106		11.245				ND	7
100 Ethylbenzene	91		11.250				ND	7
101 m-Xylene & p-Xylene	106		11.359				ND	7
102 o-Xylene	106		11.689				ND	7
103 Styrene	104		11.701				ND	
104 Bromoform	173		11.859				ND	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.133	12.128	0.005	92	776916	9.89	
109 1,1,2,2-Tetrachloroethane	83		12.231				ND	
* 124 1,4-Dichlorobenzene-d4	152	13.005	13.005	0.000	95	863525	10.0	

### QC Flag Legend

#### Processing Flags

7 - Failed Limit of Detection

#### Review Flags

M - Manually Integrated

### Reagents:

MSV\_LLcentISS\_00002

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X16.D

Injection Date: 03-Feb-2022 15:07:30

Instrument ID: 19094

Operator ID: KNK41612

Lims ID: 410-71043-A-3

Lab Sample ID: 410-71043-3

Worklist Smp#: 17

Client ID: HD-COD-SW-8-01/1-0

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

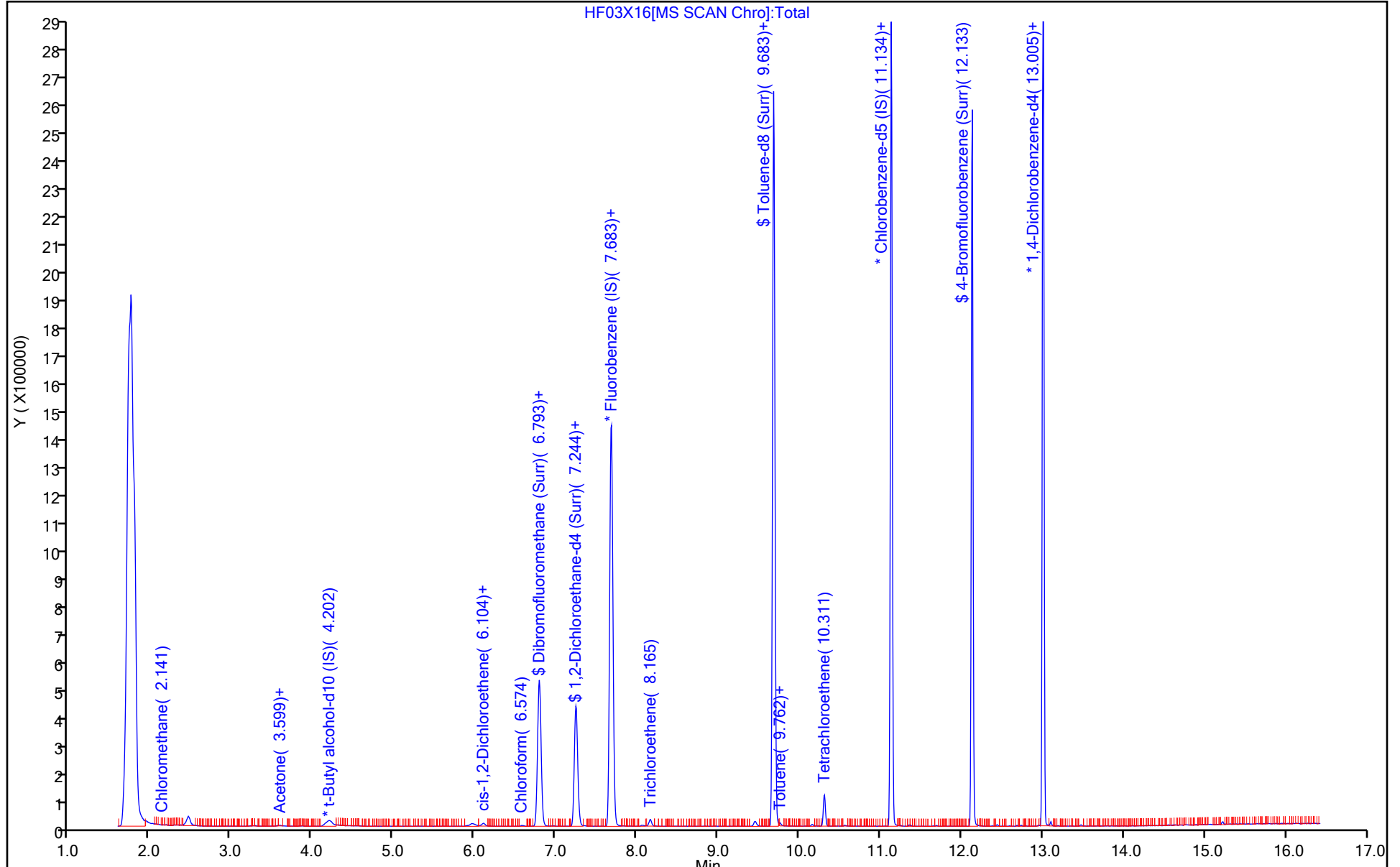
ALS Bottle#: 16

Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X16.D  
 Lims ID: 410-71043-A-3  
 Client ID: HD-COD-SW-8-01/1-0  
 Sample Type: Client  
 Inject. Date: 03-Feb-2022 15:07:30 ALS Bottle#: 16 Worklist Smp#: 17  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0049665-017  
 Operator ID: KNK41612 Instrument ID: 19094  
 Method: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\MSV\_19094\_25mL.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 17:23:59 Calib Date: 21-Dec-2021 20:38:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1662

First Level Reviewer: beckerk

Date: 03-Feb-2022 17:20:39

Compound	Amount Added	Amount Recovered	% Rec.
\$ 51 Dibromofluoromethane (Surr)	10.0	9.49	94.95
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.2	102.40
\$ 82 Toluene-d8 (Surr)	10.0	10.0	100.44
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.89	98.94

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X16.D

Injection Date: 03-Feb-2022 15:07:30

Instrument ID: 19094

Lims ID: 410-71043-A-3

Lab Sample ID: 410-71043-3

Client ID: HD-COD-SW-8-01/1-0

Operator ID: KNK41612

ALS Bottle#: 16

Worklist Smp#: 17

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

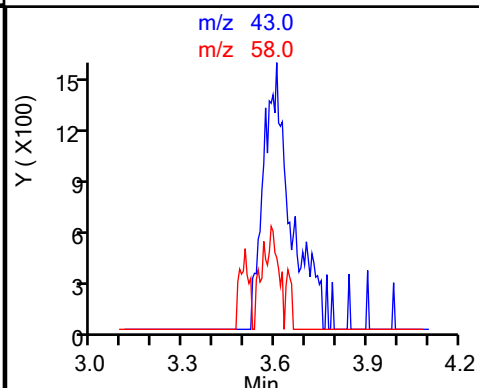
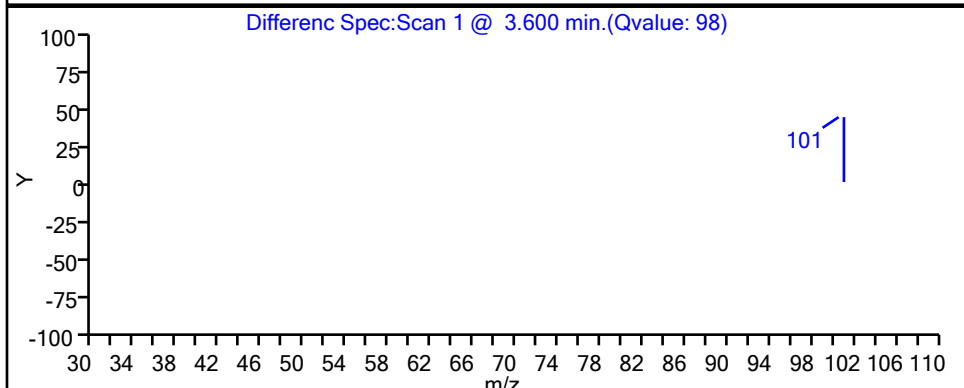
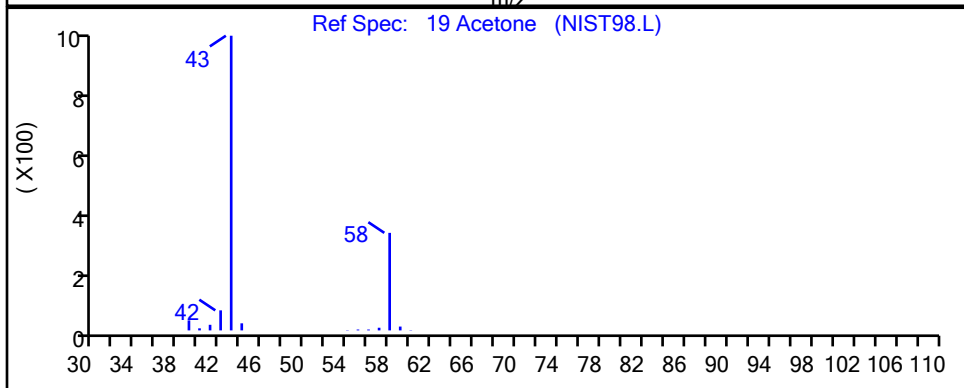
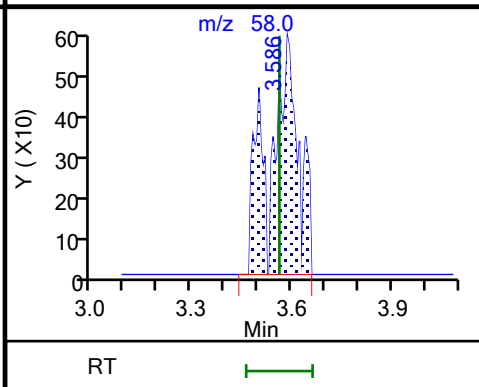
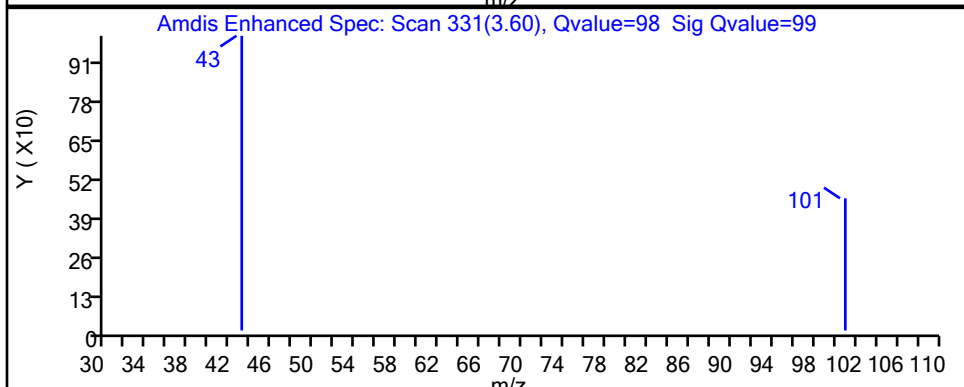
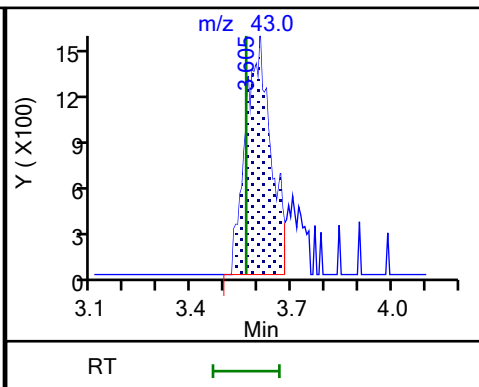
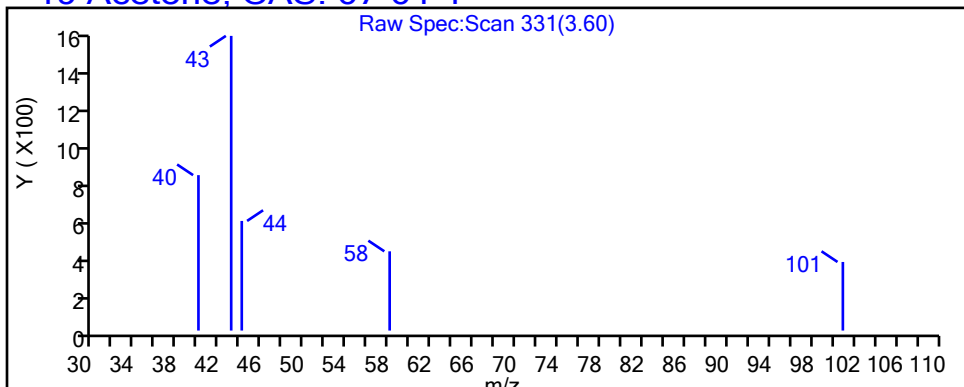
Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

MS Quad

19 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X16.D

Injection Date: 03-Feb-2022 15:07:30

Instrument ID: 19094

Lims ID: 410-71043-A-3

Lab Sample ID: 410-71043-3

Client ID: HD-COD-SW-8-01/1-0

Operator ID: KNK41612

ALS Bottle#: 16

Worklist Smp#: 17

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

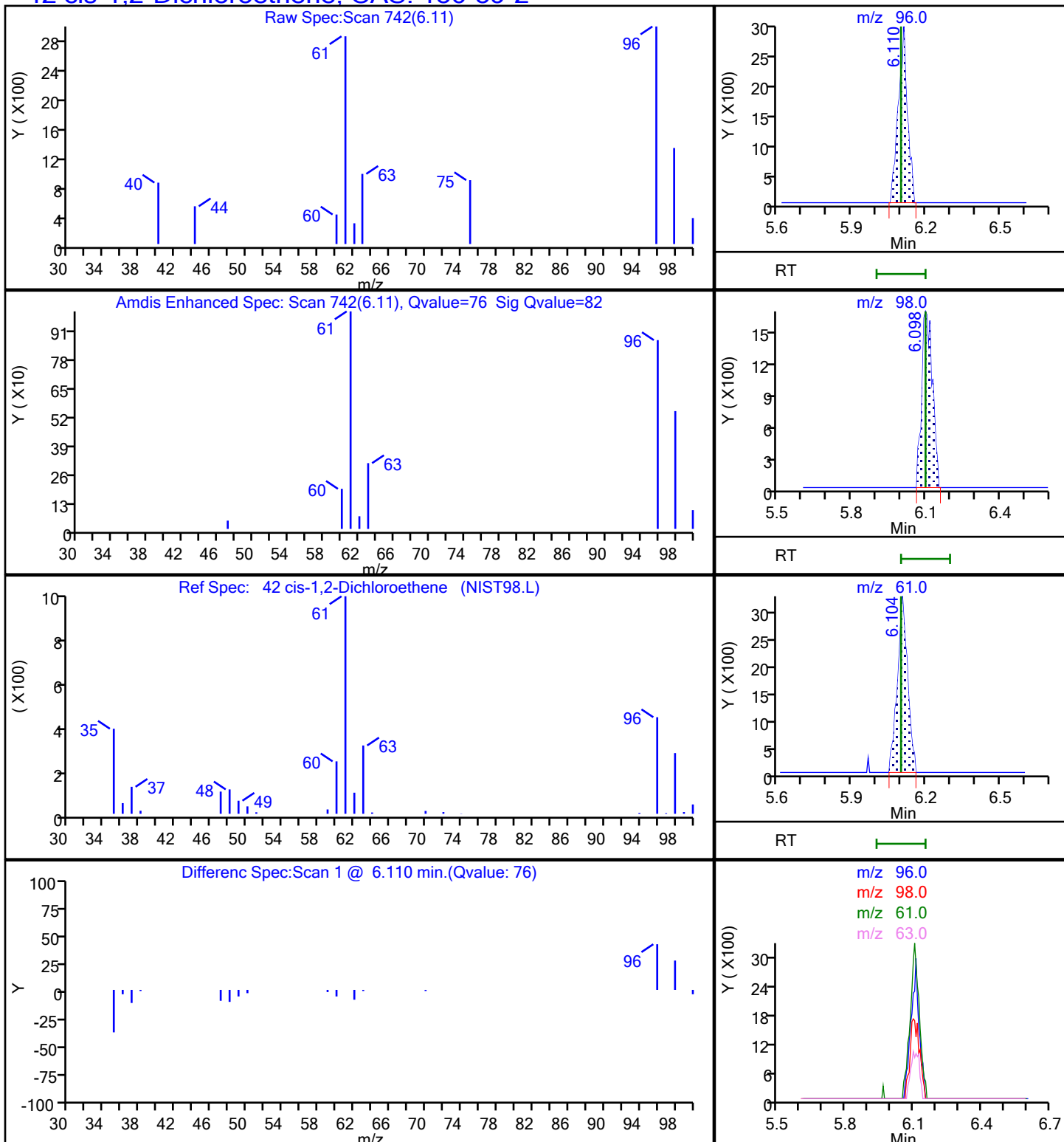
Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

MS Quad

**42 cis-1,2-Dichloroethene, CAS: 156-59-2**



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X16.D

Injection Date: 03-Feb-2022 15:07:30

Instrument ID: 19094

Lims ID: 410-71043-A-3

Lab Sample ID: 410-71043-3

Client ID: HD-COD-SW-8-01/1-0

Operator ID: KNK41612

ALS Bottle#: 16

Worklist Smp#: 17

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

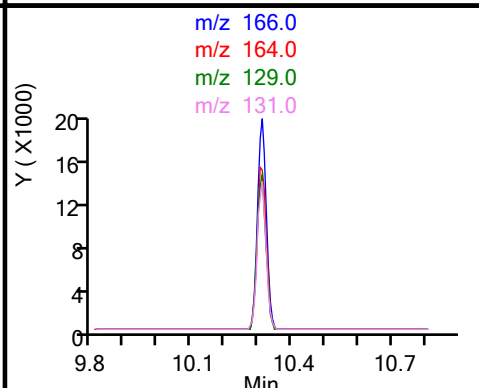
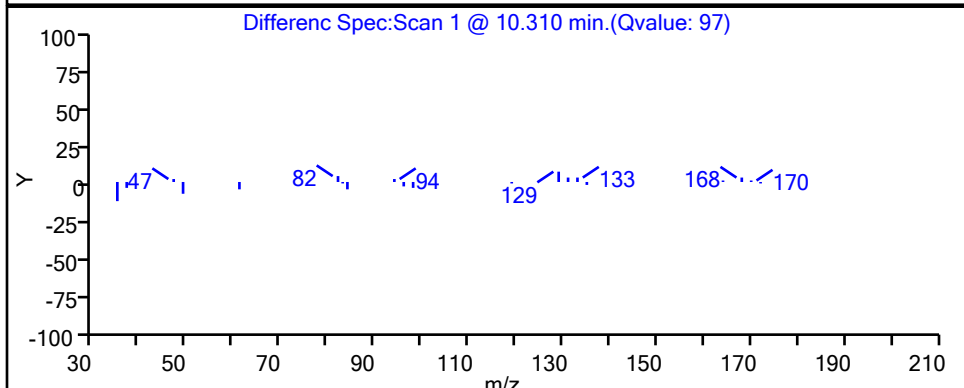
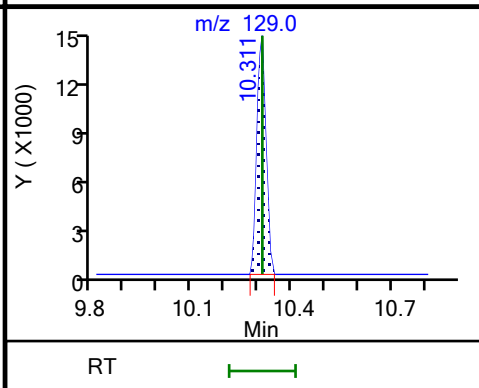
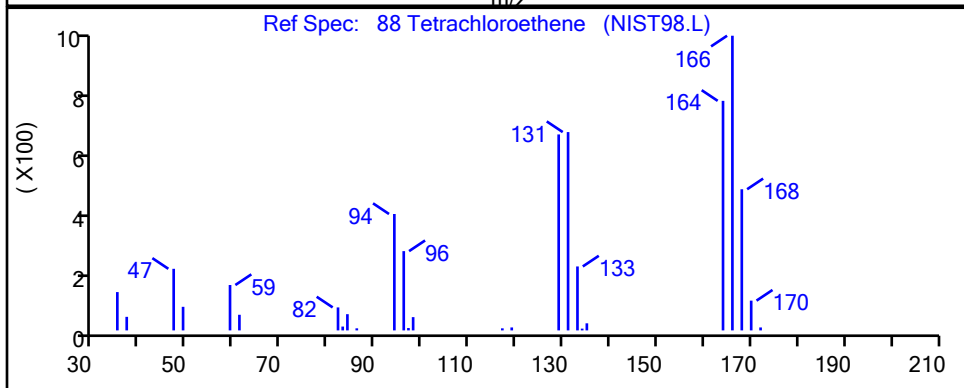
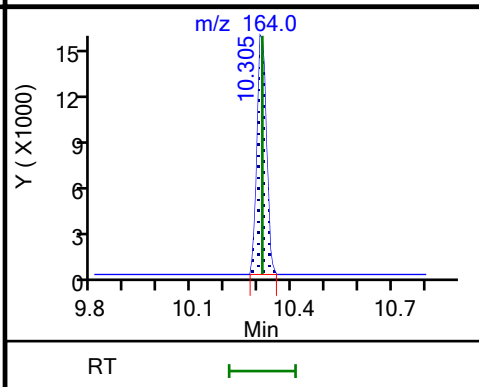
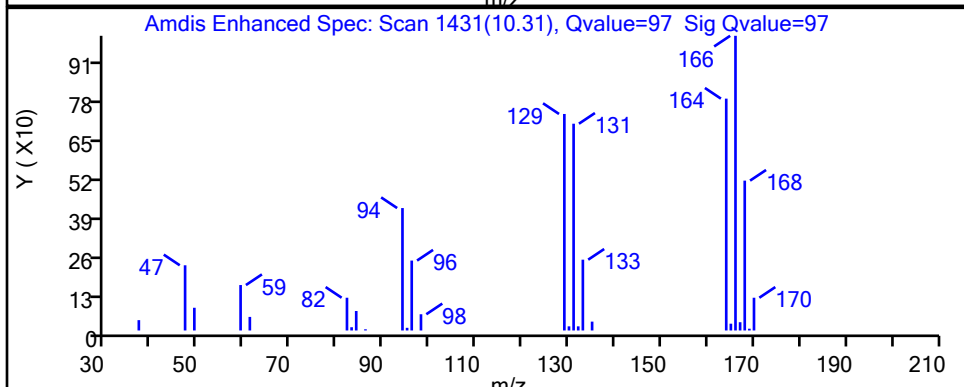
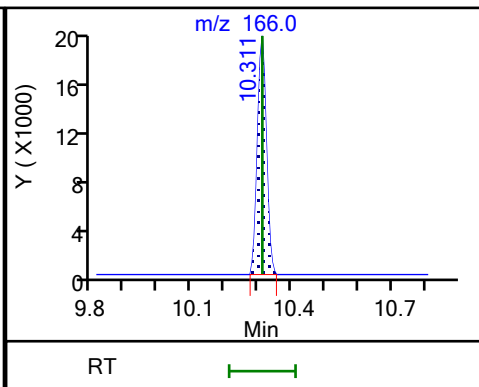
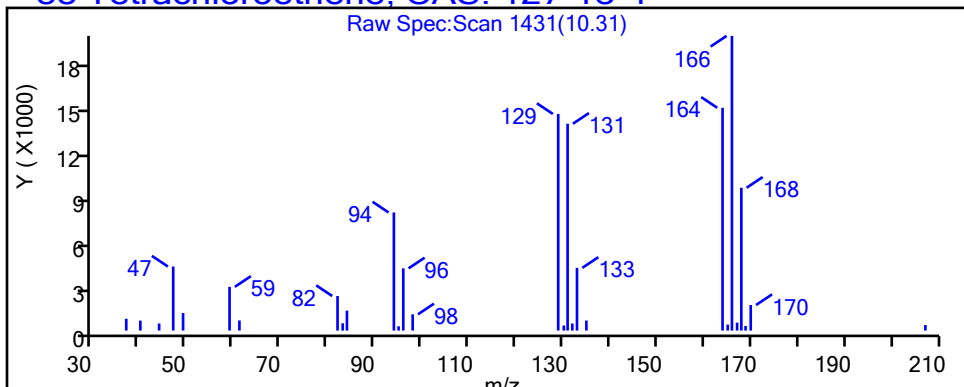
Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

MS Quad

### 88 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X16.D

Injection Date: 03-Feb-2022 15:07:30

Instrument ID: 19094

Lims ID: 410-71043-A-3

Lab Sample ID: 410-71043-3

Client ID: HD-COD-SW-8-01/1-0

Operator ID: KNK41612

ALS Bottle#: 16

Worklist Smp#: 17

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

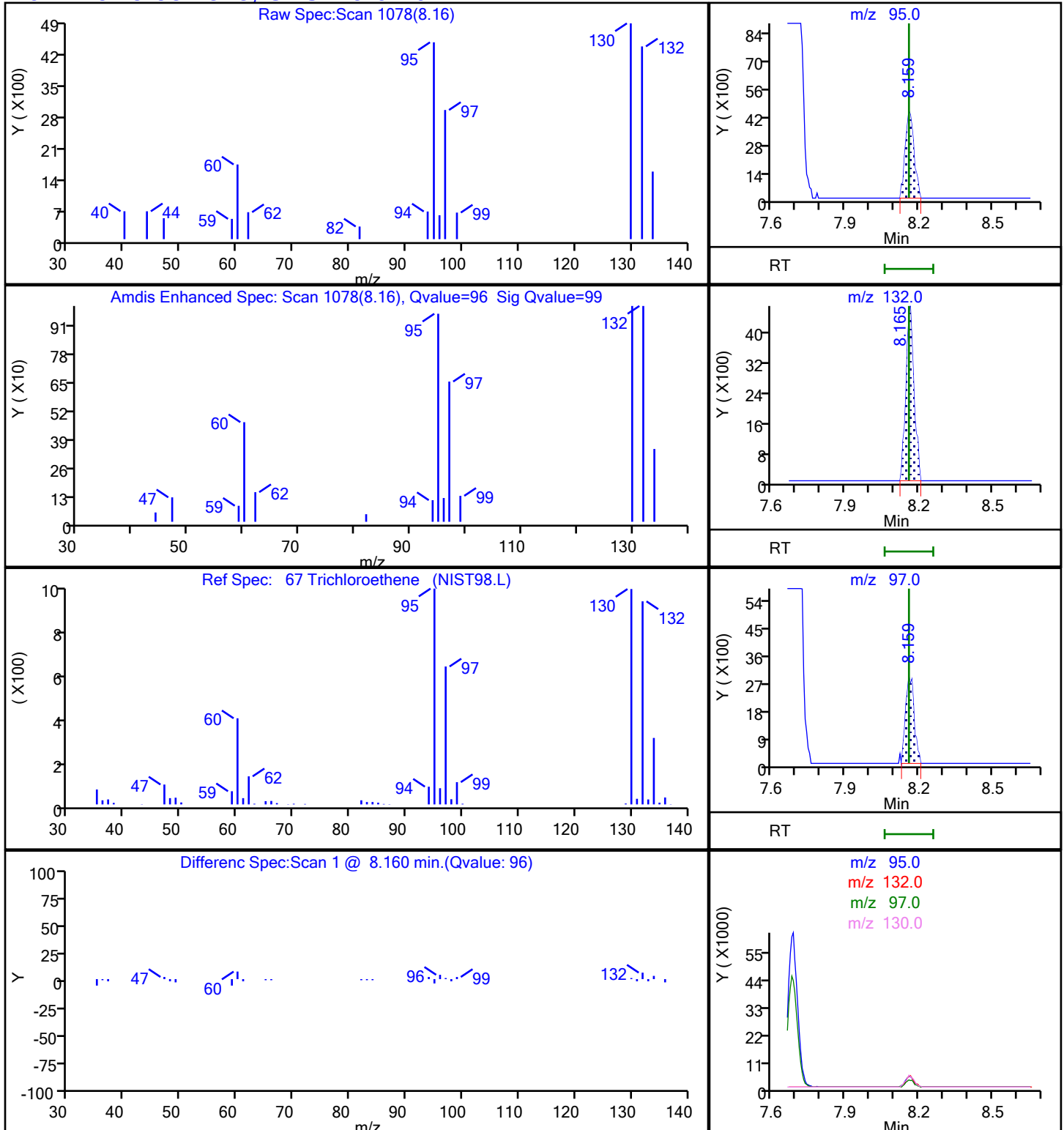
Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

MS Quad

### 67 Trichloroethene, CAS: 79-01-6





Eurofins Lancaster Laboratories Env, LLC

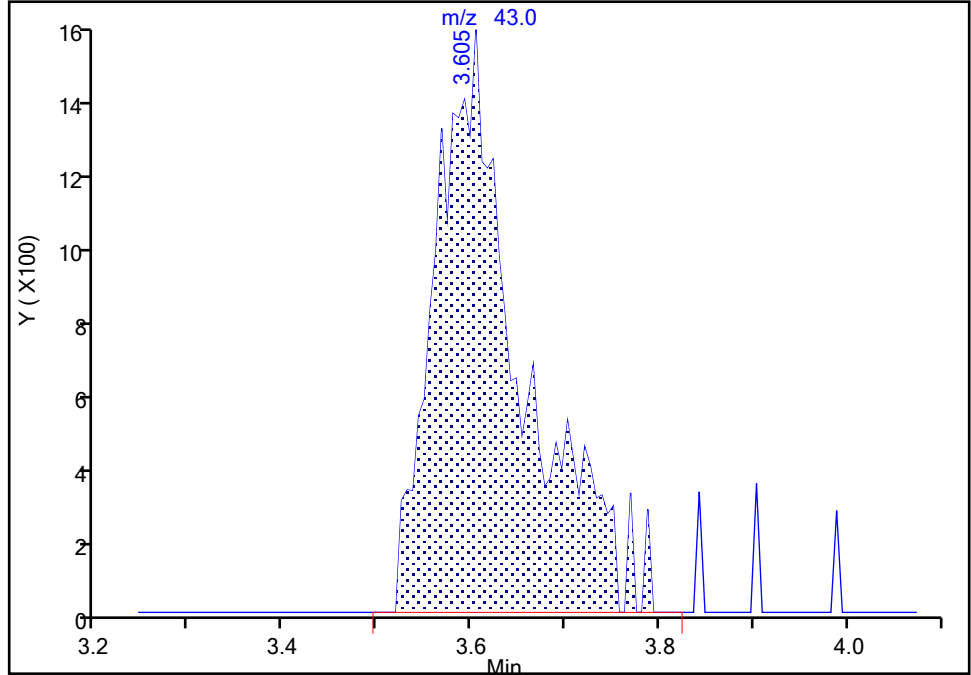
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Injection Date: 03-Feb-2022 15:07:30 Instrument ID: 19094  
Lims ID: 410-71043-A-3 Lab Sample ID: 410-71043-3  
Client ID: HD-COD-SW-8-01/1-0  
Operator ID: KNK41612 ALS Bottle#: 16 Worklist Smp#: 17  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: MSV\_19094\_25mL Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column ( 0.25mm ID) Detector: MS Quad

19 Acetone, CAS: 67-64-1

Signal: 1

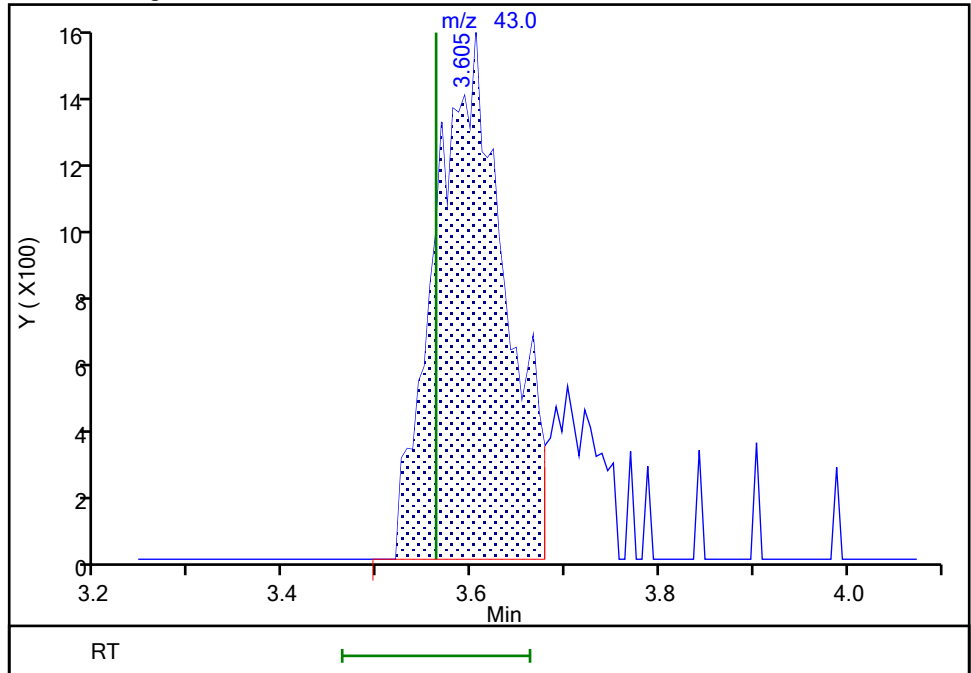
RT: 3.60  
Area: 9852  
Amount: 1.156027  
Amount Units: ug/l

Processing Integration Results



RT: 3.60  
Area: 8029  
Amount: 0.942117  
Amount Units: ug/l

Manual Integration Results



Reviewer: beckerk, 03-Feb-2022 17:20:04  
Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-9-01/1-0 Lab Sample ID: 410-71043-4  
 Matrix: Water Lab File ID: HF03X17.D  
 Analysis Method: 8260D Date Collected: 01/27/2022 12:45  
 Sample wt/vol: 25 (mL) Date Analyzed: 02/03/2022 15:28  
 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.: 220509 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND	cn	0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND	cn	0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND	cn	0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND	cn	0.50	0.060
75-34-3	1,1-Dichloroethane	ND	cn	0.50	0.070
75-35-4	1,1-Dichloroethene	ND	cn	0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060
107-06-2	1,2-Dichloroethane	ND	cn	0.50	0.050
78-87-5	1,2-Dichloropropane	ND	cn	0.50	0.060
78-93-3	2-Butanone (MEK)	ND	cn	5.0	0.60
591-78-6	2-Hexanone	ND	^c cn	5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70
67-64-1	Acetone	1.8	J cn	5.0	0.90
71-43-2	Benzene	ND	cn	0.50	0.050
74-97-5	Bromochloromethane	ND	cn	0.50	0.050
75-27-4	Bromodichloromethane	ND	cn	0.50	0.050
75-25-2	Bromoform	ND	cn	1.0	0.30
74-83-9	Bromomethane	ND	cn	0.50	0.070
75-15-0	Carbon disulfide	ND	cn	1.0	0.060
56-23-5	Carbon tetrachloride	ND	cn	0.50	0.070
108-90-7	Chlorobenzene	ND	cn	0.50	0.060
75-00-3	Chloroethane	ND	cn	0.50	0.070
67-66-3	Chloroform	ND	cn	0.50	0.090
74-87-3	Chloromethane	ND	cn	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.093	J cn	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND	cn	0.50	0.050
124-48-1	Dibromochloromethane	ND	cn	0.50	0.070
100-41-4	Ethylbenzene	ND	cn	0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND	cn	0.50	0.050
75-09-2	Methylene Chloride	ND	cn	0.50	0.070
100-42-5	Styrene	ND	cn	0.50	0.050
127-18-4	Tetrachloroethene	0.20	J cn	0.50	0.060
108-88-3	Toluene	0.090	J cn	0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND	cn	0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND	cn	0.50	0.060
79-01-6	Trichloroethene	0.13	J cn	0.50	0.060

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-9-01/1-0 Lab Sample ID: 410-71043-4  
 Matrix: Water Lab File ID: HF03X17.D  
 Analysis Method: 8260D Date Collected: 01/27/2022 12:45  
 Sample wt/vol: 25 (mL) Date Analyzed: 02/03/2022 15:28  
 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.: 220509 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	ND	cn	0.50	0.10
1330-20-7	Xylenes, Total	ND	cn	1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101	cn	80-120
460-00-4	4-Bromofluorobenzene (Surr)	100	cn	80-120
1868-53-7	Dibromofluoromethane (Surr)	95	cn	80-120
2037-26-5	Toluene-d8 (Surr)	100	cn	80-120

Eurofins Lancaster Laboratories Env, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X17.D  
 Lims ID: 410-71043-A-4  
 Client ID: HD-COD-SW-9-01/1-0  
 Sample Type: Client  
 Inject. Date: 03-Feb-2022 15:28:30 ALS Bottle#: 17 Worklist Smp#: 18  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0049665-018  
 Operator ID: KNK41612 Instrument ID: 19094  
 Method: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\MSV\_19094\_25mL.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 17:23:59 Calib Date: 21-Dec-2021 20:38:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21117.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1662

First Level Reviewer: beckerk

Date: 03-Feb-2022 17:21:45

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Chloromethane	50	2.136	2.148	-0.012	1	3280	0.0426	
7 Vinyl chloride	62		2.264				ND	
9 Bromomethane	94		2.599				ND	
10 Chloroethane	64		2.690				ND	
18 1,1-Dichloroethene	96		3.544				ND	
19 Acetone	43	3.574	3.562	0.012	70	14699	1.75	M
24 Carbon disulfide	76		3.849				ND	7
* 28 t-Butyl alcohol-d10 (IS)	65	4.214	4.190	0.024	94	92428	50.0	
29 Methylene Chloride	84	4.196	4.202	-0.006	36	2315	0.0421	
32 Methyl tert-butyl ether	73		4.611				ND	7
33 trans-1,2-Dichloroethene	96		4.623				ND	
35 1,1-Dichloroethane	63		5.275				ND	
41 2-Butanone (MEK)	43		6.056				ND	7
42 cis-1,2-Dichloroethene	96	6.098	6.098	0.000	77	5622	0.0928	
48 Chlorobromomethane	128		6.434				ND	
50 Chloroform	83	6.568	6.580	-0.012	89	6800	0.0682	
\$ 51 Dibromofluoromethane (Surr)	113	6.793	6.793	0.000	94	485113	9.51	
52 1,1,1-Trichloroethane	97		6.812				ND	7
56 Carbon tetrachloride	117		7.025				ND	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.244	7.244	0.000	82	95860	10.1	
59 Benzene	78		7.281				ND	7
60 1,2-Dichloroethane	62		7.348				ND	7
* 65 Fluorobenzene (IS)	96	7.677	7.683	-0.006	99	1933486	10.0	
67 Trichloroethene	95	8.159	8.159	0.000	93	7969	0.1299	
70 1,2-Dichloropropane	63		8.488				ND	
75 Dichlorobromomethane	83		8.829				ND	7
80 cis-1,3-Dichloropropene	75		9.378				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.543				ND	7
\$ 82 Toluene-d8 (Surr)	98	9.683	9.683	0.000	94	2036262	9.98	
83 Toluene	92	9.762	9.762	0.000	99	13259	0.0903	
85 trans-1,3-Dichloropropene	75		10.012				ND	
87 1,1,2-Trichloroethane	97		10.219				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
88 Tetrachloroethene	166	10.311	10.311	0.000	95	14240	0.2037	
91 2-Hexanone	43		10.427				ND	
93 Chlorodibromomethane	129		10.597				ND	
94 Ethylene Dibromide	107		10.707				ND	
* 97 Chlorobenzene-d5 (IS)	117	11.134	11.134	0.000	86	1571245	10.0	
98 Chlorobenzene	112		11.158				ND	7
99 1,1,1,2-Tetrachloroethane	131		11.244				ND	
S 95 Xylenes, Total	106		11.245				ND	7
100 Ethylbenzene	91		11.250				ND	7
101 m-Xylene & p-Xylene	106		11.359				ND	7
102 o-Xylene	106		11.689				ND	7
103 Styrene	104		11.701				ND	7
104 Bromoform	173		11.859				ND	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.128	12.128	0.000	91	787287	9.97	
109 1,1,2,2-Tetrachloroethane	83		12.231				ND	
* 124 1,4-Dichlorobenzene-d4	152	13.005	13.005	0.000	95	877298	10.0	

**QC Flag Legend**

## Processing Flags

7 - Failed Limit of Detection

## Review Flags

M - Manually Integrated

**Reagents:**

MSV\_LLcentISS\_00002

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X17.D

Injection Date: 03-Feb-2022 15:28:30

Instrument ID: 19094

Operator ID: KNK41612

Lims ID: 410-71043-A-4

Lab Sample ID: 410-71043-4

Worklist Smp#: 18

Client ID: HD-COD-SW-9-01/1-0

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

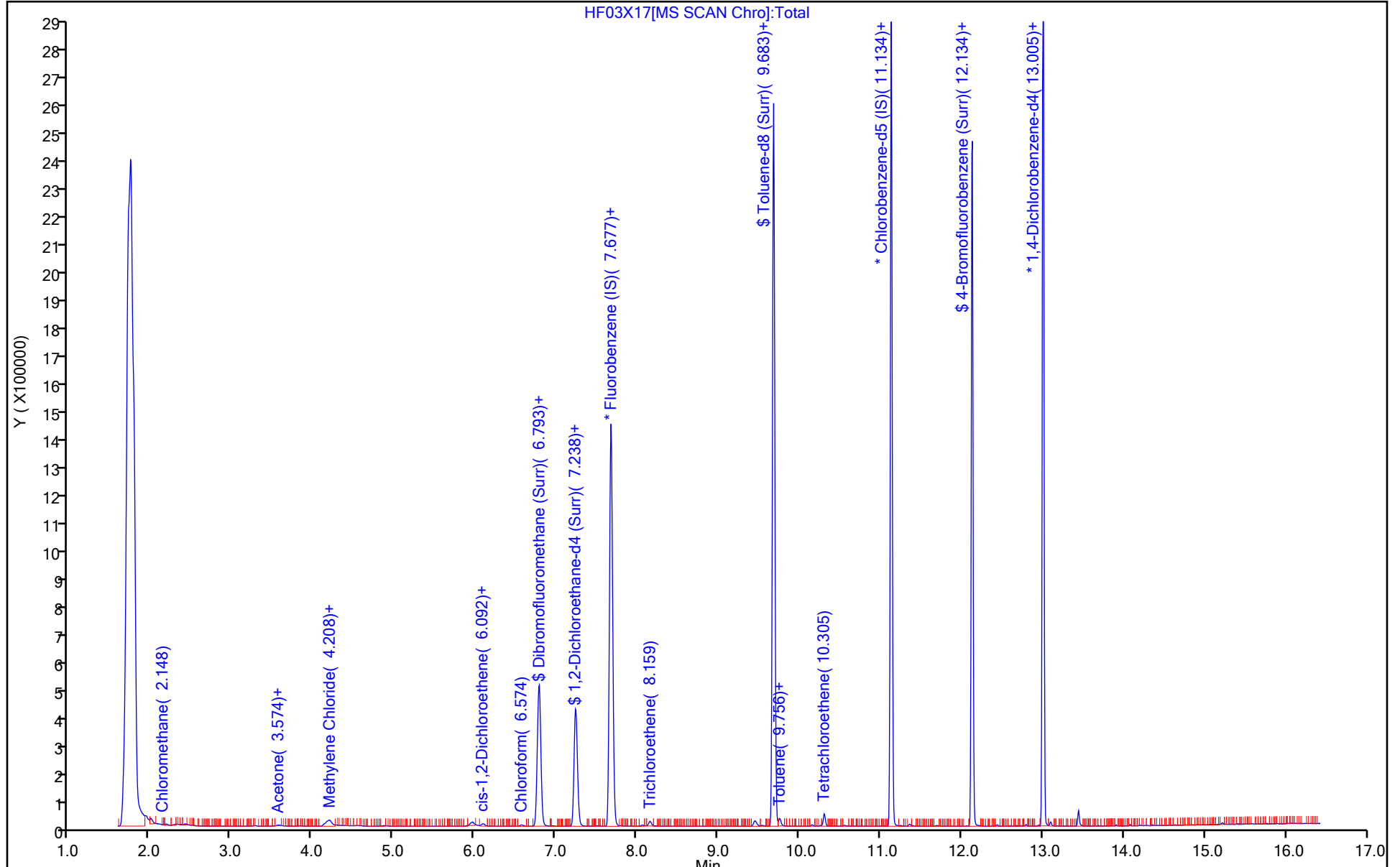
ALS Bottle#: 17

Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X17.D  
 Lims ID: 410-71043-A-4  
 Client ID: HD-COD-SW-9-01/1-0  
 Sample Type: Client  
 Inject. Date: 03-Feb-2022 15:28:30 ALS Bottle#: 17 Worklist Smp#: 18  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0049665-018  
 Operator ID: KNK41612 Instrument ID: 19094  
 Method: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\MSV\_19094\_25mL.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 17:23:59 Calib Date: 21-Dec-2021 20:38:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1662

First Level Reviewer: beckerk

Date: 03-Feb-2022 17:21:45

Compound	Amount Added	Amount Recovered	% Rec.
\$ 51 Dibromofluoromethane (Surr)	10.0	9.51	95.11
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.1	100.82
\$ 82 Toluene-d8 (Surr)	10.0	9.98	99.77
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.97	99.68

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X17.D

Injection Date: 03-Feb-2022 15:28:30

Instrument ID: 19094

Lims ID: 410-71043-A-4

Lab Sample ID: 410-71043-4

Client ID: HD-COD-SW-9-01/1-0

Operator ID: KNK41612

ALS Bottle#: 17

Worklist Smp#: 18

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

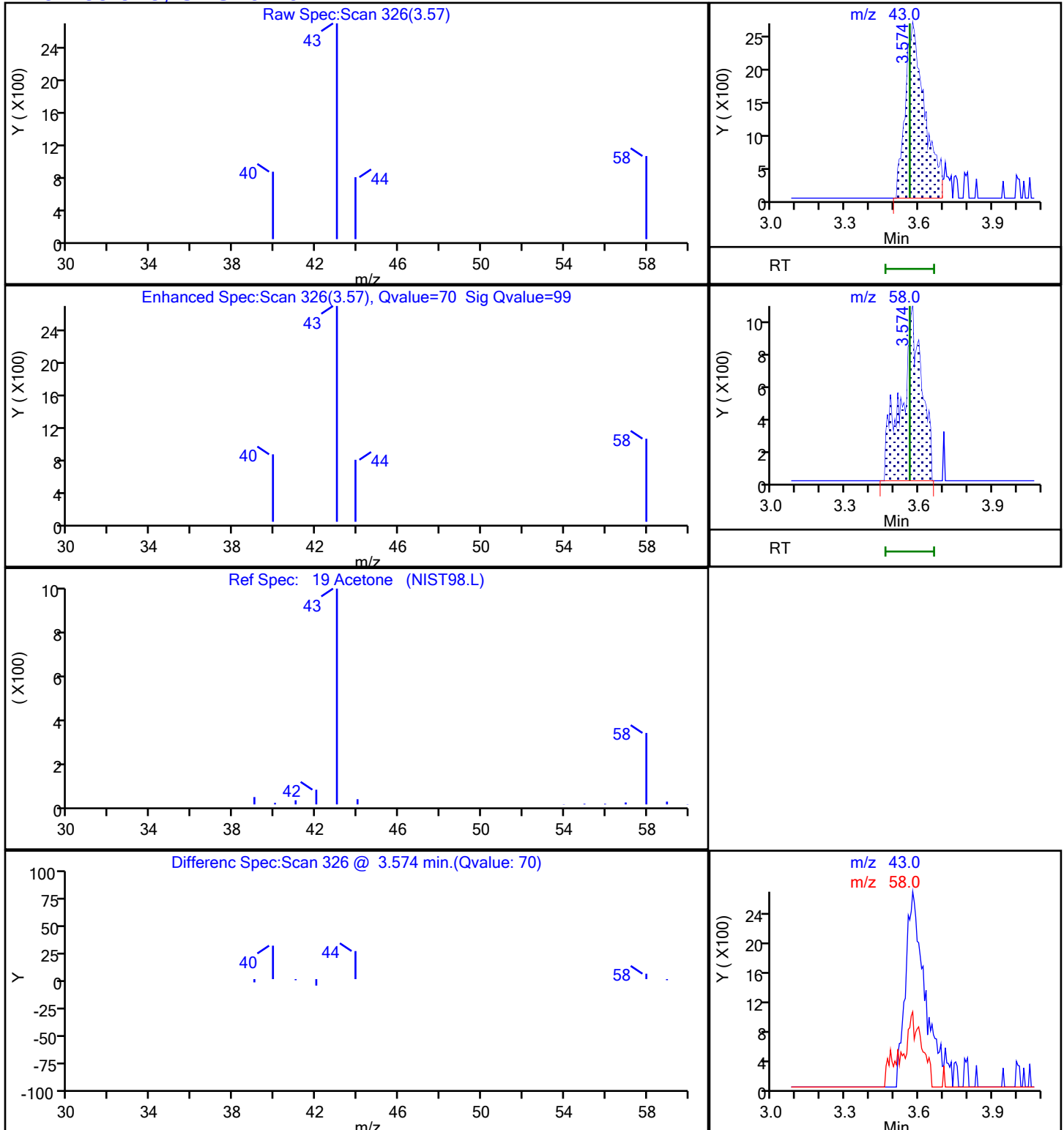
Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

MS Quad

19 Acetone, CAS: 67-64-1





Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X17.D

Injection Date: 03-Feb-2022 15:28:30

Instrument ID: 19094

Lims ID: 410-71043-A-4

Lab Sample ID: 410-71043-4

Client ID: HD-COD-SW-9-01/1-0

Operator ID: KNK41612

ALS Bottle#: 17

Worklist Smp#: 18

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

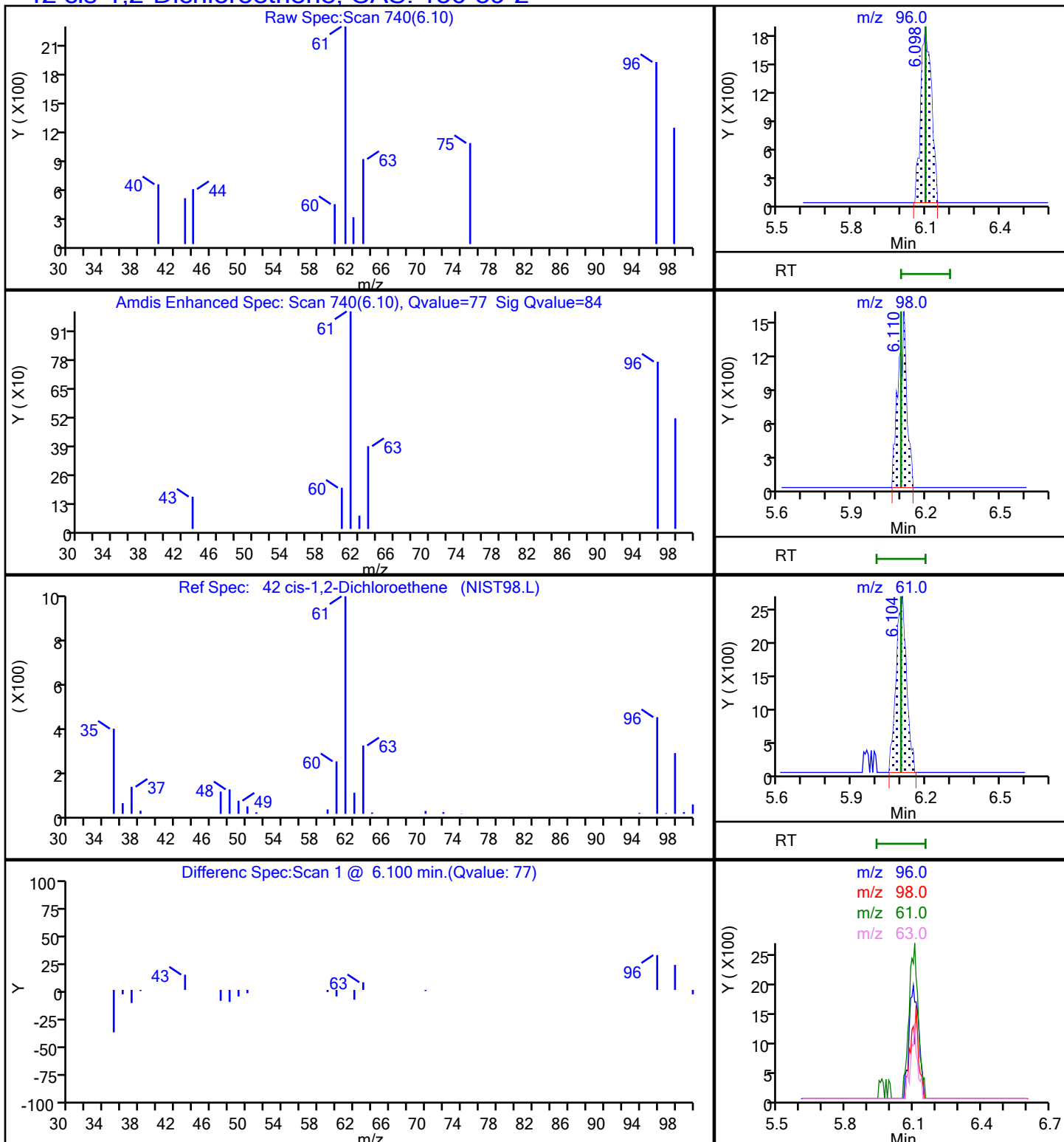
Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

MS Quad

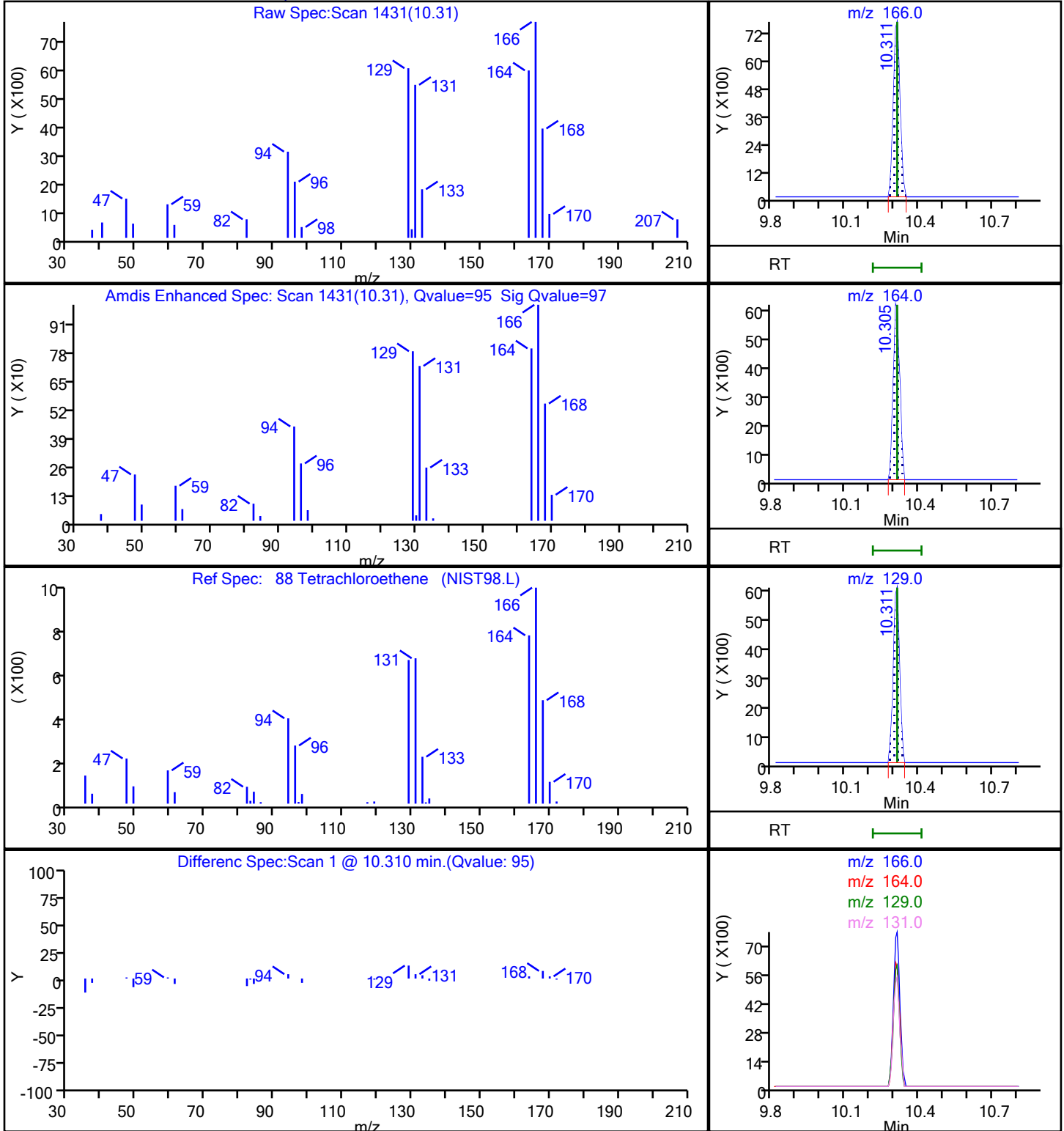
**42 cis-1,2-Dichloroethene, CAS: 156-59-2**



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X17.D  
Injection Date: 03-Feb-2022 15:28:30 Instrument ID: 19094  
Lims ID: 410-71043-A-4 Lab Sample ID: 410-71043-4  
Client ID: HD-COD-SW-9-01/1-0  
Operator ID: KNK41612 ALS Bottle#: 17 Worklist Smp#: 18  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: MSV\_19094\_25mL Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) MS Quad

**88 Tetrachloroethene, CAS: 127-18-4**



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X17.D

Injection Date: 03-Feb-2022 15:28:30

Instrument ID: 19094

Lims ID: 410-71043-A-4

Lab Sample ID: 410-71043-4

Client ID: HD-COD-SW-9-01/1-0

Operator ID: KNK41612

ALS Bottle#: 17

Worklist Smp#: 18

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

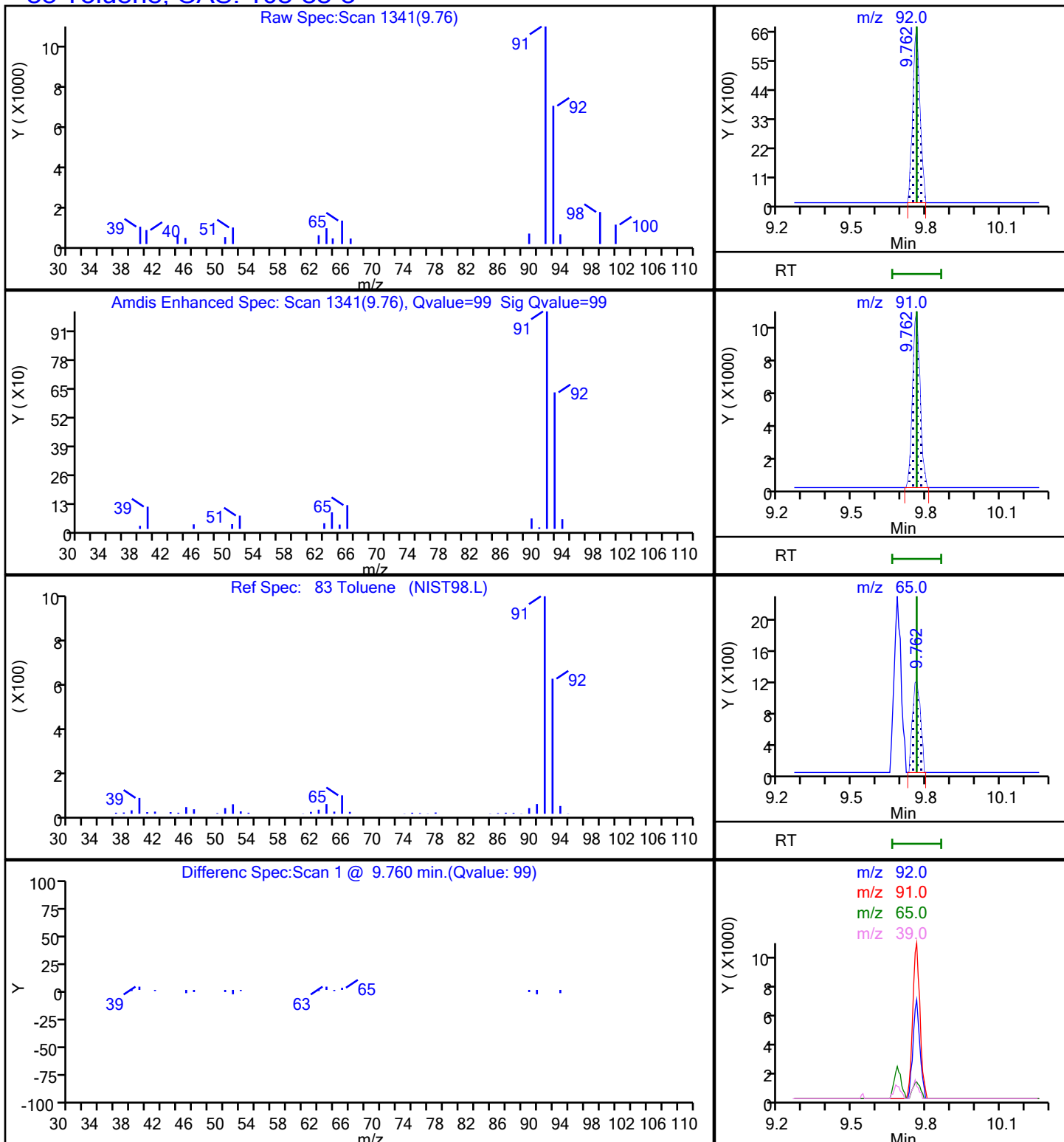
Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

MS Quad

83 Toluene, CAS: 108-88-3



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X17.D

Injection Date: 03-Feb-2022 15:28:30

Instrument ID: 19094

Lims ID: 410-71043-A-4

Lab Sample ID: 410-71043-4

Client ID: HD-COD-SW-9-01/1-0

Operator ID: KNK41612

ALS Bottle#: 17

Worklist Smp#: 18

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

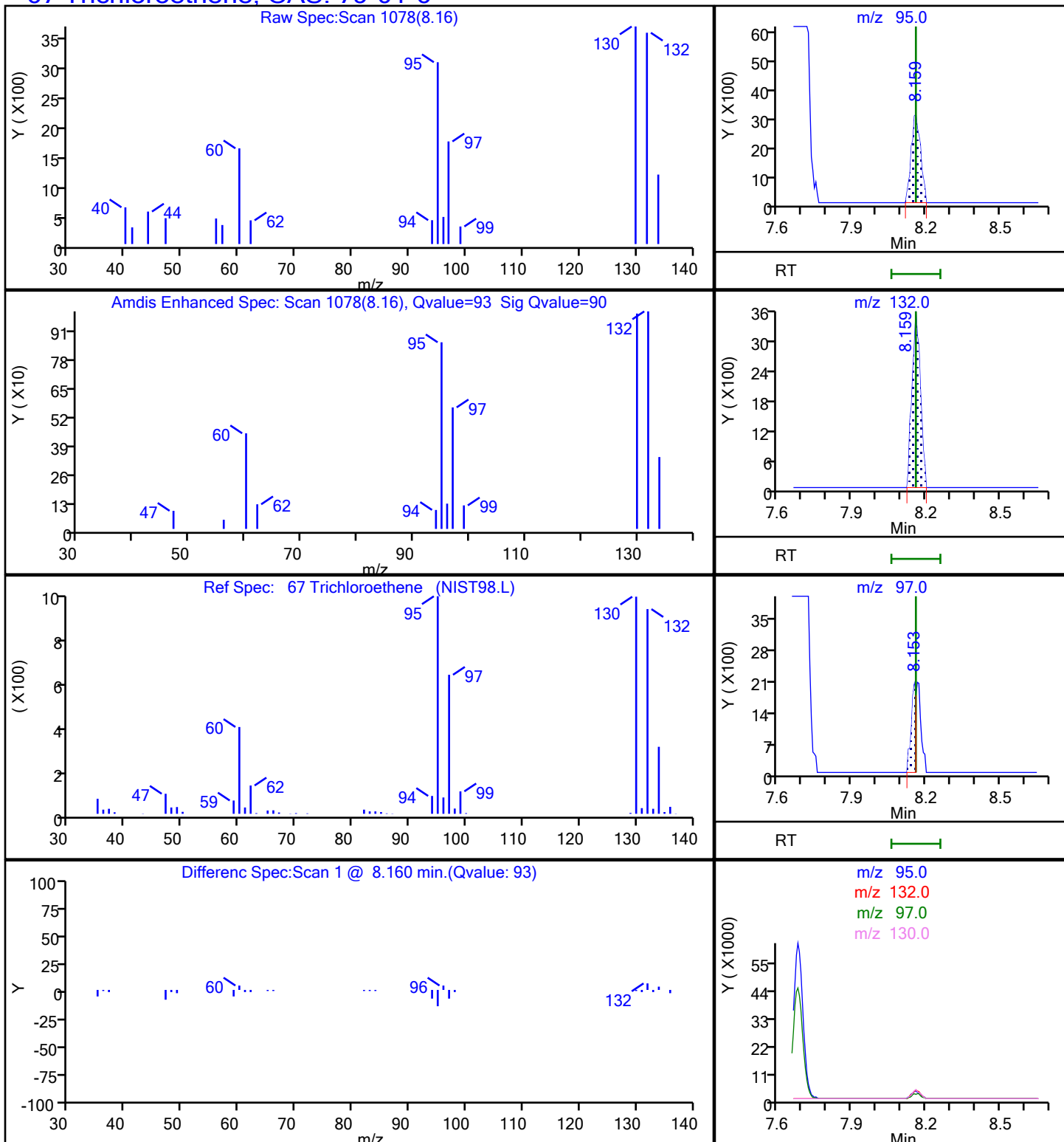
Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

MS Quad

### 67 Trichloroethene, CAS: 79-01-6



Eurofins Lancaster Laboratories Env, LLC

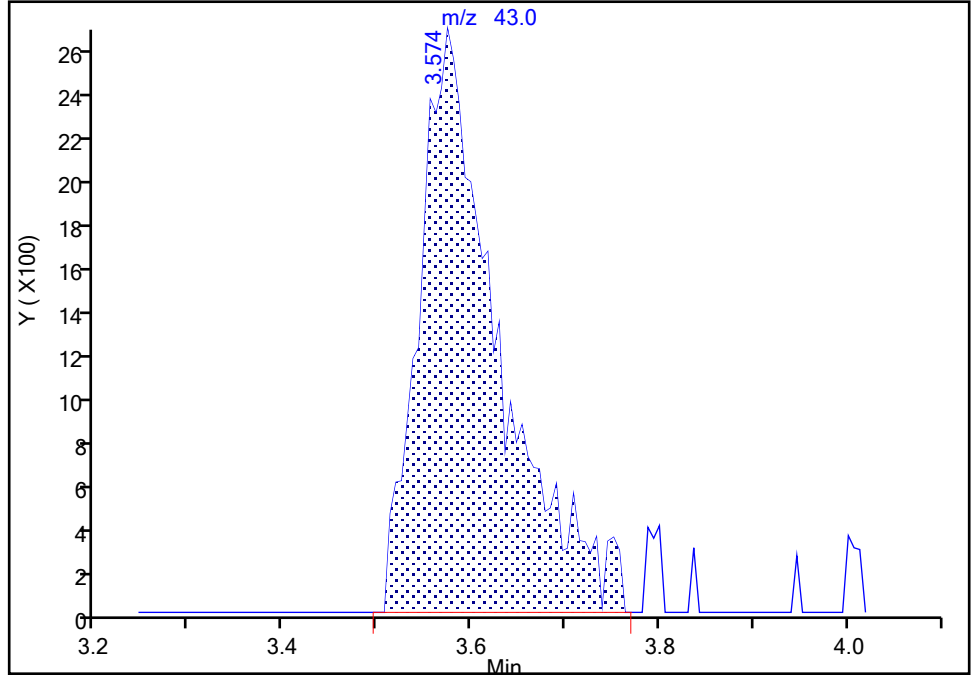
Data File:	\\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X17.D		
Injection Date:	03-Feb-2022 15:28:30	Instrument ID:	19094
Lims ID:	410-71043-A-4	Lab Sample ID:	410-71043-4
Client ID:	HD-COD-SW-9-01/1-0		
Operator ID:	KNK41612	ALS Bottle#:	17
Purge Vol:	25.000 mL	Dil. Factor:	1.0000
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D
Column:	Rxi-624Sil MS Capillary Column (0.25mm ID)	Detector:	MS Quad
		Worklist Smp#:	18

19 Acetone, CAS: 67-64-1

Signal: 1

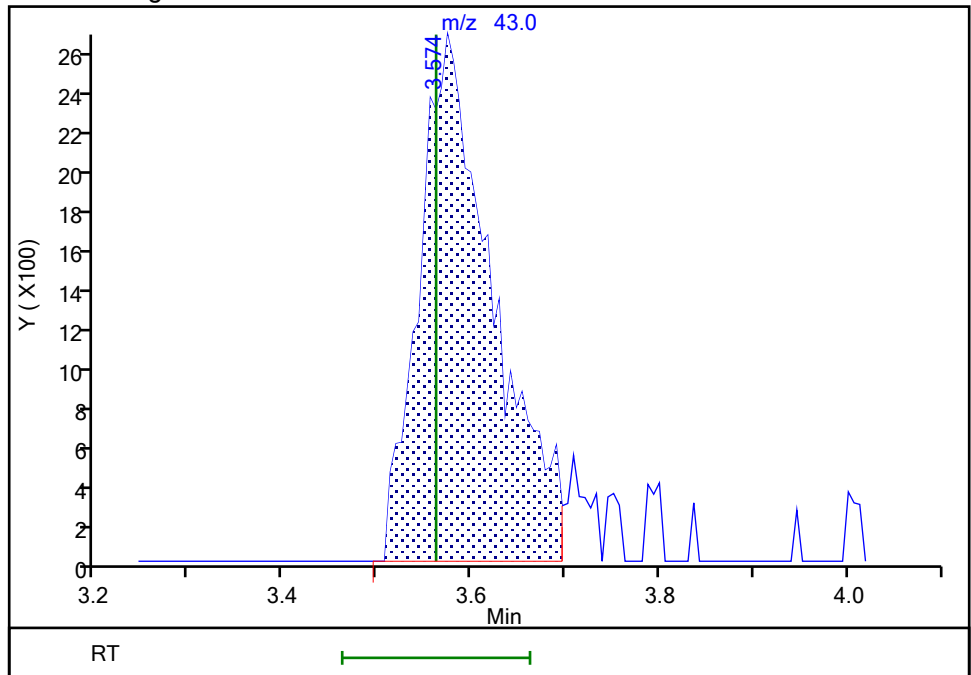
RT: 3.57  
 Area: 15822  
 Amount: 1.889042  
 Amount Units: ug/l

Processing Integration Results



RT: 3.57  
 Area: 14699  
 Amount: 1.754963  
 Amount Units: ug/l

Manual Integration Results



Reviewer: beckerk, 03-Feb-2022 17:21:09  
 Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-13-01/1-0 Lab Sample ID: 410-71043-5  
 Matrix: Water Lab File ID: HF03X18.D  
 Analysis Method: 8260D Date Collected: 01/27/2022 09:30  
 Sample wt/vol: 25 (mL) Date Analyzed: 02/03/2022 15:49  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: R-624SilMS 30m ID: 0.25 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 220509 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND	cn	0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND	cn	0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND	cn	0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND	cn	0.50	0.060
75-34-3	1,1-Dichloroethane	ND	cn	0.50	0.070
75-35-4	1,1-Dichloroethene	ND	cn	0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060
107-06-2	1,2-Dichloroethane	ND	cn	0.50	0.050
78-87-5	1,2-Dichloropropane	ND	cn	0.50	0.060
78-93-3	2-Butanone (MEK)	ND	cn	5.0	0.60
591-78-6	2-Hexanone	ND	^c cn	5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70
67-64-1	Acetone	1.1	J cn	5.0	0.90
71-43-2	Benzene	ND	cn	0.50	0.050
74-97-5	Bromochloromethane	ND	cn	0.50	0.050
75-27-4	Bromodichloromethane	ND	cn	0.50	0.050
75-25-2	Bromoform	ND	cn	1.0	0.30
74-83-9	Bromomethane	ND	cn	0.50	0.070
75-15-0	Carbon disulfide	ND	cn	1.0	0.060
56-23-5	Carbon tetrachloride	ND	cn	0.50	0.070
108-90-7	Chlorobenzene	ND	cn	0.50	0.060
75-00-3	Chloroethane	ND	cn	0.50	0.070
67-66-3	Chloroform	ND	cn	0.50	0.090
74-87-3	Chloromethane	ND	cn	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.13	J cn	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND	cn	0.50	0.050
124-48-1	Dibromochloromethane	ND	cn	0.50	0.070
100-41-4	Ethylbenzene	ND	cn	0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND	cn	0.50	0.050
75-09-2	Methylene Chloride	ND	cn	0.50	0.070
100-42-5	Styrene	ND	cn	0.50	0.050
127-18-4	Tetrachloroethene	0.67	cn	0.50	0.060
108-88-3	Toluene	ND	cn	0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND	cn	0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND	cn	0.50	0.060
79-01-6	Trichloroethene	0.20	J cn	0.50	0.060

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-13-01/1-0 Lab Sample ID: 410-71043-5  
 Matrix: Water Lab File ID: HF03X18.D  
 Analysis Method: 8260D Date Collected: 01/27/2022 09:30  
 Sample wt/vol: 25 (mL) Date Analyzed: 02/03/2022 15:49  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: R-624SilMS 30m ID: 0.25 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 220509 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	ND	cn	0.50	0.10
1330-20-7	Xylenes, Total	ND	cn	1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105	cn	80-120
460-00-4	4-Bromofluorobenzene (Surr)	99	cn	80-120
1868-53-7	Dibromofluoromethane (Surr)	96	cn	80-120
2037-26-5	Toluene-d8 (Surr)	101	cn	80-120

Eurofins Lancaster Laboratories Env, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X18.D  
 Lims ID: 410-71043-A-5  
 Client ID: HD-COD-SW-13-01/1-0  
 Sample Type: Client  
 Inject. Date: 03-Feb-2022 15:49:30 ALS Bottle#: 18 Worklist Smp#: 19  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0049665-019  
 Operator ID: KNK41612 Instrument ID: 19094  
 Method: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\MSV\_19094\_25mL.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 17:23:59 Calib Date: 21-Dec-2021 20:38:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21117.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1662

First Level Reviewer: beckerk

Date: 03-Feb-2022 17:22:22

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Chloromethane	50	2.129	2.148	-0.019	96	2734	0.0351	
7 Vinyl chloride	62		2.264				ND	
9 Bromomethane	94		2.599				ND	
10 Chloroethane	64		2.690				ND	
18 1,1-Dichloroethene	96		3.544				ND	
19 Acetone	43	3.574	3.562	0.012	94	8684	1.06	
24 Carbon disulfide	76		3.849				ND	7
* 28 t-Butyl alcohol-d10 (IS)	65	4.196	4.190	0.006	90	90069	50.0	
29 Methylene Chloride	84		4.202				ND	
32 Methyl tert-butyl ether	73		4.611				ND	7
33 trans-1,2-Dichloroethene	96		4.623				ND	
35 1,1-Dichloroethane	63		5.275				ND	7
41 2-Butanone (MEK)	43		6.056				ND	7
42 cis-1,2-Dichloroethene	96	6.104	6.098	0.006	81	8155	0.1332	
48 Chlorobromomethane	128		6.434				ND	
50 Chloroform	83	6.580	6.580	0.000	88	3962	0.0393	
\$ 51 Dibromofluoromethane (Surr)	113	6.787	6.793	-0.006	94	492434	9.55	
52 1,1,1-Trichloroethane	97	6.805	6.812	-0.007	48	4053	0.0437	
56 Carbon tetrachloride	117		7.025				ND	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.244	7.244	0.000	46	100902	10.5	
59 Benzene	78		7.281				ND	7
60 1,2-Dichloroethane	62		7.348				ND	7
* 65 Fluorobenzene (IS)	96	7.677	7.683	-0.006	99	1954281	10.0	
67 Trichloroethene	95	8.165	8.159	0.006	95	12628	0.2037	
70 1,2-Dichloropropane	63		8.488				ND	
75 Dichlorobromomethane	83		8.829				ND	7
80 cis-1,3-Dichloropropene	75		9.378				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.543				ND	7
\$ 82 Toluene-d8 (Surr)	98	9.683	9.683	0.000	93	2095219	10.1	
83 Toluene	92	9.762	9.762	0.000	95	4815	0.0321	
85 trans-1,3-Dichloropropene	75		10.012				ND	
87 1,1,2-Trichloroethane	97		10.219				ND	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
88 Tetrachloroethene	166	10.305	10.311	-0.006	97	47878	0.6713	
91 2-Hexanone	43		10.427				ND	
93 Chlorodibromomethane	129		10.597				ND	
94 Ethylene Dibromide	107		10.707				ND	
* 97 Chlorobenzene-d5 (IS)	117	11.134	11.134	0.000	86	1603226	10.0	
98 Chlorobenzene	112		11.158				ND	
99 1,1,1,2-Tetrachloroethane	131		11.244				ND	
S 95 Xylenes, Total	106		11.245				ND	7
100 Ethylbenzene	91		11.250				ND	7
101 m-Xylene & p-Xylene	106		11.359				ND	7
102 o-Xylene	106		11.689				ND	7
103 Styrene	104		11.701				ND	7
104 Bromoform	173		11.859				ND	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.127	12.128	-0.001	91	794973	9.86	
109 1,1,2,2-Tetrachloroethane	83		12.231				ND	
* 124 1,4-Dichlorobenzene-d4	152	13.005	13.005	0.000	95	890038	10.0	

**QC Flag Legend**

Processing Flags

7 - Failed Limit of Detection

**Reagents:**

MSV\_LLcentISS\_00002

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X18.D

Injection Date: 03-Feb-2022 15:49:30

Instrument ID: 19094

Operator ID: KNK41612

Lims ID: 410-71043-A-5

Lab Sample ID: 410-71043-5

Worklist Smp#: 19

Client ID: HD-COD-SW-13-01/1-0

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

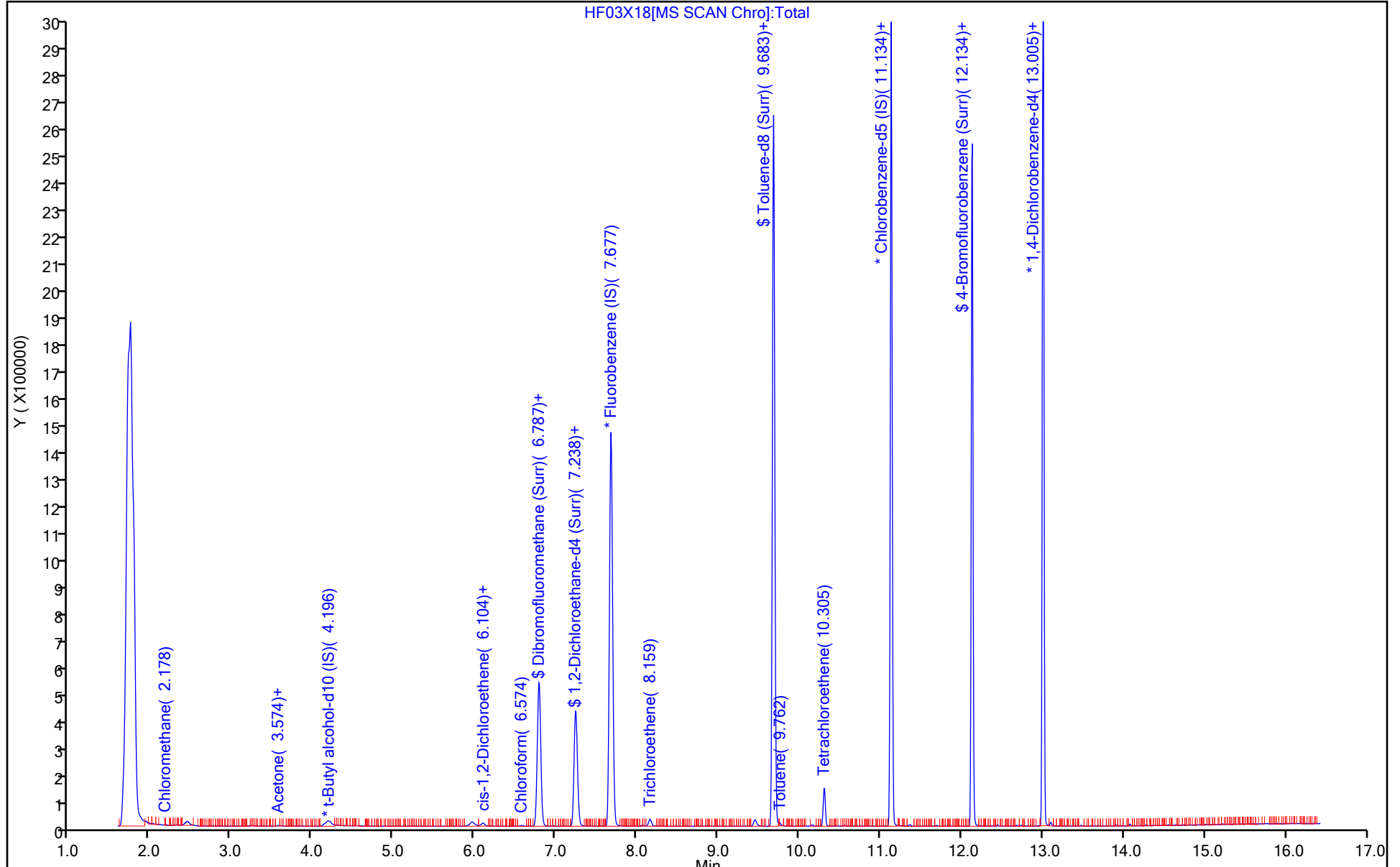
ALS Bottle#: 18

Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X18.D  
 Lims ID: 410-71043-A-5  
 Client ID: HD-COD-SW-13-01/1-0  
 Sample Type: Client  
 Inject. Date: 03-Feb-2022 15:49:30 ALS Bottle#: 18 Worklist Smp#: 19  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0049665-019  
 Operator ID: KNK41612 Instrument ID: 19094  
 Method: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\MSV\_19094\_25mL.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 17:23:59 Calib Date: 21-Dec-2021 20:38:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1662

First Level Reviewer: beckerk

Date: 03-Feb-2022 17:22:22

Compound	Amount Added	Amount Recovered	% Rec.
\$ 51 Dibromofluoromethane (Surr)	10.0	9.55	95.52
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.5	105.00
\$ 82 Toluene-d8 (Surr)	10.0	10.1	100.61
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.86	98.65

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X18.D

Injection Date: 03-Feb-2022 15:49:30

Instrument ID: 19094

Lims ID: 410-71043-A-5

Lab Sample ID: 410-71043-5

Client ID: HD-COD-SW-13-01/1-0

Operator ID: KNK41612

ALS Bottle#: 18

Worklist Smp#: 19

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

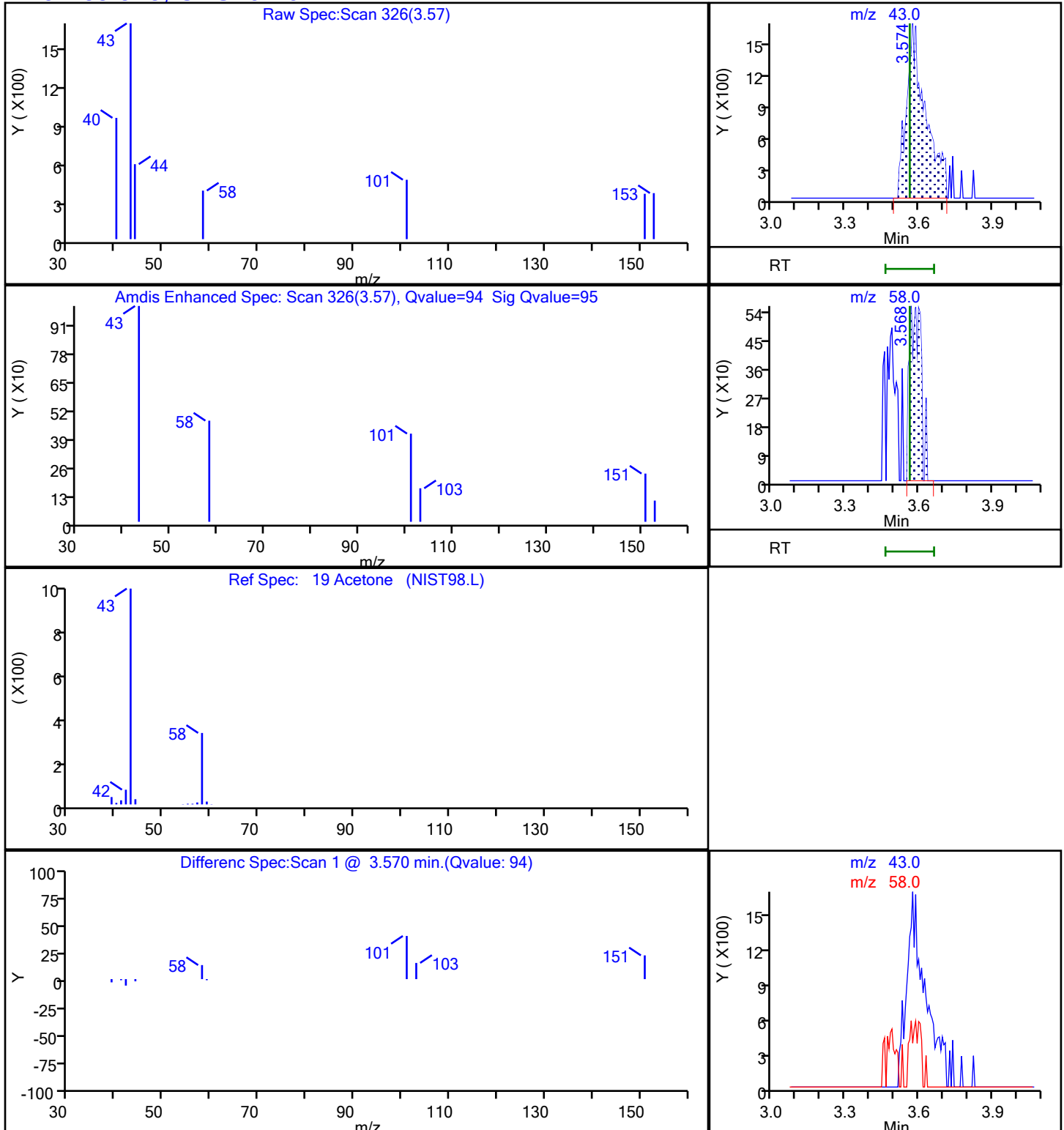
Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

MS Quad

19 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X18.D

Injection Date: 03-Feb-2022 15:49:30

Instrument ID: 19094

Lims ID: 410-71043-A-5

Lab Sample ID: 410-71043-5

Client ID: HD-COD-SW-13-01/1-0

Operator ID: KNK41612

ALS Bottle#: 18

Worklist Smp#: 19

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

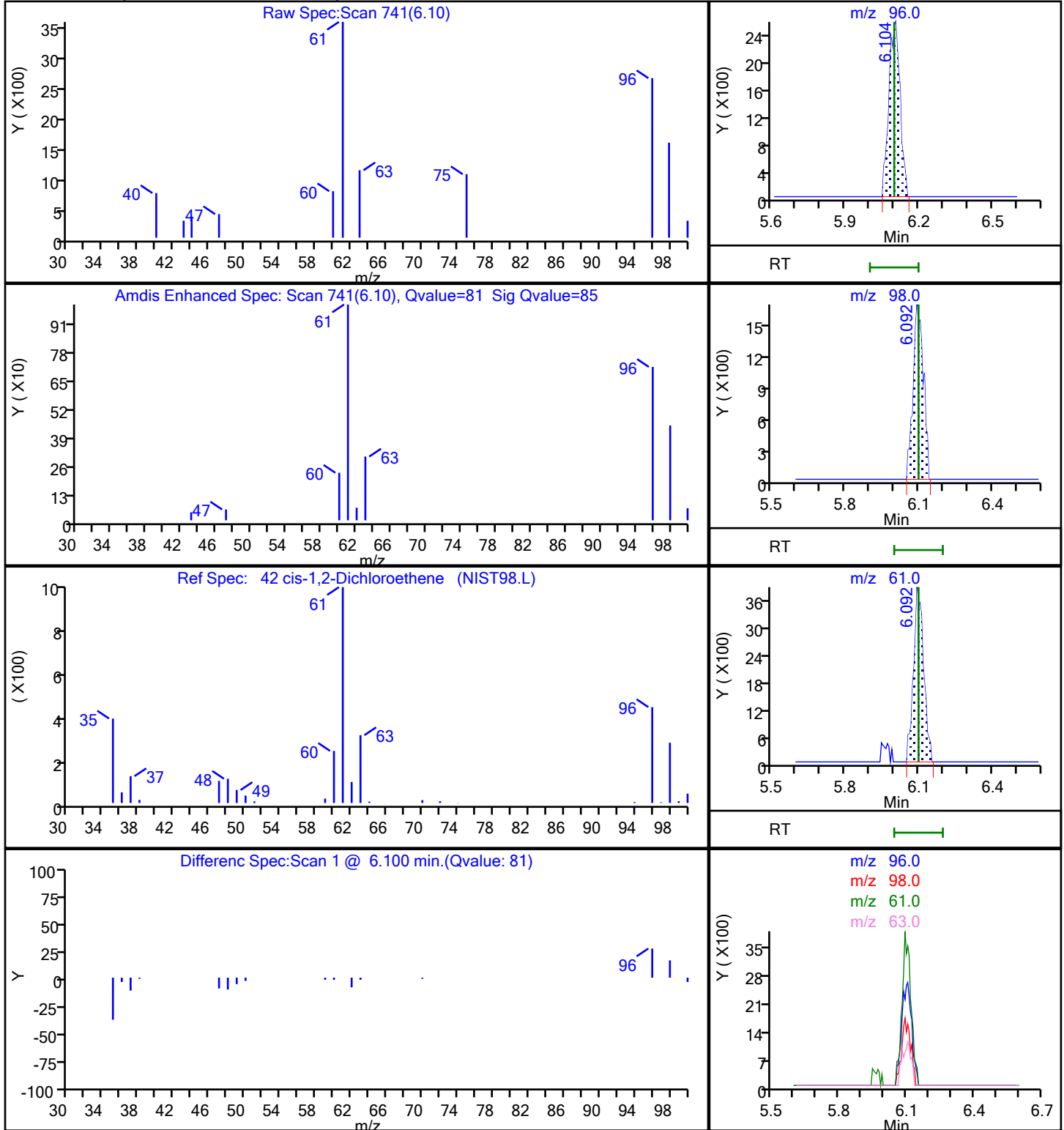
Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

MS Quad

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



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X18.D

Injection Date: 03-Feb-2022 15:49:30

Instrument ID: 19094

Lims ID: 410-71043-A-5

Lab Sample ID: 410-71043-5

Client ID: HD-COD-SW-13-01/1-0

Operator ID: KNK41612

ALS Bottle#: 18

Worklist Smp#: 19

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

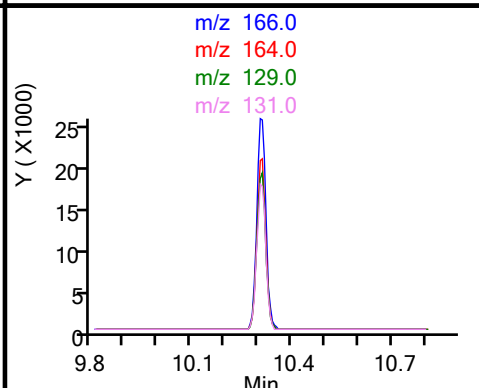
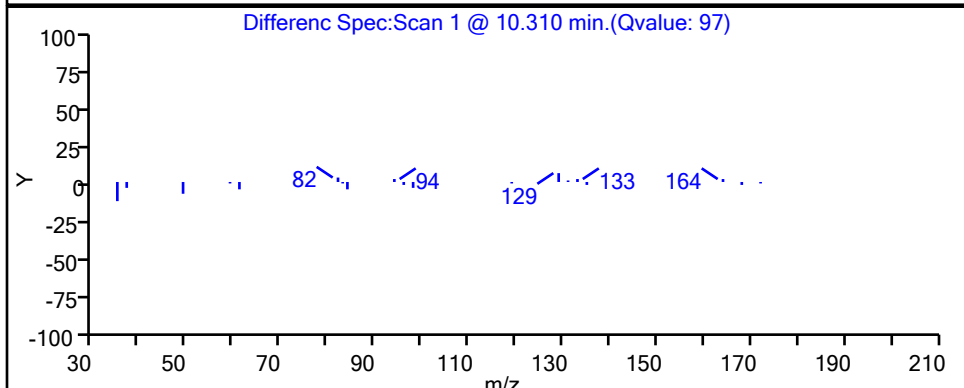
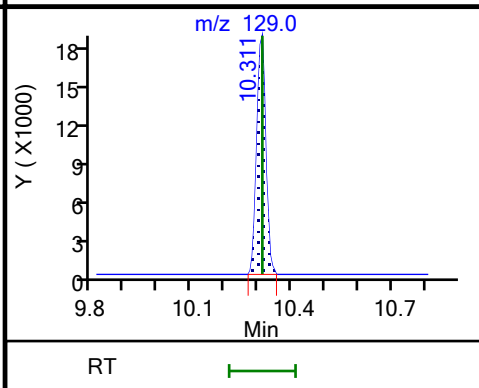
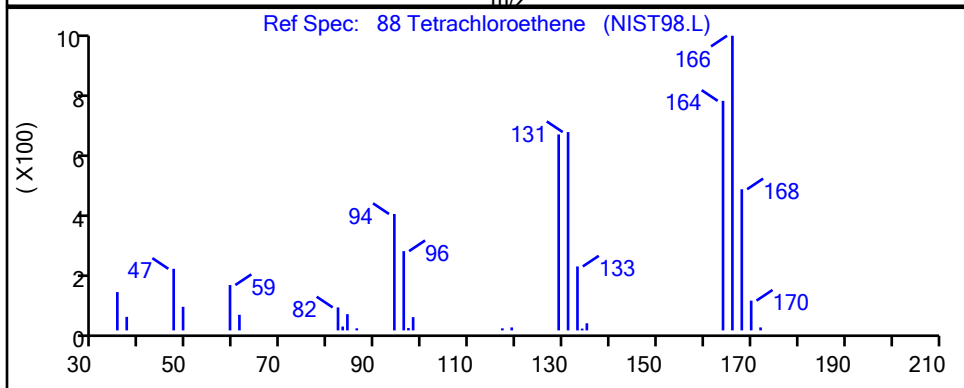
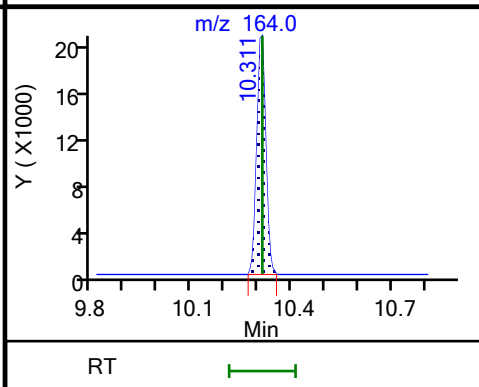
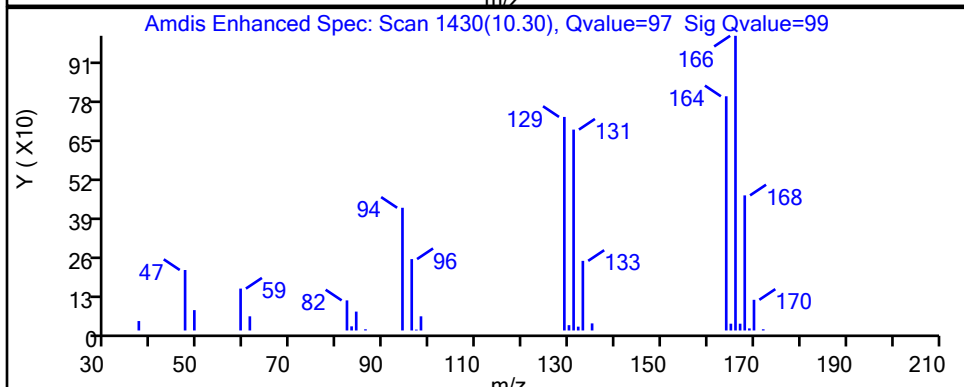
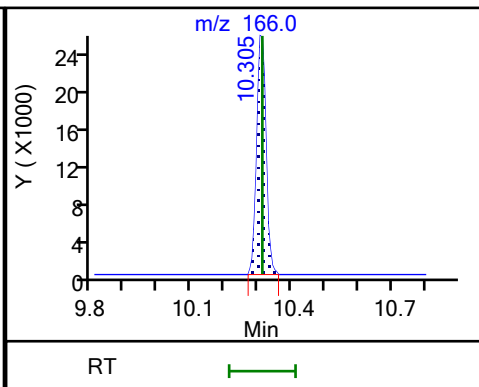
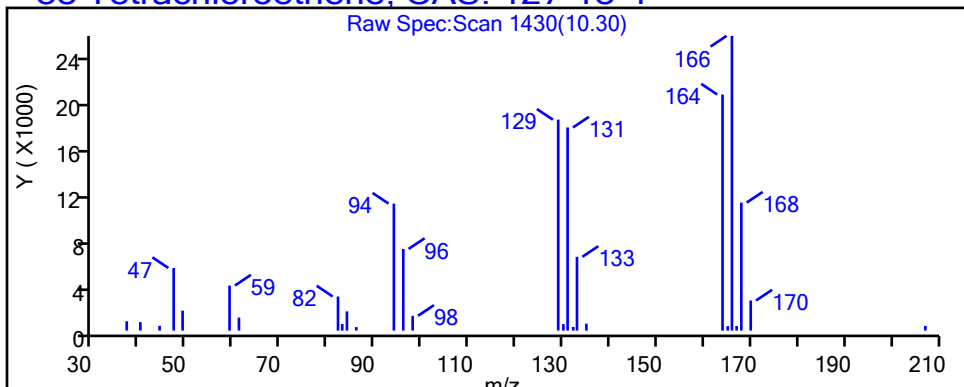
Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

MS Quad

### 88 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X18.D

Injection Date: 03-Feb-2022 15:49:30

Instrument ID: 19094

Lims ID: 410-71043-A-5

Lab Sample ID: 410-71043-5

Client ID: HD-COD-SW-13-01/1-0

Operator ID: KNK41612

ALS Bottle#: 18

Worklist Smp#: 19

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

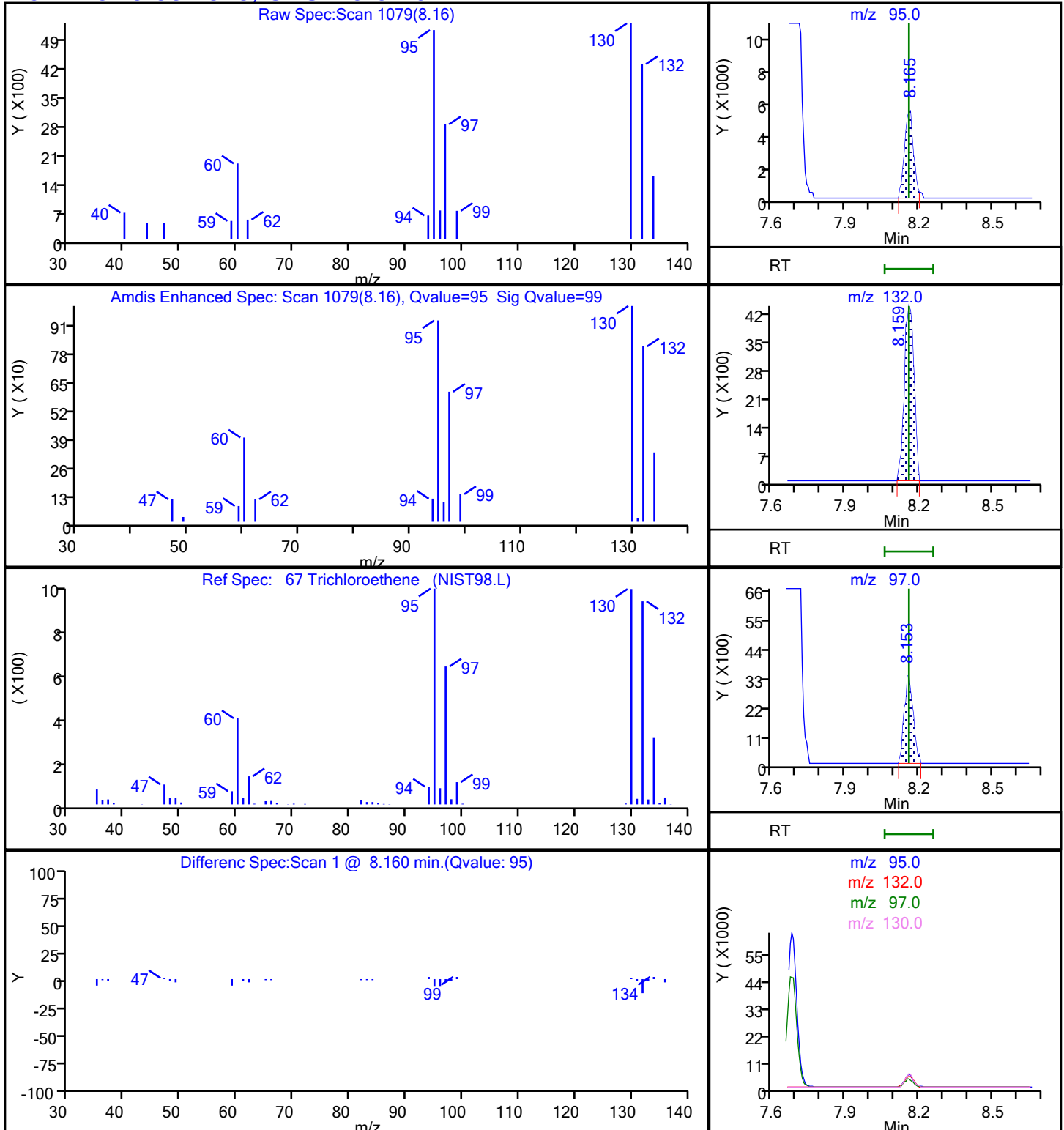
Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

MS Quad

### 67 Trichloroethene, CAS: 79-01-6



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-15-01/1-0 Lab Sample ID: 410-71043-6  
 Matrix: Water Lab File ID: HF03X19.D  
 Analysis Method: 8260D Date Collected: 01/27/2022 11:45  
 Sample wt/vol: 25 (mL) Date Analyzed: 02/03/2022 16:09  
 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.: 220509 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND	cn	0.50	0.070
71-55-6	1,1,1-Trichloroethane	0.24	J cn	0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND	cn	0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND	cn	0.50	0.060
75-34-3	1,1-Dichloroethane	0.13	J cn	0.50	0.070
75-35-4	1,1-Dichloroethene	0.13	J cn	0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060
107-06-2	1,2-Dichloroethane	ND	cn	0.50	0.050
78-87-5	1,2-Dichloropropane	ND	cn	0.50	0.060
78-93-3	2-Butanone (MEK)	ND	cn	5.0	0.60
591-78-6	2-Hexanone	ND	^c cn	5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70
67-64-1	Acetone	ND	cn	5.0	0.90
71-43-2	Benzene	ND	cn	0.50	0.050
74-97-5	Bromochloromethane	ND	cn	0.50	0.050
75-27-4	Bromodichloromethane	ND	cn	0.50	0.050
75-25-2	Bromoform	ND	cn	1.0	0.30
74-83-9	Bromomethane	ND	cn	0.50	0.070
75-15-0	Carbon disulfide	ND	cn	1.0	0.060
56-23-5	Carbon tetrachloride	ND	cn	0.50	0.070
108-90-7	Chlorobenzene	ND	cn	0.50	0.060
75-00-3	Chloroethane	ND	cn	0.50	0.070
67-66-3	Chloroform	0.24	J cn	0.50	0.090
74-87-3	Chloromethane	ND	cn	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	1.5	cn	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND	cn	0.50	0.050
124-48-1	Dibromochloromethane	ND	cn	0.50	0.070
100-41-4	Ethylbenzene	ND	cn	0.50	0.060
1634-04-4	Methyl tert-butyl ether	0.051	J cn	0.50	0.050
75-09-2	Methylene Chloride	ND	cn	0.50	0.070
100-42-5	Styrene	ND	cn	0.50	0.050
127-18-4	Tetrachloroethene	6.1	cn	0.50	0.060
108-88-3	Toluene	ND	cn	0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND	cn	0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND	cn	0.50	0.060
79-01-6	Trichloroethene	1.4	cn	0.50	0.060



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-15-01/1-0 Lab Sample ID: 410-71043-6  
 Matrix: Water Lab File ID: HF03X19.D  
 Analysis Method: 8260D Date Collected: 01/27/2022 11:45  
 Sample wt/vol: 25 (mL) Date Analyzed: 02/03/2022 16:09  
 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.: 220509 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	ND	cn	0.50	0.10
1330-20-7	Xylenes, Total	ND	cn	1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100	cn	80-120
460-00-4	4-Bromofluorobenzene (Surr)	100	cn	80-120
1868-53-7	Dibromofluoromethane (Surr)	95	cn	80-120
2037-26-5	Toluene-d8 (Surr)	100	cn	80-120

Eurofins Lancaster Laboratories Env, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X19.D  
 Lims ID: 410-71043-A-6  
 Client ID: HD-COD-SW-15-01/1-0  
 Sample Type: Client  
 Inject. Date: 03-Feb-2022 16:09:30 ALS Bottle#: 19 Worklist Smp#: 20  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0049665-020  
 Operator ID: KNK41612 Instrument ID: 19094  
 Method: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\MSV\_19094\_25mL.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 17:23:59 Calib Date: 21-Dec-2021 20:38:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21117.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1662

First Level Reviewer: beckerk Date: 03-Feb-2022 17:23:59

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
1 Chlorotrifluoroethene	116		1.892				ND	
3 Dichlorodifluoromethane	85		1.947				ND	
2 Chlorodifluoromethane	51		1.952				ND	7
4 Dimethyl ether	45		2.013				ND	
6 Chloromethane	50		2.148				ND	
7 Vinyl chloride	62		2.264				ND	
8 Butadiene	39		2.270				ND	7
5 2-Chloro-1,1,1-Trifluoroethane	118		2.330				ND	
9 Bromomethane	94		2.599				ND	
10 Chloroethane	64		2.690				ND	
11 Dichlorofluoromethane	67		2.922				ND	7
13 Trichlorofluoromethane	101		2.995				ND	
12 Ethanol	45		3.111				ND	
15 Ethyl ether	59		3.227				ND	
16 1,2-Dichloro-1,1,2-trifluoroetha	67		3.324				ND	
17 Acrolein	56		3.398				ND	
T 184 Ethanol TIC	45		3.440				ND	7
18 1,1-Dichloroethene	96	3.532	3.544	-0.012	95	6726	0.1293	
19 Acetone	43		3.562				ND	7
20 112TCTFE	101		3.593				ND	
21 Isopropyl alcohol	45		3.727				ND	
22 Iodomethane	142		3.739				ND	
23 Ethyl bromide	108		3.769				ND	
24 Carbon disulfide	76		3.849				ND	
25 Acetonitrile	41		3.970				ND	
26 Methyl acetate	43		3.989				ND	
27 3-Chloro-1-propene	41		4.013				ND	
* 28 t-Butyl alcohol-d10 (IS)	65	4.178	4.190	-0.012	91	95495	50.0	
29 Methylene Chloride	84		4.202				ND	
T 185 Acetonitrile TIC	41		4.214				ND	
30 2-Methyl-2-propanol	59		4.324				ND	
31 Acrylonitrile	53		4.544				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
32 Methyl tert-butyl ether	73	4.586	4.611	-0.025	2	5731	0.0506	
33 trans-1,2-Dichloroethene	96		4.623				ND	7
34 Hexane	57		5.050				ND	
36 Vinyl acetate	43		5.257				ND	
35 1,1-Dichloroethane	63	5.269	5.275	-0.006	94	13209	0.1284	
37 Isopropyl ether	45		5.336				ND	
38 2-Chloro-1,3-butadiene	53		5.385				ND	
T 187 Vinyl acetate (TIC)	43		5.537				ND	
39 Tert-butyl ethyl ether	59		5.860				ND	7
41 2-Butanone (MEK)	43		6.056				ND	7
42 cis-1,2-Dichloroethene	96	6.092	6.098	-0.006	80	88533	1.45	
43 2,2-Dichloropropane	77		6.123				ND	
44 Ethyl acetate	43		6.141				ND	
45 Propionitrile	54		6.147				ND	
S 40 1,2-Dichloroethene, Total	100				0		1.45	
47 Methacrylonitrile	67		6.366				ND	
48 Chlorobromomethane	128		6.434				ND	
49 Tetrahydrofuran	71		6.434				ND	
46 Methyl acrylate	55		6.482				ND	
50 Chloroform	83	6.580	6.580	0.000	93	23734	0.2368	
\$ 51 Dibromofluoromethane (Surr)	113	6.787	6.793	-0.006	94	488528	9.53	
52 1,1,1-Trichloroethane	97	6.811	6.812	-0.001	99	22547	0.2443	
53 Cyclohexane	56		6.915				ND	7
55 1,1-Dichloropropene	75		7.019				ND	
56 Carbon tetrachloride	117	7.019	7.025	-0.006	56	2797	0.0348	
57 Isobutyl alcohol	41		7.153				ND	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.244	7.244	0.000	46	95933	10.0	
54 1-Chlorobutane	56		7.250				ND	
59 Benzene	78		7.281				ND	7
60 1,2-Dichloroethane	62		7.348				ND	7
61 Isopropyl acetate	43		7.354				ND	
62 Tert-amyl methyl ether	73		7.464				ND	
* 65 Fluorobenzene (IS)	96	7.677	7.683	-0.006	99	1944149	10.0	
64 n-Heptane	43		7.695				ND	
63 t-Amyl alcohol	73		7.842				ND	
66 n-Butanol	56		8.025				ND	7
67 Trichloroethene	95	8.159	8.159	0.000	98	85566	1.39	
68 Methylcyclohexane	83		8.470				ND	
70 1,2-Dichloropropane	63		8.488				ND	
69 2-ethoxy-2-methyl butane	87		8.494				ND	
71 Methyl methacrylate	69		8.567				ND	
72 1,4-Dioxane	88		8.579				ND	
73 Dibromomethane	93		8.598				ND	
74 n-Propyl acetate	61		8.652				ND	
75 Dichlorobromomethane	83		8.829				ND	
76 2-Nitropropane	41		9.092				ND	
78 2-Chloroethyl vinyl ether	63		9.207				ND	
79 1-Bromo-2-chloroethane	63		9.226				ND	
80 cis-1,3-Dichloropropene	75		9.378				ND	
77 Chloroacetonitrile	75		9.427				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.543				ND	
\$ 82 Toluene-d8 (Surr)	98	9.683	9.683	0.000	93	2048129	10.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
83 Toluene	92		9.762				ND	7
T 176 Epibromohydrin TIC	57		10.000				ND	U
T 180 2-Bromo-3-chloropropene TIC	75		10.000				ND	U
T 172 2,3-Dibromo-1-propanol TIC	57		10.000				ND	U
T 178 Vinyl bromide TIC	106		10.000				ND	U
T 177 Chloroacetaldehyde TIC	50		10.000				ND	U
T 174 Monochloroacetic acid TIC	50		10.000				ND	U
T 173 2-Bromoethanol TIC	45		10.000				ND	U
T 182 2,3-Dibromopropene TIC	119		10.000				ND	U
T 179 Epichlorohydrin TIC	57		10.000				ND	U
T 181 Ethylene oxide TIC	44		10.000				ND	U
T 183 3-Chloro-1,2-propanediol TIC	44		10.000				ND	U
T 175 2-Chloroethanol TIC	44		10.000				ND	
85 trans-1,3-Dichloropropene	75		10.012				ND	
S 84 1,3-Dichloropropene, Total	100		10.060				ND	7
86 Ethyl methacrylate	69		10.073				ND	
87 1,1,2-Trichloroethane	97		10.219				ND	7
88 Tetrachloroethene	166	10.305	10.311	-0.006	98	427821	6.12	
89 1,3-Dichloropropane	76		10.378				ND	
91 2-Hexanone	43		10.427				ND	
92 n-Butyl acetate	43		10.548				ND	
93 Chlorodibromomethane	129		10.597				ND	
94 Ethylene Dibromide	107		10.707				ND	
* 97 Chlorobenzene-d5 (IS)	117	11.134	11.134	0.000	86	1571566	10.0	
96 1-Chlorohexane	91		11.140				ND	7
98 Chlorobenzene	112		11.158				ND	7
99 1,1,1,2-Tetrachloroethane	131		11.244				ND	
S 95 Xylenes, Total	106		11.245				ND	7
100 Ethylbenzene	91		11.250				ND	7
101 m-Xylene & p-Xylene	106		11.359				ND	7
102 o-Xylene	106		11.689				ND	7
103 Styrene	104		11.701				ND	
104 Bromoform	173		11.859				ND	
105 Isopropylbenzene	105		11.987				ND	
106 cis-1,4-Dichloro-2-butene	88		12.030				ND	U
107 Cyclohexanone	55		12.066				ND	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.134	12.128	0.006	93	787044	9.96	
109 1,1,2,2-Tetrachloroethane	83		12.231				ND	
111 Bromobenzene	156		12.249				ND	
110 trans-1,4-Dichloro-2-butene	53		12.256				ND	
112 1,2,3-Trichloropropane	110		12.274				ND	
113 N-Propylbenzene	91		12.317				ND	
114 2-Chlorotoluene	126		12.390				ND	
115 1,3,5-Trimethylbenzene	105		12.451				ND	7
116 4-Chlorotoluene	126		12.481				ND	
118 tert-Butylbenzene	134		12.688				ND	
119 Pentachloroethane	167		12.725				ND	
120 1,2,4-Trimethylbenzene	105		12.731				ND	7
121 sec-Butylbenzene	105		12.853				ND	
122 1,3-Dichlorobenzene	146		12.951				ND	7
123 4-Isopropyltoluene	119		12.957				ND	7
* 124 1,4-Dichlorobenzene-d4	152	13.005	13.005	0.000	95	877522	10.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
125 1,4-Dichlorobenzene	146		13.024				ND	7
126 1,2,3-Trimethylbenzene	120		13.036				ND	7
127 Benzyl chloride	126		13.103				ND	
129 p-Diethylbenzene	119		13.158				ND	
130 n-Butylbenzene	92		13.249				ND	
131 1,2-Dichlorobenzene	146		13.286				ND	
133 Hexachloroethane	201		13.682				ND	
134 1,2-Dibromo-3-Chloropropane	155		13.822				ND	
135 1,3,5-Trichlorobenzene	180		13.950				ND	
136 1,2,4-Trichlorobenzene	180		14.371				ND	
137 Hexachlorobutadiene	225		14.450				ND	
138 Naphthalene	128		14.548				ND	7
139 1,2,3-Trichlorobenzene	180		14.688				ND	7
140 2-Methylnaphthalene	142		15.310				ND	
151 tert-Butyl Formate	1		0.000				ND	
152 Dodecane	57		0.000				ND	
157 Methylal	1		0.000				ND	
142 1,1-Dichloro-1-fluoroethane	1		0.000				ND	
150 Propene oxide	1		0.000				ND	
162 1-Chloropropane	1		0.000				ND	
163 1-Bromo-3-Chloropropane	1		0.000				ND	
160 n-Decane	57		0.000				ND	
161 2-Bromo-1-chloropropane	1		0.000				ND	
186 Isopropyl alcohol TIC	1		0.000				ND	
188 Decamethylcyclotetrasiloxane TIC	1		0.000				ND	
189 Hexachloroethane TIC	1		0.000				ND	
190 Nitrobenzene TIC	1		0.000				ND	
191 Octamethylcyclotetrasiloxane TIC	1		0.000				ND	

### QC Flag Legend

#### Processing Flags

7 - Failed Limit of Detection

#### Review Flags

U - Marked Undetected

### Reagents:

MSV\_LLcentISS\_00002

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X19.D

Injection Date: 03-Feb-2022 16:09:30

Instrument ID: 19094

Operator ID: KNK41612

Lims ID: 410-71043-A-6

Lab Sample ID: 410-71043-6

Worklist Smp#: 20

Client ID: HD-COD-SW-15-01/1-0

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

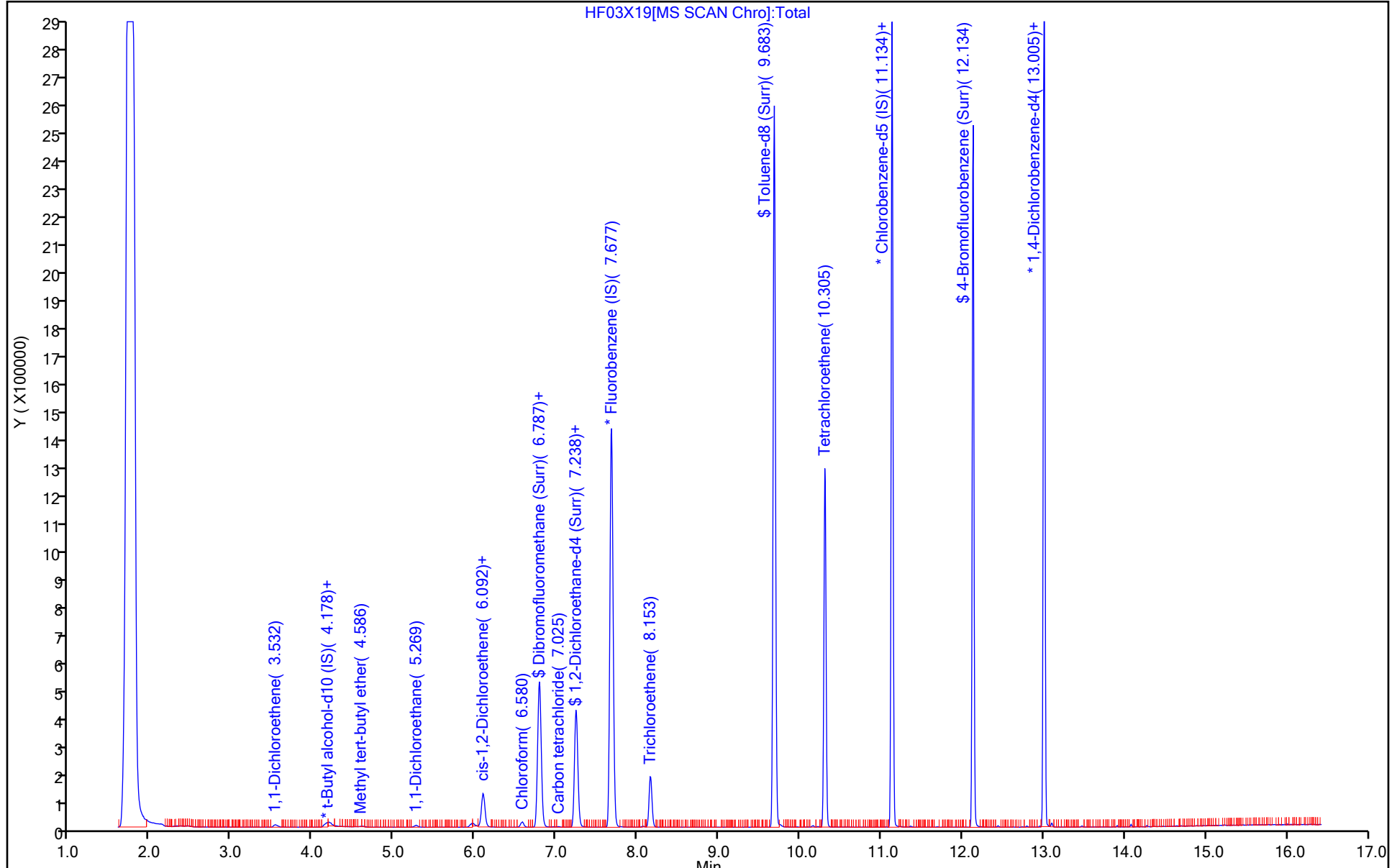
ALS Bottle#: 19

Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X19.D  
 Lims ID: 410-71043-A-6  
 Client ID: HD-COD-SW-15-01/1-0  
 Sample Type: Client  
 Inject. Date: 03-Feb-2022 16:09:30 ALS Bottle#: 19 Worklist Smp#: 20  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0049665-020  
 Operator ID: KNK41612 Instrument ID: 19094  
 Method: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\MSV\_19094\_25mL.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 17:23:59 Calib Date: 21-Dec-2021 20:38:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1662

First Level Reviewer: beckerk

Date: 03-Feb-2022 17:23:59

Compound	Amount Added	Amount Recovered	% Rec.
\$ 51 Dibromofluoromethane (Surr)	10.0	9.53	95.25
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.0	100.35
\$ 82 Toluene-d8 (Surr)	10.0	10.0	100.33
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.96	99.63

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X19.D

Injection Date: 03-Feb-2022 16:09:30

Instrument ID: 19094

Lims ID: 410-71043-A-6

Lab Sample ID: 410-71043-6

Client ID: HD-COD-SW-15-01/1-0

Operator ID: KNK41612

ALS Bottle#: 19

Worklist Smp#: 20

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

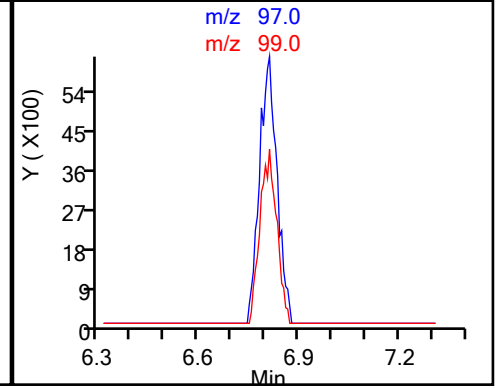
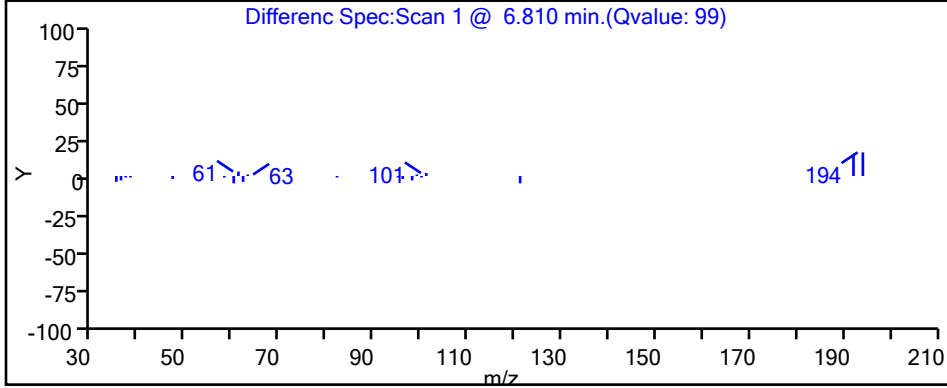
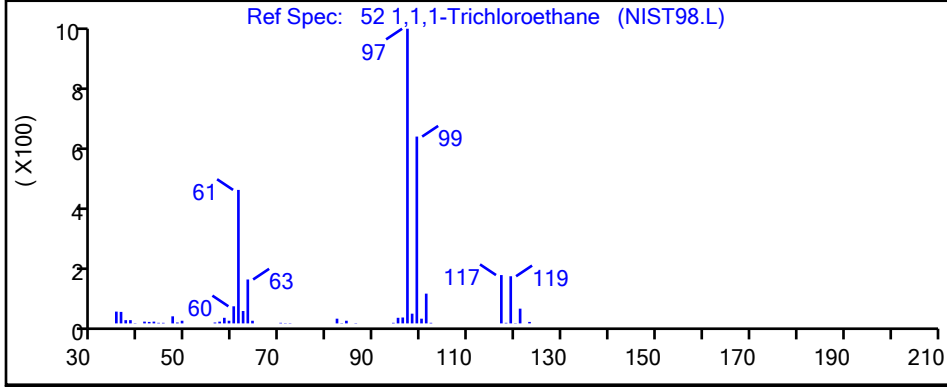
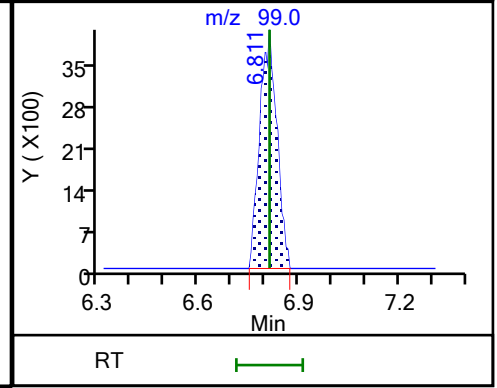
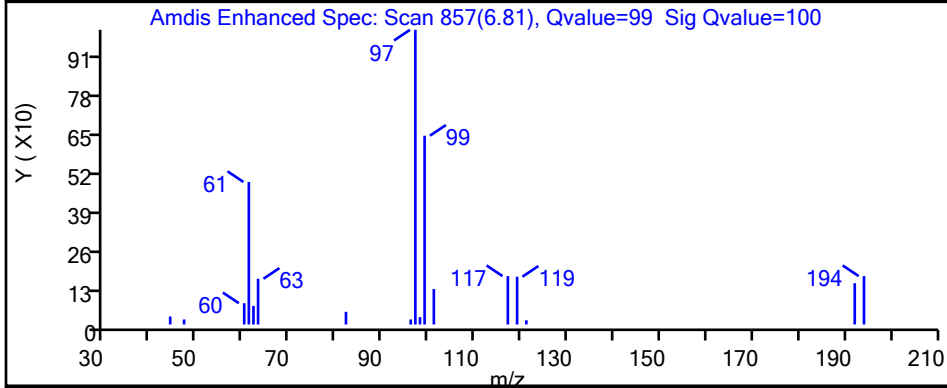
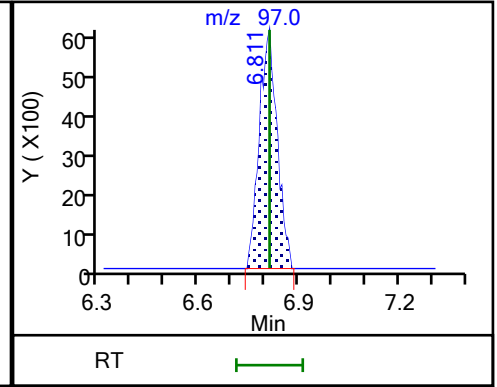
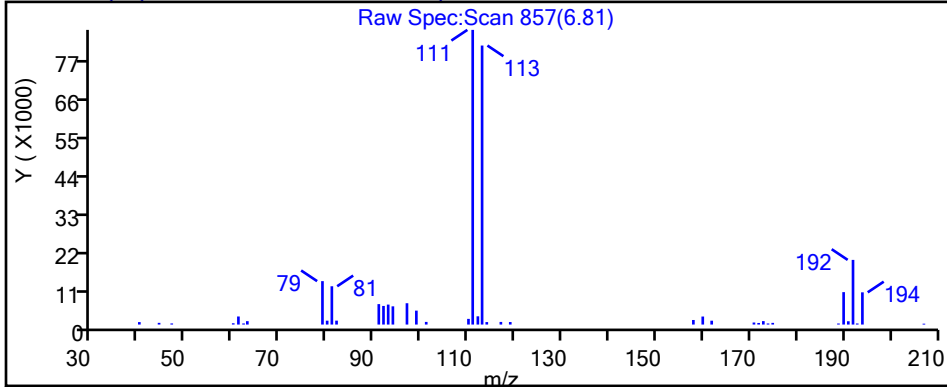
Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

MS Quad

52 1,1,1-Trichloroethane, CAS: 71-55-6





Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X19.D

Injection Date: 03-Feb-2022 16:09:30

Instrument ID: 19094

Lims ID: 410-71043-A-6

Lab Sample ID: 410-71043-6

Client ID: HD-COD-SW-15-01/1-0

Operator ID: KNK41612

ALS Bottle#: 19

Worklist Smp#: 20

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

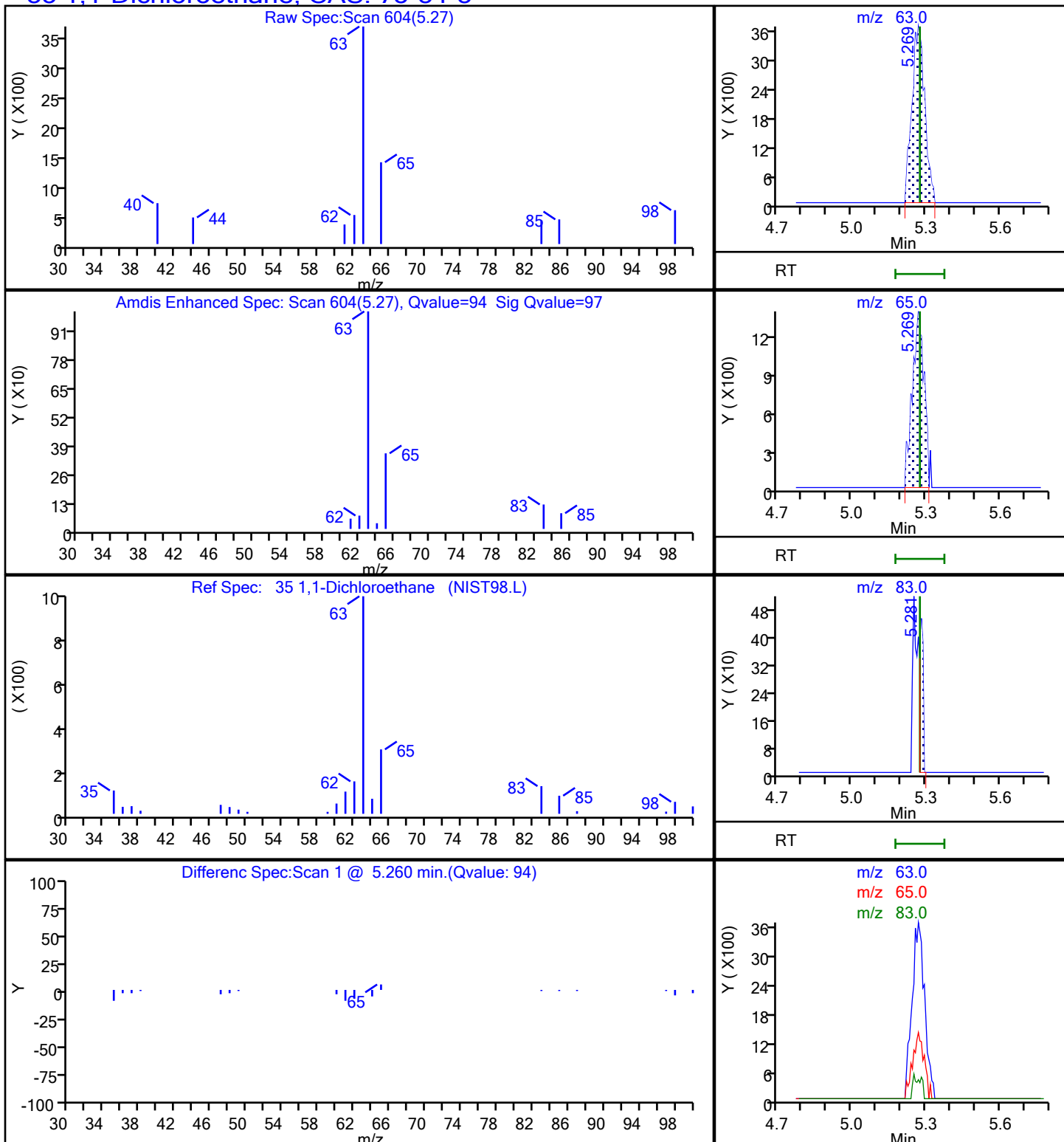
Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

MS Quad

### 35 1,1-Dichloroethane, CAS: 75-34-3



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X19.D

Injection Date: 03-Feb-2022 16:09:30

Instrument ID: 19094

Lims ID: 410-71043-A-6

Lab Sample ID: 410-71043-6

Client ID: HD-COD-SW-15-01/1-0

Operator ID: KNK41612

ALS Bottle#: 19

Worklist Smp#: 20

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

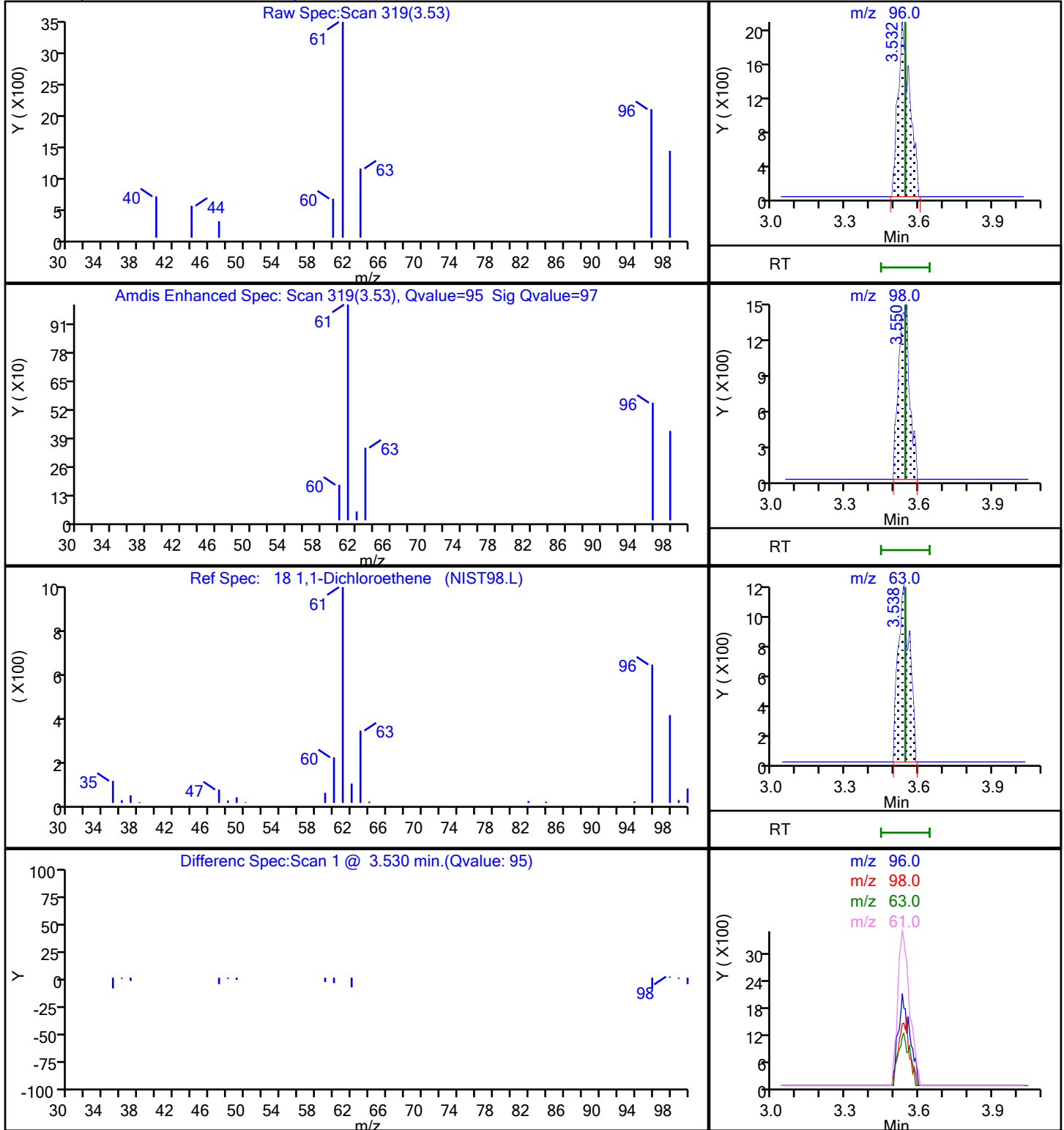
Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

MS Quad

18 1,1-Dichloroethene, CAS: 75-35-4



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X19.D

Injection Date: 03-Feb-2022 16:09:30

Instrument ID: 19094

Lims ID: 410-71043-A-6

Lab Sample ID: 410-71043-6

Client ID: HD-COD-SW-15-01/1-0

Operator ID: KNK41612

ALS Bottle#: 19

Worklist Smp#: 20

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

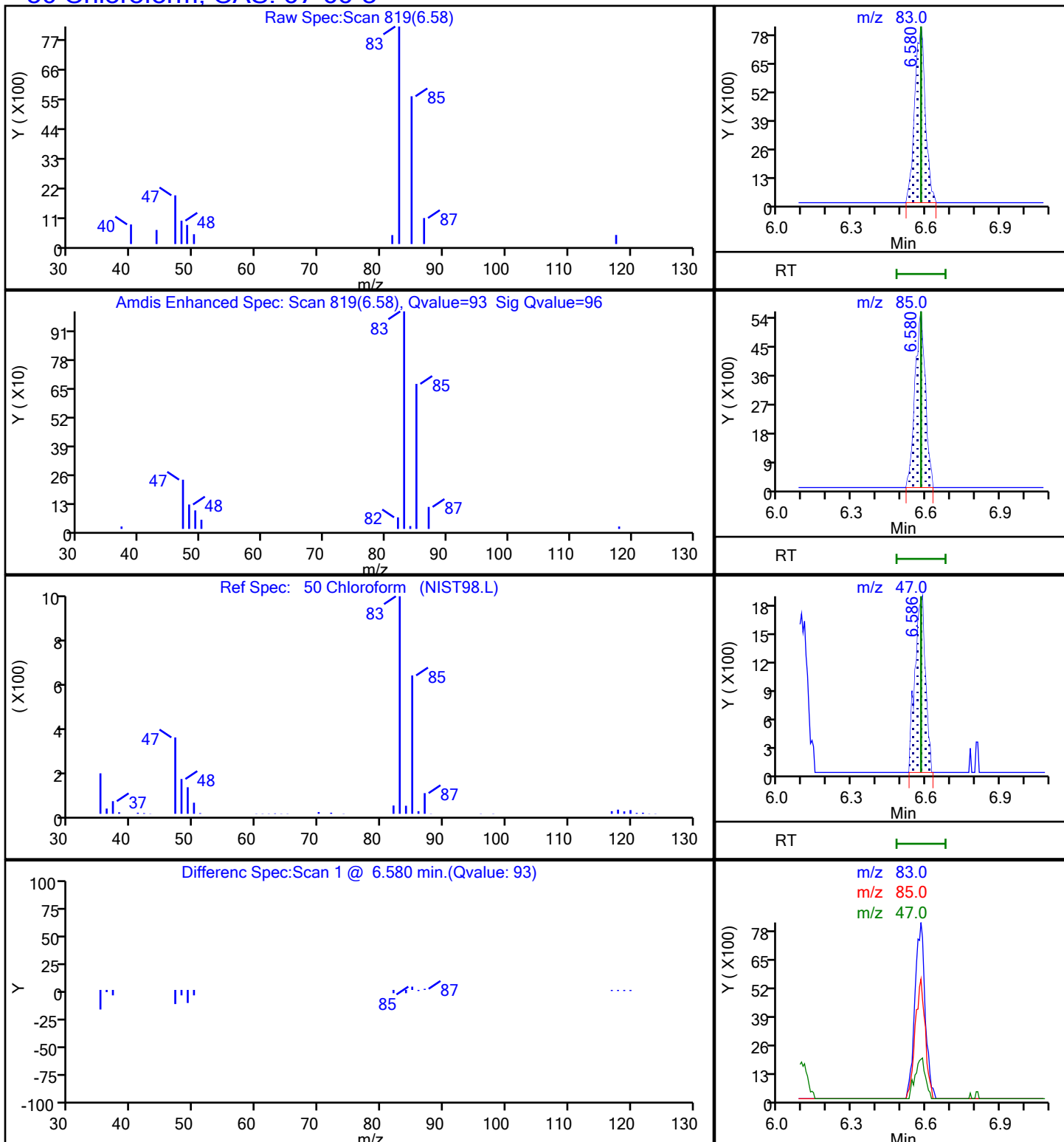
Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

MS Quad

### 50 Chloroform, CAS: 67-66-3



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X19.D

Injection Date: 03-Feb-2022 16:09:30

Instrument ID: 19094

Lims ID: 410-71043-A-6

Lab Sample ID: 410-71043-6

Client ID: HD-COD-SW-15-01/1-0

Operator ID: KNK41612

ALS Bottle#: 19

Worklist Smp#: 20

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

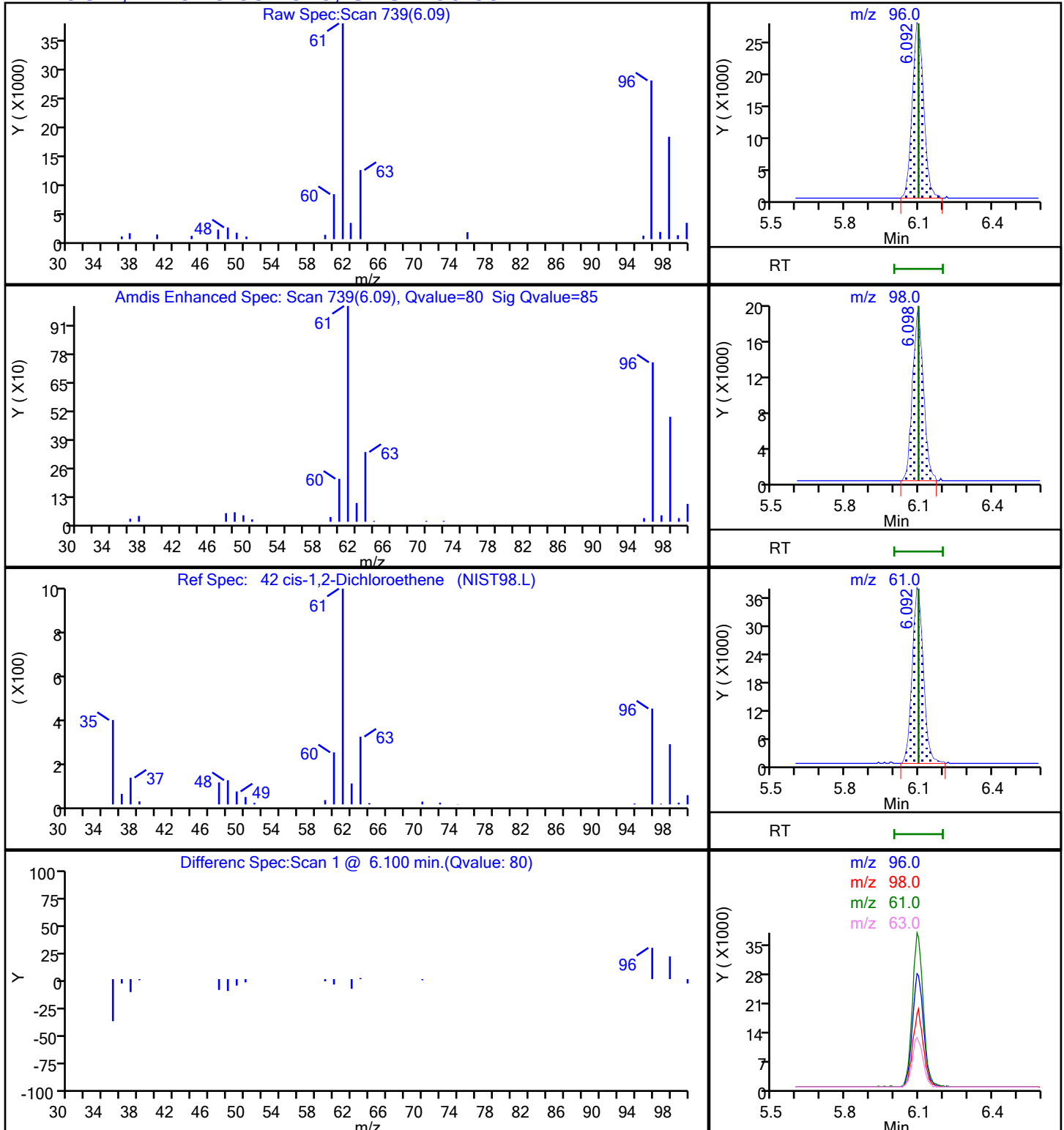
Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

MS Quad

### 42 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X19.D

Injection Date: 03-Feb-2022 16:09:30

Instrument ID: 19094

Lims ID: 410-71043-A-6

Lab Sample ID: 410-71043-6

Client ID: HD-COD-SW-15-01/1-0

Operator ID: KNK41612

ALS Bottle#: 19

Worklist Smp#: 20

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

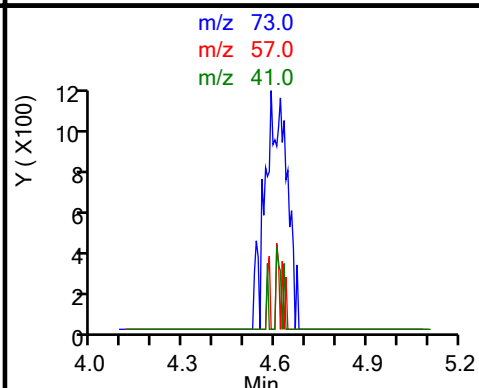
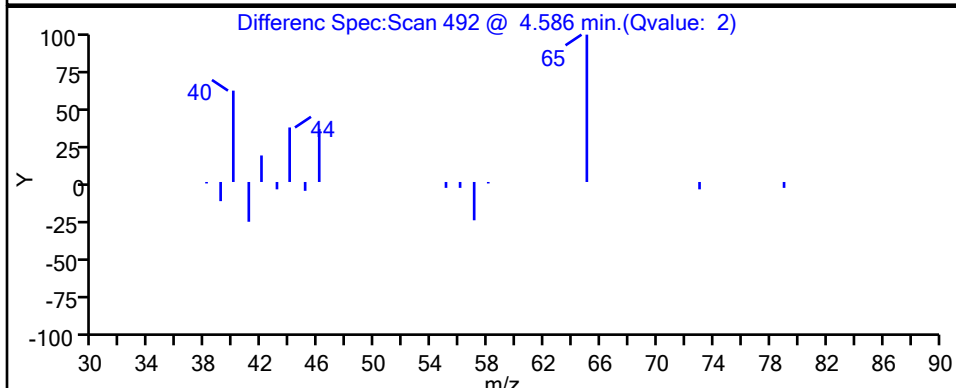
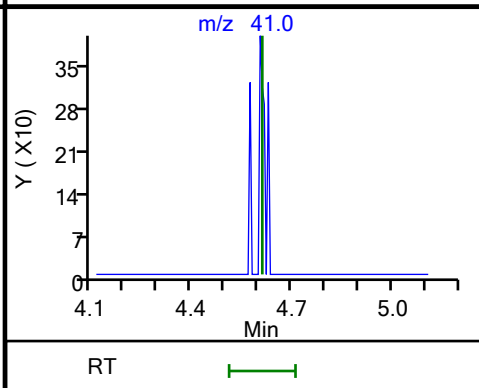
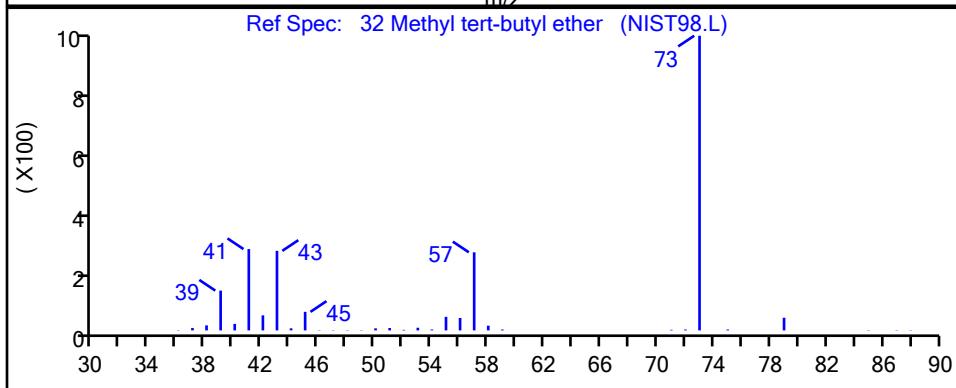
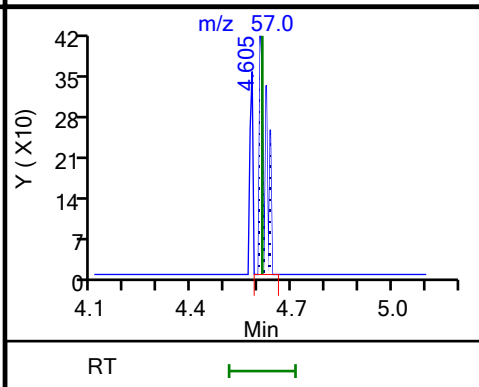
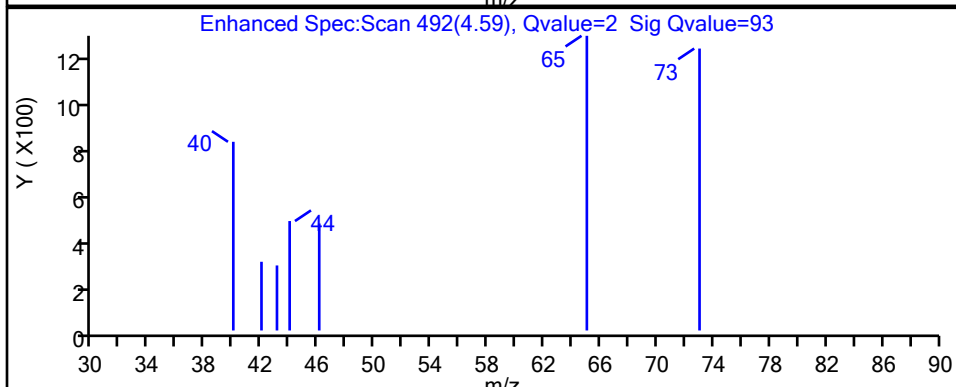
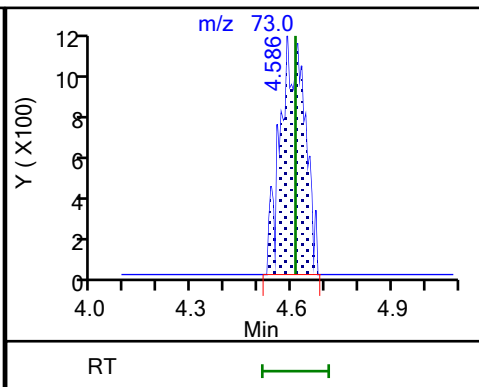
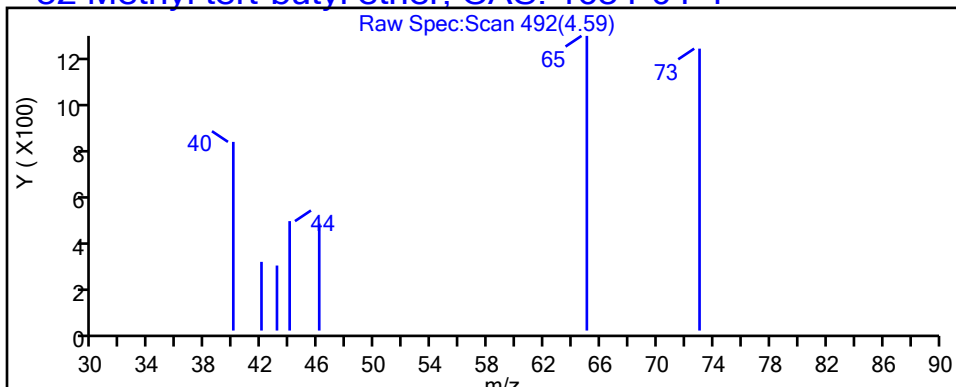
Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

MS Quad

32 Methyl tert-butyl ether, CAS: 1634-04-4



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X19.D

Injection Date: 03-Feb-2022 16:09:30

Instrument ID: 19094

Lims ID: 410-71043-A-6

Lab Sample ID: 410-71043-6

Client ID: HD-COD-SW-15-01/1-0

Operator ID: KNK41612

ALS Bottle#: 19

Worklist Smp#: 20

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

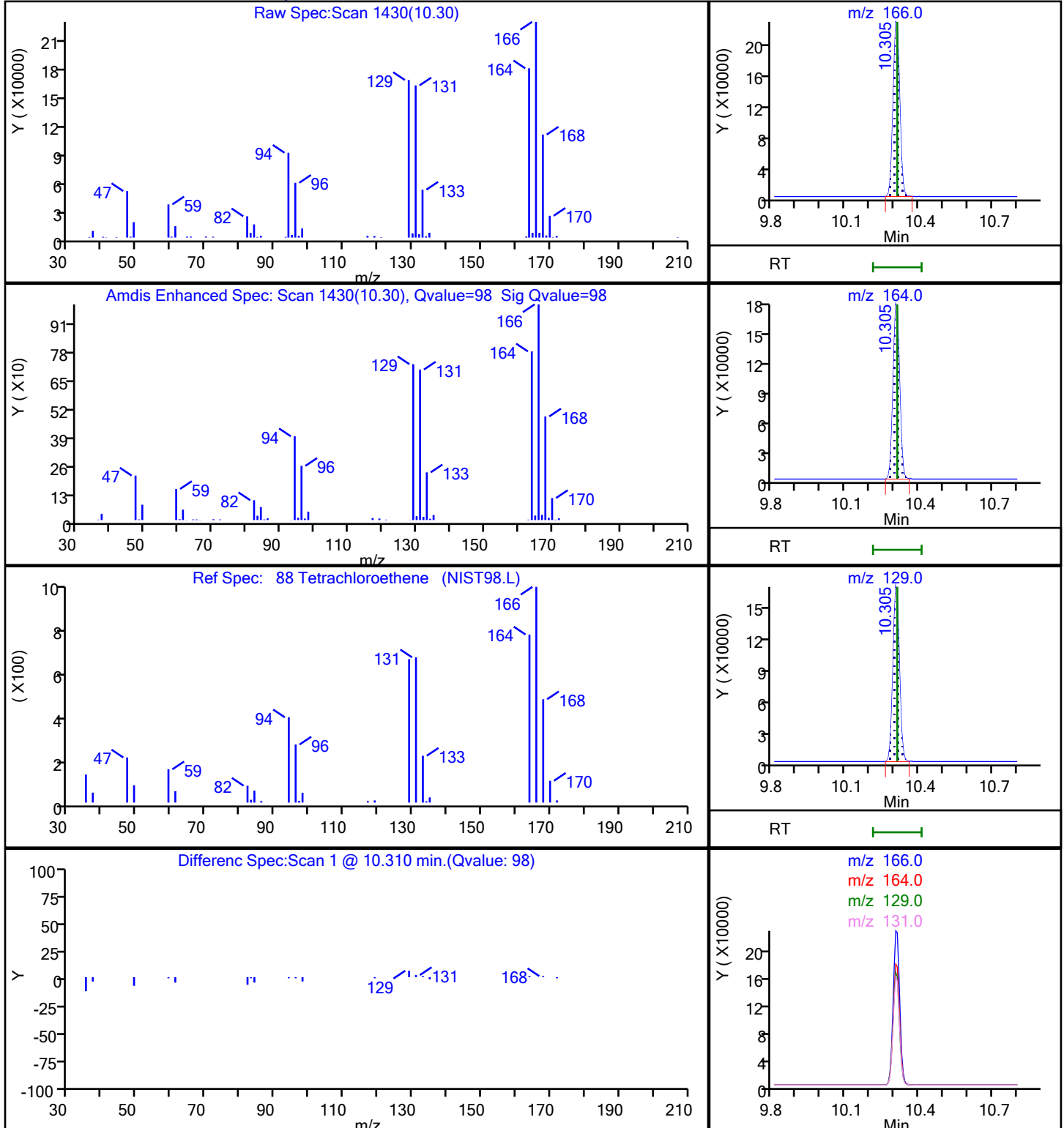
Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

MS Quad

### 88 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X19.D

Injection Date: 03-Feb-2022 16:09:30

Instrument ID: 19094

Lims ID: 410-71043-A-6

Lab Sample ID: 410-71043-6

Client ID: HD-COD-SW-15-01/1-0

Operator ID: KNK41612

ALS Bottle#: 19

Worklist Smp#: 20

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

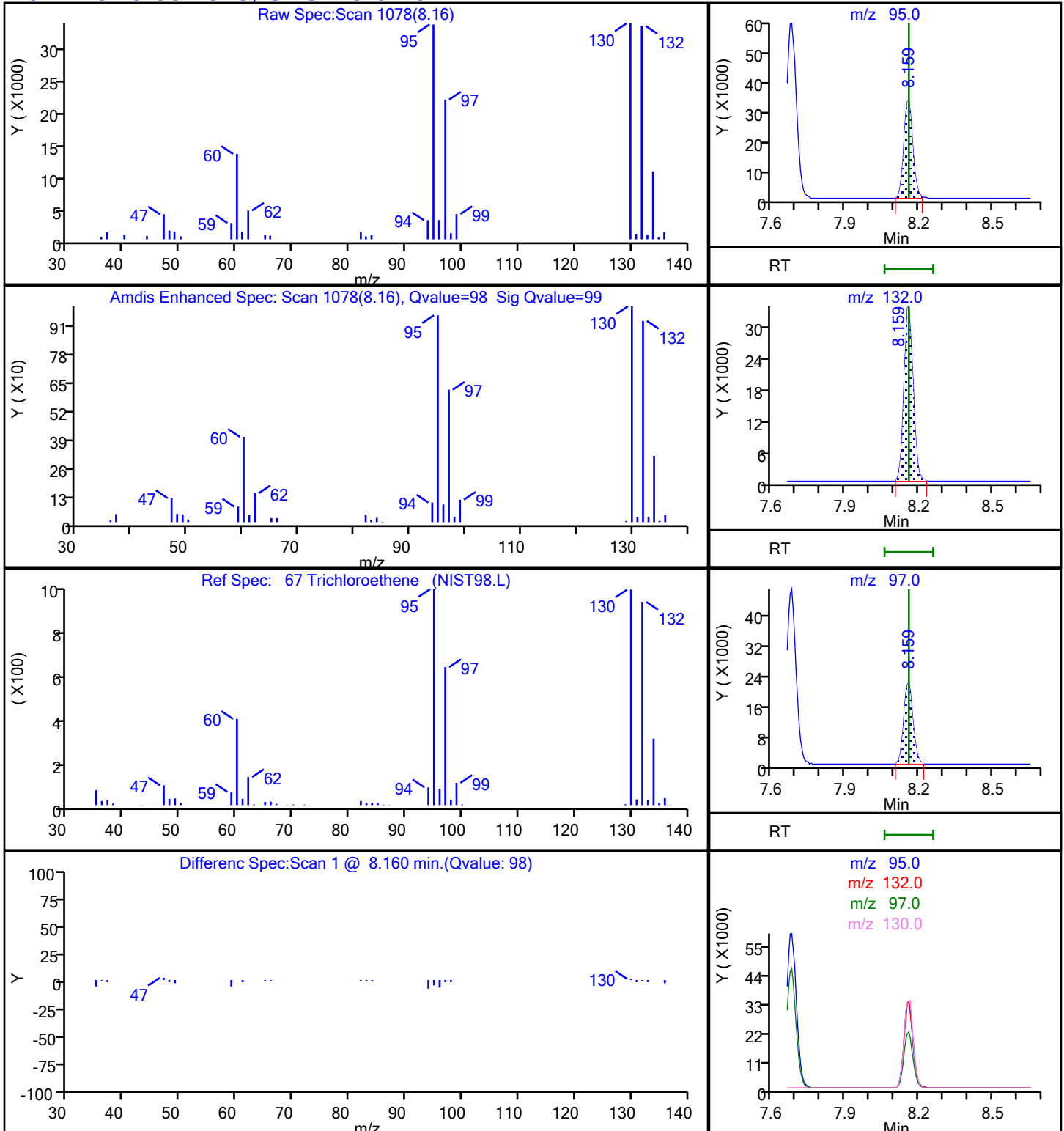
Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

MS Quad

67 Trichloroethene, CAS: 79-01-6



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-16-01/1-0 Lab Sample ID: 410-71043-7  
 Matrix: Water Lab File ID: HF03X23.D  
 Analysis Method: 8260D Date Collected: 01/27/2022 10:00  
 Sample wt/vol: 25 (mL) Date Analyzed: 02/03/2022 17:31  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: R-624SilMS 30m ID: 0.25 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 220509 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND	cn	0.50	0.070
71-55-6	1,1,1-Trichloroethane	0.062	J cn	0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND	cn	0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND	cn	0.50	0.060
75-34-3	1,1-Dichloroethane	ND	cn	0.50	0.070
75-35-4	1,1-Dichloroethene	ND	cn	0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060
107-06-2	1,2-Dichloroethane	ND	cn	0.50	0.050
78-87-5	1,2-Dichloropropane	ND	cn	0.50	0.060
78-93-3	2-Butanone (MEK)	ND	cn	5.0	0.60
591-78-6	2-Hexanone	ND	^c cn	5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70
67-64-1	Acetone	1.2	J cn	5.0	0.90
71-43-2	Benzene	ND	cn	0.50	0.050
74-97-5	Bromochloromethane	ND	cn	0.50	0.050
75-27-4	Bromodichloromethane	ND	cn	0.50	0.050
75-25-2	Bromoform	ND	cn	1.0	0.30
74-83-9	Bromomethane	ND	cn	0.50	0.070
75-15-0	Carbon disulfide	ND	cn	1.0	0.060
56-23-5	Carbon tetrachloride	ND	cn	0.50	0.070
108-90-7	Chlorobenzene	ND	cn	0.50	0.060
75-00-3	Chloroethane	ND	cn	0.50	0.070
67-66-3	Chloroform	ND	cn	0.50	0.090
74-87-3	Chloromethane	ND	cn	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.14	J cn	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND	cn	0.50	0.050
124-48-1	Dibromochloromethane	ND	cn	0.50	0.070
100-41-4	Ethylbenzene	ND	cn	0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND	cn	0.50	0.050
75-09-2	Methylene Chloride	ND	cn	0.50	0.070
100-42-5	Styrene	ND	cn	0.50	0.050
127-18-4	Tetrachloroethene	0.99	cn	0.50	0.060
108-88-3	Toluene	ND	cn	0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND	cn	0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND	cn	0.50	0.060
79-01-6	Trichloroethene	0.20	J cn	0.50	0.060



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-16-01/1-0 Lab Sample ID: 410-71043-7  
 Matrix: Water Lab File ID: HF03X23.D  
 Analysis Method: 8260D Date Collected: 01/27/2022 10:00  
 Sample wt/vol: 25 (mL) Date Analyzed: 02/03/2022 17:31  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: R-624SilMS 30m ID: 0.25 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 220509 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	ND	cn	0.50	0.10
1330-20-7	Xylenes, Total	ND	cn	1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99	cn	80-120
460-00-4	4-Bromofluorobenzene (Surr)	99	cn	80-120
1868-53-7	Dibromofluoromethane (Surr)	96	cn	80-120
2037-26-5	Toluene-d8 (Surr)	99	cn	80-120

Eurofins Lancaster Laboratories Env, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X23.D  
 Lims ID: 410-71043-A-7  
 Client ID: HD-COD-SW-16-01/1-0  
 Sample Type: Client  
 Inject. Date: 03-Feb-2022 17:31:30 ALS Bottle#: 23 Worklist Smp#: 24  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0049665-024  
 Operator ID: KNK41612 Instrument ID: 19094  
 Method: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\MSV\_19094\_25mL.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 18:34:41 Calib Date: 21-Dec-2021 20:38:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21117.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1662

First Level Reviewer: beckerk

Date: 03-Feb-2022 18:33:11

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Chloromethane	50	2.136	2.148	-0.012	96	4068	0.0537	
7 Vinyl chloride	62		2.264				ND	
9 Bromomethane	94		2.599				ND	
10 Chloroethane	64		2.690				ND	
18 1,1-Dichloroethene	96		3.544				ND	
19 Acetone	43	3.593	3.562	0.031	98	9616	1.16	M
24 Carbon disulfide	76		3.849				ND	7
* 28 t-Butyl alcohol-d10 (IS)	65	4.196	4.190	0.006	90	91408	50.0	
29 Methylene Chloride	84		4.202				ND	7
32 Methyl tert-butyl ether	73		4.611				ND	
33 trans-1,2-Dichloroethene	96		4.623				ND	
35 1,1-Dichloroethane	63		5.275				ND	7
41 2-Butanone (MEK)	43		6.056				ND	7
42 cis-1,2-Dichloroethene	96	6.104	6.098	0.006	77	8178	0.1373	
48 Chlorobromomethane	128		6.434				ND	
50 Chloroform	83	6.586	6.580	0.006	91	3804	0.0388	
\$ 51 Dibromofluoromethane (Surr)	113	6.793	6.793	0.000	94	479695	9.56	
52 1,1,1-Trichloroethane	97	6.811	6.812	-0.001	35	5578	0.0618	
56 Carbon tetrachloride	117		7.025				ND	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.244	7.244	0.000	74	92971	9.94	
59 Benzene	78		7.281				ND	7
60 1,2-Dichloroethane	62		7.348				ND	7
* 65 Fluorobenzene (IS)	96	7.683	7.683	0.000	99	1901939	10.0	
67 Trichloroethene	95	8.165	8.159	0.006	96	12195	0.2021	
70 1,2-Dichloropropane	63		8.488				ND	
75 Dichlorobromomethane	83		8.829				ND	7
80 cis-1,3-Dichloropropene	75		9.378				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.543				ND	7
\$ 82 Toluene-d8 (Surr)	98	9.683	9.683	0.000	93	2002362	9.94	
83 Toluene	92	9.762	9.762	0.000	98	6541	0.0451	
85 trans-1,3-Dichloropropene	75		10.012				ND	
87 1,1,2-Trichloroethane	97		10.219				ND	7

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
88 Tetrachloroethene	166	10.311	10.311	0.000	98	68390	0.99	
91 2-Hexanone	43		10.427				ND	7
93 Chlorodibromomethane	129		10.597				ND	
94 Ethylene Dibromide	107		10.707				ND	
* 97 Chlorobenzene-d5 (IS)	117	11.134	11.134	0.000	86	1551312	10.0	
98 Chlorobenzene	112		11.158				ND	
99 1,1,1,2-Tetrachloroethane	131		11.244				ND	
S 95 Xylenes, Total	106		11.245				ND	7
100 Ethylbenzene	91		11.250				ND	7
101 m-Xylene & p-Xylene	106		11.359				ND	7
102 o-Xylene	106		11.689				ND	7
103 Styrene	104		11.701				ND	7
104 Bromoform	173		11.859				ND	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.134	12.128	0.006	92	772980	9.91	
109 1,1,2,2-Tetrachloroethane	83		12.231				ND	
* 124 1,4-Dichlorobenzene-d4	152	13.005	13.005	0.000	95	859242	10.0	

**QC Flag Legend**

## Processing Flags

7 - Failed Limit of Detection

## Review Flags

M - Manually Integrated

**Reagents:**

MSV\_LLcentISS\_00002

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X23.D

Injection Date: 03-Feb-2022 17:31:30

Instrument ID: 19094

Operator ID: KNK41612

Lims ID: 410-71043-A-7

Lab Sample ID: 410-71043-7

Worklist Smp#: 24

Client ID: HD-COD-SW-16-01/1-0

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

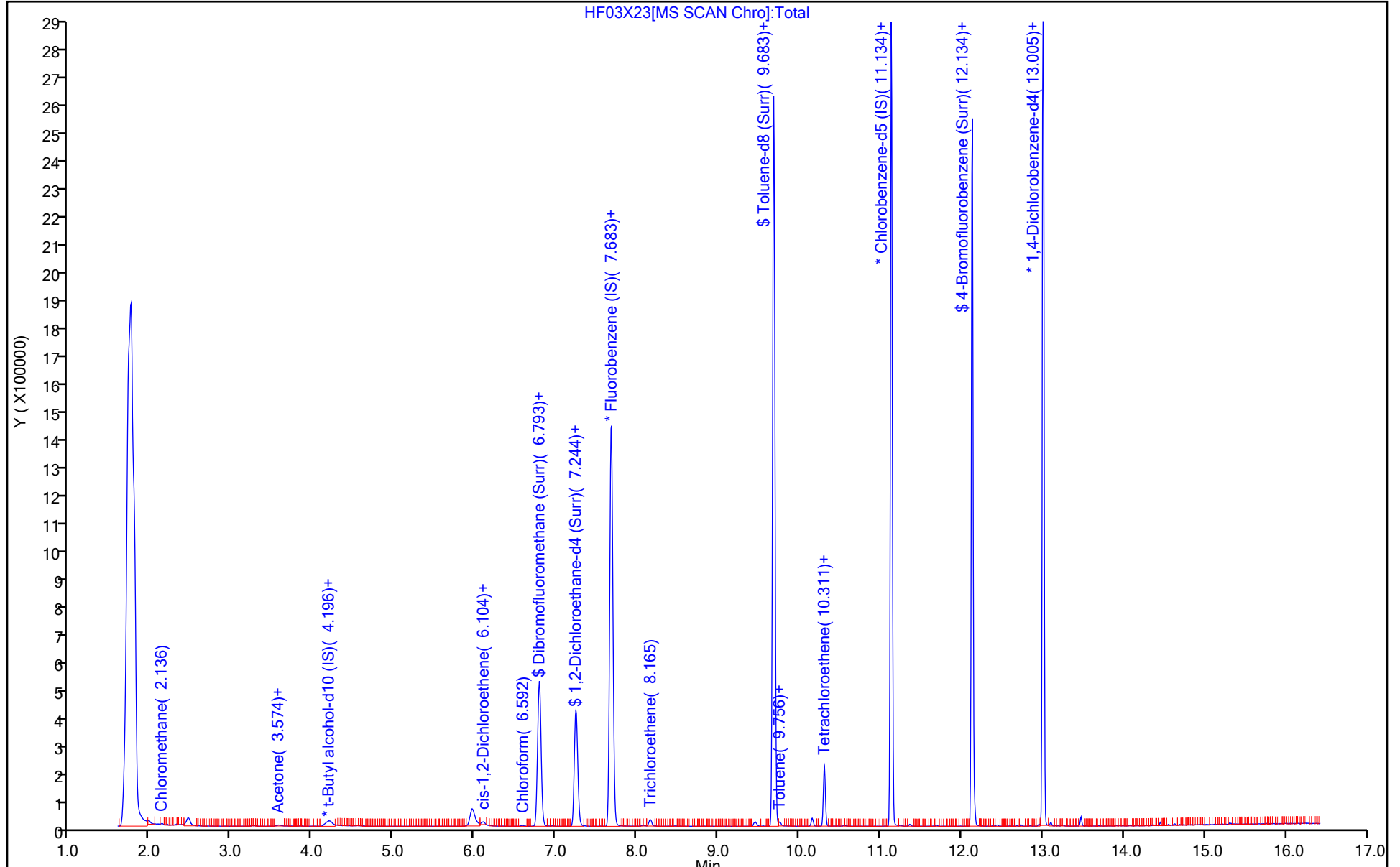
ALS Bottle#: 23

Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X23.D  
 Lims ID: 410-71043-A-7  
 Client ID: HD-COD-SW-16-01/1-0  
 Sample Type: Client  
 Inject. Date: 03-Feb-2022 17:31:30 ALS Bottle#: 23 Worklist Smp#: 24  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0049665-024  
 Operator ID: KNK41612 Instrument ID: 19094  
 Method: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\MSV\_19094\_25mL.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 18:34:41 Calib Date: 21-Dec-2021 20:38:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1662

First Level Reviewer: beckerk

Date: 03-Feb-2022 18:33:11

Compound	Amount Added	Amount Recovered	% Rec.
\$ 51 Dibromofluoromethane (Surr)	10.0	9.56	95.61
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	9.94	99.41
\$ 82 Toluene-d8 (Surr)	10.0	9.94	99.37
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.91	99.13

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X23.D

Injection Date: 03-Feb-2022 17:31:30

Instrument ID: 19094

Lims ID: 410-71043-A-7

Lab Sample ID: 410-71043-7

Client ID: HD-COD-SW-16-01/1-0

Operator ID: KNK41612

ALS Bottle#: 23

Worklist Smp#: 24

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

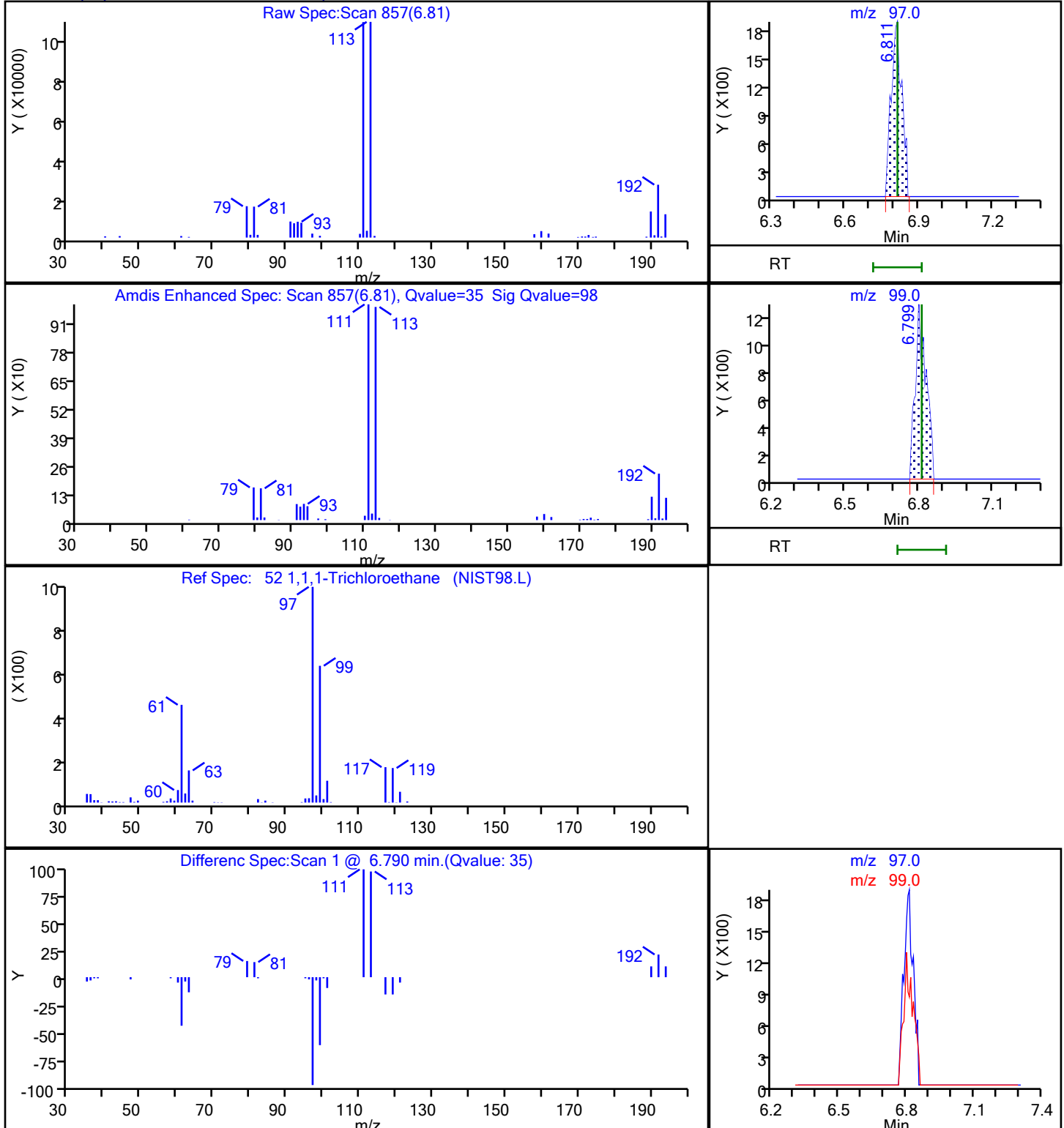
Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

MS Quad

### 52 1,1,1-Trichloroethane, CAS: 71-55-6



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X23.D

Injection Date: 03-Feb-2022 17:31:30

Instrument ID: 19094

Lims ID: 410-71043-A-7

Lab Sample ID: 410-71043-7

Client ID: HD-COD-SW-16-01/1-0

Operator ID: KNK41612

ALS Bottle#: 23

Worklist Smp#: 24

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

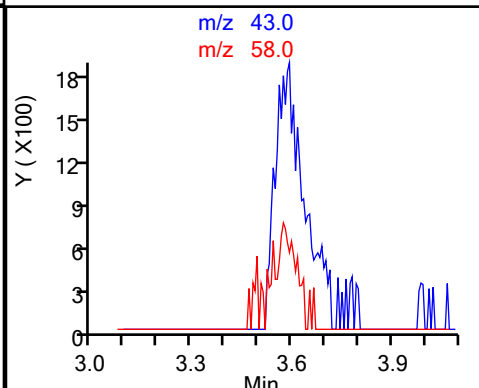
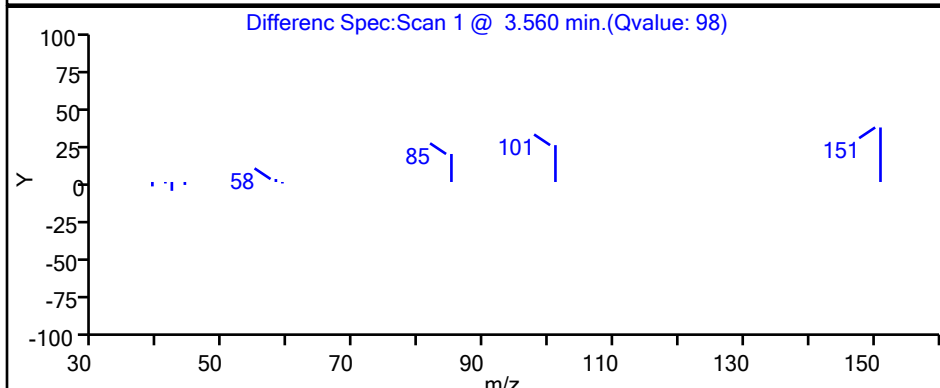
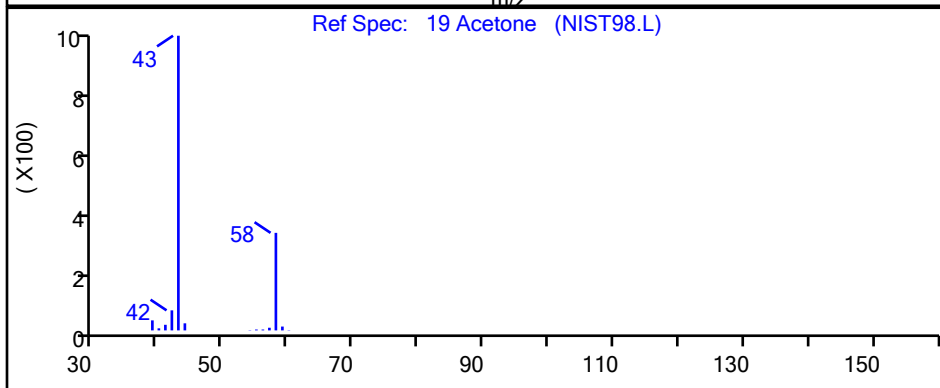
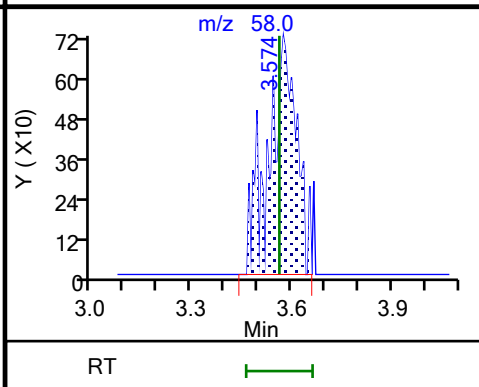
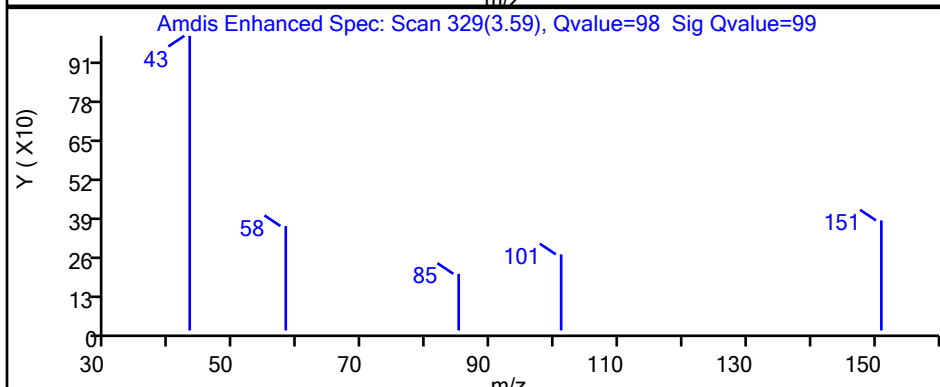
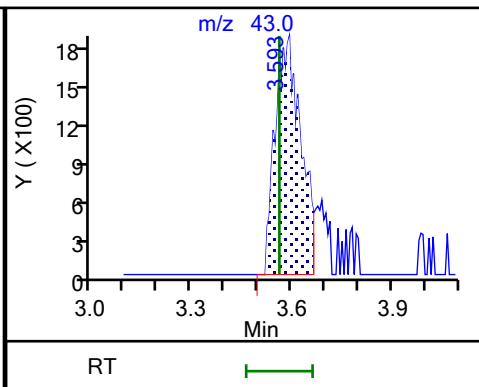
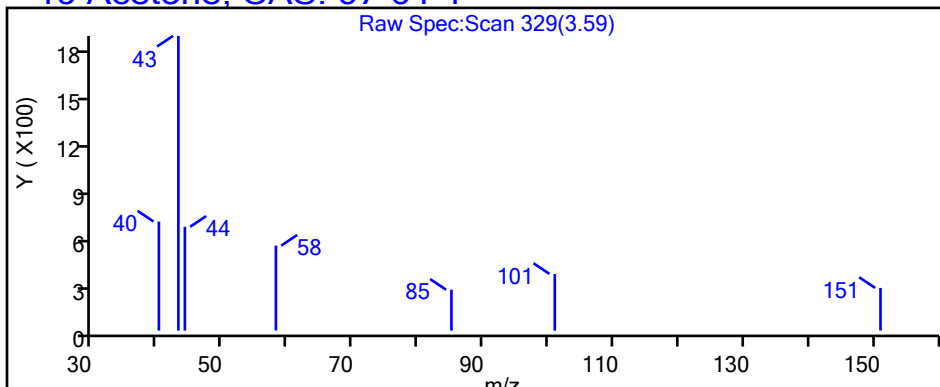
Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

MS Quad

19 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X23.D

Injection Date: 03-Feb-2022 17:31:30

Instrument ID: 19094

Lims ID: 410-71043-A-7

Lab Sample ID: 410-71043-7

Client ID: HD-COD-SW-16-01/1-0

Operator ID: KNK41612

ALS Bottle#: 23

Worklist Smp#: 24

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

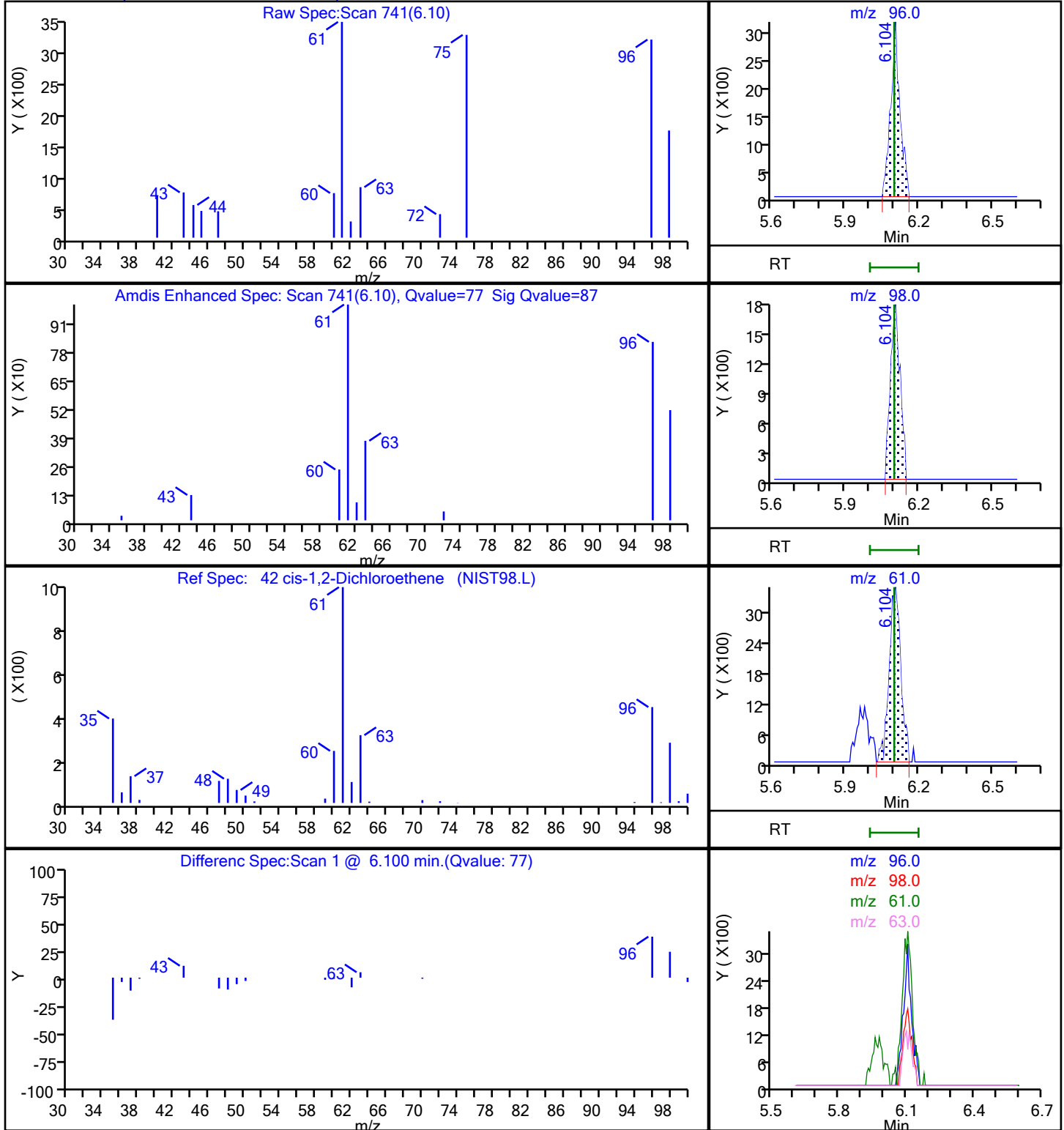
Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

MS Quad

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





Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X23.D

Injection Date: 03-Feb-2022 17:31:30

Instrument ID: 19094

Lims ID: 410-71043-A-7

Lab Sample ID: 410-71043-7

Client ID: HD-COD-SW-16-01/1-0

Operator ID: KNK41612

ALS Bottle#: 23

Worklist Smp#: 24

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

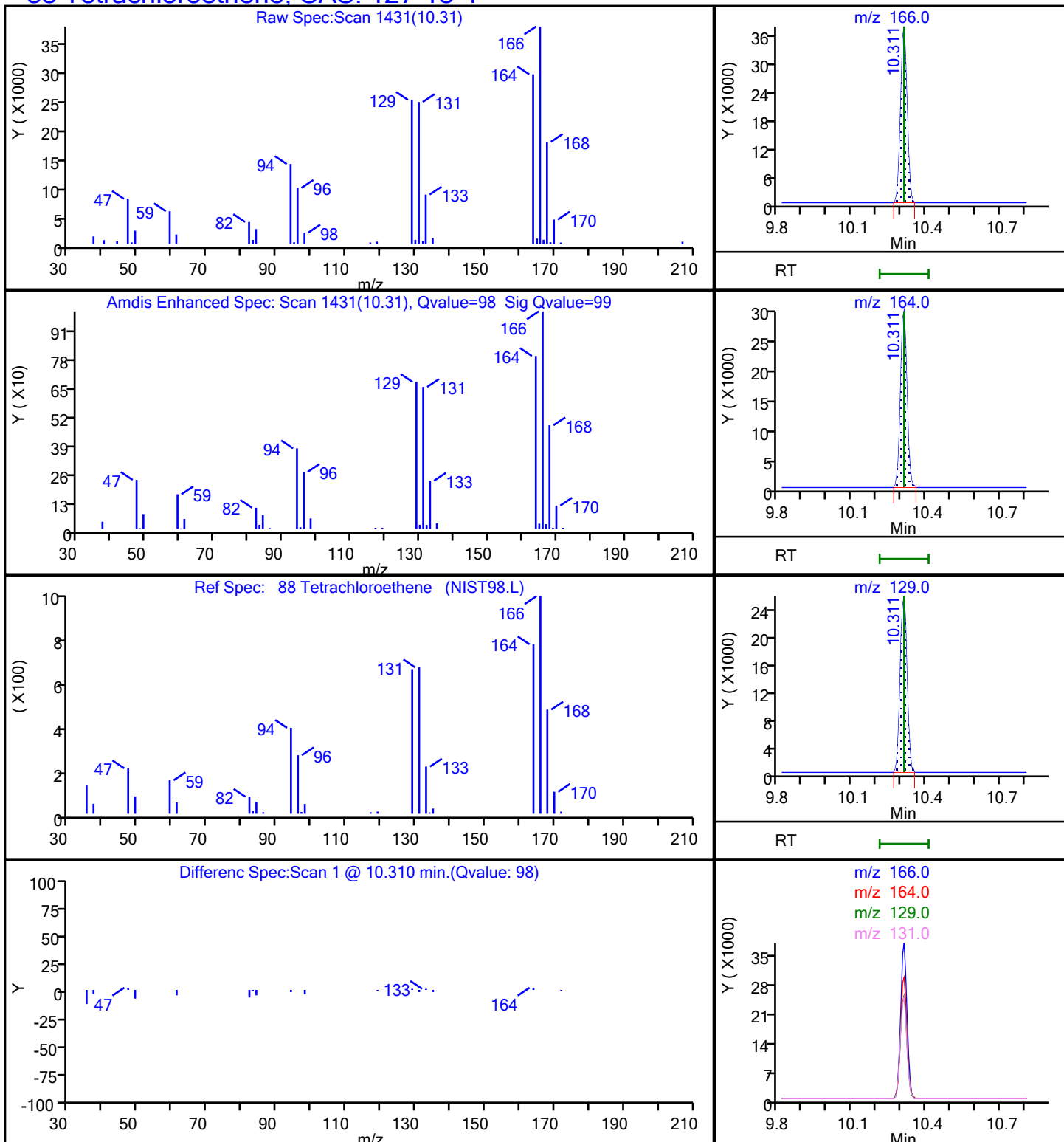
Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

MS Quad

### 88 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X23.D

Injection Date: 03-Feb-2022 17:31:30

Instrument ID: 19094

Lims ID: 410-71043-A-7

Lab Sample ID: 410-71043-7

Client ID: HD-COD-SW-16-01/1-0

Operator ID: KNK41612

ALS Bottle#: 23

Worklist Smp#: 24

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

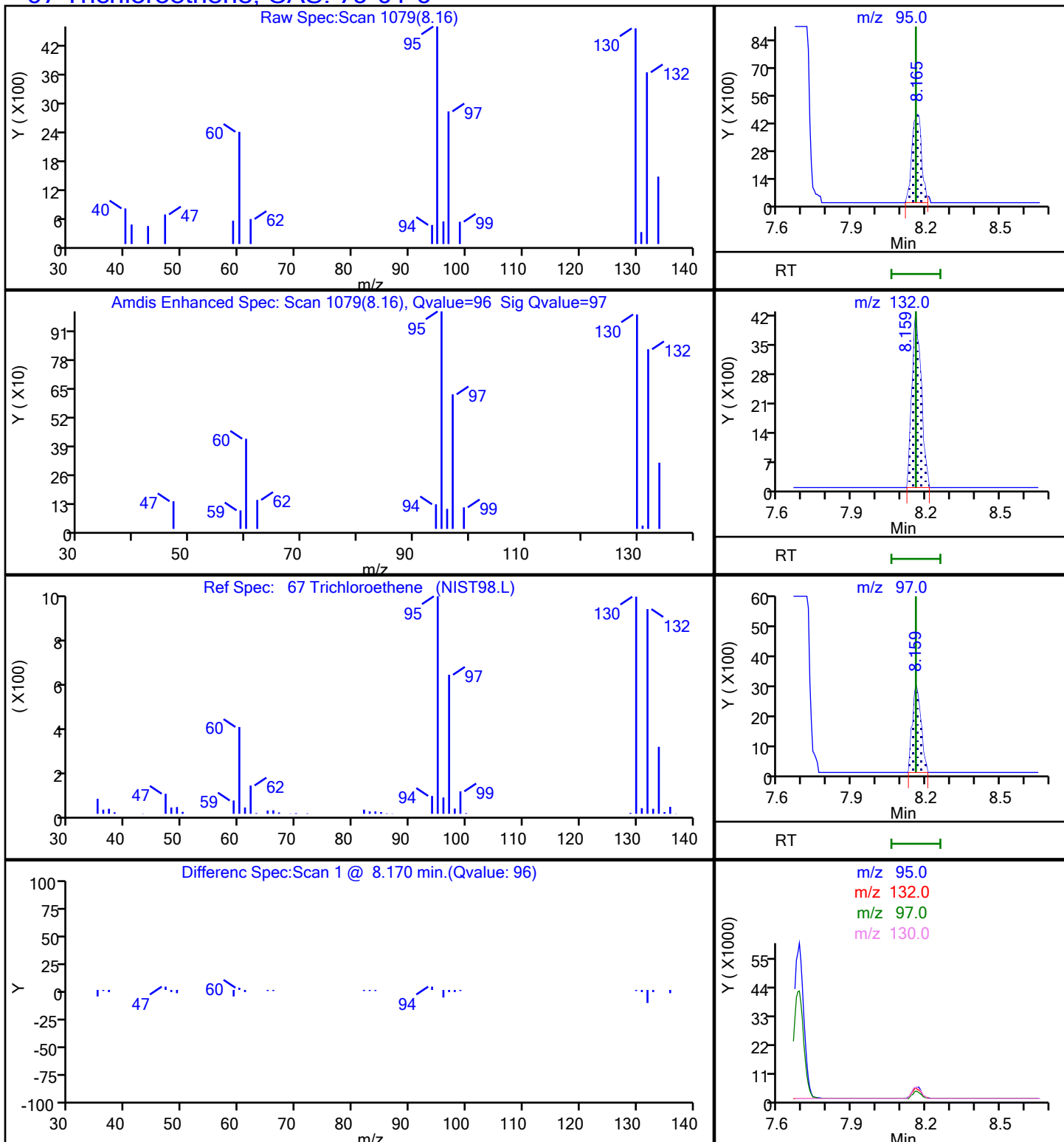
Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

MS Quad

### 67 Trichloroethene, CAS: 79-01-6



Eurofins Lancaster Laboratories Env, LLC

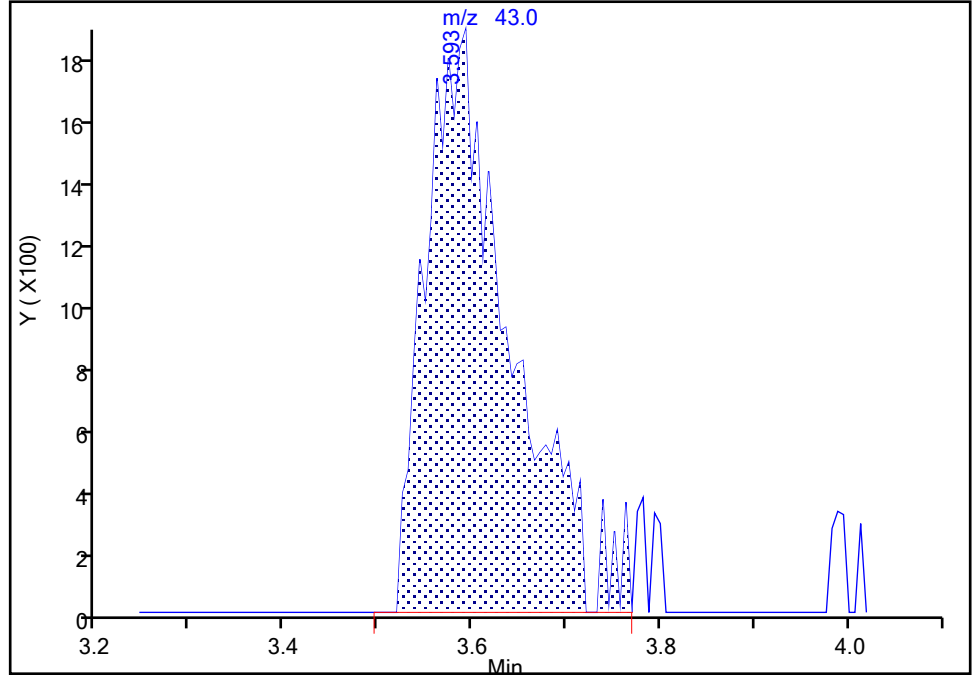
Data File:	\\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X23.D		
Injection Date:	03-Feb-2022 17:31:30	Instrument ID:	19094
Lims ID:	410-71043-A-7	Lab Sample ID:	410-71043-7
Client ID:	HD-COD-SW-16-01/1-0		
Operator ID:	KNK41612	ALS Bottle#:	23
Purge Vol:	25.000 mL	Dil. Factor:	1.0000
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D
Column:	Rxi-624Sil MS Capillary Column (0.25mm ID)	Detector:	MS Quad
		Worklist Smp#:	24

19 Acetone, CAS: 67-64-1

Signal: 1

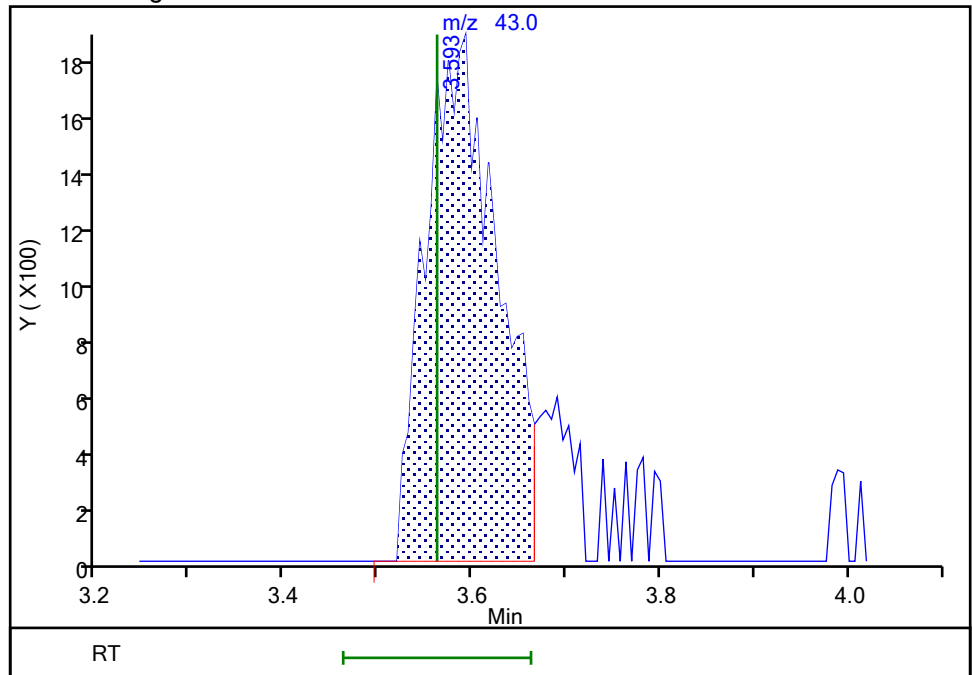
RT: 3.59  
 Area: 11302  
 Amount: 1.364441  
 Amount Units: ug/l

Processing Integration Results



RT: 3.59  
 Area: 9616  
 Amount: 1.160898  
 Amount Units: ug/l

Manual Integration Results



Reviewer: beckerk, 03-Feb-2022 18:32:54  
 Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-17-01/1-0 Lab Sample ID: 410-71043-8  
 Matrix: Water Lab File ID: HF03X24.D  
 Analysis Method: 8260D Date Collected: 01/27/2022 10:20  
 Sample wt/vol: 25 (mL) Date Analyzed: 02/03/2022 17:52  
 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.: 220509 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND	cn	0.50	0.070
71-55-6	1,1,1-Trichloroethane	7.1	cn	0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND	cn	0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND	cn	0.50	0.060
75-34-3	1,1-Dichloroethane	1.3	cn	0.50	0.070
75-35-4	1,1-Dichloroethene	0.57	cn	0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060
107-06-2	1,2-Dichloroethane	ND	cn	0.50	0.050
78-87-5	1,2-Dichloropropane	ND	cn	0.50	0.060
78-93-3	2-Butanone (MEK)	ND	cn	5.0	0.60
591-78-6	2-Hexanone	ND	^c cn	5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70
67-64-1	Acetone	ND	cn	5.0	0.90
71-43-2	Benzene	ND	cn	0.50	0.050
74-97-5	Bromochloromethane	ND	cn	0.50	0.050
75-27-4	Bromodichloromethane	ND	cn	0.50	0.050
75-25-2	Bromoform	ND	cn	1.0	0.30
74-83-9	Bromomethane	ND	cn	0.50	0.070
75-15-0	Carbon disulfide	ND	cn	1.0	0.060
56-23-5	Carbon tetrachloride	ND	cn	0.50	0.070
108-90-7	Chlorobenzene	ND	cn	0.50	0.060
75-00-3	Chloroethane	ND	cn	0.50	0.070
67-66-3	Chloroform	0.22	J cn	0.50	0.090
74-87-3	Chloromethane	ND	cn	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	4.7	cn	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND	cn	0.50	0.050
124-48-1	Dibromochloromethane	ND	cn	0.50	0.070
100-41-4	Ethylbenzene	ND	cn	0.50	0.060
1634-04-4	Methyl tert-butyl ether	0.054	J cn	0.50	0.050
75-09-2	Methylene Chloride	ND	cn	0.50	0.070
100-42-5	Styrene	ND	cn	0.50	0.050
108-88-3	Toluene	ND	cn	0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND	cn	0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND	cn	0.50	0.060
79-01-6	Trichloroethene	6.3	cn	0.50	0.060
75-01-4	Vinyl chloride	ND	cn	0.50	0.10

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-17-01/1-0 Lab Sample ID: 410-71043-8  
 Matrix: Water Lab File ID: HF03X24.D  
 Analysis Method: 8260D Date Collected: 01/27/2022 10:20  
 Sample wt/vol: 25 (mL) Date Analyzed: 02/03/2022 17:52  
 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.: 220509 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1330-20-7	Xylenes, Total	ND	cn	1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102	cn	80-120
460-00-4	4-Bromofluorobenzene (Surr)	98	cn	80-120
1868-53-7	Dibromofluoromethane (Surr)	95	cn	80-120
2037-26-5	Toluene-d8 (Surr)	99	cn	80-120

Eurofins Lancaster Laboratories Env, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X24.D  
 Lims ID: 410-71043-A-8  
 Client ID: HD-COD-SW-17-01/1-0  
 Sample Type: Client  
 Inject. Date: 03-Feb-2022 17:52:30 ALS Bottle#: 24 Worklist Smp#: 25  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0049665-025  
 Operator ID: KNK41612 Instrument ID: 19094  
 Method: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\MSV\_19094\_25mL.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 18:34:41 Calib Date: 21-Dec-2021 20:38:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21117.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1662

First Level Reviewer: beckerk

Date: 03-Feb-2022 18:34:41

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Chloromethane	50		2.148				ND	U
7 Vinyl chloride	62		2.264				ND	7
9 Bromomethane	94		2.599				ND	
10 Chloroethane	64		2.690				ND	
18 1,1-Dichloroethene	96	3.538	3.544	-0.006	97	29517	0.5750	
19 Acetone	43		3.562				ND	U
24 Carbon disulfide	76		3.849				ND	7
* 28 t-Butyl alcohol-d10 (IS)	65	4.202	4.190	0.012	90	89962	50.0	
29 Methylene Chloride	84		4.202				ND	
32 Methyl tert-butyl ether	73	4.605	4.611	-0.007	81	6043	0.0540	
33 trans-1,2-Dichloroethene	96		4.623				ND	7
35 1,1-Dichloroethane	63	5.275	5.275	0.000	96	127005	1.25	
41 2-Butanone (MEK)	43		6.056				ND	U
42 cis-1,2-Dichloroethene	96	6.098	6.098	0.000	80	281699	4.69	
48 Chlorobromomethane	128		6.434				ND	
50 Chloroform	83	6.580	6.580	0.000	92	21885	0.2212	
\$ 51 Dibromofluoromethane (Surr)	113	6.793	6.793	0.000	93	482977	9.54	
52 1,1,1-Trichloroethane	97	6.805	6.812	-0.007	99	644166	7.07	
56 Carbon tetrachloride	117	7.025	7.025	0.000	66	2956	0.0372	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.244	7.244	0.000	46	96558	10.2	
59 Benzene	78		7.281				ND	7
60 1,2-Dichloroethane	62		7.348				ND	7
* 65 Fluorobenzene (IS)	96	7.677	7.683	-0.006	99	1918923	10.0	
67 Trichloroethene	95	8.159	8.159	0.000	99	384833	6.32	
70 1,2-Dichloropropane	63		8.488				ND	
75 Dichlorobromomethane	83		8.829				ND	
80 cis-1,3-Dichloropropene	75		9.378				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.543				ND	7
\$ 82 Toluene-d8 (Surr)	98	9.683	9.683	0.000	93	2027785	9.89	
83 Toluene	92	9.762	9.762	0.000	96	4624	0.0314	
85 trans-1,3-Dichloropropene	75		10.012				ND	
87 1,1,2-Trichloroethane	97		10.219				ND	7

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
88 Tetrachloroethene	166	10.311	10.311	0.000	98	6747797	96.1	E
91 2-Hexanone	43		10.427				ND	
93 Chlorodibromomethane	129		10.597				ND	
94 Ethylene Dibromide	107		10.707				ND	
* 97 Chlorobenzene-d5 (IS)	117	11.134	11.134	0.000	86	1578160	10.0	
98 Chlorobenzene	112		11.158				ND	7
99 1,1,1,2-Tetrachloroethane	131		11.244				ND	
S 95 Xylenes, Total	106		11.245				ND	7
100 Ethylbenzene	91		11.250				ND	7
101 m-Xylene & p-Xylene	106		11.359				ND	7
102 o-Xylene	106		11.689				ND	7
103 Styrene	104		11.701				ND	
104 Bromoform	173		11.859				ND	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.134	12.128	0.006	92	778731	9.82	
109 1,1,2,2-Tetrachloroethane	83		12.231				ND	
* 124 1,4-Dichlorobenzene-d4	152	13.005	13.005	0.000	95	862073	10.0	

### QC Flag Legend

#### Processing Flags

E - Exceeded Maximum Amount

7 - Failed Limit of Detection

#### Review Flags

U - Marked Undetected

### Reagents:

MSV\_LLcentISS\_00002

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X24.D

Injection Date: 03-Feb-2022 17:52:30

Instrument ID: 19094

Operator ID: KNK41612

Lims ID: 410-71043-A-8

Lab Sample ID: 410-71043-8

Worklist Smp#: 25

Client ID: HD-COD-SW-17-01/1-0

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

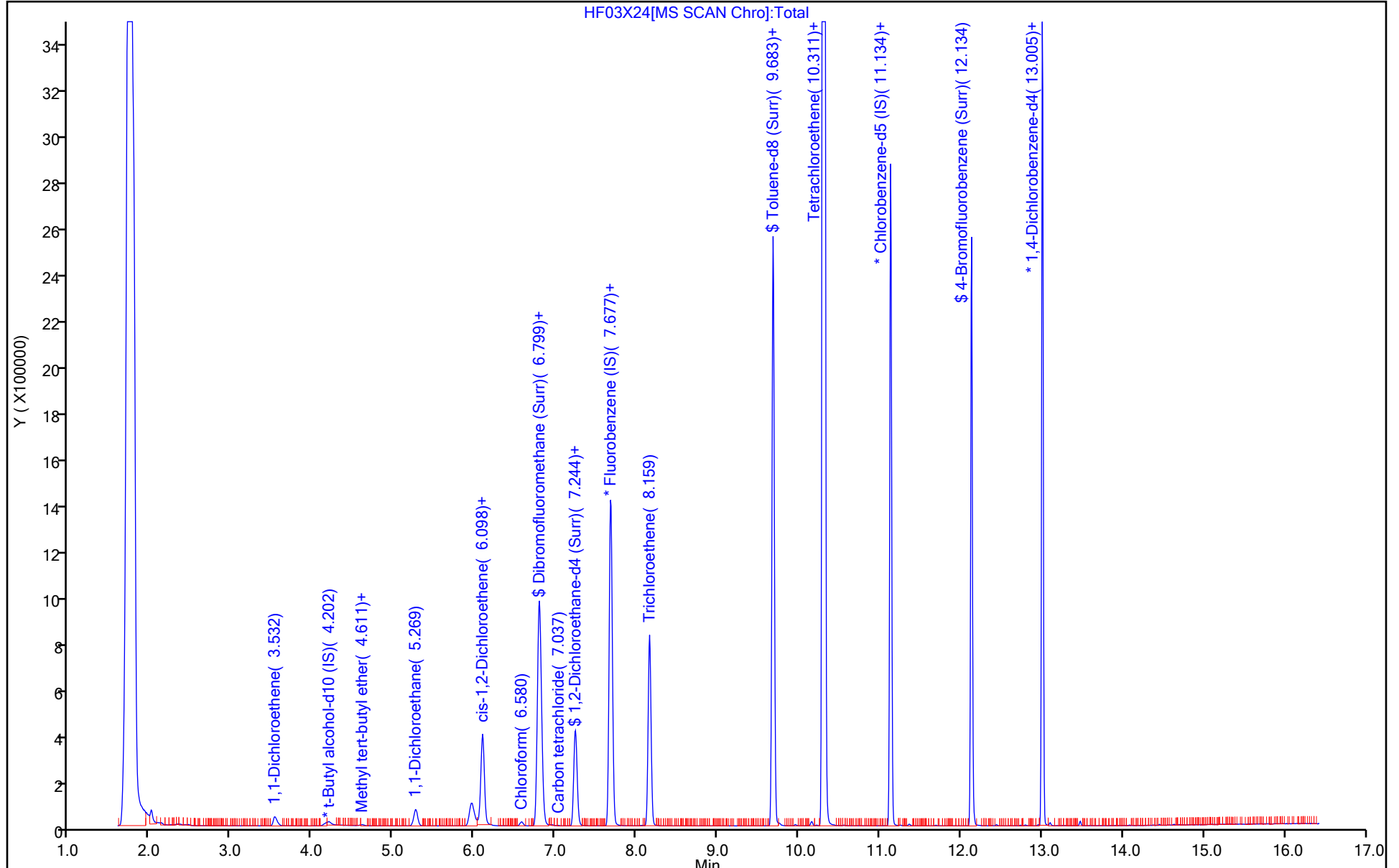
ALS Bottle#: 24

Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 2





Eurofins Lancaster Laboratories Env, LLC  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X24.D  
 Lims ID: 410-71043-A-8  
 Client ID: HD-COD-SW-17-01/1-0  
 Sample Type: Client  
 Inject. Date: 03-Feb-2022 17:52:30 ALS Bottle#: 24 Worklist Smp#: 25  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0049665-025  
 Operator ID: KNK41612 Instrument ID: 19094  
 Method: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\MSV\_19094\_25mL.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 18:34:41 Calib Date: 21-Dec-2021 20:38:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1662

First Level Reviewer: beckerk

Date: 03-Feb-2022 18:34:41

Compound	Amount Added	Amount Recovered	% Rec.
\$ 51 Dibromofluoromethane (Surr)	10.0	9.54	95.41
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.2	102.33
\$ 82 Toluene-d8 (Surr)	10.0	9.89	98.92
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.82	98.17

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X24.D

Injection Date: 03-Feb-2022 17:52:30

Instrument ID: 19094

Lims ID: 410-71043-A-8

Lab Sample ID: 410-71043-8

Client ID: HD-COD-SW-17-01/1-0

Operator ID: KNK41612

ALS Bottle#: 24

Worklist Smp#: 25

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

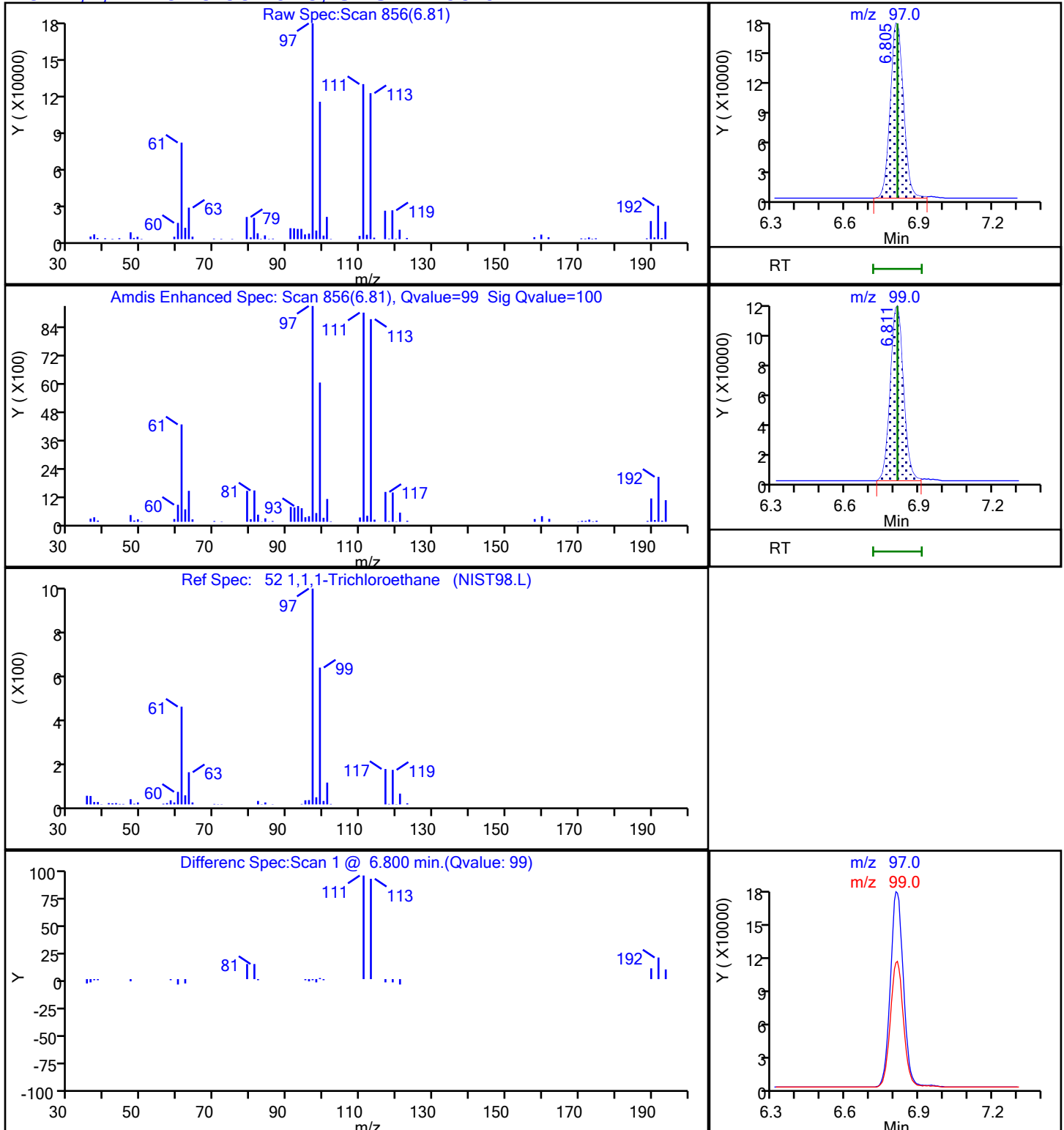
Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

MS Quad

### 52 1,1,1-Trichloroethane, CAS: 71-55-6



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X24.D

Injection Date: 03-Feb-2022 17:52:30

Instrument ID: 19094

Lims ID: 410-71043-A-8

Lab Sample ID: 410-71043-8

Client ID: HD-COD-SW-17-01/1-0

Operator ID: KNK41612

ALS Bottle#: 24

Worklist Smp#: 25

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

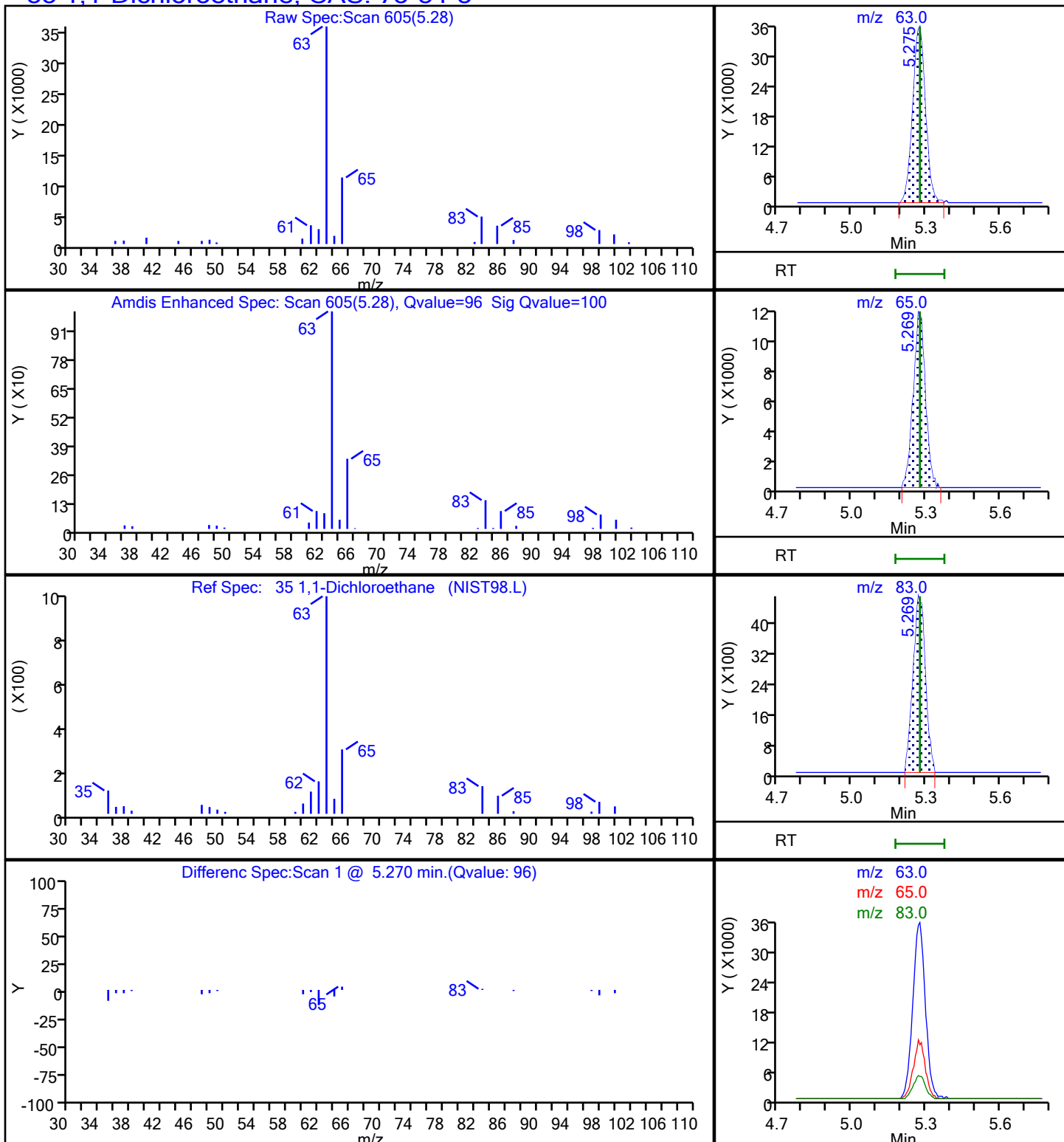
Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

MS Quad

### 35 1,1-Dichloroethane, CAS: 75-34-3



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X24.D

Injection Date: 03-Feb-2022 17:52:30

Instrument ID: 19094

Lims ID: 410-71043-A-8

Lab Sample ID: 410-71043-8

Client ID: HD-COD-SW-17-01/1-0

Operator ID: KNK41612

ALS Bottle#: 24

Worklist Smp#: 25

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

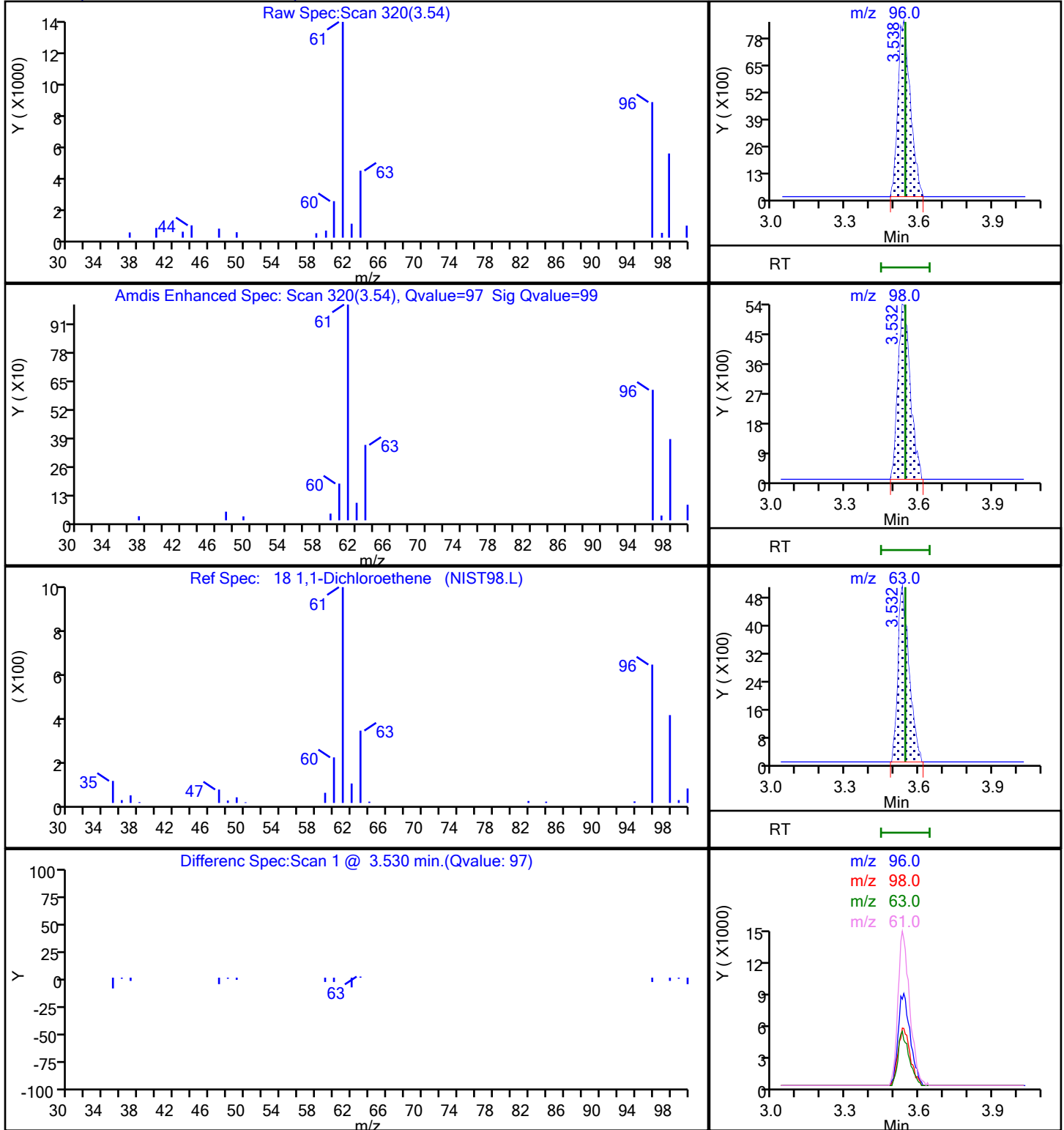
Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

MS Quad

18 1,1-Dichloroethene, CAS: 75-35-4



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X24.D

Injection Date: 03-Feb-2022 17:52:30

Instrument ID: 19094

Lims ID: 410-71043-A-8

Lab Sample ID: 410-71043-8

Client ID: HD-COD-SW-17-01/1-0

Operator ID: KNK41612

ALS Bottle#: 24

Worklist Smp#: 25

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

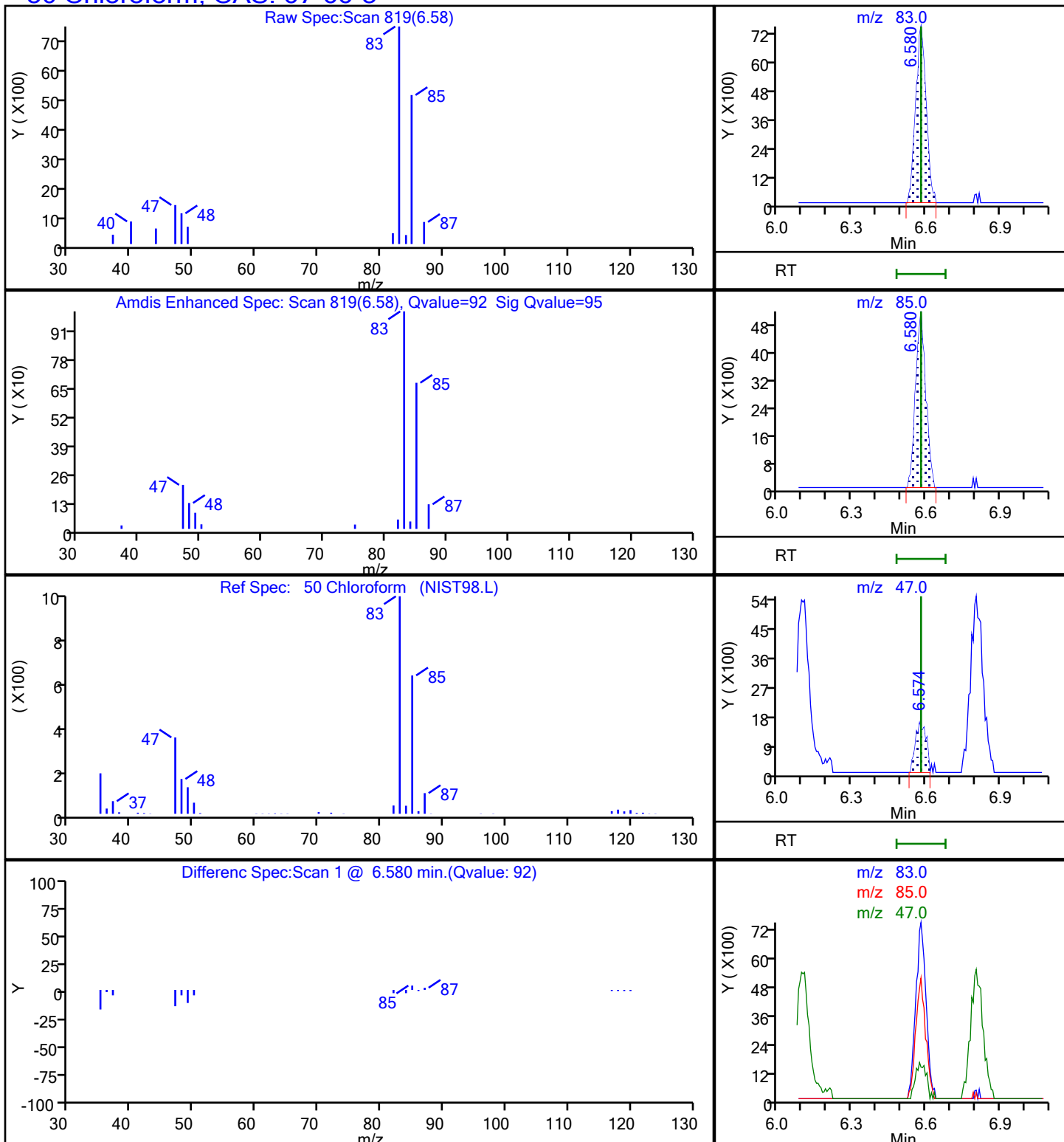
Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

MS Quad

### 50 Chloroform, CAS: 67-66-3



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X24.D

Injection Date: 03-Feb-2022 17:52:30

Instrument ID: 19094

Lims ID: 410-71043-A-8

Lab Sample ID: 410-71043-8

Client ID: HD-COD-SW-17-01/1-0

Operator ID: KNK41612

ALS Bottle#: 24

Worklist Smp#: 25

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

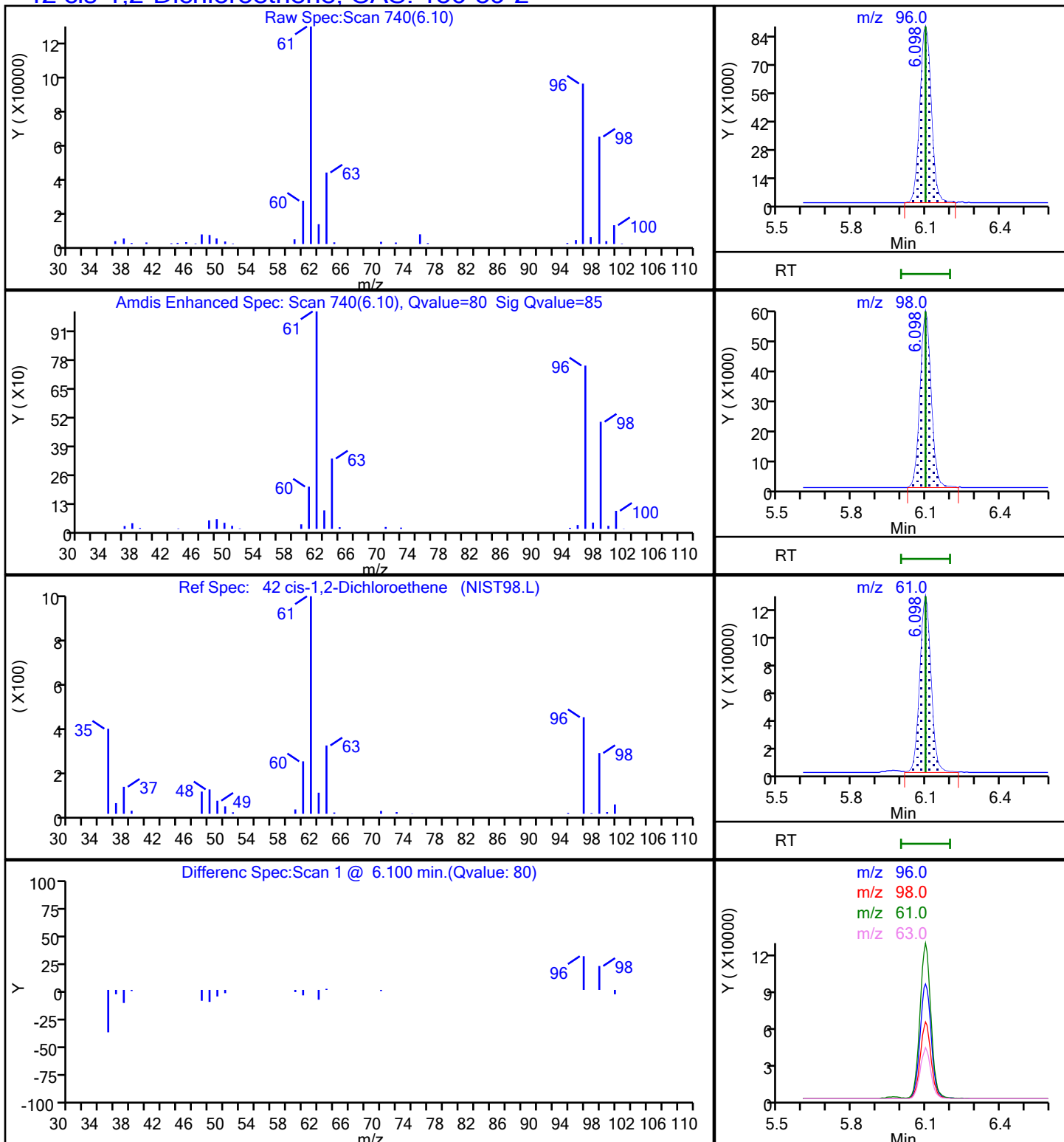
Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

MS Quad

**42 cis-1,2-Dichloroethene, CAS: 156-59-2**



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X24.D

Injection Date: 03-Feb-2022 17:52:30

Instrument ID: 19094

Lims ID: 410-71043-A-8

Lab Sample ID: 410-71043-8

Client ID: HD-COD-SW-17-01/1-0

Operator ID: KNK41612

ALS Bottle#: 24

Worklist Smp#: 25

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

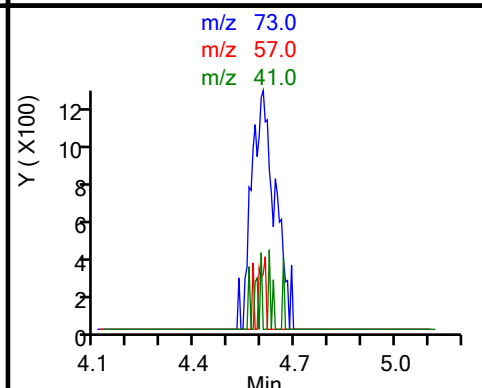
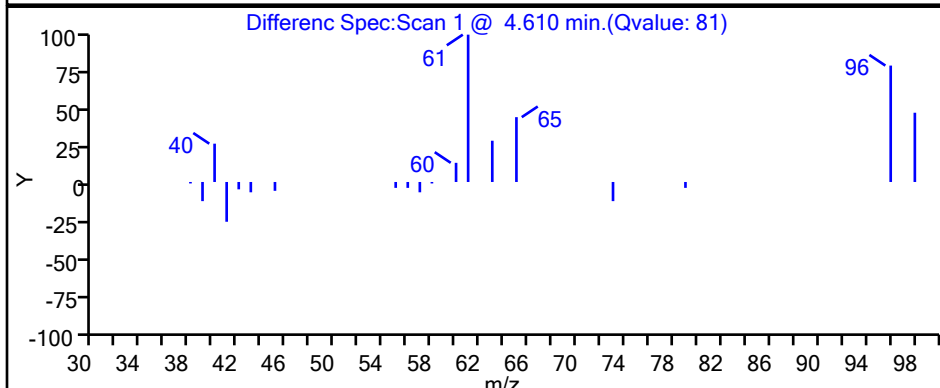
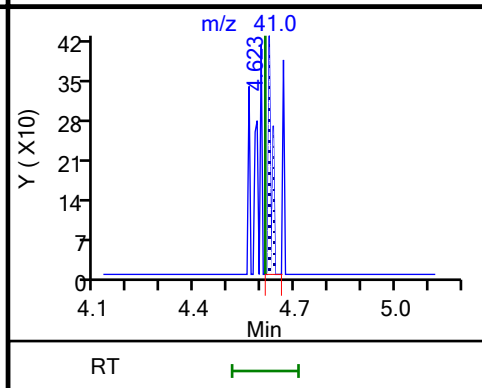
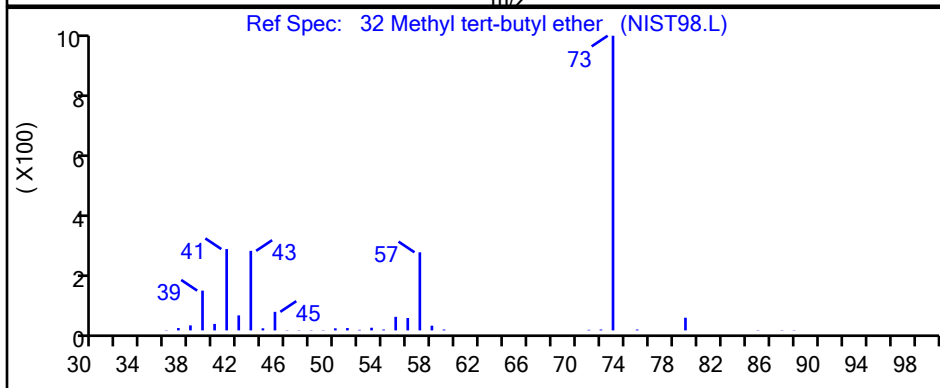
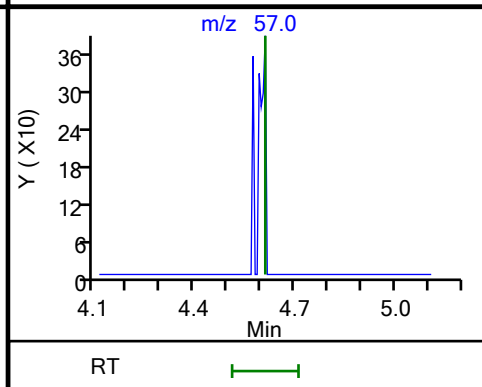
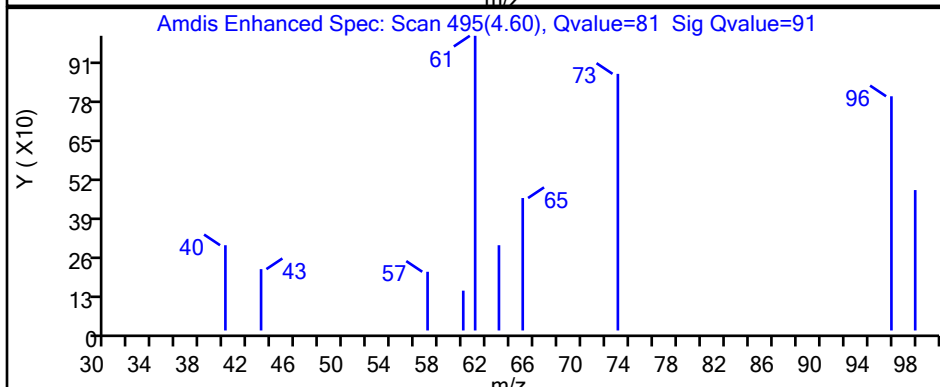
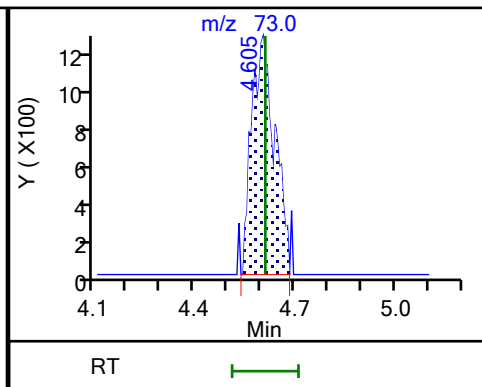
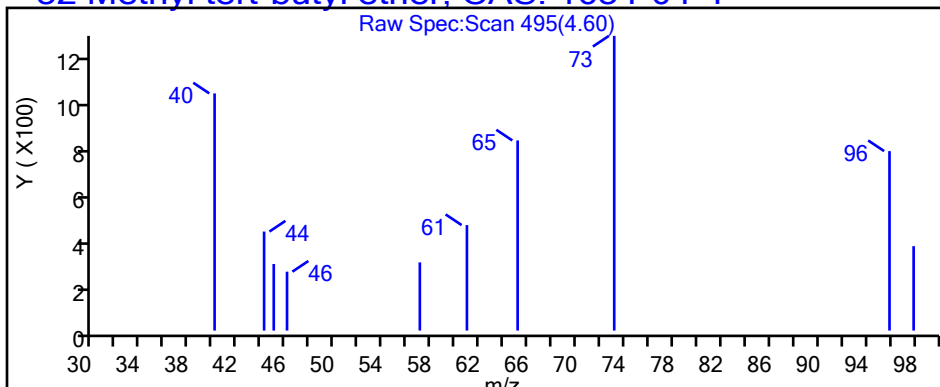
Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

MS Quad

32 Methyl tert-butyl ether, CAS: 1634-04-4



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X24.D

Injection Date: 03-Feb-2022 17:52:30

Instrument ID: 19094

Lims ID: 410-71043-A-8

Lab Sample ID: 410-71043-8

Client ID: HD-COD-SW-17-01/1-0

Operator ID: KNK41612

ALS Bottle#: 24

Worklist Smp#: 25

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

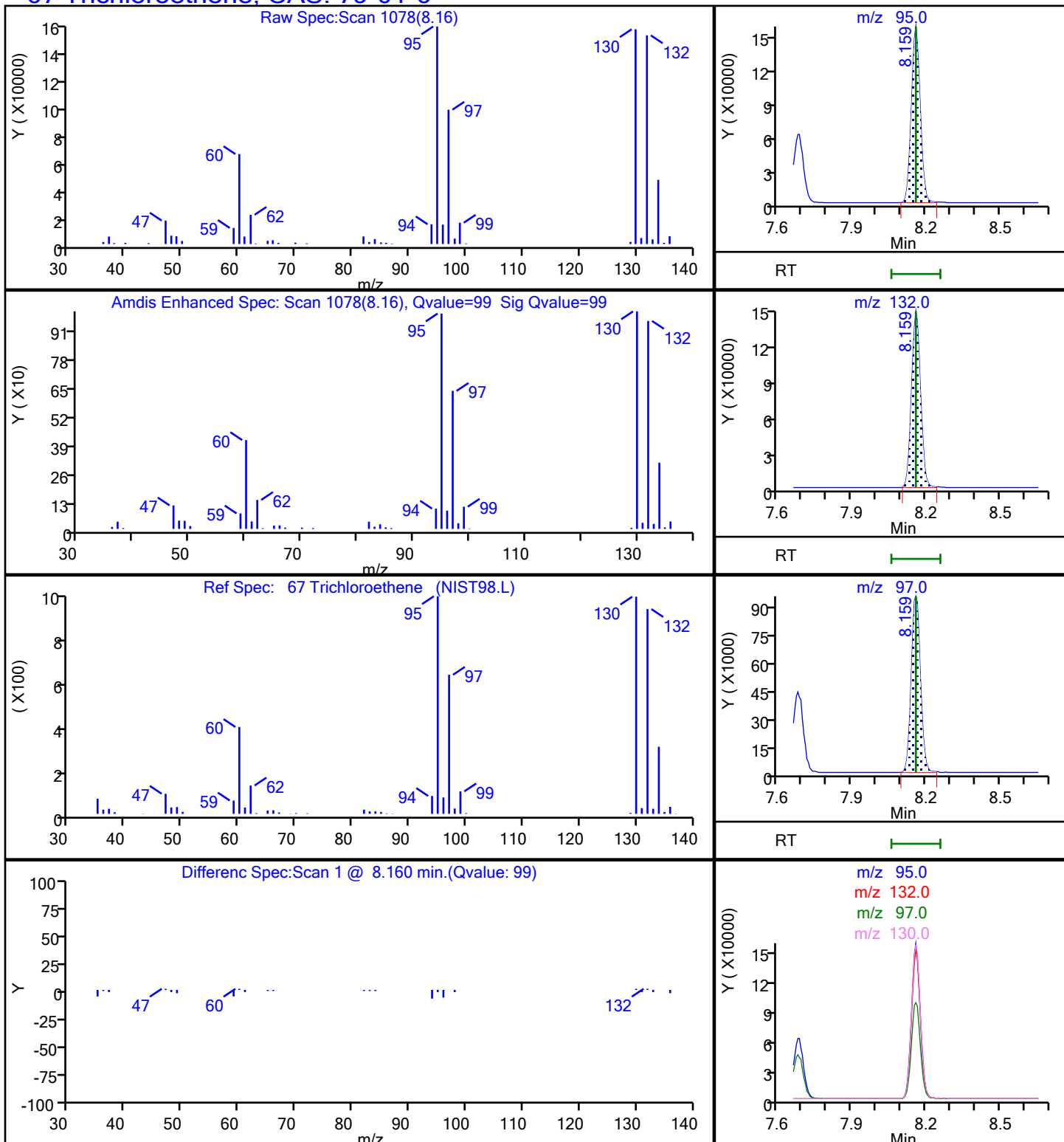
Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

MS Quad

### 67 Trichloroethene, CAS: 79-01-6



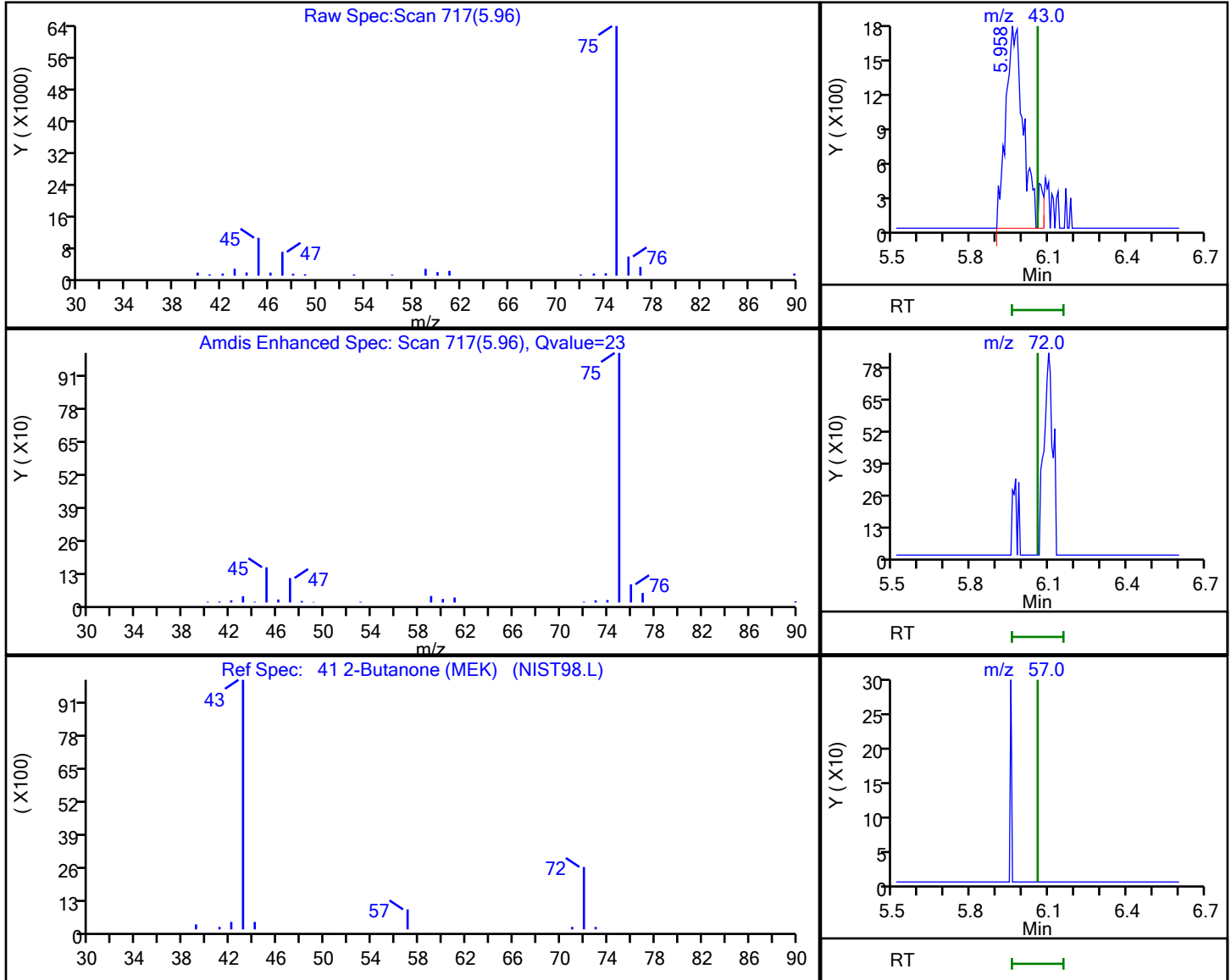


Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X24.D  
 Injection Date: 03-Feb-2022 17:52:30 Instrument ID: 19094  
 Lims ID: 410-71043-A-8 Lab Sample ID: 410-71043-8  
 Client ID: HD-COD-SW-17-01/1-0  
 Operator ID: KNK41612 ALS Bottle#: 24 Worklist Smp#: 25  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Method: MSV\_19094\_25mL Limit Group: MSV - 8260C\_D  
 Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

41 2-Butanone (MEK), CAS: 78-93-3

Processing Results



RT	Mass	Response	Amount
5.96	43.00	8589	0.575103
6.06	72.00	0	
6.06	57.00	0	

Reviewer: beckerk, 03-Feb-2022 18:34:17

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X24.D

Injection Date: 03-Feb-2022 17:52:30

Instrument ID: 19094

Lims ID: 410-71043-A-8

Lab Sample ID: 410-71043-8

Client ID: HD-COD-SW-17-01/1-0

Operator ID: KNK41612

ALS Bottle#: 24

Worklist Smp#: 25

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

Method: MSV\_19094\_25mL

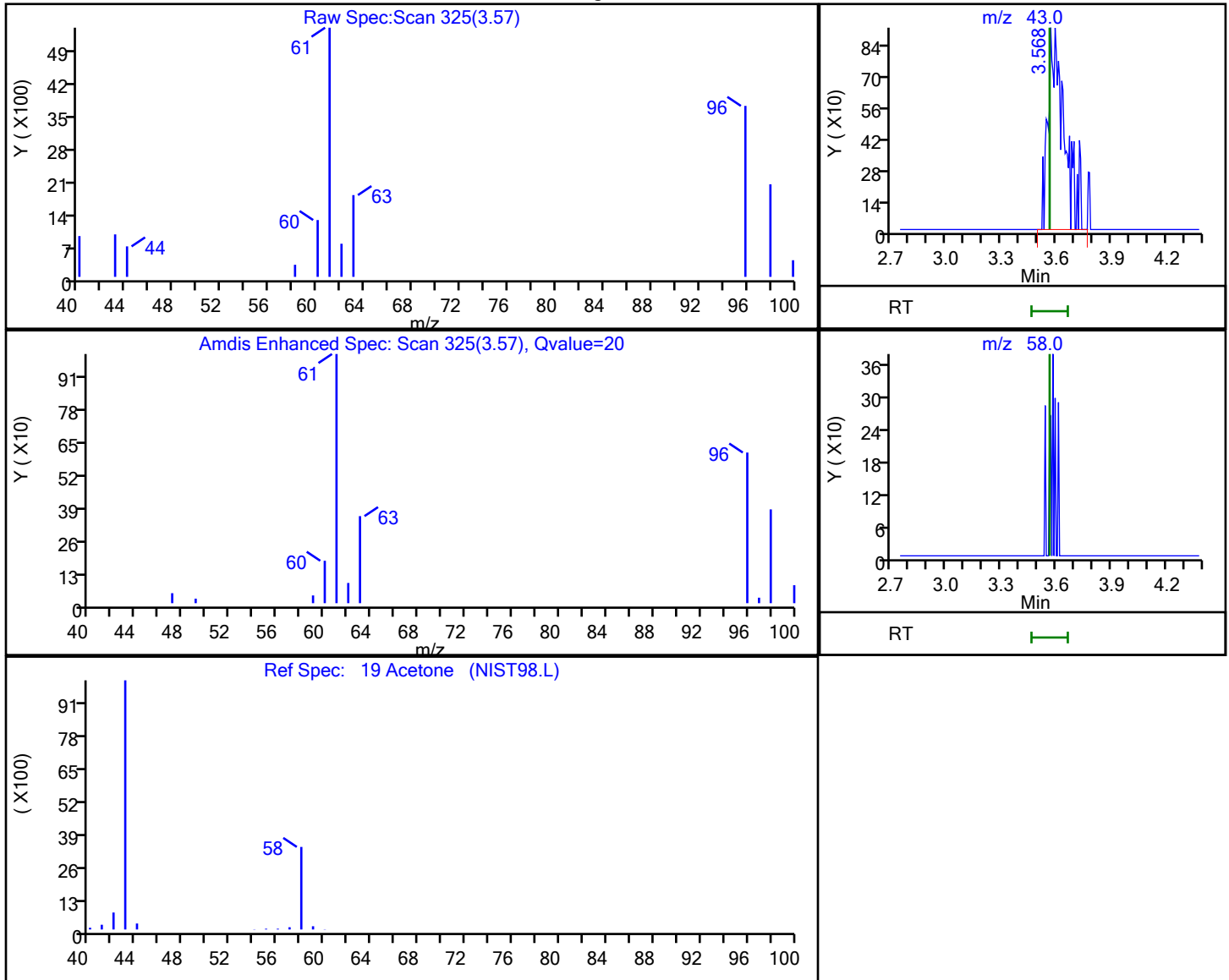
Limit Group: MSV - 8260C\_D

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

MS Quad

19 Acetone, CAS: 67-64-1

Processing Results



RT	Mass	Response	Amount
3.57	43.00	5649	0.692941
3.56	58.00	0	

Reviewer: beckerk, 03-Feb-2022 18:34:10

Audit Action: Marked Compound Undetected

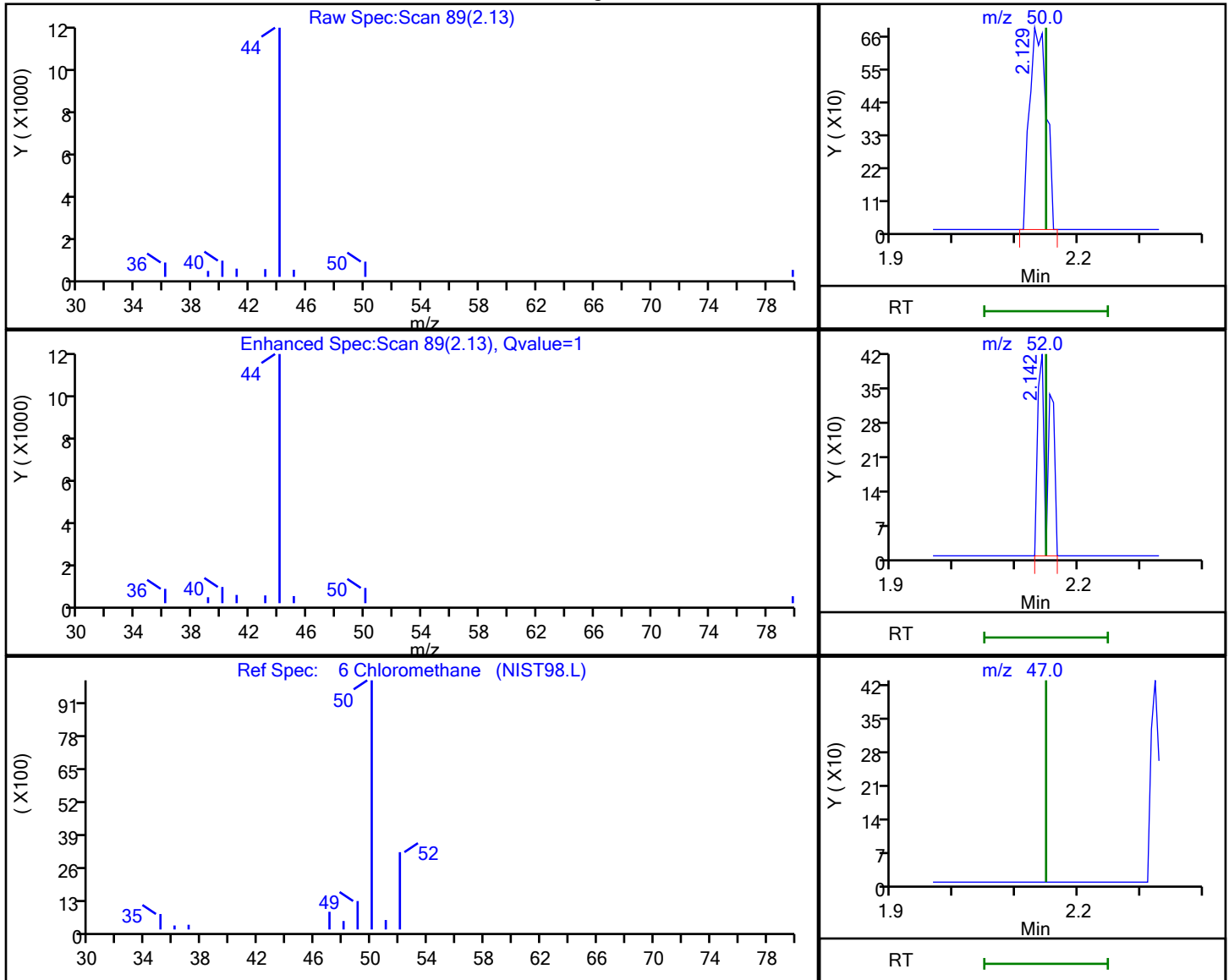
Audit Reason: Invalid Compound ID

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X24.D  
 Injection Date: 03-Feb-2022 17:52:30 Instrument ID: 19094  
 Lims ID: 410-71043-A-8 Lab Sample ID: 410-71043-8  
 Client ID: HD-COD-SW-17-01/1-0  
 Operator ID: KNK41612 ALS Bottle#: 24 Worklist Smp#: 25  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Method: MSV\_19094\_25mL Limit Group: MSV - 8260C\_D  
 Column: Rxi-624Sil MS Capillary Column (0.25mm i.d.) Detector: MS Quad

6 Chloromethane, CAS: 74-87-3

Processing Results



RT	Mass	Response	Amount
2.13	50.00	1287	0.016841
2.14	52.00	510	
2.15	47.00	0	

Reviewer: beckerk, 03-Feb-2022 18:33:59  
 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.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-17-01/1-0 DL Lab Sample ID: 410-71043-8 DL  
 Matrix: Water Lab File ID: HF03X25.D  
 Analysis Method: 8260D Date Collected: 01/27/2022 10:20  
 Sample wt/vol: 25 (mL) Date Analyzed: 02/03/2022 18:12  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 20  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: R-624SilMS 30m ID: 0.25 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 220509 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
127-18-4	Tetrachloroethene	80		10	1.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	99		80-120
1868-53-7	Dibromofluoromethane (Surr)	95		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X25.D  
 Lims ID: 410-71043-B-8 DL  
 Client ID: HD-COD-SW-17-01/1-0  
 Sample Type: Client  
 Inject. Date: 03-Feb-2022 18:12:30 ALS Bottle#: 25 Worklist Smp#: 26  
 Purge Vol: 25.000 mL Dil. Factor: 20.0000  
 Sample Info: 410-0049665-026  
 Operator ID: KNK41612 Instrument ID: 19094  
 Method: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\MSV\_19094\_25mL.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 19:08:14 Calib Date: 21-Dec-2021 20:38:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21117.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1662

First Level Reviewer: beckerk Date: 03-Feb-2022 19:05:41

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Chloromethane	50		2.148				ND	
7 Vinyl chloride	62		2.264				ND	
9 Bromomethane	94		2.599				ND	
10 Chloroethane	64		2.690				ND	
18 1,1-Dichloroethene	96		3.544				ND	7
19 Acetone	43		3.562				ND	7
24 Carbon disulfide	76		3.849				ND	7
* 28 t-Butyl alcohol-d10 (IS)	65	4.208	4.190	0.018	88	87372	50.0	
29 Methylene Chloride	84		4.202				ND	
32 Methyl tert-butyl ether	73		4.611				ND	
33 trans-1,2-Dichloroethene	96		4.623				ND	
35 1,1-Dichloroethane	63	5.281	5.275	0.006	90	5555	0.0547	
41 2-Butanone (MEK)	43		6.056				ND	
42 cis-1,2-Dichloroethene	96	6.098	6.098	0.000	80	12301	0.2045	
48 Chlorobromomethane	128		6.434				ND	
50 Chloroform	83		6.580				ND	7
\$ 51 Dibromofluoromethane (Surr)	113	6.787	6.793	-0.006	94	483723	9.55	
52 1,1,1-Trichloroethane	97	6.811	6.812	-0.001	36	27320	0.2997	
56 Carbon tetrachloride	117		7.025				ND	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.244	7.244	0.000	46	95082	10.1	
59 Benzene	78		7.281				ND	7
60 1,2-Dichloroethane	62		7.348				ND	7
* 65 Fluorobenzene (IS)	96	7.677	7.683	-0.006	99	1920454	10.0	
67 Trichloroethene	95	8.159	8.159	0.000	97	16391	0.2691	
70 1,2-Dichloropropane	63		8.488				ND	
75 Dichlorobromomethane	83		8.829				ND	
80 cis-1,3-Dichloropropene	75		9.378				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.543				ND	
\$ 82 Toluene-d8 (Surr)	98	9.683	9.683	0.000	93	2036318	10.0	
83 Toluene	92		9.762				ND	7
85 trans-1,3-Dichloropropene	75		10.012				ND	
87 1,1,2-Trichloroethane	97		10.219				ND	U

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
88 Tetrachloroethene	166	10.311	10.311	0.000	98	277704	3.99	
91 2-Hexanone	43		10.427				ND	
93 Chlorodibromomethane	129		10.597				ND	
94 Ethylene Dibromide	107		10.707				ND	
* 97 Chlorobenzene-d5 (IS)	117	11.134	11.134	0.000	86	1563139	10.0	
98 Chlorobenzene	112		11.158				ND	
99 1,1,1,2-Tetrachloroethane	131		11.244				ND	
S 95 Xylenes, Total	106		11.245				ND	7
100 Ethylbenzene	91		11.250				ND	
101 m-Xylene & p-Xylene	106		11.359				ND	7
102 o-Xylene	106		11.689				ND	
103 Styrene	104		11.701				ND	
104 Bromoform	173		11.859				ND	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.133	12.128	0.005	92	774843	9.86	
109 1,1,2,2-Tetrachloroethane	83		12.231				ND	
* 124 1,4-Dichlorobenzene-d4	152	13.005	13.005	0.000	95	867941	10.0	

**QC Flag Legend**

## Processing Flags

7 - Failed Limit of Detection

## Review Flags

U - Marked Undetected

**Reagents:**

MSV\_LLcentISS\_00002

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X25.D

Injection Date: 03-Feb-2022 18:12:30

Instrument ID: 19094

Operator ID: KNK41612

Lims ID: 410-71043-B-8 DL

Lab Sample ID: 410-71043-8

Worklist Smp#: 26

Client ID: HD-COD-SW-17-01/1-0

Purge Vol: 25.000 mL

Dil. Factor: 20.0000

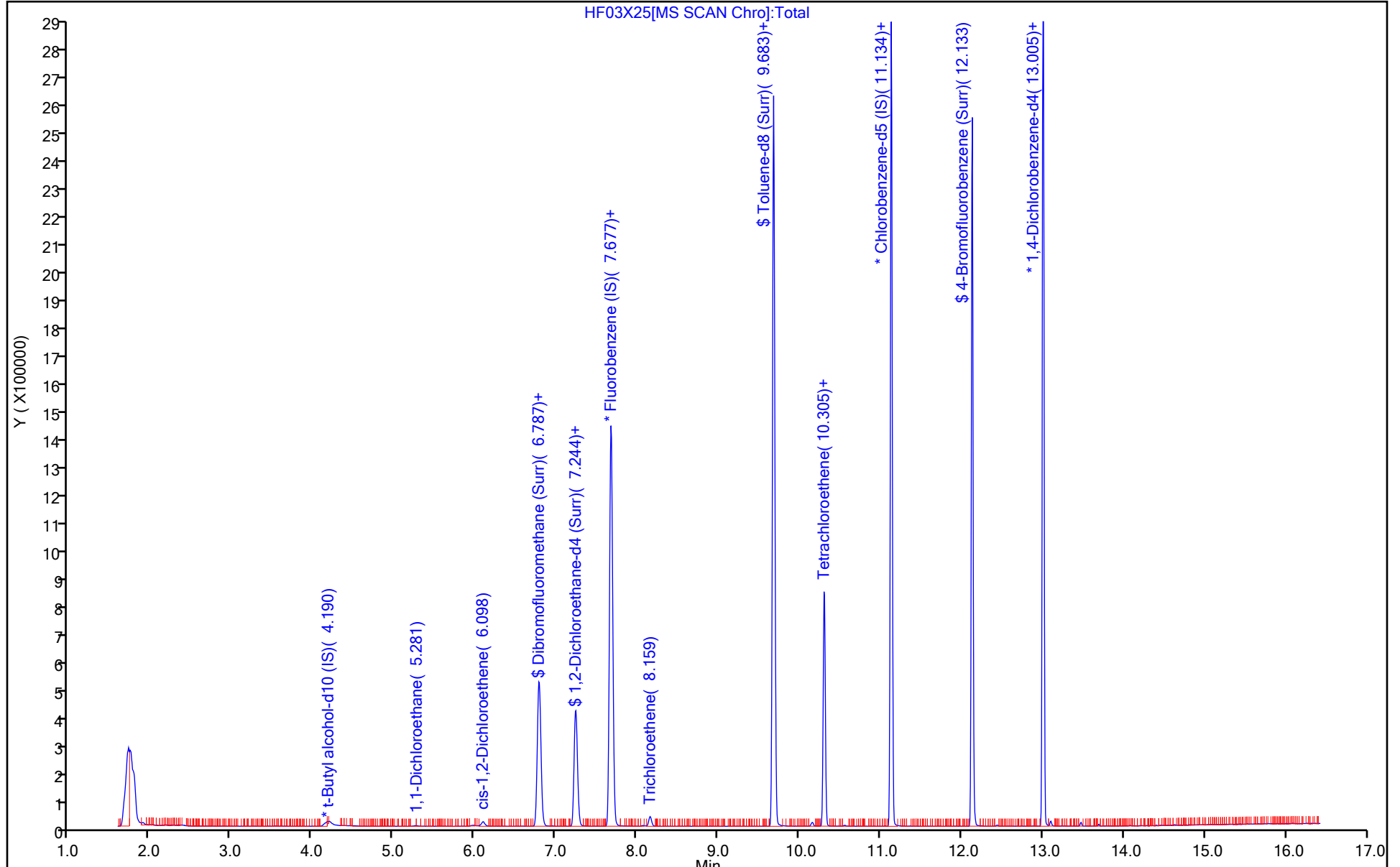
ALS Bottle#: 25

Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X25.D  
 Lims ID: 410-71043-B-8 DL  
 Client ID: HD-COD-SW-17-01/1-0  
 Sample Type: Client  
 Inject. Date: 03-Feb-2022 18:12:30 ALS Bottle#: 25 Worklist Smp#: 26  
 Purge Vol: 25.000 mL Dil. Factor: 20.0000  
 Sample Info: 410-0049665-026  
 Operator ID: KNK41612 Instrument ID: 19094  
 Method: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\MSV\_19094\_25mL.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 19:08:14 Calib Date: 21-Dec-2021 20:38:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1662

First Level Reviewer: beckerk

Date: 03-Feb-2022 19:05:41

Compound	Amount Added	Amount Recovered	% Rec.
\$ 51 Dibromofluoromethane (Surr)	10.0	9.55	95.48
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.1	100.68
\$ 82 Toluene-d8 (Surr)	10.0	10.0	100.29
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.86	98.62



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X25.D

Injection Date: 03-Feb-2022 18:12:30

Instrument ID: 19094

Lims ID: 410-71043-B-8 DL

Lab Sample ID: 410-71043-8

Client ID: HD-COD-SW-17-01/1-0

Operator ID: KNK41612

ALS Bottle#: 25

Worklist Smp#: 26

Purge Vol: 25.000 mL

Dil. Factor: 20.0000

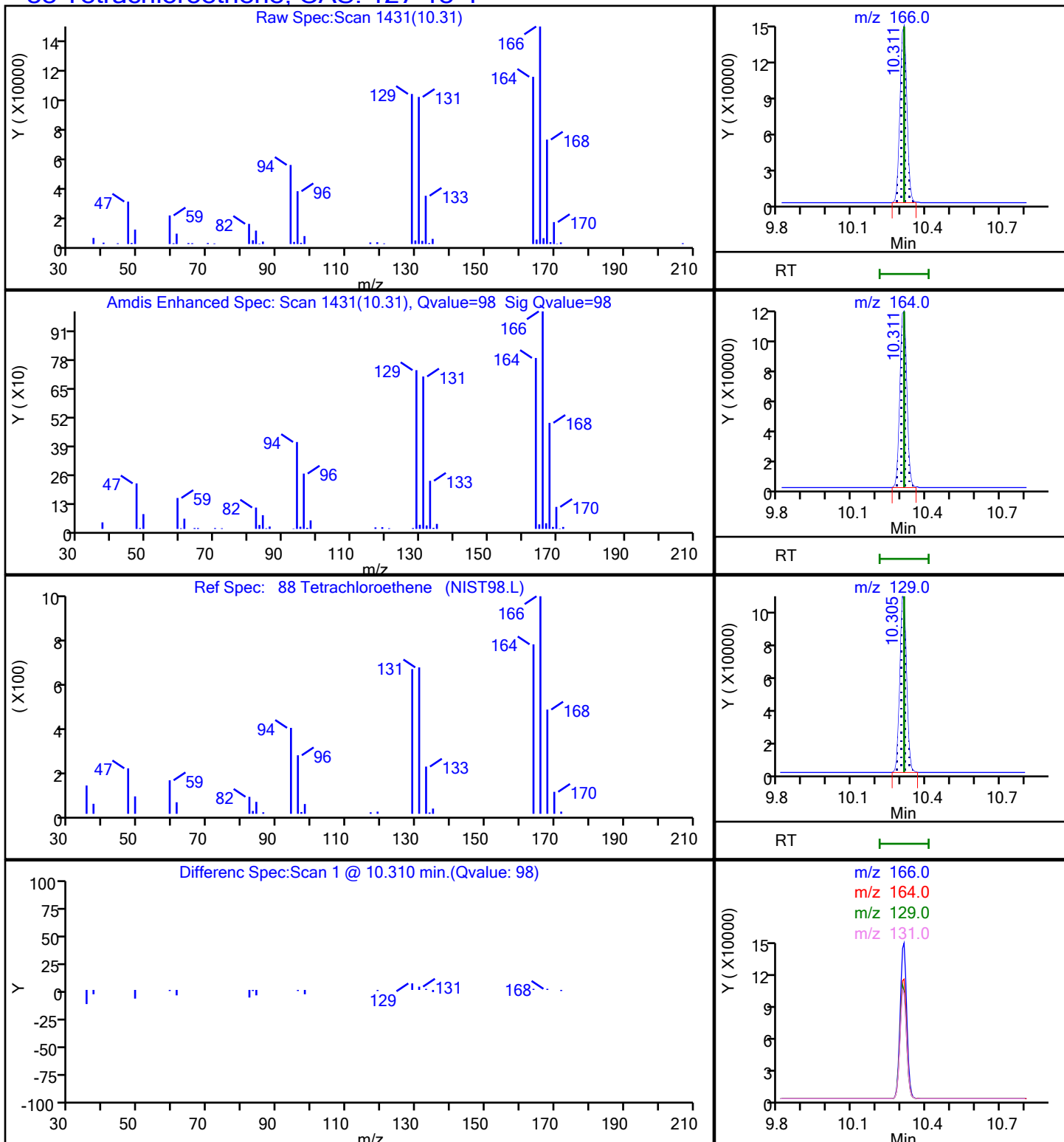
Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

MS Quad

### 88 Tetrachloroethene, CAS: 127-18-4



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-26-01/1-0 Lab Sample ID: 410-71043-9  
 Matrix: Water Lab File ID: HF03X26.D  
 Analysis Method: 8260D Date Collected: 01/27/2022 11:05  
 Sample wt/vol: 25 (mL) Date Analyzed: 02/03/2022 18:33  
 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.: 220509 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND	cn	0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND	cn	0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND	cn	0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND	cn	0.50	0.060
75-34-3	1,1-Dichloroethane	ND	cn	0.50	0.070
75-35-4	1,1-Dichloroethene	0.11	J cn	0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060
107-06-2	1,2-Dichloroethane	ND	cn	0.50	0.050
78-87-5	1,2-Dichloropropane	ND	cn	0.50	0.060
78-93-3	2-Butanone (MEK)	ND	cn	5.0	0.60
591-78-6	2-Hexanone	ND	^c cn	5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70
67-64-1	Acetone	ND	cn	5.0	0.90
71-43-2	Benzene	ND	cn	0.50	0.050
74-97-5	Bromochloromethane	ND	cn	0.50	0.050
75-27-4	Bromodichloromethane	ND	cn	0.50	0.050
75-25-2	Bromoform	ND	cn	1.0	0.30
74-83-9	Bromomethane	ND	cn	0.50	0.070
75-15-0	Carbon disulfide	ND	cn	1.0	0.060
56-23-5	Carbon tetrachloride	ND	cn	0.50	0.070
108-90-7	Chlorobenzene	ND	cn	0.50	0.060
75-00-3	Chloroethane	ND	cn	0.50	0.070
67-66-3	Chloroform	0.69	cn	0.50	0.090
74-87-3	Chloromethane	ND	cn	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.053	J cn	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND	cn	0.50	0.050
124-48-1	Dibromochloromethane	ND	cn	0.50	0.070
100-41-4	Ethylbenzene	ND	cn	0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND	cn	0.50	0.050
75-09-2	Methylene Chloride	ND	cn	0.50	0.070
100-42-5	Styrene	ND	cn	0.50	0.050
127-18-4	Tetrachloroethene	3.3	cn	0.50	0.060
108-88-3	Toluene	ND	cn	0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND	cn	0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND	cn	0.50	0.060
79-01-6	Trichloroethene	0.14	J cn	0.50	0.060

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-26-01/1-0 Lab Sample ID: 410-71043-9  
 Matrix: Water Lab File ID: HF03X26.D  
 Analysis Method: 8260D Date Collected: 01/27/2022 11:05  
 Sample wt/vol: 25 (mL) Date Analyzed: 02/03/2022 18:33  
 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.: 220509 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	ND	cn	0.50	0.10
1330-20-7	Xylenes, Total	ND	cn	1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102	cn	80-120
460-00-4	4-Bromofluorobenzene (Surr)	100	cn	80-120
1868-53-7	Dibromofluoromethane (Surr)	95	cn	80-120
2037-26-5	Toluene-d8 (Surr)	100	cn	80-120

Eurofins Lancaster Laboratories Env, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X26.D  
 Lims ID: 410-71043-A-9  
 Client ID: HD-COD-SW-26-01/1-0  
 Sample Type: Client  
 Inject. Date: 03-Feb-2022 18:33:30 ALS Bottle#: 26 Worklist Smp#: 27  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0049665-027  
 Operator ID: KNK41612 Instrument ID: 19094  
 Method: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\MSV\_19094\_25mL.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 19:08:14 Calib Date: 21-Dec-2021 20:38:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21117.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1662

First Level Reviewer: beckerk

Date: 03-Feb-2022 19:08:14

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Chloromethane	50		2.148				ND	7
7 Vinyl chloride	62		2.264				ND	
9 Bromomethane	94		2.599				ND	
10 Chloroethane	64		2.690				ND	
18 1,1-Dichloroethene	96	3.556	3.544	0.012	96	5809	0.1127	
19 Acetone	43		3.562				ND	7
24 Carbon disulfide	76		3.849				ND	7
* 28 t-Butyl alcohol-d10 (IS)	65	4.208	4.190	0.018	90	95154	50.0	
29 Methylene Chloride	84		4.202				ND	
32 Methyl tert-butyl ether	73		4.611				ND	7
33 trans-1,2-Dichloroethene	96		4.623				ND	
35 1,1-Dichloroethane	63		5.275				ND	7
41 2-Butanone (MEK)	43		6.056				ND	7
42 cis-1,2-Dichloroethene	96	6.098	6.098	0.000	78	3186	0.0528	
48 Chlorobromomethane	128		6.434				ND	
50 Chloroform	83	6.580	6.580	0.000	94	69009	0.6947	
\$ 51 Dibromofluoromethane (Surr)	113	6.793	6.793	0.000	93	482922	9.50	
52 1,1,1-Trichloroethane	97		6.812				ND	7
56 Carbon tetrachloride	117		7.025				ND	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.244	7.244	0.000	65	96547	10.2	
59 Benzene	78		7.281				ND	7
60 1,2-Dichloroethane	62		7.348				ND	7
* 65 Fluorobenzene (IS)	96	7.677	7.683	-0.006	99	1926562	10.0	
67 Trichloroethene	95	8.159	8.159	0.000	97	8804	0.1441	
70 1,2-Dichloropropane	63		8.488				ND	
75 Dichlorobromomethane	83	8.829	8.829	0.000	45	2618	0.0400	
80 cis-1,3-Dichloropropene	75		9.378				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.543				ND	
\$ 82 Toluene-d8 (Surr)	98	9.683	9.683	0.000	93	2030829	10.0	
83 Toluene	92		9.762				ND	7
85 trans-1,3-Dichloropropene	75		10.012				ND	
87 1,1,2-Trichloroethane	97		10.219				ND	U

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
88 Tetrachloroethene	166	10.311	10.311	0.000	98	229737	3.30	
91 2-Hexanone	43		10.427				ND	
93 Chlorodibromomethane	129		10.597				ND	
94 Ethylene Dibromide	107		10.707				ND	
* 97 Chlorobenzene-d5 (IS)	117	11.134	11.134	0.000	86	1563134	10.0	
98 Chlorobenzene	112		11.158				ND	7
99 1,1,1,2-Tetrachloroethane	131		11.244				ND	
S 95 Xylenes, Total	106		11.245				ND	7
100 Ethylbenzene	91		11.250				ND	7
101 m-Xylene & p-Xylene	106		11.359				ND	7
102 o-Xylene	106		11.689				ND	7
103 Styrene	104		11.701				ND	
104 Bromoform	173		11.859				ND	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.133	12.128	0.005	92	782484	9.96	
109 1,1,2,2-Tetrachloroethane	83		12.231				ND	
* 124 1,4-Dichlorobenzene-d4	152	13.005	13.005	0.000	95	875027	10.0	

### QC Flag Legend

#### Processing Flags

7 - Failed Limit of Detection

#### Review Flags

U - Marked Undetected

### Reagents:

MSV\_LLcentISS\_00002

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X26.D

Injection Date: 03-Feb-2022 18:33:30

Instrument ID: 19094

Operator ID: KNK41612

Lims ID: 410-71043-A-9

Lab Sample ID: 410-71043-9

Worklist Smp#: 27

Client ID: HD-COD-SW-26-01/1-0

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

ALS Bottle#: 26

Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X26.D  
 Lims ID: 410-71043-A-9  
 Client ID: HD-COD-SW-26-01/1-0  
 Sample Type: Client  
 Inject. Date: 03-Feb-2022 18:33:30 ALS Bottle#: 26 Worklist Smp#: 27  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0049665-027  
 Operator ID: KNK41612 Instrument ID: 19094  
 Method: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\MSV\_19094\_25mL.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 19:08:14 Calib Date: 21-Dec-2021 20:38:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1662

First Level Reviewer: beckerk

Date: 03-Feb-2022 19:08:14

Compound	Amount Added	Amount Recovered	% Rec.
\$ 51 Dibromofluoromethane (Surr)	10.0	9.50	95.02
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.2	101.91
\$ 82 Toluene-d8 (Surr)	10.0	10.0	100.02
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.96	99.59

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X26.D

Injection Date: 03-Feb-2022 18:33:30

Instrument ID: 19094

Lims ID: 410-71043-A-9

Lab Sample ID: 410-71043-9

Client ID: HD-COD-SW-26-01/1-0

Operator ID: KNK41612

ALS Bottle#: 26

Worklist Smp#: 27

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

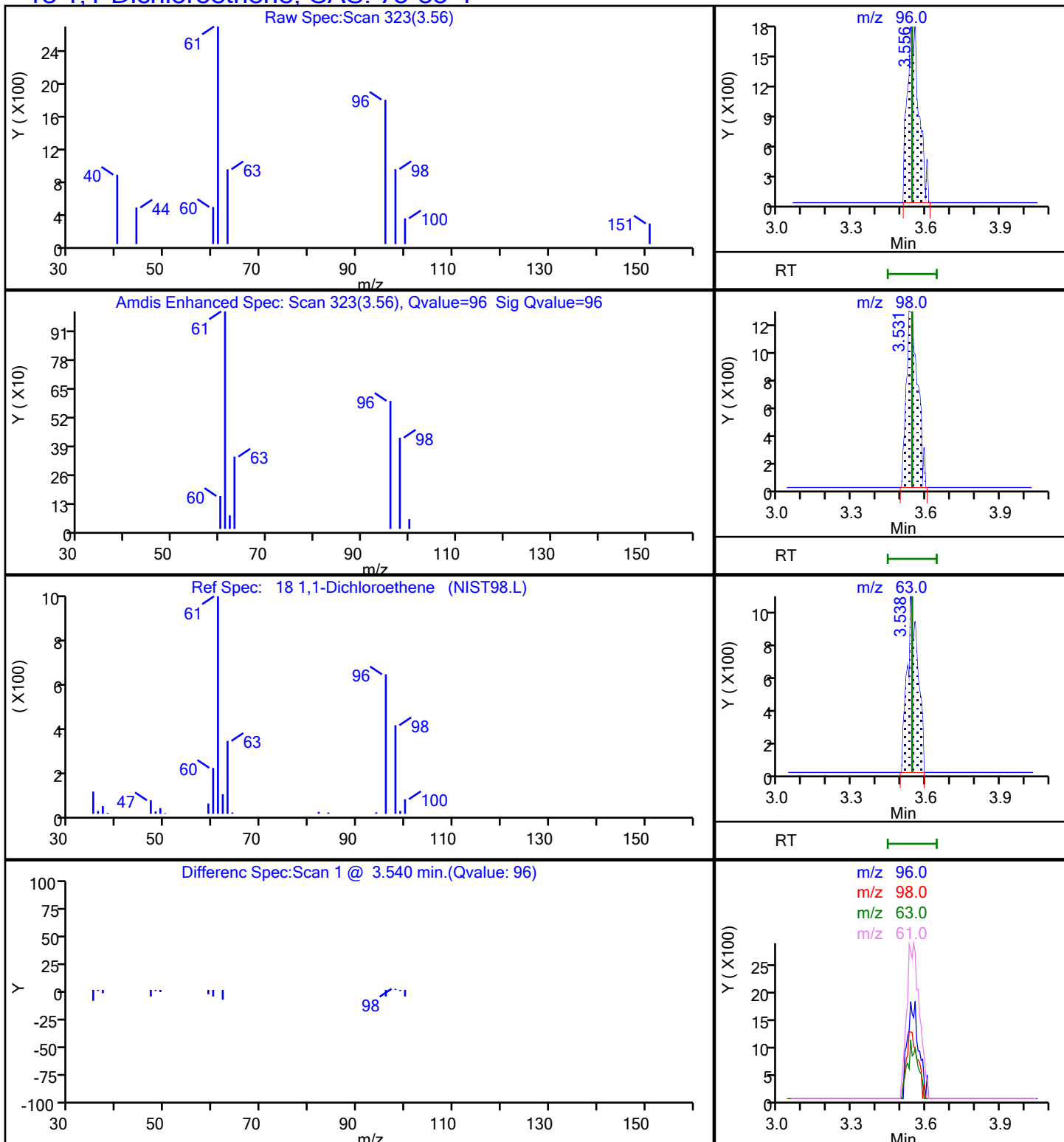
Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

MS Quad

### 18 1,1-Dichloroethene, CAS: 75-35-4





Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X26.D

Injection Date: 03-Feb-2022 18:33:30

Instrument ID: 19094

Lims ID: 410-71043-A-9

Lab Sample ID: 410-71043-9

Client ID: HD-COD-SW-26-01/1-0

Operator ID: KNK41612

ALS Bottle#: 26

Worklist Smp#: 27

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

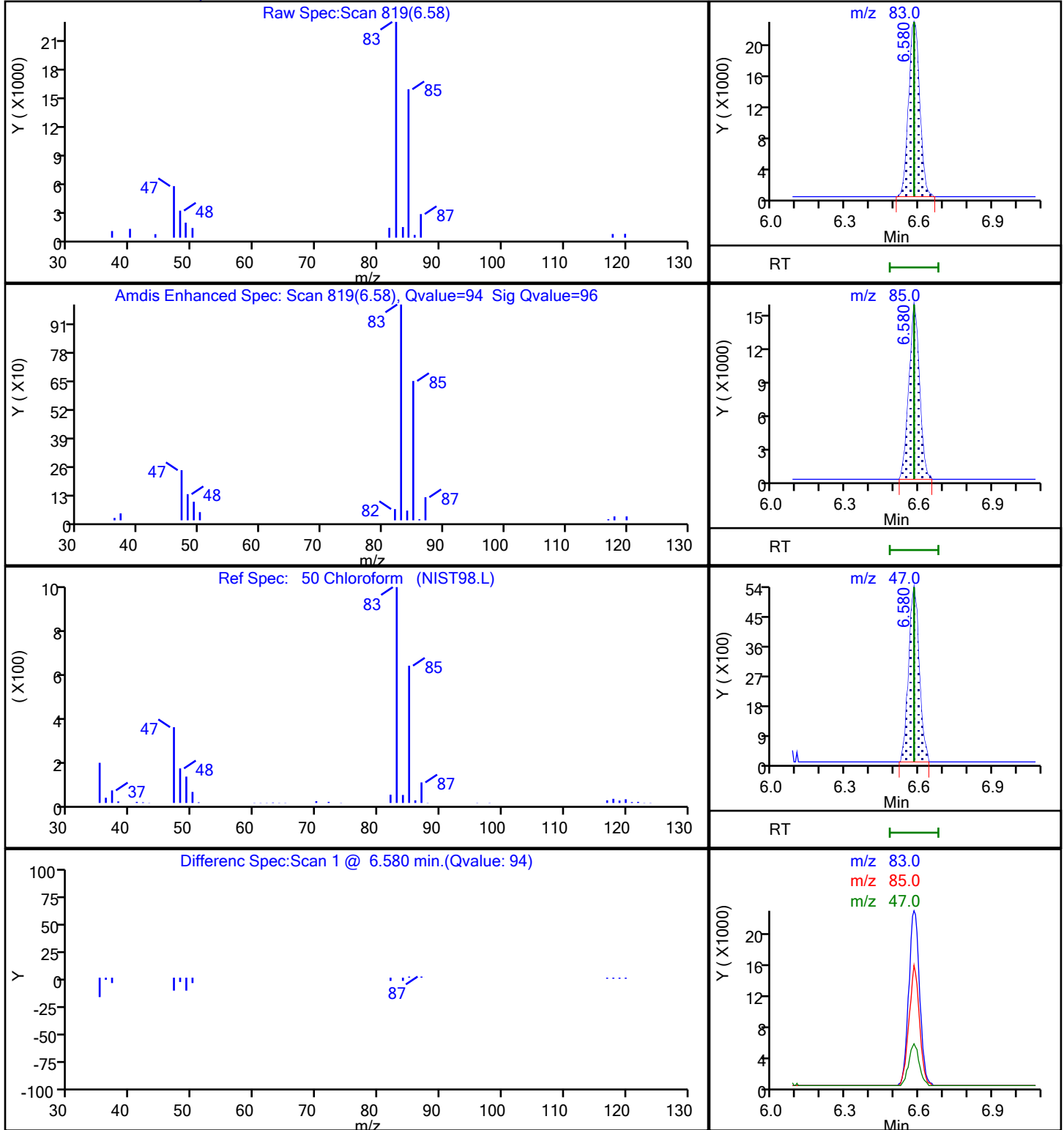
Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

MS Quad

### 50 Chloroform, CAS: 67-66-3



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X26.D

Injection Date: 03-Feb-2022 18:33:30

Instrument ID: 19094

Lims ID: 410-71043-A-9

Lab Sample ID: 410-71043-9

Client ID: HD-COD-SW-26-01/1-0

Operator ID: KNK41612

ALS Bottle#: 26

Worklist Smp#: 27

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

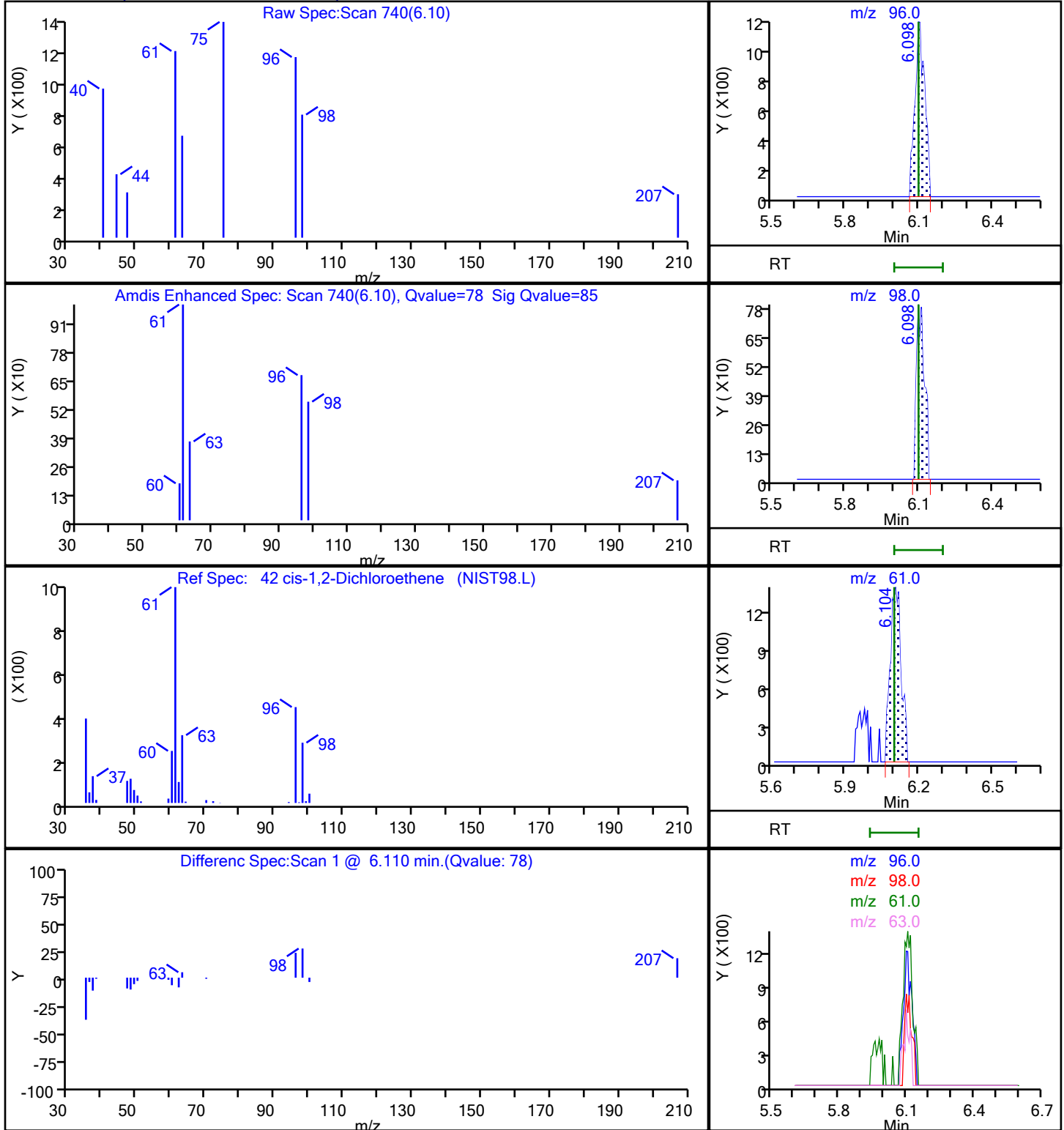
Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

MS Quad

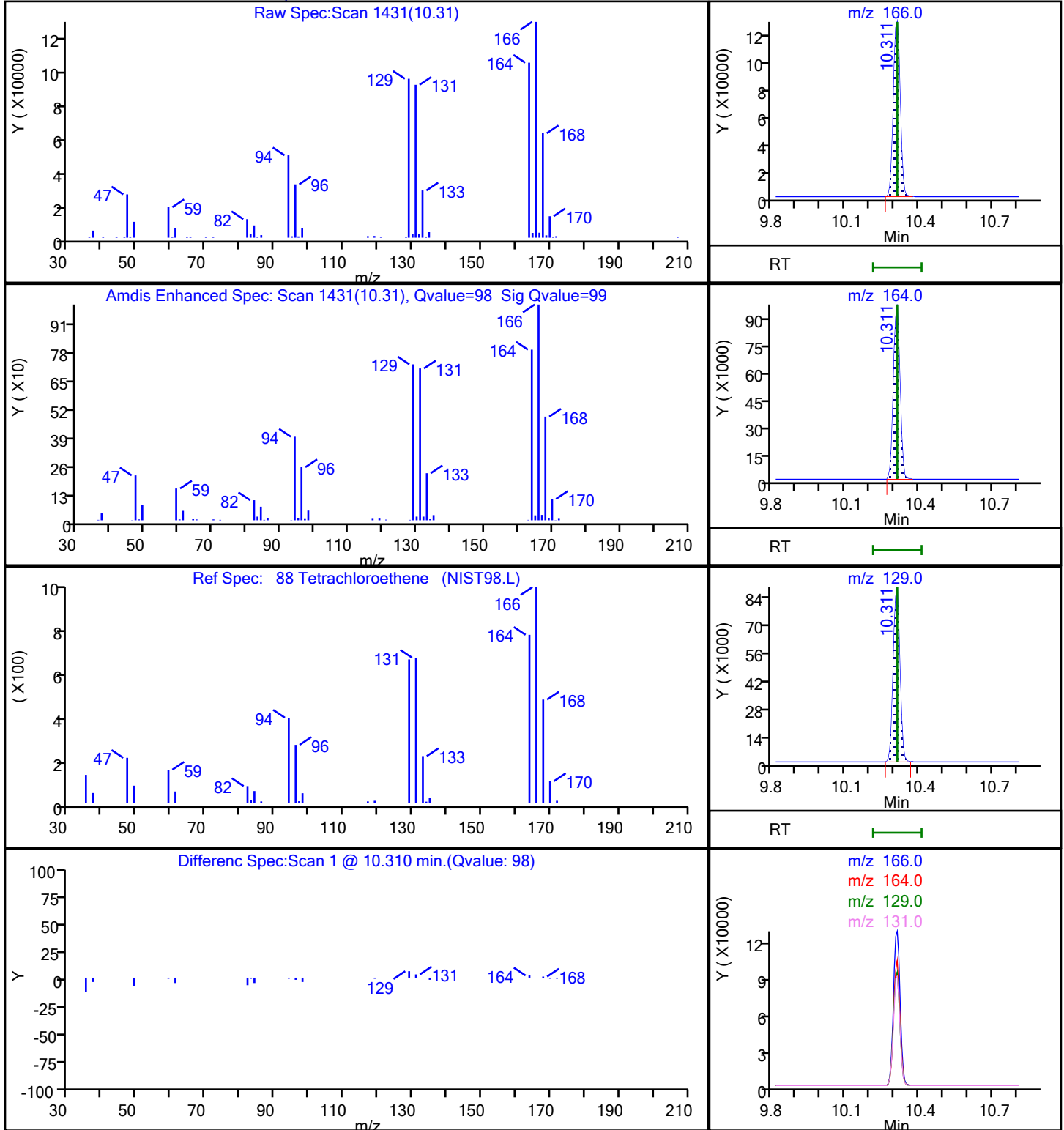
### 42 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X26.D  
Injection Date: 03-Feb-2022 18:33:30 Instrument ID: 19094  
Lims ID: 410-71043-A-9 Lab Sample ID: 410-71043-9  
Client ID: HD-COD-SW-26-01/1-0  
Operator ID: KNK41612 ALS Bottle#: 26 Worklist Smp#: 27  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: MSV\_19094\_25mL Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

### 88 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X26.D

Injection Date: 03-Feb-2022 18:33:30

Instrument ID: 19094

Lims ID: 410-71043-A-9

Lab Sample ID: 410-71043-9

Client ID: HD-COD-SW-26-01/1-0

Operator ID: KNK41612

ALS Bottle#: 26

Worklist Smp#: 27

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

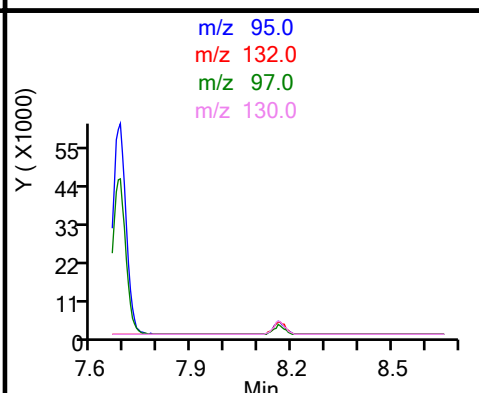
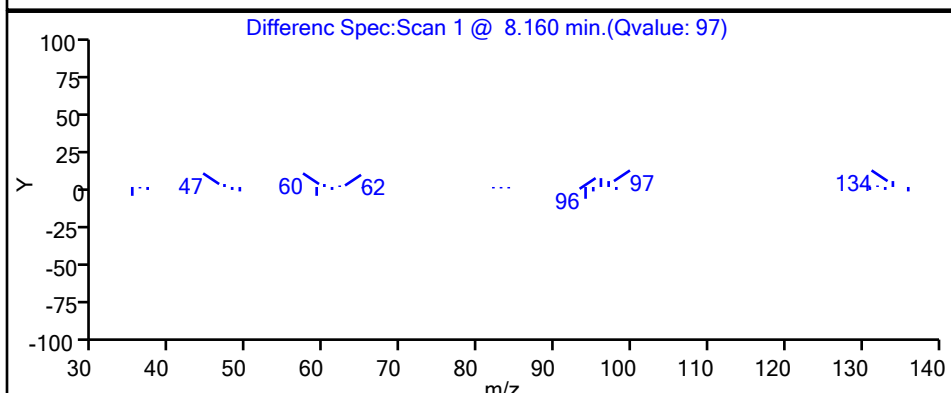
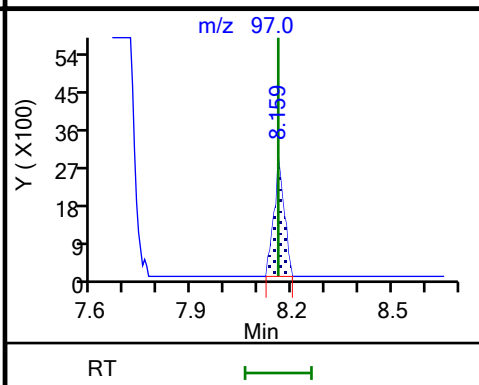
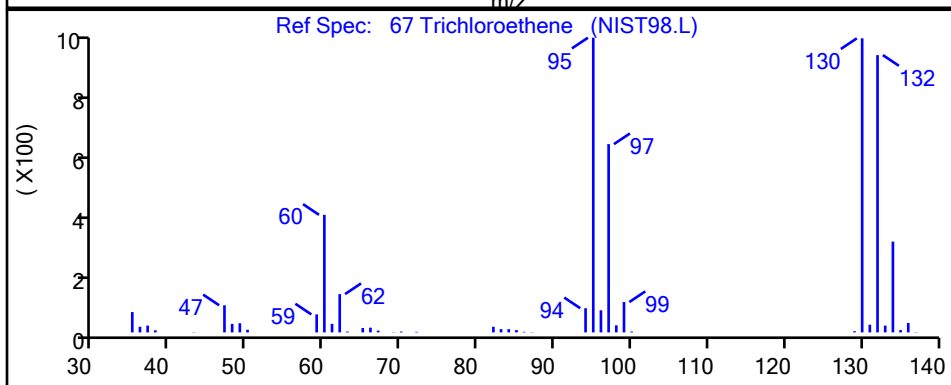
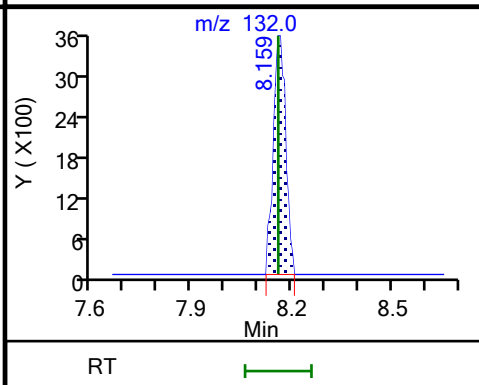
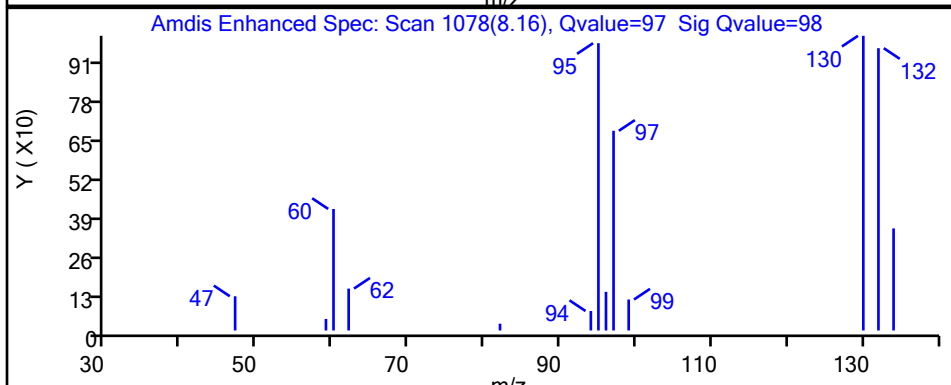
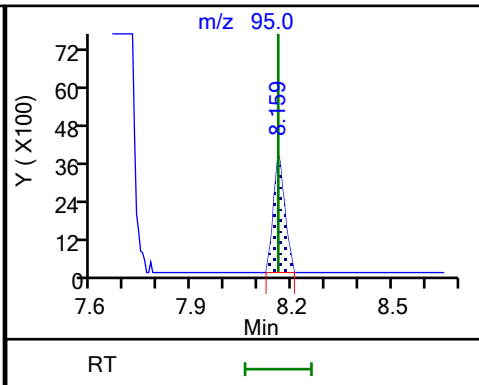
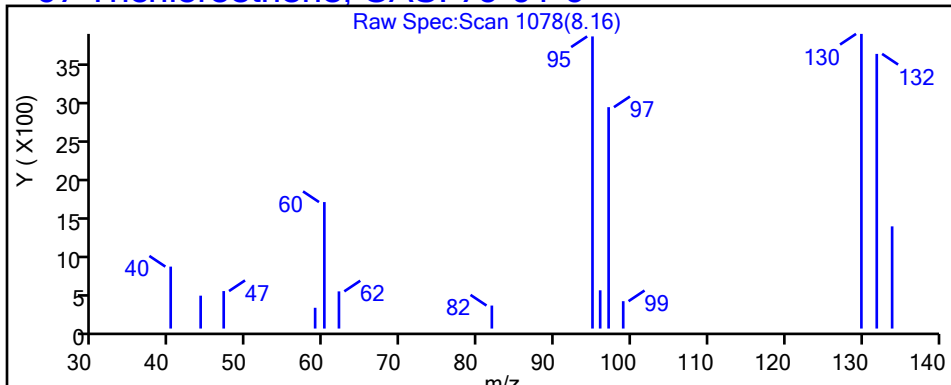
Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

MS Quad

67 Trichloroethene, CAS: 79-01-6

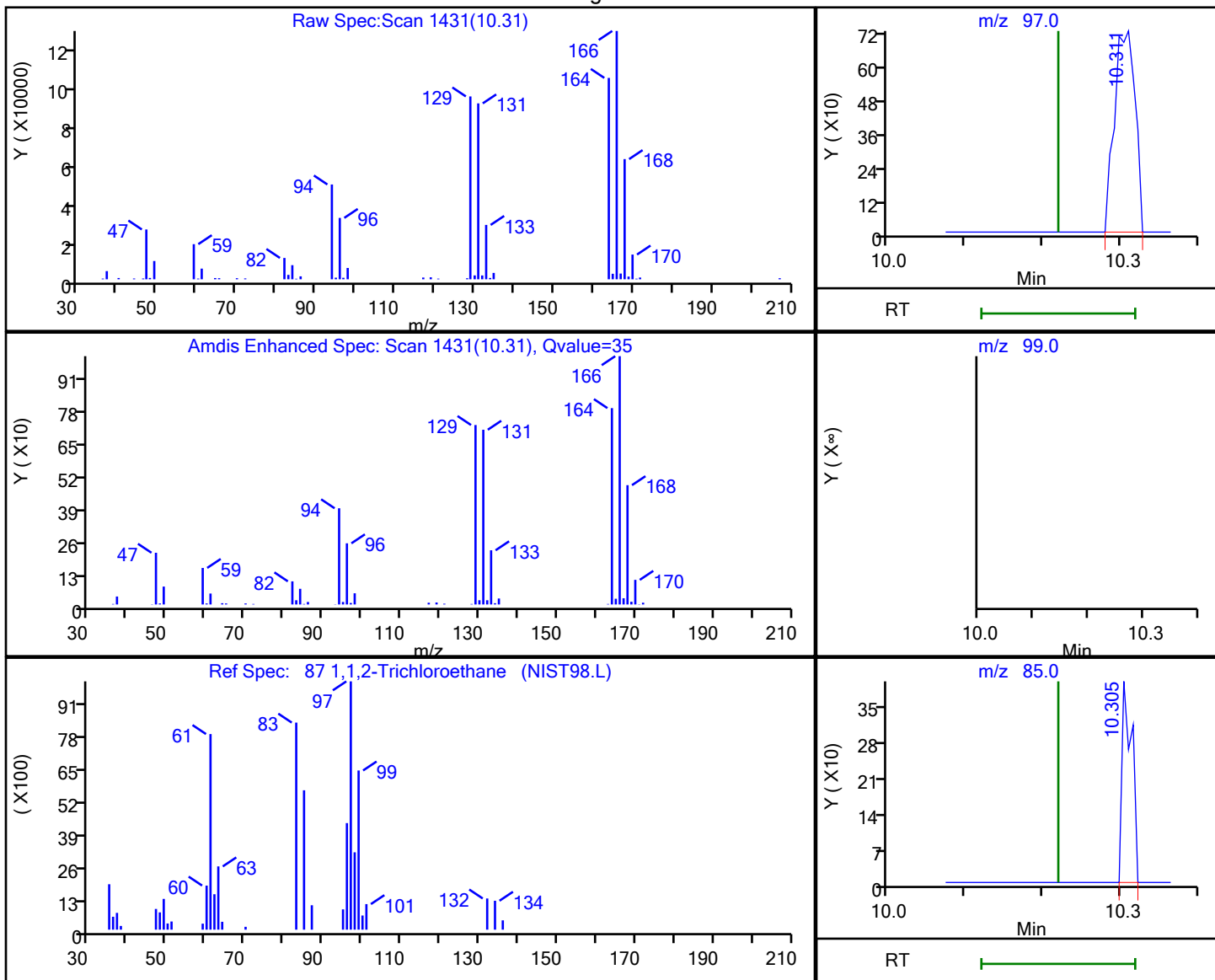


Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfms\Lancaster\ChromData\19094\20220203-49665.b\HF03X26.D  
Injection Date: 03-Feb-2022 18:33:30 Instrument ID: 19094  
Lims ID: 410-71043-A-9 Lab Sample ID: 410-71043-9  
Client ID: HD-COD-SW-26-01/1-0  
Operator ID: KNK41612 ALS Bottle#: 26 Worklist Smp#: 27  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: MSV\_19094\_25mL Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

### 87 1,1,2-Trichloroethane, CAS: 79-00-5

#### Processing Results



RT	Mass	Response	Amount
10.31	97.00	1347	0.037360
10.22	99.00	0	
10.30	85.00	354	
10.31	83.00	4192	

Reviewer: beckerk, 03-Feb-2022 19:07:56

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.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-27-01/1-0 Lab Sample ID: 410-71043-10  
 Matrix: Water Lab File ID: HF03X27.D  
 Analysis Method: 8260D Date Collected: 01/27/2022 11:35  
 Sample wt/vol: 25 (mL) Date Analyzed: 02/03/2022 18:53  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: R-624SilMS 30m ID: 0.25 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 220509 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND	cn	0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND	cn	0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND	cn	0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND	cn	0.50	0.060
75-34-3	1,1-Dichloroethane	ND	cn	0.50	0.070
75-35-4	1,1-Dichloroethene	ND	cn	0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060
107-06-2	1,2-Dichloroethane	ND	cn	0.50	0.050
78-87-5	1,2-Dichloropropane	ND	cn	0.50	0.060
78-93-3	2-Butanone (MEK)	ND	cn	5.0	0.60
591-78-6	2-Hexanone	ND	^c cn	5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	^c cn	5.0	0.70
67-64-1	Acetone	1.1	J cn	5.0	0.90
71-43-2	Benzene	ND	cn	0.50	0.050
74-97-5	Bromochloromethane	ND	cn	0.50	0.050
75-27-4	Bromodichloromethane	ND	cn	0.50	0.050
75-25-2	Bromoform	ND	cn	1.0	0.30
74-83-9	Bromomethane	ND	cn	0.50	0.070
75-15-0	Carbon disulfide	ND	cn	1.0	0.060
56-23-5	Carbon tetrachloride	ND	cn	0.50	0.070
108-90-7	Chlorobenzene	ND	cn	0.50	0.060
75-00-3	Chloroethane	ND	cn	0.50	0.070
67-66-3	Chloroform	ND	cn	0.50	0.090
74-87-3	Chloromethane	ND	cn	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.082	J cn	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND	cn	0.50	0.050
124-48-1	Dibromochloromethane	ND	cn	0.50	0.070
100-41-4	Ethylbenzene	ND	cn	0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND	cn	0.50	0.050
75-09-2	Methylene Chloride	ND	cn	0.50	0.070
100-42-5	Styrene	ND	cn	0.50	0.050
127-18-4	Tetrachloroethene	0.070	J cn	0.50	0.060
108-88-3	Toluene	ND	cn	0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND	cn	0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND	cn	0.50	0.060
79-01-6	Trichloroethene	0.14	J cn	0.50	0.060

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-27-01/1-0 Lab Sample ID: 410-71043-10  
 Matrix: Water Lab File ID: HF03X27.D  
 Analysis Method: 8260D Date Collected: 01/27/2022 11:35  
 Sample wt/vol: 25 (mL) Date Analyzed: 02/03/2022 18:53  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: R-624SilMS 30m ID: 0.25 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 220509 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	ND	cn	0.50	0.10
1330-20-7	Xylenes, Total	ND	cn	1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105	cn	80-120
460-00-4	4-Bromofluorobenzene (Surr)	100	cn	80-120
1868-53-7	Dibromofluoromethane (Surr)	95	cn	80-120
2037-26-5	Toluene-d8 (Surr)	100	cn	80-120

Eurofins Lancaster Laboratories Env, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X27.D  
 Lims ID: 410-71043-A-10  
 Client ID: HD-COD-SW-27-01/1-0  
 Sample Type: Client  
 Inject. Date: 03-Feb-2022 18:53:30 ALS Bottle#: 27 Worklist Smp#: 28  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0049665-028  
 Operator ID: KNK41612 Instrument ID: 19094  
 Method: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\MSV\_19094\_25mL.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 19:43:34 Calib Date: 21-Dec-2021 20:38:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21117.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1662

First Level Reviewer: beckerk

Date: 03-Feb-2022 19:43:34

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Chloromethane	50		2.148				ND	7
7 Vinyl chloride	62		2.264				ND	
9 Bromomethane	94		2.599				ND	
10 Chloroethane	64		2.690				ND	
18 1,1-Dichloroethene	96		3.544				ND	
19 Acetone	43	3.568	3.562	0.006	96	9319	1.08	M
24 Carbon disulfide	76		3.849				ND	7
* 28 t-Butyl alcohol-d10 (IS)	65	4.196	4.190	0.006	90	94915	50.0	
29 Methylene Chloride	84		4.202				ND	
32 Methyl tert-butyl ether	73		4.611				ND	
33 trans-1,2-Dichloroethene	96		4.623				ND	
35 1,1-Dichloroethane	63		5.275				ND	
41 2-Butanone (MEK)	43		6.056				ND	7
42 cis-1,2-Dichloroethene	96	6.098	6.098	0.000	76	4976	0.0820	
48 Chlorobromomethane	128		6.434				ND	
50 Chloroform	83	6.580	6.580	0.000	90	4224	0.0423	
\$ 51 Dibromofluoromethane (Surr)	113	6.793	6.793	0.000	94	488118	9.55	
52 1,1,1-Trichloroethane	97		6.812				ND	
56 Carbon tetrachloride	117		7.025				ND	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.244	7.244	0.000	46	99952	10.5	
59 Benzene	78		7.281				ND	7
60 1,2-Dichloroethane	62		7.348				ND	
* 65 Fluorobenzene (IS)	96	7.677	7.683	-0.006	99	1938068	10.0	
67 Trichloroethene	95	8.165	8.159	0.006	97	8843	0.1438	
70 1,2-Dichloropropane	63		8.488				ND	
75 Dichlorobromomethane	83		8.829				ND	7
80 cis-1,3-Dichloropropene	75		9.378				ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.543				ND	
\$ 82 Toluene-d8 (Surr)	98	9.683	9.683	0.000	93	2060771	10.0	
83 Toluene	92	9.768	9.762	0.006	98	4187	0.0284	
85 trans-1,3-Dichloropropene	75		10.012				ND	
87 1,1,2-Trichloroethane	97		10.219				ND	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
88 Tetrachloroethene	166	10.305	10.311	-0.006	91	4951	0.0705	
91 2-Hexanone	43		10.427				ND	
93 Chlorodibromomethane	129		10.597				ND	
94 Ethylene Dibromide	107		10.707				ND	
* 97 Chlorobenzene-d5 (IS)	117	11.134	11.134	0.000	86	1579181	10.0	
98 Chlorobenzene	112		11.158				ND	
99 1,1,1,2-Tetrachloroethane	131		11.244				ND	
S 95 Xylenes, Total	106		11.245				ND	7
100 Ethylbenzene	91		11.250				ND	7
101 m-Xylene & p-Xylene	106		11.359				ND	7
102 o-Xylene	106		11.689				ND	7
103 Styrene	104		11.701				ND	7
104 Bromoform	173		11.859				ND	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.134	12.128	0.006	91	790559	9.96	
109 1,1,2,2-Tetrachloroethane	83		12.231				ND	
* 124 1,4-Dichlorobenzene-d4	152	13.005	13.005	0.000	95	877009	10.0	

### QC Flag Legend

#### Processing Flags

7 - Failed Limit of Detection

#### Review Flags

M - Manually Integrated

### Reagents:

MSV\_LLcentISS\_00002

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X27.D

Injection Date: 03-Feb-2022 18:53:30

Instrument ID: 19094

Operator ID: KNK41612

Lims ID: 410-71043-A-10

Lab Sample ID: 410-71043-10

Worklist Smp#: 28

Client ID: HD-COD-SW-27-01/1-0

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

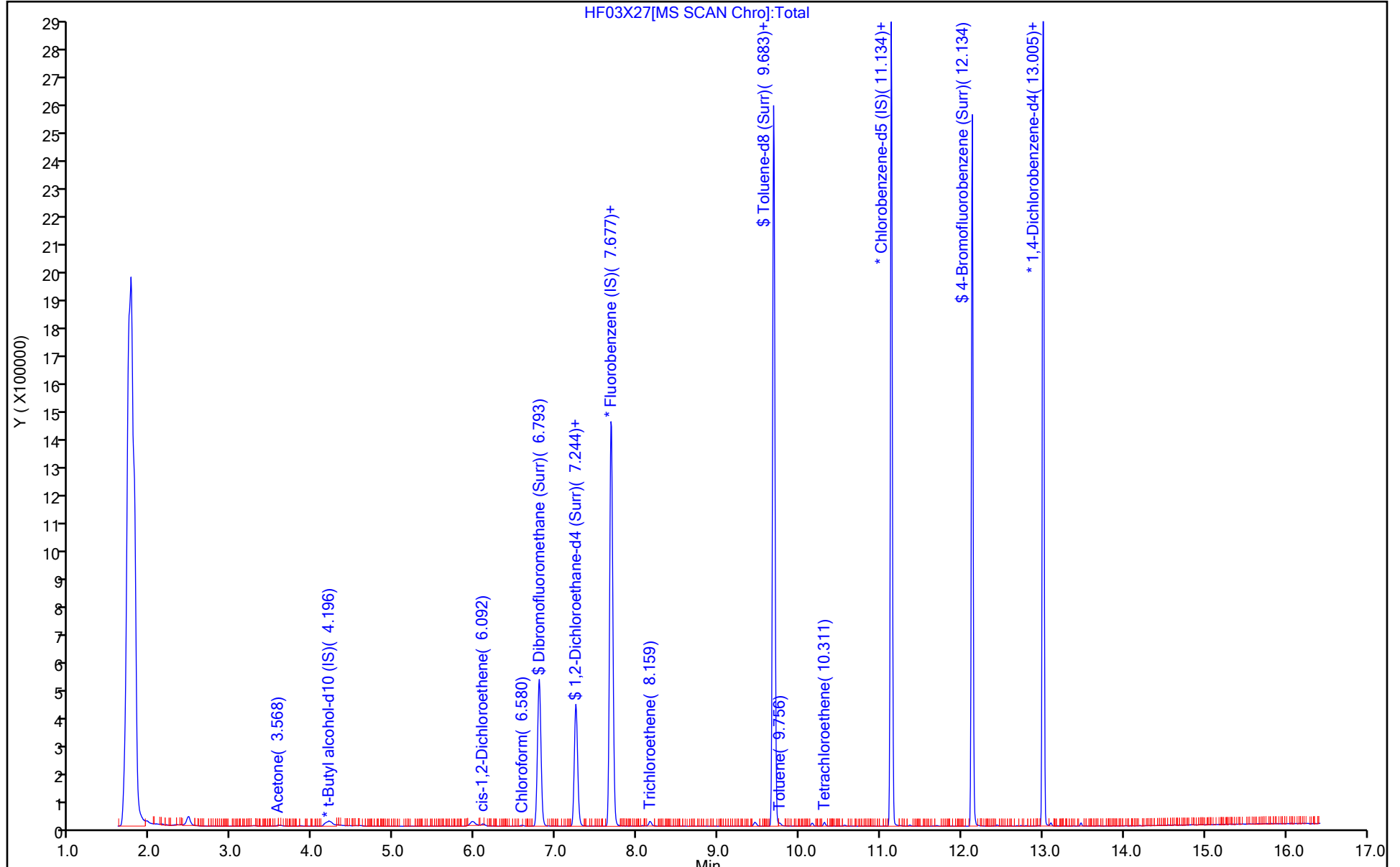
ALS Bottle#: 27

Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X27.D  
 Lims ID: 410-71043-A-10  
 Client ID: HD-COD-SW-27-01/1-0  
 Sample Type: Client  
 Inject. Date: 03-Feb-2022 18:53:30 ALS Bottle#: 27 Worklist Smp#: 28  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0049665-028  
 Operator ID: KNK41612 Instrument ID: 19094  
 Method: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\MSV\_19094\_25mL.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 19:43:34 Calib Date: 21-Dec-2021 20:38:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1662

First Level Reviewer: beckerk

Date: 03-Feb-2022 19:43:34

Compound	Amount Added	Amount Recovered	% Rec.
\$ 51 Dibromofluoromethane (Surr)	10.0	9.55	95.47
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.5	104.88
\$ 82 Toluene-d8 (Surr)	10.0	10.0	100.46
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.96	99.59

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X27.D

Injection Date: 03-Feb-2022 18:53:30

Instrument ID: 19094

Lims ID: 410-71043-A-10

Lab Sample ID: 410-71043-10

Client ID: HD-COD-SW-27-01/1-0

Operator ID: KNK41612

ALS Bottle#: 27

Worklist Smp#: 28

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

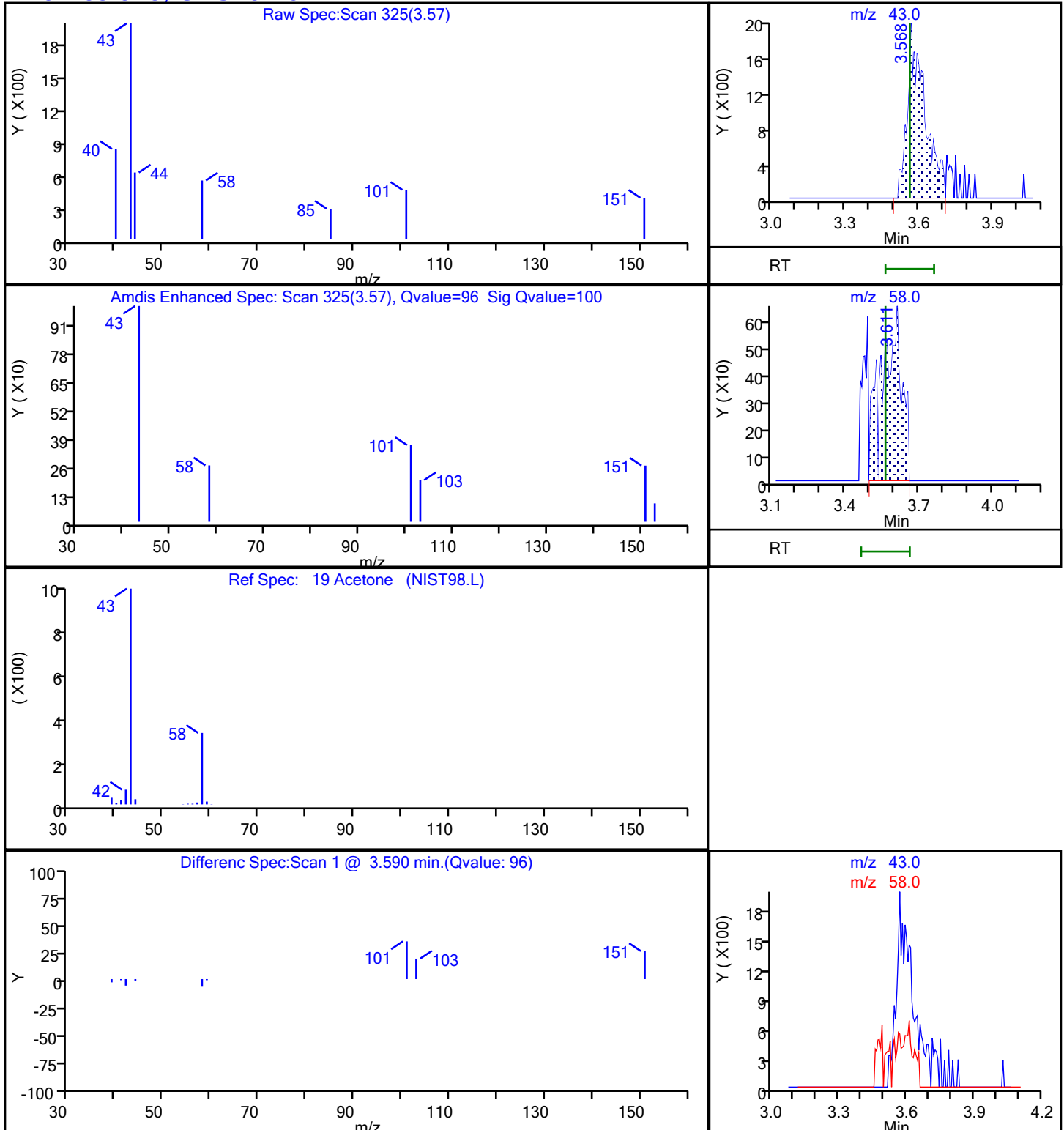
Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

MS Quad

19 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X27.D

Injection Date: 03-Feb-2022 18:53:30

Instrument ID: 19094

Lims ID: 410-71043-A-10

Lab Sample ID: 410-71043-10

Client ID: HD-COD-SW-27-01/1-0

Operator ID: KNK41612

ALS Bottle#: 27

Worklist Smp#: 28

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

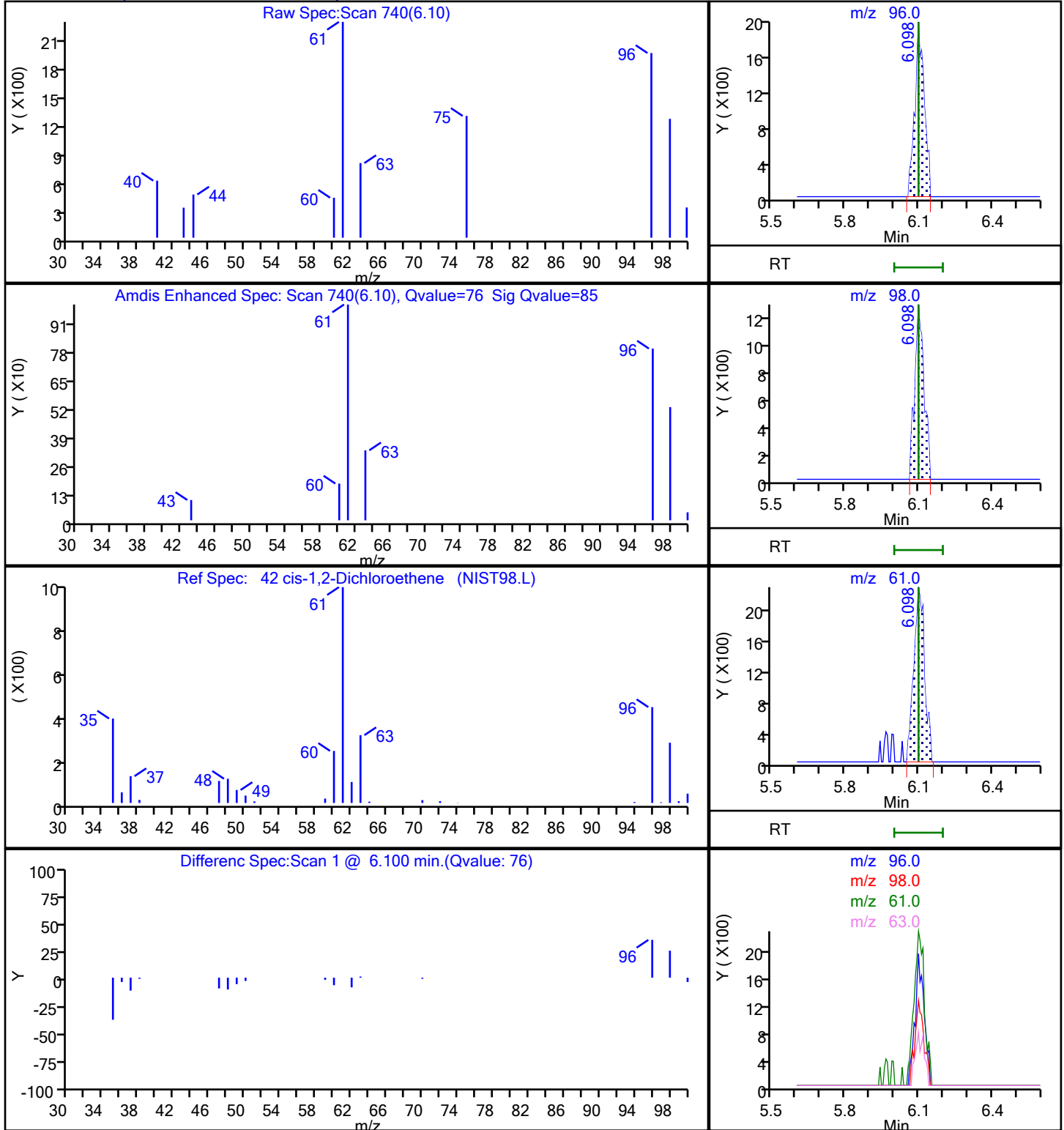
Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

MS Quad

**42 cis-1,2-Dichloroethene, CAS: 156-59-2**



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X27.D

Injection Date: 03-Feb-2022 18:53:30

Instrument ID: 19094

Lims ID: 410-71043-A-10

Lab Sample ID: 410-71043-10

Client ID: HD-COD-SW-27-01/1-0

Operator ID: KNK41612

ALS Bottle#: 27

Worklist Smp#: 28

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

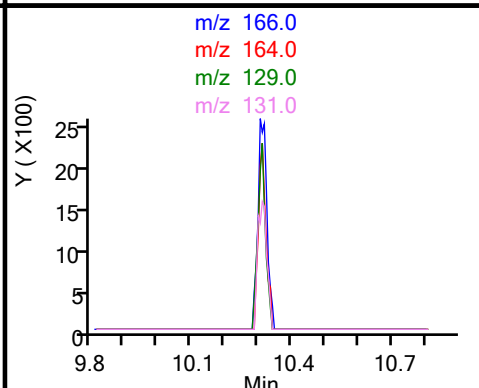
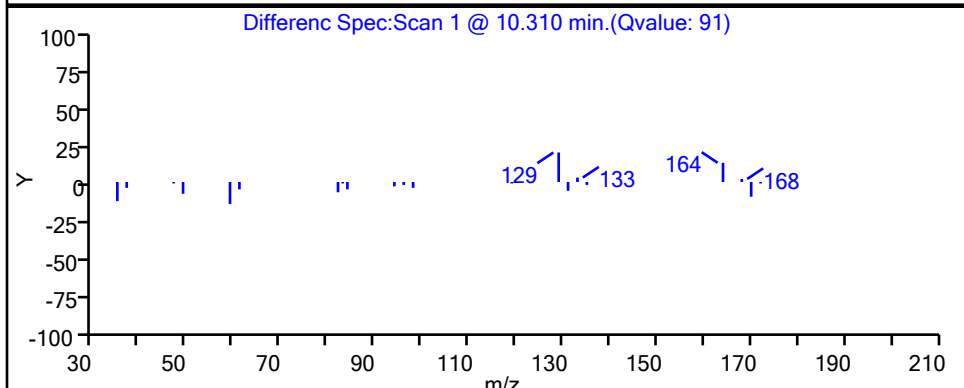
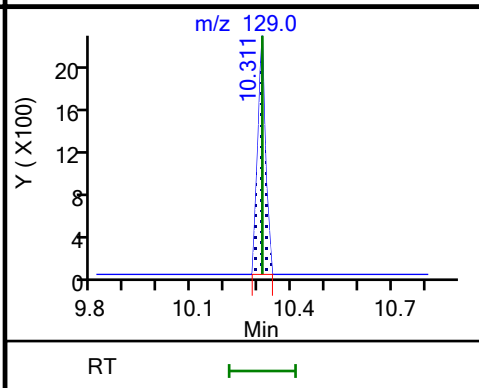
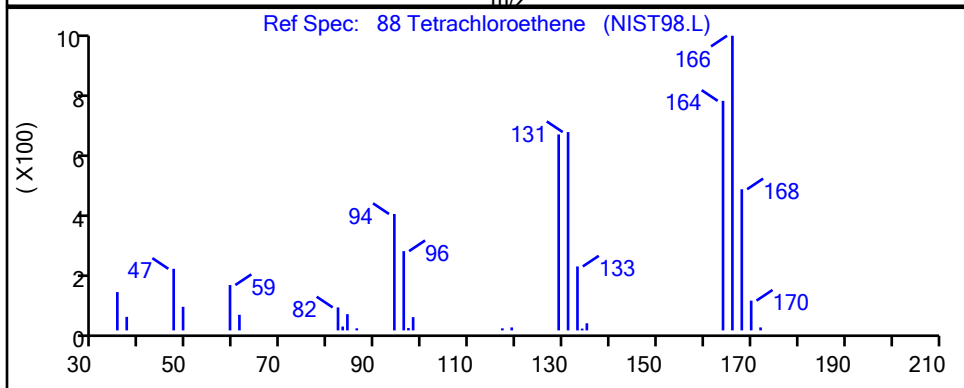
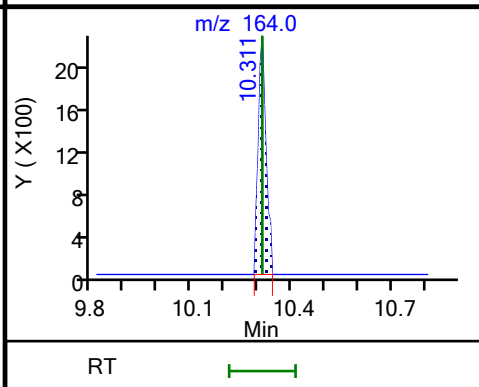
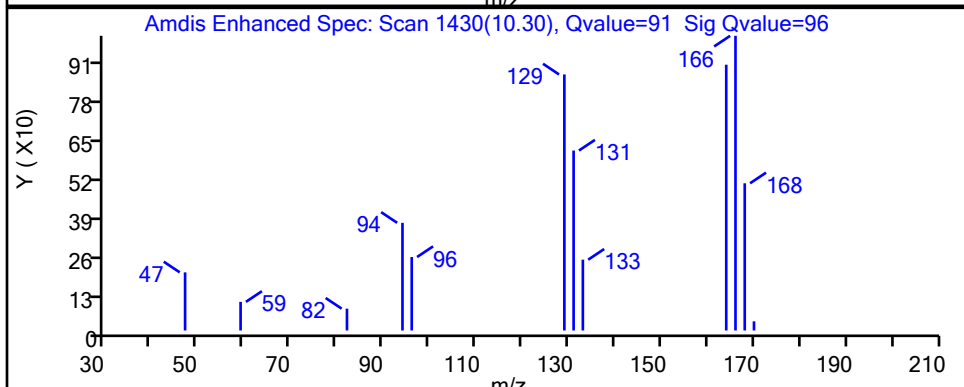
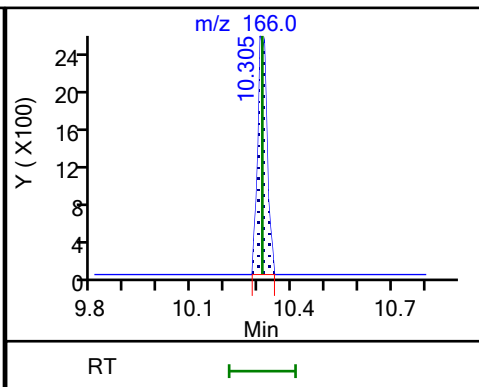
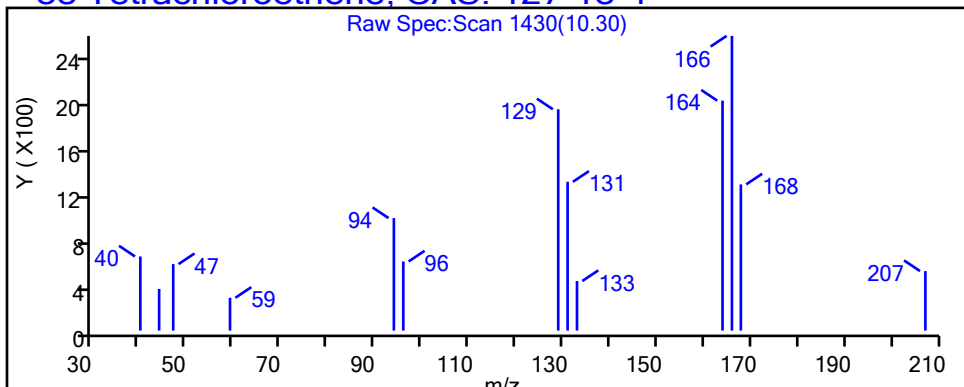
Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

MS Quad

### 88 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X27.D

Injection Date: 03-Feb-2022 18:53:30

Instrument ID: 19094

Lims ID: 410-71043-A-10

Lab Sample ID: 410-71043-10

Client ID: HD-COD-SW-27-01/1-0

Operator ID: KNK41612

ALS Bottle#: 27

Worklist Smp#: 28

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

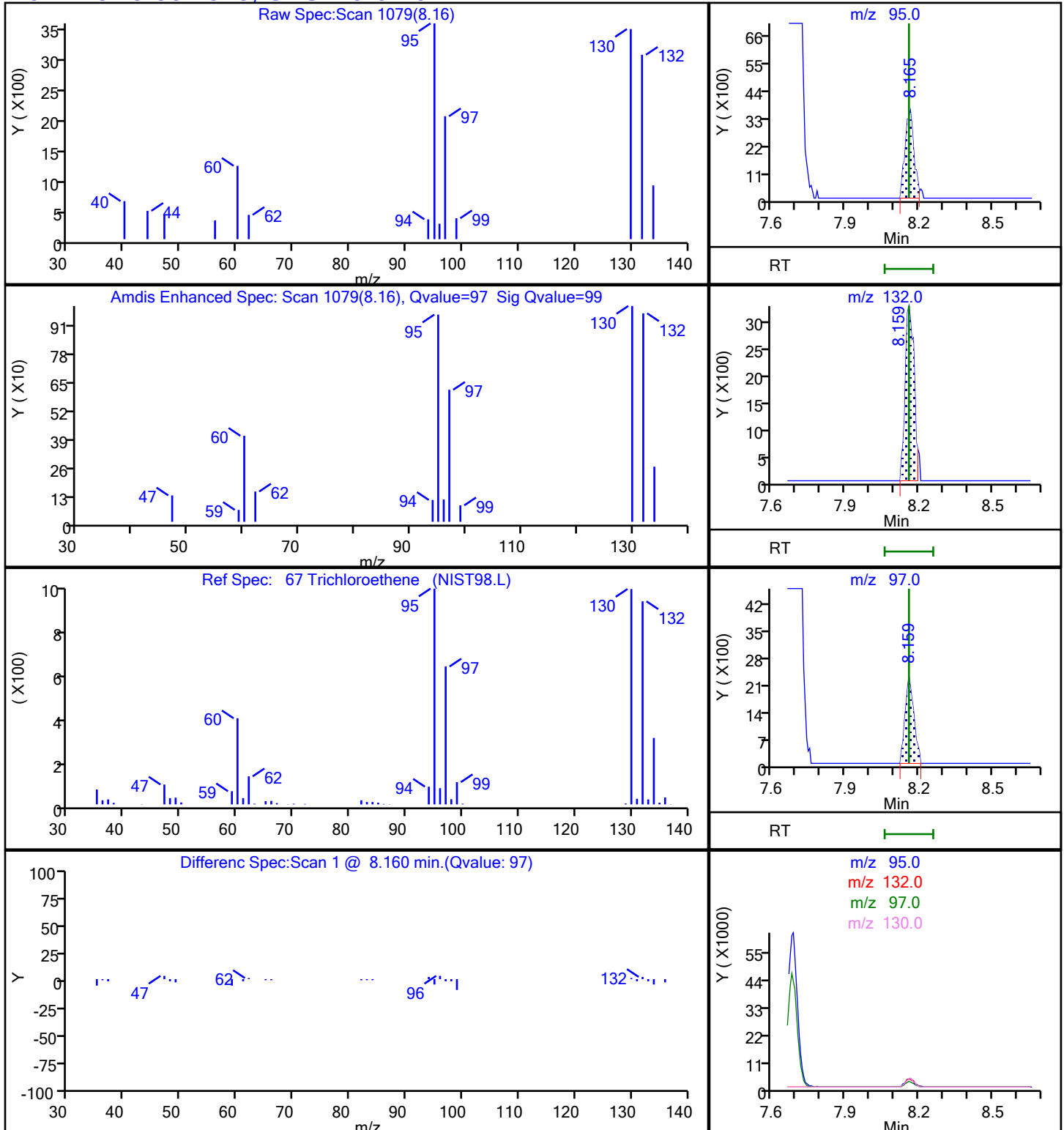
Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

MS Quad

### 67 Trichloroethene, CAS: 79-01-6



Eurofins Lancaster Laboratories Env, LLC

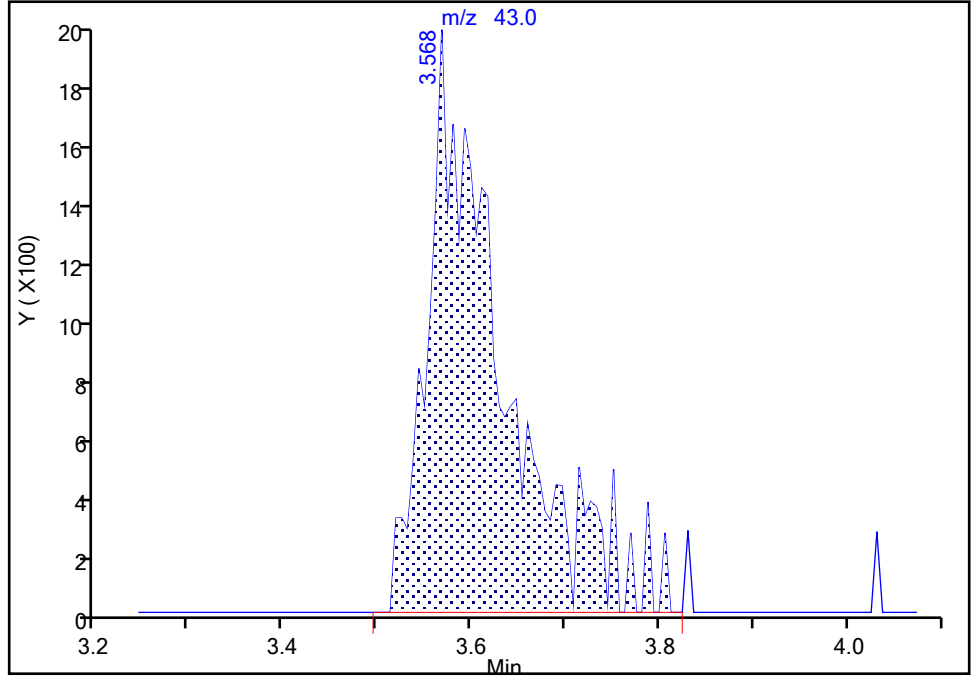
Data File:	\\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X27.D		
Injection Date:	03-Feb-2022 18:53:30	Instrument ID:	19094
Lims ID:	410-71043-A-10	Lab Sample ID:	410-71043-10
Client ID:	HD-COD-SW-27-01/1-0		
Operator ID:	KNK41612	ALS Bottle#:	27
Purge Vol:	25.000 mL	Dil. Factor:	1.0000
Method:	MSV_19094_25mL	Limit Group:	MSV - 8260C_D
Column:	Rxi-624Sil MS Capillary Column (0.25mm ID)	Detector:	MS Quad
		Worklist Smp#:	28

19 Acetone, CAS: 67-64-1

Signal: 1

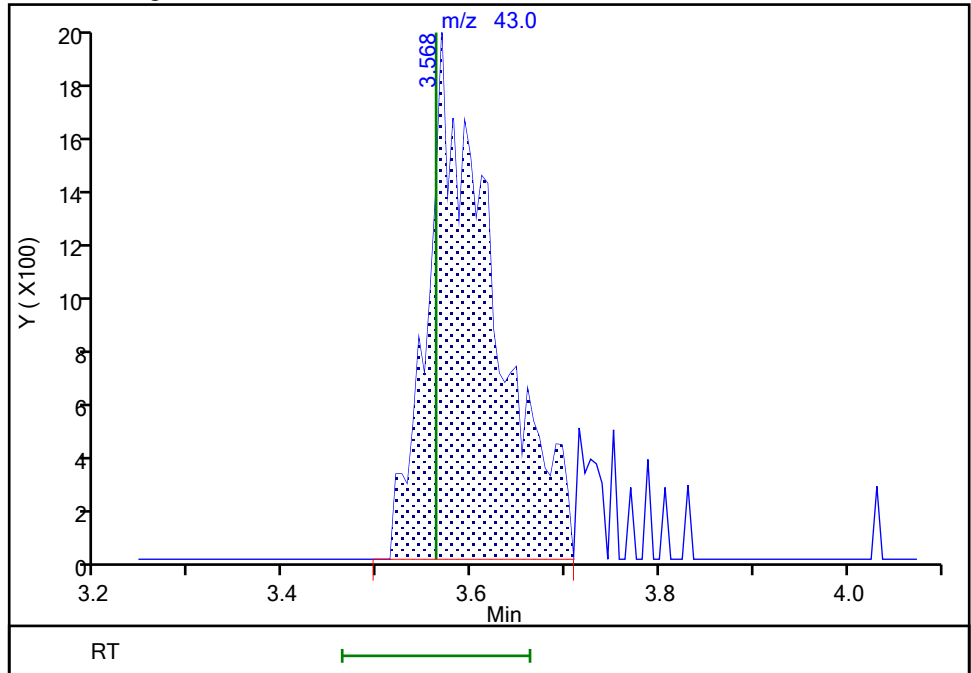
RT: 3.57  
 Area: 10469  
 Amount: 1.217178  
 Amount Units: ug/l

Processing Integration Results



RT: 3.57  
 Area: 9319  
 Amount: 1.083473  
 Amount Units: ug/l

Manual Integration Results



Reviewer: beckerk, 03-Feb-2022 19:43:22  
 Audit Action: Split an Integrated Peak

Audit Reason: Split Peak



FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-28-01/1-0 Lab Sample ID: 410-71043-11  
 Matrix: Water Lab File ID: IF03X13.D  
 Analysis Method: 8260D Date Collected: 01/27/2022 13:00  
 Sample wt/vol: 25 (mL) Date Analyzed: 02/03/2022 13:25  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: R-624SilMS 30m ID: 0.25 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 220519 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND	cn	0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND	cn	0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND	cn	0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND	cn	0.50	0.060
75-34-3	1,1-Dichloroethane	ND	cn	0.50	0.070
75-35-4	1,1-Dichloroethene	ND	cn	0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060
107-06-2	1,2-Dichloroethane	ND	cn	0.50	0.050
78-87-5	1,2-Dichloropropane	ND	cn	0.50	0.060
78-93-3	2-Butanone (MEK)	ND	cn	5.0	0.60
591-78-6	2-Hexanone	ND	cn	5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	cn	5.0	0.70
67-64-1	Acetone	2.1	J cn	5.0	0.90
71-43-2	Benzene	ND	cn	0.50	0.050
74-97-5	Bromochloromethane	ND	cn	0.50	0.050
75-27-4	Bromodichloromethane	ND	cn	0.50	0.050
75-25-2	Bromoform	ND	^c cn	1.0	0.30
74-83-9	Bromomethane	ND	cn	0.50	0.070
75-15-0	Carbon disulfide	ND	cn	1.0	0.060
56-23-5	Carbon tetrachloride	ND	cn	0.50	0.070
108-90-7	Chlorobenzene	ND	cn	0.50	0.060
75-00-3	Chloroethane	ND	cn	0.50	0.070
67-66-3	Chloroform	ND	cn	0.50	0.090
74-87-3	Chloromethane	ND	cn	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.11	J cn	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND	cn	0.50	0.050
124-48-1	Dibromochloromethane	ND	cn	0.50	0.070
100-41-4	Ethylbenzene	ND	cn	0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND	cn	0.50	0.050
75-09-2	Methylene Chloride	ND	cn	0.50	0.070
100-42-5	Styrene	ND	cn	0.50	0.050
127-18-4	Tetrachloroethene	0.24	J cn	0.50	0.060
108-88-3	Toluene	0.15	J cn	0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND	cn	0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND	cn	0.50	0.060
79-01-6	Trichloroethene	0.16	J cn	0.50	0.060

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-28-01/1-0 Lab Sample ID: 410-71043-11  
 Matrix: Water Lab File ID: IF03X13.D  
 Analysis Method: 8260D Date Collected: 01/27/2022 13:00  
 Sample wt/vol: 25 (mL) Date Analyzed: 02/03/2022 13:25  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: R-624SilMS 30m ID: 0.25 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 220519 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	ND	cn	0.50	0.10
1330-20-7	Xylenes, Total	ND	cn	1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104	cn	80-120
460-00-4	4-Bromofluorobenzene (Surr)	94	cn	80-120
1868-53-7	Dibromofluoromethane (Surr)	101	cn	80-120
2037-26-5	Toluene-d8 (Surr)	101	cn	80-120

Eurofins Lancaster Laboratories Env, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03X13.D  
 Lims ID: 410-71043-A-11  
 Client ID: HD-COD-SW-28-01/1-0  
 Sample Type: Client  
 Inject. Date: 03-Feb-2022 13:25:30 ALS Bottle#: 13 Worklist Smp#: 14  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0049668-014  
 Operator ID: KNK41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 14:39:20 Calib Date: 24-Aug-2021 02:52:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1662

First Level Reviewer: beckerk

Date: 03-Feb-2022 16:32:44

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	7	3671	0.0559	M
5 Vinyl chloride	62		2.282				ND	
7 Bromomethane	94		2.629				ND	
8 Chloroethane	64		2.702				ND	
14 1,1-Dichloroethene	96		3.568				ND	
15 Acetone	43	3.599	3.599	0.000	99	19908	2.15	M
19 Carbon disulfide	76		3.873				ND	7
23 Methylene Chloride	84	4.233	4.239	-0.006	72	3027	0.0631	
* 24 t-Butyl alcohol-d10 (IS)	65	4.257	4.245	0.012	76	167066	50.0	
27 Methyl tert-butyl ether	73		4.647				ND	7
28 trans-1,2-Dichloroethene	96		4.659				ND	
31 1,1-Dichloroethane	63		5.312				ND	
36 2-Butanone (MEK)	43		6.104				ND	7
37 cis-1,2-Dichloroethene	96	6.129	6.141	-0.012	78	6334	0.1138	
43 Chlorobromomethane	128		6.470				ND	
45 Chloroform	83	6.616	6.616	0.000	89	7148	0.0796	
\$ 46 Dibromofluoromethane (Surr)	113	6.830	6.830	0.000	94	470126	10.1	
47 1,1,1-Trichloroethane	97		6.848				ND	
50 Carbon tetrachloride	117		7.055				ND	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.281	7.275	0.006	67	96909	10.4	
54 Benzene	78	7.305	7.311	-0.006	89	7546	0.0364	
56 1,2-Dichloroethane	62		7.384				ND	
* 58 Fluorobenzene (IS)	96	7.714	7.714	0.000	99	1842705	10.0	
61 Trichloroethene	95	8.189	8.189	0.000	93	8998	0.1616	
63 1,2-Dichloropropane	63		8.518				ND	
68 Dichlorobromomethane	83		8.860				ND	7
73 cis-1,3-Dichloropropene	75		9.402				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.573				ND	7
\$ 75 Toluene-d8 (Surr)	98	9.707	9.713	-0.006	93	1928773	10.1	
76 Toluene	92	9.780	9.786	-0.006	96	21180	0.1488	
78 trans-1,3-Dichloropropene	75		10.042				ND	
80 1,1,2-Trichloroethane	97		10.244				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.329	10.335	-0.006	97	16119	0.2377	
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	85	1485044	10.0	
90 Chlorobenzene	112		11.182				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.262				ND	
92 Ethylbenzene	91		11.268				ND	7
93 m-Xylene & p-Xylene	106		11.384				ND	7
94 o-Xylene	106		11.707				ND	
95 Styrene	104		11.725				ND	
96 Bromoform	173		11.884				ND	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	94	689507	9.40	
101 1,1,2,2-Tetrachloroethane	83		12.249				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	94	789568	10.0	

**QC Flag Legend**

## Processing Flags

7 - Failed Limit of Detection

## Review Flags

M - Manually Integrated

**Reagents:**

MSV\_LLcentISS\_00002

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03X13.D

Injection Date: 03-Feb-2022 13:25:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: 410-71043-A-11

Lab Sample ID: 410-71043-11

Worklist Smp#: 14

Client ID: HD-COD-SW-28-01/1-0

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

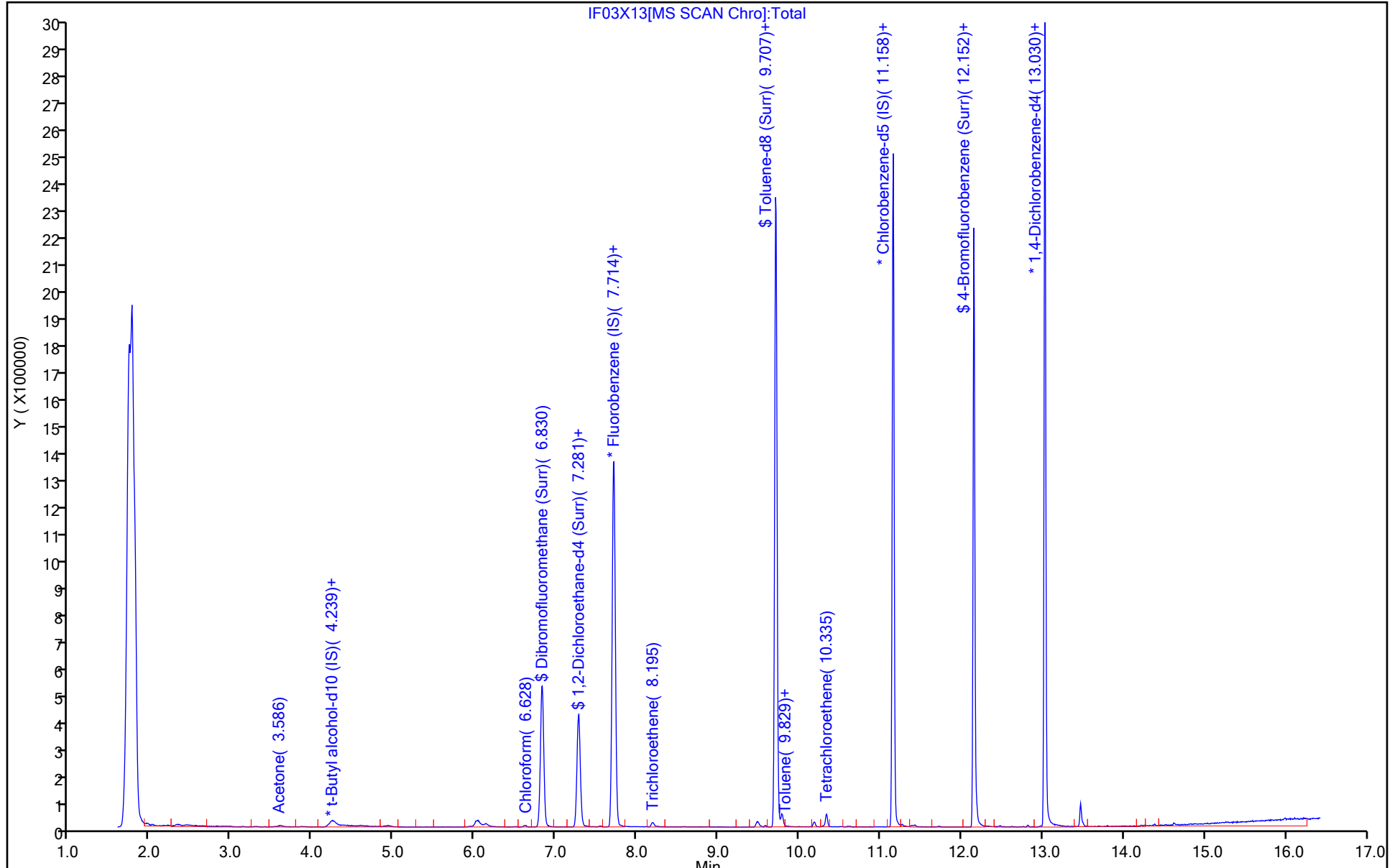
ALS Bottle#: 13

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 Env, LLC  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03X13.D  
 Lims ID: 410-71043-A-11  
 Client ID: HD-COD-SW-28-01/1-0  
 Sample Type: Client  
 Inject. Date: 03-Feb-2022 13:25:30 ALS Bottle#: 13 Worklist Smp#: 14  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0049668-014  
 Operator ID: KNK41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 14:39:20 Calib Date: 24-Aug-2021 02:52:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1662

First Level Reviewer: beckerk

Date: 03-Feb-2022 16:32:44

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	10.1	101.28
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.4	104.36
\$ 75 Toluene-d8 (Surr)	10.0	10.1	100.50
\$ 100 4-Bromofluorobenzene (Surr)	10.0	9.40	94.01

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03X13.D

Injection Date: 03-Feb-2022 13:25:30

Instrument ID: 19930

Lims ID: 410-71043-A-11

Lab Sample ID: 410-71043-11

Client ID: HD-COD-SW-28-01/1-0

Operator ID: KNK41612

ALS Bottle#: 13

Worklist Smp#: 14

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

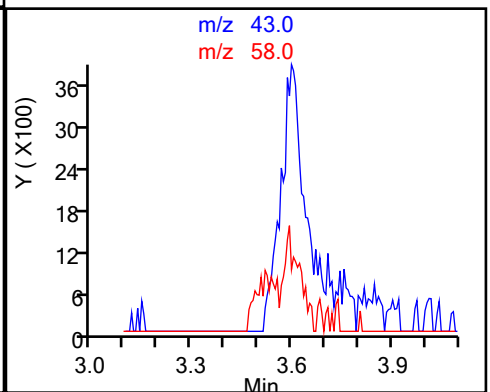
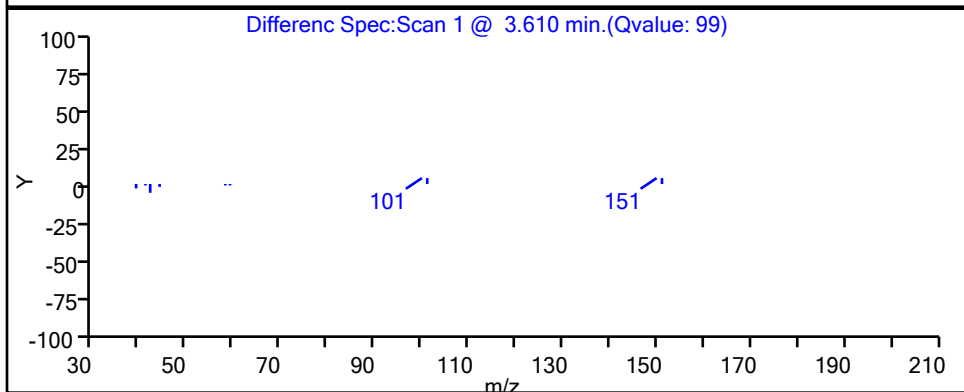
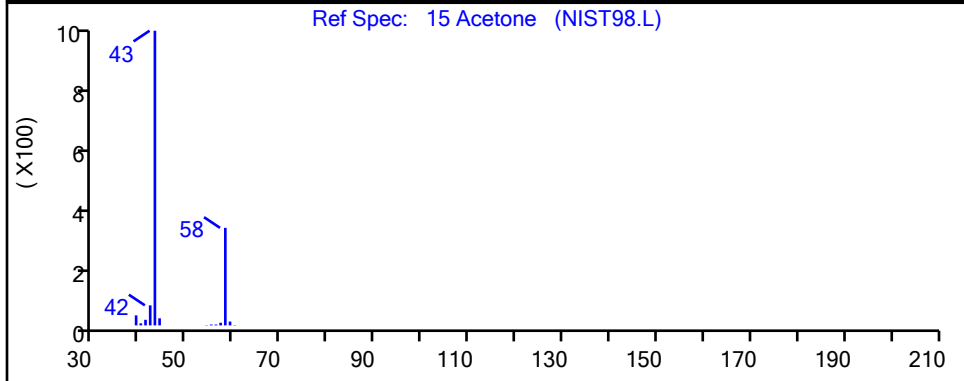
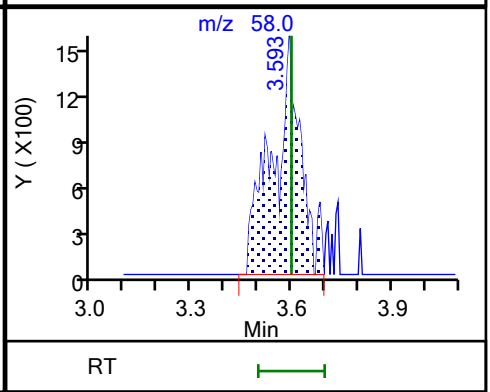
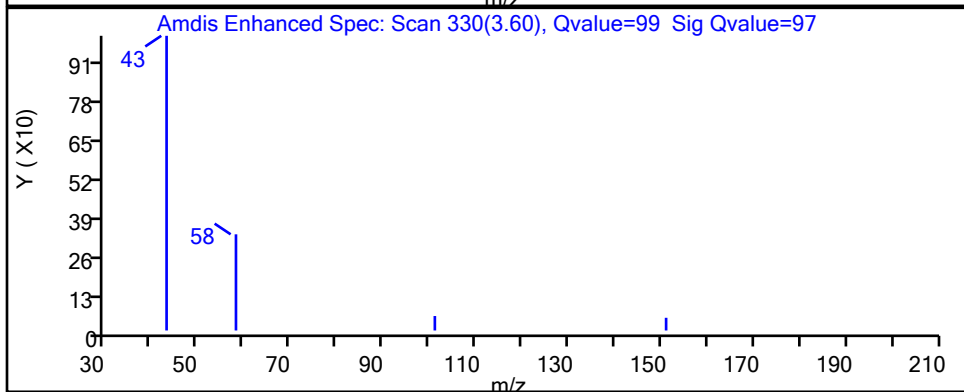
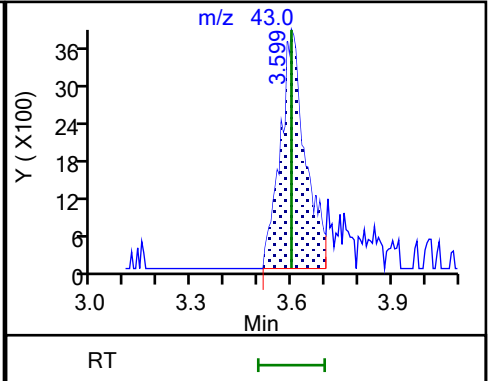
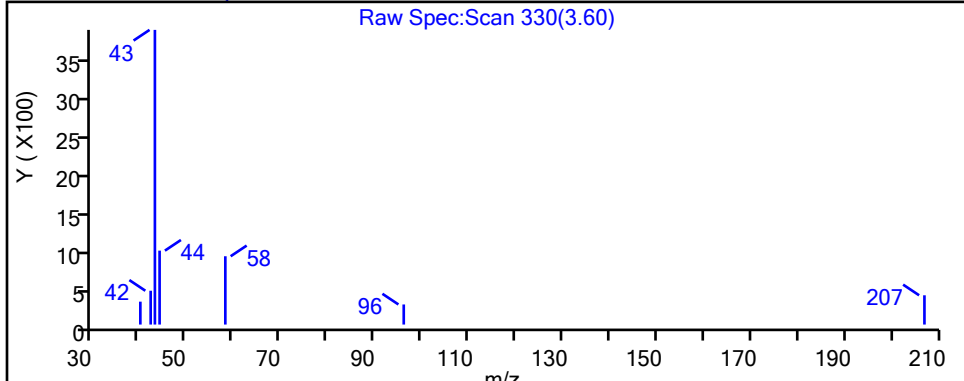
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

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

MS Quad

15 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03X13.D

Injection Date: 03-Feb-2022 13:25:30

Instrument ID: 19930

Lims ID: 410-71043-A-11

Lab Sample ID: 410-71043-11

Client ID: HD-COD-SW-28-01/1-0

Operator ID: KNK41612

ALS Bottle#: 13

Worklist Smp#: 14

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

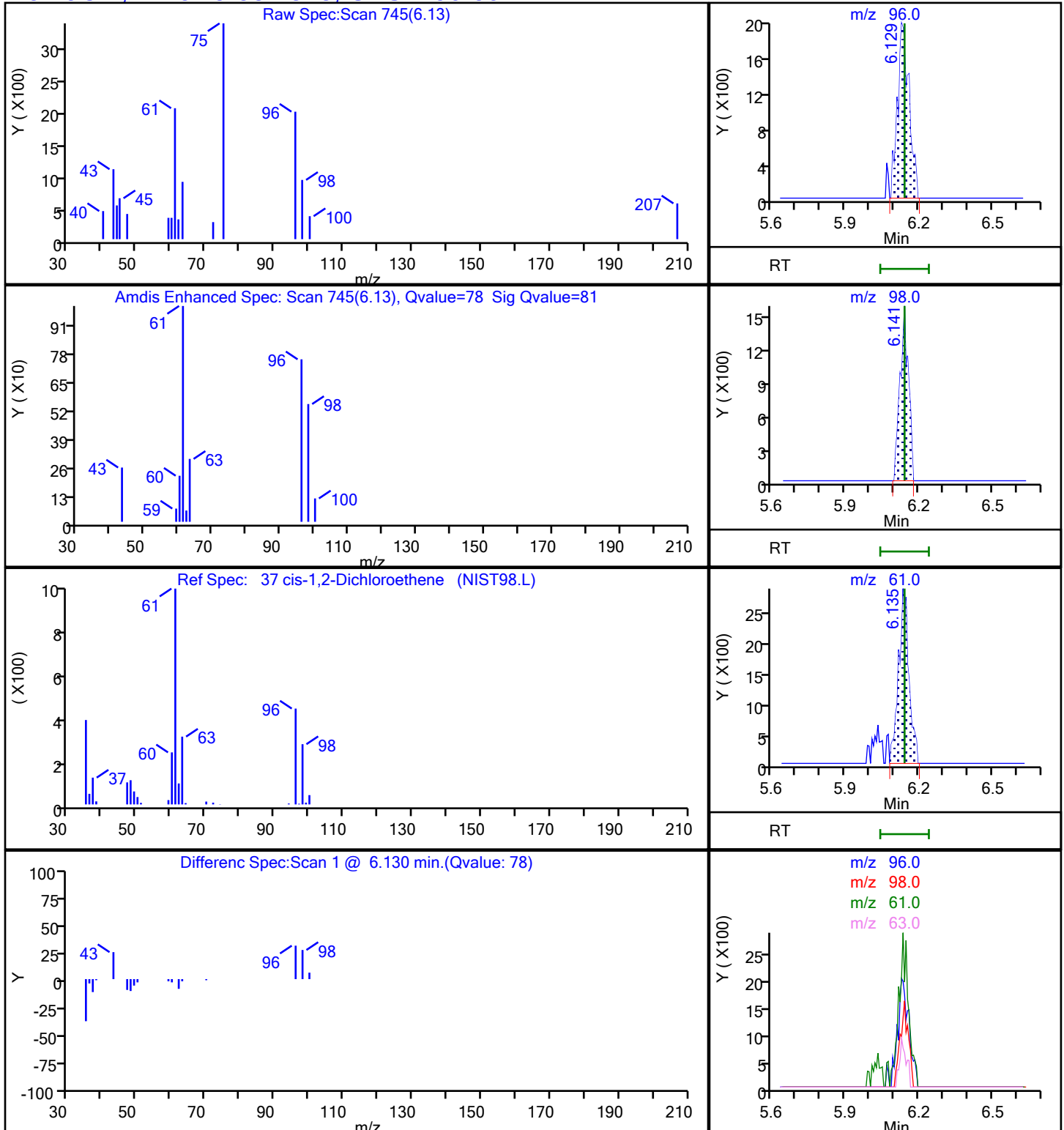
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

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

MS Quad

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





Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\F03X13.D

Injection Date: 03-Feb-2022 13:25:30

Instrument ID: 19930

Lims ID: 410-71043-A-11

Lab Sample ID: 410-71043-11

Client ID: HD-COD-SW-28-01/1-0

Operator ID: KNK41612

ALS Bottle#: 13

Worklist Smp#: 14

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

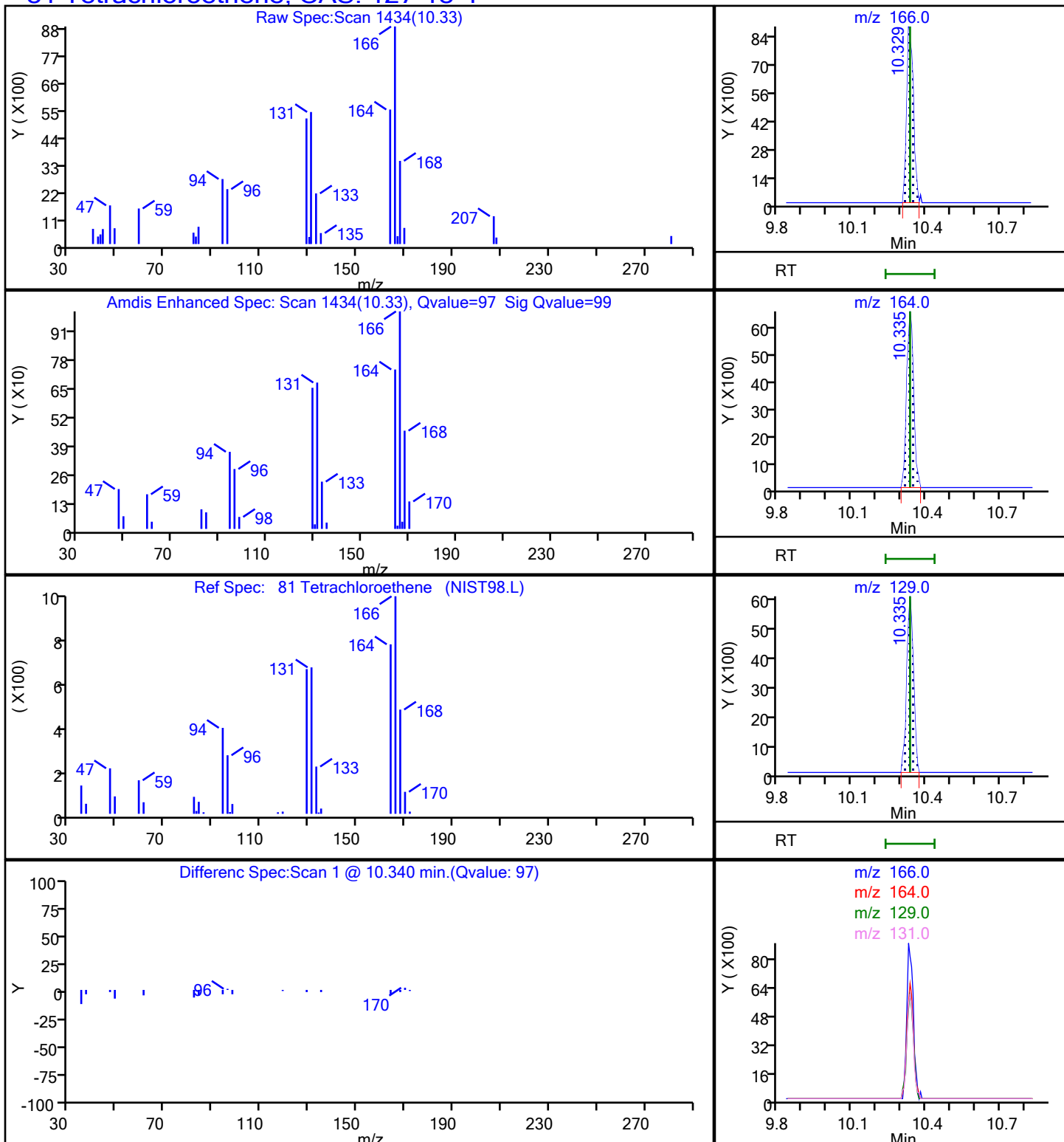
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

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

MS Quad

### 81 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03X13.D

Injection Date: 03-Feb-2022 13:25:30

Instrument ID: 19930

Lims ID: 410-71043-A-11

Lab Sample ID: 410-71043-11

Client ID: HD-COD-SW-28-01/1-0

Operator ID: KNK41612

ALS Bottle#: 13

Worklist Smp#: 14

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

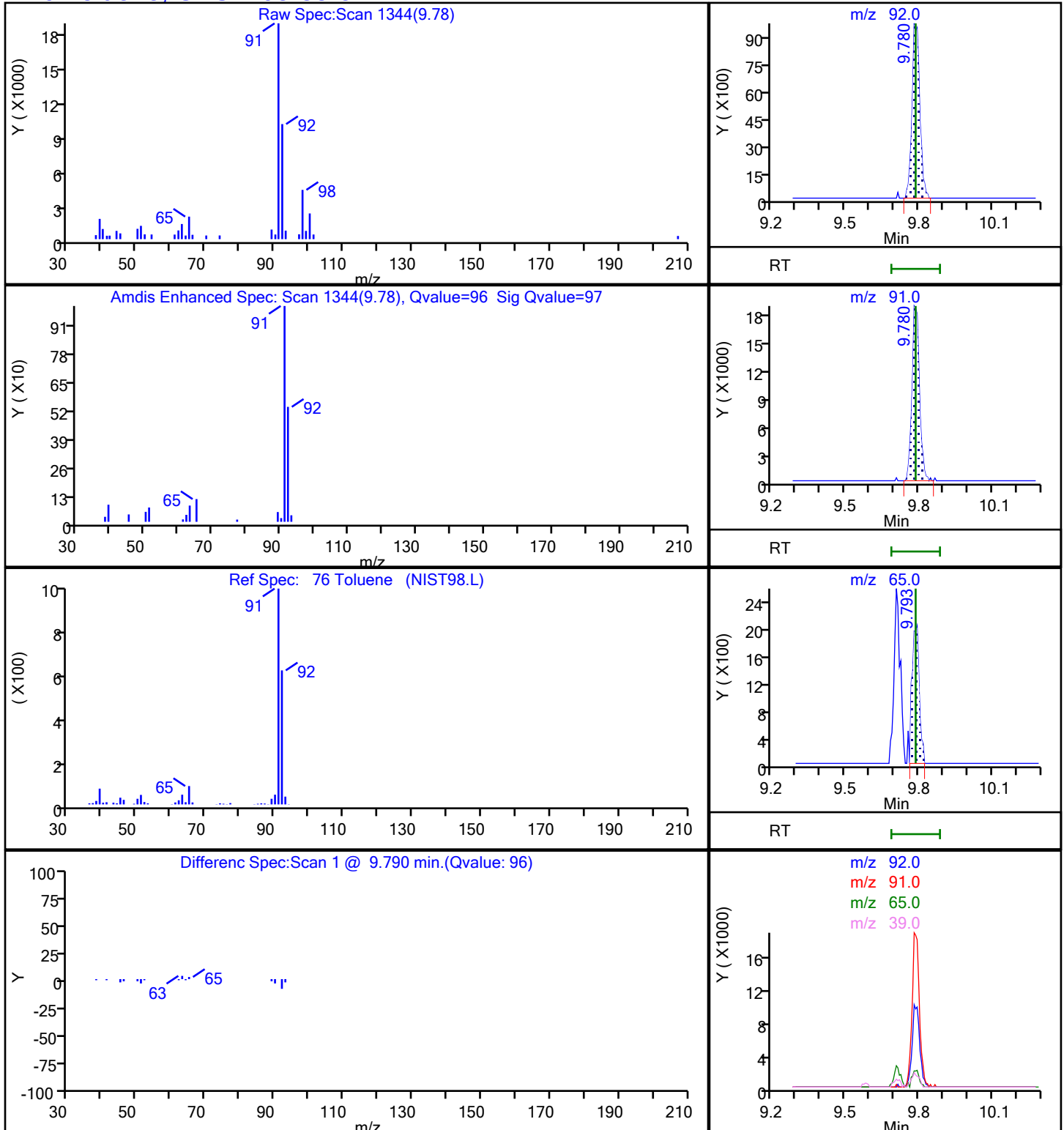
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

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

MS Quad

76 Toluene, CAS: 108-88-3



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03X13.D

Injection Date: 03-Feb-2022 13:25:30

Instrument ID: 19930

Lims ID: 410-71043-A-11

Lab Sample ID: 410-71043-11

Client ID: HD-COD-SW-28-01/1-0

Operator ID: KNK41612

ALS Bottle#: 13

Worklist Smp#: 14

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

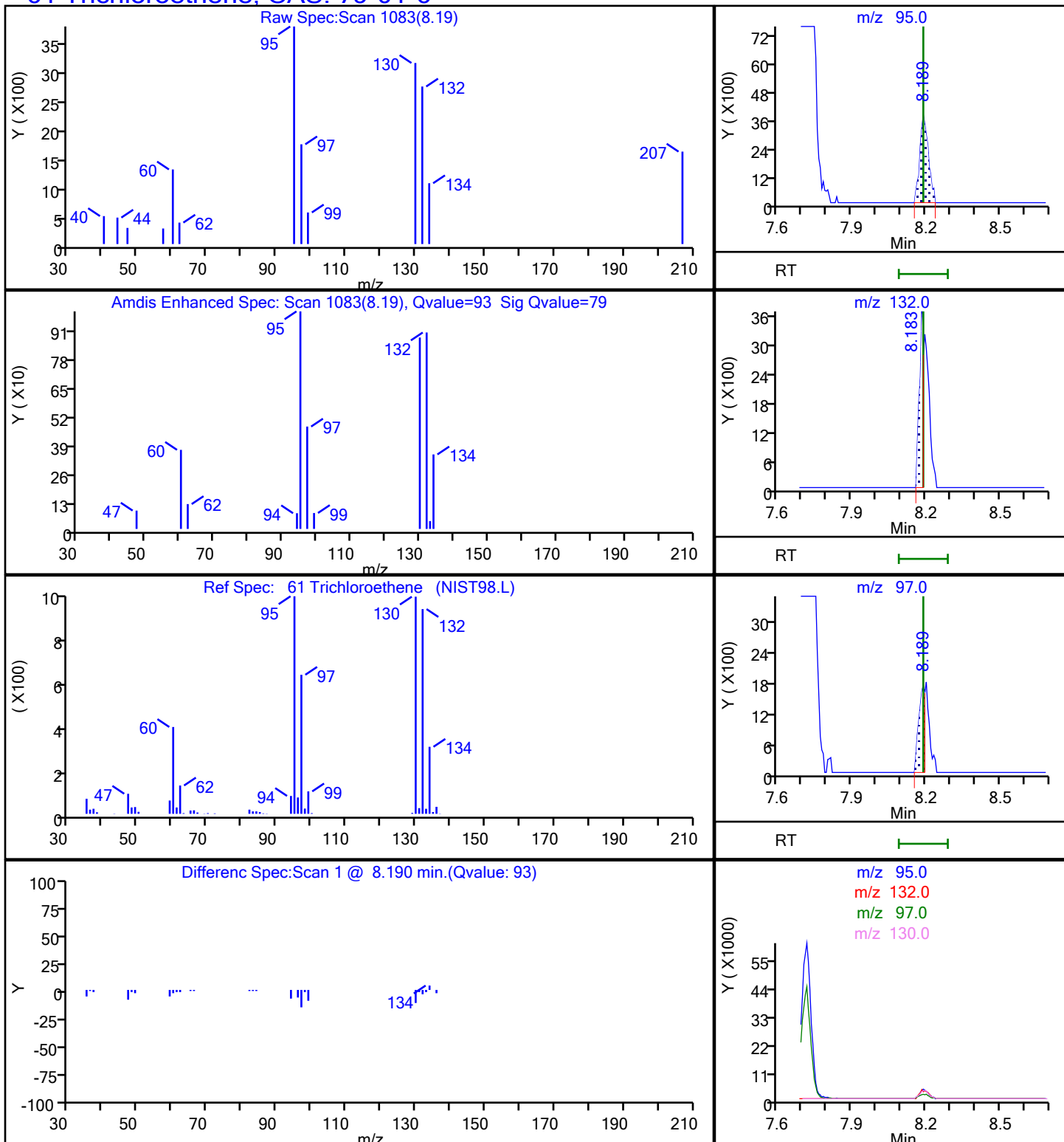
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

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

MS Quad

### 61 Trichloroethene, CAS: 79-01-6



Eurofins Lancaster Laboratories Env, LLC

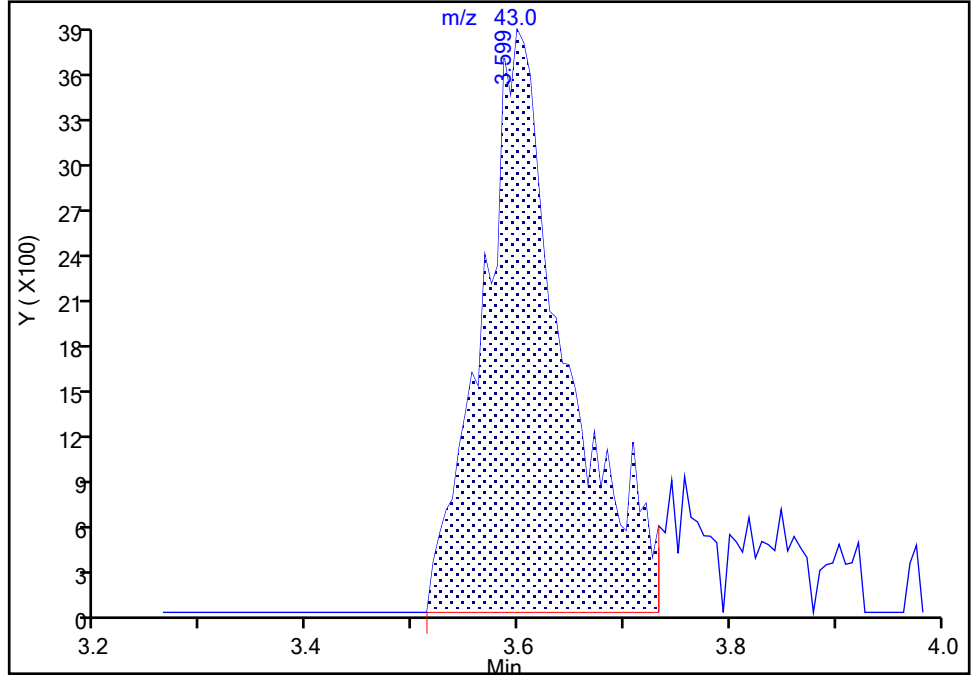
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Injection Date: 03-Feb-2022 13:25:30 Instrument ID: 19930  
Lims ID: 410-71043-A-11 Lab Sample ID: 410-71043-11  
Client ID: HD-COD-SW-28-01/1-0  
Operator ID: KNK41612 ALS Bottle#: 13 Worklist Smp#: 14  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
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

Signal: 1

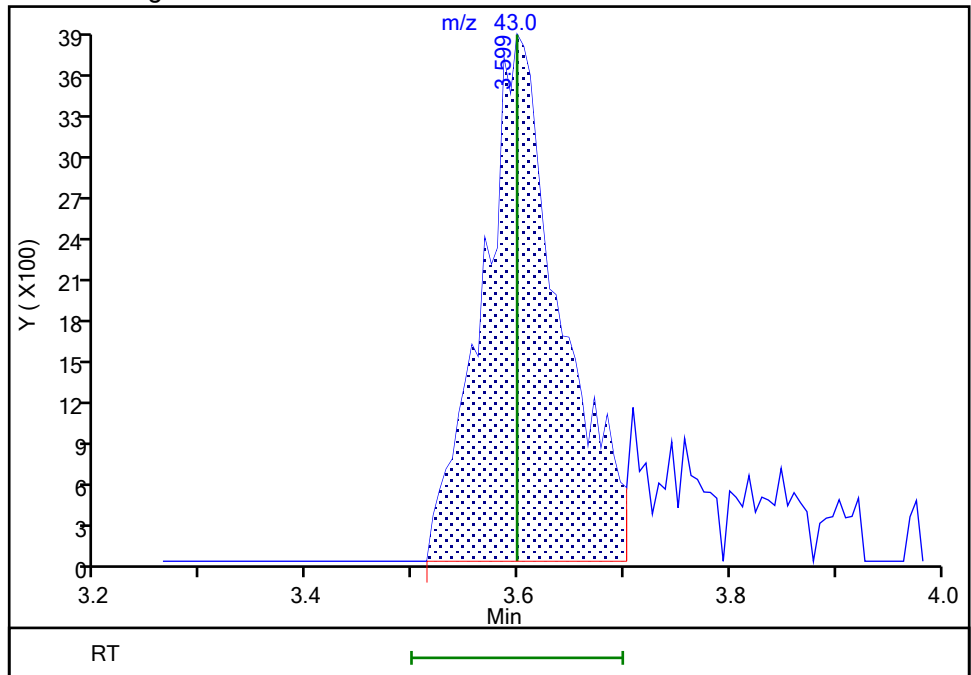
RT: 3.60  
Area: 21169  
Amount: 2.280930  
Amount Units: ug/l

Processing Integration Results



RT: 3.60  
Area: 19908  
Amount: 2.145059  
Amount Units: ug/l

Manual Integration Results



Reviewer: beckerk, 03-Feb-2022 16:32:23  
Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

Eurofins Lancaster Laboratories Env, LLC

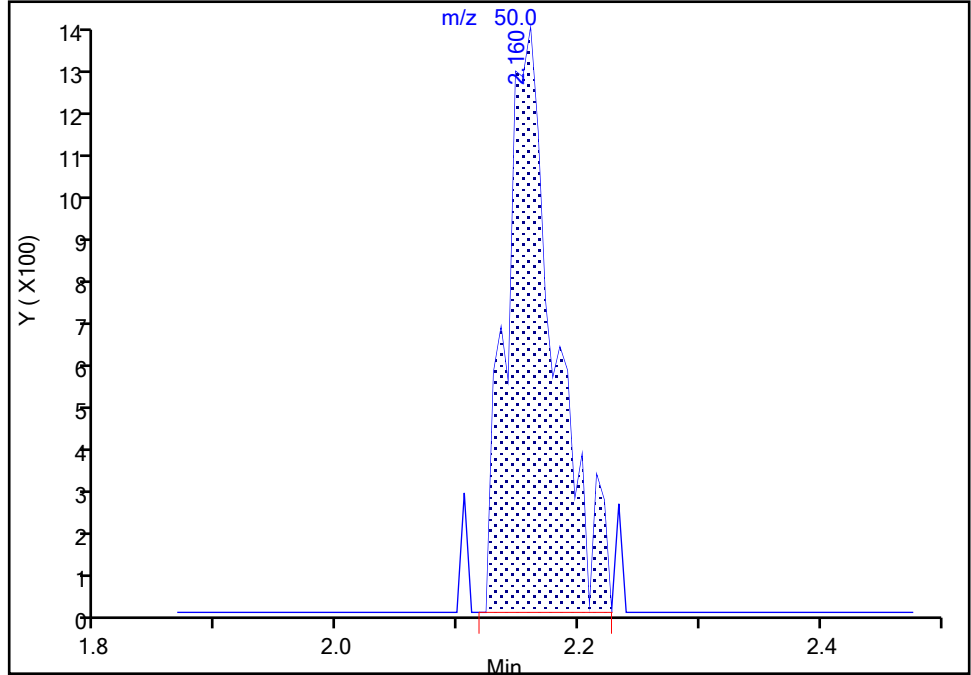
Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03X13.D  
Injection Date: 03-Feb-2022 13:25:30 Instrument ID: 19930  
Lims ID: 410-71043-A-11 Lab Sample ID: 410-71043-11  
Client ID: HD-COD-SW-28-01/1-0  
Operator ID: KNK41612 ALS Bottle#: 13 Worklist Smp#: 14  
Purge Vol: 25.000 mL 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

4 Chloromethane, CAS: 74-87-3

Signal: 1

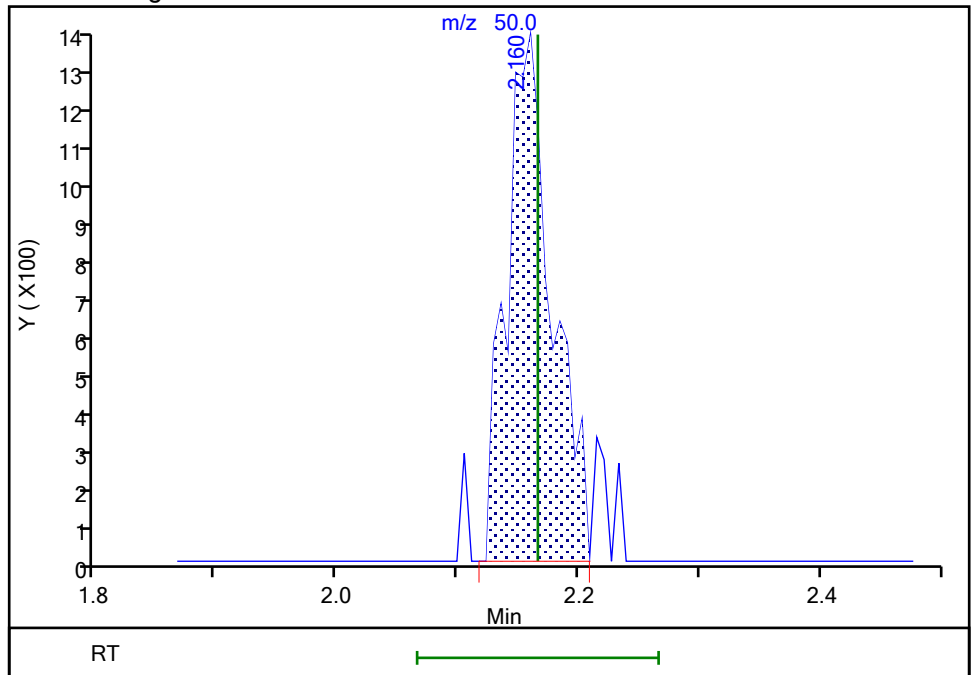
RT: 2.16  
Area: 3889  
Amount: 0.059228  
Amount Units: ug/l

Processing Integration Results



RT: 2.16  
Area: 3671  
Amount: 0.055908  
Amount Units: ug/l

Manual Integration Results



Reviewer: beckerk, 03-Feb-2022 16:32:14  
Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-29-01/1-0 Lab Sample ID: 410-71043-12  
 Matrix: Water Lab File ID: IF03X14.D  
 Analysis Method: 8260D Date Collected: 01/27/2022 08:30  
 Sample wt/vol: 25 (mL) Date Analyzed: 02/03/2022 13:46  
 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.: 220519 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND	cn	0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND	cn	0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND	cn	0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND	cn	0.50	0.060
75-34-3	1,1-Dichloroethane	ND	cn	0.50	0.070
75-35-4	1,1-Dichloroethene	ND	cn	0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060
107-06-2	1,2-Dichloroethane	ND	cn	0.50	0.050
78-87-5	1,2-Dichloropropane	ND	cn	0.50	0.060
78-93-3	2-Butanone (MEK)	ND	cn	5.0	0.60
591-78-6	2-Hexanone	ND	cn	5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	cn	5.0	0.70
67-64-1	Acetone	1.5	J cn	5.0	0.90
71-43-2	Benzene	ND	cn	0.50	0.050
74-97-5	Bromochloromethane	ND	cn	0.50	0.050
75-27-4	Bromodichloromethane	ND	cn	0.50	0.050
75-25-2	Bromoform	ND	^c cn	1.0	0.30
74-83-9	Bromomethane	ND	cn	0.50	0.070
75-15-0	Carbon disulfide	ND	cn	1.0	0.060
56-23-5	Carbon tetrachloride	ND	cn	0.50	0.070
108-90-7	Chlorobenzene	ND	cn	0.50	0.060
75-00-3	Chloroethane	ND	cn	0.50	0.070
67-66-3	Chloroform	ND	cn	0.50	0.090
74-87-3	Chloromethane	ND	cn	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.13	J cn	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND	cn	0.50	0.050
124-48-1	Dibromochloromethane	ND	cn	0.50	0.070
100-41-4	Ethylbenzene	ND	cn	0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND	cn	0.50	0.050
75-09-2	Methylene Chloride	ND	cn	0.50	0.070
100-42-5	Styrene	ND	cn	0.50	0.050
127-18-4	Tetrachloroethene	0.39	J cn	0.50	0.060
108-88-3	Toluene	ND	cn	0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND	cn	0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND	cn	0.50	0.060
79-01-6	Trichloroethene	0.19	J cn	0.50	0.060

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-29-01/1-0 Lab Sample ID: 410-71043-12  
 Matrix: Water Lab File ID: IF03X14.D  
 Analysis Method: 8260D Date Collected: 01/27/2022 08:30  
 Sample wt/vol: 25 (mL) Date Analyzed: 02/03/2022 13:46  
 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.: 220519 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	ND	cn	0.50	0.10
1330-20-7	Xylenes, Total	ND	cn	1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102	cn	80-120
460-00-4	4-Bromofluorobenzene (Surr)	93	cn	80-120
1868-53-7	Dibromofluoromethane (Surr)	101	cn	80-120
2037-26-5	Toluene-d8 (Surr)	101	cn	80-120

Eurofins Lancaster Laboratories Env, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03X14.D  
 Lims ID: 410-71043-A-12  
 Client ID: HD-COD-SW-29-01/1-0  
 Sample Type: Client  
 Inject. Date: 03-Feb-2022 13:46:30 ALS Bottle#: 14 Worklist Smp#: 15  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0049668-015  
 Operator ID: KNK41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 14:39:20 Calib Date: 24-Aug-2021 02:52:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1662

First Level Reviewer: beckerk

Date: 03-Feb-2022 16:33:18

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50	2.166	2.166	0.000	95	3585	0.0542	
5 Vinyl chloride	62		2.282				ND	
7 Bromomethane	94		2.629				ND	
8 Chloroethane	64		2.702				ND	
14 1,1-Dichloroethene	96		3.568				ND	
15 Acetone	43	3.587	3.599	-0.013	69	13864	1.51	
19 Carbon disulfide	76	3.873	3.873	0.000	49	4358	0.0357	
23 Methylene Chloride	84		4.239				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.251	4.245	0.006	24	165661	50.0	
27 Methyl tert-butyl ether	73		4.647				ND	
28 trans-1,2-Dichloroethene	96		4.659				ND	
31 1,1-Dichloroethane	63		5.312				ND	
36 2-Butanone (MEK)	43		6.104				ND	7
37 cis-1,2-Dichloroethene	96	6.129	6.141	-0.012	79	7430	0.1326	a
43 Chlorobromomethane	128		6.470				ND	
45 Chloroform	83	6.610	6.616	-0.006	86	4278	0.0473	
\$ 46 Dibromofluoromethane (Surr)	113	6.824	6.830	-0.006	94	471785	10.1	
47 1,1,1-Trichloroethane	97		6.848				ND	7
50 Carbon tetrachloride	117		7.055				ND	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.281	7.275	0.006	67	95490	10.2	
54 Benzene	78	7.311	7.311	0.000	41	6094	0.0292	
56 1,2-Dichloroethane	62		7.384				ND	
* 58 Fluorobenzene (IS)	96	7.714	7.714	0.000	99	1855470	10.0	
61 Trichloroethene	95	8.189	8.189	0.000	95	10722	0.1912	
63 1,2-Dichloropropane	63		8.518				ND	
68 Dichlorobromomethane	83		8.860				ND	7
73 cis-1,3-Dichloropropene	75		9.402				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.573				ND	7
\$ 75 Toluene-d8 (Surr)	98	9.713	9.713	0.000	93	1924672	10.1	
76 Toluene	92	9.787	9.786	0.001	96	8524	0.0602	
78 trans-1,3-Dichloropropene	75		10.042				ND	
80 1,1,2-Trichloroethane	97		10.244				ND	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.335	10.335	0.000	94	26209	0.3883	
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	85	1478055	10.0	
90 Chlorobenzene	112		11.182				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.262				ND	
92 Ethylbenzene	91		11.268				ND	7
93 m-Xylene & p-Xylene	106		11.384				ND	7
94 o-Xylene	106		11.707				ND	
95 Styrene	104		11.725				ND	
96 Bromoform	173		11.884				ND	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	93	678876	9.30	
101 1,1,2,2-Tetrachloroethane	83		12.249				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	94	799047	10.0	

**QC Flag Legend**

## Processing Flags

7 - Failed Limit of Detection

## Review Flags

a - User Assigned ID

**Reagents:**

MSV\_LLcentISS\_00002

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03X14.D

Injection Date: 03-Feb-2022 13:46:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: 410-71043-A-12

Lab Sample ID: 410-71043-12

Worklist Smp#: 15

Client ID: HD-COD-SW-29-01/1-0

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 Env, LLC  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03X14.D  
 Lims ID: 410-71043-A-12  
 Client ID: HD-COD-SW-29-01/1-0  
 Sample Type: Client  
 Inject. Date: 03-Feb-2022 13:46:30 ALS Bottle#: 14 Worklist Smp#: 15  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0049668-015  
 Operator ID: KNK41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 14:39:20 Calib Date: 24-Aug-2021 02:52:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1662

First Level Reviewer: beckerk

Date: 03-Feb-2022 16:33:18

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	10.1	100.94
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.2	102.12
\$ 75 Toluene-d8 (Surr)	10.0	10.1	100.76
\$ 100 4-Bromofluorobenzene (Surr)	10.0	9.30	92.99

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03X14.D

Injection Date: 03-Feb-2022 13:46:30

Instrument ID: 19930

Lims ID: 410-71043-A-12

Lab Sample ID: 410-71043-12

Client ID: HD-COD-SW-29-01/1-0

Operator ID: KNK41612

ALS Bottle#: 14

Worklist Smp#: 15

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

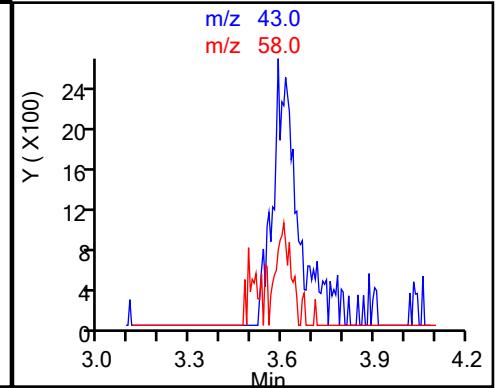
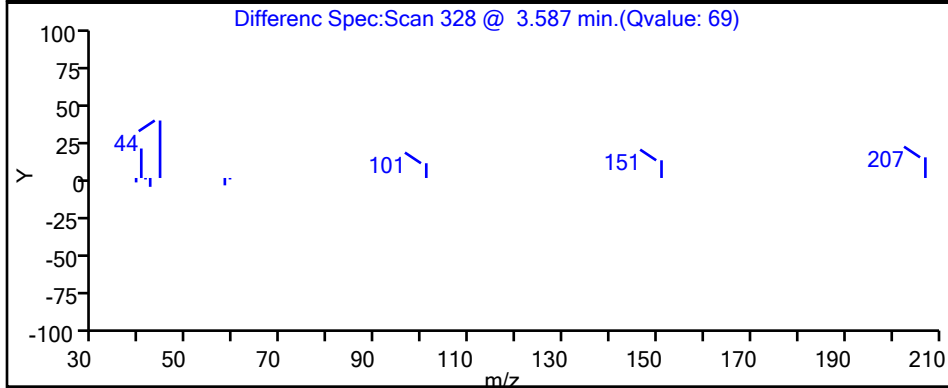
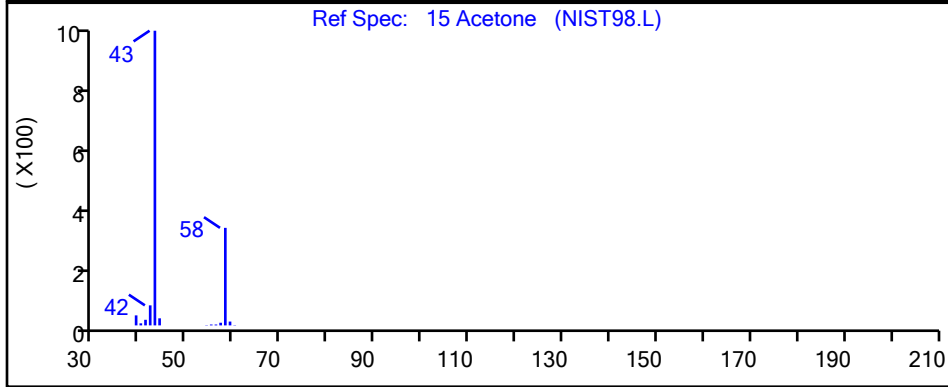
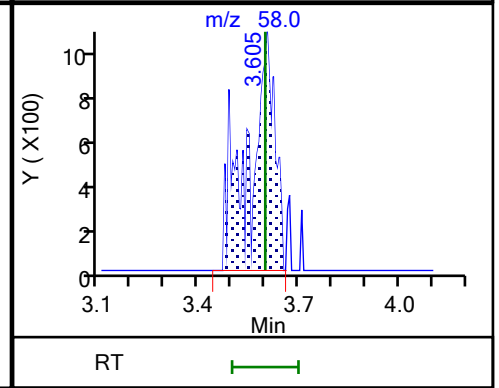
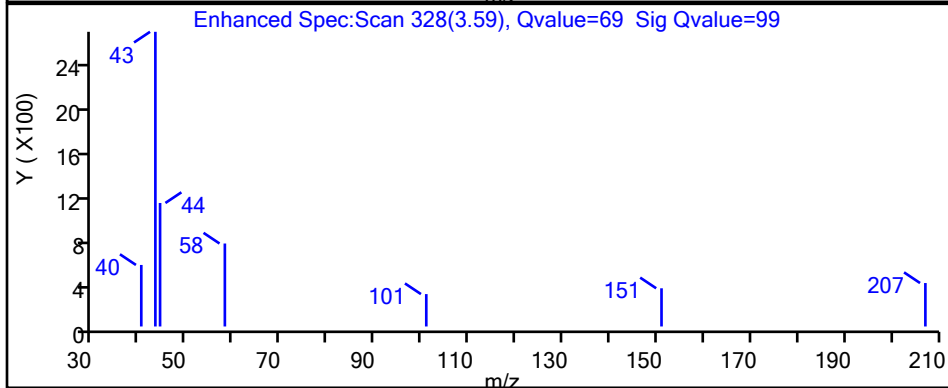
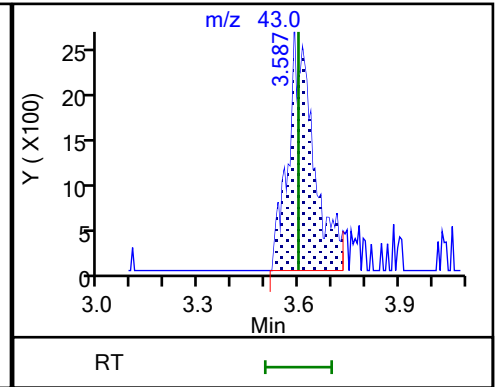
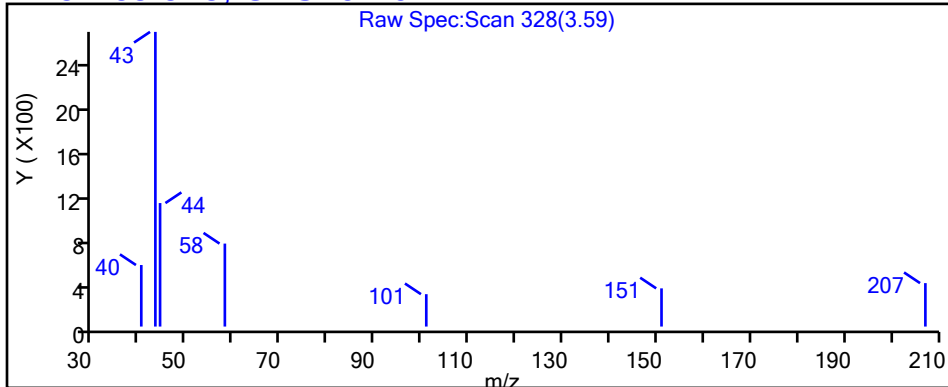
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

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

MS Quad

15 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03X14.D

Injection Date: 03-Feb-2022 13:46:30

Instrument ID: 19930

Lims ID: 410-71043-A-12

Lab Sample ID: 410-71043-12

Client ID: HD-COD-SW-29-01/1-0

Operator ID: KNK41612

ALS Bottle#: 14

Worklist Smp#: 15

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

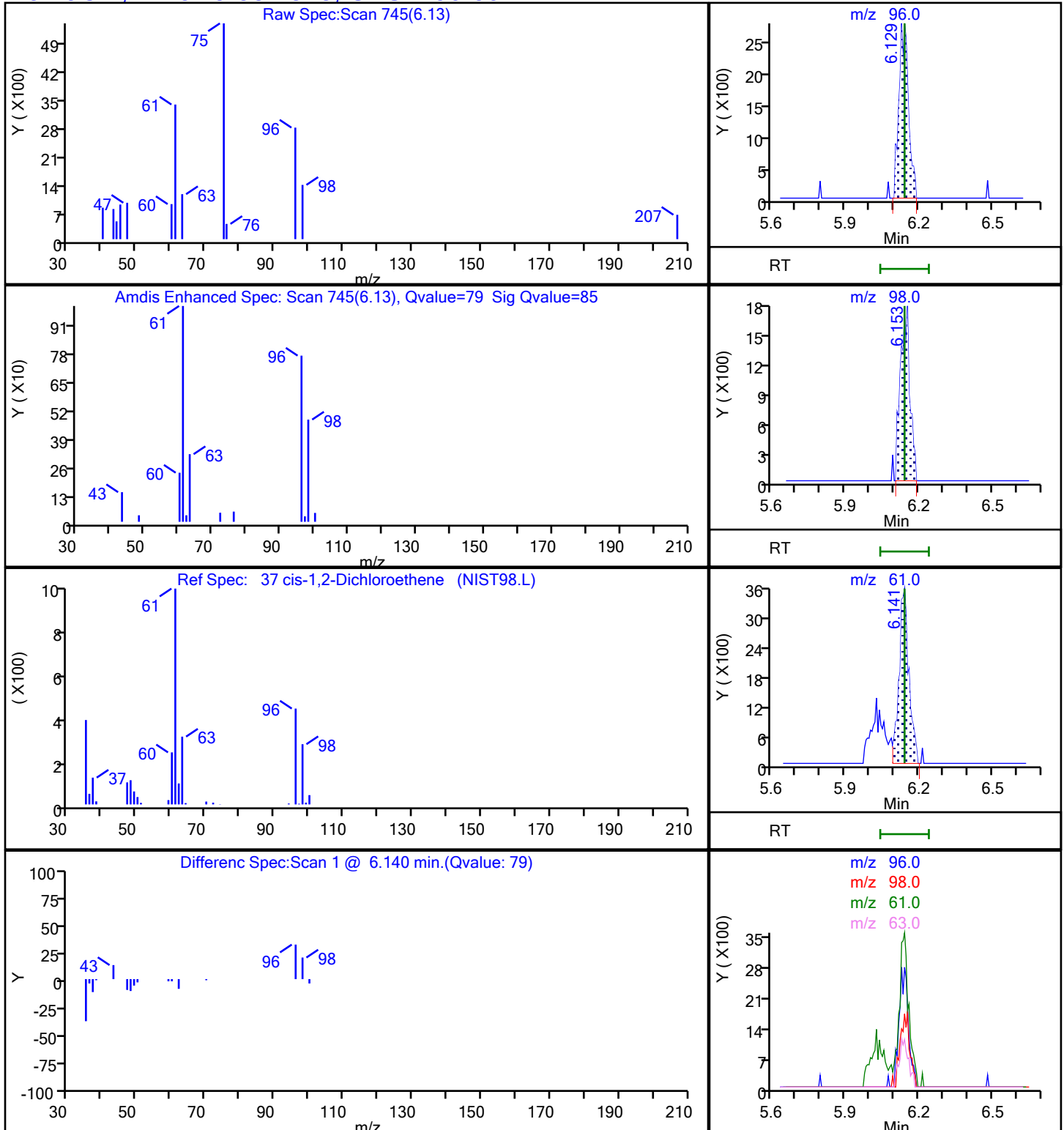
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

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

MS Quad

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



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03X14.D

Injection Date: 03-Feb-2022 13:46:30

Instrument ID: 19930

Lims ID: 410-71043-A-12

Lab Sample ID: 410-71043-12

Client ID: HD-COD-SW-29-01/1-0

Operator ID: KNK41612

ALS Bottle#: 14

Worklist Smp#: 15

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

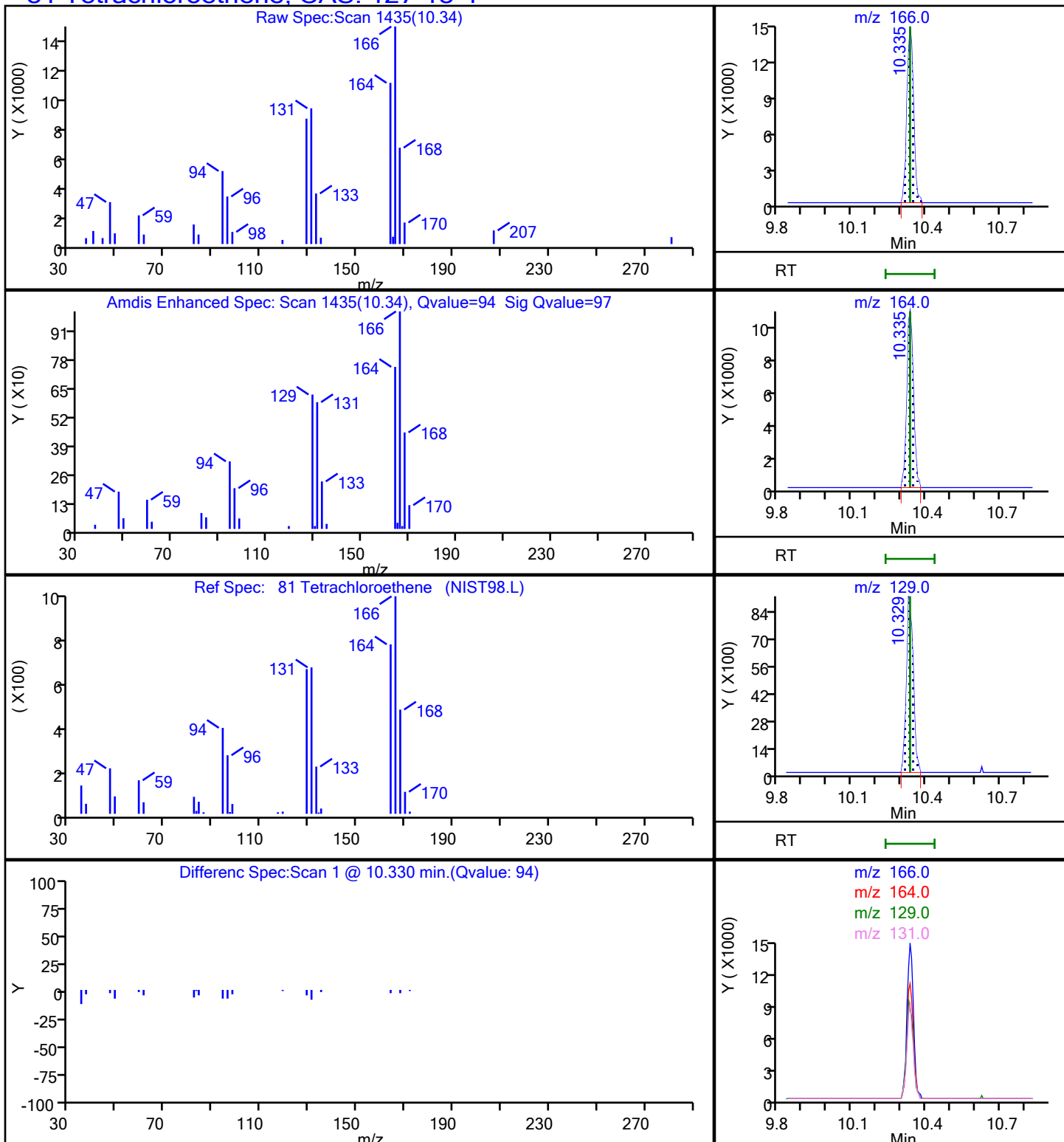
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

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

MS Quad

### 81 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03X14.D

Injection Date: 03-Feb-2022 13:46:30

Instrument ID: 19930

Lims ID: 410-71043-A-12

Lab Sample ID: 410-71043-12

Client ID: HD-COD-SW-29-01/1-0

Operator ID: KNK41612

ALS Bottle#: 14

Worklist Smp#: 15

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

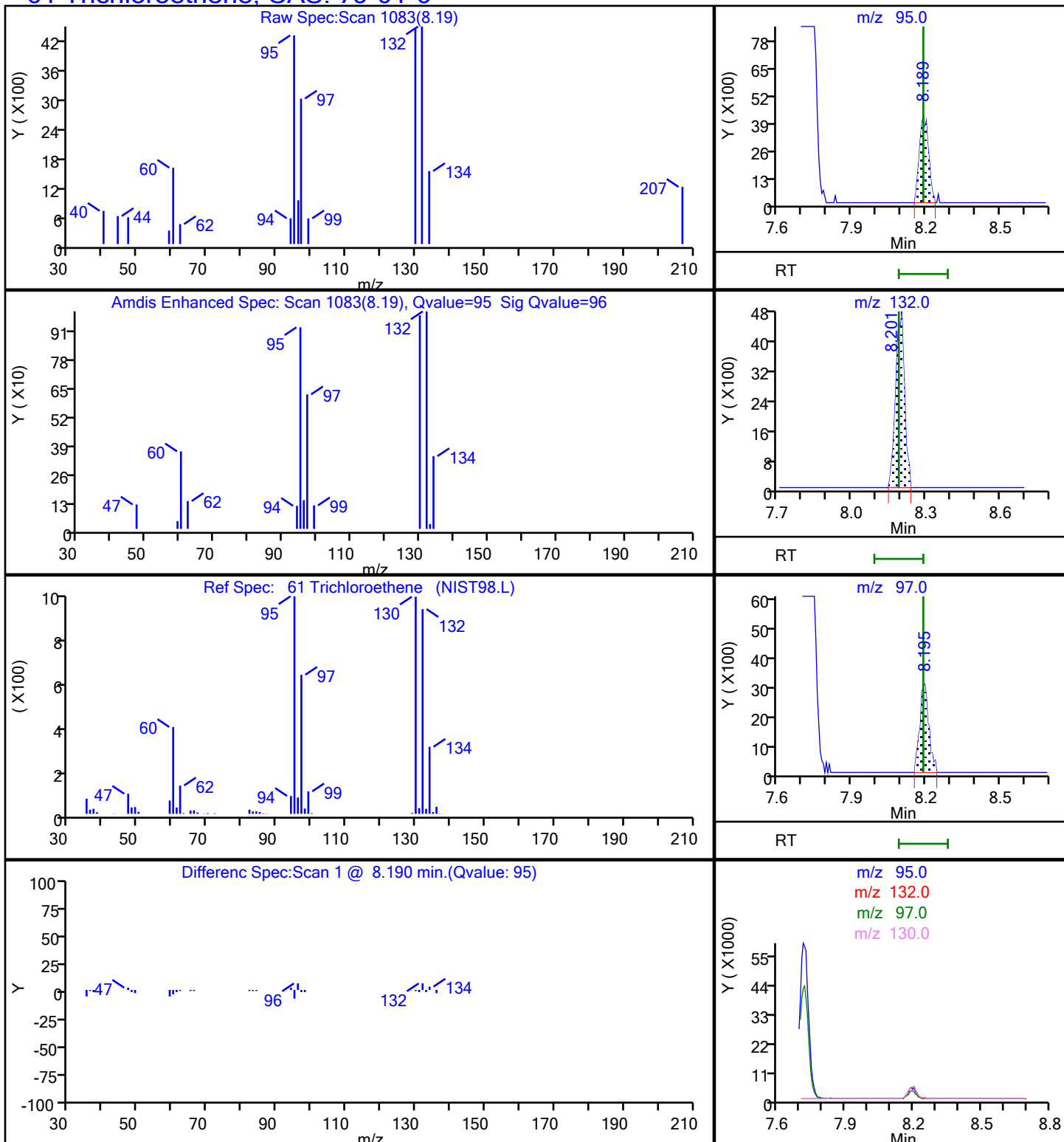
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

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

MS Quad

### 61 Trichloroethene, CAS: 79-01-6



Eurofins Lancaster Laboratories Env, LLC

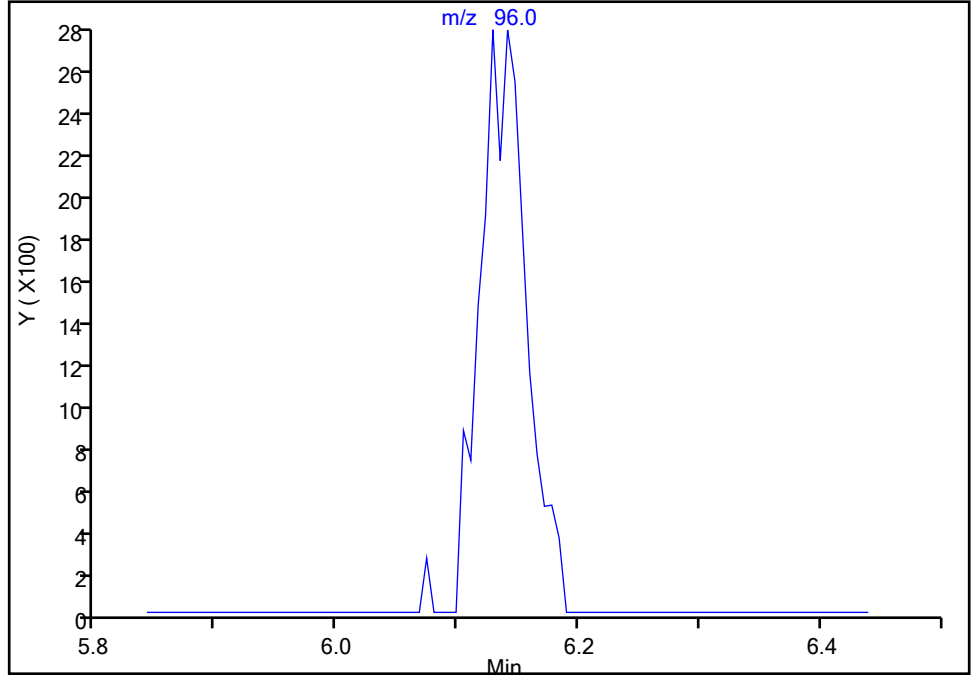
Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03X14.D  
Injection Date: 03-Feb-2022 13:46:30 Instrument ID: 19930  
Lims ID: 410-71043-A-12 Lab Sample ID: 410-71043-12  
Client ID: HD-COD-SW-29-01/1-0  
Operator ID: KNK41612 ALS Bottle#: 14 Worklist Smp#: 15  
Purge Vol: 25.000 mL 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

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

Signal: 1

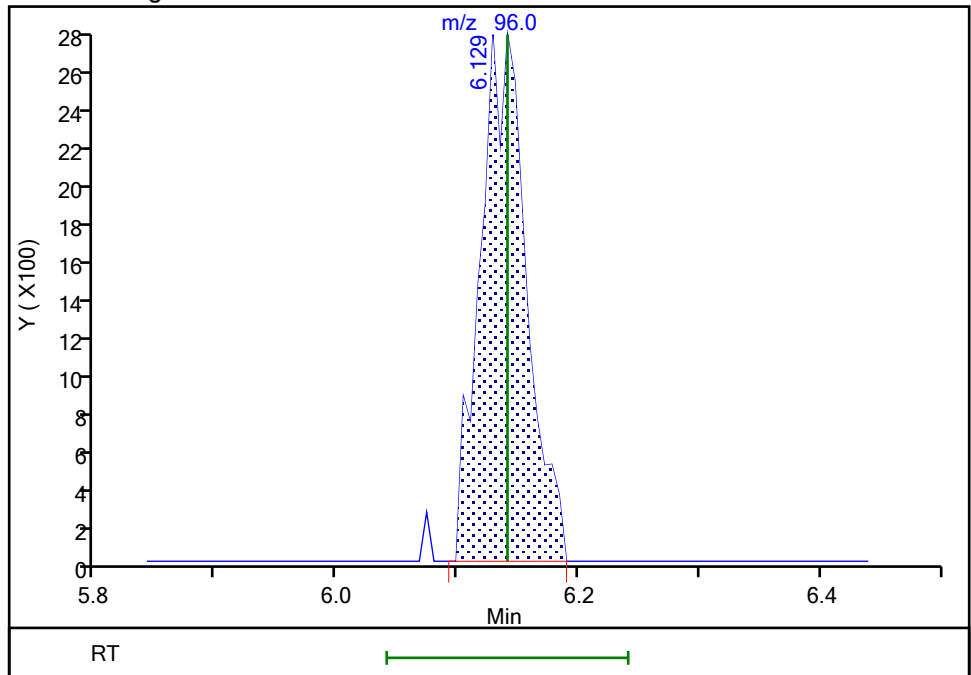
Not Detected  
Expected RT: 6.14

Processing Integration Results



Manual Integration Results

RT: 6.13  
Area: 7430  
Amount: 0.132598  
Amount Units: ug/l



Reviewer: beckerk, 03-Feb-2022 16:33:00  
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.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-QC1-0/1-1 Lab Sample ID: 410-71043-13  
 Matrix: Water Lab File ID: IF03X25.D  
 Analysis Method: 8260D Date Collected: 01/27/2022 12:00  
 Sample wt/vol: 25 (mL) Date Analyzed: 02/03/2022 17:40  
 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.: 220519 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND	cn	5.0	0.70
71-55-6	1,1,1-Trichloroethane	7.0	cn	5.0	0.60
79-34-5	1,1,2,2-Tetrachloroethane	ND	cn	5.0	0.70
79-00-5	1,1,2-Trichloroethane	ND	cn	5.0	0.60
75-34-3	1,1-Dichloroethane	1.2	J cn	5.0	0.70
75-35-4	1,1-Dichloroethene	ND	cn	5.0	0.60
106-93-4	1,2-Dibromoethane (EDB)	ND	cn	5.0	0.60
107-06-2	1,2-Dichloroethane	ND	cn	5.0	0.50
78-87-5	1,2-Dichloropropane	ND	cn	5.0	0.60
78-93-3	2-Butanone (MEK)	ND	cn	50	6.0
591-78-6	2-Hexanone	ND	cn	50	6.0
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	cn	50	7.0
67-64-1	Acetone	ND	cn	50	9.0
71-43-2	Benzene	ND	cn	5.0	0.50
74-97-5	Bromochloromethane	ND	cn	5.0	0.50
75-27-4	Bromodichloromethane	ND	cn	5.0	0.50
75-25-2	Bromoform	ND	^c cn	10	3.0
74-83-9	Bromomethane	ND	cn	5.0	0.70
75-15-0	Carbon disulfide	ND	cn	10	0.60
56-23-5	Carbon tetrachloride	ND	cn	5.0	0.70
108-90-7	Chlorobenzene	ND	cn	5.0	0.60
75-00-3	Chloroethane	ND	cn	5.0	0.70
67-66-3	Chloroform	ND	cn	5.0	0.90
74-87-3	Chloromethane	ND	cn	5.0	0.60
156-59-2	cis-1,2-Dichloroethene	4.6	J cn	5.0	0.50
10061-01-5	cis-1,3-Dichloropropene	ND	cn	5.0	0.50
124-48-1	Dibromochloromethane	ND	cn	5.0	0.70
100-41-4	Ethylbenzene	ND	cn	5.0	0.60
1634-04-4	Methyl tert-butyl ether	ND	cn	5.0	0.50
75-09-2	Methylene Chloride	ND	cn	5.0	0.70
100-42-5	Styrene	ND	cn	5.0	0.50
127-18-4	Tetrachloroethene	94	cn	5.0	0.60
108-88-3	Toluene	ND	cn	5.0	0.70
156-60-5	trans-1,2-Dichloroethene	ND	cn	5.0	0.60
10061-02-6	trans-1,3-Dichloropropene	ND	cn	5.0	0.60
79-01-6	Trichloroethene	6.1	cn	5.0	0.60

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-QC1-0/1-1 Lab Sample ID: 410-71043-13  
 Matrix: Water Lab File ID: IF03X25.D  
 Analysis Method: 8260D Date Collected: 01/27/2022 12:00  
 Sample wt/vol: 25 (mL) Date Analyzed: 02/03/2022 17:40  
 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.: 220519 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	ND	cn	5.0	1.0
1330-20-7	Xylenes, Total	ND	cn	10	1.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102	cn	80-120
460-00-4	4-Bromofluorobenzene (Surr)	94	cn	80-120
1868-53-7	Dibromofluoromethane (Surr)	99	cn	80-120
2037-26-5	Toluene-d8 (Surr)	99	cn	80-120

Eurofins Lancaster Laboratories Env, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03X25.D  
 Lims ID: 410-71043-A-13  
 Client ID: HD-QC1-0/1-1  
 Sample Type: Client  
 Inject. Date: 03-Feb-2022 17:40:30 ALS Bottle#: 25 Worklist Smp#: 26  
 Purge Vol: 25.000 mL Dil. Factor: 10.0000  
 Sample Info: 410-0049668-026  
 Operator ID: KNK41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 18:39:00 Calib Date: 24-Aug-2021 02:52:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1662

First Level Reviewer: beckerk Date: 03-Feb-2022 18:39:00

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		2.629				ND	
8 Chloroethane	64		2.702				ND	
14 1,1-Dichloroethene	96	3.574	3.568	0.006	29	2232	0.0503	
15 Acetone	43		3.599				ND	7
19 Carbon disulfide	76		3.873				ND	7
23 Methylene Chloride	84		4.239				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.251	4.245	0.006	23	113921	50.0	
27 Methyl tert-butyl ether	73		4.647				ND	7
28 trans-1,2-Dichloroethene	96		4.659				ND	
31 1,1-Dichloroethane	63	5.312	5.312	0.000	93	11362	0.1242	a
36 2-Butanone (MEK)	43		6.104				ND	
37 cis-1,2-Dichloroethene	96	6.141	6.141	0.000	80	25851	0.4603	
43 Chlorobromomethane	128		6.470				ND	
45 Chloroform	83		6.616				ND	7
\$ 46 Dibromofluoromethane (Surr)	113	6.830	6.830	0.000	94	465912	9.94	
47 1,1,1-Trichloroethane	97	6.842	6.848	-0.006	39	59044	0.7012	
50 Carbon tetrachloride	117		7.055				ND	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.287	7.275	0.012	67	95564	10.2	
54 Benzene	78		7.311				ND	
56 1,2-Dichloroethane	62		7.384				ND	
* 58 Fluorobenzene (IS)	96	7.714	7.714	0.000	99	1859852	10.0	
61 Trichloroethene	95	8.189	8.189	0.000	94	34153	0.6077	
63 1,2-Dichloropropane	63		8.518				ND	
68 Dichlorobromomethane	83		8.860				ND	
73 cis-1,3-Dichloropropene	75		9.402				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.573				ND	
\$ 75 Toluene-d8 (Surr)	98	9.713	9.713	0.000	93	1925449	9.92	
76 Toluene	92	9.793	9.786	0.007	97	4896	0.0340	
78 trans-1,3-Dichloropropene	75		10.042				ND	
80 1,1,2-Trichloroethane	97		10.244				ND	U

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.335	10.335	0.000	98	642267	9.36	
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	85	1501857	10.0	
90 Chlorobenzene	112		11.182				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.262				ND	
92 Ethylbenzene	91		11.268				ND	
93 m-Xylene & p-Xylene	106		11.384				ND	
94 o-Xylene	106		11.707				ND	
95 Styrene	104		11.725				ND	
96 Bromoform	173		11.884				ND	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	94	693600	9.35	
101 1,1,2,2-Tetrachloroethane	83		12.249				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	94	795835	10.0	

### QC Flag Legend

#### Processing Flags

7 - Failed Limit of Detection

#### Review Flags

U - Marked Undetected

a - User Assigned ID

### Reagents:

MSV\_LLcentISS\_00002

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03X25.D

Injection Date: 03-Feb-2022 17:40:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: 410-71043-A-13

Lab Sample ID: 410-71043-13

Worklist Smp#: 26

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

Purge Vol: 25.000 mL

Dil. Factor: 10.0000

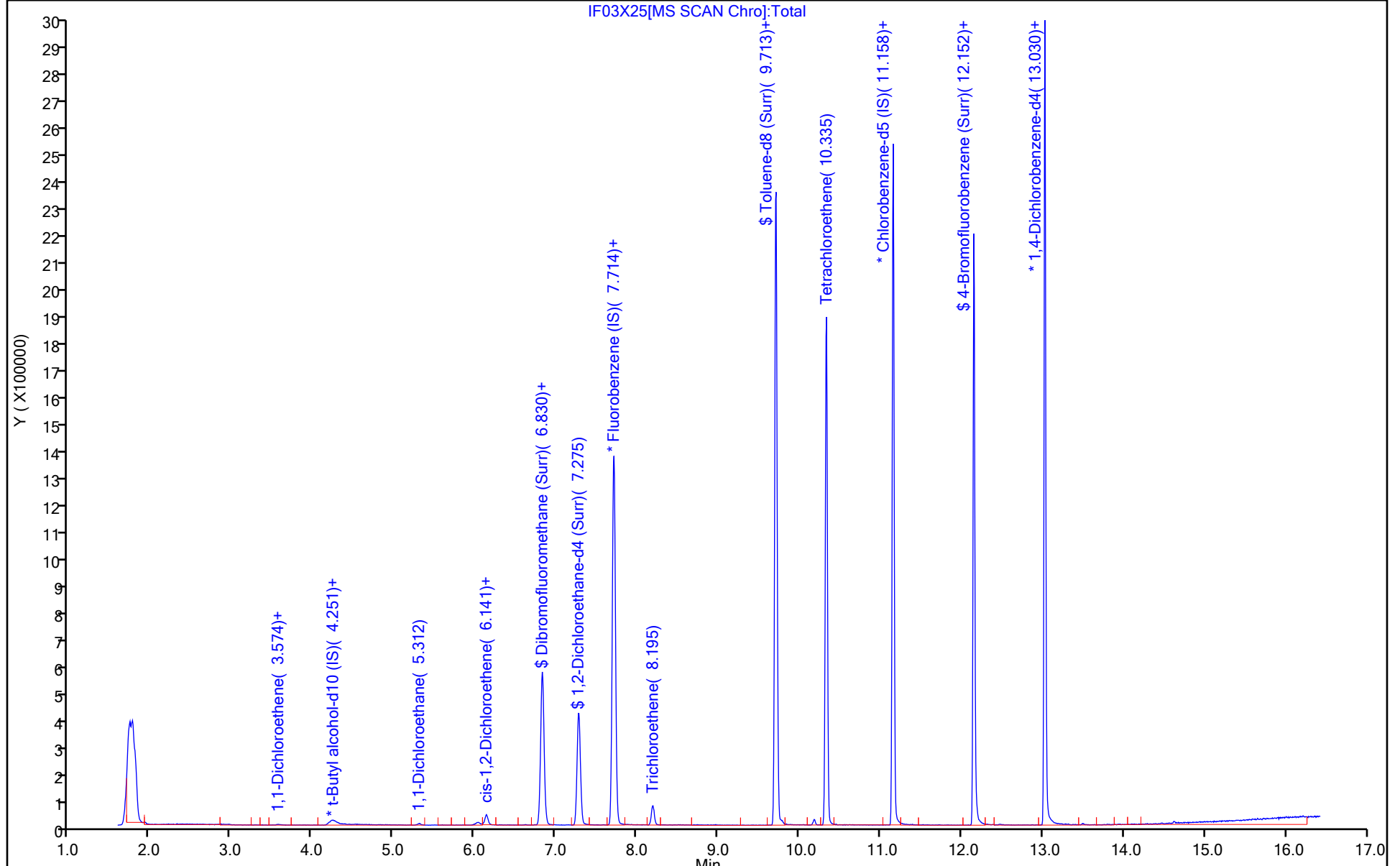
ALS Bottle#: 25

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  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03X25.D  
 Lims ID: 410-71043-A-13  
 Client ID: HD-QC1-0/1-1  
 Sample Type: Client  
 Inject. Date: 03-Feb-2022 17:40:30 ALS Bottle#: 25 Worklist Smp#: 26  
 Purge Vol: 25.000 mL Dil. Factor: 10.0000  
 Sample Info: 410-0049668-026  
 Operator ID: KNK41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 18:39:00 Calib Date: 24-Aug-2021 02:52:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1662

First Level Reviewer: beckerk

Date: 03-Feb-2022 18:39:00

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.94	99.44
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.2	101.96
\$ 75 Toluene-d8 (Surr)	10.0	9.92	99.21
\$ 100 4-Bromofluorobenzene (Surr)	10.0	9.35	93.51

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03X25.D

Injection Date: 03-Feb-2022 17:40:30

Instrument ID: 19930

Lims ID: 410-71043-A-13

Lab Sample ID: 410-71043-13

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

Operator ID: KNK41612

ALS Bottle#: 25

Worklist Smp#: 26

Purge Vol: 25.000 mL

Dil. Factor: 10.0000

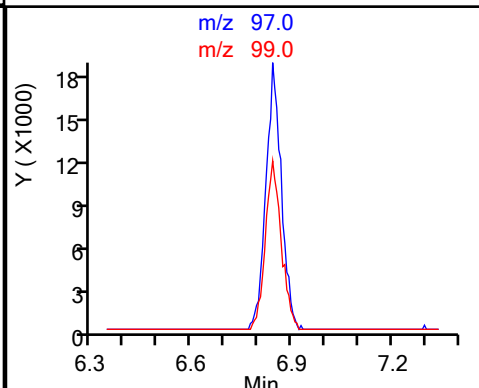
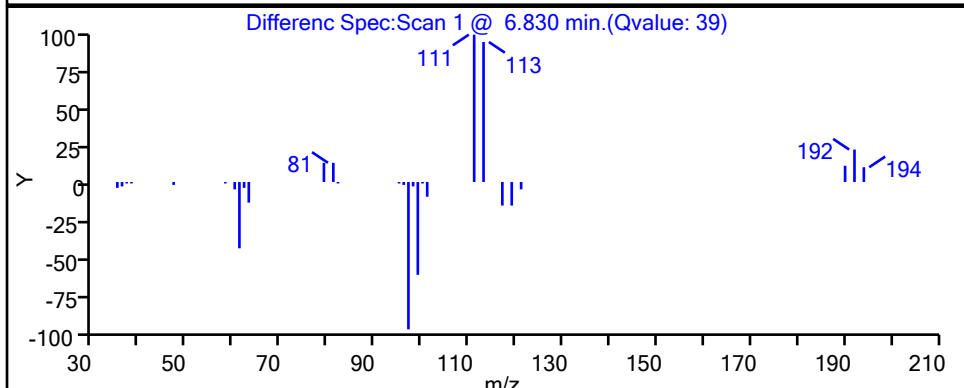
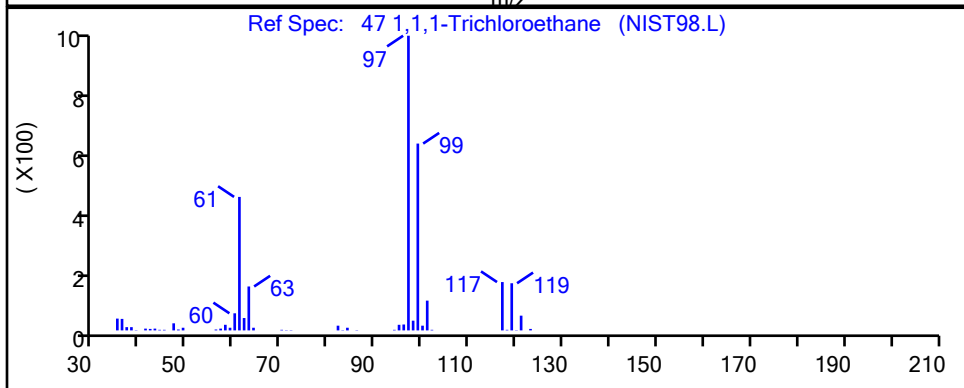
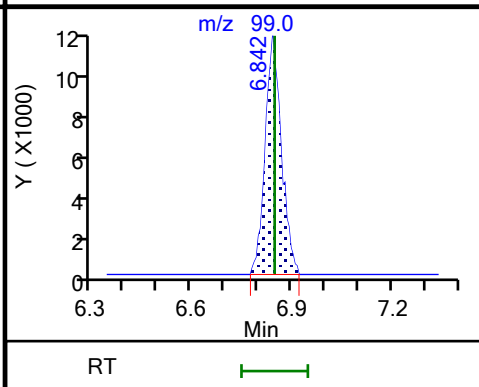
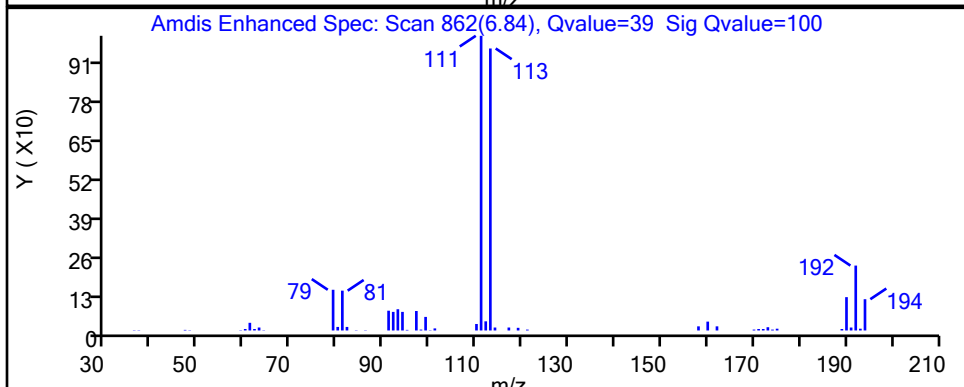
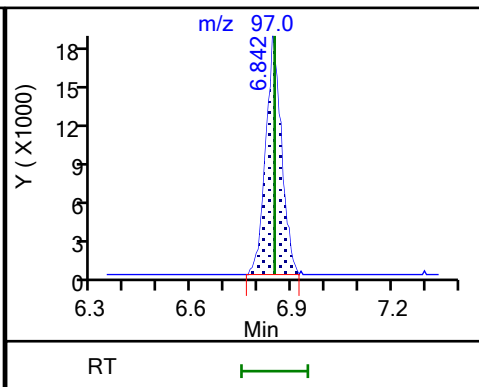
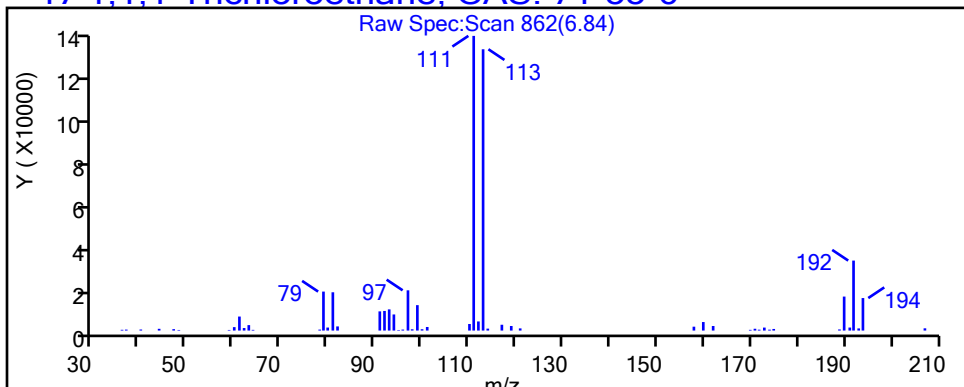
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

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

MS Quad

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



Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03X25.D

Injection Date: 03-Feb-2022 17:40:30

Instrument ID: 19930

Lims ID: 410-71043-A-13

Lab Sample ID: 410-71043-13

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

Operator ID: KNK41612

ALS Bottle#: 25

Worklist Smp#: 26

Purge Vol: 25.000 mL

Dil. Factor: 10.0000

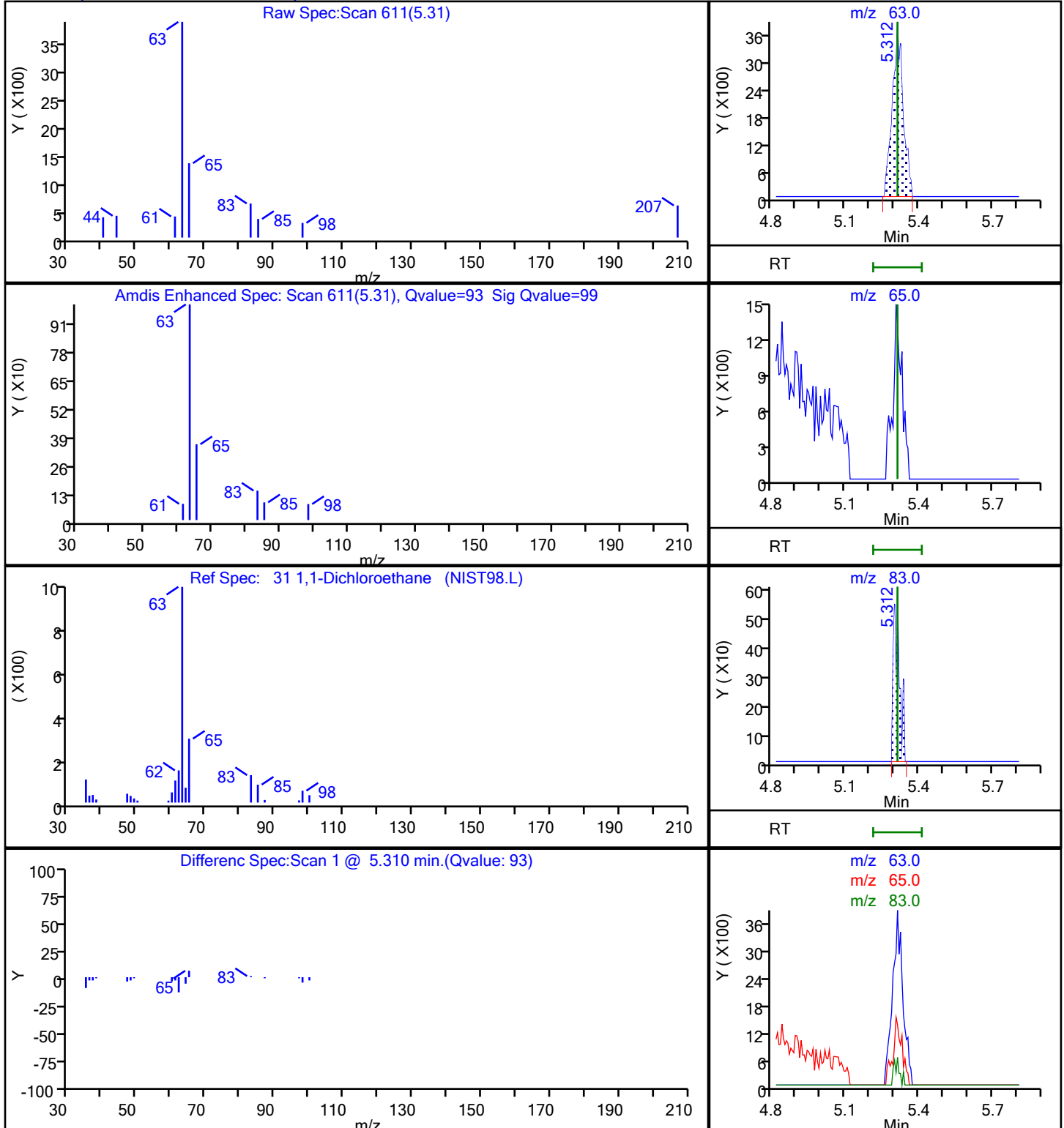
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

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

MS Quad

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





Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03X25.D

Injection Date: 03-Feb-2022 17:40:30

Instrument ID: 19930

Lims ID: 410-71043-A-13

Lab Sample ID: 410-71043-13

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

Operator ID: KNK41612

ALS Bottle#: 25

Worklist Smp#: 26

Purge Vol: 25.000 mL

Dil. Factor: 10.0000

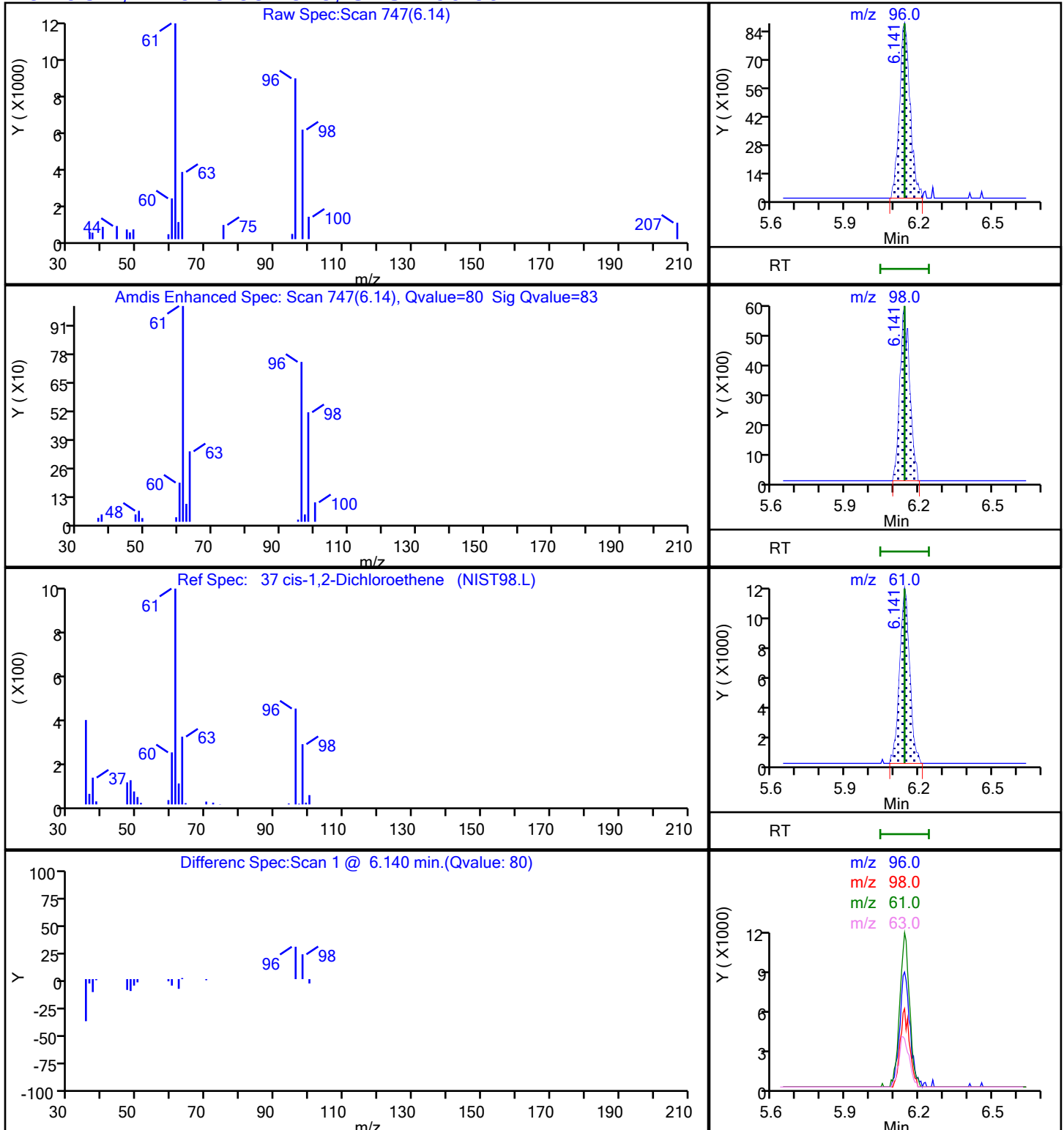
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

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

MS Quad

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



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03X25.D

Injection Date: 03-Feb-2022 17:40:30

Instrument ID: 19930

Lims ID: 410-71043-A-13

Lab Sample ID: 410-71043-13

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

Operator ID: KNK41612

ALS Bottle#: 25

Worklist Smp#: 26

Purge Vol: 25.000 mL

Dil. Factor: 10.0000

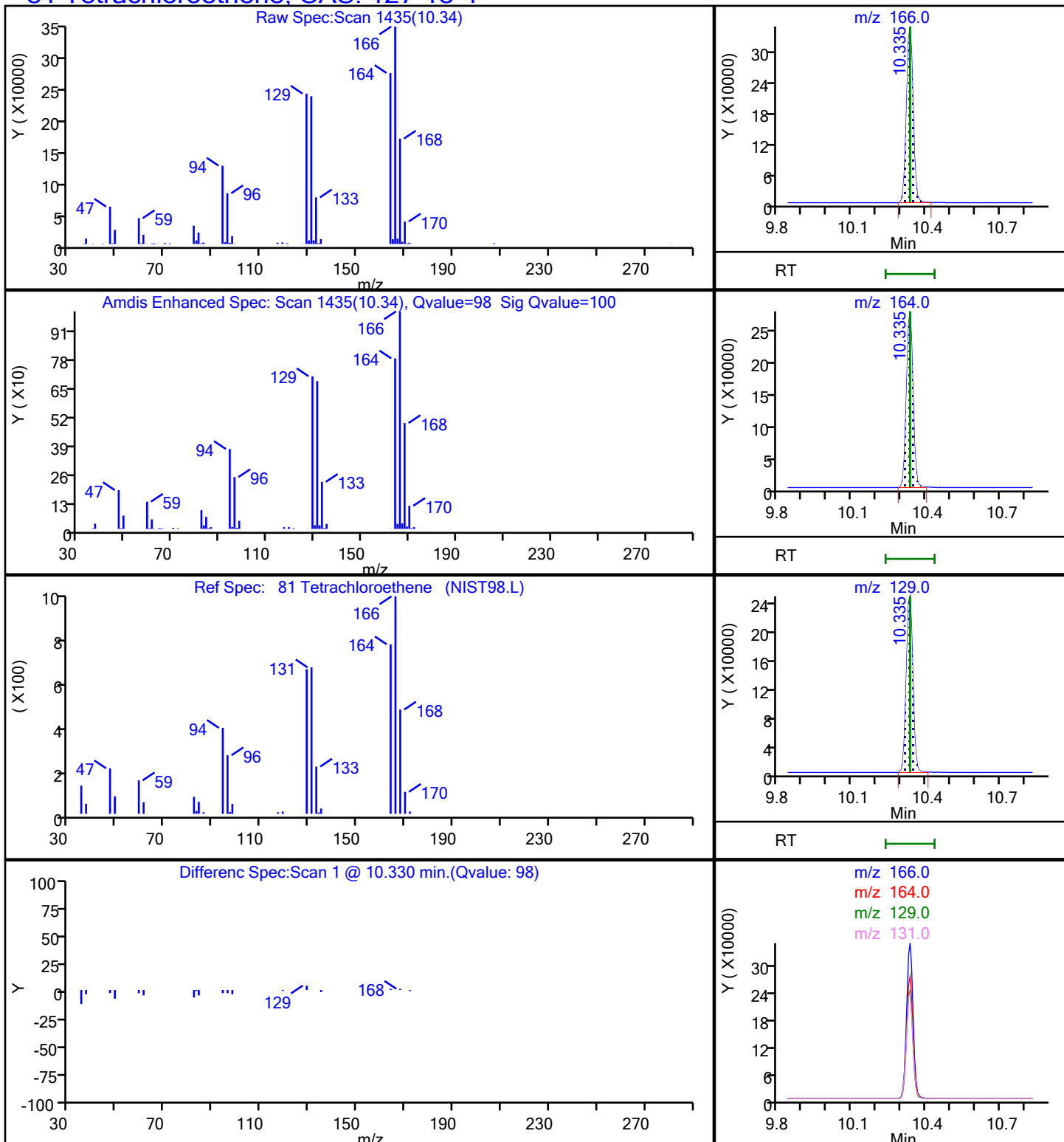
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

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

MS Quad

### 81 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03X25.D

Injection Date: 03-Feb-2022 17:40:30

Instrument ID: 19930

Lims ID: 410-71043-A-13

Lab Sample ID: 410-71043-13

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

Operator ID: KNK41612

ALS Bottle#: 25

Worklist Smp#: 26

Purge Vol: 25.000 mL

Dil. Factor: 10.0000

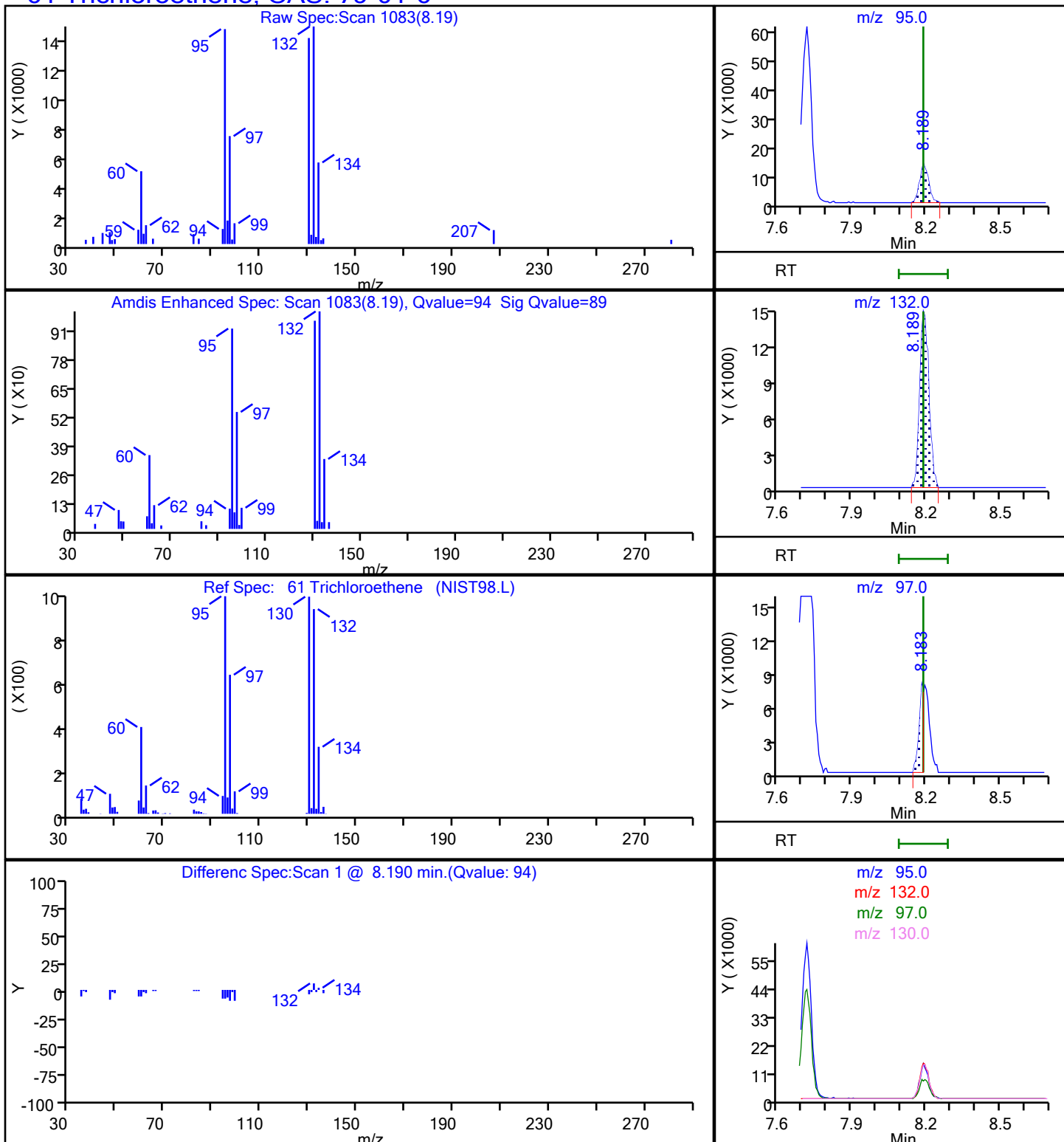
Method: 8260 25ml HP31

Limit Group: MSV - 8260C\_D

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

MS Quad

### 61 Trichloroethene, CAS: 79-01-6

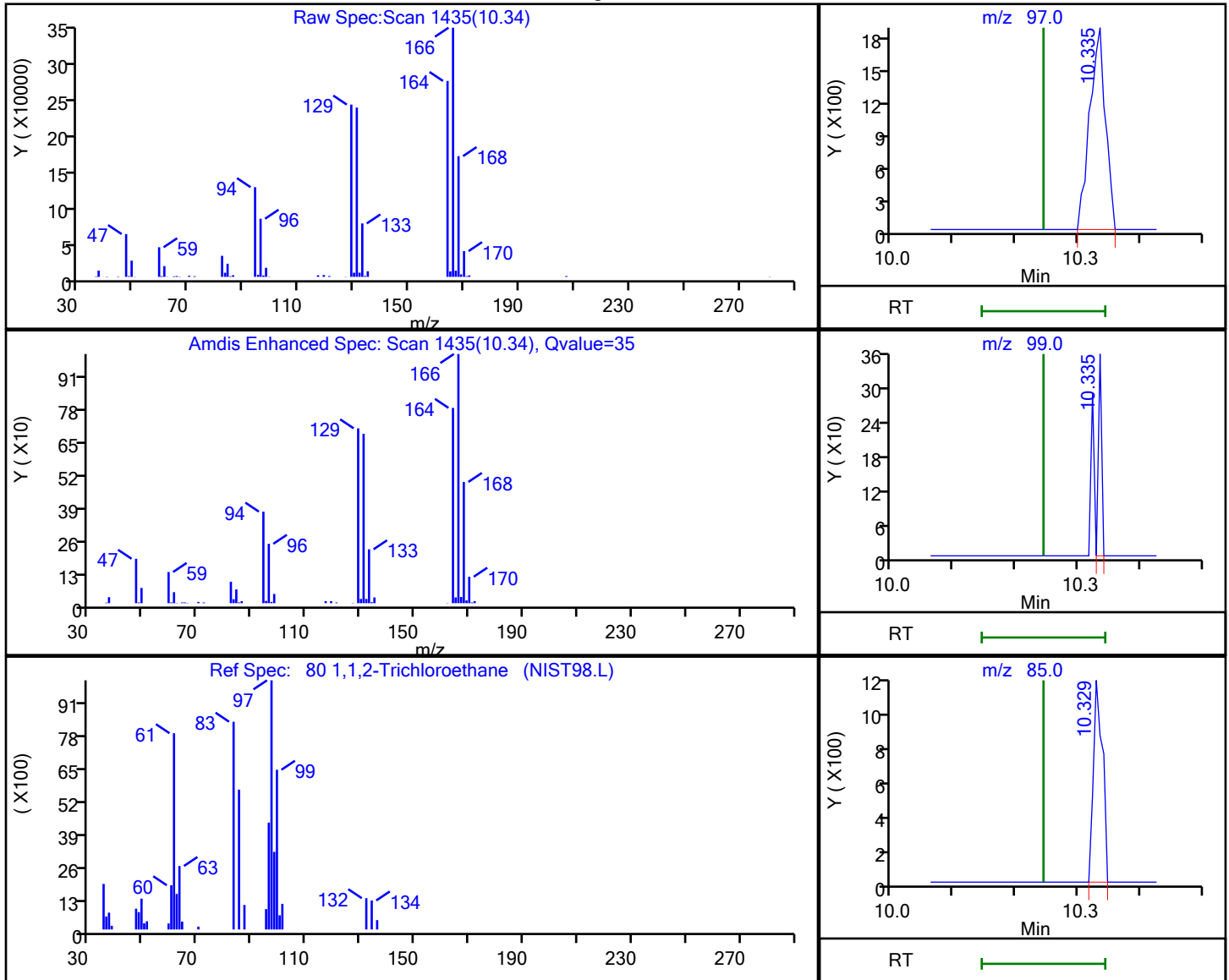


Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03X25.D  
 Injection Date: 03-Feb-2022 17:40:30 Instrument ID: 19930  
 Lims ID: 410-71043-A-13 Lab Sample ID: 410-71043-13  
 Client ID: HD-QC1-0/1-1  
 Operator ID: KNK41612 ALS Bottle#: 25 Worklist Smp#: 26  
 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) Detector: MS Quad

80 1,1,2-Trichloroethane, CAS: 79-00-5

Processing Results



RT	Mass	Response	Amount
10.34	97.00	3287	0.085594
10.34	99.00	129	
10.33	85.00	1160	
10.33	83.00	10556	

Reviewer: beckerk, 03-Feb-2022 18:38:56

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Eurofins Lancaster Laboratories Env, LLC

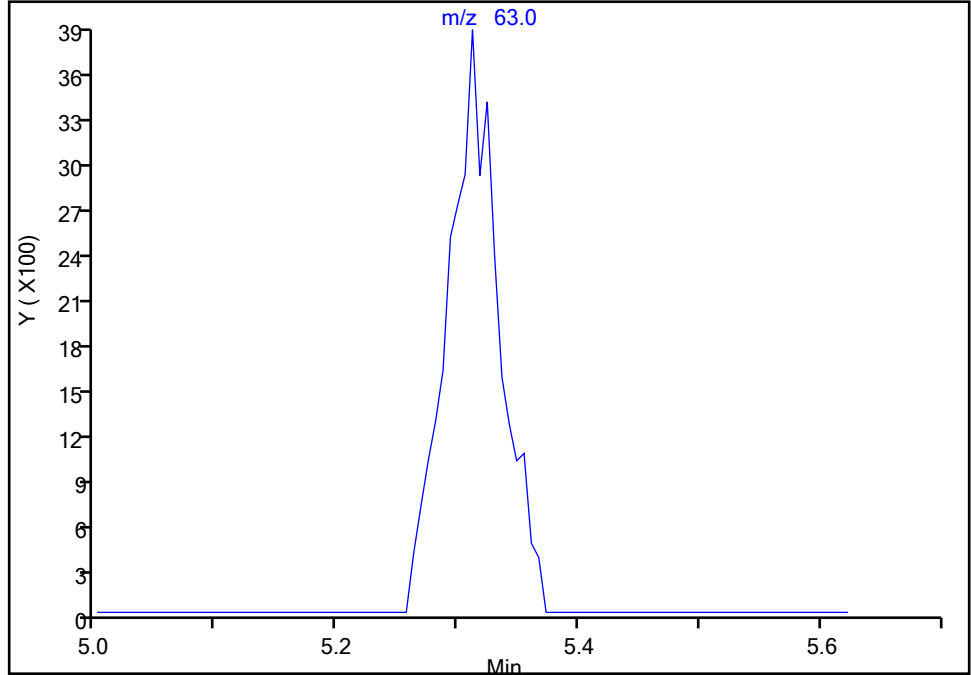
Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03X25.D  
Injection Date: 03-Feb-2022 17:40:30 Instrument ID: 19930  
Lims ID: 410-71043-A-13 Lab Sample ID: 410-71043-13  
Client ID: HD-QC1-0/1-1  
Operator ID: KNK41612 ALS Bottle#: 25 Worklist Smp#: 26  
Purge Vol: 25.000 mL Dil. Factor: 10.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column (0.25mm ID) Detector: MS Quad

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

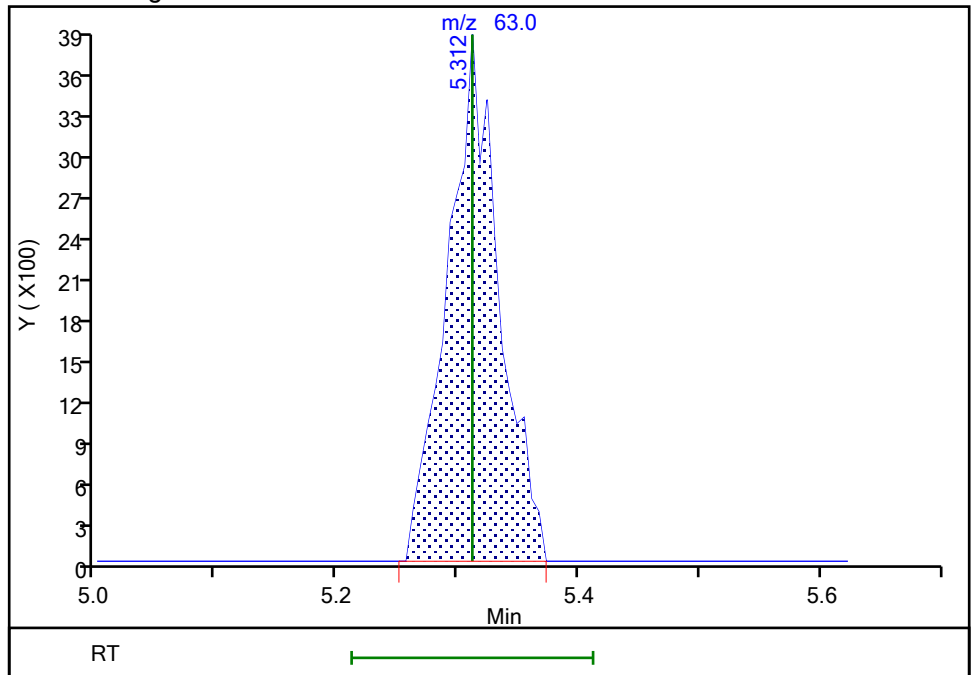
Signal: 1

Not Detected  
Expected RT: 5.31

Processing Integration Results



Manual Integration Results



RT: 5.31  
Area: 11362  
Amount: 0.124189  
Amount Units: ug/l

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-QC1-0/1-2 Lab Sample ID: 410-71043-14  
 Matrix: Water Lab File ID: IF03X07.D  
 Analysis Method: 8260D Date Collected: 01/27/2022 00:00  
 Sample wt/vol: 25 (mL) Date Analyzed: 02/03/2022 11:18  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: R-624SilMS 30m ID: 0.25 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 220519 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND	cn	0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND	cn	0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND	cn	0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND	cn	0.50	0.060
75-34-3	1,1-Dichloroethane	ND	cn	0.50	0.070
75-35-4	1,1-Dichloroethene	ND	cn	0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND	cn	0.50	0.060
107-06-2	1,2-Dichloroethane	ND	cn	0.50	0.050
78-87-5	1,2-Dichloropropane	ND	cn	0.50	0.060
78-93-3	2-Butanone (MEK)	ND	cn	5.0	0.60
591-78-6	2-Hexanone	ND	cn	5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	cn	5.0	0.70
67-64-1	Acetone	ND	cn	5.0	0.90
71-43-2	Benzene	ND	cn	0.50	0.050
74-97-5	Bromochloromethane	ND	cn	0.50	0.050
75-27-4	Bromodichloromethane	ND	cn	0.50	0.050
75-25-2	Bromoform	ND	^c cn	1.0	0.30
74-83-9	Bromomethane	ND	cn	0.50	0.070
75-15-0	Carbon disulfide	ND	cn	1.0	0.060
56-23-5	Carbon tetrachloride	ND	cn	0.50	0.070
108-90-7	Chlorobenzene	ND	cn	0.50	0.060
75-00-3	Chloroethane	ND	cn	0.50	0.070
67-66-3	Chloroform	ND	cn	0.50	0.090
74-87-3	Chloromethane	ND	cn	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	ND	cn	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND	cn	0.50	0.050
124-48-1	Dibromochloromethane	ND	cn	0.50	0.070
100-41-4	Ethylbenzene	ND	cn	0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND	cn	0.50	0.050
75-09-2	Methylene Chloride	ND	cn	0.50	0.070
100-42-5	Styrene	ND	cn	0.50	0.050
127-18-4	Tetrachloroethene	ND	cn	0.50	0.060
108-88-3	Toluene	ND	cn	0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND	cn	0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND	cn	0.50	0.060
79-01-6	Trichloroethene	ND	cn	0.50	0.060

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-QC1-0/1-2 Lab Sample ID: 410-71043-14  
 Matrix: Water Lab File ID: IF03X07.D  
 Analysis Method: 8260D Date Collected: 01/27/2022 00:00  
 Sample wt/vol: 25 (mL) Date Analyzed: 02/03/2022 11:18  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: R-624SilMS 30m ID: 0.25 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 220519 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	ND	cn	0.50	0.10
1330-20-7	Xylenes, Total	ND	cn	1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104	cn	80-120
460-00-4	4-Bromofluorobenzene (Surr)	96	cn	80-120
1868-53-7	Dibromofluoromethane (Surr)	100	cn	80-120
2037-26-5	Toluene-d8 (Surr)	101	cn	80-120

Eurofins Lancaster Laboratories Env, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03X07.D  
 Lims ID: 410-71043-A-14  
 Client ID: HD-QC1-0/1-2  
 Sample Type: Client  
 Inject. Date: 03-Feb-2022 11:18:30 ALS Bottle#: 7 Worklist Smp#: 8  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0049668-008  
 Operator ID: KNK41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 14:39:20 Calib Date: 24-Aug-2021 02:52:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1662

First Level Reviewer: beckerk

Date: 03-Feb-2022 16:27:49

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		2.629				ND	
8 Chloroethane	64		2.702				ND	
14 1,1-Dichloroethene	96		3.568				ND	
15 Acetone	43	3.599	3.599	-0.001	67	5806	0.6340	
19 Carbon disulfide	76		3.873				ND	7
23 Methylene Chloride	84	4.239	4.239	0.000	35	2124	0.0422	
* 24 t-Butyl alcohol-d10 (IS)	65	4.269	4.245	0.024	28	164844	50.0	
27 Methyl tert-butyl ether	73		4.647				ND	
28 trans-1,2-Dichloroethene	96		4.659				ND	
31 1,1-Dichloroethane	63		5.312				ND	
36 2-Butanone (MEK)	43		6.104				ND	U
37 cis-1,2-Dichloroethene	96		6.141				ND	
43 Chlorobromomethane	128		6.470				ND	
45 Chloroform	83		6.616				ND	
\$ 46 Dibromofluoromethane (Surr)	113	6.836	6.830	0.006	94	485169	9.98	
47 1,1,1-Trichloroethane	97		6.848				ND	
50 Carbon tetrachloride	117		7.055				ND	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.287	7.275	0.012	67	100852	10.4	
54 Benzene	78		7.311				ND	7
56 1,2-Dichloroethane	62		7.384				ND	
* 58 Fluorobenzene (IS)	96	7.720	7.714	0.006	99	1930031	10.0	
61 Trichloroethene	95		8.189				ND	
63 1,2-Dichloropropane	63		8.518				ND	
68 Dichlorobromomethane	83		8.860				ND	
73 cis-1,3-Dichloropropene	75		9.402				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.573				ND	7
\$ 75 Toluene-d8 (Surr)	98	9.713	9.713	0.000	93	1993669	10.1	
76 Toluene	92	9.786	9.786	0.000	85	6247	0.0425	
78 trans-1,3-Dichloropropene	75		10.042				ND	
80 1,1,2-Trichloroethane	97		10.244				ND	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166		10.335				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	85	1531608	10.0	
90 Chlorobenzene	112		11.182				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.262				ND	
92 Ethylbenzene	91		11.268				ND	7
93 m-Xylene & p-Xylene	106		11.384				ND	7
94 o-Xylene	106		11.707				ND	
95 Styrene	104		11.725				ND	
96 Bromoform	173		11.884				ND	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	93	728066	9.62	
101 1,1,2,2-Tetrachloroethane	83		12.249				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	94	825407	10.0	

**QC Flag Legend**

## Processing Flags

7 - Failed Limit of Detection

## Review Flags

U - Marked Undetected

**Reagents:**

MSV\_LLcentISS\_00002

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03X07.D

Injection Date: 03-Feb-2022 11:18:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: 410-71043-A-14

Lab Sample ID: 410-71043-14

Worklist Smp#: 8

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

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

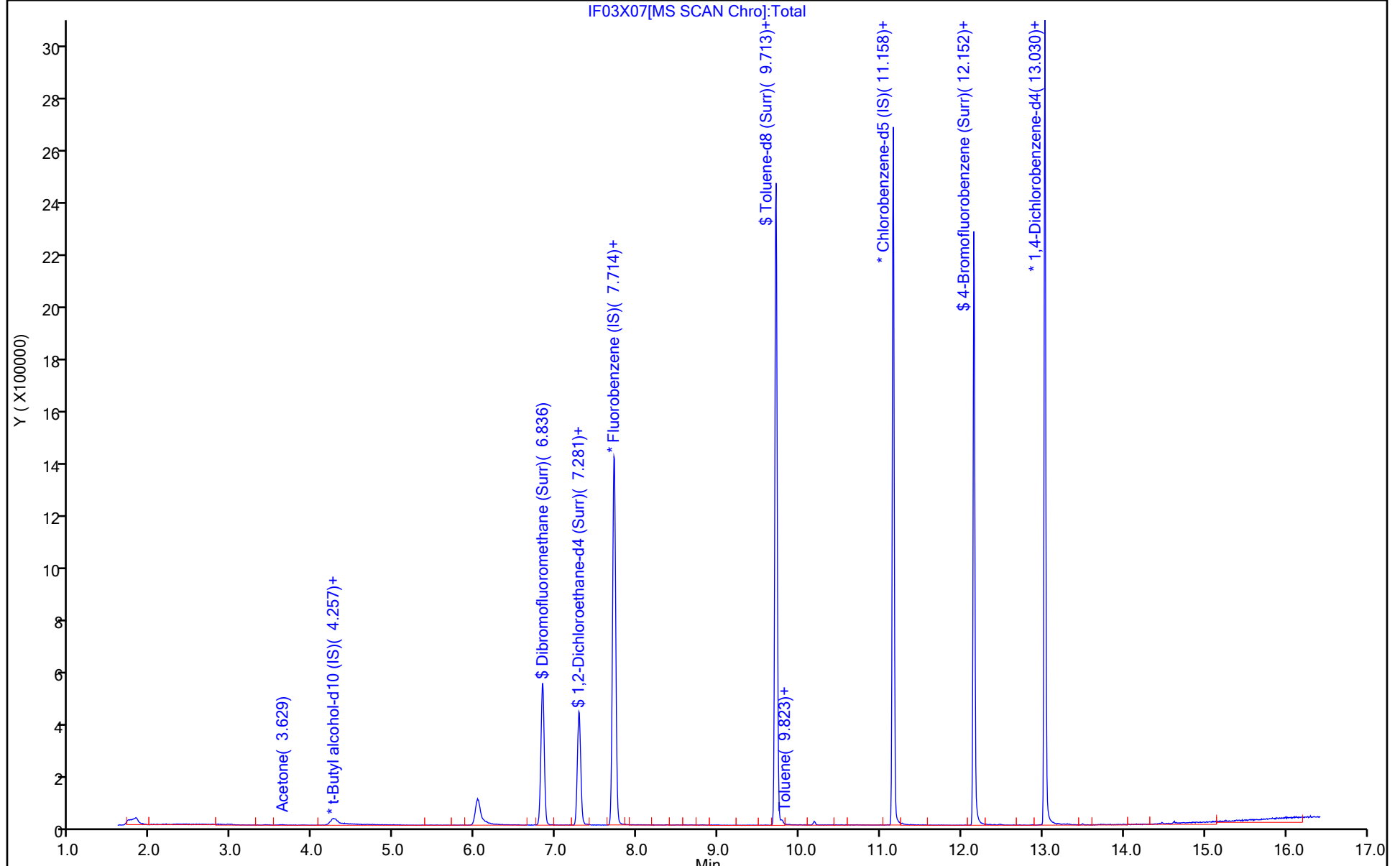
ALS Bottle#: 7

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 Env, LLC  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03X07.D  
 Lims ID: 410-71043-A-14  
 Client ID: HD-QC1-0/1-2  
 Sample Type: Client  
 Inject. Date: 03-Feb-2022 11:18:30 ALS Bottle#: 7 Worklist Smp#: 8  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0049668-008  
 Operator ID: KNK41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 14:39:20 Calib Date: 24-Aug-2021 02:52:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1662

First Level Reviewer: beckerk Date: 03-Feb-2022 16:27:49

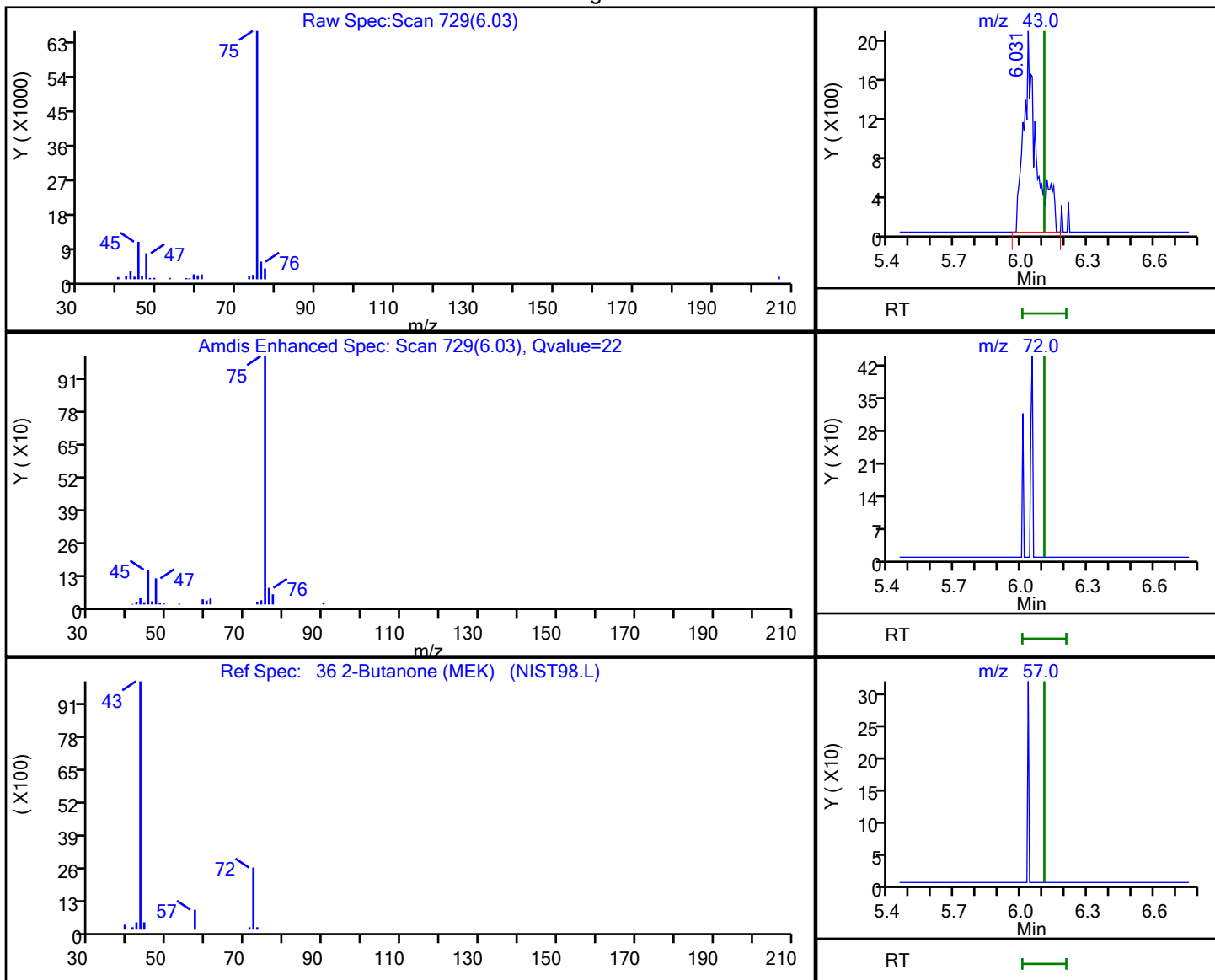
Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.98	99.79
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.4	103.69
\$ 75 Toluene-d8 (Surr)	10.0	10.1	100.73
\$ 100 4-Bromofluorobenzene (Surr)	10.0	9.62	96.25

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03X07.D  
 Injection Date: 03-Feb-2022 11:18:30 Instrument ID: 19930  
 Lims ID: 410-71043-A-14 Lab Sample ID: 410-71043-14  
 Client ID: HD-QC1-0/1-2  
 Operator ID: KNK41612 ALS Bottle#: 7 Worklist Smp#: 8  
 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

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

#### Processing Results



RT	Mass	Response	Amount
6.03	43.00	8259	0.516512
6.10	72.00	0	
6.10	57.00	0	

Reviewer: beckerk, 03-Feb-2022 16:27:35

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-71043-1 Analy Batch No.: 207981

SDG No.: \_\_\_\_\_

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/21/2021 18:35 Calibration End Date: 12/21/2021 20:38 Calibration ID: 34118

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-207981/20	HD21I17.D
Level 2	IC 410-207981/19	HD21I16.D
Level 3	IC 410-207981/18	HD21I15.D
Level 4	IC 410-207981/17	HD21I14.D
Level 5	IC 410-207981/16	HD21I13.D
Level 6	ICIS 410-207981/15	HD21I12.D
Level 7	IC 410-207981/14	HD21I11.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	0.3206 0.3299	0.3224 0.3240	0.3202	0.3369	0.3119	Ave	0.323 7			0.1000	2.4		20.0				
Chloromethane	0.4449 0.3851	0.4236 0.3746	0.3911	0.3995	0.3690	Ave	0.398 3			0.1000	6.8		20.0				
1,3-Butadiene	0.4477 0.3686	0.4410 0.3585	0.4224	0.4132	0.3743	Ave	0.403 7				9.0		20.0				
Vinyl chloride	0.4117 0.3950	0.4031 0.3871	0.3962	0.4025	0.3822	Ave	0.396 8			0.1000	2.5		20.0				
Bromomethane	0.2826 0.2645	0.2689 0.2595	0.2610	0.2691	0.2569	Ave	0.266 1			0.1000	3.2		20.0				
Chloroethane	0.2381 0.2237	0.2344 0.2189	0.2203	0.2310	0.2169	Ave	0.226 2			0.1000	3.7		20.0				
Dichlorofluoromethane	0.5486 0.5106	0.5350 0.5012	0.5216	0.5336	0.5050	Ave	0.522 2			0.1000	3.4		20.0				
Trichlorofluoromethane	0.5288 0.4947	0.5020 0.4850	0.4896	0.5081	0.4766	Ave	0.497 9			0.1000	3.5		20.0				
Ethyl ether	0.1729 0.1781	0.1724 0.1753	0.1775	0.1778	0.1759	Ave	0.175 7				1.3		20.0				
Freon 123a	0.3780 0.3621	0.3689 0.3533	0.3629	0.3671	0.3516	Ave	0.363 4				2.5		20.0				
Acrolein	3.8106 3.9102	4.2546 3.7987	4.4113	4.9458	4.1839	Ave	4.187 9				9.7		20.0				
1,1-Dichloroethene	0.2836 0.2625	0.2708 0.2588	0.2646	0.2717	0.2607	Ave	0.267 5			0.1000	3.2		20.0				
Acetone	4.7786 3.9117	5.3726 3.7503	4.7475	4.9369	4.2189	Ave	4.530 9			0.1000	13.0		20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-71043-1 Analy Batch No.: 207981

SDG No.: \_\_\_\_\_

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/21/2021 18:35 Calibration End Date: 12/21/2021 20:38 Calibration ID: 34118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R <sup>2</sup> OR COD	#	MIN R <sup>2</sup> OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
Freon 113	0.2681 0.2652	0.2702 0.2601	0.2741	0.2742	0.2594	Ave		0.267 3		0.1000	2.3		20.0				
Methyl iodide	0.4913 0.4621	0.4680 0.4565	0.4643	0.4738	0.4616	Ave		0.468 2			2.5		20.0				
Carbon disulfide	0.7009 0.6490	0.6608 0.6408	0.6398	0.6614	0.6376	Ave		0.655 7		0.1000	3.4		20.0				
Methyl acetate	16.860 13.603	18.256 13.268	15.780	16.121	14.757	Ave		15.52 1		0.1000	11.5		20.0				
Allyl chloride	0.4379 0.4098	0.4214 0.4042	0.4076	0.4160	0.4027	Ave		0.414 2			3.0		20.0				
Methylene Chloride	0.3168 0.2743	0.2905 0.2694	0.2886	0.2783	0.2733	Ave		0.284 4		0.1000	5.7		20.0				
t-Butyl alcohol	0.8731 1.1255	1.0934 0.9834	1.0922	1.1820	1.0494	Ave		1.057 0			9.6		20.0				
Acrylonitrile	3.7880 6.1597	6.2576 5.9173	6.7234	7.3996	6.5276	Ave		6.110 5			18.5		20.0				
Methyl tert-butyl ether	0.5767 0.5845	0.5729 0.5712	0.5968	0.5973	0.5806	Ave		0.582 8		0.1000	1.8		20.0				
trans-1,2-Dichloroethene	0.3041 0.2816	0.2887 0.2788	0.2853	0.2916	0.2825	Ave		0.287 5		0.1000	3.0		20.0				
n-Hexane	0.3777 0.3896	0.3609 0.3817	0.3775	0.3904	0.3785	Ave		0.379 5			2.6		20.0				
1,1-Dichloroethane	0.5331 0.5315	0.5248 0.5233	0.5274	0.5355	0.5291	Ave		0.529 3		0.2000	0.8		20.0				
di-Isopropyl ether	0.8531 0.8751	0.8652 0.8660	0.8848	0.8847	0.8684	Ave		0.871 0			1.3		20.0				
2-Chloro-1,3-butadiene	0.4381 0.4397	0.4295 0.4363	0.4222	0.4453	0.4364	Ave		0.435 4			1.7		20.0				
Ethyl t-butyl ether	0.7481 0.7403	0.7415 0.7272	0.7504	0.7647	0.7319	Ave		0.743 4			1.7		20.0				
2-Butanone (MEK)	7.1582 7.7929	8.5025 7.8306	8.8130	9.7319	8.2749	Ave		8.300 6		0.1000	10.0		20.0				
cis-1,2-Dichloroethene	0.3247 0.3124	0.3043 0.3067	0.3148	0.3190	0.3103	Ave		0.313 2		0.1000	2.3		20.0				
2,2-Dichloropropane	0.4410 0.4373	0.4405 0.4280	0.4226	0.4472	0.4277	Ave		0.434 9			2.0		20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-71043-1 Analy Batch No.: 207981

SDG No.: \_\_\_\_\_

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/21/2021 18:35 Calibration End Date: 12/21/2021 20:38 Calibration ID: 34118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R <sup>2</sup> OR COD	#	MIN R <sup>2</sup> OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
Propionitrile	1.7030 2.1485	2.2977 1.9826	2.0343	2.4792	2.2515	Ave		2.128 1			11.8		20.0				
Methacrylonitrile	8.3089 8.7143	10.326 8.6243	9.6225	11.286	9.3358	Ave		9.459 6			11.2		20.0				
Bromochloromethane	0.1339 0.1315	0.1290 0.1301	0.1331	0.1297	0.1316	Ave		0.131 3			1.4		20.0				
Tetrahydrofuran	1.8185 2.1840	2.5061 2.1387	2.5009	2.7415	2.2710	Ave		2.308 7			13.1		20.0				
Chloroform	0.5362 0.5090	0.5143 0.5042	0.5117	0.5243	0.5094	Ave		0.515 6		0.2000	2.1		20.0				
1,1,1-Trichloroethane	0.4992 0.4710	0.4769 0.4624	0.4650	0.4836	0.4648	Ave		0.474 7		0.1000	2.8		20.0				
Cyclohexane	0.5133 0.5086	0.5075 0.4984	0.5130	0.5292	0.4998	Ave		0.510 0		0.1000	2.0		20.0				
1,1-Dichloropropene	0.4083 0.4217	0.4254 0.4171	0.4225	0.4293	0.4152	Ave		0.419 9			1.7		20.0				
Carbon tetrachloride	0.4210 0.4145	0.4070 0.4132	0.4086	0.4229	0.4100	Ave		0.413 9		0.1000	1.5		20.0				
Isobutyl alcohol	0.4737 0.4279	0.4461 0.3828	0.4722	0.4797	0.4322	Ave		0.444 9			7.7		20.0				
Benzene	1.2677 1.1857	1.2077 1.1734	1.2027	1.2187	1.1824	Ave		1.205 5		0.5000	2.6		20.0				
1,2-Dichloroethane	0.3226 0.2921	0.3042 0.2886	0.3008	0.3039	0.2921	Ave		0.300 6		0.1000	3.8		20.0				
t-Amyl methyl ether	0.6129 0.6301	0.6079 0.6133	0.6312	0.6420	0.6231	Ave		0.622 9			2.0		20.0				
n-Heptane	0.4054 0.4122	0.3816 0.4007	0.3937	0.4121	0.3966	Ave		0.400 3			2.7		20.0				
n-Butanol	0.2283 0.3334	0.2563 0.2922	0.3085	0.3279	0.3298	Ave		0.296 6			13.7		20.0				
Trichloroethene	0.3241 0.3157	0.3160 0.3139	0.3106	0.3267	0.3135	Ave		0.317 2		0.2000	1.9		20.0				
Methylcyclohexane	0.5122 0.5521	0.5143 0.5385	0.5410	0.5692	0.5330	Ave		0.537 2		0.1000	3.7		20.0				
1,2-Dichloropropane	0.3097 0.3032	0.2989 0.3015	0.3034	0.3057	0.3008	Ave		0.303 3		0.1000	1.2		20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-71043-1 Analy Batch No.: 207981

SDG No.: \_\_\_\_\_

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/21/2021 18:35 Calibration End Date: 12/21/2021 20:38 Calibration ID: 34118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R <sup>2</sup> OR COD	#	MIN R <sup>2</sup> OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
Methyl methacrylate	13.427 16.685	17.221 16.639	17.748	21.022	17.633	Ave		17.19 6			13.0		20.0				
1,4-Dioxane	0.0123 0.0751	0.0660 0.0420	0.0831	0.0960	0.0842	Qua	-0.61 8	0.099 0	-0.000045	0.0050				1.0000		0.9900	
Dibromomethane	0.1379 0.1342	0.1322 0.1349	0.1355	0.1376	0.1339	Ave		0.135 2			1.5		20.0				
Bromodichloromethane	0.3309 0.3506	0.3278 0.3529	0.3273	0.3426	0.3461	Ave		0.339 7		0.2000	3.2		20.0				
2-Nitropropane	4.1083 4.4842	4.7889 4.4854	4.7809	5.4460	4.6440	Ave		4.676 8			8.8		20.0				
cis-1,3-Dichloropropene	0.4092 0.4418	0.4176 0.4435	0.4242	0.4291	0.4392	Ave		0.429 2		0.2000	3.0		20.0				
4-Methyl-2-pentanone (MIBK)	19.259 21.167	23.962 20.611	23.222	27.478	22.531	Ave		22.60 4		0.1000	11.9		20.0				
Toluene	0.9709 0.9244	0.9321 0.9178	0.9272	0.9451	0.9220	Ave		0.934 2		0.4000	2.0		20.0				
trans-1,3-Dichloropropene	0.3593 0.4261	0.3708 0.4318	0.4037	0.4133	0.4154	Ave		0.402 9		0.1000	6.8		20.0				
Ethyl methacrylate	0.2631 0.3252	0.2752 0.3268	0.3009	0.3115	0.3163	Ave		0.302 7			8.2		20.0				
1,1,2-Trichloroethane	0.2247 0.2343	0.2240 0.2312	0.2338	0.2334	0.2333	Ave		0.230 7		0.1000	1.9		20.0				
Tetrachloroethene	0.4460 0.4443	0.4467 0.4418	0.4413	0.4577	0.4361	Ave		0.444 9		0.2000	1.5		20.0				
1,3-Dichloropropane	0.4033 0.4104	0.4016 0.4089	0.4111	0.4101	0.4066	Ave		0.407 4			0.9		20.0				
2-Hexanone	13.187 14.367	15.615 14.259	15.635	18.612	15.398	Ave		15.29 6		0.1000	11.2		20.0				
Dibromochloromethane	0.2147 0.2930	0.2427 0.2980	0.2559	0.2695	0.2791	Ave		0.264 7			11.1		20.0				
1,2-Dibromoethane (EDB)	0.2082 0.2276	0.2083 0.2272	0.2259	0.2255	0.2277	Ave		0.221 5		0.1000	4.1		20.0				
1-Chlorohexane	0.5991 0.5486	0.5664 0.5440	0.5446	0.5514	0.5357	Ave		0.555 7			3.8		20.0				
Chlorobenzene	1.0538 1.0262	1.0047 1.0185	1.0330	1.0386	1.0191	Ave		1.027 7		0.5000	1.5		20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.



FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-71043-1 Analy Batch No.: 207981

SDG No.: \_\_\_\_\_

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/21/2021 18:35 Calibration End Date: 12/21/2021 20:38 Calibration ID: 34118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R <sup>2</sup> OR COD	#	MIN R <sup>2</sup> OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,1,1,2-Tetrachloroethane	0.3274 0.3598	0.3318 0.3618	0.3410	0.3543	0.3545	Ave		0.347 2			4.0		20.0				
Ethylbenzene	1.8001 1.8107	1.7818 1.7888	1.7830	1.8285	1.7871	Ave		1.797 2		0.1000	1.0		20.0				
m&p-Xylene	0.7035 0.7017	0.6857 0.7023	0.6876	0.7118	0.6927	Ave		0.697 9		0.1000	1.4		20.0				
o-Xylene	0.6656 0.6935	0.6639 0.6946	0.6819	0.6952	0.6896	Ave		0.683 5		0.3000	2.0		20.0				
Styrene	0.9942 1.1261	1.0220 1.1354	1.0603	1.1065	1.1049	Ave		1.078 5		0.3000	5.0		20.0				
Bromoform	++++ 0.1640	0.1012 0.1668	0.1123	0.1333	0.1483	Ave		0.137 7		0.1000	19.6		20.0				
Isopropylbenzene	1.7735 1.8321	1.7474 1.8148	1.7882	1.8304	1.8083	Ave		1.799 2		0.1000	1.7		20.0				
1,1,2,2-Tetrachloroethane	0.4564 0.5016	0.4542 0.5027	0.4891	0.4933	0.4965	Ave		0.484 8		0.3000	4.3		20.0				
Bromobenzene	0.6920 0.7324	0.7113 0.7308	0.7177	0.7434	0.7372	Ave		0.723 5			2.5		20.0				
trans-1,4-Dichloro-2-butene	5.2765 7.2526	6.6630 7.4113	7.1723	8.6823	7.5245	Ave		7.140 3			14.4		20.0				
1,2,3-Trichloropropane	0.1387 0.1313	0.1249 0.1288	0.1316	0.1303	0.1280	Ave		0.130 5			3.3		20.0				
N-Propylbenzene	3.5882 3.7873	3.5326 3.7415	3.6052	3.7894	3.7547	Ave		3.685 5			2.9		20.0				
2-Chlorotoluene	0.7348 0.7539	0.7156 0.7627	0.7409	0.7635	0.7474	Ave		0.745 6			2.3		20.0				
1,3,5-Trimethylbenzene	2.4733 2.7364	2.4897 2.7418	2.5640	2.6926	2.6753	Ave		2.624 7			4.3		20.0				
4-Chlorotoluene	0.7239 0.7619	0.7400 0.7742	0.7398	0.7716	0.7624	Ave		0.753 4			2.5		20.0				
tert-Butylbenzene	0.5791 0.5964	0.5979 0.5965	0.5597	0.6002	0.5892	Ave		0.588 4			2.5		20.0				
Pentachloroethane	0.4005 0.4712	0.4025 0.4861	0.4109	0.4487	0.4475	Ave		0.438 2			7.8		20.0				
1,2,4-Trimethylbenzene	2.5882 2.8004	2.5593 2.8021	2.6455	2.7940	2.7896	Ave		2.711 3			4.0		20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-71043-1 Analy Batch No.: 207981

SDG No.: \_\_\_\_\_

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/21/2021 18:35 Calibration End Date: 12/21/2021 20:38 Calibration ID: 34118

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R <sup>2</sup> OR COD	#	MIN R <sup>2</sup> OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
sec-Butylbenzene	3.0950 3.4922	3.1638 3.4641	3.2263	3.4294	3.4104	Ave		3.325 9			4.8		20.0				
1,3-Dichlorobenzene	1.4121 1.4979	1.3994 1.5160	1.4510	1.4925	1.4739	Ave		1.463 3		0.6000	3.0		20.0				
p-Isopropyltoluene	2.6214 3.0400	2.6993 3.0348	2.7739	2.9700	2.9799	Ave		2.874 2			6.0		20.0				
1,4-Dichlorobenzene	1.4031 1.4695	1.4177 1.4929	1.4557	1.4849	1.4522	Ave		1.453 7		0.5000	2.3		20.0				
1,2,3-Trimethylbenzene	1.1793 1.1984	1.1550 1.2083	1.1688	1.1936	1.1838	Ave		1.183 9			1.5		20.0				
Benzyl chloride	0.1125 0.1763	0.1256 0.1822	0.1371	0.1549	0.1673	Ave		0.150 8			17.6		20.0				
n-Butylbenzene	1.1980 1.4825	1.2477 1.4907	1.2677	1.3968	1.4233	Ave		1.358 1			8.8		20.0				
1,2-Dichlorobenzene	1.2623 1.3427	1.3017 1.3485	1.3294	1.3708	1.3430	Ave		1.328 3		0.4000	2.7		20.0				
1,2-Dibromo-3-Chloropropane	0.0507 0.0708	0.0564 0.0724	0.0627	0.0639	0.0697	Ave		0.063 8		0.0500	12.6		20.0				
1,3,5-Trichlorobenzene	0.9868 1.1683	1.0024 1.1807	1.0505	1.0988	1.1223	Ave		1.087 1			7.1		20.0				
1,2,4-Trichlorobenzene	0.8285 1.0029	0.8299 1.0181	0.8616	0.9475	0.9607	Ave		0.921 3		0.2000	8.7		20.0				
Hexachlorobutadiene	0.4599 0.4481	0.4345 0.4681	0.3968	0.4253	0.4193	Ave		0.436 0			5.7		20.0				
Naphthalene	1.4887 1.6701	1.4476 1.6327	1.5488	1.6136	1.6265	Ave		1.575 4			5.2		20.0				
1,2,3-Trichlorobenzene	0.7421 0.8751	0.7773 0.8624	0.7890	0.8392	0.8396	Ave		0.817 8			6.0		20.0				
Dibromofluoromethane (Surr)	0.2646 0.2665	0.2609 0.2647	0.2619	0.2628	0.2651	Ave		0.263 8			0.7		20.0				
1,2-Dichloroethane-d4 (Surr)	0.0498 0.0492	0.0491 0.0486	0.0487	0.0492	0.0496	Ave		0.049 2			0.9		20.0				
Toluene-d8 (Surr)	1.2829 1.3142	1.2832 1.2998	1.3066	1.3006	1.3056	Ave		1.299 0			0.9		20.0				
4-Bromofluorobenzene (Surr)	0.5030 0.5010	0.5026 0.4992	0.5065	0.5031	0.5033	Ave		0.502 7			0.4		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.: 410-71043-1 Analy Batch No.: 207981

SDG No.: \_\_\_\_\_

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/21/2021 18:35 Calibration End Date: 12/21/2021 20:38 Calibration ID: 34118

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-207981/20	HD21I17.D
Level 2	IC 410-207981/19	HD21I16.D
Level 3	IC 410-207981/18	HD21I15.D
Level 4	IC 410-207981/17	HD21I14.D
Level 5	IC 410-207981/16	HD21I13.D
Level 6	ICIS 410-207981/15	HD21I12.D
Level 7	IC 410-207981/14	HD21I11.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	14426 738871	35985 1858720	72426	152223	356334	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Chloromethane	FB	Ave	20015 862586	47288 2148982	88475	180504	421626	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,3-Butadiene	FB	Ave	20144 825527	49223 2056826	95547	186723	427716	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Vinyl chloride	FB	Ave	18524 884597	44992 2221242	89615	181885	436750	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Bromomethane	FB	Ave	12713 592335	30013 1489062	59047	121596	293513	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Chloroethane	FB	Ave	10713 500957	26160 1256183	49836	104369	247855	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Dichlorofluoromethane	FB	Ave	24682 1143585	59718 2875555	117995	241089	577018	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Trichlorofluoromethane	FB	Ave	23794 1108083	56042 2782514	110754	229574	544632	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Ethyl ether	FB	Ave	7780 398961	19239 1005862	40150	80333	201045	0.200 10.00	0.500 25.0	1.000	2.00	5.00
Freon 123a	FB	Ave	17009 810884	41184 2027044	82081	165879	401769	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Acrolein	TBAd 10	Ave	62242 3231090	141111 7973370	321738	622050	1633670	10.0 501	25.1 1253	50.1	100	251
1,1-Dichloroethene	FB	Ave	12762 587970	30227 1484809	59850	122768	297874	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Acetone	TBAd 10	Ave	15577	35562	69104	123919	328761	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.: 410-71043-1

Analy Batch No.: 207981

SDG No.:

Instrument ID: 19094

GC Column: R-624SilMS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 12/21/2021 18:35

Calibration End Date: 12/21/2021 20:38

Calibration ID: 34118

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
			645083	1570952				100	250			
Freon 113	FB	Ave	12063 593861	30167 1492050	62012	123914	296358	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Methyl iodide	FB	Ave	22105 1034920	52236 2618858	105023	214103	527406	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Carbon disulfide	FB	Ave	31534 1453508	73764 3676447	144719	298849	728564	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Methyl acetate	TBAd 10	Ave	5496 224327	12084 555803	22969	40464	114994	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Allyl chloride	FB	Ave	19704 917879	47038 2319056	92205	187981	460092	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Methylene Chloride	FB	Ave	14252 614246	32429 1545421	65277	125736	312256	0.200 10.0	0.500 25.0	1.00	2.00	5.00
t-Butyl alcohol	TBAd 10	Ave	5692 371208	14475 823875	31795	59338	163551	4.00 200	10.0 500	20.0	40.0	100
Acrylonitrile	TBAd 10	Ave	3087 253952	10355 619672	24466	46434	127168	0.500 25.0	1.25 62.5	2.50	5.00	12.5
Methyl tert-butyl ether	FB	Ave	25946 1309035	63950 3277382	135002	269866	663391	0.200 10.0	0.500 25.0	1.00	2.00	5.00
trans-1,2-Dichloroethene	FB	Ave	13681 630749	32230 1599513	64537	131752	322742	0.200 10.0	0.500 25.0	1.00	2.00	5.00
n-Hexane	FB	Ave	16993 872637	40290 2190215	85388	176387	432542	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1-Dichloroethane	FB	Ave	23987 1190433	58587 3002190	119309	241965	604570	0.200 10.0	0.500 25.0	1.00	2.00	5.00
di-Isopropyl ether	FB	Ave	38382 1960042	96582 4968797	200145	399751	992215	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2-Chloro-1,3-butadiene	FB	Ave	19713 984754	47947 2503477	95508	201194	498616	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Ethyl t-butyl ether	FB	Ave	33658 1658145	82768 4172105	169735	345532	836280	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2-Butanone (MEK)	TBAd 10	Ave	23334	56279	128280	244279	644831	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.: 410-71043-1

Analy Batch No.: 207981

SDG No.:

Instrument ID: 19094

GC Column: R-624SilMS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 12/21/2021 18:35

Calibration End Date: 12/21/2021 20:38

Calibration ID: 34118

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
			1285148	3280148				100	250			
cis-1,2-Dichloroethene	FB	Ave	14610 699783	33973 1759404	71206	144124	354605	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2,2-Dichloropropane	FB	Ave	19840 979434	49170 2455468	95604	202088	488737	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Propionitrile	TBAd 10	Ave	11103 708613	30418 1661006	59222	124460	350901	4.00 200	10.0 500	20.0	40.0	100
Methacrylonitrile	TBAd 10	Ave	27085 1437091	68349 3612633	140063	283280	727505	2.00 100	5.00 250	10.0	20.0	50.0
Bromochloromethane	FB	Ave	6023 294528	14397 746315	30111	58589	150419	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Tetrahydrofuran	TBAd 10	Ave	2964 180085	8294 447934	18201	34407	88485	1.00 50.0	2.50 125	5.00	10.0	25.0
Chloroform	FB	Ave	24126 1140033	57405 2892883	115752	236911	582024	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1,1-Trichloroethane	FB	Ave	22460 1054893	53238 2652742	105189	218494	531102	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Cyclohexane	FB	Ave	23093 1139086	56655 2859465	116034	239108	571047	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1-Dichloropropene	FB	Ave	18369 944395	47490 2393125	95576	193969	474404	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Carbon tetrachloride	FB	Ave	18940 928355	45436 2370939	92423	191089	468482	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Isobutyl alcohol	TBAd 10	Ave	7721 352817	14765 801789	34366	60199	168398	10.0 500	25.0 1250	50.0	100	250
Benzene	FB	Ave	57038 2655673	134812 6732234	272059	550688	1351104	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2-Dichloroethane	FB	Ave	14513 654180	33955 1655868	68033	137295	333752	0.200 10.0	0.500 25.0	1.00	2.00	5.00
t-Amyl methyl ether	FB	Ave	27575 1411151	67857 3518484	142788	290093	711960	0.200 10.0	0.500 25.0	1.00	2.00	5.00
n-Heptane	FB	Ave	18238	42601	89045	186201	453158	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.: 410-71043-1

Analy Batch No.: 207981

SDG No.: \_\_\_\_\_

Instrument ID: 19094

GC Column: R-624SilMS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 12/21/2021 18:35

Calibration End Date: 12/21/2021 20:38

Calibration ID: 34118

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
			923255	2299133				10.0	25.0			
n-Butanol	TBAd 10	Ave	6512 481038	14843 1071008	39291	72020	224898	17.5 875	43.8 2188	87.5	175	438
Trichloroethene	FB	Ave	14580 706963	35271 1800849	70266	147632	358162	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Methylcyclohexane	FB	Ave	23043 1236558	57408 3089587	122383	257188	608970	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2-Dichloropropane	FB	Ave	13936 678994	33366 1729695	68623	138152	343692	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Methyl methacrylate	TBAd 10	Ave	4377 275158	11399 696974	25833	52766	137404	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,4-Dioxane	TBAd 10	Qua	200 61919	2184 87923	6045	12049	32793	10.0 500	25.0 1250	50.0	100	250
Dibromomethane	FB	Ave	6206 300660	14753 773773	30643	62175	152957	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Bromodichloromethane	FB	Ave	14888 785264	36593 2024833	74034	154800	395479	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2-Nitropropane	TBAd 10	Ave	6696 369753	15849 939452	34795	68349	180945	1.00 50.0	2.50 125	5.00	10.0	25.0
cis-1,3-Dichloropropene	FB	Ave	18410 989578	46619 2544821	95945	193875	501818	0.200 10.0	0.500 25.0	1.00	2.00	5.00
4-Methyl-2-pentanone (MIBK)	TBAd 10	Ave	62779 3490612	158604 8633587	338012	689710	1755738	2.00 100	5.00 250	10.0	20.0	50.0
Toluene	CBZd 5	Ave	36606 1687285	86613 4269788	171239	350909	861259	0.200 10.0	0.500 25.0	1.00	2.00	5.00
trans-1,3-Dichloropropene	CBZd 5	Ave	13548 777801	34458 2008911	74559	153449	387986	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Ethyl methacrylate	CBZd 5	Ave	9920	25573	55567	115660	295430	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.: 410-71043-1 Analy Batch No.: 207981

SDG No.: \_\_\_\_\_

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/21/2021 18:35 Calibration End Date: 12/21/2021 20:38 Calibration ID: 34118

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
			593545	1520376				10.0	25.0			
1,1,2-Trichloroethane	CBZd 5	Ave	8471	20817	43174	86655	217928	0.200	0.500	1.00	2.00	5.00
			427578	1075431				10.0	25.0			
Tetrachloroethene	CBZd 5	Ave	16817	41509	81506	169948	407386	0.200	0.500	1.00	2.00	5.00
			811016	2055331				10.0	25.0			
1,3-Dichloropropane	CBZd 5	Ave	15206	37316	75932	152292	379838	0.200	0.500	1.00	2.00	5.00
			748993	1902232				10.0	25.0			
2-Hexanone	TBAd 10	Ave	42985	103357	227584	467175	1199898	2.00	5.00	10.0	20.0	50.0
			2369316	5972833				100	250			
Dibromochloromethane	CBZd 5	Ave	8095	22550	47270	100062	260697	0.200	0.500	1.00	2.00	5.00
			534867	1386568				10.0	25.0			
1,2-Dibromoethane (EDB)	CBZd 5	Ave	7848	19357	41722	83736	212679	0.200	0.500	1.00	2.00	5.00
			415330	1057209				10.0	25.0			
1-Chlorohexane	CBZd 5	Ave	22588	52628	100575	204745	500369	0.200	0.500	1.00	2.00	5.00
			1001384	2530908				10.0	25.0			
Chlorobenzene	CBZd 5	Ave	39732	93365	190794	385641	951909	0.200	0.500	1.00	2.00	5.00
			1873047	4738520				10.0	25.0			
1,1,1,2-Tetrachloroethane	CBZd 5	Ave	12343	30835	62974	131572	331123	0.200	0.500	1.00	2.00	5.00
			656784	1683172				10.0	25.0			
Ethylbenzene	CBZd 5	Ave	67869	165575	329312	678938	1669271	0.200	0.500	1.00	2.00	5.00
			3304919	8322344				10.0	25.0			
m&p-Xylene	CBZd 5	Ave	53048	127444	253972	528574	1293990	0.400	1.00	2.00	4.00	10.0
			2561513	6535116				20.0	50.0			
o-Xylene	CBZd 5	Ave	25094	61695	125947	258119	644165	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.: 410-71043-1 Analy Batch No.: 207981

SDG No.: \_\_\_\_\_

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/21/2021 18:35 Calibration End Date: 12/21/2021 20:38 Calibration ID: 34118

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
			1265812	3231659				10.0	25.0			
Styrene	CBZd 5	Ave	37483	94968	195825	410852	1032084	0.200	0.500	1.00	2.00	5.00
			2055330	5282244				10.0	25.0			
Bromoform	CBZd 5	Ave	+++++	9408	20741	49507	138500	+++++	0.500	1.00	2.00	5.00
			299372	776197				10.0	25.0			
Isopropylbenzene	CBZd 5	Ave	66865	162375	330264	679640	1689076	0.200	0.500	1.00	2.00	5.00
			3344052	8443028				10.0	25.0			
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	9871	24100	51958	104143	261515	0.200	0.500	1.00	2.00	5.00
			518211	1320478				10.0	25.0			
Bromobenzene	DCBd 4	Ave	14965	37741	76232	156953	388274	0.200	0.500	1.00	2.00	5.00
			756618	1919678				10.0	25.0			
trans-1,4-Dichloro-2-butene	TBAd 10	Ave	17200	44103	104399	217932	586353	2.00	5.00	10.0	20.0	50.0
			1196041	3104518				100	250			
1,2,3-Trichloropropane	DCBd 4	Ave	3000	6626	13975	27502	67434	0.200	0.500	1.00	2.00	5.00
			135635	338416				10.0	25.0			
N-Propylbenzene	DCBd 4	Ave	77601	187432	382952	800028	1977526	0.200	0.500	1.00	2.00	5.00
			3912771	9828513				10.0	25.0			
2-Chlorotoluene	DCBd 4	Ave	15892	37970	78695	161192	393659	0.200	0.500	1.00	2.00	5.00
			778879	2003642				10.0	25.0			
1,3,5-Trimethylbenzene	DCBd 4	Ave	53491	132101	272347	568474	1409010	0.200	0.500	1.00	2.00	5.00
			2827092	7202423				10.0	25.0			
4-Chlorotoluene	DCBd 4	Ave	15656	39263	78580	162913	401526	0.200	0.500	1.00	2.00	5.00
			787123	2033631				10.0	25.0			
tert-Butylbenzene	DCBd 4	Ave	12525	31722	59453	126709	310310	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.: 410-71043-1 Analy Batch No.: 207981

SDG No.: \_\_\_\_\_

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/21/2021 18:35 Calibration End Date: 12/21/2021 20:38 Calibration ID: 34118

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
			616202	1566954				10.0	25.0			
Pentachloroethane	DCBd 4	Ave	8661	21355	43643	94727	235687	0.200	0.500	1.00	2.00	5.00
			486850	1276842				10.0	25.0			
1,2,4-Trimethylbenzene	DCBd 4	Ave	55976	135793	281010	589871	1469221	0.200	0.500	1.00	2.00	5.00
			2893170	7360718				10.0	25.0			
sec-Butylbenzene	DCBd 4	Ave	66936	167867	342703	724037	1796194	0.200	0.500	1.00	2.00	5.00
			3607923	9099827				10.0	25.0			
1,3-Dichlorobenzene	DCBd 4	Ave	30539	74250	154126	315097	776252	0.200	0.500	1.00	2.00	5.00
			1547566	3982450				10.0	25.0			
p-Isopropyltoluene	DCBd 4	Ave	56692	143219	294643	627032	1569449	0.200	0.500	1.00	2.00	5.00
			3140739	7972041				10.0	25.0			
1,4-Dichlorobenzene	DCBd 4	Ave	30345	75222	154623	313492	764838	0.200	0.500	1.00	2.00	5.00
			1518236	3921799				10.0	25.0			
1,2,3-Trimethylbenzene	DCBd 4	Ave	25505	61284	124149	251990	623468	0.200	0.500	1.00	2.00	5.00
			1238154	3174178				10.0	25.0			
Benzyl chloride	DCBd 4	Ave	2433	6663	14564	32711	88124	0.200	0.500	1.00	2.00	5.00
			182114	478668				10.0	25.0			
n-Butylbenzene	DCBd 4	Ave	25909	66203	134662	294908	749639	0.200	0.500	1.00	2.00	5.00
			1531611	3915883				10.0	25.0			
1,2-Dichlorobenzene	DCBd 4	Ave	27300	69065	141208	289410	707336	0.200	0.500	1.00	2.00	5.00
			1387166	3542318				10.0	25.0			
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	1096	2991	6659	13493	36722	0.200	0.500	1.00	2.00	5.00
			73103	190079				10.0	25.0			
1,3,5-Trichlorobenzene	DCBd 4	Ave	21341	53184	111587	231980	591090	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.: 410-71043-1 Analy Batch No.: 207981

SDG No.: \_\_\_\_\_

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/21/2021 18:35 Calibration End Date: 12/21/2021 20:38 Calibration ID: 34118

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
			1207037	3101672				10.0	25.0			
1,2,4-Trichlorobenzene	DCBd 4	Ave	17918	44032	91516	200032	505998	0.200	0.500	1.00	2.00	5.00
			1036089	2674514				10.0	25.0			
Hexachlorobutadiene	DCBd 4	Ave	9946	23052	42150	89789	220860	0.200	0.500	1.00	2.00	5.00
			462896	1229688				10.0	25.0			
Naphthalene	DCBd 4	Ave	32196	76805	164513	340674	856656	0.200	0.500	1.00	2.00	5.00
			1725441	4289012				10.0	25.0			
1,2,3-Trichlorobenzene	DCBd 4	Ave	16050	41241	83806	177171	442199	0.200	0.500	1.00	2.00	5.00
			904137	2265510				10.0	25.0			
Dibromofluoromethane (Surr)	FB	Ave	595211	582526	592504	593759	605859	10.0	10.0	10.0	10.0	10.0
			596935	607539				10.0	10.0			
1,2-Dichloroethane-d4 (Surr)	FB	Ave	112008	109507	110227	111158	113381	10.0	10.0	10.0	10.0	10.0
			110289	111516				10.0	10.0			
Toluene-d8 (Surr)	CBZd 5	Ave	2418337	2384807	2413194	2414686	2438984	10.0	10.0	10.0	10.0	10.0
			2398760	2418799				10.0	10.0			
4-Bromofluorobenzene (Surr)	CBZd 5	Ave	948216	934012	935438	934039	940209	10.0	10.0	10.0	10.0	10.0
			914366	928950				10.0	10.0			

Curve Type Legend

Ave = Average ISTD  
Qua = Quadratic ISTD

FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
READBACK PERCENT ERROR

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-71043-1 Analy Batch No.: 207981

SDG No.: \_\_\_\_\_

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/21/2021 18:35 Calibration End Date: 12/21/2021 20:38 Calibration ID: 34118

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-207981/20	HD21I17.D
Level 2	IC 410-207981/19	HD21I16.D
Level 3	IC 410-207981/18	HD21I15.D
Level 4	IC 410-207981/17	HD21I14.D
Level 5	IC 410-207981/16	HD21I13.D
Level 6	ICIS 410-207981/15	HD21I12.D
Level 7	IC 410-207981/14	HD21I11.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	-0.9 0.1	-0.4	-1.1	4.1	-3.7	1.9	50 30	30	30	30	30	30
Chloromethane	11.7 -6.0	6.4	-1.8	0.3	-7.3	-3.3	50 30	30	30	30	30	30
1,3-Butadiene	10.9 -11.2	9.2	4.6	2.4	-7.3	-8.7	50 30	30	30	30	30	30
Vinyl chloride	3.8 -2.4	1.6	-0.2	1.4	-3.7	-0.5	50 30	30	30	30	30	30
Bromomethane	6.2 -2.5	1.1	-1.9	1.1	-3.5	-0.6	50 30	30	30	30	30	30
Chloroethane	5.3 -3.2	3.6	-2.6	2.1	-4.1	-1.1	50 30	30	30	30	30	30
Dichlorofluoromethane	5.0 -4.0	2.4	-0.1	2.2	-3.3	-2.2	50 30	30	30	30	30	30
Trichlorofluoromethane	6.2 -2.6	0.8	-1.7	2.1	-4.3	-0.6	50 30	30	30	30	30	30
Ethyl ether	-1.6 -0.2	-1.9	1.0	1.2	0.1	1.4	50 30	30	30	30	30	30
Freon 123a	4.0 -2.8	1.5	-0.2	1.0	-3.2	-0.4	50 30	30	30	30	30	30
Acrolein	-9.0 -9.3	1.6	5.3	18.1	-0.1	-6.6	50 30	30	30	30	30	30
1,1-Dichloroethene	6.0 -3.3	1.2	-1.1	1.6	-2.6	-1.9	50 30	30	30	30	30	30
Acetone	5.5 -17.2	18.6	4.8	9.0	-6.9	-13.7	50 30	30	30	30	30	30
Freon 113	0.3 -2.7	1.1	2.5	2.6	-3.0	-0.8	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.: 410-71043-1

Analy Batch No.: 207981

SDG No.:

Instrument ID: 19094

GC Column: R-624SilMS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 12/21/2021 18:35

Calibration End Date: 12/21/2021 20:38

Calibration ID: 34118

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	4.9 -2.5	-0.1	-0.8	1.2	-1.4	-1.3	50 30	30	30	30	30	30
Carbon disulfide	6.9 -2.3	0.8	-2.4	0.9	-2.8	-1.0	50 30	30	30	30	30	30
Methyl acetate	8.6 -14.5	17.6	1.7	3.9	-4.9	-12.4	50 30	30	30	30	30	30
Allyl chloride	5.7 -2.4	1.7	-1.6	0.4	-2.8	-1.1	50 30	30	30	30	30	30
Methylene Chloride	11.4 -5.3	2.1	1.5	-2.2	-3.9	-3.6	50 30	30	30	30	30	30
t-Butyl alcohol	-17.4 -7.0	3.4	3.3	11.8	-0.7	6.5	50 30	30	30	30	30	30
Acrylonitrile	-38.0 -3.2	2.4	10.0	21.1	6.8	0.8	50 30	30	30	30	30	30
Methyl tert-butyl ether	-1.1 -2.0	-1.7	2.4	2.5	-0.4	0.3	50 30	30	30	30	30	30
trans-1,2-Dichloroethene	5.8 -3.0	0.4	-0.8	1.4	-1.8	-2.0	50 30	30	30	30	30	30
n-Hexane	-0.5 0.6	-4.9	-0.5	2.9	-0.2	2.7	50 30	30	30	30	30	30
1,1-Dichloroethane	0.7 -1.1	-0.8	-0.3	1.2	0.0	0.4	50 30	30	30	30	30	30
di-Isopropyl ether	-2.1 -0.6	-0.7	1.6	1.6	-0.3	0.5	50 30	30	30	30	30	30
2-Chloro-1,3-butadiene	0.6 0.2	-1.3	-3.0	2.3	0.2	1.0	50 30	30	30	30	30	30
Ethyl t-butyl ether	0.6 -2.2	-0.3	0.9	2.9	-1.6	-0.4	50 30	30	30	30	30	30
2-Butanone (MEK)	-13.8 -5.7	2.4	6.2	17.2	-0.3	-6.1	50 30	30	30	30	30	30
cis-1,2-Dichloroethene	3.7 -2.1	-2.8	0.5	1.8	-0.9	-0.2	50 30	30	30	30	30	30
2,2-Dichloropropane	1.4 -1.6	1.3	-2.8	2.8	-1.7	0.6	50 30	30	30	30	30	30
Propionitrile	-20.0 -6.8	8.0	-4.4	16.5	5.8	1.0	50 30	30	30	30	30	30
Methacrylonitrile	-12.2 -8.8	9.2	1.7	19.3	-1.3	-7.9	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.: 410-71043-1

Analy Batch No.: 207981

SDG No.: \_\_\_\_\_

Instrument ID: 19094

GC Column: R-624SilMS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 12/21/2021 18:35

Calibration End Date: 12/21/2021 20:38

Calibration ID: 34118

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	2.0 -0.9	-1.7	1.4	-1.2	0.3	0.2	50 30	30	30	30	30	30
Tetrahydrofuran	-21.2 -7.4	8.6	8.3	18.7	-1.6	-5.4	50 30	30	30	30	30	30
Chloroform	4.0 -2.2	-0.3	-0.8	1.7	-1.2	-1.3	50 30	30	30	30	30	30
1,1,1-Trichloroethane	5.2 -2.6	0.5	-2.0	1.9	-2.1	-0.8	50 30	30	30	30	30	30
Cyclohexane	0.6 -2.3	-0.5	0.6	3.8	-2.0	-0.3	50 30	30	30	30	30	30
1,1-Dichloropropene	-2.8 -0.7	1.3	0.6	2.2	-1.1	0.4	50 30	30	30	30	30	30
Carbon tetrachloride	1.7 -0.2	-1.7	-1.3	2.2	-0.9	0.1	50 30	30	30	30	30	30
Isobutyl alcohol	6.5 -14.0	0.3	6.1	7.8	-2.9	-3.8	50 30	30	30	30	30	30
Benzene	5.2 -2.7	0.2	-0.2	1.1	-1.9	-1.6	50 30	30	30	30	30	30
1,2-Dichloroethane	7.3 -4.0	1.2	0.1	1.1	-2.8	-2.8	50 30	30	30	30	30	30
t-Amyl methyl ether	-1.6 -1.6	-2.4	1.3	3.1	0.0	1.1	50 30	30	30	30	30	30
n-Heptane	1.3 0.1	-4.7	-1.7	2.9	-0.9	3.0	50 30	30	30	30	30	30
n-Butanol	-23.0 -1.5	-13.6	4.0	10.5	11.2	12.4	50 30	30	30	30	30	30
Trichloroethene	2.2 -1.0	-0.4	-2.1	3.0	-1.2	-0.5	50 30	30	30	30	30	30
Methylcyclohexane	-4.7 0.2	-4.3	0.7	6.0	-0.8	2.8	50 30	30	30	30	30	30
1,2-Dichloropropane	2.1 -0.6	-1.5	0.0	0.8	-0.8	0.0	50 30	30	30	30	30	30
Methyl methacrylate	-21.9 -3.2	0.1	3.2	22.2	2.5	-3.0	50 30	30	30	30	30	30
1,4-Dioxane	-24.9 -24.8	-7.4	-1.4	8.6	-1.4	-0.1	50 30	30	30	30	30	30
Dibromomethane	2.1 -0.2	-2.2	0.2	1.8	-1.0	-0.7	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.: 410-71043-1 Analy Batch No.: 207981

SDG No.: \_\_\_\_\_

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/21/2021 18:35 Calibration End Date: 12/21/2021 20:38 Calibration ID: 34118

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	-2.6 3.9	-3.5	-3.7	0.8	1.9	3.2	50 30	30	30	30	30	30
2-Nitropropane	-12.2 -4.1	2.4	2.2	16.4	-0.7	-4.1	50 30	30	30	30	30	30
cis-1,3-Dichloropropene	-4.7 3.3	-2.7	-1.2	0.0	2.3	2.9	50 30	30	30	30	30	30
4-Methyl-2-pentanone (MIBK)	-14.8 -8.8	6.0	2.7	21.6	-0.3	-6.4	50 30	30	30	30	30	30
Toluene	3.9 -1.8	-0.2	-0.8	1.2	-1.3	-1.0	50 30	30	30	30	30	30
trans-1,3-Dichloropropene	-10.8 7.2	-8.0	0.2	2.6	3.1	5.8	50 30	30	30	30	30	30
Ethyl methacrylate	-13.1 8.0	-9.1	-0.6	2.9	4.5	7.4	50 30	30	30	30	30	30
1,1,2-Trichloroethane	-2.6 0.2	-2.9	1.3	1.2	1.2	1.6	50 30	30	30	30	30	30
Tetrachloroethene	0.3 -0.7	0.4	-0.8	2.9	-2.0	-0.1	50 30	30	30	30	30	30
1,3-Dichloropropane	-1.0 0.4	-1.4	0.9	0.7	-0.2	0.7	50 30	30	30	30	30	30
2-Hexanone	-13.8 -6.8	2.1	2.2	21.7	0.7	-6.1	50 30	30	30	30	30	30
Dibromochloromethane	-18.9 12.6	-8.3	-3.3	1.8	5.4	10.7	50 30	30	30	30	30	30
1,2-Dibromoethane (EDB)	-6.0 2.6	-5.9	2.0	1.8	2.8	2.7	50 30	30	30	30	30	30
1-Chlorohexane	7.8 -2.1	1.9	-2.0	-0.8	-3.6	-1.3	50 30	30	30	30	30	30
Chlorobenzene	2.5 -0.9	-2.2	0.5	1.1	-0.8	-0.1	50 30	30	30	30	30	30
1,1,1,2-Tetrachloroethane	-5.7 4.2	-4.4	-1.8	2.0	2.1	3.6	50 30	30	30	30	30	30
Ethylbenzene	0.2 -0.5	-0.9	-0.8	1.7	-0.6	0.8	50 30	30	30	30	30	30
m&p-Xylene	0.8 0.6	-1.7	-1.5	2.0	-0.8	0.5	50 30	30	30	30	30	30
o-Xylene	-2.6 1.6	-2.9	-0.2	1.7	0.9	1.5	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.: 410-71043-1

Analy Batch No.: 207981

SDG No.: \_\_\_\_\_

Instrument ID: 19094

GC Column: R-624SilMS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 12/21/2021 18:35

Calibration End Date: 12/21/2021 20:38

Calibration ID: 34118

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	-7.8 5.3	-5.2	-1.7	2.6	2.5	4.4	50 30	30	30	30	30	30
Bromoform	++++ 21.2	-26.5	-18.4	-3.2	7.7	19.1	30	50	30	30	30	30
Isopropylbenzene	-1.4 0.9	-2.9	-0.6	1.7	0.5	1.8	50 30	30	30	30	30	30
1,1,2,2-Tetrachloroethane	-5.9 3.7	-6.3	0.9	1.7	2.4	3.5	50 30	30	30	30	30	30
Bromobenzene	-4.4 1.0	-1.7	-0.8	2.7	1.9	1.2	50 30	30	30	30	30	30
trans-1,4-Dichloro-2-butene	-26.1 3.8	-6.7	0.4	21.6	5.4	1.6	50 30	30	30	30	30	30
1,2,3-Trichloropropane	6.3 -1.3	-4.3	0.8	-0.2	-1.9	0.6	50 30	30	30	30	30	30
N-Propylbenzene	-2.6 1.5	-4.2	-2.2	2.8	1.9	2.8	50 30	30	30	30	30	30
2-Chlorotoluene	-1.4 2.3	-4.0	-0.6	2.4	0.3	1.1	50 30	30	30	30	30	30
1,3,5-Trimethylbenzene	-5.8 4.5	-5.1	-2.3	2.6	1.9	4.3	50 30	30	30	30	30	30
4-Chlorotoluene	-3.9 2.8	-1.8	-1.8	2.4	1.2	1.1	50 30	30	30	30	30	30
tert-Butylbenzene	-1.6 1.4	1.6	-4.9	2.0	0.1	1.4	50 30	30	30	30	30	30
Pentachloroethane	-8.6 10.9	-8.1	-6.2	2.4	2.1	7.5	50 30	30	30	30	30	30
1,2,4-Trimethylbenzene	-4.5 3.3	-5.6	-2.4	3.0	2.9	3.3	50 30	30	30	30	30	30
sec-Butylbenzene	-6.9 4.2	-4.9	-3.0	3.1	2.5	5.0	50 30	30	30	30	30	30
1,3-Dichlorobenzene	-3.5 3.6	-4.4	-0.8	2.0	0.7	2.4	50 30	30	30	30	30	30
p-Isopropyltoluene	-8.8 5.6	-6.1	-3.5	3.3	3.7	5.8	50 30	30	30	30	30	30
1,4-Dichlorobenzene	-3.5 2.7	-2.5	0.1	2.1	-0.1	1.1	50 30	30	30	30	30	30
1,2,3-Trimethylbenzene	-0.4 2.1	-2.4	-1.3	0.8	0.0	1.2	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.: 410-71043-1 Analy Batch No.: 207981

SDG No.: \_\_\_\_\_

Instrument ID: 19094 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/21/2021 18:35 Calibration End Date: 12/21/2021 20:38 Calibration ID: 34118

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	-25.4 20.8	-16.8	-9.1	2.7	10.9	16.9	50 30	30	30	30	30	30
n-Butylbenzene	-11.8 9.8	-8.1	-6.7	2.9	4.8	9.2	50 30	30	30	30	30	30
1,2-Dichlorobenzene	-5.0 1.5	-2.0	0.1	3.2	1.1	1.1	50 30	30	30	30	30	30
1,2-Dibromo-3-Chloropropane	-20.5 13.4	-11.6	-1.7	0.2	9.3	10.9	50 30	30	30	30	30	30
1,3,5-Trichlorobenzene	-9.2 8.6	-7.8	-3.4	1.1	3.2	7.5	50 30	30	30	30	30	30
1,2,4-Trichlorobenzene	-10.1 10.5	-9.9	-6.5	2.8	4.3	8.9	50 30	30	30	30	30	30
Hexachlorobutadiene	5.5 7.4	-0.4	-9.0	-2.5	-3.8	2.8	50 30	30	30	30	30	30
Naphthalene	-5.5 3.6	-8.1	-1.7	2.4	3.2	6.0	50 30	30	30	30	30	30
1,2,3-Trichlorobenzene	-9.3 5.5	-5.0	-3.5	2.6	2.7	7.0	50 30	30	30	30	30	30
Dibromofluoromethane (Surr)	0.3 0.3	-1.1	-0.7	-0.4	0.5	1.0	50 30	30	30	30	30	30
1,2-Dichloroethane-d4 (Surr)	1.3 -1.2	-0.3	-0.9	0.1	0.9	0.1	50 30	30	30	30	30	30
Toluene-d8 (Surr)	-1.2 0.1	-1.2	0.6	0.1	0.5	1.2	50 30	30	30	30	30	30
4-Bromofluorobenzene (Surr)	0.1 -0.7	0.0	0.8	0.1	0.1	-0.3	50 30	30	30	30	30	30



Eurofins Lancaster Laboratories Env, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I11.D  
 Lims ID: IC std7 25  
 Client ID:  
 Sample Type: IC Calib Level: 7  
 Inject. Date: 21-Dec-2021 18:35:30 ALS Bottle#: 13 Worklist Smp#: 14  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0046912-014  
 Misc. Info.: IC STD7 25  
 Operator ID: jml01693 Instrument ID: 19094  
 Sublist: chrom-MSV\_19094\_25mL\*sub1  
 Method: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\MSV\_19094\_25mL.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 27-Dec-2021 09:48:05 Calib Date: 21-Dec-2021 20:38:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1653

First Level Reviewer: campbellme

Date: 21-Dec-2021 20:40:03

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
3 Dichlorodifluoromethane	85	1.947	1.934	0.013	99	1858720	25.0	25.0	
6 Chloromethane	50	2.148	2.130	0.018	99	2148982	25.0	23.5	
8 Butadiene	39	2.264	2.251	0.013	91	2056826	25.0	22.2	
7 Vinyl chloride	62	2.264	2.251	0.013	94	2221242	25.0	24.4	
9 Bromomethane	94	2.587	2.575	0.012	90	1489062	25.0	24.4	
10 Chloroethane	64	2.678	2.660	0.018	100	1256183	25.0	24.2	
11 Dichlorofluoromethane	67	2.910	2.898	0.012	97	2875555	25.0	24.0	
13 Trichlorofluoromethane	101	2.983	2.971	0.012	98	2782514	25.0	24.4	
15 Ethyl ether	59	3.215	3.196	0.019	92	1005862	25.0	24.9	
16 1,2-Dichloro-1,1,2-trifluoroetha	67	3.318	3.306	0.012	92	2027044	25.0	24.3	
17 Acrolein	56	3.397	3.385	0.012	100	7973370	1252.7	1136.3	
18 1,1-Dichloroethene	96	3.538	3.526	0.012	99	1484809	25.0	24.2	
19 Acetone	43	3.550	3.544	0.006	100	1570952	250.0	206.9	
20 112TCTFE	101	3.580	3.574	0.006	93	1492050	25.0	24.3	
21 Isopropyl alcohol	45	3.702	3.715	-0.013	96	441182	500.0	475.5	M
22 Iodomethane	142	3.733	3.727	0.006	99	2618858	25.0	24.4	
23 Ethyl bromide	108	3.763	3.751	0.012	98	1280161	25.0	24.5	
24 Carbon disulfide	76	3.843	3.830	0.013	99	3676447	25.0	24.4	
26 Methyl acetate	43	3.964	3.977	-0.013	97	555803	25.0	21.4	
27 3-Chloro-1-propene	41	4.013	4.007	0.006	92	2319056	25.0	24.4	
29 Methylene Chloride	84	4.202	4.196	0.006	92	1545421	25.0	23.7	
* 28 t-Butyl alcohol-d10 (IS)	65	4.233	4.208	0.025	87	83778	50.0	50.0	
30 2-Methyl-2-propanol	59	4.342	4.306	0.036	100	823875	500.0	465.2	
31 Acrylonitrile	53	4.531	4.525	0.006	99	619672	62.5	60.5	
32 Methyl tert-butyl ether	73	4.611	4.599	0.012	95	3277382	25.0	24.5	
33 trans-1,2-Dichloroethene	96	4.623	4.611	0.012	99	1599513	25.0	24.2	
34 Hexane	57	5.037	5.019	0.018	92	2190215	25.0	25.1	
35 1,1-Dichloroethane	63	5.275	5.263	0.012	96	3002190	25.0	24.7	
37 Isopropyl ether	45	5.336	5.318	0.018	95	4968797	25.0	24.9	
38 2-Chloro-1,3-butadiene	53	5.385	5.373	0.012	91	2503477	25.0	25.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 Tert-butyl ethyl ether	59	5.867	5.854	0.013	98	4172105	25.0	24.5	
41 2-Butanone (MEK)	43	6.056	6.056	0.000	100	3280148	250.0	235.8	
42 cis-1,2-Dichloroethene	96	6.104	6.086	0.018	82	1759404	25.0	24.5	
43 2,2-Dichloropropane	77	6.123	6.110	0.013	87	2455468	25.0	24.6	
45 Propionitrile	54	6.141	6.153	-0.012	99	1661006	500.0	465.8	
S 40 1,2-Dichloroethene, Total	100				0			48.7	
47 Methacrylonitrile	67	6.360	6.354	0.006	92	3612633	250.0	227.9	
48 Chlorobromomethane	128	6.433	6.421	0.012	93	746315	25.0	24.8	
49 Tetrahydrofuran	71	6.440	6.434	0.006	82	447934	125.0	115.8	
50 Chloroform	83	6.580	6.568	0.012	93	2892883	25.0	24.4	
\$ 51 Dibromofluoromethane (Surr)	113	6.793	6.781	0.012	94	607539	10.0	10.0	
52 1,1,1-Trichloroethane	97	6.818	6.799	0.019	98	2652742	25.0	24.4	
53 Cyclohexane	56	6.915	6.903	0.012	90	2859465	25.0	24.4	
55 1,1-Dichloropropene	75	7.019	7.007	0.012	98	2393125	25.0	24.8	
56 Carbon tetrachloride	117	7.025	7.025	0.000	97	2370939	25.0	25.0	
57 Isobutyl alcohol	41	7.153	7.159	-0.006	94	801789	1250.0	1075.5	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.244	7.238	0.006	97	111516	10.0	9.88	
59 Benzene	78	7.281	7.269	0.012	96	6732234	25.0	24.3	
60 1,2-Dichloroethane	62	7.354	7.342	0.012	97	1655868	25.0	24.0	
62 Tert-amyl methyl ether	73	7.470	7.464	0.006	98	3518484	25.0	24.6	
* 65 Fluorobenzene (IS)	96	7.683	7.677	0.006	98	2294975	10.0	10.0	
64 n-Heptane	43	7.695	7.689	0.006	91	2299133	25.0	25.0	
66 n-Butanol	56	8.031	8.043	-0.012	88	1071008	2187.5	2154.9	
67 Trichloroethene	95	8.159	8.153	0.006	98	1800849	25.0	24.7	
68 Methylcyclohexane	83	8.476	8.470	0.006	92	3089587	25.0	25.1	
70 1,2-Dichloropropane	63	8.488	8.482	0.006	86	1729695	25.0	24.8	
69 2-ethoxy-2-methyl butane	87	8.500	8.494	0.006	93	1851645	25.0	24.7	
71 Methyl methacrylate	69	8.567	8.567	0.000	91	696974	25.0	24.2	
72 1,4-Dioxane	88	8.586	8.586	0.000	31	87923	1250.0	939.7	
73 Dibromomethane	93	8.598	8.592	0.006	95	773773	25.0	24.9	
75 Dichlorobromomethane	83	8.829	8.829	0.000	100	2024833	25.0	26.0	
76 2-Nitropropane	41	9.098	9.092	0.006	98	939452	125.0	119.9	
79 1-Bromo-2-chloroethane	63	9.226	9.226	0.000	99	1533354	25.0	25.0	
80 cis-1,3-Dichloropropene	75	9.378	9.378	0.000	96	2544821	25.0	25.8	
81 4-Methyl-2-pentanone (MIBK)	43	9.543	9.543	0.000	96	8633587	250.0	228.0	
\$ 82 Toluene-d8 (Surr)	98	9.683	9.683	0.000	93	2418799	10.0	10.0	
83 Toluene	92	9.762	9.762	0.000	98	4269788	25.0	24.6	
85 trans-1,3-Dichloropropene	75	10.012	10.012	0.000	93	2008911	25.0	26.8	
S 84 1,3-Dichloropropene, Total	100				0			52.6	
86 Ethyl methacrylate	69	10.073	10.073	0.000	89	1520376	25.0	27.0	
87 1,1,2-Trichloroethane	97	10.219	10.219	0.000	91	1075431	25.0	25.1	
88 Tetrachloroethene	166	10.311	10.305	0.006	98	2055331	25.0	24.8	
89 1,3-Dichloropropane	76	10.378	10.378	0.000	90	1902232	25.0	25.1	
91 2-Hexanone	43	10.427	10.427	0.000	97	5972833	250.0	233.0	
93 Chlorodibromomethane	129	10.597	10.591	0.006	90	1386568	25.0	28.1	
94 Ethylene Dibromide	107	10.707	10.707	0.000	98	1057209	25.0	25.7	
* 97 Chlorobenzene-d5 (IS)	117	11.134	11.134	0.000	86	1860951	10.0	10.0	
96 1-Chlorohexane	91	11.140	11.140	0.000	97	2530908	25.0	24.5	
98 Chlorobenzene	112	11.158	11.158	0.000	95	4738520	25.0	24.8	
99 1,1,1,2-Tetrachloroethane	131	11.244	11.244	0.000	96	1683172	25.0	26.0	
100 Ethylbenzene	91	11.244	11.244	0.000	98	8322344	25.0	24.9	
S 95 Xylenes, Total	106				0			75.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
101 m-Xylene & p-Xylene	106	11.359	11.359	0.000	98	6535116	50.0	50.3	
102 o-Xylene	106	11.689	11.689	0.000	96	3231659	25.0	25.4	
103 Styrene	104	11.701	11.701	0.000	94	5282244	25.0	26.3	
104 Bromoform	173	11.859	11.859	0.000	97	776197	25.0	30.3	
105 Isopropylbenzene	105	11.987	11.987	0.000	96	8443028	25.0	25.2	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.127	12.128	-0.001	91	928950	10.0	9.93	
109 1,1,2,2-Tetrachloroethane	83	12.225	12.225	0.000	92	1320478	25.0	25.9	
111 Bromobenzene	156	12.243	12.243	0.000	96	1919678	25.0	25.3	
110 trans-1,4-Dichloro-2-butene	53	12.249	12.249	0.000	92	3104518	250.0	259.5	
112 1,2,3-Trichloropropane	110	12.274	12.274	0.000	82	338416	25.0	24.7	
113 N-Propylbenzene	91	12.310	12.310	0.000	99	9828513	25.0	25.4	
114 2-Chlorotoluene	126	12.390	12.390	0.000	97	2003642	25.0	25.6	
115 1,3,5-Trimethylbenzene	105	12.445	12.445	-0.001	94	7202423	25.0	26.1	
116 4-Chlorotoluene	126	12.481	12.481	0.000	97	2033631	25.0	25.7	
118 tert-Butylbenzene	134	12.688	12.688	0.000	93	1566954	25.0	25.3	
119 Pentachloroethane	167	12.719	12.719	0.000	95	1276842	25.0	27.7	
120 1,2,4-Trimethylbenzene	105	12.731	12.731	0.000	97	7360718	25.0	25.8	
121 sec-Butylbenzene	105	12.853	12.853	0.000	94	9099827	25.0	26.0	a
122 1,3-Dichlorobenzene	146	12.951	12.951	-0.001	98	3982450	25.0	25.9	
123 4-Isopropyltoluene	119	12.957	12.957	0.000	97	7972041	25.0	26.4	
* 124 1,4-Dichlorobenzene-d4	152	13.005	13.005	0.000	94	1050754	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.024	13.024	0.000	94	3921799	25.0	25.7	
126 1,2,3-Trimethylbenzene	120	13.030	13.030	0.000	98	3174178	25.0	25.5	
127 Benzyl chloride	126	13.097	13.097	0.000	98	478668	25.0	30.2	
129 p-Diethylbenzene	119	13.158	13.158	0.000	92	4708165	25.0	26.8	
130 n-Butylbenzene	92	13.249	13.249	0.000	98	3915883	25.0	27.4	
131 1,2-Dichlorobenzene	146	13.280	13.280	0.000	99	3542318	25.0	25.4	
134 1,2-Dibromo-3-Chloropropane	155	13.822	13.822	0.000	89	190079	25.0	28.4	
135 1,3,5-Trichlorobenzene	180	13.944	13.944	0.000	98	3101672	25.0	27.2	
136 1,2,4-Trichlorobenzene	180	14.365	14.365	0.000	94	2674514	25.0	27.6	
137 Hexachlorobutadiene	225	14.450	14.450	0.000	96	1229688	25.0	26.8	
138 Naphthalene	128	14.548	14.548	0.000	97	4289012	25.0	25.9	
139 1,2,3-Trichlorobenzene	180	14.688	14.688	0.000	96	2265510	25.0	26.4	
140 2-Methylnaphthalene	142	15.304	15.304	0.000	92	2540057	25.0	27.2	

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

### Reagents:

MSV\_LL\_#1\_826\_00027

Amount Added: 25.00

Units: uL

MSV\_LL\_GAS826\_00056

Amount Added: 25.00

Units: uL

MSV\_LL\_#2\_826\_00031

Amount Added: 25.00

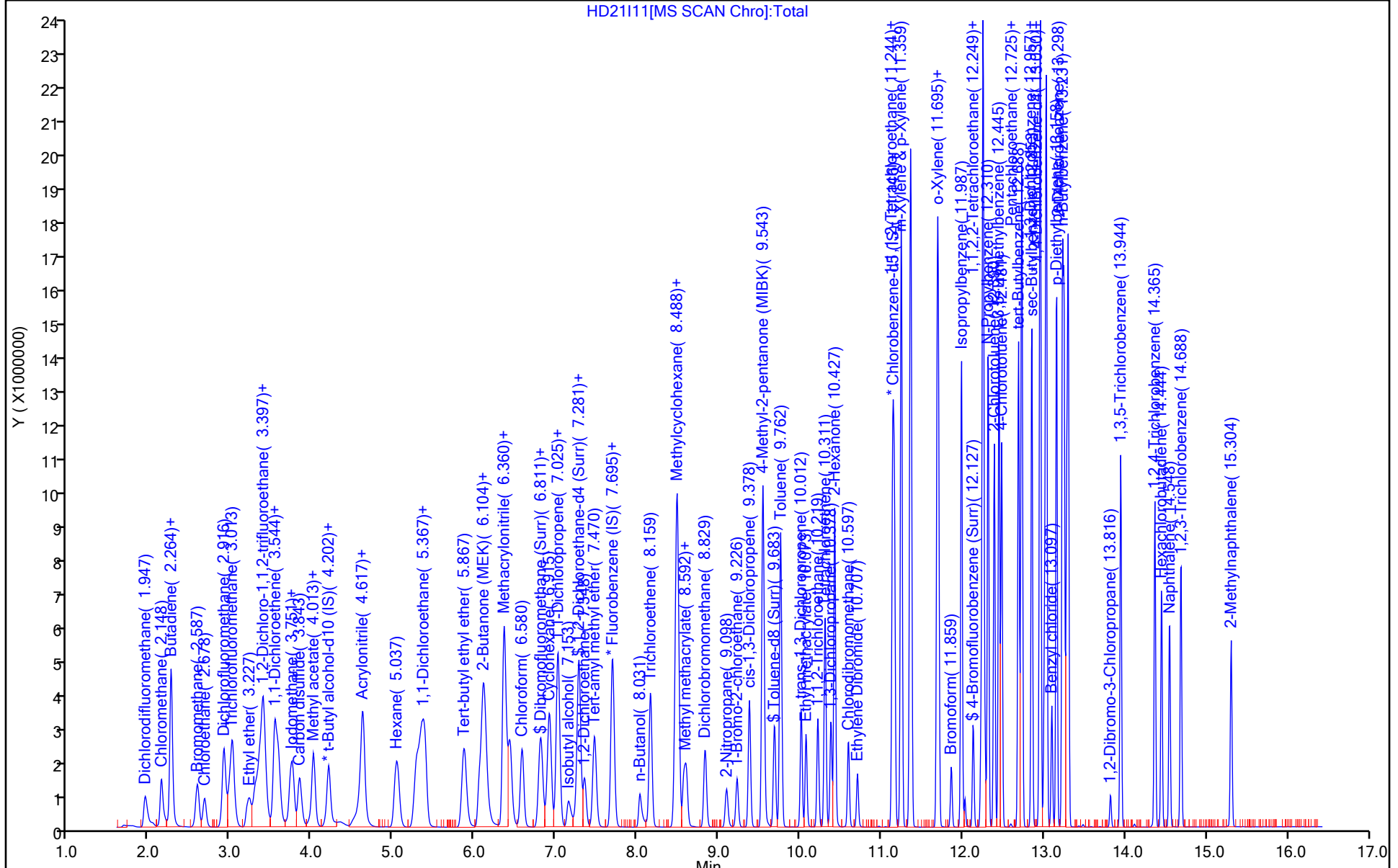
Units: uL

MSV\_LLcentISS\_00002

Amount Added: 5.00

Units: uL

Run Reagent



Eurofins Lancaster Laboratories Env, LLC

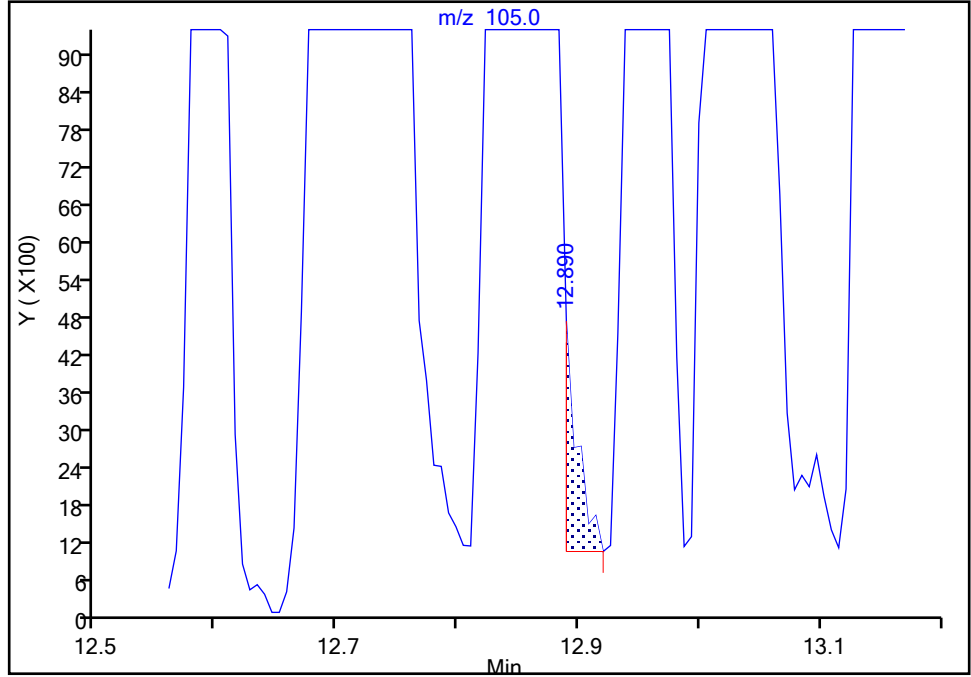
Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21111.D  
Injection Date: 21-Dec-2021 18:35:30 Instrument ID: 19094  
Lims ID: IC std7 25  
Client ID:  
Operator ID: jml01693 ALS Bottle#: 13 Worklist Smp#: 14  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: MSV\_19094\_25mL Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column ( 0.25mm ID) Detector: MS Quad

121 sec-Butylbenzene, CAS: 135-98-8

Signal: 1

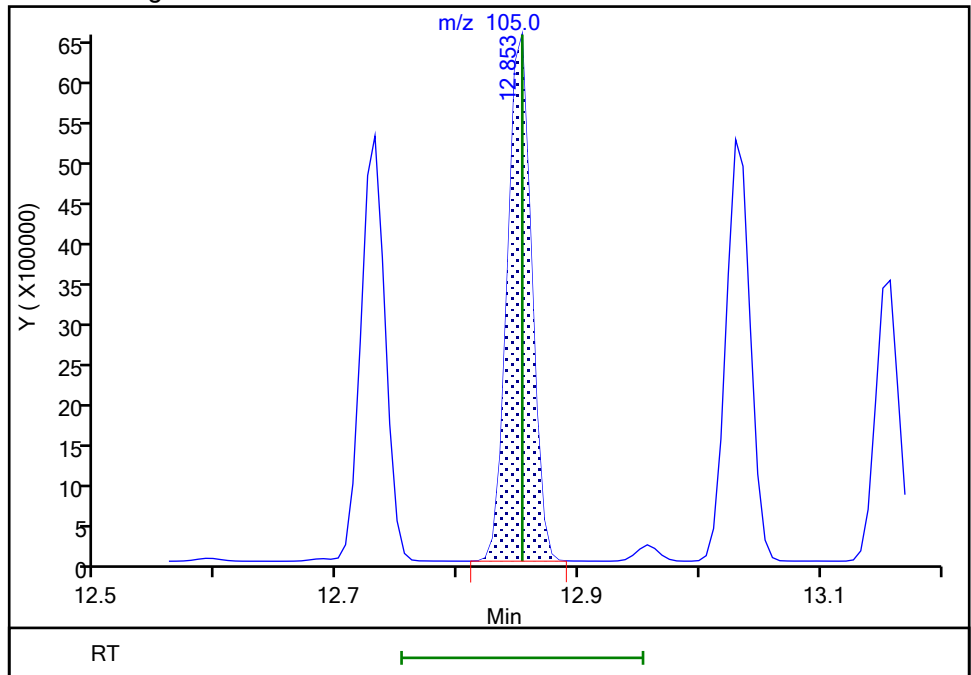
RT: 12.89  
Area: 2955  
Amount: 0.010090  
Amount Units: ug/l

Processing Integration Results



RT: 12.85  
Area: 9099827  
Amount: 26.038901  
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 21-Dec-2021 20:39:55  
Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

Eurofins Lancaster Laboratories Env, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21112.D  
 Lims ID: ICIS 10  
 Client ID:  
 Sample Type: ICIS Calib Level: 6  
 Inject. Date: 21-Dec-2021 18:56:30 ALS Bottle#: 14 Worklist Smp#: 15  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0046912-015  
 Misc. Info.: ICIS 10  
 Operator ID: jml01693 Instrument ID: 19094  
 Sublist: chrom-MSV\_19094\_25mL\*sub1  
 Method: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\MSV\_19094\_25mL.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 27-Dec-2021 09:48:11 Calib Date: 21-Dec-2021 20:38:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21117.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1653

First Level Reviewer: campbellme

Date: 21-Dec-2021 20:40:51

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
3 Dichlorodifluoromethane	85	1.946	1.946	0.000	99	738871	10.0	10.2	
6 Chloromethane	50	2.148	2.148	0.000	99	862586	10.0	9.67	
8 Butadiene	39	2.263	2.263	0.000	91	825527	10.0	9.13	
7 Vinyl chloride	62	2.263	2.263	0.000	95	884597	10.0	9.95	
9 Bromomethane	94	2.587	2.587	0.000	90	592335	10.0	9.94	
10 Chloroethane	64	2.672	2.672	0.000	100	500957	10.0	9.89	
11 Dichlorofluoromethane	67	2.910	2.910	0.000	97	1143585	10.0	9.78	
13 Trichlorofluoromethane	101	2.989	2.989	0.000	98	1108083	10.0	9.94	
15 Ethyl ether	59	3.221	3.221	0.000	92	398961	10.0	10.1	
16 1,2-Dichloro-1,1,2-trifluoroethane	67	3.318	3.318	0.000	94	810884	10.0	9.96	
17 Acrolein	56	3.397	3.397	0.000	98	3231090	501.1	467.8	
18 1,1-Dichloroethene	96	3.538	3.538	0.000	98	587970	10.0	9.81	
19 Acetone	43	3.562	3.562	0.000	99	645083	100.0	86.3	
20 112TCTFE	101	3.586	3.586	0.000	93	593861	10.0	9.92	
21 Isopropyl alcohol	45	3.733	3.733	0.000	63	223618	200.0	247.0	M
22 Iodomethane	142	3.733	3.733	0.000	99	1034920	10.0	9.87	
23 Ethyl bromide	108	3.763	3.763	0.000	99	500298	10.0	9.82	
24 Carbon disulfide	76	3.842	3.842	0.000	99	1453508	10.0	9.90	
26 Methyl acetate	43	3.970	3.970	0.000	96	224327	10.0	8.76	
27 3-Chloro-1-propene	41	4.013	4.013	0.000	92	917879	10.0	9.89	
29 Methylene Chloride	84	4.202	4.202	0.000	92	614246	10.0	9.64	
* 28 t-Butyl alcohol-d10 (IS)	65	4.196	4.196	0.000	42	82456	50.0	50.0	
30 2-Methyl-2-propanol	59	4.312	4.312	0.000	100	371208	200.0	213.0	
31 Acrylonitrile	53	4.531	4.531	0.000	99	253952	25.0	25.2	
32 Methyl tert-butyl ether	73	4.604	4.604	0.000	95	1309035	10.0	10.0	
33 trans-1,2-Dichloroethene	96	4.623	4.623	0.000	98	630749	10.0	9.80	
34 Hexane	57	5.031	5.031	0.000	92	872637	10.0	10.3	
35 1,1-Dichloroethane	63	5.275	5.275	0.000	96	1190433	10.0	10.0	
37 Isopropyl ether	45	5.336	5.336	0.000	96	1960042	10.0	10.0	
38 2-Chloro-1,3-butadiene	53	5.385	5.385	0.000	91	984754	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
39 Tert-butyl ethyl ether	59	5.866	5.866	0.000	98	1658145	10.0	9.96	
41 2-Butanone (MEK)	43	6.062	6.062	0.000	100	1285148	100.0	93.9	
42 cis-1,2-Dichloroethene	96	6.098	6.098	0.000	83	699783	10.0	9.98	
43 2,2-Dichloropropane	77	6.122	6.122	0.000	87	979434	10.0	10.1	
45 Propionitrile	54	6.147	6.147	0.000	99	708613	200.0	201.9	
47 Methacrylonitrile	67	6.360	6.360	0.000	92	1437091	100.0	92.1	
48 Chlorobromomethane	128	6.433	6.433	0.000	94	294528	10.0	10.0	
49 Tetrahydrofuran	71	6.439	6.439	0.000	88	180085	50.0	47.3	
50 Chloroform	83	6.580	6.580	0.000	93	1140033	10.0	9.87	
\$ 51 Dibromofluoromethane (Surr)	113	6.793	6.793	0.000	94	596935	10.0	10.1	
52 1,1,1-Trichloroethane	97	6.811	6.811	0.000	98	1054893	10.0	9.92	
53 Cyclohexane	56	6.915	6.915	0.000	90	1139086	10.0	9.97	
55 1,1-Dichloropropene	75	7.019	7.019	0.000	97	944395	10.0	10.0	
56 Carbon tetrachloride	117	7.025	7.025	0.000	95	928355	10.0	10.0	
57 Isobutyl alcohol	41	7.159	7.159	0.000	95	352817	500.0	480.8	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.250	7.250	0.000	96	110289	10.0	10.0	
59 Benzene	78	7.281	7.281	0.000	97	2655673	10.0	9.84	
60 1,2-Dichloroethane	62	7.348	7.348	0.000	97	654180	10.0	9.72	
62 Tert-amyl methyl ether	73	7.470	7.470	0.000	99	1411151	10.0	10.1	
* 65 Fluorobenzene (IS)	96	7.683	7.683	0.000	99	2239692	10.0	10.0	
64 n-Heptane	43	7.695	7.695	0.000	91	923255	10.0	10.3	
66 n-Butanol	56	8.037	8.037	0.000	89	481038	875.0	983.4	
67 Trichloroethene	95	8.159	8.159	0.000	98	706963	10.0	9.95	
68 Methylcyclohexane	83	8.470	8.470	0.000	93	1236558	10.0	10.3	
70 1,2-Dichloropropane	63	8.488	8.488	0.000	86	678994	10.0	10.0	
69 2-ethoxy-2-methyl butane	87	8.500	8.500	0.000	91	745052	10.0	10.2	
71 Methyl methacrylate	69	8.573	8.573	0.000	90	275158	10.0	9.70	
72 1,4-Dioxane	88	8.585	8.585	0.000	76	61919	500.0	499.5	M
73 Dibromomethane	93	8.598	8.598	0.000	95	300660	10.0	9.93	
75 Dichlorobromomethane	83	8.829	8.829	0.000	99	785264	10.0	10.3	
76 2-Nitropropane	41	9.098	9.098	0.000	99	369753	50.0	47.9	
79 1-Bromo-2-chloroethane	63	9.226	9.226	0.000	98	597715	10.0	9.97	
80 cis-1,3-Dichloropropene	75	9.378	9.378	0.000	96	989578	10.0	10.3	
81 4-Methyl-2-pentanone (MIBK)	43	9.543	9.543	0.000	97	3490612	100.0	93.6	
\$ 82 Toluene-d8 (Surr)	98	9.683	9.683	0.000	93	2398760	10.0	10.1	
83 Toluene	92	9.762	9.762	0.000	98	1687285	10.0	9.90	
85 trans-1,3-Dichloropropene	75	10.012	10.012	0.000	93	777801	10.0	10.6	
86 Ethyl methacrylate	69	10.073	10.073	0.000	89	593545	10.0	10.7	
87 1,1,2-Trichloroethane	97	10.219	10.219	0.000	90	427578	10.0	10.2	
88 Tetrachloroethene	166	10.311	10.311	0.000	98	811016	10.0	9.99	
89 1,3-Dichloropropane	76	10.378	10.378	0.000	90	748993	10.0	10.1	
91 2-Hexanone	43	10.427	10.427	0.000	97	2369316	100.0	93.9	
93 Chlorodibromomethane	129	10.597	10.597	0.000	90	534867	10.0	11.1	
94 Ethylene Dibromide	107	10.707	10.707	0.000	99	415330	10.0	10.3	
* 97 Chlorobenzene-d5 (IS)	117	11.134	11.134	0.000	86	1825218	10.0	10.0	
96 1-Chlorohexane	91	11.140	11.140	0.000	97	1001384	10.0	9.87	
98 Chlorobenzene	112	11.158	11.158	0.000	96	1873047	10.0	9.99	
99 1,1,1,2-Tetrachloroethane	131	11.243	11.243	0.000	96	656784	10.0	10.4	
100 Ethylbenzene	91	11.243	11.243	0.000	98	3304919	10.0	10.1	
101 m-Xylene & p-Xylene	106	11.359	11.359	0.000	98	2561513	20.0	20.1	
102 o-Xylene	106	11.688	11.688	0.000	96	1265812	10.0	10.1	
103 Styrene	104	11.701	11.701	0.000	94	2055330	10.0	10.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 Bromoform	173	11.859	11.859	0.000	97	299372	10.0	11.9	
105 Isopropylbenzene	105	11.987	11.987	0.000	96	3344052	10.0	10.2	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.127	12.127	0.000	92	914366	10.0	9.97	
109 1,1,2,2-Tetrachloroethane	83	12.225	12.225	0.000	93	518211	10.0	10.3	
111 Bromobenzene	156	12.243	12.243	0.000	95	756618	10.0	10.1	
110 trans-1,4-Dichloro-2-butene	53	12.249	12.249	0.000	92	1196041	100.0	101.6	
112 1,2,3-Trichloropropane	110	12.274	12.274	0.000	83	135635	10.0	10.1	
113 N-Propylbenzene	91	12.310	12.310	0.000	99	3912771	10.0	10.3	
114 2-Chlorotoluene	126	12.390	12.390	0.000	97	778879	10.0	10.1	
115 1,3,5-Trimethylbenzene	105	12.444	12.444	0.000	94	2827092	10.0	10.4	
116 4-Chlorotoluene	126	12.481	12.481	0.000	97	787123	10.0	10.1	
118 tert-Butylbenzene	134	12.688	12.688	0.000	93	616202	10.0	10.1	
119 Pentachloroethane	167	12.719	12.719	0.000	94	486850	10.0	10.8	
120 1,2,4-Trimethylbenzene	105	12.731	12.731	0.000	97	2893170	10.0	10.3	
121 sec-Butylbenzene	105	12.853	12.853	0.000	94	3607923	10.0	10.5	
122 1,3-Dichlorobenzene	146	12.950	12.950	0.000	98	1547566	10.0	10.2	
123 4-Isopropyltoluene	119	12.957	12.957	0.000	97	3140739	10.0	10.6	
* 124 1,4-Dichlorobenzene-d4	152	13.005	13.005	0.000	94	1033132	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.024	13.024	0.000	94	1518236	10.0	10.1	
126 1,2,3-Trimethylbenzene	120	13.030	13.030	0.000	98	1238154	10.0	10.1	
127 Benzyl chloride	126	13.097	13.097	0.000	98	182114	10.0	11.7	
129 p-Diethylbenzene	119	13.158	13.158	0.000	92	1832402	10.0	10.6	
130 n-Butylbenzene	92	13.249	13.249	0.000	98	1531611	10.0	10.9	
131 1,2-Dichlorobenzene	146	13.280	13.280	0.000	99	1387166	10.0	10.1	
134 1,2-Dibromo-3-Chloropropane	155	13.822	13.822	0.000	94	73103	10.0	11.1	
135 1,3,5-Trichlorobenzene	180	13.944	13.944	0.000	98	1207037	10.0	10.7	
136 1,2,4-Trichlorobenzene	180	14.365	14.365	0.000	94	1036089	10.0	10.9	
137 Hexachlorobutadiene	225	14.444	14.444	0.000	96	462896	10.0	10.3	
138 Naphthalene	128	14.548	14.548	0.000	97	1725441	10.0	10.6	
139 1,2,3-Trichlorobenzene	180	14.688	14.688	0.000	96	904137	10.0	10.7	
140 2-Methylnaphthalene	142	15.304	15.304	0.000	92	1080729	10.0	11.7	

**QC Flag Legend**

Processing Flags

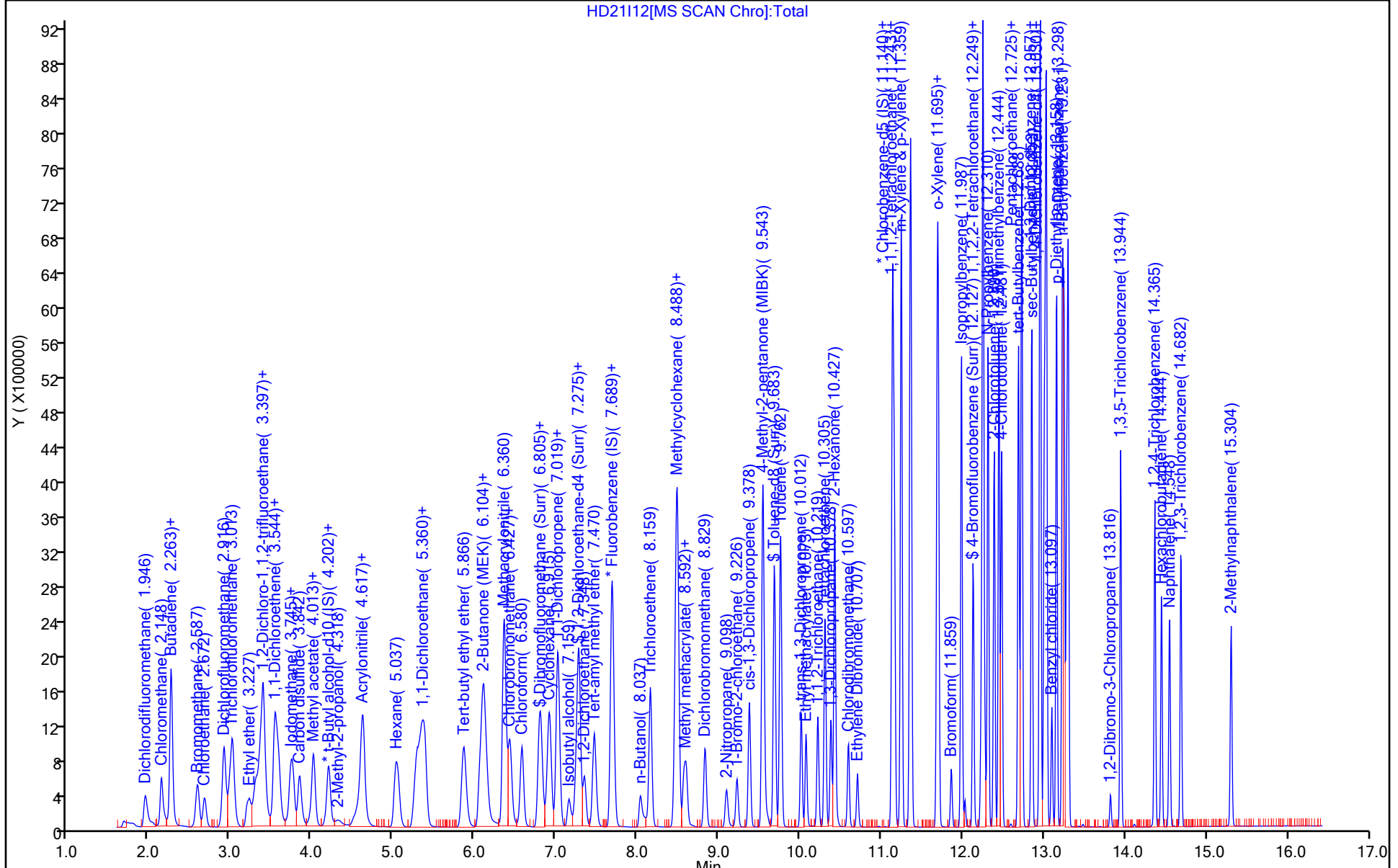
Review Flags

M - Manually Integrated

**Reagents:**

MSV_LL_#1_826_00027	Amount Added: 10.00	Units: uL	
MSV_LL_GAS826_00056	Amount Added: 10.00	Units: uL	
MSV_LL_#2_826_00031	Amount Added: 10.00	Units: uL	
MSV_LLcentISS_00002	Amount Added: 5.00	Units: uL	Run Reagent





HD21112[MS SCAN Chrom]:Total

Eurofins Lancaster Laboratories Env, LLC

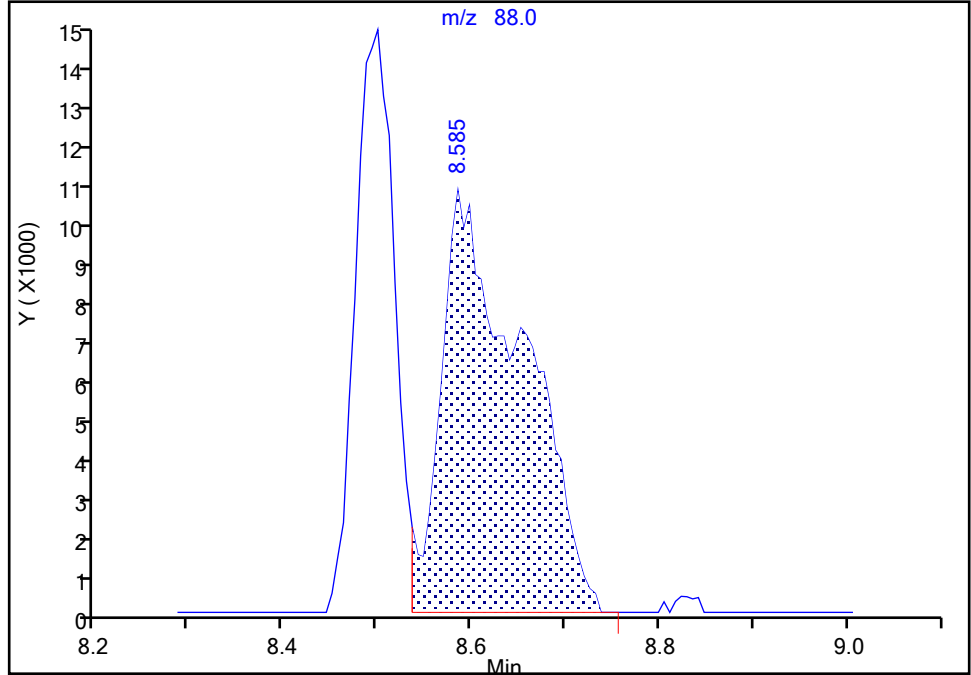
Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21112.D  
Injection Date: 21-Dec-2021 18:56:30 Instrument ID: 19094  
Lims ID: ICIS 10  
Client ID:  
Operator ID: jml01693 ALS Bottle#: 14 Worklist Smp#: 15  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: MSV\_19094\_25mL Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column ( 0.25mm ID) Detector: MS Quad

72 1,4-Dioxane, CAS: 123-91-1

Signal: 1

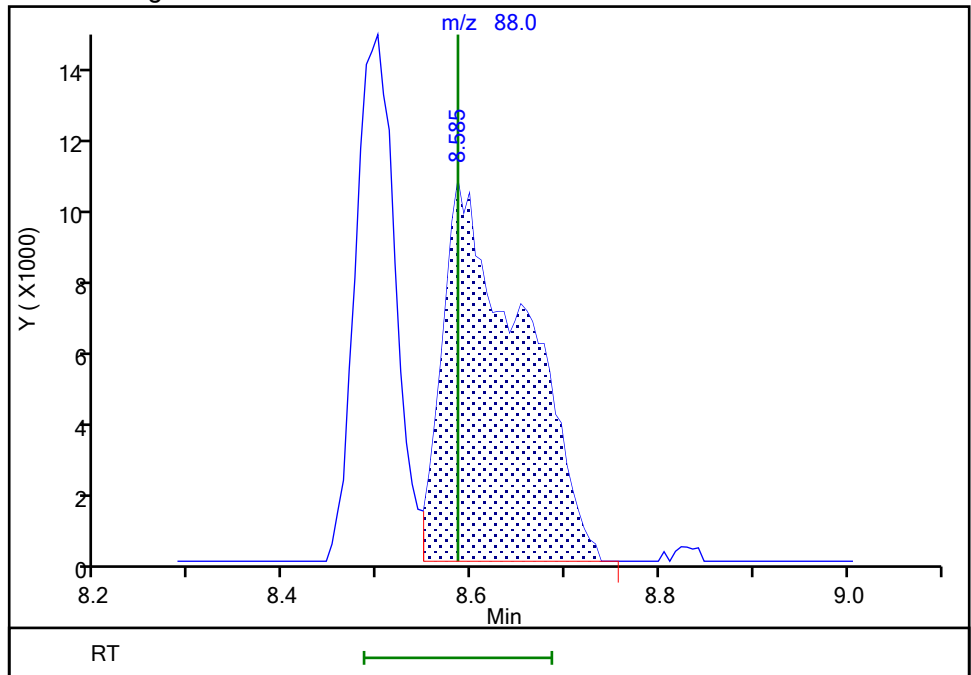
RT: 8.59  
Area: 63209  
Amount: 504.0137  
Amount Units: ug/l

Processing Integration Results



RT: 8.59  
Area: 61919  
Amount: 499.4909  
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 21-Dec-2021 20:40:37  
Audit Action: Split an Integrated Peak

Audit Reason: Split Peak  
Page 470 of 901

Eurofins Lancaster Laboratories Env, LLC  
 Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21113.D  
 Lims ID: IC std5 5  
 Client ID:  
 Sample Type: IC Calib Level: 5  
 Inject. Date: 21-Dec-2021 19:16:30 ALS Bottle#: 15 Worklist Smp#: 16  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0046912-016  
 Misc. Info.: IC STD5 5  
 Operator ID: jml01693 Instrument ID: 19094  
 Sublist: chrom-MSV\_19094\_25mL\*sub1

Method: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\MSV\_19094\_25mL.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 27-Dec-2021 09:48:22 Calib Date: 21-Dec-2021 20:38:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21117.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1653

First Level Reviewer: campbellme Date: 21-Dec-2021 20:41:52

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
3 Dichlorodifluoromethane	85	1.940	1.946	-0.006	99	356334	5.00	4.82	
6 Chloromethane	50	2.142	2.148	-0.006	99	421626	5.00	4.63	
8 Butadiene	39	2.258	2.263	-0.005	91	427716	5.00	4.64	
7 Vinyl chloride	62	2.258	2.263	-0.005	97	436750	5.00	4.82	
9 Bromomethane	94	2.587	2.587	0.000	91	293513	5.00	4.83	
10 Chloroethane	64	2.672	2.672	0.000	100	247855	5.00	4.80	
11 Dichlorofluoromethane	67	2.910	2.910	0.000	97	577018	5.00	4.84	
13 Trichlorofluoromethane	101	2.983	2.989	-0.006	97	544632	5.00	4.79	
15 Ethyl ether	59	3.202	3.221	-0.019	92	201045	5.00	5.01	
16 1,2-Dichloro-1,1,2-trifluoroethane	67	3.312	3.318	-0.006	95	401769	5.00	4.84	
17 Acrolein	56	3.391	3.397	-0.006	98	1633670	250.5	250.3	
18 1,1-Dichloroethene	96	3.532	3.538	-0.006	99	297874	5.00	4.87	
19 Acetone	43	3.550	3.562	-0.012	99	328761	50.0	46.6	
20 112TCTFE	101	3.574	3.586	-0.012	92	296358	5.00	4.85	
21 Isopropyl alcohol	45	3.708	3.733	-0.025	97	105827	100.0	114.5	M
22 Iodomethane	142	3.727	3.733	-0.006	98	527406	5.00	4.93	
23 Ethyl bromide	108	3.757	3.763	-0.006	99	252124	5.00	4.85	
24 Carbon disulfide	76	3.843	3.842	0.001	99	728564	5.00	4.86	
26 Methyl acetate	43	3.964	3.970	-0.006	98	114994	5.00	4.75	M
27 3-Chloro-1-propene	41	4.007	4.013	-0.006	92	460092	5.00	4.86	
* 28 t-Butyl alcohol-d10 (IS)	65	4.196	4.196	0.000	52	77926	50.0	50.0	
29 Methylene Chloride	84	4.196	4.202	-0.006	93	312256	5.00	4.80	
30 2-Methyl-2-propanol	59	4.300	4.312	-0.012	99	163551	100.0	99.3	
31 Acrylonitrile	53	4.525	4.531	-0.006	97	127168	12.5	13.4	
32 Methyl tert-butyl ether	73	4.605	4.604	0.001	95	663391	5.00	4.98	
33 trans-1,2-Dichloroethene	96	4.623	4.623	0.000	99	322742	5.00	4.91	
34 Hexane	57	5.031	5.031	0.000	92	432542	5.00	4.99	
35 1,1-Dichloroethane	63	5.269	5.275	-0.006	96	604570	5.00	5.00	
37 Isopropyl ether	45	5.330	5.336	-0.006	95	992215	5.00	4.98	
38 2-Chloro-1,3-butadiene	53	5.379	5.385	-0.006	90	498616	5.00	5.01	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 Tert-butyl ethyl ether	59	5.860	5.866	-0.006	98	836280	5.00	4.92	
41 2-Butanone (MEK)	43	6.062	6.062	0.000	100	644831	50.0	49.8	
42 cis-1,2-Dichloroethene	96	6.098	6.098	0.000	83	354605	5.00	4.95	
43 2,2-Dichloropropane	77	6.117	6.122	-0.006	88	488737	5.00	4.92	
45 Propionitrile	54	6.141	6.147	-0.006	99	350901	100.0	105.8	
S 40 1,2-Dichloroethene, Total	100				0			9.87	
47 Methacrylonitrile	67	6.360	6.360	0.000	93	727505	50.0	49.3	
48 Chlorobromomethane	128	6.421	6.433	-0.012	92	150419	5.00	5.01	
49 Tetrahydrofuran	71	6.434	6.439	-0.005	91	88485	25.0	24.6	
50 Chloroform	83	6.574	6.580	-0.006	93	582024	5.00	4.94	
\$ 51 Dibromofluoromethane (Surr)	113	6.787	6.793	-0.006	94	605859	10.0	10.0	
52 1,1,1-Trichloroethane	97	6.811	6.811	0.000	98	531102	5.00	4.90	
53 Cyclohexane	56	6.915	6.915	0.000	90	571047	5.00	4.90	
55 1,1-Dichloropropene	75	7.013	7.019	-0.006	97	474404	5.00	4.94	
56 Carbon tetrachloride	117	7.019	7.025	-0.006	97	468482	5.00	4.95	
57 Isobutyl alcohol	41	7.159	7.159	0.000	93	168398	250.0	242.8	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.244	7.250	-0.006	98	113381	10.0	10.1	
59 Benzene	78	7.275	7.281	-0.006	97	1351104	5.00	4.90	
60 1,2-Dichloroethane	62	7.348	7.348	0.000	97	333752	5.00	4.86	
62 Tert-amyl methyl ether	73	7.464	7.470	-0.006	98	711960	5.00	5.00	
* 65 Fluorobenzene (IS)	96	7.677	7.683	-0.006	98	2285280	10.0	10.0	
64 n-Heptane	43	7.695	7.695	0.000	92	453158	5.00	4.95	
66 n-Butanol	56	8.037	8.037	0.000	88	224898	437.5	486.5	
67 Trichloroethene	95	8.159	8.159	0.000	98	358162	5.00	4.94	
68 Methylcyclohexane	83	8.470	8.470	0.000	93	608970	5.00	4.96	
70 1,2-Dichloropropane	63	8.488	8.488	0.000	86	343692	5.00	4.96	
69 2-ethoxy-2-methyl butane	87	8.494	8.500	-0.006	91	371365	5.00	4.98	
71 Methyl methacrylate	69	8.573	8.573	0.000	91	137404	5.00	5.13	
72 1,4-Dioxane	88	8.592	8.585	0.007	31	32793	250.0	246.6	
73 Dibromomethane	93	8.598	8.598	0.000	95	152957	5.00	4.95	
75 Dichlorobromomethane	83	8.829	8.829	0.000	100	395479	5.00	5.09	
76 2-Nitropropane	41	9.098	9.098	0.000	98	180945	25.0	24.8	
79 1-Bromo-2-chloroethane	63	9.226	9.226	0.000	99	301567	5.00	4.93	
80 cis-1,3-Dichloropropene	75	9.378	9.378	0.000	96	501818	5.00	5.12	
81 4-Methyl-2-pentanone (MIBK)	43	9.543	9.543	0.000	97	1755738	50.0	49.8	
\$ 82 Toluene-d8 (Surr)	98	9.683	9.683	0.000	93	2438984	10.0	10.1	
83 Toluene	92	9.762	9.762	0.000	98	861259	5.00	4.93	
85 trans-1,3-Dichloropropene	75	10.012	10.012	0.000	93	387986	5.00	5.15	
S 84 1,3-Dichloropropene, Total	100				0			10.3	
86 Ethyl methacrylate	69	10.073	10.073	0.000	88	295430	5.00	5.22	
87 1,1,2-Trichloroethane	97	10.219	10.219	0.000	90	217928	5.00	5.06	
88 Tetrachloroethene	166	10.305	10.311	-0.006	98	407386	5.00	4.90	
89 1,3-Dichloropropane	76	10.378	10.378	0.000	90	379838	5.00	4.99	
91 2-Hexanone	43	10.427	10.427	0.001	97	1199898	50.0	50.3	
93 Chlorodibromomethane	129	10.597	10.597	0.000	90	260697	5.00	5.27	
94 Ethylene Dibromide	107	10.707	10.707	0.000	99	212679	5.00	5.14	
* 97 Chlorobenzene-d5 (IS)	117	11.134	11.134	0.000	86	1868144	10.0	10.0	
96 1-Chlorohexane	91	11.140	11.140	0.000	97	500369	5.00	4.82	
98 Chlorobenzene	112	11.158	11.158	0.000	94	951909	5.00	4.96	
99 1,1,1,2-Tetrachloroethane	131	11.244	11.243	0.001	95	331123	5.00	5.10	
100 Ethylbenzene	91	11.244	11.243	0.001	98	1669271	5.00	4.97	
S 95 Xylenes, Total	106				0			15.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
101 m-Xylene & p-Xylene	106	11.359	11.359	0.000	98	1293990	10.0	9.92	
102 o-Xylene	106	11.689	11.688	0.001	96	644165	5.00	5.04	
103 Styrene	104	11.701	11.701	0.000	95	1032084	5.00	5.12	
104 Bromoform	173	11.859	11.859	0.000	98	138500	5.00	5.39	
105 Isopropylbenzene	105	11.987	11.987	0.000	96	1689076	5.00	5.03	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.128	12.127	0.001	91	940209	10.0	10.0	
109 1,1,2,2-Tetrachloroethane	83	12.225	12.225	0.000	92	261515	5.00	5.12	
111 Bromobenzene	156	12.243	12.243	0.000	96	388274	5.00	5.09	
110 trans-1,4-Dichloro-2-butene	53	12.249	12.249	0.000	91	586353	50.0	52.7	
112 1,2,3-Trichloropropane	110	12.274	12.274	0.000	82	67434	5.00	4.91	
113 N-Propylbenzene	91	12.310	12.310	0.000	99	1977526	5.00	5.09	
114 2-Chlorotoluene	126	12.390	12.390	0.000	97	393659	5.00	5.01	
115 1,3,5-Trimethylbenzene	105	12.445	12.444	0.001	94	1409010	5.00	5.10	
116 4-Chlorotoluene	126	12.481	12.481	0.000	97	401526	5.00	5.06	
118 tert-Butylbenzene	134	12.688	12.688	0.000	93	310310	5.00	5.01	
119 Pentachloroethane	167	12.719	12.719	0.000	92	235687	5.00	5.11	
120 1,2,4-Trimethylbenzene	105	12.731	12.731	0.000	97	1469221	5.00	5.14	
121 sec-Butylbenzene	105	12.853	12.853	0.000	94	1796194	5.00	5.13	
122 1,3-Dichlorobenzene	146	12.951	12.950	0.001	98	776252	5.00	5.04	
123 4-Isopropyltoluene	119	12.957	12.957	0.001	97	1569449	5.00	5.18	
* 124 1,4-Dichlorobenzene-d4	152	13.005	13.005	0.000	95	1053366	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.024	13.024	0.000	95	764838	5.00	4.99	
126 1,2,3-Trimethylbenzene	120	13.030	13.030	0.000	98	623468	5.00	5.00	
127 Benzyl chloride	126	13.097	13.097	0.000	98	88124	5.00	5.55	
129 p-Diethylbenzene	119	13.158	13.158	0.000	92	906198	5.00	5.14	
130 n-Butylbenzene	92	13.249	13.249	0.000	97	749639	5.00	5.24	
131 1,2-Dichlorobenzene	146	13.280	13.280	0.000	98	707336	5.00	5.06	
134 1,2-Dibromo-3-Chloropropane	155	13.822	13.822	0.000	89	36722	5.00	5.47	
135 1,3,5-Trichlorobenzene	180	13.944	13.944	0.000	98	591090	5.00	5.16	
136 1,2,4-Trichlorobenzene	180	14.365	14.365	0.000	94	505998	5.00	5.21	
137 Hexachlorobutadiene	225	14.444	14.444	0.000	96	220860	5.00	4.81	
138 Naphthalene	128	14.548	14.548	0.000	97	856656	5.00	5.16	
139 1,2,3-Trichlorobenzene	180	14.688	14.688	0.000	95	442199	5.00	5.13	
140 2-Methylnaphthalene	142	15.304	15.304	0.000	92	508576	5.00	5.42	

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

### Reagents:

MSV\_LL\_#1\_826\_00027

Amount Added: 5.00

Units: uL

MSV\_LL\_GAS826\_00056

Amount Added: 5.00

Units: uL

MSV\_LL\_#2\_826\_00031

Amount Added: 5.00

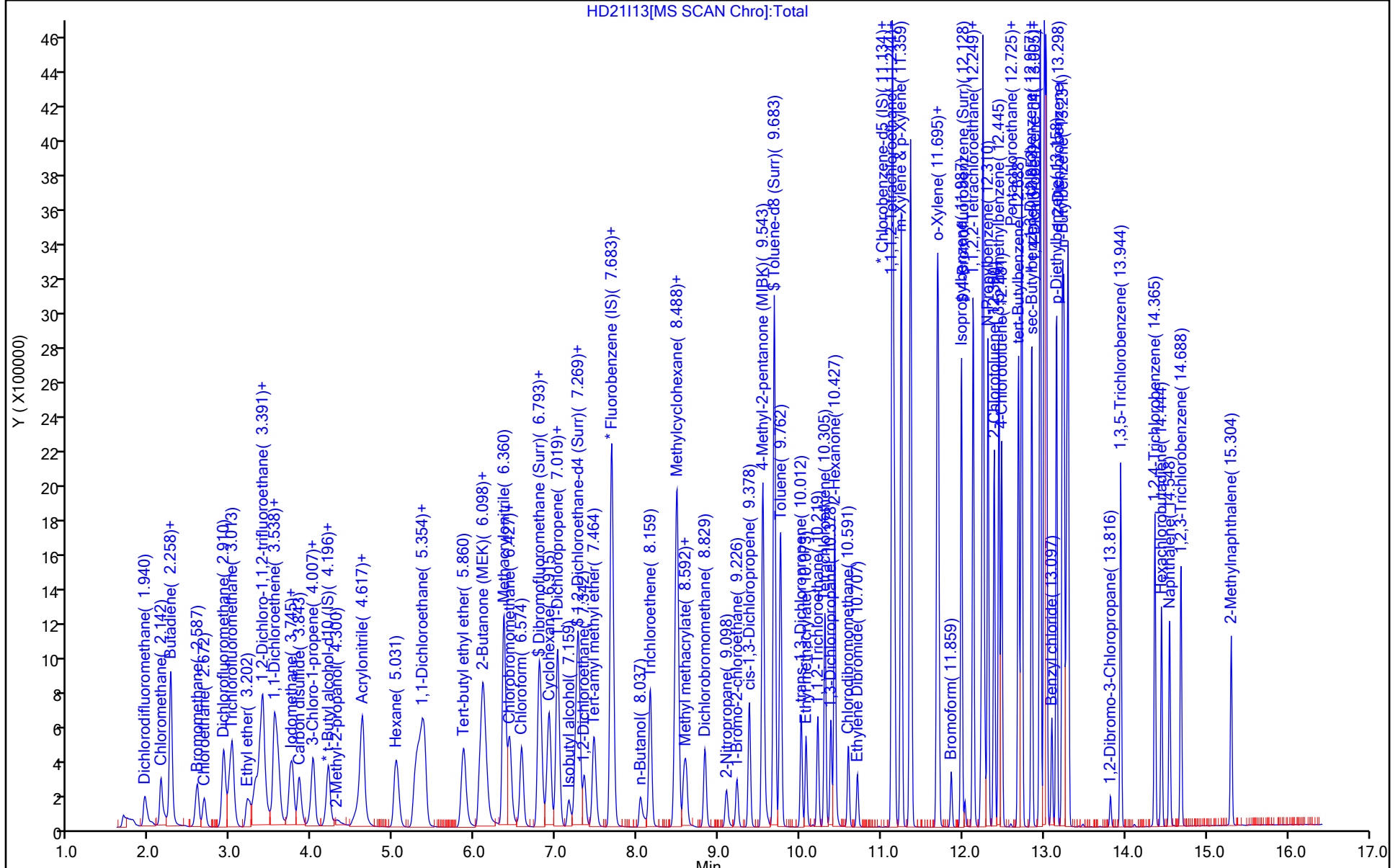
Units: uL

MSV\_LLcentISS\_00002

Amount Added: 5.00

Units: uL

Run Reagent



HD21113[MS SCAN Chroj:Total

Eurofins Lancaster Laboratories Env, LLC

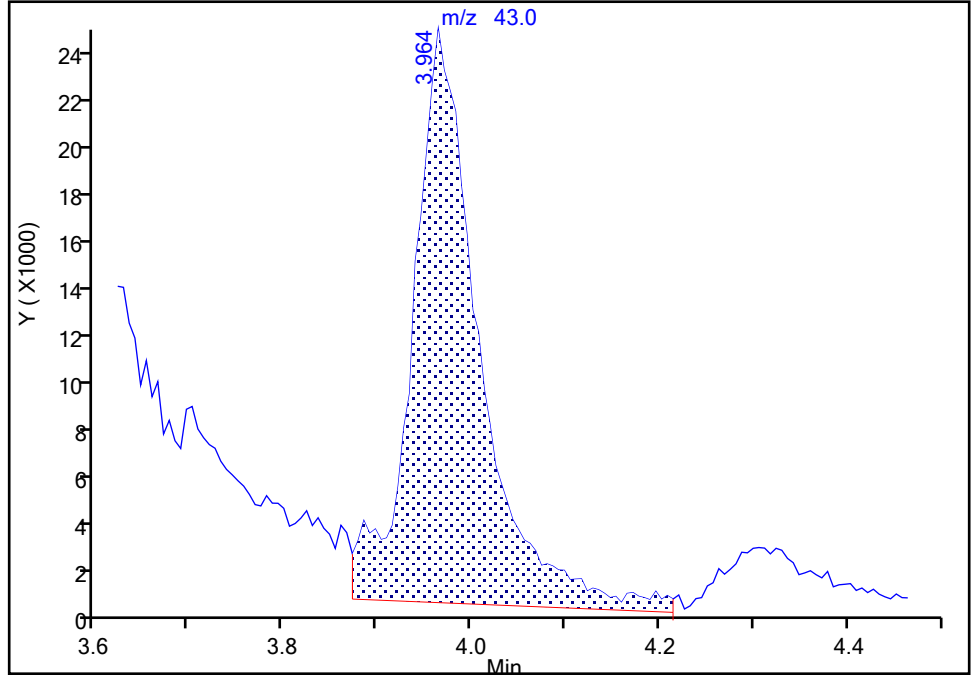
Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21113.D  
Injection Date: 21-Dec-2021 19:16:30 Instrument ID: 19094  
Lims ID: IC std5 5  
Client ID:  
Operator ID: jml01693 ALS Bottle#: 15 Worklist Smp#: 16  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: MSV\_19094\_25mL Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column ( 0.25mm ID) Detector: MS Quad

26 Methyl acetate, CAS: 79-20-9

Signal: 1

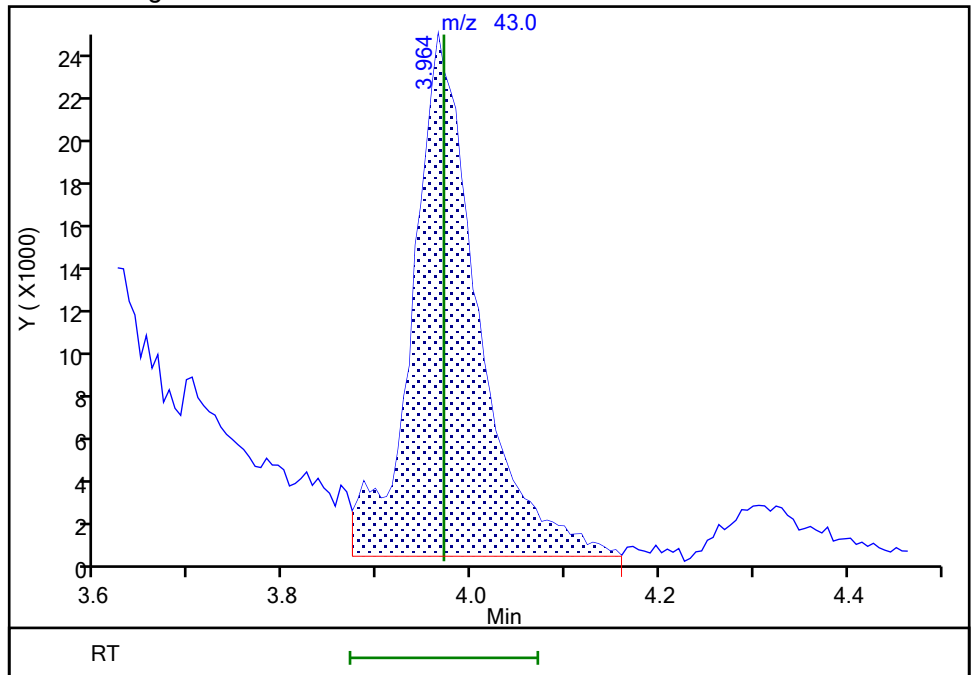
RT: 3.96  
Area: 117907  
Amount: 5.066175  
Amount Units: ug/l

Processing Integration Results



RT: 3.96  
Area: 114994  
Amount: 4.753908  
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 21-Dec-2021 20:41:18  
Audit Action: Assigned New Baseline

Audit Reason: Incomplete Integration



Eurofins Lancaster Laboratories Env, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21114.D  
 Lims ID: IC std4 2  
 Client ID:  
 Sample Type: IC Calib Level: 4  
 Inject. Date: 21-Dec-2021 19:37:30 ALS Bottle#: 16 Worklist Smp#: 17  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0046912-017  
 Misc. Info.: IC STD4 2  
 Operator ID: jml01693 Instrument ID: 19094  
 Sublist: chrom-MSV\_19094\_25mL\*sub1  
 Method: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\MSV\_19094\_25mL.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 27-Dec-2021 09:48:28 Calib Date: 21-Dec-2021 20:38:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21117.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1653

First Level Reviewer: campbellme

Date: 21-Dec-2021 20:42:41

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
3 Dichlorodifluoromethane	85	1.934	1.934	0.000	99	152223	2.00	2.08	
6 Chloromethane	50	2.130	2.130	0.000	99	180504	2.00	2.01	
8 Butadiene	39	2.251	2.251	0.000	91	186723	2.00	2.05	
7 Vinyl chloride	62	2.251	2.251	0.000	96	181885	2.00	2.03	
9 Bromomethane	94	2.575	2.575	0.000	91	121596	2.00	2.02	
10 Chloroethane	64	2.660	2.660	0.000	100	104369	2.00	2.04	
11 Dichlorofluoromethane	67	2.898	2.898	0.000	97	241089	2.00	2.04	
13 Trichlorofluoromethane	101	2.971	2.971	0.000	98	229574	2.00	2.04	
15 Ethyl ether	59	3.196	3.196	0.000	92	80333	2.00	2.02	
16 1,2-Dichloro-1,1,2-trifluoroethane	67	3.306	3.306	0.000	92	165879	2.00	2.02	
17 Acrolein	56	3.385	3.385	0.000	97	622050	100.2	118.4	
18 1,1-Dichloroethene	96	3.526	3.526	0.000	98	122768	2.00	2.03	
19 Acetone	43	3.544	3.544	0.000	52	123919	20.0	21.8	
20 112TCTFE	101	3.574	3.574	0.000	91	123914	2.00	2.05	
21 Isopropyl alcohol	45	3.715	3.715	0.000	30	37111	40.0	40.6	M
22 Iodomethane	142	3.727	3.727	0.000	98	214103	2.00	2.02	
23 Ethyl bromide	108	3.751	3.751	0.000	99	103823	2.00	2.02	
24 Carbon disulfide	76	3.830	3.830	0.000	99	298849	2.00	2.02	
26 Methyl acetate	43	3.977	3.977	0.000	97	40464	2.00	2.08	
27 3-Chloro-1-propene	41	4.007	4.007	0.000	93	187981	2.00	2.01	
* 28 t-Butyl alcohol-d10 (IS)	65	4.184	4.184	0.000	39	62752	50.0	50.0	
29 Methylene Chloride	84	4.196	4.196	0.000	92	125736	2.00	1.96	
30 2-Methyl-2-propanol	59	4.306	4.306	0.000	99	59338	40.0	44.7	
31 Acrylonitrile	53	4.525	4.525	0.000	92	46434	5.00	6.05	
32 Methyl tert-butyl ether	73	4.599	4.599	0.000	89	269866	2.00	2.05	
33 trans-1,2-Dichloroethene	96	4.611	4.611	0.000	98	131752	2.00	2.03	
34 Hexane	57	5.019	5.019	0.000	92	176387	2.00	2.06	
35 1,1-Dichloroethane	63	5.263	5.263	0.000	96	241965	2.00	2.02	
37 Isopropyl ether	45	5.318	5.318	0.000	94	399751	2.00	2.03	
38 2-Chloro-1,3-butadiene	53	5.373	5.373	0.000	91	201194	2.00	2.05	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 Tert-butyl ethyl ether	59	5.854	5.854	0.000	98	345532	2.00	2.06	
41 2-Butanone (MEK)	43	6.056	6.056	0.000	100	244279	20.0	23.4	
42 cis-1,2-Dichloroethene	96	6.086	6.086	0.000	82	144124	2.00	2.04	
43 2,2-Dichloropropane	77	6.110	6.110	0.000	87	202088	2.00	2.06	
45 Propionitrile	54	6.153	6.153	0.000	98	124460	40.0	46.6	
S 40 1,2-Dichloroethene, Total	100				0			4.07	
47 Methacrylonitrile	67	6.354	6.354	0.000	92	283280	20.0	23.9	
48 Chlorobromomethane	128	6.421	6.421	0.000	94	58589	2.00	1.98	
49 Tetrahydrofuran	71	6.434	6.434	0.000	92	34407	10.0	11.9	
50 Chloroform	83	6.568	6.568	0.000	93	236911	2.00	2.03	
\$ 51 Dibromofluoromethane (Surr)	113	6.781	6.781	0.000	94	593759	10.0	9.96	
52 1,1,1-Trichloroethane	97	6.799	6.799	0.000	98	218494	2.00	2.04	
53 Cyclohexane	56	6.903	6.903	0.000	91	239108	2.00	2.08	
55 1,1-Dichloropropene	75	7.007	7.007	0.000	95	193969	2.00	2.04	
56 Carbon tetrachloride	117	7.025	7.025	0.000	96	191089	2.00	2.04	
57 Isobutyl alcohol	41	7.159	7.159	0.000	93	60199	100.0	107.8	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.238	7.238	0.000	80	111158	10.0	10.0	
59 Benzene	78	7.269	7.269	0.000	96	550688	2.00	2.02	
60 1,2-Dichloroethane	62	7.342	7.342	0.000	97	137295	2.00	2.02	
62 Tert-amyl methyl ether	73	7.464	7.464	0.000	98	290093	2.00	2.06	
* 65 Fluorobenzene (IS)	96	7.677	7.677	0.000	98	2259237	10.0	10.0	
64 n-Heptane	43	7.689	7.689	0.000	93	186201	2.00	2.06	
66 n-Butanol	56	8.043	8.043	0.000	87	72020	175.0	193.5	M
67 Trichloroethene	95	8.153	8.153	0.000	98	147632	2.00	2.06	
68 Methylcyclohexane	83	8.470	8.470	0.000	92	257188	2.00	2.12	
70 1,2-Dichloropropane	63	8.482	8.482	0.000	95	138152	2.00	2.02	
69 2-ethoxy-2-methyl butane	87	8.494	8.494	0.000	93	151028	2.00	2.05	
71 Methyl methacrylate	69	8.567	8.567	0.000	90	52766	2.00	2.44	
72 1,4-Dioxane	88	8.586	8.586	0.000	31	12049	100.0	108.6	M
73 Dibromomethane	93	8.592	8.592	0.000	95	62175	2.00	2.04	
75 Dichlorobromomethane	83	8.829	8.829	0.000	99	154800	2.00	2.02	
76 2-Nitropropane	41	9.092	9.092	0.000	99	68349	10.0	11.6	
79 1-Bromo-2-chloroethane	63	9.226	9.226	0.000	98	124129	2.00	2.05	
80 cis-1,3-Dichloropropene	75	9.378	9.378	0.000	96	193875	2.00	2.00	
81 4-Methyl-2-pentanone (MIBK)	43	9.543	9.543	0.000	97	689710	20.0	24.3	
\$ 82 Toluene-d8 (Surr)	98	9.683	9.683	0.000	93	2414686	10.0	10.0	
83 Toluene	92	9.762	9.762	0.000	98	350909	2.00	2.02	
85 trans-1,3-Dichloropropene	75	10.012	10.012	0.000	93	153449	2.00	2.05	
S 84 1,3-Dichloropropene, Total	100				0			4.05	
86 Ethyl methacrylate	69	10.073	10.073	0.000	89	115660	2.00	2.06	
87 1,1,2-Trichloroethane	97	10.219	10.219	0.000	90	86655	2.00	2.02	
88 Tetrachloroethene	166	10.305	10.305	0.000	98	169948	2.00	2.06	
89 1,3-Dichloropropane	76	10.378	10.378	0.000	90	152292	2.00	2.01	
91 2-Hexanone	43	10.427	10.427	0.000	97	467175	20.0	24.3	
93 Chlorodibromomethane	129	10.591	10.591	0.000	91	100062	2.00	2.04	
94 Ethylene Dibromide	107	10.707	10.707	0.000	99	83736	2.00	2.04	
* 97 Chlorobenzene-d5 (IS)	117	11.134	11.134	0.000	86	1856553	10.0	10.0	
96 1-Chlorohexane	91	11.140	11.140	0.000	96	204745	2.00	1.98	
98 Chlorobenzene	112	11.158	11.158	0.000	96	385641	2.00	2.02	
99 1,1,1,2-Tetrachloroethane	131	11.244	11.244	0.000	95	131572	2.00	2.04	
100 Ethylbenzene	91	11.244	11.244	0.000	98	678938	2.00	2.03	
S 95 Xylenes, Total	106				0			6.11	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
101 m-Xylene & p-Xylene	106	11.359	11.359	0.000	98	528574	4.00	4.08	
102 o-Xylene	106	11.689	11.689	0.000	96	258119	2.00	2.03	
103 Styrene	104	11.701	11.701	0.000	94	410852	2.00	2.05	
104 Bromoform	173	11.859	11.859	0.000	96	49507	2.00	1.94	
105 Isopropylbenzene	105	11.987	11.987	0.000	96	679640	2.00	2.03	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.128	12.128	0.000	91	934039	10.0	10.0	
109 1,1,2,2-Tetrachloroethane	83	12.225	12.225	0.000	94	104143	2.00	2.03	
111 Bromobenzene	156	12.243	12.243	0.000	95	156953	2.00	2.05	
110 trans-1,4-Dichloro-2-butene	53	12.249	12.249	0.000	92	217932	20.0	24.3	
112 1,2,3-Trichloropropane	110	12.274	12.274	0.000	82	27502	2.00	2.00	
113 N-Propylbenzene	91	12.310	12.310	0.000	99	800028	2.00	2.06	
114 2-Chlorotoluene	126	12.390	12.390	0.000	97	161192	2.00	2.05	
115 1,3,5-Trimethylbenzene	105	12.445	12.445	0.000	94	568474	2.00	2.05	
116 4-Chlorotoluene	126	12.481	12.481	0.000	98	162913	2.00	2.05	
118 tert-Butylbenzene	134	12.688	12.688	0.000	93	126709	2.00	2.04	
119 Pentachloroethane	167	12.719	12.719	0.000	92	94727	2.00	2.05	
120 1,2,4-Trimethylbenzene	105	12.731	12.731	0.000	97	589871	2.00	2.06	
121 sec-Butylbenzene	105	12.853	12.853	0.000	94	724037	2.00	2.06	
122 1,3-Dichlorobenzene	146	12.951	12.951	0.000	98	315097	2.00	2.04	
123 4-Isopropyltoluene	119	12.957	12.957	0.000	97	627032	2.00	2.07	
* 124 1,4-Dichlorobenzene-d4	152	13.005	13.005	0.000	95	1055621	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.024	13.024	0.000	96	313492	2.00	2.04	
126 1,2,3-Trimethylbenzene	120	13.030	13.030	0.000	98	251990	2.00	2.02	
127 Benzyl chloride	126	13.097	13.097	0.000	99	32711	2.00	2.05	
129 p-Diethylbenzene	119	13.158	13.158	0.000	92	365446	2.00	2.07	
130 n-Butylbenzene	92	13.249	13.249	0.000	97	294908	2.00	2.06	
131 1,2-Dichlorobenzene	146	13.280	13.280	0.000	98	289410	2.00	2.06	
134 1,2-Dibromo-3-Chloropropane	155	13.822	13.822	0.000	86	13493	2.00	2.00	
135 1,3,5-Trichlorobenzene	180	13.944	13.944	0.000	98	231980	2.00	2.02	
136 1,2,4-Trichlorobenzene	180	14.365	14.365	0.000	94	200032	2.00	2.06	
137 Hexachlorobutadiene	225	14.450	14.450	0.000	96	89789	2.00	1.95	
138 Naphthalene	128	14.548	14.548	0.000	97	340674	2.00	2.05	
139 1,2,3-Trichlorobenzene	180	14.688	14.688	0.000	96	177171	2.00	2.05	
140 2-Methylnaphthalene	142	15.304	15.304	0.000	93	198024	2.00	2.11	

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

### Reagents:

MSV\_LL\_#1\_826\_00027

Amount Added: 2.00

Units: uL

MSV\_LL\_GAS826\_00056

Amount Added: 2.00

Units: uL

MSV\_LL\_#2\_826\_00031

Amount Added: 2.00

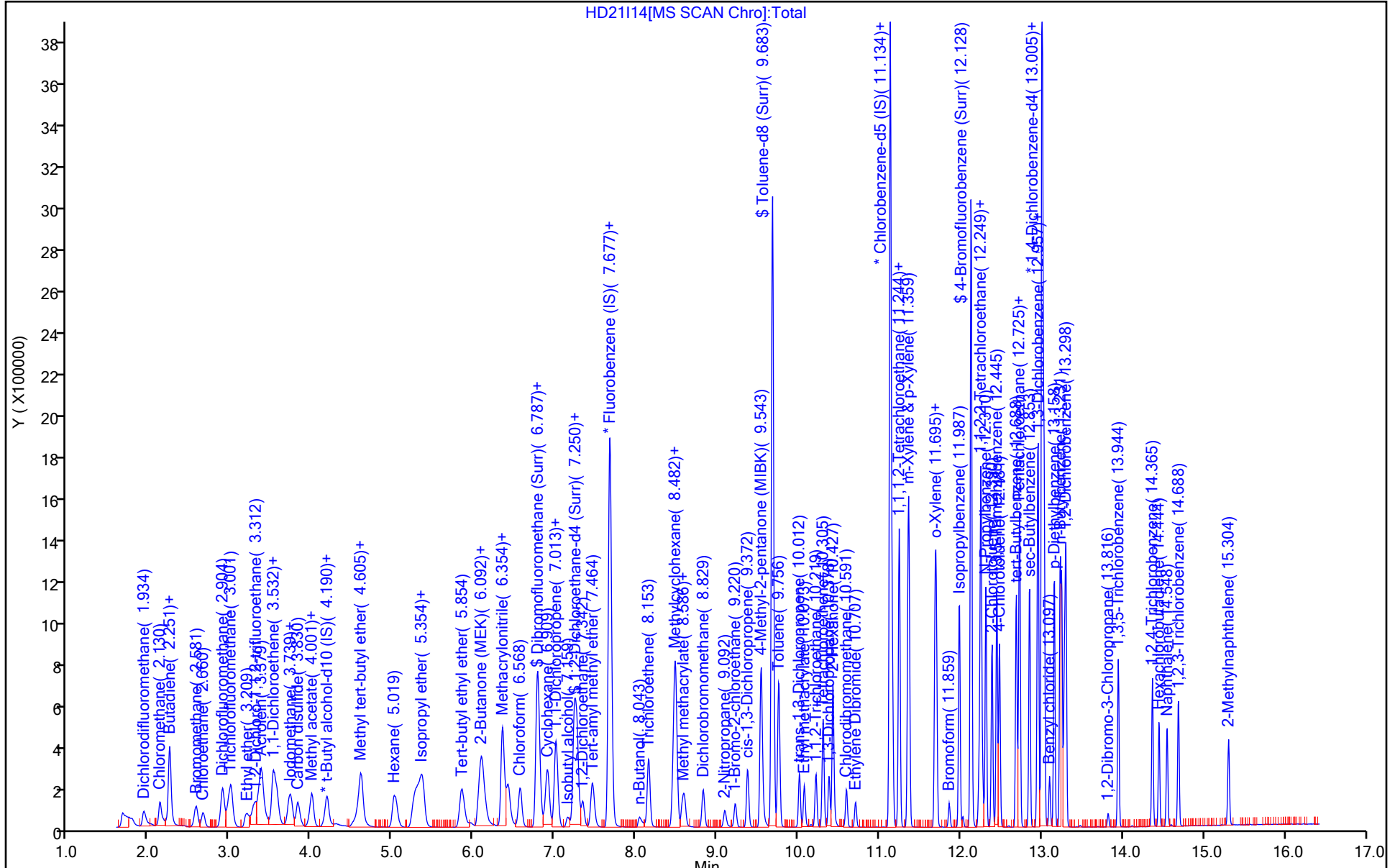
Units: uL

MSV\_LLcentISS\_00002

Amount Added: 5.00

Units: uL

Run Reagent



Eurofins Lancaster Laboratories Env, LLC

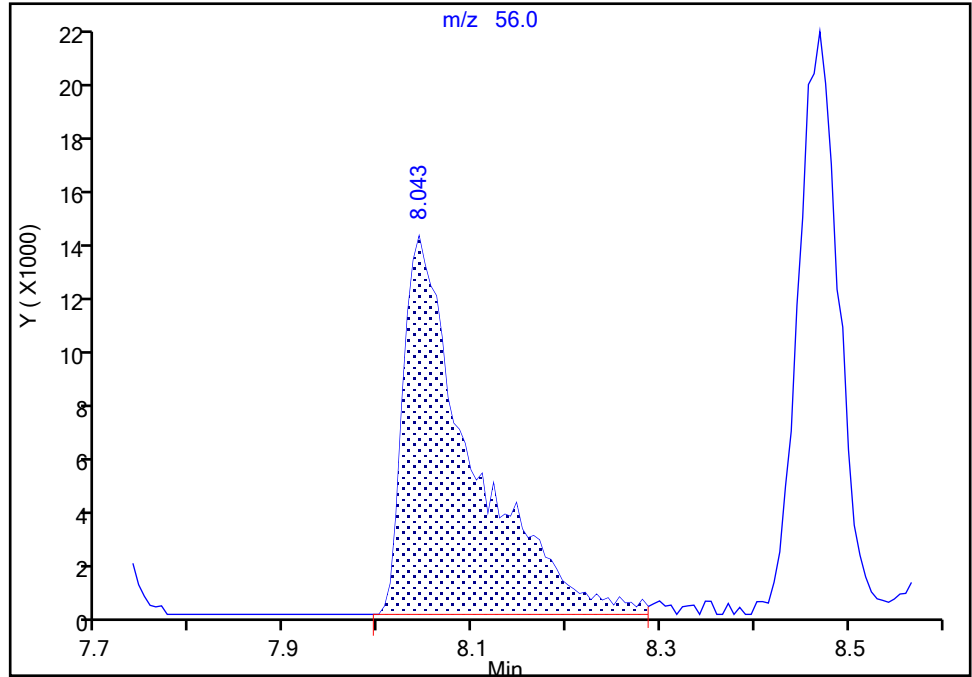
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Injection Date: 21-Dec-2021 19:37:30 Instrument ID: 19094  
Lims ID: IC std4 2  
Client ID:  
Operator ID: jml01693 ALS Bottle#: 16 Worklist Smp#: 17  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: MSV\_19094\_25mL Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column ( 0.25mm ID) Detector: MS Quad

66 n-Butanol, CAS: 71-36-3

Signal: 1

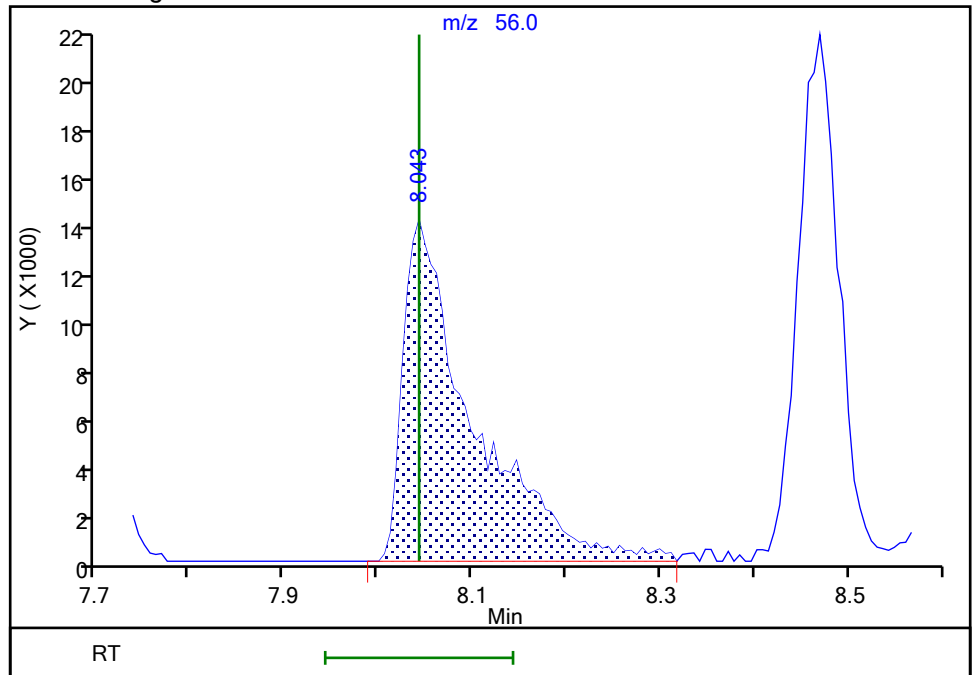
RT: 8.04  
Area: 71448  
Amount: 203.1286  
Amount Units: ug/l

Processing Integration Results



RT: 8.04  
Area: 72020  
Amount: 193.4565  
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 21-Dec-2021 21:07:17  
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

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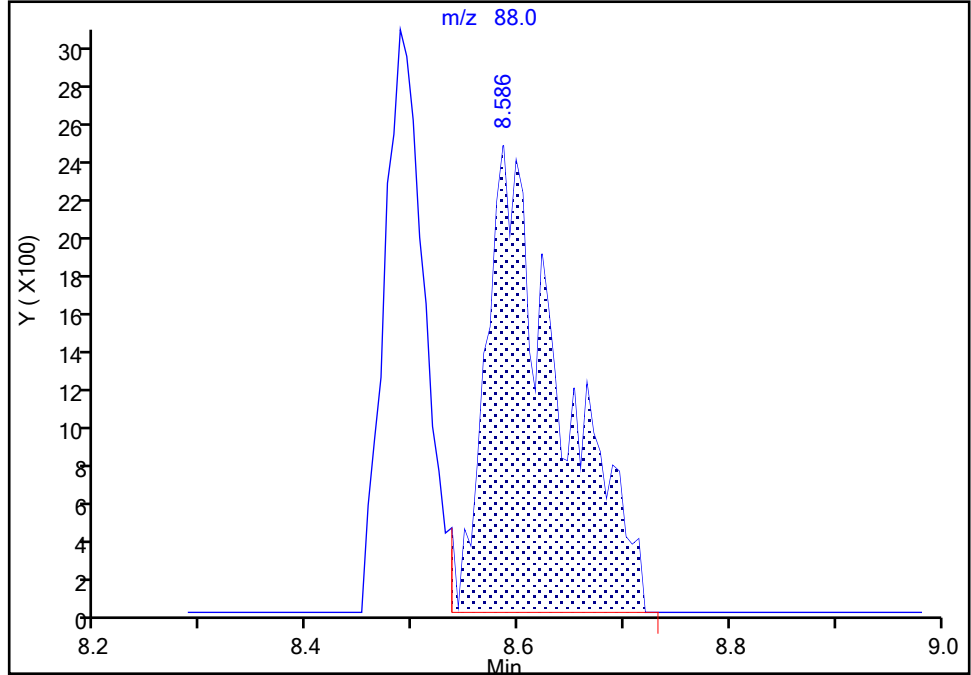
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Injection Date: 21-Dec-2021 19:37:30 Instrument ID: 19094  
Lims ID: IC std4 2  
Client ID:  
Operator ID: jml01693 ALS Bottle#: 16 Worklist Smp#: 17  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: MSV\_19094\_25mL Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column ( 0.25mm ID) Detector: MS Quad

72 1,4-Dioxane, CAS: 123-91-1

Signal: 1

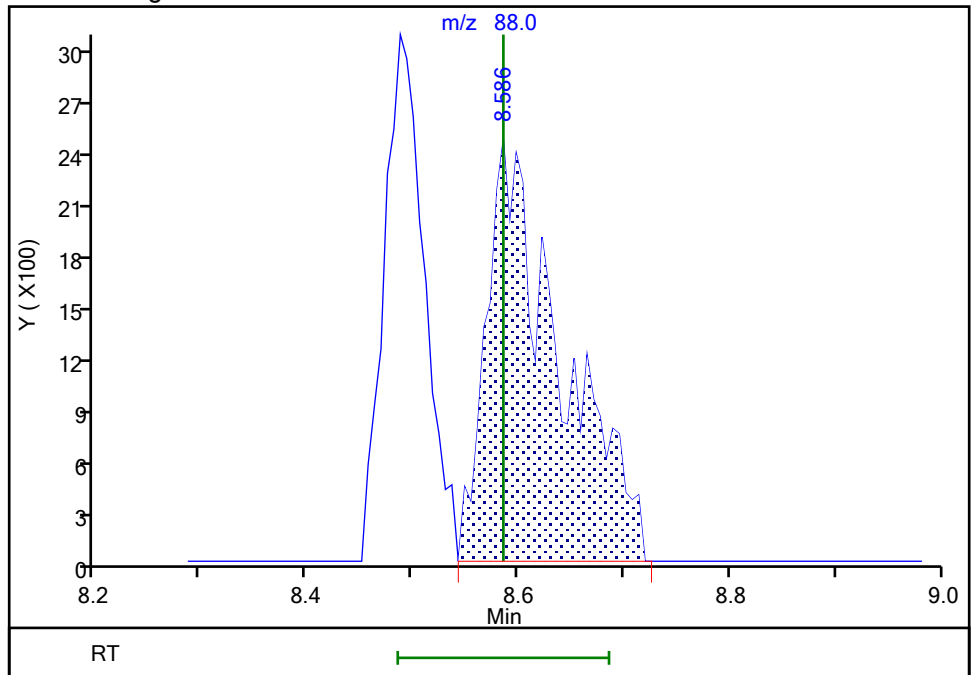
RT: 8.59  
Area: 12214  
Amount: 108.9749  
Amount Units: ug/l

Processing Integration Results



RT: 8.59  
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Amount: 108.6073  
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 21-Dec-2021 20:42:26  
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration  
Page 481 of 901

Eurofins Lancaster Laboratories Env, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21115.D  
 Lims ID: IC std3 1  
 Client ID:  
 Sample Type: IC Calib Level: 3  
 Inject. Date: 21-Dec-2021 19:57:30 ALS Bottle#: 17 Worklist Smp#: 18  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0046912-018  
 Misc. Info.: IC STD3 1  
 Operator ID: jml01693 Instrument ID: 19094  
 Sublist: chrom-MSV\_19094\_25mL\*sub1  
 Method: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\MSV\_19094\_25mL.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 27-Dec-2021 09:48:36 Calib Date: 21-Dec-2021 20:38:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21117.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1653

First Level Reviewer: campbellme

Date: 21-Dec-2021 20:43:41

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
3 Dichlorodifluoromethane	85	1.947	1.934	0.013	99	72426	1.00	0.9892	
6 Chloromethane	50	2.142	2.130	0.012	99	88475	1.00	0.9821	
8 Butadiene	39	2.258	2.251	0.007	90	95547	1.00	1.05	M
7 Vinyl chloride	62	2.264	2.251	0.013	95	89615	1.00	1.00	M
9 Bromomethane	94	2.593	2.575	0.018	91	59047	1.00	0.9811	M
10 Chloroethane	64	2.678	2.660	0.018	99	49836	1.00	0.9741	
11 Dichlorofluoromethane	67	2.916	2.898	0.018	97	117995	1.00	1.00	
13 Trichlorofluoromethane	101	2.983	2.971	0.012	98	110754	1.00	0.9835	
15 Ethyl ether	59	3.202	3.196	0.006	91	40150	1.00	1.01	
16 1,2-Dichloro-1,1,2-trifluoroetha	67	3.318	3.306	0.012	93	82081	1.00	1.00	
17 Acrolein	56	3.398	3.385	0.013	96	321738	50.1	52.8	
18 1,1-Dichloroethene	96	3.538	3.526	0.012	98	59850	1.00	0.9890	
19 Acetone	43	3.562	3.544	0.018	98	69104	10.0	10.5	
20 112TCTFE	101	3.574	3.574	0.000	94	62012	1.00	1.03	
21 Isopropyl alcohol	45	3.733	3.715	0.018	27	17568	20.0	19.2	M
22 Iodomethane	142	3.733	3.727	0.006	98	105023	1.00	0.99	
23 Ethyl bromide	108	3.763	3.751	0.012	99	50764	1.00	0.9868	
24 Carbon disulfide	76	3.849	3.830	0.019	99	144719	1.00	0.9756	
26 Methyl acetate	43	3.971	3.977	-0.006	97	22969	1.00	1.02	
27 3-Chloro-1-propene	41	4.013	4.007	0.006	92	92205	1.00	0.9840	
* 28 t-Butyl alcohol-d10 (IS)	65	4.190	4.184	0.006	52	72779	50.0	50.0	
29 Methylene Chloride	84	4.196	4.196	0.000	92	65277	1.00	1.01	
30 2-Methyl-2-propanol	59	4.312	4.306	0.006	98	31795	20.0	20.7	
31 Acrylonitrile	53	4.550	4.525	0.025	99	24466	2.50	2.75	
32 Methyl tert-butyl ether	73	4.605	4.599	0.006	95	135002	1.00	1.02	
33 trans-1,2-Dichloroethene	96	4.629	4.611	0.018	99	64537	1.00	0.99	
34 Hexane	57	5.031	5.019	0.012	91	85388	1.00	0.99	
35 1,1-Dichloroethane	63	5.275	5.263	0.012	84	119309	1.00	1.00	
37 Isopropyl ether	45	5.324	5.318	0.006	94	200145	1.00	1.02	
38 2-Chloro-1,3-butadiene	53	5.385	5.373	0.012	91	95508	1.00	0.9698	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 Tert-butyl ethyl ether	59	5.860	5.854	0.006	98	169735	1.00	1.01	
41 2-Butanone (MEK)	43	6.068	6.056	0.012	100	128280	10.0	10.6	
42 cis-1,2-Dichloroethene	96	6.092	6.086	0.006	82	71206	1.00	1.01	
43 2,2-Dichloropropane	77	6.117	6.110	0.007	87	95604	1.00	0.9718	
45 Propionitrile	54	6.153	6.153	0.000	98	59222	20.0	19.1	
S 40 1,2-Dichloroethene, Total	100				0			2.00	
47 Methacrylonitrile	67	6.360	6.354	0.006	92	140063	10.0	10.2	
48 Chlorobromomethane	128	6.421	6.421	0.000	94	30111	1.00	1.01	
49 Tetrahydrofuran	71	6.440	6.434	0.006	80	18201	5.00	5.42	
50 Chloroform	83	6.574	6.568	0.006	93	115752	1.00	0.99	
\$ 51 Dibromofluoromethane (Surr)	113	6.787	6.781	0.006	94	592504	10.0	9.93	
52 1,1,1-Trichloroethane	97	6.818	6.799	0.019	98	105189	1.00	0.9796	
53 Cyclohexane	56	6.915	6.903	0.012	90	116034	1.00	1.01	
55 1,1-Dichloropropene	75	7.019	7.007	0.012	96	95576	1.00	1.01	
56 Carbon tetrachloride	117	7.025	7.025	0.000	79	92423	1.00	0.9872	
57 Isobutyl alcohol	41	7.171	7.159	0.012	96	34366	50.0	53.1	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.238	7.238	0.000	80	110227	10.0	9.91	
59 Benzene	78	7.275	7.269	0.006	96	272059	1.00	1.00	
60 1,2-Dichloroethane	62	7.348	7.342	0.006	98	68033	1.00	1.00	
62 Tert-amyl methyl ether	73	7.464	7.464	0.000	98	142788	1.00	1.01	
* 65 Fluorobenzene (IS)	96	7.677	7.677	0.000	99	2262029	10.0	10.0	
64 n-Heptane	43	7.689	7.689	0.000	86	89045	1.00	0.9833	
66 n-Butanol	56	8.049	8.043	0.006	87	39291	87.5	91.0	
67 Trichloroethene	95	8.159	8.153	0.006	98	70266	1.00	0.9793	
68 Methylcyclohexane	83	8.470	8.470	0.000	93	122383	1.00	1.01	
70 1,2-Dichloropropane	63	8.488	8.482	0.006	81	68623	1.00	1.00	
69 2-ethoxy-2-methyl butane	87	8.494	8.494	0.000	92	73635	1.00	1.00	
71 Methyl methacrylate	69	8.579	8.567	0.012	88	25833	1.00	1.03	
72 1,4-Dioxane	88	8.598	8.586	0.012	31	6045	50.0	49.3	
73 Dibromomethane	93	8.604	8.592	0.012	95	30643	1.00	1.00	
75 Dichlorobromomethane	83	8.829	8.829	0.000	99	74034	1.00	0.9633	
76 2-Nitropropane	41	9.098	9.092	0.006	98	34795	5.00	5.11	
79 1-Bromo-2-chloroethane	63	9.220	9.226	-0.006	99	60970	1.00	1.01	
80 cis-1,3-Dichloropropene	75	9.378	9.378	0.000	95	95945	1.00	0.9882	
81 4-Methyl-2-pentanone (MIBK)	43	9.543	9.543	0.000	97	338012	10.0	10.3	
\$ 82 Toluene-d8 (Surr)	98	9.683	9.683	0.000	93	2413194	10.0	10.1	
83 Toluene	92	9.762	9.762	0.000	98	171239	1.00	0.99	
85 trans-1,3-Dichloropropene	75	10.012	10.012	0.000	93	74559	1.00	1.00	
S 84 1,3-Dichloropropene, Total	100				0			1.99	
86 Ethyl methacrylate	69	10.079	10.073	0.006	88	55567	1.00	0.99	
87 1,1,2-Trichloroethane	97	10.219	10.219	0.000	90	43174	1.00	1.01	
88 Tetrachloroethene	166	10.305	10.305	0.000	98	81506	1.00	0.99	
89 1,3-Dichloropropane	76	10.378	10.378	0.000	90	75932	1.00	1.01	
91 2-Hexanone	43	10.427	10.427	0.000	96	227584	10.0	10.2	
93 Chlorodibromomethane	129	10.597	10.591	0.006	89	47270	1.00	0.9669	
94 Ethylene Dibromide	107	10.707	10.707	0.000	97	41722	1.00	1.02	
* 97 Chlorobenzene-d5 (IS)	117	11.134	11.134	0.000	86	1846913	10.0	10.0	
96 1-Chlorohexane	91	11.140	11.140	0.000	95	100575	1.00	0.9800	
98 Chlorobenzene	112	11.158	11.158	0.000	96	190794	1.00	1.01	
99 1,1,1,2-Tetrachloroethane	131	11.244	11.244	0.000	96	62974	1.00	0.9820	
100 Ethylbenzene	91	11.244	11.244	0.000	99	329312	1.00	0.99	
S 95 Xylenes, Total	106				0			2.97	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
101 m-Xylene & p-Xylene	106	11.359	11.359	0.000	98	253972	2.00	1.97	
102 o-Xylene	106	11.689	11.689	0.000	96	125947	1.00	1.00	
103 Styrene	104	11.701	11.701	0.000	94	195825	1.00	0.9831	
104 Bromoform	173	11.859	11.859	0.000	95	20741	1.00	0.8157	
105 Isopropylbenzene	105	11.987	11.987	0.000	96	330264	1.00	0.99	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.128	12.128	0.000	92	935438	10.0	10.1	
109 1,1,2,2-Tetrachloroethane	83	12.225	12.225	0.000	93	51958	1.00	1.01	
111 Bromobenzene	156	12.243	12.243	0.000	96	76232	1.00	0.99	
110 trans-1,4-Dichloro-2-butene	53	12.249	12.249	0.000	91	104399	10.0	10.0	
112 1,2,3-Trichloropropane	110	12.274	12.274	0.000	82	13975	1.00	1.01	
113 N-Propylbenzene	91	12.310	12.310	0.000	99	382952	1.00	0.9782	
114 2-Chlorotoluene	126	12.390	12.390	0.000	97	78695	1.00	0.99	
115 1,3,5-Trimethylbenzene	105	12.445	12.445	0.000	95	272347	1.00	0.9768	
116 4-Chlorotoluene	126	12.481	12.481	0.000	97	78580	1.00	0.9819	
118 tert-Butylbenzene	134	12.688	12.688	0.000	93	59453	1.00	0.9512	
119 Pentachloroethane	167	12.719	12.719	0.000	91	43643	1.00	0.9377	
120 1,2,4-Trimethylbenzene	105	12.731	12.731	0.000	97	281010	1.00	0.9757	
121 sec-Butylbenzene	105	12.847	12.853	-0.006	94	342703	1.00	0.9701	
122 1,3-Dichlorobenzene	146	12.951	12.951	0.000	98	154126	1.00	0.99	
123 4-Isopropyltoluene	119	12.957	12.957	0.000	97	294643	1.00	0.9651	
* 124 1,4-Dichlorobenzene-d4	152	13.005	13.005	0.000	94	1062215	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.024	13.024	0.000	96	154623	1.00	1.00	
126 1,2,3-Trimethylbenzene	120	13.030	13.030	0.000	98	124149	1.00	0.9872	
127 Benzyl chloride	126	13.097	13.097	0.000	99	14564	1.00	0.9089	
129 p-Diethylbenzene	119	13.158	13.158	0.000	92	171305	1.00	0.9631	
130 n-Butylbenzene	92	13.249	13.249	0.000	98	134662	1.00	0.9335	
131 1,2-Dichlorobenzene	146	13.280	13.280	0.000	98	141208	1.00	1.00	
134 1,2-Dibromo-3-Chloropropane	155	13.816	13.822	-0.006	82	6659	1.00	0.9828	
135 1,3,5-Trichlorobenzene	180	13.944	13.944	0.000	97	111587	1.00	0.9663	
136 1,2,4-Trichlorobenzene	180	14.365	14.365	0.000	94	91516	1.00	0.9352	
137 Hexachlorobutadiene	225	14.450	14.450	0.000	96	42150	1.00	0.9101	
138 Naphthalene	128	14.548	14.548	0.000	97	164513	1.00	0.9831	
139 1,2,3-Trichlorobenzene	180	14.688	14.688	0.000	95	83806	1.00	0.9647	
140 2-Methylnaphthalene	142	15.304	15.304	0.000	93	87795	1.00	0.9283	

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

### Reagents:

MSV\_LL\_#1\_826\_00027

Amount Added: 2.00

Units: uL

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Amount Added: 2.00

Units: uL

MSV\_LL\_#2\_826\_00031

Amount Added: 2.00

Units: uL

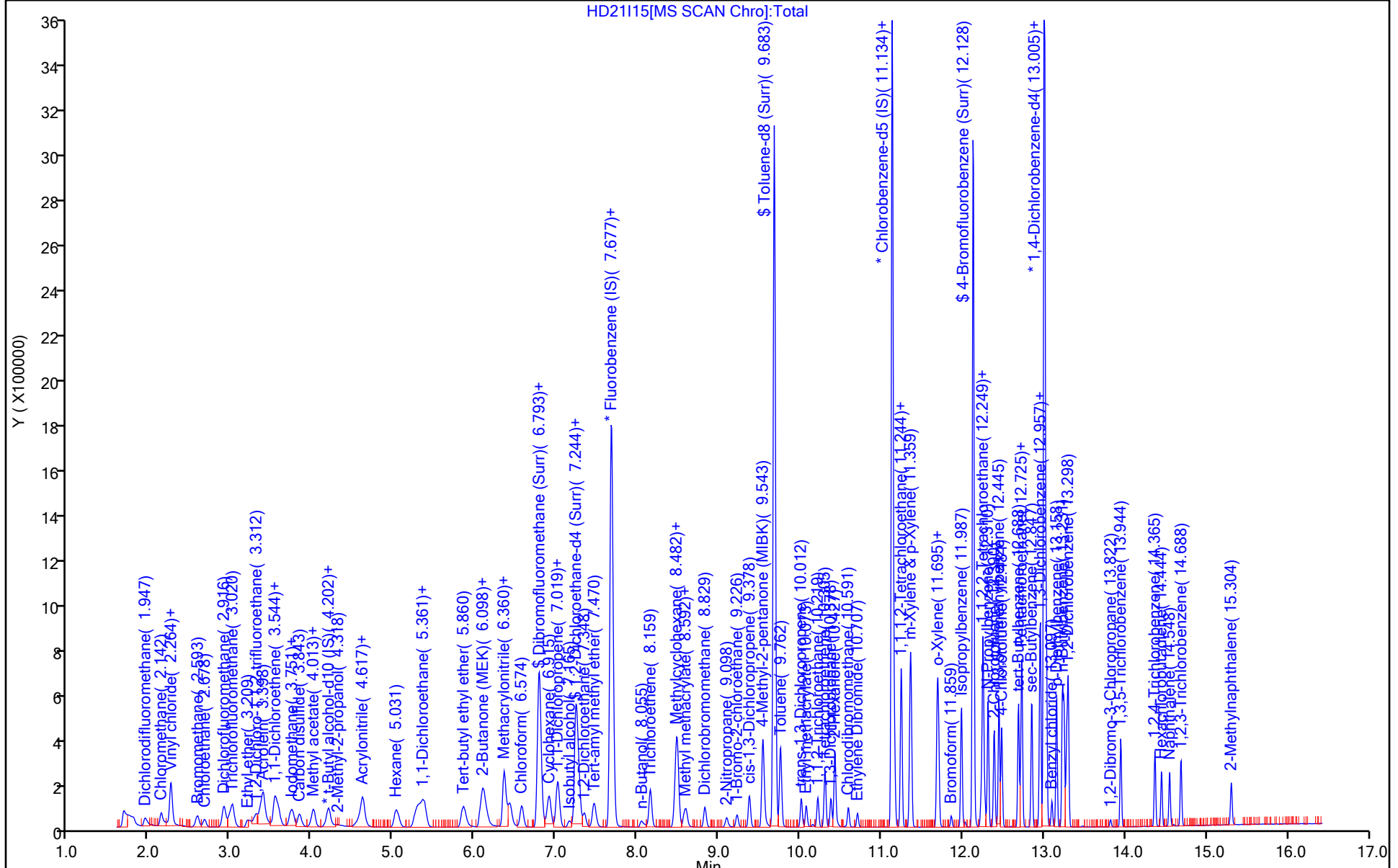
MSV\_LLcentISS\_00002

Amount Added: 5.00

Units: uL

Run Reagent





Eurofins Lancaster Laboratories Env, LLC

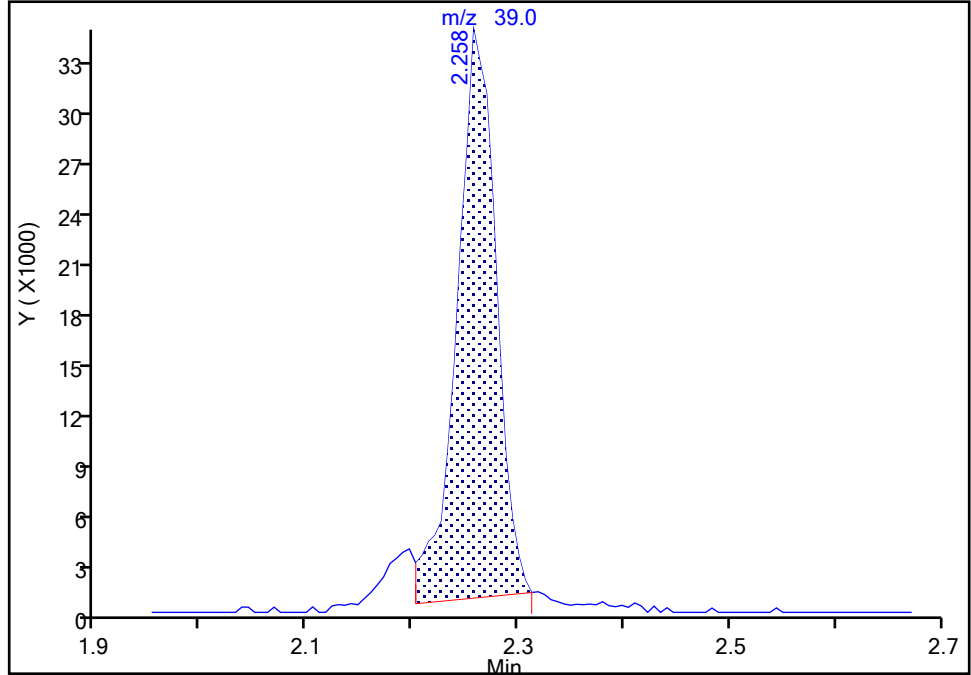
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Injection Date: 21-Dec-2021 19:57:30 Instrument ID: 19094  
Lims ID: IC std3 1  
Client ID:  
Operator ID: jml01693 ALS Bottle#: 17 Worklist Smp#: 18  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: MSV\_19094\_25mL Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column ( 0.25mm ID) Detector: MS Quad

8 Butadiene, CAS: 106-99-0

Signal: 1

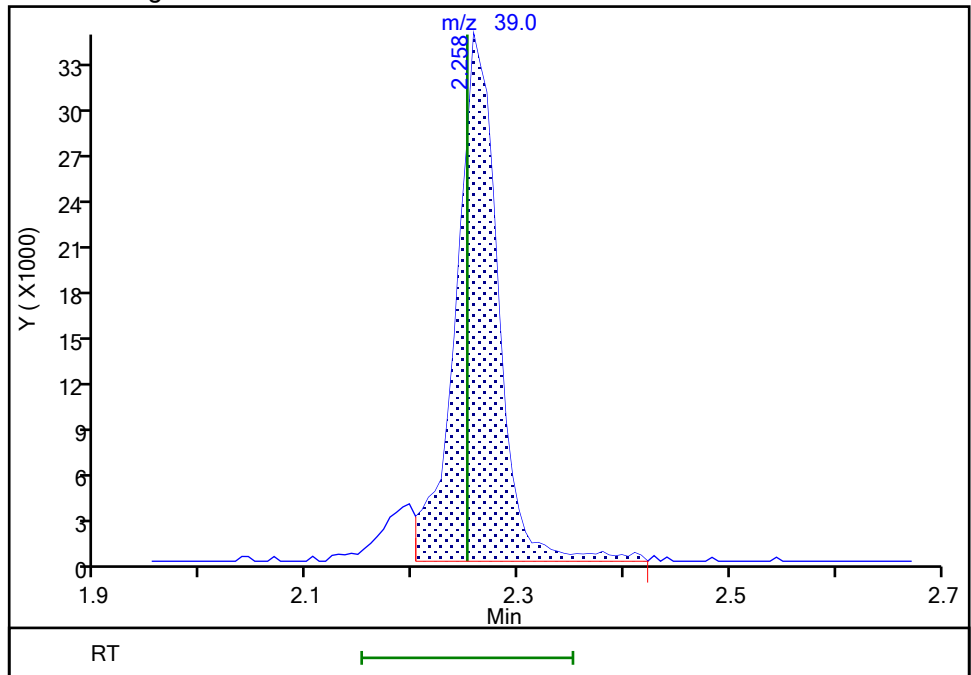
RT: 2.26  
Area: 86278  
Amount: 0.968270  
Amount Units: ug/l

Processing Integration Results



RT: 2.26  
Area: 95547  
Amount: 1.046374  
Amount Units: ug/l

Manual Integration Results



Reviewer: kellerk, 27-Dec-2021 09:08:32  
Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Lancaster Laboratories Env, LLC

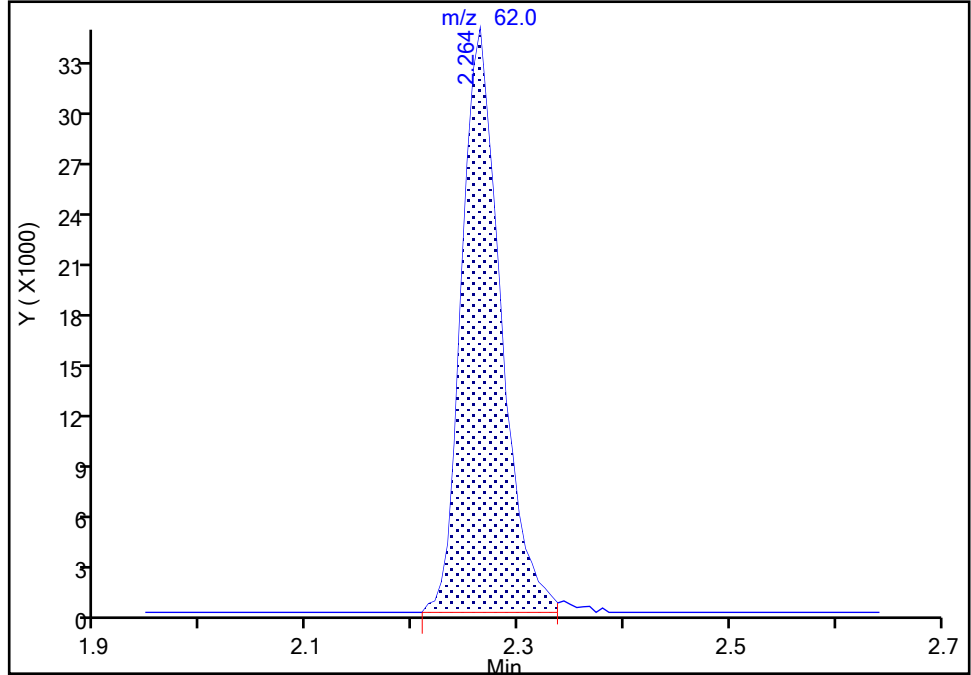
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Injection Date: 21-Dec-2021 19:57:30 Instrument ID: 19094  
Lims ID: IC std3 1  
Client ID:  
Operator ID: jml01693 ALS Bottle#: 17 Worklist Smp#: 18  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: MSV\_19094\_25mL Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column ( 0.25mm ID) Detector: MS Quad

7 Vinyl chloride, CAS: 75-01-4

Signal: 1

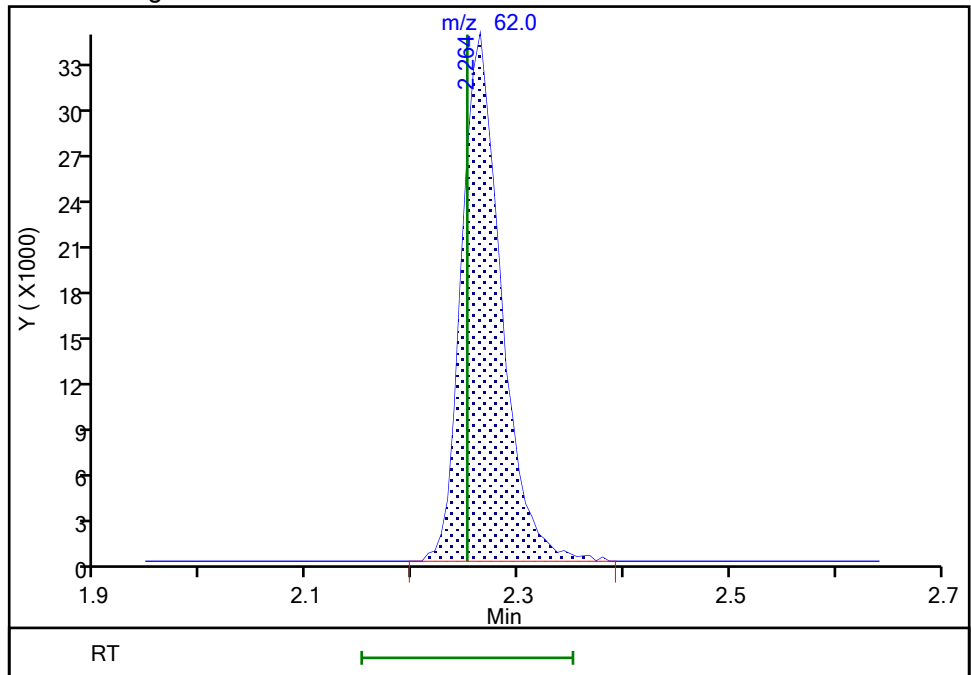
RT: 2.26  
Area: 88740  
Amount: 0.996435  
Amount Units: ug/l

Processing Integration Results



RT: 2.26  
Area: 89615  
Amount: 0.998335  
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 21-Dec-2021 20:42:57

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

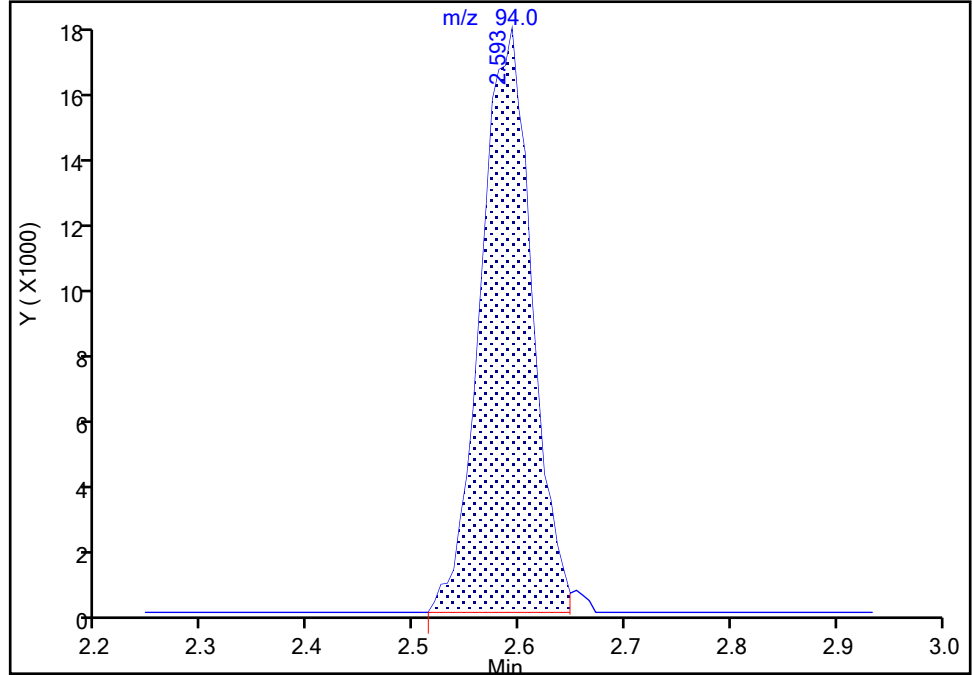
Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21115.D  
Injection Date: 21-Dec-2021 19:57:30 Instrument ID: 19094  
Lims ID: IC std3 1  
Client ID:  
Operator ID: jml01693 ALS Bottle#: 17 Worklist Smp#: 18  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: MSV\_19094\_25mL Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column ( 0.25mm ID) Detector: MS Quad

9 Bromomethane, CAS: 74-83-9

Signal: 1

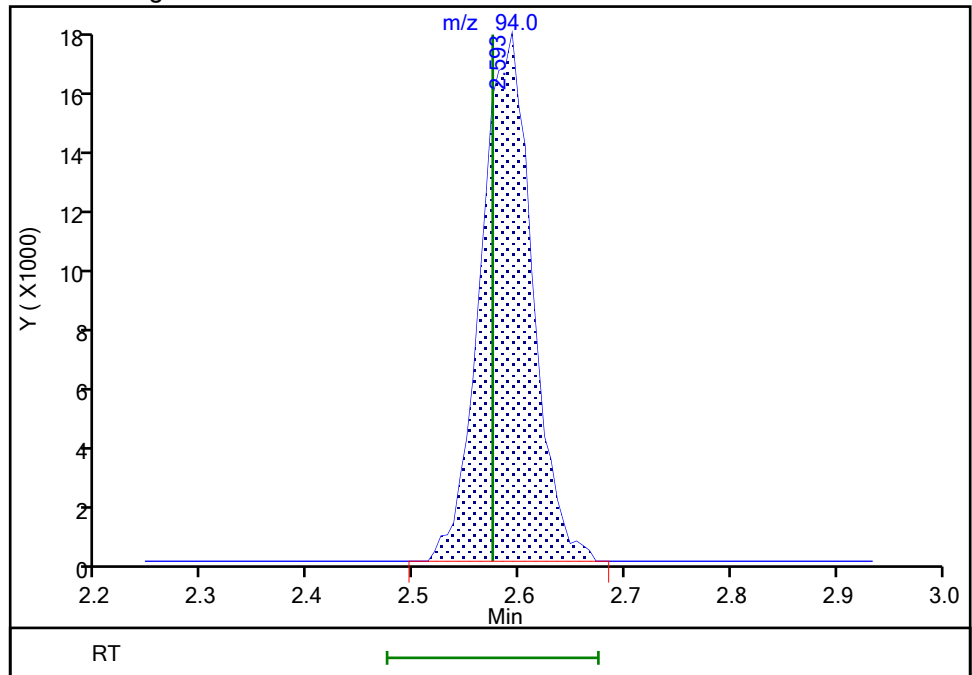
RT: 2.59  
Area: 58488  
Amount: 0.983495  
Amount Units: ug/l

Processing Integration Results



RT: 2.59  
Area: 59047  
Amount: 0.981099  
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 21-Dec-2021 20:43:01  
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21116.D  
 Lims ID: IC std2 0.5  
 Client ID:  
 Sample Type: IC Calib Level: 2  
 Inject. Date: 21-Dec-2021 20:18:30 ALS Bottle#: 18 Worklist Smp#: 19  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0046912-019  
 Misc. Info.: IC STD2 0.5  
 Operator ID: jml01693 Instrument ID: 19094  
 Sublist: chrom-MSV\_19094\_25mL\*sub1  
 Method: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\MSV\_19094\_25mL.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 27-Dec-2021 09:48:43 Calib Date: 21-Dec-2021 20:38:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21117.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1653

First Level Reviewer: campbellme

Date: 21-Dec-2021 20:45:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
3 Dichlorodifluoromethane	85	1.946	1.934	0.012	99	35985	0.5000	0.4980	
6 Chloromethane	50	2.135	2.130	0.005	98	47288	0.5000	0.5319	
8 Butadiene	39	2.257	2.251	0.006	92	49223	0.5000	0.5462	M
7 Vinyl chloride	62	2.263	2.251	0.012	97	44992	0.5000	0.5078	
9 Bromomethane	94	2.587	2.575	0.012	90	30013	0.5000	0.5053	
10 Chloroethane	64	2.678	2.660	0.018	99	26160	0.5000	0.5181	
11 Dichlorofluoromethane	67	2.910	2.898	0.012	97	59718	0.5000	0.5122	
13 Trichlorofluoromethane	101	2.977	2.971	0.006	96	56042	0.5000	0.5042	
15 Ethyl ether	59	3.208	3.196	0.012	93	19239	0.5000	0.4905	
16 1,2-Dichloro-1,1,2-trifluoroethane	67	3.312	3.306	0.006	91	41184	0.5000	0.5076	
17 Acrolein	56	3.397	3.385	0.012	95	141111	25.1	25.5	
18 1,1-Dichloroethene	96	3.532	3.526	0.006	98	30227	0.5000	0.5061	
19 Acetone	43	3.574	3.544	0.030	65	35562	5.00	5.93	
20 112TCTFE	101	3.574	3.574	0.000	91	30167	0.5000	0.5055	
21 Isopropyl alcohol	45	3.781	3.715	0.066	26	6251	10.0	6.93	M
22 Iodomethane	142	3.727	3.727	0.000	99	52236	0.5000	0.4997	
23 Ethyl bromide	108	3.769	3.751	0.018	98	25600	0.4997	0.5042	
24 Carbon disulfide	76	3.836	3.830	0.006	99	73764	0.5000	0.5039	
26 Methyl acetate	43	4.001	3.977	0.024	24	12084	0.5000	0.5881	M
27 3-Chloro-1-propene	41	4.013	4.007	0.006	92	47038	0.5000	0.5086	
* 28 t-Butyl alcohol-d10 (IS)	65	4.202	4.184	0.018	39	66191	50.0	50.0	
29 Methylene Chloride	84	4.196	4.196	0.000	91	32429	0.5000	0.5107	
30 2-Methyl-2-propanol	59	4.336	4.306	0.030	38	14475	10.0	10.3	
31 Acrylonitrile	53	4.562	4.525	0.037	19	10355	1.25	1.28	
32 Methyl tert-butyl ether	73	4.598	4.599	-0.001	86	63950	0.5000	0.4915	
33 trans-1,2-Dichloroethene	96	4.629	4.611	0.018	99	32230	0.5000	0.5021	
34 Hexane	57	5.031	5.019	0.012	92	40290	0.5000	0.4756	
35 1,1-Dichloroethane	63	5.269	5.263	0.006	95	58587	0.5000	0.4958	
37 Isopropyl ether	45	5.336	5.318	0.018	96	96582	0.5000	0.4967	
38 2-Chloro-1,3-butadiene	53	5.379	5.373	0.006	91	47947	0.5000	0.4933	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 Tert-butyl ethyl ether	59	5.854	5.854	0.000	98	82768	0.5000	0.4987	
41 2-Butanone (MEK)	43	6.080	6.056	0.024	100	56279	5.00	5.12	
42 cis-1,2-Dichloroethene	96	6.098	6.086	0.012	82	33973	0.5000	0.4859	
43 2,2-Dichloropropane	77	6.116	6.110	0.006	85	49170	0.5000	0.5064	
45 Propionitrile	54	6.165	6.153	0.012	97	30418	10.0	10.8	
S 40 1,2-Dichloroethene, Total	100				0			0.9880	
47 Methacrylonitrile	67	6.360	6.354	0.006	92	68349	5.00	5.46	
48 Chlorobromomethane	128	6.421	6.421	0.000	92	14397	0.5000	0.4913	
49 Tetrahydrofuran	71	6.446	6.434	0.012	84	8294	2.50	2.71	
50 Chloroform	83	6.574	6.568	0.006	93	57405	0.5000	0.4987	
\$ 51 Dibromofluoromethane (Surr)	113	6.787	6.781	0.006	94	582526	10.0	9.89	
52 1,1,1-Trichloroethane	97	6.805	6.799	0.006	98	53238	0.5000	0.5024	
53 Cyclohexane	56	6.909	6.903	0.006	91	56655	0.5000	0.4976	
55 1,1-Dichloropropene	75	7.019	7.007	0.012	96	47490	0.5000	0.5066	
56 Carbon tetrachloride	117	7.019	7.025	-0.006	79	45436	0.5000	0.4917	
57 Isobutyl alcohol	41	7.189	7.159	0.030	93	14765	25.0	25.1	M
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.244	7.238	0.006	80	109507	10.0	9.97	
59 Benzene	78	7.275	7.269	0.006	95	134812	0.5000	0.5009	
60 1,2-Dichloroethane	62	7.342	7.342	0.000	97	33955	0.5000	0.5060	
62 Tert-amyl methyl ether	73	7.464	7.464	0.000	98	67857	0.5000	0.4879	
* 65 Fluorobenzene (IS)	96	7.677	7.677	0.000	99	2232533	10.0	10.0	
64 n-Heptane	43	7.695	7.689	0.006	89	42601	0.5000	0.4767	
66 n-Butanol	56	8.079	8.043	0.036	86	14843	43.8	37.8	M
67 Trichloroethene	95	8.159	8.153	0.006	98	35271	0.5000	0.4981	
68 Methylcyclohexane	83	8.470	8.470	0.000	95	57408	0.5000	0.4787	
70 1,2-Dichloropropane	63	8.488	8.482	0.006	86	33366	0.5000	0.4927	
69 2-ethoxy-2-methyl butane	87	8.500	8.494	0.006	91	35840	0.5000	0.4919	
71 Methyl methacrylate	69	8.579	8.567	0.012	87	11399	0.5000	0.5007	
72 1,4-Dioxane	88	8.598	8.586	0.012	28	2184	25.0	23.2	
73 Dibromomethane	93	8.598	8.592	0.006	95	14753	0.5000	0.4889	
75 Dichlorobromomethane	83	8.829	8.829	0.000	98	36593	0.5000	0.4824	
76 2-Nitropropane	41	9.104	9.092	0.012	98	15849	2.50	2.56	
79 1-Bromo-2-chloroethane	63	9.226	9.226	0.000	98	29210	0.5000	0.4889	
80 cis-1,3-Dichloropropene	75	9.378	9.378	0.000	96	46619	0.5000	0.4865	
81 4-Methyl-2-pentanone (MIBK)	43	9.543	9.543	0.000	97	158604	5.00	5.30	
\$ 82 Toluene-d8 (Surr)	98	9.683	9.683	0.000	93	2384807	10.0	9.88	
83 Toluene	92	9.762	9.762	0.000	98	86613	0.5000	0.4989	
85 trans-1,3-Dichloropropene	75	10.018	10.012	0.006	93	34458	0.5000	0.4602	
S 84 1,3-Dichloropropene, Total	100				0			0.9467	
86 Ethyl methacrylate	69	10.079	10.073	0.006	88	25573	0.5000	0.4546	
87 1,1,2-Trichloroethane	97	10.219	10.219	0.000	91	20817	0.5000	0.4856	
88 Tetrachloroethene	166	10.305	10.305	0.000	97	41509	0.5000	0.5021	
89 1,3-Dichloropropane	76	10.384	10.378	0.006	88	37316	0.5000	0.4928	
91 2-Hexanone	43	10.433	10.427	0.006	97	103357	5.00	5.10	
93 Chlorodibromomethane	129	10.597	10.591	0.006	88	22550	0.5000	0.4584	
94 Ethylene Dibromide	107	10.707	10.707	0.000	97	19357	0.5000	0.4703	
* 97 Chlorobenzene-d5 (IS)	117	11.134	11.134	0.000	86	1858493	10.0	10.0	
96 1-Chlorohexane	91	11.140	11.140	0.000	95	52628	0.5000	0.5096	
98 Chlorobenzene	112	11.158	11.158	0.000	95	93365	0.5000	0.4888	
99 1,1,1,2-Tetrachloroethane	131	11.243	11.244	-0.001	94	30835	0.5000	0.4778	
100 Ethylbenzene	91	11.243	11.244	-0.001	98	165575	0.5000	0.4957	
S 95 Xylenes, Total	106				0			1.47	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
101 m-Xylene & p-Xylene	106	11.359	11.359	0.000	98	127444	1.00	0.9826	
102 o-Xylene	106	11.688	11.689	-0.001	97	61695	0.5000	0.4857	
103 Styrene	104	11.701	11.701	0.000	94	94968	0.5000	0.4738	
104 Bromoform	173	11.859	11.859	0.000	96	9408	0.5000	0.3677	
105 Isopropylbenzene	105	11.987	11.987	0.000	96	162375	0.5000	0.4856	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.127	12.128	-0.001	92	934012	10.0	10.0	
109 1,1,2,2-Tetrachloroethane	83	12.225	12.225	0.000	94	24100	0.5000	0.4684	
111 Bromobenzene	156	12.243	12.243	0.000	96	37741	0.5000	0.4916	
110 trans-1,4-Dichloro-2-butene	53	12.249	12.249	0.000	93	44103	5.00	4.67	
112 1,2,3-Trichloropropane	110	12.274	12.274	0.000	76	6626	0.5000	0.4784	
113 N-Propylbenzene	91	12.310	12.310	0.000	98	187432	0.5000	0.4792	
114 2-Chlorotoluene	126	12.390	12.390	0.000	96	37970	0.5000	0.4799	
115 1,3,5-Trimethylbenzene	105	12.444	12.445	-0.001	95	132101	0.5000	0.4743	
116 4-Chlorotoluene	126	12.481	12.481	0.000	97	39263	0.5000	0.4911	
118 tert-Butylbenzene	134	12.688	12.688	0.000	93	31722	0.5000	0.5080	
119 Pentachloroethane	167	12.719	12.719	0.000	77	21355	0.5000	0.4593	
120 1,2,4-Trimethylbenzene	105	12.731	12.731	0.000	97	135793	0.5000	0.4720	
121 sec-Butylbenzene	105	12.847	12.853	-0.006	94	167867	0.5000	0.4756	
122 1,3-Dichlorobenzene	146	12.950	12.951	-0.001	98	74250	0.5000	0.4782	
123 4-Isopropyltoluene	119	12.956	12.957	-0.001	97	143219	0.5000	0.4696	
* 124 1,4-Dichlorobenzene-d4	152	13.005	13.005	0.000	94	1061163	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.024	13.024	0.000	96	75222	0.5000	0.4876	
126 1,2,3-Trimethylbenzene	120	13.030	13.030	0.000	98	61284	0.5000	0.4878	
127 Benzyl chloride	126	13.097	13.097	0.000	98	6663	0.5000	0.4162	
129 p-Diethylbenzene	119	13.158	13.158	0.000	92	82556	0.5000	0.4646	
130 n-Butylbenzene	92	13.249	13.249	0.000	97	66203	0.5000	0.4594	
131 1,2-Dichlorobenzene	146	13.280	13.280	0.000	98	69065	0.5000	0.4900	
134 1,2-Dibromo-3-Chloropropane	155	13.816	13.822	-0.006	80	2991	0.5000	0.4419	
135 1,3,5-Trichlorobenzene	180	13.944	13.944	0.000	97	53184	0.5000	0.4610	
136 1,2,4-Trichlorobenzene	180	14.365	14.365	0.000	95	44032	0.5000	0.4504	
137 Hexachlorobutadiene	225	14.450	14.450	0.000	94	23052	0.5000	0.4982	
138 Naphthalene	128	14.548	14.548	0.000	97	76805	0.5000	0.4594	
139 1,2,3-Trichlorobenzene	180	14.688	14.688	0.000	96	41241	0.5000	0.4752	
140 2-Methylnaphthalene	142	15.304	15.304	0.000	93	40127	0.5000	0.4247	

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

### Reagents:

MSV\_LL\_#1\_826\_00027

Amount Added: 2.00

Units: uL

MSV\_LL\_GAS826\_00056

Amount Added: 2.00

Units: uL

MSV\_LL\_#2\_826\_00031

Amount Added: 2.00

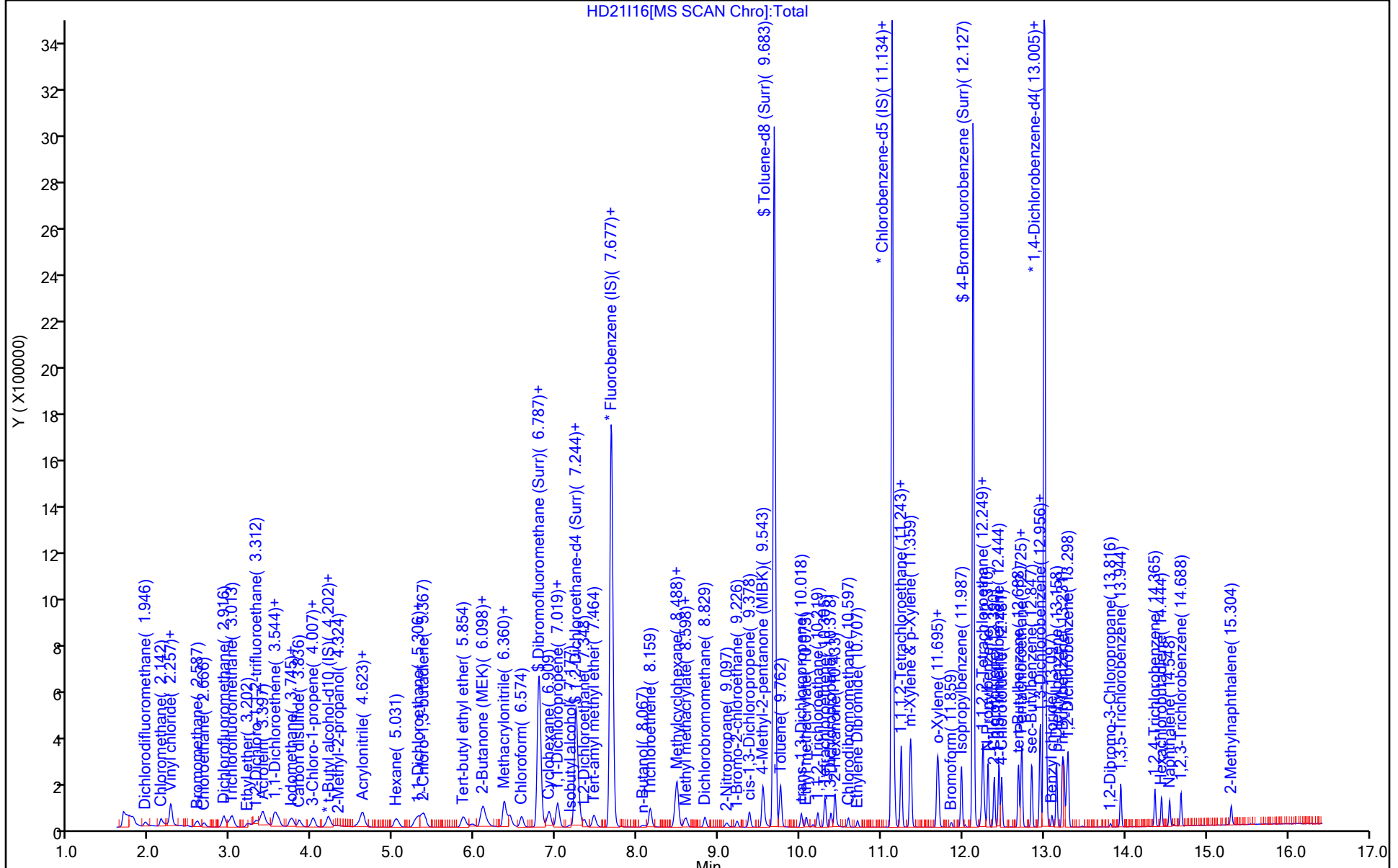
Units: uL

MSV\_LLcentISS\_00002

Amount Added: 5.00

Units: uL

Run Reagent





Eurofins Lancaster Laboratories Env, LLC

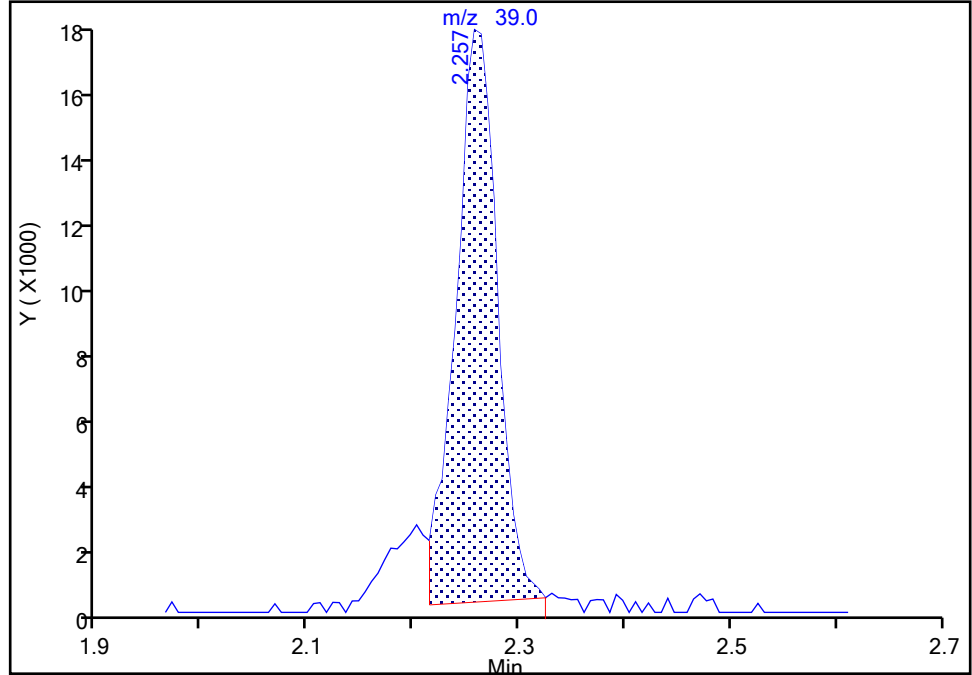
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Injection Date: 21-Dec-2021 20:18:30 Instrument ID: 19094  
Lims ID: IC std2 0.5  
Client ID:  
Operator ID: jml01693 ALS Bottle#: 18 Worklist Smp#: 19  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: MSV\_19094\_25mL Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column ( 0.25mm ID) Detector: MS Quad

8 Butadiene, CAS: 106-99-0

Signal: 1

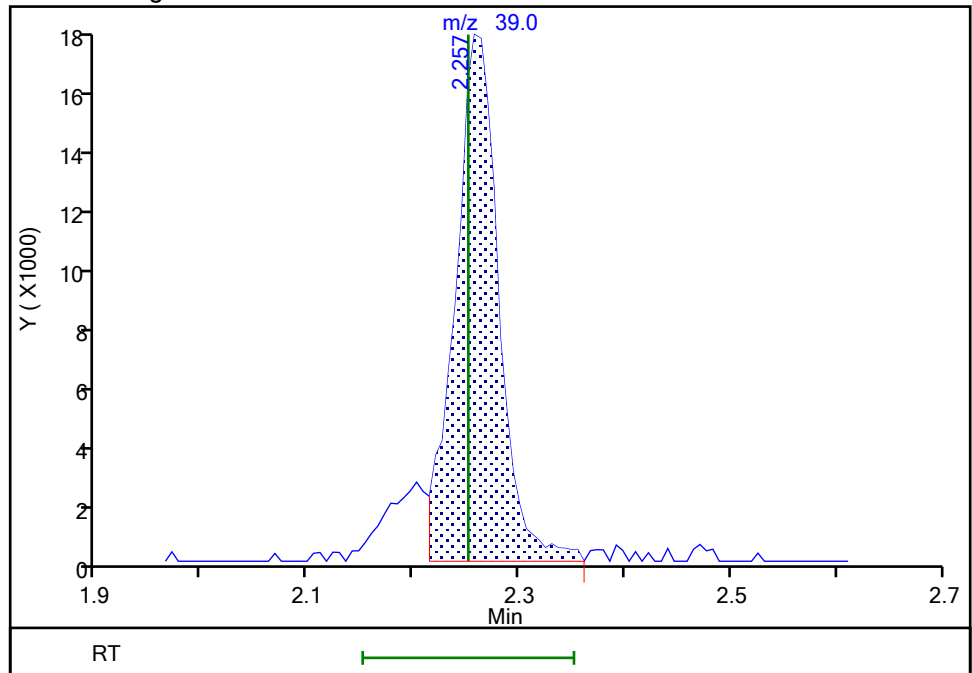
RT: 2.26  
Area: 46173  
Amount: 0.517343  
Amount Units: ug/l

Processing Integration Results



RT: 2.26  
Area: 49223  
Amount: 0.546183  
Amount Units: ug/l

Manual Integration Results



Reviewer: kellerk, 27-Dec-2021 09:09:01  
Audit Action: Split an Integrated Peak

Audit Reason: Baseline

Eurofins Lancaster Laboratories Env, LLC

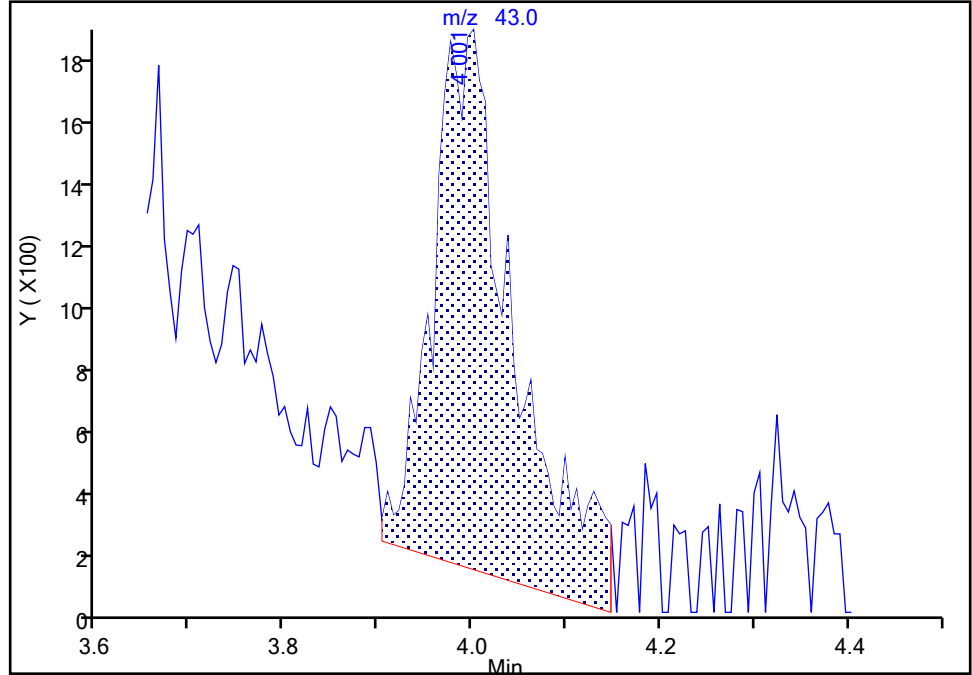
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Injection Date: 21-Dec-2021 20:18:30 Instrument ID: 19094  
Lims ID: IC std2 0.5  
Client ID:  
Operator ID: jml01693 ALS Bottle#: 18 Worklist Smp#: 19  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: MSV\_19094\_25mL Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column ( 0.25mm ID) Detector: MS Quad

26 Methyl acetate, CAS: 79-20-9

Signal: 1

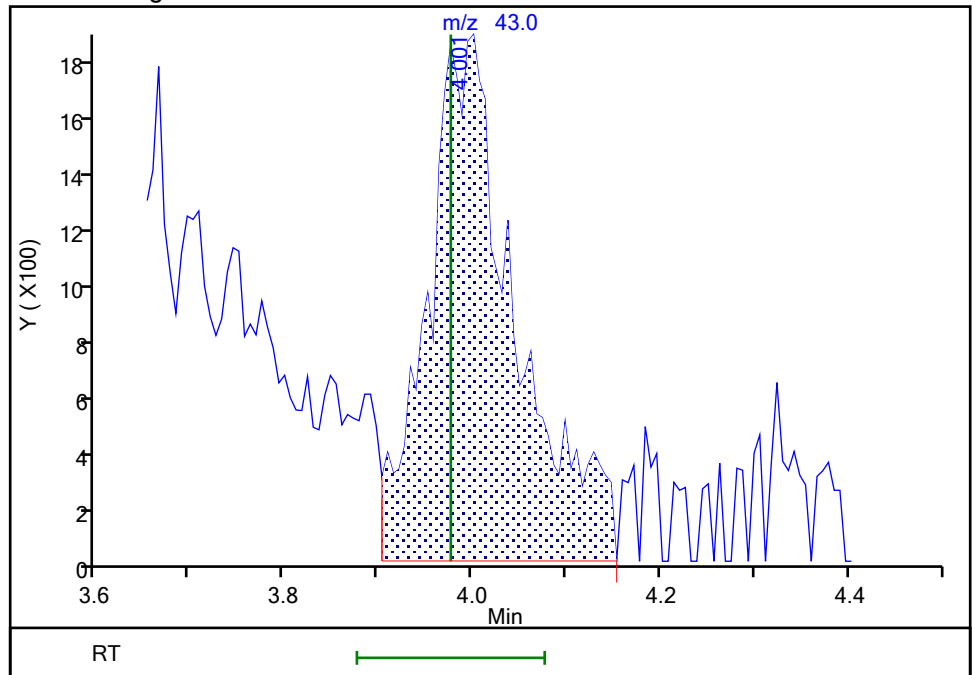
RT: 4.00  
Area: 10389  
Amount: 0.527732  
Amount Units: ug/l

Processing Integration Results



RT: 4.00  
Area: 12084  
Amount: 0.588125  
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 21-Dec-2021 20:44:16  
Audit Action: Assigned New Baseline

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

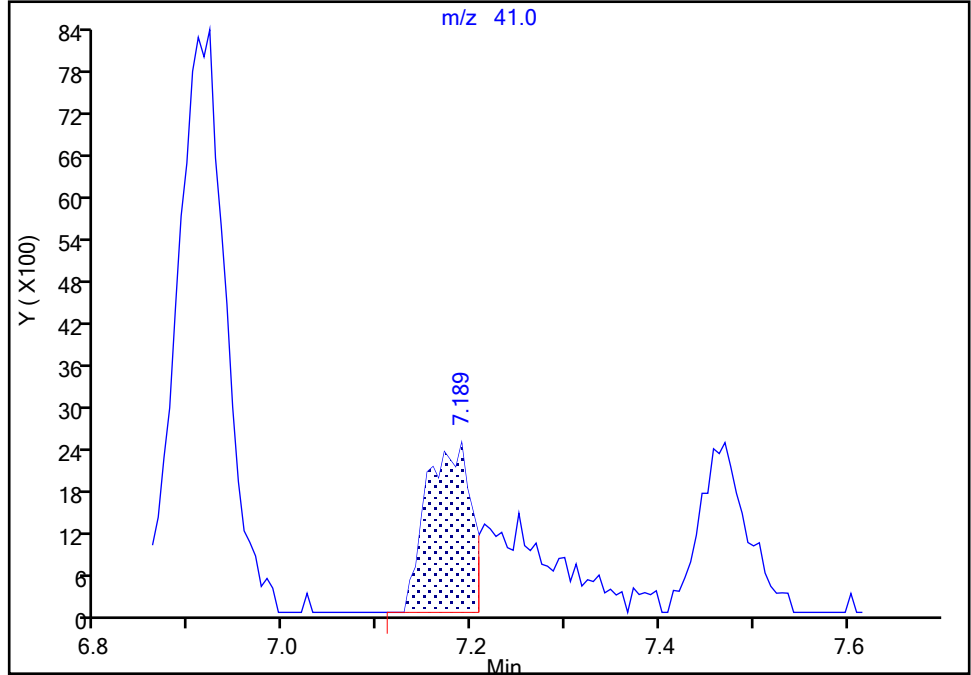
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Injection Date: 21-Dec-2021 20:18:30 Instrument ID: 19094  
Lims ID: IC std2 0.5  
Client ID:  
Operator ID: jml01693 ALS Bottle#: 18 Worklist Smp#: 19  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: MSV\_19094\_25mL Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column ( 0.25mm ID) Detector: MS Quad

57 Isobutyl alcohol, CAS: 78-83-1

Signal: 1

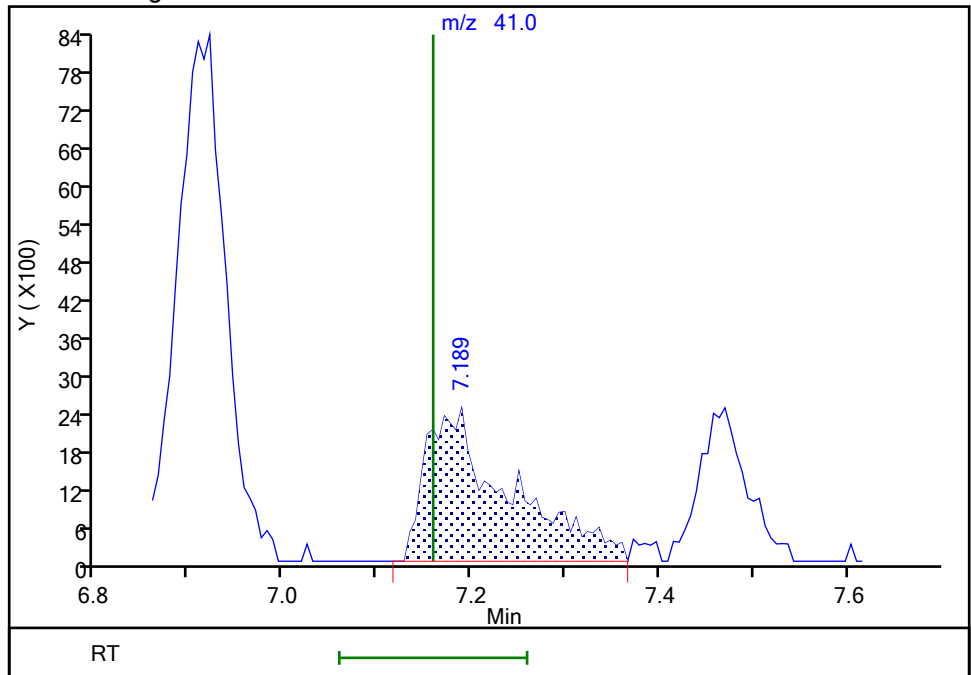
RT: 7.19  
Area: 8010  
Amount: 14.420785  
Amount Units: ug/l

Processing Integration Results



RT: 7.19  
Area: 14765  
Amount: 25.066842  
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 21-Dec-2021 20:44:38  
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration  
Page 495 of 901

Eurofins Lancaster Laboratories Env, LLC

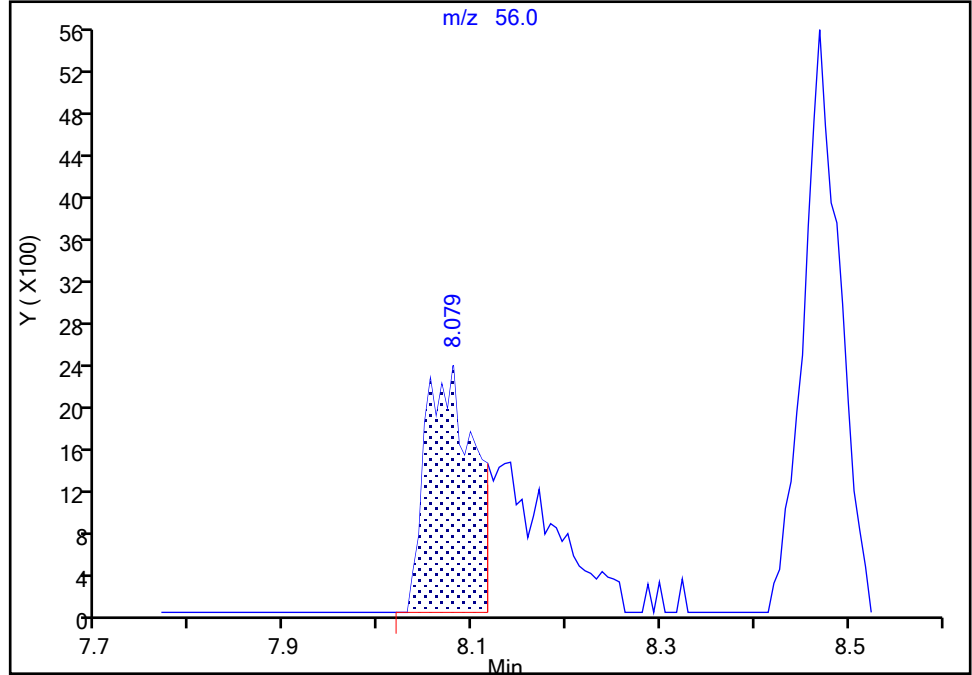
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Injection Date: 21-Dec-2021 20:18:30 Instrument ID: 19094  
Lims ID: IC std2 0.5  
Client ID:  
Operator ID: jml01693 ALS Bottle#: 18 Worklist Smp#: 19  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: MSV\_19094\_25mL Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column ( 0.25mm ID) Detector: MS Quad

66 n-Butanol, CAS: 71-36-3

Signal: 1

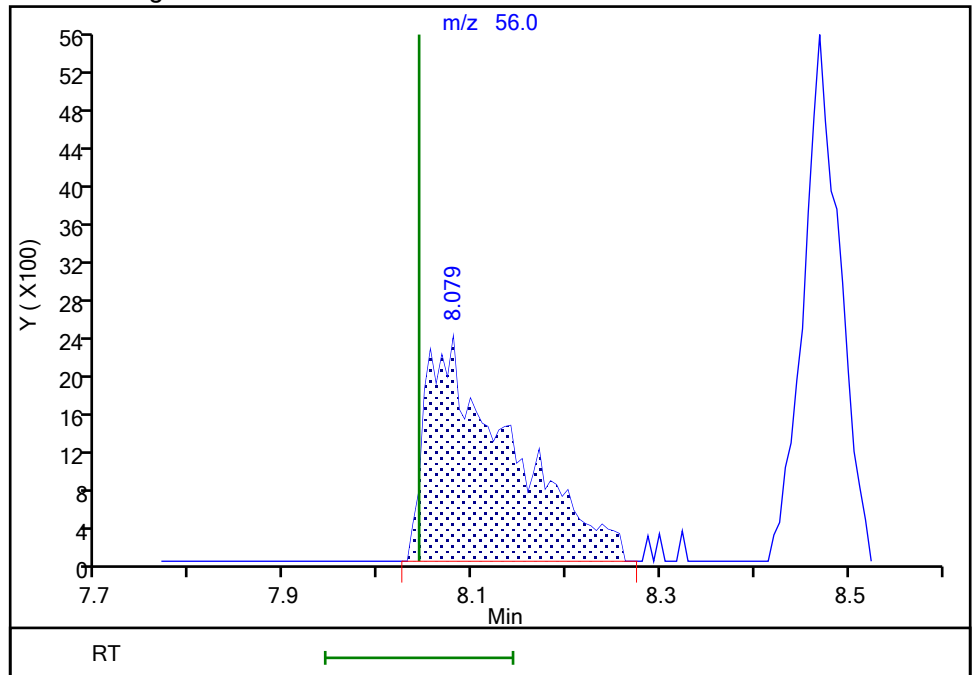
RT: 8.08  
Area: 8358  
Amount: 22.497577  
Amount Units: ug/l

Processing Integration Results



RT: 8.08  
Area: 14843  
Amount: 37.799015  
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 21-Dec-2021 21:08:06  
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21117.D  
 Lims ID: IC std1 0.2  
 Client ID:  
 Sample Type: IC Calib Level: 1  
 Inject. Date: 21-Dec-2021 20:38:30 ALS Bottle#: 19 Worklist Smp#: 20  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0046912-020  
 Misc. Info.: IC STD1 0.2  
 Operator ID: jml01693 Instrument ID: 19094  
 Sublist: chrom-MSV\_19094\_25mL\*sub1  
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 Limit Group: MSV - 8260C\_D  
 Last Update: 27-Dec-2021 09:48:50 Calib Date: 21-Dec-2021 20:38:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21117.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1653

First Level Reviewer: campbellme

Date: 21-Dec-2021 21:04:54

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
3 Dichlorodifluoromethane	85	1.934	1.934	0.000	98	14426	0.2000	0.1981	
6 Chloromethane	50	2.129	2.130	-0.001	99	20015	0.2000	0.2234	
8 Butadiene	39	2.251	2.251	0.000	89	20144	0.2000	0.2218	
7 Vinyl chloride	62	2.251	2.251	0.000	93	18524	0.2000	0.2075	
9 Bromomethane	94	2.580	2.575	0.005	89	12713	0.2000	0.2124	M
10 Chloroethane	64	2.666	2.660	0.006	98	10713	0.2000	0.2105	
11 Dichlorofluoromethane	67	2.904	2.898	0.006	97	24682	0.2000	0.2101	
13 Trichlorofluoromethane	101	2.983	2.971	0.012	93	23794	0.2000	0.2125	
15 Ethyl ether	59	3.221	3.196	0.025	65	7780	0.2000	0.1968	
16 1,2-Dichloro-1,1,2-trifluoroethane	67	3.294	3.306	-0.012	90	17009	0.2000	0.2080	
17 Acrolein	56	3.391	3.385	0.006	98	62242	10.0	9.12	
18 1,1-Dichloroethene	96	3.525	3.526	-0.001	97	12762	0.2000	0.2120	
19 Acetone	43	3.562	3.544	0.018	84	15577	2.00	2.11	
20 112TCTFE	101	3.574	3.574	0.000	87	12063	0.2000	0.2006	
21 Isopropyl alcohol	45	3.727	3.715	0.012	27	1638	4.00	1.80	M
22 Iodomethane	142	3.714	3.727	-0.013	99	22105	0.2000	0.2099	
23 Ethyl bromide	108	3.763	3.751	0.012	94	10812	0.1999	0.2113	
24 Carbon disulfide	76	3.830	3.830	0.000	99	31534	0.2000	0.2138	
26 Methyl acetate	43	3.983	3.977	0.006	30	5496	0.2000	0.2173	
27 3-Chloro-1-propene	41	4.001	4.007	-0.006	92	19704	0.2000	0.2114	
* 28 t-Butyl alcohol-d10 (IS)	65	4.190	4.184	0.006	94	81494	50.0	50.0	
29 Methylene Chloride	84	4.190	4.196	-0.006	89	14252	0.2000	0.2227	
30 2-Methyl-2-propanol	59	4.294	4.306	-0.012	11	5692	4.00	3.30	M
31 Acrylonitrile	53	4.550	4.525	0.025	21	3087	0.5000	0.3100	M
32 Methyl tert-butyl ether	73	4.598	4.599	-0.001	94	25946	0.2000	0.1979	
33 trans-1,2-Dichloroethene	96	4.617	4.611	0.006	99	13681	0.2000	0.2115	
34 Hexane	57	5.019	5.019	0.000	92	16993	0.2000	0.1991	
35 1,1-Dichloroethane	63	5.269	5.263	0.006	95	23987	0.2000	0.2015	
37 Isopropyl ether	45	5.318	5.318	0.000	94	38382	0.2000	0.1959	
38 2-Chloro-1,3-butadiene	53	5.367	5.373	-0.006	92	19713	0.2000	0.2013	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 Tert-butyl ethyl ether	59	5.854	5.854	0.000	97	33658	0.2000	0.2013	
41 2-Butanone (MEK)	43	6.080	6.056	0.024	98	23334	2.00	1.72	
42 cis-1,2-Dichloroethene	96	6.098	6.086	0.012	82	14610	0.2000	0.2074	
43 2,2-Dichloropropane	77	6.116	6.110	0.006	87	19840	0.2000	0.2028	
45 Propionitrile	54	6.165	6.153	0.012	96	11103	4.00	3.20	
S 40 1,2-Dichloroethene, Total	100				0			0.4189	
47 Methacrylonitrile	67	6.366	6.354	0.012	91	27085	2.00	1.76	M
48 Chlorobromomethane	128	6.421	6.421	0.000	84	6023	0.2000	0.2040	
49 Tetrahydrofuran	71	6.439	6.434	0.005	79	2964	1.00	0.7877	
50 Chloroform	83	6.574	6.568	0.006	93	24126	0.2000	0.2080	
\$ 51 Dibromofluoromethane (Surr)	113	6.781	6.781	0.000	94	595211	10.0	10.0	
52 1,1,1-Trichloroethane	97	6.811	6.799	0.012	40	22460	0.2000	0.2103	
53 Cyclohexane	56	6.903	6.903	0.000	89	23093	0.2000	0.2013	
55 1,1-Dichloropropene	75	7.013	7.007	0.006	92	18369	0.2000	0.1944	
56 Carbon tetrachloride	117	7.025	7.025	0.000	91	18940	0.2000	0.2034	
57 Isobutyl alcohol	41	7.159	7.159	0.000	95	7721	10.0	10.6	M
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.238	7.238	0.000	78	112008	10.0	10.1	
59 Benzene	78	7.269	7.269	0.000	95	57038	0.2000	0.2103	
60 1,2-Dichloroethane	62	7.342	7.342	0.000	96	14513	0.2000	0.2146	
62 Tert-amyl methyl ether	73	7.458	7.464	-0.006	98	27575	0.2000	0.1968	
* 65 Fluorobenzene (IS)	96	7.677	7.677	0.000	99	2249617	10.0	10.0	
64 n-Heptane	43	7.683	7.689	-0.006	37	18238	0.2000	0.2025	
66 n-Butanol	56	8.073	8.043	0.030	89	6512	17.5	13.5	M
67 Trichloroethene	95	8.153	8.153	0.000	96	14580	0.2000	0.2043	
68 Methylcyclohexane	83	8.470	8.470	0.000	93	23043	0.2000	0.1907	
70 1,2-Dichloropropane	63	8.488	8.482	0.006	80	13936	0.2000	0.2042	
69 2-ethoxy-2-methyl butane	87	8.488	8.494	-0.006	90	14549	0.2000	0.1982	
71 Methyl methacrylate	69	8.585	8.567	0.018	71	4377	0.2000	0.1562	
72 1,4-Dioxane	88	8.604	8.586	0.018	0	200	10.0	7.51	M
73 Dibromomethane	93	8.592	8.592	0.000	93	6206	0.2000	0.2041	
75 Dichlorobromomethane	83	8.829	8.829	0.000	99	14888	0.2000	0.1948	
76 2-Nitropropane	41	9.091	9.092	-0.001	98	6696	1.00	0.8784	M
79 1-Bromo-2-chloroethane	63	9.226	9.226	0.000	96	12115	0.2000	0.2012	
80 cis-1,3-Dichloropropene	75	9.378	9.378	0.000	96	18410	0.2000	0.1907	
81 4-Methyl-2-pentanone (MIBK)	43	9.543	9.543	0.000	97	62779	2.00	1.70	
\$ 82 Toluene-d8 (Surr)	98	9.683	9.683	0.000	93	2418337	10.0	9.88	
83 Toluene	92	9.756	9.762	-0.006	98	36606	0.2000	0.2079	
85 trans-1,3-Dichloropropene	75	10.012	10.012	0.000	93	13548	0.2000	0.1784	
S 84 1,3-Dichloropropene, Total	100				0			0.3690	
86 Ethyl methacrylate	69	10.079	10.073	0.006	92	9920	0.2000	0.1738	
87 1,1,2-Trichloroethane	97	10.219	10.219	0.000	90	8471	0.2000	0.1948	
88 Tetrachloroethene	166	10.305	10.305	0.000	97	16817	0.2000	0.2005	
89 1,3-Dichloropropane	76	10.378	10.378	0.000	90	15206	0.2000	0.1980	
91 2-Hexanone	43	10.433	10.427	0.006	97	42985	2.00	1.72	
93 Chlorodibromomethane	129	10.591	10.591	0.000	90	8095	0.2000	0.1622	
94 Ethylene Dibromide	107	10.707	10.707	0.000	98	7848	0.2000	0.1880	
* 97 Chlorobenzene-d5 (IS)	117	11.134	11.134	0.000	86	1885106	10.0	10.0	
96 1-Chlorohexane	91	11.140	11.140	0.000	72	22588	0.2000	0.2156	
98 Chlorobenzene	112	11.158	11.158	0.000	96	39732	0.2000	0.2051	
99 1,1,1,2-Tetrachloroethane	131	11.243	11.244	-0.001	95	12343	0.2000	0.1886	
100 Ethylbenzene	91	11.243	11.244	-0.001	98	67869	0.2000	0.2003	
S 95 Xylenes, Total	106				0			0.5980	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
101 m-Xylene & p-Xylene	106	11.359	11.359	0.000	98	53048	0.4000	0.4032	
102 o-Xylene	106	11.688	11.689	-0.001	97	25094	0.2000	0.1948	
103 Styrene	104	11.707	11.701	0.006	94	37483	0.2000	0.1844	
104 Bromoform	173	11.859	11.859	0.000	93	2784	0.2000	0.1073	
105 Isopropylbenzene	105	11.981	11.987	-0.006	96	66865	0.2000	0.1971	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.127	12.128	-0.001	92	948216	10.0	10.0	
109 1,1,2,2-Tetrachloroethane	83	12.225	12.225	0.000	93	9871	0.2000	0.1883	Ma
111 Bromobenzene	156	12.249	12.243	0.006	97	14965	0.2000	0.1913	
110 trans-1,4-Dichloro-2-butene	53	12.255	12.249	0.006	91	17200	2.00	1.48	
112 1,2,3-Trichloropropane	110	12.274	12.274	0.000	78	3000	0.2000	0.2126	
113 N-Propylbenzene	91	12.310	12.310	0.000	99	77601	0.2000	0.1947	
114 2-Chlorotoluene	126	12.390	12.390	0.000	97	15892	0.2000	0.1971	
115 1,3,5-Trimethylbenzene	105	12.444	12.445	-0.001	93	53491	0.2000	0.1885	
116 4-Chlorotoluene	126	12.481	12.481	0.000	97	15656	0.2000	0.1922	
118 tert-Butylbenzene	134	12.688	12.688	0.000	93	12525	0.2000	0.1968	
119 Pentachloroethane	167	12.719	12.719	0.000	81	8661	0.2000	0.1828	
120 1,2,4-Trimethylbenzene	105	12.731	12.731	0.000	97	55976	0.2000	0.1909	
121 sec-Butylbenzene	105	12.847	12.853	-0.006	94	66936	0.2000	0.1861	
122 1,3-Dichlorobenzene	146	12.950	12.951	-0.001	97	30539	0.2000	0.1930	
123 4-Isopropyltoluene	119	12.957	12.957	-0.001	97	56692	0.2000	0.1824	
* 124 1,4-Dichlorobenzene-d4	152	13.005	13.005	0.000	95	1081350	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.024	13.024	0.000	93	30345	0.2000	0.1930	
126 1,2,3-Trimethylbenzene	120	13.030	13.030	0.000	93	25505	0.2000	0.1992	
127 Benzyl chloride	126	13.097	13.097	0.000	98	2433	0.2000	0.1492	
129 p-Diethylbenzene	119	13.158	13.158	0.000	93	33212	0.2000	0.1834	
130 n-Butylbenzene	92	13.249	13.249	0.000	97	25909	0.2000	0.1764	
131 1,2-Dichlorobenzene	146	13.280	13.280	0.000	97	27300	0.2000	0.1901	
134 1,2-Dibromo-3-Chloropropane	155	13.822	13.822	0.000	82	1096	0.2000	0.1589	
135 1,3,5-Trichlorobenzene	180	13.944	13.944	0.000	97	21341	0.2000	0.1815	
136 1,2,4-Trichlorobenzene	180	14.365	14.365	0.000	93	17918	0.2000	0.1799	
137 Hexachlorobutadiene	225	14.450	14.450	0.000	93	9946	0.2000	0.2110	
138 Naphthalene	128	14.548	14.548	0.000	97	32196	0.2000	0.1890	
139 1,2,3-Trichlorobenzene	180	14.688	14.688	0.000	96	16050	0.2000	0.1815	
140 2-Methylnaphthalene	142	15.304	15.304	0.000	89	15853	0.2000	0.1647	

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

### Reagents:

MSV\_LL\_#1\_826\_00027

Amount Added: 2.00

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Amount Added: 2.00

Units: uL

MSV\_LL\_#2\_826\_00031

Amount Added: 2.00

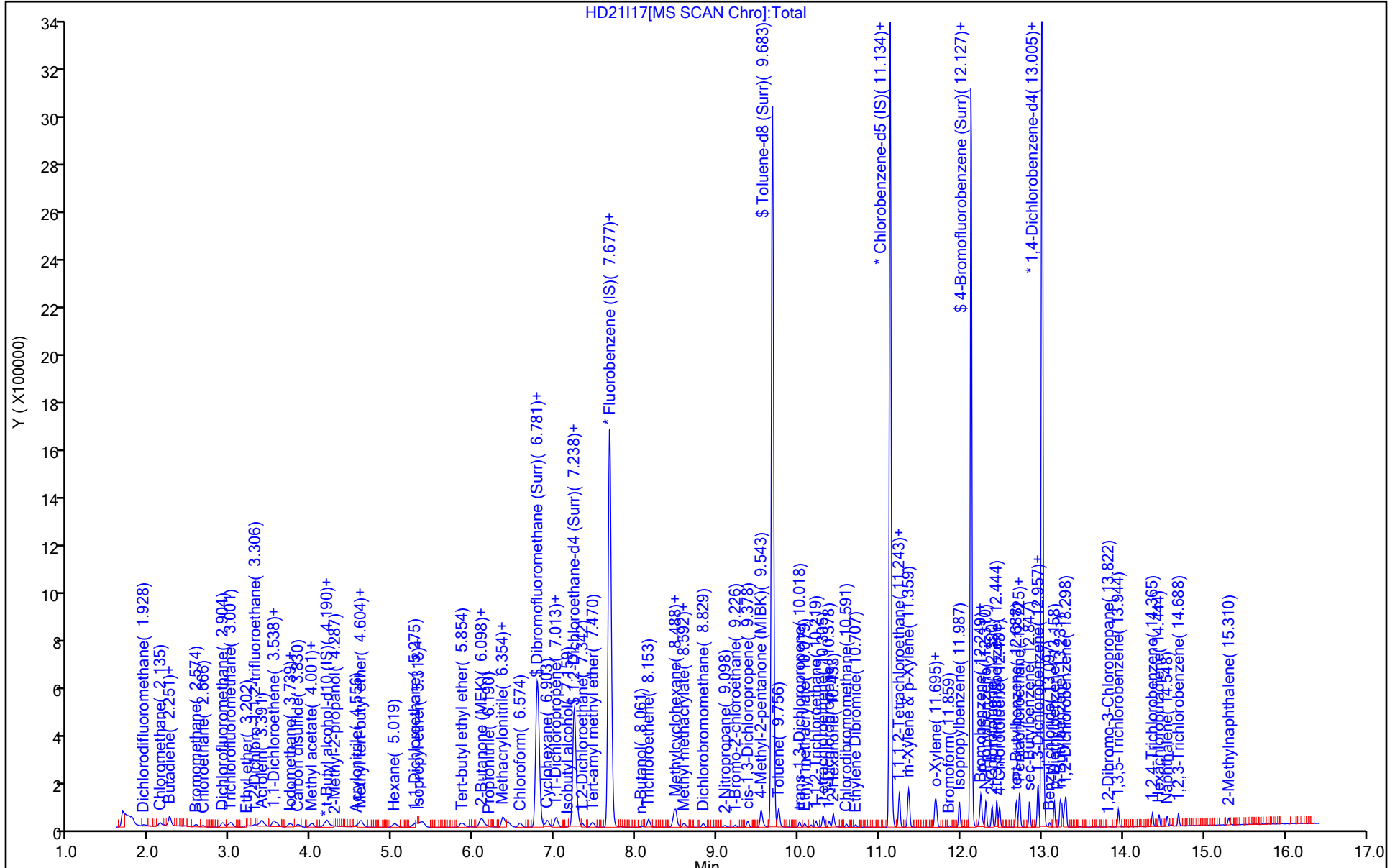
Units: uL

MSV\_LLcentISS\_00002

Amount Added: 5.00

Units: uL

Run Reagent





Eurofins Lancaster Laboratories Env, LLC

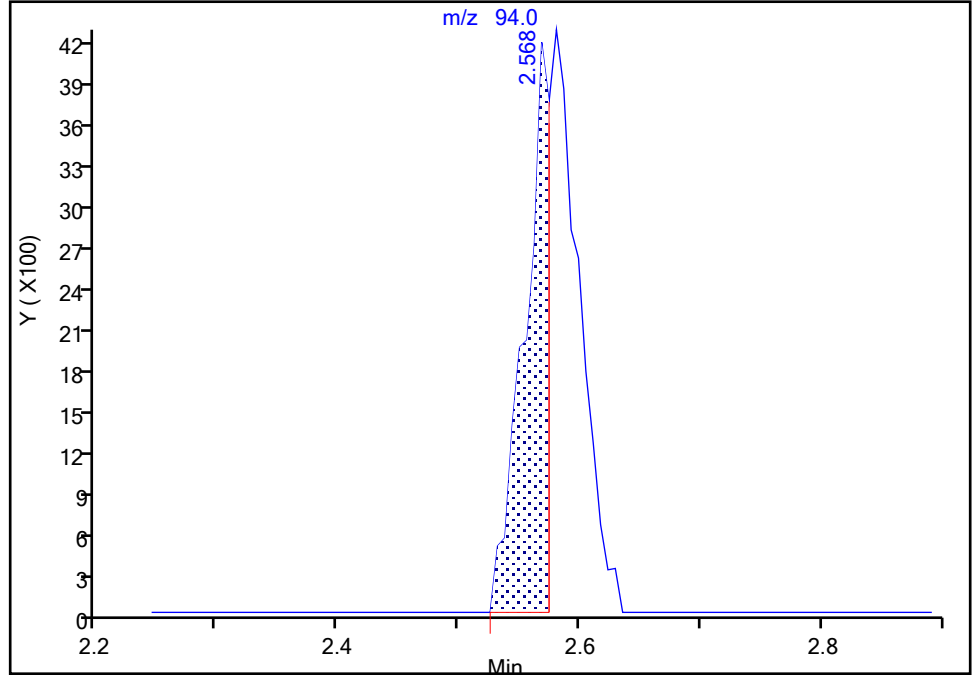
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Lims ID: IC std1 0.2  
Client ID:  
Operator ID: jml01693 ALS Bottle#: 19 Worklist Smp#: 20  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: MSV\_19094\_25mL Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column ( 0.25mm ID) Detector: MS Quad

9 Bromomethane, CAS: 74-83-9

Signal: 1

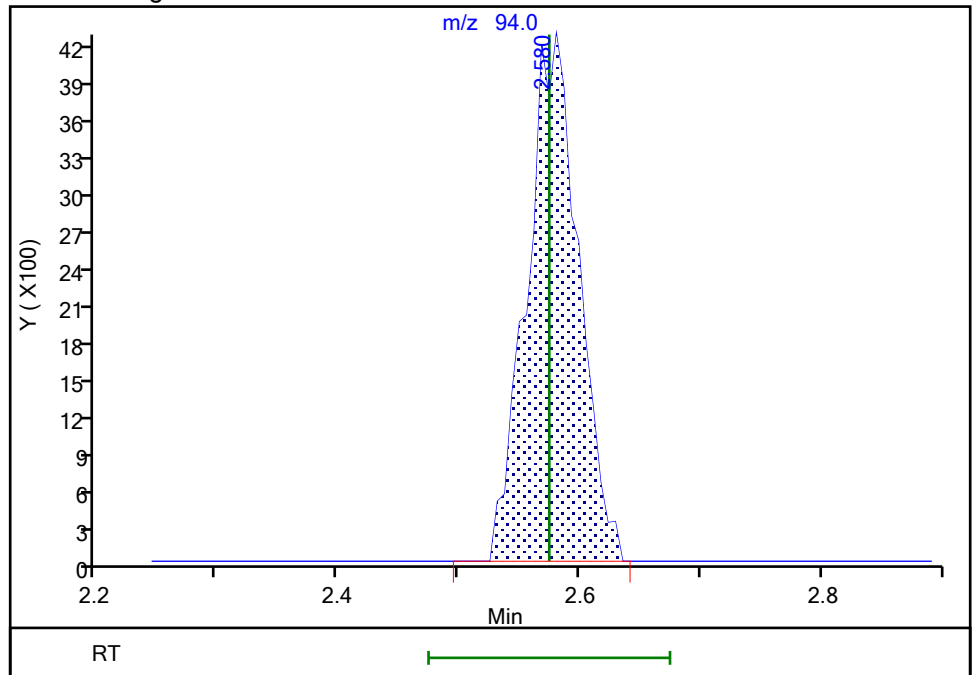
RT: 2.57  
Area: 6202  
Amount: 0.112348  
Amount Units: ug/l

Processing Integration Results



RT: 2.58  
Area: 12713  
Amount: 0.212399  
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 21-Dec-2021 21:02:51  
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

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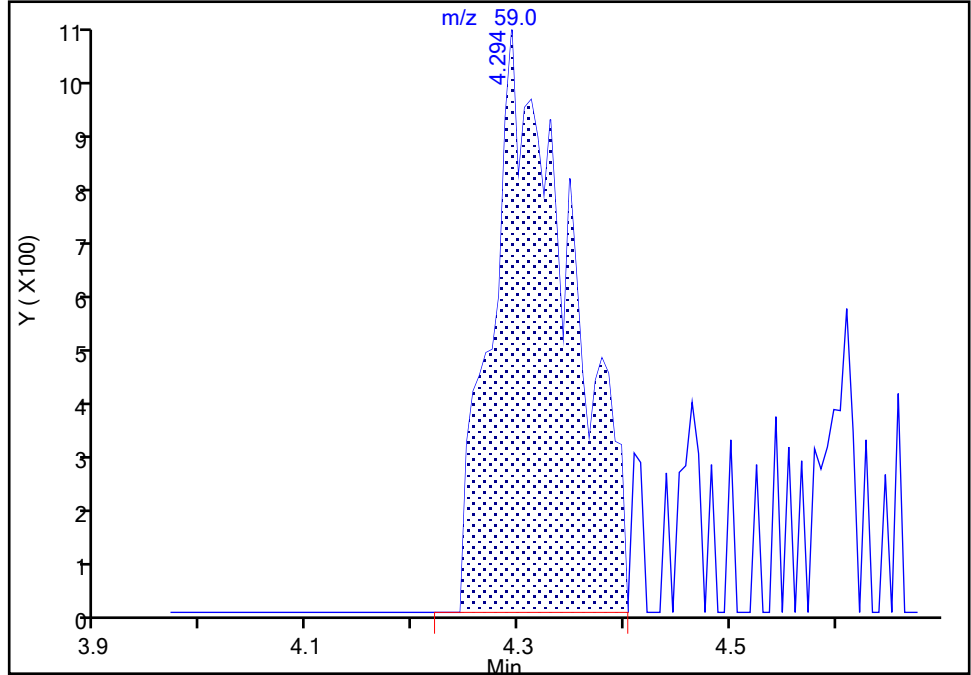
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Lims ID: IC std1 0.2  
Client ID:  
Operator ID: jml01693 ALS Bottle#: 19 Worklist Smp#: 20  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: MSV\_19094\_25mL Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column ( 0.25mm ID) Detector: MS Quad

30 2-Methyl-2-propanol, CAS: 75-65-0

Signal: 1

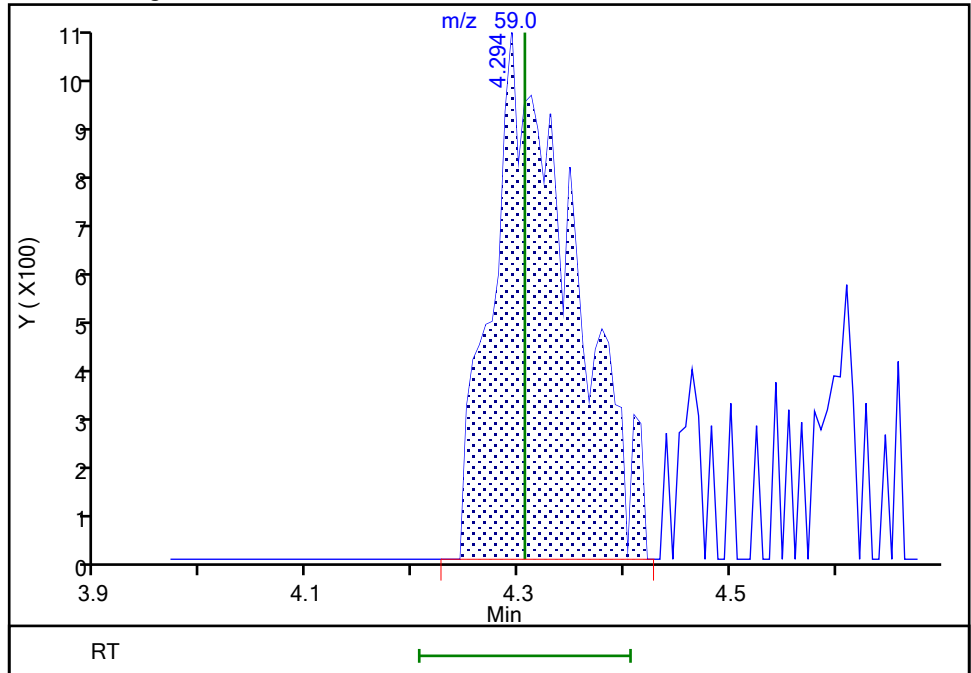
RT: 4.29  
Area: 5487  
Amount: 3.198581  
Amount Units: ug/l

Processing Integration Results



RT: 4.29  
Area: 5692  
Amount: 3.303982  
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 21-Dec-2021 21:03:04  
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

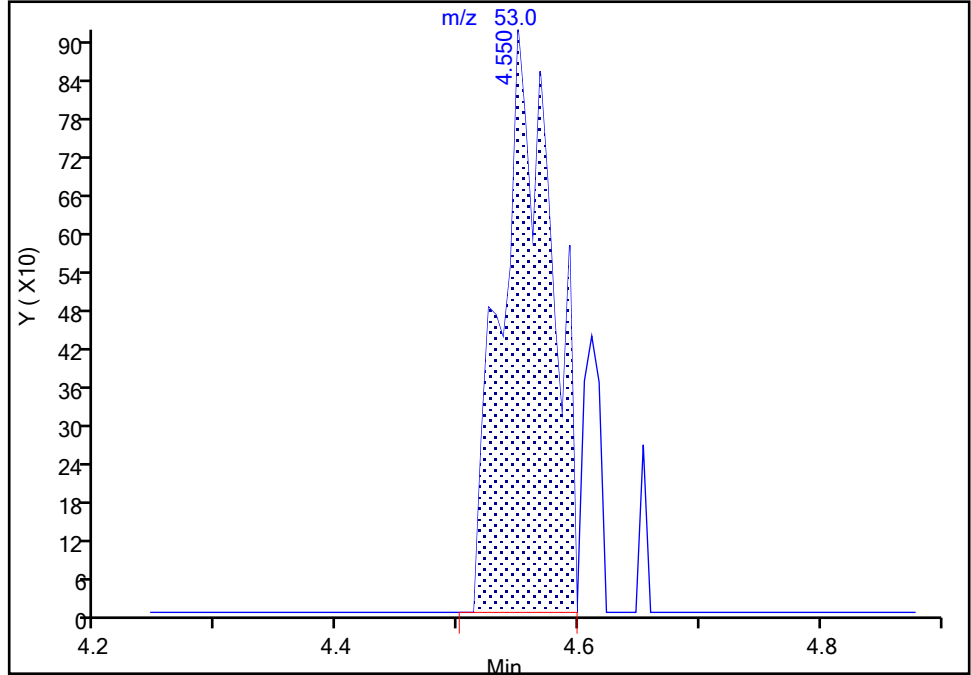
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 Client ID:  
 Operator ID: jml01693 ALS Bottle#: 19 Worklist Smp#: 20  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Method: MSV\_19094\_25mL Limit Group: MSV - 8260C\_D  
 Column: Rxi-624Sil MS Capillary Column ( 0.25mm ID) Detector: MS Quad

31 Acrylonitrile, CAS: 107-13-1

Signal: 1

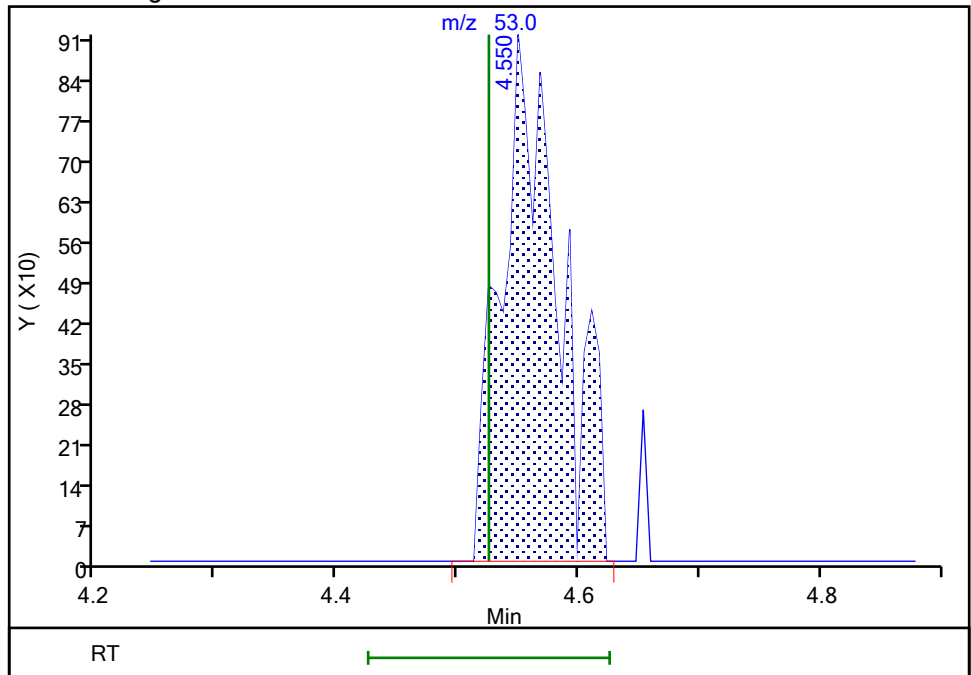
RT: 4.55  
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 Amount: 0.297725  
 Amount Units: ug/l

Processing Integration Results



RT: 4.55  
 Area: 3087  
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 Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 21-Dec-2021 21:03:07  
 Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

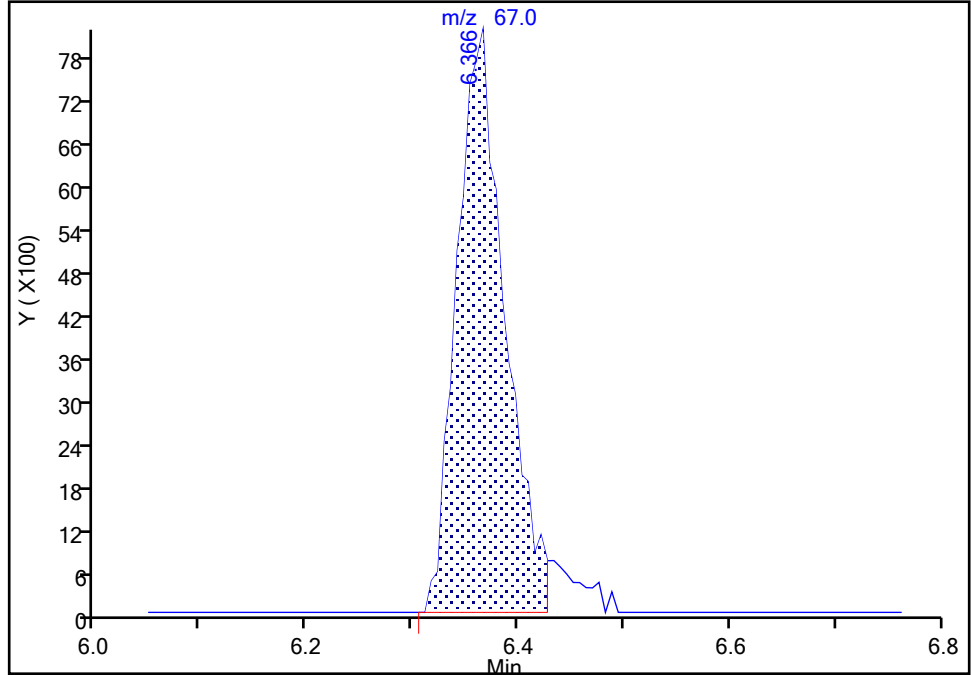
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Lims ID: IC std1 0.2  
Client ID:  
Operator ID: jml01693 ALS Bottle#: 19 Worklist Smp#: 20  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: MSV\_19094\_25mL Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column ( 0.25mm ID) Detector: MS Quad

47 Methacrylonitrile, CAS: 126-98-7

Signal: 1

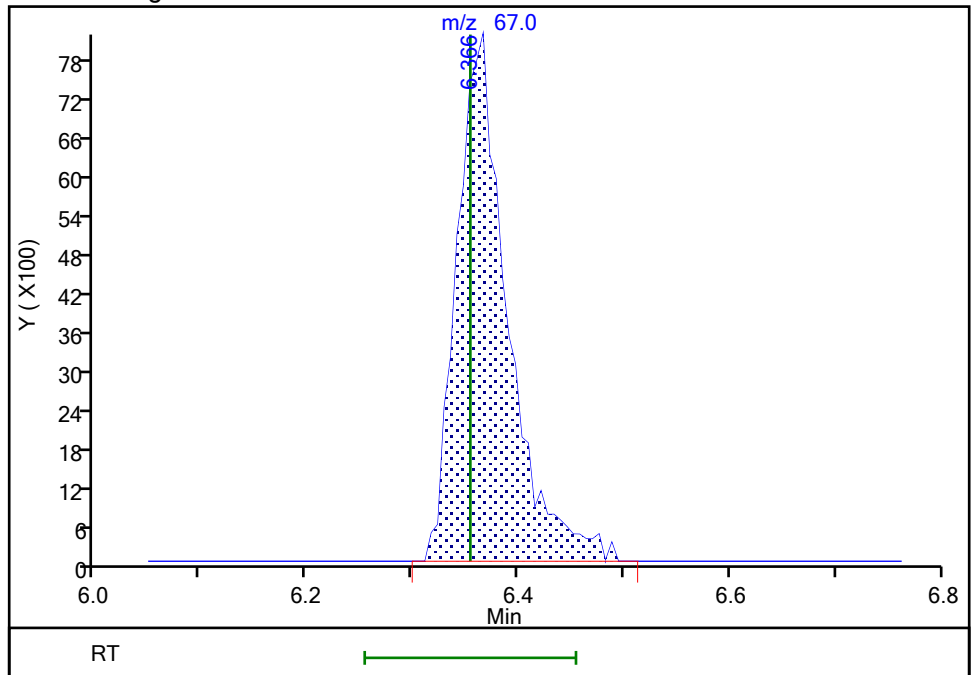
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Amount: 1.670681  
Amount Units: ug/l

Processing Integration Results



RT: 6.37  
Area: 27085  
Amount: 1.756703  
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 21-Dec-2021 21:03:50  
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

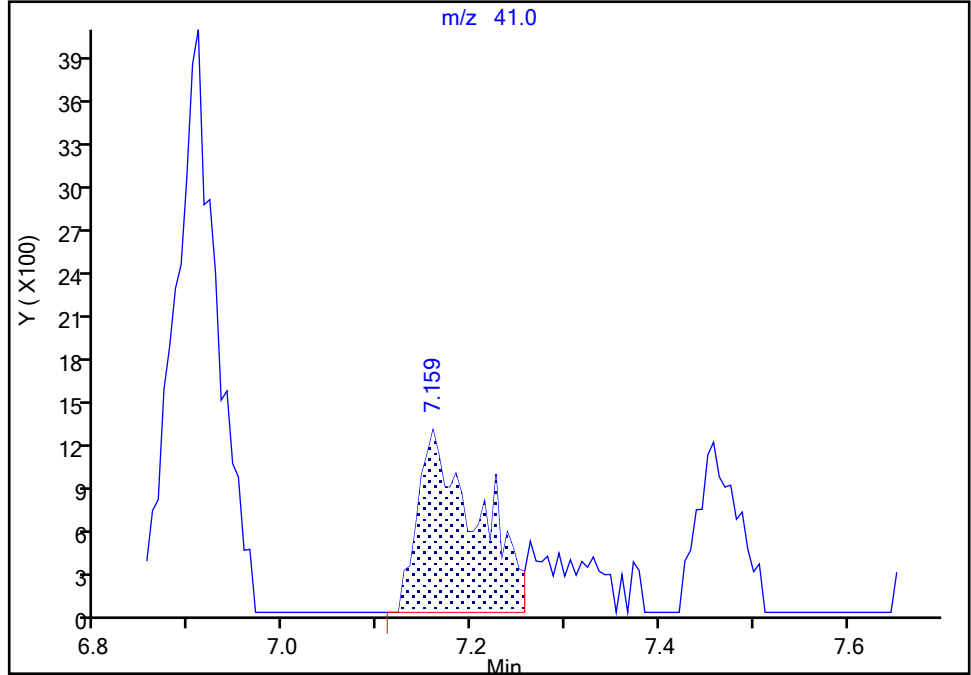
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Lims ID: IC std1 0.2  
Client ID:  
Operator ID: jml01693 ALS Bottle#: 19 Worklist Smp#: 20  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: MSV\_19094\_25mL Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column ( 0.25mm ID) Detector: MS Quad

57 Isobutyl alcohol, CAS: 78-83-1

Signal: 1

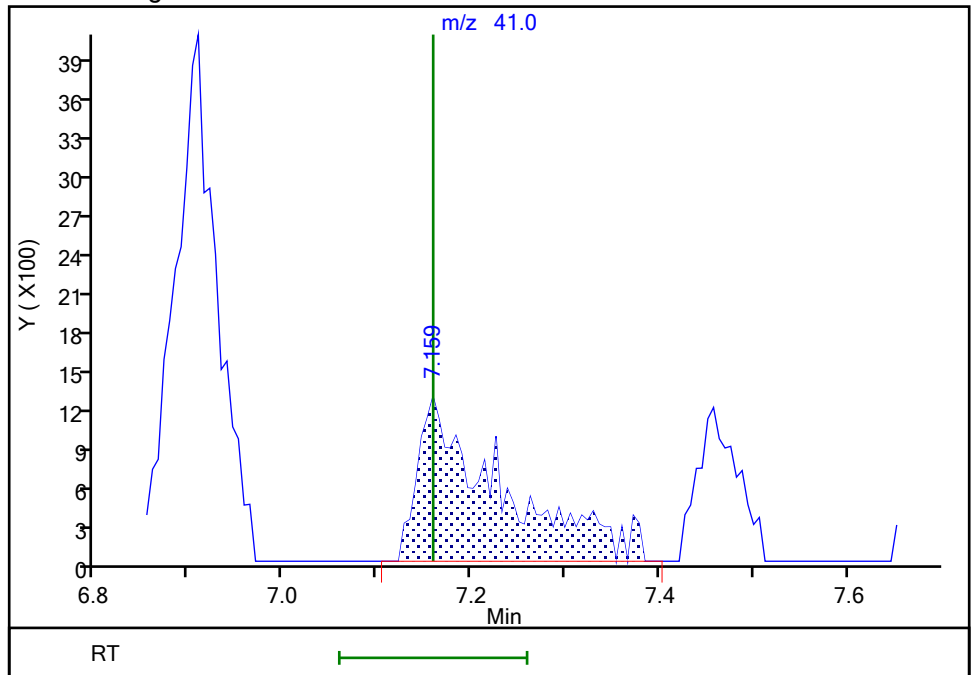
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Amount: 7.991098  
Amount Units: ug/l

Processing Integration Results



RT: 7.16  
Area: 7721  
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Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 21-Dec-2021 21:03:56  
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

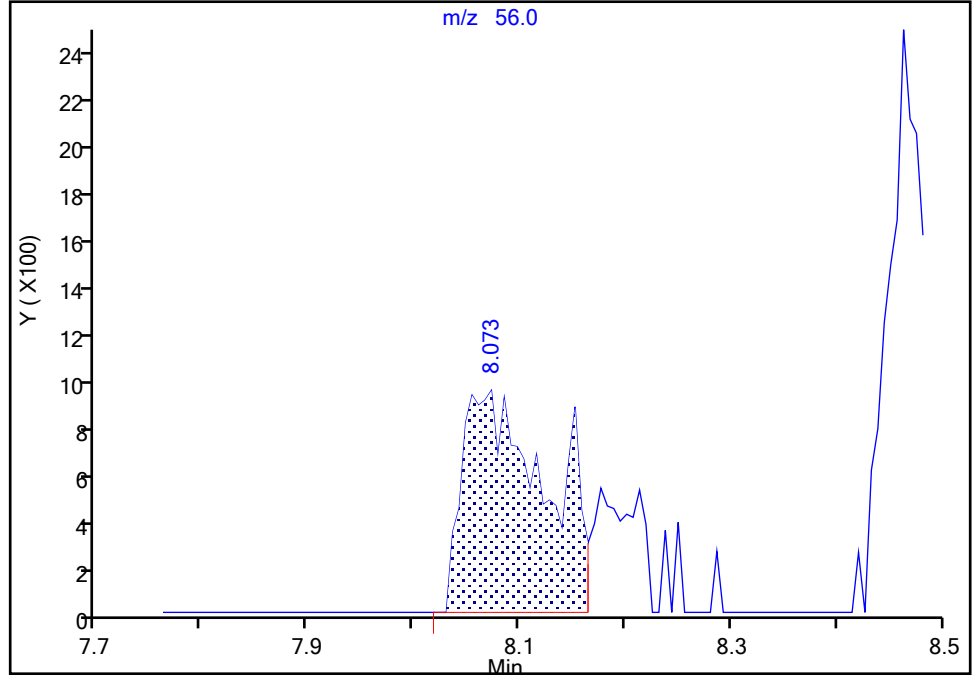
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Lims ID: IC std1 0.2  
Client ID:  
Operator ID: jml01693 ALS Bottle#: 19 Worklist Smp#: 20  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: MSV\_19094\_25mL Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column ( 0.25mm ID) Detector: MS Quad

66 n-Butanol, CAS: 71-36-3

Signal: 1

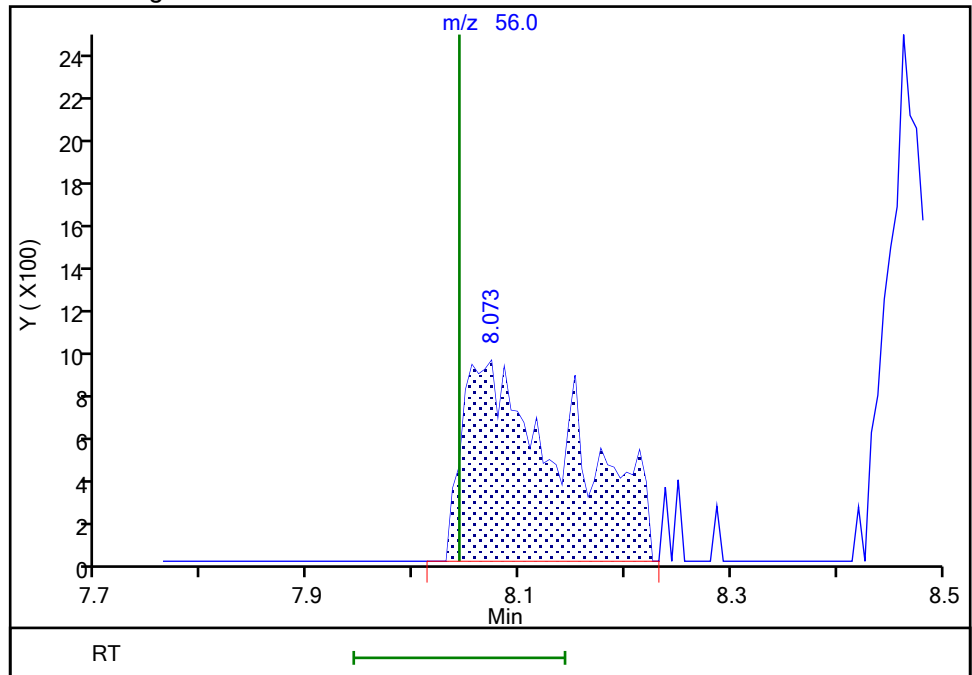
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Amount: 26.006124  
Amount Units: ug/l

Processing Integration Results



RT: 8.07  
Area: 6512  
Amount: 13.469346  
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 21-Dec-2021 21:04:04  
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

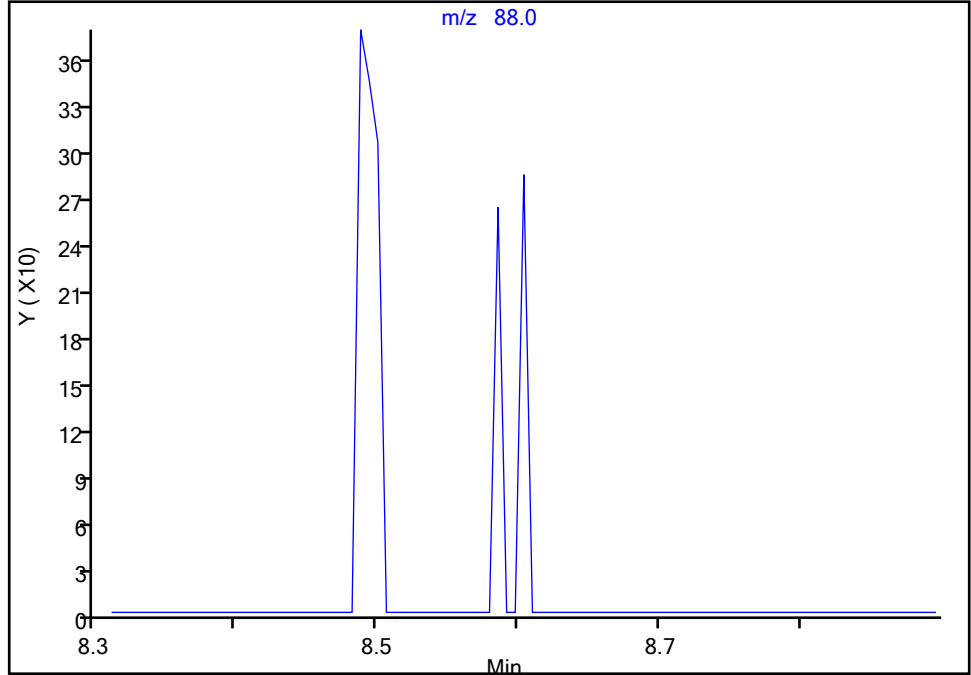
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Lims ID: IC std1 0.2  
Client ID:  
Operator ID: jml01693 ALS Bottle#: 19 Worklist Smp#: 20  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: MSV\_19094\_25mL Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column ( 0.25mm ID) Detector: MS Quad

72 1,4-Dioxane, CAS: 123-91-1

Signal: 1

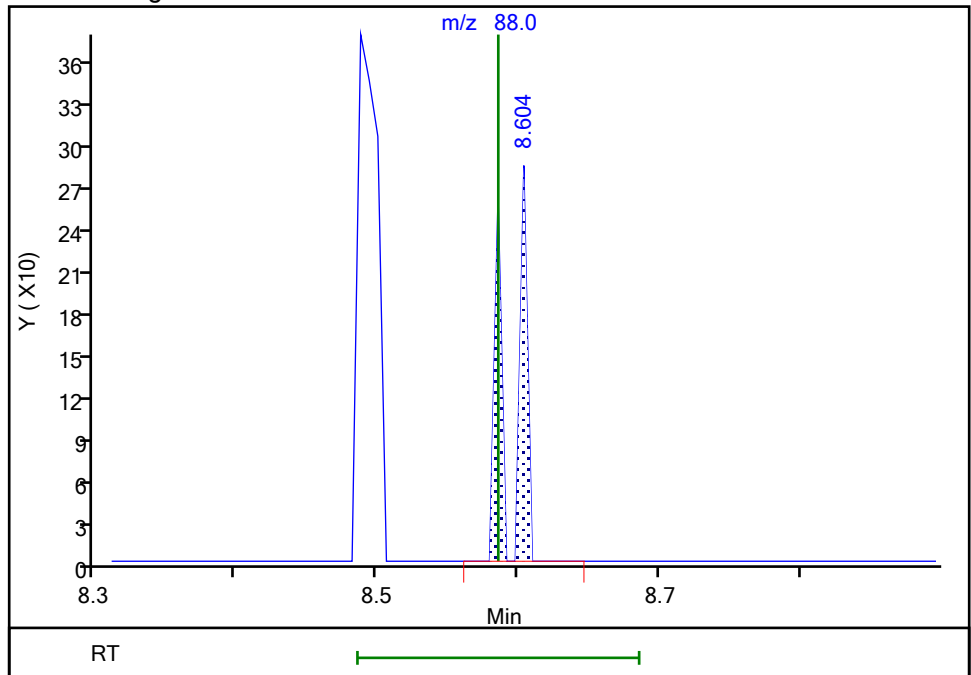
Not Detected  
Expected RT: 8.59

Processing Integration Results



Manual Integration Results

RT: 8.60  
Area: 200  
Amount: 7.505445  
Amount Units: ug/l



Reviewer: campbellme, 21-Dec-2021 21:04:09  
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

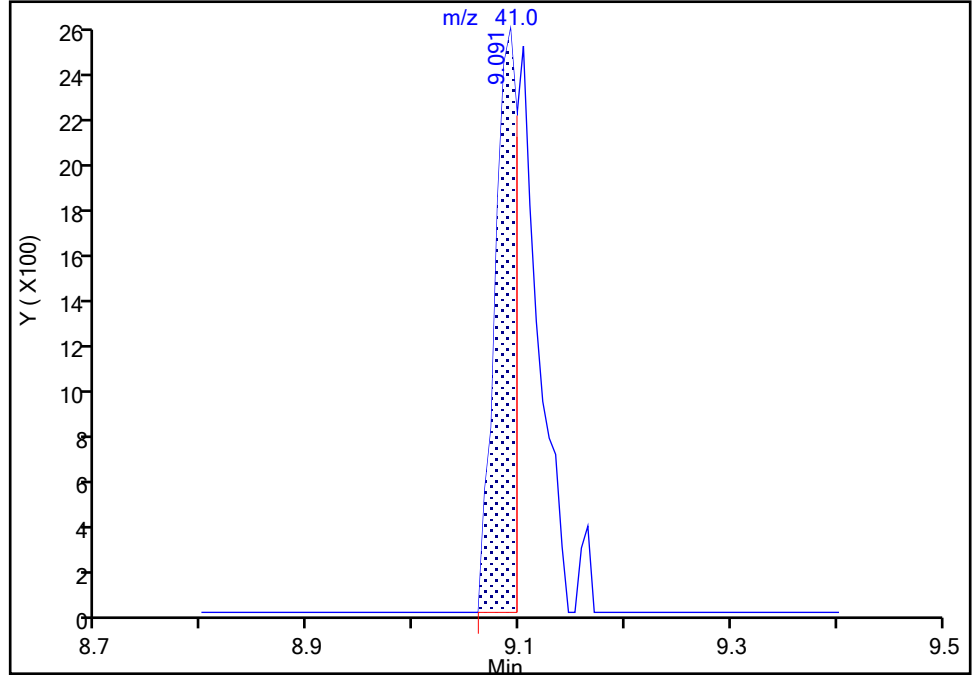
Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21117.D  
Injection Date: 21-Dec-2021 20:38:30 Instrument ID: 19094  
Lims ID: IC std1 0.2  
Client ID:  
Operator ID: jml01693 ALS Bottle#: 19 Worklist Smp#: 20  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: MSV\_19094\_25mL Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column ( 0.25mm ID) Detector: MS Quad

76 2-Nitropropane, CAS: 79-46-9

Signal: 1

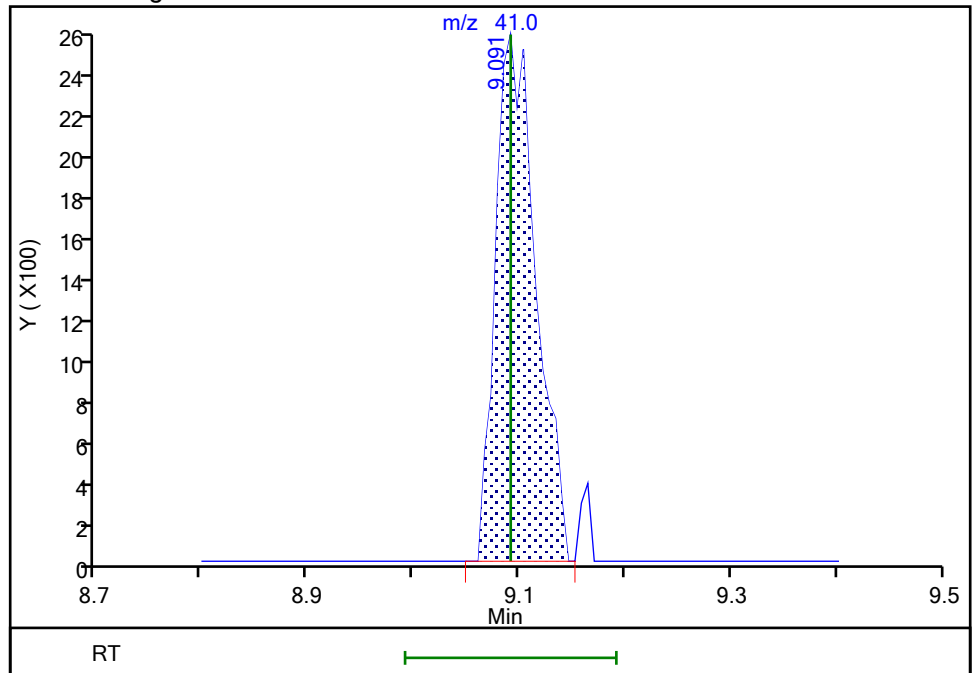
RT: 9.09  
Area: 3724  
Amount: 0.630534  
Amount Units: ug/l

Processing Integration Results



RT: 9.09  
Area: 6696  
Amount: 0.878434  
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 21-Dec-2021 21:04:19  
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration



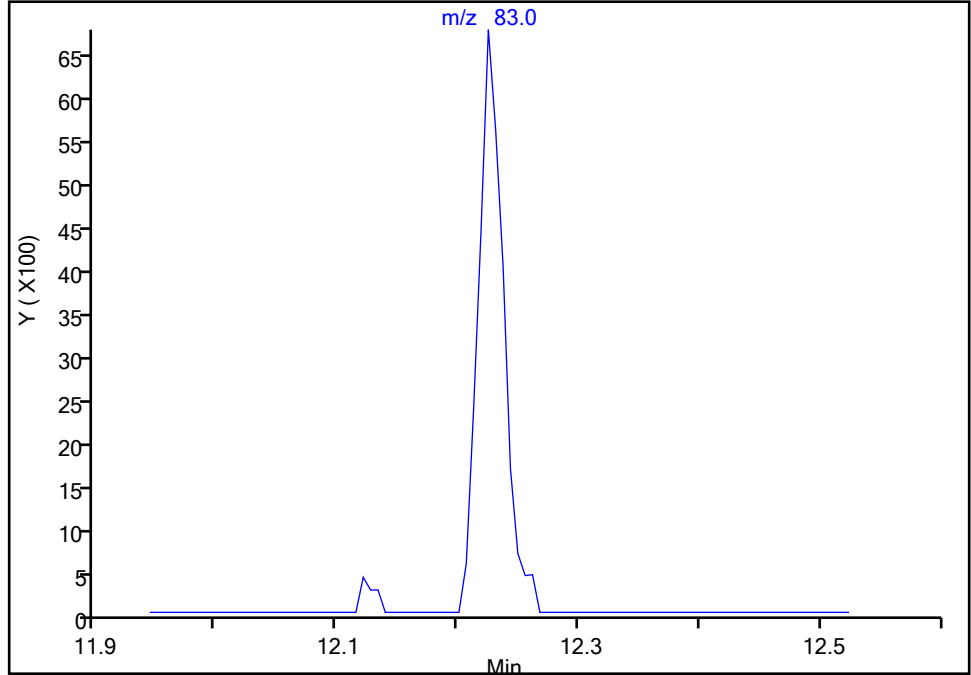
Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21117.D  
Injection Date: 21-Dec-2021 20:38:30 Instrument ID: 19094  
Lims ID: IC std1 0.2  
Client ID:  
Operator ID: jml01693 ALS Bottle#: 19 Worklist Smp#: 20  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: MSV\_19094\_25mL Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column ( 0.25mm ID) Detector: MS Quad

109 1,1,2,2-Tetrachloroethane, CAS: 79-34-5  
Signal: 1

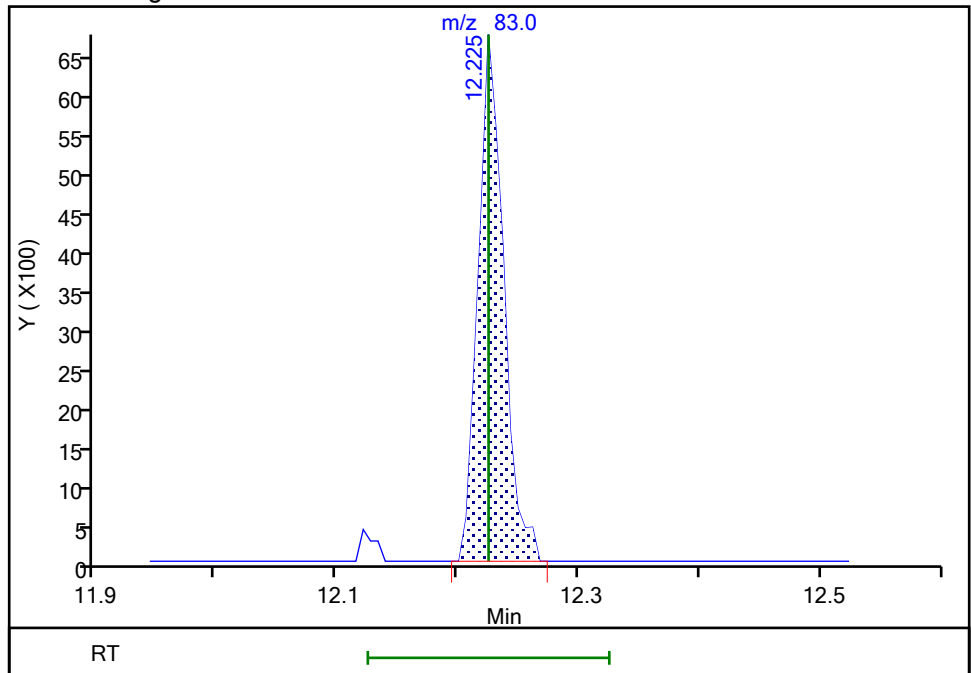
Not Detected  
Expected RT: 12.23

Processing Integration Results



Manual Integration Results

RT: 12.22  
Area: 9871  
Amount: 0.188277  
Amount Units: ug/l



Reviewer: campbellme, 21-Dec-2021 21:04:37  
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration  
Page 509 of 901

Calibration

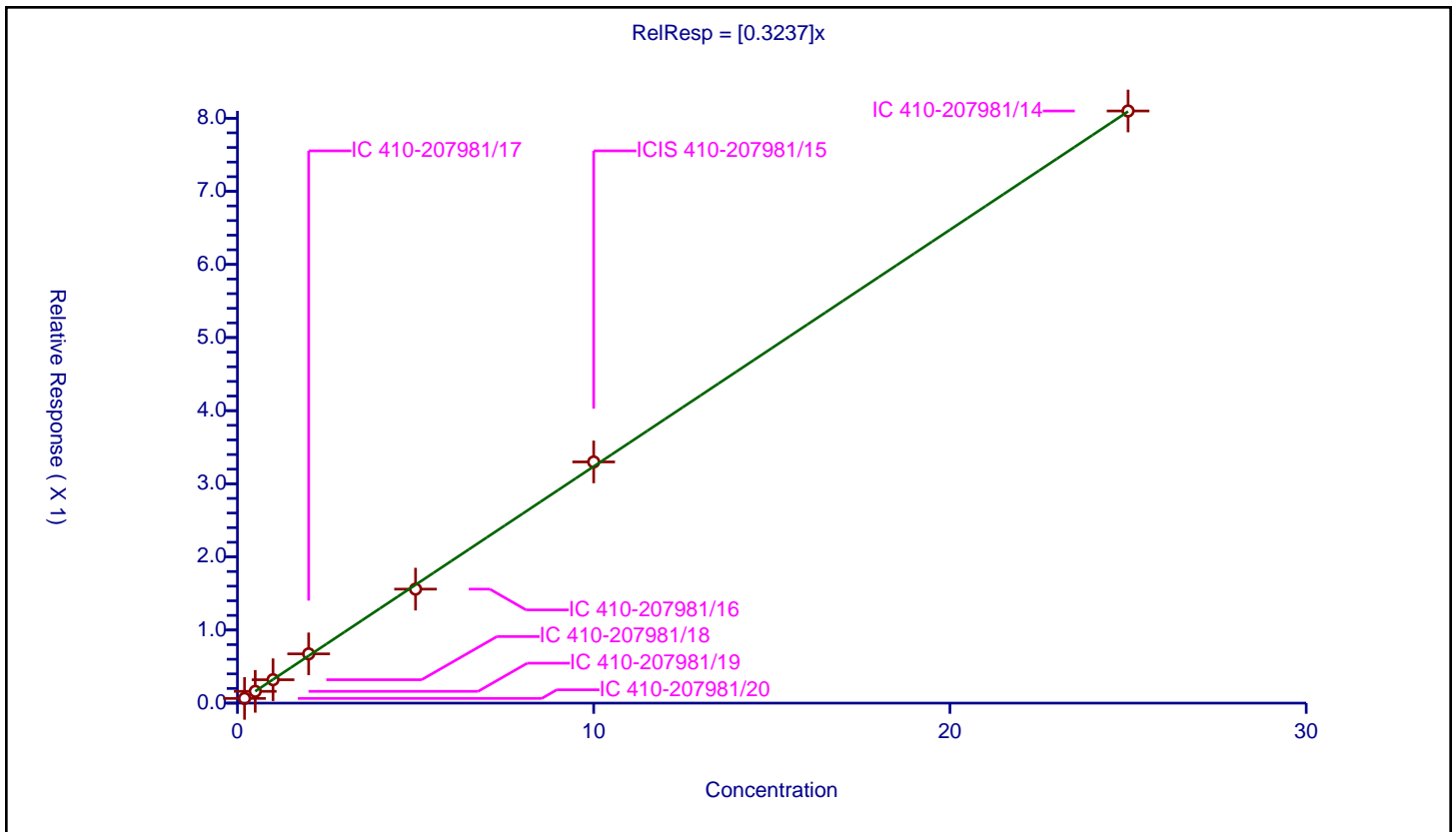
/ Dichlorodifluoromethane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3237

Error Coefficients	
Standard Error:	832000
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 410-207981/20	0.2	0.064126	10.0	2249617.0	0.320632	Y
2	IC 410-207981/19	0.5	0.161185	10.0	2232533.0	0.322369	Y
3	IC 410-207981/18	1.0	0.320182	10.0	2262029.0	0.320182	Y
4	IC 410-207981/17	2.0	0.673781	10.0	2259237.0	0.33689	Y
5	IC 410-207981/16	5.0	1.559258	10.0	2285280.0	0.311852	Y
6	ICIS 410-207981/15	10.0	3.298985	10.0	2239692.0	0.329898	Y
7	IC 410-207981/14	25.0	8.099086	10.0	2294975.0	0.323963	Y



**Calibration**

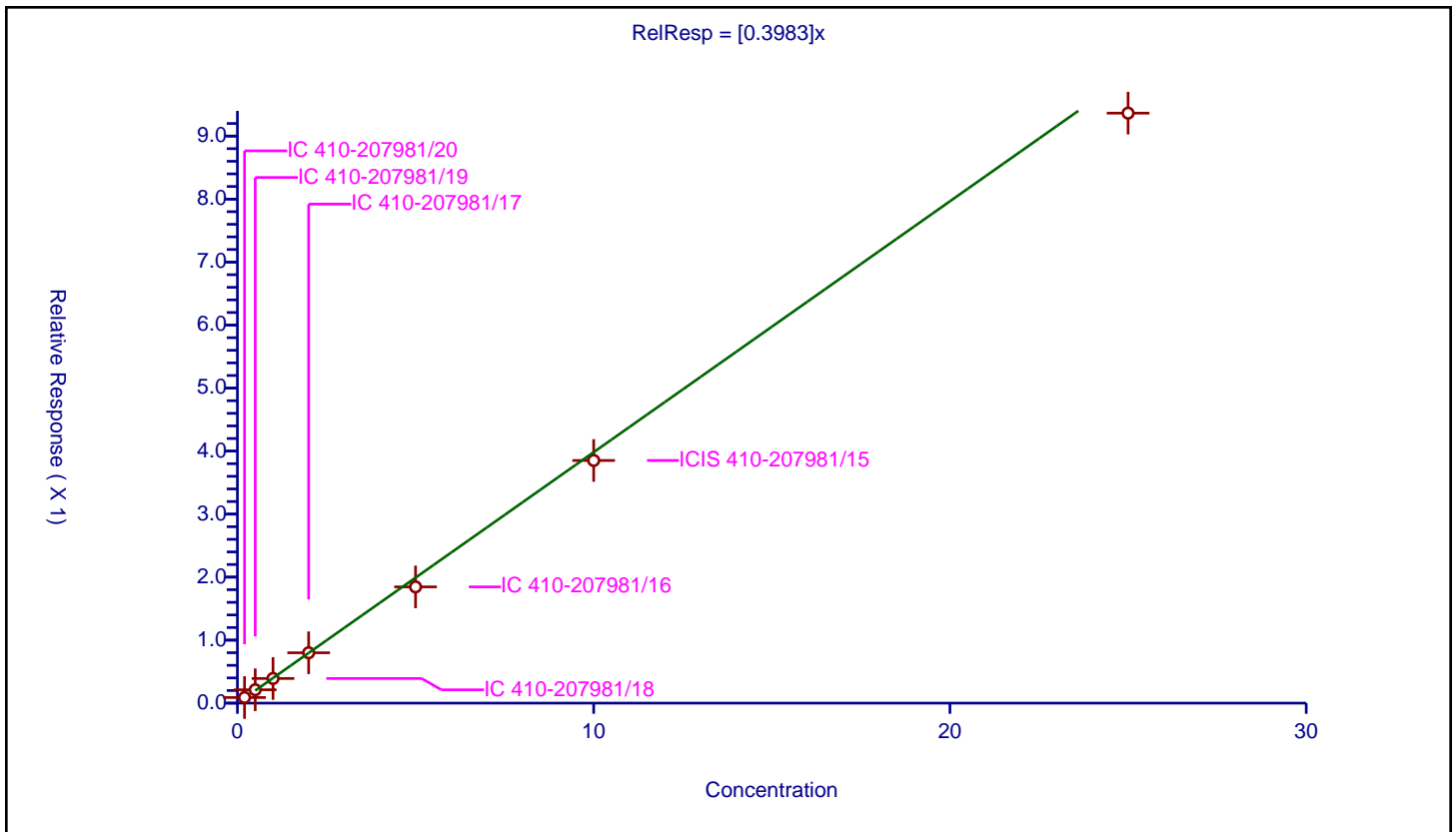
/ Chloromethane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3983

Error Coefficients	
Standard Error:	965000
Relative Standard Error:	6.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.088971	10.0	2249617.0	0.444854	Y
2	IC 410-207981/19	0.5	0.211813	10.0	2232533.0	0.423626	Y
3	IC 410-207981/18	1.0	0.391131	10.0	2262029.0	0.391131	Y
4	IC 410-207981/17	2.0	0.79896	10.0	2259237.0	0.39948	Y
5	IC 410-207981/16	5.0	1.844964	10.0	2285280.0	0.368993	Y
6	ICIS 410-207981/15	10.0	3.85136	10.0	2239692.0	0.385136	Y
7	IC 410-207981/14	25.0	9.363858	10.0	2294975.0	0.374554	Y



**Calibration**

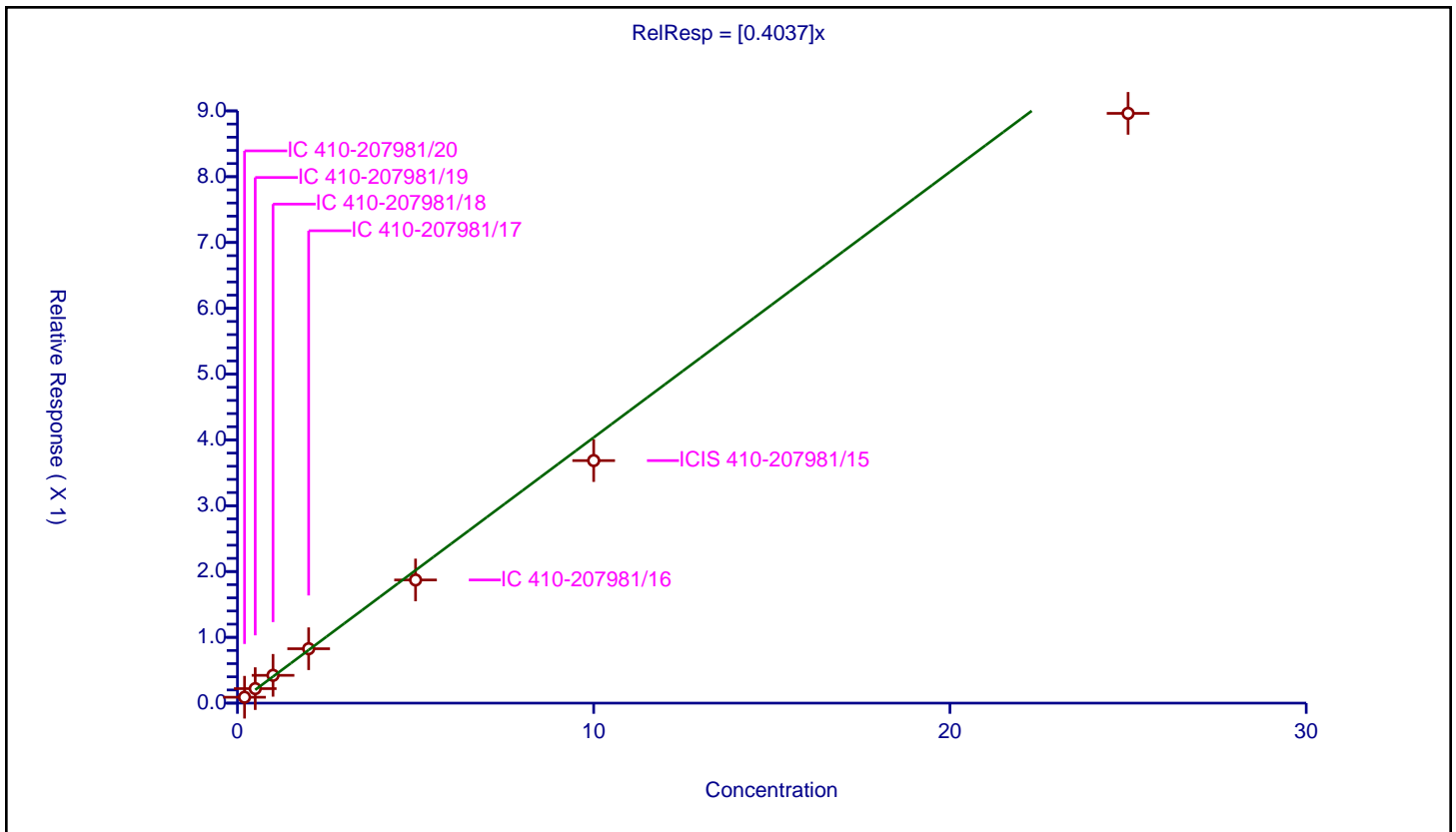
**/ Butadiene**

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4037

Error Coefficients	
Standard Error:	926000
Relative Standard Error:	9.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.988

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.089544	10.0	2249617.0	0.447721	Y
2	IC 410-207981/19	0.5	0.220481	10.0	2232533.0	0.440961	Y
3	IC 410-207981/18	1.0	0.422395	10.0	2262029.0	0.422395	Y
4	IC 410-207981/17	2.0	0.826487	10.0	2259237.0	0.413243	Y
5	IC 410-207981/16	5.0	1.871613	10.0	2285280.0	0.374323	Y
6	ICIS 410-207981/15	10.0	3.685895	10.0	2239692.0	0.36859	Y
7	IC 410-207981/14	25.0	8.962302	10.0	2294975.0	0.358492	Y



**Calibration**

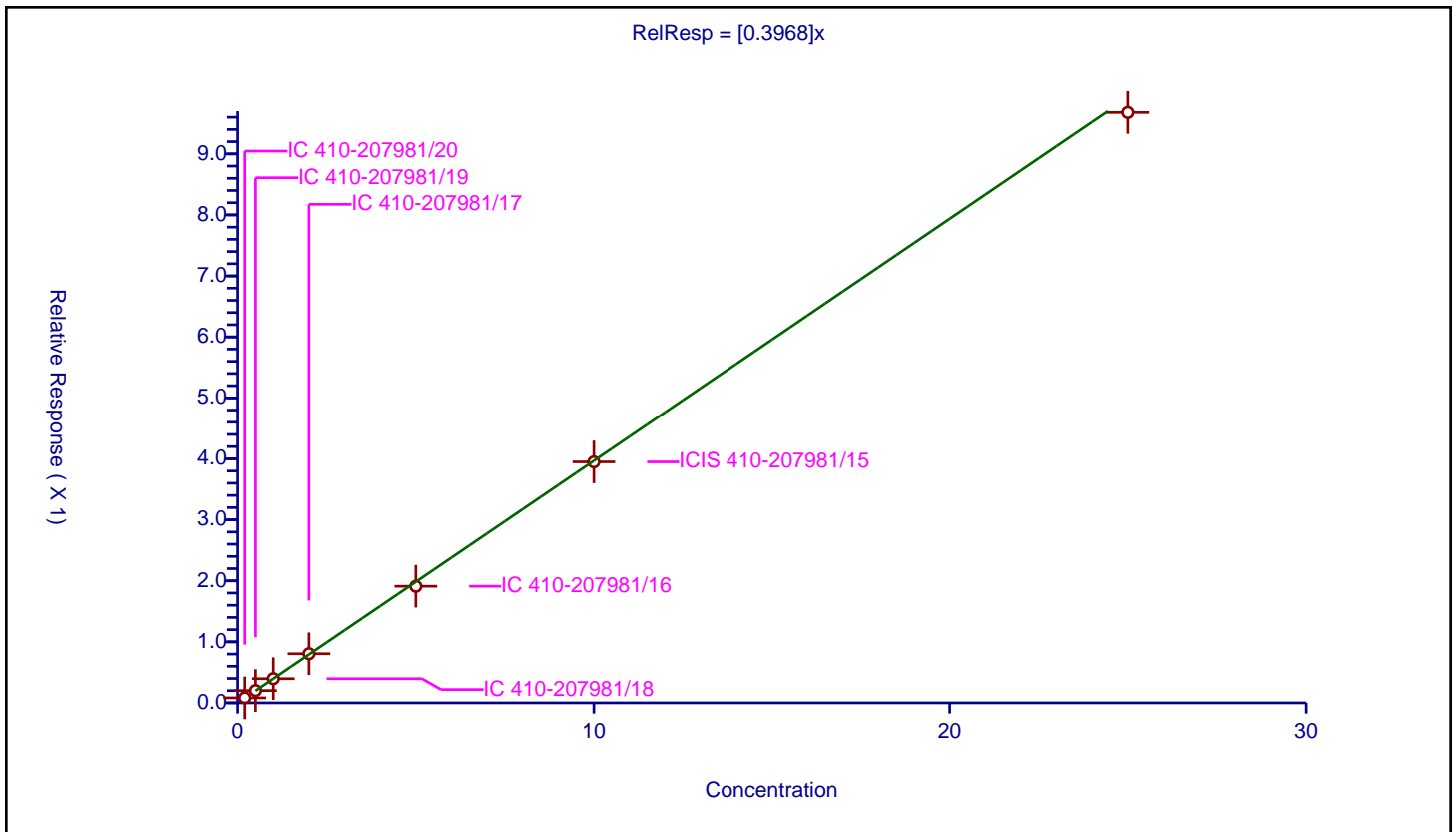
/ Vinyl chloride

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3968

Error Coefficients	
Standard Error:	996000
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 410-207981/20	0.2	0.082343	10.0	2249617.0	0.411715	Y
2	IC 410-207981/19	0.5	0.201529	10.0	2232533.0	0.403058	Y
3	IC 410-207981/18	1.0	0.396171	10.0	2262029.0	0.396171	Y
4	IC 410-207981/17	2.0	0.805073	10.0	2259237.0	0.402536	Y
5	IC 410-207981/16	5.0	1.911144	10.0	2285280.0	0.382229	Y
6	ICIS 410-207981/15	10.0	3.949637	10.0	2239692.0	0.394964	Y
7	IC 410-207981/14	25.0	9.67872	10.0	2294975.0	0.387149	Y



**Calibration**

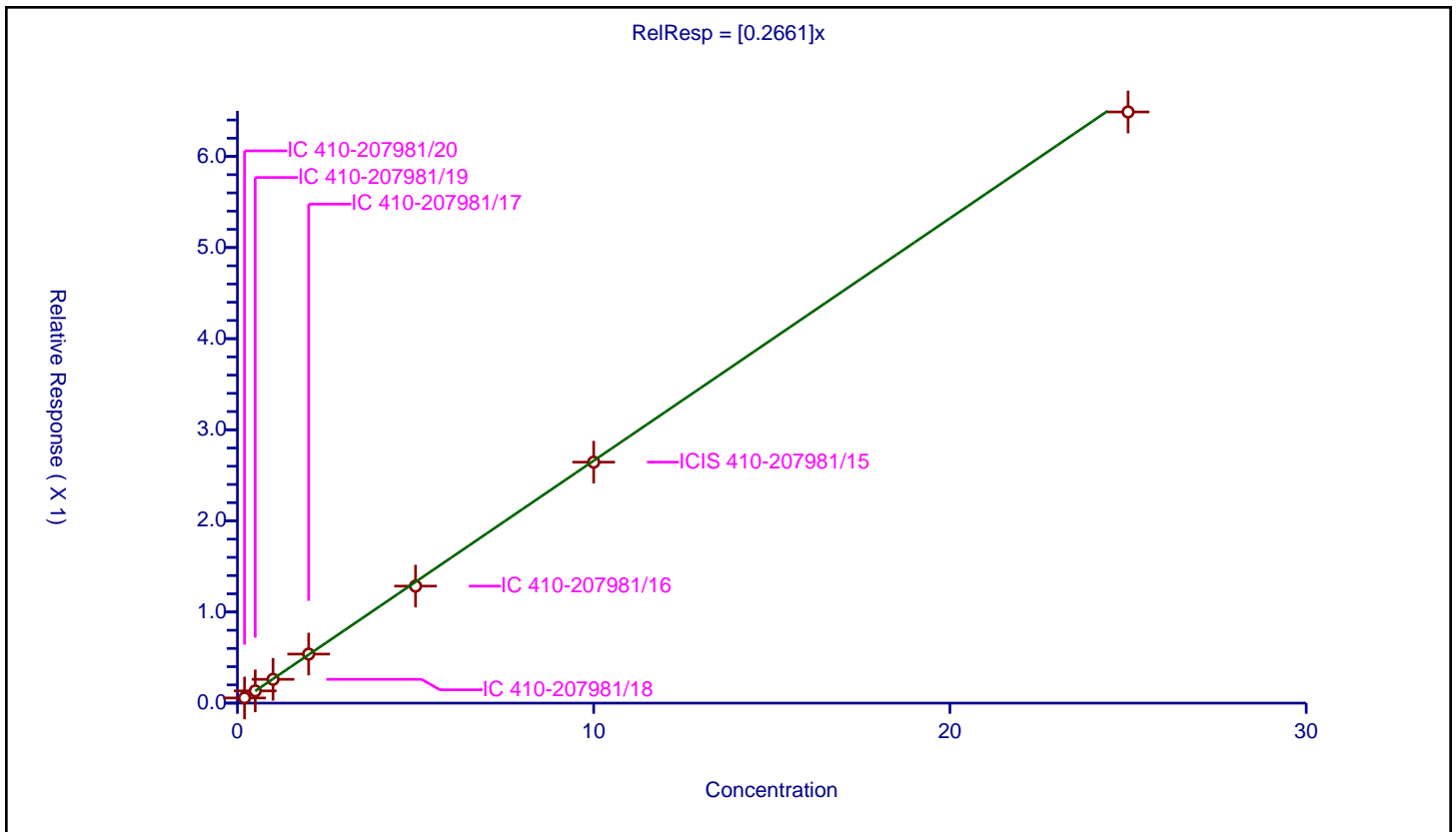
**/ Bromomethane**

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2661

Error Coefficients	
Standard Error:	668000
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 410-207981/20	0.2	0.056512	10.0	2249617.0	0.282559	Y
2	IC 410-207981/19	0.5	0.134435	10.0	2232533.0	0.268869	Y
3	IC 410-207981/18	1.0	0.261036	10.0	2262029.0	0.261036	Y
4	IC 410-207981/17	2.0	0.538217	10.0	2259237.0	0.269109	Y
5	IC 410-207981/16	5.0	1.284363	10.0	2285280.0	0.256873	Y
6	ICIS 410-207981/15	10.0	2.644716	10.0	2239692.0	0.264472	Y
7	IC 410-207981/14	25.0	6.488358	10.0	2294975.0	0.259534	Y



**Calibration**

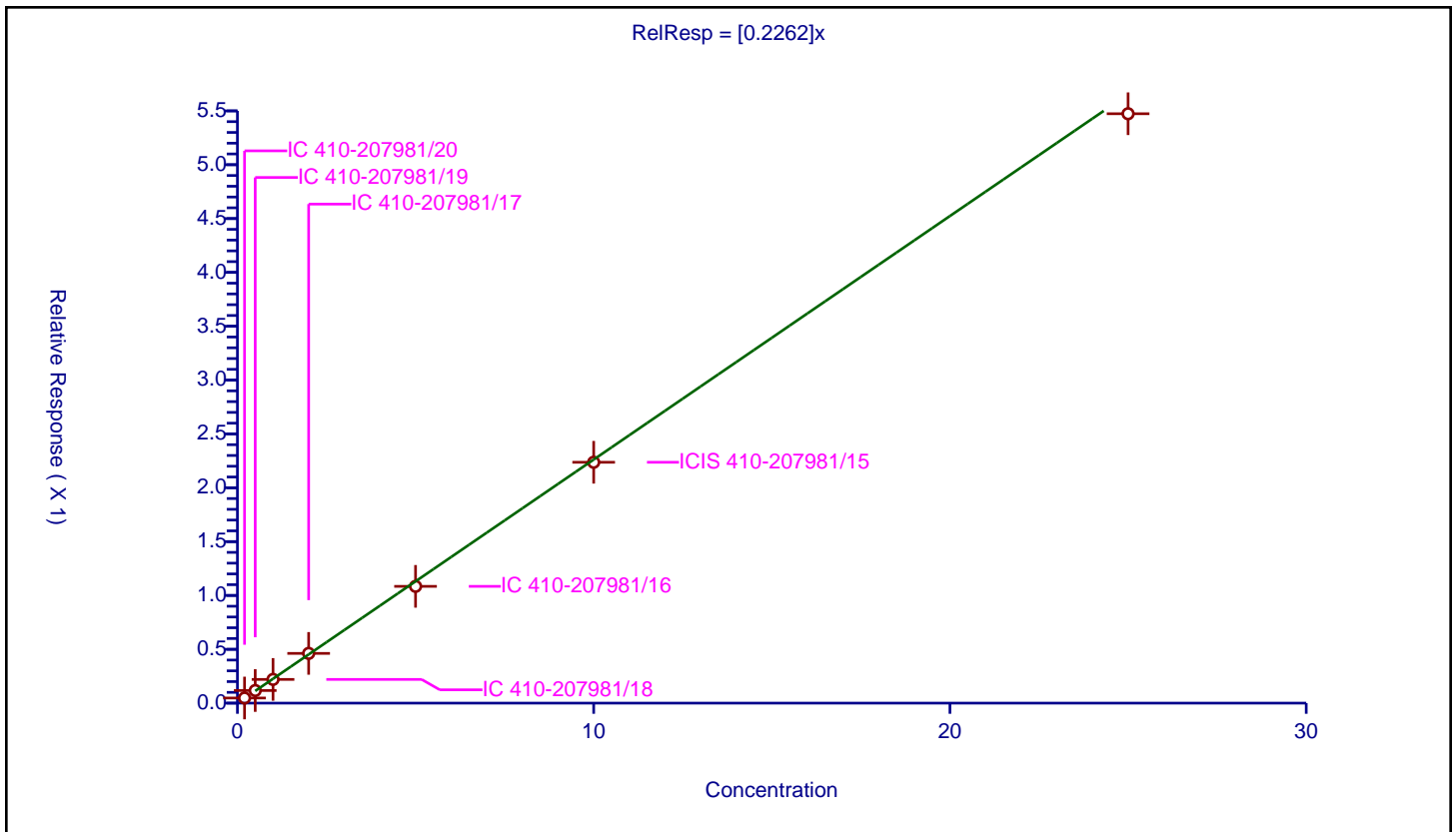
/ Chloroethane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2262

Error Coefficients	
Standard Error:	563000
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 410-207981/20	0.2	0.047621	10.0	2249617.0	0.238107	Y
2	IC 410-207981/19	0.5	0.117176	10.0	2232533.0	0.234353	Y
3	IC 410-207981/18	1.0	0.220315	10.0	2262029.0	0.220315	Y
4	IC 410-207981/17	2.0	0.461966	10.0	2259237.0	0.230983	Y
5	IC 410-207981/16	5.0	1.084572	10.0	2285280.0	0.216914	Y
6	ICIS 410-207981/15	10.0	2.236723	10.0	2239692.0	0.223672	Y
7	IC 410-207981/14	25.0	5.473624	10.0	2294975.0	0.218945	Y



Calibration

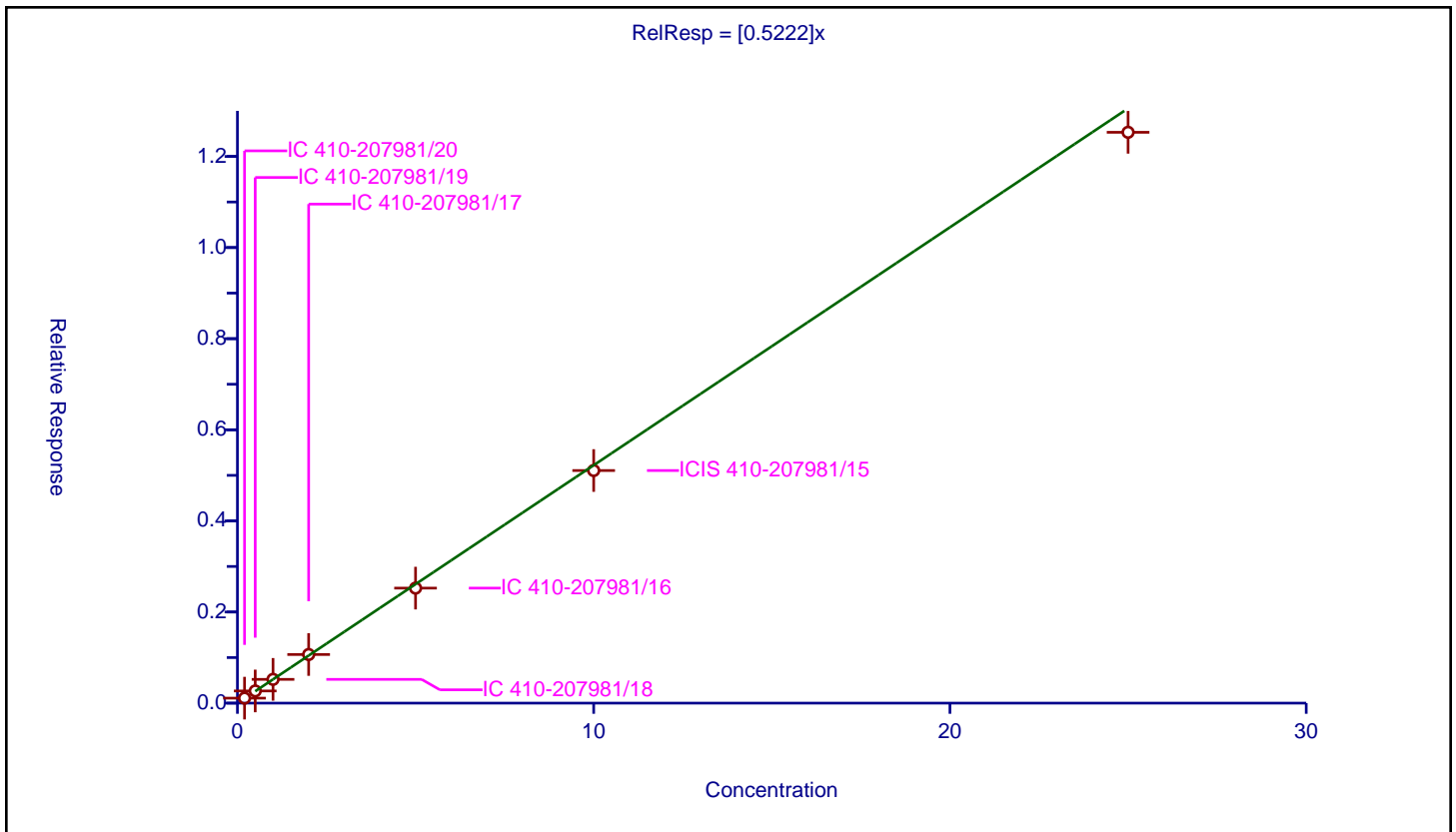
/ Dichlorofluoromethane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.5222

Error Coefficients	
Standard Error:	1290000
Relative Standard Error:	3.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.109716	10.0	2249617.0	0.548582	Y
2	IC 410-207981/19	0.5	0.26749	10.0	2232533.0	0.53498	Y
3	IC 410-207981/18	1.0	0.521633	10.0	2262029.0	0.521633	Y
4	IC 410-207981/17	2.0	1.067126	10.0	2259237.0	0.533563	Y
5	IC 410-207981/16	5.0	2.524933	10.0	2285280.0	0.504987	Y
6	ICIS 410-207981/15	10.0	5.105992	10.0	2239692.0	0.510599	Y
7	IC 410-207981/14	25.0	12.529788	10.0	2294975.0	0.501192	Y





Calibration

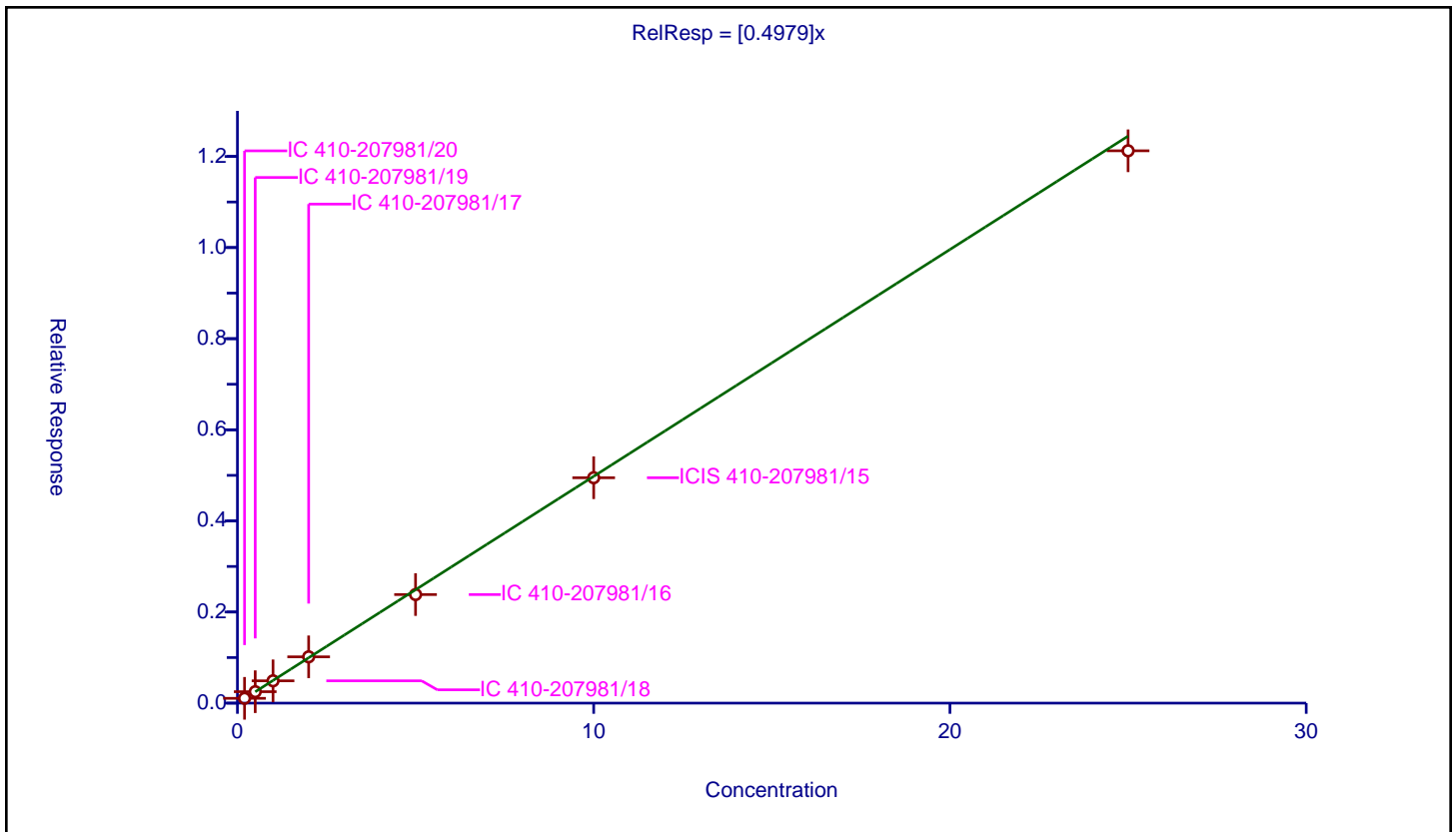
/ Trichlorofluoromethane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4979

Error Coefficients	
Standard Error:	1250000
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 410-207981/20	0.2	0.105769	10.0	2249617.0	0.528846	Y
2	IC 410-207981/19	0.5	0.251024	10.0	2232533.0	0.502049	Y
3	IC 410-207981/18	1.0	0.489622	10.0	2262029.0	0.489622	Y
4	IC 410-207981/17	2.0	1.016157	10.0	2259237.0	0.508079	Y
5	IC 410-207981/16	5.0	2.383218	10.0	2285280.0	0.476644	Y
6	ICIS 410-207981/15	10.0	4.947479	10.0	2239692.0	0.494748	Y
7	IC 410-207981/14	25.0	12.124376	10.0	2294975.0	0.484975	Y



Calibration

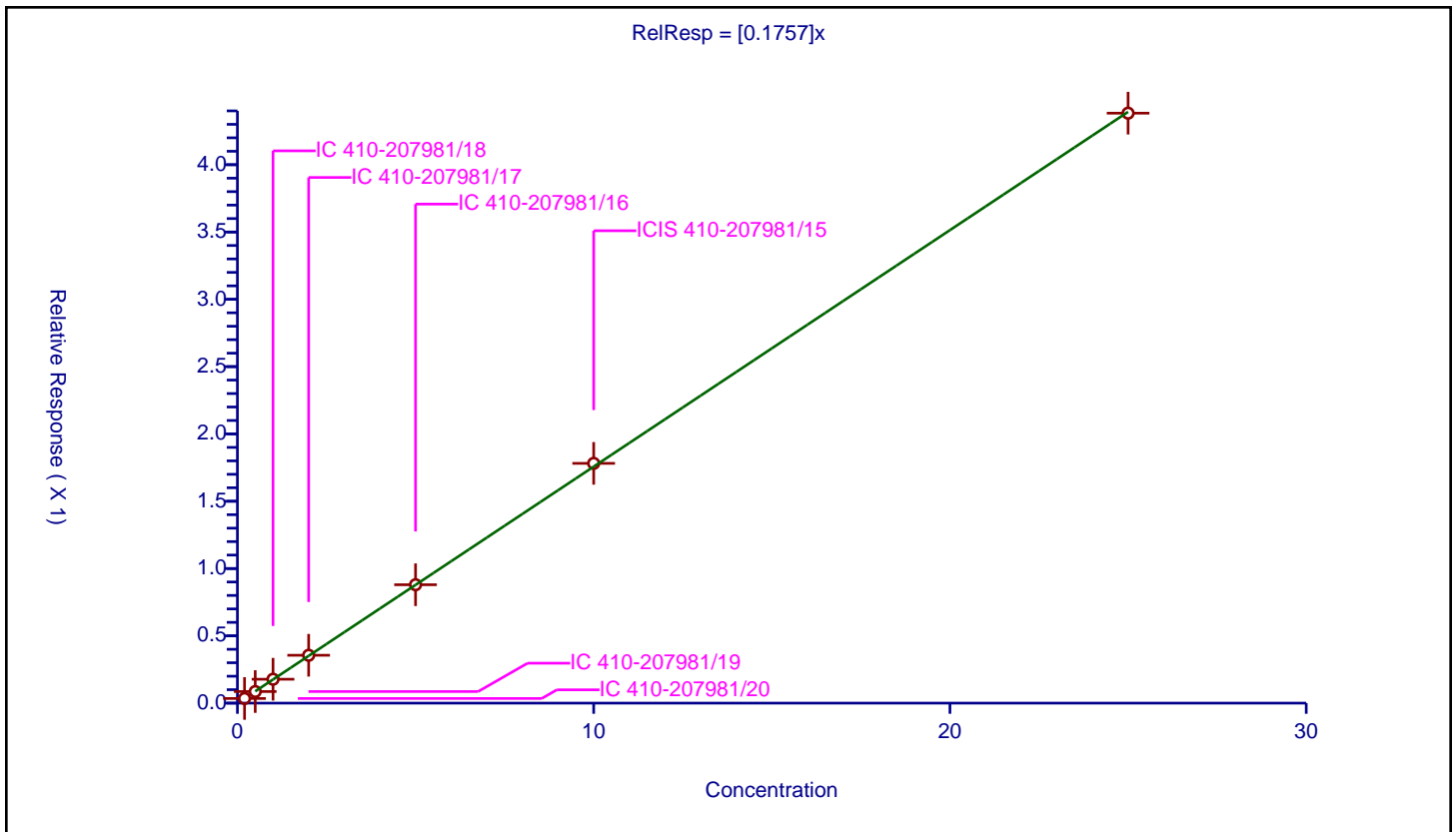
/ Ethyl ether

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.1757

Error Coefficients	
Standard Error:	451000
Relative Standard Error:	1.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.034584	10.0	2249617.0	0.172918	Y
2	IC 410-207981/19	0.5	0.086176	10.0	2232533.0	0.172351	Y
3	IC 410-207981/18	0.999999	0.177496	10.0	2262029.0	0.177496	Y
4	IC 410-207981/17	1.999998	0.355576	10.0	2259237.0	0.177788	Y
5	IC 410-207981/16	4.999995	0.879739	10.0	2285280.0	0.175948	Y
6	ICIS 410-207981/15	9.99999	1.781321	10.0	2239692.0	0.178132	Y
7	IC 410-207981/14	24.999975	4.382889	10.0	2294975.0	0.175316	Y



Calibration

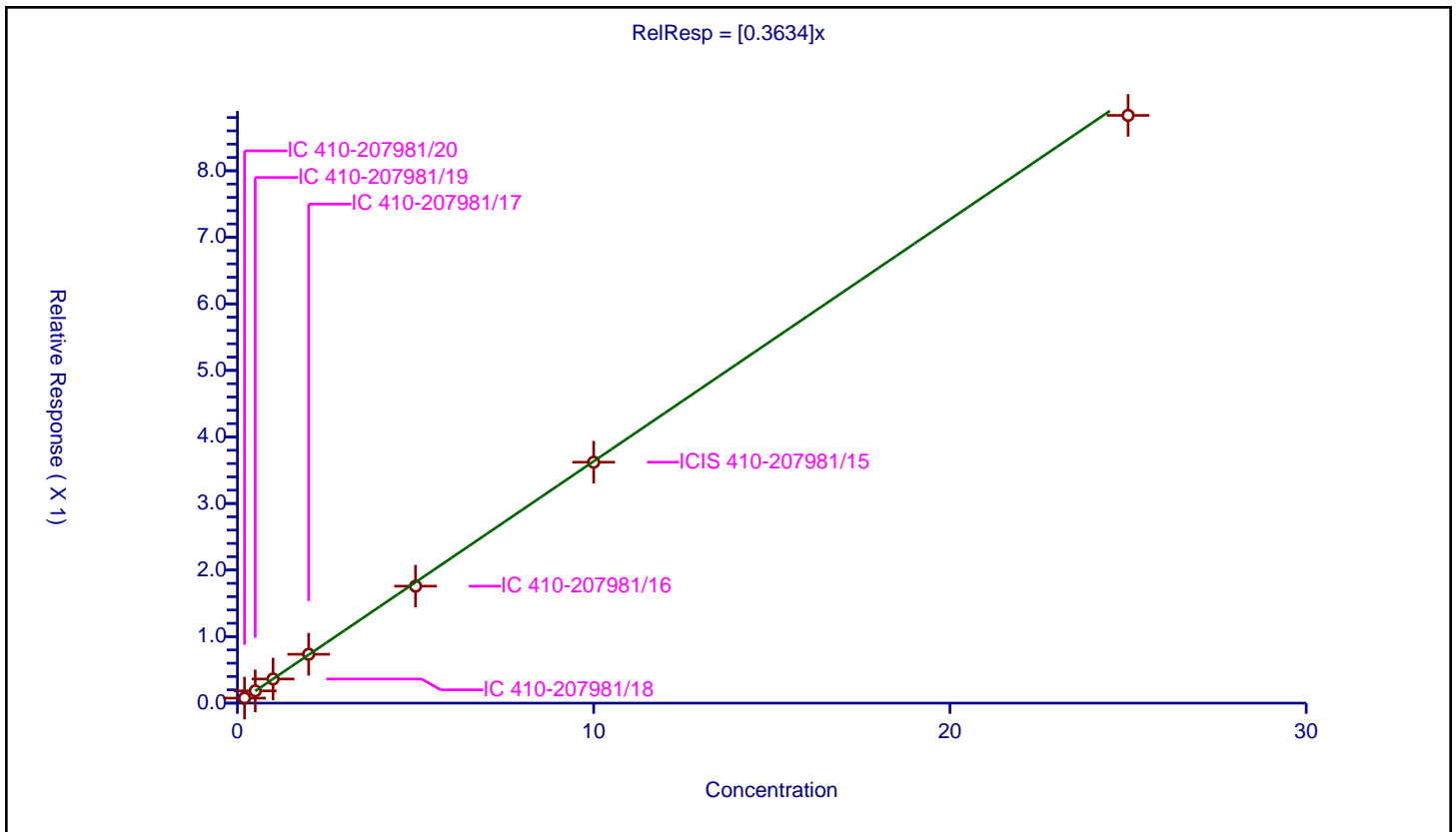
/ 1,2-Dichloro-1,1,2-trifluoroethane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3634

Error Coefficients	
Standard Error:	910000
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 410-207981/20	0.2	0.075608	10.0	2249617.0	0.378042	Y
2	IC 410-207981/19	0.5	0.184472	10.0	2232533.0	0.368944	Y
3	IC 410-207981/18	1.0	0.362864	10.0	2262029.0	0.362864	Y
4	IC 410-207981/17	2.0	0.734226	10.0	2259237.0	0.367113	Y
5	IC 410-207981/16	5.0	1.758073	10.0	2285280.0	0.351615	Y
6	ICIS 410-207981/15	10.0	3.620516	10.0	2239692.0	0.362052	Y
7	IC 410-207981/14	25.0	8.832532	10.0	2294975.0	0.353301	Y



Calibration

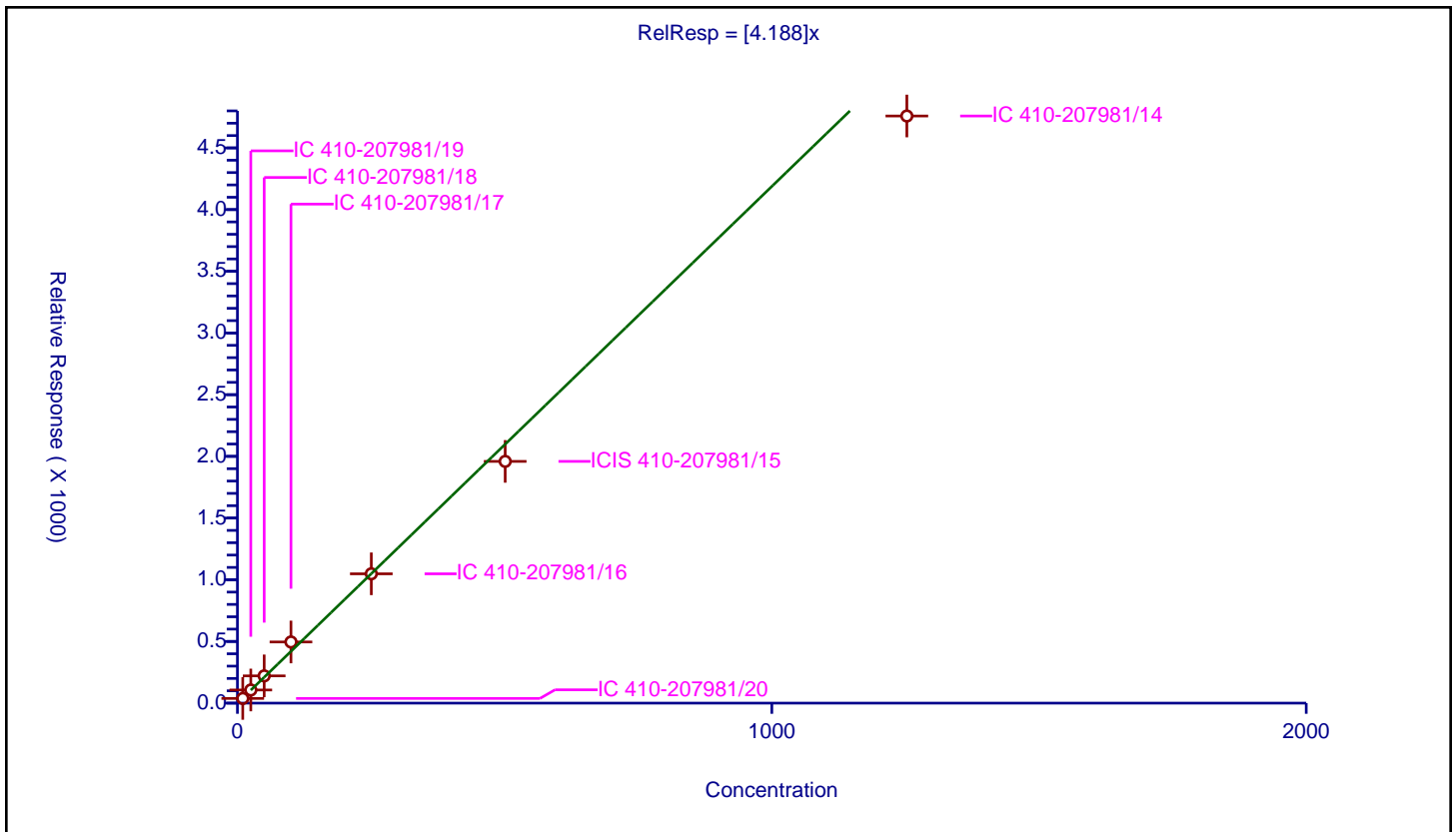
/ Acrolein

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	4.188

Error Coefficients	
Standard Error:	3580000
Relative Standard Error:	9.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.988

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	10.021507	38.188087	50.0	81494.0	3.810613	Y
2	IC 410-207981/19	25.053768	106.593797	50.0	66191.0	4.254601	Y
3	IC 410-207981/18	50.107537	221.037662	50.0	72779.0	4.411266	Y
4	IC 410-207981/17	100.215073	495.641573	50.0	62752.0	4.945779	Y
5	IC 410-207981/16	250.537684	1048.218823	50.0	77926.0	4.183877	Y
6	ICIS 410-207981/15	501.075367	1959.281314	50.0	82456.0	3.910153	Y
7	IC 410-207981/14	1252.688418	4758.629951	50.0	83778.0	3.798734	Y



**Calibration**

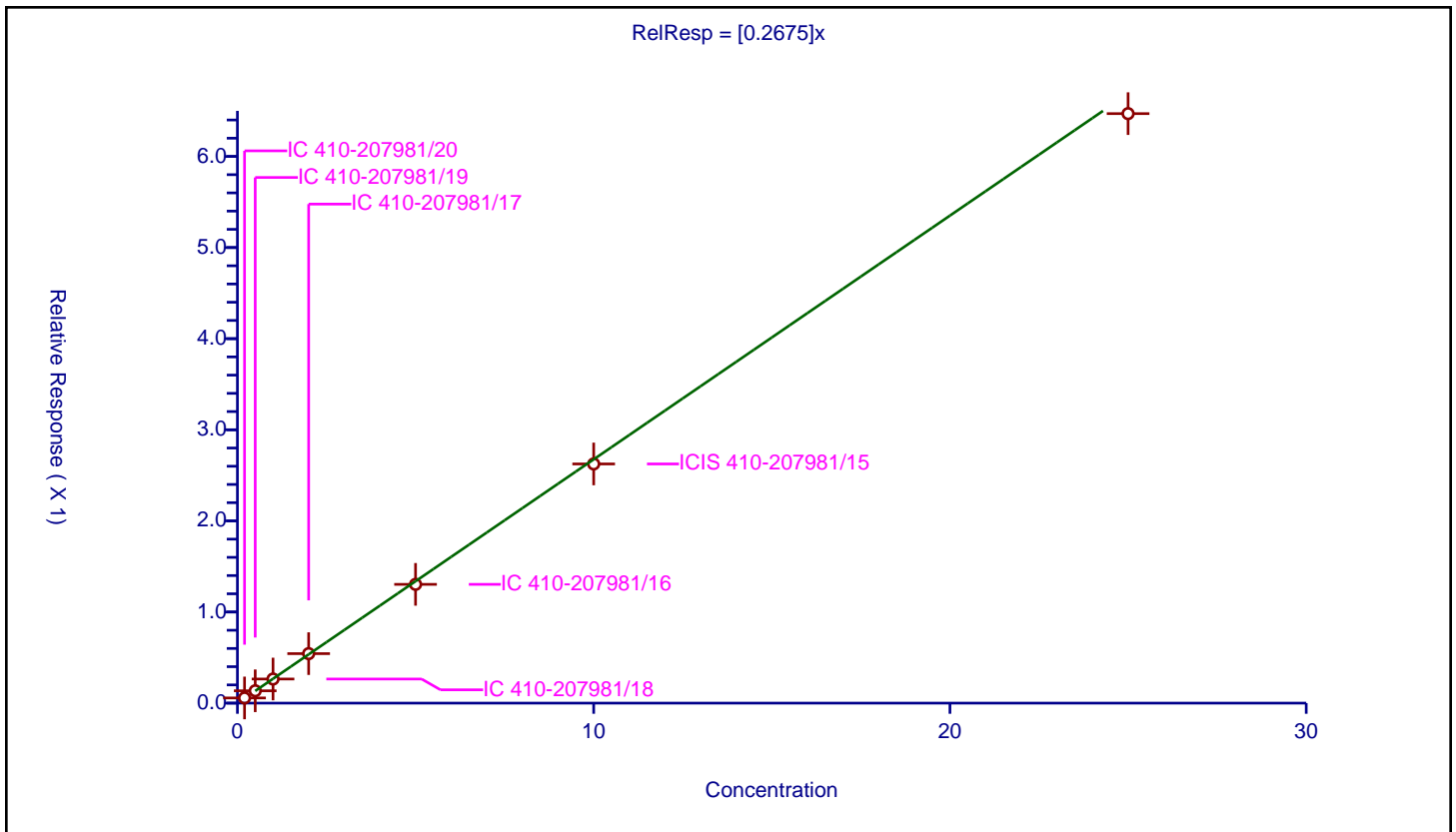
/ 1,1-Dichloroethene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2675

Error Coefficients	
Standard Error:	666000
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 410-207981/20	0.2	0.05673	10.0	2249617.0	0.283648	Y
2	IC 410-207981/19	0.5	0.135393	10.0	2232533.0	0.270787	Y
3	IC 410-207981/18	1.0	0.264585	10.0	2262029.0	0.264585	Y
4	IC 410-207981/17	2.0	0.543405	10.0	2259237.0	0.271702	Y
5	IC 410-207981/16	5.0	1.303446	10.0	2285280.0	0.260689	Y
6	ICIS 410-207981/15	10.0	2.625227	10.0	2239692.0	0.262523	Y
7	IC 410-207981/14	25.0	6.469826	10.0	2294975.0	0.258793	Y



**Calibration**

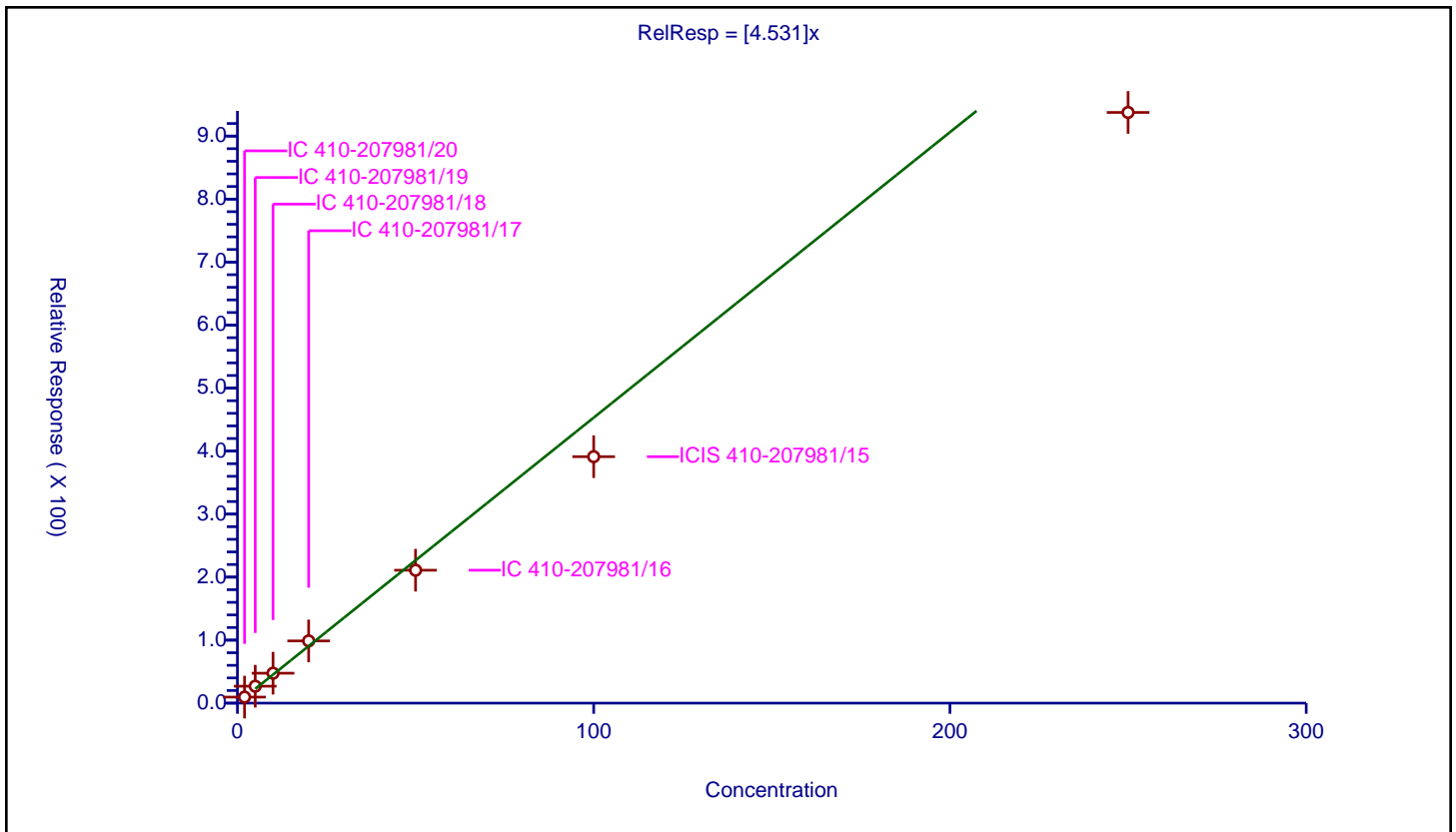
/ Acetone

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	4.531

Error Coefficients	
Standard Error:	708000
Relative Standard Error:	13.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.975

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	2.0	9.557145	50.0	81494.0	4.778573	Y
2	IC 410-207981/19	5.0	26.863169	50.0	66191.0	5.372634	Y
3	IC 410-207981/18	10.0	47.475233	50.0	72779.0	4.747523	Y
4	IC 410-207981/17	20.0	98.737092	50.0	62752.0	4.936855	Y
5	IC 410-207981/16	50.0	210.944357	50.0	77926.0	4.218887	Y
6	ICIS 410-207981/15	100.0	391.168017	50.0	82456.0	3.91168	Y
7	IC 410-207981/14	250.0	937.568335	50.0	83778.0	3.750273	Y



**Calibration**

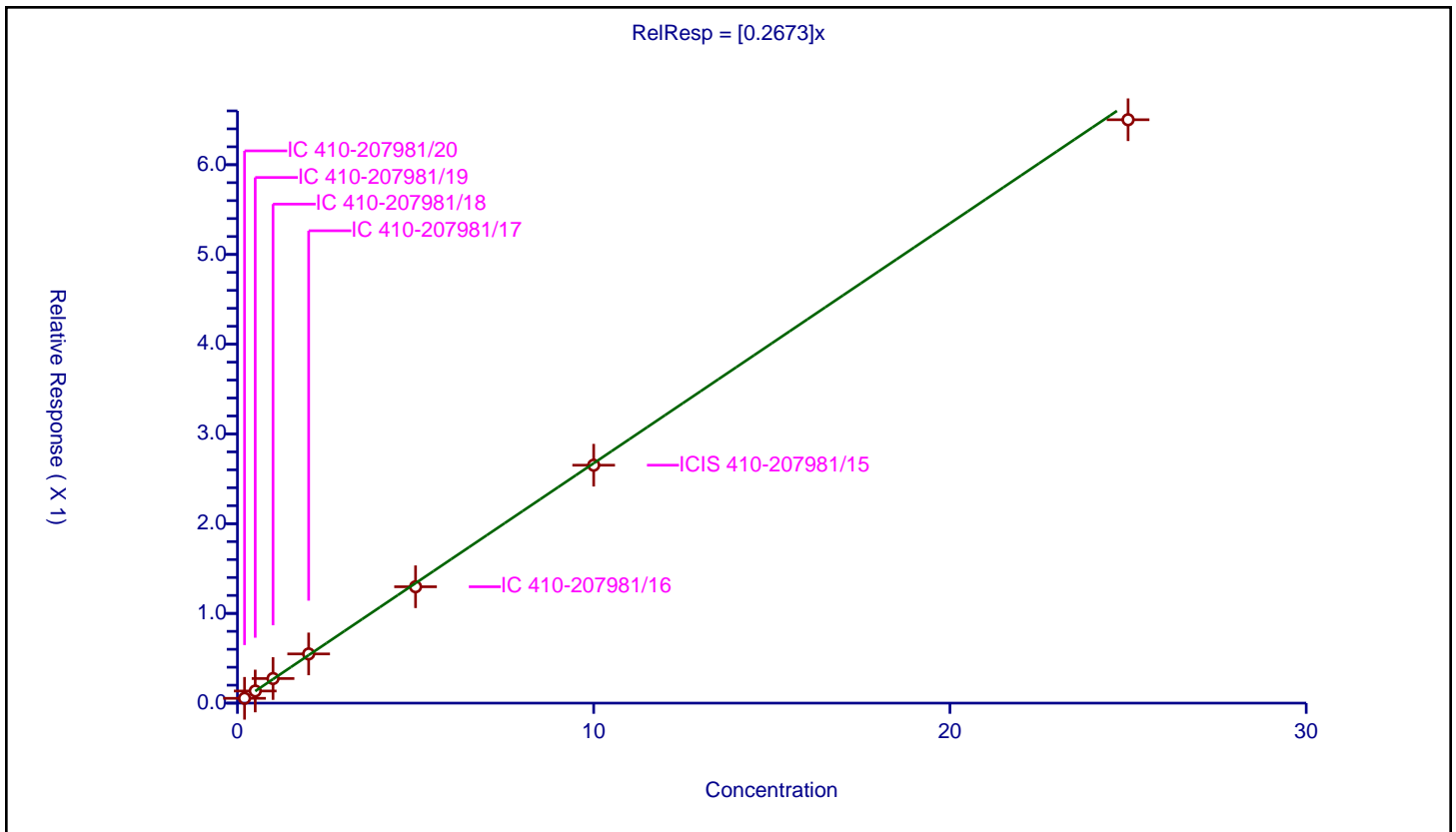
/ 1,1,2-Trichloro-1,2,2-trifluoroethane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2673

Error Coefficients	
Standard Error:	669000
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 410-207981/20	0.2	0.053622	10.0	2249617.0	0.268112	Y
2	IC 410-207981/19	0.5	0.135125	10.0	2232533.0	0.270249	Y
3	IC 410-207981/18	1.0	0.274143	10.0	2262029.0	0.274143	Y
4	IC 410-207981/17	2.0	0.548477	10.0	2259237.0	0.274239	Y
5	IC 410-207981/16	5.0	1.296813	10.0	2285280.0	0.259363	Y
6	ICIS 410-207981/15	10.0	2.65153	10.0	2239692.0	0.265153	Y
7	IC 410-207981/14	25.0	6.501378	10.0	2294975.0	0.260055	Y



**Calibration**

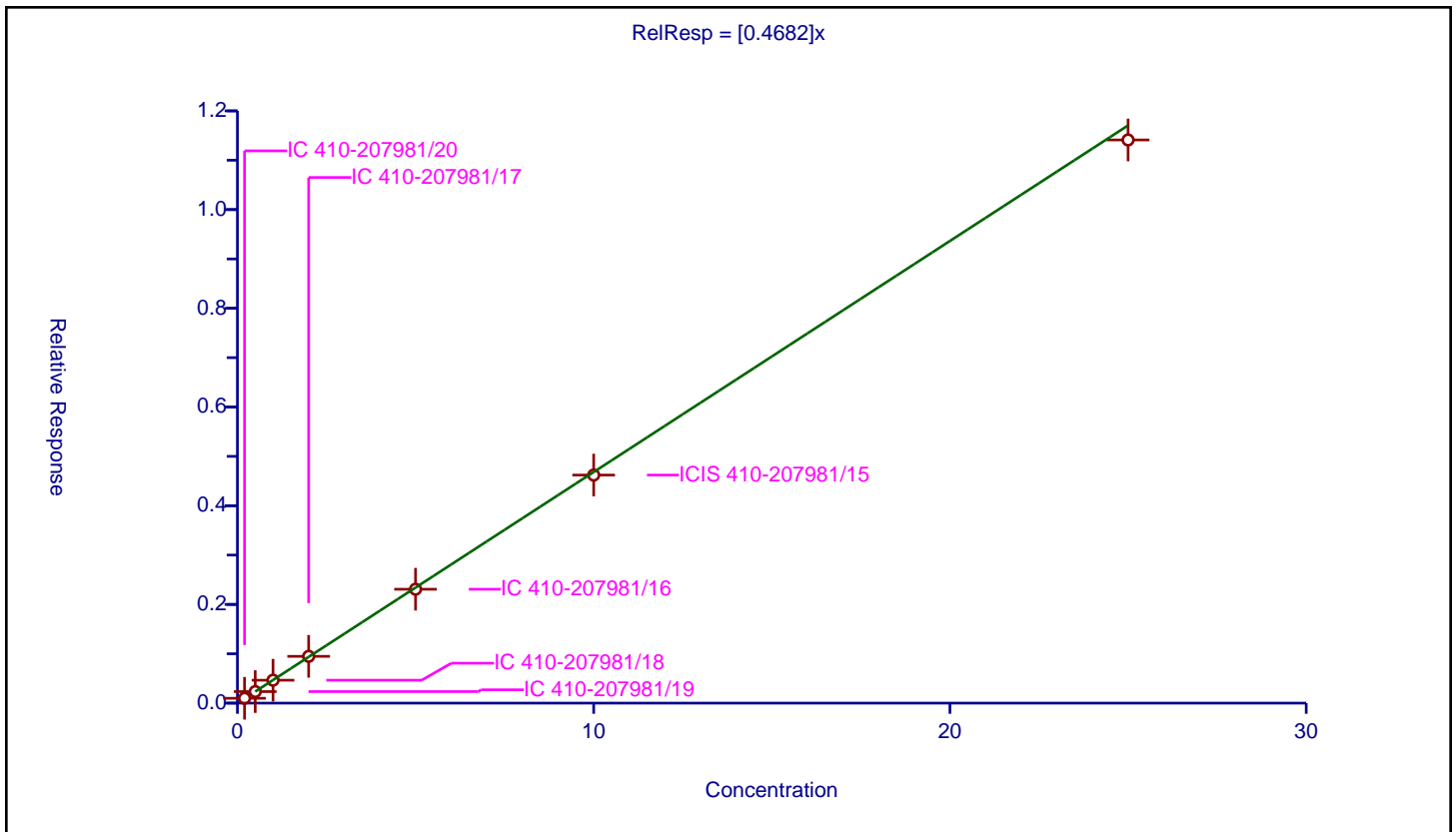
/ Iodomethane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4682

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 410-207981/20	0.2	0.098261	10.0	2249617.0	0.491306	Y
2	IC 410-207981/19	0.5	0.233976	10.0	2232533.0	0.467953	Y
3	IC 410-207981/18	1.0	0.464287	10.0	2262029.0	0.464287	Y
4	IC 410-207981/17	2.0	0.947678	10.0	2259237.0	0.473839	Y
5	IC 410-207981/16	5.0	2.30784	10.0	2285280.0	0.461568	Y
6	ICIS 410-207981/15	10.0	4.620814	10.0	2239692.0	0.462081	Y
7	IC 410-207981/14	25.0	11.41127	10.0	2294975.0	0.456451	Y





**Calibration**

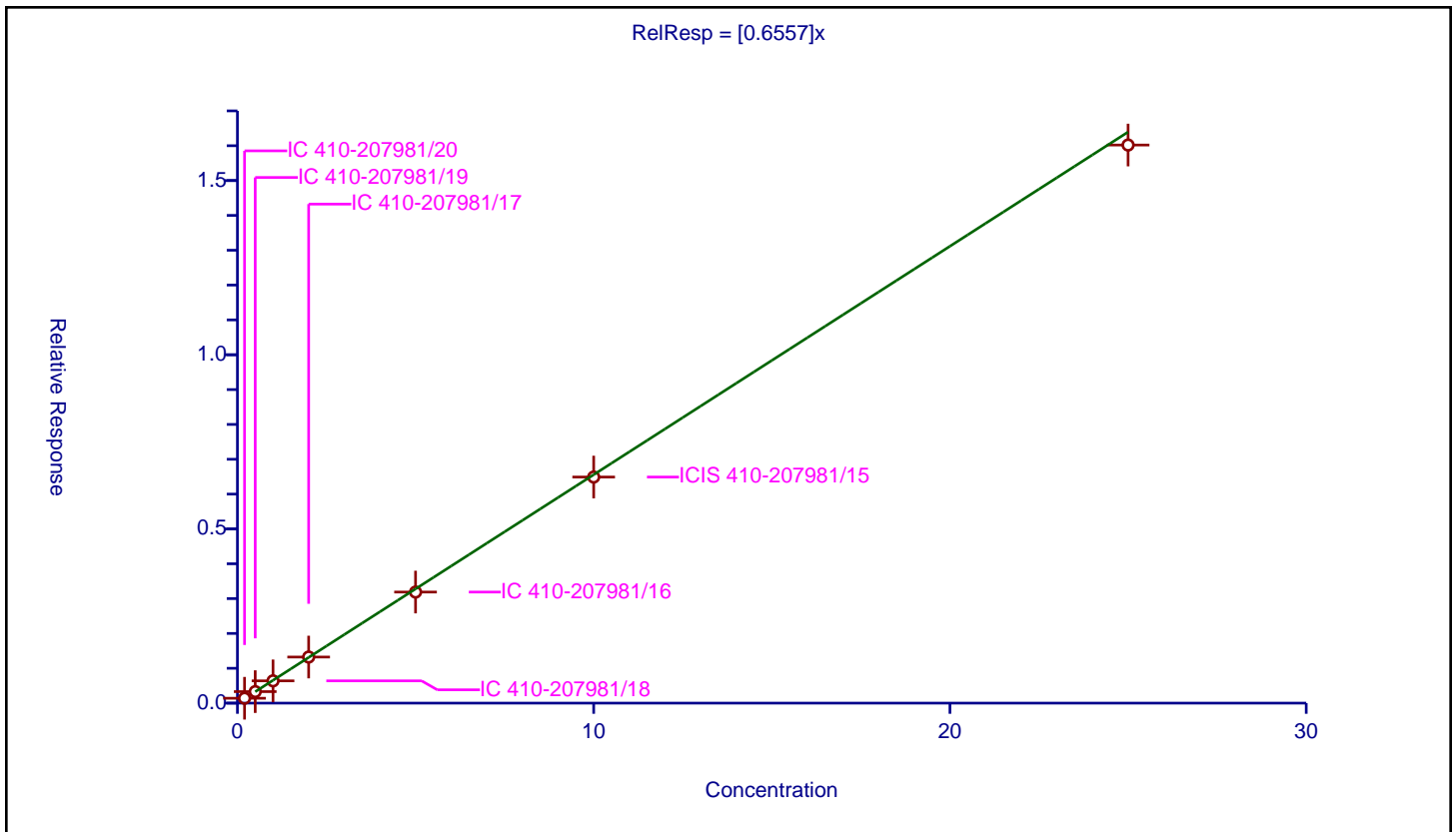
/ Carbon disulfide

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.6557

Error Coefficients	
Standard Error:	1650000
Relative Standard Error:	3.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.140175	10.0	2249617.0	0.700875	Y
2	IC 410-207981/19	0.5	0.330405	10.0	2232533.0	0.66081	Y
3	IC 410-207981/18	1.0	0.639775	10.0	2262029.0	0.639775	Y
4	IC 410-207981/17	2.0	1.322787	10.0	2259237.0	0.661394	Y
5	IC 410-207981/16	5.0	3.188073	10.0	2285280.0	0.637615	Y
6	ICIS 410-207981/15	10.0	6.489767	10.0	2239692.0	0.648977	Y
7	IC 410-207981/14	25.0	16.019551	10.0	2294975.0	0.640782	Y



**Calibration**

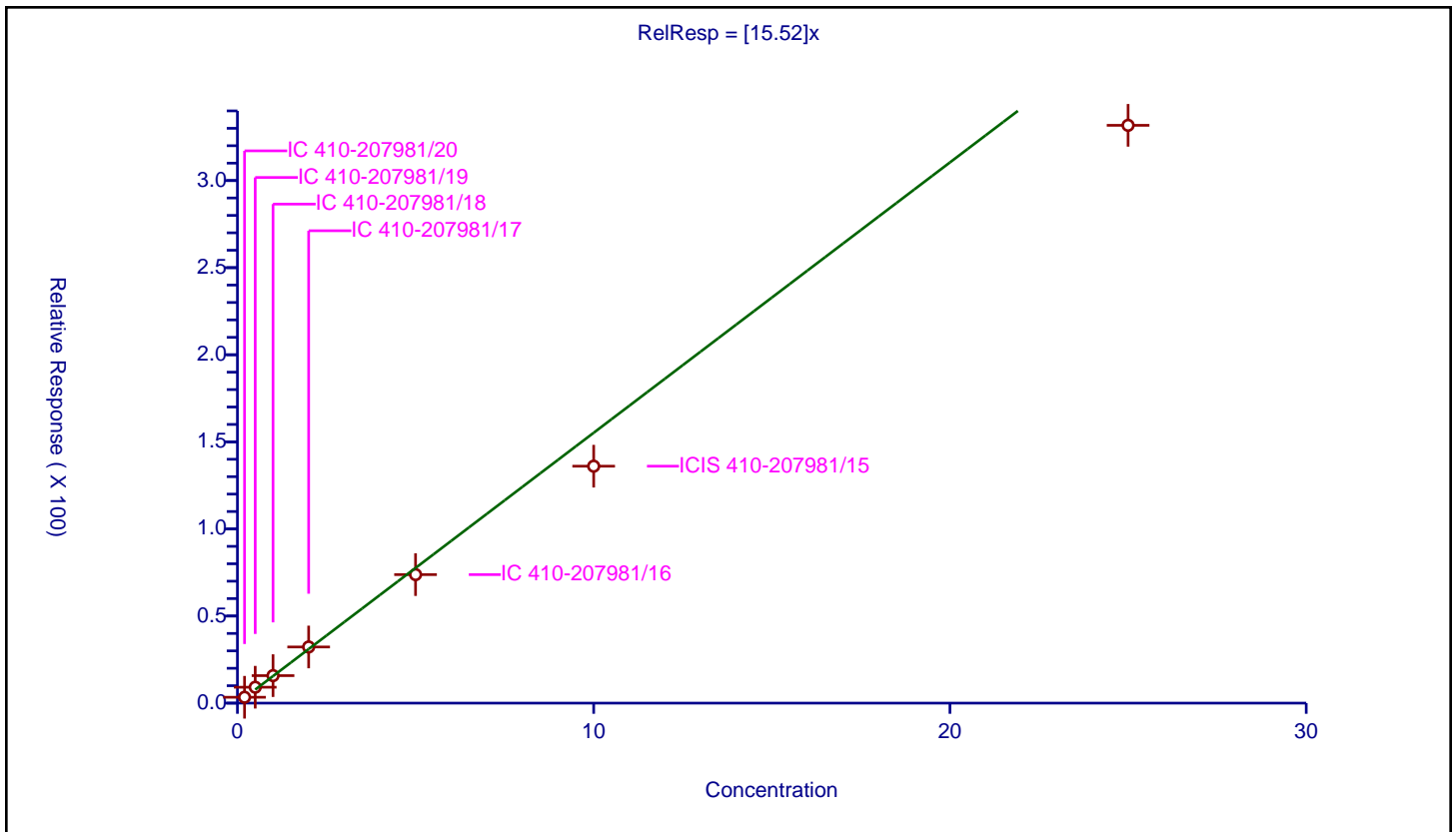
/ Methyl acetate

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	15.52

Error Coefficients	
Standard Error:	250000
Relative Standard Error:	11.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.980

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	3.372027	50.0	81494.0	16.860137	Y
2	IC 410-207981/19	0.5	9.128129	50.0	66191.0	18.256258	Y
3	IC 410-207981/18	1.0	15.779964	50.0	72779.0	15.779964	Y
4	IC 410-207981/17	2.0	32.241203	50.0	62752.0	16.120602	Y
5	IC 410-207981/16	5.0	73.784103	50.0	77926.0	14.756821	Y
6	ICIS 410-207981/15	10.0	136.028306	50.0	82456.0	13.602831	Y
7	IC 410-207981/14	25.0	331.711786	50.0	83778.0	13.268471	Y



Calibration

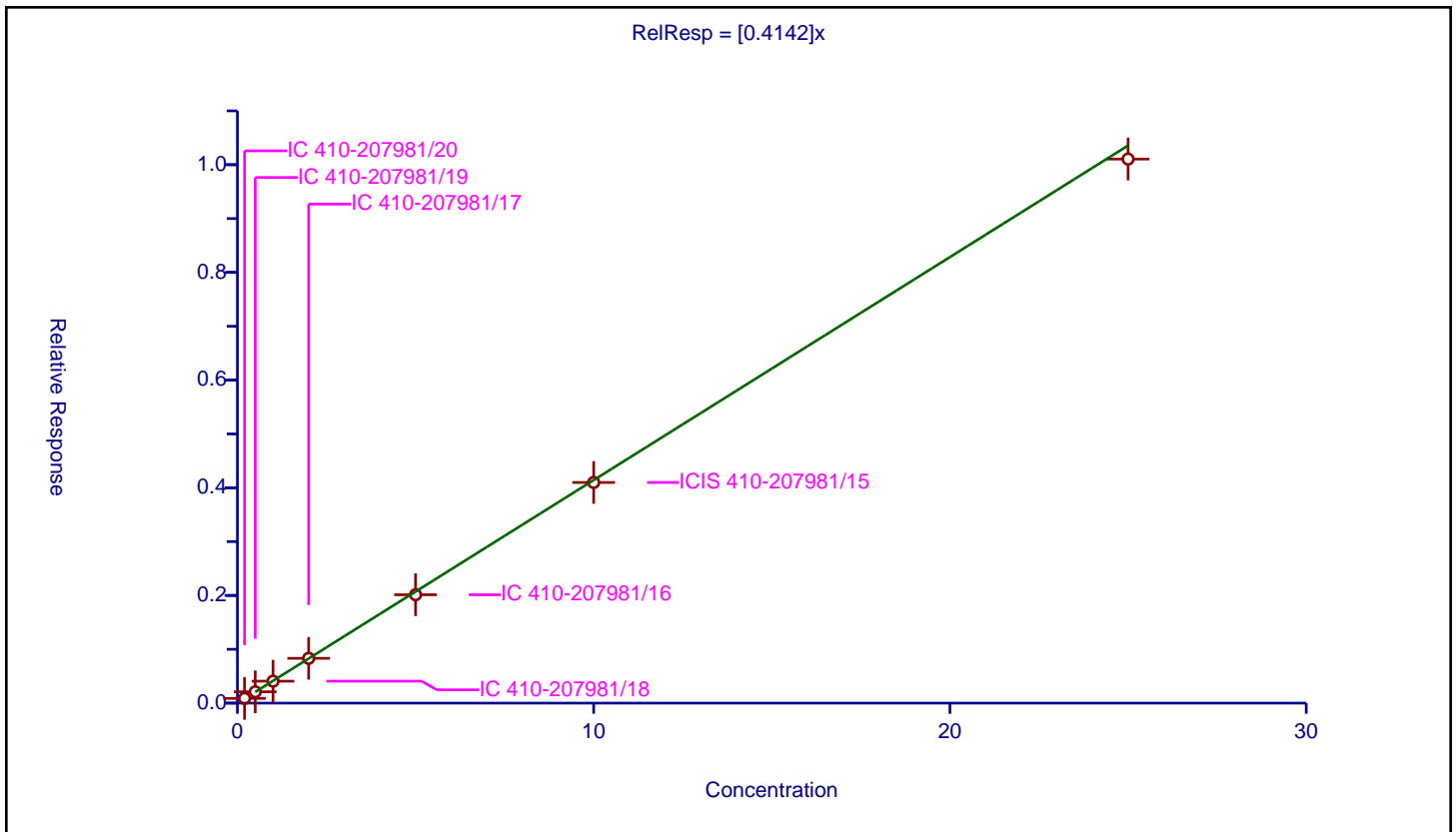
/ 3-Chloro-1-propene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4142

Error Coefficients	
Standard Error:	1040000
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 410-207981/20	0.2	0.087588	10.0	2249617.0	0.437941	Y
2	IC 410-207981/19	0.5	0.210693	10.0	2232533.0	0.421387	Y
3	IC 410-207981/18	1.0	0.407621	10.0	2262029.0	0.407621	Y
4	IC 410-207981/17	2.0	0.832055	10.0	2259237.0	0.416028	Y
5	IC 410-207981/16	5.0	2.013285	10.0	2285280.0	0.402657	Y
6	ICIS 410-207981/15	10.0	4.098238	10.0	2239692.0	0.409824	Y
7	IC 410-207981/14	25.0	10.104929	10.0	2294975.0	0.404197	Y



Calibration

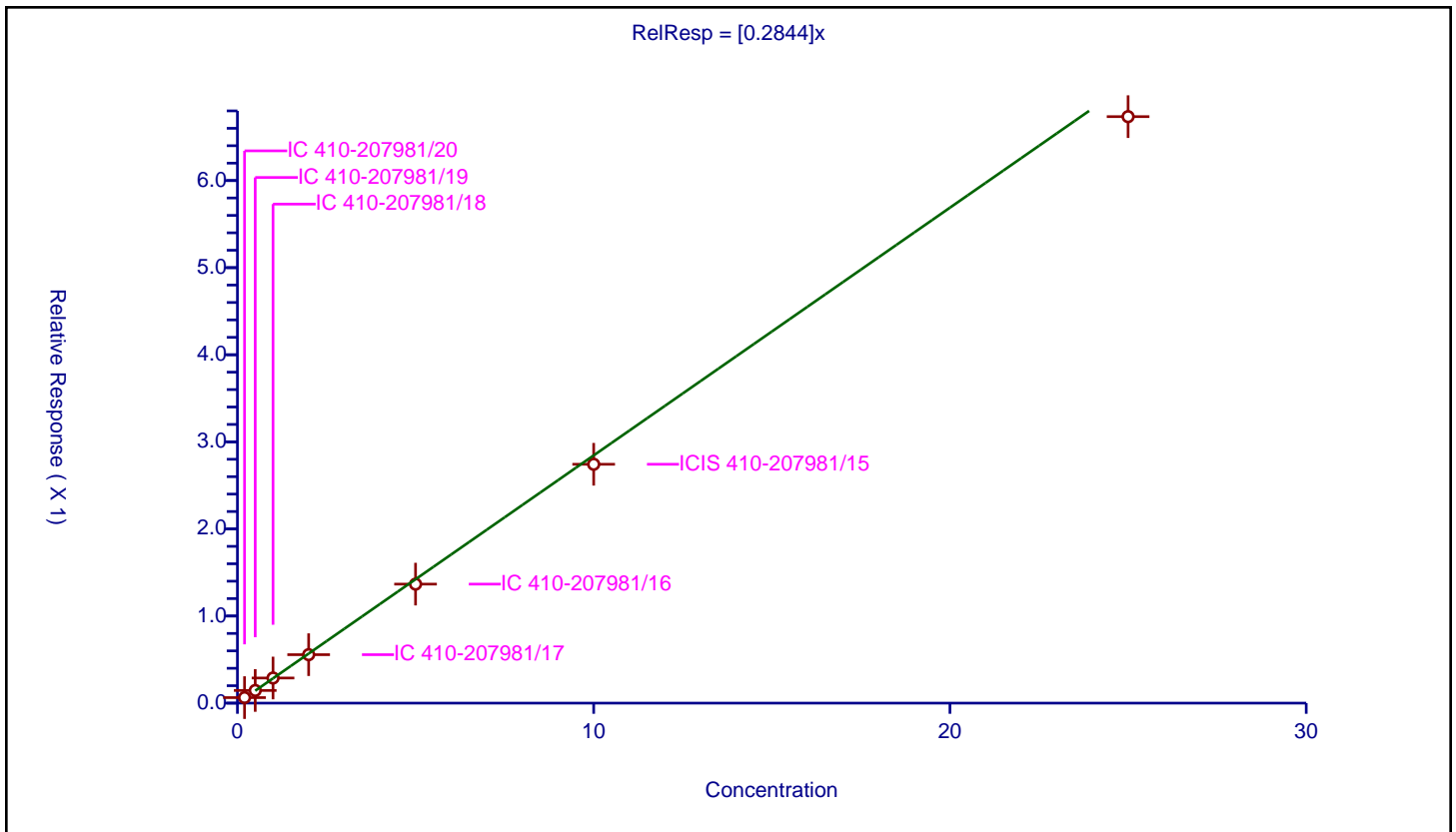
/ Methylene Chloride

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2844

Error Coefficients	
Standard Error:	693000
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 410-207981/20	0.2	0.063353	10.0	2249617.0	0.316765	Y
2	IC 410-207981/19	0.5	0.145257	10.0	2232533.0	0.290513	Y
3	IC 410-207981/18	1.0	0.288577	10.0	2262029.0	0.288577	Y
4	IC 410-207981/17	2.0	0.556542	10.0	2259237.0	0.278271	Y
5	IC 410-207981/16	5.0	1.36638	10.0	2285280.0	0.273276	Y
6	ICIS 410-207981/15	10.0	2.742547	10.0	2239692.0	0.274255	Y
7	IC 410-207981/14	25.0	6.733934	10.0	2294975.0	0.269357	Y



**Calibration**

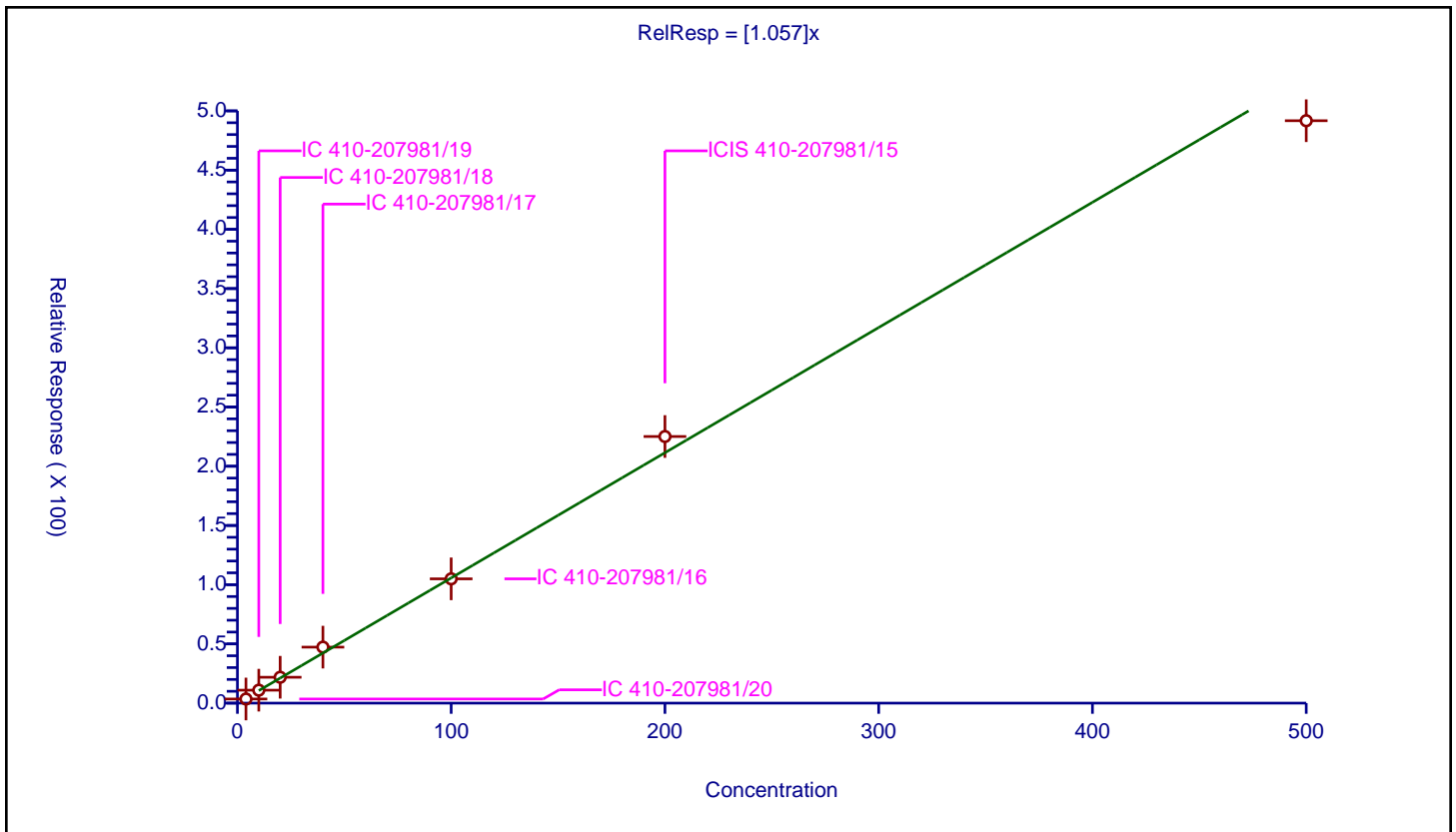
/ 2-Methyl-2-propanol

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.057

Error Coefficients	
Standard Error:	376000
Relative Standard Error:	9.6
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.989

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	4.0	3.492282	50.0	81494.0	0.87307	Y
2	IC 410-207981/19	10.0	10.934266	50.0	66191.0	1.093427	Y
3	IC 410-207981/18	20.0	21.843526	50.0	72779.0	1.092176	Y
4	IC 410-207981/17	40.0	47.279768	50.0	62752.0	1.181994	Y
5	IC 410-207981/16	100.0	104.939943	50.0	77926.0	1.049399	Y
6	ICIS 410-207981/15	200.0	225.094596	50.0	82456.0	1.125473	Y
7	IC 410-207981/14	500.0	491.701282	50.0	83778.0	0.983403	Y



**Calibration**

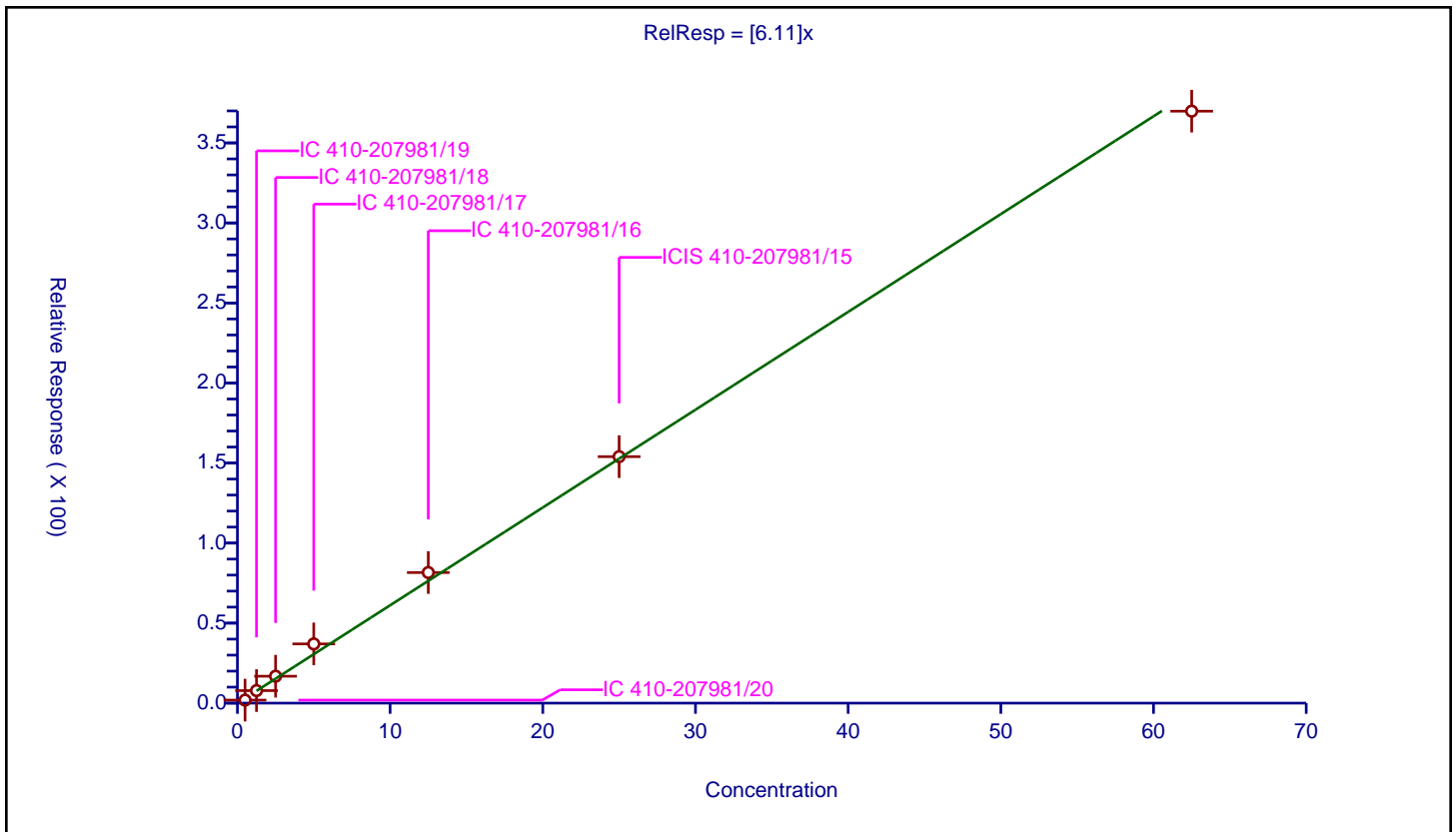
/ Acrylonitrile

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	6.11

Error Coefficients	
Standard Error:	279000
Relative Standard Error:	18.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.963

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.5	1.894004	50.0	81494.0	3.788009	Y
2	IC 410-207981/19	1.25	7.82206	50.0	66191.0	6.257648	Y
3	IC 410-207981/18	2.5	16.80842	50.0	72779.0	6.723368	Y
4	IC 410-207981/17	5.0	36.998024	50.0	62752.0	7.399605	Y
5	IC 410-207981/16	12.5	81.59536	50.0	77926.0	6.527629	Y
6	ICIS 410-207981/15	25.0	153.992432	50.0	82456.0	6.159697	Y
7	IC 410-207981/14	62.5	369.829788	50.0	83778.0	5.917277	Y



Calibration

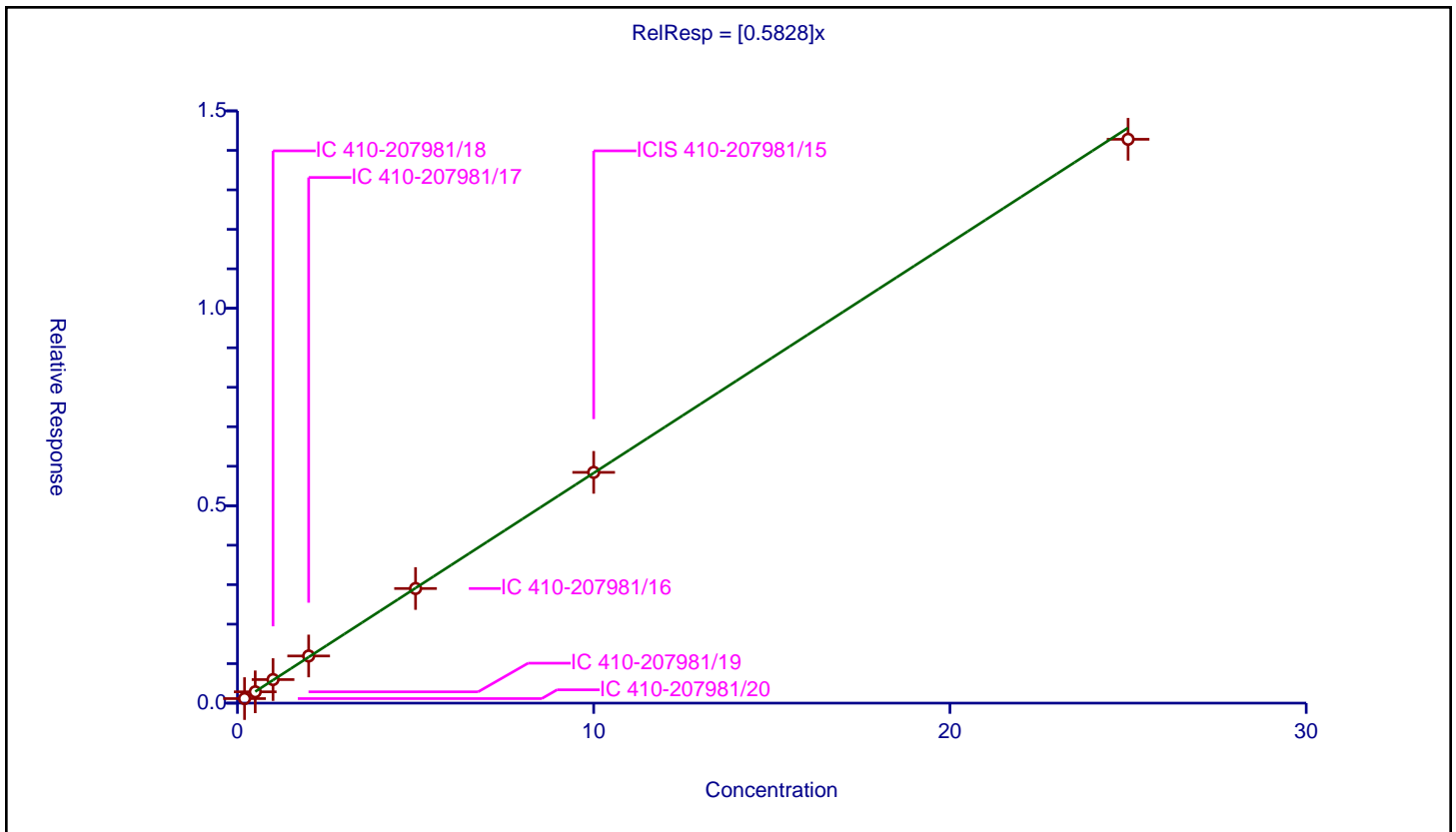
/ Methyl tert-butyl ether

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.5828

Error Coefficients	
Standard Error:	1470000
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 410-207981/20	0.2	0.115335	10.0	2249617.0	0.576676	Y
2	IC 410-207981/19	0.5	0.286446	10.0	2232533.0	0.572892	Y
3	IC 410-207981/18	1.0	0.596818	10.0	2262029.0	0.596818	Y
4	IC 410-207981/17	2.0	1.194501	10.0	2259237.0	0.59725	Y
5	IC 410-207981/16	5.0	2.902887	10.0	2285280.0	0.580577	Y
6	ICIS 410-207981/15	10.0	5.84471	10.0	2239692.0	0.584471	Y
7	IC 410-207981/14	25.0	14.280687	10.0	2294975.0	0.571227	Y



Calibration

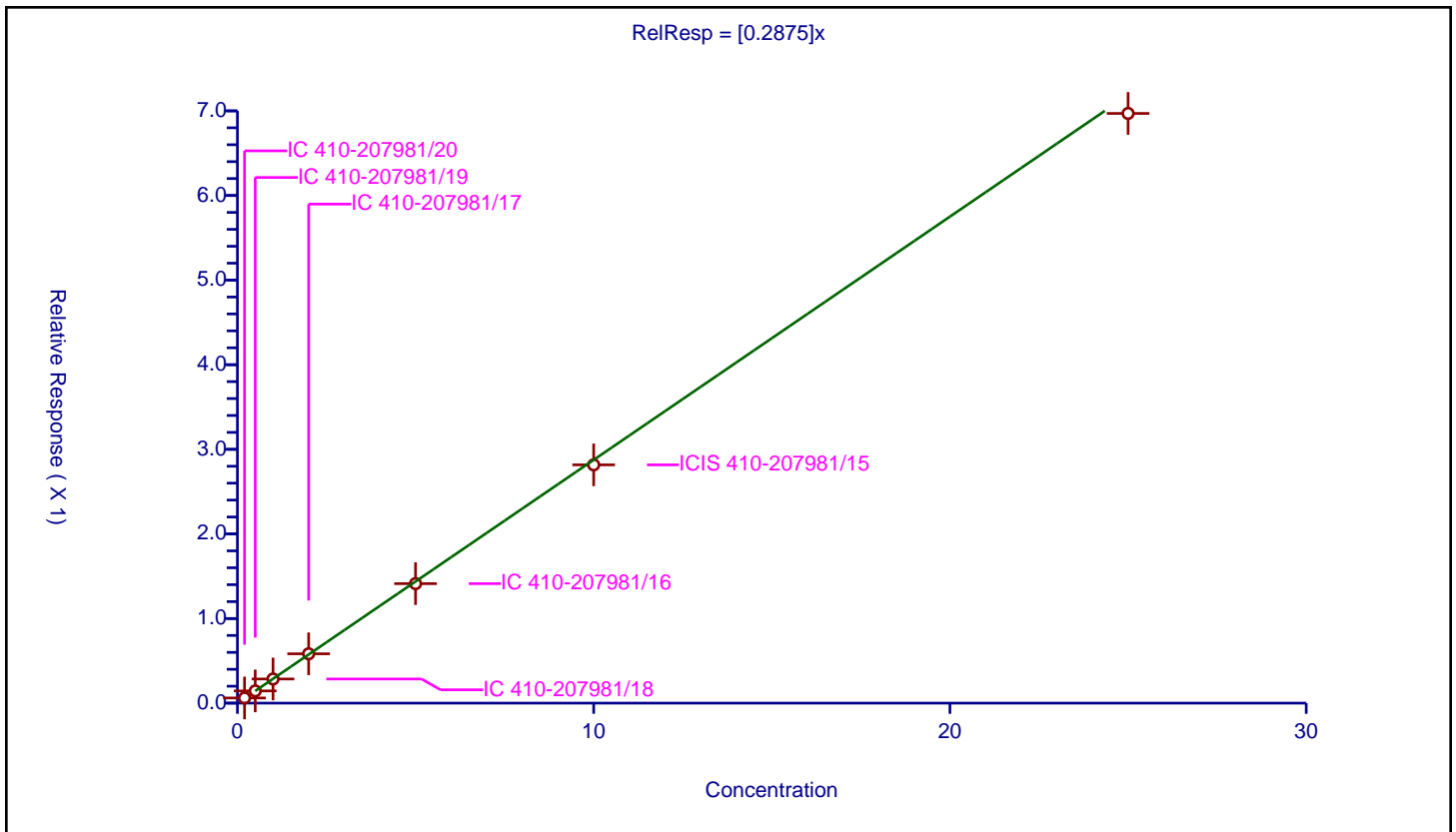
/ trans-1,2-Dichloroethene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2875

Error Coefficients	
Standard Error:	717000
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 410-207981/20	0.2	0.060815	10.0	2249617.0	0.304074	Y
2	IC 410-207981/19	0.5	0.144365	10.0	2232533.0	0.28873	Y
3	IC 410-207981/18	1.0	0.285306	10.0	2262029.0	0.285306	Y
4	IC 410-207981/17	2.0	0.58317	10.0	2259237.0	0.291585	Y
5	IC 410-207981/16	5.0	1.412265	10.0	2285280.0	0.282453	Y
6	ICIS 410-207981/15	10.0	2.816231	10.0	2239692.0	0.281623	Y
7	IC 410-207981/14	25.0	6.969631	10.0	2294975.0	0.278785	Y





Calibration

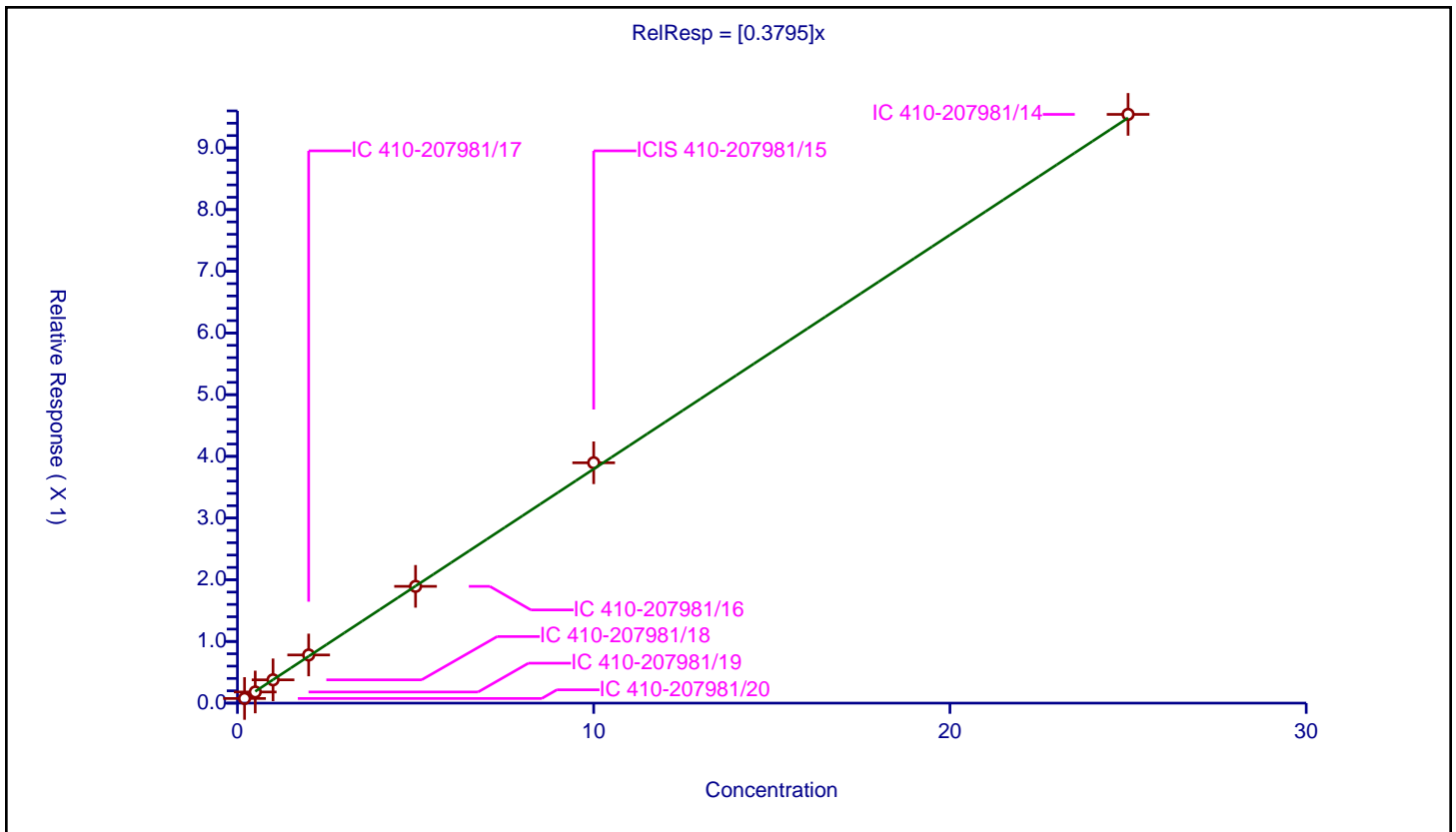
/ Hexane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3795

Error Coefficients	
Standard Error:	982000
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 410-207981/20	0.2	0.075537	10.0	2249617.0	0.377687	Y
2	IC 410-207981/19	0.5	0.180468	10.0	2232533.0	0.360935	Y
3	IC 410-207981/18	1.0	0.377484	10.0	2262029.0	0.377484	Y
4	IC 410-207981/17	2.0	0.780737	10.0	2259237.0	0.390369	Y
5	IC 410-207981/16	5.0	1.892731	10.0	2285280.0	0.378546	Y
6	ICIS 410-207981/15	10.0	3.896237	10.0	2239692.0	0.389624	Y
7	IC 410-207981/14	25.0	9.543524	10.0	2294975.0	0.381741	Y



Calibration

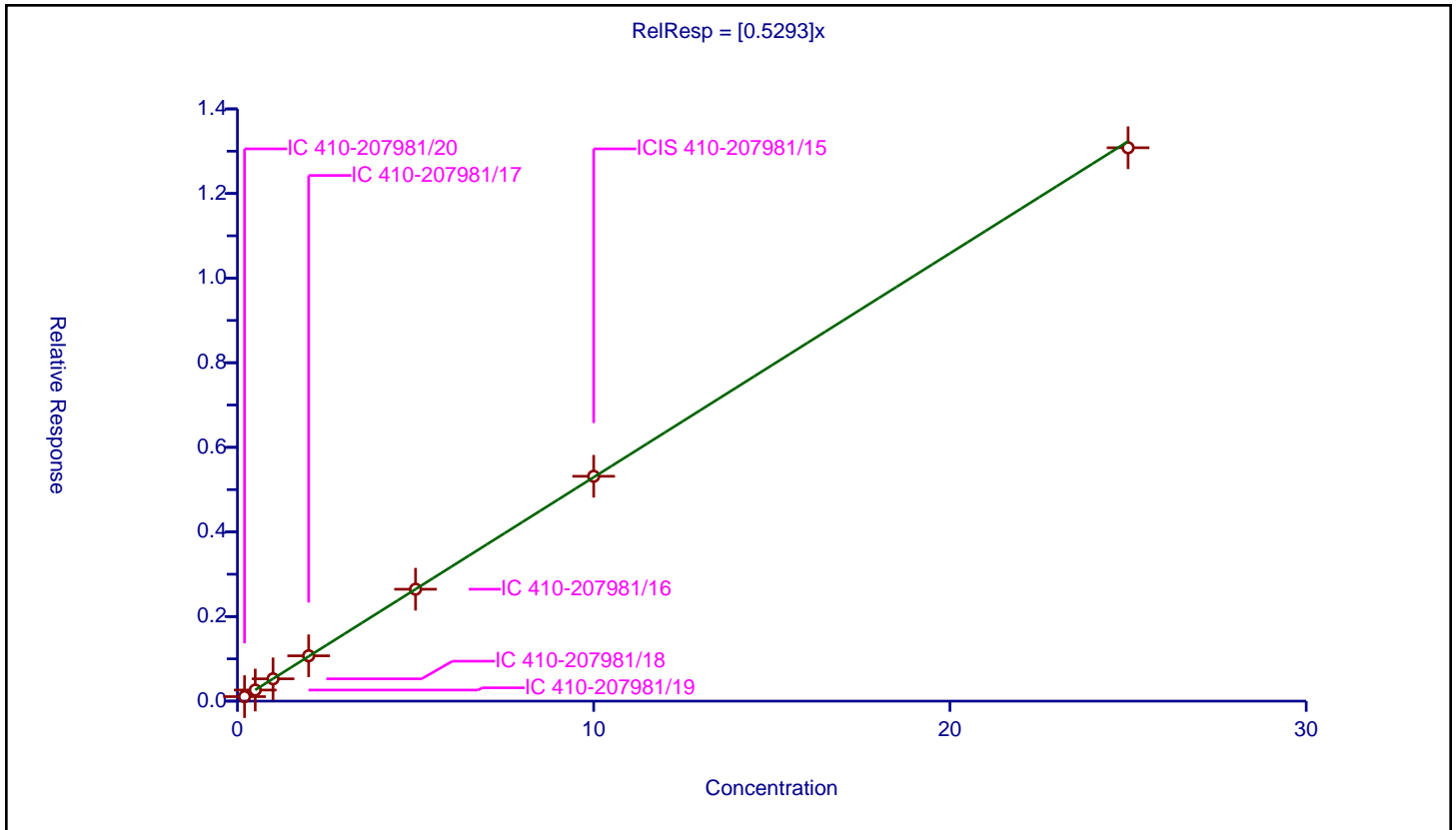
/ 1,1-Dichloroethane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.5293

Error Coefficients	
Standard Error:	1350000
Relative Standard Error:	0.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.106627	10.0	2249617.0	0.533135	Y
2	IC 410-207981/19	0.5	0.262424	10.0	2232533.0	0.524848	Y
3	IC 410-207981/18	1.0	0.527442	10.0	2262029.0	0.527442	Y
4	IC 410-207981/17	2.0	1.071003	10.0	2259237.0	0.535502	Y
5	IC 410-207981/16	5.0	2.645496	10.0	2285280.0	0.529099	Y
6	ICIS 410-207981/15	10.0	5.315164	10.0	2239692.0	0.531516	Y
7	IC 410-207981/14	25.0	13.08158	10.0	2294975.0	0.523263	Y



Calibration

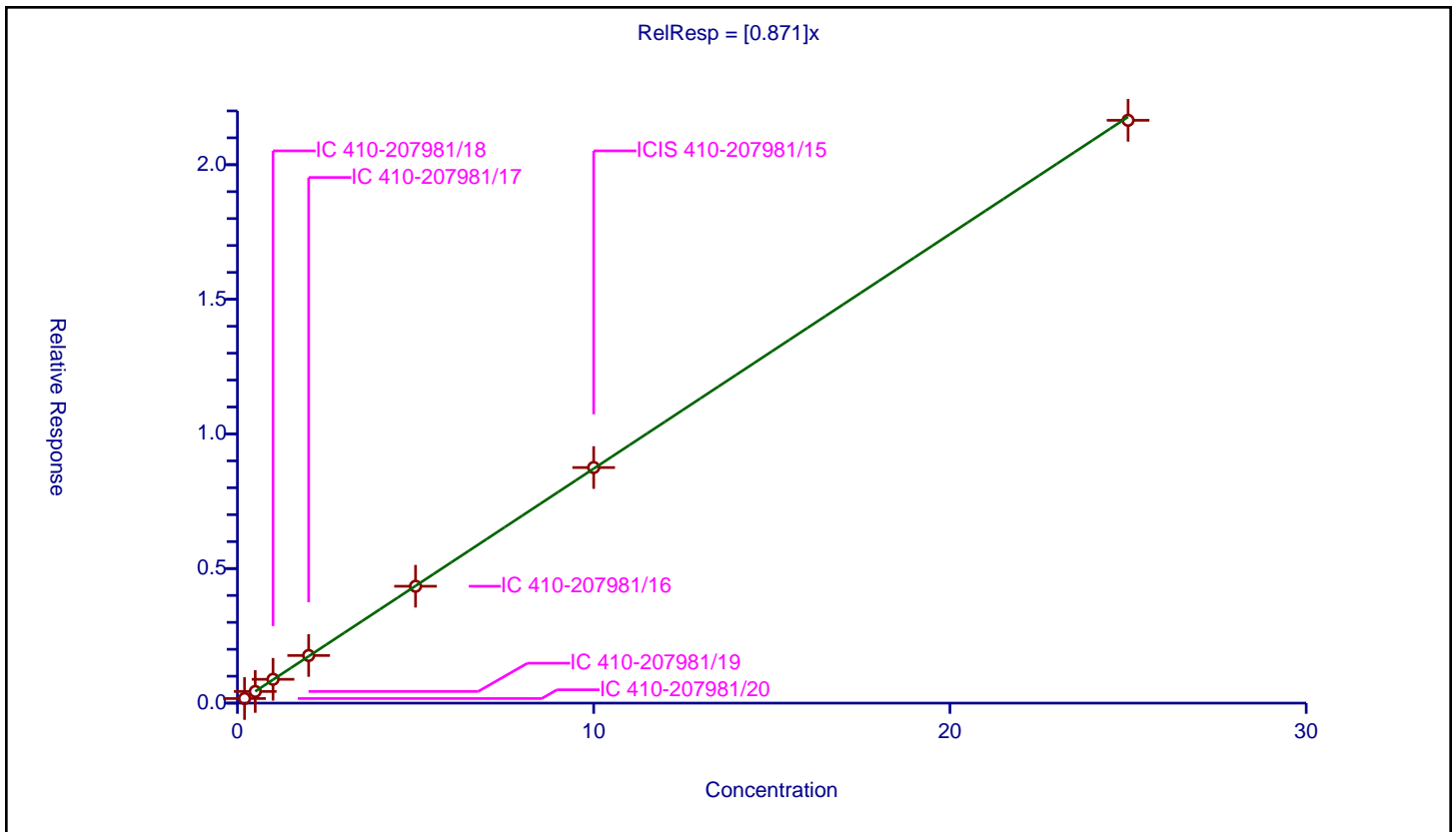
/ Isopropyl ether

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.871

Error Coefficients	
Standard Error:	2230000
Relative Standard Error:	1.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.170616	10.0	2249617.0	0.853079	Y
2	IC 410-207981/19	0.5	0.432612	10.0	2232533.0	0.865223	Y
3	IC 410-207981/18	1.0	0.884803	10.0	2262029.0	0.884803	Y
4	IC 410-207981/17	2.0	1.769407	10.0	2259237.0	0.884704	Y
5	IC 410-207981/16	5.0	4.341766	10.0	2285280.0	0.868353	Y
6	ICIS 410-207981/15	10.0	8.751391	10.0	2239692.0	0.875139	Y
7	IC 410-207981/14	25.0	21.650767	10.0	2294975.0	0.866031	Y



Calibration

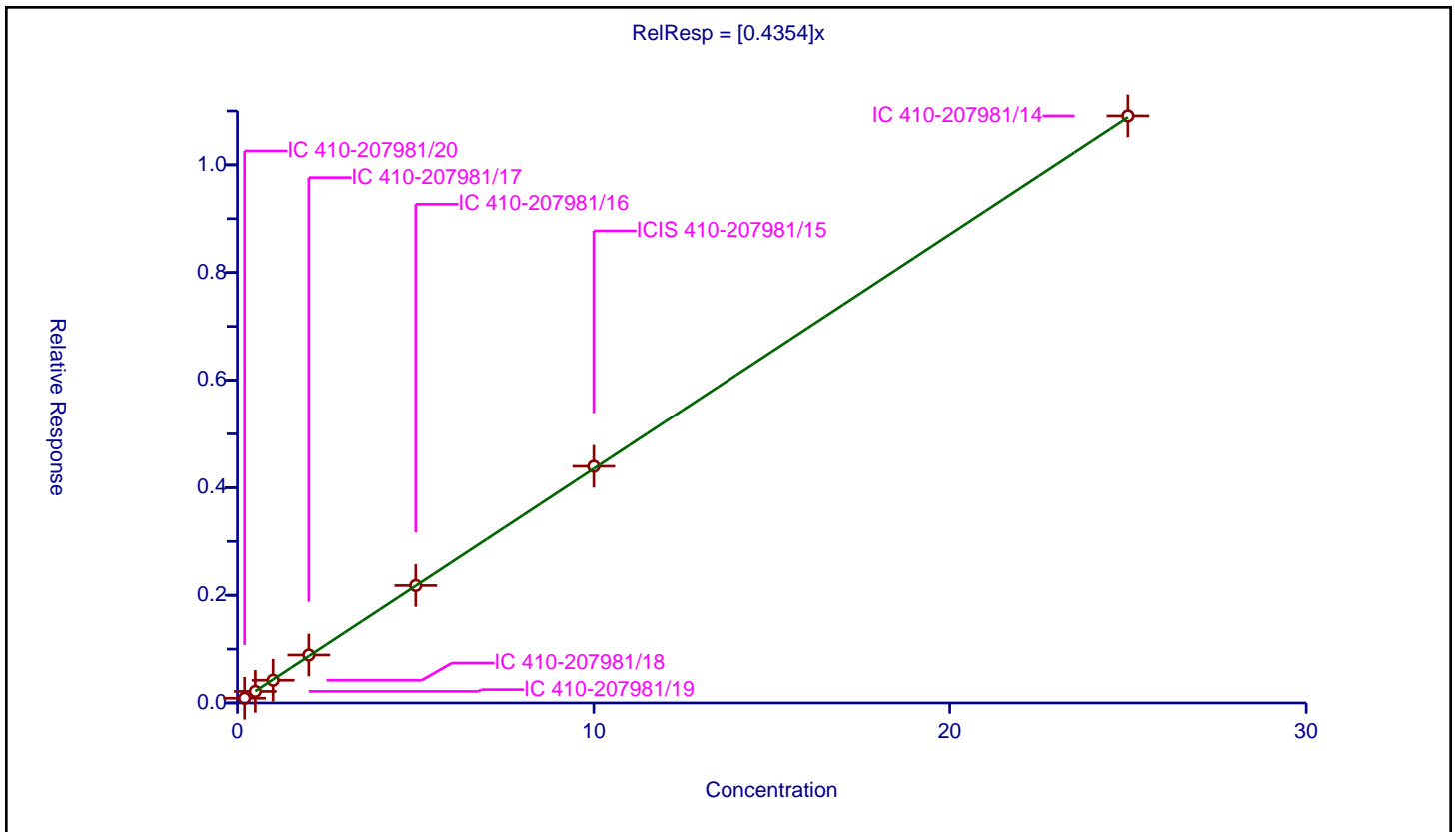
/ 2-Chloro-1,3-butadiene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4354

Error Coefficients	
Standard Error:	1120000
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 410-207981/20	0.2	0.087628	10.0	2249617.0	0.438141	Y
2	IC 410-207981/19	0.5	0.214765	10.0	2232533.0	0.42953	Y
3	IC 410-207981/18	1.0	0.422223	10.0	2262029.0	0.422223	Y
4	IC 410-207981/17	2.0	0.89054	10.0	2259237.0	0.44527	Y
5	IC 410-207981/16	5.0	2.18186	10.0	2285280.0	0.436372	Y
6	ICIS 410-207981/15	10.0	4.396828	10.0	2239692.0	0.439683	Y
7	IC 410-207981/14	25.0	10.908515	10.0	2294975.0	0.436341	Y



Calibration

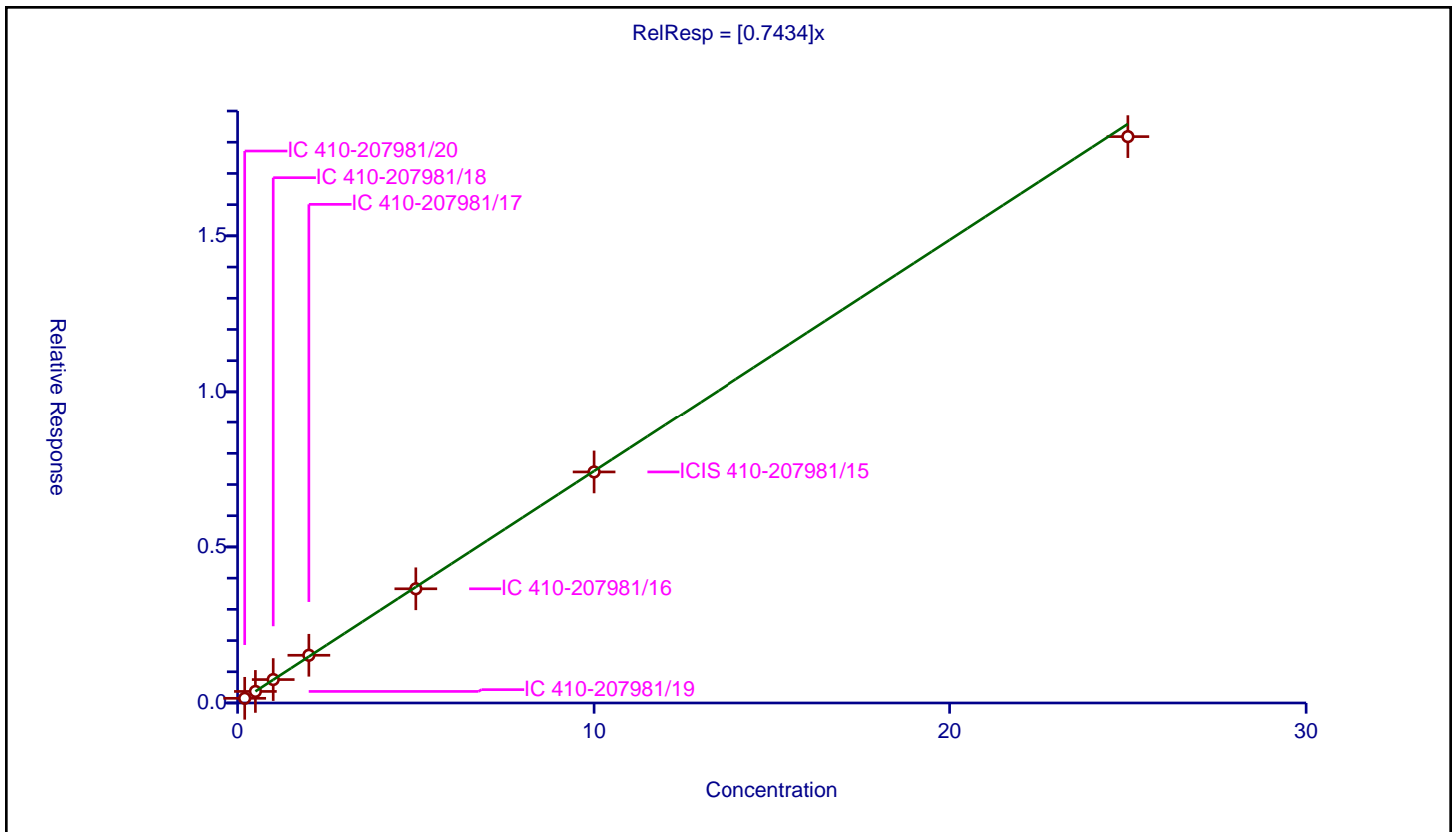
/ Tert-butyl ethyl ether

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.7434

Error Coefficients	
Standard Error:	1870000
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 410-207981/20	0.2	0.149617	10.0	2249617.0	0.748083	Y
2	IC 410-207981/19	0.5	0.370736	10.0	2232533.0	0.741472	Y
3	IC 410-207981/18	1.0	0.750366	10.0	2262029.0	0.750366	Y
4	IC 410-207981/17	2.0	1.529419	10.0	2259237.0	0.76471	Y
5	IC 410-207981/16	5.0	3.65942	10.0	2285280.0	0.731884	Y
6	ICIS 410-207981/15	10.0	7.403451	10.0	2239692.0	0.740345	Y
7	IC 410-207981/14	25.0	18.179305	10.0	2294975.0	0.727172	Y



Calibration

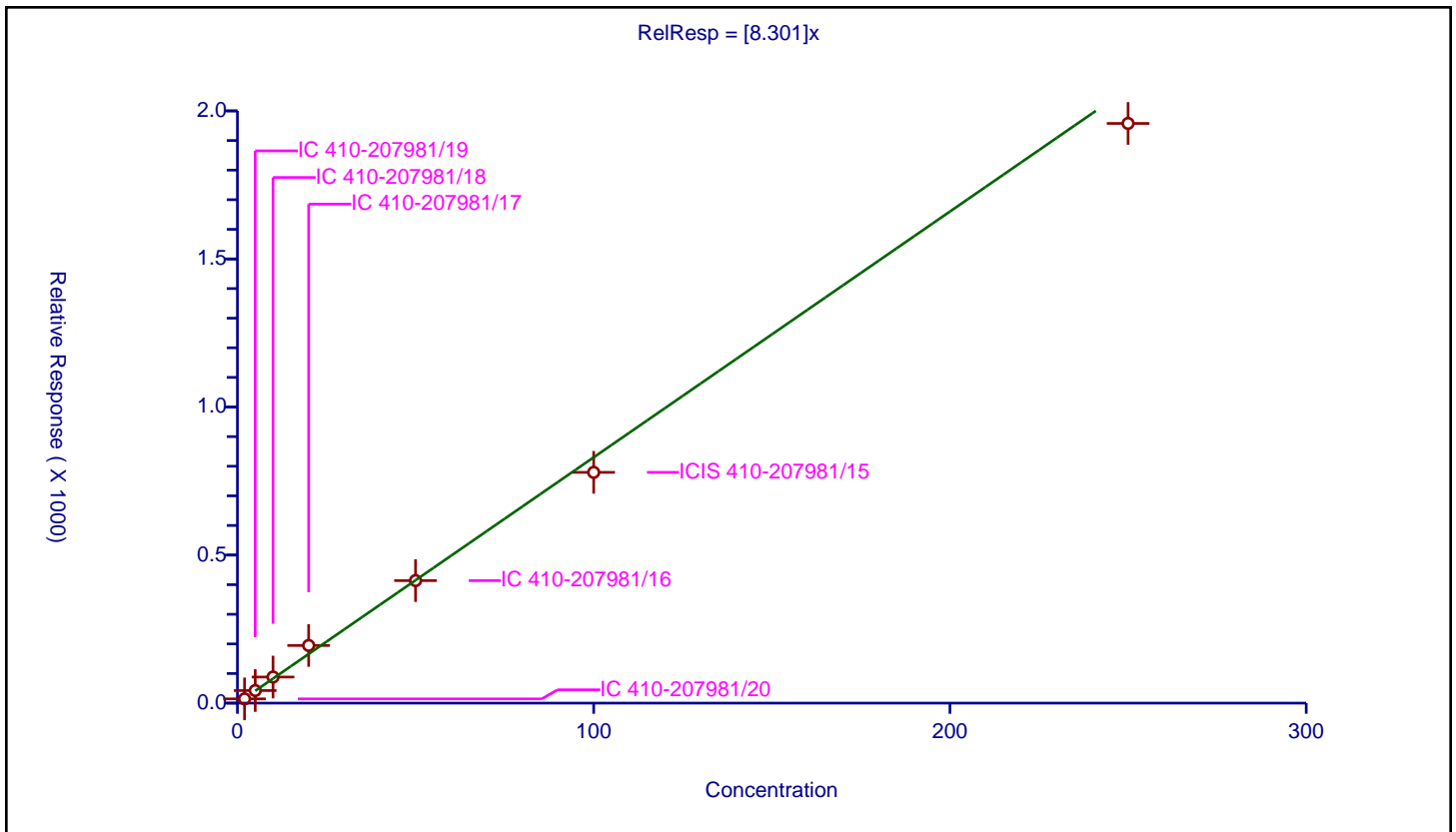
/ 2-Butanone (MEK)

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	8.301

Error Coefficients	
Standard Error:	1470000
Relative Standard Error:	10.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.987

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	2.0	14.316391	50.0	81494.0	7.158196	Y
2	IC 410-207981/19	5.0	42.512577	50.0	66191.0	8.502515	Y
3	IC 410-207981/18	10.0	88.129818	50.0	72779.0	8.812982	Y
4	IC 410-207981/17	20.0	194.638418	50.0	62752.0	9.731921	Y
5	IC 410-207981/16	50.0	413.745733	50.0	77926.0	8.274915	Y
6	ICIS 410-207981/15	100.0	779.293199	50.0	82456.0	7.792932	Y
7	IC 410-207981/14	250.0	1957.642818	50.0	83778.0	7.830571	Y



Calibration

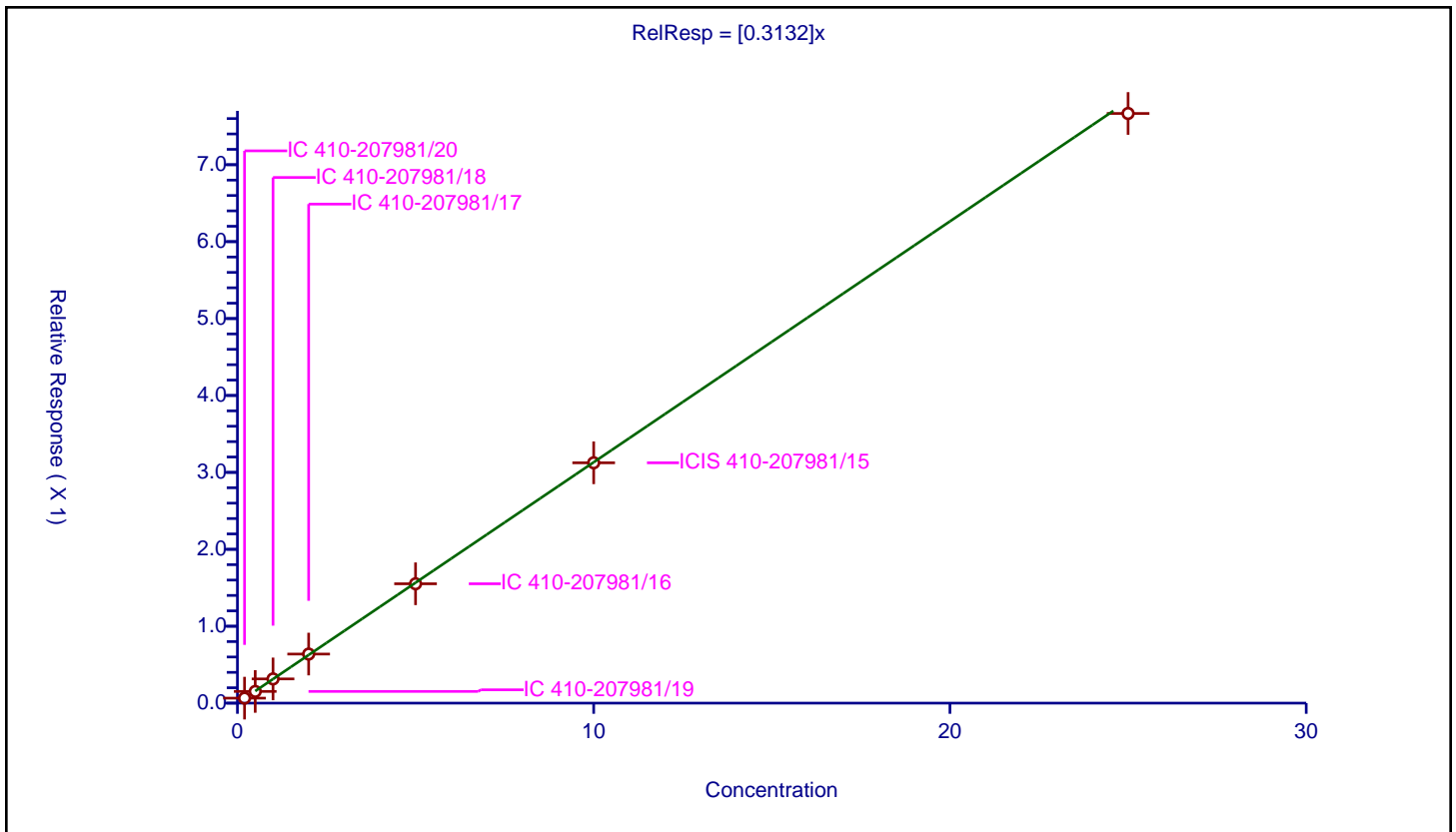
/ cis-1,2-Dichloroethene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3132

Error Coefficients	
Standard Error:	789000
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 410-207981/20	0.2	0.064944	10.0	2249617.0	0.324722	Y
2	IC 410-207981/19	0.5	0.152172	10.0	2232533.0	0.304345	Y
3	IC 410-207981/18	1.0	0.314788	10.0	2262029.0	0.314788	Y
4	IC 410-207981/17	2.0	0.637932	10.0	2259237.0	0.318966	Y
5	IC 410-207981/16	5.0	1.551692	10.0	2285280.0	0.310338	Y
6	ICIS 410-207981/15	10.0	3.124461	10.0	2239692.0	0.312446	Y
7	IC 410-207981/14	25.0	7.666332	10.0	2294975.0	0.306653	Y



Calibration

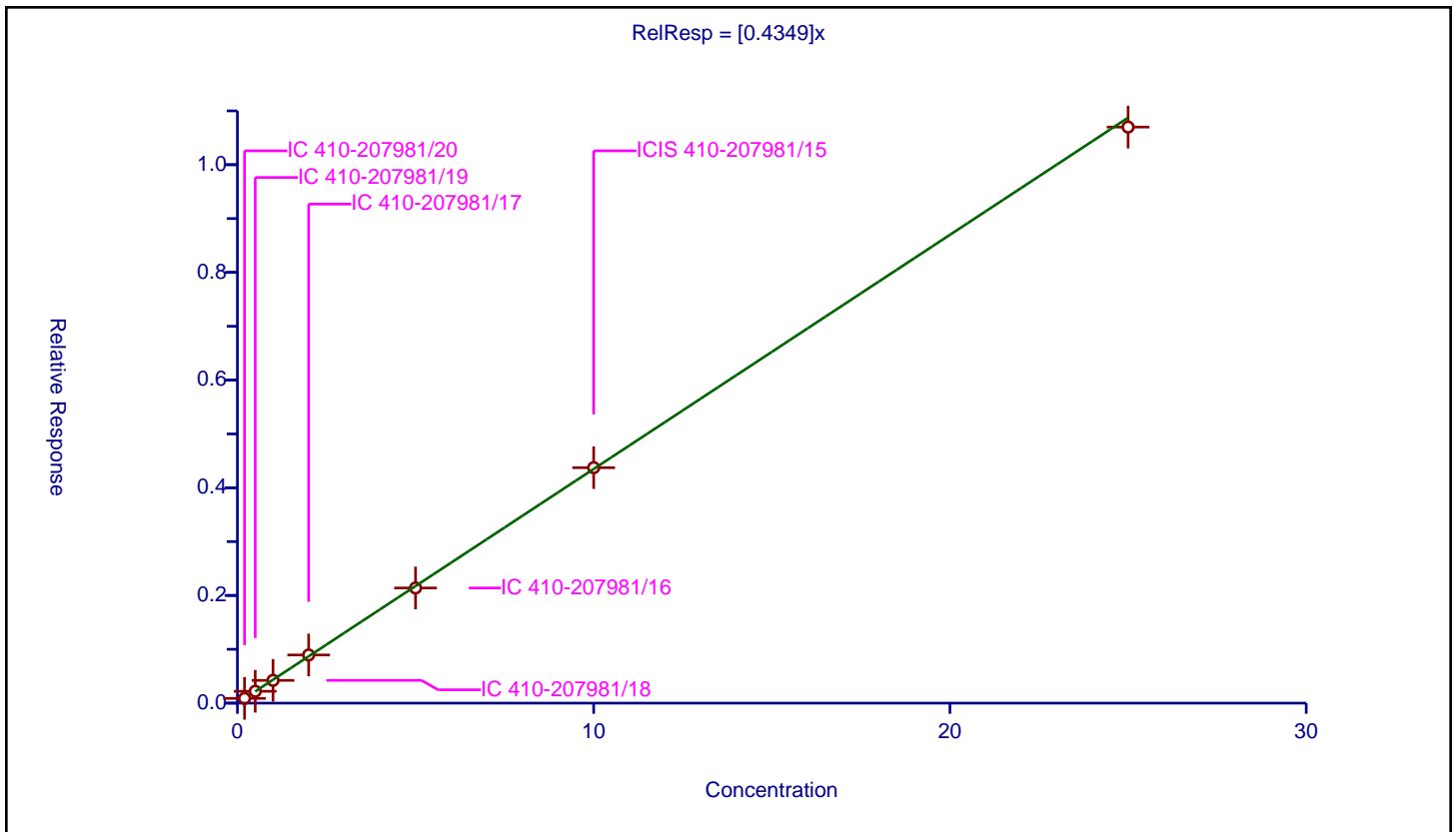
/ 2,2-Dichloropropane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4349

Error Coefficients	
Standard Error:	1100000
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 410-207981/20	0.2	0.088193	10.0	2249617.0	0.440964	Y
2	IC 410-207981/19	0.5	0.220243	10.0	2232533.0	0.440486	Y
3	IC 410-207981/18	1.0	0.422647	10.0	2262029.0	0.422647	Y
4	IC 410-207981/17	2.0	0.894497	10.0	2259237.0	0.447248	Y
5	IC 410-207981/16	5.0	2.138631	10.0	2285280.0	0.427726	Y
6	ICIS 410-207981/15	10.0	4.373075	10.0	2239692.0	0.437307	Y
7	IC 410-207981/14	25.0	10.699324	10.0	2294975.0	0.427973	Y





**Calibration**

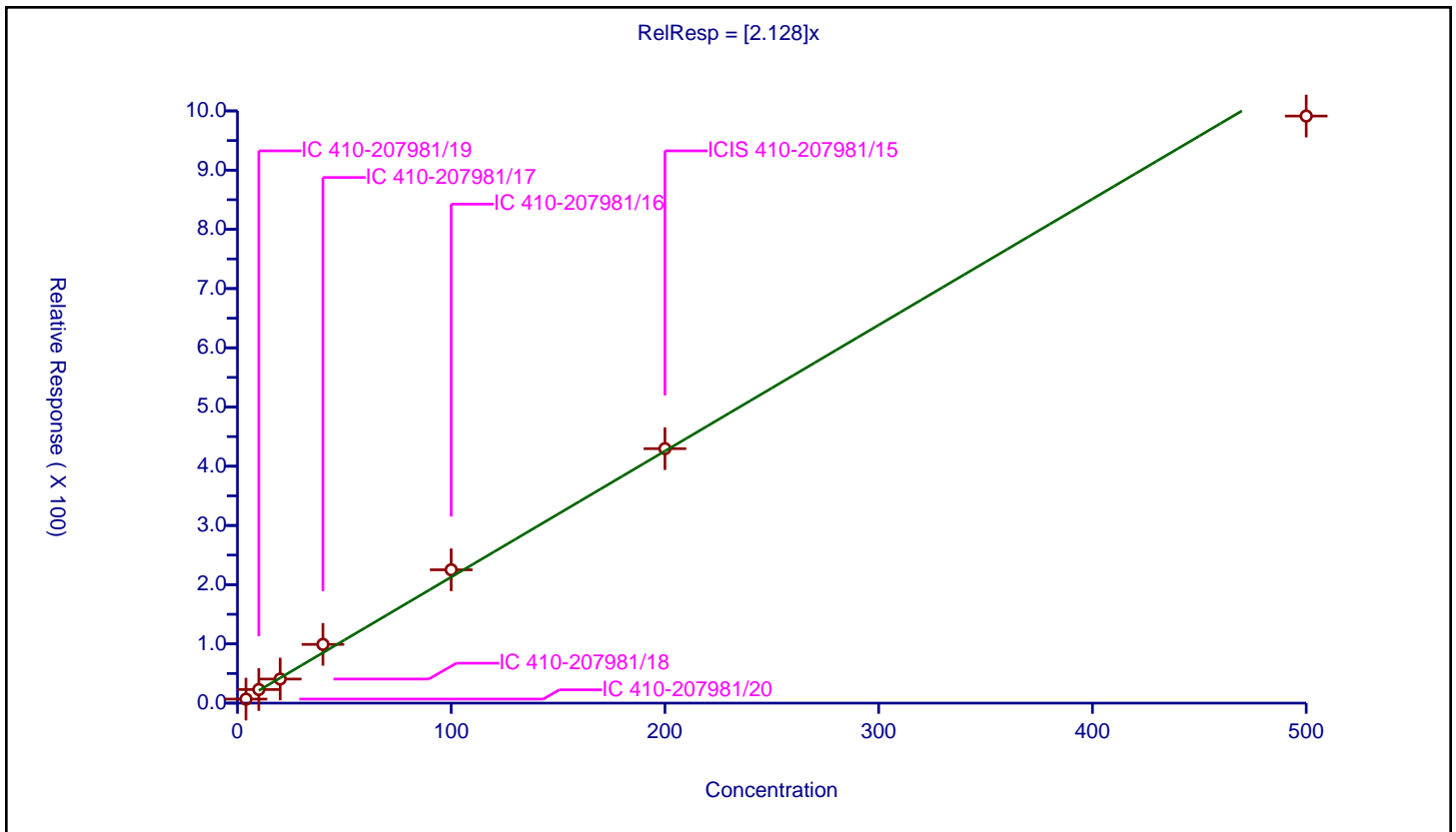
/ Propionitrile

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	2.128

Error Coefficients	
Standard Error:	753000
Relative Standard Error:	11.8
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.983

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	4.0	6.812158	50.0	81494.0	1.703039	Y
2	IC 410-207981/19	10.0	22.977444	50.0	66191.0	2.297744	Y
3	IC 410-207981/18	20.0	40.686187	50.0	72779.0	2.034309	Y
4	IC 410-207981/17	40.0	99.168154	50.0	62752.0	2.479204	Y
5	IC 410-207981/16	100.0	225.150142	50.0	77926.0	2.251501	Y
6	ICIS 410-207981/15	200.0	429.691593	50.0	82456.0	2.148458	Y
7	IC 410-207981/14	500.0	991.313949	50.0	83778.0	1.982628	Y



Calibration

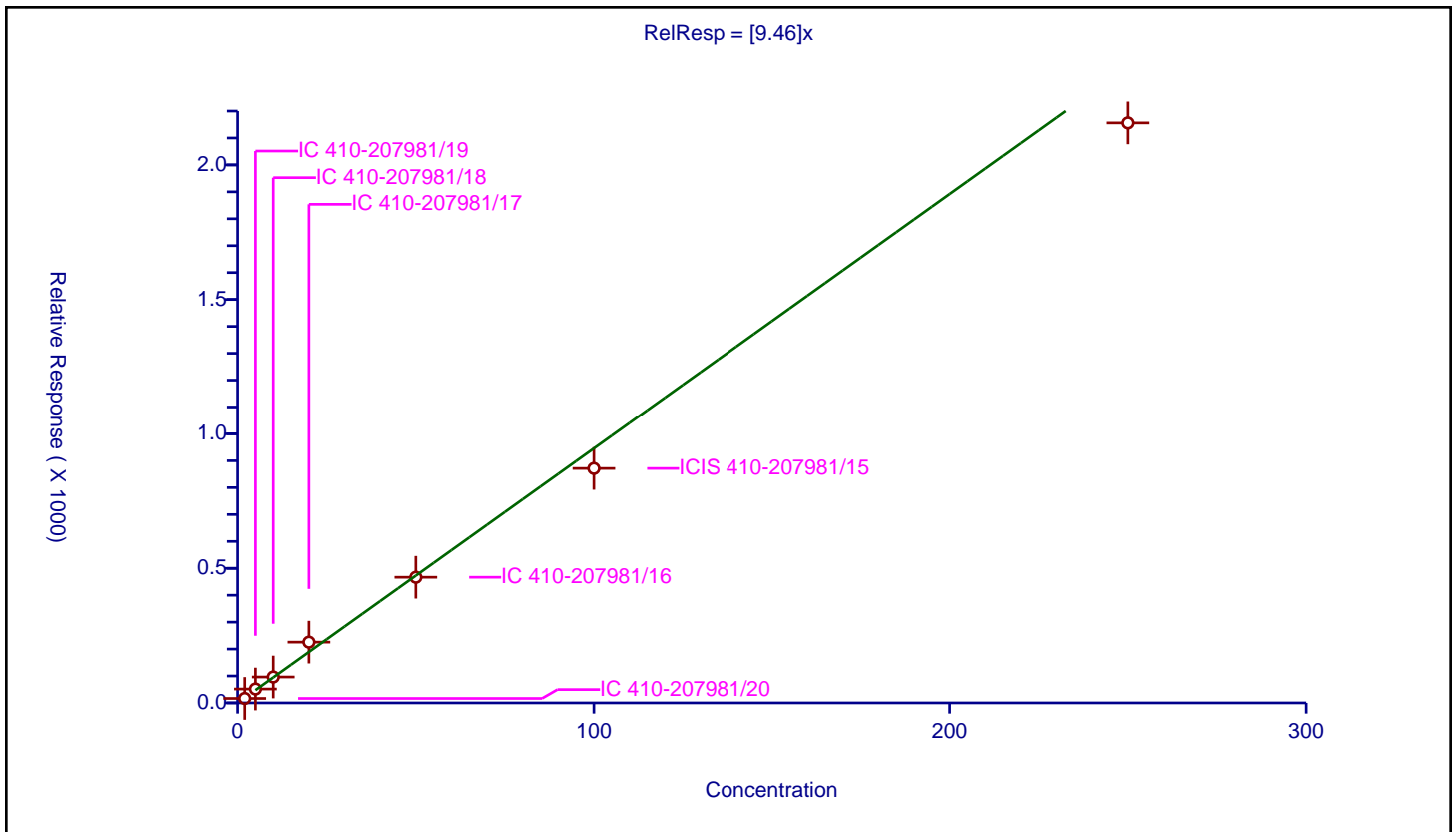
/ Methacrylonitrile

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	9.46

Error Coefficients	
Standard Error:	1620000
Relative Standard Error:	11.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.984

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	2.0	16.617788	50.0	81494.0	8.308894	Y
2	IC 410-207981/19	5.0	51.630131	50.0	66191.0	10.326026	Y
3	IC 410-207981/18	10.0	96.224873	50.0	72779.0	9.622487	Y
4	IC 410-207981/17	20.0	225.713921	50.0	62752.0	11.285696	Y
5	IC 410-207981/16	50.0	466.792213	50.0	77926.0	9.335844	Y
6	ICIS 410-207981/15	100.0	871.429005	50.0	82456.0	8.71429	Y
7	IC 410-207981/14	250.0	2156.074984	50.0	83778.0	8.6243	Y



**Calibration**

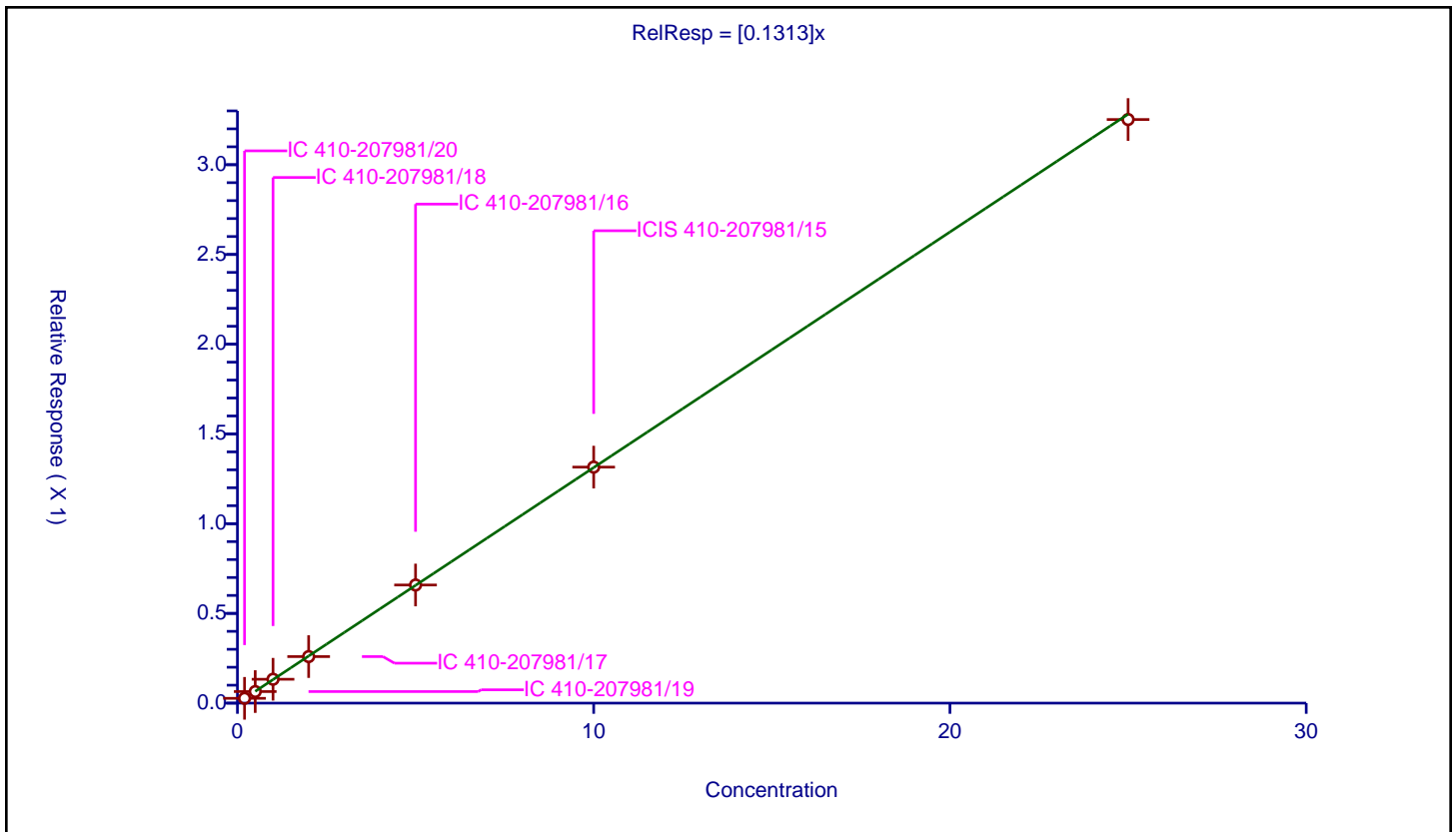
/ Chlorobromomethane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.1313

Error Coefficients	
Standard Error:	334000
Relative Standard Error:	1.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.026773	10.0	2249617.0	0.133867	Y
2	IC 410-207981/19	0.5	0.064487	10.0	2232533.0	0.128975	Y
3	IC 410-207981/18	1.0	0.133115	10.0	2262029.0	0.133115	Y
4	IC 410-207981/17	2.0	0.259331	10.0	2259237.0	0.129665	Y
5	IC 410-207981/16	5.0	0.658208	10.0	2285280.0	0.131642	Y
6	ICIS 410-207981/15	10.0	1.315038	10.0	2239692.0	0.131504	Y
7	IC 410-207981/14	25.0	3.251953	10.0	2294975.0	0.130078	Y



**Calibration**

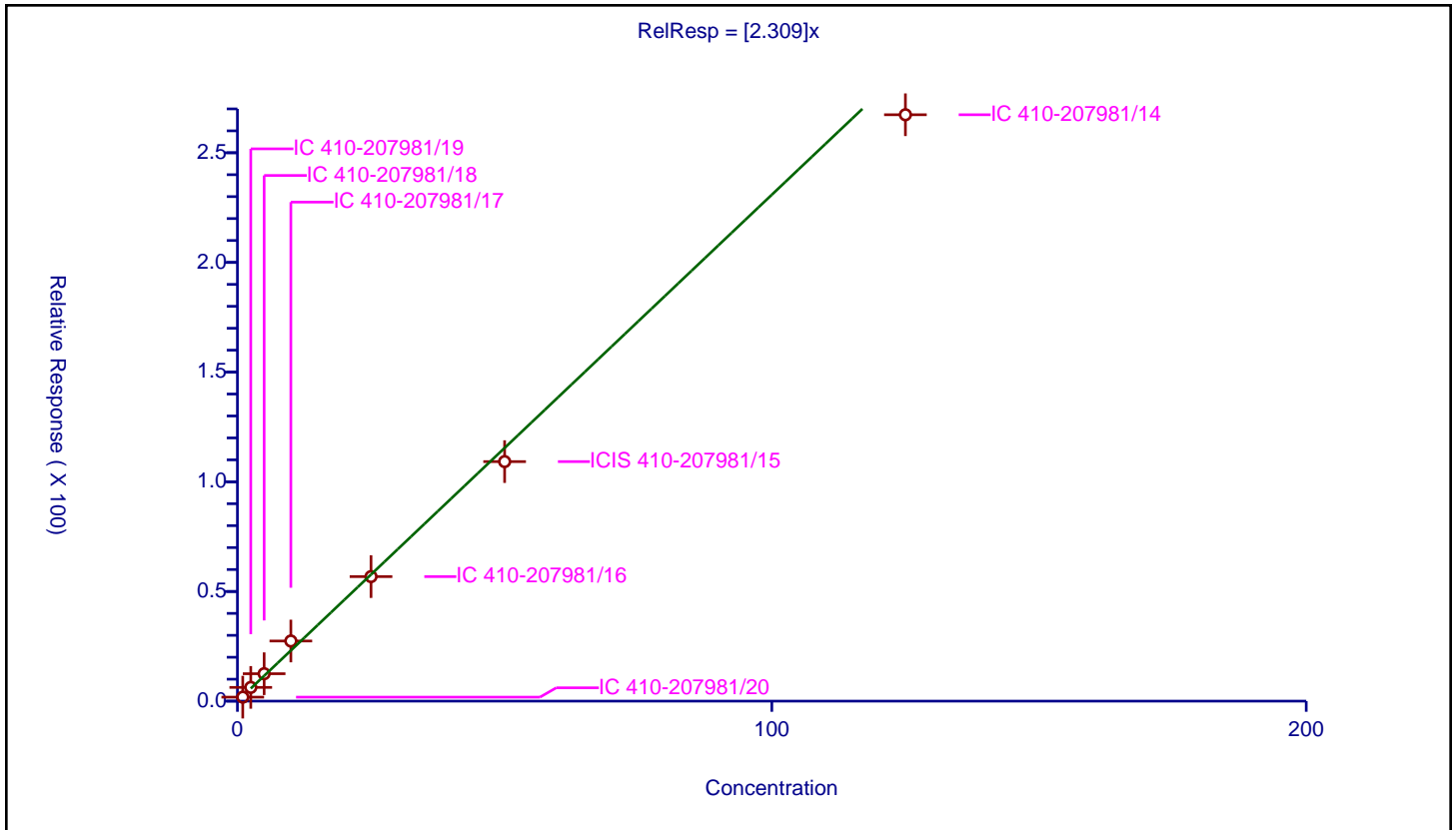
/ Tetrahydrofuran

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	2.309

Error Coefficients	
Standard Error:	201000
Relative Standard Error:	13.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.979

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	1.0	1.818539	50.0	81494.0	1.818539	Y
2	IC 410-207981/19	2.5	6.265202	50.0	66191.0	2.506081	Y
3	IC 410-207981/18	5.0	12.504294	50.0	72779.0	2.500859	Y
4	IC 410-207981/17	10.0	27.415062	50.0	62752.0	2.741506	Y
5	IC 410-207981/16	25.0	56.775017	50.0	77926.0	2.271001	Y
6	ICIS 410-207981/15	50.0	109.200665	50.0	82456.0	2.184013	Y
7	IC 410-207981/14	125.0	267.333906	50.0	83778.0	2.138671	Y



**Calibration**

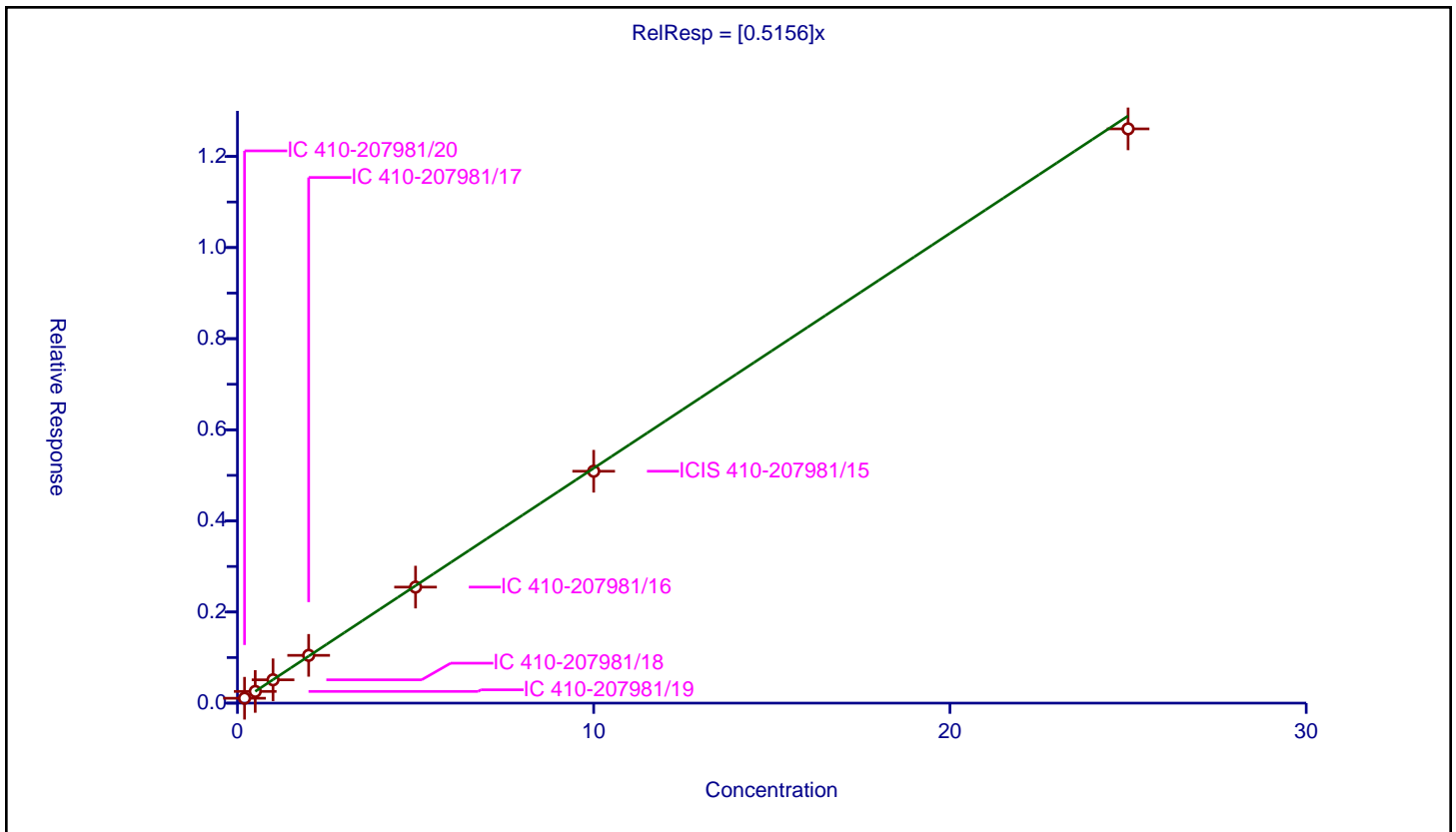
/ Chloroform

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.5156

Error Coefficients	
Standard Error:	1300000
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 410-207981/20	0.2	0.107245	10.0	2249617.0	0.536225	Y
2	IC 410-207981/19	0.5	0.257129	10.0	2232533.0	0.514259	Y
3	IC 410-207981/18	1.0	0.511718	10.0	2262029.0	0.511718	Y
4	IC 410-207981/17	2.0	1.048633	10.0	2259237.0	0.524316	Y
5	IC 410-207981/16	5.0	2.546839	10.0	2285280.0	0.509368	Y
6	ICIS 410-207981/15	10.0	5.090133	10.0	2239692.0	0.509013	Y
7	IC 410-207981/14	25.0	12.605292	10.0	2294975.0	0.504212	Y



**Calibration**

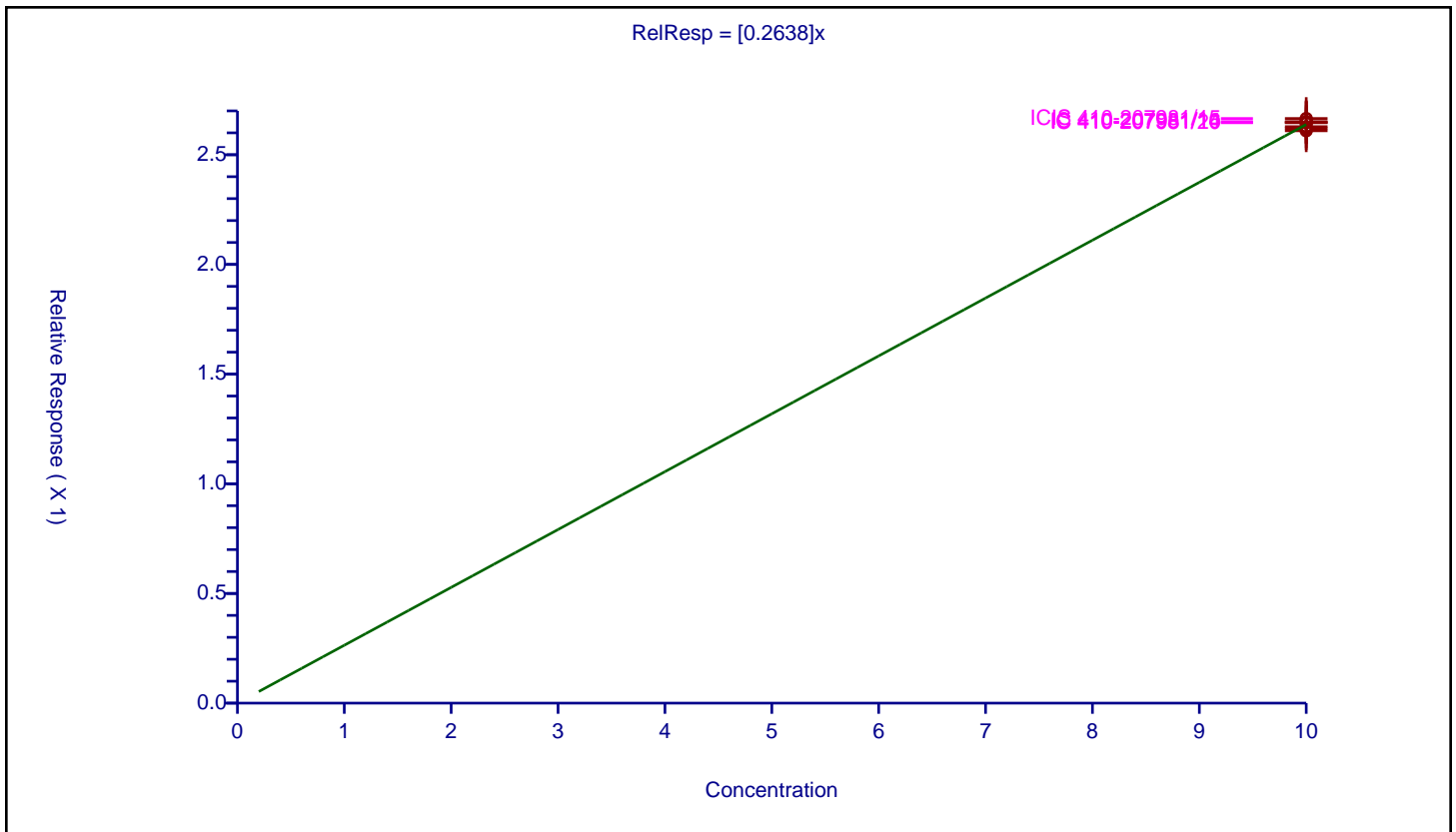
/ Dibromofluoromethane (Surr)

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2638

Error Coefficients	
Standard Error:	644000
Relative Standard Error:	0.7
Correlation Coefficient:	NA
Coefficient of Determination (Adjusted):	0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/14	10.0	2.647258	10.0	2294975.0	0.264726	Y
2	ICIS 410-207981/15	10.0	2.665255	10.0	2239692.0	0.266525	Y
3	IC 410-207981/16	10.0	2.651137	10.0	2285280.0	0.265114	Y
4	IC 410-207981/17	10.0	2.62814	10.0	2259237.0	0.262814	Y
5	IC 410-207981/18	10.0	2.619347	10.0	2262029.0	0.261935	Y
6	IC 410-207981/19	10.0	2.60926	10.0	2232533.0	0.260926	Y
7	IC 410-207981/20	10.0	2.645833	10.0	2249617.0	0.264583	Y



Calibration

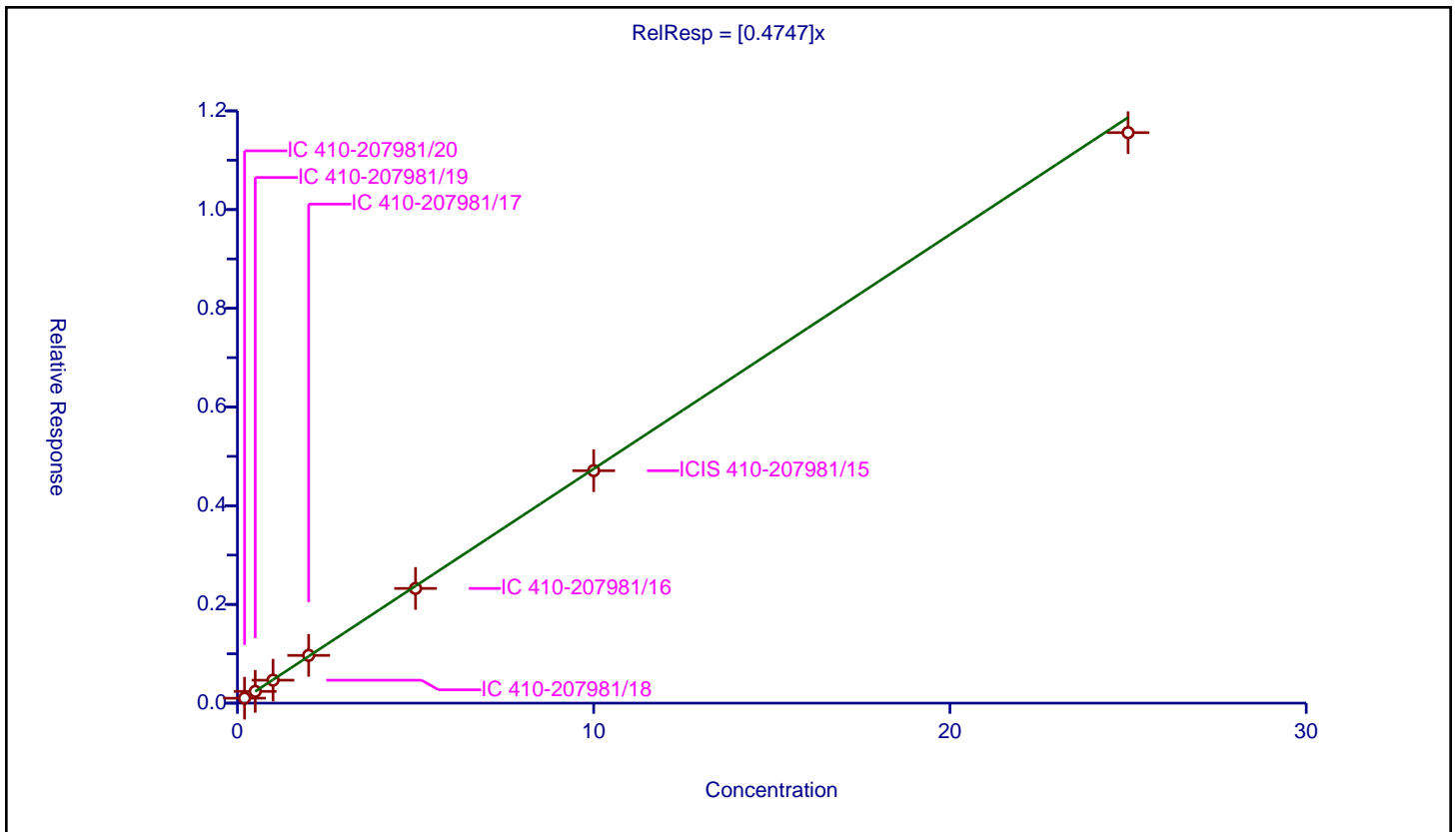
/ 1,1,1-Trichloroethane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4747

Error Coefficients	
Standard Error:	1190000
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 410-207981/20	0.2	0.099839	10.0	2249617.0	0.499196	Y
2	IC 410-207981/19	0.5	0.238465	10.0	2232533.0	0.476929	Y
3	IC 410-207981/18	1.0	0.465021	10.0	2262029.0	0.465021	Y
4	IC 410-207981/17	2.0	0.967114	10.0	2259237.0	0.483557	Y
5	IC 410-207981/16	5.0	2.324013	10.0	2285280.0	0.464803	Y
6	ICIS 410-207981/15	10.0	4.709991	10.0	2239692.0	0.470999	Y
7	IC 410-207981/14	25.0	11.558915	10.0	2294975.0	0.462357	Y



**Calibration**

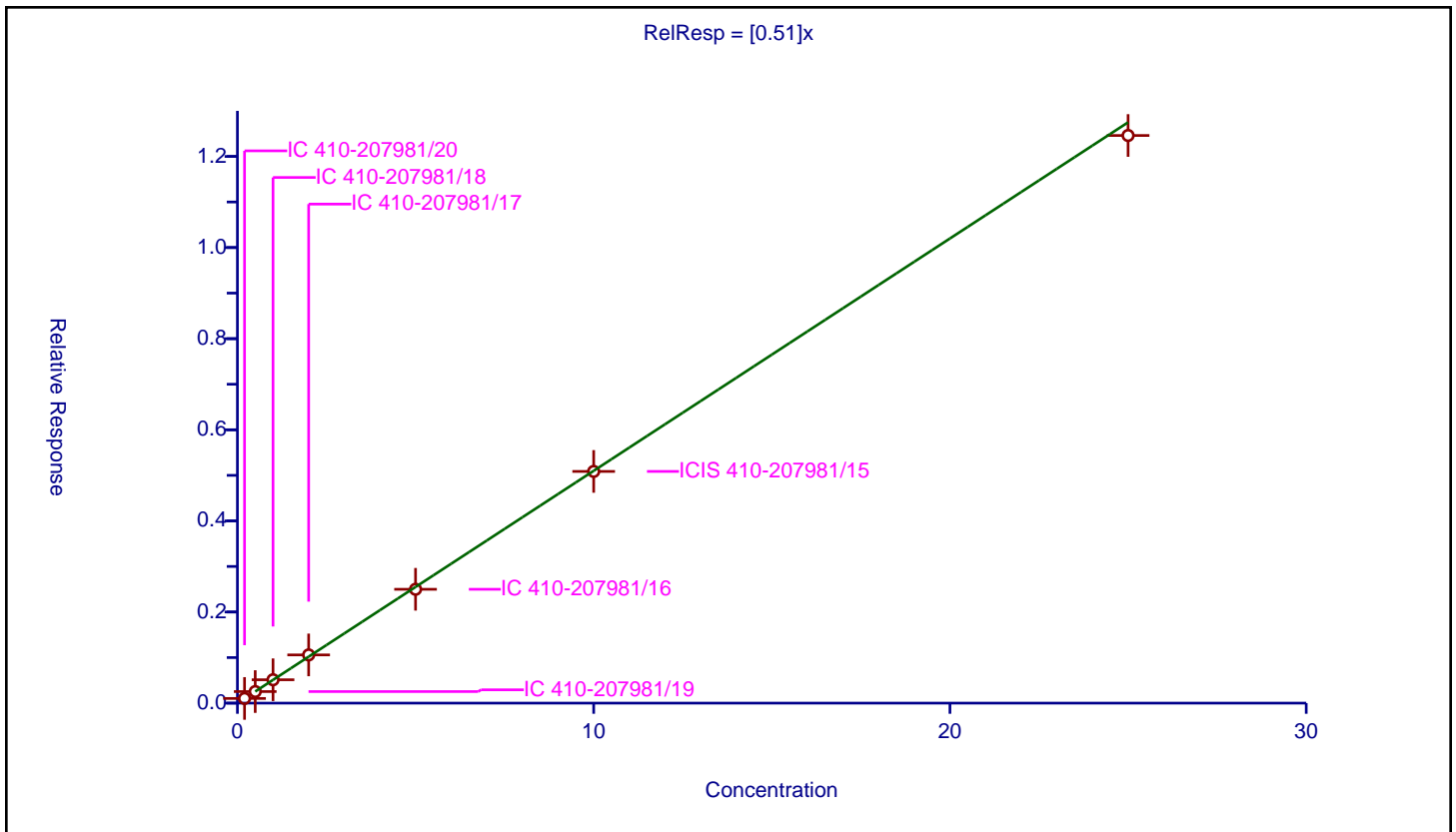
/ Cyclohexane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.51

Error Coefficients	
Standard Error:	1280000
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 410-207981/20	0.2	0.102653	10.0	2249617.0	0.513265	Y
2	IC 410-207981/19	0.5	0.25377	10.0	2232533.0	0.50754	Y
3	IC 410-207981/18	1.0	0.512964	10.0	2262029.0	0.512964	Y
4	IC 410-207981/17	2.0	1.058357	10.0	2259237.0	0.529179	Y
5	IC 410-207981/16	5.0	2.498805	10.0	2285280.0	0.499761	Y
6	ICIS 410-207981/15	10.0	5.085905	10.0	2239692.0	0.50859	Y
7	IC 410-207981/14	25.0	12.459678	10.0	2294975.0	0.498387	Y





Calibration

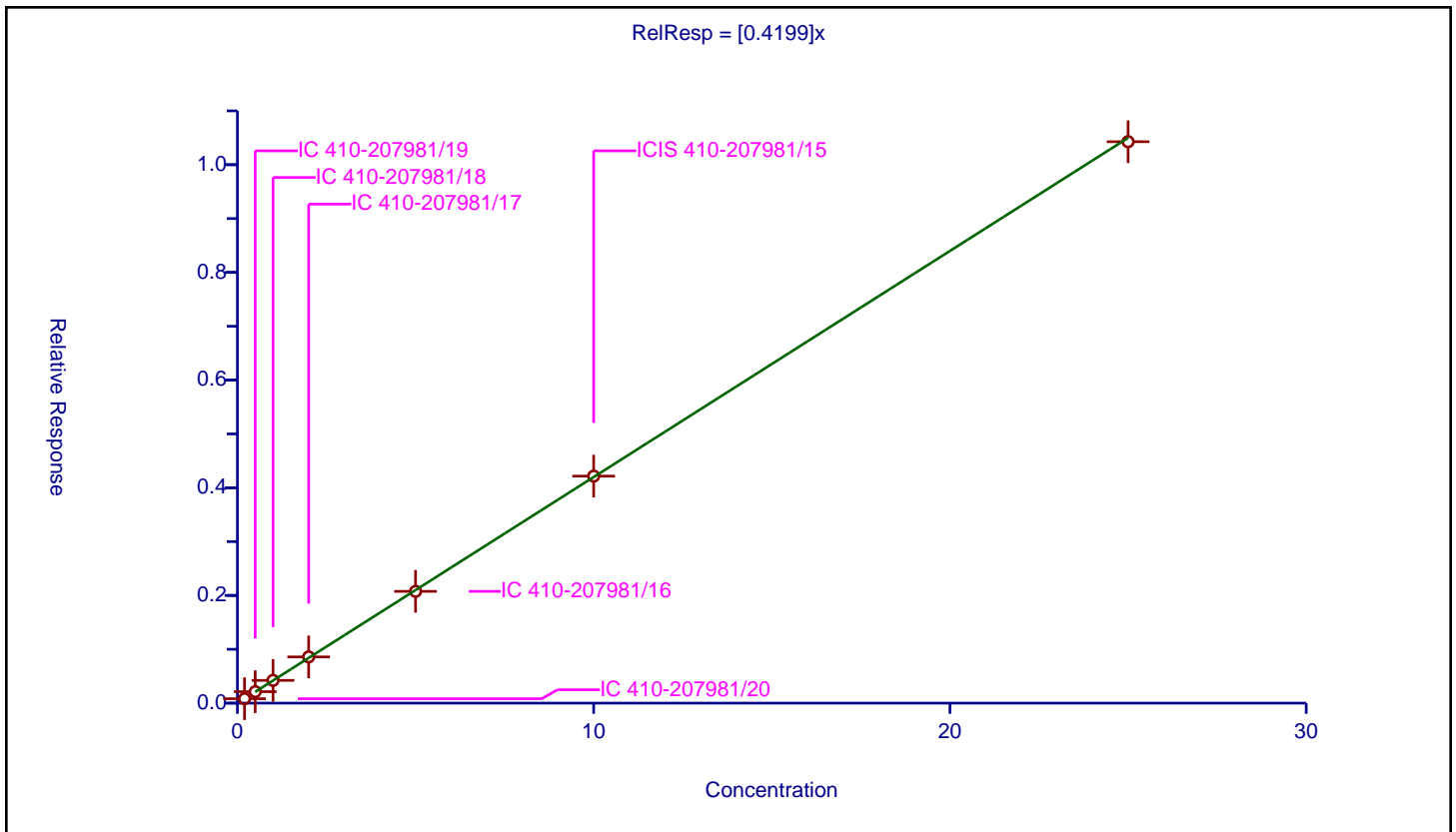
/ 1,1-Dichloropropene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4199

Error Coefficients	
Standard Error:	1070000
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 410-207981/20	0.2	0.081654	10.0	2249617.0	0.408269	Y
2	IC 410-207981/19	0.5	0.212718	10.0	2232533.0	0.425436	Y
3	IC 410-207981/18	1.0	0.422523	10.0	2262029.0	0.422523	Y
4	IC 410-207981/17	2.0	0.85856	10.0	2259237.0	0.42928	Y
5	IC 410-207981/16	5.0	2.075912	10.0	2285280.0	0.415182	Y
6	ICIS 410-207981/15	10.0	4.216629	10.0	2239692.0	0.421663	Y
7	IC 410-207981/14	25.0	10.427674	10.0	2294975.0	0.417107	Y



**Calibration**

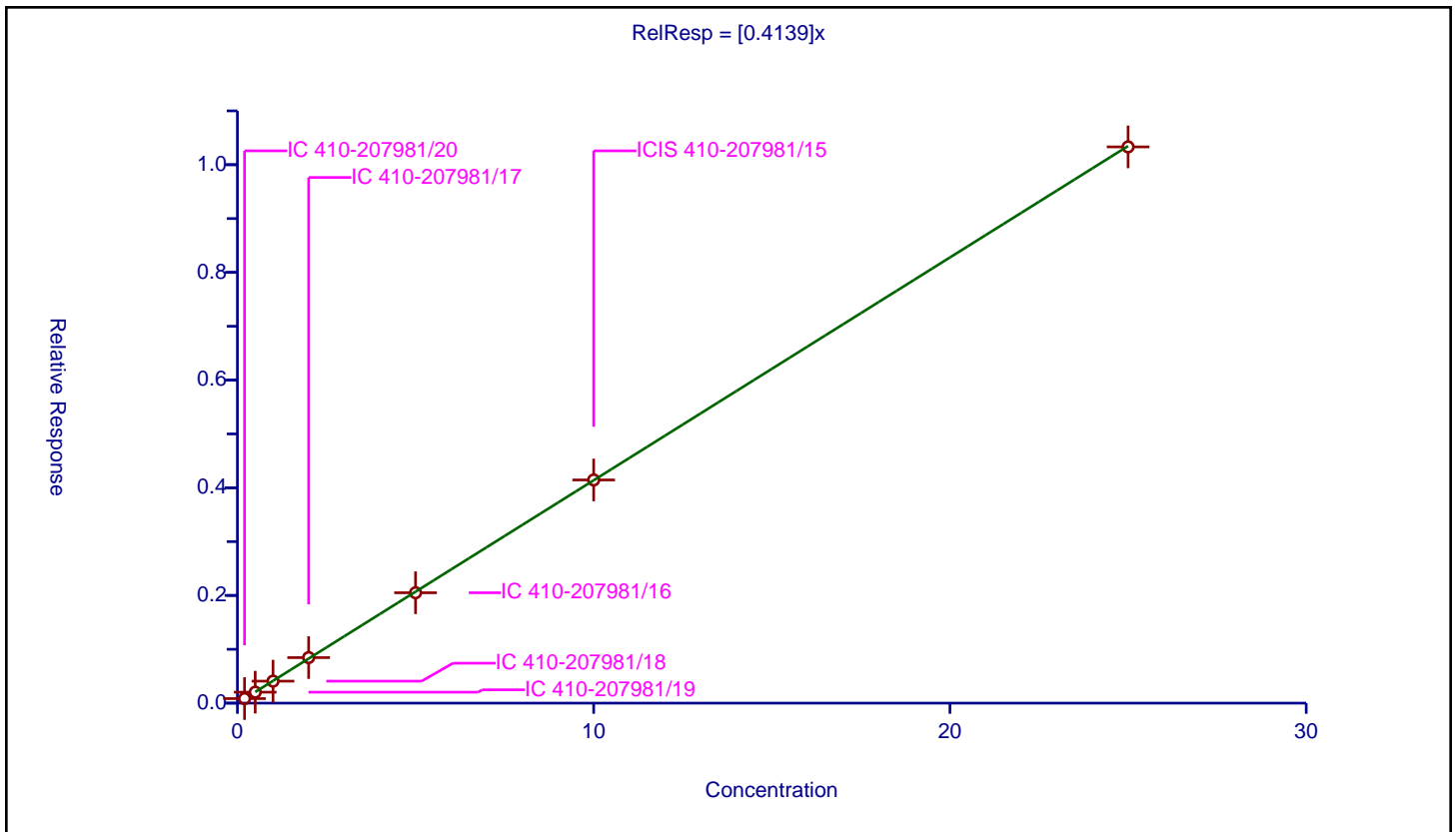
**/ Carbon tetrachloride**

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4139

Error Coefficients	
Standard Error:	1060000
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 410-207981/20	0.2	0.084192	10.0	2249617.0	0.420961	Y
2	IC 410-207981/19	0.5	0.203518	10.0	2232533.0	0.407035	Y
3	IC 410-207981/18	1.0	0.408585	10.0	2262029.0	0.408585	Y
4	IC 410-207981/17	2.0	0.845812	10.0	2259237.0	0.422906	Y
5	IC 410-207981/16	5.0	2.049998	10.0	2285280.0	0.41	Y
6	ICIS 410-207981/15	10.0	4.145012	10.0	2239692.0	0.414501	Y
7	IC 410-207981/14	25.0	10.331001	10.0	2294975.0	0.41324	Y



**Calibration**

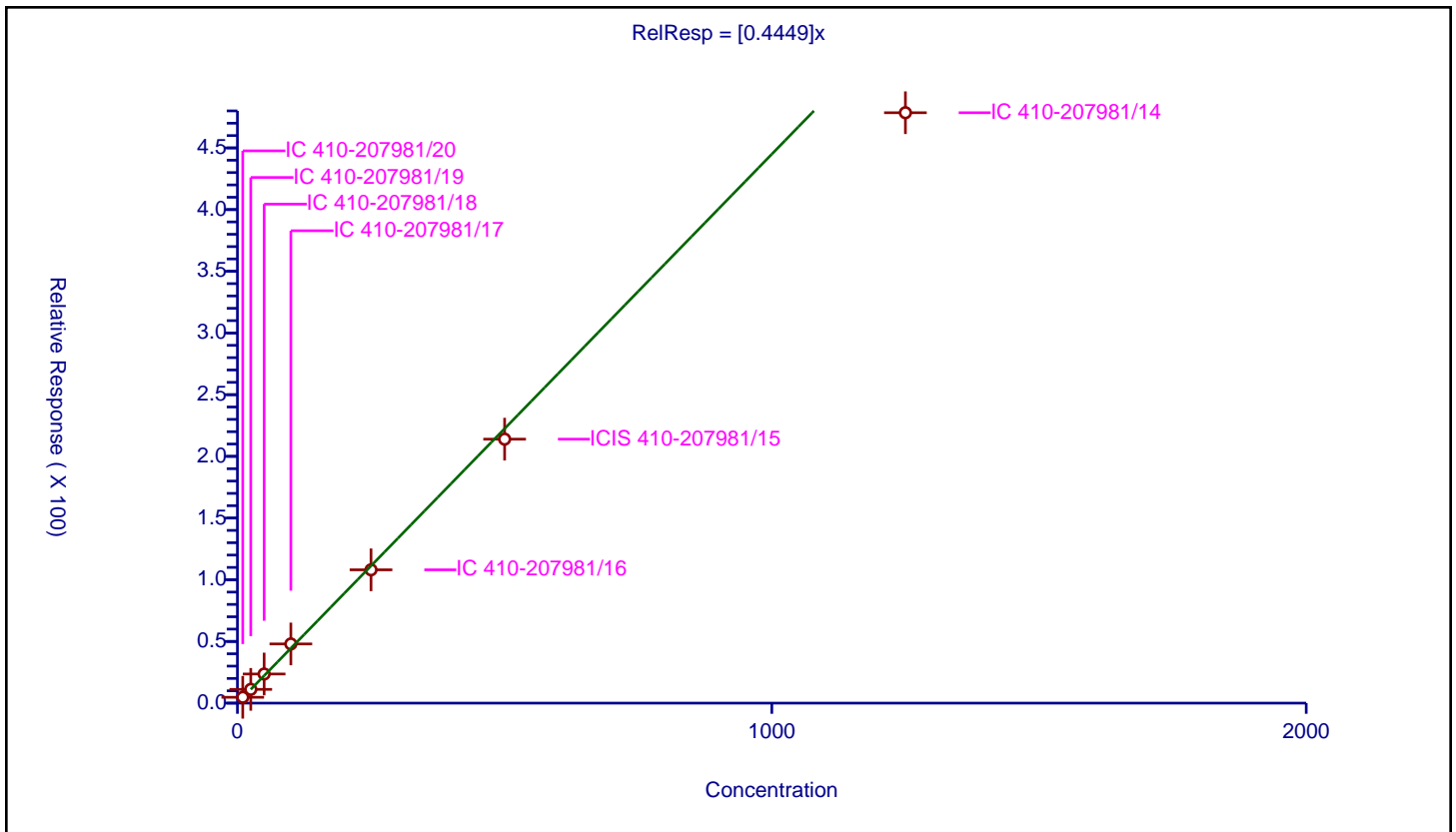
**/ Isobutyl alcohol**

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4449

Error Coefficients	
Standard Error:	365000
Relative Standard Error:	7.7
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	10.0	4.737159	50.0	81494.0	0.473716	Y
2	IC 410-207981/19	25.0	11.153329	50.0	66191.0	0.446133	Y
3	IC 410-207981/18	50.0	23.609833	50.0	72779.0	0.472197	Y
4	IC 410-207981/17	100.0	47.965802	50.0	62752.0	0.479658	Y
5	IC 410-207981/16	250.0	108.049945	50.0	77926.0	0.4322	Y
6	ICIS 410-207981/15	500.0	213.942588	50.0	82456.0	0.427885	Y
7	IC 410-207981/14	1250.0	478.520017	50.0	83778.0	0.382816	Y



**Calibration**

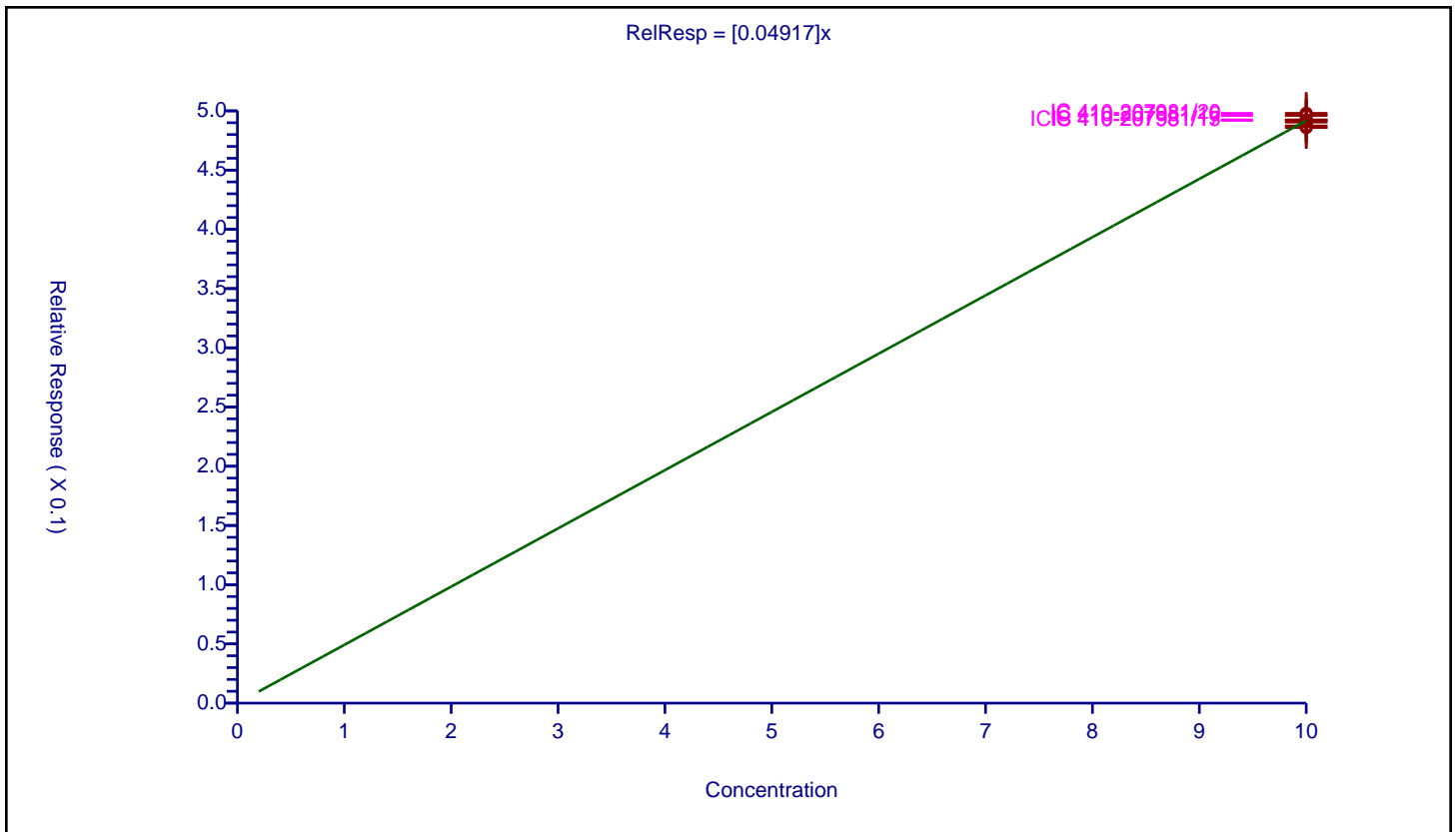
/ 1,2-Dichloroethane-d4 (Surr)

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.04917

Error Coefficients	
Standard Error:	120000
Relative Standard Error:	0.9
Correlation Coefficient:	NA
Coefficient of Determination (Adjusted):	0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/14	10.0	0.485914	10.0	2294975.0	0.048591	Y
2	ICIS 410-207981/15	10.0	0.492429	10.0	2239692.0	0.049243	Y
3	IC 410-207981/16	10.0	0.496136	10.0	2285280.0	0.049614	Y
4	IC 410-207981/17	10.0	0.492016	10.0	2259237.0	0.049202	Y
5	IC 410-207981/18	10.0	0.487293	10.0	2262029.0	0.048729	Y
6	IC 410-207981/19	10.0	0.490506	10.0	2232533.0	0.049051	Y
7	IC 410-207981/20	10.0	0.497898	10.0	2249617.0	0.04979	Y



**Calibration**

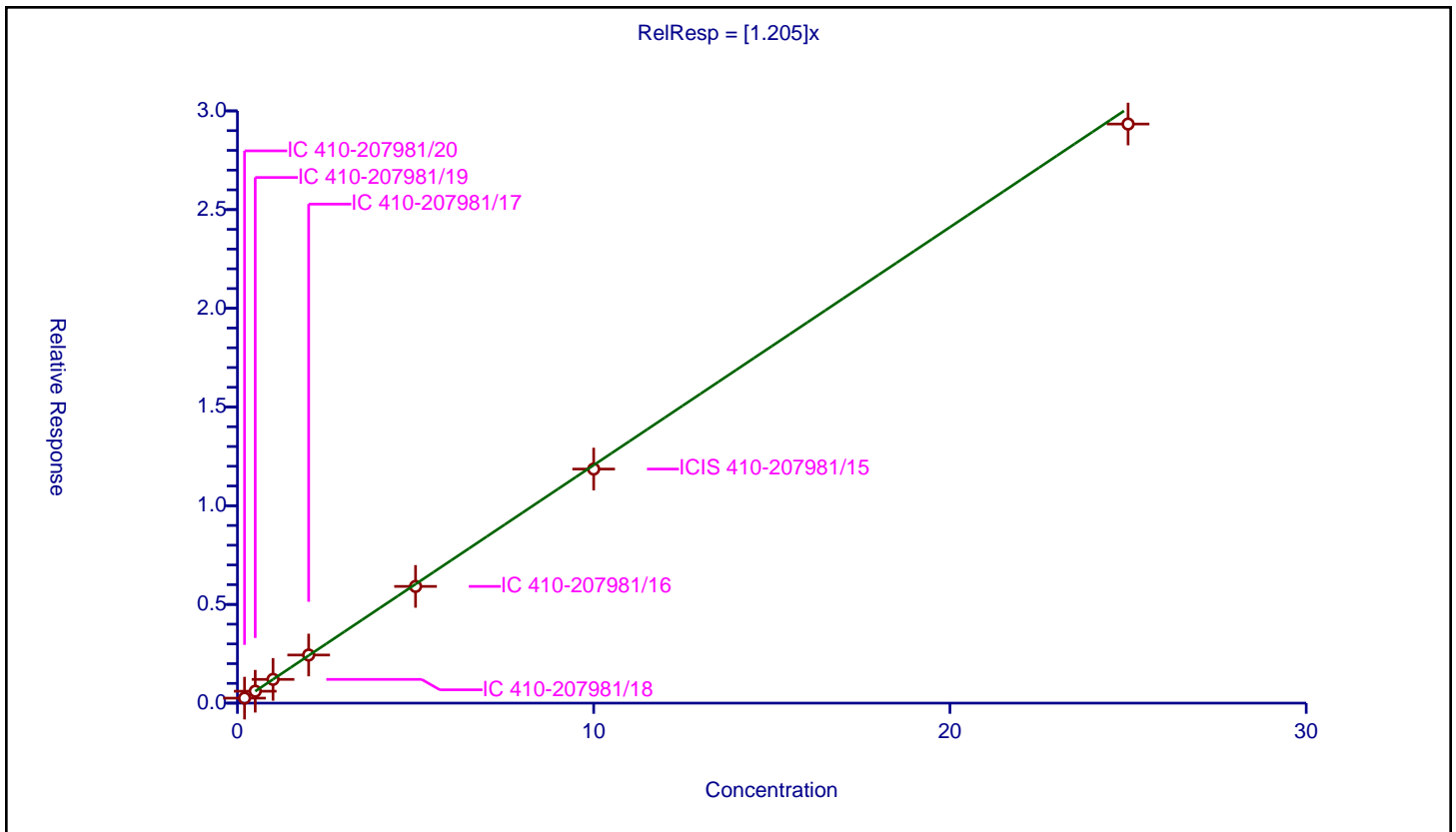
/ Benzene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.205

Error Coefficients	
Standard Error:	3020000
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 410-207981/20	0.2	0.253545	10.0	2249617.0	1.267727	Y
2	IC 410-207981/19	0.5	0.603852	10.0	2232533.0	1.207704	Y
3	IC 410-207981/18	1.0	1.202721	10.0	2262029.0	1.202721	Y
4	IC 410-207981/17	2.0	2.437495	10.0	2259237.0	1.218748	Y
5	IC 410-207981/16	5.0	5.912203	10.0	2285280.0	1.182441	Y
6	ICIS 410-207981/15	10.0	11.857313	10.0	2239692.0	1.185731	Y
7	IC 410-207981/14	25.0	29.334672	10.0	2294975.0	1.173387	Y



Calibration

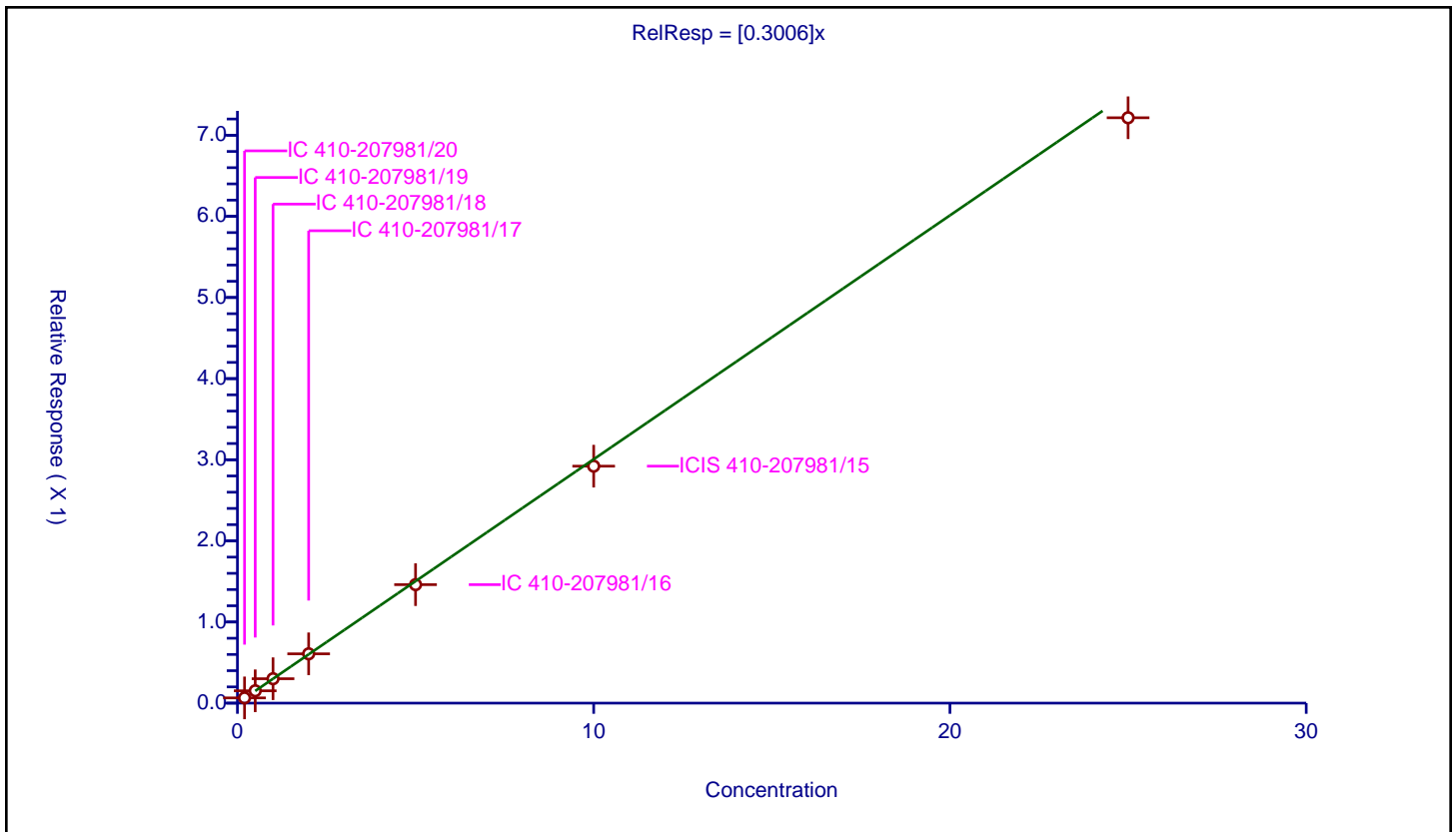
/ 1,2-Dichloroethane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3006

Error Coefficients	
Standard Error:	742000
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 410-207981/20	0.2	0.064513	10.0	2249617.0	0.322566	Y
2	IC 410-207981/19	0.5	0.152092	10.0	2232533.0	0.304184	Y
3	IC 410-207981/18	1.0	0.300761	10.0	2262029.0	0.300761	Y
4	IC 410-207981/17	2.0	0.607705	10.0	2259237.0	0.303853	Y
5	IC 410-207981/16	5.0	1.460442	10.0	2285280.0	0.292088	Y
6	ICIS 410-207981/15	10.0	2.920848	10.0	2239692.0	0.292085	Y
7	IC 410-207981/14	25.0	7.21519	10.0	2294975.0	0.288608	Y



**Calibration**

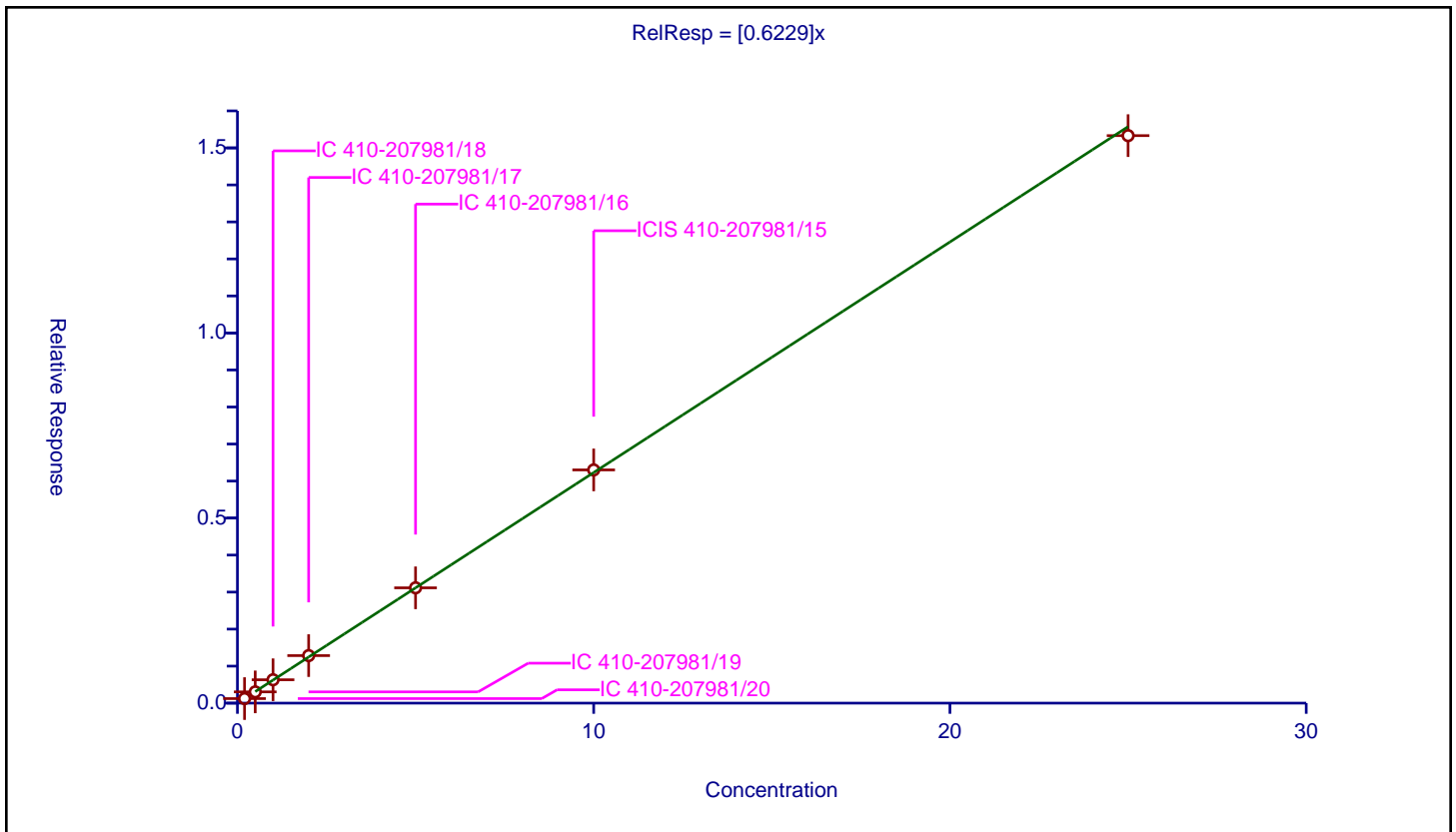
/ Tert-amyl methyl ether

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.6229

Error Coefficients	
Standard Error:	1580000
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 410-207981/20	0.2	0.122576	10.0	2249617.0	0.612882	Y
2	IC 410-207981/19	0.5	0.303946	10.0	2232533.0	0.607892	Y
3	IC 410-207981/18	1.0	0.631239	10.0	2262029.0	0.631239	Y
4	IC 410-207981/17	2.0	1.284031	10.0	2259237.0	0.642015	Y
5	IC 410-207981/16	5.0	3.115417	10.0	2285280.0	0.623083	Y
6	ICIS 410-207981/15	10.0	6.300648	10.0	2239692.0	0.630065	Y
7	IC 410-207981/14	25.0	15.331252	10.0	2294975.0	0.61325	Y



Calibration

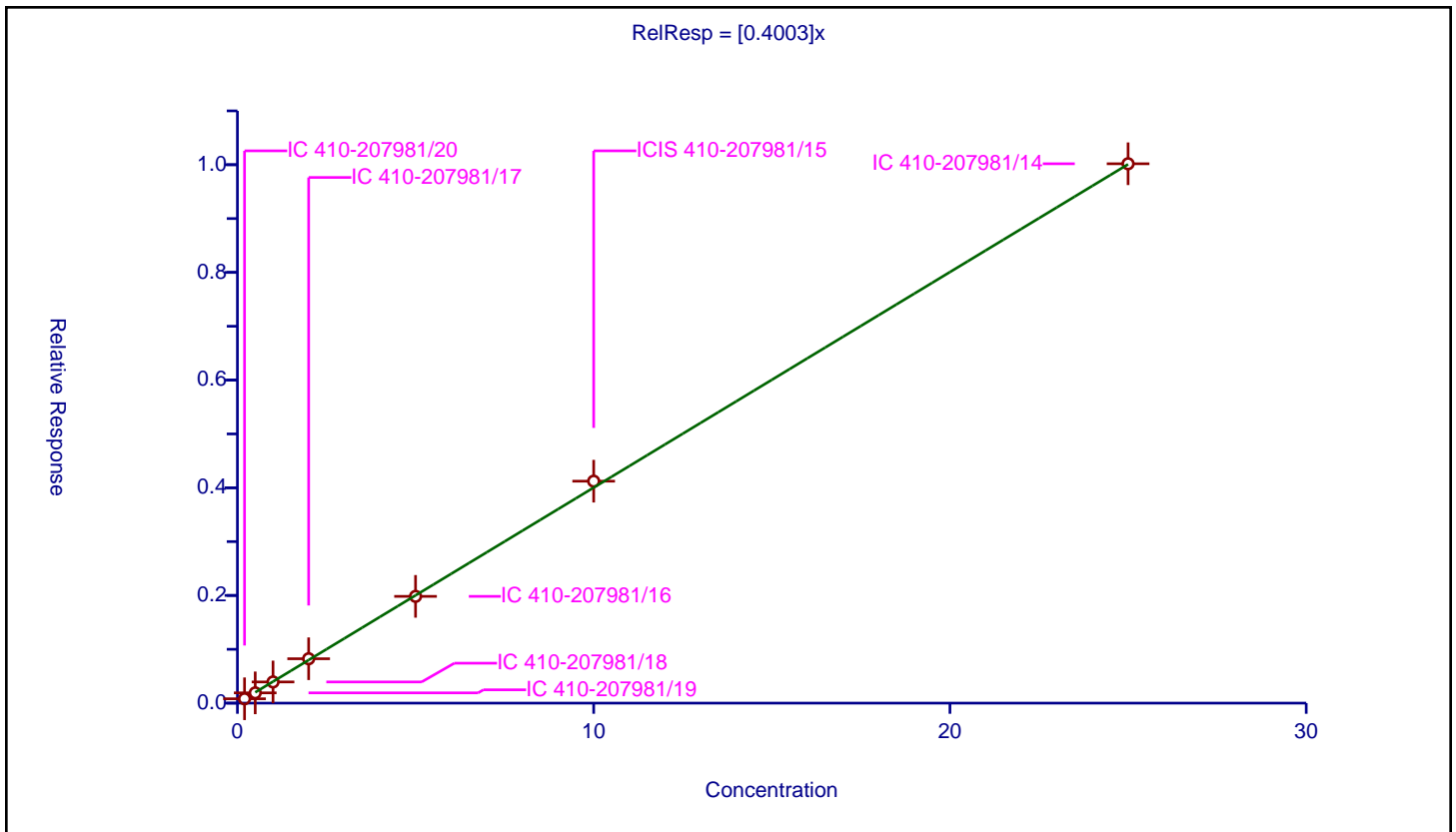
/ n-Heptane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4003

Error Coefficients	
Standard Error:	1030000
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 410-207981/20	0.2	0.081072	10.0	2249617.0	0.405358	Y
2	IC 410-207981/19	0.5	0.190819	10.0	2232533.0	0.381638	Y
3	IC 410-207981/18	1.0	0.393651	10.0	2262029.0	0.393651	Y
4	IC 410-207981/17	2.0	0.824176	10.0	2259237.0	0.412088	Y
5	IC 410-207981/16	5.0	1.982943	10.0	2285280.0	0.396589	Y
6	ICIS 410-207981/15	10.0	4.122241	10.0	2239692.0	0.412224	Y
7	IC 410-207981/14	25.0	10.018118	10.0	2294975.0	0.400725	Y





Calibration

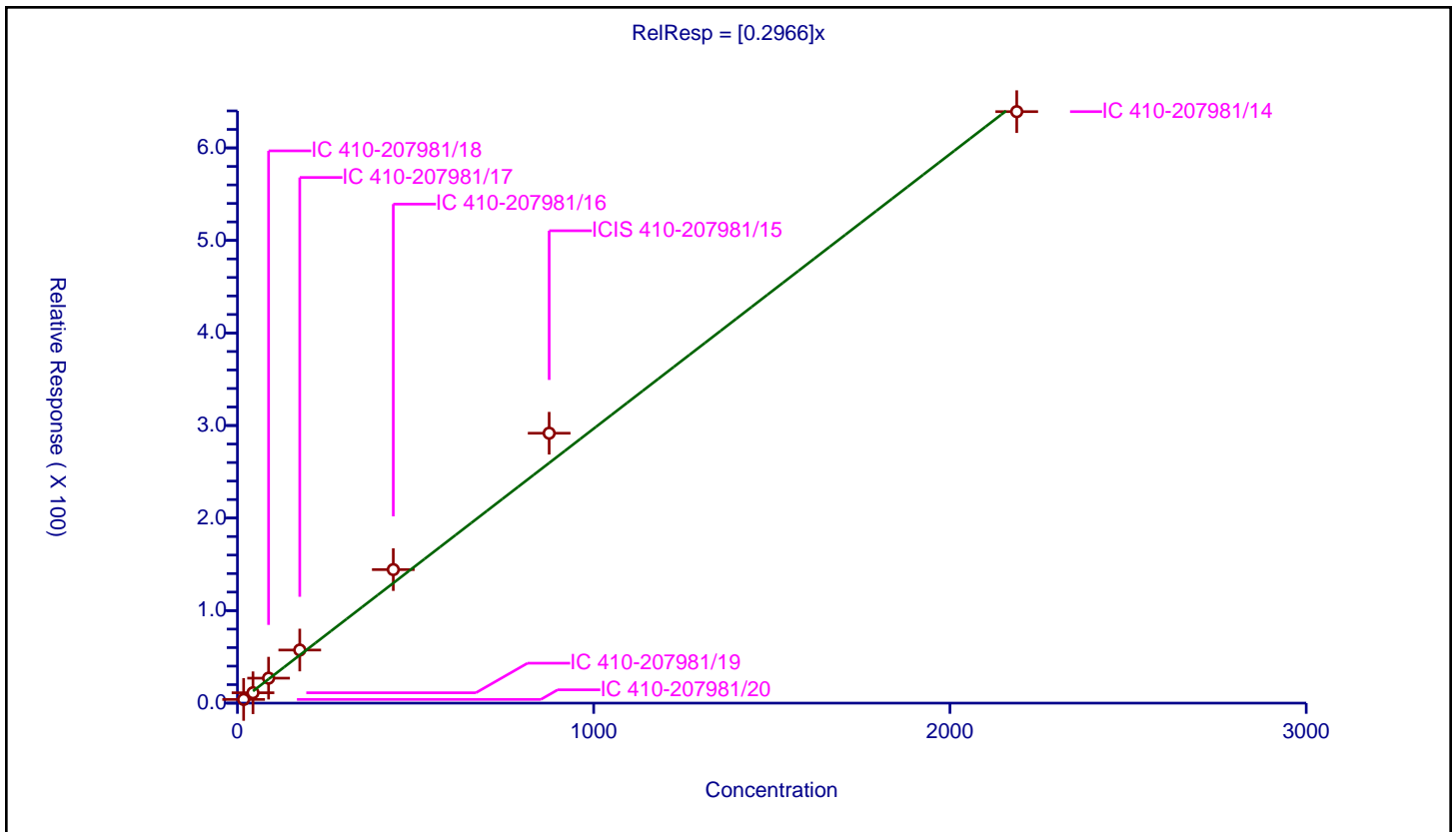
/ n-Butanol

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2966

Error Coefficients	
Standard Error:	489000
Relative Standard Error:	13.7
Correlation Coefficient:	0.997
Coefficient of Determination (Adjusted):	0.979

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	17.5	3.995386	50.0	81494.0	0.228308	Y
2	IC 410-207981/19	43.75	11.212249	50.0	66191.0	0.25628	Y
3	IC 410-207981/18	87.5	26.993363	50.0	72779.0	0.308496	Y
4	IC 410-207981/17	175.0	57.384625	50.0	62752.0	0.327912	Y
5	IC 410-207981/16	437.5	144.302287	50.0	77926.0	0.329834	Y
6	ICIS 410-207981/15	875.0	291.693752	50.0	82456.0	0.333364	Y
7	IC 410-207981/14	2187.5	639.19406	50.0	83778.0	0.292203	Y



Calibration

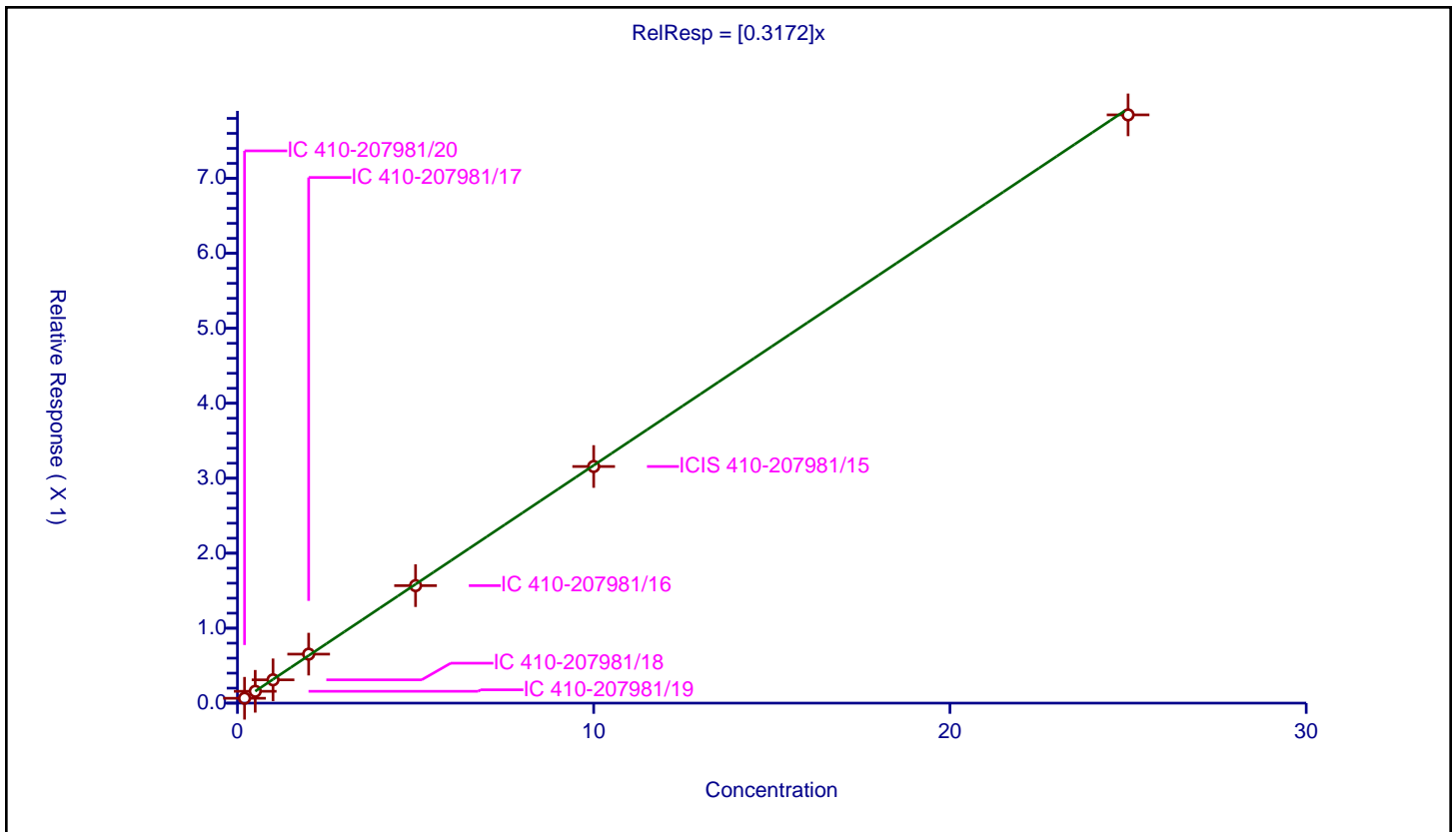
/ Trichloroethene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3172

Error Coefficients	
Standard Error:	806000
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 410-207981/20	0.2	0.064811	10.0	2249617.0	0.324055	Y
2	IC 410-207981/19	0.5	0.157986	10.0	2232533.0	0.315973	Y
3	IC 410-207981/18	1.0	0.310633	10.0	2262029.0	0.310633	Y
4	IC 410-207981/17	2.0	0.65346	10.0	2259237.0	0.32673	Y
5	IC 410-207981/16	5.0	1.567257	10.0	2285280.0	0.313451	Y
6	ICIS 410-207981/15	10.0	3.156519	10.0	2239692.0	0.315652	Y
7	IC 410-207981/14	25.0	7.846922	10.0	2294975.0	0.313877	Y



Calibration

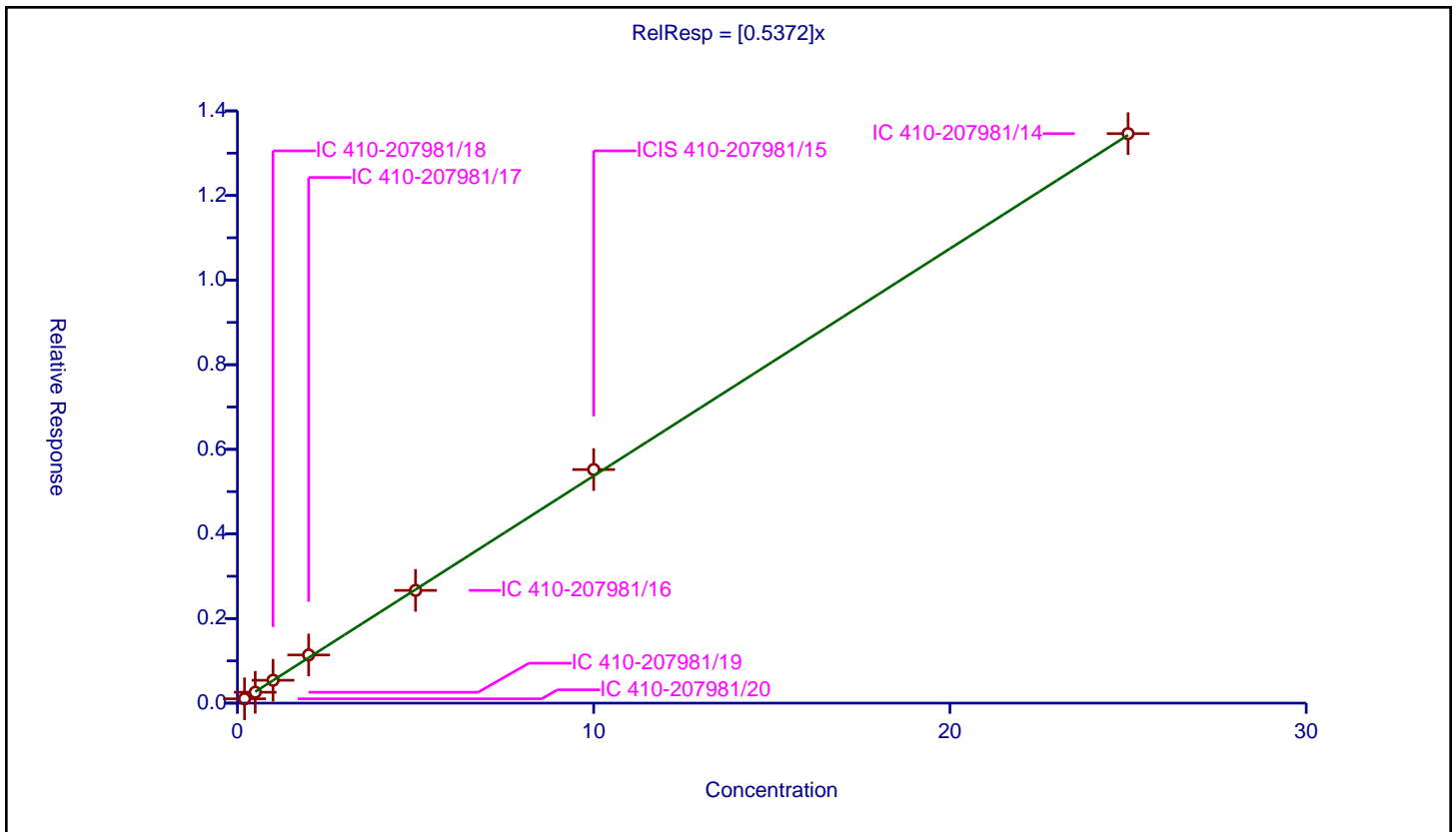
/ Methylcyclohexane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.5372

Error Coefficients	
Standard Error:	1390000
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 410-207981/20	0.2	0.102431	10.0	2249617.0	0.512154	Y
2	IC 410-207981/19	0.5	0.257143	10.0	2232533.0	0.514286	Y
3	IC 410-207981/18	1.0	0.541032	10.0	2262029.0	0.541032	Y
4	IC 410-207981/17	2.0	1.138384	10.0	2259237.0	0.569192	Y
5	IC 410-207981/16	5.0	2.66475	10.0	2285280.0	0.53295	Y
6	ICIS 410-207981/15	10.0	5.521107	10.0	2239692.0	0.552111	Y
7	IC 410-207981/14	25.0	13.462399	10.0	2294975.0	0.538496	Y



Calibration

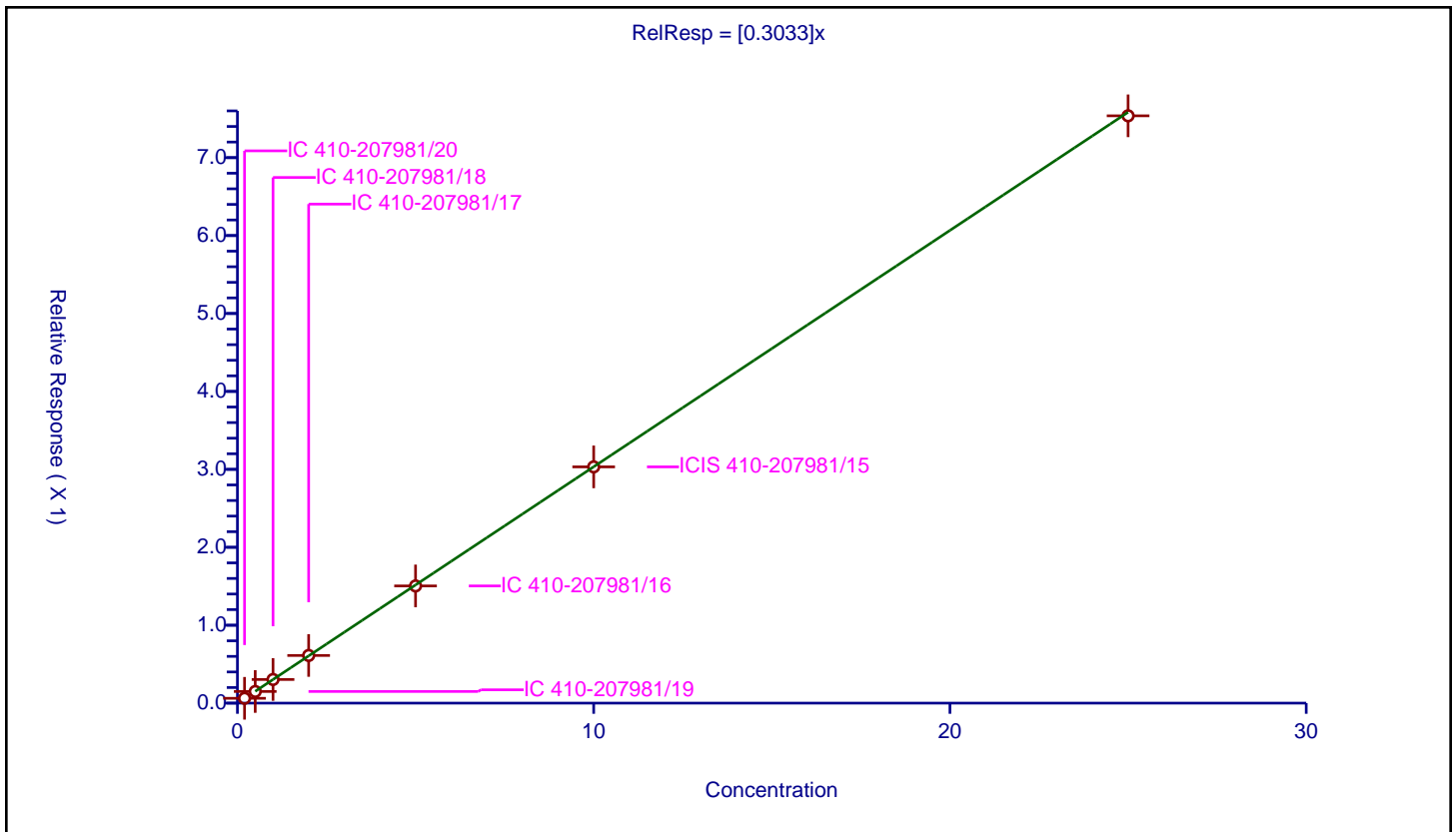
/ 1,2-Dichloropropane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3033

Error Coefficients	
Standard Error:	774000
Relative Standard Error:	1.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.061948	10.0	2249617.0	0.309742	Y
2	IC 410-207981/19	0.5	0.149454	10.0	2232533.0	0.298907	Y
3	IC 410-207981/18	1.0	0.303369	10.0	2262029.0	0.303369	Y
4	IC 410-207981/17	2.0	0.611498	10.0	2259237.0	0.305749	Y
5	IC 410-207981/16	5.0	1.503938	10.0	2285280.0	0.300788	Y
6	ICIS 410-207981/15	10.0	3.03164	10.0	2239692.0	0.303164	Y
7	IC 410-207981/14	25.0	7.536879	10.0	2294975.0	0.301475	Y



**Calibration**

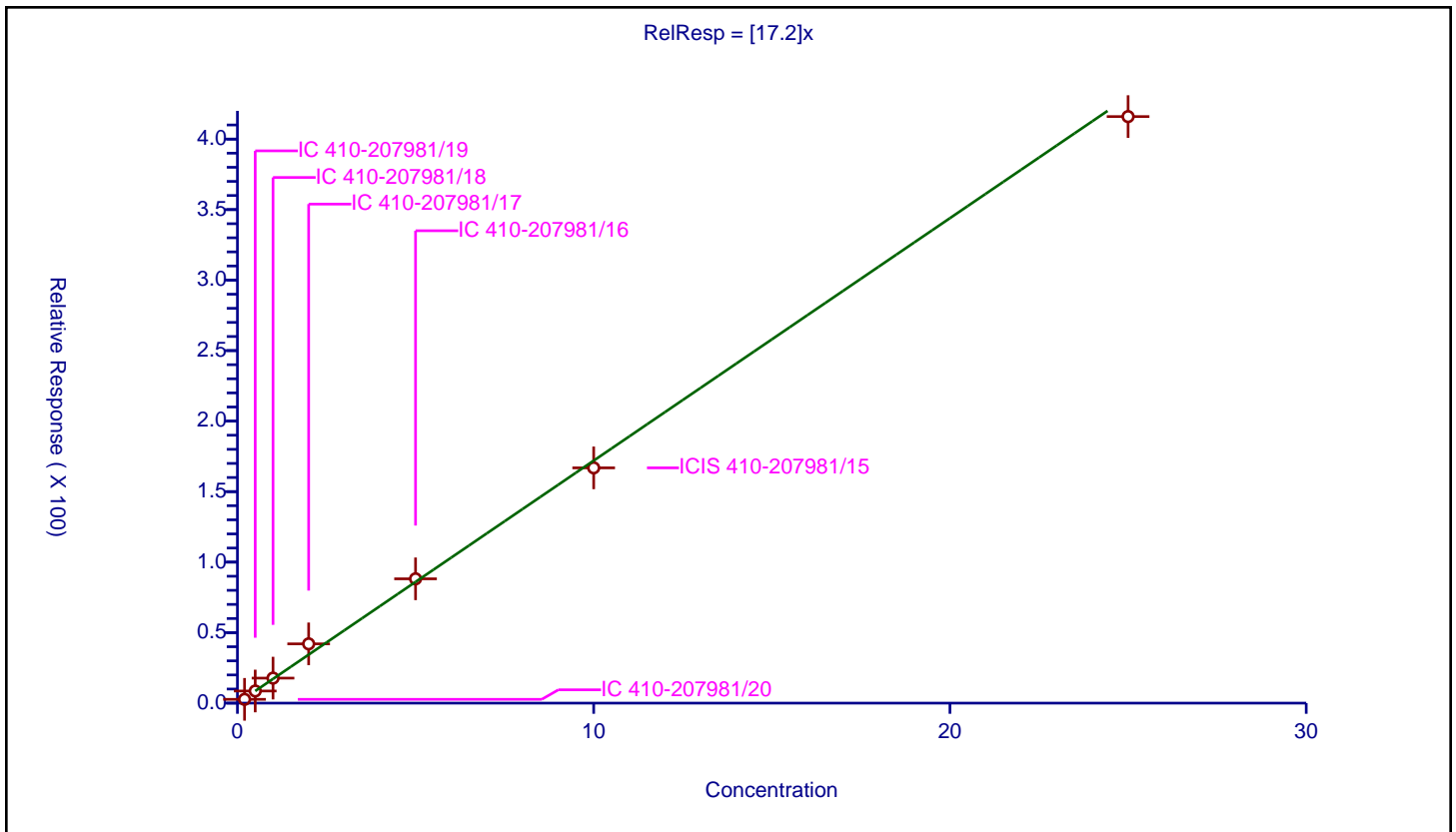
/ Methyl methacrylate

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	17.2

Error Coefficients	
Standard Error:	312000
Relative Standard Error:	13.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.980

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	2.685474	50.0	81494.0	13.427369	Y
2	IC 410-207981/19	0.5	8.610687	50.0	66191.0	17.221375	Y
3	IC 410-207981/18	1.0	17.747565	50.0	72779.0	17.747565	Y
4	IC 410-207981/17	2.0	42.043281	50.0	62752.0	21.021641	Y
5	IC 410-207981/16	5.0	88.163129	50.0	77926.0	17.632626	Y
6	ICIS 410-207981/15	10.0	166.851412	50.0	82456.0	16.685141	Y
7	IC 410-207981/14	25.0	415.964812	50.0	83778.0	16.638592	Y



Calibration

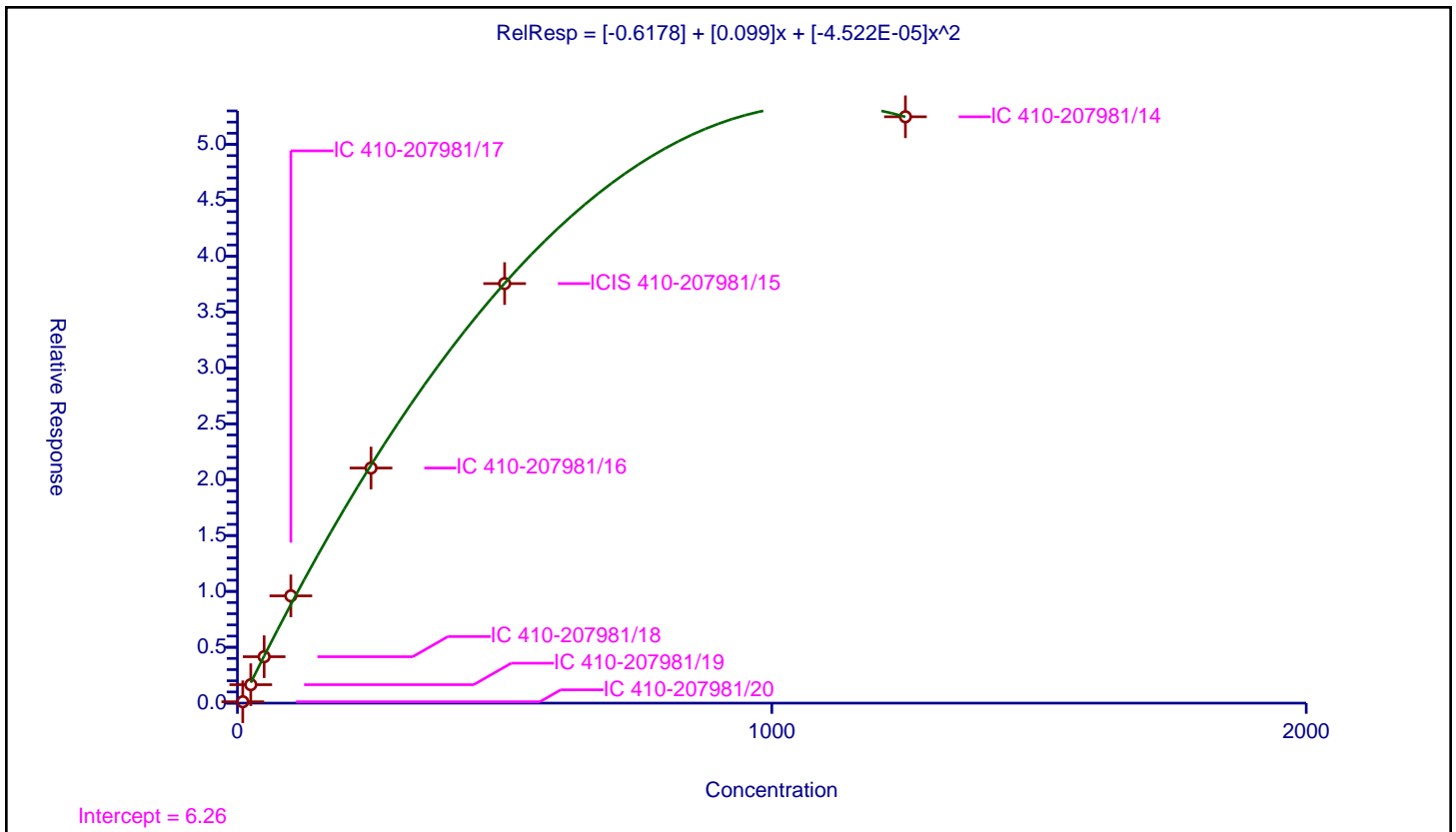
/ 1,4-Dioxane

Curve Type: Quadratic  
 Weighting: None  
 Origin: None  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	-0.6178
Slope:	0.099
Second Order:	-4.522E-05

Error Coefficients	
Standard Error:	56600
Relative Standard Error:	18.5
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	10.0	0.122708	50.0	81494.0	0.012271	Y
2	IC 410-207981/19	25.0	1.649771	50.0	66191.0	0.065991	Y
3	IC 410-207981/18	50.0	4.152984	50.0	72779.0	0.08306	Y
4	IC 410-207981/17	100.0	9.600491	50.0	62752.0	0.096005	Y
5	IC 410-207981/16	250.0	21.041116	50.0	77926.0	0.084164	Y
6	ICIS 410-207981/15	500.0	37.546692	50.0	82456.0	0.075093	Y
7	IC 410-207981/14	1250.0	52.4738	50.0	83778.0	0.041979	Y



Calibration

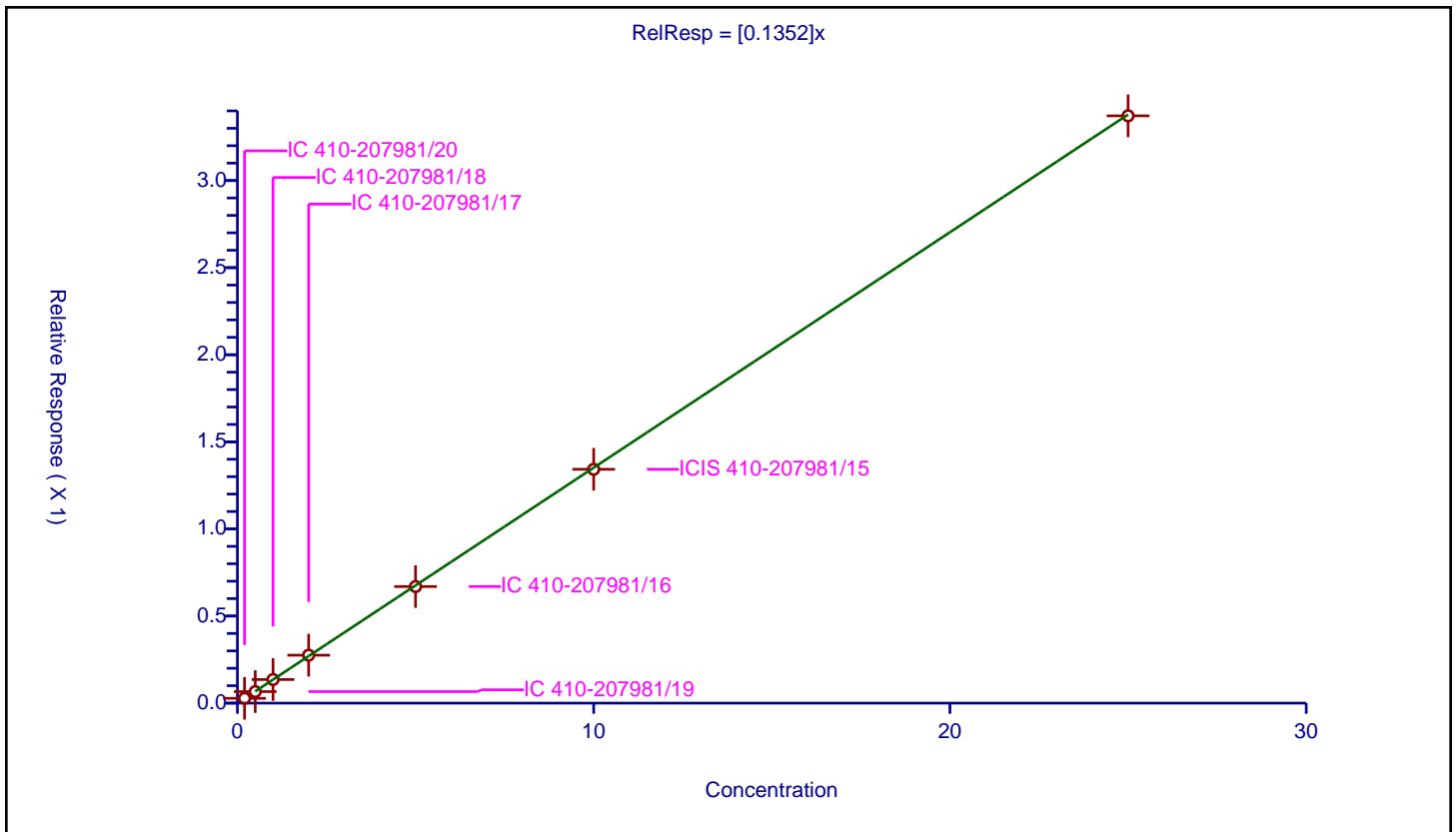
/ Dibromomethane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.1352

Error Coefficients	
Standard Error:	346000
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 410-207981/20	0.2	0.027587	10.0	2249617.0	0.137935	Y
2	IC 410-207981/19	0.5	0.066082	10.0	2232533.0	0.132164	Y
3	IC 410-207981/18	1.0	0.135467	10.0	2262029.0	0.135467	Y
4	IC 410-207981/17	2.0	0.275204	10.0	2259237.0	0.137602	Y
5	IC 410-207981/16	5.0	0.669314	10.0	2285280.0	0.133863	Y
6	ICIS 410-207981/15	10.0	1.342417	10.0	2239692.0	0.134242	Y
7	IC 410-207981/14	25.0	3.371597	10.0	2294975.0	0.134864	Y



Calibration

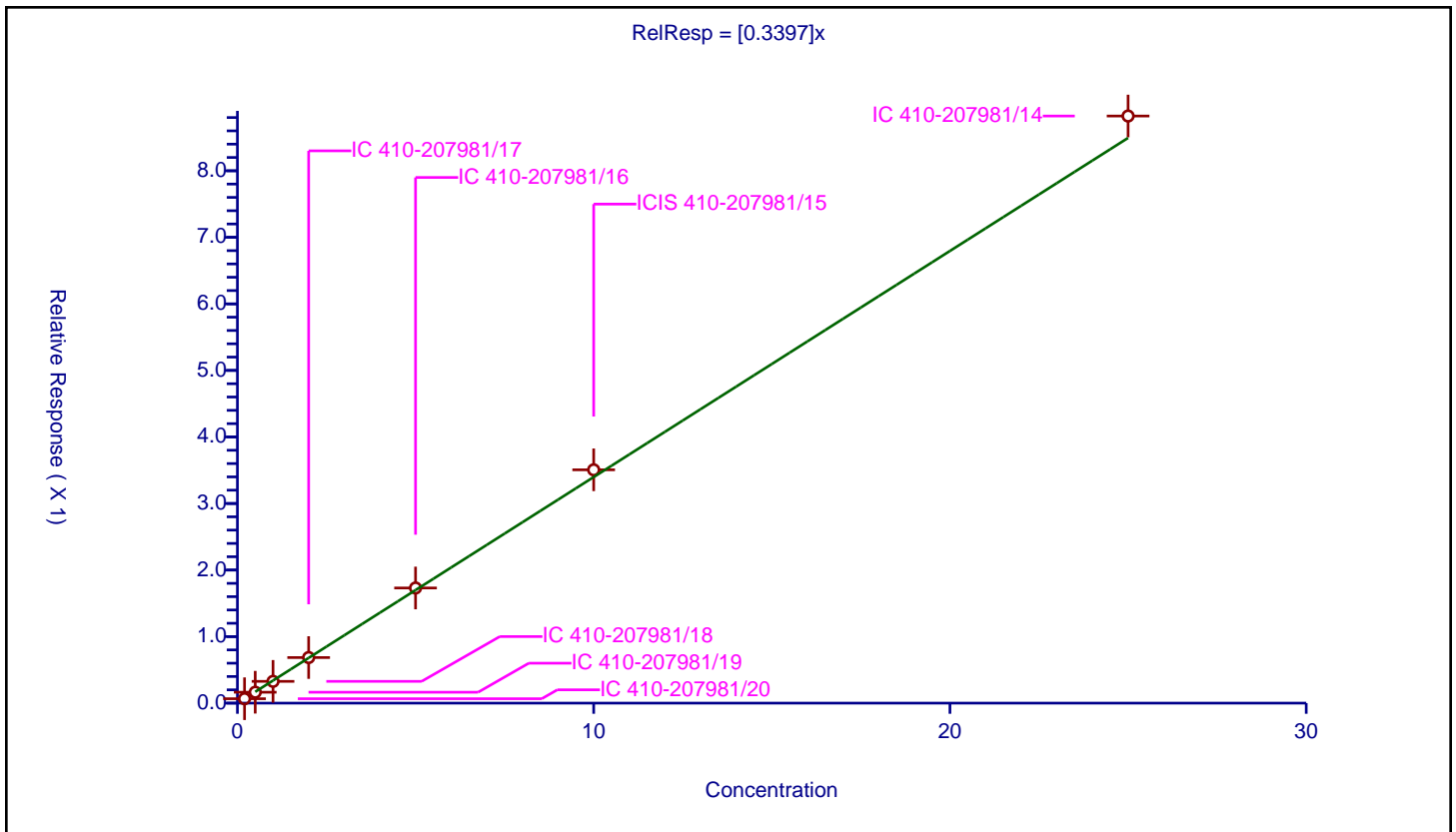
/ Dichlorobromomethane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3397

Error Coefficients	
Standard Error:	904000
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 410-207981/20	0.2	0.06618	10.0	2249617.0	0.330901	Y
2	IC 410-207981/19	0.5	0.163908	10.0	2232533.0	0.327816	Y
3	IC 410-207981/18	1.0	0.32729	10.0	2262029.0	0.32729	Y
4	IC 410-207981/17	2.0	0.685187	10.0	2259237.0	0.342594	Y
5	IC 410-207981/16	5.0	1.730549	10.0	2285280.0	0.34611	Y
6	ICIS 410-207981/15	10.0	3.506125	10.0	2239692.0	0.350612	Y
7	IC 410-207981/14	25.0	8.822898	10.0	2294975.0	0.352916	Y





Calibration

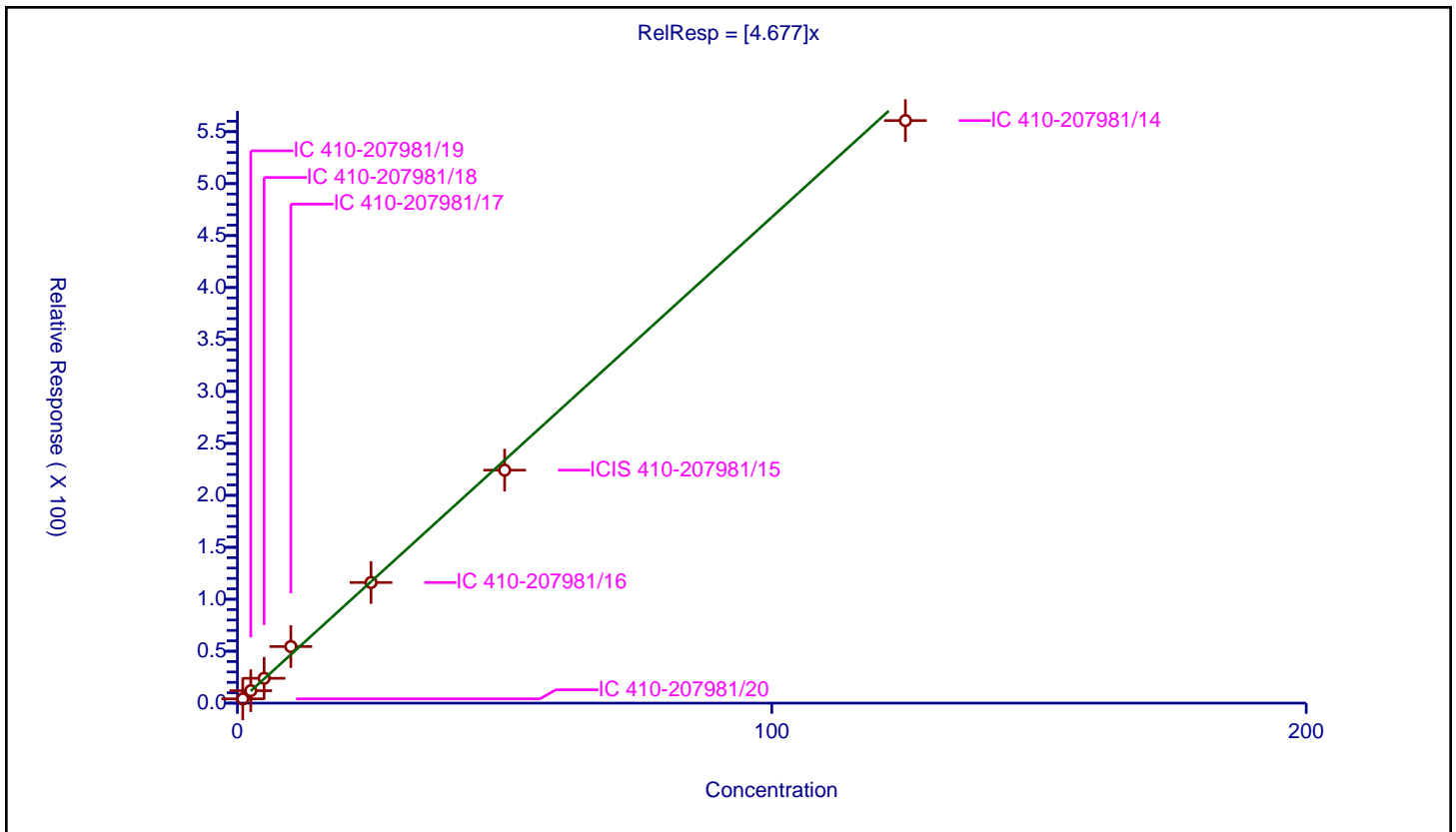
/ 2-Nitropropane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	4.677

Error Coefficients	
Standard Error:	420000
Relative Standard Error:	8.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	1.0	4.108278	50.0	81494.0	4.108278	Y
2	IC 410-207981/19	2.5	11.972171	50.0	66191.0	4.788869	Y
3	IC 410-207981/18	5.0	23.90456	50.0	72779.0	4.780912	Y
4	IC 410-207981/17	10.0	54.459619	50.0	62752.0	5.445962	Y
5	IC 410-207981/16	25.0	116.100531	50.0	77926.0	4.644021	Y
6	ICIS 410-207981/15	50.0	224.212307	50.0	82456.0	4.484246	Y
7	IC 410-207981/14	125.0	560.679415	50.0	83778.0	4.485435	Y



**Calibration**

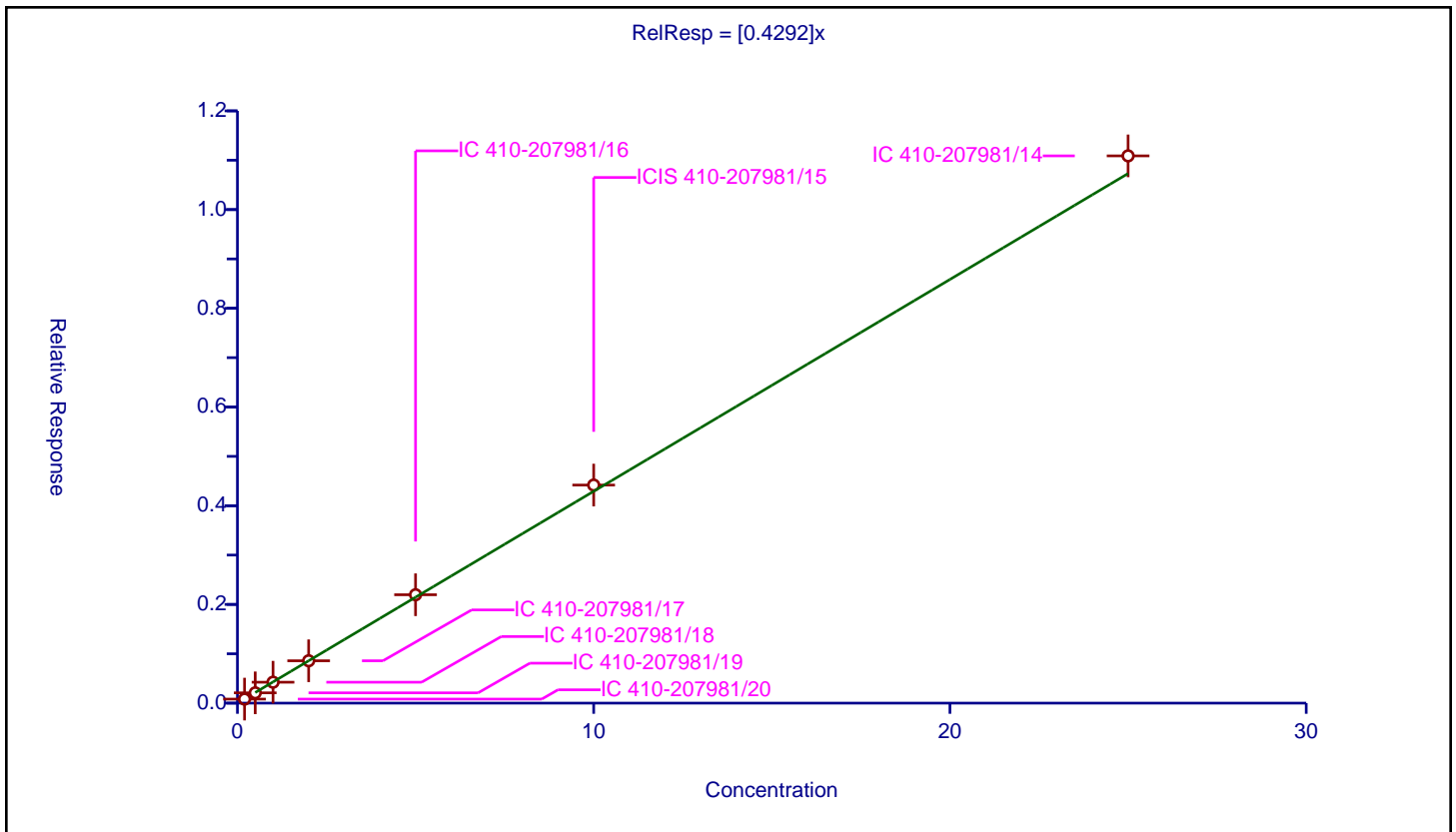
/ cis-1,3-Dichloropropene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4292

Error Coefficients	
Standard Error:	1140000
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 410-207981/20	0.2	0.081836	10.0	2249617.0	0.409181	Y
2	IC 410-207981/19	0.5	0.208817	10.0	2232533.0	0.417633	Y
3	IC 410-207981/18	1.0	0.424155	10.0	2262029.0	0.424155	Y
4	IC 410-207981/17	2.0	0.858144	10.0	2259237.0	0.429072	Y
5	IC 410-207981/16	5.0	2.195871	10.0	2285280.0	0.439174	Y
6	ICIS 410-207981/15	10.0	4.418366	10.0	2239692.0	0.441837	Y
7	IC 410-207981/14	25.0	11.088665	10.0	2294975.0	0.443547	Y



Calibration

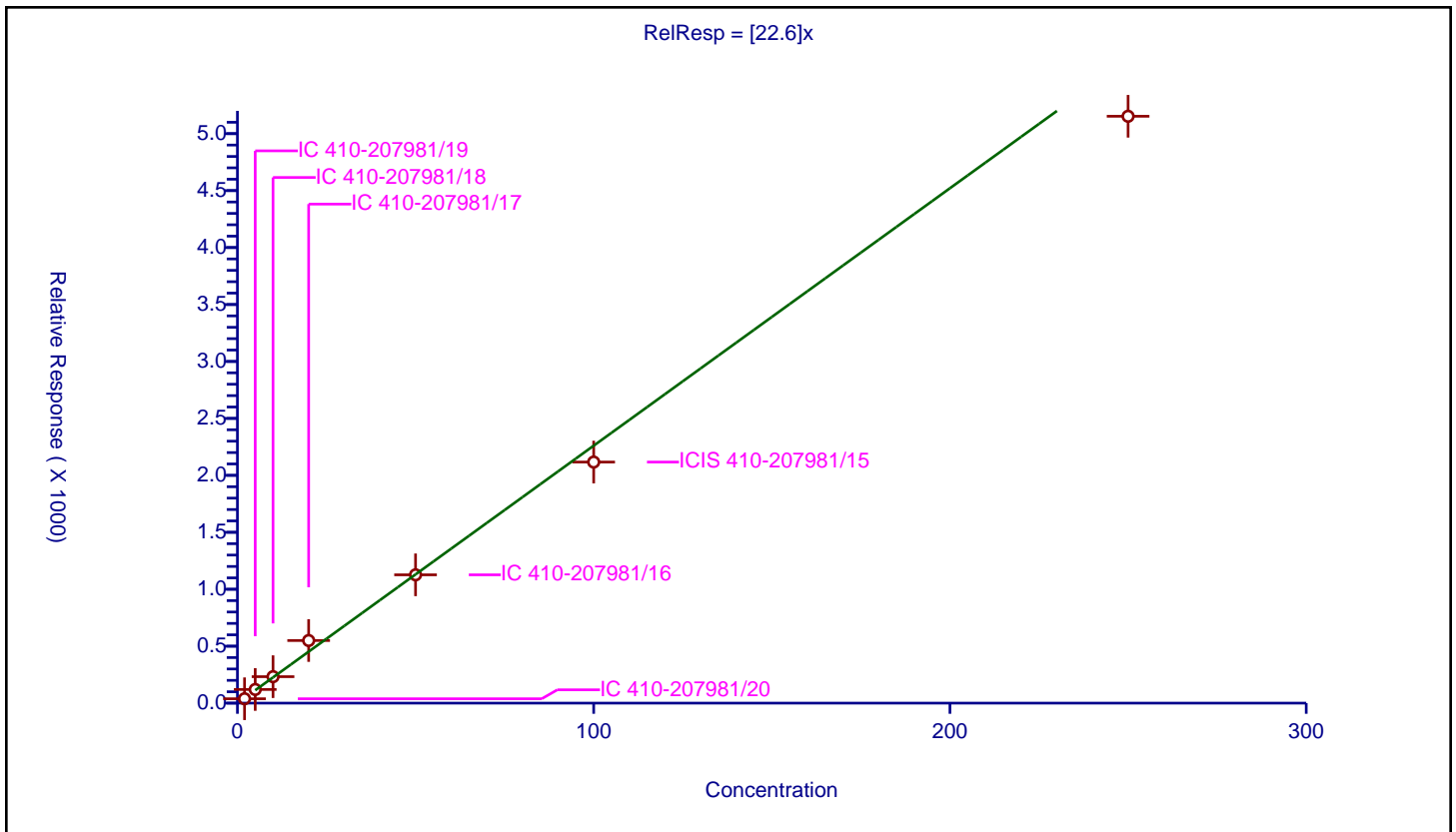
/ 4-Methyl-2-pentanone (MIBK)

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	22.6

Error Coefficients	
Standard Error:	3880000
Relative Standard Error:	11.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.982

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	2.0	38.51756	50.0	81494.0	19.25878	Y
2	IC 410-207981/19	5.0	119.807829	50.0	66191.0	23.961566	Y
3	IC 410-207981/18	10.0	232.218085	50.0	72779.0	23.221808	Y
4	IC 410-207981/17	20.0	549.552206	50.0	62752.0	27.47761	Y
5	IC 410-207981/16	50.0	1126.541847	50.0	77926.0	22.530837	Y
6	ICIS 410-207981/15	100.0	2116.651305	50.0	82456.0	21.166513	Y
7	IC 410-207981/14	250.0	5152.657619	50.0	83778.0	20.61063	Y



**Calibration**

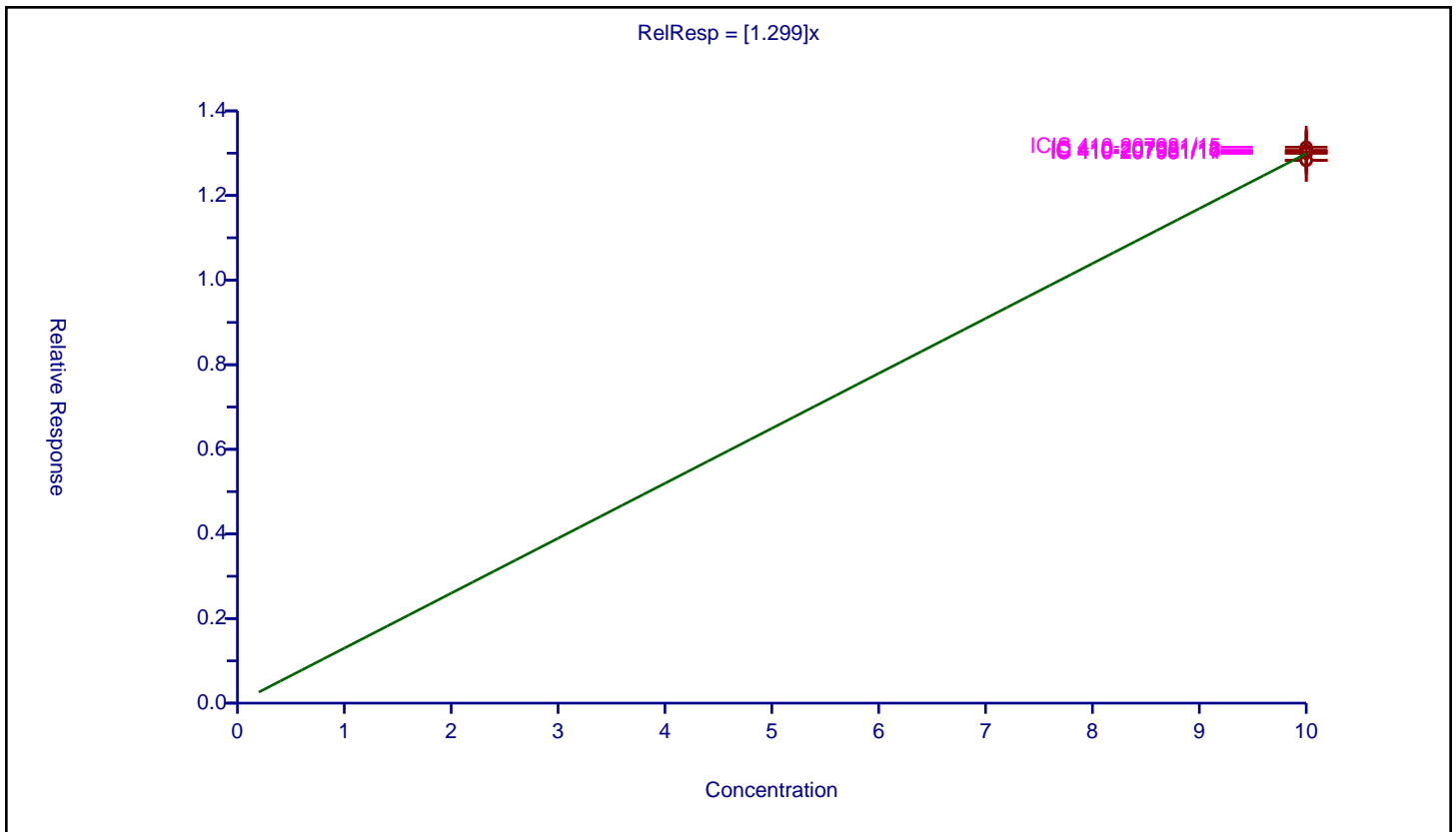
/ Toluene-d8 (Surr)

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.299

Error Coefficients	
Standard Error:	2610000
Relative Standard Error:	0.9
Correlation Coefficient:	0.00000000000000000000
Coefficient of Determination (Adjusted):	0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/14	10.0	12.99765	10.0	1860951.0	1.299765	Y
2	ICIS 410-207981/15	10.0	13.142321	10.0	1825218.0	1.314232	Y
3	IC 410-207981/16	10.0	13.055653	10.0	1868144.0	1.305565	Y
4	IC 410-207981/17	10.0	13.006286	10.0	1856553.0	1.300629	Y
5	IC 410-207981/18	10.0	13.066095	10.0	1846913.0	1.306609	Y
6	IC 410-207981/19	10.0	12.83194	10.0	1858493.0	1.283194	Y
7	IC 410-207981/20	10.0	12.828653	10.0	1885106.0	1.282865	Y



Calibration

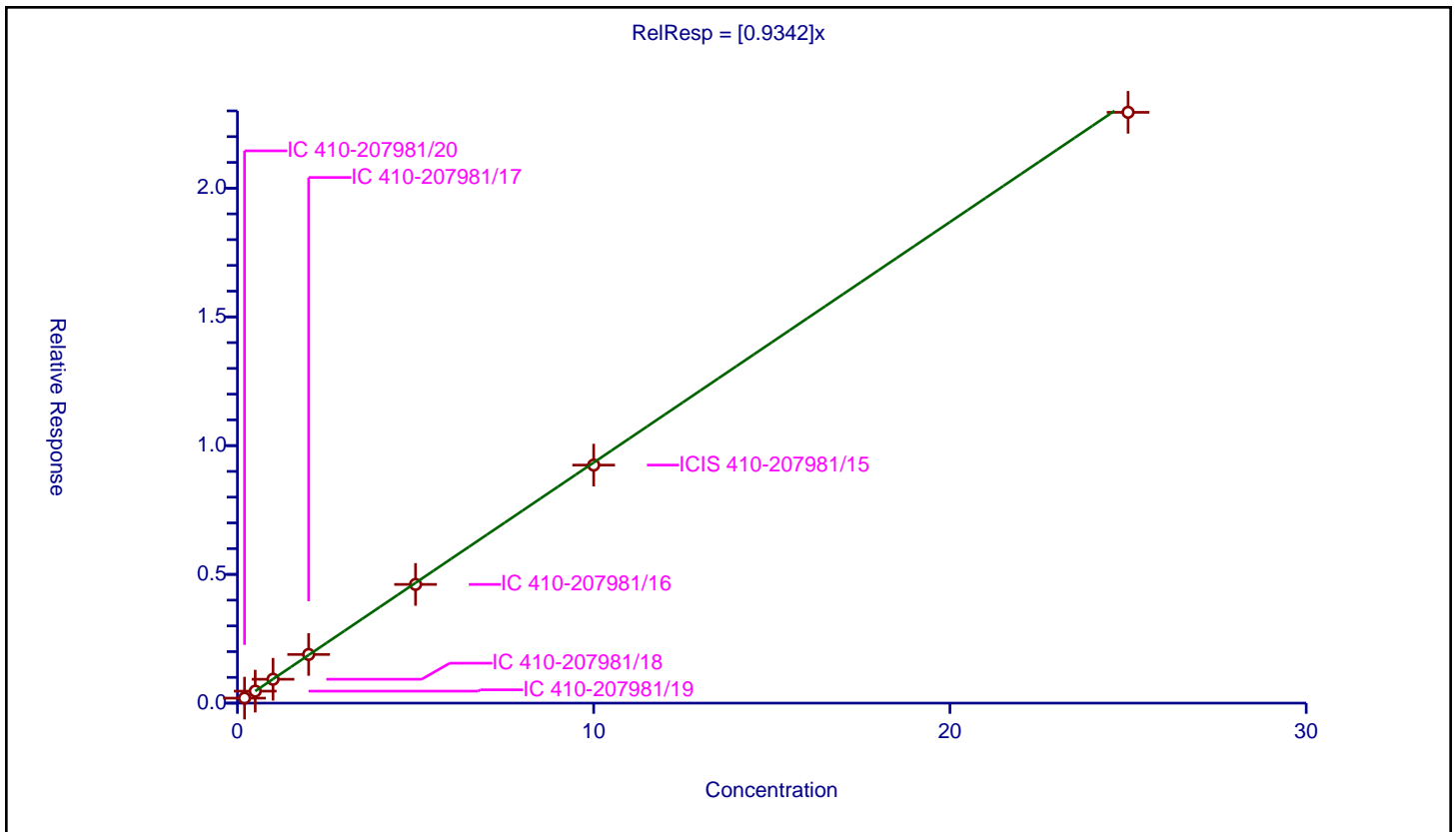
/ Toluene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.9342

Error Coefficients	
Standard Error:	1910000
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 410-207981/20	0.2	0.194185	10.0	1885106.0	0.970927	Y
2	IC 410-207981/19	0.5	0.466039	10.0	1858493.0	0.932078	Y
3	IC 410-207981/18	1.0	0.927163	10.0	1846913.0	0.927163	Y
4	IC 410-207981/17	2.0	1.89011	10.0	1856553.0	0.945055	Y
5	IC 410-207981/16	5.0	4.610239	10.0	1868144.0	0.922048	Y
6	ICIS 410-207981/15	10.0	9.244293	10.0	1825218.0	0.924429	Y
7	IC 410-207981/14	25.0	22.944118	10.0	1860951.0	0.917765	Y



Calibration

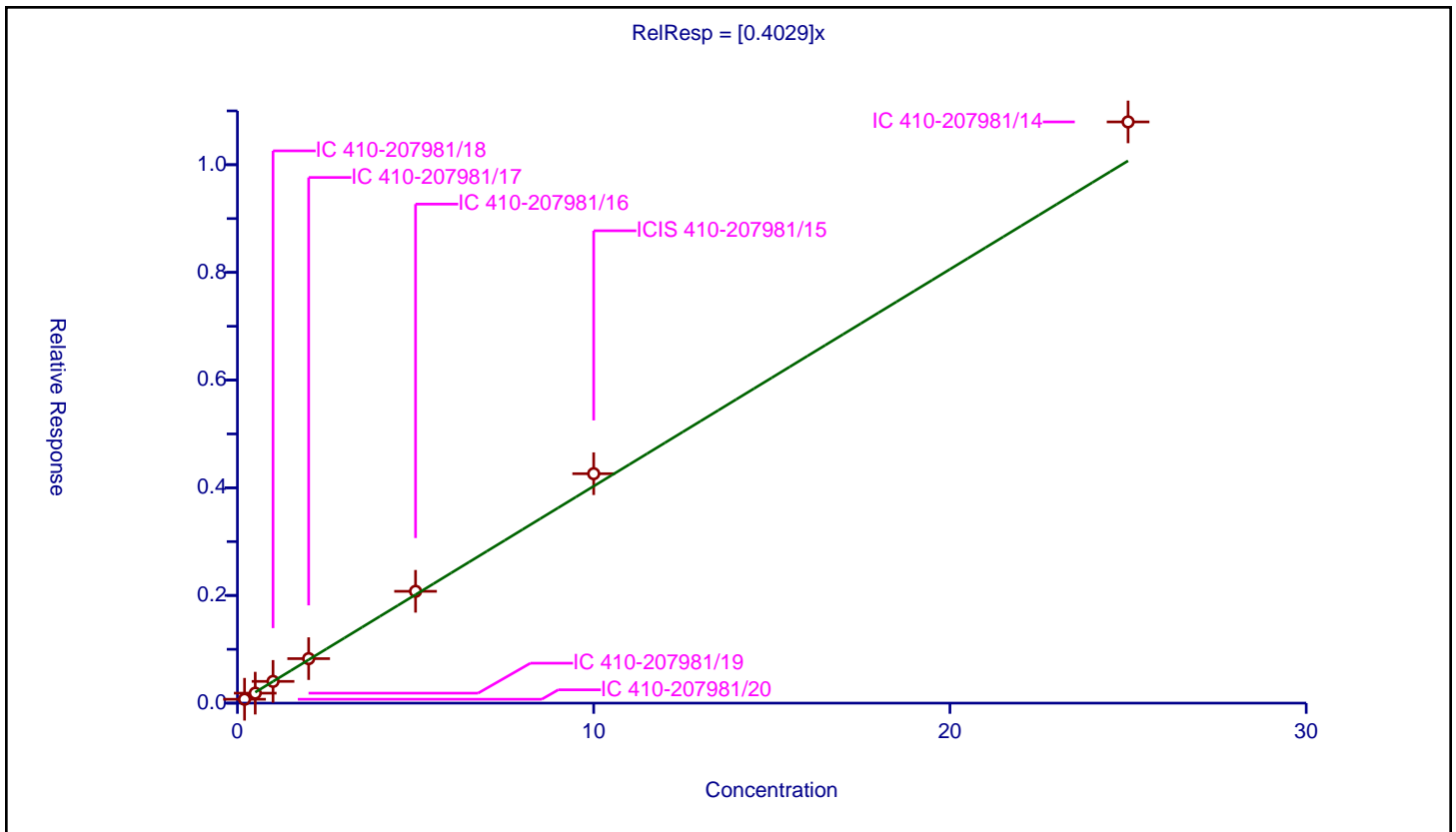
/ trans-1,3-Dichloropropene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4029

Error Coefficients	
Standard Error:	896000
Relative Standard Error:	6.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.071869	10.0	1885106.0	0.359343	Y
2	IC 410-207981/19	0.5	0.185408	10.0	1858493.0	0.370817	Y
3	IC 410-207981/18	1.0	0.403695	10.0	1846913.0	0.403695	Y
4	IC 410-207981/17	2.0	0.826526	10.0	1856553.0	0.413263	Y
5	IC 410-207981/16	5.0	2.076853	10.0	1868144.0	0.415371	Y
6	ICIS 410-207981/15	10.0	4.261414	10.0	1825218.0	0.426141	Y
7	IC 410-207981/14	25.0	10.795077	10.0	1860951.0	0.431803	Y



Calibration

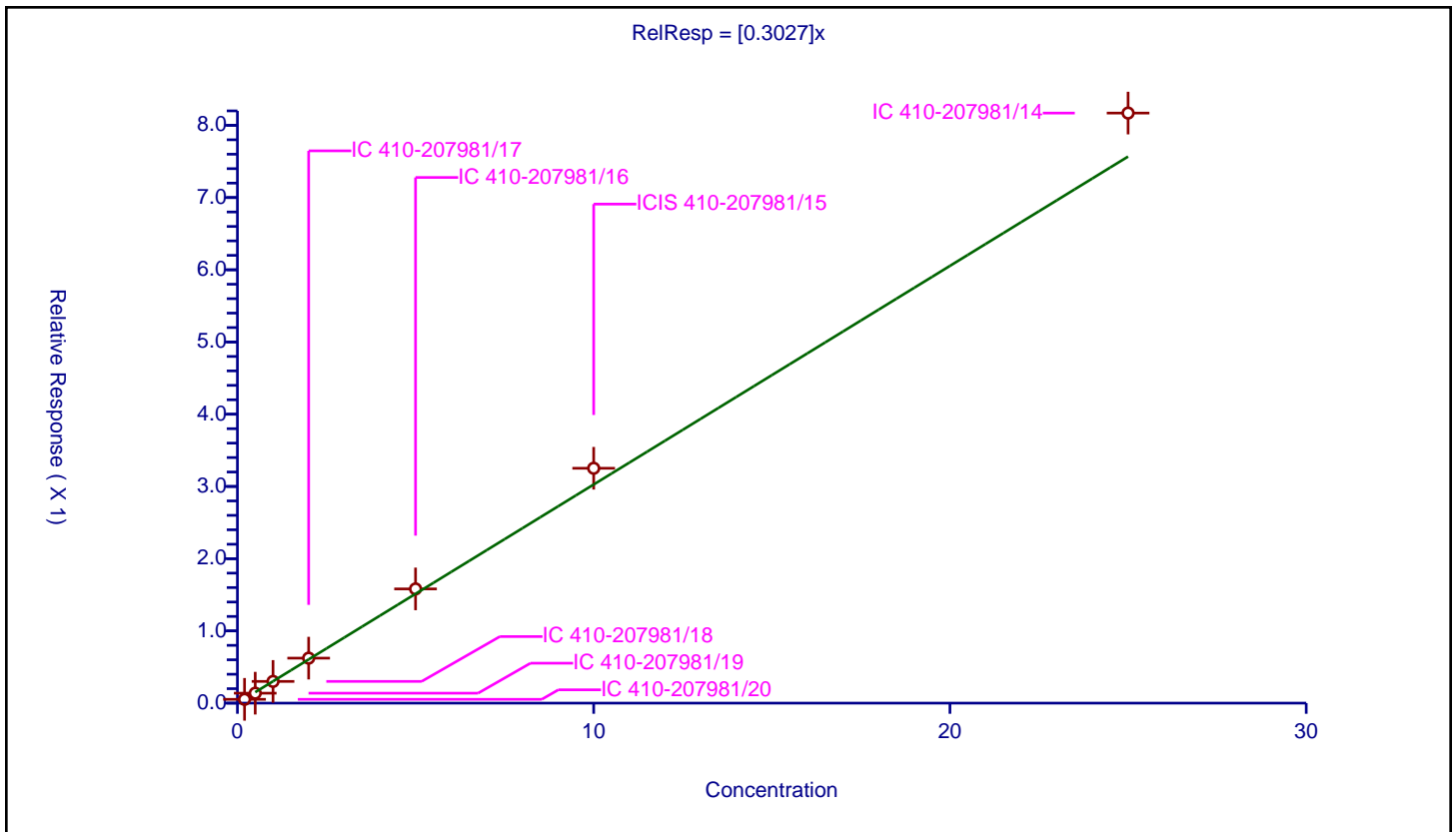
/ Ethyl methacrylate

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3027

Error Coefficients	
Standard Error:	679000
Relative Standard Error:	8.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.052623	10.0	1885106.0	0.263115	Y
2	IC 410-207981/19	0.5	0.137601	10.0	1858493.0	0.275201	Y
3	IC 410-207981/18	1.0	0.300864	10.0	1846913.0	0.300864	Y
4	IC 410-207981/17	2.0	0.622982	10.0	1856553.0	0.311491	Y
5	IC 410-207981/16	5.0	1.581409	10.0	1868144.0	0.316282	Y
6	ICIS 410-207981/15	10.0	3.251913	10.0	1825218.0	0.325191	Y
7	IC 410-207981/14	25.0	8.169887	10.0	1860951.0	0.326795	Y



Calibration

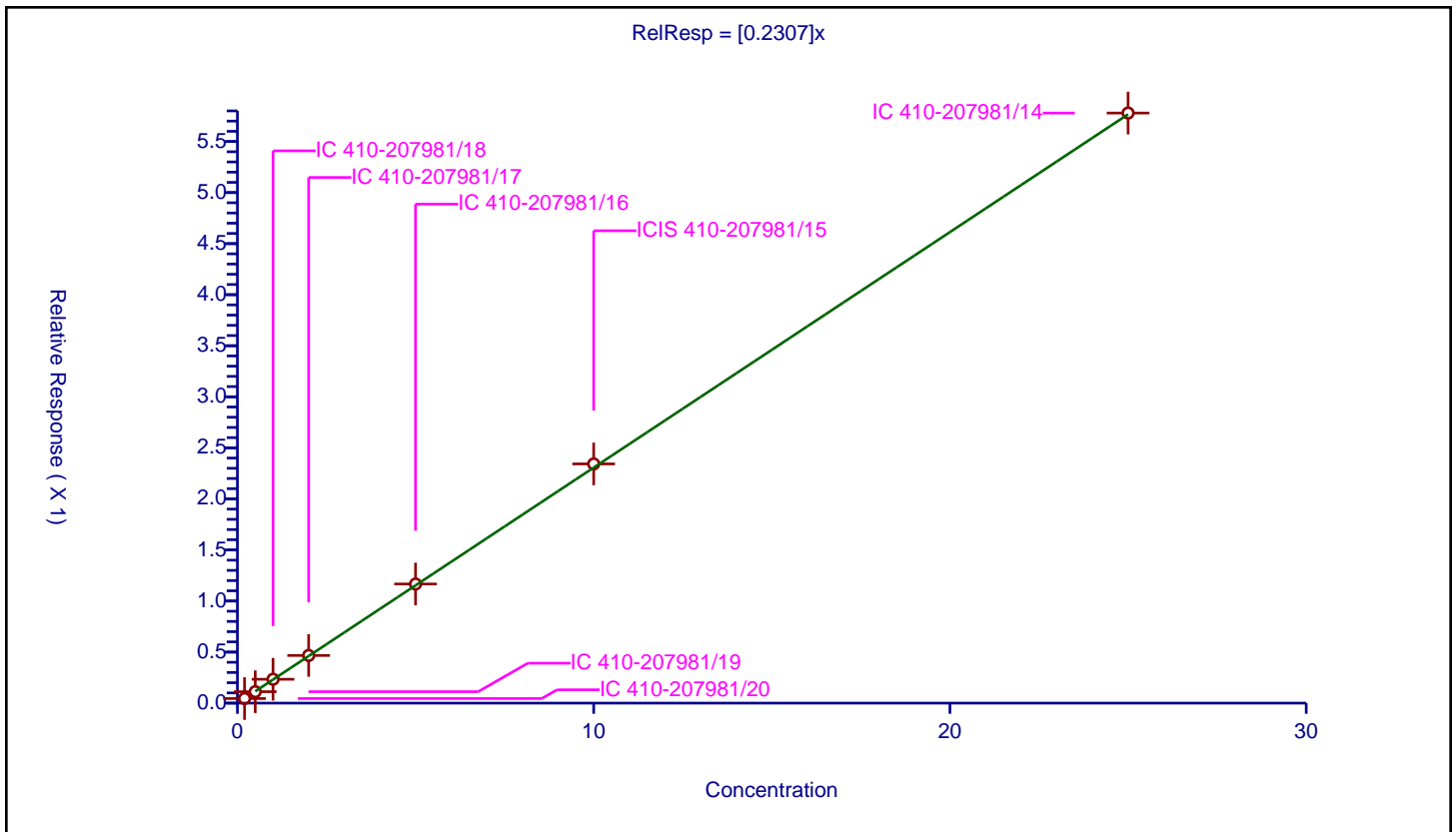
/ 1,1,2-Trichloroethane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2307

Error Coefficients	
Standard Error:	482000
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 410-207981/20	0.2	0.044936	10.0	1885106.0	0.224682	Y
2	IC 410-207981/19	0.5	0.11201	10.0	1858493.0	0.22402	Y
3	IC 410-207981/18	1.0	0.233763	10.0	1846913.0	0.233763	Y
4	IC 410-207981/17	2.0	0.466752	10.0	1856553.0	0.233376	Y
5	IC 410-207981/16	5.0	1.166548	10.0	1868144.0	0.23331	Y
6	ICIS 410-207981/15	10.0	2.342613	10.0	1825218.0	0.234261	Y
7	IC 410-207981/14	25.0	5.778932	10.0	1860951.0	0.231157	Y





Calibration

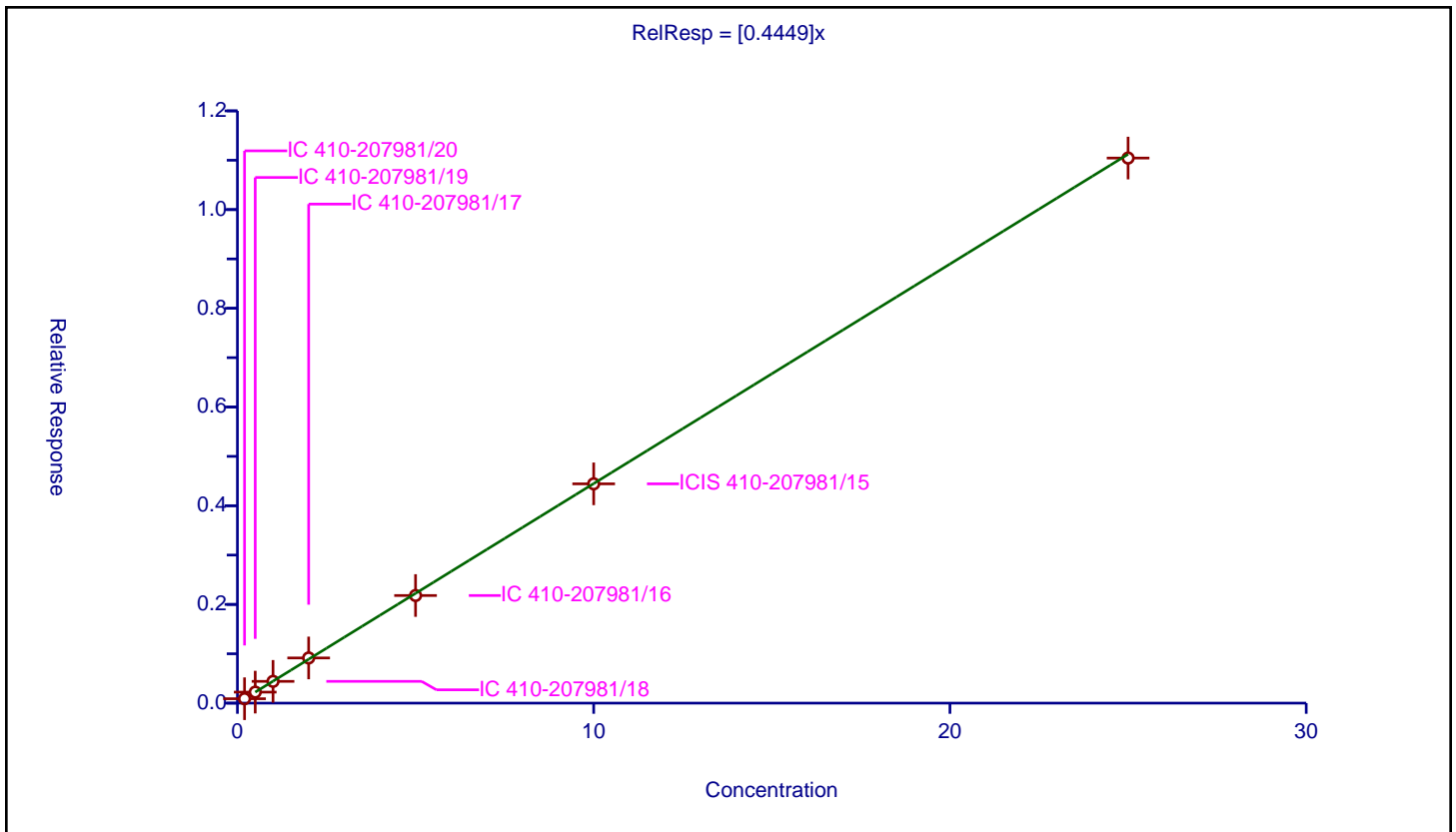
/ Tetrachloroethene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4449

Error Coefficients	
Standard Error:	921000
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 410-207981/20	0.2	0.08921	10.0	1885106.0	0.446049	Y
2	IC 410-207981/19	0.5	0.223348	10.0	1858493.0	0.446695	Y
3	IC 410-207981/18	1.0	0.441309	10.0	1846913.0	0.441309	Y
4	IC 410-207981/17	2.0	0.915395	10.0	1856553.0	0.457698	Y
5	IC 410-207981/16	5.0	2.180699	10.0	1868144.0	0.43614	Y
6	ICIS 410-207981/15	10.0	4.443393	10.0	1825218.0	0.444339	Y
7	IC 410-207981/14	25.0	11.04452	10.0	1860951.0	0.441781	Y



Calibration

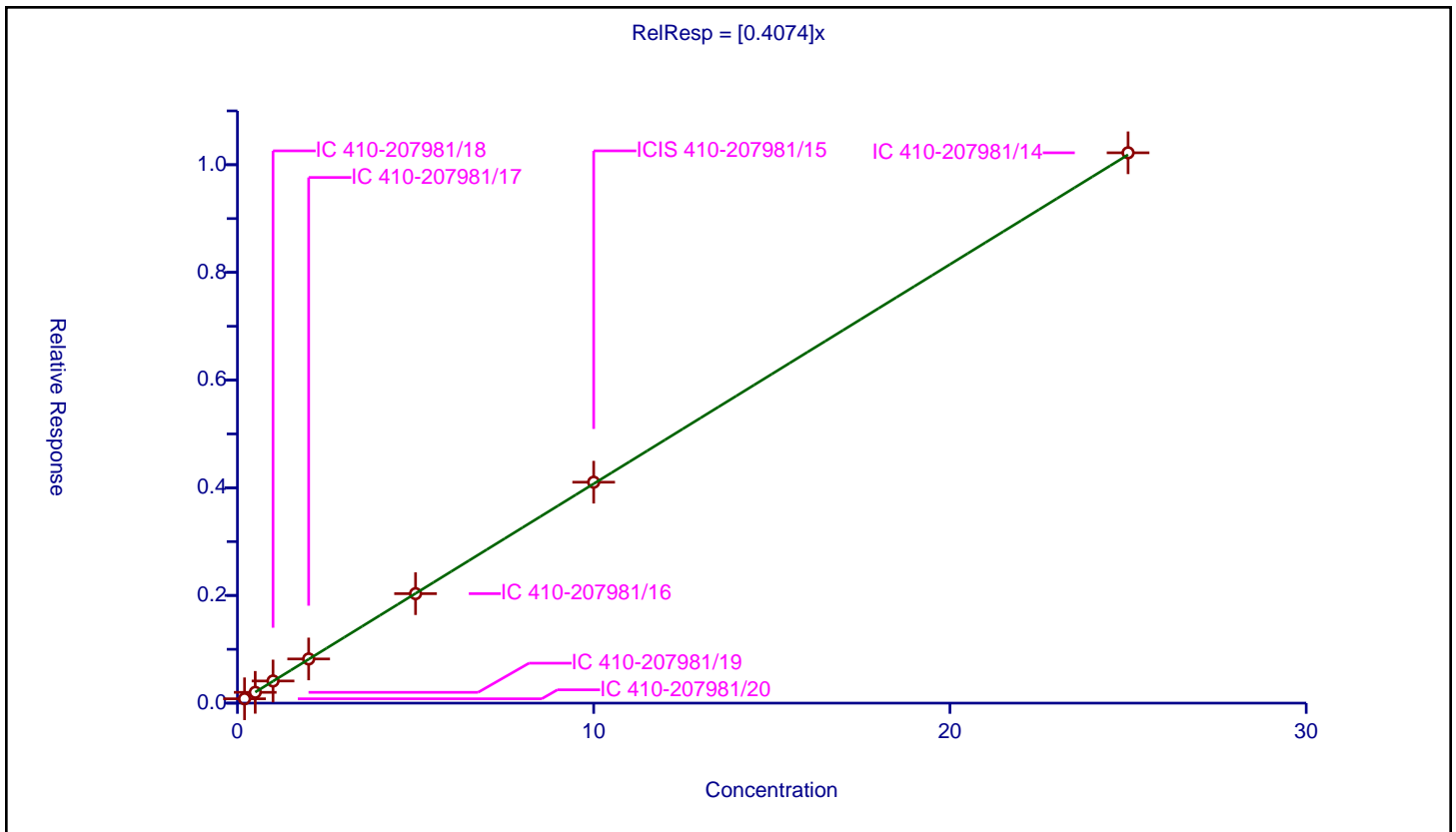
/ 1,3-Dichloropropane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4074

Error Coefficients	
Standard Error:	852000
Relative Standard Error:	0.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.080664	10.0	1885106.0	0.403319	Y
2	IC 410-207981/19	0.5	0.200786	10.0	1858493.0	0.401573	Y
3	IC 410-207981/18	1.0	0.411129	10.0	1846913.0	0.411129	Y
4	IC 410-207981/17	2.0	0.820294	10.0	1856553.0	0.410147	Y
5	IC 410-207981/16	5.0	2.033237	10.0	1868144.0	0.406647	Y
6	ICIS 410-207981/15	10.0	4.103581	10.0	1825218.0	0.410358	Y
7	IC 410-207981/14	25.0	10.221827	10.0	1860951.0	0.408873	Y



**Calibration**

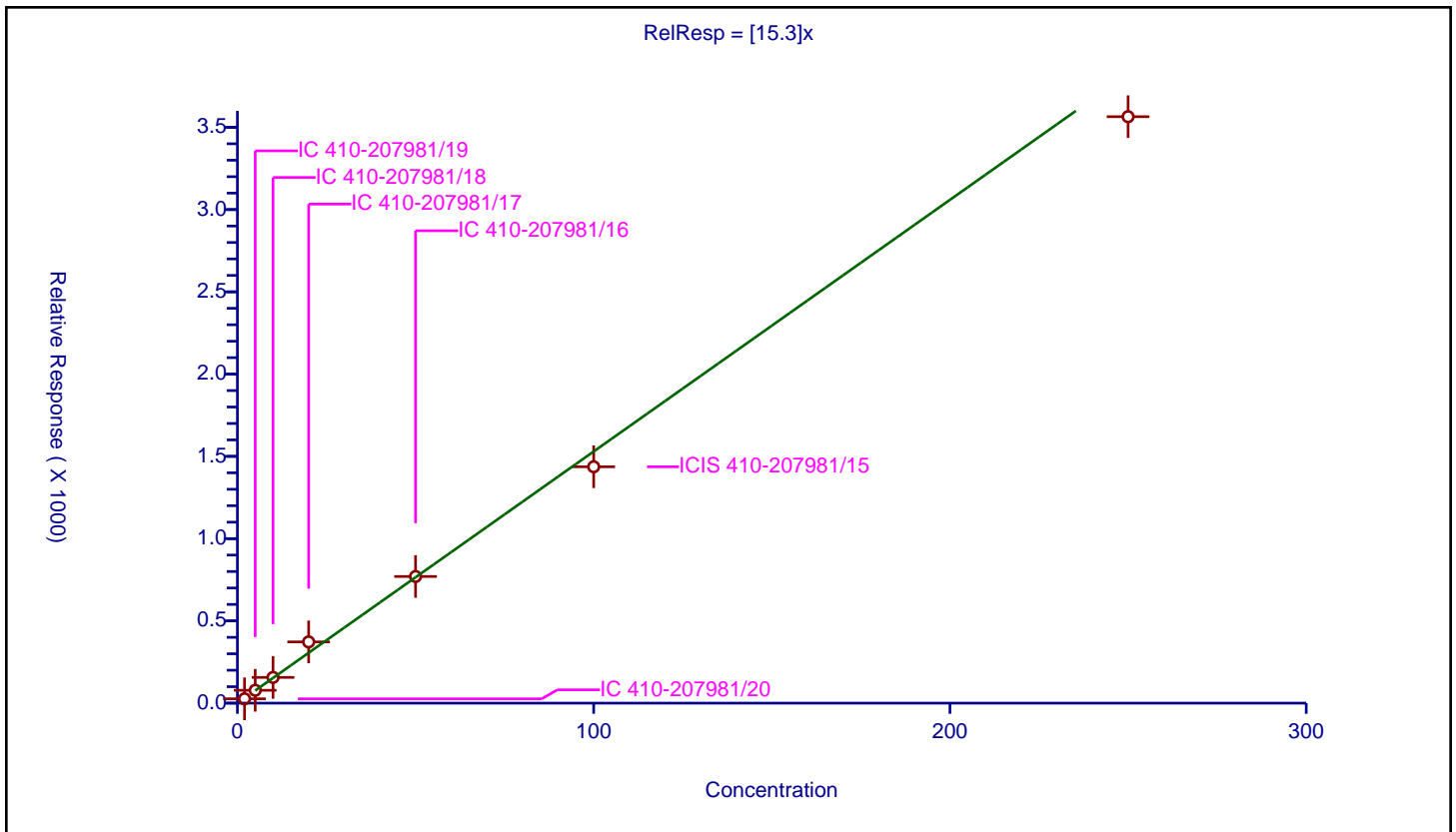
**/ 2-Hexanone**

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	15.3

Error Coefficients	
Standard Error:	2680000
Relative Standard Error:	11.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.984

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	2.0	26.373107	50.0	81494.0	13.186554	Y
2	IC 410-207981/19	5.0	78.074814	50.0	66191.0	15.614963	Y
3	IC 410-207981/18	10.0	156.352794	50.0	72779.0	15.635279	Y
4	IC 410-207981/17	20.0	372.239132	50.0	62752.0	18.611957	Y
5	IC 410-207981/16	50.0	769.895799	50.0	77926.0	15.397916	Y
6	ICIS 410-207981/15	100.0	1436.715339	50.0	82456.0	14.367153	Y
7	IC 410-207981/14	250.0	3564.678675	50.0	83778.0	14.258715	Y



Calibration

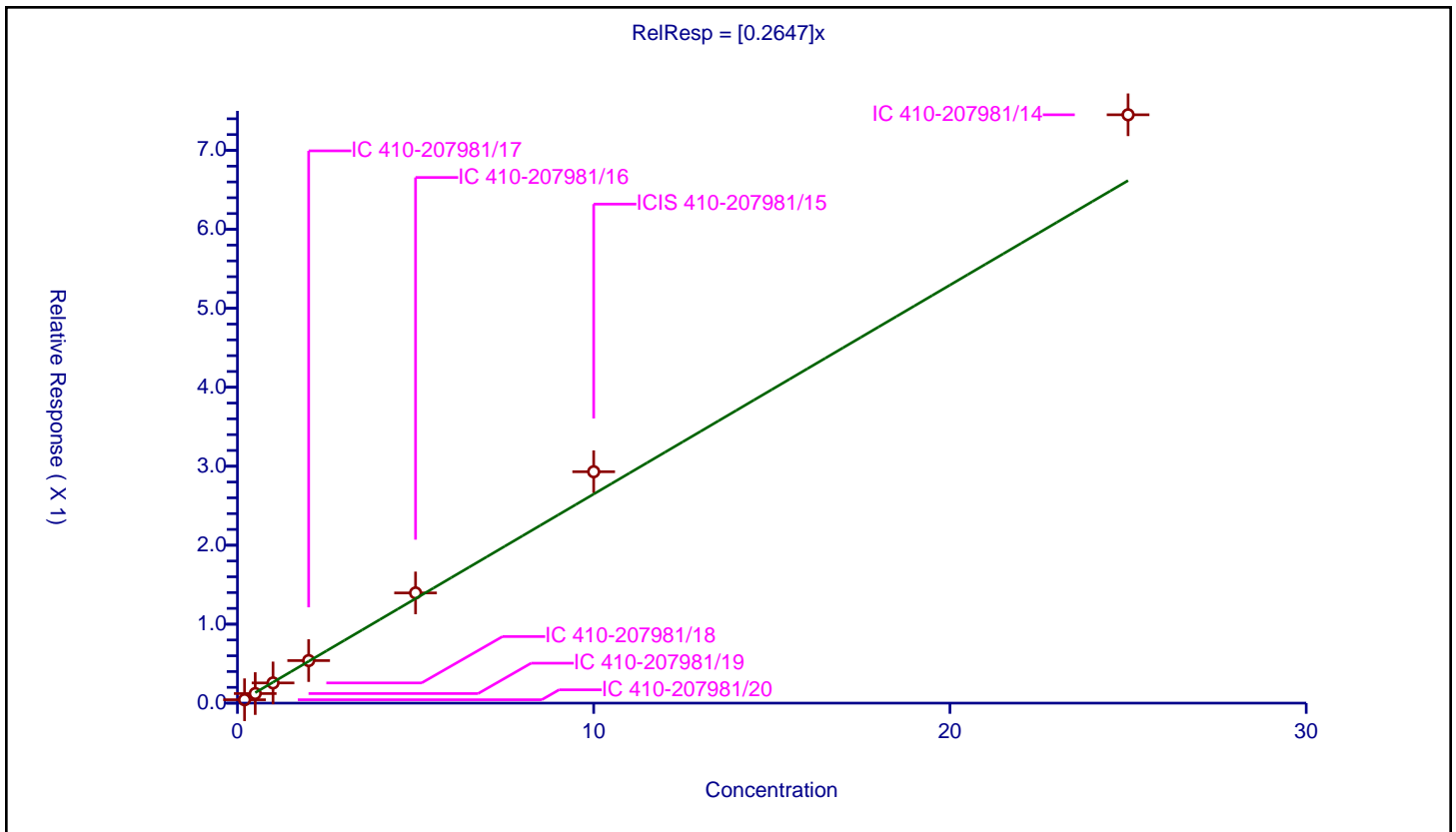
/ Chlorodibromomethane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2647

Error Coefficients	
Standard Error:	618000
Relative Standard Error:	11.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.985

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.042942	10.0	1885106.0	0.214709	Y
2	IC 410-207981/19	0.5	0.121335	10.0	1858493.0	0.24267	Y
3	IC 410-207981/18	1.0	0.255941	10.0	1846913.0	0.255941	Y
4	IC 410-207981/17	2.0	0.538967	10.0	1856553.0	0.269483	Y
5	IC 410-207981/16	5.0	1.395487	10.0	1868144.0	0.279097	Y
6	ICIS 410-207981/15	10.0	2.930428	10.0	1825218.0	0.293043	Y
7	IC 410-207981/14	25.0	7.450857	10.0	1860951.0	0.298034	Y



Calibration

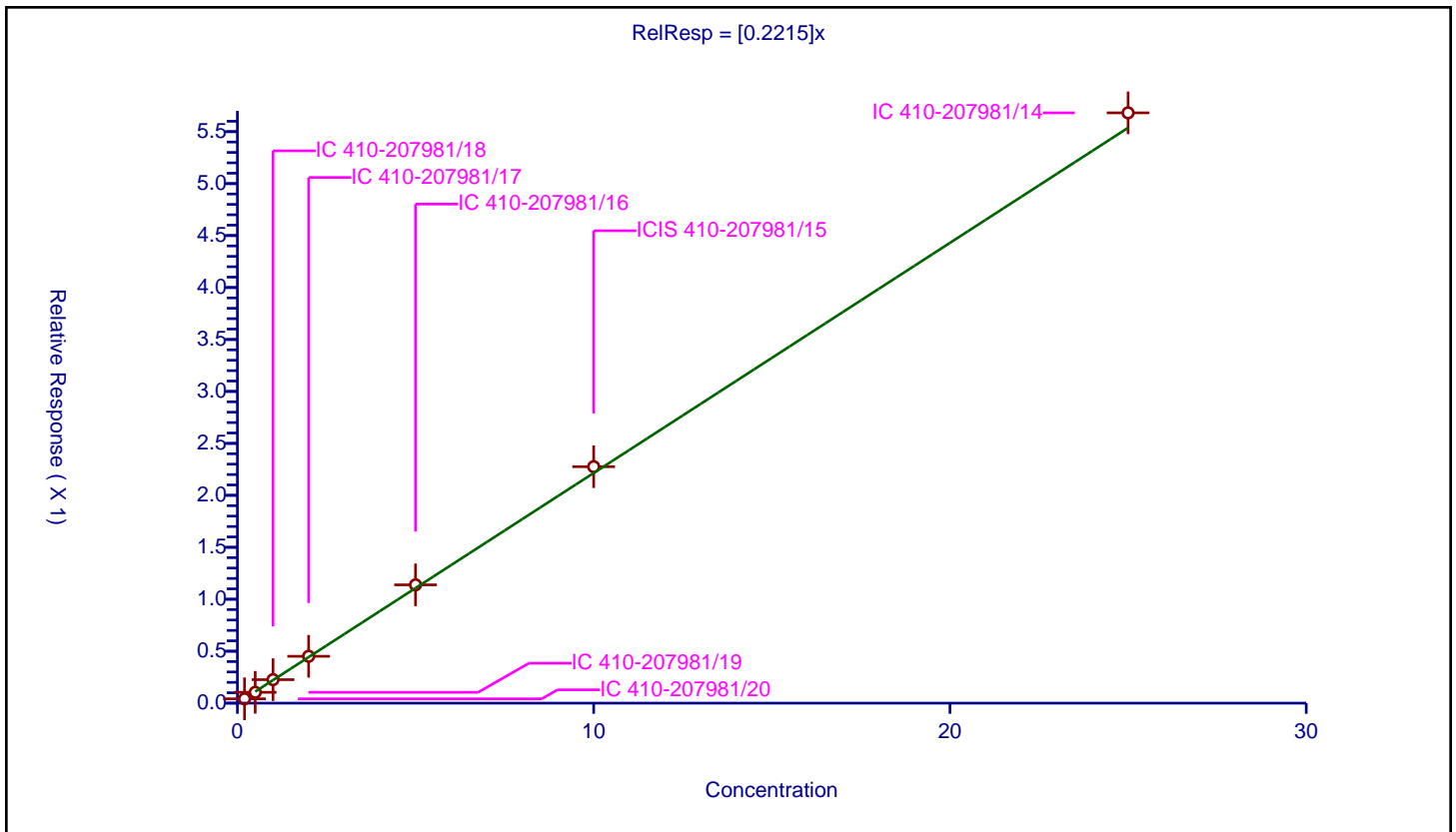
/ Ethylene Dibromide

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2215

Error Coefficients	
Standard Error:	473000
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 410-207981/20	0.2	0.041632	10.0	1885106.0	0.208158	Y
2	IC 410-207981/19	0.5	0.104154	10.0	1858493.0	0.208309	Y
3	IC 410-207981/18	1.0	0.225901	10.0	1846913.0	0.225901	Y
4	IC 410-207981/17	2.0	0.451029	10.0	1856553.0	0.225515	Y
5	IC 410-207981/16	5.0	1.138451	10.0	1868144.0	0.22769	Y
6	ICIS 410-207981/15	10.0	2.275509	10.0	1825218.0	0.227551	Y
7	IC 410-207981/14	25.0	5.681015	10.0	1860951.0	0.227241	Y



Calibration

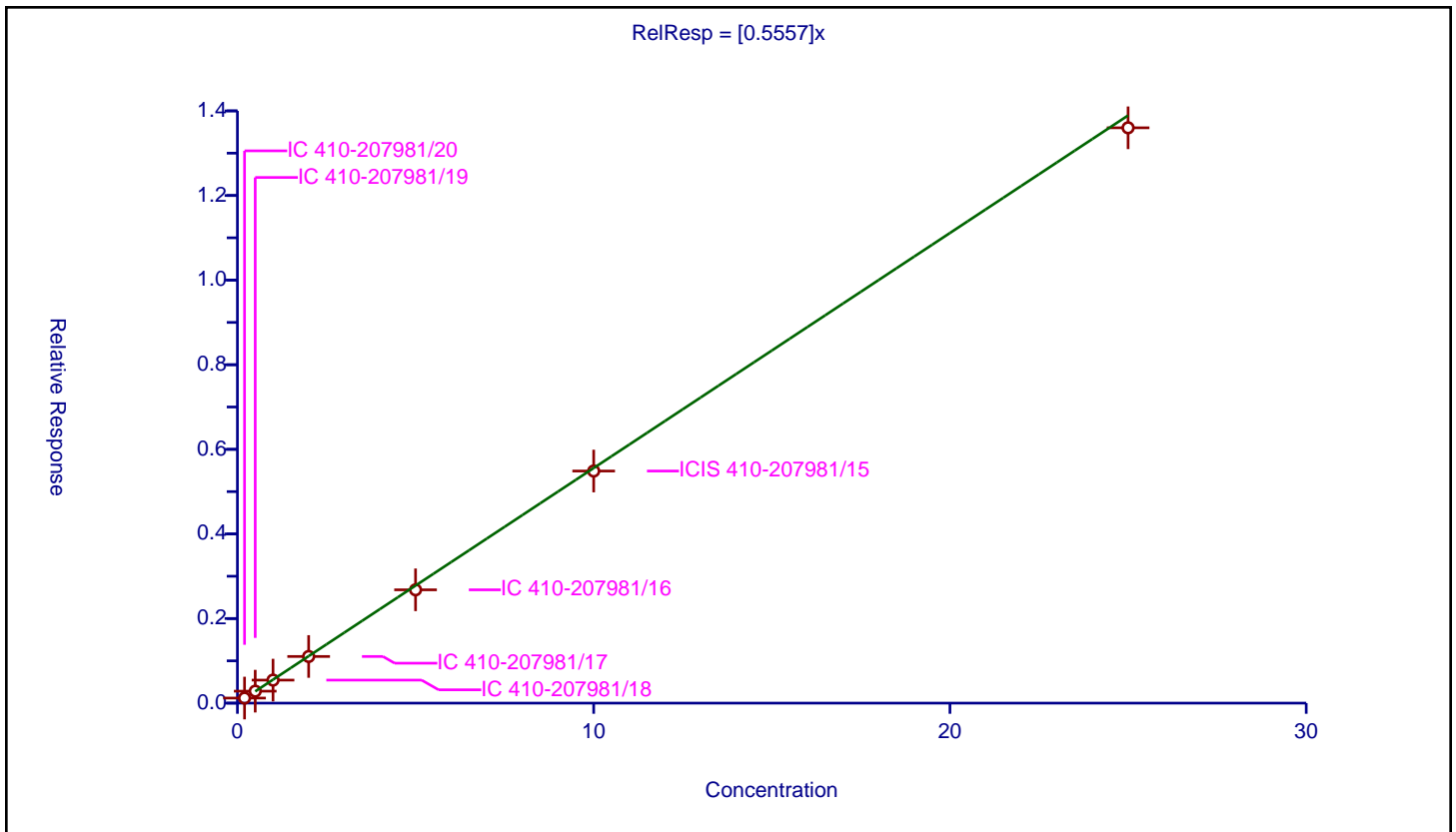
/ 1-Chlorohexane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.5557

Error Coefficients	
Standard Error:	1130000
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 410-207981/20	0.2	0.119824	10.0	1885106.0	0.599118	Y
2	IC 410-207981/19	0.5	0.283176	10.0	1858493.0	0.566351	Y
3	IC 410-207981/18	1.0	0.544557	10.0	1846913.0	0.544557	Y
4	IC 410-207981/17	2.0	1.102823	10.0	1856553.0	0.551412	Y
5	IC 410-207981/16	5.0	2.678428	10.0	1868144.0	0.535686	Y
6	ICIS 410-207981/15	10.0	5.48638	10.0	1825218.0	0.548638	Y
7	IC 410-207981/14	25.0	13.600079	10.0	1860951.0	0.544003	Y



**Calibration**

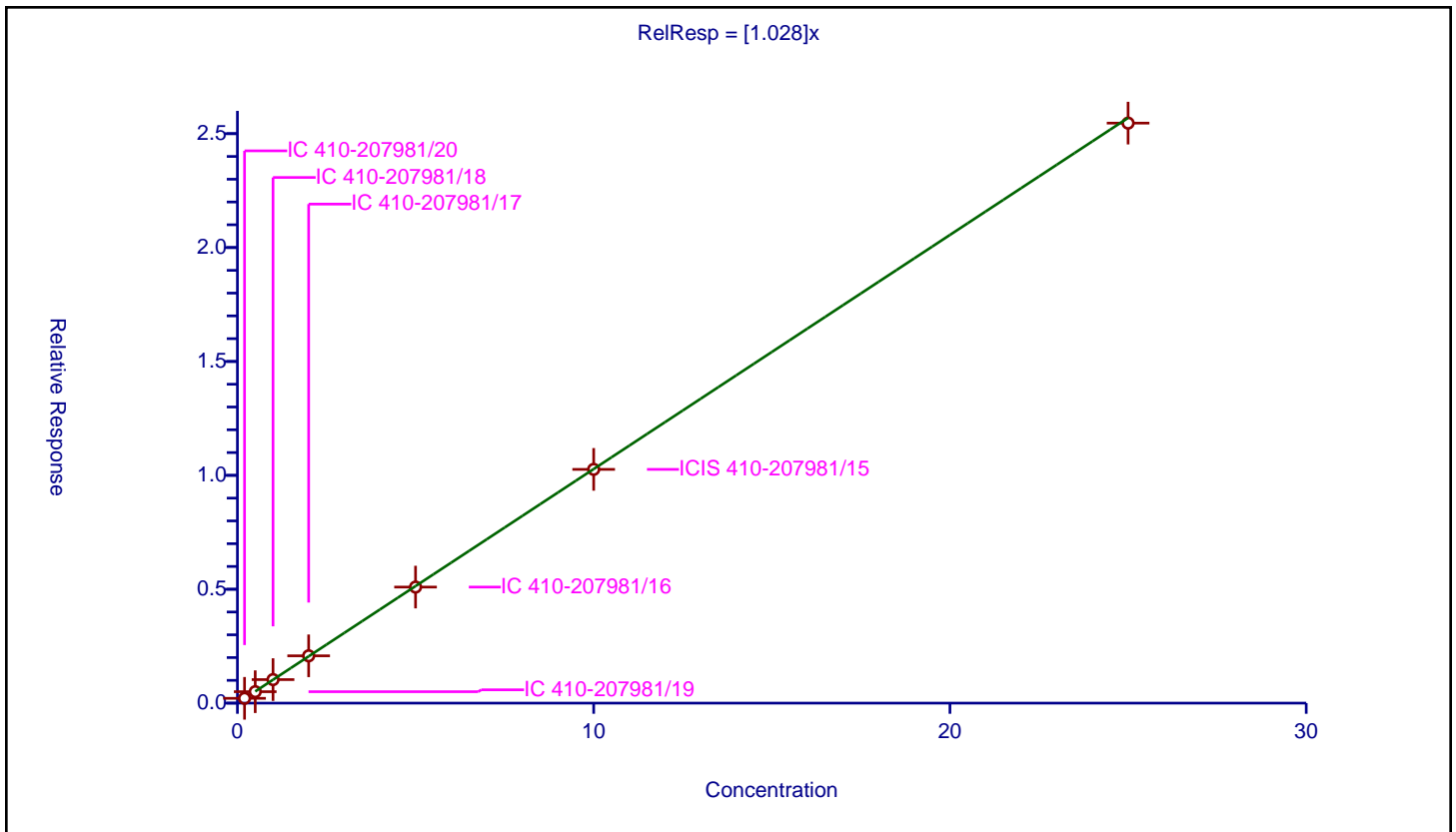
/ Chlorobenzene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.028

Error Coefficients	
Standard Error:	2120000
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 410-207981/20	0.2	0.210768	10.0	1885106.0	1.05384	Y
2	IC 410-207981/19	0.5	0.502369	10.0	1858493.0	1.004739	Y
3	IC 410-207981/18	1.0	1.033043	10.0	1846913.0	1.033043	Y
4	IC 410-207981/17	2.0	2.077188	10.0	1856553.0	1.038594	Y
5	IC 410-207981/16	5.0	5.09548	10.0	1868144.0	1.019096	Y
6	ICIS 410-207981/15	10.0	10.262045	10.0	1825218.0	1.026205	Y
7	IC 410-207981/14	25.0	25.462895	10.0	1860951.0	1.018516	Y



Calibration

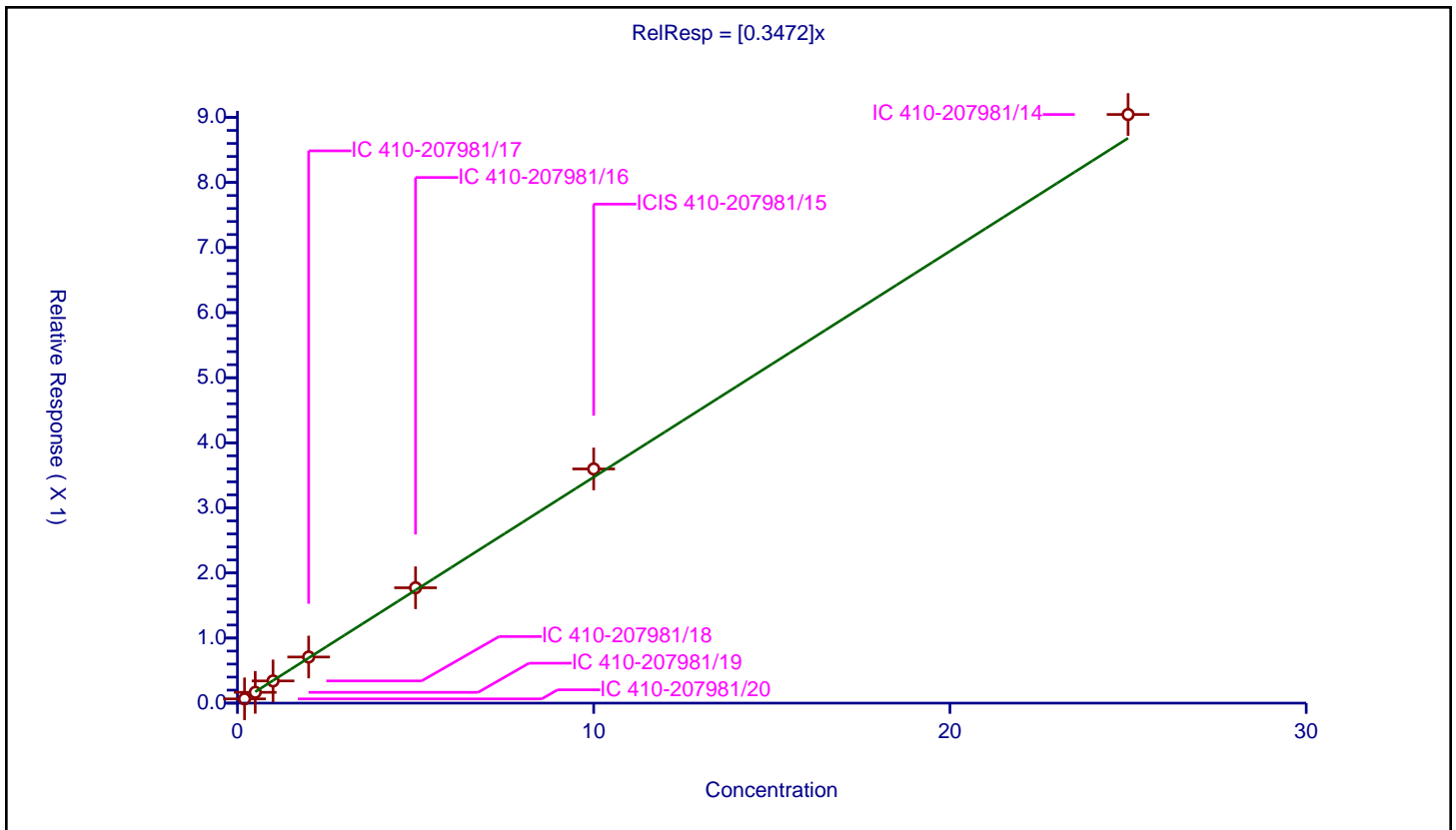
/ 1,1,1,2-Tetrachloroethane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3472

Error Coefficients	
Standard Error:	752000
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 410-207981/20	0.2	0.065476	10.0	1885106.0	0.327382	Y
2	IC 410-207981/19	0.5	0.165914	10.0	1858493.0	0.331828	Y
3	IC 410-207981/18	1.0	0.340969	10.0	1846913.0	0.340969	Y
4	IC 410-207981/17	2.0	0.70869	10.0	1856553.0	0.354345	Y
5	IC 410-207981/16	5.0	1.77247	10.0	1868144.0	0.354494	Y
6	ICIS 410-207981/15	10.0	3.598387	10.0	1825218.0	0.359839	Y
7	IC 410-207981/14	25.0	9.044687	10.0	1860951.0	0.361787	Y





Calibration

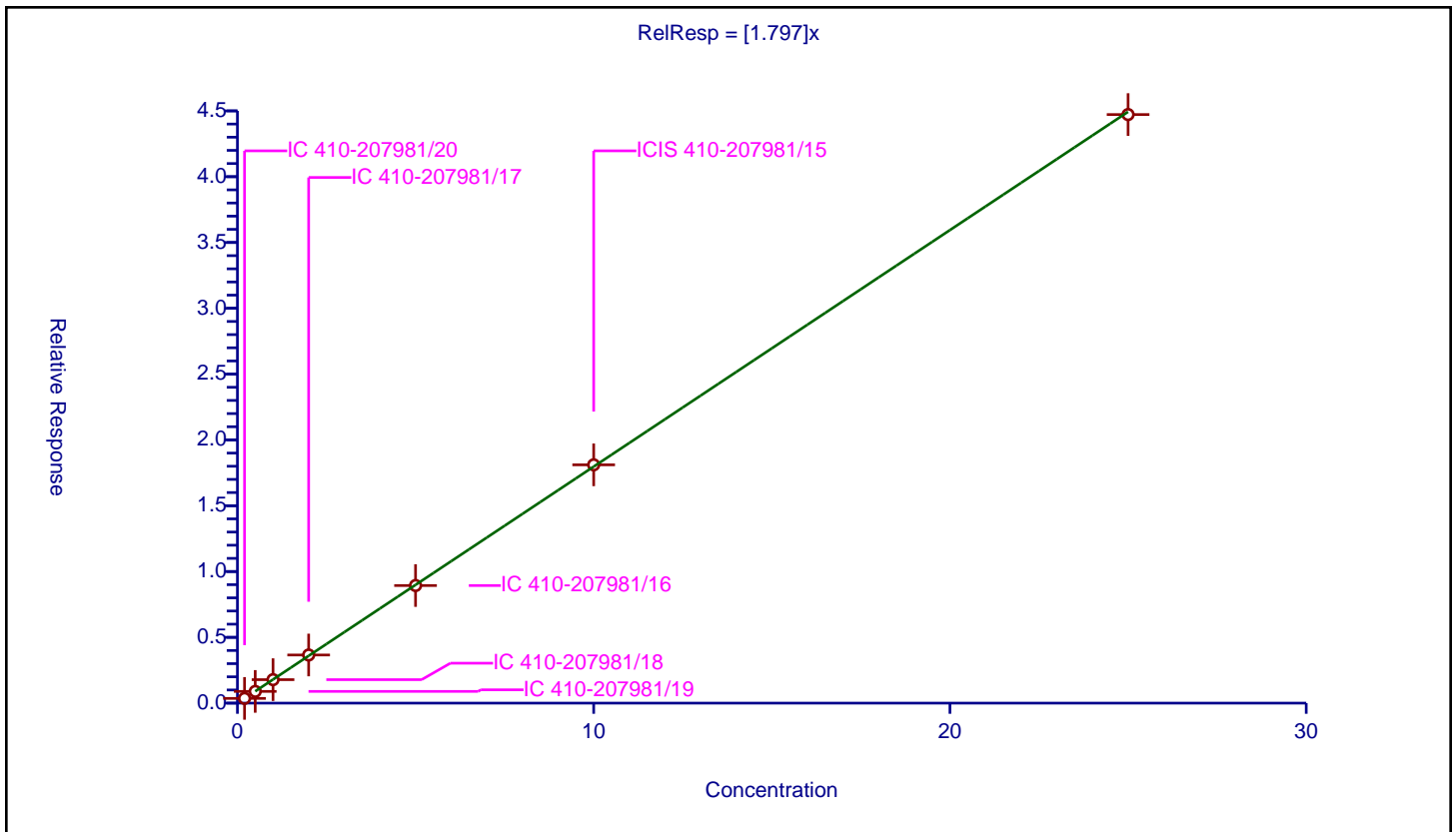
/ Ethylbenzene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.797

Error Coefficients	
Standard Error:	3730000
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 410-207981/20	0.2	0.360027	10.0	1885106.0	1.800137	Y
2	IC 410-207981/19	0.5	0.89091	10.0	1858493.0	1.78182	Y
3	IC 410-207981/18	1.0	1.78304	10.0	1846913.0	1.78304	Y
4	IC 410-207981/17	2.0	3.656982	10.0	1856553.0	1.828491	Y
5	IC 410-207981/16	5.0	8.935451	10.0	1868144.0	1.78709	Y
6	ICIS 410-207981/15	10.0	18.106982	10.0	1825218.0	1.810698	Y
7	IC 410-207981/14	25.0	44.72092	10.0	1860951.0	1.788837	Y



Calibration

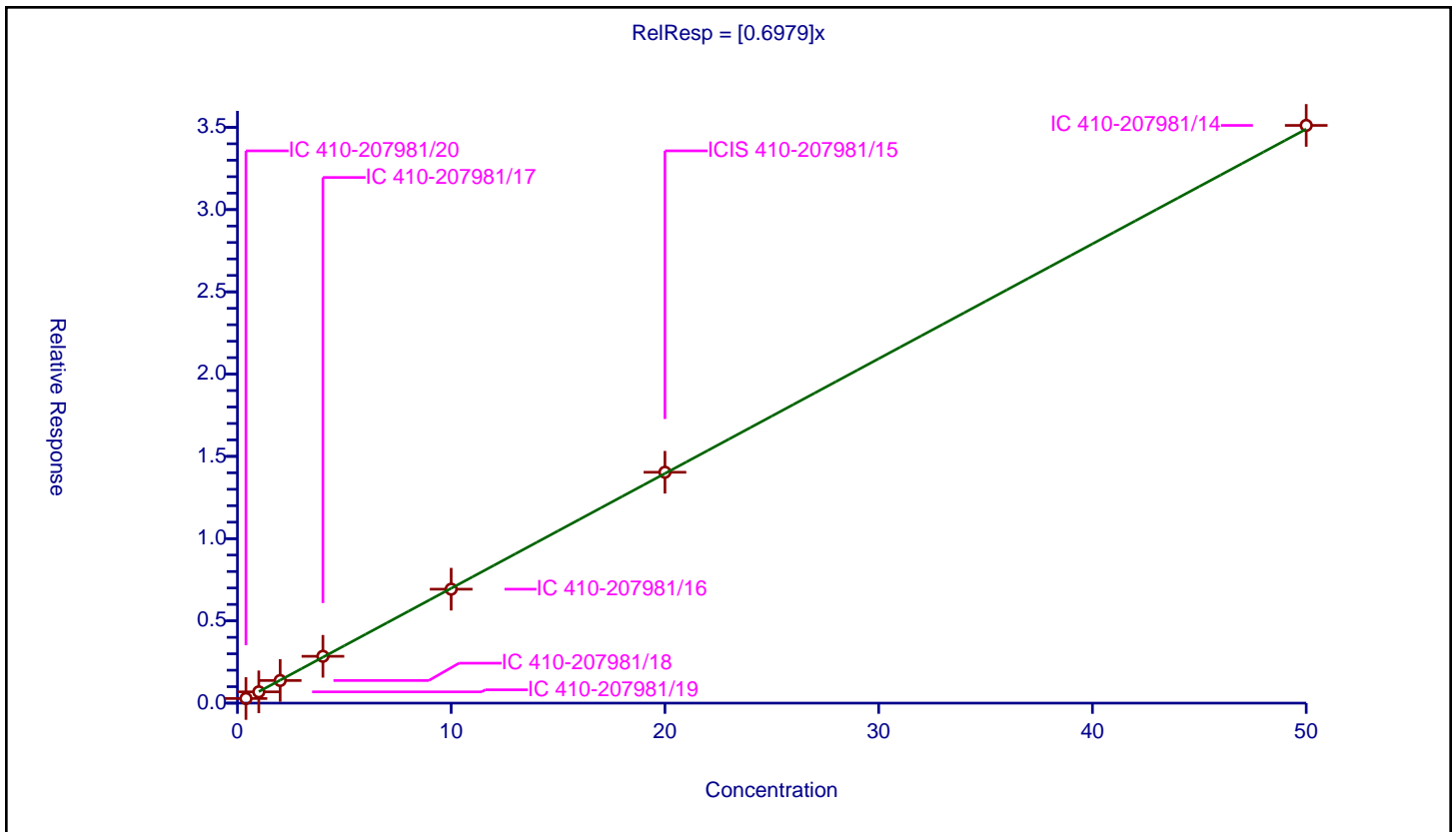
/ m-Xylene & p-Xylene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.6979

Error Coefficients	
Standard Error:	2920000
Relative Standard Error:	1.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.4	0.281406	10.0	1885106.0	0.703515	Y
2	IC 410-207981/19	1.0	0.685738	10.0	1858493.0	0.685738	Y
3	IC 410-207981/18	2.0	1.375116	10.0	1846913.0	0.687558	Y
4	IC 410-207981/17	4.0	2.847072	10.0	1856553.0	0.711768	Y
5	IC 410-207981/16	10.0	6.926607	10.0	1868144.0	0.692661	Y
6	ICIS 410-207981/15	20.0	14.034011	10.0	1825218.0	0.701701	Y
7	IC 410-207981/14	50.0	35.117077	10.0	1860951.0	0.702342	Y



Calibration

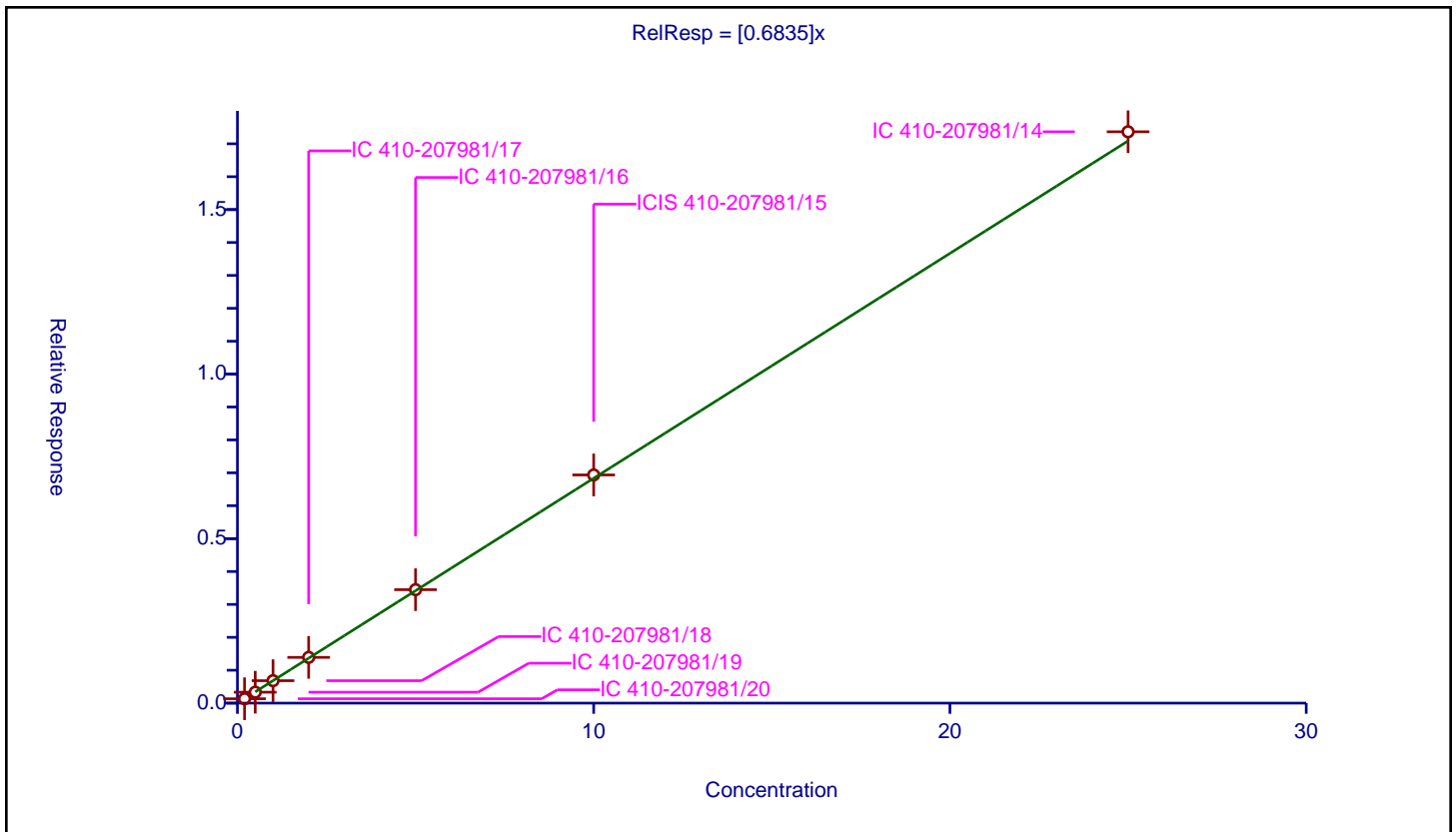
/ o-Xylene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.6835

Error Coefficients	
Standard Error:	1450000
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 410-207981/20	0.2	0.133117	10.0	1885106.0	0.665586	Y
2	IC 410-207981/19	0.5	0.331963	10.0	1858493.0	0.663925	Y
3	IC 410-207981/18	1.0	0.681933	10.0	1846913.0	0.681933	Y
4	IC 410-207981/17	2.0	1.390313	10.0	1856553.0	0.695157	Y
5	IC 410-207981/16	5.0	3.448155	10.0	1868144.0	0.689631	Y
6	ICIS 410-207981/15	10.0	6.935128	10.0	1825218.0	0.693513	Y
7	IC 410-207981/14	25.0	17.365632	10.0	1860951.0	0.694625	Y



Calibration

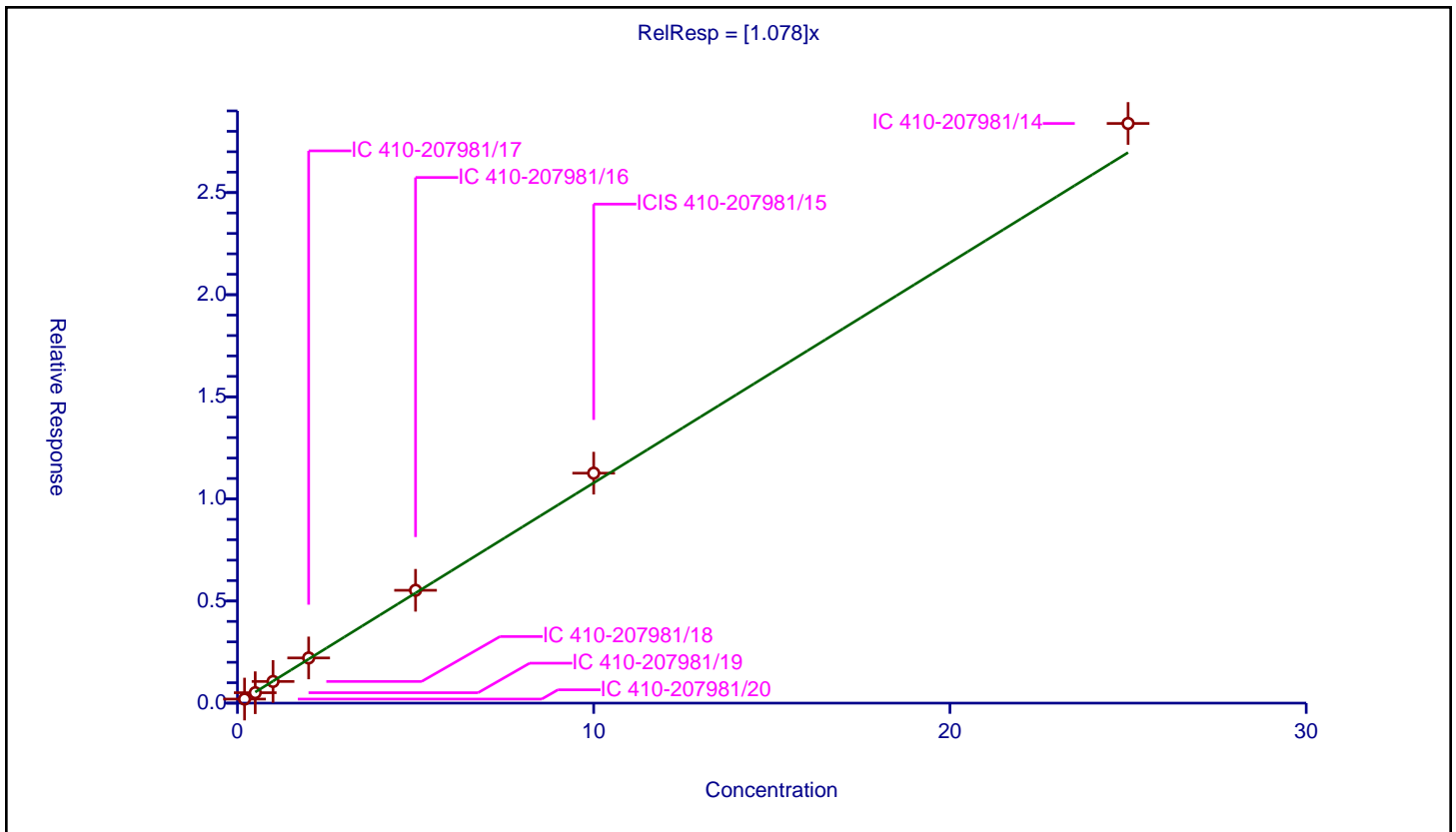
/ Styrene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.078

Error Coefficients	
Standard Error:	2360000
Relative Standard Error:	5.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.198838	10.0	1885106.0	0.994188	Y
2	IC 410-207981/19	0.5	0.510995	10.0	1858493.0	1.021989	Y
3	IC 410-207981/18	1.0	1.060283	10.0	1846913.0	1.060283	Y
4	IC 410-207981/17	2.0	2.212983	10.0	1856553.0	1.106491	Y
5	IC 410-207981/16	5.0	5.524649	10.0	1868144.0	1.10493	Y
6	ICIS 410-207981/15	10.0	11.260737	10.0	1825218.0	1.126074	Y
7	IC 410-207981/14	25.0	28.384648	10.0	1860951.0	1.135386	Y



Calibration

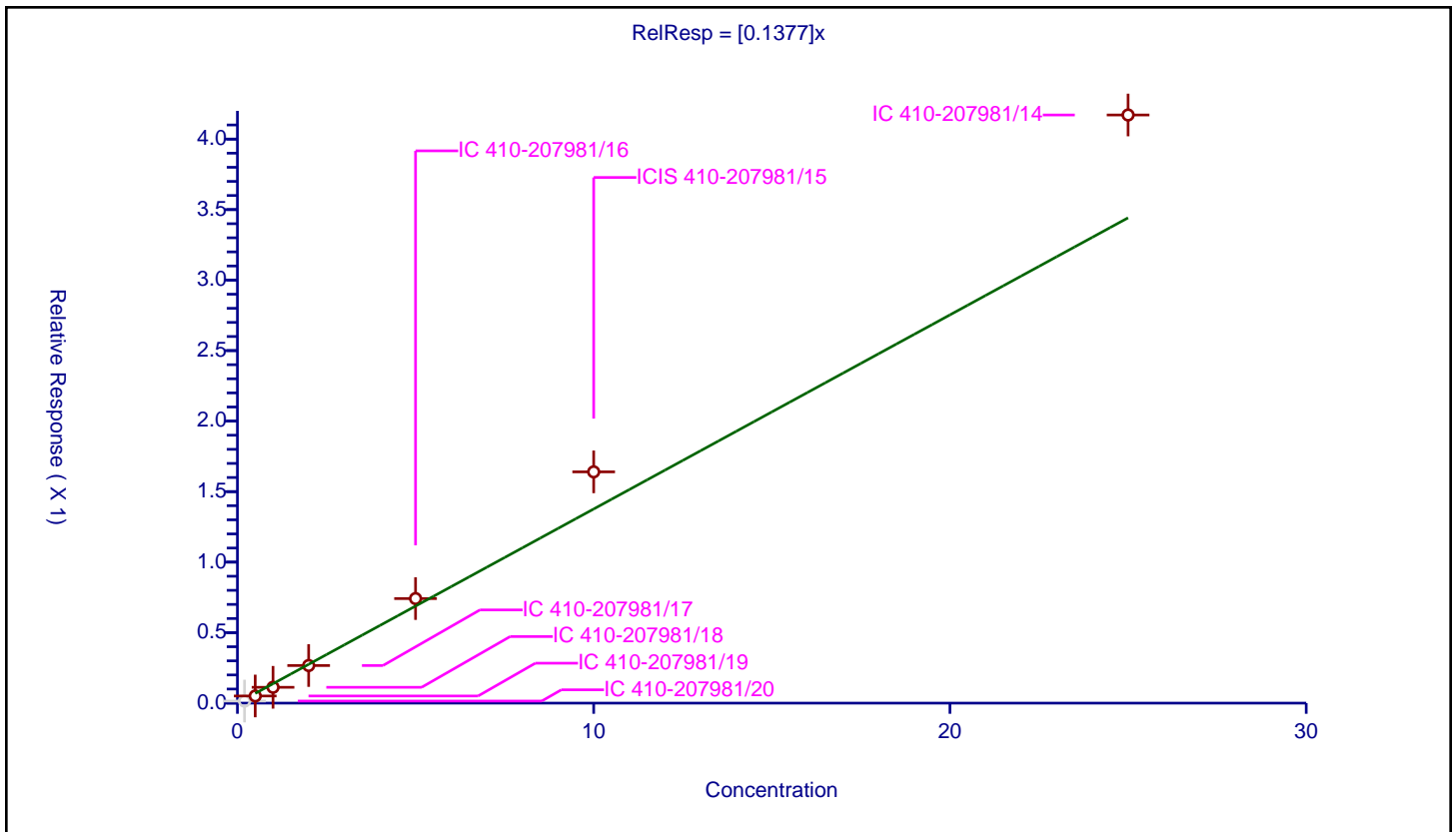
/ Bromoform

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.1377

Error Coefficients	
Standard Error:	378000
Relative Standard Error:	19.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.955

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.014768	10.0	1885106.0	0.073842	N
2	IC 410-207981/19	0.5	0.050622	10.0	1858493.0	0.101243	Y
3	IC 410-207981/18	1.0	0.112301	10.0	1846913.0	0.112301	Y
4	IC 410-207981/17	2.0	0.266661	10.0	1856553.0	0.13333	Y
5	IC 410-207981/16	5.0	0.741378	10.0	1868144.0	0.148276	Y
6	ICIS 410-207981/15	10.0	1.640199	10.0	1825218.0	0.16402	Y
7	IC 410-207981/14	25.0	4.17097	10.0	1860951.0	0.166839	Y



Calibration

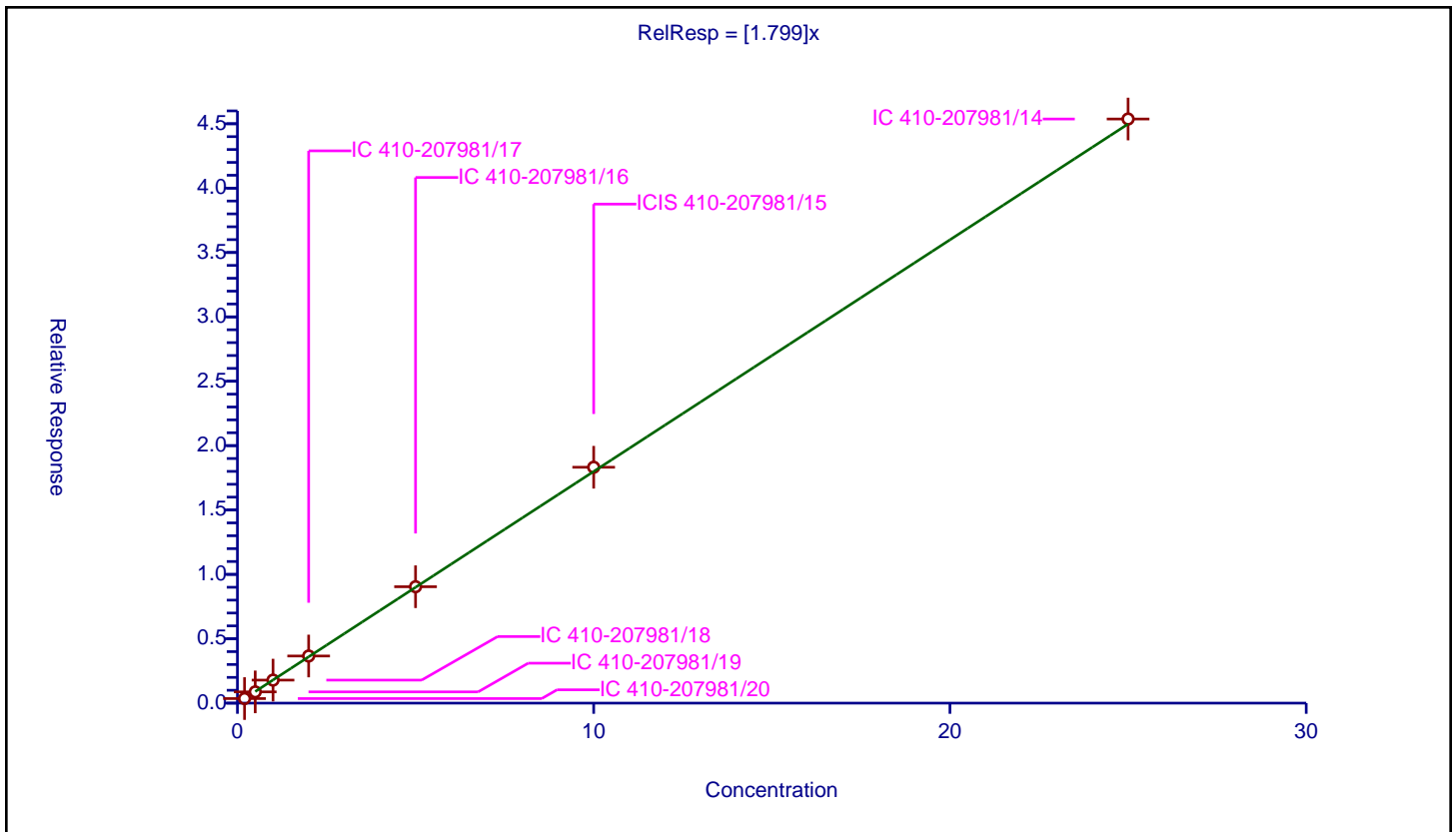
/ Isopropylbenzene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.799

Error Coefficients	
Standard Error:	3780000
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 410-207981/20	0.2	0.354702	10.0	1885106.0	1.773508	Y
2	IC 410-207981/19	0.5	0.873692	10.0	1858493.0	1.747383	Y
3	IC 410-207981/18	1.0	1.788195	10.0	1846913.0	1.788195	Y
4	IC 410-207981/17	2.0	3.660763	10.0	1856553.0	1.830381	Y
5	IC 410-207981/16	5.0	9.041466	10.0	1868144.0	1.808293	Y
6	ICIS 410-207981/15	10.0	18.321384	10.0	1825218.0	1.832138	Y
7	IC 410-207981/14	25.0	45.369427	10.0	1860951.0	1.814777	Y



**Calibration**

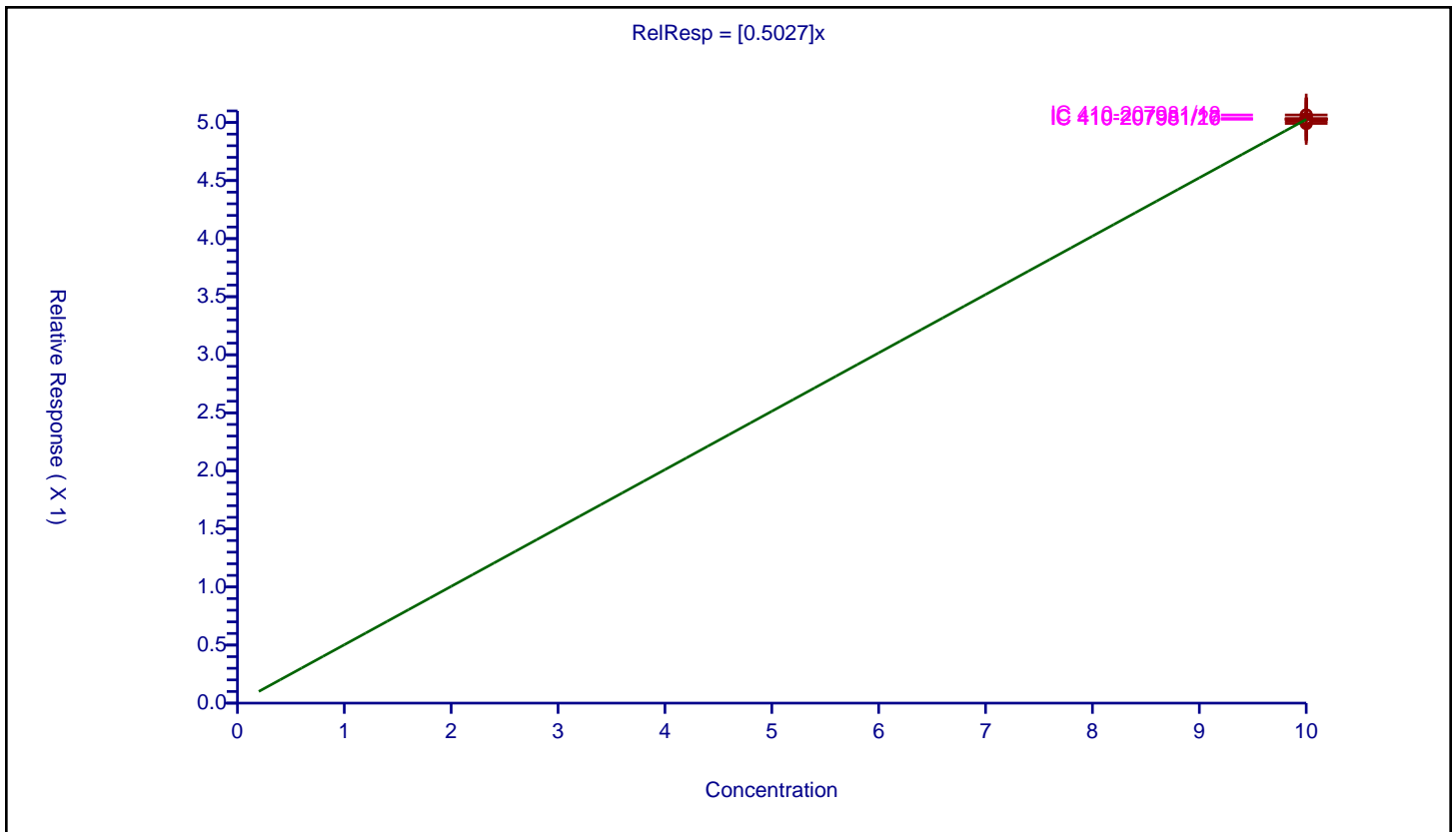
**/ 4-Bromofluorobenzene (Surr)**

**Curve Type:** Average  
**Weighting:** Conc\_Sq  
**Origin:** Force  
**Dependency:** Response  
**Calib Mode:** ISTD  
**Response Base:** AREA  
**RF Rounding:** 0

Curve Coefficients	
Intercept:	0
Slope:	0.5027

Error Coefficients	
Standard Error:	1010000
Relative Standard Error:	0.4
Correlation Coefficient:	NA
Coefficient of Determination (Adjusted):	0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/14	10.0	4.991803	10.0	1860951.0	0.49918	Y
2	ICIS 410-207981/15	10.0	5.009626	10.0	1825218.0	0.500963	Y
3	IC 410-207981/16	10.0	5.032851	10.0	1868144.0	0.503285	Y
4	IC 410-207981/17	10.0	5.031039	10.0	1856553.0	0.503104	Y
5	IC 410-207981/18	10.0	5.064873	10.0	1846913.0	0.506487	Y
6	IC 410-207981/19	10.0	5.025642	10.0	1858493.0	0.502564	Y
7	IC 410-207981/20	10.0	5.030041	10.0	1885106.0	0.503004	Y



Calibration

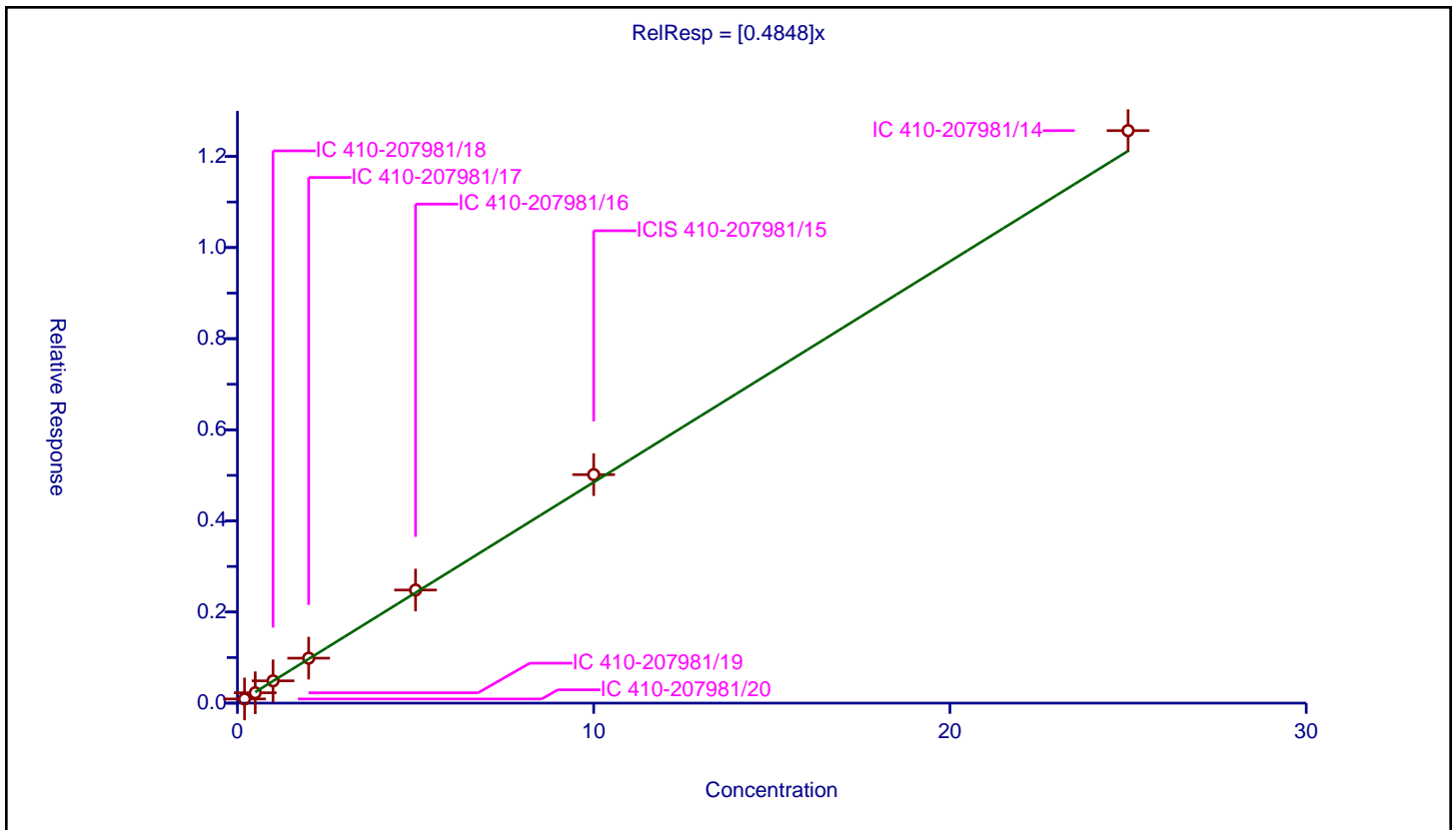
/ 1,1,2,2-Tetrachloroethane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4848

Error Coefficients	
Standard Error:	591000
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 410-207981/20	0.2	0.091284	10.0	1081350.0	0.45642	Y
2	IC 410-207981/19	0.5	0.227109	10.0	1061163.0	0.454219	Y
3	IC 410-207981/18	1.0	0.489148	10.0	1062215.0	0.489148	Y
4	IC 410-207981/17	2.0	0.986557	10.0	1055621.0	0.493278	Y
5	IC 410-207981/16	5.0	2.48266	10.0	1053366.0	0.496532	Y
6	ICIS 410-207981/15	10.0	5.015922	10.0	1033132.0	0.501592	Y
7	IC 410-207981/14	25.0	12.566957	10.0	1050754.0	0.502678	Y





Calibration

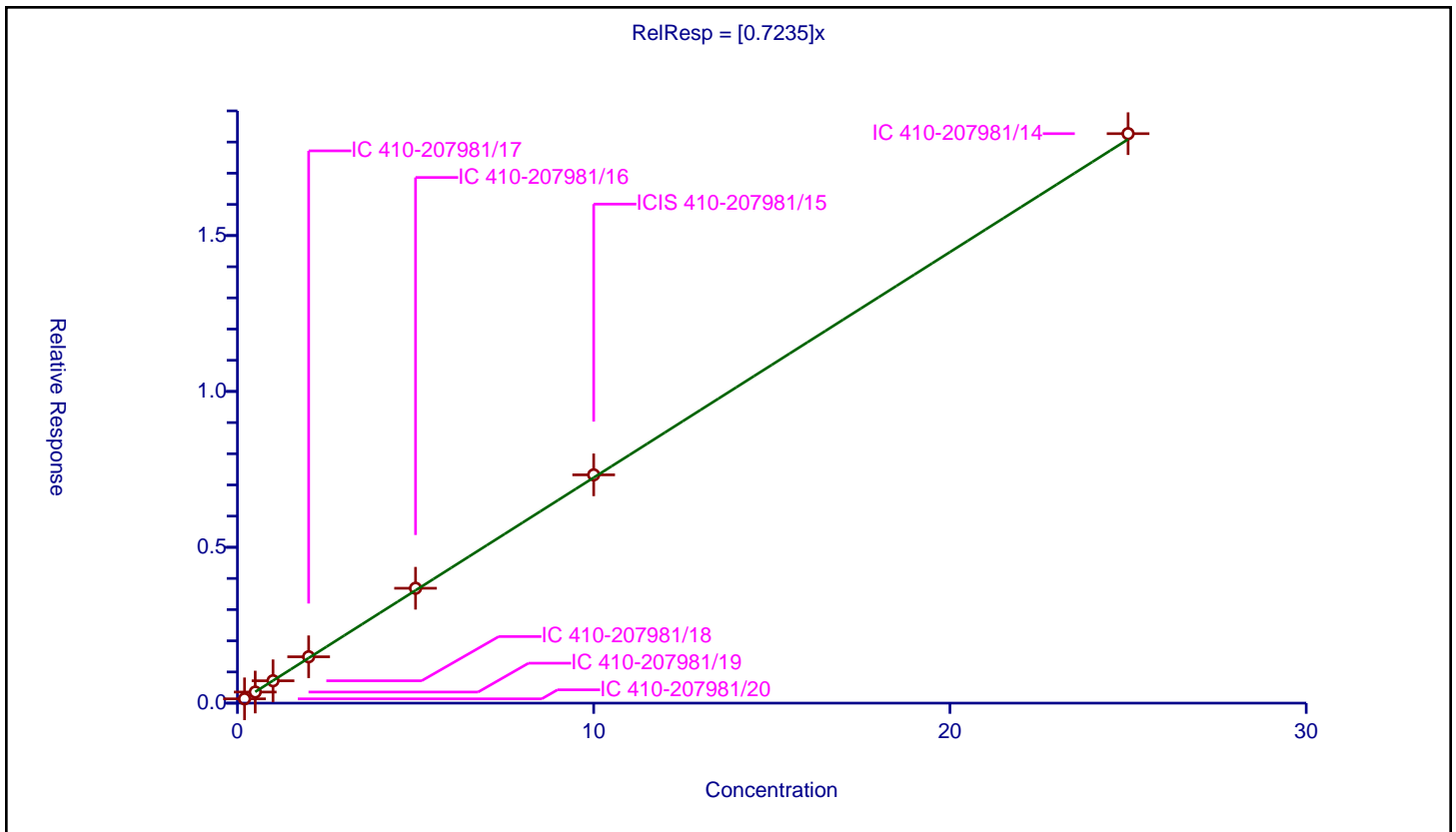
/ Bromobenzene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.7235

Error Coefficients	
Standard Error:	860000
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 410-207981/20	0.2	0.138392	10.0	1081350.0	0.691959	Y
2	IC 410-207981/19	0.5	0.355657	10.0	1061163.0	0.711314	Y
3	IC 410-207981/18	1.0	0.71767	10.0	1062215.0	0.71767	Y
4	IC 410-207981/17	2.0	1.486831	10.0	1055621.0	0.743415	Y
5	IC 410-207981/16	5.0	3.686031	10.0	1053366.0	0.737206	Y
6	ICIS 410-207981/15	10.0	7.323537	10.0	1033132.0	0.732354	Y
7	IC 410-207981/14	25.0	18.269528	10.0	1050754.0	0.730781	Y



Calibration

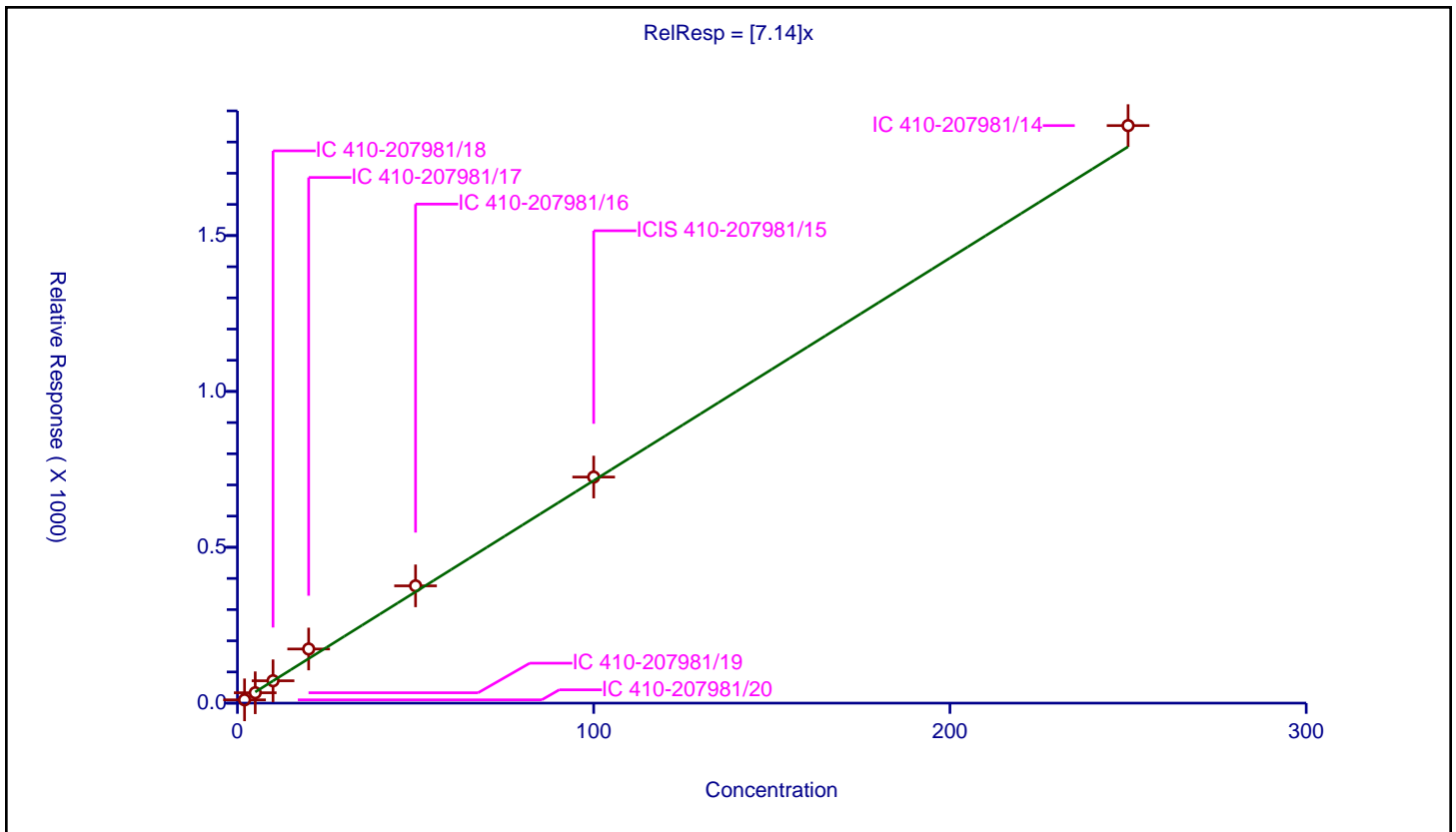
/ trans-1,4-Dichloro-2-butene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	7.14

Error Coefficients	
Standard Error:	1380000
Relative Standard Error:	14.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.976

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	2.0	10.552924	50.0	81494.0	5.276462	Y
2	IC 410-207981/19	5.0	33.314952	50.0	66191.0	6.66299	Y
3	IC 410-207981/18	10.0	71.723299	50.0	72779.0	7.17233	Y
4	IC 410-207981/17	20.0	173.645461	50.0	62752.0	8.682273	Y
5	IC 410-207981/16	50.0	376.224238	50.0	77926.0	7.524485	Y
6	ICIS 410-207981/15	100.0	725.260139	50.0	82456.0	7.252601	Y
7	IC 410-207981/14	250.0	1852.82413	50.0	83778.0	7.411297	Y



Calibration

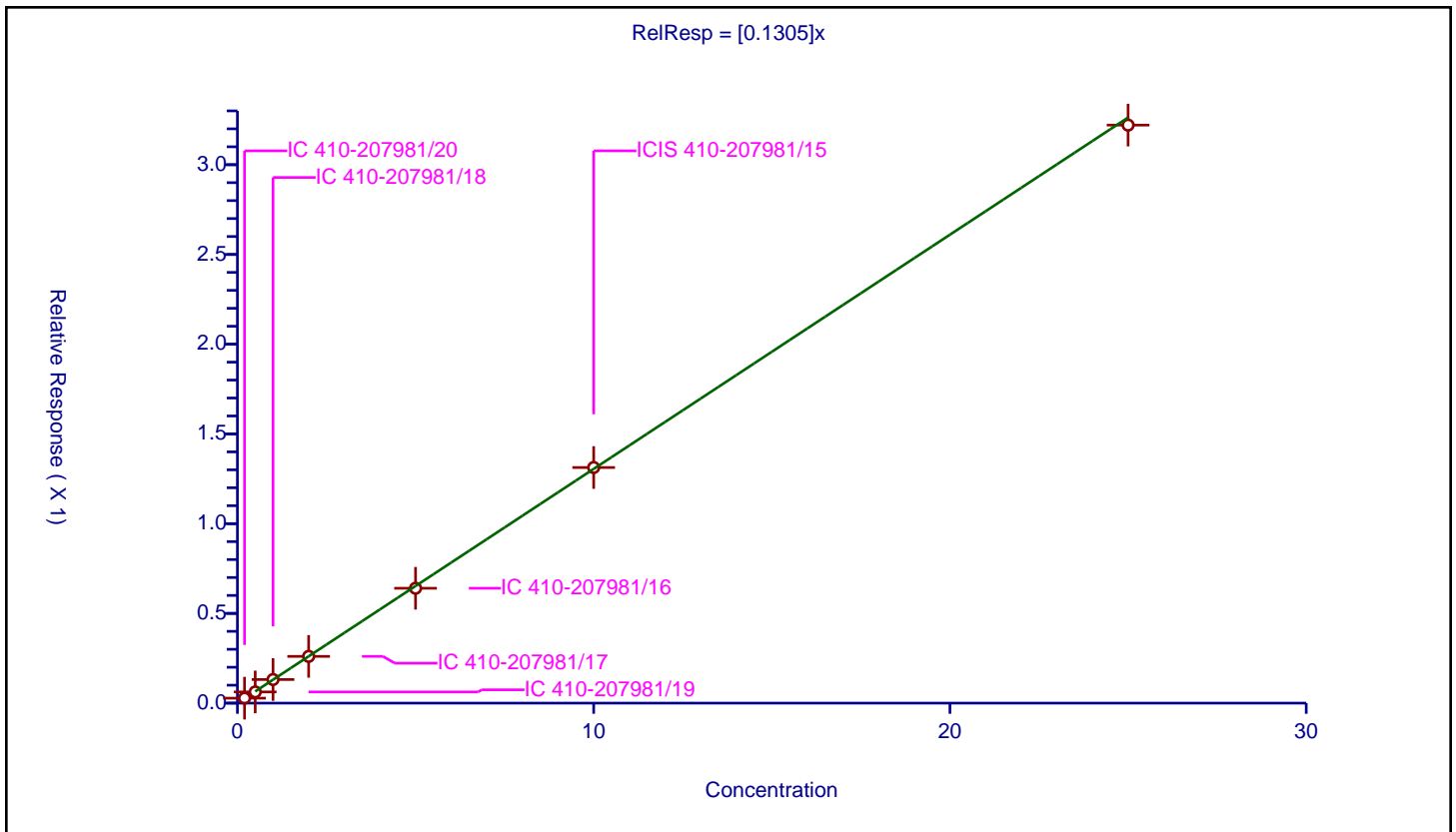
/ 1,2,3-Trichloropropane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.1305

Error Coefficients	
Standard Error:	152000
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 410-207981/20	0.2	0.027743	10.0	1081350.0	0.138715	Y
2	IC 410-207981/19	0.5	0.062441	10.0	1061163.0	0.124882	Y
3	IC 410-207981/18	1.0	0.131565	10.0	1062215.0	0.131565	Y
4	IC 410-207981/17	2.0	0.260529	10.0	1055621.0	0.130265	Y
5	IC 410-207981/16	5.0	0.640176	10.0	1053366.0	0.128035	Y
6	ICIS 410-207981/15	10.0	1.312853	10.0	1033132.0	0.131285	Y
7	IC 410-207981/14	25.0	3.220697	10.0	1050754.0	0.128828	Y



Calibration

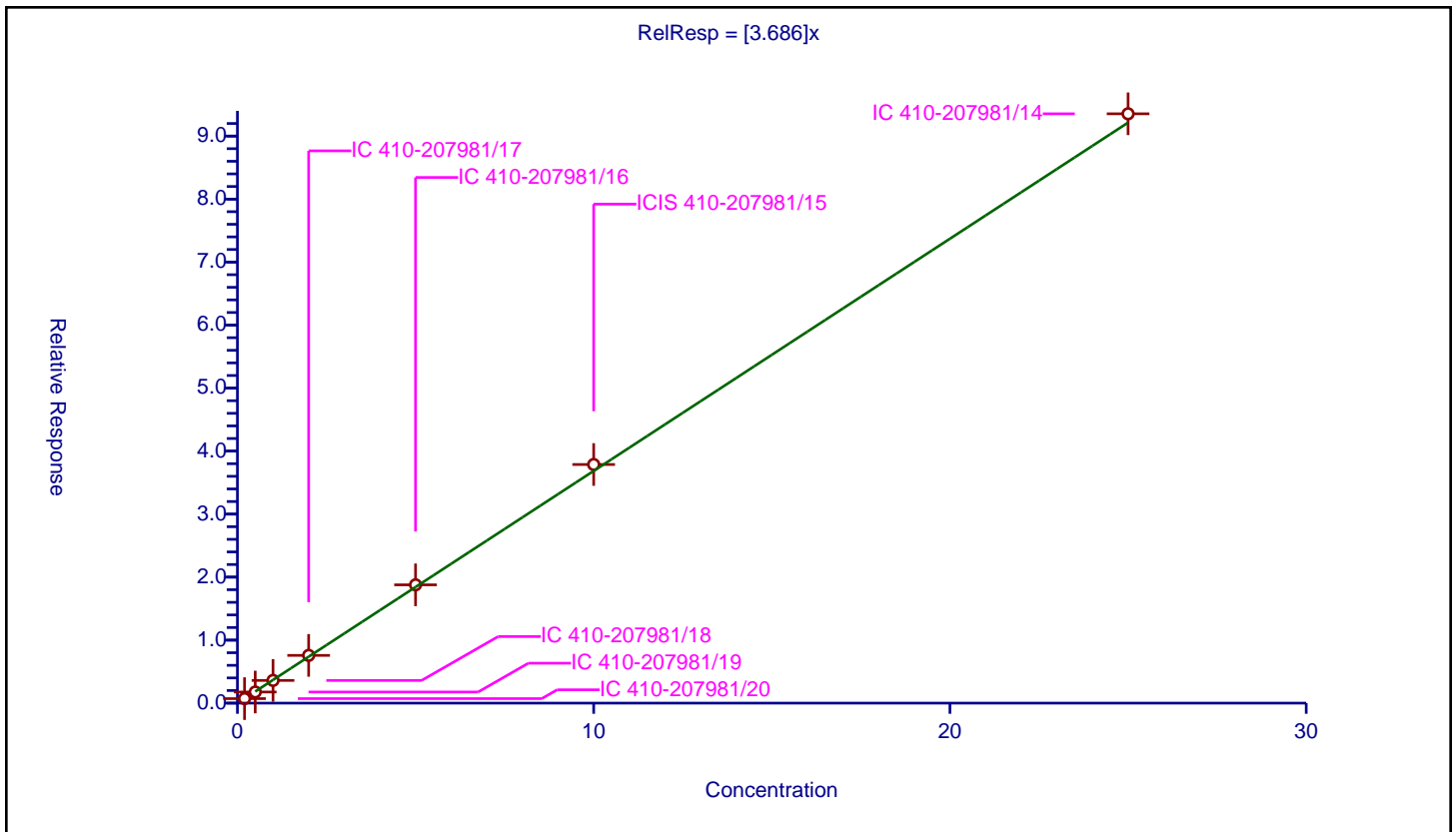
/ N-Propylbenzene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	3.686

Error Coefficients	
Standard Error:	4410000
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 410-207981/20	0.2	0.717631	10.0	1081350.0	3.588154	Y
2	IC 410-207981/19	0.5	1.766288	10.0	1061163.0	3.532577	Y
3	IC 410-207981/18	1.0	3.605221	10.0	1062215.0	3.605221	Y
4	IC 410-207981/17	2.0	7.578743	10.0	1055621.0	3.789371	Y
5	IC 410-207981/16	5.0	18.773399	10.0	1053366.0	3.75468	Y
6	ICIS 410-207981/15	10.0	37.872905	10.0	1033132.0	3.78729	Y
7	IC 410-207981/14	25.0	93.537717	10.0	1050754.0	3.741509	Y



**Calibration**

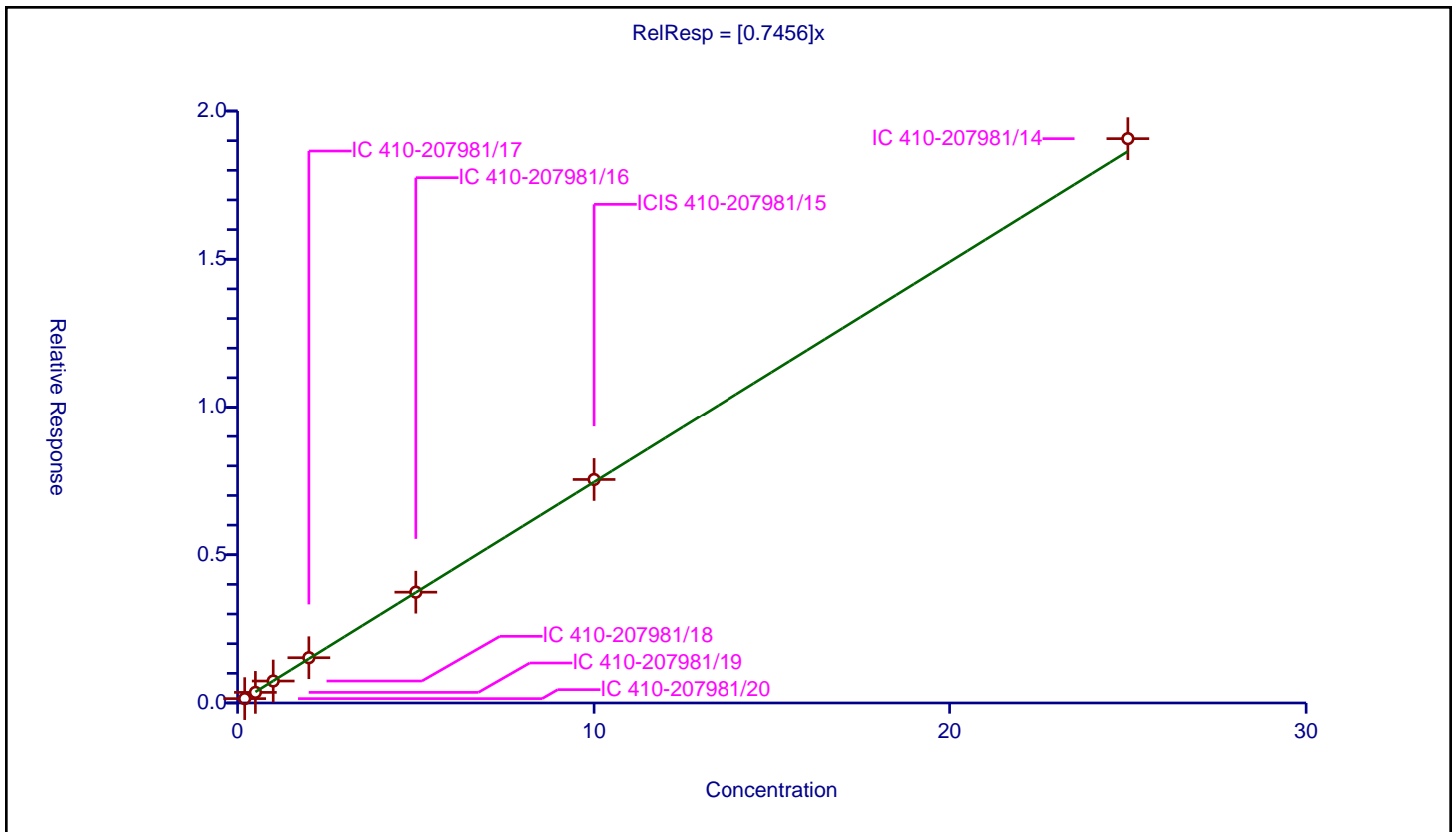
**/ 2-Chlorotoluene**

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.7456

Error Coefficients	
Standard Error:	895000
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 410-207981/20	0.2	0.146964	10.0	1081350.0	0.734822	Y
2	IC 410-207981/19	0.5	0.357815	10.0	1061163.0	0.71563	Y
3	IC 410-207981/18	1.0	0.740858	10.0	1062215.0	0.740858	Y
4	IC 410-207981/17	2.0	1.526987	10.0	1055621.0	0.763494	Y
5	IC 410-207981/16	5.0	3.737153	10.0	1053366.0	0.747431	Y
6	ICIS 410-207981/15	10.0	7.539008	10.0	1033132.0	0.753901	Y
7	IC 410-207981/14	25.0	19.068612	10.0	1050754.0	0.762744	Y



Calibration

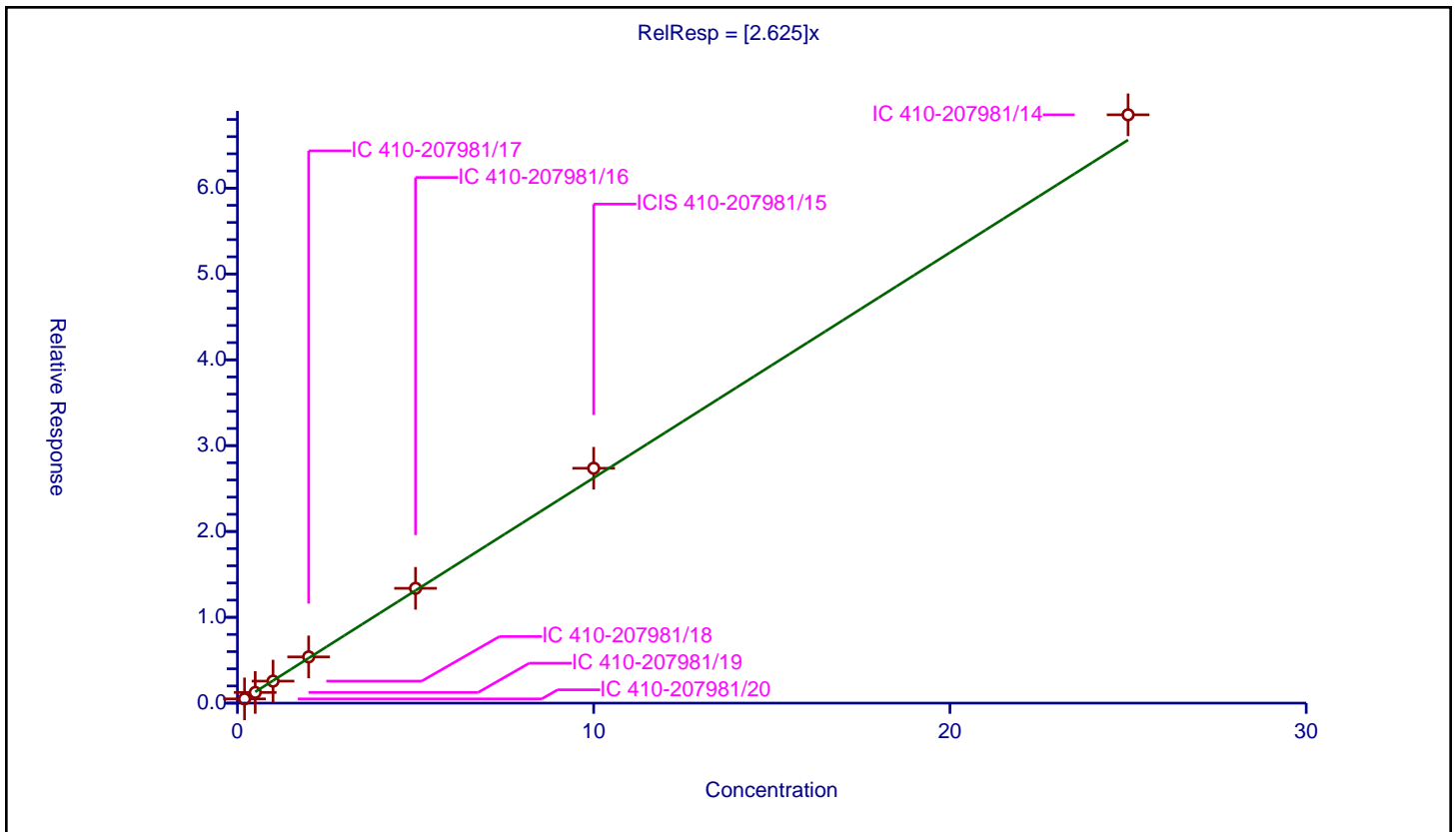
/ 1,3,5-Trimethylbenzene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	2.625

Error Coefficients	
Standard Error:	3220000
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 410-207981/20	0.2	0.494669	10.0	1081350.0	2.473344	Y
2	IC 410-207981/19	0.5	1.24487	10.0	1061163.0	2.48974	Y
3	IC 410-207981/18	1.0	2.563954	10.0	1062215.0	2.563954	Y
4	IC 410-207981/17	2.0	5.385209	10.0	1055621.0	2.692605	Y
5	IC 410-207981/16	5.0	13.376262	10.0	1053366.0	2.675252	Y
6	ICIS 410-207981/15	10.0	27.364286	10.0	1033132.0	2.736429	Y
7	IC 410-207981/14	25.0	68.545283	10.0	1050754.0	2.741811	Y



Calibration

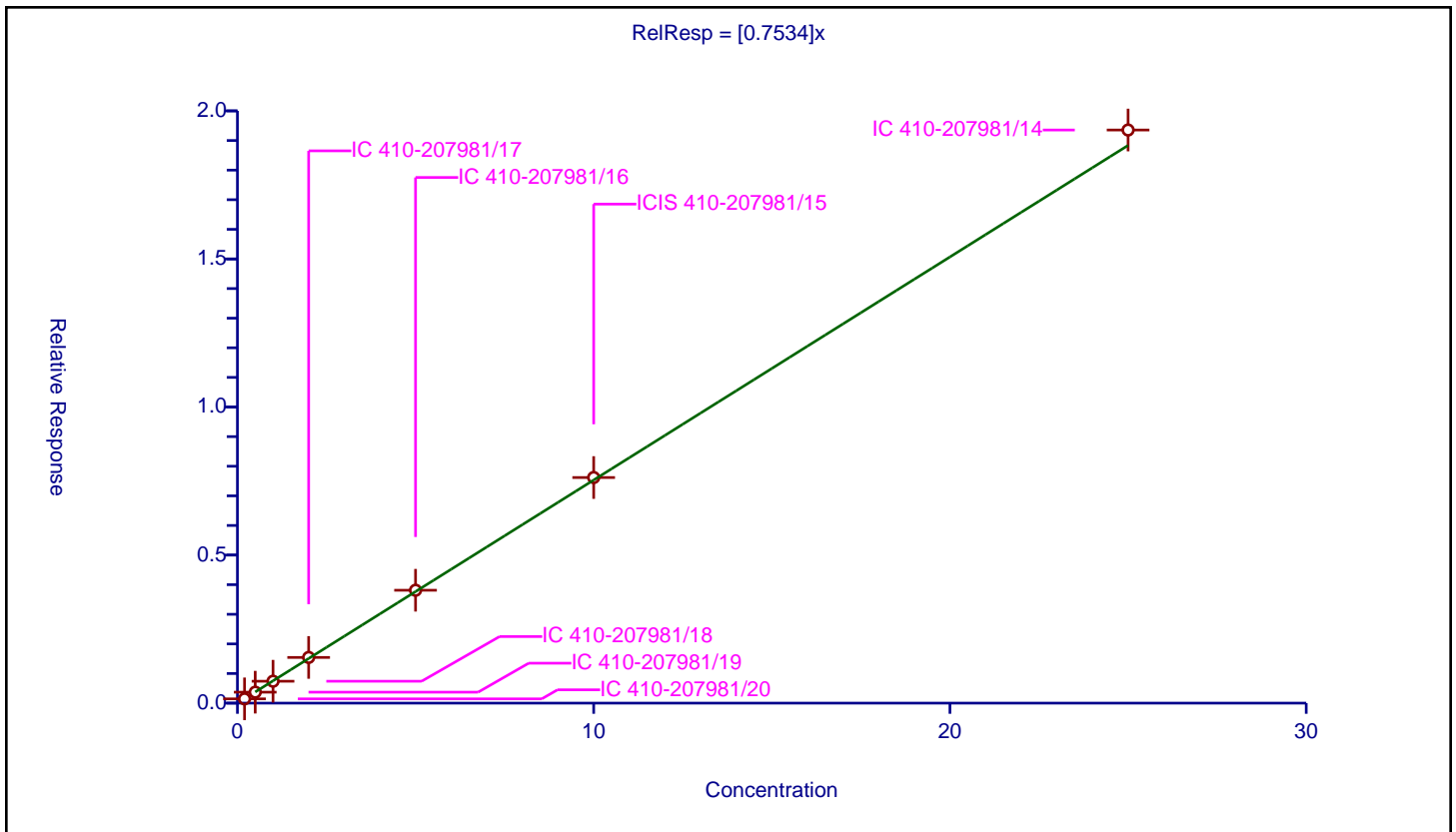
/ 4-Chlorotoluene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.7534

Error Coefficients	
Standard Error:	908000
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 410-207981/20	0.2	0.144782	10.0	1081350.0	0.72391	Y
2	IC 410-207981/19	0.5	0.37	10.0	1061163.0	0.739999	Y
3	IC 410-207981/18	1.0	0.739775	10.0	1062215.0	0.739775	Y
4	IC 410-207981/17	2.0	1.543291	10.0	1055621.0	0.771645	Y
5	IC 410-207981/16	5.0	3.811837	10.0	1053366.0	0.762367	Y
6	ICIS 410-207981/15	10.0	7.618804	10.0	1033132.0	0.76188	Y
7	IC 410-207981/14	25.0	19.354016	10.0	1050754.0	0.774161	Y



**Calibration**

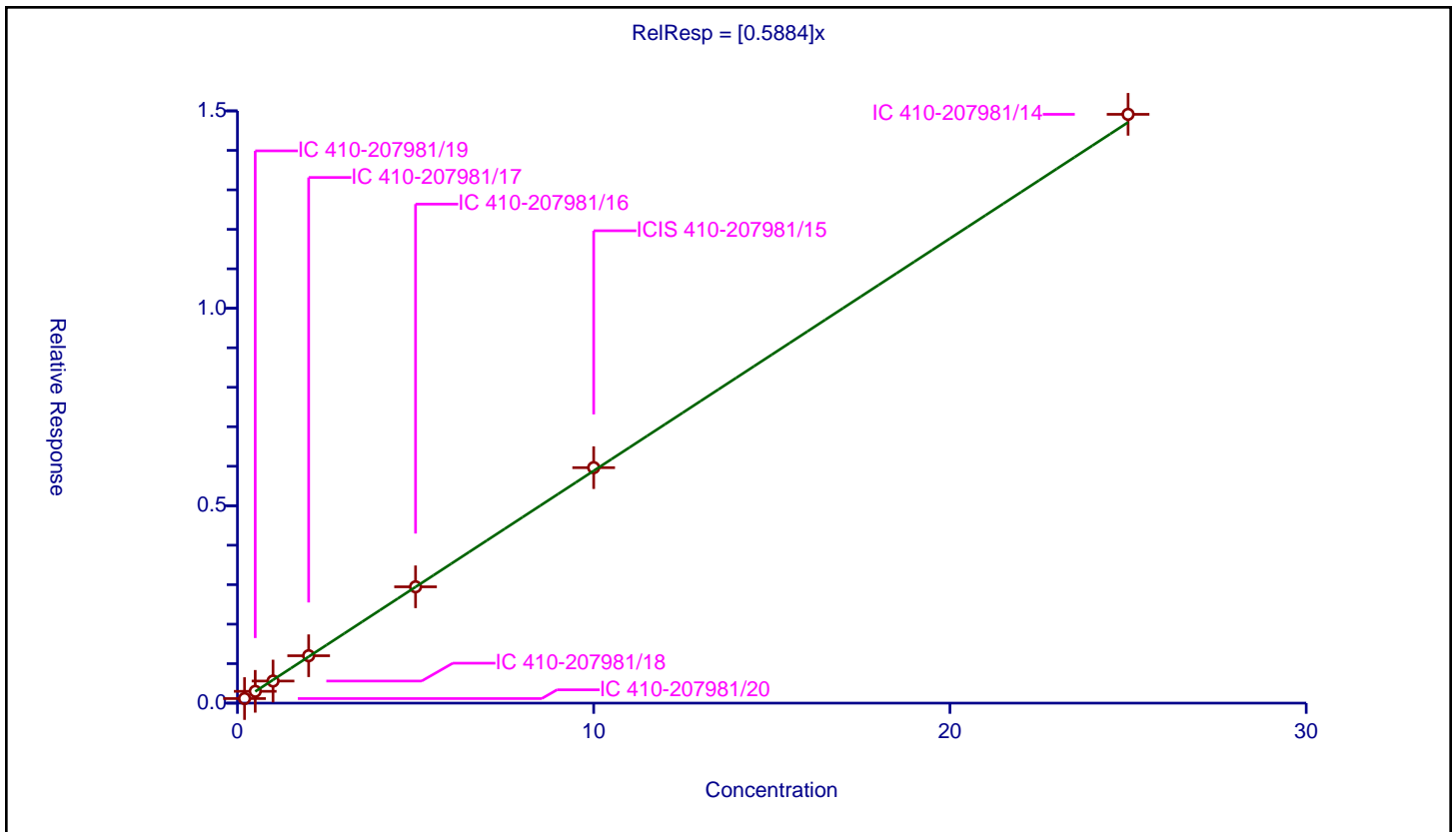
/ tert-Butylbenzene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.5884

Error Coefficients	
Standard Error:	701000
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 410-207981/20	0.2	0.115827	10.0	1081350.0	0.579137	Y
2	IC 410-207981/19	0.5	0.298936	10.0	1061163.0	0.597872	Y
3	IC 410-207981/18	1.0	0.559708	10.0	1062215.0	0.559708	Y
4	IC 410-207981/17	2.0	1.200327	10.0	1055621.0	0.600163	Y
5	IC 410-207981/16	5.0	2.94589	10.0	1053366.0	0.589178	Y
6	ICIS 410-207981/15	10.0	5.964407	10.0	1033132.0	0.596441	Y
7	IC 410-207981/14	25.0	14.912663	10.0	1050754.0	0.596507	Y





Calibration

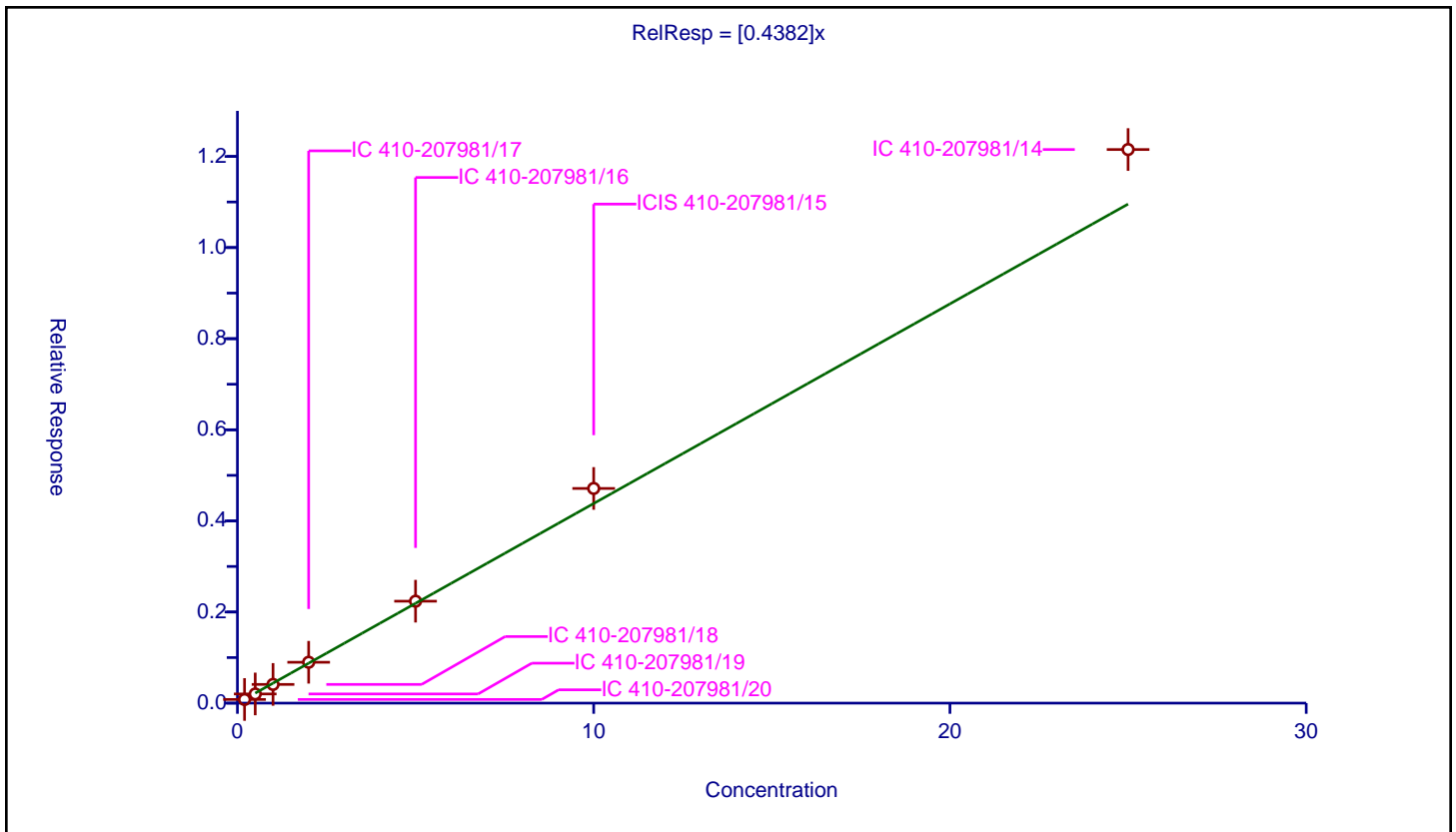
/ Pentachloroethane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4382

Error Coefficients	
Standard Error:	568000
Relative Standard Error:	7.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.080094	10.0	1081350.0	0.400472	Y
2	IC 410-207981/19	0.5	0.201241	10.0	1061163.0	0.402483	Y
3	IC 410-207981/18	1.0	0.410868	10.0	1062215.0	0.410868	Y
4	IC 410-207981/17	2.0	0.897358	10.0	1055621.0	0.448679	Y
5	IC 410-207981/16	5.0	2.237465	10.0	1053366.0	0.447493	Y
6	ICIS 410-207981/15	10.0	4.71237	10.0	1033132.0	0.471237	Y
7	IC 410-207981/14	25.0	12.151674	10.0	1050754.0	0.486067	Y



Calibration

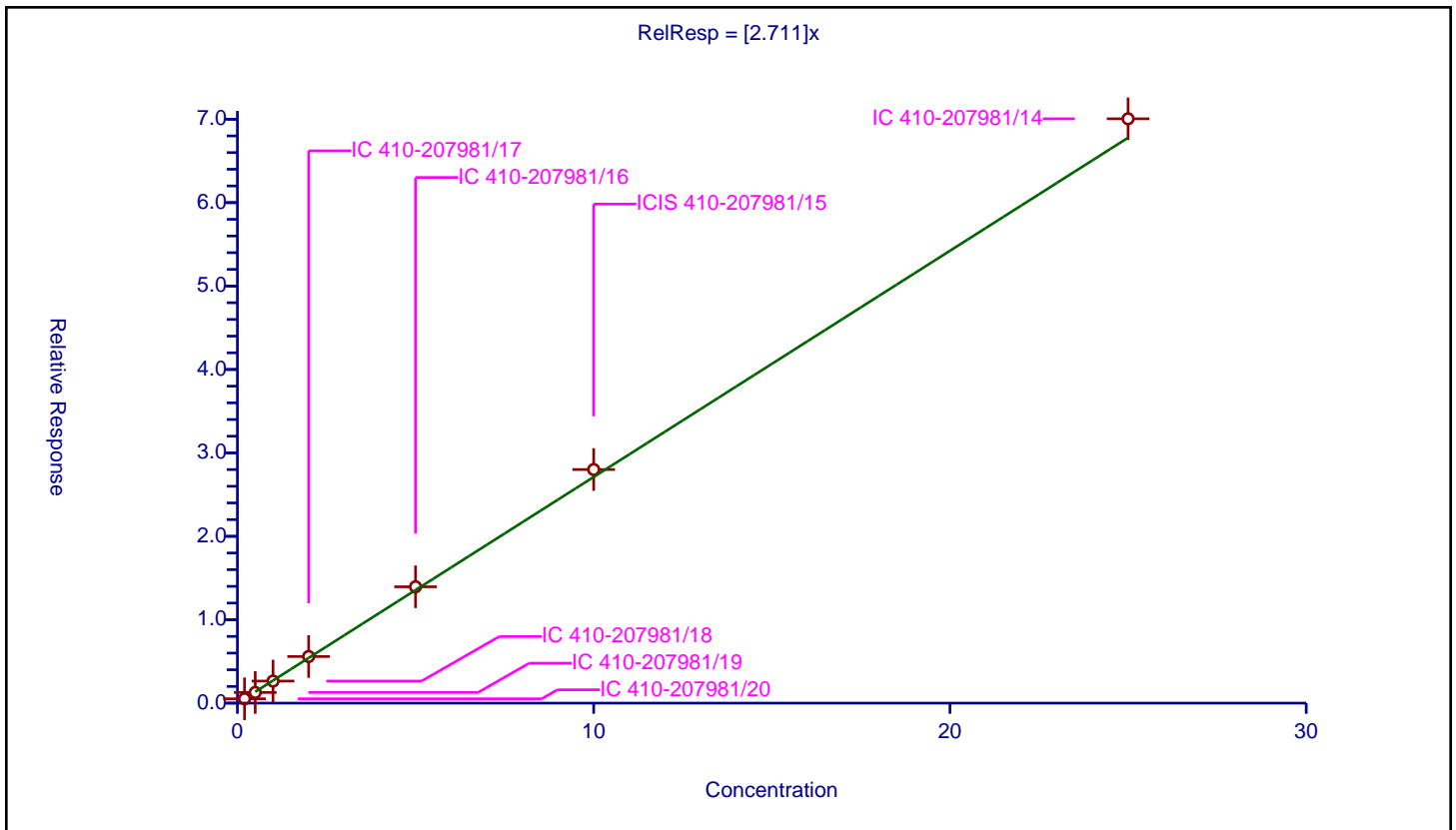
/ 1,2,4-Trimethylbenzene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	2.711

Error Coefficients	
Standard Error:	3300000
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 410-207981/20	0.2	0.517649	10.0	1081350.0	2.588246	Y
2	IC 410-207981/19	0.5	1.279662	10.0	1061163.0	2.559324	Y
3	IC 410-207981/18	1.0	2.64551	10.0	1062215.0	2.64551	Y
4	IC 410-207981/17	2.0	5.587905	10.0	1055621.0	2.793953	Y
5	IC 410-207981/16	5.0	13.947868	10.0	1053366.0	2.789574	Y
6	ICIS 410-207981/15	10.0	28.003876	10.0	1033132.0	2.800388	Y
7	IC 410-207981/14	25.0	70.051772	10.0	1050754.0	2.802071	Y



Calibration

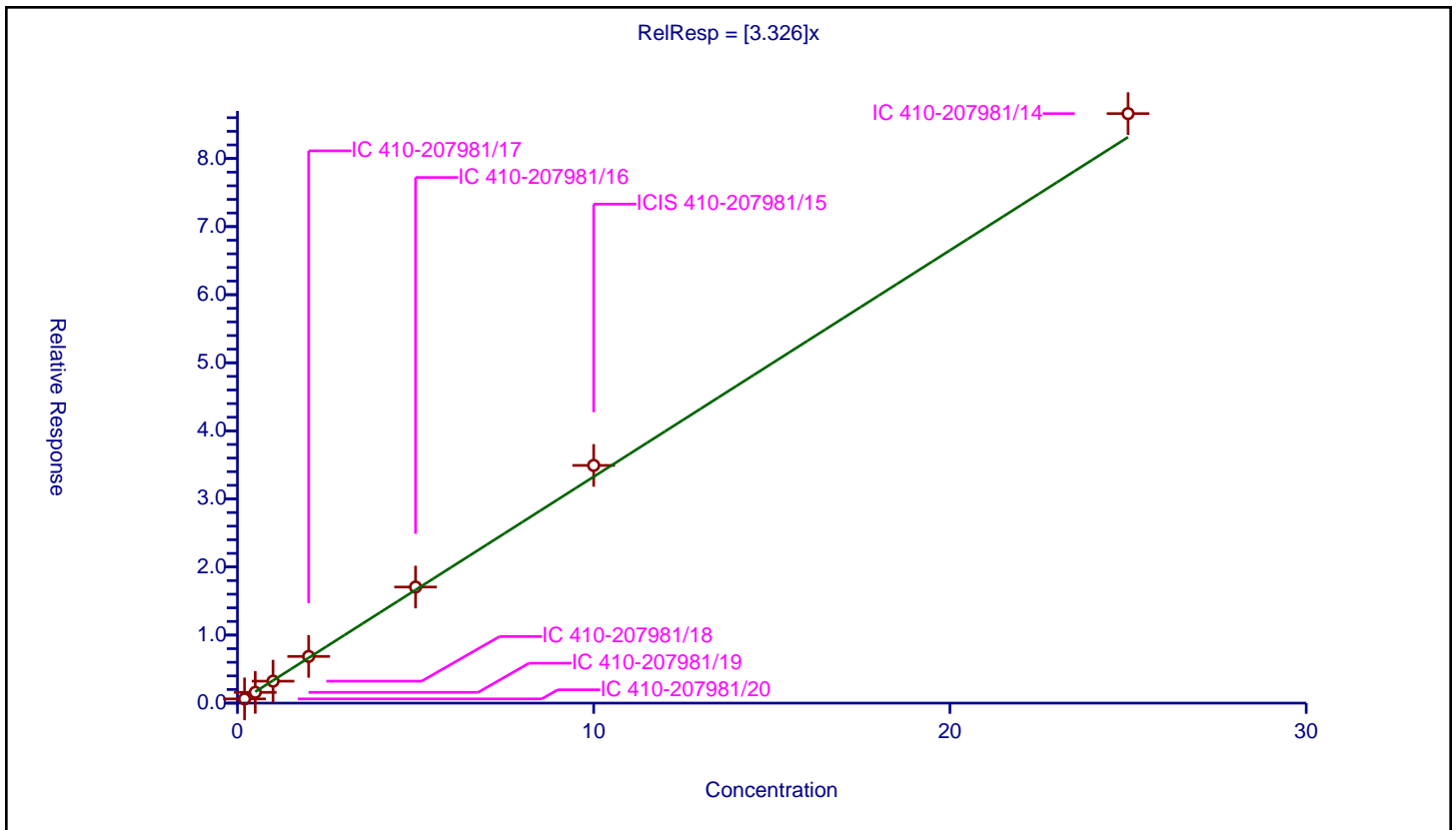
/ sec-Butylbenzene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	3.326

Error Coefficients	
Standard Error:	4080000
Relative Standard Error:	4.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.619004	10.0	1081350.0	3.09502	Y
2	IC 410-207981/19	0.5	1.581915	10.0	1061163.0	3.163831	Y
3	IC 410-207981/18	1.0	3.226305	10.0	1062215.0	3.226305	Y
4	IC 410-207981/17	2.0	6.858873	10.0	1055621.0	3.429436	Y
5	IC 410-207981/16	5.0	17.051946	10.0	1053366.0	3.410389	Y
6	ICIS 410-207981/15	10.0	34.922188	10.0	1033132.0	3.492219	Y
7	IC 410-207981/14	25.0	86.60283	10.0	1050754.0	3.464113	Y



Calibration

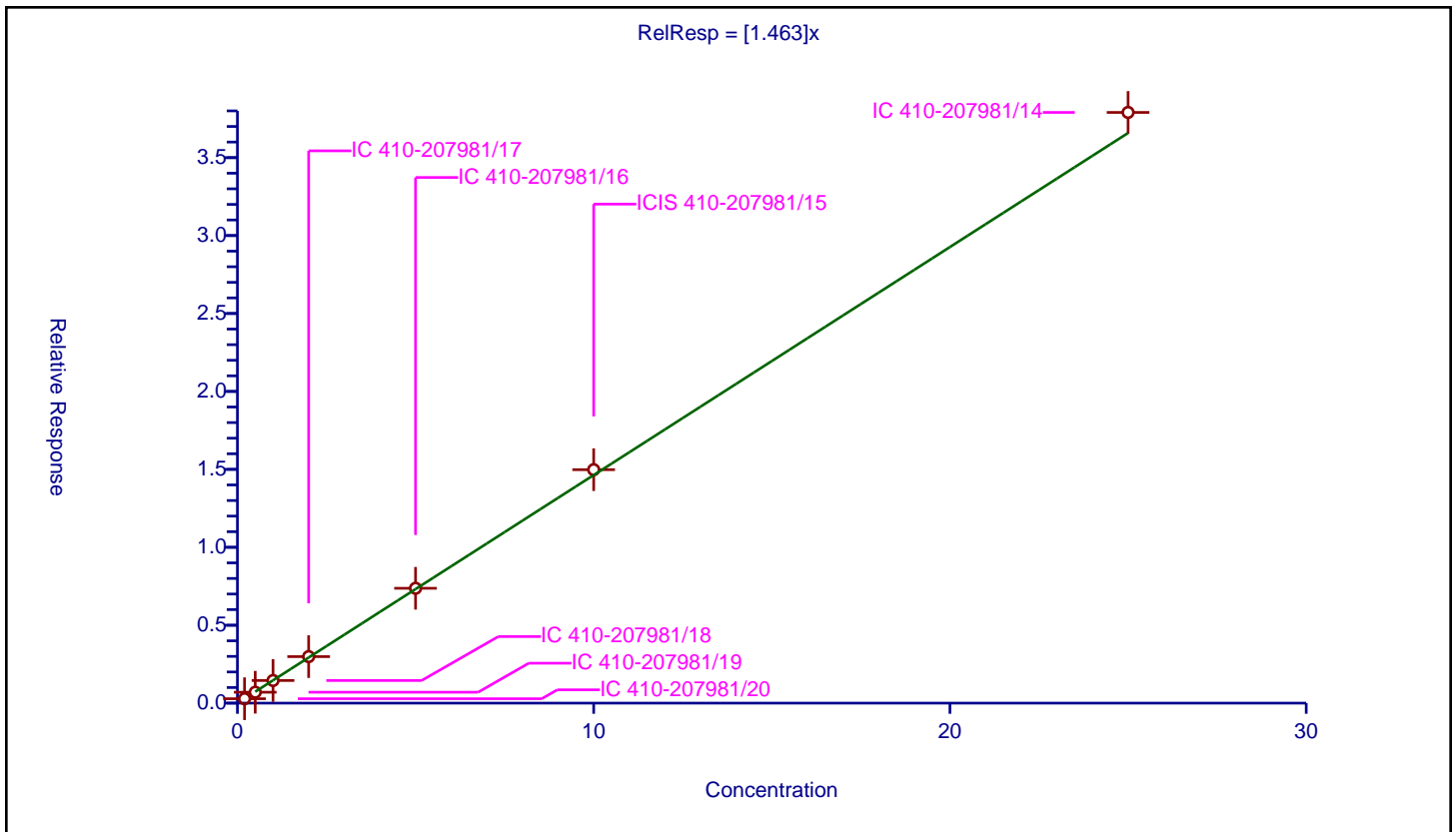
/ 1,3-Dichlorobenzene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.463

Error Coefficients	
Standard Error:	1780000
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 410-207981/20	0.2	0.282415	10.0	1081350.0	1.412077	Y
2	IC 410-207981/19	0.5	0.699704	10.0	1061163.0	1.399408	Y
3	IC 410-207981/18	1.0	1.450987	10.0	1062215.0	1.450987	Y
4	IC 410-207981/17	2.0	2.984944	10.0	1055621.0	1.492472	Y
5	IC 410-207981/16	5.0	7.369252	10.0	1053366.0	1.47385	Y
6	ICIS 410-207981/15	10.0	14.979364	10.0	1033132.0	1.497936	Y
7	IC 410-207981/14	25.0	37.900879	10.0	1050754.0	1.516035	Y



Calibration

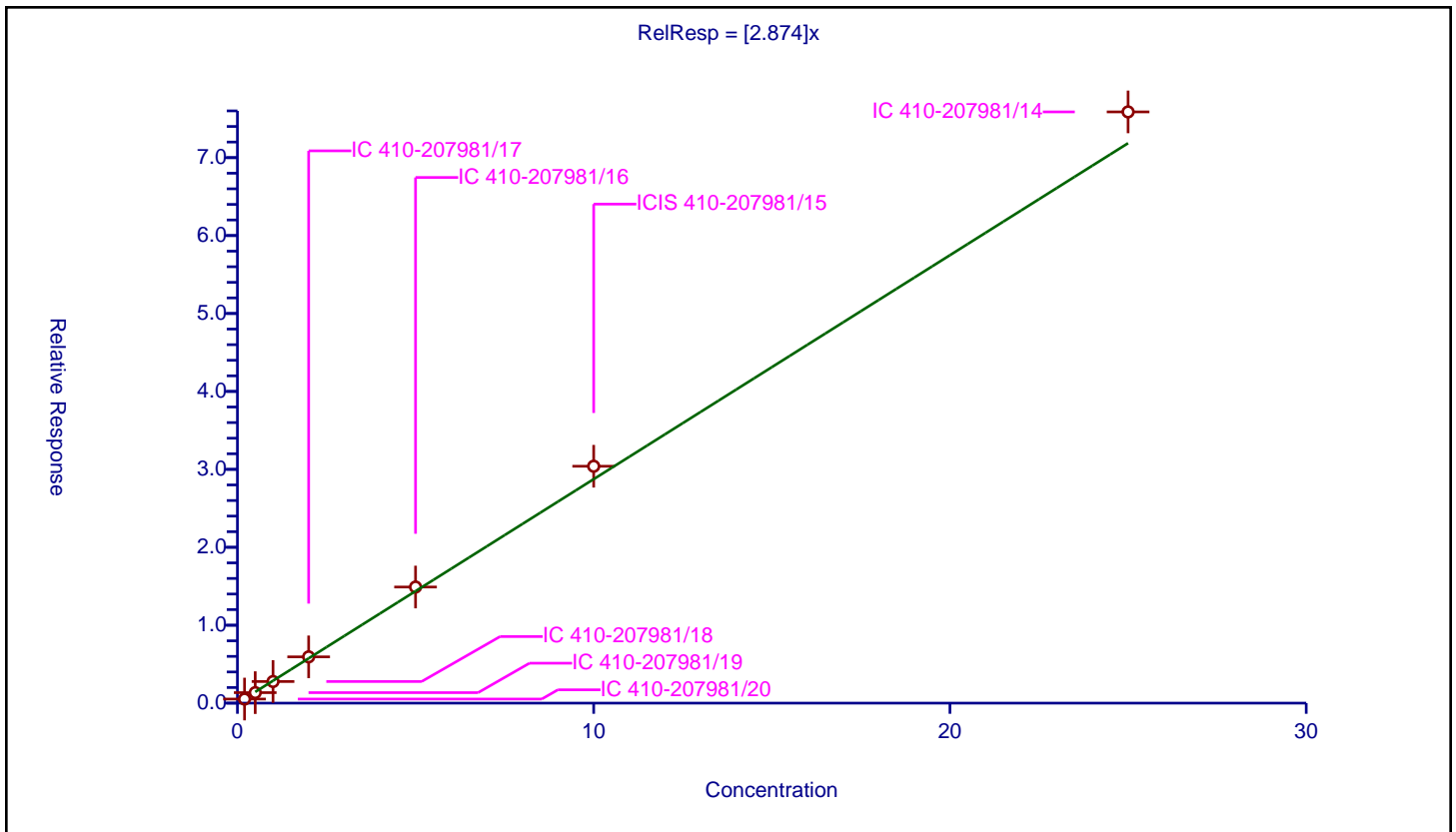
/ 4-Isopropyltoluene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	2.874

Error Coefficients	
Standard Error:	3570000
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 410-207981/20	0.2	0.524271	10.0	1081350.0	2.621353	Y
2	IC 410-207981/19	0.5	1.349642	10.0	1061163.0	2.699284	Y
3	IC 410-207981/18	1.0	2.773855	10.0	1062215.0	2.773855	Y
4	IC 410-207981/17	2.0	5.939935	10.0	1055621.0	2.969967	Y
5	IC 410-207981/16	5.0	14.89937	10.0	1053366.0	2.979874	Y
6	ICIS 410-207981/15	10.0	30.400172	10.0	1033132.0	3.040017	Y
7	IC 410-207981/14	25.0	75.869718	10.0	1050754.0	3.034789	Y



Calibration

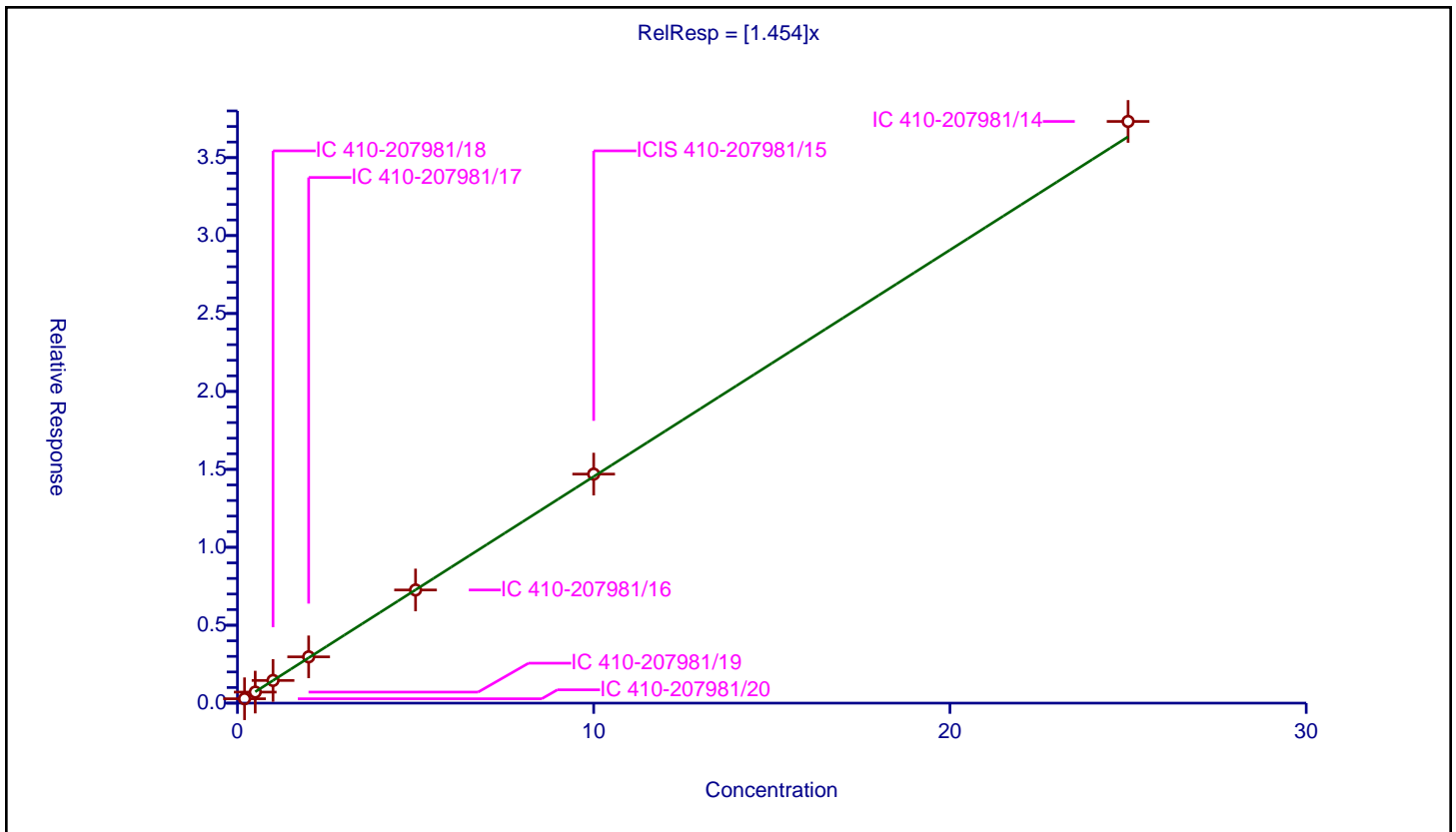
/ 1,4-Dichlorobenzene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.454

Error Coefficients	
Standard Error:	1750000
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 410-207981/20	0.2	0.280621	10.0	1081350.0	1.403107	Y
2	IC 410-207981/19	0.5	0.708864	10.0	1061163.0	1.417728	Y
3	IC 410-207981/18	1.0	1.455666	10.0	1062215.0	1.455666	Y
4	IC 410-207981/17	2.0	2.96974	10.0	1055621.0	1.48487	Y
5	IC 410-207981/16	5.0	7.260895	10.0	1053366.0	1.452179	Y
6	ICIS 410-207981/15	10.0	14.69547	10.0	1033132.0	1.469547	Y
7	IC 410-207981/14	25.0	37.323665	10.0	1050754.0	1.492947	Y



Calibration

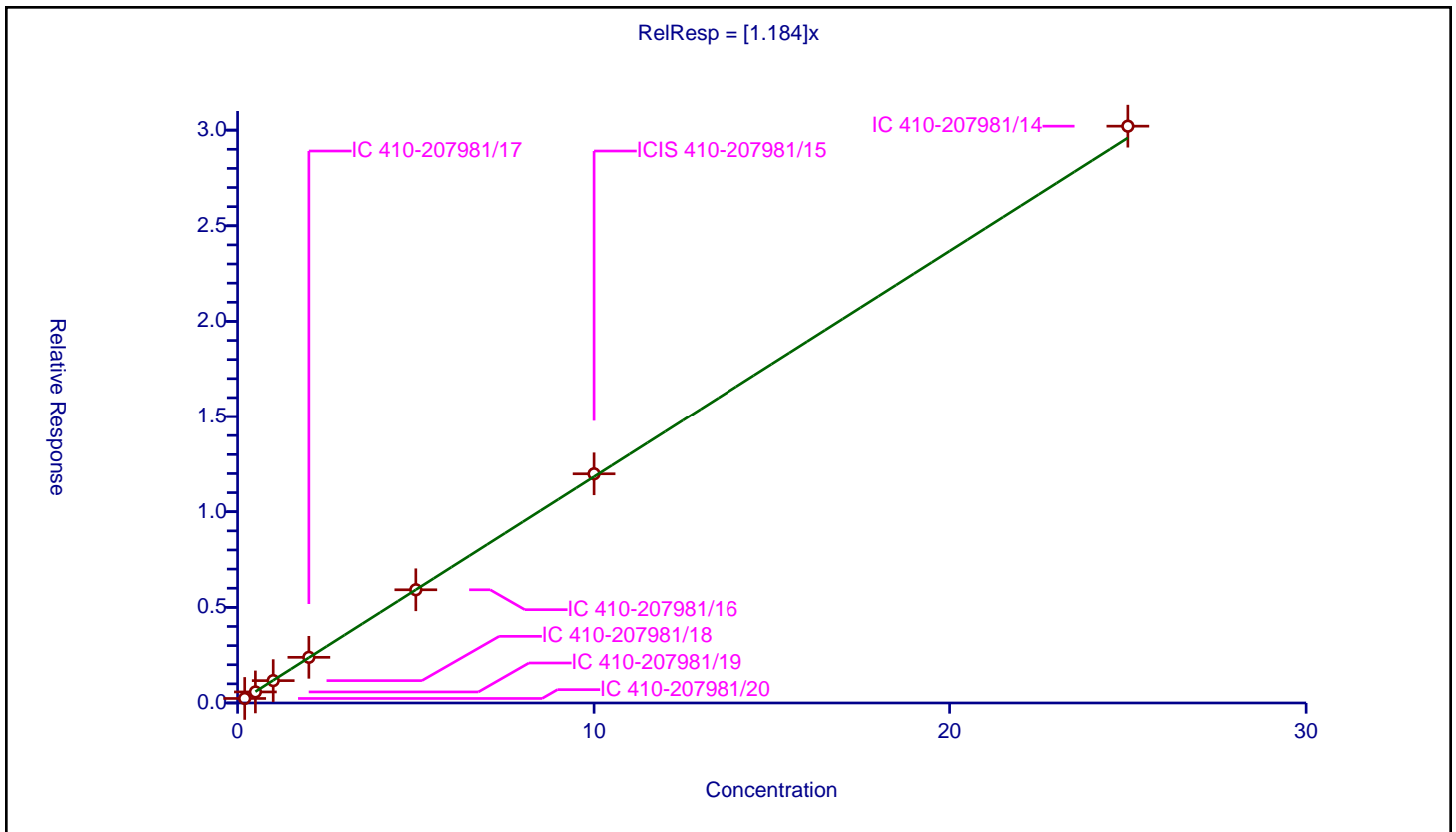
/ 1,2,3-Trimethylbenzene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.184

Error Coefficients	
Standard Error:	1420000
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 410-207981/20	0.2	0.235863	10.0	1081350.0	1.179313	Y
2	IC 410-207981/19	0.5	0.577517	10.0	1061163.0	1.155035	Y
3	IC 410-207981/18	1.0	1.168775	10.0	1062215.0	1.168775	Y
4	IC 410-207981/17	2.0	2.387126	10.0	1055621.0	1.193563	Y
5	IC 410-207981/16	5.0	5.918816	10.0	1053366.0	1.183763	Y
6	ICIS 410-207981/15	10.0	11.984471	10.0	1033132.0	1.198447	Y
7	IC 410-207981/14	25.0	30.208574	10.0	1050754.0	1.208343	Y



**Calibration**

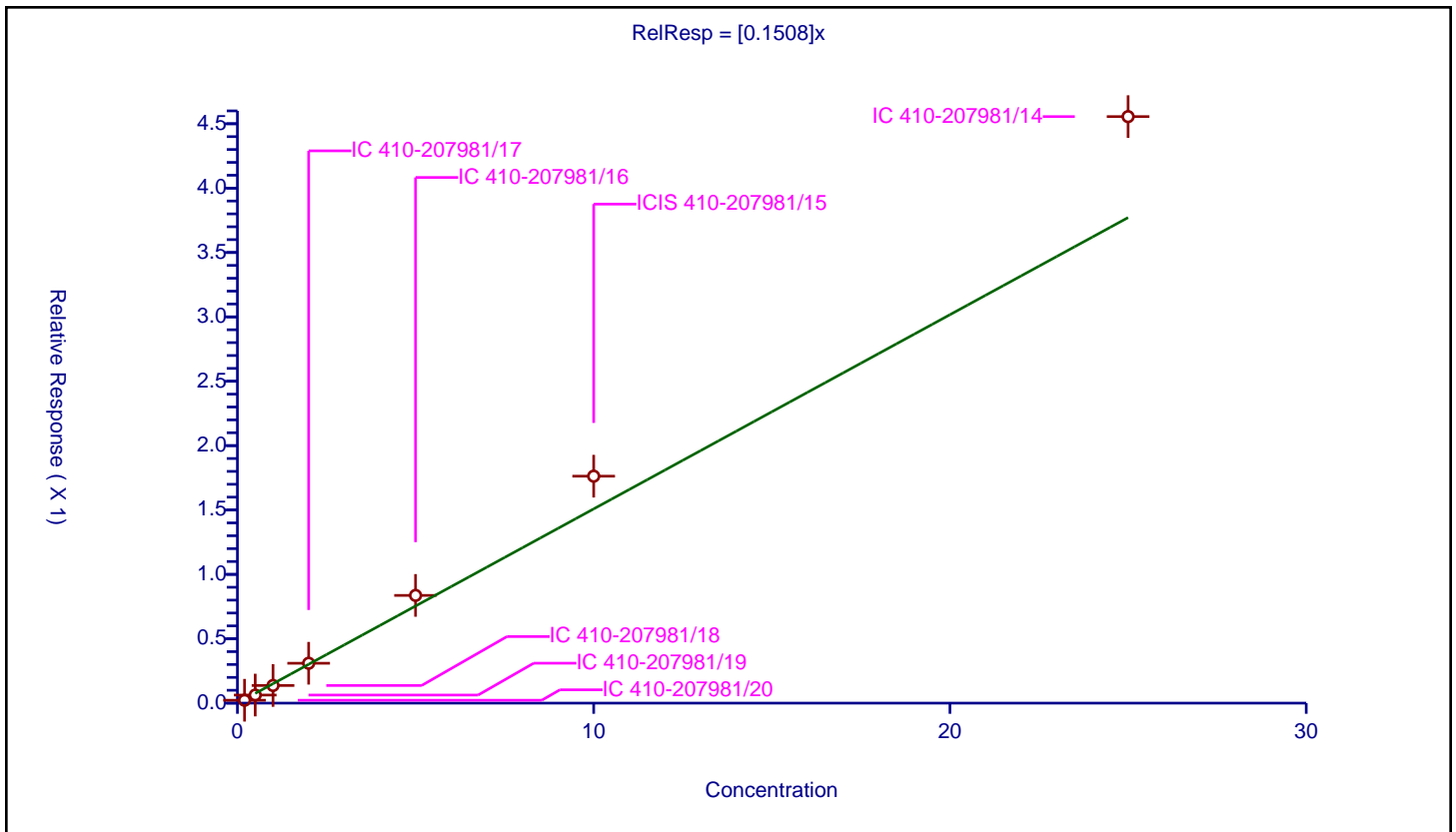
/ Benzyl chloride

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.1508

Error Coefficients	
Standard Error:	213000
Relative Standard Error:	17.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.966

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.0225	10.0	1081350.0	0.112498	Y
2	IC 410-207981/19	0.5	0.06279	10.0	1061163.0	0.125579	Y
3	IC 410-207981/18	1.0	0.13711	10.0	1062215.0	0.13711	Y
4	IC 410-207981/17	2.0	0.309874	10.0	1055621.0	0.154937	Y
5	IC 410-207981/16	5.0	0.836594	10.0	1053366.0	0.167319	Y
6	ICIS 410-207981/15	10.0	1.762737	10.0	1033132.0	0.176274	Y
7	IC 410-207981/14	25.0	4.555472	10.0	1050754.0	0.182219	Y





Calibration

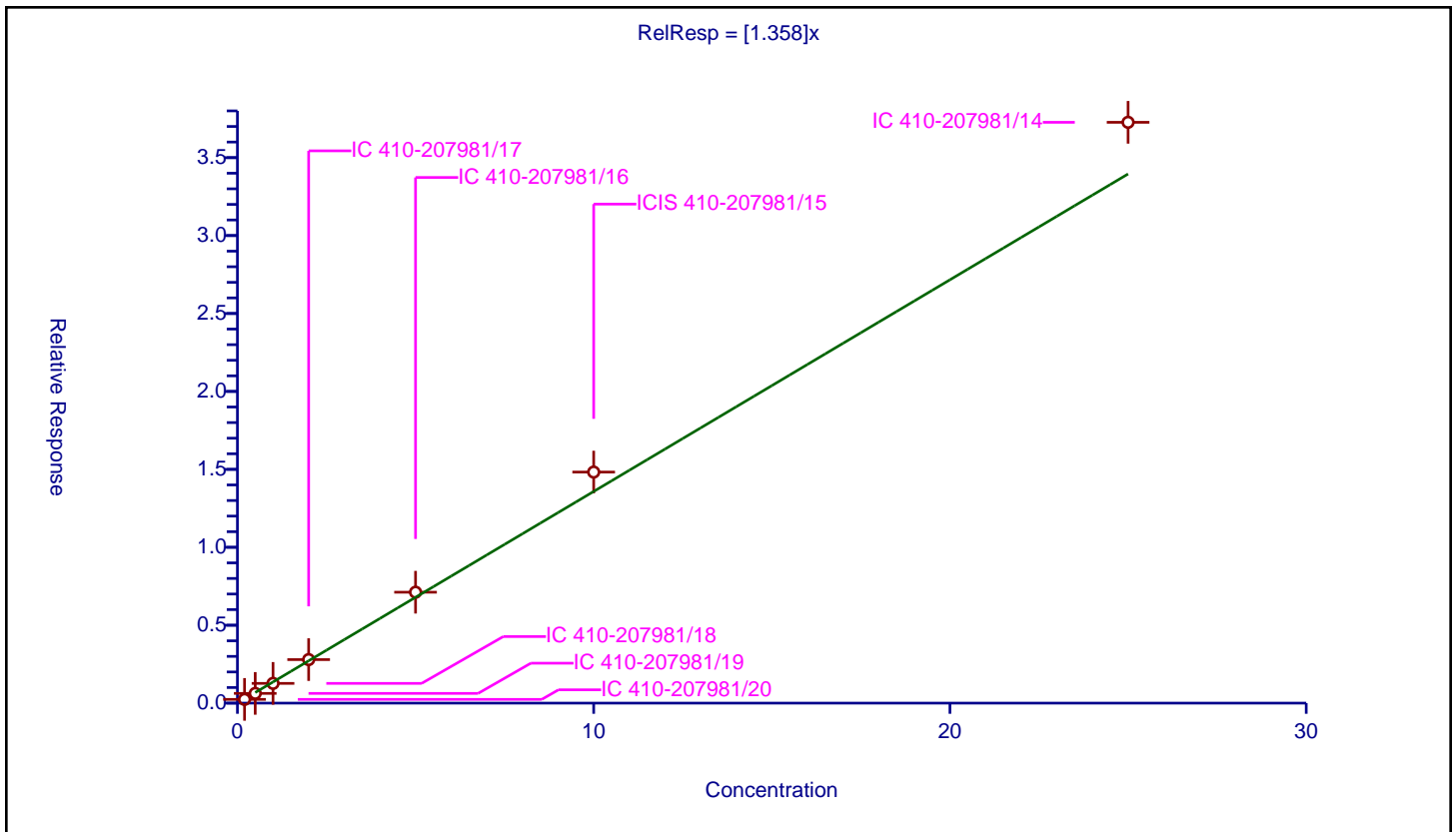
/ n-Butylbenzene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.358

Error Coefficients	
Standard Error:	1750000
Relative Standard Error:	8.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.239599	10.0	1081350.0	1.197993	Y
2	IC 410-207981/19	0.5	0.623872	10.0	1061163.0	1.247744	Y
3	IC 410-207981/18	1.0	1.267747	10.0	1062215.0	1.267747	Y
4	IC 410-207981/17	2.0	2.793692	10.0	1055621.0	1.396846	Y
5	IC 410-207981/16	5.0	7.116605	10.0	1053366.0	1.423321	Y
6	ICIS 410-207981/15	10.0	14.82493	10.0	1033132.0	1.482493	Y
7	IC 410-207981/14	25.0	37.267362	10.0	1050754.0	1.490694	Y



Calibration

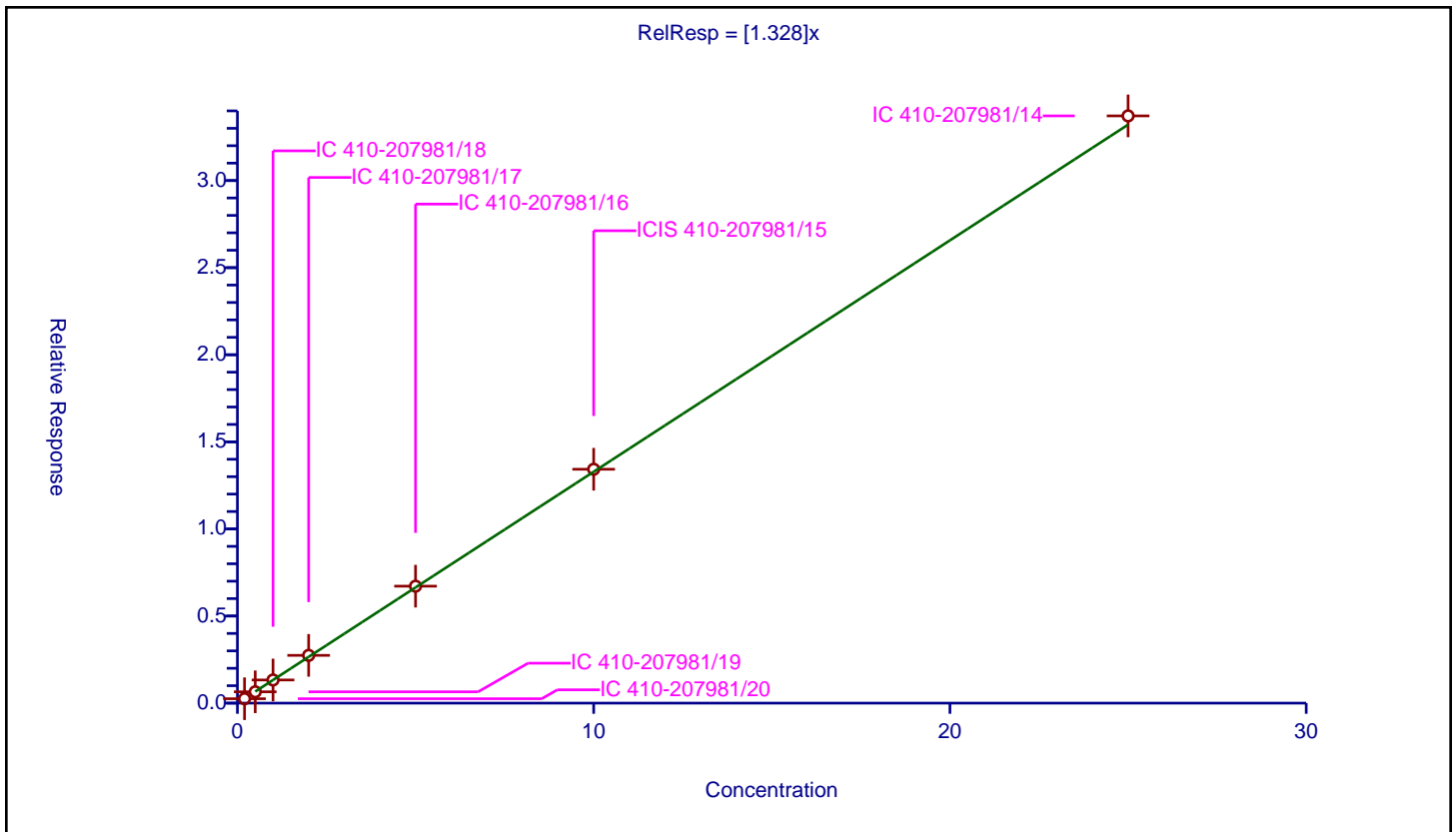
/ 1,2-Dichlorobenzene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.328

Error Coefficients	
Standard Error:	1590000
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 410-207981/20	0.2	0.252462	10.0	1081350.0	1.262311	Y
2	IC 410-207981/19	0.5	0.650843	10.0	1061163.0	1.301685	Y
3	IC 410-207981/18	1.0	1.329373	10.0	1062215.0	1.329373	Y
4	IC 410-207981/17	2.0	2.741609	10.0	1055621.0	1.370804	Y
5	IC 410-207981/16	5.0	6.715007	10.0	1053366.0	1.343001	Y
6	ICIS 410-207981/15	10.0	13.426803	10.0	1033132.0	1.34268	Y
7	IC 410-207981/14	25.0	33.712153	10.0	1050754.0	1.348486	Y



Calibration

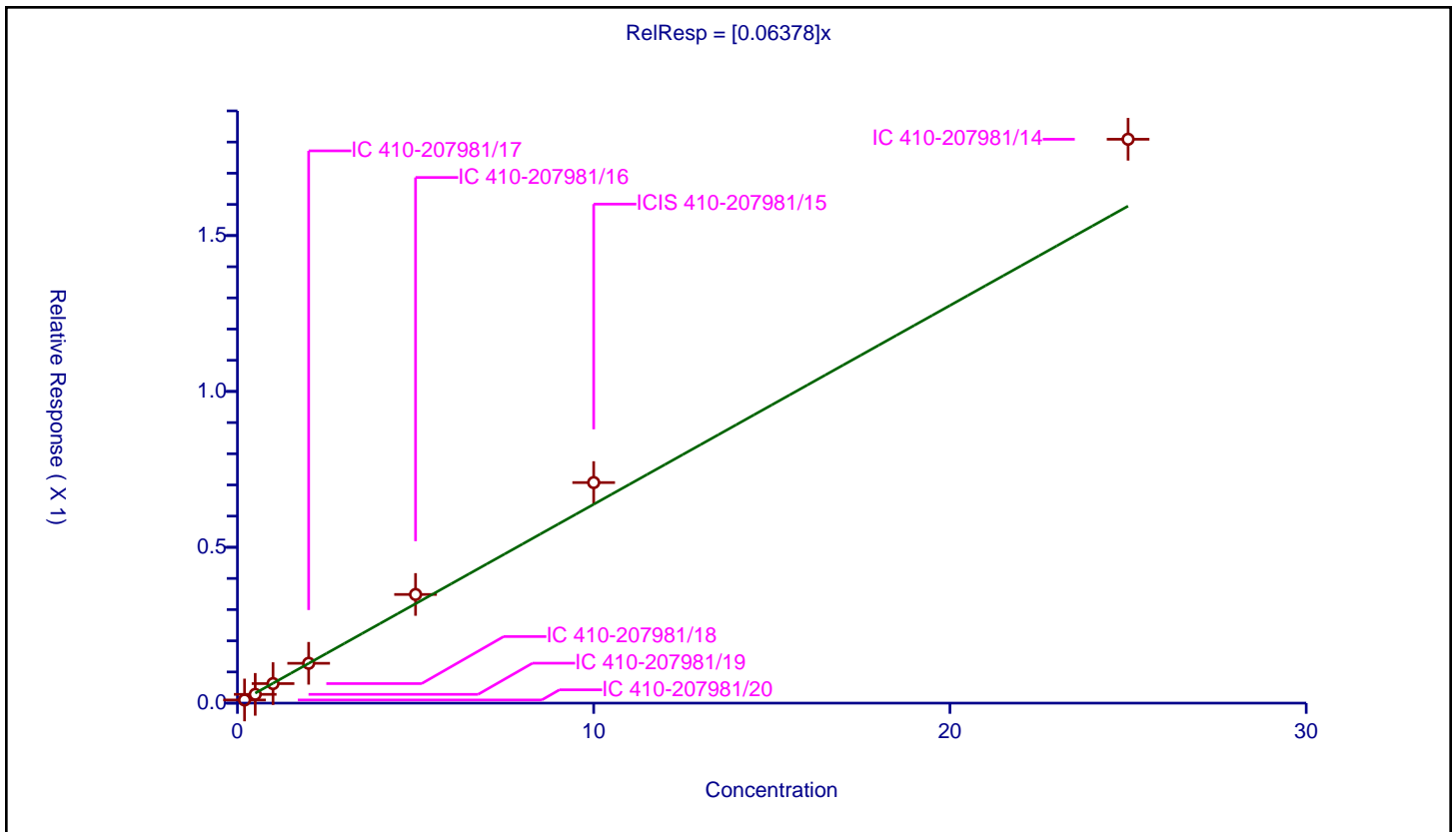
/ 1,2-Dibromo-3-Chloropropane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.06378

Error Coefficients	
Standard Error:	84700
Relative Standard Error:	12.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.982

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.010135	10.0	1081350.0	0.050677	Y
2	IC 410-207981/19	0.5	0.028186	10.0	1061163.0	0.056372	Y
3	IC 410-207981/18	1.0	0.06269	10.0	1062215.0	0.06269	Y
4	IC 410-207981/17	2.0	0.12782	10.0	1055621.0	0.06391	Y
5	IC 410-207981/16	5.0	0.348616	10.0	1053366.0	0.069723	Y
6	ICIS 410-207981/15	10.0	0.707586	10.0	1033132.0	0.070759	Y
7	IC 410-207981/14	25.0	1.808977	10.0	1050754.0	0.072359	Y



Calibration

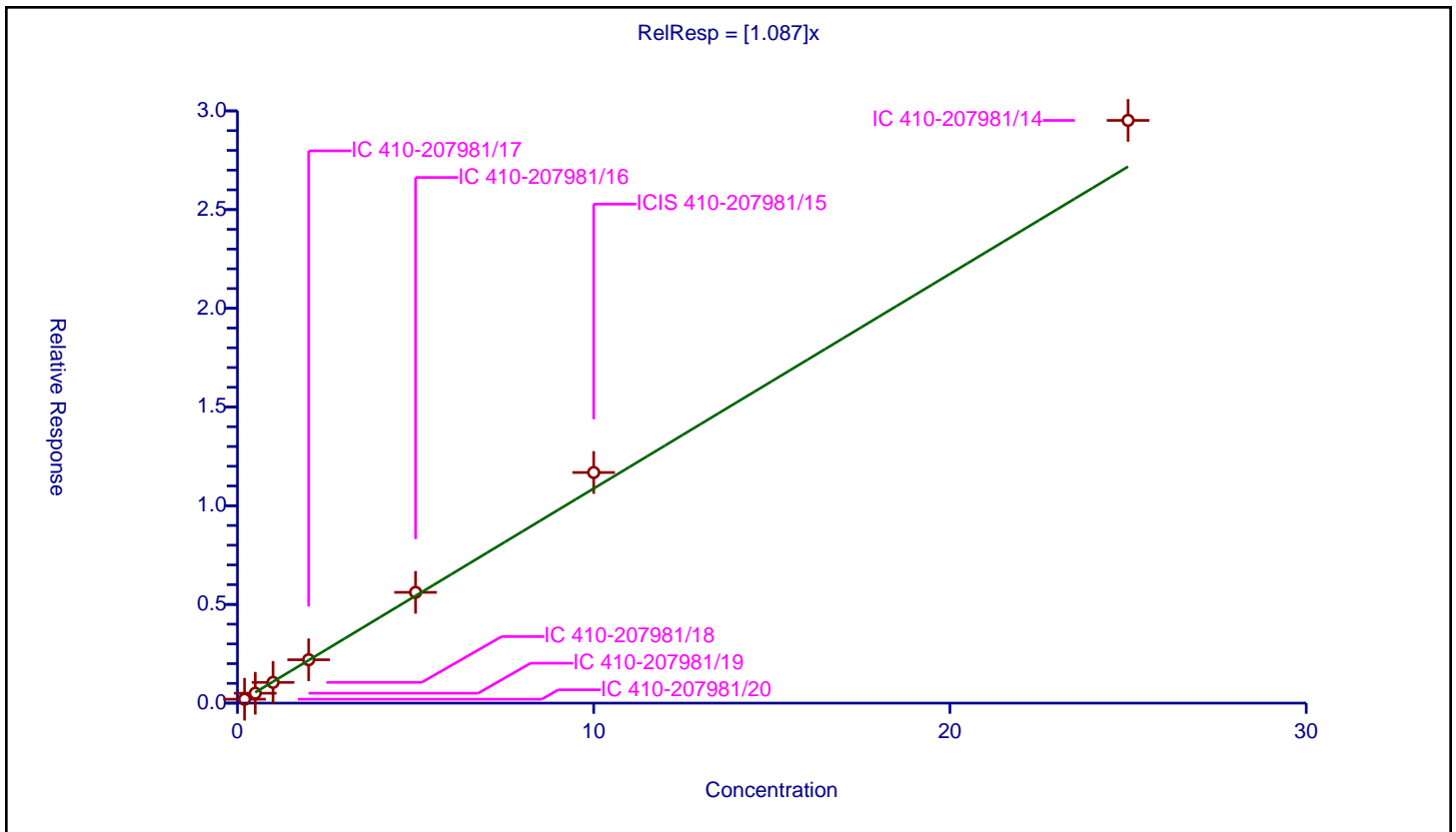
/ 1,3,5-Trichlorobenzene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.087

Error Coefficients	
Standard Error:	1380000
Relative Standard Error:	7.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.197355	10.0	1081350.0	0.986776	Y
2	IC 410-207981/19	0.5	0.501186	10.0	1061163.0	1.002372	Y
3	IC 410-207981/18	1.0	1.050512	10.0	1062215.0	1.050512	Y
4	IC 410-207981/17	2.0	2.197569	10.0	1055621.0	1.098785	Y
5	IC 410-207981/16	5.0	5.61144	10.0	1053366.0	1.122288	Y
6	ICIS 410-207981/15	10.0	11.68328	10.0	1033132.0	1.168328	Y
7	IC 410-207981/14	25.0	29.518536	10.0	1050754.0	1.180741	Y



Calibration

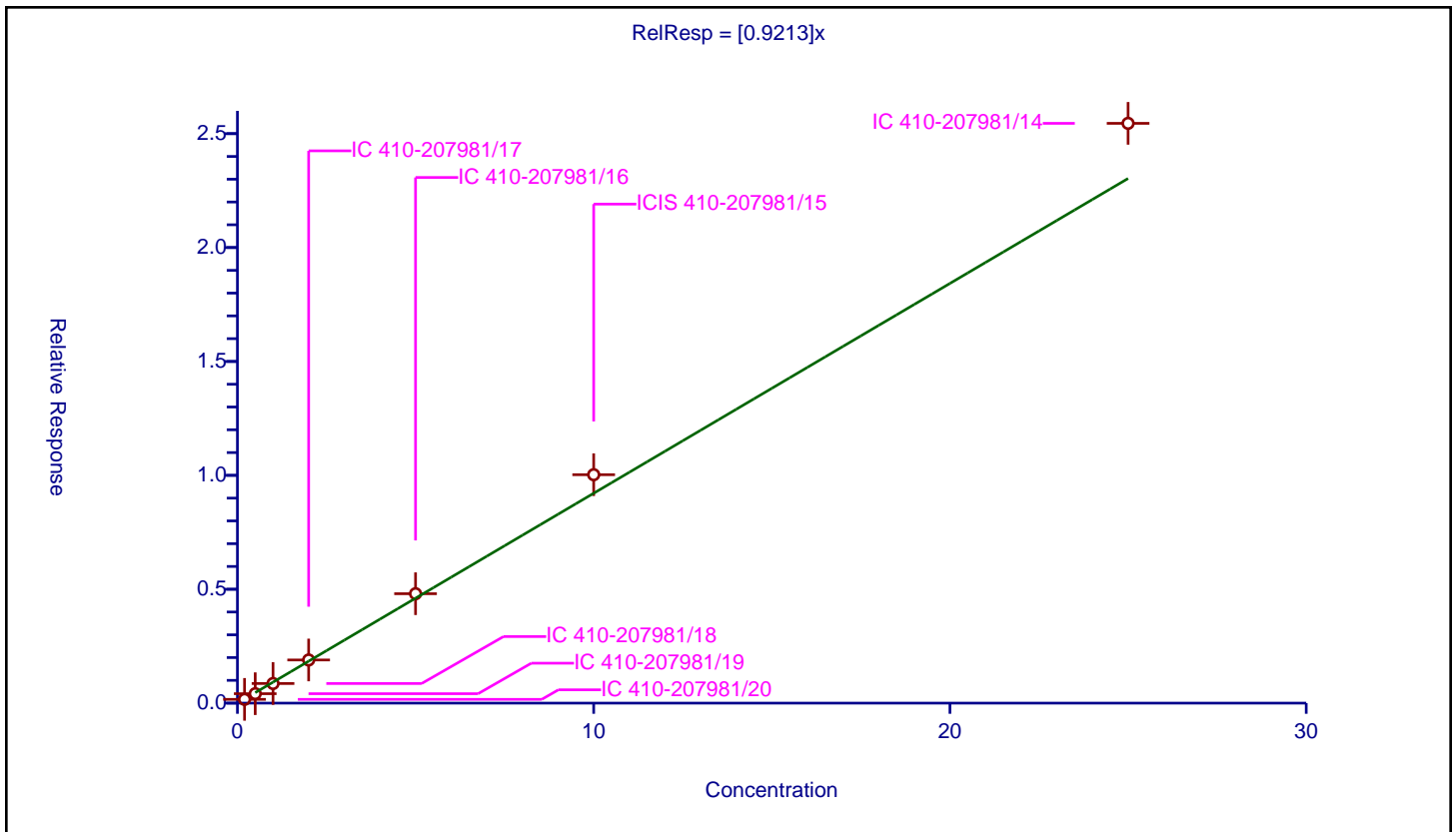
/ 1,2,4-Trichlorobenzene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.9213

Error Coefficients	
Standard Error:	1190000
Relative Standard Error:	8.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.1657	10.0	1081350.0	0.828501	Y
2	IC 410-207981/19	0.5	0.414941	10.0	1061163.0	0.829882	Y
3	IC 410-207981/18	1.0	0.861558	10.0	1062215.0	0.861558	Y
4	IC 410-207981/17	2.0	1.894923	10.0	1055621.0	0.947461	Y
5	IC 410-207981/16	5.0	4.80363	10.0	1053366.0	0.960726	Y
6	ICIS 410-207981/15	10.0	10.028622	10.0	1033132.0	1.002862	Y
7	IC 410-207981/14	25.0	25.453284	10.0	1050754.0	1.018131	Y



Calibration

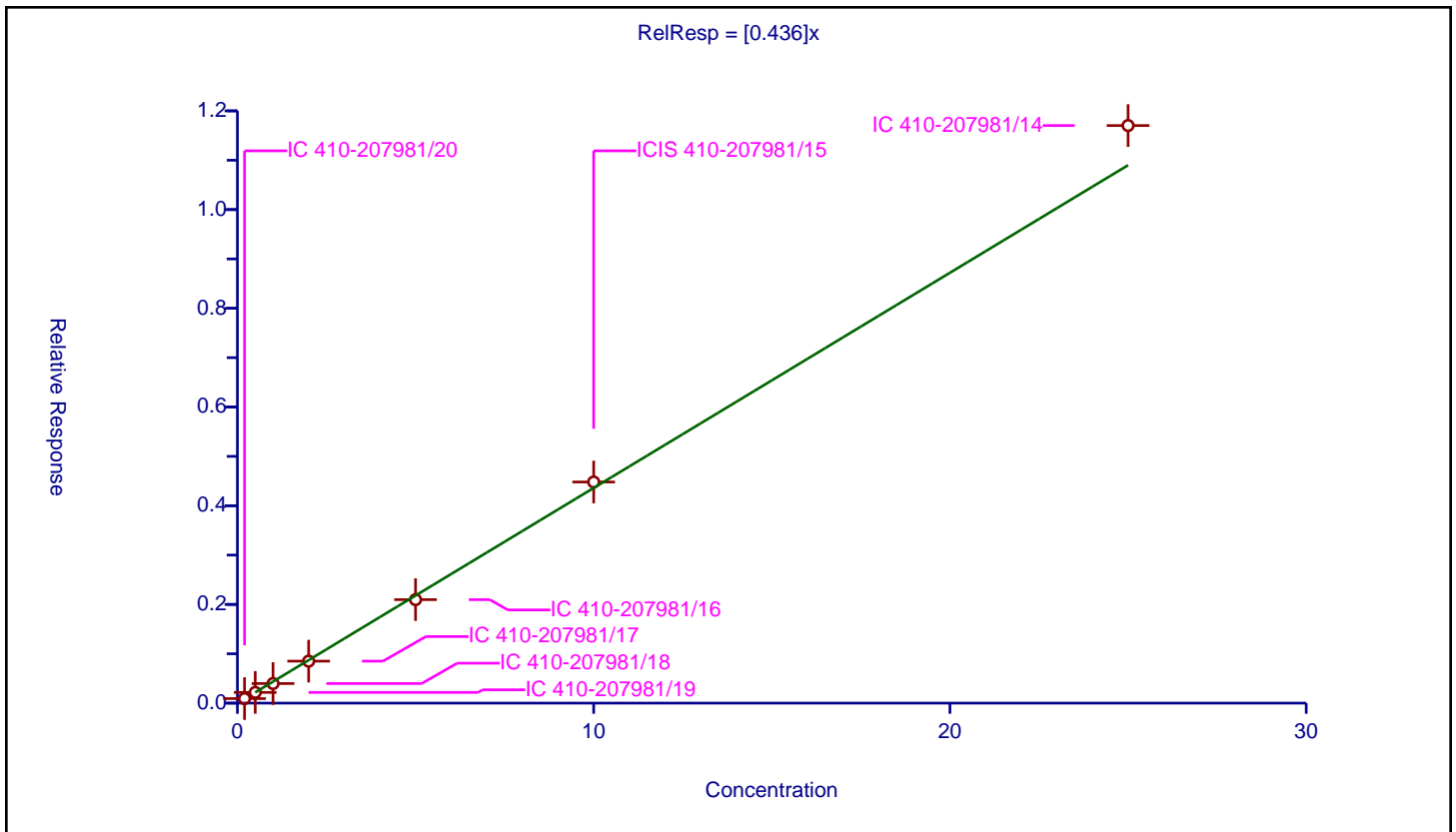
/ Hexachlorobutadiene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.436

Error Coefficients	
Standard Error:	546000
Relative Standard Error:	5.7
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-207981/20	0.2	0.091978	10.0	1081350.0	0.459888	Y
2	IC 410-207981/19	0.5	0.217233	10.0	1061163.0	0.434467	Y
3	IC 410-207981/18	1.0	0.396812	10.0	1062215.0	0.396812	Y
4	IC 410-207981/17	2.0	0.85058	10.0	1055621.0	0.42529	Y
5	IC 410-207981/16	5.0	2.096707	10.0	1053366.0	0.419341	Y
6	ICIS 410-207981/15	10.0	4.480512	10.0	1033132.0	0.448051	Y
7	IC 410-207981/14	25.0	11.70291	10.0	1050754.0	0.468116	Y



Calibration

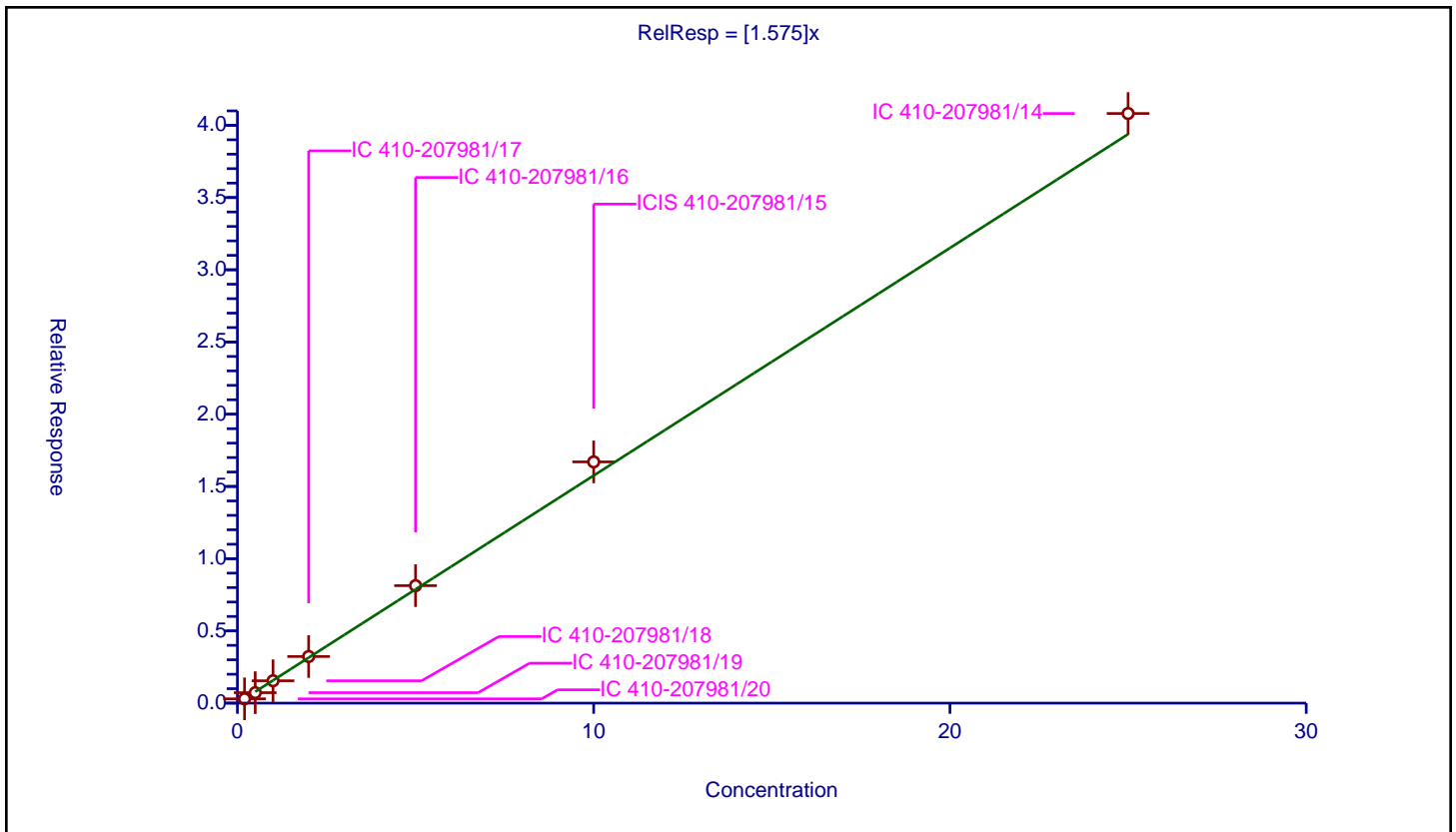
/ Naphthalene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.575

Error Coefficients	
Standard Error:	1930000
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 410-207981/20	0.2	0.297739	10.0	1081350.0	1.488695	Y
2	IC 410-207981/19	0.5	0.723781	10.0	1061163.0	1.447563	Y
3	IC 410-207981/18	1.0	1.548773	10.0	1062215.0	1.548773	Y
4	IC 410-207981/17	2.0	3.227238	10.0	1055621.0	1.613619	Y
5	IC 410-207981/16	5.0	8.132558	10.0	1053366.0	1.626512	Y
6	ICIS 410-207981/15	10.0	16.70107	10.0	1033132.0	1.670107	Y
7	IC 410-207981/14	25.0	40.818422	10.0	1050754.0	1.632737	Y



Calibration

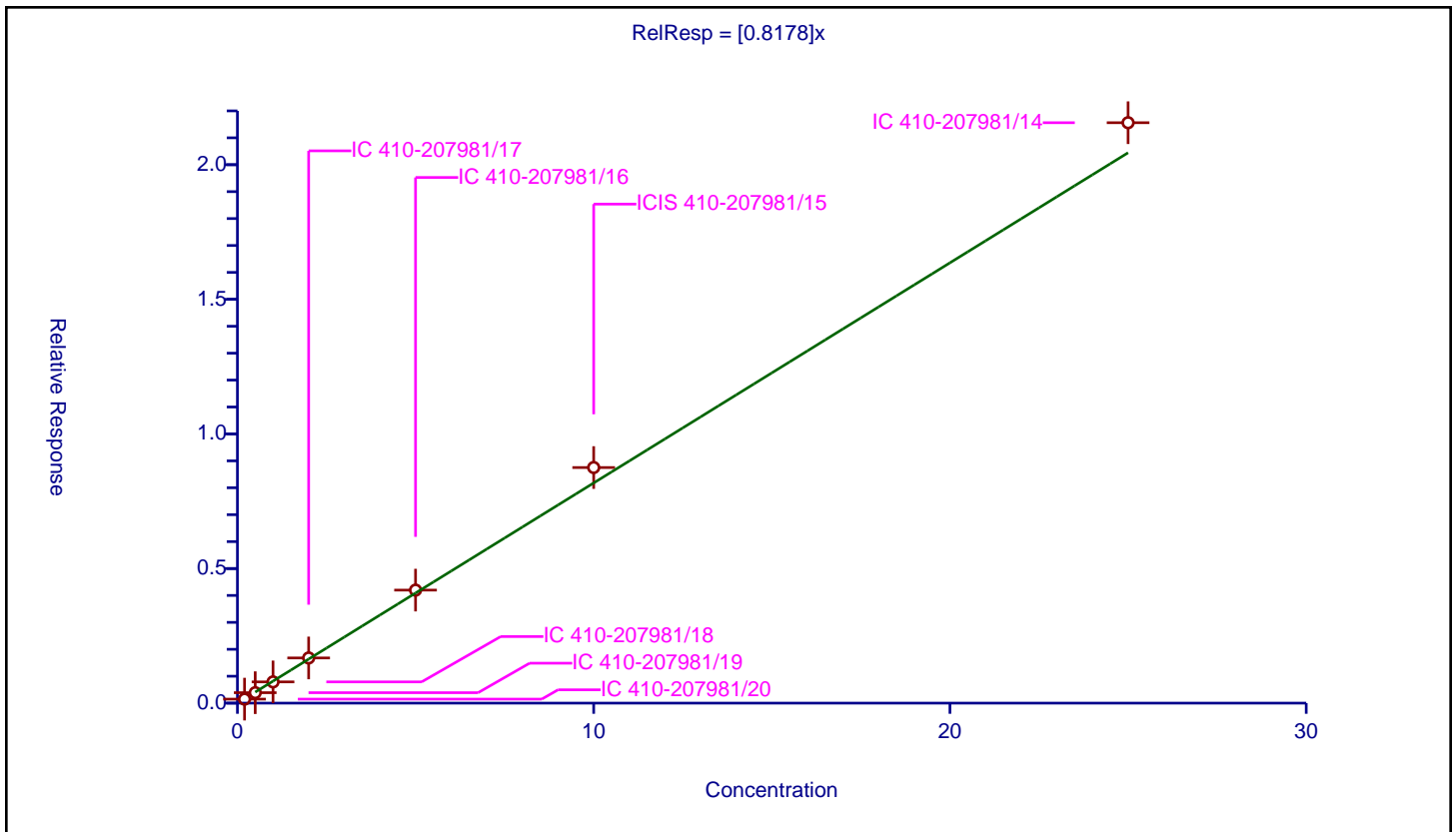
/ 1,2,3-Trichlorobenzene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.8178

Error Coefficients	
Standard Error:	1020000
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 410-207981/20	0.2	0.148426	10.0	1081350.0	0.742128	Y
2	IC 410-207981/19	0.5	0.38864	10.0	1061163.0	0.777279	Y
3	IC 410-207981/18	1.0	0.788974	10.0	1062215.0	0.788974	Y
4	IC 410-207981/17	2.0	1.678358	10.0	1055621.0	0.839179	Y
5	IC 410-207981/16	5.0	4.197962	10.0	1053366.0	0.839592	Y
6	ICIS 410-207981/15	10.0	8.751418	10.0	1033132.0	0.875142	Y
7	IC 410-207981/14	25.0	21.560803	10.0	1050754.0	0.862432	Y





FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-71043-1 Analy Batch No.: 163707

SDG No.: \_\_\_\_\_

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45 Calibration End Date: 08/24/2021 02:52 Calibration ID: 29976

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-163707/18	IG23I07.D
Level 2	IC 410-163707/17	IG23I06.D
Level 3	IC 410-163707/16	IG23I05.D
Level 4	IC 410-163707/15	IG23I04.D
Level 5	IC 410-163707/14	IG23I03.D
Level 6	ICIS 410-163707/13	IG23I02.D
Level 7	IC 410-163707/12	IG23I01.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	++++ 0.3627	0.1956 0.3416	0.3040	0.3114	0.3614	Ave		0.312 8		0.1000	20.0		20.0				
Chloromethane	0.3737 0.3692	0.3520 0.3545	0.3277	0.3398	0.3774	Ave		0.356 3		0.1000	5.2		20.0				
1,3-Butadiene	0.3583 0.3381	0.2781 0.3239	0.3216	0.3194	0.3521	Ave		0.327 3			8.1		20.0				
Vinyl chloride	0.3684 0.3847	0.3183 0.3656	0.3364	0.3472	0.3941	Ave		0.359 2		0.1000	7.5		20.0				
Bromomethane	0.2807 0.2701	0.2528 0.2477	0.2440	0.2517	0.2754	Ave		0.260 3		0.1000	5.6		20.0				
Chloroethane	0.2262 0.2246	0.2056 0.2112	0.2036	0.2037	0.2325	Ave		0.215 3		0.1000	5.6		20.0				
Dichlorofluoromethane	0.5615 0.5385	0.4859 0.5023	0.4850	0.4979	0.5538	Ave		0.517 9		0.1000	6.3		20.0				
Trichlorofluoromethane	0.4066 0.5339	0.3297 0.4864	0.4638	0.4671	0.5530	Ave		0.462 9		0.1000	16.4		20.0				
Ethyl ether	0.1835 0.2078	0.1655 0.1915	0.1744	0.1885	0.2053	Ave		0.188 1			8.2		20.0				
Freon 123a	0.3286 0.3668	0.2778 0.3340	0.3179	0.3278	0.3686	Ave		0.331 6			9.3		20.0				
Acrolein	2.0754 2.1510	2.0273 2.2464	2.2746	1.9732	2.5490	Ave		2.185 3			8.9		20.0				
1,1-Dichloroethene	0.2236 0.2614	0.2129 0.2407	0.2396	0.2214	0.2711	Ave		0.238 7		0.1000	9.0		20.0				
Acetone	3.3948 2.6081	2.6279 2.6013	2.5719	2.6885	2.9507	Ave		2.777 6		0.1000	10.8		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.: 410-71043-1 Analy Batch No.: 163707

SDG No.: \_\_\_\_\_

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45 Calibration End Date: 08/24/2021 02:52 Calibration ID: 29976

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R <sup>2</sup> OR COD	#	MIN R <sup>2</sup> OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
Freon 113	0.1793 0.2949	0.1939 0.2778	0.2561	0.2365	0.3061	Ave		0.249 2		0.1000	19.6		20.0				
Methyl iodide	0.4365 0.5164	0.4581 0.4791	0.4744	0.4472	0.5281	Ave		0.477 1			7.2		20.0				
Carbon disulfide	0.6241 0.7230	0.6085 0.6809	0.6272	0.6081	0.7397	Ave		0.658 8		0.1000	8.4		20.0				
Methyl acetate	10.223 7.9164	6.6486 7.6664	7.2485	8.2644	9.2657	Ave		8.176 2		0.1000	14.9		20.0				
Allyl chloride	0.4039 0.4122	0.3756 0.3872	0.3811	0.3562	0.4244	Ave		0.391 5			6.0		20.0				
Methylene Chloride	0.2524 0.2798	0.2487 0.2570	0.2549	0.2470	0.2837	Ave		0.260 5		0.1000	5.7		20.0				
t-Butyl alcohol	1.0156 1.1288	0.9511 0.9655	1.0279	1.1110	1.1697	Ave		1.052 8			8.0		20.0				
Acrylonitrile	3.3547 3.7261	3.2482 3.8697	3.8210	3.4385	4.4580	Ave		3.702 3			11.1		20.0				
Methyl tert-butyl ether	0.6479 0.7420	0.6277 0.6762	0.6717	0.6482	0.7521	Ave		0.680 8		0.1000	7.1		20.0				
trans-1,2-Dichloroethene	0.2636 0.2920	0.2568 0.2706	0.2670	0.2508	0.2967	Ave		0.271 1		0.1000	6.4		20.0				
n-Hexane	0.2986 0.4503	0.2876 0.4202	0.3712	0.3567	0.4652	Ave		0.378 5			18.5		20.0				
1,1-Dichloroethane	0.4529 0.5299	0.4771 0.4952	0.4797	0.4692	0.5393	Ave		0.491 9		0.2000	6.5		20.0				
di-Isopropyl ether	0.7902 0.8812	0.7740 0.8214	0.8046	0.7810	0.8994	Ave		0.821 7			6.0		20.0				
2-Chloro-1,3-butadiene	0.3795 0.4481	0.3757 0.4209	0.4011	0.3850	0.4606	Ave		0.410 1			8.3		20.0				
Ethyl t-butyl ether	0.7755 0.8660	0.7525 0.7962	0.7910	0.7665	0.8768	Ave		0.803 5			6.1		20.0				
2-Butanone (MEK)	4.4727 4.7324	4.7875 4.9530	5.0137	4.4128	5.5781	Ave		4.850 0		0.1000	8.1		20.0				
cis-1,2-Dichloroethene	0.3085 0.3204	0.2792 0.2984	0.2962	0.2831	0.3282	Ave		0.302 0		0.1000	6.0		20.0				
2,2-Dichloropropane	0.3889 0.4654	0.4050 0.4361	0.4203	0.4002	0.4780	Ave		0.427 7			7.9		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.: 410-71043-1 Analy Batch No.: 163707

SDG No.: \_\_\_\_\_

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45 Calibration End Date: 08/24/2021 02:52 Calibration ID: 29976

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R <sup>2</sup> OR COD	#	MIN R <sup>2</sup> OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
Propionitrile	1.0665 1.3670	1.1664 1.3682	1.3168	1.2026	1.5295	Ave		1.288 2			12.0		20.0				
Methacrylonitrile	4.4612 4.7621	4.5433 5.1194	5.0070	4.3591	5.8587	Ave		4.873 0			10.6		20.0				
Bromochloromethane	0.1221 0.1403	0.1231 0.1291	0.1294	0.1262	0.1421	Ave		0.130 3			6.1		20.0				
Tetrahydrofuran	1.3973 1.4262	1.2691 1.4530	1.4982	1.3139	1.7126	Ave		1.438 6			10.0		20.0				
Chloroform	0.4692 0.5205	0.4652 0.4830	0.4841	0.4582	0.5306	Ave		0.487 3		0.2000	5.7		20.0				
1,1,1-Trichloroethane	0.4073 0.4942	0.4194 0.4640	0.4484	0.4274	0.5086	Ave		0.452 8		0.1000	8.5		20.0				
Cyclohexane	0.3570 0.5244	0.3518 0.4941	0.4506	0.4210	0.5435	Ave		0.448 9		0.1000	17.1		20.0				
1,1-Dichloropropene	0.3433 0.4231	0.3424 0.3973	0.3762	0.3598	0.4316	Ave		0.382 0			9.5		20.0				
Carbon tetrachloride	0.3364 0.4445	0.3351 0.4154	0.3838	0.3693	0.4512	Ave		0.390 8		0.1000	12.2		20.0				
Isobutyl alcohol	0.3505 0.3456	0.3053 0.3093	0.3476	0.3308	0.3625	Ave		0.335 9			6.5		20.0				
Benzene	1.0786 1.2043	1.0806 1.1169	1.1054	1.0522	1.2324	Ave		1.124 3		0.5000	6.0		20.0				
1,2-Dichloroethane	0.3196 0.3205	0.2889 0.2988	0.3010	0.2768	0.3267	Ave		0.304 6		0.1000	6.0		20.0				
t-Amyl methyl ether	0.7373 0.8084	0.6853 0.7420	0.7269	0.7135	0.8081	Ave		0.745 9			6.2		20.0				
n-Heptane	0.3735 0.4318	0.3278 0.4065	0.3870	0.3498	0.4481	Ave		0.389 2			11.1		20.0				
n-Butanol	0.2672 0.3373	0.2899 0.2908	0.3219	0.3041	0.3716	Ave		0.311 8			11.2		20.0				
Trichloroethene	0.2830 0.3275	0.2877 0.3071	0.2935	0.2799	0.3365	Ave		0.302 2		0.2000	7.4		20.0				
Methylcyclohexane	0.4104 0.5911	0.3880 0.5530	0.4960	0.4766	0.6030	Ave		0.502 6		0.1000	16.8		20.0				
1,2-Dichloropropane	0.2449 0.3041	0.2530 0.2850	0.2751	0.2653	0.3056	Ave		0.276 1		0.1000	8.6		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  
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-71043-1 Analy Batch No.: 163707

SDG No.: \_\_\_\_\_

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45 Calibration End Date: 08/24/2021 02:52 Calibration ID: 29976

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R <sup>2</sup> OR COD	#	MIN R <sup>2</sup> OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
Methyl methacrylate	8.2957 9.7081	7.9901 10.530	10.080	8.6383	11.802	Ave		9.577 7			14.2		20.0				
1,4-Dioxane	++++ 0.0928	0.0580 0.0531	0.0734	0.0840	0.0900	Qua	-2.62 5	0.121 9	-0.000053	0.0050				0.9980		0.9900	
Dibromomethane	0.1367 0.1448	0.1222 0.1357	0.1296	0.1288	0.1470	Ave		0.135 0			6.6		20.0				
Bromodichloromethane	0.3016 0.3705	0.3121 0.3529	0.3183	0.3156	0.3722	Ave		0.334 7		0.2000	8.8		20.0				
2-Nitropropane	2.4224 2.6776	2.5126 2.9919	2.8529	2.4822	3.2402	Ave		2.740 0			11.0		20.0				
cis-1,3-Dichloropropene	0.3774 0.4708	0.3700 0.4485	0.4057	0.4003	0.4712	Ave		0.420 6		0.2000	10.1		20.0				
4-Methyl-2-pentanone (MIBK)	11.172 12.055	11.105 12.848	12.660	11.139	14.512	Ave		12.21 3		0.1000	10.2		20.0				
Toluene	0.9391 1.0243	0.9229 0.9386	0.9435	0.8884	1.0533	Ave		0.958 6		0.4000	6.1		20.0				
trans-1,3-Dichloropropene	0.3935 0.5015	0.3900 0.4685	0.4231	0.4193	0.4982	Ave		0.442 0		0.1000	10.7		20.0				
Ethyl methacrylate	0.3292 0.4153	0.3108 0.3888	0.3532	0.3657	0.4193	Ave		0.368 9			11.2		20.0				
1,1,2-Trichloroethane	0.2499 0.2775	0.2390 0.2510	0.2485	0.2458	0.2782	Ave		0.255 7		0.1000	6.1		20.0				
Tetrachloroethene	0.4216 0.5030	0.4243 0.4609	0.4444	0.4314	0.5113	Ave		0.456 7		0.2000	8.1		20.0				
1,3-Dichloropropane	0.4271 0.4684	0.3991 0.4306	0.4298	0.4146	0.4743	Ave		0.434 8			6.3		20.0				
2-Hexanone	7.1827 8.6184	7.7352 9.2473	8.7474	7.7260	10.621	Ave		8.554 0		0.1000	13.5		20.0				
Dibromochloromethane	0.2708 0.3553	0.2672 0.3375	0.3010	0.2956	0.3536	Ave		0.311 6			12.0		20.0				
1,2-Dibromoethane (EDB)	0.2369 0.2698	0.2170 0.2484	0.2455	0.2352	0.2740	Ave		0.246 7		0.1000	8.1		20.0				
1-Chlorohexane	0.5866 0.6070	0.5028 0.5563	0.5366	0.5151	0.6198	Ave		0.560 6			8.1		20.0				
Chlorobenzene	1.0341 1.1413	0.9999 1.0474	1.0475	1.0015	1.1613	Ave		1.061 9		0.5000	6.1		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.: 410-71043-1 Analy Batch No.: 163707

SDG No.: \_\_\_\_\_

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45 Calibration End Date: 08/24/2021 02:52 Calibration ID: 29976

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R <sup>2</sup> OR COD	#	MIN R <sup>2</sup> OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
1,1,1,2-Tetrachloroethane	0.3534 0.4134	0.3288 0.3804	0.3561	0.3538	0.4095	Ave		0.370 8			8.5		20.0				
Ethylbenzene	1.7775 1.9981	1.7418 1.8269	1.8103	1.7297	2.0370	Ave		1.845 9		0.1000	6.6		20.0				
m&p-Xylene	0.6807 0.7933	0.6907 0.7223	0.7223	0.6883	0.8070	Ave		0.729 2		0.1000	7.0		20.0				
o-Xylene	0.6801 0.7828	0.6824 0.7198	0.6941	0.6804	0.7980	Ave		0.719 7		0.3000	7.0		20.0				
Styrene	1.0572 1.2839	1.0757 1.1766	1.1444	1.1001	1.2948	Ave		1.161 8		0.3000	8.3		20.0				
Bromoform	0.1542 0.2215	0.1570 0.2127	0.1737	0.1730	0.2145	Ave		0.186 7		0.1000	15.4		20.0				
Isopropylbenzene	1.7707 2.0794	1.7890 1.8647	1.8702	1.8099	2.1154	Ave		1.899 9		0.1000	7.4		20.0				
1,1,2,2-Tetrachloroethane	0.5284 0.6088	0.5040 0.5492	0.5500	0.5207	0.6085	Ave		0.552 8		0.3000	7.5		20.0				
Bromobenzene	0.7239 0.8313	0.7007 0.7595	0.7325	0.7127	0.8423	Ave		0.757 6			7.5		20.0				
trans-1,4-Dichloro-2-butene	3.6060 4.4989	3.8773 5.0332	4.4651	3.9395	5.5047	Ave		4.417 8			15.3		20.0				
1,2,3-Trichloropropane	0.1459 0.1691	0.1352 0.1485	0.1493	0.1459	0.1700	Ave		0.152 0			8.5		20.0				
N-Propylbenzene	3.4241 4.1059	3.4158 3.5771	3.6026	3.4783	4.1391	Ave		3.677 5			8.5		20.0				
2-Chlorotoluene	0.6886 0.8261	0.6965 0.7589	0.7527	0.7210	0.8383	Ave		0.754 6			7.8		20.0				
1,3,5-Trimethylbenzene	2.4877 3.0046	2.4892 2.6889	2.6091	2.5128	3.0071	Ave		2.685 6			8.6		20.0				
4-Chlorotoluene	0.7206 0.8363	0.7144 0.7728	0.7625	0.7264	0.8610	Ave		0.770 6			7.5		20.0				
tert-Butylbenzene	0.5220 0.6578	0.5491 0.5957	0.5757	0.5601	0.6625	Ave		0.589 0			9.1		20.0				
Pentachloroethane	0.4318 0.5591	0.3812 0.5124	0.4425	0.4642	0.5385	Ave		0.475 7			13.4		20.0				
1,2,4-Trimethylbenzene	2.5034 3.0669	2.5332 2.7532	2.7222	2.5837	3.1073	Ave		2.752 8			9.0		20.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-71043-1

Analy Batch No.: 163707

SDG No.: \_\_\_\_\_

Instrument ID: 19930

GC Column: R-624SilMS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45

Calibration End Date: 08/24/2021 02:52

Calibration ID: 29976

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R <sup>2</sup> OR COD	#	MIN R <sup>2</sup> OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7															
sec-Butylbenzene	3.0988 3.7882	3.1067 3.3969	3.3230	3.2189	3.8259	Ave		3.394 1			8.9		20.0				
1,3-Dichlorobenzene	1.4232 1.7010	1.3877 1.5496	1.5218	1.4220	1.6882	Ave		1.527 7		0.6000	8.4		20.0				
p-Isopropyltoluene	2.7768 3.3546	2.7485 2.9902	2.9177	2.8376	3.3892	Ave		3.002 1			8.9		20.0				
1,4-Dichlorobenzene	1.5011 1.7091	1.4485 1.5576	1.5299	1.4598	1.7250	Ave		1.561 6		0.5000	7.2		20.0				
1,2,3-Trimethylbenzene	1.1533 1.3366	1.1447 1.2073	1.2071	1.1607	1.3161	Ave		1.218 0			6.4		20.0				
Benzyl chloride	0.1628 0.2764	0.1957 0.2557	0.2131	0.2136	0.2660	Ave		0.226 2			18.3		20.0				
n-Butylbenzene	1.2960 1.5824	1.2462 1.4394	1.3589	1.3122	1.5855	Ave		1.402 9			9.8		20.0				
1,2-Dichlorobenzene	1.3272 1.5336	1.2611 1.3757	1.3800	1.3430	1.5513	Ave		1.396 0		0.4000	7.7		20.0				
1,2-Dibromo-3-Chloropropane	0.0593 0.1030	0.0659 0.0884	0.0775	0.0818	0.0933	Ave		0.081 3		0.0500	18.8		20.0				
1,3,5-Trichlorobenzene	1.0011 1.2847	1.0067 1.1450	1.0702	1.0496	1.2682	Ave		1.117 9			10.6		20.0				
1,2,4-Trichlorobenzene	0.8399 1.0952	0.8063 0.9601	0.9241	0.9014	1.0764	Ave		0.943 3		0.2000	11.7		20.0				
Hexachlorobutadiene	0.4823 0.4373	0.3756 0.3936	0.3835	0.3656	0.4307	Ave		0.409 8			10.2		20.0				
Naphthalene	1.7619 2.0429	1.5776 1.6639	1.7607	1.7878	1.9900	Ave		1.797 8			9.3		20.0				
1,2,3-Trichlorobenzene	0.8050 0.9264	0.7050 0.7725	0.7921	0.7919	0.9136	Ave		0.815 2			9.7		20.0				
Dibromofluoromethane (Surr)	0.2500 0.2511	0.2526 0.2515	0.2525	0.2532	0.2524	Ave		0.251 9			0.4		20.0				
1,2-Dichloroethane-d4 (Surr)	0.0506 0.0506	0.0495 0.0507	0.0502	0.0508	0.0504	Ave		0.050 4			0.9		20.0				
Toluene-d8 (Surr)	1.3069 1.2913	1.2928 1.2642	1.3038	1.3008	1.2863	Ave		1.292 3			1.1		20.0				
4-Bromofluorobenzene (Surr)	0.4980 0.4916	0.4938 0.4919	0.4982	0.4929	0.4908	Ave		0.493 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.: 410-71043-1

Analy Batch No.: 163707

SDG No.: \_\_\_\_\_

Instrument ID: 19930

GC Column: R-624SilMS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45

Calibration End Date: 08/24/2021 02:52

Calibration ID: 29976

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-163707/18	IG23I07.D
Level 2	IC 410-163707/17	IG23I06.D
Level 3	IC 410-163707/16	IG23I05.D
Level 4	IC 410-163707/15	IG23I04.D
Level 5	IC 410-163707/14	IG23I03.D
Level 6	ICIS 410-163707/13	IG23I02.D
Level 7	IC 410-163707/12	IG23I01.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	++++ 769929	23341 1976750	65891	133370	382263	++++ 10.0	0.500 25.0	1.00	2.00	5.00
Chloromethane	FB	Ave	16469 783649	42004 2051431	71033	145518	399273	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,3-Butadiene	FB	Ave	15788 717606	33180 1874306	69705	136810	372442	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Vinyl chloride	FB	Ave	16237 816639	37981 2115370	72933	148690	416864	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Bromomethane	FB	Ave	12369 573256	30163 1433103	52904	107796	291289	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Chloroethane	FB	Ave	9968 476638	24539 1221840	44138	87256	245993	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Dichlorofluoromethane	FB	Ave	24746 1143054	57981 2906691	105130	213271	585859	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Trichlorofluoromethane	FB	Ave	17920 1133164	39345 2814367	100534	200068	585022	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Ethyl ether	FB	Ave	8085 440991	19745 1108291	37819	80725	217146	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Freon 123a	FB	Ave	14481 778462	33147 1932434	68921	140380	389865	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Acrolein	TBAd 10	Ave	67296 3553431	164868 8611114	325453	642849	1712613	10.00 500	25.0 1250	50.0	100.0	250
1,1-Dichloroethene	FB	Ave	9853 554846	25406 1392957	51944	94828	286821	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Acetone	TBAd 10	Ave	22016	42743	73600	175187	396518	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.: 410-71043-1

Analy Batch No.: 163707

SDG No.:

Instrument ID: 19930

GC Column: R-624SilMS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45

Calibration End Date: 08/24/2021 02:52

Calibration ID: 29976

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
			861750	1994344				100	250			
Freon 113	FB	Ave	7902 625953	23135 1607495	55518	101316	323788	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Methyl iodide	FB	Ave	19236 1095984	54663 2772320	102843	191541	558589	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Carbon disulfide	FB	Ave	27501 1534600	72614 3939815	135959	260459	782475	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Methyl acetate	TBAd 10	Ave	6630 261567	10814 587766	20743	53852	124512	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Allyl chloride	FB	Ave	17799 874837	44817 2240583	82613	152579	448975	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Methylene Chloride	FB	Ave	11123 593991	29677 1487176	55257	105792	300072	0.200 10.0	0.500 25.0	1.00	2.00	5.00
t-Butyl alcohol	TBAd 10	Ave	13173 745936	30939 1480411	58831	144787	314368	4.00 200	10.0 500	20.0	40.0	100
Acrylonitrile	TBAd 10	Ave	5439 307786	13208 741706	27336	56014	149768	0.500 25.0	1.25 62.5	2.50	5.00	12.5
Methyl tert-butyl ether	FB	Ave	28552 1574902	74896 3912928	145601	277645	795636	0.200 10.0	0.500 25.0	1.00	2.00	5.00
trans-1,2-Dichloroethene	FB	Ave	11615 619693	30641 1566059	57886	107403	313872	0.200 10.0	0.500 25.0	1.00	2.00	5.00
n-Hexane	FB	Ave	13158 955763	34316 2431187	80465	152797	492058	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1-Dichloroethane	FB	Ave	19958 1124834	56931 2865291	103998	200971	570521	0.200 10.0	0.500 25.0	1.00	2.00	5.00
di-Isopropyl ether	FB	Ave	34823 1870451	92363 4752763	174418	334487	951429	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2-Chloro-1,3-butadiene	FB	Ave	16724 951023	44829 2435652	86951	164913	487276	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Ethyl t-butyl ether	FB	Ave	34174 1838180	89795 4606991	171468	328284	927469	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2-Butanone (MEK)	TBAd 10	Ave	29007	77869	143475	287542	749581	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.: 410-71043-1

Analy Batch No.: 163707

SDG No.:

Instrument ID: 19930

GC Column: R-624SilMS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45

Calibration End Date: 08/24/2021 02:52

Calibration ID: 29976

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
			1563634	3797344				100	250			
cis-1,2-Dichloroethene	FB	Ave	13593 679972	33313 1726698	64220	121250	347207	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2,2-Dichloropropane	FB	Ave	17139 987902	48330 2523281	91101	171411	505614	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Propionitrile	TBAd 10	Ave	13833 903317	37944 2097921	75368	156726	411078	4.00 200	10.0 500	20.0	40.0	100
Methacrylonitrile	TBAd 10	Ave	28932 1573429	73898 3924933	143284	284046	787287	2.00 100	5.00 250	10.0	20.0	50.0
Bromochloromethane	FB	Ave	5382 297719	14686 746910	28049	54068	150285	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Tetrahydrofuran	TBAd 10	Ave	4531 235618	10321 557004	21437	42808	115070	1.00 50.0	2.50 125	5.00	10.0	25.0
Chloroform	FB	Ave	20677 1104772	55513 2794705	104933	196244	561287	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1,1-Trichloroethane	FB	Ave	17947 1048975	50051 2684937	97208	183060	537958	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Cyclohexane	FB	Ave	15734 1113121	41983 2858999	97677	180314	574963	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1-Dichloropropene	FB	Ave	15129 898023	40862 2298795	81553	154095	456566	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Carbon tetrachloride	FB	Ave	14826 943497	39984 2403582	83203	158160	477332	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Isobutyl alcohol	TBAd 10	Ave	11365 570979	24830 1185567	49738	107772	243578	10.0 500	25.0 1250	50.0	100	250
Benzene	FB	Ave	47533 2556166	128948 6462549	239616	450649	1303704	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2-Dichloroethane	FB	Ave	14085 680372	34473 1729238	65256	118544	345575	0.200 10.0	0.500 25.0	1.00	2.00	5.00
t-Amyl methyl ether	FB	Ave	32493 1715769	81778 4293680	157576	305576	854837	0.200 10.0	0.500 25.0	1.00	2.00	5.00
n-Heptane	FB	Ave	16461	39115	83896	149822	473994	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.: 410-71043-1 Analy Batch No.: 163707

SDG No.: \_\_\_\_\_

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45 Calibration End Date: 08/24/2021 02:52 Calibration ID: 29976

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
			916472	2352079				10.0	25.0			
n-Butanol	TBAd 10	Ave	15162	41262	80599	173400	436929	17.5	43.8	87.5	175	438
			975208	1950741				875	2188			
Trichloroethene	FB	Ave	12472	34329	63618	119880	356004	0.200	0.500	1.00	2.00	5.00
			695086	1777081				10.0	25.0			
Methylcyclohexane	FB	Ave	18086	46295	107529	204137	637877	0.200	0.500	1.00	2.00	5.00
			1254685	3199658				10.0	25.0			
1,2-Dichloropropane	FB	Ave	10792	30184	59643	113623	323309	0.200	0.500	1.00	2.00	5.00
			645492	1648952				10.0	25.0			
Methyl methacrylate	TBAd 10	Ave	5380	12996	28845	56288	158597	0.200	0.500	1.00	2.00	5.00
			320765	807321				10.0	25.0			
1,4-Dioxane	TBAd 10	Qua	+++++	4720	10496	27358	60485	+++++	25.0	50.0	100	250
			153335	203588				500	1250			
Dibromomethane	FB	Ave	6024	14579	28100	55146	155460	0.200	0.500	1.00	2.00	5.00
			307242	785220				10.0	25.0			
Bromodichloromethane	FB	Ave	13292	37237	68991	135182	393721	0.200	0.500	1.00	2.00	5.00
			786321	2042180				10.0	25.0			
2-Nitropropane	TBAd 10	Ave	7855	20434	40821	80872	217711	1.00	2.50	5.00	10.0	25.0
			442348	1146903				50.0	125			
cis-1,3-Dichloropropene	FB	Ave	16632	44155	87948	171443	498450	0.200	0.500	1.00	2.00	5.00
			999345	2594937				10.0	25.0			
4-Methyl-2-pentanone (MIBK)	TBAd 10	Ave	72451	180620	362286	725808	1950081	2.00	5.00	10.0	20.0	50.0
			3982955	9850003				100	250			
Toluene	CBZd 5	Ave	31541	85173	156583	294006	865208	0.200	0.500	1.00	2.00	5.00
			1680421	4295450				10.0	25.0			
trans-1,3-Dichloropropene	CBZd 5	Ave	13216	35995	70216	138743	409218	0.200	0.500	1.00	2.00	5.00
			822825	2144165				10.0	25.0			
Ethyl methacrylate	CBZd 5	Ave	11059	28685	58617	121040	344439	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.: 410-71043-1 Analy Batch No.: 163707

SDG No.: \_\_\_\_\_

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45 Calibration End Date: 08/24/2021 02:52 Calibration ID: 29976

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
			681452	1779294				10.0	25.0			
1,1,2-Trichloroethane	CBZd 5	Ave	8395	22055	41236	81343	228498	0.200	0.500	1.00	2.00	5.00
			455229	1148961				10.0	25.0			
Tetrachloroethene	CBZd 5	Ave	14161	39159	73750	142779	419950	0.200	0.500	1.00	2.00	5.00
			825293	2109166				10.0	25.0			
1,3-Dichloropropane	CBZd 5	Ave	14346	36830	71333	137217	389560	0.200	0.500	1.00	2.00	5.00
			768446	1970914				10.0	25.0			
2-Hexanone	TBAd 10	Ave	46582	125813	250322	503437	1427211	2.00	5.00	10.0	20.0	50.0
			2847614	7089653				100	250			
Dibromochloromethane	CBZd 5	Ave	9097	24663	49956	97832	290417	0.200	0.500	1.00	2.00	5.00
			582989	1544832				10.0	25.0			
1,2-Dibromoethane (EDB)	CBZd 5	Ave	7956	20030	40746	77838	225049	0.200	0.500	1.00	2.00	5.00
			442687	1136711				10.0	25.0			
1-Chlorohexane	CBZd 5	Ave	19704	46401	89057	170447	509095	0.200	0.500	1.00	2.00	5.00
			995910	2545795				10.0	25.0			
Chlorobenzene	CBZd 5	Ave	34732	92274	173851	331442	953872	0.200	0.500	1.00	2.00	5.00
			1872527	4793510				10.0	25.0			
1,1,1,2-Tetrachloroethane	CBZd 5	Ave	11871	30345	59106	117075	336401	0.200	0.500	1.00	2.00	5.00
			678162	1740796				10.0	25.0			
Ethylbenzene	CBZd 5	Ave	59702	160740	300446	572417	1673213	0.200	0.500	1.00	2.00	5.00
			3278221	8361092				10.0	25.0			
m&p-Xylene	CBZd 5	Ave	45724	127477	239751	455535	1325681	0.400	1.00	2.00	4.00	10.0
			2602971	6611583				20.0	50.0			
o-Xylene	CBZd 5	Ave	22844	62976	115204	225160	655445	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.: 410-71043-1 Analy Batch No.: 163707

SDG No.: \_\_\_\_\_

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45 Calibration End Date: 08/24/2021 02:52 Calibration ID: 29976

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
			1284350	3294215				10.0	25.0			
Styrene	CBZd 5	Ave	35508	99275	189931	364056	1063582	0.200	0.500	1.00	2.00	5.00
			2106471	5384777				10.0	25.0			
Bromoform	CBZd 5	Ave	5180	14486	28833	57249	176181	0.200	0.500	1.00	2.00	5.00
			363441	973418				10.0	25.0			
Isopropylbenzene	CBZd 5	Ave	59476	165096	310386	598946	1737611	0.200	0.500	1.00	2.00	5.00
			3411517	8533967				10.0	25.0			
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	10699	27777	54325	102513	293036	0.200	0.500	1.00	2.00	5.00
			586534	1493325				10.0	25.0			
Bromobenzene	DCBd 4	Ave	14657	38617	72358	140306	405579	0.200	0.500	1.00	2.00	5.00
			800922	2065190				10.0	25.0			
trans-1,4-Dichloro-2-butene	TBAd 10	Ave	23386	63065	127777	256704	739718	2.00	5.00	10.0	20.0	50.0
			1486472	3858821				100	250			
1,2,3-Trichloropropane	DCBd 4	Ave	2954	7449	14746	28724	81857	0.200	0.500	1.00	2.00	5.00
			162926	403698				10.0	25.0			
N-Propylbenzene	DCBd 4	Ave	69326	188239	355852	684747	1993107	0.200	0.500	1.00	2.00	5.00
			3955616	9726346				10.0	25.0			
2-Chlorotoluene	DCBd 4	Ave	13941	38383	74353	141927	403661	0.200	0.500	1.00	2.00	5.00
			795839	2063363				10.0	25.0			
1,3,5-Trimethylbenzene	DCBd 4	Ave	50366	137180	257721	494667	1448018	0.200	0.500	1.00	2.00	5.00
			2894636	7311288				10.0	25.0			
4-Chlorotoluene	DCBd 4	Ave	14590	39370	75316	142990	414612	0.200	0.500	1.00	2.00	5.00
			805714	2101375				10.0	25.0			
tert-Butylbenzene	DCBd 4	Ave	10568	30260	56868	110262	319038	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.: 410-71043-1 Analy Batch No.: 163707

SDG No.: \_\_\_\_\_

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45 Calibration End Date: 08/24/2021 02:52 Calibration ID: 29976

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
			633713	1619763				10.0	25.0			
Pentachloroethane	DCBd 4	Ave	8742	21010	43712	91381	259289	0.200	0.500	1.00	2.00	5.00
			538681	1393099				10.0	25.0			
1,2,4-Trimethylbenzene	DCBd 4	Ave	50685	139600	268890	508634	1496260	0.200	0.500	1.00	2.00	5.00
			2954664	7486072				10.0	25.0			
sec-Butylbenzene	DCBd 4	Ave	62740	171209	328234	633668	1842298	0.200	0.500	1.00	2.00	5.00
			3649559	9236299				10.0	25.0			
1,3-Dichlorobenzene	DCBd 4	Ave	28815	76475	150321	279932	812939	0.200	0.500	1.00	2.00	5.00
			1638792	4213523				10.0	25.0			
p-Isopropyltoluene	DCBd 4	Ave	56219	151465	288208	558603	1632038	0.200	0.500	1.00	2.00	5.00
			3231863	8130505				10.0	25.0			
1,4-Dichlorobenzene	DCBd 4	Ave	30392	79823	151116	287369	830653	0.200	0.500	1.00	2.00	5.00
			1646605	4235116				10.0	25.0			
1,2,3-Trimethylbenzene	DCBd 4	Ave	23351	63083	119238	228500	633734	0.200	0.500	1.00	2.00	5.00
			1287655	3282745				10.0	25.0			
Benzyl chloride	DCBd 4	Ave	3297	10785	21047	42047	128109	0.200	0.500	1.00	2.00	5.00
			266255	695344				10.0	25.0			
n-Butylbenzene	DCBd 4	Ave	26239	68676	134228	258320	763485	0.200	0.500	1.00	2.00	5.00
			1524448	3913754				10.0	25.0			
1,2-Dichlorobenzene	DCBd 4	Ave	26871	69498	136312	264385	746995	0.200	0.500	1.00	2.00	5.00
			1477507	3740715				10.0	25.0			
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	1200	3634	7659	16104	44921	0.200	0.500	1.00	2.00	5.00
			99189	240431				10.0	25.0			
1,3,5-Trichlorobenzene	DCBd 4	Ave	20269	55476	105716	206620	610685	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.: 410-71043-1 Analy Batch No.: 163707

SDG No.: \_\_\_\_\_

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45 Calibration End Date: 08/24/2021 02:52 Calibration ID: 29976

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
			1237730	3113277				10.0	25.0			
1,2,4-Trichlorobenzene	DCBd 4	Ave	17004	44434	91280	177445	518320	0.200	0.500	1.00	2.00	5.00
			1055085	2610571				10.0	25.0			
Hexachlorobutadiene	DCBd 4	Ave	9764	20700	37885	71973	207395	0.200	0.500	1.00	2.00	5.00
			421345	1070139				10.0	25.0			
Naphthalene	DCBd 4	Ave	35671	86939	173919	351951	958252	0.200	0.500	1.00	2.00	5.00
			1968173	4524102				10.0	25.0			
1,2,3-Trichlorobenzene	DCBd 4	Ave	16298	38854	78245	155892	439919	0.200	0.500	1.00	2.00	5.00
			892480	2100548				10.0	25.0			
Dibromofluoromethane (Surr)	FB	Ave	550850	602854	547419	542329	533947	10.0	10.0	10.0	10.0	10.0
			533065	582034				10.0	10.0			
1,2-Dichloroethane-d4 (Surr)	FB	Ave	111473	118060	108914	108754	106534	10.0	10.0	10.0	10.0	10.0
			107464	117327				10.0	10.0			
Toluene-d8 (Surr)	CBZd 5	Ave	2194797	2386226	2163909	2152292	2113101	10.0	10.0	10.0	10.0	10.0
			2118631	2314329				10.0	10.0			
4-Bromofluorobenzene (Surr)	CBZd 5	Ave	836413	911479	826851	815520	806331	10.0	10.0	10.0	10.0	10.0
			806596	900526				10.0	10.0			

Curve Type Legend

Ave = Average ISTD  
Qua = Quadratic ISTD

FORM VI  
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
READBACK PERCENT ERROR

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-71043-1 Analy Batch No.: 163707

SDG No.: \_\_\_\_\_

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45 Calibration End Date: 08/24/2021 02:52 Calibration ID: 29976

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-163707/18	IG23I07.D
Level 2	IC 410-163707/17	IG23I06.D
Level 3	IC 410-163707/16	IG23I05.D
Level 4	IC 410-163707/15	IG23I04.D
Level 5	IC 410-163707/14	IG23I03.D
Level 6	ICIS 410-163707/13	IG23I02.D
Level 7	IC 410-163707/12	IG23I01.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	++++ 9.2	-37.5	-2.8	-0.4	15.5	16.0	30	50	30	30	30	30
Chloromethane	4.9 -0.5	-1.2	-8.0	-4.7	5.9	3.6	50 30	30	30	30	30	30
1,3-Butadiene	9.4 -1.0	-15.1	-1.8	-2.4	7.6	3.3	50 30	30	30	30	30	30
Vinyl chloride	2.6 1.8	-11.4	-6.3	-3.4	9.7	7.1	50 30	30	30	30	30	30
Bromomethane	7.8 -4.9	-2.9	-6.3	-3.3	5.8	3.7	50 30	30	30	30	30	30
Chloroethane	5.0 -1.9	-4.5	-5.5	-5.4	8.0	4.3	50 30	30	30	30	30	30
Dichlorofluoromethane	8.4 -3.0	-6.2	-6.4	-3.8	6.9	4.0	50 30	30	30	30	30	30
Trichlorofluoromethane	-12.2 5.1	-28.8	0.2	0.9	19.5	15.3	50 30	30	30	30	30	30
Ethyl ether	-2.4 1.8	-12.0	-7.2	0.2	9.2	10.5	50 30	30	30	30	30	30
Freon 123a	-0.9 0.7	-16.2	-4.1	-1.2	11.1	10.6	50 30	30	30	30	30	30
Acrolein	-5.0 2.8	-7.2	4.1	-9.7	16.6	-1.6	50 30	30	30	30	30	30
1,1-Dichloroethene	-6.3 0.9	-10.8	0.4	-7.2	13.6	9.5	50 30	30	30	30	30	30
Acetone	22.2 -6.3	-5.4	-7.4	-3.2	6.2	-6.1	50 30	30	30	30	30	30
Freon 113	-28.1 11.5	-22.2	2.8	-5.1	22.8	18.3	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.: 410-71043-1

Analy Batch No.: 163707

SDG No.: \_\_\_\_\_

Instrument ID: 19930

GC Column: R-624SilMS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45

Calibration End Date: 08/24/2021 02:52

Calibration ID: 29976

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	-8.5 0.4	-4.0	-0.6	-6.3	10.7	8.2	50 30	30	30	30	30	30
Carbon disulfide	-5.3 3.4	-7.6	-4.8	-7.7	12.3	9.7	50 30	30	30	30	30	30
Methyl acetate	25.0 -6.2	-18.7	-11.3	1.1	13.3	-3.2	50 30	30	30	30	30	30
Allyl chloride	3.2 -1.1	-4.1	-2.7	-9.0	8.4	5.3	50 30	30	30	30	30	30
Methylene Chloride	-3.1 -1.3	-4.5	-2.2	-5.2	8.9	7.4	50 30	30	30	30	30	30
t-Butyl alcohol	-3.5 -8.3	-9.7	-2.4	5.5	11.1	7.2	50 30	30	30	30	30	30
Acrylonitrile	-9.4 4.5	-12.3	3.2	-7.1	20.4	0.6	50 30	30	30	30	30	30
Methyl tert-butyl ether	-4.8 -0.7	-7.8	-1.3	-4.8	10.5	9.0	50 30	30	30	30	30	30
trans-1,2-Dichloroethene	-2.8 -0.2	-5.3	-1.5	-7.5	9.5	7.7	50 30	30	30	30	30	30
n-Hexane	-21.1 11.0	-24.0	-1.9	-5.8	22.9	19.0	50 30	30	30	30	30	30
1,1-Dichloroethane	-7.9 0.7	-3.0	-2.5	-4.6	9.6	7.7	50 30	30	30	30	30	30
di-Isopropyl ether	-3.8 0.0	-5.8	-2.1	-5.0	9.5	7.2	50 30	30	30	30	30	30
2-Chloro-1,3-butadiene	-7.5 2.6	-8.4	-2.2	-6.1	12.3	9.2	50 30	30	30	30	30	30
Ethyl t-butyl ether	-3.5 -0.9	-6.3	-1.6	-4.6	9.1	7.8	50 30	30	30	30	30	30
2-Butanone (MEK)	-7.8 2.1	-1.3	3.4	-9.0	15.0	-2.4	50 30	30	30	30	30	30
cis-1,2-Dichloroethene	2.1 -1.2	-7.6	-1.9	-6.3	8.7	6.1	50 30	30	30	30	30	30
2,2-Dichloropropane	-9.1 2.0	-5.3	-1.7	-6.4	11.8	8.8	50 30	30	30	30	30	30
Propionitrile	-17.2 6.2	-9.4	2.2	-6.6	18.7	6.1	50 30	30	30	30	30	30
Methacrylonitrile	-8.5 5.1	-6.8	2.8	-10.5	20.2	-2.3	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.: 410-71043-1

Analy Batch No.: 163707

SDG No.:

Instrument ID: 19930

GC Column: R-624SilMS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45

Calibration End Date: 08/24/2021 02:52

Calibration ID: 29976

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	-6.3 -1.0	-5.6	-0.7	-3.1	9.0	7.6	50 30	30	30	30	30	30
Tetrahydrofuran	-2.9 1.0	-11.8	4.1	-8.7	19.0	-0.9	50 30	30	30	30	30	30
Chloroform	-3.7 -0.9	-4.5	-0.7	-6.0	8.9	6.8	50 30	30	30	30	30	30
1,1,1-Trichloroethane	-10.1 2.5	-7.4	-1.0	-5.6	12.3	9.2	50 30	30	30	30	30	30
Cyclohexane	-20.5 10.1	-21.6	0.4	-6.2	21.1	16.8	50 30	30	30	30	30	30
1,1-Dichloropropene	-10.1 4.0	-10.3	-1.5	-5.8	13.0	10.8	50 30	30	30	30	30	30
Carbon tetrachloride	-13.9 6.3	-14.3	-1.8	-5.5	15.5	13.7	50 30	30	30	30	30	30
Isobutyl alcohol	4.3 -7.9	-9.1	3.5	-1.5	7.9	2.9	50 30	30	30	30	30	30
Benzene	-4.1 -0.7	-3.9	-1.7	-6.4	9.6	7.1	50 30	30	30	30	30	30
1,2-Dichloroethane	4.9 -1.9	-5.2	-1.2	-9.1	7.2	5.2	50 30	30	30	30	30	30
t-Amyl methyl ether	-1.2 -0.5	-8.1	-2.6	-4.4	8.3	8.4	50 30	30	30	30	30	30
n-Heptane	-4.0 4.4	-15.8	-0.6	-10.1	15.1	10.9	50 30	30	30	30	30	30
n-Butanol	-14.3 -6.7	-7.0	3.2	-2.5	19.2	8.2	50 30	30	30	30	30	30
Trichloroethene	-6.3 1.6	-4.8	-2.9	-7.4	11.4	8.4	50 30	30	30	30	30	30
Methylcyclohexane	-18.3 10.0	-22.8	-1.3	-5.2	20.0	17.6	50 30	30	30	30	30	30
1,2-Dichloropropane	-11.3 3.2	-8.4	-0.4	-3.9	10.7	10.1	50 30	30	30	30	30	30
Methyl methacrylate	-13.4 9.9	-16.6	5.2	-9.8	23.2	1.4	50 30	30	30	30	30	30
1,4-Dioxane	++++ -17.8	35.8	5.7	-5.7	-8.4	4.1	30	50	30	30	30	30
Dibromomethane	1.3 0.6	-9.5	-3.9	-4.6	8.9	7.3	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.: 410-71043-1

Analy Batch No.: 163707

SDG No.: \_\_\_\_\_

Instrument ID: 19930

GC Column: R-624SilMS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45

Calibration End Date: 08/24/2021 02:52

Calibration ID: 29976

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	-9.9 5.4	-6.8	-4.9	-5.7	11.2	10.7	50 30	30	30	30	30	30
2-Nitropropane	-11.6 9.2	-8.3	4.1	-9.4	18.3	-2.3	50 30	30	30	30	30	30
cis-1,3-Dichloropropene	-10.3 6.6	-12.0	-3.5	-4.8	12.0	12.0	50 30	30	30	30	30	30
4-Methyl-2-pentanone (MIBK)	-8.5 5.2	-9.1	3.7	-8.8	18.8	-1.3	50 30	30	30	30	30	30
Toluene	-2.0 -2.1	-3.7	-1.6	-7.3	9.9	6.9	50 30	30	30	30	30	30
trans-1,3-Dichloropropene	-11.0 6.0	-11.8	-4.3	-5.1	12.7	13.5	50 30	30	30	30	30	30
Ethyl methacrylate	-10.8 5.4	-15.7	-4.3	-0.9	13.7	12.6	50 30	30	30	30	30	30
1,1,2-Trichloroethane	-2.3 -1.8	-6.5	-2.8	-3.9	8.8	8.5	50 30	30	30	30	30	30
Tetrachloroethene	-7.7 0.9	-7.1	-2.7	-5.5	11.9	10.1	50 30	30	30	30	30	30
1,3-Dichloropropane	-1.8 -1.0	-8.2	-1.2	-4.6	9.1	7.7	50 30	30	30	30	30	30
2-Hexanone	-16.0 8.1	-9.6	2.3	-9.7	24.2	0.8	50 30	30	30	30	30	30
Dibromochloromethane	-13.1 8.3	-14.2	-3.4	-5.1	13.5	14.0	50 30	30	30	30	30	30
1,2-Dibromoethane (EDB)	-4.0 0.7	-12.0	-0.5	-4.7	11.1	9.4	50 30	30	30	30	30	30
1-Chlorohexane	4.6 -0.8	-10.3	-4.3	-8.1	10.6	8.3	50 30	30	30	30	30	30
Chlorobenzene	-2.6 -1.4	-5.8	-1.4	-5.7	9.4	7.5	50 30	30	30	30	30	30
1,1,1,2-Tetrachloroethane	-4.7 2.6	-11.3	-3.9	-4.6	10.5	11.5	50 30	30	30	30	30	30
Ethylbenzene	-3.7 -1.0	-5.6	-1.9	-6.3	10.4	8.2	50 30	30	30	30	30	30
m&p-Xylene	-6.7 -0.9	-5.3	-0.9	-5.6	10.7	8.8	50 30	30	30	30	30	30
o-Xylene	-5.5 0.0	-5.2	-3.5	-5.5	10.9	8.8	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.: 410-71043-1

Analy Batch No.: 163707

SDG No.: \_\_\_\_\_

Instrument ID: 19930

GC Column: R-624SilMS ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45

Calibration End Date: 08/24/2021 02:52

Calibration ID: 29976

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	-9.0 1.3	-7.4	-1.5	-5.3	11.4	10.5	50 30	30	30	30	30	30
Bromoform	-17.4 13.9	-15.9	-6.9	-7.3	14.9	18.7	50 30	30	30	30	30	30
Isopropylbenzene	-6.8 -1.9	-5.8	-1.6	-4.7	11.3	9.4	50 30	30	30	30	30	30
1,1,2,2-Tetrachloroethane	-4.4 -0.7	-8.8	-0.5	-5.8	10.1	10.1	50 30	30	30	30	30	30
Bromobenzene	-4.4 0.3	-7.5	-3.3	-5.9	11.2	9.7	50 30	30	30	30	30	30
trans-1,4-Dichloro-2-butene	-18.4 13.9	-12.2	1.1	-10.8	24.6	1.8	50 30	30	30	30	30	30
1,2,3-Trichloropropane	-4.0 -2.3	-11.1	-1.8	-4.0	11.9	11.3	50 30	30	30	30	30	30
N-Propylbenzene	-6.9 -2.7	-7.1	-2.0	-5.4	12.5	11.6	50 30	30	30	30	30	30
2-Chlorotoluene	-8.7 0.6	-7.7	-0.2	-4.5	11.1	9.5	50 30	30	30	30	30	30
1,3,5-Trimethylbenzene	-7.4 0.1	-7.3	-2.8	-6.4	12.0	11.9	50 30	30	30	30	30	30
4-Chlorotoluene	-6.5 0.3	-7.3	-1.1	-5.7	11.7	8.5	50 30	30	30	30	30	30
tert-Butylbenzene	-11.4 1.1	-6.8	-2.3	-4.9	12.5	11.7	50 30	30	30	30	30	30
Pentachloroethane	-9.2 7.7	-19.9	-7.0	-2.4	13.2	17.5	50 30	30	30	30	30	30
1,2,4-Trimethylbenzene	-9.1 0.0	-8.0	-1.1	-6.1	12.9	11.4	50 30	30	30	30	30	30
sec-Butylbenzene	-8.7 0.1	-8.5	-2.1	-5.2	12.7	11.6	50 30	30	30	30	30	30
1,3-Dichlorobenzene	-6.8 1.4	-9.2	-0.4	-6.9	10.5	11.3	50 30	30	30	30	30	30
p-Isopropyltoluene	-7.5 -0.4	-8.4	-2.8	-5.5	12.9	11.7	50 30	30	30	30	30	30
1,4-Dichlorobenzene	-3.9 -0.3	-7.2	-2.0	-6.5	10.5	9.5	50 30	30	30	30	30	30
1,2,3-Trimethylbenzene	-5.3 -0.9	-6.0	-0.9	-4.7	8.1	9.7	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.: 410-71043-1 Analy Batch No.: 163707

SDG No.: \_\_\_\_\_

Instrument ID: 19930 GC Column: R-624SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/24/2021 00:45 Calibration End Date: 08/24/2021 02:52 Calibration ID: 29976

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	-28.0 13.1	-13.5	-5.8	-5.6	17.6	22.2	50 30	30	30	30	30	30
n-Butylbenzene	-7.6 2.6	-11.2	-3.1	-6.5	13.0	12.8	50 30	30	30	30	30	30
1,2-Dichlorobenzene	-4.9 -1.5	-9.7	-1.1	-3.8	11.1	9.9	50 30	30	30	30	30	30
1,2-Dibromo-3-Chloropropane	-27.1 8.7	-18.9	-4.6	0.6	14.7	26.6	50 30	30	30	30	30	30
1,3,5-Trichlorobenzene	-10.4 2.4	-10.0	-4.3	-6.1	13.4	14.9	50 30	30	30	30	30	30
1,2,4-Trichlorobenzene	-11.0 1.8	-14.5	-2.0	-4.4	14.1	16.1	50 30	30	30	30	30	30
Hexachlorobutadiene	17.7 -4.0	-8.3	-6.4	-10.8	5.1	6.7	50 30	30	30	30	30	30
Naphthalene	-2.0 -7.5	-12.3	-2.1	-0.6	10.7	13.6	50 30	30	30	30	30	30
1,2,3-Trichlorobenzene	-1.3 -5.2	-13.5	-2.8	-2.9	12.1	13.6	50 30	30	30	30	30	30
Dibromofluoromethane (Surr)	-0.8 -0.2	0.3	0.2	0.5	0.2	-0.3	50 30	30	30	30	30	30
1,2-Dichloroethane-d4 (Surr)	0.4 0.6	-1.8	-0.3	0.8	-0.1	0.5	50 30	30	30	30	30	30
Toluene-d8 (Surr)	1.1 -2.2	0.0	0.9	0.7	-0.5	-0.1	50 30	30	30	30	30	30
4-Bromofluorobenzene (Surr)	0.8 -0.4	0.0	0.9	-0.2	-0.6	-0.5	50 30	30	30	30	30	30

Eurofins Lancaster Laboratories Env, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23101.D  
 Lims ID: IC std7  
 Client ID:  
 Sample Type: IC Calib Level: 7  
 Inject. Date: 24-Aug-2021 00:45:30 ALS Bottle#: 11 Worklist Smp#: 12  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0037607-012  
 Misc. Info.: IC STD7  
 Operator ID: mec29284 Instrument ID: 19930  
 Sublist: chrom-8260 25ml HP31\*sub2  
 Method: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 24-Aug-2021 15:55:02 Calib Date: 24-Aug-2021 02:52:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1646

First Level Reviewer: longj Date: 24-Aug-2021 15:00:56

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.977	1.965	0.012	99	1976750	25.0	27.3	
4 Chloromethane	50	2.172	2.172	0.000	99	2051431	25.0	24.9	
6 Butadiene	39	2.294	2.288	0.006	90	1874306	25.0	24.7	
5 Vinyl chloride	62	2.294	2.294	0.000	96	2115370	25.0	25.4	
7 Bromomethane	94	2.623	2.623	0.000	91	1433103	25.0	23.8	
8 Chloroethane	64	2.709	2.709	0.000	100	1221840	25.0	24.5	
9 Dichlorofluoromethane	67	2.946	2.946	0.000	97	2906691	25.0	24.3	
10 Trichlorofluoromethane	101	3.013	3.020	-0.007	97	2814367	25.0	26.3	
11 Ethyl ether	59	3.263	3.257	0.006	90	1108291	25.0	25.5	
12 1,2-Dichloro-1,1,2-trifluoroethane	67	3.355	3.343	0.012	91	1932434	25.0	25.2	
13 Acrolein	56	3.434	3.428	0.006	99	8611114	1250.0	1284.9	
14 1,1-Dichloroethene	96	3.574	3.568	0.006	98	1392957	25.0	25.2	
15 Acetone	43	3.605	3.599	0.006	100	1994344	250.0	234.1	
16 112TCTFE	101	3.617	3.611	0.006	91	1607495	25.0	27.9	
17 Iodomethane	142	3.776	3.769	0.007	99	2772320	25.0	25.1	
18 Ethyl bromide	108	3.806	3.794	0.012	99	1256154	25.0	25.0	
19 Carbon disulfide	76	3.885	3.879	0.006	99	3939815	25.0	25.8	
21 Methyl acetate	43	4.032	4.038	-0.006	97	587766	25.0	23.4	
22 3-Chloro-1-propene	41	4.056	4.056	0.000	91	2240583	25.0	24.7	
23 Methylene Chloride	84	4.245	4.239	0.006	91	1487176	25.0	24.7	
* 24 t-Butyl alcohol-d10 (IS)	65	4.257	4.263	-0.006	95	153335	50.0	50.0	
25 2-Methyl-2-propanol	59	4.391	4.397	-0.006	100	1480411	500.0	458.5	
26 Acrylonitrile	53	4.586	4.592	-0.006	100	741706	62.5	65.3	
27 Methyl tert-butyl ether	73	4.653	4.659	-0.006	95	3912928	25.0	24.8	
28 trans-1,2-Dichloroethene	96	4.672	4.672	0.000	99	1566059	25.0	25.0	
29 Hexane	57	5.092	5.086	0.006	91	2431187	25.0	27.7	
31 1,1-Dichloroethane	63	5.330	5.330	0.000	96	2865291	25.0	25.2	
32 Isopropyl ether	45	5.385	5.385	0.000	94	4752763	25.0	25.0	
33 2-Chloro-1,3-butadiene	53	5.440	5.434	0.006	91	2435652	25.0	25.7	
34 Tert-butyl ethyl ether	59	5.921	5.915	0.006	97	4606991	25.0	24.8	

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	6.129	6.116	0.013	99	3797344	250.0	255.3	
S 35 1,2-Dichloroethene, Total	100				0			49.7	
37 cis-1,2-Dichloroethene	96	6.159	6.159	0.000	82	1726698	25.0	24.7	
38 2,2-Dichloropropane	77	6.177	6.171	0.006	86	2523281	25.0	25.5	
40 Propionitrile	54	6.208	6.208	0.000	99	2097921	500.0	531.1	
42 Methacrylonitrile	67	6.427	6.415	0.012	91	3924933	250.0	262.6	
43 Chlorobromomethane	128	6.488	6.482	0.006	89	746910	25.0	24.8	
44 Tetrahydrofuran	71	6.501	6.494	0.007	79	557004	125.0	126.3	
45 Chloroform	83	6.641	6.635	0.006	93	2794705	25.0	24.8	
\$ 46 Dibromofluoromethane (Surr)	113	6.854	6.848	0.006	94	582034	10.0	9.98	
47 1,1,1-Trichloroethane	97	6.866	6.860	0.006	98	2684937	25.0	25.6	
48 Cyclohexane	56	6.964	6.964	0.000	89	2858999	25.0	27.5	
50 Carbon tetrachloride	117	7.080	7.067	0.013	87	2403582	25.0	26.6	
51 1,1-Dichloropropene	75	7.074	7.074	0.000	96	2298795	25.0	26.0	
52 Isobutyl alcohol	41	7.214	7.214	0.000	95	1185567	1250.0	1150.8	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.305	7.299	0.006	84	117327	10.0	10.1	
54 Benzene	78	7.336	7.336	0.000	96	6462549	25.0	24.8	
56 1,2-Dichloroethane	62	7.409	7.409	0.000	98	1729238	25.0	24.5	
57 Tert-amyl methyl ether	73	7.525	7.519	0.006	98	4293680	25.0	24.9	
* 58 Fluorobenzene (IS)	96	7.738	7.732	0.006	99	2314551	10.0	10.0	
59 n-Heptane	43	7.750	7.744	0.006	90	2352079	25.0	26.1	
60 n-Butanol	56	8.092	8.098	-0.006	87	1950741	2187.5	2039.9	
61 Trichloroethene	95	8.220	8.214	0.006	97	1777081	25.0	25.4	
62 Methylcyclohexane	83	8.525	8.525	0.000	93	3199658	25.0	27.5	
63 1,2-Dichloropropane	63	8.549	8.543	0.006	93	1648952	25.0	25.8	
64 Methyl methacrylate	69	8.622	8.628	-0.006	89	807321	25.0	27.5	
65 1,4-Dioxane	88	8.634	8.640	-0.006	32	203588	1250.0	1026.9	M
66 Dibromomethane	93	8.659	8.653	0.006	93	785220	25.0	25.1	
68 Dichlorobromomethane	83	8.890	8.890	0.000	99	2042180	25.0	26.4	
69 2-Nitropropane	41	9.153	9.152	0.000	97	1146903	125.0	136.5	
72 1-Bromo-2-chloroethane	63	9.281	9.280	0.001	98	1613213	25.0	25.7	
73 cis-1,3-Dichloropropene	75	9.433	9.433	0.000	98	2594937	25.0	26.7	
74 4-Methyl-2-pentanone (MIBK)	43	9.604	9.597	0.007	95	9850003	250.0	263.0	
\$ 75 Toluene-d8 (Surr)	98	9.738	9.738	0.000	93	2314329	10.0	9.78	
76 Toluene	92	9.817	9.811	0.006	98	4295450	25.0	24.5	
S 77 1,3-Dichloropropene, Total	100				0			53.2	
78 trans-1,3-Dichloropropene	75	10.067	10.067	0.000	92	2144165	25.0	26.5	
79 Ethyl methacrylate	69	10.128	10.128	0.000	88	1779294	25.0	26.3	
80 1,1,2-Trichloroethane	97	10.268	10.268	0.000	91	1148961	25.0	24.5	
81 Tetrachloroethene	166	10.360	10.360	0.000	98	2109166	25.0	25.2	
82 1,3-Dichloropropane	76	10.433	10.433	0.000	88	1970914	25.0	24.8	
83 2-Hexanone	43	10.482	10.481	0.001	96	7089653	250.0	270.3	
85 Chlorodibromomethane	129	10.646	10.646	0.000	90	1544832	25.0	27.1	
86 Ethylene Dibromide	107	10.762	10.756	0.006	99	1136711	25.0	25.2	
* 87 Chlorobenzene-d5 (IS)	117	11.183	11.183	0.000	86	1830649	10.0	10.0	
88 1-Chlorohexane	91	11.189	11.189	0.000	96	2545795	25.0	24.8	
90 Chlorobenzene	112	11.213	11.213	0.000	95	4793510	25.0	24.7	
S 89 Xylenes, Total	106				0			74.5	
91 1,1,1,2-Tetrachloroethane	131	11.292	11.292	0.000	97	1740796	25.0	25.6	
92 Ethylbenzene	91	11.298	11.298	0.000	98	8361092	25.0	24.7	
93 m-Xylene & p-Xylene	106	11.408	11.408	0.000	99	6611583	50.0	49.5	
94 o-Xylene	106	11.737	11.737	0.000	96	3294215	25.0	25.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
95 Styrene	104	11.756	11.756	0.000	95	5384777	25.0	25.3	
96 Bromoform	173	11.914	11.914	0.000	98	973418	25.0	28.5	
97 Isopropylbenzene	105	12.036	12.036	0.000	96	8533967	25.0	24.5	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	92	900526	10.0	9.96	
101 1,1,2,2-Tetrachloroethane	83	12.280	12.280	0.000	93	1493325	25.0	24.8	
102 Bromobenzene	156	12.298	12.298	0.000	95	2065190	25.0	25.1	
103 trans-1,4-Dichloro-2-butene	53	12.304	12.304	0.000	91	3858821	250.0	284.8	
104 1,2,3-Trichloropropane	110	12.329	12.329	0.000	81	403698	25.0	24.4	
105 N-Propylbenzene	91	12.365	12.365	0.000	98	9726346	25.0	24.3	
106 2-Chlorotoluene	126	12.445	12.444	0.001	97	2063363	25.0	25.1	
107 1,3,5-Trimethylbenzene	105	12.499	12.499	0.000	94	7311288	25.0	25.0	
108 4-Chlorotoluene	126	12.536	12.536	0.000	97	2101375	25.0	25.1	
109 tert-Butylbenzene	134	12.743	12.743	0.000	93	1619763	25.0	25.3	
110 Pentachloroethane	167	12.774	12.774	0.000	94	1393099	25.0	26.9	
111 1,2,4-Trimethylbenzene	105	12.786	12.786	0.000	97	7486072	25.0	25.0	
112 sec-Butylbenzene	105	12.908	12.902	0.006	96	9236299	25.0	25.0	
113 1,3-Dichlorobenzene	146	13.005	13.005	0.000	98	4213523	25.0	25.4	
114 4-Isopropyltoluene	119	13.012	13.011	0.001	96	8130505	25.0	24.9	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	93	1087615	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.079	13.079	0.000	94	4235116	25.0	24.9	
117 1,2,3-Trimethylbenzene	120	13.091	13.085	0.006	98	3282745	25.0	24.8	
118 Benzyl chloride	126	13.152	13.158	-0.006	98	695344	25.0	28.3	
119 n-Butylbenzene	92	13.304	13.304	0.000	97	3913754	25.0	25.6	
120 1,2-Dichlorobenzene	146	13.341	13.341	0.000	99	3740715	25.0	24.6	
122 1,2-Dibromo-3-Chloropropane	155	13.883	13.883	0.000	90	240431	25.0	27.2	
123 1,3,5-Trichlorobenzene	180	14.005	14.005	0.000	98	3113277	25.0	25.6	
124 1,2,4-Trichlorobenzene	180	14.432	14.432	0.000	94	2610571	25.0	25.4	
125 Hexachlorobutadiene	225	14.511	14.511	0.000	96	1070139	25.0	24.0	
126 Naphthalene	128	14.609	14.609	0.000	97	4524102	25.0	23.1	
127 1,2,3-Trichlorobenzene	180	14.749	14.755	-0.006	96	2100548	25.0	23.7	
134 Isopropyl alcohol	45		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
137 2-Methylnaphthalene	142		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	

## QC Flag Legend

### Processing Flags

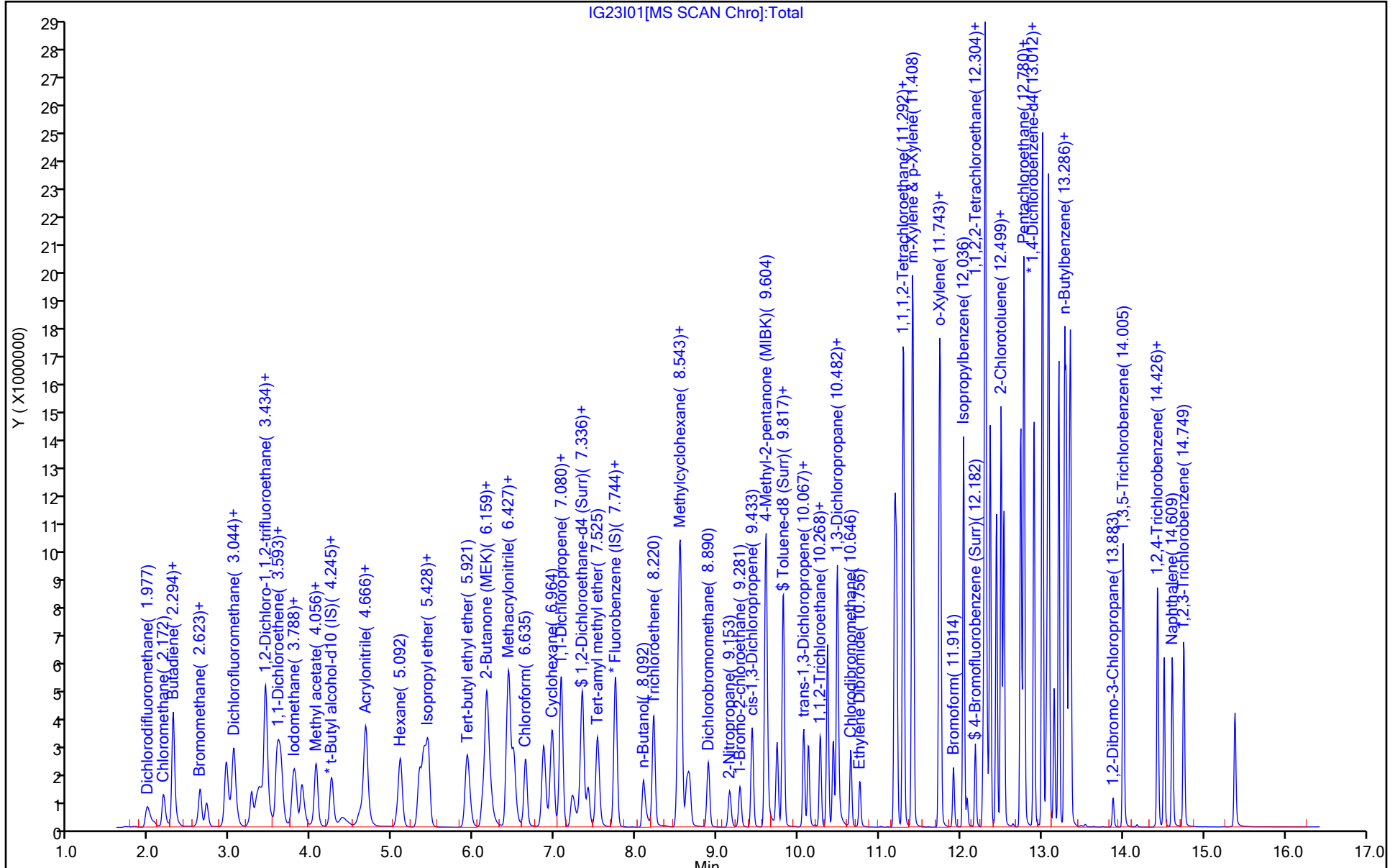
ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

MSV_LL_#1_826_00015	Amount Added: 25.00	Units: uL	
MSV_LL_#2_826_00015	Amount Added: 25.00	Units: uL	
MSV_LL_GAS826_00027	Amount Added: 25.00	Units: uL	
MSV_LLcentISS_00001	Amount Added: 5.00	Units: uL	Run Reagent





Eurofins Lancaster Laboratories Env, LLC

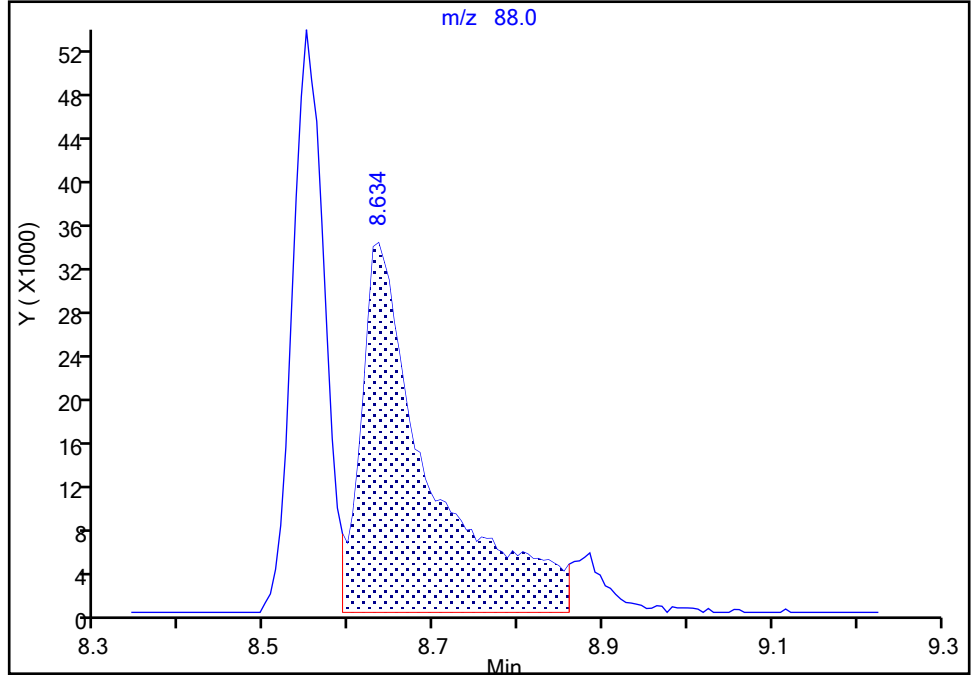
Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23101.D  
Injection Date: 24-Aug-2021 00:45:30 Instrument ID: 19930  
Lims ID: IC std7  
Client ID:  
Operator ID: mec29284 ALS Bottle#: 11 Worklist Smp#: 12  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column ( 0.25mm ID) Detector: MS Quad

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

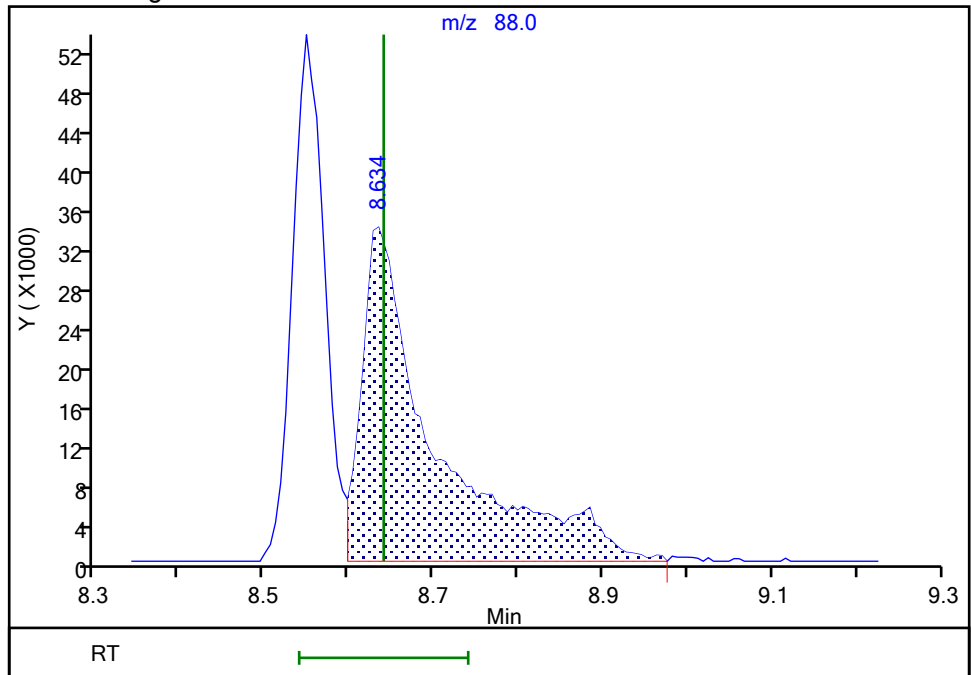
RT: 8.63  
Area: 191805  
Amount: 912.6603  
Amount Units: ug/l

Processing Integration Results



RT: 8.63  
Area: 203588  
Amount: 1026.9040  
Amount Units: ug/l

Manual Integration Results



Reviewer: longj, 24-Aug-2021 15:03:46  
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\20210823-37607.b\IG23102.D  
 Lims ID: ICIS - LG  
 Client ID:  
 Sample Type: ICIS Calib Level: 6  
 Inject. Date: 24-Aug-2021 01:06:30 ALS Bottle#: 12 Worklist Smp#: 13  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0037607-013  
 Misc. Info.: ICIS - LG  
 Operator ID: mec29284 Instrument ID: 19930  
 Sublist: chrom-8260 25ml HP31\*sub2

Method: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 24-Aug-2021 15:55:07 Calib Date: 24-Aug-2021 02:52:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1646

First Level Reviewer: spositok

Date: 24-Aug-2021 14:22:38

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.983	1.983	0.000	99	769929	10.0	11.6	
4 Chloromethane	50	2.184	2.184	0.000	99	783649	10.0	10.4	
6 Butadiene	39	2.300	2.300	0.000	90	717606	10.0	10.3	
5 Vinyl chloride	62	2.300	2.300	0.000	97	816639	10.0	10.7	
7 Bromomethane	94	2.635	2.635	0.000	90	573256	10.0	10.4	
8 Chloroethane	64	2.715	2.715	0.000	100	476638	10.0	10.4	
9 Dichlorofluoromethane	67	2.952	2.952	0.000	97	1143054	10.0	10.4	
10 Trichlorofluoromethane	101	3.026	3.026	0.000	97	1133164	10.0	11.5	
11 Ethyl ether	59	3.269	3.269	0.000	90	440991	10.0	11.0	
12 1,2-Dichloro-1,1,2-trifluoroethane	67	3.355	3.355	0.000	91	778462	10.0	11.1	
13 Acrolein	56	3.440	3.440	0.000	99	3553431	500.0	492.1	
14 1,1-Dichloroethene	96	3.580	3.580	0.000	98	554846	10.0	11.0	
15 Acetone	43	3.611	3.611	0.000	100	861750	100.0	93.9	
16 112TCTFE	101	3.623	3.623	0.000	91	625953	10.0	11.8	
17 Iodomethane	142	3.781	3.781	0.000	99	1095984	10.0	10.8	
18 Ethyl bromide	108	3.812	3.812	0.000	99	498873	10.0	10.8	
19 Carbon disulfide	76	3.891	3.891	0.000	99	1534600	10.0	11.0	
21 Methyl acetate	43	4.031	4.031	0.000	97	261567	10.0	9.68	
22 3-Chloro-1-propene	41	4.068	4.068	0.000	91	874837	10.0	10.5	
23 Methylene Chloride	84	4.257	4.257	0.000	91	593991	10.0	10.7	
* 24 t-Butyl alcohol-d10 (IS)	65	4.269	4.269	0.000	96	165205	50.0	50.0	
25 2-Methyl-2-propanol	59	4.385	4.385	0.000	100	745936	200.0	214.4	
26 Acrylonitrile	53	4.592	4.592	0.000	100	307786	25.0	25.2	
27 Methyl tert-butyl ether	73	4.665	4.665	0.000	94	1574902	10.0	10.9	
28 trans-1,2-Dichloroethene	96	4.678	4.678	0.000	100	619693	10.0	10.8	
29 Hexane	57	5.104	5.104	0.000	91	955763	10.0	11.9	
31 1,1-Dichloroethane	63	5.336	5.336	0.000	96	1124834	10.0	10.8	
32 Isopropyl ether	45	5.391	5.391	0.000	94	1870451	10.0	10.7	
33 2-Chloro-1,3-butadiene	53	5.446	5.446	0.000	90	951023	10.0	10.9	
34 Tert-butyl ethyl ether	59	5.921	5.921	0.000	97	1838180	10.0	10.8	

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	6.122	6.122	0.000	99	1563634	100.0	97.6	
37 cis-1,2-Dichloroethene	96	6.159	6.159	0.000	82	679972	10.0	10.6	
38 2,2-Dichloropropane	77	6.177	6.177	0.000	86	987902	10.0	10.9	
40 Propionitrile	54	6.208	6.208	0.000	99	903317	200.0	212.2	
42 Methacrylonitrile	67	6.427	6.427	0.000	90	1573429	100.0	97.7	
43 Chlorobromomethane	128	6.488	6.488	0.000	91	297719	10.0	10.8	
44 Tetrahydrofuran	71	6.500	6.500	0.000	77	235618	50.0	49.6	
45 Chloroform	83	6.641	6.641	0.000	93	1104772	10.0	10.7	
\$ 46 Dibromofluoromethane (Surr)	113	6.854	6.854	0.000	94	533065	10.0	9.97	
47 1,1,1-Trichloroethane	97	6.866	6.866	0.000	98	1048975	10.0	10.9	
48 Cyclohexane	56	6.970	6.970	0.000	89	1113121	10.0	11.7	
50 Carbon tetrachloride	117	7.080	7.080	0.000	89	943497	10.0	11.4	
51 1,1-Dichloropropene	75	7.080	7.080	0.000	96	898023	10.0	11.1	
52 Isobutyl alcohol	41	7.214	7.214	0.000	95	570979	500.0	514.4	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.305	7.305	0.000	83	107464	10.0	10.0	
54 Benzene	78	7.342	7.342	0.000	96	2556166	10.0	10.7	
56 1,2-Dichloroethane	62	7.409	7.409	0.000	98	680372	10.0	10.5	
57 Tert-amyl methyl ether	73	7.525	7.525	0.000	99	1715769	10.0	10.8	
* 58 Fluorobenzene (IS)	96	7.744	7.744	0.000	99	2122537	10.0	10.0	
59 n-Heptane	43	7.750	7.750	0.000	92	916472	10.0	11.1	
60 n-Butanol	56	8.098	8.098	0.000	87	975208	875.0	946.5	
61 Trichloroethene	95	8.220	8.220	0.000	97	695086	10.0	10.8	
62 Methylcyclohexane	83	8.524	8.524	0.000	93	1254685	10.0	11.8	
63 1,2-Dichloropropane	63	8.549	8.549	0.000	77	645492	10.0	11.0	
64 Methyl methacrylate	69	8.628	8.628	0.000	89	320765	10.0	10.1	
65 1,4-Dioxane	88	8.640	8.640	0.000	42	153335	500.0	520.7	
66 Dibromomethane	93	8.659	8.659	0.000	93	307242	10.0	10.7	
68 Dichlorobromomethane	83	8.890	8.890	0.000	99	786321	10.0	11.1	
69 2-Nitropropane	41	9.152	9.152	0.000	98	442348	50.0	48.9	
72 1-Bromo-2-chloroethane	63	9.280	9.280	0.000	99	642543	10.0	11.2	
73 cis-1,3-Dichloropropene	75	9.433	9.433	0.000	97	999345	10.0	11.2	
74 4-Methyl-2-pentanone (MIBK)	43	9.603	9.603	0.000	96	3982955	100.0	98.7	
\$ 75 Toluene-d8 (Surr)	98	9.738	9.738	0.000	93	2118631	10.0	10.0	
76 Toluene	92	9.817	9.817	0.000	98	1680421	10.0	10.7	
78 trans-1,3-Dichloropropene	75	10.067	10.067	0.000	92	822825	10.0	11.3	
79 Ethyl methacrylate	69	10.128	10.128	0.000	88	681452	10.0	11.3	
80 1,1,2-Trichloroethane	97	10.268	10.268	0.000	90	455229	10.0	10.9	
81 Tetrachloroethene	166	10.359	10.359	0.000	98	825293	10.0	11.0	
82 1,3-Dichloropropane	76	10.433	10.433	0.000	88	768446	10.0	10.8	
83 2-Hexanone	43	10.481	10.481	0.000	96	2847614	100.0	100.8	
85 Chlorodibromomethane	129	10.646	10.646	0.000	90	582989	10.0	11.4	
86 Ethylene Dibromide	107	10.762	10.762	0.000	98	442687	10.0	10.9	
* 87 Chlorobenzene-d5 (IS)	117	11.182	11.182	0.000	85	1640634	10.0	10.0	
88 1-Chlorohexane	91	11.189	11.189	0.000	95	995910	10.0	10.8	
90 Chlorobenzene	112	11.213	11.213	0.000	95	1872527	10.0	10.7	
91 1,1,1,2-Tetrachloroethane	131	11.292	11.292	0.000	96	678162	10.0	11.1	
92 Ethylbenzene	91	11.298	11.298	0.000	98	3278221	10.0	10.8	
93 m-Xylene & p-Xylene	106	11.408	11.408	0.000	100	2602971	20.0	21.8	
94 o-Xylene	106	11.737	11.737	0.000	96	1284350	10.0	10.9	
95 Styrene	104	11.756	11.756	0.000	95	2106471	10.0	11.1	
96 Bromoform	173	11.914	11.914	0.000	98	363441	10.0	11.9	
97 Isopropylbenzene	105	12.036	12.036	0.000	95	3411517	10.0	10.9	

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	12.182	12.182	0.000	93	806596	10.0	9.95	
101 1,1,2,2-Tetrachloroethane	83	12.280	12.280	0.000	93	586534	10.0	11.0	
102 Bromobenzene	156	12.298	12.298	0.000	94	800922	10.0	11.0	
103 trans-1,4-Dichloro-2-butene	53	12.304	12.304	0.000	91	1486472	100.0	101.8	
104 1,2,3-Trichloropropane	110	12.329	12.329	0.000	83	162926	10.0	11.1	
105 N-Propylbenzene	91	12.365	12.365	0.000	99	3955616	10.0	11.2	
106 2-Chlorotoluene	126	12.444	12.444	0.000	97	795839	10.0	10.9	
107 1,3,5-Trimethylbenzene	105	12.499	12.499	0.000	94	2894636	10.0	11.2	
108 4-Chlorotoluene	126	12.536	12.536	0.000	97	805714	10.0	10.9	
109 tert-Butylbenzene	134	12.743	12.743	0.000	93	633713	10.0	11.2	
110 Pentachloroethane	167	12.774	12.774	0.000	92	538681	10.0	11.8	
111 1,2,4-Trimethylbenzene	105	12.786	12.786	0.000	97	2954664	10.0	11.1	
112 sec-Butylbenzene	105	12.908	12.908	0.000	94	3649559	10.0	11.2	
113 1,3-Dichlorobenzene	146	13.005	13.005	0.000	98	1638792	10.0	11.1	
114 4-Isopropyltoluene	119	13.011	13.011	0.000	97	3231863	10.0	11.2	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	94	963407	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.078	13.078	0.000	95	1646605	10.0	10.9	
117 1,2,3-Trimethylbenzene	120	13.091	13.091	0.000	98	1287655	10.0	11.0	
118 Benzyl chloride	126	13.158	13.158	0.000	98	266255	10.0	12.2	
119 n-Butylbenzene	92	13.304	13.304	0.000	97	1524448	10.0	11.3	
120 1,2-Dichlorobenzene	146	13.341	13.341	0.000	99	1477507	10.0	11.0	
122 1,2-Dibromo-3-Chloropropane	155	13.883	13.883	0.000	89	99189	10.0	12.7	
123 1,3,5-Trichlorobenzene	180	14.005	14.005	0.000	98	1237730	10.0	11.5	
124 1,2,4-Trichlorobenzene	180	14.432	14.432	0.000	94	1055085	10.0	11.6	
125 Hexachlorobutadiene	225	14.511	14.511	0.000	96	421345	10.0	10.7	
126 Naphthalene	128	14.609	14.609	0.000	97	1968173	10.0	11.4	
127 1,2,3-Trichlorobenzene	180	14.755	14.755	0.000	96	892480	10.0	11.4	
134 Isopropyl alcohol	45		0.000				ND	ND	
137 2-Methylnaphthalene	142		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	

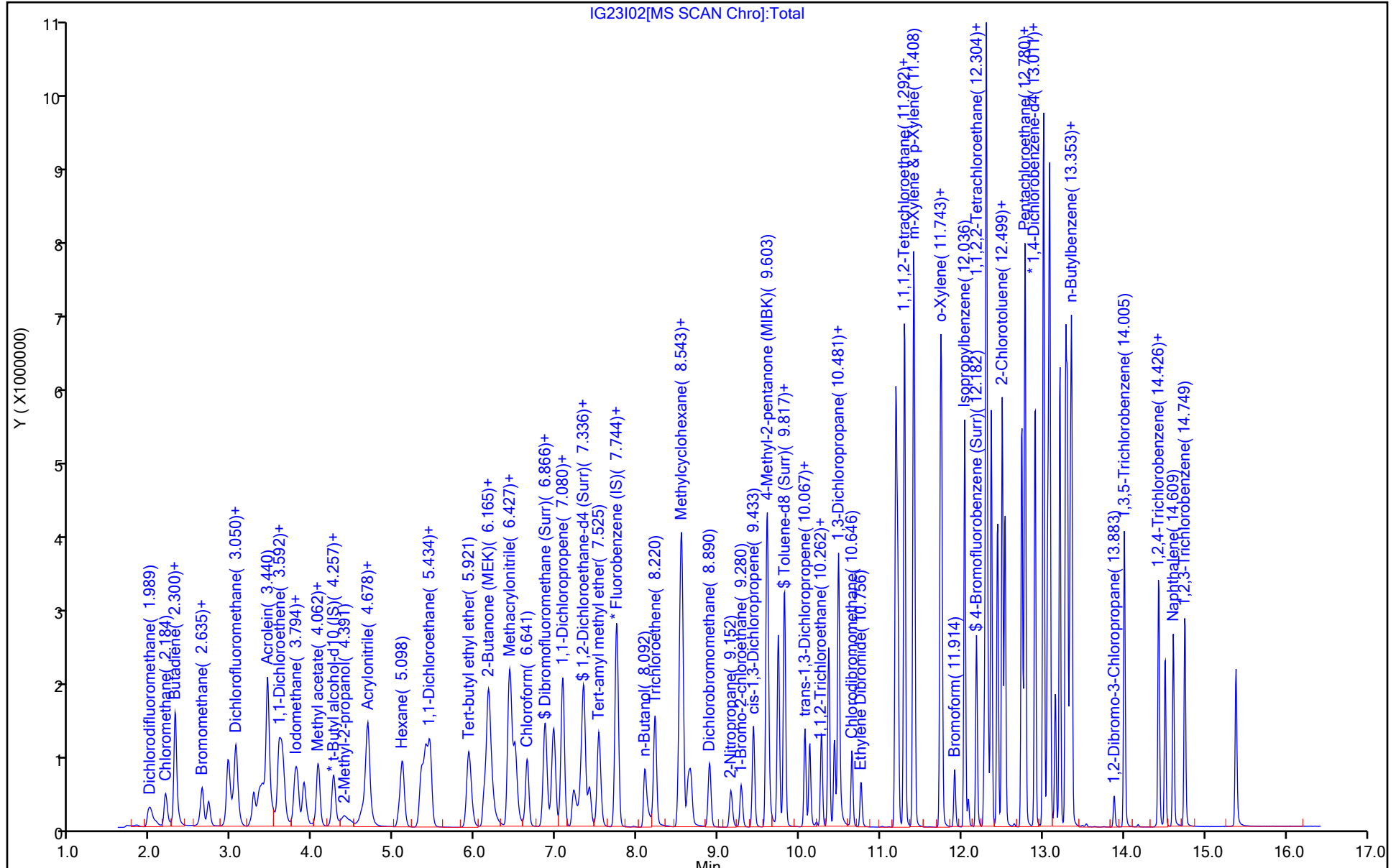
### QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

### Reagents:

MSV_LL_#1_826_00015	Amount Added: 10.00	Units: uL	
MSV_LL_#2_826_00015	Amount Added: 10.00	Units: uL	
MSV_LL_GAS826_00027	Amount Added: 10.00	Units: uL	
MSV_LLcentISS_00001	Amount Added: 5.00	Units: uL	Run Reagent



Eurofins Lancaster Laboratories Env, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23103.D  
 Lims ID: IC std5  
 Client ID:  
 Sample Type: IC Calib Level: 5  
 Inject. Date: 24-Aug-2021 01:27:30 ALS Bottle#: 13 Worklist Smp#: 14  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0037607-014  
 Misc. Info.: IC STD5  
 Operator ID: mec29284 Instrument ID: 19930  
 Sublist: chrom-8260 25ml HP31\*sub2

Method: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 24-Aug-2021 15:55:11 Calib Date: 24-Aug-2021 02:52:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1646

First Level Reviewer: longj

Date: 24-Aug-2021 15:02:47

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.977	1.983	-0.006	99	382263	5.00	5.78	
4 Chloromethane	50	2.178	2.184	-0.006	99	399273	5.00	5.30	
6 Butadiene	39	2.294	2.300	-0.006	89	372442	5.00	5.38	
5 Vinyl chloride	62	2.294	2.300	-0.006	98	416864	5.00	5.48	
7 Bromomethane	94	2.623	2.635	-0.012	92	291289	5.00	5.29	
8 Chloroethane	64	2.709	2.715	-0.006	100	245993	5.00	5.40	
9 Dichlorofluoromethane	67	2.946	2.952	-0.006	97	585859	5.00	5.35	
10 Trichlorofluoromethane	101	3.019	3.026	-0.007	97	585022	5.00	5.97	
11 Ethyl ether	59	3.257	3.269	-0.012	91	217146	5.00	5.46	
12 1,2-Dichloro-1,1,2-trifluoroethane	67	3.349	3.355	-0.006	92	389865	5.00	5.56	
13 Acrolein	56	3.434	3.440	-0.006	99	1712613	250.0	291.6	
14 1,1-Dichloroethene	96	3.574	3.580	-0.006	98	286821	5.00	5.68	
15 Acetone	43	3.605	3.611	-0.006	100	396518	50.0	53.1	
16 112TCTFE	101	3.617	3.623	-0.006	90	323788	5.00	6.14	
17 Iodomethane	142	3.775	3.781	-0.006	99	558589	5.00	5.53	
18 Ethyl bromide	108	3.800	3.812	-0.012	98	254448	5.00	5.53	
19 Carbon disulfide	76	3.885	3.891	-0.006	99	782475	5.00	5.61	
21 Methyl acetate	43	4.031	4.031	0.000	97	124512	5.00	5.67	
22 3-Chloro-1-propene	41	4.056	4.068	-0.012	91	448975	5.00	5.42	
23 Methylene Chloride	84	4.245	4.257	-0.012	91	300072	5.00	5.44	
* 24 t-Butyl alcohol-d10 (IS)	65	4.251	4.269	-0.018	95	134380	50.0	50.0	
25 2-Methyl-2-propanol	59	4.385	4.385	0.000	100	314368	100.0	111.1	
26 Acrylonitrile	53	4.592	4.592	0.000	99	149768	12.5	15.1	
27 Methyl tert-butyl ether	73	4.653	4.665	-0.012	94	795636	5.00	5.52	
28 trans-1,2-Dichloroethene	96	4.672	4.678	-0.006	99	313872	5.00	5.47	
29 Hexane	57	5.098	5.104	-0.006	91	492058	5.00	6.14	
31 1,1-Dichloroethane	63	5.330	5.336	-0.006	96	570521	5.00	5.48	
32 Isopropyl ether	45	5.385	5.391	-0.006	94	951429	5.00	5.47	
33 2-Chloro-1,3-butadiene	53	5.440	5.446	-0.006	90	487276	5.00	5.62	
34 Tert-butyl ethyl ether	59	5.915	5.921	-0.006	97	927469	5.00	5.46	



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	6.116	6.122	-0.006	99	749581	50.0	57.5	
S 35 1,2-Dichloroethene, Total	100				0			10.9	
37 cis-1,2-Dichloroethene	96	6.153	6.159	-0.006	82	347207	5.00	5.43	
38 2,2-Dichloropropane	77	6.171	6.177	-0.006	90	505614	5.00	5.59	
40 Propionitrile	54	6.208	6.208	0.000	99	411078	100.0	118.7	
42 Methacrylonitrile	67	6.421	6.427	-0.006	90	787287	50.0	60.1	
43 Chlorobromomethane	128	6.488	6.488	0.000	91	150285	5.00	5.45	
44 Tetrahydrofuran	71	6.500	6.500	0.000	77	115070	25.0	29.8	
45 Chloroform	83	6.635	6.641	-0.006	93	561287	5.00	5.44	
\$ 46 Dibromofluoromethane (Surr)	113	6.848	6.854	-0.006	94	533947	10.0	10.0	
47 1,1,1-Trichloroethane	97	6.860	6.866	-0.006	98	537958	5.00	5.62	
48 Cyclohexane	56	6.964	6.970	-0.006	89	574963	5.00	6.05	
50 Carbon tetrachloride	117	7.080	7.080	0.000	91	477332	5.00	5.77	
51 1,1-Dichloropropene	75	7.074	7.080	-0.006	95	456566	5.00	5.65	
52 Isobutyl alcohol	41	7.214	7.214	0.000	94	243578	250.0	269.8	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.299	7.305	-0.006	98	106534	10.0	10.0	
54 Benzene	78	7.336	7.342	-0.006	97	1303704	5.00	5.48	
56 1,2-Dichloroethane	62	7.409	7.409	0.000	98	345575	5.00	5.36	
57 Tert-amyl methyl ether	73	7.519	7.525	-0.006	98	854837	5.00	5.42	
* 58 Fluorobenzene (IS)	96	7.738	7.744	-0.006	99	2115642	10.0	10.0	
59 n-Heptane	43	7.750	7.750	0.000	90	473994	5.00	5.76	
60 n-Butanol	56	8.092	8.098	-0.006	87	436929	437.5	521.3	
61 Trichloroethene	95	8.214	8.220	-0.006	98	356004	5.00	5.57	
62 Methylcyclohexane	83	8.524	8.524	0.000	93	637877	5.00	6.00	
63 1,2-Dichloropropane	63	8.543	8.549	-0.006	85	323309	5.00	5.53	
64 Methyl methacrylate	69	8.622	8.628	-0.006	89	158597	5.00	6.16	
65 1,4-Dioxane	88	8.628	8.640	-0.012	61	60485	250.0	229.1	M
66 Dibromomethane	93	8.653	8.659	-0.006	93	155460	5.00	5.44	
68 Dichlorobromomethane	83	8.890	8.890	0.000	99	393721	5.00	5.56	
69 2-Nitropropane	41	9.152	9.152	0.000	98	217711	25.0	29.6	
72 1-Bromo-2-chloroethane	63	9.280	9.280	0.000	98	317759	5.00	5.54	
73 cis-1,3-Dichloropropene	75	9.433	9.433	0.000	97	498450	5.00	5.60	
74 4-Methyl-2-pentanone (MIBK)	43	9.597	9.603	-0.006	96	1950081	50.0	59.4	
\$ 75 Toluene-d8 (Surr)	98	9.738	9.738	0.000	93	2113101	10.0	9.95	
76 Toluene	92	9.811	9.817	-0.006	98	865208	5.00	5.49	
S 77 1,3-Dichloropropene, Total	100				0			11.2	
78 trans-1,3-Dichloropropene	75	10.067	10.067	0.000	92	409218	5.00	5.64	
79 Ethyl methacrylate	69	10.128	10.128	0.000	88	344439	5.00	5.68	
80 1,1,2-Trichloroethane	97	10.268	10.268	0.000	91	228498	5.00	5.44	
81 Tetrachloroethene	166	10.360	10.359	0.001	98	419950	5.00	5.60	
82 1,3-Dichloropropane	76	10.433	10.433	0.000	88	389560	5.00	5.45	
83 2-Hexanone	43	10.481	10.481	0.000	96	1427211	50.0	62.1	
85 Chlorodibromomethane	129	10.646	10.646	0.000	90	290417	5.00	5.67	
86 Ethylene Dibromide	107	10.762	10.762	0.000	98	225049	5.00	5.55	
* 87 Chlorobenzene-d5 (IS)	117	11.183	11.182	0.000	86	1642811	10.0	10.0	
88 1-Chlorohexane	91	11.189	11.189	0.000	95	509095	5.00	5.53	
90 Chlorobenzene	112	11.213	11.213	0.000	96	953872	5.00	5.47	
S 89 Xylenes, Total	106				0			16.6	
91 1,1,1,2-Tetrachloroethane	131	11.292	11.292	0.000	95	336401	5.00	5.52	
92 Ethylbenzene	91	11.298	11.298	0.000	98	1673213	5.00	5.52	
93 m-Xylene & p-Xylene	106	11.408	11.408	0.000	99	1325681	10.0	11.1	
94 o-Xylene	106	11.737	11.737	0.000	96	655445	5.00	5.54	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
95 Styrene	104	11.756	11.756	0.000	95	1063582	5.00	5.57	
96 Bromoform	173	11.914	11.914	0.000	98	176181	5.00	5.75	
97 Isopropylbenzene	105	12.036	12.036	0.000	95	1737611	5.00	5.57	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	93	806331	10.0	9.94	
101 1,1,2,2-Tetrachloroethane	83	12.280	12.280	0.000	93	293036	5.00	5.50	
102 Bromobenzene	156	12.298	12.298	0.000	95	405579	5.00	5.56	
103 trans-1,4-Dichloro-2-butene	53	12.304	12.304	0.000	93	739718	50.0	62.3	
104 1,2,3-Trichloropropane	110	12.329	12.329	0.000	81	81857	5.00	5.59	
105 N-Propylbenzene	91	12.365	12.365	0.000	99	1993107	5.00	5.63	
106 2-Chlorotoluene	126	12.444	12.444	0.000	97	403661	5.00	5.55	
107 1,3,5-Trimethylbenzene	105	12.499	12.499	0.000	94	1448018	5.00	5.60	
108 4-Chlorotoluene	126	12.536	12.536	0.000	97	414612	5.00	5.59	
109 tert-Butylbenzene	134	12.743	12.743	0.000	93	319038	5.00	5.62	
110 Pentachloroethane	167	12.774	12.774	0.000	92	259289	5.00	5.66	
111 1,2,4-Trimethylbenzene	105	12.786	12.786	0.000	97	1496260	5.00	5.64	
112 sec-Butylbenzene	105	12.908	12.908	0.000	94	1842298	5.00	5.64	
113 1,3-Dichlorobenzene	146	13.005	13.005	0.000	98	812939	5.00	5.53	
114 4-Isopropyltoluene	119	13.011	13.011	0.000	97	1632038	5.00	5.64	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	97	963071	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.078	13.078	0.000	96	830653	5.00	5.52	
117 1,2,3-Trimethylbenzene	120	13.091	13.091	0.000	98	633734	5.00	5.40	
118 Benzyl chloride	126	13.158	13.158	0.000	98	128109	5.00	5.88	
119 n-Butylbenzene	92	13.304	13.304	0.000	98	763485	5.00	5.65	
120 1,2-Dichlorobenzene	146	13.341	13.341	0.000	99	746995	5.00	5.56	
122 1,2-Dibromo-3-Chloropropane	155	13.883	13.883	0.000	89	44921	5.00	5.74	
123 1,3,5-Trichlorobenzene	180	14.005	14.005	0.000	98	610685	5.00	5.67	
124 1,2,4-Trichlorobenzene	180	14.432	14.432	0.000	94	518320	5.00	5.71	
125 Hexachlorobutadiene	225	14.511	14.511	0.000	96	207395	5.00	5.25	
126 Naphthalene	128	14.609	14.609	0.000	97	958252	5.00	5.53	
127 1,2,3-Trichlorobenzene	180	14.755	14.755	0.000	96	439919	5.00	5.60	
134 Isopropyl alcohol	45		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
137 2-Methylnaphthalene	142		0.000				ND	ND	

## QC Flag Legend

### Processing Flags

ND - Not Detected or Marked ND

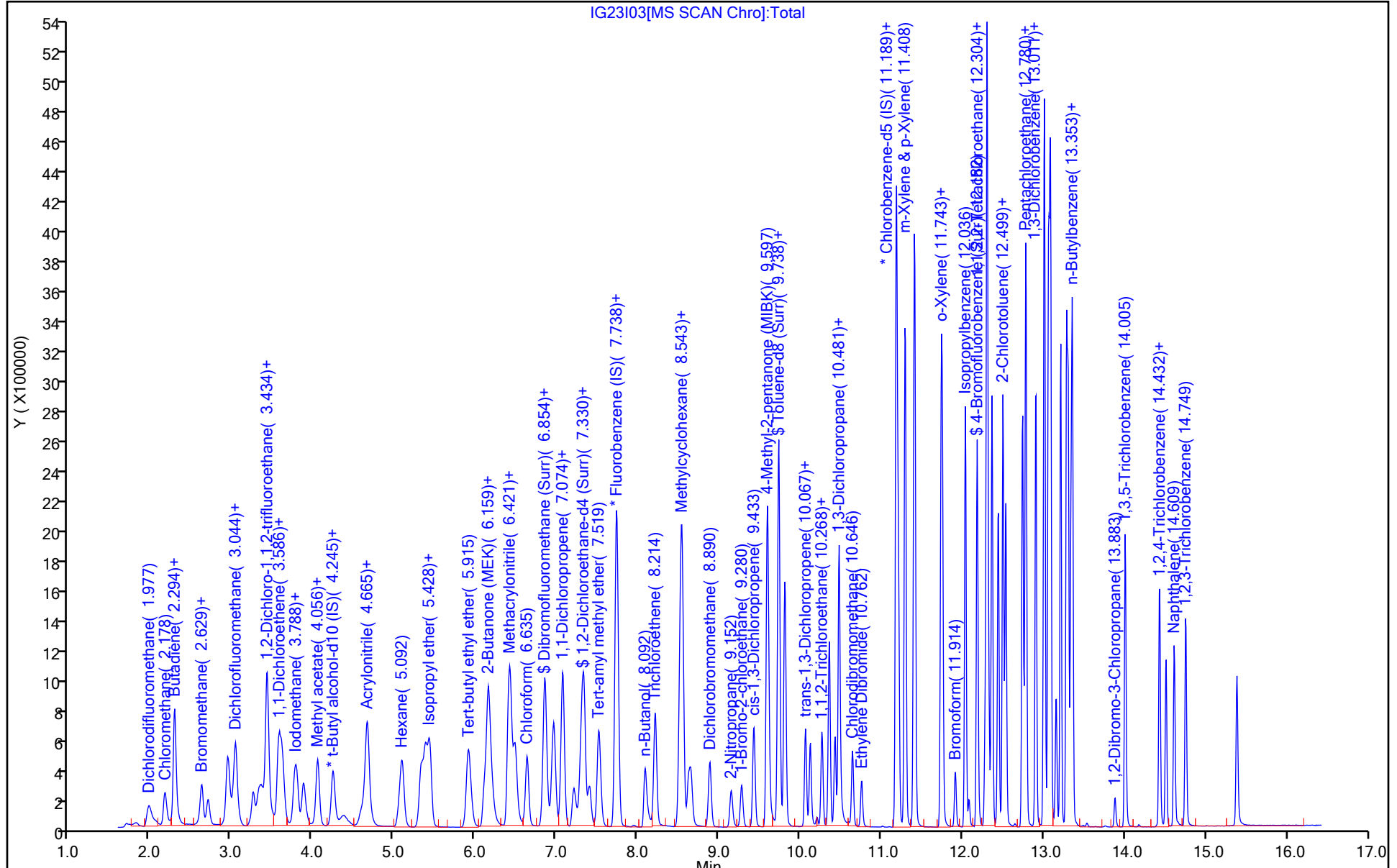
### Review Flags

M - Manually Integrated

## Reagents:

MSV_LL_#1_826_00015	Amount Added: 5.00	Units: uL	
MSV_LL_#2_826_00015	Amount Added: 5.00	Units: uL	
MSV_LL_GAS826_00027	Amount Added: 5.00	Units: uL	
MSV_LLcentISS_00001	Amount Added: 5.00	Units: uL	Run Reagent





Eurofins Lancaster Laboratories Env, LLC

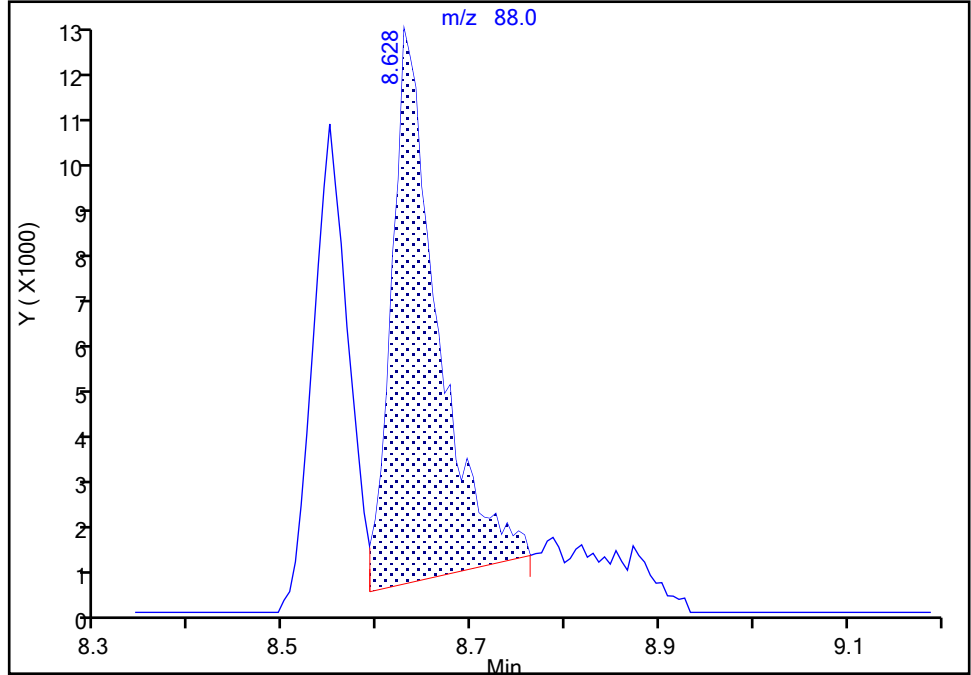
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Injection Date: 24-Aug-2021 01:27:30 Instrument ID: 19930  
Lims ID: IC std5  
Client ID:  
Operator ID: mec29284 ALS Bottle#: 13 Worklist Smp#: 14  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column ( 0.25mm ID) Detector: MS Quad

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

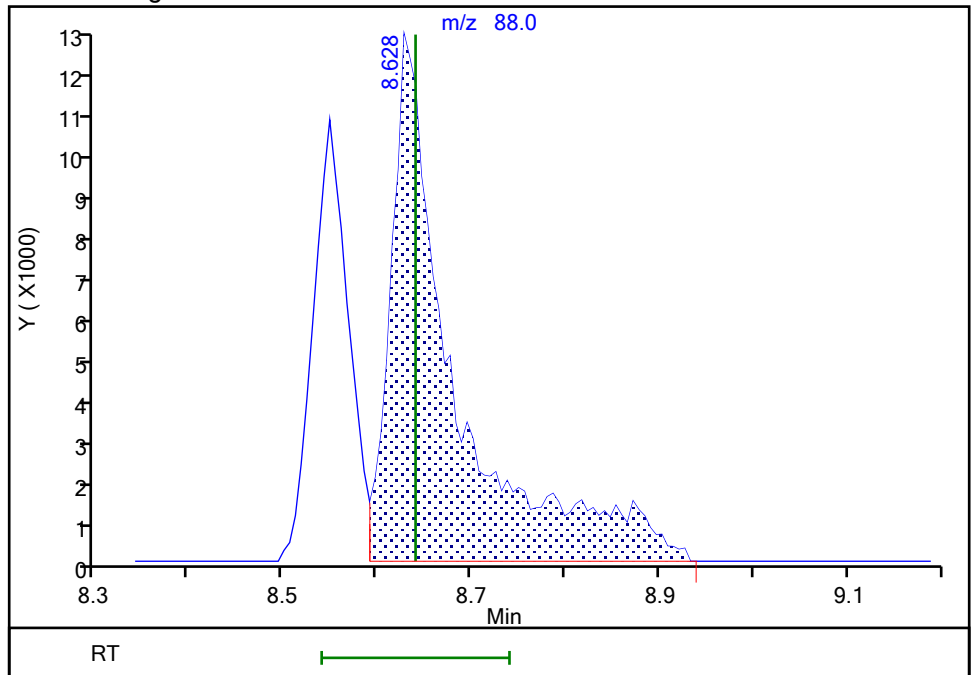
RT: 8.63  
Area: 40941  
Amount: 236.6358  
Amount Units: ug/l

Processing Integration Results



RT: 8.63  
Area: 60485  
Amount: 229.0877  
Amount Units: ug/l

Manual Integration Results



Reviewer: longj, 24-Aug-2021 15:02:20  
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\20210823-37607.b\IG23104.D  
 Lims ID: IC std4  
 Client ID:  
 Sample Type: IC Calib Level: 4  
 Inject. Date: 24-Aug-2021 01:48:30 ALS Bottle#: 14 Worklist Smp#: 15  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0037607-015  
 Misc. Info.: IC STD4  
 Operator ID: mec29284 Instrument ID: 19930  
 Sublist: chrom-8260 25ml HP31\*sub2

Method: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 24-Aug-2021 15:55:16 Calib Date: 24-Aug-2021 02:52:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1646

First Level Reviewer: longj

Date: 24-Aug-2021 15:04:44

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	133370	2.00	1.99	
4 Chloromethane	50	2.172	2.172	0.000	99	145518	2.00	1.91	
6 Butadiene	39	2.288	2.288	0.000	89	136810	2.00	1.95	
5 Vinyl chloride	62	2.294	2.294	0.000	75	148690	2.00	1.93	
7 Bromomethane	94	2.623	2.623	0.000	92	107796	2.00	1.93	
8 Chloroethane	64	2.709	2.709	0.000	99	87256	2.00	1.89	
9 Dichlorofluoromethane	67	2.946	2.946	0.000	97	213271	2.00	1.92	
10 Trichlorofluoromethane	101	3.020	3.020	0.000	96	200068	2.00	2.02	
11 Ethyl ether	59	3.257	3.257	0.000	90	80725	2.00	2.00	
12 1,2-Dichloro-1,1,2-trifluoroethane	67	3.343	3.343	0.000	91	140380	2.00	1.98	
13 Acrolein	56	3.428	3.428	0.000	99	642849	100.0	90.3	
14 1,1-Dichloroethene	96	3.568	3.568	0.000	99	94828	2.00	1.86	
15 Acetone	43	3.599	3.599	0.000	100	175187	20.0	19.4	
16 112TCTFE	101	3.611	3.611	0.000	90	101316	2.00	1.90	
17 Iodomethane	142	3.769	3.769	0.000	99	191541	2.00	1.87	
18 Ethyl bromide	108	3.794	3.794	0.000	98	90853	2.00	1.95	
19 Carbon disulfide	76	3.879	3.879	0.000	99	260459	2.00	1.85	
21 Methyl acetate	43	4.038	4.038	0.000	96	53852	2.00	2.02	
22 3-Chloro-1-propene	41	4.056	4.056	0.000	92	152579	2.00	1.82	
23 Methylene Chloride	84	4.239	4.239	0.000	91	105792	2.00	1.90	
* 24 t-Butyl alcohol-d10 (IS)	65	4.257	4.257	0.000	94	162903	50.0	50.0	M
25 2-Methyl-2-propanol	59	4.397	4.397	0.000	99	144787	40.0	42.2	
26 Acrylonitrile	53	4.592	4.592	0.000	97	56014	5.00	4.64	
27 Methyl tert-butyl ether	73	4.659	4.659	0.000	88	277645	2.00	1.90	
28 trans-1,2-Dichloroethene	96	4.672	4.672	0.000	99	107403	2.00	1.85	
29 Hexane	57	5.086	5.086	0.000	91	152797	2.00	1.88	
31 1,1-Dichloroethane	63	5.330	5.330	0.000	96	200971	2.00	1.91	
32 Isopropyl ether	45	5.385	5.385	0.000	94	334487	2.00	1.90	
33 2-Chloro-1,3-butadiene	53	5.434	5.434	0.000	91	164913	2.00	1.88	
34 Tert-butyl ethyl ether	59	5.915	5.915	0.000	96	328284	2.00	1.91	

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	6.116	6.116	0.000	99	287542	20.0	18.2	
S 35 1,2-Dichloroethene, Total	100				0			3.72	
37 cis-1,2-Dichloroethene	96	6.159	6.159	0.000	83	121250	2.00	1.87	
38 2,2-Dichloropropane	77	6.171	6.171	0.000	77	171411	2.00	1.87	
40 Propionitrile	54	6.208	6.208	0.000	99	156726	40.0	37.3	
42 Methacrylonitrile	67	6.415	6.415	0.000	91	284046	20.0	17.9	
43 Chlorobromomethane	128	6.482	6.482	0.000	91	54068	2.00	1.94	
44 Tetrahydrofuran	71	6.494	6.494	0.000	77	42808	10.0	9.13	
45 Chloroform	83	6.635	6.635	0.000	93	196244	2.00	1.88	
\$ 46 Dibromofluoromethane (Surr)	113	6.848	6.848	0.000	94	542329	10.0	10.1	
47 1,1,1-Trichloroethane	97	6.860	6.860	0.000	97	183060	2.00	1.89	
48 Cyclohexane	56	6.964	6.964	0.000	88	180314	2.00	1.88	
50 Carbon tetrachloride	117	7.067	7.067	0.000	90	158160	2.00	1.89	
51 1,1-Dichloropropene	75	7.074	7.074	0.000	95	154095	2.00	1.88	
52 Isobutyl alcohol	41	7.214	7.214	0.000	95	107772	100.0	98.5	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.299	7.299	0.000	91	108754	10.0	10.1	
54 Benzene	78	7.336	7.336	0.000	96	450649	2.00	1.87	
56 1,2-Dichloroethane	62	7.409	7.409	0.000	98	118544	2.00	1.82	
57 Tert-amyl methyl ether	73	7.519	7.519	0.000	99	305576	2.00	1.91	
* 58 Fluorobenzene (IS)	96	7.732	7.732	0.000	98	2141536	10.0	10.0	
59 n-Heptane	43	7.744	7.744	0.000	74	149822	2.00	1.80	
60 n-Butanol	56	8.098	8.098	0.000	87	173400	175.0	170.7	
61 Trichloroethene	95	8.214	8.214	0.000	97	119880	2.00	1.85	
62 Methylcyclohexane	83	8.525	8.525	0.000	91	204137	2.00	1.90	
63 1,2-Dichloropropane	63	8.543	8.543	0.000	83	113623	2.00	1.92	
64 Methyl methacrylate	69	8.628	8.628	0.000	86	56288	2.00	1.80	
65 1,4-Dioxane	88	8.640	8.640	0.000	38	27358	100.0	94.3	M
66 Dibromomethane	93	8.653	8.653	0.000	93	55146	2.00	1.91	
68 Dichlorobromomethane	83	8.890	8.890	0.000	99	135182	2.00	1.89	
69 2-Nitropropane	41	9.152	9.152	0.000	99	80872	10.0	9.06	
72 1-Bromo-2-chloroethane	63	9.280	9.280	0.000	99	116897	2.00	2.01	
73 cis-1,3-Dichloropropene	75	9.433	9.433	0.000	96	171443	2.00	1.90	
74 4-Methyl-2-pentanone (MIBK)	43	9.597	9.597	0.000	96	725808	20.0	18.2	
\$ 75 Toluene-d8 (Surr)	98	9.738	9.738	0.000	93	2152292	10.0	10.1	
76 Toluene	92	9.811	9.811	0.000	98	294006	2.00	1.85	
S 77 1,3-Dichloropropene, Total	100				0			3.80	
78 trans-1,3-Dichloropropene	75	10.067	10.067	0.000	92	138743	2.00	1.90	
79 Ethyl methacrylate	69	10.128	10.128	0.000	88	121040	2.00	1.98	
80 1,1,2-Trichloroethane	97	10.268	10.268	0.000	91	81343	2.00	1.92	
81 Tetrachloroethene	166	10.360	10.360	0.000	98	142779	2.00	1.89	
82 1,3-Dichloropropane	76	10.433	10.433	0.000	89	137217	2.00	1.91	
83 2-Hexanone	43	10.481	10.481	0.000	96	503437	20.0	18.1	
85 Chlorodibromomethane	129	10.646	10.646	0.000	89	97832	2.00	1.90	
86 Ethylene Dibromide	107	10.756	10.756	0.000	98	77838	2.00	1.91	
* 87 Chlorobenzene-d5 (IS)	117	11.183	11.183	0.000	86	1654646	10.0	10.0	
88 1-Chlorohexane	91	11.189	11.189	0.000	95	170447	2.00	1.84	
90 Chlorobenzene	112	11.213	11.213	0.000	97	331442	2.00	1.89	
S 89 Xylenes, Total	106				0			5.67	
91 1,1,1,2-Tetrachloroethane	131	11.292	11.292	0.000	94	117075	2.00	1.91	
92 Ethylbenzene	91	11.298	11.298	0.000	98	572417	2.00	1.87	
93 m-Xylene & p-Xylene	106	11.408	11.408	0.000	100	455535	4.00	3.78	
94 o-Xylene	106	11.737	11.737	0.000	96	225160	2.00	1.89	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
95 Styrene	104	11.756	11.756	0.000	95	364056	2.00	1.89	
96 Bromoform	173	11.914	11.914	0.000	97	57249	2.00	1.85	
97 Isopropylbenzene	105	12.036	12.036	0.000	96	598946	2.00	1.91	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	93	815520	10.0	9.98	
101 1,1,2,2-Tetrachloroethane	83	12.280	12.280	0.000	93	102513	2.00	1.88	
102 Bromobenzene	156	12.298	12.298	0.000	95	140306	2.00	1.88	
103 trans-1,4-Dichloro-2-butene	53	12.304	12.304	0.000	93	256704	20.0	17.8	
104 1,2,3-Trichloropropane	110	12.329	12.329	0.000	81	28724	2.00	1.92	
105 N-Propylbenzene	91	12.365	12.365	0.000	99	684747	2.00	1.89	
106 2-Chlorotoluene	126	12.444	12.444	0.000	98	141927	2.00	1.91	
107 1,3,5-Trimethylbenzene	105	12.499	12.499	0.000	93	494667	2.00	1.87	
108 4-Chlorotoluene	126	12.536	12.536	0.000	97	142990	2.00	1.89	
109 tert-Butylbenzene	134	12.743	12.743	0.000	93	110262	2.00	1.90	
110 Pentachloroethane	167	12.774	12.774	0.000	90	91381	2.00	1.95	
111 1,2,4-Trimethylbenzene	105	12.786	12.786	0.000	97	508634	2.00	1.88	
112 sec-Butylbenzene	105	12.902	12.902	0.000	94	633668	2.00	1.90	
113 1,3-Dichlorobenzene	146	13.005	13.005	0.000	98	279932	2.00	1.86	
114 4-Isopropyltoluene	119	13.011	13.011	0.000	97	558603	2.00	1.89	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	94	984300	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.079	13.079	0.000	96	287369	2.00	1.87	
117 1,2,3-Trimethylbenzene	120	13.085	13.085	0.000	98	228500	2.00	1.91	
118 Benzyl chloride	126	13.158	13.158	0.000	98	42047	2.00	1.89	
119 n-Butylbenzene	92	13.304	13.304	0.000	97	258320	2.00	1.87	
120 1,2-Dichlorobenzene	146	13.341	13.341	0.000	99	264385	2.00	1.92	
122 1,2-Dibromo-3-Chloropropane	155	13.883	13.883	0.000	87	16104	2.00	2.01	
123 1,3,5-Trichlorobenzene	180	14.005	14.005	0.000	97	206620	2.00	1.88	
124 1,2,4-Trichlorobenzene	180	14.432	14.432	0.000	94	177445	2.00	1.91	
125 Hexachlorobutadiene	225	14.511	14.511	0.000	96	71973	2.00	1.78	
126 Naphthalene	128	14.609	14.609	0.000	97	351951	2.00	1.99	
127 1,2,3-Trichlorobenzene	180	14.755	14.755	0.000	96	155892	2.00	1.94	
134 Isopropyl alcohol	45		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
137 2-Methylnaphthalene	142		0.000				ND	ND	

## QC Flag Legend

### Processing Flags

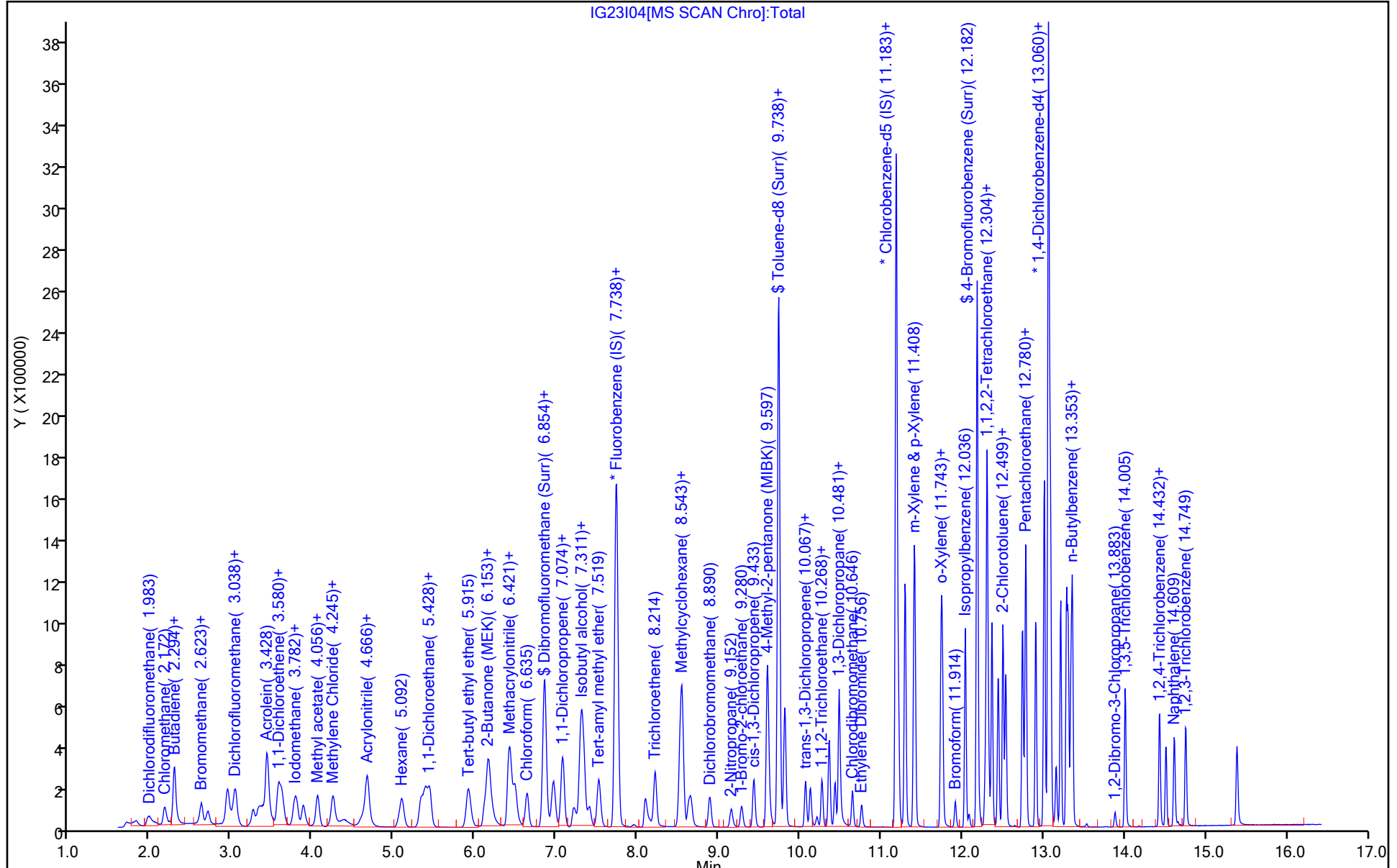
ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

MSV_LL_#1_826_00015	Amount Added: 2.00	Units: uL	
MSV_LL_#2_826_00015	Amount Added: 2.00	Units: uL	
MSV_LL_GAS826_00027	Amount Added: 2.00	Units: uL	
MSV_LLcentISS_00001	Amount Added: 5.00	Units: uL	Run Reagent



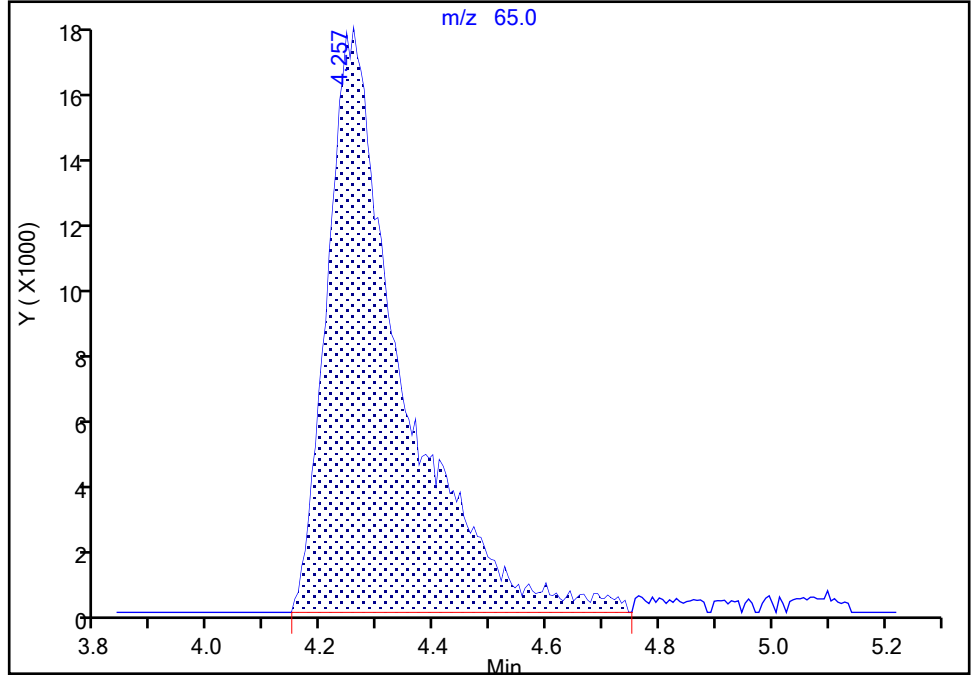
Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23104.D  
Injection Date: 24-Aug-2021 01:48:30 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

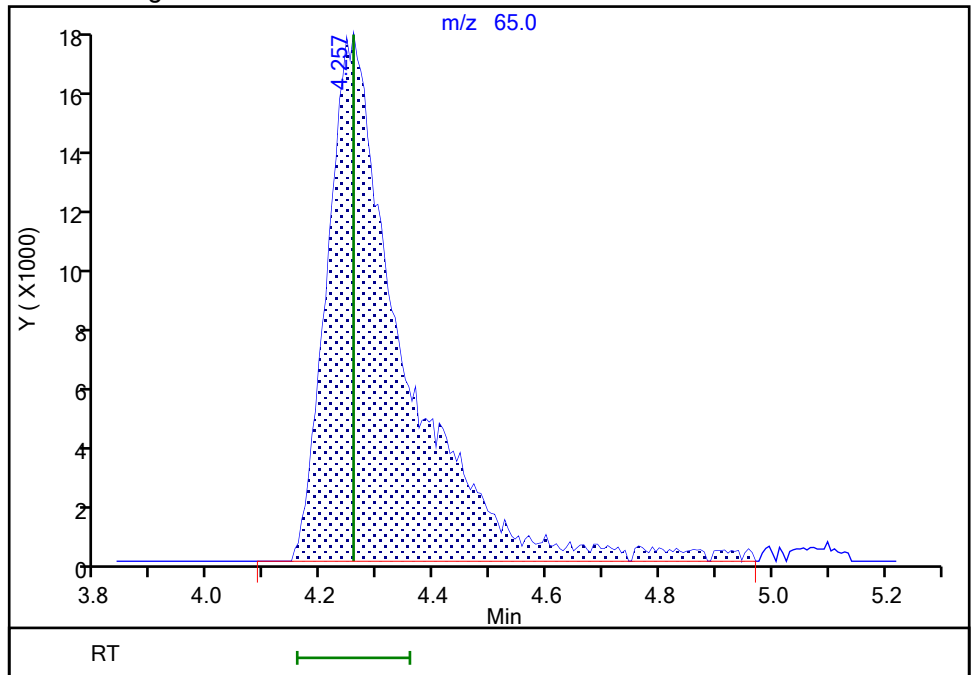
RT: 4.26  
Area: 158849  
Amount: 50.000000  
Amount Units: ug/l

Processing Integration Results



RT: 4.26  
Area: 162903  
Amount: 50.000000  
Amount Units: ug/l

Manual Integration Results



Reviewer: longj, 24-Aug-2021 15:16:21  
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

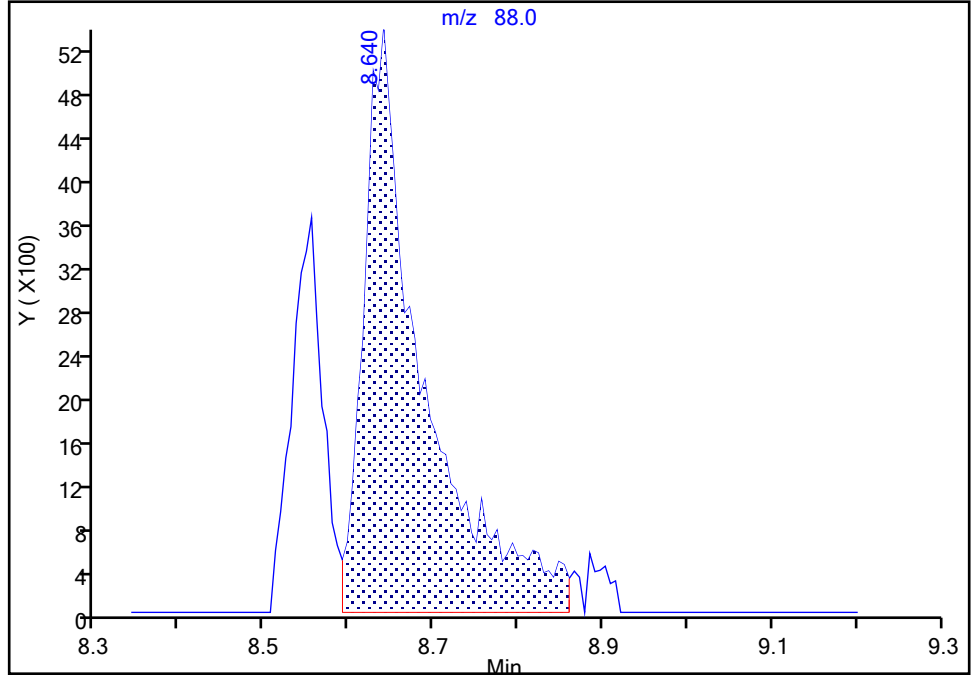
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Injection Date: 24-Aug-2021 01:48:30 Instrument ID: 19930  
Lims ID: IC std4  
Client ID:  
Operator ID: mec29284 ALS Bottle#: 14 Worklist Smp#: 15  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column ( 0.25mm ID) Detector: MS Quad

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

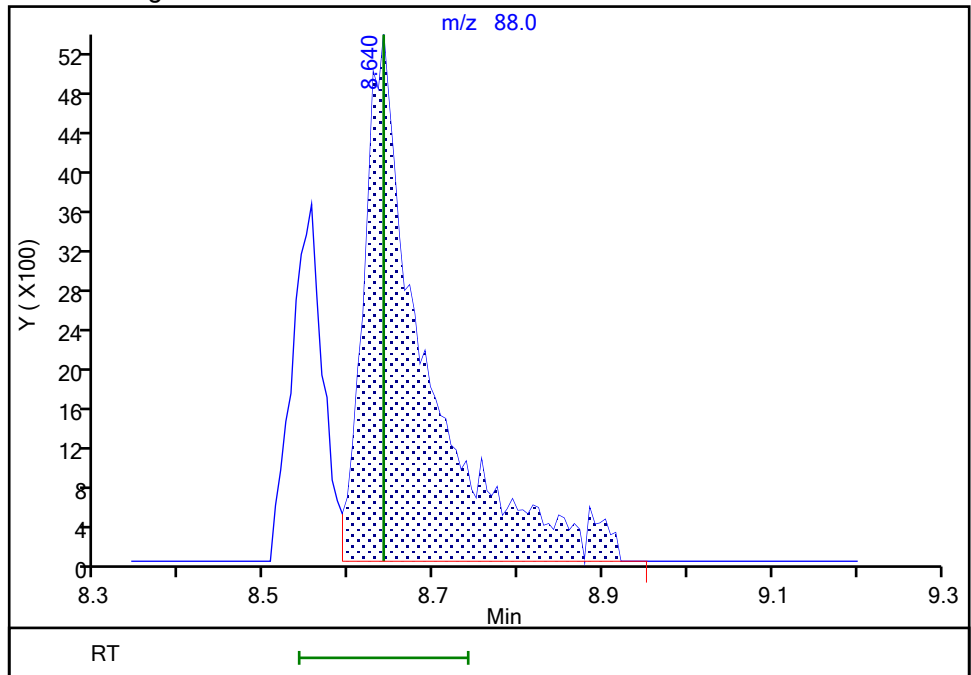
RT: 8.64  
Area: 26261  
Amount: 119.8515  
Amount Units: ug/l

Processing Integration Results



RT: 8.64  
Area: 27358  
Amount: 94.303495  
Amount Units: ug/l

Manual Integration Results



Reviewer: longj, 24-Aug-2021 15:15:48  
Audit Action: Split an Integrated Peak

Audit Reason: Split Peak



Eurofins Lancaster Laboratories Env, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23105.D  
 Lims ID: IC std3  
 Client ID:  
 Sample Type: IC Calib Level: 3  
 Inject. Date: 24-Aug-2021 02:09:30 ALS Bottle#: 15 Worklist Smp#: 16  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0037607-016  
 Misc. Info.: IC STD3  
 Operator ID: mec29284 Instrument ID: 19930  
 Sublist: chrom-8260 25ml HP31\*sub2  
 Method: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 24-Aug-2021 15:55:22 Calib Date: 24-Aug-2021 02:52:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1646

First Level Reviewer: longj Date: 24-Aug-2021 15:07:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.977	1.965	0.012	99	65891	1.00	0.9718	
4 Chloromethane	50	2.178	2.172	0.006	99	71033	1.00	0.9196	
6 Butadiene	39	2.294	2.288	0.006	91	69705	1.00	0.9823	
5 Vinyl chloride	62	2.294	2.294	0.000	72	72933	1.00	0.9365	
7 Bromomethane	94	2.629	2.623	0.006	91	52904	1.00	0.9375	
8 Chloroethane	64	2.709	2.709	0.000	99	44138	1.00	0.9455	
9 Dichlorofluoromethane	67	2.946	2.946	0.000	97	105130	1.00	0.9365	
10 Trichlorofluoromethane	101	3.019	3.020	-0.001	97	100534	1.00	1.00	
11 Ethyl ether	59	3.263	3.257	0.006	90	37819	1.00	0.9277	
12 1,2-Dichloro-1,1,2-trifluoroethane	67	3.361	3.343	0.018	91	68921	1.00	0.9587	
13 Acrolein	56	3.434	3.428	0.006	99	325453	50.0	52.0	
14 1,1-Dichloroethene	96	3.574	3.568	0.006	98	51944	1.00	1.00	
15 Acetone	43	3.617	3.599	0.018	97	73600	10.0	9.26	M
16 112TCTFE	101	3.623	3.611	0.012	90	55518	1.00	1.03	
17 Iodomethane	142	3.775	3.769	0.006	99	102843	1.00	0.99	
18 Ethyl bromide	108	3.800	3.794	0.006	99	43980	1.00	0.9328	
19 Carbon disulfide	76	3.885	3.879	0.006	99	135959	1.00	0.9520	
21 Methyl acetate	43	4.044	4.038	0.006	40	20743	1.00	0.8865	
22 3-Chloro-1-propene	41	4.062	4.056	0.006	90	82613	1.00	0.9734	
23 Methylene Chloride	84	4.245	4.239	0.006	91	55257	1.00	0.9785	
* 24 t-Butyl alcohol-d10 (IS)	65	4.263	4.257	0.006	92	143084	50.0	50.0	
25 2-Methyl-2-propanol	59	4.385	4.397	-0.012	99	58831	20.0	19.5	
26 Acrylonitrile	53	4.611	4.592	0.019	98	27336	2.50	2.58	
27 Methyl tert-butyl ether	73	4.647	4.659	-0.012	94	145601	1.00	0.9865	
28 trans-1,2-Dichloroethene	96	4.672	4.672	0.000	99	57886	1.00	0.9851	
29 Hexane	57	5.104	5.086	0.018	91	80465	1.00	0.9806	
31 1,1-Dichloroethane	63	5.330	5.330	0.000	96	103998	1.00	0.9753	
32 Isopropyl ether	45	5.385	5.385	0.000	94	174418	1.00	0.9792	
33 2-Chloro-1,3-butadiene	53	5.440	5.434	0.006	90	86951	1.00	0.9780	
34 Tert-butyl ethyl ether	59	5.909	5.915	-0.006	97	171468	1.00	0.9844	

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	6.116	6.116	0.000	100	143475	10.0	10.3	
S 35 1,2-Dichloroethene, Total	100				0			1.97	
37 cis-1,2-Dichloroethene	96	6.159	6.159	0.000	82	64220	1.00	0.9810	
38 2,2-Dichloropropane	77	6.171	6.171	0.000	88	91101	1.00	0.9826	
40 Propionitrile	54	6.214	6.208	0.006	98	75368	20.0	20.4	
42 Methacrylonitrile	67	6.421	6.415	0.006	92	143284	10.0	10.3	
43 Chlorobromomethane	128	6.488	6.482	0.006	86	28049	1.00	0.99	
44 Tetrahydrofuran	71	6.494	6.494	0.000	69	21437	5.00	5.21	
45 Chloroform	83	6.641	6.635	0.006	93	104933	1.00	0.99	
\$ 46 Dibromofluoromethane (Surr)	113	6.854	6.848	0.006	94	547419	10.0	10.0	
47 1,1,1-Trichloroethane	97	6.860	6.860	0.000	97	97208	1.00	0.99	
48 Cyclohexane	56	6.964	6.964	0.000	89	97677	1.00	1.00	
50 Carbon tetrachloride	117	7.080	7.067	0.013	92	83203	1.00	0.9821	
51 1,1-Dichloropropene	75	7.080	7.074	0.006	95	81553	1.00	0.9849	
52 Isobutyl alcohol	41	7.214	7.214	0.000	92	49738	50.0	51.7	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.299	7.299	0.000	85	108914	10.0	9.97	
54 Benzene	78	7.336	7.336	0.000	94	239616	1.00	0.9831	
56 1,2-Dichloroethane	62	7.403	7.409	-0.006	98	65256	1.00	0.9882	
57 Tert-amyl methyl ether	73	7.525	7.519	0.006	98	157576	1.00	0.9745	
* 58 Fluorobenzene (IS)	96	7.738	7.732	0.006	99	2167768	10.0	10.0	
59 n-Heptane	43	7.744	7.744	0.000	82	83896	1.00	0.99	
60 n-Butanol	56	8.098	8.098	0.000	88	80599	87.5	90.3	
61 Trichloroethene	95	8.220	8.214	0.006	97	63618	1.00	0.9712	
62 Methylcyclohexane	83	8.525	8.525	-0.001	93	107529	1.00	0.9870	
63 1,2-Dichloropropane	63	8.543	8.543	0.000	72	59643	1.00	1.00	
64 Methyl methacrylate	69	8.628	8.628	0.000	87	28845	1.00	1.05	
65 1,4-Dioxane	88	8.646	8.640	0.006	37	10496	50.0	52.8	M
66 Dibromomethane	93	8.659	8.653	0.006	93	28100	1.00	0.9605	
68 Dichlorobromomethane	83	8.890	8.890	0.000	99	68991	1.00	0.9508	
69 2-Nitropropane	41	9.152	9.152	0.000	99	40821	5.00	5.21	
72 1-Bromo-2-chloroethane	63	9.280	9.280	0.000	98	54880	1.00	0.9343	
73 cis-1,3-Dichloropropene	75	9.433	9.433	0.000	96	87948	1.00	0.9647	
74 4-Methyl-2-pentanone (MIBK)	43	9.597	9.597	0.000	96	362286	10.0	10.4	
\$ 75 Toluene-d8 (Surr)	98	9.738	9.738	0.000	93	2163909	10.0	10.1	
76 Toluene	92	9.811	9.811	0.000	98	156583	1.00	0.9842	
S 77 1,3-Dichloropropene, Total	100				0			1.92	
78 trans-1,3-Dichloropropene	75	10.067	10.067	0.000	92	70216	1.00	0.9572	
79 Ethyl methacrylate	69	10.128	10.128	0.000	88	58617	1.00	0.9574	
80 1,1,2-Trichloroethane	97	10.268	10.268	0.000	91	41236	1.00	0.9717	
81 Tetrachloroethene	166	10.360	10.360	0.000	98	73750	1.00	0.9730	
82 1,3-Dichloropropane	76	10.433	10.433	0.000	91	71333	1.00	0.9884	
83 2-Hexanone	43	10.481	10.481	0.000	95	250322	10.0	10.2	
85 Chlorodibromomethane	129	10.646	10.646	0.000	90	49956	1.00	0.9660	
86 Ethylene Dibromide	107	10.762	10.756	0.006	98	40746	1.00	1.00	
* 87 Chlorobenzene-d5 (IS)	117	11.183	11.183	0.000	87	1659651	10.0	10.0	
88 1-Chlorohexane	91	11.189	11.189	0.000	96	89057	1.00	0.9572	
90 Chlorobenzene	112	11.213	11.213	0.000	95	173851	1.00	0.9865	
S 89 Xylenes, Total	106				0			2.95	
91 1,1,1,2-Tetrachloroethane	131	11.292	11.292	0.000	95	59106	1.00	0.9605	
92 Ethylbenzene	91	11.298	11.298	0.000	98	300446	1.00	0.9807	
93 m-Xylene & p-Xylene	106	11.408	11.408	0.000	99	239751	2.00	1.98	
94 o-Xylene	106	11.737	11.737	0.000	96	115204	1.00	0.9645	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
95 Styrene	104	11.756	11.756	0.000	94	189931	1.00	0.9850	
96 Bromoform	173	11.914	11.914	0.000	97	28833	1.00	0.9307	
97 Isopropylbenzene	105	12.036	12.036	0.000	95	310386	1.00	0.9844	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	92	826851	10.0	10.1	
101 1,1,2,2-Tetrachloroethane	83	12.280	12.280	0.000	92	54325	1.00	0.99	
102 Bromobenzene	156	12.298	12.298	0.000	95	72358	1.00	0.9669	
103 trans-1,4-Dichloro-2-butene	53	12.304	12.304	0.000	91	127777	10.0	10.1	
104 1,2,3-Trichloropropane	110	12.329	12.329	0.000	80	14746	1.00	0.9823	
105 N-Propylbenzene	91	12.365	12.365	0.000	99	355852	1.00	0.9796	
106 2-Chlorotoluene	126	12.444	12.444	0.000	97	74353	1.00	1.00	
107 1,3,5-Trimethylbenzene	105	12.499	12.499	0.000	95	257721	1.00	0.9715	
108 4-Chlorotoluene	126	12.536	12.536	0.000	97	75316	1.00	0.9895	
109 tert-Butylbenzene	134	12.743	12.743	0.000	93	56868	1.00	0.9775	
110 Pentachloroethane	167	12.774	12.774	0.000	78	43712	1.00	0.9303	
111 1,2,4-Trimethylbenzene	105	12.786	12.786	0.000	97	268890	1.00	0.9889	
112 sec-Butylbenzene	105	12.908	12.902	0.006	94	328234	1.00	0.9791	
113 1,3-Dichlorobenzene	146	13.005	13.005	0.000	98	150321	1.00	1.00	
114 4-Isopropyltoluene	119	13.011	13.011	0.000	97	288208	1.00	0.9719	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	94	987778	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.078	13.079	-0.001	95	151116	1.00	0.9797	
117 1,2,3-Trimethylbenzene	120	13.091	13.085	0.006	97	119238	1.00	0.99	
118 Benzyl chloride	126	13.158	13.158	0.000	98	21047	1.00	0.9420	
119 n-Butylbenzene	92	13.304	13.304	0.000	98	134228	1.00	0.9686	
120 1,2-Dichlorobenzene	146	13.341	13.341	0.000	98	136312	1.00	0.9885	
122 1,2-Dibromo-3-Chloropropane	155	13.883	13.883	0.000	85	7659	1.00	0.9535	
123 1,3,5-Trichlorobenzene	180	14.005	14.005	0.000	98	105716	1.00	0.9573	
124 1,2,4-Trichlorobenzene	180	14.432	14.432	0.000	94	91280	1.00	0.9796	
125 Hexachlorobutadiene	225	14.511	14.511	0.000	96	37885	1.00	0.9359	
126 Naphthalene	128	14.609	14.609	0.000	97	173919	1.00	0.9794	
127 1,2,3-Trichlorobenzene	180	14.755	14.755	0.000	96	78245	1.00	0.9717	
134 Isopropyl alcohol	45		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
137 2-Methylnaphthalene	142		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_00015	Amount Added: 2.00	Units: uL	
MSV_LL_#2_826_00015	Amount Added: 2.00	Units: uL	
MSV_LL_GAS826_00027	Amount Added: 2.00	Units: uL	
MSV_LLcentISS_00001	Amount Added: 5.00	Units: uL	Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23105.D

Injection Date: 24-Aug-2021 02:09:30

Instrument ID: 19930

Operator ID: mec29284

Lims ID: IC std3

Worklist Smp#: 16

Client ID:

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

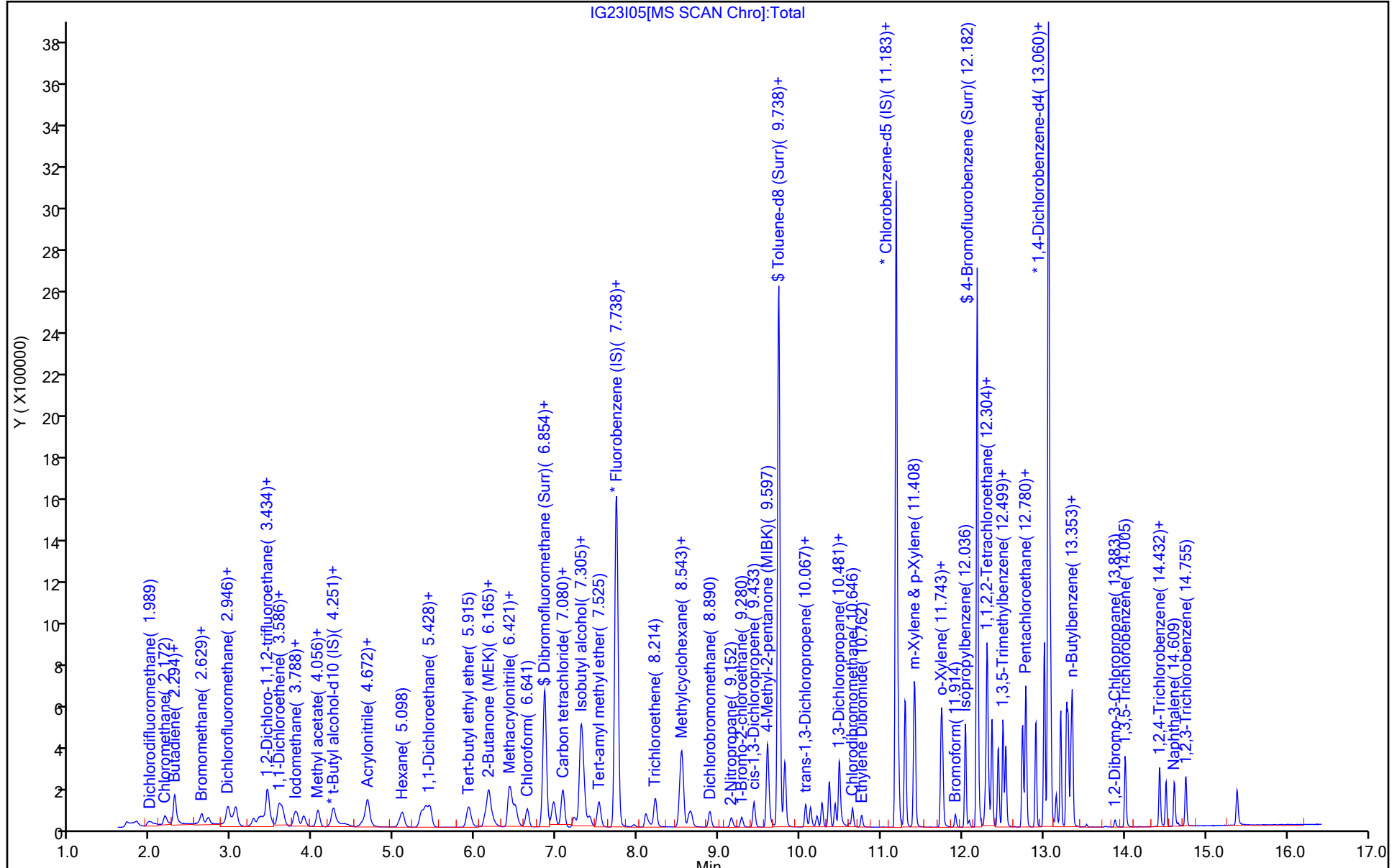
ALS Bottle#: 15

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



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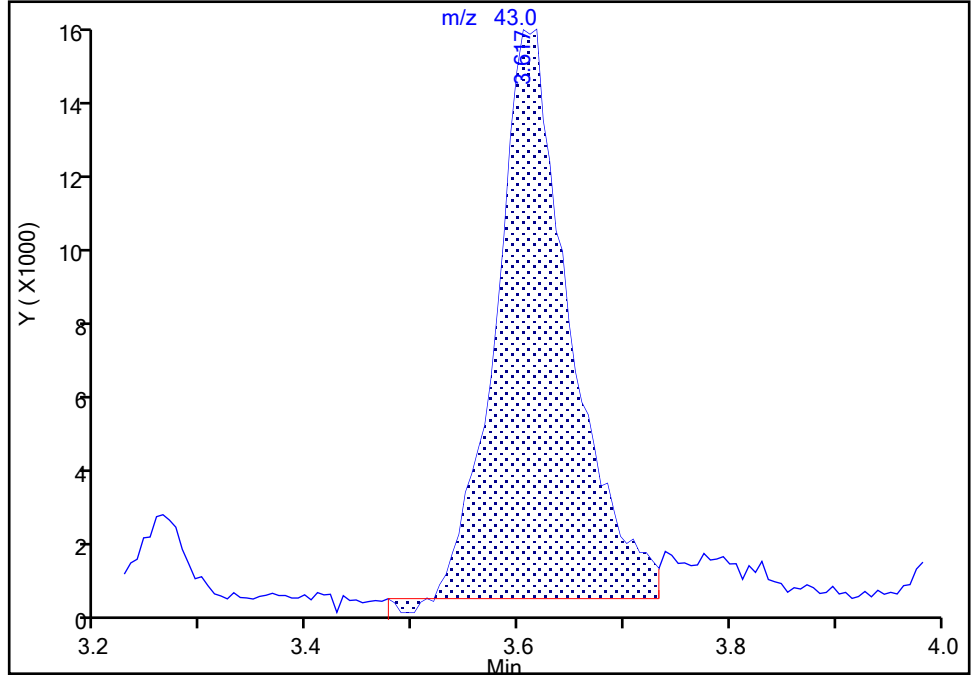
Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23105.D  
Injection Date: 24-Aug-2021 02:09:30 Instrument ID: 19930  
Lims ID: IC std3  
Client ID:  
Operator ID: mec29284 ALS Bottle#: 15 Worklist Smp#: 16  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column ( 0.25mm i.d.) Detector: MS Quad

15 Acetone, CAS: 67-64-1

Signal: 1

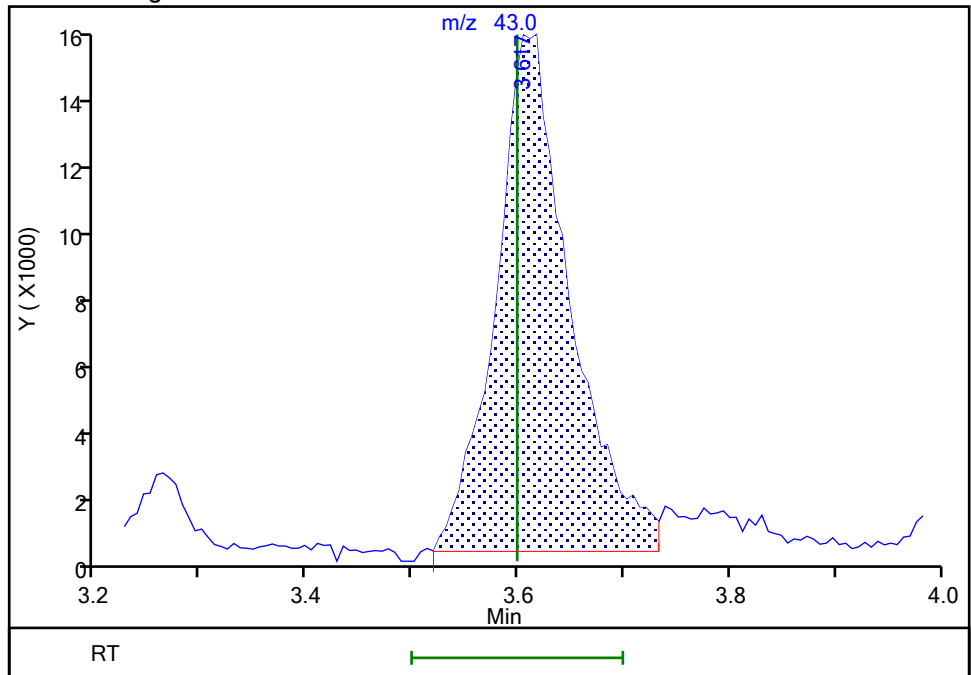
RT: 3.62  
Area: 72163  
Amount: 9.070107  
Amount Units: ug/l

Processing Integration Results



RT: 3.62  
Area: 73600  
Amount: 9.259476  
Amount Units: ug/l

Manual Integration Results



Reviewer: longj, 24-Aug-2021 15:05:40  
Audit Action: Manually Integrated

Audit Reason: Baseline

Eurofins Lancaster Laboratories Env, LLC

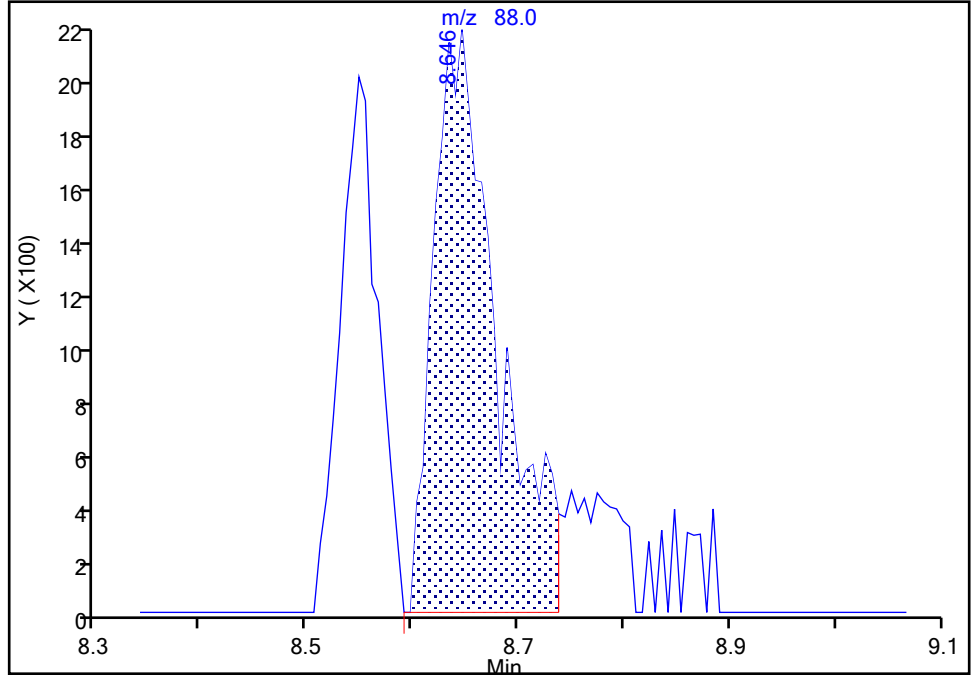
Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23105.D  
Injection Date: 24-Aug-2021 02:09:30 Instrument ID: 19930  
Lims ID: IC std3  
Client ID:  
Operator ID: mec29284 ALS Bottle#: 15 Worklist Smp#: 16  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: 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

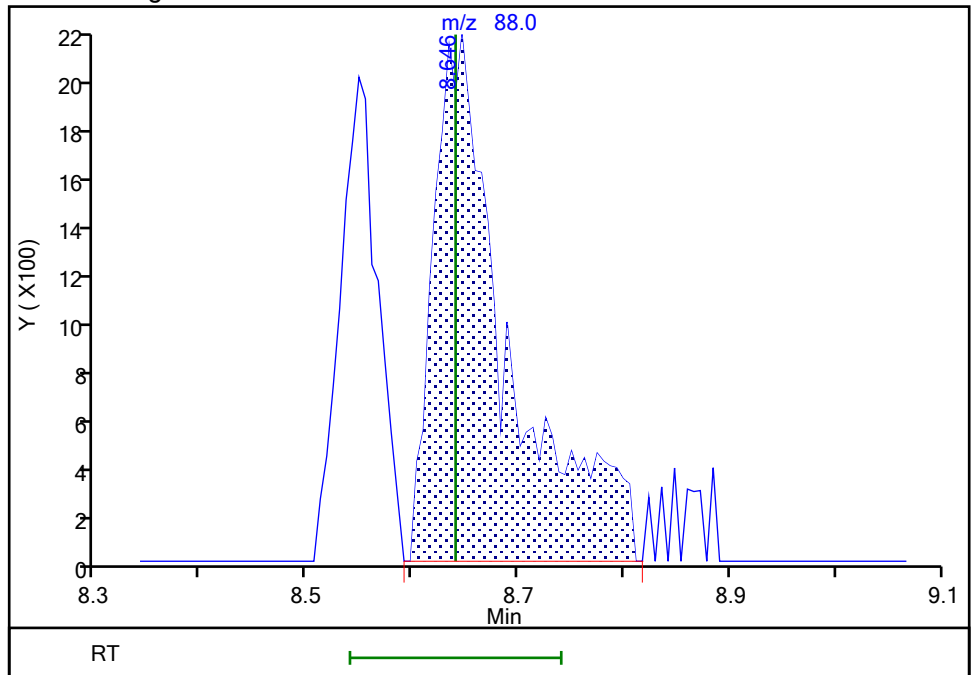
RT: 8.65  
Area: 8965  
Amount: 45.300089  
Amount Units: ug/l

Processing Integration Results



RT: 8.65  
Area: 10496  
Amount: 52.840483  
Amount Units: ug/l

Manual Integration Results



Reviewer: longj, 24-Aug-2021 15:17:15  
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23106.D  
 Lims ID: IC std2  
 Client ID:  
 Sample Type: IC Calib Level: 2  
 Inject. Date: 24-Aug-2021 02:30:30 ALS Bottle#: 16 Worklist Smp#: 17  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0037607-017  
 Misc. Info.: IC STD2  
 Operator ID: mec29284 Instrument ID: 19930  
 Sublist: chrom-8260 25ml HP31\*sub2

Method: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 24-Aug-2021 15:55:27 Calib Date: 24-Aug-2021 02:52:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1646

First Level Reviewer: longj

Date: 24-Aug-2021 15:08:05

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.983	1.965	0.018	98	23341	0.5000	0.3127	
4 Chloromethane	50	2.178	2.172	0.006	99	42004	0.5000	0.4939	
6 Butadiene	39	2.300	2.288	0.012	93	33180	0.5000	0.4247	
5 Vinyl chloride	62	2.294	2.294	0.000	81	37981	0.5000	0.4430	
7 Bromomethane	94	2.629	2.623	0.006	91	30163	0.5000	0.4855	
8 Chloroethane	64	2.715	2.709	0.006	99	24539	0.5000	0.4775	
9 Dichlorofluoromethane	67	2.952	2.946	0.006	97	57981	0.5000	0.4691	
10 Trichlorofluoromethane	101	3.026	3.020	0.006	96	39345	0.5000	0.3561	
11 Ethyl ether	59	3.269	3.257	0.012	90	19745	0.5000	0.4400	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.349	3.343	0.006	91	33147	0.5000	0.4188	
13 Acrolein	56	3.446	3.428	0.018	98	164868	25.0	23.2	
14 1,1-Dichloroethene	96	3.580	3.568	0.012	98	25406	0.5000	0.4460	
15 Acetone	43	3.617	3.599	0.018	99	42743	5.00	4.73	
16 112TCTFE	101	3.629	3.611	0.018	87	23135	0.5000	0.3890	
17 Iodomethane	142	3.775	3.769	0.006	99	54663	0.5000	0.4801	
18 Ethyl bromide	108	3.812	3.794	0.018	97	23524	0.4997	0.4532	
19 Carbon disulfide	76	3.891	3.879	0.012	99	72614	0.5000	0.4619	
21 Methyl acetate	43	4.050	4.038	0.012	90	10814	0.5000	0.4066	M
22 3-Chloro-1-propene	41	4.068	4.056	0.012	91	44817	0.5000	0.4797	
23 Methylene Chloride	84	4.251	4.239	0.012	90	29677	0.5000	0.4774	
* 24 t-Butyl alcohol-d10 (IS)	65	4.263	4.257	0.006	99	162651	50.0	50.0	
25 2-Methyl-2-propanol	59	4.410	4.397	0.013	100	30939	10.0	9.03	
26 Acrylonitrile	53	4.623	4.592	0.031	81	13208	1.25	1.10	
27 Methyl tert-butyl ether	73	4.659	4.659	0.000	87	74896	0.5000	0.4610	
28 trans-1,2-Dichloroethene	96	4.678	4.672	0.006	99	30641	0.5000	0.4737	
29 Hexane	57	5.105	5.086	0.018	91	34316	0.5000	0.3799	
31 1,1-Dichloroethane	63	5.336	5.330	0.006	96	56931	0.5000	0.4849	
32 Isopropyl ether	45	5.391	5.385	0.006	97	92363	0.5000	0.4710	
33 2-Chloro-1,3-butadiene	53	5.452	5.434	0.018	91	44829	0.5000	0.4580	
34 Tert-butyl ethyl ether	59	5.921	5.915	0.006	97	89795	0.5000	0.4683	



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	6.129	6.116	0.013	99	77869	5.00	4.94	
S 35 1,2-Dichloroethene, Total	100				0			0.9359	
37 cis-1,2-Dichloroethene	96	6.165	6.159	0.006	82	33313	0.5000	0.4622	
38 2,2-Dichloropropane	77	6.171	6.171	0.000	69	48330	0.5000	0.4735	
40 Propionitrile	54	6.226	6.208	0.018	91	37944	10.0	9.06	
42 Methacrylonitrile	67	6.427	6.415	0.012	90	73898	5.00	4.66	
43 Chlorobromomethane	128	6.494	6.482	0.012	89	14686	0.5000	0.4722	
44 Tetrahydrofuran	71	6.494	6.494	0.000	76	10321	2.50	2.21	
45 Chloroform	83	6.641	6.635	0.006	93	55513	0.5000	0.4774	
\$ 46 Dibromofluoromethane (Surr)	113	6.854	6.848	0.006	94	602854	10.0	10.0	
47 1,1,1-Trichloroethane	97	6.872	6.860	0.012	97	50051	0.5000	0.4632	
48 Cyclohexane	56	6.964	6.964	0.000	89	41983	0.5000	0.3919	
50 Carbon tetrachloride	117	7.080	7.067	0.013	88	39984	0.5000	0.4287	
51 1,1-Dichloropropene	75	7.080	7.074	0.006	95	40862	0.5000	0.4483	
52 Isobutyl alcohol	41	7.232	7.214	0.018	95	24830	25.0	22.7	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.299	7.299	0.000	83	118060	10.0	9.82	
54 Benzene	78	7.336	7.336	0.000	95	128948	0.5000	0.4806	
56 1,2-Dichloroethane	62	7.409	7.409	0.000	96	34473	0.5000	0.4742	
57 Tert-amyl methyl ether	73	7.525	7.519	0.006	99	81778	0.5000	0.4594	
* 58 Fluorobenzene (IS)	96	7.738	7.732	0.006	99	2386508	10.0	10.0	
59 n-Heptane	43	7.744	7.744	0.000	48	39115	0.5000	0.4211	
60 n-Butanol	56	8.104	8.098	0.006	87	41262	43.8	40.7	
61 Trichloroethene	95	8.220	8.214	0.006	98	34329	0.5000	0.4760	
62 Methylcyclohexane	83	8.531	8.525	0.006	92	46295	0.5000	0.3860	
63 1,2-Dichloropropane	63	8.543	8.543	0.000	73	30184	0.5000	0.4580	
64 Methyl methacrylate	69	8.634	8.628	0.006	90	12996	0.5000	0.4171	
65 1,4-Dioxane	88	8.640	8.640	0.000	38	4720	25.0	33.9	M
66 Dibromomethane	93	8.653	8.653	0.000	92	14579	0.5000	0.4527	
68 Dichlorobromomethane	83	8.890	8.890	0.000	99	37237	0.5000	0.4661	
69 2-Nitropropane	41	9.152	9.152	0.000	98	20434	2.50	2.29	
72 1-Bromo-2-chloroethane	63	9.281	9.280	0.001	98	27429	0.5000	0.4241	
73 cis-1,3-Dichloropropene	75	9.433	9.433	0.000	96	44155	0.5000	0.4399	
74 4-Methyl-2-pentanone (MIBK)	43	9.604	9.597	0.007	96	180620	5.00	4.55	
\$ 75 Toluene-d8 (Surr)	98	9.738	9.738	0.000	93	2386226	10.0	10.0	
76 Toluene	92	9.817	9.811	0.006	98	85173	0.5000	0.4814	
S 77 1,3-Dichloropropene, Total	100				0			0.8811	
78 trans-1,3-Dichloropropene	75	10.073	10.067	0.006	92	35995	0.5000	0.4412	
79 Ethyl methacrylate	69	10.134	10.128	0.006	89	28685	0.5000	0.4213	
80 1,1,2-Trichloroethane	97	10.274	10.268	0.006	90	22055	0.5000	0.4673	
81 Tetrachloroethene	166	10.360	10.360	0.000	98	39159	0.5000	0.4646	
82 1,3-Dichloropropane	76	10.433	10.433	0.000	88	36830	0.5000	0.4589	
83 2-Hexanone	43	10.482	10.481	0.001	96	125813	5.00	4.52	
85 Chlorodibromomethane	129	10.646	10.646	0.000	89	24663	0.5000	0.4288	
86 Ethylene Dibromide	107	10.756	10.756	0.000	99	20030	0.5000	0.4399	
* 87 Chlorobenzene-d5 (IS)	117	11.183	11.183	0.000	85	1845718	10.0	10.0	
88 1-Chlorohexane	91	11.189	11.189	0.000	94	46401	0.5000	0.4484	
90 Chlorobenzene	112	11.213	11.213	0.000	96	92274	0.5000	0.4708	
S 89 Xylenes, Total	106				0			1.42	
91 1,1,1,2-Tetrachloroethane	131	11.292	11.292	0.000	95	30345	0.5000	0.4434	
92 Ethylbenzene	91	11.298	11.298	0.000	98	160740	0.5000	0.4718	
93 m-Xylene & p-Xylene	106	11.414	11.408	0.006	99	127477	1.00	0.9471	
94 o-Xylene	106	11.737	11.737	0.000	96	62976	0.5000	0.4741	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
95 Styrene	104	11.756	11.756	0.000	94	99275	0.5000	0.4630	
96 Bromoform	173	11.914	11.914	0.000	96	14486	0.5000	0.4205	
97 Isopropylbenzene	105	12.036	12.036	0.000	96	165096	0.5000	0.4708	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	92	911479	10.0	10.0	
101 1,1,2,2-Tetrachloroethane	83	12.280	12.280	0.000	93	27777	0.5000	0.4559	
102 Bromobenzene	156	12.298	12.298	0.000	96	38617	0.5000	0.4625	
103 trans-1,4-Dichloro-2-butene	53	12.310	12.304	0.006	94	63065	5.00	4.39	
104 1,2,3-Trichloropropane	110	12.329	12.329	0.000	80	7449	0.5000	0.4447	
105 N-Propylbenzene	91	12.365	12.365	0.000	99	188239	0.5000	0.4644	
106 2-Chlorotoluene	126	12.445	12.444	0.001	97	38383	0.5000	0.4615	
107 1,3,5-Trimethylbenzene	105	12.499	12.499	0.000	94	137180	0.5000	0.4634	
108 4-Chlorotoluene	126	12.536	12.536	0.000	98	39370	0.5000	0.4635	
109 tert-Butylbenzene	134	12.743	12.743	0.000	92	30260	0.5000	0.4661	
110 Pentachloroethane	167	12.774	12.774	0.000	89	21010	0.5000	0.4007	
111 1,2,4-Trimethylbenzene	105	12.786	12.786	0.000	97	139600	0.5000	0.4601	
112 sec-Butylbenzene	105	12.908	12.902	0.006	94	171209	0.5000	0.4577	
113 1,3-Dichlorobenzene	146	13.005	13.005	0.000	98	76475	0.5000	0.4542	
114 4-Isopropyltoluene	119	13.011	13.011	0.000	97	151465	0.5000	0.4578	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	94	1102182	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.079	13.079	0.000	95	79823	0.5000	0.4638	
117 1,2,3-Trimethylbenzene	120	13.085	13.085	0.000	95	63083	0.5000	0.4699	
118 Benzyl chloride	126	13.158	13.158	0.000	98	10785	0.5000	0.4326	
119 n-Butylbenzene	92	13.304	13.304	0.000	98	68676	0.5000	0.4441	
120 1,2-Dichlorobenzene	146	13.341	13.341	0.000	98	69498	0.5000	0.4517	
122 1,2-Dibromo-3-Chloropropane	155	13.883	13.883	0.000	88	3634	0.5000	0.4055	
123 1,3,5-Trichlorobenzene	180	14.011	14.005	0.006	95	55476	0.5000	0.4502	
124 1,2,4-Trichlorobenzene	180	14.432	14.432	0.000	95	44434	0.5000	0.4274	
125 Hexachlorobutadiene	225	14.511	14.511	0.000	96	20700	0.5000	0.4583	
126 Naphthalene	128	14.615	14.609	0.006	97	86939	0.5000	0.4387	
127 1,2,3-Trichlorobenzene	180	14.755	14.755	0.000	94	38854	0.5000	0.4324	
134 Isopropyl alcohol	45		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
137 2-Methylnaphthalene	142		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_00015	Amount Added: 2.00	Units: uL	
MSV_LL_#2_826_00015	Amount Added: 2.00	Units: uL	
MSV_LL_GAS826_00027	Amount Added: 2.00	Units: uL	
MSV_LLcentISS_00001	Amount Added: 5.00	Units: uL	Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23106.D

Injection Date: 24-Aug-2021 02:30:30

Instrument ID: 19930

Operator ID: mec29284

Lims ID: IC std2

Worklist Smp#: 17

Client ID:

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

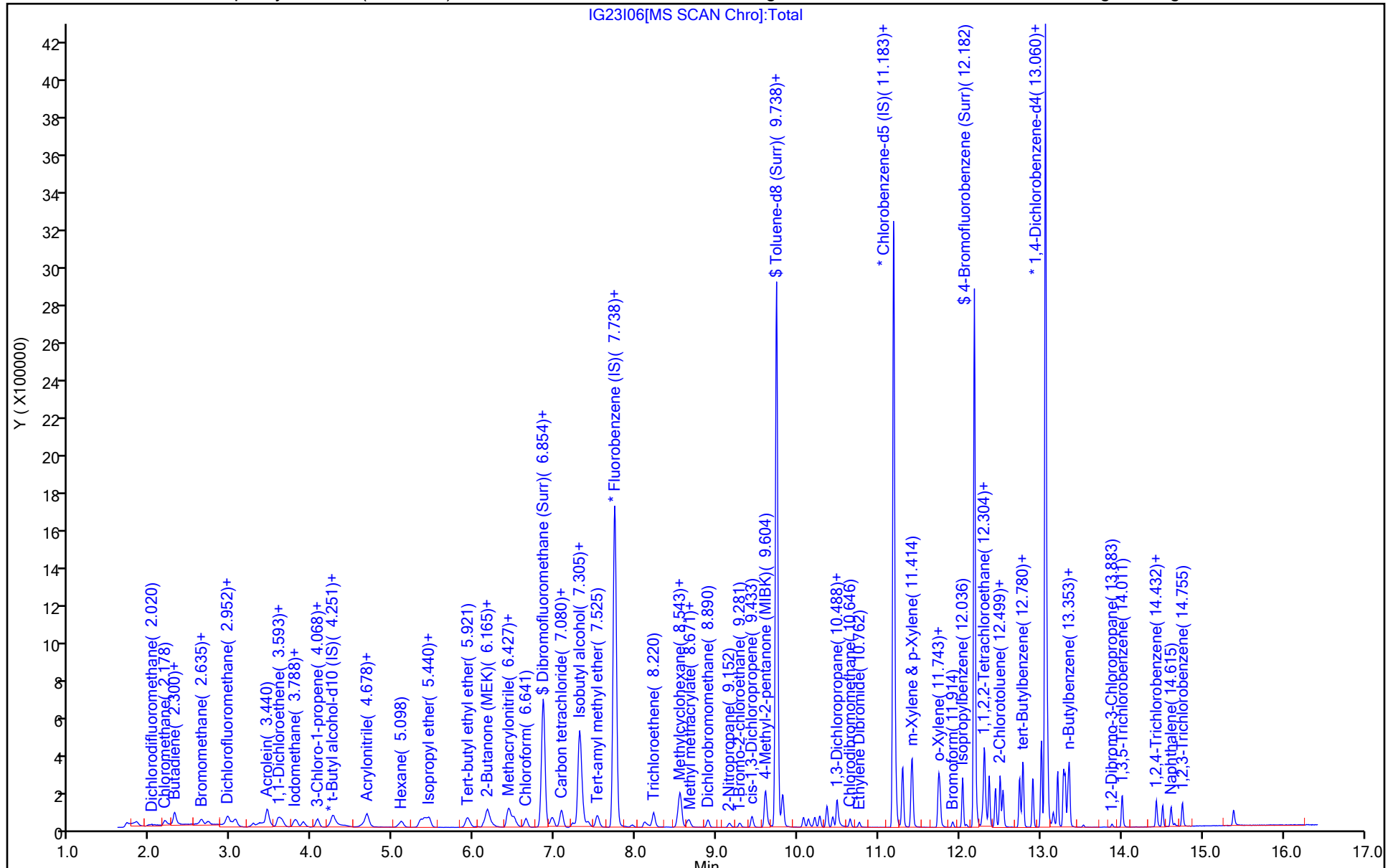
ALS Bottle#: 16

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



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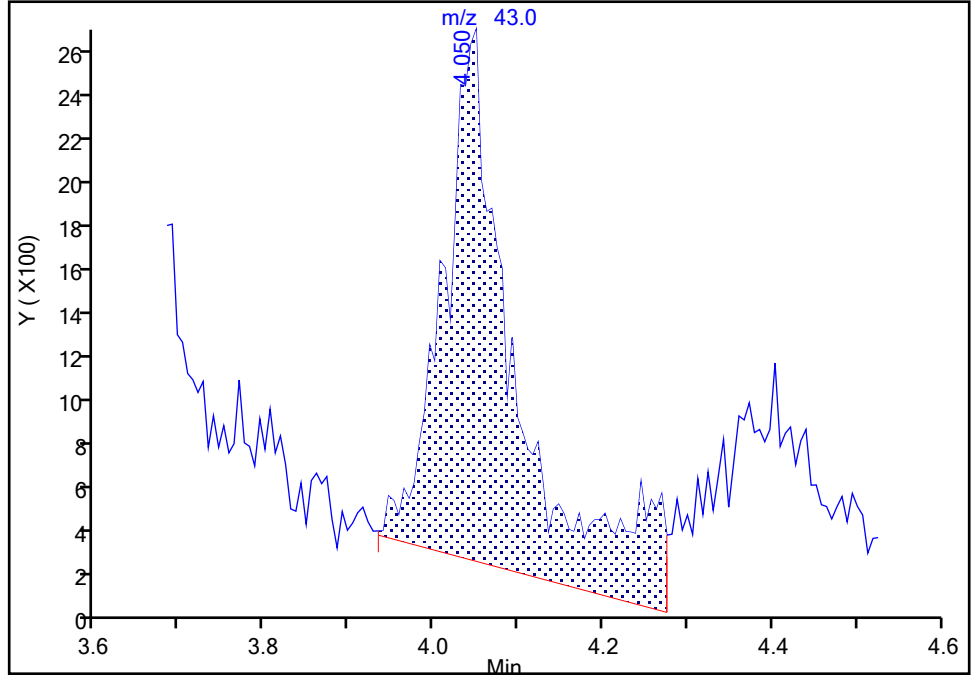
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Injection Date: 24-Aug-2021 02:30:30 Instrument ID: 19930  
Lims ID: IC std2  
Client ID:  
Operator ID: mec29284 ALS Bottle#: 16 Worklist Smp#: 17  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column ( 0.25mm ID) Detector: MS Quad

21 Methyl acetate, CAS: 79-20-9

Signal: 1

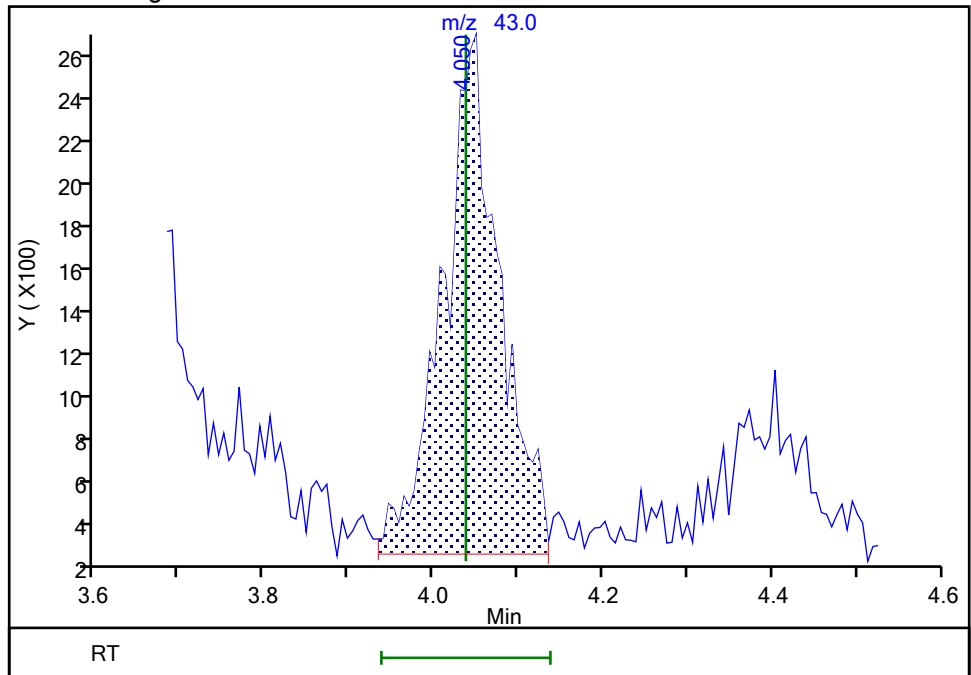
RT: 4.05  
Area: 14429  
Amount: 0.507597  
Amount Units: ug/l

Processing Integration Results



RT: 4.05  
Area: 10814  
Amount: 0.406583  
Amount Units: ug/l

Manual Integration Results



Reviewer: longj, 24-Aug-2021 15:07:57  
Audit Action: Manually Integrated

Audit Reason: Baseline  
Page 663 of 901

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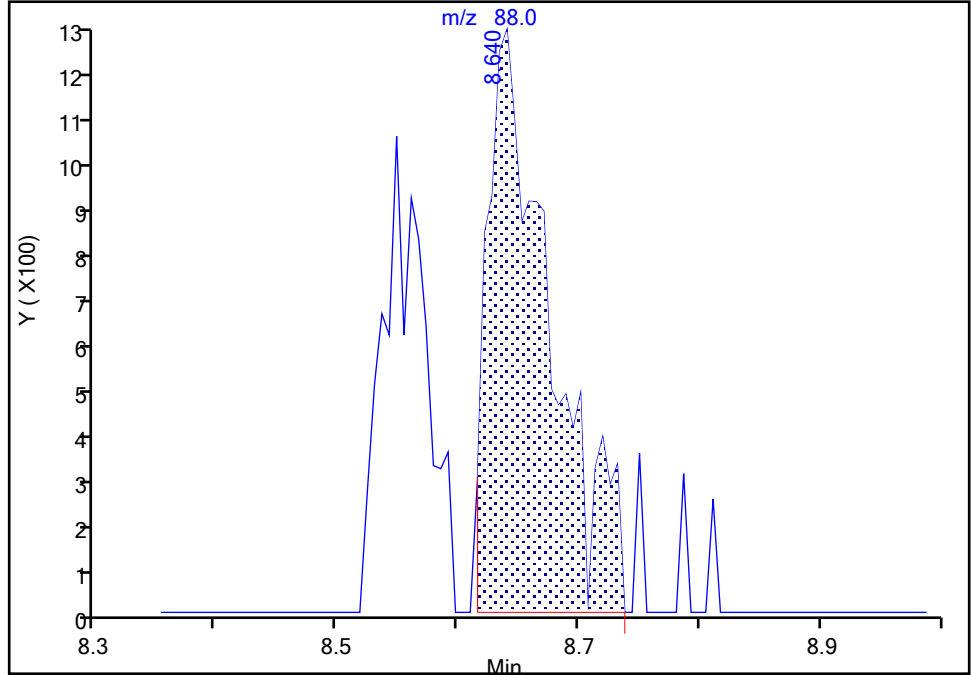
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Injection Date: 24-Aug-2021 02:30:30 Instrument ID: 19930  
Lims ID: IC std2  
Client ID:  
Operator ID: mec29284 ALS Bottle#: 16 Worklist Smp#: 17  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column ( 0.25mm ID) Detector: MS Quad

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

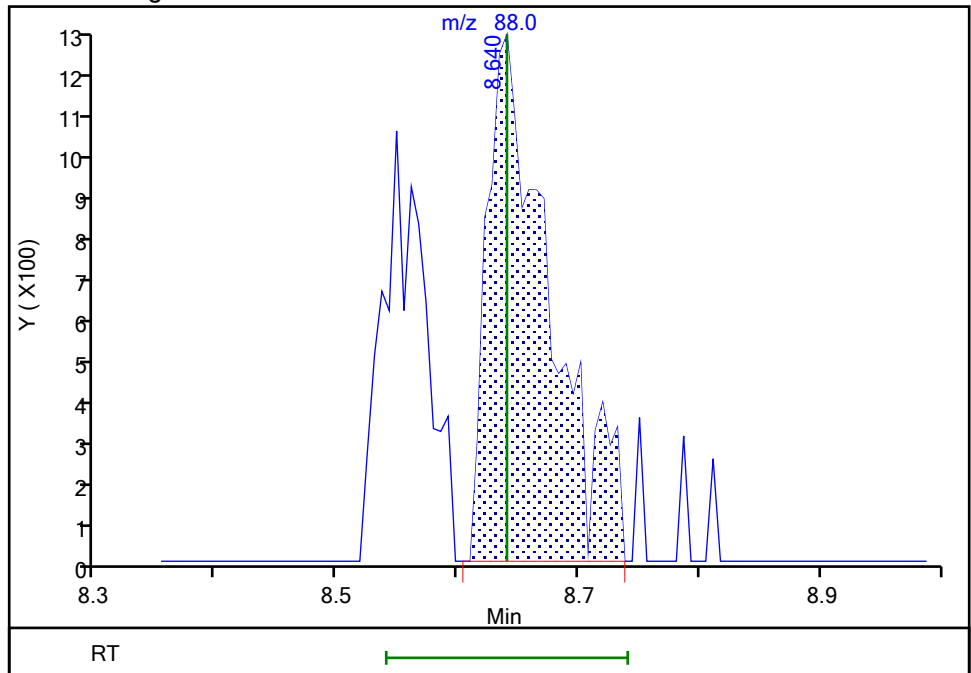
RT: 8.64  
Area: 4720  
Amount: 19.712558  
Amount Units: ug/l

Processing Integration Results



RT: 8.64  
Area: 4720  
Amount: 33.937684  
Amount Units: ug/l

Manual Integration Results



Reviewer: longj, 24-Aug-2021 15:07:35  
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D  
 Lims ID: IC std1  
 Client ID:  
 Sample Type: IC Calib Level: 1  
 Inject. Date: 24-Aug-2021 02:52:30 ALS Bottle#: 17 Worklist Smp#: 18  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0037607-018  
 Misc. Info.: IC STD1  
 Operator ID: mec29284 Instrument ID: 19930  
 Sublist: chrom-8260 25ml HP31\*sub2  
 Method: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 24-Aug-2021 15:55:32 Calib Date: 24-Aug-2021 02:52:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1646

First Level Reviewer: longj Date: 24-Aug-2021 14:55:08

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.983	1.965	0.018	98	10622	0.2000	0.1541	
4 Chloromethane	50	2.172	2.172	0.000	98	16469	0.2000	0.2098	
6 Butadiene	39	2.294	2.288	0.006	89	15788	0.2000	0.2189	
5 Vinyl chloride	62	2.294	2.294	0.000	79	16237	0.2000	0.2051	
7 Bromomethane	94	2.617	2.623	-0.006	93	12369	0.2000	0.2156	
8 Chloroethane	64	2.702	2.709	-0.007	98	9968	0.2000	0.2101	
9 Dichlorofluoromethane	67	2.952	2.946	0.006	96	24746	0.2000	0.2169	
10 Trichlorofluoromethane	101	3.019	3.020	-0.001	94	17920	0.2000	0.1757	
11 Ethyl ether	59	3.263	3.257	0.006	89	8085	0.2000	0.1951	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.349	3.343	0.006	91	14481	0.2000	0.1982	
13 Acrolein	56	3.434	3.428	0.006	99	67296	10.0	9.50	
14 1,1-Dichloroethene	96	3.568	3.568	0.000	97	9853	0.2000	0.1873	
15 Acetone	43	3.623	3.599	0.024	91	22016	2.00	2.44	
16 112TCTFE	101	3.623	3.611	0.012	67	7902	0.2000	0.1439	
17 Iodomethane	142	3.769	3.769	0.000	99	19236	0.2000	0.1830	
18 Ethyl bromide	108	3.800	3.794	0.006	97	9559	0.1999	0.1995	
19 Carbon disulfide	76	3.885	3.879	0.006	98	27501	0.2000	0.1895	
21 Methyl acetate	43	4.025	4.038	-0.013	24	6630	0.2000	0.2501	M
22 3-Chloro-1-propene	41	4.062	4.056	0.006	91	17799	0.2000	0.2063	
23 Methylene Chloride	84	4.251	4.239	0.012	92	11123	0.2000	0.1938	
* 24 t-Butyl alcohol-d10 (IS)	65	4.257	4.257	0.000	87	162132	50.0	50.0	
25 2-Methyl-2-propanol	59	4.385	4.397	-0.012	96	13173	4.00	3.86	
26 Acrylonitrile	53	4.598	4.592	0.006	93	5439	0.5000	0.4531	
27 Methyl tert-butyl ether	73	4.672	4.659	0.013	94	28552	0.2000	0.1903	
28 trans-1,2-Dichloroethene	96	4.672	4.672	0.000	98	11615	0.2000	0.1945	
29 Hexane	57	5.092	5.086	0.006	89	13158	0.2000	0.1578	
31 1,1-Dichloroethane	63	5.330	5.330	0.000	94	19958	0.2000	0.1841	
32 Isopropyl ether	45	5.379	5.385	-0.006	92	34823	0.2000	0.1923	
33 2-Chloro-1,3-butadiene	53	5.434	5.434	0.000	90	16724	0.2000	0.1851	
34 Tert-butyl ethyl ether	59	5.915	5.915	0.000	95	34174	0.2000	0.1930	

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	6.135	6.116	0.019	99	29007	2.00	1.84	
S 35 1,2-Dichloroethene, Total	100				0			0.3987	
37 cis-1,2-Dichloroethene	96	6.159	6.159	0.000	80	13593	0.2000	0.2043	
38 2,2-Dichloropropane	77	6.165	6.171	-0.006	75	17139	0.2000	0.1819	
40 Propionitrile	54	6.226	6.208	0.018	96	13833	4.00	3.31	
42 Methacrylonitrile	67	6.433	6.415	0.018	91	28932	2.00	1.83	
43 Chlorobromomethane	128	6.494	6.482	0.012	89	5382	0.2000	0.1874	
44 Tetrahydrofuran	71	6.500	6.494	0.006	73	4531	1.00	0.9713	
45 Chloroform	83	6.641	6.635	0.006	93	20677	0.2000	0.1926	
\$ 46 Dibromofluoromethane (Surr)	113	6.848	6.848	0.000	94	550850	10.0	9.92	
47 1,1,1-Trichloroethane	97	6.860	6.860	0.000	37	17947	0.2000	0.1799	
48 Cyclohexane	56	6.964	6.964	0.000	88	15734	0.2000	0.1591	
50 Carbon tetrachloride	117	7.080	7.067	0.013	89	14826	0.2000	0.1722	
51 1,1-Dichloropropene	75	7.074	7.074	0.000	92	15129	0.2000	0.1798	
52 Isobutyl alcohol	41	7.238	7.214	0.024	98	11365	10.0	10.4	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.305	7.299	0.006	83	111473	10.0	10.0	
54 Benzene	78	7.342	7.336	0.006	92	47533	0.2000	0.1919	
56 1,2-Dichloroethane	62	7.409	7.409	0.000	96	14085	0.2000	0.2098	
57 Tert-amyl methyl ether	73	7.519	7.519	0.000	98	32493	0.2000	0.1977	
* 58 Fluorobenzene (IS)	96	7.732	7.732	0.000	99	2203428	10.0	10.0	
59 n-Heptane	43	7.744	7.744	0.000	37	16461	0.2000	0.1919	
60 n-Butanol	56	8.110	8.098	0.012	88	15162	17.5	15.0	
61 Trichloroethene	95	8.214	8.214	0.000	97	12472	0.2000	0.1873	
62 Methylcyclohexane	83	8.518	8.525	-0.007	90	18086	0.2000	0.1633	
63 1,2-Dichloropropane	63	8.549	8.543	0.006	72	10792	0.2000	0.1774	
64 Methyl methacrylate	69	8.634	8.628	0.006	69	5380	0.2000	0.1732	
65 1,4-Dioxane	88	8.659	8.640	0.019	36	1410	10.0	25.4	
66 Dibromomethane	93	8.665	8.653	0.012	96	6024	0.2000	0.2026	
68 Dichlorobromomethane	83	8.884	8.890	-0.006	98	13292	0.2000	0.1802	
69 2-Nitropropane	41	9.152	9.152	0.000	98	7855	1.00	0.8841	
72 1-Bromo-2-chloroethane	63	9.280	9.280	0.000	95	11412	0.2000	0.1911	
73 cis-1,3-Dichloropropene	75	9.433	9.433	0.000	96	16632	0.2000	0.1795	
74 4-Methyl-2-pentanone (MIBK)	43	9.604	9.597	0.007	95	72451	2.00	1.83	
\$ 75 Toluene-d8 (Surr)	98	9.738	9.738	0.000	93	2194797	10.0	10.1	
76 Toluene	92	9.811	9.811	0.000	97	31541	0.2000	0.1959	
S 77 1,3-Dichloropropene, Total	100				0			0.3575	
78 trans-1,3-Dichloropropene	75	10.073	10.067	0.006	93	13216	0.2000	0.1780	
79 Ethyl methacrylate	69	10.140	10.128	0.012	86	11059	0.2000	0.1785	
80 1,1,2-Trichloroethane	97	10.268	10.268	0.000	88	8395	0.2000	0.1955	
81 Tetrachloroethene	166	10.366	10.360	0.006	97	14161	0.2000	0.1846	
82 1,3-Dichloropropane	76	10.433	10.433	0.000	86	14346	0.2000	0.1964	
83 2-Hexanone	43	10.487	10.481	0.006	96	46582	2.00	1.68	
85 Chlorodibromomethane	129	10.646	10.646	0.000	91	9097	0.2000	0.1738	
86 Ethylene Dibromide	107	10.762	10.756	0.006	96	7956	0.2000	0.1920	
* 87 Chlorobenzene-d5 (IS)	117	11.182	11.183	-0.001	86	1679409	10.0	10.0	
88 1-Chlorohexane	91	11.195	11.189	0.006	74	19704	0.2000	0.2093	
90 Chlorobenzene	112	11.213	11.213	0.000	96	34732	0.2000	0.1948	
S 89 Xylenes, Total	106				0			0.5624	
91 1,1,1,2-Tetrachloroethane	131	11.292	11.292	0.000	92	11871	0.2000	0.1906	
92 Ethylbenzene	91	11.298	11.298	0.000	98	59702	0.2000	0.1926	
93 m-Xylene & p-Xylene	106	11.414	11.408	0.006	100	45724	0.4000	0.3734	
94 o-Xylene	106	11.737	11.737	0.000	96	22844	0.2000	0.1890	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
95 Styrene	104	11.756	11.756	0.000	94	35508	0.2000	0.1820	
96 Bromoform	173	11.920	11.914	0.006	96	5180	0.2000	0.1652	
97 Isopropylbenzene	105	12.036	12.036	0.000	95	59476	0.2000	0.1864	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	92	836413	10.0	10.1	
101 1,1,2,2-Tetrachloroethane	83	12.280	12.280	0.000	91	10699	0.2000	0.1912	
102 Bromobenzene	156	12.298	12.298	0.000	94	14657	0.2000	0.1911	
103 trans-1,4-Dichloro-2-butene	53	12.310	12.304	0.006	94	23386	2.00	1.63	
104 1,2,3-Trichloropropane	110	12.329	12.329	0.000	79	2954	0.2000	0.1920	
105 N-Propylbenzene	91	12.365	12.365	0.000	99	69326	0.2000	0.1862	
106 2-Chlorotoluene	126	12.444	12.444	0.000	97	13941	0.2000	0.1825	
107 1,3,5-Trimethylbenzene	105	12.499	12.499	0.000	95	50366	0.2000	0.1853	
108 4-Chlorotoluene	126	12.536	12.536	0.000	96	14590	0.2000	0.1870	
109 tert-Butylbenzene	134	12.743	12.743	0.000	92	10568	0.2000	0.1772	
110 Pentachloroethane	167	12.774	12.774	0.000	81	8742	0.2000	0.1815	
111 1,2,4-Trimethylbenzene	105	12.786	12.786	0.000	97	50685	0.2000	0.1819	
112 sec-Butylbenzene	105	12.908	12.902	0.006	94	62740	0.2000	0.1826	
113 1,3-Dichlorobenzene	146	13.005	13.005	0.000	97	28815	0.2000	0.1863	
114 4-Isopropyltoluene	119	13.011	13.011	0.000	97	56219	0.2000	0.1850	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	94	1012314	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.078	13.079	-0.001	94	30392	0.2000	0.1923	
117 1,2,3-Trimethylbenzene	120	13.091	13.085	0.006	96	23351	0.2000	0.1894	
118 Benzyl chloride	126	13.164	13.158	0.006	98	3297	0.2000	0.1440	
119 n-Butylbenzene	92	13.304	13.304	0.000	97	26239	0.2000	0.1848	
120 1,2-Dichlorobenzene	146	13.341	13.341	0.000	97	26871	0.2000	0.1901	
122 1,2-Dibromo-3-Chloropropane	155	13.889	13.883	0.006	79	1200	0.2000	0.1458	
123 1,3,5-Trichlorobenzene	180	14.005	14.005	0.000	97	20269	0.2000	0.1791	
124 1,2,4-Trichlorobenzene	180	14.432	14.432	0.000	94	17004	0.2000	0.1781	
125 Hexachlorobutadiene	225	14.511	14.511	0.000	94	9764	0.2000	0.2354	
126 Naphthalene	128	14.615	14.609	0.006	97	35671	0.2000	0.1960	
127 1,2,3-Trichlorobenzene	180	14.755	14.755	0.000	96	16298	0.2000	0.1975	
134 Isopropyl alcohol	45		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
137 2-Methylnaphthalene	142		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		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_00015	Amount Added: 2.00	Units: uL	
MSV_LL_#2_826_00015	Amount Added: 2.00	Units: uL	
MSV_LL_GAS826_00027	Amount Added: 2.00	Units: uL	
MSV_LLcentISS_00001	Amount Added: 5.00	Units: uL	Run Reagent



Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D

Injection Date: 24-Aug-2021 02:52:30

Instrument ID: 19930

Operator ID: mec29284

Lims ID: IC std1

Worklist Smp#: 18

Client ID:

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

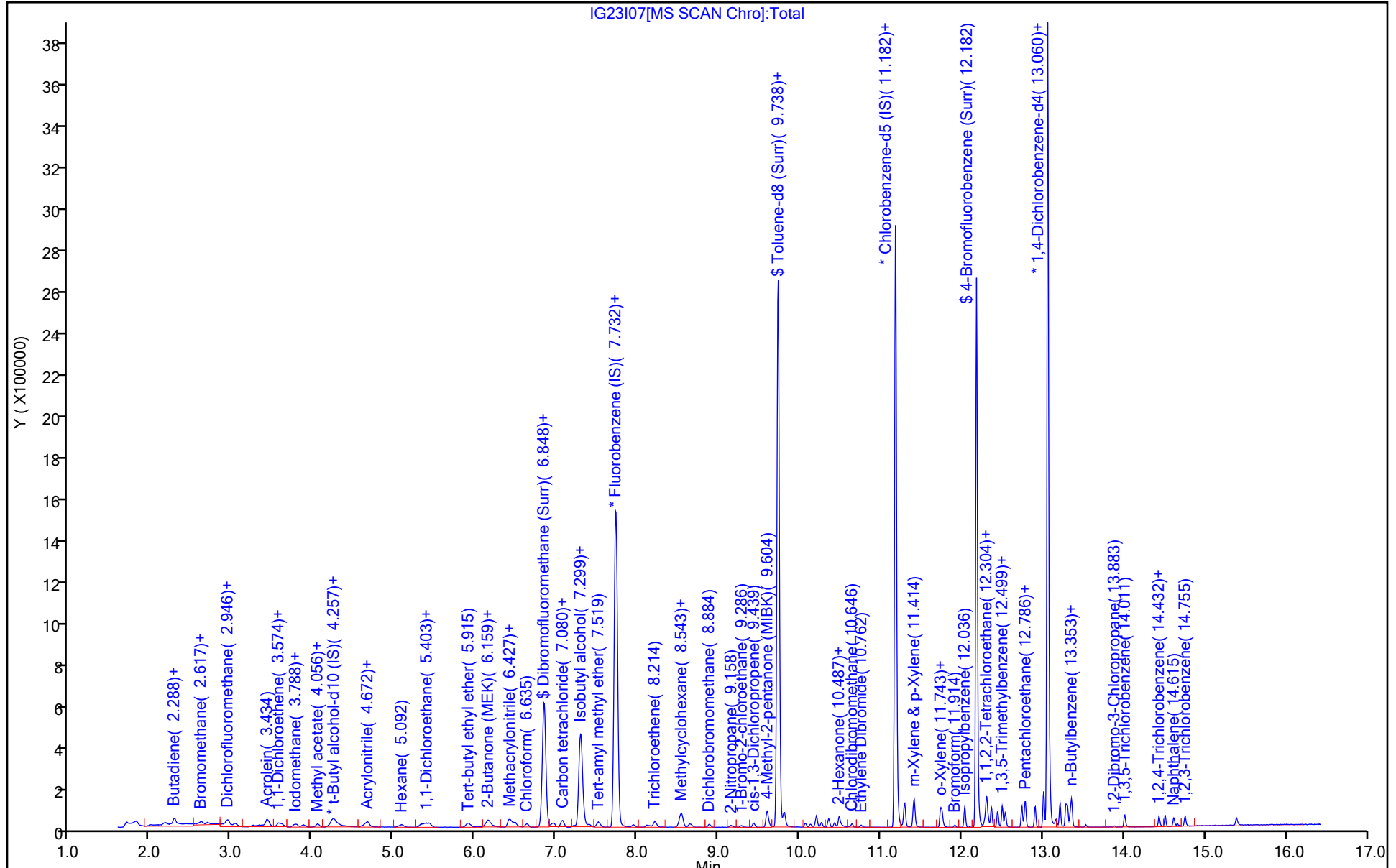
ALS Bottle#: 17

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 Env, LLC

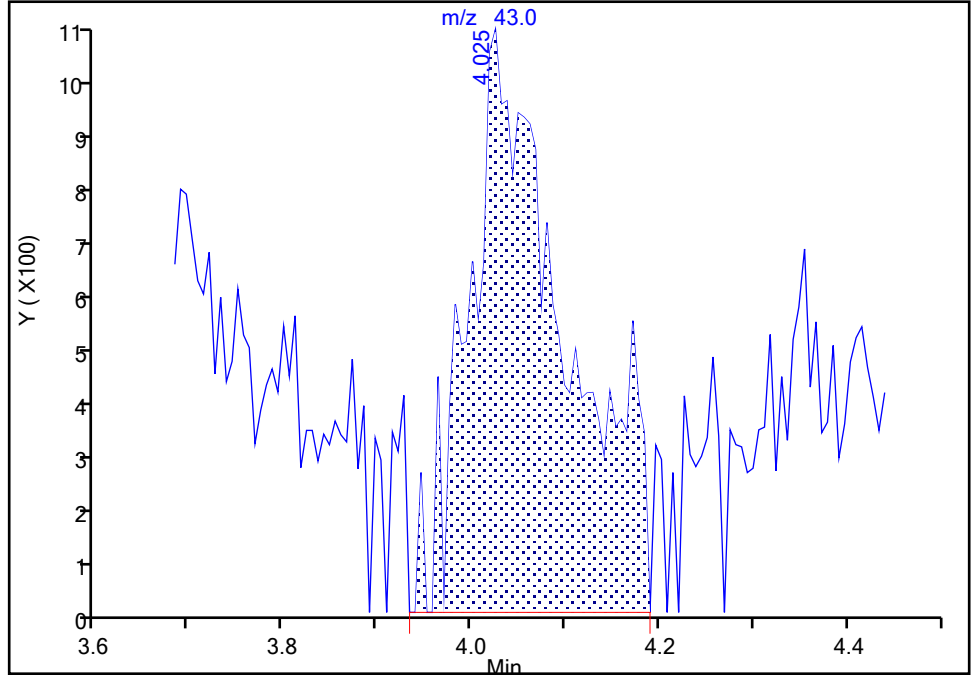
Data File:	\\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D		
Injection Date:	24-Aug-2021 02:52:30	Instrument ID:	19930
Lims ID:	IC std1		
Client ID:			
Operator ID:	mec29284	ALS Bottle#:	17
Purge Vol:	25.000 mL	Dil. Factor:	1.0000
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D
Column:	Rxi-624Sil MS Capillary Column (0.25mm ID)	Detector:	MS Quad
		Worklist Smp#:	18

21 Methyl acetate, CAS: 79-20-9

Signal: 1

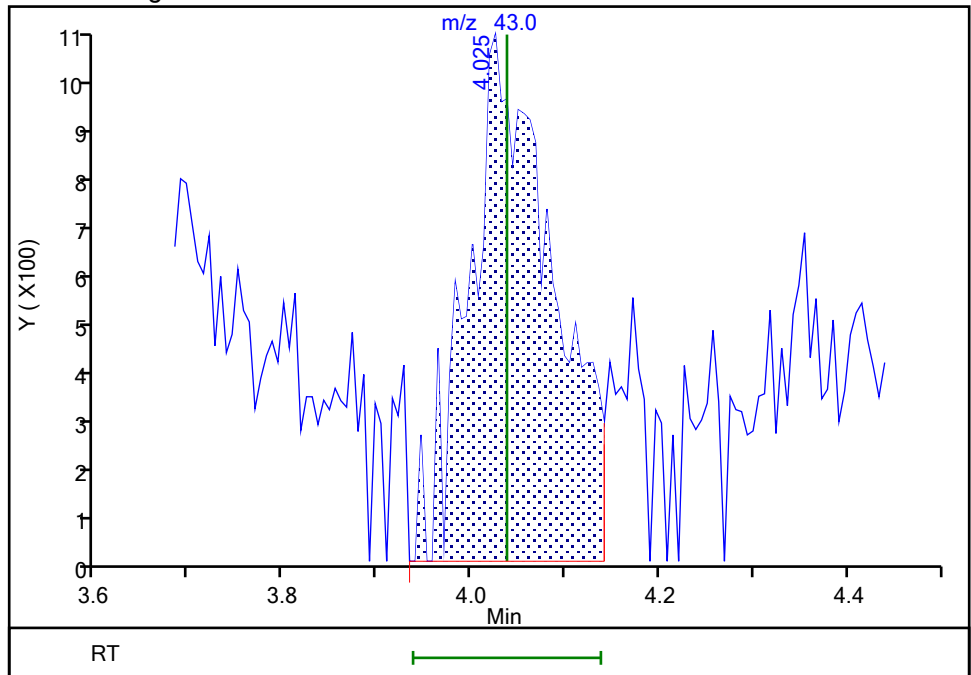
RT: 4.03  
 Area: 7604  
 Amount: 0.278475  
 Amount Units: ug/l

Processing Integration Results



RT: 4.03  
 Area: 6630  
 Amount: 0.250072  
 Amount Units: ug/l

Manual Integration Results



Reviewer: longj, 24-Aug-2021 15:08:28  
 Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

**Calibration**

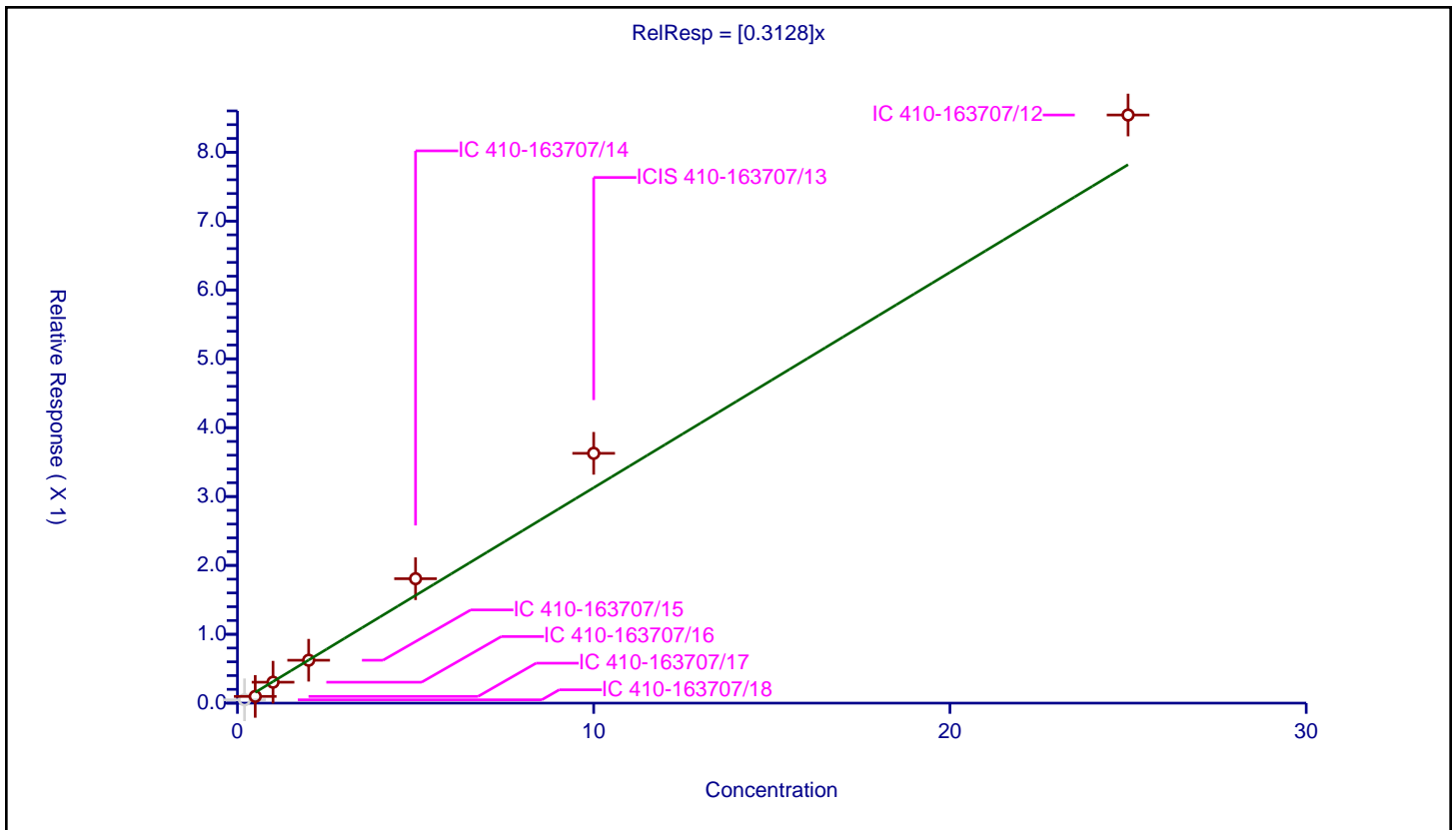
/ Dichlorodifluoromethane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3128

Error Coefficients	
Standard Error:	966000
Relative Standard Error:	20.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.954

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.048207	10.0	2203428.0	0.241034	N
2	IC 410-163707/17	0.5	0.097804	10.0	2386508.0	0.195608	Y
3	IC 410-163707/16	1.0	0.303958	10.0	2167768.0	0.303958	Y
4	IC 410-163707/15	2.0	0.622777	10.0	2141536.0	0.311389	Y
5	IC 410-163707/14	5.0	1.806842	10.0	2115642.0	0.361368	Y
6	ICIS 410-163707/13	10.0	3.6274	10.0	2122537.0	0.36274	Y
7	IC 410-163707/12	25.0	8.540533	10.0	2314551.0	0.341621	Y



Calibration

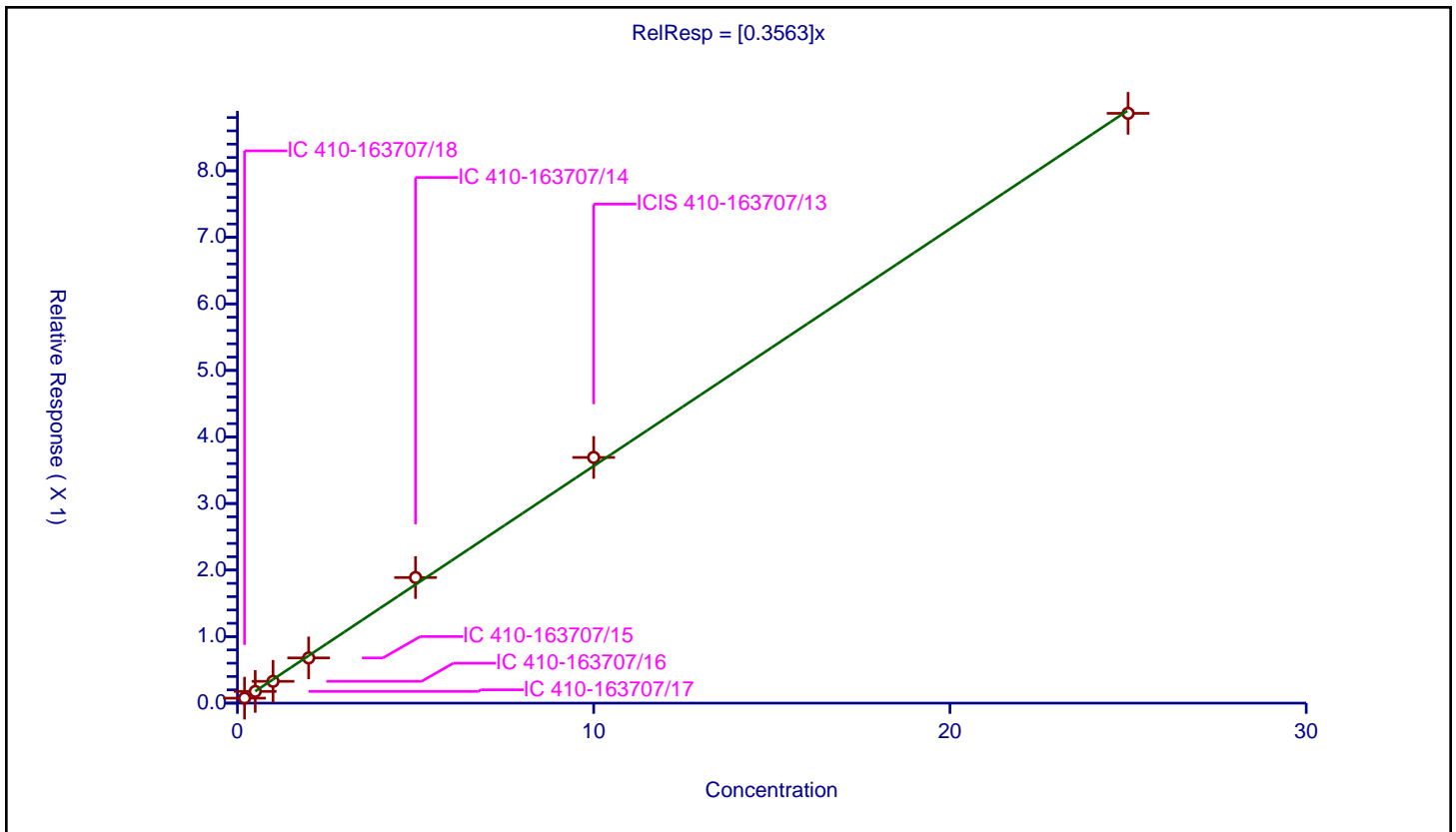
/ Chloromethane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3563

Error Coefficients	
Standard Error:	914000
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 410-163707/18	0.2	0.074743	10.0	2203428.0	0.373713	Y
2	IC 410-163707/17	0.5	0.176006	10.0	2386508.0	0.352012	Y
3	IC 410-163707/16	1.0	0.327678	10.0	2167768.0	0.327678	Y
4	IC 410-163707/15	2.0	0.679503	10.0	2141536.0	0.339751	Y
5	IC 410-163707/14	5.0	1.887243	10.0	2115642.0	0.377449	Y
6	ICIS 410-163707/13	10.0	3.692039	10.0	2122537.0	0.369204	Y
7	IC 410-163707/12	25.0	8.863192	10.0	2314551.0	0.354528	Y



Calibration

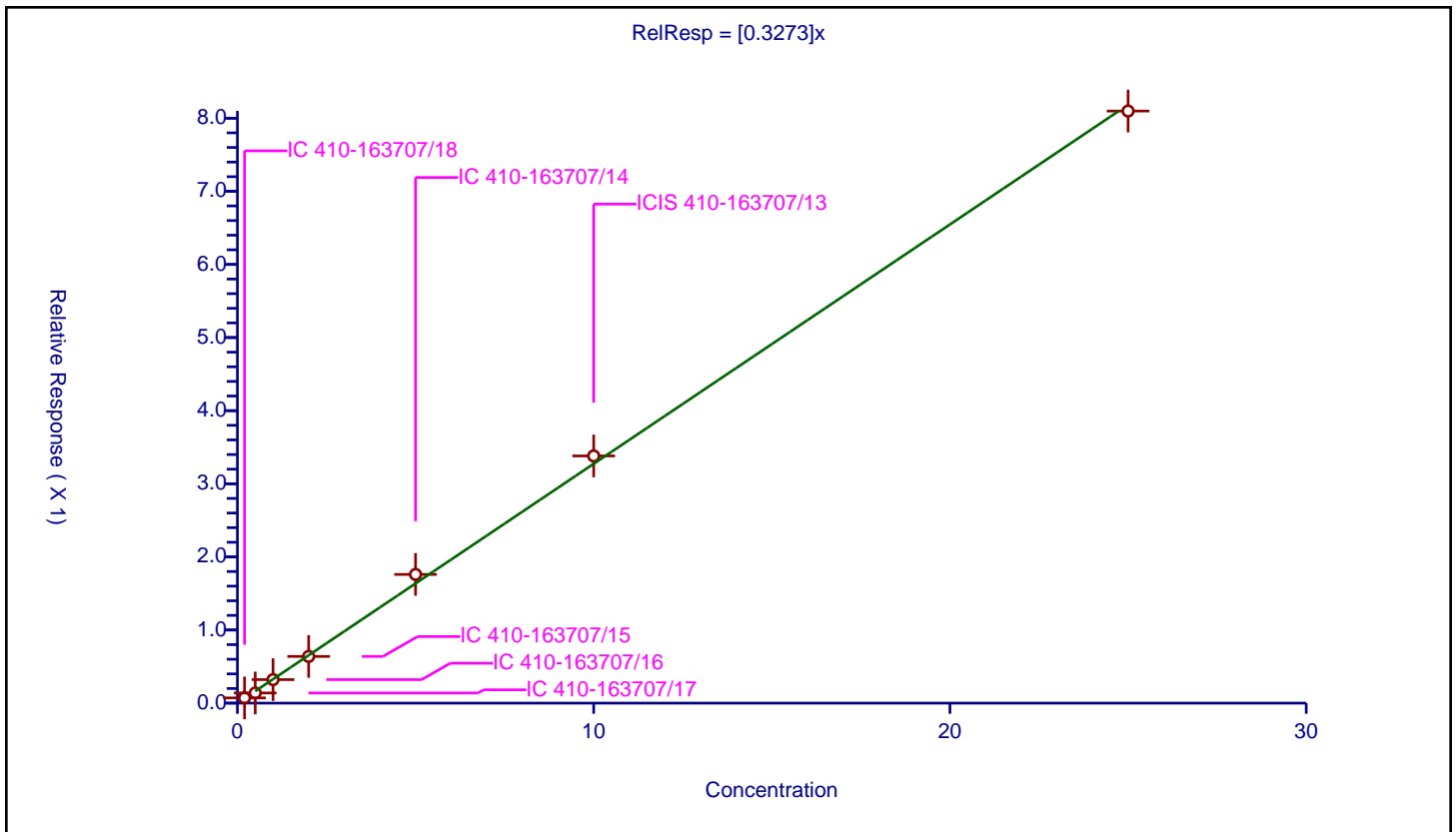
/ Butadiene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3273

Error Coefficients	
Standard Error:	836000
Relative Standard Error:	8.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.071652	10.0	2203428.0	0.35826	Y
2	IC 410-163707/17	0.5	0.139032	10.0	2386508.0	0.278063	Y
3	IC 410-163707/16	1.0	0.321552	10.0	2167768.0	0.321552	Y
4	IC 410-163707/15	2.0	0.638841	10.0	2141536.0	0.31942	Y
5	IC 410-163707/14	5.0	1.760421	10.0	2115642.0	0.352084	Y
6	ICIS 410-163707/13	10.0	3.380888	10.0	2122537.0	0.338089	Y
7	IC 410-163707/12	25.0	8.097925	10.0	2314551.0	0.323917	Y



**Calibration**

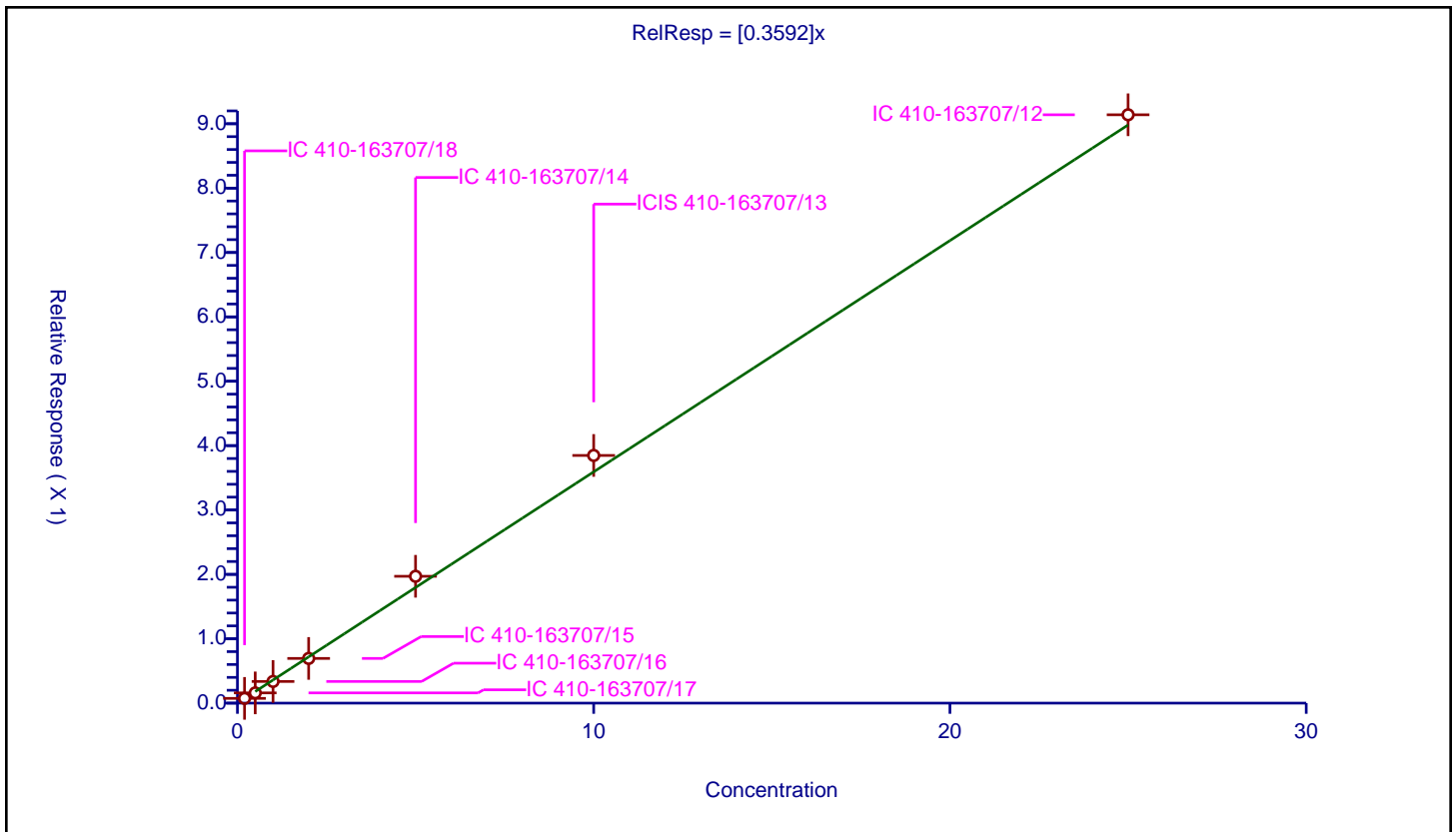
/ Vinyl chloride

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3592

Error Coefficients	
Standard Error:	944000
Relative Standard Error:	7.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.07369	10.0	2203428.0	0.368449	Y
2	IC 410-163707/17	0.5	0.159149	10.0	2386508.0	0.318298	Y
3	IC 410-163707/16	1.0	0.336443	10.0	2167768.0	0.336443	Y
4	IC 410-163707/15	2.0	0.694315	10.0	2141536.0	0.347157	Y
5	IC 410-163707/14	5.0	1.97039	10.0	2115642.0	0.394078	Y
6	ICIS 410-163707/13	10.0	3.847466	10.0	2122537.0	0.384747	Y
7	IC 410-163707/12	25.0	9.13944	10.0	2314551.0	0.365578	Y



**Calibration**

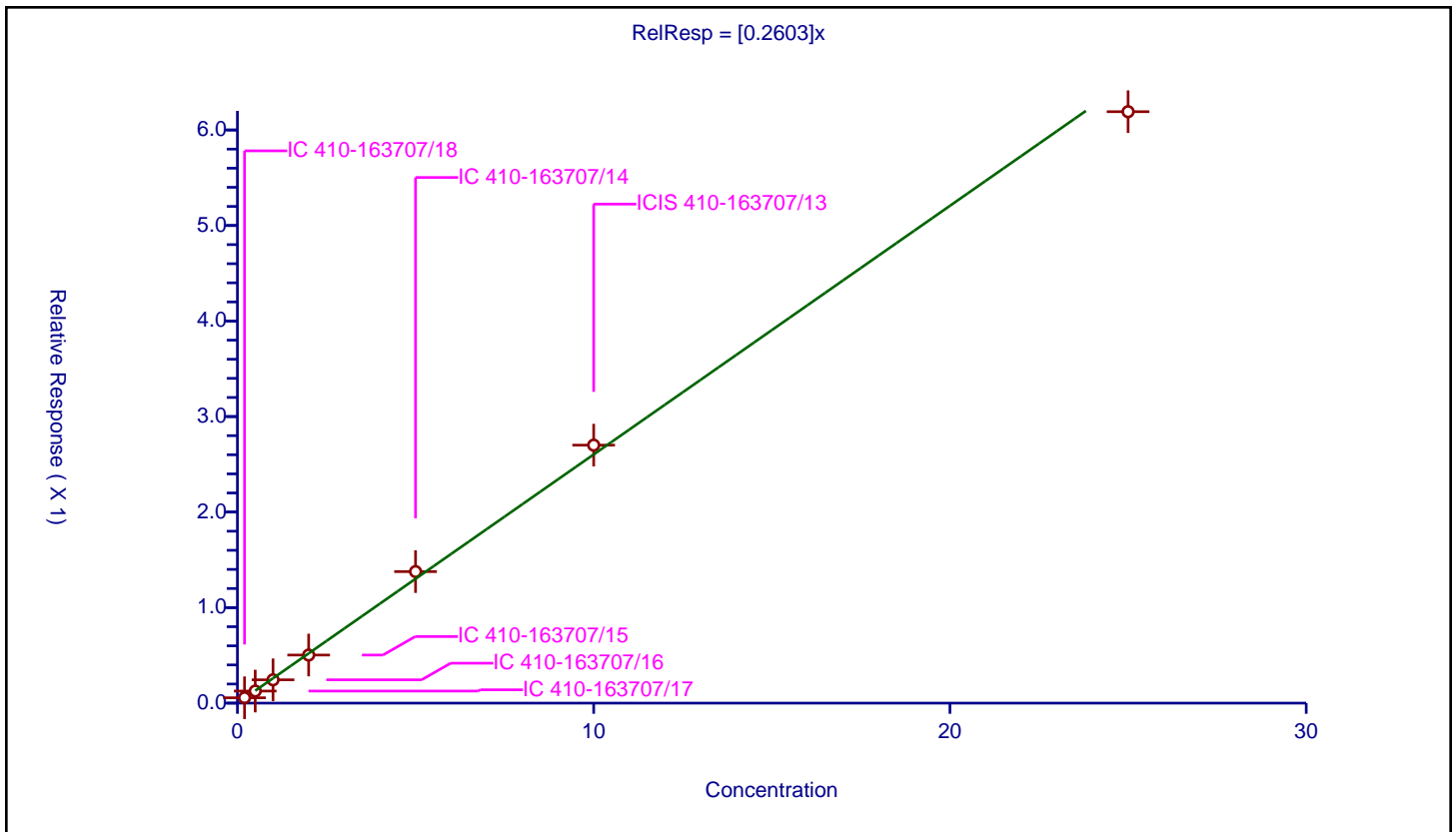
**/ Bromomethane**

**Curve Type:** Average  
**Weighting:** Conc\_Sq  
**Origin:** Force  
**Dependency:** Response  
**Calib Mode:** ISTD  
**Response Base:** AREA  
**RF Rounding:** 0

Curve Coefficients	
Intercept:	0
Slope:	0.2603

Error Coefficients	
Standard Error:	643000
Relative Standard Error:	5.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.056135	10.0	2203428.0	0.280676	Y
2	IC 410-163707/17	0.5	0.12639	10.0	2386508.0	0.252779	Y
3	IC 410-163707/16	1.0	0.244048	10.0	2167768.0	0.244048	Y
4	IC 410-163707/15	2.0	0.503358	10.0	2141536.0	0.251679	Y
5	IC 410-163707/14	5.0	1.376835	10.0	2115642.0	0.275367	Y
6	ICIS 410-163707/13	10.0	2.700806	10.0	2122537.0	0.270081	Y
7	IC 410-163707/12	25.0	6.191711	10.0	2314551.0	0.247668	Y



**Calibration**

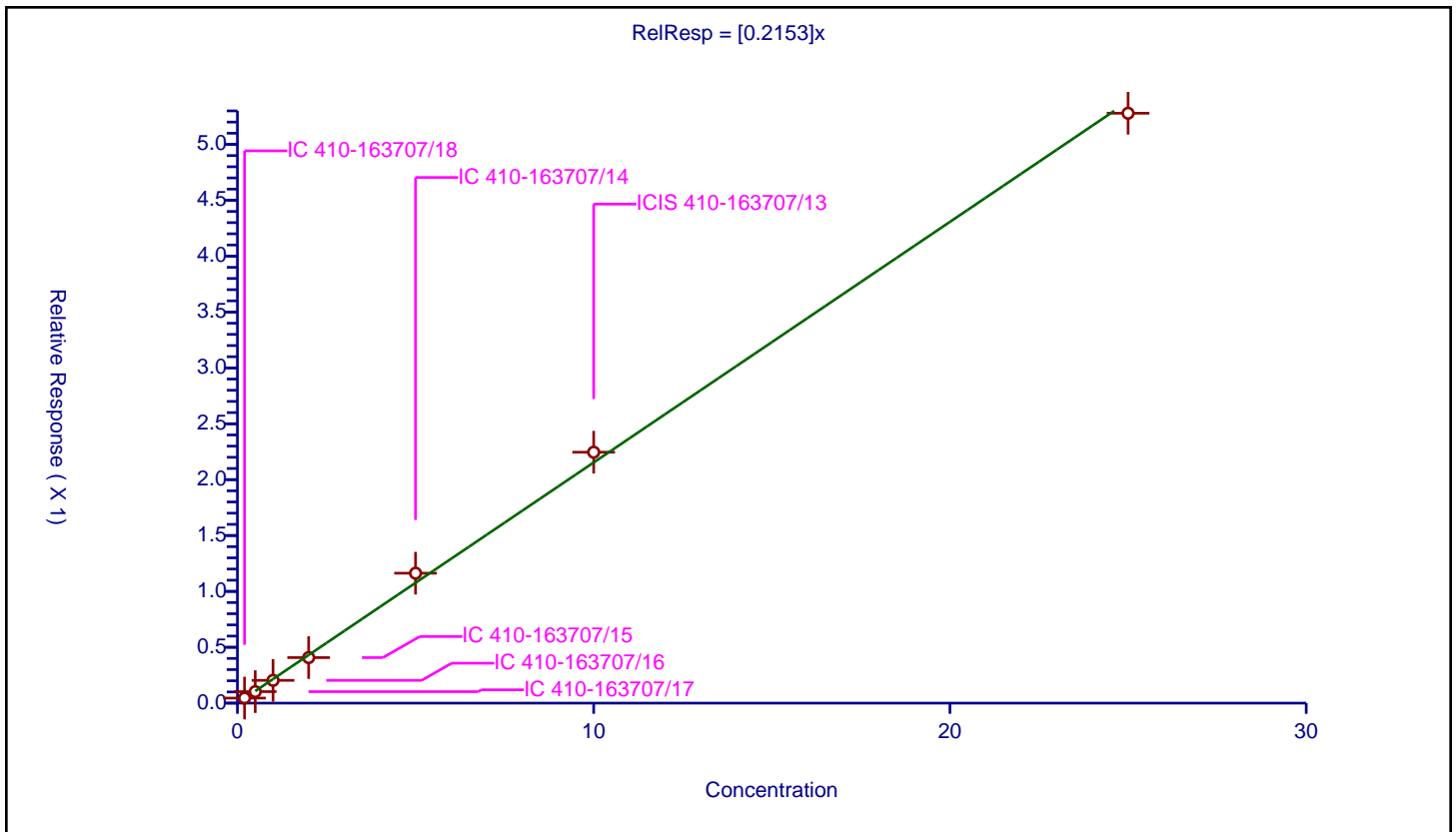
**/ Chloroethane**

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2153

Error Coefficients	
Standard Error:	546000
Relative Standard Error:	5.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.045239	10.0	2203428.0	0.226193	Y
2	IC 410-163707/17	0.5	0.102824	10.0	2386508.0	0.205648	Y
3	IC 410-163707/16	1.0	0.20361	10.0	2167768.0	0.20361	Y
4	IC 410-163707/15	2.0	0.407446	10.0	2141536.0	0.203723	Y
5	IC 410-163707/14	5.0	1.162735	10.0	2115642.0	0.232547	Y
6	ICIS 410-163707/13	10.0	2.245605	10.0	2122537.0	0.224561	Y
7	IC 410-163707/12	25.0	5.27895	10.0	2314551.0	0.211158	Y



Calibration

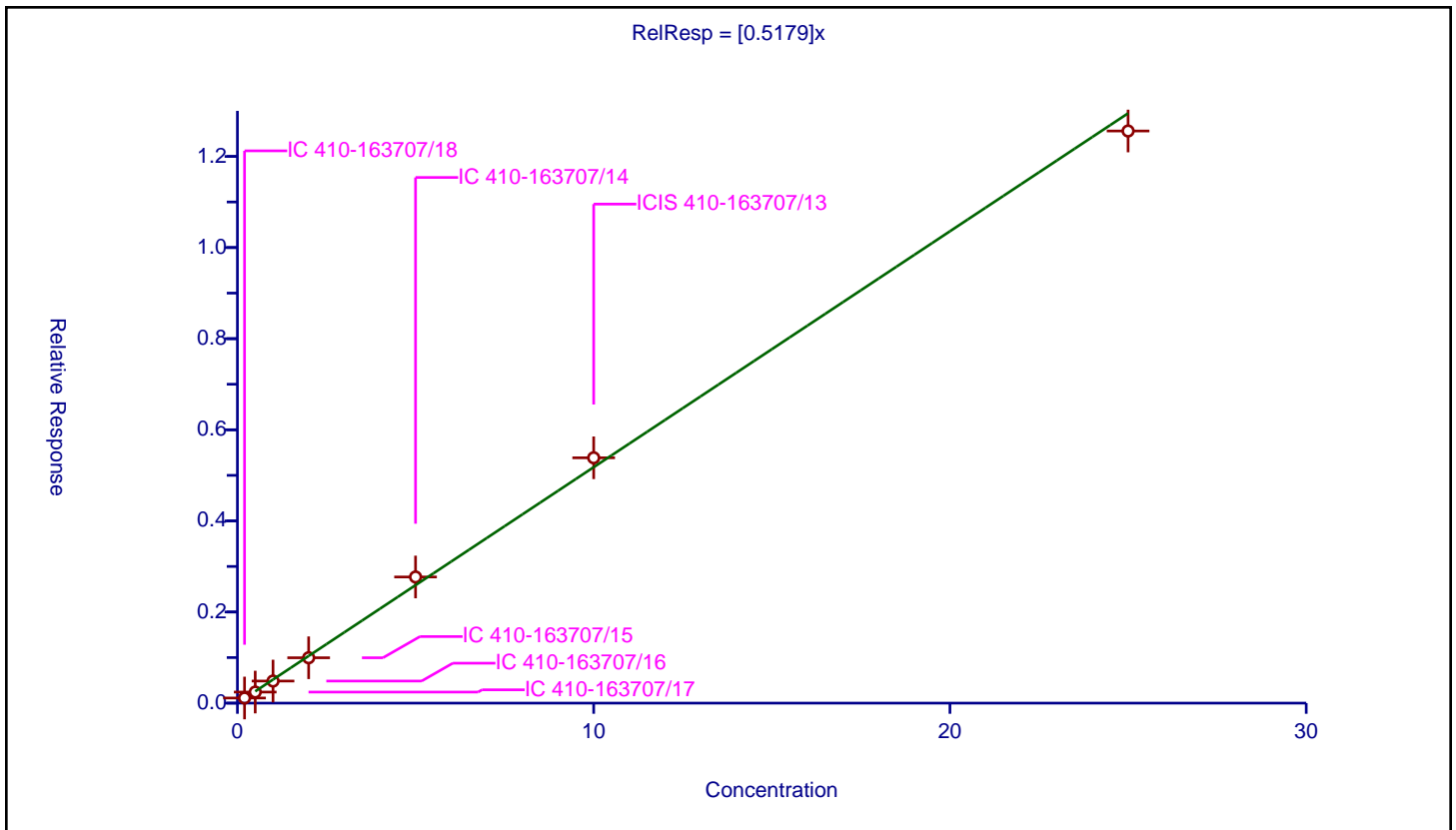
/ Dichlorofluoromethane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.5179

Error Coefficients	
Standard Error:	1300000
Relative Standard Error:	6.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.112307	10.0	2203428.0	0.561534	Y
2	IC 410-163707/17	0.5	0.242953	10.0	2386508.0	0.485907	Y
3	IC 410-163707/16	1.0	0.484969	10.0	2167768.0	0.484969	Y
4	IC 410-163707/15	2.0	0.995879	10.0	2141536.0	0.497939	Y
5	IC 410-163707/14	5.0	2.769178	10.0	2115642.0	0.553836	Y
6	ICIS 410-163707/13	10.0	5.38532	10.0	2122537.0	0.538532	Y
7	IC 410-163707/12	25.0	12.558336	10.0	2314551.0	0.502333	Y





Calibration

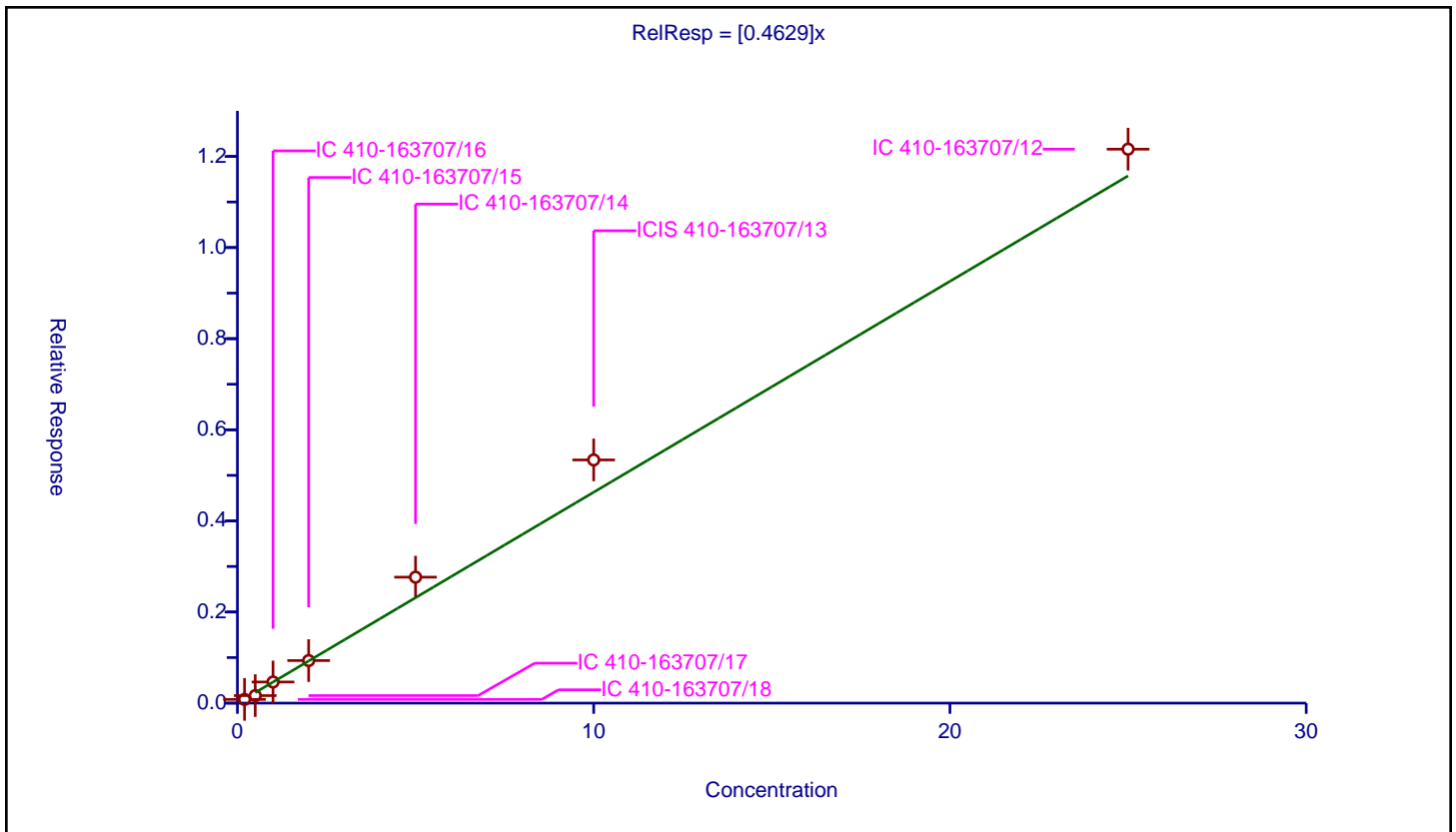
/ Trichlorofluoromethane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4629

Error Coefficients	
Standard Error:	1260000
Relative Standard Error:	16.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.969

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.081328	10.0	2203428.0	0.406639	Y
2	IC 410-163707/17	0.5	0.164864	10.0	2386508.0	0.329729	Y
3	IC 410-163707/16	1.0	0.463767	10.0	2167768.0	0.463767	Y
4	IC 410-163707/15	2.0	0.934227	10.0	2141536.0	0.467113	Y
5	IC 410-163707/14	5.0	2.765222	10.0	2115642.0	0.553044	Y
6	ICIS 410-163707/13	10.0	5.338724	10.0	2122537.0	0.533872	Y
7	IC 410-163707/12	25.0	12.159451	10.0	2314551.0	0.486378	Y



Calibration

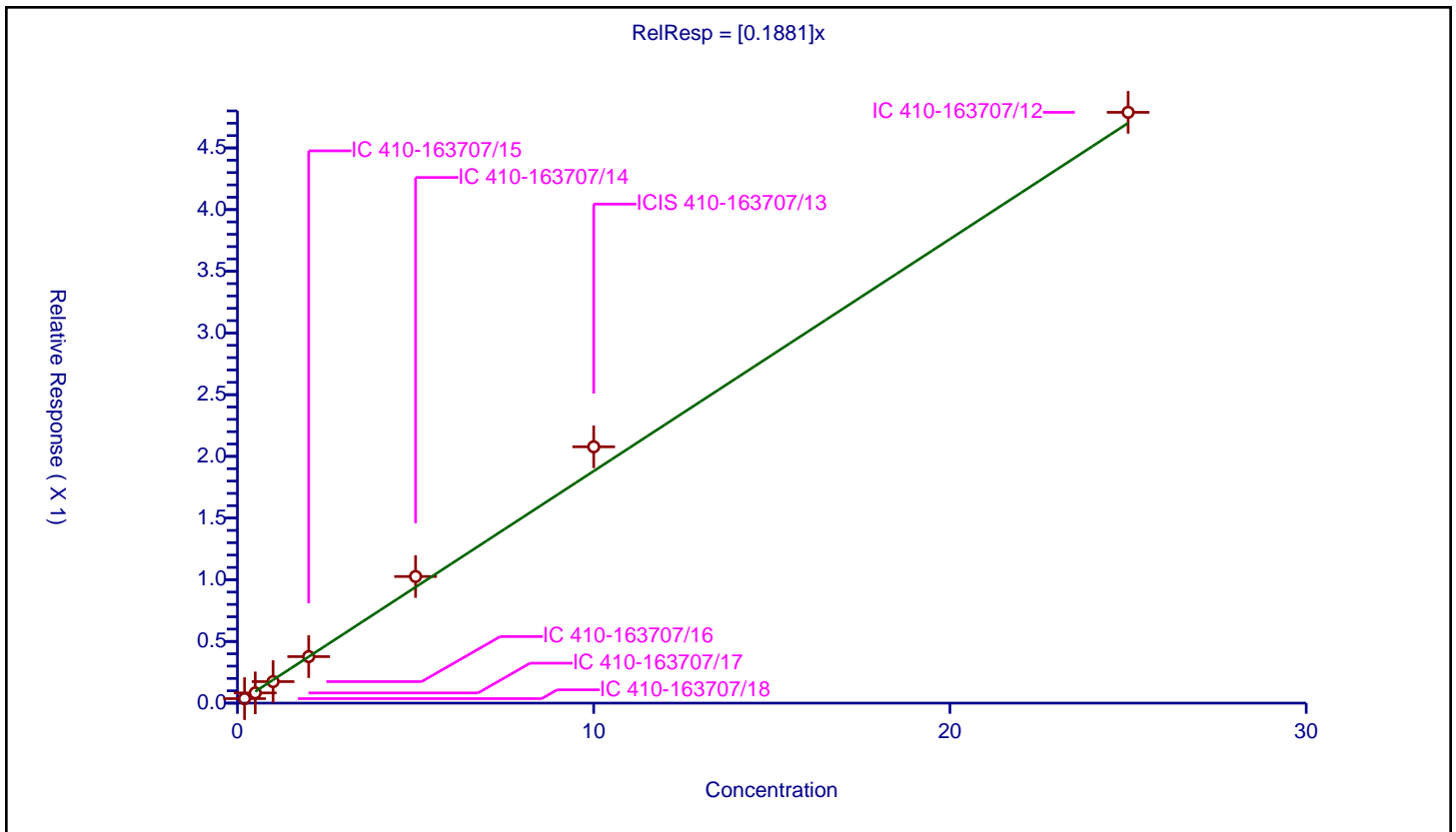
/ Ethyl ether

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.1881

Error Coefficients	
Standard Error:	496000
Relative Standard Error:	8.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.200014	0.036693	10.0	2203428.0	0.183451	Y
2	IC 410-163707/17	0.500035	0.082736	10.0	2386508.0	0.16546	Y
3	IC 410-163707/16	1.000069	0.174461	10.0	2167768.0	0.174448	Y
4	IC 410-163707/15	2.000138	0.376949	10.0	2141536.0	0.188461	Y
5	IC 410-163707/14	5.000346	1.026383	10.0	2115642.0	0.205262	Y
6	ICIS 410-163707/13	10.000692	2.07766	10.0	2122537.0	0.207752	Y
7	IC 410-163707/12	25.00173	4.788363	10.0	2314551.0	0.191521	Y



Calibration

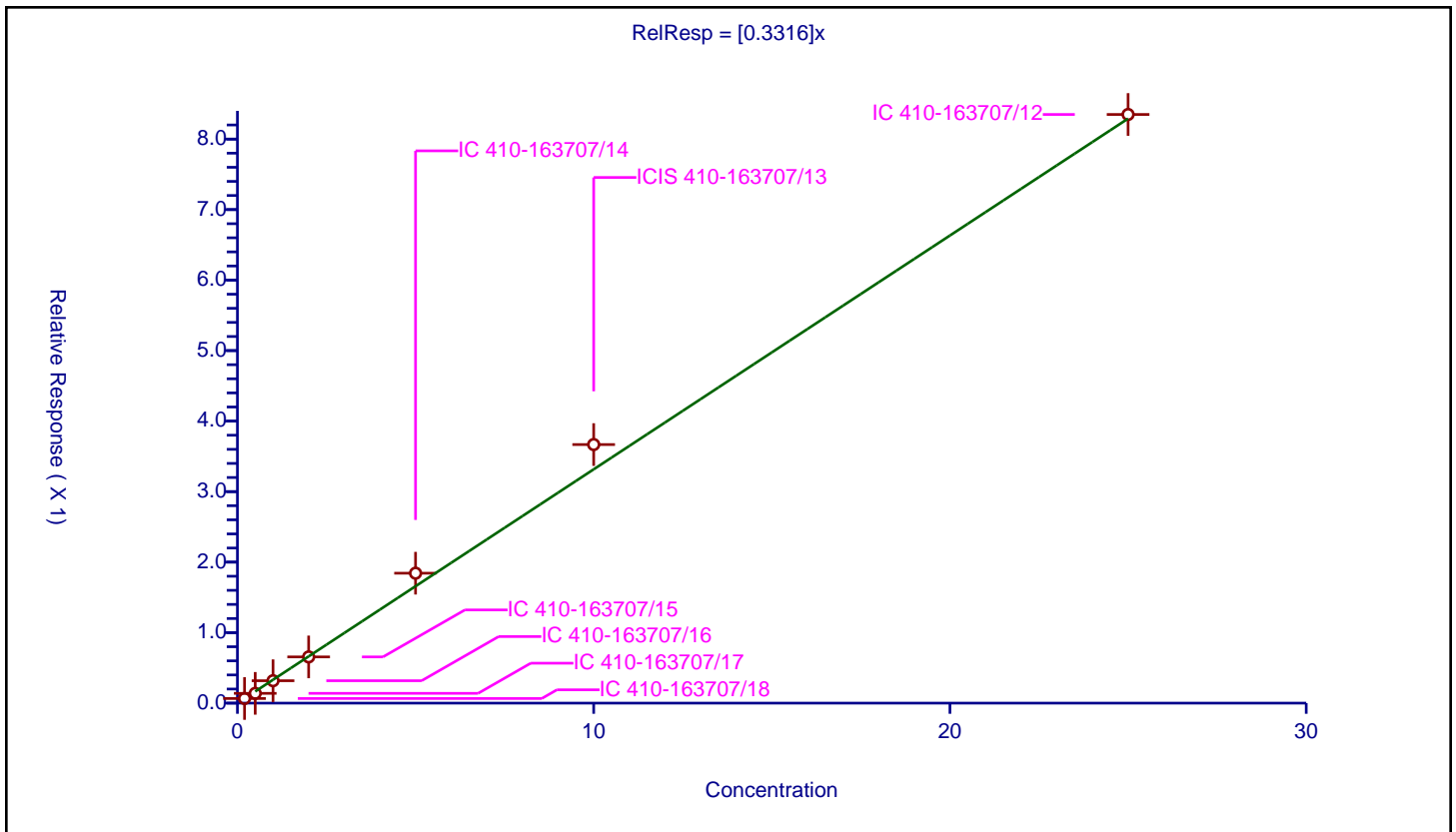
/ 1,2-Dichloro-1,1,2-trifluoroethane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3316

Error Coefficients	
Standard Error:	868000
Relative Standard Error:	9.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.989

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.06572	10.0	2203428.0	0.328602	Y
2	IC 410-163707/17	0.5	0.138893	10.0	2386508.0	0.277787	Y
3	IC 410-163707/16	1.0	0.317935	10.0	2167768.0	0.317935	Y
4	IC 410-163707/15	2.0	0.655511	10.0	2141536.0	0.327755	Y
5	IC 410-163707/14	5.0	1.842774	10.0	2115642.0	0.368555	Y
6	ICIS 410-163707/13	10.0	3.667602	10.0	2122537.0	0.36676	Y
7	IC 410-163707/12	25.0	8.349066	10.0	2314551.0	0.333963	Y



Calibration

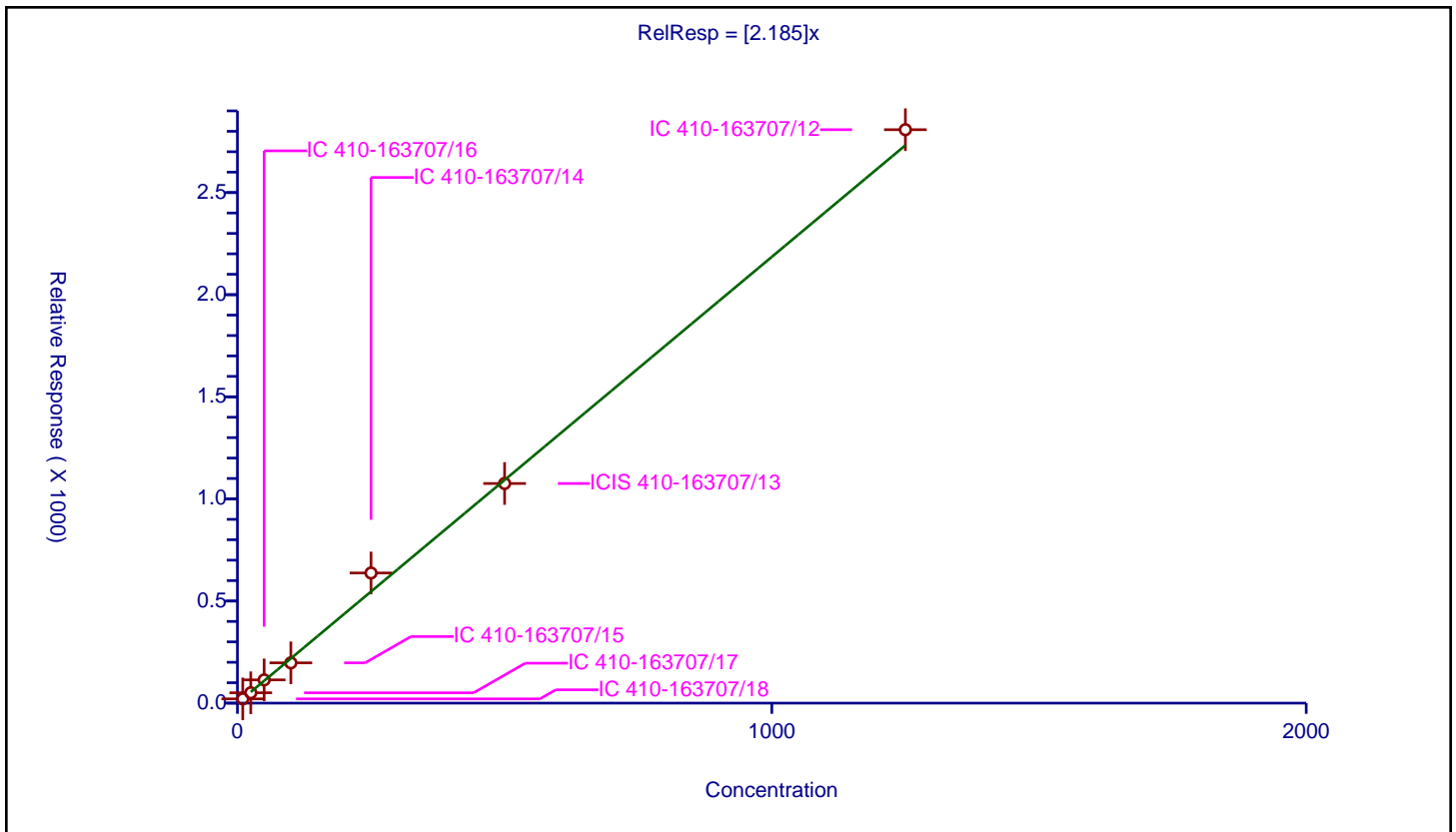
/ Acrolein

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	2.185

Error Coefficients	
Standard Error:	3880000
Relative Standard Error:	8.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	9.999702	20.75346	50.0	162132.0	2.075408	Y
2	IC 410-163707/17	24.999254	50.681521	50.0	162651.0	2.027321	Y
3	IC 410-163707/16	49.998508	113.72795	50.0	143084.0	2.274627	Y
4	IC 410-163707/15	99.997016	197.310363	50.0	162903.0	1.973163	Y
5	IC 410-163707/14	249.992539	637.227638	50.0	134380.0	2.548987	Y
6	ICIS 410-163707/13	499.985078	1075.461094	50.0	165205.0	2.150986	Y
7	IC 410-163707/12	1249.962694	2807.941435	50.0	153335.0	2.24642	Y



Calibration

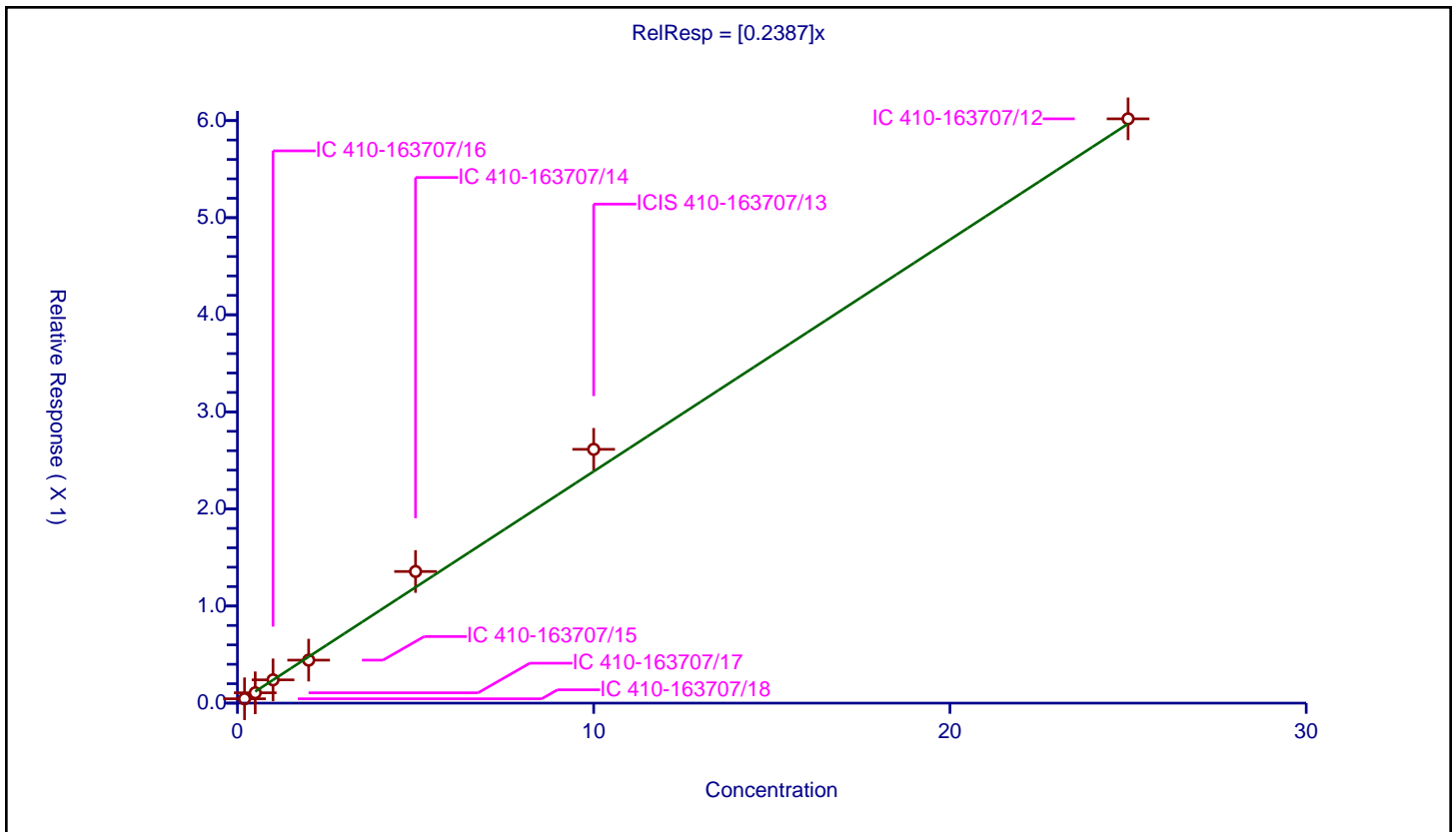
/ 1,1-Dichloroethene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2387

Error Coefficients	
Standard Error:	625000
Relative Standard Error:	9.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.044717	10.0	2203428.0	0.223583	Y
2	IC 410-163707/17	0.5	0.106457	10.0	2386508.0	0.212914	Y
3	IC 410-163707/16	1.0	0.23962	10.0	2167768.0	0.23962	Y
4	IC 410-163707/15	2.0	0.442804	10.0	2141536.0	0.221402	Y
5	IC 410-163707/14	5.0	1.355716	10.0	2115642.0	0.271143	Y
6	ICIS 410-163707/13	10.0	2.61407	10.0	2122537.0	0.261407	Y
7	IC 410-163707/12	25.0	6.01826	10.0	2314551.0	0.24073	Y



Calibration

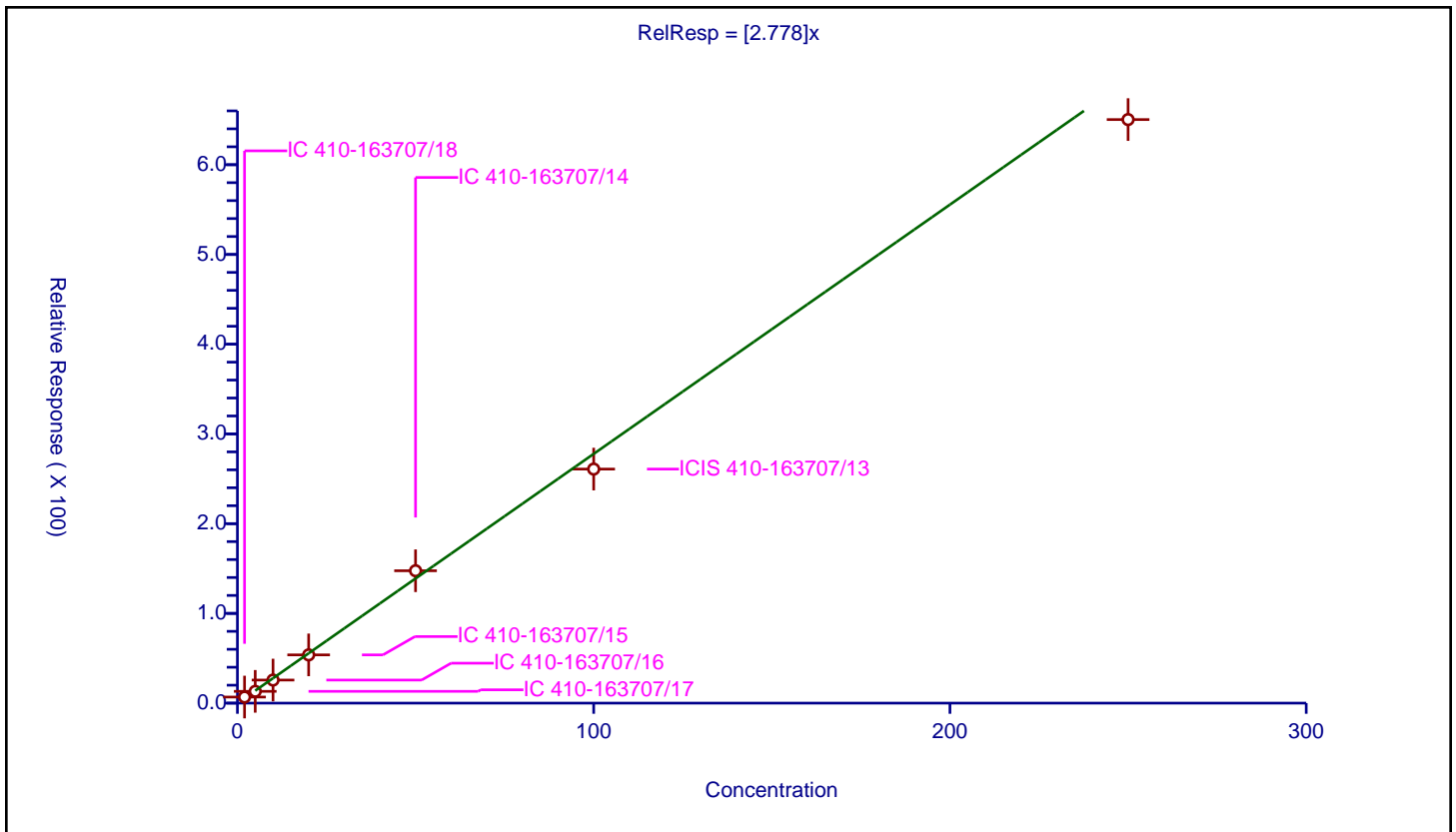
/ Acetone

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	2.778

Error Coefficients	
Standard Error:	905000
Relative Standard Error:	10.8
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.982

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	2.0	6.78953	50.0	162132.0	3.394765	Y
2	IC 410-163707/17	5.0	13.139483	50.0	162651.0	2.627897	Y
3	IC 410-163707/16	10.0	25.719158	50.0	143084.0	2.571916	Y
4	IC 410-163707/15	20.0	53.770342	50.0	162903.0	2.688517	Y
5	IC 410-163707/14	50.0	147.536092	50.0	134380.0	2.950722	Y
6	ICIS 410-163707/13	100.0	260.812324	50.0	165205.0	2.608123	Y
7	IC 410-163707/12	250.0	650.322496	50.0	153335.0	2.60129	Y



Calibration

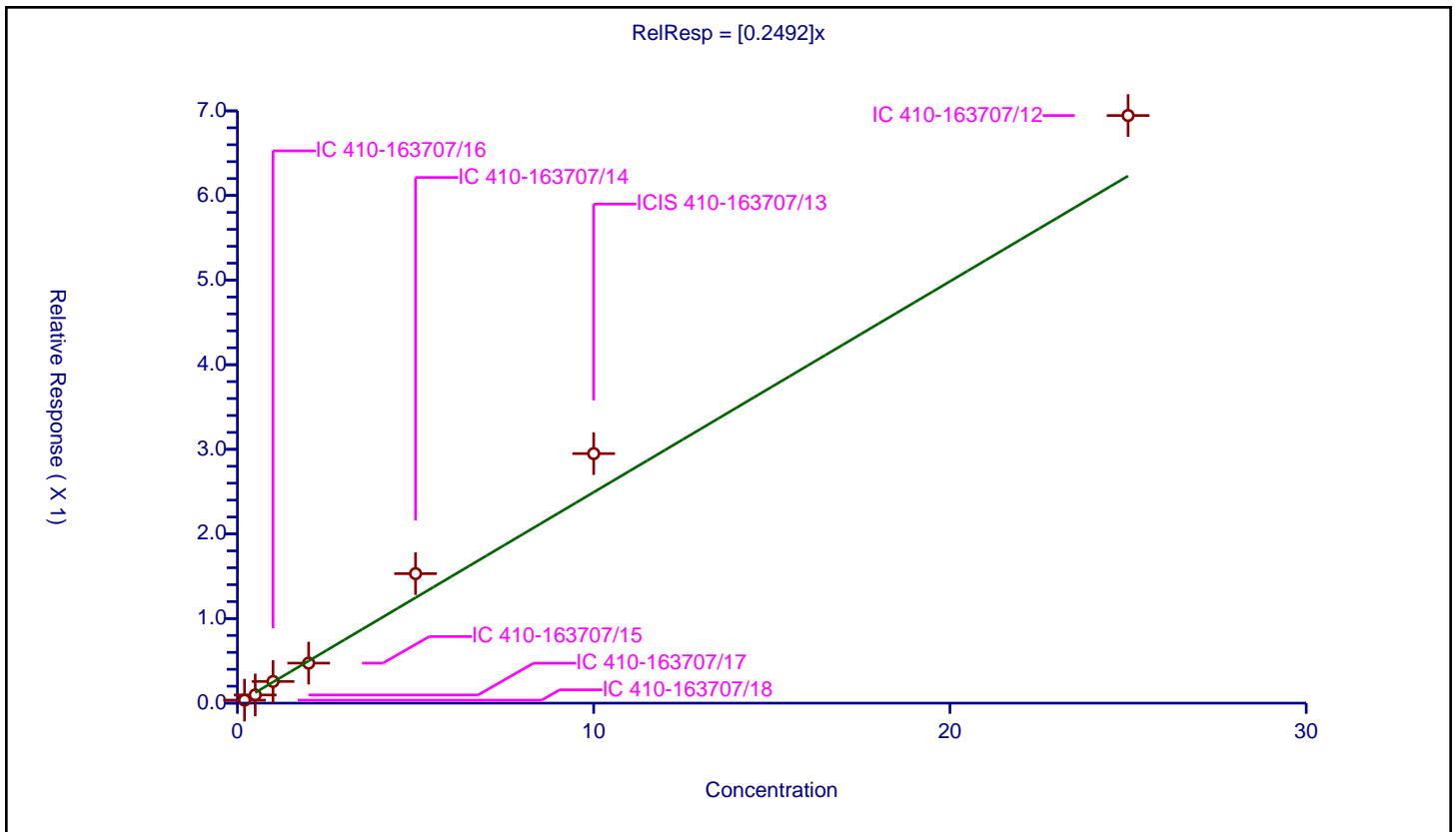
/ 1,1,2-Trichloro-1,2,2-trifluoroethane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2492

Error Coefficients	
Standard Error:	718000
Relative Standard Error:	19.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.959

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.035862	10.0	2203428.0	0.179312	Y
2	IC 410-163707/17	0.5	0.096941	10.0	2386508.0	0.193882	Y
3	IC 410-163707/16	1.0	0.256107	10.0	2167768.0	0.256107	Y
4	IC 410-163707/15	2.0	0.4731	10.0	2141536.0	0.23655	Y
5	IC 410-163707/14	5.0	1.530448	10.0	2115642.0	0.30609	Y
6	ICIS 410-163707/13	10.0	2.949079	10.0	2122537.0	0.294908	Y
7	IC 410-163707/12	25.0	6.94517	10.0	2314551.0	0.277807	Y



**Calibration**

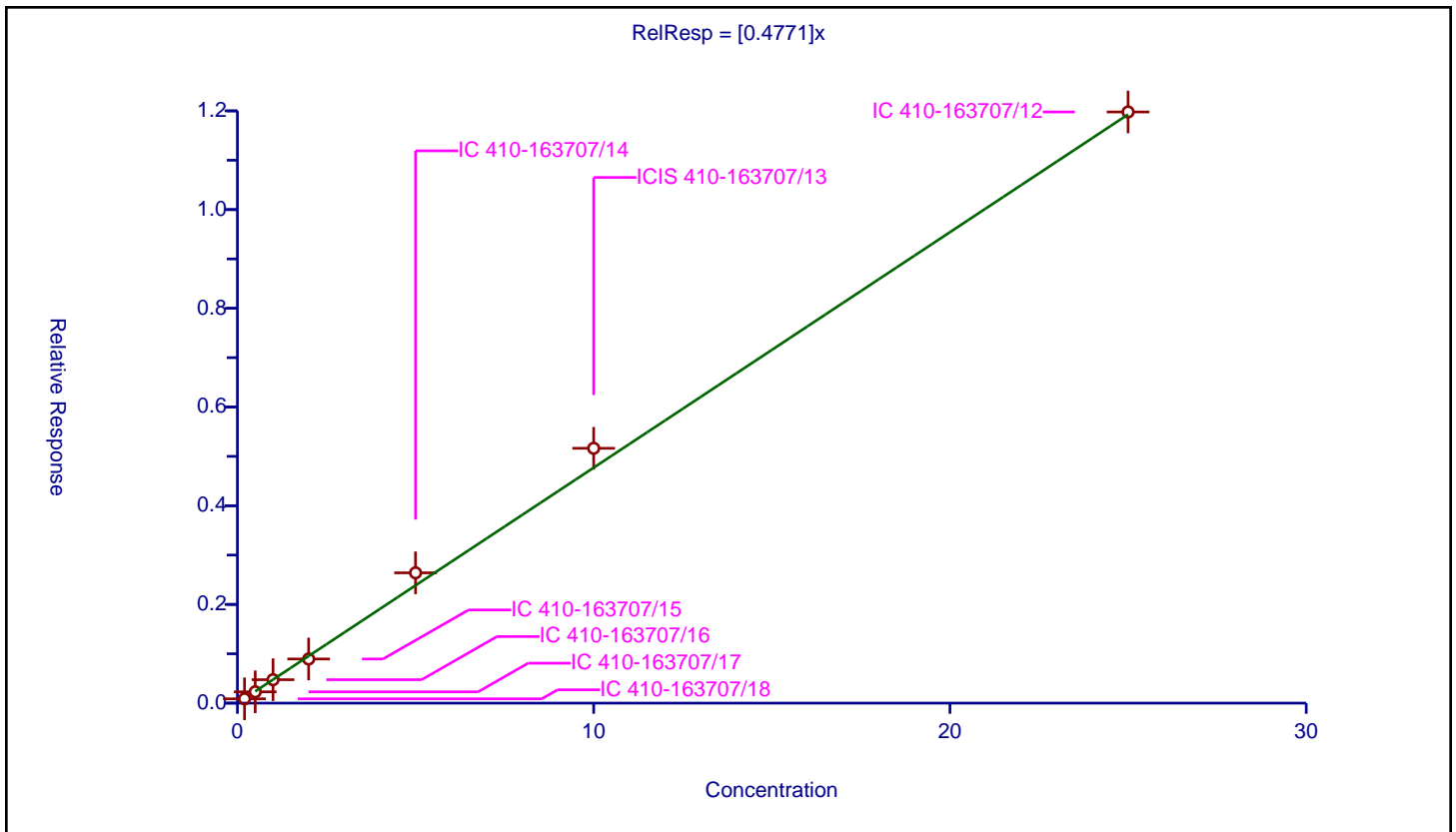
**/ Iodomethane**

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4771

Error Coefficients	
Standard Error:	1240000
Relative Standard Error:	7.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.0873	10.0	2203428.0	0.436502	Y
2	IC 410-163707/17	0.5	0.22905	10.0	2386508.0	0.4581	Y
3	IC 410-163707/16	1.0	0.474419	10.0	2167768.0	0.474419	Y
4	IC 410-163707/15	2.0	0.894409	10.0	2141536.0	0.447205	Y
5	IC 410-163707/14	5.0	2.640281	10.0	2115642.0	0.528056	Y
6	ICIS 410-163707/13	10.0	5.163557	10.0	2122537.0	0.516356	Y
7	IC 410-163707/12	25.0	11.977787	10.0	2314551.0	0.479111	Y





**Calibration**

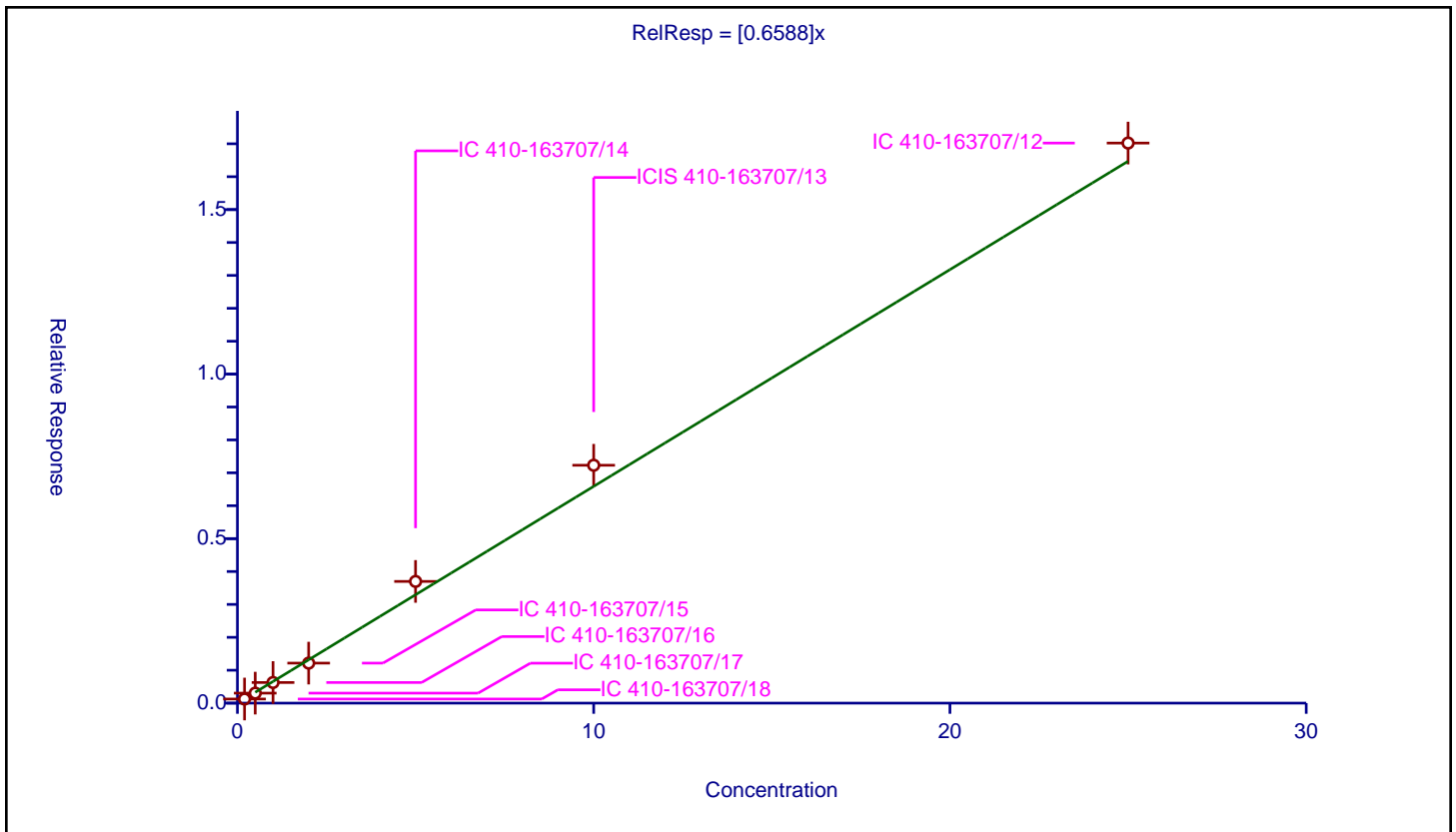
/ Carbon disulfide

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.6588

Error Coefficients	
Standard Error:	1760000
Relative Standard Error:	8.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.12481	10.0	2203428.0	0.62405	Y
2	IC 410-163707/17	0.5	0.304269	10.0	2386508.0	0.608538	Y
3	IC 410-163707/16	1.0	0.627184	10.0	2167768.0	0.627184	Y
4	IC 410-163707/15	2.0	1.216225	10.0	2141536.0	0.608113	Y
5	IC 410-163707/14	5.0	3.698523	10.0	2115642.0	0.739705	Y
6	ICIS 410-163707/13	10.0	7.230027	10.0	2122537.0	0.723003	Y
7	IC 410-163707/12	25.0	17.021941	10.0	2314551.0	0.680878	Y



**Calibration**

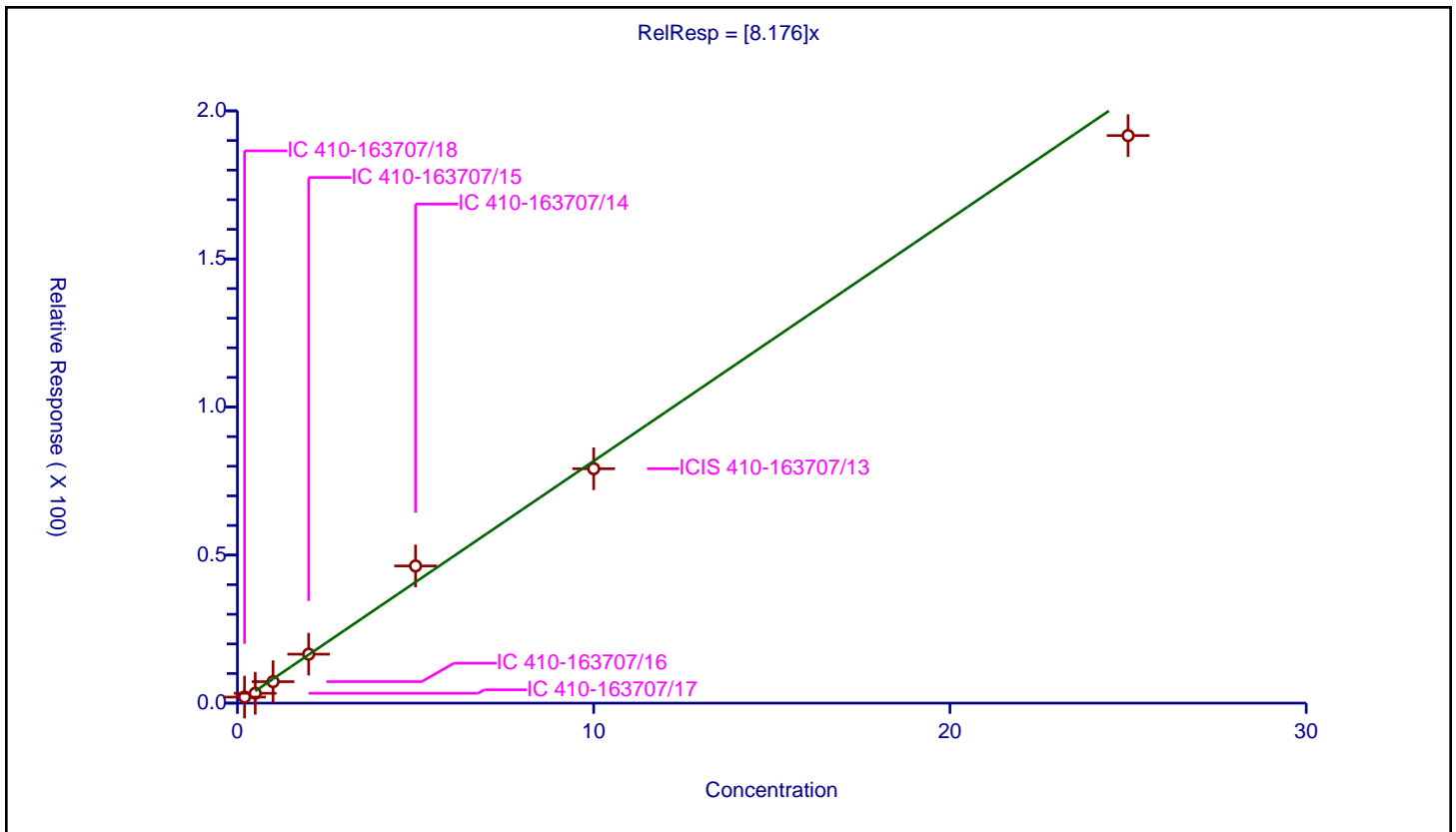
**/ Methyl acetate**

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	8.176

Error Coefficients	
Standard Error:	269000
Relative Standard Error:	14.9
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.967

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	2.04463	50.0	162132.0	10.223152	Y
2	IC 410-163707/17	0.5	3.324296	50.0	162651.0	6.648591	Y
3	IC 410-163707/16	1.0	7.248539	50.0	143084.0	7.248539	Y
4	IC 410-163707/15	2.0	16.528855	50.0	162903.0	8.264427	Y
5	IC 410-163707/14	5.0	46.328323	50.0	134380.0	9.265665	Y
6	ICIS 410-163707/13	10.0	79.164372	50.0	165205.0	7.916437	Y
7	IC 410-163707/12	25.0	191.660743	50.0	153335.0	7.66643	Y



Calibration

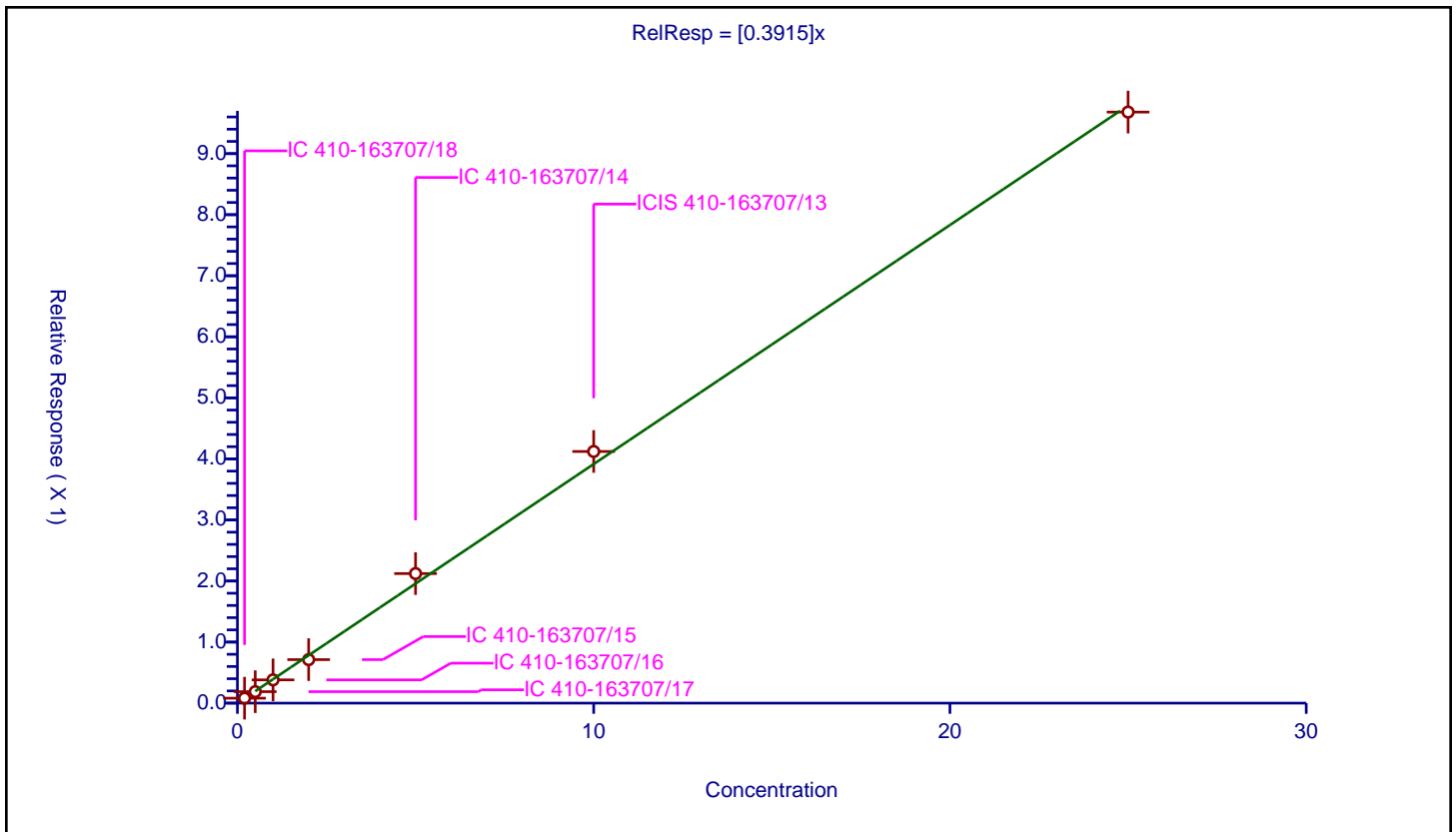
/ 3-Chloro-1-propene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3915

Error Coefficients	
Standard Error:	1000000
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 410-163707/18	0.2	0.080779	10.0	2203428.0	0.403893	Y
2	IC 410-163707/17	0.5	0.187793	10.0	2386508.0	0.375586	Y
3	IC 410-163707/16	1.0	0.381097	10.0	2167768.0	0.381097	Y
4	IC 410-163707/15	2.0	0.712475	10.0	2141536.0	0.356237	Y
5	IC 410-163707/14	5.0	2.122169	10.0	2115642.0	0.424434	Y
6	ICIS 410-163707/13	10.0	4.121657	10.0	2122537.0	0.412166	Y
7	IC 410-163707/12	25.0	9.680422	10.0	2314551.0	0.387217	Y



**Calibration**

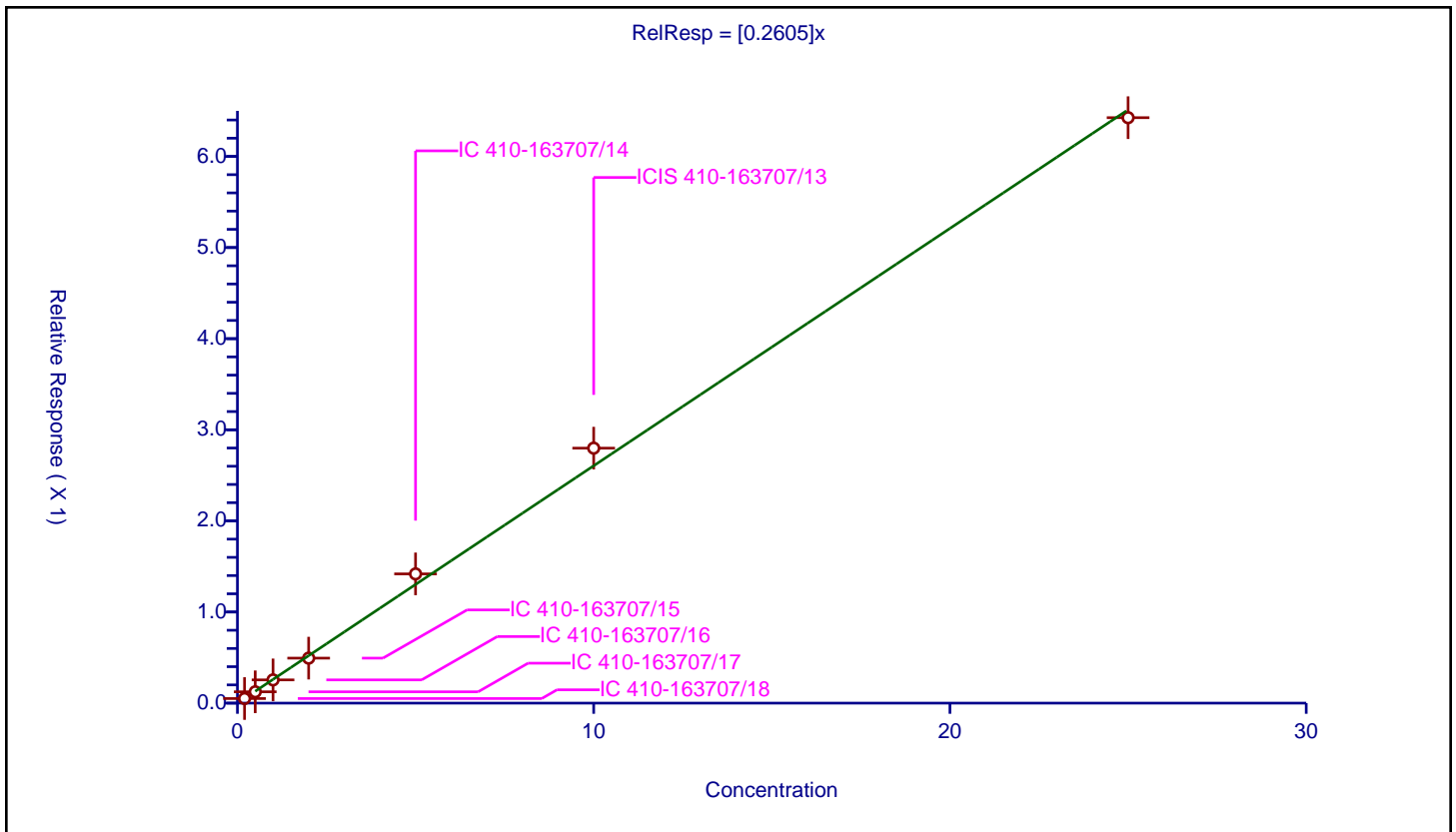
**/ Methylene Chloride**

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2605

Error Coefficients	
Standard Error:	667000
Relative Standard Error:	5.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.05048	10.0	2203428.0	0.252402	Y
2	IC 410-163707/17	0.5	0.124353	10.0	2386508.0	0.248706	Y
3	IC 410-163707/16	1.0	0.254903	10.0	2167768.0	0.254903	Y
4	IC 410-163707/15	2.0	0.494001	10.0	2141536.0	0.247	Y
5	IC 410-163707/14	5.0	1.41835	10.0	2115642.0	0.28367	Y
6	ICIS 410-163707/13	10.0	2.798495	10.0	2122537.0	0.27985	Y
7	IC 410-163707/12	25.0	6.425333	10.0	2314551.0	0.257013	Y



**Calibration**

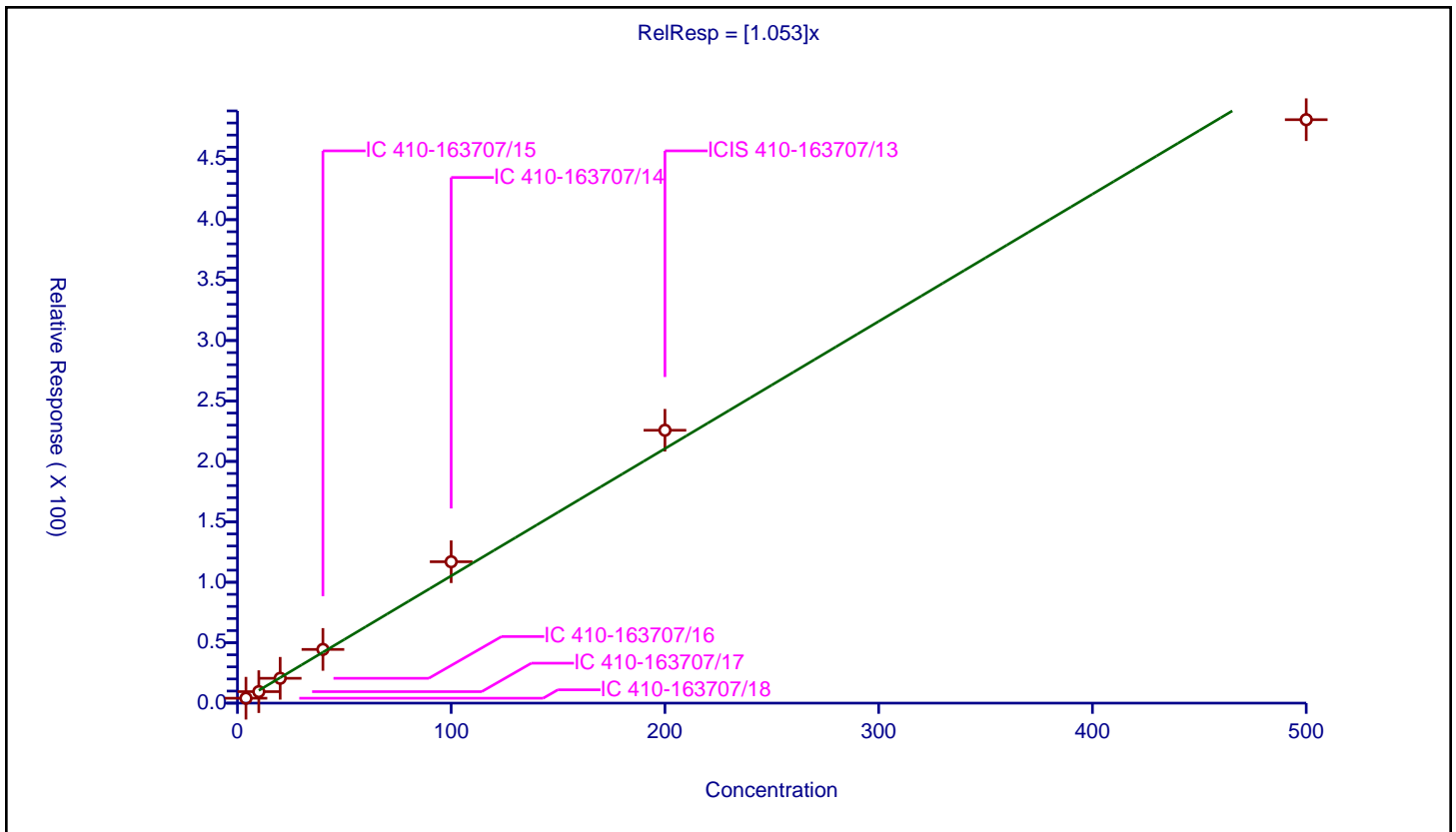
**/ 2-Methyl-2-propanol**

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.053

Error Coefficients	
Standard Error:	692000
Relative Standard Error:	8.0
Correlation Coefficient:	0.989
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	4.0	4.062431	50.0	162132.0	1.015608	Y
2	IC 410-163707/17	10.0	9.510855	50.0	162651.0	0.951085	Y
3	IC 410-163707/16	20.0	20.558204	50.0	143084.0	1.02791	Y
4	IC 410-163707/15	40.0	44.439636	50.0	162903.0	1.110991	Y
5	IC 410-163707/14	100.0	116.969787	50.0	134380.0	1.169698	Y
6	ICIS 410-163707/13	200.0	225.760722	50.0	165205.0	1.128804	Y
7	IC 410-163707/12	500.0	482.73747	50.0	153335.0	0.965475	Y



**Calibration**

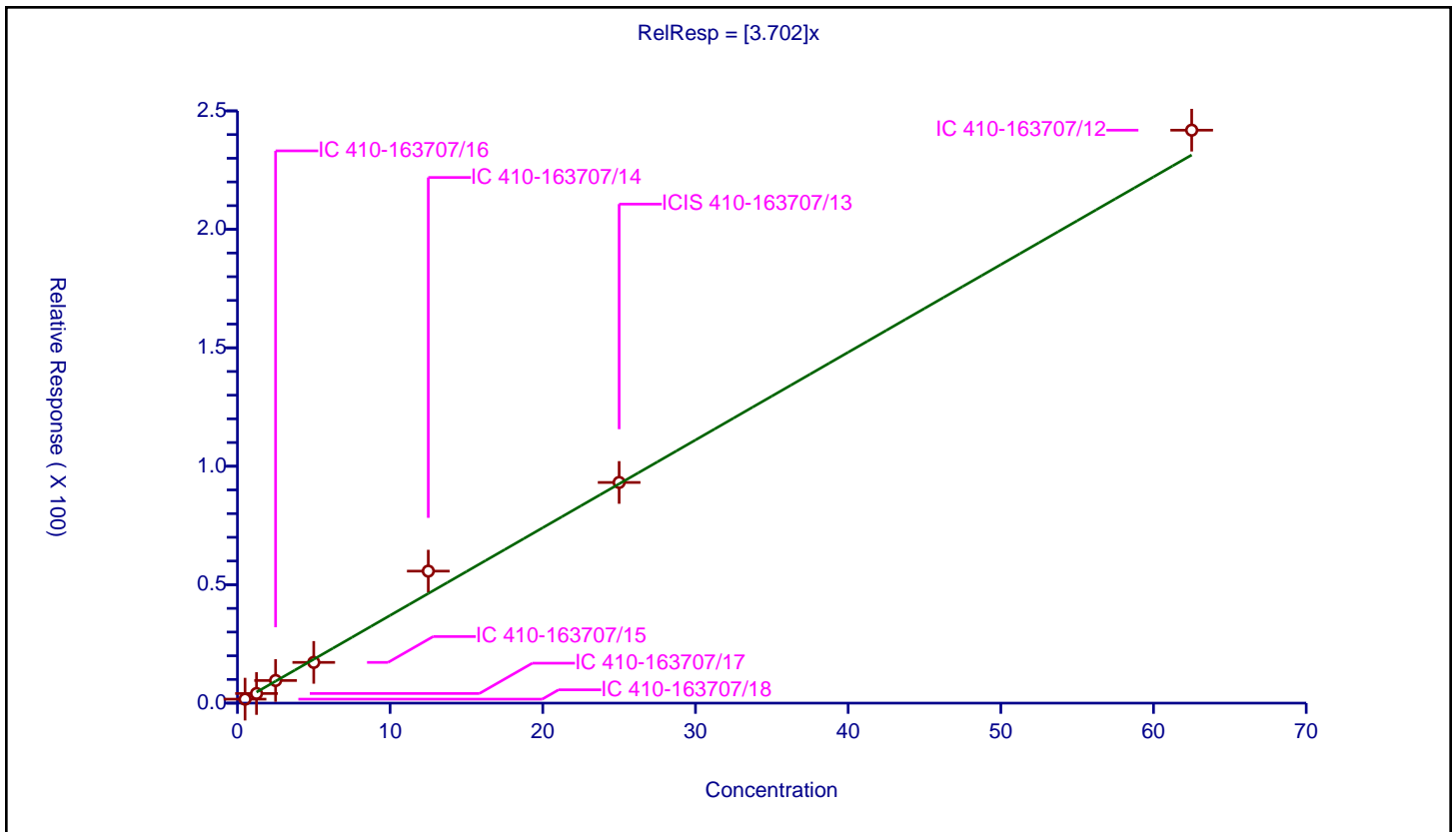
/ Acrylonitrile

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	3.702

Error Coefficients	
Standard Error:	334000
Relative Standard Error:	11.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.985

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.5	1.677337	50.0	162132.0	3.354674	Y
2	IC 410-163707/17	1.25	4.060227	50.0	162651.0	3.248182	Y
3	IC 410-163707/16	2.5	9.552431	50.0	143084.0	3.820972	Y
4	IC 410-163707/15	5.0	17.19244	50.0	162903.0	3.438488	Y
5	IC 410-163707/14	12.5	55.725554	50.0	134380.0	4.458044	Y
6	ICIS 410-163707/13	25.0	93.15275	50.0	165205.0	3.72611	Y
7	IC 410-163707/12	62.5	241.858023	50.0	153335.0	3.869728	Y



Calibration

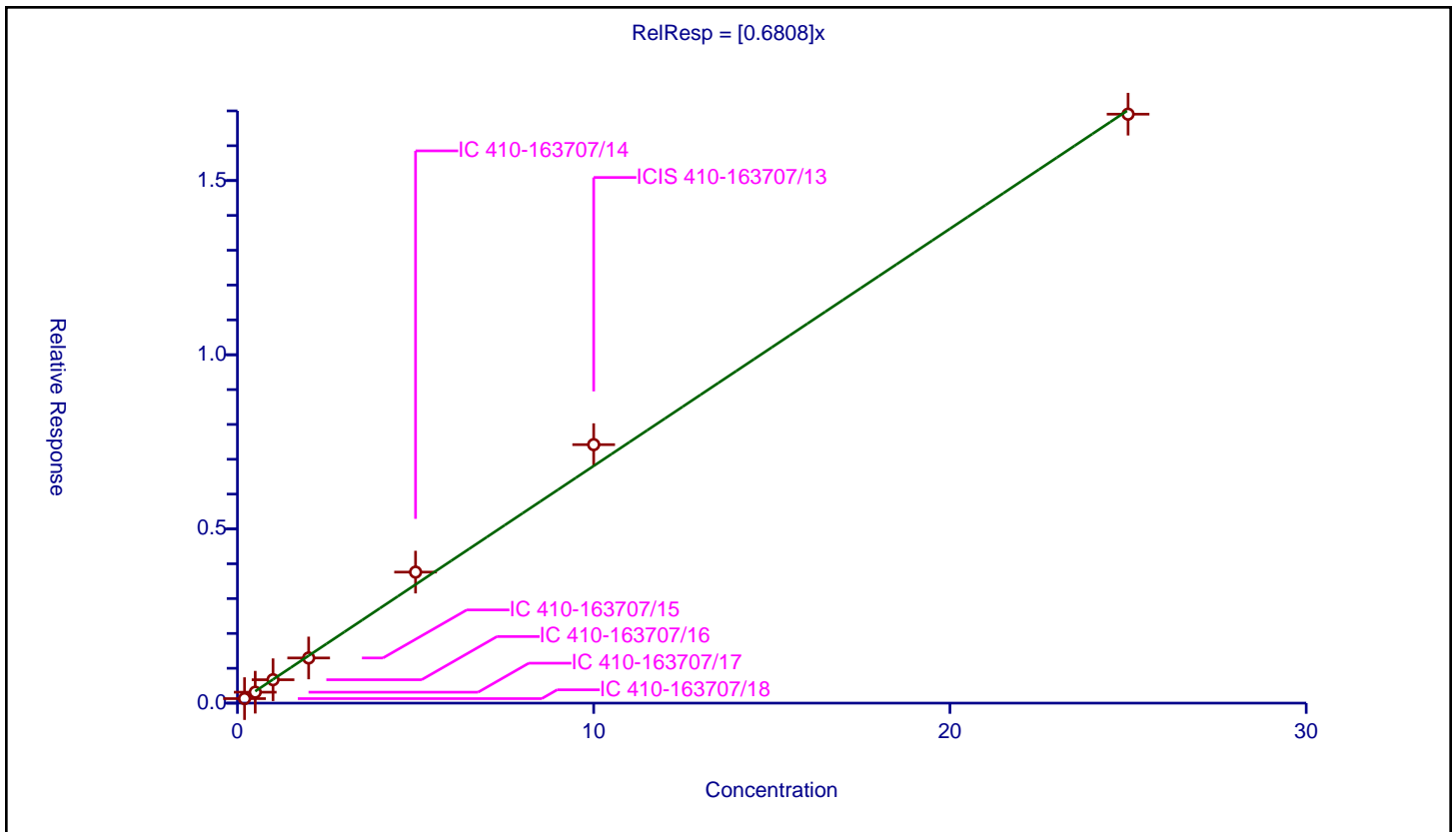
/ Methyl tert-butyl ether

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.6808

Error Coefficients	
Standard Error:	1760000
Relative Standard Error:	7.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.12958	10.0	2203428.0	0.6479	Y
2	IC 410-163707/17	0.5	0.313831	10.0	2386508.0	0.627662	Y
3	IC 410-163707/16	1.0	0.671663	10.0	2167768.0	0.671663	Y
4	IC 410-163707/15	2.0	1.296476	10.0	2141536.0	0.648238	Y
5	IC 410-163707/14	5.0	3.760731	10.0	2115642.0	0.752146	Y
6	ICIS 410-163707/13	10.0	7.419904	10.0	2122537.0	0.74199	Y
7	IC 410-163707/12	25.0	16.905776	10.0	2314551.0	0.676231	Y



**Calibration**

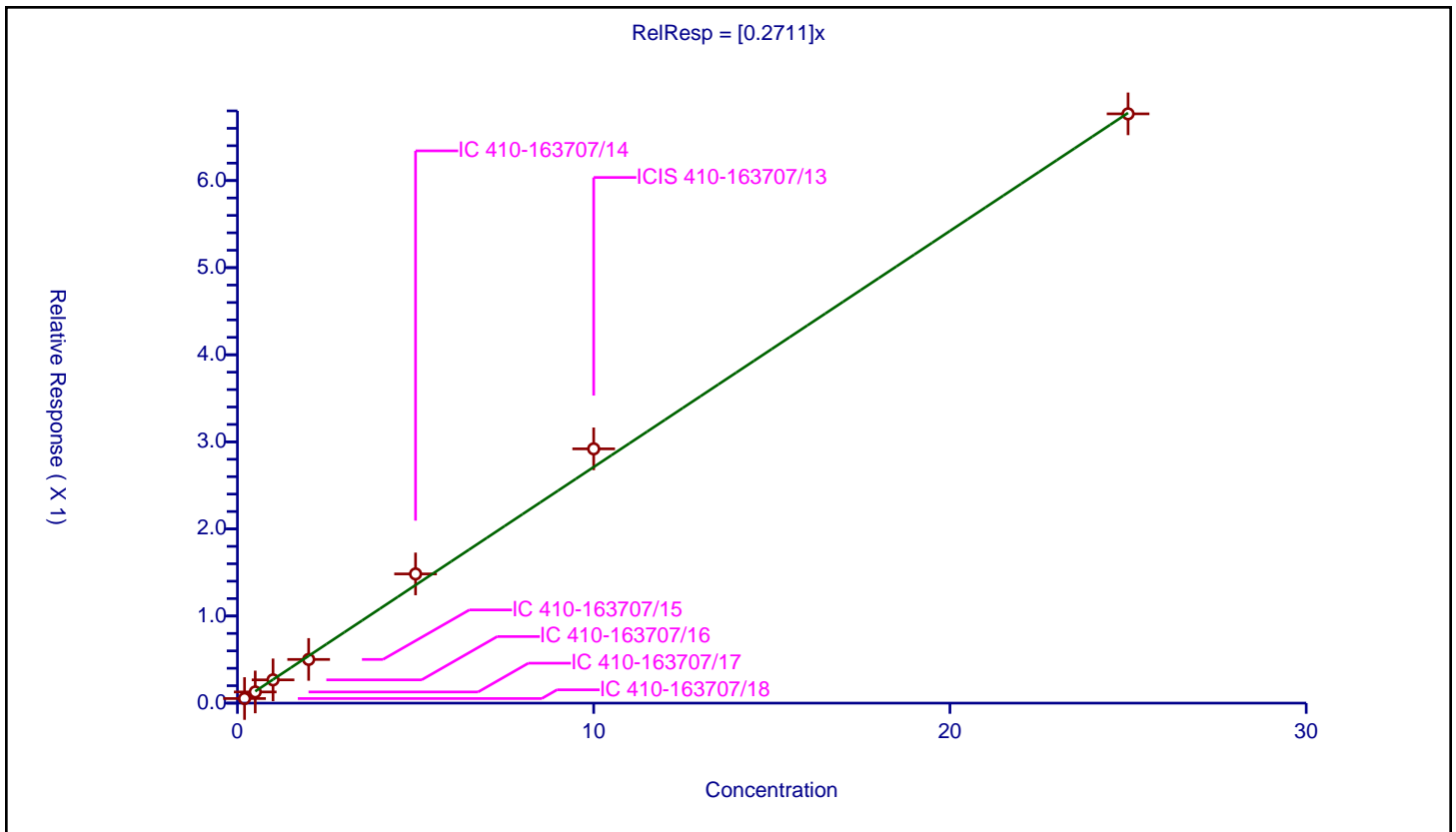
/ trans-1,2-Dichloroethene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2711

Error Coefficients	
Standard Error:	701000
Relative Standard Error:	6.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.052713	10.0	2203428.0	0.263567	Y
2	IC 410-163707/17	0.5	0.128393	10.0	2386508.0	0.256785	Y
3	IC 410-163707/16	1.0	0.26703	10.0	2167768.0	0.26703	Y
4	IC 410-163707/15	2.0	0.501523	10.0	2141536.0	0.250762	Y
5	IC 410-163707/14	5.0	1.483578	10.0	2115642.0	0.296716	Y
6	ICIS 410-163707/13	10.0	2.919586	10.0	2122537.0	0.291959	Y
7	IC 410-163707/12	25.0	6.766146	10.0	2314551.0	0.270646	Y





Calibration

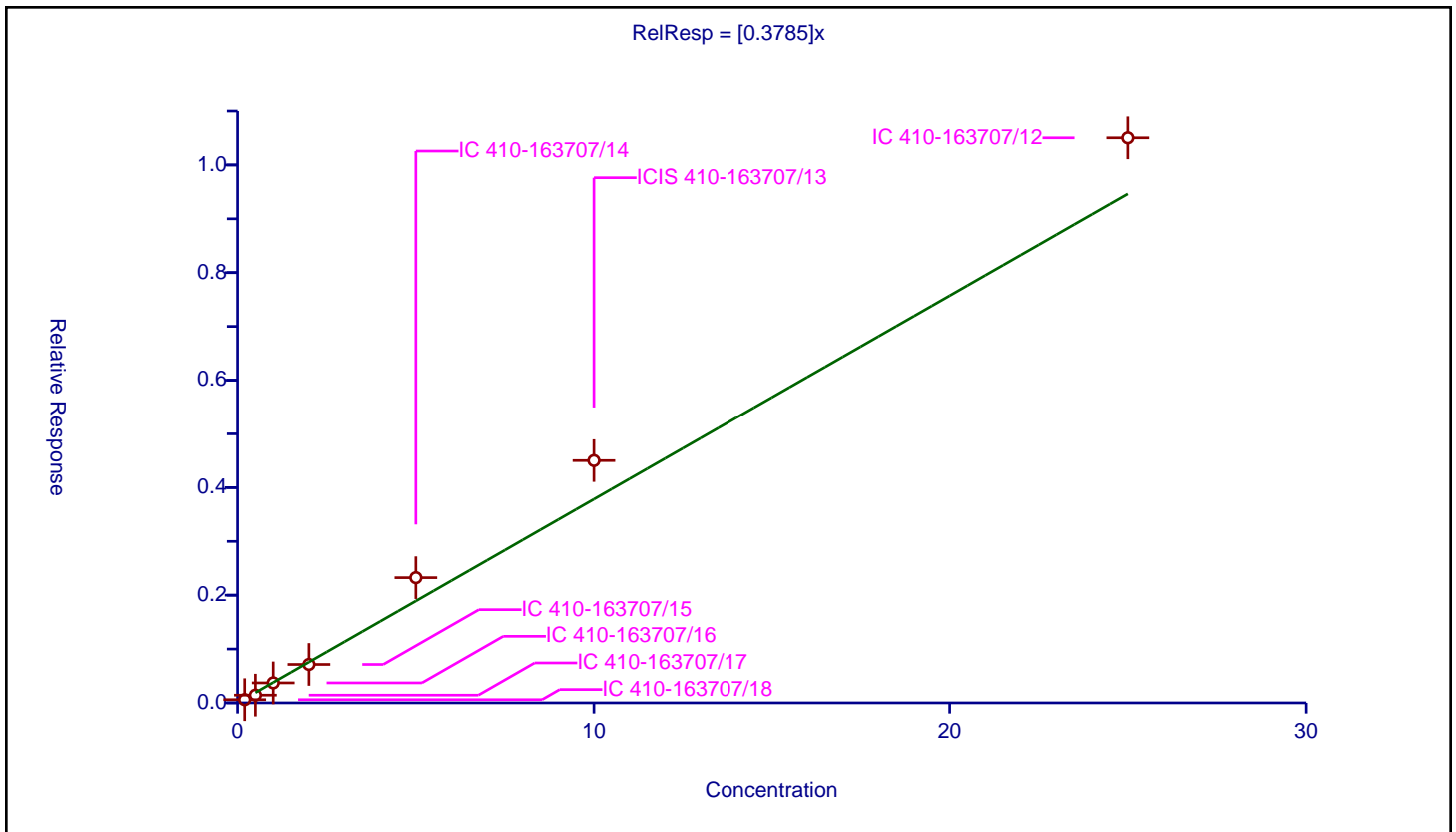
/ Hexane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3785

Error Coefficients	
Standard Error:	1090000
Relative Standard Error:	18.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.962

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.059716	10.0	2203428.0	0.29858	Y
2	IC 410-163707/17	0.5	0.143792	10.0	2386508.0	0.287583	Y
3	IC 410-163707/16	1.0	0.371188	10.0	2167768.0	0.371188	Y
4	IC 410-163707/15	2.0	0.713493	10.0	2141536.0	0.356746	Y
5	IC 410-163707/14	5.0	2.325809	10.0	2115642.0	0.465162	Y
6	ICIS 410-163707/13	10.0	4.502927	10.0	2122537.0	0.450293	Y
7	IC 410-163707/12	25.0	10.503925	10.0	2314551.0	0.420157	Y



Calibration

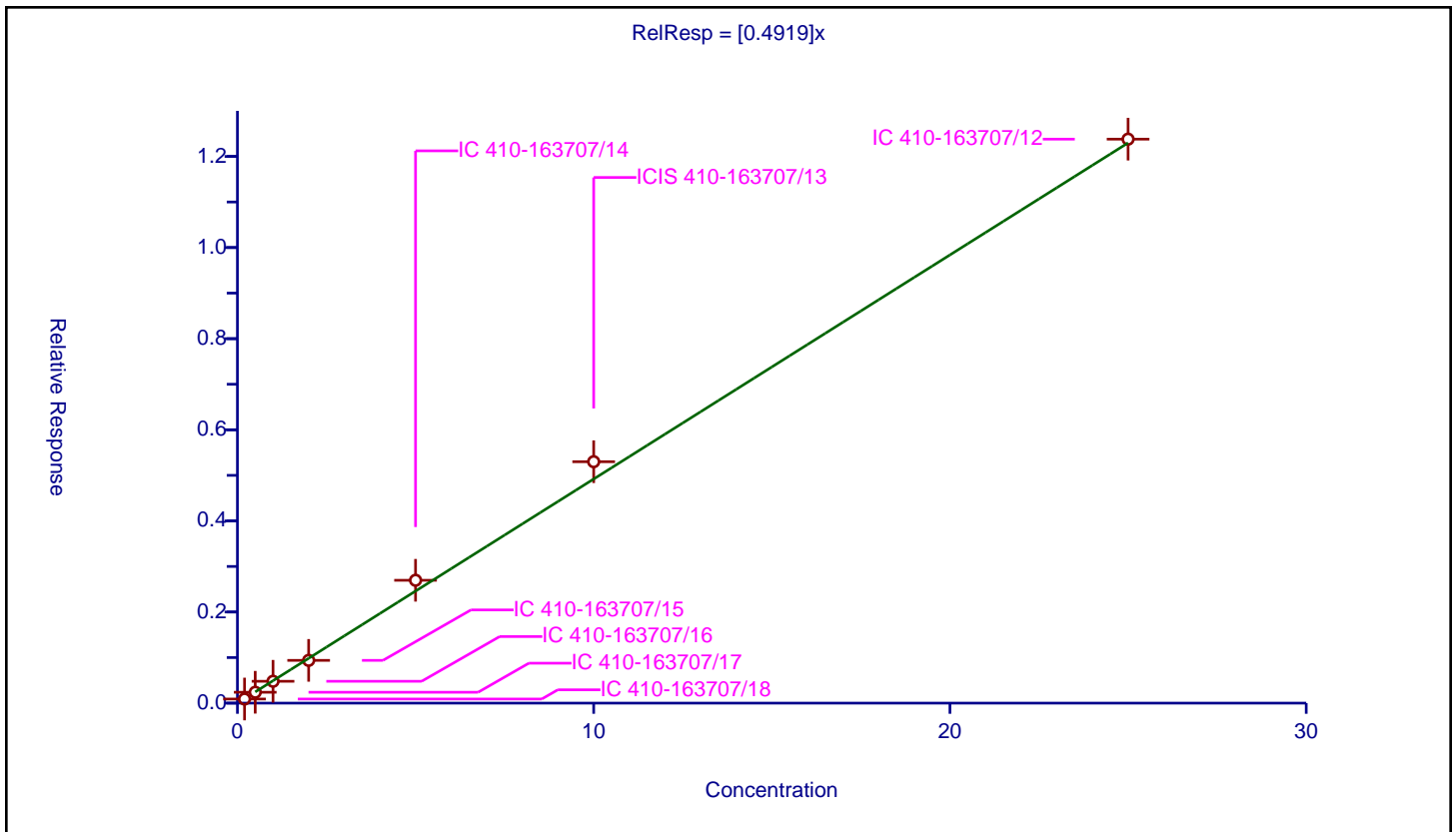
/ 1,1-Dichloroethane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4919

Error Coefficients	
Standard Error:	1280000
Relative Standard Error:	6.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.090577	10.0	2203428.0	0.452885	Y
2	IC 410-163707/17	0.5	0.238554	10.0	2386508.0	0.477107	Y
3	IC 410-163707/16	1.0	0.479747	10.0	2167768.0	0.479747	Y
4	IC 410-163707/15	2.0	0.938443	10.0	2141536.0	0.469222	Y
5	IC 410-163707/14	5.0	2.69668	10.0	2115642.0	0.539336	Y
6	ICIS 410-163707/13	10.0	5.299479	10.0	2122537.0	0.529948	Y
7	IC 410-163707/12	25.0	12.379468	10.0	2314551.0	0.495179	Y



Calibration

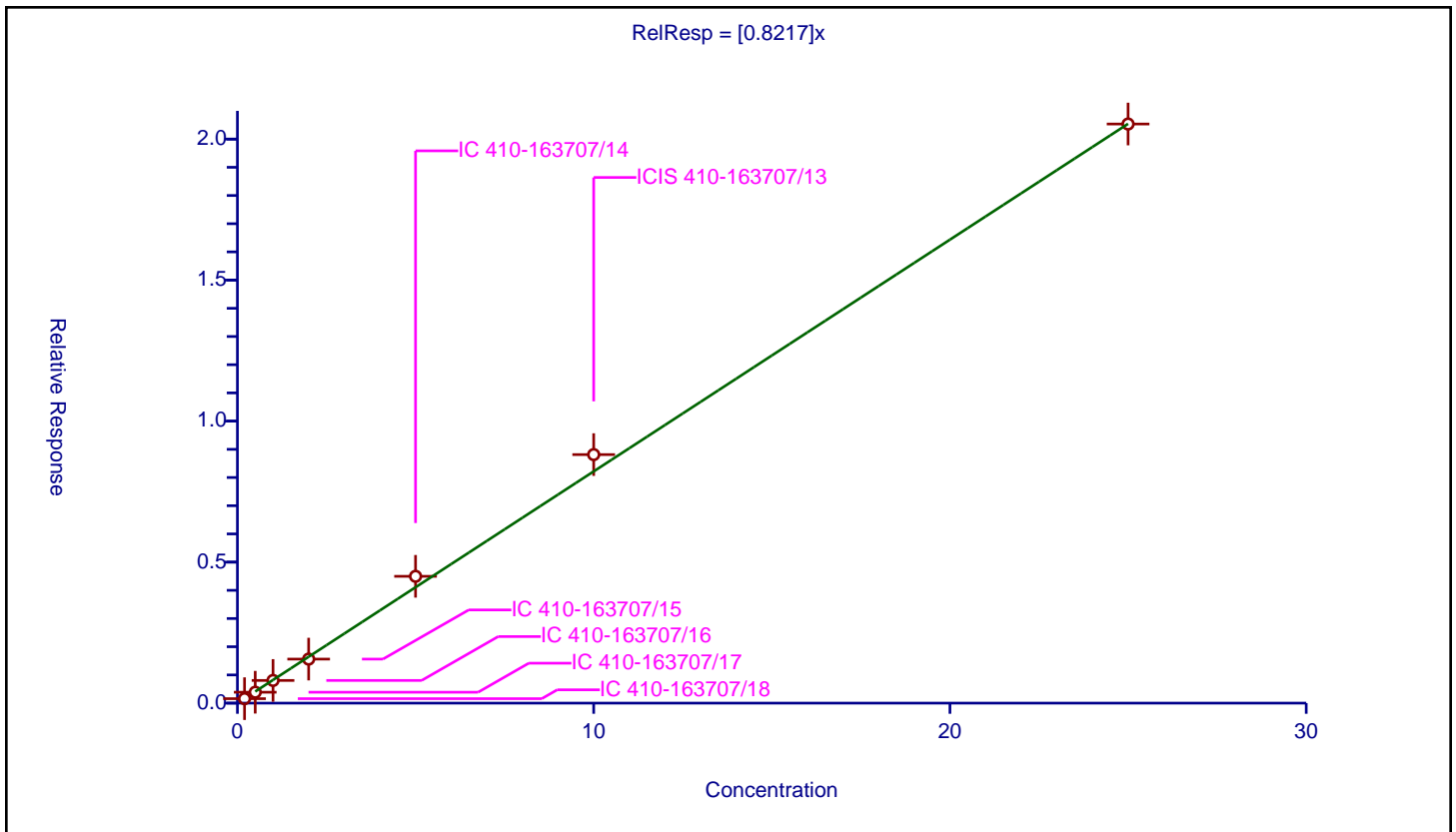
/ Isopropyl ether

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.8217

Error Coefficients	
Standard Error:	2130000
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 410-163707/18	0.2	0.15804	10.0	2203428.0	0.790201	Y
2	IC 410-163707/17	0.5	0.387022	10.0	2386508.0	0.774043	Y
3	IC 410-163707/16	1.0	0.804597	10.0	2167768.0	0.804597	Y
4	IC 410-163707/15	2.0	1.561902	10.0	2141536.0	0.780951	Y
5	IC 410-163707/14	5.0	4.497117	10.0	2115642.0	0.899423	Y
6	ICIS 410-163707/13	10.0	8.812336	10.0	2122537.0	0.881234	Y
7	IC 410-163707/12	25.0	20.534276	10.0	2314551.0	0.821371	Y



Calibration

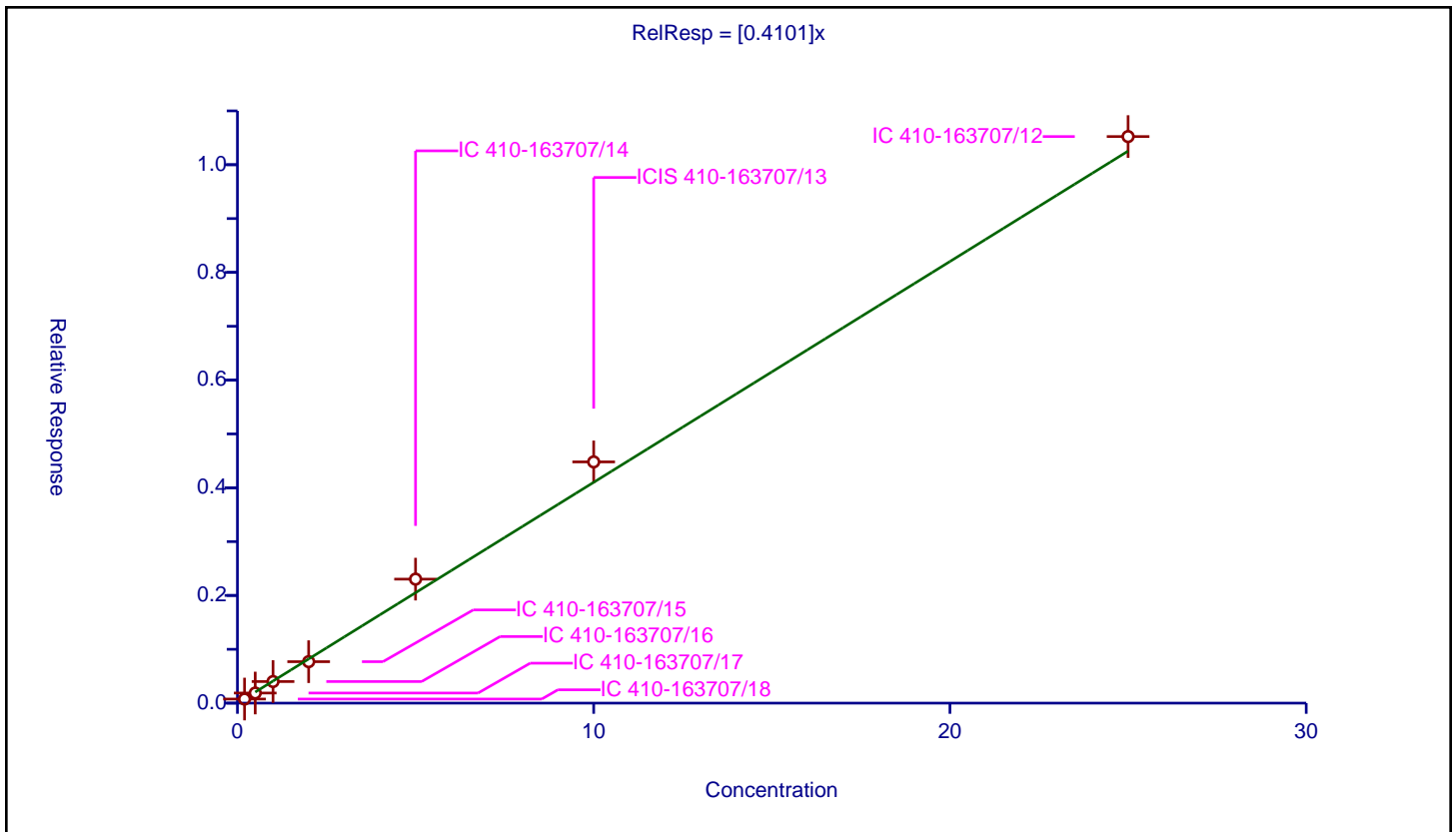
/ 2-Chloro-1,3-butadiene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4101

Error Coefficients	
Standard Error:	1090000
Relative Standard Error:	8.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.0759	10.0	2203428.0	0.3795	Y
2	IC 410-163707/17	0.5	0.187843	10.0	2386508.0	0.375687	Y
3	IC 410-163707/16	1.0	0.401108	10.0	2167768.0	0.401108	Y
4	IC 410-163707/15	2.0	0.770069	10.0	2141536.0	0.385034	Y
5	IC 410-163707/14	5.0	2.303206	10.0	2115642.0	0.460641	Y
6	ICIS 410-163707/13	10.0	4.480596	10.0	2122537.0	0.44806	Y
7	IC 410-163707/12	25.0	10.523216	10.0	2314551.0	0.420929	Y



Calibration

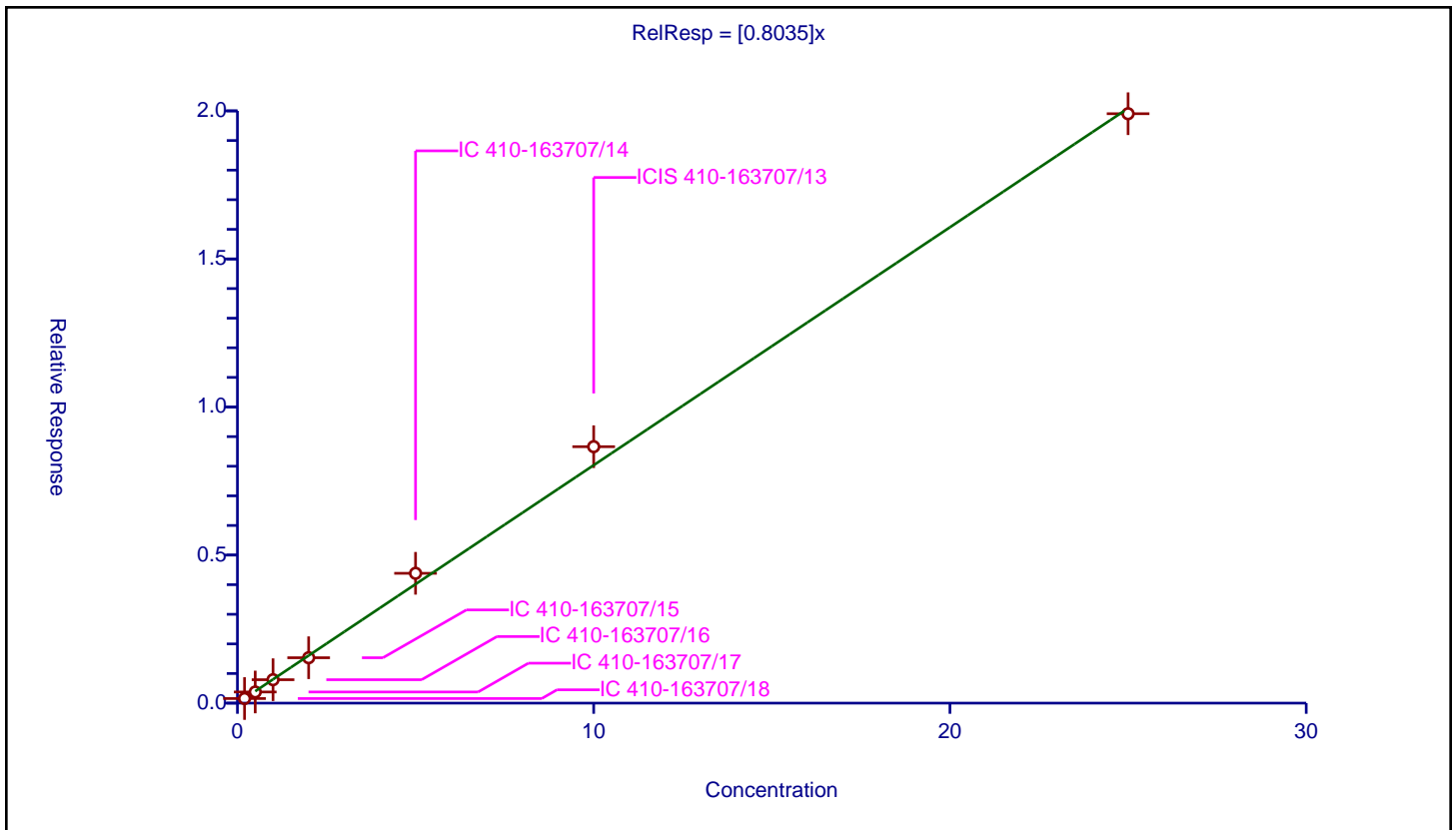
/ Tert-butyl ethyl ether

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.8035

Error Coefficients	
Standard Error:	2070000
Relative Standard Error:	6.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.155095	10.0	2203428.0	0.775473	Y
2	IC 410-163707/17	0.5	0.376261	10.0	2386508.0	0.752522	Y
3	IC 410-163707/16	1.0	0.790989	10.0	2167768.0	0.790989	Y
4	IC 410-163707/15	2.0	1.532937	10.0	2141536.0	0.766469	Y
5	IC 410-163707/14	5.0	4.383866	10.0	2115642.0	0.876773	Y
6	ICIS 410-163707/13	10.0	8.660297	10.0	2122537.0	0.86603	Y
7	IC 410-163707/12	25.0	19.90447	10.0	2314551.0	0.796179	Y



Calibration

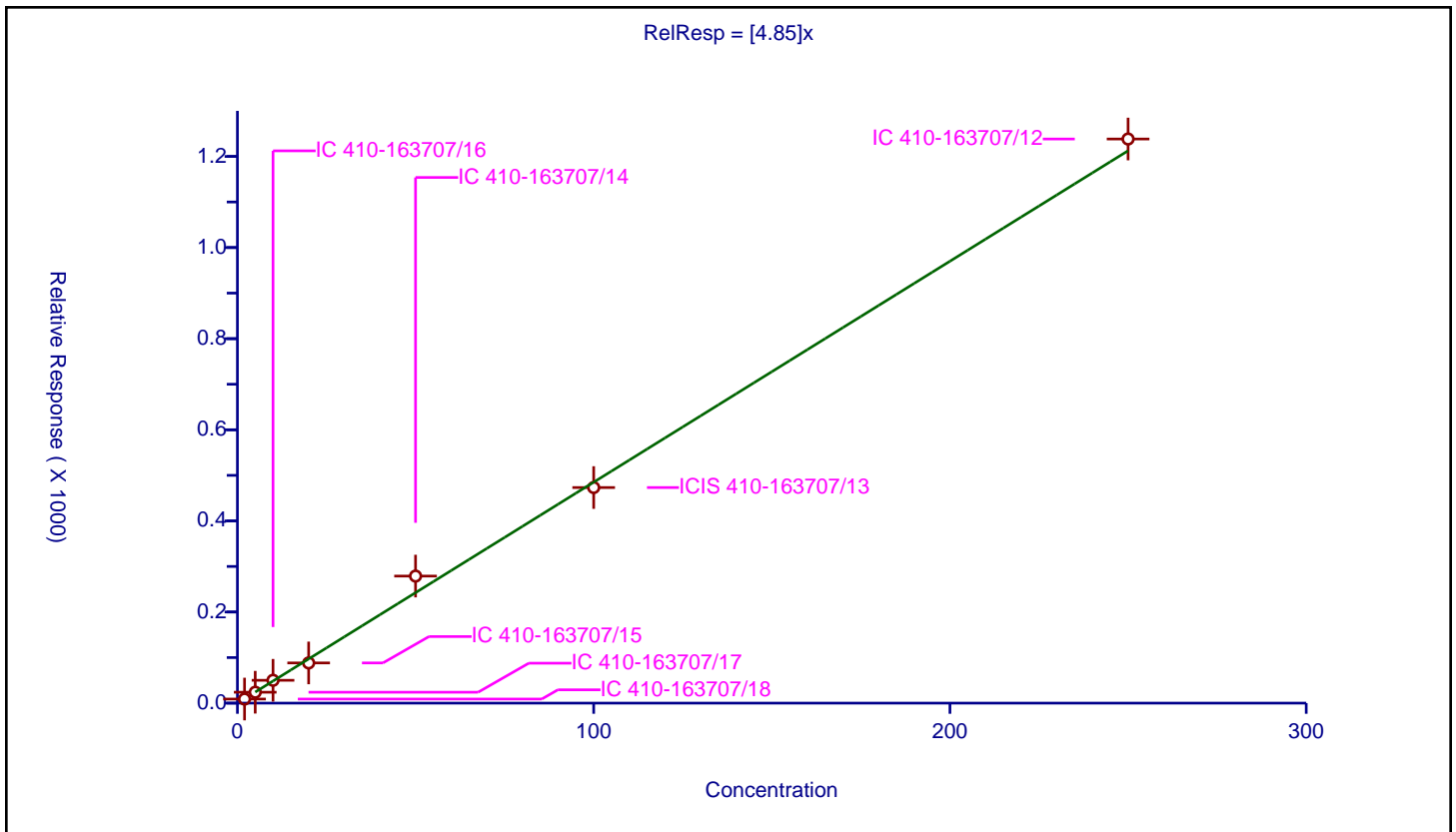
/ 2-Butanone (MEK)

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	4.85

Error Coefficients	
Standard Error:	1710000
Relative Standard Error:	8.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	2.0	8.945489	50.0	162132.0	4.472744	Y
2	IC 410-163707/17	5.0	23.937449	50.0	162651.0	4.78749	Y
3	IC 410-163707/16	10.0	50.136633	50.0	143084.0	5.013663	Y
4	IC 410-163707/15	20.0	88.255588	50.0	162903.0	4.412779	Y
5	IC 410-163707/14	50.0	278.903483	50.0	134380.0	5.57807	Y
6	ICIS 410-163707/13	100.0	473.240519	50.0	165205.0	4.732405	Y
7	IC 410-163707/12	250.0	1238.250889	50.0	153335.0	4.953004	Y



Calibration

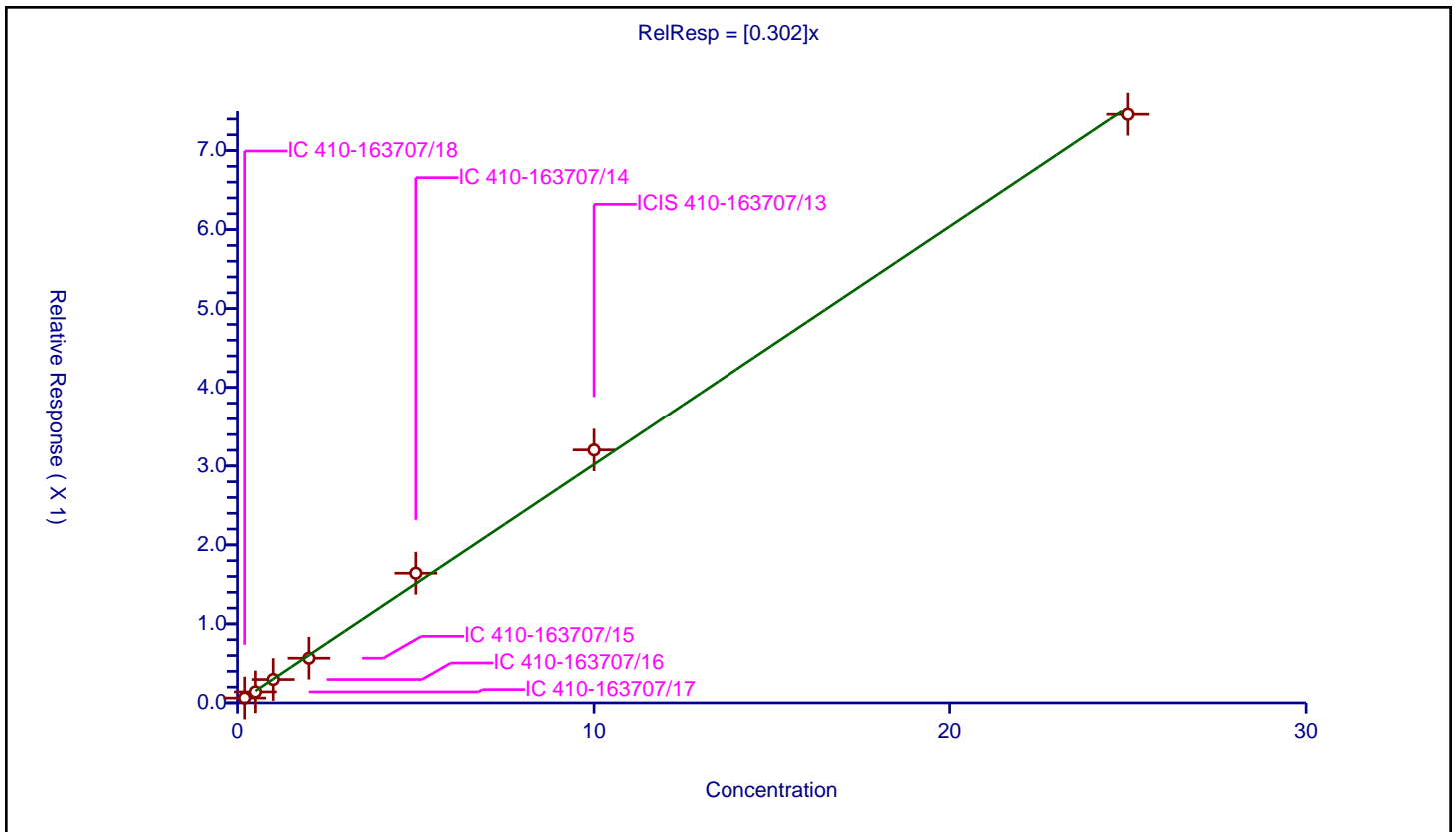
/ cis-1,2-Dichloroethene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.302

Error Coefficients	
Standard Error:	773000
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 410-163707/18	0.2	0.06169	10.0	2203428.0	0.308451	Y
2	IC 410-163707/17	0.5	0.139589	10.0	2386508.0	0.279178	Y
3	IC 410-163707/16	1.0	0.296249	10.0	2167768.0	0.296249	Y
4	IC 410-163707/15	2.0	0.566182	10.0	2141536.0	0.283091	Y
5	IC 410-163707/14	5.0	1.641142	10.0	2115642.0	0.328228	Y
6	ICIS 410-163707/13	10.0	3.203581	10.0	2122537.0	0.320358	Y
7	IC 410-163707/12	25.0	7.460186	10.0	2314551.0	0.298407	Y



**Calibration**

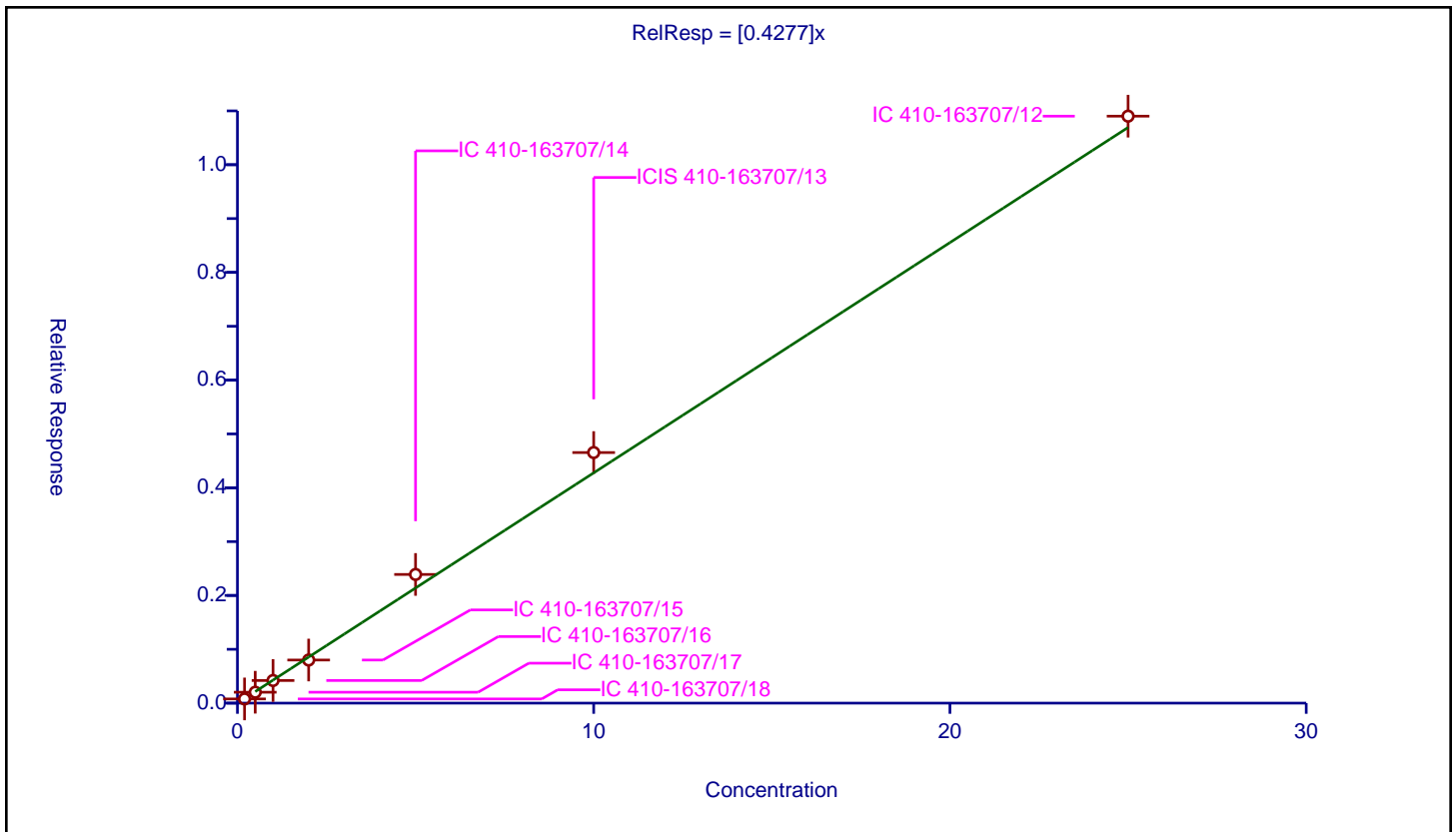
/ 2,2-Dichloropropane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4277

Error Coefficients	
Standard Error:	1130000
Relative Standard Error:	7.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.077783	10.0	2203428.0	0.388917	Y
2	IC 410-163707/17	0.5	0.202513	10.0	2386508.0	0.405027	Y
3	IC 410-163707/16	1.0	0.420253	10.0	2167768.0	0.420253	Y
4	IC 410-163707/15	2.0	0.800411	10.0	2141536.0	0.400206	Y
5	IC 410-163707/14	5.0	2.389884	10.0	2115642.0	0.477977	Y
6	ICIS 410-163707/13	10.0	4.654345	10.0	2122537.0	0.465435	Y
7	IC 410-163707/12	25.0	10.901816	10.0	2314551.0	0.436073	Y





**Calibration**

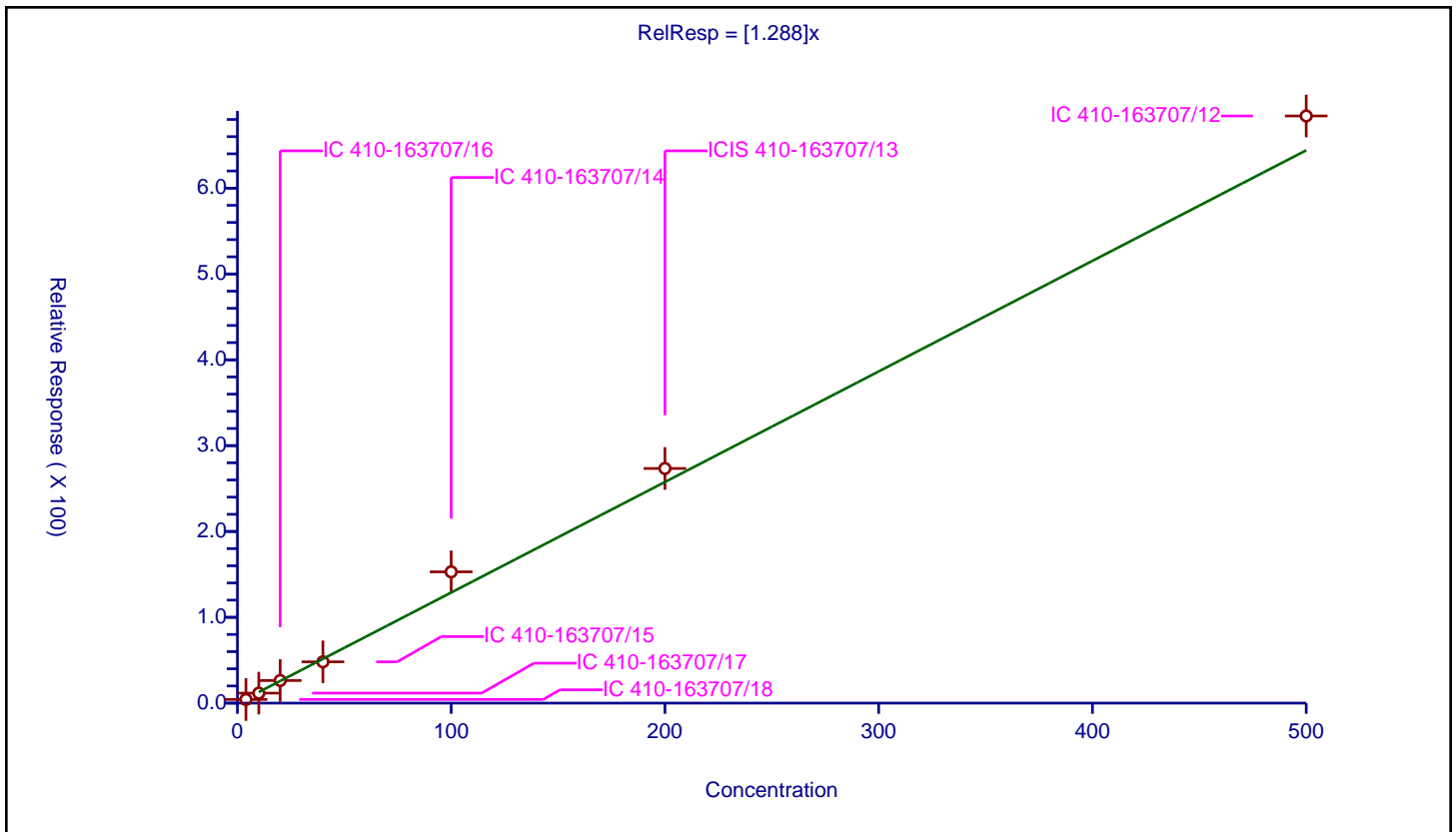
/ Propionitrile

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.288

Error Coefficients	
Standard Error:	950000
Relative Standard Error:	12.0
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.983

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	4.0	4.265968	50.0	162132.0	1.066492	Y
2	IC 410-163707/17	10.0	11.664238	50.0	162651.0	1.166424	Y
3	IC 410-163707/16	20.0	26.336977	50.0	143084.0	1.316849	Y
4	IC 410-163707/15	40.0	48.104086	50.0	162903.0	1.202602	Y
5	IC 410-163707/14	100.0	152.953565	50.0	134380.0	1.529536	Y
6	ICIS 410-163707/13	200.0	273.392754	50.0	165205.0	1.366964	Y
7	IC 410-163707/12	500.0	684.097238	50.0	153335.0	1.368194	Y



Calibration

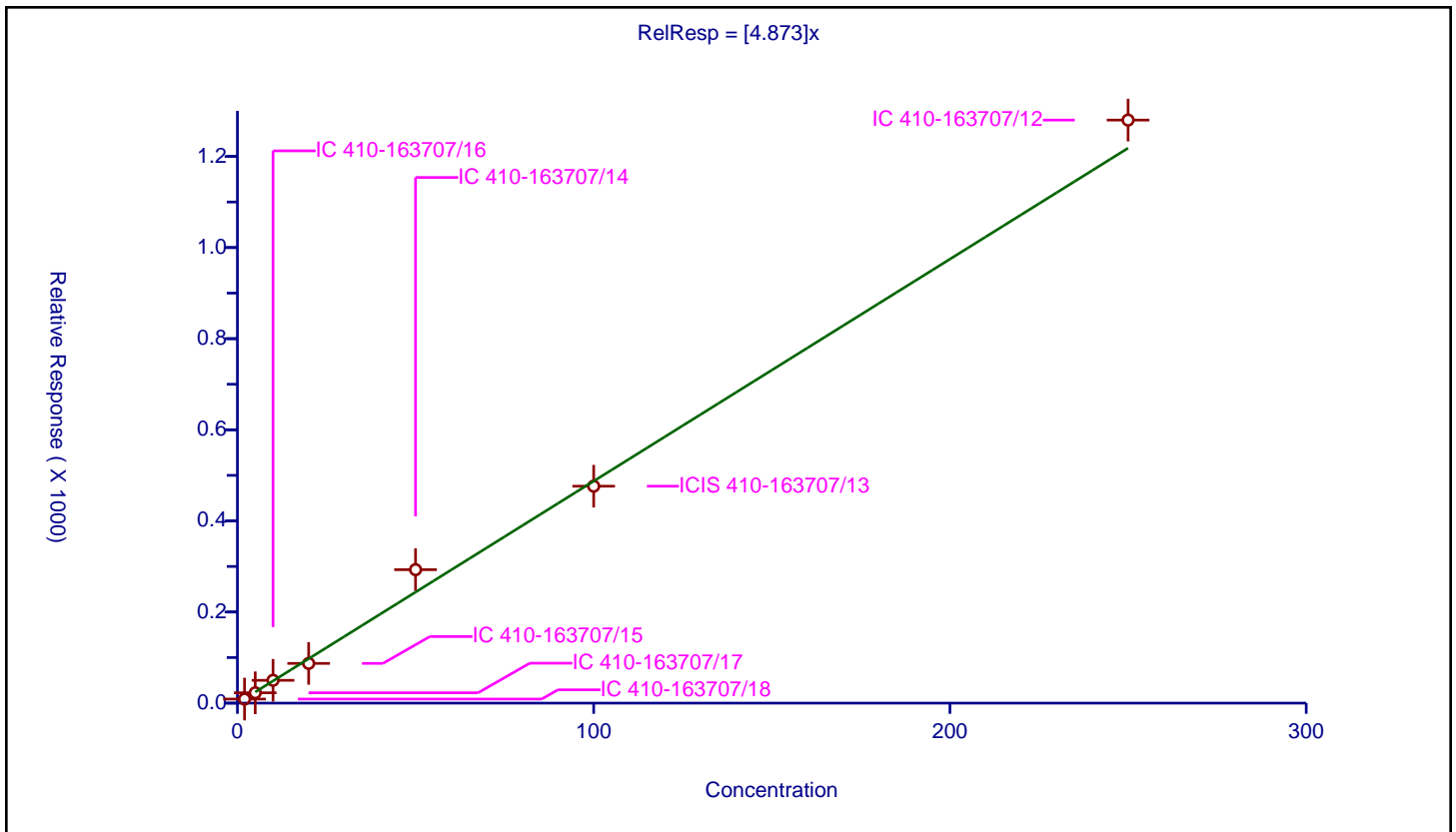
/ Methacrylonitrile

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	4.873

Error Coefficients	
Standard Error:	1760000
Relative Standard Error:	10.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.986

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	2.0	8.92236	50.0	162132.0	4.46118	Y
2	IC 410-163707/17	5.0	22.716737	50.0	162651.0	4.543347	Y
3	IC 410-163707/16	10.0	50.069889	50.0	143084.0	5.006989	Y
4	IC 410-163707/15	20.0	87.182556	50.0	162903.0	4.359128	Y
5	IC 410-163707/14	50.0	292.9331	50.0	134380.0	5.858662	Y
6	ICIS 410-163707/13	100.0	476.205018	50.0	165205.0	4.76205	Y
7	IC 410-163707/12	250.0	1279.855545	50.0	153335.0	5.119422	Y



**Calibration**

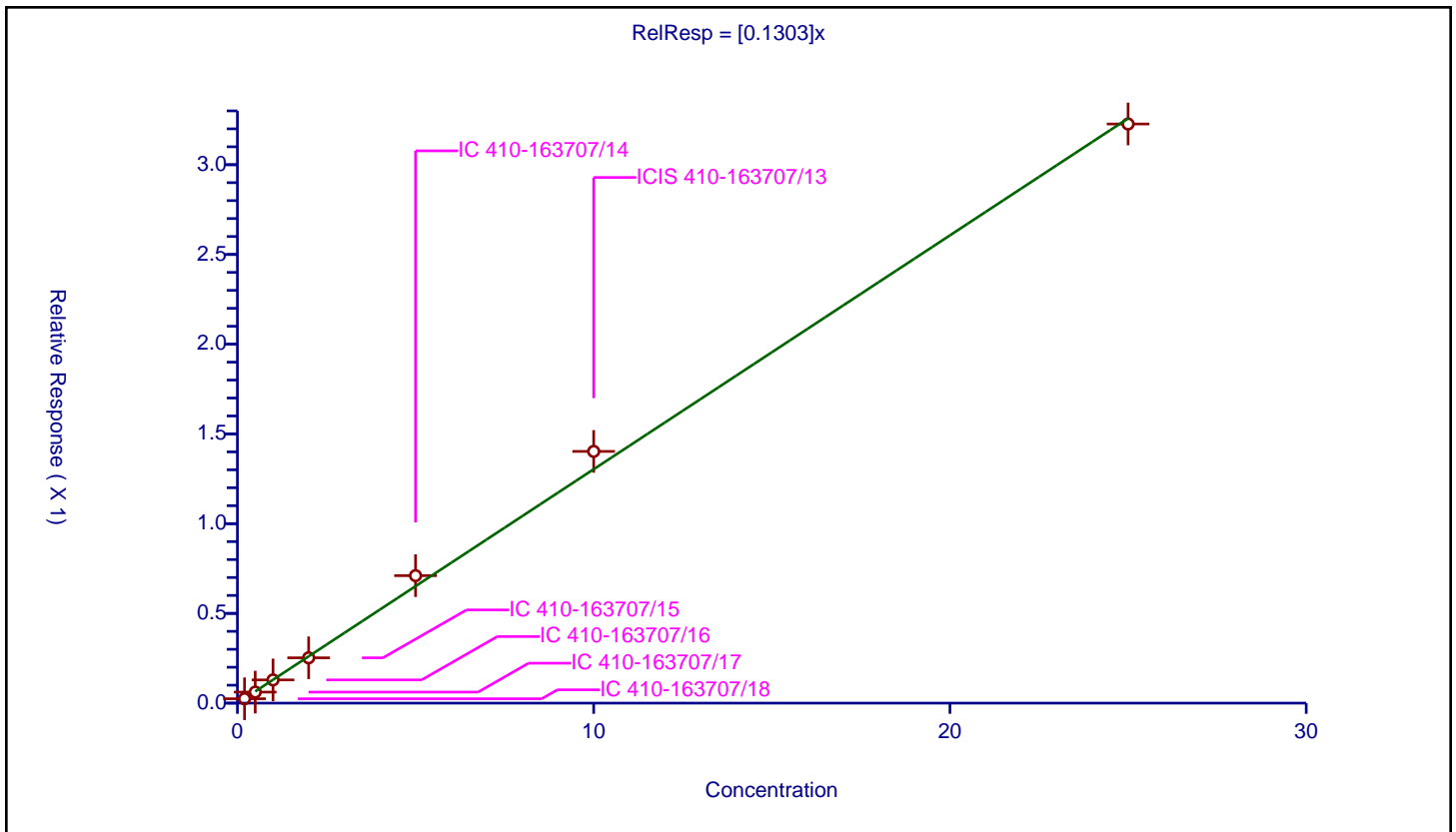
**/ Chlorobromomethane**

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.1303

Error Coefficients	
Standard Error:	335000
Relative Standard Error:	6.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.024426	10.0	2203428.0	0.122128	Y
2	IC 410-163707/17	0.5	0.061538	10.0	2386508.0	0.123075	Y
3	IC 410-163707/16	1.0	0.129391	10.0	2167768.0	0.129391	Y
4	IC 410-163707/15	2.0	0.252473	10.0	2141536.0	0.126236	Y
5	IC 410-163707/14	5.0	0.710352	10.0	2115642.0	0.14207	Y
6	ICIS 410-163707/13	10.0	1.402656	10.0	2122537.0	0.140266	Y
7	IC 410-163707/12	25.0	3.227019	10.0	2314551.0	0.129081	Y



Calibration

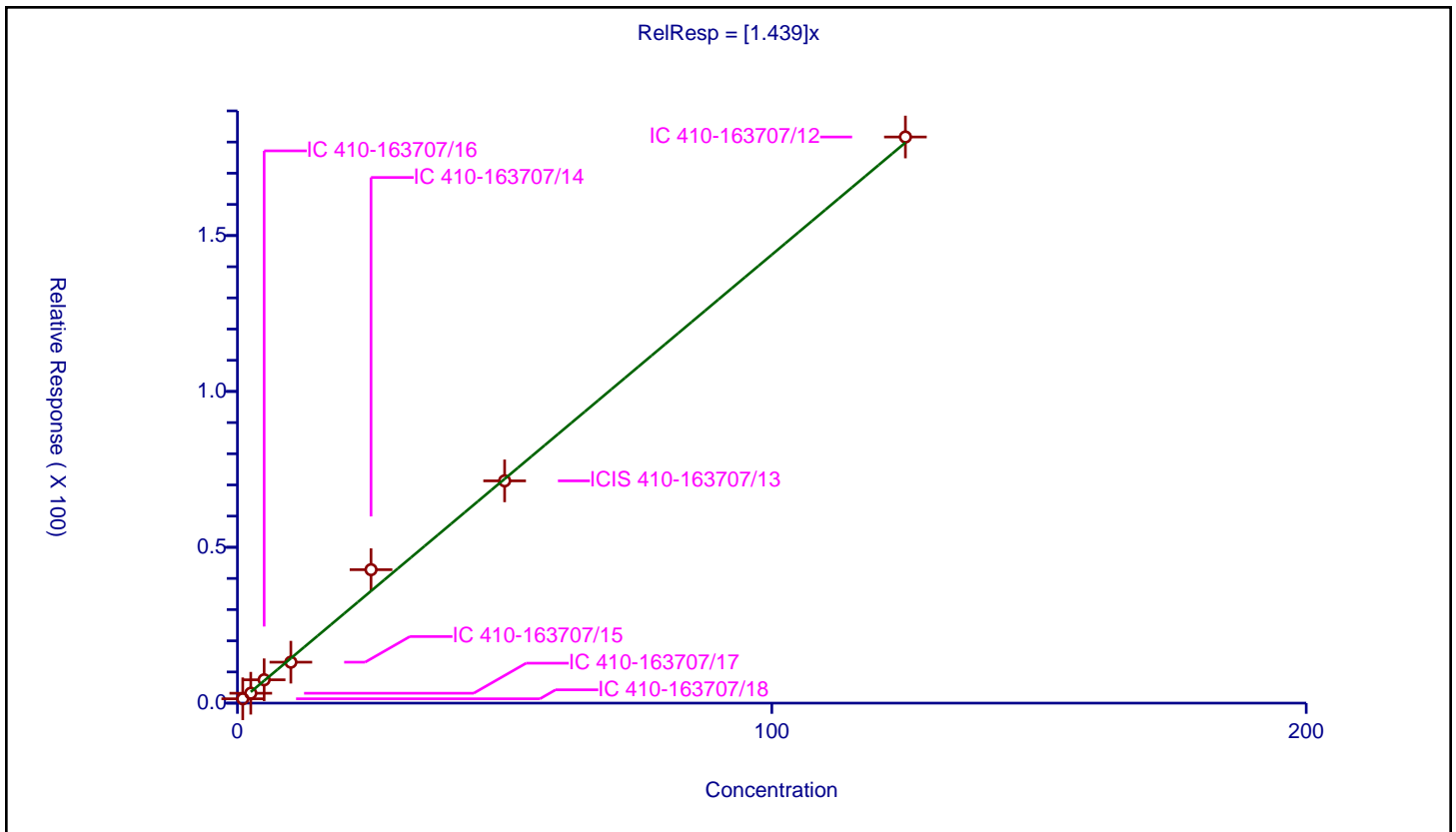
/ Tetrahydrofuran

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.439

Error Coefficients	
Standard Error:	252000
Relative Standard Error:	10.0
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.987

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	1.0	1.397318	50.0	162132.0	1.397318	Y
2	IC 410-163707/17	2.5	3.172744	50.0	162651.0	1.269098	Y
3	IC 410-163707/16	5.0	7.491054	50.0	143084.0	1.498211	Y
4	IC 410-163707/15	10.0	13.139107	50.0	162903.0	1.313911	Y
5	IC 410-163707/14	25.0	42.815151	50.0	134380.0	1.712606	Y
6	ICIS 410-163707/13	50.0	71.310796	50.0	165205.0	1.426216	Y
7	IC 410-163707/12	125.0	181.629765	50.0	153335.0	1.453038	Y



**Calibration**

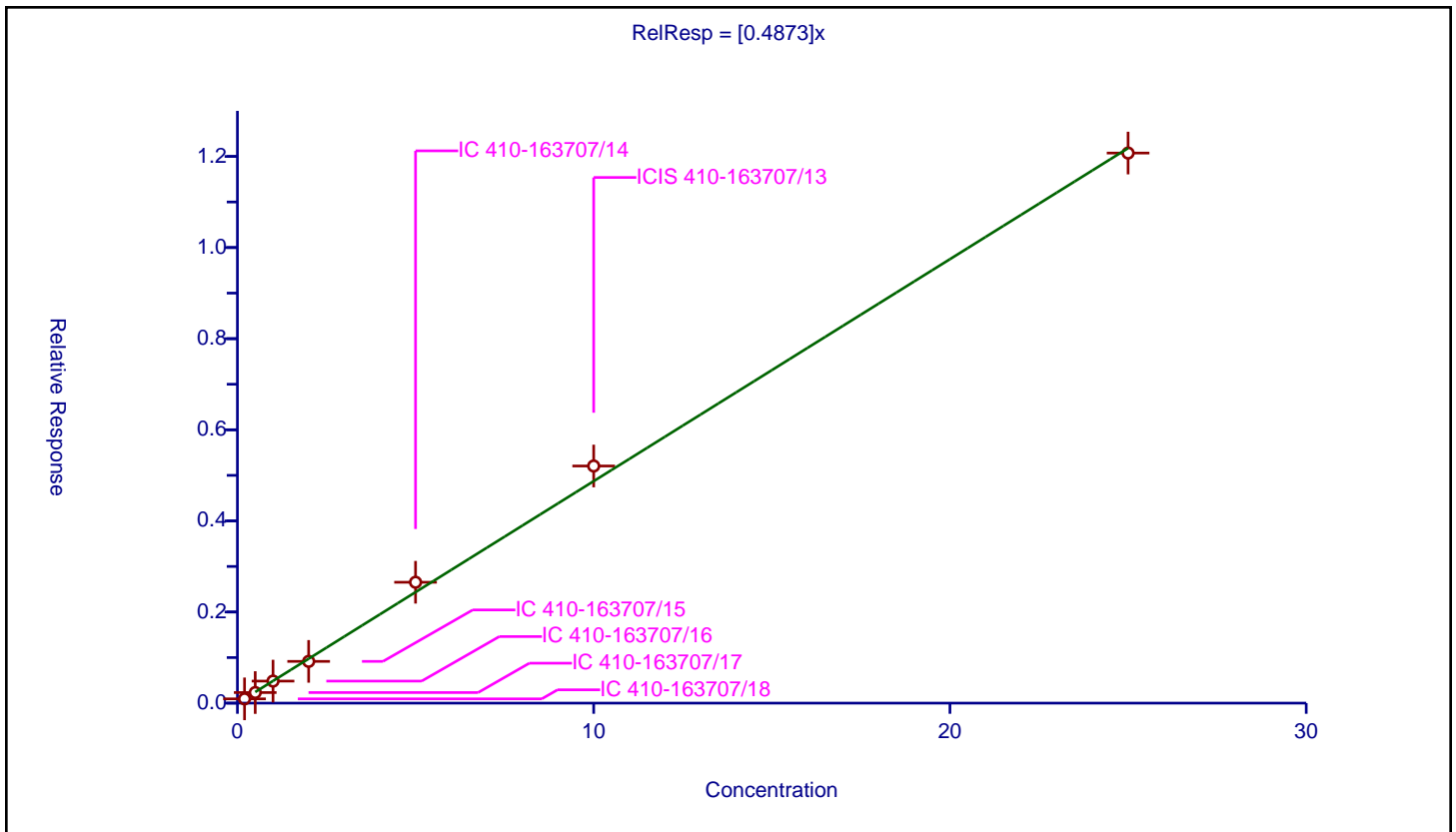
/ Chloroform

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4873

Error Coefficients	
Standard Error:	1250000
Relative Standard Error:	5.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.09384	10.0	2203428.0	0.469201	Y
2	IC 410-163707/17	0.5	0.232612	10.0	2386508.0	0.465224	Y
3	IC 410-163707/16	1.0	0.48406	10.0	2167768.0	0.48406	Y
4	IC 410-163707/15	2.0	0.91637	10.0	2141536.0	0.458185	Y
5	IC 410-163707/14	5.0	2.653034	10.0	2115642.0	0.530607	Y
6	ICIS 410-163707/13	10.0	5.20496	10.0	2122537.0	0.520496	Y
7	IC 410-163707/12	25.0	12.074502	10.0	2314551.0	0.48298	Y



**Calibration**

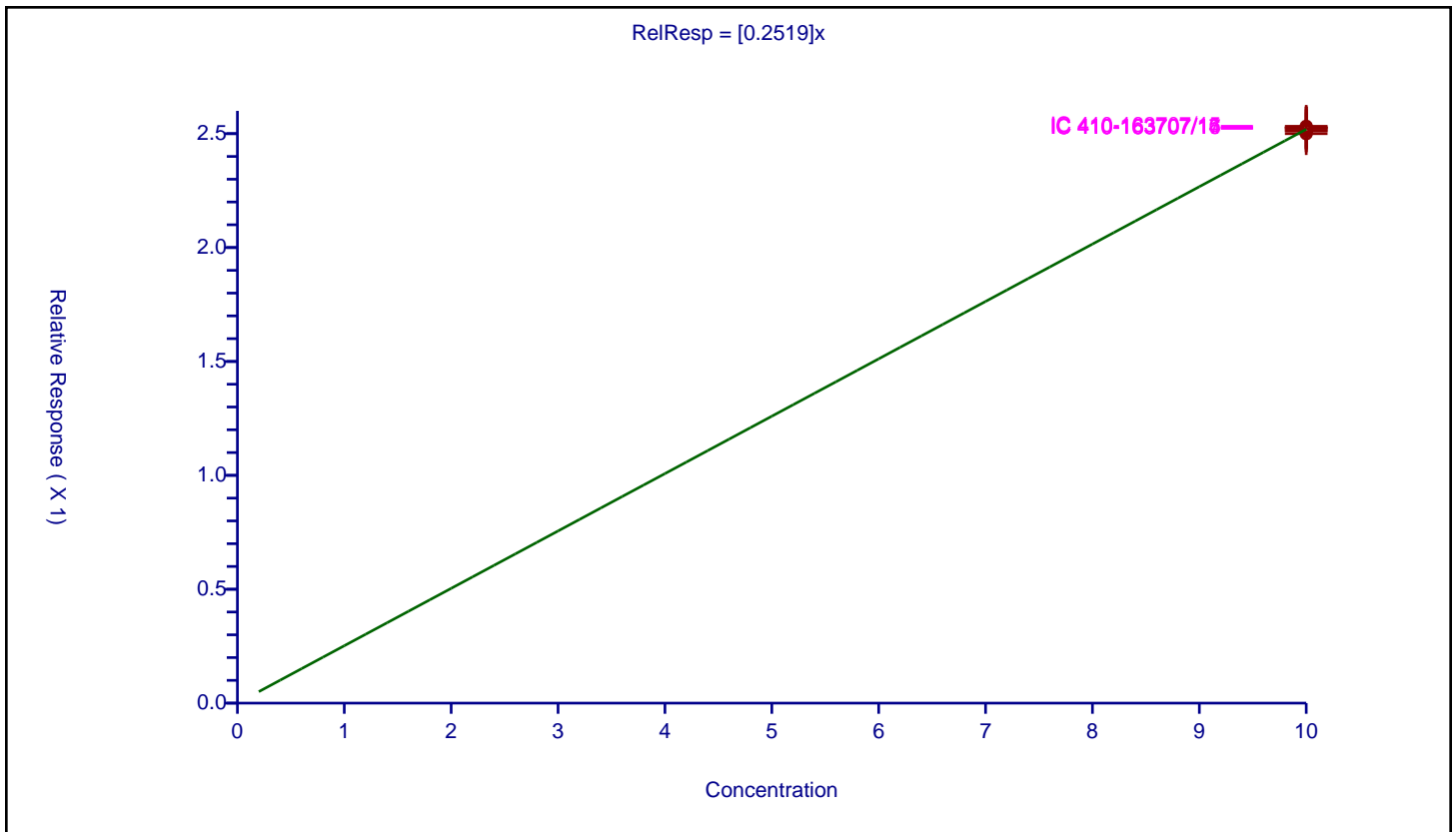
/ Dibromofluoromethane (Surr)

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2519

Error Coefficients	
Standard Error:	601000
Relative Standard Error:	0.4
Correlation Coefficient:	NA
Coefficient of Determination (Adjusted):	0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/12	10.0	2.514673	10.0	2314551.0	0.251467	Y
2	ICIS 410-163707/13	10.0	2.511452	10.0	2122537.0	0.251145	Y
3	IC 410-163707/14	10.0	2.523806	10.0	2115642.0	0.252381	Y
4	IC 410-163707/15	10.0	2.53243	10.0	2141536.0	0.253243	Y
5	IC 410-163707/16	10.0	2.525266	10.0	2167768.0	0.252527	Y
6	IC 410-163707/17	10.0	2.526093	10.0	2386508.0	0.252609	Y
7	IC 410-163707/18	10.0	2.499968	10.0	2203428.0	0.249997	Y



Calibration

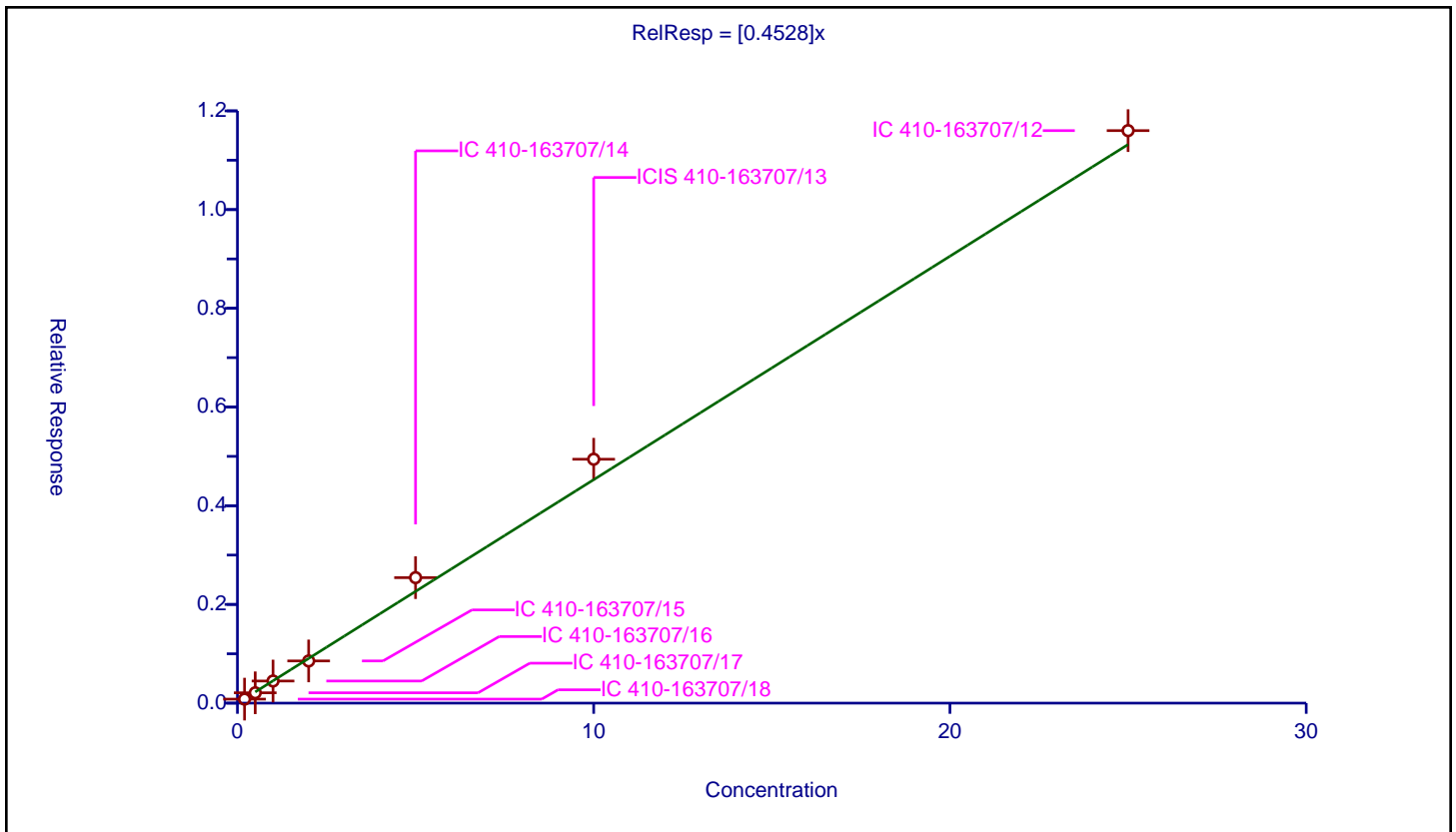
/ 1,1,1-Trichloroethane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4528

Error Coefficients	
Standard Error:	1200000
Relative Standard Error:	8.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.08145	10.0	2203428.0	0.407252	Y
2	IC 410-163707/17	0.5	0.209725	10.0	2386508.0	0.41945	Y
3	IC 410-163707/16	1.0	0.448424	10.0	2167768.0	0.448424	Y
4	IC 410-163707/15	2.0	0.854807	10.0	2141536.0	0.427404	Y
5	IC 410-163707/14	5.0	2.542765	10.0	2115642.0	0.508553	Y
6	ICIS 410-163707/13	10.0	4.942081	10.0	2122537.0	0.494208	Y
7	IC 410-163707/12	25.0	11.60025	10.0	2314551.0	0.46401	Y



**Calibration**

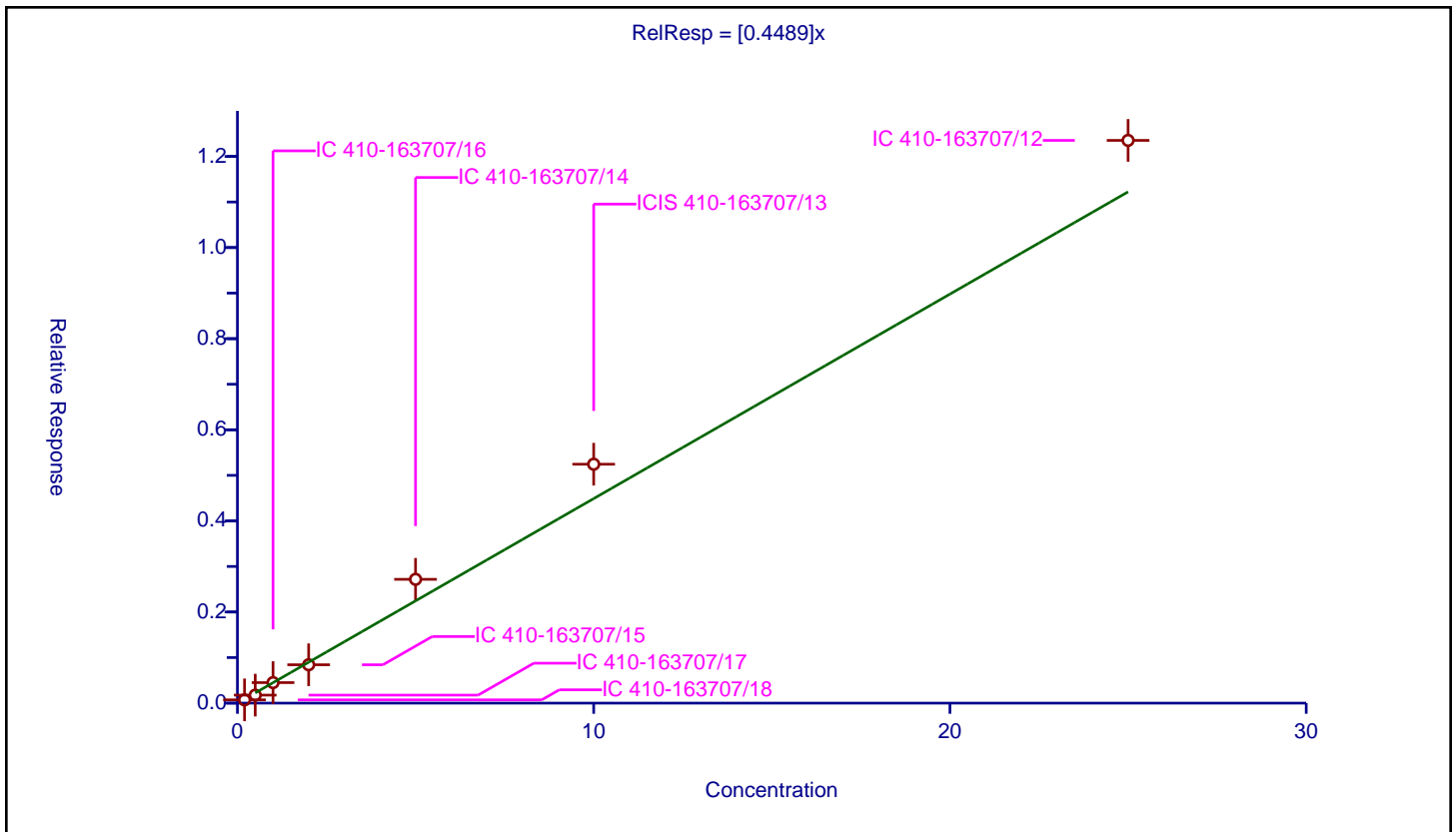
/ Cyclohexane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4489

Error Coefficients	
Standard Error:	1280000
Relative Standard Error:	17.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.967

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.071407	10.0	2203428.0	0.357035	Y
2	IC 410-163707/17	0.5	0.175918	10.0	2386508.0	0.351836	Y
3	IC 410-163707/16	1.0	0.450588	10.0	2167768.0	0.450588	Y
4	IC 410-163707/15	2.0	0.841984	10.0	2141536.0	0.420992	Y
5	IC 410-163707/14	5.0	2.717676	10.0	2115642.0	0.543535	Y
6	ICIS 410-163707/13	10.0	5.244295	10.0	2122537.0	0.524429	Y
7	IC 410-163707/12	25.0	12.352283	10.0	2314551.0	0.494091	Y





Calibration

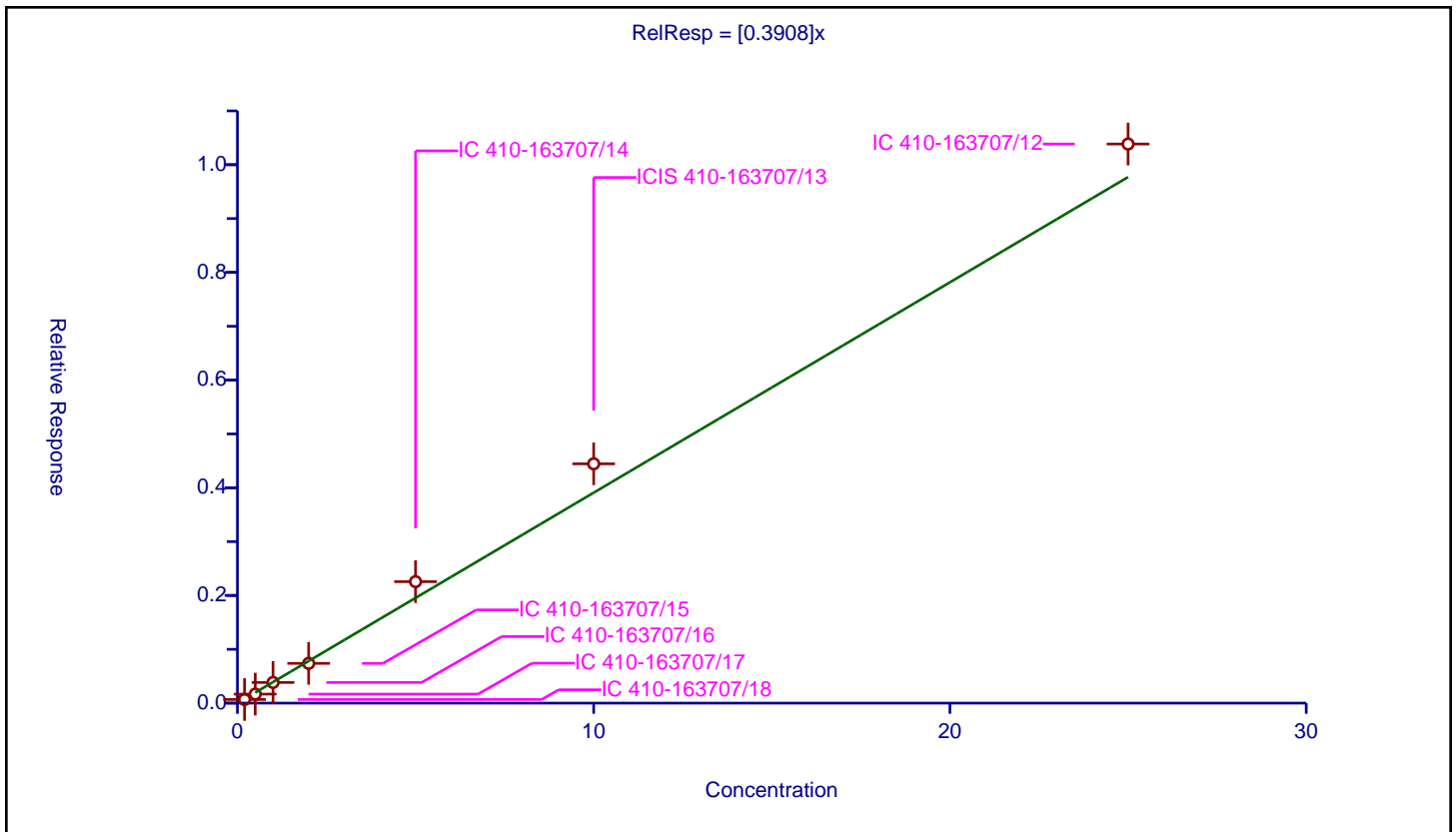
/ Carbon tetrachloride

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3908

Error Coefficients	
Standard Error:	1070000
Relative Standard Error:	12.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.982

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.067286	10.0	2203428.0	0.33643	Y
2	IC 410-163707/17	0.5	0.167542	10.0	2386508.0	0.335084	Y
3	IC 410-163707/16	1.0	0.383819	10.0	2167768.0	0.383819	Y
4	IC 410-163707/15	2.0	0.738535	10.0	2141536.0	0.369268	Y
5	IC 410-163707/14	5.0	2.256204	10.0	2115642.0	0.451241	Y
6	ICIS 410-163707/13	10.0	4.445138	10.0	2122537.0	0.444514	Y
7	IC 410-163707/12	25.0	10.384658	10.0	2314551.0	0.415386	Y



Calibration

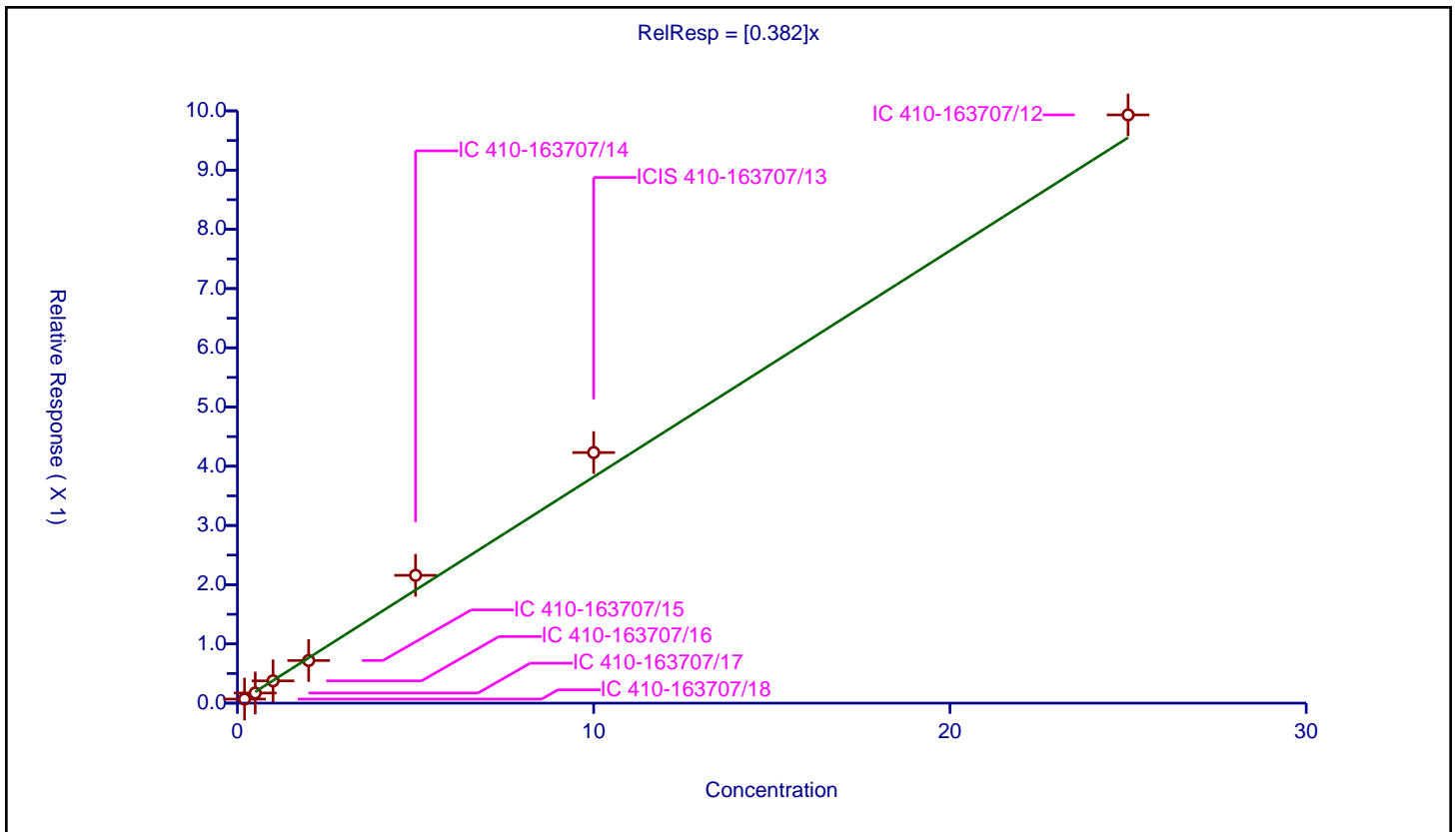
/ 1,1-Dichloropropene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.382

Error Coefficients	
Standard Error:	1030000
Relative Standard Error:	9.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.989

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.068661	10.0	2203428.0	0.343306	Y
2	IC 410-163707/17	0.5	0.171221	10.0	2386508.0	0.342442	Y
3	IC 410-163707/16	1.0	0.376207	10.0	2167768.0	0.376207	Y
4	IC 410-163707/15	2.0	0.719554	10.0	2141536.0	0.359777	Y
5	IC 410-163707/14	5.0	2.158049	10.0	2115642.0	0.43161	Y
6	ICIS 410-163707/13	10.0	4.230894	10.0	2122537.0	0.423089	Y
7	IC 410-163707/12	25.0	9.931926	10.0	2314551.0	0.397277	Y



**Calibration**

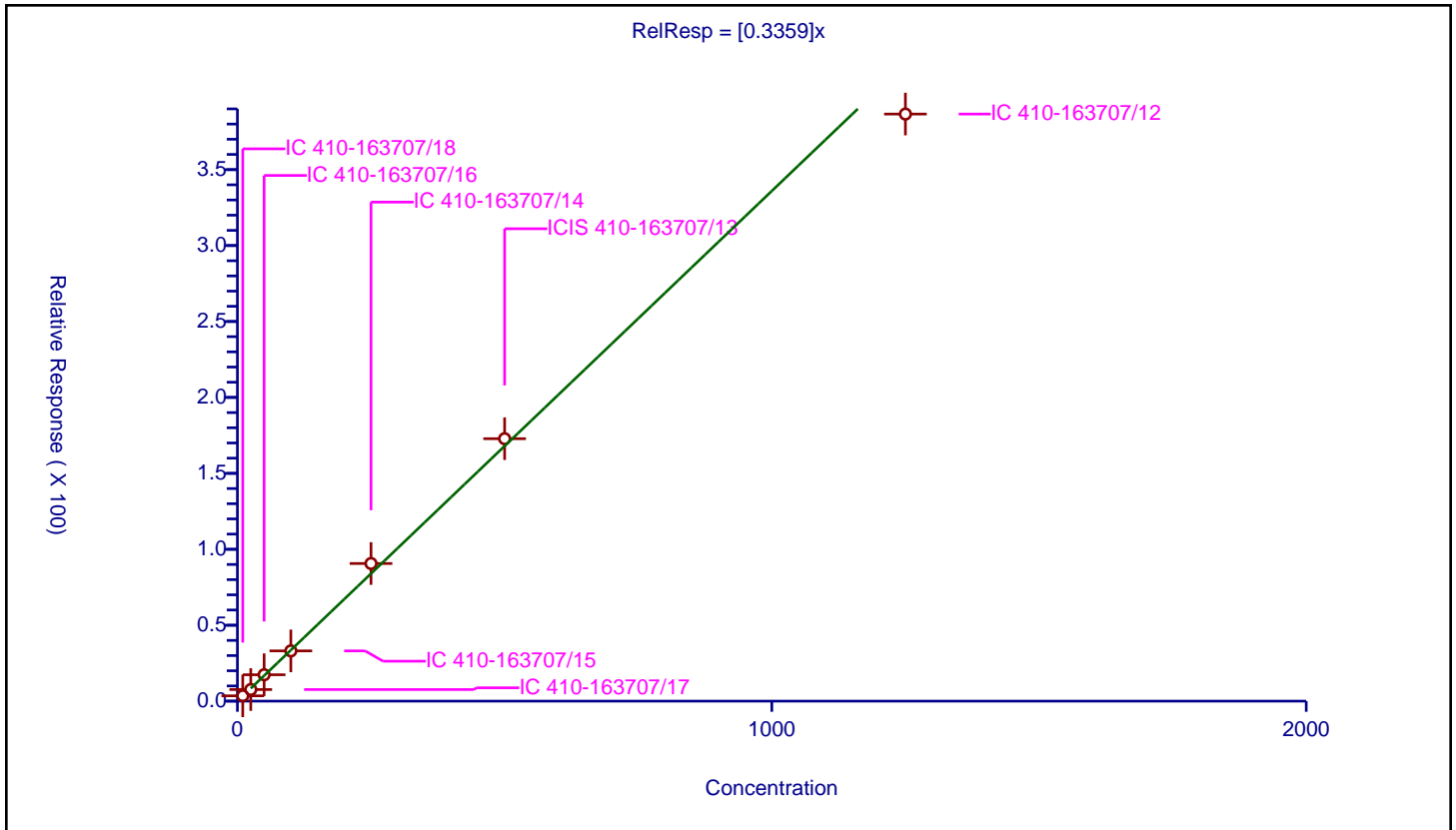
/ Isobutyl alcohol

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3359

Error Coefficients	
Standard Error:	548000
Relative Standard Error:	6.5
Correlation Coefficient:	0.993
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	10.0	3.50486	50.0	162132.0	0.350486	Y
2	IC 410-163707/17	25.0	7.632907	50.0	162651.0	0.305316	Y
3	IC 410-163707/16	50.0	17.380699	50.0	143084.0	0.347614	Y
4	IC 410-163707/15	100.0	33.078581	50.0	162903.0	0.330786	Y
5	IC 410-163707/14	250.0	90.630302	50.0	134380.0	0.362521	Y
6	ICIS 410-163707/13	500.0	172.809237	50.0	165205.0	0.345618	Y
7	IC 410-163707/12	1250.0	386.593733	50.0	153335.0	0.309275	Y



**Calibration**

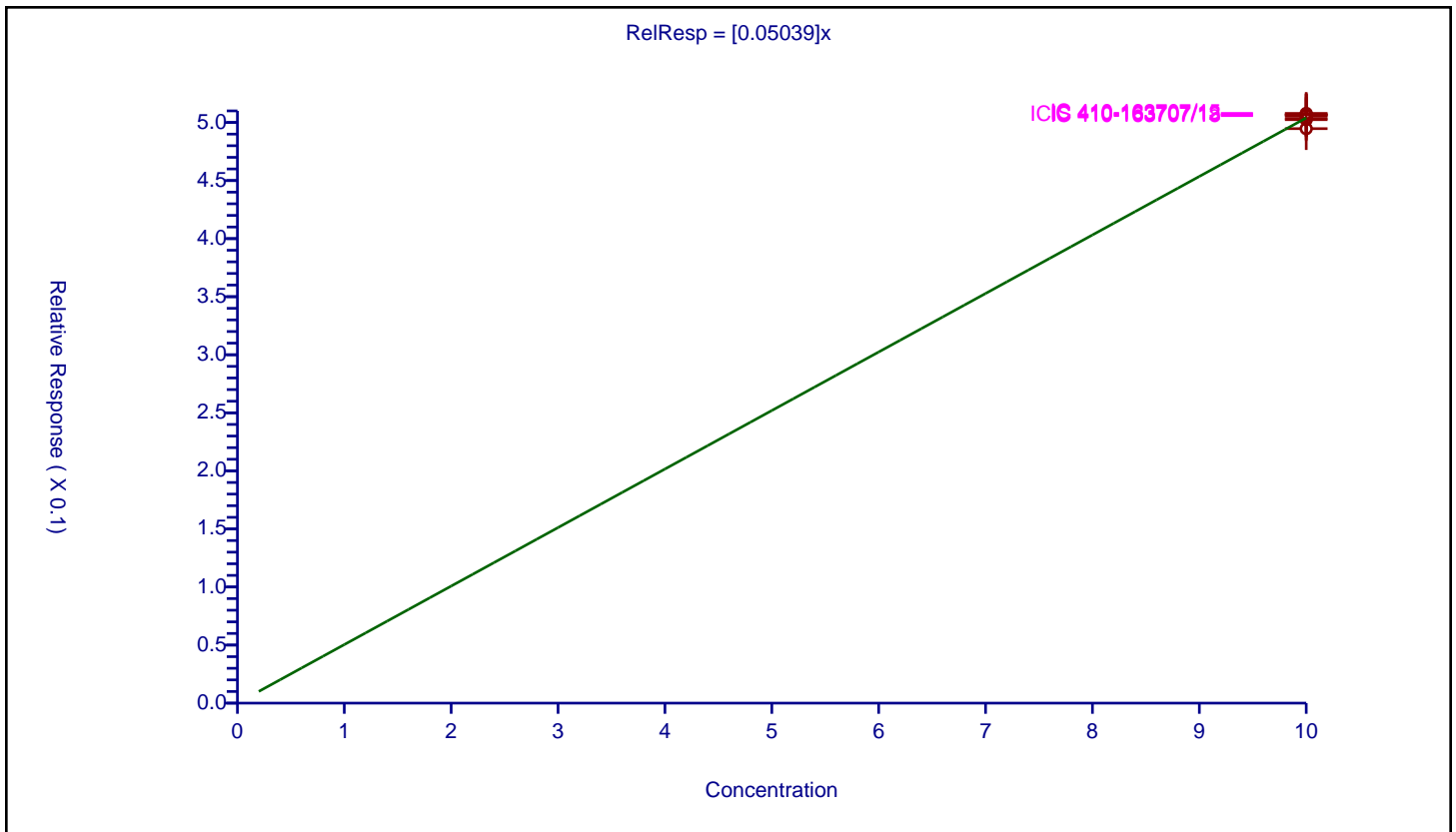
/ 1,2-Dichloroethane-d4 (Surr)

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.05039

Error Coefficients	
Standard Error:	120000
Relative Standard Error:	0.9
Correlation Coefficient:	NA
Coefficient of Determination (Adjusted):	0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/12	10.0	0.50691	10.0	2314551.0	0.050691	Y
2	ICIS 410-163707/13	10.0	0.5063	10.0	2122537.0	0.05063	Y
3	IC 410-163707/14	10.0	0.503554	10.0	2115642.0	0.050355	Y
4	IC 410-163707/15	10.0	0.507832	10.0	2141536.0	0.050783	Y
5	IC 410-163707/16	10.0	0.502425	10.0	2167768.0	0.050242	Y
6	IC 410-163707/17	10.0	0.494698	10.0	2386508.0	0.04947	Y
7	IC 410-163707/18	10.0	0.505907	10.0	2203428.0	0.050591	Y



Calibration

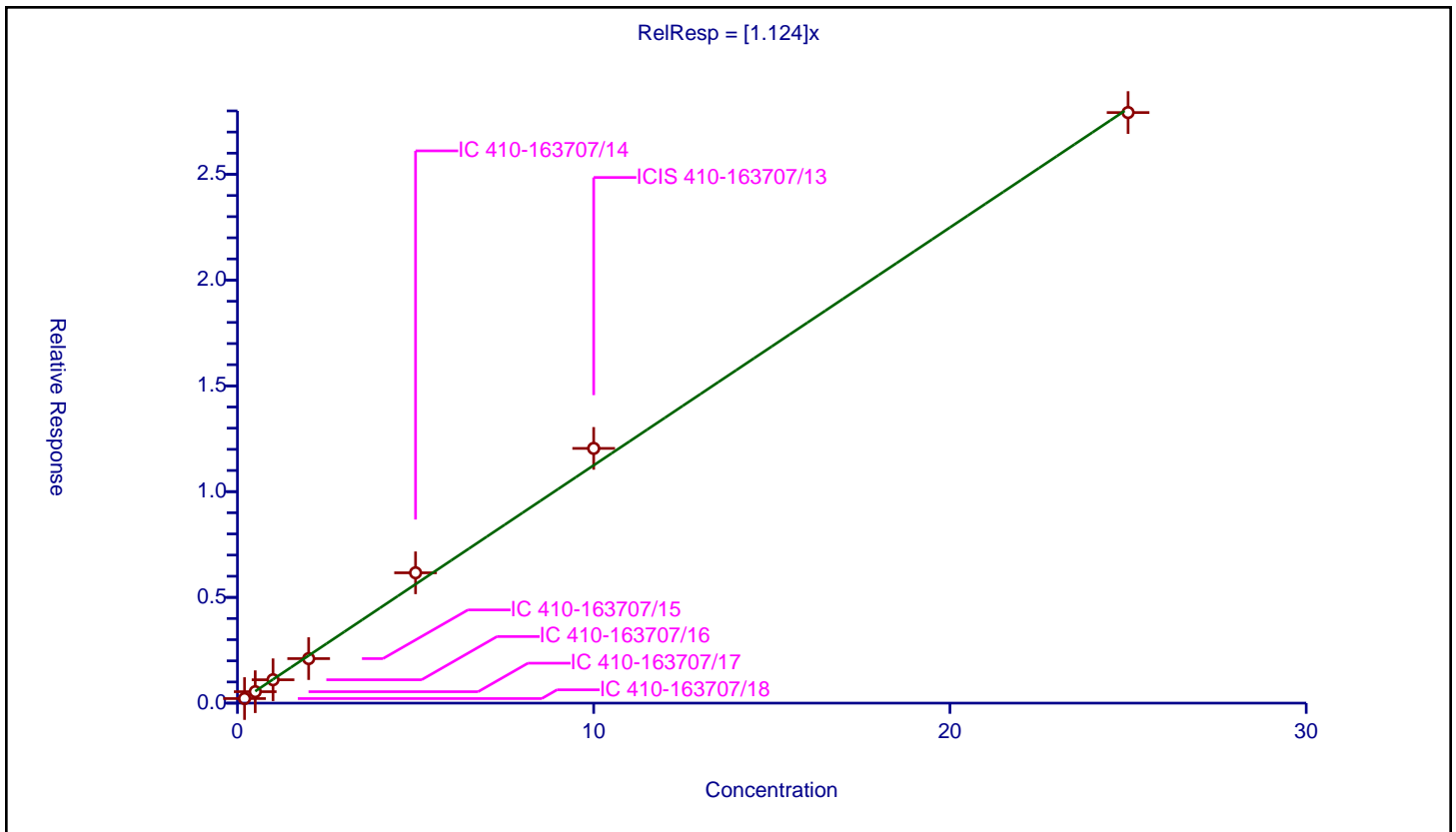
/ Benzene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.124

Error Coefficients	
Standard Error:	2890000
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 410-163707/18	0.2	0.215723	10.0	2203428.0	1.078615	Y
2	IC 410-163707/17	0.5	0.540321	10.0	2386508.0	1.080642	Y
3	IC 410-163707/16	1.0	1.105358	10.0	2167768.0	1.105358	Y
4	IC 410-163707/15	2.0	2.104326	10.0	2141536.0	1.052163	Y
5	IC 410-163707/14	5.0	6.162215	10.0	2115642.0	1.232443	Y
6	ICIS 410-163707/13	10.0	12.042975	10.0	2122537.0	1.204297	Y
7	IC 410-163707/12	25.0	27.921394	10.0	2314551.0	1.116856	Y



Calibration

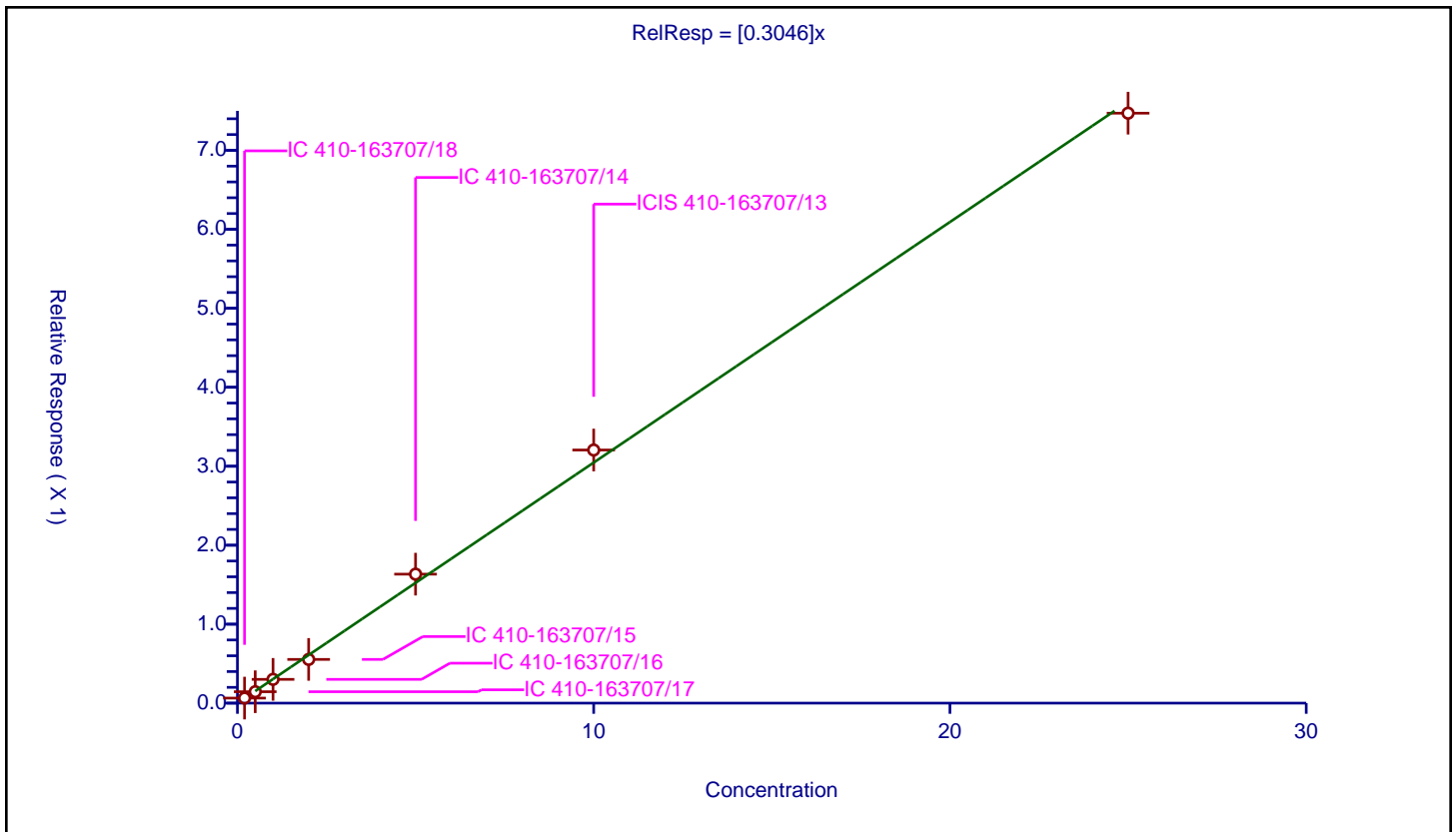
/ 1,2-Dichloroethane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3046

Error Coefficients	
Standard Error:	774000
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 410-163707/18	0.2	0.063923	10.0	2203428.0	0.319616	Y
2	IC 410-163707/17	0.5	0.14445	10.0	2386508.0	0.288899	Y
3	IC 410-163707/16	1.0	0.301029	10.0	2167768.0	0.301029	Y
4	IC 410-163707/15	2.0	0.553547	10.0	2141536.0	0.276773	Y
5	IC 410-163707/14	5.0	1.633429	10.0	2115642.0	0.326686	Y
6	ICIS 410-163707/13	10.0	3.205466	10.0	2122537.0	0.320547	Y
7	IC 410-163707/12	25.0	7.47116	10.0	2314551.0	0.298846	Y



**Calibration**

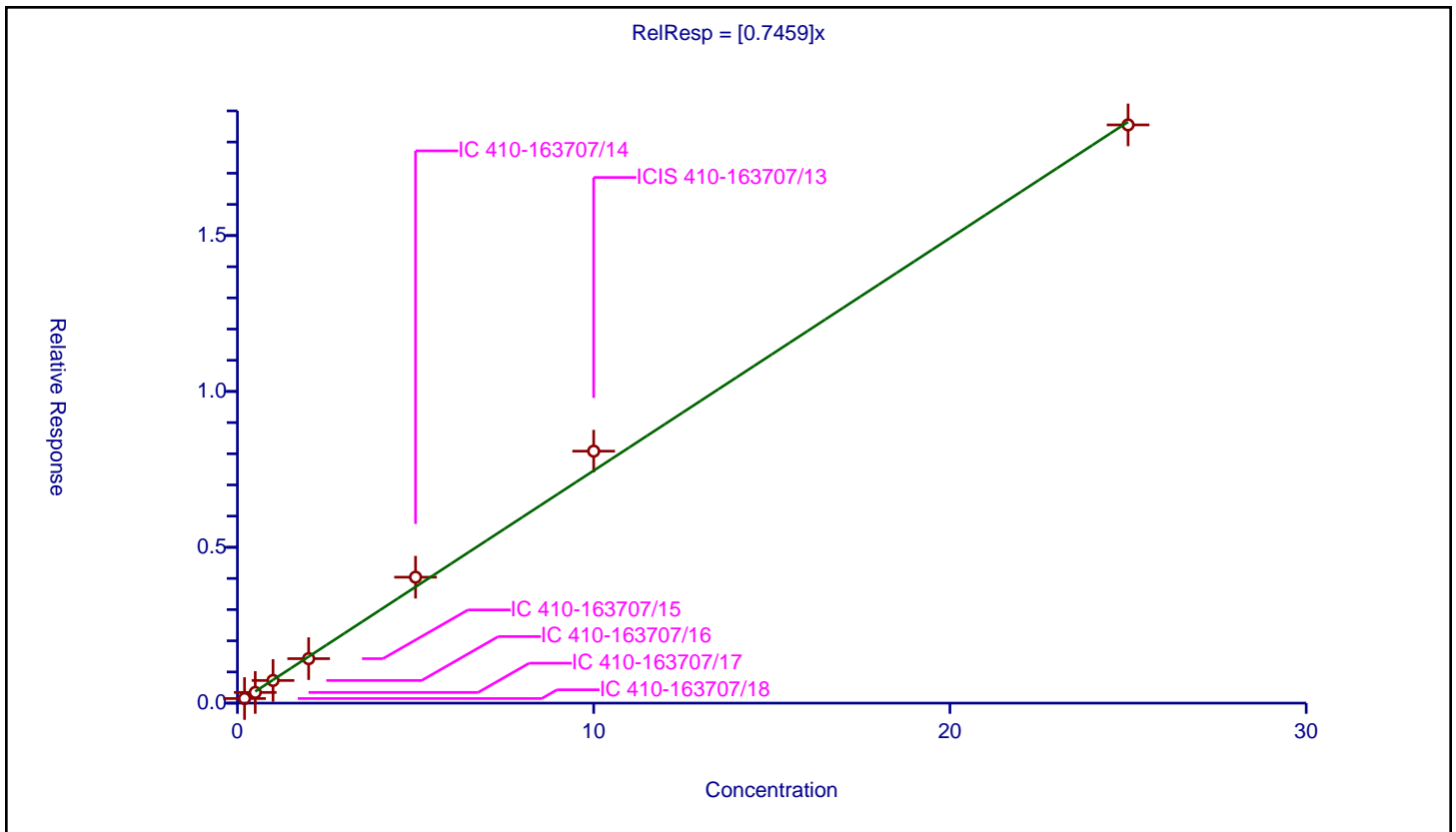
/ Tert-amyl methyl ether

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.7459

Error Coefficients	
Standard Error:	1930000
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 410-163707/18	0.2	0.147466	10.0	2203428.0	0.737328	Y
2	IC 410-163707/17	0.5	0.342668	10.0	2386508.0	0.685336	Y
3	IC 410-163707/16	1.0	0.726904	10.0	2167768.0	0.726904	Y
4	IC 410-163707/15	2.0	1.426901	10.0	2141536.0	0.713451	Y
5	IC 410-163707/14	5.0	4.040556	10.0	2115642.0	0.808111	Y
6	ICIS 410-163707/13	10.0	8.083576	10.0	2122537.0	0.808358	Y
7	IC 410-163707/12	25.0	18.550812	10.0	2314551.0	0.742032	Y



Calibration

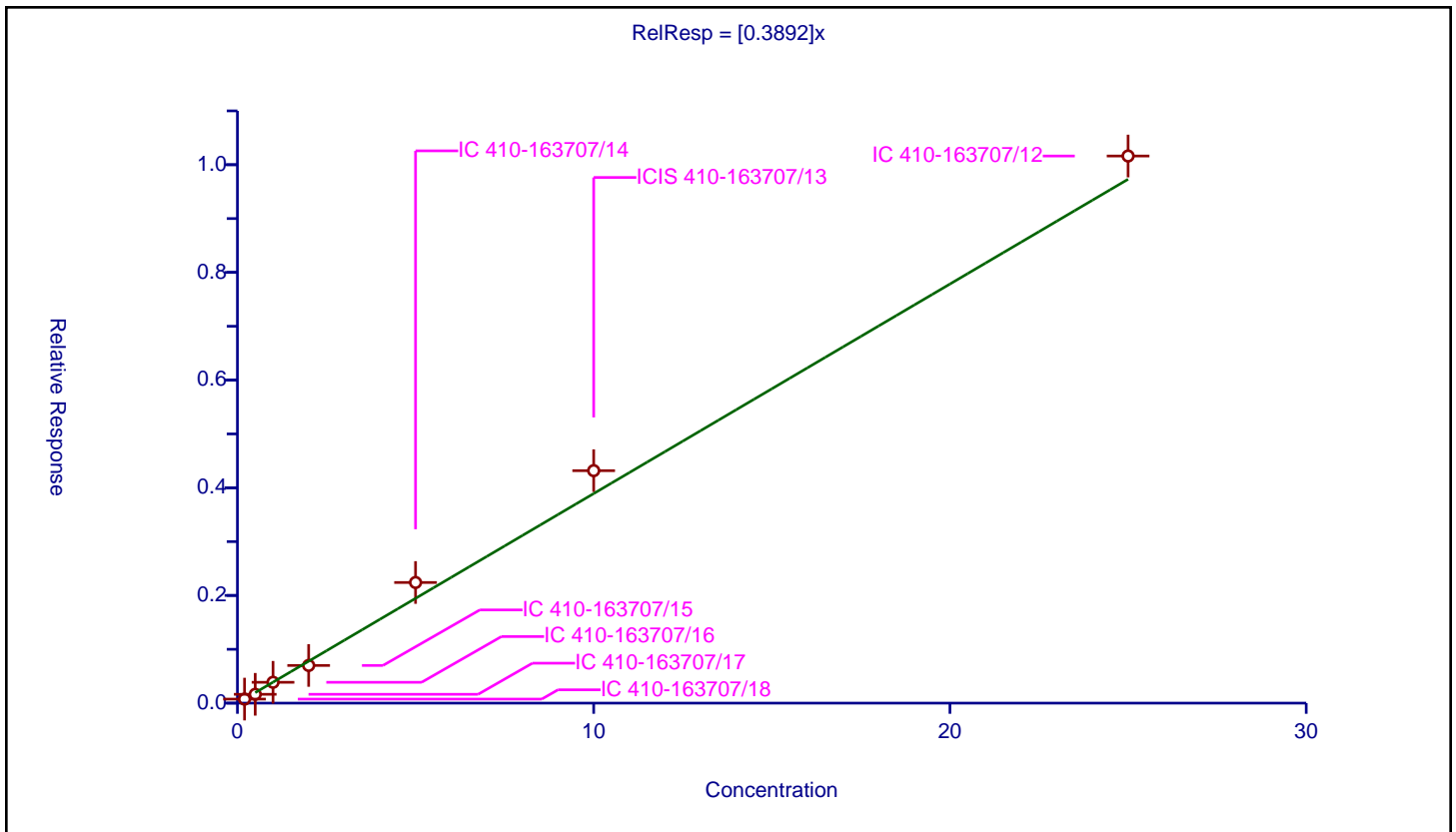
/ n-Heptane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3892

Error Coefficients	
Standard Error:	1050000
Relative Standard Error:	11.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.985

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.074706	10.0	2203428.0	0.373532	Y
2	IC 410-163707/17	0.5	0.163901	10.0	2386508.0	0.327801	Y
3	IC 410-163707/16	1.0	0.387016	10.0	2167768.0	0.387016	Y
4	IC 410-163707/15	2.0	0.699601	10.0	2141536.0	0.3498	Y
5	IC 410-163707/14	5.0	2.240426	10.0	2115642.0	0.448085	Y
6	ICIS 410-163707/13	10.0	4.317814	10.0	2122537.0	0.431781	Y
7	IC 410-163707/12	25.0	10.162139	10.0	2314551.0	0.406486	Y





Calibration

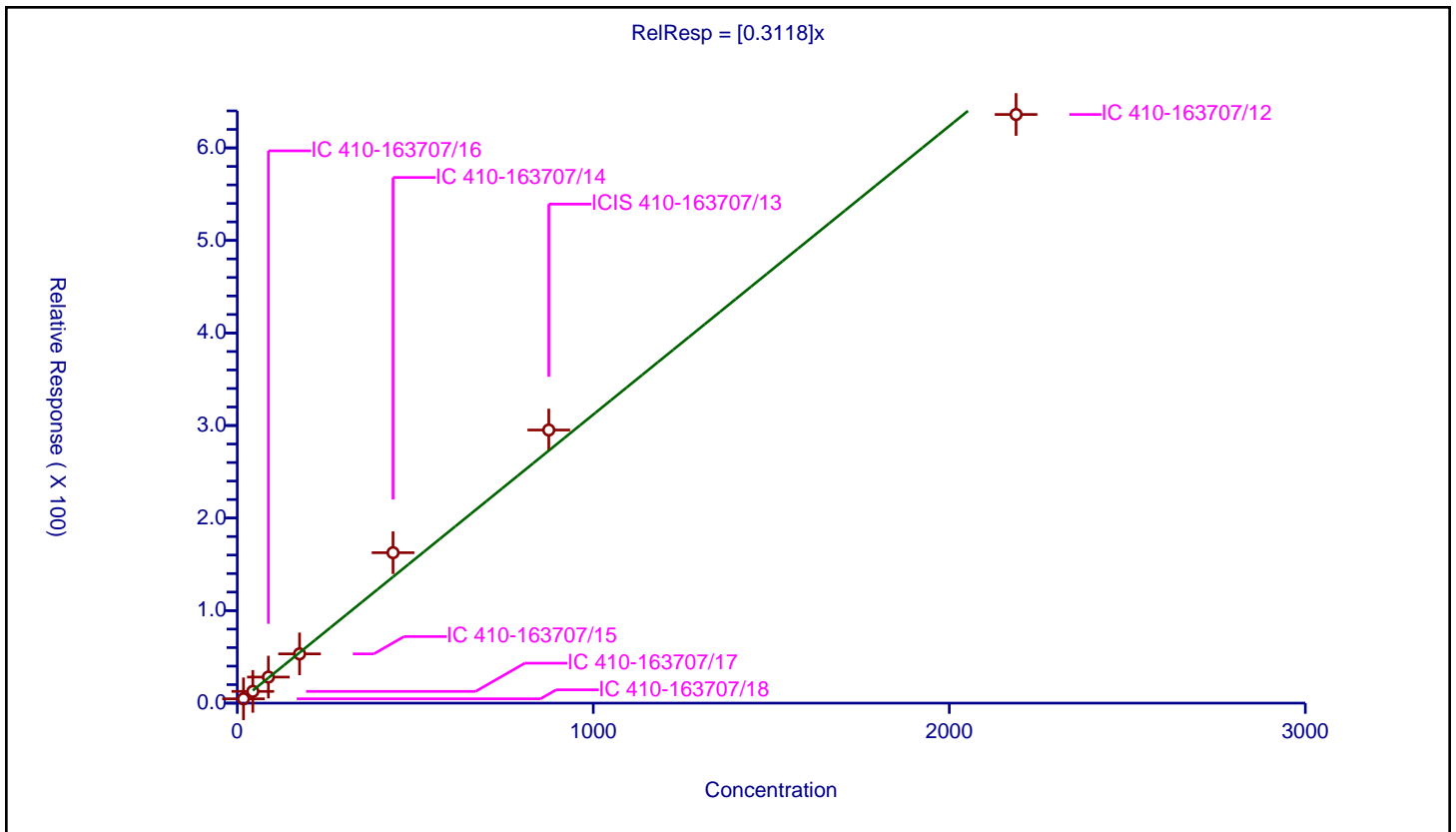
/ n-Butanol

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3118

Error Coefficients	
Standard Error:	911000
Relative Standard Error:	11.2
Correlation Coefficient:	0.990
Coefficient of Determination (Adjusted):	0.985

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	17.5	4.67582	50.0	162132.0	0.26719	Y
2	IC 410-163707/17	43.75	12.684213	50.0	162651.0	0.289925	Y
3	IC 410-163707/16	87.5	28.164924	50.0	143084.0	0.321885	Y
4	IC 410-163707/15	175.0	53.221856	50.0	162903.0	0.304125	Y
5	IC 410-163707/14	437.5	162.572183	50.0	134380.0	0.371594	Y
6	ICIS 410-163707/13	875.0	295.150873	50.0	165205.0	0.337315	Y
7	IC 410-163707/12	2187.5	636.104281	50.0	153335.0	0.290791	Y



Calibration

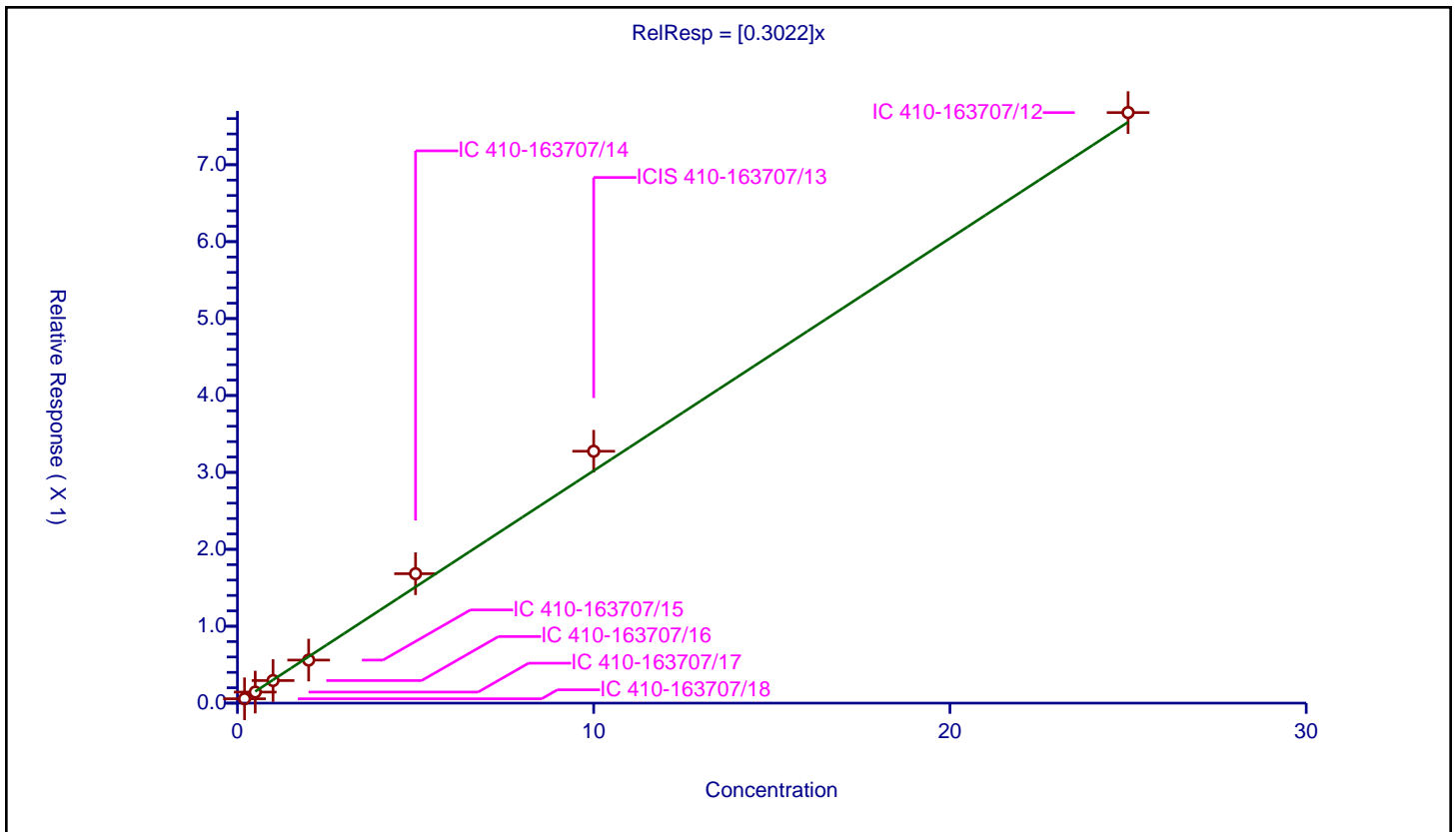
/ Trichloroethene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3022

Error Coefficients	
Standard Error:	795000
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 410-163707/18	0.2	0.056603	10.0	2203428.0	0.283014	Y
2	IC 410-163707/17	0.5	0.143846	10.0	2386508.0	0.287692	Y
3	IC 410-163707/16	1.0	0.293472	10.0	2167768.0	0.293472	Y
4	IC 410-163707/15	2.0	0.559785	10.0	2141536.0	0.279893	Y
5	IC 410-163707/14	5.0	1.682723	10.0	2115642.0	0.336545	Y
6	ICIS 410-163707/13	10.0	3.274789	10.0	2122537.0	0.327479	Y
7	IC 410-163707/12	25.0	7.677865	10.0	2314551.0	0.307115	Y



Calibration

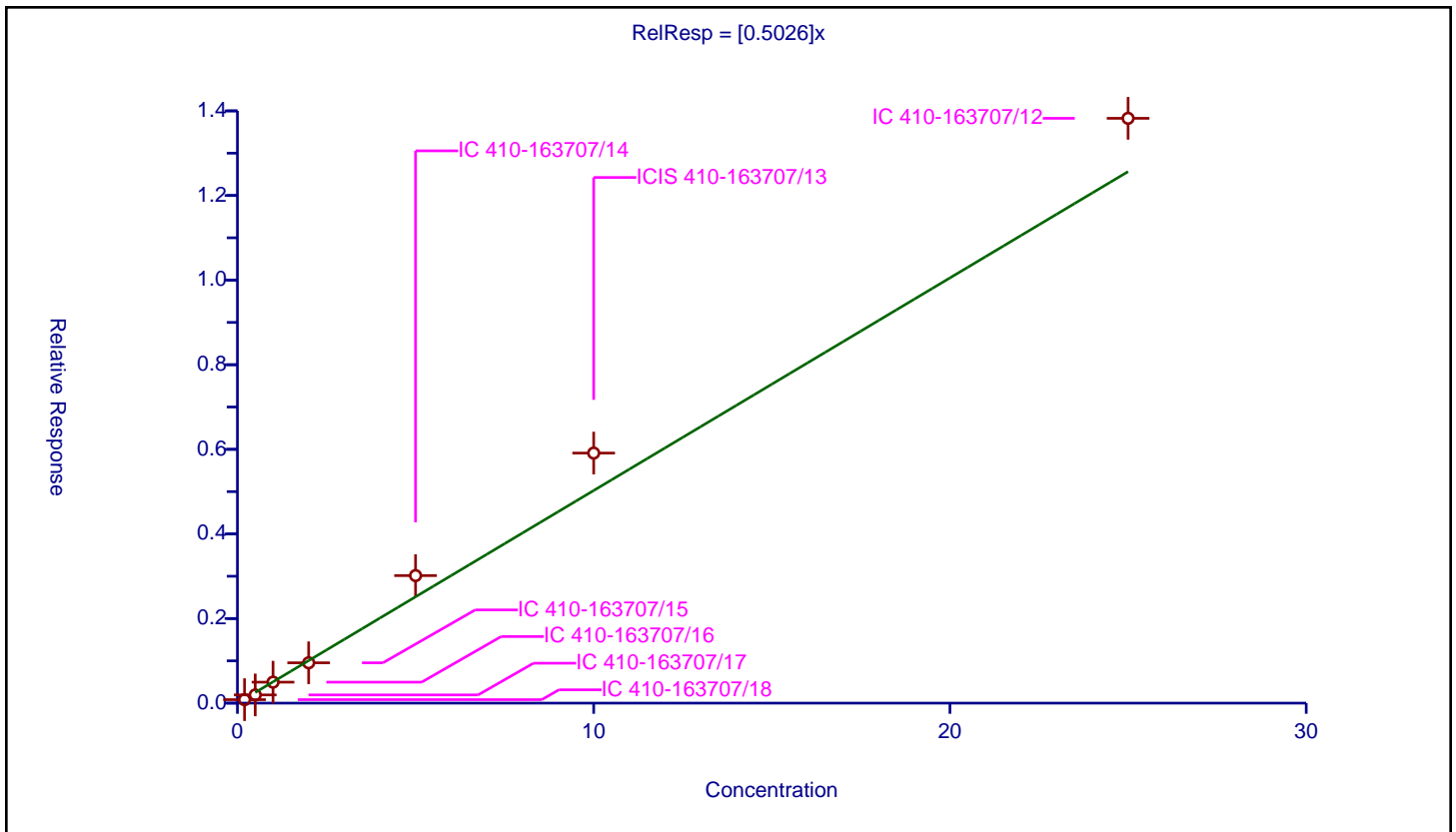
/ Methylcyclohexane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.5026

Error Coefficients	
Standard Error:	1430000
Relative Standard Error:	16.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.968

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.082081	10.0	2203428.0	0.410406	Y
2	IC 410-163707/17	0.5	0.193986	10.0	2386508.0	0.387973	Y
3	IC 410-163707/16	1.0	0.496036	10.0	2167768.0	0.496036	Y
4	IC 410-163707/15	2.0	0.953227	10.0	2141536.0	0.476614	Y
5	IC 410-163707/14	5.0	3.015052	10.0	2115642.0	0.60301	Y
6	ICIS 410-163707/13	10.0	5.911251	10.0	2122537.0	0.591125	Y
7	IC 410-163707/12	25.0	13.824098	10.0	2314551.0	0.552964	Y



**Calibration**

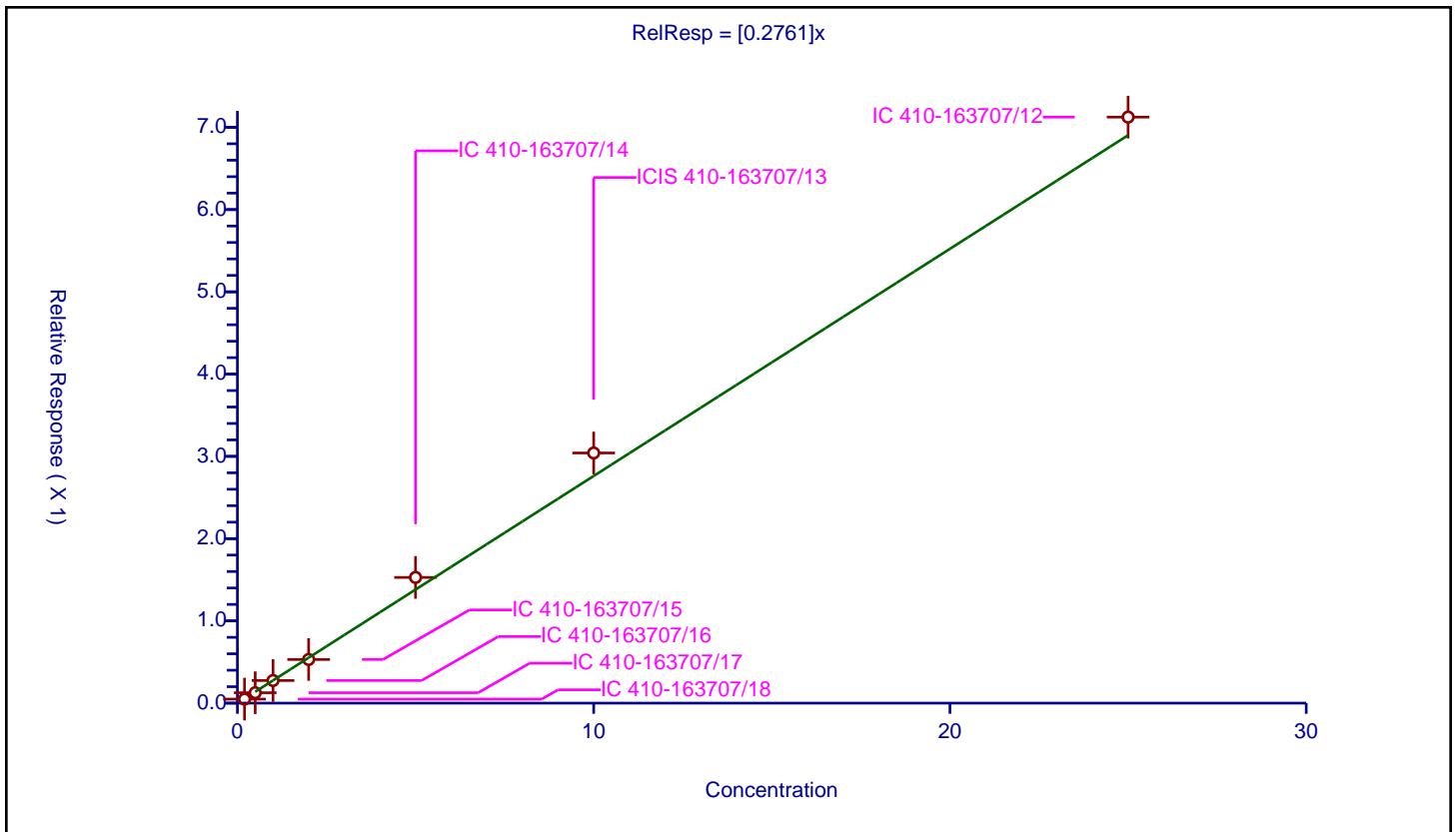
/ 1,2-Dichloropropane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2761

Error Coefficients	
Standard Error:	737000
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 410-163707/18	0.2	0.048978	10.0	2203428.0	0.244891	Y
2	IC 410-163707/17	0.5	0.126478	10.0	2386508.0	0.252955	Y
3	IC 410-163707/16	1.0	0.275136	10.0	2167768.0	0.275136	Y
4	IC 410-163707/15	2.0	0.530568	10.0	2141536.0	0.265284	Y
5	IC 410-163707/14	5.0	1.528184	10.0	2115642.0	0.305637	Y
6	ICIS 410-163707/13	10.0	3.041134	10.0	2122537.0	0.304113	Y
7	IC 410-163707/12	25.0	7.124285	10.0	2314551.0	0.284971	Y



**Calibration**

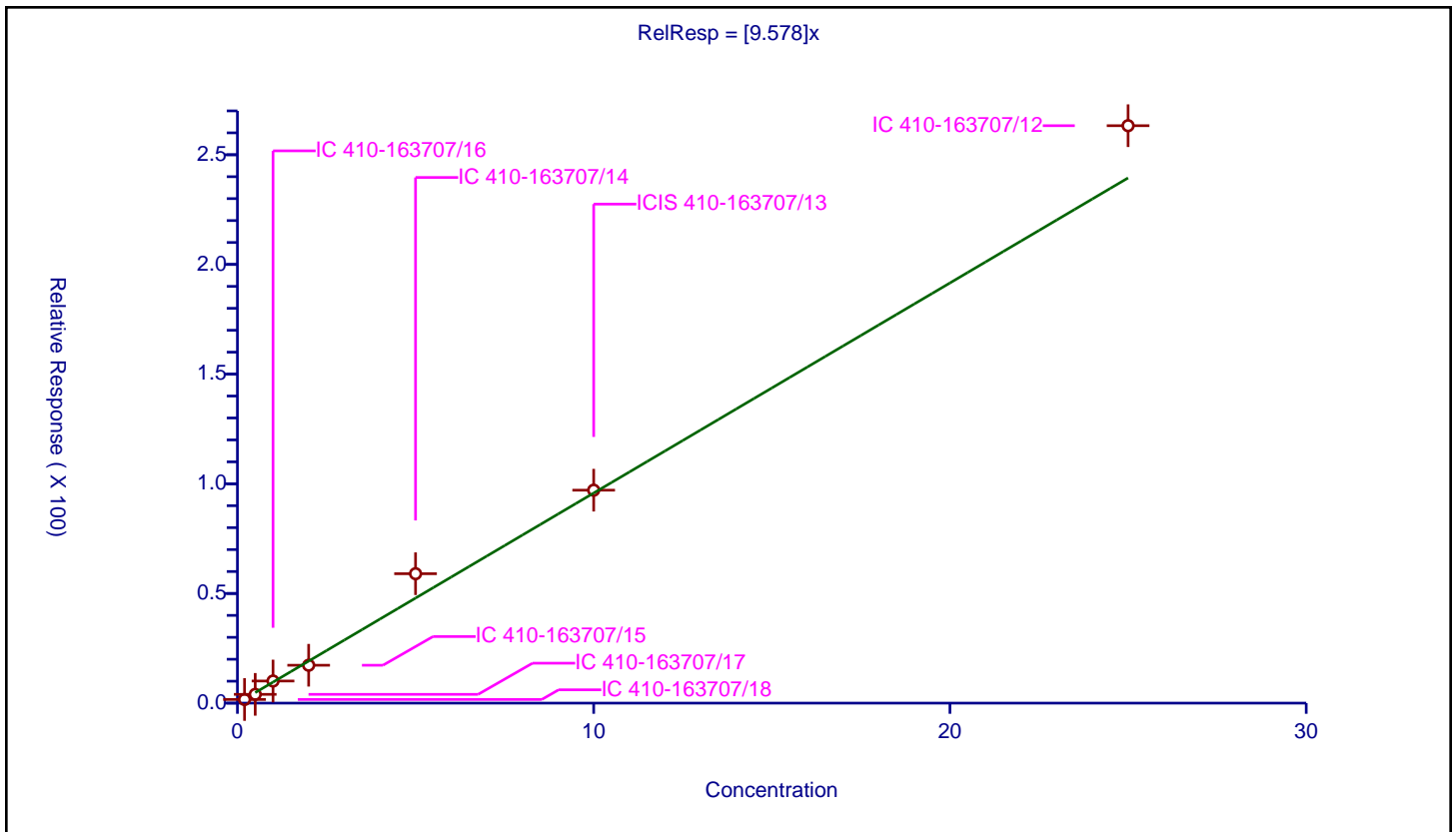
/ Methyl methacrylate

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	9.578

Error Coefficients	
Standard Error:	361000
Relative Standard Error:	14.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.976

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	1.659142	50.0	162132.0	8.29571	Y
2	IC 410-163707/17	0.5	3.995057	50.0	162651.0	7.990114	Y
3	IC 410-163707/16	1.0	10.079743	50.0	143084.0	10.079743	Y
4	IC 410-163707/15	2.0	17.276539	50.0	162903.0	8.638269	Y
5	IC 410-163707/14	5.0	59.010641	50.0	134380.0	11.802128	Y
6	ICIS 410-163707/13	10.0	97.080899	50.0	165205.0	9.70809	Y
7	IC 410-163707/12	25.0	263.253986	50.0	153335.0	10.530159	Y



Calibration

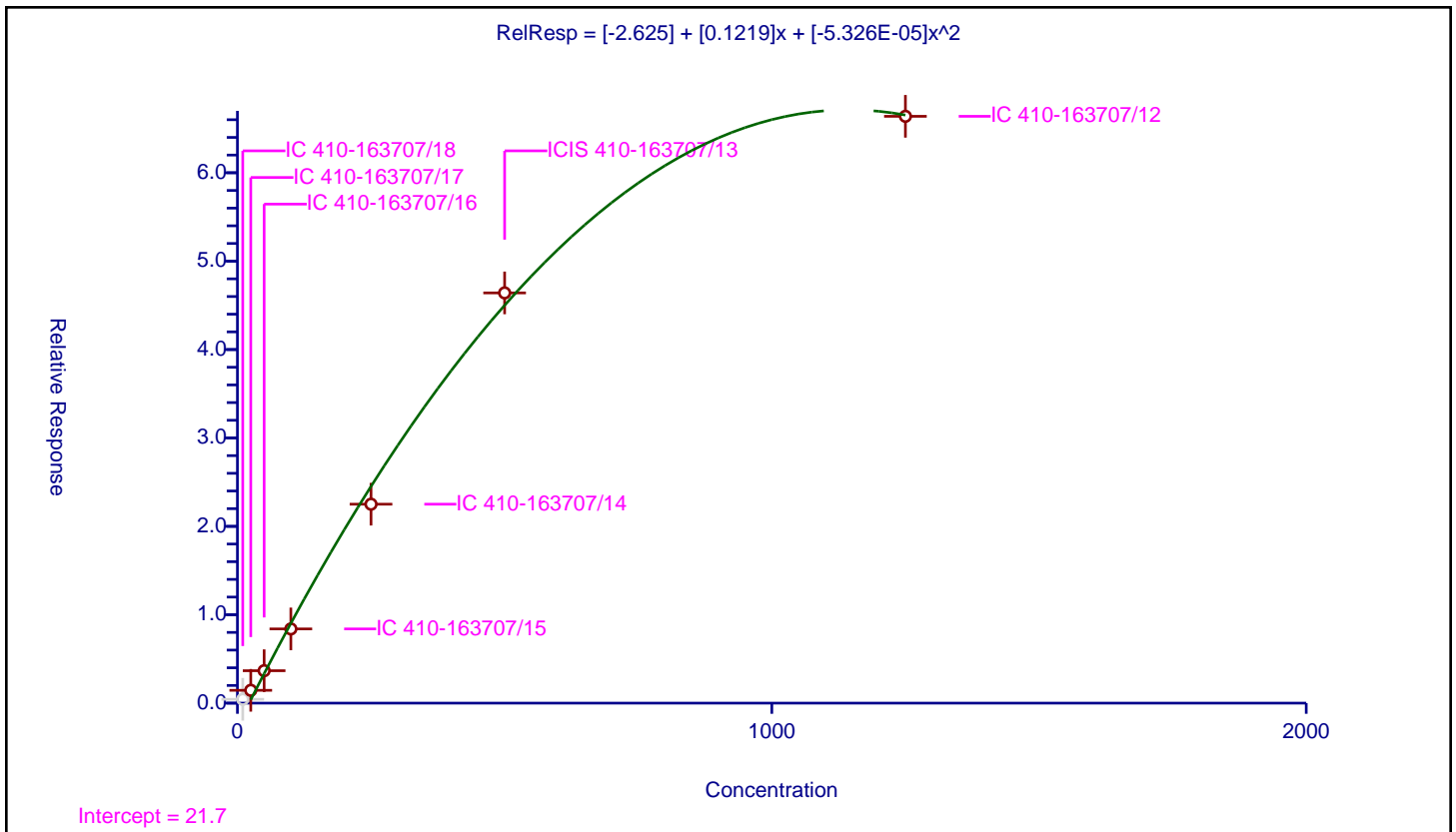
/ 1,4-Dioxane

Curve Type: Quadratic  
 Weighting: None  
 Origin: None  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	-2.625
Slope:	0.1219
Second Order:	-5.326E-05

Error Coefficients	
Standard Error:	152000
Relative Standard Error:	24.1
Correlation Coefficient:	0.987
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	10.0	0.434831	50.0	162132.0	0.043483	N
2	IC 410-163707/17	25.0	1.450959	50.0	162651.0	0.058038	Y
3	IC 410-163707/16	50.0	3.667776	50.0	143084.0	0.073356	Y
4	IC 410-163707/15	100.0	8.397022	50.0	162903.0	0.08397	Y
5	IC 410-163707/14	250.0	22.505209	50.0	134380.0	0.090021	Y
6	ICIS 410-163707/13	500.0	46.407494	50.0	165205.0	0.092815	Y
7	IC 410-163707/12	1250.0	66.38667	50.0	153335.0	0.053109	Y



Calibration

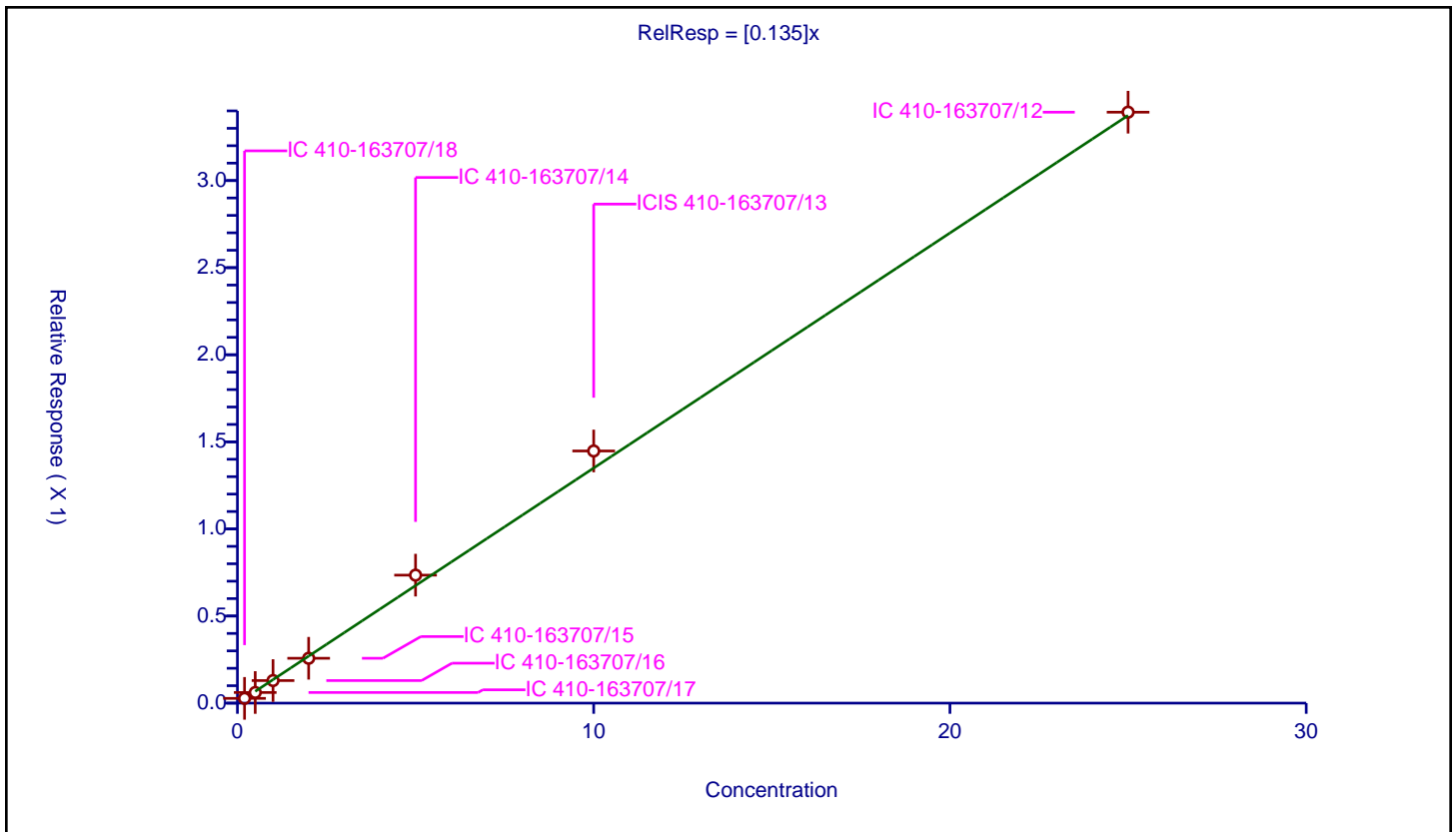
/ Dibromomethane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.135

Error Coefficients	
Standard Error:	351000
Relative Standard Error:	6.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.027339	10.0	2203428.0	0.136696	Y
2	IC 410-163707/17	0.5	0.061089	10.0	2386508.0	0.122179	Y
3	IC 410-163707/16	1.0	0.129626	10.0	2167768.0	0.129626	Y
4	IC 410-163707/15	2.0	0.257507	10.0	2141536.0	0.128753	Y
5	IC 410-163707/14	5.0	0.734812	10.0	2115642.0	0.146962	Y
6	ICIS 410-163707/13	10.0	1.447522	10.0	2122537.0	0.144752	Y
7	IC 410-163707/12	25.0	3.392537	10.0	2314551.0	0.135701	Y



Calibration

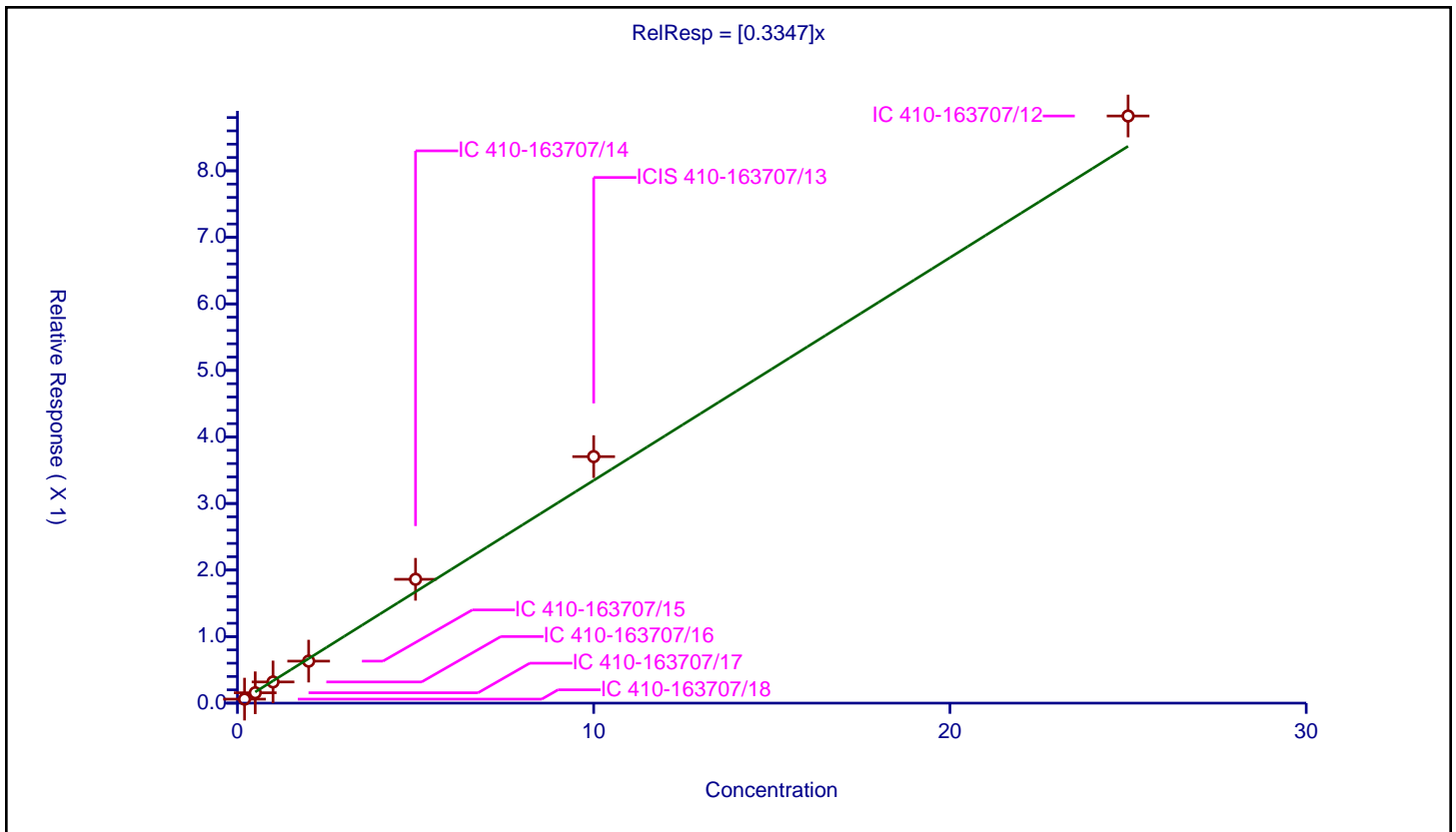
/ Dichlorobromomethane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3347

Error Coefficients	
Standard Error:	910000
Relative Standard Error:	8.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.060324	10.0	2203428.0	0.301621	Y
2	IC 410-163707/17	0.5	0.156031	10.0	2386508.0	0.312063	Y
3	IC 410-163707/16	1.0	0.318258	10.0	2167768.0	0.318258	Y
4	IC 410-163707/15	2.0	0.631239	10.0	2141536.0	0.315619	Y
5	IC 410-163707/14	5.0	1.861	10.0	2115642.0	0.3722	Y
6	ICIS 410-163707/13	10.0	3.704628	10.0	2122537.0	0.370463	Y
7	IC 410-163707/12	25.0	8.823223	10.0	2314551.0	0.352929	Y





**Calibration**

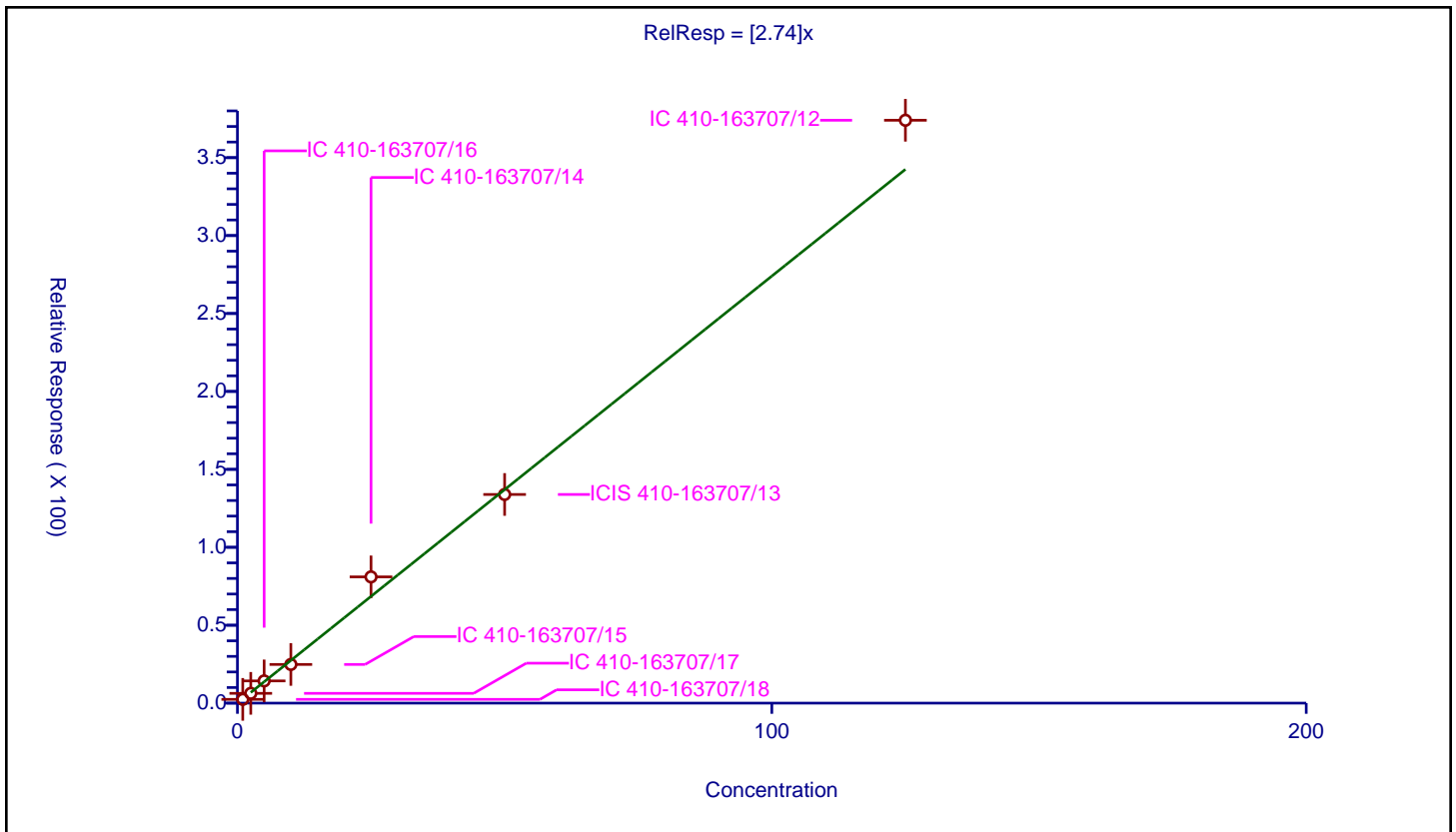
**/ 2-Nitropropane**

**Curve Type:** Average  
**Weighting:** Conc\_Sq  
**Origin:** Force  
**Dependency:** Response  
**Calib Mode:** ISTD  
**Response Base:** AREA  
**RF Rounding:** 0

Curve Coefficients	
Intercept:	0
Slope:	2.74

Error Coefficients	
Standard Error:	511000
Relative Standard Error:	11.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.985

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	1.0	2.422409	50.0	162132.0	2.422409	Y
2	IC 410-163707/17	2.5	6.281548	50.0	162651.0	2.512619	Y
3	IC 410-163707/16	5.0	14.264698	50.0	143084.0	2.85294	Y
4	IC 410-163707/15	10.0	24.822133	50.0	162903.0	2.482213	Y
5	IC 410-163707/14	25.0	81.00573	50.0	134380.0	3.240229	Y
6	ICIS 410-163707/13	50.0	133.878515	50.0	165205.0	2.67757	Y
7	IC 410-163707/12	125.0	373.986044	50.0	153335.0	2.991888	Y



Calibration

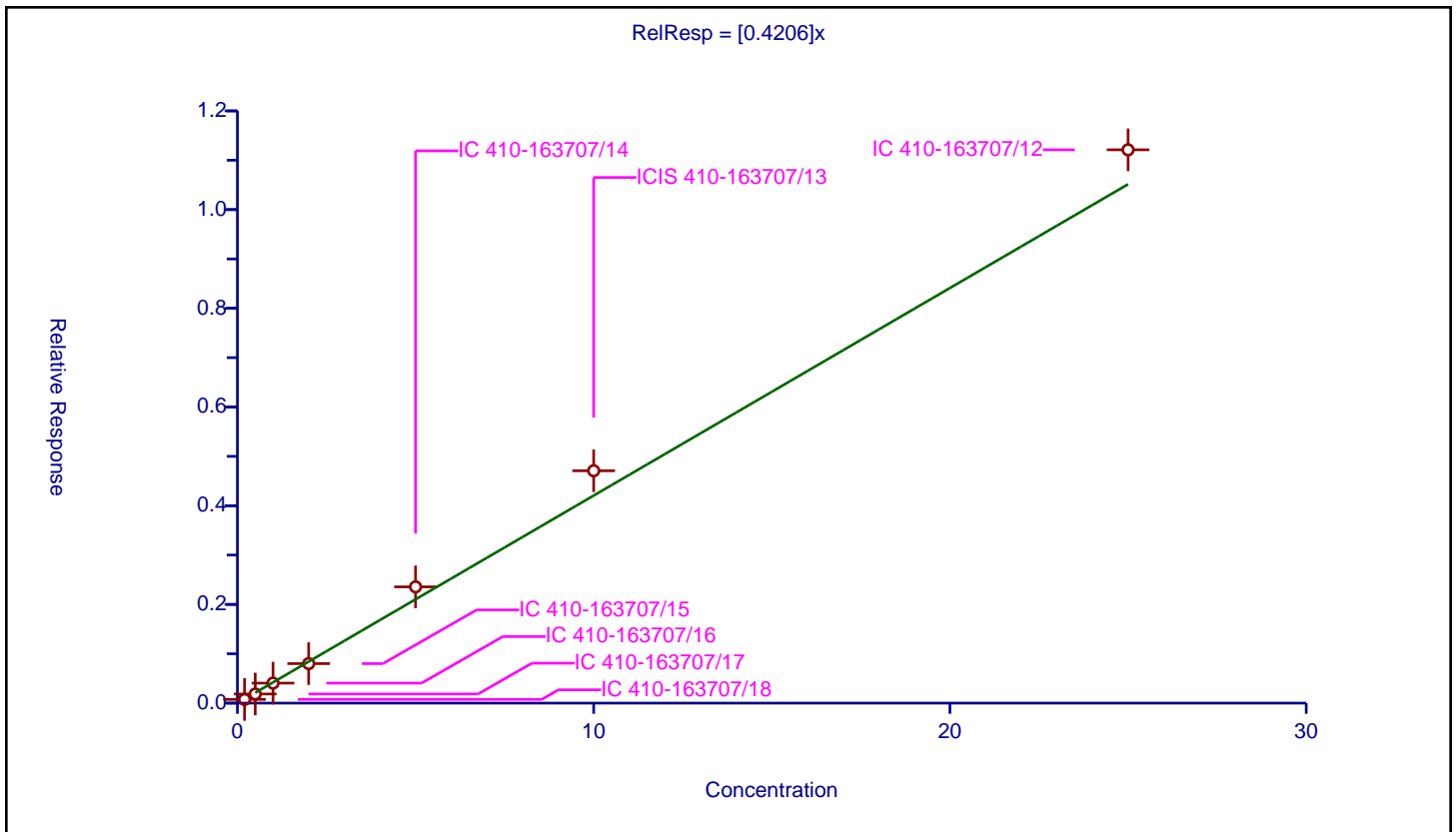
/ cis-1,3-Dichloropropene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4206

Error Coefficients	
Standard Error:	1160000
Relative Standard Error:	10.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.987

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.075482	10.0	2203428.0	0.377412	Y
2	IC 410-163707/17	0.5	0.185019	10.0	2386508.0	0.370039	Y
3	IC 410-163707/16	1.0	0.405708	10.0	2167768.0	0.405708	Y
4	IC 410-163707/15	2.0	0.800561	10.0	2141536.0	0.40028	Y
5	IC 410-163707/14	5.0	2.356022	10.0	2115642.0	0.471204	Y
6	ICIS 410-163707/13	10.0	4.708257	10.0	2122537.0	0.470826	Y
7	IC 410-163707/12	25.0	11.211406	10.0	2314551.0	0.448456	Y



Calibration

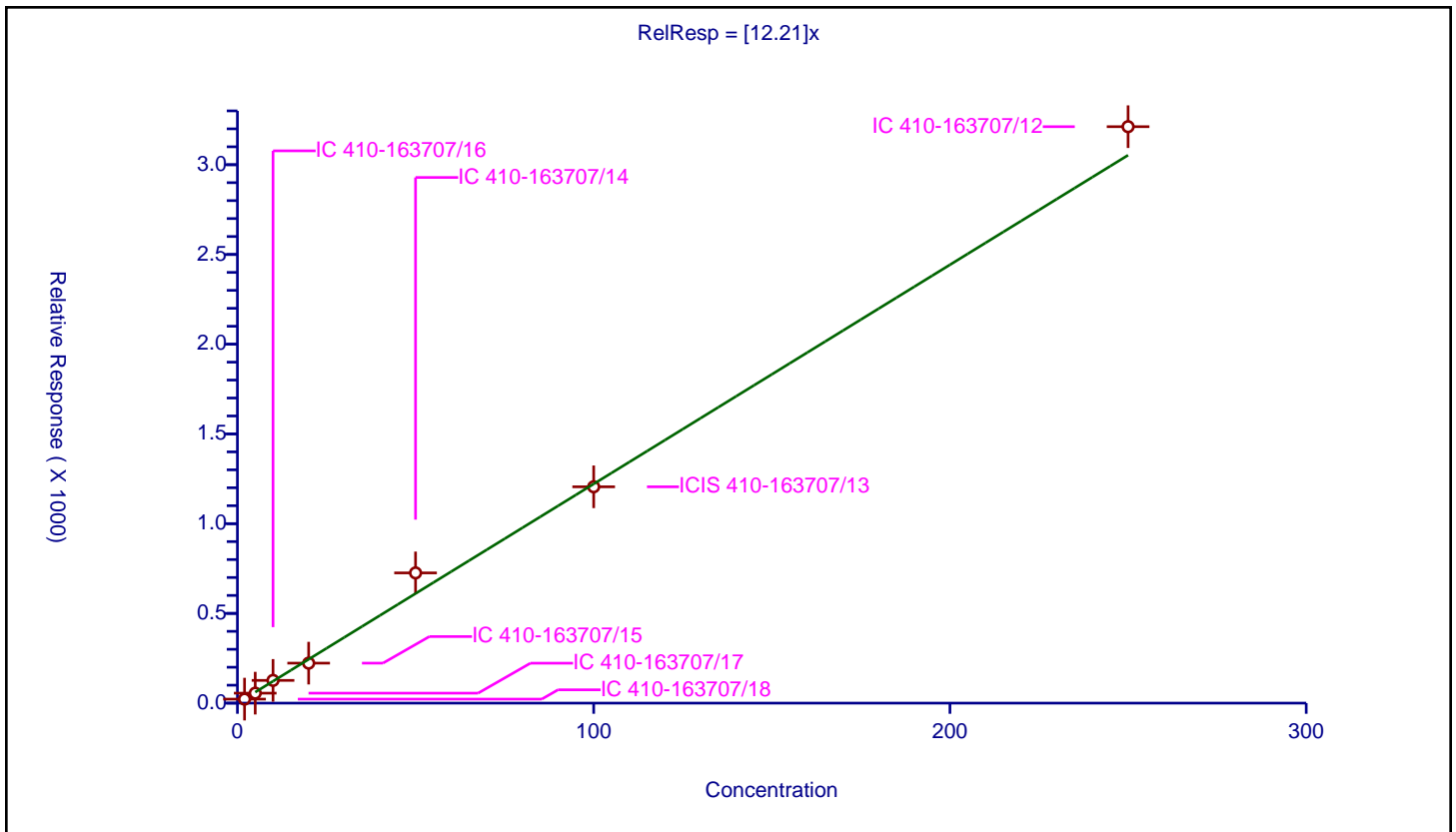
/ 4-Methyl-2-pentanone (MIBK)

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	12.21

Error Coefficients	
Standard Error:	4420000
Relative Standard Error:	10.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.987

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	2.0	22.343214	50.0	162132.0	11.171607	Y
2	IC 410-163707/17	5.0	55.52379	50.0	162651.0	11.104758	Y
3	IC 410-163707/16	10.0	126.599061	50.0	143084.0	12.659906	Y
4	IC 410-163707/15	20.0	222.773061	50.0	162903.0	11.138653	Y
5	IC 410-163707/14	50.0	725.584536	50.0	134380.0	14.511691	Y
6	ICIS 410-163707/13	100.0	1205.45837	50.0	165205.0	12.054584	Y
7	IC 410-163707/12	250.0	3211.922588	50.0	153335.0	12.84769	Y



**Calibration**

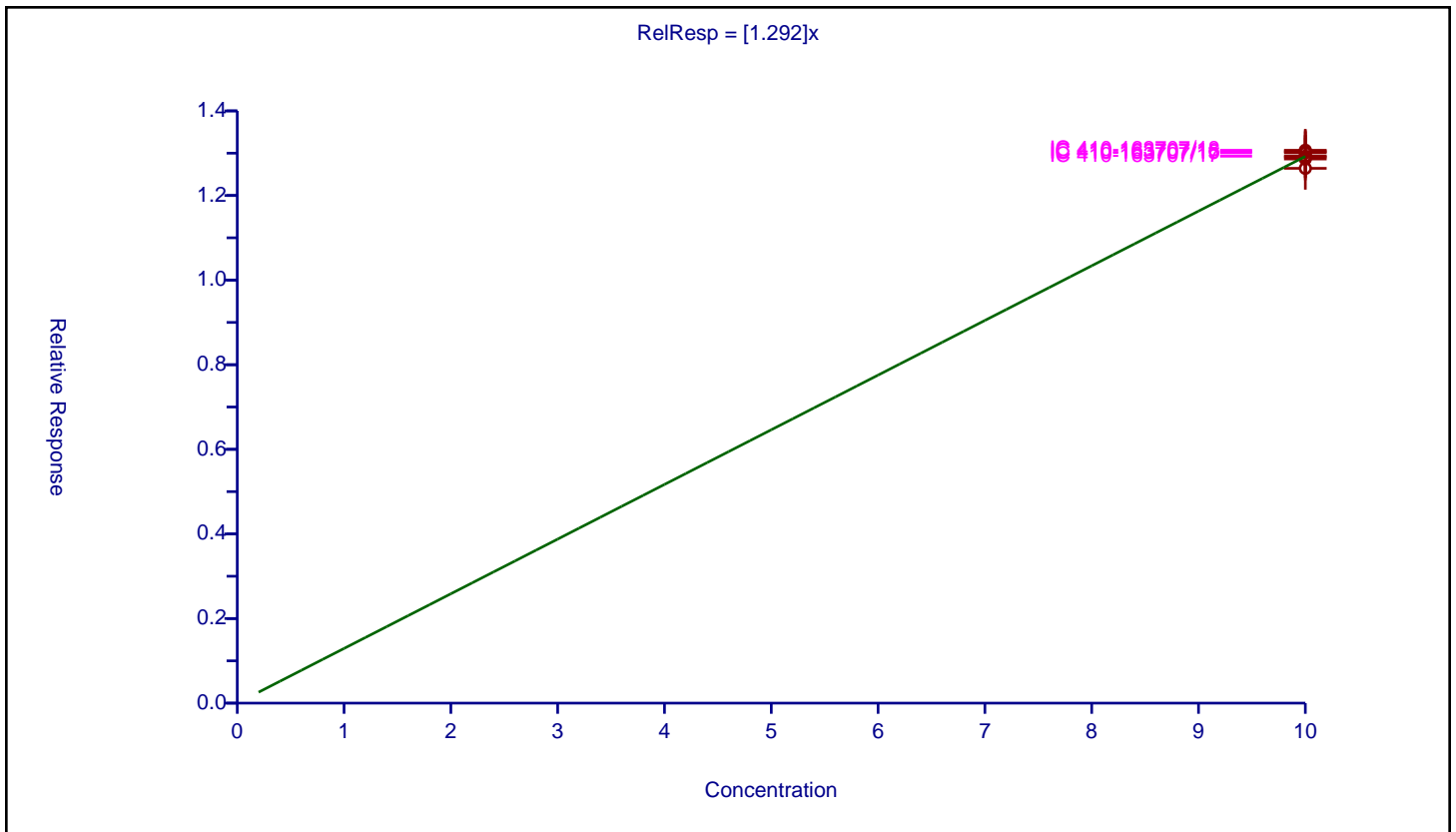
/ Toluene-d8 (Surr)

**Curve Type:** Average  
**Weighting:** Conc\_Sq  
**Origin:** Force  
**Dependency:** Response  
**Calib Mode:** ISTD  
**Response Base:** AREA  
**RF Rounding:** 0

Curve Coefficients	
Intercept:	0
Slope:	1.292

Error Coefficients	
Standard Error:	2390000
Relative Standard Error:	1.1
Correlation Coefficient:	0.00000000000000000000
Coefficient of Determination (Adjusted):	0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/12	10.0	12.642123	10.0	1830649.0	1.264212	Y
2	ICIS 410-163707/13	10.0	12.91349	10.0	1640634.0	1.291349	Y
3	IC 410-163707/14	10.0	12.862715	10.0	1642811.0	1.286272	Y
4	IC 410-163707/15	10.0	13.007568	10.0	1654646.0	1.300757	Y
5	IC 410-163707/16	10.0	13.038338	10.0	1659651.0	1.303834	Y
6	IC 410-163707/17	10.0	12.928443	10.0	1845718.0	1.292844	Y
7	IC 410-163707/18	10.0	13.068865	10.0	1679409.0	1.306887	Y



Calibration

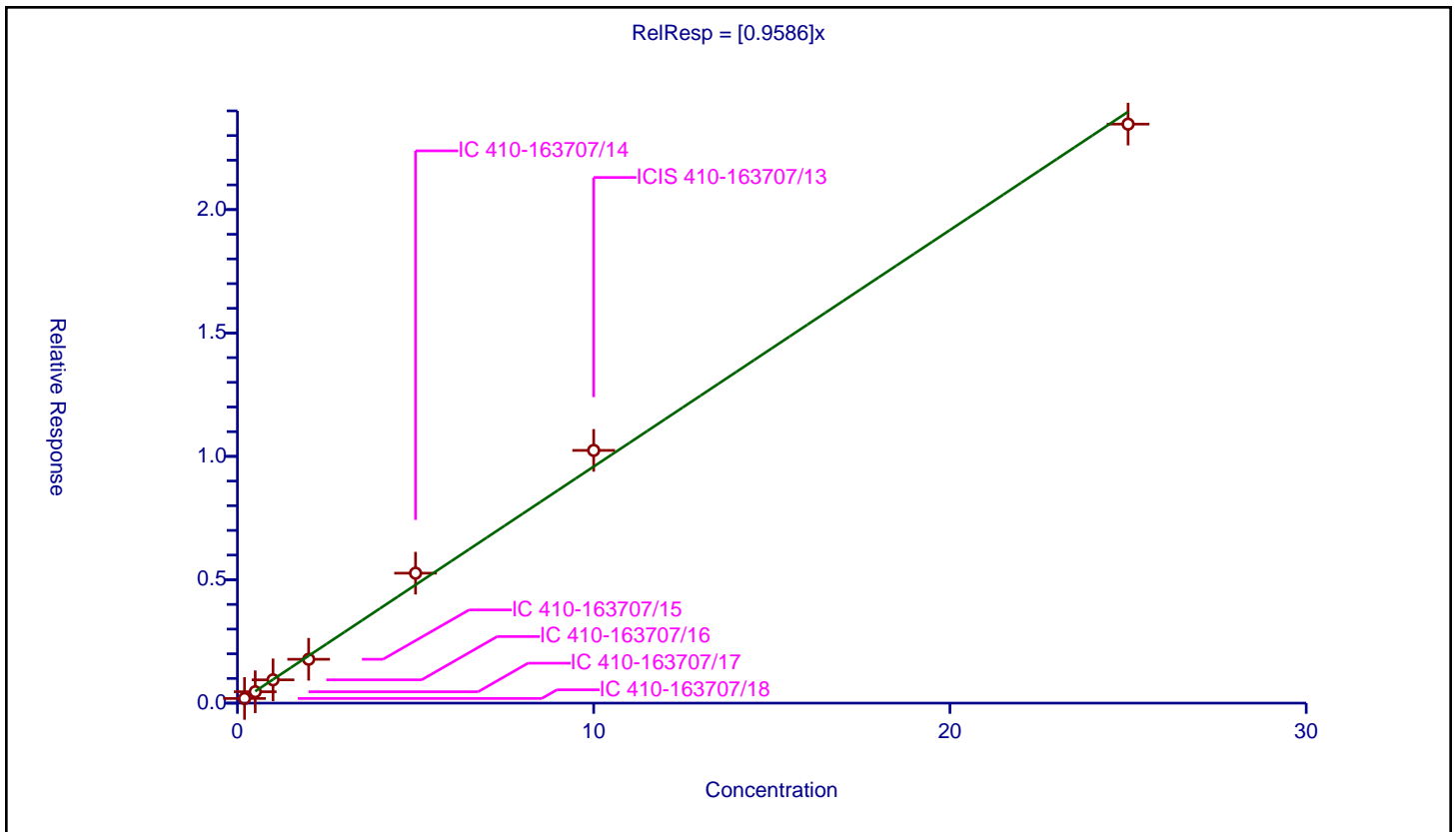
/ Toluene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.9586

Error Coefficients	
Standard Error:	1920000
Relative Standard Error:	6.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.18781	10.0	1679409.0	0.939051	Y
2	IC 410-163707/17	0.5	0.461463	10.0	1845718.0	0.922925	Y
3	IC 410-163707/16	1.0	0.943469	10.0	1659651.0	0.943469	Y
4	IC 410-163707/15	2.0	1.776851	10.0	1654646.0	0.888426	Y
5	IC 410-163707/14	5.0	5.266631	10.0	1642811.0	1.053326	Y
6	ICIS 410-163707/13	10.0	10.24251	10.0	1640634.0	1.024251	Y
7	IC 410-163707/12	25.0	23.464083	10.0	1830649.0	0.938563	Y



**Calibration**

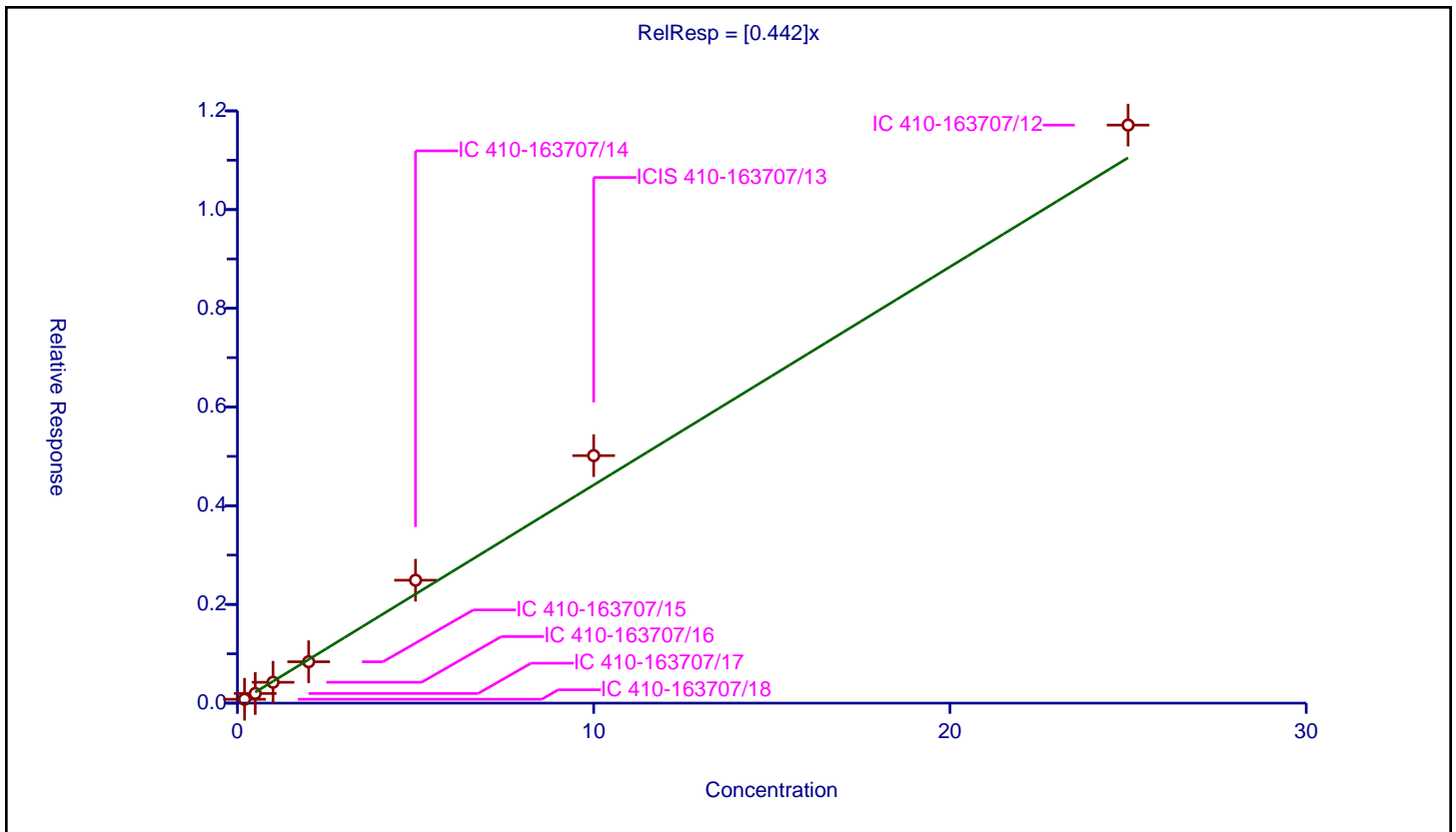
/ trans-1,3-Dichloropropene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.442

Error Coefficients	
Standard Error:	955000
Relative Standard Error:	10.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.986

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.078694	10.0	1679409.0	0.393472	Y
2	IC 410-163707/17	0.5	0.195019	10.0	1845718.0	0.390038	Y
3	IC 410-163707/16	1.0	0.423077	10.0	1659651.0	0.423077	Y
4	IC 410-163707/15	2.0	0.838506	10.0	1654646.0	0.419253	Y
5	IC 410-163707/14	5.0	2.490962	10.0	1642811.0	0.498192	Y
6	ICIS 410-163707/13	10.0	5.015287	10.0	1640634.0	0.501529	Y
7	IC 410-163707/12	25.0	11.712595	10.0	1830649.0	0.468504	Y



Calibration

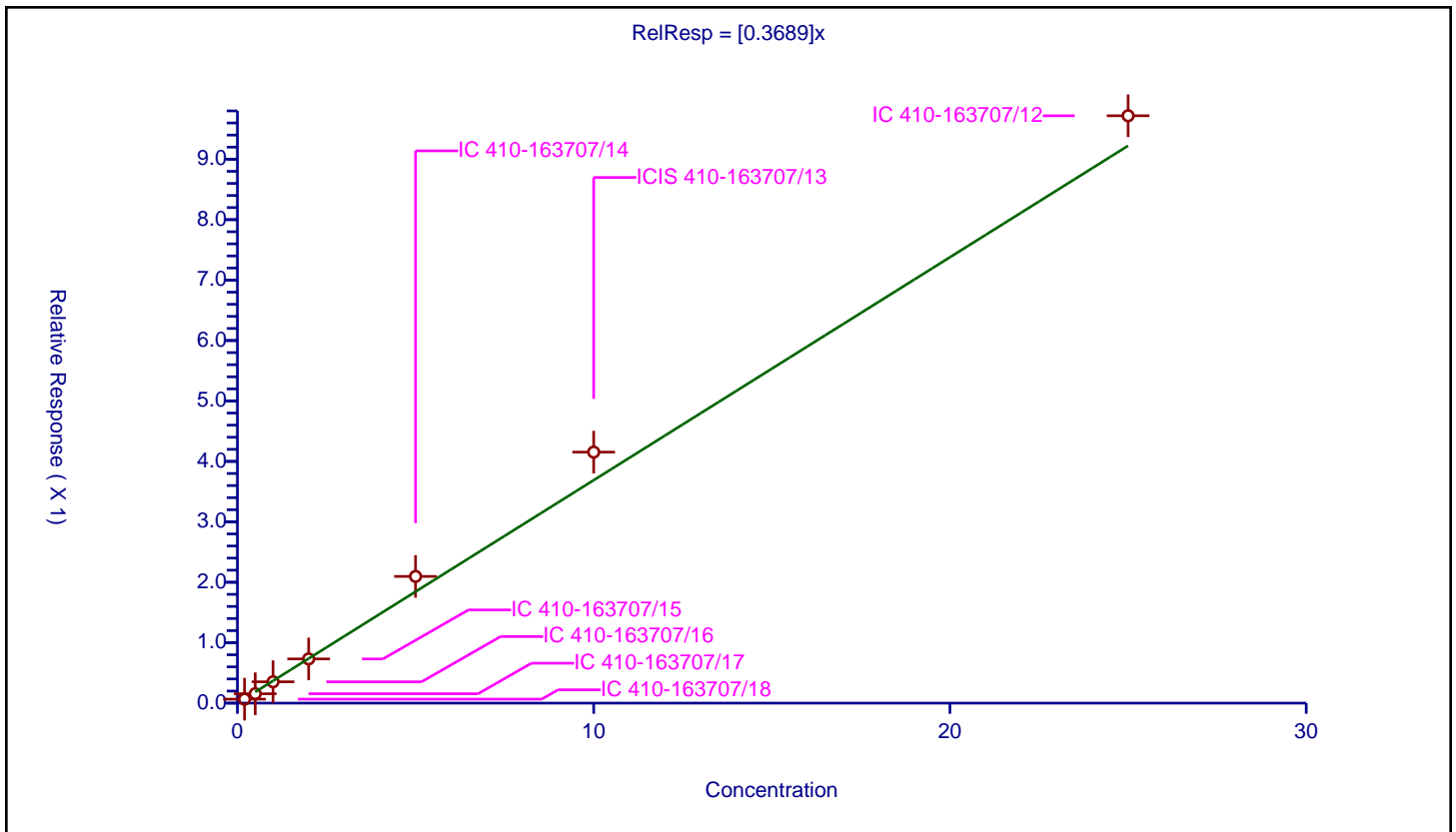
/ Ethyl methacrylate

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3689

Error Coefficients	
Standard Error:	792000
Relative Standard Error:	11.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.985

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.200009	0.065851	10.0	1679409.0	0.329238	Y
2	IC 410-163707/17	0.500022	0.155414	10.0	1845718.0	0.310814	Y
3	IC 410-163707/16	1.000044	0.353189	10.0	1659651.0	0.353173	Y
4	IC 410-163707/15	2.000088	0.731516	10.0	1654646.0	0.365742	Y
5	IC 410-163707/14	5.000219	2.096644	10.0	1642811.0	0.41931	Y
6	ICIS 410-163707/13	10.000438	4.153589	10.0	1640634.0	0.415341	Y
7	IC 410-163707/12	25.001094	9.719471	10.0	1830649.0	0.388762	Y



Calibration

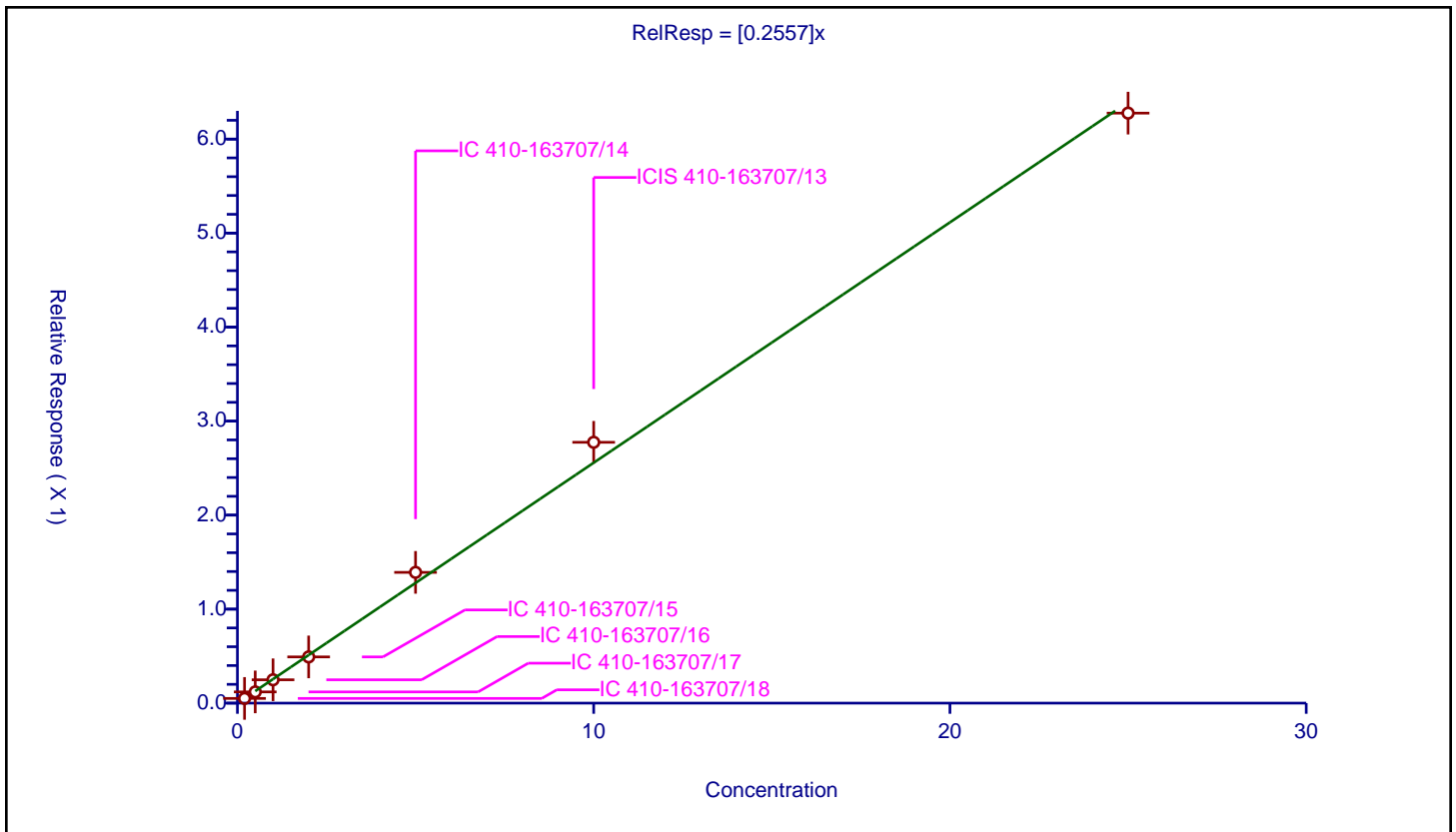
/ 1,1,2-Trichloroethane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2557

Error Coefficients	
Standard Error:	515000
Relative Standard Error:	6.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.049988	10.0	1679409.0	0.249939	Y
2	IC 410-163707/17	0.5	0.119493	10.0	1845718.0	0.238986	Y
3	IC 410-163707/16	1.0	0.248462	10.0	1659651.0	0.248462	Y
4	IC 410-163707/15	2.0	0.491604	10.0	1654646.0	0.245802	Y
5	IC 410-163707/14	5.0	1.390896	10.0	1642811.0	0.278179	Y
6	ICIS 410-163707/13	10.0	2.774714	10.0	1640634.0	0.277471	Y
7	IC 410-163707/12	25.0	6.27625	10.0	1830649.0	0.25105	Y





**Calibration**

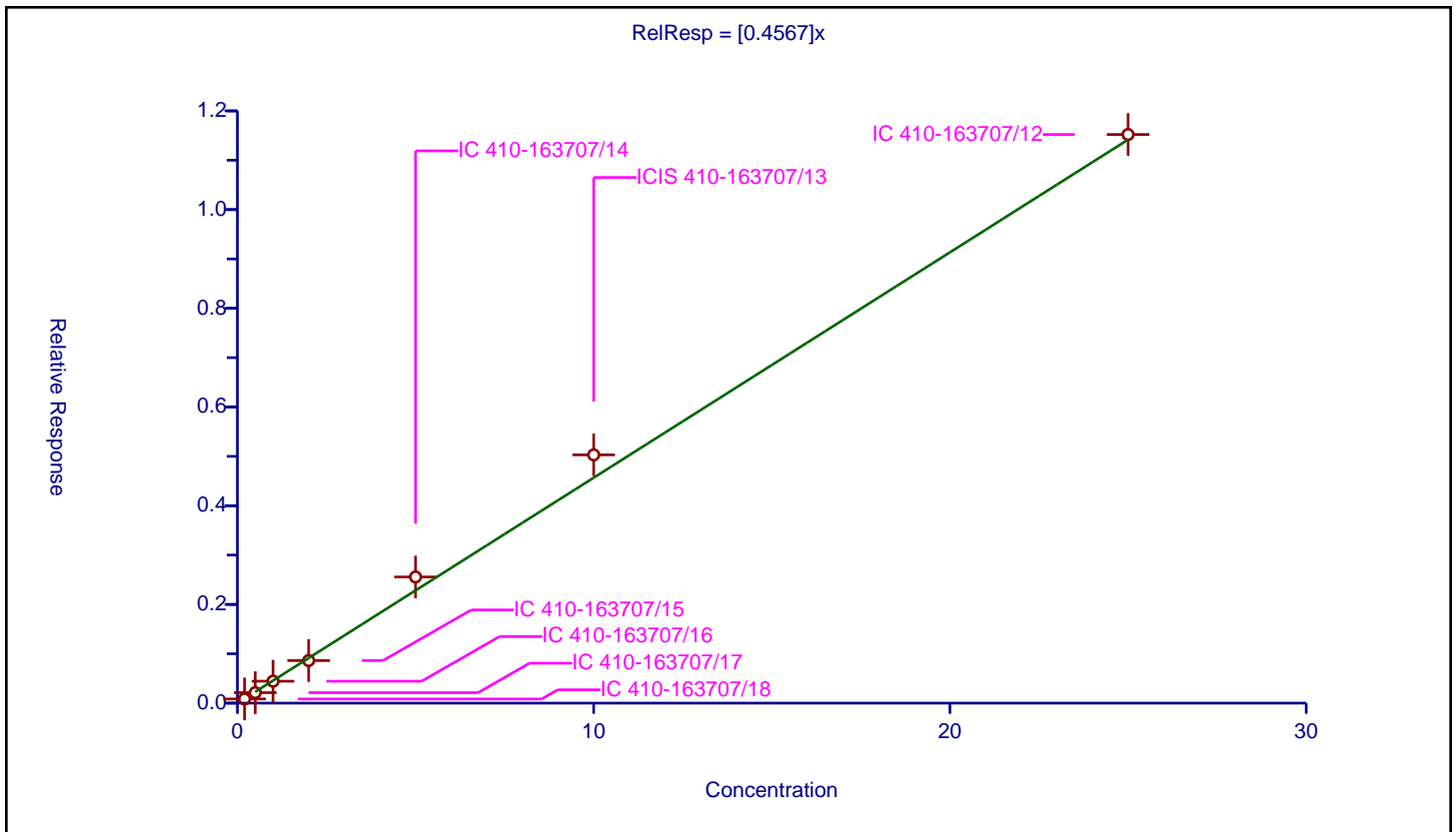
**/ Tetrachloroethene**

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4567

Error Coefficients	
Standard Error:	943000
Relative Standard Error:	8.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.084321	10.0	1679409.0	0.421607	Y
2	IC 410-163707/17	0.5	0.212161	10.0	1845718.0	0.424323	Y
3	IC 410-163707/16	1.0	0.444371	10.0	1659651.0	0.444371	Y
4	IC 410-163707/15	2.0	0.862898	10.0	1654646.0	0.431449	Y
5	IC 410-163707/14	5.0	2.556289	10.0	1642811.0	0.511258	Y
6	ICIS 410-163707/13	10.0	5.03033	10.0	1640634.0	0.503033	Y
7	IC 410-163707/12	25.0	11.521411	10.0	1830649.0	0.460856	Y



Calibration

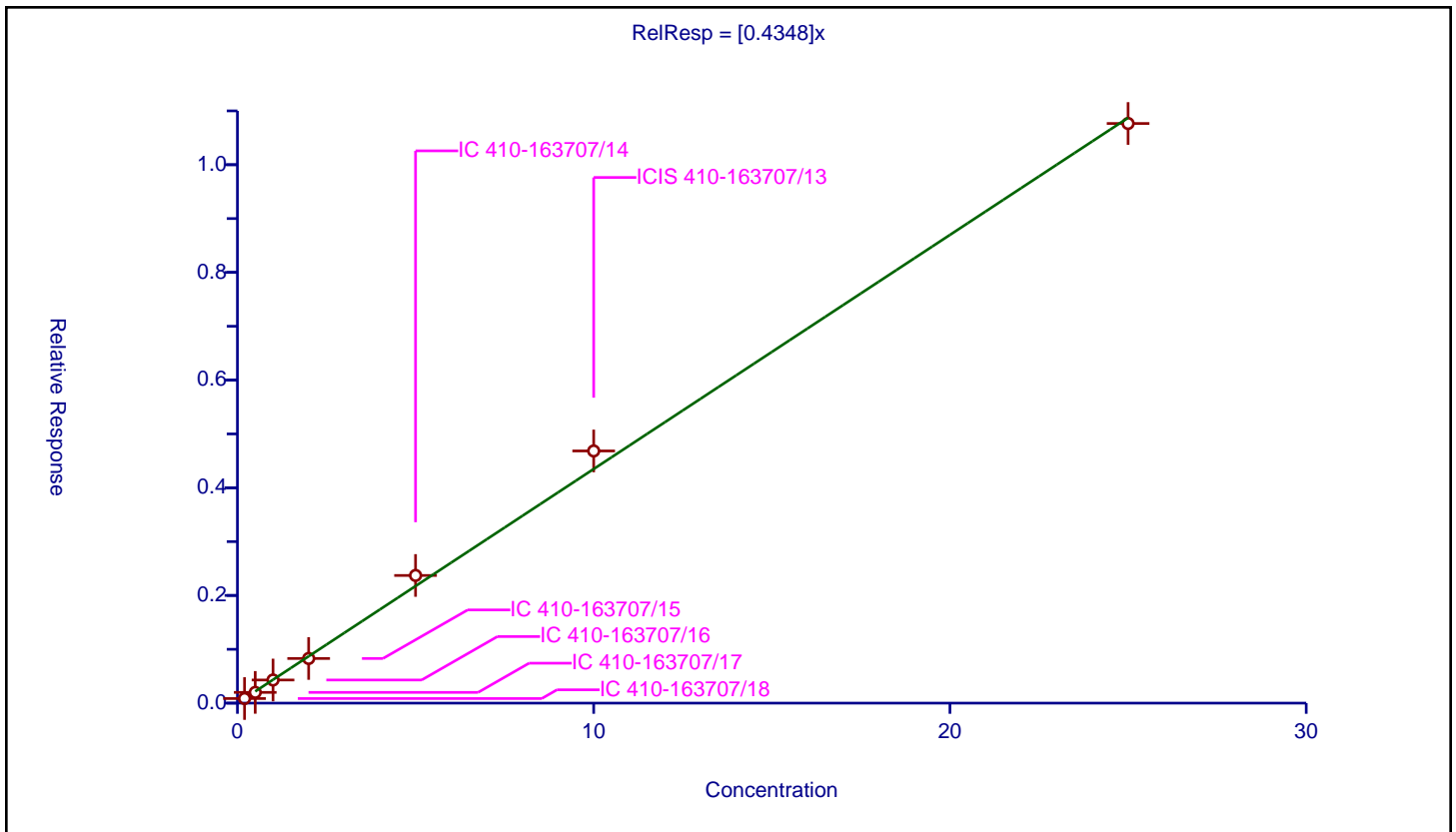
/ 1,3-Dichloropropane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4348

Error Coefficients	
Standard Error:	881000
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 410-163707/18	0.2	0.085423	10.0	1679409.0	0.427115	Y
2	IC 410-163707/17	0.5	0.199543	10.0	1845718.0	0.399086	Y
3	IC 410-163707/16	1.0	0.429807	10.0	1659651.0	0.429807	Y
4	IC 410-163707/15	2.0	0.829283	10.0	1654646.0	0.414642	Y
5	IC 410-163707/14	5.0	2.371301	10.0	1642811.0	0.47426	Y
6	ICIS 410-163707/13	10.0	4.683836	10.0	1640634.0	0.468384	Y
7	IC 410-163707/12	25.0	10.766204	10.0	1830649.0	0.430648	Y



Calibration

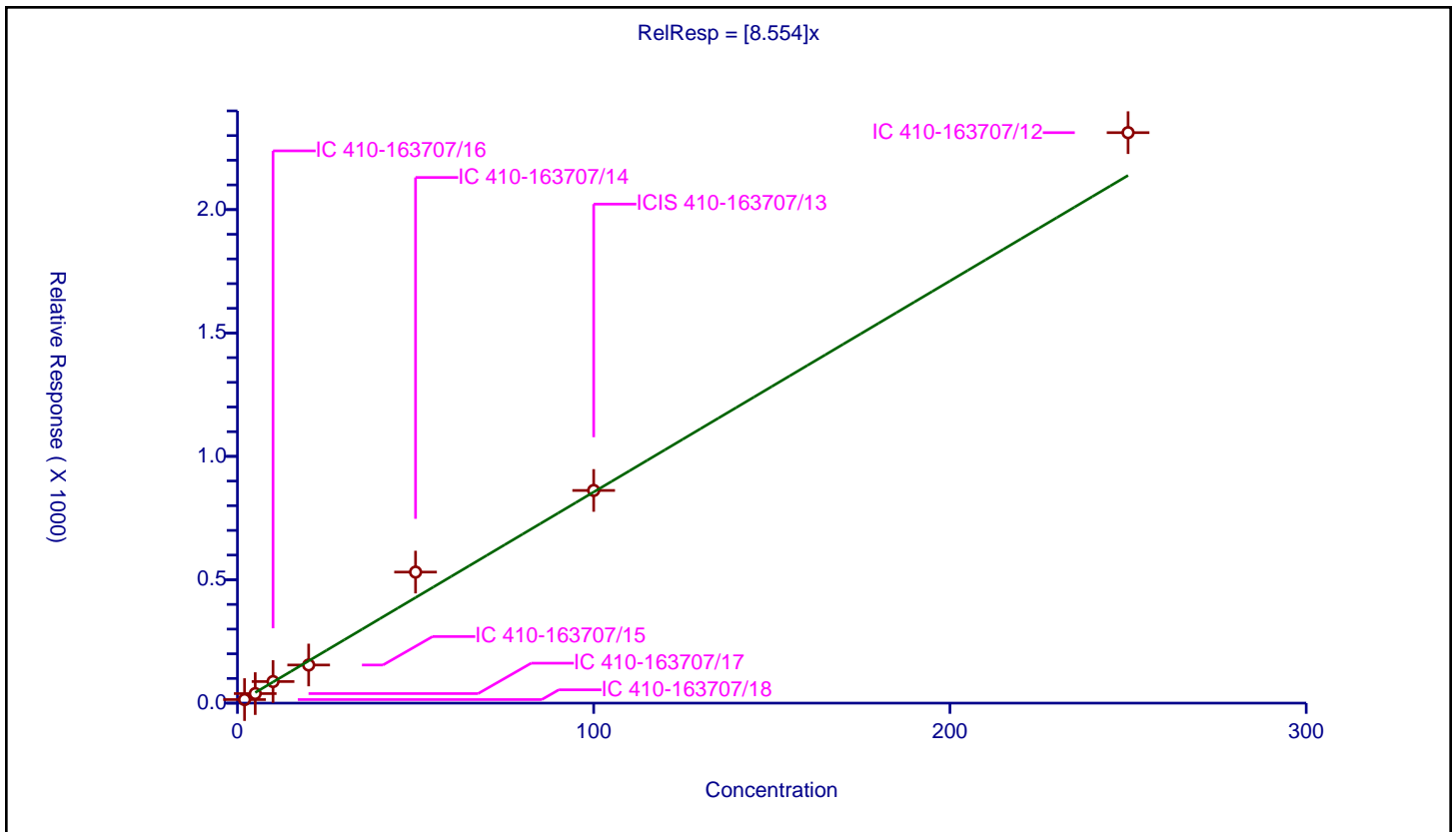
/ 2-Hexanone

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	8.554

Error Coefficients	
Standard Error:	3180000
Relative Standard Error:	13.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.978

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	2.0	14.365455	50.0	162132.0	7.182728	Y
2	IC 410-163707/17	5.0	38.675754	50.0	162651.0	7.735151	Y
3	IC 410-163707/16	10.0	87.473792	50.0	143084.0	8.747379	Y
4	IC 410-163707/15	20.0	154.520482	50.0	162903.0	7.726024	Y
5	IC 410-163707/14	50.0	531.035496	50.0	134380.0	10.62071	Y
6	ICIS 410-163707/13	100.0	861.842559	50.0	165205.0	8.618426	Y
7	IC 410-163707/12	250.0	2311.818241	50.0	153335.0	9.247273	Y



Calibration

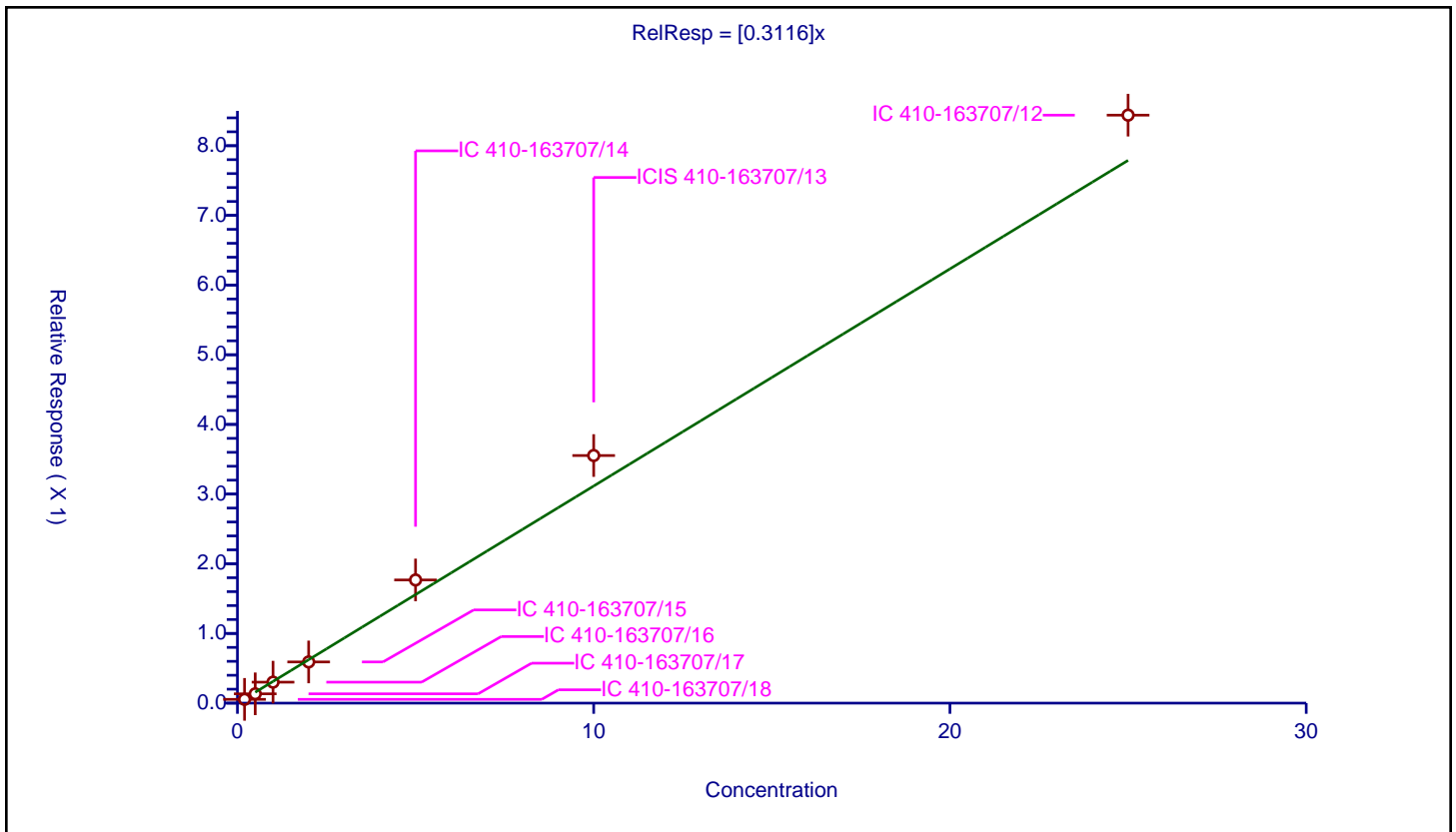
/ Chlorodibromomethane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3116

Error Coefficients	
Standard Error:	686000
Relative Standard Error:	12.0
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.983

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.054168	10.0	1679409.0	0.270839	Y
2	IC 410-163707/17	0.5	0.133623	10.0	1845718.0	0.267246	Y
3	IC 410-163707/16	1.0	0.301003	10.0	1659651.0	0.301003	Y
4	IC 410-163707/15	2.0	0.591256	10.0	1654646.0	0.295628	Y
5	IC 410-163707/14	5.0	1.767805	10.0	1642811.0	0.353561	Y
6	ICIS 410-163707/13	10.0	3.553437	10.0	1640634.0	0.355344	Y
7	IC 410-163707/12	25.0	8.438712	10.0	1830649.0	0.337548	Y



Calibration

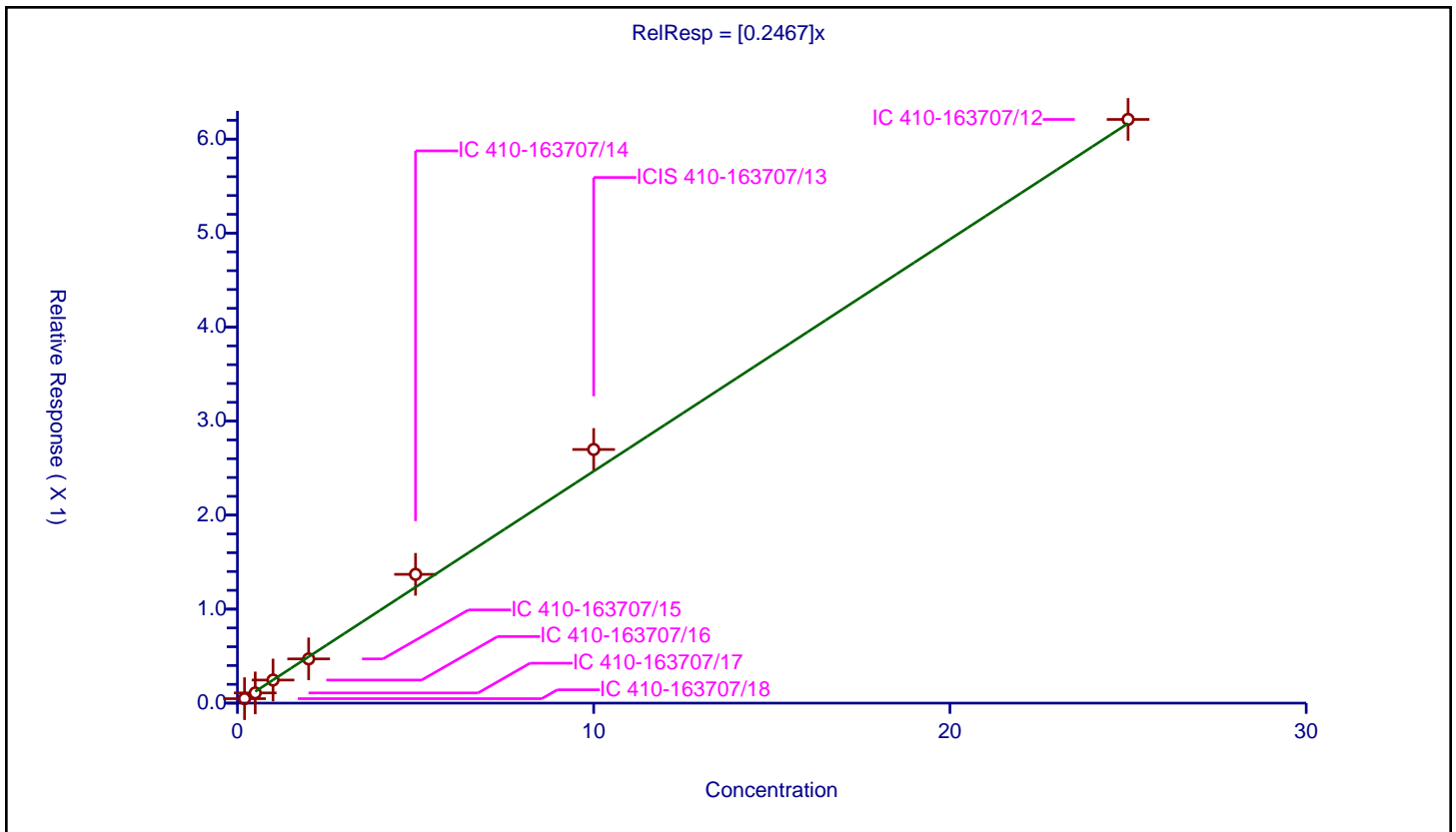
/ Ethylene Dibromide

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2467

Error Coefficients	
Standard Error:	508000
Relative Standard Error:	8.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.047374	10.0	1679409.0	0.236869	Y
2	IC 410-163707/17	0.5	0.108521	10.0	1845718.0	0.217043	Y
3	IC 410-163707/16	1.0	0.245509	10.0	1659651.0	0.245509	Y
4	IC 410-163707/15	2.0	0.470421	10.0	1654646.0	0.23521	Y
5	IC 410-163707/14	5.0	1.369902	10.0	1642811.0	0.27398	Y
6	ICIS 410-163707/13	10.0	2.698268	10.0	1640634.0	0.269827	Y
7	IC 410-163707/12	25.0	6.209333	10.0	1830649.0	0.248373	Y



**Calibration**

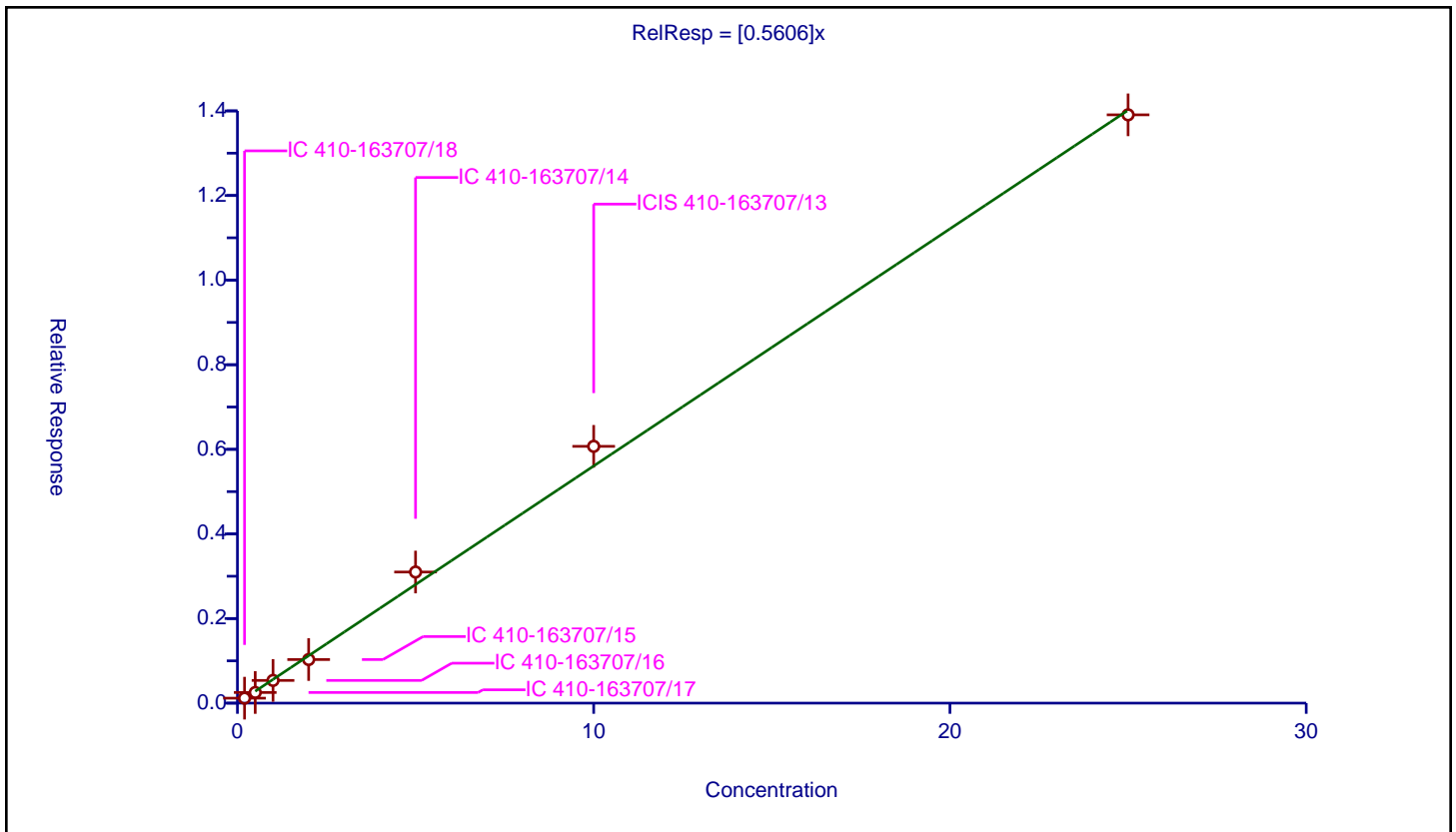
**/ 1-Chlorohexane**

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.5606

Error Coefficients	
Standard Error:	1140000
Relative Standard Error:	8.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.117327	10.0	1679409.0	0.586635	Y
2	IC 410-163707/17	0.5	0.251398	10.0	1845718.0	0.502796	Y
3	IC 410-163707/16	1.0	0.536601	10.0	1659651.0	0.536601	Y
4	IC 410-163707/15	2.0	1.030112	10.0	1654646.0	0.515056	Y
5	IC 410-163707/14	5.0	3.098926	10.0	1642811.0	0.619785	Y
6	ICIS 410-163707/13	10.0	6.070275	10.0	1640634.0	0.607028	Y
7	IC 410-163707/12	25.0	13.906516	10.0	1830649.0	0.556261	Y



Calibration

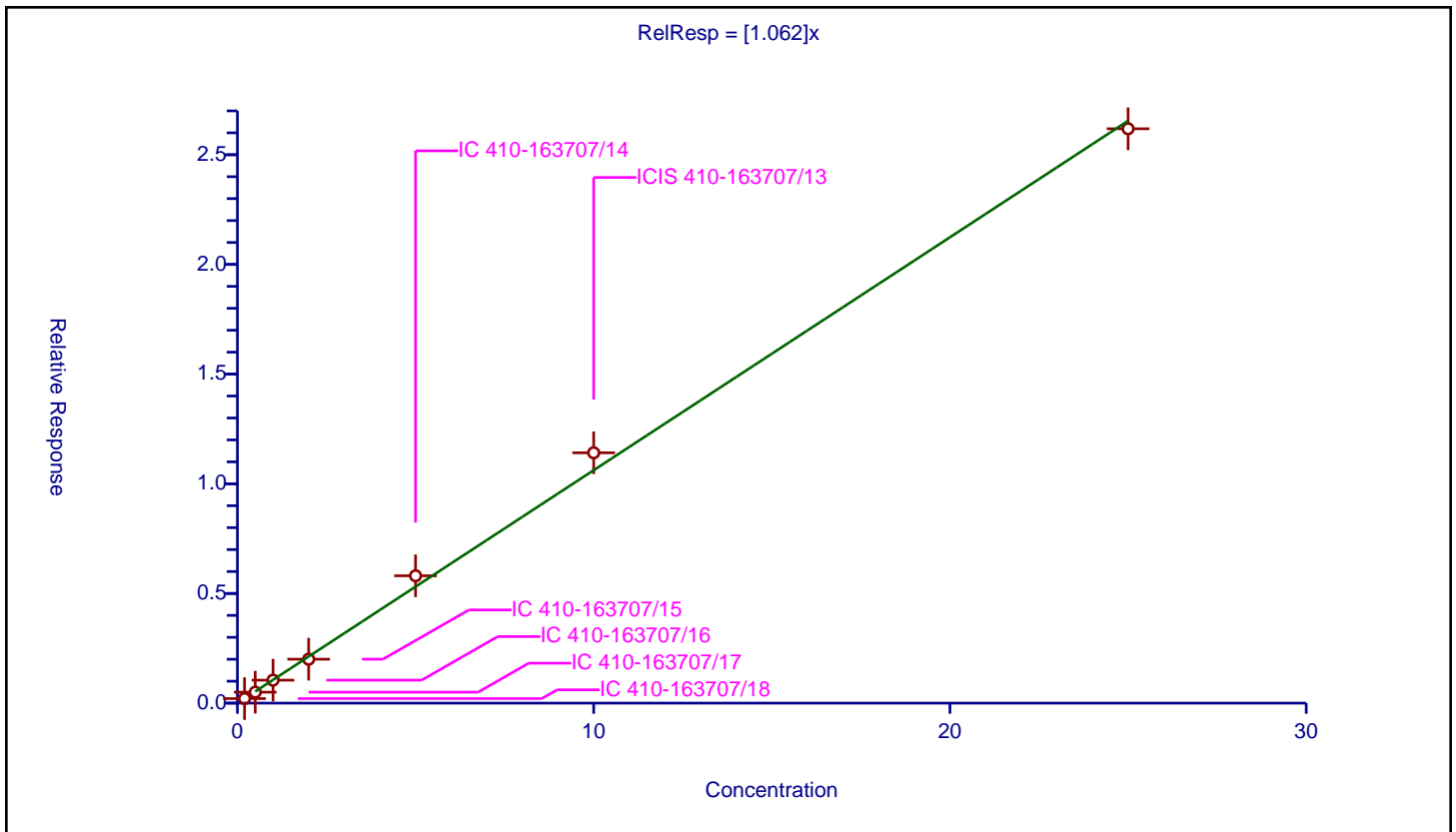
/ Chlorobenzene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.062

Error Coefficients	
Standard Error:	2140000
Relative Standard Error:	6.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.206811	10.0	1679409.0	1.034054	Y
2	IC 410-163707/17	0.5	0.499936	10.0	1845718.0	0.999871	Y
3	IC 410-163707/16	1.0	1.047515	10.0	1659651.0	1.047515	Y
4	IC 410-163707/15	2.0	2.003099	10.0	1654646.0	1.00155	Y
5	IC 410-163707/14	5.0	5.80634	10.0	1642811.0	1.161268	Y
6	ICIS 410-163707/13	10.0	11.413435	10.0	1640634.0	1.141344	Y
7	IC 410-163707/12	25.0	26.184757	10.0	1830649.0	1.04739	Y



Calibration

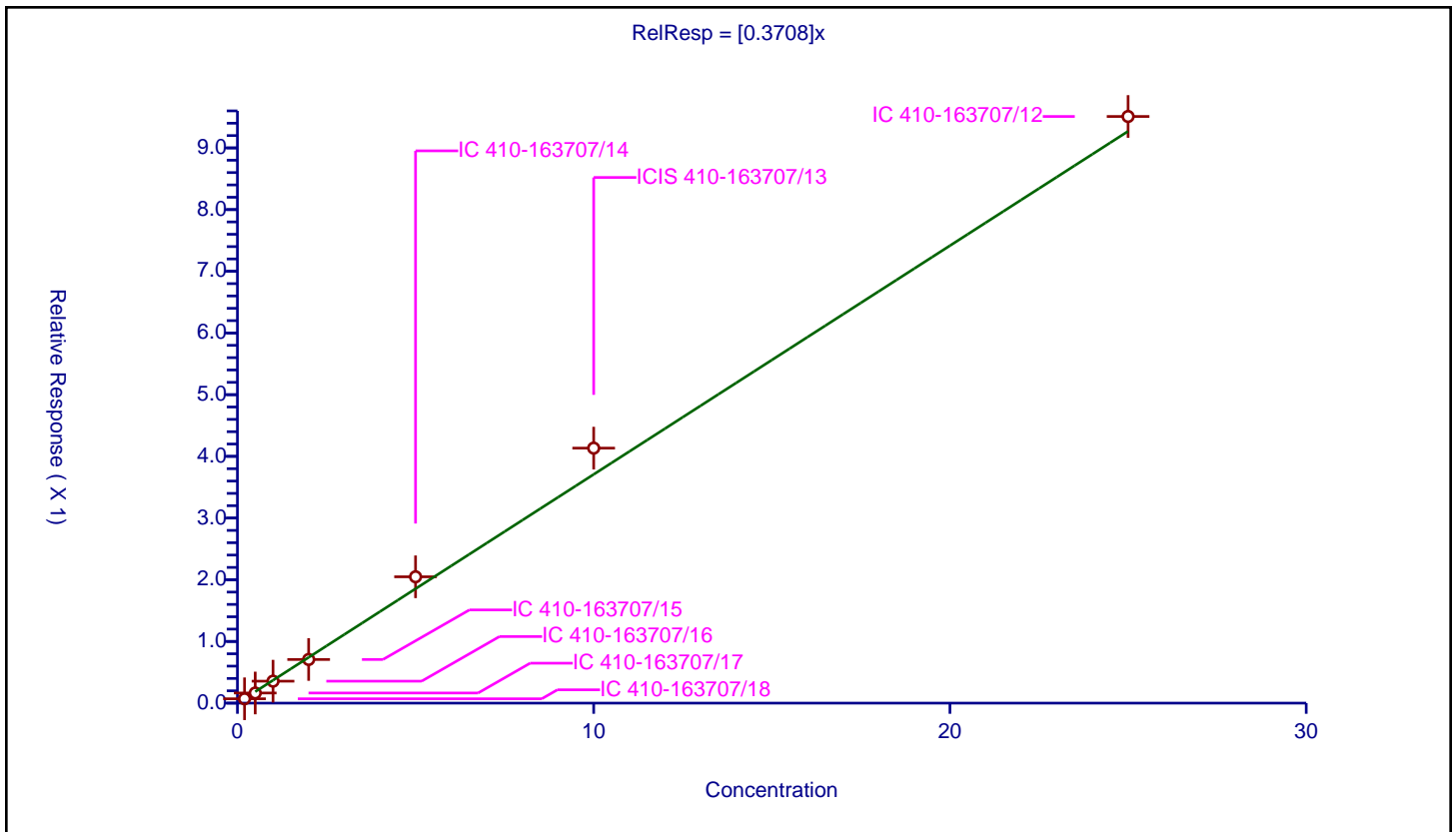
/ 1,1,1,2-Tetrachloroethane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.3708

Error Coefficients	
Standard Error:	777000
Relative Standard Error:	8.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.070686	10.0	1679409.0	0.353428	Y
2	IC 410-163707/17	0.5	0.164408	10.0	1845718.0	0.328815	Y
3	IC 410-163707/16	1.0	0.356135	10.0	1659651.0	0.356135	Y
4	IC 410-163707/15	2.0	0.707553	10.0	1654646.0	0.353777	Y
5	IC 410-163707/14	5.0	2.047716	10.0	1642811.0	0.409543	Y
6	ICIS 410-163707/13	10.0	4.133536	10.0	1640634.0	0.413354	Y
7	IC 410-163707/12	25.0	9.509174	10.0	1830649.0	0.380367	Y





**Calibration**

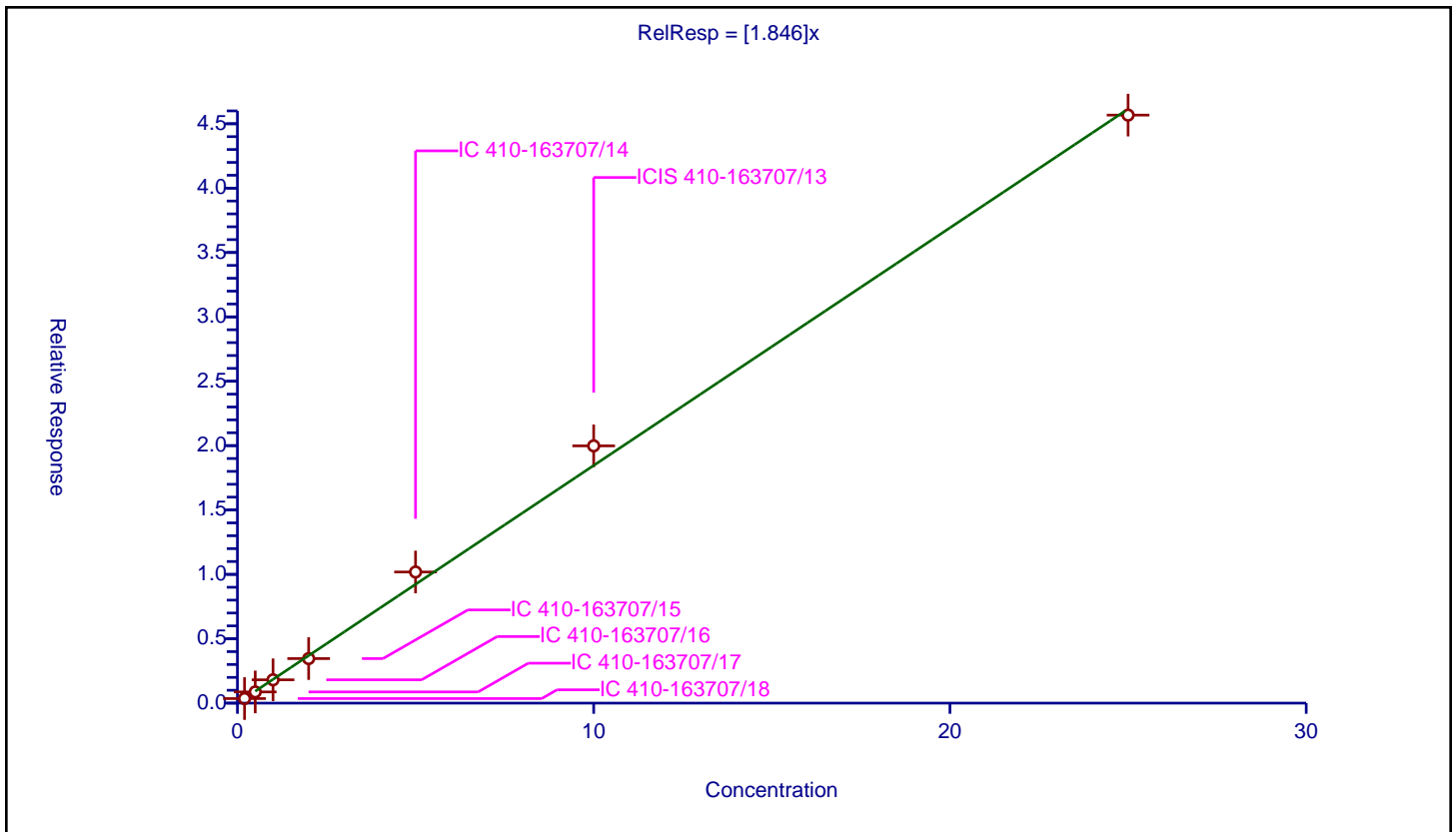
/ Ethylbenzene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.846

Error Coefficients	
Standard Error:	3740000
Relative Standard Error:	6.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.355494	10.0	1679409.0	1.777471	Y
2	IC 410-163707/17	0.5	0.870881	10.0	1845718.0	1.741761	Y
3	IC 410-163707/16	1.0	1.810296	10.0	1659651.0	1.810296	Y
4	IC 410-163707/15	2.0	3.459453	10.0	1654646.0	1.729726	Y
5	IC 410-163707/14	5.0	10.185061	10.0	1642811.0	2.037012	Y
6	ICIS 410-163707/13	10.0	19.981428	10.0	1640634.0	1.998143	Y
7	IC 410-163707/12	25.0	45.67283	10.0	1830649.0	1.826913	Y



**Calibration**

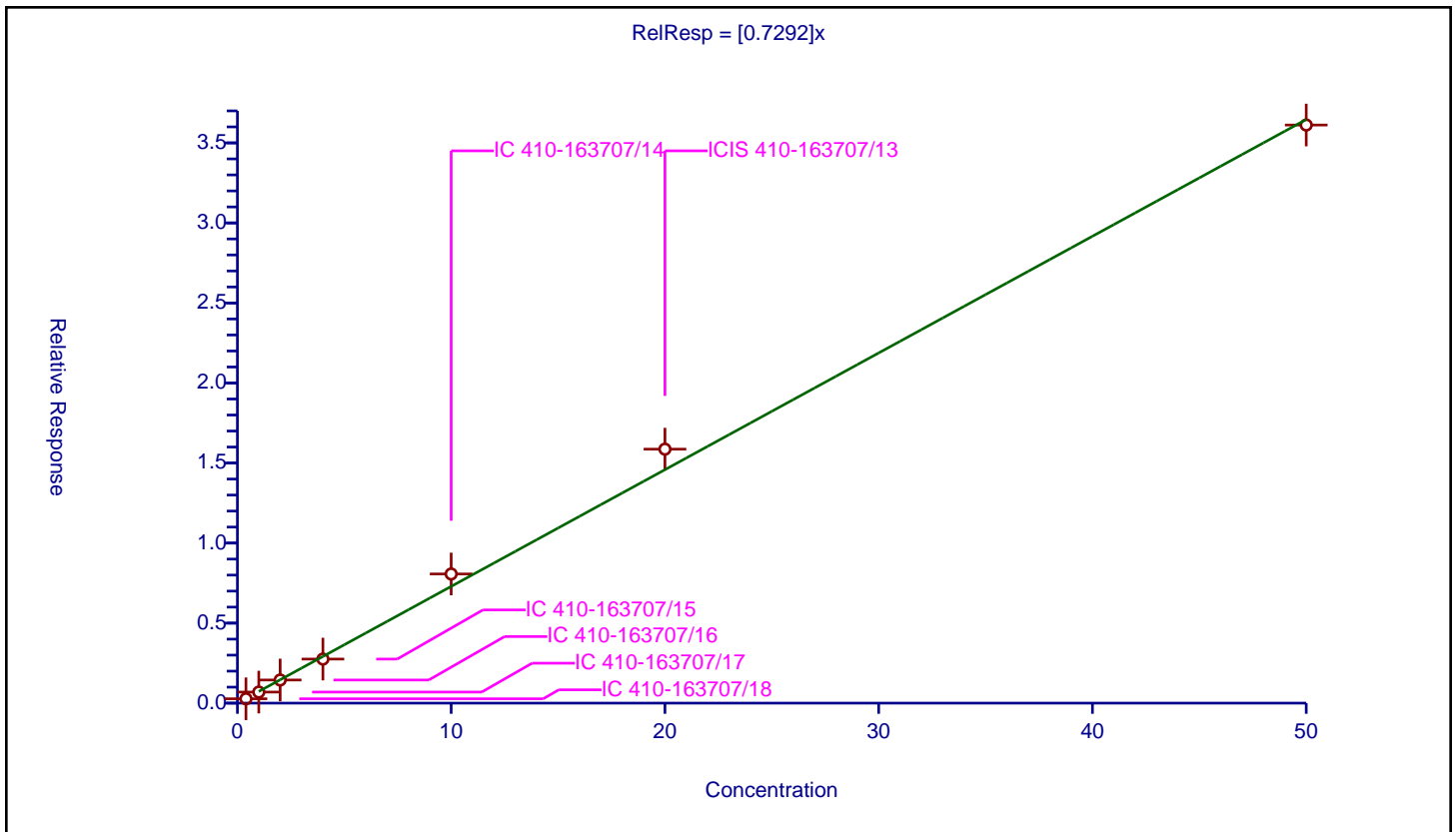
/ m-Xylene & p-Xylene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.7292

Error Coefficients	
Standard Error:	2960000
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 410-163707/18	0.4	0.272262	10.0	1679409.0	0.680656	Y
2	IC 410-163707/17	1.0	0.690663	10.0	1845718.0	0.690663	Y
3	IC 410-163707/16	2.0	1.444587	10.0	1659651.0	0.722293	Y
4	IC 410-163707/15	4.0	2.753066	10.0	1654646.0	0.688267	Y
5	IC 410-163707/14	10.0	8.069589	10.0	1642811.0	0.806959	Y
6	ICIS 410-163707/13	20.0	15.865641	10.0	1640634.0	0.793282	Y
7	IC 410-163707/12	50.0	36.11606	10.0	1830649.0	0.722321	Y



Calibration

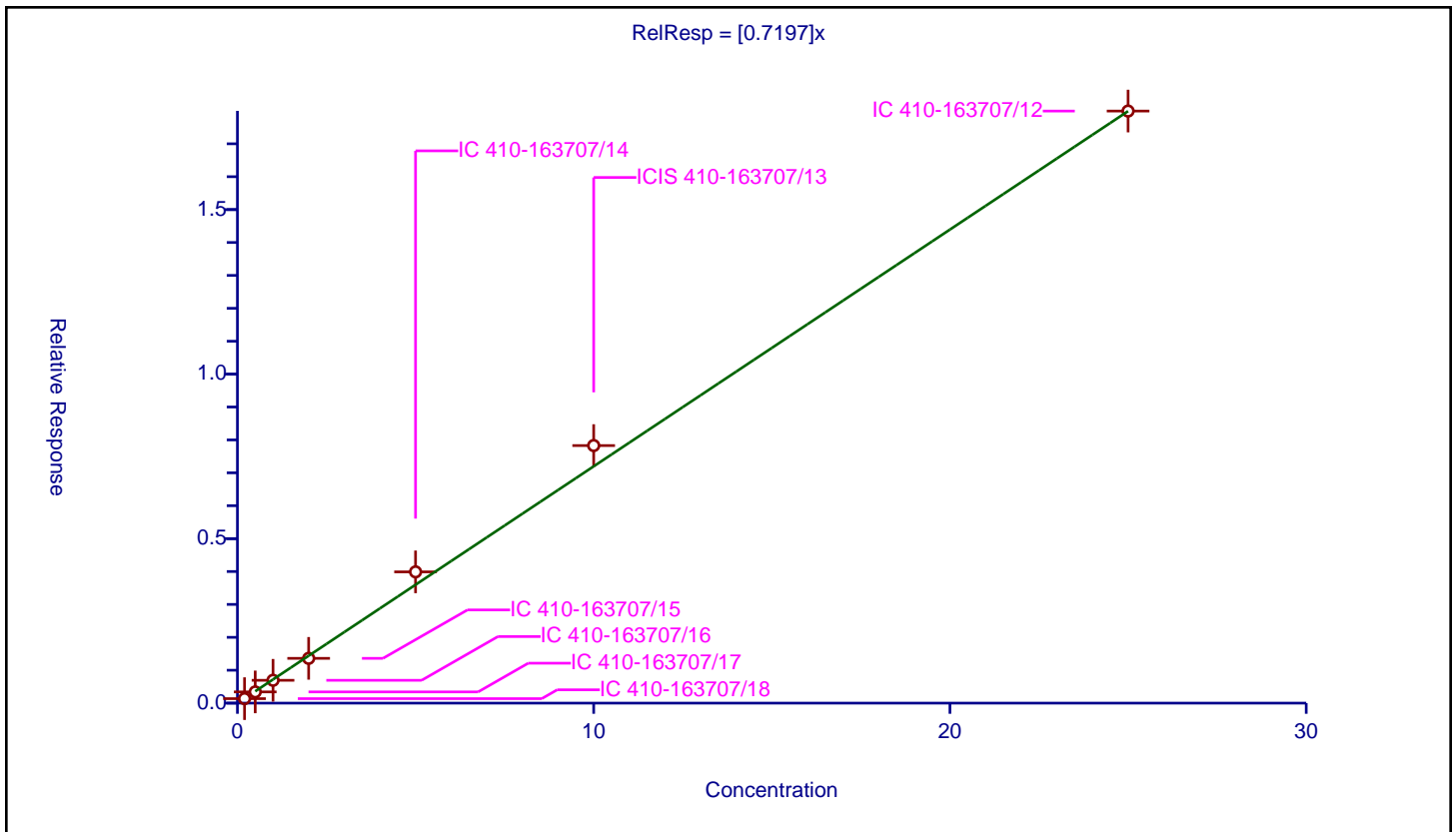
/ o-Xylene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.7197

Error Coefficients	
Standard Error:	1470000
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 410-163707/18	0.2	0.136024	10.0	1679409.0	0.68012	Y
2	IC 410-163707/17	0.5	0.341201	10.0	1845718.0	0.682401	Y
3	IC 410-163707/16	1.0	0.694146	10.0	1659651.0	0.694146	Y
4	IC 410-163707/15	2.0	1.360774	10.0	1654646.0	0.680387	Y
5	IC 410-163707/14	5.0	3.989777	10.0	1642811.0	0.797955	Y
6	ICIS 410-163707/13	10.0	7.828376	10.0	1640634.0	0.782838	Y
7	IC 410-163707/12	25.0	17.994793	10.0	1830649.0	0.719792	Y



**Calibration**

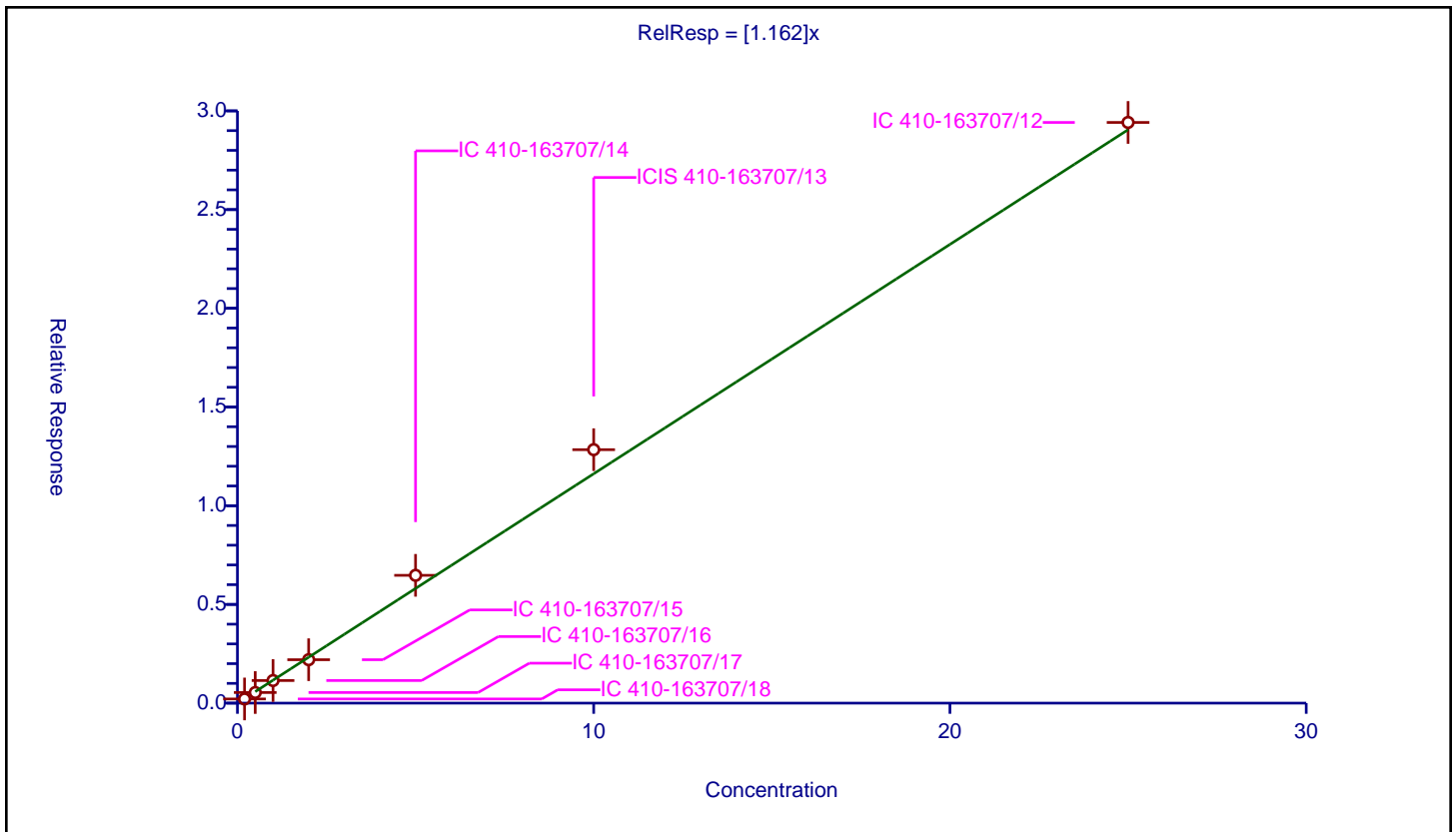
/ Styrene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.162

Error Coefficients	
Standard Error:	2410000
Relative Standard Error:	8.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.211432	10.0	1679409.0	1.057158	Y
2	IC 410-163707/17	0.5	0.537867	10.0	1845718.0	1.075733	Y
3	IC 410-163707/16	1.0	1.144403	10.0	1659651.0	1.144403	Y
4	IC 410-163707/15	2.0	2.200205	10.0	1654646.0	1.100102	Y
5	IC 410-163707/14	5.0	6.474159	10.0	1642811.0	1.294832	Y
6	ICIS 410-163707/13	10.0	12.839372	10.0	1640634.0	1.283937	Y
7	IC 410-163707/12	25.0	29.414579	10.0	1830649.0	1.176583	Y



**Calibration**

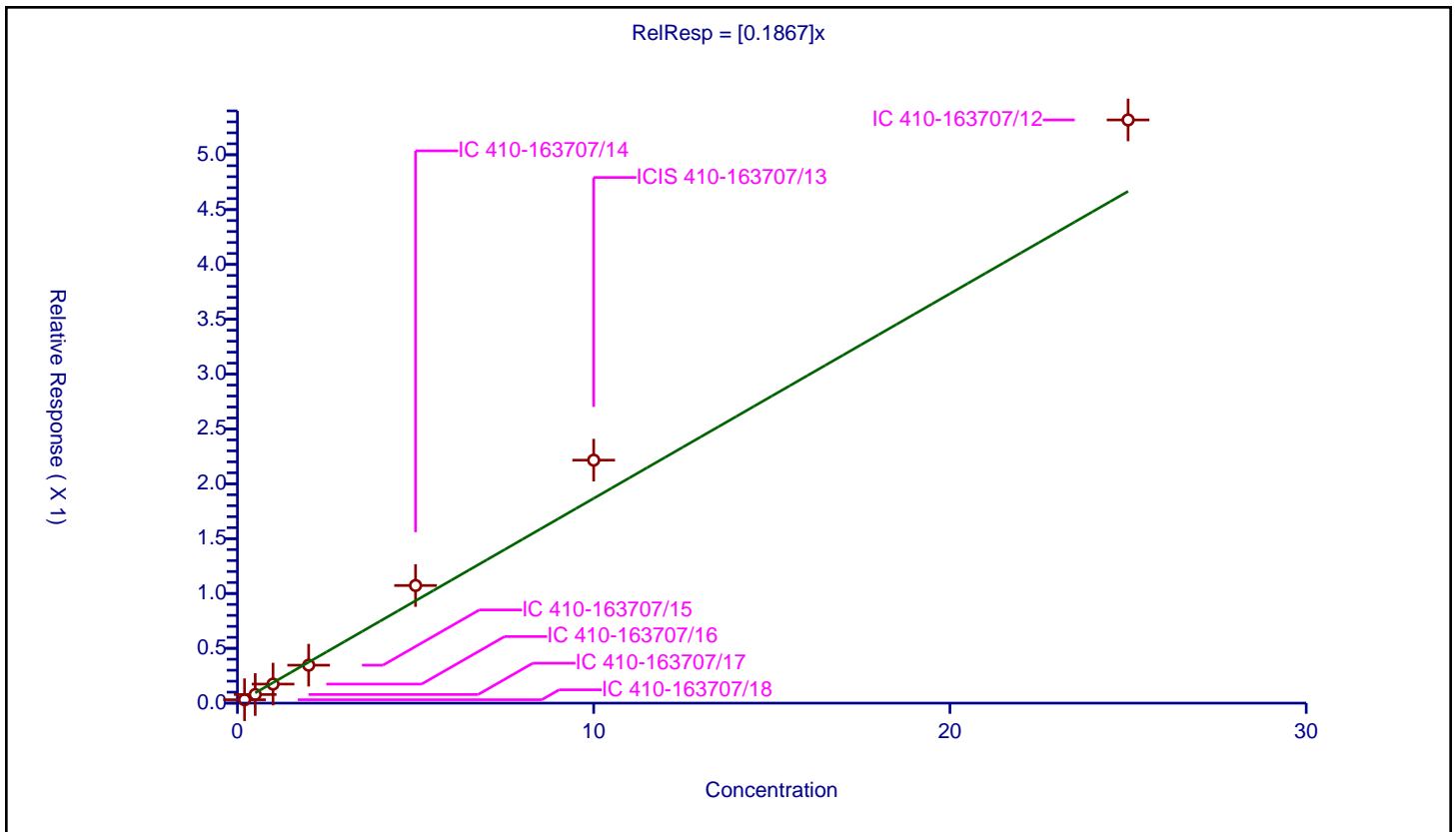
/ Bromoform

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.1867

Error Coefficients	
Standard Error:	431000
Relative Standard Error:	15.4
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.973

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.030844	10.0	1679409.0	0.154221	Y
2	IC 410-163707/17	0.5	0.078484	10.0	1845718.0	0.156969	Y
3	IC 410-163707/16	1.0	0.173729	10.0	1659651.0	0.173729	Y
4	IC 410-163707/15	2.0	0.345989	10.0	1654646.0	0.172995	Y
5	IC 410-163707/14	5.0	1.072436	10.0	1642811.0	0.214487	Y
6	ICIS 410-163707/13	10.0	2.215247	10.0	1640634.0	0.221525	Y
7	IC 410-163707/12	25.0	5.317338	10.0	1830649.0	0.212694	Y



Calibration

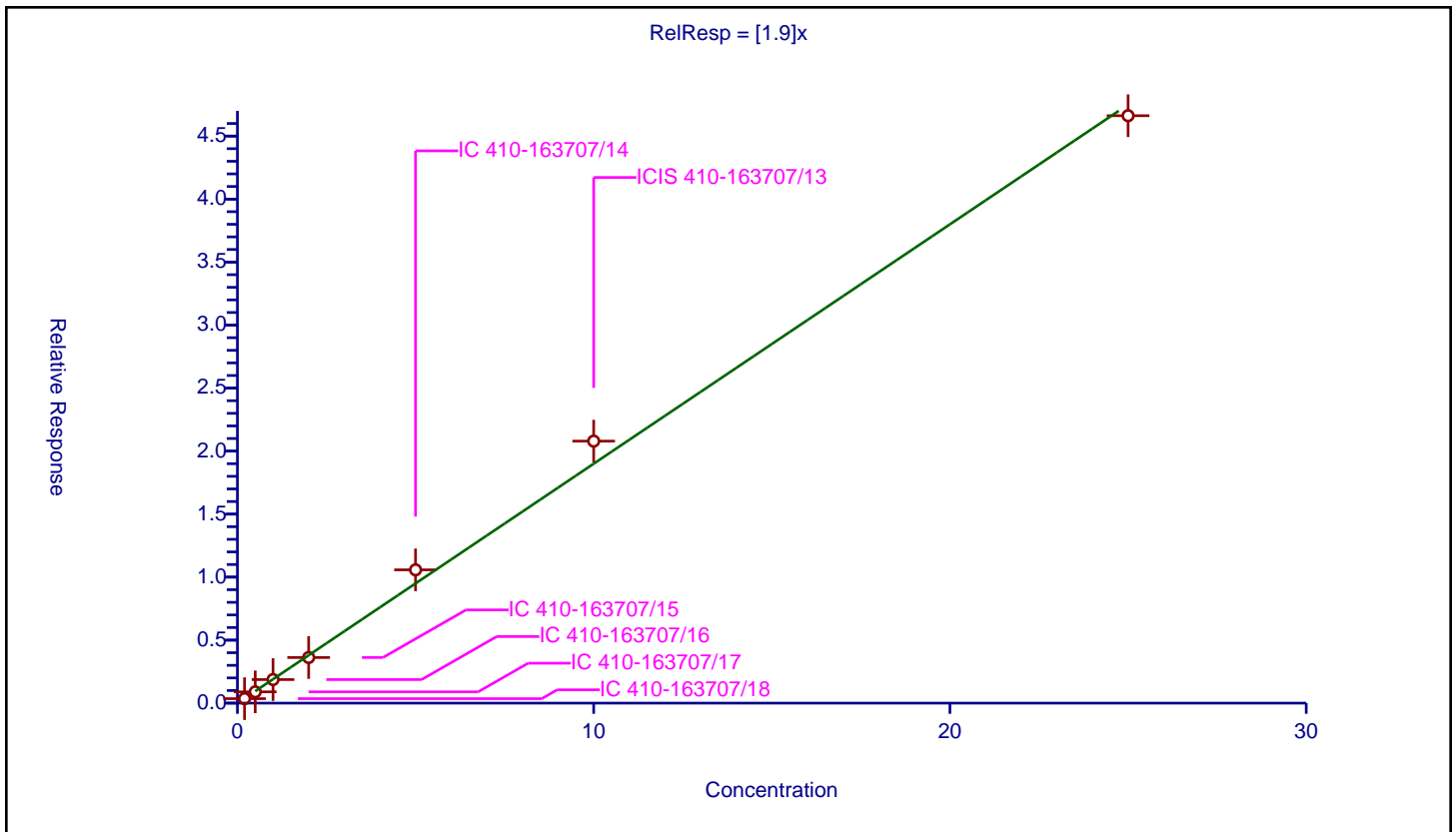
/ Isopropylbenzene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.9

Error Coefficients	
Standard Error:	3830000
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 410-163707/18	0.2	0.354148	10.0	1679409.0	1.770742	Y
2	IC 410-163707/17	0.5	0.894481	10.0	1845718.0	1.788962	Y
3	IC 410-163707/16	1.0	1.870188	10.0	1659651.0	1.870188	Y
4	IC 410-163707/15	2.0	3.619783	10.0	1654646.0	1.809892	Y
5	IC 410-163707/14	5.0	10.57706	10.0	1642811.0	2.115412	Y
6	ICIS 410-163707/13	10.0	20.793894	10.0	1640634.0	2.079389	Y
7	IC 410-163707/12	25.0	46.617167	10.0	1830649.0	1.864687	Y



**Calibration**

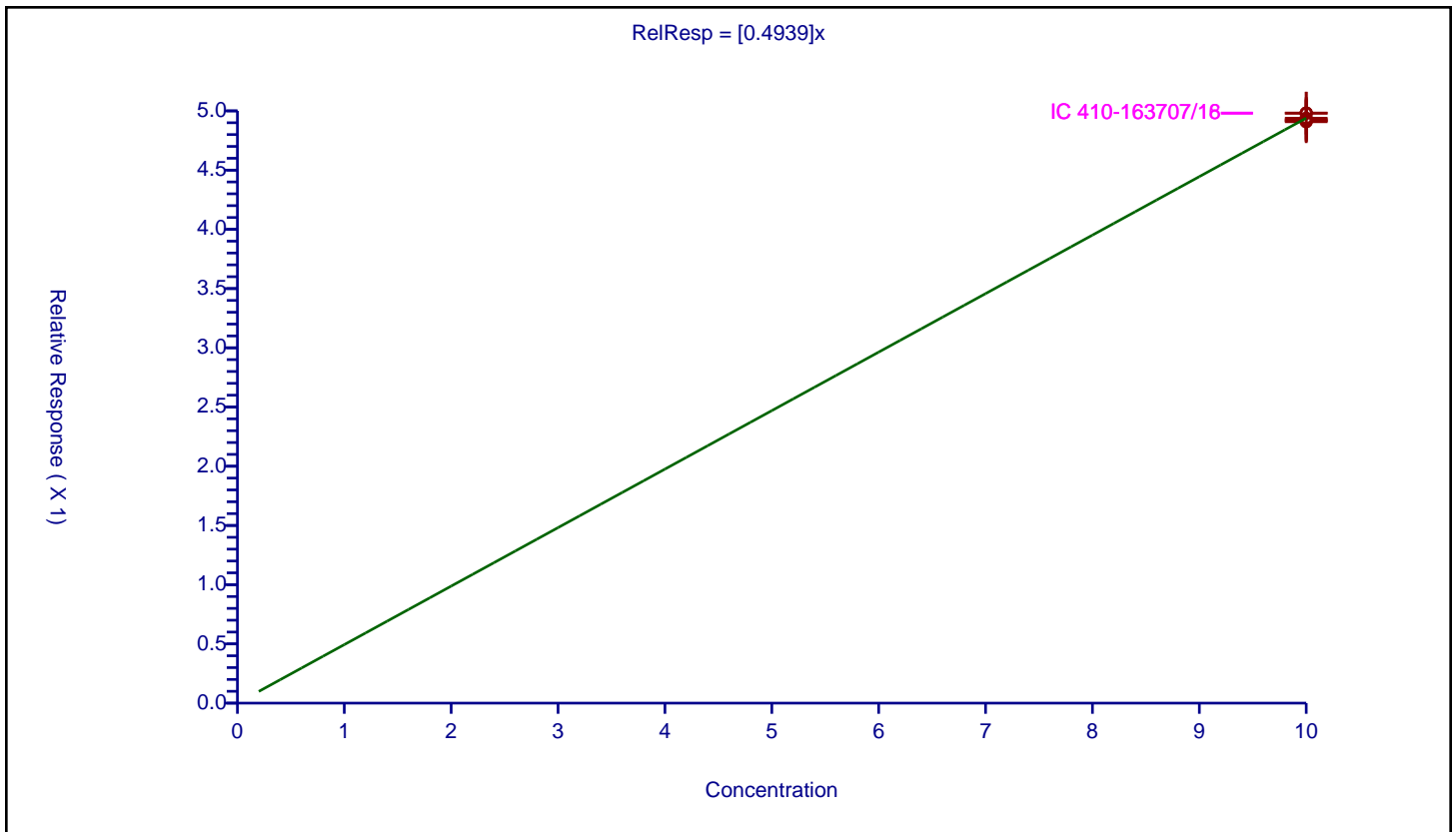
/ 4-Bromofluorobenzene (Surr)

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4939

Error Coefficients	
Standard Error:	912000
Relative Standard Error:	0.6
Correlation Coefficient:	0
Coefficient of Determination (Adjusted):	0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/12	10.0	4.919163	10.0	1830649.0	0.491916	Y
2	ICIS 410-163707/13	10.0	4.916368	10.0	1640634.0	0.491637	Y
3	IC 410-163707/14	10.0	4.90824	10.0	1642811.0	0.490824	Y
4	IC 410-163707/15	10.0	4.928668	10.0	1654646.0	0.492867	Y
5	IC 410-163707/16	10.0	4.982078	10.0	1659651.0	0.498208	Y
6	IC 410-163707/17	10.0	4.938344	10.0	1845718.0	0.493834	Y
7	IC 410-163707/18	10.0	4.980401	10.0	1679409.0	0.49804	Y



**Calibration**

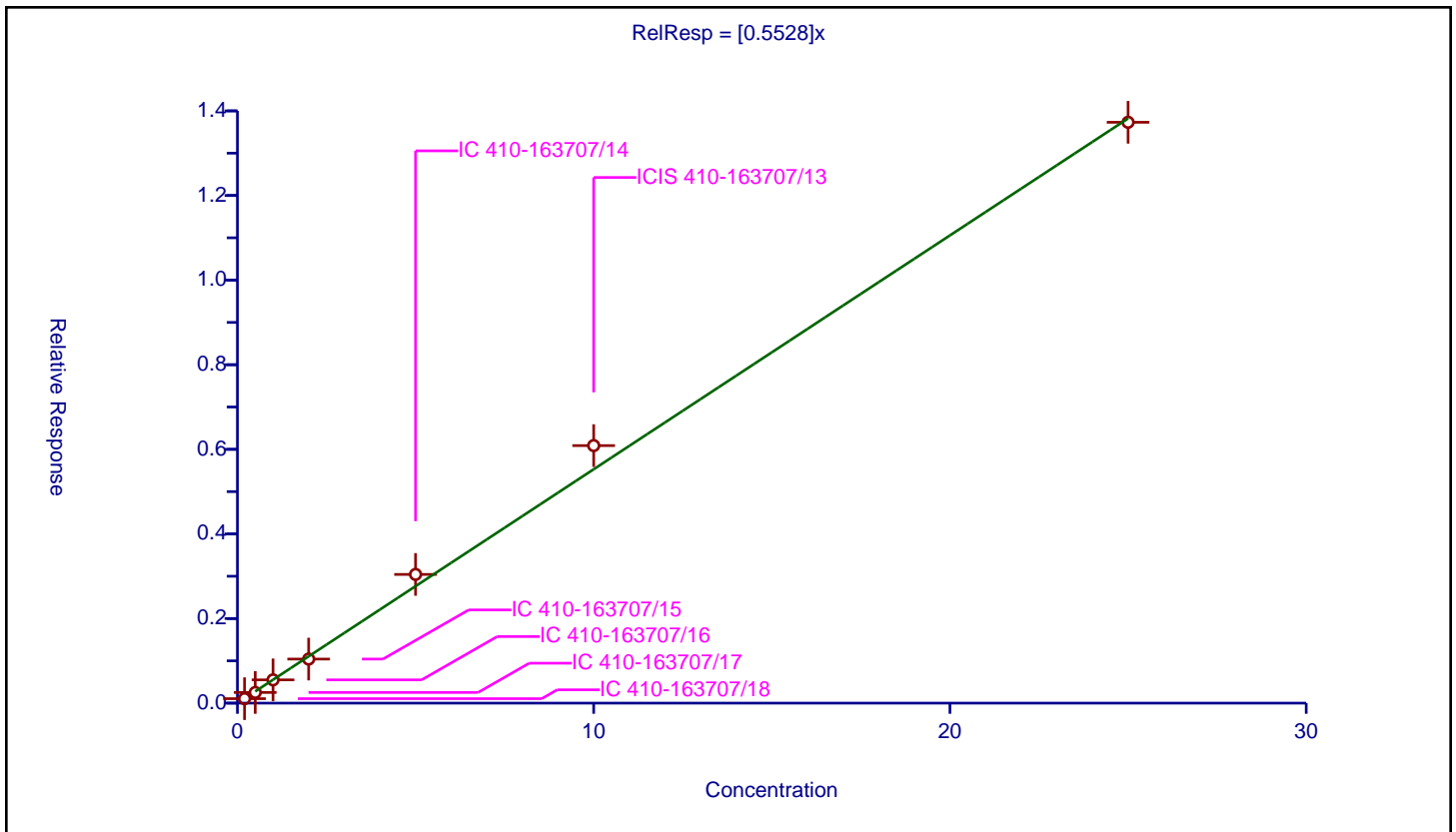
/ 1,1,2,2-Tetrachloroethane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.5528

Error Coefficients	
Standard Error:	668000
Relative Standard Error:	7.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.105689	10.0	1012314.0	0.528443	Y
2	IC 410-163707/17	0.5	0.252018	10.0	1102182.0	0.504037	Y
3	IC 410-163707/16	1.0	0.549972	10.0	987778.0	0.549972	Y
4	IC 410-163707/15	2.0	1.041481	10.0	984300.0	0.520741	Y
5	IC 410-163707/14	5.0	3.042725	10.0	963071.0	0.608545	Y
6	ICIS 410-163707/13	10.0	6.088123	10.0	963407.0	0.608812	Y
7	IC 410-163707/12	25.0	13.730272	10.0	1087615.0	0.549211	Y





**Calibration**

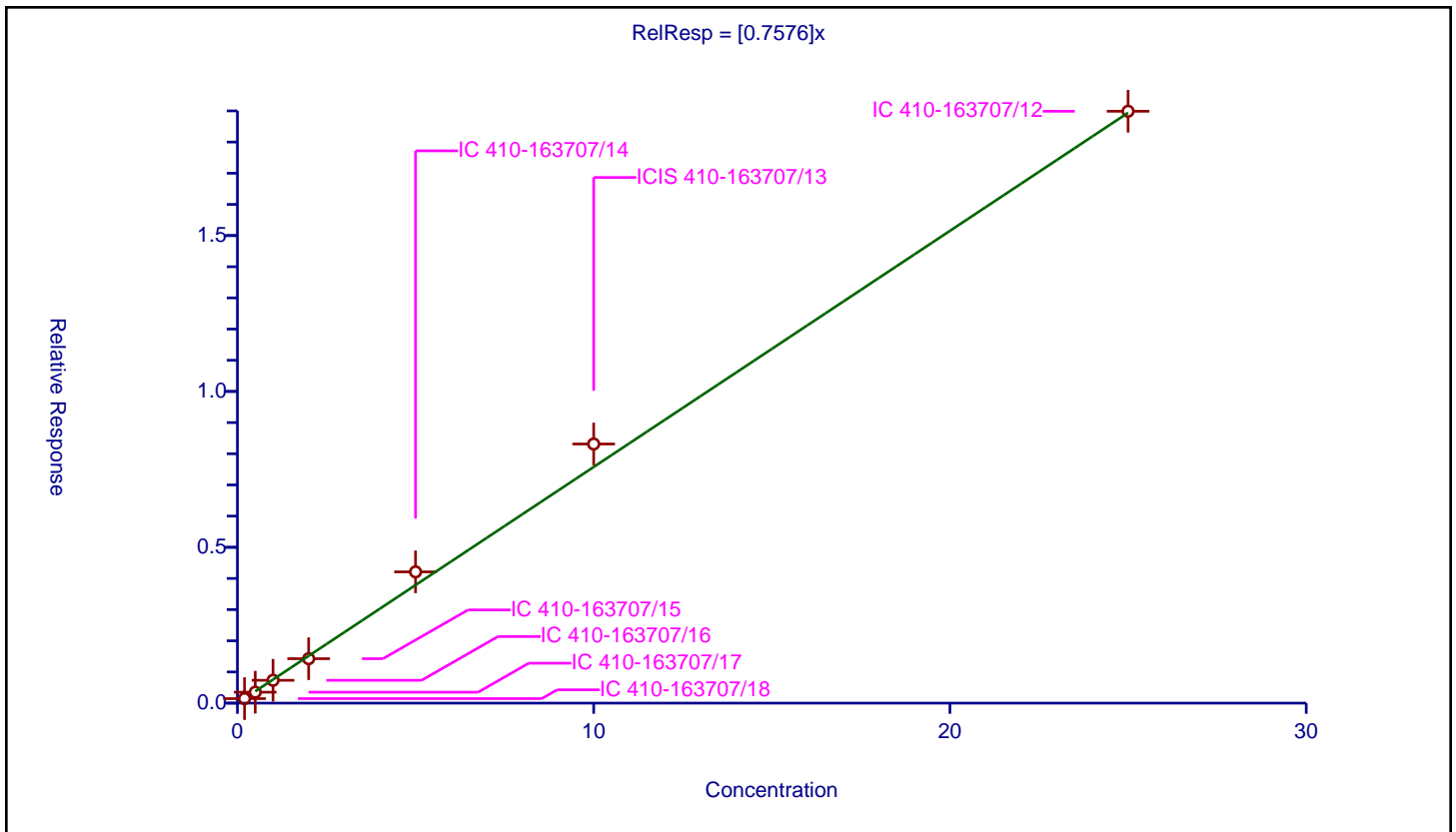
**/ Bromobenzene**

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.7576

Error Coefficients	
Standard Error:	922000
Relative Standard Error:	7.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.144787	10.0	1012314.0	0.723935	Y
2	IC 410-163707/17	0.5	0.350369	10.0	1102182.0	0.700737	Y
3	IC 410-163707/16	1.0	0.732533	10.0	987778.0	0.732533	Y
4	IC 410-163707/15	2.0	1.425439	10.0	984300.0	0.71272	Y
5	IC 410-163707/14	5.0	4.211309	10.0	963071.0	0.842262	Y
6	ICIS 410-163707/13	10.0	8.313433	10.0	963407.0	0.831343	Y
7	IC 410-163707/12	25.0	18.988245	10.0	1087615.0	0.75953	Y



Calibration

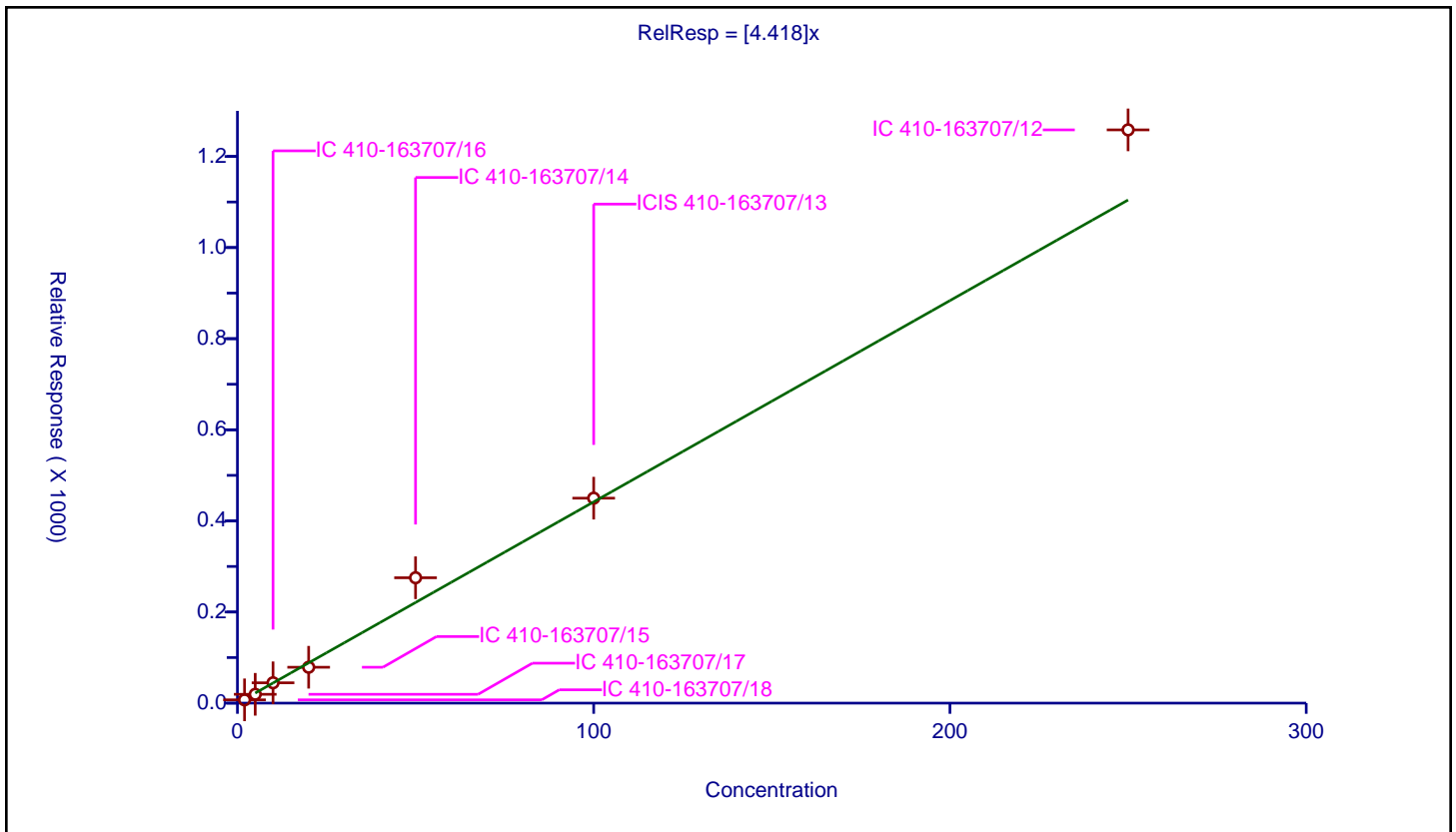
/ trans-1,4-Dichloro-2-butene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	4.418

Error Coefficients	
Standard Error:	1720000
Relative Standard Error:	15.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.973

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	2.0	7.212025	50.0	162132.0	3.606012	Y
2	IC 410-163707/17	5.0	19.386601	50.0	162651.0	3.87732	Y
3	IC 410-163707/16	10.0	44.651044	50.0	143084.0	4.465104	Y
4	IC 410-163707/15	20.0	78.790446	50.0	162903.0	3.939522	Y
5	IC 410-163707/14	50.0	275.233666	50.0	134380.0	5.504673	Y
6	ICIS 410-163707/13	100.0	449.88711	50.0	165205.0	4.498871	Y
7	IC 410-163707/12	250.0	1258.297519	50.0	153335.0	5.03319	Y



Calibration

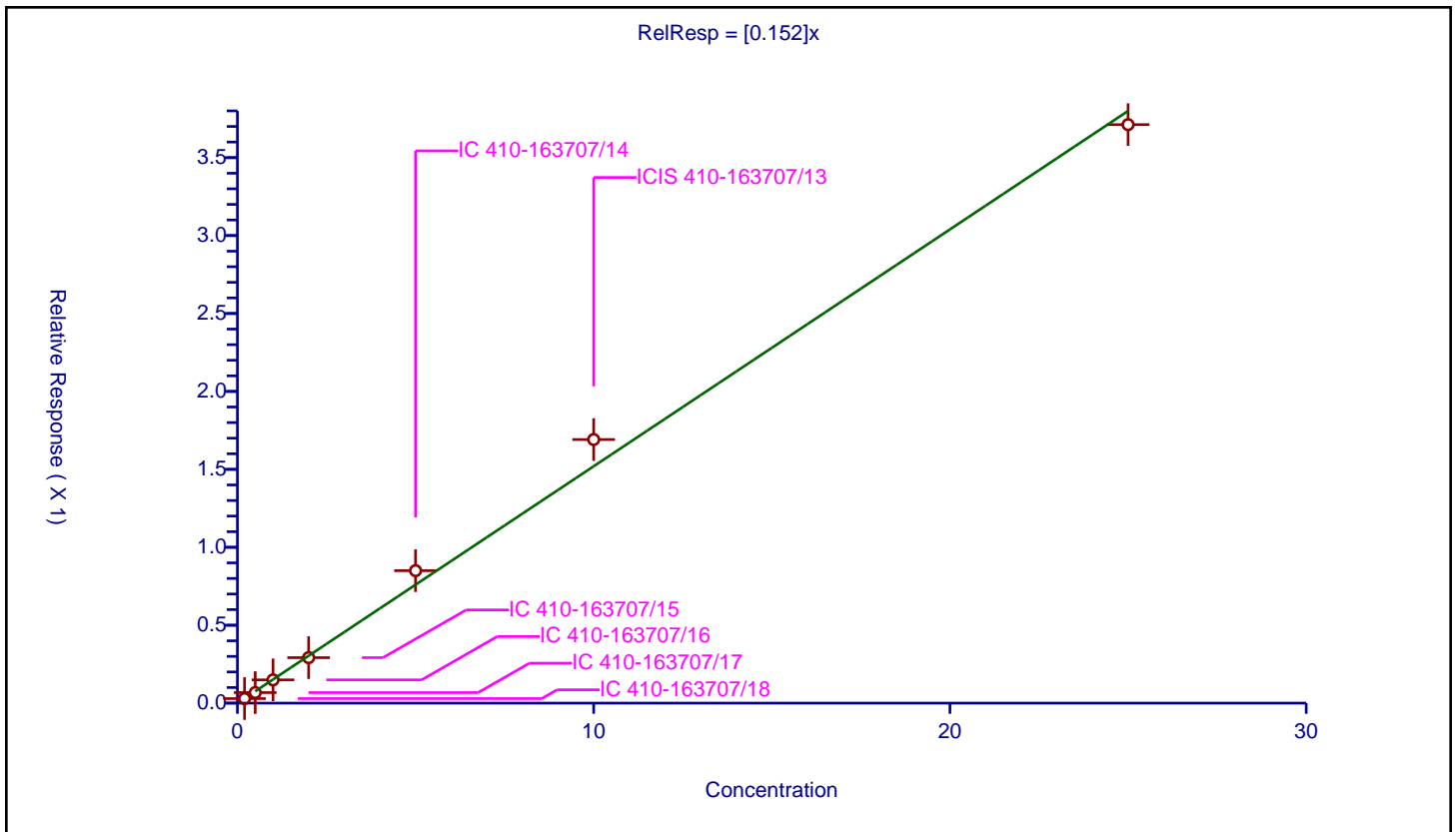
/ 1,2,3-Trichloropropane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.152

Error Coefficients	
Standard Error:	181000
Relative Standard Error:	8.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.029181	10.0	1012314.0	0.145903	Y
2	IC 410-163707/17	0.5	0.067584	10.0	1102182.0	0.135168	Y
3	IC 410-163707/16	1.0	0.149285	10.0	987778.0	0.149285	Y
4	IC 410-163707/15	2.0	0.291822	10.0	984300.0	0.145911	Y
5	IC 410-163707/14	5.0	0.849958	10.0	963071.0	0.169992	Y
6	ICIS 410-163707/13	10.0	1.691144	10.0	963407.0	0.169114	Y
7	IC 410-163707/12	25.0	3.711773	10.0	1087615.0	0.148471	Y



Calibration

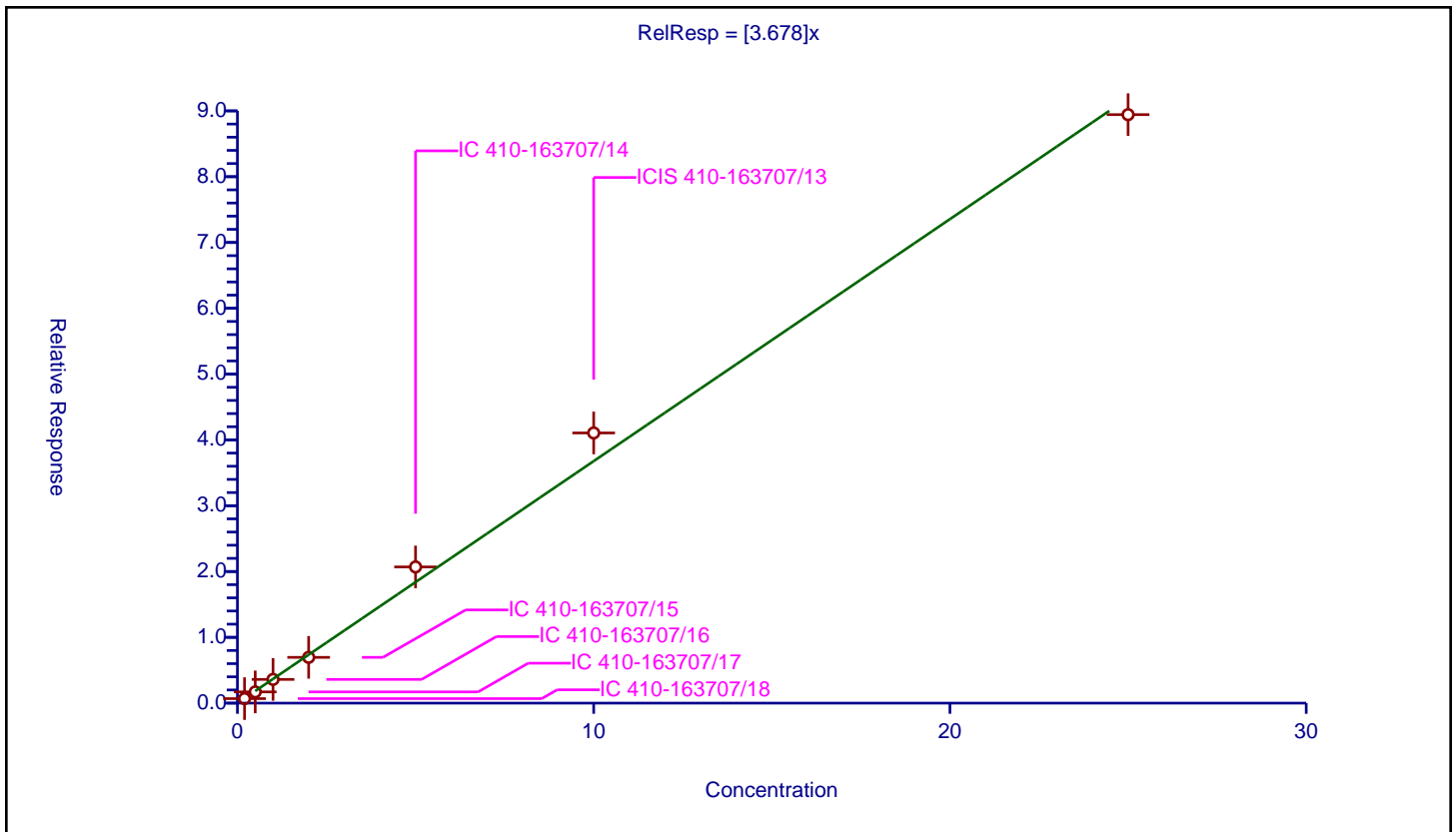
/ N-Propylbenzene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	3.678

Error Coefficients	
Standard Error:	4380000
Relative Standard Error:	8.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.684827	10.0	1012314.0	3.424135	Y
2	IC 410-163707/17	0.5	1.707876	10.0	1102182.0	3.415752	Y
3	IC 410-163707/16	1.0	3.60255	10.0	987778.0	3.60255	Y
4	IC 410-163707/15	2.0	6.95669	10.0	984300.0	3.478345	Y
5	IC 410-163707/14	5.0	20.695328	10.0	963071.0	4.139066	Y
6	ICIS 410-163707/13	10.0	41.058618	10.0	963407.0	4.105862	Y
7	IC 410-163707/12	25.0	89.428208	10.0	1087615.0	3.577128	Y



Calibration

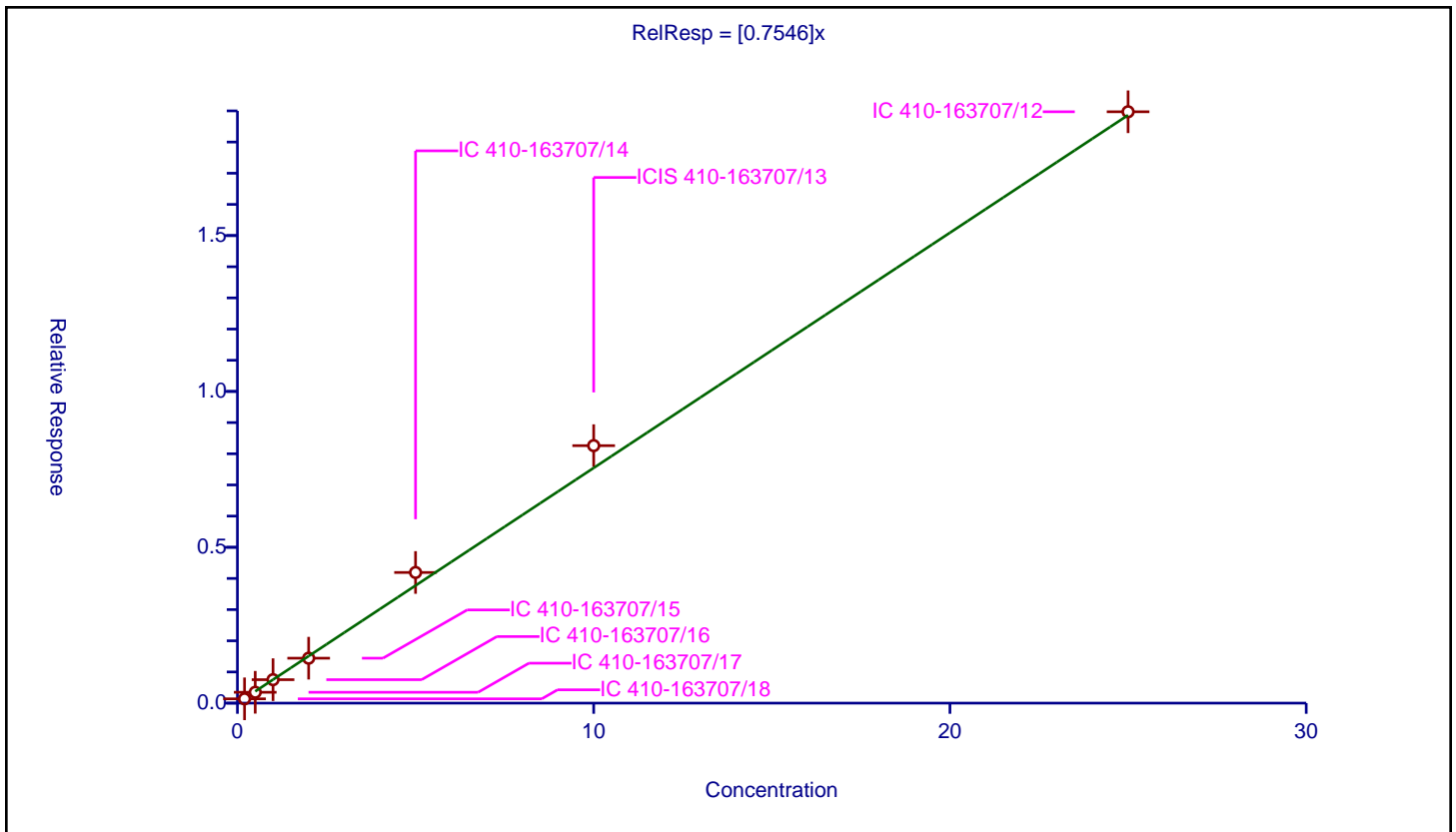
/ 2-Chlorotoluene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.7546

Error Coefficients	
Standard Error:	920000
Relative Standard Error:	7.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.137714	10.0	1012314.0	0.688571	Y
2	IC 410-163707/17	0.5	0.348246	10.0	1102182.0	0.696491	Y
3	IC 410-163707/16	1.0	0.75273	10.0	987778.0	0.75273	Y
4	IC 410-163707/15	2.0	1.441908	10.0	984300.0	0.720954	Y
5	IC 410-163707/14	5.0	4.191394	10.0	963071.0	0.838279	Y
6	ICIS 410-163707/13	10.0	8.260673	10.0	963407.0	0.826067	Y
7	IC 410-163707/12	25.0	18.971447	10.0	1087615.0	0.758858	Y



Calibration

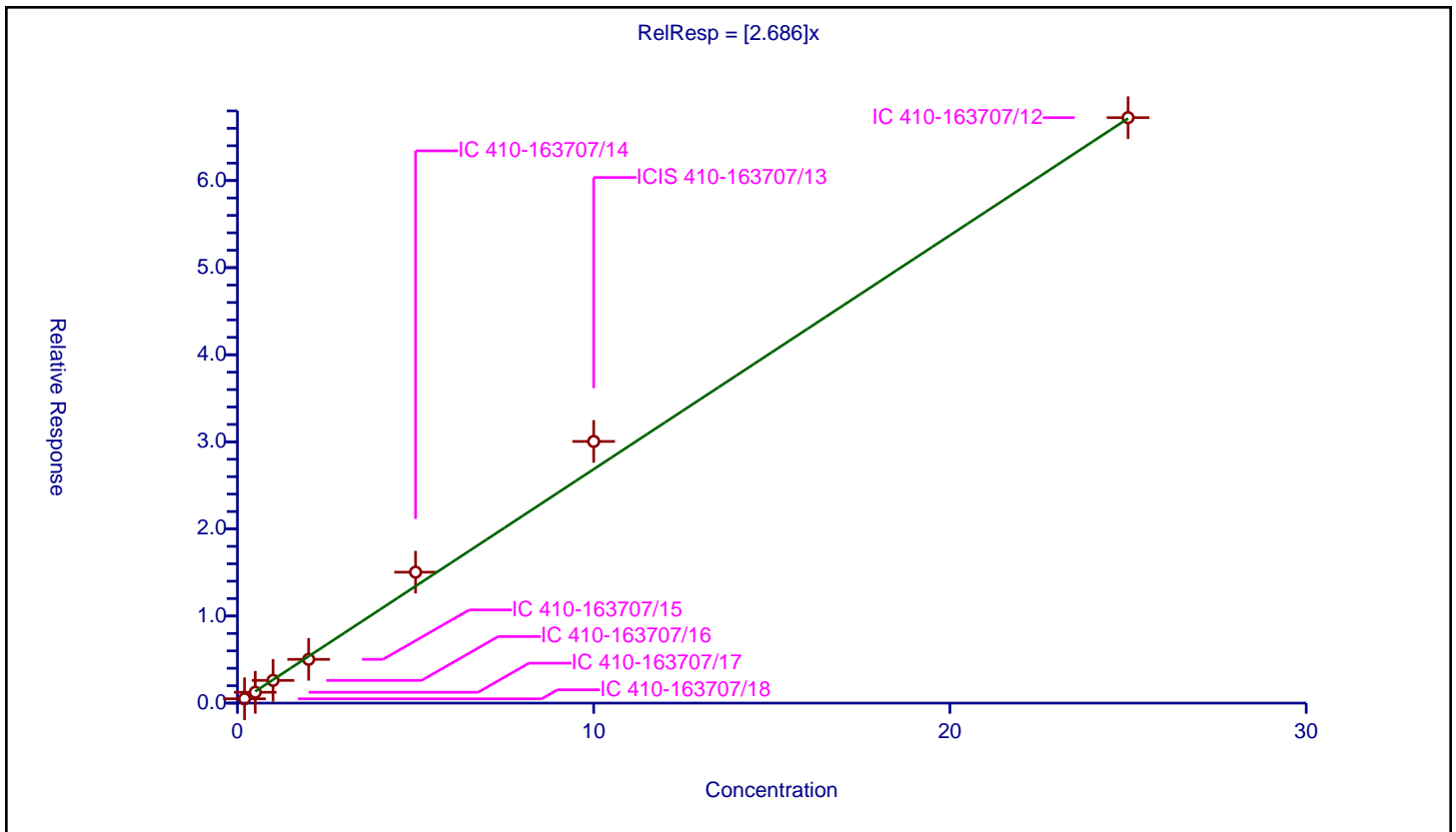
/ 1,3,5-Trimethylbenzene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	2.686

Error Coefficients	
Standard Error:	3270000
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 410-163707/18	0.2	0.497533	10.0	1012314.0	2.487667	Y
2	IC 410-163707/17	0.5	1.244622	10.0	1102182.0	2.489244	Y
3	IC 410-163707/16	1.0	2.609098	10.0	987778.0	2.609098	Y
4	IC 410-163707/15	2.0	5.025571	10.0	984300.0	2.512786	Y
5	IC 410-163707/14	5.0	15.035423	10.0	963071.0	3.007085	Y
6	ICIS 410-163707/13	10.0	30.045827	10.0	963407.0	3.004583	Y
7	IC 410-163707/12	25.0	67.223126	10.0	1087615.0	2.688925	Y



Calibration

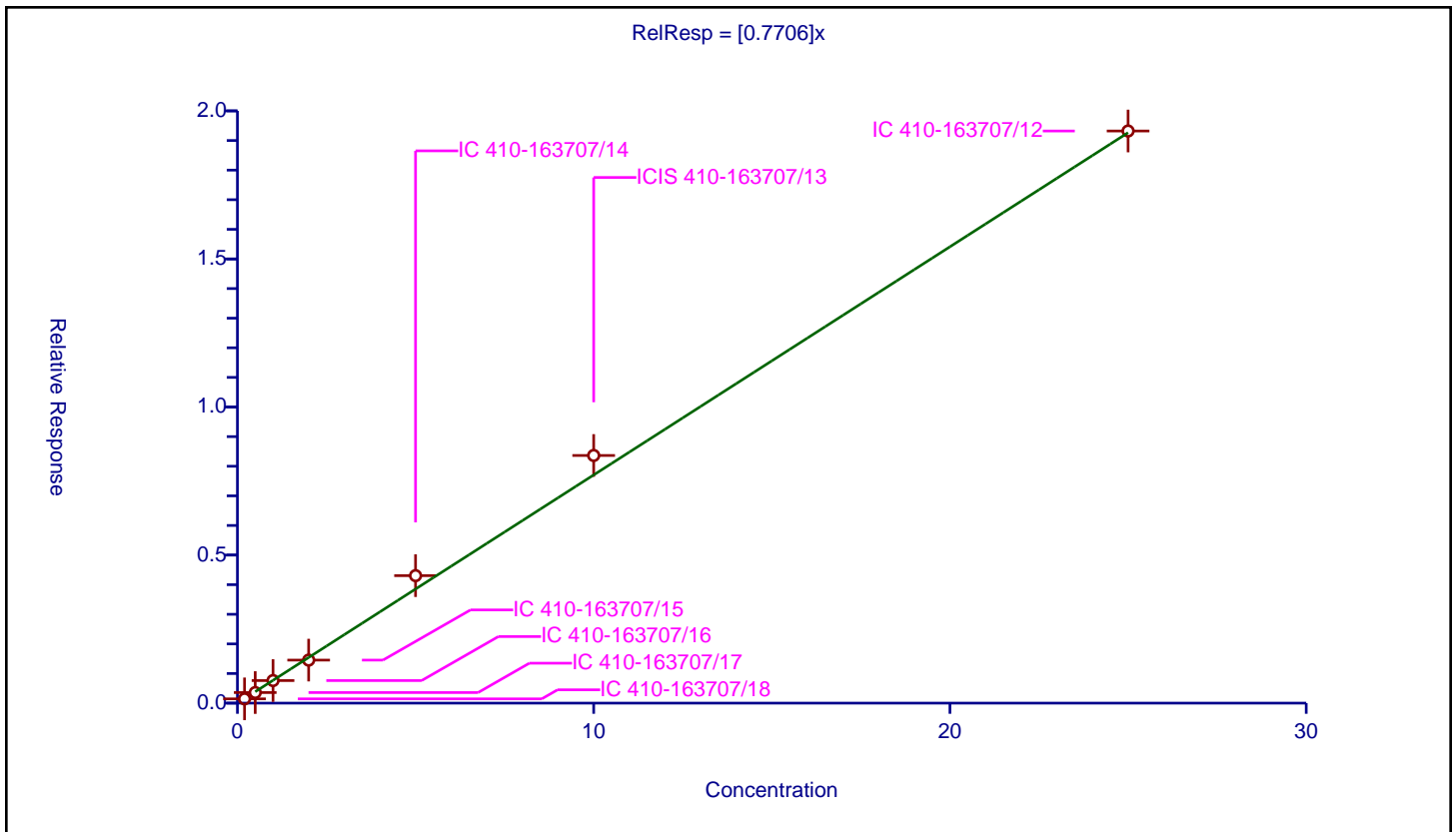
/ 4-Chlorotoluene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.7706

Error Coefficients	
Standard Error:	937000
Relative Standard Error:	7.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.144125	10.0	1012314.0	0.720626	Y
2	IC 410-163707/17	0.5	0.357201	10.0	1102182.0	0.714401	Y
3	IC 410-163707/16	1.0	0.762479	10.0	987778.0	0.762479	Y
4	IC 410-163707/15	2.0	1.452708	10.0	984300.0	0.726354	Y
5	IC 410-163707/14	5.0	4.305103	10.0	963071.0	0.861021	Y
6	ICIS 410-163707/13	10.0	8.363174	10.0	963407.0	0.836317	Y
7	IC 410-163707/12	25.0	19.320945	10.0	1087615.0	0.772838	Y



Calibration

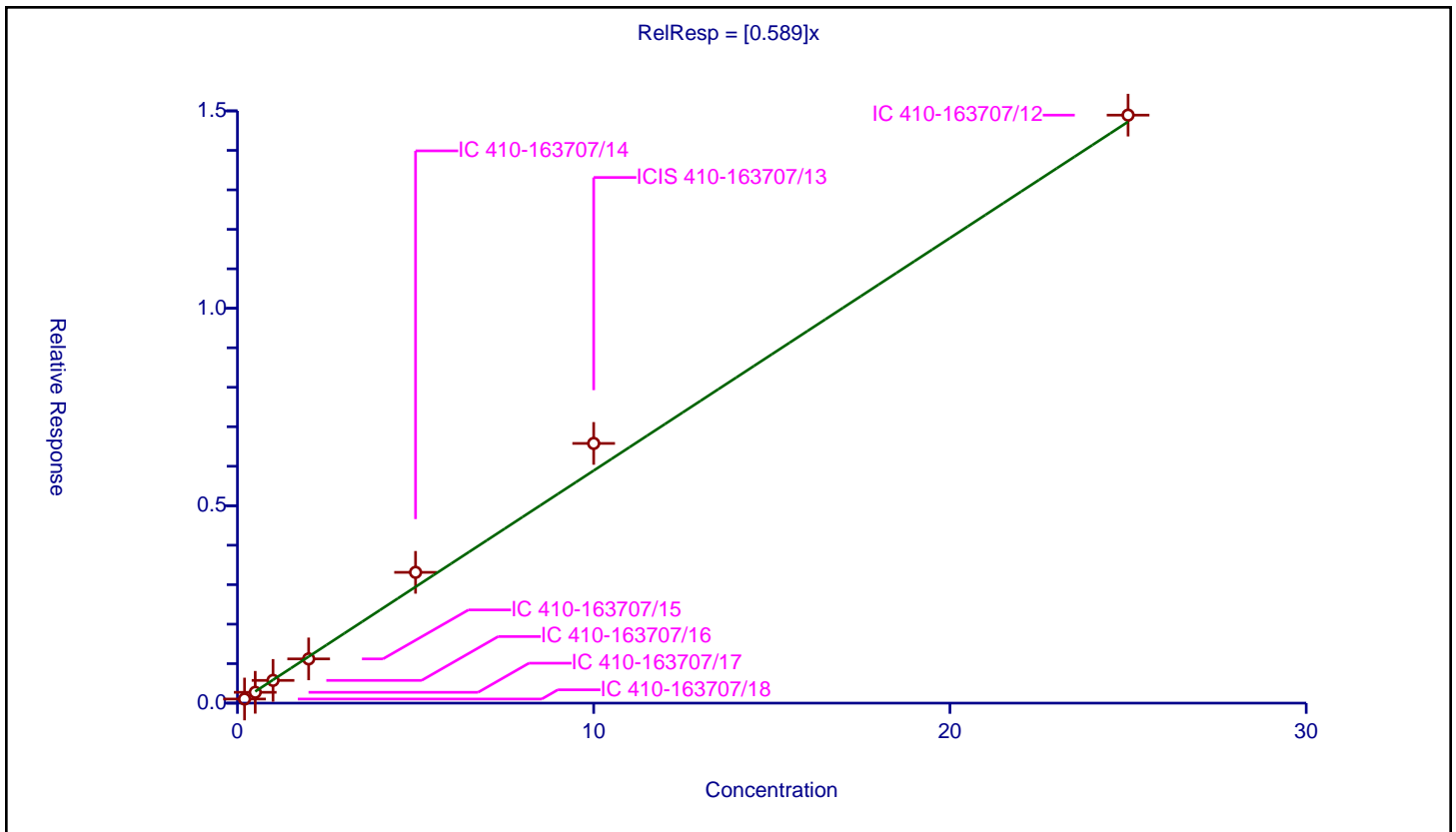
/ tert-Butylbenzene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.589

Error Coefficients	
Standard Error:	724000
Relative Standard Error:	9.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.104394	10.0	1012314.0	0.521972	Y
2	IC 410-163707/17	0.5	0.274546	10.0	1102182.0	0.549093	Y
3	IC 410-163707/16	1.0	0.575716	10.0	987778.0	0.575716	Y
4	IC 410-163707/15	2.0	1.120207	10.0	984300.0	0.560104	Y
5	IC 410-163707/14	5.0	3.312715	10.0	963071.0	0.662543	Y
6	ICIS 410-163707/13	10.0	6.577833	10.0	963407.0	0.657783	Y
7	IC 410-163707/12	25.0	14.892798	10.0	1087615.0	0.595712	Y





Calibration

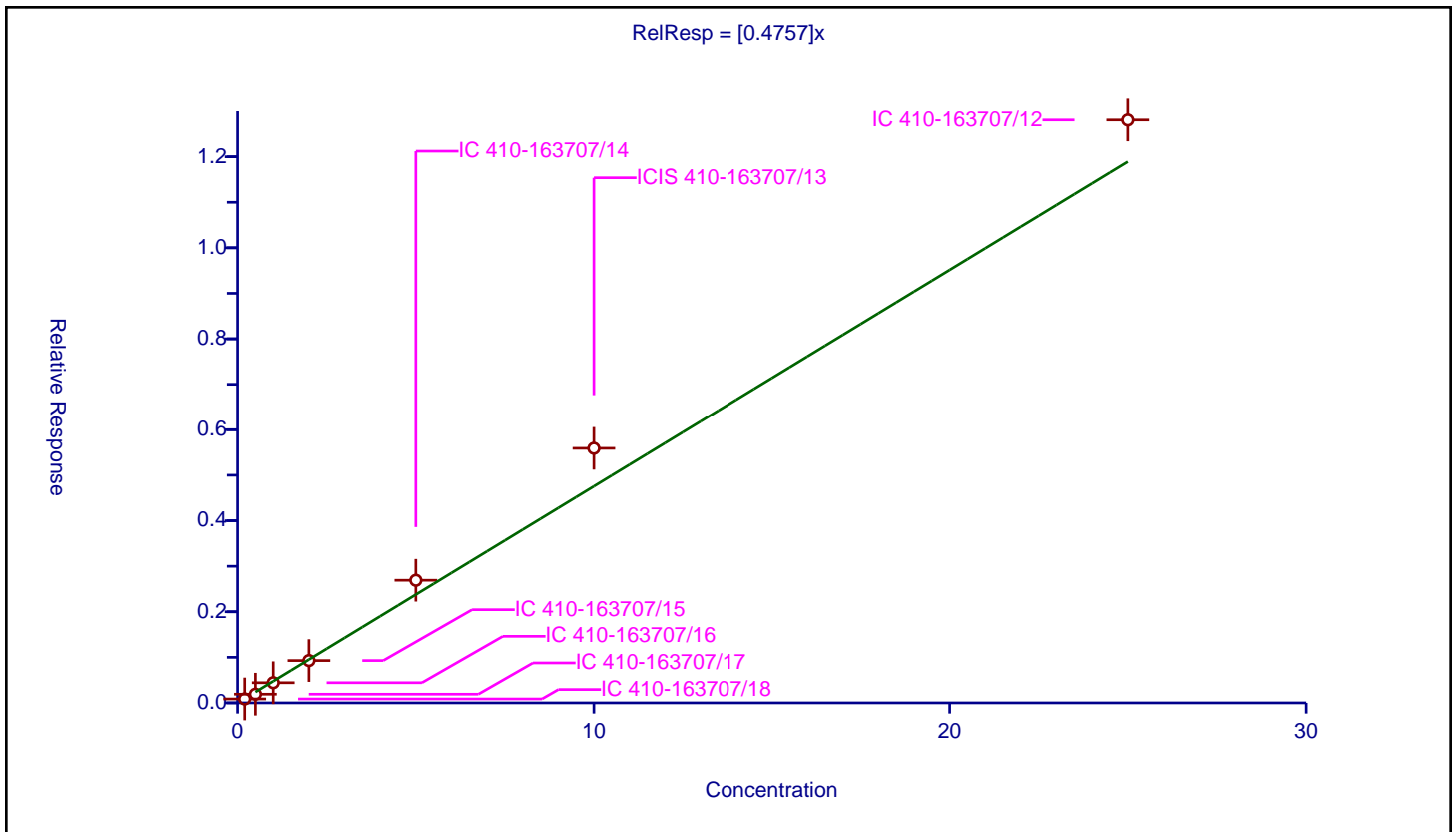
/ Pentachloroethane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4757

Error Coefficients	
Standard Error:	620000
Relative Standard Error:	13.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.979

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.086357	10.0	1012314.0	0.431783	Y
2	IC 410-163707/17	0.5	0.190622	10.0	1102182.0	0.381244	Y
3	IC 410-163707/16	1.0	0.442529	10.0	987778.0	0.442529	Y
4	IC 410-163707/15	2.0	0.928386	10.0	984300.0	0.464193	Y
5	IC 410-163707/14	5.0	2.692314	10.0	963071.0	0.538463	Y
6	ICIS 410-163707/13	10.0	5.591417	10.0	963407.0	0.559142	Y
7	IC 410-163707/12	25.0	12.808751	10.0	1087615.0	0.51235	Y



Calibration

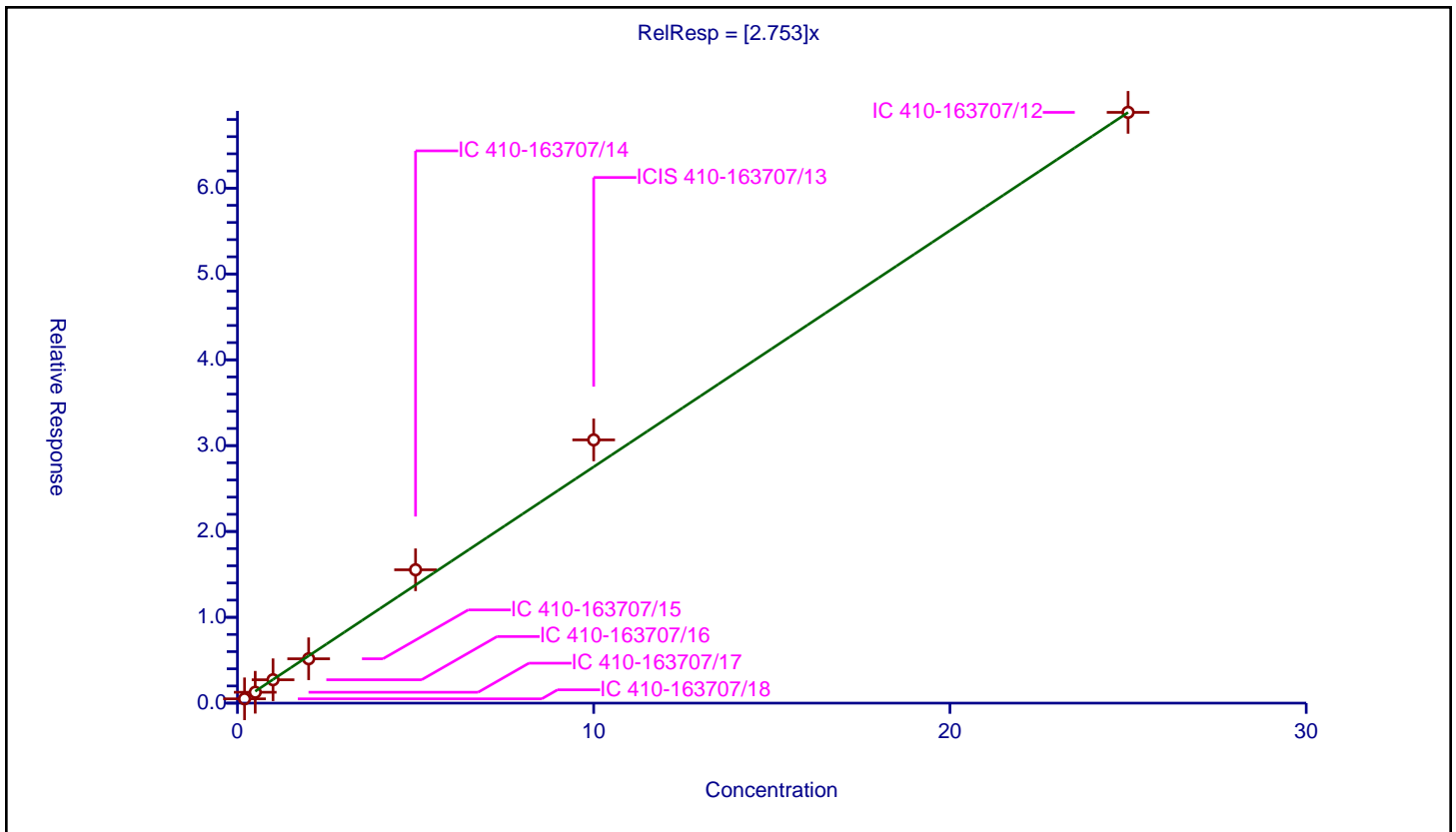
/ 1,2,4-Trimethylbenzene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	2.753

Error Coefficients	
Standard Error:	3350000
Relative Standard Error:	9.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.500685	10.0	1012314.0	2.503423	Y
2	IC 410-163707/17	0.5	1.266578	10.0	1102182.0	2.533157	Y
3	IC 410-163707/16	1.0	2.72217	10.0	987778.0	2.72217	Y
4	IC 410-163707/15	2.0	5.167469	10.0	984300.0	2.583735	Y
5	IC 410-163707/14	5.0	15.536342	10.0	963071.0	3.107268	Y
6	ICIS 410-163707/13	10.0	30.668907	10.0	963407.0	3.066891	Y
7	IC 410-163707/12	25.0	68.830165	10.0	1087615.0	2.753207	Y



Calibration

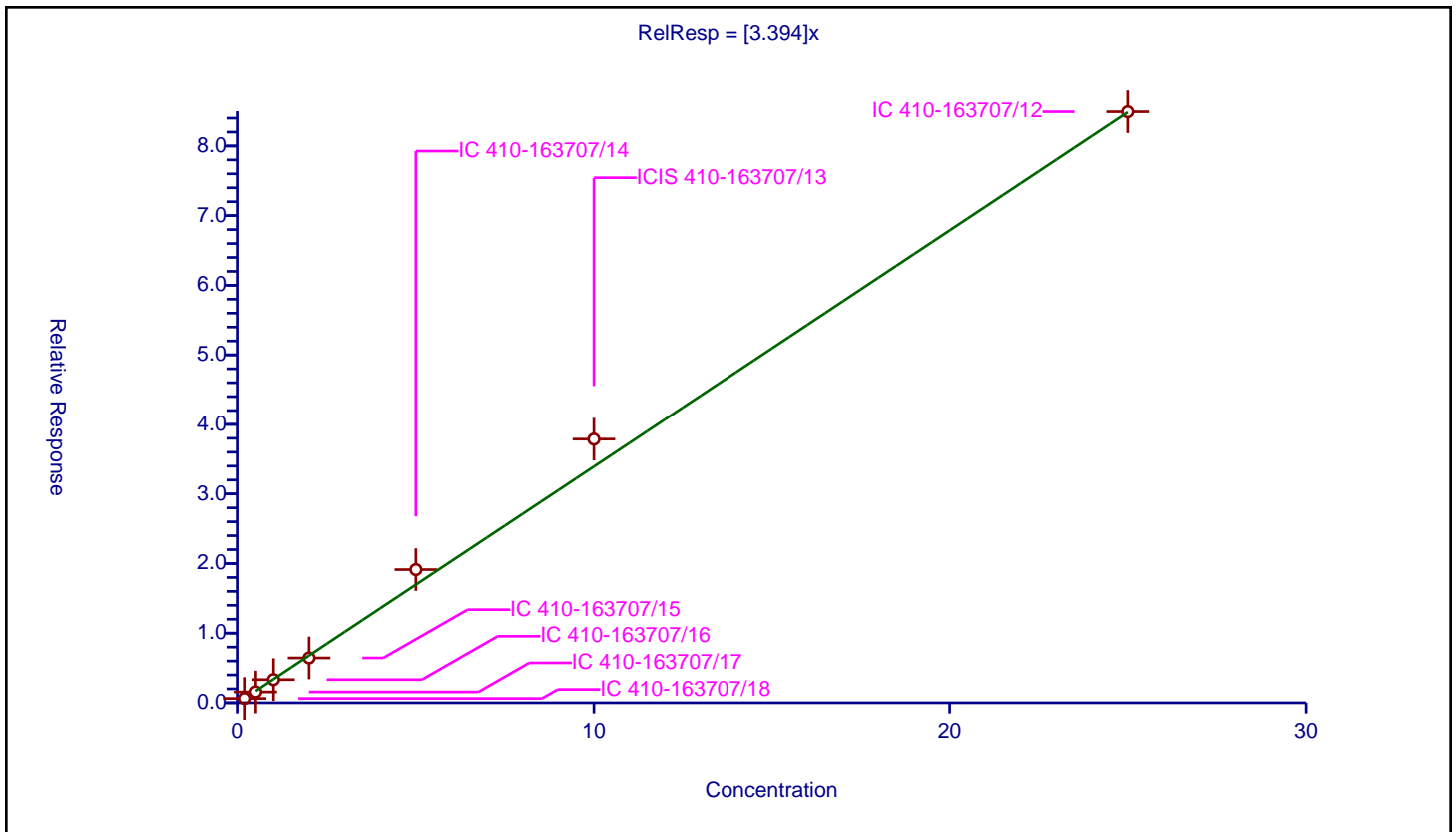
/ sec-Butylbenzene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	3.394

Error Coefficients	
Standard Error:	4130000
Relative Standard Error:	8.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.619768	10.0	1012314.0	3.098841	Y
2	IC 410-163707/17	0.5	1.553364	10.0	1102182.0	3.106728	Y
3	IC 410-163707/16	1.0	3.322953	10.0	987778.0	3.322953	Y
4	IC 410-163707/15	2.0	6.437753	10.0	984300.0	3.218876	Y
5	IC 410-163707/14	5.0	19.12941	10.0	963071.0	3.825882	Y
6	ICIS 410-163707/13	10.0	37.881799	10.0	963407.0	3.78818	Y
7	IC 410-163707/12	25.0	84.922505	10.0	1087615.0	3.3969	Y



**Calibration**

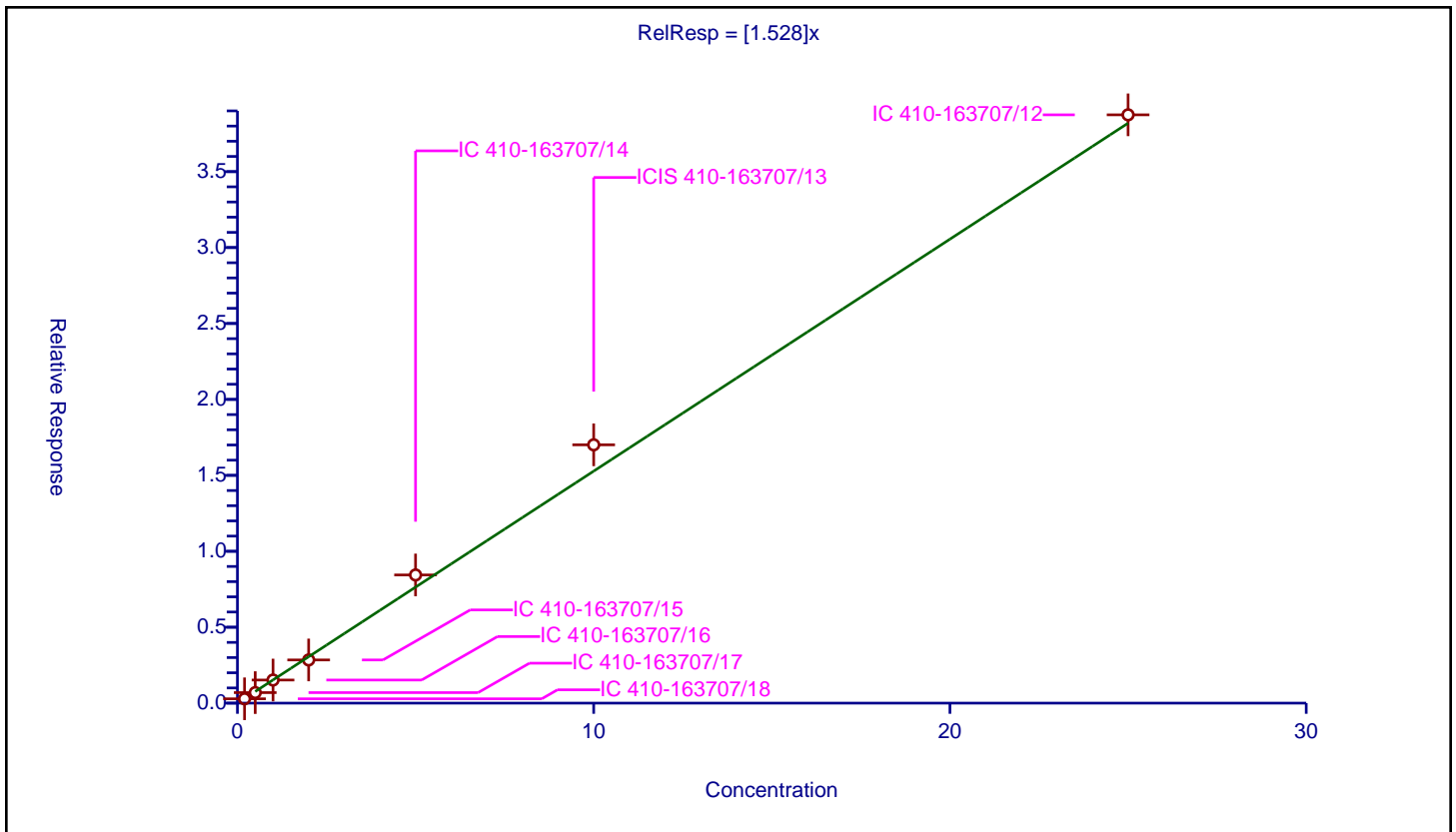
**/ 1,3-Dichlorobenzene**

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.528

Error Coefficients	
Standard Error:	1880000
Relative Standard Error:	8.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.284645	10.0	1012314.0	1.423224	Y
2	IC 410-163707/17	0.5	0.693851	10.0	1102182.0	1.387702	Y
3	IC 410-163707/16	1.0	1.52181	10.0	987778.0	1.52181	Y
4	IC 410-163707/15	2.0	2.84397	10.0	984300.0	1.421985	Y
5	IC 410-163707/14	5.0	8.441112	10.0	963071.0	1.688222	Y
6	ICIS 410-163707/13	10.0	17.010381	10.0	963407.0	1.701038	Y
7	IC 410-163707/12	25.0	38.740942	10.0	1087615.0	1.549638	Y



**Calibration**

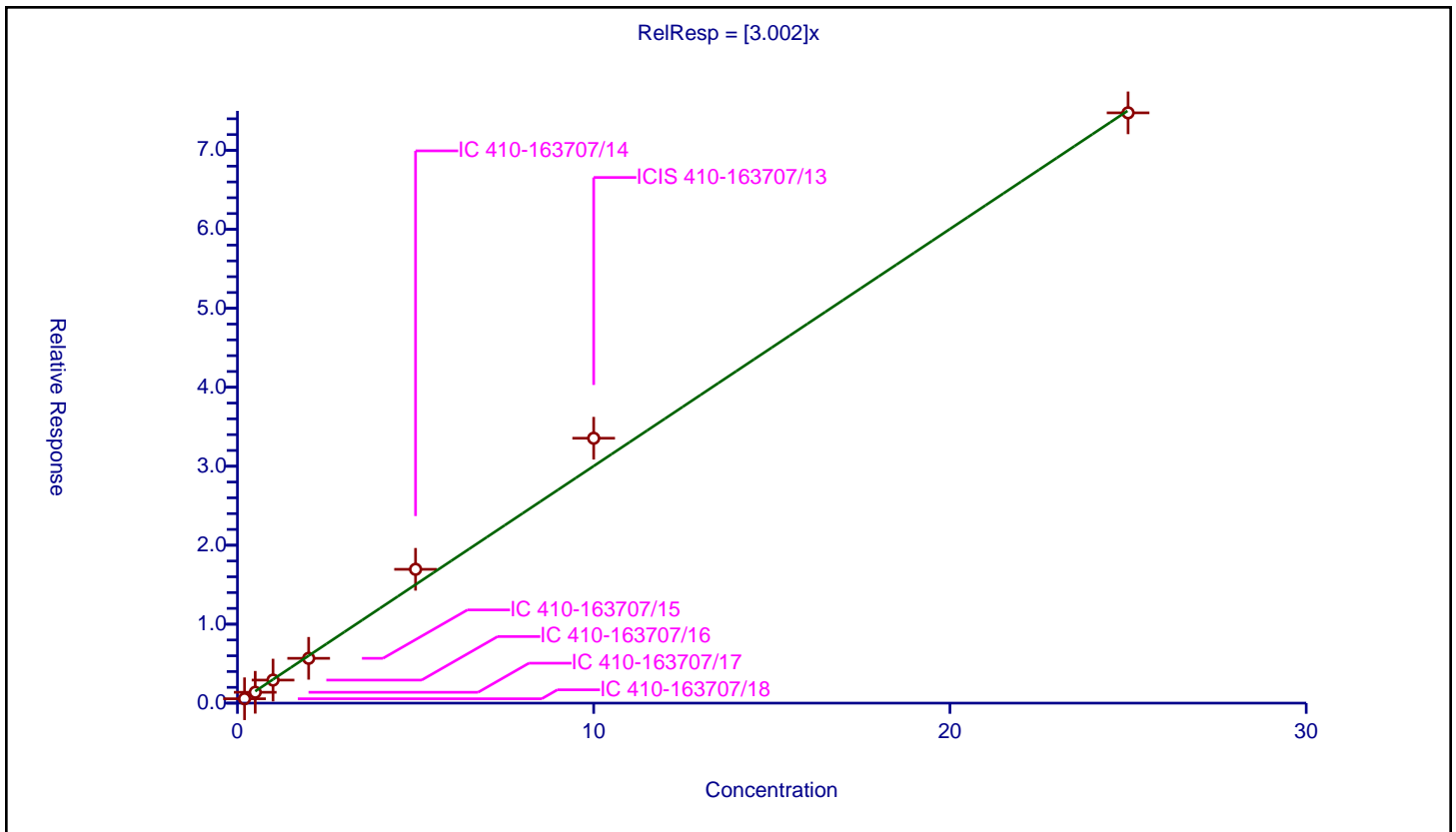
**/ 4-Isopropyltoluene**

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	3.002

Error Coefficients	
Standard Error:	3640000
Relative Standard Error:	8.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.555351	10.0	1012314.0	2.776757	Y
2	IC 410-163707/17	0.5	1.374229	10.0	1102182.0	2.748457	Y
3	IC 410-163707/16	1.0	2.917741	10.0	987778.0	2.917741	Y
4	IC 410-163707/15	2.0	5.67513	10.0	984300.0	2.837565	Y
5	IC 410-163707/14	5.0	16.946186	10.0	963071.0	3.389237	Y
6	ICIS 410-163707/13	10.0	33.546186	10.0	963407.0	3.354619	Y
7	IC 410-163707/12	25.0	74.755359	10.0	1087615.0	2.990214	Y



Calibration

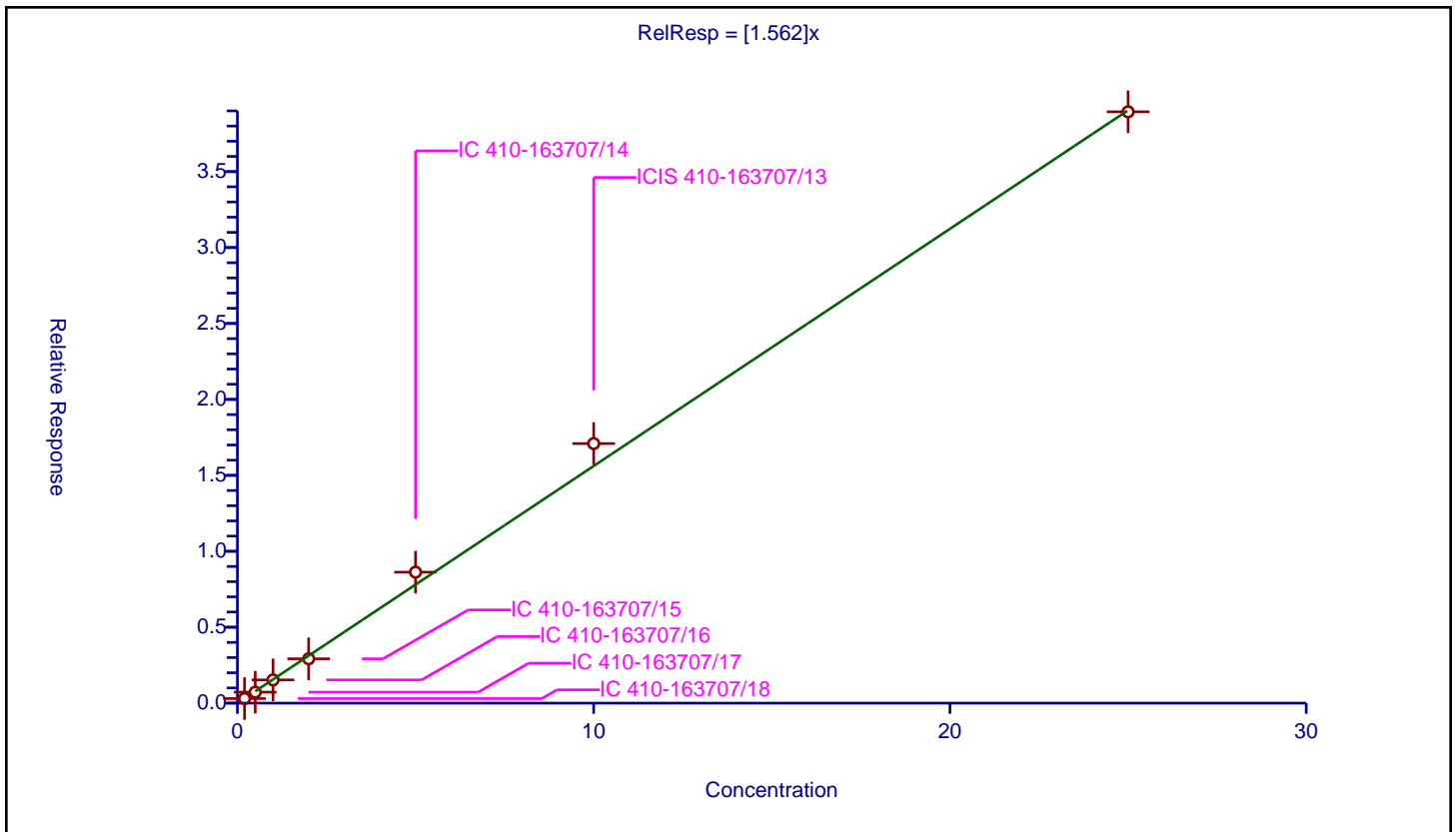
/ 1,4-Dichlorobenzene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.562

Error Coefficients	
Standard Error:	1890000
Relative Standard Error:	7.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.300223	10.0	1012314.0	1.501115	Y
2	IC 410-163707/17	0.5	0.724227	10.0	1102182.0	1.448454	Y
3	IC 410-163707/16	1.0	1.529858	10.0	987778.0	1.529858	Y
4	IC 410-163707/15	2.0	2.919527	10.0	984300.0	1.459763	Y
5	IC 410-163707/14	5.0	8.625044	10.0	963071.0	1.725009	Y
6	ICIS 410-163707/13	10.0	17.091478	10.0	963407.0	1.709148	Y
7	IC 410-163707/12	25.0	38.939478	10.0	1087615.0	1.557579	Y



Calibration

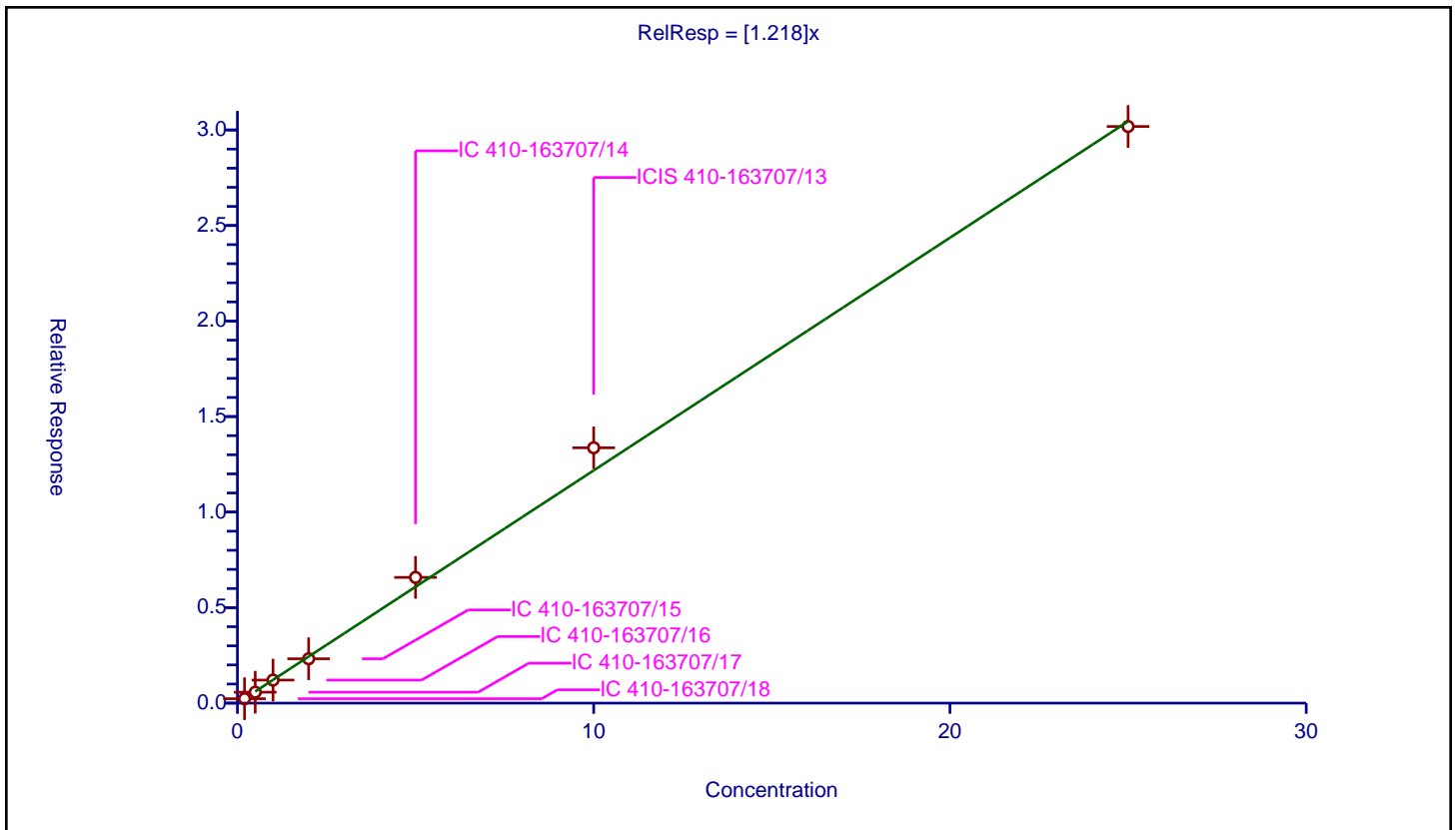
/ 1,2,3-Trimethylbenzene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.218

Error Coefficients	
Standard Error:	1470000
Relative Standard Error:	6.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.23067	10.0	1012314.0	1.153348	Y
2	IC 410-163707/17	0.5	0.572346	10.0	1102182.0	1.144693	Y
3	IC 410-163707/16	1.0	1.207134	10.0	987778.0	1.207134	Y
4	IC 410-163707/15	2.0	2.321447	10.0	984300.0	1.160723	Y
5	IC 410-163707/14	5.0	6.580346	10.0	963071.0	1.316069	Y
6	ICIS 410-163707/13	10.0	13.365639	10.0	963407.0	1.336564	Y
7	IC 410-163707/12	25.0	30.182969	10.0	1087615.0	1.207319	Y



**Calibration**

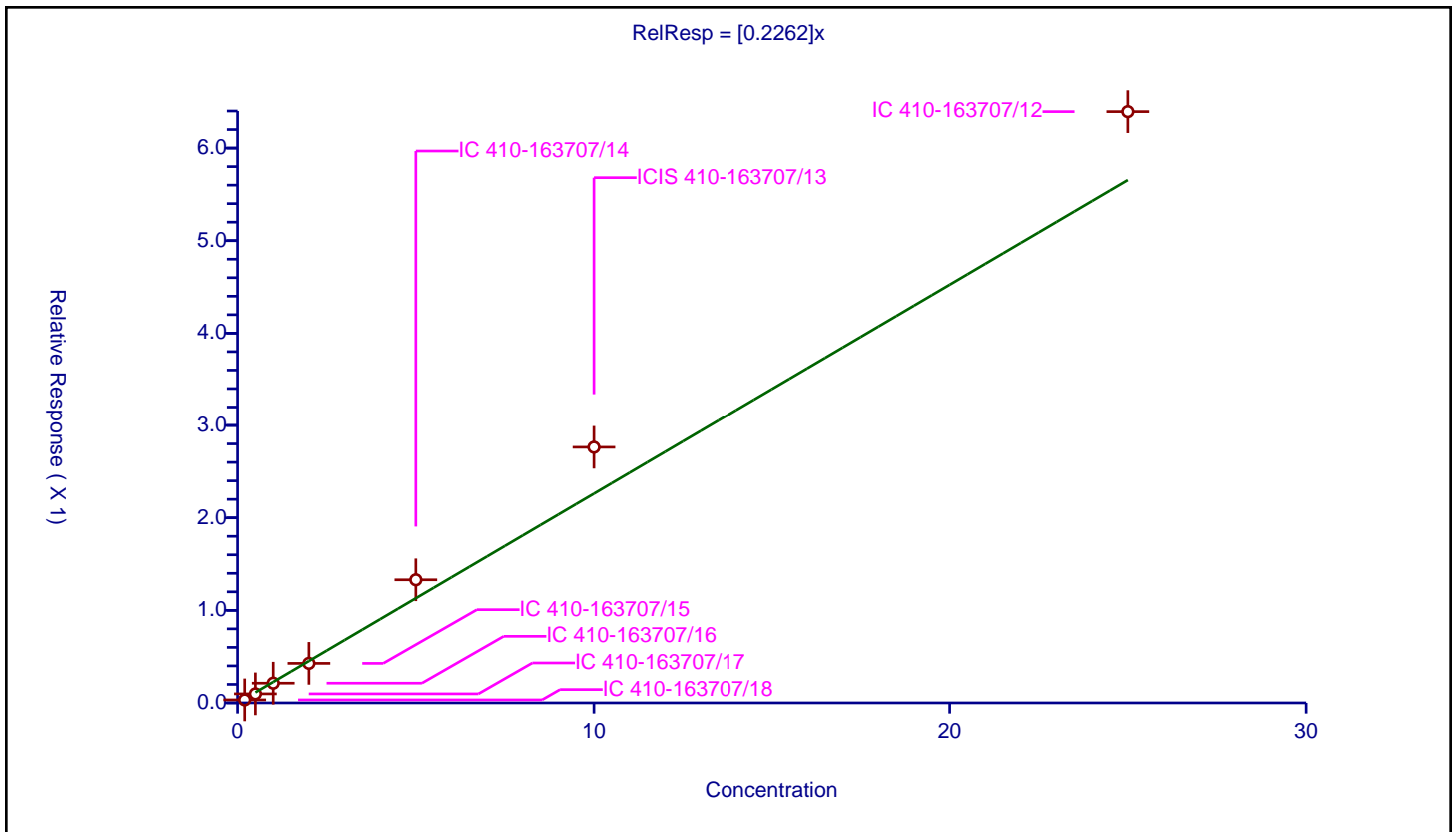
/ Benzyl chloride

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.2262

Error Coefficients	
Standard Error:	309000
Relative Standard Error:	18.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.964

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.032569	10.0	1012314.0	0.162845	Y
2	IC 410-163707/17	0.5	0.097851	10.0	1102182.0	0.195703	Y
3	IC 410-163707/16	1.0	0.213074	10.0	987778.0	0.213074	Y
4	IC 410-163707/15	2.0	0.427177	10.0	984300.0	0.213588	Y
5	IC 410-163707/14	5.0	1.330213	10.0	963071.0	0.266043	Y
6	ICIS 410-163707/13	10.0	2.763681	10.0	963407.0	0.276368	Y
7	IC 410-163707/12	25.0	6.393292	10.0	1087615.0	0.255732	Y





Calibration

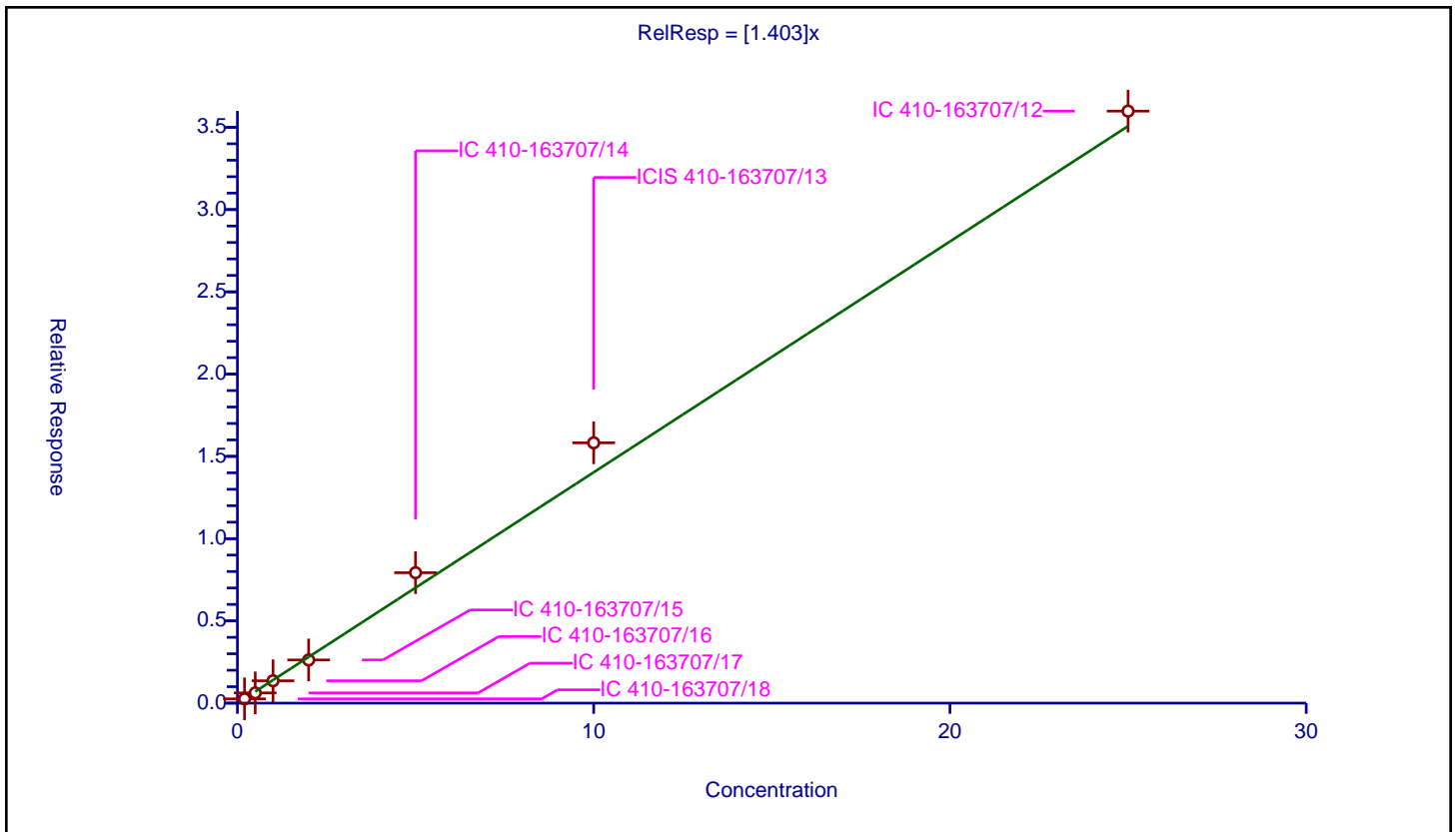
/ n-Butylbenzene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.403

Error Coefficients	
Standard Error:	1750000
Relative Standard Error:	9.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.988

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.259198	10.0	1012314.0	1.295991	Y
2	IC 410-163707/17	0.5	0.623091	10.0	1102182.0	1.246183	Y
3	IC 410-163707/16	1.0	1.358888	10.0	987778.0	1.358888	Y
4	IC 410-163707/15	2.0	2.624403	10.0	984300.0	1.312202	Y
5	IC 410-163707/14	5.0	7.927609	10.0	963071.0	1.585522	Y
6	ICIS 410-163707/13	10.0	15.82351	10.0	963407.0	1.582351	Y
7	IC 410-163707/12	25.0	35.984737	10.0	1087615.0	1.439389	Y



Calibration

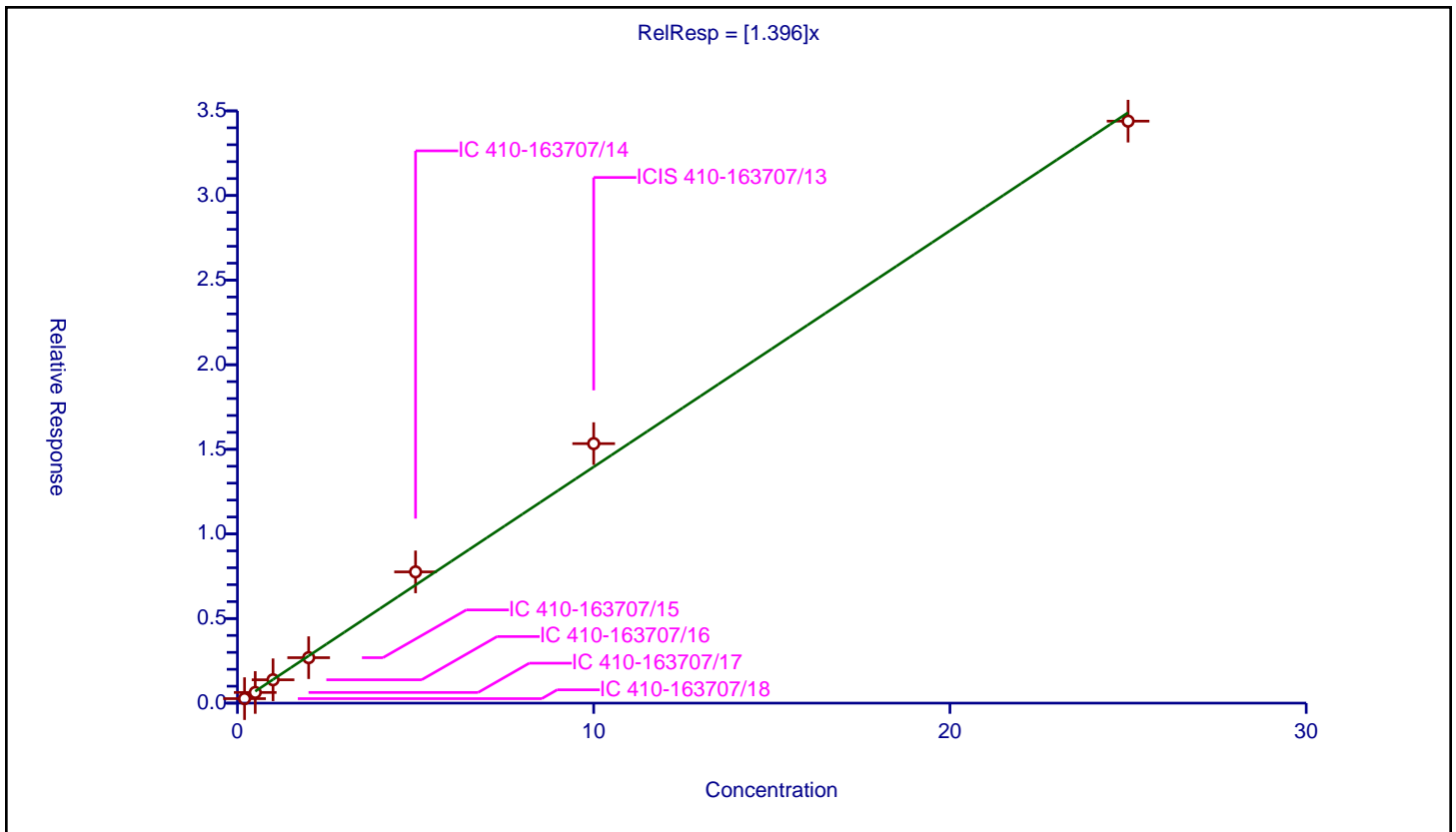
/ 1,2-Dichlorobenzene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.396

Error Coefficients	
Standard Error:	1670000
Relative Standard Error:	7.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.265441	10.0	1012314.0	1.327207	Y
2	IC 410-163707/17	0.5	0.630549	10.0	1102182.0	1.261098	Y
3	IC 410-163707/16	1.0	1.379986	10.0	987778.0	1.379986	Y
4	IC 410-163707/15	2.0	2.686021	10.0	984300.0	1.34301	Y
5	IC 410-163707/14	5.0	7.756386	10.0	963071.0	1.551277	Y
6	ICIS 410-163707/13	10.0	15.33627	10.0	963407.0	1.533627	Y
7	IC 410-163707/12	25.0	34.393742	10.0	1087615.0	1.37575	Y



Calibration

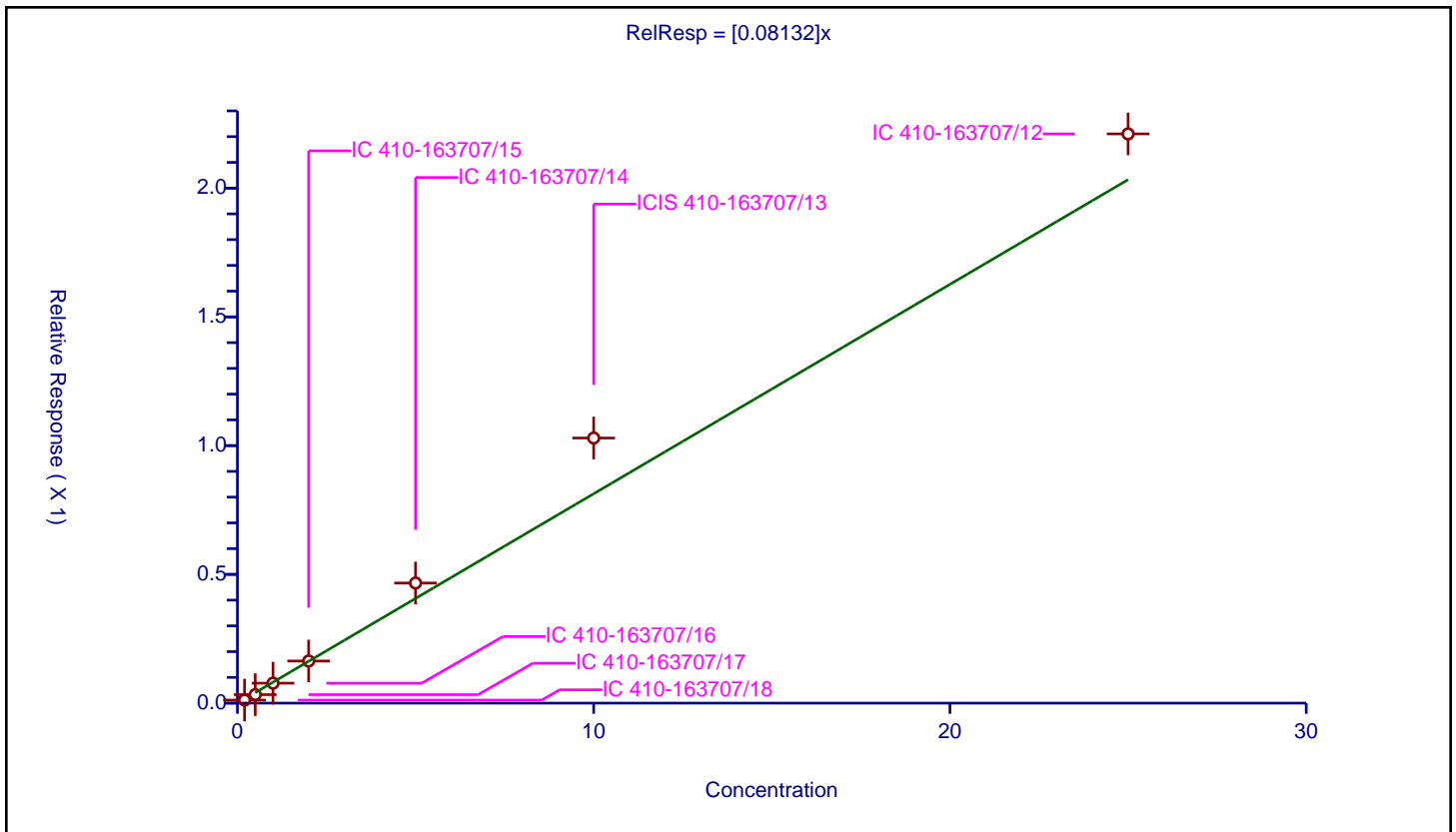
/ 1,2-Dibromo-3-Chloropropane

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.08132

Error Coefficients	
Standard Error:	108000
Relative Standard Error:	18.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.962

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.011854	10.0	1012314.0	0.05927	Y
2	IC 410-163707/17	0.5	0.032971	10.0	1102182.0	0.065942	Y
3	IC 410-163707/16	1.0	0.077538	10.0	987778.0	0.077538	Y
4	IC 410-163707/15	2.0	0.163609	10.0	984300.0	0.081804	Y
5	IC 410-163707/14	5.0	0.466435	10.0	963071.0	0.093287	Y
6	ICIS 410-163707/13	10.0	1.029565	10.0	963407.0	0.102956	Y
7	IC 410-163707/12	25.0	2.210626	10.0	1087615.0	0.088425	Y



Calibration

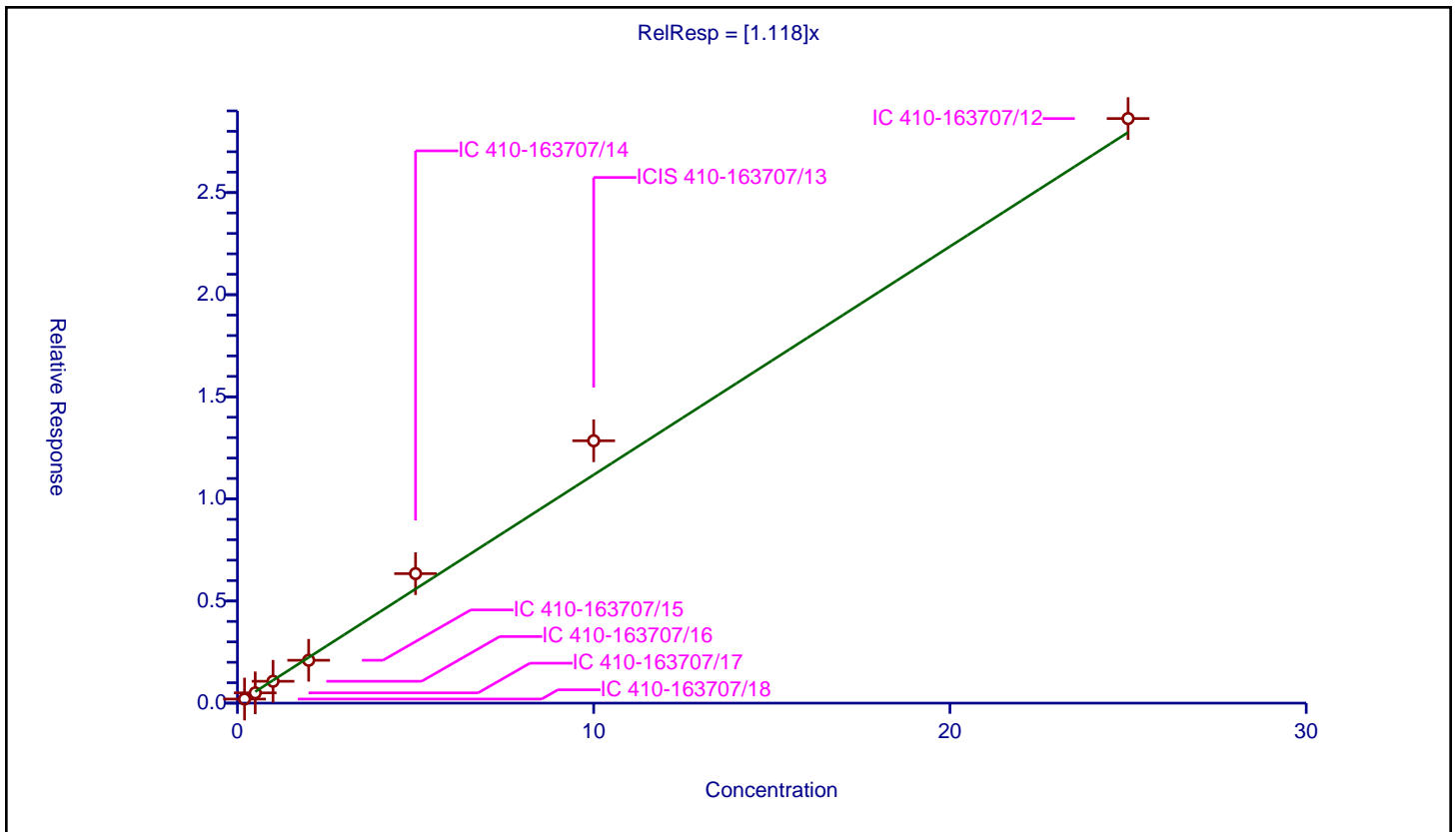
/ 1,3,5-Trichlorobenzene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.118

Error Coefficients	
Standard Error:	1390000
Relative Standard Error:	10.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.986

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.200224	10.0	1012314.0	1.001122	Y
2	IC 410-163707/17	0.5	0.503329	10.0	1102182.0	1.006658	Y
3	IC 410-163707/16	1.0	1.07024	10.0	987778.0	1.07024	Y
4	IC 410-163707/15	2.0	2.099157	10.0	984300.0	1.049578	Y
5	IC 410-163707/14	5.0	6.341017	10.0	963071.0	1.268203	Y
6	ICIS 410-163707/13	10.0	12.847426	10.0	963407.0	1.284743	Y
7	IC 410-163707/12	25.0	28.624807	10.0	1087615.0	1.144992	Y



Calibration

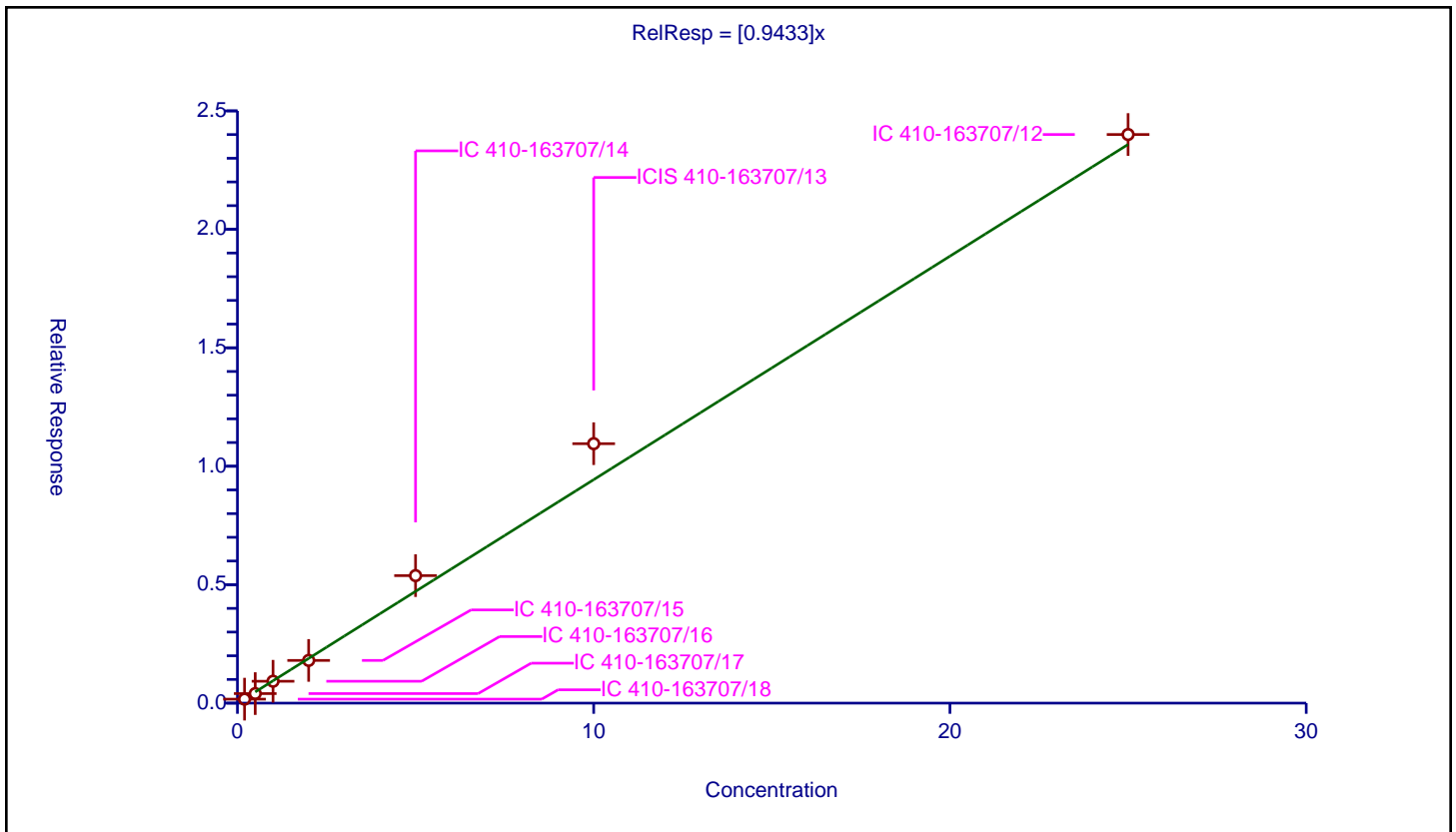
/ 1,2,4-Trichlorobenzene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.9433

Error Coefficients	
Standard Error:	1170000
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 410-163707/18	0.2	0.167972	10.0	1012314.0	0.839858	Y
2	IC 410-163707/17	0.5	0.403146	10.0	1102182.0	0.806292	Y
3	IC 410-163707/16	1.0	0.924094	10.0	987778.0	0.924094	Y
4	IC 410-163707/15	2.0	1.802753	10.0	984300.0	0.901377	Y
5	IC 410-163707/14	5.0	5.38195	10.0	963071.0	1.07639	Y
6	ICIS 410-163707/13	10.0	10.951602	10.0	963407.0	1.09516	Y
7	IC 410-163707/12	25.0	24.002712	10.0	1087615.0	0.960108	Y



Calibration

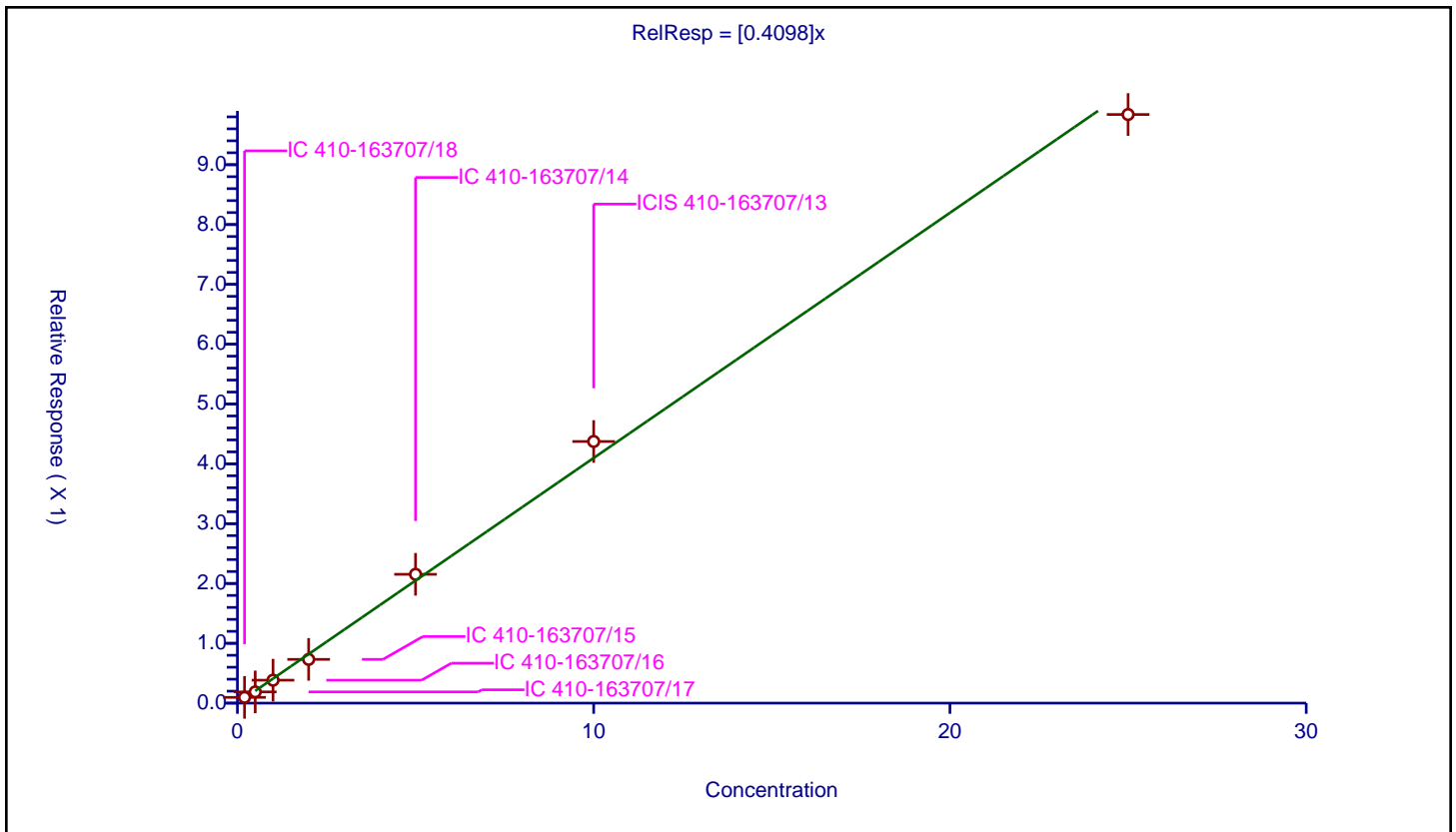
/ Hexachlorobutadiene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.4098

Error Coefficients	
Standard Error:	478000
Relative Standard Error:	10.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.985

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.096452	10.0	1012314.0	0.482261	Y
2	IC 410-163707/17	0.5	0.187809	10.0	1102182.0	0.375619	Y
3	IC 410-163707/16	1.0	0.383538	10.0	987778.0	0.383538	Y
4	IC 410-163707/15	2.0	0.73121	10.0	984300.0	0.365605	Y
5	IC 410-163707/14	5.0	2.153476	10.0	963071.0	0.430695	Y
6	ICIS 410-163707/13	10.0	4.373489	10.0	963407.0	0.437349	Y
7	IC 410-163707/12	25.0	9.839318	10.0	1087615.0	0.393573	Y



Calibration

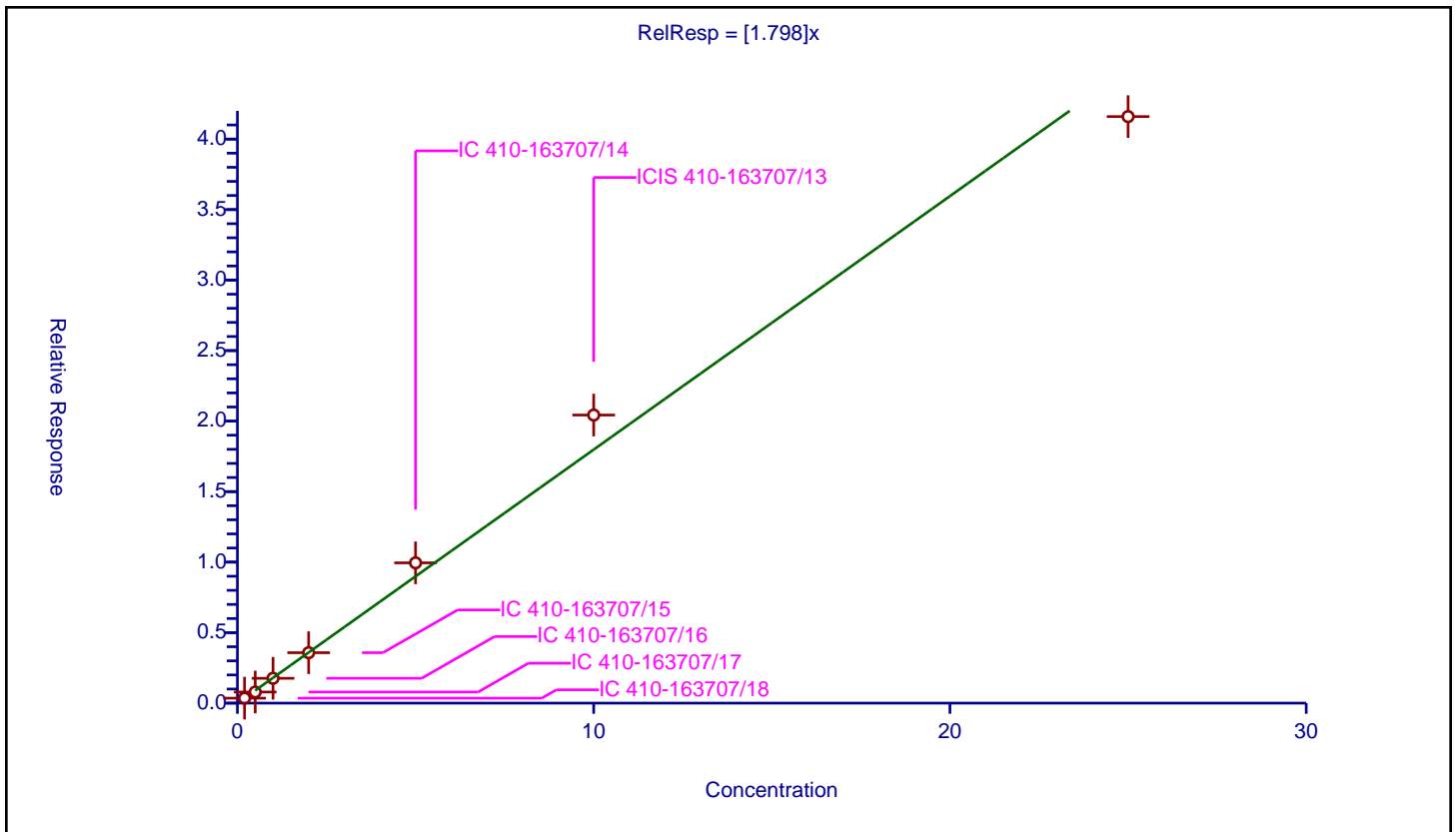
/ Naphthalene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	1.798

Error Coefficients	
Standard Error:	2060000
Relative Standard Error:	9.3
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.989

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.352371	10.0	1012314.0	1.761855	Y
2	IC 410-163707/17	0.5	0.78879	10.0	1102182.0	1.57758	Y
3	IC 410-163707/16	1.0	1.760709	10.0	987778.0	1.760709	Y
4	IC 410-163707/15	2.0	3.575648	10.0	984300.0	1.787824	Y
5	IC 410-163707/14	5.0	9.949962	10.0	963071.0	1.989992	Y
6	ICIS 410-163707/13	10.0	20.429299	10.0	963407.0	2.04293	Y
7	IC 410-163707/12	25.0	41.596539	10.0	1087615.0	1.663862	Y



Calibration

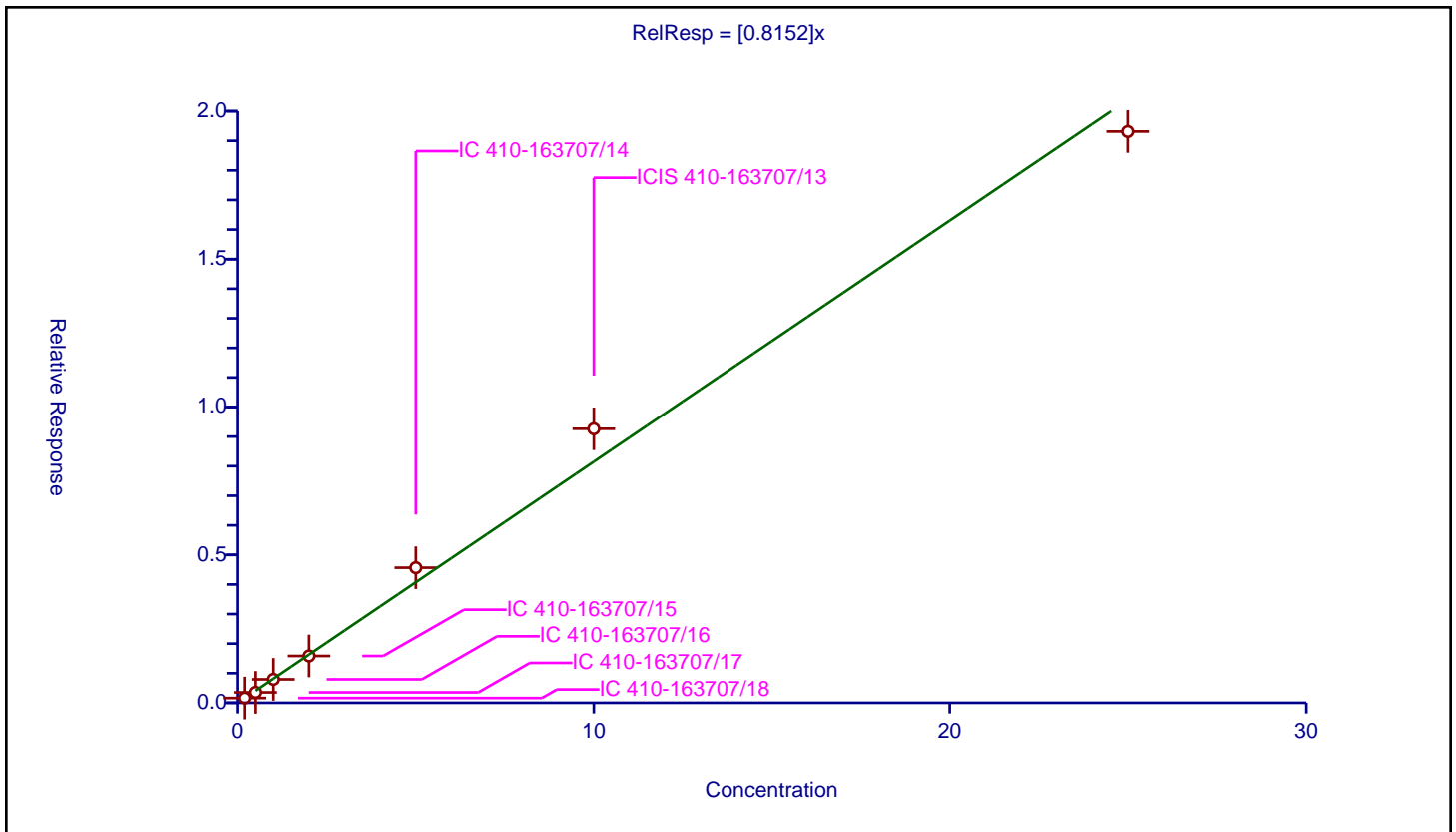
/ 1,2,3-Trichlorobenzene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

Curve Coefficients	
Intercept:	0
Slope:	0.8152

Error Coefficients	
Standard Error:	952000
Relative Standard Error:	9.7
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.988

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-163707/18	0.2	0.160997	10.0	1012314.0	0.804987	Y
2	IC 410-163707/17	0.5	0.352519	10.0	1102182.0	0.705038	Y
3	IC 410-163707/16	1.0	0.792131	10.0	987778.0	0.792131	Y
4	IC 410-163707/15	2.0	1.583785	10.0	984300.0	0.791893	Y
5	IC 410-163707/14	5.0	4.567877	10.0	963071.0	0.913575	Y
6	ICIS 410-163707/13	10.0	9.26379	10.0	963407.0	0.926379	Y
7	IC 410-163707/12	25.0	19.313342	10.0	1087615.0	0.772534	Y





FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-71043-1

SDG No.: \_\_\_\_\_

Lab Sample ID: ICV 410-207981/21 Calibration Date: 12/21/2021 21:20

Instrument ID: 19094 Calib Start Date: 12/21/2021 18:35

GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 12/21/2021 20:38

Lab File ID: HD21V11.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	0.3237	0.3215	0.1000	4.97	5.00	-0.7	30.0
Chloromethane	Ave	0.3983	0.3875	0.1000	4.87	5.00	-2.7	30.0
1,3-Butadiene	Ave	0.4037	0.3448		4.27	5.00	-14.6	30.0
Vinyl chloride	Ave	0.3968	0.3856	0.1000	4.86	5.00	-2.8	30.0
Bromomethane	Ave	0.2661	0.2582	0.1000	4.85	5.00	-2.9	30.0
Chloroethane	Ave	0.2262	0.2191	0.1000	4.84	5.00	-3.1	30.0
Dichlorofluoromethane	Ave	0.5222	0.5345		5.12	5.00	2.3	30.0
Trichlorofluoromethane	Ave	0.4979	0.4822	0.1000	4.84	5.00	-3.1	30.0
Ethyl ether	Ave	0.1757	0.1950		5.52	4.97	11.0	30.0
Freon 123a	Ave	0.3634	0.3529		4.86	5.00	-2.9	30.0
Acrolein	Ave	4.188	3.150		28.2	37.5	-24.8	30.0
1,1-Dichloroethene	Ave	0.2675	0.2787	0.1000	5.21	5.00	4.2	30.0
Acetone	Ave	4.531	3.422	0.1000	47.2	62.5	-24.5	30.0
Freon 113	Ave	0.2673	0.2932	0.1000	5.48	5.00	9.7	30.0
Methyl iodide	Ave	0.4682	0.5144		5.49	5.00	9.9	30.0
Ethyl bromide	Ave	0.2274	0.2205		4.91	5.07	-3.0	30.0
Carbon disulfide	Ave	0.6557	0.7369	0.1000	5.62	5.00	12.4	30.0
Methyl acetate	Ave	15.52	12.59	0.1000	4.06	5.00	-18.9	30.0
Allyl chloride	Ave	0.4142	0.4396		5.31	5.00	6.1	30.0
Methylene Chloride	Ave	0.2844	0.2784	0.1000	4.89	5.00	-2.1	30.0
t-Butyl alcohol	Ave	1.057	0.9324		44.1	50.0	-11.8	30.0
Acrylonitrile	Ave	6.110	5.278		21.6	25.0	-13.6	30.0
Methyl tert-butyl ether	Ave	0.5828	0.6097	0.1000	5.23	5.00	4.6	30.0
trans-1,2-Dichloroethene	Ave	0.2875	0.2882	0.1000	5.01	5.00	0.2	30.0
n-Hexane	Ave	0.3795	0.3891		5.13	5.00	2.5	30.0
1,1-Dichloroethane	Ave	0.5293	0.5249	0.2000	4.96	5.00	-0.8	30.0
di-Isopropyl ether	Ave	0.8710	0.8921		5.12	5.00	2.4	30.0
2-Chloro-1,3-butadiene	Ave	0.4354	0.4688		5.38	5.00	7.7	30.0
Ethyl t-butyl ether	Ave	0.7434	0.7736		5.20	5.00	4.1	30.0
2-Butanone (MEK)	Ave	8.301	6.769	0.1000	51.0	62.5	-18.4	30.0
cis-1,2-Dichloroethene	Ave	0.3132	0.3210	0.1000	5.13	5.00	2.5	30.0
2,2-Dichloropropane	Ave	0.4349	0.4393		5.05	5.00	1.0	30.0
Propionitrile	Ave	2.128	1.744		30.7	37.5	-18.0	30.0
Methacrylonitrile	Ave	9.460	7.142		28.3	37.5	-24.5	30.0
Bromochloromethane	Ave	0.1313	0.1370		5.22	5.00	4.4	30.0
Tetrahydrofuran	Ave	2.309	1.865		20.2	25.0	-19.2	30.0
Chloroform	Ave	0.5156	0.5081	0.2000	4.93	5.00	-1.5	30.0
1,1,1-Trichloroethane	Ave	0.4747	0.4677	0.1000	4.93	5.00	-1.5	30.0
Cyclohexane	Ave	0.5100	0.5196	0.1000	5.09	5.00	1.9	30.0
1,1-Dichloropropene	Ave	0.4199	0.4241		5.05	5.00	1.0	30.0
Carbon tetrachloride	Ave	0.4139	0.4092	0.1000	4.94	5.00	-1.1	30.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-71043-1

SDG No.: \_\_\_\_\_

Lab Sample ID: ICV 410-207981/21 Calibration Date: 12/21/2021 21:20

Instrument ID: 19094 Calib Start Date: 12/21/2021 18:35

GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 12/21/2021 20:38

Lab File ID: HD21V11.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	0.4449	0.3611		101	125	-18.8	30.0
Benzene	Ave	1.205	1.193	0.5000	4.95	5.00	-1.0	30.0
1,2-Dichloroethane	Ave	0.3006	0.3058	0.1000	5.09	5.00	1.7	30.0
t-Amyl methyl ether	Ave	0.6229	0.6386		5.13	5.00	2.5	30.0
n-Heptane	Ave	0.4003	0.3954		4.94	5.00	-1.2	30.0
n-Butanol	Ave	0.2966	0.2761		233	250	-6.9	30.0
Trichloroethene	Ave	0.3172	0.3142	0.2000	4.95	5.00	-1.0	30.0
Methylcyclohexane	Ave	0.5372	0.5445	0.1000	5.07	5.00	1.4	30.0
1,2-Dichloropropane	Ave	0.3033	0.3022	0.1000	4.98	5.00	-0.4	30.0
Methyl methacrylate	Ave	17.20	13.63		3.96	5.00	-20.8	30.0
1,4-Dioxane	Qua		0.0468	0.0050	67.4	125	-46.1*	30.0
Dibromomethane	Ave	0.1352	0.1373		5.08	5.00	1.5	30.0
Bromodichloromethane	Ave	0.3397	0.3456	0.2000	5.09	5.00	1.7	30.0
2-Nitropropane	Ave	4.677	3.578		3.82	5.00	-23.5	30.0
1-Bromo-2-chloroethane	Ave	0.2676	0.2689		5.03	5.00	0.5	30.0
cis-1,3-Dichloropropene	Ave	0.4292	0.4244	0.2000	4.94	5.00	-1.1	30.0
4-Methyl-2-pentanone (MIBK)	Ave	22.60	17.77	0.1000	49.1	62.5	-21.4	30.0
Toluene	Ave	0.9342	0.8770	0.4000	4.69	5.00	-6.1	30.0
trans-1,3-Dichloropropene	Ave	0.4029	0.4028	0.1000	5.00	5.00	-0.0	30.0
Ethyl methacrylate	Ave	0.3027	0.3105		5.13	5.00	2.6	30.0
1,1,2-Trichloroethane	Ave	0.2307	0.2278	0.1000	4.94	5.00	-1.2	30.0
Tetrachloroethene	Ave	0.4449	0.4197	0.2000	4.72	5.00	-5.7	30.0
1,3-Dichloropropane	Ave	0.4074	0.3943		4.84	5.00	-3.2	30.0
2-Hexanone	Ave	15.30	12.48	0.1000	51.0	62.5	-18.4	30.0
Dibromochloromethane	Ave	0.2647	0.2627		4.96	5.00	-0.8	30.0
1,2-Dibromoethane (EDB)	Ave	0.2215	0.2139	0.1000	4.83	5.00	-3.4	30.0
1-Chlorohexane	Ave	0.5557	0.5142		4.63	5.00	-7.5	30.0
Chlorobenzene	Ave	1.028	0.9716	0.5000	4.73	5.00	-5.5	30.0
1,1,1,2-Tetrachloroethane	Ave	0.3472	0.3415		4.92	5.00	-1.6	30.0
Ethylbenzene	Ave	1.797	1.725	0.1000	4.80	5.00	-4.0	30.0
m&p-Xylene	Ave	0.6979	0.6738	0.1000	9.65	10.0	-3.5	30.0
o-Xylene	Ave	0.6835	0.6532	0.3000	4.78	5.00	-4.4	30.0
Styrene	Ave	1.078	1.058	0.3000	4.91	5.00	-1.9	30.0
Bromoform	Ave	0.1377	0.1389	0.1000	5.04	5.00	0.9	30.0
Isopropylbenzene	Ave	1.799	1.758	0.1000	4.88	5.00	-2.3	30.0
1,1,2,2-Tetrachloroethane	Ave	0.4848	0.4967	0.3000	5.12	5.00	2.4	30.0
Bromobenzene	Ave	0.7235	0.7146		4.94	5.00	-1.2	30.0
trans-1,4-Dichloro-2-butene	Ave	7.140	5.376		18.8	25.0	-24.7	30.0
1,2,3-Trichloropropane	Ave	0.1305	0.1278		4.90	5.00	-2.1	30.0
N-Propylbenzene	Ave	3.686	3.568		4.84	5.00	-3.2	30.0
2-Chlorotoluene	Ave	0.7456	0.7127		4.78	5.00	-4.4	30.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: ICV 410-207981/21 Calibration Date: 12/21/2021 21:20  
 Instrument ID: 19094 Calib Start Date: 12/21/2021 18:35  
 GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 12/21/2021 20:38  
 Lab File ID: HD21V11.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	2.625	2.531		4.82	5.00	-3.6	30.0
4-Chlorotoluene	Ave	0.7534	0.7274		4.83	5.00	-3.4	30.0
tert-Butylbenzene	Ave	0.5884	0.5594		4.75	5.00	-4.9	30.0
Pentachloroethane	Ave	0.4382	0.4322		4.93	5.00	-1.4	30.0
1,2,4-Trimethylbenzene	Ave	2.711	2.623		4.84	5.00	-3.3	30.0
sec-Butylbenzene	Ave	3.326	3.303		4.97	5.00	-0.7	30.0
1,3-Dichlorobenzene	Ave	1.463	1.395	0.6000	4.77	5.00	-4.6	30.0
p-Isopropyltoluene	Ave	2.874	2.812		4.89	5.00	-2.2	30.0
1,4-Dichlorobenzene	Ave	1.454	1.396	0.5000	4.80	5.00	-4.0	30.0
1,2,3-Trimethylbenzene	Ave	1.184	1.145		4.84	5.00	-3.3	30.0
Benzyl chloride	Ave	0.1508	0.1498		4.97	5.00	-0.7	30.0
n-Butylbenzene	Ave	1.358	1.301		4.79	5.00	-4.2	30.0
1,2-Dichlorobenzene	Ave	1.328	1.279	0.4000	4.82	5.00	-3.7	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.0638	0.0636	0.0500	4.98	5.00	-0.4	30.0
1,3,5-Trichlorobenzene	Ave	1.087	1.073		4.94	5.00	-1.3	30.0
1,2,4-Trichlorobenzene	Ave	0.9213	0.9009	0.2000	4.89	5.00	-2.2	30.0
Hexachlorobutadiene	Ave	0.4360	0.3904		4.48	5.00	-10.5	30.0
Naphthalene	Ave	1.575	1.547		4.91	5.00	-1.8	30.0
1,2,3-Trichlorobenzene	Ave	0.8178	0.7935		4.85	5.00	-3.0	30.0
Dibromofluoromethane (Surr)	Ave	0.2638	0.2664		10.1	10.0	1.0	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0492	0.0494		10.0	10.0	0.5	30.0
Toluene-d8 (Surr)	Ave	1.299	1.278		9.84	10.0	-1.6	30.0
4-Bromofluorobenzene (Surr)	Ave	0.5027	0.5051		10.0	10.0	0.5	30.0

Eurofins Lancaster Laboratories Env, LLC  
 Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21V11.D  
 Lims ID: ICV  
 Client ID:  
 Sample Type: ICV  
 Inject. Date: 21-Dec-2021 21:20:30 ALS Bottle#: 21 Worklist Smp#: 21  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0046912-021  
 Misc. Info.: ICV LG  
 Operator ID: jml01693 Instrument ID: 19094  
 Sublist:

Method: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\MSV\_19094\_25mL.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 27-Dec-2021 09:48:50 Calib Date: 21-Dec-2021 20:38:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1653

First Level Reviewer: campbellme Date: 21-Dec-2021 22:26:43

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
3 Dichlorodifluoromethane	85	1.947	1.934	0.013	99	354204	5.00	4.97	
6 Chloromethane	50	2.142	2.130	0.012	99	426912	5.00	4.87	
8 Butadiene	39	2.257	2.251	0.006	91	379894	5.00	4.27	
7 Vinyl chloride	62	2.264	2.251	0.013	97	424816	5.00	4.86	
9 Bromomethane	94	2.581	2.575	0.006	91	284499	5.00	4.85	
10 Chloroethane	64	2.672	2.660	0.012	100	241418	5.00	4.84	
11 Dichlorofluoromethane	67	2.904	2.898	0.006	97	588836	5.00	5.12	
13 Trichlorofluoromethane	101	2.983	2.971	0.012	98	531269	5.00	4.84	
15 Ethyl ether	59	3.215	3.196	0.019	91	213634	4.97	5.52	
16 1,2-Dichloro-1,1,2-trifluoroethane	67	3.306	3.306	0.000	93	388809	5.00	4.86	
17 Acrolein	56	3.398	3.385	0.013	87	236839	37.5	28.2	
18 1,1-Dichloroethene	96	3.538	3.526	0.012	97	307006	5.00	5.21	
19 Acetone	43	3.550	3.544	0.006	99	428715	62.5	47.2	
20 112TCTFE	101	3.574	3.574	0.000	92	322994	5.00	5.48	
21 Isopropyl alcohol	45	3.702	3.715	-0.013	96	38272	37.5	43.0	M
22 Iodomethane	142	3.733	3.727	0.006	99	566691	5.00	5.49	
23 Ethyl bromide	108	3.763	3.751	0.012	98	246207	5.07	4.91	
24 Carbon disulfide	76	3.843	3.830	0.013	99	811881	5.00	5.62	
26 Methyl acetate	43	3.971	3.977	-0.006	97	126226	5.00	4.06	
27 3-Chloro-1-propene	41	4.013	4.007	0.006	92	484335	5.00	5.31	
* 28 t-Butyl alcohol-d10 (IS)	65	4.208	4.184	0.024	89	100224	50.0	50.0	
29 Methylene Chloride	84	4.202	4.196	0.006	92	306686	5.00	4.89	
30 2-Methyl-2-propanol	59	4.318	4.306	0.012	98	93453	50.0	44.1	
31 Acrylonitrile	53	4.531	4.525	0.006	99	264514	25.0	21.6	
32 Methyl tert-butyl ether	73	4.605	4.599	0.006	95	671710	5.00	5.23	
33 trans-1,2-Dichloroethene	96	4.623	4.611	0.012	99	317510	5.00	5.01	
34 Hexane	57	5.037	5.019	0.018	93	428642	5.00	5.13	
35 1,1-Dichloroethane	63	5.269	5.263	0.006	96	578236	5.00	4.96	
37 Isopropyl ether	45	5.330	5.318	0.012	95	982837	5.00	5.12	
38 2-Chloro-1,3-butadiene	53	5.379	5.373	0.006	91	516455	5.00	5.38	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 Tert-butyl ethyl ether	59	5.860	5.854	0.006	98	852235	5.00	5.20	
41 2-Butanone (MEK)	43	6.049	6.056	-0.007	100	848074	62.5	51.0	
42 cis-1,2-Dichloroethene	96	6.098	6.086	0.012	83	353670	5.00	5.13	
43 2,2-Dichloropropane	77	6.123	6.110	0.013	86	484011	5.00	5.05	
45 Propionitrile	54	6.141	6.153	-0.012	97	131126	37.5	30.7	
47 Methacrylonitrile	67	6.354	6.354	0.000	92	536866	37.5	28.3	
48 Chlorobromomethane	128	6.421	6.421	0.000	94	150905	5.00	5.22	
49 Tetrahydrofuran	71	6.434	6.434	0.000	81	93449	25.0	20.2	
50 Chloroform	83	6.574	6.568	0.006	93	559732	5.00	4.93	
\$ 51 Dibromofluoromethane (Surr)	113	6.787	6.781	0.006	94	586887	10.0	10.1	
52 1,1,1-Trichloroethane	97	6.811	6.799	0.012	99	515261	5.00	4.93	
53 Cyclohexane	56	6.915	6.903	0.012	90	572470	5.00	5.09	
55 1,1-Dichloropropene	75	7.019	7.007	0.012	97	467179	5.00	5.05	
56 Carbon tetrachloride	117	7.025	7.025	0.000	97	450808	5.00	4.94	
57 Isobutyl alcohol	41	7.147	7.159	-0.012	94	90481	125.0	101.4	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.238	7.238	0.000	97	108885	10.0	10.0	
59 Benzene	78	7.275	7.269	0.006	97	1314640	5.00	4.95	
60 1,2-Dichloroethane	62	7.348	7.342	0.006	97	336872	5.00	5.09	
62 Tert-amyl methyl ether	73	7.470	7.464	0.006	99	703583	5.00	5.13	
* 65 Fluorobenzene (IS)	96	7.677	7.677	0.000	98	2203408	10.0	10.0	
64 n-Heptane	43	7.695	7.689	0.006	89	435647	5.00	4.94	
66 n-Butanol	56	8.037	8.043	-0.006	88	138369	250.0	232.7	
67 Trichloroethene	95	8.159	8.153	0.006	98	346113	5.00	4.95	
68 Methylcyclohexane	83	8.476	8.470	0.006	92	599928	5.00	5.07	
70 1,2-Dichloropropane	63	8.488	8.482	0.006	85	332969	5.00	4.98	
69 2-ethoxy-2-methyl butane	87	8.494	8.494	0.000	91	366001	5.00	5.09	
71 Methyl methacrylate	69	8.567	8.567	0.000	91	136580	5.00	3.96	
72 1,4-Dioxane	88	8.579	8.586	-0.007	30	11723	125.0	67.4	M
73 Dibromomethane	93	8.598	8.592	0.006	96	151209	5.00	5.08	
75 Dichlorobromomethane	83	8.829	8.829	0.000	99	380777	5.00	5.09	
76 2-Nitropropane	41	9.092	9.092	0.000	98	35856	5.00	3.82	
79 1-Bromo-2-chloroethane	63	9.226	9.226	0.000	99	296300	5.00	5.03	
80 cis-1,3-Dichloropropene	75	9.378	9.378	0.000	96	467572	5.00	4.94	
81 4-Methyl-2-pentanone (MIBK)	43	9.543	9.543	0.000	97	2226730	62.5	49.1	
\$ 82 Toluene-d8 (Surr)	98	9.683	9.683	0.000	93	2400788	10.0	9.84	
83 Toluene	92	9.762	9.762	0.000	98	823441	5.00	4.69	
85 trans-1,3-Dichloropropene	75	10.012	10.012	0.000	93	378149	5.00	5.00	
86 Ethyl methacrylate	69	10.073	10.073	0.000	89	291497	5.00	5.13	
87 1,1,2-Trichloroethane	97	10.219	10.219	0.000	91	213921	5.00	4.94	
88 Tetrachloroethene	166	10.305	10.305	0.000	98	394034	5.00	4.72	
89 1,3-Dichloropropane	76	10.378	10.378	0.000	90	370175	5.00	4.84	
91 2-Hexanone	43	10.427	10.427	0.000	97	1563282	62.5	51.0	
93 Chlorodibromomethane	129	10.597	10.591	0.006	90	246621	5.00	4.96	
94 Ethylene Dibromide	107	10.707	10.707	0.000	99	200880	5.00	4.83	
* 97 Chlorobenzene-d5 (IS)	117	11.134	11.134	0.000	85	1877825	10.0	10.0	
96 1-Chlorohexane	91	11.140	11.140	0.000	98	482795	5.00	4.63	
98 Chlorobenzene	112	11.158	11.158	0.000	95	912241	5.00	4.73	
99 1,1,1,2-Tetrachloroethane	131	11.244	11.244	0.000	97	320656	5.00	4.92	
100 Ethylbenzene	91	11.244	11.244	0.000	98	1619670	5.00	4.80	
101 m-Xylene & p-Xylene	106	11.359	11.359	0.000	98	1265251	10.0	9.65	
102 o-Xylene	106	11.689	11.689	0.000	96	613266	5.00	4.78	
103 Styrene	104	11.701	11.701	0.000	94	993371	5.00	4.91	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 Bromoform	173	11.859	11.859	0.000	97	130391	5.00	5.04	
105 Isopropylbenzene	105	11.987	11.987	0.000	96	1650456	5.00	4.88	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.128	12.128	0.000	91	948403	10.0	10.0	
109 1,1,2,2-Tetrachloroethane	83	12.225	12.225	0.000	93	265743	5.00	5.12	
111 Bromobenzene	156	12.243	12.243	0.000	96	382320	5.00	4.94	
110 trans-1,4-Dichloro-2-butene	53	12.249	12.249	0.000	93	269422	25.0	18.8	
112 1,2,3-Trichloropropane	110	12.274	12.274	0.000	84	68376	5.00	4.90	
113 N-Propylbenzene	91	12.310	12.310	0.000	99	1908772	5.00	4.84	
114 2-Chlorotoluene	126	12.390	12.390	0.000	97	381319	5.00	4.78	
115 1,3,5-Trimethylbenzene	105	12.445	12.445	0.000	94	1354107	5.00	4.82	
116 4-Chlorotoluene	126	12.481	12.481	0.000	97	389196	5.00	4.83	
118 tert-Butylbenzene	134	12.688	12.688	0.000	93	299322	5.00	4.75	
119 Pentachloroethane	167	12.719	12.719	0.000	91	231258	5.00	4.93	
120 1,2,4-Trimethylbenzene	105	12.731	12.731	0.000	97	1403314	5.00	4.84	
121 sec-Butylbenzene	105	12.853	12.853	0.000	94	1767369	5.00	4.97	
122 1,3-Dichlorobenzene	146	12.951	12.951	0.000	98	746548	5.00	4.77	
123 4-Isopropyltoluene	119	12.957	12.957	0.000	97	1504417	5.00	4.89	
* 124 1,4-Dichlorobenzene-d4	152	13.005	13.005	0.000	94	1070076	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.024	13.024	0.000	95	746932	5.00	4.80	
126 1,2,3-Trimethylbenzene	120	13.030	13.030	0.000	99	612687	5.00	4.84	
127 Benzyl chloride	126	13.097	13.097	0.000	98	80147	5.00	4.97	
129 p-Diethylbenzene	119	13.158	13.158	0.000	92	891332	5.00	4.97	
130 n-Butylbenzene	92	13.249	13.249	0.000	97	696161	5.00	4.79	
131 1,2-Dichlorobenzene	146	13.280	13.280	0.000	98	684441	5.00	4.82	
134 1,2-Dibromo-3-Chloropropane	155	13.822	13.822	0.000	86	34003	5.00	4.98	
135 1,3,5-Trichlorobenzene	180	13.944	13.944	0.000	98	574321	5.00	4.94	
136 1,2,4-Trichlorobenzene	180	14.365	14.365	0.000	94	482023	5.00	4.89	
137 Hexachlorobutadiene	225	14.450	14.450	0.000	96	208870	5.00	4.48	
138 Naphthalene	128	14.548	14.548	0.000	97	827774	5.00	4.91	
139 1,2,3-Trichlorobenzene	180	14.688	14.688	0.000	95	424531	5.00	4.85	
140 2-Methylnaphthalene	142	15.304	15.304	0.000	92	464363	5.00	4.87	

### QC Flag Legend

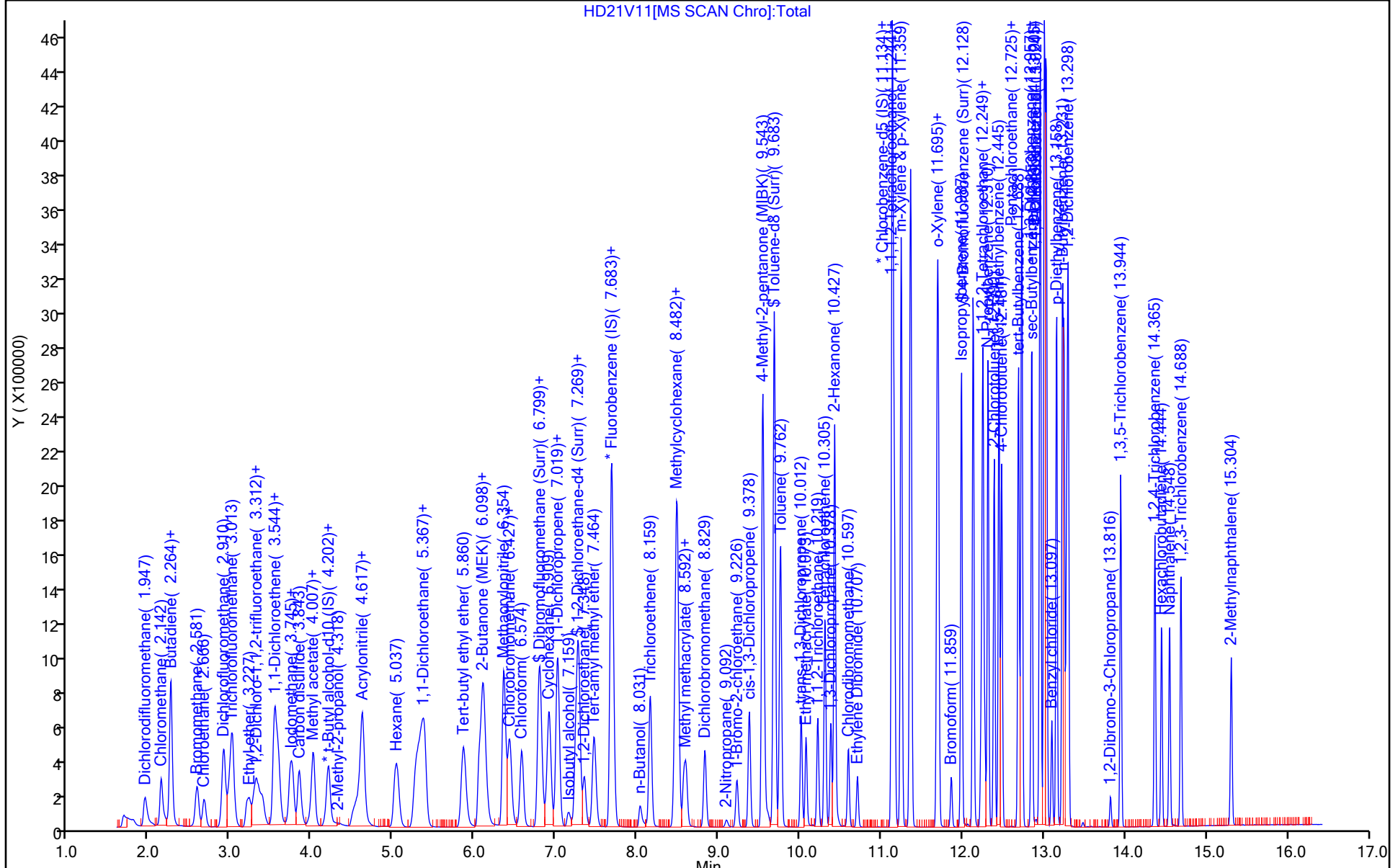
Processing Flags

Review Flags

M - Manually Integrated

### Reagents:

MSV_LCS_VOC#1_00032	Amount Added: 12.50	Units: uL	
MSV_LCS_Penta_00010	Amount Added: 12.50	Units: uL	
MSV_QC_Gas826_00056	Amount Added: 12.50	Units: uL	
MSV_LCS_EE_00001	Amount Added: 12.50	Units: uL	
MSV_Q_ETBR_00008	Amount Added: 12.50	Units: uL	
MSV_LCS_ACROL_00035	Amount Added: 12.50	Units: uL	
MSV_LLcentISS_00002	Amount Added: 5.00	Units: uL	Run Reagent



Eurofins Lancaster Laboratories Env, LLC

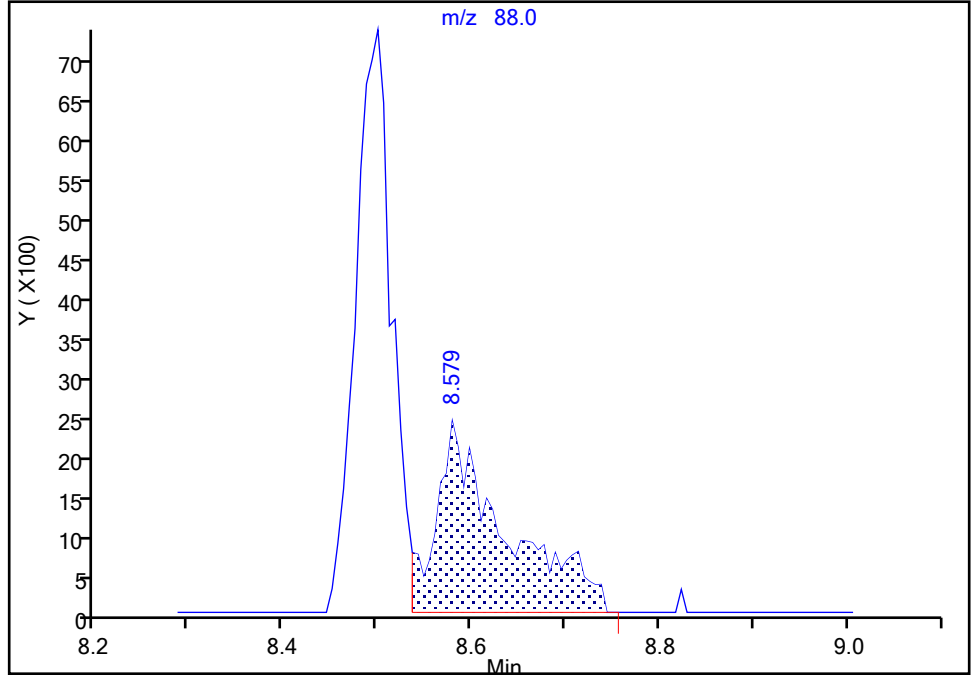
Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21V11.D  
Injection Date: 21-Dec-2021 21:20:30 Instrument ID: 19094  
Lims ID: ICV  
Client ID:  
Operator ID: jml01693 ALS Bottle#: 21 Worklist Smp#: 21  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: MSV\_19094\_25mL Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column ( 0.25mm ID) Detector: MS Quad

72 1,4-Dioxane, CAS: 123-91-1

Signal: 1

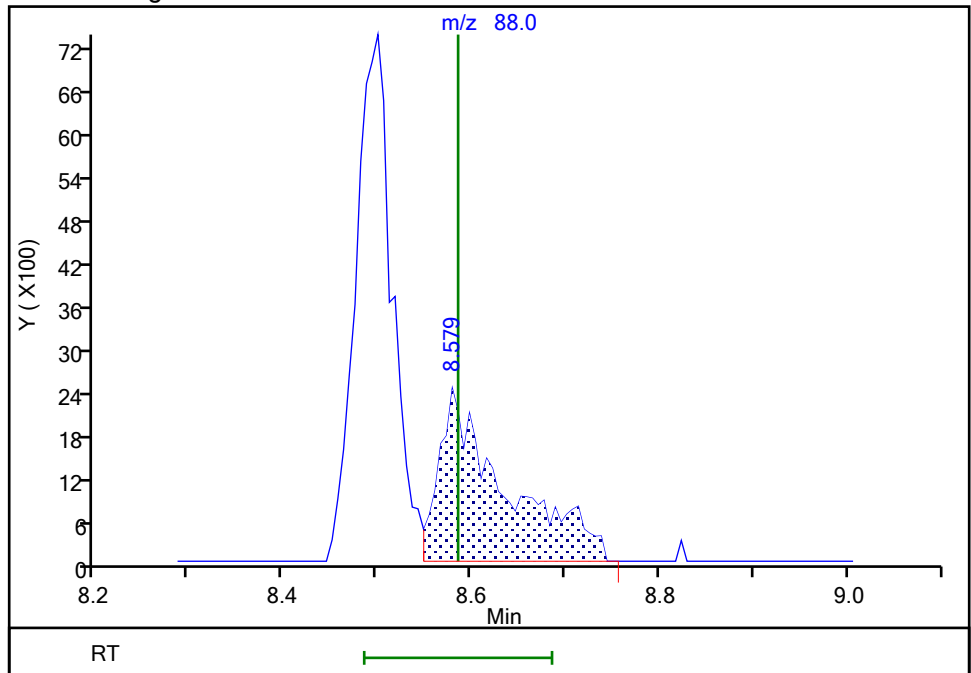
RT: 8.58  
Area: 12264  
Amount: 70.301417  
Amount Units: ug/l

Processing Integration Results



RT: 8.58  
Area: 11723  
Amount: 67.392086  
Amount Units: ug/l

Manual Integration Results



Reviewer: campbellme, 21-Dec-2021 22:23:41  
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration



FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-71043-1

SDG No.: \_\_\_\_\_

Lab Sample ID: CCVIS 410-220509/3 Calibration Date: 02/03/2022 10:20

Instrument ID: 19094 Calib Start Date: 12/21/2021 18:35

GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 12/21/2021 20:38

Lab File ID: HF03X02.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	0.3237	0.2058	0.1000	6.36	10.0	-36.4*	20.0
Chloromethane	Ave	0.3983	0.3555	0.1000	8.93	10.0	-10.7	20.0
Vinyl chloride	Ave	0.3968	0.3535	0.1000	8.91	10.0	-10.9	20.0
1,3-Butadiene	Ave	0.4037	0.4232		10.5	10.0	4.8	20.0
Bromomethane	Ave	0.2661	0.2482	0.1000	9.33	10.0	-6.7	20.0
Chloroethane	Ave	0.2262	0.2331	0.1000	10.3	10.0	3.1	20.0
Dichlorofluoromethane	Ave	0.5222	0.5161		9.88	10.0	-1.2	20.0
Trichlorofluoromethane	Ave	0.4979	0.4045	0.1000	8.13	10.0	-18.7	20.0
Ethyl ether	Ave	0.1757	0.1612		9.17	10.0	-8.3	20.0
Freon 123a	Ave	0.3634	0.3566		9.81	10.0	-1.9	20.0
Acrolein	Ave	4.188	3.018		360	500	-27.9*	20.0
1,1-Dichloroethene	Ave	0.2675	0.2451	0.1000	9.16	10.0	-8.4	20.0
Acetone	Ave	4.531	3.640	0.1000	80.3	100	-19.7	20.0
Freon 113	Ave	0.2673	0.1757	0.1000	6.57	10.0	-34.3*	20.0
Methyl iodide	Ave	0.4682	0.4255		9.09	10.0	-9.1	20.0
Ethyl bromide	Ave	0.2274	0.2151		9.46	10.0	-5.4	20.0
Carbon disulfide	Ave	0.6557	0.6391	0.1000	9.75	10.0	-2.5	20.0
Methyl acetate	Ave	15.52	11.73	0.1000	7.56	10.0	-24.4*	20.0
Allyl chloride	Ave	0.4142	0.4173		10.1	10.0	0.7	20.0
Methylene Chloride	Ave	0.2844	0.2672	0.1000	9.40	10.0	-6.0	20.0
t-Butyl alcohol	Ave	1.057	0.8911		169	200	-15.7	20.0
Acrylonitrile	Ave	6.110	5.568		22.8	25.0	-8.9	20.0
Methyl tert-butyl ether	Ave	0.5828	0.5759	0.1000	9.88	10.0	-1.2	20.0
trans-1,2-Dichloroethene	Ave	0.2875	0.2774	0.1000	9.65	10.0	-3.5	20.0
n-Hexane	Ave	0.3795	0.2404		6.34	10.0	-36.6*	20.0
1,1-Dichloroethane	Ave	0.5293	0.5337	0.2000	10.1	10.0	0.8	20.0
di-Isopropyl ether	Ave	0.8710	0.8967		10.3	10.0	2.9	20.0
2-Chloro-1,3-butadiene	Ave	0.4354	0.4361		10.0	10.0	0.2	20.0
Ethyl t-butyl ether	Ave	0.7434	0.7533		10.1	10.0	1.3	20.0
2-Butanone (MEK)	Ave	8.301	6.849	0.1000	82.5	100	-17.5	20.0
cis-1,2-Dichloroethene	Ave	0.3132	0.3021	0.1000	9.65	10.0	-3.5	20.0
2,2-Dichloropropane	Ave	0.4349	0.3455		7.94	10.0	-20.6*	20.0
Propionitrile	Ave	2.128	2.010		189	200	-5.5	20.0
Methacrylonitrile	Ave	9.460	7.203		76.1	100	-23.9*	20.0
Bromochloromethane	Ave	0.1313	0.1240		9.45	10.0	-5.5	20.0
Tetrahydrofuran	Ave	2.309	1.834		39.7	50.0	-20.6*	20.0
Chloroform	Ave	0.5156	0.4947	0.2000	9.59	10.0	-4.1	20.0
1,1,1-Trichloroethane	Ave	0.4747	0.4361	0.1000	9.19	10.0	-8.1	20.0
Cyclohexane	Ave	0.5100	0.4129	0.1000	8.10	10.0	-19.0	20.0
1,1-Dichloropropene	Ave	0.4199	0.4119		9.81	10.0	-1.9	20.0
Carbon tetrachloride	Ave	0.4139	0.3699	0.1000	8.94	10.0	-10.6	20.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-71043-1

SDG No.: \_\_\_\_\_

Lab Sample ID: CCVIS 410-220509/3 Calibration Date: 02/03/2022 10:20

Instrument ID: 19094 Calib Start Date: 12/21/2021 18:35

GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 12/21/2021 20:38

Lab File ID: HF03X02.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	0.4449	0.4288		482	500	-3.6	20.0
Benzene	Ave	1.205	1.197	0.5000	9.93	10.0	-0.7	20.0
1,2-Dichloroethane	Ave	0.3006	0.2849	0.1000	9.48	10.0	-5.2	20.0
t-Amyl methyl ether	Ave	0.6229	0.6513		10.5	10.0	4.6	20.0
n-Heptane	Ave	0.4003	0.2404		6.01	10.0	-39.9*	20.0
n-Butanol	Ave	0.2966	0.4019		1190	875	35.5*	20.0
Trichloroethene	Ave	0.3172	0.3107	0.2000	9.80	10.0	-2.0	20.0
Methylcyclohexane	Ave	0.5372	0.3882	0.1000	7.23	10.0	-27.7*	20.0
1,2-Dichloropropane	Ave	0.3033	0.3113	0.1000	10.3	10.0	2.6	20.0
Methyl methacrylate	Ave	17.20	13.57		7.89	10.0	-21.1*	20.0
1,4-Dioxane	Qua		0.0731	0.0050	481	500	-3.7	20.0
Dibromomethane	Ave	0.1352	0.1334		9.87	10.0	-1.3	20.0
Bromodichloromethane	Ave	0.3397	0.3421	0.2000	10.1	10.0	0.7	20.0
2-Nitropropane	Ave	4.677	3.480		37.2	50.0	-25.6*	20.0
1-Bromo-2-chloroethane	Ave	0.2676	0.2998		11.2	10.0	12.0	20.0
cis-1,3-Dichloropropene	Ave	0.4292	0.4295	0.2000	10.0	10.0	0.0	20.0
4-Methyl-2-pentanone (MIBK)	Ave	22.60	17.26	0.1000	76.4	100	-23.6*	20.0
Toluene	Ave	0.9342	0.9346	0.4000	10.0	10.0	0.0	20.0
trans-1,3-Dichloropropene	Ave	0.4029	0.4125	0.1000	10.2	10.0	2.4	20.0
Ethyl methacrylate	Ave	0.3027	0.3254		10.7	10.0	7.5	20.0
1,1,2-Trichloroethane	Ave	0.2307	0.2314	0.1000	10.0	10.0	0.3	20.0
Tetrachloroethene	Ave	0.4449	0.4230	0.2000	9.51	10.0	-4.9	20.0
1,3-Dichloropropane	Ave	0.4074	0.4203		10.3	10.0	3.2	20.0
2-Hexanone	Ave	15.30	12.11	0.1000	79.2	100	-20.8*	20.0
Dibromochloromethane	Ave	0.2647	0.2910		11.0	10.0	9.9	20.0
1,2-Dibromoethane (EDB)	Ave	0.2215	0.2237	0.1000	10.1	10.0	1.0	20.0
1-Chlorohexane	Ave	0.5557	0.5212		9.38	10.0	-6.2	20.0
Chlorobenzene	Ave	1.028	1.006	0.5000	9.78	10.0	-2.2	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3472	0.3335		9.61	10.0	-3.9	20.0
Ethylbenzene	Ave	1.797	1.810	0.1000	10.1	10.0	0.7	20.0
m&p-Xylene	Ave	0.6979	0.6931	0.1000	19.9	20.0	-0.7	20.0
o-Xylene	Ave	0.6835	0.6686	0.3000	9.78	10.0	-2.2	20.0
Styrene	Ave	1.078	1.106	0.3000	10.3	10.0	2.5	20.0
Bromoform	Ave	0.1377	0.1653	0.1000	12.0	10.0	20.0	20.0
Isopropylbenzene	Ave	1.799	1.774	0.1000	9.86	10.0	-1.4	20.0
1,1,2,2-Tetrachloroethane	Ave	0.4848	0.5013	0.3000	10.3	10.0	3.4	20.0
Bromobenzene	Ave	0.7235	0.7045		9.74	10.0	-2.6	20.0
trans-1,4-Dichloro-2-butene	Ave	7.140	5.157		72.2	100	-27.8*	20.0
1,2,3-Trichloropropane	Ave	0.1305	0.1283		9.83	10.0	-1.7	20.0
N-Propylbenzene	Ave	3.686	3.715		10.1	10.0	0.8	20.0
2-Chlorotoluene	Ave	0.7456	0.7269		9.75	10.0	-2.5	20.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-71043-1

SDG No.: \_\_\_\_\_

Lab Sample ID: CCVIS 410-220509/3 Calibration Date: 02/03/2022 10:20

Instrument ID: 19094 Calib Start Date: 12/21/2021 18:35

GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 12/21/2021 20:38

Lab File ID: HF03X02.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	2.625	2.618		9.97	10.0	-0.3	20.0
4-Chlorotoluene	Ave	0.7534	0.7394		9.81	10.0	-1.9	20.0
tert-Butylbenzene	Ave	0.5884	0.5614		9.54	10.0	-4.6	20.0
Pentachloroethane	Ave	0.4382	0.4127		9.42	10.0	-5.8	20.0
1,2,4-Trimethylbenzene	Ave	2.711	2.680		9.89	10.0	-1.1	20.0
sec-Butylbenzene	Ave	3.326	3.300		9.92	10.0	-0.8	20.0
1,3-Dichlorobenzene	Ave	1.463	1.431	0.6000	9.78	10.0	-2.2	20.0
p-Isopropyltoluene	Ave	2.874	2.831		9.85	10.0	-1.5	20.0
1,4-Dichlorobenzene	Ave	1.454	1.423	0.5000	9.79	10.0	-2.1	20.0
1,2,3-Trimethylbenzene	Ave	1.184	1.111		9.39	10.0	-6.1	20.0
Benzyl chloride	Ave	0.1508	0.1336		8.85	10.0	-11.5	20.0
n-Butylbenzene	Ave	1.358	1.382		10.2	10.0	1.8	20.0
1,2-Dichlorobenzene	Ave	1.328	1.277	0.4000	9.61	10.0	-3.9	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.0638	0.0671	0.0500	10.5	10.0	5.2	20.0
1,3,5-Trichlorobenzene	Ave	1.087	1.056		9.71	10.0	-2.9	20.0
1,2,4-Trichlorobenzene	Ave	0.9213	0.9029	0.2000	9.80	10.0	-2.0	20.0
Hexachlorobutadiene	Ave	0.4360	0.4145		9.51	10.0	-4.9	20.0
Naphthalene	Ave	1.575	1.546		9.81	10.0	-1.9	20.0
1,2,3-Trichlorobenzene	Ave	0.8178	0.7750		9.48	10.0	-5.2	20.0
Dibromofluoromethane (Surr)	Ave	0.2638	0.2516		9.54	10.0	-4.6	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0492	0.0493		10.0	10.0	0.2	20.0
Toluene-d8 (Surr)	Ave	1.299	1.325		10.2	10.0	2.0	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5027	0.5118		10.2	10.0	1.8	20.0

Eurofins Lancaster Laboratories Env, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X02.D  
 Lims ID: CCVIS VSTD10  
 Client ID:  
 Sample Type: CCVIS  
 Inject. Date: 03-Feb-2022 10:20:30 ALS Bottle#: 2 Worklist Smp#: 3  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0049665-003  
 Misc. Info.: CCVIS VSTD10  
 Operator ID: KNK41612 Instrument ID: 19094  
 Sublist: chrom-MSV\_19094\_25mL\*sub1  
 Method: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\MSV\_19094\_25mL.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 10:54:15 Calib Date: 21-Dec-2021 20:38:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21117.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1621

First Level Reviewer: kephartk

Date: 03-Feb-2022 10:54:04

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
3 Dichlorodifluoromethane	85	1.947	1.947	0.000	99	394100	10.0	6.36	
6 Chloromethane	50	2.148	2.148	0.000	99	680767	10.0	8.93	
7 Vinyl chloride	62	2.264	2.264	0.000	98	676752	10.0	8.91	
8 Butadiene	39	2.270	2.270	0.000	94	810259	10.0	10.5	
9 Bromomethane	94	2.599	2.599	0.000	90	475299	10.0	9.33	
10 Chloroethane	64	2.690	2.690	0.000	100	446313	10.0	10.3	
11 Dichlorofluoromethane	67	2.922	2.922	0.000	97	988173	10.0	9.88	
13 Trichlorofluoromethane	101	2.995	2.995	0.000	98	774557	10.0	8.13	
15 Ethyl ether	59	3.227	3.227	0.000	93	308576	10.0	9.17	
16 1,2-Dichloro-1,1,2-trifluoroethane	67	3.324	3.324	0.000	94	682731	10.0	9.81	
17 Acrolein	56	3.398	3.398	0.000	99	2681307	500.0	360.3	
18 1,1-Dichloroethene	96	3.544	3.544	0.000	97	469242	10.0	9.16	
19 Acetone	43	3.562	3.562	0.000	100	646886	100.0	80.3	
20 112TCTFE	101	3.593	3.593	0.000	92	336368	10.0	6.57	
21 Isopropyl alcohol	45	3.727	3.727	0.000	39	190860	200.0	246.6	
22 Iodomethane	142	3.739	3.739	0.000	99	814613	10.0	9.09	
23 Ethyl bromide	108	3.769	3.769	0.000	98	411709	10.0	9.46	
24 Carbon disulfide	76	3.849	3.849	0.000	99	1223716	10.0	9.75	
26 Methyl acetate	43	3.989	3.989	0.000	98	208487	10.0	7.56	M
27 3-Chloro-1-propene	41	4.013	4.013	0.000	93	799022	10.0	10.1	
* 28 t-Butyl alcohol-d10 (IS)	65	4.190	4.190	0.000	40	88848	50.0	50.0	
29 Methylene Chloride	84	4.202	4.202	0.000	94	511679	10.0	9.40	
30 2-Methyl-2-propanol	59	4.324	4.324	0.000	99	316699	200.0	168.6	
31 Acrylonitrile	53	4.544	4.544	0.000	100	247337	25.0	22.8	
32 Methyl tert-butyl ether	73	4.611	4.611	0.000	95	1102659	10.0	9.88	
33 trans-1,2-Dichloroethene	96	4.623	4.623	0.000	98	531196	10.0	9.65	
34 Hexane	57	5.050	5.050	0.000	92	460372	10.0	6.34	
35 1,1-Dichloroethane	63	5.275	5.275	0.000	96	1021866	10.0	10.1	
37 Isopropyl ether	45	5.336	5.336	0.000	95	1716842	10.0	10.3	
38 2-Chloro-1,3-butadiene	53	5.385	5.385	0.000	90	835085	10.0	10.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 Tert-butyl ethyl ether	59	5.860	5.860	0.000	98	1442331	10.0	10.1	
41 2-Butanone (MEK)	43	6.056	6.056	0.000	100	1216969	100.0	82.5	
42 cis-1,2-Dichloroethene	96	6.098	6.098	0.000	82	578400	10.0	9.65	
43 2,2-Dichloropropane	77	6.123	6.123	0.000	87	661459	10.0	7.94	
45 Propionitrile	54	6.147	6.147	0.000	100	714428	200.0	188.9	
47 Methacrylonitrile	67	6.366	6.366	0.000	92	1280018	100.0	76.1	
48 Chlorobromomethane	128	6.434	6.434	0.000	97	237389	10.0	9.45	
49 Tetrahydrofuran	71	6.434	6.434	0.000	84	162950	50.0	39.7	
50 Chloroform	83	6.580	6.580	0.000	93	947168	10.0	9.59	
\$ 51 Dibromofluoromethane (Surr)	113	6.793	6.793	0.000	94	481786	10.0	9.54	
52 1,1,1-Trichloroethane	97	6.812	6.812	0.000	99	834977	10.0	9.19	
53 Cyclohexane	56	6.915	6.915	0.000	91	790591	10.0	8.10	
55 1,1-Dichloropropene	75	7.019	7.019	0.000	97	788641	10.0	9.81	
56 Carbon tetrachloride	117	7.025	7.025	0.000	95	708334	10.0	8.94	
57 Isobutyl alcohol	41	7.153	7.153	0.000	95	381022	500.0	481.9	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.244	7.244	0.000	81	94370	10.0	10.0	
59 Benzene	78	7.281	7.281	0.000	96	2292207	10.0	9.93	
60 1,2-Dichloroethane	62	7.348	7.348	0.000	97	545533	10.0	9.48	
62 Tert-amyl methyl ether	73	7.464	7.464	0.000	99	1247010	10.0	10.5	
* 65 Fluorobenzene (IS)	96	7.683	7.683	0.000	99	1914694	10.0	10.0	
64 n-Heptane	43	7.695	7.695	0.000	92	460367	10.0	6.01	
66 n-Butanol	56	8.025	8.025	0.000	88	624908	875.0	1185.6	
67 Trichloroethene	95	8.159	8.159	0.000	99	594937	10.0	9.80	
68 Methylcyclohexane	83	8.470	8.470	0.000	94	743270	10.0	7.23	
70 1,2-Dichloropropane	63	8.488	8.488	0.000	85	596136	10.0	10.3	
69 2-ethoxy-2-methyl butane	87	8.494	8.494	0.000	90	753983	10.0	12.1	
71 Methyl methacrylate	69	8.567	8.567	0.000	92	241052	10.0	7.89	
72 1,4-Dioxane	88	8.579	8.579	0.000	39	64970	500.0	481.5	
73 Dibromomethane	93	8.598	8.598	0.000	97	255491	10.0	9.87	
75 Dichlorobromomethane	83	8.829	8.829	0.000	99	654988	10.0	10.1	
76 2-Nitropropane	41	9.092	9.092	0.000	98	309217	50.0	37.2	
79 1-Bromo-2-chloroethane	63	9.226	9.226	0.000	98	574109	10.0	11.2	
80 cis-1,3-Dichloropropene	75	9.378	9.378	0.000	96	822290	10.0	10.0	
81 4-Methyl-2-pentanone (MIBK)	43	9.543	9.543	0.000	97	3067504	100.0	76.4	
\$ 82 Toluene-d8 (Surr)	98	9.683	9.683	0.000	93	2051661	10.0	10.2	
83 Toluene	92	9.762	9.762	0.000	98	1447064	10.0	10.0	
85 trans-1,3-Dichloropropene	75	10.012	10.012	0.000	92	638707	10.0	10.2	
86 Ethyl methacrylate	69	10.073	10.073	0.000	90	503767	10.0	10.7	
87 1,1,2-Trichloroethane	97	10.219	10.219	0.000	90	358215	10.0	10.0	
88 Tetrachloroethene	166	10.311	10.311	0.000	98	654887	10.0	9.51	
89 1,3-Dichloropropane	76	10.378	10.378	0.000	90	650708	10.0	10.3	
91 2-Hexanone	43	10.427	10.427	0.000	97	2151827	100.0	79.2	
93 Chlorodibromomethane	129	10.597	10.597	0.000	90	450532	10.0	11.0	
94 Ethylene Dibromide	107	10.707	10.707	0.000	99	346298	10.0	10.1	
* 97 Chlorobenzene-d5 (IS)	117	11.134	11.134	0.000	87	1548277	10.0	10.0	
96 1-Chlorohexane	91	11.140	11.140	0.000	98	806948	10.0	9.38	
98 Chlorobenzene	112	11.158	11.158	0.000	94	1556910	10.0	9.78	
99 1,1,1,2-Tetrachloroethane	131	11.244	11.244	0.000	96	516402	10.0	9.61	
100 Ethylbenzene	91	11.250	11.250	0.000	98	2802009	10.0	10.1	
101 m-Xylene & p-Xylene	106	11.359	11.359	0.000	98	2146214	20.0	19.9	
102 o-Xylene	106	11.689	11.689	0.000	96	1035185	10.0	9.78	
103 Styrene	104	11.701	11.701	0.000	95	1712064	10.0	10.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 Bromoform	173	11.859	11.859	0.000	97	255854	10.0	12.0	
105 Isopropylbenzene	105	11.987	11.987	0.000	96	2746867	10.0	9.86	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.128	12.128	0.000	90	792346	10.0	10.2	
109 1,1,2,2-Tetrachloroethane	83	12.231	12.231	0.000	92	437435	10.0	10.3	
111 Bromobenzene	156	12.249	12.249	0.000	96	614703	10.0	9.74	
110 trans-1,4-Dichloro-2-butene	53	12.256	12.256	0.000	91	916360	100.0	72.2	
112 1,2,3-Trichloropropane	110	12.274	12.274	0.000	81	111956	10.0	9.83	
113 N-Propylbenzene	91	12.317	12.317	0.000	99	3241178	10.0	10.1	
114 2-Chlorotoluene	126	12.390	12.390	0.000	97	634228	10.0	9.75	
115 1,3,5-Trimethylbenzene	105	12.451	12.451	0.000	94	2284012	10.0	9.97	
116 4-Chlorotoluene	126	12.481	12.481	0.000	98	645143	10.0	9.81	
118 tert-Butylbenzene	134	12.688	12.688	0.000	93	489844	10.0	9.54	
119 Pentachloroethane	167	12.725	12.725	0.000	90	360078	10.0	9.42	
120 1,2,4-Trimethylbenzene	105	12.731	12.731	0.000	97	2338661	10.0	9.89	
121 sec-Butylbenzene	105	12.853	12.853	0.000	94	2879655	10.0	9.92	
122 1,3-Dichlorobenzene	146	12.951	12.951	0.000	98	1248854	10.0	9.78	
123 4-Isopropyltoluene	119	12.957	12.957	0.000	97	2470284	10.0	9.85	
* 124 1,4-Dichlorobenzene-d4	152	13.005	13.005	0.000	95	872545	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.024	13.024	0.000	94	1242057	10.0	9.79	
126 1,2,3-Trimethylbenzene	120	13.036	13.036	0.000	98	969542	10.0	9.39	
127 Benzyl chloride	126	13.103	13.103	0.000	99	116539	10.0	8.85	
129 p-Diethylbenzene	119	13.158	13.158	0.000	92	1454699	10.0	9.96	
130 n-Butylbenzene	92	13.249	13.249	0.000	97	1206285	10.0	10.2	
131 1,2-Dichlorobenzene	146	13.286	13.286	0.000	99	1114057	10.0	9.61	
134 1,2-Dibromo-3-Chloropropane	155	13.822	13.822	0.000	85	58527	10.0	10.5	
135 1,3,5-Trichlorobenzene	180	13.950	13.950	0.000	98	921099	10.0	9.71	
136 1,2,4-Trichlorobenzene	180	14.371	14.371	0.000	94	787807	10.0	9.80	
137 Hexachlorobutadiene	225	14.450	14.450	0.000	95	361678	10.0	9.51	
138 Naphthalene	128	14.548	14.548	0.000	97	1348552	10.0	9.81	
139 1,2,3-Trichlorobenzene	180	14.688	14.688	0.000	96	676234	10.0	9.48	
140 2-Methylnaphthalene	142	15.310	15.310	0.000	92	768802	10.0	9.90	

**QC Flag Legend**

Processing Flags

Review Flags

M - Manually Integrated

**Reagents:**

MSV\_LL\_#1\_826\_00032

Amount Added: 20.00

Units: uL

MSV\_LL\_#2\_826\_00037

Amount Added: 20.00

Units: uL

MSV\_LL\_GAS826\_00062

Amount Added: 20.00

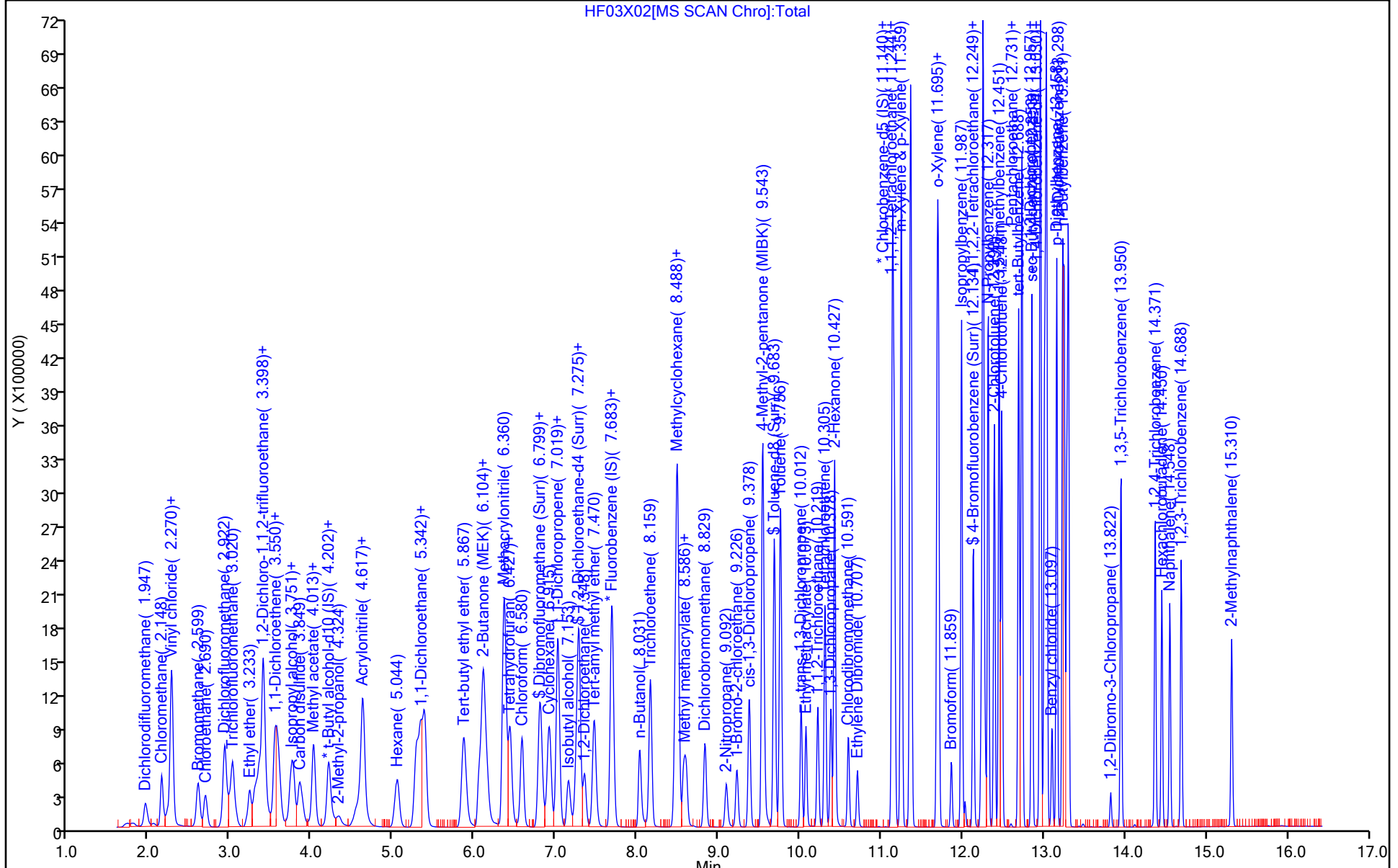
Units: uL

MSV\_LLcentISS\_00002

Amount Added: 5.00

Units: uL

Run Reagent



HF03X02[MS SCAN Chrom]:Total

Eurofins Lancaster Laboratories Env, LLC

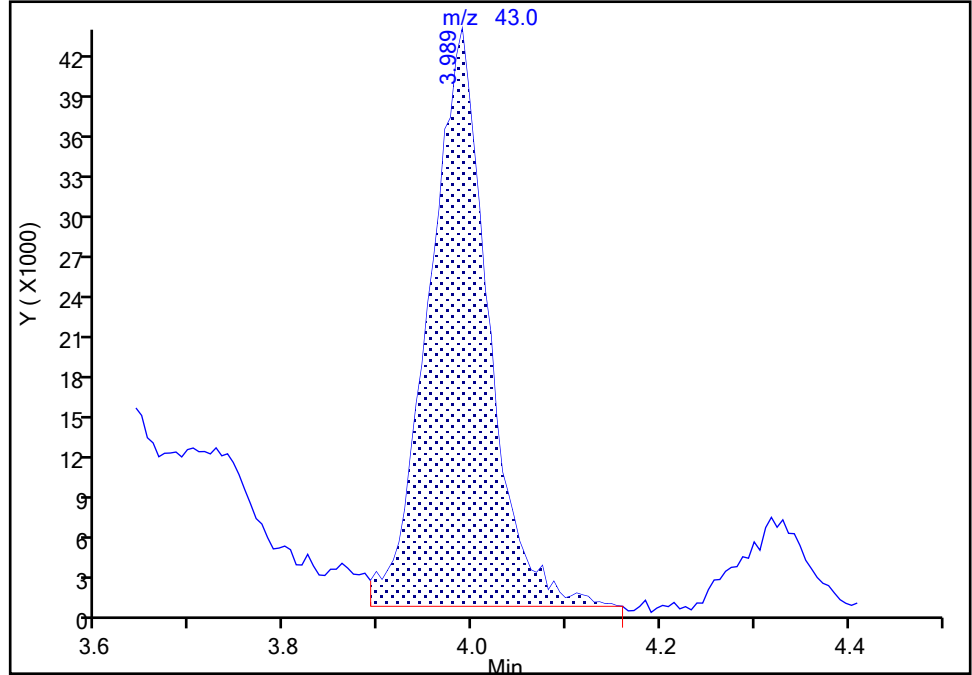
Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X02.D  
Injection Date: 03-Feb-2022 10:20:30 Instrument ID: 19094  
Lims ID: CCVIS VSTD10  
Client ID:  
Operator ID: KNK41612 ALS Bottle#: 2 Worklist Smp#: 3  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: MSV\_19094\_25mL Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column ( 0.25mm ID) Detector: MS Quad

26 Methyl acetate, CAS: 79-20-9

Signal: 1

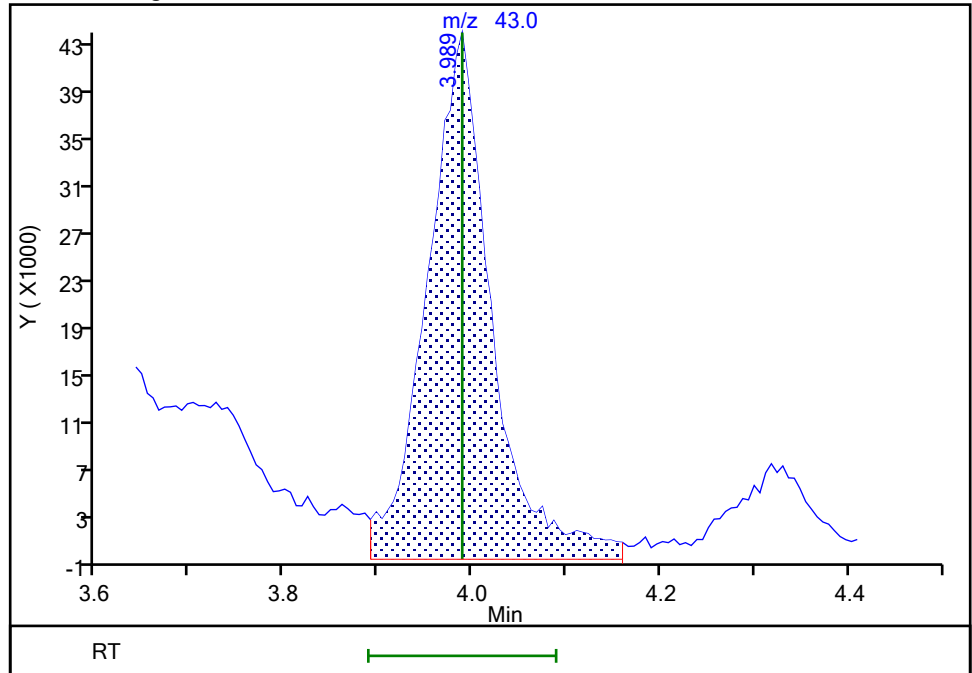
RT: 3.99  
Area: 185460  
Amount: 6.724509  
Amount Units: ug/l

Processing Integration Results



RT: 3.99  
Area: 208487  
Amount: 7.559434  
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 03-Feb-2022 10:52:06  
Audit Action: Assigned New Baseline

Audit Reason: Incomplete Integration



FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-71043-1

SDG No.: \_\_\_\_\_

Lab Sample ID: ICV 410-163707/19 Calibration Date: 08/24/2021 03:13

Instrument ID: 19930 Calib Start Date: 08/24/2021 00:45

GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 08/24/2021 02:52

Lab File ID: IG23V01.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	0.3128	0.4012	0.1000	6.41	5.00	28.3	30.0
Chloromethane	Ave	0.3563	0.4028	0.1000	5.65	5.00	13.1	30.0
1,3-Butadiene	Ave	0.3273	0.3543		5.41	5.00	8.2	30.0
Vinyl chloride	Ave	0.3592	0.4047	0.1000	5.63	5.00	12.7	30.0
Bromomethane	Ave	0.2603	0.2760	0.1000	5.30	5.00	6.0	30.0
Chloroethane	Ave	0.2153	0.2327	0.1000	5.40	5.00	8.0	30.0
Dichlorofluoromethane	Ave	0.5179	0.5713		5.52	5.00	10.3	30.0
Trichlorofluoromethane	Ave	0.4629	0.5399	0.1000	5.83	5.00	16.6	30.0
Ethyl ether	Ave	0.1881	0.2057		5.49	5.02	9.4	30.0
Freon 123a	Ave	0.3316	0.3652		5.51	5.00	10.1	30.0
Acrolein	Ave	2.185	1.997		34.3	37.5	-8.6	30.0
1,1-Dichloroethene	Ave	0.2387	0.2623	0.1000	5.49	5.00	9.9	30.0
Acetone	Ave	2.778	2.636	0.1000	59.3	62.5	-5.1	30.0
Freon 113	Ave	0.2492	0.2962	0.1000	5.94	5.00	18.9	30.0
Methyl iodide	Ave	0.4771	0.4962		5.20	5.00	4.0	30.0
Ethyl bromide	Ave	0.2175	0.2179		5.08	5.07	0.2	30.0
Carbon disulfide	Ave	0.6588	0.6766	0.1000	5.13	5.00	2.7	30.0
Methyl acetate	Ave	8.176	7.833	0.1000	4.79	5.00	-4.2	30.0
Allyl chloride	Ave	0.3915	0.4032		5.15	5.00	3.0	30.0
Methylene Chloride	Ave	0.2605	0.2761	0.1000	5.30	5.00	6.0	30.0
t-Butyl alcohol	Ave	1.053	1.191		56.5	50.0	13.1	30.0
Acrylonitrile	Ave	3.702	3.627		24.5	25.0	-2.0	30.0
Methyl tert-butyl ether	Ave	0.6808	0.7048	0.1000	5.18	5.00	3.5	30.0
trans-1,2-Dichloroethene	Ave	0.2711	0.2791	0.1000	5.15	5.00	3.0	30.0
n-Hexane	Ave	0.3785	0.4044		5.34	5.00	6.8	30.0
1,1-Dichloroethane	Ave	0.4919	0.5032	0.2000	5.11	5.00	2.3	30.0
di-Isopropyl ether	Ave	0.8217	0.8382		5.10	5.00	2.0	30.0
2-Chloro-1,3-butadiene	Ave	0.4101	0.4431		5.40	5.00	8.0	30.0
Ethyl t-butyl ether	Ave	0.8035	0.8446		5.26	5.00	5.1	30.0
2-Butanone (MEK)	Ave	4.850	4.673	0.1000	60.2	62.5	-3.6	30.0
cis-1,2-Dichloroethene	Ave	0.3020	0.3231	0.1000	5.35	5.00	7.0	30.0
2,2-Dichloropropane	Ave	0.4277	0.4657		5.44	5.00	8.9	30.0
Propionitrile	Ave	1.288	1.276		37.1	37.5	-1.0	30.0
Methacrylonitrile	Ave	4.873	4.712		36.3	37.5	-3.3	30.0
Bromochloromethane	Ave	0.1303	0.1399		5.37	5.00	7.4	30.0
Tetrahydrofuran	Ave	1.439	1.378		24.0	25.0	-4.2	30.0
Chloroform	Ave	0.4873	0.5033	0.2000	5.16	5.00	3.3	30.0
1,1,1-Trichloroethane	Ave	0.4528	0.4766	0.1000	5.26	5.00	5.3	30.0
Cyclohexane	Ave	0.4489	0.4960	0.1000	5.52	5.00	10.5	30.0
1,1-Dichloropropene	Ave	0.3820	0.4120		5.39	5.00	7.9	30.0
Carbon tetrachloride	Ave	0.3908	0.4267	0.1000	5.46	5.00	9.2	30.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-71043-1

SDG No.: \_\_\_\_\_

Lab Sample ID: ICV 410-163707/19 Calibration Date: 08/24/2021 03:13

Instrument ID: 19930 Calib Start Date: 08/24/2021 00:45

GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 08/24/2021 02:52

Lab File ID: IG23V01.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	0.3359	0.3165		118	125	-5.8	30.0
Benzene	Ave	1.124	1.170	0.5000	5.20	5.00	4.1	30.0
1,2-Dichloroethane	Ave	0.3046	0.3151	0.1000	5.17	5.00	3.4	30.0
t-Amyl methyl ether	Ave	0.7459	0.7680		5.15	5.00	3.0	30.0
n-Heptane	Ave	0.3892	0.3904		5.02	5.00	0.3	30.0
n-Butanol	Ave	0.3118	0.2802		225	250	-10.1	30.0
Trichloroethene	Ave	0.3022	0.3091	0.2000	5.11	5.00	2.3	30.0
Methylcyclohexane	Ave	0.5026	0.5536	0.1000	5.51	5.00	10.2	30.0
1,2-Dichloropropane	Ave	0.2761	0.2930	0.1000	5.30	5.00	6.1	30.0
Methyl methacrylate	Ave	9.578	8.737		4.56	5.00	-8.8	30.0
1,4-Dioxane	Qua		0.0634	0.0050	90.1	125	-27.9	30.0
Dibromomethane	Ave	0.1350	0.1409		5.22	5.00	4.4	30.0
Bromodichloromethane	Ave	0.3347	0.3576	0.2000	5.34	5.00	6.8	30.0
2-Nitropropane	Ave	2.740	2.491		4.55	5.00	-9.1	30.0
1-Bromo-2-chloroethane	Ave	0.2710	0.2981		5.50	5.00	10.0	30.0
cis-1,3-Dichloropropene	Ave	0.4206	0.4319	0.2000	5.14	5.00	2.7	30.0
4-Methyl-2-pentanone (MIBK)	Ave	12.21	11.92	0.1000	61.0	62.5	-2.4	30.0
Toluene	Ave	0.9586	0.9823	0.4000	5.12	5.00	2.5	30.0
trans-1,3-Dichloropropene	Ave	0.4420	0.4752	0.1000	5.38	5.00	7.5	30.0
Ethyl methacrylate	Ave	0.3689	0.3973		5.38	5.00	7.7	30.0
1,1,2-Trichloroethane	Ave	0.2557	0.2675	0.1000	5.23	5.00	4.6	30.0
Tetrachloroethene	Ave	0.4567	0.4774	0.2000	5.23	5.00	4.5	30.0
1,3-Dichloropropane	Ave	0.4348	0.4514		5.19	5.00	3.8	30.0
2-Hexanone	Ave	8.554	8.599	0.1000	62.8	62.5	0.5	30.0
Dibromochloromethane	Ave	0.3116	0.3290		5.28	5.00	5.6	30.0
1,2-Dibromoethane (EDB)	Ave	0.2467	0.2581	0.1000	5.23	5.00	4.6	30.0
1-Chlorohexane	Ave	0.5606	0.5563		4.96	5.00	-0.8	30.0
Chlorobenzene	Ave	1.062	1.085	0.5000	5.11	5.00	2.2	30.0
1,1,1,2-Tetrachloroethane	Ave	0.3708	0.3938		5.31	5.00	6.2	30.0
Ethylbenzene	Ave	1.846	1.912	0.1000	5.18	5.00	3.6	30.0
m&p-Xylene	Ave	0.7292	0.7597	0.1000	10.4	10.0	4.2	30.0
o-Xylene	Ave	0.7197	0.7348	0.3000	5.11	5.00	2.1	30.0
Styrene	Ave	1.162	1.221	0.3000	5.26	5.00	5.1	30.0
Bromoform	Ave	0.1867	0.1983	0.1000	5.31	5.00	6.2	30.0
Isopropylbenzene	Ave	1.900	2.013	0.1000	5.30	5.00	6.0	30.0
1,1,1,2,2-Tetrachloroethane	Ave	0.5528	0.5817	0.3000	5.26	5.00	5.2	30.0
Bromobenzene	Ave	0.7576	0.8189		5.40	5.00	8.1	30.0
trans-1,4-Dichloro-2-butene	Ave	4.418	4.184		23.7	25.0	-5.3	30.0
1,2,3-Trichloropropane	Ave	0.1520	0.1646		5.42	5.00	8.3	30.0
N-Propylbenzene	Ave	3.678	3.868		5.26	5.00	5.2	30.0
2-Chlorotoluene	Ave	0.7546	0.7854		5.20	5.00	4.1	30.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-71043-1

SDG No.: \_\_\_\_\_

Lab Sample ID: ICV 410-163707/19 Calibration Date: 08/24/2021 03:13

Instrument ID: 19930 Calib Start Date: 08/24/2021 00:45

GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 08/24/2021 02:52

Lab File ID: IG23V01.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	2.686	2.787		5.19	5.00	3.8	30.0
4-Chlorotoluene	Ave	0.7706	0.7862		5.10	5.00	2.0	30.0
tert-Butylbenzene	Ave	0.5890	0.6160		5.23	5.00	4.6	30.0
Pentachloroethane	Ave	0.4757	0.5156		5.42	5.00	8.4	30.0
1,2,4-Trimethylbenzene	Ave	2.753	2.852		5.18	5.00	3.6	30.0
sec-Butylbenzene	Ave	3.394	3.596		5.30	5.00	5.9	30.0
1,3-Dichlorobenzene	Ave	1.528	1.566	0.6000	5.12	5.00	2.5	30.0
p-Isopropyltoluene	Ave	3.002	3.128		5.21	5.00	4.2	30.0
1,4-Dichlorobenzene	Ave	1.562	1.579	0.5000	5.06	5.00	1.1	30.0
1,2,3-Trimethylbenzene	Ave	1.218	1.249		5.13	5.00	2.5	30.0
Benzyl chloride	Ave	0.2262	0.2392		5.29	5.00	5.7	30.0
n-Butylbenzene	Ave	1.403	1.417		5.05	5.00	1.0	30.0
1,2-Dichlorobenzene	Ave	1.396	1.438	0.4000	5.15	5.00	3.0	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.0813	0.0870	0.0500	5.35	5.00	7.0	30.0
1,3,5-Trichlorobenzene	Ave	1.118	1.122		5.02	5.00	0.3	30.0
1,2,4-Trichlorobenzene	Ave	0.9433	0.9382	0.2000	4.97	5.00	-0.5	30.0
Hexachlorobutadiene	Ave	0.4098	0.3745		4.57	5.00	-8.6	30.0
Naphthalene	Ave	1.798	1.746		4.85	5.00	-2.9	30.0
1,2,3-Trichlorobenzene	Ave	0.8152	0.7774		4.77	5.00	-4.6	30.0
Dibromofluoromethane (Surr)	Ave	0.2519	0.2541		10.1	10.0	0.9	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0504	0.0504		10.0	10.0	0.0	30.0
Toluene-d8 (Surr)	Ave	1.292	1.296		10.0	10.0	0.3	30.0
4-Bromofluorobenzene (Surr)	Ave	0.4939	0.4907		9.94	10.0	-0.6	30.0

Eurofins Lancaster Laboratories Env, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23V01.D  
 Lims ID: ICV LG  
 Client ID:  
 Sample Type: ICV  
 Inject. Date: 24-Aug-2021 03:13:30 ALS Bottle#: 18 Worklist Smp#: 19  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0037607-019  
 Misc. Info.: ICV LG  
 Operator ID: mec29284 Instrument ID: 19930  
 Sublist:

Method: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 24-Aug-2021 15:57:03 Calib Date: 24-Aug-2021 02:52:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1646

First Level Reviewer: longj Date: 24-Aug-2021 16:07:55

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.977	1.965	0.012	99	437699	5.00	6.41	
4 Chloromethane	50	2.178	2.172	0.006	99	439513	5.00	5.65	
6 Butadiene	39	2.294	2.288	0.006	90	386504	5.00	5.41	
5 Vinyl chloride	62	2.300	2.294	0.006	73	441552	5.00	5.63	
7 Bromomethane	94	2.623	2.623	0.000	90	301136	5.00	5.30	
8 Chloroethane	64	2.708	2.709	-0.001	100	253839	5.00	5.40	
9 Dichlorofluoromethane	67	2.946	2.946	0.000	97	623302	5.00	5.52	
10 Trichlorofluoromethane	101	3.013	3.020	-0.007	97	589092	5.00	5.83	
11 Ethyl ether	59	3.263	3.257	0.006	90	225441	5.02	5.49	
12 1,2-Dichloro-1,1,2-trifluoroethane	67	3.349	3.343	0.006	91	398432	5.00	5.51	
13 Acrolein	56	3.440	3.428	0.012	98	255737	37.5	34.3	
14 1,1-Dichloroethene	96	3.574	3.568	0.006	98	286176	5.00	5.49	
15 Acetone	43	3.611	3.599	0.012	100	562768	62.5	59.3	
16 112TCTFE	101	3.617	3.611	0.006	91	323206	5.00	5.94	
17 Iodomethane	142	3.775	3.769	0.006	100	541414	5.00	5.20	
18 Ethyl bromide	108	3.806	3.794	0.012	99	240936	5.07	5.08	
19 Carbon disulfide	76	3.885	3.879	0.006	99	738164	5.00	5.13	
21 Methyl acetate	43	4.037	4.038	-0.001	97	133771	5.00	4.79	
22 3-Chloro-1-propene	41	4.056	4.056	0.000	91	439940	5.00	5.15	
23 Methylene Chloride	84	4.245	4.239	0.006	90	301185	5.00	5.30	
* 24 t-Butyl alcohol-d10 (IS)	65	4.257	4.257	0.000	95	170769	50.0	50.0	
25 2-Methyl-2-propanol	59	4.397	4.397	0.000	99	203324	50.0	56.5	
26 Acrylonitrile	53	4.586	4.592	-0.006	99	309652	25.0	24.5	
27 Methyl tert-butyl ether	73	4.659	4.659	0.000	94	768950	5.00	5.18	
28 trans-1,2-Dichloroethene	96	4.671	4.672	-0.001	99	304528	5.00	5.15	
29 Hexane	57	5.092	5.086	0.006	91	441246	5.00	5.34	
31 1,1-Dichloroethane	63	5.330	5.330	0.000	96	549029	5.00	5.11	
32 Isopropyl ether	45	5.385	5.385	0.000	94	914534	5.00	5.10	
33 2-Chloro-1,3-butadiene	53	5.440	5.434	0.006	91	483480	5.00	5.40	
34 Tert-butyl ethyl ether	59	5.921	5.915	0.006	97	921451	5.00	5.26	

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	6.116	6.116	0.000	99	997599	62.5	60.2	
37 cis-1,2-Dichloroethene	96	6.159	6.159	0.000	82	352537	5.00	5.35	
38 2,2-Dichloropropane	77	6.171	6.171	0.000	90	508145	5.00	5.44	
40 Propionitrile	54	6.208	6.208	0.000	98	163382	37.5	37.1	
42 Methacrylonitrile	67	6.421	6.415	0.006	91	603546	37.5	36.3	
43 Chlorobromomethane	128	6.494	6.482	0.012	91	152671	5.00	5.37	
44 Tetrahydrofuran	71	6.494	6.494	0.000	80	117689	25.0	24.0	
45 Chloroform	83	6.641	6.635	0.006	93	549073	5.00	5.16	
\$ 46 Dibromofluoromethane (Surr)	113	6.848	6.848	0.000	94	554531	10.0	10.1	
47 1,1,1-Trichloroethane	97	6.866	6.860	0.006	98	519977	5.00	5.26	
48 Cyclohexane	56	6.964	6.964	0.000	89	541150	5.00	5.52	
50 Carbon tetrachloride	117	7.080	7.067	0.013	90	465504	5.00	5.46	
51 1,1-Dichloropropene	75	7.073	7.074	-0.001	96	449547	5.00	5.39	
52 Isobutyl alcohol	41	7.214	7.214	0.000	94	135141	125.0	117.8	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.305	7.299	0.006	93	110057	10.0	10.0	
54 Benzene	78	7.336	7.336	0.000	96	1276844	5.00	5.20	
56 1,2-Dichloroethane	62	7.409	7.409	0.000	97	343788	5.00	5.17	
57 Tert-amyl methyl ether	73	7.518	7.519	-0.001	99	837925	5.00	5.15	
* 58 Fluorobenzene (IS)	96	7.738	7.732	0.006	99	2182088	10.0	10.0	
59 n-Heptane	43	7.744	7.744	0.000	92	425979	5.00	5.02	
60 n-Butanol	56	8.092	8.098	-0.006	88	239239	250.0	224.6	
61 Trichloroethene	95	8.213	8.214	-0.001	97	337234	5.00	5.11	
62 Methylcyclohexane	83	8.524	8.525	-0.001	93	604005	5.00	5.51	
63 1,2-Dichloropropane	63	8.543	8.543	0.000	82	319656	5.00	5.30	
64 Methyl methacrylate	69	8.628	8.628	0.000	88	149196	5.00	4.56	
65 1,4-Dioxane	88	8.634	8.640	-0.006	31	27070	125.0	90.1	M
66 Dibromomethane	93	8.652	8.653	-0.001	93	153739	5.00	5.22	
68 Dichlorobromomethane	83	8.890	8.890	0.000	99	390138	5.00	5.34	
69 2-Nitropropane	41	9.152	9.152	0.000	98	42545	5.00	4.55	
72 1-Bromo-2-chloroethane	63	9.280	9.280	0.000	99	325188	5.00	5.50	
73 cis-1,3-Dichloropropene	75	9.433	9.433	0.000	96	471258	5.00	5.14	
74 4-Methyl-2-pentanone (MIBK)	43	9.597	9.597	0.000	96	2543694	62.5	61.0	
\$ 75 Toluene-d8 (Surr)	98	9.738	9.738	0.000	93	2195010	10.0	10.0	
76 Toluene	92	9.811	9.811	0.000	98	831998	5.00	5.12	
78 trans-1,3-Dichloropropene	75	10.067	10.067	0.000	92	402527	5.00	5.38	
79 Ethyl methacrylate	69	10.128	10.128	0.000	88	336492	5.00	5.38	
80 1,1,2-Trichloroethane	97	10.268	10.268	0.000	90	226603	5.00	5.23	
81 Tetrachloroethene	166	10.359	10.360	-0.001	98	404374	5.00	5.23	
82 1,3-Dichloropropane	76	10.433	10.433	0.000	88	382334	5.00	5.19	
83 2-Hexanone	43	10.481	10.481	0.000	96	1835506	62.5	62.8	
85 Chlorodibromomethane	129	10.646	10.646	0.000	90	278622	5.00	5.28	
86 Ethylene Dibromide	107	10.756	10.756	0.000	98	218638	5.00	5.23	
* 87 Chlorobenzene-d5 (IS)	117	11.182	11.183	-0.001	86	1693972	10.0	10.0	
88 1-Chlorohexane	91	11.188	11.189	-0.001	96	471211	5.00	4.96	
90 Chlorobenzene	112	11.213	11.213	0.000	95	919057	5.00	5.11	
91 1,1,1,2-Tetrachloroethane	131	11.292	11.292	0.000	95	333557	5.00	5.31	
92 Ethylbenzene	91	11.298	11.298	0.000	98	1619334	5.00	5.18	
93 m-Xylene & p-Xylene	106	11.408	11.408	0.000	100	1286861	10.0	10.4	
94 o-Xylene	106	11.737	11.737	0.000	96	622361	5.00	5.11	
95 Styrene	104	11.755	11.756	-0.001	95	1034424	5.00	5.26	
96 Bromoform	173	11.914	11.914	0.000	97	167946	5.00	5.31	
97 Isopropylbenzene	105	12.036	12.036	0.000	95	1705372	5.00	5.30	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
\$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	93	831259	10.0	9.94	
101 1,1,2,2-Tetrachloroethane	83	12.280	12.280	0.000	94	289381	5.00	5.26	
102 Bromobenzene	156	12.298	12.298	0.000	97	407348	5.00	5.40	
103 trans-1,4-Dichloro-2-butene	53	12.304	12.304	0.000	89	357283	25.0	23.7	
104 1,2,3-Trichloropropane	110	12.329	12.329	-0.001	83	81877	5.00	5.42	
105 N-Propylbenzene	91	12.365	12.365	0.000	99	1924114	5.00	5.26	
106 2-Chlorotoluene	126	12.444	12.444	0.000	97	390702	5.00	5.20	
107 1,3,5-Trimethylbenzene	105	12.499	12.499	0.000	94	1386314	5.00	5.19	
108 4-Chlorotoluene	126	12.536	12.536	0.000	97	391109	5.00	5.10	
109 tert-Butylbenzene	134	12.743	12.743	0.000	93	306426	5.00	5.23	
110 Pentachloroethane	167	12.774	12.774	0.000	93	256460	5.00	5.42	
111 1,2,4-Trimethylbenzene	105	12.786	12.786	0.000	97	1418708	5.00	5.18	
112 sec-Butylbenzene	105	12.908	12.902	0.006	94	1788570	5.00	5.30	
113 1,3-Dichlorobenzene	146	13.005	13.005	0.000	98	778901	5.00	5.12	
114 4-Isopropyltoluene	119	13.011	13.011	0.000	97	1555925	5.00	5.21	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	94	994893	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.078	13.079	-0.001	95	785427	5.00	5.06	
117 1,2,3-Trimethylbenzene	120	13.091	13.085	0.006	98	621165	5.00	5.13	
118 Benzyl chloride	126	13.158	13.158	0.000	98	118974	5.00	5.29	
119 n-Butylbenzene	92	13.304	13.304	0.000	97	704682	5.00	5.05	
120 1,2-Dichlorobenzene	146	13.341	13.341	-0.001	99	715454	5.00	5.15	
122 1,2-Dibromo-3-Chloropropane	155	13.883	13.883	0.000	88	43268	5.00	5.35	
123 1,3,5-Trichlorobenzene	180	14.005	14.005	0.000	98	557931	5.00	5.02	
124 1,2,4-Trichlorobenzene	180	14.432	14.432	0.000	94	466716	5.00	4.97	
125 Hexachlorobutadiene	225	14.511	14.511	0.000	96	186275	5.00	4.57	
126 Naphthalene	128	14.609	14.609	0.000	97	868382	5.00	4.85	
127 1,2,3-Trichlorobenzene	180	14.755	14.755	0.000	95	386694	5.00	4.77	
134 Isopropyl alcohol	45		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
137 2-Methylnaphthalene	142		0.000				ND	ND	

## QC Flag Legend

### Processing Flags

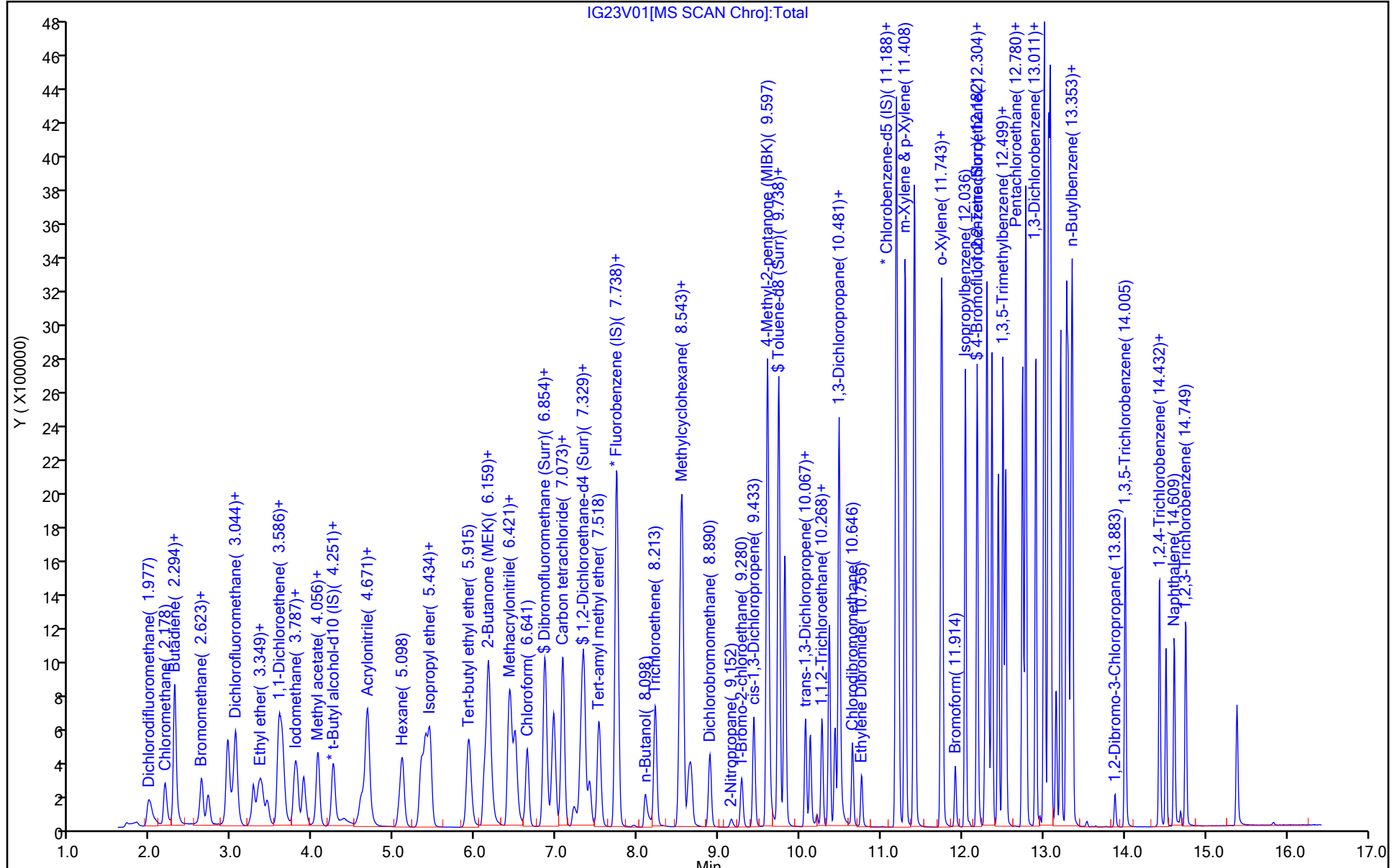
ND - Not Detected or Marked ND

### Review Flags

M - Manually Integrated

## Reagents:

MSV_Q_EE_00004	Amount Added: 12.50	Units: uL	
MSV_LCS_VOC#1_00015	Amount Added: 12.50	Units: uL	
MSV_LCS_ACROL_00017	Amount Added: 12.50	Units: uL	
MSV_LCS_Penta_00006	Amount Added: 12.50	Units: uL	
MSV_QC_Gas826_00026	Amount Added: 12.50	Units: uL	
MSV_Q_ETBR_00008	Amount Added: 12.50	Units: uL	
MSV_LLcentISS_00001	Amount Added: 5.00	Units: uL	Run Reagent



Eurofins Lancaster Laboratories Env, LLC

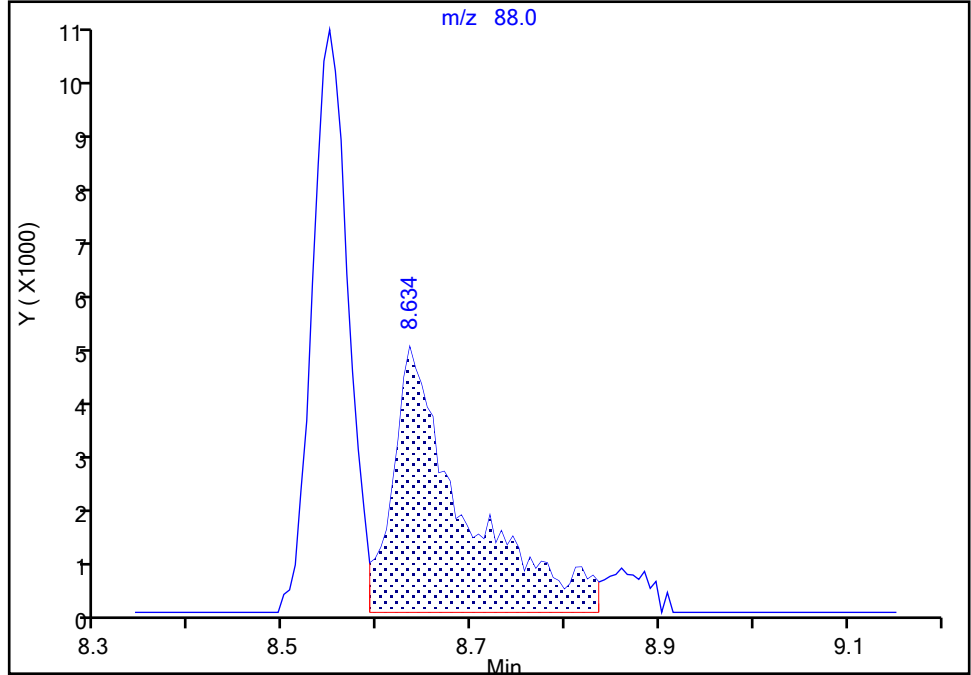
Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23V01.D  
Injection Date: 24-Aug-2021 03:13:30 Instrument ID: 19930  
Lims ID: ICV LG  
Client ID:  
Operator ID: mec29284 ALS Bottle#: 18 Worklist Smp#: 19  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: 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

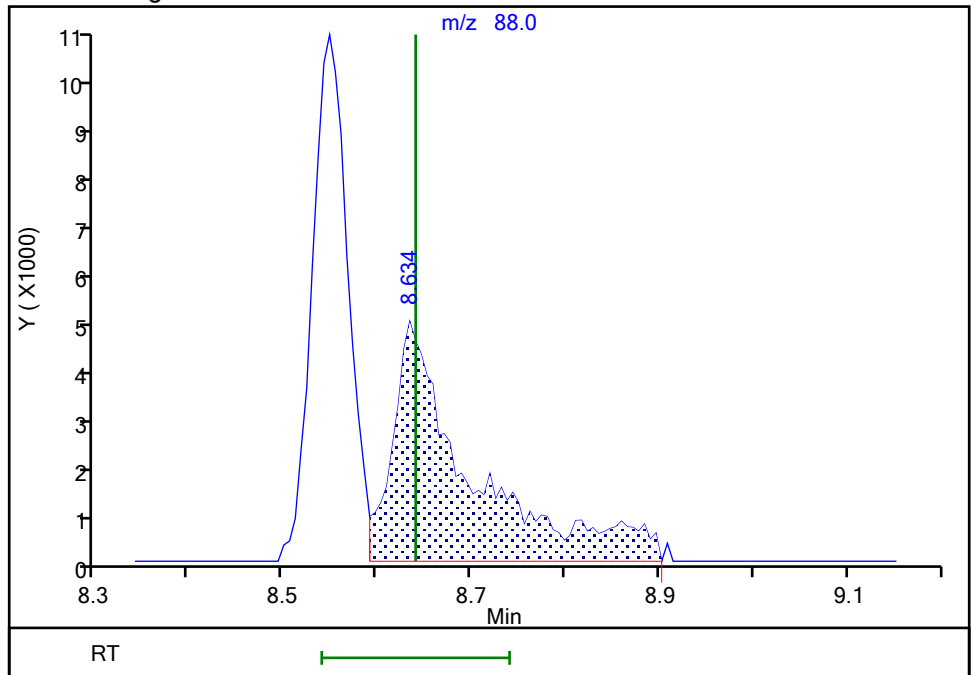
RT: 8.63  
Area: 24779  
Amount: 87.218368  
Amount Units: ug/l

Processing Integration Results



RT: 8.63  
Area: 27070  
Amount: 90.099969  
Amount Units: ug/l

Manual Integration Results



Reviewer: longj, 24-Aug-2021 15:37:39  
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration



FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-71043-1

SDG No.: \_\_\_\_\_

Lab Sample ID: CCVIS 410-220519/3 Calibration Date: 02/03/2022 09:32

Instrument ID: 19930 Calib Start Date: 08/24/2021 00:45

GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 08/24/2021 02:52

Lab File ID: IF03X02.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	0.3128	0.2381	0.1000	7.61	10.0	-23.9*	20.0
Chloromethane	Ave	0.3563	0.3364	0.1000	9.44	10.0	-5.6	20.0
Vinyl chloride	Ave	0.3592	0.3352	0.1000	9.33	10.0	-6.7	20.0
1,3-Butadiene	Ave	0.3273	0.4047		12.4	10.0	23.6*	20.0
Bromomethane	Ave	0.2603	0.2376	0.1000	9.13	10.0	-8.7	20.0
Chloroethane	Ave	0.2153	0.1990	0.1000	9.24	10.0	-7.6	20.0
Dichlorofluoromethane	Ave	0.5179	0.4760		9.19	10.0	-8.1	20.0
Trichlorofluoromethane	Ave	0.4629	0.4379	0.1000	9.46	10.0	-5.4	20.0
Ethyl ether	Ave	0.1881	0.1843		9.80	10.0	-2.0	20.0
Freon 123a	Ave	0.3316	0.3479		10.5	10.0	4.9	20.0
Acrolein	Ave	2.185	1.856		425	500	-15.1	20.0
1,1-Dichloroethene	Ave	0.2387	0.2421	0.1000	10.1	10.0	1.4	20.0
Acetone	Ave	2.778	2.370	0.1000	85.3	100	-14.7	20.0
Freon 113	Ave	0.2492	0.1979	0.1000	7.94	10.0	-20.6*	20.0
Methyl iodide	Ave	0.4771	0.4436		9.30	10.0	-7.0	20.0
Ethyl bromide	Ave	0.2175	0.2294		10.5	10.0	5.5	20.0
Carbon disulfide	Ave	0.6588	0.6260	0.1000	9.50	10.0	-5.0	20.0
Methyl acetate	Ave	8.176	8.201	0.1000	10.0	10.0	0.3	20.0
Allyl chloride	Ave	0.3915	0.4057		10.4	10.0	3.6	20.0
Methylene Chloride	Ave	0.2605	0.2690	0.1000	10.3	10.0	3.3	20.0
t-Butyl alcohol	Ave	1.053	0.9080		173	200	-13.7	20.0
Acrylonitrile	Ave	3.702	3.302		22.3	25.0	-10.8	20.0
Methyl tert-butyl ether	Ave	0.6808	0.6809	0.1000	10.0	10.0	0.0	20.0
trans-1,2-Dichloroethene	Ave	0.2711	0.2821	0.1000	10.4	10.0	4.1	20.0
n-Hexane	Ave	0.3785	0.3177		8.39	10.0	-16.1	20.0
1,1-Dichloroethane	Ave	0.4919	0.5284	0.2000	10.7	10.0	7.4	20.0
di-Isopropyl ether	Ave	0.8217	0.8727		10.6	10.0	6.2	20.0
2-Chloro-1,3-butadiene	Ave	0.4101	0.4233		10.3	10.0	3.2	20.0
Ethyl t-butyl ether	Ave	0.8035	0.8210		10.2	10.0	2.2	20.0
2-Butanone (MEK)	Ave	4.850	4.593	0.1000	94.7	100	-5.3	20.0
cis-1,2-Dichloroethene	Ave	0.3020	0.3142	0.1000	10.4	10.0	4.0	20.0
2,2-Dichloropropane	Ave	0.4277	0.4285		10.0	10.0	0.2	20.0
Propionitrile	Ave	1.288	1.346		209	200	4.5	20.0
Methacrylonitrile	Ave	4.873	4.434		91.0	100	-9.0	20.0
Bromochloromethane	Ave	0.1303	0.1415		10.9	10.0	8.6	20.0
Tetrahydrofuran	Ave	1.439	1.274		44.3	50.0	-11.4	20.0
Chloroform	Ave	0.4873	0.5140	0.2000	10.5	10.0	5.5	20.0
1,1,1-Trichloroethane	Ave	0.4528	0.4528	0.1000	10.0	10.0	0.0	20.0
Cyclohexane	Ave	0.4489	0.4112	0.1000	9.16	10.0	-8.4	20.0
1,1-Dichloropropene	Ave	0.3820	0.4136		10.8	10.0	8.3	20.0
Carbon tetrachloride	Ave	0.3908	0.4014	0.1000	10.3	10.0	2.7	20.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-71043-1

SDG No.: \_\_\_\_\_

Lab Sample ID: CCVIS 410-220519/3 Calibration Date: 02/03/2022 09:32

Instrument ID: 19930 Calib Start Date: 08/24/2021 00:45

GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 08/24/2021 02:52

Lab File ID: IF03X02.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	0.3359	0.3580		533	500	6.6	20.0
Benzene	Ave	1.124	1.221	0.5000	10.9	10.0	8.6	20.0
1,2-Dichloroethane	Ave	0.3046	0.3172	0.1000	10.4	10.0	4.1	20.0
t-Amyl methyl ether	Ave	0.7459	0.7604		10.2	10.0	1.9	20.0
n-Heptane	Ave	0.3892	0.3387		8.70	10.0	-13.0	20.0
n-Butanol	Ave	0.3118	0.3367		945	875	8.0	20.0
Trichloroethene	Ave	0.3022	0.3258	0.2000	10.8	10.0	7.8	20.0
Methylcyclohexane	Ave	0.5026	0.4346	0.1000	8.65	10.0	-13.5	20.0
1,2-Dichloropropane	Ave	0.2761	0.3178	0.1000	11.5	10.0	15.1	20.0
Methyl methacrylate	Ave	9.578	8.681		9.06	10.0	-9.4	20.0
1,4-Dioxane	Qua		0.0769	0.0050	410	500	-17.9	20.0
Dibromomethane	Ave	0.1350	0.1515		11.2	10.0	12.2	20.0
Bromodichloromethane	Ave	0.3347	0.3829	0.2000	11.4	10.0	14.4	20.0
2-Nitropropane	Ave	2.740	2.458		44.8	50.0	-10.3	20.0
1-Bromo-2-chloroethane	Ave	0.2710	0.3516		13.0	10.0	29.8*	20.0
cis-1,3-Dichloropropene	Ave	0.4206	0.4973	0.2000	11.8	10.0	18.2	20.0
4-Methyl-2-pentanone (MIBK)	Ave	12.21	11.21	0.1000	91.8	100	-8.2	20.0
Toluene	Ave	0.9586	1.010	0.4000	10.5	10.0	5.3	20.0
trans-1,3-Dichloropropene	Ave	0.4420	0.5133	0.1000	11.6	10.0	16.1	20.0
Ethyl methacrylate	Ave	0.3689	0.4122		11.2	10.0	11.7	20.0
1,1,2-Trichloroethane	Ave	0.2557	0.2841	0.1000	11.1	10.0	11.1	20.0
Tetrachloroethene	Ave	0.4567	0.4836	0.2000	10.6	10.0	5.9	20.0
1,3-Dichloropropane	Ave	0.4348	0.4948		11.4	10.0	13.8	20.0
2-Hexanone	Ave	8.554	8.216	0.1000	96.0	100	-4.0	20.0
Dibromochloromethane	Ave	0.3116	0.3657		11.7	10.0	17.4	20.0
1,2-Dibromoethane (EDB)	Ave	0.2467	0.2794	0.1000	11.3	10.0	13.3	20.0
1-Chlorohexane	Ave	0.5606	0.5786		10.3	10.0	3.2	20.0
Chlorobenzene	Ave	1.062	1.131	0.5000	10.7	10.0	6.5	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3708	0.3872		10.4	10.0	4.4	20.0
Ethylbenzene	Ave	1.846	1.924	0.1000	10.4	10.0	4.2	20.0
m&p-Xylene	Ave	0.7292	0.7622	0.1000	20.9	20.0	4.5	20.0
o-Xylene	Ave	0.7197	0.7303	0.3000	10.1	10.0	1.5	20.0
Styrene	Ave	1.162	1.223	0.3000	10.5	10.0	5.3	20.0
Bromoform	Ave	0.1867	0.2292	0.1000	12.3	10.0	22.8*	20.0
Isopropylbenzene	Ave	1.900	1.899	0.1000	10.0	10.0	-0.0	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5528	0.6362	0.3000	11.5	10.0	15.1	20.0
Bromobenzene	Ave	0.7576	0.8391		11.1	10.0	10.8	20.0
trans-1,4-Dichloro-2-butene	Ave	4.418	3.355		76.0	100	-24.0*	20.0
1,2,3-Trichloropropane	Ave	0.1520	0.1725		11.4	10.0	13.5	20.0
N-Propylbenzene	Ave	3.678	4.097		11.1	10.0	11.4	20.0
2-Chlorotoluene	Ave	0.7546	0.8262		10.9	10.0	9.5	20.0

FORM VII  
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-71043-1

SDG No.: \_\_\_\_\_

Lab Sample ID: CCVIS 410-220519/3 Calibration Date: 02/03/2022 09:32

Instrument ID: 19930 Calib Start Date: 08/24/2021 00:45

GC Column: R-624SilMS 30m ID: 0.25 (mm) Calib End Date: 08/24/2021 02:52

Lab File ID: IF03X02.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	2.686	2.844		10.6	10.0	5.9	20.0
4-Chlorotoluene	Ave	0.7706	0.8573		11.1	10.0	11.3	20.0
tert-Butylbenzene	Ave	0.5890	0.6476		11.0	10.0	10.0	20.0
Pentachloroethane	Ave	0.4757	0.5324		11.2	10.0	11.9	20.0
1,2,4-Trimethylbenzene	Ave	2.753	2.918		10.6	10.0	6.0	20.0
sec-Butylbenzene	Ave	3.394	3.696		10.9	10.0	8.9	20.0
1,3-Dichlorobenzene	Ave	1.528	1.624	0.6000	10.6	10.0	6.3	20.0
p-Isopropyltoluene	Ave	3.002	3.177		10.6	10.0	5.8	20.0
1,4-Dichlorobenzene	Ave	1.562	1.632	0.5000	10.5	10.0	4.5	20.0
1,2,3-Trimethylbenzene	Ave	1.218	1.239		10.2	10.0	1.7	20.0
Benzyl chloride	Ave	0.2262	0.2704		12.0	10.0	19.5	20.0
n-Butylbenzene	Ave	1.403	1.548		11.0	10.0	10.4	20.0
1,2-Dichlorobenzene	Ave	1.396	1.472	0.4000	10.5	10.0	5.4	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.0813	0.1015	0.0500	12.5	10.0	24.8*	20.0
1,3,5-Trichlorobenzene	Ave	1.118	1.140		10.2	10.0	2.0	20.0
1,2,4-Trichlorobenzene	Ave	0.9433	0.9593	0.2000	10.2	10.0	1.7	20.0
Hexachlorobutadiene	Ave	0.4098	0.3966		9.68	10.0	-3.2	20.0
Naphthalene	Ave	1.798	1.744		9.70	10.0	-3.0	20.0
1,2,3-Trichlorobenzene	Ave	0.8152	0.7947		9.75	10.0	-2.5	20.0
Dibromofluoromethane (Surr)	Ave	0.2519	0.2519		10.0	10.0	0.0	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0504	0.0517		10.3	10.0	2.6	20.0
Toluene-d8 (Surr)	Ave	1.292	1.292		10.0	10.0	-0.0	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4939	0.4853		9.83	10.0	-1.7	20.0

Eurofins Lancaster Laboratories Env, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03X02.D  
 Lims ID: CCVIS VSTD10  
 Client ID:  
 Sample Type: CCVIS  
 Inject. Date: 03-Feb-2022 09:32:30 ALS Bottle#: 2 Worklist Smp#: 3  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0049668-003  
 Misc. Info.: CCVIS  
 Operator ID: KNK41612 Instrument ID: 19930  
 Sublist: chrom-8260 25ml HP31\*sub2

Method: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 10:54:28 Calib Date: 24-Aug-2021 02:52:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D

Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1621

First Level Reviewer: kephartk

Date: 03-Feb-2022 09:57:17

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	450246	10.0	7.61	
4 Chloromethane	50	2.166	2.166	0.000	99	636044	10.0	9.44	
5 Vinyl chloride	62	2.282	2.282	0.000	97	633860	10.0	9.33	
6 Butadiene	39	2.294	2.294	0.000	90	765201	10.0	12.4	
7 Bromomethane	94	2.629	2.629	0.000	91	449310	10.0	9.13	
8 Chloroethane	64	2.702	2.702	0.000	100	376285	10.0	9.24	
9 Dichlorofluoromethane	67	2.946	2.946	0.000	97	900140	10.0	9.19	
10 Trichlorofluoromethane	101	3.013	3.013	0.000	97	828057	10.0	9.46	
11 Ethyl ether	59	3.257	3.257	0.000	91	348601	10.0	9.80	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.343	3.343	0.000	93	657918	10.0	10.5	
13 Acrolein	56	3.428	3.428	0.000	99	3285373	500.0	424.7	
14 1,1-Dichloroethene	96	3.568	3.568	0.000	98	457774	10.0	10.1	
15 Acetone	43	3.599	3.599	0.000	100	839105	100.0	85.3	M
16 112TCTFE	101	3.605	3.605	0.000	89	374289	10.0	7.94	
17 Iodomethane	142	3.769	3.769	0.000	98	838931	10.0	9.30	
18 Ethyl bromide	108	3.794	3.794	0.000	98	433629	10.0	10.5	
19 Carbon disulfide	76	3.873	3.873	0.000	99	1183766	10.0	9.50	
21 Methyl acetate	43	4.019	4.019	0.000	97	290335	10.0	10.0	M
22 3-Chloro-1-propene	41	4.050	4.050	0.000	94	767116	10.0	10.4	
23 Methylene Chloride	84	4.239	4.239	0.000	92	508646	10.0	10.3	
* 24 t-Butyl alcohol-d10 (IS)	65	4.245	4.245	0.000	94	177014	50.0	50.0	M
25 2-Methyl-2-propanol	59	4.403	4.403	0.000	99	642949	200.0	172.5	
26 Acrylonitrile	53	4.580	4.580	0.000	99	292256	25.0	22.3	
27 Methyl tert-butyl ether	73	4.647	4.647	0.000	95	1287518	10.0	10.0	
28 trans-1,2-Dichloroethene	96	4.659	4.659	0.000	99	533466	10.0	10.4	
29 Hexane	57	5.080	5.080	0.000	91	600748	10.0	8.39	
31 1,1-Dichloroethane	63	5.312	5.312	0.000	96	999205	10.0	10.7	
32 Isopropyl ether	45	5.373	5.373	0.000	94	1650206	10.0	10.6	
33 2-Chloro-1,3-butadiene	53	5.421	5.421	0.000	90	800397	10.0	10.3	
34 Tert-butyl ethyl ether	59	5.903	5.903	0.000	98	1552516	10.0	10.2	

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	6.104	0.000	100	1626187	100.0	94.7	
37 cis-1,2-Dichloroethene	96	6.141	6.141	0.000	82	594102	10.0	10.4	
38 2,2-Dichloropropane	77	6.159	6.159	0.000	86	810352	10.0	10.0	
40 Propionitrile	54	6.190	6.190	0.000	99	953229	200.0	209.0	
42 Methacrylonitrile	67	6.403	6.403	0.000	91	1569758	100.0	91.0	
43 Chlorobromomethane	128	6.470	6.470	0.000	94	267574	10.0	10.9	
44 Tetrahydrofuran	71	6.482	6.482	0.000	84	225562	50.0	44.3	
45 Chloroform	83	6.616	6.616	0.000	93	971965	10.0	10.5	
\$ 46 Dibromofluoromethane (Surr)	113	6.830	6.830	0.000	94	476342	10.0	10.0	
47 1,1,1-Trichloroethane	97	6.848	6.848	0.000	98	856305	10.0	10.0	
48 Cyclohexane	56	6.945	6.945	0.000	90	777570	10.0	9.16	
51 1,1-Dichloropropene	75	7.055	7.055	0.000	97	782024	10.0	10.8	
50 Carbon tetrachloride	117	7.055	7.055	0.000	97	759061	10.0	10.3	
52 Isobutyl alcohol	41	7.202	7.202	0.000	96	633641	500.0	532.8	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.275	7.275	0.000	91	97759	10.0	10.3	
54 Benzene	78	7.311	7.311	0.000	96	2308716	10.0	10.9	
56 1,2-Dichloroethane	62	7.384	7.384	0.000	97	599872	10.0	10.4	
57 Tert-amyl methyl ether	73	7.506	7.506	0.000	99	1437825	10.0	10.2	
* 58 Fluorobenzene (IS)	96	7.714	7.714	0.000	99	1890991	10.0	10.0	
59 n-Heptane	43	7.726	7.726	0.000	92	640565	10.0	8.70	
60 n-Butanol	56	8.073	8.073	0.000	88	1043034	875.0	944.8	
61 Trichloroethene	95	8.189	8.189	0.000	97	616094	10.0	10.8	
62 Methylcyclohexane	83	8.500	8.500	0.000	91	821748	10.0	8.65	
63 1,2-Dichloropropane	63	8.518	8.518	0.000	85	600976	10.0	11.5	
64 Methyl methacrylate	69	8.598	8.598	0.000	90	307324	10.0	9.06	
65 1,4-Dioxane	88	8.610	8.610	0.000	39	136084	500.0	410.5	M
66 Dibromomethane	93	8.628	8.628	0.000	93	286447	10.0	11.2	
68 Dichlorobromomethane	83	8.860	8.860	0.000	99	723979	10.0	11.4	
69 2-Nitropropane	41	9.122	9.122	0.000	98	435035	50.0	44.8	
72 1-Bromo-2-chloroethane	63	9.250	9.250	0.000	98	664869	10.0	13.0	
73 cis-1,3-Dichloropropene	75	9.402	9.402	0.000	97	940399	10.0	11.8	
74 4-Methyl-2-pentanone (MIBK)	43	9.573	9.573	0.000	96	3970254	100.0	91.8	
\$ 75 Toluene-d8 (Surr)	98	9.713	9.713	0.000	93	1975453	10.0	10.0	
76 Toluene	92	9.786	9.786	0.000	98	1543762	10.0	10.5	
78 trans-1,3-Dichloropropene	75	10.042	10.042	0.000	91	784841	10.0	11.6	
79 Ethyl methacrylate	69	10.097	10.097	0.000	89	630349	10.0	11.2	
80 1,1,2-Trichloroethane	97	10.244	10.244	0.000	91	434351	10.0	11.1	
81 Tetrachloroethene	166	10.335	10.335	0.000	97	739480	10.0	10.6	
82 1,3-Dichloropropane	76	10.402	10.402	0.000	89	756587	10.0	11.4	
83 2-Hexanone	43	10.451	10.451	0.000	97	2908546	100.0	96.0	
85 Chlorodibromomethane	129	10.616	10.616	0.000	90	559146	10.0	11.7	
86 Ethylene Dibromide	107	10.731	10.731	0.000	99	427276	10.0	11.3	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	84	1529097	10.0	10.0	
88 1-Chlorohexane	91	11.164	11.164	0.000	96	884685	10.0	10.3	
90 Chlorobenzene	112	11.182	11.182	0.000	96	1729447	10.0	10.7	
91 1,1,1,2-Tetrachloroethane	131	11.262	11.262	0.000	94	592019	10.0	10.4	
92 Ethylbenzene	91	11.268	11.268	0.000	98	2942395	10.0	10.4	
93 m-Xylene & p-Xylene	106	11.384	11.384	0.000	100	2331032	20.0	20.9	
94 o-Xylene	106	11.707	11.707	0.000	96	1116746	10.0	10.1	
95 Styrene	104	11.725	11.725	0.000	95	1869993	10.0	10.5	
96 Bromoform	173	11.884	11.884	0.000	98	350501	10.0	12.3	
97 Isopropylbenzene	105	12.005	12.005	0.000	95	2904498	10.0	10.0	

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	12.152	12.152	0.000	93	742043	10.0	9.83	
101 1,1,2,2-Tetrachloroethane	83	12.249	12.249	0.000	92	539734	10.0	11.5	
102 Bromobenzene	156	12.268	12.268	0.000	95	711801	10.0	11.1	
103 trans-1,4-Dichloro-2-butene	53	12.274	12.274	0.000	92	1187897	100.0	76.0	
104 1,2,3-Trichloropropane	110	12.292	12.292	0.000	80	146375	10.0	11.4	
105 N-Propylbenzene	91	12.335	12.335	0.000	99	3475479	10.0	11.1	
106 2-Chlorotoluene	126	12.414	12.414	0.000	97	700925	10.0	10.9	
107 1,3,5-Trimethylbenzene	105	12.469	12.469	0.000	94	2412707	10.0	10.6	
108 4-Chlorotoluene	126	12.505	12.505	0.000	96	727274	10.0	11.1	
109 tert-Butylbenzene	134	12.713	12.713	0.000	93	549380	10.0	11.0	
110 Pentachloroethane	167	12.743	12.743	0.000	93	451667	10.0	11.2	
111 1,2,4-Trimethylbenzene	105	12.749	12.749	0.000	97	2475549	10.0	10.6	
112 sec-Butylbenzene	105	12.871	12.871	0.000	94	3135189	10.0	10.9	
113 1,3-Dichlorobenzene	146	12.975	12.975	0.000	98	1377564	10.0	10.6	
114 4-Isopropyltoluene	119	12.981	12.981	0.000	97	2694742	10.0	10.6	
* 115 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	93	848326	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.048	13.048	0.000	95	1384722	10.0	10.5	
117 1,2,3-Trimethylbenzene	120	13.054	13.054	0.000	98	1050675	10.0	10.2	
118 Benzyl chloride	126	13.121	13.121	0.000	98	229373	10.0	12.0	
119 n-Butylbenzene	92	13.267	13.267	0.000	97	1313399	10.0	11.0	
120 1,2-Dichlorobenzene	146	13.304	13.304	0.000	99	1248321	10.0	10.5	
122 1,2-Dibromo-3-Chloropropane	155	13.847	13.847	0.000	90	86125	10.0	12.5	
123 1,3,5-Trichlorobenzene	180	13.969	13.969	0.000	98	967335	10.0	10.2	
124 1,2,4-Trichlorobenzene	180	14.389	14.389	0.000	94	813834	10.0	10.2	
125 Hexachlorobutadiene	225	14.475	14.475	0.000	95	336461	10.0	9.68	
126 Naphthalene	128	14.572	14.572	0.000	97	1479594	10.0	9.70	
127 1,2,3-Trichlorobenzene	180	14.712	14.712	0.000	96	674171	10.0	9.75	
134 Isopropyl alcohol	45		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
137 2-Methylnaphthalene	142		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\_00032

Amount Added: 20.00

Units: uL

MSV\_LL\_#2\_826\_00037

Amount Added: 20.00

Units: uL

MSV\_LL\_GAS826\_00062

Amount Added: 20.00

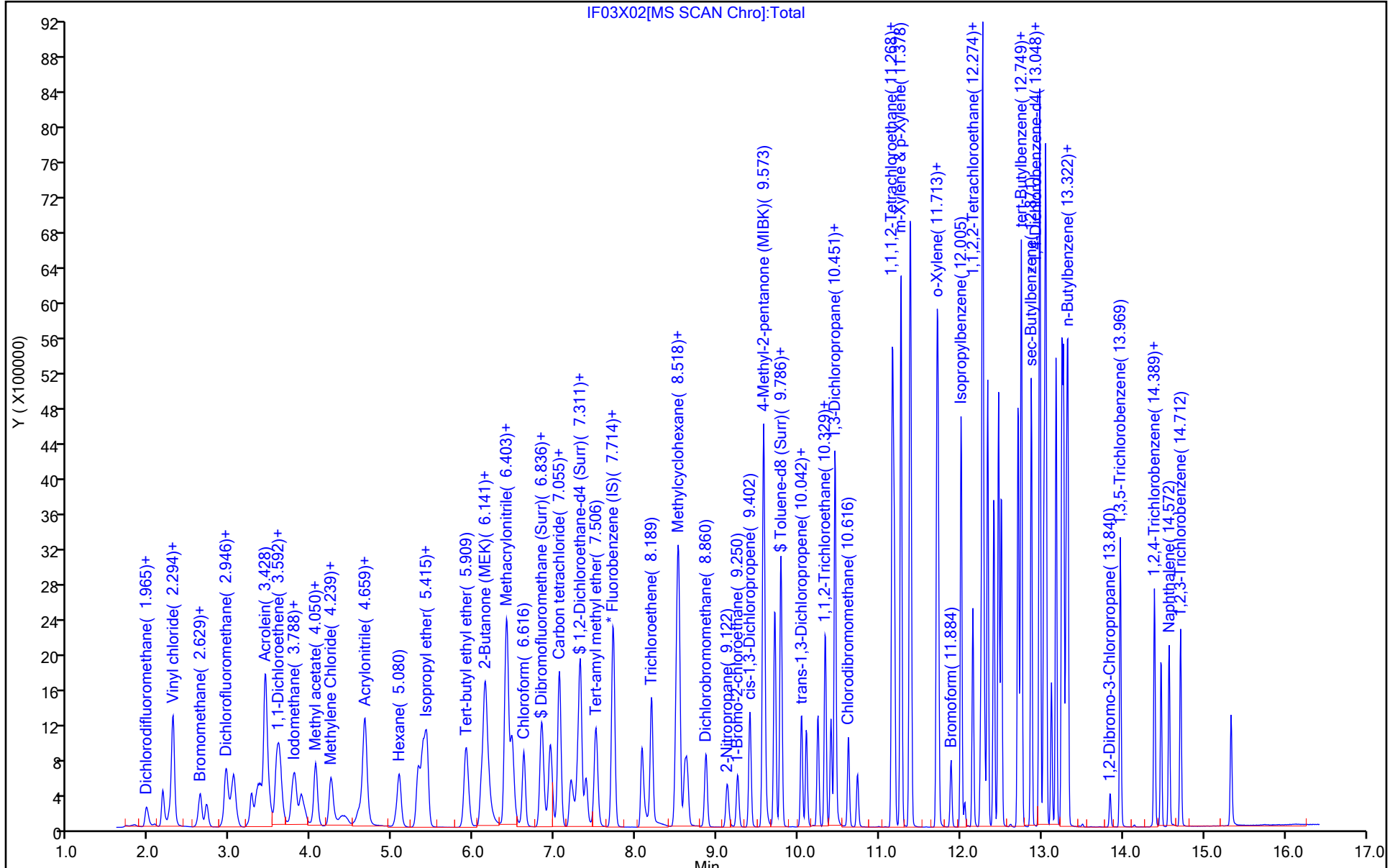
Units: uL

MSV\_LLcentISS\_00002

Amount Added: 5.00

Units: uL

Run Reagent



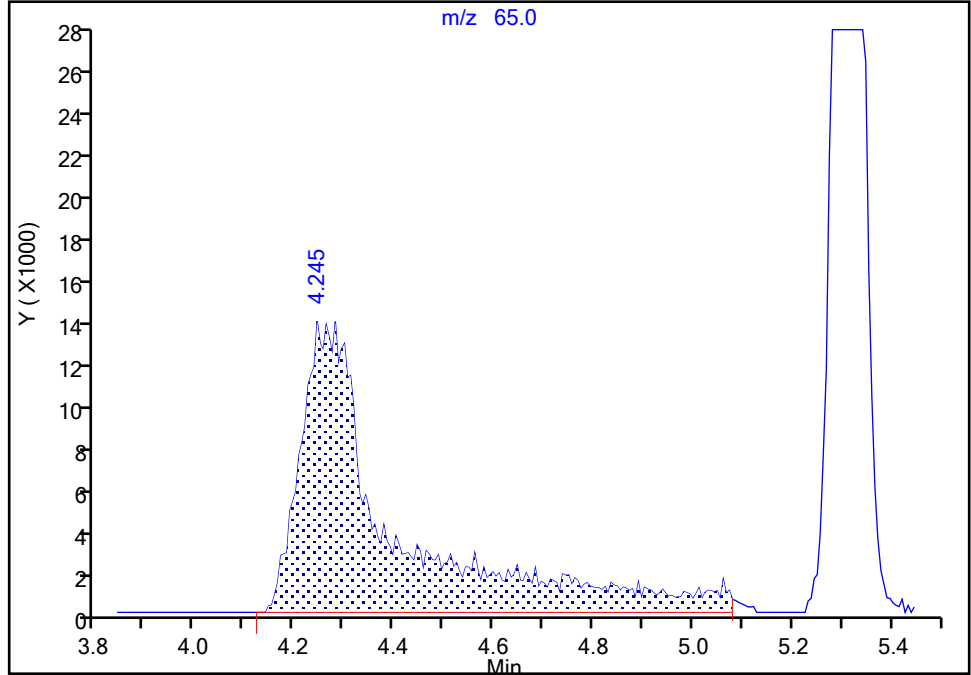
Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03X02.D  
 Injection Date: 03-Feb-2022 09:32:30 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

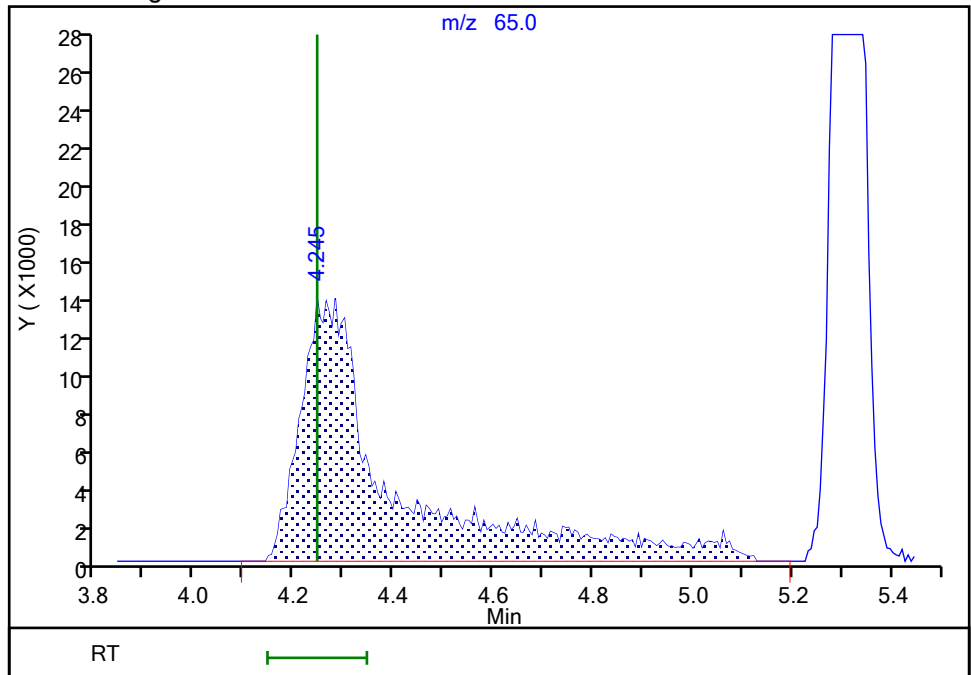
RT: 4.24  
 Area: 176052  
 Amount: 50.000000  
 Amount Units: ug/l

Processing Integration Results



RT: 4.24  
 Area: 177014  
 Amount: 50.000000  
 Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 03-Feb-2022 09:56:33  
 Audit Action: Manually Integrated

Audit Reason: Incomplete Integration



Eurofins Lancaster Laboratories Env, LLC

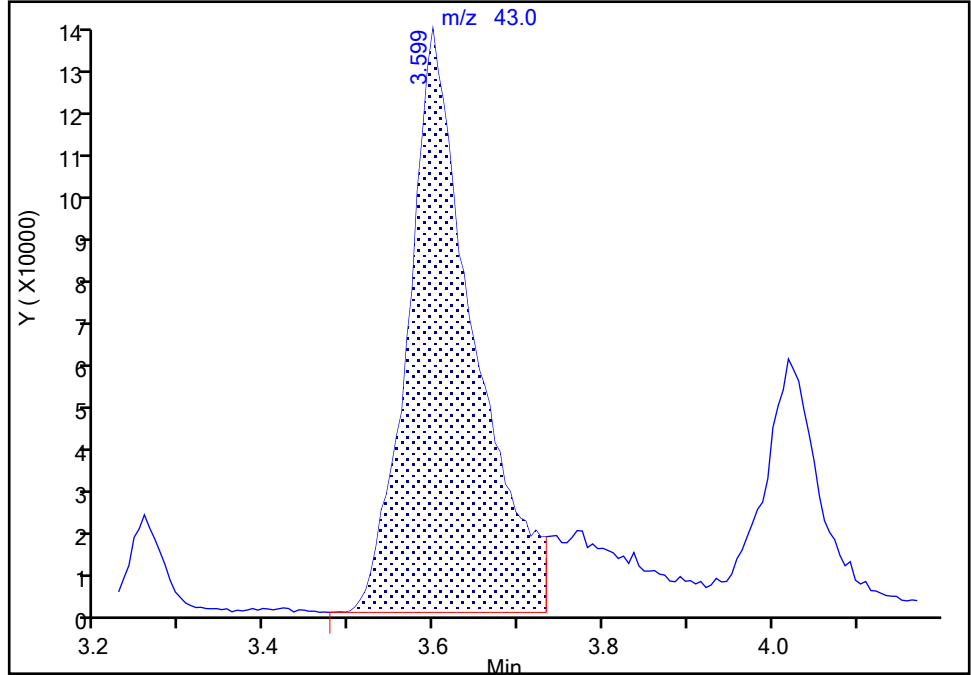
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Injection Date: 03-Feb-2022 09:32:30 Instrument ID: 19930  
Lims ID: CCVIS VSTD10  
Client ID:  
Operator ID: KNK41612 ALS Bottle#: 2 Worklist Smp#: 3  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column ( 0.25mm ID) Detector: MS Quad

15 Acetone, CAS: 67-64-1

Signal: 1

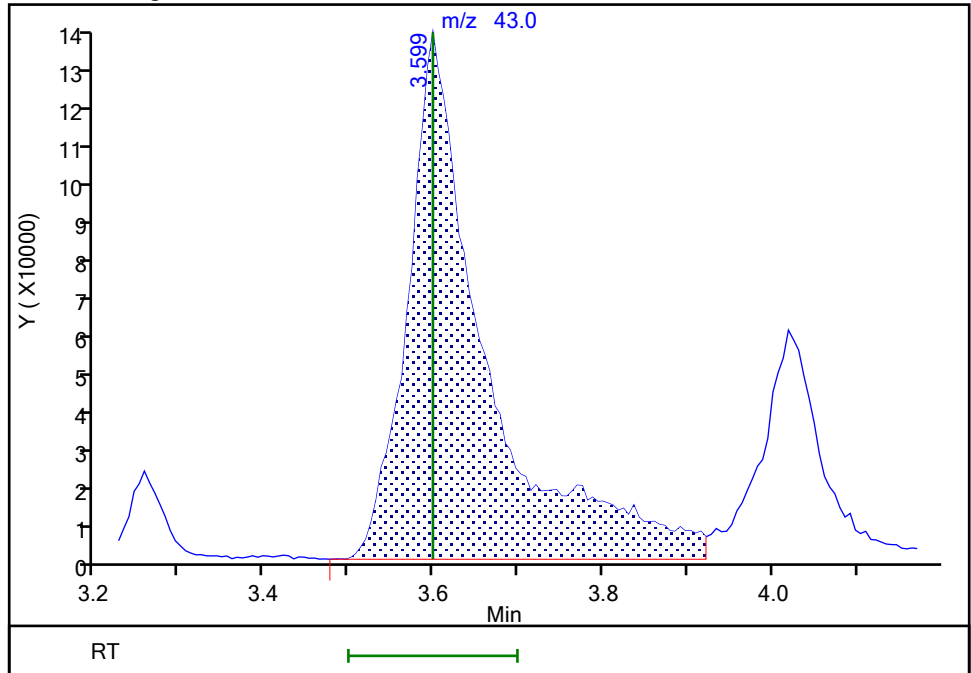
RT: 3.60  
Area: 705460  
Amount: 72.132516  
Amount Units: ug/l

Processing Integration Results



RT: 3.60  
Area: 839105  
Amount: 85.331296  
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 03-Feb-2022 09:56:12  
Audit Action: Assigned New Baseline

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

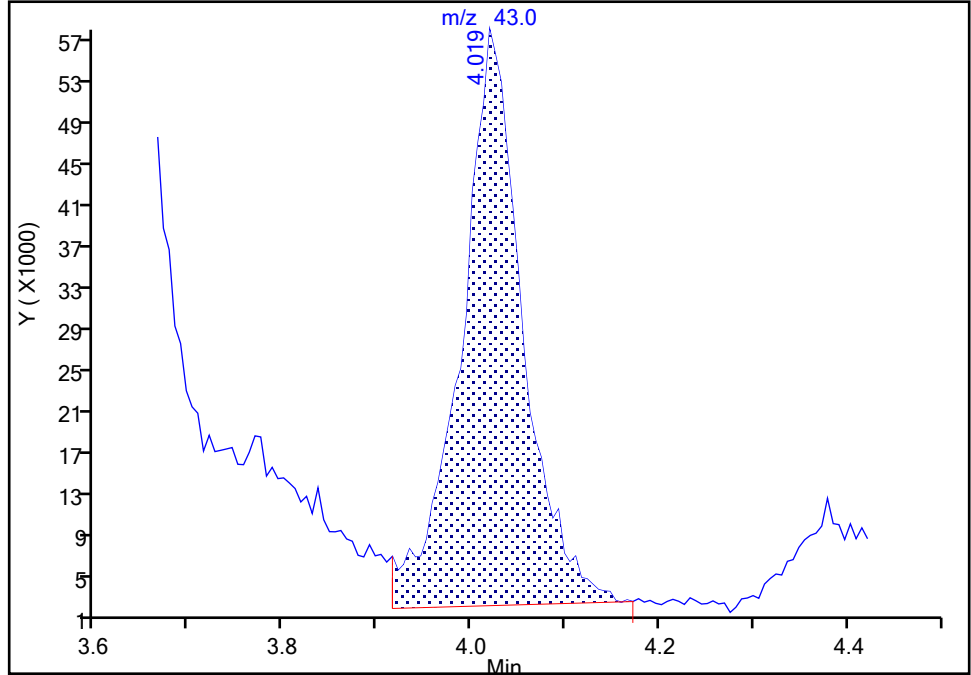
Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03X02.D  
Injection Date: 03-Feb-2022 09:32:30 Instrument ID: 19930  
Lims ID: CCVIS VSTD10  
Client ID:  
Operator ID: KNK41612 ALS Bottle#: 2 Worklist Smp#: 3  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column ( 0.25mm ID) Detector: MS Quad

21 Methyl acetate, CAS: 79-20-9

Signal: 1

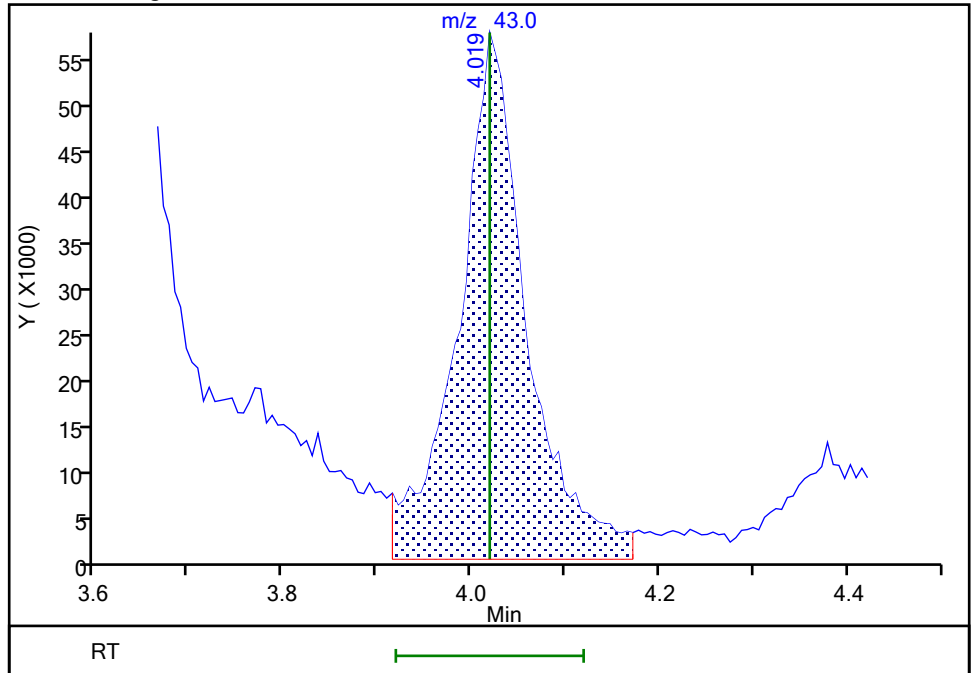
RT: 4.02  
Area: 250093  
Amount: 8.687209  
Amount Units: ug/l

Processing Integration Results



RT: 4.02  
Area: 290335  
Amount: 10.030244  
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 03-Feb-2022 09:56:24  
Audit Action: Assigned New Baseline

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

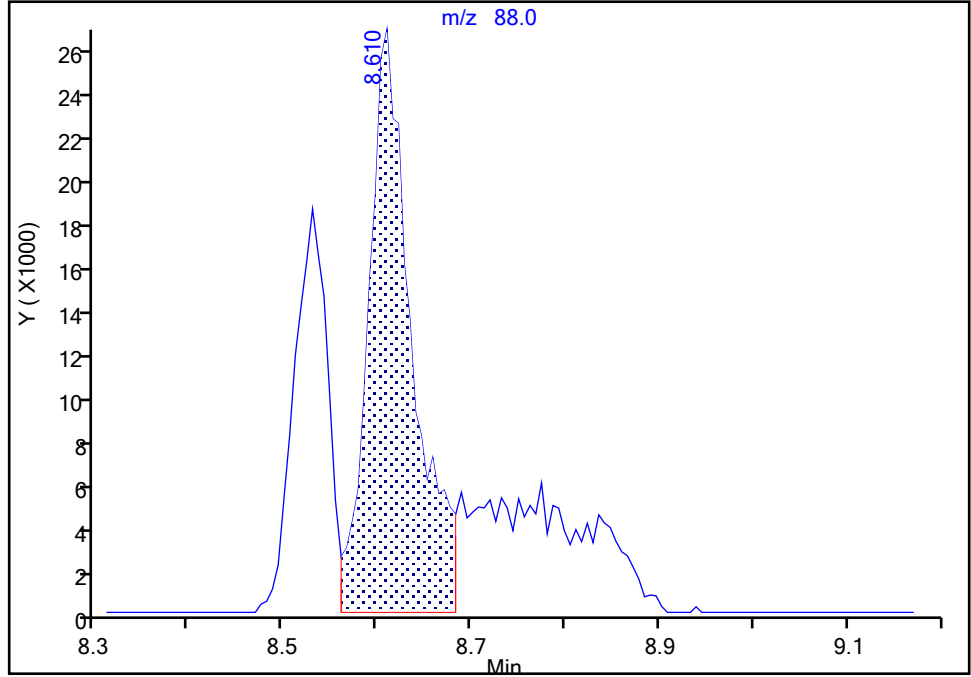
Data File:	\\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03X02.D		
Injection Date:	03-Feb-2022 09:32:30	Instrument ID:	19930
Lims ID:	CCVIS VSTD10		
Client ID:			
Operator ID:	KNK41612	ALS Bottle#:	2
Purge Vol:	25.000 mL	Dil. Factor:	1.0000
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D
Column:	Rxi-624Sil MS Capillary Column (0.25mm ID)	Detector:	MS Quad
		Worklist Smp#:	3

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

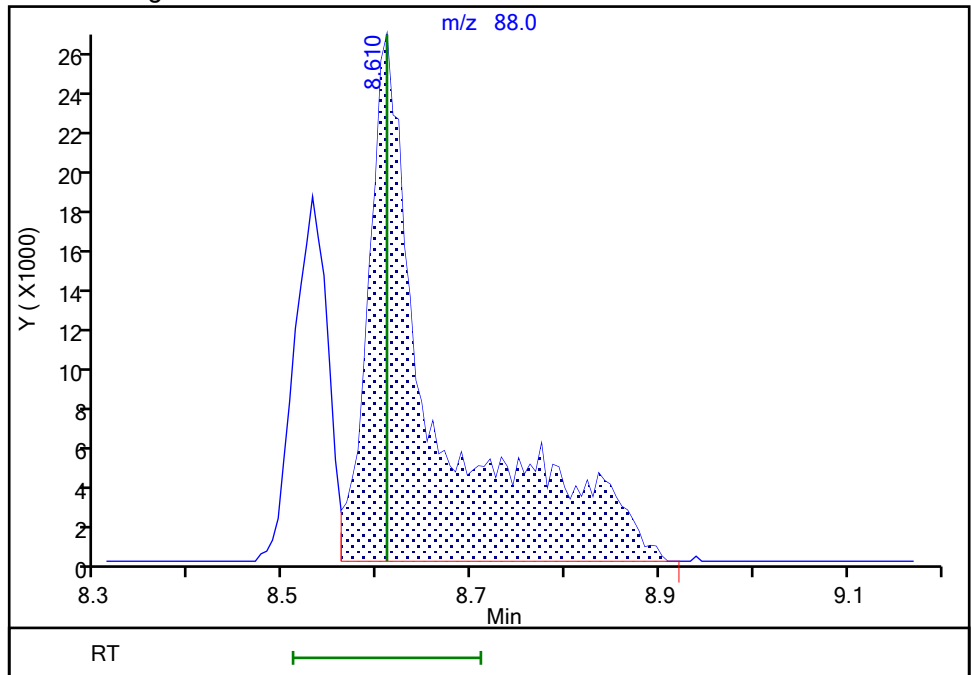
RT: 8.61  
 Area: 86988  
 Amount: 250.5271  
 Amount Units: ug/l

Processing Integration Results



RT: 8.61  
 Area: 136084  
 Amount: 410.4974  
 Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 03-Feb-2022 09:56:54  
 Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC  
 Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21T01.D  
 Lims ID: bfb  
 Client ID:  
 Sample Type: BFB  
 Inject. Date: 21-Dec-2021 14:04:30 ALS Bottle#: 1 Worklist Smp#: 1  
 Injection Vol: 1.0 uL Dil. Factor: 1.0000  
 Sample Info: 410-0046912-001  
 Misc. Info.: BFB  
 Operator ID: jml01693 Instrument ID: 19094  
 Method: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\MSV\_19094\_25mL.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 21-Dec-2021 22:37:56 Calib Date: 21-Dec-2021 20:38:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1683

First Level Reviewer: longj Date: 21-Dec-2021 14:15:38

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
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\$ 165 BFB	95	5.129	5.129	0.000	90	387278	NR	NR	
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**QC Flag Legend**

Processing Flags

NR - Missing Quant Standard

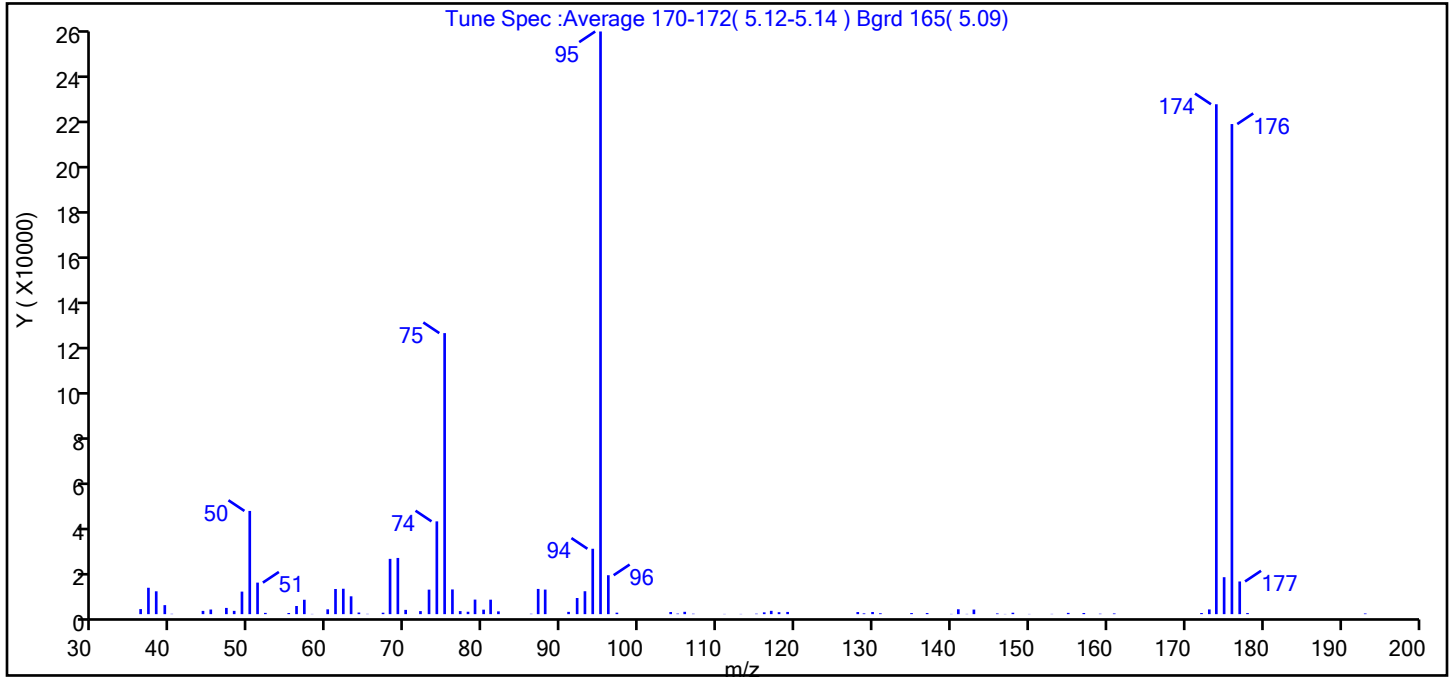
**Reagents:**

MSV\_V\_BFB\_00006 Amount Added: 1.00 Units: uL

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21T01.D  
 Injection Date: 21-Dec-2021 14:04:30 Instrument ID: 19094  
 Lims ID: bfb  
 Client ID:  
 Operator ID: jml01693 ALS Bottle#: 1 Worklist Smp#: 1  
 Injection Vol: 1.0 uL Dil. Factor: 1.0000  
 Method: MSV\_19094\_25mL Limit Group: MSV - 8260C\_D  
 Tune Method: BFB Method 8260

\$ 165 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	17.7
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	0.8 (0.9)
174	50 to 120% of m/z 95	87.5
175	5 to 9% of m/z 174	6.3 (7.2)
176	Greater than 95% but less than 101% of m/z 174	84.1 (96.1)
177	5 to 9% of m/z 176	5.6 (6.7)

Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21T01.D\MSV\_19094\_25mL.rslt\spectra.d  
 Injection Date: 21-Dec-2021 14:04:30  
 Spectrum: Tune Spec :Average 170-172( 5.12-5.14 ) Bgrd 165( 5.09)  
 Base Peak: 95.00  
 Minimum % Base Peak: 0  
 Number of Points: 86

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2238	65.00	128	94.00	28928	141.00	2159
37.00	11670	67.00	633	95.00	257792	142.00	107
38.00	10109	68.00	24456	96.00	17224	143.00	2019
39.00	3987	69.00	24864	97.00	652	146.00	322
40.00	143	70.00	1890	104.00	945	147.00	87
44.00	1442	72.00	1339	105.00	245	148.00	627
45.00	2045	73.00	10843	106.00	1030	150.00	90
47.00	2756	74.00	41048	107.00	182	153.00	112
48.00	1456	75.00	124336	111.00	96	155.00	559
49.00	9971	76.00	10932	113.00	96	157.00	506
50.00	45664	77.00	1345	115.00	198	159.00	187
51.00	13949	78.00	1065	116.00	793	161.00	310
52.00	559	79.00	6437	117.00	1462	172.00	499
55.00	507	80.00	1983	118.00	867	173.00	2089
56.00	3603	81.00	6398	119.00	983	174.00	225600
57.00	6368	82.00	1226	128.00	927	175.00	16349
58.00	97	86.00	161	129.00	338	176.00	216832
60.00	2132	87.00	11152	130.00	955	177.00	14455
61.00	11127	88.00	10869	131.00	380	178.00	492
62.00	11240	91.00	1010	135.00	473	193.00	293
63.00	7890	92.00	7143	137.00	489		
64.00	713	93.00	10136	140.00	102		

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21T01.D

Injection Date: 21-Dec-2021 14:04:30

Instrument ID: 19094

Operator ID: jml01693

Lims ID: bfb

Worklist Smp#: 1

Client ID:

Injection Vol: 1.0 uL

Dil. Factor: 1.0000

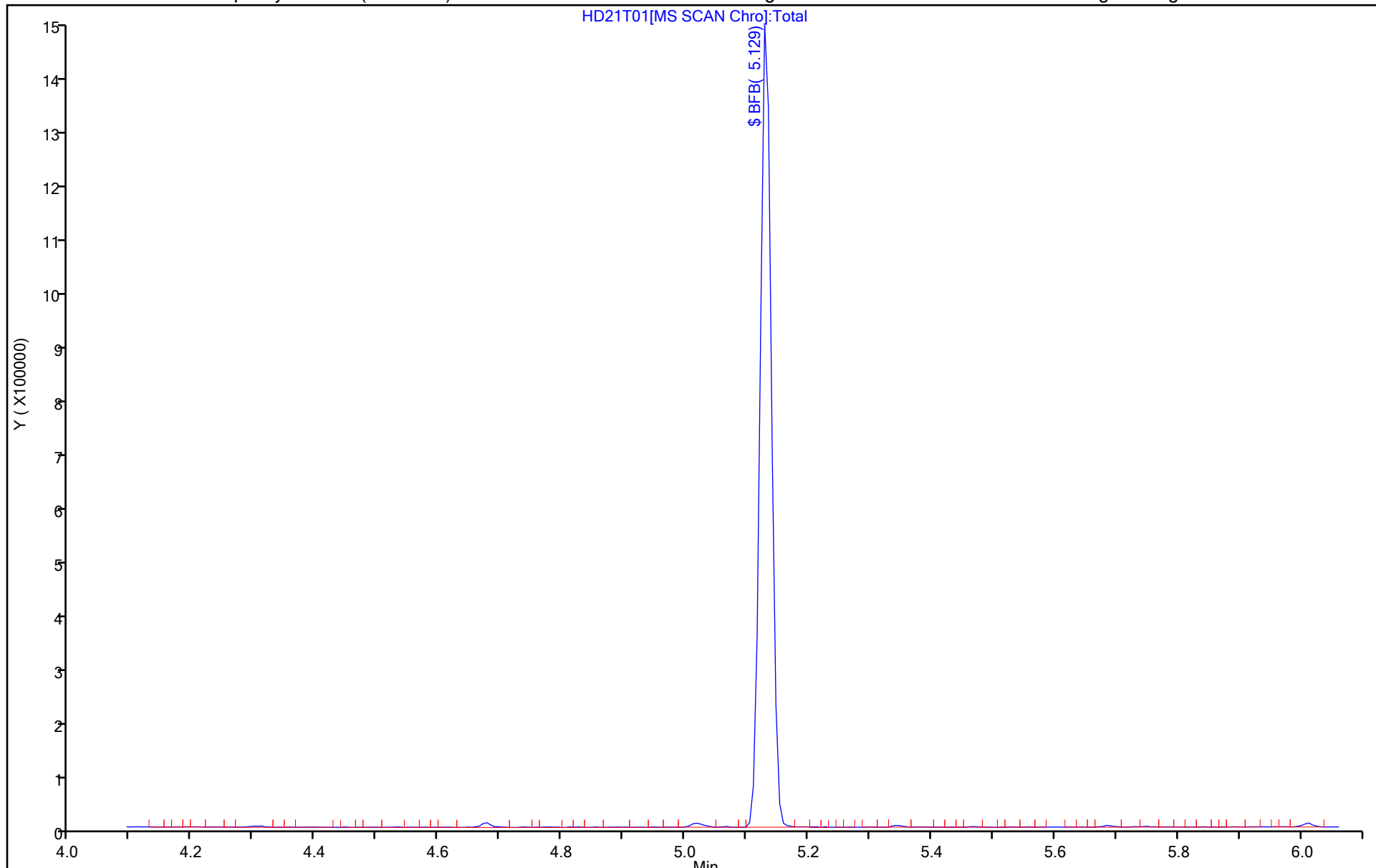
ALS Bottle#: 1

Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC  
 Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03T01.D  
 Lims ID: BFB  
 Client ID:  
 Sample Type: BFB  
 Inject. Date: 03-Feb-2022 09:46:30 ALS Bottle#: 1 Worklist Smp#: 1  
 Injection Vol: 25.0 mL Dil. Factor: 1.0000  
 Sample Info: 410-0049665-001  
 Misc. Info.: BFB  
 Operator ID: KNK41612 Instrument ID: 19094  
 Method: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\MSV\_19094\_25mL.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 10:54:13 Calib Date: 21-Dec-2021 20:38:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21117.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1621

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
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\$ 165 BFB	95	5.135	5.135	0.000	92	347114	NR	NR	
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**QC Flag Legend**

Processing Flags

NR - Missing Quant Standard

**Reagents:**

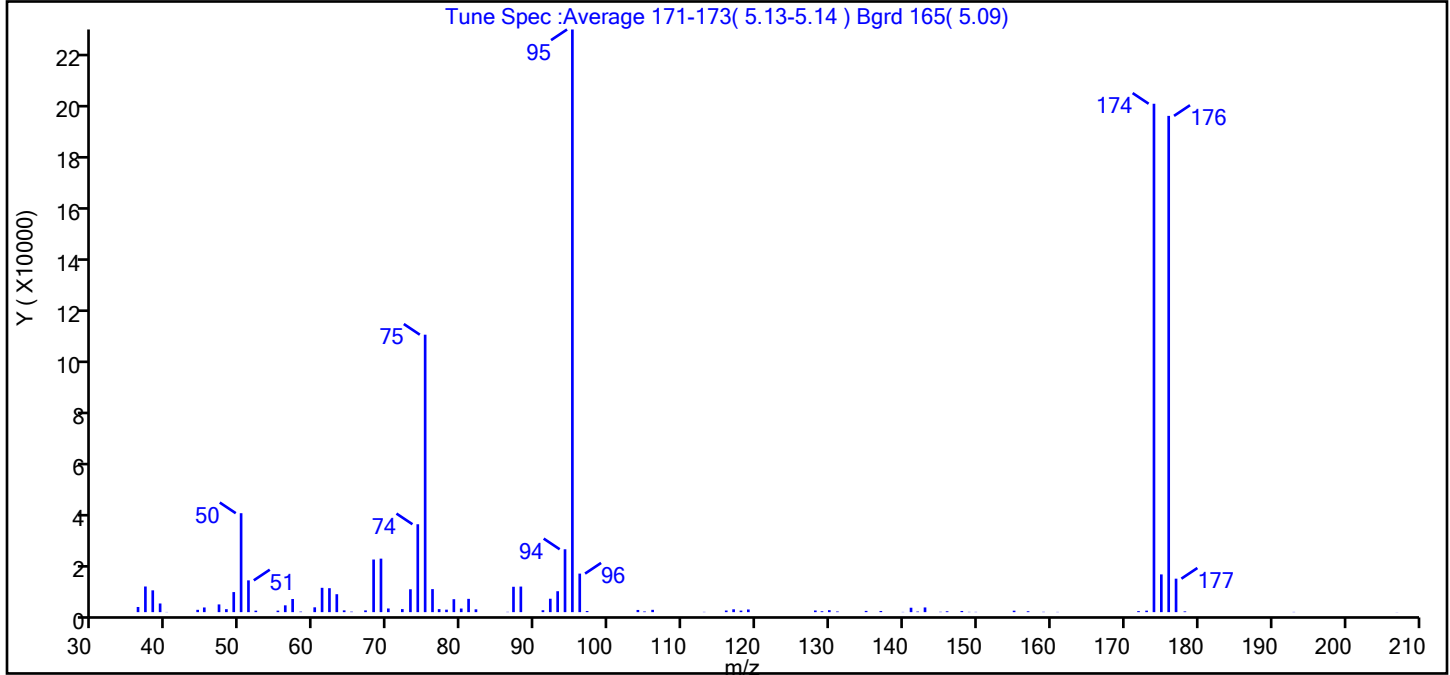
MSV\_V\_BFB\_00007 Amount Added: 1.00 Units: uL



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03T01.D  
 Injection Date: 03-Feb-2022 09:46:30 Instrument ID: 19094  
 Lims ID: BFB  
 Client ID:  
 Operator ID: KNK41612 ALS Bottle#: 1 Worklist Smp#: 1  
 Injection Vol: 25.0 mL Dil. Factor: 1.0000  
 Method: MSV\_19094\_25mL Limit Group: MSV - 8260C\_D  
 Tune Method: BFB Method 8260

\$ 165 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	17.0
75	30 to 60% of m/z 95	47.6
96	5 to 9% of m/z 95	6.6
173	Less than 2% of m/z 174	0.3 (0.3)
174	50 to 120% of m/z 95	87.3
175	5 to 9% of m/z 174	6.5 (7.4)
176	Greater than 95% but less than 101% of m/z 174	85.2 (97.6)
177	5 to 9% of m/z 176	5.7 (6.7)

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03T01.D\MSV\_19094\_25mL.rslt\spectra.d  
Injection Date: 03-Feb-2022 09:46:30  
Spectrum: Tune Spec :Average 171-173( 5.13-5.14 ) Bgrd 165( 5.09)  
Base Peak: 95.00  
Minimum % Base Peak: 0  
Number of Points: 84

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2016	64.00	688	92.00	5235	141.00	1726
37.00	10013	65.00	193	93.00	8168	142.00	237
38.00	8514	67.00	683	94.00	24544	143.00	1835
39.00	3382	68.00	20544	95.00	227456	145.00	139
40.00	73	69.00	20888	96.00	15047	146.00	341
44.00	905	70.00	1433	97.00	439	148.00	453
45.00	1826	72.00	1189	104.00	857	149.00	105
47.00	3015	73.00	8930	105.00	260	150.00	104
48.00	1158	74.00	34312	106.00	907	155.00	567
49.00	7830	75.00	108312	113.00	102	157.00	342
50.00	38624	76.00	8991	116.00	632	159.00	126
51.00	12408	77.00	1179	117.00	1113	161.00	93
52.00	583	78.00	968	118.00	602	172.00	393
55.00	585	79.00	5054	119.00	1039	173.00	588
56.00	2656	80.00	1409	128.00	637	174.00	198464
57.00	5133	81.00	5191	129.00	351	175.00	14731
58.00	205	82.00	1110	130.00	768	176.00	193728
60.00	1880	86.00	119	131.00	258	177.00	13067
61.00	9501	87.00	9904	135.00	487	178.00	293
62.00	9352	88.00	9984	137.00	453	193.00	90
63.00	7002	91.00	745	140.00	90	207.00	47

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03T01.D

Injection Date: 03-Feb-2022 09:46:30

Instrument ID: 19094

Operator ID: KNK41612

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 25.0 mL

Dil. Factor: 1.0000

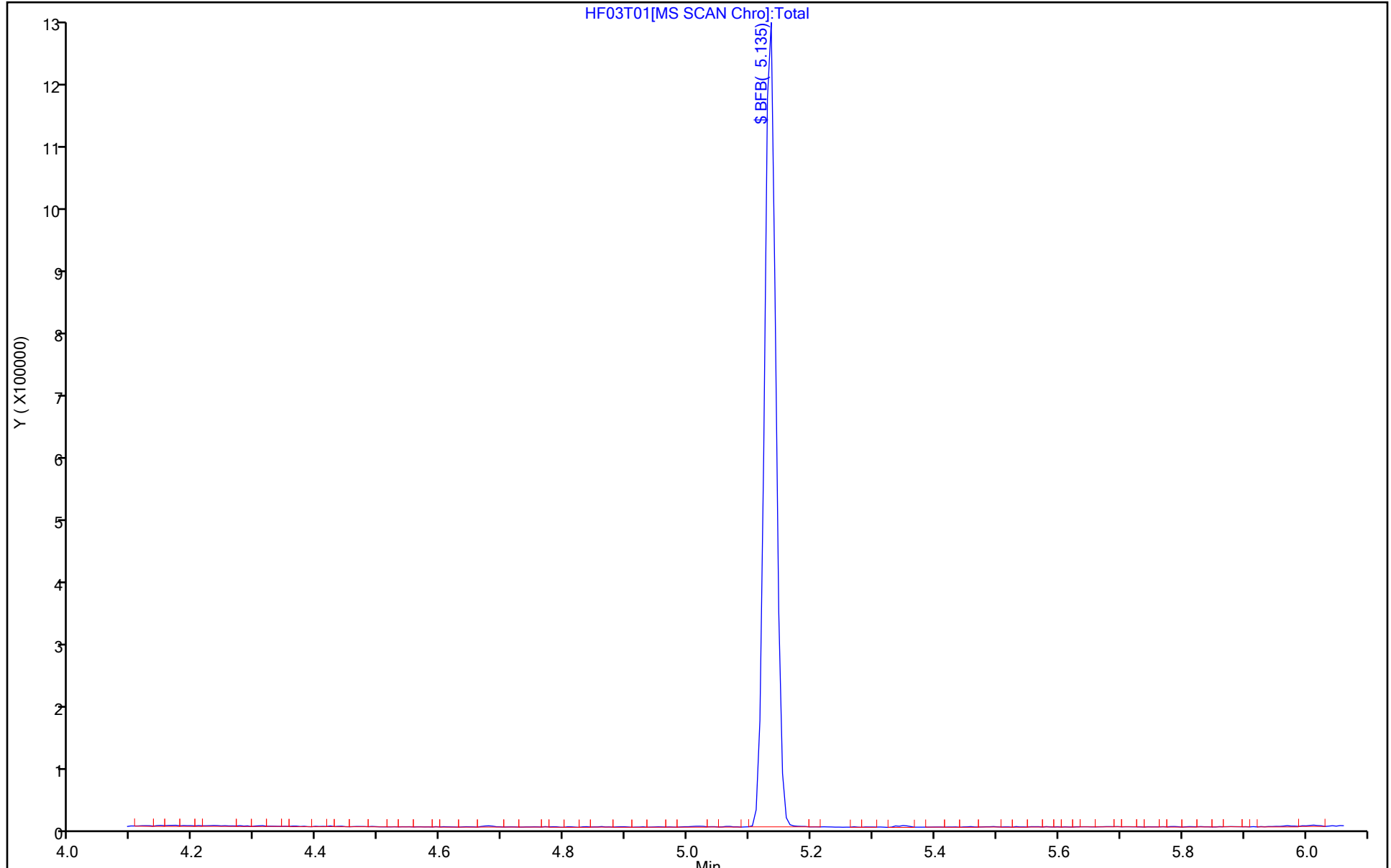
ALS Bottle#: 1

Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC  
 Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23T01.D  
 Lims ID: bfb  
 Client ID:  
 Sample Type: BFB  
 Inject. Date: 23-Aug-2021 20:56:30 ALS Bottle#: 1 Worklist Smp#: 1  
 Injection Vol: 1.0 uL Dil. Factor: 1.0000  
 Sample Info:  
 Misc. Info.: BFB  
 Operator ID: mec29284 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 24-Aug-2021 15:42:34 Calib Date: 24-Aug-2021 02:52:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1646

First Level Reviewer: campbellme Date: 23-Aug-2021 21:08:40

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	5.190	5.190	0.000	0	215193	NR	NR	
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**QC Flag Legend**

Processing Flags

NR - Missing Quant Standard

**Reagents:**

MSV\_V\_BFB\_00006 Amount Added: 1.00 Units: uL

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23T01.D

Injection Date: 23-Aug-2021 20:56:30 Instrument ID: 19930

Lims ID: bfb

Client ID:

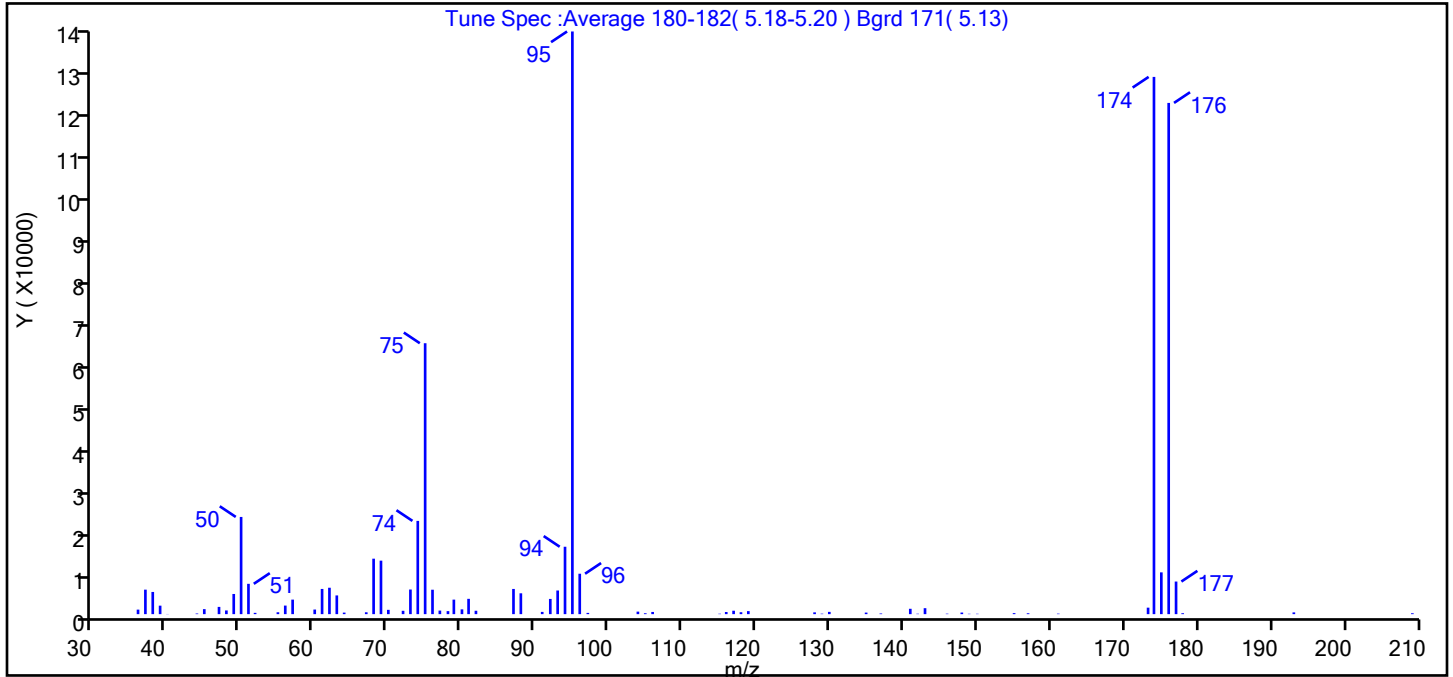
Operator ID: mec29284 ALS Bottle#: 1 Worklist Smp#: 1

Injection Vol: 1.0 uL Dil. Factor: 1.0000

Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D

Tune Method: BFB Method 1624

\$ 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	16.7
75	30 to 60% of m/z 95	46.5
96	5 to 9% of m/z 95	6.9
173	Less than 2% of m/z 174	1.1 (1.2)
174	50 to 120% of m/z 95	92.2
175	5 to 9% of m/z 174	7.2 (7.8)
176	Greater than 95% but less than 101% of m/z 174	87.7 (95.2)
177	5 to 9% of m/z 176	5.6 (6.4)

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23T01.D\8260 25ml HP31.rslt\spectra.d  
Injection Date: 23-Aug-2021 20:56:30  
Spectrum: Tune Spec :Average 180-182( 5.18-5.20 ) Bgrd 171( 5.13)  
Base Peak: 95.00  
Minimum % Base Peak: 0  
Number of Points: 76

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1061	63.00	4393	91.00	527	137.00	156
37.00	5748	64.00	362	92.00	3571	141.00	1257
38.00	5208	67.00	438	93.00	5550	142.00	96
39.00	1992	68.00	13018	94.00	15820	143.00	1399
40.00	38	69.00	12555	95.00	136768	146.00	111
44.00	148	70.00	1011	96.00	9487	148.00	376
45.00	1176	72.00	785	97.00	292	149.00	83
47.00	1700	73.00	5782	104.00	590	150.00	88
48.00	866	74.00	21888	105.00	210	155.00	237
49.00	4735	75.00	63592	106.00	514	157.00	206
50.00	22816	76.00	5733	115.00	97	161.00	118
51.00	7117	77.00	836	116.00	504	173.00	1521
52.00	304	78.00	708	117.00	803	174.00	126104
55.00	442	79.00	3409	118.00	451	175.00	9808
56.00	2008	80.00	1125	119.00	708	176.00	120000
57.00	3411	81.00	3594	128.00	418	177.00	7653
60.00	1079	82.00	794	129.00	110	178.00	217
61.00	5915	87.00	5915	130.00	532	193.00	410
62.00	6198	88.00	4892	135.00	365	209.00	208

Report Date: 24-Aug-2021 15:42:35

Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23T01.D

Injection Date: 23-Aug-2021 20:56:30

Instrument ID: 19930

Operator ID: mec29284

Lims ID: bfb

Worklist Smp#: 1

Client ID:

Injection Vol: 1.0 uL

Dil. Factor: 1.0000

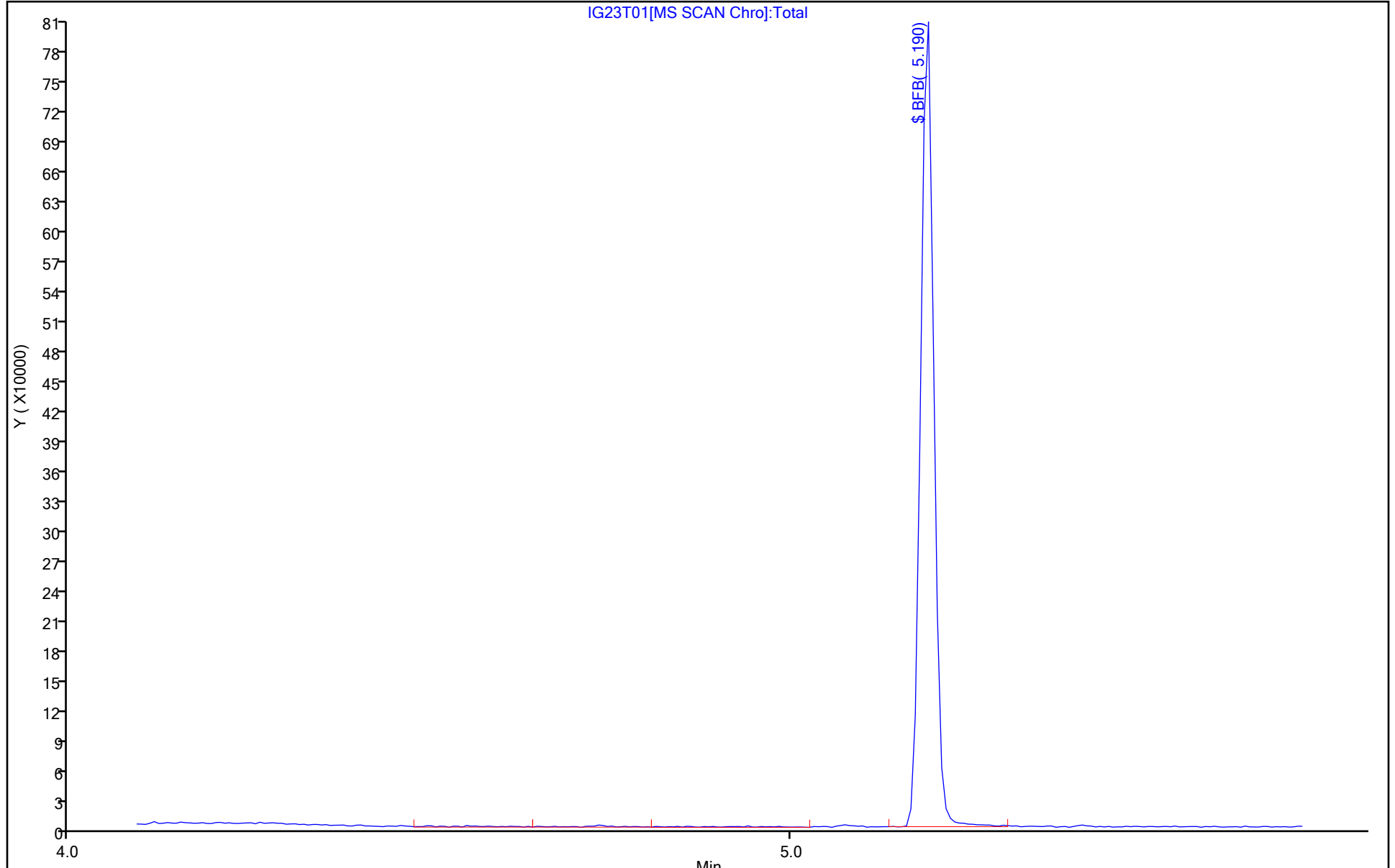
ALS Bottle#: 1

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 Env, LLC  
 Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03T02.D  
 Lims ID: BFB  
 Client ID:  
 Sample Type: BFB  
 Inject. Date: 03-Feb-2022 09:00:30 ALS Bottle#: 1 Worklist Smp#: 1  
 Injection Vol: 1.0 uL Dil. Factor: 1.0000  
 Sample Info: 410-0049668-001  
 Misc. Info.: BFB  
 Operator ID: KNK41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 10:54:26 Calib Date: 24-Aug-2021 02:52:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1621

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	5.160	5.160	0.000	0	162193	NR	NR	
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**QC Flag Legend**

Processing Flags

NR - Missing Quant Standard

**Reagents:**

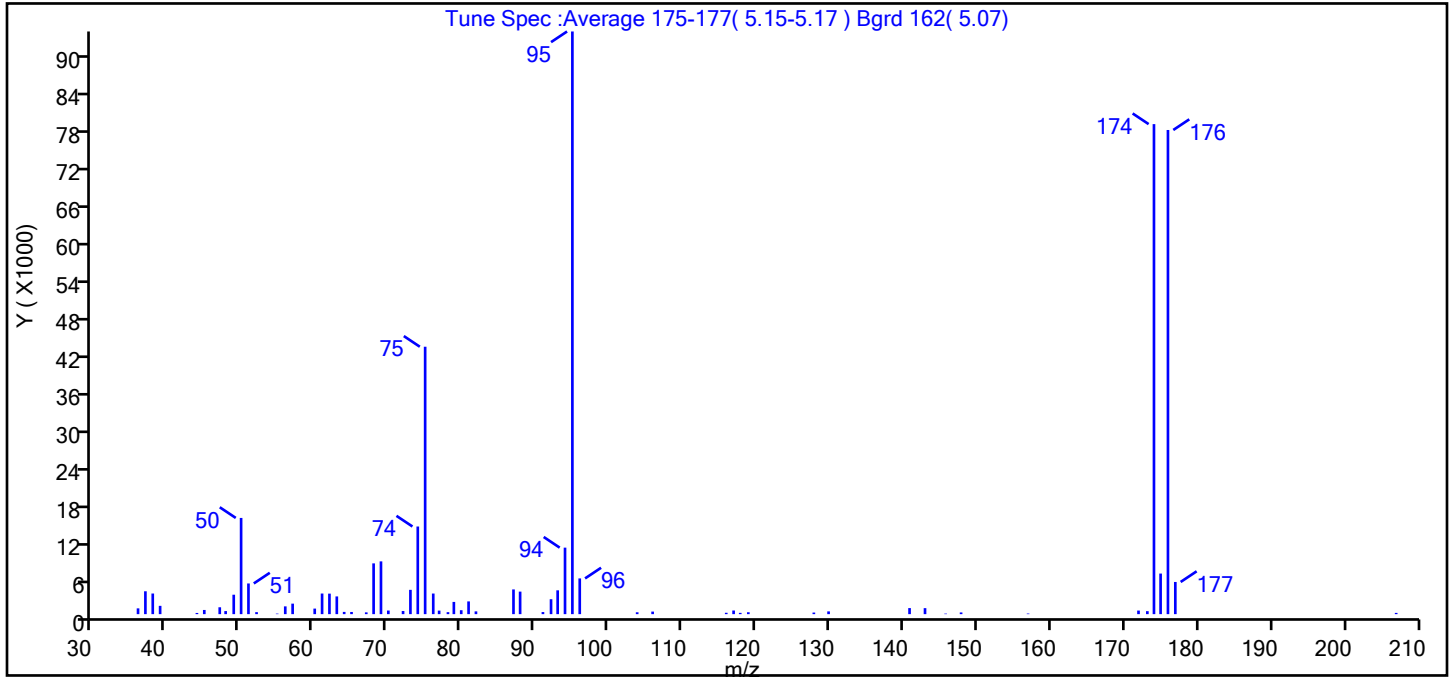
MSV\_V\_BFB\_00007 Amount Added: 1.00 Units: uL



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03T02.D  
 Injection Date: 03-Feb-2022 09:00:30 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	45.9
96	5 to 9% of m/z 95	6.1
173	Less than 2% of m/z 174	0.5 (0.6)
174	50 to 120% of m/z 95	84.1
175	5 to 9% of m/z 174	7.0 (8.3)
176	Greater than 95% but less than 101% of m/z 174	83.1 (98.8)
177	5 to 9% of m/z 176	5.5 (6.6)

Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03T02.D\8260 25ml HP31.rsl\spectra.d  
Injection Date: 03-Feb-2022 09:00:30  
Spectrum: Tune Spec :Average 175-177( 5.15-5.17 ) Bgrd 162( 5.07)  
Base Peak: 95.00  
Minimum % Base Peak: 0  
Number of Points: 64

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	929	61.00	3313	79.00	1964	118.00	207
37.00	3675	62.00	3297	80.00	632	119.00	306
38.00	3315	63.00	2847	81.00	2047	128.00	255
39.00	1334	64.00	360	82.00	446	130.00	443
44.00	191	65.00	349	87.00	3973	141.00	974
45.00	672	67.00	287	88.00	3621	143.00	964
47.00	1105	68.00	8159	91.00	335	146.00	86
48.00	494	69.00	8480	92.00	2397	148.00	274
49.00	3123	70.00	580	93.00	3828	157.00	98
50.00	15462	72.00	501	94.00	10687	172.00	575
51.00	4931	73.00	3906	95.00	93640	173.00	480
52.00	321	74.00	14084	96.00	5741	174.00	78752
55.00	85	75.00	42976	104.00	301	175.00	6522
56.00	1250	76.00	3312	106.00	411	176.00	77808
57.00	1688	77.00	567	116.00	220	177.00	5171
60.00	892	78.00	319	117.00	585	207.00	201

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03T02.D

Injection Date: 03-Feb-2022 09:00:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 1.0 uL

Dil. Factor: 1.0000

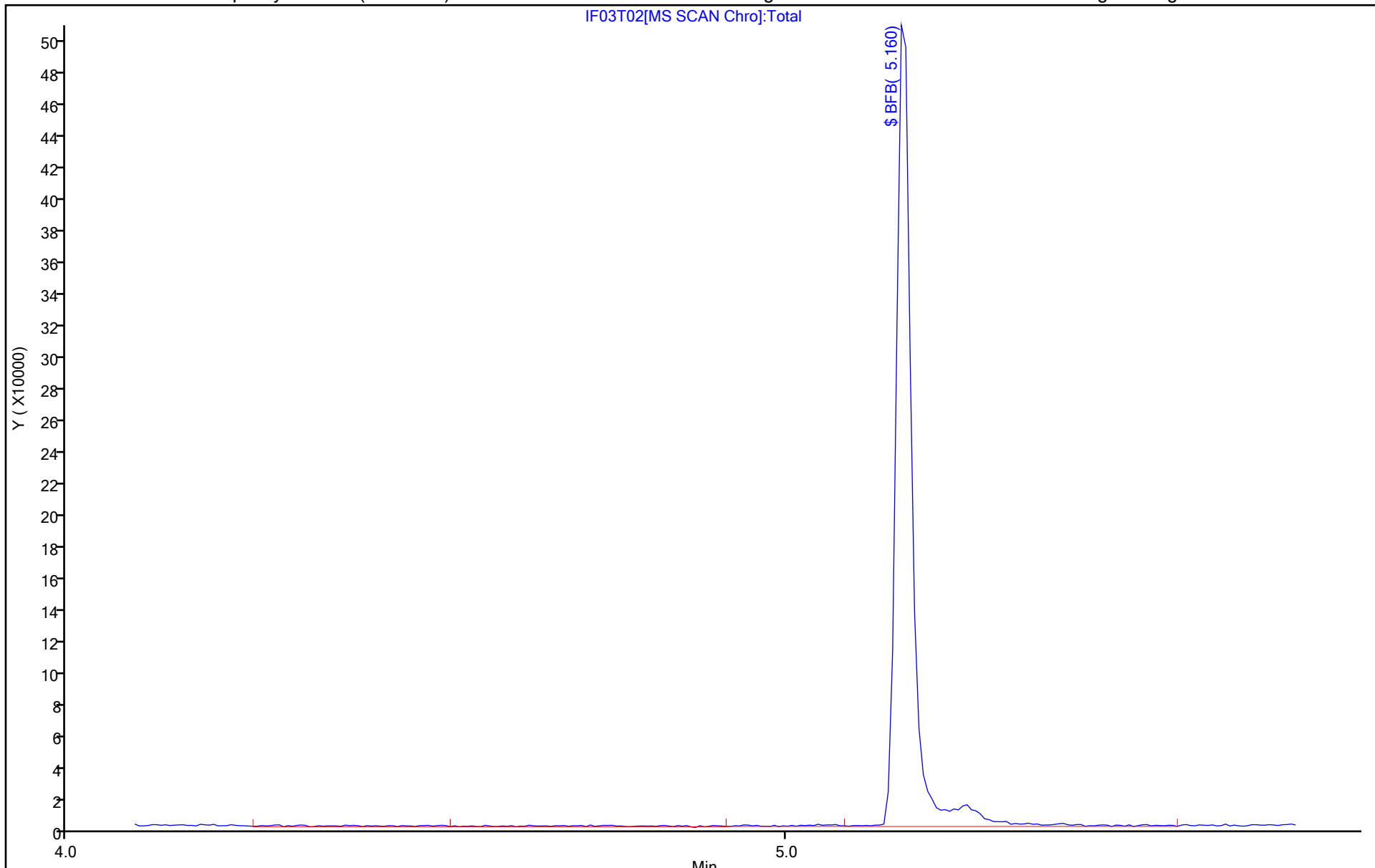
ALS Bottle#: 1

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.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 410-220509/7  
 Matrix: Water Lab File ID: HF03X06.D  
 Analysis Method: 8260D Date Collected: \_\_\_\_\_  
 Sample wt/vol: 25 (mL) Date Analyzed: 02/03/2022 11:42  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: R-624SilMS 30m ID: 0.25 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 220509 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.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 410-220509/7  
 Matrix: Water Lab File ID: HF03X06.D  
 Analysis Method: 8260D Date Collected: \_\_\_\_\_  
 Sample wt/vol: 25 (mL) Date Analyzed: 02/03/2022 11:42  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: R-624SilMS 30m ID: 0.25 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 220509 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)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	99		80-120
1868-53-7	Dibromofluoromethane (Surr)	94		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC  
 Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X06.D  
 Lims ID: MB  
 Client ID:  
 Sample Type: MB  
 Inject. Date: 03-Feb-2022 11:42:30 ALS Bottle#: 6 Worklist Smp#: 7  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0049665-007  
 Misc. Info.: MB  
 Operator ID: KNK41612 Instrument ID: 19094  
 Method: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\MSV\_19094\_25mL.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 12:43:00 Calib Date: 21-Dec-2021 20:38:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21117.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1621

First Level Reviewer: kephartk Date: 03-Feb-2022 12:43:00

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Chlorotrifluoroethene	116		1.892					ND	
3 Dichlorodifluoromethane	85		1.947					ND	
2 Chlorodifluoromethane	51		1.952					ND	
4 Dimethyl ether	45		2.013					ND	
6 Chloromethane	50		2.148					ND	
7 Vinyl chloride	62		2.264					ND	
8 Butadiene	39		2.270					ND	7
5 2-Chloro-1,1,1-Trifluoroethane	118		2.330					ND	
9 Bromomethane	94		2.599					ND	
10 Chloroethane	64		2.690					ND	
11 Dichlorofluoromethane	67		2.922					ND	
13 Trichlorofluoromethane	101		2.995					ND	
12 Ethanol	45		3.111					ND	
15 Ethyl ether	59		3.227					ND	
16 1,2-Dichloro-1,1,2-trifluoroetha	67		3.324					ND	
17 Acrolein	56		3.398					ND	
18 1,1-Dichloroethene	96		3.544					ND	
19 Acetone	43		3.562					ND	
20 112TCTFE	101		3.593					ND	
21 Isopropyl alcohol	45		3.727					ND	
22 Iodomethane	142		3.739					ND	
23 Ethyl bromide	108		3.769					ND	
24 Carbon disulfide	76		3.849					ND	7
25 Acetonitrile	41		3.970					ND	
26 Methyl acetate	43		3.989					ND	
27 3-Chloro-1-propene	41		4.013					ND	
* 28 t-Butyl alcohol-d10 (IS)	65	4.190	4.190	0.000	89	85926	50.0	50.0	
29 Methylene Chloride	84		4.202					ND	
30 2-Methyl-2-propanol	59		4.324					ND	
31 Acrylonitrile	53		4.544					ND	
32 Methyl tert-butyl ether	73		4.611					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
33 trans-1,2-Dichloroethene	96		4.623					ND	
34 Hexane	57		5.050					ND	
36 Vinyl acetate	43		5.257					ND	
35 1,1-Dichloroethane	63		5.275					ND	
37 Isopropyl ether	45		5.336					ND	
38 2-Chloro-1,3-butadiene	53		5.385					ND	
39 Tert-butyl ethyl ether	59		5.860					ND	
41 2-Butanone (MEK)	43		6.056					ND	
42 cis-1,2-Dichloroethene	96		6.098					ND	
43 2,2-Dichloropropane	77		6.123					ND	
44 Ethyl acetate	43		6.141					ND	
45 Propionitrile	54		6.147					ND	
S 40 1,2-Dichloroethene, Total	100		6.155					ND	7
47 Methacrylonitrile	67		6.366					ND	
48 Chlorobromomethane	128		6.434					ND	
49 Tetrahydrofuran	71		6.434					ND	
46 Methyl acrylate	55		6.482					ND	
50 Chloroform	83		6.580					ND	
\$ 51 Dibromofluoromethane (Surr)	113	6.787	6.793	-0.006	94	476123	10.0	9.41	
52 1,1,1-Trichloroethane	97		6.812					ND	
53 Cyclohexane	56		6.915					ND	7
55 1,1-Dichloropropene	75		7.019					ND	
56 Carbon tetrachloride	117		7.025					ND	
57 Isobutyl alcohol	41		7.153					ND	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.238	7.244	-0.006	46	94896	10.0	10.1	
54 1-Chlorobutane	56		7.250					ND	
59 Benzene	78		7.281					ND	
60 1,2-Dichloroethane	62		7.348					ND	7
61 Isopropyl acetate	43		7.354					ND	
62 Tert-amyl methyl ether	73		7.464					ND	
* 65 Fluorobenzene (IS)	96	7.677	7.683	-0.006	99	1918578	10.0	10.0	
64 n-Heptane	43		7.695					ND	7
63 t-Amyl alcohol	73		7.842					ND	
66 n-Butanol	56	8.055	8.025	0.030	83	4348		8.53	
67 Trichloroethene	95		8.159					ND	
68 Methylcyclohexane	83		8.470					ND	
70 1,2-Dichloropropane	63		8.488					ND	
69 2-ethoxy-2-methyl butane	87		8.494					ND	
71 Methyl methacrylate	69		8.567					ND	
72 1,4-Dioxane	88		8.579					ND	
73 Dibromomethane	93		8.598					ND	
74 n-Propyl acetate	61		8.652					ND	
75 Dichlorobromomethane	83		8.829					ND	
76 2-Nitropropane	41		9.092					ND	
78 2-Chloroethyl vinyl ether	63		9.207					ND	
79 1-Bromo-2-chloroethane	63		9.226					ND	
80 cis-1,3-Dichloropropene	75		9.378					ND	
77 Chloroacetonitrile	75		9.427					ND	
81 4-Methyl-2-pentanone (MIBK)	43		9.543					ND	7
\$ 82 Toluene-d8 (Surr)	98	9.683	9.683	0.000	93	2024352	10.0	10.0	
83 Toluene	92		9.762					ND	
85 trans-1,3-Dichloropropene	75		10.012					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
S 84 1,3-Dichloropropene, Total	100		10.060					ND	7
86 Ethyl methacrylate	69		10.073					ND	
87 1,1,2-Trichloroethane	97		10.219					ND	
88 Tetrachloroethene	166		10.311					ND	
89 1,3-Dichloropropane	76		10.378					ND	
91 2-Hexanone	43		10.427					ND	
92 n-Butyl acetate	43		10.548					ND	
93 Chlorodibromomethane	129		10.597					ND	
94 Ethylene Dibromide	107		10.707					ND	
* 97 Chlorobenzene-d5 (IS)	117	11.134	11.134	0.000	86	1555470	10.0	10.0	
96 1-Chlorohexane	91		11.140					ND	7
98 Chlorobenzene	112		11.158					ND	
99 1,1,1,2-Tetrachloroethane	131		11.244					ND	
S 95 Xylenes, Total	106		11.245					ND	7
100 Ethylbenzene	91		11.250					ND	
101 m-Xylene & p-Xylene	106		11.359					ND	
102 o-Xylene	106		11.689					ND	
103 Styrene	104		11.701					ND	
104 Bromoform	173		11.859					ND	
105 Isopropylbenzene	105		11.987					ND	
106 cis-1,4-Dichloro-2-butene	88		12.030					ND	
107 Cyclohexanone	55		12.066					ND	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.134	12.128	0.006	91	775153	10.0	9.91	
109 1,1,2,2-Tetrachloroethane	83		12.231					ND	
111 Bromobenzene	156		12.249					ND	
110 trans-1,4-Dichloro-2-butene	53		12.256					ND	
112 1,2,3-Trichloropropane	110		12.274					ND	
113 N-Propylbenzene	91		12.317					ND	7
114 2-Chlorotoluene	126		12.390					ND	
115 1,3,5-Trimethylbenzene	105		12.451					ND	
116 4-Chlorotoluene	126		12.481					ND	
118 tert-Butylbenzene	134		12.688					ND	
119 Pentachloroethane	167		12.725					ND	
120 1,2,4-Trimethylbenzene	105		12.731					ND	7
121 sec-Butylbenzene	105		12.853					ND	7
122 1,3-Dichlorobenzene	146		12.951					ND	7
123 4-Isopropyltoluene	119		12.957					ND	7
* 124 1,4-Dichlorobenzene-d4	152	13.005	13.005	0.000	95	866669	10.0	10.0	
125 1,4-Dichlorobenzene	146		13.024					ND	7
126 1,2,3-Trimethylbenzene	120		13.036					ND	7
127 Benzyl chloride	126		13.103					ND	
129 p-Diethylbenzene	119		13.158					ND	U
130 n-Butylbenzene	92		13.249					ND	7
131 1,2-Dichlorobenzene	146		13.286					ND	
133 Hexachloroethane	201		13.682					ND	
134 1,2-Dibromo-3-Chloropropane	155		13.822					ND	
135 1,3,5-Trichlorobenzene	180		13.950					ND	7
136 1,2,4-Trichlorobenzene	180		14.371					ND	7
137 Hexachlorobutadiene	225	14.450	14.450	0.000	93	2415		0.0639	
138 Naphthalene	128		14.548					ND	7
139 1,2,3-Trichlorobenzene	180		14.688					ND	7
140 2-Methylnaphthalene	142	15.310	15.310	0.000	82	3160		0.0410	



Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
151 tert-Butyl Formate	1		0.000					ND	
152 Dodecane	57		0.000					ND	
157 Methylal	1		0.000					ND	
142 1,1-Dichloro-1-fluoroethane	1		0.000					ND	
150 Propene oxide	1		0.000					ND	
162 1-Chloropropane	1		0.000					ND	
163 1-Bromo-3-Chloropropane	1		0.000					ND	
160 n-Decane	57		0.000					ND	
161 2-Bromo-1-chloropropane	1		0.000					ND	
186 Isopropyl alcohol TIC	1		0.000					ND	
188 Decamethylcyclopentasiloxane TIC			0.000					ND	
189 Hexachloroethane TIC	1		0.000					ND	
190 Nitrobenzene TIC	1		0.000					ND	
191 Octamethylcyclotetrasiloxane TIC			0.000					ND	

### QC Flag Legend

#### Processing Flags

7 - Failed Limit of Detection

#### Review Flags

U - Marked Undetected

### Reagents:

MSV\_LLcentISS\_00002

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X06.D

Injection Date: 03-Feb-2022 11:42:30

Instrument ID: 19094

Operator ID: KNK41612

Lims ID: MB

Worklist Smp#: 7

Client ID:

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

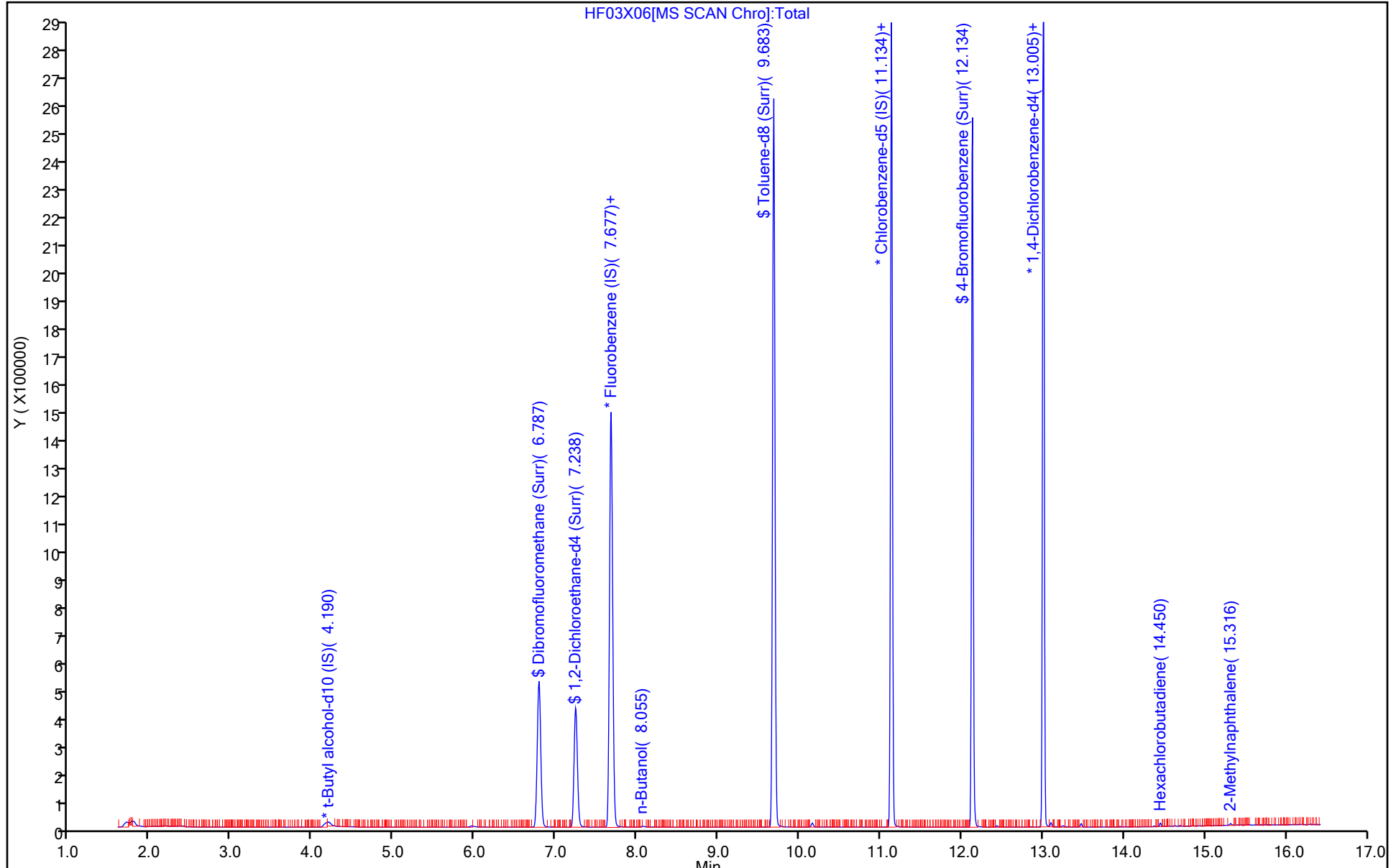
ALS Bottle#: 6

Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X06.D  
 Lims ID: MB  
 Client ID:  
 Sample Type: MB  
 Inject. Date: 03-Feb-2022 11:42:30      ALS Bottle#: 6      Worklist Smp#: 7  
 Purge Vol: 25.000 mL      Dil. Factor: 1.0000  
 Sample Info: 410-0049665-007  
 Misc. Info.: MB  
 Operator ID: KNK41612      Instrument ID: 19094  
 Method: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\MSV\_19094\_25mL.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 12:43:00      Calib Date: 21-Dec-2021 20:38:30  
 Integrator: RTE      ID Type: Deconvolution ID  
 Quant Method: Internal Standard      Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21117.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm)      Det: MS Quad  
 Process Host: CTX1621

First Level Reviewer: kephartk      Date: 03-Feb-2022 12:43:00

Compound	Amount Added	Amount Recovered	% Rec.
\$ 51 Dibromofluoromethane (Surr)	10.0	9.41	94.07
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.1	100.58
\$ 82 Toluene-d8 (Surr)	10.0	10.0	100.19
\$ 108 4-Bromofluorobenzene (Surr)	10.0	9.91	99.14

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 410-220519/7  
 Matrix: Water Lab File ID: IF03X06.D  
 Analysis Method: 8260D Date Collected: \_\_\_\_\_  
 Sample wt/vol: 25 (mL) Date Analyzed: 02/03/2022 10:57  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: R-624SilMS 30m ID: 0.25 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 220519 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.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 410-220519/7  
 Matrix: Water Lab File ID: IF03X06.D  
 Analysis Method: 8260D Date Collected: \_\_\_\_\_  
 Sample wt/vol: 25 (mL) Date Analyzed: 02/03/2022 10:57  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: R-624SilMS 30m ID: 0.25 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 220519 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)	102		80-120
460-00-4	4-Bromofluorobenzene (Surr)	95		80-120
1868-53-7	Dibromofluoromethane (Surr)	100		80-120
2037-26-5	Toluene-d8 (Surr)	102		80-120

Eurofins Lancaster Laboratories Env, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03X06.D  
 Lims ID: MB  
 Client ID:  
 Sample Type: MB  
 Inject. Date: 03-Feb-2022 10:57:30 ALS Bottle#: 6 Worklist Smp#: 7  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0049668-007  
 Misc. Info.: MB  
 Operator ID: KNK41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 11:20:53 Calib Date: 24-Aug-2021 02:52:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1621

First Level Reviewer: kephartk Date: 03-Feb-2022 11:20:53

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		1.989					ND	
3 Dimethyl ether	45		2.050					ND	
4 Chloromethane	50		2.166					ND	
5 Vinyl chloride	62		2.282					ND	
6 Butadiene	39		2.294					ND	7
7 Bromomethane	94		2.629					ND	
8 Chloroethane	64		2.702					ND	
9 Dichlorofluoromethane	67		2.946					ND	
10 Trichlorofluoromethane	101		3.013					ND	
11 Ethyl ether	59		3.257					ND	
12 1,2-Dichloro-1,1,2-trifluoroethane	67		3.343					ND	
13 Acrolein	56		3.428					ND	7
14 1,1-Dichloroethene	96		3.568					ND	
15 Acetone	43		3.599					ND	7
16 112TCTFE	101		3.605					ND	
17 Iodomethane	142		3.769					ND	
18 Ethyl bromide	108		3.794					ND	
19 Carbon disulfide	76		3.873					ND	7
20 Acetonitrile	41		3.995					ND	
21 Methyl acetate	43		4.019					ND	
22 3-Chloro-1-propene	41		4.050					ND	
23 Methylene Chloride	84		4.239					ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.275	4.245	0.030	23	170959	50.0	50.0	
25 2-Methyl-2-propanol	59		4.403					ND	
26 Acrylonitrile	53		4.580					ND	
27 Methyl tert-butyl ether	73		4.647					ND	
28 trans-1,2-Dichloroethene	96		4.659					ND	
29 Hexane	57		5.080					ND	
31 1,1-Dichloroethane	63		5.312					ND	
30 Vinyl acetate	43		5.312					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		5.373					ND	
33 2-Chloro-1,3-butadiene	53		5.421					ND	
34 Tert-butyl ethyl ether	59		5.903					ND	7
36 2-Butanone (MEK)	43		6.104					ND	7
37 cis-1,2-Dichloroethene	96		6.141					ND	
S 35 1,2-Dichloroethene, Total	100		6.155					ND	7
38 2,2-Dichloropropane	77		6.159					ND	7
40 Propionitrile	54		6.190					ND	
39 Ethyl acetate	43		6.190					ND	
41 Methyl acrylate	55		6.220					ND	
42 Methacrylonitrile	67		6.403					ND	
43 Chlorobromomethane	128		6.470					ND	
44 Tetrahydrofuran	71		6.482					ND	
45 Chloroform	83		6.616					ND	
\$ 46 Dibromofluoromethane (Surr)	113	6.836	6.830	0.006	94	486153	10.0	10.0	
47 1,1,1-Trichloroethane	97		6.848					ND	
48 Cyclohexane	56		6.945					ND	
49 1-Chlorobutane	56		7.019					ND	
51 1,1-Dichloropropene	75		7.055					ND	
50 Carbon tetrachloride	117		7.055					ND	
52 Isobutyl alcohol	41		7.202					ND	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.287	7.275	0.012	68	99552	10.0	10.2	
54 Benzene	78		7.311					ND	
56 1,2-Dichloroethane	62		7.384					ND	
55 Isopropyl acetate	43		7.415					ND	
57 Tert-amyl methyl ether	73		7.506					ND	
* 58 Fluorobenzene (IS)	96	7.714	7.714	0.000	99	1930430	10.0	10.0	
59 n-Heptane	43	7.732	7.726	0.006	36	2359		0.0314	
60 n-Butanol	56		8.073					ND	
61 Trichloroethene	95		8.189					ND	
62 Methylcyclohexane	83		8.500					ND	7
63 1,2-Dichloropropane	63		8.518					ND	
64 Methyl methacrylate	69		8.598					ND	
65 1,4-Dioxane	88		8.610					ND	
66 Dibromomethane	93		8.628					ND	
67 n-Propyl acetate	43		8.707					ND	
68 Dichlorobromomethane	83		8.860					ND	
69 2-Nitropropane	41		9.122					ND	
70 Chloroacetonitrile	75		9.226					ND	
72 1-Bromo-2-chloroethane	63		9.250					ND	
71 2-Chloroethyl vinyl ether	63		9.256					ND	
73 cis-1,3-Dichloropropene	75		9.402					ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.573					ND	7
\$ 75 Toluene-d8 (Surr)	98	9.713	9.713	0.000	93	2014400	10.0	10.2	
76 Toluene	92	9.786	9.786	0.000	99	3720		0.0253	
78 trans-1,3-Dichloropropene	75		10.042					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		10.244					ND	
81 Tetrachloroethene	166		10.335					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		10.603					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	85	1535037	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		11.262					ND	
92 Ethylbenzene	91		11.268					ND	7
93 m-Xylene & p-Xylene	106		11.384					ND	
94 o-Xylene	106		11.707					ND	
95 Styrene	104		11.725					ND	
96 Bromoform	173		11.884					ND	
97 Isopropylbenzene	105		12.005					ND	
98 cis-1,4-Dichloro-2-butene	88		12.079					ND	U
99 Cyclohexanone	55		12.121					ND	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	93	722080	10.0	9.52	
101 1,1,2,2-Tetrachloroethane	83		12.249					ND	
102 Bromobenzene	156		12.268					ND	
103 trans-1,4-Dichloro-2-butene	53		12.274					ND	
104 1,2,3-Trichloropropane	110		12.292					ND	
105 N-Propylbenzene	91		12.335					ND	
106 2-Chlorotoluene	126		12.414					ND	
107 1,3,5-Trimethylbenzene	105		12.469					ND	
108 4-Chlorotoluene	126		12.505					ND	
109 tert-Butylbenzene	134		12.713					ND	7
110 Pentachloroethane	167		12.743					ND	
111 1,2,4-Trimethylbenzene	105		12.749					ND	
112 sec-Butylbenzene	105		12.871					ND	7
113 1,3-Dichlorobenzene	146		12.975					ND	7
114 4-Isopropyltoluene	119		12.981					ND	7
* 115 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	94	820377	10.0	10.0	
116 1,4-Dichlorobenzene	146		13.048					ND	7
117 1,2,3-Trimethylbenzene	120		13.054					ND	7
118 Benzyl chloride	126		13.121					ND	
119 n-Butylbenzene	92		13.267					ND	7
120 1,2-Dichlorobenzene	146		13.304					ND	
121 Hexachloroethane	117		13.542					ND	
122 1,2-Dibromo-3-Chloropropane	155		13.847					ND	
123 1,3,5-Trichlorobenzene	180		13.969					ND	7
124 1,2,4-Trichlorobenzene	180		14.389					ND	
125 Hexachlorobutadiene	225	14.474	14.475	0.000	86	2177		0.0648	
126 Naphthalene	128		14.572					ND	7
127 1,2,3-Trichlorobenzene	180	14.731	14.712	0.019	89	2674		0.0400	
128 Dodecane	57		0.000					ND	
132 Methylal	1		0.000					ND	
133 t-Amyl alcohol	1		0.000					ND	
134 Isopropyl alcohol	45		0.000					ND	
141 1-Chloropropane	1		0.000					ND	
129 Propene oxide	1		0.000					ND	
207 Acetonitrile TIC	1		0.000					ND	
130 Chlorotrifluoroethene	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
204 Pentane	43		0.000					ND	
206 Pentachloroethane TIC	1		0.000					ND	
142 2-Bromo-1-chloropropane	1		0.000					ND	
131 tert-Butyl Formate	1		0.000					ND	
202 1,3-Dichloro-2-propanol TIC	1		0.000					ND	
203 Propargyl alcohol TIC	1		0.000					ND	
210 Hexachloroethane TIC	1		0.000					ND	
139 1-Bromo-3-Chloropropane	1		0.000					ND	
143 n-Decane	57		0.000					ND	
205 1,1-Dichloroacetone	1		0.000					ND	
144 2-ethoxy-2-methyl butane	1		0.000					ND	
136 2-Chloro-1,1,1-Trifluoroethane	1		0.000					ND	
135 p-Diethylbenzene	1		0.000					ND	
137 2-Methylnaphthalene	142		0.000					ND	
138 1,1-Dichloro-1-fluoroethane	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\_00002

Amount Added: 5.00

Units: uL

Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03X06.D

Injection Date: 03-Feb-2022 10:57:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: MB

Worklist Smp#: 7

Client ID:

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

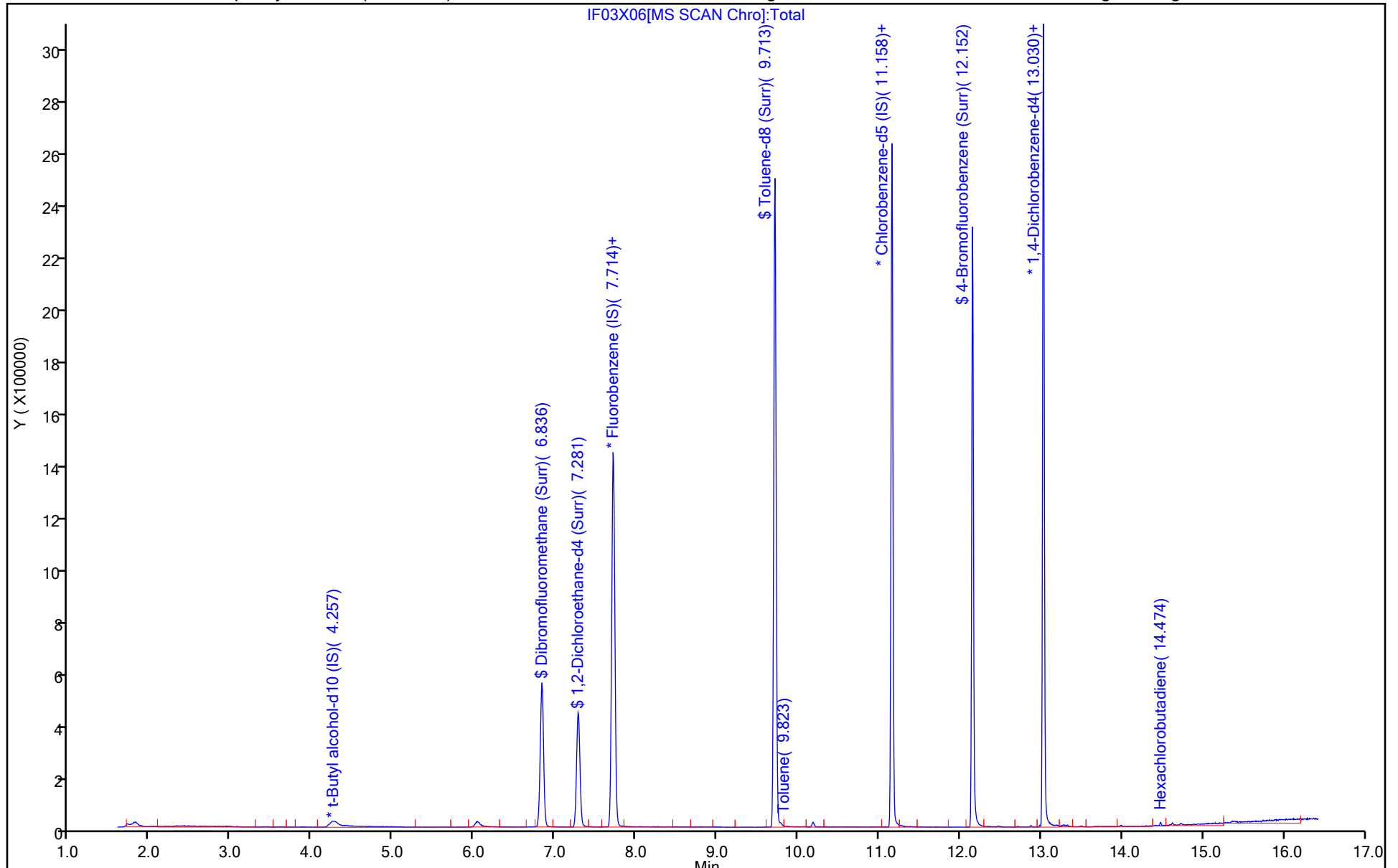
ALS Bottle#: 6

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 Env, LLC  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03X06.D  
 Lims ID: MB  
 Client ID:  
 Sample Type: MB  
 Inject. Date: 03-Feb-2022 10:57:30      ALS Bottle#: 6      Worklist Smp#: 7  
 Purge Vol: 25.000 mL      Dil. Factor: 1.0000  
 Sample Info: 410-0049668-007  
 Misc. Info.: MB  
 Operator ID: KNK41612      Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 11:20:53      Calib Date: 24-Aug-2021 02:52:30  
 Integrator: RTE      ID Type: Deconvolution ID  
 Quant Method: Internal Standard      Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm)      Det: MS Quad  
 Process Host: CTX1621

First Level Reviewer: kephartk      Date: 03-Feb-2022 11:20:53

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	10.0	99.97
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.2	102.33
\$ 75 Toluene-d8 (Surr)	10.0	10.2	101.55
\$ 100 4-Bromofluorobenzene (Surr)	10.0	9.52	95.24

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 410-220509/4  
 Matrix: Water Lab File ID: HF03X03.D  
 Analysis Method: 8260D Date Collected: \_\_\_\_\_  
 Sample wt/vol: 25 (mL) Date Analyzed: 02/03/2022 10:41  
 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.: 220509 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.91		0.50	0.070
71-55-6	1,1,1-Trichloroethane	4.68		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	5.40		0.50	0.070
79-00-5	1,1,2-Trichloroethane	5.21		0.50	0.060
75-34-3	1,1-Dichloroethane	5.05		0.50	0.070
75-35-4	1,1-Dichloroethene	4.79		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	5.22		0.50	0.060
107-06-2	1,2-Dichloroethane	4.93		0.50	0.050
78-87-5	1,2-Dichloropropane	5.20		0.50	0.060
78-93-3	2-Butanone (MEK)	55.5		5.0	0.60
591-78-6	2-Hexanone	52.0		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	49.4		5.0	0.70
67-64-1	Acetone	53.0		5.0	0.90
71-43-2	Benzene	5.09		0.50	0.050
74-97-5	Bromochloromethane	4.98		0.50	0.050
75-27-4	Bromodichloromethane	5.23		0.50	0.050
75-25-2	Bromoform	6.07		1.0	0.30
74-83-9	Bromomethane	4.73		0.50	0.070
75-15-0	Carbon disulfide	5.53		1.0	0.060
56-23-5	Carbon tetrachloride	4.52		0.50	0.070
108-90-7	Chlorobenzene	5.01		0.50	0.060
75-00-3	Chloroethane	5.25		0.50	0.070
67-66-3	Chloroform	4.93		0.50	0.090
74-87-3	Chloromethane	4.93		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	5.07		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	5.11		0.50	0.050
124-48-1	Dibromochloromethane	5.53		0.50	0.070
100-41-4	Ethylbenzene	5.17		0.50	0.060
1634-04-4	Methyl tert-butyl ether	5.12		0.50	0.050
75-09-2	Methylene Chloride	4.89		0.50	0.070
100-42-5	Styrene	5.22		0.50	0.050
127-18-4	Tetrachloroethene	4.87		0.50	0.060
108-88-3	Toluene	5.13		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	4.87		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	5.46		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.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 410-220509/4  
 Matrix: Water Lab File ID: HF03X03.D  
 Analysis Method: 8260D Date Collected: \_\_\_\_\_  
 Sample wt/vol: 25 (mL) Date Analyzed: 02/03/2022 10:41  
 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.: 220509 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	4.62		0.50	0.10
1330-20-7	Xylenes, Total	15.3		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)	101		80-120
1868-53-7	Dibromofluoromethane (Surr)	95		80-120
2037-26-5	Toluene-d8 (Surr)	102		80-120

Eurofins Lancaster Laboratories Env, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X03.D  
 Lims ID: LCS  
 Client ID:  
 Sample Type: LCS  
 Inject. Date: 03-Feb-2022 10:41:30 ALS Bottle#: 3 Worklist Smp#: 4  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0049665-004  
 Misc. Info.: LCS  
 Operator ID: KNK41612 Instrument ID: 19094  
 Method: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\MSV\_19094\_25mL.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 11:31:17 Calib Date: 21-Dec-2021 20:38:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21117.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1621

First Level Reviewer: kephartk

Date: 03-Feb-2022 11:19:45

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
3 Dichlorodifluoromethane	85	1.946	1.947	-0.001	99	195155	5.00	3.21	
6 Chloromethane	50	2.148	2.148	0.000	99	368618	5.00	4.93	
7 Vinyl chloride	62	2.263	2.264	-0.001	98	344338	5.00	4.62	
8 Butadiene	39	2.270	2.270	0.000	91	355406	5.00	4.69	
9 Bromomethane	94	2.599	2.599	0.000	90	236372	5.00	4.73	
10 Chloroethane	64	2.684	2.690	-0.006	100	222947	5.00	5.25	
11 Dichlorofluoromethane	67	2.922	2.922	0.000	97	507959	5.00	5.18	
13 Trichlorofluoromethane	101	2.989	2.995	-0.006	97	375665	5.00	4.02	
15 Ethyl ether	59	3.227	3.227	0.000	93	191802	4.97	5.81	
16 1,2-Dichloro-1,1,2-trifluoroethane	67	3.324	3.324	0.000	94	331964	5.00	4.87	
17 Acrolein	56	3.403	3.398	0.005	98	199498	37.5	26.8	
18 1,1-Dichloroethene	96	3.544	3.544	0.000	98	240569	5.00	4.79	
19 Acetone	43	3.562	3.562	0.000	100	426625	62.5	53.0	
20 112TCTFE	101	3.592	3.593	-0.001	92	172451	5.00	3.44	
21 Isopropyl alcohol	45	3.733	3.727	0.006	30	39309	37.5	51.8	
22 Iodomethane	142	3.739	3.739	0.000	98	440933	5.00	5.02	
23 Ethyl bromide	108	3.769	3.769	0.000	99	208303	4.99	4.88	
24 Carbon disulfide	76	3.855	3.849	0.006	99	680615	5.00	5.53	
26 Methyl acetate	43	3.989	3.989	0.000	97	109500	5.00	3.97	M
27 3-Chloro-1-propene	41	4.019	4.013	0.006	93	433271	5.00	5.57	
* 28 t-Butyl alcohol-d10 (IS)	65	4.202	4.190	0.012	41	88903	50.0	50.0	
29 Methylene Chloride	84	4.208	4.202	0.006	96	260837	5.00	4.89	
30 2-Methyl-2-propanol	59	4.318	4.324	-0.006	99	101997	50.0	54.3	
31 Acrylonitrile	53	4.537	4.544	-0.007	99	255539	25.0	23.5	
32 Methyl tert-butyl ether	73	4.598	4.611	-0.013	95	560403	5.00	5.12	
33 trans-1,2-Dichloroethene	96	4.629	4.623	0.006	98	262969	5.00	4.87	
34 Hexane	57	5.050	5.050	0.000	92	220074	5.00	3.09	
35 1,1-Dichloroethane	63	5.275	5.275	0.000	96	501395	5.00	5.05	
37 Isopropyl ether	45	5.330	5.336	-0.006	96	874969	5.00	5.35	
38 2-Chloro-1,3-butadiene	53	5.385	5.385	0.000	90	432846	5.00	5.30	
39 Tert-butyl ethyl ether	59	5.860	5.860	0.000	98	764166	5.00	5.48	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
41 2-Butanone (MEK)	43	6.055	6.056	-0.001	100	818855	62.5	55.5	
42 cis-1,2-Dichloroethene	96	6.098	6.098	0.000	83	298011	5.00	5.07	
43 2,2-Dichloropropane	77	6.116	6.123	-0.007	88	406495	5.00	4.98	
45 Propionitrile	54	6.141	6.147	-0.006	98	122474	37.5	32.4	
47 Methacrylonitrile	67	6.360	6.366	-0.006	93	482547	37.5	28.7	
48 Chlorobromomethane	128	6.427	6.434	-0.007	96	122732	5.00	4.98	
49 Tetrahydrofuran	71	6.439	6.434	0.005	89	86310	25.0	21.0	
50 Chloroform	83	6.580	6.580	0.000	93	477428	5.00	4.93	
\$ 51 Dibromofluoromethane (Surr)	113	6.793	6.793	0.000	94	469495	10.0	9.48	
52 1,1,1-Trichloroethane	97	6.811	6.812	-0.001	99	417071	5.00	4.68	
53 Cyclohexane	56	6.915	6.915	0.000	91	380805	5.00	3.98	
55 1,1-Dichloropropene	75	7.019	7.019	0.000	98	395671	5.00	5.02	
56 Carbon tetrachloride	117	7.025	7.025	0.000	97	350857	5.00	4.52	
57 Isobutyl alcohol	41	7.159	7.153	0.006	94	83060	125.0	105.0	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.250	7.244	0.006	98	92554	10.0	10.0	
59 Benzene	78	7.281	7.281	0.000	97	1151891	5.00	5.09	
60 1,2-Dichloroethane	62	7.348	7.348	0.000	97	278339	5.00	4.93	
62 Tert-amyl methyl ether	73	7.470	7.464	0.006	99	640662	5.00	5.48	
* 65 Fluorobenzene (IS)	96	7.683	7.683	0.000	98	1877275	10.0	10.0	
64 n-Heptane	43	7.695	7.695	0.000	93	235272	5.00	3.13	
66 n-Butanol	56	8.031	8.025	0.006	89	184495	250.0	349.8	
67 Trichloroethene	95	8.159	8.159	0.000	99	294782	5.00	4.95	
68 Methylcyclohexane	83	8.476	8.470	0.006	92	348778	5.00	3.46	
70 1,2-Dichloropropane	63	8.488	8.488	0.000	87	295896	5.00	5.20	
69 2-ethoxy-2-methyl butane	87	8.500	8.494	0.006	91	393347	5.00	6.42	
71 Methyl methacrylate	69	8.567	8.567	0.000	90	120183	5.00	3.93	
72 1,4-Dioxane	88	8.579	8.579	0.000	33	19154	125.0	121.8	
73 Dibromomethane	93	8.598	8.598	0.000	96	125712	5.00	4.95	
75 Dichlorobromomethane	83	8.829	8.829	0.000	99	333522	5.00	5.23	
76 2-Nitropropane	41	9.097	9.092	0.005	98	29509	5.00	3.55	
79 1-Bromo-2-chloroethane	63	9.226	9.226	0.000	99	291338	5.00	5.80	
80 cis-1,3-Dichloropropene	75	9.378	9.378	0.000	96	412105	5.00	5.11	
81 4-Methyl-2-pentanone (MIBK)	43	9.543	9.543	0.000	97	1987012	62.5	49.4	
\$ 82 Toluene-d8 (Surr)	98	9.683	9.683	0.000	93	1992834	10.0	10.2	
83 Toluene	92	9.762	9.762	0.000	98	721968	5.00	5.13	
85 trans-1,3-Dichloropropene	75	10.012	10.012	0.000	93	331764	5.00	5.46	
86 Ethyl methacrylate	69	10.073	10.073	0.000	90	253986	5.00	5.57	
87 1,1,2-Trichloroethane	97	10.219	10.219	0.000	90	181009	5.00	5.21	
88 Tetrachloroethene	166	10.311	10.311	0.000	98	326198	5.00	4.87	
89 1,3-Dichloropropane	76	10.378	10.378	0.000	90	326305	5.00	5.31	
91 2-Hexanone	43	10.427	10.427	-0.001	98	1415247	62.5	52.0	
93 Chlorodibromomethane	129	10.597	10.597	0.000	90	220612	5.00	5.53	
94 Ethylene Dibromide	107	10.707	10.707	0.000	99	174105	5.00	5.22	
* 97 Chlorobenzene-d5 (IS)	117	11.134	11.134	0.000	87	1506951	10.0	10.0	
96 1-Chlorohexane	91	11.146	11.140	0.006	97	403143	5.00	4.81	
98 Chlorobenzene	112	11.164	11.158	0.006	95	775794	5.00	5.01	
99 1,1,1,2-Tetrachloroethane	131	11.243	11.244	-0.001	96	256820	5.00	4.91	
100 Ethylbenzene	91	11.250	11.250	0.000	98	1399615	5.00	5.17	
101 m-Xylene & p-Xylene	106	11.359	11.359	0.000	98	1085987	10.0	10.3	
102 o-Xylene	106	11.688	11.689	-0.001	96	516398	5.00	5.01	
103 Styrene	104	11.707	11.701	0.006	95	849157	5.00	5.22	
104 Bromoform	173	11.865	11.859	0.006	98	125913	5.00	6.07	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
105 Isopropylbenzene	105	11.987	11.987	0.000	95	1397100	5.00	5.15	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.133	12.128	0.005	92	762112	10.0	10.1	
109 1,1,2,2-Tetrachloroethane	83	12.231	12.231	0.000	94	222669	5.00	5.40	
111 Bromobenzene	156	12.249	12.249	0.000	95	315235	5.00	5.12	
110 trans-1,4-Dichloro-2-butene	53	12.255	12.256	-0.001	92	242651	25.0	19.1	
112 1,2,3-Trichloropropane	110	12.274	12.274	0.000	83	54852	5.00	4.94	
113 N-Propylbenzene	91	12.316	12.317	-0.001	99	1631161	5.00	5.20	
114 2-Chlorotoluene	126	12.390	12.390	0.000	97	318186	5.00	5.02	
115 1,3,5-Trimethylbenzene	105	12.450	12.451	-0.001	94	1143613	5.00	5.12	
116 4-Chlorotoluene	126	12.481	12.481	0.000	98	327232	5.00	5.11	
118 tert-Butylbenzene	134	12.688	12.688	0.000	93	250662	5.00	5.01	
119 Pentachloroethane	167	12.725	12.725	0.000	91	188723	5.00	5.06	
120 1,2,4-Trimethylbenzene	105	12.731	12.731	0.000	97	1161351	5.00	5.04	
121 sec-Butylbenzene	105	12.853	12.853	0.000	94	1489381	5.00	5.27	
122 1,3-Dichlorobenzene	146	12.950	12.951	-0.001	98	627340	5.00	5.04	
123 4-Isopropyltoluene	119	12.956	12.957	-0.001	97	1271671	5.00	5.20	
* 124 1,4-Dichlorobenzene-d4	152	13.005	13.005	0.000	95	850473	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.024	13.024	0.000	94	626879	5.00	5.07	
126 1,2,3-Trimethylbenzene	120	13.036	13.036	0.000	98	500568	5.00	4.97	
127 Benzyl chloride	126	13.097	13.103	-0.006	99	82363	5.00	6.42	
129 p-Diethylbenzene	119	13.158	13.158	0.000	92	739800	5.00	5.19	
130 n-Butylbenzene	92	13.249	13.249	0.000	98	623899	5.00	5.40	
131 1,2-Dichlorobenzene	146	13.286	13.286	0.000	98	554213	5.00	4.91	
134 1,2-Dibromo-3-Chloropropane	155	13.822	13.822	0.000	85	27298	5.00	5.03	
135 1,3,5-Trichlorobenzene	180	13.950	13.950	0.000	98	484291	5.00	5.24	
136 1,2,4-Trichlorobenzene	180	14.371	14.371	0.000	94	408887	5.00	5.22	
137 Hexachlorobutadiene	225	14.450	14.450	0.000	96	192331	5.00	5.19	
138 Naphthalene	128	14.548	14.548	0.000	97	674192	5.00	5.03	
139 1,2,3-Trichlorobenzene	180	14.688	14.688	0.000	95	351226	5.00	5.05	
140 2-Methylnaphthalene	142	15.310	15.310	0.000	93	414134	5.00	5.47	

## QC Flag Legend

Processing Flags

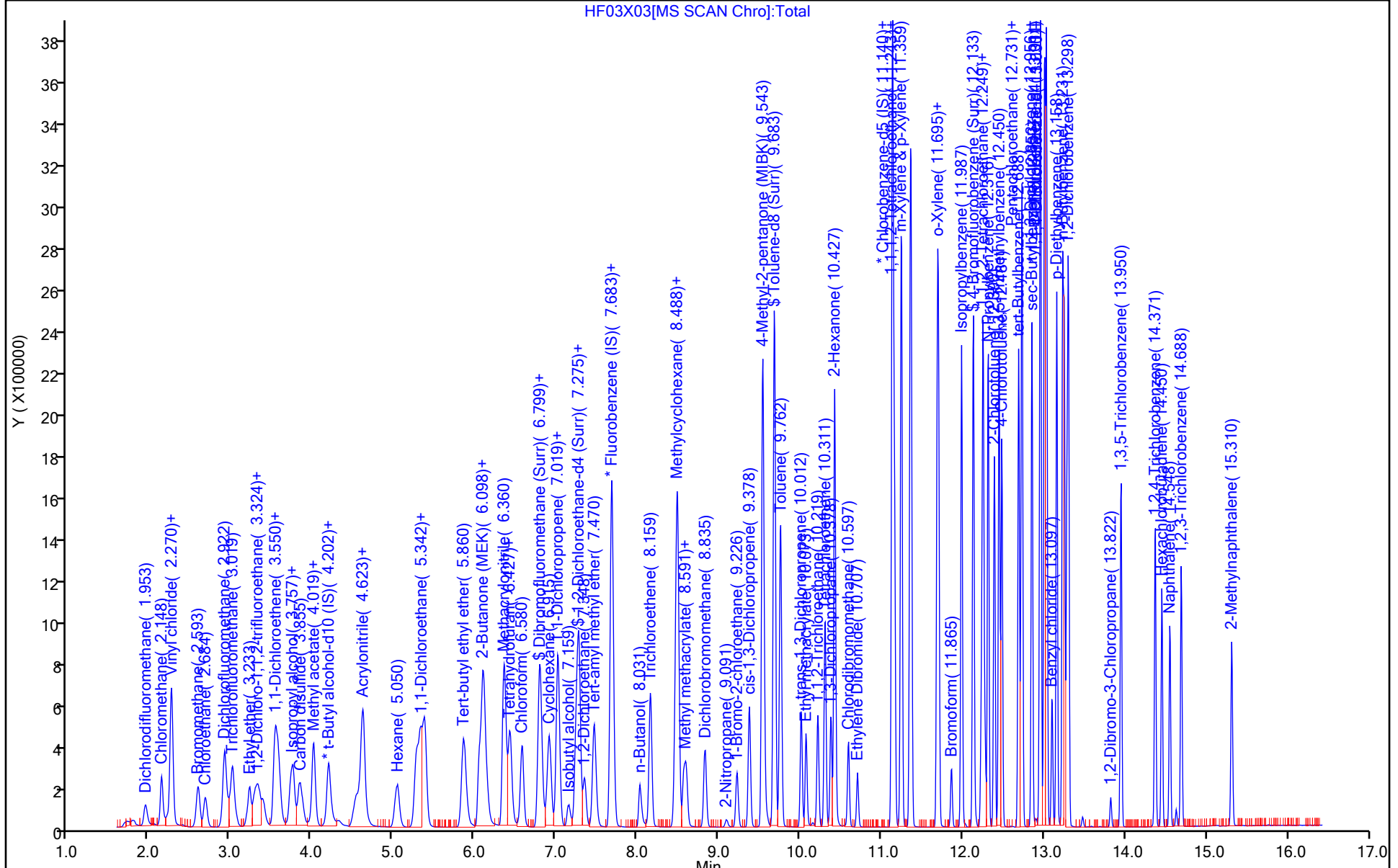
Review Flags

M - Manually Integrated

## Reagents:

MSV_LCS_VOC#1_00038	Amount Added: 12.50	Units: uL	
MSV_LCS_EE_00001	Amount Added: 12.50	Units: uL	
MSV_LCS_ETBR_00001	Amount Added: 12.50	Units: uL	
MSV_QC_Gas826_00063	Amount Added: 12.50	Units: uL	
MSV_LCS_ACROL_00041	Amount Added: 12.50	Units: uL	
MSV_LCS_Penta_00011	Amount Added: 12.50	Units: uL	
MSV_LLcentlSS_00002	Amount Added: 5.00	Units: uL	Run Reagent





HF03X03[MS SCAN Chrom]:Total

Eurofins Lancaster Laboratories Env, LLC  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X03.D  
 Lims ID: LCS  
 Client ID:  
 Sample Type: LCS  
 Inject. Date: 03-Feb-2022 10:41:30 ALS Bottle#: 3 Worklist Smp#: 4  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0049665-004  
 Misc. Info.: LCS  
 Operator ID: KNK41612 Instrument ID: 19094  
 Method: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\MSV\_19094\_25mL.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 11:31:17 Calib Date: 21-Dec-2021 20:38:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21117.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1621

First Level Reviewer: kephartk

Date: 03-Feb-2022 11:19:45

Compound	Amount Added	Amount Recovered	% Rec.
\$ 51 Dibromofluoromethane (Surr)	10.0	9.48	94.80
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.0	100.26
\$ 82 Toluene-d8 (Surr)	10.0	10.2	101.81
\$ 108 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.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 410-220519/4  
 Matrix: Water Lab File ID: IF03X03.D  
 Analysis Method: 8260D Date Collected: \_\_\_\_\_  
 Sample wt/vol: 25 (mL) Date Analyzed: 02/03/2022 09:53  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: R-624SilMS 30m ID: 0.25 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 220519 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.31		0.50	0.070
71-55-6	1,1,1-Trichloroethane	5.10		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	6.02		0.50	0.070
79-00-5	1,1,2-Trichloroethane	5.88		0.50	0.060
75-34-3	1,1-Dichloroethane	5.43		0.50	0.070
75-35-4	1,1-Dichloroethene	5.43		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	5.84		0.50	0.060
107-06-2	1,2-Dichloroethane	5.37		0.50	0.050
78-87-5	1,2-Dichloropropane	5.96		0.50	0.060
78-93-3	2-Butanone (MEK)	70.0		5.0	0.60
591-78-6	2-Hexanone	70.6		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	67.4		5.0	0.70
67-64-1	Acetone	60.6		5.0	0.90
71-43-2	Benzene	5.65		0.50	0.050
74-97-5	Bromochloromethane	5.63		0.50	0.050
75-27-4	Bromodichloromethane	5.85		0.50	0.050
75-25-2	Bromoform	6.23		1.0	0.30
74-83-9	Bromomethane	4.60		0.50	0.070
75-15-0	Carbon disulfide	5.44		1.0	0.060
56-23-5	Carbon tetrachloride	5.34		0.50	0.070
108-90-7	Chlorobenzene	5.46		0.50	0.060
75-00-3	Chloroethane	4.68		0.50	0.070
67-66-3	Chloroform	5.41		0.50	0.090
74-87-3	Chloromethane	4.98		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	5.48		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	5.92		0.50	0.050
124-48-1	Dibromochloromethane	5.86		0.50	0.070
100-41-4	Ethylbenzene	5.38		0.50	0.060
1634-04-4	Methyl tert-butyl ether	5.30		0.50	0.050
75-09-2	Methylene Chloride	5.45		0.50	0.070
100-42-5	Styrene	5.36		0.50	0.050
127-18-4	Tetrachloroethene	5.50		0.50	0.060
108-88-3	Toluene	5.42		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	5.28		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	5.96		0.50	0.060
79-01-6	Trichloroethene	5.51		0.50	0.060

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 410-220519/4  
 Matrix: Water Lab File ID: IF03X03.D  
 Analysis Method: 8260D Date Collected: \_\_\_\_\_  
 Sample wt/vol: 25 (mL) Date Analyzed: 02/03/2022 09:53  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: R-624SilMS 30m ID: 0.25 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 220519 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	4.83		0.50	0.10
1330-20-7	Xylenes, Total	16.0		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	99		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03X03.D  
 Lims ID: LCS  
 Client ID:  
 Sample Type: LCS  
 Inject. Date: 03-Feb-2022 09:53:30 ALS Bottle#: 3 Worklist Smp#: 4  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0049668-004  
 Misc. Info.: LCS  
 Operator ID: KNK41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 10:54:28 Calib Date: 24-Aug-2021 02:52:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1621

First Level Reviewer: kephartk

Date: 03-Feb-2022 10:34:45

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	254183	5.00	4.27	
4 Chloromethane	50	2.166	2.166	0.000	99	338165	5.00	4.98	
5 Vinyl chloride	62	2.282	2.282	0.000	98	330443	5.00	4.83	
6 Butadiene	39	2.294	2.294	0.000	92	349833	5.00	5.61	
7 Bromomethane	94	2.623	2.629	-0.006	91	228194	5.00	4.60	
8 Chloroethane	64	2.702	2.702	0.000	100	192130	5.00	4.68	
9 Dichlorofluoromethane	67	2.946	2.946	0.000	97	471458	5.00	4.78	
10 Trichlorofluoromethane	101	3.007	3.013	-0.006	96	421624	5.00	4.78	
11 Ethyl ether	59	3.257	3.257	0.000	91	215735	4.97	6.02	M
12 1,2-Dichloro-1,1,2-trifluoroethane	67	3.342	3.343	-0.001	92	334318	5.00	5.29	
13 Acrolein	56	3.434	3.428	0.006	99	231215	37.5	33.0	
14 1,1-Dichloroethene	96	3.574	3.568	0.006	98	246842	5.00	5.43	
15 Acetone	43	3.592	3.599	-0.007	100	540180	62.5	60.6	
16 112TCTFE	101	3.617	3.605	0.012	87	212266	5.00	4.47	
17 Iodomethane	142	3.769	3.769	0.000	98	467175	5.00	5.14	
18 Ethyl bromide	108	3.794	3.794	0.000	98	218274	4.99	5.27	
19 Carbon disulfide	76	3.873	3.873	0.000	99	682793	5.00	5.44	
21 Methyl acetate	43	4.025	4.019	0.006	98	153927	5.00	5.86	
22 3-Chloro-1-propene	41	4.050	4.050	0.000	93	419270	5.00	5.62	
23 Methylene Chloride	84	4.245	4.239	0.006	93	270505	5.00	5.45	
* 24 t-Butyl alcohol-d10 (IS)	65	4.269	4.245	0.024	94	160516	50.0	50.0	M
25 2-Methyl-2-propanol	59	4.409	4.403	0.006	96	145304	50.0	43.0	
26 Acrylonitrile	53	4.574	4.580	-0.006	98	295780	25.0	24.9	
27 Methyl tert-butyl ether	73	4.641	4.647	-0.006	95	687776	5.00	5.30	
28 trans-1,2-Dichloroethene	96	4.665	4.659	0.006	99	272460	5.00	5.28	
29 Hexane	57	5.080	5.080	0.000	91	310495	5.00	4.31	
31 1,1-Dichloroethane	63	5.312	5.312	0.000	96	509007	5.00	5.43	
32 Isopropyl ether	45	5.379	5.373	0.006	95	876684	5.00	5.60	
33 2-Chloro-1,3-butadiene	53	5.421	5.421	0.000	90	430500	5.00	5.51	
34 Tert-butyl ethyl ether	59	5.903	5.903	0.000	97	829840	5.00	5.42	
36 2-Butanone (MEK)	43	6.098	6.104	-0.006	100	1089244	62.5	70.0	

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	6.141	6.141	0.000	81	315132	5.00	5.48	
38 2,2-Dichloropropane	77	6.153	6.159	-0.006	85	431739	5.00	5.30	
40 Propionitrile	54	6.196	6.190	0.006	98	163260	37.5	39.5	
42 Methacrylonitrile	67	6.397	6.403	-0.006	92	616783	37.5	39.4	
43 Chlorobromomethane	128	6.470	6.470	0.000	94	139693	5.00	5.63	
44 Tetrahydrofuran	71	6.488	6.482	0.006	83	120598	25.0	26.1	
45 Chloroform	83	6.622	6.616	0.006	93	501920	5.00	5.41	
\$ 46 Dibromofluoromethane (Surr)	113	6.830	6.830	0.000	94	474476	10.0	9.89	
47 1,1,1-Trichloroethane	97	6.842	6.848	-0.006	97	440305	5.00	5.10	
48 Cyclohexane	56	6.945	6.945	0.000	90	414166	5.00	4.84	
51 1,1-Dichloropropene	75	7.055	7.055	0.000	97	411303	5.00	5.65	
50 Carbon tetrachloride	117	7.061	7.055	0.006	97	397946	5.00	5.34	
52 Isobutyl alcohol	41	7.201	7.202	-0.001	94	143694	125.0	133.2	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.275	7.275	0.000	80	101818	10.0	10.6	
54 Benzene	78	7.311	7.311	0.000	97	1210598	5.00	5.65	
56 1,2-Dichloroethane	62	7.384	7.384	0.000	98	311726	5.00	5.37	
57 Tert-amyl methyl ether	73	7.506	7.506	0.000	99	757683	5.00	5.33	
* 58 Fluorobenzene (IS)	96	7.714	7.714	0.000	99	1905371	10.0	10.0	
59 n-Heptane	43	7.726	7.726	0.000	92	329286	5.00	4.44	
60 n-Butanol	56	8.079	8.073	0.006	88	289125	250.0	288.8	
61 Trichloroethene	95	8.189	8.189	0.000	97	317087	5.00	5.51	
62 Methylcyclohexane	83	8.500	8.500	0.000	92	430656	5.00	4.50	
63 1,2-Dichloropropane	63	8.518	8.518	0.000	96	313407	5.00	5.96	
64 Methyl methacrylate	69	8.598	8.598	0.000	91	160125	5.00	5.21	
65 1,4-Dioxane	88	8.616	8.610	0.006	34	35647	125.0	118.8	M
66 Dibromomethane	93	8.628	8.628	0.000	95	149340	5.00	5.81	
68 Dichlorobromomethane	83	8.866	8.860	0.006	99	373330	5.00	5.85	
69 2-Nitropropane	41	9.128	9.122	0.006	95	47121	5.00	5.36	
72 1-Bromo-2-chloroethane	63	9.250	9.250	0.000	98	340716	5.00	6.60	
73 cis-1,3-Dichloropropene	75	9.402	9.402	0.000	97	474771	5.00	5.92	
74 4-Methyl-2-pentanone (MIBK)	43	9.573	9.573	0.000	96	2642815	62.5	67.4	
\$ 75 Toluene-d8 (Surr)	98	9.713	9.713	0.000	93	1985407	10.0	10.0	
76 Toluene	92	9.786	9.786	0.000	98	795527	5.00	5.42	
78 trans-1,3-Dichloropropene	75	10.042	10.042	0.000	92	403487	5.00	5.96	
79 Ethyl methacrylate	69	10.103	10.097	0.006	89	314245	5.00	5.56	
80 1,1,2-Trichloroethane	97	10.244	10.244	0.000	91	230134	5.00	5.88	
81 Tetrachloroethene	166	10.335	10.335	0.000	97	384738	5.00	5.50	
82 1,3-Dichloropropane	76	10.402	10.402	0.000	89	393111	5.00	5.90	
83 2-Hexanone	43	10.451	10.451	0.000	96	1937519	62.5	70.6	
85 Chlorodibromomethane	129	10.622	10.616	0.006	90	279775	5.00	5.86	
86 Ethylene Dibromide	107	10.731	10.731	0.000	98	220613	5.00	5.84	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	85	1531554	10.0	10.0	
88 1-Chlorohexane	91	11.164	11.164	0.000	97	455498	5.00	5.31	
90 Chlorobenzene	112	11.182	11.182	0.000	96	887764	5.00	5.46	
91 1,1,1,2-Tetrachloroethane	131	11.268	11.262	0.006	97	301291	5.00	5.31	
92 Ethylbenzene	91	11.268	11.268	0.000	98	1521492	5.00	5.38	
93 m-Xylene & p-Xylene	106	11.384	11.384	0.000	100	1204606	10.0	10.8	
94 o-Xylene	106	11.707	11.707	0.000	97	567114	5.00	5.15	
95 Styrene	104	11.725	11.725	0.000	95	954107	5.00	5.36	
96 Bromoform	173	11.883	11.884	-0.001	98	177969	5.00	6.23	
97 Isopropylbenzene	105	12.012	12.005	0.007	95	1504823	5.00	5.17	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	93	733183	10.0	9.69	

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	12.249	12.249	0.000	93	280739	5.00	6.02	
102 Bromobenzene	156	12.268	12.268	0.000	95	372235	5.00	5.83	
103 trans-1,4-Dichloro-2-butene	53	12.274	12.274	0.000	91	280702	25.0	19.8	
104 1,2,3-Trichloropropane	110	12.298	12.292	0.006	83	74713	5.00	5.83	
105 N-Propylbenzene	91	12.335	12.335	0.000	99	1791594	5.00	5.78	
106 2-Chlorotoluene	126	12.414	12.414	0.000	97	360097	5.00	5.66	
107 1,3,5-Trimethylbenzene	105	12.469	12.469	0.000	94	1245229	5.00	5.50	
108 4-Chlorotoluene	126	12.505	12.505	0.000	97	371873	5.00	5.72	
109 tert-Butylbenzene	134	12.713	12.713	0.000	93	286544	5.00	5.77	
110 Pentachloroethane	167	12.743	12.743	0.000	93	236129	5.00	5.89	
111 1,2,4-Trimethylbenzene	105	12.749	12.749	0.000	97	1257571	5.00	5.42	
112 sec-Butylbenzene	105	12.871	12.871	0.000	94	1634200	5.00	5.71	
113 1,3-Dichlorobenzene	146	12.975	12.975	0.000	98	699490	5.00	5.43	
114 4-Isopropyltoluene	119	12.981	12.981	0.000	97	1399115	5.00	5.53	
* 115 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	94	843406	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.048	13.048	0.000	95	715717	5.00	5.43	
117 1,2,3-Trimethylbenzene	120	13.054	13.054	0.000	98	546889	5.00	5.32	
118 Benzyl chloride	126	13.121	13.121	0.000	98	116197	5.00	6.09	
119 n-Butylbenzene	92	13.273	13.267	0.006	97	662182	5.00	5.60	
120 1,2-Dichlorobenzene	146	13.304	13.304	0.000	99	637572	5.00	5.42	
122 1,2-Dibromo-3-Chloropropane	155	13.847	13.847	0.000	88	39271	5.00	5.73	
123 1,3,5-Trichlorobenzene	180	13.968	13.969	0.000	97	496362	5.00	5.26	
124 1,2,4-Trichlorobenzene	180	14.389	14.389	0.000	93	419239	5.00	5.27	
125 Hexachlorobutadiene	225	14.474	14.475	0.000	96	174191	5.00	5.04	
126 Naphthalene	128	14.572	14.572	0.000	97	771786	5.00	5.09	
127 1,2,3-Trichlorobenzene	180	14.712	14.712	0.000	96	362819	5.00	5.28	
134 Isopropyl alcohol	45		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
137 2-Methylnaphthalene	142		0.000				ND	ND	

### QC Flag Legend

#### Processing Flags

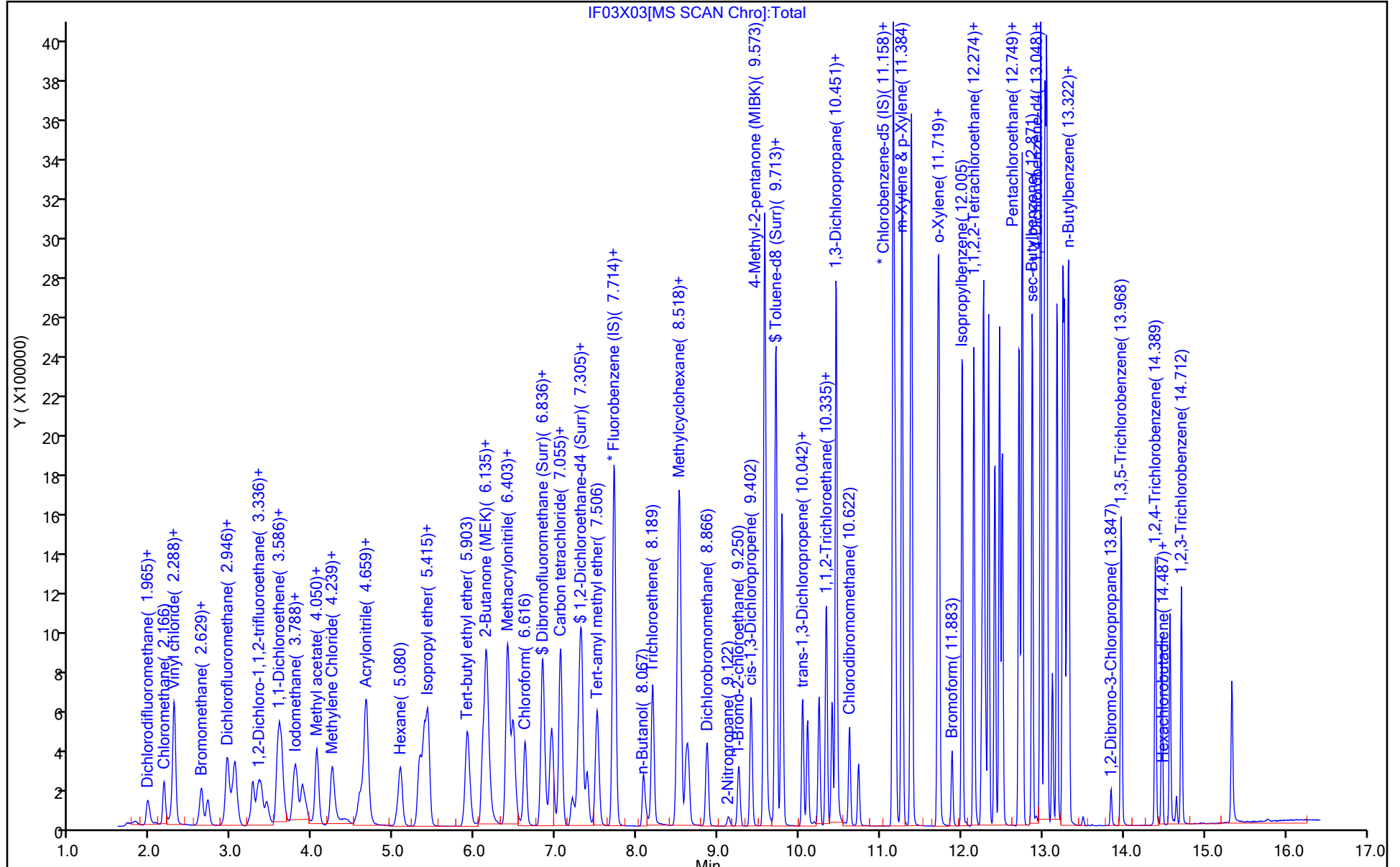
ND - Not Detected or Marked ND

#### Review Flags

M - Manually Integrated

### Reagents:

MSV_LCS_VOC#1_00038	Amount Added: 12.50	Units: uL	
MSV_LCS_EE_00001	Amount Added: 12.50	Units: uL	
MSV_LCS_ETBR_00001	Amount Added: 12.50	Units: uL	
MSV_QC_Gas826_00063	Amount Added: 12.50	Units: uL	
MSV_LCS_ACROL_00041	Amount Added: 12.50	Units: uL	
MSV_LCS_Penta_00011	Amount Added: 12.50	Units: uL	
MSV_LLcentISS_00002	Amount Added: 5.00	Units: uL	Run Reagent





Eurofins Lancaster Laboratories Env, LLC  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03X03.D  
 Lims ID: LCS  
 Client ID:  
 Sample Type: LCS  
 Inject. Date: 03-Feb-2022 09:53:30 ALS Bottle#: 3 Worklist Smp#: 4  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0049668-004  
 Misc. Info.: LCS  
 Operator ID: KNK41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 10:54:28 Calib Date: 24-Aug-2021 02:52:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1621

First Level Reviewer: kephartk Date: 03-Feb-2022 10:34:45

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	9.89	98.85
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.6	106.04
\$ 75 Toluene-d8 (Surr)	10.0	10.0	100.31
\$ 100 4-Bromofluorobenzene (Surr)	10.0	9.69	96.93

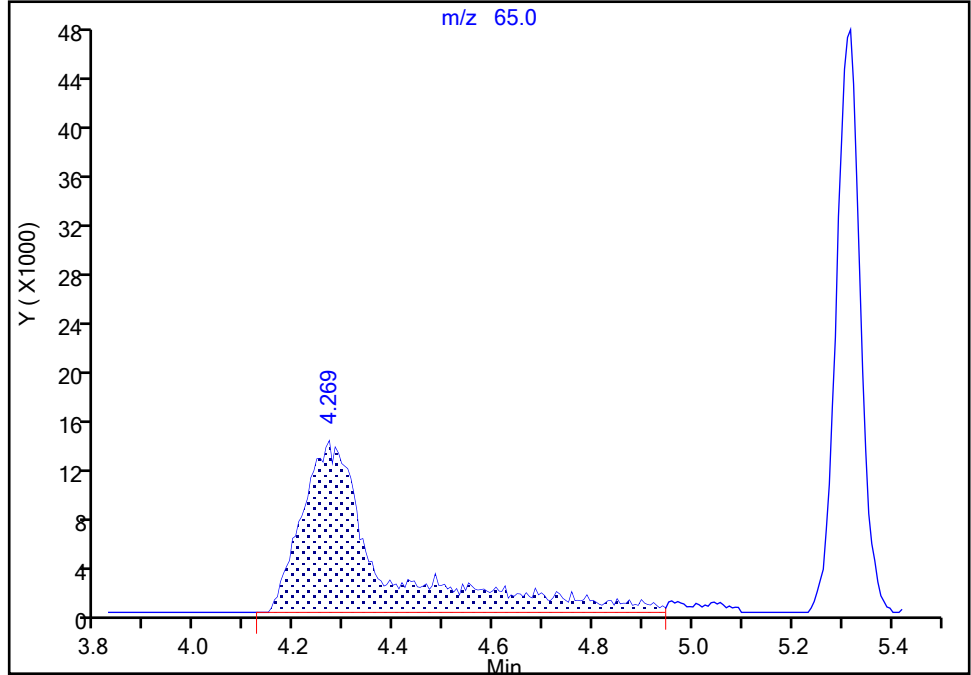
Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03X03.D  
Injection Date: 03-Feb-2022 09:53:30 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

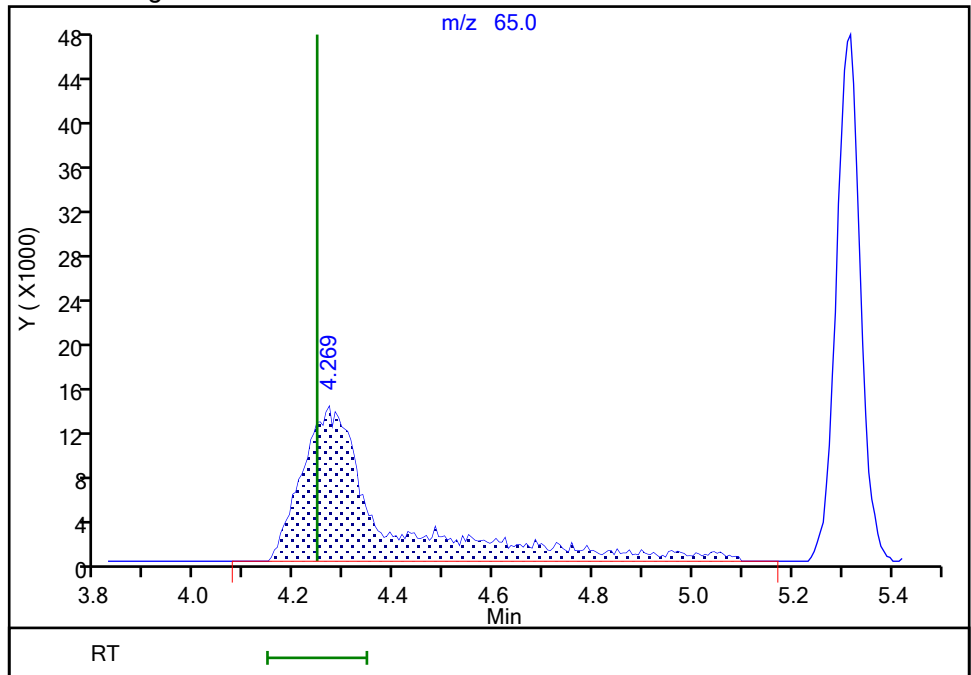
RT: 4.27  
Area: 155017  
Amount: 50.000000  
Amount Units: ug/l

Processing Integration Results



RT: 4.27  
Area: 160516  
Amount: 50.000000  
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 03-Feb-2022 10:33:48  
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration  
Page 854 of 901

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCSD 410-220509/5  
 Matrix: Water Lab File ID: HF03X04.D  
 Analysis Method: 8260D Date Collected: \_\_\_\_\_  
 Sample wt/vol: 25 (mL) Date Analyzed: 02/03/2022 11:01  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: R-624SilMS 30m ID: 0.25 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 220509 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.74		0.50	0.070
71-55-6	1,1,1-Trichloroethane	4.54		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	5.38		0.50	0.070
79-00-5	1,1,2-Trichloroethane	5.23		0.50	0.060
75-34-3	1,1-Dichloroethane	4.98		0.50	0.070
75-35-4	1,1-Dichloroethene	4.74		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	5.05		0.50	0.060
107-06-2	1,2-Dichloroethane	4.81		0.50	0.050
78-87-5	1,2-Dichloropropane	5.21		0.50	0.060
78-93-3	2-Butanone (MEK)	51.9		5.0	0.60
591-78-6	2-Hexanone	49.6		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	46.9		5.0	0.70
67-64-1	Acetone	50.9		5.0	0.90
71-43-2	Benzene	5.05		0.50	0.050
74-97-5	Bromochloromethane	4.92		0.50	0.050
75-27-4	Bromodichloromethane	5.19		0.50	0.050
75-25-2	Bromoform	5.94		1.0	0.30
74-83-9	Bromomethane	4.63		0.50	0.070
75-15-0	Carbon disulfide	5.47		1.0	0.060
56-23-5	Carbon tetrachloride	4.43		0.50	0.070
108-90-7	Chlorobenzene	4.92		0.50	0.060
75-00-3	Chloroethane	5.10		0.50	0.070
67-66-3	Chloroform	4.83		0.50	0.090
74-87-3	Chloromethane	4.82		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	4.98		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	5.08		0.50	0.050
124-48-1	Dibromochloromethane	5.41		0.50	0.070
100-41-4	Ethylbenzene	5.02		0.50	0.060
1634-04-4	Methyl tert-butyl ether	5.07		0.50	0.050
75-09-2	Methylene Chloride	4.78		0.50	0.070
100-42-5	Styrene	5.12		0.50	0.050
127-18-4	Tetrachloroethene	4.75		0.50	0.060
108-88-3	Toluene	5.09		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	4.73		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	5.39		0.50	0.060
79-01-6	Trichloroethene	4.91		0.50	0.060

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCSD 410-220509/5  
 Matrix: Water Lab File ID: HF03X04.D  
 Analysis Method: 8260D Date Collected: \_\_\_\_\_  
 Sample wt/vol: 25 (mL) Date Analyzed: 02/03/2022 11:01  
 Soil Aliquot Vol: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: R-624SilMS 30m ID: 0.25 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 220509 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	4.52		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)	102		80-120
460-00-4	4-Bromofluorobenzene (Surr)	100		80-120
1868-53-7	Dibromofluoromethane (Surr)	96		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X04.D  
 Lims ID: LCSD  
 Client ID:  
 Sample Type: LCSD  
 Inject. Date: 03-Feb-2022 11:01:30 ALS Bottle#: 4 Worklist Smp#: 5  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0049665-005  
 Misc. Info.: LCSD  
 Operator ID: KNK41612 Instrument ID: 19094  
 Method: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\MSV\_19094\_25mL.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 11:31:17 Calib Date: 21-Dec-2021 20:38:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21117.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1621

First Level Reviewer: kephartk

Date: 03-Feb-2022 11:31:17

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
3 Dichlorodifluoromethane	85	1.946	1.947	-0.001	99	204061	5.00	3.33	
6 Chloromethane	50	2.148	2.148	0.000	99	363587	5.00	4.82	
7 Vinyl chloride	62	2.257	2.264	-0.007	98	339822	5.00	4.52	
8 Butadiene	39	2.270	2.270	0.000	91	346119	5.00	4.52	
9 Bromomethane	94	2.593	2.599	-0.006	90	233733	5.00	4.63	
10 Chloroethane	64	2.690	2.690	0.000	100	218571	5.00	5.10	
11 Dichlorofluoromethane	67	2.922	2.922	0.000	97	501338	5.00	5.06	
13 Trichlorofluoromethane	101	2.989	2.995	-0.006	97	384934	5.00	4.08	
15 Ethyl ether	59	3.227	3.227	0.000	92	191825	4.97	5.76	
16 1,2-Dichloro-1,1,2-trifluoroethane	67	3.318	3.324	-0.006	95	329774	5.00	4.79	
17 Acrolein	56	3.403	3.398	0.005	95	197197	37.5	25.1	
18 1,1-Dichloroethene	96	3.538	3.544	-0.006	98	240616	5.00	4.74	
19 Acetone	43	3.568	3.562	0.006	100	432798	62.5	50.9	
20 112TCTFE	101	3.586	3.593	-0.007	91	168015	5.00	3.31	
21 Isopropyl alcohol	45	3.733	3.727	0.006	31	39222	37.5	51.2	
22 Iodomethane	142	3.739	3.739	0.000	98	436372	5.00	4.92	
23 Ethyl bromide	108	3.763	3.769	-0.006	98	209019	4.99	4.85	
24 Carbon disulfide	76	3.848	3.849	-0.001	99	679608	5.00	5.47	
26 Methyl acetate	43	3.989	3.989	0.000	98	115847	5.00	3.98	M
27 3-Chloro-1-propene	41	4.019	4.013	0.006	94	431660	5.00	5.50	
* 28 t-Butyl alcohol-d10 (IS)	65	4.208	4.190	0.018	53	93825	50.0	50.0	
29 Methylene Chloride	84	4.202	4.202	0.000	94	257732	5.00	4.78	
30 2-Methyl-2-propanol	59	4.324	4.324	0.000	99	93260	50.0	47.0	
31 Acrylonitrile	53	4.537	4.544	-0.007	98	247063	25.0	21.5	
32 Methyl tert-butyl ether	73	4.604	4.611	-0.007	96	560715	5.00	5.07	
33 trans-1,2-Dichloroethene	96	4.629	4.623	0.006	98	257594	5.00	4.73	
34 Hexane	57	5.043	5.050	-0.007	93	221555	5.00	3.08	
35 1,1-Dichloroethane	63	5.275	5.275	0.000	96	499570	5.00	4.98	
37 Isopropyl ether	45	5.330	5.336	-0.006	95	874172	5.00	5.29	
38 2-Chloro-1,3-butadiene	53	5.385	5.385	0.000	91	430059	5.00	5.21	
39 Tert-butyl ethyl ether	59	5.860	5.860	0.000	98	757307	5.00	5.37	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
41 2-Butanone (MEK)	43	6.061	6.056	0.005	100	807734	62.5	51.9	
42 cis-1,2-Dichloroethene	96	6.104	6.098	0.006	83	295479	5.00	4.98	
43 2,2-Dichloropropane	77	6.122	6.123	-0.001	90	402427	5.00	4.88	
45 Propionitrile	54	6.147	6.147	0.000	99	138137	37.5	34.6	
47 Methacrylonitrile	67	6.366	6.366	0.000	92	488509	37.5	27.5	
48 Chlorobromomethane	128	6.427	6.434	-0.007	97	122379	5.00	4.92	
49 Tetrahydrofuran	71	6.439	6.434	0.005	84	86807	25.0	20.0	
50 Chloroform	83	6.580	6.580	0.000	93	472364	5.00	4.83	
\$ 51 Dibromofluoromethane (Surr)	113	6.793	6.793	0.000	94	477964	10.0	9.56	
52 1,1,1-Trichloroethane	97	6.817	6.812	0.005	98	409039	5.00	4.54	
53 Cyclohexane	56	6.915	6.915	0.000	91	383066	5.00	3.96	
55 1,1-Dichloropropene	75	7.025	7.019	0.006	97	394078	5.00	4.95	
56 Carbon tetrachloride	117	7.025	7.025	0.000	97	347836	5.00	4.43	
57 Isobutyl alcohol	41	7.153	7.153	0.000	94	100241	125.0	120.1	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.250	7.244	0.006	98	94893	10.0	10.2	
59 Benzene	78	7.281	7.281	0.000	97	1154217	5.00	5.05	
60 1,2-Dichloroethane	62	7.354	7.348	0.006	97	274331	5.00	4.81	
62 Tert-amyl methyl ether	73	7.470	7.464	0.006	99	637442	5.00	5.40	
* 65 Fluorobenzene (IS)	96	7.683	7.683	0.000	98	1895982	10.0	10.0	
64 n-Heptane	43	7.695	7.695	0.000	93	240593	5.00	3.17	
66 n-Butanol	56	8.031	8.025	0.006	87	183829	250.0	330.3	
67 Trichloroethene	95	8.159	8.159	0.000	99	295141	5.00	4.91	
68 Methylcyclohexane	83	8.476	8.470	0.006	92	345657	5.00	3.39	
70 1,2-Dichloropropane	63	8.488	8.488	0.000	96	299666	5.00	5.21	
69 2-ethoxy-2-methyl butane	87	8.494	8.494	0.000	95	387435	5.00	6.26	
71 Methyl methacrylate	69	8.567	8.567	0.000	91	118081	5.00	3.66	
72 1,4-Dioxane	88	8.579	8.579	0.000	33	20815	125.0	125.5	
73 Dibromomethane	93	8.604	8.598	0.006	97	125879	5.00	4.91	
75 Dichlorobromomethane	83	8.829	8.829	0.000	99	334263	5.00	5.19	
76 2-Nitropropane	41	9.097	9.092	0.005	96	30120	5.00	3.43	
79 1-Bromo-2-chloroethane	63	9.225	9.226	-0.001	98	294430	5.00	5.80	
80 cis-1,3-Dichloropropene	75	9.378	9.378	0.000	96	413336	5.00	5.08	
81 4-Methyl-2-pentanone (MIBK)	43	9.543	9.543	-0.001	97	1989353	62.5	46.9	
\$ 82 Toluene-d8 (Surr)	98	9.683	9.683	0.000	93	2035521	10.0	10.1	
83 Toluene	92	9.762	9.762	0.000	98	734630	5.00	5.09	
85 trans-1,3-Dichloropropene	75	10.012	10.012	0.000	93	335459	5.00	5.39	
86 Ethyl methacrylate	69	10.073	10.073	0.000	90	252769	5.00	5.40	
87 1,1,2-Trichloroethane	97	10.219	10.219	0.000	90	186481	5.00	5.23	
88 Tetrachloroethene	166	10.311	10.311	0.000	98	326590	5.00	4.75	
89 1,3-Dichloropropane	76	10.384	10.378	0.006	89	332627	5.00	5.28	
91 2-Hexanone	43	10.426	10.427	-0.001	98	1423821	62.5	49.6	
93 Chlorodibromomethane	129	10.597	10.597	0.000	90	221443	5.00	5.41	
94 Ethylene Dibromide	107	10.707	10.707	0.000	98	173055	5.00	5.05	
* 97 Chlorobenzene-d5 (IS)	117	11.134	11.134	0.000	86	1546060	10.0	10.0	
96 1-Chlorohexane	91	11.146	11.140	0.006	98	408000	5.00	4.75	
98 Chlorobenzene	112	11.164	11.158	0.006	95	781567	5.00	4.92	
99 1,1,1,2-Tetrachloroethane	131	11.243	11.244	-0.001	95	254505	5.00	4.74	
100 Ethylbenzene	91	11.249	11.250	-0.001	98	1395818	5.00	5.02	
101 m-Xylene & p-Xylene	106	11.359	11.359	0.000	98	1084175	10.0	10.0	
102 o-Xylene	106	11.688	11.689	-0.001	97	515453	5.00	4.88	
103 Styrene	104	11.707	11.701	0.006	95	854419	5.00	5.12	
104 Bromoform	173	11.865	11.859	0.006	97	126339	5.00	5.94	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
105 Isopropylbenzene	105	11.987	11.987	0.000	96	1398043	5.00	5.03	
\$ 108 4-Bromofluorobenzene (Surr)	95	12.133	12.128	0.005	91	780133	10.0	10.0	
109 1,1,2,2-Tetrachloroethane	83	12.231	12.231	0.000	93	223905	5.00	5.38	
111 Bromobenzene	156	12.249	12.249	0.000	95	315113	5.00	5.07	
110 trans-1,4-Dichloro-2-butene	53	12.255	12.256	-0.001	89	237548	25.0	17.7	
112 1,2,3-Trichloropropane	110	12.274	12.274	0.000	82	55993	5.00	5.00	
113 N-Propylbenzene	91	12.316	12.317	-0.001	99	1649022	5.00	5.21	
114 2-Chlorotoluene	126	12.390	12.390	0.000	97	319206	5.00	4.99	
115 1,3,5-Trimethylbenzene	105	12.450	12.451	-0.001	94	1149519	5.00	5.10	
116 4-Chlorotoluene	126	12.481	12.481	0.000	98	328861	5.00	5.08	
118 tert-Butylbenzene	134	12.688	12.688	0.000	93	246137	5.00	4.87	
119 Pentachloroethane	167	12.725	12.725	0.000	92	187837	5.00	4.99	
120 1,2,4-Trimethylbenzene	105	12.731	12.731	0.000	97	1178298	5.00	5.06	
121 sec-Butylbenzene	105	12.853	12.853	0.000	94	1494290	5.00	5.23	
122 1,3-Dichlorobenzene	146	12.950	12.951	-0.001	98	623015	5.00	4.96	
123 4-Isopropyltoluene	119	12.963	12.957	0.006	97	1277961	5.00	5.18	
* 124 1,4-Dichlorobenzene-d4	152	13.005	13.005	0.000	95	858599	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.024	13.024	0.000	95	628431	5.00	5.03	
126 1,2,3-Trimethylbenzene	120	13.036	13.036	0.000	98	493585	5.00	4.86	
127 Benzyl chloride	126	13.103	13.103	0.000	99	81202	5.00	6.27	
129 p-Diethylbenzene	119	13.158	13.158	0.000	91	735151	5.00	5.11	
130 n-Butylbenzene	92	13.249	13.249	0.000	96	617743	5.00	5.30	
131 1,2-Dichlorobenzene	146	13.286	13.286	0.000	99	557908	5.00	4.89	
134 1,2-Dibromo-3-Chloropropane	155	13.822	13.822	0.000	85	27803	5.00	5.08	
135 1,3,5-Trichlorobenzene	180	13.950	13.950	0.000	98	477868	5.00	5.12	
136 1,2,4-Trichlorobenzene	180	14.371	14.371	0.000	94	400661	5.00	5.07	
137 Hexachlorobutadiene	225	14.450	14.450	0.000	96	194258	5.00	5.19	
138 Naphthalene	128	14.548	14.548	0.000	97	666959	5.00	4.93	
139 1,2,3-Trichlorobenzene	180	14.688	14.688	0.000	96	344460	5.00	4.91	
140 2-Methylnaphthalene	142	15.310	15.310	0.000	92	405548	5.00	5.31	

## QC Flag Legend

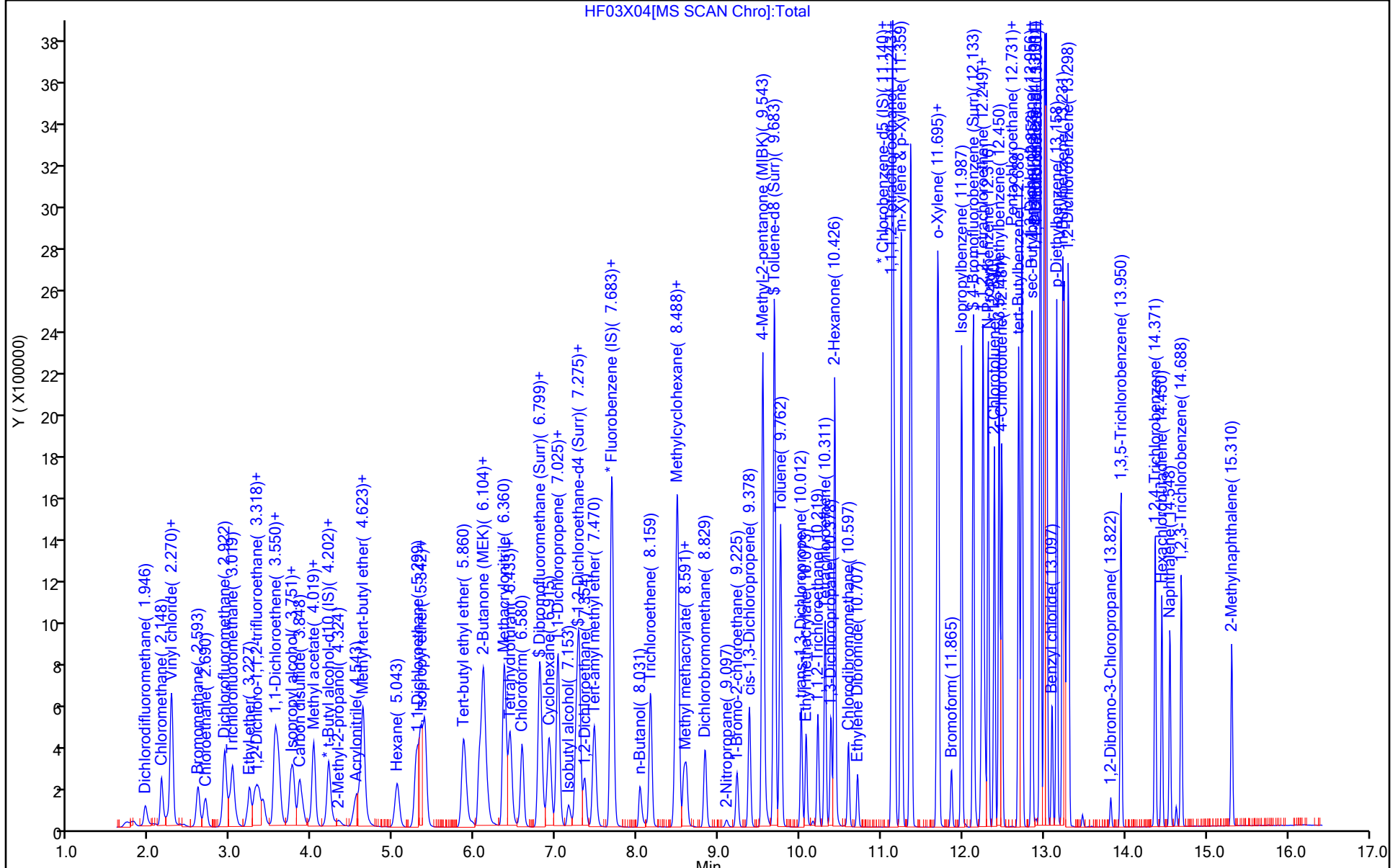
Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

MSV_LCS_VOC#1_00038	Amount Added: 12.50	Units: uL	
MSV_LCS_EE_00001	Amount Added: 12.50	Units: uL	
MSV_LCS_ETBR_00001	Amount Added: 12.50	Units: uL	
MSV_QC_Gas826_00063	Amount Added: 12.50	Units: uL	
MSV_LCS_ACROL_00041	Amount Added: 12.50	Units: uL	
MSV_LCS_Penta_00011	Amount Added: 12.50	Units: uL	
MSV_LLcentlSS_00002	Amount Added: 5.00	Units: uL	Run Reagent





Eurofins Lancaster Laboratories Env, LLC  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X04.D  
 Lims ID: LCSD  
 Client ID:  
 Sample Type: LCSD  
 Inject. Date: 03-Feb-2022 11:01:30 ALS Bottle#: 4 Worklist Smp#: 5  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0049665-005  
 Misc. Info.: LCSD  
 Operator ID: KNK41612 Instrument ID: 19094  
 Method: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\MSV\_19094\_25mL.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 11:31:17 Calib Date: 21-Dec-2021 20:38:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21117.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1621

First Level Reviewer: kephartk Date: 03-Feb-2022 11:31:17

Compound	Amount Added	Amount Recovered	% Rec.
\$ 51 Dibromofluoromethane (Surr)	10.0	9.56	95.56
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.2	101.78
\$ 82 Toluene-d8 (Surr)	10.0	10.1	101.36
\$ 108 4-Bromofluorobenzene (Surr)	10.0	10.0	100.39

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCSD 410-220519/5  
 Matrix: Water Lab File ID: IF03X04.D  
 Analysis Method: 8260D Date Collected: \_\_\_\_\_  
 Sample wt/vol: 25 (mL) Date Analyzed: 02/03/2022 10:14  
 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.: 220519 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.38		0.50	0.070
71-55-6	1,1,1-Trichloroethane	5.03		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	5.96		0.50	0.070
79-00-5	1,1,2-Trichloroethane	5.84		0.50	0.060
75-34-3	1,1-Dichloroethane	5.31		0.50	0.070
75-35-4	1,1-Dichloroethene	5.39		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	5.80		0.50	0.060
107-06-2	1,2-Dichloroethane	5.33		0.50	0.050
78-87-5	1,2-Dichloropropane	5.98		0.50	0.060
78-93-3	2-Butanone (MEK)	63.5		5.0	0.60
591-78-6	2-Hexanone	63.8		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	61.1		5.0	0.70
67-64-1	Acetone	55.4		5.0	0.90
71-43-2	Benzene	5.59		0.50	0.050
74-97-5	Bromochloromethane	5.64		0.50	0.050
75-27-4	Bromodichloromethane	5.82		0.50	0.050
75-25-2	Bromoform	5.96		1.0	0.30
74-83-9	Bromomethane	4.47		0.50	0.070
75-15-0	Carbon disulfide	5.33		1.0	0.060
56-23-5	Carbon tetrachloride	5.26		0.50	0.070
108-90-7	Chlorobenzene	5.42		0.50	0.060
75-00-3	Chloroethane	4.61		0.50	0.070
67-66-3	Chloroform	5.27		0.50	0.090
74-87-3	Chloromethane	5.03		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	5.46		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	5.82		0.50	0.050
124-48-1	Dibromochloromethane	5.85		0.50	0.070
100-41-4	Ethylbenzene	5.38		0.50	0.060
1634-04-4	Methyl tert-butyl ether	5.29		0.50	0.050
75-09-2	Methylene Chloride	5.38		0.50	0.070
100-42-5	Styrene	5.33		0.50	0.050
127-18-4	Tetrachloroethene	5.44		0.50	0.060
108-88-3	Toluene	5.39		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	5.18		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	6.00		0.50	0.060
79-01-6	Trichloroethene	5.44		0.50	0.060

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCSD 410-220519/5  
 Matrix: Water Lab File ID: IF03X04.D  
 Analysis Method: 8260D Date Collected: \_\_\_\_\_  
 Sample wt/vol: 25 (mL) Date Analyzed: 02/03/2022 10:14  
 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.: 220519 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	4.75		0.50	0.10
1330-20-7	Xylenes, Total	15.8		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		80-120
460-00-4	4-Bromofluorobenzene (Surr)	98		80-120
1868-53-7	Dibromofluoromethane (Surr)	100		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03X04.D  
 Lims ID: LCSD  
 Client ID:  
 Sample Type: LCSD  
 Inject. Date: 03-Feb-2022 10:14:30 ALS Bottle#: 4 Worklist Smp#: 5  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0049668-005  
 Misc. Info.: LCSD  
 Operator ID: KNK41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 10:54:28 Calib Date: 24-Aug-2021 02:52:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23107.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1621

First Level Reviewer: kephartk

Date: 03-Feb-2022 10:50:03

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	1.965	-0.012	99	256239	5.00	4.27	
4 Chloromethane	50	2.154	2.166	-0.012	99	343811	5.00	5.03	
5 Vinyl chloride	62	2.270	2.282	-0.012	98	327357	5.00	4.75	
6 Butadiene	39	2.282	2.294	-0.012	91	350133	5.00	5.58	
7 Bromomethane	94	2.611	2.629	-0.018	90	223156	5.00	4.47	
8 Chloroethane	64	2.696	2.702	-0.006	100	190300	5.00	4.61	
9 Dichlorofluoromethane	67	2.934	2.946	-0.012	97	458807	5.00	4.62	
10 Trichlorofluoromethane	101	2.995	3.013	-0.018	97	414208	5.00	4.66	
11 Ethyl ether	59	3.245	3.257	-0.012	90	219921	4.97	6.10	M
12 1,2-Dichloro-1,1,2-trifluoroethane	67	3.330	3.343	-0.013	92	332031	5.00	5.22	
13 Acrolein	56	3.422	3.428	-0.006	98	226971	37.5	29.0	
14 1,1-Dichloroethene	96	3.562	3.568	-0.006	98	246695	5.00	5.39	
15 Acetone	43	3.592	3.599	-0.007	100	550837	62.5	55.4	M
16 112TCTFE	101	3.599	3.605	-0.006	88	212614	5.00	4.45	
17 Iodomethane	142	3.757	3.769	-0.012	99	457033	5.00	4.99	
18 Ethyl bromide	108	3.788	3.794	-0.006	97	217110	4.99	5.20	
19 Carbon disulfide	76	3.861	3.873	-0.012	99	673910	5.00	5.33	
21 Methyl acetate	43	4.019	4.019	0.000	97	159817	5.00	5.46	M
22 3-Chloro-1-propene	41	4.044	4.050	-0.006	93	416893	5.00	5.55	
23 Methylene Chloride	84	4.227	4.239	-0.013	92	268755	5.00	5.38	
* 24 t-Butyl alcohol-d10 (IS)	65	4.245	4.245	0.000	95	178957	50.0	50.0	M
25 2-Methyl-2-propanol	59	4.385	4.403	-0.018	99	176098	50.0	46.7	
26 Acrylonitrile	53	4.562	4.580	-0.018	99	309577	25.0	23.4	
27 Methyl tert-butyl ether	73	4.635	4.647	-0.012	94	690891	5.00	5.29	
28 trans-1,2-Dichloroethene	96	4.647	4.659	-0.012	99	269293	5.00	5.18	
29 Hexane	57	5.068	5.080	-0.012	92	304774	5.00	4.20	
31 1,1-Dichloroethane	63	5.306	5.312	-0.006	96	500908	5.00	5.31	
32 Isopropyl ether	45	5.373	5.373	0.000	95	869238	5.00	5.51	
33 2-Chloro-1,3-butadiene	53	5.415	5.421	-0.006	90	429372	5.00	5.46	
34 Tert-butyl ethyl ether	59	5.897	5.903	-0.006	97	829910	5.00	5.38	
36 2-Butanone (MEK)	43	6.092	6.104	-0.012	100	1101471	62.5	63.5	

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	6.135	6.141	-0.006	82	316538	5.00	5.46	
38 2,2-Dichloropropane	77	6.147	6.159	-0.012	86	428564	5.00	5.22	
40 Propionitrile	54	6.183	6.190	-0.007	97	187091	37.5	40.6	
42 Methacrylonitrile	67	6.397	6.403	-0.006	92	624416	37.5	35.8	
43 Chlorobromomethane	128	6.464	6.470	-0.006	94	140935	5.00	5.64	
44 Tetrahydrofuran	71	6.476	6.482	-0.006	86	117743	25.0	22.9	
45 Chloroform	83	6.610	6.616	-0.006	93	492262	5.00	5.27	
\$ 46 Dibromofluoromethane (Surr)	113	6.824	6.830	-0.006	94	483804	10.0	10.0	
47 1,1,1-Trichloroethane	97	6.836	6.848	-0.012	97	436926	5.00	5.03	
48 Cyclohexane	56	6.939	6.945	-0.006	90	410812	5.00	4.77	
51 1,1-Dichloropropene	75	7.049	7.055	-0.006	96	406298	5.00	5.55	
50 Carbon tetrachloride	117	7.055	7.055	0.000	80	394179	5.00	5.26	
52 Isobutyl alcohol	41	7.195	7.202	-0.007	94	166852	125.0	138.8	
\$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.281	7.275	0.006	95	96443	10.0	9.98	
54 Benzene	78	7.311	7.311	0.000	96	1205021	5.00	5.59	
56 1,2-Dichloroethane	62	7.384	7.384	0.000	97	311533	5.00	5.33	
57 Tert-amyl methyl ether	73	7.500	7.506	-0.006	99	756979	5.00	5.29	
* 58 Fluorobenzene (IS)	96	7.714	7.714	0.000	99	1918302	10.0	10.0	
59 n-Heptane	43	7.720	7.726	-0.006	92	331965	5.00	4.45	
60 n-Butanol	56	8.079	8.073	0.006	88	305790	250.0	274.0	
61 Trichloroethene	95	8.189	8.189	0.000	97	315414	5.00	5.44	
62 Methylcyclohexane	83	8.494	8.500	-0.006	92	428833	5.00	4.45	
63 1,2-Dichloropropane	63	8.518	8.518	0.000	96	316784	5.00	5.98	
64 Methyl methacrylate	69	8.598	8.598	0.000	91	162899	5.00	4.75	
65 1,4-Dioxane	88	8.616	8.610	0.006	32	39654	125.0	118.6	M
66 Dibromomethane	93	8.628	8.628	0.000	93	147659	5.00	5.70	
68 Dichlorobromomethane	83	8.860	8.860	0.000	100	374025	5.00	5.82	
69 2-Nitropropane	41	9.128	9.122	0.006	98	45760	5.00	4.67	
72 1-Bromo-2-chloroethane	63	9.250	9.250	0.000	98	349980	5.00	6.73	
73 cis-1,3-Dichloropropene	75	9.402	9.402	0.000	97	469202	5.00	5.82	
74 4-Methyl-2-pentanone (MIBK)	43	9.573	9.573	0.000	96	2669424	62.5	61.1	
\$ 75 Toluene-d8 (Surr)	98	9.707	9.713	-0.006	93	2017501	10.0	10.1	
76 Toluene	92	9.786	9.786	0.000	98	795252	5.00	5.39	
78 trans-1,3-Dichloropropene	75	10.036	10.042	-0.006	92	408547	5.00	6.00	
79 Ethyl methacrylate	69	10.103	10.097	0.006	89	317921	5.00	5.59	
80 1,1,2-Trichloroethane	97	10.244	10.244	0.000	90	230143	5.00	5.84	
81 Tetrachloroethene	166	10.335	10.335	0.000	97	382838	5.00	5.44	
82 1,3-Dichloropropane	76	10.402	10.402	0.000	89	393566	5.00	5.88	
83 2-Hexanone	43	10.451	10.451	0.000	97	1951916	62.5	63.8	
85 Chlorodibromomethane	129	10.616	10.616	0.000	90	280912	5.00	5.85	
86 Ethylene Dibromide	107	10.731	10.731	0.000	98	220421	5.00	5.80	
* 87 Chlorobenzene-d5 (IS)	117	11.158	11.158	0.000	85	1540515	10.0	10.0	
88 1-Chlorohexane	91	11.164	11.164	0.000	97	453409	5.00	5.25	
90 Chlorobenzene	112	11.182	11.182	0.000	95	885798	5.00	5.42	
91 1,1,1,2-Tetrachloroethane	131	11.262	11.262	0.000	95	307147	5.00	5.38	
92 Ethylbenzene	91	11.268	11.268	0.000	98	1530522	5.00	5.38	
93 m-Xylene & p-Xylene	106	11.384	11.384	0.000	100	1203791	10.0	10.7	
94 o-Xylene	106	11.707	11.707	0.000	96	563445	5.00	5.08	
95 Styrene	104	11.725	11.725	0.000	95	953658	5.00	5.33	
96 Bromoform	173	11.884	11.884	0.000	98	171272	5.00	5.96	
97 Isopropylbenzene	105	12.005	12.005	0.000	95	1502855	5.00	5.13	
\$ 100 4-Bromofluorobenzene (Surr)	95	12.152	12.152	0.000	94	743787	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
101 1,1,2,2-Tetrachloroethane	83	12.249	12.249	0.000	93	279004	5.00	5.96	
102 Bromobenzene	156	12.268	12.268	0.000	95	368418	5.00	5.74	
103 trans-1,4-Dichloro-2-butene	53	12.274	12.274	0.000	89	282658	25.0	17.9	
104 1,2,3-Trichloropropane	110	12.298	12.292	0.006	83	76263	5.00	5.92	
105 N-Propylbenzene	91	12.335	12.335	0.000	99	1770598	5.00	5.68	
106 2-Chlorotoluene	126	12.414	12.414	0.000	97	356094	5.00	5.57	
107 1,3,5-Trimethylbenzene	105	12.469	12.469	0.000	94	1225128	5.00	5.38	
108 4-Chlorotoluene	126	12.505	12.505	0.000	97	368408	5.00	5.64	
109 tert-Butylbenzene	134	12.713	12.713	0.000	93	282894	5.00	5.67	
110 Pentachloroethane	167	12.743	12.743	0.000	93	232310	5.00	5.76	
111 1,2,4-Trimethylbenzene	105	12.749	12.749	0.000	96	1243260	5.00	5.33	
112 sec-Butylbenzene	105	12.871	12.871	0.000	94	1612823	5.00	5.61	
113 1,3-Dichlorobenzene	146	12.975	12.975	0.000	98	691097	5.00	5.34	
114 4-Isopropyltoluene	119	12.981	12.981	0.000	97	1377904	5.00	5.42	
* 115 1,4-Dichlorobenzene-d4	152	13.030	13.030	0.000	94	847416	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.048	13.048	0.000	95	696827	5.00	5.27	
117 1,2,3-Trimethylbenzene	120	13.054	13.054	0.000	98	545786	5.00	5.29	
118 Benzyl chloride	126	13.121	13.121	0.000	98	111490	5.00	5.82	
119 n-Butylbenzene	92	13.267	13.267	0.000	97	648846	5.00	5.46	
120 1,2-Dichlorobenzene	146	13.304	13.304	0.000	99	622158	5.00	5.26	
122 1,2-Dibromo-3-Chloropropane	155	13.847	13.847	0.000	88	40436	5.00	5.87	
123 1,3,5-Trichlorobenzene	180	13.969	13.969	0.000	97	488523	5.00	5.16	
124 1,2,4-Trichlorobenzene	180	14.389	14.389	0.000	94	403099	5.00	5.04	
125 Hexachlorobutadiene	225	14.475	14.475	0.000	95	168766	5.00	4.86	
126 Naphthalene	128	14.572	14.572	0.000	97	762929	5.00	5.01	
127 1,2,3-Trichlorobenzene	180	14.712	14.712	0.000	96	351725	5.00	5.09	
134 Isopropyl alcohol	45		0.000				ND	ND	
204 Pentane	43		0.000				ND	ND	
144 2-ethoxy-2-methyl butane	1		0.000				ND	ND	
135 p-Diethylbenzene	1		0.000				ND	ND	
137 2-Methylnaphthalene	142		0.000				ND	ND	

### QC Flag Legend

#### Processing Flags

ND - Not Detected or Marked ND

#### Review Flags

M - Manually Integrated

### Reagents:

MSV_LCS_EE_00001	Amount Added: 12.50	Units: uL	
MSV_LCS_ETBR_00001	Amount Added: 12.50	Units: uL	
MSV_LCS_VOC#1_00038	Amount Added: 12.50	Units: uL	
MSV_QC_Gas826_00063	Amount Added: 12.50	Units: uL	
MSV_LCS_ACROL_00041	Amount Added: 12.50	Units: uL	
MSV_LCS_Penta_00011	Amount Added: 12.50	Units: uL	
MSV_LLcentISS_00002	Amount Added: 5.00	Units: uL	Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03X04.D

Injection Date: 03-Feb-2022 10:14:30

Instrument ID: 19930

Operator ID: KNK41612

Lims ID: LCSD

Worklist Smp#: 5

Client ID:

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

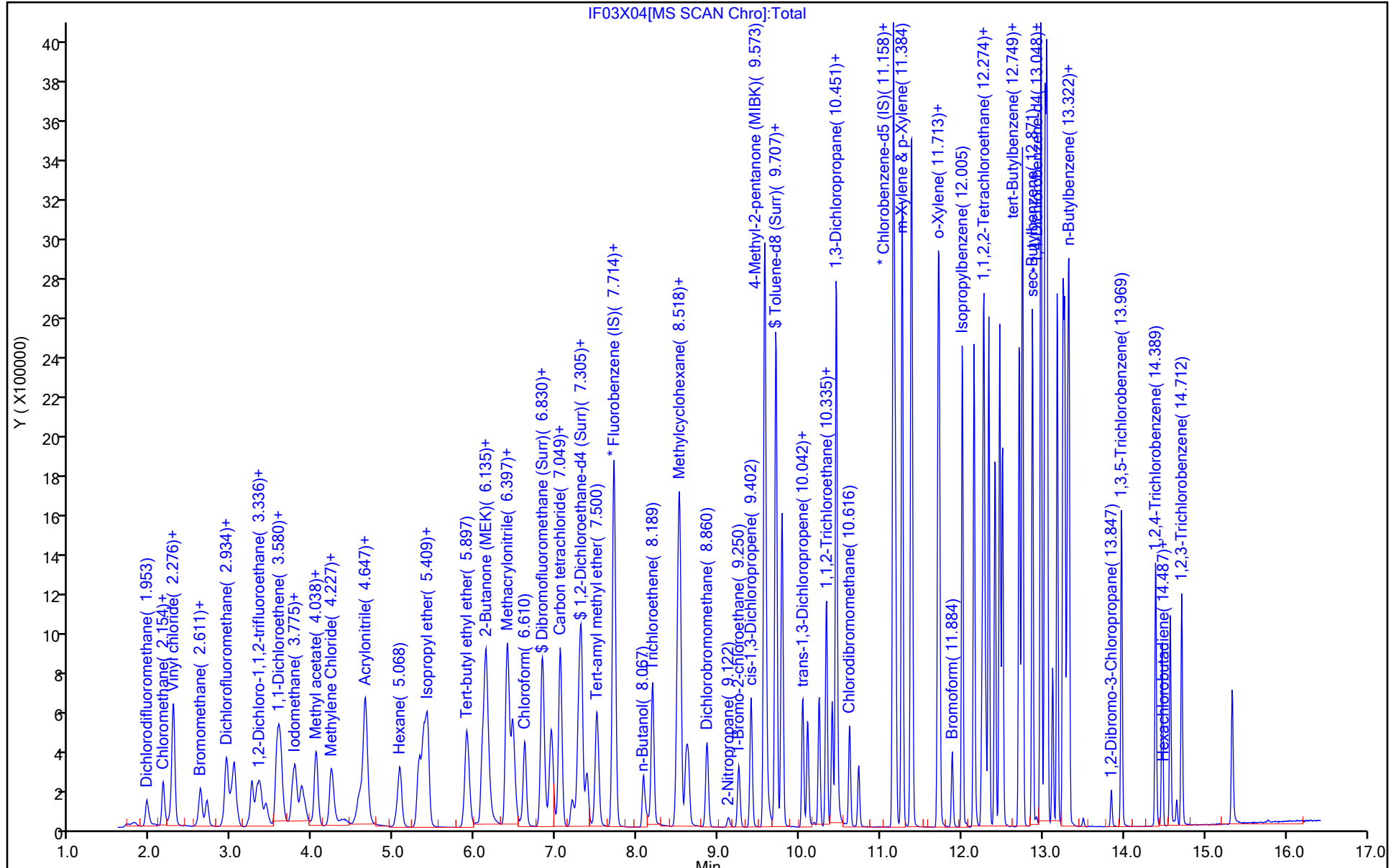
ALS Bottle#: 4

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



Eurofins Lancaster Laboratories Env, LLC  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03X04.D  
 Lims ID: LCSD  
 Client ID:  
 Sample Type: LCSD  
 Inject. Date: 03-Feb-2022 10:14:30 ALS Bottle#: 4 Worklist Smp#: 5  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0049668-005  
 Misc. Info.: LCSD  
 Operator ID: KNK41612 Instrument ID: 19930  
 Method: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\8260 25ml HP31.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 10:54:28 Calib Date: 24-Aug-2021 02:52:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1621

First Level Reviewer: kephartk

Date: 03-Feb-2022 10:50:03

Compound	Amount Added	Amount Recovered	% Rec.
\$ 46 Dibromofluoromethane (Surr)	10.0	10.0	100.12
\$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	9.98	99.76
\$ 75 Toluene-d8 (Surr)	10.0	10.1	101.34
\$ 100 4-Bromofluorobenzene (Surr)	10.0	9.78	97.76



Eurofins Lancaster Laboratories Env, LLC

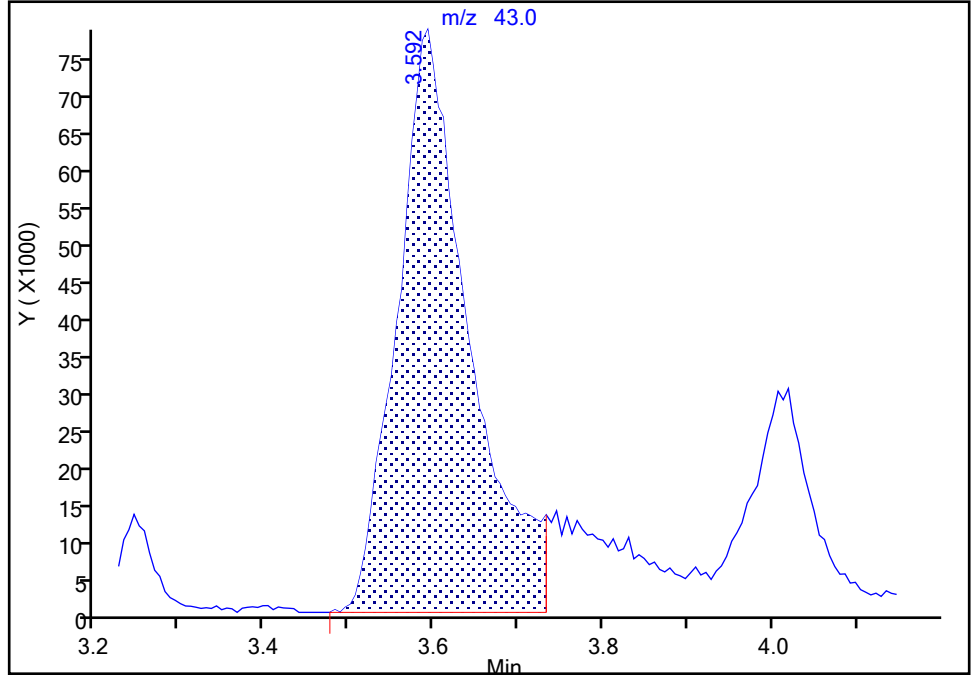
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Injection Date: 03-Feb-2022 10:14:30 Instrument ID: 19930  
Lims ID: LCSD  
Client ID:  
Operator ID: KNK41612 ALS Bottle#: 4 Worklist Smp#: 5  
Purge Vol: 25.000 mL Dil. Factor: 1.0000  
Method: 8260 25ml HP31 Limit Group: MSV - 8260C\_D  
Column: Rxi-624Sil MS Capillary Column ( 0.25mm ID) Detector: MS Quad

15 Acetone, CAS: 67-64-1

Signal: 1

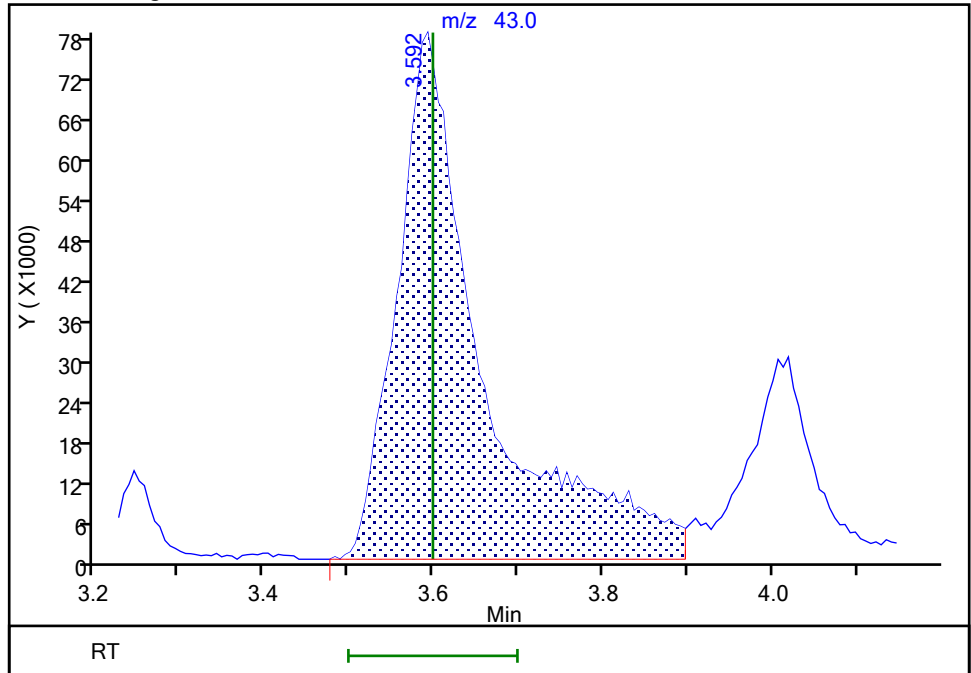
RT: 3.59  
Area: 464448  
Amount: 46.880304  
Amount Units: ug/l

Processing Integration Results



RT: 3.59  
Area: 550837  
Amount: 55.408202  
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 03-Feb-2022 10:47:08  
Audit Action: Assigned New Baseline

Audit Reason: Incomplete Integration

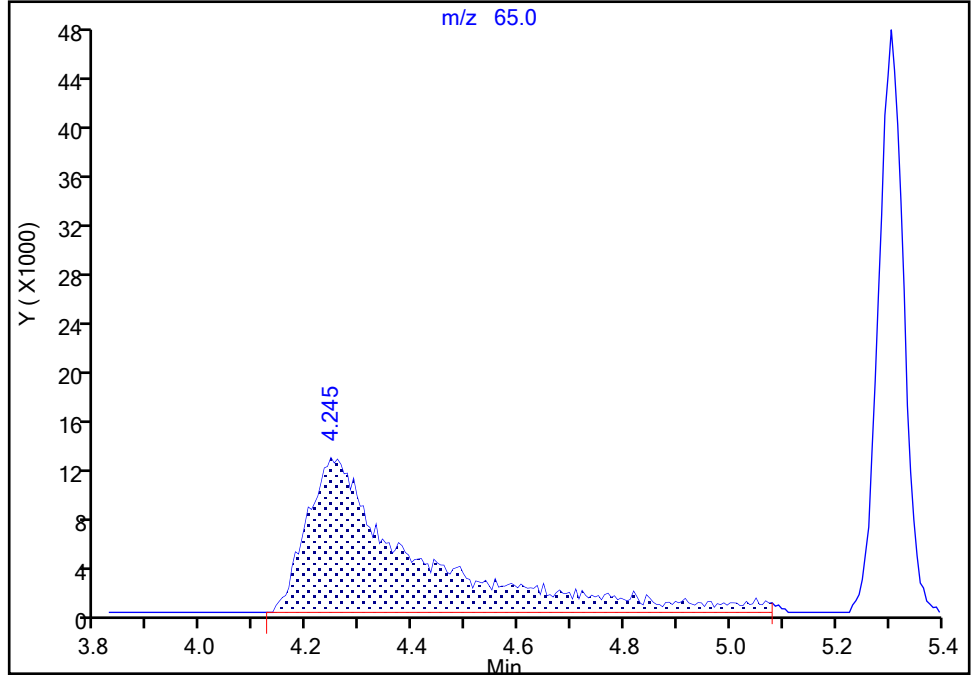
Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20220203-49668.b\IF03X04.D  
Injection Date: 03-Feb-2022 10:14:30 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

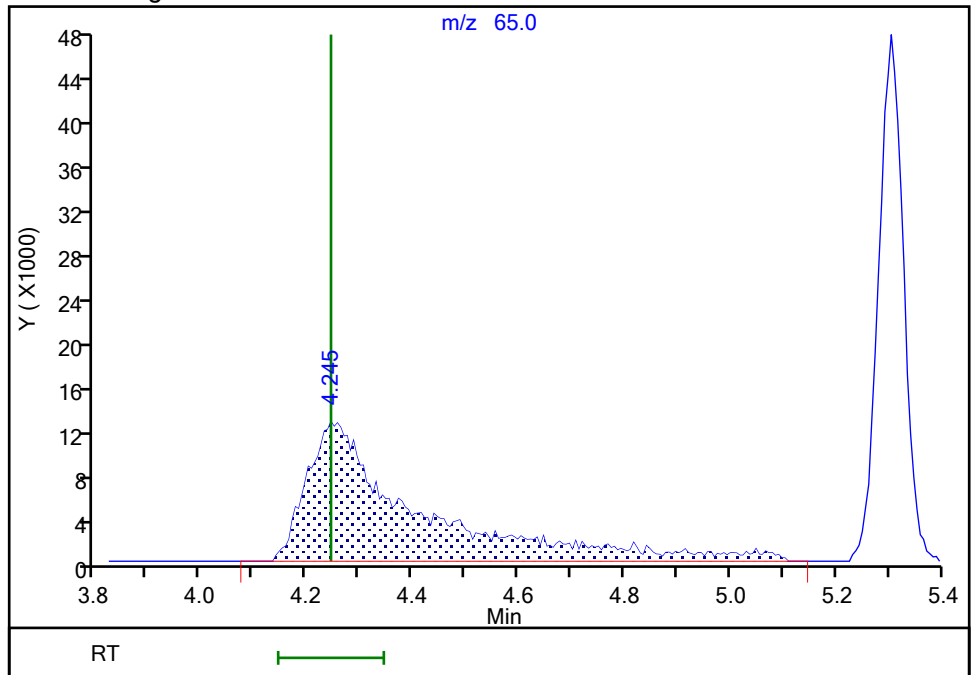
RT: 4.24  
Area: 178339  
Amount: 50.000000  
Amount Units: ug/l

Processing Integration Results



RT: 4.24  
Area: 178957  
Amount: 50.000000  
Amount Units: ug/l

Manual Integration Results



Reviewer: kephartk, 03-Feb-2022 10:47:27  
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration  
Page 870 of 901

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-15-01/1-0 MS MS Lab Sample ID: 410-71043-6 MS  
 Matrix: Water Lab File ID: HF03X20.D  
 Analysis Method: 8260D Date Collected: 01/27/2022 11:45  
 Sample wt/vol: 25 (mL) Date Analyzed: 02/03/2022 16:30  
 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.: 220509 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.96		0.50	0.070
71-55-6	1,1,1-Trichloroethane	5.26		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	5.28		0.50	0.070
79-00-5	1,1,2-Trichloroethane	5.21		0.50	0.060
75-34-3	1,1-Dichloroethane	5.45		0.50	0.070
75-35-4	1,1-Dichloroethene	5.50		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	5.06		0.50	0.060
107-06-2	1,2-Dichloroethane	4.90		0.50	0.050
78-87-5	1,2-Dichloropropane	5.35		0.50	0.060
78-93-3	2-Butanone (MEK)	47.4		5.0	0.60
591-78-6	2-Hexanone	45.8		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	43.8		5.0	0.70
67-64-1	Acetone	48.4		5.0	0.90
71-43-2	Benzene	5.38		0.50	0.050
74-97-5	Bromochloromethane	5.01		0.50	0.050
75-27-4	Bromodichloromethane	5.33		0.50	0.050
75-25-2	Bromoform	5.71		1.0	0.30
74-83-9	Bromomethane	4.96		0.50	0.070
75-15-0	Carbon disulfide	6.03		1.0	0.060
56-23-5	Carbon tetrachloride	5.04		0.50	0.070
108-90-7	Chlorobenzene	5.15		0.50	0.060
75-00-3	Chloroethane	5.46		0.50	0.070
67-66-3	Chloroform	5.41		0.50	0.090
74-87-3	Chloromethane	5.12		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	6.84		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	5.12		0.50	0.050
124-48-1	Dibromochloromethane	5.43		0.50	0.070
100-41-4	Ethylbenzene	5.40		0.50	0.060
1634-04-4	Methyl tert-butyl ether	5.18		0.50	0.050
75-09-2	Methylene Chloride	5.02		0.50	0.070
100-42-5	Styrene	5.32		0.50	0.050
127-18-4	Tetrachloroethene	11.3		0.50	0.060
108-88-3	Toluene	5.38		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	5.27		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	5.29		0.50	0.060
79-01-6	Trichloroethene	6.73		0.50	0.060

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-15-01/1-0 MS MS Lab Sample ID: 410-71043-6 MS  
 Matrix: Water Lab File ID: HF03X20.D  
 Analysis Method: 8260D Date Collected: 01/27/2022 11:45  
 Sample wt/vol: 25 (mL) Date Analyzed: 02/03/2022 16:30  
 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.: 220509 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	5.04		0.50	0.10
1330-20-7	Xylenes, Total	15.8		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		80-120
460-00-4	4-Bromofluorobenzene (Surr)	101		80-120
1868-53-7	Dibromofluoromethane (Surr)	96		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X20.D  
 Lims ID: 410-71043-A-6 MS  
 Client ID: HD-COD-SW-15-01/1-0 MS  
 Sample Type: MS  
 Inject. Date: 03-Feb-2022 16:30:30 ALS Bottle#: 20 Worklist Smp#: 21  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0049665-021  
 Operator ID: KNK41612 Instrument ID: 19094  
 Method: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\MSV\_19094\_25mL.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 17:23:59 Calib Date: 21-Dec-2021 20:38:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21117.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1662

First Level Reviewer: beckerk

Date: 03-Feb-2022 17:24:15

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
3 Dichlorodifluoromethane	85	1.934	1.947	-0.013	99	331896	5.00	5.22	
6 Chloromethane	50	2.135	2.148	-0.013	99	400486	5.00	5.12	
7 Vinyl chloride	62	2.245	2.264	-0.019	98	393357	5.00	5.04	
8 Butadiene	39	2.257	2.270	-0.013	94	457288	5.00	5.76	
9 Bromomethane	94	2.580	2.599	-0.019	91	259605	5.00	4.96	
10 Chloroethane	64	2.666	2.690	-0.024	100	242928	5.00	5.46	
11 Dichlorofluoromethane	67	2.910	2.922	-0.012	97	564615	5.00	5.50	
13 Trichlorofluoromethane	101	2.977	2.995	-0.018	97	488795	5.00	4.99	
15 Ethyl ether	59	3.214	3.227	-0.013	93	198036	4.98	5.73	
16 1,2-Dichloro-1,1,2-trifluoroethane	67	3.312	3.324	-0.012	94	386873	5.00	5.42	
17 Acrolein	56	3.385	3.398	-0.013	96	193443	37.5	22.8	
18 1,1-Dichloroethene	96	3.532	3.544	-0.012	97	289401	5.00	5.50	
19 Acetone	43	3.550	3.562	-0.012	100	445222	62.6	48.4	
20 112TCTFE	101	3.574	3.593	-0.019	92	289692	5.00	5.51	
21 Isopropyl alcohol	45	3.720	3.727	-0.007	27	31550	37.5	39.7	
22 Iodomethane	142	3.720	3.739	-0.019	99	487710	5.00	5.30	
23 Ethyl bromide	108	3.751	3.769	-0.018	98	223308	5.00	5.00	
24 Carbon disulfide	76	3.830	3.849	-0.019	99	777295	5.00	6.03	
26 Methyl acetate	43	3.970	3.989	-0.019	97	122813	5.00	3.90	
27 3-Chloro-1-propene	41	4.001	4.013	-0.012	93	482095	5.00	5.92	
* 28 t-Butyl alcohol-d10 (IS)	65	4.208	4.190	0.018	40	101518	50.0	50.0	
29 Methylene Chloride	84	4.190	4.202	-0.012	94	280784	5.00	5.02	
30 2-Methyl-2-propanol	59	4.312	4.324	-0.012	99	89620	50.0	41.8	
31 Acrylonitrile	53	4.519	4.544	-0.025	98	253364	25.0	20.4	
32 Methyl tert-butyl ether	73	4.598	4.611	-0.013	95	593048	5.00	5.18	
33 trans-1,2-Dichloroethene	96	4.611	4.623	-0.012	98	297723	5.00	5.27	
34 Hexane	57	5.037	5.050	-0.013	92	446888	5.00	5.99	
35 1,1-Dichloroethane	63	5.263	5.275	-0.012	96	567317	5.00	5.45	
37 Isopropyl ether	45	5.324	5.336	-0.012	96	932070	5.00	5.44	
38 2-Chloro-1,3-butadiene	53	5.373	5.385	-0.012	91	499366	5.00	5.83	
39 Tert-butyl ethyl ether	59	5.848	5.860	-0.012	98	792605	5.00	5.42	
41 2-Butanone (MEK)	43	6.043	6.056	-0.013	100	799483	62.6	47.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
42 cis-1,2-Dichloroethene	96	6.092	6.098	-0.006	82	421031	5.00	6.84	
43 2,2-Dichloropropane	77	6.110	6.123	-0.013	87	447480	5.00	5.23	
45 Propionitrile	54	6.141	6.147	-0.006	99	126462	37.5	29.3	
47 Methacrylonitrile	67	6.354	6.366	-0.012	92	487932	37.5	25.4	
48 Chlorobromomethane	128	6.421	6.434	-0.013	95	129178	5.00	5.01	
49 Tetrahydrofuran	71	6.427	6.434	-0.007	83	86993	25.0	18.6	
50 Chloroform	83	6.574	6.580	-0.006	93	548626	5.00	5.41	
\$ 51 Dibromofluoromethane (Surr)	113	6.787	6.793	-0.006	94	500147	10.0	9.64	
52 1,1,1-Trichloroethane	97	6.805	6.812	-0.007	99	490521	5.00	5.26	
53 Cyclohexane	56	6.909	6.915	-0.006	91	566106	5.00	5.65	
55 1,1-Dichloropropene	75	7.013	7.019	-0.006	97	456343	5.00	5.53	
56 Carbon tetrachloride	117	7.019	7.025	-0.006	96	410087	5.00	5.04	
57 Isobutyl alcohol	41	7.159	7.153	0.006	94	97237	125.1	107.6	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.238	7.244	-0.006	96	100420	10.0	10.4	
59 Benzene	78	7.275	7.281	-0.006	97	1275730	5.00	5.38	
60 1,2-Dichloroethane	62	7.342	7.348	-0.006	97	289436	5.00	4.90	
62 Tert-amyl methyl ether	73	7.458	7.464	-0.006	99	662042	5.00	5.41	
* 65 Fluorobenzene (IS)	96	7.677	7.683	-0.006	97	1965768	10.0	10.0	
64 n-Heptane	43	7.689	7.695	-0.006	93	479190	5.00	6.09	
66 n-Butanol	56	8.025	8.025	0.000	89	179327	250.2	297.8	
67 Trichloroethene	95	8.153	8.159	-0.006	99	419663	5.00	6.73	
68 Methylcyclohexane	83	8.470	8.470	0.000	93	590878	5.00	5.60	
70 1,2-Dichloropropane	63	8.488	8.488	0.000	94	318966	5.00	5.35	
69 2-ethoxy-2-methyl butane	87	8.494	8.494	0.000	95	410370	5.00	6.40	
71 Methyl methacrylate	69	8.567	8.567	0.000	91	123295	5.00	3.53	
72 1,4-Dioxane	88	8.579	8.579	0.000	32	19752	125.1	110.0	
73 Dibromomethane	93	8.591	8.598	-0.007	97	130972	5.00	4.93	
75 Dichlorobromomethane	83	8.829	8.829	0.000	99	355821	5.00	5.33	
76 2-Nitropropane	41	9.091	9.092	-0.001	97	28468	5.00	3.00	
79 1-Bromo-2-chloroethane	63	9.219	9.226	-0.007	99	302584	5.00	5.75	
80 cis-1,3-Dichloropropene	75	9.372	9.378	-0.006	96	432323	5.00	5.12	
81 4-Methyl-2-pentanone (MIBK)	43	9.543	9.543	0.000	97	2011711	62.6	43.8	
\$ 82 Toluene-d8 (Surr)	98	9.683	9.683	0.000	93	2093209	10.0	10.1	
83 Toluene	92	9.756	9.762	-0.006	98	802674	5.00	5.38	
85 trans-1,3-Dichloropropene	75	10.012	10.012	0.000	93	340511	5.00	5.29	
86 Ethyl methacrylate	69	10.073	10.073	0.000	91	256472	5.00	5.30	
87 1,1,2-Trichloroethane	97	10.219	10.219	0.000	90	192002	5.00	5.21	
88 Tetrachloroethene	166	10.305	10.311	-0.006	98	800042	5.00	11.3	
89 1,3-Dichloropropane	76	10.378	10.378	0.000	90	338480	5.00	5.20	
91 2-Hexanone	43	10.426	10.427	-0.001	97	1423810	62.6	45.8	
93 Chlorodibromomethane	129	10.591	10.597	-0.006	90	229612	5.00	5.43	
94 Ethylene Dibromide	107	10.707	10.707	0.000	98	179100	5.00	5.06	
* 97 Chlorobenzene-d5 (IS)	117	11.134	11.134	0.000	86	1597666	10.0	10.0	
96 1-Chlorohexane	91	11.140	11.140	0.000	98	477277	5.00	5.38	
98 Chlorobenzene	112	11.158	11.158	0.000	95	845683	5.00	5.15	
99 1,1,1,2-Tetrachloroethane	131	11.243	11.244	-0.001	96	275415	5.00	4.96	
100 Ethylbenzene	91	11.243	11.250	-0.007	98	1550330	5.00	5.40	
101 m-Xylene & p-Xylene	106	11.359	11.359	0.000	98	1192296	10.0	10.7	
102 o-Xylene	106	11.688	11.689	-0.001	97	560540	5.00	5.13	
103 Styrene	104	11.701	11.701	0.000	95	916754	5.00	5.32	
104 Bromoform	173	11.859	11.859	0.000	97	125677	5.00	5.71	
105 Isopropylbenzene	105	11.987	11.987	0.000	96	1555718	5.00	5.41	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
\$ 108 4-Bromofluorobenzene (Surr)	95	12.133	12.128	0.005	92	810525	10.0	10.1	
109 1,1,2,2-Tetrachloroethane	83	12.225	12.231	-0.006	94	226272	5.00	5.28	
111 Bromobenzene	156	12.249	12.249	0.000	96	341654	5.00	5.34	
110 trans-1,4-Dichloro-2-butene	53	12.255	12.256	-0.001	92	215023	25.0	14.8	
112 1,2,3-Trichloropropane	110	12.274	12.274	0.000	83	58254	5.00	5.05	
113 N-Propylbenzene	91	12.310	12.317	-0.007	99	1846549	5.00	5.67	
114 2-Chlorotoluene	126	12.390	12.390	0.000	97	350627	5.00	5.32	
115 1,3,5-Trimethylbenzene	105	12.450	12.451	-0.001	94	1270119	5.00	5.48	
116 4-Chlorotoluene	126	12.481	12.481	0.000	98	357328	5.00	5.37	
118 tert-Butylbenzene	134	12.688	12.688	0.000	93	275757	5.00	5.30	
119 Pentachloroethane	167	12.725	12.725	0.000	90	191026	5.00	4.93	
120 1,2,4-Trimethylbenzene	105	12.731	12.731	0.000	97	1281721	5.00	5.35	
121 sec-Butylbenzene	105	12.853	12.853	0.000	94	1712452	5.00	5.83	
122 1,3-Dichlorobenzene	146	12.950	12.951	-0.001	98	677437	5.00	5.24	
123 4-Isopropyltoluene	119	12.956	12.957	-0.001	97	1444116	5.00	5.68	
* 124 1,4-Dichlorobenzene-d4	152	13.005	13.005	0.000	98	883824	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.024	13.024	0.000	94	674435	5.00	5.25	
126 1,2,3-Trimethylbenzene	120	13.036	13.036	0.000	98	531399	5.00	5.08	
127 Benzyl chloride	126	13.103	13.103	0.000	98	80613	5.00	6.05	
129 p-Diethylbenzene	119	13.158	13.158	0.000	92	833630	5.00	5.63	
130 n-Butylbenzene	92	13.249	13.249	0.000	98	720302	5.00	6.00	
131 1,2-Dichlorobenzene	146	13.280	13.286	-0.006	99	594613	5.00	5.06	
134 1,2-Dibromo-3-Chloropropane	155	13.822	13.822	0.000	84	28678	5.00	5.09	
135 1,3,5-Trichlorobenzene	180	13.950	13.950	0.000	98	520874	5.00	5.42	
136 1,2,4-Trichlorobenzene	180	14.371	14.371	0.000	94	418892	5.00	5.14	
137 Hexachlorobutadiene	225	14.450	14.450	0.000	96	234363	5.00	6.08	
138 Naphthalene	128	14.548	14.548	0.000	97	680487	5.00	4.89	
139 1,2,3-Trichlorobenzene	180	14.688	14.688	0.000	96	362741	5.00	5.02	
140 2-Methylnaphthalene	142	15.310	15.310	0.000	93	393842	5.00	5.00	

## QC Flag Legend

Processing Flags

### Reagents:

MSV_LCS_ACROL_00041	Amount Added: 5.38	Units: uL	
MSV_LCS_VOC#1_00038	Amount Added: 5.38	Units: uL	
MSV_LCS_EE_00001	Amount Added: 5.38	Units: uL	
MSV_LCS_ETBR_00001	Amount Added: 5.38	Units: uL	
MSV_QC_Gas826_00063	Amount Added: 5.38	Units: uL	
MSV_LCS_Penta_00011	Amount Added: 5.38	Units: uL	
MSV_LLcentISS_00002	Amount Added: 5.00	Units: uL	Run Reagent

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X20.D

Injection Date: 03-Feb-2022 16:30:30

Instrument ID: 19094

Operator ID: KNK41612

Lims ID: 410-71043-A-6 MS

Worklist Smp#: 21

Client ID: HD-COD-SW-15-01/1-0 MS

Purge Vol: 25.000 mL

Dil. Factor: 1.0000

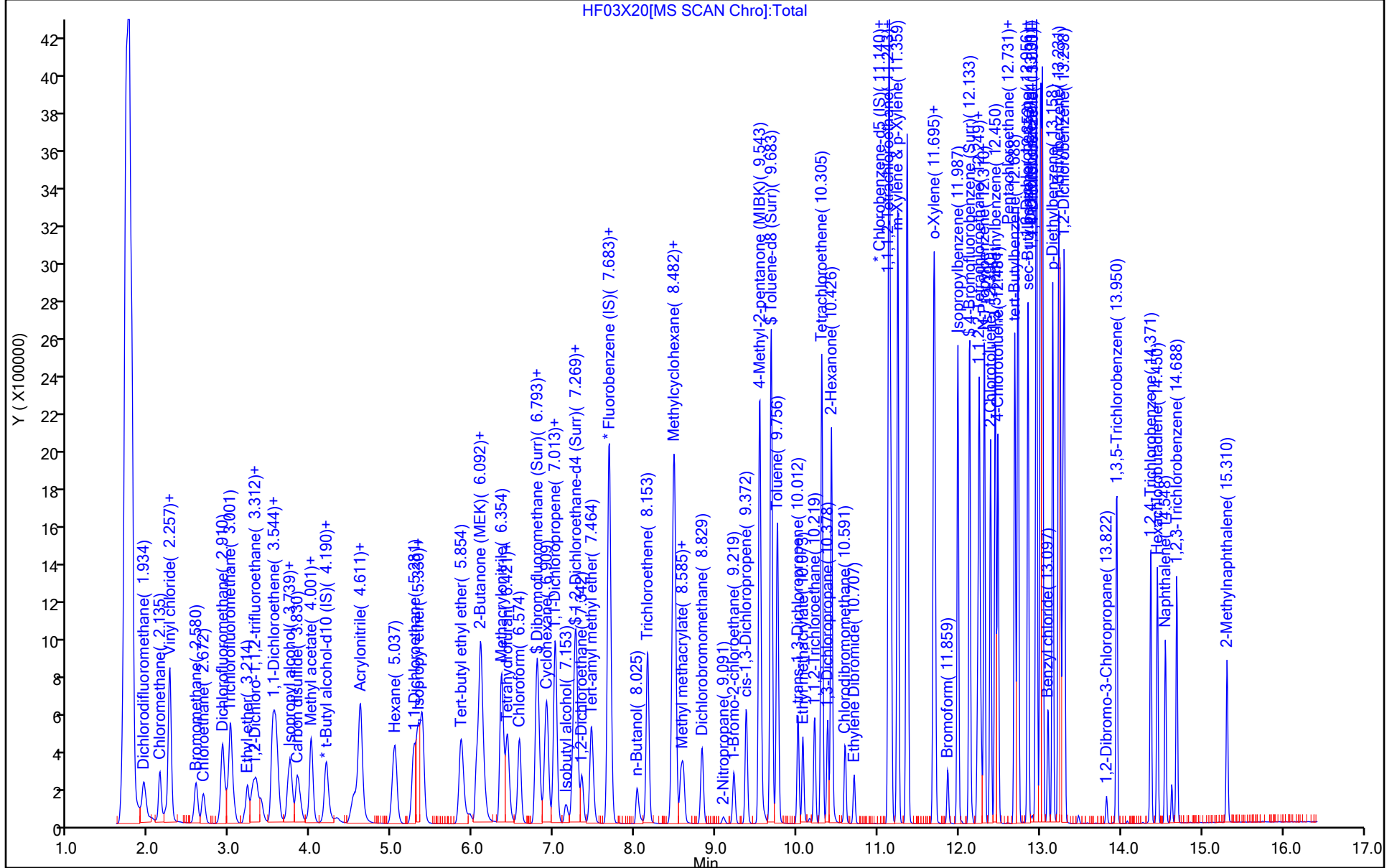
ALS Bottle#: 20

Method: MSV\_19094\_25mL

Limit Group: MSV - 8260C\_D

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

Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



HF03X20[MS SCAN Chro]:Total



Eurofins Lancaster Laboratories Env, LLC  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X20.D  
 Lims ID: 410-71043-A-6 MS  
 Client ID: HD-COD-SW-15-01/1-0 MS  
 Sample Type: MS  
 Inject. Date: 03-Feb-2022 16:30:30 ALS Bottle#: 20 Worklist Smp#: 21  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0049665-021  
 Operator ID: KNK41612 Instrument ID: 19094  
 Method: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\MSV\_19094\_25mL.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 17:23:59 Calib Date: 21-Dec-2021 20:38:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1662

First Level Reviewer: beckerk

Date: 03-Feb-2022 17:24:15

Compound	Amount Added	Amount Recovered	% Rec.
\$ 51 Dibromofluoromethane (Surr)	10.0	9.64	96.45
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.4	103.88
\$ 82 Toluene-d8 (Surr)	10.0	10.1	100.86
\$ 108 4-Bromofluorobenzene (Surr)	10.0	10.1	100.93

FORM I  
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-71043-1  
 SDG No.: \_\_\_\_\_  
 Client Sample ID: HD-COD-SW-15-01/1-0 MSD Lab Sample ID: 410-71043-6 MSD  
 MSD  
 Matrix: Water Lab File ID: HF03X21.D  
 Analysis Method: 8260D Date Collected: 01/27/2022 11:45  
 Sample wt/vol: 25 (mL) Date Analyzed: 02/03/2022 16:50  
 Soil Aliquot Vol.: \_\_\_\_\_ Dilution Factor: 1  
 Soil Extract Vol.: \_\_\_\_\_ GC Column: R-624SilMS 30m ID: 0.25 (mm)  
 % Moisture: \_\_\_\_\_ Level: (low/med) Low  
 Analysis Batch No.: 220509 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	4.94		0.50	0.070
71-55-6	1,1,1-Trichloroethane	5.21		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	5.31		0.50	0.070
79-00-5	1,1,2-Trichloroethane	5.21		0.50	0.060
75-34-3	1,1-Dichloroethane	5.35		0.50	0.070
75-35-4	1,1-Dichloroethene	5.42		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	4.97		0.50	0.060
107-06-2	1,2-Dichloroethane	4.79		0.50	0.050
78-87-5	1,2-Dichloropropane	5.30		0.50	0.060
78-93-3	2-Butanone (MEK)	53.2		5.0	0.60
591-78-6	2-Hexanone	50.3		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	47.3		5.0	0.70
67-64-1	Acetone	50.4		5.0	0.90
71-43-2	Benzene	5.30		0.50	0.050
74-97-5	Bromochloromethane	4.97		0.50	0.050
75-27-4	Bromodichloromethane	5.22		0.50	0.050
75-25-2	Bromoform	5.62		1.0	0.30
74-83-9	Bromomethane	5.05		0.50	0.070
75-15-0	Carbon disulfide	6.05		1.0	0.060
56-23-5	Carbon tetrachloride	5.00		0.50	0.070
108-90-7	Chlorobenzene	5.12		0.50	0.060
75-00-3	Chloroethane	5.56		0.50	0.070
67-66-3	Chloroform	5.25		0.50	0.090
74-87-3	Chloromethane	5.38		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	6.71		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	5.12		0.50	0.050
124-48-1	Dibromochloromethane	5.40		0.50	0.070
100-41-4	Ethylbenzene	5.36		0.50	0.060
1634-04-4	Methyl tert-butyl ether	5.17		0.50	0.050
75-09-2	Methylene Chloride	4.94		0.50	0.070
100-42-5	Styrene	5.27		0.50	0.050
127-18-4	Tetrachloroethene	11.4		0.50	0.060
108-88-3	Toluene	5.33		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	5.20		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	5.34		0.50	0.060



Eurofins Lancaster Laboratories Env, LLC  
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X21.D  
 Lims ID: 410-71043-A-6 MSD  
 Client ID: HD-COD-SW-15-01/1-0 MSD  
 Sample Type: MSD  
 Inject. Date: 03-Feb-2022 16:50:30 ALS Bottle#: 21 Worklist Smp#: 22  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0049665-022  
 Operator ID: KNK41612 Instrument ID: 19094  
 Method: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\MSV\_19094\_25mL.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 17:23:59 Calib Date: 21-Dec-2021 20:38:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21117.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1662

First Level Reviewer: beckerk

Date: 03-Feb-2022 17:24:39

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
3 Dichlorodifluoromethane	85	1.946	1.947	-0.001	99	343410	5.00	5.39	
6 Chloromethane	50	2.142	2.148	-0.006	99	422269	5.00	5.38	
7 Vinyl chloride	62	2.257	2.264	-0.007	97	408526	5.00	5.23	
8 Butadiene	39	2.270	2.270	0.000	94	463349	5.00	5.83	
9 Bromomethane	94	2.593	2.599	-0.006	90	264856	5.00	5.05	
10 Chloroethane	64	2.684	2.690	-0.006	99	247473	5.00	5.56	
11 Dichlorofluoromethane	67	2.916	2.922	-0.006	97	564080	5.00	5.48	
13 Trichlorofluoromethane	101	2.989	2.995	-0.006	98	500559	5.00	5.10	
15 Ethyl ether	59	3.221	3.227	-0.006	94	193363	4.98	5.59	
16 1,2-Dichloro-1,1,2-trifluoroethane	67	3.318	3.324	-0.006	94	388036	5.00	5.42	
17 Acrolein	56	3.397	3.398	-0.001	97	194686	37.5	25.1	
18 1,1-Dichloroethene	96	3.538	3.544	-0.006	97	285510	5.00	5.42	
19 Acetone	43	3.562	3.562	0.000	100	423750	62.6	50.4	
20 112TCTFE	101	3.586	3.593	-0.007	92	285930	5.00	5.43	
21 Isopropyl alcohol	45	3.739	3.727	0.012	26	38116	37.5	47.9	
22 Iodomethane	142	3.739	3.739	0.000	98	482010	5.00	5.23	
23 Ethyl bromide	108	3.763	3.769	-0.006	99	221438	5.00	4.94	
24 Carbon disulfide	76	3.849	3.849	0.000	99	781357	5.00	6.05	
26 Methyl acetate	43	3.989	3.989	0.000	98	95509	5.00	3.32	
27 3-Chloro-1-propene	41	4.019	4.013	0.006	93	474949	5.00	5.82	
* 28 t-Butyl alcohol-d10 (IS)	65	4.202	4.190	0.012	40	92718	50.0	50.0	
29 Methylene Chloride	84	4.196	4.202	-0.006	94	276540	5.00	4.94	
30 2-Methyl-2-propanol	59	4.330	4.324	0.006	99	103544	50.0	52.8	
31 Acrylonitrile	53	4.531	4.544	-0.013	99	248573	25.0	21.9	
32 Methyl tert-butyl ether	73	4.604	4.611	-0.007	96	593147	5.00	5.17	
33 trans-1,2-Dichloroethene	96	4.623	4.623	0.000	98	294521	5.00	5.20	
34 Hexane	57	5.037	5.050	-0.013	93	444552	5.00	5.95	
35 1,1-Dichloroethane	63	5.275	5.275	0.000	96	557979	5.00	5.35	
37 Isopropyl ether	45	5.330	5.336	-0.006	95	914457	5.00	5.33	
38 2-Chloro-1,3-butadiene	53	5.385	5.385	0.000	91	485294	5.00	5.66	
39 Tert-butyl ethyl ether	59	5.860	5.860	0.000	98	790565	5.00	5.40	
41 2-Butanone (MEK)	43	6.055	6.056	-0.001	100	818367	62.6	53.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
42 cis-1,2-Dichloroethene	96	6.098	6.098	0.000	81	413907	5.00	6.71	
43 2,2-Dichloropropane	77	6.116	6.123	-0.007	89	439937	5.00	5.14	
45 Propionitrile	54	6.147	6.147	0.000	99	127192	37.5	32.2	
47 Methacrylonitrile	67	6.360	6.366	-0.006	92	489904	37.5	27.9	
48 Chlorobromomethane	128	6.433	6.434	-0.001	96	128494	5.00	4.97	
49 Tetrahydrofuran	71	6.440	6.434	0.006	84	86511	25.0	20.2	
50 Chloroform	83	6.580	6.580	0.000	93	533186	5.00	5.25	
\$ 51 Dibromofluoromethane (Surr)	113	6.793	6.793	0.000	94	495805	10.0	9.54	
52 1,1,1-Trichloroethane	97	6.811	6.812	-0.001	99	486713	5.00	5.21	
53 Cyclohexane	56	6.915	6.915	0.000	91	559964	5.00	5.58	
55 1,1-Dichloropropene	75	7.019	7.019	0.000	98	454043	5.00	5.49	
56 Carbon tetrachloride	117	7.025	7.025	0.000	95	407396	5.00	5.00	
57 Isobutyl alcohol	41	7.159	7.153	0.006	94	83887	125.1	101.7	
\$ 58 1,2-Dichloroethane-d4 (Surr)	102	7.244	7.244	0.000	96	97865	10.0	10.1	
59 Benzene	78	7.281	7.281	0.000	97	1257183	5.00	5.30	
60 1,2-Dichloroethane	62	7.348	7.348	0.000	97	283843	5.00	4.79	
62 Tert-amyl methyl ether	73	7.470	7.464	0.006	99	654725	5.00	5.34	
* 65 Fluorobenzene (IS)	96	7.683	7.683	0.000	97	1969551	10.0	10.0	
64 n-Heptane	43	7.695	7.695	0.000	92	466330	5.00	5.91	
66 n-Butanol	56	8.031	8.025	0.006	89	173443	250.2	315.3	
67 Trichloroethene	95	8.159	8.159	0.000	99	413748	5.00	6.62	
68 Methylcyclohexane	83	8.476	8.470	0.006	93	574725	5.00	5.43	
70 1,2-Dichloropropane	63	8.488	8.488	0.000	87	316434	5.00	5.30	
69 2-ethoxy-2-methyl butane	87	8.500	8.494	0.006	91	411933	5.00	6.41	
71 Methyl methacrylate	69	8.567	8.567	0.000	91	119853	5.00	3.76	
72 1,4-Dioxane	88	8.579	8.579	0.000	31	19427	125.1	118.5	
73 Dibromomethane	93	8.604	8.598	0.006	96	131234	5.00	4.93	
75 Dichlorobromomethane	83	8.829	8.829	0.000	99	349563	5.00	5.22	
76 2-Nitropropane	41	9.098	9.092	0.006	97	28420	5.00	3.28	
79 1-Bromo-2-chloroethane	63	9.226	9.226	0.000	99	307115	5.00	5.83	
80 cis-1,3-Dichloropropene	75	9.378	9.378	0.000	96	432886	5.00	5.12	
81 4-Methyl-2-pentanone (MIBK)	43	9.543	9.543	0.000	97	1982545	62.6	47.3	
\$ 82 Toluene-d8 (Surr)	98	9.683	9.683	0.000	93	2081463	10.0	10.1	
83 Toluene	92	9.762	9.762	0.000	98	790056	5.00	5.33	
85 trans-1,3-Dichloropropene	75	10.012	10.012	0.000	93	341230	5.00	5.34	
86 Ethyl methacrylate	69	10.073	10.073	0.000	89	258831	5.00	5.39	
87 1,1,2-Trichloroethane	97	10.219	10.219	0.000	91	190825	5.00	5.21	
88 Tetrachloroethene	166	10.311	10.311	0.000	98	806414	5.00	11.4	
89 1,3-Dichloropropane	76	10.384	10.378	0.006	89	341030	5.00	5.28	
91 2-Hexanone	43	10.427	10.427	0.000	98	1427401	62.6	50.3	
93 Chlorodibromomethane	129	10.597	10.597	0.000	90	226905	5.00	5.40	
94 Ethylene Dibromide	107	10.707	10.707	0.000	99	174810	5.00	4.97	
* 97 Chlorobenzene-d5 (IS)	117	11.134	11.134	0.000	88	1586699	10.0	10.0	
96 1-Chlorohexane	91	11.146	11.140	0.006	98	474408	5.00	5.38	
98 Chlorobenzene	112	11.164	11.158	0.006	95	834932	5.00	5.12	
99 1,1,1,2-Tetrachloroethane	131	11.243	11.244	-0.001	96	271936	5.00	4.94	
100 Ethylbenzene	91	11.250	11.250	0.000	98	1528966	5.00	5.36	
101 m-Xylene & p-Xylene	106	11.359	11.359	0.000	98	1178025	10.0	10.6	
102 o-Xylene	106	11.688	11.689	-0.001	96	557831	5.00	5.14	
103 Styrene	104	11.701	11.701	0.000	95	901742	5.00	5.27	
104 Bromoform	173	11.865	11.859	0.006	97	122836	5.00	5.62	
105 Isopropylbenzene	105	11.987	11.987	0.000	96	1536805	5.00	5.38	

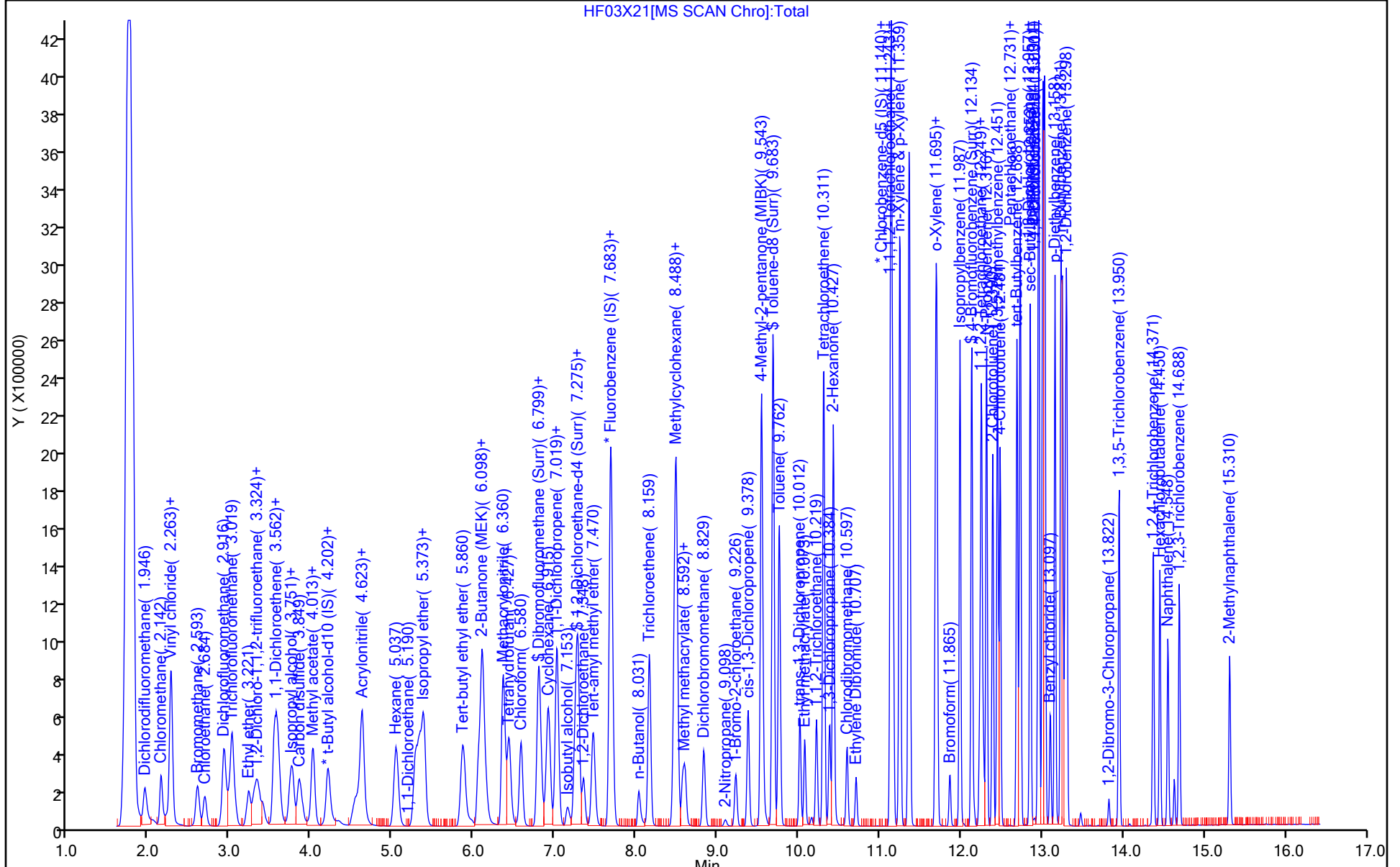
Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
\$ 108 4-Bromofluorobenzene (Surr)	95	12.134	12.128	0.006	91	804002	10.0	10.1	
109 1,1,2,2-Tetrachloroethane	83	12.231	12.231	0.000	93	225857	5.00	5.31	
111 Bromobenzene	156	12.249	12.249	0.000	96	334283	5.00	5.27	
110 trans-1,4-Dichloro-2-butene	53	12.255	12.256	-0.001	93	214754	25.0	16.2	
112 1,2,3-Trichloropropane	110	12.274	12.274	0.000	83	57215	5.00	5.00	
113 N-Propylbenzene	91	12.316	12.317	-0.001	99	1818275	5.00	5.62	
114 2-Chlorotoluene	126	12.390	12.390	0.000	97	342123	5.00	5.23	
115 1,3,5-Trimethylbenzene	105	12.451	12.451	0.000	94	1251606	5.00	5.44	
116 4-Chlorotoluene	126	12.481	12.481	0.000	98	350813	5.00	5.31	
118 tert-Butylbenzene	134	12.688	12.688	0.000	93	279371	5.00	5.41	
119 Pentachloroethane	167	12.725	12.725	0.000	90	185784	5.00	4.83	
120 1,2,4-Trimethylbenzene	105	12.731	12.731	0.000	97	1263143	5.00	5.31	
121 sec-Butylbenzene	105	12.853	12.853	0.000	94	1684220	5.00	5.77	
122 1,3-Dichlorobenzene	146	12.950	12.951	-0.001	98	667842	5.00	5.20	
123 4-Isopropyltoluene	119	12.963	12.957	0.006	97	1424271	5.00	5.65	
* 124 1,4-Dichlorobenzene-d4	152	13.005	13.005	0.000	95	877303	10.0	10.0	
125 1,4-Dichlorobenzene	146	13.024	13.024	0.000	94	670252	5.00	5.26	
126 1,2,3-Trimethylbenzene	120	13.036	13.036	0.000	98	531482	5.00	5.12	
127 Benzyl chloride	126	13.103	13.103	0.000	99	80701	5.00	6.10	
129 p-Diethylbenzene	119	13.158	13.158	0.000	92	826278	5.00	5.62	
130 n-Butylbenzene	92	13.249	13.249	0.000	98	711622	5.00	5.97	
131 1,2-Dichlorobenzene	146	13.286	13.286	0.000	99	591540	5.00	5.08	
134 1,2-Dibromo-3-Chloropropane	155	13.822	13.822	0.000	86	26909	5.00	4.81	
135 1,3,5-Trichlorobenzene	180	13.950	13.950	0.000	97	511157	5.00	5.36	
136 1,2,4-Trichlorobenzene	180	14.371	14.371	0.000	94	425251	5.00	5.26	
137 Hexachlorobutadiene	225	14.450	14.450	0.000	96	227574	5.00	5.95	
138 Naphthalene	128	14.548	14.548	0.000	97	681947	5.00	4.93	
139 1,2,3-Trichlorobenzene	180	14.688	14.688	0.000	96	363435	5.00	5.07	
140 2-Methylnaphthalene	142	15.310	15.310	0.000	93	410600	5.00	5.26	

## QC Flag Legend

Processing Flags

### Reagents:

MSV_LCS_ACROL_00041	Amount Added: 5.38	Units: uL	
MSV_LCS_VOC#1_00038	Amount Added: 5.38	Units: uL	
MSV_LCS_EE_00001	Amount Added: 5.38	Units: uL	
MSV_LCS_ETBR_00001	Amount Added: 5.38	Units: uL	
MSV_QC_Gas826_00063	Amount Added: 5.38	Units: uL	
MSV_LCS_Penta_00011	Amount Added: 5.38	Units: uL	
MSV_LLcentISS_00002	Amount Added: 5.00	Units: uL	Run Reagent



HF03X21[MS SCAN Chrom]:Total

Eurofins Lancaster Laboratories Env, LLC  
Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\HF03X21.D  
 Lims ID: 410-71043-A-6 MSD  
 Client ID: HD-COD-SW-15-01/1-0 MSD  
 Sample Type: MSD  
 Inject. Date: 03-Feb-2022 16:50:30 ALS Bottle#: 21 Worklist Smp#: 22  
 Purge Vol: 25.000 mL Dil. Factor: 1.0000  
 Sample Info: 410-0049665-022  
 Operator ID: KNK41612 Instrument ID: 19094  
 Method: \\chromfs\Lancaster\ChromData\19094\20220203-49665.b\MSV\_19094\_25mL.m  
 Limit Group: MSV - 8260C\_D  
 Last Update: 03-Feb-2022 17:23:59 Calib Date: 21-Dec-2021 20:38:30  
 Integrator: RTE ID Type: Deconvolution ID  
 Quant Method: Internal Standard Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Lancaster\ChromData\19094\20211221-46912.b\HD21I17.D  
 Column 1 : Rxi-624Sil MS Capillary Column ( 0.25 mm) Det: MS Quad  
 Process Host: CTX1662

First Level Reviewer: beckerk Date: 03-Feb-2022 17:24:39

Compound	Amount Added	Amount Recovered	% Rec.
\$ 51 Dibromofluoromethane (Surr)	10.0	9.54	95.43
\$ 58 1,2-Dichloroethane-d4 (Surr)	10.0	10.1	101.05
\$ 82 Toluene-d8 (Surr)	10.0	10.1	100.99
\$ 108 4-Bromofluorobenzene (Surr)	10.0	10.1	100.81



## GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-71043-1

SDG No.: \_\_\_\_\_

Instrument ID: 19930Start Date: 08/23/2021 20:56Analysis Batch Number: 163707End Date: 08/24/2021 03:13

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-163707/1		08/23/2021 20:56	1	IG23T01.D	R-624SilMS 30m 0.25 (mm)
IC 410-163707/3		08/23/2021 21:31	1		R-624SilMS 30m 0.25 (mm)
IC 410-163707/4		08/23/2021 21:52	1		R-624SilMS 30m 0.25 (mm)
IC 410-163707/5		08/23/2021 22:14	1		R-624SilMS 30m 0.25 (mm)
IC 410-163707/6		08/23/2021 22:35	1		R-624SilMS 30m 0.25 (mm)
IC 410-163707/7		08/23/2021 22:57	1		R-624SilMS 30m 0.25 (mm)
IC 410-163707/8		08/23/2021 23:18	1		R-624SilMS 30m 0.25 (mm)
IC 410-163707/9		08/23/2021 23:40	1		R-624SilMS 30m 0.25 (mm)
ICV 410-163707/10		08/24/2021 00:02	1		R-624SilMS 30m 0.25 (mm)
IC 410-163707/12		08/24/2021 00:45	1	IG23I01.D	R-624SilMS 30m 0.25 (mm)
ICIS 410-163707/13		08/24/2021 01:06	1	IG23I02.D	R-624SilMS 30m 0.25 (mm)
IC 410-163707/14		08/24/2021 01:27	1	IG23I03.D	R-624SilMS 30m 0.25 (mm)
IC 410-163707/15		08/24/2021 01:48	1	IG23I04.D	R-624SilMS 30m 0.25 (mm)
IC 410-163707/16		08/24/2021 02:09	1	IG23I05.D	R-624SilMS 30m 0.25 (mm)
IC 410-163707/17		08/24/2021 02:30	1	IG23I06.D	R-624SilMS 30m 0.25 (mm)
IC 410-163707/18		08/24/2021 02:52	1	IG23I07.D	R-624SilMS 30m 0.25 (mm)
ICV 410-163707/19		08/24/2021 03:13	1	IG23V01.D	R-624SilMS 30m 0.25 (mm)

## GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-71043-1

SDG No.: \_\_\_\_\_

Instrument ID: 19094Start Date: 12/21/2021 14:04Analysis Batch Number: 207981End Date: 12/21/2021 21:20

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-207981/1		12/21/2021 14:04	1	HD21T01.D	R-624SilMS 30m 0.25 (mm)
IC 410-207981/4		12/21/2021 15:10	1		R-624SilMS 30m 0.25 (mm)
IC 410-207981/5		12/21/2021 15:30	1		R-624SilMS 30m 0.25 (mm)
CCV 410-207981/1005		12/21/2021 15:30	1		R-624SilMS 30m 0.25 (mm)
IC 410-207981/6		12/21/2021 15:51	1		R-624SilMS 30m 0.25 (mm)
IC 410-207981/7		12/21/2021 16:11	1		R-624SilMS 30m 0.25 (mm)
IC 410-207981/8		12/21/2021 16:32	1		R-624SilMS 30m 0.25 (mm)
IC 410-207981/9		12/21/2021 16:52	1		R-624SilMS 30m 0.25 (mm)
IC 410-207981/10		12/21/2021 17:13	1		R-624SilMS 30m 0.25 (mm)
ICV 410-207981/11		12/21/2021 17:34	1		R-624SilMS 30m 0.25 (mm)
IC 410-207981/14		12/21/2021 18:35	1	HD21I11.D	R-624SilMS 30m 0.25 (mm)
ICIS 410-207981/15		12/21/2021 18:56	1	HD21I12.D	R-624SilMS 30m 0.25 (mm)
CCVIS 410-207981/1015		12/21/2021 18:56	1		R-624SilMS 30m 0.25 (mm)
IC 410-207981/16		12/21/2021 19:16	1	HD21I13.D	R-624SilMS 30m 0.25 (mm)
IC 410-207981/17		12/21/2021 19:37	1	HD21I14.D	R-624SilMS 30m 0.25 (mm)
IC 410-207981/18		12/21/2021 19:57	1	HD21I15.D	R-624SilMS 30m 0.25 (mm)
IC 410-207981/19		12/21/2021 20:18	1	HD21I16.D	R-624SilMS 30m 0.25 (mm)
IC 410-207981/20		12/21/2021 20:38	1	HD21I17.D	R-624SilMS 30m 0.25 (mm)
ICV 410-207981/31		12/21/2021 20:59	1		R-624SilMS 30m 0.25 (mm)
ICV 410-207981/21		12/21/2021 21:20	1	HD21V11.D	R-624SilMS 30m 0.25 (mm)

## GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-71043-1

SDG No.: \_\_\_\_\_

Instrument ID: 19094Start Date: 02/03/2022 09:46Analysis Batch Number: 220509End Date: 02/03/2022 18:53

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-220509/1		02/03/2022 09:46	1	HF03T01.D	R-624SilMS 30m 0.25 (mm)
CCVIS 410-220509/3		02/03/2022 10:20	1	HF03X02.D	R-624SilMS 30m 0.25 (mm)
LCS 410-220509/4		02/03/2022 10:41	1	HF03X03.D	R-624SilMS 30m 0.25 (mm)
LCSD 410-220509/5		02/03/2022 11:01	1	HF03X04.D	R-624SilMS 30m 0.25 (mm)
ZZZZZ		02/03/2022 11:22	1		R-624SilMS 30m 0.25 (mm)
MB 410-220509/7		02/03/2022 11:42	1	HF03X06.D	R-624SilMS 30m 0.25 (mm)
ZZZZZ		02/03/2022 12:44	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		02/03/2022 13:05	1		R-624SilMS 30m 0.25 (mm)
ZZZZZ		02/03/2022 13:25	10		R-624SilMS 30m 0.25 (mm)
ZZZZZ		02/03/2022 13:46	5000		R-624SilMS 30m 0.25 (mm)
ZZZZZ		02/03/2022 14:06	1		R-624SilMS 30m 0.25 (mm)
410-71043-1	HD-COD-SW-6-01/1-0	02/03/2022 14:26	1	HF03X14.D	R-624SilMS 30m 0.25 (mm)
410-71043-2	HD-COD-SW-7-01/1-0	02/03/2022 14:47	1	HF03X15.D	R-624SilMS 30m 0.25 (mm)
410-71043-3	HD-COD-SW-8-01/1-0	02/03/2022 15:07	1	HF03X16.D	R-624SilMS 30m 0.25 (mm)
410-71043-4	HD-COD-SW-9-01/1-0	02/03/2022 15:28	1	HF03X17.D	R-624SilMS 30m 0.25 (mm)
410-71043-5	HD-COD-SW-13-01/1-0	02/03/2022 15:49	1	HF03X18.D	R-624SilMS 30m 0.25 (mm)
410-71043-6	HD-COD-SW-15-01/1-0	02/03/2022 16:09	1	HF03X19.D	R-624SilMS 30m 0.25 (mm)
410-71043-6 MS	HD-COD-SW-15-01/1-0 MS MS	02/03/2022 16:30	1	HF03X20.D	R-624SilMS 30m 0.25 (mm)
410-71043-6 MSD	HD-COD-SW-15-01/1-0 MSD MSD	02/03/2022 16:50	1	HF03X21.D	R-624SilMS 30m 0.25 (mm)
410-71043-7	HD-COD-SW-16-01/1-0	02/03/2022 17:31	1	HF03X23.D	R-624SilMS 30m 0.25 (mm)
410-71043-8	HD-COD-SW-17-01/1-0	02/03/2022 17:52	1	HF03X24.D	R-624SilMS 30m 0.25 (mm)
410-71043-8 DL	HD-COD-SW-17-01/1-0 DL	02/03/2022 18:12	20	HF03X25.D	R-624SilMS 30m 0.25 (mm)
410-71043-9	HD-COD-SW-26-01/1-0	02/03/2022 18:33	1	HF03X26.D	R-624SilMS 30m 0.25 (mm)
410-71043-10	HD-COD-SW-27-01/1-0	02/03/2022 18:53	1	HF03X27.D	R-624SilMS 30m 0.25 (mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-71043-1

SDG No.: \_\_\_\_\_

Instrument ID: 19930 Start Date: 02/03/2022 09:00

Analysis Batch Number: 220519 End Date: 02/03/2022 20:08

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-220519/1		02/03/2022 09:00	1	IF03T02.D	R-624silMS 30m 0.25 (mm)
CCVIS 410-220519/3		02/03/2022 09:32	1	IF03X02.D	R-624silMS 30m 0.25 (mm)
LCS 410-220519/4		02/03/2022 09:53	1	IF03X03.D	R-624silMS 30m 0.25 (mm)
LCSD 410-220519/5		02/03/2022 10:14	1	IF03X04.D	R-624silMS 30m 0.25 (mm)
ZZZZZ		02/03/2022 10:35	1		R-624silMS 30m 0.25 (mm)
MB 410-220519/7		02/03/2022 10:57	1	IF03X06.D	R-624silMS 30m 0.25 (mm)
410-71043-14	HD-QC1-0/1-2	02/03/2022 11:18	1	IF03X07.D	R-624silMS 30m 0.25 (mm)
ZZZZZ		02/03/2022 11:39	1		R-624silMS 30m 0.25 (mm)
ZZZZZ		02/03/2022 12:00	1		R-624silMS 30m 0.25 (mm)
ZZZZZ		02/03/2022 12:22	1		R-624silMS 30m 0.25 (mm)
ZZZZZ		02/03/2022 12:43	1		R-624silMS 30m 0.25 (mm)
ZZZZZ		02/03/2022 13:04	1		R-624silMS 30m 0.25 (mm)
410-71043-11	HD-COD-SW-28-01/1-0	02/03/2022 13:25	1	IF03X13.D	R-624silMS 30m 0.25 (mm)
410-71043-12	HD-COD-SW-29-01/1-0	02/03/2022 13:46	1	IF03X14.D	R-624silMS 30m 0.25 (mm)
ZZZZZ		02/03/2022 14:07	10		R-624silMS 30m 0.25 (mm)
ZZZZZ		02/03/2022 14:29	100		R-624silMS 30m 0.25 (mm)
ZZZZZ		02/03/2022 14:50	1		R-624silMS 30m 0.25 (mm)
ZZZZZ		02/03/2022 15:11	10		R-624silMS 30m 0.25 (mm)
ZZZZZ		02/03/2022 16:57	10		R-624silMS 30m 0.25 (mm)
ZZZZZ		02/03/2022 17:18	100		R-624silMS 30m 0.25 (mm)
410-71043-13	HD-QC1-0/1-1	02/03/2022 17:40	10	IF03X25.D	R-624silMS 30m 0.25 (mm)
ZZZZZ		02/03/2022 18:01	10		R-624silMS 30m 0.25 (mm)
ZZZZZ		02/03/2022 18:22	100		R-624silMS 30m 0.25 (mm)
ZZZZZ		02/03/2022 18:43	1		R-624silMS 30m 0.25 (mm)
ZZZZZ		02/03/2022 19:05	10		R-624silMS 30m 0.25 (mm)
ZZZZZ		02/03/2022 19:26	1		R-624silMS 30m 0.25 (mm)
ZZZZZ		02/03/2022 19:47	1		R-624silMS 30m 0.25 (mm)
ZZZZZ		02/03/2022 20:08	1		R-624silMS 30m 0.25 (mm)

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-71043-1

SDG No.: \_\_\_\_\_

Batch Number: 163707 Batch Start Date: 08/23/21 20:56 Batch Analyst: Campbell, Miranda E

Batch Method: 8260D Batch End Date: \_\_\_\_\_

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Lot#Vial	MSV_LCS_ACROL 00017	MSV_LCS_Penta 00006	MSV_LCS_VOC#1 00015
BFB 410-163707/1		8260D		1 uL	1 uL				
IC 410-163707/12		8260D		25 mL	25 mL	2602			
ICIS 410-163707/13		8260D		25 mL	25 mL	2602			
IC 410-163707/14		8260D		25 mL	25 mL	2602			
IC 410-163707/15		8260D		25 mL	25 mL	2602			
IC 410-163707/16		8260D		25 mL	25 mL	2602			
IC 410-163707/17		8260D		25 mL	25 mL	2602			
IC 410-163707/18		8260D		25 mL	25 mL	2602			
ICV 410-163707/19		8260D		25 mL	25 mL	2602	12.5 uL	12.5 uL	12.5 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_LL #1_826 00015	MSV_LL #2_826 00015	MSV_LL GAS826 00027	MSV_LLcentISS 00001	MSV_Q_EE 00004	MSV_Q_ETBR 00008
BFB 410-163707/1		8260D							
IC 410-163707/12		8260D		25 uL	25 uL	25 uL	5 uL		
ICIS 410-163707/13		8260D		10 uL	10 uL	10 uL	5 uL		
IC 410-163707/14		8260D		5 uL	5 uL	5 uL	5 uL		
IC 410-163707/15		8260D		2 uL	2 uL	2 uL	5 uL		
IC 410-163707/16		8260D		2 uL	2 uL	2 uL	5 uL		
IC 410-163707/17		8260D		2 uL	2 uL	2 uL	5 uL		
IC 410-163707/18		8260D		2 uL	2 uL	2 uL	5 uL		
ICV 410-163707/19		8260D					5 uL	12.5 uL	12.5 uL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-71043-1

SDG No.: \_\_\_\_\_

Batch Number: 163707 Batch Start Date: 08/23/21 20:56 Batch Analyst: Campbell, Miranda E

Batch Method: 8260D Batch End Date: \_\_\_\_\_

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_QC_Gas826 00026	MSV_V_BFB 00006				
BFB 410-163707/1		8260D			1 uL				
IC 410-163707/12		8260D							
ICIS 410-163707/13		8260D							
IC 410-163707/14		8260D							
IC 410-163707/15		8260D							
IC 410-163707/16		8260D							
IC 410-163707/17		8260D							
IC 410-163707/18		8260D							
ICV 410-163707/19		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.: 410-71043-1

SDG No.: \_\_\_\_\_

Batch Number: 207981 Batch Start Date: 12/21/21 14:04 Batch Analyst: Campbell, Miranda E

Batch Method: 8260D Batch End Date: \_\_\_\_\_

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Lot#Vial	MSV_LCS_ACROL 00035	MSV_LCS_EE 00001	MSV_LCS_Penta 00010
BFB 410-207981/1		8260D		1 uL	1 uL				
IC 410-207981/14		8260D		25 mL	25 mL	2617			
ICIS 410-207981/15		8260D		25 mL	25 mL	2617			
IC 410-207981/16		8260D		25 mL	25 mL	2617			
IC 410-207981/17		8260D		25 mL	25 mL	2617			
IC 410-207981/18		8260D		25 mL	25 mL	2617			
IC 410-207981/19		8260D		25 mL	25 mL	2617			
IC 410-207981/20		8260D		25 mL	25 mL	2617			
ICV 410-207981/21		8260D		25 mL	25 mL	2617	12.5 uL	12.5 uL	12.5 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_LCS_VOC#1 00032	MSV_LL_#1_826 00027	MSV_LL_#2_826 00031	MSV_LL_GAS826 00056	MSV_LLcentISS 00002	MSV_Q_ETBR 00008
BFB 410-207981/1		8260D							
IC 410-207981/14		8260D			25 uL	25 uL	25 uL	5 uL	
ICIS 410-207981/15		8260D			10 uL	10 uL	10 uL	5 uL	
IC 410-207981/16		8260D			5 uL	5 uL	5 uL	5 uL	
IC 410-207981/17		8260D			2 uL	2 uL	2 uL	5 uL	
IC 410-207981/18		8260D			2 uL	2 uL	2 uL	5 uL	
IC 410-207981/19		8260D			2 uL	2 uL	2 uL	5 uL	
IC 410-207981/20		8260D			2 uL	2 uL	2 uL	5 uL	
ICV 410-207981/21		8260D		12.5 uL				5 uL	12.5 uL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-71043-1

SDG No.: \_\_\_\_\_

Batch Number: 207981 Batch Start Date: 12/21/21 14:04 Batch Analyst: Campbell, Miranda E

Batch Method: 8260D Batch End Date: \_\_\_\_\_

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_QC_Gas826 00056	MSV_V_BFB 00006				
BFB 410-207981/1		8260D			1 uL				
IC 410-207981/14		8260D							
ICIS 410-207981/15		8260D							
IC 410-207981/16		8260D							
IC 410-207981/17		8260D							
IC 410-207981/18		8260D							
IC 410-207981/19		8260D							
IC 410-207981/20		8260D							
ICV 410-207981/21		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.: 410-71043-1

SDG No.: \_\_\_\_\_

Batch Number: 220509 Batch Start Date: 02/03/22 09:46 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 410-220509/1		8260D		25 mL	25 mL				
CCVIS 410-220509/3		8260D		25 mL	25 mL				2617
LCS 410-220509/4		8260D		25 mL	25 mL				2617
LCS 410-220509/5		8260D		25 mL	25 mL				2617
MB 410-220509/7		8260D		25 mL	25 mL				2617
410-71043-A-1	HD-COD-SW-6-01/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-71043-A-2	HD-COD-SW-7-01/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-71043-A-3	HD-COD-SW-8-01/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-71043-A-4	HD-COD-SW-9-01/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-71043-A-5	HD-COD-SW-13-01/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-71043-A-6	HD-COD-SW-15-01/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-71043-A-6	HD-COD-SW-15-01/1-0 MS	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-71043-A-6	HD-COD-SW-15-01/1-0 MSD	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-71043-A-7	HD-COD-SW-16-01/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-71043-A-8	HD-COD-SW-17-01/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-71043-B-8	HD-COD-SW-17-01/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	2617
410-71043-A-9	HD-COD-SW-26-01/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-71043-A-10	HD-COD-SW-27-01/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_LCS_ACROL 00041	MSV_LCS_EE 00001	MSV_LCS_ETBR 00001	MSV_LCS_Penta 00011	MSV_LCS_VOC#1 00038	MSV_LL_#1_826 00032
BFB 410-220509/1		8260D							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-71043-1

SDG No.: \_\_\_\_\_

Batch Number: 220509 Batch Start Date: 02/03/22 09:46 Batch Analyst: Kephart, Kayla

Batch Method: 8260D Batch End Date: \_\_\_\_\_

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_LCS_ACROL 00041	MSV_LCS_EE 00001	MSV_LCS_ETBR 00001	MSV_LCS_Penta 00011	MSV_LCS_VOC#1 00038	MSV_LL_#1_826 00032
CCVIS 410-220509/3		8260D							20 uL
LCS 410-220509/4		8260D		12.5 uL	12.5 uL	12.5 uL	12.5 uL	12.5 uL	
LCSD 410-220509/5		8260D		12.5 uL	12.5 uL	12.5 uL	12.5 uL	12.5 uL	
MB 410-220509/7		8260D							
410-71043-A-1	HD-COD-SW-6-01/1-0	8260D	T						
410-71043-A-2	HD-COD-SW-7-01/1-0	8260D	T						
410-71043-A-3	HD-COD-SW-8-01/1-0	8260D	T						
410-71043-A-4	HD-COD-SW-9-01/1-0	8260D	T						
410-71043-A-5	HD-COD-SW-13-01/1-0	8260D	T						
410-71043-A-6	HD-COD-SW-15-01/1-0	8260D	T						
410-71043-A-6 MS	HD-COD-SW-15-01/1-0 MS	8260D	T	5.38 uL	5.38 uL	5.38 uL	5.38 uL	5.38 uL	
410-71043-A-6 MSD	HD-COD-SW-15-01/1-0 MSD	8260D	T	5.38 uL	5.38 uL	5.38 uL	5.38 uL	5.38 uL	
410-71043-A-7	HD-COD-SW-16-01/1-0	8260D	T						
410-71043-A-8	HD-COD-SW-17-01/1-0	8260D	T						
410-71043-B-8	HD-COD-SW-17-01/1-0	8260D	T						
410-71043-A-9	HD-COD-SW-26-01/1-0	8260D	T						
410-71043-A-10	HD-COD-SW-27-01/1-0	8260D	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_LL_#2_826 00037	MSV_LL_GAS826 00062	MSV_LLcentISS 00002	MSV_QC_Gas826 00063	MSV_V_BFB 00007
BFB 410-220509/1		8260D						1 uL
CCVIS 410-220509/3		8260D		20 uL	20 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.: 410-71043-1

SDG No.: \_\_\_\_\_

Batch Number: 220509 Batch Start Date: 02/03/22 09:46 Batch Analyst: Kephart, Kayla

Batch Method: 8260D Batch End Date: \_\_\_\_\_

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_LL #2_826 00037	MSV_LL_GAS826 00062	MSV_LLcentISS 00002	MSV_QC_Gas826 00063	MSV_V_BFB 00007	
LCS 410-220509/4		8260D				5 uL	12.5 uL		
LCSD 410-220509/5		8260D				5 uL	12.5 uL		
MB 410-220509/7		8260D				5 uL			
410-71043-A-1	HD-COD-SW-6-01/1 -0	8260D	T			5 uL			
410-71043-A-2	HD-COD-SW-7-01/1 -0	8260D	T			5 uL			
410-71043-A-3	HD-COD-SW-8-01/1 -0	8260D	T			5 uL			
410-71043-A-4	HD-COD-SW-9-01/1 -0	8260D	T			5 uL			
410-71043-A-5	HD-COD-SW-13-01/ 1-0	8260D	T			5 uL			
410-71043-A-6	HD-COD-SW-15-01/ 1-0	8260D	T			5 uL			
410-71043-A-6	HD-COD-SW-15-01/ 1-0 MS	8260D	T			5 uL	5.38 uL		
410-71043-A-6	HD-COD-SW-15-01/ 1-0 MSD	8260D	T			5 uL	5.38 uL		
410-71043-A-7	HD-COD-SW-16-01/ 1-0	8260D	T			5 uL			
410-71043-A-8	HD-COD-SW-17-01/ 1-0	8260D	T			5 uL			
410-71043-B-8	HD-COD-SW-17-01/ 1-0	8260D	T			5 uL			
410-71043-A-9	HD-COD-SW-26-01/ 1-0	8260D	T			5 uL			
410-71043-A-10	HD-COD-SW-27-01/ 1-0	8260D	T			5 uL			

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.: 410-71043-1

SDG No.: \_\_\_\_\_

Batch Number: 220519 Batch Start Date: 02/03/22 09:00 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 410-220519/1		8260D		1 uL	1 uL				
CCVIS 410-220519/3		8260D		25 mL	25 mL				2617
LCS 410-220519/4		8260D		25 mL	25 mL				2617
LCSD 410-220519/5		8260D		25 mL	25 mL				2617
MB 410-220519/7		8260D		25 mL	25 mL				2617
410-71043-A-14	HD-QC1-0/1-2	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-71043-A-11	HD-COD-SW-28-01/ 1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-71043-A-12	HD-COD-SW-29-01/ 1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-71043-A-13	HD-QC1-0/1-1	8260D	T	25 mL	25 mL	<2 SU	N	N	2617

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_LCS_ACROL 00041	MSV_LCS_EE 00001	MSV_LCS_ETBR 00001	MSV_LCS_Penta 00011	MSV_LCS_VOC#1 00038	MSV_LL #1_826 00032
BFB 410-220519/1		8260D							
CCVIS 410-220519/3		8260D							20 uL
LCS 410-220519/4		8260D		12.5 uL	12.5 uL	12.5 uL	12.5 uL	12.5 uL	
LCSD 410-220519/5		8260D		12.5 uL	12.5 uL	12.5 uL	12.5 uL	12.5 uL	
MB 410-220519/7		8260D							
410-71043-A-14	HD-QC1-0/1-2	8260D	T						
410-71043-A-11	HD-COD-SW-28-01/ 1-0	8260D	T						
410-71043-A-12	HD-COD-SW-29-01/ 1-0	8260D	T						
410-71043-A-13	HD-QC1-0/1-1	8260D	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_LL #2_826 00037	MSV_LL GAS826 00062	MSV_LLcentISS 00002	MSV_QC Gas826 00063	MSV_V_BFB 00007	AnalysisComment
BFB 410-220519/1		8260D						1 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.: 410-71043-1

SDG No.: \_\_\_\_\_

Batch Number: 220519 Batch Start Date: 02/03/22 09:00 Batch Analyst: Kephart, Kayla

Batch Method: 8260D Batch End Date: \_\_\_\_\_

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_LL #2_826 00037	MSV_LL_GAS826 00062	MSV_LLcentISS 00002	MSV_QC_Gas826 00063	MSV_V_BFB 00007	AnalysisComment
CCVIS 410-220519/3		8260D		20 uL	20 uL	5 uL			
LCS 410-220519/4		8260D				5 uL	12.5 uL		
LCSD 410-220519/5		8260D				5 uL	12.5 uL		see ME for Ethyl Ether
MB 410-220519/7		8260D				5 uL			
410-71043-A-14	HD-QC1-0/1-2	8260D	T			5 uL			
410-71043-A-11	HD-COD-SW-28-01/ 1-0	8260D	T			5 uL			
410-71043-A-12	HD-COD-SW-29-01/ 1-0	8260D	T			5 uL			
410-71043-A-13	HD-QC1-0/1-1	8260D	T			5 uL			

Batch Notes	

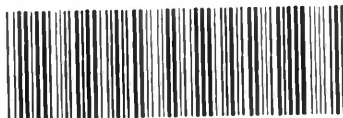
Basis	Basis Description
T	Total/NA

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

Harrisburg  
#267

Environ



410-71043 Chain of Custody

quest/Chain of Custody

10f 2



Lancaster Laboratories  
Environmental

Acct. \_\_\_\_\_ Sample # \_\_\_\_\_

Client: <b>Groundwater Sciences Corporation</b>				<b>Matrix</b>			<b>Analyses Requested</b>								<b>For Lab Use Only</b>					
Project Name/#: <b>FYNOP Monthly Surface Water</b>		Site ID #: <b>FYNOP, York PA</b>		<input type="checkbox"/> Tissue	<input type="checkbox"/> Potable	<input type="checkbox"/> Ground	<input checked="" type="checkbox"/> Surface	<b>Preservation Codes</b>								SF #: _____				
Project Manager: <b>Chris O'Neil</b>		P.O. #: <b>10012.49</b>		<input type="checkbox"/> Sediment	<input type="checkbox"/> Water	<input type="checkbox"/> NPDES	<input type="checkbox"/> Other:									SCR #: _____				
Sampler: <b>Jason Fritz / Erin Peeling</b>		PWSID #: <b>N/A</b>		<input type="checkbox"/> Soil				Total # of Containers									Preservation Codes H = HCl      T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> P = H <sub>3</sub> PO <sub>4</sub> O = Other			
Phone #: <b>(717) 901-8176 / (717) 756-1246</b>		Quote #:															Aqueous VOCs via 8280D (low level - 25 ml purge)			
State where samples were collected: <b>York, PA</b>		For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>															Remarks			
<b>Sample Identification</b>				<b>Collection</b>		<b>Grab</b>	<b>Composite</b>													
	<b>Date</b>	<b>Time</b>																		
HD-COD-SW-6-0/1-0	1/27/2022	10:45	X						3	X										
HD-COD-SW-7-0/1-0	1/27/2022	11:20	X						3	X										
HD-COD-SW-8-0/1-0	1/27/2022	09:10	X						3	X										
HD-COD-SW-9-0/1-0	1/27/2022	12:45	X						3	X										
HD-COD-SW-13-0/1-0	1/27/2022	09:30	X						3	X										
HD-COD-SW-15-0/1-0	1/27/2022	11:45	X					3	X											
HD-COD-SW-15-0/1-0 MS	1/27/2022	11:45	X					3	X											
HD-COD-SW-15-0/1-0 MSD	1/27/2022	11:45	X					3	X											
HD-COD-SW-16-0/1-0	1/27/2022	10:00	X					3	X											
HD-COD-SW-17-0/1-0	1/27/2022	10:20	X					3	X											
<b>Turnaround Time Requested (TAT)</b> (please check): Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/> (Rush TAT is subject to laboratory approval and surcharges.)				Relinquished by: <i>[Signature]</i>		Date: 1/27/22	Time: 1452	Received by: <i>[Signature]</i>		Date: 1/27/22	Time: 1452									
Date results are needed:				Relinquished by: <i>[Signature]</i>		Date: 1/27/22	Time: 1645	Received by: <i>[Signature]</i>		Date: 1/27/22	Time: 1645									
Rush results requested by (please check): E-Mail <input type="checkbox"/> Phone <input type="checkbox"/>				Relinquished by: <i>[Signature]</i>		Date: 1/27/22	Time: 1802	Received by:		Date:	Time:									
E-mail Address:				Relinquished by:		Date:	Time:	Received by:		Date:	Time:									
Phone:				Relinquished by:		Date:	Time:	Received by:		Date:	Time:									
<b>Data Package Options</b> (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"/>	Relinquished by:		Date:	Time:	Received by: <i>[Signature]</i>		Date: 1/27/22	Time: 18:25									
Type III (Reduced non-CLP)	<input type="checkbox"/>	CT RCP	<input type="checkbox"/>	Relinquished by:		Date:	Time:	Received by:		Date:	Time:									
Type VI (Raw Data Only)	<input type="checkbox"/>	TX TRRP-13	<input type="checkbox"/>	Relinquished by:		Date:	Time:	Received by:		Date:	Time:									
NJ DKQP	<input type="checkbox"/>	NYSDEC Category	<input type="checkbox"/> A or <input type="checkbox"/> B	Relinquished by:		Date:	Time:	Received by:		Date:	Time:									
EDD Required? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, format: _____				CLP Like Deliverables, Project Specific Analyte List		Relinquished by Commercial Carrier:		Temperature upon receipt <b>1.1</b> °C												
				UPS _____ FedEx _____ Other <input checked="" type="checkbox"/>																





# Login Sample Receipt Checklist

Client: Groundwater Sciences Corporation

Job Number: 410-71043-1

**Login Number: 71043**  
**List Number: 1**  
**Creator: Renner, Melissa**

**List Source: Eurofins Lancaster Laboratories Env, LLC**

<b>Question</b>	<b>Answer</b>	<b>Comment</b>
The cooler's custody seal is intact.	N/A	Not present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ( $\leq 6^{\circ}\text{C}$ , not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
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	