ANALYTICAL REPORT

Job Number: 410-60154-1

Job Description: fYNOP Monthly Surface Water

For:
Groundwater Sciences Corporation
2601 Market Place Street, Suite 310
Harrisburg, PA 17110-9307

Attention: Christopher O'Neil

Approved for release.
Marrissa C Williams
Project Manager
11/3/2021 9:18 AM

Marrissa C Williams, Project Manager
2425 New Holland Pike, Lancaster, PA, 17601
(717)556-7246
Marrissa.Williams@eurofinset.com
11/03/2021

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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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
FH	MS and/or MSD recovery above control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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
410-60154-1

Receipt
The samples were received on 10/21/2021 6:58 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 2.4°C

GC/MS VOA
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: 410-60154-1

Client Sample ID: HD-COD-SW-6-0/1-0 — Lab Sample ID: 410-60154-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.4	J	5.0	0.90	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.095	J	0.50	0.050	ug/L	1		8260D	Total/NA
Trichloroethene	0.15	J	0.50	0.060	ug/L	1		8260D	Total/NA

Client Sample ID: HD-COD-SW-7-0/1-0 — Lab Sample ID: 410-60154-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.9	J	5.0	0.90	ug/L	1		8260D	Total/NA
Carbon disulfide	0.099	J	1.0	0.060	ug/L	1		8260D	Total/NA
Chloroform	0.096	J	0.50	0.090	ug/L	1		8260D	Total/NA
Chloromethane	0.072	J	0.50	0.060	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.16	J	0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.10	J	0.50	0.060	ug/L	1		8260D	Total/NA
Trichloroethene	0.22	J	0.50	0.060	ug/L	1		8260D	Total/NA

Client Sample ID: HD-COD-SW-8-0/1-0 — Lab Sample ID: 410-60154-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.5	J	5.0	0.90	ug/L	1		8260D	Total/NA
Carbon disulfide	0.12	J	1.0	0.060	ug/L	1		8260D	Total/NA
Chloromethane	0.078	J	0.50	0.060	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.20	J	0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.58		0.50	0.060	ug/L	1		8260D	Total/NA
Trichloroethene	0.30	J	0.50	0.060	ug/L	1		8260D	Total/NA

Client Sample ID: HD-COD-SW-9-0/1-0 — Lab Sample ID: 410-60154-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.3	J	5.0	0.90	ug/L	1		8260D	Total/NA
Chloroform	0.14	J	0.50	0.090	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.079	J	0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.18	J	0.50	0.060	ug/L	1		8260D	Total/NA
Trichloroethene	0.11	J	0.50	0.060	ug/L	1		8260D	Total/NA

Client Sample ID: HD-COD-SW-13-0/1-0 — Lab Sample ID: 410-60154-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.5	J	5.0	0.90	ug/L	1		8260D	Total/NA
Chloromethane	0.065	J	0.50	0.060	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.20	J	0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.67		0.50	0.060	ug/L	1		8260D	Total/NA
Trichloroethene	0.33	J	0.50	0.060	ug/L	1		8260D	Total/NA

Client Sample ID: HD-COD-SW-15-0/1-0 — Lab Sample ID: 410-60154-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.18	J	0.50	0.060	ug/L	1		8260D	Total/NA
1,1-Dichloroethane	0.086	J	0.50	0.070	ug/L	1		8260D	Total/NA
1,1-Dichloroethene	0.11	J	0.50	0.060	ug/L	1		8260D	Total/NA
Chloroform	0.33	J	0.50	0.090	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.88	FH	0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	3.6	FH	0.50	0.060	ug/L	1		8260D	Total/NA
Trichloroethene	1.0	FH	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: 410-60154-1

Client Sample ID: HD-COD-SW-16-0/1-0 — Lab Sample ID: 410-60154-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.067	J	0.50	0.060	ug/L	1		8260D	Total/NA
Acetone	1.4	J	5.0	0.90	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.19	J	0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.97		0.50	0.060	ug/L	1		8260D	Total/NA
Trichloroethene	0.35	J	0.50	0.060	ug/L	1		8260D	Total/NA

Client Sample ID: HD-COD-SW-17-0/1-0 — Lab Sample ID: 410-60154-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	4.5		0.50	0.060	ug/L	1		8260D	Total/NA
1,1-Dichloroethane	0.63		0.50	0.070	ug/L	1		8260D	Total/NA
1,1-Dichloroethene	0.50		0.50	0.060	ug/L	1		8260D	Total/NA
Chloroform	0.32	J	0.50	0.090	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	3.9		0.50	0.050	ug/L	1		8260D	Total/NA
Trichloroethene	11		0.50	0.060	ug/L	1		8260D	Total/NA
Tetrachloroethene - DL	51		5.0	0.60	ug/L	10		8260D	Total/NA

Client Sample ID: HD-COD-SW-26-0/1-0 — Lab Sample ID: 410-60154-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.21	J	0.50	0.060	ug/L	1		8260D	Total/NA
Chloroform	0.74		0.50	0.090	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.063	J	0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	3.7		0.50	0.060	ug/L	1		8260D	Total/NA
Trichloroethene	0.18	J	0.50	0.060	ug/L	1		8260D	Total/NA

Client Sample ID: HD-COD-SW-27-0/1-0 — Lab Sample ID: 410-60154-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.4	J	5.0	0.90	ug/L	1		8260D	Total/NA
Carbon disulfide	0.13	J	1.0	0.060	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.094	J	0.50	0.060	ug/L	1		8260D	Total/NA
Trichloroethene	0.18	J	0.50	0.060	ug/L	1		8260D	Total/NA

Client Sample ID: HD-COD-SW-28-0/1-0 — Lab Sample ID: 410-60154-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.2	J	5.0	0.90	ug/L	1		8260D	Total/NA
Chloroform	0.13	J	0.50	0.090	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.099	J	0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.22	J	0.50	0.060	ug/L	1		8260D	Total/NA
Toluene	0.072	J	0.50	0.070	ug/L	1		8260D	Total/NA
Trichloroethene	0.14	J	0.50	0.060	ug/L	1		8260D	Total/NA

Client Sample ID: HD-COD-SW-29-0/1-0 — Lab Sample ID: 410-60154-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.4	J	5.0	0.90	ug/L	1		8260D	Total/NA
Chloromethane	0.063	J	0.50	0.060	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.18	J	0.50	0.050	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.43	J	0.50	0.060	ug/L	1		8260D	Total/NA
Trichloroethene	0.29	J	0.50	0.060	ug/L	1		8260D	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

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

Job ID: 410-60154-1

Client Sample ID: HD-QC1-0/1-1 — Lab Sample ID: 410-60154-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	4.6		0.50	0.060	ug/L	1		8260D	Total/NA
1,1-Dichloroethane	0.66		0.50	0.070	ug/L	1		8260D	Total/NA
1,1-Dichloroethene	0.52		0.50	0.060	ug/L	1		8260D	Total/NA
Chloroform	0.33	J	0.50	0.090	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	4.0		0.50	0.050	ug/L	1		8260D	Total/NA
Trichloroethene	12		0.50	0.060	ug/L	1		8260D	Total/NA
Tetrachloroethene - DL	49		5.0	0.60	ug/L	10		8260D	Total/NA

Client Sample ID: HD-QC1-0/1-2 — Lab Sample ID: 410-60154-14

No Detections.

This Detection Summary does not include radiochemical test results.

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

Date Collected: 10/20/21 11:20
Date Received: 10/21/21 18:58

Lab Sample ID: 410-60154-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			10/29/21 14:51	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			10/29/21 14:51	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			10/29/21 14:51	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			10/29/21 14:51	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			10/29/21 14:51	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			10/29/21 14:51	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			10/29/21 14:51	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			10/29/21 14:51	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			10/29/21 14:51	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			10/29/21 14:51	1
2-Hexanone	ND		5.0	0.60	ug/L			10/29/21 14:51	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			10/29/21 14:51	1
Acetone	**1.4**	**J**	5.0	0.90	ug/L			10/29/21 14:51	1
Benzene	ND		0.50	0.050	ug/L			10/29/21 14:51	1
Bromochloromethane	ND		0.50	0.050	ug/L			10/29/21 14:51	1
Bromodichloromethane	ND		0.50	0.050	ug/L			10/29/21 14:51	1
Bromoform	ND		1.0	0.30	ug/L			10/29/21 14:51	1
Bromomethane	ND		0.50	0.070	ug/L			10/29/21 14:51	1
Carbon disulfide	ND		1.0	0.060	ug/L			10/29/21 14:51	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			10/29/21 14:51	1
Chlorobenzene	ND		0.50	0.060	ug/L			10/29/21 14:51	1
Chloroethane	ND		0.50	0.070	ug/L			10/29/21 14:51	1
Chloroform	ND		0.50	0.090	ug/L			10/29/21 14:51	1
Chloromethane	ND		0.50	0.060	ug/L			10/29/21 14:51	1
cis-1,2-Dichloroethene	**0.095**	**J**	0.50	0.050	ug/L			10/29/21 14:51	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			10/29/21 14:51	1
Dibromochloromethane	ND		0.50	0.070	ug/L			10/29/21 14:51	1
Ethylbenzene	ND		0.50	0.060	ug/L			10/29/21 14:51	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			10/29/21 14:51	1
Methylene Chloride	ND		0.50	0.070	ug/L			10/29/21 14:51	1
Styrene	ND		0.50	0.050	ug/L			10/29/21 14:51	1
Tetrachloroethene	ND		0.50	0.060	ug/L			10/29/21 14:51	1
Toluene	ND		0.50	0.070	ug/L			10/29/21 14:51	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			10/29/21 14:51	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			10/29/21 14:51	1
Trichloroethene	**0.15**	**J**	0.50	0.060	ug/L			10/29/21 14:51	1
Vinyl chloride	ND		0.50	0.10	ug/L			10/29/21 14:51	1
Xylenes, Total	ND		1.0	0.15	ug/L			10/29/21 14:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*80 - 120*		*10/29/21 14:51*	*1*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*10/29/21 14:51*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 120*		*10/29/21 14:51*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*10/29/21 14:51*	*1*

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

Date Collected: 10/20/21 12:05
Date Received: 10/21/21 18:58

Lab Sample ID: 410-60154-2

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			10/29/21 15:13	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			10/29/21 15:13	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			10/29/21 15:13	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			10/29/21 15:13	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			10/29/21 15:13	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			10/29/21 15:13	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			10/29/21 15:13	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			10/29/21 15:13	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			10/29/21 15:13	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			10/29/21 15:13	1
2-Hexanone	ND		5.0	0.60	ug/L			10/29/21 15:13	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			10/29/21 15:13	1
Acetone	**1.9**	**J**	5.0	0.90	ug/L			10/29/21 15:13	1
Benzene	ND		0.50	0.050	ug/L			10/29/21 15:13	1
Bromochloromethane	ND		0.50	0.050	ug/L			10/29/21 15:13	1
Bromodichloromethane	ND		0.50	0.050	ug/L			10/29/21 15:13	1
Bromoform	ND		1.0	0.30	ug/L			10/29/21 15:13	1
Bromomethane	ND		0.50	0.070	ug/L			10/29/21 15:13	1
Carbon disulfide	**0.099**	**J**	1.0	0.060	ug/L			10/29/21 15:13	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			10/29/21 15:13	1
Chlorobenzene	ND		0.50	0.060	ug/L			10/29/21 15:13	1
Chloroethane	ND		0.50	0.070	ug/L			10/29/21 15:13	1
Chloroform	**0.096**	**J**	0.50	0.090	ug/L			10/29/21 15:13	1
Chloromethane	**0.072**	**J**	0.50	0.060	ug/L			10/29/21 15:13	1
cis-1,2-Dichloroethene	**0.16**	**J**	0.50	0.050	ug/L			10/29/21 15:13	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			10/29/21 15:13	1
Dibromochloromethane	ND		0.50	0.070	ug/L			10/29/21 15:13	1
Ethylbenzene	ND		0.50	0.060	ug/L			10/29/21 15:13	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			10/29/21 15:13	1
Methylene Chloride	ND		0.50	0.070	ug/L			10/29/21 15:13	1
Styrene	ND		0.50	0.050	ug/L			10/29/21 15:13	1
Tetrachloroethene	**0.10**	**J**	0.50	0.060	ug/L			10/29/21 15:13	1
Toluene	ND		0.50	0.070	ug/L			10/29/21 15:13	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			10/29/21 15:13	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			10/29/21 15:13	1
Trichloroethene	**0.22**	**J**	0.50	0.060	ug/L			10/29/21 15:13	1
Vinyl chloride	ND		0.50	0.10	ug/L			10/29/21 15:13	1
Xylenes, Total	ND		1.0	0.15	ug/L			10/29/21 15:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 120*		*10/29/21 15:13*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*10/29/21 15:13*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 120*		*10/29/21 15:13*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*10/29/21 15:13*	*1*

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

Date Collected: 10/20/21 09:10
Date Received: 10/21/21 18:58

Lab Sample ID: 410-60154-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			10/29/21 15:34	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			10/29/21 15:34	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			10/29/21 15:34	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			10/29/21 15:34	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			10/29/21 15:34	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			10/29/21 15:34	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			10/29/21 15:34	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			10/29/21 15:34	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			10/29/21 15:34	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			10/29/21 15:34	1
2-Hexanone	ND		5.0	0.60	ug/L			10/29/21 15:34	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			10/29/21 15:34	1
Acetone	**1.5**	**J**	5.0	0.90	ug/L			10/29/21 15:34	1
Benzene	ND		0.50	0.050	ug/L			10/29/21 15:34	1
Bromochloromethane	ND		0.50	0.050	ug/L			10/29/21 15:34	1
Bromodichloromethane	ND		0.50	0.050	ug/L			10/29/21 15:34	1
Bromoform	ND		1.0	0.30	ug/L			10/29/21 15:34	1
Bromomethane	ND		0.50	0.070	ug/L			10/29/21 15:34	1
Carbon disulfide	**0.12**	**J**	1.0	0.060	ug/L			10/29/21 15:34	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			10/29/21 15:34	1
Chlorobenzene	ND		0.50	0.060	ug/L			10/29/21 15:34	1
Chloroethane	ND		0.50	0.070	ug/L			10/29/21 15:34	1
Chloroform	ND		0.50	0.090	ug/L			10/29/21 15:34	1
Chloromethane	**0.078**	**J**	0.50	0.060	ug/L			10/29/21 15:34	1
cis-1,2-Dichloroethene	**0.20**	**J**	0.50	0.050	ug/L			10/29/21 15:34	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			10/29/21 15:34	1
Dibromochloromethane	ND		0.50	0.070	ug/L			10/29/21 15:34	1
Ethylbenzene	ND		0.50	0.060	ug/L			10/29/21 15:34	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			10/29/21 15:34	1
Methylene Chloride	ND		0.50	0.070	ug/L			10/29/21 15:34	1
Styrene	ND		0.50	0.050	ug/L			10/29/21 15:34	1
Tetrachloroethene	**0.58**		0.50	0.060	ug/L			10/29/21 15:34	1
Toluene	ND		0.50	0.070	ug/L			10/29/21 15:34	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			10/29/21 15:34	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			10/29/21 15:34	1
Trichloroethene	**0.30**	**J**	0.50	0.060	ug/L			10/29/21 15:34	1
Vinyl chloride	ND		0.50	0.10	ug/L			10/29/21 15:34	1
Xylenes, Total	ND		1.0	0.15	ug/L			10/29/21 15:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*80 - 120*		*10/29/21 15:34*	*1*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*10/29/21 15:34*	*1*
Dibromofluoromethane (Surr)	*105*		*80 - 120*		*10/29/21 15:34*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*10/29/21 15:34*	*1*

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

Date Collected: 10/20/21 13:18
Date Received: 10/21/21 18:58

Lab Sample ID: 410-60154-4

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			10/29/21 15:55	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			10/29/21 15:55	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			10/29/21 15:55	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			10/29/21 15:55	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			10/29/21 15:55	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			10/29/21 15:55	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			10/29/21 15:55	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			10/29/21 15:55	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			10/29/21 15:55	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			10/29/21 15:55	1
2-Hexanone	ND		5.0	0.60	ug/L			10/29/21 15:55	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			10/29/21 15:55	1
Acetone	**2.3**	**J**	5.0	0.90	ug/L			10/29/21 15:55	1
Benzene	ND		0.50	0.050	ug/L			10/29/21 15:55	1
Bromochloromethane	ND		0.50	0.050	ug/L			10/29/21 15:55	1
Bromodichloromethane	ND		0.50	0.050	ug/L			10/29/21 15:55	1
Bromoform	ND		1.0	0.30	ug/L			10/29/21 15:55	1
Bromomethane	ND		0.50	0.070	ug/L			10/29/21 15:55	1
Carbon disulfide	ND		1.0	0.060	ug/L			10/29/21 15:55	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			10/29/21 15:55	1
Chlorobenzene	ND		0.50	0.060	ug/L			10/29/21 15:55	1
Chloroethane	ND		0.50	0.070	ug/L			10/29/21 15:55	1
Chloroform	**0.14**	**J**	0.50	0.090	ug/L			10/29/21 15:55	1
Chloromethane	ND		0.50	0.060	ug/L			10/29/21 15:55	1
cis-1,2-Dichloroethene	**0.079**	**J**	0.50	0.050	ug/L			10/29/21 15:55	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			10/29/21 15:55	1
Dibromochloromethane	ND		0.50	0.070	ug/L			10/29/21 15:55	1
Ethylbenzene	ND		0.50	0.060	ug/L			10/29/21 15:55	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			10/29/21 15:55	1
Methylene Chloride	ND		0.50	0.070	ug/L			10/29/21 15:55	1
Styrene	ND		0.50	0.050	ug/L			10/29/21 15:55	1
Tetrachloroethene	**0.18**	**J**	0.50	0.060	ug/L			10/29/21 15:55	1
Toluene	ND		0.50	0.070	ug/L			10/29/21 15:55	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			10/29/21 15:55	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			10/29/21 15:55	1
Trichloroethene	**0.11**	**J**	0.50	0.060	ug/L			10/29/21 15:55	1
Vinyl chloride	ND		0.50	0.10	ug/L			10/29/21 15:55	1
Xylenes, Total	ND		1.0	0.15	ug/L			10/29/21 15:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*80 - 120*		*10/29/21 15:55*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*10/29/21 15:55*	*1*
Dibromofluoromethane (Surr)	*105*		*80 - 120*		*10/29/21 15:55*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*10/29/21 15:55*	*1*

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

Date Collected: 10/20/21 09:35
Date Received: 10/21/21 18:58

Lab Sample ID: 410-60154-5

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			10/29/21 16:16	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			10/29/21 16:16	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			10/29/21 16:16	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			10/29/21 16:16	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			10/29/21 16:16	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			10/29/21 16:16	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			10/29/21 16:16	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			10/29/21 16:16	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			10/29/21 16:16	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			10/29/21 16:16	1
2-Hexanone	ND		5.0	0.60	ug/L			10/29/21 16:16	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			10/29/21 16:16	1
Acetone	**1.5**	**J**	5.0	0.90	ug/L			10/29/21 16:16	1
Benzene	ND		0.50	0.050	ug/L			10/29/21 16:16	1
Bromochloromethane	ND		0.50	0.050	ug/L			10/29/21 16:16	1
Bromodichloromethane	ND		0.50	0.050	ug/L			10/29/21 16:16	1
Bromoform	ND		1.0	0.30	ug/L			10/29/21 16:16	1
Bromomethane	ND		0.50	0.070	ug/L			10/29/21 16:16	1
Carbon disulfide	ND		1.0	0.060	ug/L			10/29/21 16:16	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			10/29/21 16:16	1
Chlorobenzene	ND		0.50	0.060	ug/L			10/29/21 16:16	1
Chloroethane	ND		0.50	0.070	ug/L			10/29/21 16:16	1
Chloroform	ND		0.50	0.090	ug/L			10/29/21 16:16	1
Chloromethane	**0.065**	**J**	0.50	0.060	ug/L			10/29/21 16:16	1
cis-1,2-Dichloroethene	**0.20**	**J**	0.50	0.050	ug/L			10/29/21 16:16	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			10/29/21 16:16	1
Dibromochloromethane	ND		0.50	0.070	ug/L			10/29/21 16:16	1
Ethylbenzene	ND		0.50	0.060	ug/L			10/29/21 16:16	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			10/29/21 16:16	1
Methylene Chloride	ND		0.50	0.070	ug/L			10/29/21 16:16	1
Styrene	ND		0.50	0.050	ug/L			10/29/21 16:16	1
Tetrachloroethene	**0.67**		0.50	0.060	ug/L			10/29/21 16:16	1
Toluene	ND		0.50	0.070	ug/L			10/29/21 16:16	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			10/29/21 16:16	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			10/29/21 16:16	1
Trichloroethene	**0.33**	**J**	0.50	0.060	ug/L			10/29/21 16:16	1
Vinyl chloride	ND		0.50	0.10	ug/L			10/29/21 16:16	1
Xylenes, Total	ND		1.0	0.15	ug/L			10/29/21 16:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*80 - 120*		*10/29/21 16:16*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*10/29/21 16:16*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 120*		*10/29/21 16:16*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*10/29/21 16:16*	*1*

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

Date Collected: 10/20/21 12:30
Date Received: 10/21/21 18:58

Lab Sample ID: 410-60154-6

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			10/29/21 13:26	1
1,1,1-Trichloroethane	**0.18**	**J**	0.50	0.060	ug/L			10/29/21 13:26	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			10/29/21 13:26	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			10/29/21 13:26	1
1,1-Dichloroethane	**0.086**	**J**	0.50	0.070	ug/L			10/29/21 13:26	1
1,1-Dichloroethene	**0.11**	**J**	0.50	0.060	ug/L			10/29/21 13:26	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			10/29/21 13:26	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			10/29/21 13:26	1
1,2-Dichloropropane	ND	FH	0.50	0.060	ug/L			10/29/21 13:26	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			10/29/21 13:26	1
2-Hexanone	ND		5.0	0.60	ug/L			10/29/21 13:26	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			10/29/21 13:26	1
Acetone	ND		5.0	0.90	ug/L			10/29/21 13:26	1
Benzene	ND		0.50	0.050	ug/L			10/29/21 13:26	1
Bromochloromethane	ND		0.50	0.050	ug/L			10/29/21 13:26	1
Bromodichloromethane	ND		0.50	0.050	ug/L			10/29/21 13:26	1
Bromoform	ND		1.0	0.30	ug/L			10/29/21 13:26	1
Bromomethane	ND		0.50	0.070	ug/L			10/29/21 13:26	1
Carbon disulfide	ND		1.0	0.060	ug/L			10/29/21 13:26	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			10/29/21 13:26	1
Chlorobenzene	ND		0.50	0.060	ug/L			10/29/21 13:26	1
Chloroethane	ND		0.50	0.070	ug/L			10/29/21 13:26	1
Chloroform	**0.33**	**J**	0.50	0.090	ug/L			10/29/21 13:26	1
Chloromethane	ND	FH	0.50	0.060	ug/L			10/29/21 13:26	1
cis-1,2-Dichloroethene	**0.88**	**FH**	0.50	0.050	ug/L			10/29/21 13:26	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			10/29/21 13:26	1
Dibromochloromethane	ND		0.50	0.070	ug/L			10/29/21 13:26	1
Ethylbenzene	ND		0.50	0.060	ug/L			10/29/21 13:26	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			10/29/21 13:26	1
Methylene Chloride	ND		0.50	0.070	ug/L			10/29/21 13:26	1
Styrene	ND		0.50	0.050	ug/L			10/29/21 13:26	1
Tetrachloroethene	**3.6**	**FH**	0.50	0.060	ug/L			10/29/21 13:26	1
Toluene	ND		0.50	0.070	ug/L			10/29/21 13:26	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			10/29/21 13:26	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			10/29/21 13:26	1
Trichloroethene	**1.0**	**FH**	0.50	0.060	ug/L			10/29/21 13:26	1
Vinyl chloride	ND		0.50	0.10	ug/L			10/29/21 13:26	1
Xylenes, Total	ND		1.0	0.15	ug/L			10/29/21 13:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*80 - 120*		*10/29/21 13:26*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*10/29/21 13:26*	*1*
Dibromofluoromethane (Surr)	*105*		*80 - 120*		*10/29/21 13:26*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*10/29/21 13:26*	*1*

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

Date Collected: 10/20/21 09:50
Date Received: 10/21/21 18:58

Lab Sample ID: 410-60154-7

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			10/29/21 16:37	1
1,1,1-Trichloroethane	**0.067**	**J**	0.50	0.060	ug/L			10/29/21 16:37	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			10/29/21 16:37	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			10/29/21 16:37	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			10/29/21 16:37	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			10/29/21 16:37	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			10/29/21 16:37	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			10/29/21 16:37	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			10/29/21 16:37	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			10/29/21 16:37	1
2-Hexanone	ND		5.0	0.60	ug/L			10/29/21 16:37	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			10/29/21 16:37	1
Acetone	**1.4**	**J**	5.0	0.90	ug/L			10/29/21 16:37	1
Benzene	ND		0.50	0.050	ug/L			10/29/21 16:37	1
Bromochloromethane	ND		0.50	0.050	ug/L			10/29/21 16:37	1
Bromodichloromethane	ND		0.50	0.050	ug/L			10/29/21 16:37	1
Bromoform	ND		1.0	0.30	ug/L			10/29/21 16:37	1
Bromomethane	ND		0.50	0.070	ug/L			10/29/21 16:37	1
Carbon disulfide	ND		1.0	0.060	ug/L			10/29/21 16:37	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			10/29/21 16:37	1
Chlorobenzene	ND		0.50	0.060	ug/L			10/29/21 16:37	1
Chloroethane	ND		0.50	0.070	ug/L			10/29/21 16:37	1
Chloroform	ND		0.50	0.090	ug/L			10/29/21 16:37	1
Chloromethane	ND		0.50	0.060	ug/L			10/29/21 16:37	1
cis-1,2-Dichloroethene	**0.19**	**J**	0.50	0.050	ug/L			10/29/21 16:37	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			10/29/21 16:37	1
Dibromochloromethane	ND		0.50	0.070	ug/L			10/29/21 16:37	1
Ethylbenzene	ND		0.50	0.060	ug/L			10/29/21 16:37	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			10/29/21 16:37	1
Methylene Chloride	ND		0.50	0.070	ug/L			10/29/21 16:37	1
Styrene	ND		0.50	0.050	ug/L			10/29/21 16:37	1
Tetrachloroethene	**0.97**		0.50	0.060	ug/L			10/29/21 16:37	1
Toluene	ND		0.50	0.070	ug/L			10/29/21 16:37	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			10/29/21 16:37	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			10/29/21 16:37	1
Trichloroethene	**0.35**	**J**	0.50	0.060	ug/L			10/29/21 16:37	1
Vinyl chloride	ND		0.50	0.10	ug/L			10/29/21 16:37	1
Xylenes, Total	ND		1.0	0.15	ug/L			10/29/21 16:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*80 - 120*		*10/29/21 16:37*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*10/29/21 16:37*	*1*
Dibromofluoromethane (Surr)	*105*		*80 - 120*		*10/29/21 16:37*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*10/29/21 16:37*	*1*

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

Date Collected: 10/20/21 10:15
Date Received: 10/21/21 18:58

Lab Sample ID: 410-60154-8

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			10/29/21 16:59	1
1,1,1-Trichloroethane	**4.5**		0.50	0.060	ug/L			10/29/21 16:59	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			10/29/21 16:59	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			10/29/21 16:59	1
1,1-Dichloroethane	**0.63**		0.50	0.070	ug/L			10/29/21 16:59	1
1,1-Dichloroethene	**0.50**		0.50	0.060	ug/L			10/29/21 16:59	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			10/29/21 16:59	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			10/29/21 16:59	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			10/29/21 16:59	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			10/29/21 16:59	1
2-Hexanone	ND		5.0	0.60	ug/L			10/29/21 16:59	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			10/29/21 16:59	1
Acetone	ND		5.0	0.90	ug/L			10/29/21 16:59	1
Benzene	ND		0.50	0.050	ug/L			10/29/21 16:59	1
Bromochloromethane	ND		0.50	0.050	ug/L			10/29/21 16:59	1
Bromodichloromethane	ND		0.50	0.050	ug/L			10/29/21 16:59	1
Bromoform	ND		1.0	0.30	ug/L			10/29/21 16:59	1
Bromomethane	ND		0.50	0.070	ug/L			10/29/21 16:59	1
Carbon disulfide	ND		1.0	0.060	ug/L			10/29/21 16:59	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			10/29/21 16:59	1
Chlorobenzene	ND		0.50	0.060	ug/L			10/29/21 16:59	1
Chloroethane	ND		0.50	0.070	ug/L			10/29/21 16:59	1
Chloroform	**0.32**	**J**	0.50	0.090	ug/L			10/29/21 16:59	1
Chloromethane	ND		0.50	0.060	ug/L			10/29/21 16:59	1
cis-1,2-Dichloroethene	**3.9**		0.50	0.050	ug/L			10/29/21 16:59	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			10/29/21 16:59	1
Dibromochloromethane	ND		0.50	0.070	ug/L			10/29/21 16:59	1
Ethylbenzene	ND		0.50	0.060	ug/L			10/29/21 16:59	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			10/29/21 16:59	1
Methylene Chloride	ND		0.50	0.070	ug/L			10/29/21 16:59	1
Styrene	ND		0.50	0.050	ug/L			10/29/21 16:59	1
Toluene	ND		0.50	0.070	ug/L			10/29/21 16:59	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			10/29/21 16:59	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			10/29/21 16:59	1
Trichloroethene	**11**		0.50	0.060	ug/L			10/29/21 16:59	1
Vinyl chloride	ND		0.50	0.10	ug/L			10/29/21 16:59	1
Xylenes, Total	ND		1.0	0.15	ug/L			10/29/21 16:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*80 - 120*		*10/29/21 16:59*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*10/29/21 16:59*	*1*
Dibromofluoromethane (Surr)	*105*		*80 - 120*		*10/29/21 16:59*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*10/29/21 16:59*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	**51**		5.0	0.60	ug/L			11/01/21 15:16	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*80 - 120*		*11/01/21 15:16*	*10*

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

Lab Sample ID: 410-60154-8

Date Collected: 10/20/21 10:15
Matrix: Water
Date Received: 10/21/21 18:58

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*11/01/21 15:16*	*10*
Dibromofluoromethane (Surr)	*105*		*80 - 120*		*11/01/21 15:16*	*10*
Toluene-d8 (Surr)	*100*		*80 - 120*		*11/01/21 15:16*	*10*

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

Lab Sample ID: 410-60154-9

Date Collected: 10/20/21 11:50
Matrix: Water
Date Received: 10/21/21 18:58

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			10/29/21 17:20	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			10/29/21 17:20	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			10/29/21 17:20	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			10/29/21 17:20	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			10/29/21 17:20	1
1,1-Dichloroethene	**0.21**	**J**	0.50	0.060	ug/L			10/29/21 17:20	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			10/29/21 17:20	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			10/29/21 17:20	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			10/29/21 17:20	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			10/29/21 17:20	1
2-Hexanone	ND		5.0	0.60	ug/L			10/29/21 17:20	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			10/29/21 17:20	1
Acetone	ND		5.0	0.90	ug/L			10/29/21 17:20	1
Benzene	ND		0.50	0.050	ug/L			10/29/21 17:20	1
Bromochloromethane	ND		0.50	0.050	ug/L			10/29/21 17:20	1
Bromodichloromethane	ND		0.50	0.050	ug/L			10/29/21 17:20	1
Bromoform	ND		1.0	0.30	ug/L			10/29/21 17:20	1
Bromomethane	ND		0.50	0.070	ug/L			10/29/21 17:20	1
Carbon disulfide	ND		1.0	0.060	ug/L			10/29/21 17:20	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			10/29/21 17:20	1
Chlorobenzene	ND		0.50	0.060	ug/L			10/29/21 17:20	1
Chloroethane	ND		0.50	0.070	ug/L			10/29/21 17:20	1
Chloroform	**0.74**		0.50	0.090	ug/L			10/29/21 17:20	1
Chloromethane	ND		0.50	0.060	ug/L			10/29/21 17:20	1
cis-1,2-Dichloroethene	**0.063**	**J**	0.50	0.050	ug/L			10/29/21 17:20	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			10/29/21 17:20	1
Dibromochloromethane	ND		0.50	0.070	ug/L			10/29/21 17:20	1
Ethylbenzene	ND		0.50	0.060	ug/L			10/29/21 17:20	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			10/29/21 17:20	1
Methylene Chloride	ND		0.50	0.070	ug/L			10/29/21 17:20	1
Styrene	ND		0.50	0.050	ug/L			10/29/21 17:20	1
Tetrachloroethene	**3.7**		0.50	0.060	ug/L			10/29/21 17:20	1
Toluene	ND		0.50	0.070	ug/L			10/29/21 17:20	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			10/29/21 17:20	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			10/29/21 17:20	1
Trichloroethene	**0.18**	**J**	0.50	0.060	ug/L			10/29/21 17:20	1
Vinyl chloride	ND		0.50	0.10	ug/L			10/29/21 17:20	1
Xylenes, Total	ND		1.0	0.15	ug/L			10/29/21 17:20	1

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

Lab Sample ID: 410-60154-9

Date Collected: 10/20/21 11:50

Matrix: Water

Date Received: 10/21/21 18:58

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*80 - 120*		*10/29/21 17:20*	*1*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*10/29/21 17:20*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 120*		*10/29/21 17:20*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*10/29/21 17:20*	*1*

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

Lab Sample ID: 410-60154-10

Date Collected: 10/20/21 12:20

Matrix: Water

Date Received: 10/21/21 18:58

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			10/29/21 17:41	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			10/29/21 17:41	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			10/29/21 17:41	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			10/29/21 17:41	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			10/29/21 17:41	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			10/29/21 17:41	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			10/29/21 17:41	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			10/29/21 17:41	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			10/29/21 17:41	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			10/29/21 17:41	1
2-Hexanone	ND		5.0	0.60	ug/L			10/29/21 17:41	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			10/29/21 17:41	1
Acetone	**2.4**	**J**	5.0	0.90	ug/L			10/29/21 17:41	1
Benzene	ND		0.50	0.050	ug/L			10/29/21 17:41	1
Bromochloromethane	ND		0.50	0.050	ug/L			10/29/21 17:41	1
Bromodichloromethane	ND		0.50	0.050	ug/L			10/29/21 17:41	1
Bromoform	ND		1.0	0.30	ug/L			10/29/21 17:41	1
Bromomethane	ND		0.50	0.070	ug/L			10/29/21 17:41	1
Carbon disulfide	**0.13**	**J**	1.0	0.060	ug/L			10/29/21 17:41	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			10/29/21 17:41	1
Chlorobenzene	ND		0.50	0.060	ug/L			10/29/21 17:41	1
Chloroethane	ND		0.50	0.070	ug/L			10/29/21 17:41	1
Chloroform	ND		0.50	0.090	ug/L			10/29/21 17:41	1
Chloromethane	ND		0.50	0.060	ug/L			10/29/21 17:41	1
cis-1,2-Dichloroethene	ND		0.50	0.050	ug/L			10/29/21 17:41	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			10/29/21 17:41	1
Dibromochloromethane	ND		0.50	0.070	ug/L			10/29/21 17:41	1
Ethylbenzene	ND		0.50	0.060	ug/L			10/29/21 17:41	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			10/29/21 17:41	1
Methylene Chloride	ND		0.50	0.070	ug/L			10/29/21 17:41	1
Styrene	ND		0.50	0.050	ug/L			10/29/21 17:41	1
Tetrachloroethene	**0.094**	**J**	0.50	0.060	ug/L			10/29/21 17:41	1
Toluene	ND		0.50	0.070	ug/L			10/29/21 17:41	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			10/29/21 17:41	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			10/29/21 17:41	1
Trichloroethene	**0.18**	**J**	0.50	0.060	ug/L			10/29/21 17:41	1
Vinyl chloride	ND		0.50	0.10	ug/L			10/29/21 17:41	1
Xylenes, Total	ND		1.0	0.15	ug/L			10/29/21 17:41	1

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

Lab Sample ID: 410-60154-10

Date Collected: 10/20/21 12:20

Matrix: Water

Date Received: 10/21/21 18:58

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*80 - 120*		*10/29/21 17:41*	*1*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*10/29/21 17:41*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 120*		*10/29/21 17:41*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*10/29/21 17:41*	*1*

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

Lab Sample ID: 410-60154-11

Date Collected: 10/20/21 13:40

Matrix: Water

Date Received: 10/21/21 18:58

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			10/29/21 18:02	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			10/29/21 18:02	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			10/29/21 18:02	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			10/29/21 18:02	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			10/29/21 18:02	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			10/29/21 18:02	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			10/29/21 18:02	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			10/29/21 18:02	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			10/29/21 18:02	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			10/29/21 18:02	1
2-Hexanone	ND		5.0	0.60	ug/L			10/29/21 18:02	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			10/29/21 18:02	1
Acetone	**2.2**	**J**	5.0	0.90	ug/L			10/29/21 18:02	1
Benzene	ND		0.50	0.050	ug/L			10/29/21 18:02	1
Bromochloromethane	ND		0.50	0.050	ug/L			10/29/21 18:02	1
Bromodichloromethane	ND		0.50	0.050	ug/L			10/29/21 18:02	1
Bromoform	ND		1.0	0.30	ug/L			10/29/21 18:02	1
Bromomethane	ND		0.50	0.070	ug/L			10/29/21 18:02	1
Carbon disulfide	ND		1.0	0.060	ug/L			10/29/21 18:02	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			10/29/21 18:02	1
Chlorobenzene	ND		0.50	0.060	ug/L			10/29/21 18:02	1
Chloroethane	ND		0.50	0.070	ug/L			10/29/21 18:02	1
Chloroform	**0.13**	**J**	0.50	0.090	ug/L			10/29/21 18:02	1
Chloromethane	ND		0.50	0.060	ug/L			10/29/21 18:02	1
cis-1,2-Dichloroethene	**0.099**	**J**	0.50	0.050	ug/L			10/29/21 18:02	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			10/29/21 18:02	1
Dibromochloromethane	ND		0.50	0.070	ug/L			10/29/21 18:02	1
Ethylbenzene	ND		0.50	0.060	ug/L			10/29/21 18:02	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			10/29/21 18:02	1
Methylene Chloride	ND		0.50	0.070	ug/L			10/29/21 18:02	1
Styrene	ND		0.50	0.050	ug/L			10/29/21 18:02	1
Tetrachloroethene	**0.22**	**J**	0.50	0.060	ug/L			10/29/21 18:02	1
Toluene	**0.072**	**J**	0.50	0.070	ug/L			10/29/21 18:02	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			10/29/21 18:02	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			10/29/21 18:02	1
Trichloroethene	**0.14**	**J**	0.50	0.060	ug/L			10/29/21 18:02	1
Vinyl chloride	ND		0.50	0.10	ug/L			10/29/21 18:02	1
Xylenes, Total	ND		1.0	0.15	ug/L			10/29/21 18:02	1

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

Lab Sample ID: 410-60154-11

Date Collected: 10/20/21 13:40

Matrix: Water

Date Received: 10/21/21 18:58

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*80 - 120*		*10/29/21 18:02*	*1*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*10/29/21 18:02*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 120*		*10/29/21 18:02*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*10/29/21 18:02*	*1*

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

Lab Sample ID: 410-60154-12

Date Collected: 10/20/21 09:00

Matrix: Water

Date Received: 10/21/21 18:58

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			10/29/21 18:24	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			10/29/21 18:24	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			10/29/21 18:24	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			10/29/21 18:24	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			10/29/21 18:24	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			10/29/21 18:24	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			10/29/21 18:24	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			10/29/21 18:24	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			10/29/21 18:24	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			10/29/21 18:24	1
2-Hexanone	ND		5.0	0.60	ug/L			10/29/21 18:24	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			10/29/21 18:24	1
Acetone	**1.4**	**J**	5.0	0.90	ug/L			10/29/21 18:24	1
Benzene	ND		0.50	0.050	ug/L			10/29/21 18:24	1
Bromochloromethane	ND		0.50	0.050	ug/L			10/29/21 18:24	1
Bromodichloromethane	ND		0.50	0.050	ug/L			10/29/21 18:24	1
Bromoform	ND		1.0	0.30	ug/L			10/29/21 18:24	1
Bromomethane	ND		0.50	0.070	ug/L			10/29/21 18:24	1
Carbon disulfide	ND		1.0	0.060	ug/L			10/29/21 18:24	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			10/29/21 18:24	1
Chlorobenzene	ND		0.50	0.060	ug/L			10/29/21 18:24	1
Chloroethane	ND		0.50	0.070	ug/L			10/29/21 18:24	1
Chloroform	ND		0.50	0.090	ug/L			10/29/21 18:24	1
Chloromethane	**0.063**	**J**	0.50	0.060	ug/L			10/29/21 18:24	1
cis-1,2-Dichloroethene	**0.18**	**J**	0.50	0.050	ug/L			10/29/21 18:24	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			10/29/21 18:24	1
Dibromochloromethane	ND		0.50	0.070	ug/L			10/29/21 18:24	1
Ethylbenzene	ND		0.50	0.060	ug/L			10/29/21 18:24	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			10/29/21 18:24	1
Methylene Chloride	ND		0.50	0.070	ug/L			10/29/21 18:24	1
Styrene	ND		0.50	0.050	ug/L			10/29/21 18:24	1
Tetrachloroethene	**0.43**	**J**	0.50	0.060	ug/L			10/29/21 18:24	1
Toluene	ND		0.50	0.070	ug/L			10/29/21 18:24	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			10/29/21 18:24	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			10/29/21 18:24	1
Trichloroethene	**0.29**	**J**	0.50	0.060	ug/L			10/29/21 18:24	1
Vinyl chloride	ND		0.50	0.10	ug/L			10/29/21 18:24	1
Xylenes, Total	ND		1.0	0.15	ug/L			10/29/21 18:24	1

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

Lab Sample ID: 410-60154-12

Date Collected: 10/20/21 09:00
Matrix: Water
Date Received: 10/21/21 18:58

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*105*		*80 - 120*		*10/29/21 18:24*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*10/29/21 18:24*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 120*		*10/29/21 18:24*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*10/29/21 18:24*	*1*

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

Lab Sample ID: 410-60154-13

Date Collected: 10/20/21 12:00
Matrix: Water
Date Received: 10/21/21 18:58

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			10/29/21 18:45	1
1,1,1-Trichloroethane	**4.6**		0.50	0.060	ug/L			10/29/21 18:45	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			10/29/21 18:45	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			10/29/21 18:45	1
1,1-Dichloroethane	**0.66**		0.50	0.070	ug/L			10/29/21 18:45	1
1,1-Dichloroethene	**0.52**		0.50	0.060	ug/L			10/29/21 18:45	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			10/29/21 18:45	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			10/29/21 18:45	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			10/29/21 18:45	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			10/29/21 18:45	1
2-Hexanone	ND		5.0	0.60	ug/L			10/29/21 18:45	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			10/29/21 18:45	1
Acetone	ND		5.0	0.90	ug/L			10/29/21 18:45	1
Benzene	ND		0.50	0.050	ug/L			10/29/21 18:45	1
Bromochloromethane	ND		0.50	0.050	ug/L			10/29/21 18:45	1
Bromodichloromethane	ND		0.50	0.050	ug/L			10/29/21 18:45	1
Bromoform	ND		1.0	0.30	ug/L			10/29/21 18:45	1
Bromomethane	ND		0.50	0.070	ug/L			10/29/21 18:45	1
Carbon disulfide	ND		1.0	0.060	ug/L			10/29/21 18:45	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			10/29/21 18:45	1
Chlorobenzene	ND		0.50	0.060	ug/L			10/29/21 18:45	1
Chloroethane	ND		0.50	0.070	ug/L			10/29/21 18:45	1
Chloroform	**0.33**	**J**	0.50	0.090	ug/L			10/29/21 18:45	1
Chloromethane	ND		0.50	0.060	ug/L			10/29/21 18:45	1
cis-1,2-Dichloroethene	**4.0**		0.50	0.050	ug/L			10/29/21 18:45	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			10/29/21 18:45	1
Dibromochloromethane	ND		0.50	0.070	ug/L			10/29/21 18:45	1
Ethylbenzene	ND		0.50	0.060	ug/L			10/29/21 18:45	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			10/29/21 18:45	1
Methylene Chloride	ND		0.50	0.070	ug/L			10/29/21 18:45	1
Styrene	ND		0.50	0.050	ug/L			10/29/21 18:45	1
Toluene	ND		0.50	0.070	ug/L			10/29/21 18:45	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			10/29/21 18:45	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			10/29/21 18:45	1
Trichloroethene	**12**		0.50	0.060	ug/L			10/29/21 18:45	1
Vinyl chloride	ND		0.50	0.10	ug/L			10/29/21 18:45	1
Xylenes, Total	ND		1.0	0.15	ug/L			10/29/21 18:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*107*		*80 - 120*		*10/29/21 18:45*	*1*

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

Date Collected: 10/20/21 12:00
Date Received: 10/21/21 18:58

Lab Sample ID: 410-60154-13

Matrix: Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*10/29/21 18:45*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 120*		*10/29/21 18:45*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*10/29/21 18:45*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	**49**		5.0	0.60	ug/L			11/01/21 15:38	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*80 - 120*		*11/01/21 15:38*	*10*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*11/01/21 15:38*	*10*
Dibromofluoromethane (Surr)	*106*		*80 - 120*		*11/01/21 15:38*	*10*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/01/21 15:38*	*10*

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

Date Collected: 10/20/21 00:00
Date Received: 10/21/21 18:58

Lab Sample ID: 410-60154-14

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			10/29/21 11:41	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			10/29/21 11:41	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			10/29/21 11:41	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			10/29/21 11:41	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			10/29/21 11:41	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			10/29/21 11:41	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			10/29/21 11:41	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			10/29/21 11:41	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			10/29/21 11:41	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			10/29/21 11:41	1
2-Hexanone	ND		5.0	0.60	ug/L			10/29/21 11:41	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			10/29/21 11:41	1
Acetone	ND		5.0	0.90	ug/L			10/29/21 11:41	1
Benzene	ND		0.50	0.050	ug/L			10/29/21 11:41	1
Bromochloromethane	ND		0.50	0.050	ug/L			10/29/21 11:41	1
Bromodichloromethane	ND		0.50	0.050	ug/L			10/29/21 11:41	1
Bromoform	ND		1.0	0.30	ug/L			10/29/21 11:41	1
Bromomethane	ND		0.50	0.070	ug/L			10/29/21 11:41	1
Carbon disulfide	ND		1.0	0.060	ug/L			10/29/21 11:41	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			10/29/21 11:41	1
Chlorobenzene	ND		0.50	0.060	ug/L			10/29/21 11:41	1
Chloroethane	ND		0.50	0.070	ug/L			10/29/21 11:41	1
Chloroform	ND		0.50	0.090	ug/L			10/29/21 11:41	1
Chloromethane	ND		0.50	0.060	ug/L			10/29/21 11:41	1
cis-1,2-Dichloroethene	ND		0.50	0.050	ug/L			10/29/21 11:41	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			10/29/21 11:41	1
Dibromochloromethane	ND		0.50	0.070	ug/L			10/29/21 11:41	1
Ethylbenzene	ND		0.50	0.060	ug/L			10/29/21 11:41	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			10/29/21 11:41	1
Methylene Chloride	ND		0.50	0.070	ug/L			10/29/21 11:41	1

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

Job ID: 410-60154-1

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

Date Collected: 10/20/21 00:00
Date Received: 10/21/21 18:58

Lab Sample ID: 410-60154-14

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		0.50	0.050	ug/L			10/29/21 11:41	1
Tetrachloroethene	ND		0.50	0.060	ug/L			10/29/21 11:41	1
Toluene	ND		0.50	0.070	ug/L			10/29/21 11:41	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			10/29/21 11:41	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			10/29/21 11:41	1
Trichloroethene	ND		0.50	0.060	ug/L			10/29/21 11:41	1
Vinyl chloride	ND		0.50	0.10	ug/L			10/29/21 11:41	1
Xylenes, Total	ND		1.0	0.15	ug/L			10/29/21 11:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*80 - 120*		*10/29/21 11:41*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*10/29/21 11:41*	*1*
Dibromofluoromethane (Surr)	*106*		*80 - 120*		*10/29/21 11:41*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*10/29/21 11:41*	*1*

Default Detection Limits

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

Job ID: 410-60154-1

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: 410-60154-1

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-60154-1	HD-COD-SW-6-0/1-0	107	95	104	101
410-60154-2	HD-COD-SW-7-0/1-0	104	96	104	101
410-60154-3	HD-COD-SW-8-0/1-0	107	94	105	101
410-60154-4	HD-COD-SW-9-0/1-0	106	97	105	101
410-60154-5	HD-COD-SW-13-0/1-0	107	96	106	101
410-60154-6	HD-COD-SW-15-0/1-0	105	96	105	101
410-60154-6 MS	HD-COD-SW-15-0/1-0 MS	103	97	102	102
410-60154-6 MSD	HD-COD-SW-15-0/1-0 MSD	103	98	102	102
410-60154-7	HD-COD-SW-16-0/1-0	107	97	105	102
410-60154-8	HD-COD-SW-17-0/1-0	105	96	105	102
410-60154-8 - DL	HD-COD-SW-17-0/1-0	108	95	105	100
410-60154-9	HD-COD-SW-26-0/1-0	106	94	106	101
410-60154-10	HD-COD-SW-27-0/1-0	106	95	106	101
410-60154-11	HD-COD-SW-28-0/1-0	108	95	106	101
410-60154-12	HD-COD-SW-29-0/1-0	105	96	106	102
410-60154-13	HD-QC1-0/1-1	107	96	106	101
410-60154-13 - DL	HD-QC1-0/1-1	108	95	106	101
410-60154-14	HD-QC1-0/1-2	107	97	106	101
LCS 410-188555/4	Lab Control Sample	107	98	102	102
LCS 410-189194/4	Lab Control Sample	102	98	102	102
LCSD 410-188555/5	Lab Control Sample Dup	104	98	103	102
LCSD 410-189194/5	Lab Control Sample Dup	104	98	102	101
MB 410-188555/11	Method Blank	107	96	105	100
MB 410-189194/11	Method Blank	105	96	105	101

Surrogate Legend

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

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

Lab Sample ID: MB 410-188555/11
Matrix: Water
Analysis Batch: 188555

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			10/29/21 11:20	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			10/29/21 11:20	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			10/29/21 11:20	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			10/29/21 11:20	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			10/29/21 11:20	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			10/29/21 11:20	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			10/29/21 11:20	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			10/29/21 11:20	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			10/29/21 11:20	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			10/29/21 11:20	1
2-Hexanone	ND		5.0	0.60	ug/L			10/29/21 11:20	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			10/29/21 11:20	1
Acetone	ND		5.0	0.90	ug/L			10/29/21 11:20	1
Benzene	ND		0.50	0.050	ug/L			10/29/21 11:20	1
Bromochloromethane	ND		0.50	0.050	ug/L			10/29/21 11:20	1
Bromodichloromethane	ND		0.50	0.050	ug/L			10/29/21 11:20	1
Bromoform	ND		1.0	0.30	ug/L			10/29/21 11:20	1
Bromomethane	ND		0.50	0.070	ug/L			10/29/21 11:20	1
Carbon disulfide	ND		1.0	0.060	ug/L			10/29/21 11:20	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			10/29/21 11:20	1
Chlorobenzene	ND		0.50	0.060	ug/L			10/29/21 11:20	1
Chloroethane	ND		0.50	0.070	ug/L			10/29/21 11:20	1
Chloroform	ND		0.50	0.090	ug/L			10/29/21 11:20	1
Chloromethane	ND		0.50	0.060	ug/L			10/29/21 11:20	1
cis-1,2-Dichloroethene	ND		0.50	0.050	ug/L			10/29/21 11:20	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			10/29/21 11:20	1
Dibromochloromethane	ND		0.50	0.070	ug/L			10/29/21 11:20	1
Ethylbenzene	ND		0.50	0.060	ug/L			10/29/21 11:20	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			10/29/21 11:20	1
Methylene Chloride	ND		0.50	0.070	ug/L			10/29/21 11:20	1
Styrene	ND		0.50	0.050	ug/L			10/29/21 11:20	1
Tetrachloroethene	ND		0.50	0.060	ug/L			10/29/21 11:20	1
Toluene	ND		0.50	0.070	ug/L			10/29/21 11:20	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			10/29/21 11:20	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			10/29/21 11:20	1
Trichloroethene	ND		0.50	0.060	ug/L			10/29/21 11:20	1
Vinyl chloride	ND		0.50	0.10	ug/L			10/29/21 11:20	1
Xylenes, Total	ND		1.0	0.15	ug/L			10/29/21 11:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*80 - 120*		*10/29/21 11:20*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*10/29/21 11:20*	*1*
Dibromofluoromethane (Surr)	*105*		*80 - 120*		*10/29/21 11:20*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*10/29/21 11:20*	*1*

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

Lab Sample ID: LCS 410-188555/4
Matrix: Water
Analysis Batch: 188555

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	5.46		ug/L		109	71 - 134
1,1,1-Trichloroethane	5.00	5.60		ug/L		112	78 - 126
1,1,2,2-Tetrachloroethane	5.00	5.62		ug/L		112	75 - 123
1,1,2-Trichloroethane	5.00	5.66		ug/L		113	80 - 120
1,1-Dichloroethane	5.00	5.47		ug/L		109	74 - 120
1,1-Dichloroethene	5.00	5.69		ug/L		114	80 - 131
1,2-Dibromoethane (EDB)	5.00	5.57		ug/L		111	80 - 120
1,2-Dichloroethane	5.00	5.37		ug/L		107	69 - 122
1,2-Dichloropropane	5.00	5.66		ug/L		113	80 - 120
2-Butanone (MEK)	62.5	61.4		ug/L		98	59 - 141
2-Hexanone	62.5	60.6		ug/L		97	52 - 140
4-Methyl-2-pentanone (MIBK)	62.5	59.6		ug/L		95	55 - 140
Acetone	62.5	60.5		ug/L		97	60 - 146
Benzene	5.00	5.51		ug/L		110	80 - 120
Bromochloromethane	5.00	5.83		ug/L		117	80 - 120
Bromodichloromethane	5.00	5.81		ug/L		116	73 - 124
Bromoform	5.00	5.69		ug/L		114	49 - 144
Bromomethane	5.00	5.18		ug/L		104	60 - 136
Carbon disulfide	5.00	5.28		ug/L		106	67 - 130
Carbon tetrachloride	5.00	5.67		ug/L		113	64 - 141
Chlorobenzene	5.00	5.36		ug/L		107	80 - 120
Chloroethane	5.00	5.23		ug/L		105	63 - 120
Chloroform	5.00	5.62		ug/L		112	80 - 120
Chloromethane	5.00	5.63		ug/L		113	56 - 124
cis-1,2-Dichloroethene	5.00	5.64		ug/L		113	80 - 122
cis-1,3-Dichloropropene	5.00	5.25		ug/L		105	67 - 121
Dibromochloromethane	5.00	5.67		ug/L		113	64 - 138
Ethylbenzene	5.00	5.42		ug/L		108	80 - 120
Methyl tert-butyl ether	5.00	5.40		ug/L		108	69 - 120
Methylene Chloride	5.00	5.73		ug/L		115	80 - 120
Styrene	5.00	5.42		ug/L		108	80 - 120
Tetrachloroethene	5.00	5.41		ug/L		108	80 - 120
Toluene	5.00	5.36		ug/L		107	80 - 120
trans-1,2-Dichloroethene	5.00	5.40		ug/L		108	80 - 122
trans-1,3-Dichloropropene	5.00	5.45		ug/L		109	61 - 129
Trichloroethene	5.00	5.49		ug/L		110	80 - 120
Vinyl chloride	5.00	5.38		ug/L		108	60 - 125
Xylenes, Total	15.0	16.0		ug/L		107	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*107*		*80 - 120*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*102*		*80 - 120*
Toluene-d8 (Surr)	*102*		*80 - 120*

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

Lab Sample ID: LCSD 410-188555/5
Matrix: Water
Analysis Batch: 188555

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	5.24		ug/L		105	71 - 134	4	30
1,1,1-Trichloroethane			5.00	5.36		ug/L		107	78 - 126	4	30
1,1,2,2-Tetrachloroethane			5.00	5.55		ug/L		111	75 - 123	1	30
1,1,2-Trichloroethane			5.00	5.47		ug/L		109	80 - 120	4	30
1,1-Dichloroethane			5.00	5.23		ug/L		105	74 - 120	4	30
1,1-Dichloroethene			5.00	5.53		ug/L		111	80 - 131	3	30
1,2-Dibromoethane (EDB)			5.00	5.36		ug/L		107	80 - 120	4	30
1,2-Dichloroethane			5.00	5.28		ug/L		106	69 - 122	2	30
1,2-Dichloropropane			5.00	5.57		ug/L		111	80 - 120	2	30
2-Butanone (MEK)			62.5	61.9		ug/L		99	59 - 141	1	30
2-Hexanone			62.5	62.1		ug/L		99	52 - 140	2	30
4-Methyl-2-pentanone (MIBK)			62.5	60.7		ug/L		97	55 - 140	2	30
Acetone			62.5	60.6		ug/L		97	60 - 146	0	30
Benzene			5.00	5.39		ug/L		108	80 - 120	2	30
Bromochloromethane			5.00	5.66		ug/L		113	80 - 120	3	30
Bromodichloromethane			5.00	5.58		ug/L		112	73 - 124	4	30
Bromoform			5.00	5.44		ug/L		109	49 - 144	5	30
Bromomethane			5.00	4.97		ug/L		99	60 - 136	4	30
Carbon disulfide			5.00	5.07		ug/L		101	67 - 130	4	30
Carbon tetrachloride			5.00	5.51		ug/L		110	64 - 141	3	30
Chlorobenzene			5.00	5.20		ug/L		104	80 - 120	3	30
Chloroethane			5.00	5.16		ug/L		103	63 - 120	1	30
Chloroform			5.00	5.43		ug/L		109	80 - 120	3	30
Chloromethane			5.00	5.26		ug/L		105	56 - 124	7	30
cis-1,2-Dichloroethene			5.00	5.49		ug/L		110	80 - 122	3	30
cis-1,3-Dichloropropene			5.00	5.09		ug/L		102	67 - 121	3	30
Dibromochloromethane			5.00	5.44		ug/L		109	64 - 138	4	30
Ethylbenzene			5.00	5.22		ug/L		104	80 - 120	4	30
Methyl tert-butyl ether			5.00	5.31		ug/L		106	69 - 120	2	30
Methylene Chloride			5.00	5.45		ug/L		109	80 - 120	5	30
Styrene			5.00	5.24		ug/L		105	80 - 120	3	30
Tetrachloroethene			5.00	5.24		ug/L		105	80 - 120	3	30
Toluene			5.00	5.17		ug/L		103	80 - 120	4	30
trans-1,2-Dichloroethene			5.00	5.34		ug/L		107	80 - 122	1	30
trans-1,3-Dichloropropene			5.00	5.24		ug/L		105	61 - 129	4	30
Trichloroethene			5.00	5.35		ug/L		107	80 - 120	3	30
Vinyl chloride			5.00	5.09		ug/L		102	60 - 125	6	30
Xylenes, Total			15.0	15.4		ug/L		102	80 - 120	4	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 120*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*80 - 120*
Toluene-d8 (Surr)	*102*		*80 - 120*

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

Lab Sample ID: 410-60154-6 MS
Matrix: Water
Analysis Batch: 188555

Client Sample ID: HD-COD-SW-15-0/1-0 MS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	ND		5.00	5.72		ug/L		114	71 - 134
1,1,1-Trichloroethane	0.18	J	5.00	6.26		ug/L		121	78 - 126
1,1,2,2-Tetrachloroethane	ND		5.00	5.61		ug/L		112	75 - 123
1,1,2-Trichloroethane	ND		5.00	5.82		ug/L		116	80 - 120
1,1-Dichloroethane	0.086	J	5.00	5.82		ug/L		115	74 - 120
1,1-Dichloroethene	0.11	J	5.00	6.24		ug/L		122	80 - 131
1,2-Dibromoethane (EDB)	ND		5.00	5.57		ug/L		111	80 - 120
1,2-Dichloroethane	ND		5.00	5.60		ug/L		112	69 - 122
1,2-Dichloropropane	ND	FH	5.00	6.03	FH	ug/L		121	80 - 120
2-Butanone (MEK)	ND		62.6	65.6		ug/L		105	59 - 141
2-Hexanone	ND		62.6	66.7		ug/L		107	52 - 140
4-Methyl-2-pentanone (MIBK)	ND		62.6	65.6		ug/L		105	55 - 140
Acetone	ND		62.6	63.9		ug/L		102	60 - 146
Benzene	ND		5.00	5.97		ug/L		119	80 - 120
Bromochloromethane	ND		5.00	6.01		ug/L		120	80 - 120
Bromodichloromethane	ND		5.00	6.05		ug/L		121	73 - 124
Bromoform	ND		5.00	5.67		ug/L		113	49 - 144
Bromomethane	ND		5.00	5.55		ug/L		111	60 - 136
Carbon disulfide	ND		5.00	5.61		ug/L		112	67 - 130
Carbon tetrachloride	ND		5.00	6.27		ug/L		125	64 - 141
Chlorobenzene	ND		5.00	5.71		ug/L		114	80 - 120
Chloroethane	ND		5.00	5.91		ug/L		118	63 - 120
Chloroform	0.33	J	5.00	6.35		ug/L		120	80 - 120
Chloromethane	ND	FH	5.00	6.13	FH	ug/L		123	80 - 120
cis-1,2-Dichloroethene	0.88	FH	5.00	6.97		ug/L		122	80 - 122
cis-1,3-Dichloropropene	ND		5.00	5.40		ug/L		108	67 - 121
Dibromochloromethane	ND		5.00	5.74		ug/L		115	64 - 138
Ethylbenzene	ND		5.00	5.83		ug/L		116	80 - 120
Methyl tert-butyl ether	ND		5.00	5.42		ug/L		108	69 - 120
Methylene Chloride	ND		5.00	5.85		ug/L		117	80 - 120
Styrene	ND		5.00	5.65		ug/L		113	80 - 120
Tetrachloroethene	3.6	FH	5.00	9.69	FH	ug/L		122	80 - 120
Toluene	ND		5.00	5.72		ug/L		114	80 - 120
trans-1,2-Dichloroethene	ND		5.00	5.90		ug/L		118	80 - 122
trans-1,3-Dichloropropene	ND		5.00	5.48		ug/L		109	61 - 129
Trichloroethene	1.0	FH	5.00	7.03		ug/L		120	80 - 120
Vinyl chloride	ND		5.00	6.08		ug/L		122	60 - 125
Xylenes, Total	ND		15.0	17.2		ug/L		114	80 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*103*		*80 - 120*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*
Dibromofluoromethane (Surr)	*102*		*80 - 120*
Toluene-d8 (Surr)	*102*		*80 - 120*

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

Lab Sample ID: 410-60154-6 MSD
Matrix: Water
Analysis Batch: 188555

Client Sample ID: HD-COD-SW-15-0/1-0 MSD
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	ND		5.00	5.73		ug/L		114	71 - 134	0	30
1,1,1-Trichloroethane	0.18	J	5.00	6.29		ug/L		122	78 - 126	1	30
1,1,2,2-Tetrachloroethane	ND		5.00	5.69		ug/L		114	75 - 123	1	30
1,1,2-Trichloroethane	ND		5.00	5.88		ug/L		118	80 - 120	1	30
1,1-Dichloroethane	0.086	J	5.00	5.91		ug/L		116	74 - 120	1	30
1,1-Dichloroethene	0.11	J	5.00	6.33		ug/L		124	80 - 131	1	30
1,2-Dibromoethane (EDB)	ND		5.00	5.69		ug/L		114	80 - 120	2	30
1,2-Dichloroethane	ND		5.00	5.77		ug/L		115	69 - 122	3	30
1,2-Dichloropropane	ND	FH	5.00	6.03		ug/L		120	80 - 120	0	30
2-Butanone (MEK)	ND		62.6	64.3		ug/L		103	59 - 141	2	30
2-Hexanone	ND		62.6	65.9		ug/L		105	52 - 140	1	30
4-Methyl-2-pentanone (MIBK)	ND		62.6	64.6		ug/L		103	55 - 140	1	30
Acetone	ND		62.6	62.7		ug/L		100	60 - 146	2	30
Benzene	ND		5.00	5.96		ug/L		119	80 - 120	0	30
Bromochloromethane	ND		5.00	5.98		ug/L		119	80 - 120	1	30
Bromodichloromethane	ND		5.00	6.04		ug/L		121	73 - 124	0	30
Bromoform	ND		5.00	5.78		ug/L		116	49 - 144	2	30
Bromomethane	ND		5.00	5.70		ug/L		114	60 - 136	3	30
Carbon disulfide	ND		5.00	5.63		ug/L		113	67 - 130	0	30
Carbon tetrachloride	ND		5.00	6.36		ug/L		127	64 - 141	1	30
Chlorobenzene	ND		5.00	5.80		ug/L		116	80 - 120	2	30
Chloroethane	ND		5.00	5.84		ug/L		117	63 - 120	1	30
Chloroform	0.33	J	5.00	6.34		ug/L		120	80 - 120	0	30
Chloromethane	ND	FH	5.00	6.20	FH	ug/L		124	80 - 120	1	30
cis-1,2-Dichloroethene	0.88	FH	5.00	7.06	FH	ug/L		123	80 - 122	1	30
cis-1,3-Dichloropropene	ND		5.00	5.44		ug/L		109	67 - 121	1	30
Dibromochloromethane	ND		5.00	5.84		ug/L		117	64 - 138	2	30
Ethylbenzene	ND		5.00	5.92		ug/L		118	80 - 120	1	30
Methyl tert-butyl ether	ND		5.00	5.55		ug/L		111	69 - 120	2	30
Methylene Chloride	ND		5.00	5.90		ug/L		118	80 - 120	1	30
Styrene	ND		5.00	5.77		ug/L		115	80 - 120	2	30
Tetrachloroethene	3.6	FH	5.00	9.89	FH	ug/L		126	80 - 120	2	30
Toluene	ND		5.00	5.81		ug/L		116	80 - 120	2	30
trans-1,2-Dichloroethene	ND		5.00	5.89		ug/L		118	80 - 122	0	30
trans-1,3-Dichloropropene	ND		5.00	5.59		ug/L		112	61 - 129	2	30
Trichloroethene	1.0	FH	5.00	7.07	FH	ug/L		121	80 - 120	1	30
Vinyl chloride	ND		5.00	6.04		ug/L		121	60 - 125	1	30
Xylenes, Total	ND		15.0	17.2		ug/L		115	80 - 120	0	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*103*		*80 - 120*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*102*		*80 - 120*
Toluene-d8 (Surr)	*102*		*80 - 120*

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

Lab Sample ID: MB 410-189194/11
Matrix: Water
Analysis Batch: 189194

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.070	ug/L			11/01/21 12:06	1
1,1,1-Trichloroethane	ND		0.50	0.060	ug/L			11/01/21 12:06	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.070	ug/L			11/01/21 12:06	1
1,1,2-Trichloroethane	ND		0.50	0.060	ug/L			11/01/21 12:06	1
1,1-Dichloroethane	ND		0.50	0.070	ug/L			11/01/21 12:06	1
1,1-Dichloroethene	ND		0.50	0.060	ug/L			11/01/21 12:06	1
1,2-Dibromoethane (EDB)	ND		0.50	0.060	ug/L			11/01/21 12:06	1
1,2-Dichloroethane	ND		0.50	0.050	ug/L			11/01/21 12:06	1
1,2-Dichloropropane	ND		0.50	0.060	ug/L			11/01/21 12:06	1
2-Butanone (MEK)	ND		5.0	0.60	ug/L			11/01/21 12:06	1
2-Hexanone	ND		5.0	0.60	ug/L			11/01/21 12:06	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70	ug/L			11/01/21 12:06	1
Acetone	ND		5.0	0.90	ug/L			11/01/21 12:06	1
Benzene	ND		0.50	0.050	ug/L			11/01/21 12:06	1
Bromochloromethane	ND		0.50	0.050	ug/L			11/01/21 12:06	1
Bromodichloromethane	ND		0.50	0.050	ug/L			11/01/21 12:06	1
Bromoform	ND		1.0	0.30	ug/L			11/01/21 12:06	1
Bromomethane	ND		0.50	0.070	ug/L			11/01/21 12:06	1
Carbon disulfide	ND		1.0	0.060	ug/L			11/01/21 12:06	1
Carbon tetrachloride	ND		0.50	0.070	ug/L			11/01/21 12:06	1
Chlorobenzene	ND		0.50	0.060	ug/L			11/01/21 12:06	1
Chloroethane	ND		0.50	0.070	ug/L			11/01/21 12:06	1
Chloroform	ND		0.50	0.090	ug/L			11/01/21 12:06	1
Chloromethane	ND		0.50	0.060	ug/L			11/01/21 12:06	1
cis-1,2-Dichloroethene	ND		0.50	0.050	ug/L			11/01/21 12:06	1
cis-1,3-Dichloropropene	ND		0.50	0.050	ug/L			11/01/21 12:06	1
Dibromochloromethane	ND		0.50	0.070	ug/L			11/01/21 12:06	1
Ethylbenzene	ND		0.50	0.060	ug/L			11/01/21 12:06	1
Methyl tert-butyl ether	ND		0.50	0.050	ug/L			11/01/21 12:06	1
Methylene Chloride	ND		0.50	0.070	ug/L			11/01/21 12:06	1
Styrene	ND		0.50	0.050	ug/L			11/01/21 12:06	1
Tetrachloroethene	ND		0.50	0.060	ug/L			11/01/21 12:06	1
Toluene	ND		0.50	0.070	ug/L			11/01/21 12:06	1
trans-1,2-Dichloroethene	ND		0.50	0.060	ug/L			11/01/21 12:06	1
trans-1,3-Dichloropropene	ND		0.50	0.060	ug/L			11/01/21 12:06	1
Trichloroethene	ND		0.50	0.060	ug/L			11/01/21 12:06	1
Vinyl chloride	ND		0.50	0.10	ug/L			11/01/21 12:06	1
Xylenes, Total	ND		1.0	0.15	ug/L			11/01/21 12:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*80 - 120*		*11/01/21 12:06*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*11/01/21 12:06*	*1*
Dibromofluoromethane (Surr)	*105*		*80 - 120*		*11/01/21 12:06*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/01/21 12:06*	*1*

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

Lab Sample ID: LCS 410-189194/4
Matrix: Water
Analysis Batch: 189194

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	5.69		ug/L		114	71 - 134
1,1,1-Trichloroethane	5.00	5.70		ug/L		114	78 - 126
1,1,2,2-Tetrachloroethane	5.00	5.90		ug/L		118	75 - 123
1,1,2-Trichloroethane	5.00	5.90		ug/L		118	80 - 120
1,1-Dichloroethane	5.00	5.52		ug/L		110	74 - 120
1,1-Dichloroethene	5.00	5.89		ug/L		118	80 - 131
1,2-Dibromoethane (EDB)	5.00	5.77		ug/L		115	80 - 120
1,2-Dichloroethane	5.00	5.67		ug/L		113	69 - 122
1,2-Dichloropropane	5.00	5.88		ug/L		118	80 - 120
2-Butanone (MEK)	62.5	61.7		ug/L		99	59 - 141
2-Hexanone	62.5	62.2		ug/L		100	52 - 140
4-Methyl-2-pentanone (MIBK)	62.5	61.2		ug/L		98	55 - 140
Acetone	62.5	59.5		ug/L		95	60 - 146
Benzene	5.00	5.72		ug/L		114	80 - 120
Bromochloromethane	5.00	5.82		ug/L		116	80 - 120
Bromodichloromethane	5.00	5.93		ug/L		119	73 - 124
Bromoform	5.00	6.01		ug/L		120	49 - 144
Bromomethane	5.00	4.93		ug/L		99	60 - 136
Carbon disulfide	5.00	5.65		ug/L		113	67 - 130
Carbon tetrachloride	5.00	5.82		ug/L		116	64 - 141
Chlorobenzene	5.00	5.58		ug/L		112	80 - 120
Chloroethane	5.00	5.02		ug/L		100	63 - 120
Chloroform	5.00	5.64		ug/L		113	80 - 120
Chloromethane	5.00	5.08		ug/L		102	56 - 124
cis-1,2-Dichloroethene	5.00	5.79		ug/L		116	80 - 122
cis-1,3-Dichloropropene	5.00	5.47		ug/L		109	67 - 121
Dibromochloromethane	5.00	5.86		ug/L		117	64 - 138
Ethylbenzene	5.00	5.61		ug/L		112	80 - 120
Methyl tert-butyl ether	5.00	5.54		ug/L		111	69 - 120
Methylene Chloride	5.00	5.81		ug/L		116	80 - 120
Styrene	5.00	5.62		ug/L		112	80 - 120
Tetrachloroethene	5.00	5.74		ug/L		115	80 - 120
Toluene	5.00	5.52		ug/L		110	80 - 120
trans-1,2-Dichloroethene	5.00	5.57		ug/L		111	80 - 122
trans-1,3-Dichloropropene	5.00	5.70		ug/L		114	61 - 129
Trichloroethene	5.00	5.67		ug/L		113	80 - 120
Vinyl chloride	5.00	4.98		ug/L		100	60 - 125
Xylenes, Total	15.0	16.7		ug/L		111	80 - 120

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

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

Lab Sample ID: LCSD 410-189194/5
Matrix: Water
Analysis Batch: 189194

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	5.11		ug/L		102	71 - 134	11	30
1,1,1-Trichloroethane			5.00	5.20		ug/L		104	78 - 126	9	30
1,1,2,2-Tetrachloroethane			5.00	5.42		ug/L		108	75 - 123	8	30
1,1,2-Trichloroethane			5.00	5.41		ug/L		108	80 - 120	9	30
1,1-Dichloroethane			5.00	5.09		ug/L		102	74 - 120	8	30
1,1-Dichloroethene			5.00	5.35		ug/L		107	80 - 131	10	30
1,2-Dibromoethane (EDB)			5.00	5.25		ug/L		105	80 - 120	9	30
1,2-Dichloroethane			5.00	5.24		ug/L		105	69 - 122	8	30
1,2-Dichloropropane			5.00	5.47		ug/L		109	80 - 120	7	30
2-Butanone (MEK)			62.5	55.5		ug/L		89	59 - 141	11	30
2-Hexanone			62.5	56.5		ug/L		90	52 - 140	10	30
4-Methyl-2-pentanone (MIBK)			62.5	54.7		ug/L		88	55 - 140	11	30
Acetone			62.5	54.2		ug/L		87	60 - 146	9	30
Benzene			5.00	5.25		ug/L		105	80 - 120	9	30
Bromochloromethane			5.00	5.40		ug/L		108	80 - 120	7	30
Bromodichloromethane			5.00	5.47		ug/L		109	73 - 124	8	30
Bromoform			5.00	5.41		ug/L		108	49 - 144	10	30
Bromomethane			5.00	4.52		ug/L		90	60 - 136	9	30
Carbon disulfide			5.00	5.12		ug/L		102	67 - 130	10	30
Carbon tetrachloride			5.00	5.34		ug/L		107	64 - 141	9	30
Chlorobenzene			5.00	5.11		ug/L		102	80 - 120	9	30
Chloroethane			5.00	4.64		ug/L		93	63 - 120	8	30
Chloroform			5.00	5.23		ug/L		105	80 - 120	8	30
Chloromethane			5.00	4.69		ug/L		94	56 - 124	8	30
cis-1,2-Dichloroethene			5.00	5.29		ug/L		106	80 - 122	9	30
cis-1,3-Dichloropropene			5.00	5.03		ug/L		101	67 - 121	8	30
Dibromochloromethane			5.00	5.31		ug/L		106	64 - 138	10	30
Ethylbenzene			5.00	5.12		ug/L		102	80 - 120	9	30
Methyl tert-butyl ether			5.00	5.12		ug/L		102	69 - 120	8	30
Methylene Chloride			5.00	5.26		ug/L		105	80 - 120	10	30
Styrene			5.00	5.15		ug/L		103	80 - 120	9	30
Tetrachloroethene			5.00	5.20		ug/L		104	80 - 120	10	30
Toluene			5.00	5.04		ug/L		101	80 - 120	9	30
trans-1,2-Dichloroethene			5.00	5.16		ug/L		103	80 - 122	8	30
trans-1,3-Dichloropropene			5.00	5.18		ug/L		104	61 - 129	10	30
Trichloroethene			5.00	5.22		ug/L		104	80 - 120	8	30
Vinyl chloride			5.00	4.50		ug/L		90	60 - 125	10	30
Xylenes, Total			15.0	15.2		ug/L		101	80 - 120	10	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 120*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*102*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

GC/MS VOA

Analysis Batch: 188555

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-60154-1	HD-COD-SW-6-0/1-0	Total/NA	Water	8260D	
410-60154-2	HD-COD-SW-7-0/1-0	Total/NA	Water	8260D	
410-60154-3	HD-COD-SW-8-0/1-0	Total/NA	Water	8260D	
410-60154-4	HD-COD-SW-9-0/1-0	Total/NA	Water	8260D	
410-60154-5	HD-COD-SW-13-0/1-0	Total/NA	Water	8260D	
410-60154-6	HD-COD-SW-15-0/1-0	Total/NA	Water	8260D	
410-60154-7	HD-COD-SW-16-0/1-0	Total/NA	Water	8260D	
410-60154-8	HD-COD-SW-17-0/1-0	Total/NA	Water	8260D	
410-60154-9	HD-COD-SW-26-0/1-0	Total/NA	Water	8260D	
410-60154-10	HD-COD-SW-27-0/1-0	Total/NA	Water	8260D	
410-60154-11	HD-COD-SW-28-0/1-0	Total/NA	Water	8260D	
410-60154-12	HD-COD-SW-29-0/1-0	Total/NA	Water	8260D	
410-60154-13	HD-QC1-0/1-1	Total/NA	Water	8260D	
410-60154-14	HD-QC1-0/1-2	Total/NA	Water	8260D	
MB 410-188555/11	Method Blank	Total/NA	Water	8260D	
LCS 410-188555/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 410-188555/5	Lab Control Sample Dup	Total/NA	Water	8260D	
410-60154-6 MS	HD-COD-SW-15-0/1-0 MS	Total/NA	Water	8260D	
410-60154-6 MSD	HD-COD-SW-15-0/1-0 MSD	Total/NA	Water	8260D	

Analysis Batch: 189194

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-60154-8 - DL	HD-COD-SW-17-0/1-0	Total/NA	Water	8260D	
410-60154-13 - DL	HD-QC1-0/1-1	Total/NA	Water	8260D	
MB 410-189194/11	Method Blank	Total/NA	Water	8260D	
LCS 410-189194/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 410-189194/5	Lab Control Sample Dup	Total/NA	Water	8260D	

Client Sample ID: HD-COD-SW-6-0/1-0
Lab Sample ID: 410-60154-1
Date Collected: 10/20/21 11:20
Matrix: Water
Date Received: 10/21/21 18:58

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	188555	10/29/21 14:51	ULCP	ELLE

Client Sample ID: HD-COD-SW-7-0/1-0
Lab Sample ID: 410-60154-2
Date Collected: 10/20/21 12:05
Matrix: Water
Date Received: 10/21/21 18:58

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	188555	10/29/21 15:13	ULCP	ELLE

Client Sample ID: HD-COD-SW-8-0/1-0
Lab Sample ID: 410-60154-3
Date Collected: 10/20/21 09:10
Matrix: Water
Date Received: 10/21/21 18:58

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	188555	10/29/21 15:34	ULCP	ELLE

Client Sample ID: HD-COD-SW-9-0/1-0
Lab Sample ID: 410-60154-4
Date Collected: 10/20/21 13:18
Matrix: Water
Date Received: 10/21/21 18:58

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	188555	10/29/21 15:55	ULCP	ELLE

Client Sample ID: HD-COD-SW-13-0/1-0
Lab Sample ID: 410-60154-5
Date Collected: 10/20/21 09:35
Matrix: Water
Date Received: 10/21/21 18:58

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	188555	10/29/21 16:16	ULCP	ELLE

Client Sample ID: HD-COD-SW-15-0/1-0
Lab Sample ID: 410-60154-6
Date Collected: 10/20/21 12:30
Matrix: Water
Date Received: 10/21/21 18:58

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	188555	10/29/21 13:26	ULCP	ELLE

Client Sample ID: HD-COD-SW-16-0/1-0
Lab Sample ID: 410-60154-7
Date Collected: 10/20/21 09:50
Matrix: Water
Date Received: 10/21/21 18:58

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	188555	10/29/21 16:37	ULCP	ELLE

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

Lab Sample ID: 410-60154-8

Date Collected: 10/20/21 10:15

Matrix: Water

Date Received: 10/21/21 18:58

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	188555	10/29/21 16:59	ULCP	ELLE
Total/NA	Analysis	8260D	DL	10	189194	11/01/21 15:16	J5QQ	ELLE

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

Lab Sample ID: 410-60154-9

Date Collected: 10/20/21 11:50

Matrix: Water

Date Received: 10/21/21 18:58

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	188555	10/29/21 17:20	ULCP	ELLE

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

Lab Sample ID: 410-60154-10

Date Collected: 10/20/21 12:20

Matrix: Water

Date Received: 10/21/21 18:58

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	188555	10/29/21 17:41	ULCP	ELLE

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

Lab Sample ID: 410-60154-11

Date Collected: 10/20/21 13:40

Matrix: Water

Date Received: 10/21/21 18:58

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	188555	10/29/21 18:02	ULCP	ELLE

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

Lab Sample ID: 410-60154-12

Date Collected: 10/20/21 09:00

Matrix: Water

Date Received: 10/21/21 18:58

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	188555	10/29/21 18:24	ULCP	ELLE

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

Lab Sample ID: 410-60154-13

Date Collected: 10/20/21 12:00

Matrix: Water

Date Received: 10/21/21 18:58

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	188555	10/29/21 18:45	ULCP	ELLE
Total/NA	Analysis	8260D	DL	10	189194	11/01/21 15:38	J5QQ	ELLE

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

Lab Sample ID: 410-60154-14

Date Collected: 10/20/21 00:00

Matrix: Water

Date Received: 10/21/21 18:58

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	188555	10/29/21 11:41	ULCP	ELLE

Laboratory References:

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

Accreditation/Certification Summary

Client: Groundwater Sciences Corporation
Job ID: 410-60154-1
Project/Site: fYNOP Monthly Surface Water

Laboratory: Eurofins Lancaster Laboratories Env, LLC

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

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-22

Method Summary

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

Job ID: 410-60154-1

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

Protocol References:

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

Laboratory References:

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

Sample Summary

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

Job ID: 410-60154-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-60154-1	HD-COD-SW-6-0/1-0	Water	10/20/21 11:20	10/21/21 18:58
410-60154-2	HD-COD-SW-7-0/1-0	Water	10/20/21 12:05	10/21/21 18:58
410-60154-3	HD-COD-SW-8-0/1-0	Water	10/20/21 09:10	10/21/21 18:58
410-60154-4	HD-COD-SW-9-0/1-0	Water	10/20/21 13:18	10/21/21 18:58
410-60154-5	HD-COD-SW-13-0/1-0	Water	10/20/21 09:35	10/21/21 18:58
410-60154-6	HD-COD-SW-15-0/1-0	Water	10/20/21 12:30	10/21/21 18:58
410-60154-7	HD-COD-SW-16-0/1-0	Water	10/20/21 09:50	10/21/21 18:58
410-60154-8	HD-COD-SW-17-0/1-0	Water	10/20/21 10:15	10/21/21 18:58
410-60154-9	HD-COD-SW-26-0/1-0	Water	10/20/21 11:50	10/21/21 18:58
410-60154-10	HD-COD-SW-27-0/1-0	Water	10/20/21 12:20	10/21/21 18:58
410-60154-11	HD-COD-SW-28-0/1-0	Water	10/20/21 13:40	10/21/21 18:58
410-60154-12	HD-COD-SW-29-0/1-0	Water	10/20/21 09:00	10/21/21 18:58
410-60154-13	HD-QC1-0/1-1	Water	10/20/21 12:00	10/21/21 18:58
410-60154-14	HD-QC1-0/1-2	Water	10/20/21 00:00	10/21/21 18:58

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-60154-1

SDG No.:

Instrument ID: 19930 Analysis Batch Number: 163707

Lab 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.: 410-60154-1

SDG No.:

Instrument ID: 19930 Analysis Batch Number: 163707

Lab 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.: 410-60154-1

SDG No.:

Instrument ID: 19930 Analysis Batch Number: 188555

Lab Sample ID: 410-60154-1 Client Sample ID: HD-COD-SW-6-0/1-0

Date Analyzed: 10/29/21 14:51 Lab File ID: IC29X20.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Tetrachloroethene	10.37	Incomplete Integration	johnsons	10/29/21 19:18

Lab Sample ID: 410-60154-4 Client Sample ID: HD-COD-SW-9-0/1-0

Date Analyzed: 10/29/21 15:55 Lab File ID: IC29X23.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane		Invalid Compound ID	johnsons	10/29/21 19:19

Lab Sample ID: 410-60154-8 Client Sample ID: HD-COD-SW-17-0/1-0

Date Analyzed: 10/29/21 16:59 Lab File ID: IC29X26.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	johnsons	10/29/21 19:22

Lab Sample ID: 410-60154-9 Client Sample ID: HD-COD-SW-26-0/1-0

Date Analyzed: 10/29/21 17:20 Lab File ID: IC29X27.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
cis-1,2-Dichloroethene	6.17	Missed Peak	johnsons	10/29/21 19:22
Trichloroethene	8.23	Incomplete Integration	johnsons	10/29/21 19:22
Bromodichloromethane	8.88	Incomplete Integration	johnsons	10/29/21 19:22

Lab Sample ID: 410-60154-10 Client Sample ID: HD-COD-SW-27-0/1-0

Date Analyzed: 10/29/21 17:41 Lab File ID: IC29X28.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	johnsons	10/29/21 19:23

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-60154-1

SDG No.:

Instrument ID: 19930 Analysis Batch Number: 188555

Lab Sample ID: 410-60154-11 Client Sample ID: HD-COD-SW-28-0/1-0

Date Analyzed: 10/29/21 18:02 Lab File ID: IC29X29.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
cis-1,2-Dichloroethene	6.17	Missed Peak	johnsons	10/29/21 19:24

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Lancaster Laborator Job No.: 410-60154-1

SDG No.:

Instrument ID: 19930 Analysis Batch Number: 189194

Lab Sample ID: CCVIS 410-189194/3 Client Sample ID:

Date Analyzed: 11/01/21 09:16 Lab File ID: IN01X02.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichlorofluoromethane	3.02	Incomplete Integration	knouses	11/01/21 09:40
Methyl acetate	4.03	Incomplete Integration	knouses	11/01/21 09:40

Lab Sample ID: MB 410-189194/11 Client Sample ID:

Date Analyzed: 11/01/21 12:06 Lab File ID: IN01X10.D GC Column: R-624SilMS 30 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.87	Incomplete Integration	knouses	11/01/21 12:31

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-60154-1

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-60154-1

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
MSV_LCS_VOC#1_00024	11/24/21	10/25/21	Methanol, Lot EB679	25 mL	MSV_M_MIX1SEC_00030	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_00031	1 mL	Carbon disulfide	40 ug/mL

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-60154-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Methyl tert-butyl ether	40 ug/mL
					MSV_Q_Ketones_00030	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_00030	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_00031	04/30/24		Restek, Lot A0171837		(Purchased Reagent)		Carbon disulfide	1000 ug/mL
							Methyl tert-butyl ether	1000 ug/mL
.MSV_Q_Ketones_00030	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_00025	12/01/21	11/01/21	Methanol, Lot EB679	25 mL	MSV_M_MIX1SEC_00031	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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-60154-1

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_00033	1 mL	Carbon disulfide	40 ug/mL
							Methyl tert-butyl ether	40 ug/mL
					MSV_Q_Ketones_00032	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_00031	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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-60154-1

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_00033	04/30/24		Restek, Lot A0171837		(Purchased Reagent)		Carbon disulfide	1000 ug/mL
							Methyl tert-butyl ether	1000 ug/mL
.MSV_Q_Ketones_00032	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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-60154-1

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-60154-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Methyl-2-pentanone (MIBK)	500 ug/mL
							Acetone	500 ug/mL
							Acrolein	2499.93 ug/mL
					MSV_V_VOA2_00101	150 uL	1,4-Dioxane	2500 ug/mL
							2-Methyl-2-propanol	1000 ug/mL
							Isobutyl alcohol	2500 ug/mL
							Methacrylonitrile	500 ug/mL
							n-Butanol	4375 ug/mL
							Propionitrile	1000 ug/mL
							trans-1,4-Dichloro-2-butene	500 ug/mL
.MSV_CCV_VOC#1_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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-60154-1

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-60154-1

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-60154-1

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

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-60154-1

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_00020	11/01/21	10/05/21	Methanol, Lot DZ644	1 mL	MSV_CCV_VOC#1_00023	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_00022	200 uL	2-Butanone (MEK)	500 ug/mL
							2-Hexanone	500 ug/mL
							4-Methyl-2-pentanone (MIBK)	500 ug/mL
							Acetone	500 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-60154-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.MSV_CCV_VOC#1_00023	11/03/21	10/04/21	Methanol, Lot EB679	5 mL	MSV_MegaMIX#1_00021	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_00021	1 mL	Carbon disulfide	1000 ug/mL
							Methyl tert-butyl ether	1000 ug/mL
..MSV_MegaMIX#1_00021	11/03/21		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
							1,2-Dibromoethane (EDB)	5000 ug/mL
							1,2-Dichloroethane	5000 ug/mL
							1,2-Dichloropropane	5000 ug/mL
							Benzene	5000 ug/mL
							Bromochloromethane	5000 ug/mL
							Bromodichloromethane	5000 ug/mL
							Bromoform	5000 ug/mL
							Carbon tetrachloride	5000 ug/mL
							Chlorobenzene	5000 ug/mL
							Chloroform	5000 ug/mL
							cis-1,2-Dichloroethene	5000 ug/mL
							cis-1,3-Dichloropropene	5000 ug/mL
							Dibromochloromethane	5000 ug/mL

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-60154-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Ethylbenzene	5000 ug/mL
							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_00021	11/03/21		Restek, Lot A0172089		(Purchased Reagent)		Carbon disulfide	5000 ug/mL
							Methyl tert-butyl ether	5000 ug/mL
.MSV_CCV_VOC#3_00022	11/01/21	10/04/21	Methanol, Lot EB679	5 mL	MSV_V_Ketones_00021	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_00021	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_LL_#2_826_00015	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
MSV_LL_GAS826_00027	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
							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_00046	11/04/21	10/28/21	Methanol, Lot EB679	1 mL	MSV_CCV_GASES_00098	25 uL	Bromomethane	50 ug/mL
							Chloroethane	50 ug/mL
							Chloromethane	50 ug/mL

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-60154-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Vinyl chloride	50 ug/mL
.MSV_CCV_GASES_00098	11/04/21		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
							Chlorobenzene-d5 (IS)	2500 ug/mL
							Fluorobenzene (IS)	2500 ug/mL
							t-Butyl alcohol-d10 (IS)	12500 ug/mL
MSV_LLcentISS_00002	04/18/22	10/18/21	Methanol, Lot EB679	50 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_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
MSV_LLcentISS_00002	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_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_QC_Gas826_00026	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
MSV_QC_Gas826_00046	11/01/21	10/25/21	Methanol, Lot EB679	1 mL	MSV_QC_2K_GAS_00043	20 uL	Bromomethane	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-60154-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chloroethane	40 ug/mL
							Chloromethane	40 ug/mL
							Vinyl chloride	40 ug/mL
.MSV_QC_2K_GAS_00043	11/01/21	Restek, Lot A0172021			(Purchased Reagent)		Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
MSV_V_BFB_00006							1,2-Dichloroethene, Total	
							1,3-Dichloropropene, Total	
							Tentatively Identified Compound	
							Xylenes, Total	
					MSV_VBFB_STK_00006	0.129 mL	BFB	49.8611 ug/mL
.MSV_VBFB_STK_00006	01/07/22	07/07/21	Methanol, Lot DZ644	10 mL	MSV_4BFB_NEAT_00006	0.9663 g	BFB	96630 ug/mL
..MSV_4BFB_NEAT_00006	02/28/25	Chem Service, Lot 10727100			(Purchased Reagent)		BFB	1 g/g

Reagent

MSV_8260_SS_00366

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
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. : 55671 **Lot No.:** A0146938

Description : 8260A Surrogate Mix

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

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

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

CERTIFIED VALUES

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

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

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

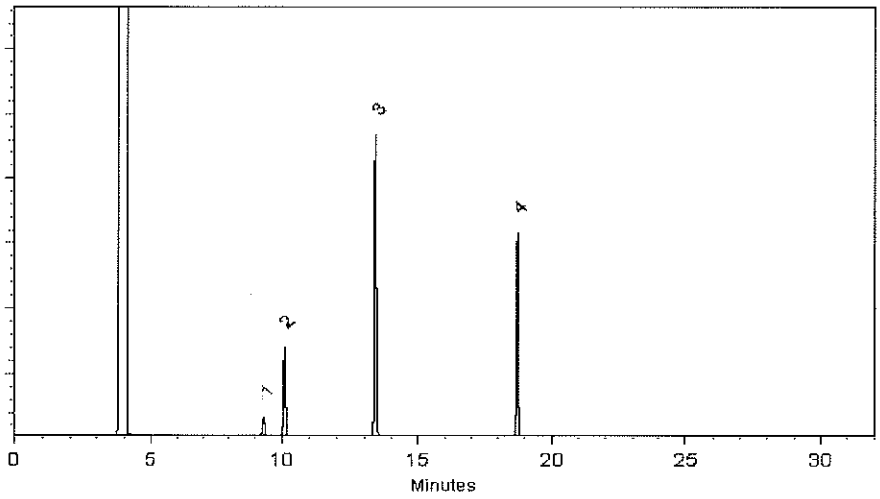
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



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

Maggie Wang
Maggie Wang - Operations Technician I

Date Mixed: 12-Mar-2019 **Balance:** 1128342314

Jennifer J Pollino
Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 15-Mar-2019

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_8260_SS_00493

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CERTIFIED REFERENCE MATERIAL

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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. : 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

C E R T I F I E D V A L U E S

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

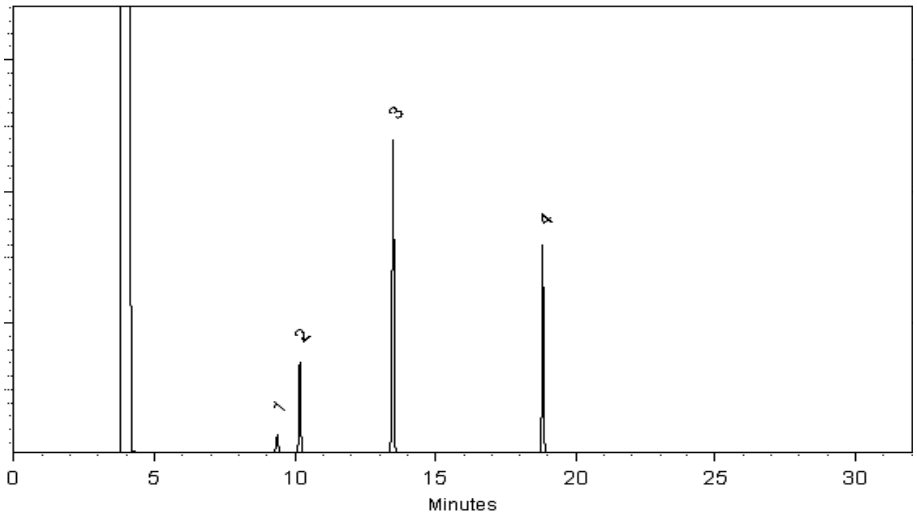
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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.

Sam Moodler - Operations Tech I

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

Alexis Shelow - Operations Tech I

Date Passed: 19-Apr-2021

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

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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. : 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)

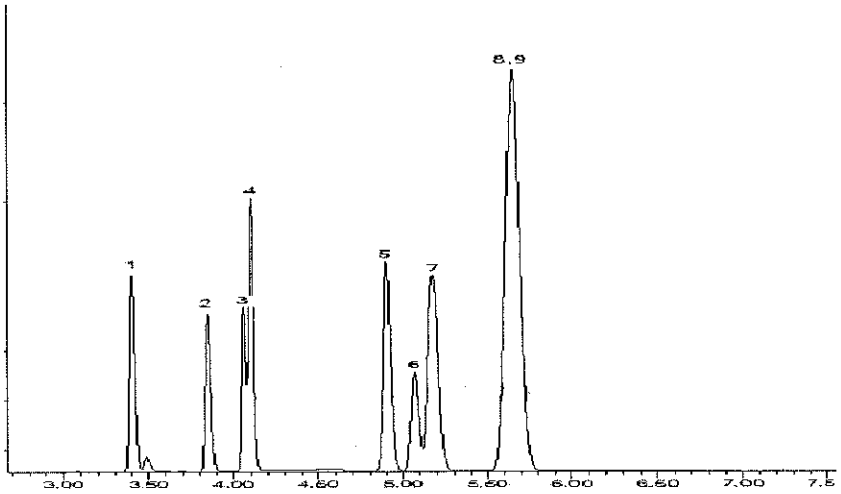
Carrier Gas:
helium-constant flow 2.0 mL/min.

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.

Tom Suckar - Mix Technician

Date Mixed: 13-May-2021 **Balance:** B251644995

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:

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

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

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- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

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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. : 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)

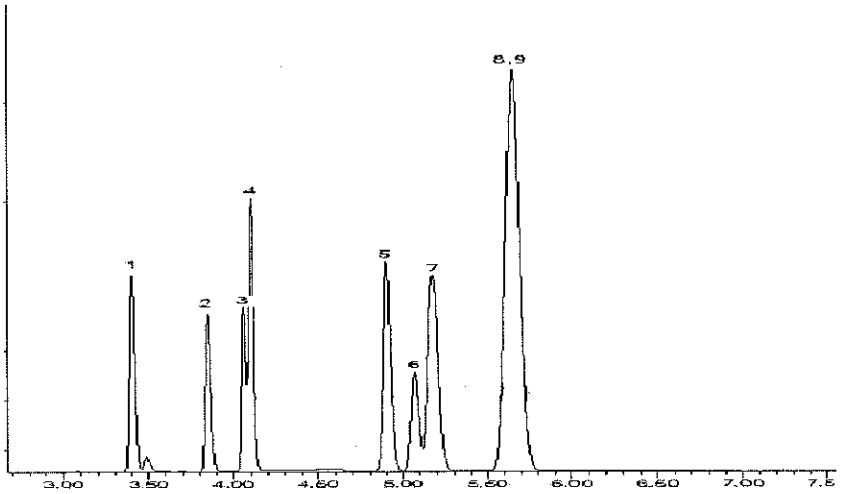
Carrier Gas:
helium-constant flow 2.0 mL/min.

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.

Tom Suckar - Mix Technician

Date Mixed: 13-May-2021 **Balance:** B251644995

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:

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- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

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

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

Manufacturing Notes:

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

Handling Notes:

- 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.

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Certificate #3222.01

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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. : 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		12,518.0	µg/mL	+/- 73.2956	µg/mL	Gravimetric
	CAS # 53001-22-2	(Lot PR-27803B)			+/- 268.1522	µg/mL	Unstressed
	Purity 99%				+/- 275.9398	µg/mL	Stressed
2	Fluorobenzene		2,506.0	µg/mL	+/- 14.7066	µg/mL	Gravimetric
	CAS # 462-06-6	(Lot BCBZ5549)			+/- 53.6910	µg/mL	Unstressed
	Purity 99%				+/- 55.2497	µg/mL	Stressed
3	Chlorobenzene-d5		2,512.0	µg/mL	+/- 14.7418	µg/mL	Gravimetric
	CAS # 3114-55-4	(Lot PR-29571)			+/- 53.8195	µg/mL	Unstressed
	Purity 99%				+/- 55.3820	µg/mL	Stressed
4	1,4-Dichlorobenzene-d4		2,520.0	µg/mL	+/- 14.7888	µg/mL	Gravimetric
	CAS # 3855-82-1	(Lot PR-30447)			+/- 53.9909	µg/mL	Unstressed
	Purity 99%				+/- 55.5584	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)

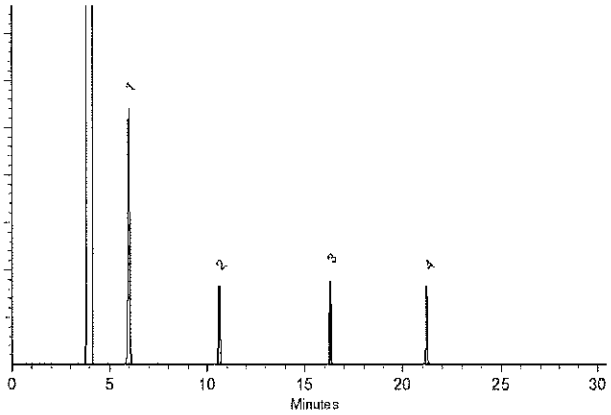
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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.

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:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

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

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_Cus826_IS_00361

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

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. : 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

C E R T I F I E D V A L U E S

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2-Methyl-2-propanol-d10		12,519.0 µg/mL	+/- 73.3015	µg/mL	Gravimetric
	CAS # 53001-22-2	(Lot I-433)		+/- 268.1736	µg/mL	Unstressed
	Purity 99%			+/- 275.9618	µg/mL	Stressed
2	Fluorobenzene		2,505.0 µg/mL	+/- 14.7007	µg/mL	Gravimetric
	CAS # 462-06-6	(Lot BCBZ5549)		+/- 53.6696	µg/mL	Unstressed
	Purity 99%			+/- 55.2277	µg/mL	Stressed
3	Chlorobenzene-d5		2,509.0 µg/mL	+/- 14.7242	µg/mL	Gravimetric
	CAS # 3114-55-4	(Lot PR-29571)		+/- 53.7553	µg/mL	Unstressed
	Purity 99%			+/- 55.3159	µg/mL	Stressed
4	1,4-Dichlorobenzene-d4		2,516.0 µg/mL	+/- 14.7653	µg/mL	Gravimetric
	CAS # 3855-82-1	(Lot PR-30447)		+/- 53.9052	µg/mL	Unstressed
	Purity 99%			+/- 55.4702	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)

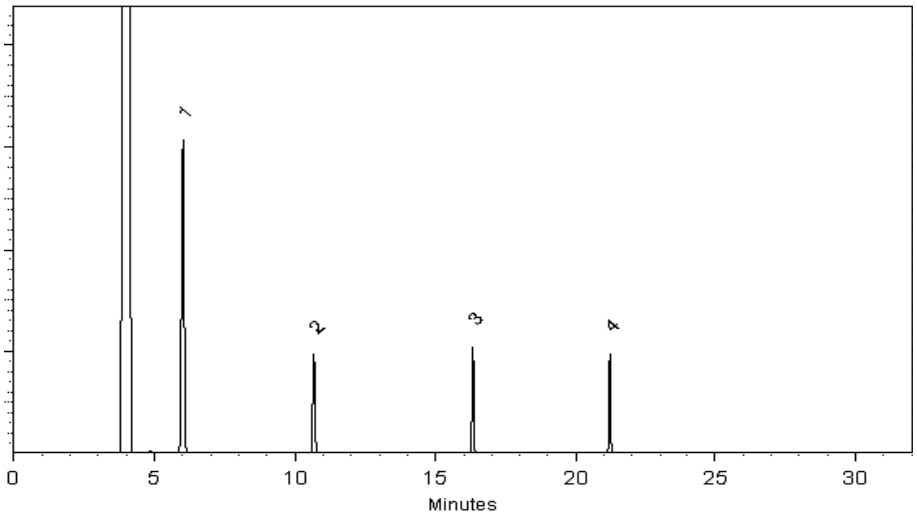
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

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:

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

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

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

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_EthylMeth_00001

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

CERTIFICATE OF ANALYSIS

Ethyl 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	C6H10O2
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 JMcB

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)

PJLA Testing

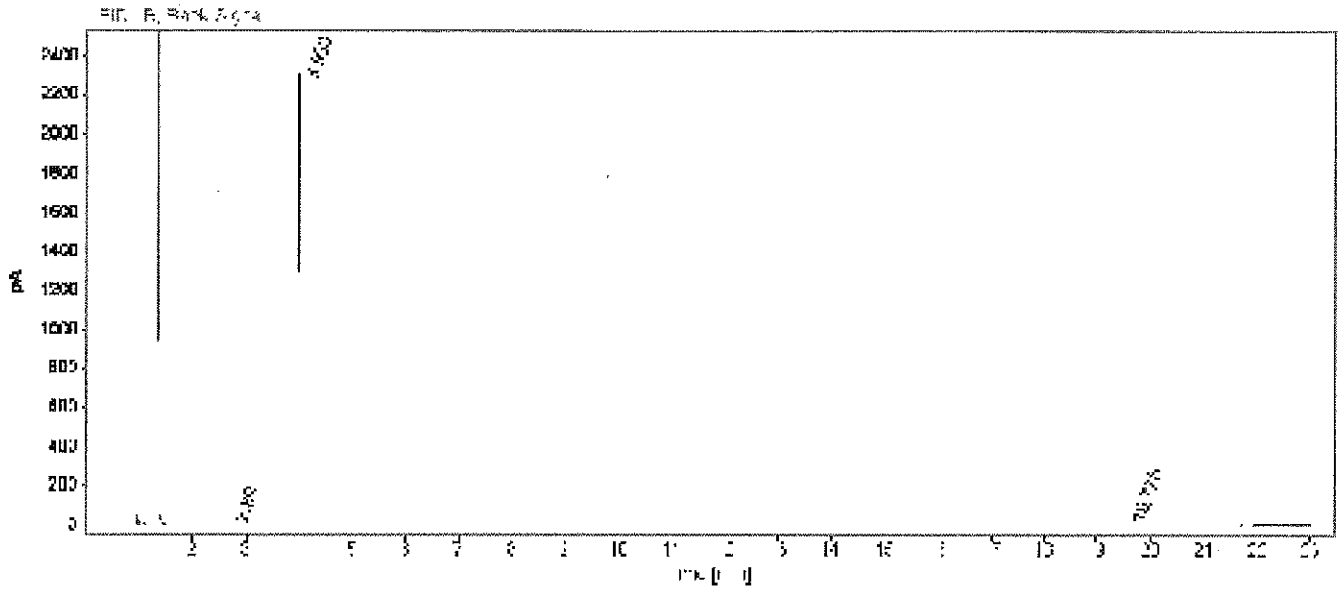
Print Date: 05/20/21

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 • www.chemservice.com

CERTIFICATE OF ANALYSIS

Gas Chromatography / Flame Ionization Detector (GC/FID)

Data file:	C:\CHEM32\1\DATA\2018 DATA\1118\N-11803.D		
Sample name:	ethyl methacrylate		
Description:			
Acq. method:	MIX1.M		
		Location:	201
Instrument:	GC3	**Injection Vol:**	1.000
Injection date:	1/3/2019 7:57:33 AM	**# Of Injections:**	1
Column name:	HP-5ms Ultra Inert	**Diameter** 250.000 **Length** 30.000	**Particle Size** 0.250



Signal: FID1 B, Back Signal

RT [min]	Type	Width [min]	Area	Height	Area%
2.890	BB	0.0199	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		

PJLA Testing

Reagent

MSV_M_MIX1SEC_00019

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

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CERTIFIED REFERENCE MATERIAL

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. : 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

C E R T I F I E D V A L U E S

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		1,000.1	µg/mL	+/-	7.1033	µg/mL	Gravimetric
	CAS # 74-97-5.SEC	(Lot 8529200)			+/-	56.2242	µg/mL	Unstressed
	Purity 99%				+/-	57.5330	µg/mL	Stressed
9	1,1,1-trichloroethane		1,000.3	µg/mL	+/-	7.1383	µg/mL	Gravimetric
	CAS # 71-55-6	(Lot 190123CG)			+/-	56.2391	µg/mL	Unstressed
	Purity 98%				+/-	57.5479	µg/mL	Stressed
10	1,1-Dichloropropene		1,002.5	µg/mL	+/-	7.1204	µg/mL	Gravimetric
	CAS # 563-58-6.SEC	(Lot 8541600)			+/-	56.3597	µg/mL	Unstressed
	Purity 95%				+/-	57.6716	µg/mL	Stressed
11	Carbon tetrachloride		1,000.8	µg/mL	+/-	7.1414	µg/mL	Gravimetric
	CAS # 56-23-5.SEC	(Lot 11466)			+/-	56.2636	µg/mL	Unstressed
	Purity 99%				+/-	57.5731	µg/mL	Stressed
12	1,2-Dichloroethane		1,000.6	µg/mL	+/-	7.1407	µg/mL	Gravimetric
	CAS # 107-06-2.SEC	(Lot 00016165)			+/-	56.2576	µg/mL	Unstressed
	Purity 99%				+/-	57.5669	µg/mL	Stressed
13	Benzene		1,000.1	µg/mL	+/-	7.1031	µg/mL	Gravimetric
	CAS # 71-43-2.SEC	(Lot B28Y008)			+/-	56.2228	µg/mL	Unstressed
	Purity 99%				+/-	57.5315	µg/mL	Stressed
14	Trichloroethene		1,000.9	µg/mL	+/-	7.1423	µg/mL	Gravimetric
	CAS # 79-01-6.SEC	(Lot H04X050)			+/-	56.2708	µg/mL	Unstressed
	Purity 99%				+/-	57.5804	µg/mL	Stressed
15	1,2-Dichloropropane		1,000.1	µg/mL	+/-	7.1371	µg/mL	Gravimetric
	CAS # 78-87-5.SEC	(Lot ERRBI-RH)			+/-	56.2293	µg/mL	Unstressed
	Purity 99%				+/-	57.5380	µg/mL	Stressed
16	Bromodichloromethane		1,000.8	µg/mL	+/-	7.1418	µg/mL	Gravimetric
	CAS # 75-27-4.SEC	(Lot 13780)			+/-	56.2662	µg/mL	Unstressed
	Purity 99%				+/-	57.5757	µg/mL	Stressed
17	Dibromomethane		1,000.1	µg/mL	+/-	7.1033	µg/mL	Gravimetric
	CAS # 74-95-3.SEC	(Lot MOKKJ)			+/-	56.2242	µg/mL	Unstressed
	Purity 99%				+/-	57.5330	µg/mL	Stressed
18	cis-1,3-Dichloropropene		1,000.9	µg/mL	+/-	7.1425	µg/mL	Gravimetric
	CAS # 10061-01-5.SEC	(Lot 487OA)			+/-	56.2723	µg/mL	Unstressed
	Purity 98%				+/-	57.5819	µg/mL	Stressed
19	Toluene		1,000.0	µg/mL	+/-	7.1026	µg/mL	Gravimetric
	CAS # 108-88-3.SEC	(Lot YND2B-BD)			+/-	56.2193	µg/mL	Unstressed
	Purity 99%				+/-	57.5279	µg/mL	Stressed
20	trans-1,3-Dichloropropene		1,002.1	µg/mL	+/-	7.1513	µg/mL	Gravimetric
	CAS # 10061-02-6.SEC	(Lot ZDMSL)			+/-	56.3417	µg/mL	Unstressed
	Purity 96%				+/-	57.6530	µg/mL	Stressed
21	1,1,2-Trichloroethane		1,001.3	µg/mL	+/-	7.1450	µg/mL	Gravimetric
	CAS # 79-00-5.SEC	(Lot 7871500)			+/-	56.2917	µg/mL	Unstressed
	Purity 99%				+/-	57.6018	µg/mL	Stressed
22	1,3-Dichloropropane		1,000.1	µg/mL	+/-	7.1031	µg/mL	Gravimetric
	CAS # 142-28-9.SEC	(Lot AGN01-EFPC)			+/-	56.2228	µg/mL	Unstressed
	Purity 99%				+/-	57.5315	µg/mL	Stressed
23	Tetrachloroethene		1,000.2	µg/mL	+/-	7.1378	µg/mL	Gravimetric
	CAS # 127-18-4.SEC	(Lot F09W014)			+/-	56.2350	µg/mL	Unstressed
	Purity 99%				+/-	57.5437	µg/mL	Stressed

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

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

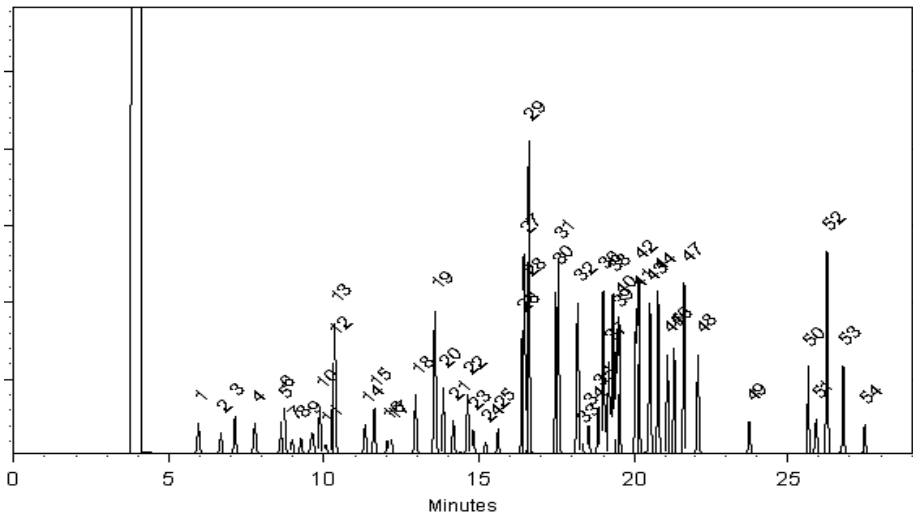
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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.

Bradley Meyer - Mix Technician

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

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:

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

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

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

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_M_MIX1SEC_00030

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

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. : 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

C E R T I F I E D V A L U E S

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		1,000.1	µg/mL	+/-	7.1033	µg/mL	Gravimetric
	CAS # 74-97-5.SEC	(Lot 8529200)			+/-	56.2242	µg/mL	Unstressed
	Purity 99%				+/-	57.5330	µg/mL	Stressed
9	1,1,1-trichloroethane		1,000.3	µg/mL	+/-	7.1383	µg/mL	Gravimetric
	CAS # 71-55-6	(Lot 190123CG)			+/-	56.2391	µg/mL	Unstressed
	Purity 98%				+/-	57.5479	µg/mL	Stressed
10	1,1-Dichloropropene		1,002.5	µg/mL	+/-	7.1204	µg/mL	Gravimetric
	CAS # 563-58-6.SEC	(Lot 8541600)			+/-	56.3597	µg/mL	Unstressed
	Purity 95%				+/-	57.6716	µg/mL	Stressed
11	Carbon tetrachloride		1,000.8	µg/mL	+/-	7.1414	µg/mL	Gravimetric
	CAS # 56-23-5.SEC	(Lot 11466)			+/-	56.2636	µg/mL	Unstressed
	Purity 99%				+/-	57.5731	µg/mL	Stressed
12	1,2-Dichloroethane		1,000.6	µg/mL	+/-	7.1407	µg/mL	Gravimetric
	CAS # 107-06-2.SEC	(Lot 00016165)			+/-	56.2576	µg/mL	Unstressed
	Purity 99%				+/-	57.5669	µg/mL	Stressed
13	Benzene		1,000.1	µg/mL	+/-	7.1031	µg/mL	Gravimetric
	CAS # 71-43-2.SEC	(Lot B28Y008)			+/-	56.2228	µg/mL	Unstressed
	Purity 99%				+/-	57.5315	µg/mL	Stressed
14	Trichloroethene		1,000.9	µg/mL	+/-	7.1423	µg/mL	Gravimetric
	CAS # 79-01-6.SEC	(Lot H04X050)			+/-	56.2708	µg/mL	Unstressed
	Purity 99%				+/-	57.5804	µg/mL	Stressed
15	1,2-Dichloropropane		1,000.1	µg/mL	+/-	7.1371	µg/mL	Gravimetric
	CAS # 78-87-5.SEC	(Lot ERRBI-RH)			+/-	56.2293	µg/mL	Unstressed
	Purity 99%				+/-	57.5380	µg/mL	Stressed
16	Bromodichloromethane		1,000.8	µg/mL	+/-	7.1418	µg/mL	Gravimetric
	CAS # 75-27-4.SEC	(Lot 13780)			+/-	56.2662	µg/mL	Unstressed
	Purity 99%				+/-	57.5757	µg/mL	Stressed
17	Dibromomethane		1,000.1	µg/mL	+/-	7.1033	µg/mL	Gravimetric
	CAS # 74-95-3.SEC	(Lot MOKKJ)			+/-	56.2242	µg/mL	Unstressed
	Purity 99%				+/-	57.5330	µg/mL	Stressed
18	cis-1,3-Dichloropropene		1,000.9	µg/mL	+/-	7.1425	µg/mL	Gravimetric
	CAS # 10061-01-5.SEC	(Lot 487OA)			+/-	56.2723	µg/mL	Unstressed
	Purity 98%				+/-	57.5819	µg/mL	Stressed
19	Toluene		1,000.0	µg/mL	+/-	7.1026	µg/mL	Gravimetric
	CAS # 108-88-3.SEC	(Lot YND2B-BD)			+/-	56.2193	µg/mL	Unstressed
	Purity 99%				+/-	57.5279	µg/mL	Stressed
20	trans-1,3-Dichloropropene		1,002.1	µg/mL	+/-	7.1513	µg/mL	Gravimetric
	CAS # 10061-02-6.SEC	(Lot ZDMSL)			+/-	56.3417	µg/mL	Unstressed
	Purity 96%				+/-	57.6530	µg/mL	Stressed
21	1,1,2-Trichloroethane		1,001.3	µg/mL	+/-	7.1450	µg/mL	Gravimetric
	CAS # 79-00-5.SEC	(Lot 7871500)			+/-	56.2917	µg/mL	Unstressed
	Purity 99%				+/-	57.6018	µg/mL	Stressed
22	1,3-Dichloropropane		1,000.1	µg/mL	+/-	7.1031	µg/mL	Gravimetric
	CAS # 142-28-9.SEC	(Lot AGN01-EFPC)			+/-	56.2228	µg/mL	Unstressed
	Purity 99%				+/-	57.5315	µg/mL	Stressed
23	Tetrachloroethene		1,000.2	µg/mL	+/-	7.1378	µg/mL	Gravimetric
	CAS # 127-18-4.SEC	(Lot F09W014)			+/-	56.2350	µg/mL	Unstressed
	Purity 99%				+/-	57.5437	µg/mL	Stressed

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

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

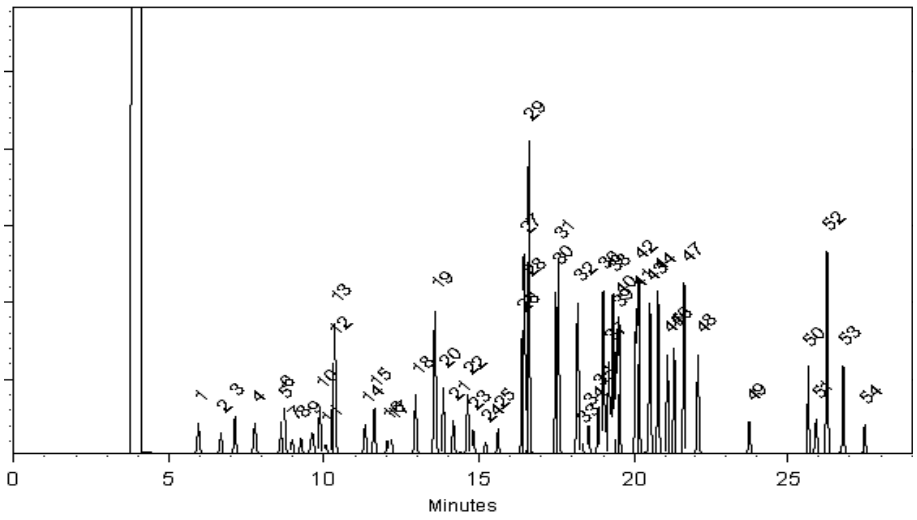
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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.

Bradley Meyer - Mix Technician

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

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:

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

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

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

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_M_MIX1SEC_00031

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

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. : 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

C E R T I F I E D V A L U E S

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

8	Bromochloromethane		1,000.1	µg/mL	+/-	7.1033	µg/mL	Gravimetric
	CAS # 74-97-5.SEC	(Lot 8529200)			+/-	56.2242	µg/mL	Unstressed
	Purity 99%				+/-	57.5330	µg/mL	Stressed
9	1,1,1-trichloroethane		1,000.3	µg/mL	+/-	7.1383	µg/mL	Gravimetric
	CAS # 71-55-6	(Lot 190123CG)			+/-	56.2391	µg/mL	Unstressed
	Purity 98%				+/-	57.5479	µg/mL	Stressed
10	1,1-Dichloropropene		1,002.5	µg/mL	+/-	7.1204	µg/mL	Gravimetric
	CAS # 563-58-6.SEC	(Lot 8541600)			+/-	56.3597	µg/mL	Unstressed
	Purity 95%				+/-	57.6716	µg/mL	Stressed
11	Carbon tetrachloride		1,000.8	µg/mL	+/-	7.1414	µg/mL	Gravimetric
	CAS # 56-23-5.SEC	(Lot 11466)			+/-	56.2636	µg/mL	Unstressed
	Purity 99%				+/-	57.5731	µg/mL	Stressed
12	1,2-Dichloroethane		1,000.6	µg/mL	+/-	7.1407	µg/mL	Gravimetric
	CAS # 107-06-2.SEC	(Lot 00016165)			+/-	56.2576	µg/mL	Unstressed
	Purity 99%				+/-	57.5669	µg/mL	Stressed
13	Benzene		1,000.1	µg/mL	+/-	7.1031	µg/mL	Gravimetric
	CAS # 71-43-2.SEC	(Lot B28Y008)			+/-	56.2228	µg/mL	Unstressed
	Purity 99%				+/-	57.5315	µg/mL	Stressed
14	Trichloroethene		1,000.9	µg/mL	+/-	7.1423	µg/mL	Gravimetric
	CAS # 79-01-6.SEC	(Lot H04X050)			+/-	56.2708	µg/mL	Unstressed
	Purity 99%				+/-	57.5804	µg/mL	Stressed
15	1,2-Dichloropropane		1,000.1	µg/mL	+/-	7.1371	µg/mL	Gravimetric
	CAS # 78-87-5.SEC	(Lot ERRBI-RH)			+/-	56.2293	µg/mL	Unstressed
	Purity 99%				+/-	57.5380	µg/mL	Stressed
16	Bromodichloromethane		1,000.8	µg/mL	+/-	7.1418	µg/mL	Gravimetric
	CAS # 75-27-4.SEC	(Lot 13780)			+/-	56.2662	µg/mL	Unstressed
	Purity 99%				+/-	57.5757	µg/mL	Stressed
17	Dibromomethane		1,000.1	µg/mL	+/-	7.1033	µg/mL	Gravimetric
	CAS # 74-95-3.SEC	(Lot MOKKJ)			+/-	56.2242	µg/mL	Unstressed
	Purity 99%				+/-	57.5330	µg/mL	Stressed
18	cis-1,3-Dichloropropene		1,000.9	µg/mL	+/-	7.1425	µg/mL	Gravimetric
	CAS # 10061-01-5.SEC	(Lot 487OA)			+/-	56.2723	µg/mL	Unstressed
	Purity 98%				+/-	57.5819	µg/mL	Stressed
19	Toluene		1,000.0	µg/mL	+/-	7.1026	µg/mL	Gravimetric
	CAS # 108-88-3.SEC	(Lot YND2B-BD)			+/-	56.2193	µg/mL	Unstressed
	Purity 99%				+/-	57.5279	µg/mL	Stressed
20	trans-1,3-Dichloropropene		1,002.1	µg/mL	+/-	7.1513	µg/mL	Gravimetric
	CAS # 10061-02-6.SEC	(Lot ZDMSL)			+/-	56.3417	µg/mL	Unstressed
	Purity 96%				+/-	57.6530	µg/mL	Stressed
21	1,1,2-Trichloroethane		1,001.3	µg/mL	+/-	7.1450	µg/mL	Gravimetric
	CAS # 79-00-5.SEC	(Lot 7871500)			+/-	56.2917	µg/mL	Unstressed
	Purity 99%				+/-	57.6018	µg/mL	Stressed
22	1,3-Dichloropropane		1,000.1	µg/mL	+/-	7.1031	µg/mL	Gravimetric
	CAS # 142-28-9.SEC	(Lot AGN01-EFPC)			+/-	56.2228	µg/mL	Unstressed
	Purity 99%				+/-	57.5315	µg/mL	Stressed
23	Tetrachloroethene		1,000.2	µg/mL	+/-	7.1378	µg/mL	Gravimetric
	CAS # 127-18-4.SEC	(Lot F09W014)			+/-	56.2350	µg/mL	Unstressed
	Purity 99%				+/-	57.5437	µg/mL	Stressed

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

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

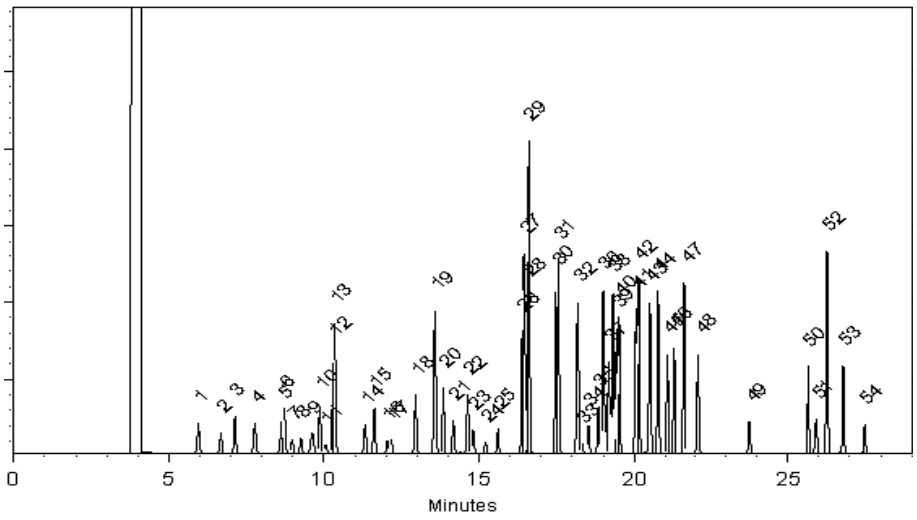
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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.

Bradley Meyer - Mix Technician

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

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:

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

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

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

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_M_MIX2SEC_00028

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

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. : 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

C E R T I F I E D V A L U E S

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		1,001.5	µg/mL	+/-	5.8774	µg/mL	Gravimetric
	CAS # 75-15-0.SEC	(Lot MKBL1376V)			+/-	49.5485	µg/mL	Unstressed
	Purity 99%				+/-	50.7802	µg/mL	Stressed
9	Acrylonitrile		5,000.5	µg/mL	+/-	29.2790	µg/mL	Gravimetric
	CAS # 107-13-1.SEC	(Lot V54AD)			+/-	247.3882	µg/mL	Unstressed
	Purity 99%				+/-	253.5386	µg/mL	Stressed
10	Methyl-tert-butyl ether (MTBE)		1,001.5	µg/mL	+/-	5.8774	µg/mL	Gravimetric
	CAS # 1634-04-4.SEC	(Lot ZHKYA)			+/-	49.5485	µg/mL	Unstressed
	Purity 99%				+/-	50.7802	µg/mL	Stressed
11	n-Hexane (C6)		1,001.0	µg/mL	+/-	5.8744	µg/mL	Gravimetric
	CAS # 110-54-3.SEC	(Lot 10188491)			+/-	49.5238	µg/mL	Unstressed
	Purity 99%				+/-	50.7549	µg/mL	Stressed
12	Diisopropyl ether (DIPE)		1,003.0	µg/mL	+/-	5.8862	µg/mL	Gravimetric
	CAS # 108-20-3.SEC	(Lot LL7TN-SH)			+/-	49.6227	µg/mL	Unstressed
	Purity 99%				+/-	50.8563	µg/mL	Stressed
13	Chloroprene (2-chloro-1,3-butadiene)		1,001.5	µg/mL	+/-	5.8774	µg/mL	Gravimetric
	CAS # 126-99-8	(Lot 210413JLM)			+/-	49.5485	µg/mL	Unstressed
	Purity 99%				+/-	50.7802	µg/mL	Stressed
14	Ethyl-tert-butyl ether (ETBE)		1,002.1	µg/mL	+/-	5.8806	µg/mL	Gravimetric
	CAS # 637-92-3.SEC	(Lot UCI5B)			+/-	49.5757	µg/mL	Unstressed
	Purity 98%				+/-	50.8081	µg/mL	Stressed
15	Propionitrile		7,501.5	µg/mL	+/-	43.9229	µg/mL	Gravimetric
	CAS # 107-12-0.SEC	(Lot N44LF)			+/-	371.1195	µg/mL	Unstressed
	Purity 99%				+/-	380.3459	µg/mL	Stressed
16	Methacrylonitrile		7,501.5	µg/mL	+/-	43.9229	µg/mL	Gravimetric
	CAS # 126-98-7	(Lot 1012014)			+/-	371.1195	µg/mL	Unstressed
	Purity 99%				+/-	380.3459	µg/mL	Stressed
17	Isobutanol (2-Methyl-1-propanol)		25,001.0	µg/mL	+/-	146.3864	µg/mL	Gravimetric
	CAS # 78-83-1.SEC	(Lot YNG3K)			+/-	1,236.8670	µg/mL	Unstressed
	Purity 99%				+/-	1,267.6168	µg/mL	Stressed
18	Tetrahydrofuran		5,000.5	µg/mL	+/-	29.2790	µg/mL	Gravimetric
	CAS # 109-99-9.SEC	(Lot 3NYHE)			+/-	247.3882	µg/mL	Unstressed
	Purity 99%				+/-	253.5386	µg/mL	Stressed
19	Cyclohexane		1,000.0	µg/mL	+/-	5.8686	µg/mL	Gravimetric
	CAS # 110-82-7.SEC	(Lot YADRA)			+/-	49.4743	µg/mL	Unstressed
	Purity 99%				+/-	50.7042	µg/mL	Stressed
20	1-Butanol		50,004.5	µg/mL	+/-	292.7722	µg/mL	Gravimetric
	CAS # 71-36-3.SEC	(Lot 6B6UL)			+/-	2,473.8558	µg/mL	Unstressed
	Purity 99%				+/-	2,535.3586	µg/mL	Stressed
21	tert-Amyl methyl ether (TAME)		1,001.0	µg/mL	+/-	5.8744	µg/mL	Gravimetric
	CAS # 994-05-8.SEC	(Lot 11010100)			+/-	49.5238	µg/mL	Unstressed
	Purity 99%				+/-	50.7549	µg/mL	Stressed
22	n-Heptane (C7)		1,002.5	µg/mL	+/-	5.8832	µg/mL	Gravimetric
	CAS # 142-82-5.SEC	(Lot TFHUC)			+/-	49.5980	µg/mL	Unstressed
	Purity 99%				+/-	50.8309	µg/mL	Stressed
23	tert-Amyl ethyl ether (TAEE)		1,000.5	µg/mL	+/-	5.8715	µg/mL	Gravimetric
	CAS # 919-94-8.SEC	(Lot 11370700)			+/-	49.4990	µg/mL	Unstressed
	Purity 99%				+/-	50.7295	µg/mL	Stressed

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

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

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

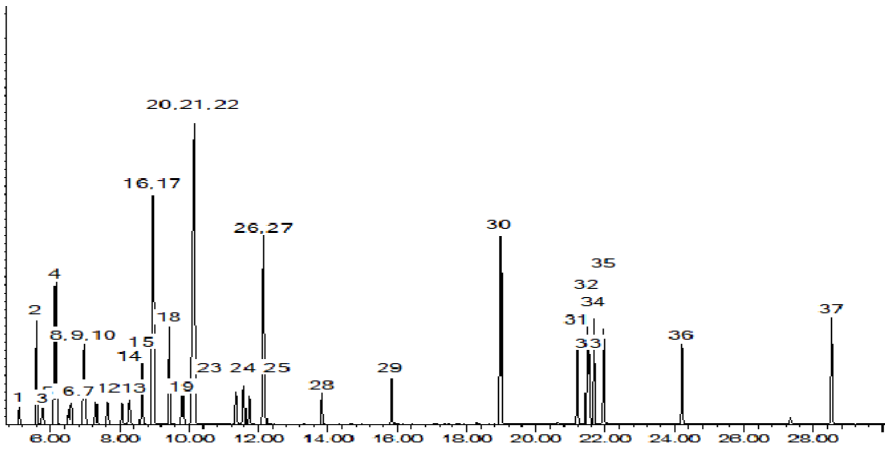
Carrier Gas:
helium-constant pressure 30 psi

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.

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

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:

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

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

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

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_M_MIX2SEC_00031

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

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. : 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

C E R T I F I E D V A L U E S

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		1,001.5	µg/mL	+/-	5.8774	µg/mL	Gravimetric
	CAS # 75-15-0.SEC	(Lot MKBL1376V)			+/-	49.5485	µg/mL	Unstressed
	Purity 99%				+/-	50.7802	µg/mL	Stressed
9	Acrylonitrile		5,000.5	µg/mL	+/-	29.2790	µg/mL	Gravimetric
	CAS # 107-13-1.SEC	(Lot V54AD)			+/-	247.3882	µg/mL	Unstressed
	Purity 99%				+/-	253.5386	µg/mL	Stressed
10	Methyl-tert-butyl ether (MTBE)		1,001.5	µg/mL	+/-	5.8774	µg/mL	Gravimetric
	CAS # 1634-04-4.SEC	(Lot ZHKYA)			+/-	49.5485	µg/mL	Unstressed
	Purity 99%				+/-	50.7802	µg/mL	Stressed
11	n-Hexane (C6)		1,001.0	µg/mL	+/-	5.8744	µg/mL	Gravimetric
	CAS # 110-54-3.SEC	(Lot 10188491)			+/-	49.5238	µg/mL	Unstressed
	Purity 99%				+/-	50.7549	µg/mL	Stressed
12	Diisopropyl ether (DIPE)		1,003.0	µg/mL	+/-	5.8862	µg/mL	Gravimetric
	CAS # 108-20-3.SEC	(Lot LL7TN-SH)			+/-	49.6227	µg/mL	Unstressed
	Purity 99%				+/-	50.8563	µg/mL	Stressed
13	Chloroprene (2-chloro-1,3-butadiene)		1,001.5	µg/mL	+/-	5.8774	µg/mL	Gravimetric
	CAS # 126-99-8	(Lot 210413JLM)			+/-	49.5485	µg/mL	Unstressed
	Purity 99%				+/-	50.7802	µg/mL	Stressed
14	Ethyl-tert-butyl ether (ETBE)		1,002.1	µg/mL	+/-	5.8806	µg/mL	Gravimetric
	CAS # 637-92-3.SEC	(Lot UCI5B)			+/-	49.5757	µg/mL	Unstressed
	Purity 98%				+/-	50.8081	µg/mL	Stressed
15	Propionitrile		7,501.5	µg/mL	+/-	43.9229	µg/mL	Gravimetric
	CAS # 107-12-0.SEC	(Lot N44LF)			+/-	371.1195	µg/mL	Unstressed
	Purity 99%				+/-	380.3459	µg/mL	Stressed
16	Methacrylonitrile		7,501.5	µg/mL	+/-	43.9229	µg/mL	Gravimetric
	CAS # 126-98-7	(Lot 1012014)			+/-	371.1195	µg/mL	Unstressed
	Purity 99%				+/-	380.3459	µg/mL	Stressed
17	Isobutanol (2-Methyl-1-propanol)		25,001.0	µg/mL	+/-	146.3864	µg/mL	Gravimetric
	CAS # 78-83-1.SEC	(Lot YNG3K)			+/-	1,236.8670	µg/mL	Unstressed
	Purity 99%				+/-	1,267.6168	µg/mL	Stressed
18	Tetrahydrofuran		5,000.5	µg/mL	+/-	29.2790	µg/mL	Gravimetric
	CAS # 109-99-9.SEC	(Lot 3NYHE)			+/-	247.3882	µg/mL	Unstressed
	Purity 99%				+/-	253.5386	µg/mL	Stressed
19	Cyclohexane		1,000.0	µg/mL	+/-	5.8686	µg/mL	Gravimetric
	CAS # 110-82-7.SEC	(Lot YADRA)			+/-	49.4743	µg/mL	Unstressed
	Purity 99%				+/-	50.7042	µg/mL	Stressed
20	1-Butanol		50,004.5	µg/mL	+/-	292.7722	µg/mL	Gravimetric
	CAS # 71-36-3.SEC	(Lot 6B6UL)			+/-	2,473.8558	µg/mL	Unstressed
	Purity 99%				+/-	2,535.3586	µg/mL	Stressed
21	tert-Amyl methyl ether (TAME)		1,001.0	µg/mL	+/-	5.8744	µg/mL	Gravimetric
	CAS # 994-05-8.SEC	(Lot 11010100)			+/-	49.5238	µg/mL	Unstressed
	Purity 99%				+/-	50.7549	µg/mL	Stressed
22	n-Heptane (C7)		1,002.5	µg/mL	+/-	5.8832	µg/mL	Gravimetric
	CAS # 142-82-5.SEC	(Lot TFHUC)			+/-	49.5980	µg/mL	Unstressed
	Purity 99%				+/-	50.8309	µg/mL	Stressed
23	tert-Amyl ethyl ether (TAEE)		1,000.5	µg/mL	+/-	5.8715	µg/mL	Gravimetric
	CAS # 919-94-8.SEC	(Lot 11370700)			+/-	49.4990	µg/mL	Unstressed
	Purity 99%				+/-	50.7295	µg/mL	Stressed

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

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

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

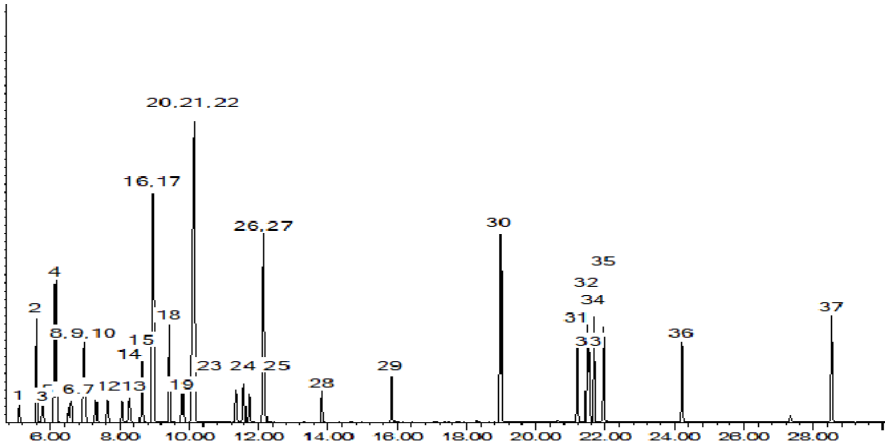
Carrier Gas:
helium-constant pressure 30 psi

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 J Maye

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

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:

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

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

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

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_M_MIX2SEC_00033

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

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. : 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

C E R T I F I E D V A L U E S

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		1,001.5	µg/mL	+/-	5.8774	µg/mL	Gravimetric
	CAS # 75-15-0.SEC	(Lot MKBL1376V)			+/-	49.5485	µg/mL	Unstressed
	Purity 99%				+/-	50.7802	µg/mL	Stressed
9	Acrylonitrile		5,000.5	µg/mL	+/-	29.2790	µg/mL	Gravimetric
	CAS # 107-13-1.SEC	(Lot V54AD)			+/-	247.3882	µg/mL	Unstressed
	Purity 99%				+/-	253.5386	µg/mL	Stressed
10	Methyl-tert-butyl ether (MTBE)		1,001.5	µg/mL	+/-	5.8774	µg/mL	Gravimetric
	CAS # 1634-04-4.SEC	(Lot ZHKYA)			+/-	49.5485	µg/mL	Unstressed
	Purity 99%				+/-	50.7802	µg/mL	Stressed
11	n-Hexane (C6)		1,001.0	µg/mL	+/-	5.8744	µg/mL	Gravimetric
	CAS # 110-54-3.SEC	(Lot 10188491)			+/-	49.5238	µg/mL	Unstressed
	Purity 99%				+/-	50.7549	µg/mL	Stressed
12	Diisopropyl ether (DIPE)		1,003.0	µg/mL	+/-	5.8862	µg/mL	Gravimetric
	CAS # 108-20-3.SEC	(Lot LL7TN-SH)			+/-	49.6227	µg/mL	Unstressed
	Purity 99%				+/-	50.8563	µg/mL	Stressed
13	Chloroprene (2-chloro-1,3-butadiene)		1,001.5	µg/mL	+/-	5.8774	µg/mL	Gravimetric
	CAS # 126-99-8	(Lot 210413JLM)			+/-	49.5485	µg/mL	Unstressed
	Purity 99%				+/-	50.7802	µg/mL	Stressed
14	Ethyl-tert-butyl ether (ETBE)		1,002.1	µg/mL	+/-	5.8806	µg/mL	Gravimetric
	CAS # 637-92-3.SEC	(Lot UCI5B)			+/-	49.5757	µg/mL	Unstressed
	Purity 98%				+/-	50.8081	µg/mL	Stressed
15	Propionitrile		7,501.5	µg/mL	+/-	43.9229	µg/mL	Gravimetric
	CAS # 107-12-0.SEC	(Lot N44LF)			+/-	371.1195	µg/mL	Unstressed
	Purity 99%				+/-	380.3459	µg/mL	Stressed
16	Methacrylonitrile		7,501.5	µg/mL	+/-	43.9229	µg/mL	Gravimetric
	CAS # 126-98-7	(Lot 1012014)			+/-	371.1195	µg/mL	Unstressed
	Purity 99%				+/-	380.3459	µg/mL	Stressed
17	Isobutanol (2-Methyl-1-propanol)		25,001.0	µg/mL	+/-	146.3864	µg/mL	Gravimetric
	CAS # 78-83-1.SEC	(Lot YNG3K)			+/-	1,236.8670	µg/mL	Unstressed
	Purity 99%				+/-	1,267.6168	µg/mL	Stressed
18	Tetrahydrofuran		5,000.5	µg/mL	+/-	29.2790	µg/mL	Gravimetric
	CAS # 109-99-9.SEC	(Lot 3NYHE)			+/-	247.3882	µg/mL	Unstressed
	Purity 99%				+/-	253.5386	µg/mL	Stressed
19	Cyclohexane		1,000.0	µg/mL	+/-	5.8686	µg/mL	Gravimetric
	CAS # 110-82-7.SEC	(Lot YADRA)			+/-	49.4743	µg/mL	Unstressed
	Purity 99%				+/-	50.7042	µg/mL	Stressed
20	1-Butanol		50,004.5	µg/mL	+/-	292.7722	µg/mL	Gravimetric
	CAS # 71-36-3.SEC	(Lot 6B6UL)			+/-	2,473.8558	µg/mL	Unstressed
	Purity 99%				+/-	2,535.3586	µg/mL	Stressed
21	tert-Amyl methyl ether (TAME)		1,001.0	µg/mL	+/-	5.8744	µg/mL	Gravimetric
	CAS # 994-05-8.SEC	(Lot 11010100)			+/-	49.5238	µg/mL	Unstressed
	Purity 99%				+/-	50.7549	µg/mL	Stressed
22	n-Heptane (C7)		1,002.5	µg/mL	+/-	5.8832	µg/mL	Gravimetric
	CAS # 142-82-5.SEC	(Lot TFHUC)			+/-	49.5980	µg/mL	Unstressed
	Purity 99%				+/-	50.8309	µg/mL	Stressed
23	tert-Amyl ethyl ether (TAEE)		1,000.5	µg/mL	+/-	5.8715	µg/mL	Gravimetric
	CAS # 919-94-8.SEC	(Lot 11370700)			+/-	49.4990	µg/mL	Unstressed
	Purity 99%				+/-	50.7295	µg/mL	Stressed

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

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

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

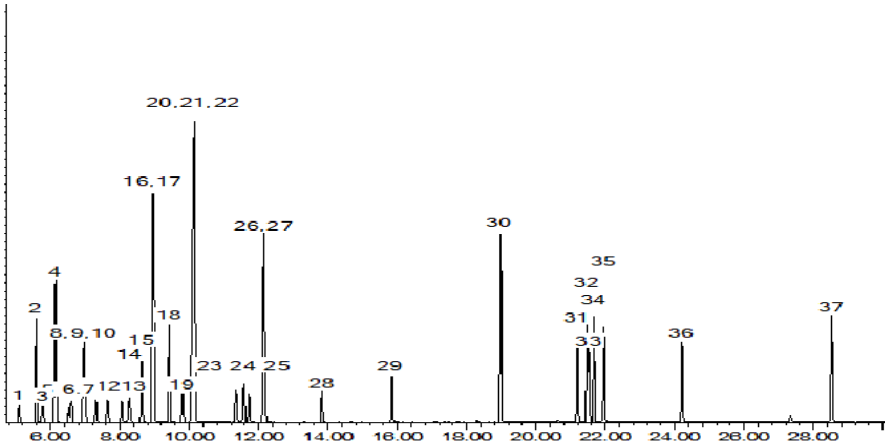
Carrier Gas:
helium-constant pressure 30 psi

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.

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

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:

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

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

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

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_MegaMIX#1_00015

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

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

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

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

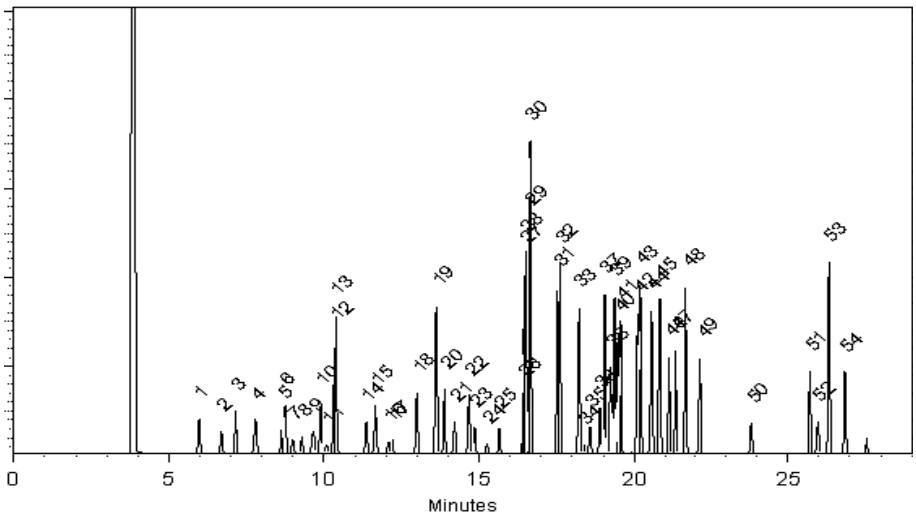
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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.

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:

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

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

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

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_MegaMIX#1_00021

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

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

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

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

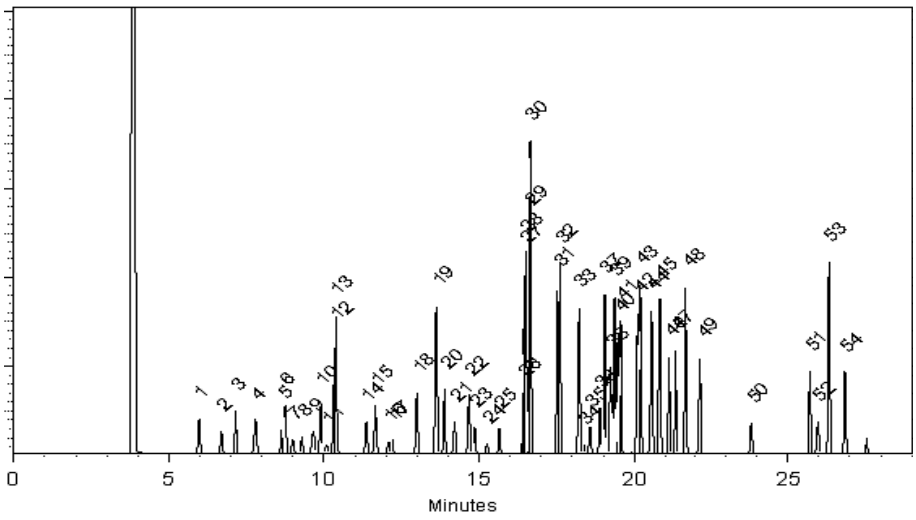
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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.

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:

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

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

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

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_MegaMix#2_00015

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 577487 **Lot No.:** A0172089

Description : Custom VOC MegaMix® #2 Standard

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

X8
5/12/21

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	n-Pentane (C5)	5,015.5 µg/mL	+/- 31.9907 µg/mL	Gravimetric
	CAS # 109-66-0 (Lot SHBM2439)		+/- 248.4545 µg/mL	Unstressed
	Purity 99%		+/- 254.6155 µg/mL	Stressed
2	2-Propanol (isopropanol)	25,058.5 µg/mL	+/- 146.7230 µg/mL	Gravimetric
	CAS # 67-63-0 (Lot SHBM4333)		+/- 1,239.7116 µg/mL	Unstressed
	Purity 99%		+/- 1,270.5322 µg/mL	Stressed
3	1,1,2-Trichlorotrifluoroethane (CFC-113)	5,011.5 µg/mL	+/- 31.9652 µg/mL	Gravimetric
	CAS # 76-13-1 (Lot 00016133)		+/- 248.2564 µg/mL	Unstressed
	Purity 99%		+/- 254.4124 µg/mL	Stressed
4	tert-Butanol (TBA)	25,047.5 µg/mL	+/- 146.6586 µg/mL	Gravimetric
	CAS # 75-65-0 (Lot SHBM7694)		+/- 1,239.1674 µg/mL	Unstressed
	Purity 99%		+/- 1,269.9744 µg/mL	Stressed
5	Methyl acetate	5,006.8 µg/mL	+/- 31.9354 µg/mL	Gravimetric
	CAS # 79-20-9 (Lot SHBK5436)		+/- 248.0252 µg/mL	Unstressed
	Purity 99%		+/- 254.1755 µg/mL	Stressed
6	Iodomethane (methyl iodide)	5,011.2 µg/mL	+/- 31.9631 µg/mL	Gravimetric
	CAS # 74-88-4 (Lot RD210503)		+/- 248.2399 µg/mL	Unstressed
	Purity 99%		+/- 254.3955 µg/mL	Stressed
7	Allyl chloride (3-chloropropene)	5,007.0 µg/mL	+/- 31.9365 µg/mL	Gravimetric
	CAS # 107-05-1 (Lot RD210402)		+/- 248.0335 µg/mL	Unstressed
	Purity 99%		+/- 254.1839 µg/mL	Stressed

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

24	Methylcyclohexane		5,015.2	µg/mL	+/-	31.9886	µg/mL	Gravimetric
	CAS # 108-87-2	(Lot SHBL0078)			+/-	248.4380	µg/mL	Unstressed
	Purity 99%				+/-	254.5985	µg/mL	Stressed
25	Methyl methacrylate		5,016.5	µg/mL	+/-	31.9971	µg/mL	Gravimetric
	CAS # 80-62-6	(Lot MKCN3027)			+/-	248.5041	µg/mL	Unstressed
	Purity 99%				+/-	254.6662	µg/mL	Stressed
26	1,4-Dioxane		62,582.5	µg/mL	+/-	366.4154	µg/mL	Gravimetric
	CAS # 123-91-1	(Lot SHBM5092)			+/-	3,096.1230	µg/mL	Unstressed
	Purity 99%				+/-	3,173.0960	µg/mL	Stressed
27	2-Nitropropane		25,020.2	µg/mL	+/-	146.4987	µg/mL	Gravimetric
	CAS # 79-46-9	(Lot BCCB9352)			+/-	1,237.8158	µg/mL	Unstressed
	Purity 97%				+/-	1,268.5893	µg/mL	Stressed
28	1-Chlorohexane		5,012.5	µg/mL	+/-	31.9718	µg/mL	Gravimetric
	CAS # 544-10-5	(Lot BCBS3368V)			+/-	248.3077	µg/mL	Unstressed
	Purity 98%				+/-	254.4650	µg/mL	Stressed
29	trans-1,4-dichloro-2-butene		12,532.9	µg/mL	+/-	73.3827	µg/mL	Gravimetric
	CAS # 110-57-6	(Lot RD210331)			+/-	620.0352	µg/mL	Unstressed
	Purity 95%				+/-	635.4499	µg/mL	Stressed
30	1,2,3-Trimethylbenzene		5,009.9	µg/mL	+/-	31.9551	µg/mL	Gravimetric
	CAS # 526-73-8	(Lot 8776.10-36)			+/-	248.1783	µg/mL	Unstressed
	Purity 98%				+/-	254.3323	µg/mL	Stressed
31	1,3-Diethylbenzene		5,010.6	µg/mL	+/-	31.9593	µg/mL	Gravimetric
	CAS # 141-93-5	(Lot BCBT8967)			+/-	248.2106	µg/mL	Unstressed
	Purity 98%				+/-	254.3655	µg/mL	Stressed
32	Benzyl chloride		5,011.7	µg/mL	+/-	31.9663	µg/mL	Gravimetric
	CAS # 100-44-7	(Lot SHBH2102V)			+/-	248.2646	µg/mL	Unstressed
	Purity 99%				+/-	254.4209	µg/mL	Stressed
33	1,4-Diethylbenzene		5,008.5	µg/mL	+/-	31.9458	µg/mL	Gravimetric
	CAS # 105-05-5	(Lot RLHJK)			+/-	248.1055	µg/mL	Unstressed
	Purity 98%				+/-	254.2577	µg/mL	Stressed
34	1,2-Diethylbenzene		5,010.2	µg/mL	+/-	31.9567	µg/mL	Gravimetric
	CAS # 135-01-3	(Lot ECH2970181)			+/-	248.1903	µg/mL	Unstressed
	Purity 99%				+/-	254.3447	µg/mL	Stressed
35	1,3,5-Trichlorobenzene		5,012.0	µg/mL	+/-	31.9684	µg/mL	Gravimetric
	CAS # 108-70-3	(Lot 11319AS)			+/-	248.2811	µg/mL	Unstressed
	Purity 99%				+/-	254.4378	µg/mL	Stressed
36	2-Methylnaphthalene		5,009.0	µg/mL	+/-	31.9493	µg/mL	Gravimetric
	CAS # 91-57-6	(Lot STBG8884)			+/-	248.1325	µg/mL	Unstressed
	Purity 99%				+/-	254.2855	µg/mL	Stressed

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

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

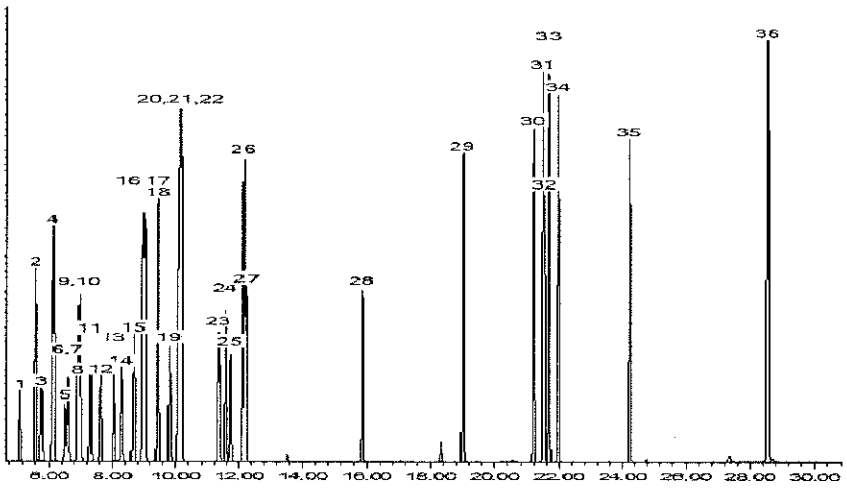
Carrier Gas:
hellum-constant pressure 30 psi

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 Shelow - Operations Tech I

Date Passed: 11-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:

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

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

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

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_MegaMix#2_00021

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
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

X8
5/12/21

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	n-Pentane (C5)		5,015.5	µg/mL	+/- 31.9907	µg/mL	Gravimetric
	CAS # 109-66-0	(Lot SHBM2439)			+/- 248.4545	µg/mL	Unstressed
	Purity 99%				+/- 254.6155	µg/mL	Stressed
2	2-Propanol (isopropanol)		25,058.5	µg/mL	+/- 146.7230	µg/mL	Gravimetric
	CAS # 67-63-0	(Lot SHBM4333)			+/- 1,239.7116	µg/mL	Unstressed
	Purity 99%				+/- 1,270.5322	µg/mL	Stressed
3	1,1,2-Trichlorotrifluoroethane (CFC-113)		5,011.5	µg/mL	+/- 31.9652	µg/mL	Gravimetric
	CAS # 76-13-1	(Lot 00016133)			+/- 248.2564	µg/mL	Unstressed
	Purity 99%				+/- 254.4124	µg/mL	Stressed
4	tert-Butanol (TBA)		25,047.5	µg/mL	+/- 146.6586	µg/mL	Gravimetric
	CAS # 75-65-0	(Lot SHBM7694)			+/- 1,239.1674	µg/mL	Unstressed
	Purity 99%				+/- 1,269.9744	µg/mL	Stressed
5	Methyl acetate		5,006.8	µg/mL	+/- 31.9354	µg/mL	Gravimetric
	CAS # 79-20-9	(Lot SHBK5436)			+/- 248.0252	µg/mL	Unstressed
	Purity 99%				+/- 254.1755	µg/mL	Stressed
6	Iodomethane (methyl iodide)		5,011.2	µg/mL	+/- 31.9631	µg/mL	Gravimetric
	CAS # 74-88-4	(Lot RD210503)			+/- 248.2399	µg/mL	Unstressed
	Purity 99%				+/- 254.3955	µg/mL	Stressed
7	Allyl chloride (3-chloropropene)		5,007.0	µg/mL	+/- 31.9365	µg/mL	Gravimetric
	CAS # 107-05-1	(Lot RD210402)			+/- 248.0335	µg/mL	Unstressed
	Purity 99%				+/- 254.1839	µg/mL	Stressed

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

24	Methylcyclohexane		5,015.2	µg/mL	+/-	31.9886	µg/mL	Gravimetric
	CAS # 108-87-2	(Lot SHBL0078)			+/-	248.4380	µg/mL	Unstressed
	Purity 99%				+/-	254.5985	µg/mL	Stressed
25	Methyl methacrylate		5,016.5	µg/mL	+/-	31.9971	µg/mL	Gravimetric
	CAS # 80-62-6	(Lot MKCN3027)			+/-	248.5041	µg/mL	Unstressed
	Purity 99%				+/-	254.6662	µg/mL	Stressed
26	1,4-Dioxane		62,582.5	µg/mL	+/-	366.4154	µg/mL	Gravimetric
	CAS # 123-91-1	(Lot SHBM5092)			+/-	3,096.1230	µg/mL	Unstressed
	Purity 99%				+/-	3,173.0960	µg/mL	Stressed
27	2-Nitropropane		25,020.2	µg/mL	+/-	146.4987	µg/mL	Gravimetric
	CAS # 79-46-9	(Lot BCCB9352)			+/-	1,237.8158	µg/mL	Unstressed
	Purity 97%				+/-	1,268.5893	µg/mL	Stressed
28	1-Chlorohexane		5,012.5	µg/mL	+/-	31.9718	µg/mL	Gravimetric
	CAS # 544-10-5	(Lot BCBS3368V)			+/-	248.3077	µg/mL	Unstressed
	Purity 98%				+/-	254.4650	µg/mL	Stressed
29	trans-1,4-dichloro-2-butene		12,532.9	µg/mL	+/-	73.3827	µg/mL	Gravimetric
	CAS # 110-57-6	(Lot RD210331)			+/-	620.0352	µg/mL	Unstressed
	Purity 95%				+/-	635.4499	µg/mL	Stressed
30	1,2,3-Trimethylbenzene		5,009.9	µg/mL	+/-	31.9551	µg/mL	Gravimetric
	CAS # 526-73-8	(Lot 8776.10-36)			+/-	248.1783	µg/mL	Unstressed
	Purity 98%				+/-	254.3323	µg/mL	Stressed
31	1,3-Diethylbenzene		5,010.6	µg/mL	+/-	31.9593	µg/mL	Gravimetric
	CAS # 141-93-5	(Lot BCBT8967)			+/-	248.2106	µg/mL	Unstressed
	Purity 98%				+/-	254.3655	µg/mL	Stressed
32	Benzyl chloride		5,011.7	µg/mL	+/-	31.9663	µg/mL	Gravimetric
	CAS # 100-44-7	(Lot SHBH2102V)			+/-	248.2646	µg/mL	Unstressed
	Purity 99%				+/-	254.4209	µg/mL	Stressed
33	1,4-Diethylbenzene		5,008.5	µg/mL	+/-	31.9458	µg/mL	Gravimetric
	CAS # 105-05-5	(Lot RLHJK)			+/-	248.1055	µg/mL	Unstressed
	Purity 98%				+/-	254.2577	µg/mL	Stressed
34	1,2-Diethylbenzene		5,010.2	µg/mL	+/-	31.9567	µg/mL	Gravimetric
	CAS # 135-01-3	(Lot ECH2970181)			+/-	248.1903	µg/mL	Unstressed
	Purity 99%				+/-	254.3447	µg/mL	Stressed
35	1,3,5-Trichlorobenzene		5,012.0	µg/mL	+/-	31.9684	µg/mL	Gravimetric
	CAS # 108-70-3	(Lot 11319AS)			+/-	248.2811	µg/mL	Unstressed
	Purity 99%				+/-	254.4378	µg/mL	Stressed
36	2-Methylnaphthalene		5,009.0	µg/mL	+/-	31.9493	µg/mL	Gravimetric
	CAS # 91-57-6	(Lot STBG8884)			+/-	248.1325	µg/mL	Unstressed
	Purity 99%				+/-	254.2855	µg/mL	Stressed

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

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

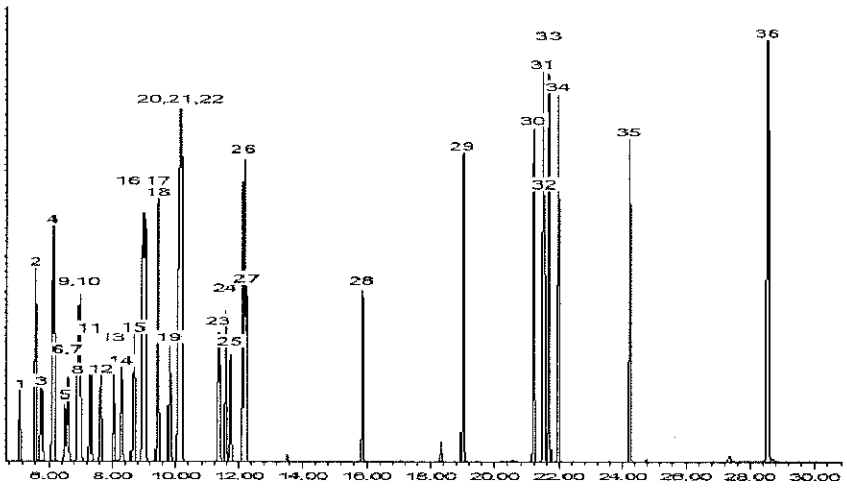
Carrier Gas:
hellum-constant pressure 30 psi

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 Shelow - Operations Tech I

Date Passed: 11-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:

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

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

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

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_Q_Ketones_00019

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

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. : 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

C E R T I F I E D V A L U E S

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)

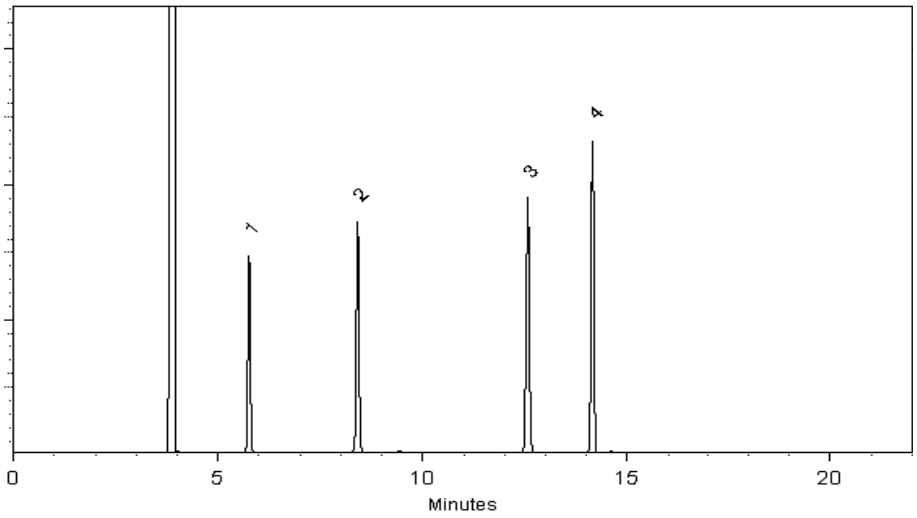
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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:

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_Q_Ketones_00030

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

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. : 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

C E R T I F I E D V A L U E S

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)

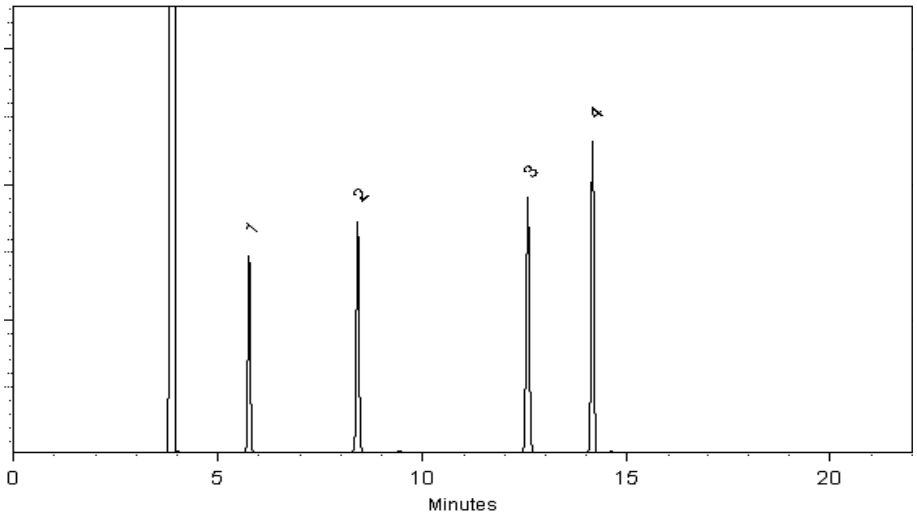
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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:

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

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

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

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_Q_Ketones_00032

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Fax: (814)353-1309

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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. : 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

C E R T I F I E D V A L U E S

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)

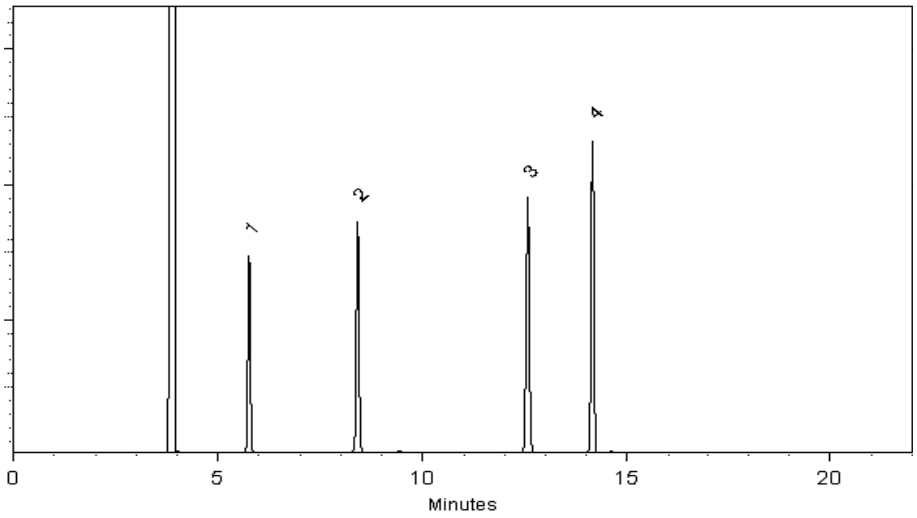
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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:

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

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

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

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_QC_2K_GAS_00030

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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. : 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

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Dichlorodifluoromethane (CFC-12)	2,014.7 µg/mL	+/- 21.3347	µg/mL	Gravimetric
	CAS # 75-71-8.SEC (Lot 26871)		+/- 114.3626	µg/mL	Unstressed
	Purity 99%		+/- 116.9742	µg/mL	Stressed
2	Chloromethane (methyl chloride)	2,018.4 µg/mL	+/- 22.6573	µg/mL	Gravimetric
	CAS # 74-87-3.SEC (Lot 18343)		+/- 114.8157	µg/mL	Unstressed
	Purity 99%		+/- 117.4265	µg/mL	Stressed
3	Vinyl chloride	2,011.6 µg/mL	+/- 18.1502	µg/mL	Gravimetric
	CAS # 75-01-4.SEC (Lot MKBK6872V)		+/- 113.6387	µg/mL	Unstressed
	Purity 99%		+/- 116.2584	µg/mL	Stressed
4	1,3-Butadiene	2,020.9 µg/mL	+/- 15.6985	µg/mL	Gravimetric
	CAS # 106-99-0.SEC (Lot 26996)		+/- 113.7849	µg/mL	Unstressed
	Purity 99%		+/- 116.4253	µg/mL	Stressed
5	Bromomethane (methyl bromide)	2,014.3 µg/mL	+/- 52.5641	µg/mL	Gravimetric
	CAS # 74-83-9.SEC (Lot 00017022)		+/- 124.0186	µg/mL	Unstressed
	Purity 99%		+/- 126.4297	µg/mL	Stressed
6	Chloroethane (ethyl chloride)	2,009.7 µg/mL	+/- 28.6335	µg/mL	Gravimetric
	CAS # 75-00-3.SEC (Lot 00004202)		+/- 115.6738	µg/mL	Unstressed
	Purity 99%		+/- 118.2437	µg/mL	Stressed
7	Dichlorofluoromethane (CFC-21)	2,000.0 µg/mL	+/- 11.7371	µg/mL	Gravimetric
	CAS # 75-43-4 * (Lot 10930400)		+/- 112.1494	µg/mL	Unstressed
	Purity 99%		+/- 114.7730	µg/mL	Stressed

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

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

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

Tech Tips:
Raw material may contain trace amounts of tert-Butanol.

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

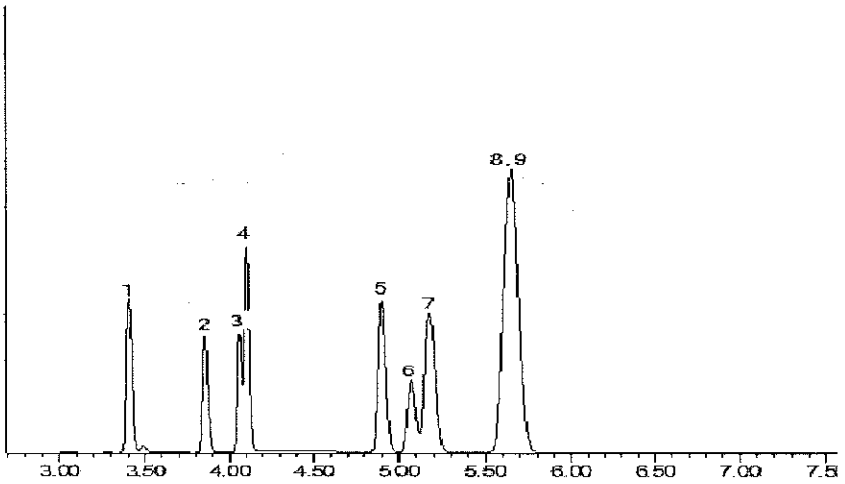
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

Lane Kibe - Mix Technician

Date Mixed: 04-May-2021 **Balance:** 1127510105

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:

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

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

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

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_QC_2K_GAS_00043

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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

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dichlorodifluoromethane (CFC-12)	2,014.7 µg/mL	+/- 21.3347 µg/mL	Gravimetric
	CAS # 75-71-8.SEC (Lot 26871)		+/- 114.3626 µg/mL	Unstressed
	Purity 99%		+/- 116.9742 µg/mL	Stressed
2	Chloromethane (methyl chloride)	2,018.4 µg/mL	+/- 22.6573 µg/mL	Gravimetric
	CAS # 74-87-3.SEC (Lot 18343)		+/- 114.8157 µg/mL	Unstressed
	Purity 99%		+/- 117.4265 µg/mL	Stressed
3	Vinyl chloride	2,011.6 µg/mL	+/- 18.1502 µg/mL	Gravimetric
	CAS # 75-01-4.SEC (Lot MKBK6872V)		+/- 113.6387 µg/mL	Unstressed
	Purity 99%		+/- 116.2584 µg/mL	Stressed
4	1,3-Butadiene	2,020.9 µg/mL	+/- 15.6985 µg/mL	Gravimetric
	CAS # 106-99-0.SEC (Lot 26996)		+/- 113.7849 µg/mL	Unstressed
	Purity 99%		+/- 116.4253 µg/mL	Stressed
5	Bromomethane (methyl bromide)	2,014.3 µg/mL	+/- 52.5641 µg/mL	Gravimetric
	CAS # 74-83-9.SEC (Lot 00017022)		+/- 124.0186 µg/mL	Unstressed
	Purity 99%		+/- 126.4297 µg/mL	Stressed
6	Chloroethane (ethyl chloride)	2,009.7 µg/mL	+/- 28.6335 µg/mL	Gravimetric
	CAS # 75-00-3.SEC (Lot 00004202)		+/- 115.6738 µg/mL	Unstressed
	Purity 99%		+/- 118.2437 µg/mL	Stressed
7	Dichlorofluoromethane (CFC-21)	2,000.0 µg/mL	+/- 11.7371 µg/mL	Gravimetric
	CAS # 75-43-4 * (Lot 10930400)		+/- 112.1494 µg/mL	Unstressed
	Purity 99%		+/- 114.7730 µg/mL	Stressed

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

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

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

Tech Tips:
Raw material may contain trace amounts of tert-Butanol.

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

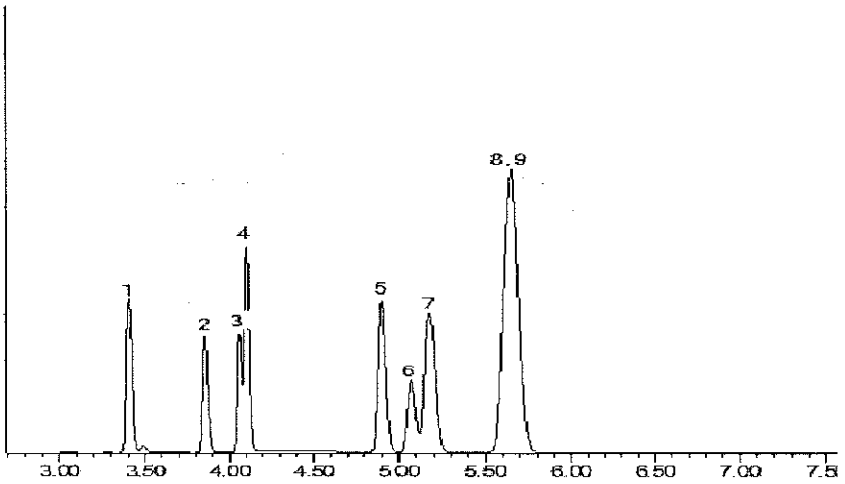
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

Lane Kibe - Mix Technician

Date Mixed: 04-May-2021 **Balance:** 1127510105

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:

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

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

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

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_V#2B_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
Solvent:	P&T Methanol	67-56-1	99%		

Specific Reference Material Notes:

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

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

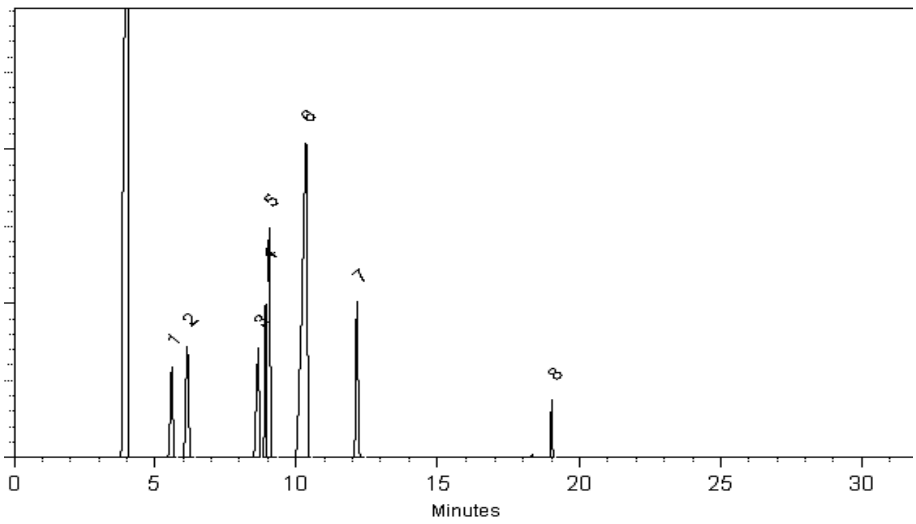
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



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

Erik Strommer - Operations Tech I

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

Marlina Cowan - Operations Tech I

Date Passed: 23-Apr-2021

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

General Reference Material Notes

Expiration Notes:

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

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/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.

Uncertainty Value Notes:

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_V_Ketones_00014

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

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CERTIFIED REFERENCE MATERIAL

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. : 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

C E R T I F I E D V A L U E S

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)

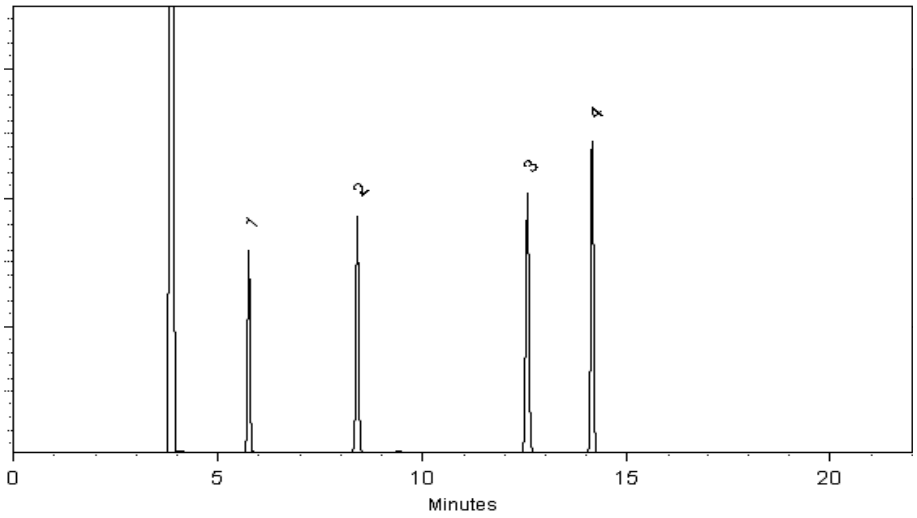
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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 Shelow - 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:

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

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

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

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_V_Ketones_00021

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Fax: (814)353-1309

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CERTIFIED REFERENCE MATERIAL

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. : 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

C E R T I F I E D V A L U E S

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)

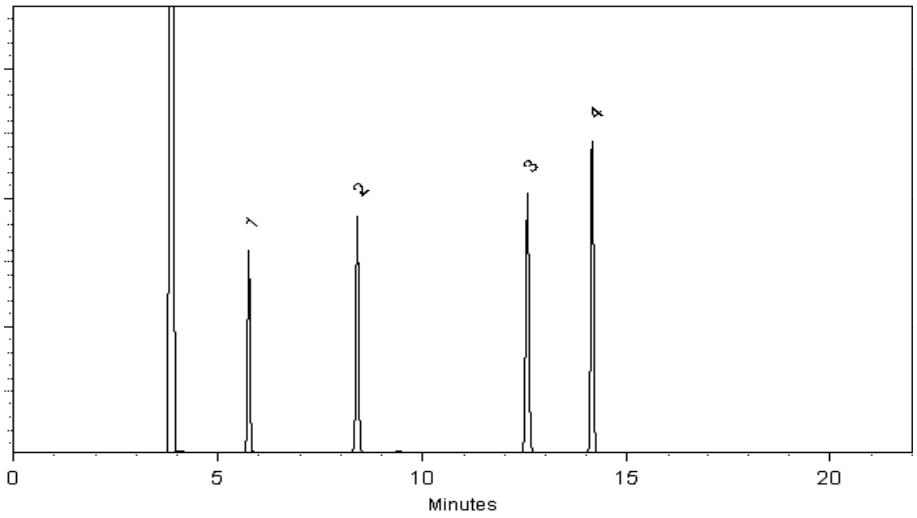
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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 Shelow - 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:

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

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

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

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

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

Manufacturing Notes:

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

Handling Notes:

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

Reagent

MSV_V_PentaCL_00005

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

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CERTIFIED REFERENCE MATERIAL

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. : 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

C E R T I F I E D V A L U E S

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

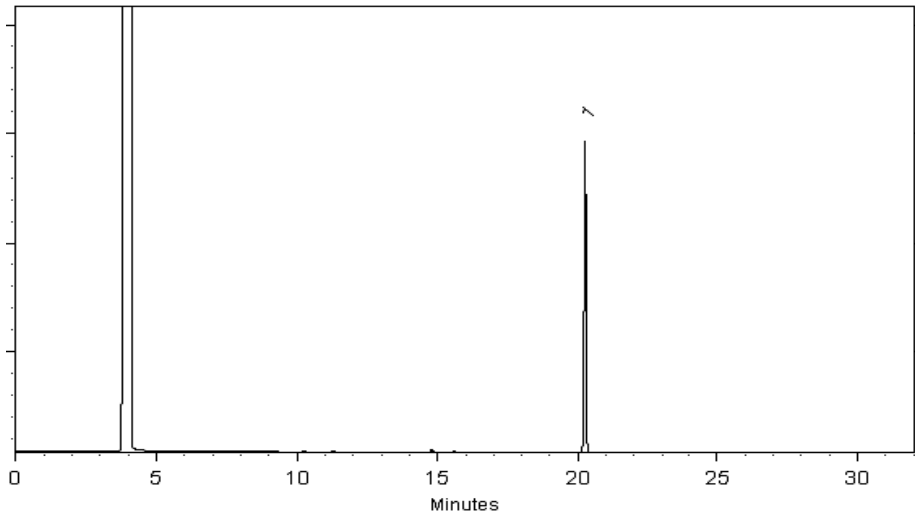
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

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.
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- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- 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:

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

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

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

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

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

Manufacturing Notes:

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

Handling Notes:

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

Method 8260D Low Level

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

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-60154-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): R-624SilMS ID: 0.25(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
HD-COD-SW-6-0/1-0	410-60154-1	104	107	101	95
HD-COD-SW-7-0/1-0	410-60154-2	104	104	101	96
HD-COD-SW-8-0/1-0	410-60154-3	105	107	101	94
HD-COD-SW-9-0/1-0	410-60154-4	105	106	101	97
HD-COD-SW-13-0/1-0	410-60154-5	106	107	101	96
HD-COD-SW-15-0/1-0	410-60154-6	105	105	101	96
HD-COD-SW-16-0/1-0	410-60154-7	105	107	102	97
HD-COD-SW-17-0/1-0	410-60154-8	105	105	102	96
HD-COD-SW-17-0/1-0 DL	410-60154-8 DL	105	108	100	95
HD-COD-SW-26-0/1-0	410-60154-9	106	106	101	94
HD-COD-SW-27-0/1-0	410-60154-10	106	106	101	95
HD-COD-SW-28-0/1-0	410-60154-11	106	108	101	95
HD-COD-SW-29-0/1-0	410-60154-12	106	105	102	96
HD-QC1-0/1-1	410-60154-13	106	107	101	96
HD-QC1-0/1-1 DL	410-60154-13 DL	106	108	101	95
HD-QC1-0/1-2	410-60154-14	106	107	101	97
	MB 410-188555/11	105	107	100	96
	MB 410-189194/11	105	105	101	96
	LCS 410-188555/4	102	107	102	98
	LCS 410-189194/4	102	102	102	98
	LCSD 410-188555/5	103	104	102	98
	LCSD 410-189194/5	102	104	101	98
HD-COD-SW-15-0/1-0 MS MS	410-60154-6 MS	102	103	102	97
HD-COD-SW-15-0/1-0 MSD MSD	410-60154-6 MSD	102	103	102	98

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

Column to be used to flag recovery values

FORM II 8260D

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Env, LLC Job No.: 410-60154-1

SDG No.:

Matrix: Water Level: Low Lab File ID: IC29X03.D

Lab ID: LCS 410-188555/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	5.00	5.46	109	71-134	
1,1,1-Trichloroethane	5.00	5.60	112	78-126	
1,1,2,2-Tetrachloroethane	5.00	5.62	112	75-123	
1,1,2-Trichloroethane	5.00	5.66	113	80-120	
1,1-Dichloroethane	5.00	5.47	109	74-120	
1,1-Dichloroethene	5.00	5.69	114	80-131	
1,2-Dibromoethane (EDB)	5.00	5.57	111	80-120	
1,2-Dichloroethane	5.00	5.37	107	69-122	
1,2-Dichloropropane	5.00	5.66	113	80-120	
2-Butanone (MEK)	62.5	61.4	98	59-141	
2-Hexanone	62.5	60.6	97	52-140	
4-Methyl-2-pentanone (MIBK)	62.5	59.6	95	55-140	
Acetone	62.5	60.5	97	60-146	
Benzene	5.00	5.51	110	80-120	
Bromochloromethane	5.00	5.83	117	80-120	
Bromodichloromethane	5.00	5.81	116	73-124	
Bromoform	5.00	5.69	114	49-144	
Bromomethane	5.00	5.18	104	60-136	
Carbon disulfide	5.00	5.28	106	67-130	
Carbon tetrachloride	5.00	5.67	113	64-141	
Chlorobenzene	5.00	5.36	107	80-120	
Chloroethane	5.00	5.23	105	63-120	
Chloroform	5.00	5.62	112	80-120	
Chloromethane	5.00	5.63	113	56-124	
cis-1,2-Dichloroethene	5.00	5.64	113	80-122	
cis-1,3-Dichloropropene	5.00	5.25	105	67-121	
Dibromochloromethane	5.00	5.67	113	64-138	
Ethylbenzene	5.00	5.42	108	80-120	
Methyl tert-butyl ether	5.00	5.40	108	69-120	
Methylene Chloride	5.00	5.73	115	80-120	
Styrene	5.00	5.42	108	80-120	
Tetrachloroethene	5.00	5.41	108	80-120	
Toluene	5.00	5.36	107	80-120	
trans-1,2-Dichloroethene	5.00	5.40	108	80-122	
trans-1,3-Dichloropropene	5.00	5.45	109	61-129	
Trichloroethene	5.00	5.49	110	80-120	
Vinyl chloride	5.00	5.38	108	60-125	
Xylenes, Total	15.0	16.0	107	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260D

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Env, LLC Job No.: 410-60154-1

SDG No.:

Matrix: Water Level: Low Lab File ID: IN01X03.D

Lab ID: LCS 410-189194/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	5.00	5.69	114	71-134	
1,1,1-Trichloroethane	5.00	5.70	114	78-126	
1,1,2,2-Tetrachloroethane	5.00	5.90	118	75-123	
1,1,2-Trichloroethane	5.00	5.90	118	80-120	
1,1-Dichloroethane	5.00	5.52	110	74-120	
1,1-Dichloroethene	5.00	5.89	118	80-131	
1,2-Dibromoethane (EDB)	5.00	5.77	115	80-120	
1,2-Dichloroethane	5.00	5.67	113	69-122	
1,2-Dichloropropane	5.00	5.88	118	80-120	
2-Butanone (MEK)	62.5	61.7	99	59-141	
2-Hexanone	62.5	62.2	100	52-140	
4-Methyl-2-pentanone (MIBK)	62.5	61.2	98	55-140	
Acetone	62.5	59.5	95	60-146	
Benzene	5.00	5.72	114	80-120	
Bromochloromethane	5.00	5.82	116	80-120	
Bromodichloromethane	5.00	5.93	119	73-124	
Bromoform	5.00	6.01	120	49-144	
Bromomethane	5.00	4.93	99	60-136	
Carbon disulfide	5.00	5.65	113	67-130	
Carbon tetrachloride	5.00	5.82	116	64-141	
Chlorobenzene	5.00	5.58	112	80-120	
Chloroethane	5.00	5.02	100	63-120	
Chloroform	5.00	5.64	113	80-120	
Chloromethane	5.00	5.08	102	56-124	
cis-1,2-Dichloroethene	5.00	5.79	116	80-122	
cis-1,3-Dichloropropene	5.00	5.47	109	67-121	
Dibromochloromethane	5.00	5.86	117	64-138	
Ethylbenzene	5.00	5.61	112	80-120	
Methyl tert-butyl ether	5.00	5.54	111	69-120	
Methylene Chloride	5.00	5.81	116	80-120	
Styrene	5.00	5.62	112	80-120	
Tetrachloroethene	5.00	5.74	115	80-120	
Toluene	5.00	5.52	110	80-120	
trans-1,2-Dichloroethene	5.00	5.57	111	80-122	
trans-1,3-Dichloropropene	5.00	5.70	114	61-129	
Trichloroethene	5.00	5.67	113	80-120	
Vinyl chloride	5.00	4.98	100	60-125	
Xylenes, Total	15.0	16.7	111	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260D

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Env, LLC Job No.: 410-60154-1

SDG No.:

Matrix: Water Level: Low Lab File ID: IC29X04.D

Lab ID: LCSD 410-188555/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	5.00	5.24	105	4	30	71-134	
1,1,1-Trichloroethane	5.00	5.36	107	4	30	78-126	
1,1,2,2-Tetrachloroethane	5.00	5.55	111	1	30	75-123	
1,1,2-Trichloroethane	5.00	5.47	109	4	30	80-120	
1,1-Dichloroethane	5.00	5.23	105	4	30	74-120	
1,1-Dichloroethene	5.00	5.53	111	3	30	80-131	
1,2-Dibromoethane (EDB)	5.00	5.36	107	4	30	80-120	
1,2-Dichloroethane	5.00	5.28	106	2	30	69-122	
1,2-Dichloropropane	5.00	5.57	111	2	30	80-120	
2-Butanone (MEK)	62.5	61.9	99	1	30	59-141	
2-Hexanone	62.5	62.1	99	2	30	52-140	
4-Methyl-2-pentanone (MIBK)	62.5	60.7	97	2	30	55-140	
Acetone	62.5	60.6	97	0	30	60-146	
Benzene	5.00	5.39	108	2	30	80-120	
Bromochloromethane	5.00	5.66	113	3	30	80-120	
Bromodichloromethane	5.00	5.58	112	4	30	73-124	
Bromoform	5.00	5.44	109	5	30	49-144	
Bromomethane	5.00	4.97	99	4	30	60-136	
Carbon disulfide	5.00	5.07	101	4	30	67-130	
Carbon tetrachloride	5.00	5.51	110	3	30	64-141	
Chlorobenzene	5.00	5.20	104	3	30	80-120	
Chloroethane	5.00	5.16	103	1	30	63-120	
Chloroform	5.00	5.43	109	3	30	80-120	
Chloromethane	5.00	5.26	105	7	30	56-124	
cis-1,2-Dichloroethene	5.00	5.49	110	3	30	80-122	
cis-1,3-Dichloropropene	5.00	5.09	102	3	30	67-121	
Dibromochloromethane	5.00	5.44	109	4	30	64-138	
Ethylbenzene	5.00	5.22	104	4	30	80-120	
Methyl tert-butyl ether	5.00	5.31	106	2	30	69-120	
Methylene Chloride	5.00	5.45	109	5	30	80-120	
Styrene	5.00	5.24	105	3	30	80-120	
Tetrachloroethene	5.00	5.24	105	3	30	80-120	
Toluene	5.00	5.17	103	4	30	80-120	
trans-1,2-Dichloroethene	5.00	5.34	107	1	30	80-122	
trans-1,3-Dichloropropene	5.00	5.24	105	4	30	61-129	
Trichloroethene	5.00	5.35	107	3	30	80-120	
Vinyl chloride	5.00	5.09	102	6	30	60-125	
Xylenes, Total	15.0	15.4	102	4	30	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260D

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Env, LLC Job No.: 410-60154-1

SDG No.:

Matrix: Water Level: Low Lab File ID: IN01X04.D

Lab ID: LCSD 410-189194/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	5.00	5.11	102	11	30	71-134	
1,1,1-Trichloroethane	5.00	5.20	104	9	30	78-126	
1,1,2,2-Tetrachloroethane	5.00	5.42	108	8	30	75-123	
1,1,2-Trichloroethane	5.00	5.41	108	9	30	80-120	
1,1-Dichloroethane	5.00	5.09	102	8	30	74-120	
1,1-Dichloroethene	5.00	5.35	107	10	30	80-131	
1,2-Dibromoethane (EDB)	5.00	5.25	105	9	30	80-120	
1,2-Dichloroethane	5.00	5.24	105	8	30	69-122	
1,2-Dichloropropane	5.00	5.47	109	7	30	80-120	
2-Butanone (MEK)	62.5	55.5	89	11	30	59-141	
2-Hexanone	62.5	56.5	90	10	30	52-140	
4-Methyl-2-pentanone (MIBK)	62.5	54.7	88	11	30	55-140	
Acetone	62.5	54.2	87	9	30	60-146	
Benzene	5.00	5.25	105	9	30	80-120	
Bromochloromethane	5.00	5.40	108	7	30	80-120	
Bromodichloromethane	5.00	5.47	109	8	30	73-124	
Bromoform	5.00	5.41	108	10	30	49-144	
Bromomethane	5.00	4.52	90	9	30	60-136	
Carbon disulfide	5.00	5.12	102	10	30	67-130	
Carbon tetrachloride	5.00	5.34	107	9	30	64-141	
Chlorobenzene	5.00	5.11	102	9	30	80-120	
Chloroethane	5.00	4.64	93	8	30	63-120	
Chloroform	5.00	5.23	105	8	30	80-120	
Chloromethane	5.00	4.69	94	8	30	56-124	
cis-1,2-Dichloroethene	5.00	5.29	106	9	30	80-122	
cis-1,3-Dichloropropene	5.00	5.03	101	8	30	67-121	
Dibromochloromethane	5.00	5.31	106	10	30	64-138	
Ethylbenzene	5.00	5.12	102	9	30	80-120	
Methyl tert-butyl ether	5.00	5.12	102	8	30	69-120	
Methylene Chloride	5.00	5.26	105	10	30	80-120	
Styrene	5.00	5.15	103	9	30	80-120	
Tetrachloroethene	5.00	5.20	104	10	30	80-120	
Toluene	5.00	5.04	101	9	30	80-120	
trans-1,2-Dichloroethene	5.00	5.16	103	8	30	80-122	
trans-1,3-Dichloropropene	5.00	5.18	104	10	30	61-129	
Trichloroethene	5.00	5.22	104	8	30	80-120	
Vinyl chloride	5.00	4.50	90	10	30	60-125	
Xylenes, Total	15.0	15.2	101	10	30	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260D

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Env, LLC Job No.: 410-60154-1

SDG No.:

Matrix: Water Level: Low Lab File ID: IC29X17.D

Lab ID: 410-60154-6 MS Client ID: HD-COD-SW-15-0/1-0 MS MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	5.00	ND	5.72	114	71-134	
1,1,1-Trichloroethane	5.00	0.18 J	6.26	121	78-126	
1,1,2,2-Tetrachloroethane	5.00	ND	5.61	112	75-123	
1,1,2-Trichloroethane	5.00	ND	5.82	116	80-120	
1,1-Dichloroethane	5.00	0.086 J	5.82	115	74-120	
1,1-Dichloroethene	5.00	0.11 J	6.24	122	80-131	
1,2-Dibromoethane (EDB)	5.00	ND	5.57	111	80-120	
1,2-Dichloroethane	5.00	ND	5.60	112	69-122	
1,2-Dichloropropane	5.00	ND	6.03	121	80-120	FH
2-Butanone (MEK)	62.6	ND	65.6	105	59-141	
2-Hexanone	62.6	ND	66.7	107	52-140	
4-Methyl-2-pentanone (MIBK)	62.6	ND	65.6	105	55-140	
Acetone	62.6	ND	63.9	102	60-146	
Benzene	5.00	ND	5.97	119	80-120	
Bromochloromethane	5.00	ND	6.01	120	80-120	
Bromodichloromethane	5.00	ND	6.05	121	73-124	
Bromoform	5.00	ND	5.67	113	49-144	
Bromomethane	5.00	ND	5.55	111	60-136	
Carbon disulfide	5.00	ND	5.61	112	67-130	
Carbon tetrachloride	5.00	ND	6.27	125	64-141	
Chlorobenzene	5.00	ND	5.71	114	80-120	
Chloroethane	5.00	ND	5.91	118	63-120	
Chloroform	5.00	0.33 J	6.35	120	80-120	
Chloromethane	5.00	ND	6.13	123	80-120	FH
cis-1,2-Dichloroethene	5.00	0.88	6.97	122	80-122	
cis-1,3-Dichloropropene	5.00	ND	5.40	108	67-121	
Dibromochloromethane	5.00	ND	5.74	115	64-138	
Ethylbenzene	5.00	ND	5.83	116	80-120	
Methyl tert-butyl ether	5.00	ND	5.42	108	69-120	
Methylene Chloride	5.00	ND	5.85	117	80-120	
Styrene	5.00	ND	5.65	113	80-120	
Tetrachloroethene	5.00	3.6	9.69	122	80-120	FH
Toluene	5.00	ND	5.72	114	80-120	
trans-1,2-Dichloroethene	5.00	ND	5.90	118	80-122	
trans-1,3-Dichloropropene	5.00	ND	5.48	109	61-129	
Trichloroethene	5.00	1.0	7.03	120	80-120	
Vinyl chloride	5.00	ND	6.08	122	60-125	
Xylenes, Total	15.0	ND	17.2	114	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260D

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Env, LLC Job No.: 410-60154-1

SDG No.:

Matrix: Water Level: Low Lab File ID: IC29X18.D

Lab ID: 410-60154-6 MSD Client ID: HD-COD-SW-15-0/1-0 MSD MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	5.00	5.73	114	0	30	71-134	
1,1,1-Trichloroethane	5.00	6.29	122	1	30	78-126	
1,1,2,2-Tetrachloroethane	5.00	5.69	114	1	30	75-123	
1,1,2-Trichloroethane	5.00	5.88	118	1	30	80-120	
1,1-Dichloroethane	5.00	5.91	116	1	30	74-120	
1,1-Dichloroethene	5.00	6.33	124	1	30	80-131	
1,2-Dibromoethane (EDB)	5.00	5.69	114	2	30	80-120	
1,2-Dichloroethane	5.00	5.77	115	3	30	69-122	
1,2-Dichloropropane	5.00	6.03	120	0	30	80-120	
2-Butanone (MEK)	62.6	64.3	103	2	30	59-141	
2-Hexanone	62.6	65.9	105	1	30	52-140	
4-Methyl-2-pentanone (MIBK)	62.6	64.6	103	1	30	55-140	
Acetone	62.6	62.7	100	2	30	60-146	
Benzene	5.00	5.96	119	0	30	80-120	
Bromochloromethane	5.00	5.98	119	1	30	80-120	
Bromodichloromethane	5.00	6.04	121	0	30	73-124	
Bromoform	5.00	5.78	116	2	30	49-144	
Bromomethane	5.00	5.70	114	3	30	60-136	
Carbon disulfide	5.00	5.63	113	0	30	67-130	
Carbon tetrachloride	5.00	6.36	127	1	30	64-141	
Chlorobenzene	5.00	5.80	116	2	30	80-120	
Chloroethane	5.00	5.84	117	1	30	63-120	
Chloroform	5.00	6.34	120	0	30	80-120	
Chloromethane	5.00	6.20	124	1	30	80-120	FH
cis-1,2-Dichloroethene	5.00	7.06	123	1	30	80-122	FH
cis-1,3-Dichloropropene	5.00	5.44	109	1	30	67-121	
Dibromochloromethane	5.00	5.84	117	2	30	64-138	
Ethylbenzene	5.00	5.92	118	1	30	80-120	
Methyl tert-butyl ether	5.00	5.55	111	2	30	69-120	
Methylene Chloride	5.00	5.90	118	1	30	80-120	
Styrene	5.00	5.77	115	2	30	80-120	
Tetrachloroethene	5.00	9.89	126	2	30	80-120	FH
Toluene	5.00	5.81	116	2	30	80-120	
trans-1,2-Dichloroethene	5.00	5.89	118	0	30	80-122	
trans-1,3-Dichloropropene	5.00	5.59	112	2	30	61-129	
Trichloroethene	5.00	7.07	121	1	30	80-120	FH
Vinyl chloride	5.00	6.04	121	1	30	60-125	
Xylenes, Total	15.0	17.2	115	0	30	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260D

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-60154-1

SDG No.:

Lab File ID: IC29X10.D Lab Sample ID: MB 410-188555/11

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

Instrument ID: 19930 Date Analyzed: 10/29/2021 11:20

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 410-188555/4	IC29X03.D	10/29/2021 08:51
	LCSD 410-188555/5	IC29X04.D	10/29/2021 09:12
HD-QC1-0/1-2	410-60154-14	IC29X11.D	10/29/2021 11:41
HD-COD-SW-15-0/1-0	410-60154-6	IC29X16.D	10/29/2021 13:26
HD-COD-SW-15-0/1-0 MS MS	410-60154-6 MS	IC29X17.D	10/29/2021 13:48
HD-COD-SW-15-0/1-0 MSD MSD	410-60154-6 MSD	IC29X18.D	10/29/2021 14:09
HD-COD-SW-6-0/1-0	410-60154-1	IC29X20.D	10/29/2021 14:51
HD-COD-SW-7-0/1-0	410-60154-2	IC29X21.D	10/29/2021 15:13
HD-COD-SW-8-0/1-0	410-60154-3	IC29X22.D	10/29/2021 15:34
HD-COD-SW-9-0/1-0	410-60154-4	IC29X23.D	10/29/2021 15:55
HD-COD-SW-13-0/1-0	410-60154-5	IC29X24.D	10/29/2021 16:16
HD-COD-SW-16-0/1-0	410-60154-7	IC29X25.D	10/29/2021 16:37
HD-COD-SW-17-0/1-0	410-60154-8	IC29X26.D	10/29/2021 16:59
HD-COD-SW-26-0/1-0	410-60154-9	IC29X27.D	10/29/2021 17:20
HD-COD-SW-27-0/1-0	410-60154-10	IC29X28.D	10/29/2021 17:41
HD-COD-SW-28-0/1-0	410-60154-11	IC29X29.D	10/29/2021 18:02
HD-COD-SW-29-0/1-0	410-60154-12	IC29X30.D	10/29/2021 18:24
HD-QC1-0/1-1	410-60154-13	IC29X31.D	10/29/2021 18:45

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-60154-1

SDG No.:

Lab File ID: IN01X10.D Lab Sample ID: MB 410-189194/11

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

Instrument ID: 19930 Date Analyzed: 11/01/2021 12:06

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 410-189194/4	IN01X03.D	11/01/2021 09:37
	LCSD 410-189194/5	IN01X04.D	11/01/2021 09:58
HD-COD-SW-17-0/1-0 DL	410-60154-8 DL	IN01X19.D	11/01/2021 15:16
HD-QC1-0/1-1 DL	410-60154-13 DL	IN01X20.D	11/01/2021 15:38

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

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-60154-1

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
	ICV 410-163707/10	IG23V11.D	08/24/2021	0:02
	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.: 410-60154-1

SDG No.:

Lab File ID: IC29T01.D BFB Injection Date: 10/29/2021

Instrument ID: 19930 BFB Injection Time: 07:54

Analysis Batch No.: 188555

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.5	
75	30.0 - 60.0 % of mass 95	48.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	1.0	(1.1) 1
174	Greater than 50% of mass 95	91.5	
175	5.0 - 9.0 % of mass 174	7.4	(8.1) 1
176	95.0 - 101.0 % of mass 174	90.2	(98.6) 1
177	5.0 - 9.0 % of mass 176	5.7	(6.4) 2

1-Value is % mass 174 2-Value is % mass 176

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 410-188555/3	IC29X02.D	10/29/2021	8:30
	LCS 410-188555/4	IC29X03.D	10/29/2021	8:51
	LCSD 410-188555/5	IC29X04.D	10/29/2021	9:12
	MB 410-188555/11	IC29X10.D	10/29/2021	11:20
HD-QC1-0/1-2	410-60154-14	IC29X11.D	10/29/2021	11:41
HD-COD-SW-15-0/1-0	410-60154-6	IC29X16.D	10/29/2021	13:26
HD-COD-SW-15-0/1-0 MS MS	410-60154-6 MS	IC29X17.D	10/29/2021	13:48
HD-COD-SW-15-0/1-0 MSD MSD	410-60154-6 MSD	IC29X18.D	10/29/2021	14:09
HD-COD-SW-6-0/1-0	410-60154-1	IC29X20.D	10/29/2021	14:51
HD-COD-SW-7-0/1-0	410-60154-2	IC29X21.D	10/29/2021	15:13
HD-COD-SW-8-0/1-0	410-60154-3	IC29X22.D	10/29/2021	15:34
HD-COD-SW-9-0/1-0	410-60154-4	IC29X23.D	10/29/2021	15:55
HD-COD-SW-13-0/1-0	410-60154-5	IC29X24.D	10/29/2021	16:16
HD-COD-SW-16-0/1-0	410-60154-7	IC29X25.D	10/29/2021	16:37
HD-COD-SW-17-0/1-0	410-60154-8	IC29X26.D	10/29/2021	16:59
HD-COD-SW-26-0/1-0	410-60154-9	IC29X27.D	10/29/2021	17:20
HD-COD-SW-27-0/1-0	410-60154-10	IC29X28.D	10/29/2021	17:41
HD-COD-SW-28-0/1-0	410-60154-11	IC29X29.D	10/29/2021	18:02
HD-COD-SW-29-0/1-0	410-60154-12	IC29X30.D	10/29/2021	18:24
HD-QC1-0/1-1	410-60154-13	IC29X31.D	10/29/2021	18:45

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

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-60154-1

SDG No.:

Lab File ID: IN01T01.D BFB Injection Date: 11/01/2021

Instrument ID: 19930 BFB Injection Time: 08:41

Analysis Batch No.: 189194

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.9	
75	30.0 - 60.0 % of mass 95	48.5	
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	90.4	
175	5.0 - 9.0 % of mass 174	7.2	(7.9) 1
176	95.0 - 101.0 % of mass 174	89.7	(99.2) 1
177	5.0 - 9.0 % of mass 176	5.6	(6.2) 2

1-Value is % mass 174 2-Value is % mass 176

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 410-189194/3	IN01X02.D	11/01/2021	9:16
	LCS 410-189194/4	IN01X03.D	11/01/2021	9:37
	LCSD 410-189194/5	IN01X04.D	11/01/2021	9:58
	MB 410-189194/11	IN01X10.D	11/01/2021	12:06
HD-COD-SW-17-0/1-0 DL	410-60154-8 DL	IN01X19.D	11/01/2021	15:16
HD-QC1-0/1-1 DL	410-60154-13 DL	IN01X20.D	11/01/2021	15:38

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

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-60154-1

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 410-163707/10		123036	4.27	2150982	7.73	1667191	11.18
ICV 410-163707/19		170769	4.26	2182088	7.74	1693972	11.18
CCVIS 410-188555/3		165669	4.25	1907105	7.73	1531830	11.18
CCVIS 410-189194/3		164650	4.28	1888514	7.73	1537151	11.18

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 8260D

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

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-60154-1

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					
		AREA #	RT #	#	RT #	#	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 410-163707/10		994055	13.06				
ICV 410-163707/19		994893	13.06				
CCVIS 410-188555/3		888632	13.06				
CCVIS 410-189194/3		902028	13.06				

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 8260D

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

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-60154-1

SDG No.:

Sample No.: CCVIS 410-188555/3 Date Analyzed: 10/29/2021 08:30

Instrument ID: 19930 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): IC29X02.D Heated Purge: (Y/N) N

Calibration ID: 29976

		TBAd10		FB		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		165669	4.25	1907105	7.73	1531830	11.18
UPPER LIMIT		331338	4.75	3814210	8.23	3063660	11.68
LOWER LIMIT		82835	3.75	953553	7.23	765915	10.68
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-188555/4		173382	4.27	1958077	7.74	1553140	11.18
LCSD 410-188555/5		171095	4.26	2014944	7.73	1608269	11.18
MB 410-188555/11		164586	4.26	1935882	7.74	1544331	11.18
410-60154-14	HD-QC1-0/1-2	163391	4.26	1870777	7.73	1493565	11.18
410-60154-6	HD-COD-SW-15-0/1-0	146809	4.26	2036211	7.73	1613487	11.18
410-60154-6 MS	HD-COD-SW-15-0/1-0 MS MS	154115	4.27	1944743	7.73	1541064	11.18
410-60154-6 MSD	HD-COD-SW-15-0/1-0 MSD MSD	157415	4.27	1939452	7.74	1533247	11.18
410-60154-1	HD-COD-SW-6-0/1-0	168012	4.26	1942074	7.73	1547403	11.18
410-60154-2	HD-COD-SW-7-0/1-0	148984	4.26	1900308	7.74	1511981	11.18
410-60154-3	HD-COD-SW-8-0/1-0	161102	4.26	1902030	7.73	1514606	11.18
410-60154-4	HD-COD-SW-9-0/1-0	157927	4.26	1867773	7.73	1493433	11.18
410-60154-5	HD-COD-SW-13-0/1-0	143190	4.28	1846647	7.74	1484259	11.18
410-60154-7	HD-COD-SW-16-0/1-0	148404	4.25	1939183	7.73	1541820	11.18
410-60154-8	HD-COD-SW-17-0/1-0	159564	4.25	1879264	7.73	1499333	11.18
410-60154-9	HD-COD-SW-26-0/1-0	156098	4.28	1881710	7.74	1508645	11.18
410-60154-10	HD-COD-SW-27-0/1-0	151802	4.27	1899436	7.73	1525818	11.18
410-60154-11	HD-COD-SW-28-0/1-0	155973	4.25	1923174	7.73	1542046	11.18
410-60154-12	HD-COD-SW-29-0/1-0	150408	4.26	1870587	7.74	1492032	11.18
410-60154-13	HD-QC1-0/1-1	155687	4.26	1844447	7.74	1466197	11.18

TBAd10 = t-Butyl alcohol-d10 (IS)
TBAd10 = t-Butyl alcohol-d10 (IS)
FB = Fluorobenzene (IS)
FB = Fluorobenzene (IS)
Area Limit = 50%-200% of internal standard area
CBZd5 = Chlorobenzene-d5 (IS)
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260D

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

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-60154-1

SDG No.:

Sample No.: CCVIS 410-188555/3 Date Analyzed: 10/29/2021 08:30

Instrument ID: 19930 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): IC29X02.D Heated Purge: (Y/N) N

Calibration ID: 29976

		DCBd4					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		888632	13.06				
UPPER LIMIT		1777264	13.56				
LOWER LIMIT		444316	12.56				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-188555/4		907247	13.06				
LCSD 410-188555/5		936232	13.06				
MB 410-188555/11		898176	13.06				
410-60154-14	HD-QC1-0/1-2	869306	13.06				
410-60154-6	HD-COD-SW-15-0/1-0	938040	13.06				
410-60154-6 MS	HD-COD-SW-15-0/1-0 MS MS	906966	13.06				
410-60154-6 MSD	HD-COD-SW-15-0/1-0 MSD MSD	896657	13.06				
410-60154-1	HD-COD-SW-6-0/1-0	898002	13.06				
410-60154-2	HD-COD-SW-7-0/1-0	892279	13.06				
410-60154-3	HD-COD-SW-8-0/1-0	877116	13.06				
410-60154-4	HD-COD-SW-9-0/1-0	874603	13.06				
410-60154-5	HD-COD-SW-13-0/1-0	873202	13.06				
410-60154-7	HD-COD-SW-16-0/1-0	904793	13.06				
410-60154-8	HD-COD-SW-17-0/1-0	872842	13.06				
410-60154-9	HD-COD-SW-26-0/1-0	883735	13.06				
410-60154-10	HD-COD-SW-27-0/1-0	893536	13.06				
410-60154-11	HD-COD-SW-28-0/1-0	903377	13.06				
410-60154-12	HD-COD-SW-29-0/1-0	877357	13.06				
410-60154-13	HD-QC1-0/1-1	857363	13.06				

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 8260D

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

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-60154-1

SDG No.:

Sample No.: CCVIS 410-189194/3 Date Analyzed: 11/01/2021 09:16

Instrument ID: 19930 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): IN01X02.D Heated Purge: (Y/N) N

Calibration ID: 29976

		TBAd10		FB		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		164650	4.28	1888514	7.73	1537151	11.18
UPPER LIMIT		329300	4.78	3777028	8.23	3074302	11.68
LOWER LIMIT		82325	3.78	944257	7.23	768576	10.68
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-189194/4		180940	4.26	1960843	7.74	1559640	11.18
LCSD 410-189194/5		201236	4.25	2138952	7.73	1719888	11.18
MB 410-189194/11		163694	4.26	1940348	7.74	1557646	11.18
410-60154-8 DL	HD-COD-SW-17-0/1-0 DL	163609	4.26	1880120	7.73	1516348	11.18
410-60154-13 DL	HD-QC1-0/1-1 DL	160566	4.26	1920312	7.73	1536574	11.18

TBAd10 = t-Butyl alcohol-d10 (IS)
FB = Fluorobenzene (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 8260D

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

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-60154-1

SDG No.:

Sample No.: CCVIS 410-189194/3 Date Analyzed: 11/01/2021 09:16

Instrument ID: 19930 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): IN01X02.D Heated Purge: (Y/N) N

Calibration ID: 29976

		DCBd4					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		902028	13.06				
UPPER LIMIT		1804056	13.56				
LOWER LIMIT		451014	12.56				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-189194/4		920301	13.06				
LCSD 410-189194/5		1005288	13.06				
MB 410-189194/11		910929	13.06				
410-60154-8 DL	HD-COD-SW-17-0/1-0 DL	880528	13.06				
410-60154-13 DL	HD-QC1-0/1-1 DL	900589	13.06				

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 8260D

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-60154-1

SDG No.:

Client Sample ID: HD-COD-SW-6-0/1-0 Lab Sample ID: 410-60154-1

Matrix: Water Lab File ID: IC29X20.D

Analysis Method: 8260D Date Collected: 10/20/2021 11:20

Sample wt/vol: 25(mL) Date Analyzed: 10/29/2021 14:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 188555 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.060
75-34-3	1,1-Dichloroethane	ND		0.50	0.070
75-35-4	1,1-Dichloroethene	ND		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.060
107-06-2	1,2-Dichloroethane	ND		0.50	0.050
78-87-5	1,2-Dichloropropane	ND		0.50	0.060
78-93-3	2-Butanone (MEK)	ND		5.0	0.60
591-78-6	2-Hexanone	ND		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70
67-64-1	Acetone	1.4	J	5.0	0.90
71-43-2	Benzene	ND		0.50	0.050
74-97-5	Bromochloromethane	ND		0.50	0.050
75-27-4	Bromodichloromethane	ND		0.50	0.050
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND		0.50	0.070
75-15-0	Carbon disulfide	ND		1.0	0.060
56-23-5	Carbon tetrachloride	ND		0.50	0.070
108-90-7	Chlorobenzene	ND		0.50	0.060
75-00-3	Chloroethane	ND		0.50	0.070
67-66-3	Chloroform	ND		0.50	0.090
74-87-3	Chloromethane	ND		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.095	J	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
100-41-4	Ethylbenzene	ND		0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.050
75-09-2	Methylene Chloride	ND		0.50	0.070
100-42-5	Styrene	ND		0.50	0.050
127-18-4	Tetrachloroethene	ND		0.50	0.060
108-88-3	Toluene	ND		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.060
79-01-6	Trichloroethene	0.15	J	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-60154-1

SDG No.:

Client Sample ID: HD-COD-SW-6-0/1-0 Lab Sample ID: 410-60154-1

Matrix: Water Lab File ID: IC29X20.D

Analysis Method: 8260D Date Collected: 10/20/2021 11:20

Sample wt/vol: 25(mL) Date Analyzed: 10/29/2021 14:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 188555 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		80-120
460-00-4	4-Bromofluorobenzene (Surr)	95		80-120
1868-53-7	Dibromofluoromethane (Surr)	104		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\20211029-42796.b\IC29X20.D
Lims ID: 410-60154-A-1
Client ID: HD-COD-SW-6-0/1-0
Sample Type: Client
Inject. Date: 29-Oct-2021 14:51:30 ALS Bottle#: 20 Worklist Smp#: 21
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0042796-021
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 29-Oct-2021 19:24:36 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: CTX1664

First Level Reviewer: johnsons Date: 29-Oct-2021 19:18:19

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50	2.172	2.172	0.000	74	3856	0.0557	
5 Vinyl chloride	62		2.294				ND	
7 Bromomethane	94		2.623				ND	
8 Chloroethane	64		2.708				ND	
14 1,1-Dichloroethene	96		3.562				ND	
15 Acetone	43	3.599	3.592	0.007	96	12915	1.38	
19 Carbon disulfide	76	3.879	3.873	0.006	98	7329	0.0573	
23 Methylene Chloride	84		4.233				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.263	4.251	0.012	17	168012	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		5.318				ND	
36 2-Butanone (MEK)	43		6.116				ND	7
37 cis-1,2-Dichloroethene	96	6.147	6.147	0.000	72	5575	0.0951	
43 Chlorobromomethane	128		6.476				ND	
45 Chloroform	83	6.629	6.628	0.001	85	5154	0.0545	
$ 46 Dibromofluoromethane (Surr)	113	6.842	6.842	0.000	94	509438	10.4	
47 1,1,1-Trichloroethane	97		6.854				ND	
50 Carbon tetrachloride	117		7.067				ND	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.293	7.299	-0.006	83	104393	10.7	
54 Benzene	78		7.329				ND	
56 1,2-Dichloroethane	62		7.397				ND	
* 58 Fluorobenzene (IS)	96	7.732	7.732	0.000	99	1942074	10.0	
61 Trichloroethene	95	8.214	8.207	0.007	93	9032	0.1539	
63 1,2-Dichloropropane	63		8.537				ND	
68 Dichlorobromomethane	83		8.884				ND	
73 cis-1,3-Dichloropropene	75		9.427				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.591				ND	7
$ 75 Toluene-d8 (Surr)	98	9.732	9.731	0.001	93	2021207	10.1	
76 Toluene	92	9.805	9.811	-0.006	96	4186	0.0282	
78 trans-1,3-Dichloropropene	75		10.067				ND	
80 1,1,2-Trichloroethane	97		10.268				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.372	10.359	0.013	88	2889	0.0409	Ma
83 2-Hexanone	43		10.475				ND	
85 Chlorodibromomethane	129		10.646				ND	
86 Ethylene Dibromide	107		10.756				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.183	11.182	0.001	85	1547403	10.0	
90 Chlorobenzene	112		11.207				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.292				ND	
92 Ethylbenzene	91		11.292				ND	7
93 m-Xylene & p-Xylene	106		11.408				ND	7
94 o-Xylene	106		11.737				ND	7
95 Styrene	104		11.755				ND	
96 Bromoform	173		11.914				ND	
$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	93	729439	9.54	
101 1,1,2,2-Tetrachloroethane	83		12.280				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	94	898002	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MSV_LLcentISS_00002 Amount Added: 5.00 Units: uL Run Reagent

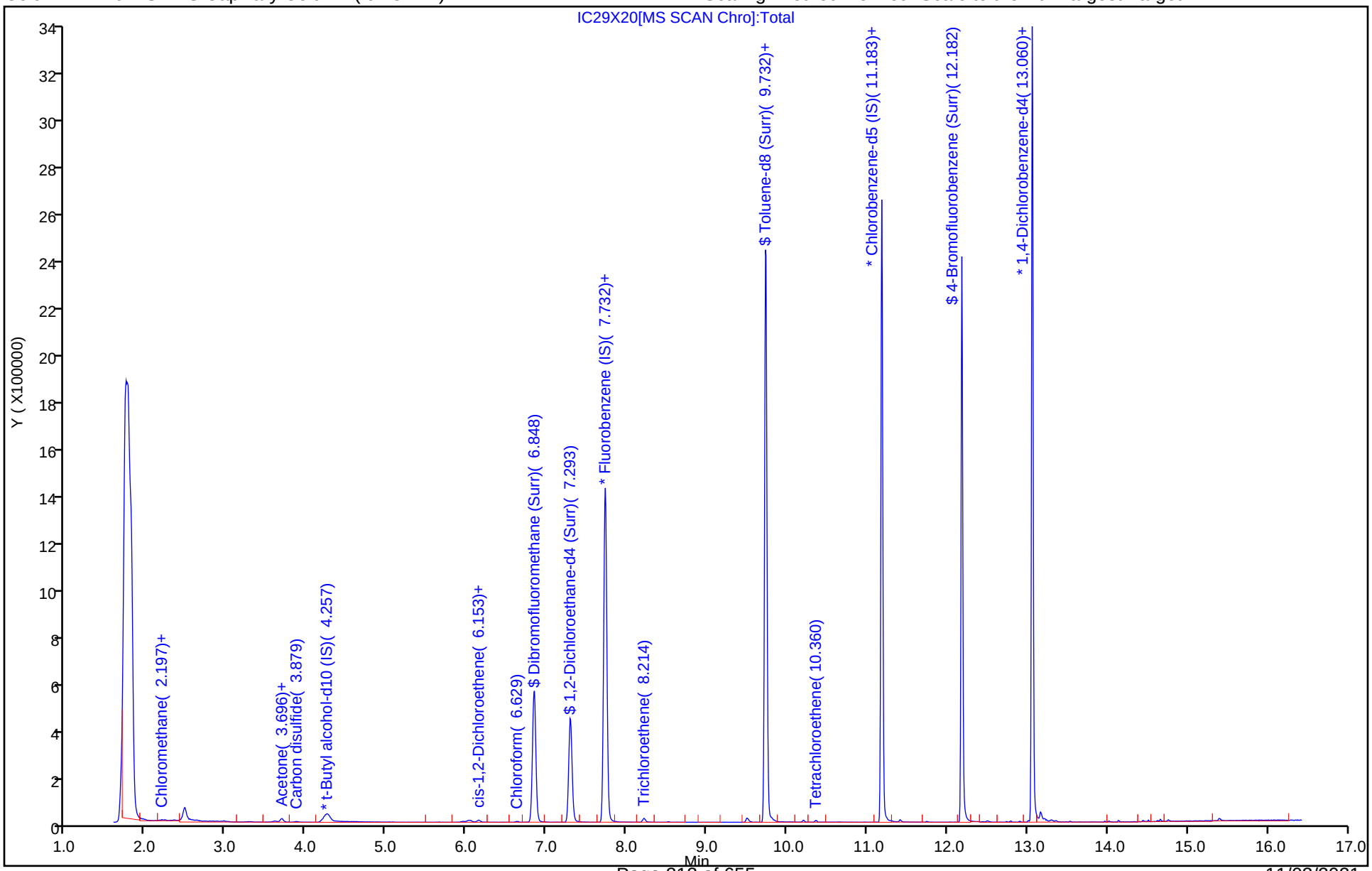
Report Date: 29-Oct-2021 19:25:44 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X20.D

Injection Date:	29-Oct-2021 14:51:30	Instrument ID:	19930	Operator ID:	SRK36897
Lims ID:	410-60154-A-1	Lab Sample ID:	410-60154-1	Worklist Smp#:	21
Client ID:	HD-COD-SW-6-0/1-0				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	20
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X20.D
Lims ID: 410-60154-A-1
Client ID: HD-COD-SW-6-0/1-0
Sample Type: Client
Inject. Date: 29-Oct-2021 14:51:30 ALS Bottle#: 20 Worklist Smp#: 21
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0042796-021
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 29-Oct-2021 19:24:36 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: CTX1664

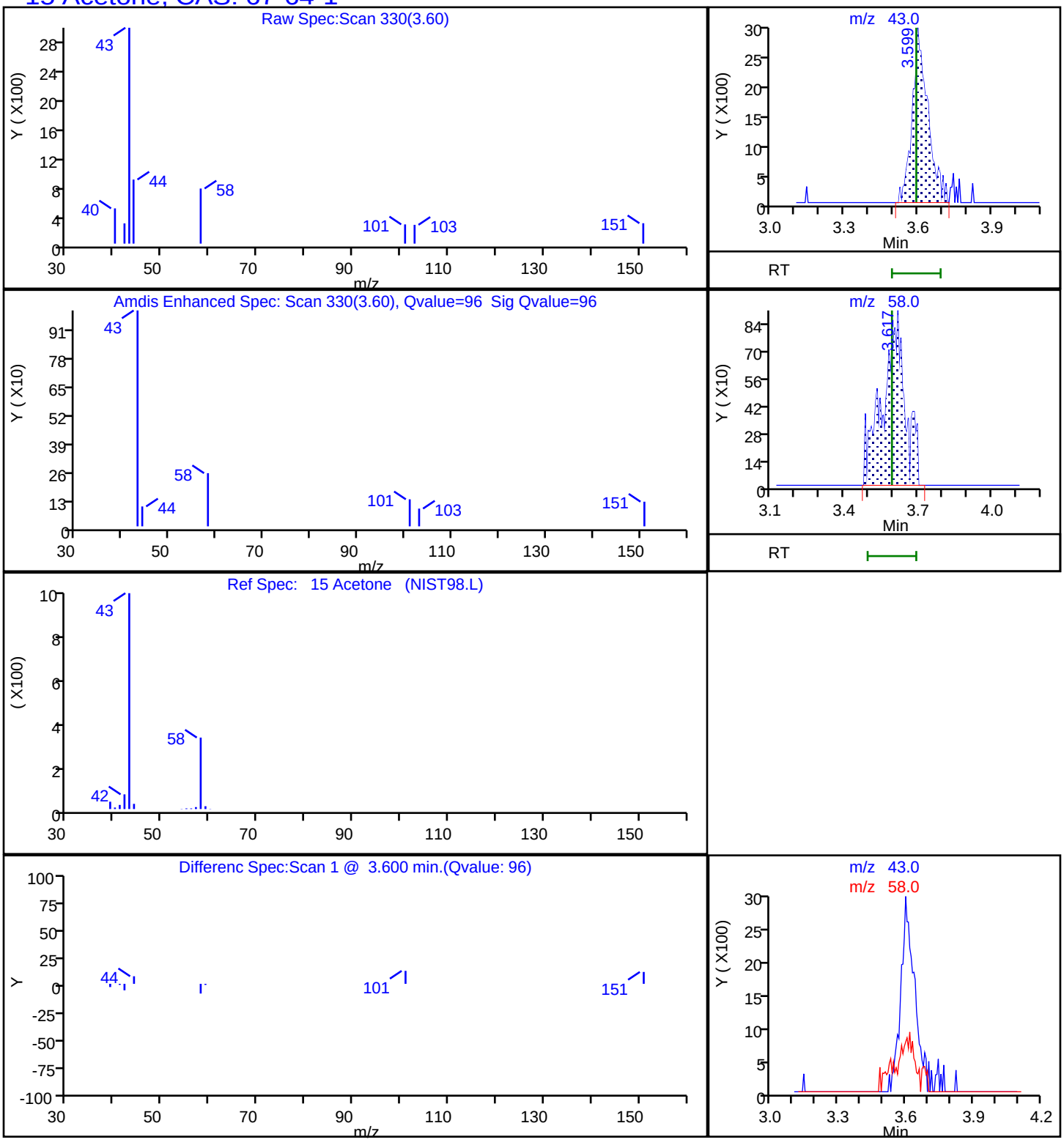
First Level Reviewer: johnsons Date: 29-Oct-2021 19:18:19

Compound	Amount Added	Amount Recovered	% Rec.
$ 46 Dibromofluoromethane (Surr)	10.0	10.4	104.13
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.7	106.66
$ 75 Toluene-d8 (Surr)	10.0	10.1	101.07
$ 100 4-Bromofluorobenzene (Surr)	10.0	9.54	95.44

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X20.D				
Injection Date:	29-Oct-2021 14:51:30	Instrument ID:	19930		
Lims ID:	410-60154-A-1	Lab Sample ID:	410-60154-1		
Client ID:	HD-COD-SW-6-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	20	Worklist Smp#:	21
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

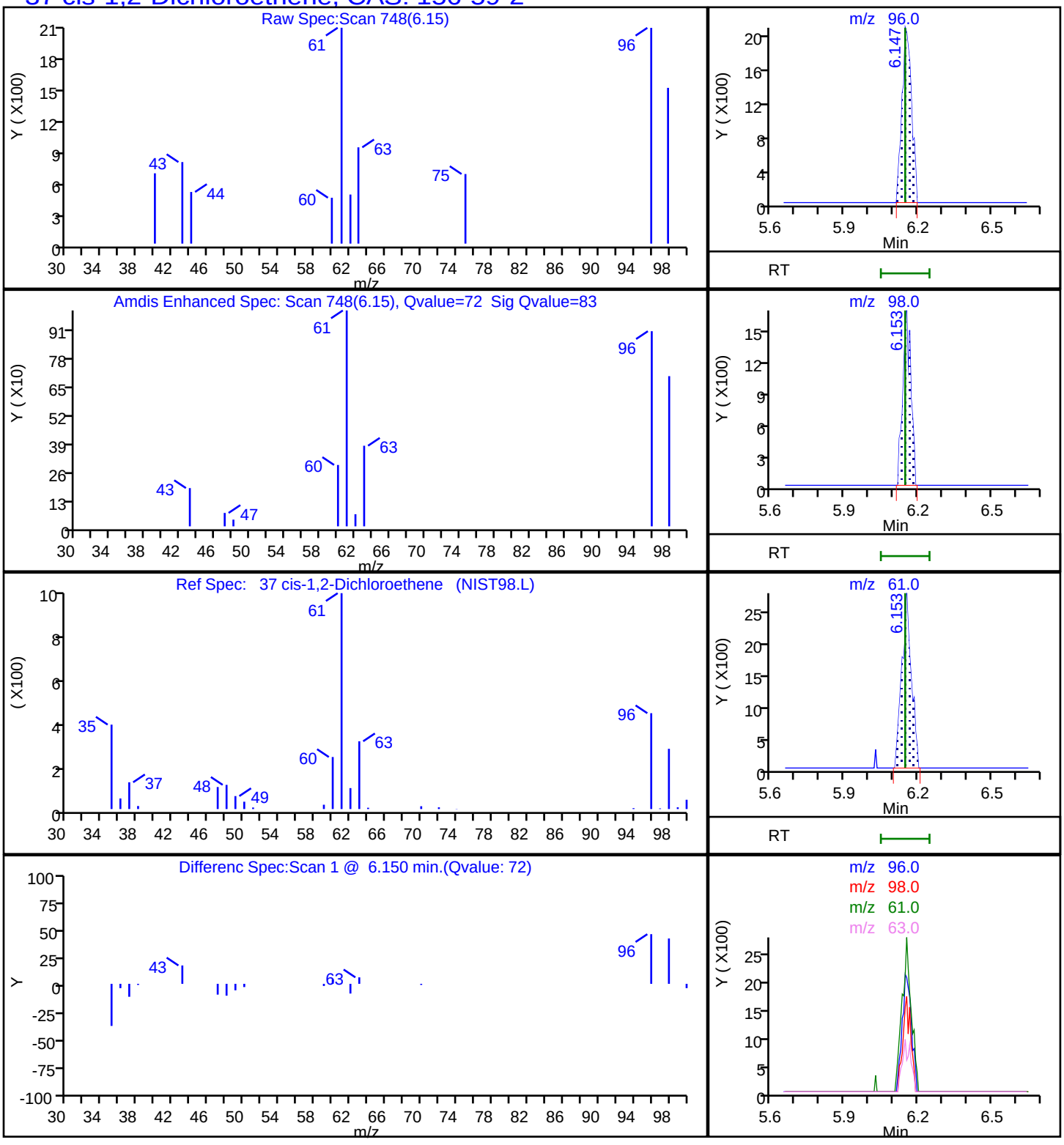
15 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X20.D				
Injection Date:	29-Oct-2021 14:51:30	Instrument ID:	19930		
Lims ID:	410-60154-A-1	Lab Sample ID:	410-60154-1		
Client ID:	HD-COD-SW-6-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	20	Worklist Smp#:	21
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

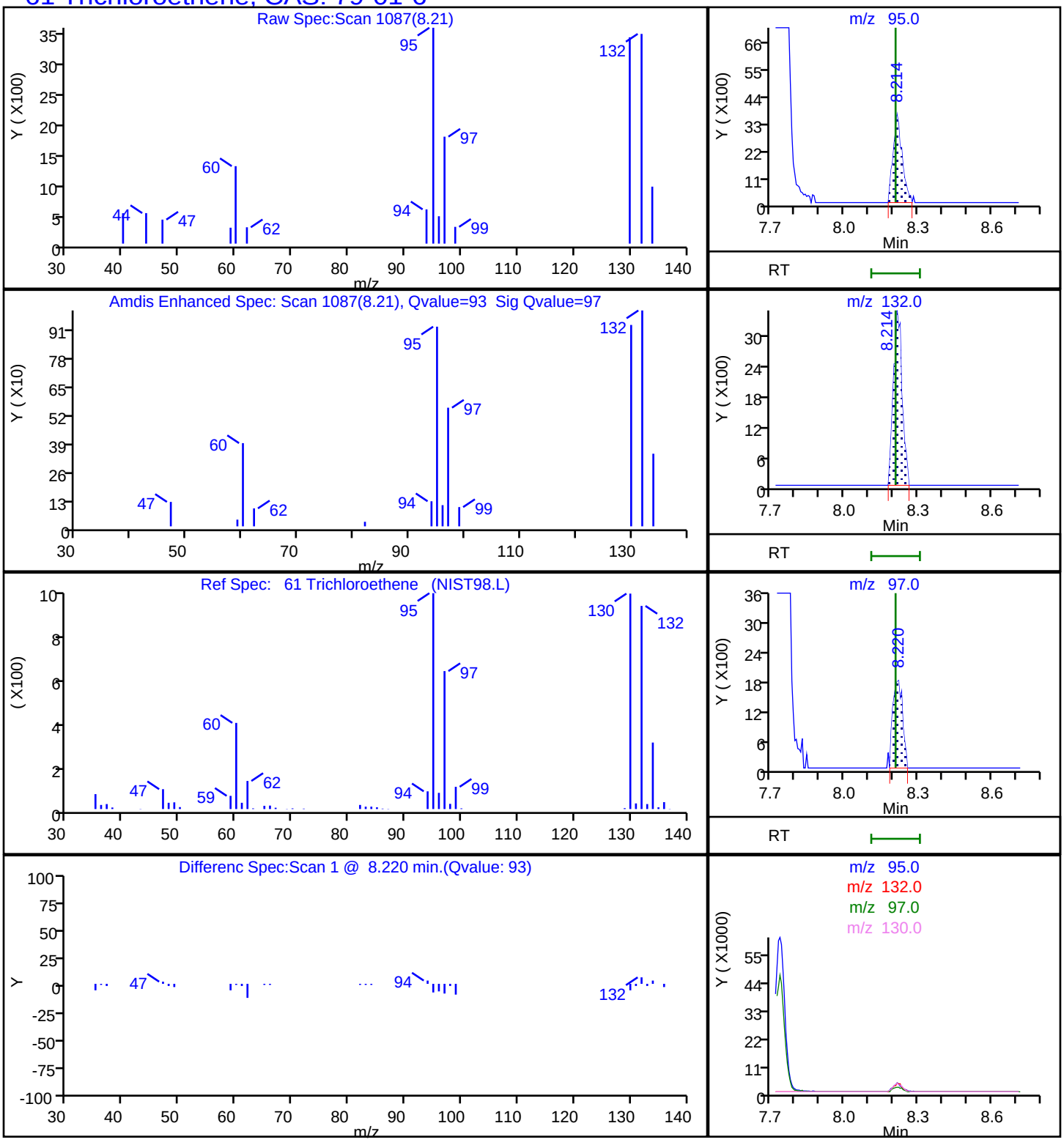
37 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X20.D				
Injection Date:	29-Oct-2021 14:51:30	Instrument ID:	19930		
Lims ID:	410-60154-A-1	Lab Sample ID:	410-60154-1		
Client ID:	HD-COD-SW-6-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	20	Worklist Smp#:	21
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

61 Trichloroethene, CAS: 79-01-6



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

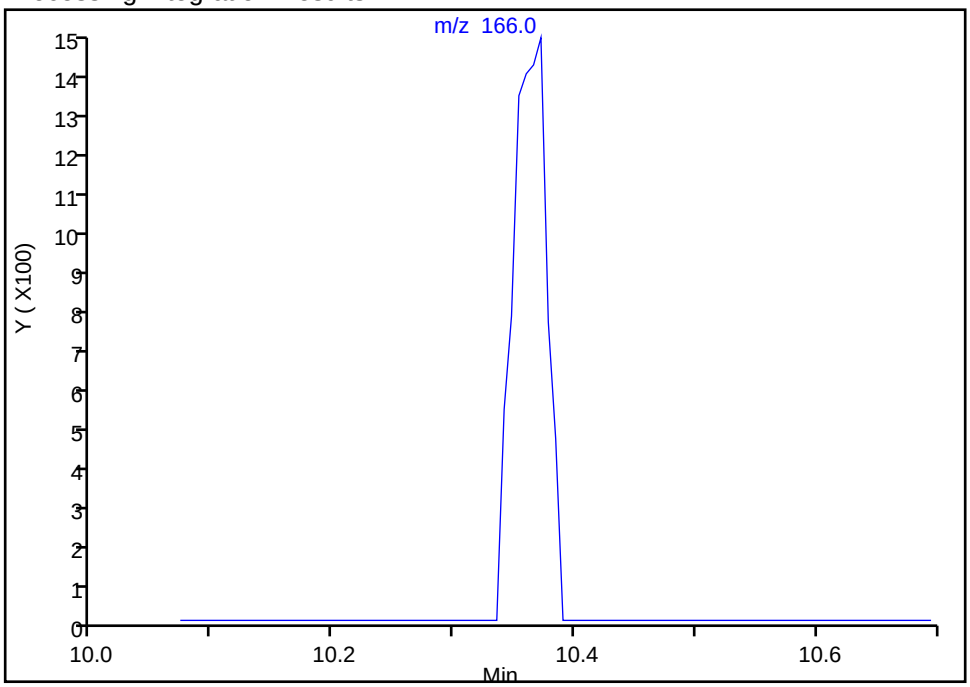
Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X20.D				
Injection Date:	29-Oct-2021 14:51:30	Instrument ID:	19930		
Lims ID:	410-60154-A-1	Lab Sample ID:	410-60154-1		
Client ID:	HD-COD-SW-6-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	20	Worklist Smp#:	21
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

81 Tetrachloroethene, CAS: 127-18-4

Signal: 1

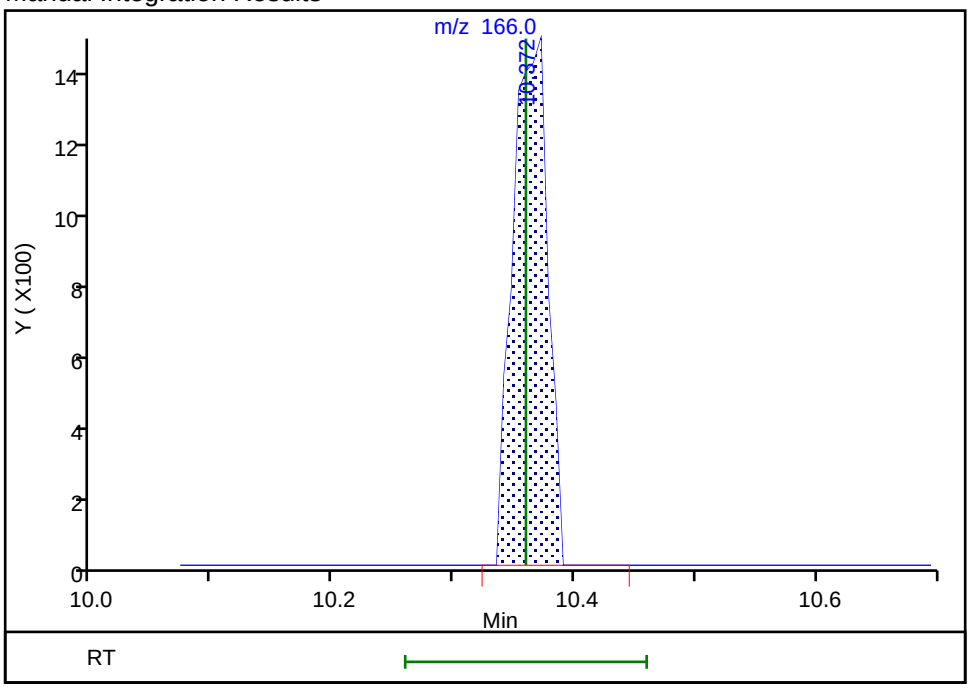
Not Detected
Expected RT: 10.36

Processing Integration Results



Manual Integration Results

RT: 10.37
Area: 2889
Amount: 0.040880
Amount Units: ug/l



Reviewer: johnsons, 29-Oct-2021 19:18:05
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.: 410-60154-1

SDG No.:

Client Sample ID: HD-COD-SW-7-0/1-0 Lab Sample ID: 410-60154-2

Matrix: Water Lab File ID: IC29X21.D

Analysis Method: 8260D Date Collected: 10/20/2021 12:05

Sample wt/vol: 25(mL) Date Analyzed: 10/29/2021 15:13

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 188555 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.060
75-34-3	1,1-Dichloroethane	ND		0.50	0.070
75-35-4	1,1-Dichloroethene	ND		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.060
107-06-2	1,2-Dichloroethane	ND		0.50	0.050
78-87-5	1,2-Dichloropropane	ND		0.50	0.060
78-93-3	2-Butanone (MEK)	ND		5.0	0.60
591-78-6	2-Hexanone	ND		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70
67-64-1	Acetone	1.9	J	5.0	0.90
71-43-2	Benzene	ND		0.50	0.050
74-97-5	Bromochloromethane	ND		0.50	0.050
75-27-4	Bromodichloromethane	ND		0.50	0.050
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND		0.50	0.070
75-15-0	Carbon disulfide	0.099	J	1.0	0.060
56-23-5	Carbon tetrachloride	ND		0.50	0.070
108-90-7	Chlorobenzene	ND		0.50	0.060
75-00-3	Chloroethane	ND		0.50	0.070
67-66-3	Chloroform	0.096	J	0.50	0.090
74-87-3	Chloromethane	0.072	J	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.16	J	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
100-41-4	Ethylbenzene	ND		0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.050
75-09-2	Methylene Chloride	ND		0.50	0.070
100-42-5	Styrene	ND		0.50	0.050
127-18-4	Tetrachloroethene	0.10	J	0.50	0.060
108-88-3	Toluene	ND		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.060
79-01-6	Trichloroethene	0.22	J	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-60154-1

SDG No.:

Client Sample ID: HD-COD-SW-7-0/1-0 Lab Sample ID: 410-60154-2

Matrix: Water Lab File ID: IC29X21.D

Analysis Method: 8260D Date Collected: 10/20/2021 12:05

Sample wt/vol: 25(mL) Date Analyzed: 10/29/2021 15:13

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 188555 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)	104		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	104		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\20211029-42796.b\IC29X21.D
Lims ID: 410-60154-A-2
Client ID: HD-COD-SW-7-0/1-0
Sample Type: Client
Inject. Date: 29-Oct-2021 15:13:30 ALS Bottle#: 21 Worklist Smp#: 22
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0042796-022
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 29-Oct-2021 19:24:36 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: CTX1664

First Level Reviewer: johnsons Date: 29-Oct-2021 19:18:59

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50	2.178	2.172	0.006	95	4888	0.0722	
5 Vinyl chloride	62		2.294				ND	7
7 Bromomethane	94		2.623				ND	
8 Chloroethane	64		2.708				ND	
14 1,1-Dichloroethene	96		3.562				ND	
15 Acetone	43	3.617	3.592	0.025	100	15656	1.89	
19 Carbon disulfide	76	3.879	3.873	0.006	96	12388	0.0990	
23 Methylene Chloride	84		4.233				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.263	4.251	0.012	17	148984	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		5.318				ND	
36 2-Butanone (MEK)	43		6.116				ND	7
37 cis-1,2-Dichloroethene	96	6.165	6.147	0.018	74	9061	0.1579	
43 Chlorobromomethane	128		6.476				ND	
45 Chloroform	83	6.641	6.628	0.013	92	8871	0.0958	
$ 46 Dibromofluoromethane (Surr)	113	6.848	6.842	0.006	93	498245	10.4	
47 1,1,1-Trichloroethane	97		6.854				ND	
50 Carbon tetrachloride	117		7.067				ND	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.299	7.299	0.000	83	99852	10.4	
54 Benzene	78		7.329				ND	
56 1,2-Dichloroethane	62		7.397				ND	
* 58 Fluorobenzene (IS)	96	7.738	7.732	0.006	99	1900308	10.0	
61 Trichloroethene	95	8.220	8.207	0.013	97	12687	0.2209	
63 1,2-Dichloropropane	63		8.537				ND	
68 Dichlorobromomethane	83		8.884				ND	
73 cis-1,3-Dichloropropene	75		9.427				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.591				ND	7
$ 75 Toluene-d8 (Surr)	98	9.738	9.731	0.007	93	1976019	10.1	
76 Toluene	92	9.811	9.811	0.000	44	4747	0.0328	
78 trans-1,3-Dichloropropene	75		10.067				ND	
80 1,1,2-Trichloroethane	97		10.268				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.360	10.359	0.001	95	7047	0.1021	
83 2-Hexanone	43		10.475				ND	
85 Chlorodibromomethane	129		10.646				ND	
86 Ethylene Dibromide	107		10.756				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.183	11.182	0.001	85	1511981	10.0	
90 Chlorobenzene	112		11.207				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.292				ND	
92 Ethylbenzene	91		11.292				ND	7
93 m-Xylene & p-Xylene	106		11.408				ND	7
94 o-Xylene	106		11.737				ND	7
95 Styrene	104		11.755				ND	
96 Bromoform	173		11.914				ND	
$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	93	717857	9.61	
101 1,1,2,2-Tetrachloroethane	83		12.280				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	94	892279	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_LLcentISS_00002 Amount Added: 5.00 Units: uL Run Reagent

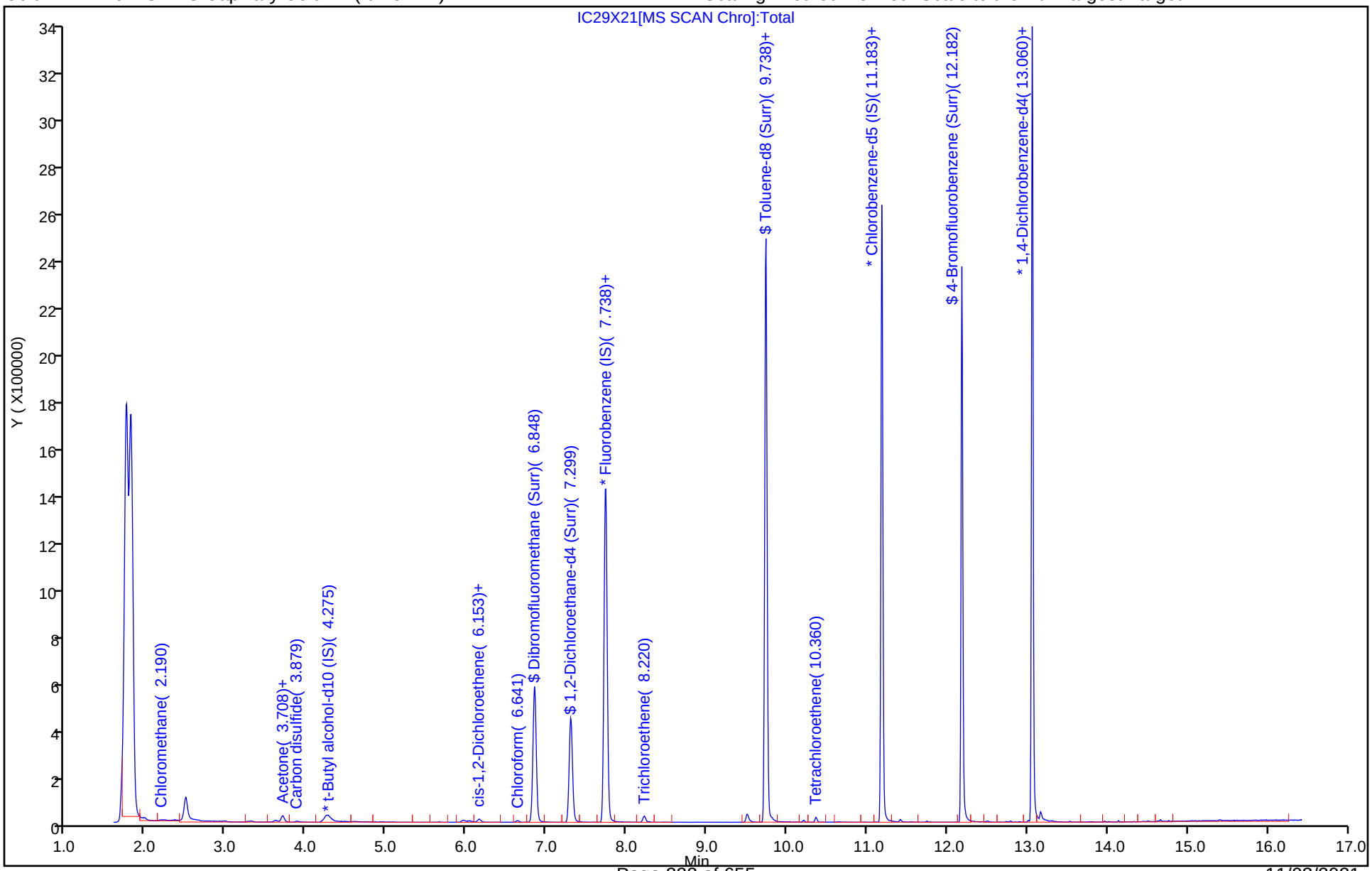
Report Date: 29-Oct-2021 19:25:45 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X21.D

Injection Date:	29-Oct-2021 15:13:30	Instrument ID:	19930	Operator ID:	SRK36897
Lims ID:	410-60154-A-2	Lab Sample ID:	410-60154-2	Worklist Smp#:	22
Client ID:	HD-COD-SW-7-0/1-0				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	21
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X21.D
Lims ID: 410-60154-A-2
Client ID: HD-COD-SW-7-0/1-0
Sample Type: Client
Inject. Date: 29-Oct-2021 15:13:30 ALS Bottle#: 21 Worklist Smp#: 22
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0042796-022
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 29-Oct-2021 19:24:36 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: CTX1664

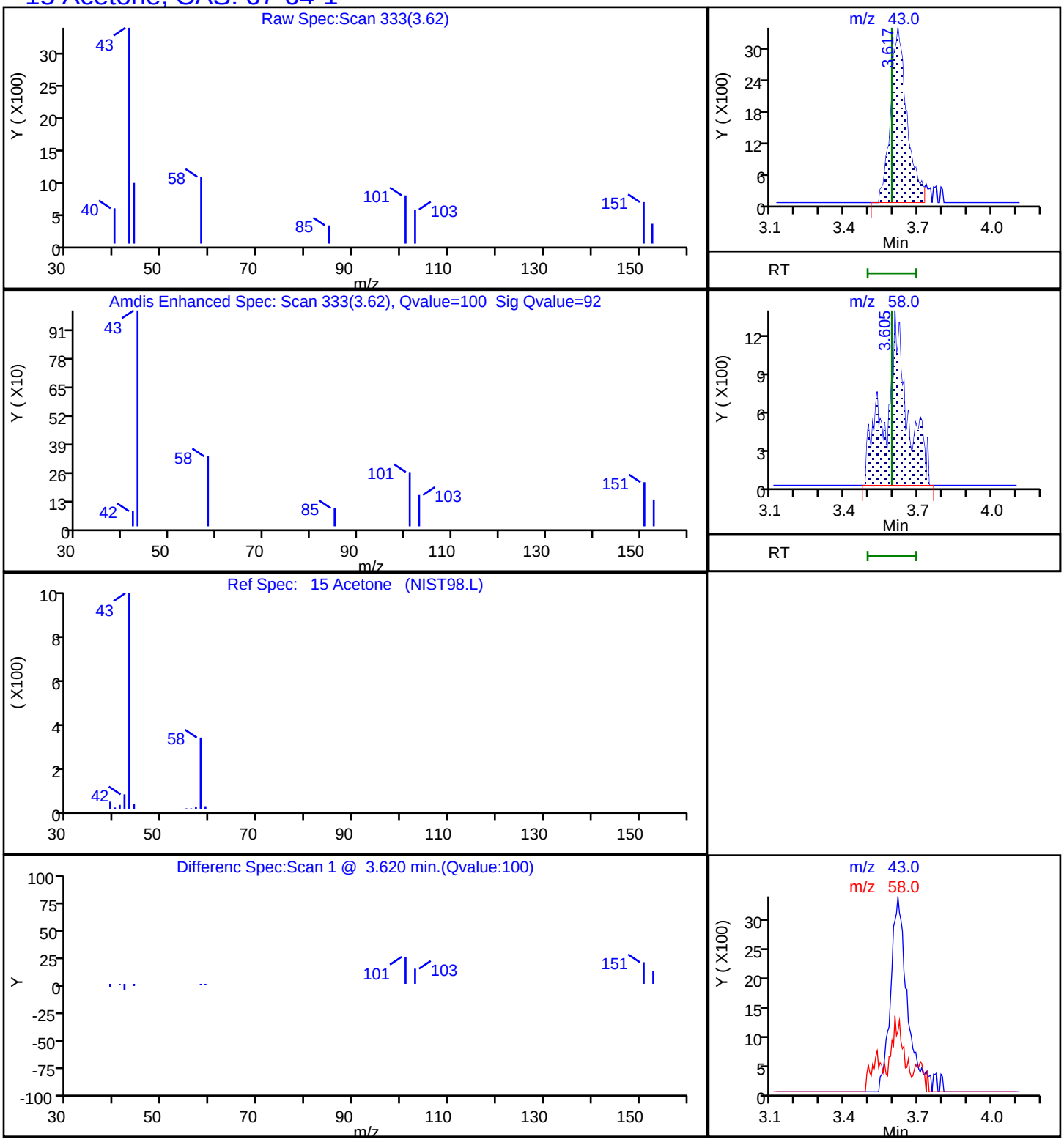
First Level Reviewer: johnsons Date: 29-Oct-2021 19:18:59

Compound	Amount Added	Amount Recovered	% Rec.
$ 46 Dibromofluoromethane (Surr)	10.0	10.4	104.08
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.4	104.27
$ 75 Toluene-d8 (Surr)	10.0	10.1	101.13
$ 100 4-Bromofluorobenzene (Surr)	10.0	9.61	96.13

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X21.D				
Injection Date:	29-Oct-2021 15:13:30	Instrument ID:	19930		
Lims ID:	410-60154-A-2	Lab Sample ID:	410-60154-2		
Client ID:	HD-COD-SW-7-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	21	Worklist Smp#:	22
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

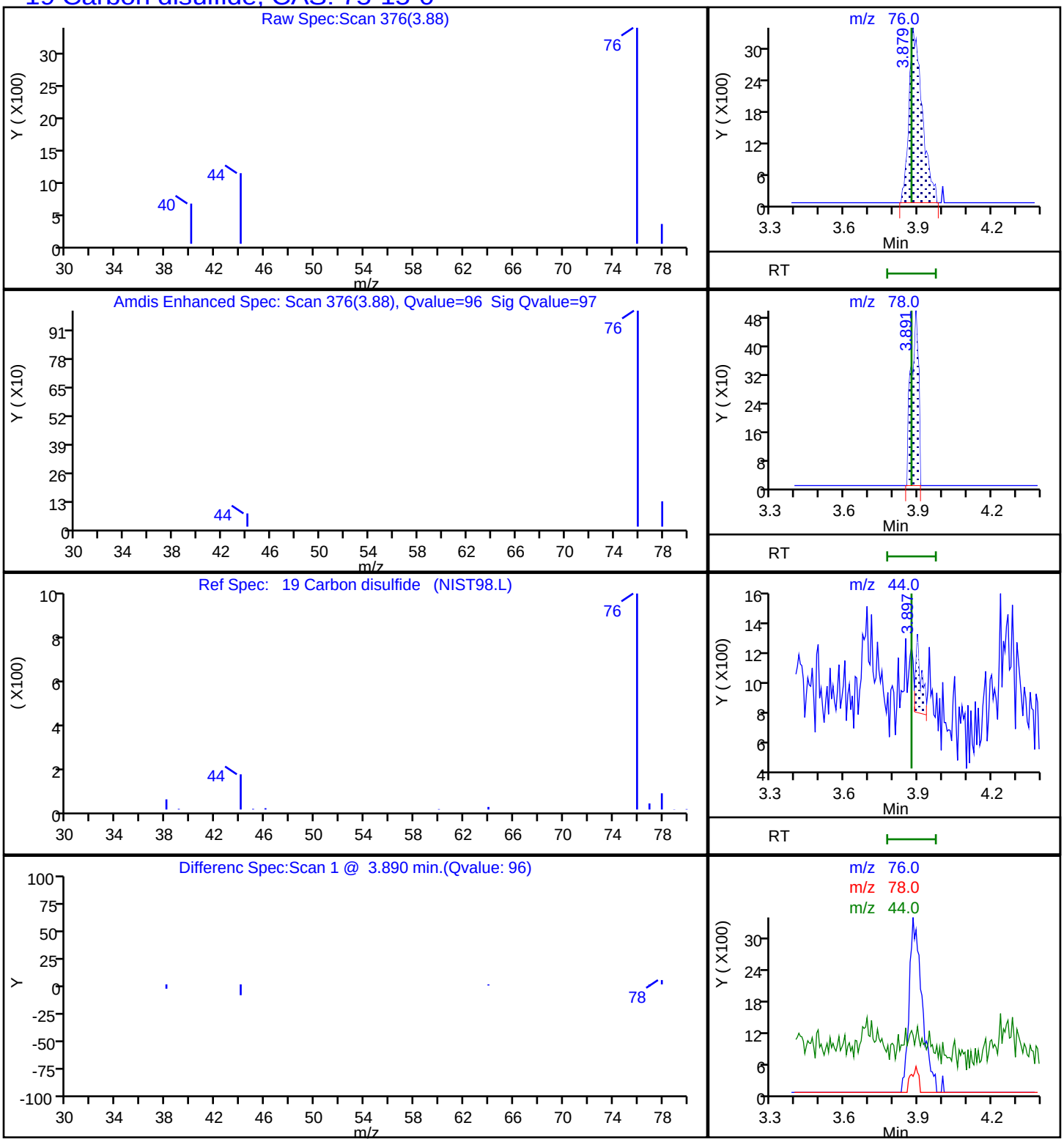
15 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X21.D				
Injection Date:	29-Oct-2021 15:13:30	Instrument ID:	19930		
Lims ID:	410-60154-A-2	Lab Sample ID:	410-60154-2		
Client ID:	HD-COD-SW-7-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	21	Worklist Smp#:	22
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

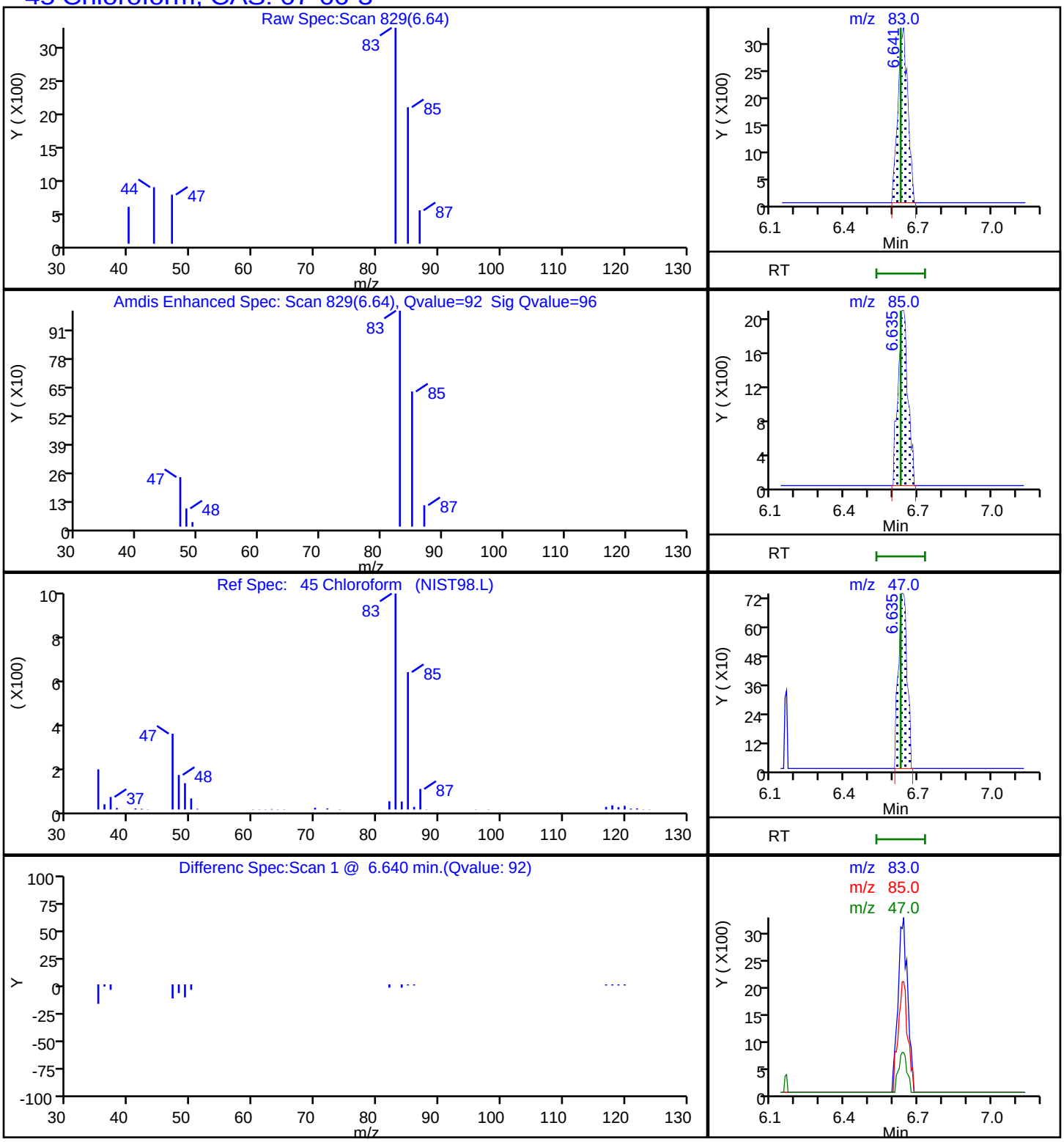
19 Carbon disulfide, CAS: 75-15-0



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X21.D				
Injection Date:	29-Oct-2021 15:13:30	Instrument ID:	19930		
Lims ID:	410-60154-A-2	Lab Sample ID:	410-60154-2		
Client ID:	HD-COD-SW-7-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	21	Worklist Smp#:	22
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

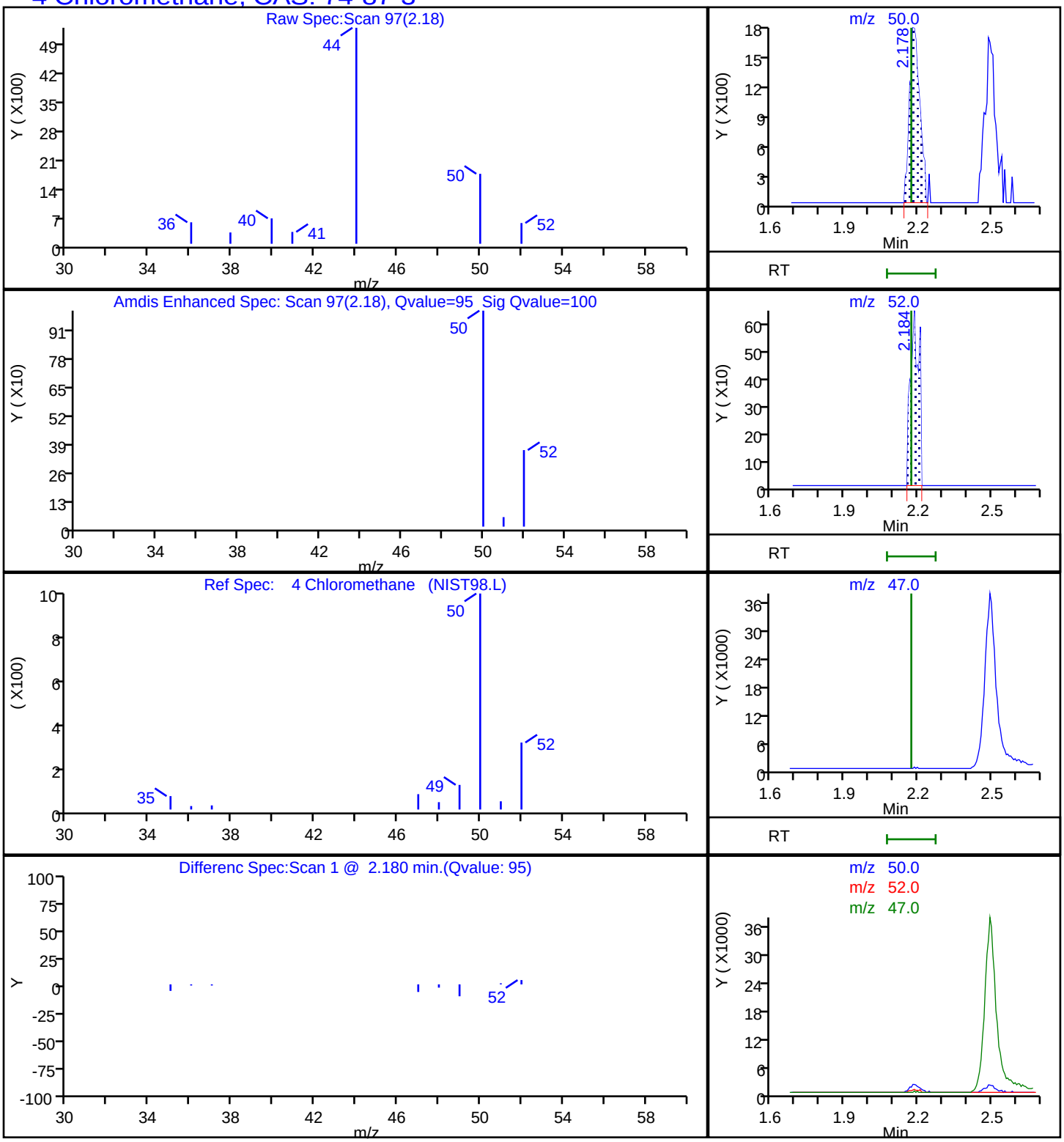
45 Chloroform, CAS: 67-66-3



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X21.D				
Injection Date:	29-Oct-2021 15:13:30	Instrument ID:	19930		
Lims ID:	410-60154-A-2	Lab Sample ID:	410-60154-2		
Client ID:	HD-COD-SW-7-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	21	Worklist Smp#:	22
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

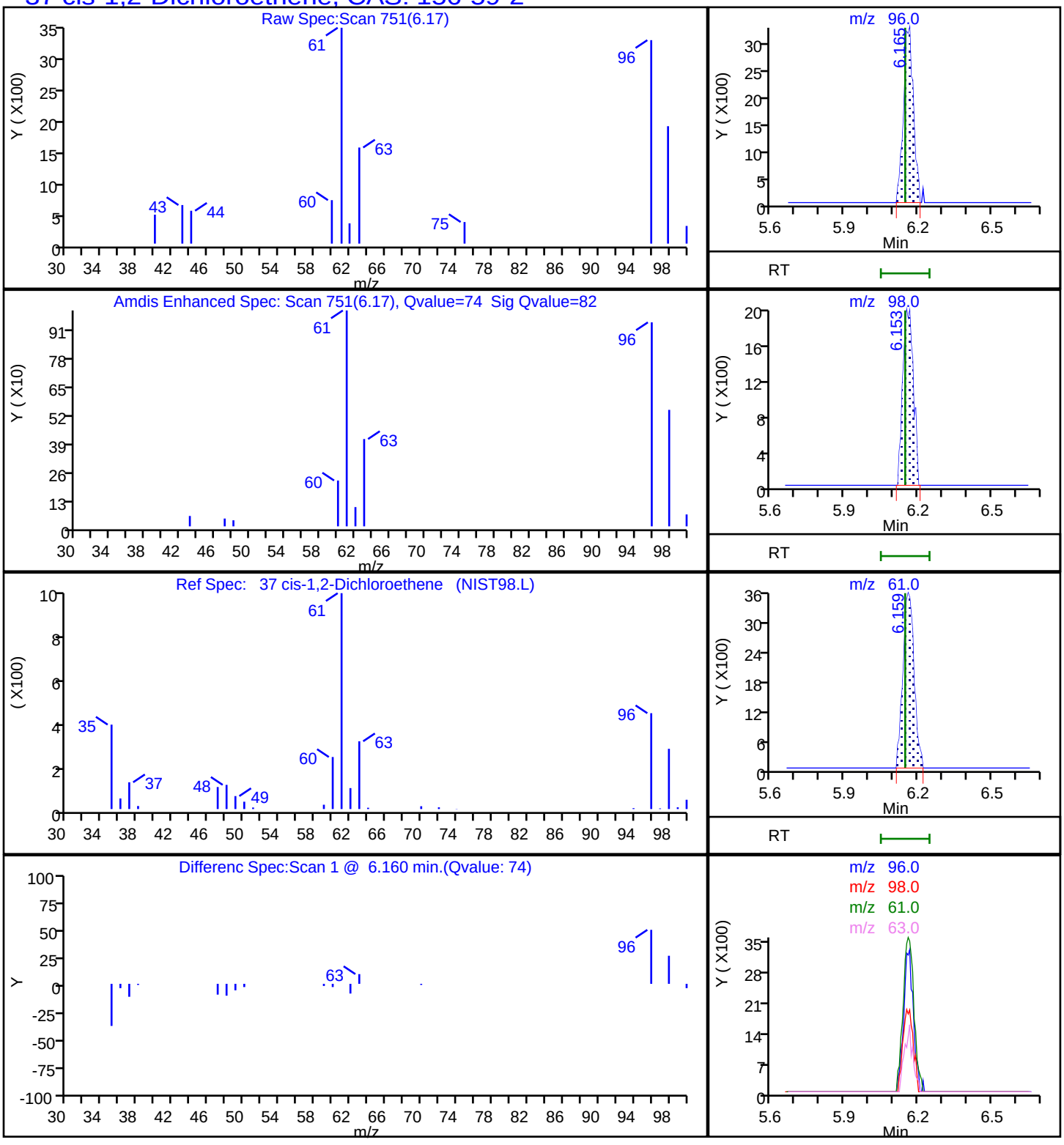
4 Chloromethane, CAS: 74-87-3



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X21.D				
Injection Date:	29-Oct-2021 15:13:30	Instrument ID:	19930		
Lims ID:	410-60154-A-2	Lab Sample ID:	410-60154-2		
Client ID:	HD-COD-SW-7-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	21	Worklist Smp#:	22
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

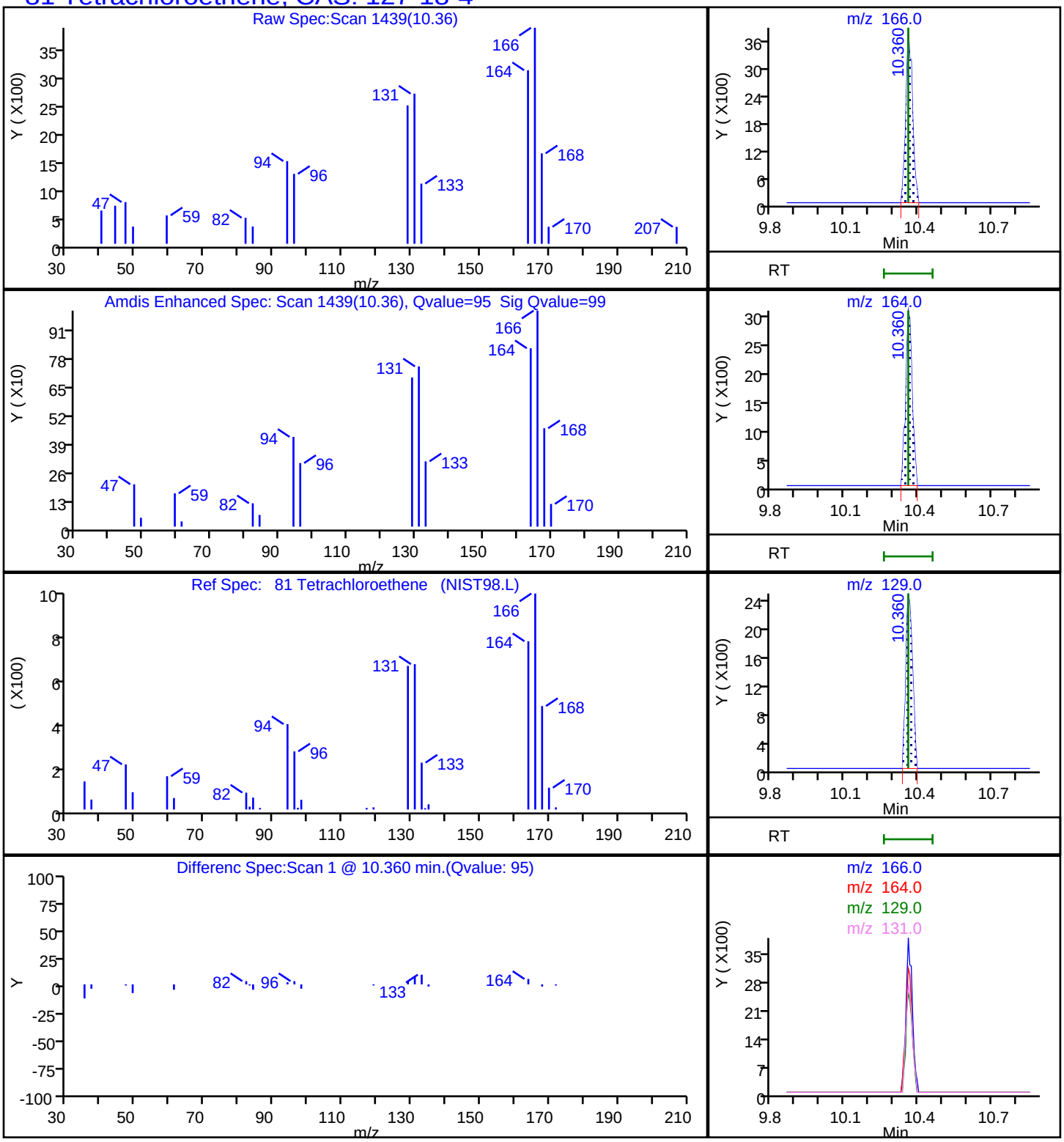
37 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X21.D				
Injection Date:	29-Oct-2021 15:13:30	Instrument ID:	19930		
Lims ID:	410-60154-A-2	Lab Sample ID:	410-60154-2		
Client ID:	HD-COD-SW-7-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	21	Worklist Smp#:	22
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

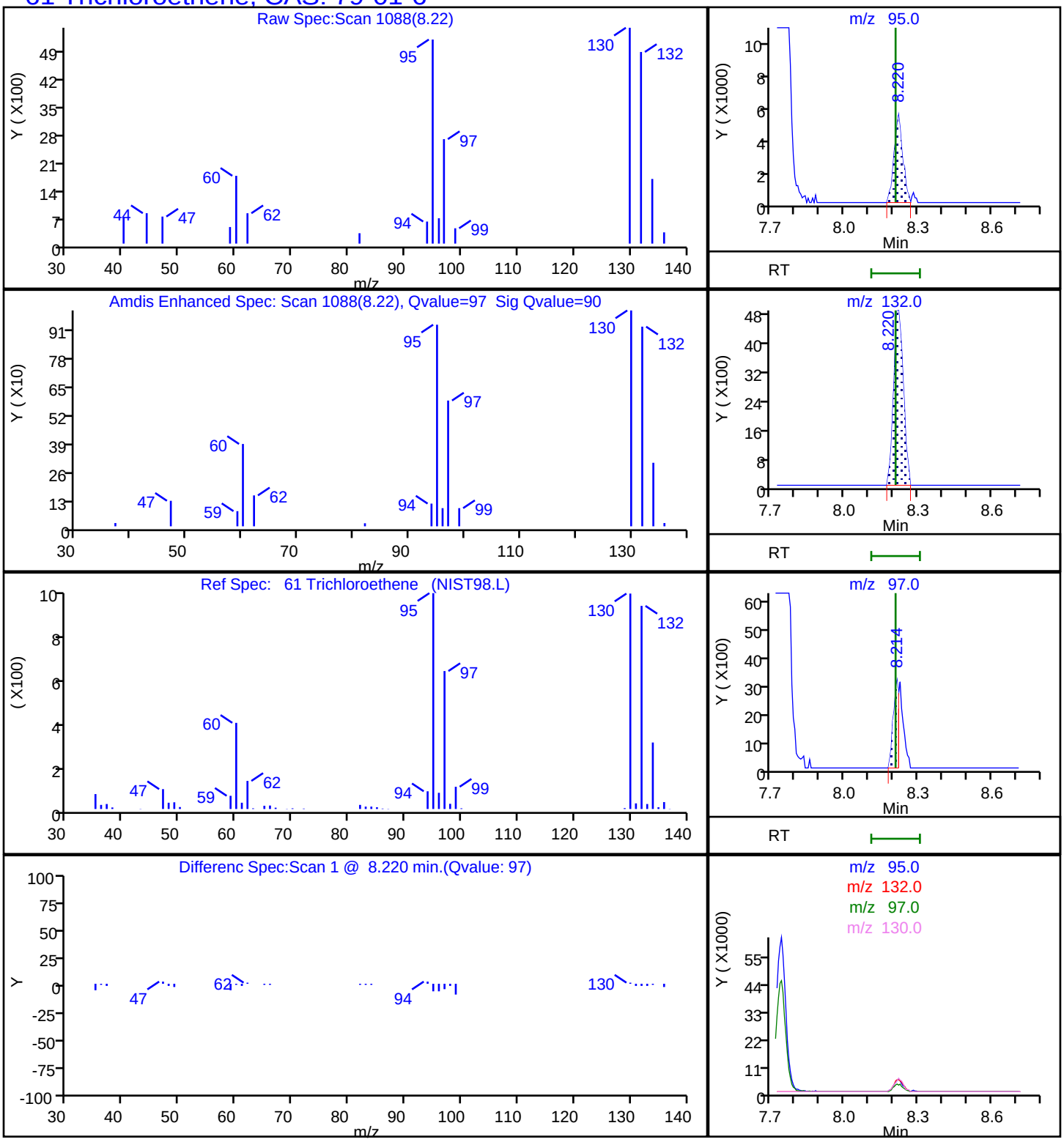
81 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X21.D				
Injection Date:	29-Oct-2021 15:13:30	Instrument ID:	19930		
Lims ID:	410-60154-A-2	Lab Sample ID:	410-60154-2		
Client ID:	HD-COD-SW-7-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	21	Worklist Smp#:	22
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

61 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-60154-1

SDG No.:

Client Sample ID: HD-COD-SW-8-0/1-0 Lab Sample ID: 410-60154-3

Matrix: Water Lab File ID: IC29X22.D

Analysis Method: 8260D Date Collected: 10/20/2021 09:10

Sample wt/vol: 25(mL) Date Analyzed: 10/29/2021 15:34

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 188555 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.060
75-34-3	1,1-Dichloroethane	ND		0.50	0.070
75-35-4	1,1-Dichloroethene	ND		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.060
107-06-2	1,2-Dichloroethane	ND		0.50	0.050
78-87-5	1,2-Dichloropropane	ND		0.50	0.060
78-93-3	2-Butanone (MEK)	ND		5.0	0.60
591-78-6	2-Hexanone	ND		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70
67-64-1	Acetone	1.5	J	5.0	0.90
71-43-2	Benzene	ND		0.50	0.050
74-97-5	Bromochloromethane	ND		0.50	0.050
75-27-4	Bromodichloromethane	ND		0.50	0.050
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND		0.50	0.070
75-15-0	Carbon disulfide	0.12	J	1.0	0.060
56-23-5	Carbon tetrachloride	ND		0.50	0.070
108-90-7	Chlorobenzene	ND		0.50	0.060
75-00-3	Chloroethane	ND		0.50	0.070
67-66-3	Chloroform	ND		0.50	0.090
74-87-3	Chloromethane	0.078	J	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.20	J	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
100-41-4	Ethylbenzene	ND		0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.050
75-09-2	Methylene Chloride	ND		0.50	0.070
100-42-5	Styrene	ND		0.50	0.050
127-18-4	Tetrachloroethene	0.58		0.50	0.060
108-88-3	Toluene	ND		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.060
79-01-6	Trichloroethene	0.30	J	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-60154-1

SDG No.:

Client Sample ID: HD-COD-SW-8-0/1-0 Lab Sample ID: 410-60154-3

Matrix: Water Lab File ID: IC29X22.D

Analysis Method: 8260D Date Collected: 10/20/2021 09:10

Sample wt/vol: 25(mL) Date Analyzed: 10/29/2021 15:34

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 188555 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		80-120
460-00-4	4-Bromofluorobenzene (Surr)	94		80-120
1868-53-7	Dibromofluoromethane (Surr)	105		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\20211029-42796.b\IC29X22.D
Lims ID: 410-60154-A-3
Client ID: HD-COD-SW-8-0/1-0
Sample Type: Client
Inject. Date: 29-Oct-2021 15:34:30 ALS Bottle#: 22 Worklist Smp#: 23
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0042796-023
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 29-Oct-2021 19:24:36 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: CTX1664

First Level Reviewer: johnsons Date: 29-Oct-2021 19:19:33

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50	2.166	2.172	-0.006	76	5309	0.0783	
5 Vinyl chloride	62		2.294				ND	
7 Bromomethane	94		2.623				ND	
8 Chloroethane	64		2.708				ND	
14 1,1-Dichloroethene	96		3.562				ND	
15 Acetone	43	3.599	3.592	0.007	99	13621	1.52	
19 Carbon disulfide	76	3.879	3.873	0.006	99	14754	0.1177	
23 Methylene Chloride	84		4.233				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.257	4.251	0.006	31	161102	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		5.318				ND	
36 2-Butanone (MEK)	43		6.116				ND	7
37 cis-1,2-Dichloroethene	96	6.147	6.147	0.000	79	11337	0.1974	
43 Chlorobromomethane	128		6.476				ND	
45 Chloroform	83	6.628	6.628	0.000	87	5771	0.0623	
$ 46 Dibromofluoromethane (Surr)	113	6.842	6.842	0.000	94	502647	10.5	
47 1,1,1-Trichloroethane	97	6.848	6.854	-0.006	35	3875	0.0450	
50 Carbon tetrachloride	117		7.067				ND	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.293	7.299	-0.006	83	102531	10.7	
54 Benzene	78		7.329				ND	
56 1,2-Dichloroethane	62		7.397				ND	
* 58 Fluorobenzene (IS)	96	7.732	7.732	0.000	99	1902030	10.0	
61 Trichloroethene	95	8.213	8.207	0.006	96	17066	0.2969	
63 1,2-Dichloropropane	63		8.537				ND	
68 Dichlorobromomethane	83		8.884				ND	
73 cis-1,3-Dichloropropene	75		9.427				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.591				ND	7
$ 75 Toluene-d8 (Surr)	98	9.738	9.731	0.007	93	1984254	10.1	
76 Toluene	92	9.811	9.811	0.000	96	4799	0.0331	
78 trans-1,3-Dichloropropene	75		10.067				ND	
80 1,1,2-Trichloroethane	97		10.268				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.359	10.359	0.000	98	39901	0.5768	
83 2-Hexanone	43		10.475				ND	
85 Chlorodibromomethane	129		10.646				ND	
86 Ethylene Dibromide	107		10.756				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.182	11.182	0.000	85	1514606	10.0	
90 Chlorobenzene	112		11.207				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.292				ND	
92 Ethylbenzene	91		11.292				ND	7
93 m-Xylene & p-Xylene	106		11.408				ND	7
94 o-Xylene	106		11.737				ND	7
95 Styrene	104		11.755				ND	
96 Bromoform	173		11.914				ND	
$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	94	706629	9.45	
101 1,1,2,2-Tetrachloroethane	83		12.280				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	94	877116	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_LLcentISS_00002 Amount Added: 5.00 Units: uL Run Reagent

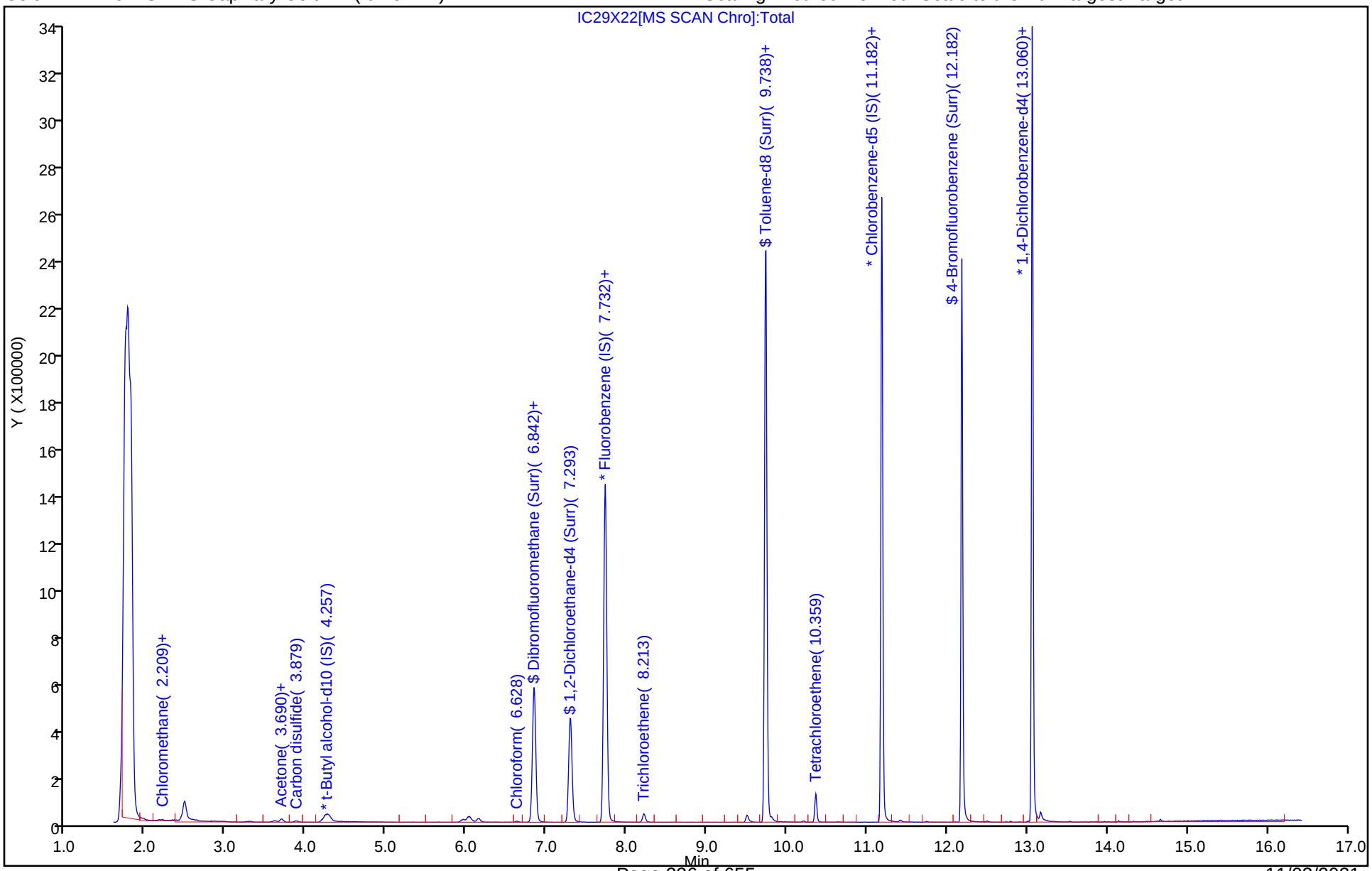
Report Date: 29-Oct-2021 19:25:46 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X22.D

Injection Date:	29-Oct-2021 15:34:30	Instrument ID:	19930	Operator ID:	SRK36897
Lims ID:	410-60154-A-3	Lab Sample ID:	410-60154-3	Worklist Smp#:	23
Client ID:	HD-COD-SW-8-0/1-0				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	22
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X22.D
Lims ID: 410-60154-A-3
Client ID: HD-COD-SW-8-0/1-0
Sample Type: Client
Inject. Date: 29-Oct-2021 15:34:30 ALS Bottle#: 22 Worklist Smp#: 23
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0042796-023
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 29-Oct-2021 19:24:36 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: CTX1664

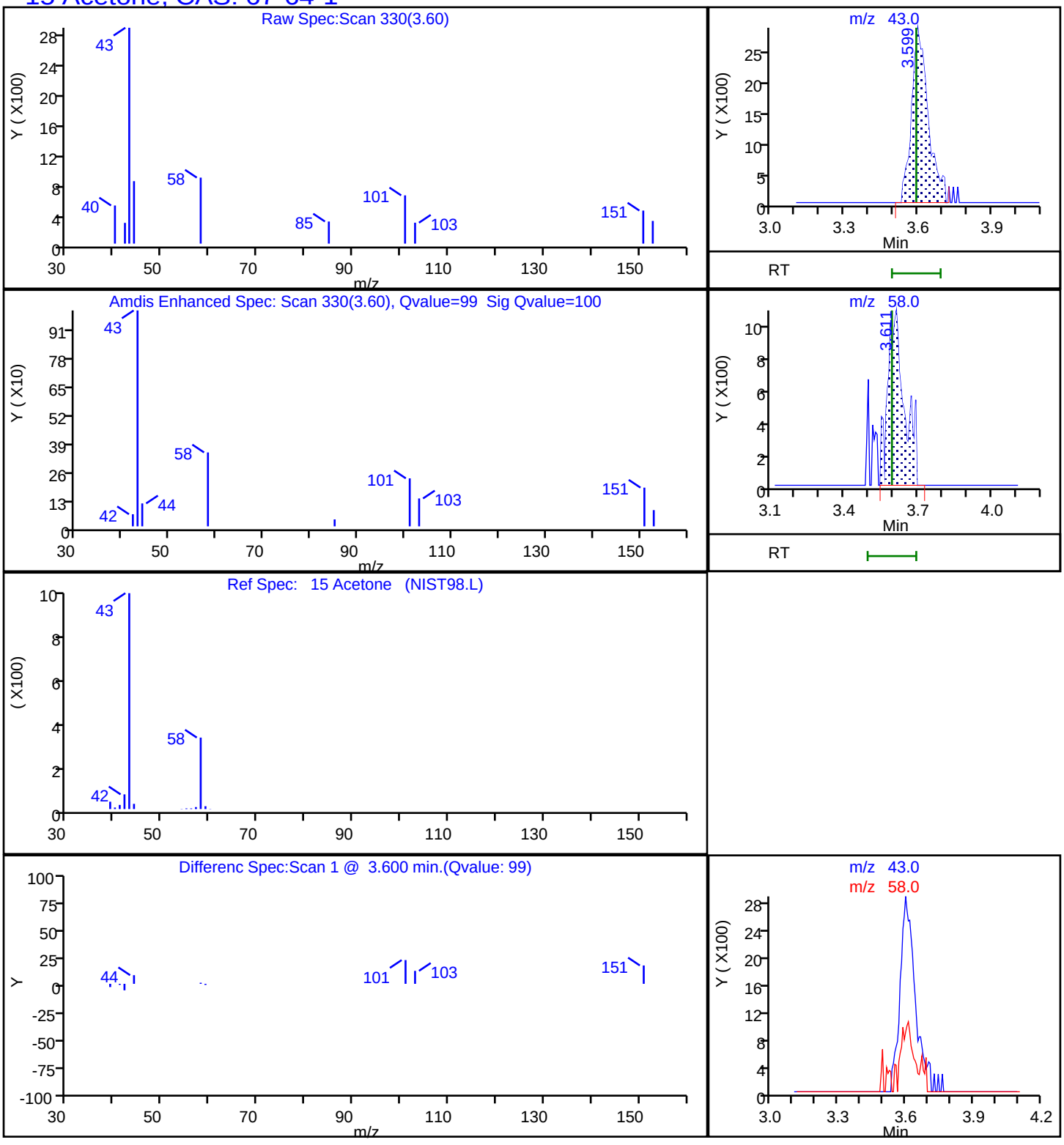
First Level Reviewer: johnsons Date: 29-Oct-2021 19:19:33

Compound	Amount Added	Amount Recovered	% Rec.
$ 46 Dibromofluoromethane (Surr)	10.0	10.5	104.91
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.7	106.97
$ 75 Toluene-d8 (Surr)	10.0	10.1	101.38
$ 100 4-Bromofluorobenzene (Surr)	10.0	9.45	94.46

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X22.D				
Injection Date:	29-Oct-2021 15:34:30	Instrument ID:	19930		
Lims ID:	410-60154-A-3	Lab Sample ID:	410-60154-3		
Client ID:	HD-COD-SW-8-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	22	Worklist Smp#:	23
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

15 Acetone, CAS: 67-64-1



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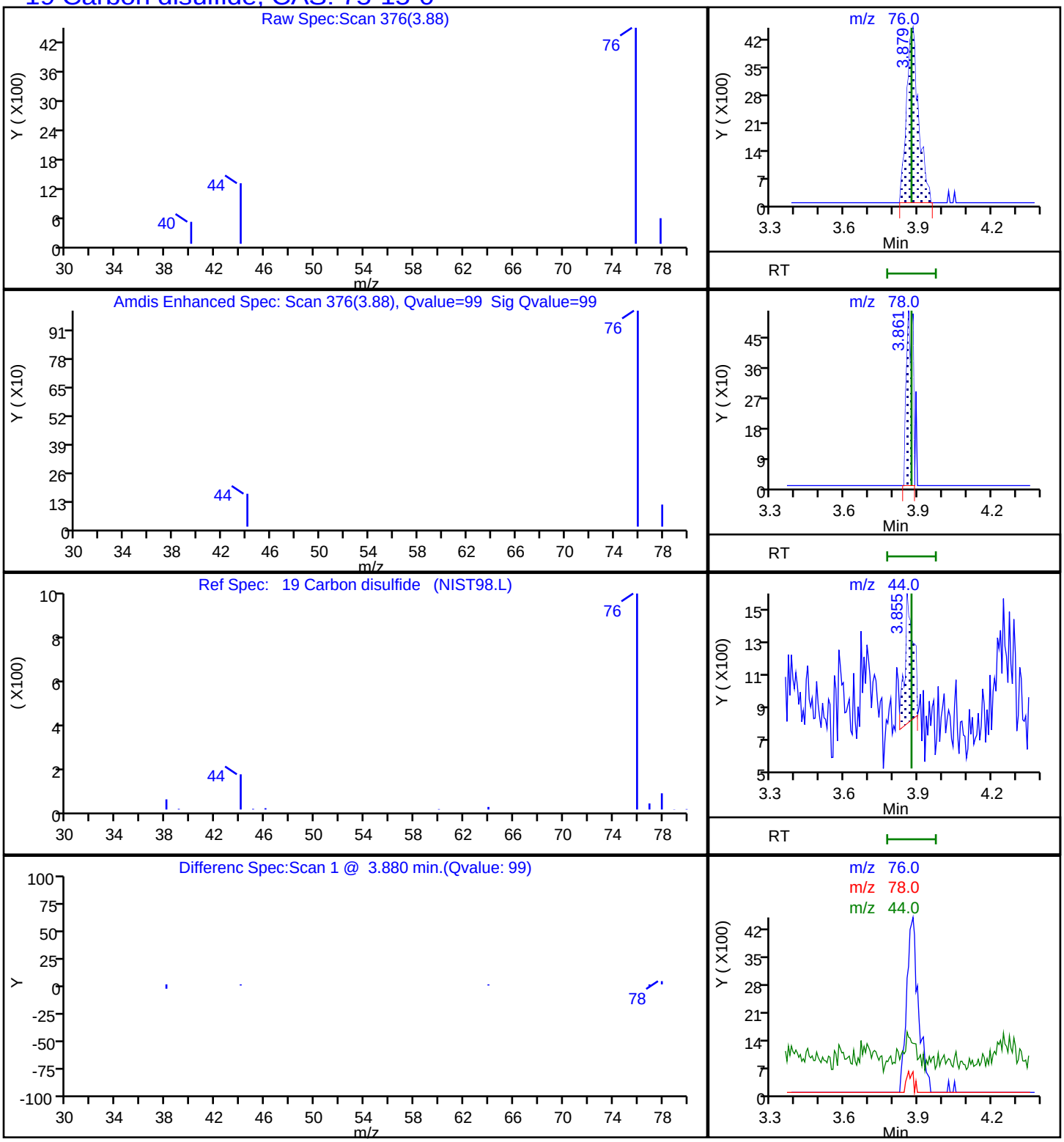
Injection Date:	29-Oct-2021 15:34:30	Instrument ID:	19930		
Lims ID:	410-60154-A-3	Lab Sample ID:	410-60154-3		
Client ID:	HD-COD-SW-8-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	22	Worklist Smp#:	23
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

19 Carbon disulfide, CAS: 75-15-0



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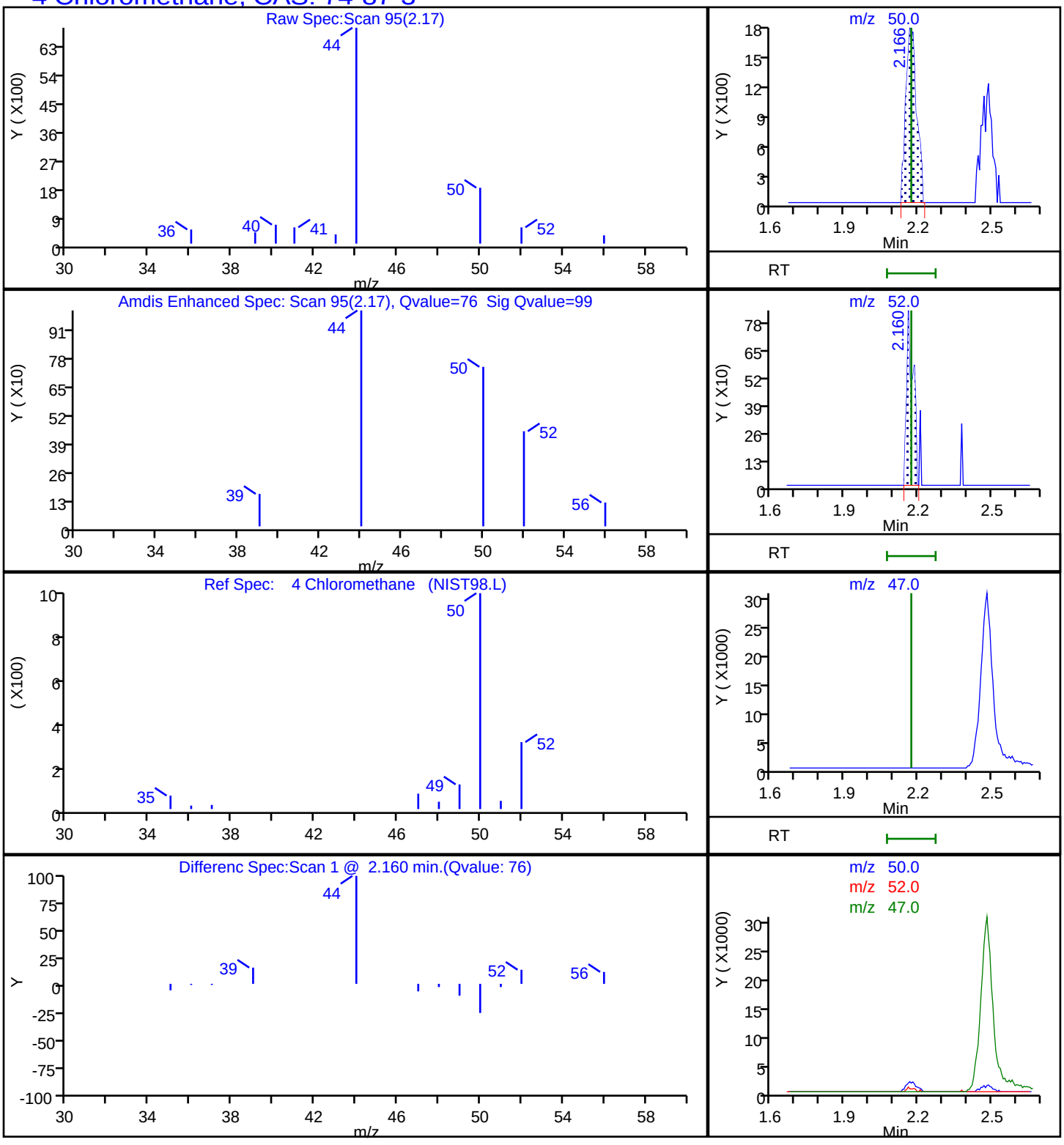
Lims ID:	410-60154-A-3	Lab Sample ID:	410-60154-3		
Client ID:	HD-COD-SW-8-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	22	Worklist Smp#:	23
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

4 Chloromethane, CAS: 74-87-3



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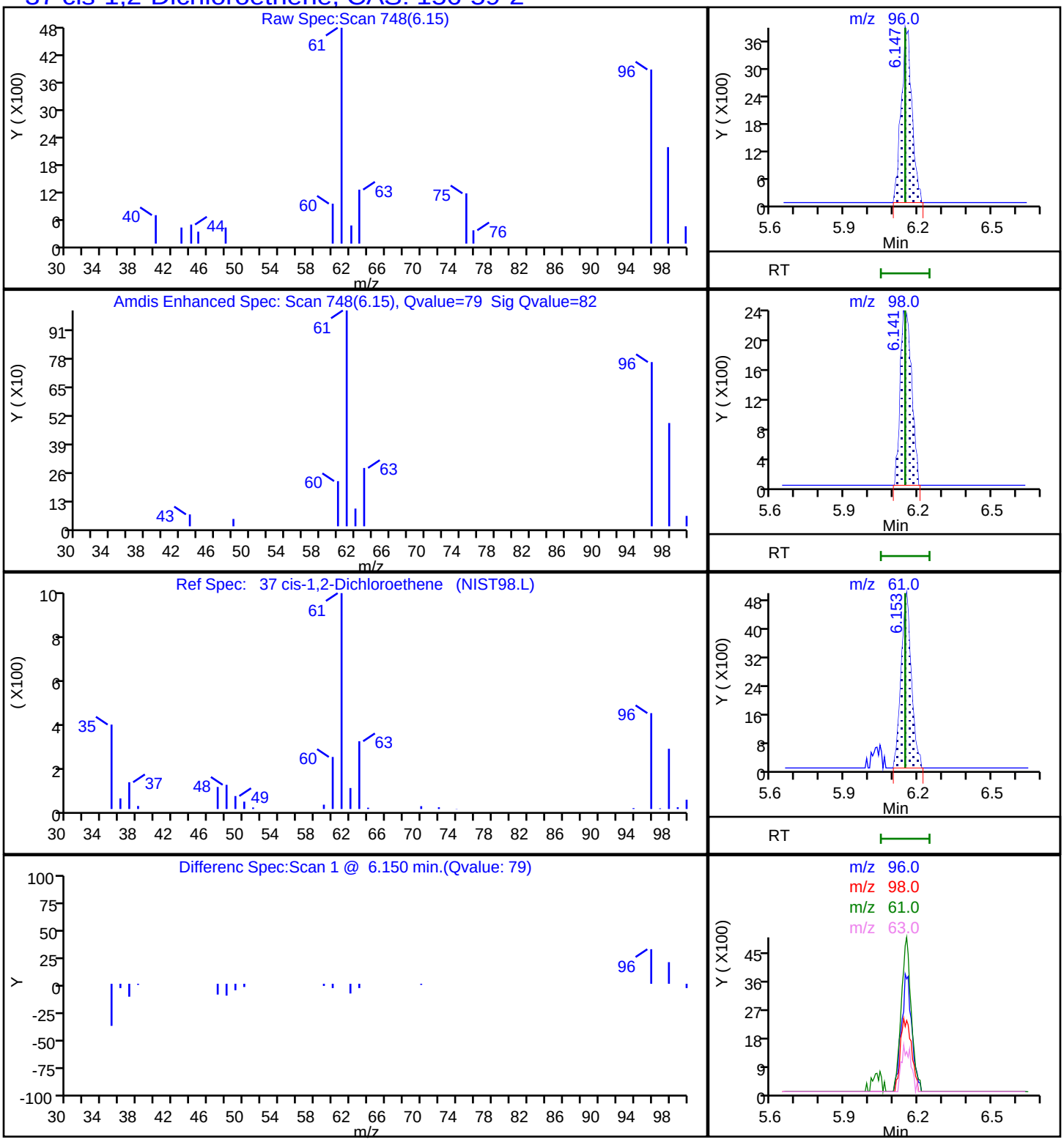
Lims ID:	410-60154-A-3	Lab Sample ID:	410-60154-3		
Client ID:	HD-COD-SW-8-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	22	Worklist Smp#:	23
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

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



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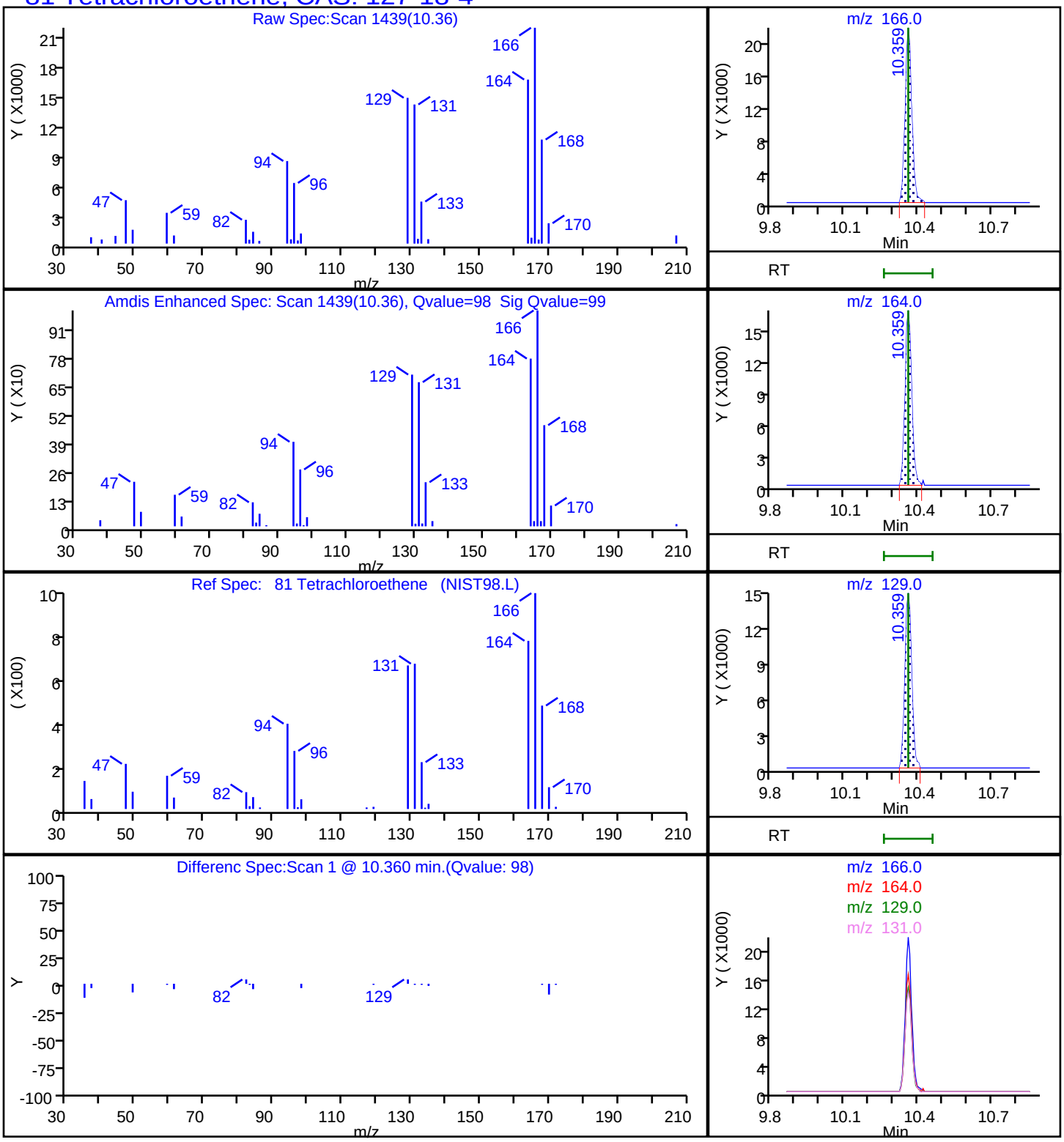
Lims ID:	410-60154-A-3	Lab Sample ID:	410-60154-3		
Client ID:	HD-COD-SW-8-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	22	Worklist Smp#:	23
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

81 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

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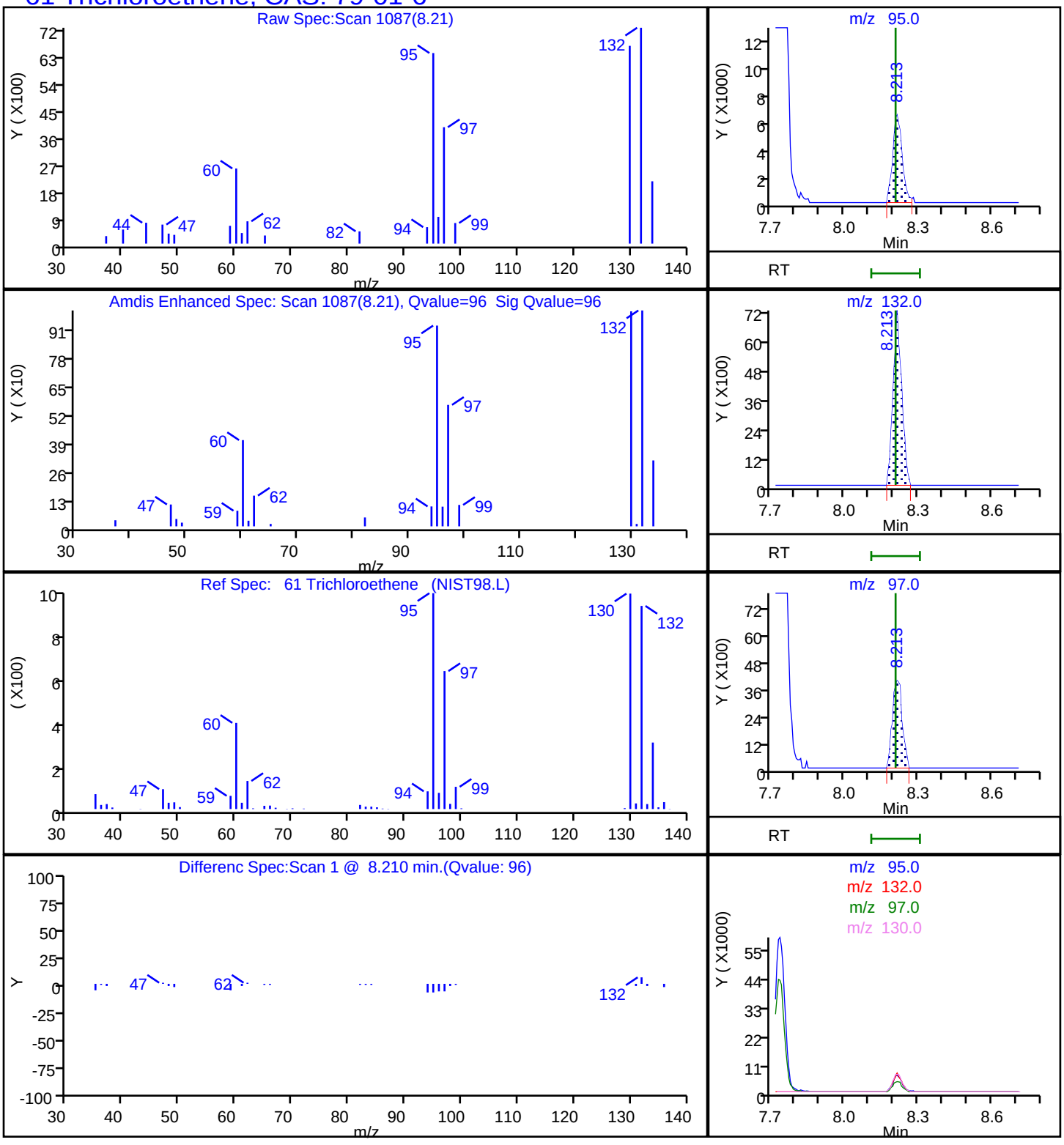
Client ID:	HD-COD-SW-8-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	22	Worklist Smp#:	23
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

61 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-60154-1

SDG No.:

Client Sample ID: HD-COD-SW-9-0/1-0 Lab Sample ID: 410-60154-4

Matrix: Water Lab File ID: IC29X23.D

Analysis Method: 8260D Date Collected: 10/20/2021 13:18

Sample wt/vol: 25(mL) Date Analyzed: 10/29/2021 15:55

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 188555 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.060
75-34-3	1,1-Dichloroethane	ND		0.50	0.070
75-35-4	1,1-Dichloroethene	ND		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.060
107-06-2	1,2-Dichloroethane	ND		0.50	0.050
78-87-5	1,2-Dichloropropane	ND		0.50	0.060
78-93-3	2-Butanone (MEK)	ND		5.0	0.60
591-78-6	2-Hexanone	ND		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70
67-64-1	Acetone	2.3	J	5.0	0.90
71-43-2	Benzene	ND		0.50	0.050
74-97-5	Bromochloromethane	ND		0.50	0.050
75-27-4	Bromodichloromethane	ND		0.50	0.050
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND		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	0.14	J	0.50	0.090
74-87-3	Chloromethane	ND		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.079	J	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
100-41-4	Ethylbenzene	ND		0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.050
75-09-2	Methylene Chloride	ND		0.50	0.070
100-42-5	Styrene	ND		0.50	0.050
127-18-4	Tetrachloroethene	0.18	J	0.50	0.060
108-88-3	Toluene	ND		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.060
79-01-6	Trichloroethene	0.11	J	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-60154-1

SDG No.:

Client Sample ID: HD-COD-SW-9-0/1-0 Lab Sample ID: 410-60154-4

Matrix: Water Lab File ID: IC29X23.D

Analysis Method: 8260D Date Collected: 10/20/2021 13:18

Sample wt/vol: 25(mL) Date Analyzed: 10/29/2021 15:55

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 188555 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	105		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\20211029-42796.b\IC29X23.D
Lims ID: 410-60154-A-4
Client ID: HD-COD-SW-9-0/1-0
Sample Type: Client
Inject. Date: 29-Oct-2021 15:55:30 ALS Bottle#: 23 Worklist Smp#: 24
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0042796-024
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 29-Oct-2021 19:24:36 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: CTX1664

First Level Reviewer: johnsons Date: 29-Oct-2021 19:20:16

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50		2.172				ND	U
5 Vinyl chloride	62		2.294				ND	
7 Bromomethane	94		2.623				ND	
8 Chloroethane	64		2.708				ND	
14 1,1-Dichloroethene	96		3.562				ND	
15 Acetone	43	3.611	3.592	0.019	98	19932	2.27	
19 Carbon disulfide	76	3.873	3.873	0.000	98	7106	0.0578	
23 Methylene Chloride	84		4.233				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.263	4.251	0.012	24	157927	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		5.318				ND	
36 2-Butanone (MEK)	43		6.116				ND	7
37 cis-1,2-Dichloroethene	96	6.153	6.147	0.006	81	4460	0.0791	
43 Chlorobromomethane	128		6.476				ND	
45 Chloroform	83	6.635	6.628	0.007	93	12692	0.1395	
$ 46 Dibromofluoromethane (Surr)	113	6.842	6.842	0.000	94	492586	10.5	
47 1,1,1-Trichloroethane	97		6.854				ND	
50 Carbon tetrachloride	117		7.067				ND	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.293	7.299	-0.006	83	99942	10.6	
54 Benzene	78		7.329				ND	
56 1,2-Dichloroethane	62		7.397				ND	
* 58 Fluorobenzene (IS)	96	7.732	7.732	0.000	99	1867773	10.0	
61 Trichloroethene	95	8.214	8.207	0.007	96	6112	0.1083	
63 1,2-Dichloropropane	63		8.537				ND	
68 Dichlorobromomethane	83		8.884				ND	7
73 cis-1,3-Dichloropropene	75		9.427				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.591				ND	7
$ 75 Toluene-d8 (Surr)	98	9.738	9.731	0.007	93	1956597	10.1	
76 Toluene	92	9.811	9.811	0.000	97	9459	0.0661	
78 trans-1,3-Dichloropropene	75		10.067				ND	
80 1,1,2-Trichloroethane	97		10.268				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.360	10.359	0.001	96	12111	0.1776	
83 2-Hexanone	43		10.475				ND	
85 Chlorodibromomethane	129		10.646				ND	
86 Ethylene Dibromide	107		10.756				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.183	11.182	0.001	85	1493433	10.0	
90 Chlorobenzene	112		11.207				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.292				ND	
92 Ethylbenzene	91		11.292				ND	7
93 m-Xylene & p-Xylene	106	11.414	11.408	0.006	99	6676	0.0613	
94 o-Xylene	106		11.737				ND	7
95 Styrene	104		11.755				ND	
96 Bromoform	173		11.914				ND	
$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	93	715493	9.70	
101 1,1,2,2-Tetrachloroethane	83		12.280				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	94	874603	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

Report Date: 29-Oct-2021 19:25:47 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins Lancaster Laboratories Env, LLC

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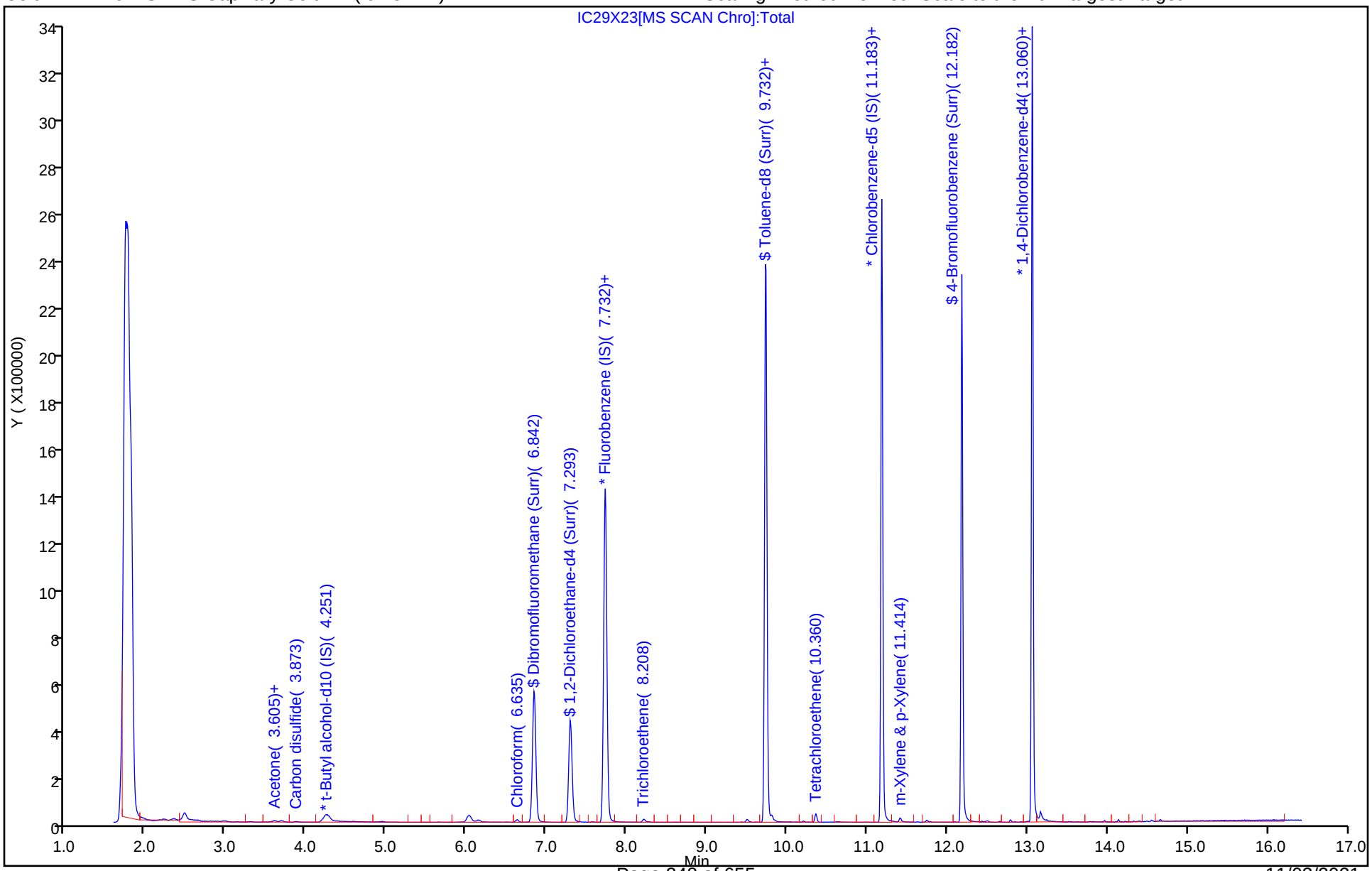
Injection Date:	29-Oct-2021 15:55:30	Instrument ID:	19930	Operator ID:	SRK36897
Lims ID:	410-60154-A-4	Lab Sample ID:	410-60154-4	Worklist Smp#:	24
Client ID:	HD-COD-SW-9-0/1-0				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	23
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		

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

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Lims ID: 410-60154-A-4
Client ID: HD-COD-SW-9-0/1-0
Sample Type: Client
Inject. Date: 29-Oct-2021 15:55:30 ALS Bottle#: 23 Worklist Smp#: 24
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0042796-024
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 29-Oct-2021 19:24:36 Calib Date: 24-Aug-2021 02:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
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Process Host: CTX1664

First Level Reviewer: johnsons Date: 29-Oct-2021 19:20:16

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$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.6	106.18
$ 75 Toluene-d8 (Surr)	10.0	10.1	101.38
$ 100 4-Bromofluorobenzene (Surr)	10.0	9.70	97.00

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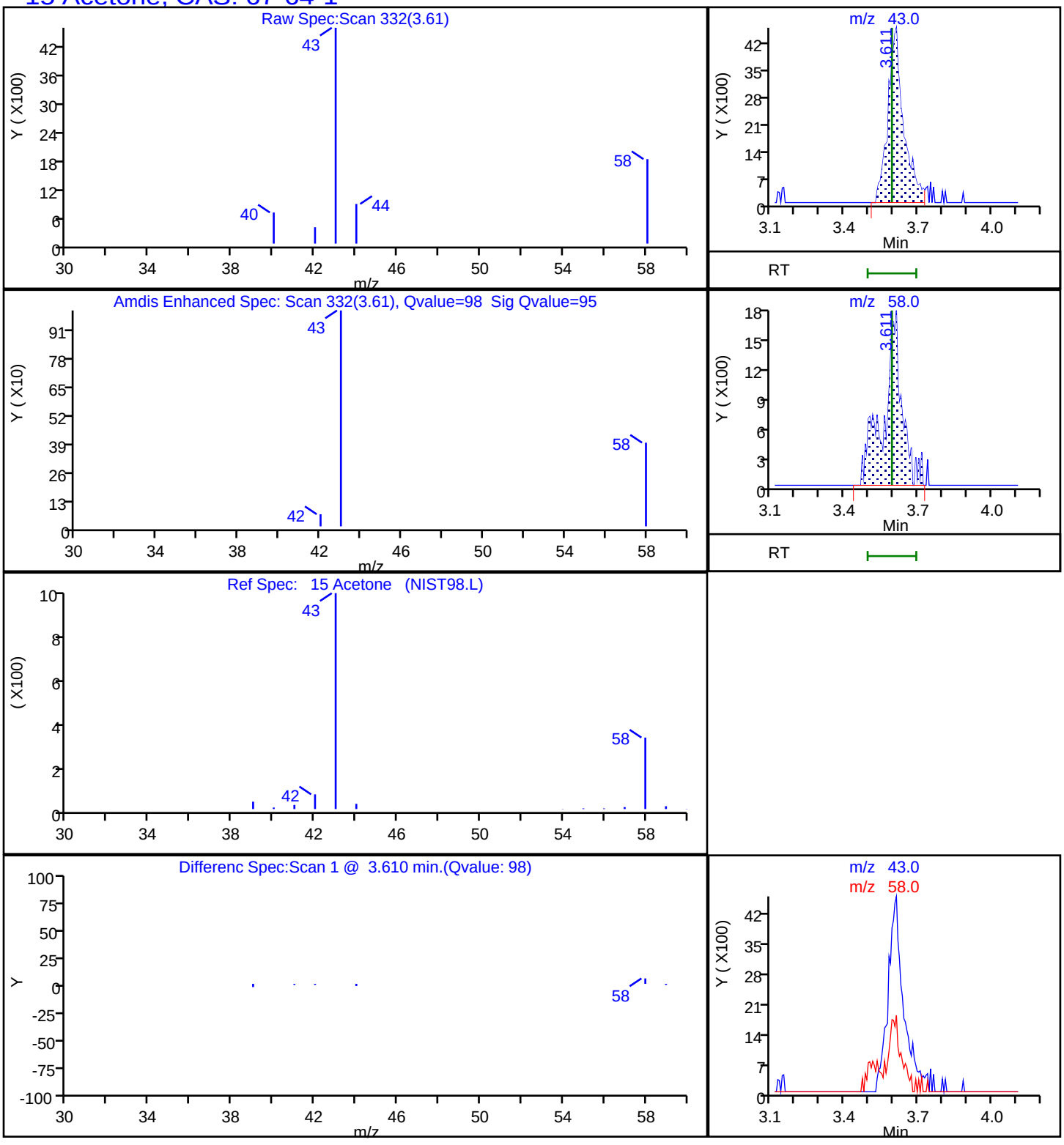
15 Acetone, CAS: 67-64-1



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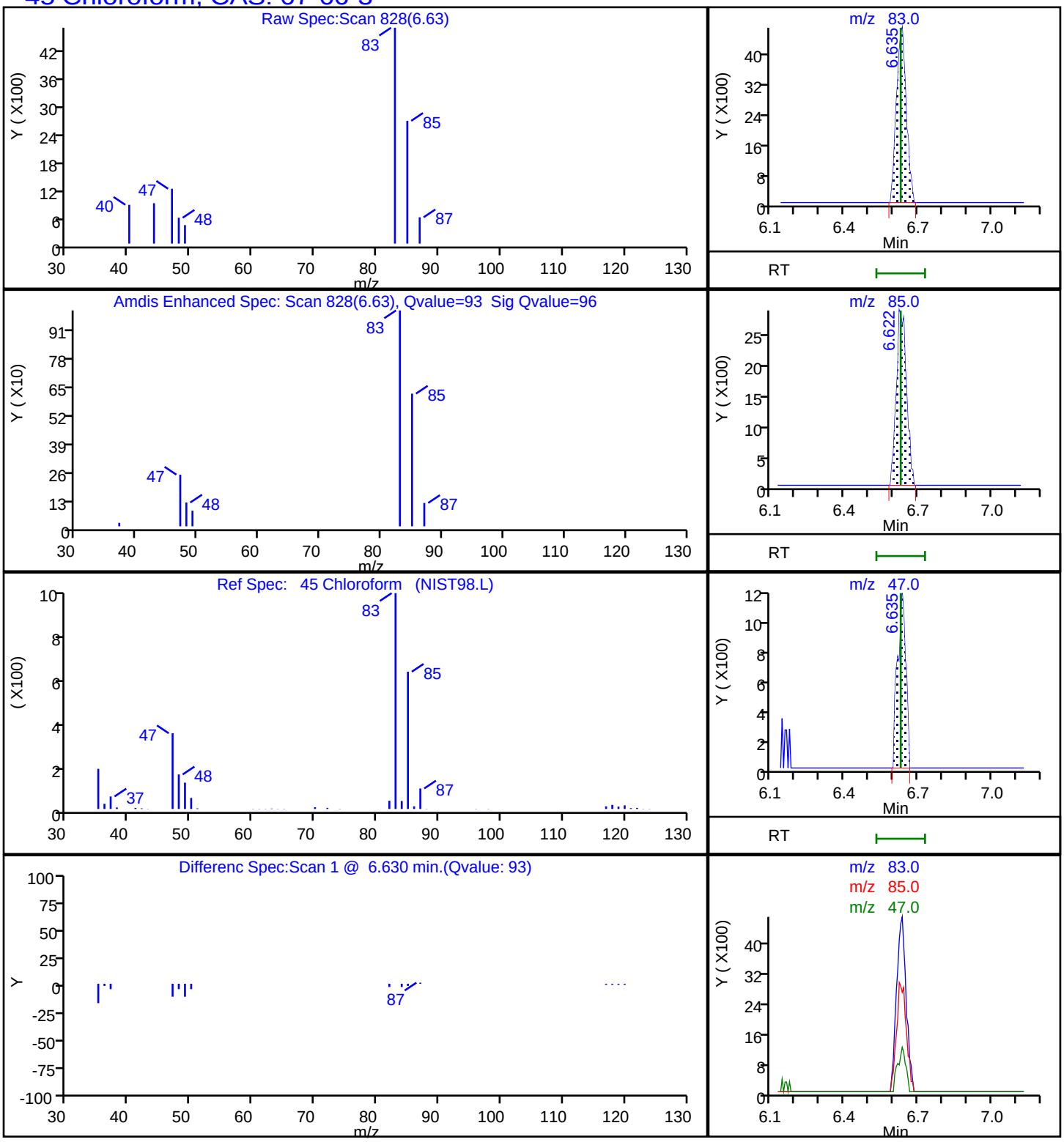
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

45 Chloroform, CAS: 67-66-3



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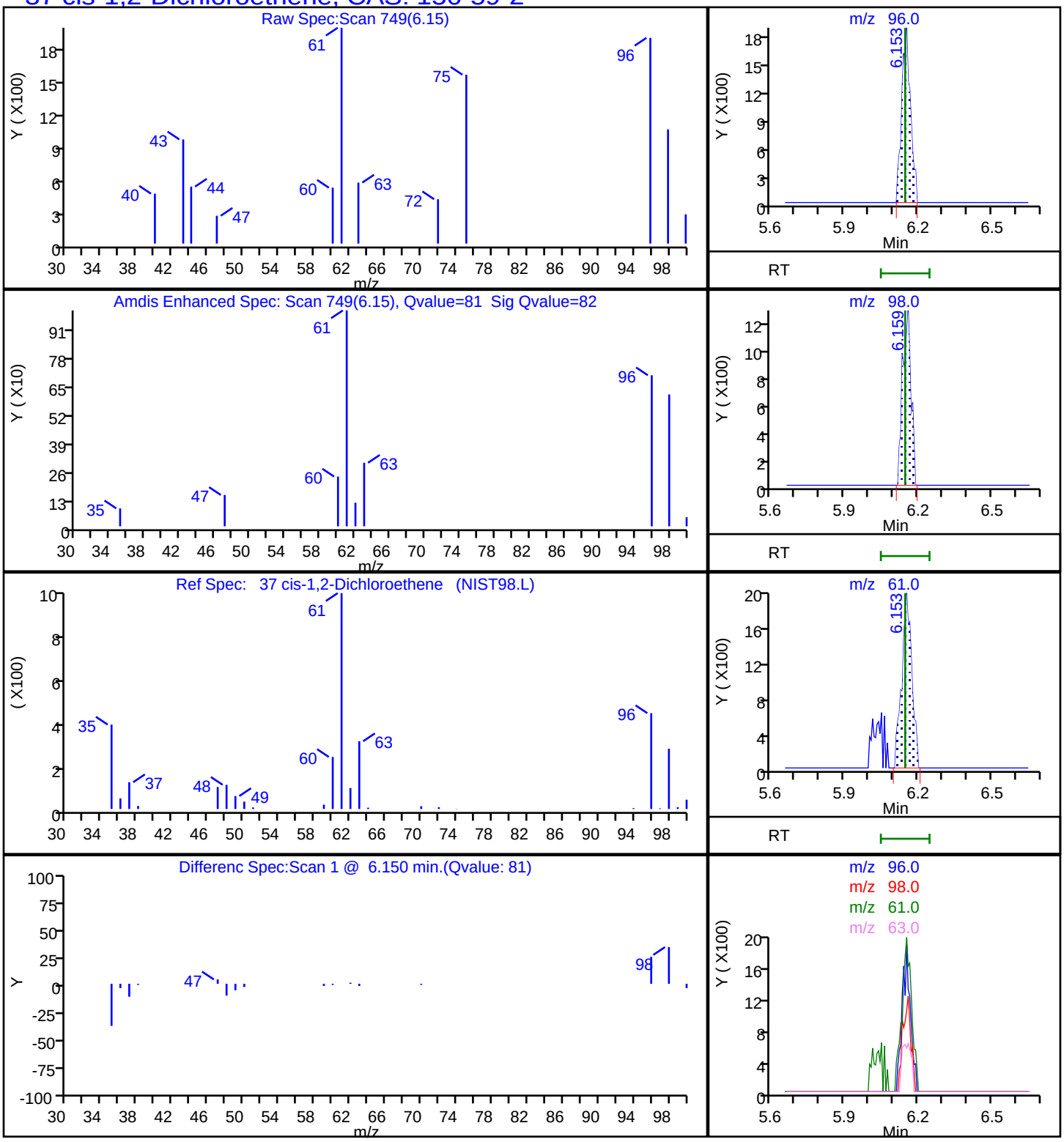
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

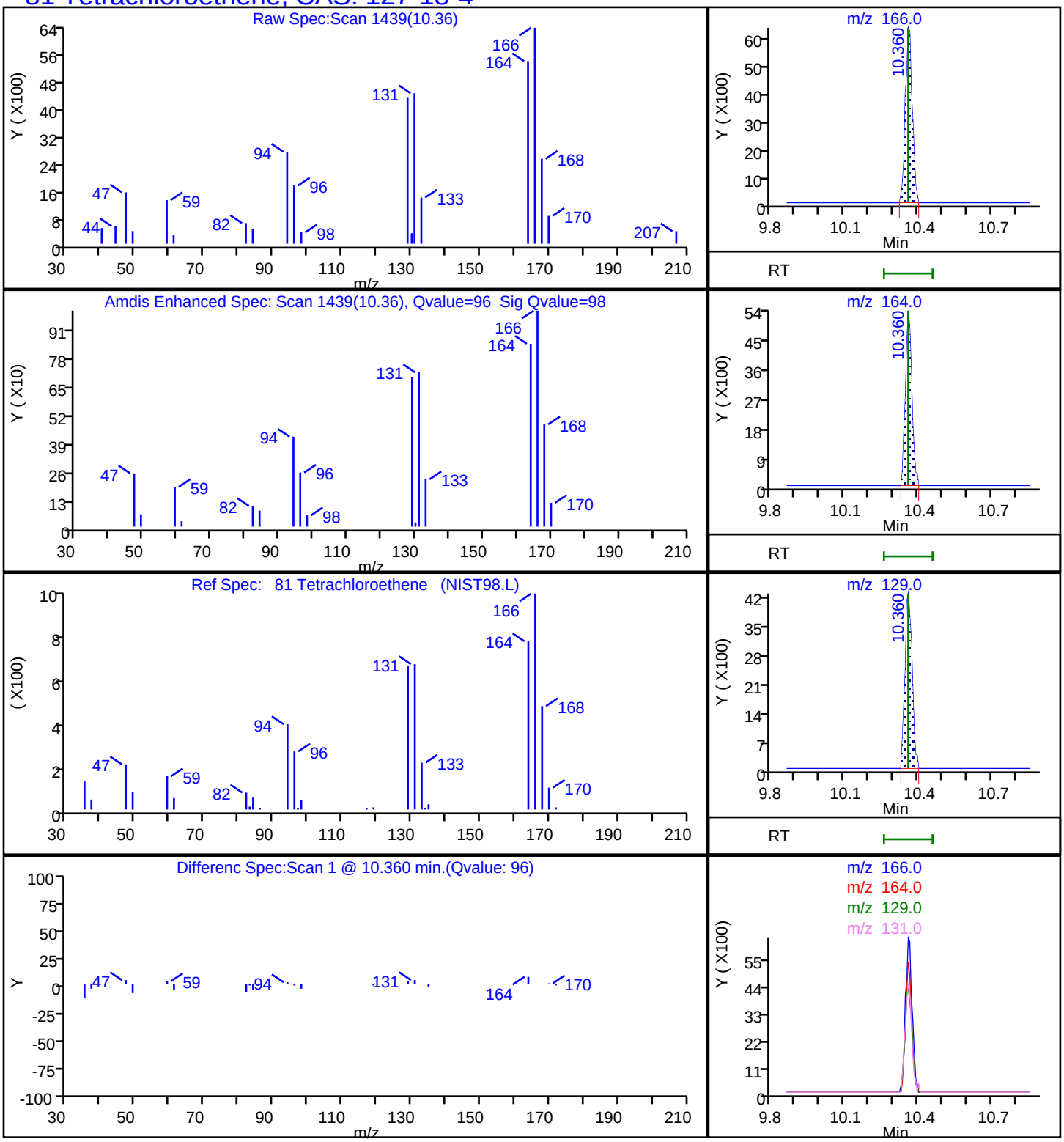
37 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X23.D				
Injection Date:	29-Oct-2021 15:55:30	Instrument ID:	19930		
Lims ID:	410-60154-A-4	Lab Sample ID:	410-60154-4		
Client ID:	HD-COD-SW-9-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	23	Worklist Smp#:	24
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)	Detector	MS Quad		

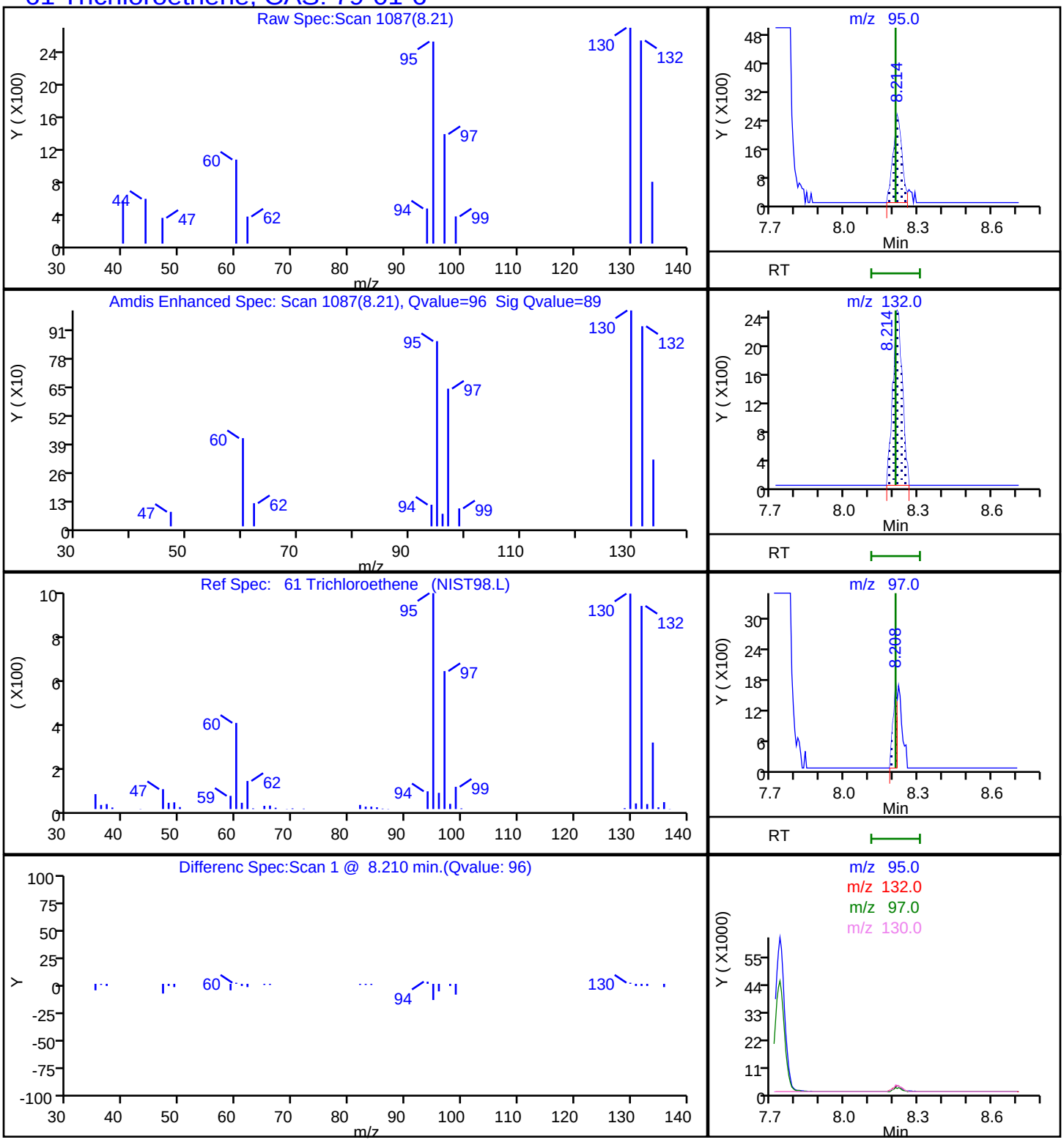
81 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X23.D				
Injection Date:	29-Oct-2021 15:55:30	Instrument ID:	19930		
Lims ID:	410-60154-A-4	Lab Sample ID:	410-60154-4		
Client ID:	HD-COD-SW-9-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	23	Worklist Smp#:	24
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

61 Trichloroethene, CAS: 79-01-6



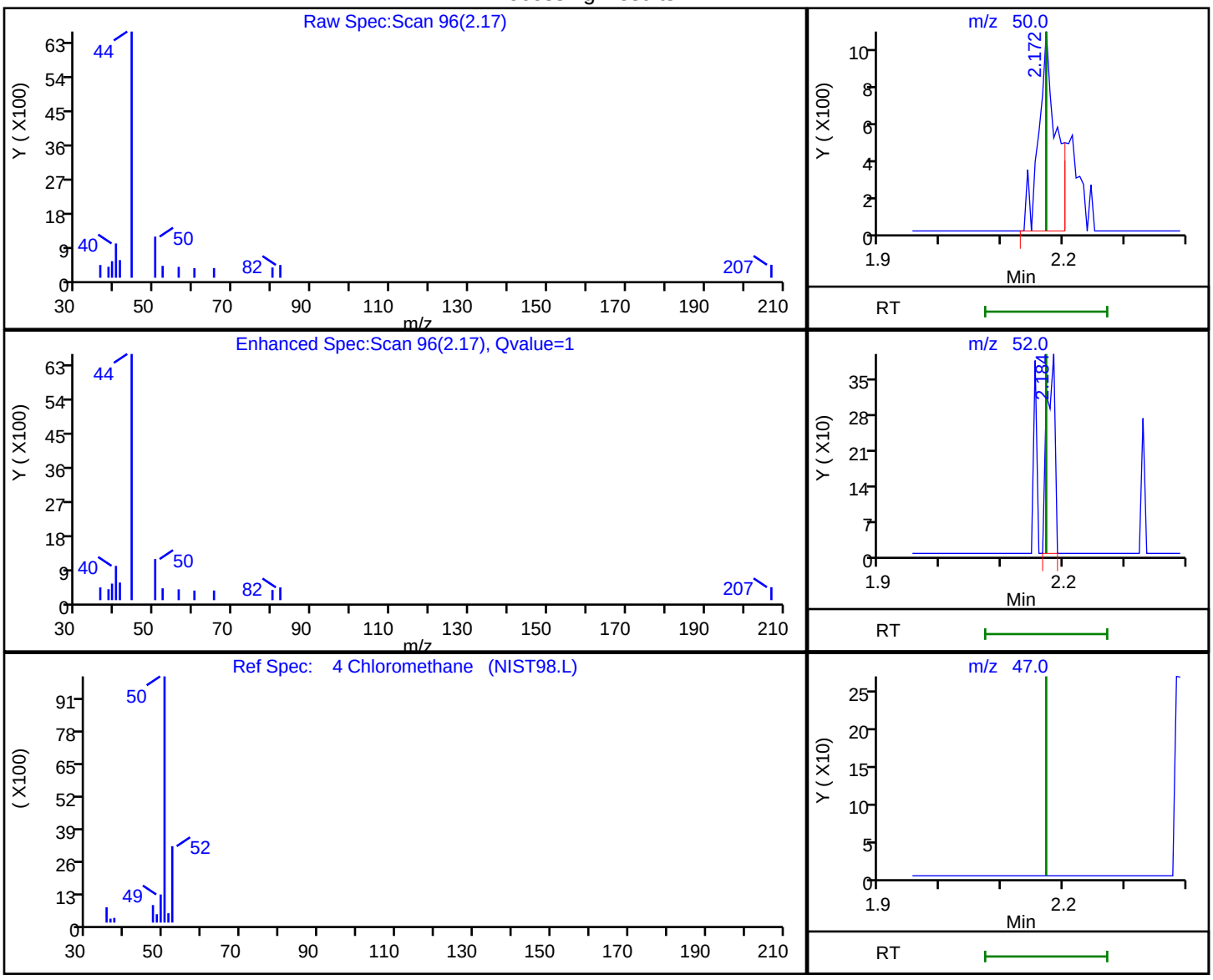
User Disabled Compound Report

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X23.D				
Injection Date:	29-Oct-2021 15:55:30	Instrument ID:	19930		
Lims ID:	410-60154-A-4	Lab Sample ID:	410-60154-4		
Client ID:	HD-COD-SW-9-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	23	Worklist Smp#:	24
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)	Detector	MS Quad		

4 Chloromethane, CAS: 74-87-3

Processing Results



RT	Mass	Response	Amount
2.17	50.00	2147	0.032259
2.18	52.00	365	
2.17	47.00	0	

Reviewer: johnsons, 29-Oct-2021 19:19:49

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.: 410-60154-1

SDG No.:

Client Sample ID: HD-COD-SW-13-0/1-0 Lab Sample ID: 410-60154-5

Matrix: Water Lab File ID: IC29X24.D

Analysis Method: 8260D Date Collected: 10/20/2021 09:35

Sample wt/vol: 25(mL) Date Analyzed: 10/29/2021 16:16

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 188555 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.060
75-34-3	1,1-Dichloroethane	ND		0.50	0.070
75-35-4	1,1-Dichloroethene	ND		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.060
107-06-2	1,2-Dichloroethane	ND		0.50	0.050
78-87-5	1,2-Dichloropropane	ND		0.50	0.060
78-93-3	2-Butanone (MEK)	ND		5.0	0.60
591-78-6	2-Hexanone	ND		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70
67-64-1	Acetone	1.5	J	5.0	0.90
71-43-2	Benzene	ND		0.50	0.050
74-97-5	Bromochloromethane	ND		0.50	0.050
75-27-4	Bromodichloromethane	ND		0.50	0.050
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND		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	0.065	J	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.20	J	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
100-41-4	Ethylbenzene	ND		0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.050
75-09-2	Methylene Chloride	ND		0.50	0.070
100-42-5	Styrene	ND		0.50	0.050
127-18-4	Tetrachloroethene	0.67		0.50	0.060
108-88-3	Toluene	ND		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.060
79-01-6	Trichloroethene	0.33	J	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-60154-1

SDG No.:

Client Sample ID: HD-COD-SW-13-0/1-0 Lab Sample ID: 410-60154-5

Matrix: Water Lab File ID: IC29X24.D

Analysis Method: 8260D Date Collected: 10/20/2021 09:35

Sample wt/vol: 25(mL) Date Analyzed: 10/29/2021 16:16

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 188555 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	106		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\20211029-42796.b\IC29X24.D
Lims ID: 410-60154-A-5
Client ID: HD-COD-SW-13-0/1-0
Sample Type: Client
Inject. Date: 29-Oct-2021 16:16:30 ALS Bottle#: 24 Worklist Smp#: 25
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0042796-025
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 29-Oct-2021 19:24:36 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: CTX1664

First Level Reviewer: johnsons Date: 29-Oct-2021 19:21:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50	2.197	2.172	0.025	1	4304	0.0654	
5 Vinyl chloride	62		2.294				ND	
7 Bromomethane	94		2.623				ND	
8 Chloroethane	64		2.708				ND	
14 1,1-Dichloroethene	96		3.562				ND	
15 Acetone	43	3.605	3.592	0.013	98	12038	1.51	
19 Carbon disulfide	76	3.873	3.873	0.000	98	5926	0.0487	
23 Methylene Chloride	84		4.233				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.275	4.251	0.024	17	143190	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		5.318				ND	
36 2-Butanone (MEK)	43		6.116				ND	7
37 cis-1,2-Dichloroethene	96	6.159	6.147	0.012	78	11143	0.1998	
43 Chlorobromomethane	128		6.476				ND	
45 Chloroform	83	6.641	6.628	0.013	89	5533	0.0615	
$ 46 Dibromofluoromethane (Surr)	113	6.848	6.842	0.006	94	490971	10.6	
47 1,1,1-Trichloroethane	97	6.860	6.854	0.006	35	4593	0.0549	
50 Carbon tetrachloride	117		7.067				ND	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.305	7.299	0.006	83	99661	10.7	
54 Benzene	78		7.329				ND	7
56 1,2-Dichloroethane	62		7.397				ND	
* 58 Fluorobenzene (IS)	96	7.738	7.732	0.006	99	1846647	10.0	
61 Trichloroethene	95	8.214	8.207	0.007	97	18384	0.3295	
63 1,2-Dichloropropane	63		8.537				ND	
68 Dichlorobromomethane	83		8.884				ND	
73 cis-1,3-Dichloropropene	75		9.427				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.591				ND	7
$ 75 Toluene-d8 (Surr)	98	9.738	9.731	0.007	93	1940796	10.1	
76 Toluene	92	9.811	9.811	0.000	93	5403	0.0380	
78 trans-1,3-Dichloropropene	75		10.067				ND	
80 1,1,2-Trichloroethane	97		10.268				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.360	10.359	0.001	98	45753	0.6750	
83 2-Hexanone	43		10.475				ND	
85 Chlorodibromomethane	129		10.646				ND	
86 Ethylene Dibromide	107		10.756				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.183	11.182	0.001	85	1484259	10.0	
90 Chlorobenzene	112		11.207				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.292				ND	
92 Ethylbenzene	91		11.292				ND	7
93 m-Xylene & p-Xylene	106	11.408	11.408	0.000	98	4462	0.0412	
94 o-Xylene	106		11.737				ND	7
95 Styrene	104		11.755				ND	
96 Bromoform	173		11.914				ND	
$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	93	702588	9.58	
101 1,1,2,2-Tetrachloroethane	83		12.280				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	94	873202	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_LLcentISS_00002 Amount Added: 5.00 Units: uL Run Reagent

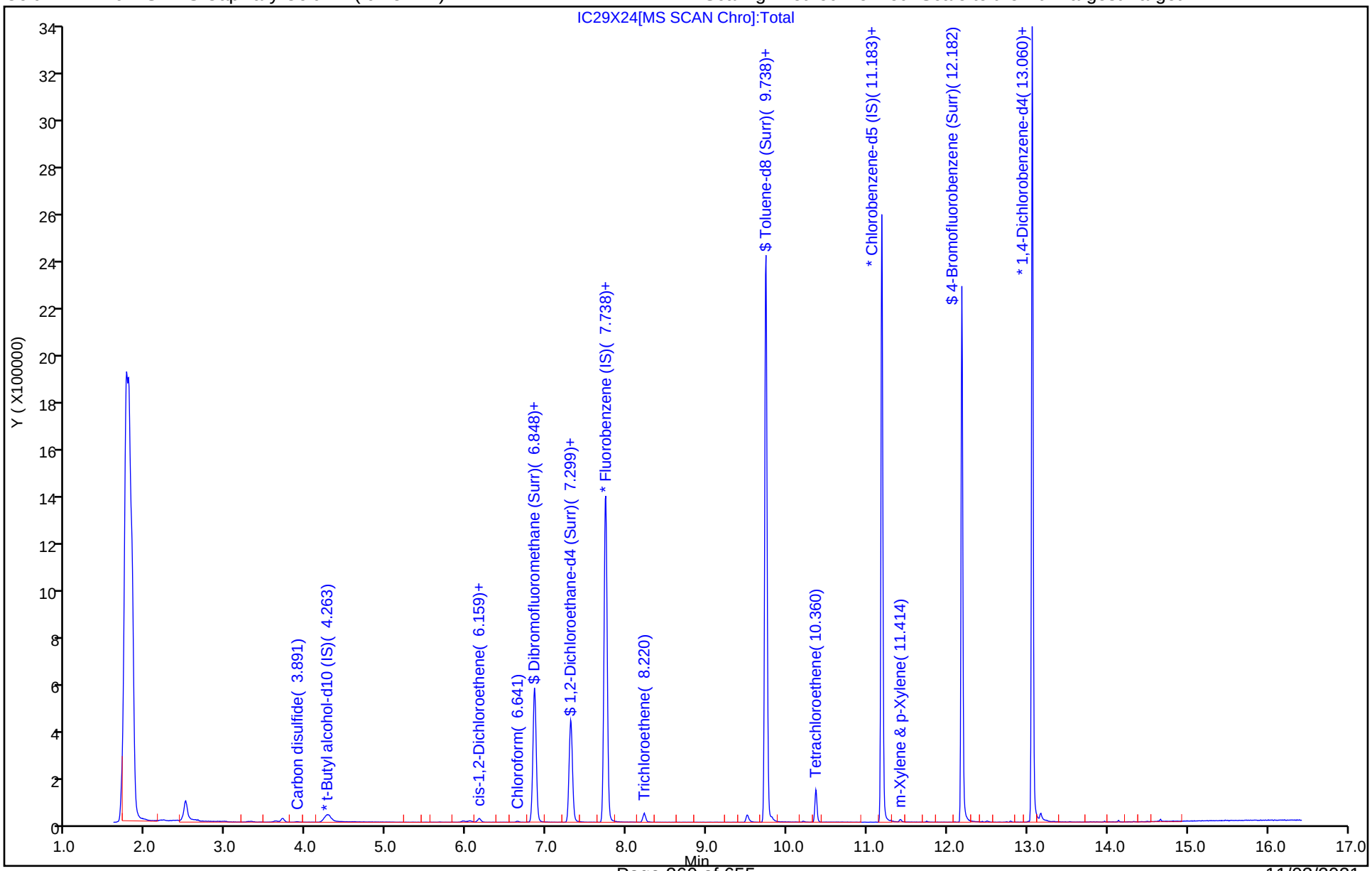
Report Date: 29-Oct-2021 19:25:48 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X24.D

Injection Date:	29-Oct-2021 16:16:30	Instrument ID:	19930	Operator ID:	SRK36897
Lims ID:	410-60154-A-5	Lab Sample ID:	410-60154-5	Worklist Smp#:	25
Client ID:	HD-COD-SW-13-0/1-0				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	24
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\20211029-42796.b\IC29X24.D
Lims ID: 410-60154-A-5
Client ID: HD-COD-SW-13-0/1-0
Sample Type: Client
Inject. Date: 29-Oct-2021 16:16:30 ALS Bottle#: 24 Worklist Smp#: 25
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0042796-025
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 29-Oct-2021 19:24:36 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: CTX1664

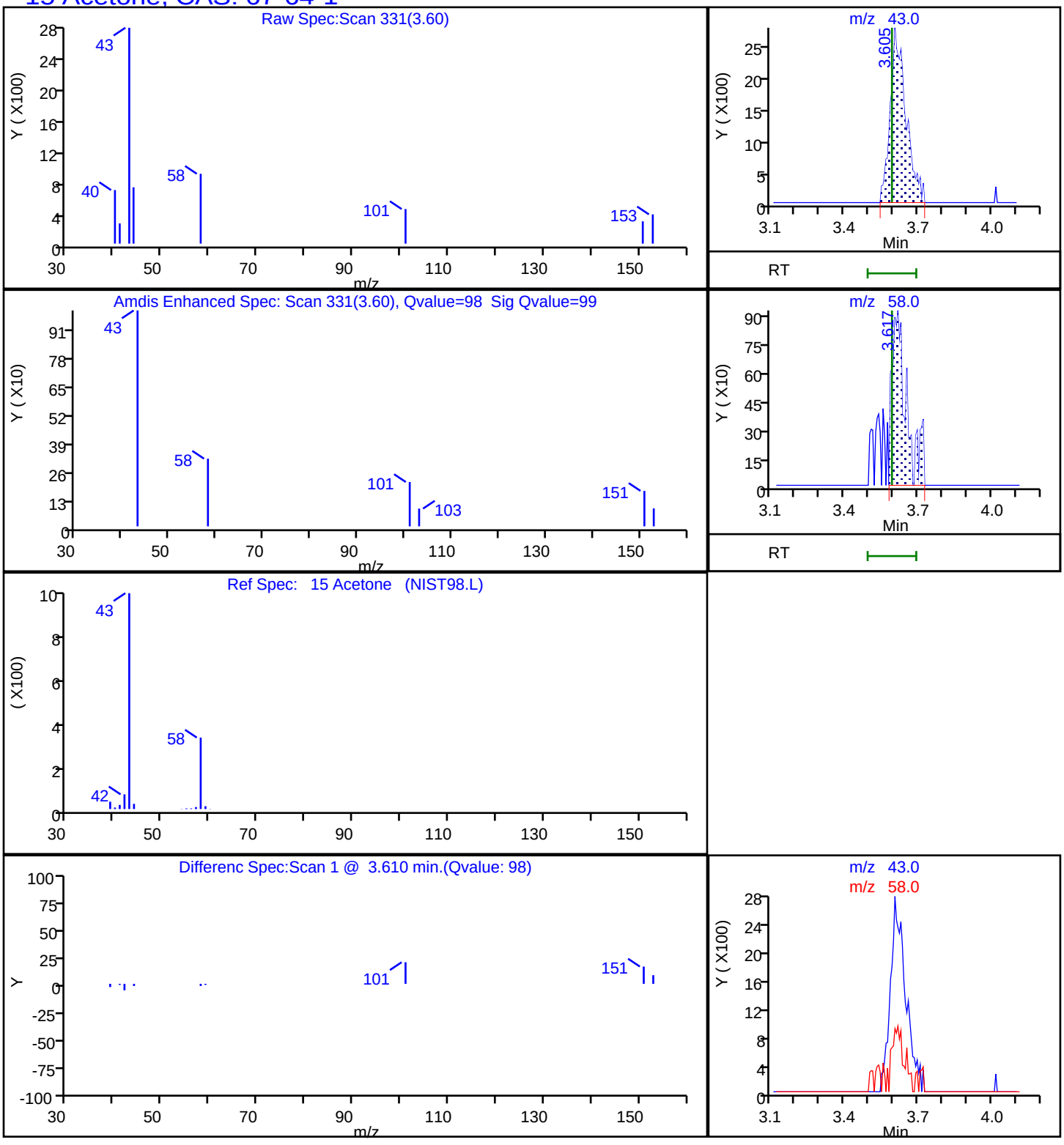
First Level Reviewer: johnsons Date: 29-Oct-2021 19:21:06

Compound	Amount Added	Amount Recovered	% Rec.
$ 46 Dibromofluoromethane (Surr)	10.0	10.6	105.54
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.7	107.09
$ 75 Toluene-d8 (Surr)	10.0	10.1	101.18
$ 100 4-Bromofluorobenzene (Surr)	10.0	9.58	95.84

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X24.D				
Injection Date:	29-Oct-2021 16:16:30	Instrument ID:	19930		
Lims ID:	410-60154-A-5	Lab Sample ID:	410-60154-5		
Client ID:	HD-COD-SW-13-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	24	Worklist Smp#:	25
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)	Detector	MS Quad		

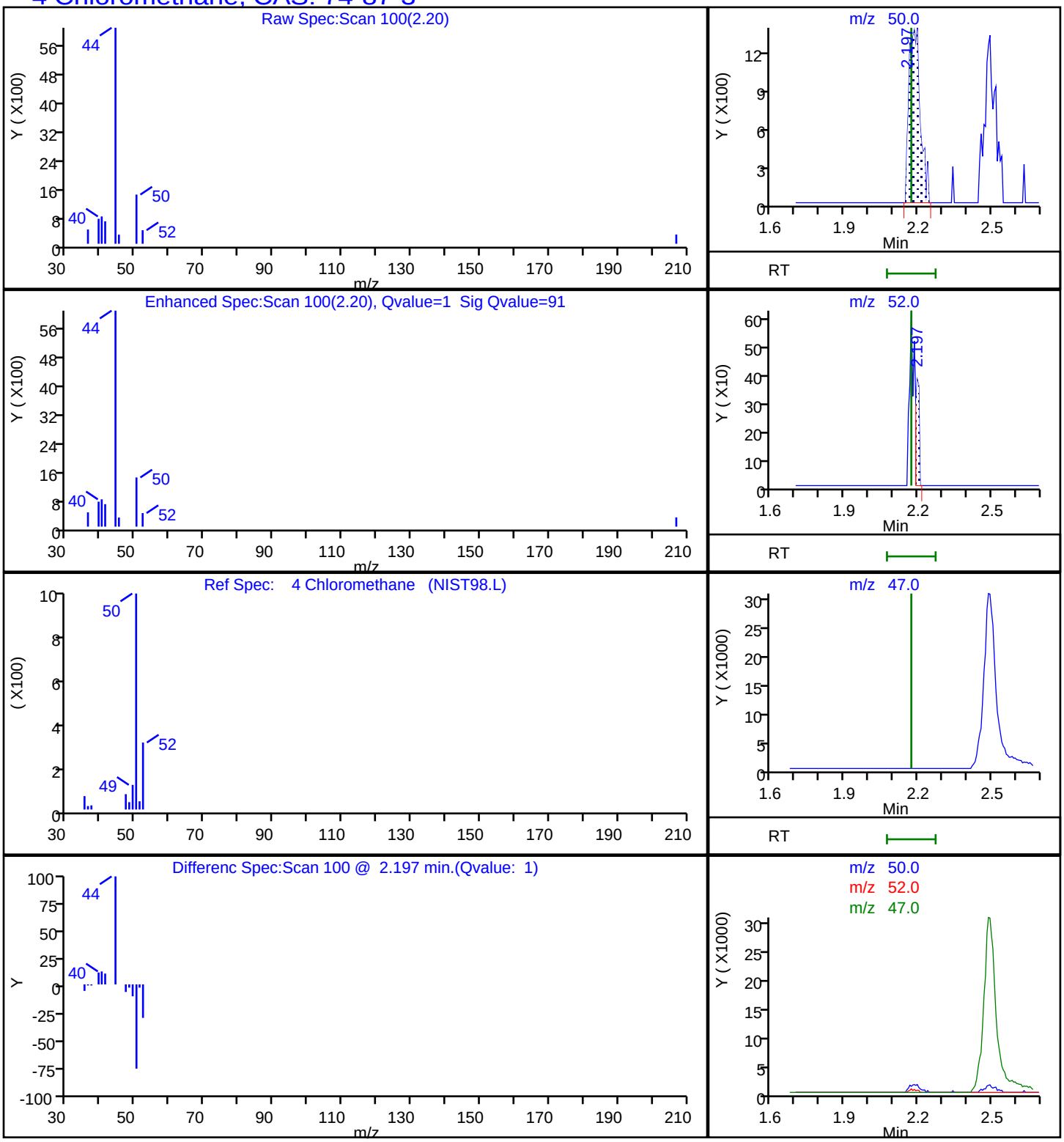
15 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X24.D				
Injection Date:	29-Oct-2021 16:16:30	Instrument ID:	19930		
Lims ID:	410-60154-A-5	Lab Sample ID:	410-60154-5		
Client ID:	HD-COD-SW-13-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	24	Worklist Smp#:	25
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

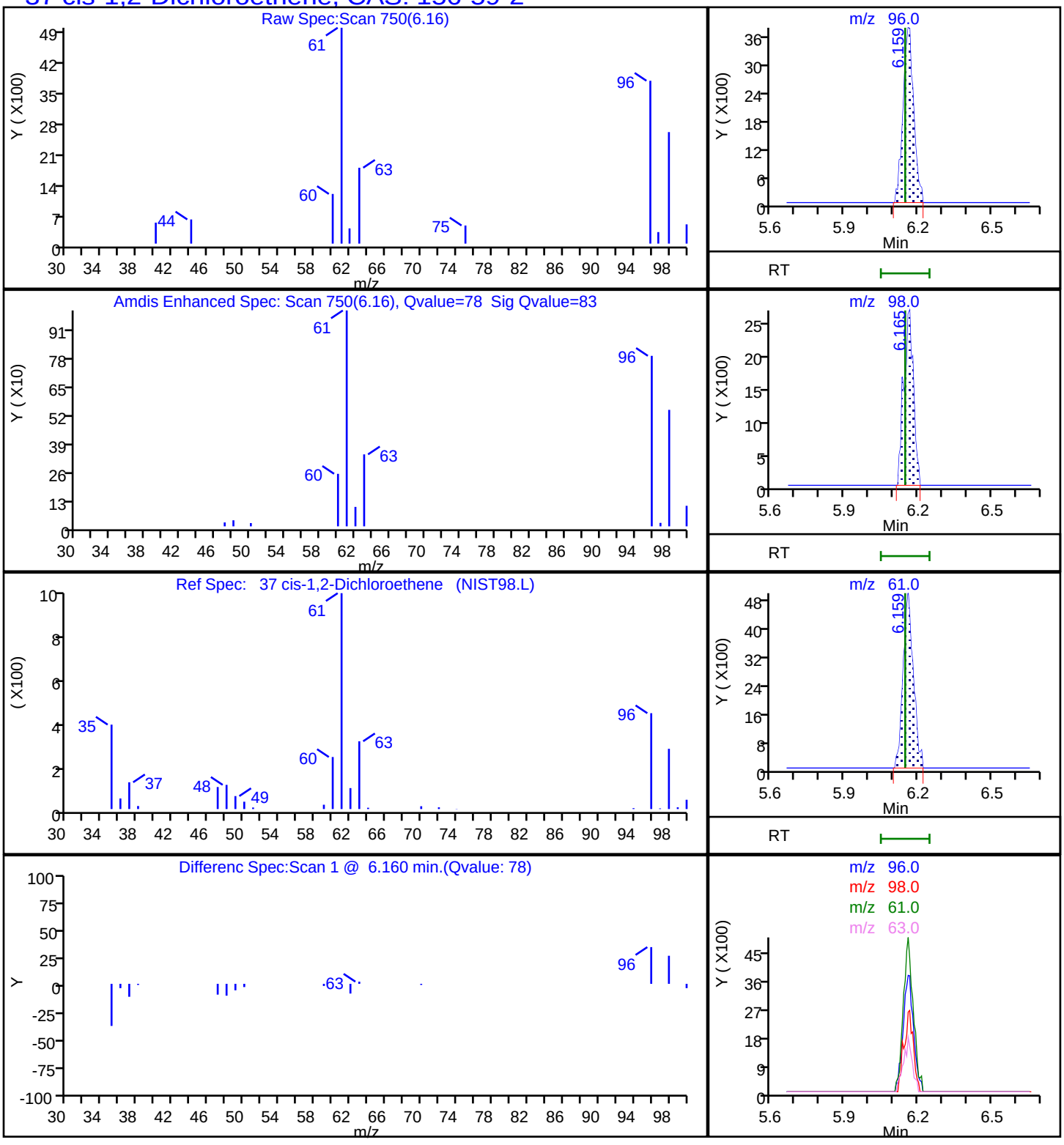
4 Chloromethane, CAS: 74-87-3



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X24.D				
Injection Date:	29-Oct-2021 16:16:30	Instrument ID:	19930		
Lims ID:	410-60154-A-5	Lab Sample ID:	410-60154-5		
Client ID:	HD-COD-SW-13-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	24	Worklist Smp#:	25
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)	Detector	MS Quad		

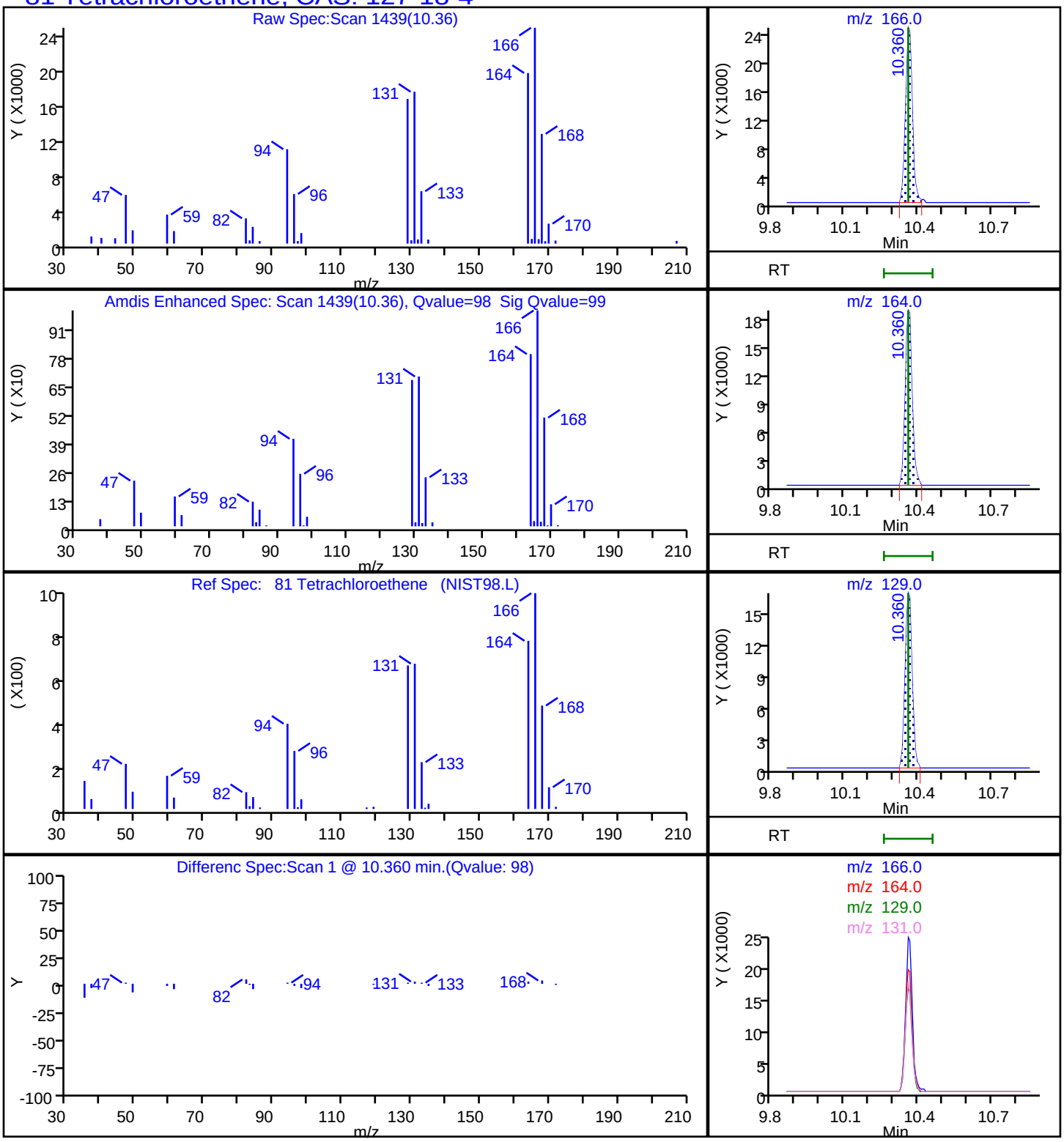
37 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X24.D				
Injection Date:	29-Oct-2021 16:16:30	Instrument ID:	19930		
Lims ID:	410-60154-A-5	Lab Sample ID:	410-60154-5		
Client ID:	HD-COD-SW-13-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	24	Worklist Smp#:	25
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

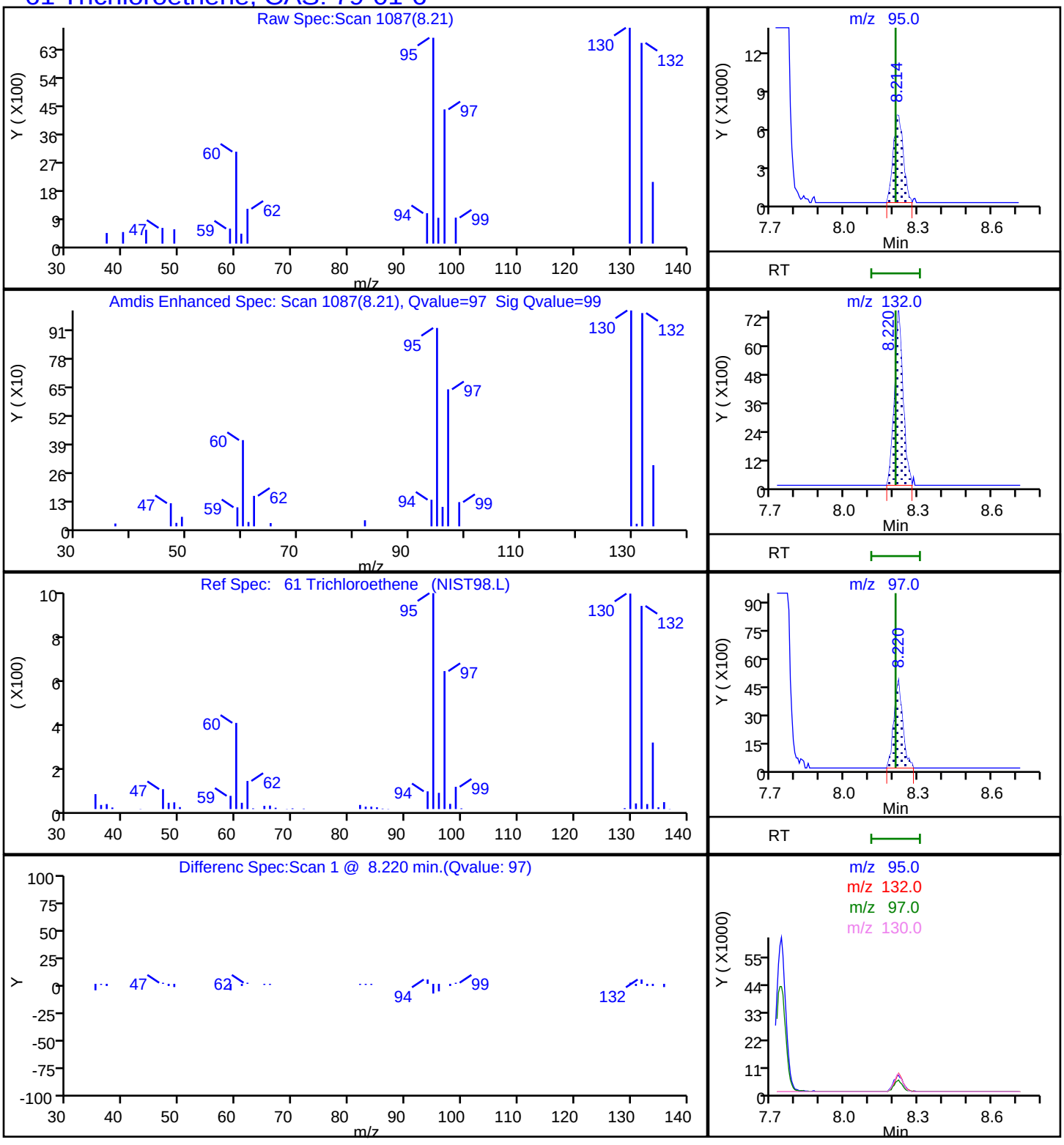
81 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X24.D				
Injection Date:	29-Oct-2021 16:16:30	Instrument ID:	19930		
Lims ID:	410-60154-A-5	Lab Sample ID:	410-60154-5		
Client ID:	HD-COD-SW-13-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	24	Worklist Smp#:	25
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

61 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-60154-1

SDG No.:

Client Sample ID: HD-COD-SW-15-0/1-0 Lab Sample ID: 410-60154-6

Matrix: Water Lab File ID: IC29X16.D

Analysis Method: 8260D Date Collected: 10/20/2021 12:30

Sample wt/vol: 25(mL) Date Analyzed: 10/29/2021 13:26

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.: 188555 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
71-55-6	1,1,1-Trichloroethane	0.18	J	0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.060
75-34-3	1,1-Dichloroethane	0.086	J	0.50	0.070
75-35-4	1,1-Dichloroethene	0.11	J	0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.060
107-06-2	1,2-Dichloroethane	ND		0.50	0.050
78-87-5	1,2-Dichloropropane	ND	FH	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	0.33	J	0.50	0.090
74-87-3	Chloromethane	ND	FH	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.88	FH	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	3.6	FH	0.50	0.060
108-88-3	Toluene	ND		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.060
79-01-6	Trichloroethene	1.0	FH	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-60154-1

SDG No.:

Client Sample ID: HD-COD-SW-15-0/1-0 Lab Sample ID: 410-60154-6

Matrix: Water Lab File ID: IC29X16.D

Analysis Method: 8260D Date Collected: 10/20/2021 12:30

Sample wt/vol: 25(mL) Date Analyzed: 10/29/2021 13:26

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.: 188555 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	105		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\20211029-42796.b\IC29X16.D
Lims ID: 410-60154-A-6
Client ID: HD-COD-SW-15-0/1-0
Sample Type: Client
Inject. Date: 29-Oct-2021 13:26:30 ALS Bottle#: 16 Worklist Smp#: 17
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0042796-017
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 29-Oct-2021 19:24:36 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: CTX1664

First Level Reviewer: johnsons Date: 29-Oct-2021 19:11:49

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85		1.971				ND	
2 Chlorodifluoromethane	51		1.989				ND	
3 Dimethyl ether	45		2.050				ND	
4 Chloromethane	50		2.172				ND	
6 Butadiene	39		2.288				ND	7
5 Vinyl chloride	62		2.294				ND	
7 Bromomethane	94		2.623				ND	
8 Chloroethane	64		2.708				ND	
9 Dichlorofluoromethane	67		2.940				ND	7
10 Trichlorofluoromethane	101		3.013				ND	
11 Ethyl ether	59		3.251				ND	
T 200 Ethanol TIC	45		3.288				ND	7
12 1,2-Dichloro-1,1,2-trifluoroetha	67		3.342				ND	7
13 Acrolein	56		3.422				ND	
14 1,1-Dichloroethene	96	3.574	3.562	0.012	95	5274	0.1085	
15 Acetone	43	3.611	3.592	0.019	25	3873	0.4749	
16 112TCTFE	101		3.611				ND	
17 Iodomethane	142		3.763				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		4.044				ND	
23 Methylene Chloride	84		4.233				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.263	4.251	0.012	17	146809	50.0	
25 2-Methyl-2-propanol	59		4.385				ND	
26 Acrylonitrile	53		4.580				ND	
27 Methyl tert-butyl ether	73	4.653	4.647	0.006	15	5237	0.0378	
28 trans-1,2-Dichloroethene	96		4.659				ND	
29 Hexane	57		5.086				ND	
30 Vinyl acetate	43		5.312				ND	
31 1,1-Dichloroethane	63	5.318	5.318	0.000	93	8616	0.0860	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
T 208 Vinyl acetate (TIC)	43		5.336				ND	
32 Isopropyl ether	45		5.373				ND	
33 2-Chloro-1,3-butadiene	53		5.427				ND	
34 Tert-butyl ethyl ether	59		5.909				ND	
36 2-Butanone (MEK)	43		6.116				ND	7
37 cis-1,2-Dichloroethene	96	6.159	6.147	0.012	78	54412	0.8849	
S 35 1,2-Dichloroethene, Total	100				0		0.8849	
38 2,2-Dichloropropane	77		6.159				ND	
39 Ethyl acetate	43		6.190				ND	7
40 Propionitrile	54		6.202				ND	
41 Methyl acrylate	55		6.220				ND	
42 Methacrylonitrile	67		6.415				ND	
43 Chlorobromomethane	128		6.476				ND	
44 Tetrahydrofuran	71		6.488				ND	
45 Chloroform	83	6.635	6.628	0.007	92	32932	0.3319	
$ 46 Dibromofluoromethane (Surr)	113	6.848	6.842	0.006	94	536822	10.5	
47 1,1,1-Trichloroethane	97	6.854	6.854	0.000	36	16614	0.1802	
48 Cyclohexane	56		6.958				ND	
49 1-Chlorobutane	56		7.019				ND	
51 1,1-Dichloropropene	75		7.067				ND	
50 Carbon tetrachloride	117		7.067				ND	
52 Isobutyl alcohol	41		7.208				ND	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.299	7.299	0.000	83	108067	10.5	
54 Benzene	78		7.329				ND	7
56 1,2-Dichloroethane	62		7.397				ND	
55 Isopropyl acetate	43		7.415				ND	
57 Tert-amyl methyl ether	73		7.512				ND	
* 58 Fluorobenzene (IS)	96	7.732	7.732	0.000	99	2036211	10.0	
59 n-Heptane	43		7.738				ND	
60 n-Butanol	56		8.085				ND	
61 Trichloroethene	95	8.214	8.207	0.007	97	62923	1.02	
62 Methylcyclohexane	83		8.518				ND	
63 1,2-Dichloropropane	63		8.537				ND	
64 Methyl methacrylate	69		8.622				ND	
65 1,4-Dioxane	88		8.628				ND	
66 Dibromomethane	93		8.646				ND	
67 n-Propyl acetate	43		8.707				ND	
68 Dichlorobromomethane	83		8.884				ND	
69 2-Nitropropane	41		9.146				ND	
70 Chloroacetonitrile	75		9.226				ND	
71 2-Chloroethyl vinyl ether	63		9.256				ND	
72 1-Bromo-2-chloroethane	63		9.281				ND	
73 cis-1,3-Dichloropropene	75		9.427				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.591				ND	
$ 75 Toluene-d8 (Surr)	98	9.738	9.731	0.007	93	2110266	10.1	
76 Toluene	92		9.811				ND	7
T 150 Epibromohydrin TIC	57		10.000				ND	U
T 152 Vinyl bromide TIC	106		10.000				ND	U
T 153 Epichlorohydrin TIC	57		10.000				ND	U
T 154 2-Bromo-3-chloropropene TIC	75		10.000				ND	U
T 148 Monochloroacetic acid TIC	50		10.000				ND	
T 155 Ethylene oxide TIC	44		10.000				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
T 149 2-Chloroethanol TIC	44		10.000				ND	U
T 156 2,3-Dibromopropene TIC	119		10.000				ND	U
T 147 2-Bromoethanol TIC	45		10.000				ND	U
T 151 Chloroacetaldehyde TIC	50		10.000				ND	U
T 146 2,3-Dibromo-1-propanol TIC	57		10.000				ND	U
T 157 3-Chloro-1,2-propanediol TIC	44		10.000				ND	
S 77 1,3-Dichloropropene, Total	100		10.060				ND	7
78 trans-1,3-Dichloropropene	75		10.067				ND	
79 Ethyl methacrylate	69		10.122				ND	
80 1,1,2-Trichloroethane	97		10.268				ND	7
81 Tetrachloroethene	166	10.359	10.359	0.000	98	265448	3.60	
82 1,3-Dichloropropane	76		10.426				ND	
83 2-Hexanone	43		10.475				ND	
84 n-Butyl acetate	43		10.603				ND	
85 Chlorodibromomethane	129		10.646				ND	
86 Ethylene Dibromide	107		10.756				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.182	11.182	0.000	85	1613487	10.0	
88 1-Chlorohexane	91		11.188				ND	
90 Chlorobenzene	112		11.207				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.292				ND	
92 Ethylbenzene	91		11.292				ND	7
93 m-Xylene & p-Xylene	106		11.408				ND	7
94 o-Xylene	106		11.737				ND	7
95 Styrene	104		11.755				ND	
96 Bromoform	173		11.914				ND	
97 Isopropylbenzene	105		12.036				ND	
98 cis-1,4-Dichloro-2-butene	88		12.079				ND	
99 Cyclohexanone	55		12.121				ND	
$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	94	765853	9.61	
101 1,1,2,2-Tetrachloroethane	83		12.280				ND	
102 Bromobenzene	156		12.298				ND	
103 trans-1,4-Dichloro-2-butene	53		12.304				ND	
104 1,2,3-Trichloropropane	110		12.328				ND	
105 N-Propylbenzene	91		12.365				ND	
106 2-Chlorotoluene	126		12.444				ND	
107 1,3,5-Trimethylbenzene	105		12.499				ND	7
108 4-Chlorotoluene	126		12.536				ND	
109 tert-Butylbenzene	134		12.743				ND	
110 Pentachloroethane	167		12.774				ND	
111 1,2,4-Trimethylbenzene	105		12.786				ND	7
112 sec-Butylbenzene	105		12.908				ND	
113 1,3-Dichlorobenzene	146		13.005				ND	7
114 4-Isopropyltoluene	119		13.011				ND	7
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	94	938040	10.0	
116 1,4-Dichlorobenzene	146		13.078				ND	7
117 1,2,3-Trimethylbenzene	120		13.091				ND	7
118 Benzyl chloride	126		13.158				ND	7
119 n-Butylbenzene	92		13.304				ND	
120 1,2-Dichlorobenzene	146		13.340				ND	
121 Hexachloroethane	117		13.542				ND	
122 1,2-Dibromo-3-Chloropropane	155		13.883				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
123 1,3,5-Trichlorobenzene	180		14.005				ND	
124 1,2,4-Trichlorobenzene	180		14.432				ND	
125 Hexachlorobutadiene	225		14.511				ND	
126 Naphthalene	128		14.609				ND	7
127 1,2,3-Trichlorobenzene	180		14.755				ND	
128 Dodecane	57		0.000				ND	
T 201 Isopropyl alcohol TIC	45		0.000				ND	U
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	
206 Pentachloroethane TIC	1		0.000				ND	
142 2-Bromo-1-chloropropane	1		0.000				ND	
131 tert-Butyl Formate	1		0.000				ND	
132 Methylal	1		0.000				ND	
133 t-Amyl alcohol	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	
202 1,3-Dichloro-2-propanol TIC	1		0.000				ND	
203 Propargyl alcohol TIC	1		0.000				ND	
204 Pentane	43		0.000				ND	
143 n-Decane	57		0.000				ND	
139 1-Bromo-3-Chloropropane	1		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	
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

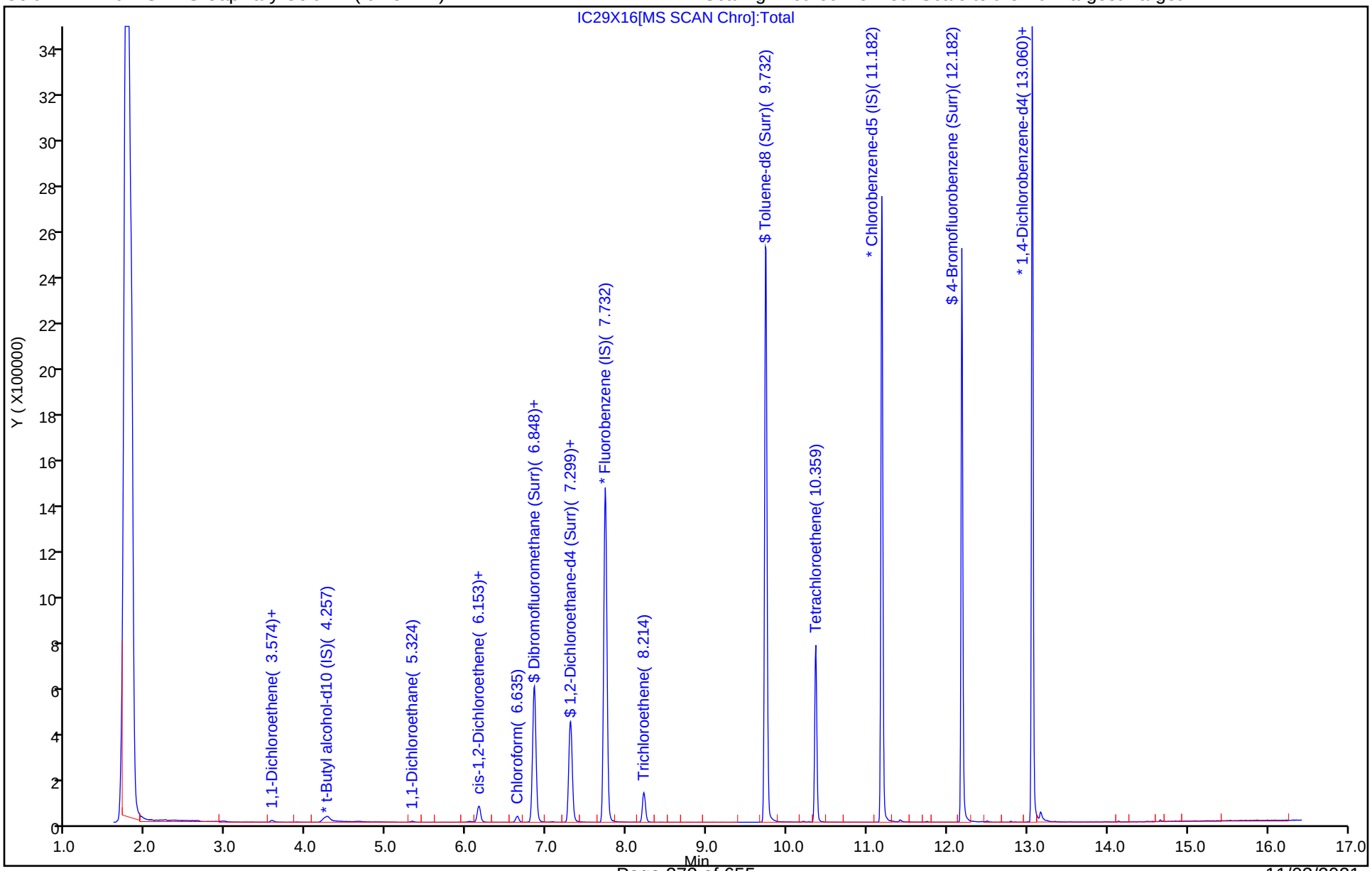
Report Date: 29-Oct-2021 19:25:17 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X16.D

Injection Date:	29-Oct-2021 13:26:30	Instrument ID:	19930	Operator ID:	SRK36897
Lims ID:	410-60154-A-6	Lab Sample ID:	410-60154-6	Worklist Smp#:	17
Client ID:	HD-COD-SW-15-0/1-0				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X16.D
Lims ID: 410-60154-A-6
Client ID: HD-COD-SW-15-0/1-0
Sample Type: Client
Inject. Date: 29-Oct-2021 13:26:30 ALS Bottle#: 16 Worklist Smp#: 17
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0042796-017
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 29-Oct-2021 19:24:36 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: CTX1664

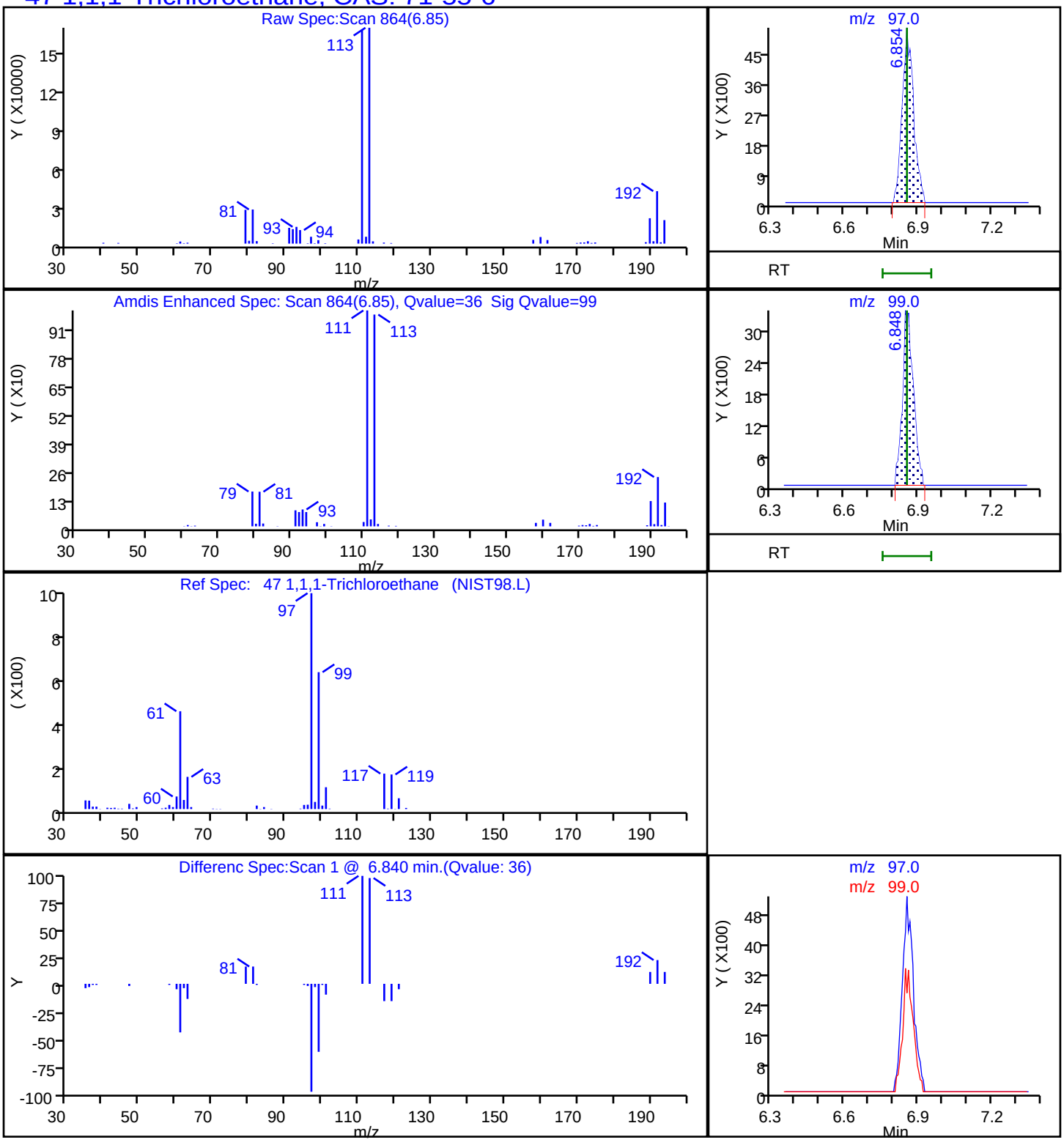
First Level Reviewer: johnsons Date: 29-Oct-2021 19:11:49

Compound	Amount Added	Amount Recovered	% Rec.
$ 46 Dibromofluoromethane (Surr)	10.0	10.5	104.66
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.5	105.31
$ 75 Toluene-d8 (Surr)	10.0	10.1	101.21
$ 100 4-Bromofluorobenzene (Surr)	10.0	9.61	96.10

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X16.D				
Injection Date:	29-Oct-2021 13:26:30	Instrument ID:	19930		
Lims ID:	410-60154-A-6	Lab Sample ID:	410-60154-6		
Client ID:	HD-COD-SW-15-0/1-0				
Operator ID:	SRK36897	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)	Detector	MS Quad		

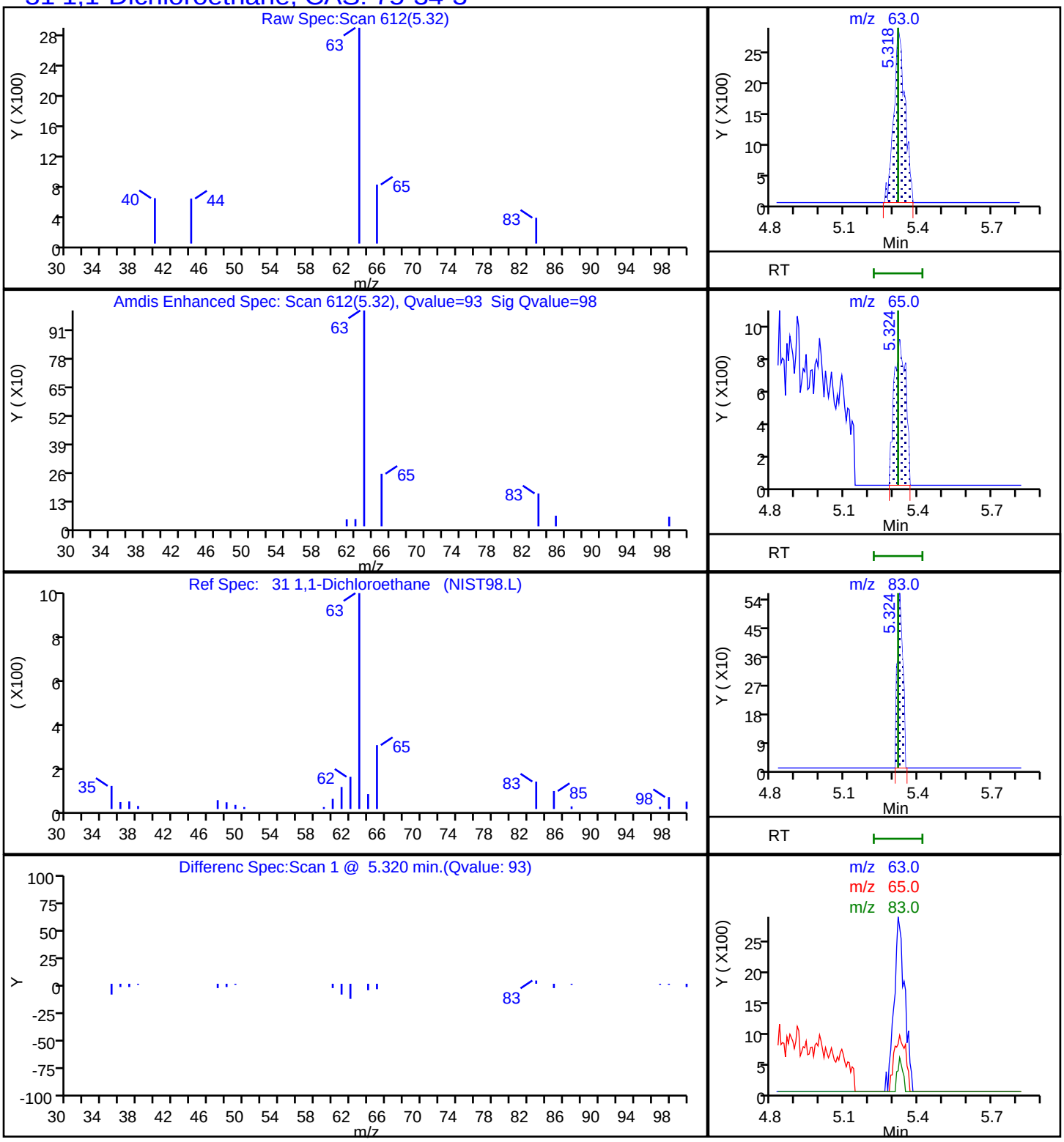
47 1,1,1-Trichloroethane, CAS: 71-55-6



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X16.D				
Injection Date:	29-Oct-2021 13:26:30	Instrument ID:	19930		
Lims ID:	410-60154-A-6	Lab Sample ID:	410-60154-6		
Client ID:	HD-COD-SW-15-0/1-0				
Operator ID:	SRK36897	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 (0.25 mm)	Detector	MS Quad		

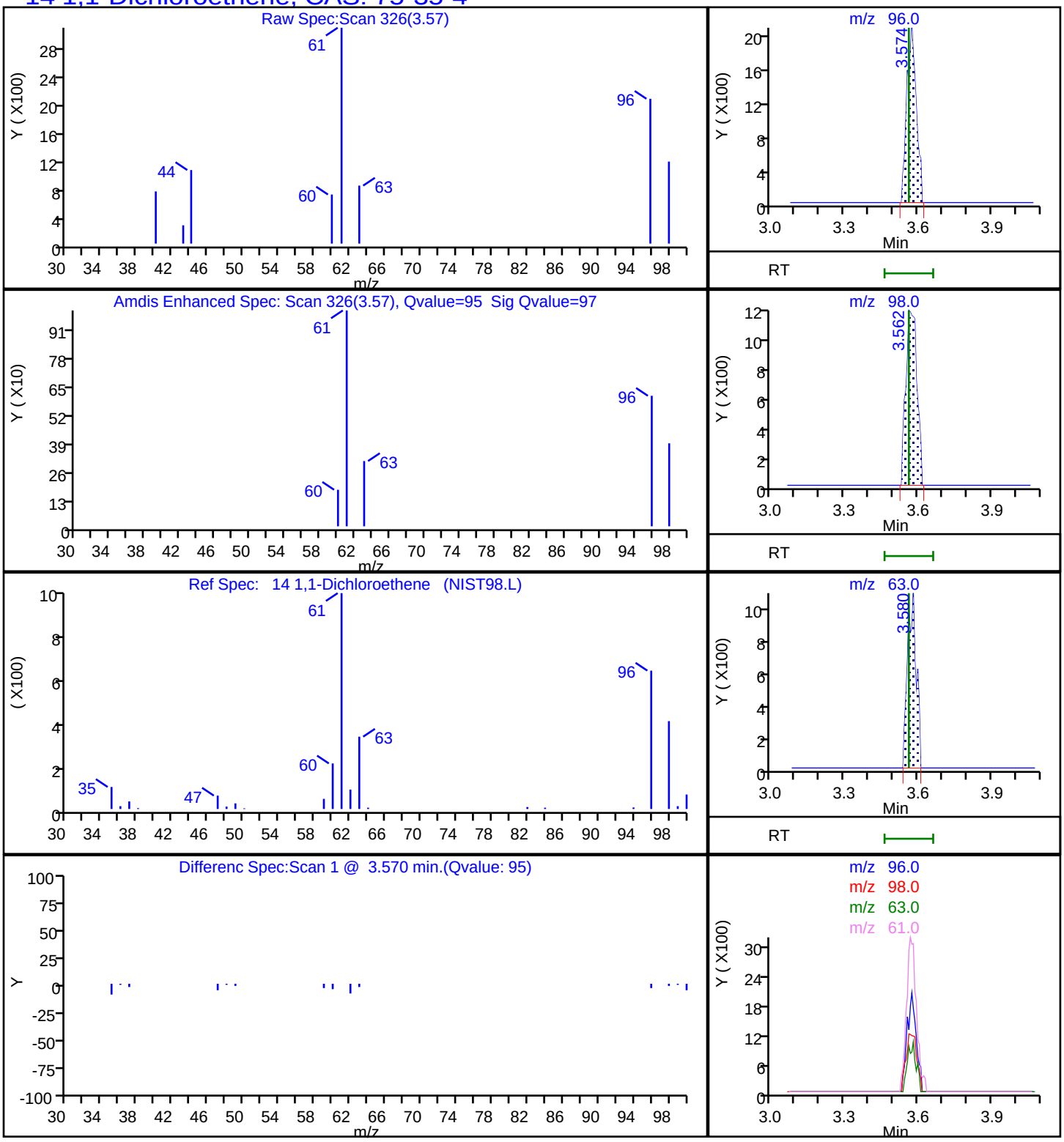
31 1,1-Dichloroethane, CAS: 75-34-3



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X16.D				
Injection Date:	29-Oct-2021 13:26:30	Instrument ID:	19930		
Lims ID:	410-60154-A-6	Lab Sample ID:	410-60154-6		
Client ID:	HD-COD-SW-15-0/1-0				
Operator ID:	SRK36897	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)	Detector	MS Quad		

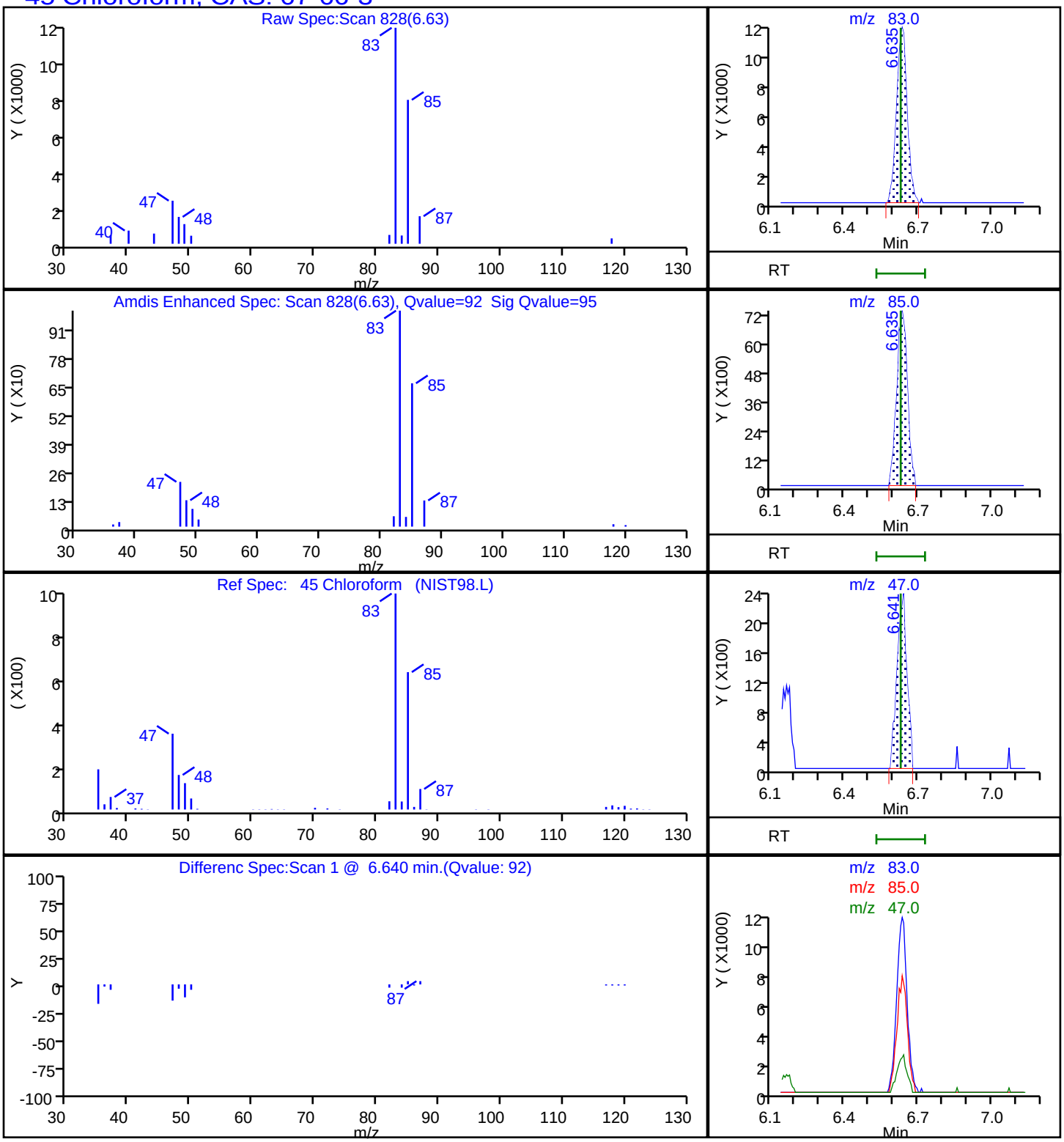
14 1,1-Dichloroethene, CAS: 75-35-4



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X16.D				
Injection Date:	29-Oct-2021 13:26:30	Instrument ID:	19930		
Lims ID:	410-60154-A-6	Lab Sample ID:	410-60154-6		
Client ID:	HD-COD-SW-15-0/1-0				
Operator ID:	SRK36897	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)	Detector	MS Quad		

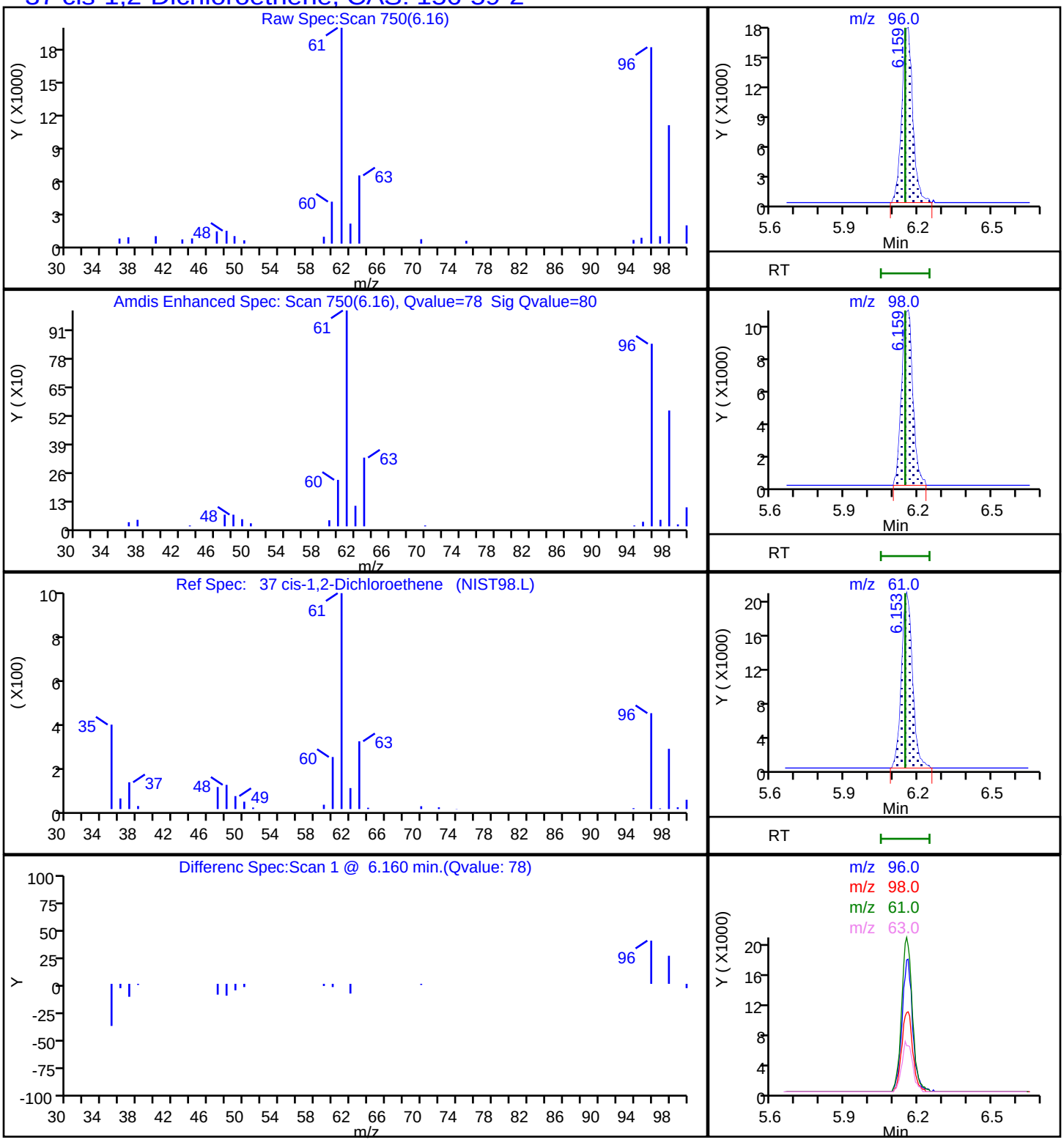
45 Chloroform, CAS: 67-66-3



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X16.D				
Injection Date:	29-Oct-2021 13:26:30	Instrument ID:	19930		
Lims ID:	410-60154-A-6	Lab Sample ID:	410-60154-6		
Client ID:	HD-COD-SW-15-0/1-0				
Operator ID:	SRK36897	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 (0.25 mm)	Detector	MS Quad		

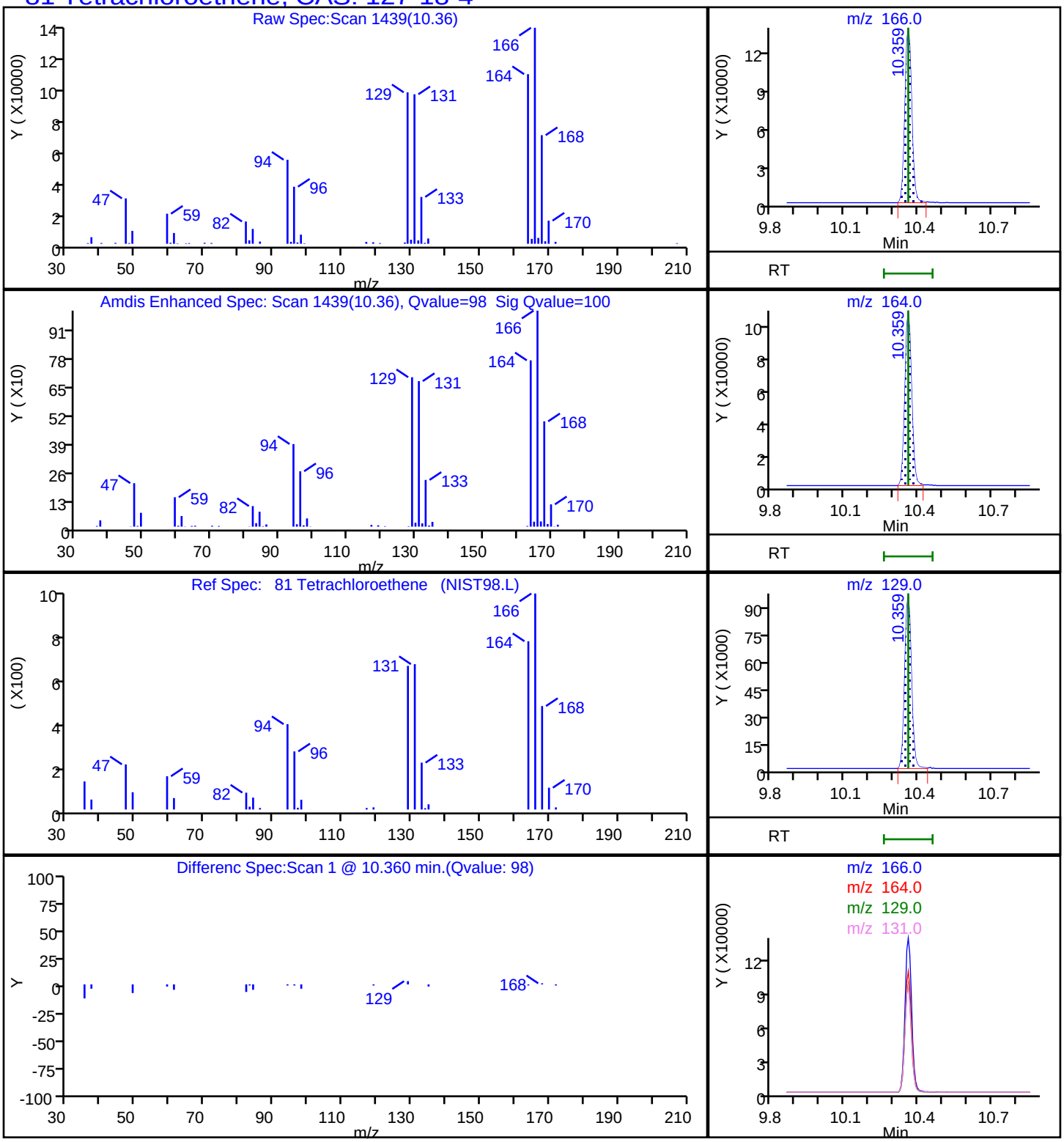
37 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X16.D				
Injection Date:	29-Oct-2021 13:26:30	Instrument ID:	19930		
Lims ID:	410-60154-A-6	Lab Sample ID:	410-60154-6		
Client ID:	HD-COD-SW-15-0/1-0				
Operator ID:	SRK36897	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)	Detector	MS Quad		

81 Tetrachloroethene, CAS: 127-18-4

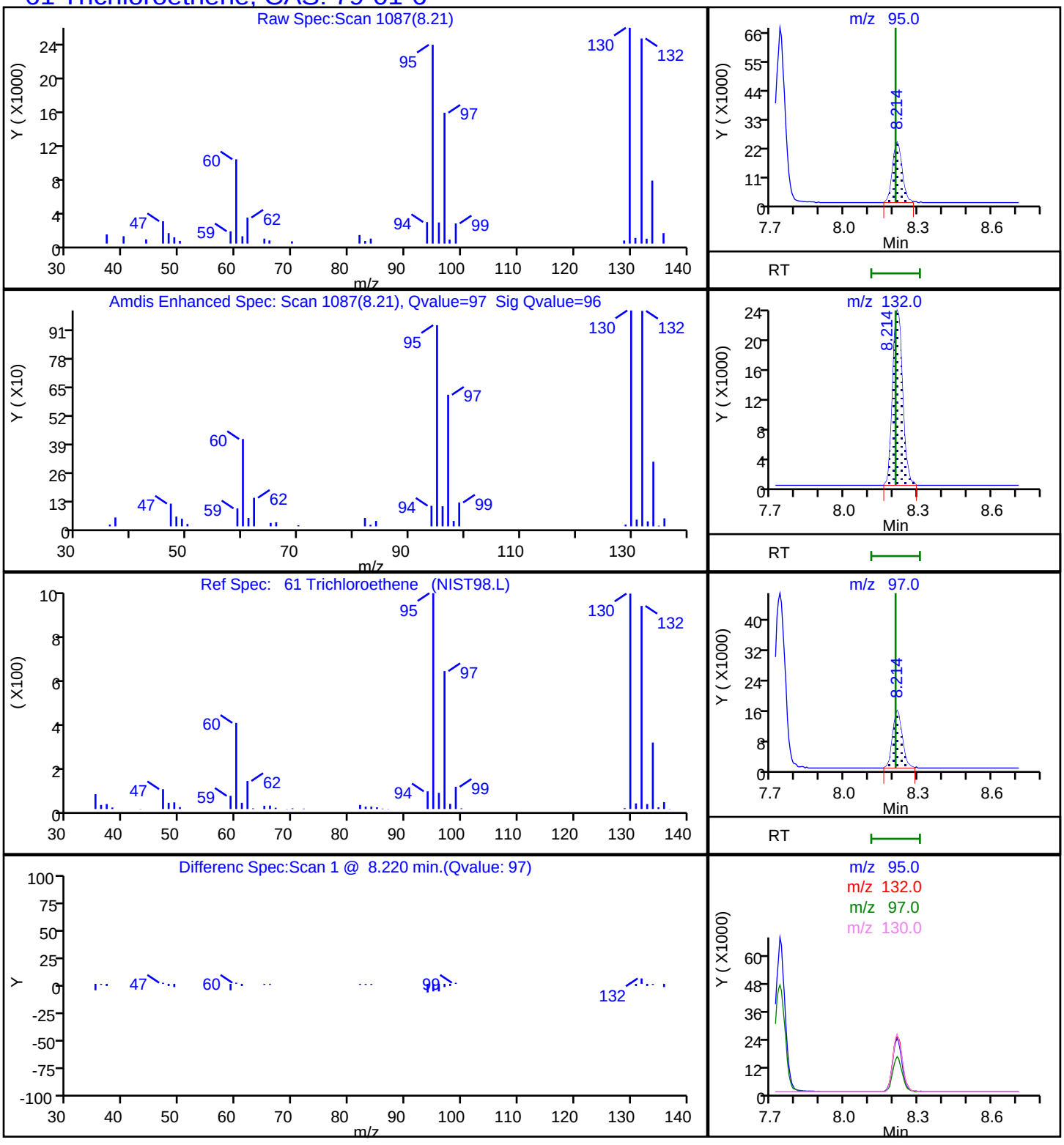


Report Date: 29-Oct-2021 19:25:17 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X16.D				
Injection Date:	29-Oct-2021 13:26:30	Instrument ID:	19930		
Lims ID:	410-60154-A-6	Lab Sample ID:	410-60154-6		
Client ID:	HD-COD-SW-15-0/1-0				
Operator ID:	SRK36897	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 (0.25 mm)	Detector	MS Quad		

61 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-60154-1

SDG No.:

Client Sample ID: HD-COD-SW-16-0/1-0 Lab Sample ID: 410-60154-7

Matrix: Water Lab File ID: IC29X25.D

Analysis Method: 8260D Date Collected: 10/20/2021 09:50

Sample wt/vol: 25(mL) Date Analyzed: 10/29/2021 16:37

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.: 188555 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
71-55-6	1,1,1-Trichloroethane	0.067	J	0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.060
75-34-3	1,1-Dichloroethane	ND		0.50	0.070
75-35-4	1,1-Dichloroethene	ND		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.060
107-06-2	1,2-Dichloroethane	ND		0.50	0.050
78-87-5	1,2-Dichloropropane	ND		0.50	0.060
78-93-3	2-Butanone (MEK)	ND		5.0	0.60
591-78-6	2-Hexanone	ND		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70
67-64-1	Acetone	1.4	J	5.0	0.90
71-43-2	Benzene	ND		0.50	0.050
74-97-5	Bromochloromethane	ND		0.50	0.050
75-27-4	Bromodichloromethane	ND		0.50	0.050
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND		0.50	0.070
75-15-0	Carbon disulfide	ND		1.0	0.060
56-23-5	Carbon tetrachloride	ND		0.50	0.070
108-90-7	Chlorobenzene	ND		0.50	0.060
75-00-3	Chloroethane	ND		0.50	0.070
67-66-3	Chloroform	ND		0.50	0.090
74-87-3	Chloromethane	ND		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.19	J	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
100-41-4	Ethylbenzene	ND		0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.050
75-09-2	Methylene Chloride	ND		0.50	0.070
100-42-5	Styrene	ND		0.50	0.050
127-18-4	Tetrachloroethene	0.97		0.50	0.060
108-88-3	Toluene	ND		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.060
79-01-6	Trichloroethene	0.35	J	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-60154-1

SDG No.:

Client Sample ID: HD-COD-SW-16-0/1-0 Lab Sample ID: 410-60154-7

Matrix: Water Lab File ID: IC29X25.D

Analysis Method: 8260D Date Collected: 10/20/2021 09:50

Sample wt/vol: 25(mL) Date Analyzed: 10/29/2021 16:37

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.: 188555 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	105		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\20211029-42796.b\IC29X25.D
Lims ID: 410-60154-A-7
Client ID: HD-COD-SW-16-0/1-0
Sample Type: Client
Inject. Date: 29-Oct-2021 16:37:30 ALS Bottle#: 25 Worklist Smp#: 26
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0042796-026
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 29-Oct-2021 19:24:36 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: CTX1664

First Level Reviewer: johnsons Date: 29-Oct-2021 19:21:42

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50	2.172	2.172	0.000	92	3480	0.0504	
5 Vinyl chloride	62		2.294				ND	
7 Bromomethane	94		2.623				ND	
8 Chloroethane	64		2.708				ND	
14 1,1-Dichloroethene	96		3.562				ND	
15 Acetone	43	3.605	3.592	0.013	98	11426	1.39	
19 Carbon disulfide	76	3.867	3.873	-0.006	98	6368	0.0498	
23 Methylene Chloride	84		4.233				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.245	4.251	-0.006	24	148404	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		5.318				ND	
36 2-Butanone (MEK)	43		6.116				ND	7
37 cis-1,2-Dichloroethene	96	6.153	6.147	0.006	78	11230	0.1918	
43 Chlorobromomethane	128		6.476				ND	
45 Chloroform	83	6.634	6.628	0.006	86	5499	0.0582	
$ 46 Dibromofluoromethane (Surr)	113	6.842	6.842	0.000	94	515040	10.5	
47 1,1,1-Trichloroethane	97	6.860	6.854	0.006	35	5875	0.0669	
50 Carbon tetrachloride	117		7.067				ND	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.293	7.299	-0.006	83	104105	10.7	
54 Benzene	78		7.329				ND	
56 1,2-Dichloroethane	62		7.397				ND	
* 58 Fluorobenzene (IS)	96	7.732	7.732	0.000	99	1939183	10.0	
61 Trichloroethene	95	8.213	8.207	0.006	97	20416	0.3484	
63 1,2-Dichloropropane	63		8.537				ND	
68 Dichlorobromomethane	83		8.884				ND	
73 cis-1,3-Dichloropropene	75		9.427				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.591				ND	7
$ 75 Toluene-d8 (Surr)	98	9.731	9.731	0.000	94	2036549	10.2	
76 Toluene	92	9.817	9.811	0.006	97	4473	0.0303	
78 trans-1,3-Dichloropropene	75		10.067				ND	
80 1,1,2-Trichloroethane	97		10.268				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.359	10.359	0.000	98	68253	0.9693	
83 2-Hexanone	43		10.475				ND	
85 Chlorodibromomethane	129		10.646				ND	
86 Ethylene Dibromide	107		10.756				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.182	11.182	0.000	85	1541820	10.0	
90 Chlorobenzene	112		11.207				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.292				ND	
92 Ethylbenzene	91		11.292				ND	7
93 m-Xylene & p-Xylene	106		11.408				ND	7
94 o-Xylene	106		11.737				ND	7
95 Styrene	104		11.755				ND	
96 Bromoform	173		11.914				ND	
$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	93	735626	9.66	
101 1,1,2,2-Tetrachloroethane	83		12.280				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	94	904793	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_LLcentISS_00002 Amount Added: 5.00 Units: uL Run Reagent

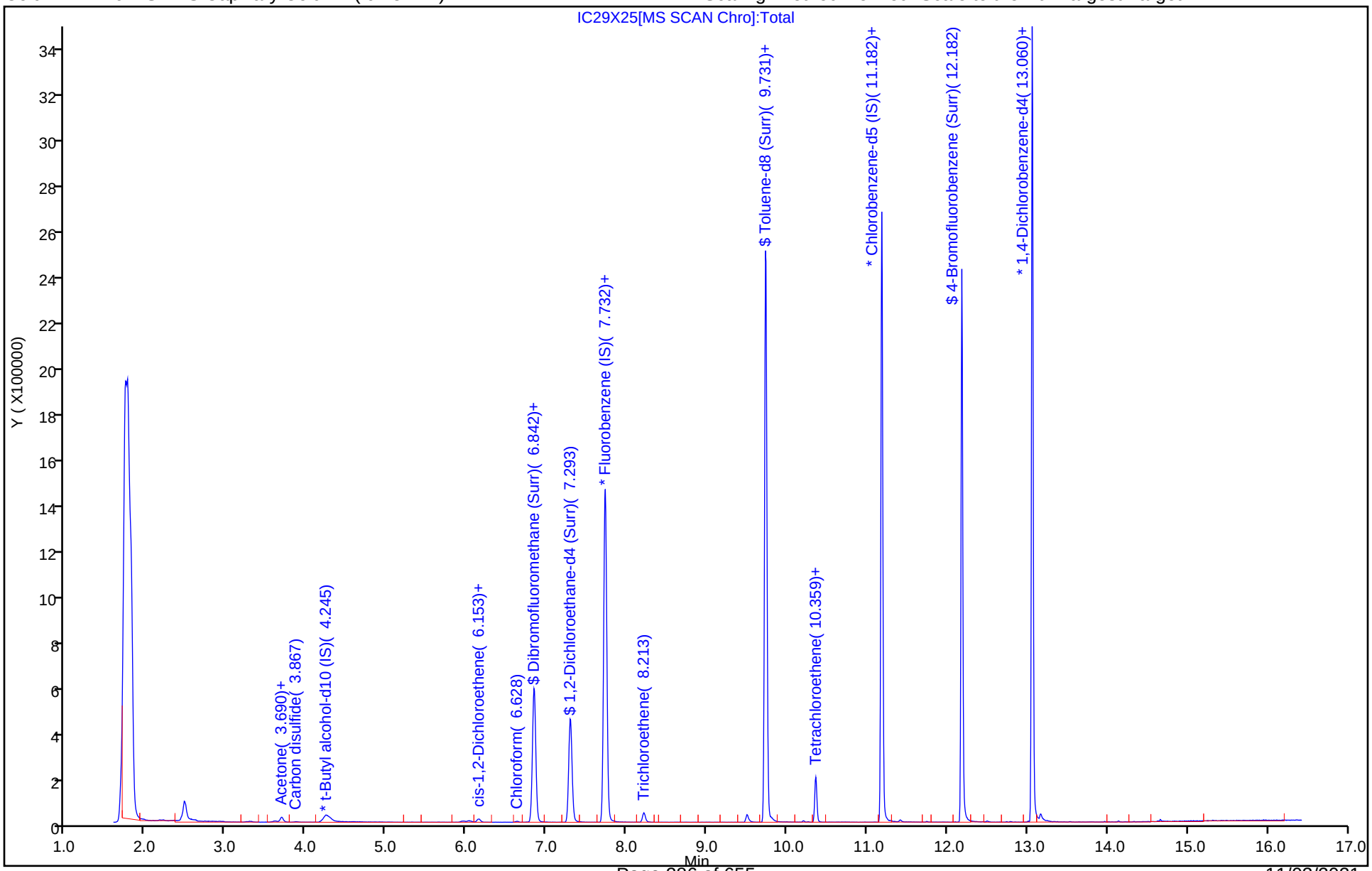
Report Date: 29-Oct-2021 19:25:49 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X25.D

Injection Date:	29-Oct-2021 16:37:30	Instrument ID:	19930	Operator ID:	SRK36897
Lims ID:	410-60154-A-7	Lab Sample ID:	410-60154-7	Worklist Smp#:	26
Client ID:	HD-COD-SW-16-0/1-0				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	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\20211029-42796.b\IC29X25.D
Lims ID: 410-60154-A-7
Client ID: HD-COD-SW-16-0/1-0
Sample Type: Client
Inject. Date: 29-Oct-2021 16:37:30 ALS Bottle#: 25 Worklist Smp#: 26
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0042796-026
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 29-Oct-2021 19:24:36 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: CTX1664

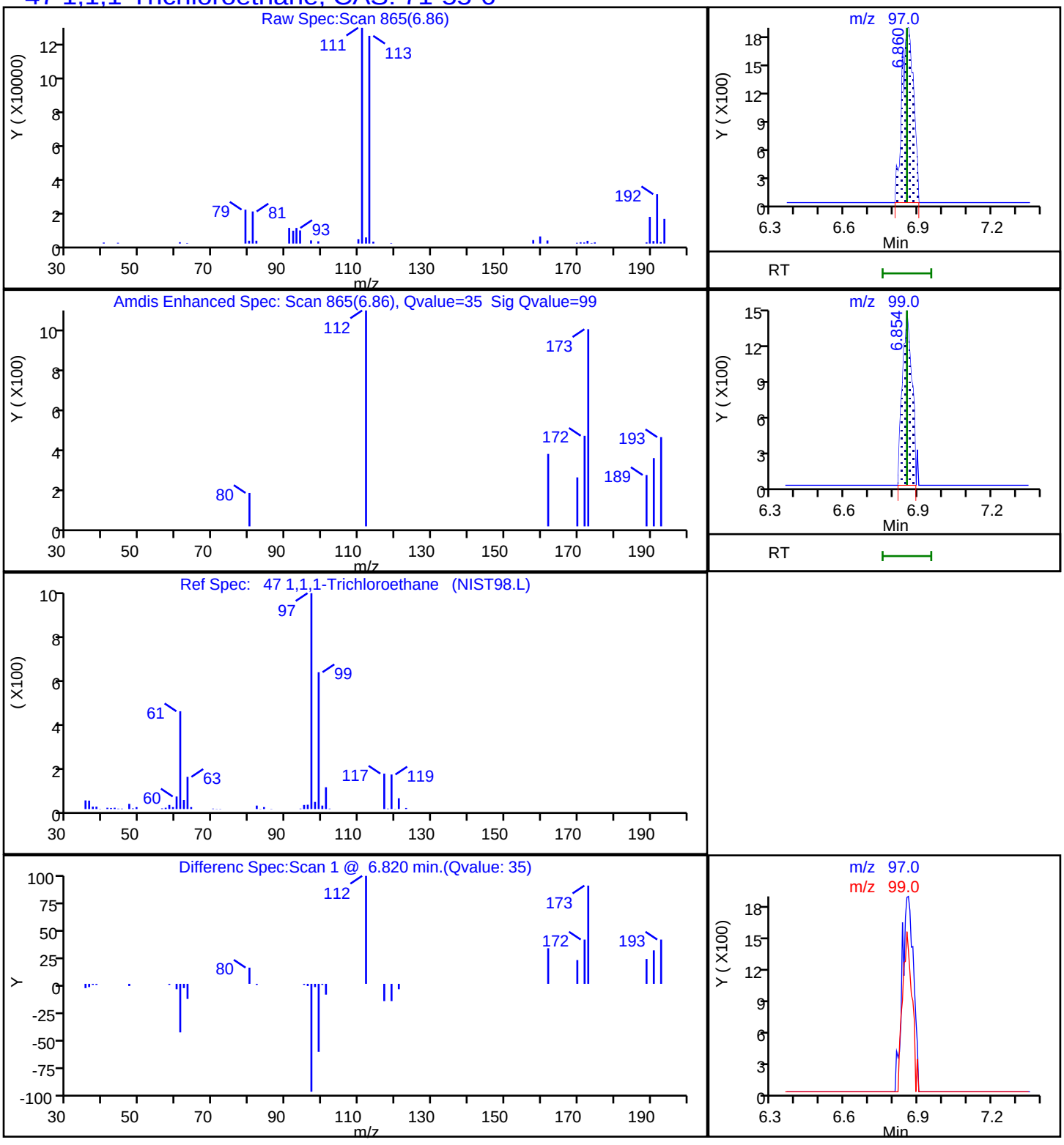
First Level Reviewer: johnsons Date: 29-Oct-2021 19:21:42

Compound	Amount Added	Amount Recovered	% Rec.
$ 46 Dibromofluoromethane (Surr)	10.0	10.5	105.43
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.7	106.53
$ 75 Toluene-d8 (Surr)	10.0	10.2	102.21
$ 100 4-Bromofluorobenzene (Surr)	10.0	9.66	96.60

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X25.D				
Injection Date:	29-Oct-2021 16:37:30	Instrument ID:	19930		
Lims ID:	410-60154-A-7	Lab Sample ID:	410-60154-7		
Client ID:	HD-COD-SW-16-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	25	Worklist Smp#:	26
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)	Detector	MS Quad		

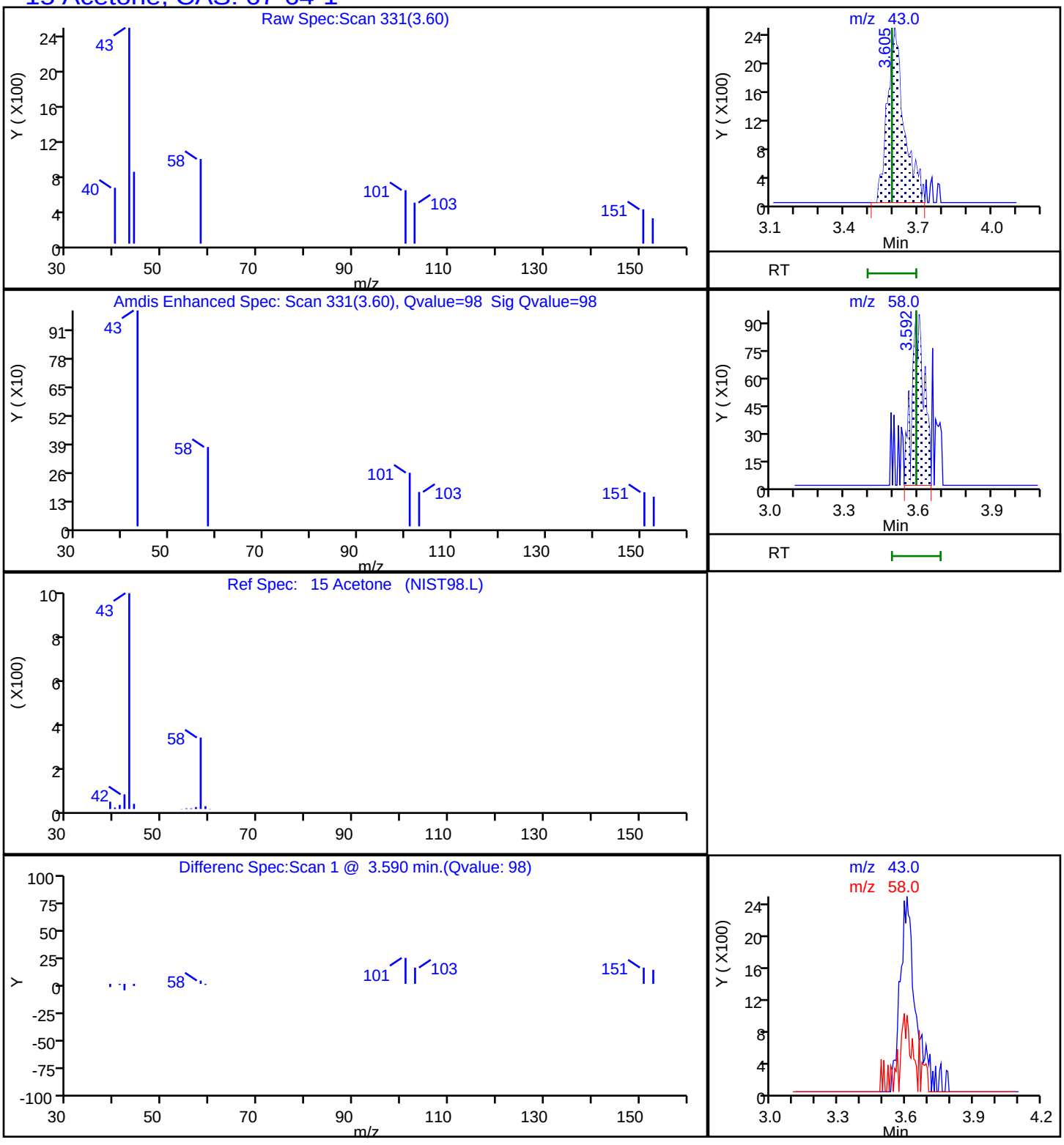
47 1,1,1-Trichloroethane, CAS: 71-55-6



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X25.D				
Injection Date:	29-Oct-2021 16:37:30	Instrument ID:	19930		
Lims ID:	410-60154-A-7	Lab Sample ID:	410-60154-7		
Client ID:	HD-COD-SW-16-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	25	Worklist Smp#:	26
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

15 Acetone, CAS: 67-64-1

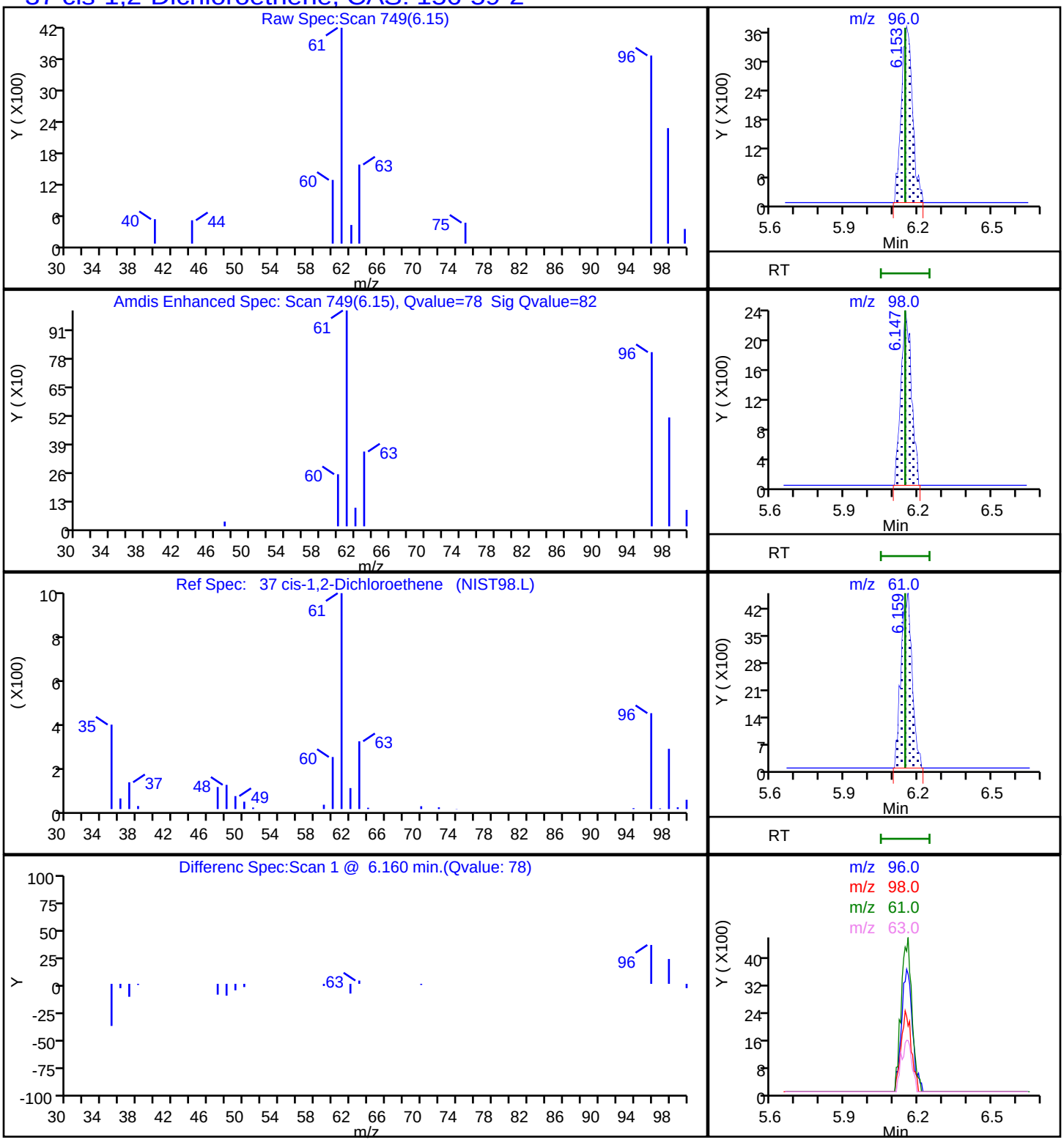


Report Date: 29-Oct-2021 19:25:49 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X25.D				
Injection Date:	29-Oct-2021 16:37:30	Instrument ID:	19930		
Lims ID:	410-60154-A-7	Lab Sample ID:	410-60154-7		
Client ID:	HD-COD-SW-16-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	25	Worklist Smp#:	26
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

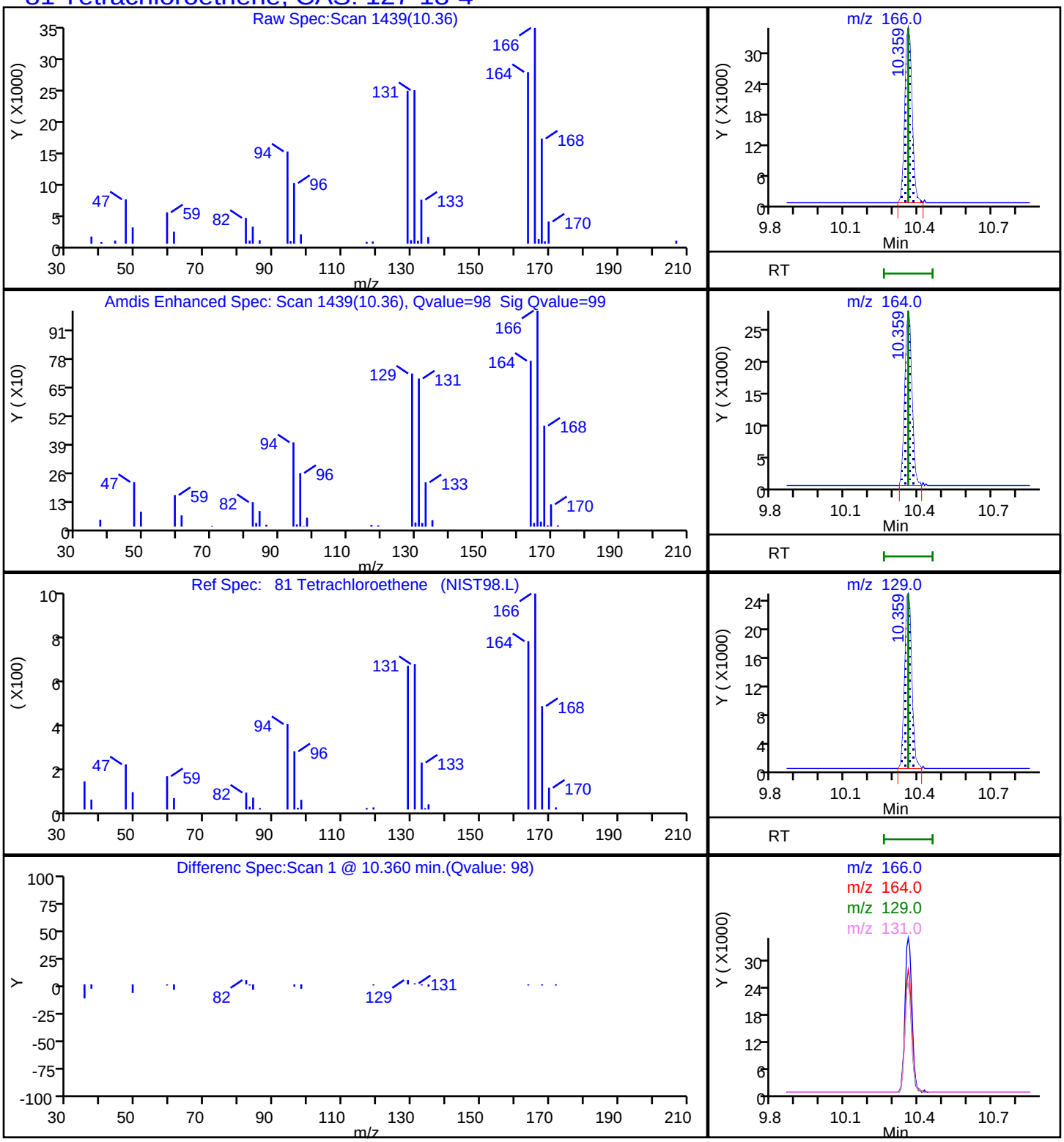
37 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X25.D				
Injection Date:	29-Oct-2021 16:37:30	Instrument ID:	19930		
Lims ID:	410-60154-A-7	Lab Sample ID:	410-60154-7		
Client ID:	HD-COD-SW-16-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	25	Worklist Smp#:	26
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

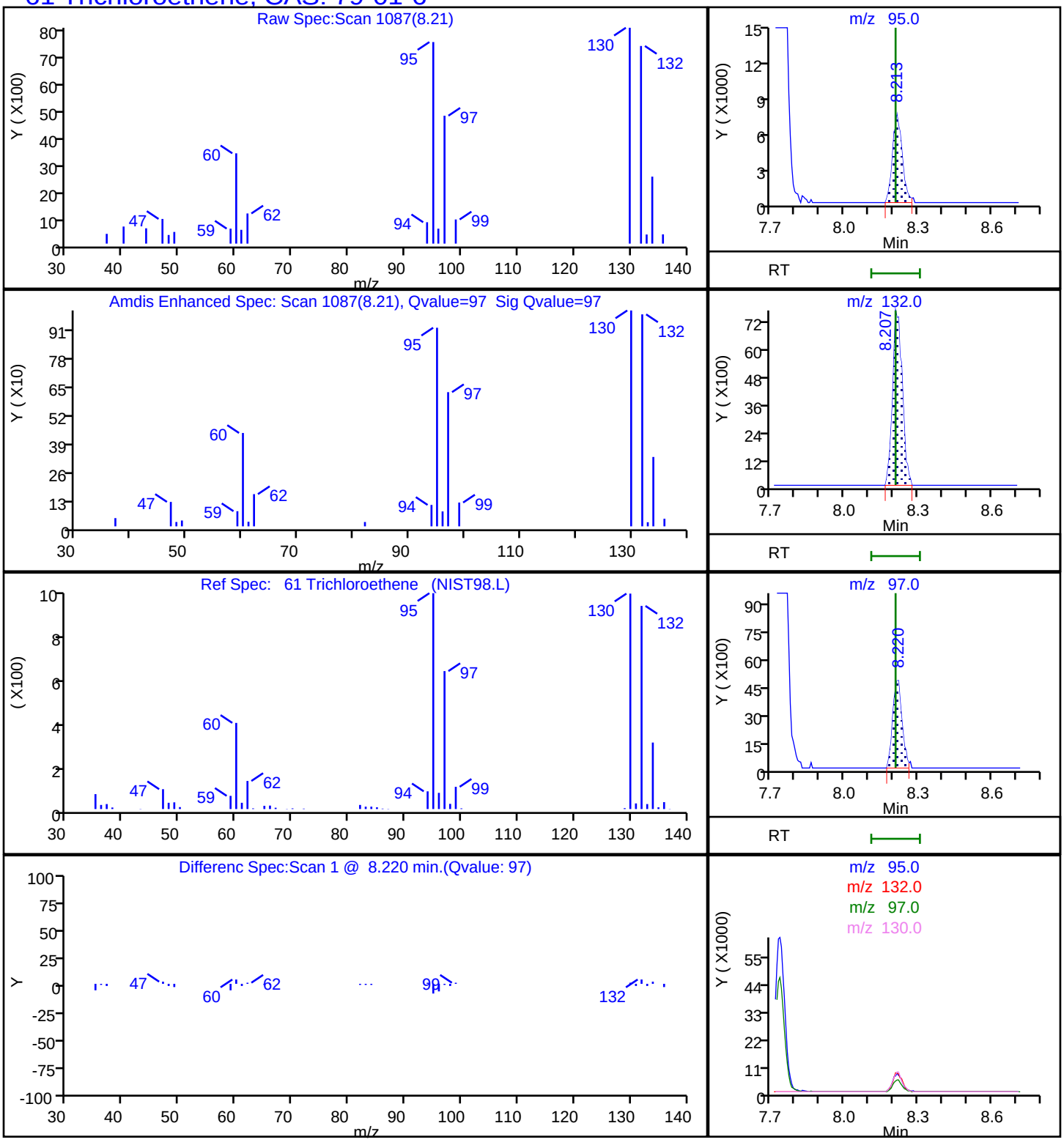
81 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X25.D				
Injection Date:	29-Oct-2021 16:37:30	Instrument ID:	19930		
Lims ID:	410-60154-A-7	Lab Sample ID:	410-60154-7		
Client ID:	HD-COD-SW-16-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	25	Worklist Smp#:	26
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

61 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-60154-1

SDG No.:

Client Sample ID: HD-COD-SW-17-0/1-0 Lab Sample ID: 410-60154-8

Matrix: Water Lab File ID: IC29X26.D

Analysis Method: 8260D Date Collected: 10/20/2021 10:15

Sample wt/vol: 25(mL) Date Analyzed: 10/29/2021 16:59

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 188555 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	4.5		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	0.63		0.50	0.070
75-35-4	1,1-Dichloroethene	0.50		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	0.32	J	0.50	0.090
74-87-3	Chloromethane	ND		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	3.9		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
100-41-4	Ethylbenzene	ND		0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.050
75-09-2	Methylene Chloride	ND		0.50	0.070
100-42-5	Styrene	ND		0.50	0.050
108-88-3	Toluene	ND		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.060
79-01-6	Trichloroethene	11		0.50	0.060
75-01-4	Vinyl chloride	ND		0.50	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-60154-1

SDG No.:

Client Sample ID: HD-COD-SW-17-0/1-0 Lab Sample ID: 410-60154-8

Matrix: Water Lab File ID: IC29X26.D

Analysis Method: 8260D Date Collected: 10/20/2021 10:15

Sample wt/vol: 25(mL) Date Analyzed: 10/29/2021 16:59

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 188555 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1330-20-7	Xylenes, Total	ND		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	105		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\20211029-42796.b\IC29X26.D
Lims ID: 410-60154-A-8
Client ID: HD-COD-SW-17-0/1-0
Sample Type: Client
Inject. Date: 29-Oct-2021 16:59:30 ALS Bottle#: 26 Worklist Smp#: 27
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0042796-027
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 29-Oct-2021 19:24:36 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: CTX1664

First Level Reviewer: johnsons Date: 29-Oct-2021 19:22:15

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50		2.172				ND	
5 Vinyl chloride	62		2.294				ND	7
7 Bromomethane	94		2.623				ND	
8 Chloroethane	64		2.708				ND	
14 1,1-Dichloroethene	96	3.562	3.562	0.000	98	22580	0.5034	
15 Acetone	43	3.611	3.592	0.019	57	4666	0.5264	
19 Carbon disulfide	76		3.873				ND	7
23 Methylene Chloride	84		4.233				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.251	4.251	0.000	25	159564	50.0	
27 Methyl tert-butyl ether	73	4.672	4.647	0.025	78	4593	0.0359	
28 trans-1,2-Dichloroethene	96		4.659				ND	7
31 1,1-Dichloroethane	63	5.318	5.318	0.000	96	58375	0.6315	
36 2-Butanone (MEK)	43		6.116				ND	7
37 cis-1,2-Dichloroethene	96	6.147	6.147	0.000	79	223172	3.93	
43 Chlorobromomethane	128		6.476				ND	
45 Chloroform	83	6.629	6.628	0.001	92	29429	0.3214	
$ 46 Dibromofluoromethane (Surr)	113	6.842	6.842	0.000	94	494845	10.5	
47 1,1,1-Trichloroethane	97	6.854	6.854	0.000	98	382982	4.50	
50 Carbon tetrachloride	117		7.067				ND	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.293	7.299	-0.006	83	99793	10.5	
54 Benzene	78		7.329				ND	
56 1,2-Dichloroethane	62		7.397				ND	
* 58 Fluorobenzene (IS)	96	7.732	7.732	0.000	99	1879264	10.0	
61 Trichloroethene	95	8.214	8.207	0.007	98	650211	11.5	
63 1,2-Dichloropropane	63		8.537				ND	
68 Dichlorobromomethane	83		8.884				ND	
73 cis-1,3-Dichloropropene	75		9.427				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.591				ND	7
$ 75 Toluene-d8 (Surr)	98	9.738	9.731	0.007	93	1968578	10.2	
76 Toluene	92		9.811				ND	7
78 trans-1,3-Dichloropropene	75		10.067				ND	
80 1,1,2-Trichloroethane	97		10.268				ND	U

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.360	10.359	0.001	98	4142079	60.5	E
83 2-Hexanone	43		10.475				ND	
85 Chlorodibromomethane	129		10.646				ND	
86 Ethylene Dibromide	107		10.756				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.183	11.182	0.001	85	1499333	10.0	
90 Chlorobenzene	112		11.207				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.292				ND	
92 Ethylbenzene	91		11.292				ND	
93 m-Xylene & p-Xylene	106		11.408				ND	7
94 o-Xylene	106		11.737				ND	
95 Styrene	104		11.755				ND	
96 Bromoform	173		11.914				ND	
$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	93	713631	9.64	
101 1,1,2,2-Tetrachloroethane	83		12.280				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	94	872842	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

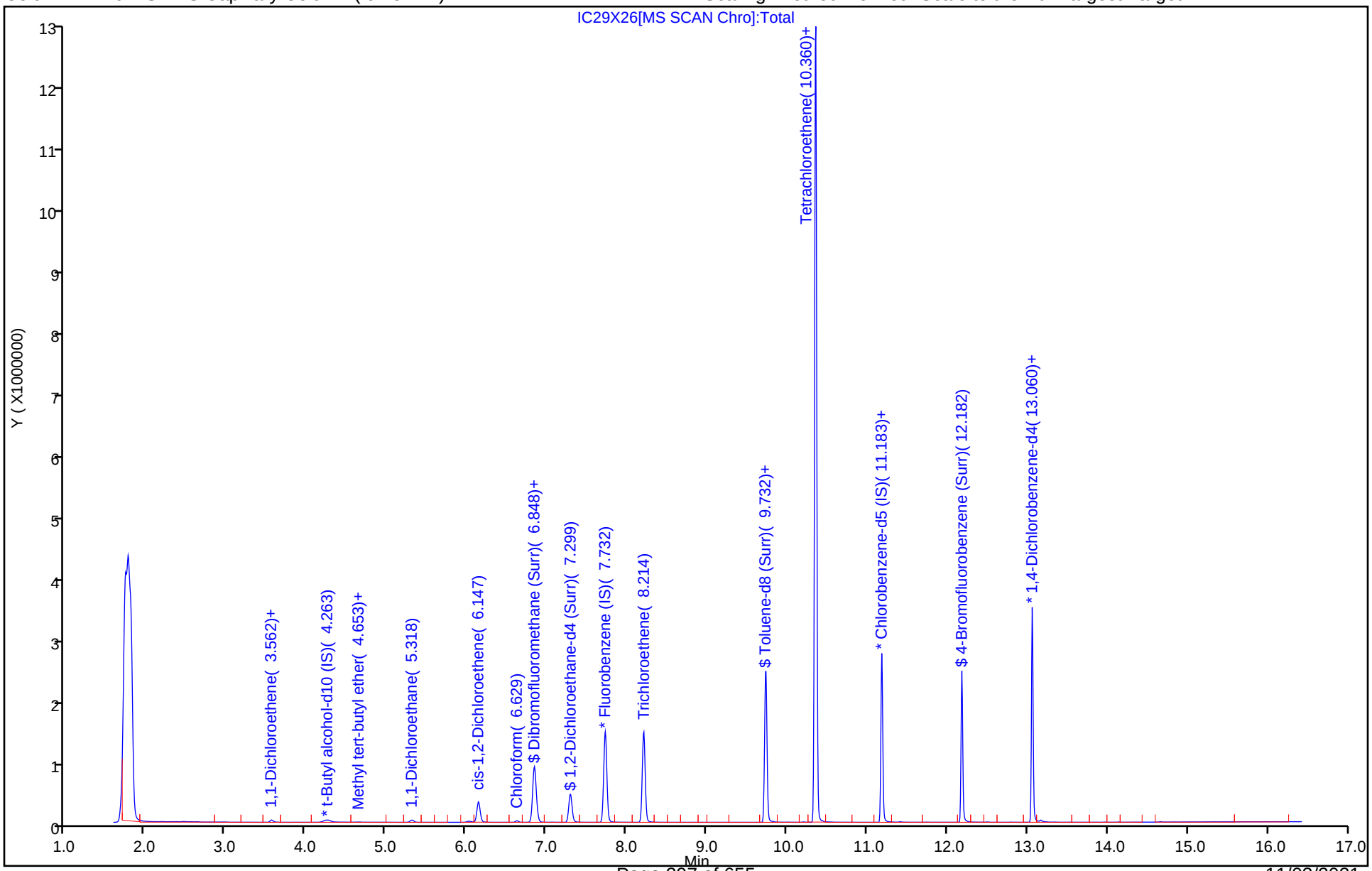
Report Date: 29-Oct-2021 19:25:50 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X26.D

Injection Date:	29-Oct-2021 16:59:30	Instrument ID:	19930	Operator ID:	SRK36897
Lims ID:	410-60154-A-8	Lab Sample ID:	410-60154-8	Worklist Smp#:	27
Client ID:	HD-COD-SW-17-0/1-0				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	26
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\20211029-42796.b\IC29X26.D
Lims ID: 410-60154-A-8
Client ID: HD-COD-SW-17-0/1-0
Sample Type: Client
Inject. Date: 29-Oct-2021 16:59:30 ALS Bottle#: 26 Worklist Smp#: 27
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0042796-027
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 29-Oct-2021 19:24:36 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: CTX1664

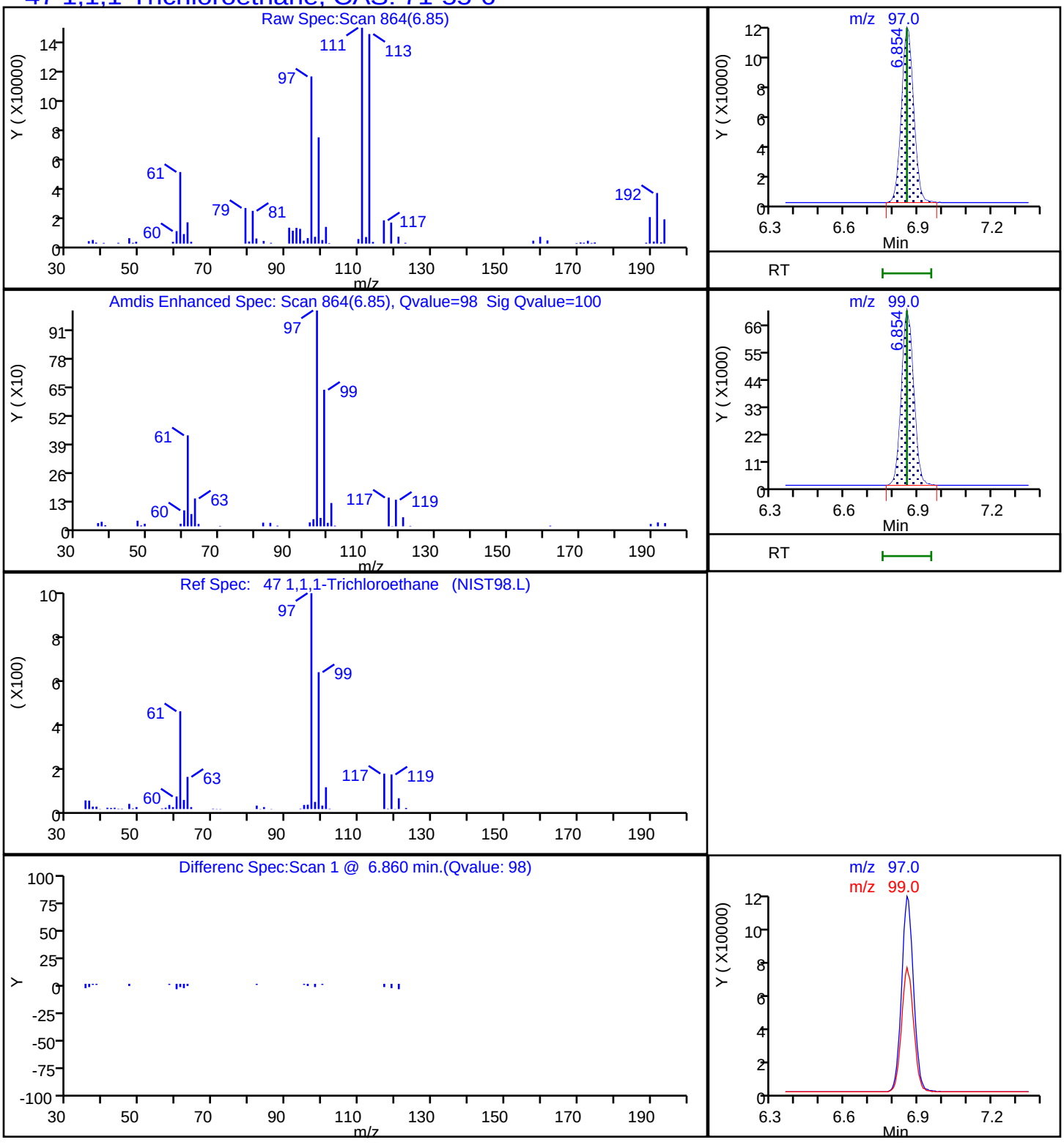
First Level Reviewer: johnsons Date: 29-Oct-2021 19:22:15

Compound	Amount Added	Amount Recovered	% Rec.
$ 46 Dibromofluoromethane (Surr)	10.0	10.5	104.53
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.5	105.37
$ 75 Toluene-d8 (Surr)	10.0	10.2	101.60
$ 100 4-Bromofluorobenzene (Surr)	10.0	9.64	96.37

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X26.D				
Injection Date:	29-Oct-2021 16:59:30	Instrument ID:	19930		
Lims ID:	410-60154-A-8	Lab Sample ID:	410-60154-8		
Client ID:	HD-COD-SW-17-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	26	Worklist Smp#:	27
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)	Detector	MS Quad		

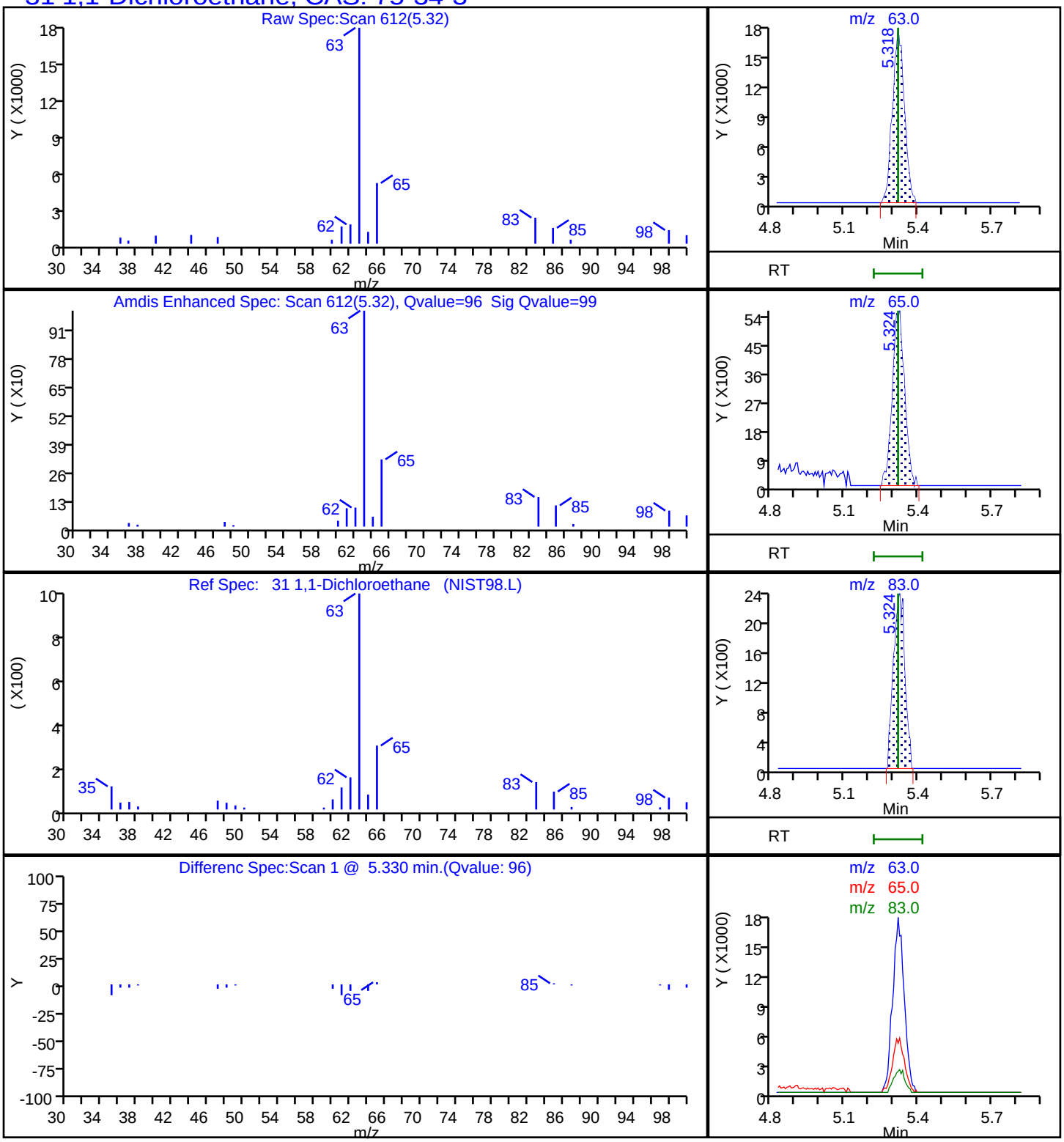
47 1,1,1-Trichloroethane, CAS: 71-55-6



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X26.D				
Injection Date:	29-Oct-2021 16:59:30	Instrument ID:	19930		
Lims ID:	410-60154-A-8	Lab Sample ID:	410-60154-8		
Client ID:	HD-COD-SW-17-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	26	Worklist Smp#:	27
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

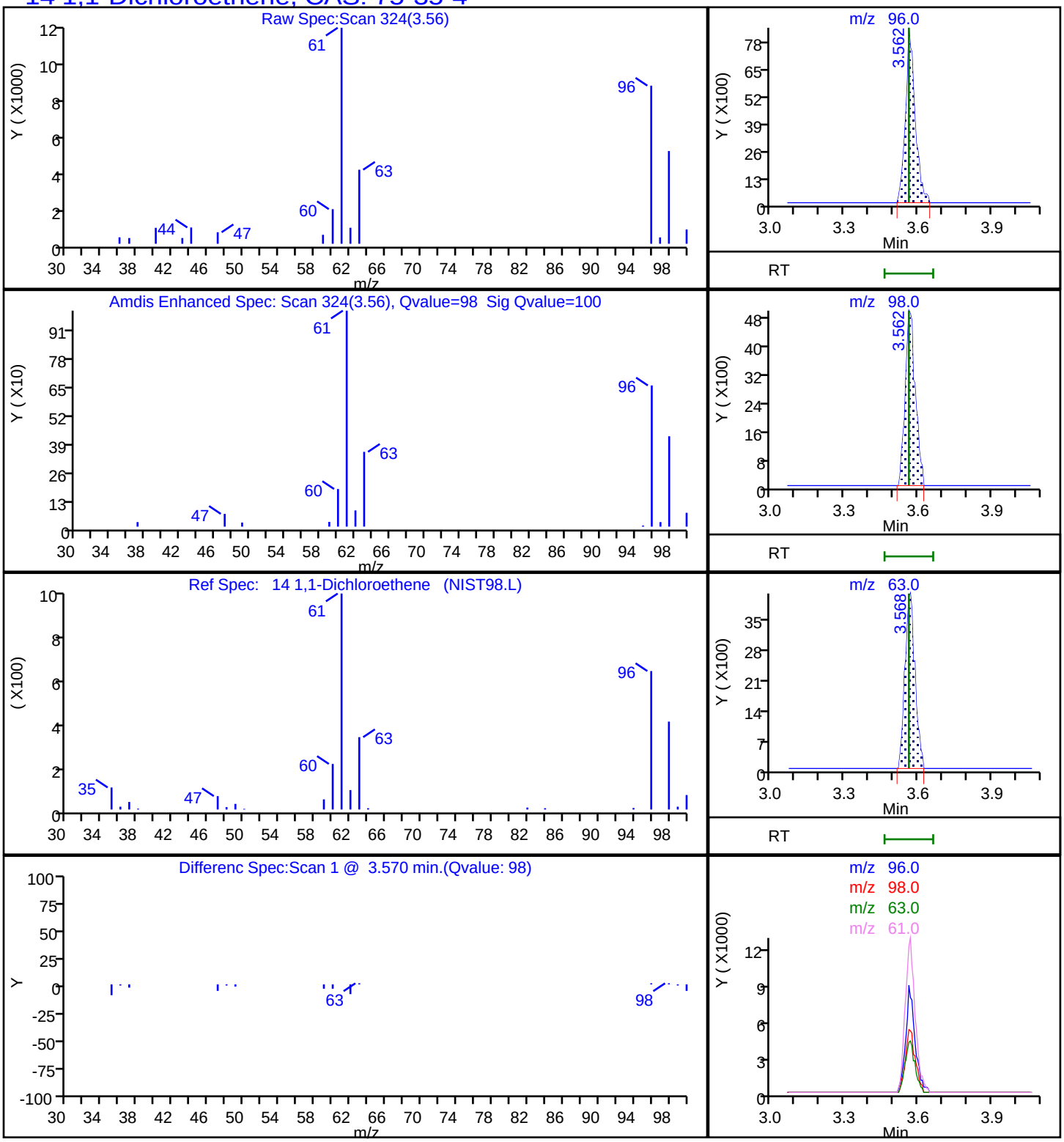
31 1,1-Dichloroethane, CAS: 75-34-3



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X26.D				
Injection Date:	29-Oct-2021 16:59:30	Instrument ID:	19930		
Lims ID:	410-60154-A-8	Lab Sample ID:	410-60154-8		
Client ID:	HD-COD-SW-17-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	26	Worklist Smp#:	27
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)	Detector	MS Quad		

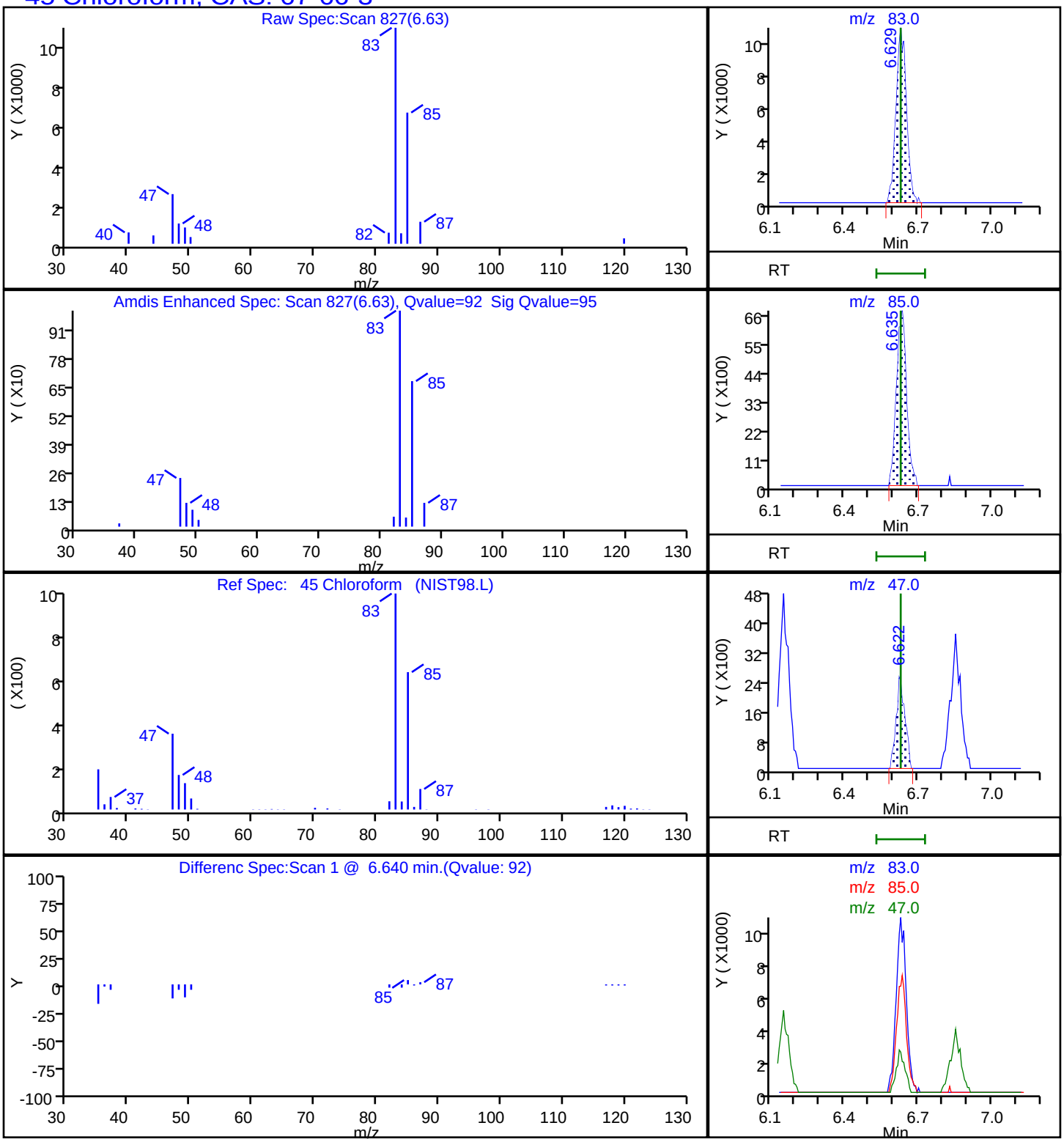
14 1,1-Dichloroethene, CAS: 75-35-4



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X26.D				
Injection Date:	29-Oct-2021 16:59:30	Instrument ID:	19930		
Lims ID:	410-60154-A-8	Lab Sample ID:	410-60154-8		
Client ID:	HD-COD-SW-17-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	26	Worklist Smp#:	27
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

45 Chloroform, CAS: 67-66-3



Report Date: 29-Oct-2021 19:25:50 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X26.D

Injection Date: 29-Oct-2021 16:59:30 Instrument ID: 19930

Lims ID: 410-60154-A-8 Lab Sample ID: 410-60154-8

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

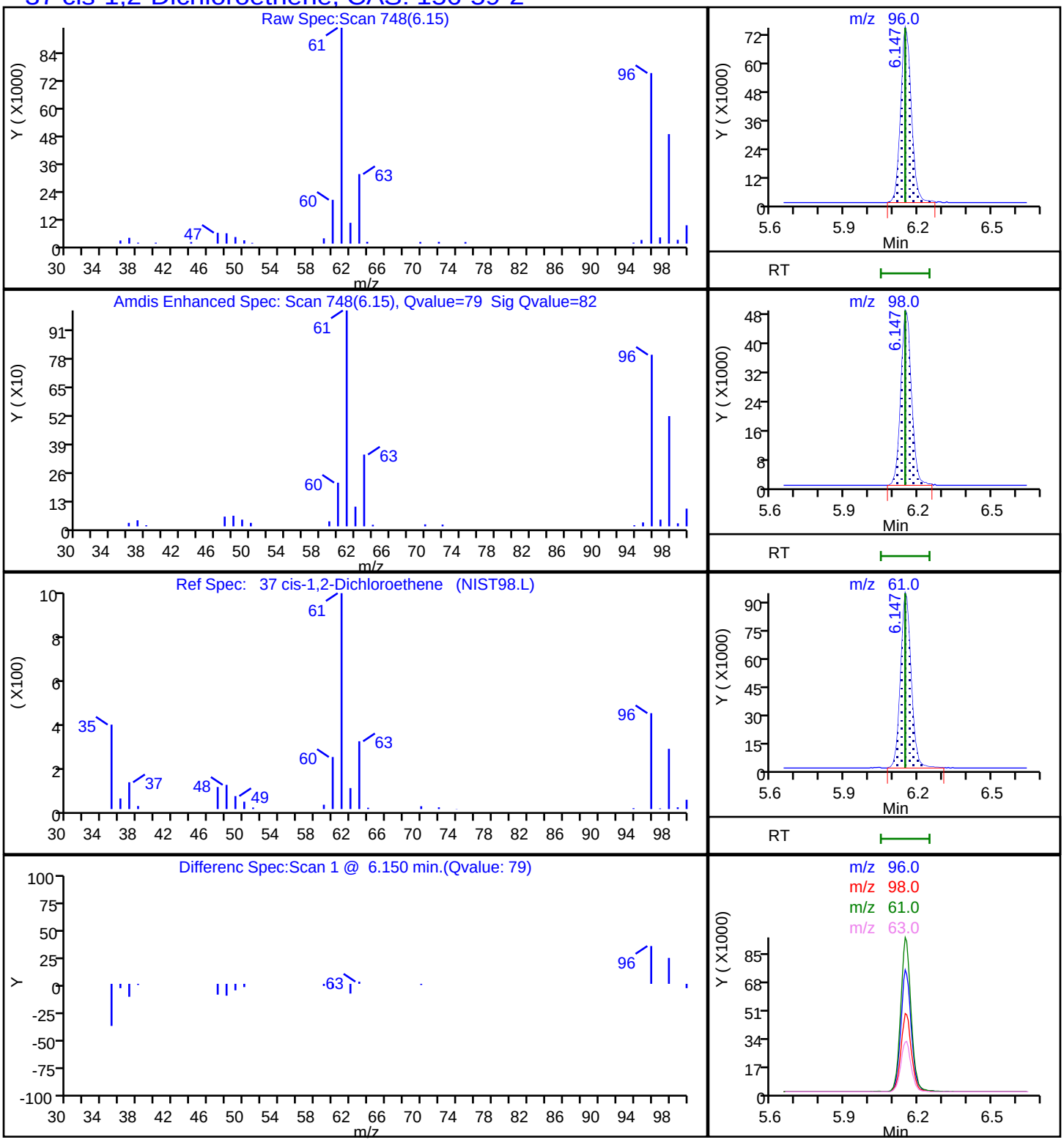
Operator ID: SRK36897 ALS Bottle#: 26 Worklist Smp#: 27

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) Detector MS Quad

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



Report Date: 29-Oct-2021 19:25:51 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X26.D

Injection Date: 29-Oct-2021 16:59:30 Instrument ID: 19930

Lims ID: 410-60154-A-8 Lab Sample ID: 410-60154-8

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

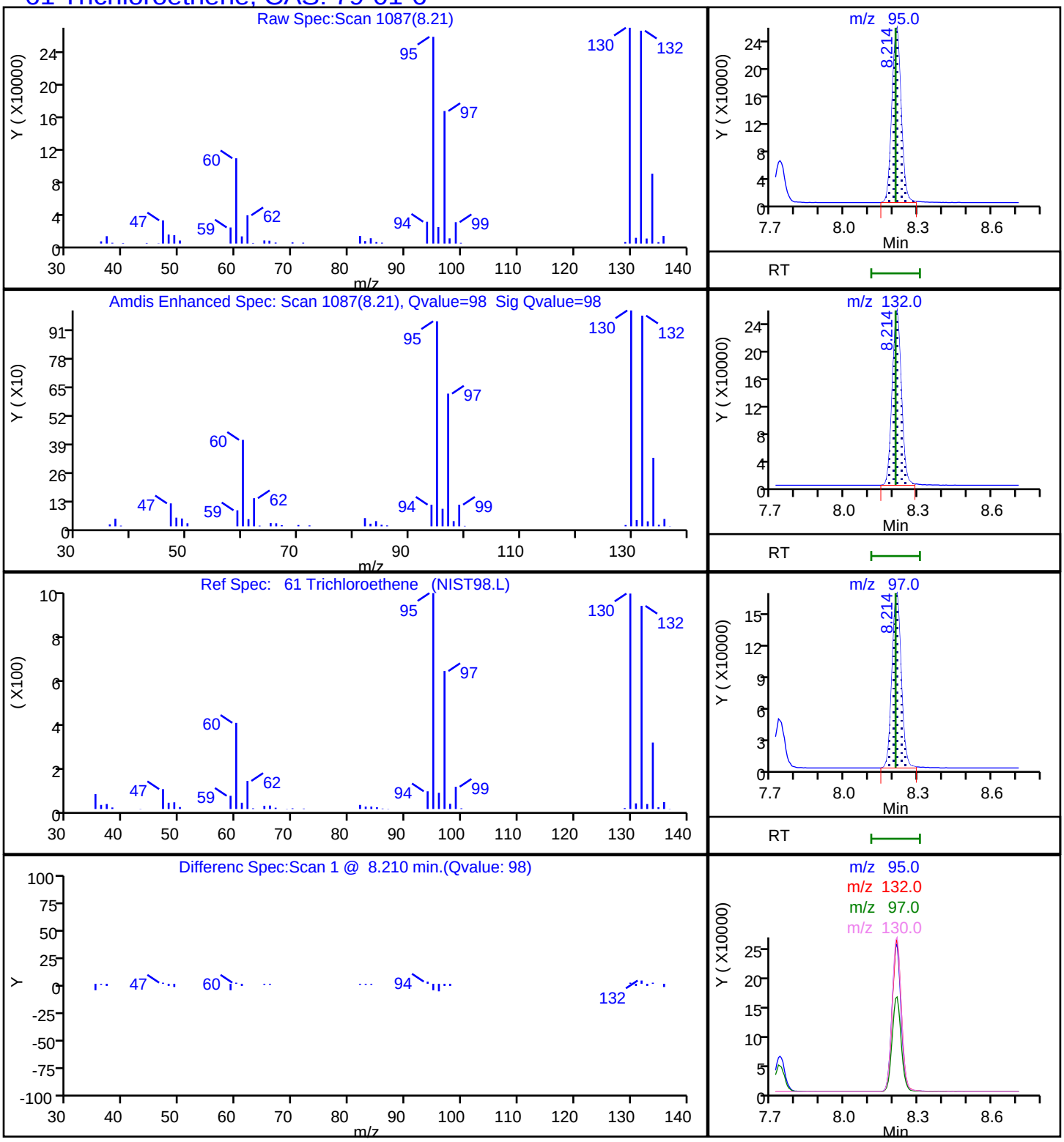
Operator ID: SRK36897 ALS Bottle#: 26 Worklist Smp#: 27

Purge Vol: 25.000 mL Dil. Factor: 1.0000

Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D

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

61 Trichloroethene, CAS: 79-01-6



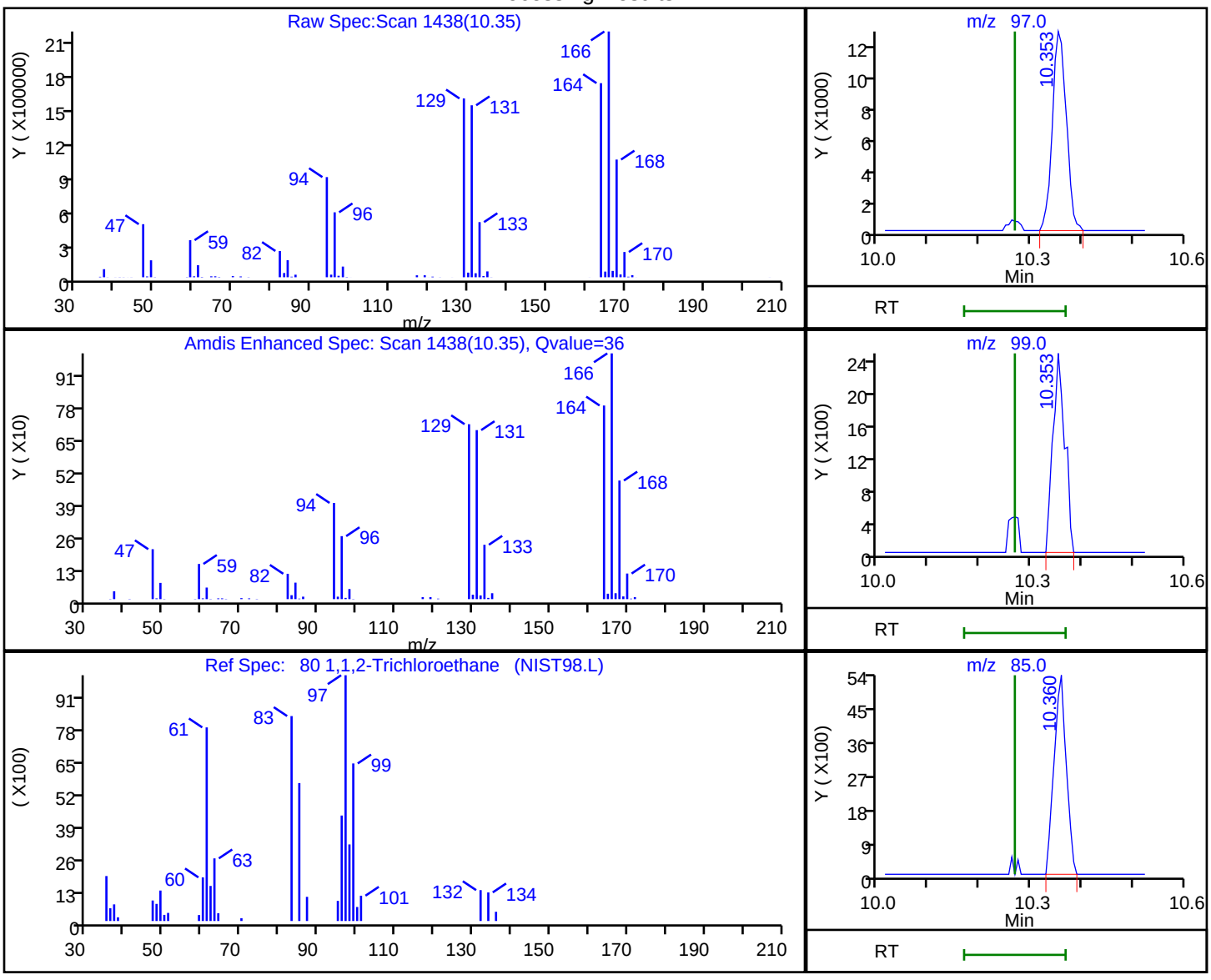
User Disabled Compound Report

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X26.D				
Injection Date:	29-Oct-2021 16:59:30	Instrument ID:	19930		
Lims ID:	410-60154-A-8	Lab Sample ID:	410-60154-8		
Client ID:	HD-COD-SW-17-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	26	Worklist Smp#:	27
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)	Detector	MS Quad		

80 1,1,2-Trichloroethane, CAS: 79-00-5

Processing Results



RT	Mass	Response	Amount
10.35	97.00	24039	0.627033
10.35	99.00	3939	
10.36	85.00	8927	
10.35	83.00	67141	

Reviewer: johnsons, 29-Oct-2021 19:22:05

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.: 410-60154-1

SDG No.:

Client Sample ID: HD-COD-SW-17-0/1-0 DL Lab Sample ID: 410-60154-8 DL

Matrix: Water Lab File ID: IN01X19.D

Analysis Method: 8260D Date Collected: 10/20/2021 10:15

Sample wt/vol: 25(mL) Date Analyzed: 11/01/2021 15:16

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.: 189194 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
127-18-4	Tetrachloroethene	51		5.0	0.60

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	108		80-120
460-00-4	4-Bromofluorobenzene (Surr)	95		80-120
1868-53-7	Dibromofluoromethane (Surr)	105		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\20211101-42940.b\IN01X19.D
Lims ID: 410-60154-B-8 DL
Client ID: HD-COD-SW-17-0/1-0
Sample Type: Client
Inject. Date: 01-Nov-2021 15:16:30 ALS Bottle#: 19 Worklist Smp#: 20
Purge Vol: 25.000 mL Dil. Factor: 10.0000
Sample Info: 410-0042940-020
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211101-42940.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 02-Nov-2021 08:43:12 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: kaewrungrueangp Date: 02-Nov-2021 08:43:12

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50		2.178				ND	
5 Vinyl chloride	62		2.294				ND	
7 Bromomethane	94		2.629				ND	
8 Chloroethane	64		2.709				ND	
14 1,1-Dichloroethene	96	3.574	3.568	0.006	90	1282	0.0286	
15 Acetone	43		3.593				ND	7
19 Carbon disulfide	76		3.879				ND	7
23 Methylene Chloride	84		4.239				ND	7
* 24 t-Butyl alcohol-d10 (IS)	65	4.257	4.275	-0.018	19	163609	50.0	
27 Methyl tert-butyl ether	73		4.647				ND	
28 trans-1,2-Dichloroethene	96		4.660				ND	
31 1,1-Dichloroethane	63	5.318	5.318	0.000	1	4927	0.0533	a
36 2-Butanone (MEK)	43		6.117				ND	
37 cis-1,2-Dichloroethene	96	6.153	6.147	0.006	80	19225	0.3386	
43 Chlorobromomethane	128		6.482				ND	
45 Chloroform	83	6.629	6.629	0.000	20	2586	0.0282	
$ 46 Dibromofluoromethane (Surr)	113	6.848	6.842	0.006	94	499667	10.5	
47 1,1,1-Trichloroethane	97	6.854	6.854	0.000	98	32693	0.3841	
50 Carbon tetrachloride	117		7.068				ND	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.299	7.293	0.006	83	102055	10.8	
54 Benzene	78		7.330				ND	
56 1,2-Dichloroethane	62		7.403				ND	
* 58 Fluorobenzene (IS)	96	7.732	7.732	0.000	99	1880120	10.0	
61 Trichloroethene	95	8.220	8.214	0.006	97	54965	0.9675	
63 1,2-Dichloropropane	63		8.543				ND	
68 Dichlorobromomethane	83		8.884				ND	
73 cis-1,3-Dichloropropene	75		9.427				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.598				ND	
$ 75 Toluene-d8 (Surr)	98	9.738	9.738	0.000	93	1955882	9.98	
76 Toluene	92		9.811				ND	
78 trans-1,3-Dichloropropene	75		10.067				ND	
80 1,1,2-Trichloroethane	97		10.268				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.360	10.360	0.000	98	355994	5.14	
83 2-Hexanone	43		10.476				ND	
85 Chlorodibromomethane	129		10.646				ND	
86 Ethylene Dibromide	107		10.756				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.183	11.183	0.000	85	1516348	10.0	
90 Chlorobenzene	112		11.213				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.292				ND	
92 Ethylbenzene	91		11.292				ND	
93 m-Xylene & p-Xylene	106		11.408				ND	7
94 o-Xylene	106		11.737				ND	
95 Styrene	104		11.756				ND	
96 Bromoform	173		11.914				ND	
$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	94	708861	9.46	
101 1,1,2,2-Tetrachloroethane	83		12.280				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	94	880528	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

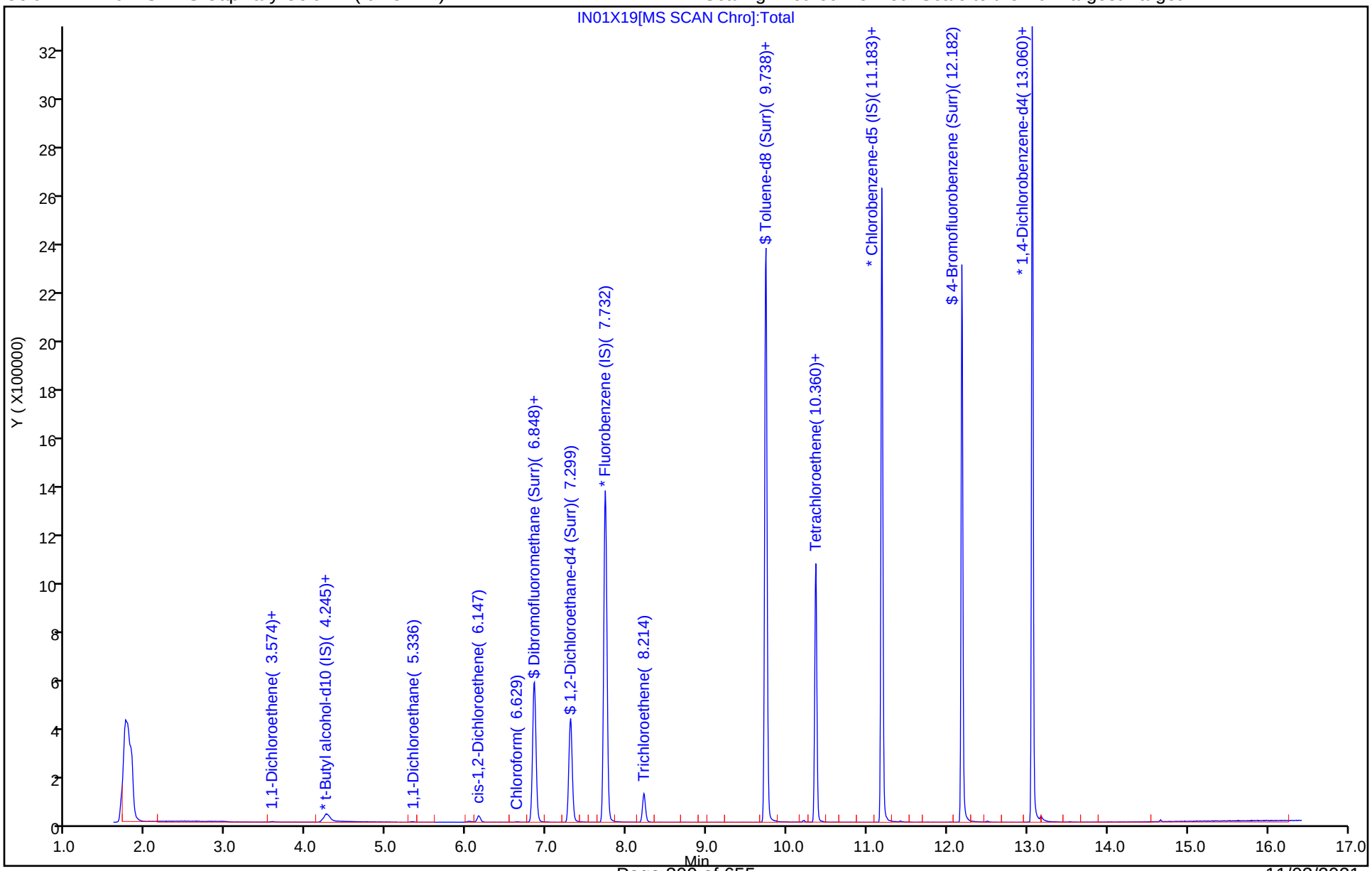
Report Date: 02-Nov-2021 08:43:12 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211101-42940.b\IN01X19.D

Injection Date:	01-Nov-2021 15:16:30	Instrument ID:	19930	Operator ID:	SRK36897
Lims ID:	410-60154-B-8 DL	Lab Sample ID:	410-60154-8	Worklist Smp#:	20
Client ID:	HD-COD-SW-17-0/1-0				
Purge Vol:	25.000 mL	Dil. Factor:	10.0000	ALS Bottle#:	19
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20211101-42940.b\IN01X19.D
Lims ID: 410-60154-B-8 DL
Client ID: HD-COD-SW-17-0/1-0
Sample Type: Client
Inject. Date: 01-Nov-2021 15:16:30 ALS Bottle#: 19 Worklist Smp#: 20
Purge Vol: 25.000 mL Dil. Factor: 10.0000
Sample Info: 410-0042940-020
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211101-42940.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 02-Nov-2021 08:43:12 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

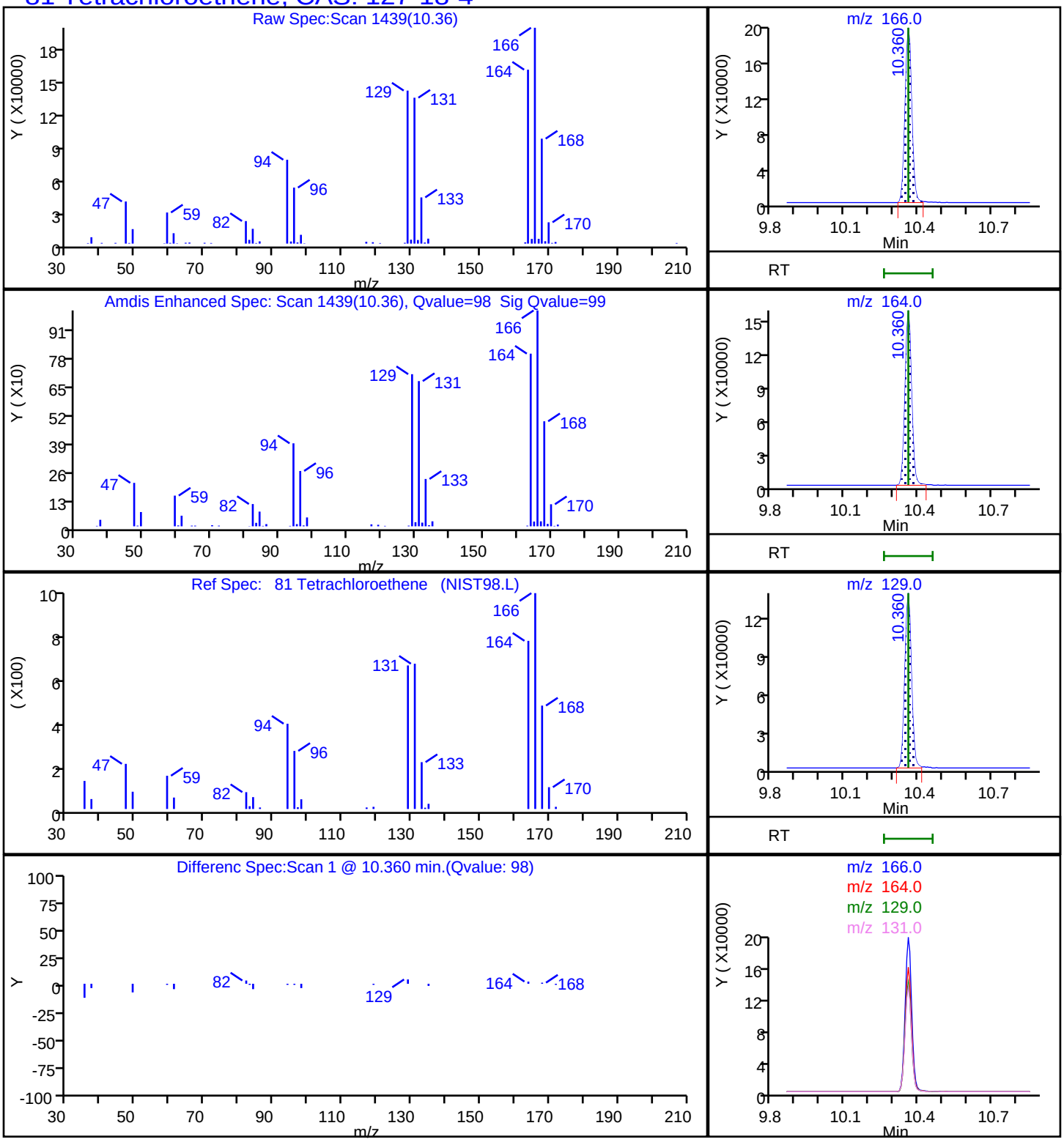
First Level Reviewer: kaewrungrueangp Date: 02-Nov-2021 08:43:12

Compound	Amount Added	Amount Recovered	% Rec.
$ 46 Dibromofluoromethane (Surr)	10.0	10.5	105.50
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.8	107.71
$ 75 Toluene-d8 (Surr)	10.0	9.98	99.81
$ 100 4-Bromofluorobenzene (Surr)	10.0	9.46	94.65

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211101-42940.b\IN01X19.D				
Injection Date:	01-Nov-2021 15:16:30	Instrument ID:	19930		
Lims ID:	410-60154-B-8 DL	Lab Sample ID:	410-60154-8		
Client ID:	HD-COD-SW-17-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	19	Worklist Smp#:	20
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)	Detector	MS Quad		

81 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-60154-1

SDG No.:

Client Sample ID: HD-COD-SW-26-0/1-0 Lab Sample ID: 410-60154-9

Matrix: Water Lab File ID: IC29X27.D

Analysis Method: 8260D Date Collected: 10/20/2021 11:50

Sample wt/vol: 25(mL) Date Analyzed: 10/29/2021 17:20

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 188555 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.060
75-34-3	1,1-Dichloroethane	ND		0.50	0.070
75-35-4	1,1-Dichloroethene	0.21	J	0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.060
107-06-2	1,2-Dichloroethane	ND		0.50	0.050
78-87-5	1,2-Dichloropropane	ND		0.50	0.060
78-93-3	2-Butanone (MEK)	ND		5.0	0.60
591-78-6	2-Hexanone	ND		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70
67-64-1	Acetone	ND		5.0	0.90
71-43-2	Benzene	ND		0.50	0.050
74-97-5	Bromochloromethane	ND		0.50	0.050
75-27-4	Bromodichloromethane	ND		0.50	0.050
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND		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	0.74		0.50	0.090
74-87-3	Chloromethane	ND		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.063	J	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
100-41-4	Ethylbenzene	ND		0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.050
75-09-2	Methylene Chloride	ND		0.50	0.070
100-42-5	Styrene	ND		0.50	0.050
127-18-4	Tetrachloroethene	3.7		0.50	0.060
108-88-3	Toluene	ND		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.060
79-01-6	Trichloroethene	0.18	J	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-60154-1

SDG No.:

Client Sample ID: HD-COD-SW-26-0/1-0 Lab Sample ID: 410-60154-9

Matrix: Water Lab File ID: IC29X27.D

Analysis Method: 8260D Date Collected: 10/20/2021 11:50

Sample wt/vol: 25(mL) Date Analyzed: 10/29/2021 17:20

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 188555 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		80-120
460-00-4	4-Bromofluorobenzene (Surr)	94		80-120
1868-53-7	Dibromofluoromethane (Surr)	106		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\20211029-42796.b\IC29X27.D
Lims ID: 410-60154-A-9
Client ID: HD-COD-SW-26-0/1-0
Sample Type: Client
Inject. Date: 29-Oct-2021 17:20:30 ALS Bottle#: 27 Worklist Smp#: 28
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0042796-028
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 29-Oct-2021 19:24:36 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: CTX1664

First Level Reviewer: johnsons Date: 29-Oct-2021 19:23:15

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50		2.172				ND	
5 Vinyl chloride	62		2.294				ND	
7 Bromomethane	94		2.623				ND	
8 Chloroethane	64		2.708				ND	
14 1,1-Dichloroethene	96	3.574	3.562	0.012	98	9549	0.2126	
15 Acetone	43	3.617	3.592	0.025	53	4437	0.5117	
19 Carbon disulfide	76		3.873				ND	7
23 Methylene Chloride	84		4.233				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.281	4.251	0.030	21	156098	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		5.318				ND	
36 2-Butanone (MEK)	43		6.116				ND	7
37 cis-1,2-Dichloroethene	96	6.165	6.147	0.018	78	3595	0.0633	a
43 Chlorobromomethane	128		6.476				ND	
45 Chloroform	83	6.634	6.628	0.006	93	67404	0.7352	
$ 46 Dibromofluoromethane (Surr)	113	6.848	6.842	0.006	93	502376	10.6	
47 1,1,1-Trichloroethane	97	6.866	6.854	0.012	62	3107	0.0365	
50 Carbon tetrachloride	117		7.067				ND	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.299	7.299	0.000	83	100900	10.6	
54 Benzene	78		7.329				ND	
56 1,2-Dichloroethane	62		7.397				ND	
* 58 Fluorobenzene (IS)	96	7.738	7.732	0.006	99	1881710	10.0	
61 Trichloroethene	95	8.226	8.207	0.019	95	9999	0.1759	M
63 1,2-Dichloropropane	63		8.537				ND	
68 Dichlorobromomethane	83	8.878	8.884	-0.006	1	2337	0.0371	M
73 cis-1,3-Dichloropropene	75		9.427				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.591				ND	
$ 75 Toluene-d8 (Surr)	98	9.738	9.731	0.007	93	1972254	10.1	
76 Toluene	92	9.817	9.811	0.006	95	4545	0.0314	
78 trans-1,3-Dichloropropene	75		10.067				ND	
80 1,1,2-Trichloroethane	97		10.268				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.359	10.359	0.000	98	254034	3.69	
83 2-Hexanone	43		10.475				ND	
85 Chlorodibromomethane	129		10.646				ND	
86 Ethylene Dibromide	107		10.756				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.182	11.182	0.000	85	1508645	10.0	
90 Chlorobenzene	112		11.207				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.292				ND	
92 Ethylbenzene	91		11.292				ND	7
93 m-Xylene & p-Xylene	106	11.408	11.408	0.000	98	4630	0.0421	
94 o-Xylene	106		11.737				ND	7
95 Styrene	104		11.755				ND	
96 Bromoform	173		11.914				ND	
$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	94	702444	9.43	
101 1,1,2,2-Tetrachloroethane	83		12.280				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	94	883735	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MSV_LLcentISS_00002 Amount Added: 5.00 Units: uL Run Reagent

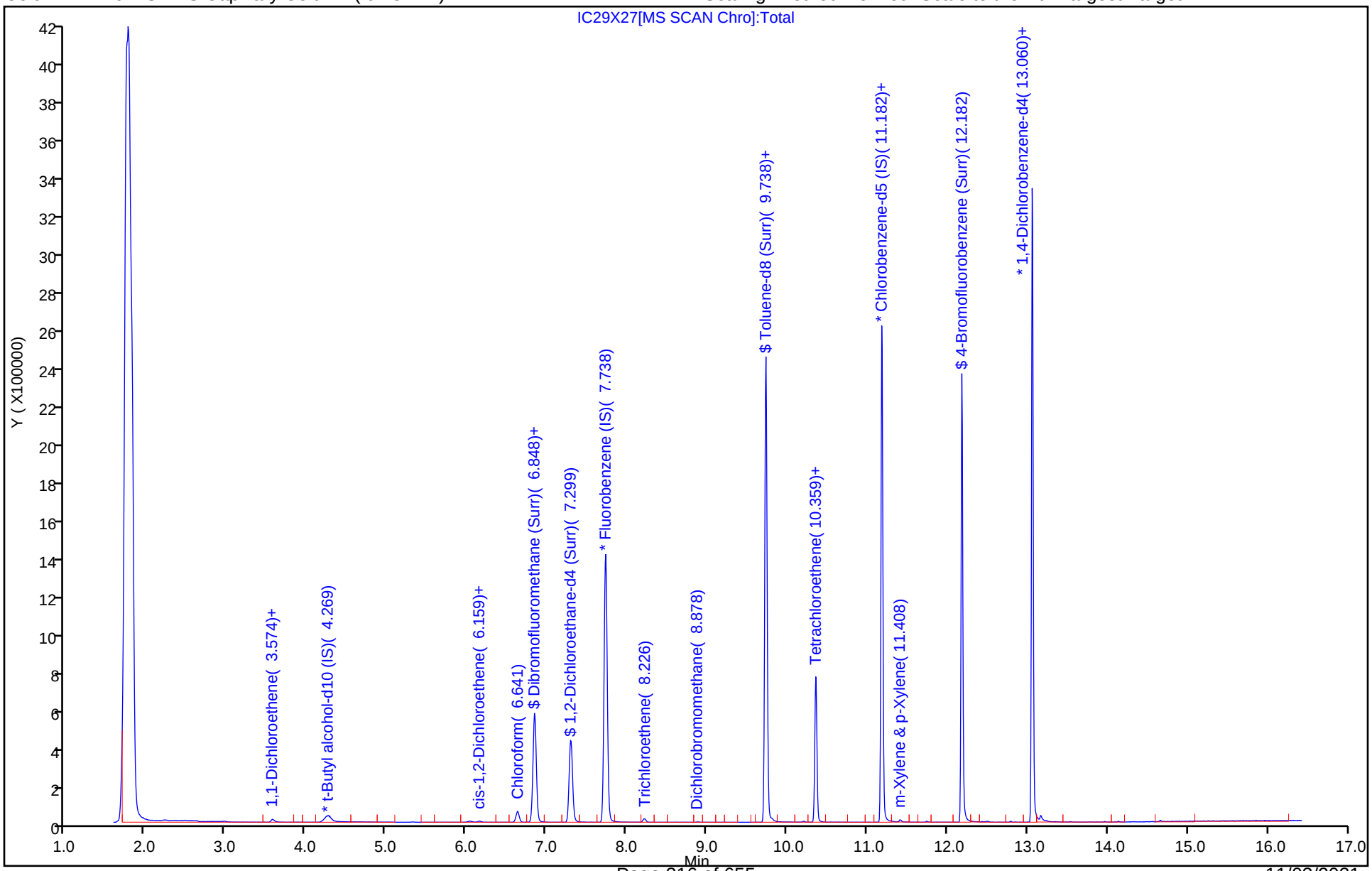
Report Date: 29-Oct-2021 19:25:51 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X27.D

Injection Date:	29-Oct-2021 17:20:30	Instrument ID:	19930	Operator ID:	SRK36897
Lims ID:	410-60154-A-9	Lab Sample ID:	410-60154-9	Worklist Smp#:	28
Client ID:	HD-COD-SW-26-0/1-0				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	27
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\20211029-42796.b\IC29X27.D				
Lims ID:	410-60154-A-9				
Client ID:	HD-COD-SW-26-0/1-0				
Sample Type:	Client				
Inject. Date:	29-Oct-2021 17:20:30	ALS Bottle#:	27	Worklist Smp#:	28
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Sample Info:	410-0042796-028				
Operator ID:	SRK36897	Instrument ID:	19930		
Method:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\8260 25ml HP31.m				
Limit Group:	MSV - 8260C_D				
Last Update:	29-Oct-2021 19:24:36	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:	CTX1664				

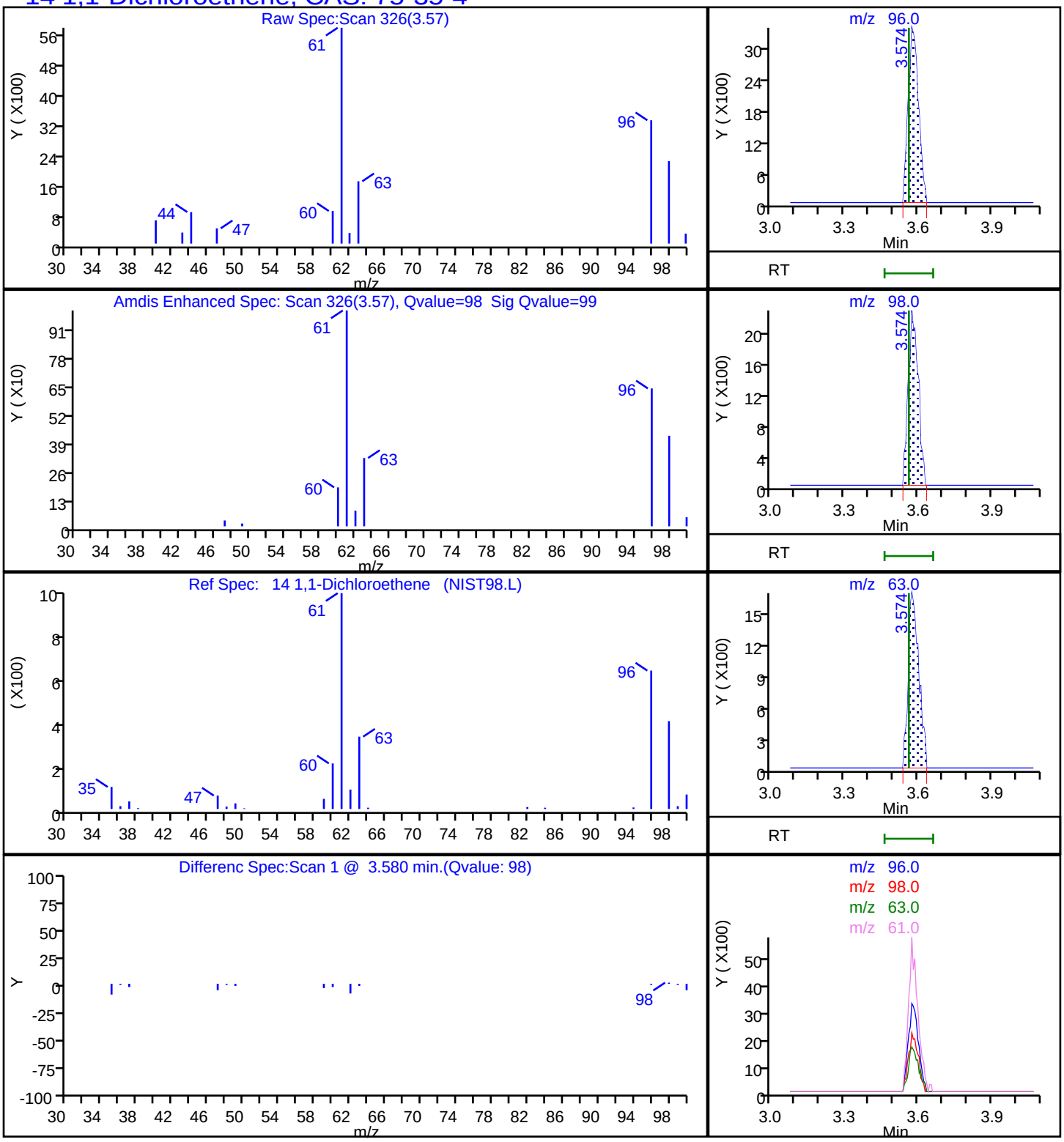
First Level Reviewer: johnsons Date: 29-Oct-2021 19:23:15

Compound	Amount Added	Amount Recovered	% Rec.
$ 46 Dibromofluoromethane (Surr)	10.0	10.6	105.98
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.6	106.40
$ 75 Toluene-d8 (Surr)	10.0	10.1	101.16
$ 100 4-Bromofluorobenzene (Surr)	10.0	9.43	94.27

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X27.D				
Injection Date:	29-Oct-2021 17:20:30	Instrument ID:	19930		
Lims ID:	410-60154-A-9	Lab Sample ID:	410-60154-9		
Client ID:	HD-COD-SW-26-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	27	Worklist Smp#:	28
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)	Detector	MS Quad		

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



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X27.D				
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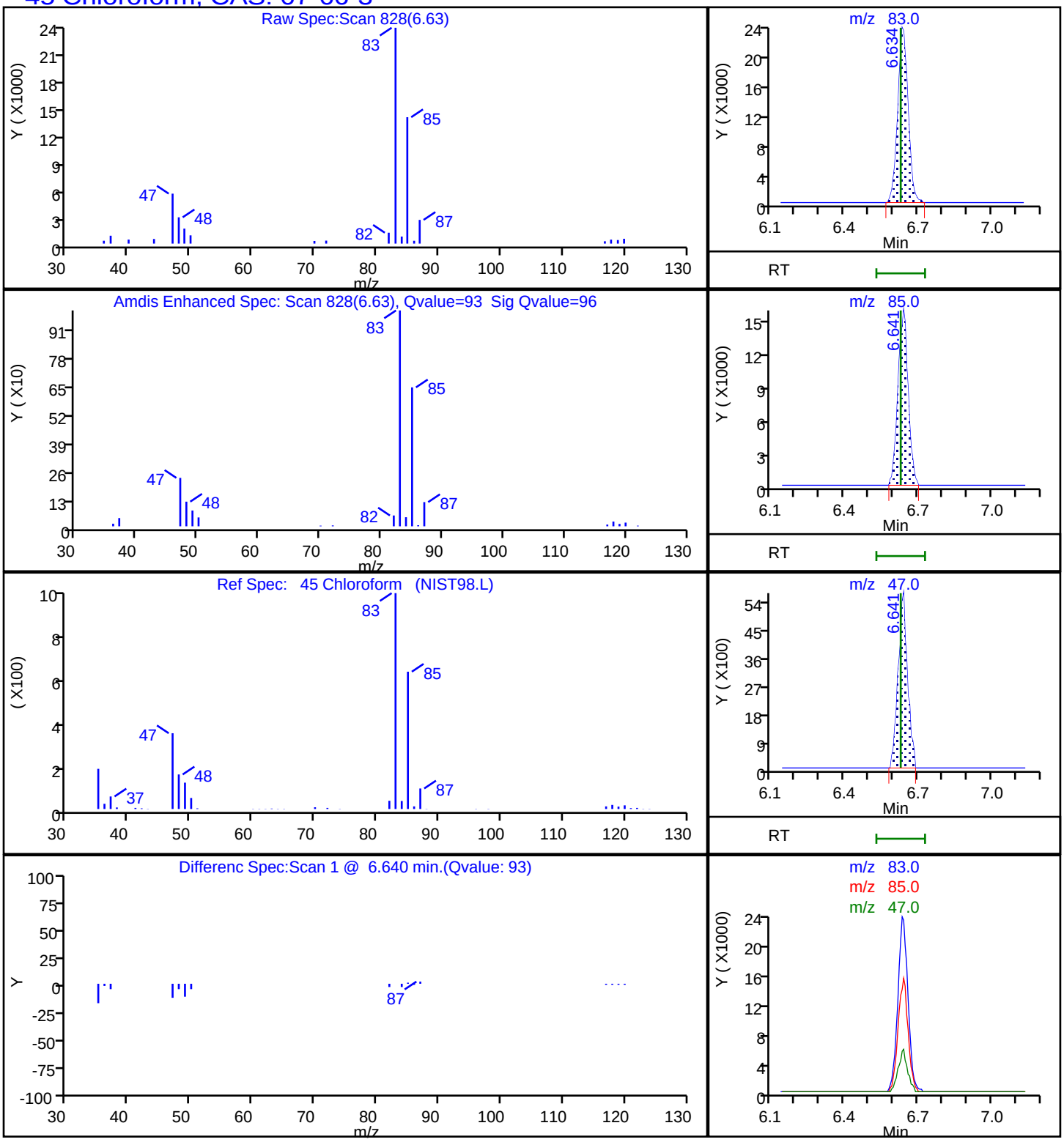
Lims ID:	410-60154-A-9	Lab Sample ID:	410-60154-9		
Client ID:	HD-COD-SW-26-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	27	Worklist Smp#:	28
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

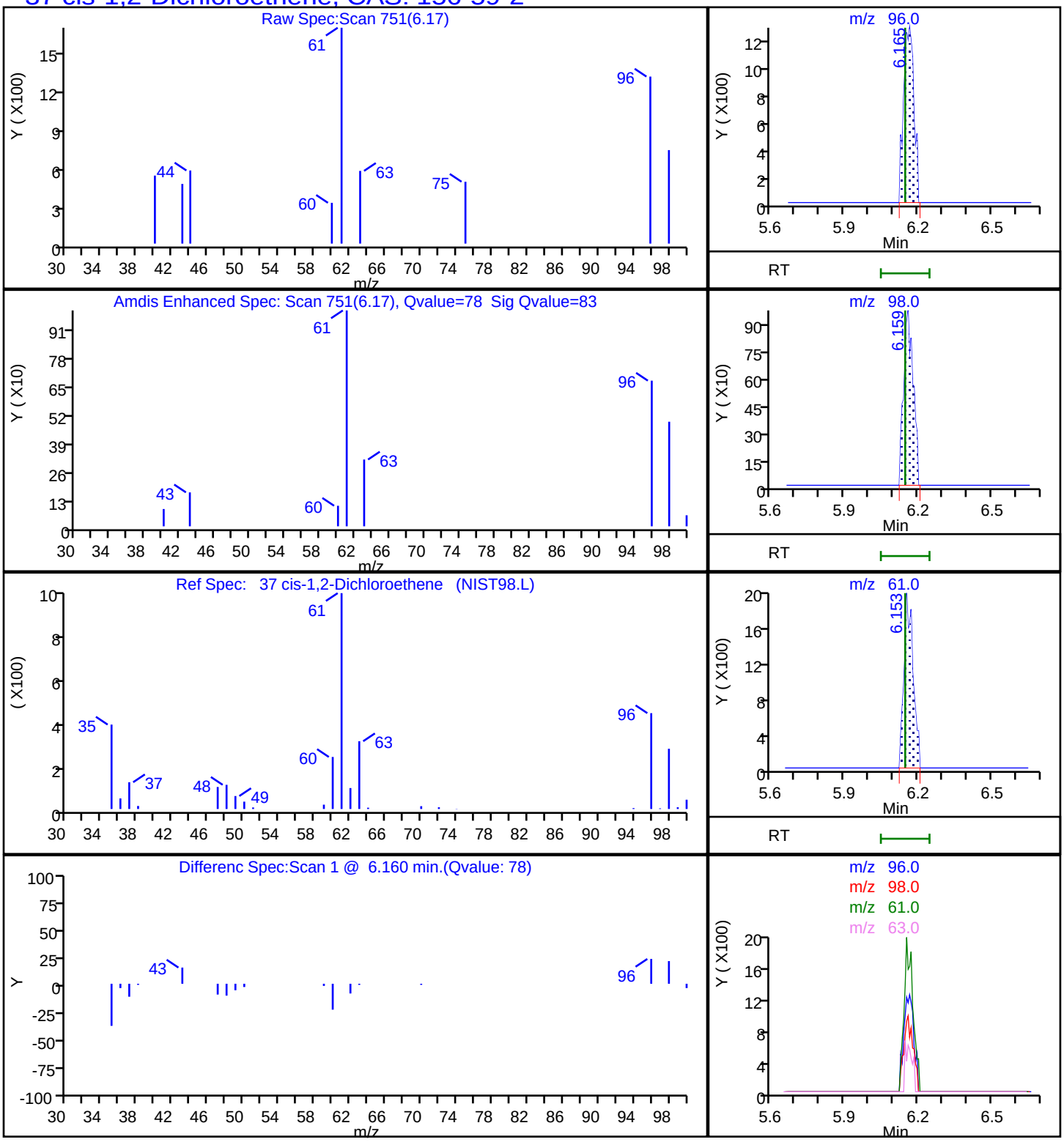
45 Chloroform, CAS: 67-66-3



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X27.D				
Injection Date:	29-Oct-2021 17:20:30	Instrument ID:	19930		
Lims ID:	410-60154-A-9	Lab Sample ID:	410-60154-9		
Client ID:	HD-COD-SW-26-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	27	Worklist Smp#:	28
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

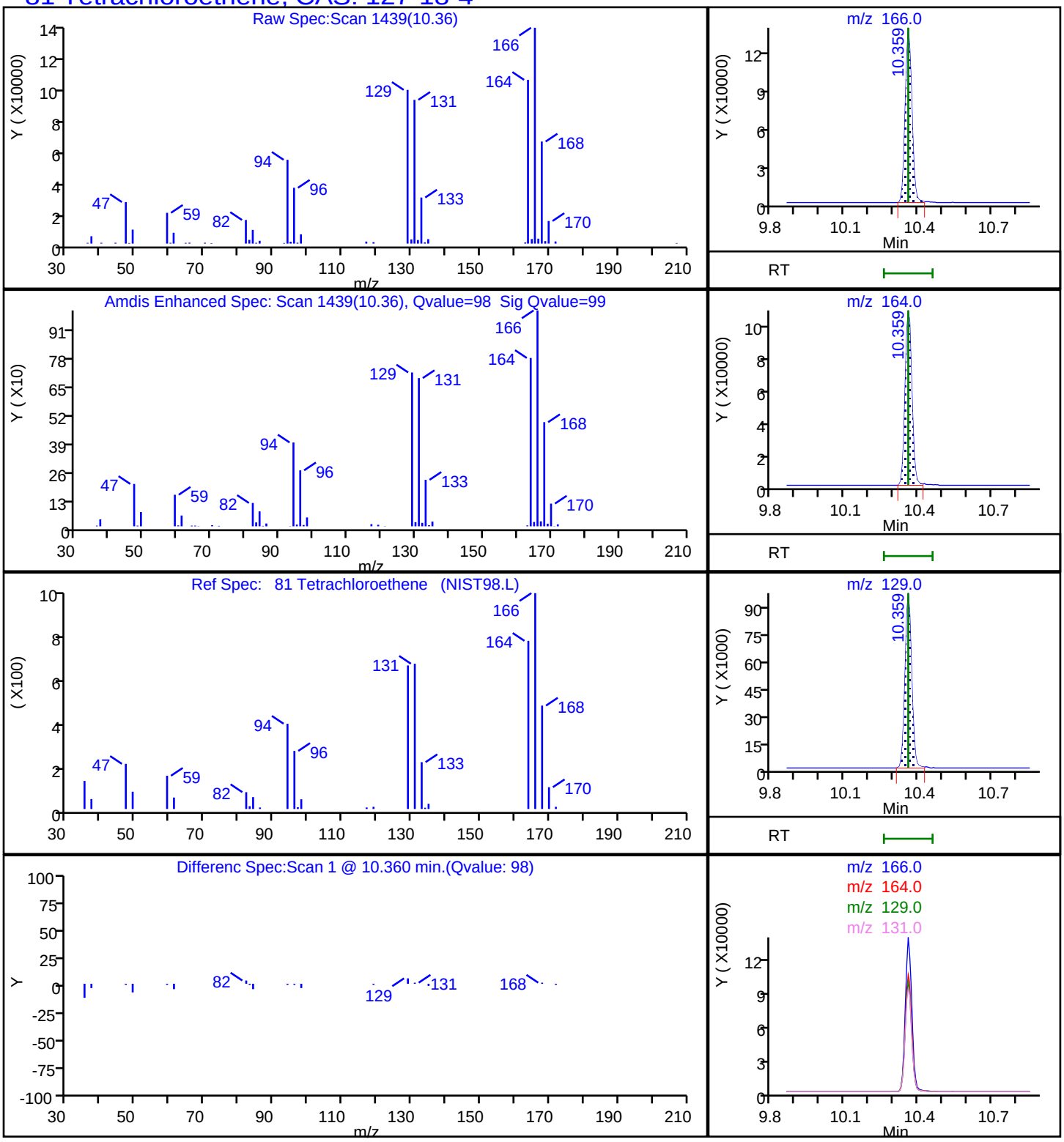
37 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X27.D				
Injection Date:	29-Oct-2021 17:20:30	Instrument ID:	19930		
Lims ID:	410-60154-A-9	Lab Sample ID:	410-60154-9		
Client ID:	HD-COD-SW-26-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	27	Worklist Smp#:	28
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)	Detector	MS Quad		

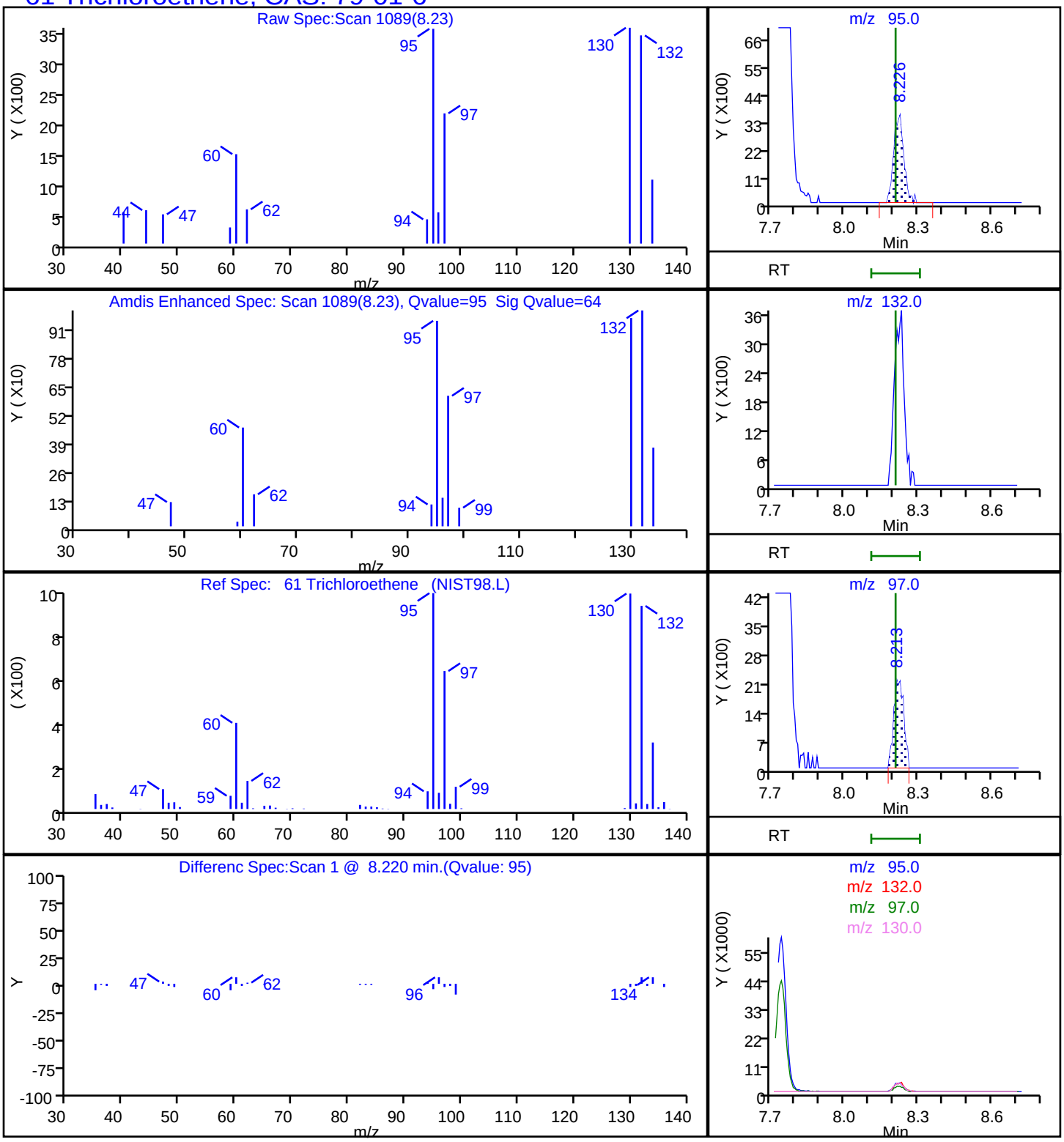
81 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X27.D				
Injection Date:	29-Oct-2021 17:20:30	Instrument ID:	19930		
Lims ID:	410-60154-A-9	Lab Sample ID:	410-60154-9		
Client ID:	HD-COD-SW-26-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	27	Worklist Smp#:	28
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

61 Trichloroethene, CAS: 79-01-6



Eurofins Lancaster Laboratories Env, LLC

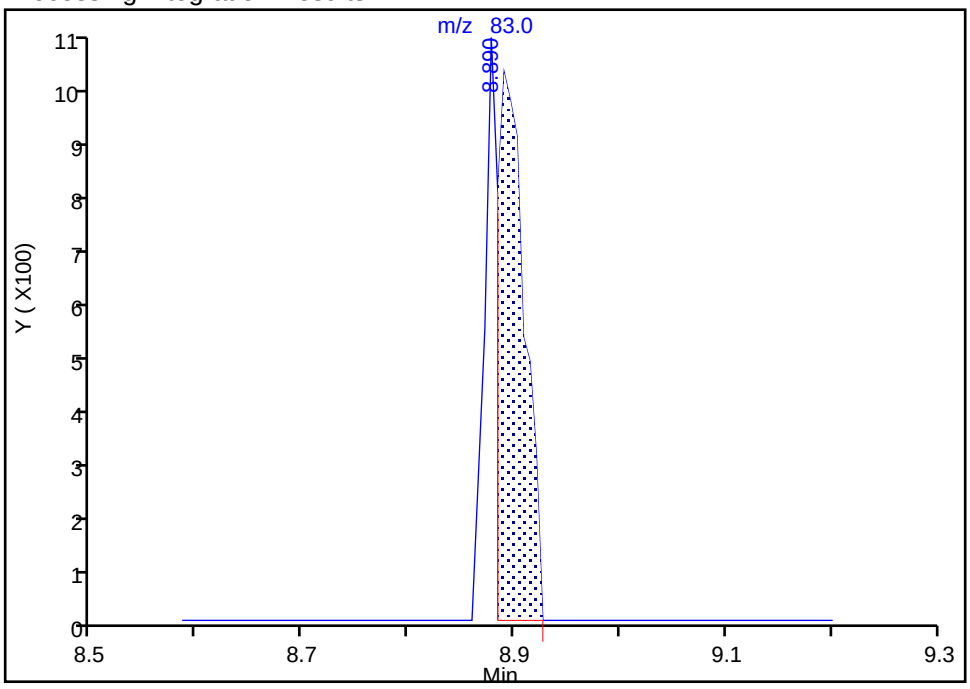
Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X27.D				
Injection Date:	29-Oct-2021 17:20:30	Instrument ID:	19930		
Lims ID:	410-60154-A-9	Lab Sample ID:	410-60154-9		
Client ID:	HD-COD-SW-26-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	27	Worklist Smp#:	28
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

68 Dichlorobromomethane, CAS: 75-27-4

Signal: 1

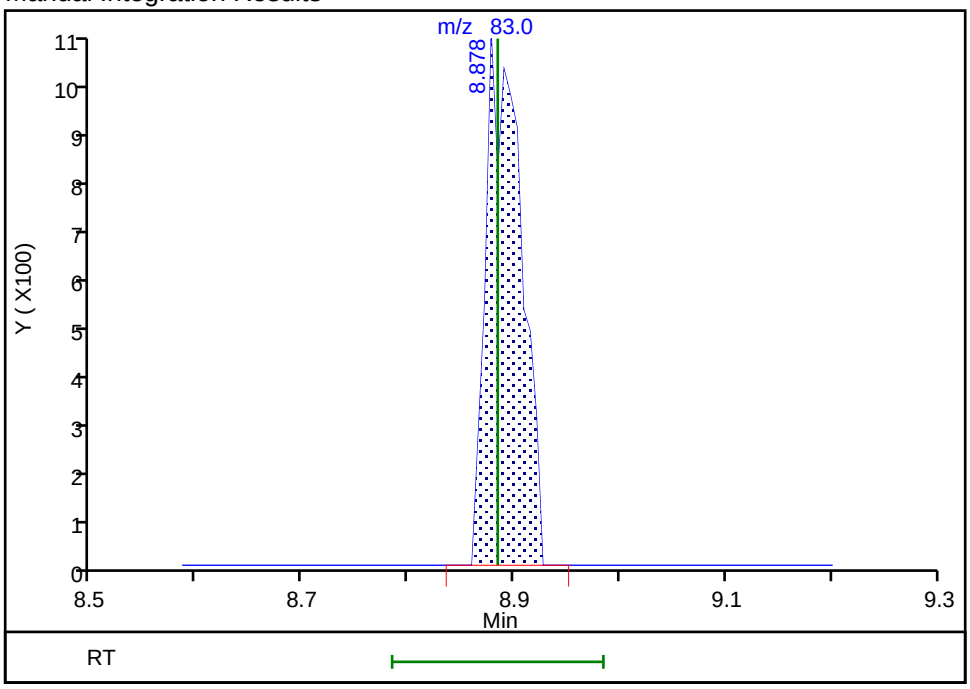
Processing Integration Results

RT: 8.89
Area: 1694
Amount: 0.026894
Amount Units: ug/l



Manual Integration Results

RT: 8.88
Area: 2337
Amount: 0.037103
Amount Units: ug/l



Reviewer: johnsons, 29-Oct-2021 19:22:58
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

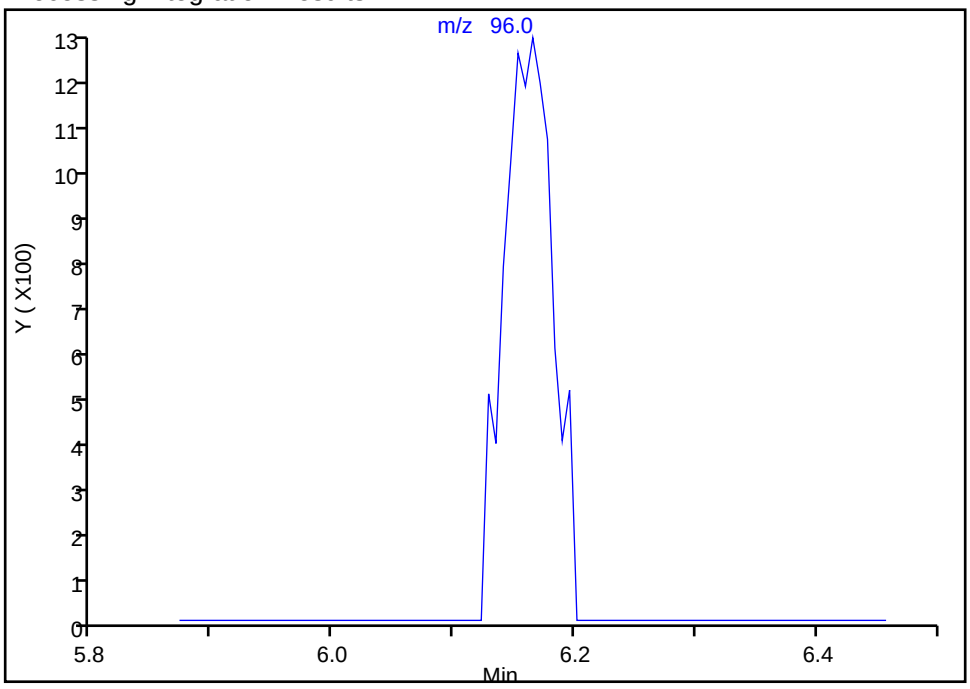
Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X27.D				
Injection Date:	29-Oct-2021 17:20:30	Instrument ID:	19930		
Lims ID:	410-60154-A-9	Lab Sample ID:	410-60154-9		
Client ID:	HD-COD-SW-26-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	27	Worklist Smp#:	28
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

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

Signal: 1

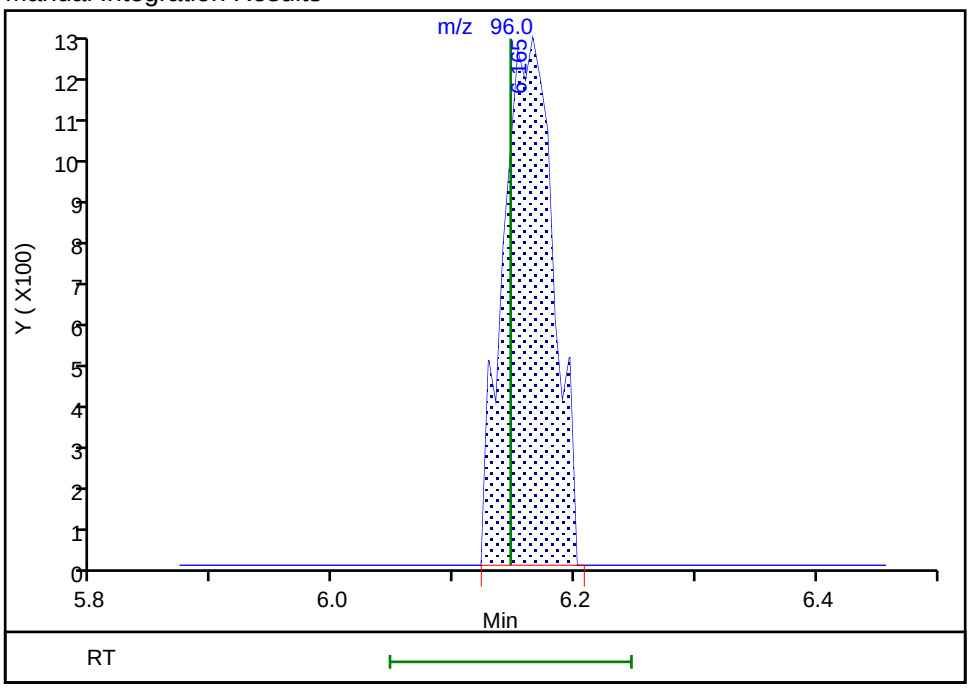
Not Detected
Expected RT: 6.15

Processing Integration Results



Manual Integration Results

RT: 6.17
Area: 3595
Amount: 0.063263
Amount Units: ug/l



Reviewer: johnsons, 29-Oct-2021 19:22:42
Audit Action: Assigned Compound ID Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

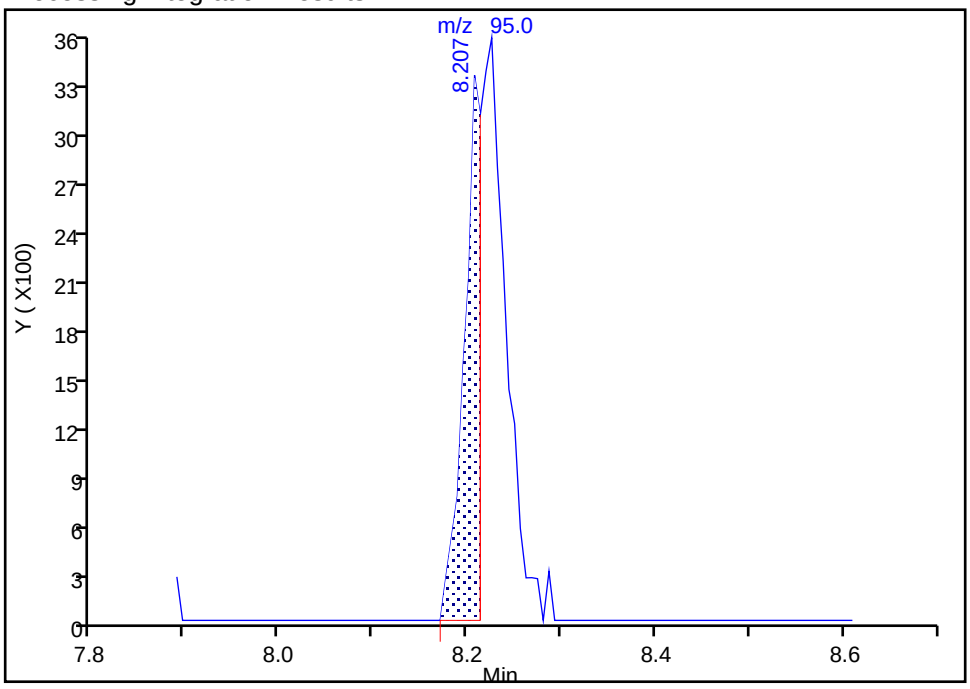
Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X27.D				
Injection Date:	29-Oct-2021 17:20:30	Instrument ID:	19930		
Lims ID:	410-60154-A-9	Lab Sample ID:	410-60154-9		
Client ID:	HD-COD-SW-26-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	27	Worklist Smp#:	28
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

61 Trichloroethene, CAS: 79-01-6

Signal: 1

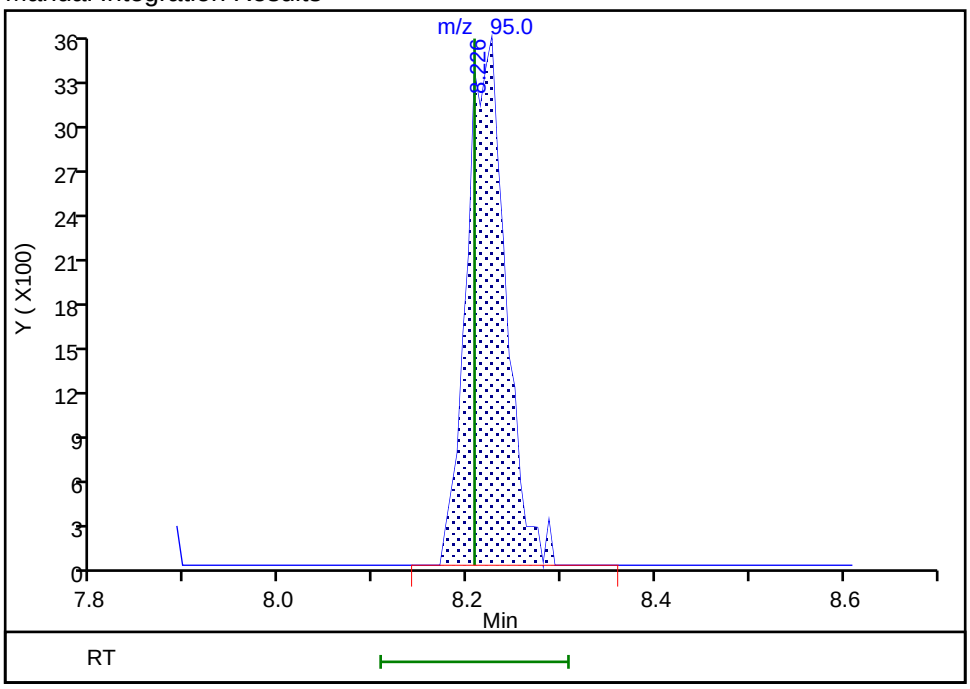
Processing Integration Results

RT: 8.21
Area: 4189
Amount: 0.073672
Amount Units: ug/l



Manual Integration Results

RT: 8.23
Area: 9999
Amount: 0.175853
Amount Units: ug/l



Reviewer: johnsons, 29-Oct-2021 19:22:53

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.: 410-60154-1

SDG No.:

Client Sample ID: HD-COD-SW-27-0/1-0 Lab Sample ID: 410-60154-10

Matrix: Water Lab File ID: IC29X28.D

Analysis Method: 8260D Date Collected: 10/20/2021 12:20

Sample wt/vol: 25(mL) Date Analyzed: 10/29/2021 17:41

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.: 188555 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.060
75-34-3	1,1-Dichloroethane	ND		0.50	0.070
75-35-4	1,1-Dichloroethene	ND		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.060
107-06-2	1,2-Dichloroethane	ND		0.50	0.050
78-87-5	1,2-Dichloropropane	ND		0.50	0.060
78-93-3	2-Butanone (MEK)	ND		5.0	0.60
591-78-6	2-Hexanone	ND		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70
67-64-1	Acetone	2.4	J	5.0	0.90
71-43-2	Benzene	ND		0.50	0.050
74-97-5	Bromochloromethane	ND		0.50	0.050
75-27-4	Bromodichloromethane	ND		0.50	0.050
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND		0.50	0.070
75-15-0	Carbon disulfide	0.13	J	1.0	0.060
56-23-5	Carbon tetrachloride	ND		0.50	0.070
108-90-7	Chlorobenzene	ND		0.50	0.060
75-00-3	Chloroethane	ND		0.50	0.070
67-66-3	Chloroform	ND		0.50	0.090
74-87-3	Chloromethane	ND		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	ND		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
100-41-4	Ethylbenzene	ND		0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.050
75-09-2	Methylene Chloride	ND		0.50	0.070
100-42-5	Styrene	ND		0.50	0.050
127-18-4	Tetrachloroethene	0.094	J	0.50	0.060
108-88-3	Toluene	ND		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.060
79-01-6	Trichloroethene	0.18	J	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-60154-1

SDG No.:

Client Sample ID: HD-COD-SW-27-0/1-0 Lab Sample ID: 410-60154-10

Matrix: Water Lab File ID: IC29X28.D

Analysis Method: 8260D Date Collected: 10/20/2021 12:20

Sample wt/vol: 25(mL) Date Analyzed: 10/29/2021 17:41

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.: 188555 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		80-120
460-00-4	4-Bromofluorobenzene (Surr)	95		80-120
1868-53-7	Dibromofluoromethane (Surr)	106		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\20211029-42796.b\IC29X28.D
Lims ID: 410-60154-A-10
Client ID: HD-COD-SW-27-0/1-0
Sample Type: Client
Inject. Date: 29-Oct-2021 17:41:30 ALS Bottle#: 28 Worklist Smp#: 29
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0042796-029
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 29-Oct-2021 19:24:36 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: CTX1664

First Level Reviewer: johnsons Date: 29-Oct-2021 19:23:53

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50		2.172				ND	
5 Vinyl chloride	62		2.294				ND	
7 Bromomethane	94		2.623				ND	
8 Chloroethane	64		2.708				ND	
14 1,1-Dichloroethene	96		3.562				ND	
15 Acetone	43	3.611	3.592	0.019	99	20037	2.38	
19 Carbon disulfide	76	3.879	3.873	0.006	98	15672	0.1252	
23 Methylene Chloride	84		4.233				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.269	4.251	0.018	22	151802	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		5.318				ND	
36 2-Butanone (MEK)	43		6.116				ND	U
37 cis-1,2-Dichloroethene	96		6.147				ND	
43 Chlorobromomethane	128		6.476				ND	
45 Chloroform	83	6.629	6.628	0.001	92	6207	0.0671	
$ 46 Dibromofluoromethane (Surr)	113	6.842	6.842	0.000	94	506029	10.6	
47 1,1,1-Trichloroethane	97		6.854				ND	
50 Carbon tetrachloride	117		7.067				ND	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.299	7.299	0.000	83	101769	10.6	
54 Benzene	78		7.329				ND	7
56 1,2-Dichloroethane	62		7.397				ND	
* 58 Fluorobenzene (IS)	96	7.732	7.732	0.000	99	1899436	10.0	
61 Trichloroethene	95	8.220	8.207	0.013	95	10140	0.1767	
63 1,2-Dichloropropane	63		8.537				ND	
68 Dichlorobromomethane	83		8.884				ND	
73 cis-1,3-Dichloropropene	75		9.427				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.591				ND	7
$ 75 Toluene-d8 (Surr)	98	9.738	9.731	0.007	93	1995936	10.1	
76 Toluene	92	9.811	9.811	0.000	96	6732	0.0460	
78 trans-1,3-Dichloropropene	75		10.067				ND	
80 1,1,2-Trichloroethane	97		10.268				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.360	10.359	0.001	94	6585	0.0945	
83 2-Hexanone	43		10.475				ND	
85 Chlorodibromomethane	129		10.646				ND	
86 Ethylene Dibromide	107		10.756				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.183	11.182	0.001	85	1525818	10.0	
90 Chlorobenzene	112		11.207				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.292				ND	
92 Ethylbenzene	91		11.292				ND	7
93 m-Xylene & p-Xylene	106		11.408				ND	7
94 o-Xylene	106		11.737				ND	7
95 Styrene	104		11.755				ND	
96 Bromoform	173		11.914				ND	
$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	94	712559	9.46	
101 1,1,2,2-Tetrachloroethane	83		12.280				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	94	893536	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

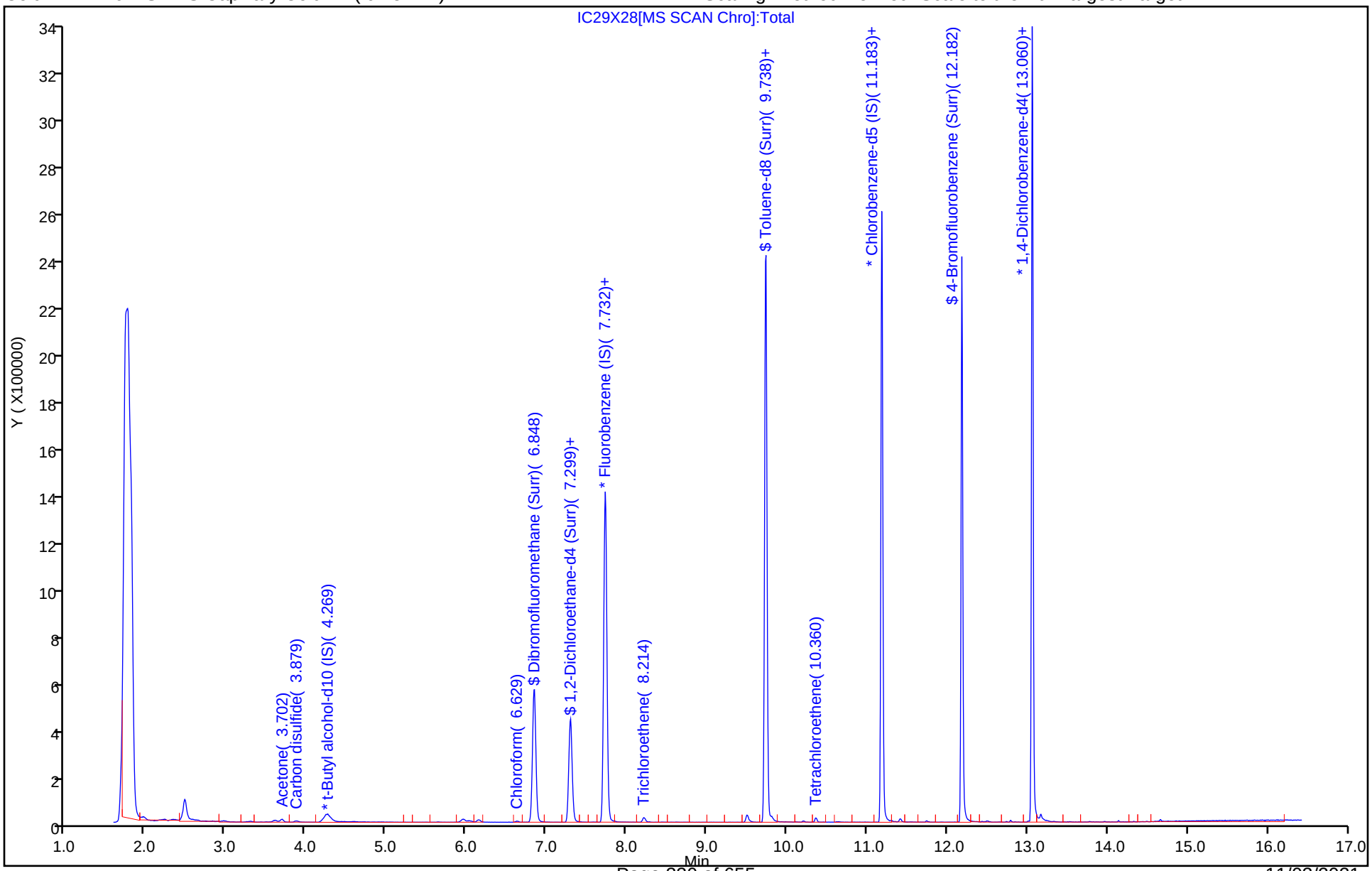
Report Date: 29-Oct-2021 19:25:53 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X28.D

Injection Date:	29-Oct-2021 17:41:30	Instrument ID:	19930	Operator ID:	SRK36897
Lims ID:	410-60154-A-10	Lab Sample ID:	410-60154-10	Worklist Smp#:	29
Client ID:	HD-COD-SW-27-0/1-0				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	28
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X28.D
Lims ID: 410-60154-A-10
Client ID: HD-COD-SW-27-0/1-0
Sample Type: Client
Inject. Date: 29-Oct-2021 17:41:30 ALS Bottle#: 28 Worklist Smp#: 29
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0042796-029
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 29-Oct-2021 19:24:36 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: CTX1664

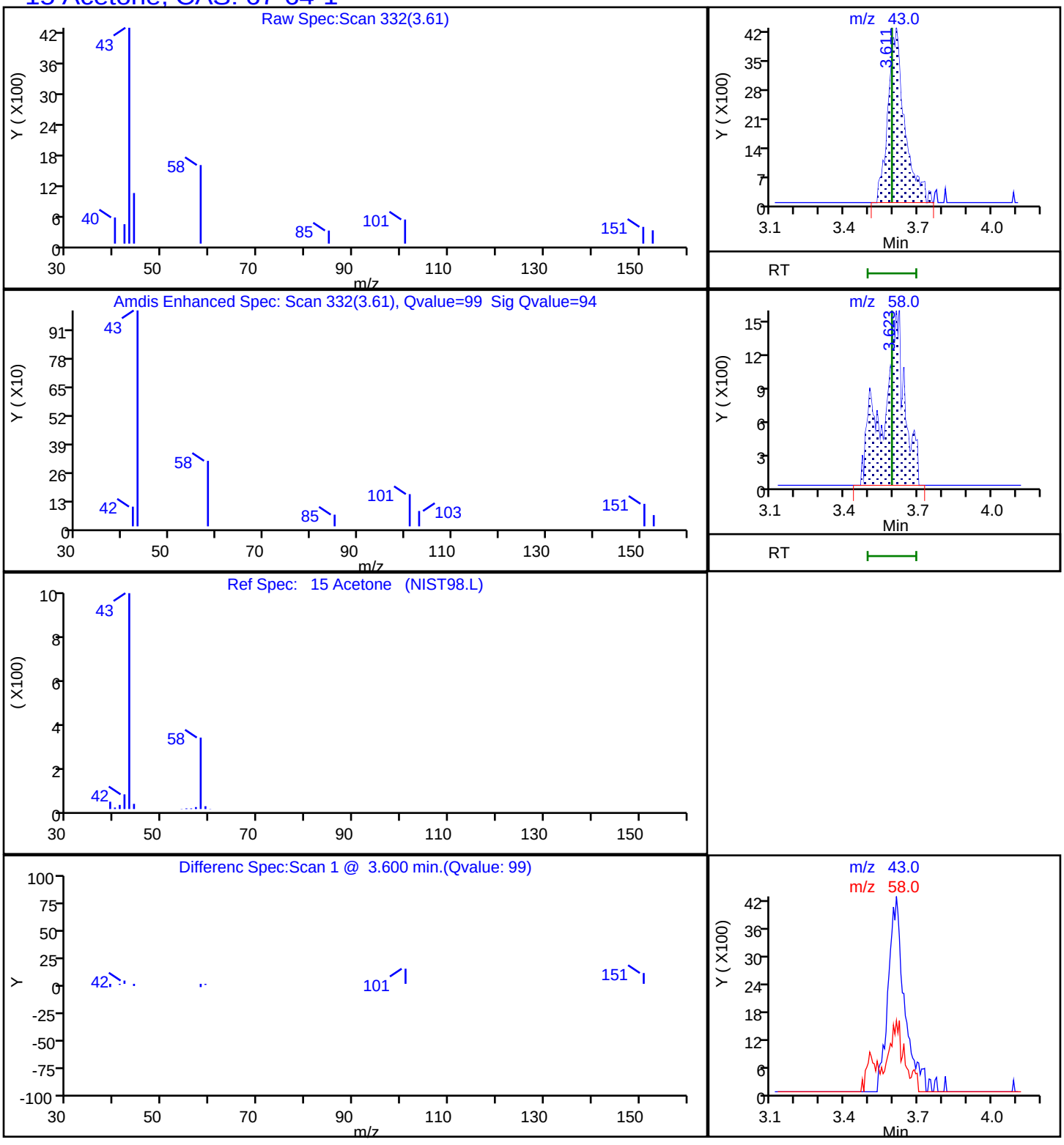
First Level Reviewer: johnsons Date: 29-Oct-2021 19:23:53

Compound	Amount Added	Amount Recovered	% Rec.
$ 46 Dibromofluoromethane (Surr)	10.0	10.6	105.76
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.6	106.32
$ 75 Toluene-d8 (Surr)	10.0	10.1	101.22
$ 100 4-Bromofluorobenzene (Surr)	10.0	9.46	94.55

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X28.D				
Injection Date:	29-Oct-2021 17:41:30	Instrument ID:	19930		
Lims ID:	410-60154-A-10	Lab Sample ID:	410-60154-10		
Client ID:	HD-COD-SW-27-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	28	Worklist Smp#:	29
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

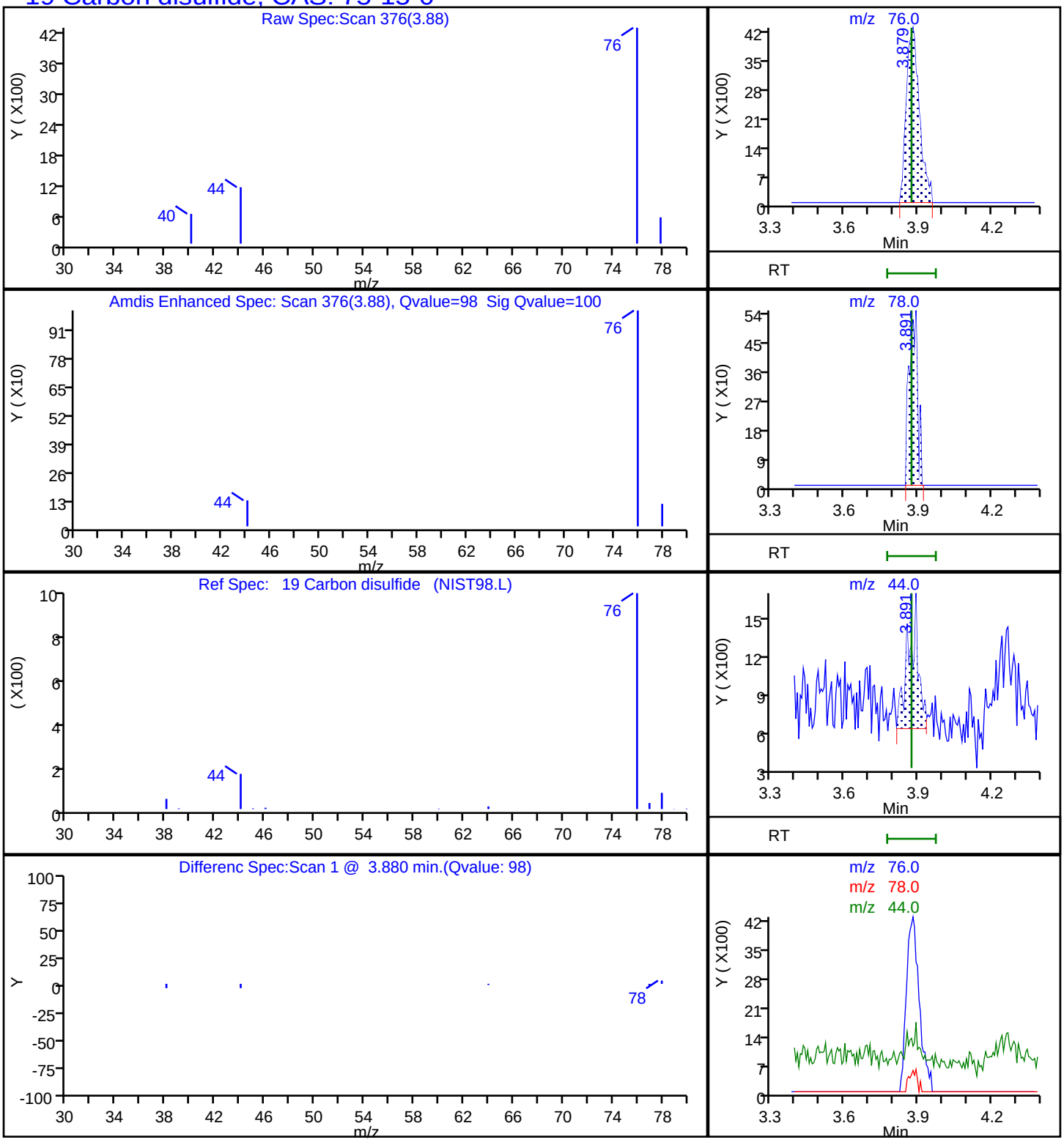
15 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X28.D				
Injection Date:	29-Oct-2021 17:41:30	Instrument ID:	19930		
Lims ID:	410-60154-A-10	Lab Sample ID:	410-60154-10		
Client ID:	HD-COD-SW-27-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	28	Worklist Smp#:	29
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

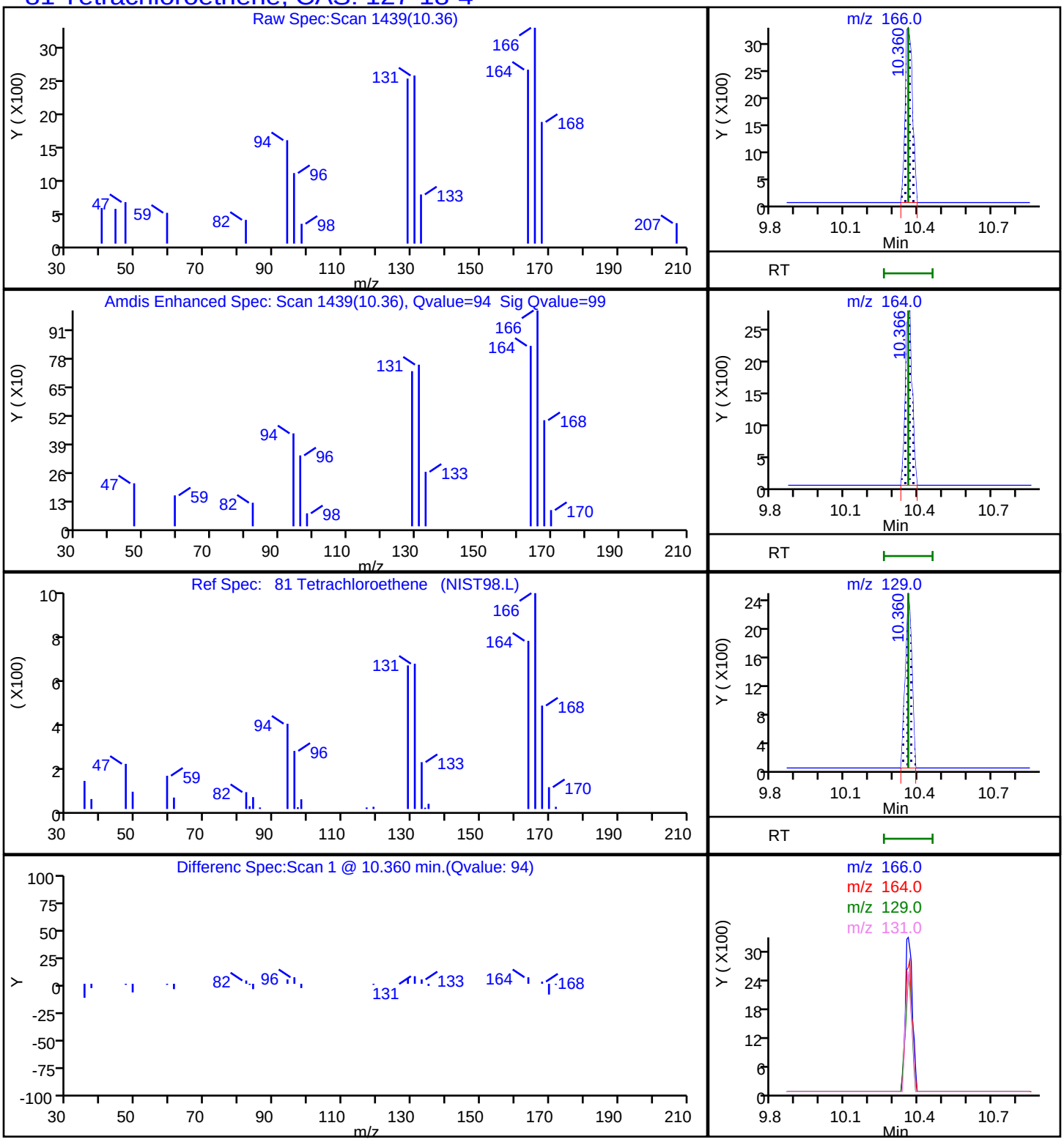
19 Carbon disulfide, CAS: 75-15-0



Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X28.D
Injection Date: 29-Oct-2021 17:41:30 Instrument ID: 19930
Lims ID: 410-60154-A-10 Lab Sample ID: 410-60154-10
Client ID: HD-COD-SW-27-0/1-0
Operator ID: SRK36897 ALS Bottle#: 28 Worklist Smp#: 29
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

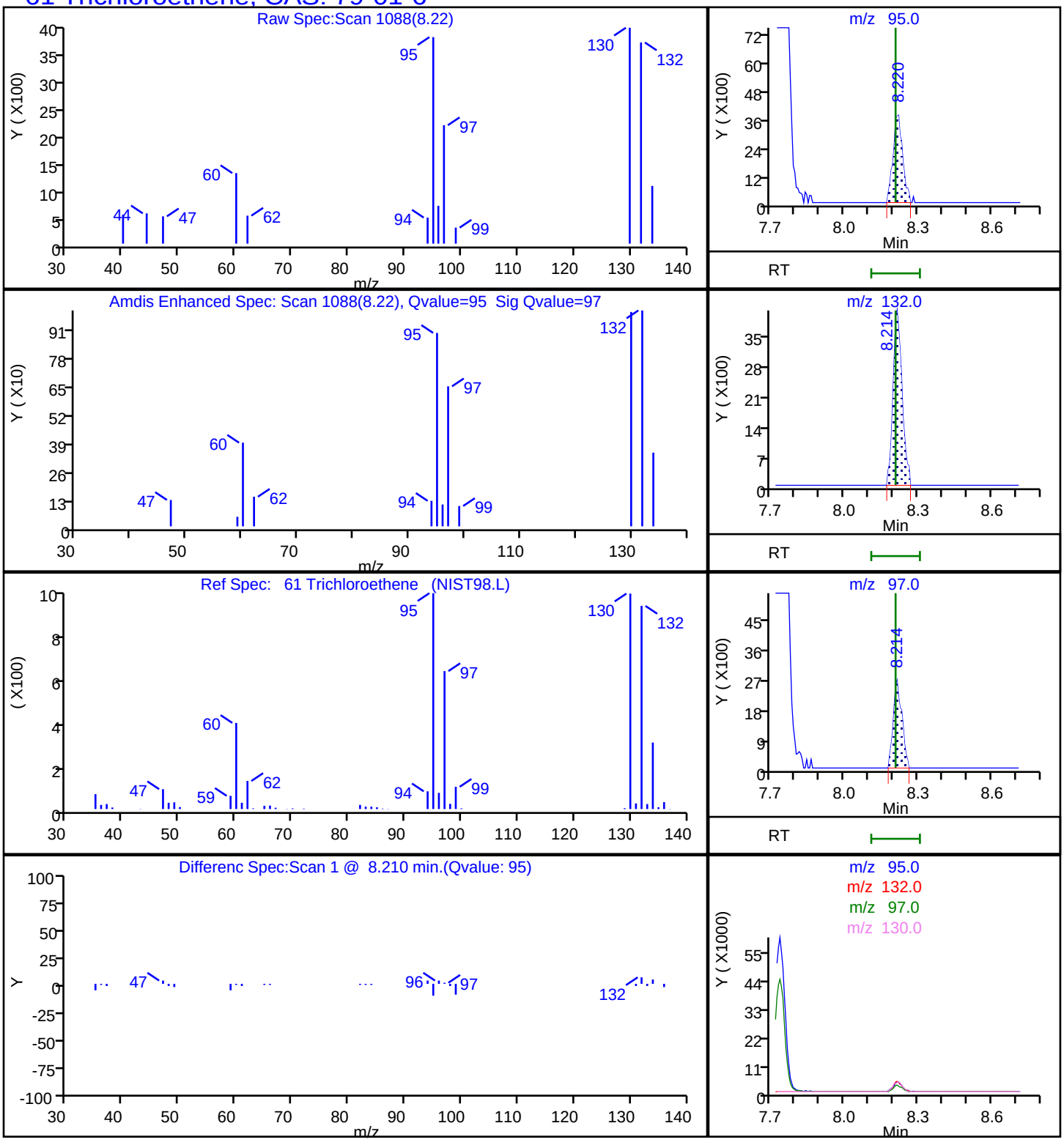
81 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X28.D				
Injection Date:	29-Oct-2021 17:41:30	Instrument ID:	19930		
Lims ID:	410-60154-A-10	Lab Sample ID:	410-60154-10		
Client ID:	HD-COD-SW-27-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	28	Worklist Smp#:	29
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

61 Trichloroethene, CAS: 79-01-6



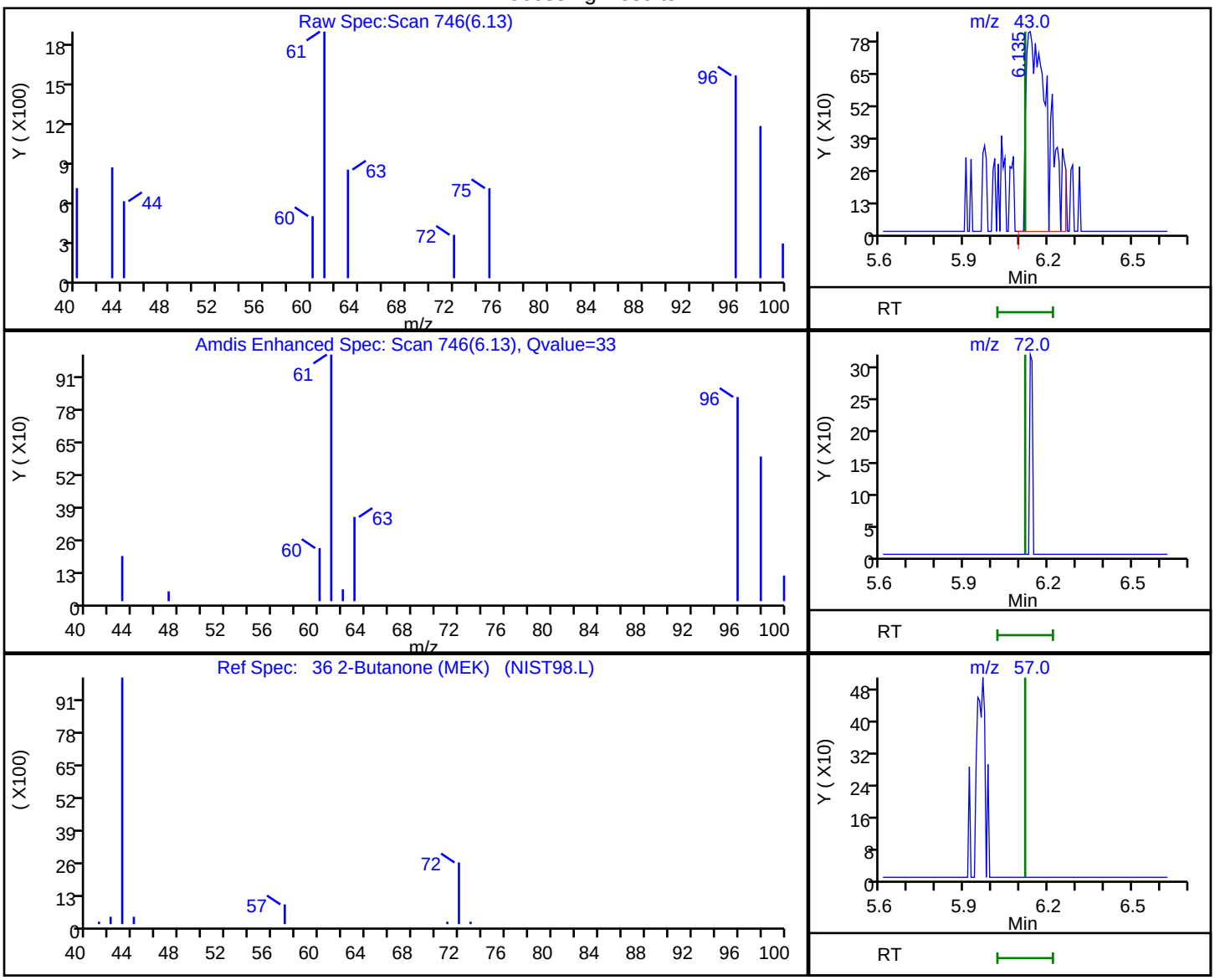
User Disabled Compound Report

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X28.D				
Injection Date:	29-Oct-2021 17:41:30	Instrument ID:	19930		
Lims ID:	410-60154-A-10	Lab Sample ID:	410-60154-10		
Client ID:	HD-COD-SW-27-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	28	Worklist Smp#:	29
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)	Detector	MS Quad		

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

Processing Results



RT	Mass	Response	Amount
6.13	43.00	4594	0.311989
6.12	72.00	0	
6.12	57.00	0	

Reviewer: johnsons, 29-Oct-2021 19:23:33

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.: 410-60154-1

SDG No.:

Client Sample ID: HD-COD-SW-28-0/1-0 Lab Sample ID: 410-60154-11

Matrix: Water Lab File ID: IC29X29.D

Analysis Method: 8260D Date Collected: 10/20/2021 13:40

Sample wt/vol: 25(mL) Date Analyzed: 10/29/2021 18:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 188555 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.060
75-34-3	1,1-Dichloroethane	ND		0.50	0.070
75-35-4	1,1-Dichloroethene	ND		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.060
107-06-2	1,2-Dichloroethane	ND		0.50	0.050
78-87-5	1,2-Dichloropropane	ND		0.50	0.060
78-93-3	2-Butanone (MEK)	ND		5.0	0.60
591-78-6	2-Hexanone	ND		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70
67-64-1	Acetone	2.2	J	5.0	0.90
71-43-2	Benzene	ND		0.50	0.050
74-97-5	Bromochloromethane	ND		0.50	0.050
75-27-4	Bromodichloromethane	ND		0.50	0.050
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND		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	0.13	J	0.50	0.090
74-87-3	Chloromethane	ND		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.099	J	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
100-41-4	Ethylbenzene	ND		0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.050
75-09-2	Methylene Chloride	ND		0.50	0.070
100-42-5	Styrene	ND		0.50	0.050
127-18-4	Tetrachloroethene	0.22	J	0.50	0.060
108-88-3	Toluene	0.072	J	0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.060
79-01-6	Trichloroethene	0.14	J	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-60154-1

SDG No.:

Client Sample ID: HD-COD-SW-28-0/1-0 Lab Sample ID: 410-60154-11

Matrix: Water Lab File ID: IC29X29.D

Analysis Method: 8260D Date Collected: 10/20/2021 13:40

Sample wt/vol: 25(mL) Date Analyzed: 10/29/2021 18:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 188555 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	108		80-120
460-00-4	4-Bromofluorobenzene (Surr)	95		80-120
1868-53-7	Dibromofluoromethane (Surr)	106		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\20211029-42796.b\IC29X29.D
Lims ID: 410-60154-A-11
Client ID: HD-COD-SW-28-0/1-0
Sample Type: Client
Inject. Date: 29-Oct-2021 18:02:30 ALS Bottle#: 29 Worklist Smp#: 30
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0042796-030
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 29-Oct-2021 19:24:36 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: CTX1664

First Level Reviewer: johnsons Date: 29-Oct-2021 19:24:36

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50	2.166	2.172	-0.006	1	2466	0.0360	
5 Vinyl chloride	62		2.294				ND	
7 Bromomethane	94		2.623				ND	
8 Chloroethane	64		2.708				ND	
14 1,1-Dichloroethene	96		3.562				ND	
15 Acetone	43	3.599	3.592	0.007	97	19157	2.21	
19 Carbon disulfide	76	3.879	3.873	0.006	95	6227	0.0491	
23 Methylene Chloride	84		4.233				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.251	4.251	0.000	21	155973	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		5.318				ND	
36 2-Butanone (MEK)	43		6.116				ND	7
37 cis-1,2-Dichloroethene	96	6.165	6.147	0.018	77	5734	0.0987	a
43 Chlorobromomethane	128		6.476				ND	
45 Chloroform	83	6.622	6.628	-0.006	92	12202	0.1302	
$ 46 Dibromofluoromethane (Surr)	113	6.842	6.842	0.000	94	513716	10.6	
47 1,1,1-Trichloroethane	97		6.854				ND	
50 Carbon tetrachloride	117		7.067				ND	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.293	7.299	-0.006	83	104513	10.8	
54 Benzene	78		7.329				ND	
56 1,2-Dichloroethane	62		7.397				ND	
* 58 Fluorobenzene (IS)	96	7.732	7.732	0.000	99	1923174	10.0	
61 Trichloroethene	95	8.213	8.207	0.006	92	8121	0.1397	
63 1,2-Dichloropropane	63		8.537				ND	
68 Dichlorobromomethane	83		8.884				ND	7
73 cis-1,3-Dichloropropene	75		9.427				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.591				ND	7
$ 75 Toluene-d8 (Surr)	98	9.738	9.731	0.007	94	2016636	10.1	
76 Toluene	92	9.811	9.811	0.000	96	10588	0.0716	
78 trans-1,3-Dichloropropene	75		10.067				ND	
80 1,1,2-Trichloroethane	97		10.268				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.366	10.359	0.007	97	15591	0.2214	
83 2-Hexanone	43		10.475				ND	
85 Chlorodibromomethane	129		10.646				ND	
86 Ethylene Dibromide	107		10.756				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.182	11.182	0.000	85	1542046	10.0	
90 Chlorobenzene	112		11.207				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.292				ND	
92 Ethylbenzene	91		11.292				ND	7
93 m-Xylene & p-Xylene	106	11.414	11.408	0.006	96	5464	0.0486	
94 o-Xylene	106		11.737				ND	7
95 Styrene	104		11.755				ND	7
96 Bromoform	173		11.914				ND	
$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	94	721244	9.47	
101 1,1,2,2-Tetrachloroethane	83		12.280				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	94	903377	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

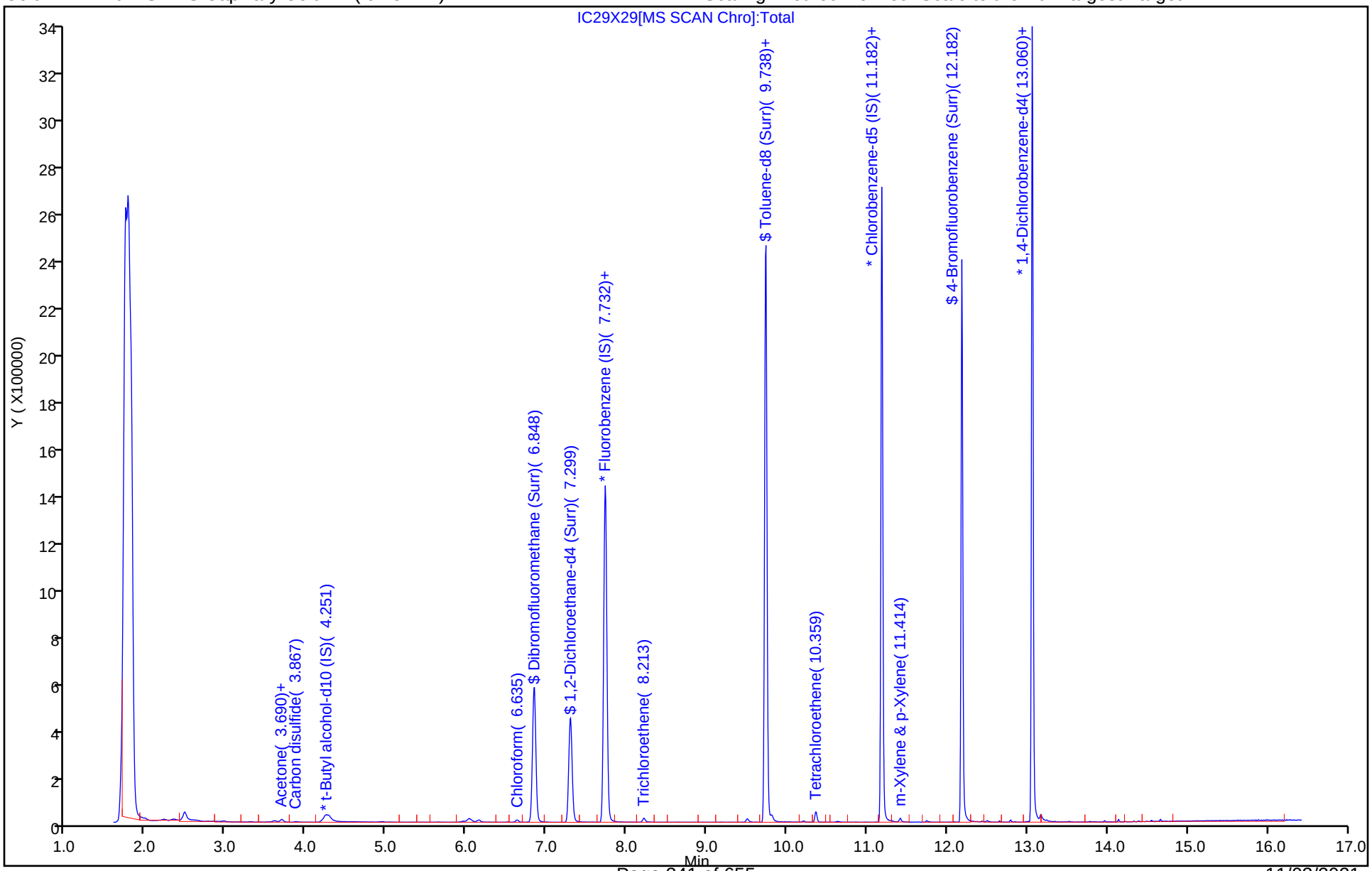
Report Date: 29-Oct-2021 19:25:54 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X29.D

Injection Date:	29-Oct-2021 18:02:30	Instrument ID:	19930	Operator ID:	SRK36897
Lims ID:	410-60154-A-11	Lab Sample ID:	410-60154-11	Worklist Smp#:	30
Client ID:	HD-COD-SW-28-0/1-0				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	29
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X29.D
Lims ID: 410-60154-A-11
Client ID: HD-COD-SW-28-0/1-0
Sample Type: Client
Inject. Date: 29-Oct-2021 18:02:30 ALS Bottle#: 29 Worklist Smp#: 30
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0042796-030
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 29-Oct-2021 19:24:36 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: CTX1664

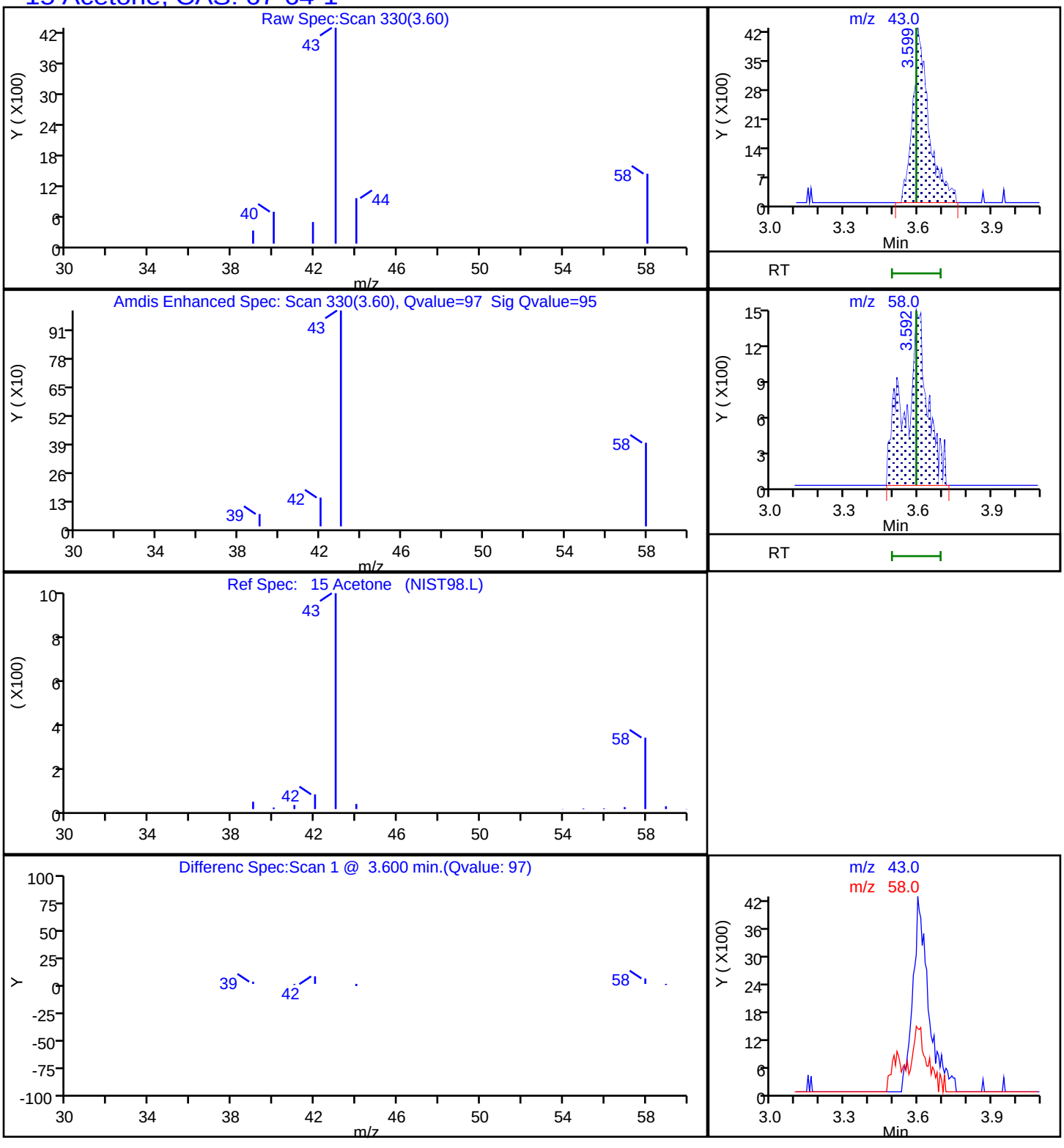
First Level Reviewer: johnsons Date: 29-Oct-2021 19:24:36

Compound	Amount Added	Amount Recovered	% Rec.
$ 46 Dibromofluoromethane (Surr)	10.0	10.6	106.04
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.8	107.84
$ 75 Toluene-d8 (Surr)	10.0	10.1	101.20
$ 100 4-Bromofluorobenzene (Surr)	10.0	9.47	94.70

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X29.D				
Injection Date:	29-Oct-2021 18:02:30	Instrument ID:	19930		
Lims ID:	410-60154-A-11	Lab Sample ID:	410-60154-11		
Client ID:	HD-COD-SW-28-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	29	Worklist Smp#:	30
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

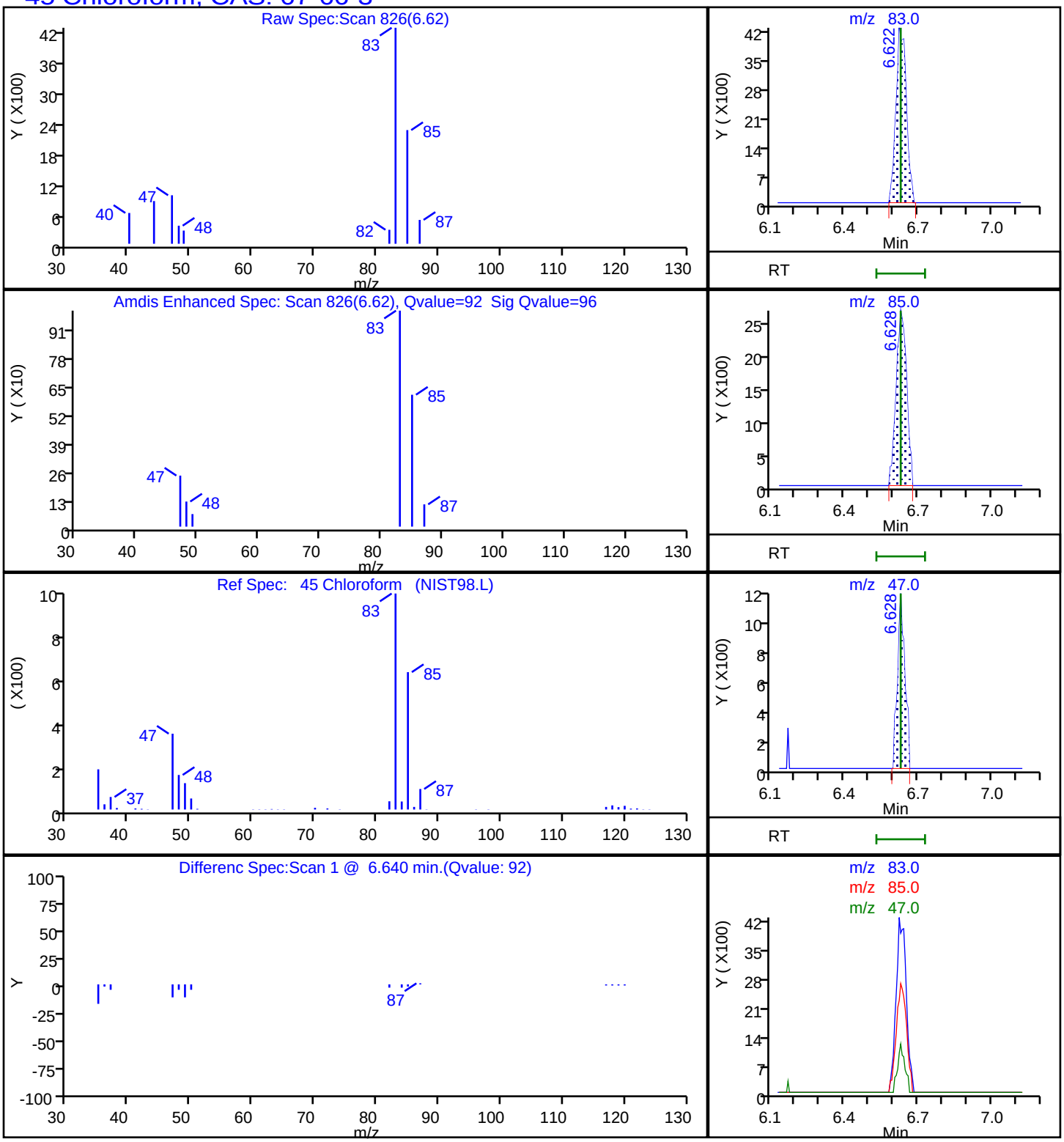
15 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X29.D				
Injection Date:	29-Oct-2021 18:02:30	Instrument ID:	19930		
Lims ID:	410-60154-A-11	Lab Sample ID:	410-60154-11		
Client ID:	HD-COD-SW-28-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	29	Worklist Smp#:	30
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

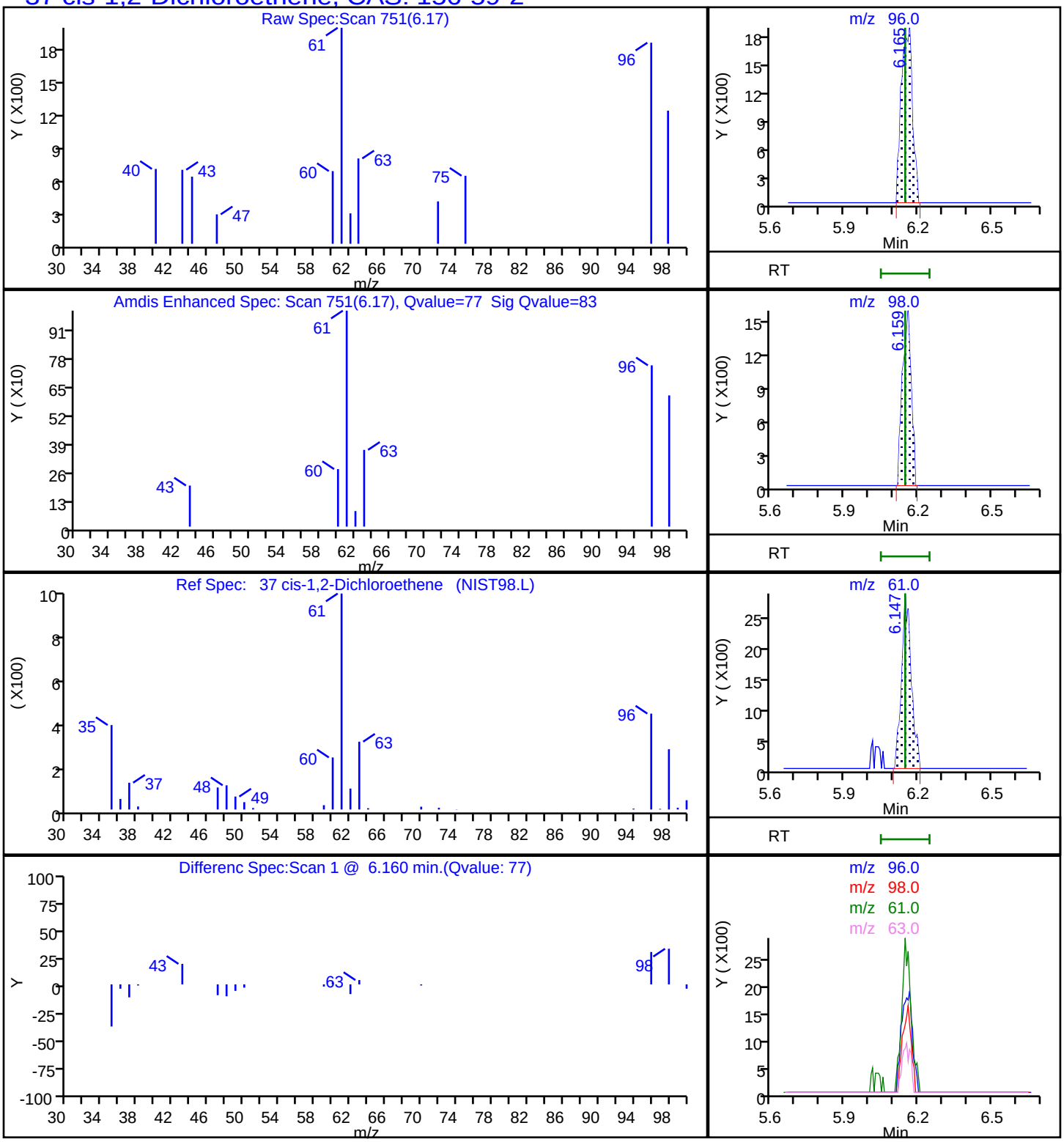
45 Chloroform, CAS: 67-66-3



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X29.D				
Injection Date:	29-Oct-2021 18:02:30	Instrument ID:	19930		
Lims ID:	410-60154-A-11	Lab Sample ID:	410-60154-11		
Client ID:	HD-COD-SW-28-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	29	Worklist Smp#:	30
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)	Detector	MS Quad		

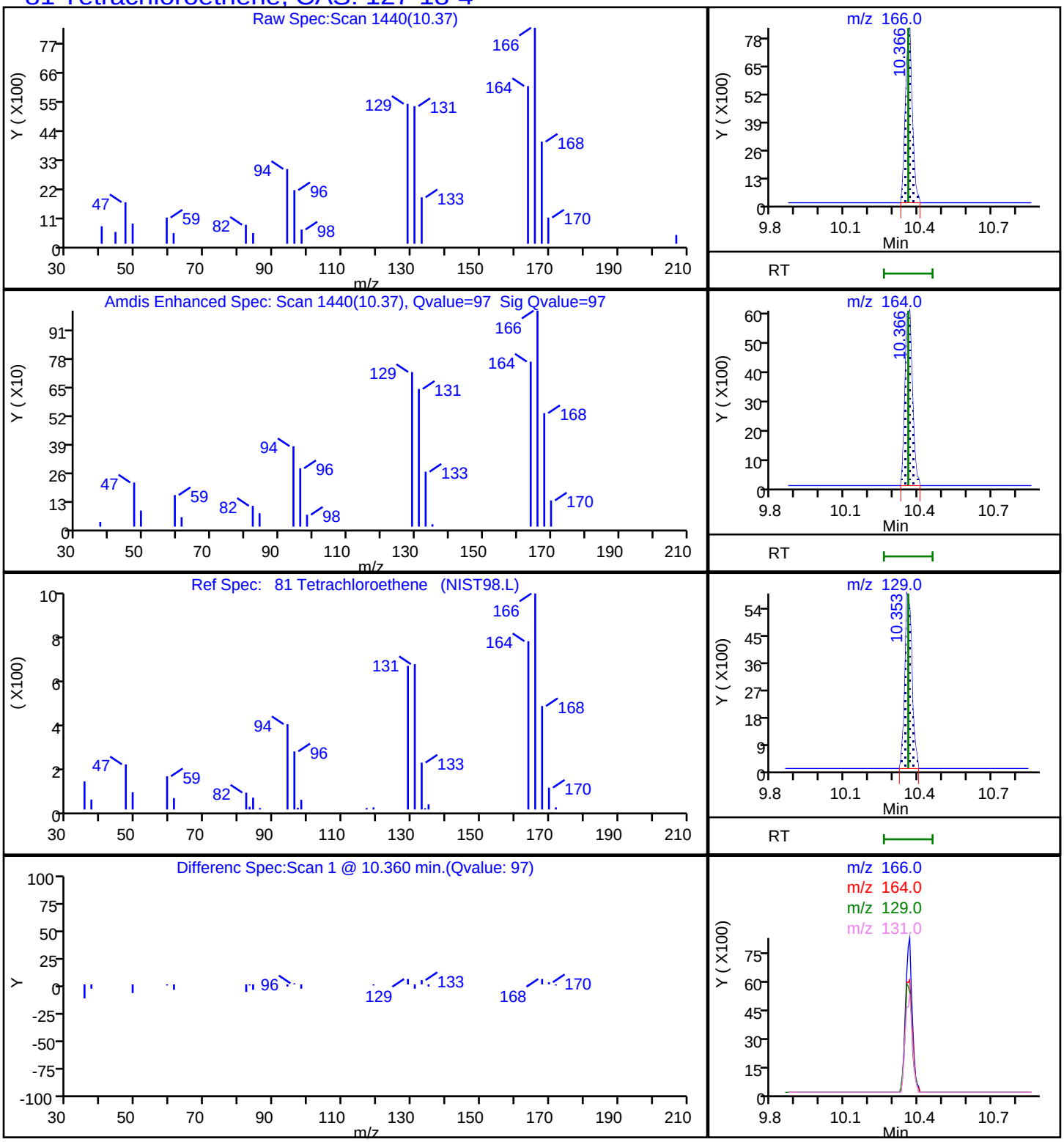
37 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X29.D				
Injection Date:	29-Oct-2021 18:02:30	Instrument ID:	19930		
Lims ID:	410-60154-A-11	Lab Sample ID:	410-60154-11		
Client ID:	HD-COD-SW-28-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	29	Worklist Smp#:	30
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)	Detector	MS Quad		

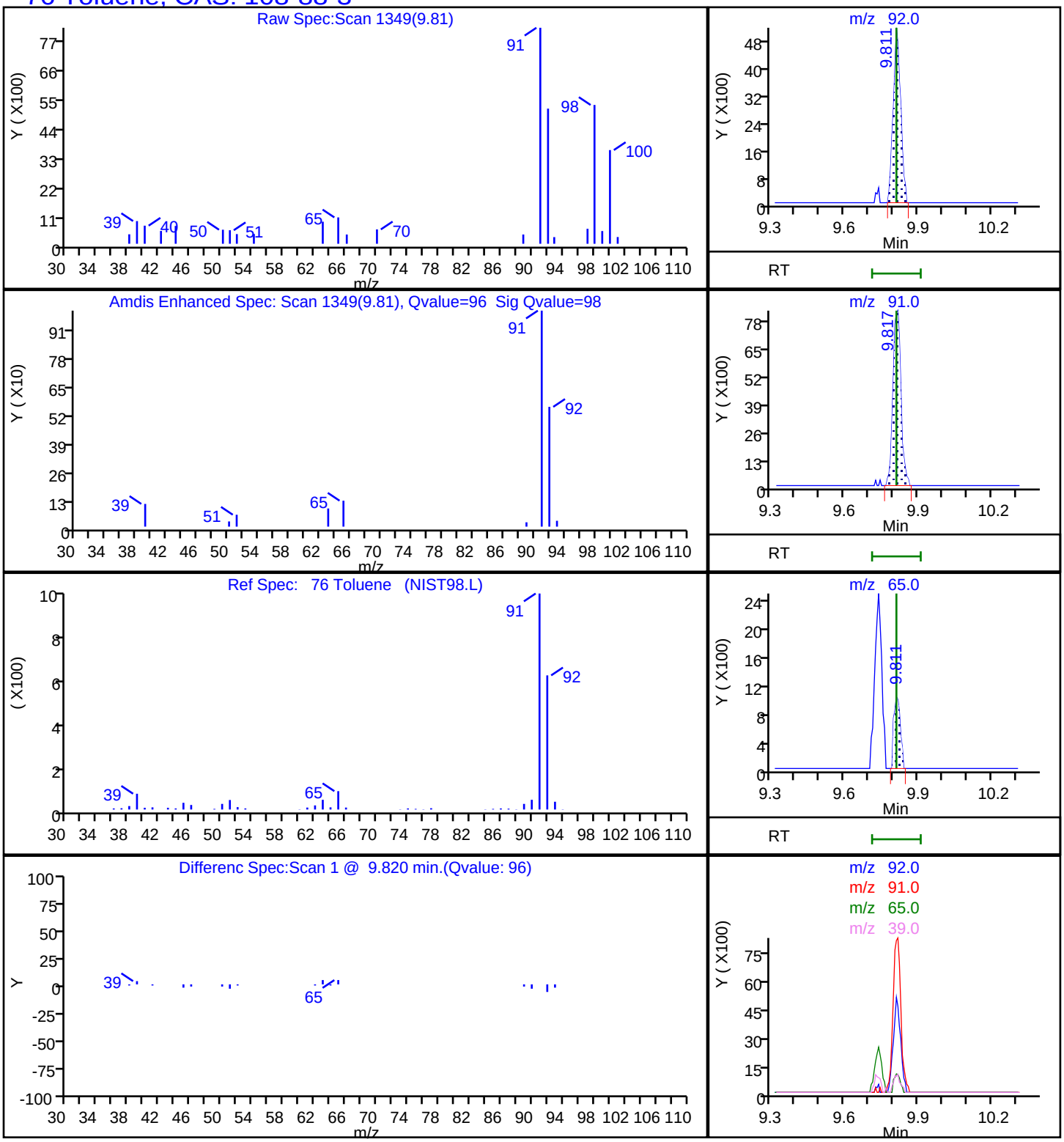
81 Tetrachloroethene, CAS: 127-18-4



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X29.D				
Injection Date:	29-Oct-2021 18:02:30	Instrument ID:	19930		
Lims ID:	410-60154-A-11	Lab Sample ID:	410-60154-11		
Client ID:	HD-COD-SW-28-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	29	Worklist Smp#:	30
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)	Detector	MS Quad		

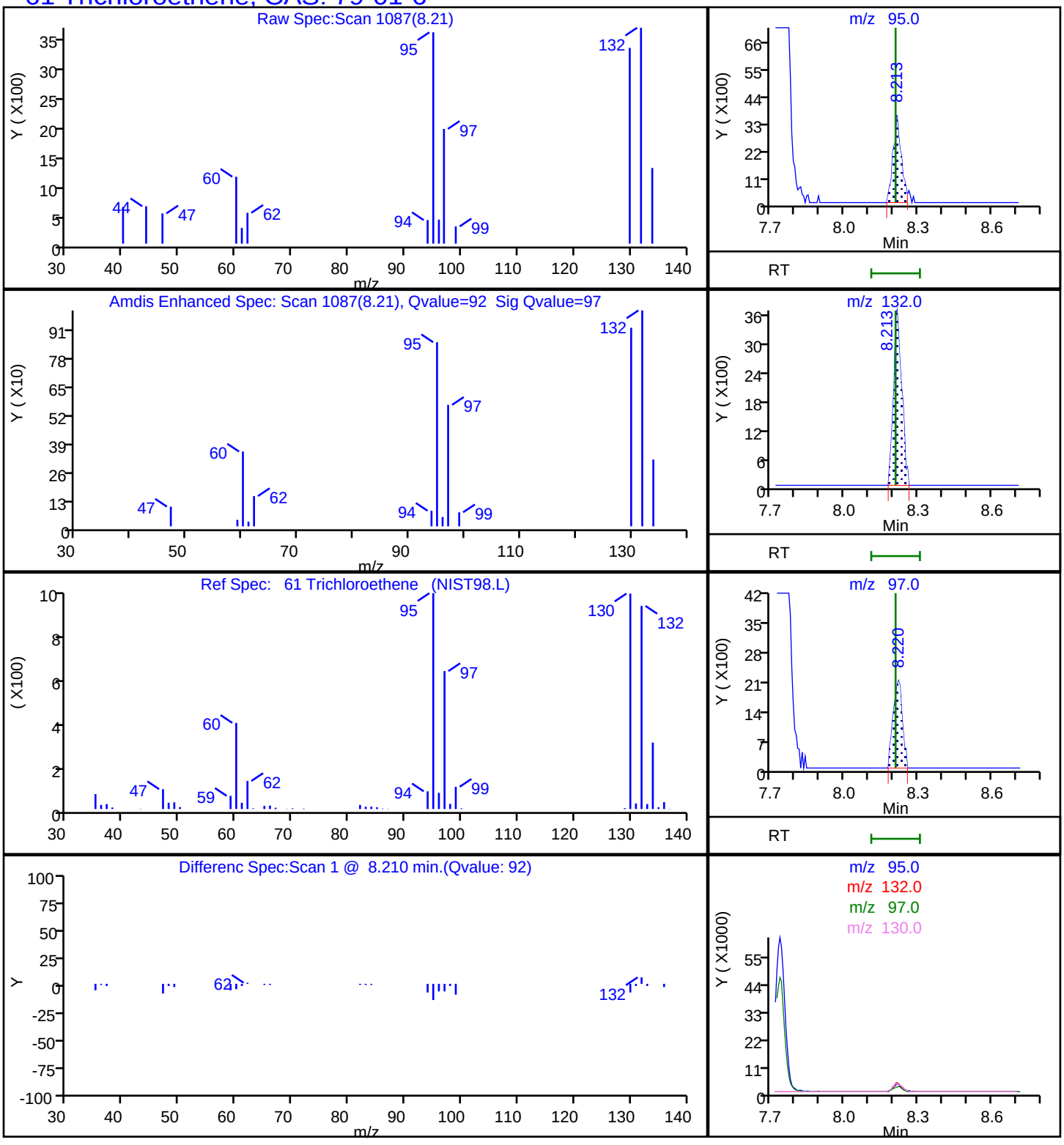
76 Toluene, CAS: 108-88-3



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X29.D				
Injection Date:	29-Oct-2021 18:02:30	Instrument ID:	19930		
Lims ID:	410-60154-A-11	Lab Sample ID:	410-60154-11		
Client ID:	HD-COD-SW-28-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	29	Worklist Smp#:	30
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

61 Trichloroethene, CAS: 79-01-6



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

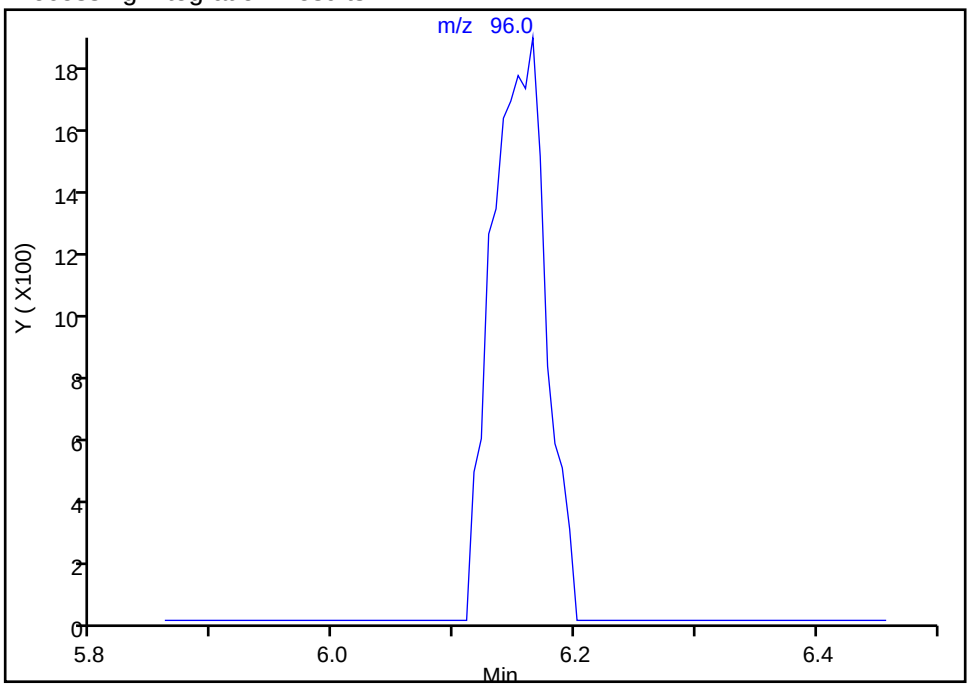
Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X29.D				
Injection Date:	29-Oct-2021 18:02:30	Instrument ID:	19930		
Lims ID:	410-60154-A-11	Lab Sample ID:	410-60154-11		
Client ID:	HD-COD-SW-28-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	29	Worklist Smp#:	30
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

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

Signal: 1

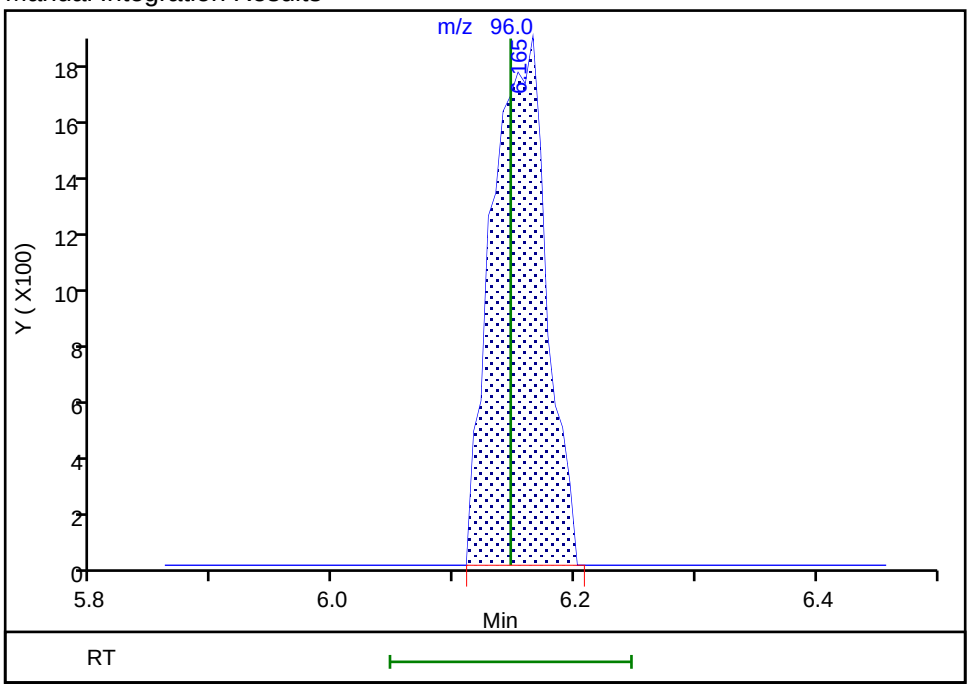
Not Detected
Expected RT: 6.15

Processing Integration Results



Manual Integration Results

RT: 6.17
Area: 5734
Amount: 0.098728
Amount Units: ug/l



Reviewer: johnsons, 29-Oct-2021 19:24:19
Audit Action: Assigned Compound ID Audit Reason: Missed Peak

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-60154-1

SDG No.:

Client Sample ID: HD-COD-SW-29-0/1-0 Lab Sample ID: 410-60154-12

Matrix: Water Lab File ID: IC29X30.D

Analysis Method: 8260D Date Collected: 10/20/2021 09:00

Sample wt/vol: 25(mL) Date Analyzed: 10/29/2021 18:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 188555 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.50	0.070
71-55-6	1,1,1-Trichloroethane	ND		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.50	0.070
79-00-5	1,1,2-Trichloroethane	ND		0.50	0.060
75-34-3	1,1-Dichloroethane	ND		0.50	0.070
75-35-4	1,1-Dichloroethene	ND		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	ND		0.50	0.060
107-06-2	1,2-Dichloroethane	ND		0.50	0.050
78-87-5	1,2-Dichloropropane	ND		0.50	0.060
78-93-3	2-Butanone (MEK)	ND		5.0	0.60
591-78-6	2-Hexanone	ND		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		5.0	0.70
67-64-1	Acetone	1.4	J	5.0	0.90
71-43-2	Benzene	ND		0.50	0.050
74-97-5	Bromochloromethane	ND		0.50	0.050
75-27-4	Bromodichloromethane	ND		0.50	0.050
75-25-2	Bromoform	ND		1.0	0.30
74-83-9	Bromomethane	ND		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	0.063	J	0.50	0.060
156-59-2	cis-1,2-Dichloroethene	0.18	J	0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
100-41-4	Ethylbenzene	ND		0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.050
75-09-2	Methylene Chloride	ND		0.50	0.070
100-42-5	Styrene	ND		0.50	0.050
127-18-4	Tetrachloroethene	0.43	J	0.50	0.060
108-88-3	Toluene	ND		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.060
79-01-6	Trichloroethene	0.29	J	0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-60154-1

SDG No.:

Client Sample ID: HD-COD-SW-29-0/1-0 Lab Sample ID: 410-60154-12

Matrix: Water Lab File ID: IC29X30.D

Analysis Method: 8260D Date Collected: 10/20/2021 09:00

Sample wt/vol: 25(mL) Date Analyzed: 10/29/2021 18:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 188555 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	106		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\20211029-42796.b\IC29X30.D
Lims ID: 410-60154-A-12
Client ID: HD-COD-SW-29-0/1-0
Sample Type: Client
Inject. Date: 29-Oct-2021 18:24:30 ALS Bottle#: 30 Worklist Smp#: 31
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0042796-031
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 29-Oct-2021 19:24:36 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: CTX1664

First Level Reviewer: johnsons Date: 29-Oct-2021 19:25:05

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50	2.172	2.172	0.000	94	4228	0.0634	
5 Vinyl chloride	62		2.294				ND	
7 Bromomethane	94		2.623				ND	
8 Chloroethane	64		2.708				ND	
14 1,1-Dichloroethene	96		3.562				ND	
15 Acetone	43	3.605	3.592	0.013	99	12004	1.44	
19 Carbon disulfide	76	3.891	3.873	0.018	98	4837	0.0393	
23 Methylene Chloride	84		4.233				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.263	4.251	0.012	22	150408	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		5.318				ND	
36 2-Butanone (MEK)	43		6.116				ND	7
37 cis-1,2-Dichloroethene	96	6.153	6.147	0.006	78	10152	0.1797	
43 Chlorobromomethane	128		6.476				ND	
45 Chloroform	83	6.635	6.628	0.007	88	5427	0.0595	
$ 46 Dibromofluoromethane (Surr)	113	6.848	6.842	0.006	94	497413	10.6	
47 1,1,1-Trichloroethane	97		6.854				ND	
50 Carbon tetrachloride	117		7.067				ND	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.305	7.299	0.006	83	99153	10.5	
54 Benzene	78		7.329				ND	7
56 1,2-Dichloroethane	62		7.397				ND	
* 58 Fluorobenzene (IS)	96	7.738	7.732	0.006	99	1870587	10.0	
61 Trichloroethene	95	8.220	8.207	0.013	94	16397	0.2901	
63 1,2-Dichloropropane	63		8.537				ND	
68 Dichlorobromomethane	83		8.884				ND	
73 cis-1,3-Dichloropropene	75		9.427				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.591				ND	7
$ 75 Toluene-d8 (Surr)	98	9.738	9.731	0.007	93	1967182	10.2	
76 Toluene	92	9.817	9.811	0.006	96	3771	0.0264	
78 trans-1,3-Dichloropropene	75		10.067				ND	
80 1,1,2-Trichloroethane	97		10.268				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.360	10.359	0.001	98	29335	0.4305	
83 2-Hexanone	43		10.475				ND	
85 Chlorodibromomethane	129		10.646				ND	
86 Ethylene Dibromide	107		10.756				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.183	11.182	0.000	85	1492032	10.0	
90 Chlorobenzene	112		11.207				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.292				ND	
92 Ethylbenzene	91		11.292				ND	7
93 m-Xylene & p-Xylene	106		11.408				ND	7
94 o-Xylene	106		11.737				ND	
95 Styrene	104		11.755				ND	
96 Bromoform	173		11.914				ND	
$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	93	709339	9.63	
101 1,1,2,2-Tetrachloroethane	83		12.280				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	94	877357	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_LLcentISS_00002 Amount Added: 5.00 Units: uL Run Reagent

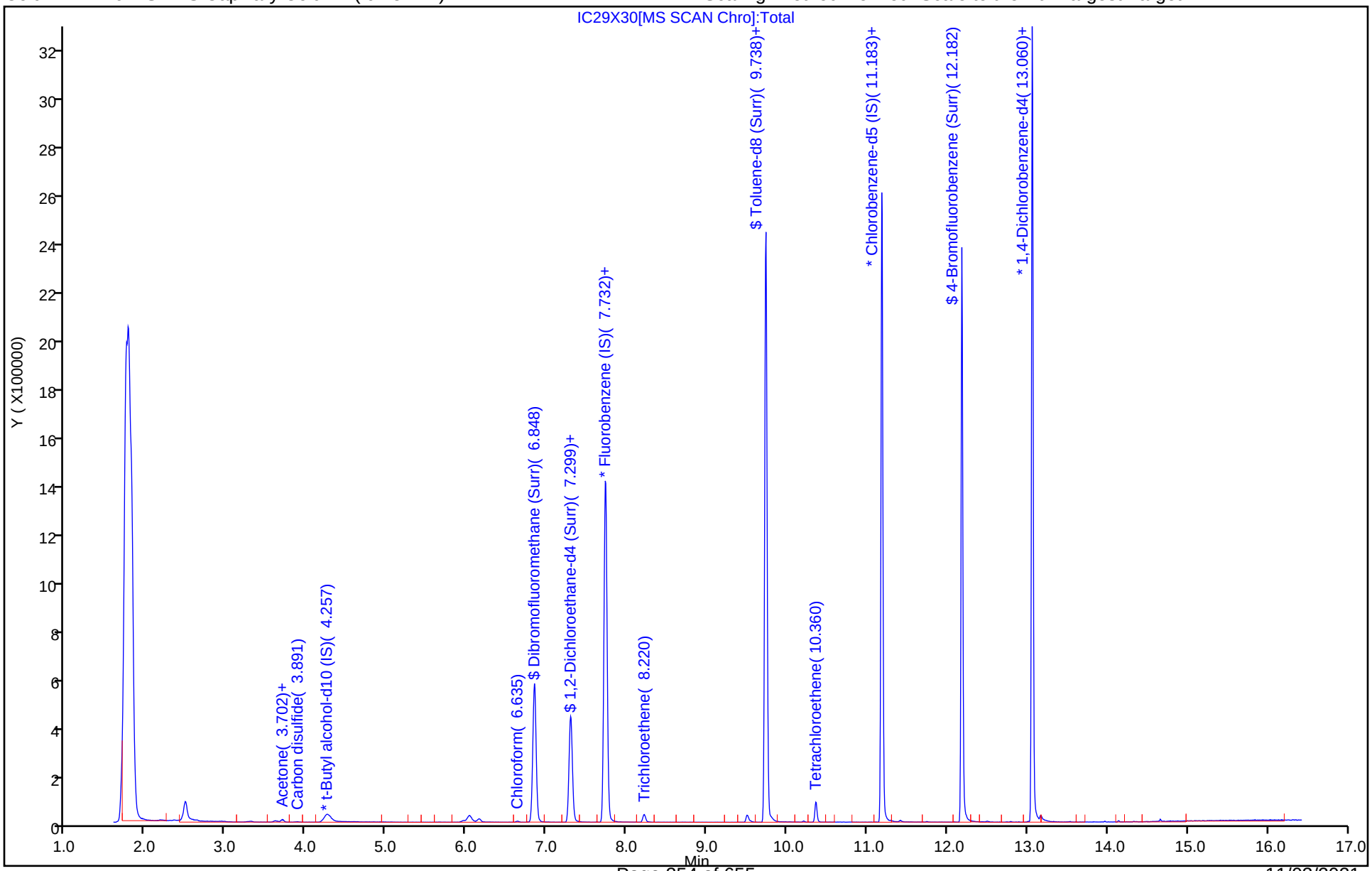
Report Date: 29-Oct-2021 19:27:00 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X30.D

Injection Date:	29-Oct-2021 18:24:30	Instrument ID:	19930	Operator ID:	SRK36897
Lims ID:	410-60154-A-12	Lab Sample ID:	410-60154-12	Worklist Smp#:	31
Client ID:	HD-COD-SW-29-0/1-0				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	30
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\20211029-42796.b\IC29X30.D
Lims ID: 410-60154-A-12
Client ID: HD-COD-SW-29-0/1-0
Sample Type: Client
Inject. Date: 29-Oct-2021 18:24:30 ALS Bottle#: 30 Worklist Smp#: 31
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0042796-031
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 29-Oct-2021 19:24:36 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: CTX1664

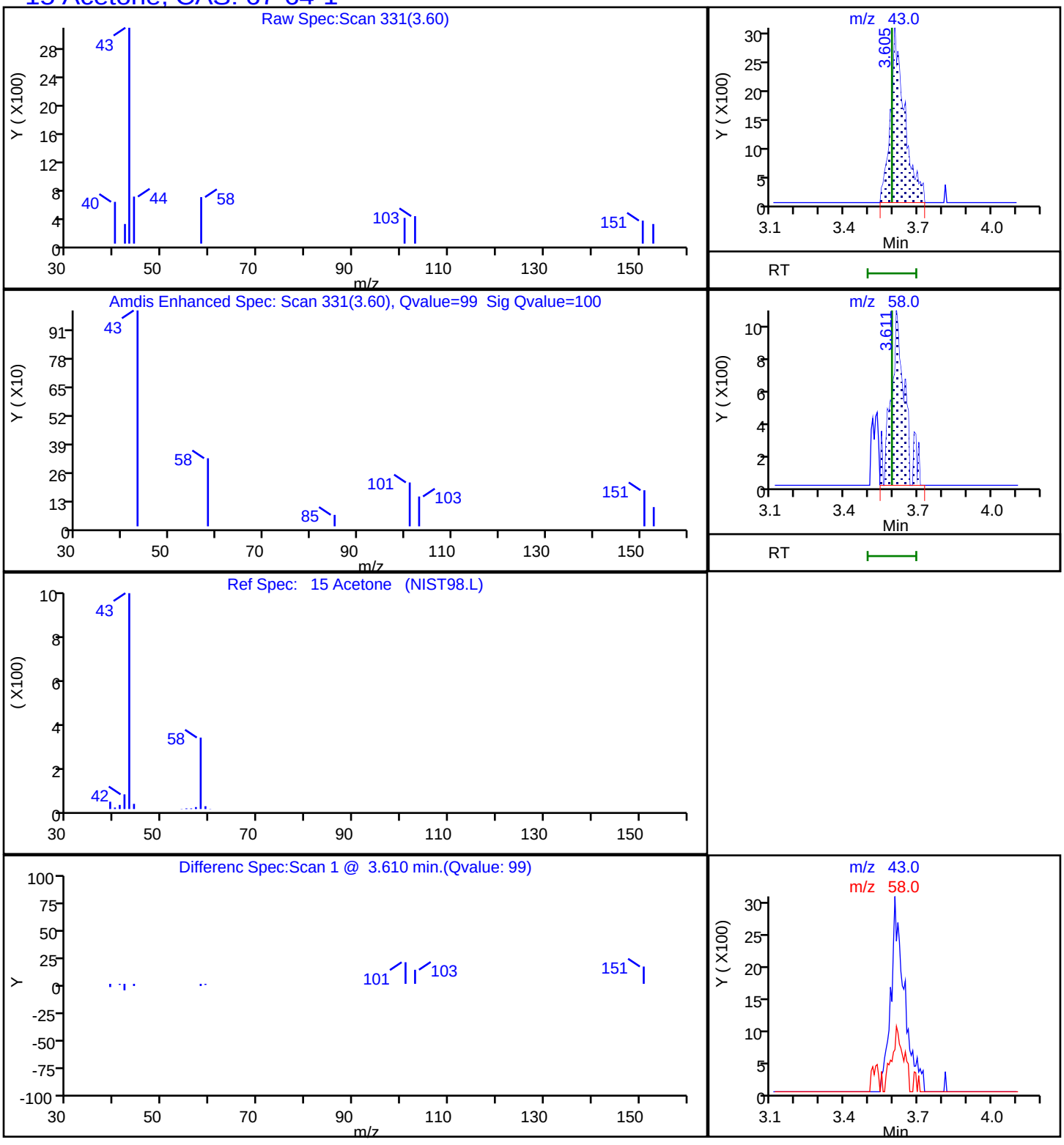
First Level Reviewer: johnsons Date: 29-Oct-2021 19:25:05

Compound	Amount Added	Amount Recovered	% Rec.
$ 46 Dibromofluoromethane (Surr)	10.0	10.6	105.56
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.5	105.18
$ 75 Toluene-d8 (Surr)	10.0	10.2	102.02
$ 100 4-Bromofluorobenzene (Surr)	10.0	9.63	96.26

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X30.D				
Injection Date:	29-Oct-2021 18:24:30	Instrument ID:	19930		
Lims ID:	410-60154-A-12	Lab Sample ID:	410-60154-12		
Client ID:	HD-COD-SW-29-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	30	Worklist Smp#:	31
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)	Detector	MS Quad		

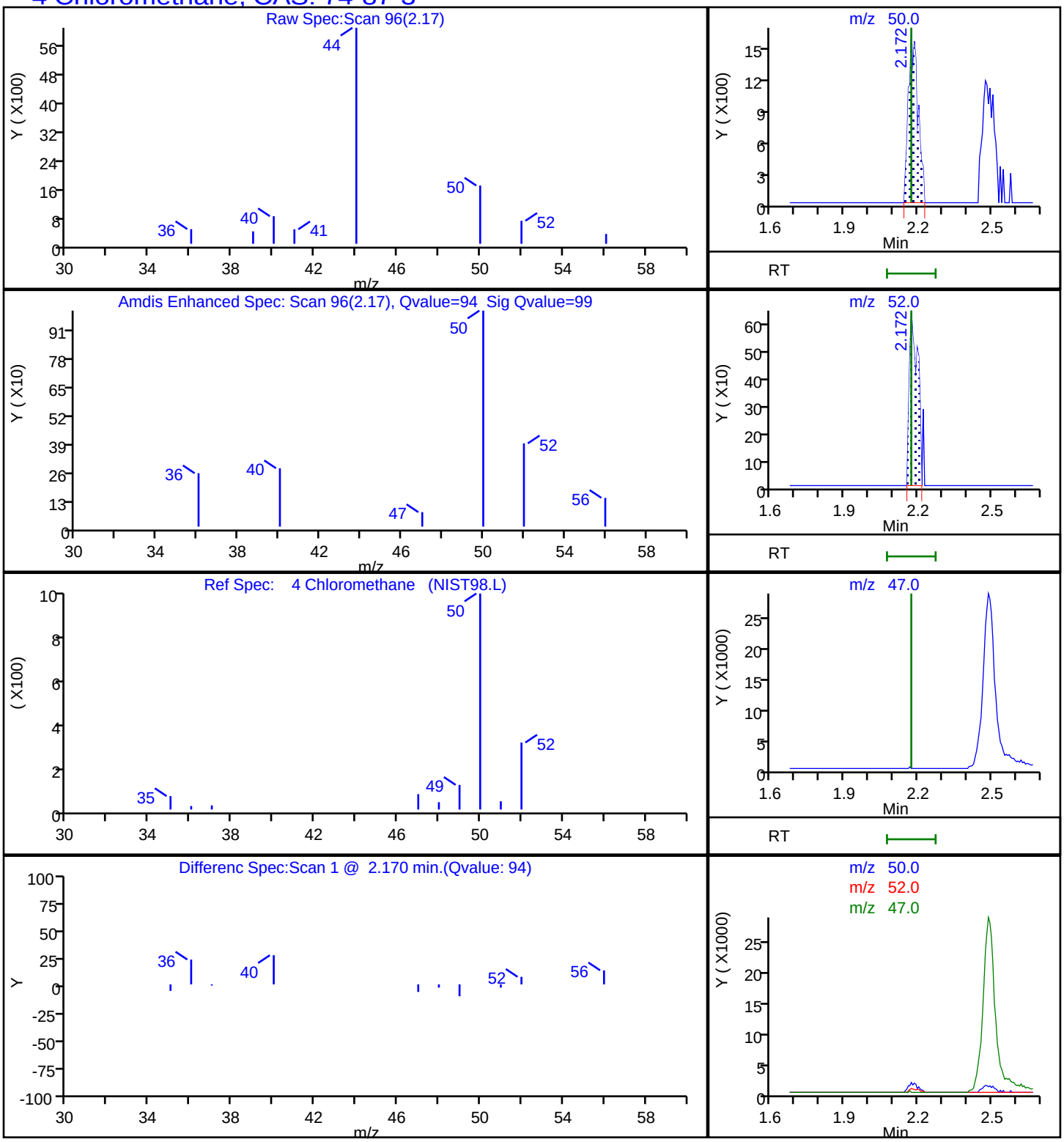
15 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X30.D				
Injection Date:	29-Oct-2021 18:24:30	Instrument ID:	19930		
Lims ID:	410-60154-A-12	Lab Sample ID:	410-60154-12		
Client ID:	HD-COD-SW-29-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	30	Worklist Smp#:	31
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

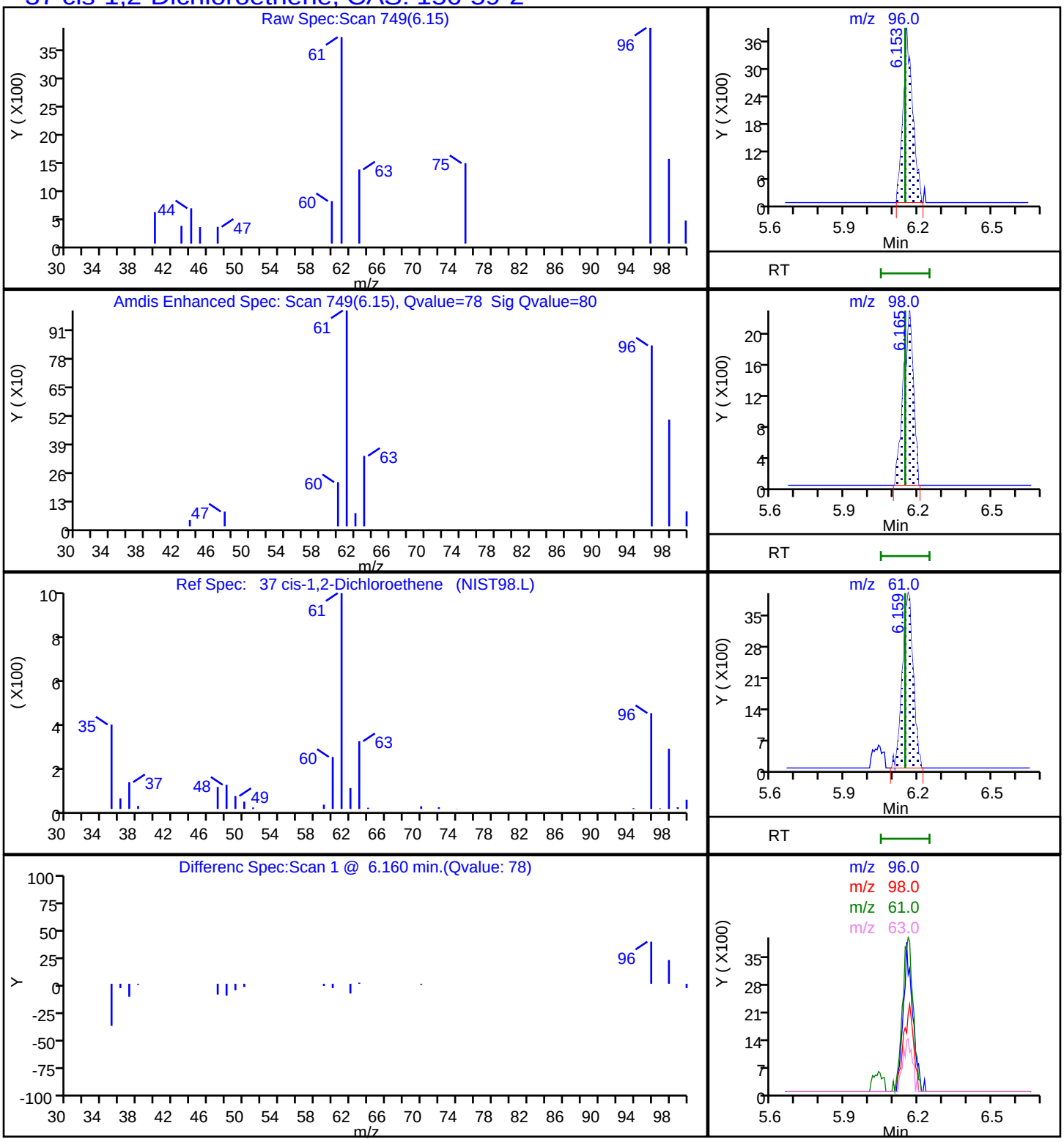
4 Chloromethane, CAS: 74-87-3



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X30.D				
Injection Date:	29-Oct-2021 18:24:30	Instrument ID:	19930		
Lims ID:	410-60154-A-12	Lab Sample ID:	410-60154-12		
Client ID:	HD-COD-SW-29-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	30	Worklist Smp#:	31
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)	Detector	MS Quad		

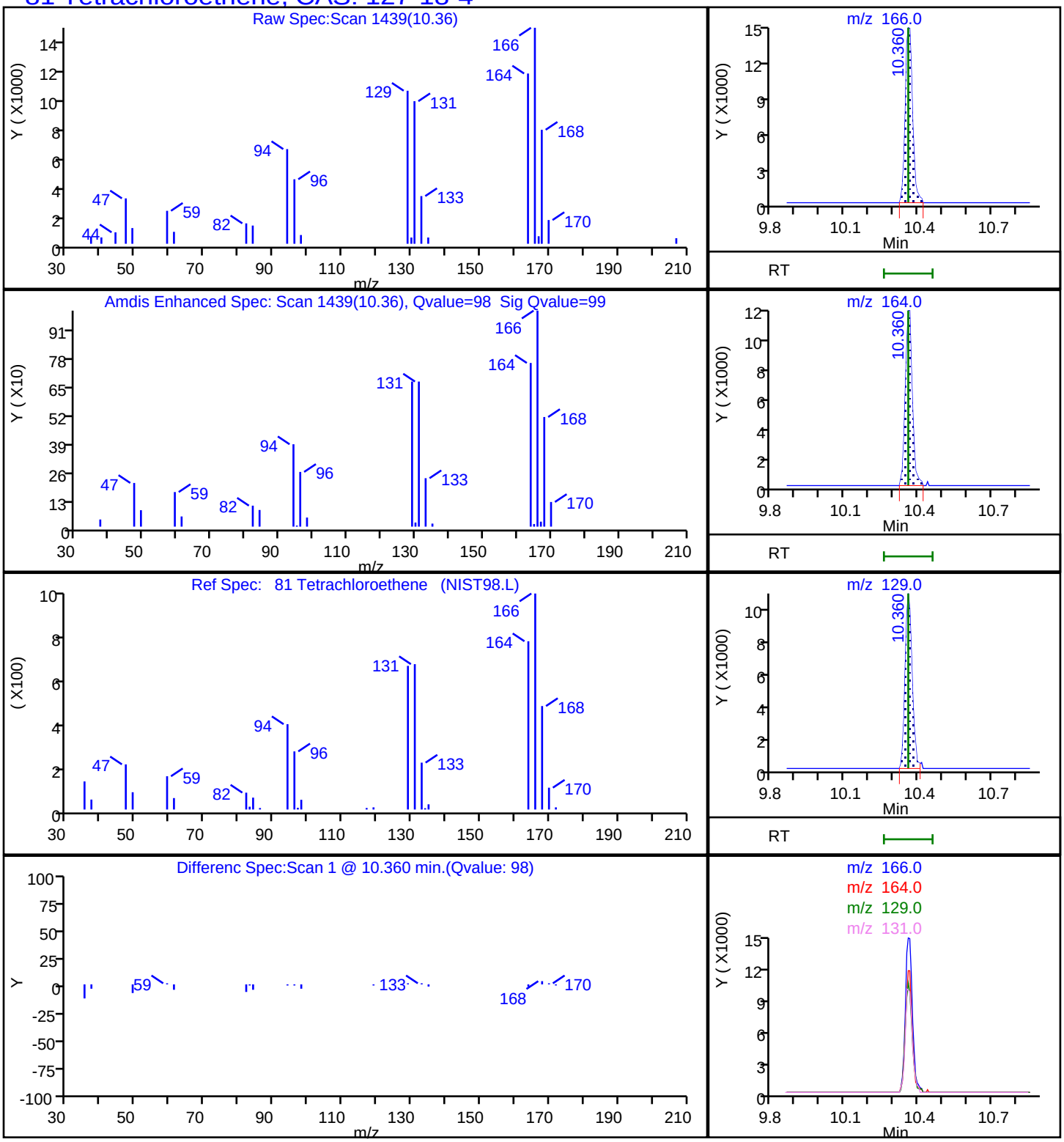
37 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X30.D				
Injection Date:	29-Oct-2021 18:24:30	Instrument ID:	19930		
Lims ID:	410-60154-A-12	Lab Sample ID:	410-60154-12		
Client ID:	HD-COD-SW-29-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	30	Worklist Smp#:	31
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)	Detector	MS Quad		

81 Tetrachloroethene, CAS: 127-18-4

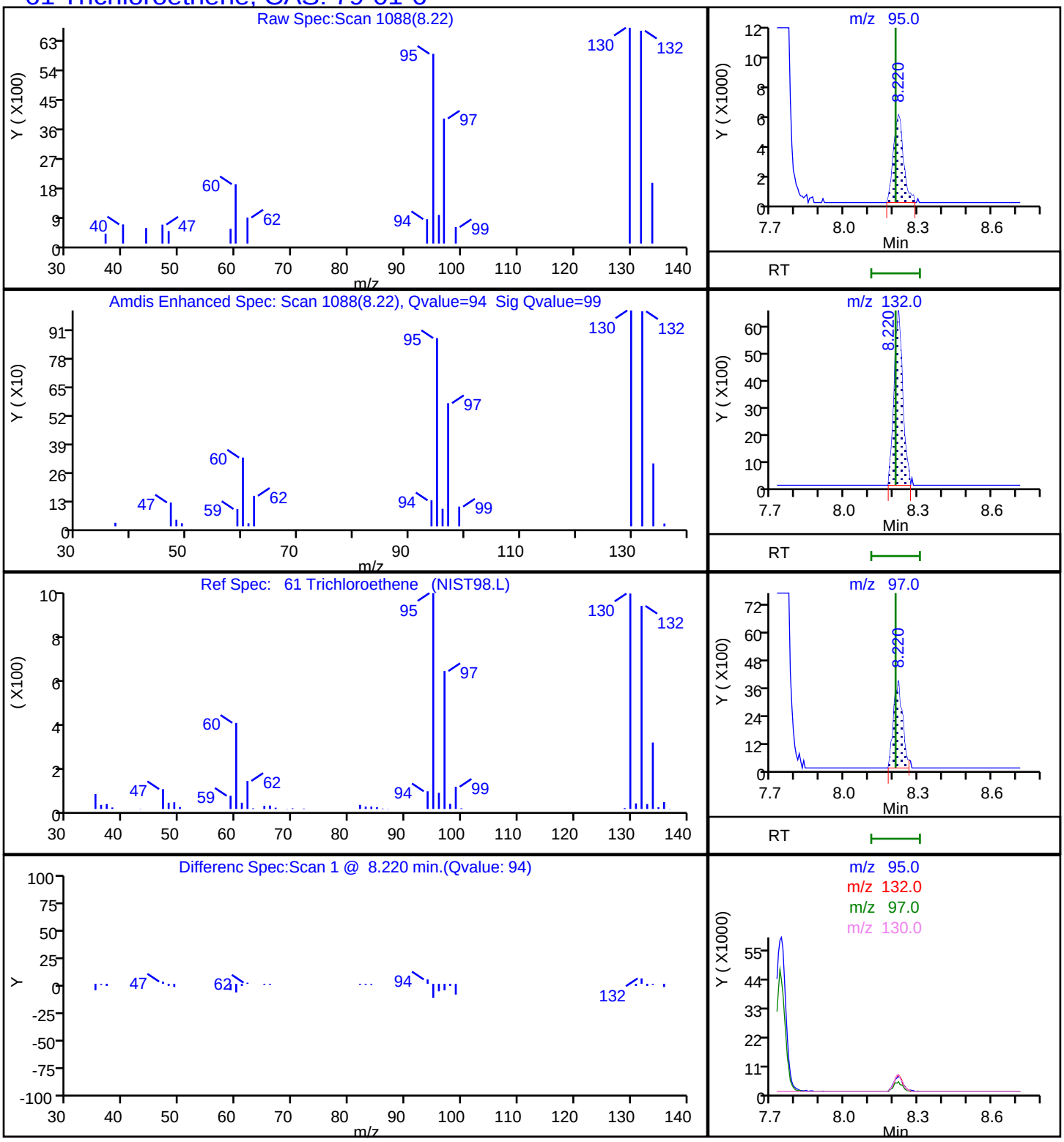


Report Date: 29-Oct-2021 19:27:00 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X30.D				
Injection Date:	29-Oct-2021 18:24:30	Instrument ID:	19930		
Lims ID:	410-60154-A-12	Lab Sample ID:	410-60154-12		
Client ID:	HD-COD-SW-29-0/1-0				
Operator ID:	SRK36897	ALS Bottle#:	30	Worklist Smp#:	31
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

61 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-60154-1

SDG No.:

Client Sample ID: HD-QC1-0/1-1 Lab Sample ID: 410-60154-13

Matrix: Water Lab File ID: IC29X31.D

Analysis Method: 8260D Date Collected: 10/20/2021 12:00

Sample wt/vol: 25(mL) Date Analyzed: 10/29/2021 18:45

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 188555 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	4.6		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	0.66		0.50	0.070
75-35-4	1,1-Dichloroethene	0.52		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	0.33	J	0.50	0.090
74-87-3	Chloromethane	ND		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	4.0		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	ND		0.50	0.050
124-48-1	Dibromochloromethane	ND		0.50	0.070
100-41-4	Ethylbenzene	ND		0.50	0.060
1634-04-4	Methyl tert-butyl ether	ND		0.50	0.050
75-09-2	Methylene Chloride	ND		0.50	0.070
100-42-5	Styrene	ND		0.50	0.050
108-88-3	Toluene	ND		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	ND		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	ND		0.50	0.060
79-01-6	Trichloroethene	12		0.50	0.060
75-01-4	Vinyl chloride	ND		0.50	0.10

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-60154-1

SDG No.:

Client Sample ID: HD-QC1-0/1-1 Lab Sample ID: 410-60154-13

Matrix: Water Lab File ID: IC29X31.D

Analysis Method: 8260D Date Collected: 10/20/2021 12:00

Sample wt/vol: 25(mL) Date Analyzed: 10/29/2021 18:45

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 188555 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1330-20-7	Xylenes, Total	ND		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	106		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\20211029-42796.b\IC29X31.D
Lims ID: 410-60154-A-13
Client ID: HD-QC1-0/1-1
Sample Type: Client
Inject. Date: 29-Oct-2021 18:45:30 ALS Bottle#: 31 Worklist Smp#: 32
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0042796-032
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 29-Oct-2021 19:24:36 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: CTX1664

First Level Reviewer: johnsons Date: 29-Oct-2021 19:26:39

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50		2.172				ND	
5 Vinyl chloride	62		2.294				ND	7
7 Bromomethane	94		2.623				ND	
8 Chloroethane	64		2.708				ND	
14 1,1-Dichloroethene	96	3.574	3.562	0.012	97	22706	0.5158	
15 Acetone	43		3.592				ND	7
19 Carbon disulfide	76		3.873				ND	7
23 Methylene Chloride	84		4.233				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.257	4.251	0.006	24	155687	50.0	
27 Methyl tert-butyl ether	73	4.659	4.647	0.012	87	4256	0.0339	
28 trans-1,2-Dichloroethene	96		4.659				ND	7
31 1,1-Dichloroethane	63	5.330	5.318	0.012	96	59553	0.6564	
36 2-Butanone (MEK)	43		6.116				ND	
37 cis-1,2-Dichloroethene	96	6.153	6.147	0.006	79	224627	4.03	
43 Chlorobromomethane	128		6.476				ND	
45 Chloroform	83	6.635	6.628	0.007	93	29827	0.3319	
$ 46 Dibromofluoromethane (Surr)	113	6.848	6.842	0.006	94	491498	10.6	
47 1,1,1-Trichloroethane	97	6.860	6.854	0.006	98	383231	4.59	
50 Carbon tetrachloride	117	7.080	7.067	0.013	87	2783	0.0386	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.305	7.299	0.006	83	99618	10.7	
54 Benzene	78		7.329				ND	
56 1,2-Dichloroethane	62		7.397				ND	
* 58 Fluorobenzene (IS)	96	7.738	7.732	0.006	99	1844447	10.0	
61 Trichloroethene	95	8.214	8.207	0.007	98	649483	11.7	
63 1,2-Dichloropropane	63		8.537				ND	
68 Dichlorobromomethane	83		8.884				ND	
73 cis-1,3-Dichloropropene	75		9.427				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.591				ND	
$ 75 Toluene-d8 (Surr)	98	9.738	9.731	0.007	93	1919567	10.1	
76 Toluene	92		9.811				ND	7
78 trans-1,3-Dichloropropene	75		10.067				ND	
80 1,1,2-Trichloroethane	97	10.268	10.268	0.000	61	973	0.0260	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.360	10.359	0.001	98	4249210	63.5	E
83 2-Hexanone	43		10.475				ND	
85 Chlorodibromomethane	129		10.646				ND	
86 Ethylene Dibromide	107		10.756				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.183	11.182	0.001	85	1466197	10.0	
90 Chlorobenzene	112		11.207				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.292				ND	
92 Ethylbenzene	91		11.292				ND	7
93 m-Xylene & p-Xylene	106		11.408				ND	7
94 o-Xylene	106		11.737				ND	
95 Styrene	104		11.755				ND	
96 Bromoform	173		11.914				ND	
$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	93	695535	9.60	
101 1,1,2,2-Tetrachloroethane	83		12.280				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	94	857363	10.0	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

7 - Failed Limit of Detection

Reagents:

MSV_LLcentISS_00002 Amount Added: 5.00 Units: uL Run Reagent

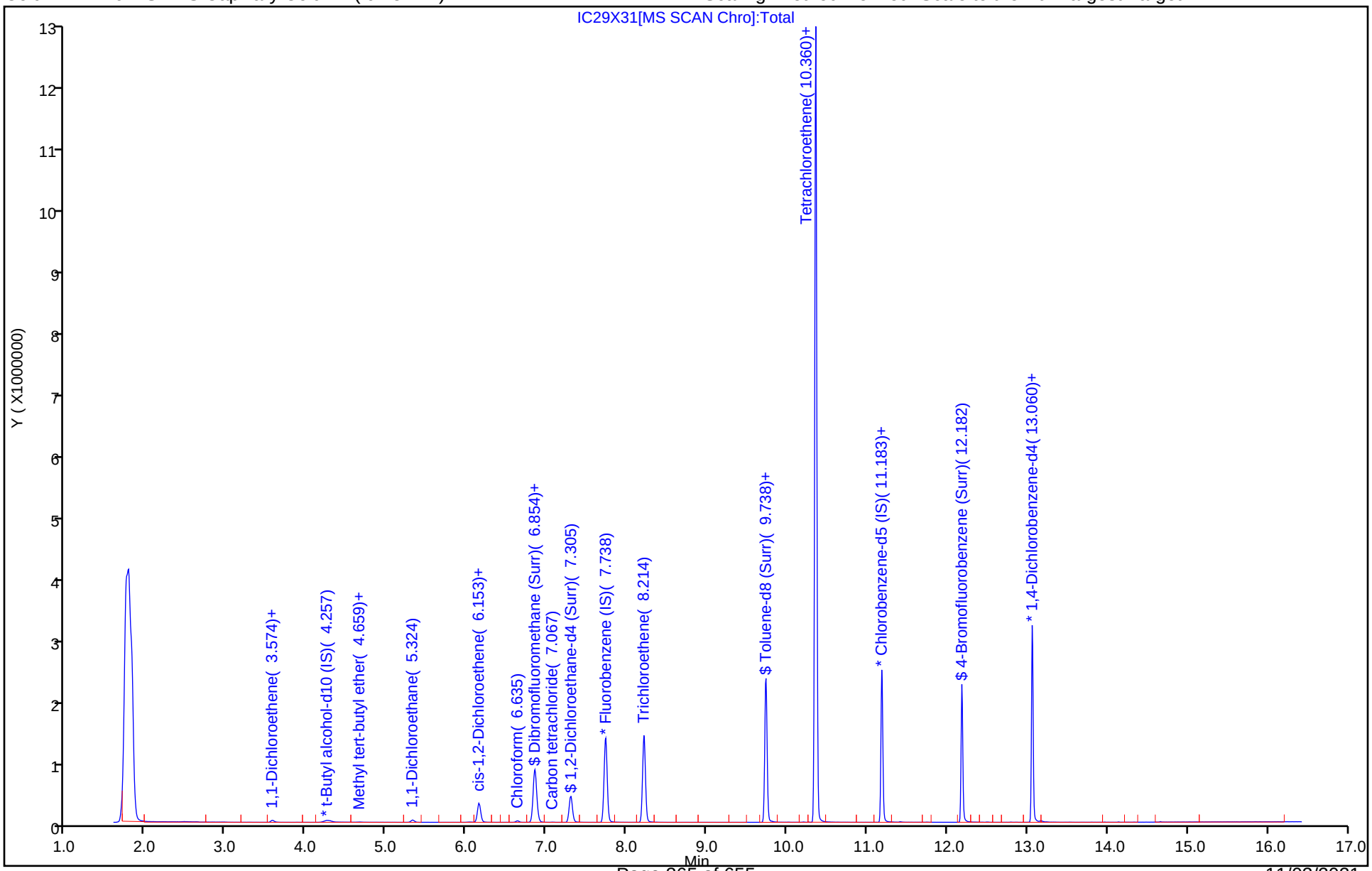
Report Date: 29-Oct-2021 19:27:01 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X31.D

Injection Date:	29-Oct-2021 18:45:30	Instrument ID:	19930	Operator ID:	SRK36897
Lims ID:	410-60154-A-13	Lab Sample ID:	410-60154-13	Worklist Smp#:	32
Client ID:	HD-QC1-0/1-1				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	31
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\20211029-42796.b\IC29X31.D
Lims ID: 410-60154-A-13
Client ID: HD-QC1-0/1-1
Sample Type: Client
Inject. Date: 29-Oct-2021 18:45:30 ALS Bottle#: 31 Worklist Smp#: 32
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0042796-032
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 29-Oct-2021 19:24:36 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: CTX1664

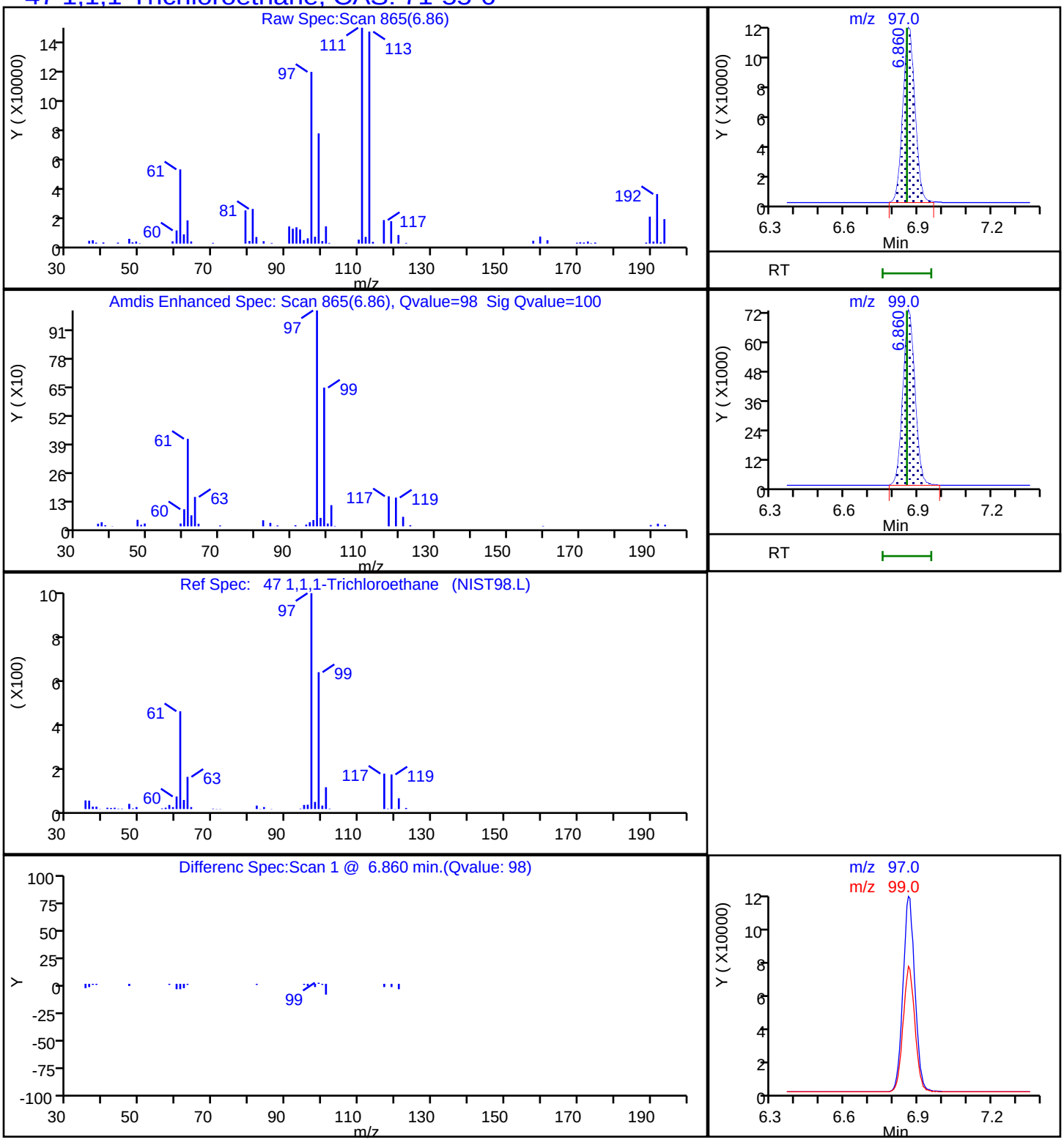
First Level Reviewer: johnsons Date: 29-Oct-2021 19:26:39

Compound	Amount Added	Amount Recovered	% Rec.
$ 46 Dibromofluoromethane (Surr)	10.0	10.6	105.78
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.7	107.17
$ 75 Toluene-d8 (Surr)	10.0	10.1	101.31
$ 100 4-Bromofluorobenzene (Surr)	10.0	9.60	96.05

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X31.D				
Injection Date:	29-Oct-2021 18:45:30	Instrument ID:	19930		
Lims ID:	410-60154-A-13	Lab Sample ID:	410-60154-13		
Client ID:	HD-QC1-0/1-1				
Operator ID:	SRK36897	ALS Bottle#:	31	Worklist Smp#:	32
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)	Detector	MS Quad		

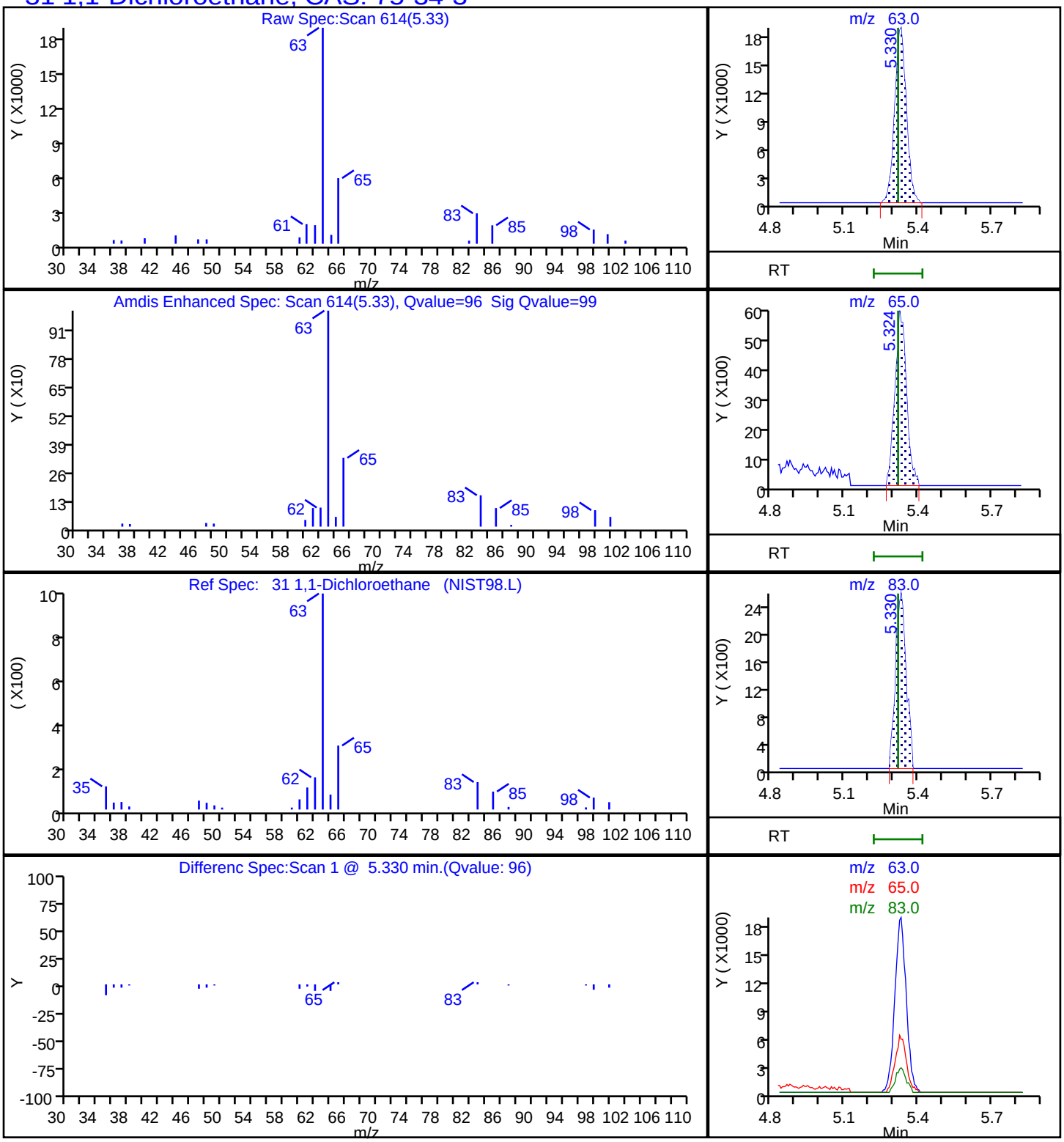
47 1,1,1-Trichloroethane, CAS: 71-55-6



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X31.D				
Injection Date:	29-Oct-2021 18:45:30	Instrument ID:	19930		
Lims ID:	410-60154-A-13	Lab Sample ID:	410-60154-13		
Client ID:	HD-QC1-0/1-1				
Operator ID:	SRK36897	ALS Bottle#:	31	Worklist Smp#:	32
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)	Detector	MS Quad		

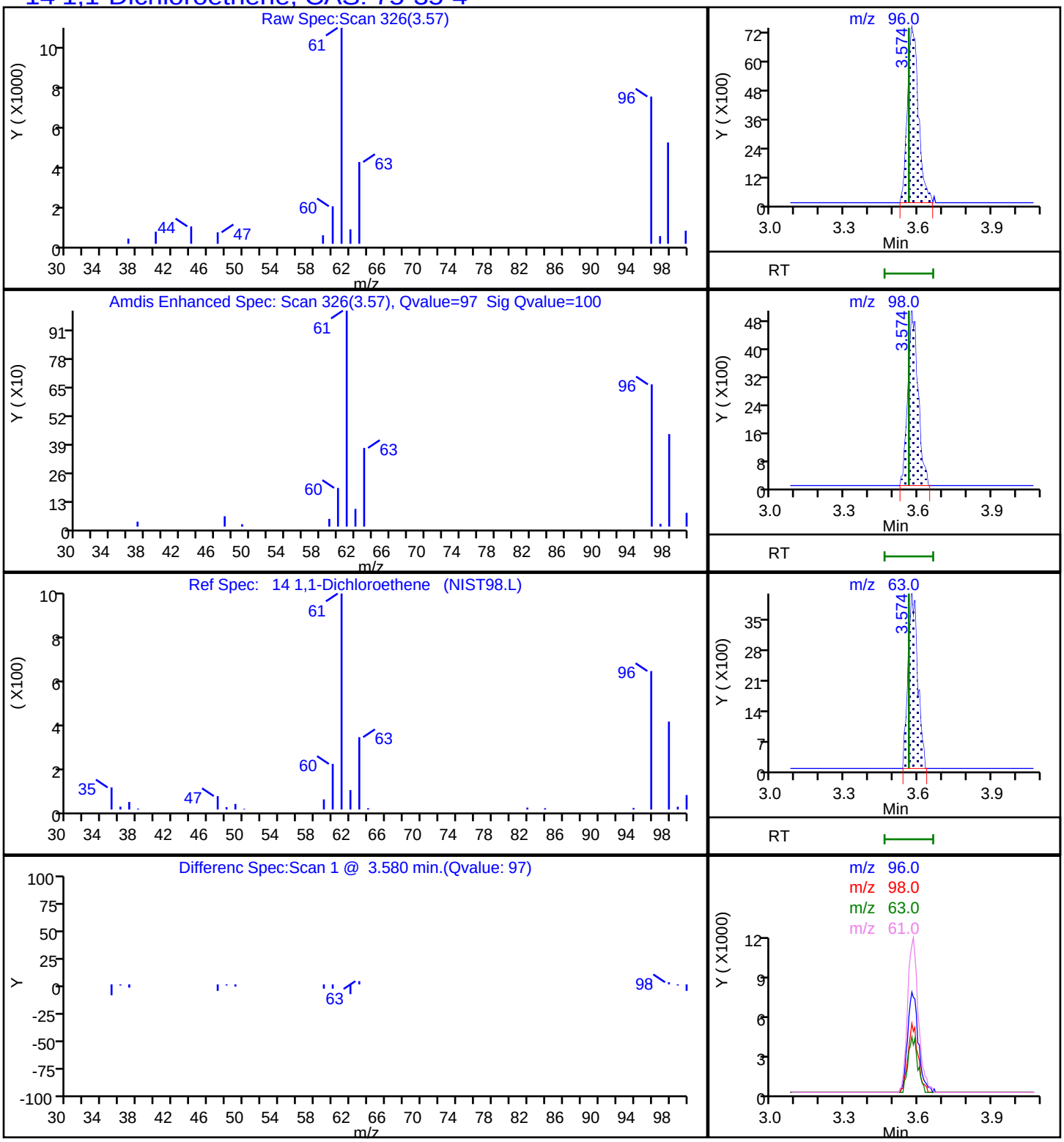
31 1,1-Dichloroethane, CAS: 75-34-3



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X31.D				
Injection Date:	29-Oct-2021 18:45:30	Instrument ID:	19930		
Lims ID:	410-60154-A-13	Lab Sample ID:	410-60154-13		
Client ID:	HD-QC1-0/1-1				
Operator ID:	SRK36897	ALS Bottle#:	31	Worklist Smp#:	32
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)	Detector	MS Quad		

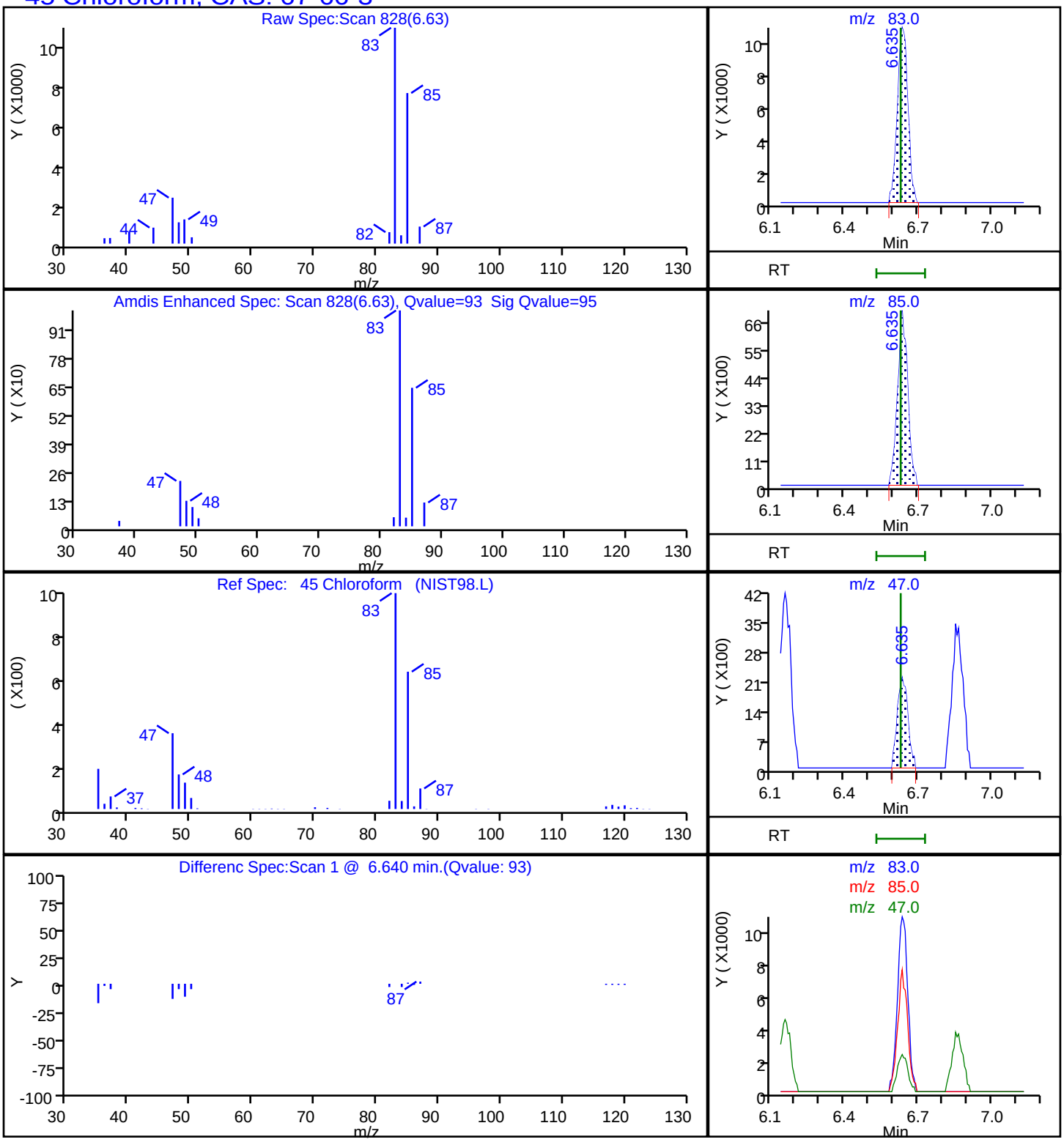
14 1,1-Dichloroethene, CAS: 75-35-4



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X31.D				
Injection Date:	29-Oct-2021 18:45:30	Instrument ID:	19930		
Lims ID:	410-60154-A-13	Lab Sample ID:	410-60154-13		
Client ID:	HD-QC1-0/1-1				
Operator ID:	SRK36897	ALS Bottle#:	31	Worklist Smp#:	32
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

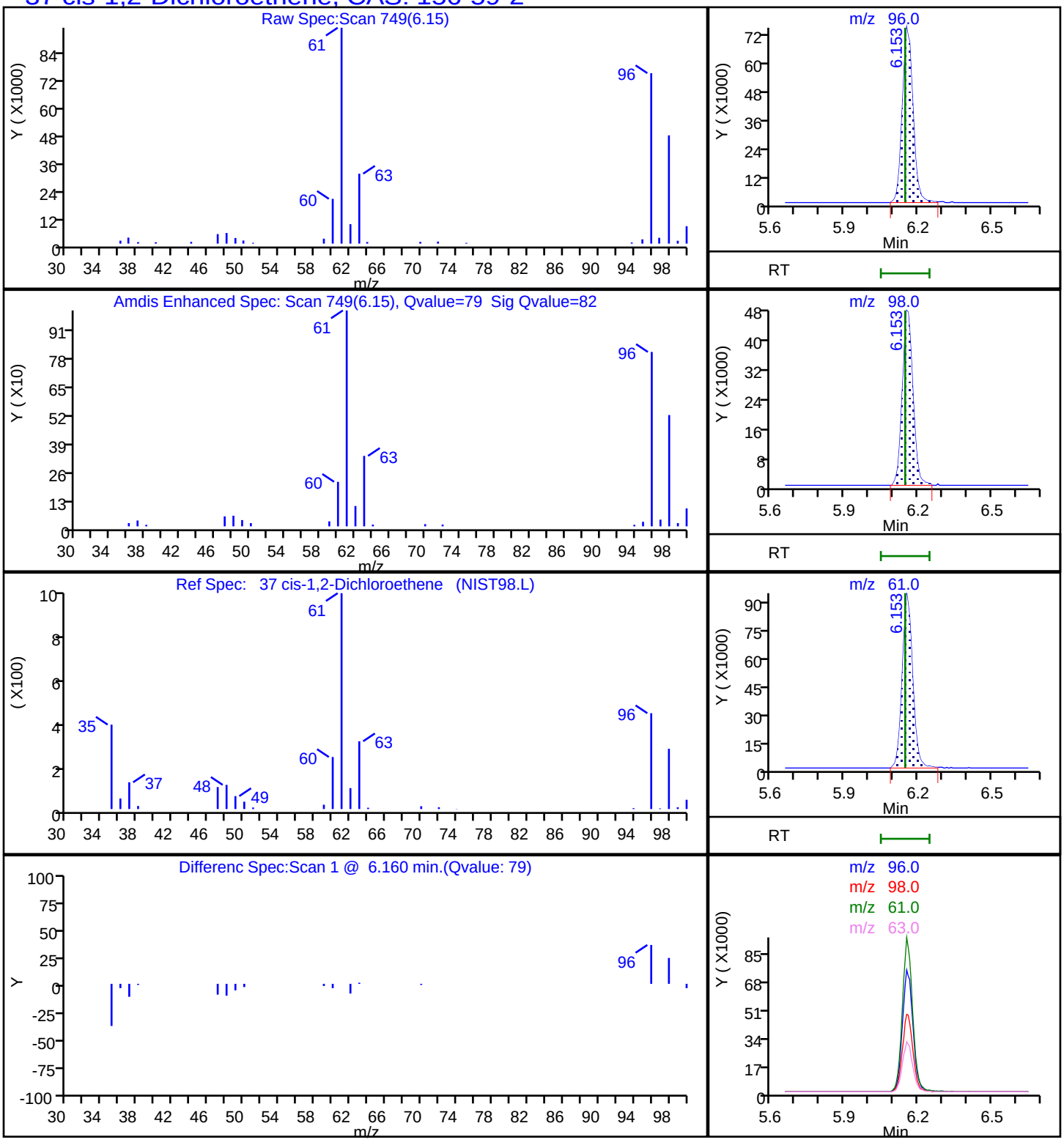
45 Chloroform, CAS: 67-66-3



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X31.D				
Injection Date:	29-Oct-2021 18:45:30	Instrument ID:	19930		
Lims ID:	410-60154-A-13	Lab Sample ID:	410-60154-13		
Client ID:	HD-QC1-0/1-1				
Operator ID:	SRK36897	ALS Bottle#:	31	Worklist Smp#:	32
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)	Detector	MS Quad		

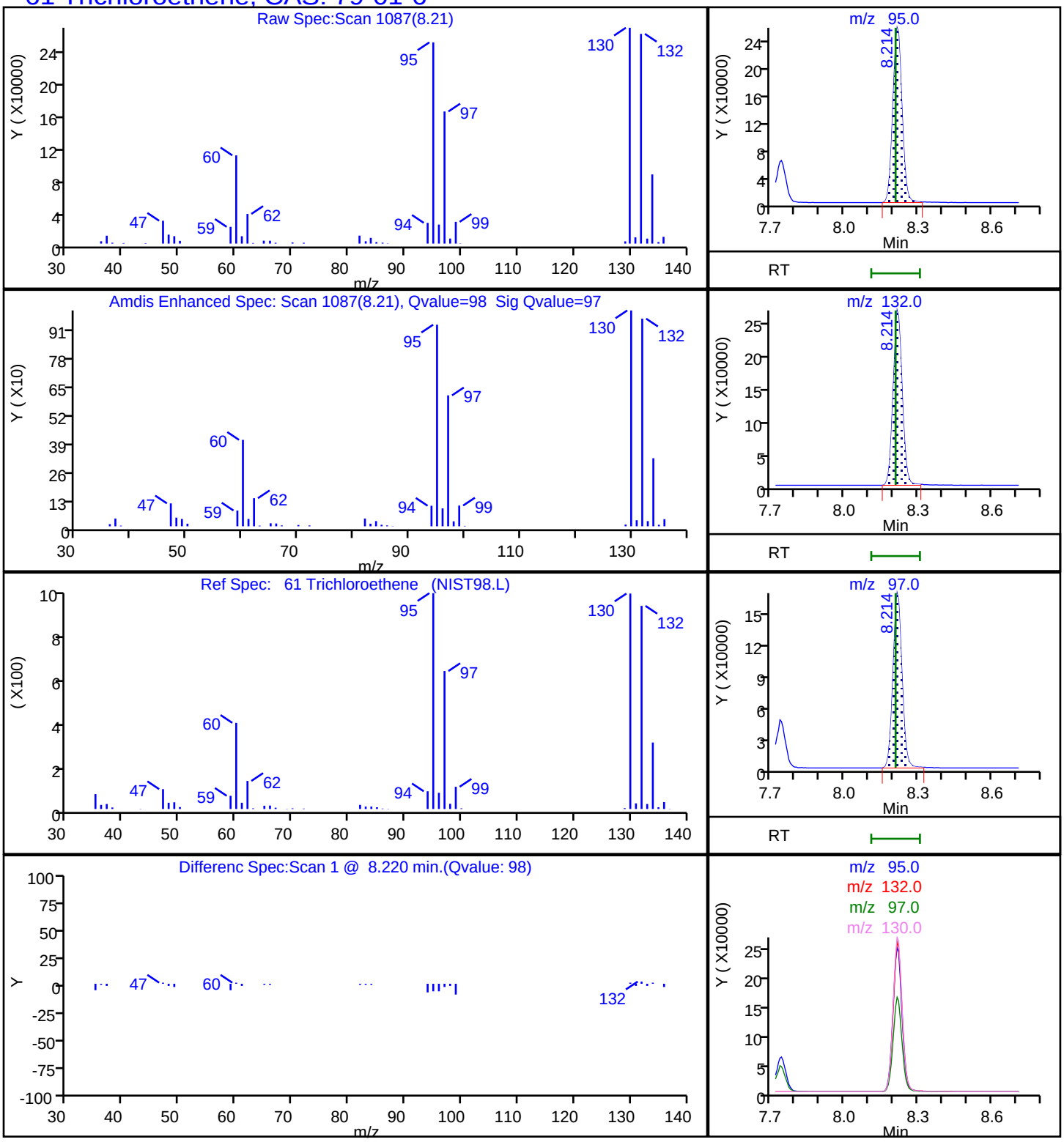
37 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X31.D				
Injection Date:	29-Oct-2021 18:45:30	Instrument ID:	19930		
Lims ID:	410-60154-A-13	Lab Sample ID:	410-60154-13		
Client ID:	HD-QC1-0/1-1				
Operator ID:	SRK36897	ALS Bottle#:	31	Worklist Smp#:	32
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

61 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-60154-1

SDG No.:

Client Sample ID: HD-QC1-0/1-1 DL Lab Sample ID: 410-60154-13 DL

Matrix: Water Lab File ID: IN01X20.D

Analysis Method: 8260D Date Collected: 10/20/2021 12:00

Sample wt/vol: 25(mL) Date Analyzed: 11/01/2021 15:38

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.: 189194 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
127-18-4	Tetrachloroethene	49		5.0	0.60

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	108		80-120
460-00-4	4-Bromofluorobenzene (Surr)	95		80-120
1868-53-7	Dibromofluoromethane (Surr)	106		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\20211101-42940.b\IN01X20.D
Lims ID: 410-60154-B-13 DL
Client ID: HD-QC1-0/1-1
Sample Type: Client
Inject. Date: 01-Nov-2021 15:38:30 ALS Bottle#: 20 Worklist Smp#: 21
Purge Vol: 25.000 mL Dil. Factor: 10.0000
Sample Info: 410-0042940-021
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211101-42940.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 02-Nov-2021 08:44:26 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

First Level Reviewer: kaewrungrueangp Date: 02-Nov-2021 08:44:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50		2.178				ND	
5 Vinyl chloride	62		2.294				ND	
7 Bromomethane	94		2.629				ND	
8 Chloroethane	64		2.709				ND	
14 1,1-Dichloroethene	96	3.574	3.568	0.006	88	1351	0.0295	
15 Acetone	43		3.593				ND	7
19 Carbon disulfide	76		3.879				ND	
23 Methylene Chloride	84		4.239				ND	7
* 24 t-Butyl alcohol-d10 (IS)	65	4.257	4.275	-0.018	24	160566	50.0	
27 Methyl tert-butyl ether	73		4.647				ND	
28 trans-1,2-Dichloroethene	96		4.660				ND	
31 1,1-Dichloroethane	63	5.324	5.318	0.006	89	5017	0.0531	a
36 2-Butanone (MEK)	43		6.117				ND	7
37 cis-1,2-Dichloroethene	96	6.153	6.147	0.006	79	20344	0.3508	
43 Chlorobromomethane	128		6.482				ND	
45 Chloroform	83	6.628	6.629	-0.001	85	2803	0.0300	
$ 46 Dibromofluoromethane (Surr)	113	6.848	6.842	0.006	94	511555	10.6	
47 1,1,1-Trichloroethane	97	6.854	6.854	0.000	55	31459	0.3618	
50 Carbon tetrachloride	117		7.068				ND	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.299	7.293	0.006	83	104830	10.8	
54 Benzene	78		7.330				ND	
56 1,2-Dichloroethane	62		7.403				ND	
* 58 Fluorobenzene (IS)	96	7.732	7.732	0.000	99	1920312	10.0	
61 Trichloroethene	95	8.214	8.214	0.000	97	54627	0.9414	
63 1,2-Dichloropropane	63		8.543				ND	
68 Dichlorobromomethane	83		8.884				ND	
73 cis-1,3-Dichloropropene	75		9.427				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.598				ND	
$ 75 Toluene-d8 (Surr)	98	9.738	9.738	0.000	93	2001766	10.1	
76 Toluene	92		9.811				ND	7
78 trans-1,3-Dichloropropene	75		10.067				ND	
80 1,1,2-Trichloroethane	97		10.268				ND	U

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166	10.359	10.360	-0.001	98	343492	4.89	
83 2-Hexanone	43		10.476				ND	
85 Chlorodibromomethane	129		10.646				ND	
86 Ethylene Dibromide	107		10.756				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.182	11.183	-0.001	85	1536574	10.0	
90 Chlorobenzene	112		11.213				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.292				ND	
92 Ethylbenzene	91		11.292				ND	
93 m-Xylene & p-Xylene	106		11.408				ND	7
94 o-Xylene	106		11.737				ND	
95 Styrene	104		11.756				ND	
96 Bromoform	173		11.914				ND	
$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	93	722923	9.53	
101 1,1,2,2-Tetrachloroethane	83		12.280				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	94	900589	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

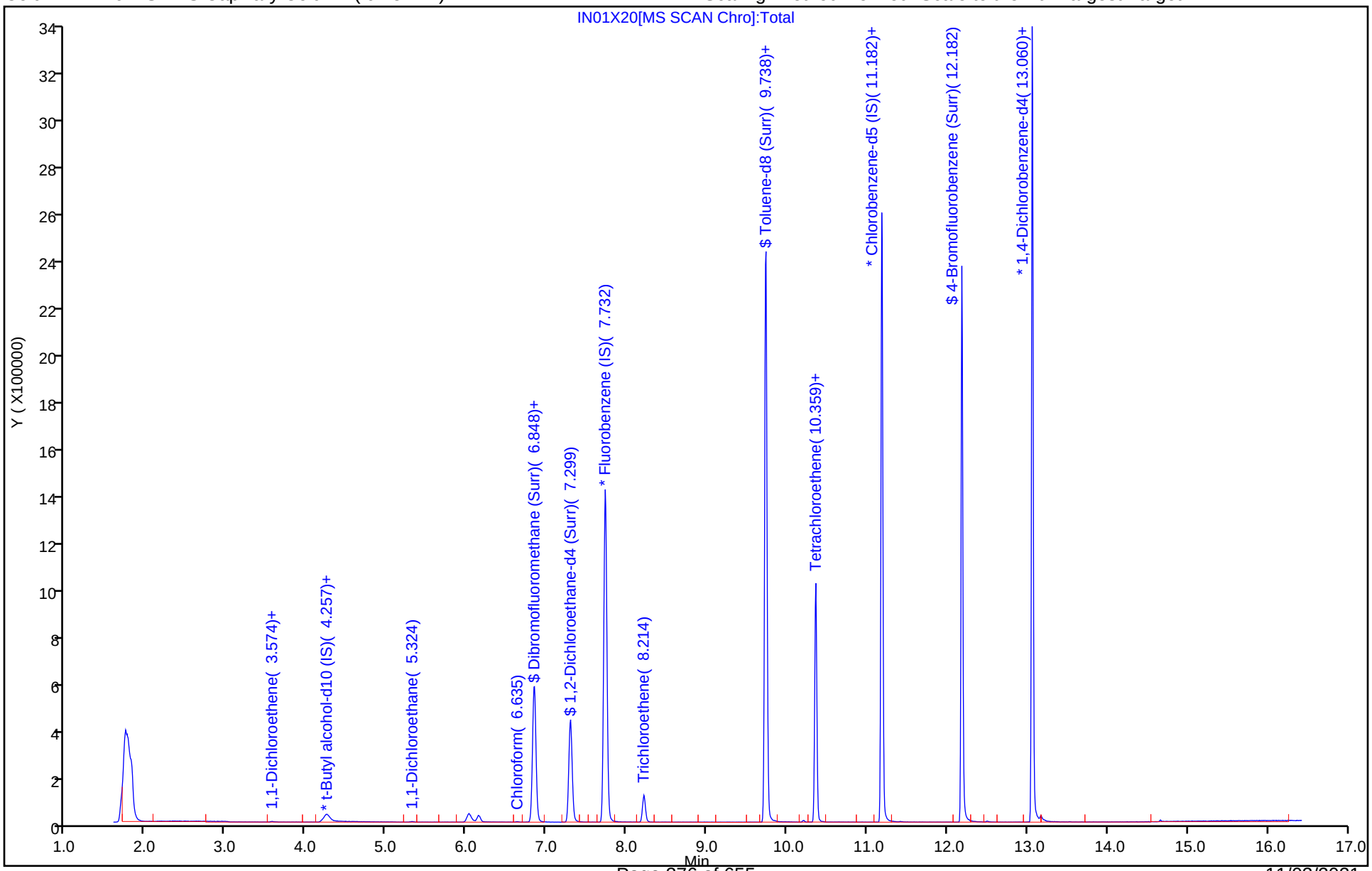
Report Date: 02-Nov-2021 08:44:27 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211101-42940.b\IN01X20.D

Injection Date:	01-Nov-2021 15:38:30	Instrument ID:	19930	Operator ID:	SRK36897
Lims ID:	410-60154-B-13 DL	Lab Sample ID:	410-60154-13	Worklist Smp#:	21
Client ID:	HD-QC1-0/1-1				
Purge Vol:	25.000 mL	Dil. Factor:	10.0000	ALS Bottle#:	20
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

Data File:	\\chromfs\Lancaster\ChromData\19930\20211101-42940.b\IN01X20.D				
Lims ID:	410-60154-B-13 DL				
Client ID:	HD-QC1-0/1-1				
Sample Type:	Client				
Inject. Date:	01-Nov-2021 15:38:30	ALS Bottle#:	20	Worklist Smp#:	21
Purge Vol:	25.000 mL	Dil. Factor:	10.0000		
Sample Info:	410-0042940-021				
Operator ID:	SRK36897	Instrument ID:	19930		
Method:	\\chromfs\Lancaster\ChromData\19930\20211101-42940.b\8260 25ml HP31.m				
Limit Group:	MSV - 8260C_D				
Last Update:	02-Nov-2021 08:44:26	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				

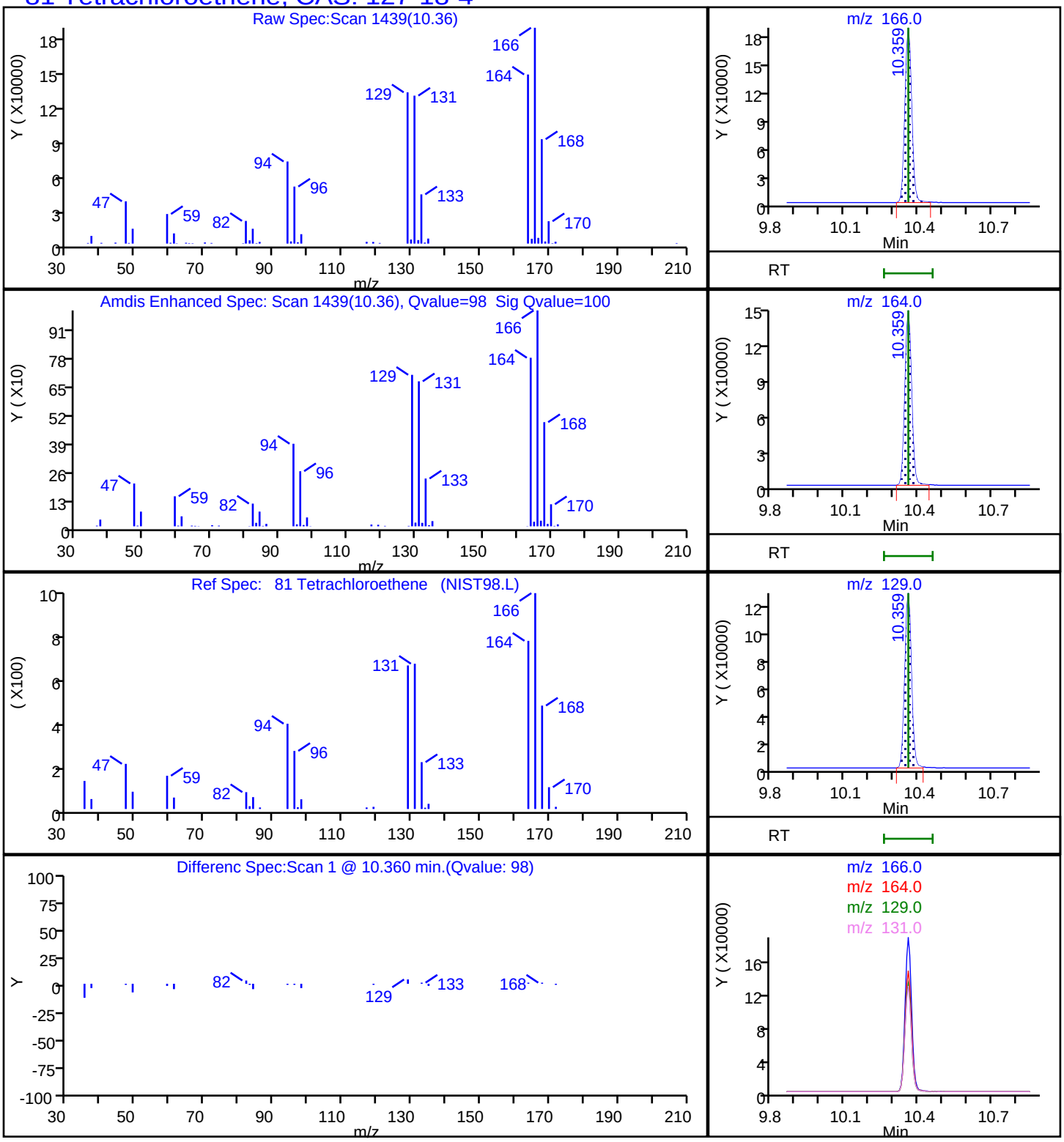
First Level Reviewer: kaewrungrueangp Date: 02-Nov-2021 08:44:26

Compound	Amount Added	Amount Recovered	% Rec.
$ 46 Dibromofluoromethane (Surr)	10.0	10.6	105.75
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.8	108.33
$ 75 Toluene-d8 (Surr)	10.0	10.1	100.81
$ 100 4-Bromofluorobenzene (Surr)	10.0	9.53	95.26

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20211101-42940.b\IN01X20.D				
Injection Date:	01-Nov-2021 15:38:30	Instrument ID:	19930		
Lims ID:	410-60154-B-13 DL	Lab Sample ID:	410-60154-13		
Client ID:	HD-QC1-0/1-1				
Operator ID:	SRK36897	ALS Bottle#:	20	Worklist Smp#:	21
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)	Detector	MS Quad		

81 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-60154-1

SDG No.:

Client Sample ID: HD-QC1-0/1-2 Lab Sample ID: 410-60154-14

Matrix: Water Lab File ID: IC29X11.D

Analysis Method: 8260D Date Collected: 10/20/2021 00:00

Sample wt/vol: 25(mL) Date Analyzed: 10/29/2021 11:41

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.: 188555 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.: 410-60154-1

SDG No.:

Client Sample ID: HD-QC1-0/1-2 Lab Sample ID: 410-60154-14

Matrix: Water Lab File ID: IC29X11.D

Analysis Method: 8260D Date Collected: 10/20/2021 00:00

Sample wt/vol: 25(mL) Date Analyzed: 10/29/2021 11:41

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.: 188555 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	106		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\20211029-42796.b\IC29X11.D
Lims ID: 410-60154-A-14
Client ID: HD-QC1-0/1-2
Sample Type: Client
Inject. Date: 29-Oct-2021 11:41:30 ALS Bottle#: 11 Worklist Smp#: 12
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0042796-012
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 29-Oct-2021 19:24:36 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: CTX1664

First Level Reviewer: johnsons Date: 29-Oct-2021 19:09:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
4 Chloromethane	50		2.172				ND	
5 Vinyl chloride	62		2.294				ND	
7 Bromomethane	94		2.623				ND	
8 Chloroethane	64		2.708				ND	
14 1,1-Dichloroethene	96		3.562				ND	
15 Acetone	43	3.605	3.592	0.013	99	6507	0.7169	
19 Carbon disulfide	76		3.873				ND	7
23 Methylene Chloride	84		4.233				ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.257	4.251	0.006	17	163391	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		5.318				ND	
36 2-Butanone (MEK)	43		6.116				ND	
37 cis-1,2-Dichloroethene	96		6.147				ND	
43 Chlorobromomethane	128		6.476				ND	
45 Chloroform	83		6.628				ND	
$ 46 Dibromofluoromethane (Surr)	113	6.848	6.842	0.006	94	498626	10.6	
47 1,1,1-Trichloroethane	97		6.854				ND	
50 Carbon tetrachloride	117		7.067				ND	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.293	7.299	-0.006	83	101112	10.7	
54 Benzene	78		7.329				ND	
56 1,2-Dichloroethane	62		7.397				ND	
* 58 Fluorobenzene (IS)	96	7.732	7.732	0.000	99	1870777	10.0	
61 Trichloroethene	95		8.207				ND	
63 1,2-Dichloropropane	63		8.537				ND	
68 Dichlorobromomethane	83		8.884				ND	
73 cis-1,3-Dichloropropene	75		9.427				ND	
74 4-Methyl-2-pentanone (MIBK)	43		9.591				ND	
$ 75 Toluene-d8 (Surr)	98	9.738	9.731	0.007	93	1944525	10.1	
76 Toluene	92		9.811				ND	
78 trans-1,3-Dichloropropene	75		10.067				ND	
80 1,1,2-Trichloroethane	97		10.268				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
81 Tetrachloroethene	166		10.359				ND	
83 2-Hexanone	43		10.475				ND	
85 Chlorodibromomethane	129		10.646				ND	
86 Ethylene Dibromide	107		10.756				ND	
* 87 Chlorobenzene-d5 (IS)	117	11.182	11.182	0.000	85	1493565	10.0	
90 Chlorobenzene	112		11.207				ND	
S 89 Xylenes, Total	106		11.245				ND	7
91 1,1,1,2-Tetrachloroethane	131		11.292				ND	
92 Ethylbenzene	91		11.292				ND	
93 m-Xylene & p-Xylene	106		11.408				ND	
94 o-Xylene	106		11.737				ND	
95 Styrene	104		11.755				ND	
96 Bromoform	173		11.914				ND	
$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	93	712169	9.65	
101 1,1,2,2-Tetrachloroethane	83		12.280				ND	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	94	869306	10.0	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_LLcentISS_00002 Amount Added: 5.00 Units: uL Run Reagent

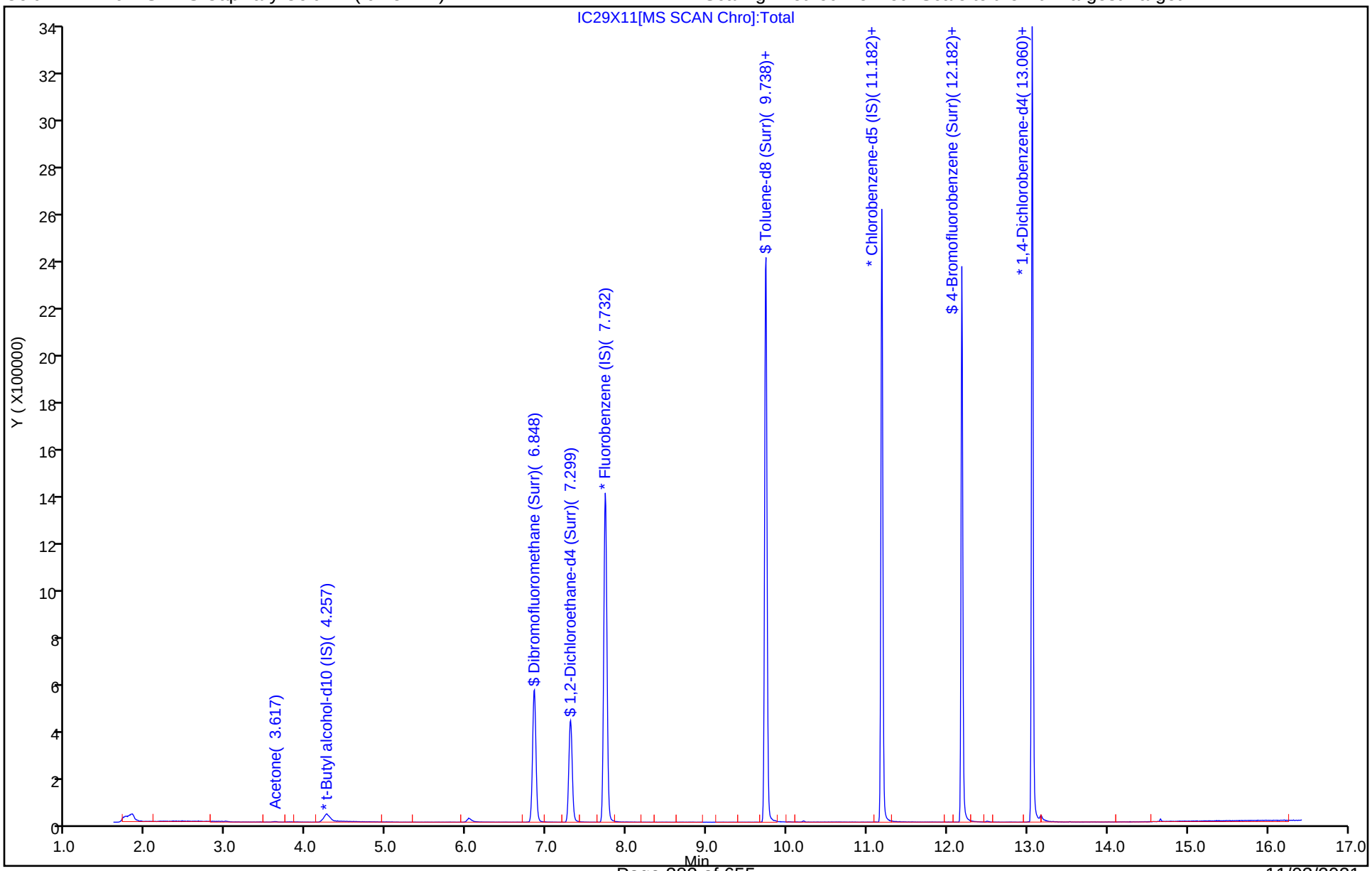
Report Date: 29-Oct-2021 19:25:13 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X11.D

Injection Date:	29-Oct-2021 11:41:30	Instrument ID:	19930	Operator ID:	SRK36897
Lims ID:	410-60154-A-14	Lab Sample ID:	410-60154-14	Worklist Smp#:	12
Client ID:	HD-QC1-0/1-2				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X11.D
Lims ID: 410-60154-A-14
Client ID: HD-QC1-0/1-2
Sample Type: Client
Inject. Date: 29-Oct-2021 11:41:30 ALS Bottle#: 11 Worklist Smp#: 12
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0042796-012
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 29-Oct-2021 19:24:36 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: CTX1664

First Level Reviewer: johnsons Date: 29-Oct-2021 19:09:26

Compound	Amount Added	Amount Recovered	% Rec.
$ 46 Dibromofluoromethane (Surr)	10.0	10.6	105.81
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.7	107.25
$ 75 Toluene-d8 (Surr)	10.0	10.1	100.75
$ 100 4-Bromofluorobenzene (Surr)	10.0	9.65	96.54

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-60154-1 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 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	+++++ 0.3627	0.1956 0.3416	0.3040	0.3114	0.3614	Ave		0.3128			0.1000	20.0		20.0			
Chloromethane	0.3737 0.3692	0.3520 0.3545	0.3277	0.3398	0.3774	Ave		0.3563			0.1000	5.2		20.0			
1,3-Butadiene	0.3583 0.3381	0.2781 0.3239	0.3216	0.3194	0.3521	Ave		0.3273				8.1		20.0			
Vinyl chloride	0.3684 0.3847	0.3183 0.3656	0.3364	0.3472	0.3941	Ave		0.3592			0.1000	7.5		20.0			
Bromomethane	0.2807 0.2701	0.2528 0.2477	0.2440	0.2517	0.2754	Ave		0.2603			0.1000	5.6		20.0			
Chloroethane	0.2262 0.2246	0.2056 0.2112	0.2036	0.2037	0.2325	Ave		0.2153			0.1000	5.6		20.0			
Dichlorofluoromethane	0.5615 0.5385	0.4859 0.5023	0.4850	0.4979	0.5538	Ave		0.5179			0.1000	6.3		20.0			
Trichlorofluoromethane	0.4066 0.5339	0.3297 0.4864	0.4638	0.4671	0.5530	Ave		0.4629			0.1000	16.4		20.0			
Ethyl ether	0.1835 0.2078	0.1655 0.1915	0.1744	0.1885	0.2053	Ave		0.1881				8.2		20.0			
Freon 123a	0.3286 0.3668	0.2778 0.3340	0.3179	0.3278	0.3686	Ave		0.3316				9.3		20.0			
Acrolein	2.0754 2.1510	2.0273 2.2464	2.2746	1.9732	2.5490	Ave		2.1853				8.9		20.0			
1,1-Dichloroethene	0.2236 0.2614	0.2129 0.2407	0.2396	0.2214	0.2711	Ave		0.2387			0.1000	9.0		20.0			
Acetone	3.3948 2.6081	2.6279 2.6013	2.5719	2.6885	2.9507	Ave		2.7776			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.: 410-60154-1 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^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Freon 113	0.1793 0.2949	0.1939 0.2778	0.2561	0.2365	0.3061	Ave		0.2492			0.1000	19.6		20.0			
Methyl iodide	0.4365 0.5164	0.4581 0.4791	0.4744	0.4472	0.5281	Ave		0.4771				7.2		20.0			
Carbon disulfide	0.6241 0.7230	0.6085 0.6809	0.6272	0.6081	0.7397	Ave		0.6588			0.1000	8.4		20.0			
Methyl acetate	10.223 7.9164	6.6486 7.6664	7.2485	8.2644	9.2657	Ave		8.1762			0.1000	14.9		20.0			
Allyl chloride	0.4039 0.4122	0.3756 0.3872	0.3811	0.3562	0.4244	Ave		0.3915				6.0		20.0			
Methylene Chloride	0.2524 0.2798	0.2487 0.2570	0.2549	0.2470	0.2837	Ave		0.2605			0.1000	5.7		20.0			
t-Butyl alcohol	1.0156 1.1288	0.9511 0.9655	1.0279	1.1110	1.1697	Ave		1.0528				8.0		20.0			
Acrylonitrile	3.3547 3.7261	3.2482 3.8697	3.8210	3.4385	4.4580	Ave		3.7023				11.1		20.0			
Methyl tert-butyl ether	0.6479 0.7420	0.6277 0.6762	0.6717	0.6482	0.7521	Ave		0.6808			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		0.2711			0.1000	6.4		20.0			
n-Hexane	0.2986 0.4503	0.2876 0.4202	0.3712	0.3567	0.4652	Ave		0.3785				18.5		20.0			
1,1-Dichloroethane	0.4529 0.5299	0.4771 0.4952	0.4797	0.4692	0.5393	Ave		0.4919			0.2000	6.5		20.0			
di-Isopropyl ether	0.7902 0.8812	0.7740 0.8214	0.8046	0.7810	0.8994	Ave		0.8217				6.0		20.0			
2-Chloro-1,3-butadiene	0.3795 0.4481	0.3757 0.4209	0.4011	0.3850	0.4606	Ave		0.4101				8.3		20.0			
Ethyl t-butyl ether	0.7755 0.8660	0.7525 0.7962	0.7910	0.7665	0.8768	Ave		0.8035				6.1		20.0			
2-Butanone (MEK)	4.4727 4.7324	4.7875 4.9530	5.0137	4.4128	5.5781	Ave		4.8500			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		0.3020			0.1000	6.0		20.0			
2,2-Dichloropropane	0.3889 0.4654	0.4050 0.4361	0.4203	0.4002	0.4780	Ave		0.4277				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.: 410-60154-1 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^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Propionitrile	1.0665 1.3670	1.1664 1.3682	1.3168	1.2026	1.5295	Ave		1.2882				12.0		20.0			
Methacrylonitrile	4.4612 4.7621	4.5433 5.1194	5.0070	4.3591	5.8587	Ave		4.8730				10.6		20.0			
Bromochloromethane	0.1221 0.1403	0.1231 0.1291	0.1294	0.1262	0.1421	Ave		0.1303				6.1		20.0			
Tetrahydrofuran	1.3973 1.4262	1.2691 1.4530	1.4982	1.3139	1.7126	Ave		1.4386				10.0		20.0			
Chloroform	0.4692 0.5205	0.4652 0.4830	0.4841	0.4582	0.5306	Ave		0.4873			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		0.4528			0.1000	8.5		20.0			
Cyclohexane	0.3570 0.5244	0.3518 0.4941	0.4506	0.4210	0.5435	Ave		0.4489			0.1000	17.1		20.0			
1,1-Dichloropropene	0.3433 0.4231	0.3424 0.3973	0.3762	0.3598	0.4316	Ave		0.3820				9.5		20.0			
Carbon tetrachloride	0.3364 0.4445	0.3351 0.4154	0.3838	0.3693	0.4512	Ave		0.3908			0.1000	12.2		20.0			
Isobutyl alcohol	0.3505 0.3456	0.3053 0.3093	0.3476	0.3308	0.3625	Ave		0.3359				6.5		20.0			
Benzene	1.0786 1.2043	1.0806 1.1169	1.1054	1.0522	1.2324	Ave		1.1243			0.5000	6.0		20.0			
1,2-Dichloroethane	0.3196 0.3205	0.2889 0.2988	0.3010	0.2768	0.3267	Ave		0.3046			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		0.7459				6.2		20.0			
n-Heptane	0.3735 0.4318	0.3278 0.4065	0.3870	0.3498	0.4481	Ave		0.3892				11.1		20.0			
n-Butanol	0.2672 0.3373	0.2899 0.2908	0.3219	0.3041	0.3716	Ave		0.3118				11.2		20.0			
Trichloroethene	0.2830 0.3275	0.2877 0.3071	0.2935	0.2799	0.3365	Ave		0.3022			0.2000	7.4		20.0			
Methylcyclohexane	0.4104 0.5911	0.3880 0.5530	0.4960	0.4766	0.6030	Ave		0.5026			0.1000	16.8		20.0			
1,2-Dichloropropane	0.2449 0.3041	0.2530 0.2850	0.2751	0.2653	0.3056	Ave		0.2761			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.: 410-60154-1 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^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Methyl methacrylate	8.2957 9.7081	7.9901 10.530	10.080	8.6383	11.802	Ave		9.5777				14.2		20.0			
1,4-Dioxane	+++++ 0.0928	0.0580 0.0531	0.0734	0.0840	0.0900	Qua	-2.625	0.1219	-0.000053		0.0050				0.9980		0.9900
Dibromomethane	0.1367 0.1448	0.1222 0.1357	0.1296	0.1288	0.1470	Ave		0.1350				6.6		20.0			
Bromodichloromethane	0.3016 0.3705	0.3121 0.3529	0.3183	0.3156	0.3722	Ave		0.3347			0.2000	8.8		20.0			
2-Nitropropane	2.4224 2.6776	2.5126 2.9919	2.8529	2.4822	3.2402	Ave		2.7400				11.0		20.0			
cis-1,3-Dichloropropene	0.3774 0.4708	0.3700 0.4485	0.4057	0.4003	0.4712	Ave		0.4206			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		12.213			0.1000	10.2		20.0			
Toluene	0.9391 1.0243	0.9229 0.9386	0.9435	0.8884	1.0533	Ave		0.9586			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		0.4420			0.1000	10.7		20.0			
Ethyl methacrylate	0.3292 0.4153	0.3108 0.3888	0.3532	0.3657	0.4193	Ave		0.3689				11.2		20.0			
1,1,2-Trichloroethane	0.2499 0.2775	0.2390 0.2510	0.2485	0.2458	0.2782	Ave		0.2557			0.1000	6.1		20.0			
Tetrachloroethene	0.4216 0.5030	0.4243 0.4609	0.4444	0.4314	0.5113	Ave		0.4567			0.2000	8.1		20.0			
1,3-Dichloropropane	0.4271 0.4684	0.3991 0.4306	0.4298	0.4146	0.4743	Ave		0.4348				6.3		20.0			
2-Hexanone	7.1827 8.6184	7.7352 9.2473	8.7474	7.7260	10.621	Ave		8.5540			0.1000	13.5		20.0			
Dibromochloromethane	0.2708 0.3553	0.2672 0.3375	0.3010	0.2956	0.3536	Ave		0.3116				12.0		20.0			
1,2-Dibromoethane (EDB)	0.2369 0.2698	0.2170 0.2484	0.2455	0.2352	0.2740	Ave		0.2467			0.1000	8.1		20.0			
1-Chlorohexane	0.5866 0.6070	0.5028 0.5563	0.5366	0.5151	0.6198	Ave		0.5606				8.1		20.0			
Chlorobenzene	1.0341 1.1413	0.9999 1.0474	1.0475	1.0015	1.1613	Ave		1.0619			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.: 410-60154-1 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^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,1,1,2-Tetrachloroethane	0.3534 0.4134	0.3288 0.3804	0.3561	0.3538	0.4095	Ave		0.3708				8.5		20.0			
Ethylbenzene	1.7775 1.9981	1.7418 1.8269	1.8103	1.7297	2.0370	Ave		1.8459			0.1000	6.6		20.0			
m&p-Xylene	0.6807 0.7933	0.6907 0.7223	0.7223	0.6883	0.8070	Ave		0.7292			0.1000	7.0		20.0			
o-Xylene	0.6801 0.7828	0.6824 0.7198	0.6941	0.6804	0.7980	Ave		0.7197			0.3000	7.0		20.0			
Styrene	1.0572 1.2839	1.0757 1.1766	1.1444	1.1001	1.2948	Ave		1.1618			0.3000	8.3		20.0			
Bromoform	0.1542 0.2215	0.1570 0.2127	0.1737	0.1730	0.2145	Ave		0.1867			0.1000	15.4		20.0			
Isopropylbenzene	1.7707 2.0794	1.7890 1.8647	1.8702	1.8099	2.1154	Ave		1.8999			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		0.5528			0.3000	7.5		20.0			
Bromobenzene	0.7239 0.8313	0.7007 0.7595	0.7325	0.7127	0.8423	Ave		0.7576				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		4.4178				15.3		20.0			
1,2,3-Trichloropropane	0.1459 0.1691	0.1352 0.1485	0.1493	0.1459	0.1700	Ave		0.1520				8.5		20.0			
N-Propylbenzene	3.4241 4.1059	3.4158 3.5771	3.6026	3.4783	4.1391	Ave		3.6775				8.5		20.0			
2-Chlorotoluene	0.6886 0.8261	0.6965 0.7589	0.7527	0.7210	0.8383	Ave		0.7546				7.8		20.0			
1,3,5-Trimethylbenzene	2.4877 3.0046	2.4892 2.6889	2.6091	2.5128	3.0071	Ave		2.6856				8.6		20.0			
4-Chlorotoluene	0.7206 0.8363	0.7144 0.7728	0.7625	0.7264	0.8610	Ave		0.7706				7.5		20.0			
tert-Butylbenzene	0.5220 0.6578	0.5491 0.5957	0.5757	0.5601	0.6625	Ave		0.5890				9.1		20.0			
Pentachloroethane	0.4318 0.5591	0.3812 0.5124	0.4425	0.4642	0.5385	Ave		0.4757				13.4		20.0			
1,2,4-Trimethylbenzene	2.5034 3.0669	2.5332 2.7532	2.7222	2.5837	3.1073	Ave		2.7528				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.: 410-60154-1 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^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	3.0988 3.7882	3.1067 3.3969	3.3230	3.2189	3.8259	Ave		3.3941				8.9		20.0			
1,3-Dichlorobenzene	1.4232 1.7010	1.3877 1.5496	1.5218	1.4220	1.6882	Ave		1.5277			0.6000	8.4		20.0			
p-Isopropyltoluene	2.7768 3.3546	2.7485 2.9902	2.9177	2.8376	3.3892	Ave		3.0021				8.9		20.0			
1,4-Dichlorobenzene	1.5011 1.7091	1.4485 1.5576	1.5299	1.4598	1.7250	Ave		1.5616			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		1.2180				6.4		20.0			
Benzyl chloride	0.1628 0.2764	0.1957 0.2557	0.2131	0.2136	0.2660	Ave		0.2262				18.3		20.0			
n-Butylbenzene	1.2960 1.5824	1.2462 1.4394	1.3589	1.3122	1.5855	Ave		1.4029				9.8		20.0			
1,2-Dichlorobenzene	1.3272 1.5336	1.2611 1.3757	1.3800	1.3430	1.5513	Ave		1.3960			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		0.0813			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		1.1179				10.6		20.0			
1,2,4-Trichlorobenzene	0.8399 1.0952	0.8063 0.9601	0.9241	0.9014	1.0764	Ave		0.9433			0.2000	11.7		20.0			
Hexachlorobutadiene	0.4823 0.4373	0.3756 0.3936	0.3835	0.3656	0.4307	Ave		0.4098				10.2		20.0			
Naphthalene	1.7619 2.0429	1.5776 1.6639	1.7607	1.7878	1.9900	Ave		1.7978				9.3		20.0			
1,2,3-Trichlorobenzene	0.8050 0.9264	0.7050 0.7725	0.7921	0.7919	0.9136	Ave		0.8152				9.7		20.0			
Dibromofluoromethane (Surr)	0.2500 0.2511	0.2526 0.2515	0.2525	0.2532	0.2524	Ave		0.2519				0.4		20.0			
1,2-Dichloroethane-d4 (Surr)	0.0506 0.0506	0.0495 0.0507	0.0502	0.0508	0.0504	Ave		0.0504				0.9		20.0			
Toluene-d8 (Surr)	1.3069 1.2913	1.2928 1.2642	1.3038	1.3008	1.2863	Ave		1.2923				1.1		20.0			
4-Bromofluorobenzene (Surr)	0.4980 0.4916	0.4938 0.4919	0.4982	0.4929	0.4908	Ave		0.4939				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.: 410-60154-1 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 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	+++++ 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.: 410-60154-1 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.: 410-60154-1 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.: 410-60154-1 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 975208	41262 1950741	80599	173400	436929	17.5 875	43.8 2188	87.5	175	438
Trichloroethene	FB	Ave	12472 695086	34329 1777081	63618	119880	356004	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Methylcyclohexane	FB	Ave	18086 1254685	46295 3199658	107529	204137	637877	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2-Dichloropropane	FB	Ave	10792 645492	30184 1648952	59643	113623	323309	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Methyl methacrylate	TBAd 10	Ave	5380 320765	12996 807321	28845	56288	158597	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,4-Dioxane	TBAd 10	Qua	+++++ 153335	4720 203588	10496	27358	60485	+++++ 500	25.0 1250	50.0	100	250
Dibromomethane	FB	Ave	6024 307242	14579 785220	28100	55146	155460	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Bromodichloromethane	FB	Ave	13292 786321	37237 2042180	68991	135182	393721	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2-Nitropropane	TBAd 10	Ave	7855 442348	20434 1146903	40821	80872	217711	1.00 50.0	2.50 125	5.00	10.0	25.0
cis-1,3-Dichloropropene	FB	Ave	16632 999345	44155 2594937	87948	171443	498450	0.200 10.0	0.500 25.0	1.00	2.00	5.00
4-Methyl-2-pentanone (MIBK)	TBAd 10	Ave	72451 3982955	180620 9850003	362286	725808	1950081	2.00 100	5.00 250	10.0	20.0	50.0
Toluene	CBZd 5	Ave	31541 1680421	85173 4295450	156583	294006	865208	0.200 10.0	0.500 25.0	1.00	2.00	5.00
trans-1,3-Dichloropropene	CBZd 5	Ave	13216 822825	35995 2144165	70216	138743	409218	0.200 10.0	0.500 25.0	1.00	2.00	5.00
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.: 410-60154-1 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 455229	22055 1148961	41236	81343	228498	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Tetrachloroethene	CBZd 5	Ave	14161 825293	39159 2109166	73750	142779	419950	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,3-Dichloropropane	CBZd 5	Ave	14346 768446	36830 1970914	71333	137217	389560	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2-Hexanone	TBAd 10	Ave	46582 2847614	125813 7089653	250322	503437	1427211	2.00 100	5.00 250	10.0	20.0	50.0
Dibromochloromethane	CBZd 5	Ave	9097 582989	24663 1544832	49956	97832	290417	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2-Dibromoethane (EDB)	CBZd 5	Ave	7956 442687	20030 1136711	40746	77838	225049	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1-Chlorohexane	CBZd 5	Ave	19704 995910	46401 2545795	89057	170447	509095	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Chlorobenzene	CBZd 5	Ave	34732 1872527	92274 4793510	173851	331442	953872	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1,1,2-Tetrachloroethane	CBZd 5	Ave	11871 678162	30345 1740796	59106	117075	336401	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Ethylbenzene	CBZd 5	Ave	59702 3278221	160740 8361092	300446	572417	1673213	0.200 10.0	0.500 25.0	1.00	2.00	5.00
m&p-Xylene	CBZd 5	Ave	45724 2602971	127477 6611583	239751	455535	1325681	0.400 20.0	1.00 50.0	2.00	4.00	10.0
o-Xylene	CBZd 5	Ave	22844	62976	115204	225160	655445	0.200	0.500	1.00	2.00	5.00

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-60154-1 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 2106471	99275 5384777	189931	364056	1063582	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Bromoform	CBZd 5	Ave	5180 363441	14486 973418	28833	57249	176181	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Isopropylbenzene	CBZd 5	Ave	59476 3411517	165096 8533967	310386	598946	1737611	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,1,2,2-Tetrachloroethane	DCBd 4	Ave	10699 586534	27777 1493325	54325	102513	293036	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Bromobenzene	DCBd 4	Ave	14657 800922	38617 2065190	72358	140306	405579	0.200 10.0	0.500 25.0	1.00	2.00	5.00
trans-1,4-Dichloro-2-butene	TBAd 10	Ave	23386 1486472	63065 3858821	127777	256704	739718	2.00 100	5.00 250	10.0	20.0	50.0
1,2,3-Trichloropropane	DCBd 4	Ave	2954 162926	7449 403698	14746	28724	81857	0.200 10.0	0.500 25.0	1.00	2.00	5.00
N-Propylbenzene	DCBd 4	Ave	69326 3955616	188239 9726346	355852	684747	1993107	0.200 10.0	0.500 25.0	1.00	2.00	5.00
2-Chlorotoluene	DCBd 4	Ave	13941 795839	38383 2063363	74353	141927	403661	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,3,5-Trimethylbenzene	DCBd 4	Ave	50366 2894636	137180 7311288	257721	494667	1448018	0.200 10.0	0.500 25.0	1.00	2.00	5.00
4-Chlorotoluene	DCBd 4	Ave	14590 805714	39370 2101375	75316	142990	414612	0.200 10.0	0.500 25.0	1.00	2.00	5.00
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.: 410-60154-1 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 538681	21010 1393099	43712	91381	259289	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2,4-Trimethylbenzene	DCBd 4	Ave	50685 2954664	139600 7486072	268890	508634	1496260	0.200 10.0	0.500 25.0	1.00	2.00	5.00
sec-Butylbenzene	DCBd 4	Ave	62740 3649559	171209 9236299	328234	633668	1842298	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,3-Dichlorobenzene	DCBd 4	Ave	28815 1638792	76475 4213523	150321	279932	812939	0.200 10.0	0.500 25.0	1.00	2.00	5.00
p-Isopropyltoluene	DCBd 4	Ave	56219 3231863	151465 8130505	288208	558603	1632038	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,4-Dichlorobenzene	DCBd 4	Ave	30392 1646605	79823 4235116	151116	287369	830653	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2,3-Trimethylbenzene	DCBd 4	Ave	23351 1287655	63083 3282745	119238	228500	633734	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Benzyl chloride	DCBd 4	Ave	3297 266255	10785 695344	21047	42047	128109	0.200 10.0	0.500 25.0	1.00	2.00	5.00
n-Butylbenzene	DCBd 4	Ave	26239 1524448	68676 3913754	134228	258320	763485	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2-Dichlorobenzene	DCBd 4	Ave	26871 1477507	69498 3740715	136312	264385	746995	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2-Dibromo-3-Chloropropane	DCBd 4	Ave	1200 99189	3634 240431	7659	16104	44921	0.200 10.0	0.500 25.0	1.00	2.00	5.00
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.: 410-60154-1 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 1055085	44434 2610571	91280	177445	518320	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Hexachlorobutadiene	DCBd 4	Ave	9764 421345	20700 1070139	37885	71973	207395	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Naphthalene	DCBd 4	Ave	35671 1968173	86939 4524102	173919	351951	958252	0.200 10.0	0.500 25.0	1.00	2.00	5.00
1,2,3-Trichlorobenzene	DCBd 4	Ave	16298 892480	38854 2100548	78245	155892	439919	0.200 10.0	0.500 25.0	1.00	2.00	5.00
Dibromofluoromethane (Surr)	FB	Ave	550850 533065	602854 582034	547419	542329	533947	10.0 10.0	10.0 10.0	10.0	10.0	10.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	111473 107464	118060 117327	108914	108754	106534	10.0 10.0	10.0 10.0	10.0	10.0	10.0
Toluene-d8 (Surr)	CBZd 5	Ave	2194797 2118631	2386226 2314329	2163909	2152292	2113101	10.0 10.0	10.0 10.0	10.0	10.0	10.0
4-Bromofluorobenzene (Surr)	CBZd 5	Ave	836413 806596	911479 900526	826851	815520	806331	10.0 10.0	10.0 10.0	10.0	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.: 410-60154-1 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.: 410-60154-1 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.: 410-60154-1 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.: 410-60154-1 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.: 410-60154-1 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.: 410-60154-1 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\IG23I01.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\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 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-trifluoroetha	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

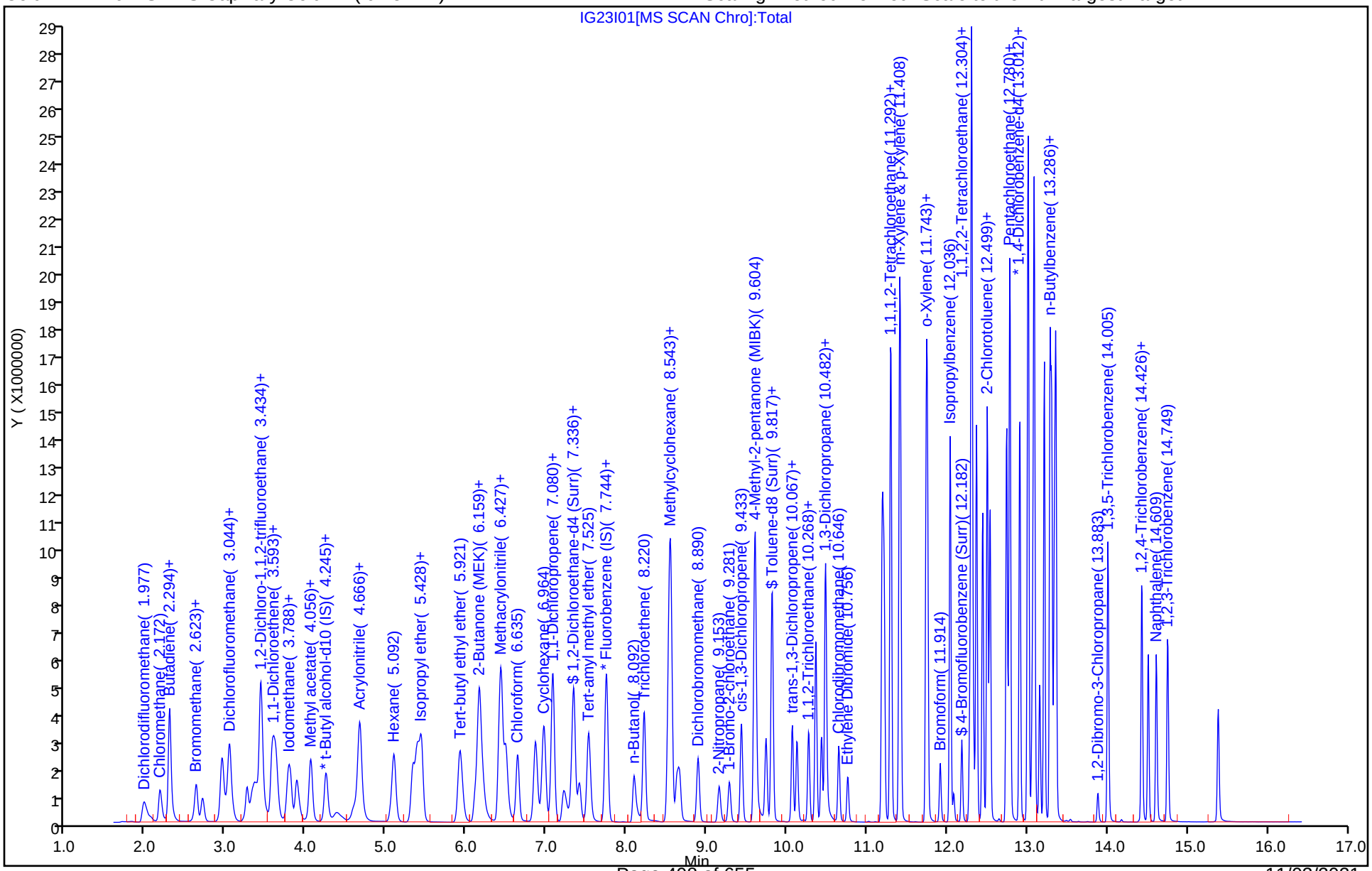
Report Date: 24-Aug-2021 15:55:02 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I01.D

Injection Date:	24-Aug-2021 00:45:30	Instrument ID:	19930	Operator ID:	mec29284
Lims ID:	IC std7			Worklist Smp#:	12
Client ID:					
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

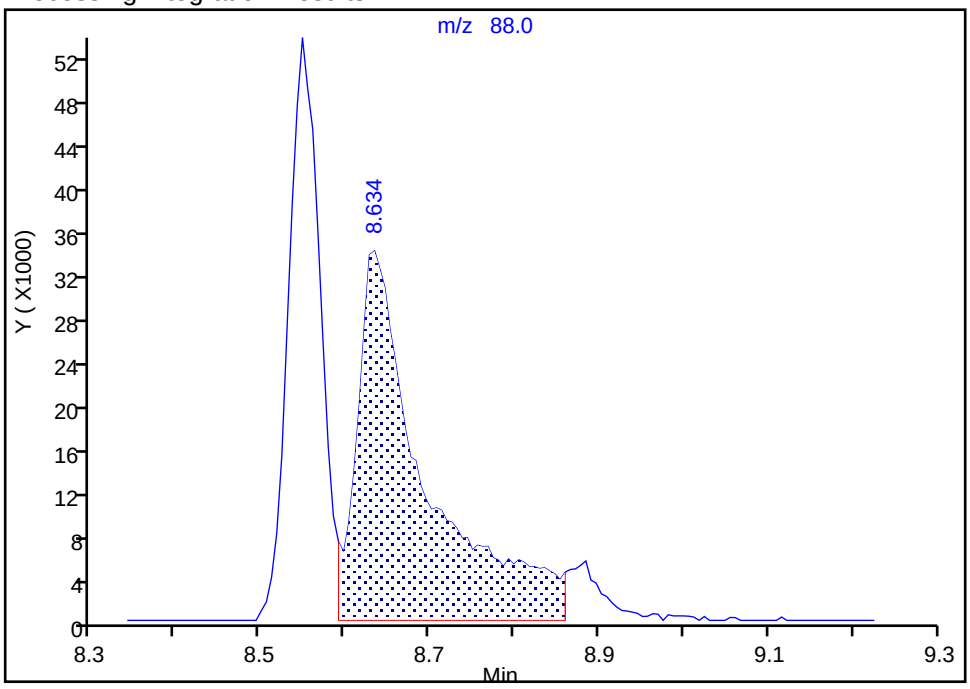
Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I01.D
Injection Date: 24-Aug-2021 00:45:30 Instrument ID: 19930
Lims ID: IC std7
Client ID:
Operator ID: mec29284 ALS Bottle#: 11 Worklist Smp#: 12
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

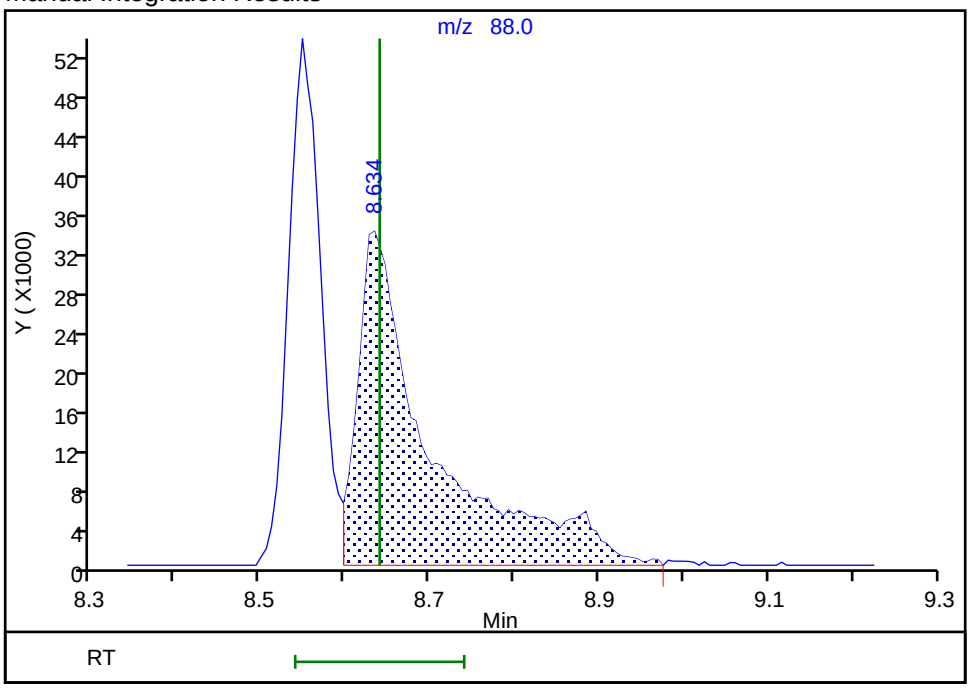
Processing Integration Results

RT: 8.63
Area: 191805
Amount: 912.6603
Amount Units: ug/l



Manual Integration Results

RT: 8.63
Area: 203588
Amount: 1026.9040
Amount Units: ug/l



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\IG23I02.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\IG23I07.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-trifluoroetha	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

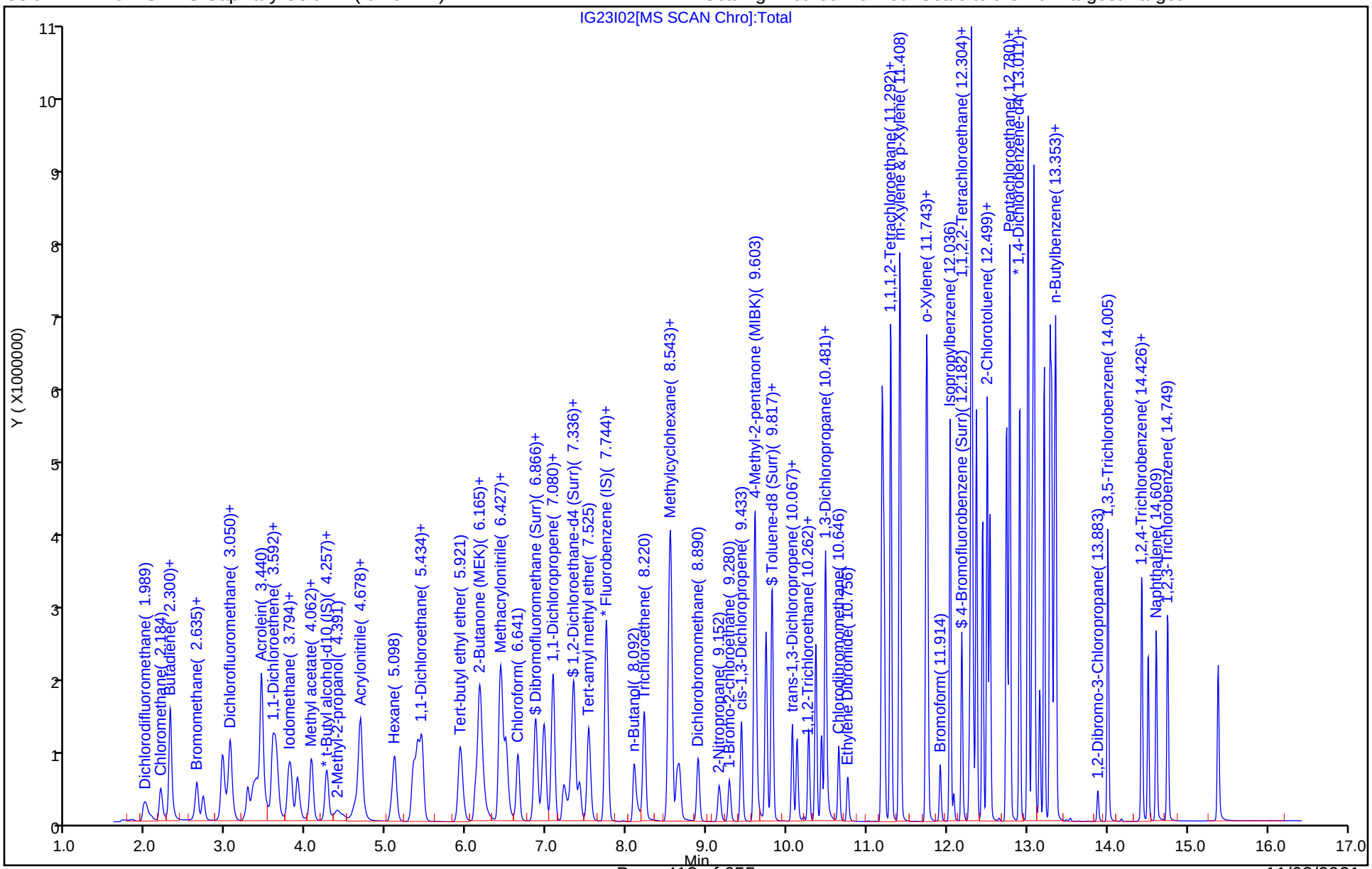
Report Date: 24-Aug-2021 15:55:07 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I02.D

Injection Date:	24-Aug-2021 01:06:30	Instrument ID:	19930	Operator ID:	mec29284
Lims ID:	ICIS - LG			Worklist Smp#:	13
Client ID:					
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I03.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\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 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-trifluoroetha	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:

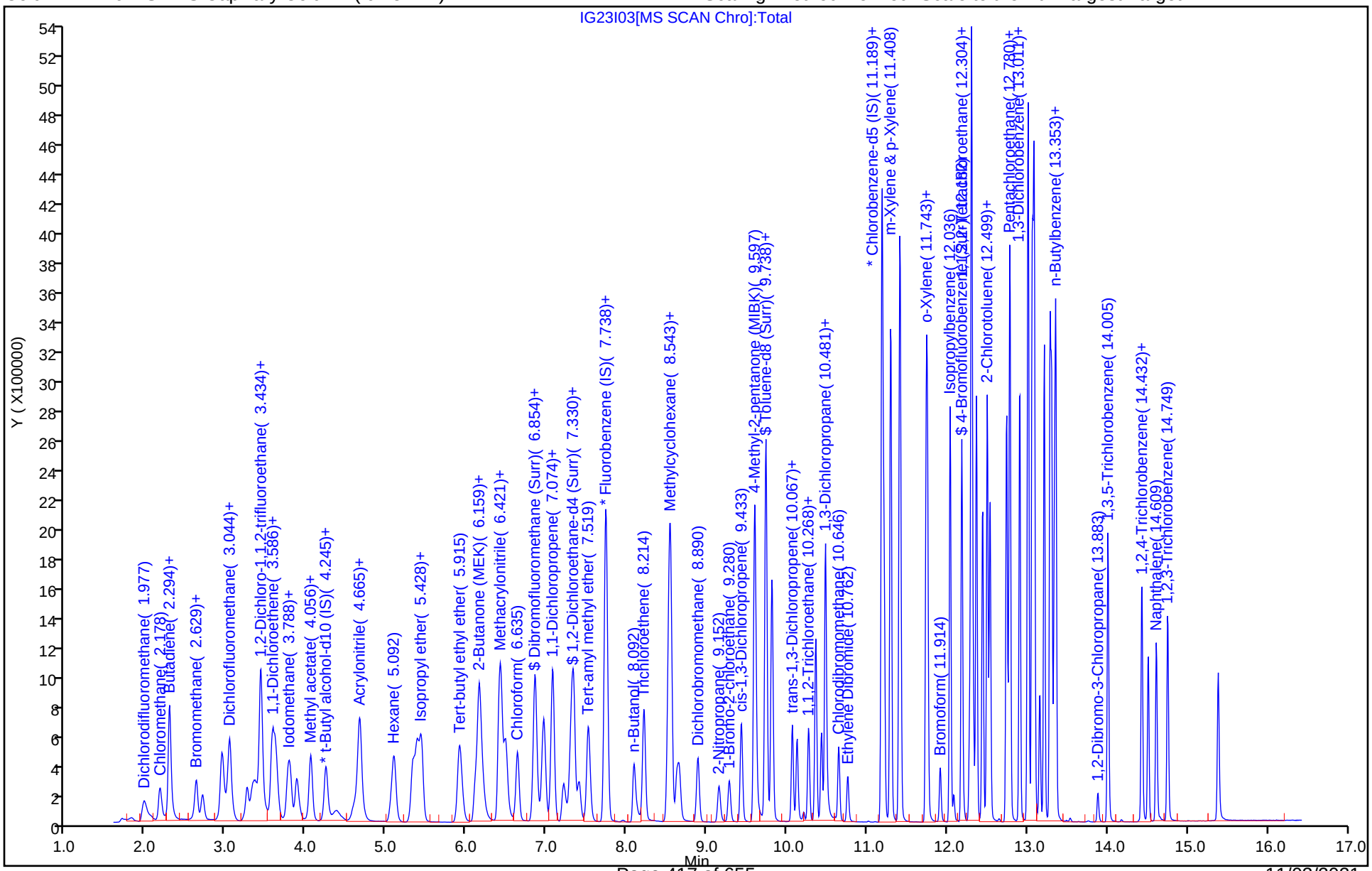
MSV_LL_#1_826_00015	Amount Added:	5.00	Units: uL	
MSV_LL_#2_826_00015	Amount Added:	5.00	Units: uL	
MSV_LL_GAS826_00027	Amount Added:	5.00	Units: uL	
MSV_LLcentISS_00001	Amount Added:	5.00	Units: uL	Run Reagent

Report Date: 24-Aug-2021 15:55:12 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I03.D				
Injection Date:	24-Aug-2021 01:27:30	Instrument ID:	19930	Operator ID:	mec29284
Lims ID:	IC std5			Worklist Smp#:	14
Client ID:					
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

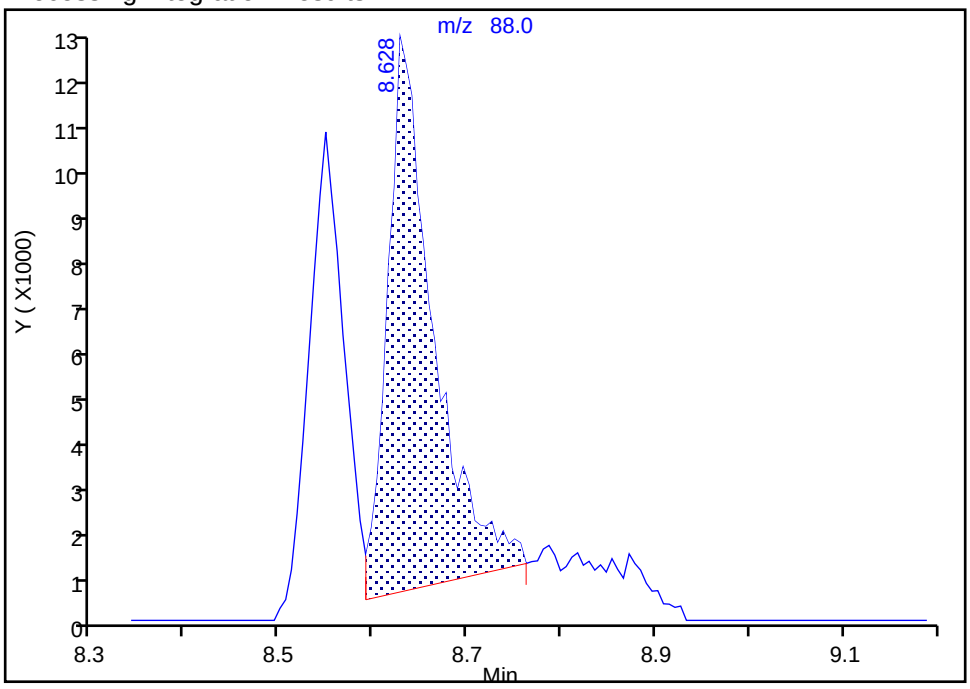
Data File:	\\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I03.D				
Injection Date:	24-Aug-2021 01:27:30	Instrument ID:	19930		
Lims ID:	IC std5				
Client ID:					
Operator ID:	mec29284	ALS Bottle#:	13	Worklist Smp#:	14
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

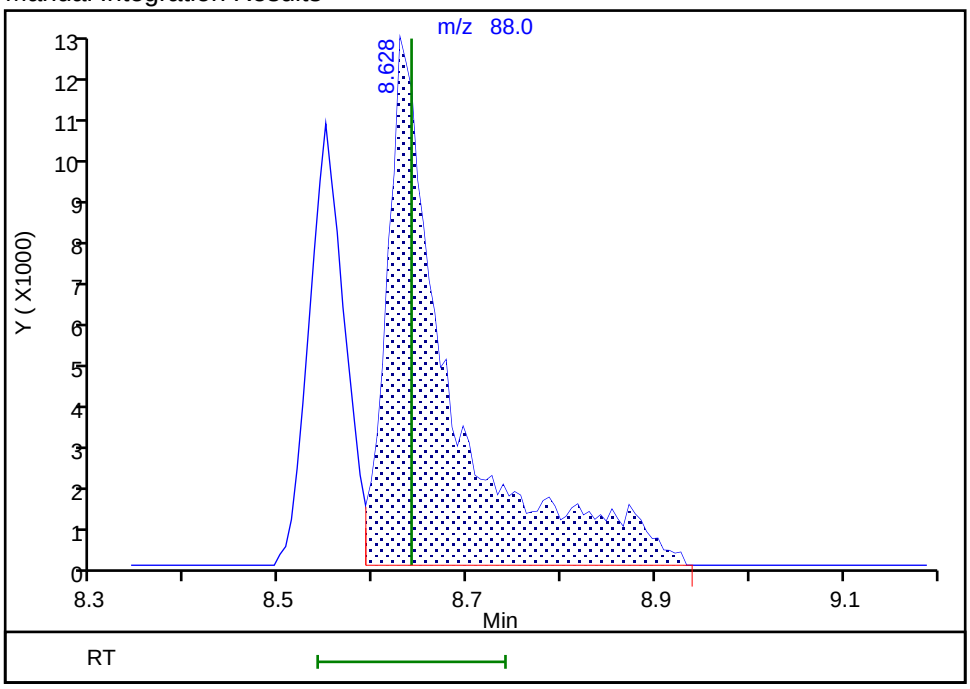
Processing Integration Results

RT: 8.63
Area: 40941
Amount: 236.6358
Amount Units: ug/l



Manual Integration Results

RT: 8.63
Area: 60485
Amount: 229.0877
Amount Units: ug/l



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\IG23I04.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\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 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-trifluoroetha	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

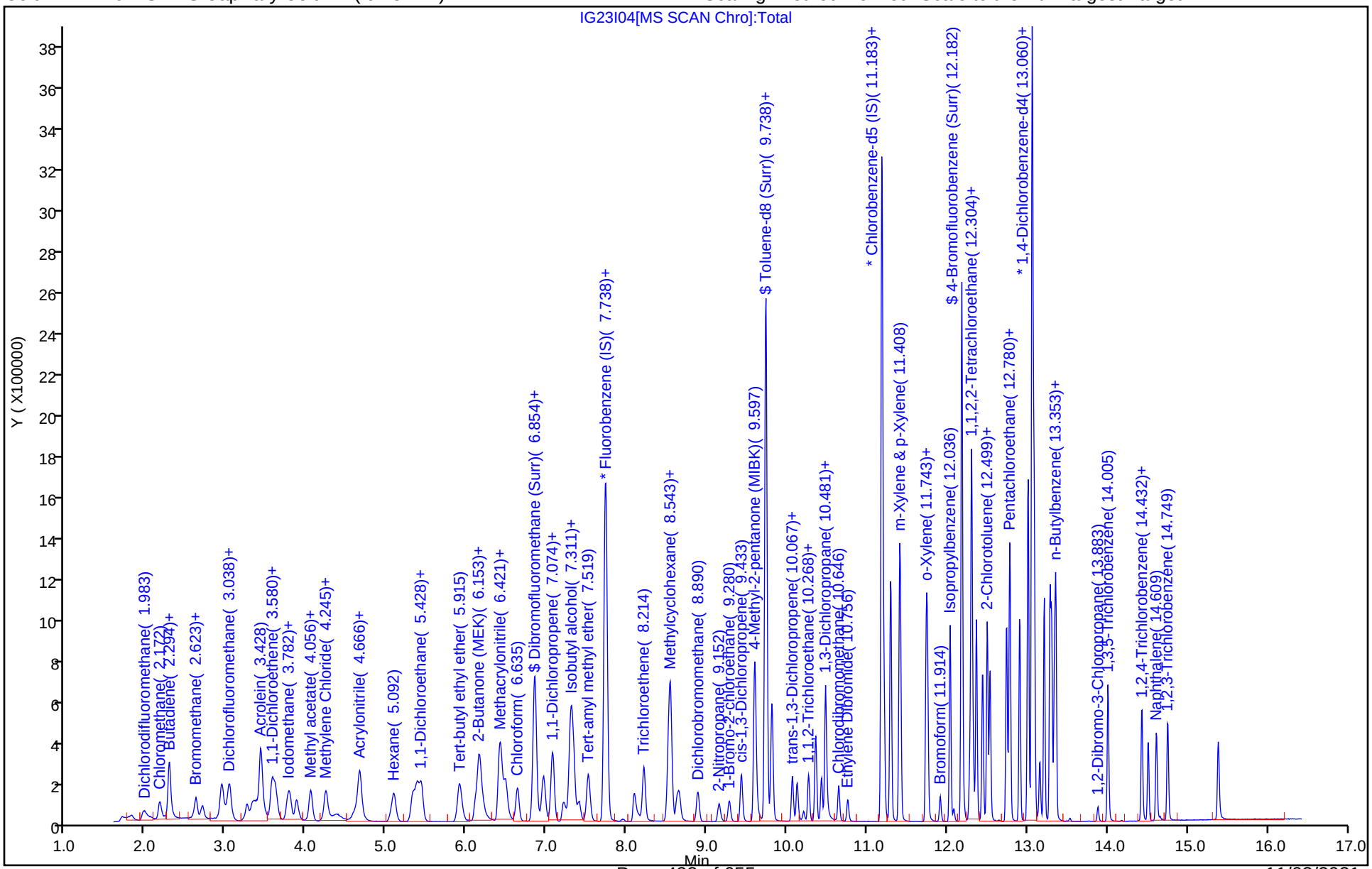
Report Date: 24-Aug-2021 15:55:17 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I04.D

Injection Date:	24-Aug-2021 01:48:30	Instrument ID:	19930	Operator ID:	mec29284
Lims ID:	IC std4			Worklist Smp#:	15
Client ID:					
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

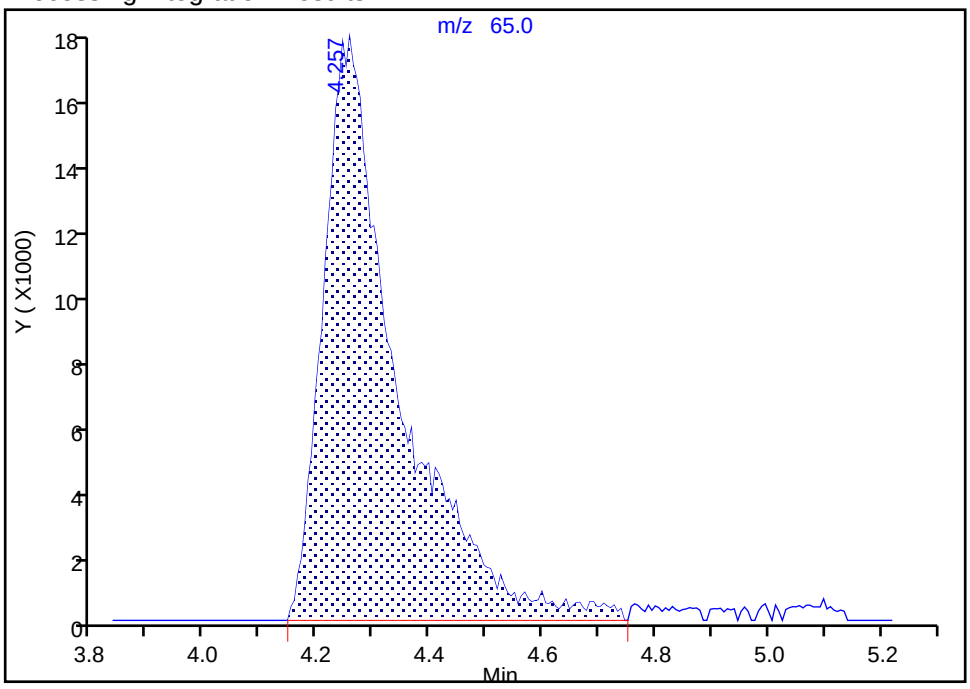
Data File:	\\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I04.D				
Injection Date:	24-Aug-2021 01:48:30	Instrument ID:	19930		
Lims ID:	IC std4				
Client ID:					
Operator ID:	mec29284	ALS Bottle#:	14	Worklist Smp#:	15
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

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

Signal: 1

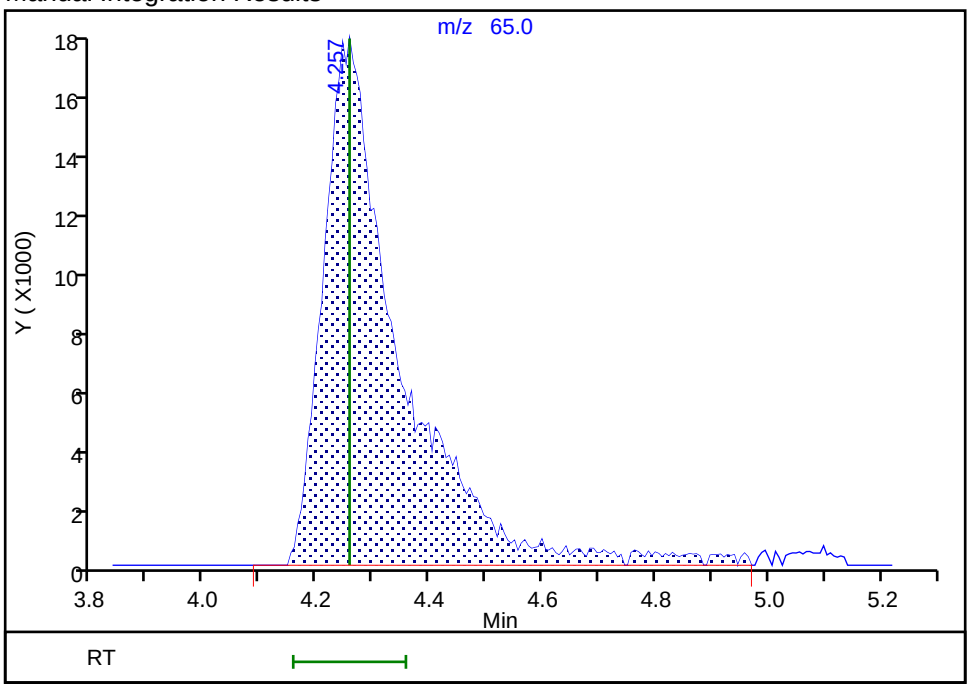
Processing Integration Results

RT: 4.26
Area: 158849
Amount: 50.000000
Amount Units: ug/l



Manual Integration Results

RT: 4.26
Area: 162903
Amount: 50.000000
Amount Units: ug/l



Reviewer: longj, 24-Aug-2021 15:16:21
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

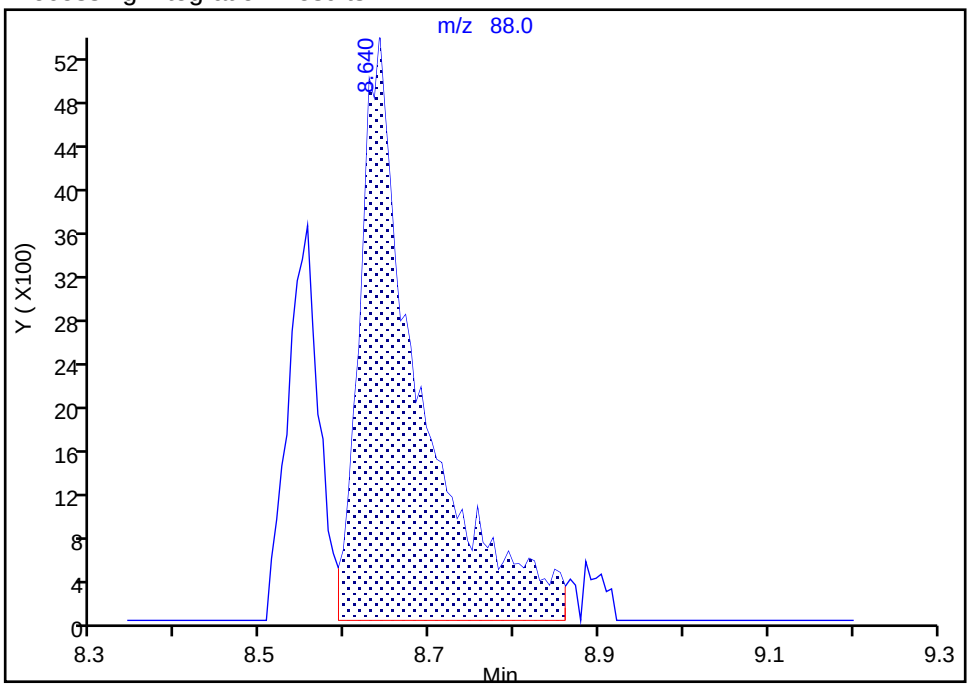
Data File:	\\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I04.D				
Injection Date:	24-Aug-2021 01:48:30	Instrument ID:	19930		
Lims ID:	IC std4				
Client ID:					
Operator ID:	mec29284	ALS Bottle#:	14	Worklist Smp#:	15
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

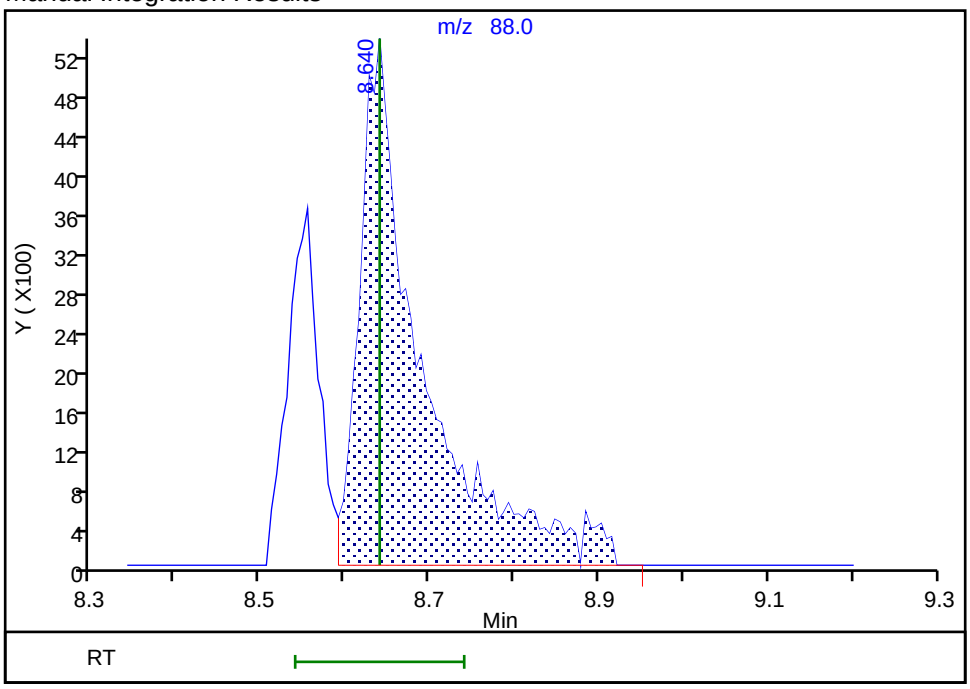
Processing Integration Results

RT: 8.64
Area: 26261
Amount: 119.8515
Amount Units: ug/l



Manual Integration Results

RT: 8.64
Area: 27358
Amount: 94.303495
Amount Units: ug/l



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\IG23I05.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\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 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-trifluoroetha	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

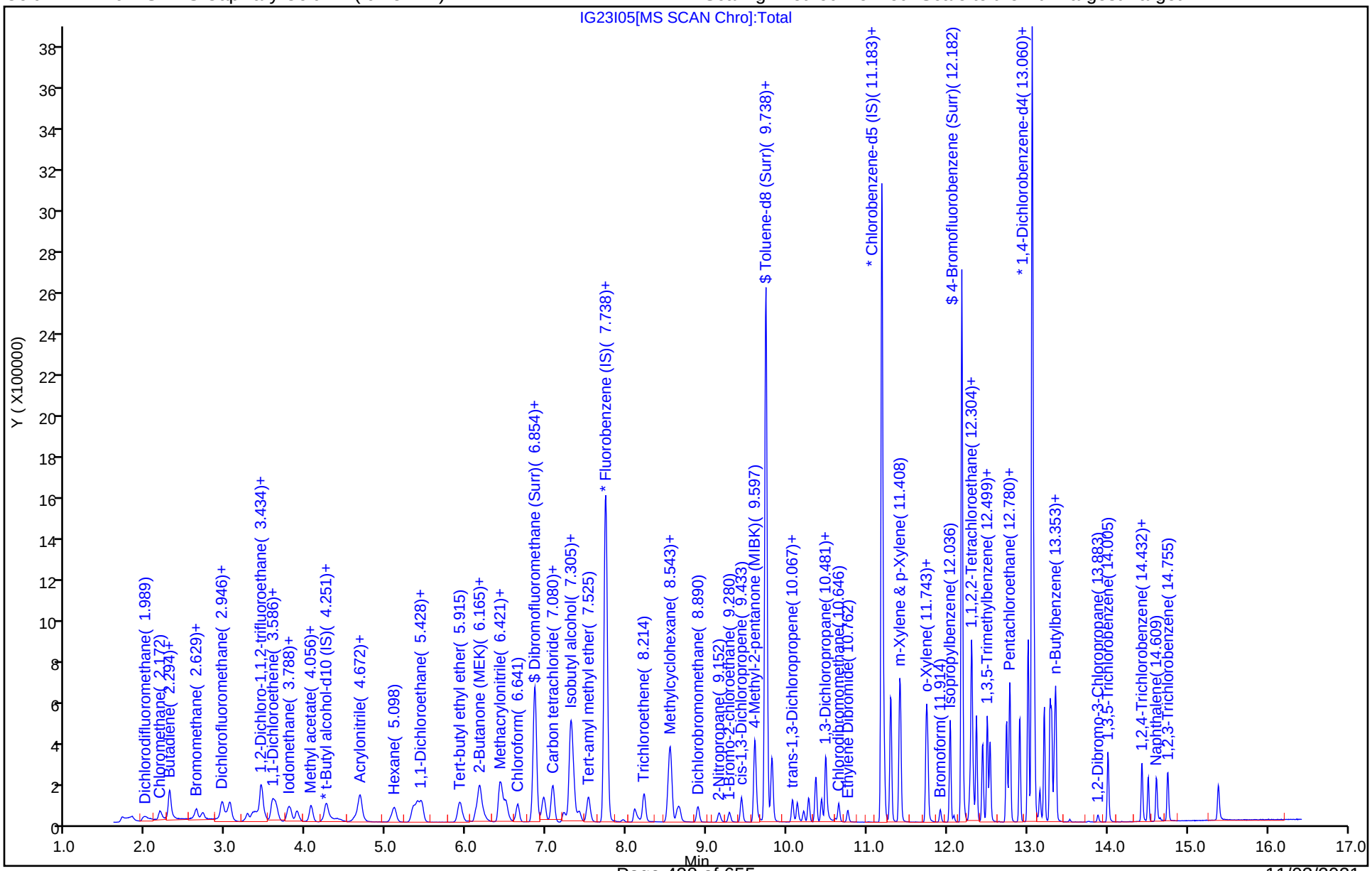
Report Date: 24-Aug-2021 15:55:22 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I05.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



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

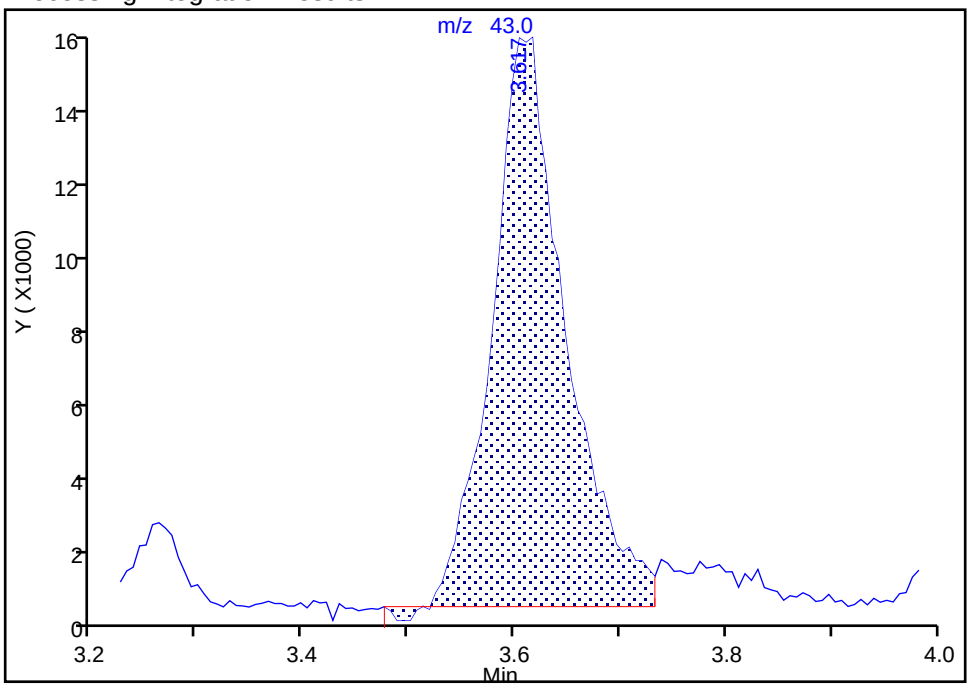
Data File:	\\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I05.D				
Injection Date:	24-Aug-2021 02:09:30	Instrument ID:	19930		
Lims ID:	IC std3				
Client ID:					
Operator ID:	mec29284	ALS Bottle#:	15	Worklist Smp#:	16
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

15 Acetone, CAS: 67-64-1

Signal: 1

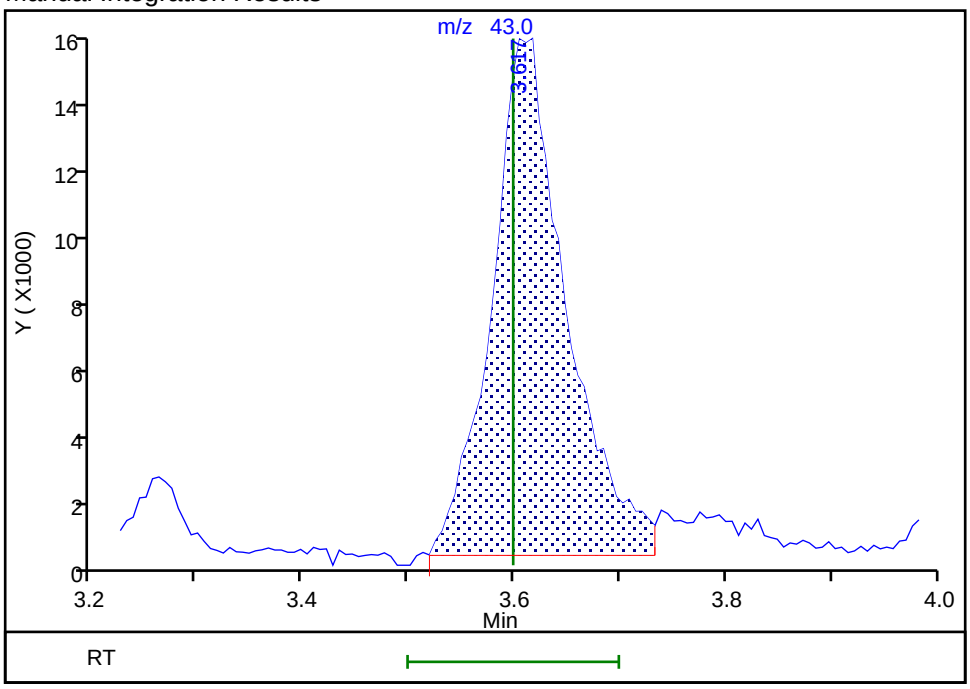
Processing Integration Results

RT: 3.62
Area: 72163
Amount: 9.070107
Amount Units: ug/l



Manual Integration Results

RT: 3.62
Area: 73600
Amount: 9.259476
Amount Units: ug/l



Reviewer: longj, 24-Aug-2021 15:05:40
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

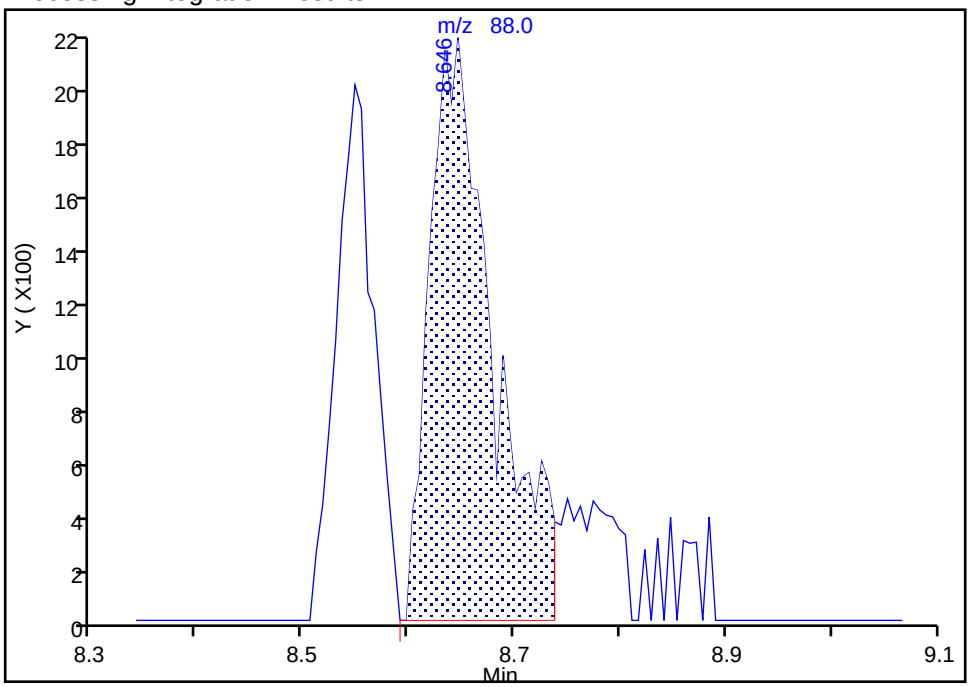
Data File:	\\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I05.D				
Injection Date:	24-Aug-2021 02:09:30	Instrument ID:	19930		
Lims ID:	IC std3				
Client ID:					
Operator ID:	mec29284	ALS Bottle#:	15	Worklist Smp#:	16
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

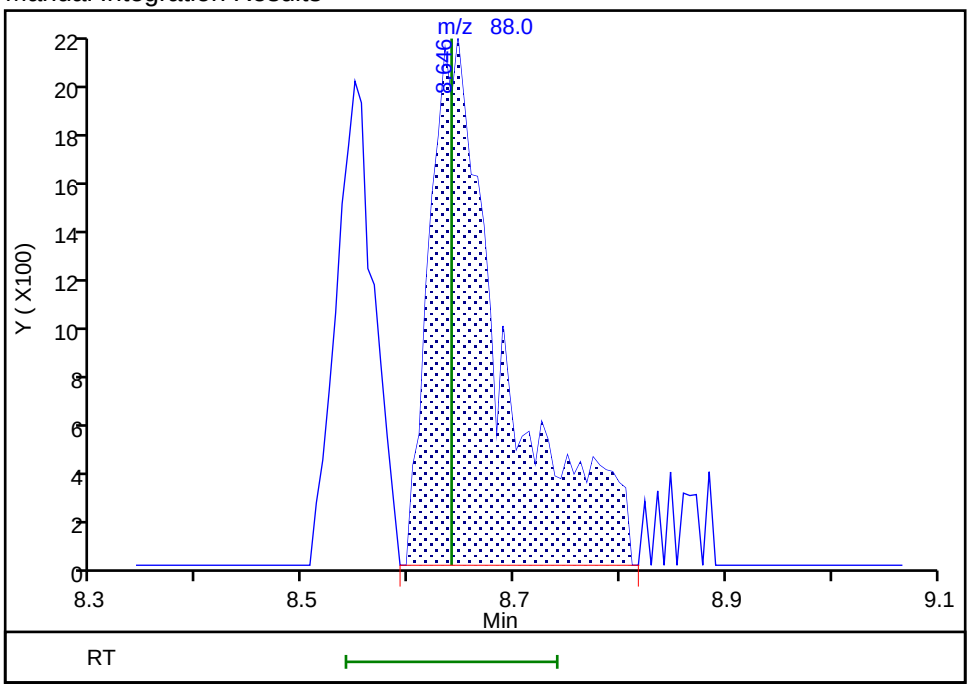
Processing Integration Results

RT: 8.65
Area: 8965
Amount: 45.300089
Amount Units: ug/l



Manual Integration Results

RT: 8.65
Area: 10496
Amount: 52.840483
Amount Units: ug/l



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\IG23I06.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\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 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

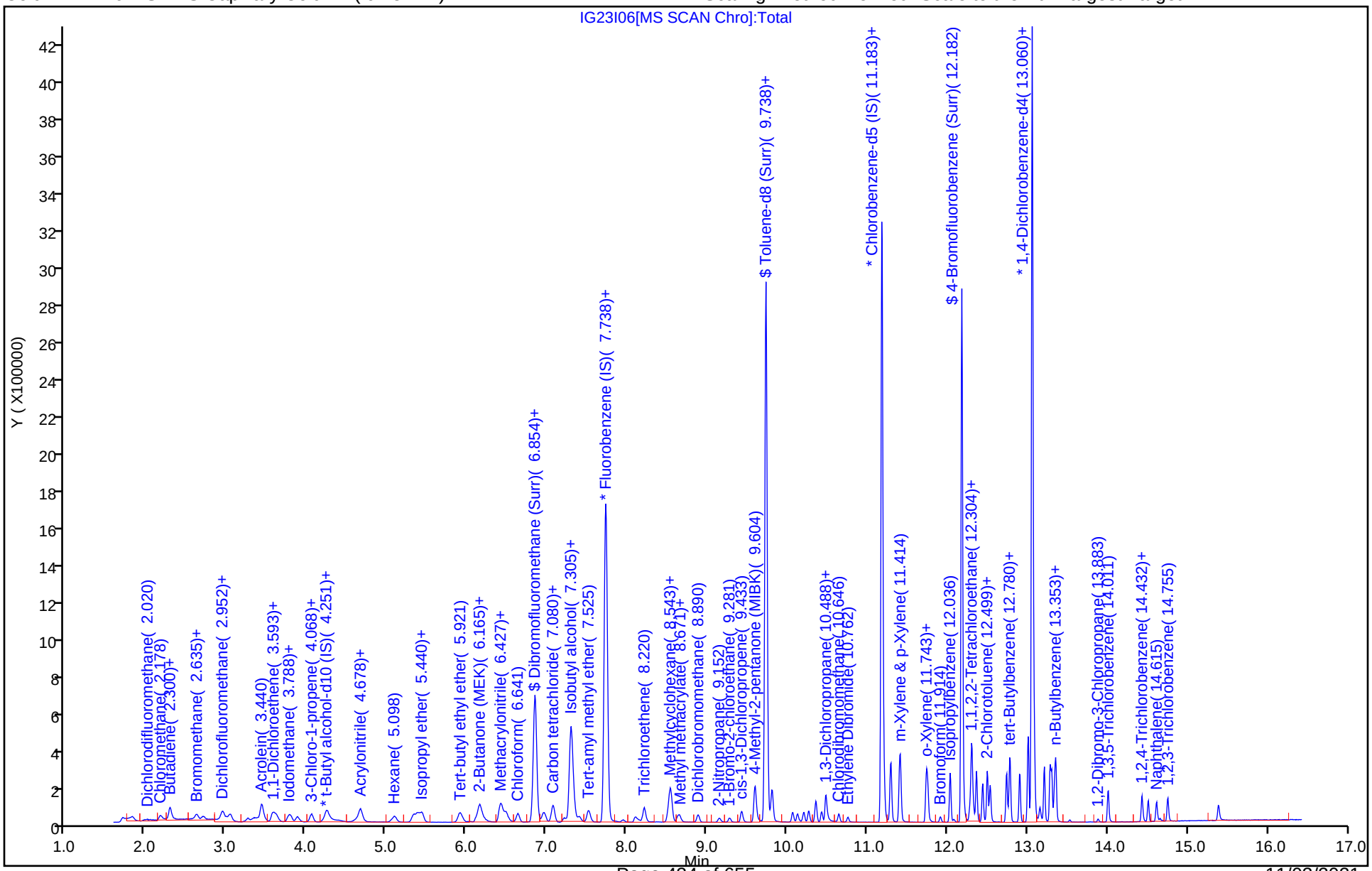
Report Date: 24-Aug-2021 15:55:28 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I06.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



Eurofins Lancaster Laboratories Env, LLC

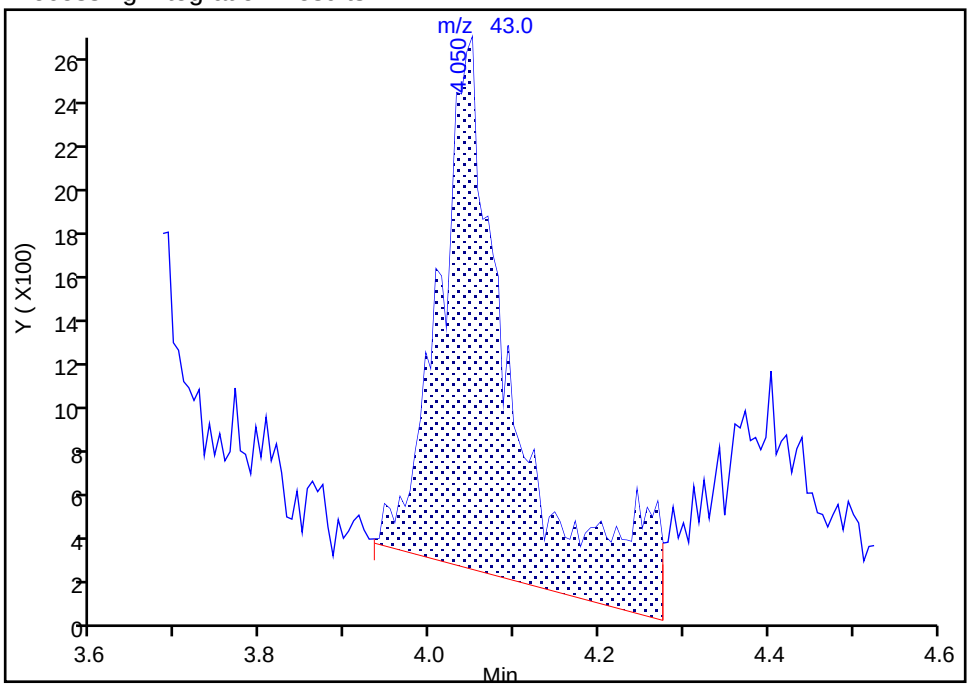
Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I06.D
Injection Date: 24-Aug-2021 02:30:30 Instrument ID: 19930
Lims ID: IC std2
Client ID:
Operator ID: mec29284 ALS Bottle#: 16 Worklist Smp#: 17
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

21 Methyl acetate, CAS: 79-20-9

Signal: 1

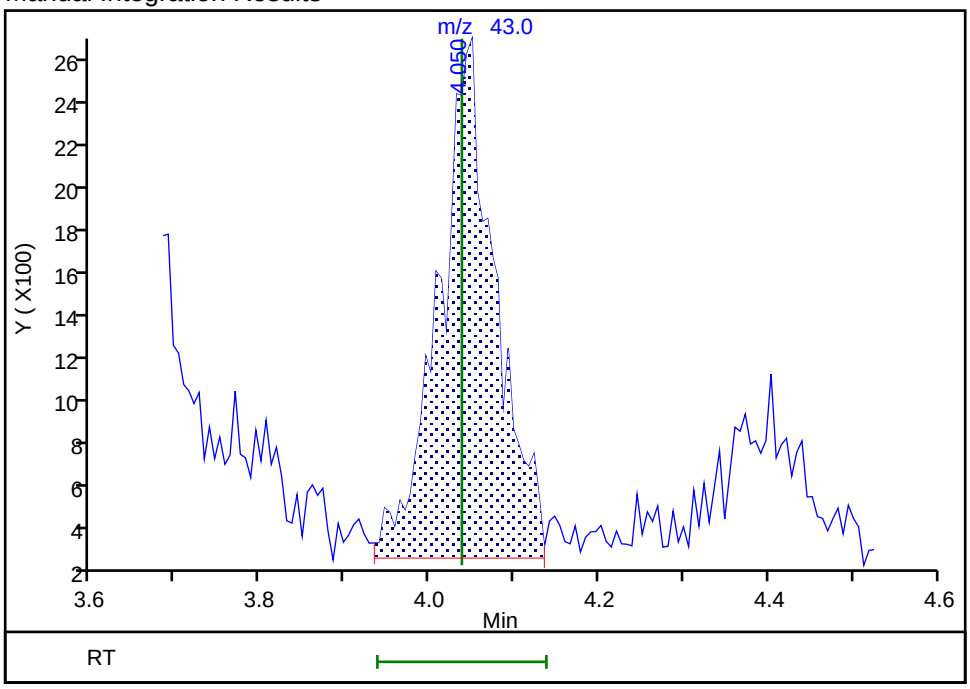
Processing Integration Results

RT: 4.05
Area: 14429
Amount: 0.507597
Amount Units: ug/l



Manual Integration Results

RT: 4.05
Area: 10814
Amount: 0.406583
Amount Units: ug/l



Reviewer: longj, 24-Aug-2021 15:07:57
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Lancaster Laboratories Env, LLC

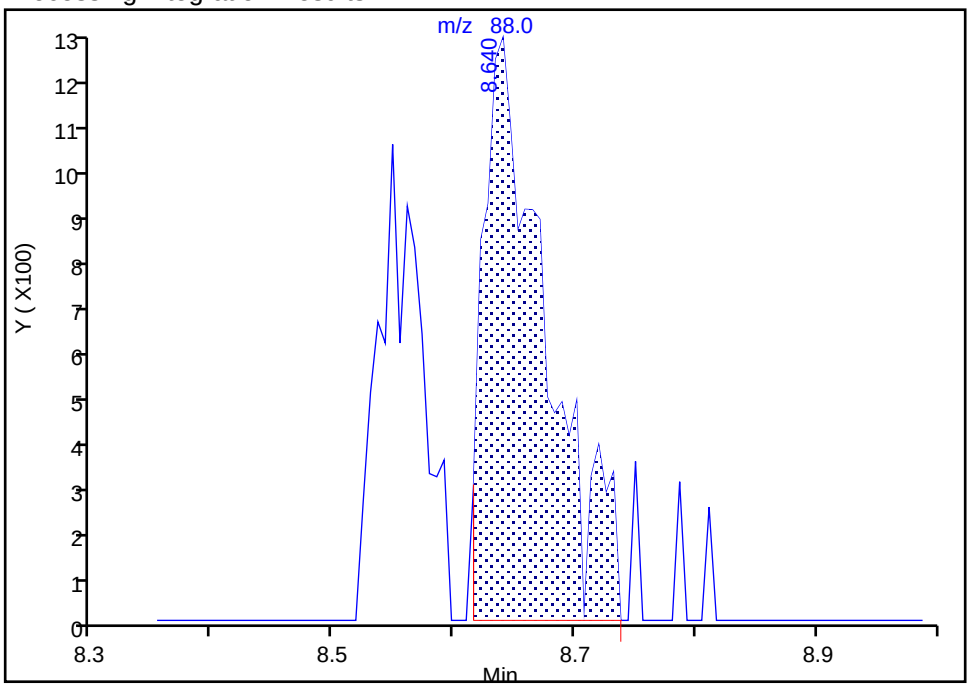
Data File:	\\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I06.D				
Injection Date:	24-Aug-2021 02:30:30	Instrument ID:	19930		
Lims ID:	IC std2				
Client ID:					
Operator ID:	mec29284	ALS Bottle#:	16	Worklist Smp#:	17
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

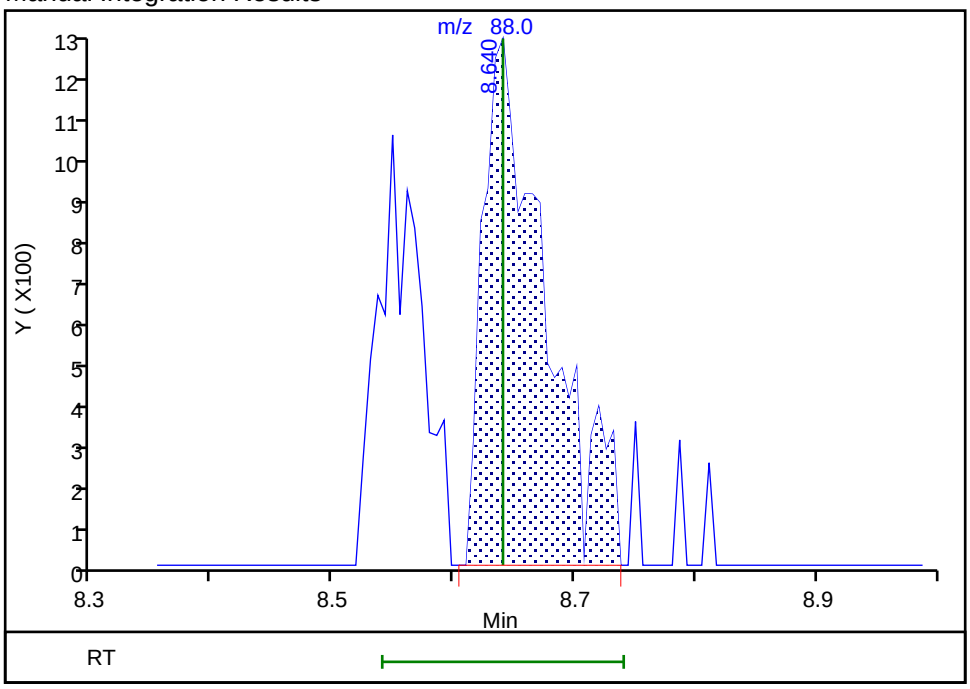
Processing Integration Results

RT: 8.64
Area: 4720
Amount: 19.712558
Amount Units: ug/l



Manual Integration Results

RT: 8.64
Area: 4720
Amount: 33.937684
Amount Units: ug/l



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\IG23I07.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\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 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

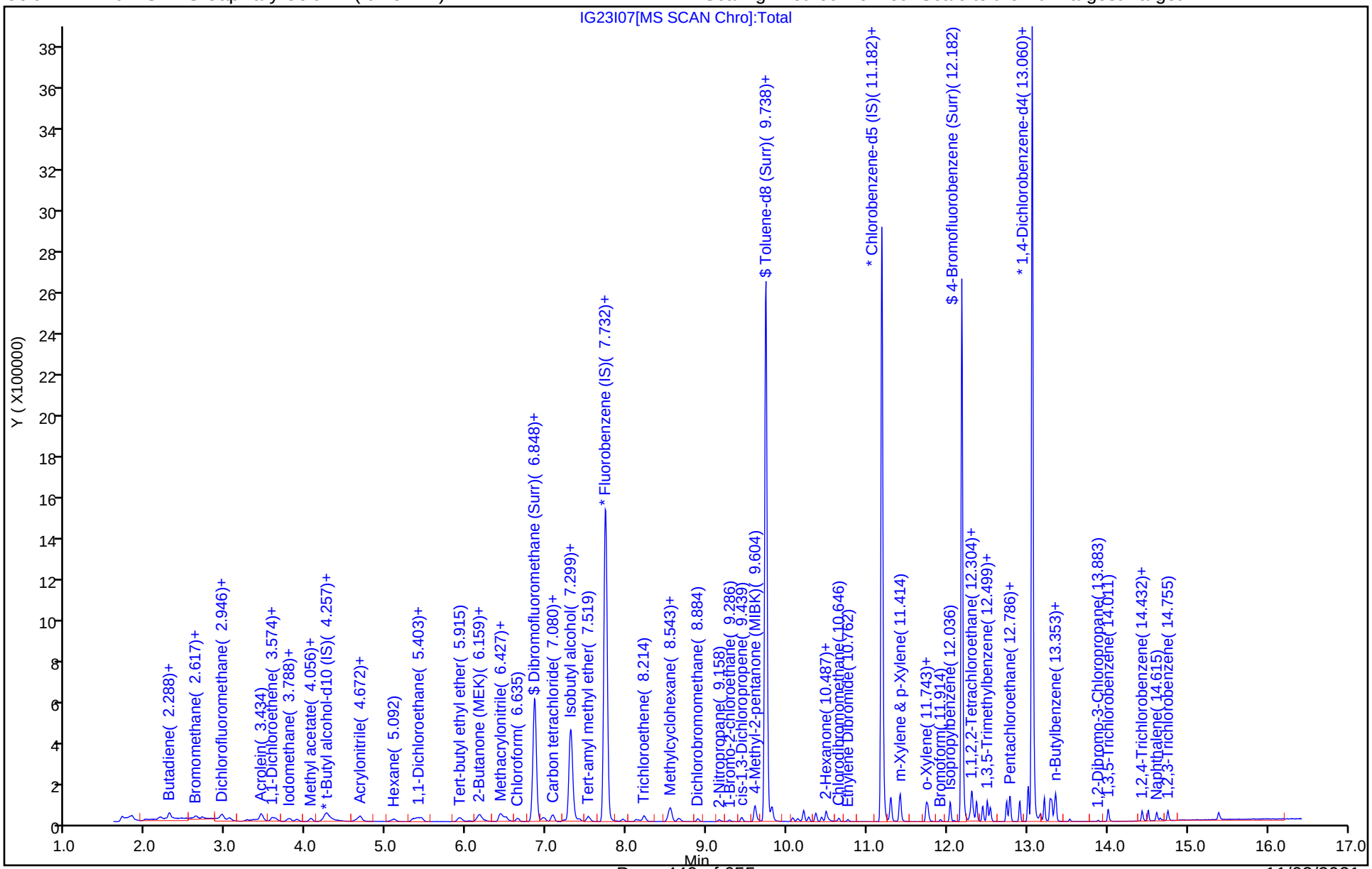
Report Date: 24-Aug-2021 15:55:32 Chrom Revision: 2.3 03-Aug-2021 10:08:16

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.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



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

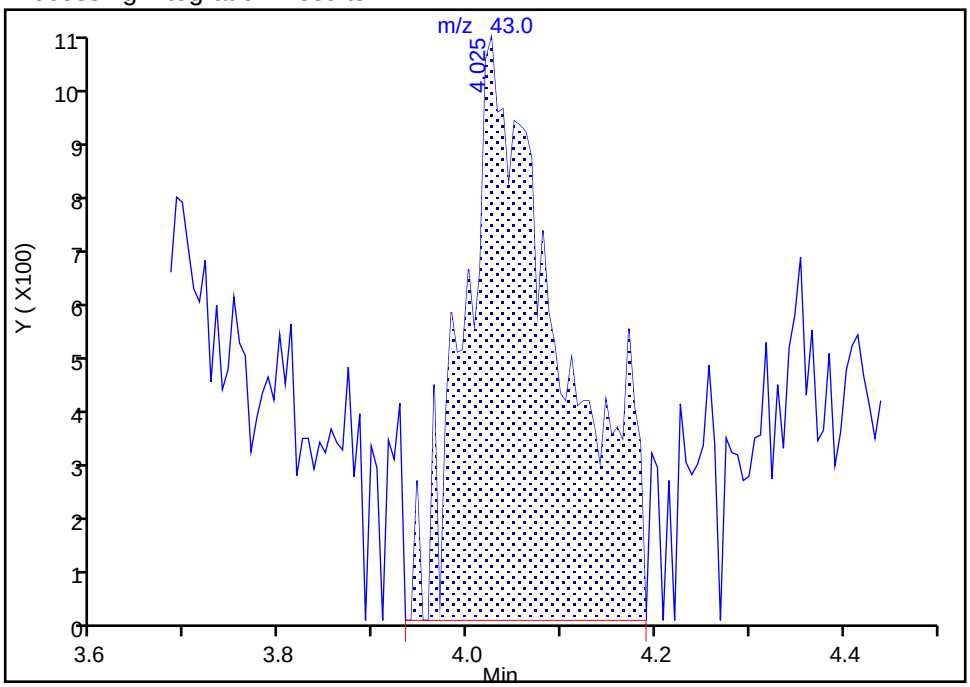
Data File:	\\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23I07.D				
Injection Date:	24-Aug-2021 02:52:30	Instrument ID:	19930		
Lims ID:	IC std1				
Client ID:					
Operator ID:	mec29284	ALS Bottle#:	17	Worklist Smp#:	18
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

21 Methyl acetate, CAS: 79-20-9

Signal: 1

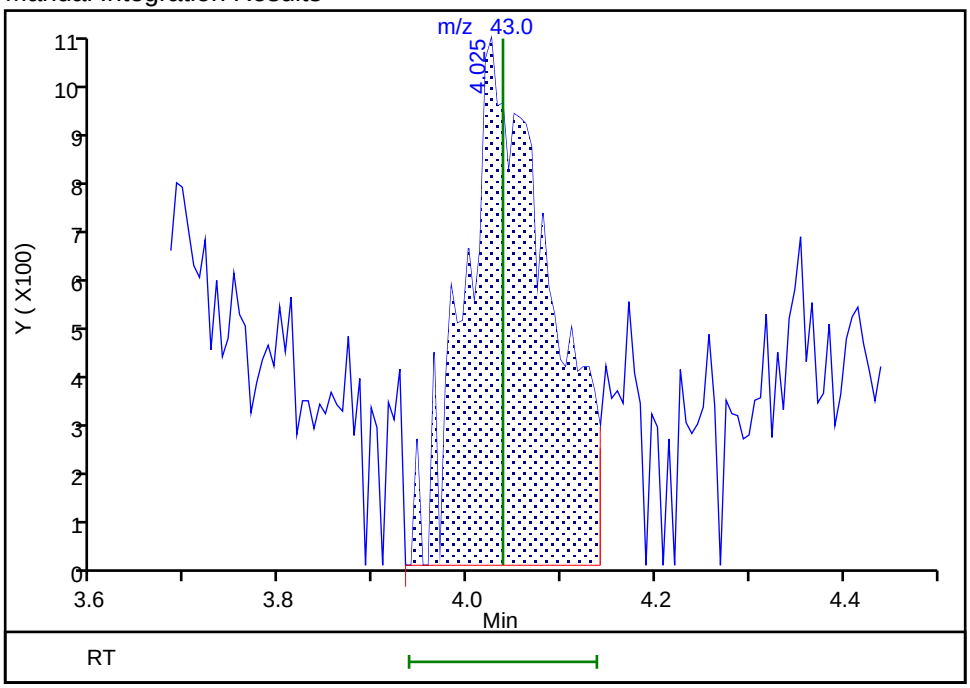
Processing Integration Results

RT: 4.03
Area: 7604
Amount: 0.278475
Amount Units: ug/l



Manual Integration Results

RT: 4.03
Area: 6630
Amount: 0.250072
Amount Units: ug/l



Reviewer: longj, 24-Aug-2021 15:08:28
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

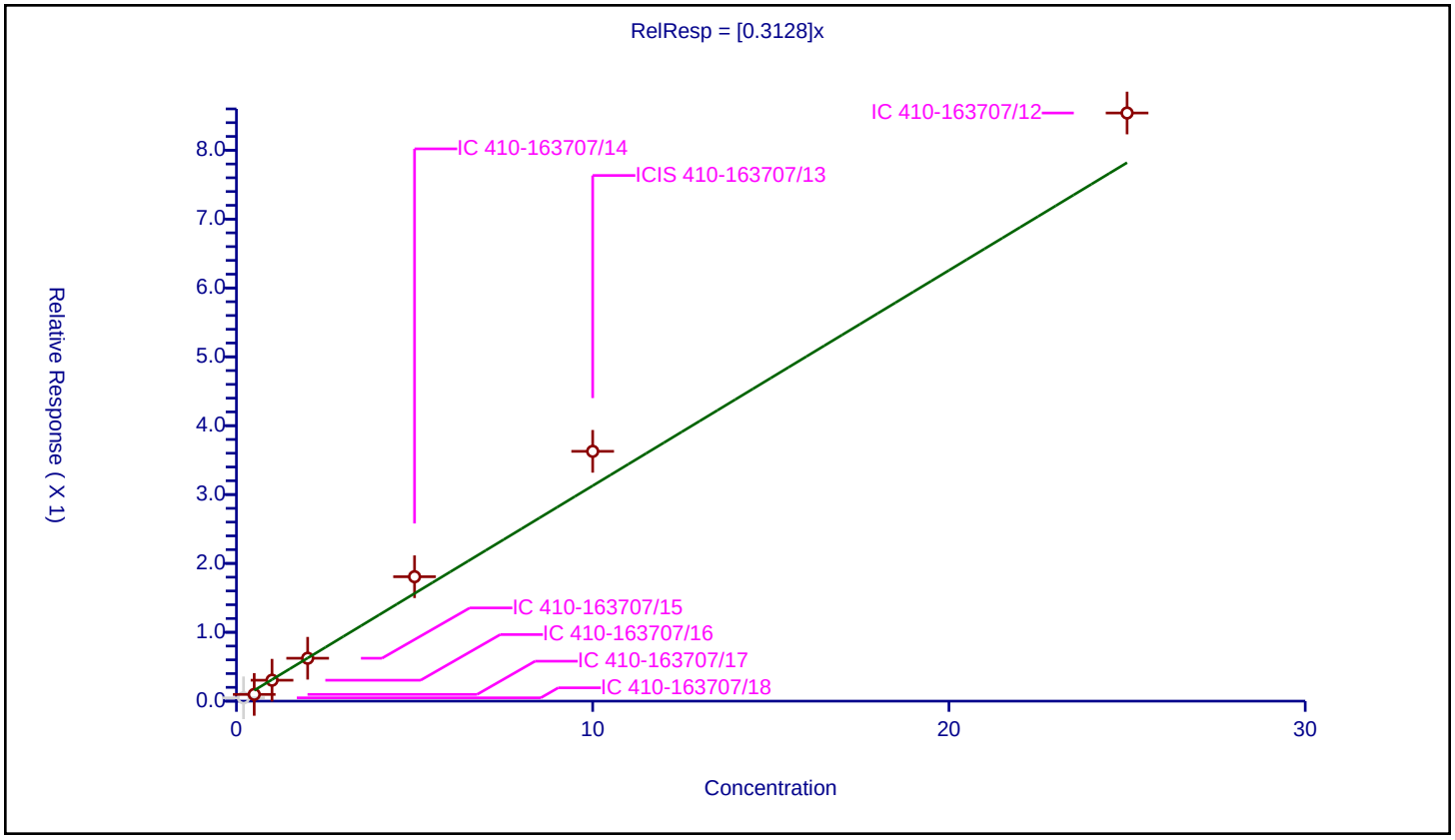
Curve Coefficients

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



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

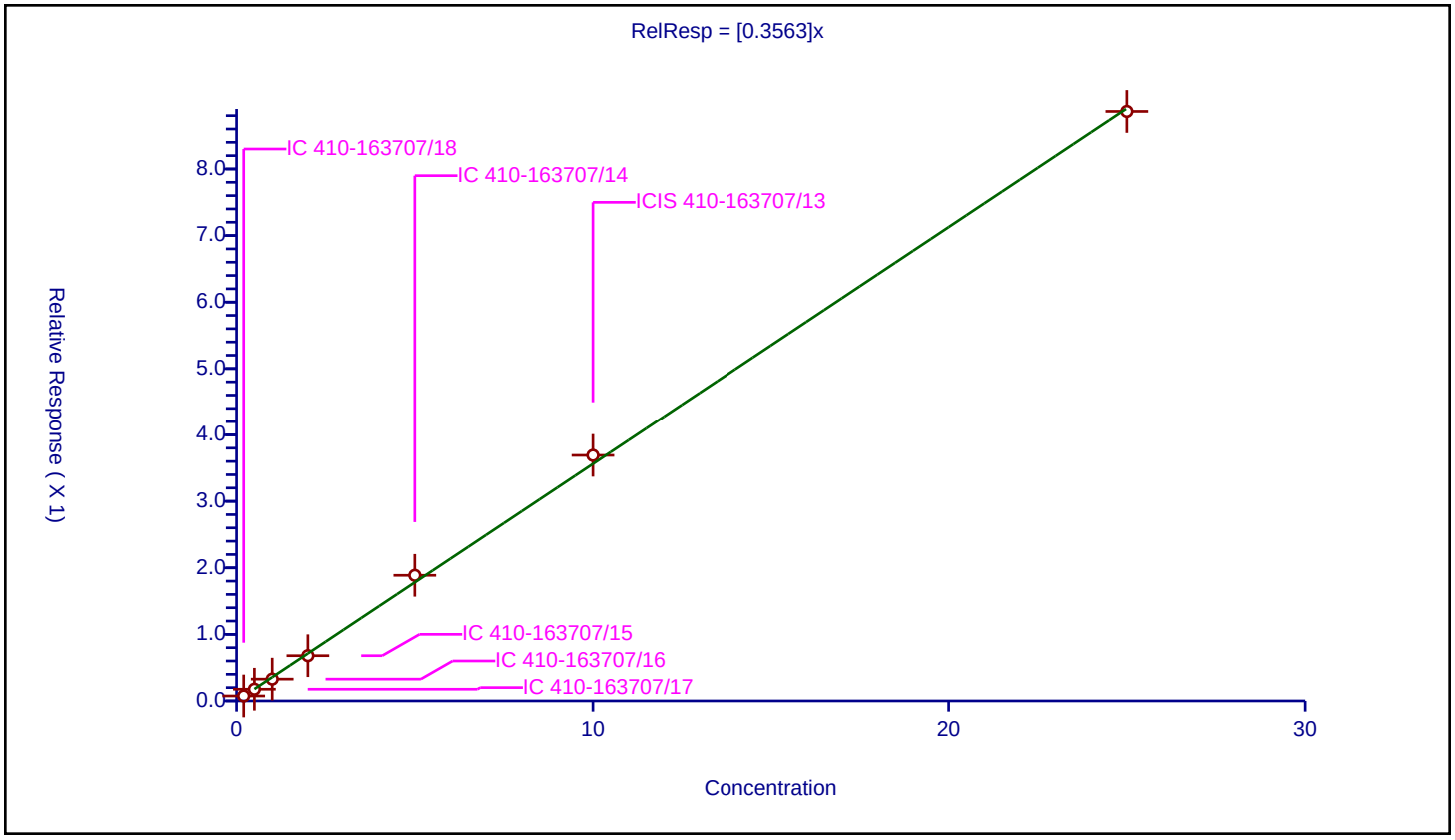
Curve Coefficients

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



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

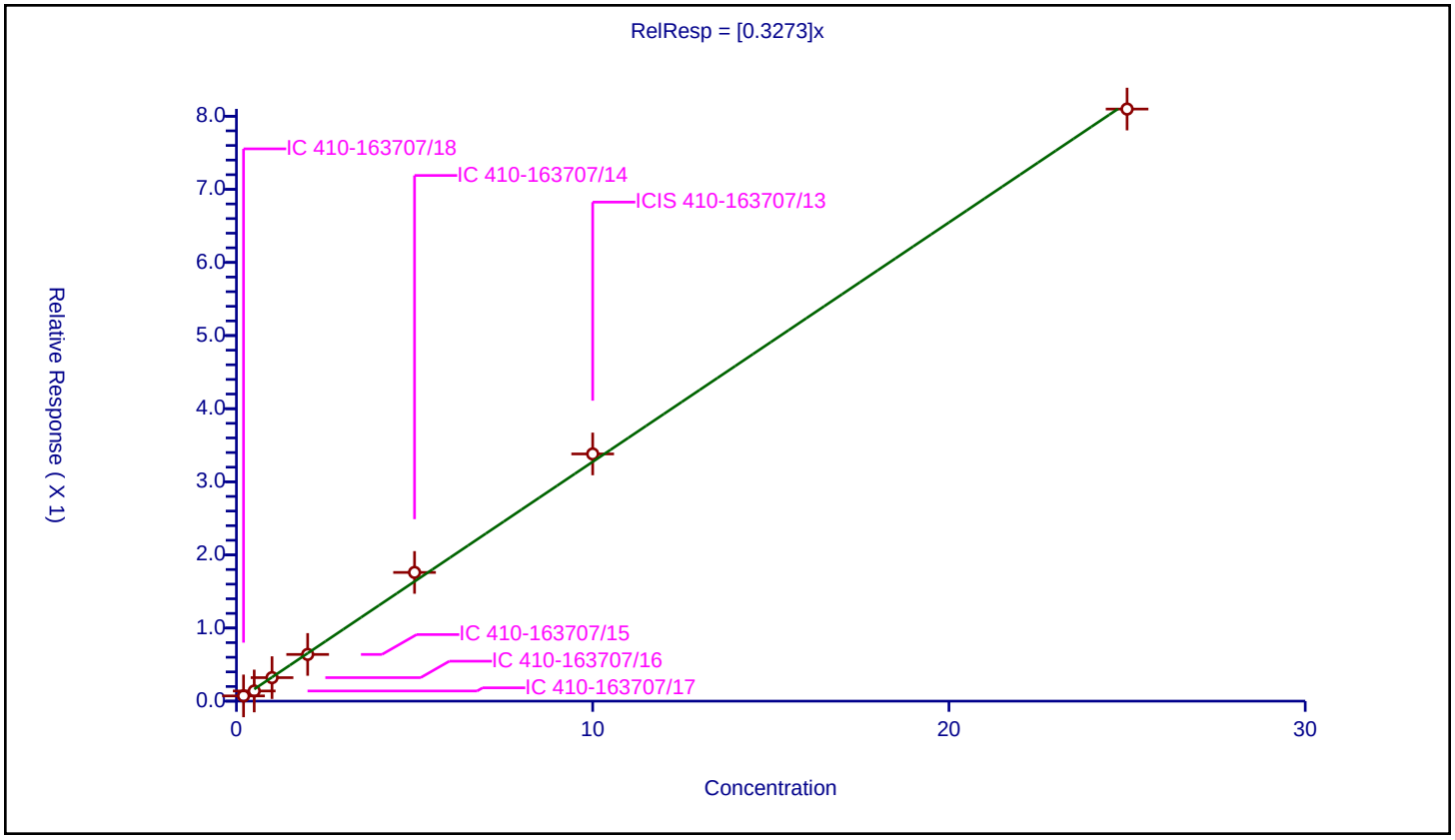
Curve Coefficients

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

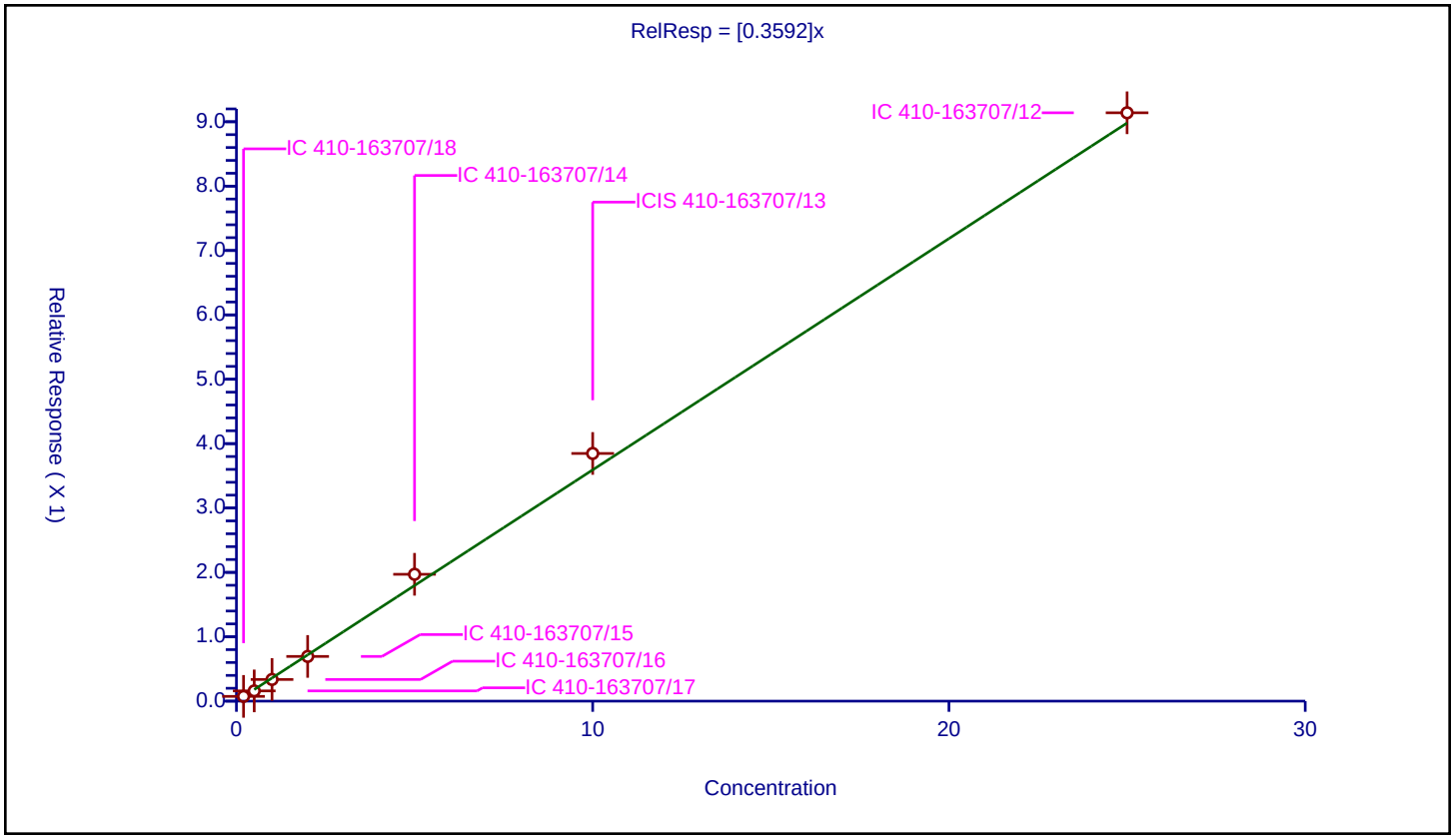
Curve Coefficients

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

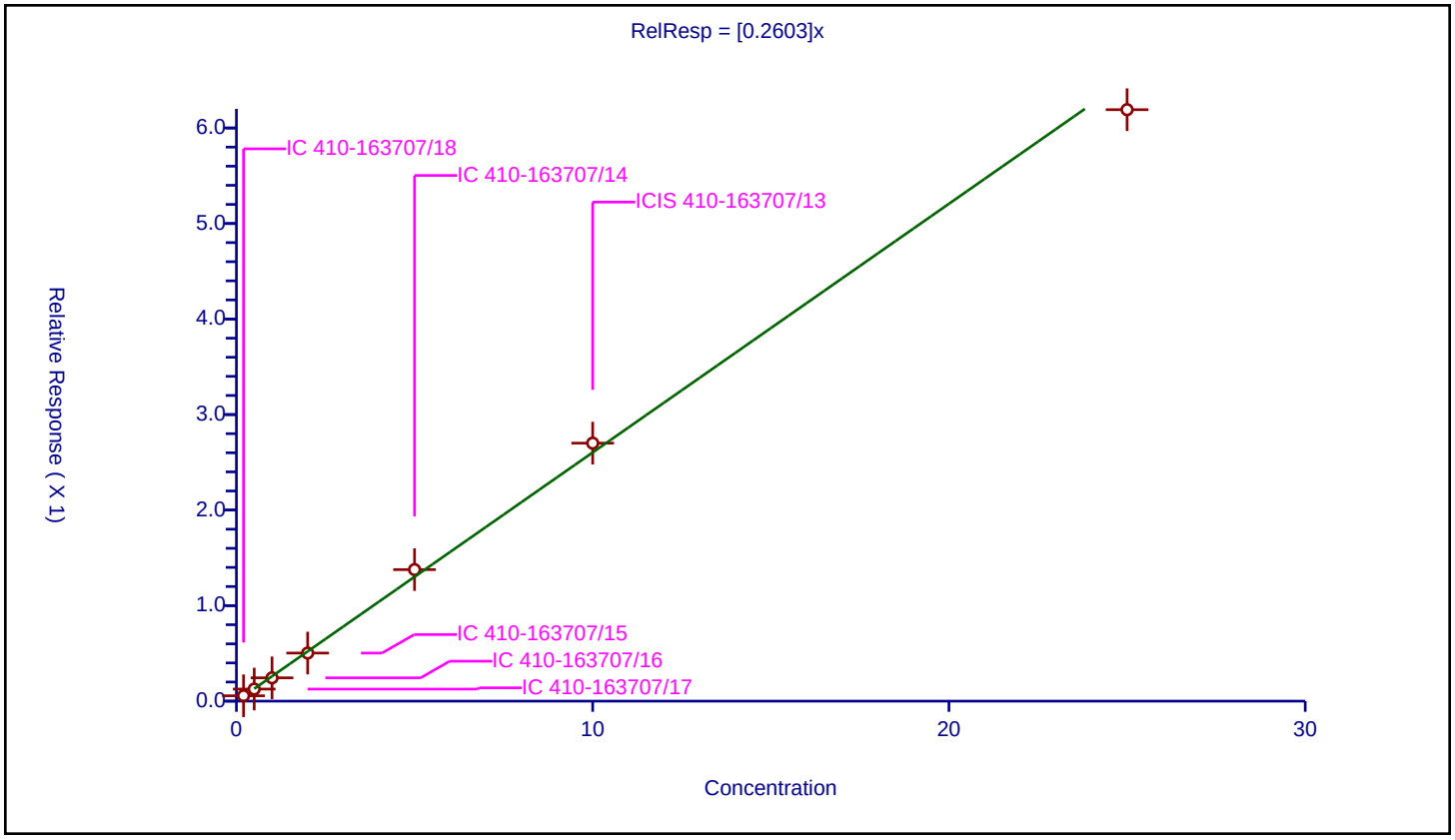
Curve Coefficients

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

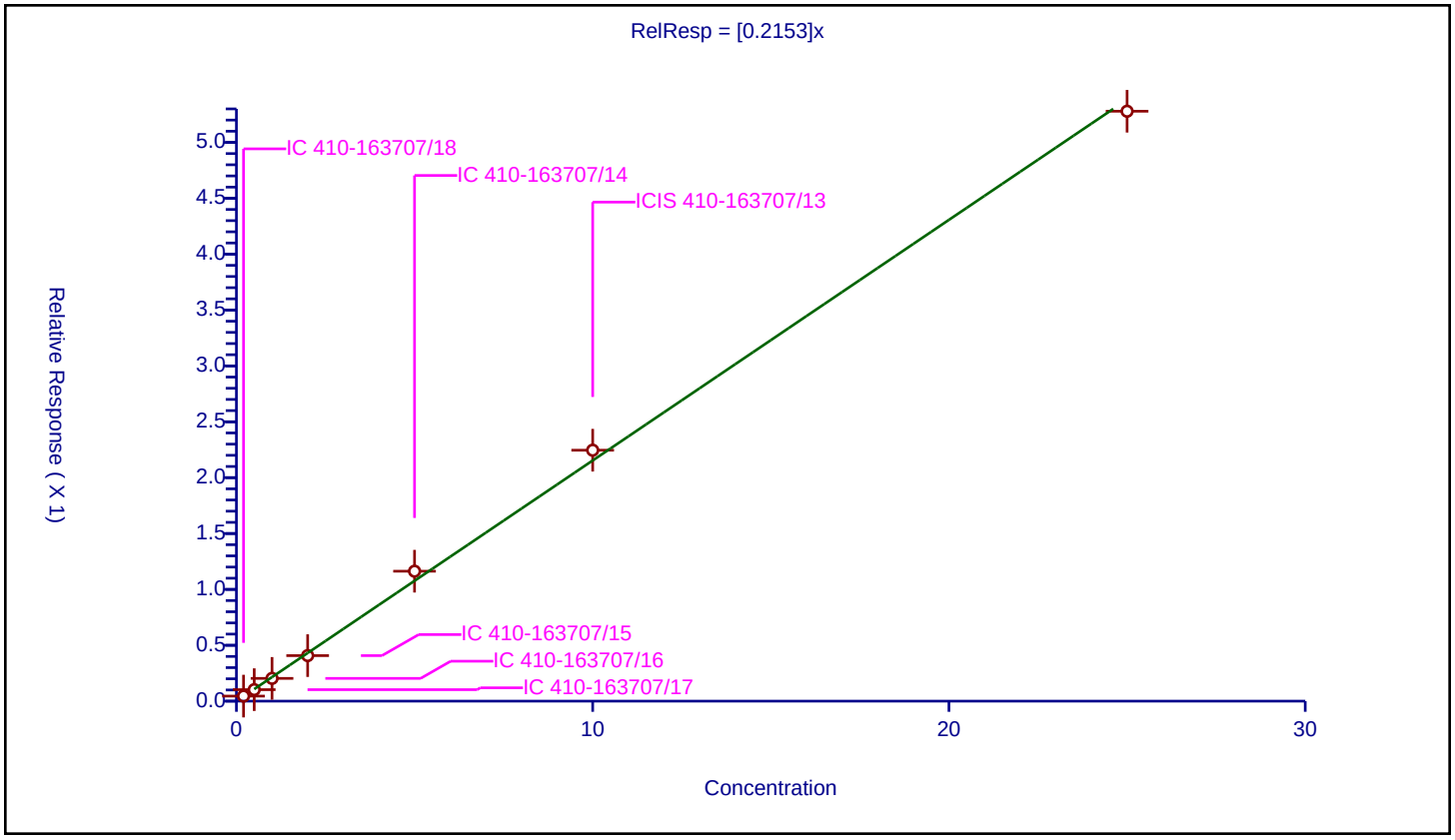
Curve Coefficients

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



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

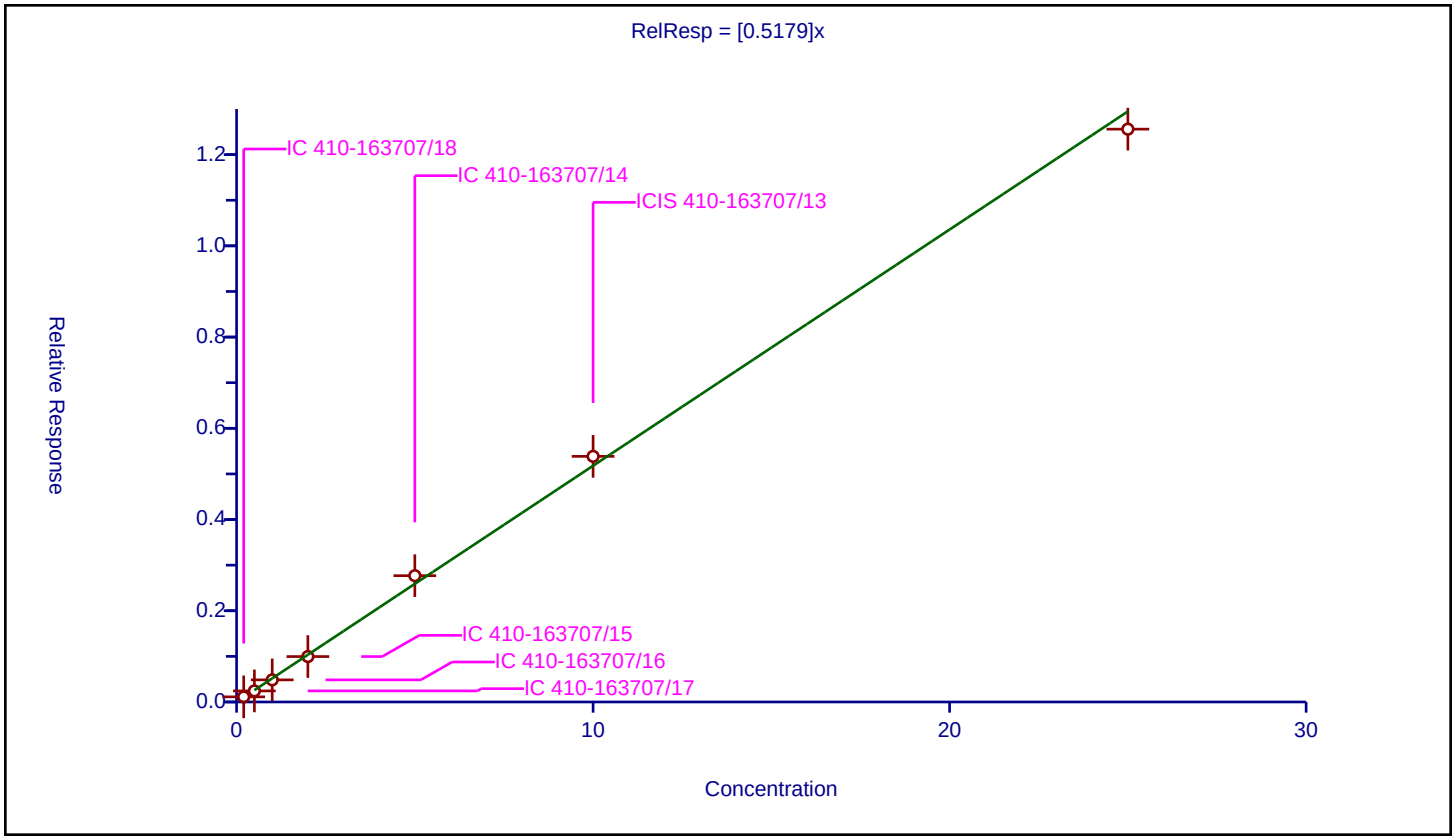
Curve Coefficients

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

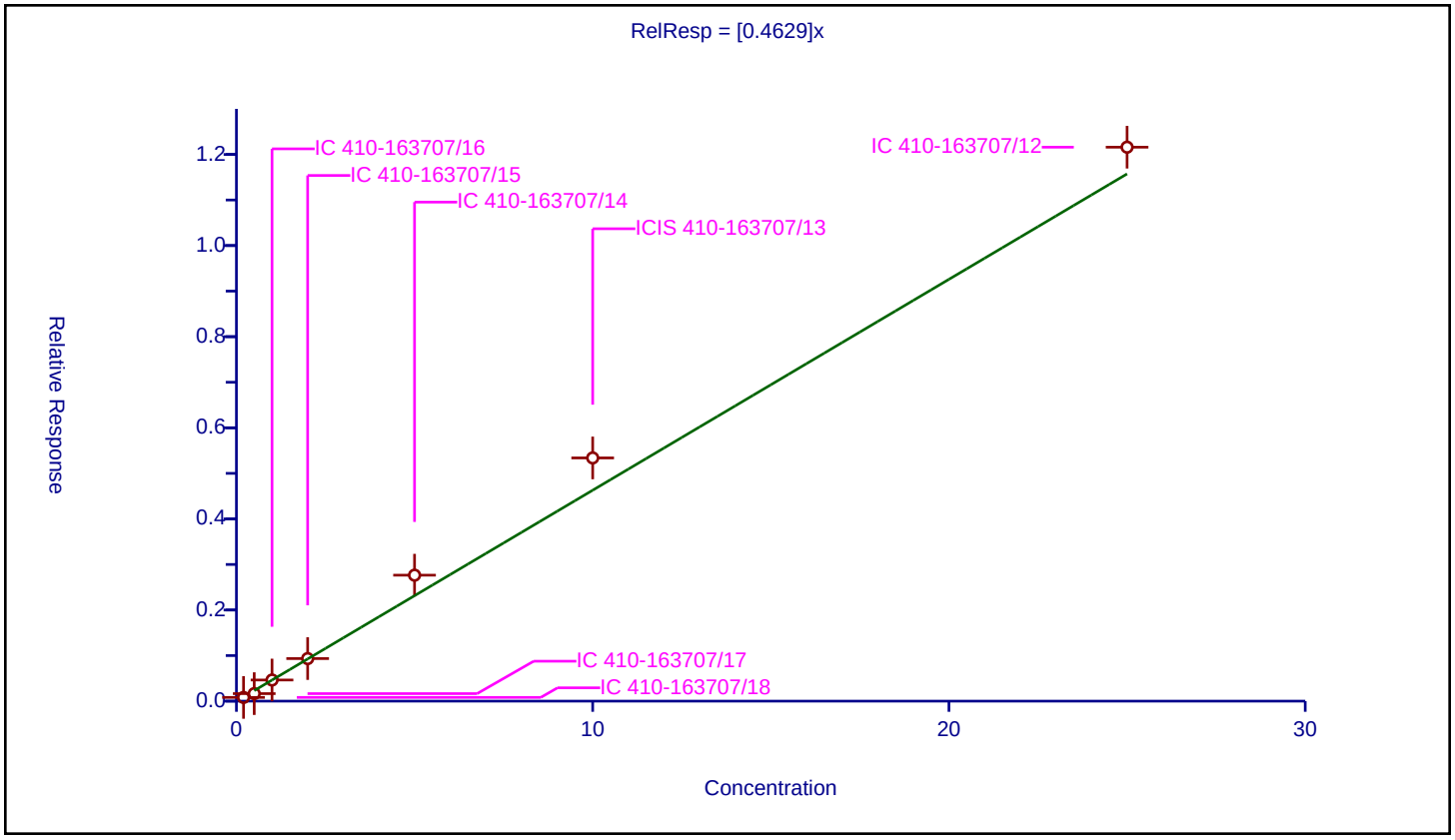
Curve Coefficients

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



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

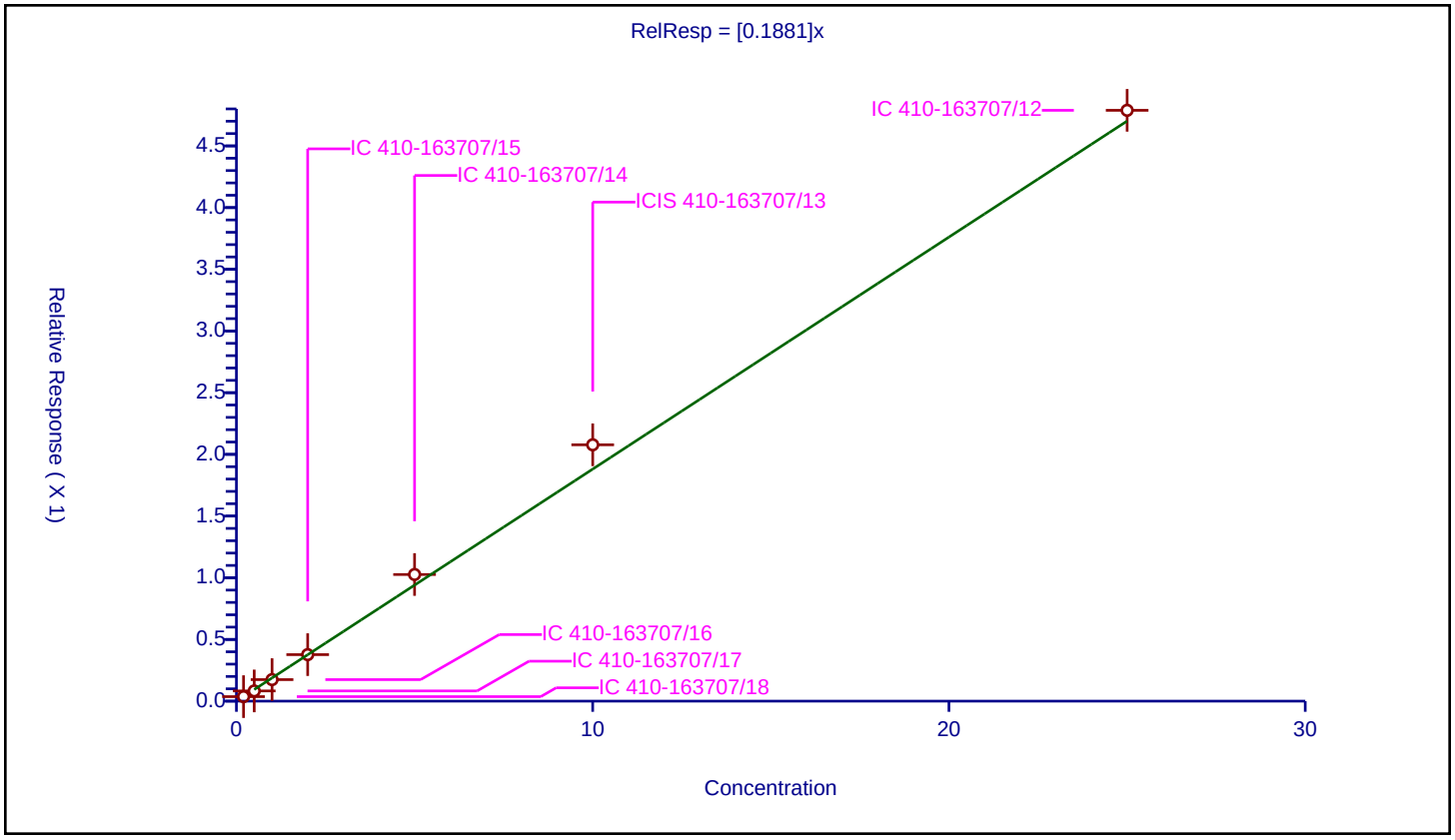
Curve Coefficients

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

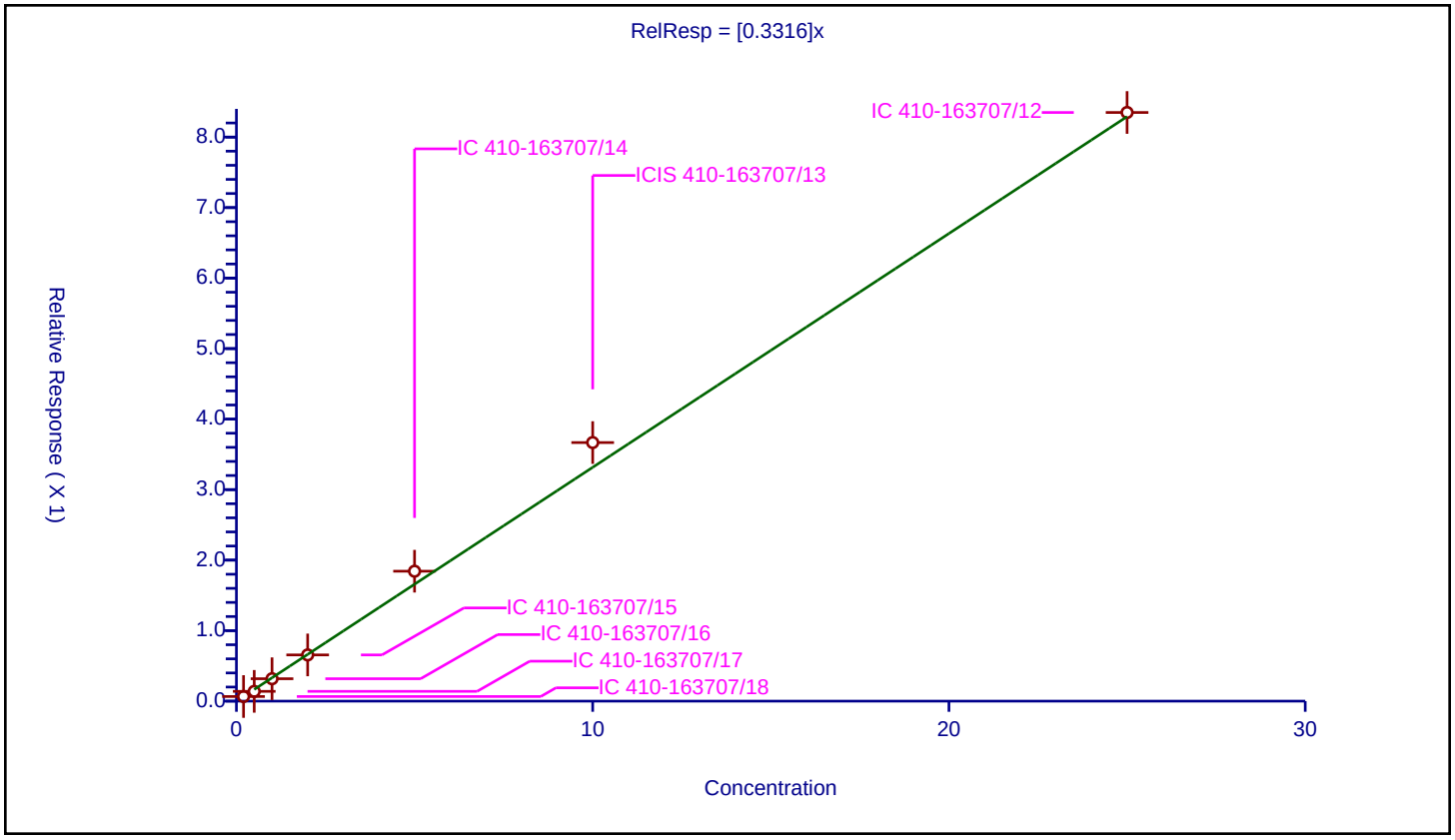
Curve Coefficients

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

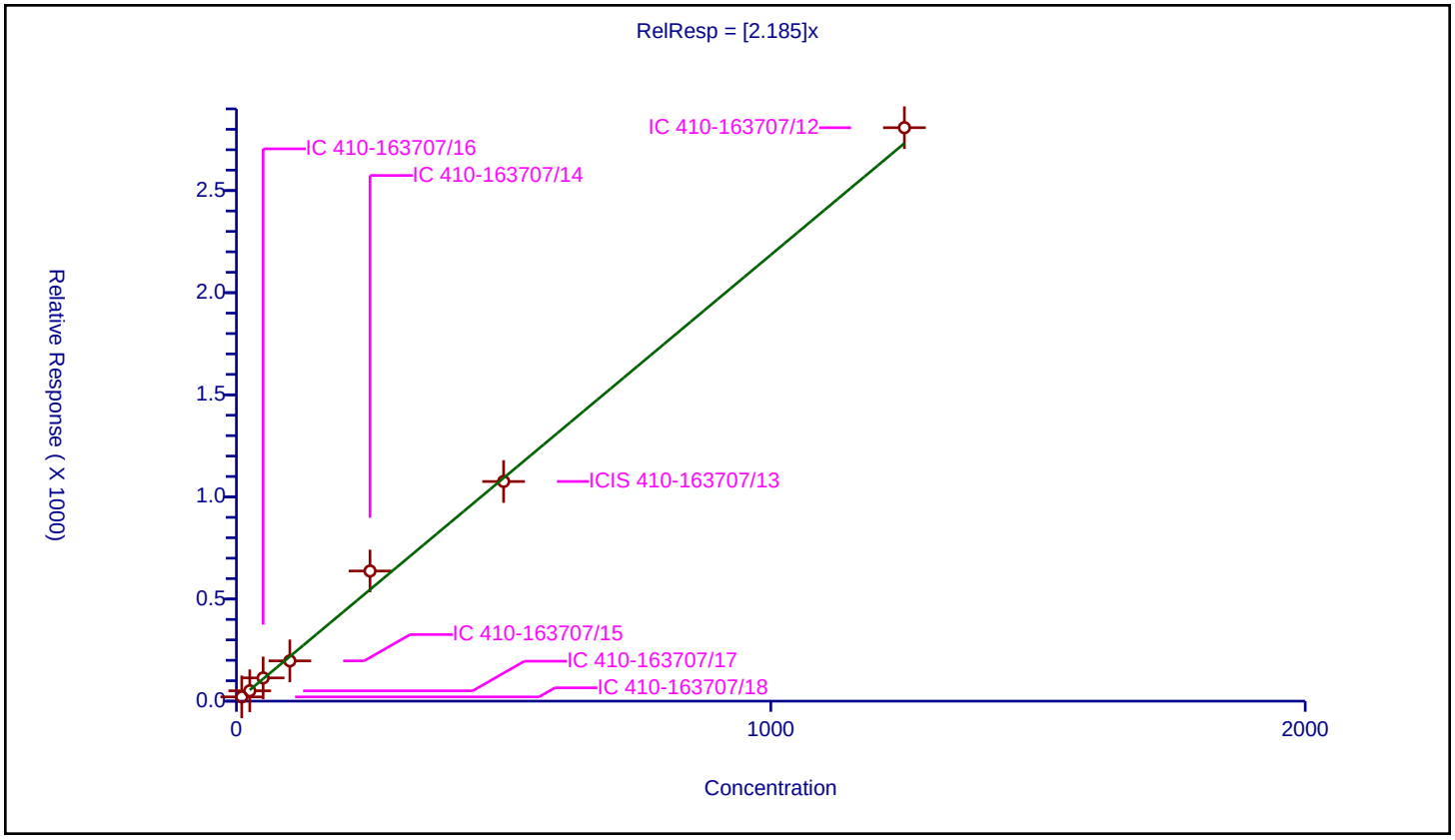
Curve Coefficients

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

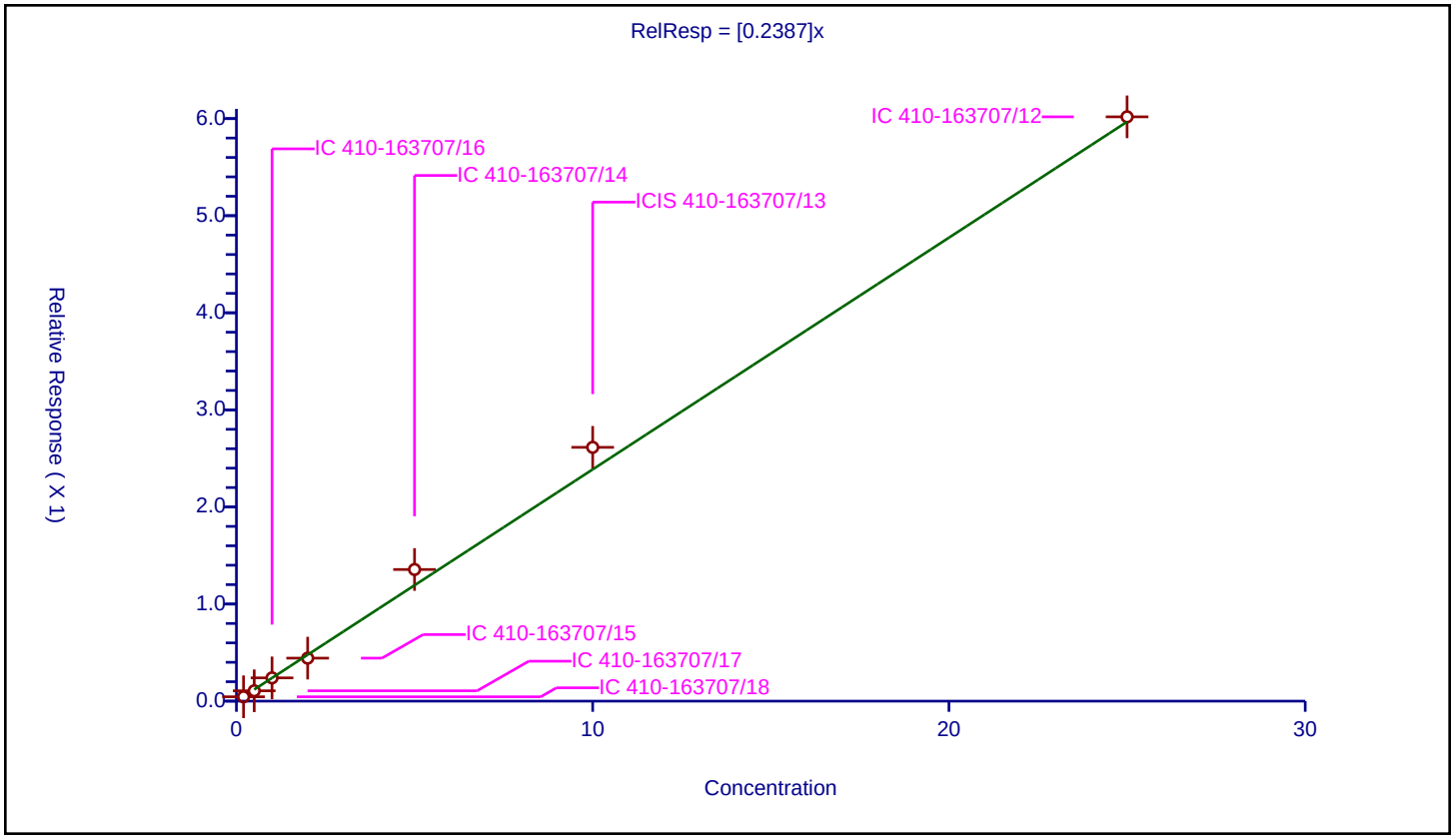
Curve Coefficients

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

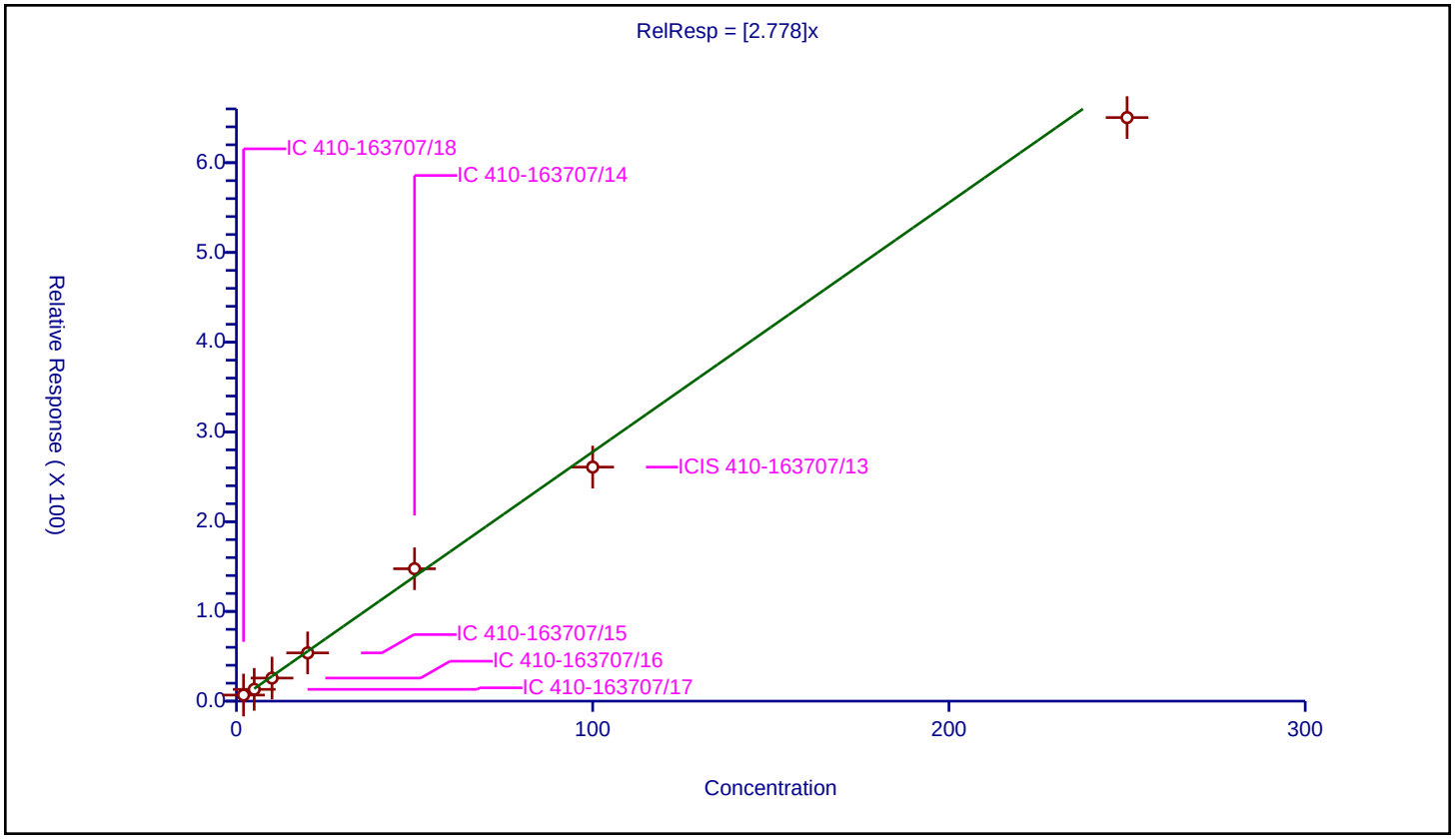
Curve Coefficients

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

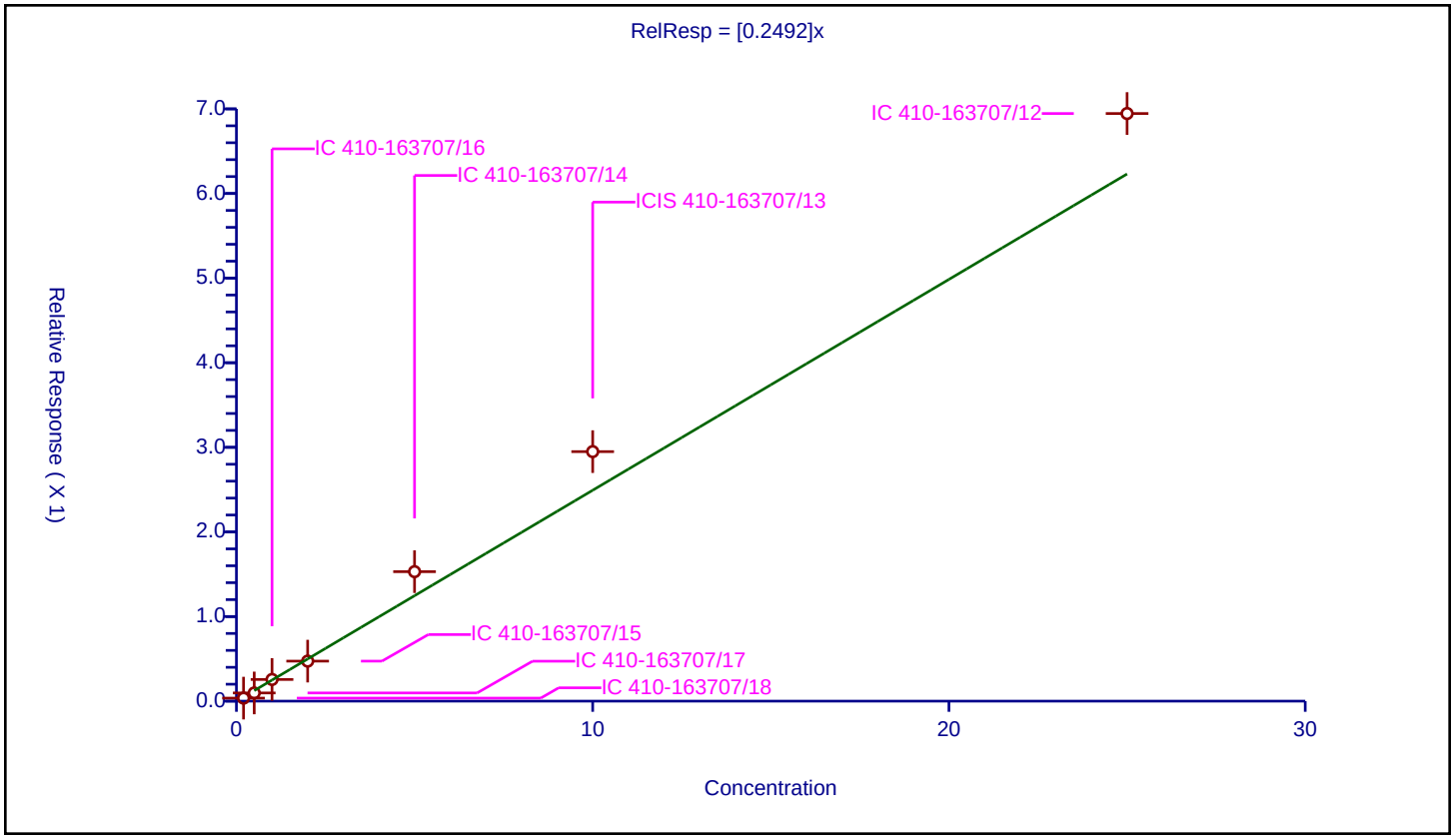
Curve Coefficients

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

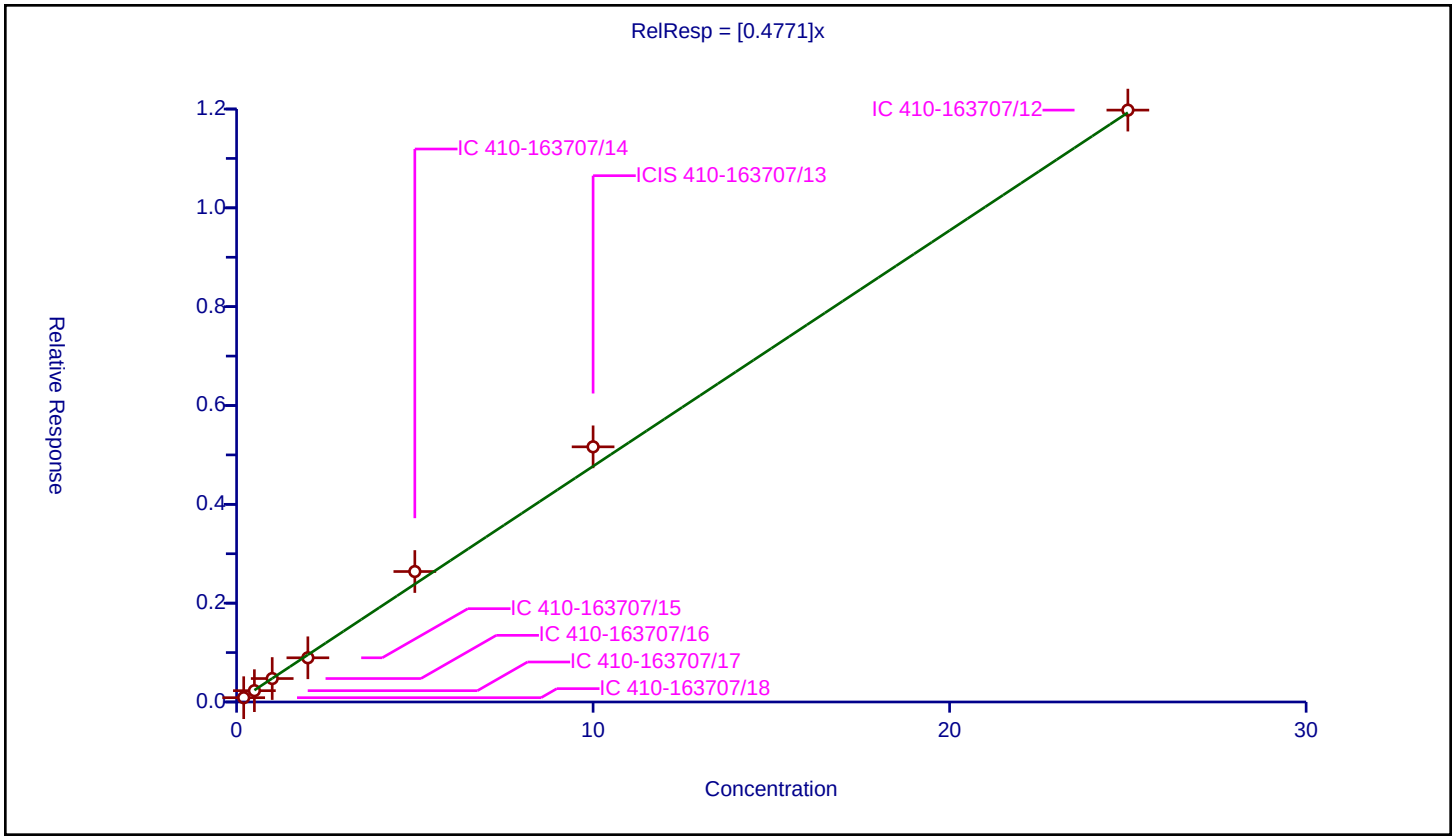
Curve Coefficients

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

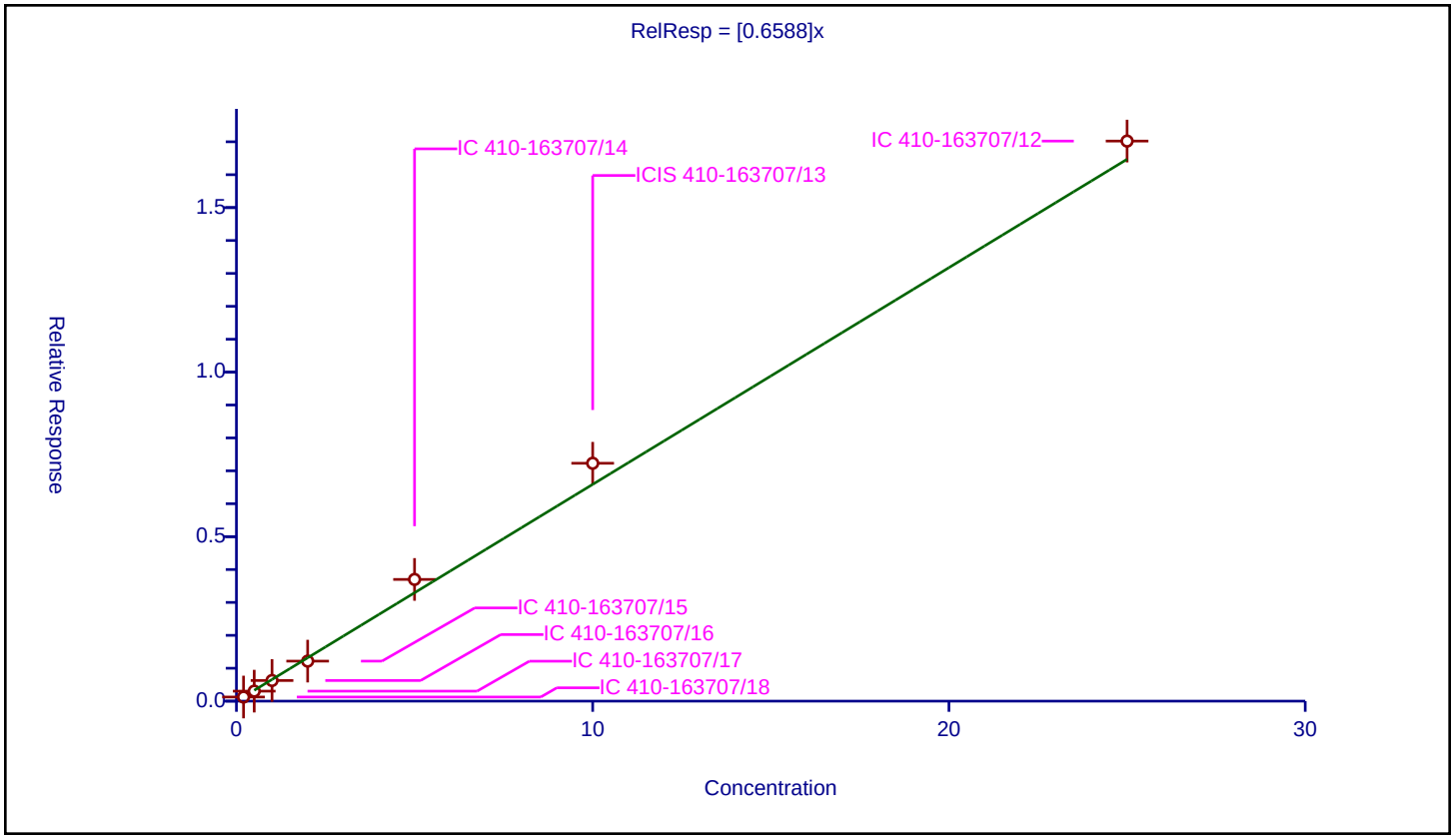
Curve Coefficients

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

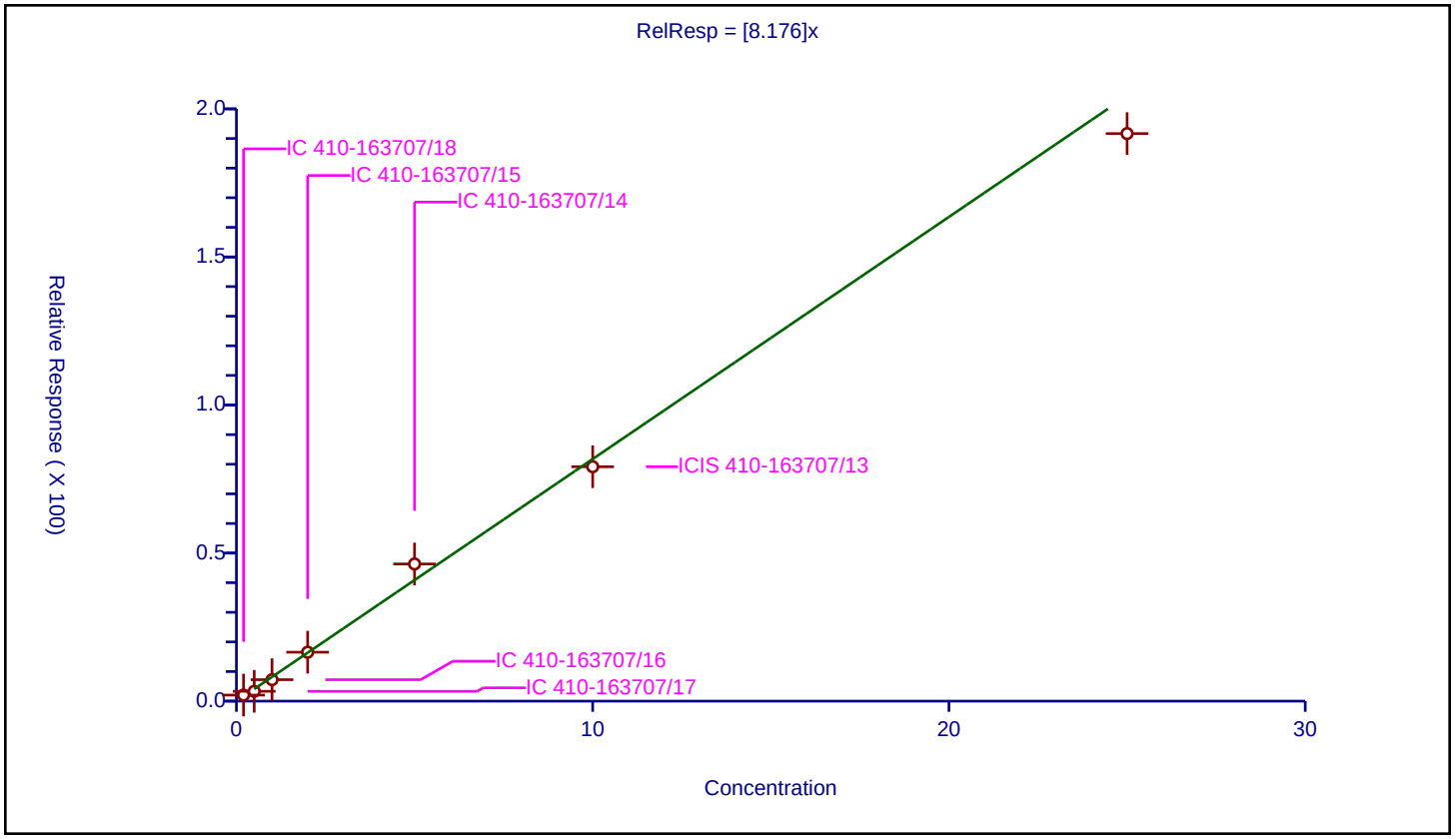
Curve Coefficients

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

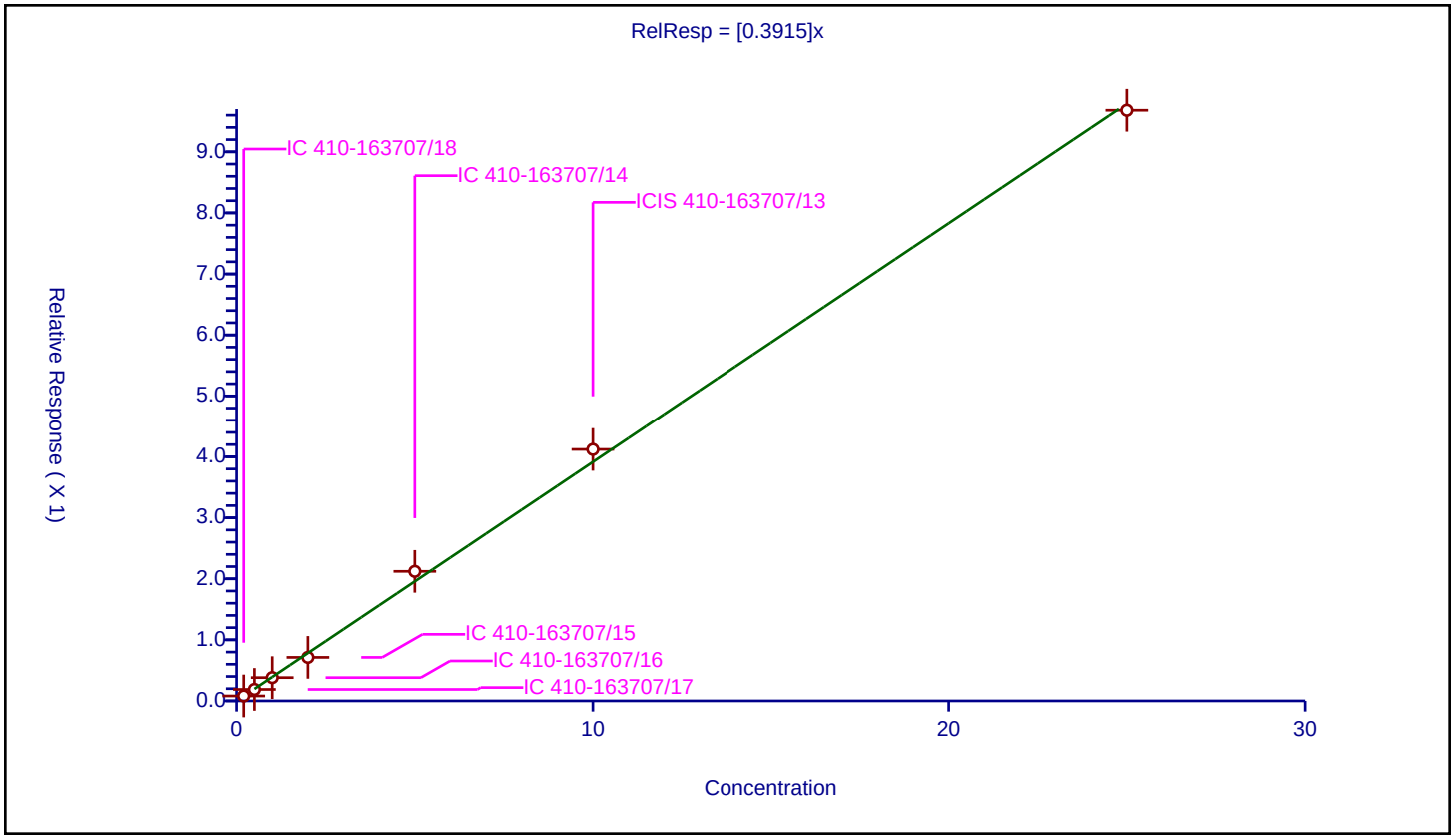
Curve Coefficients

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

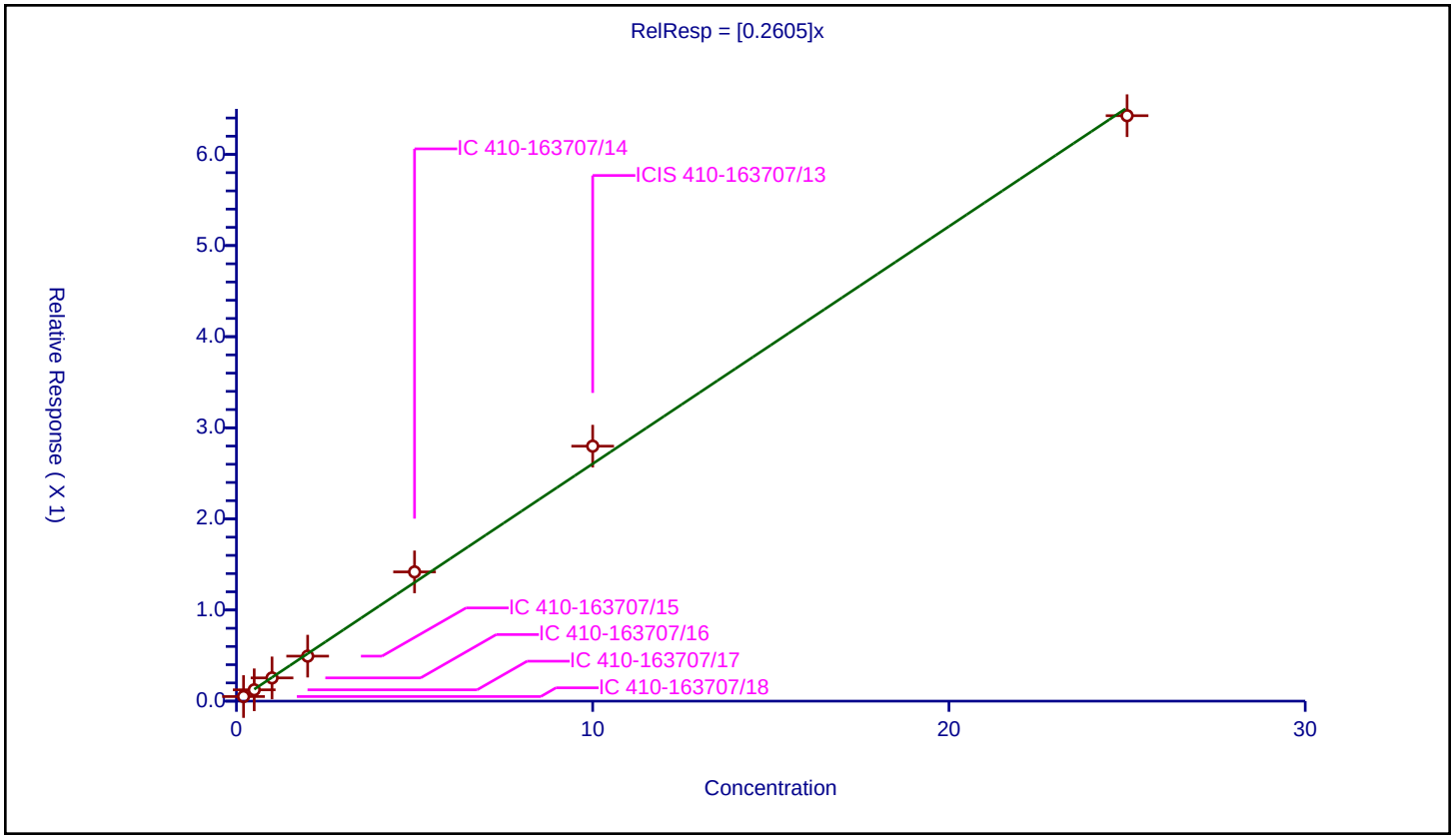
Curve Coefficients

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

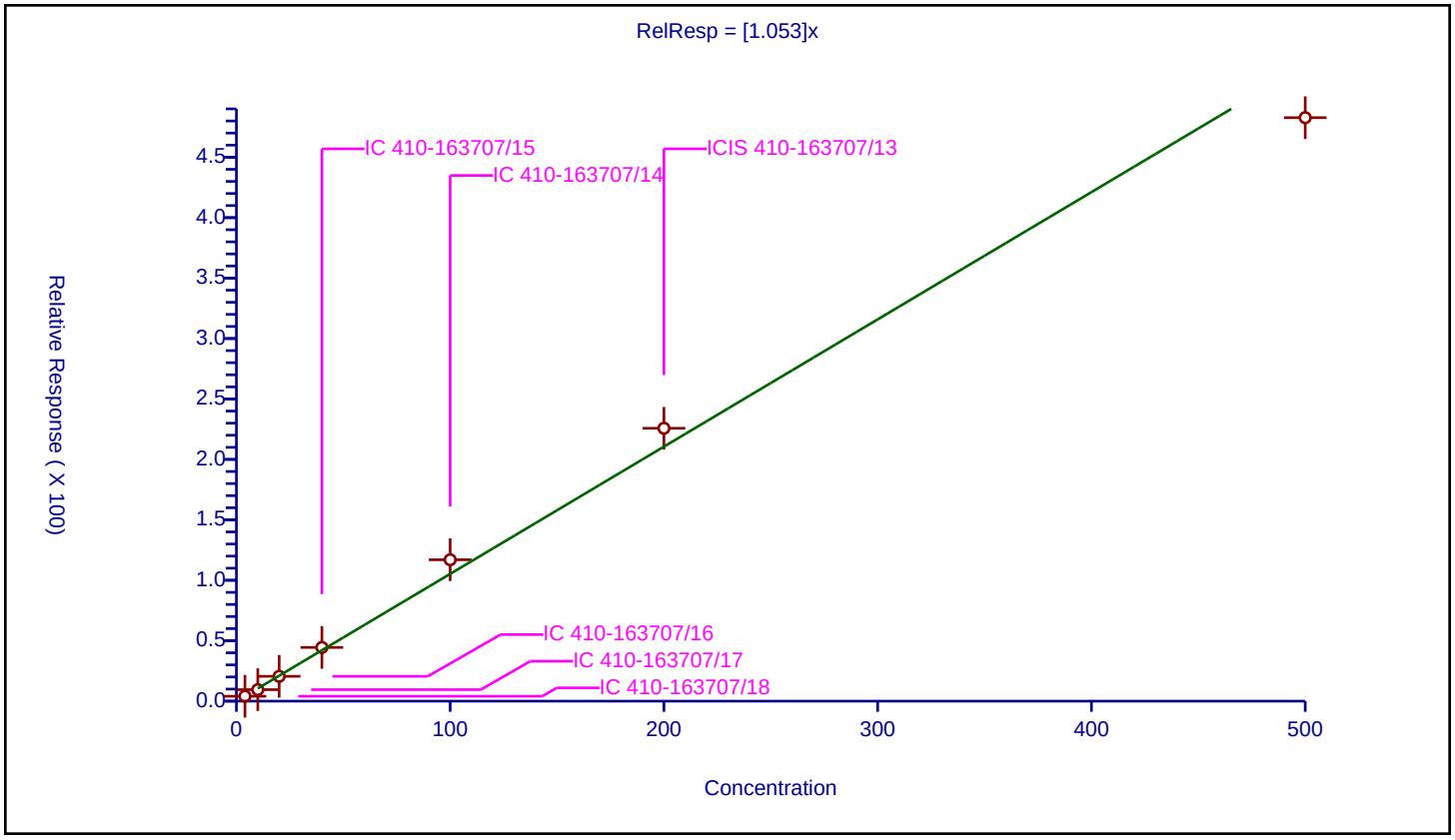
Curve Coefficients

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



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

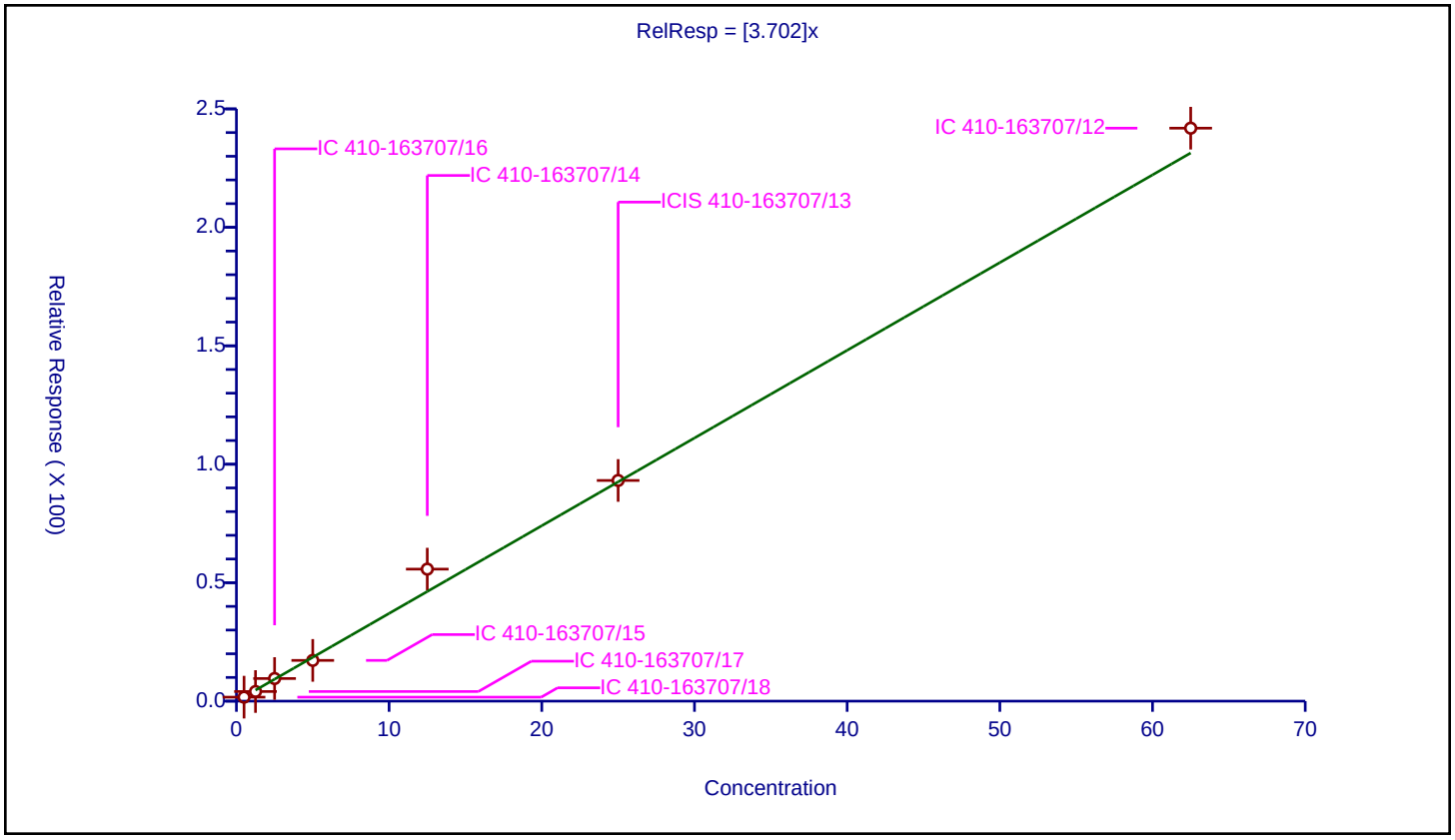
Curve Coefficients

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

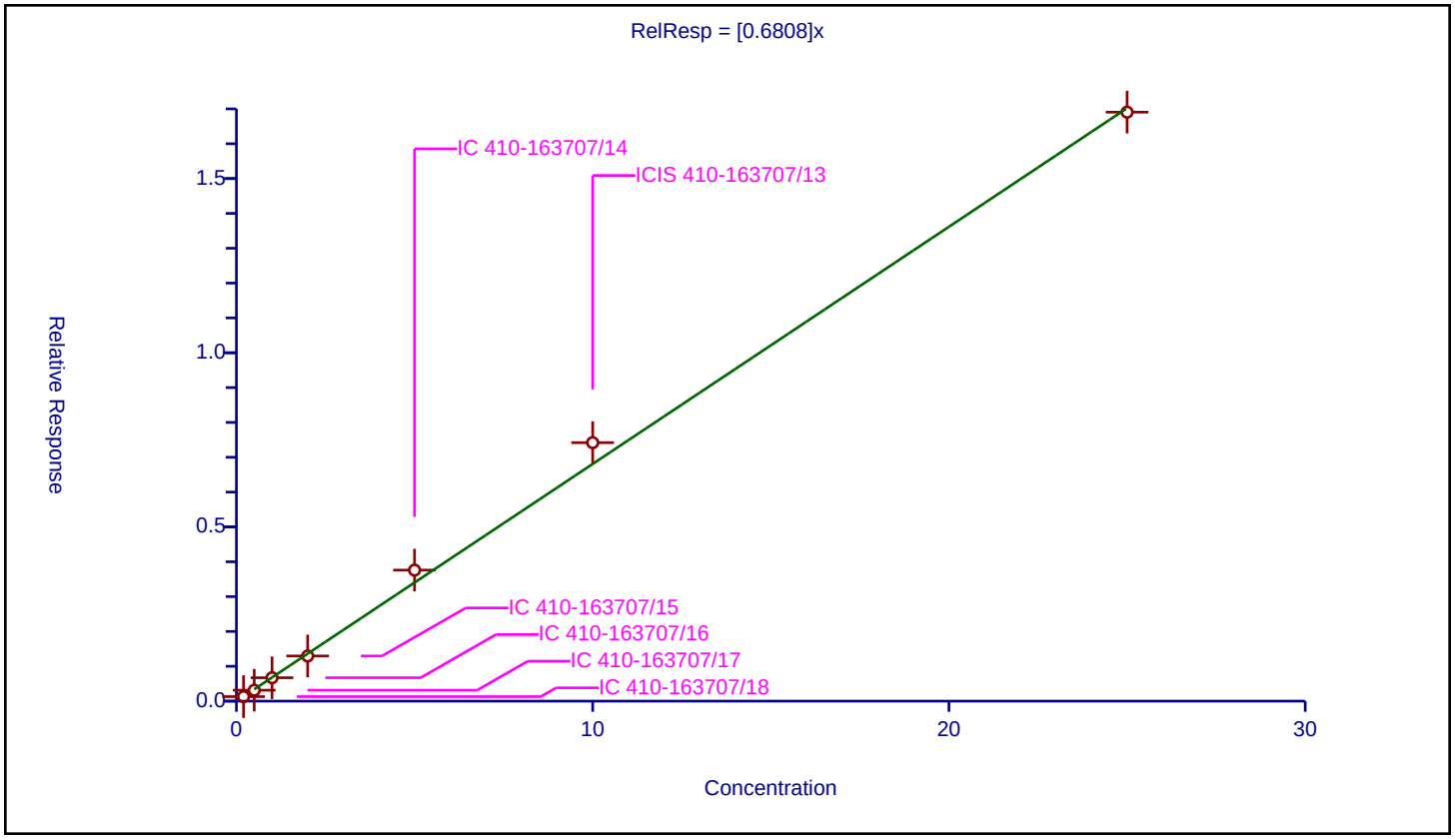
Curve Coefficients

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

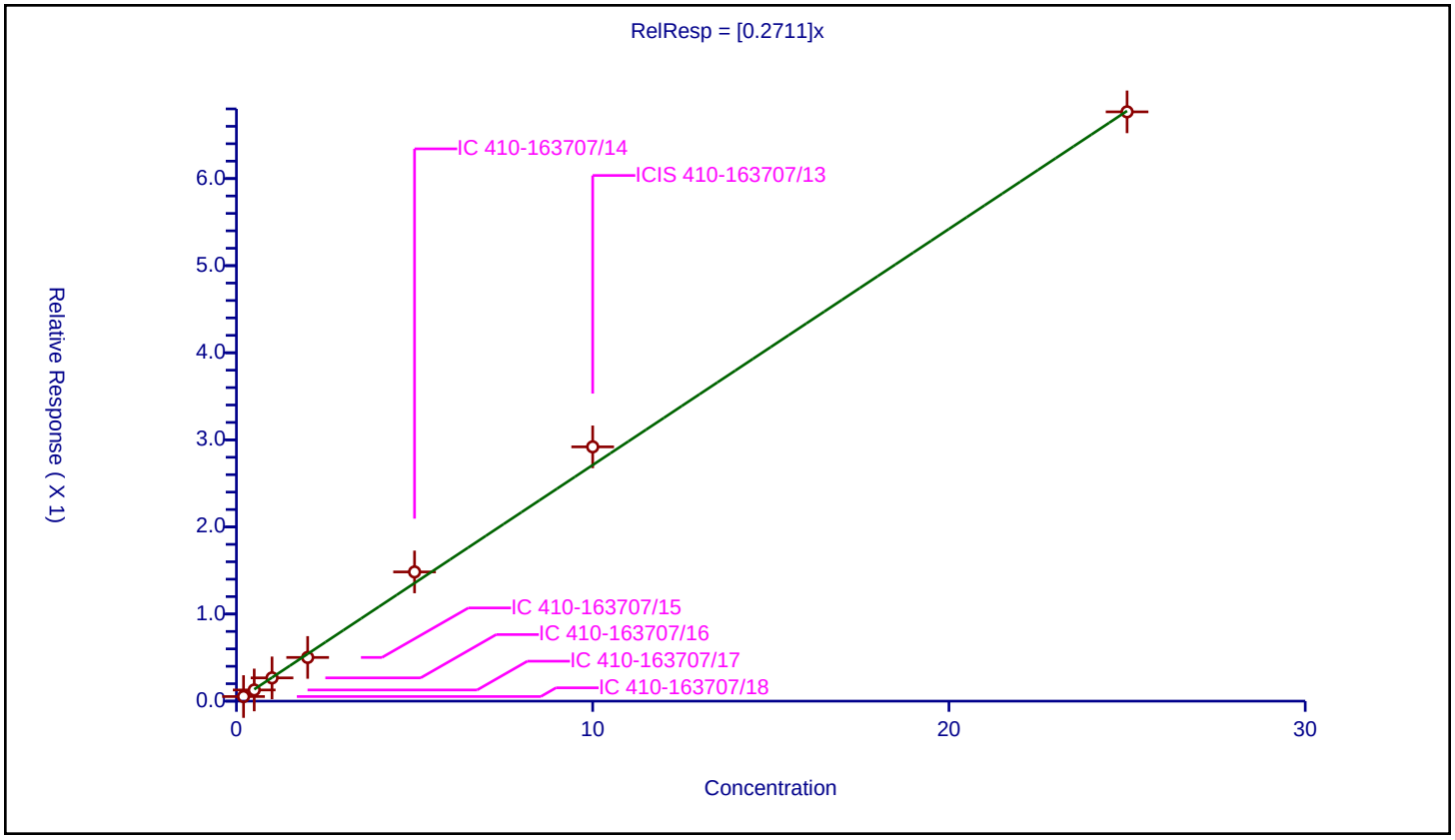
Curve Coefficients

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

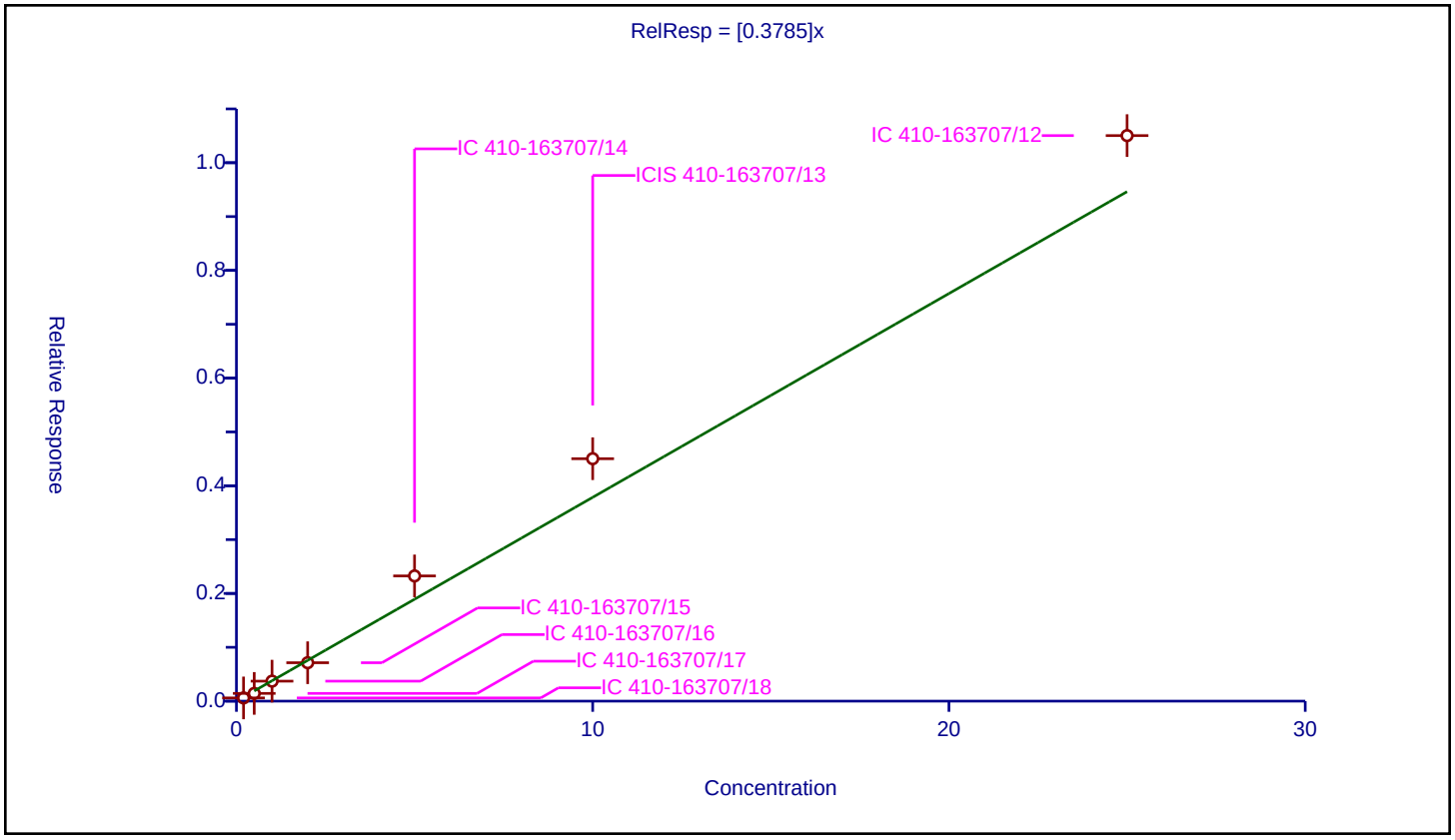
Curve Coefficients

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

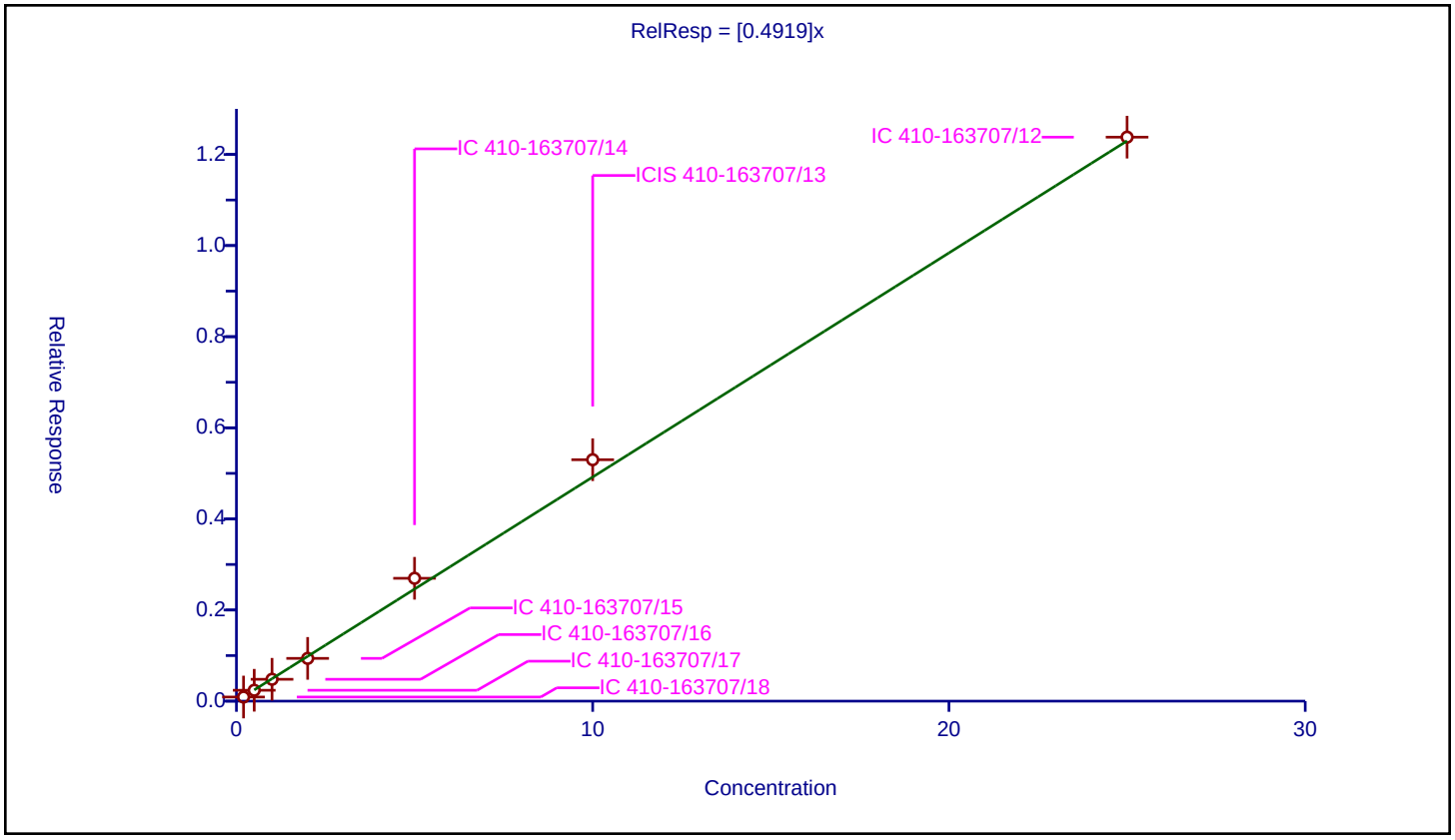
Curve Coefficients

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



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

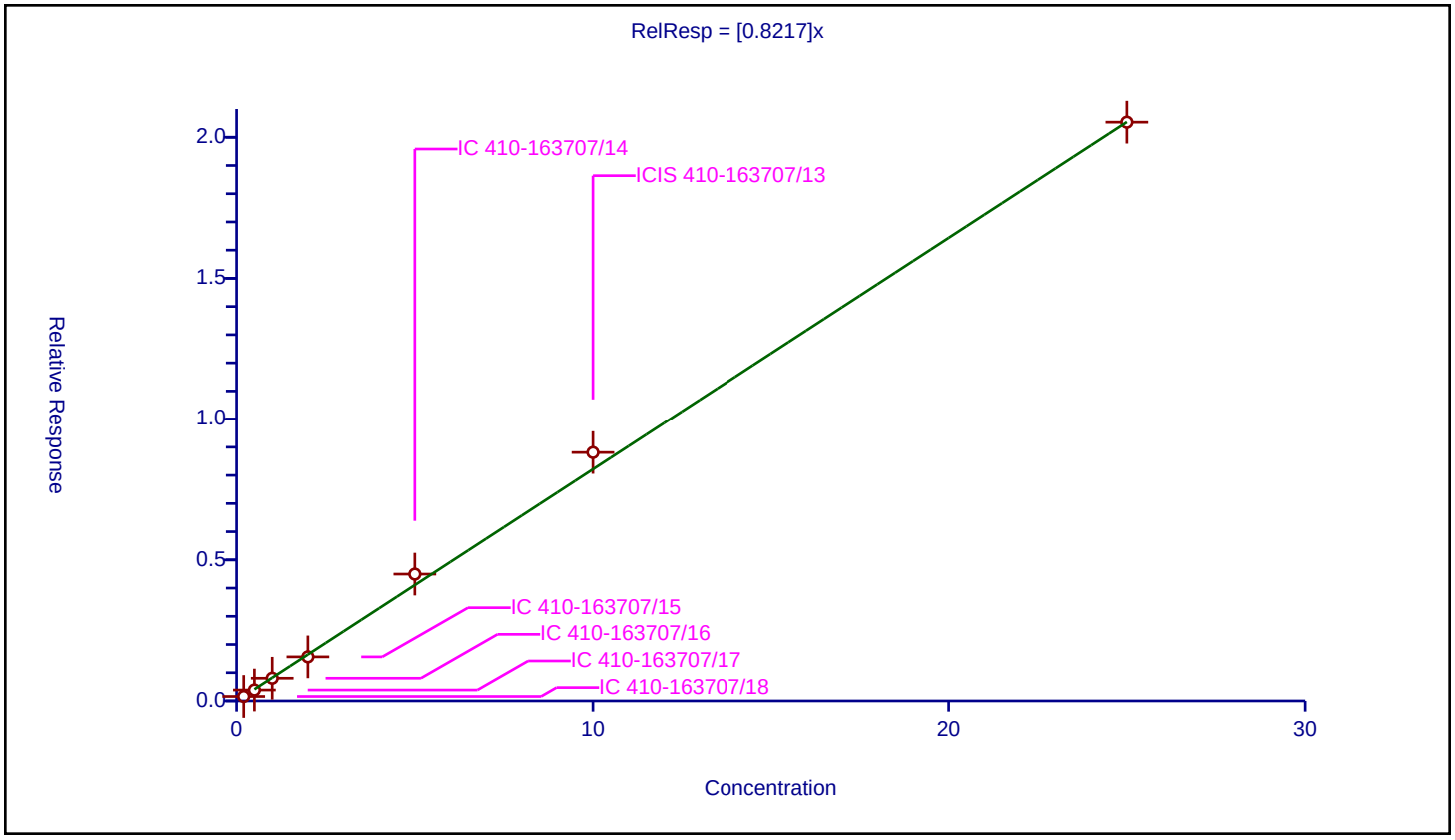
Curve Coefficients

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



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

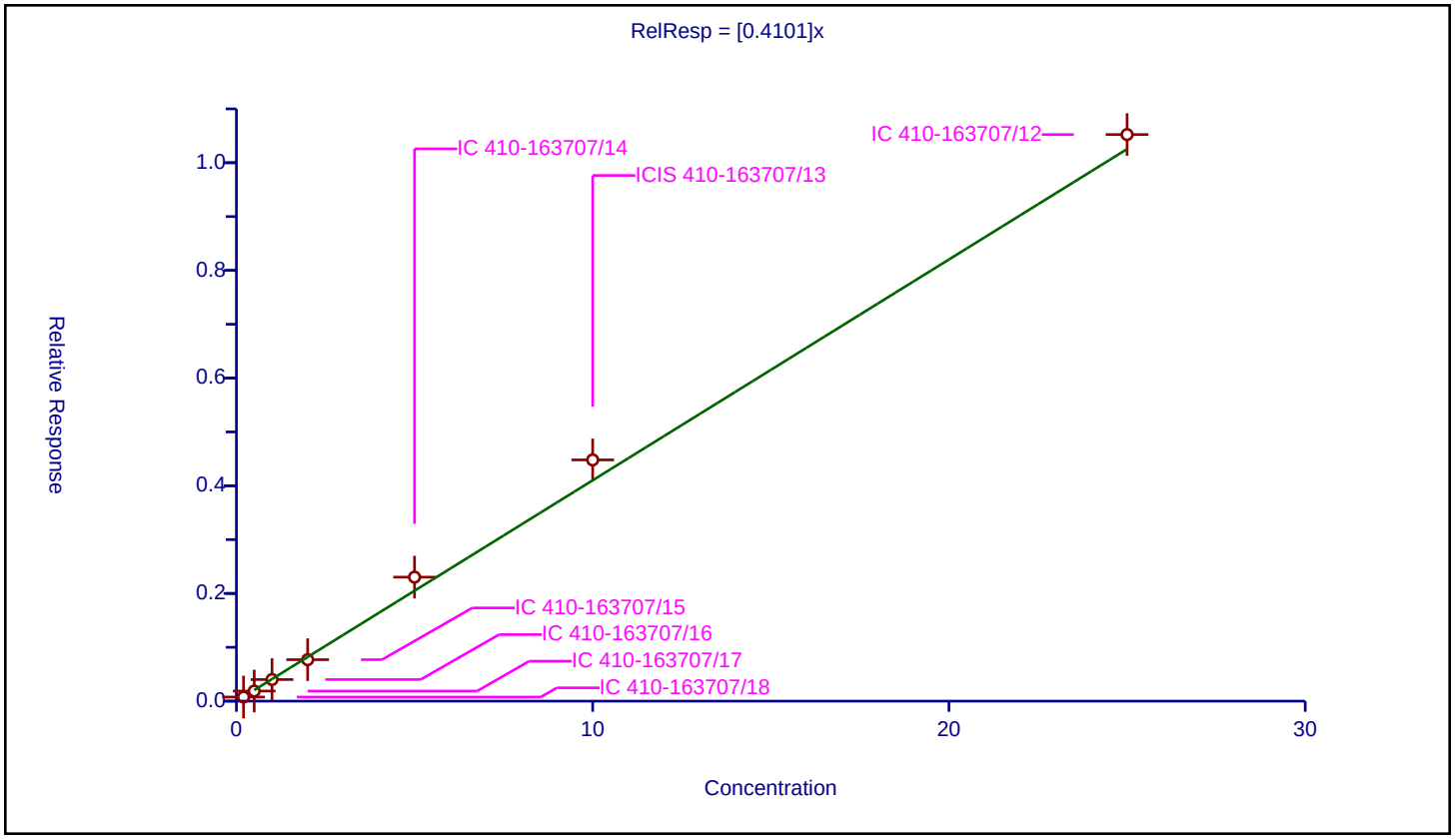
Curve Coefficients

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

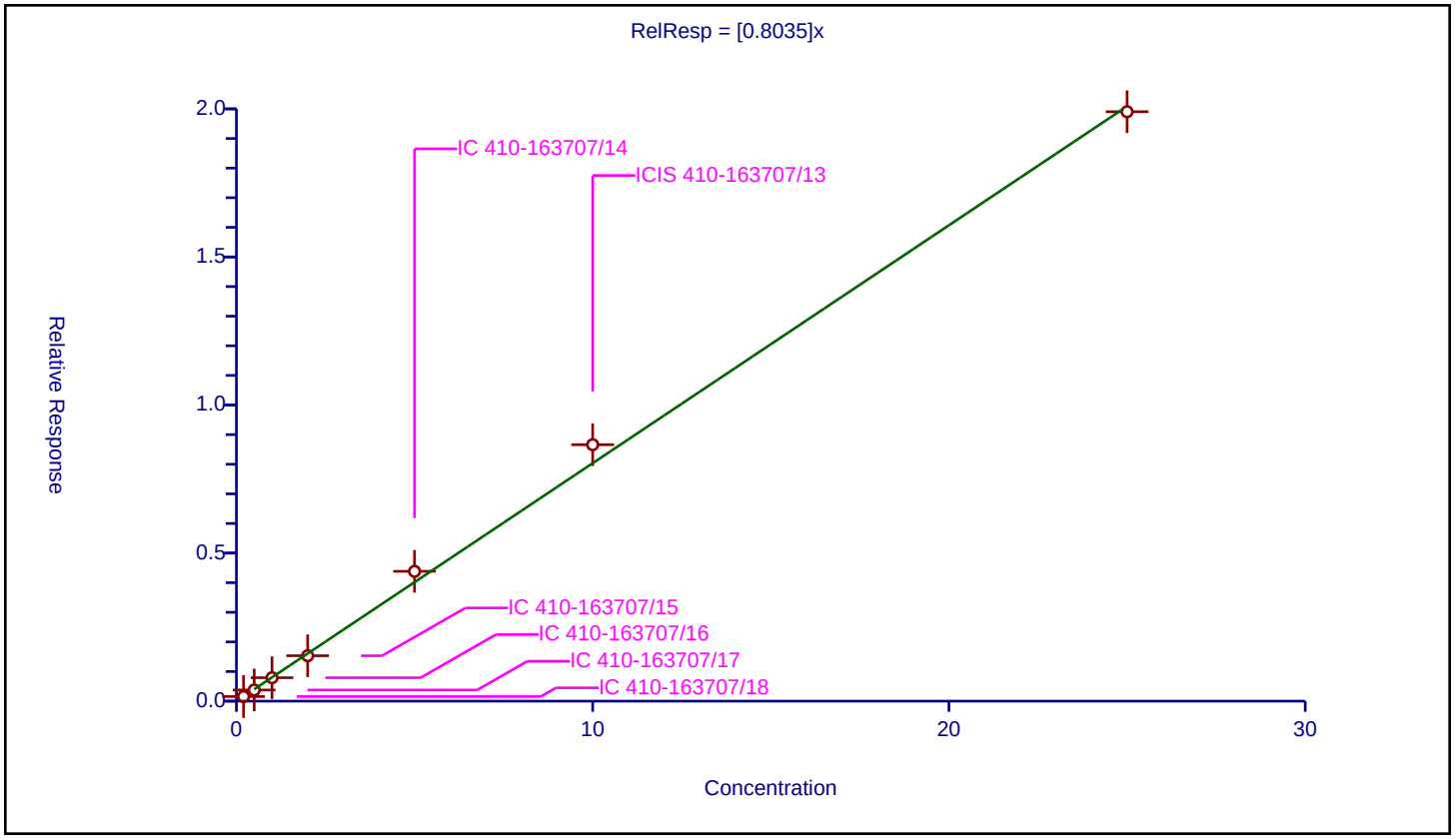
Curve Coefficients

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

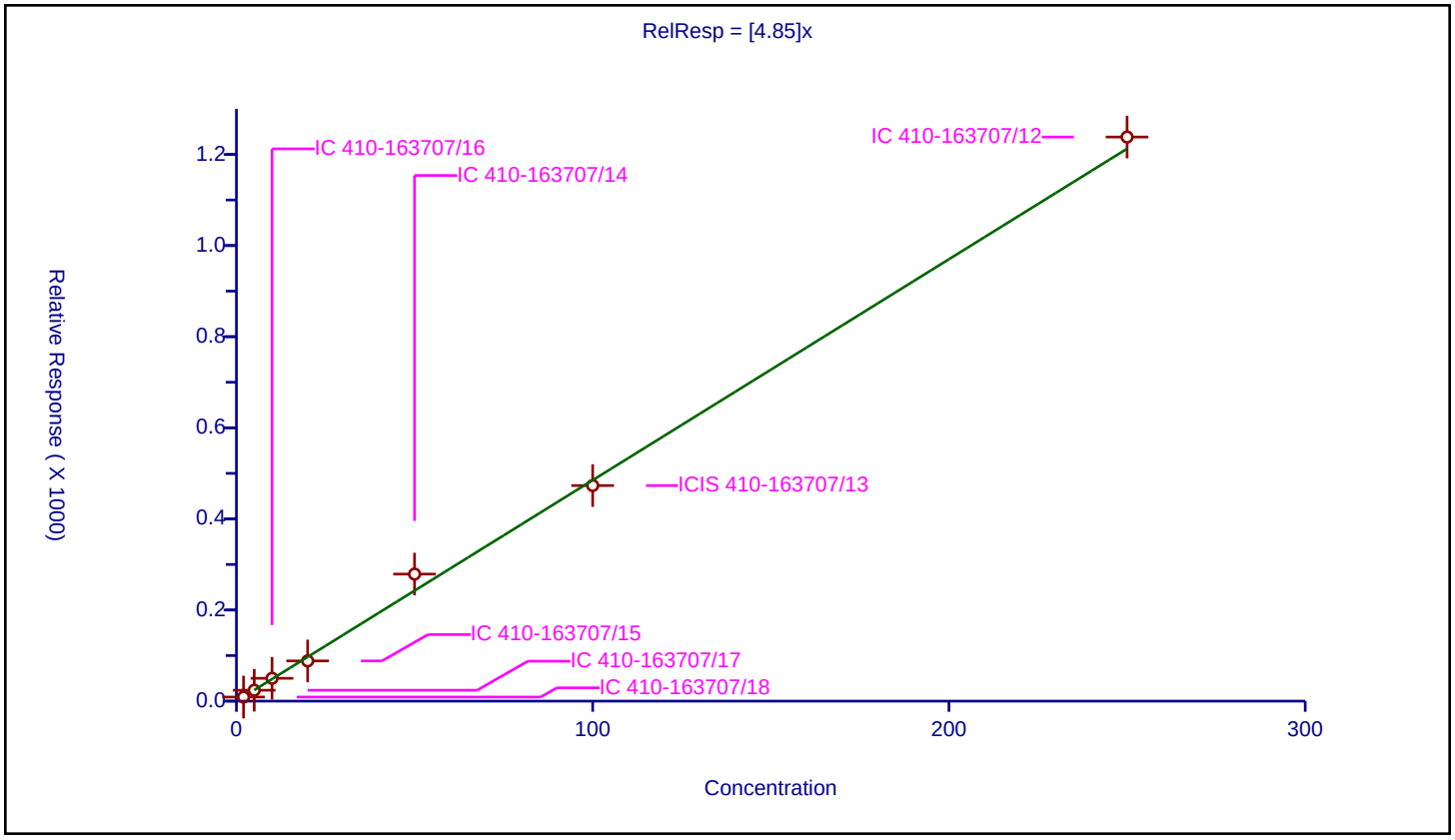
Curve Coefficients

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

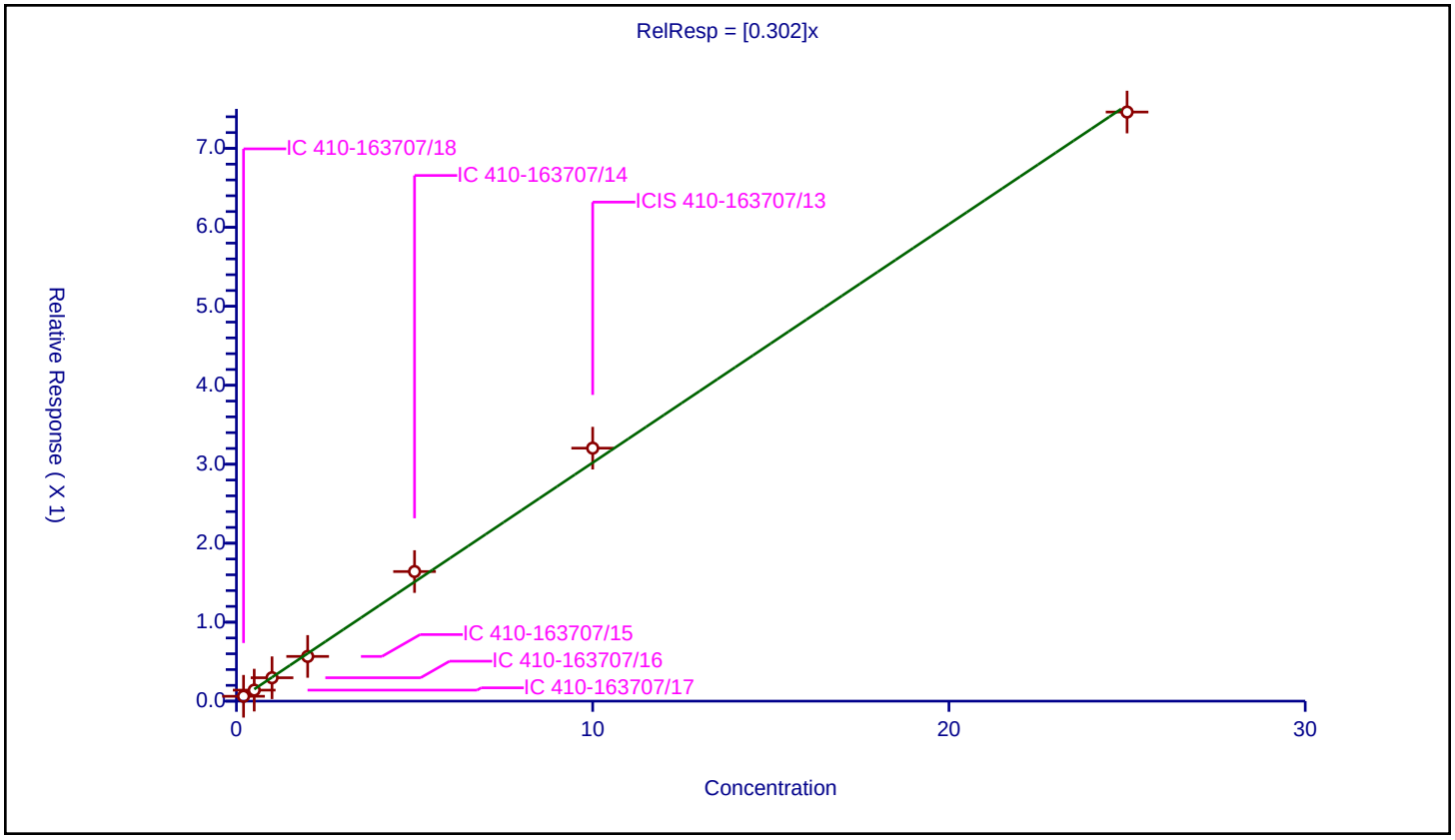
Curve Coefficients

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



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

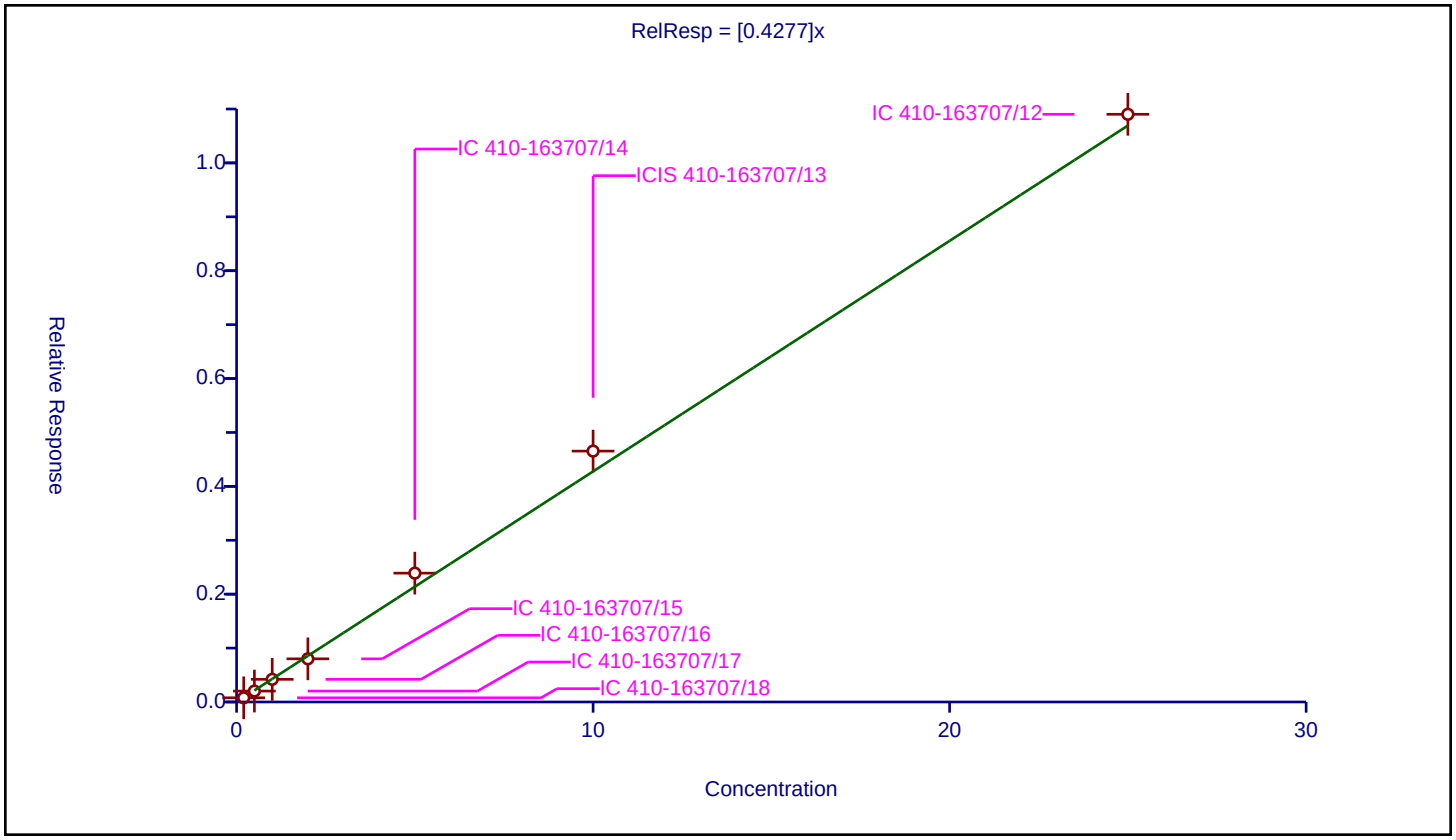
Curve Coefficients

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



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

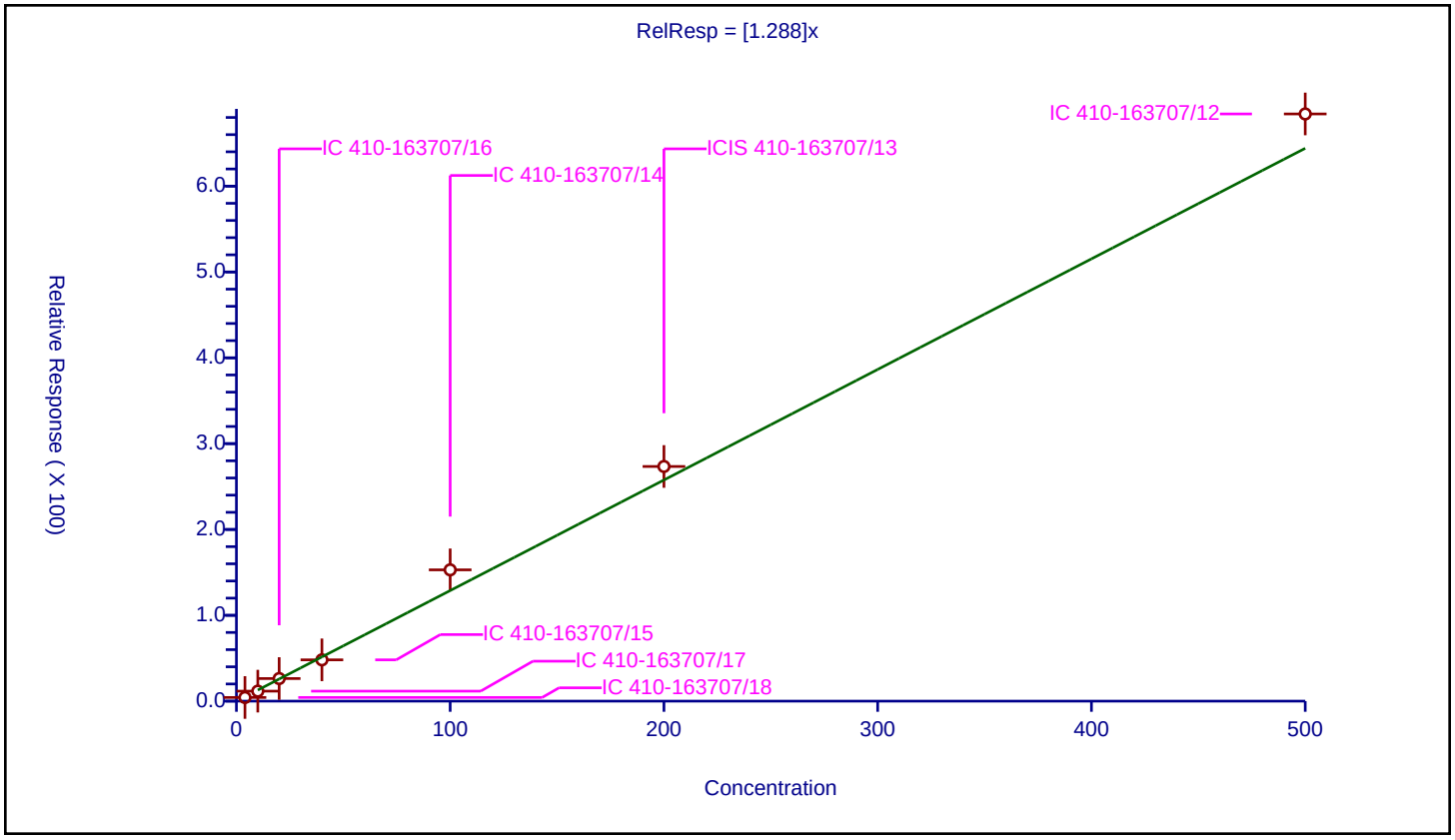
Curve Coefficients

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



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

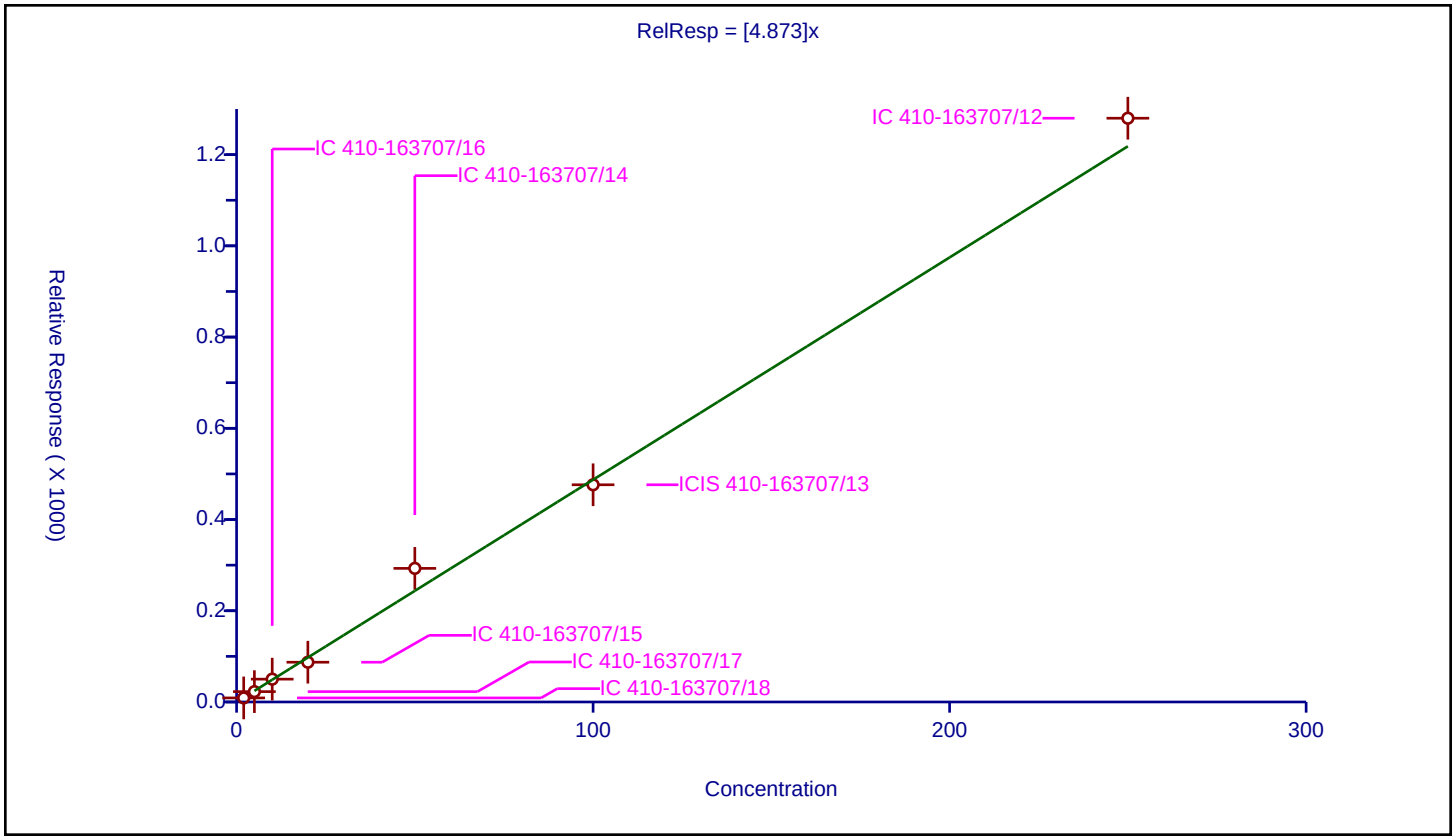
Curve Coefficients

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

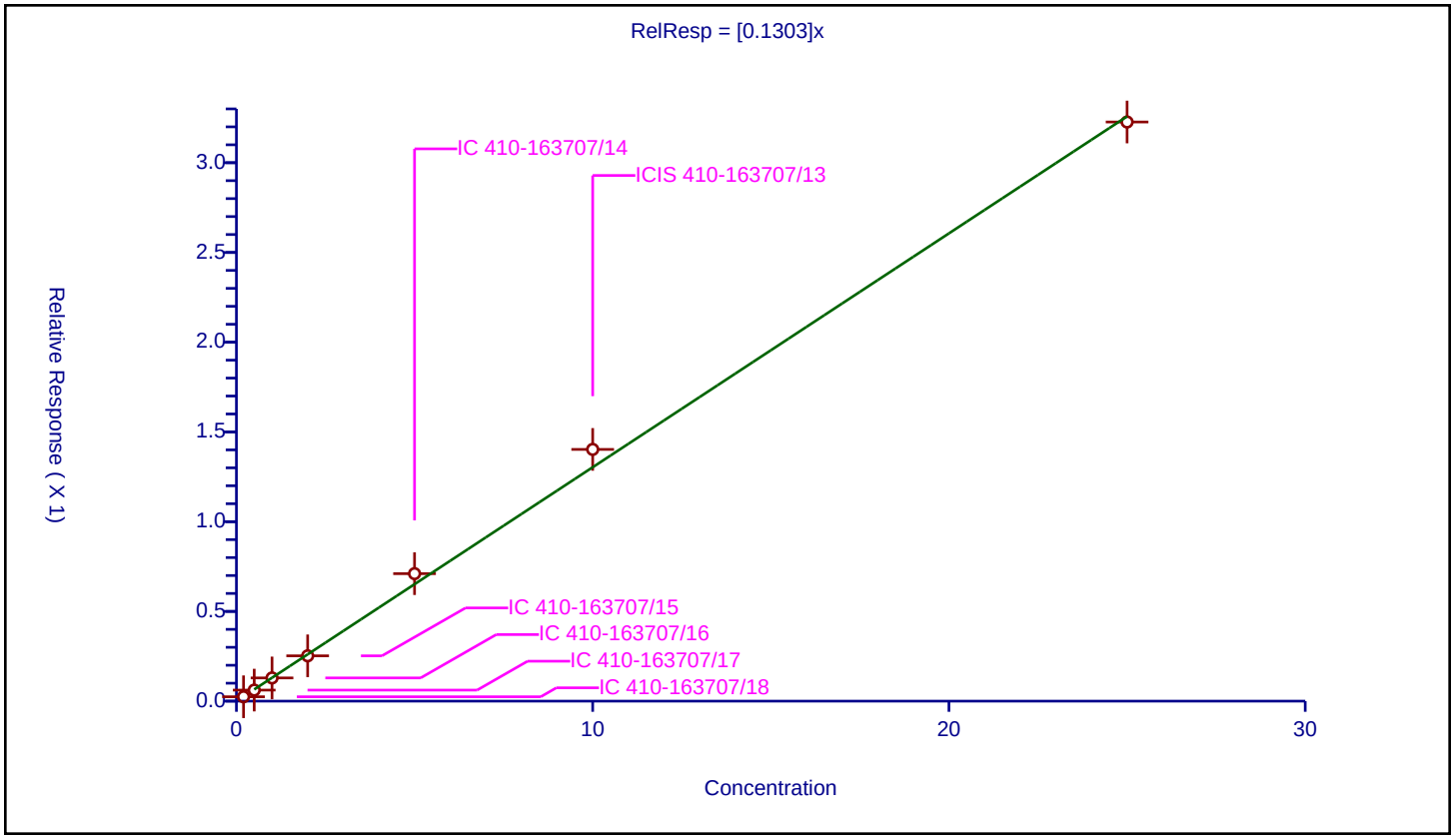
Curve Coefficients

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



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

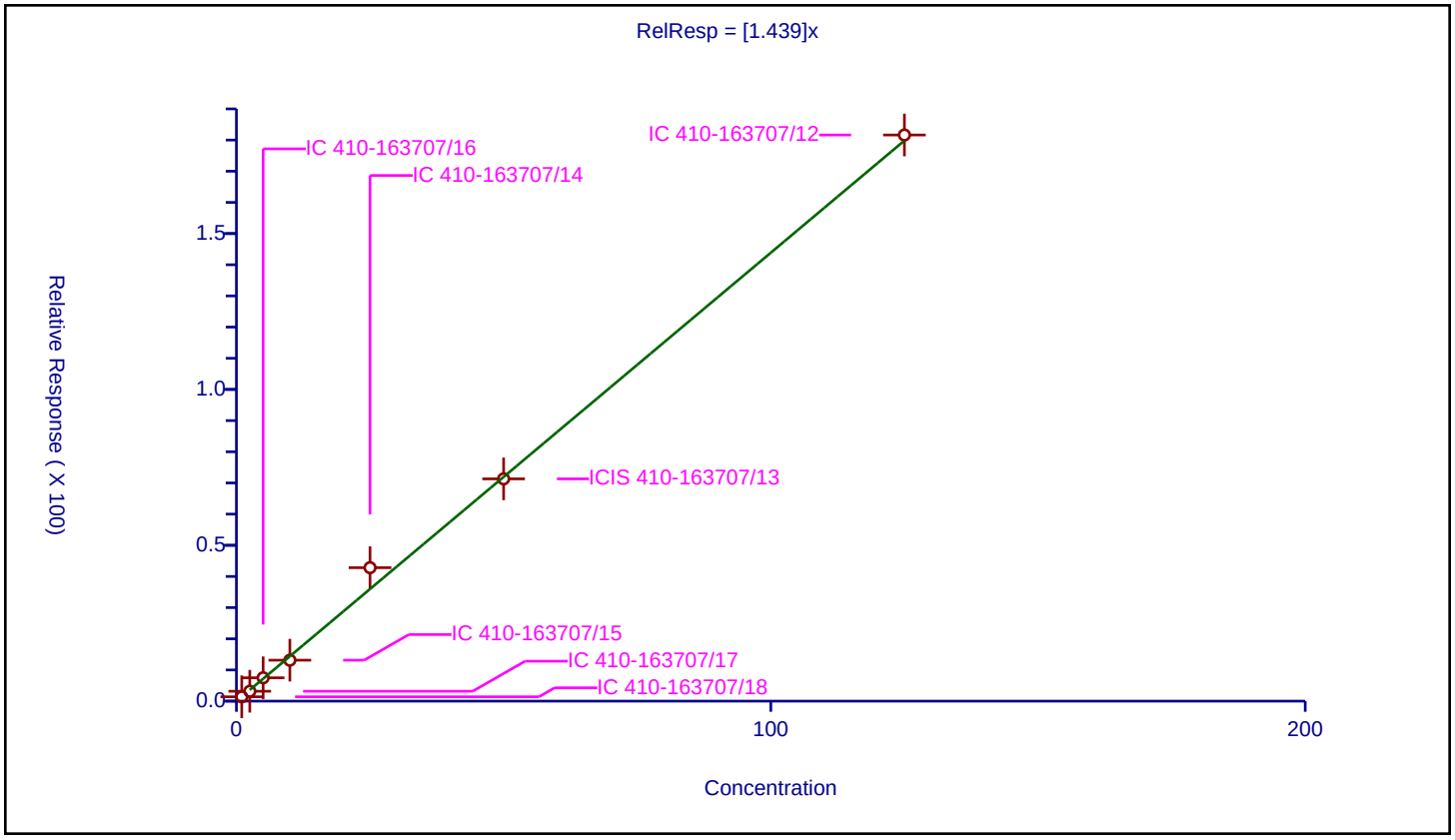
Curve Coefficients

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

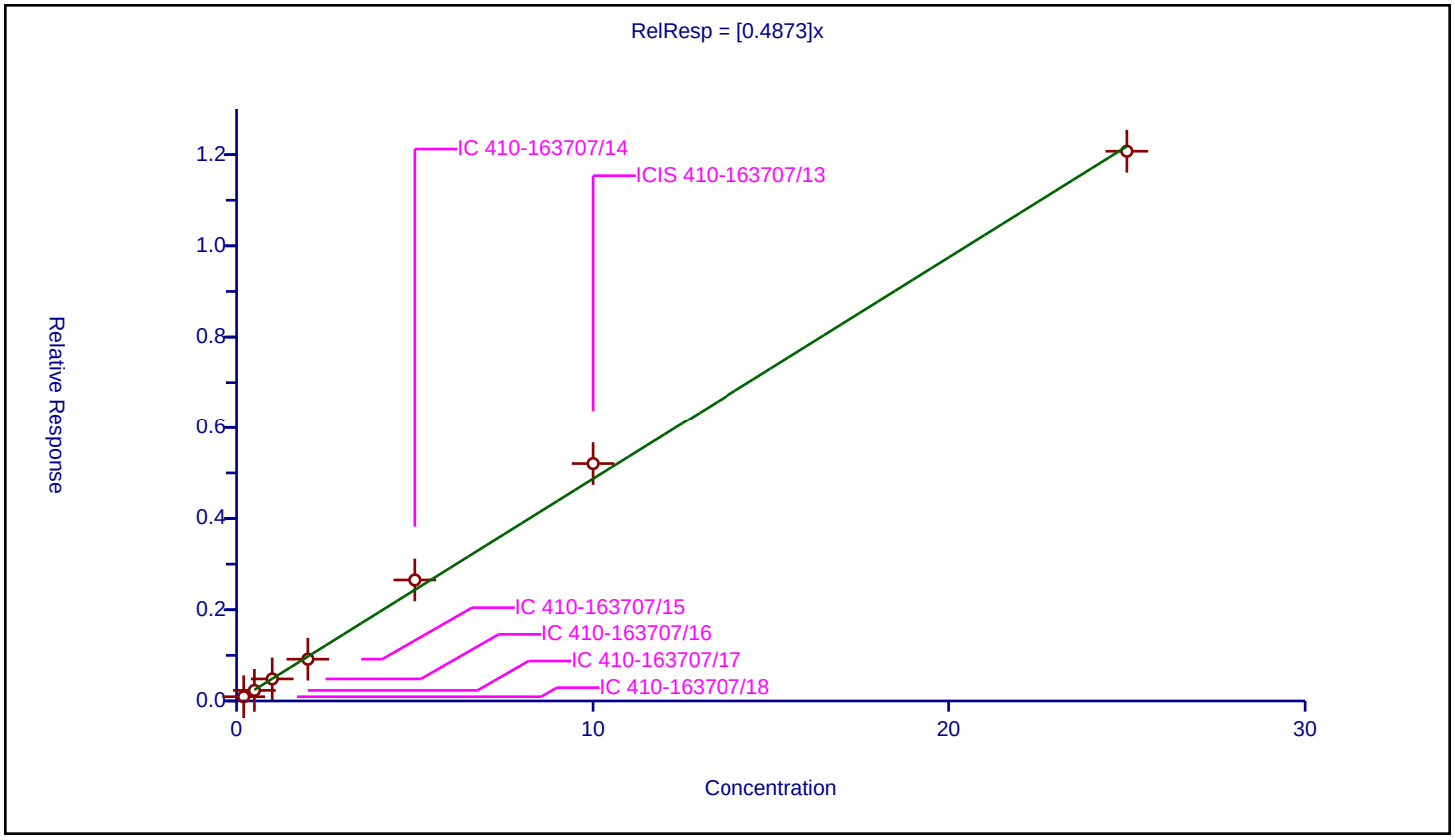
Curve Coefficients

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

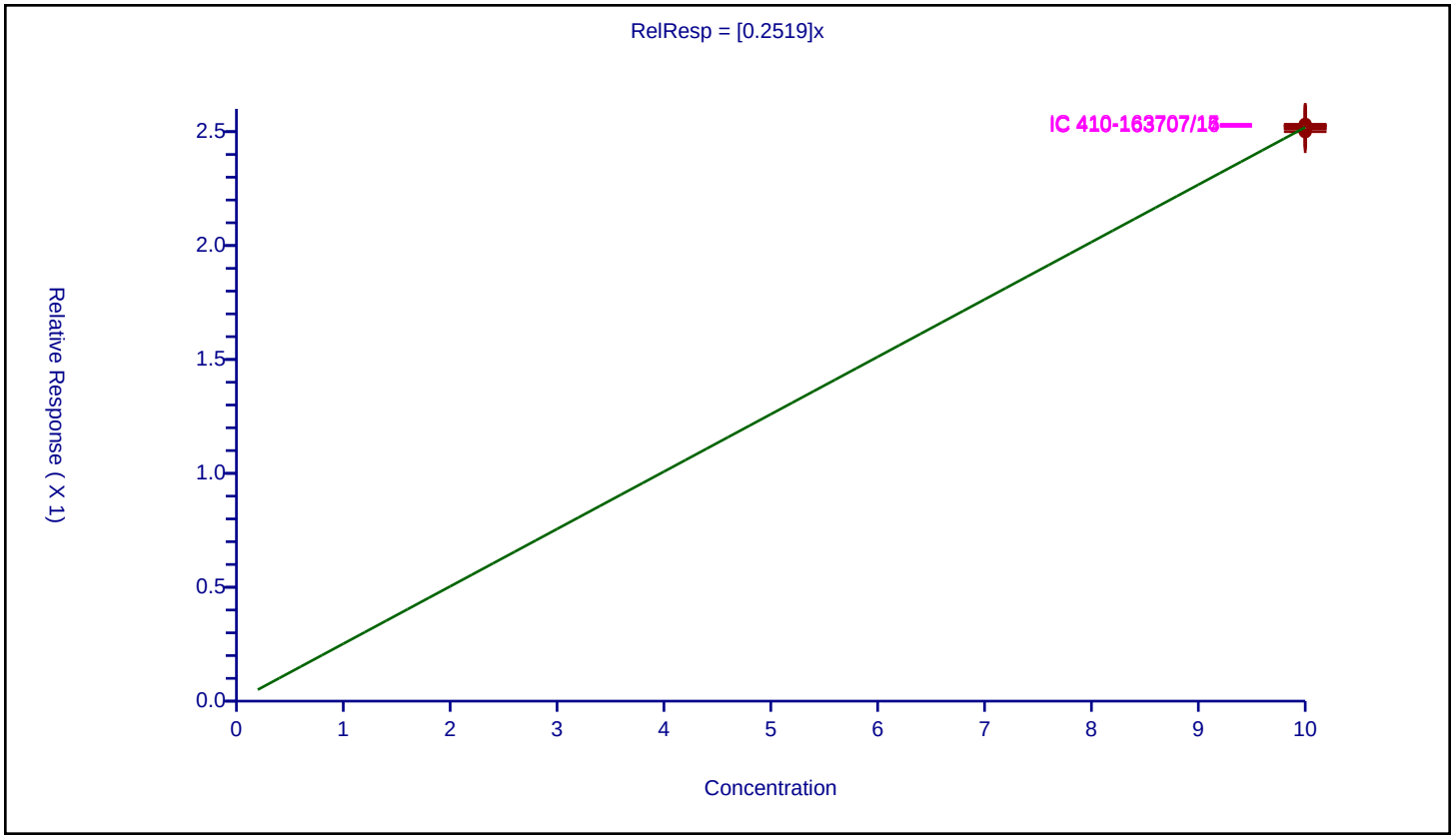
Curve Coefficients

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

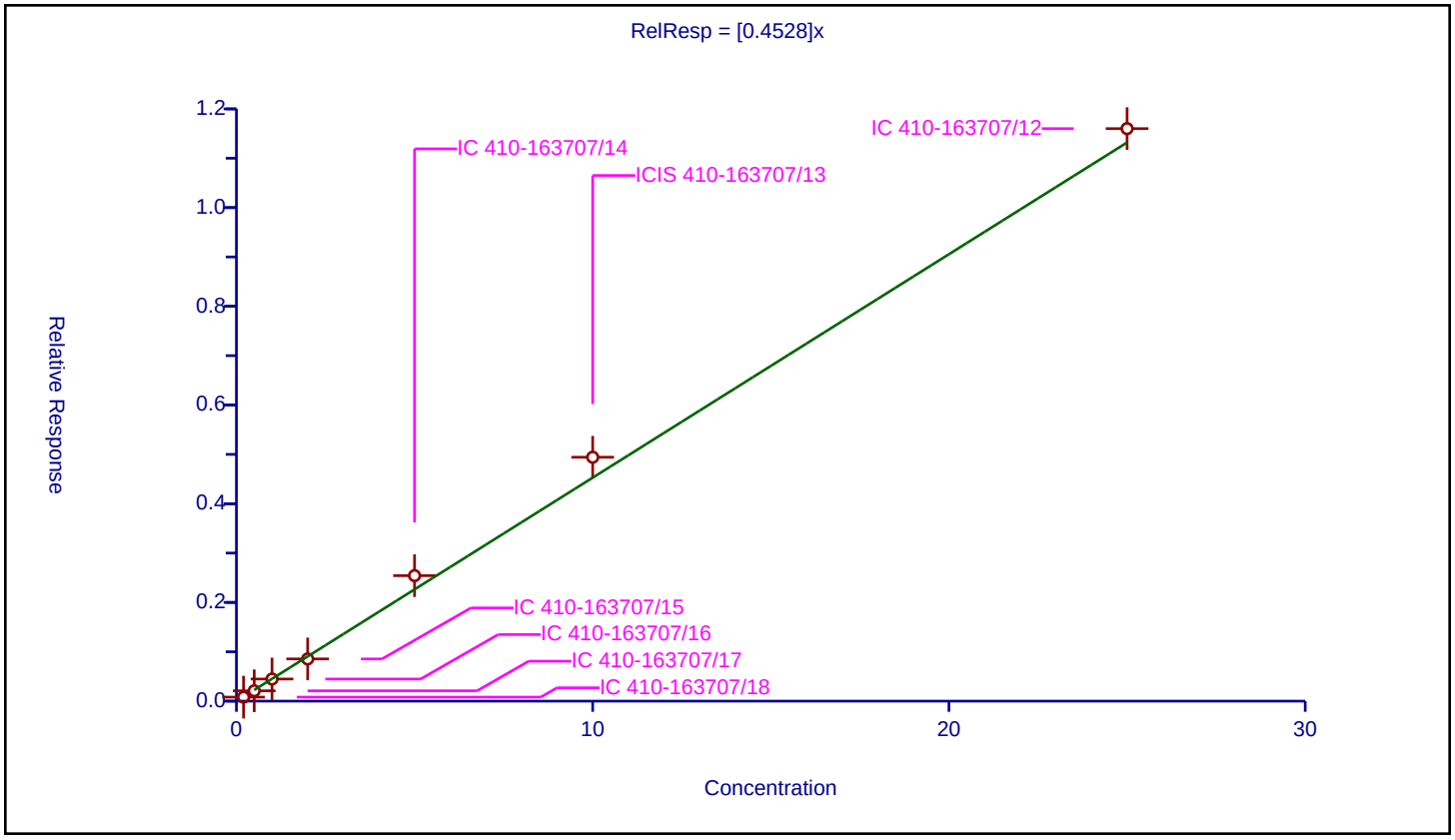
Curve Coefficients

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

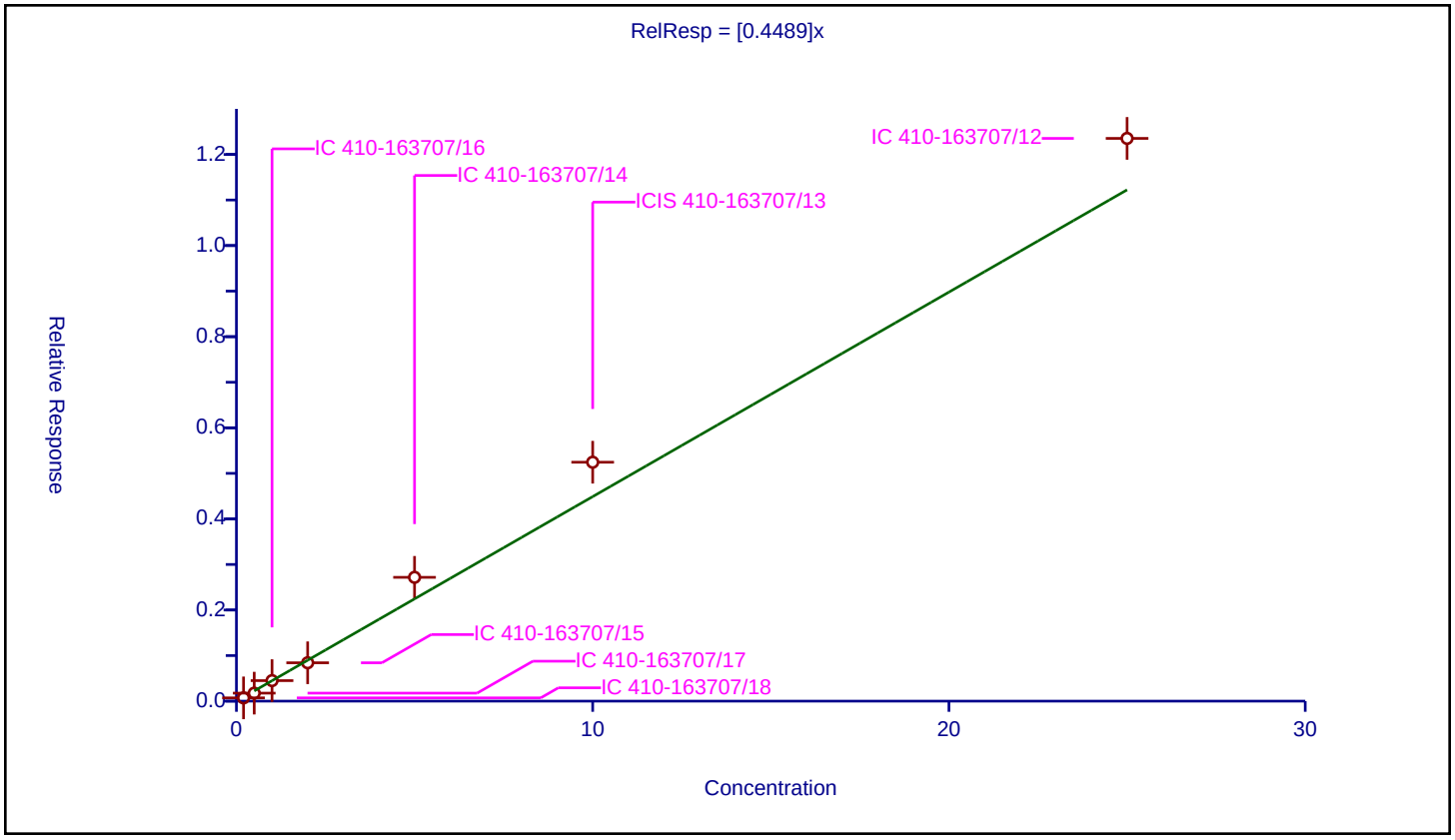
Curve Coefficients

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

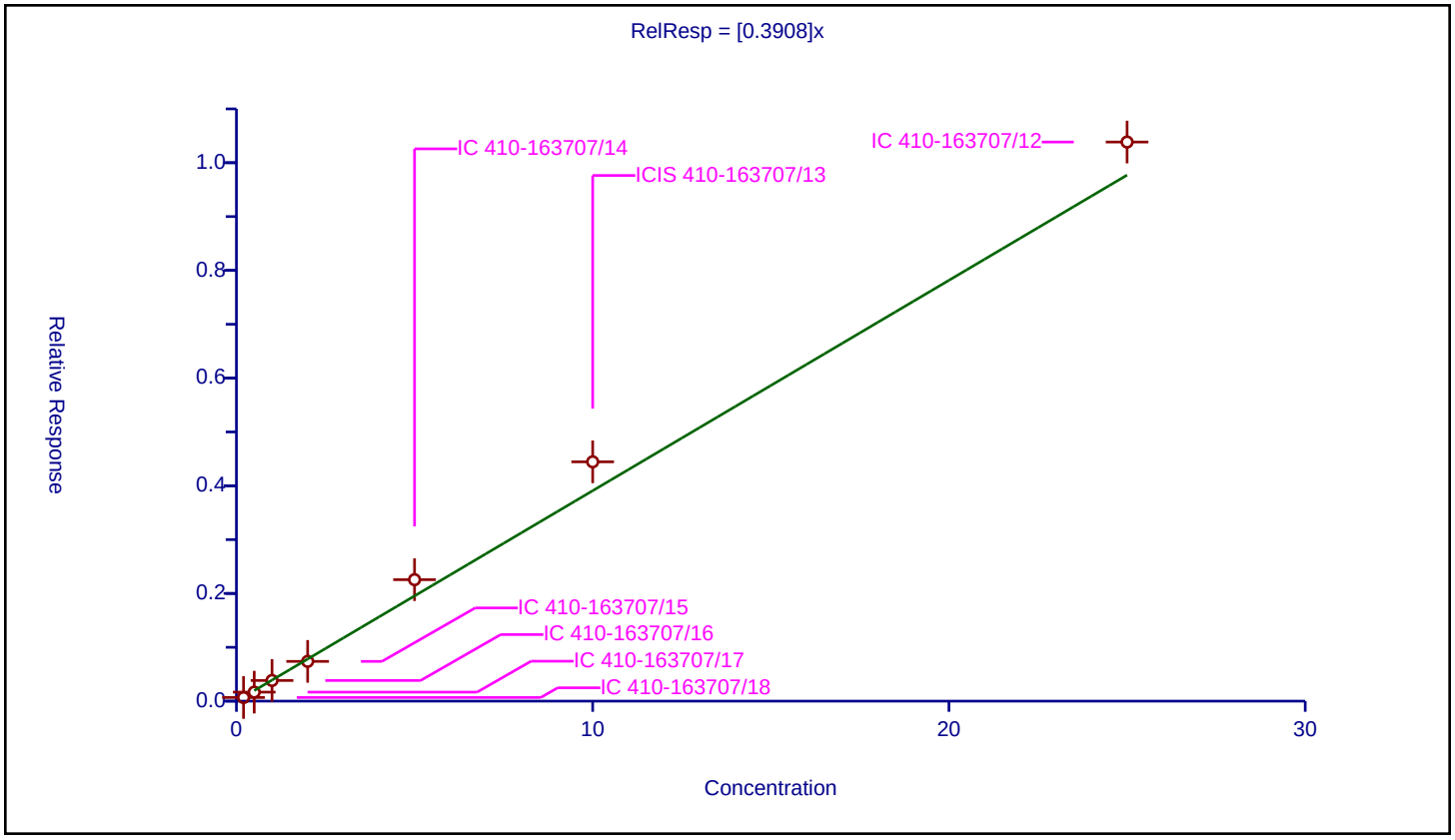
Curve Coefficients

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

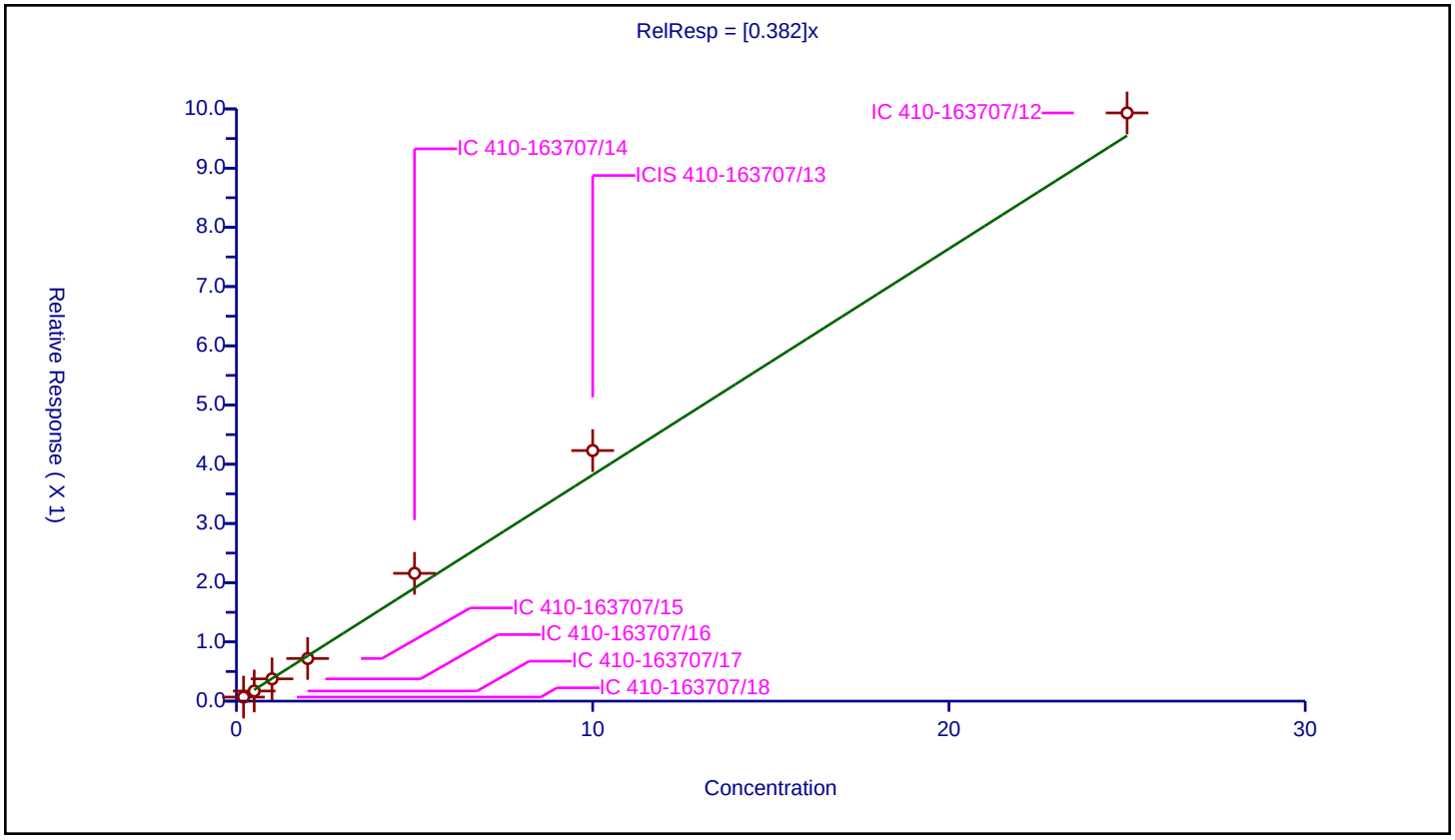
Curve Coefficients

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

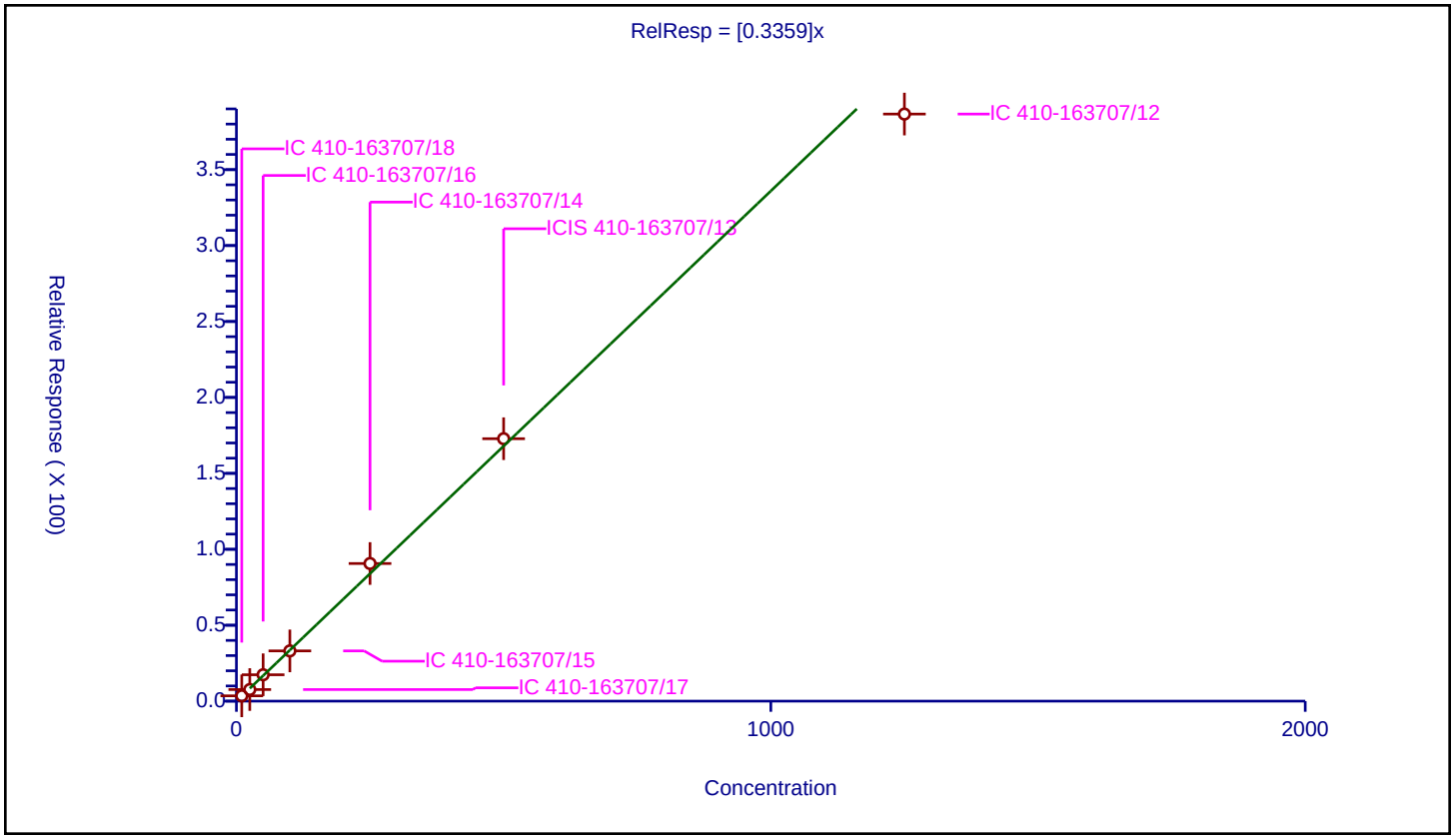
Curve Coefficients

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

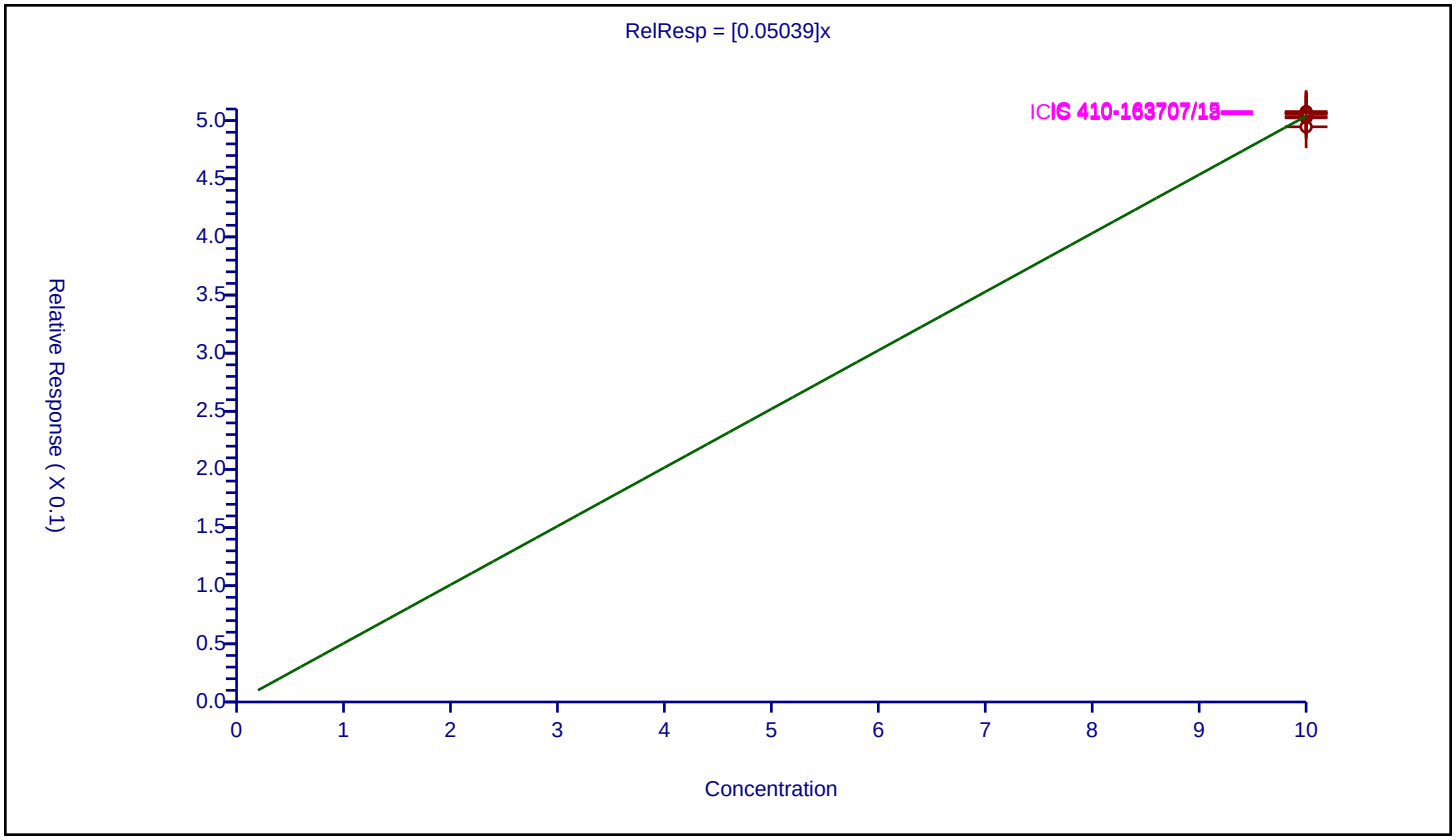
Curve Coefficients

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

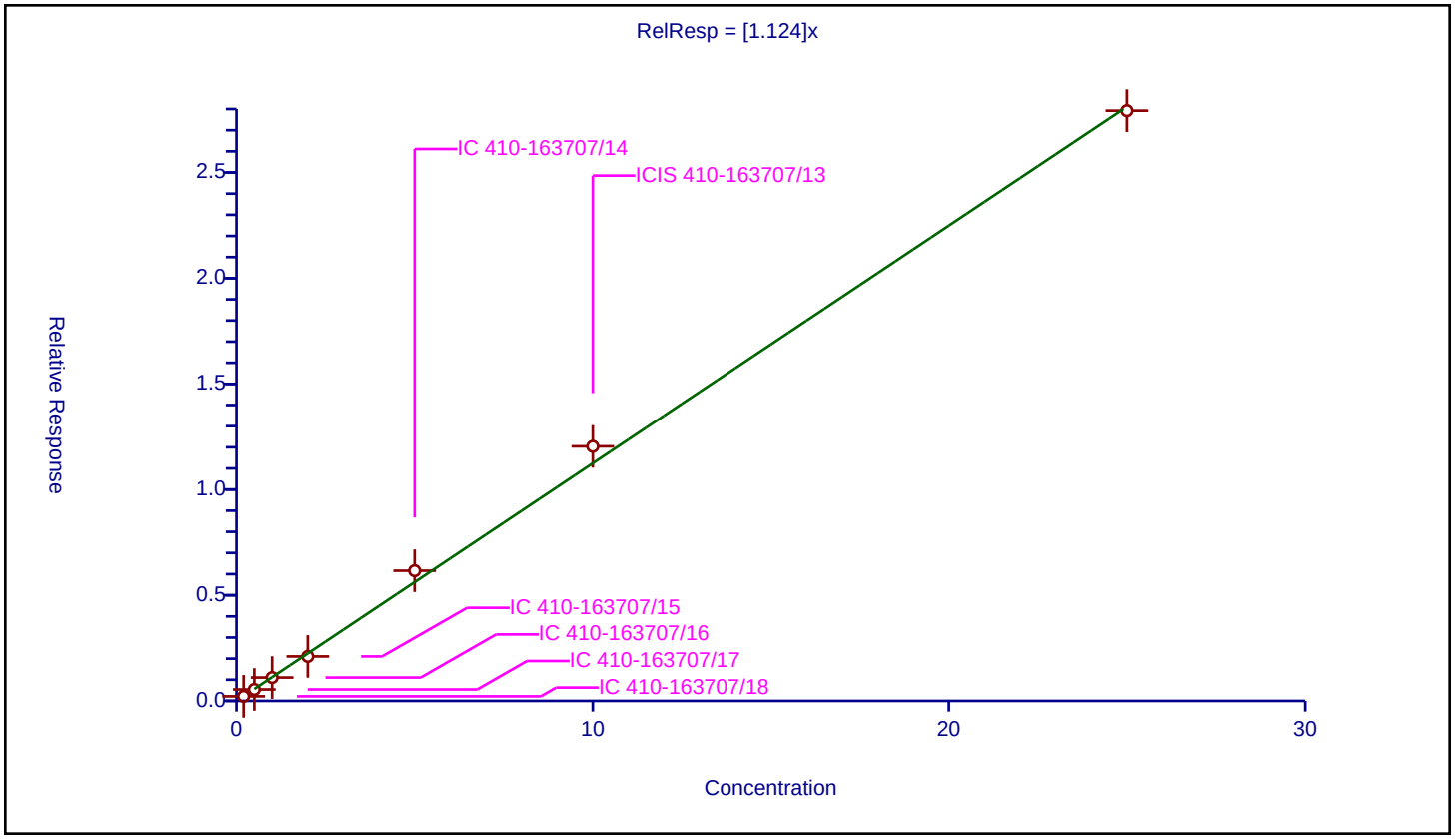
Curve Coefficients

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

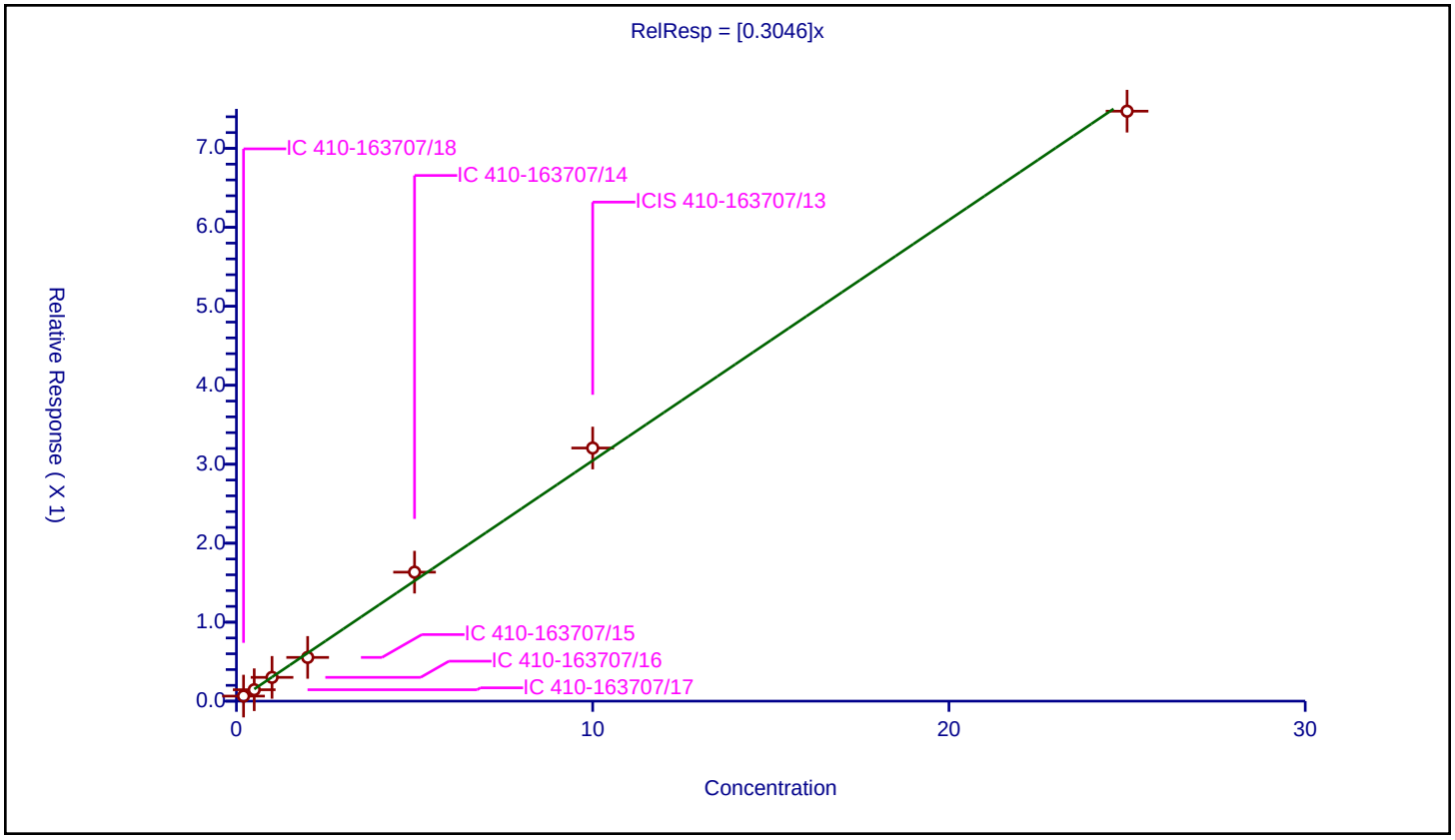
Curve Coefficients

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

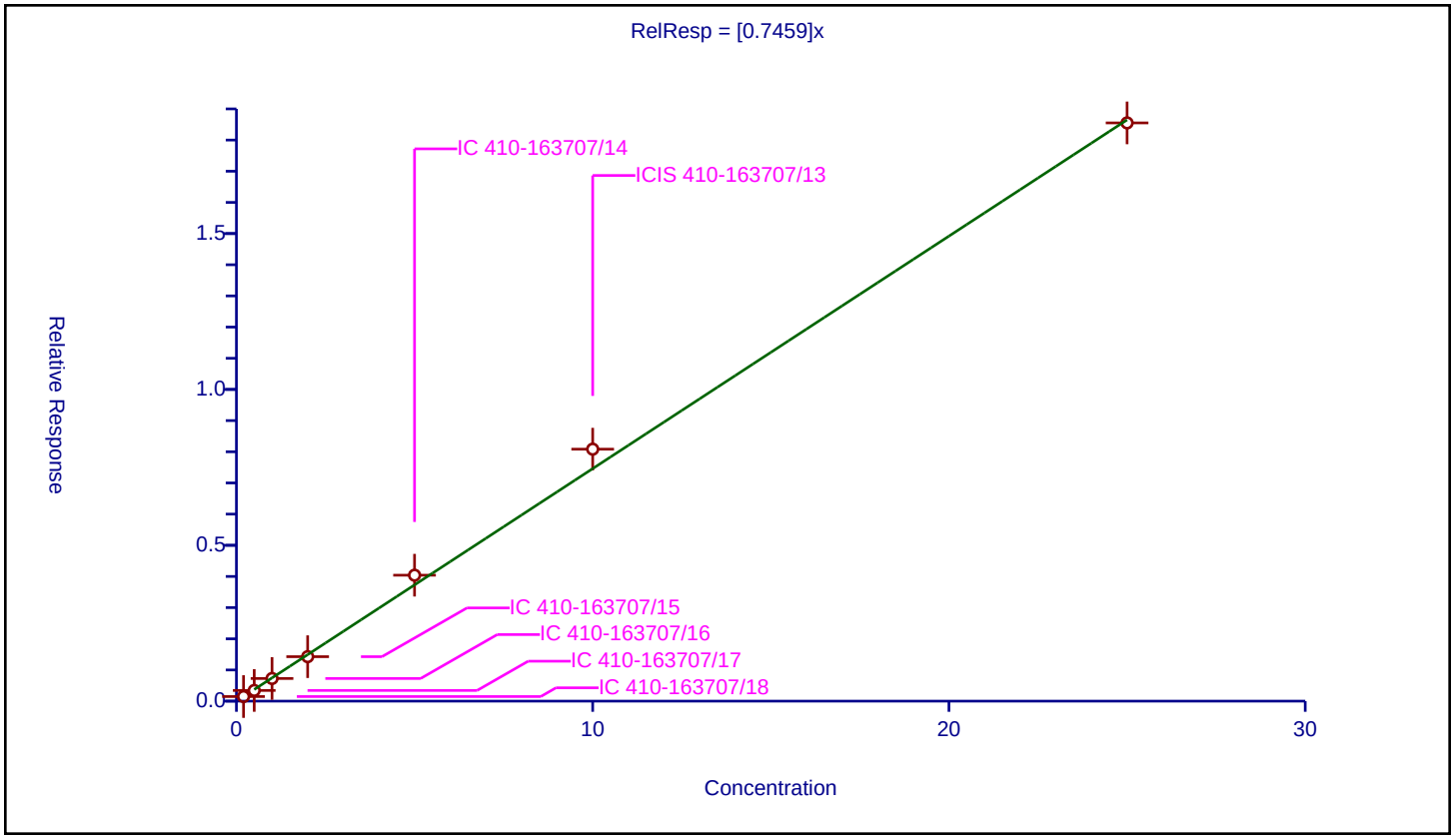
Curve Coefficients

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

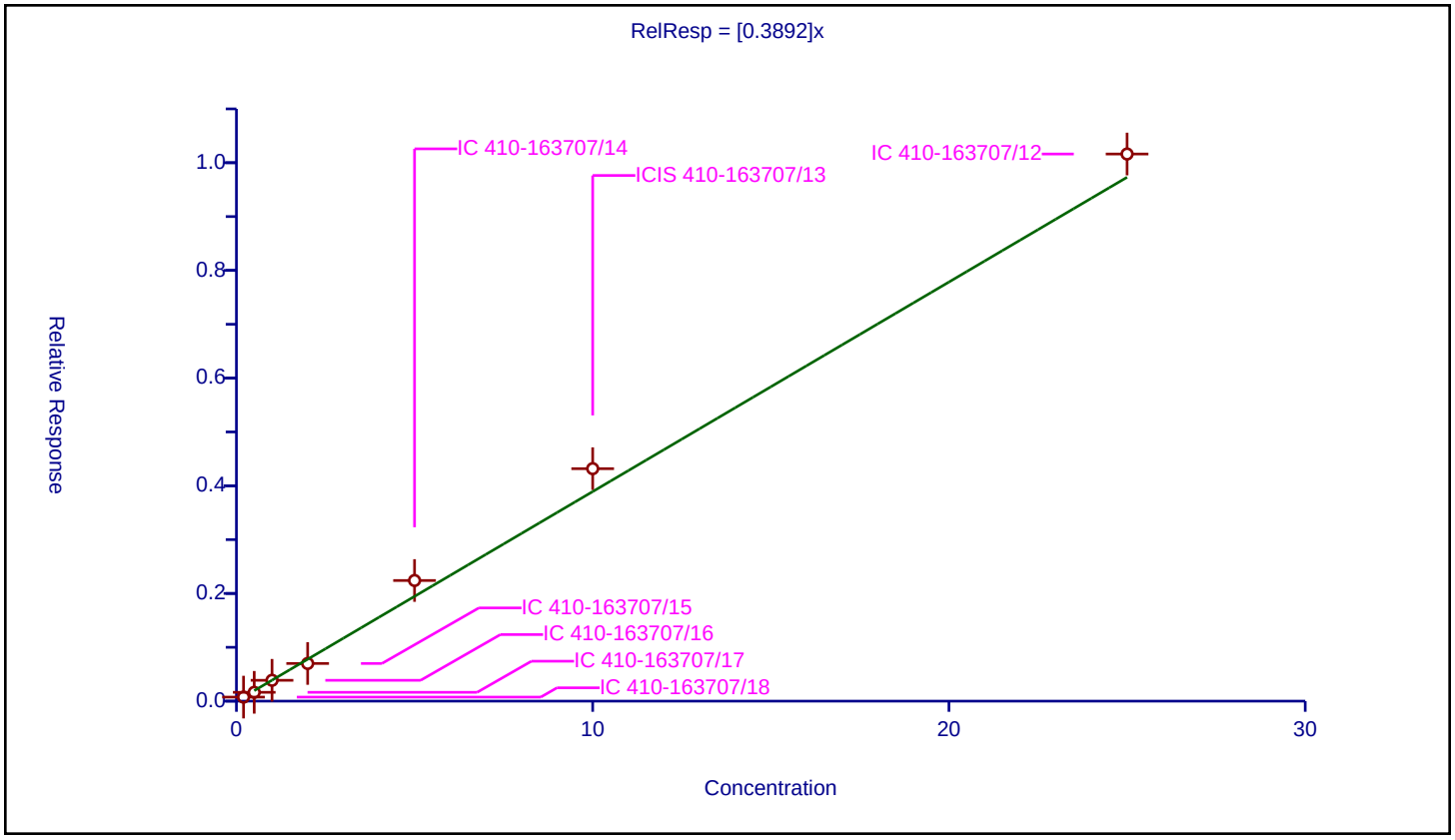
Curve Coefficients

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



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

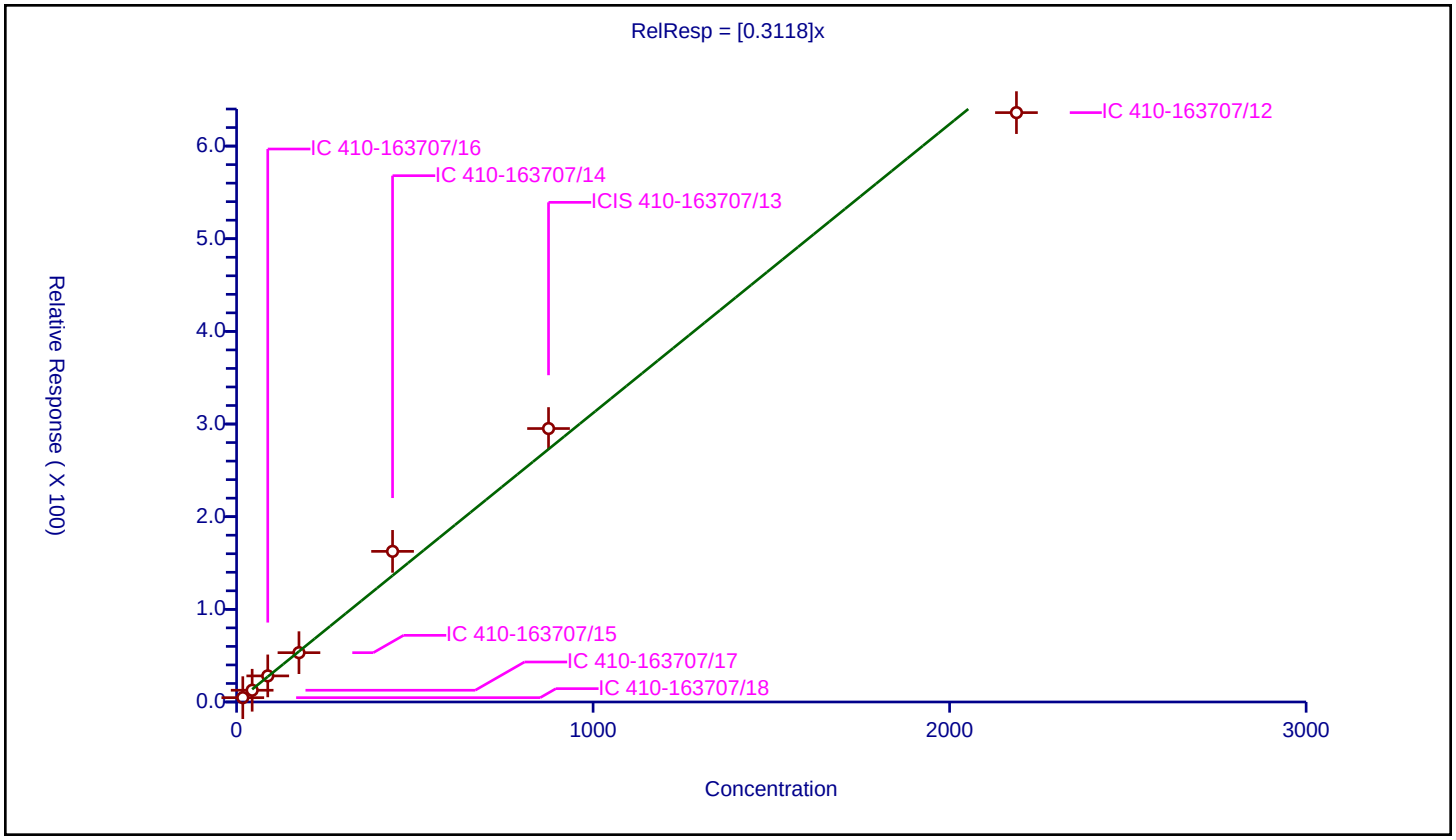
Curve Coefficients

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



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

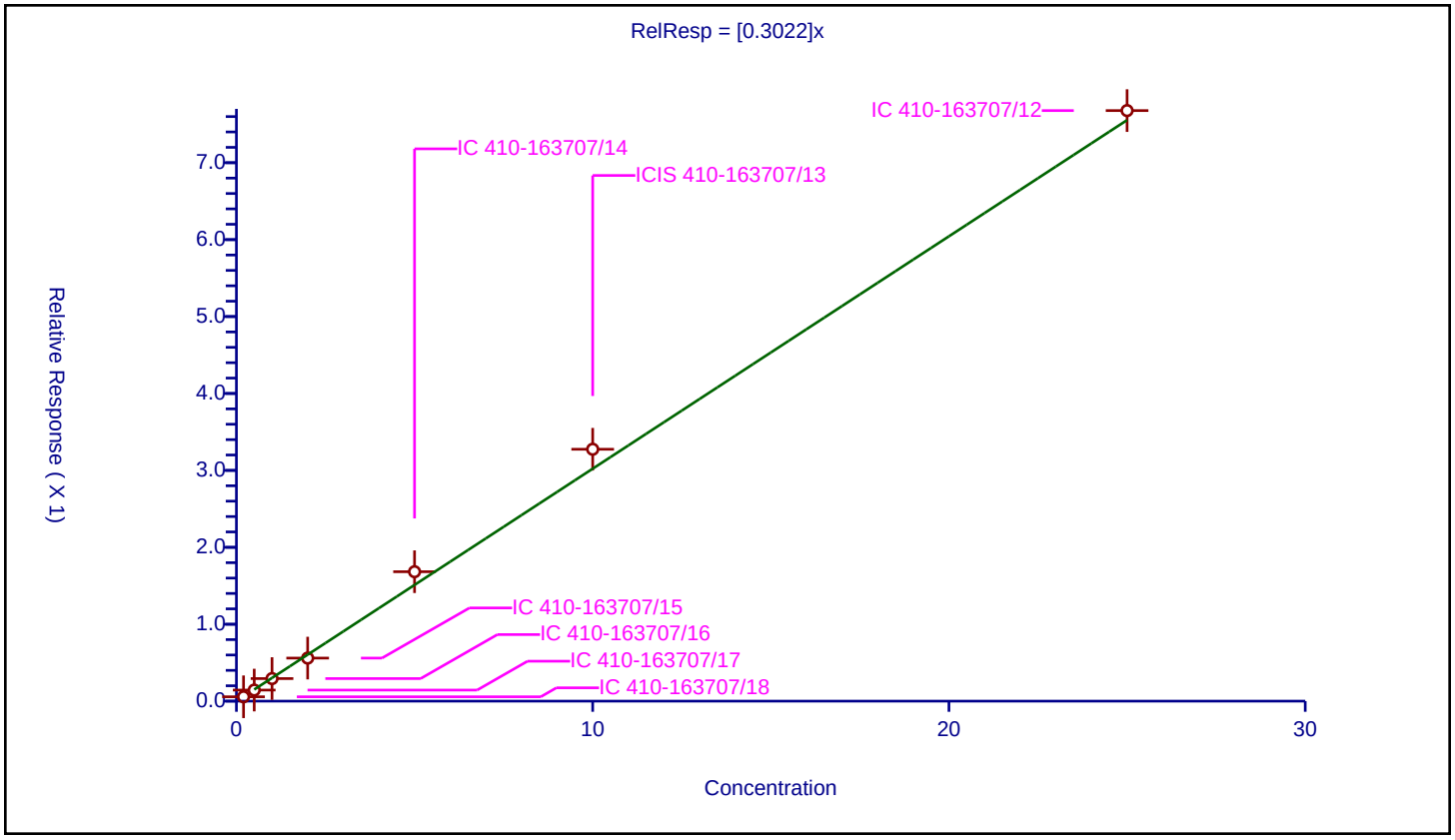
Curve Coefficients

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

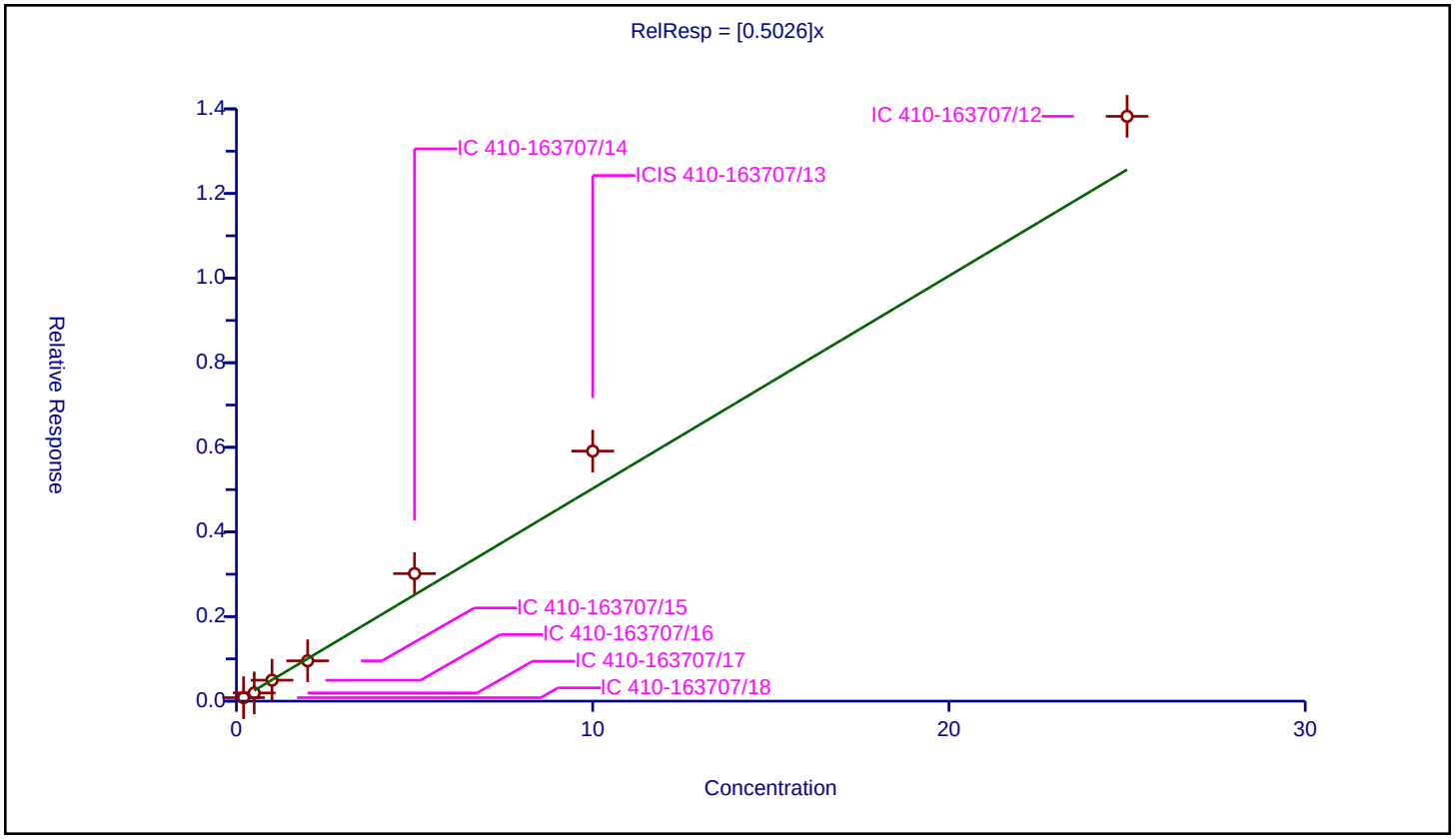
Curve Coefficients

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

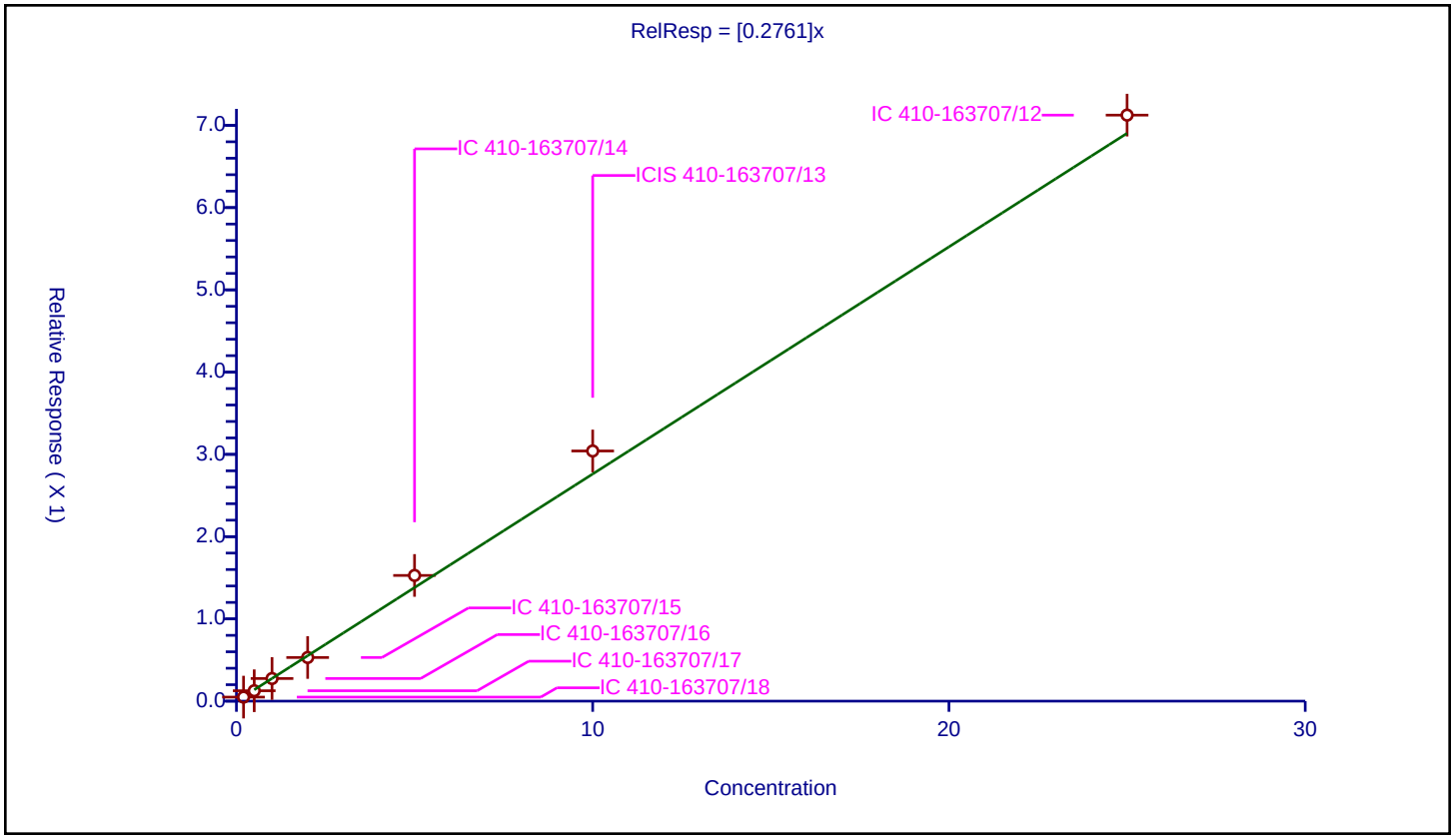
Curve Coefficients

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

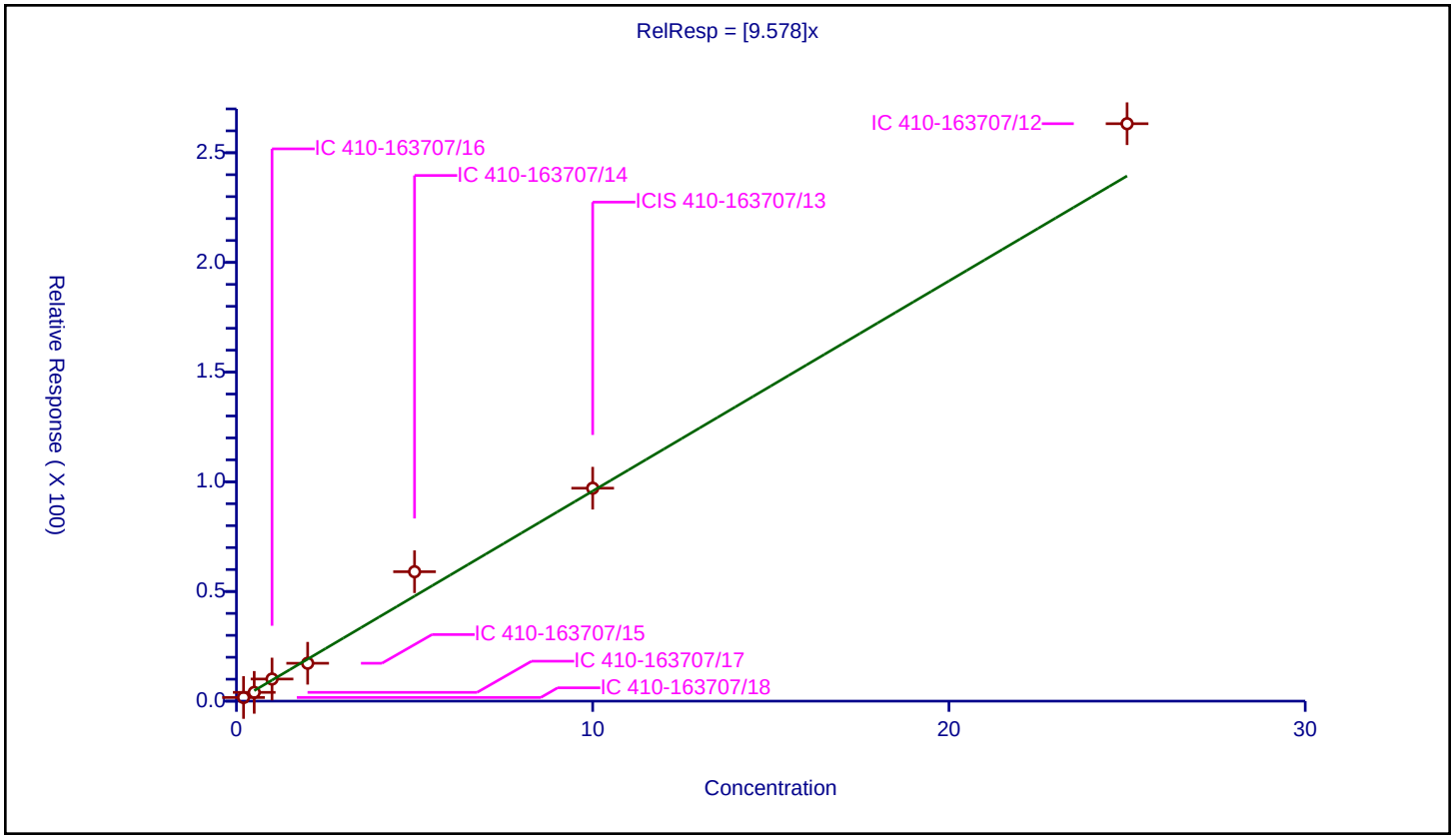
Curve Coefficients

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

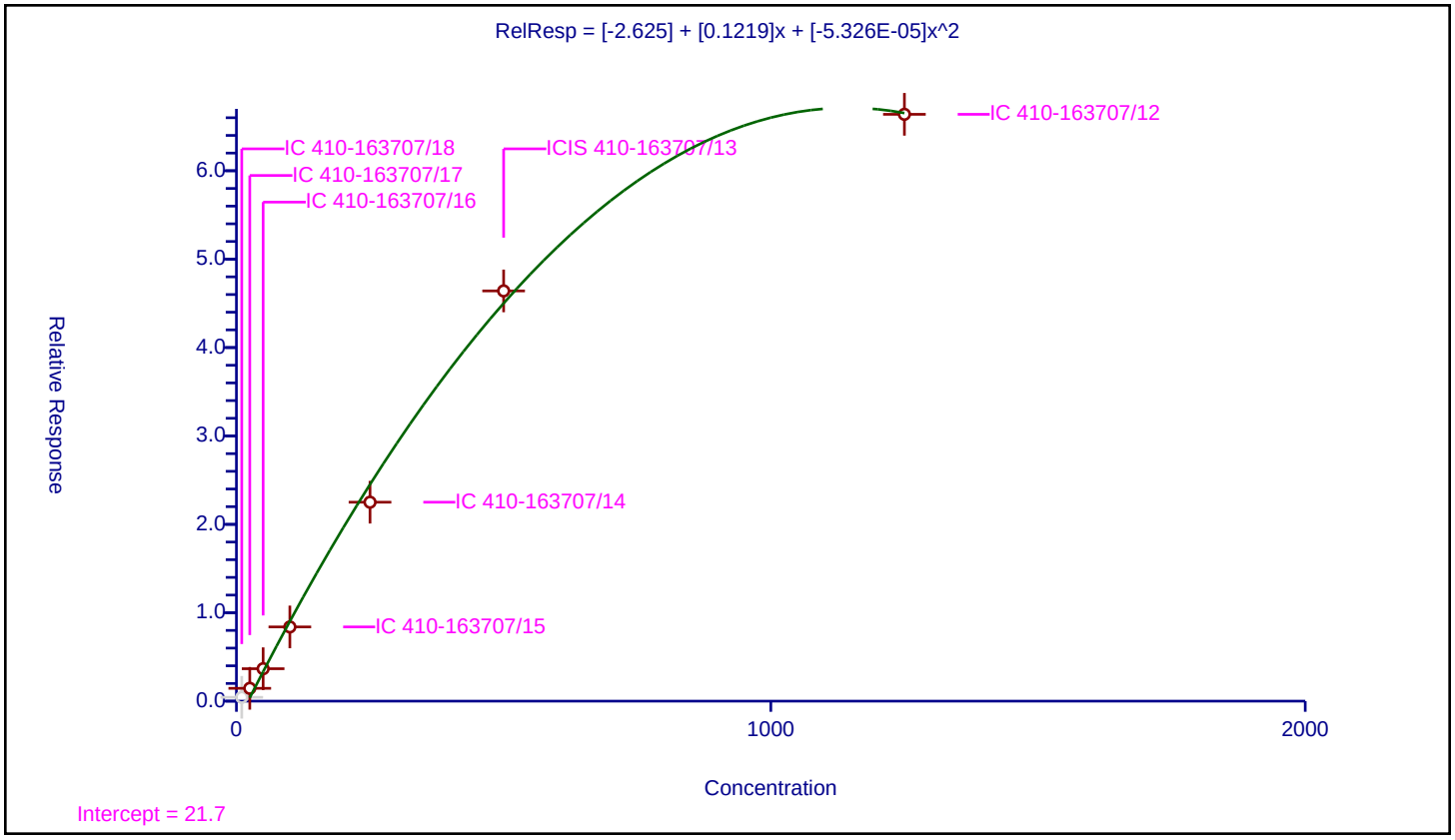
Curve Coefficients

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



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

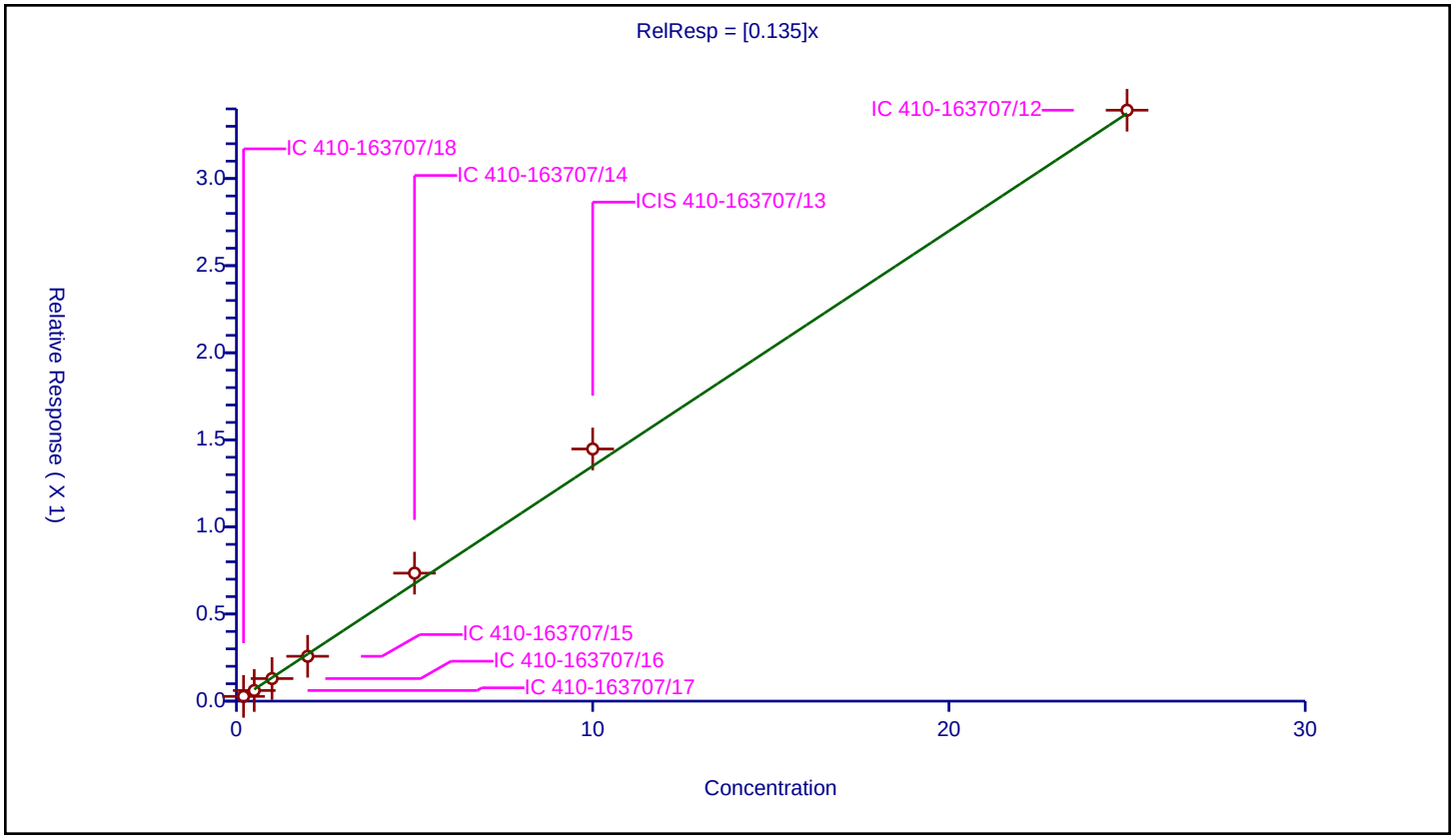
Curve Coefficients

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

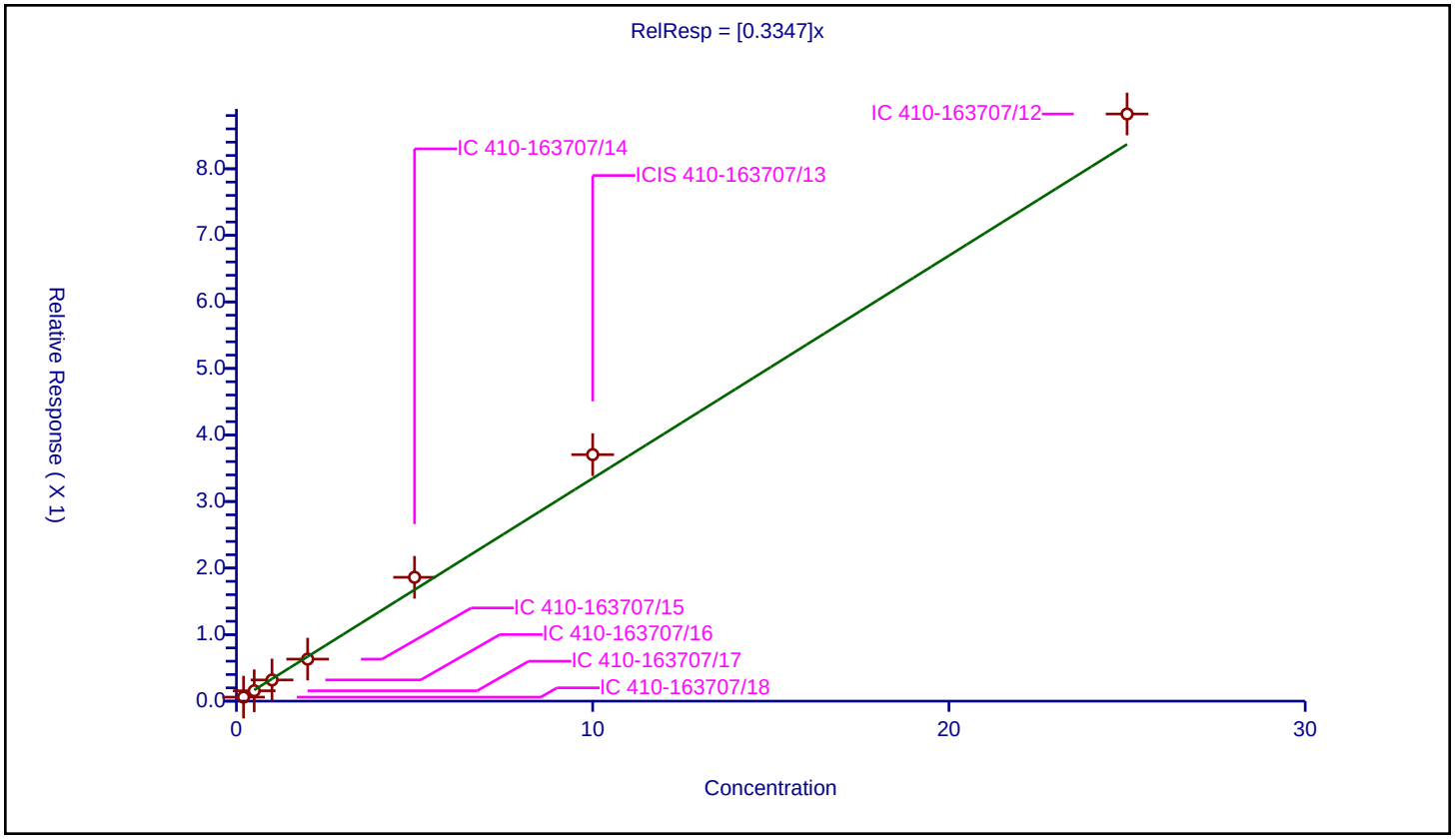
Curve Coefficients

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

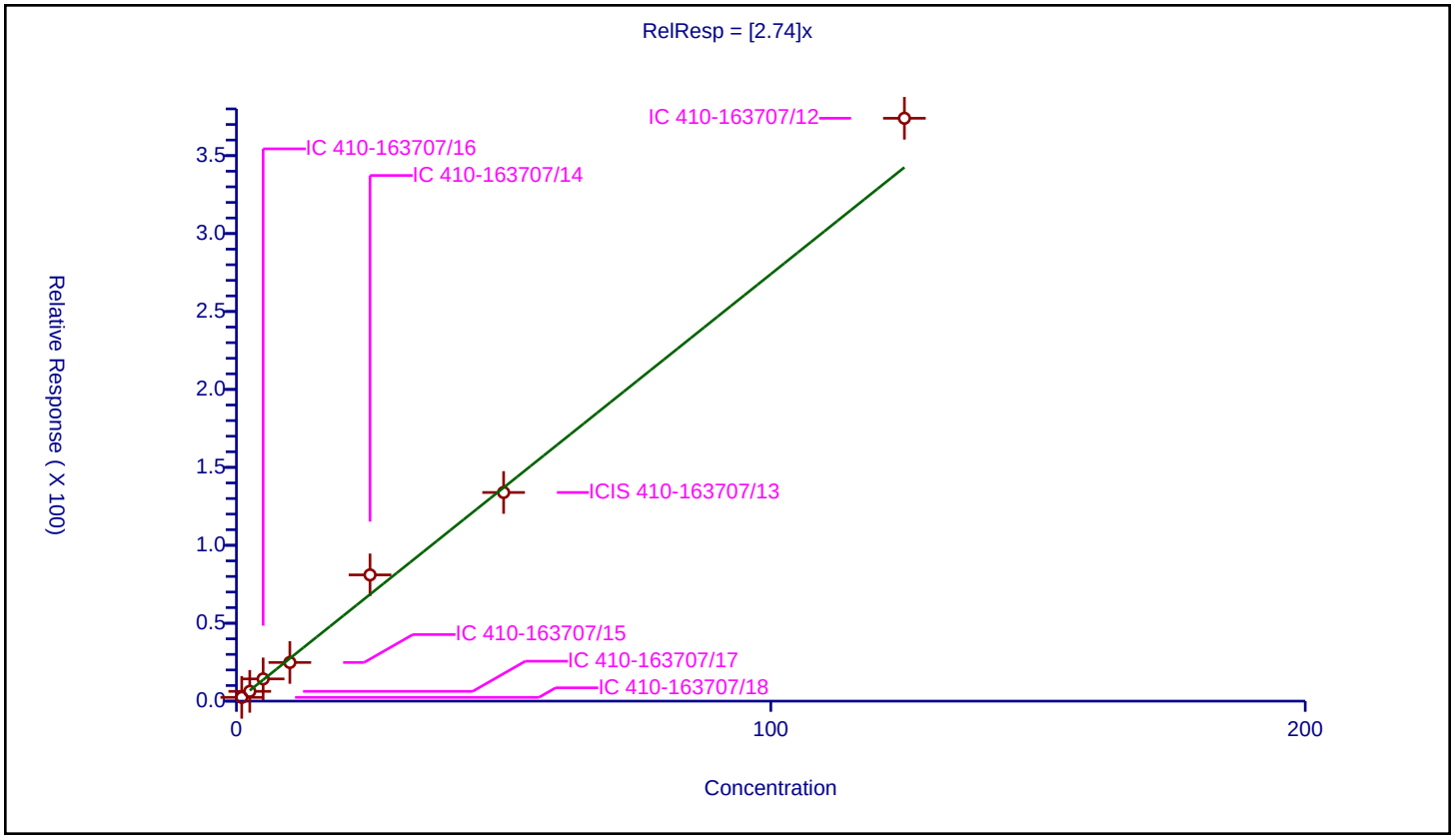
Curve Coefficients

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

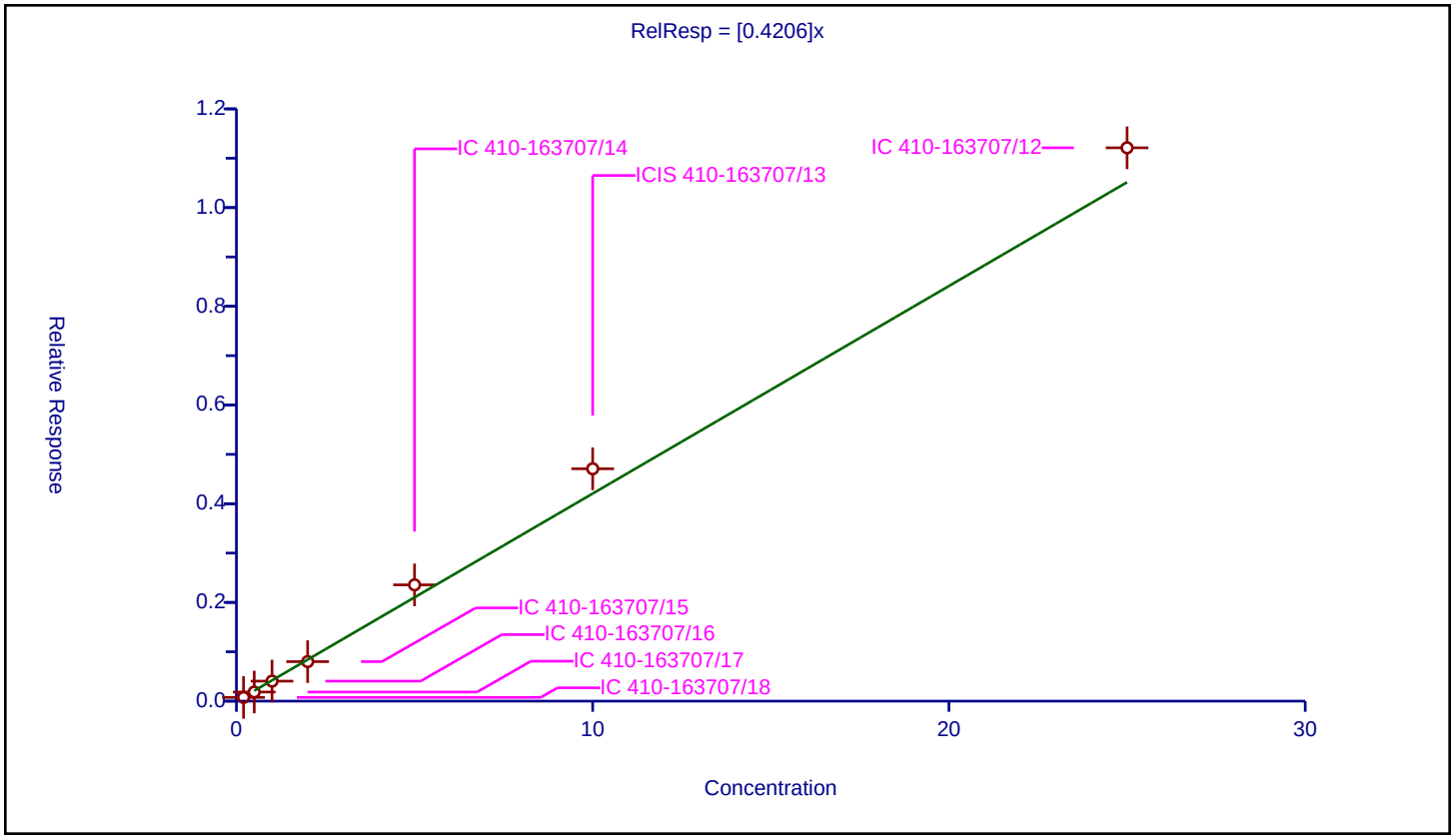
Curve Coefficients

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

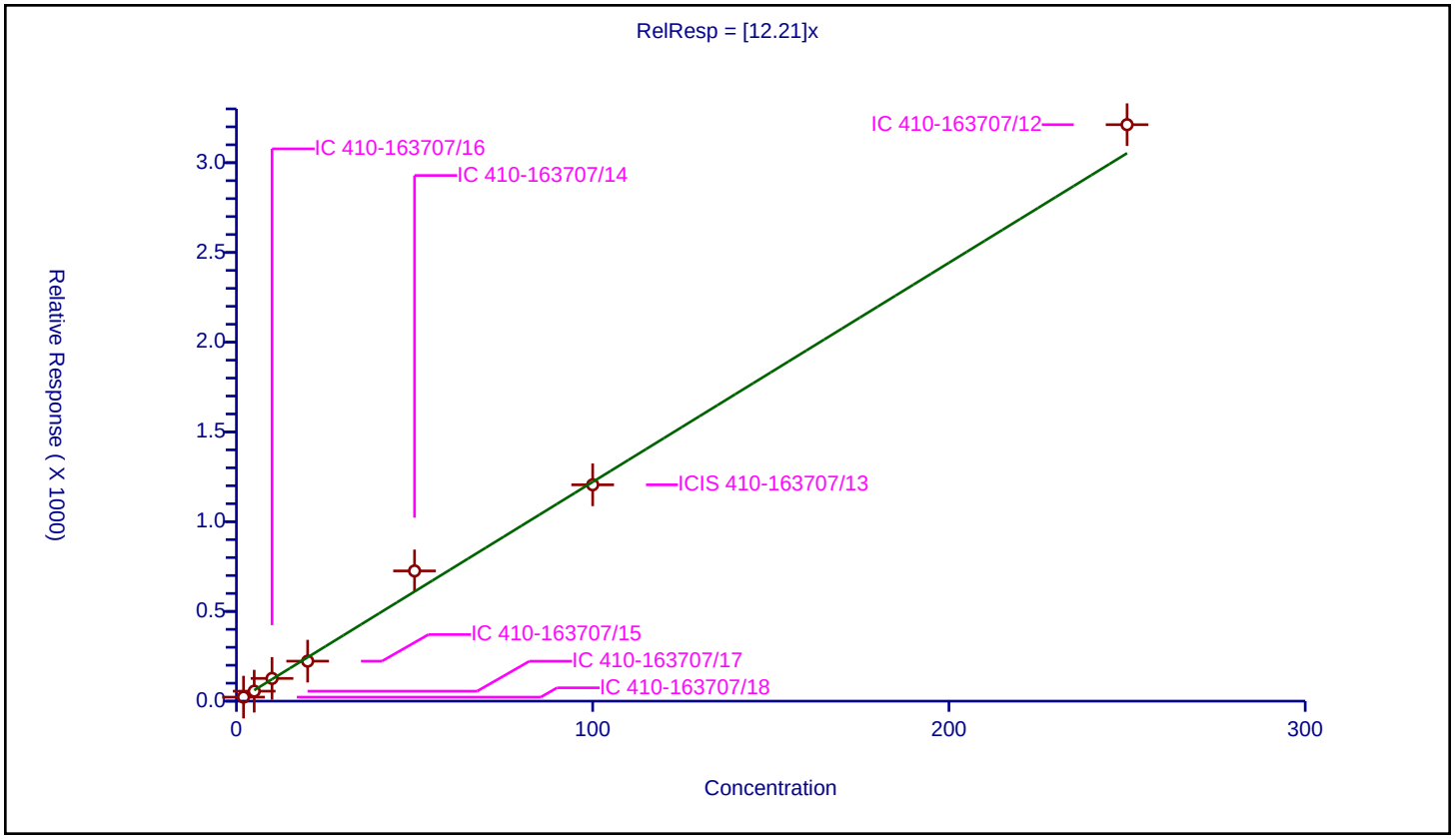
Curve Coefficients

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

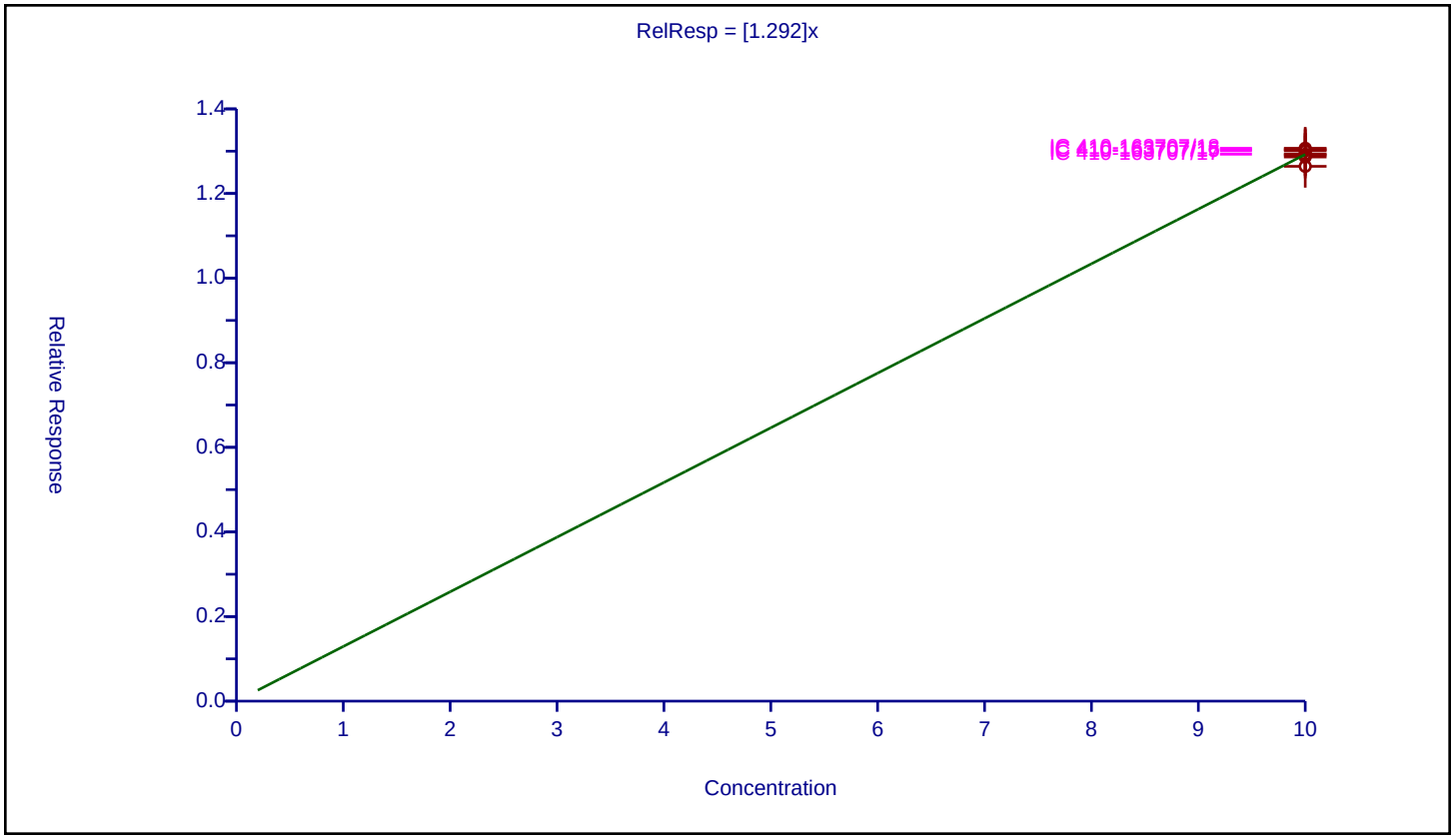
Curve Coefficients

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

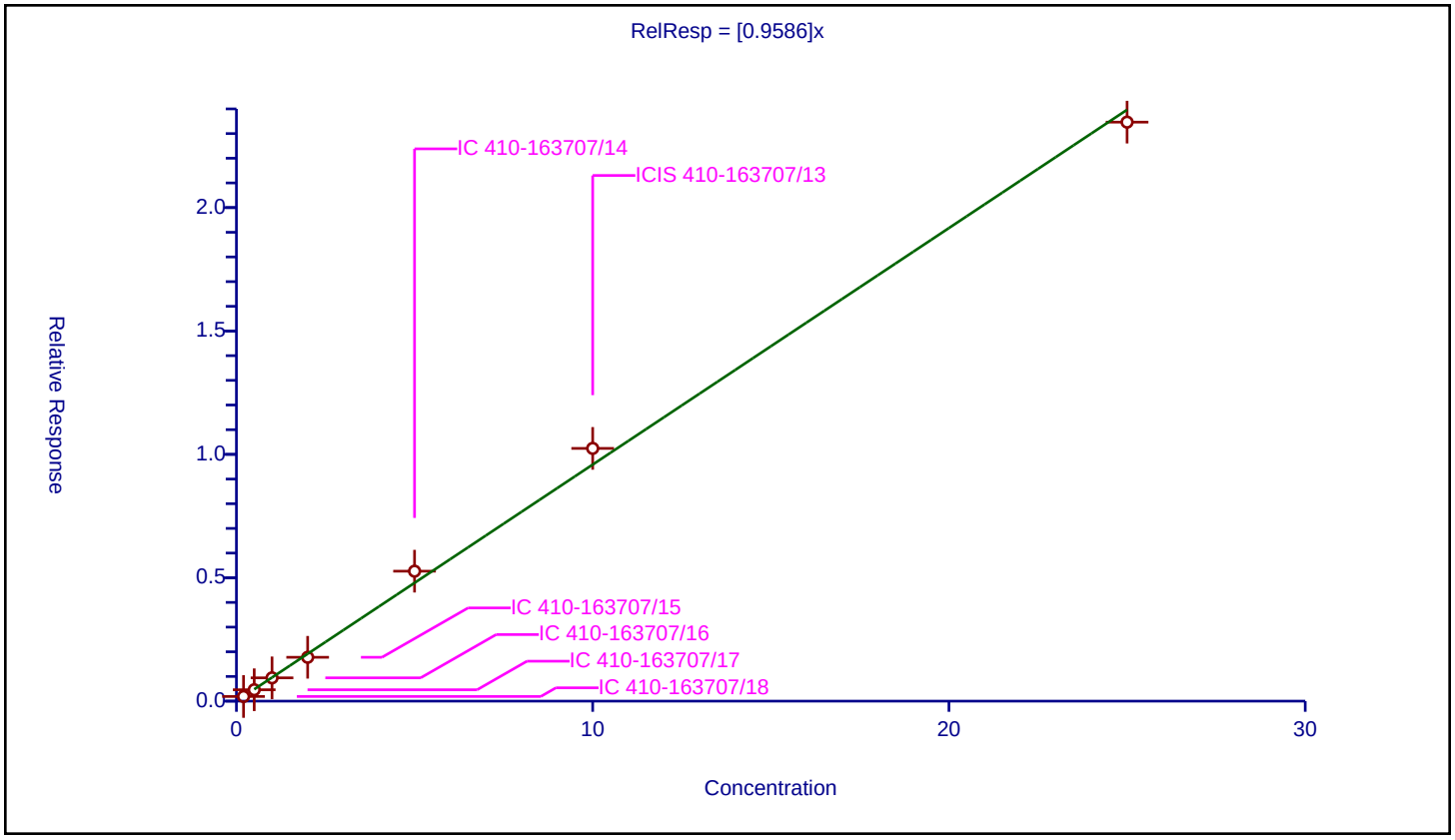
Curve Coefficients

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

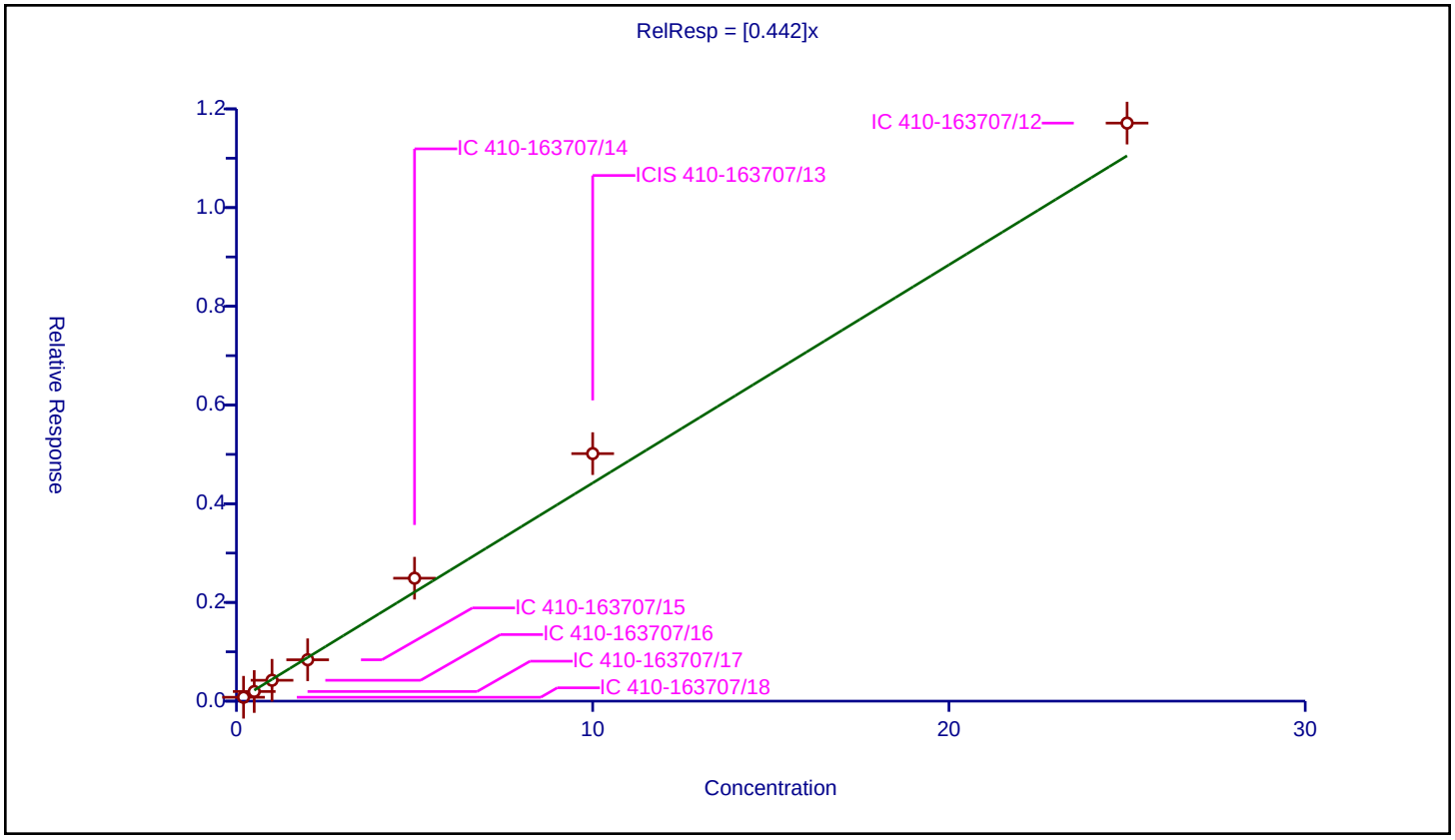
Curve Coefficients

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

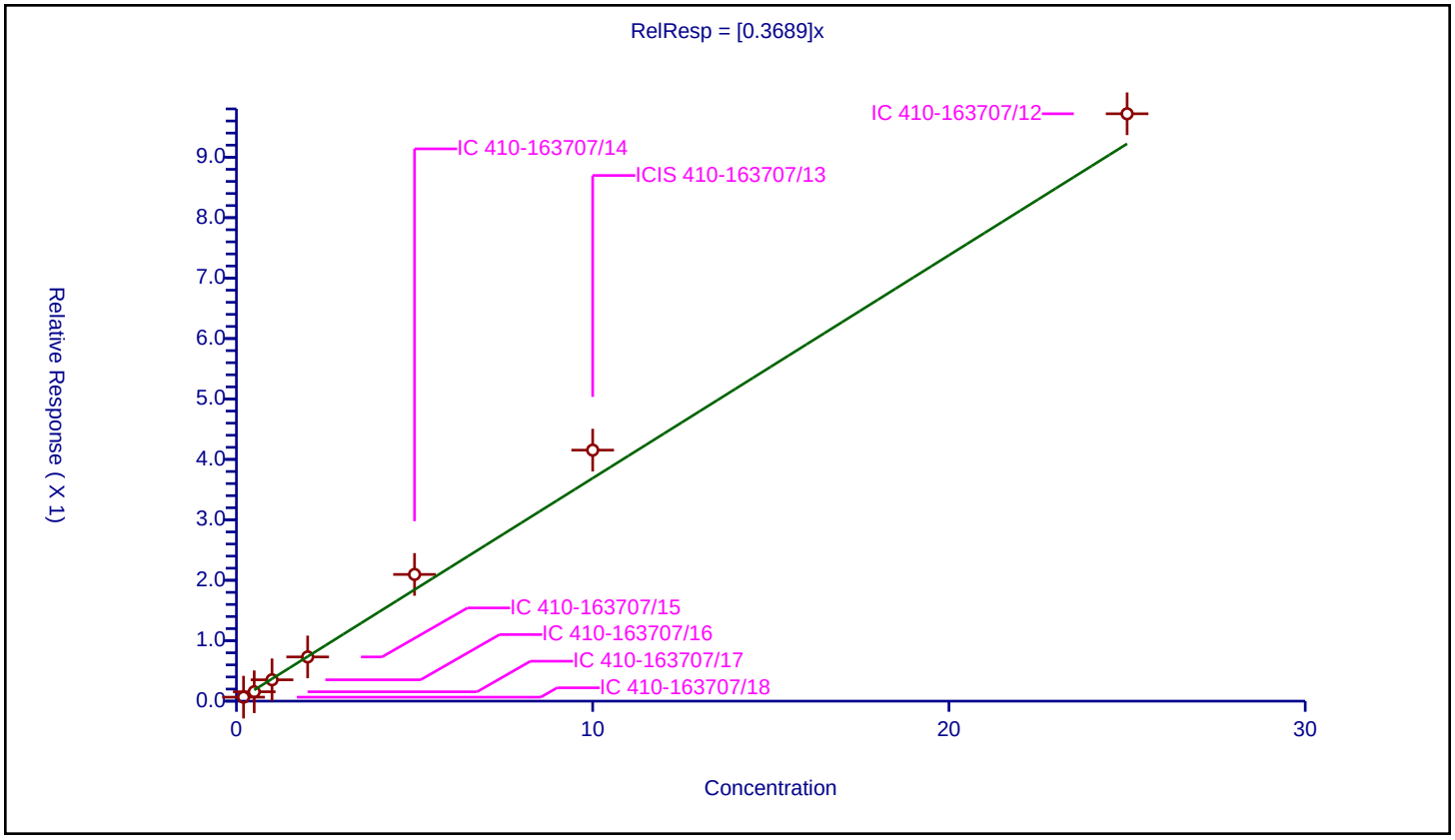
Curve Coefficients

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

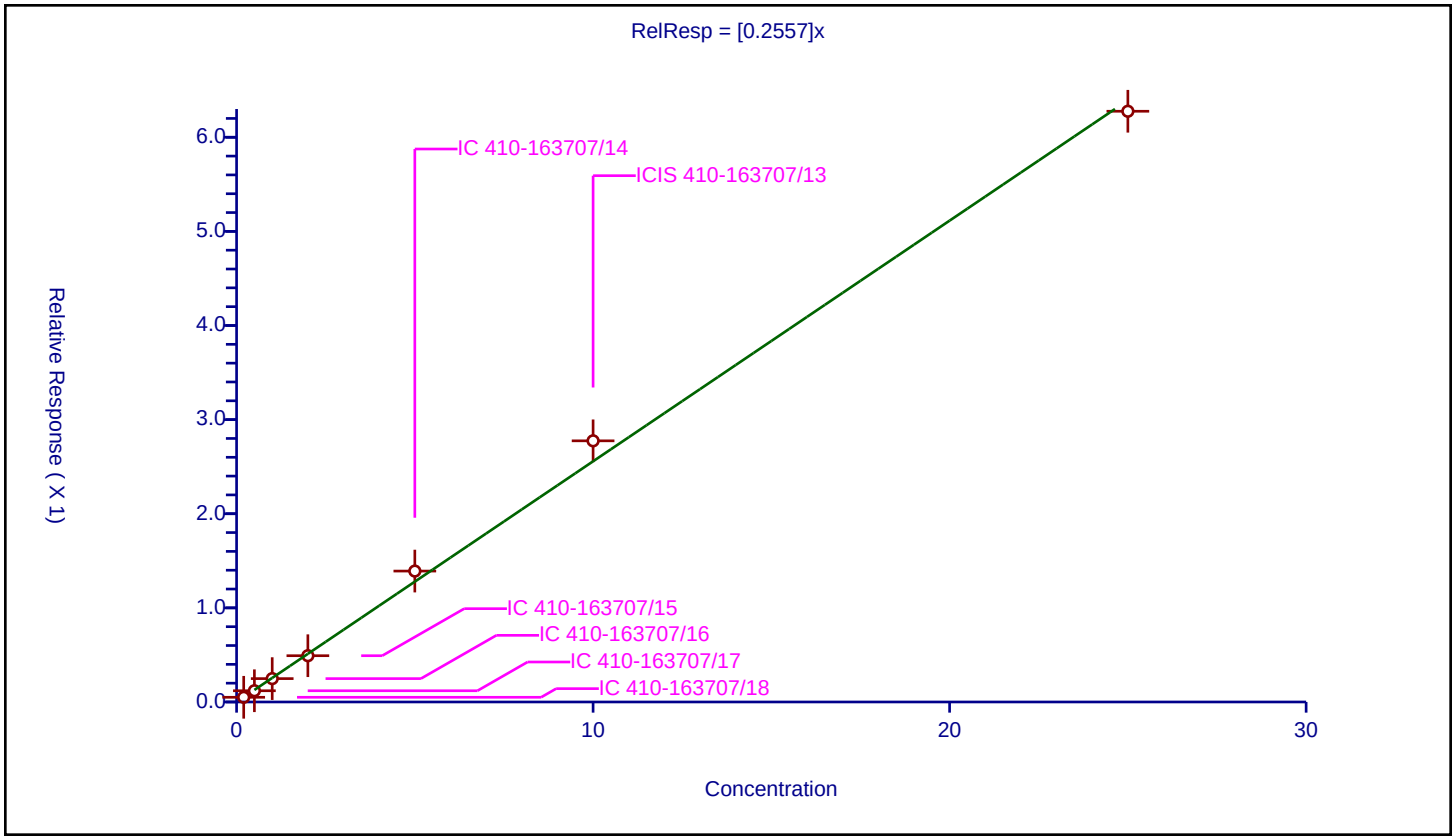
Curve Coefficients

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

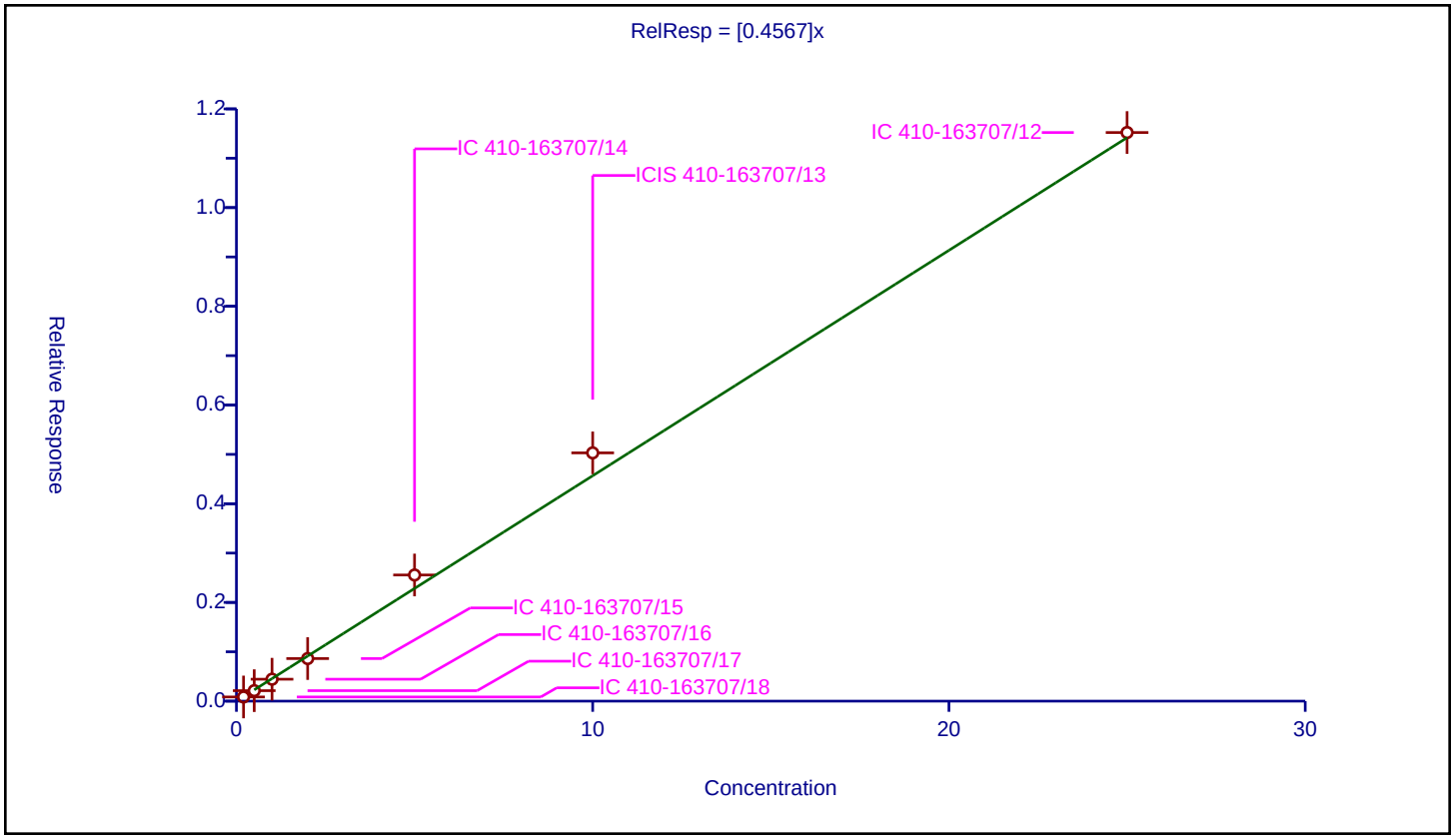
Curve Coefficients

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

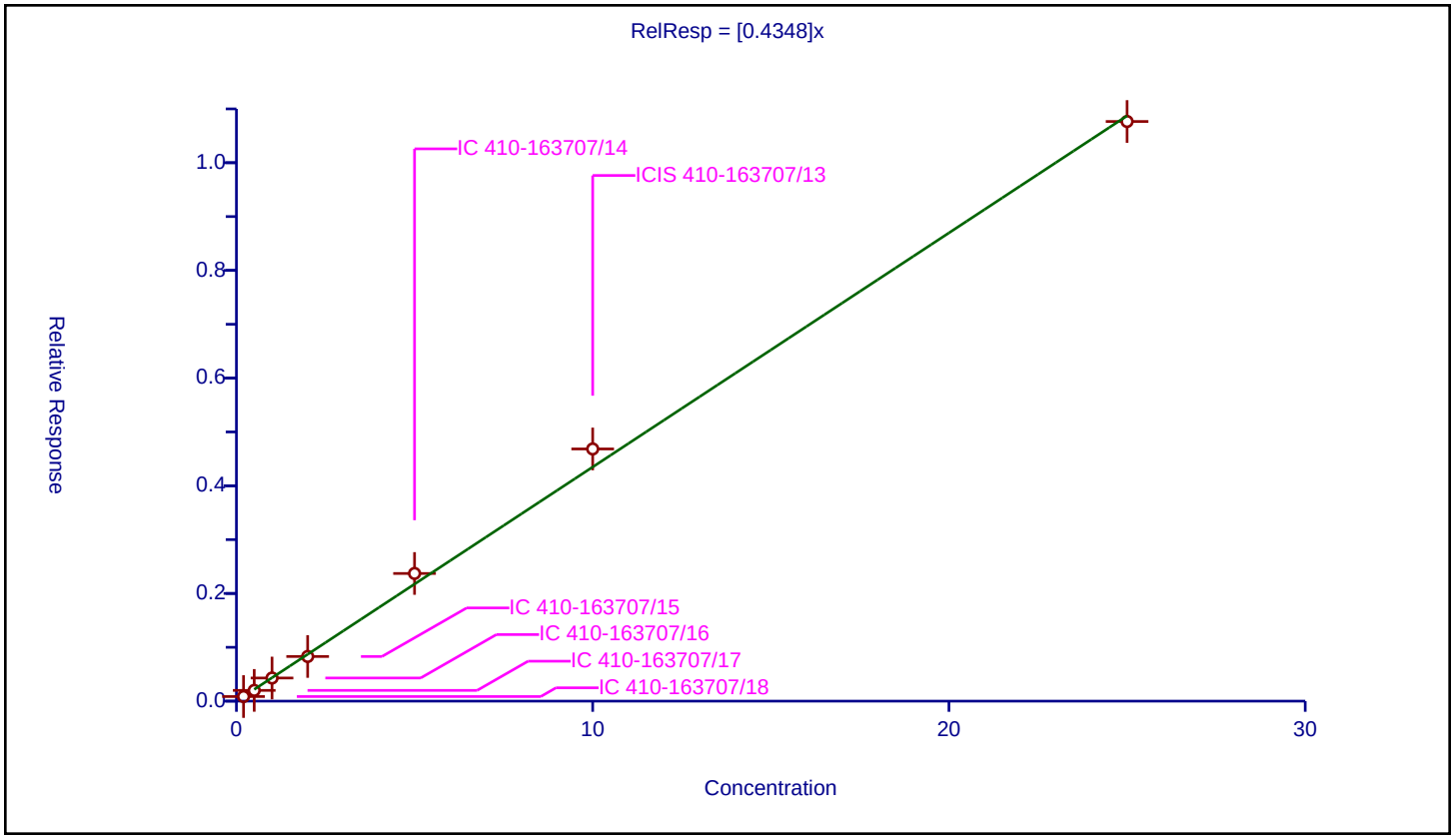
Curve Coefficients

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

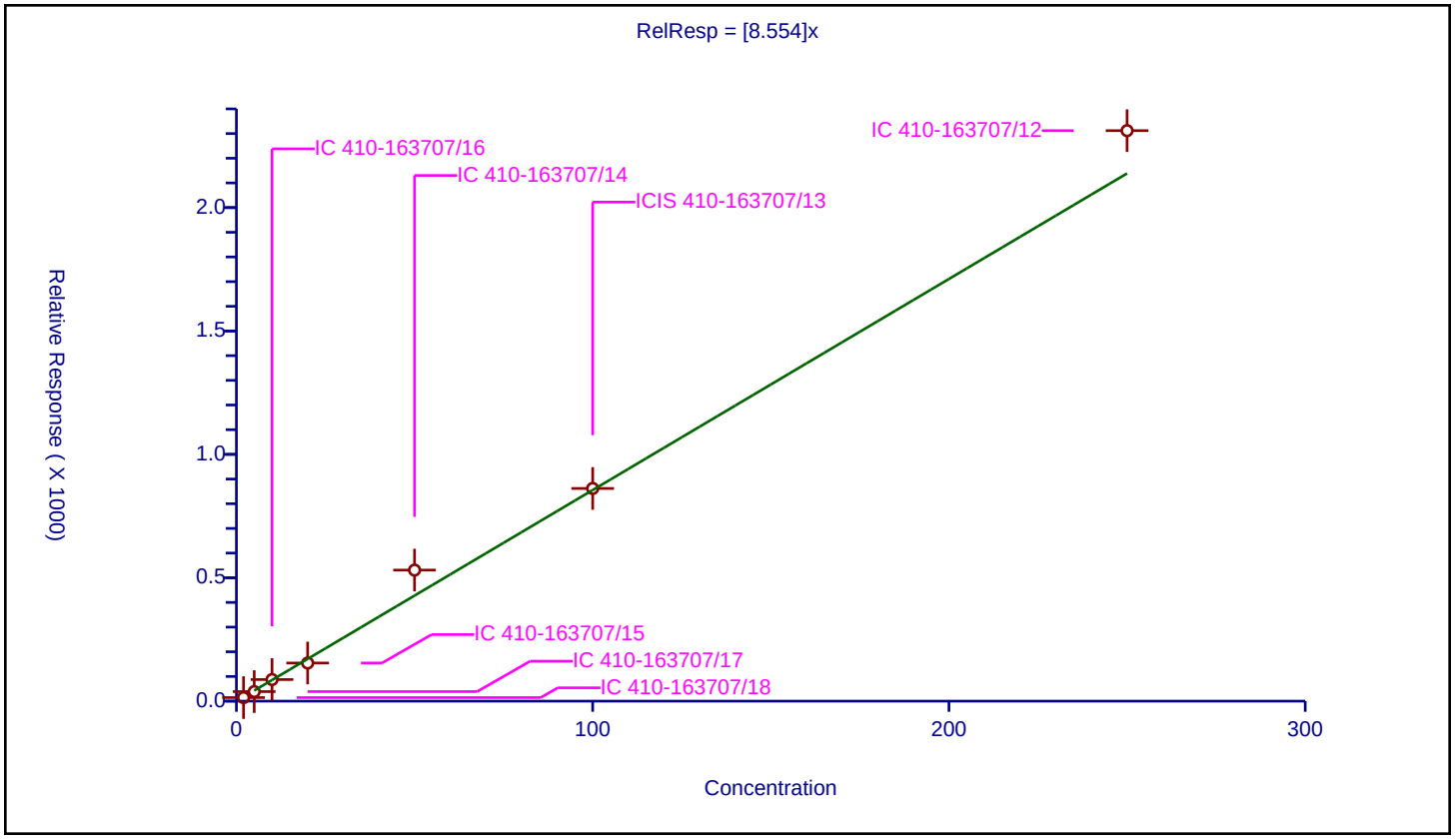
Curve Coefficients

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

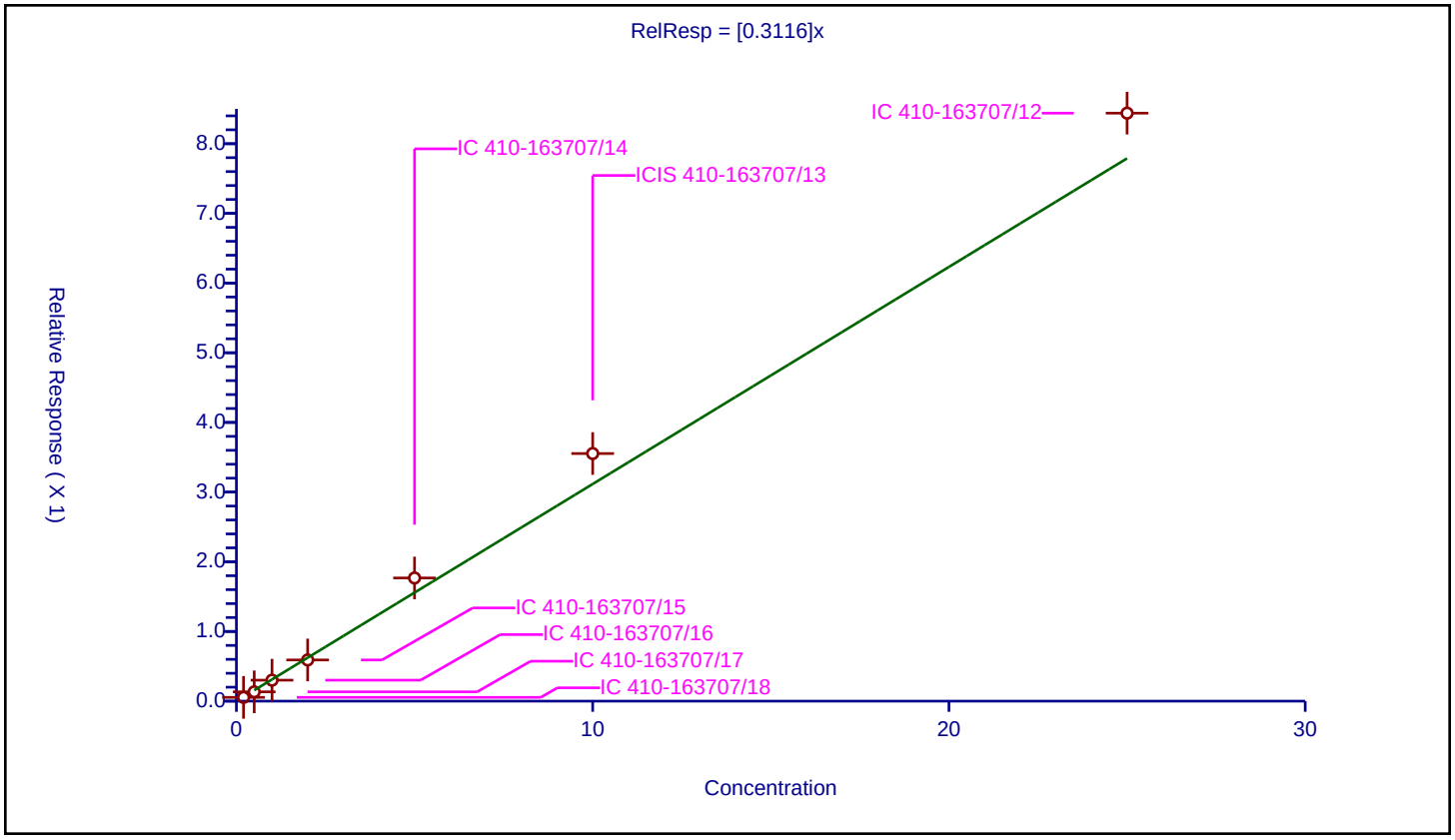
Curve Coefficients

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

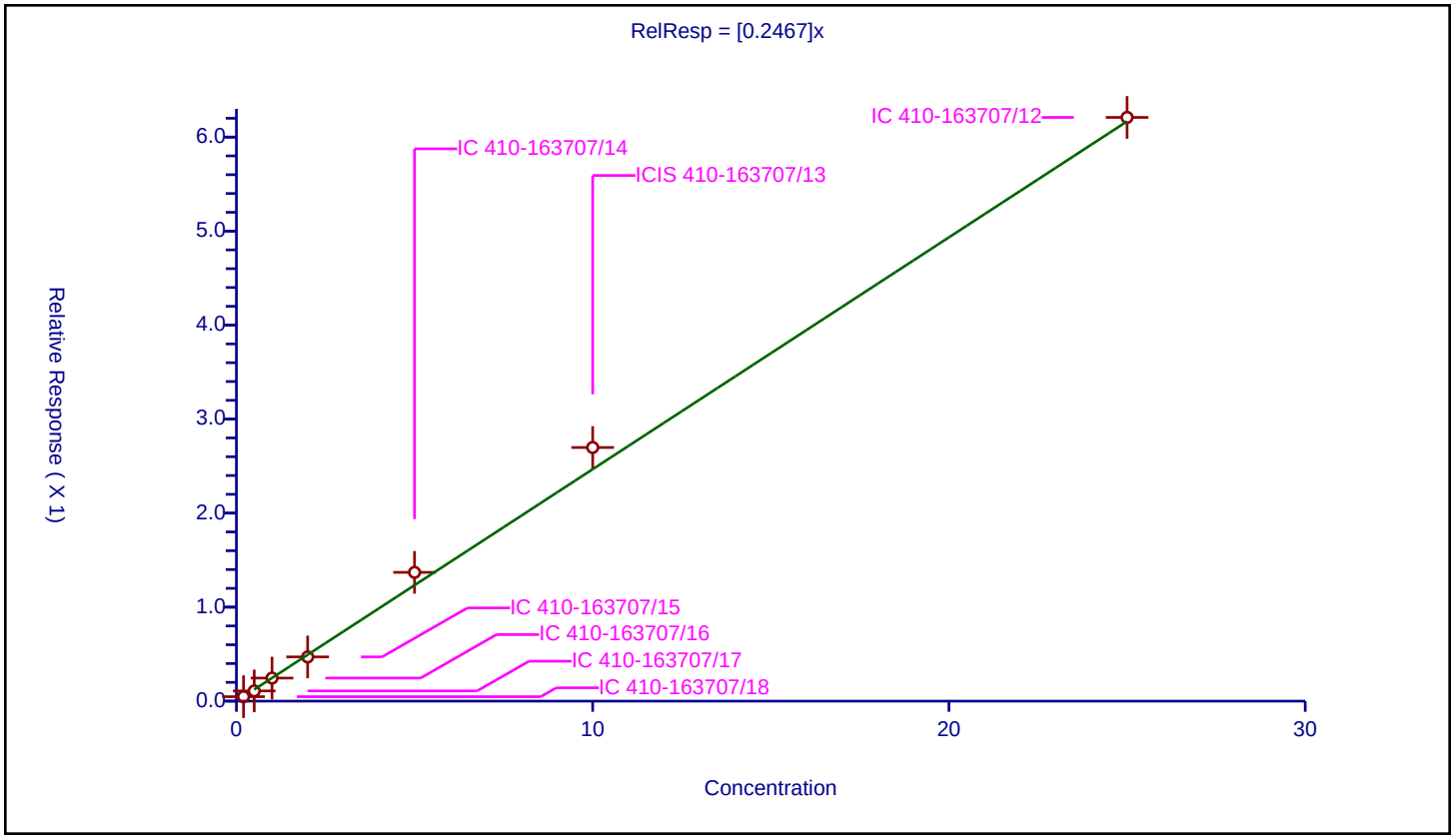
Curve Coefficients

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

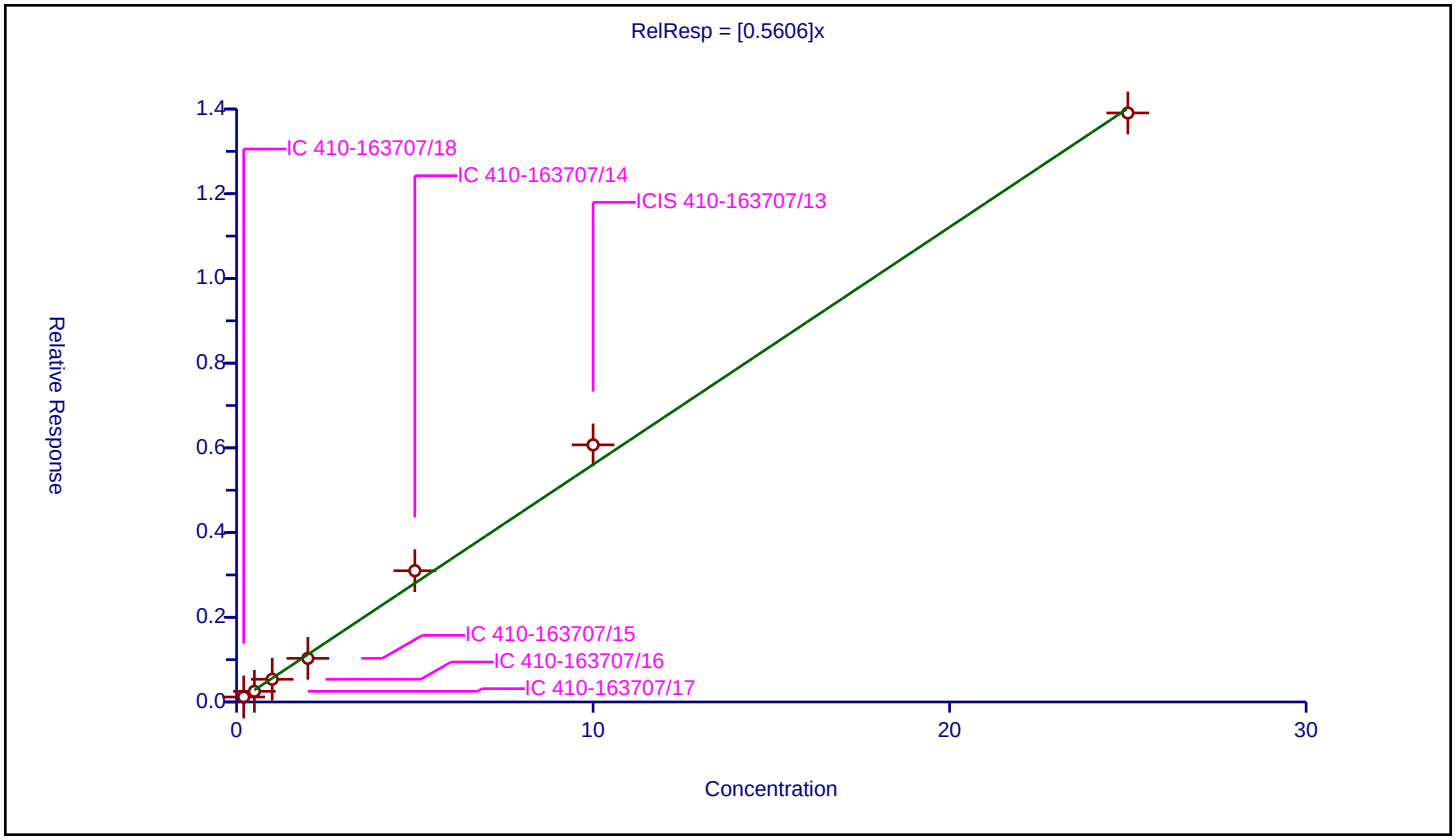
Curve Coefficients

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

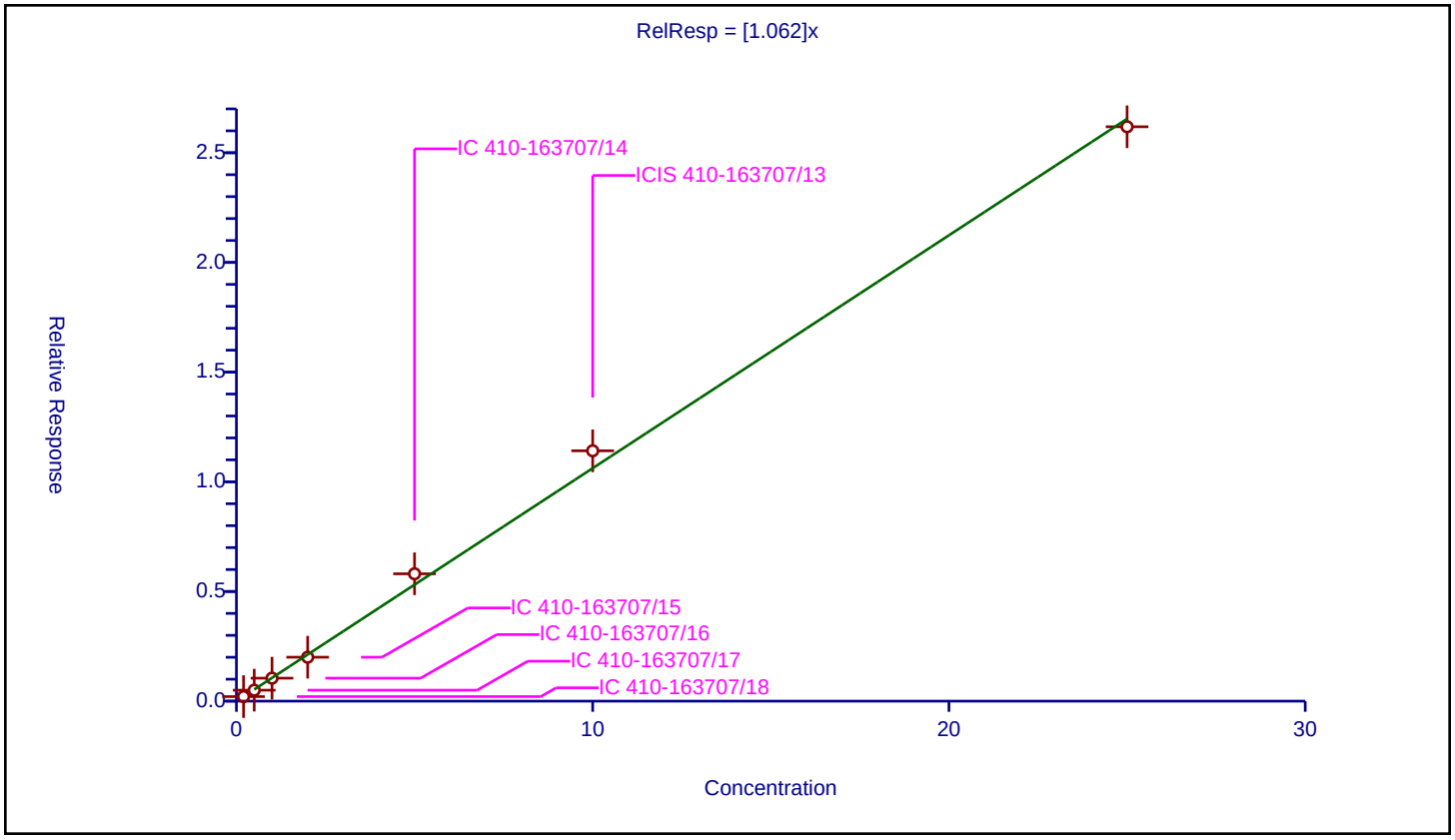
Curve Coefficients

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

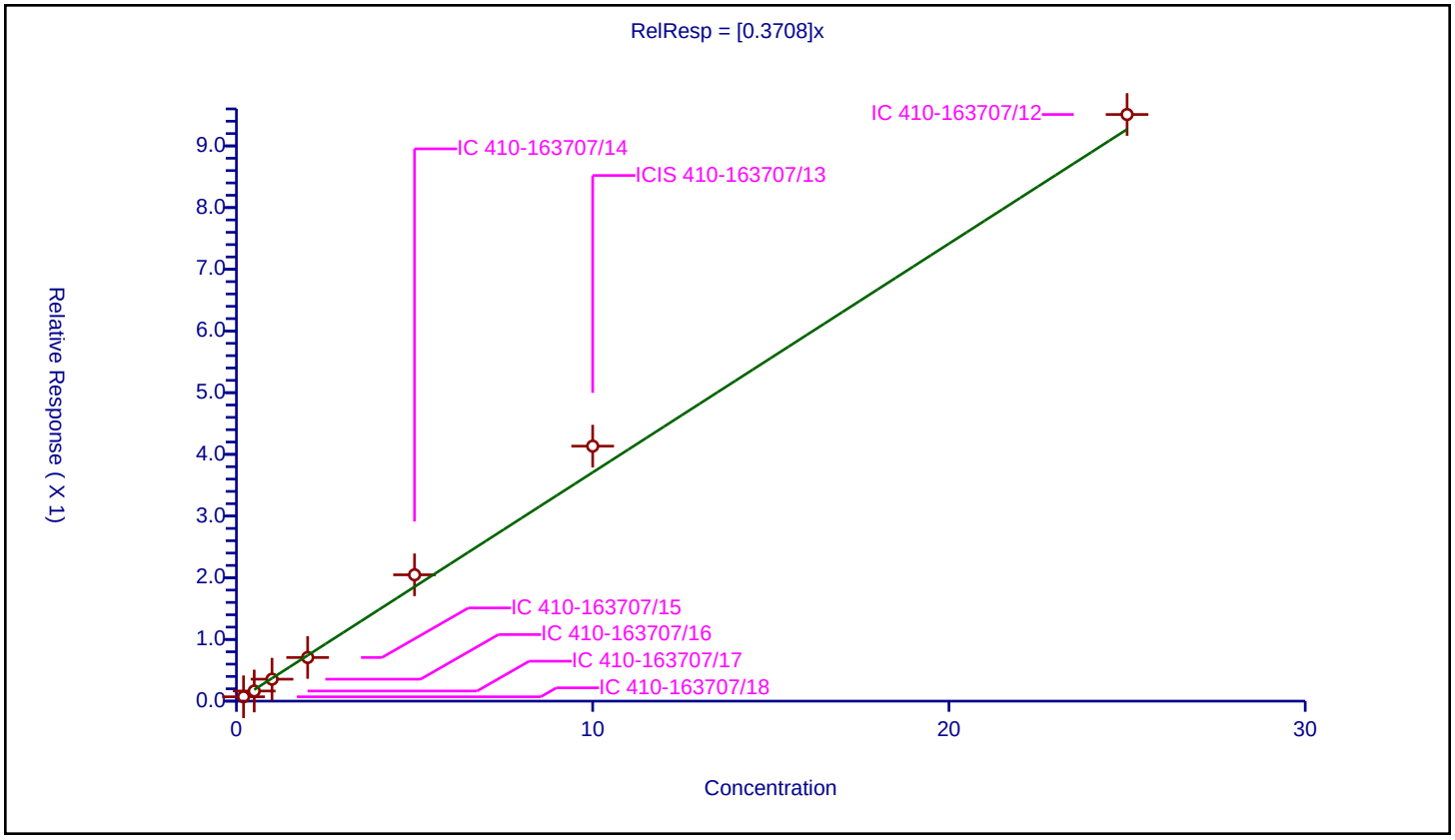
Curve Coefficients

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

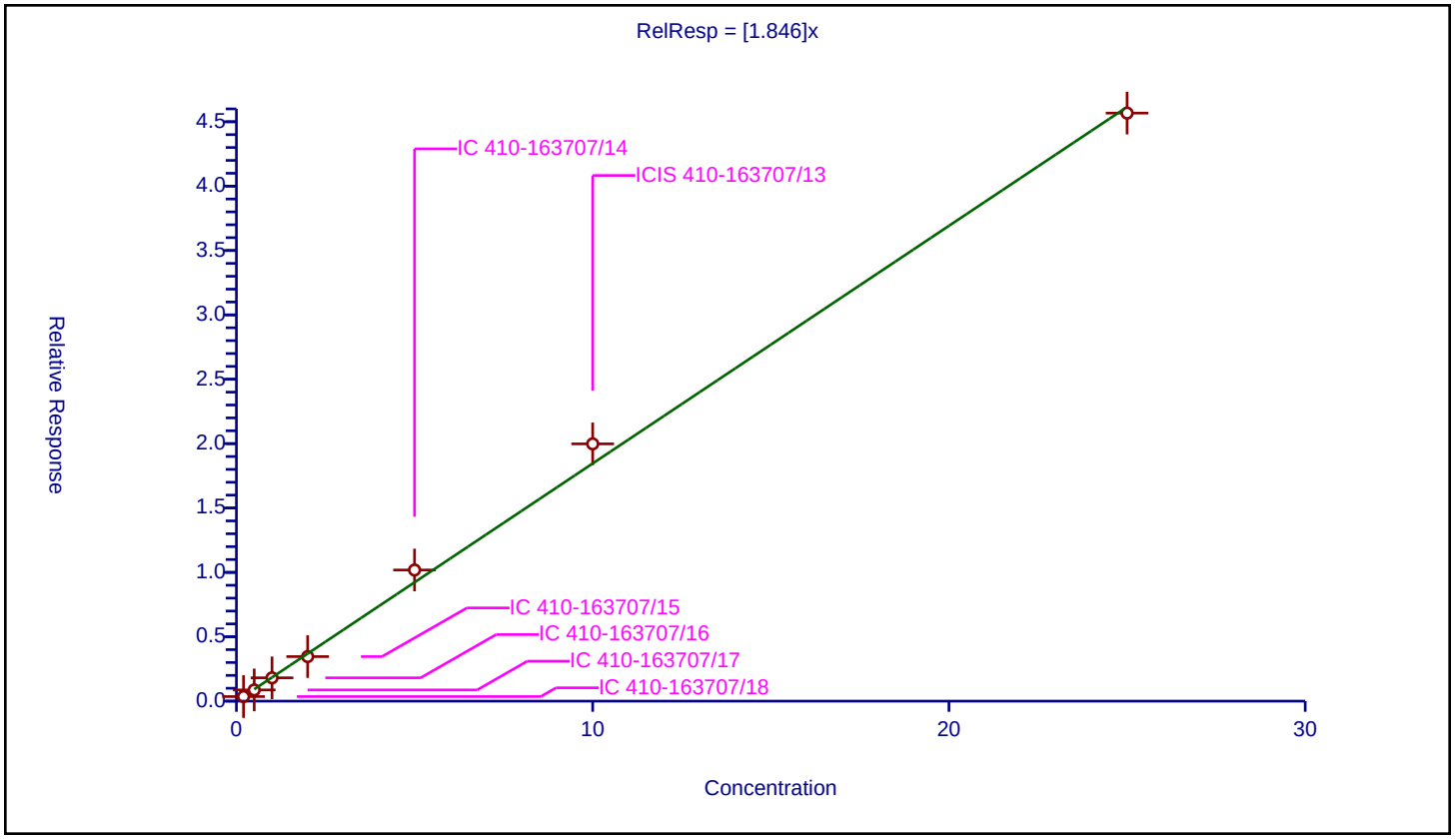
Curve Coefficients

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

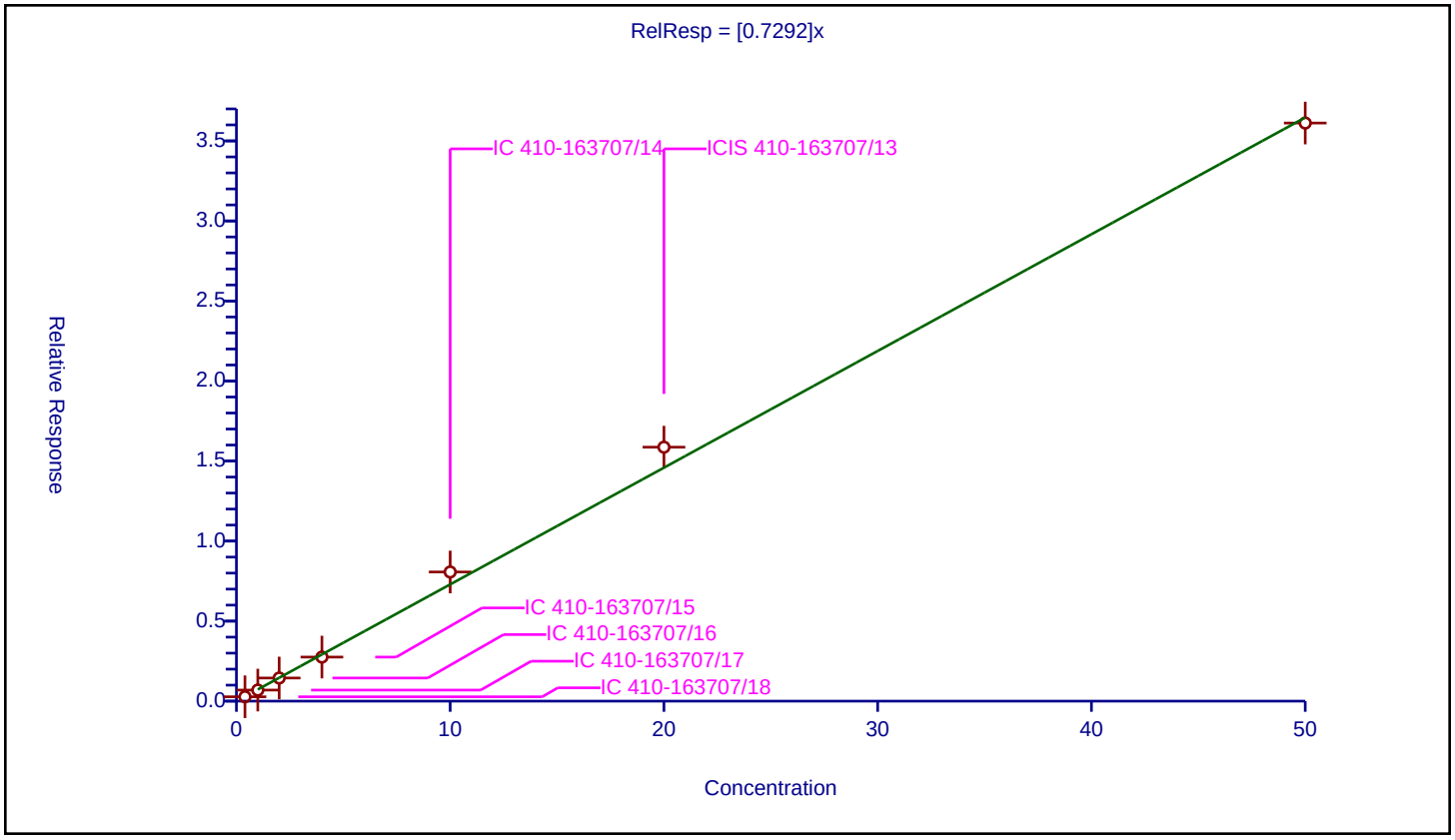
Curve Coefficients

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

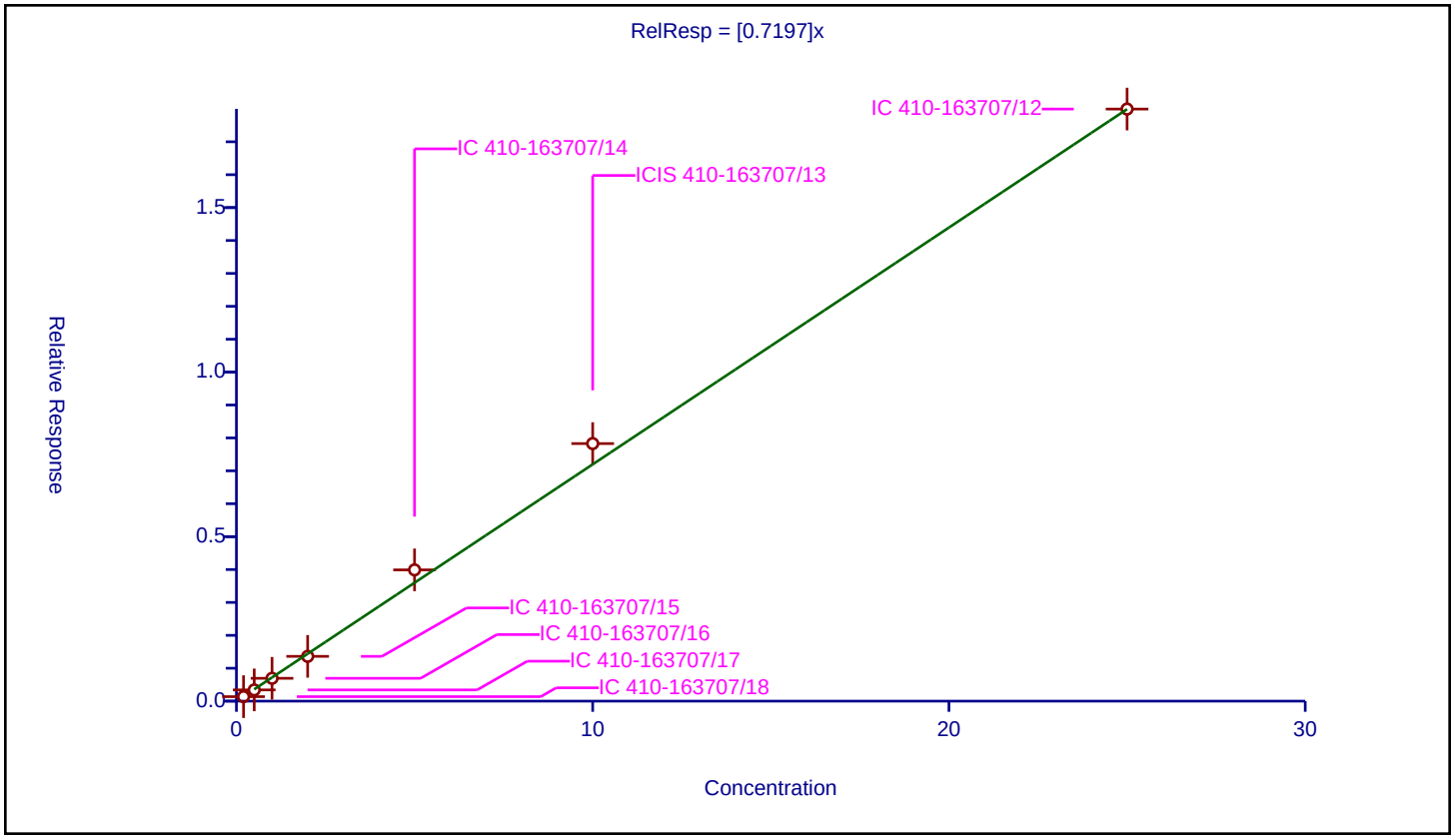
Curve Coefficients

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

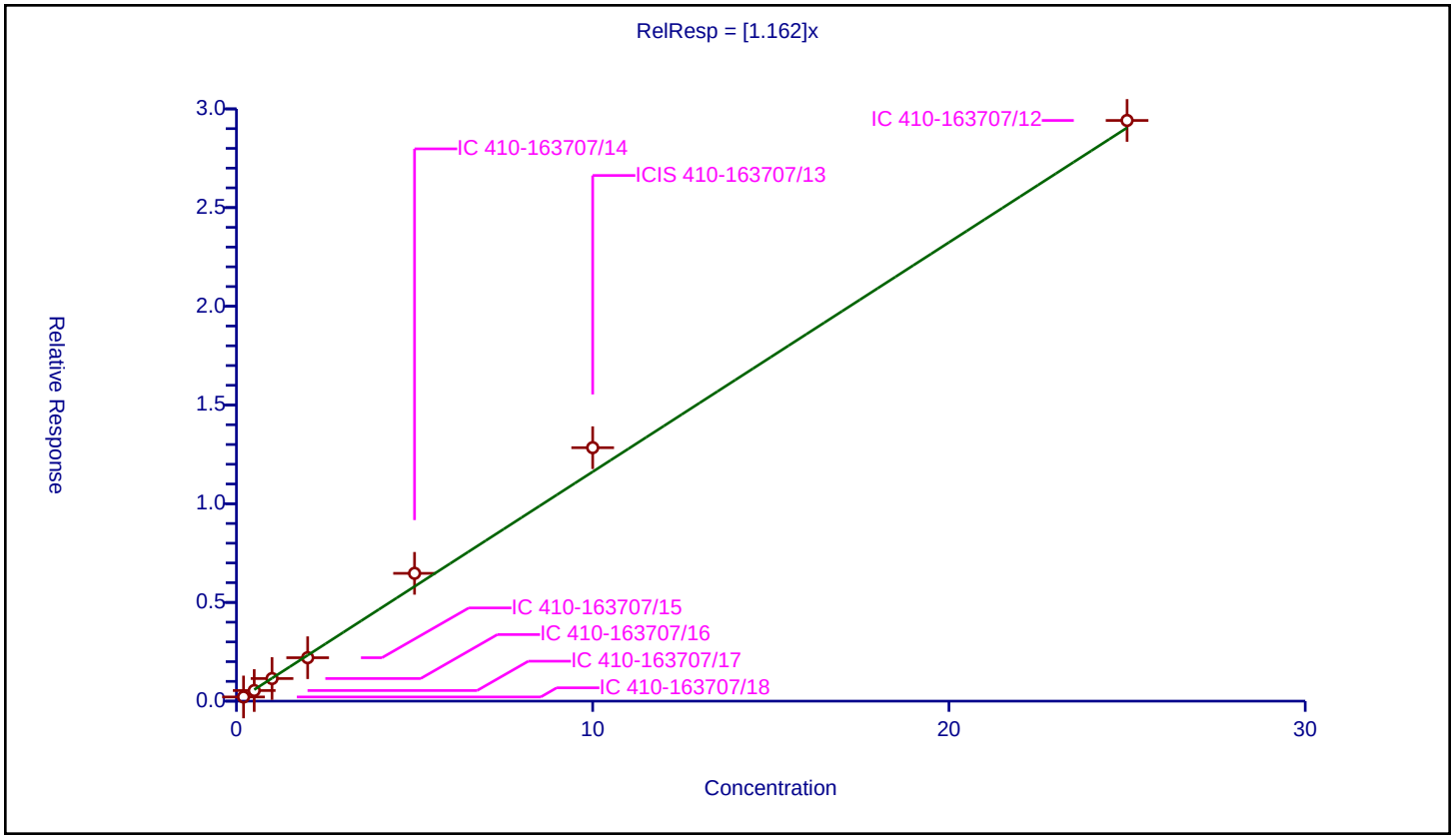
Curve Coefficients

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

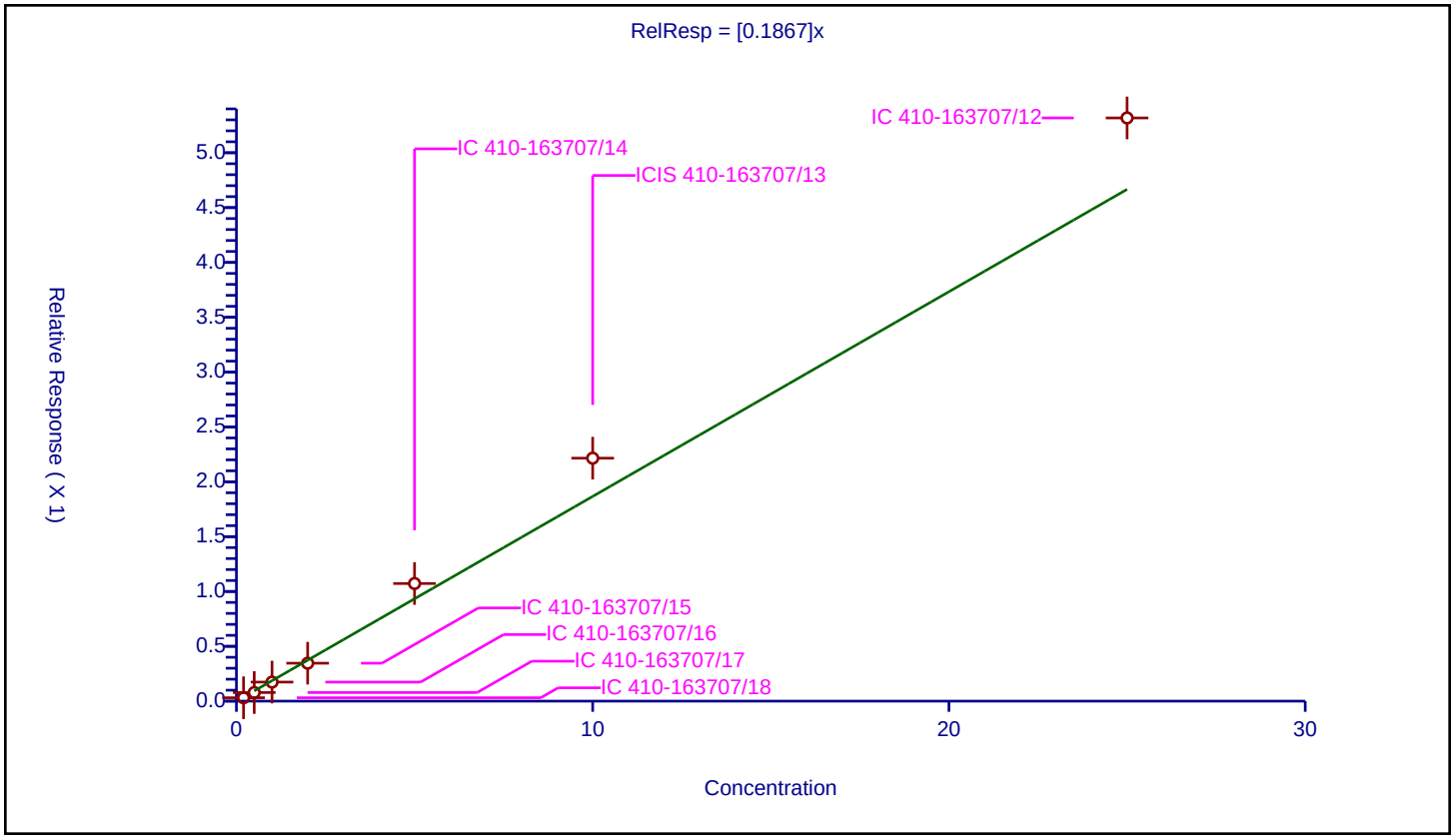
Curve Coefficients

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

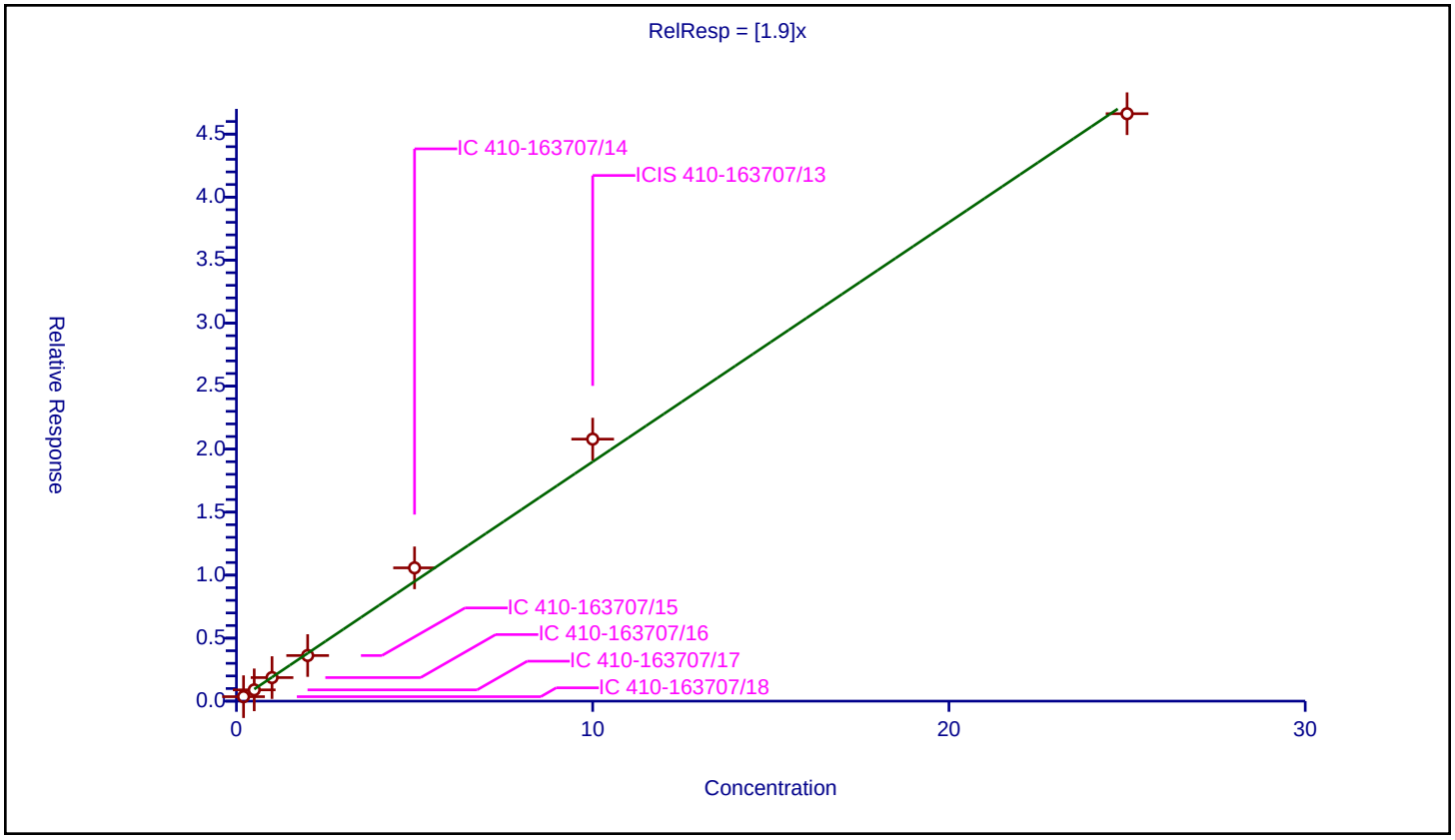
Curve Coefficients

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

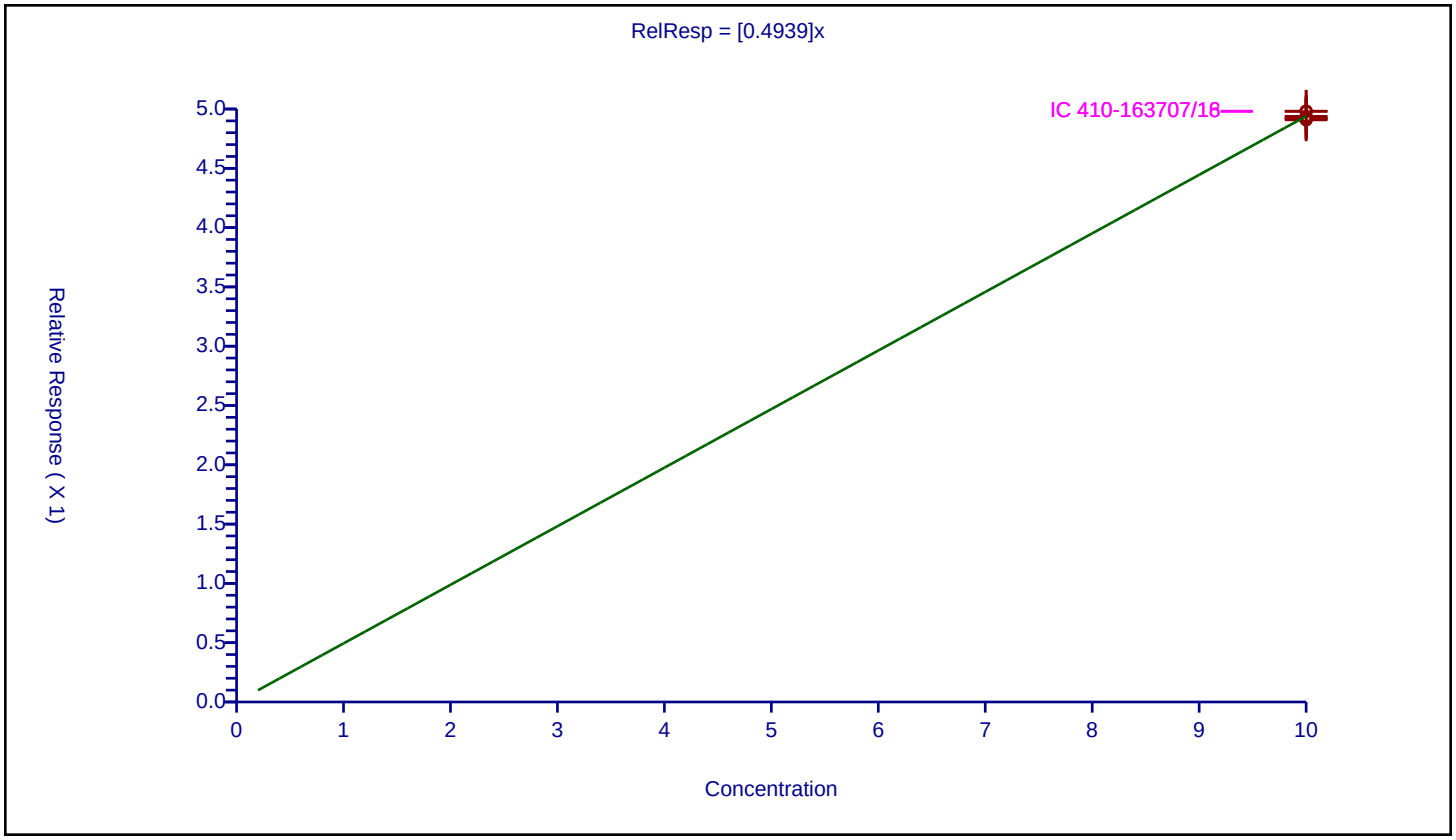
Curve Coefficients

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

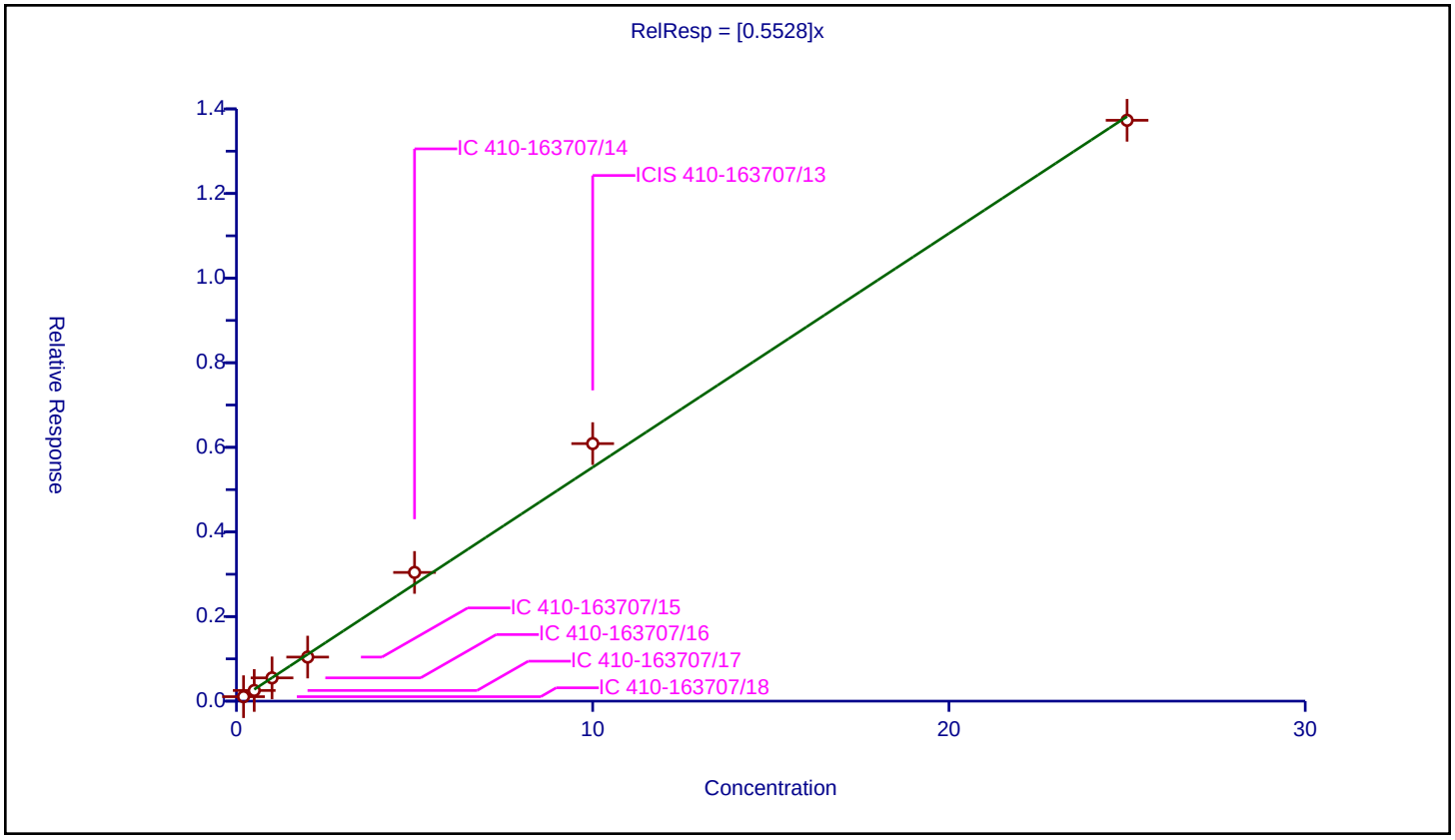
Curve Coefficients

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

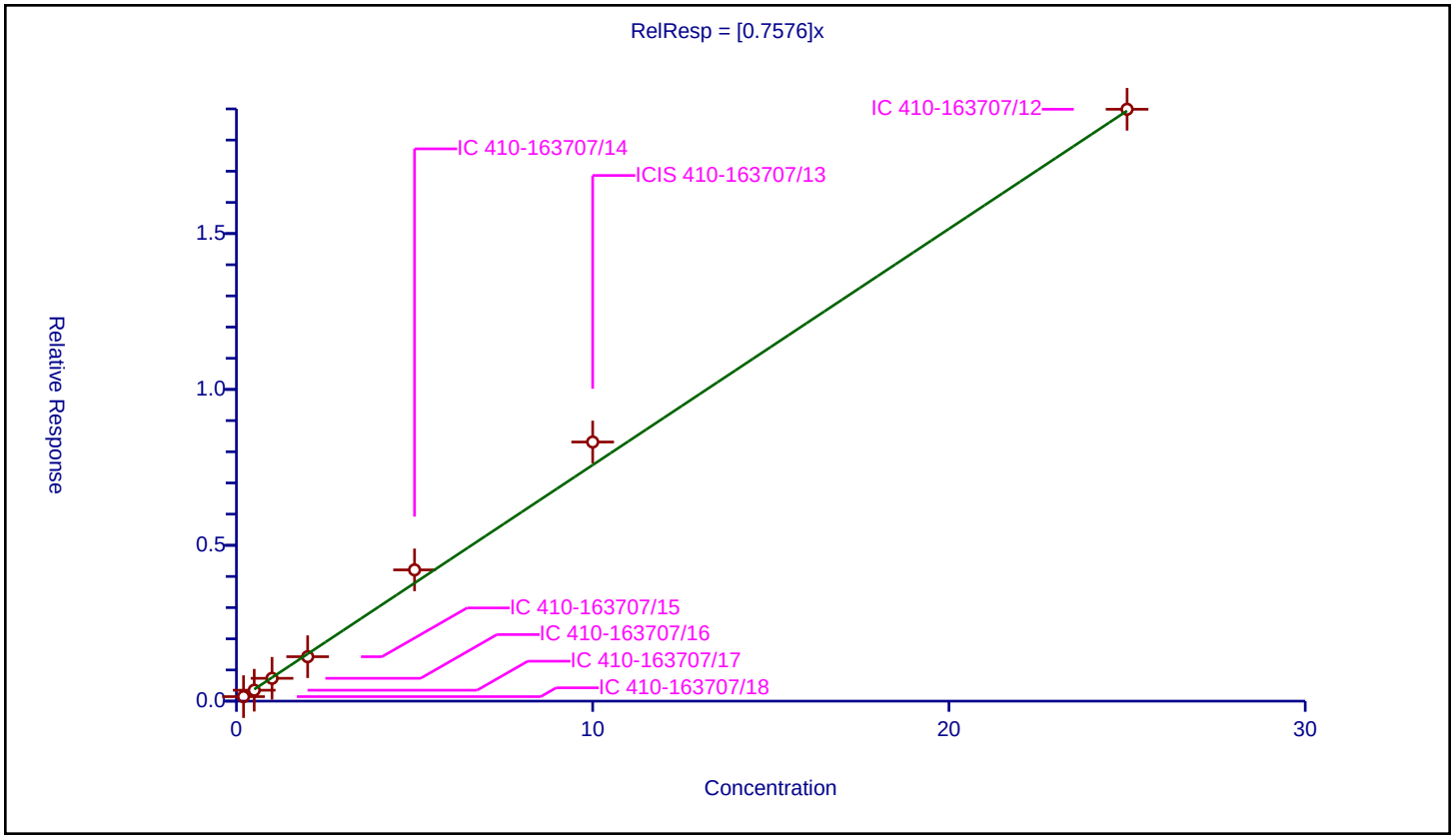
Curve Coefficients

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

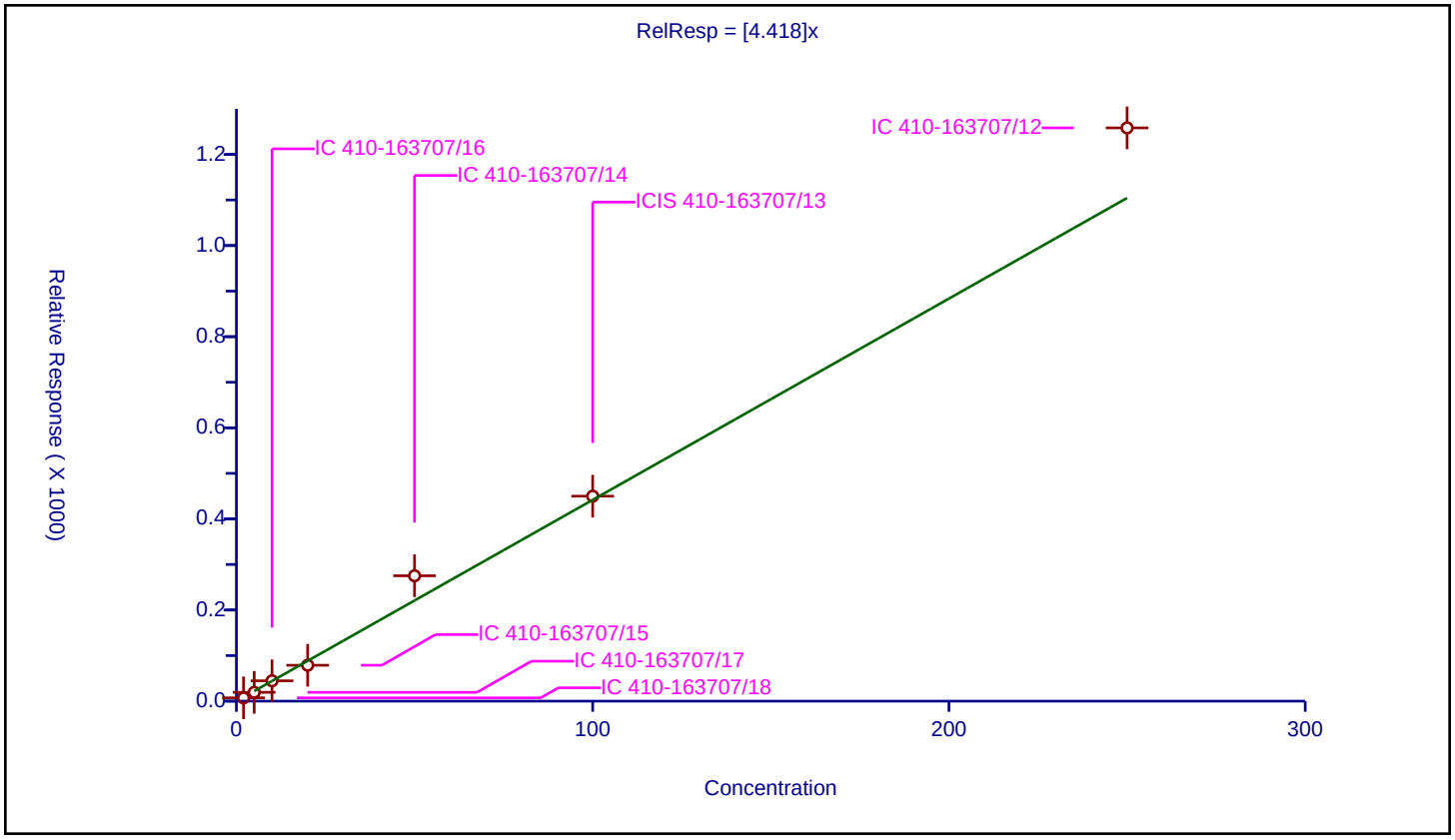
Curve Coefficients

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

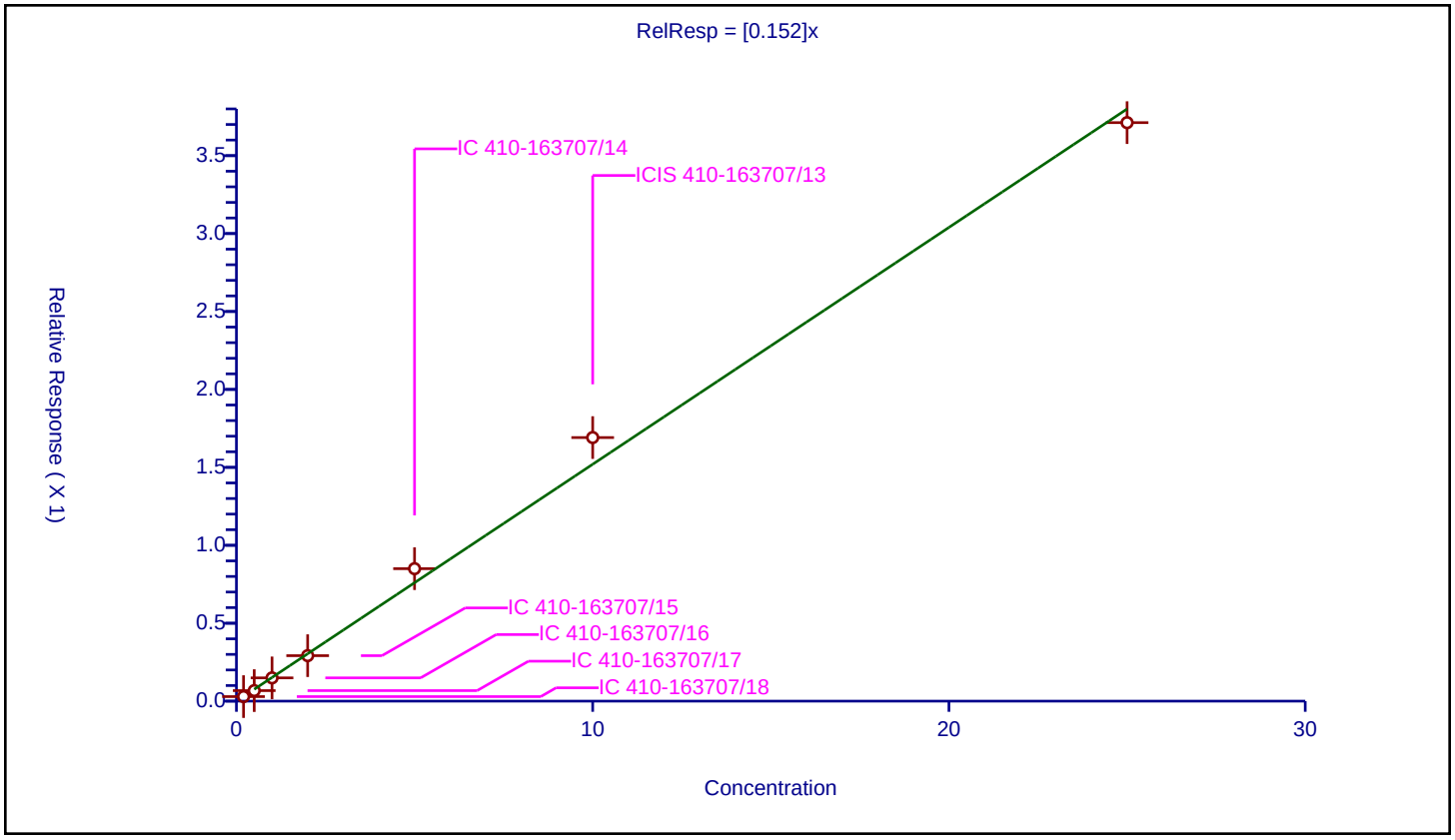
Curve Coefficients

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

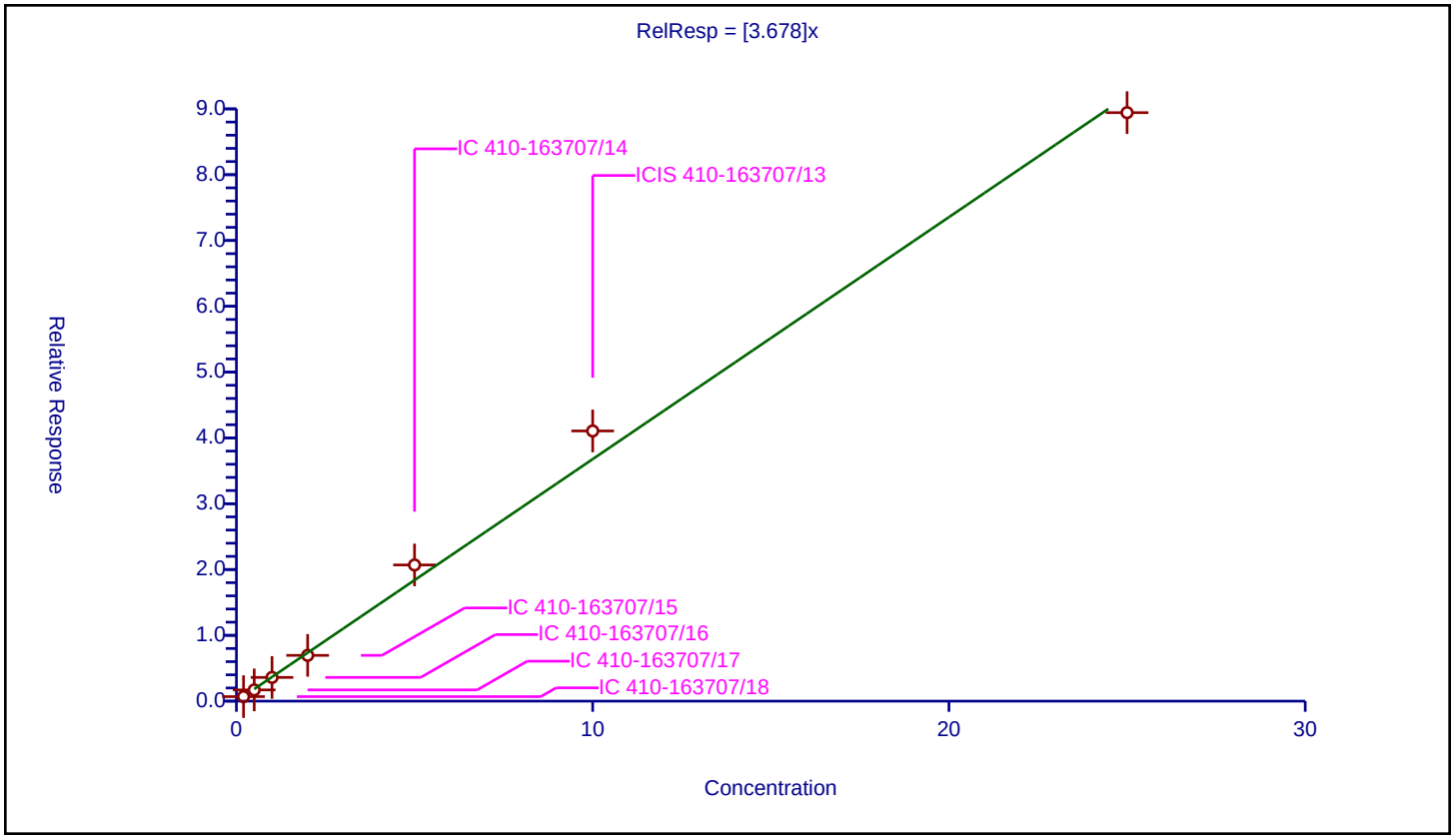
Curve Coefficients

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

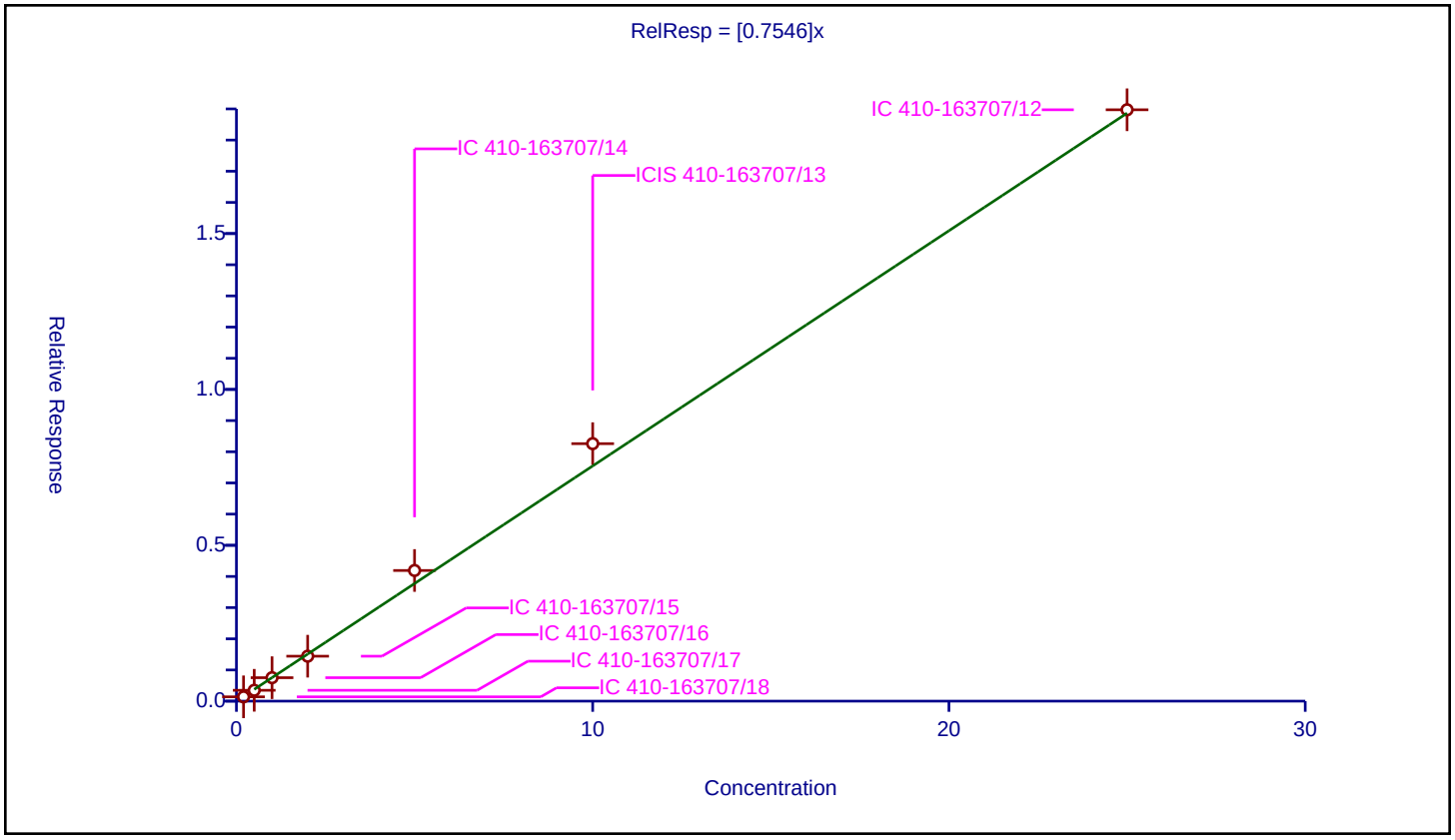
Curve Coefficients

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

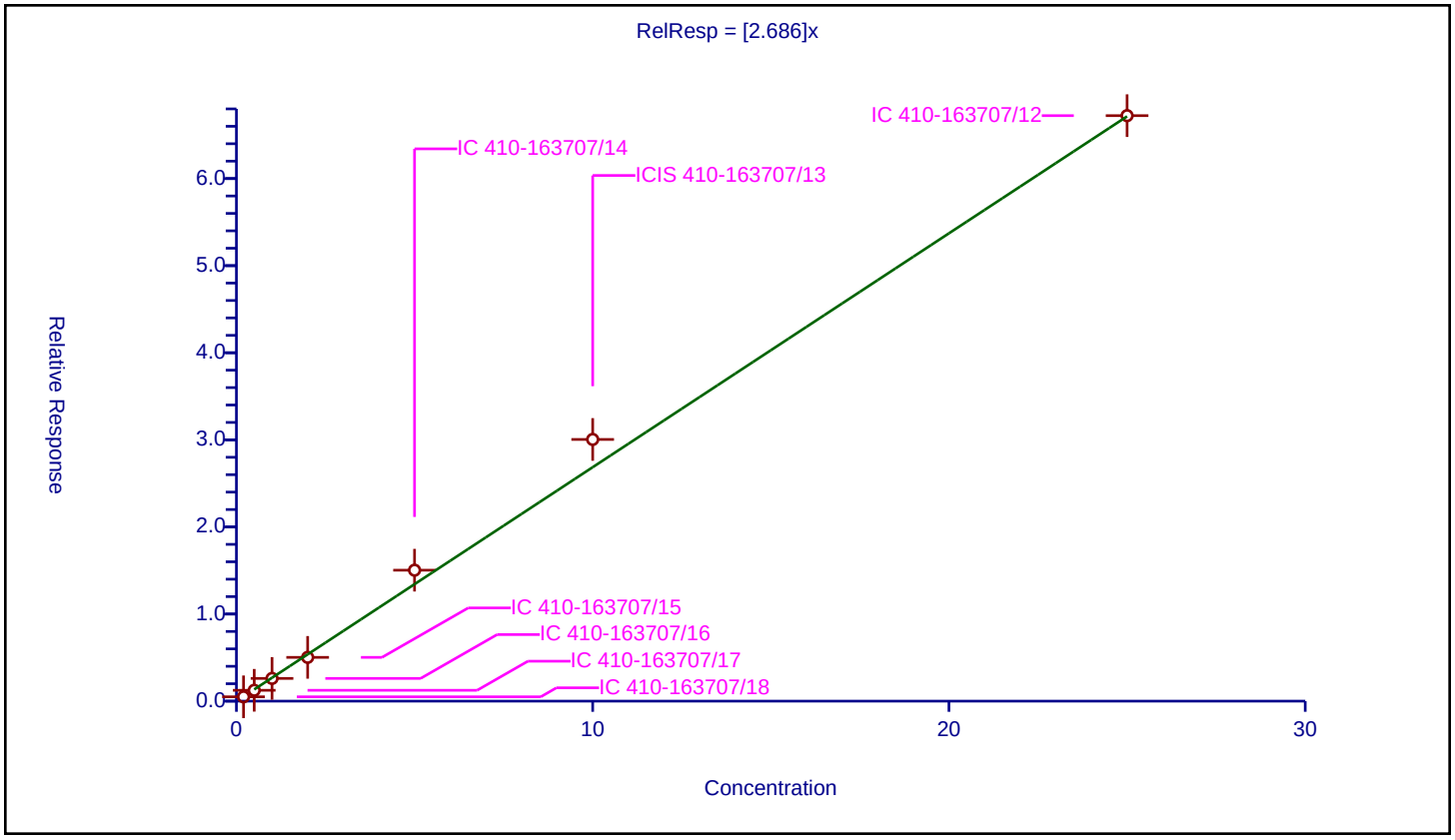
Curve Coefficients

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

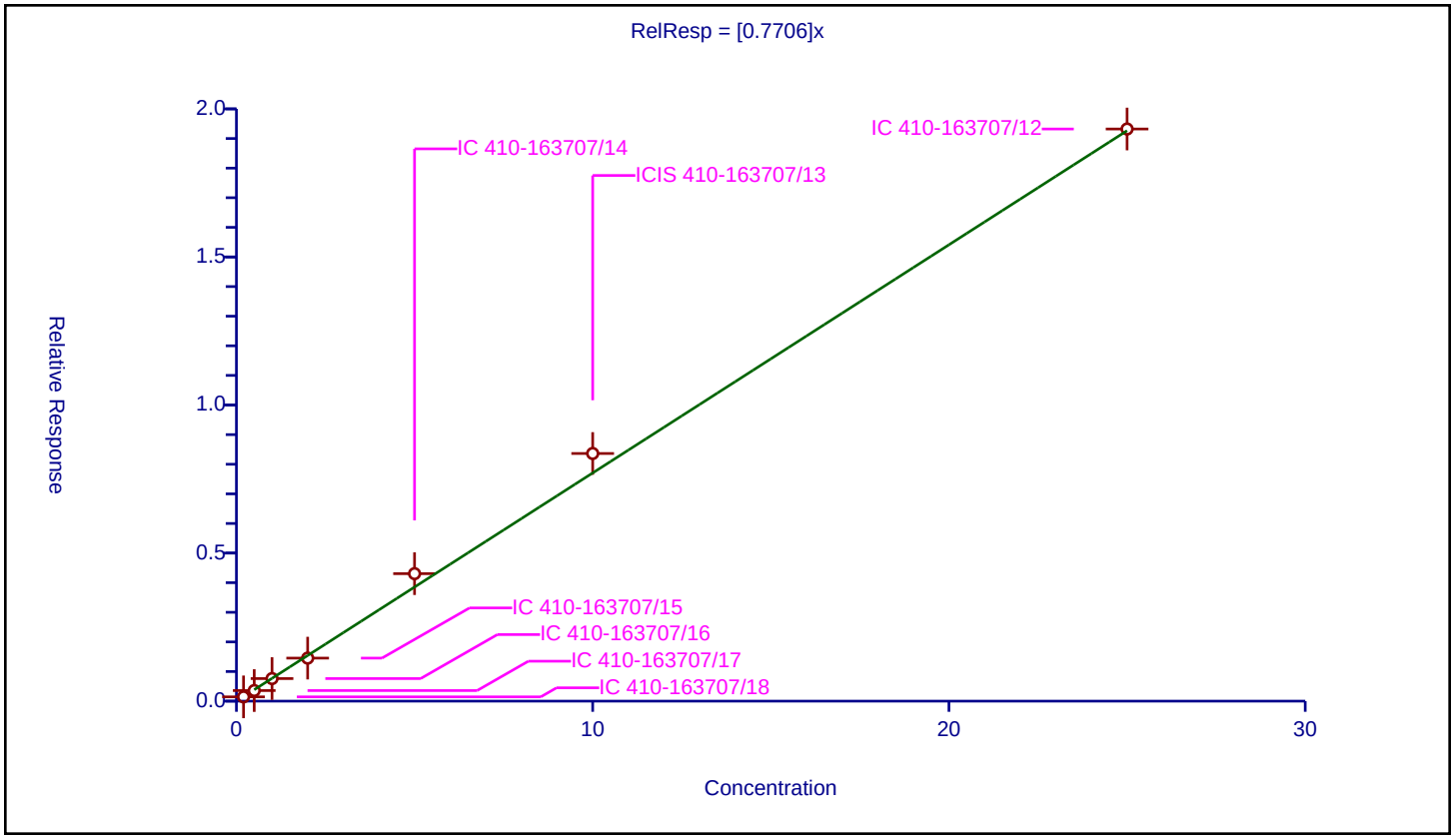
Curve Coefficients

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

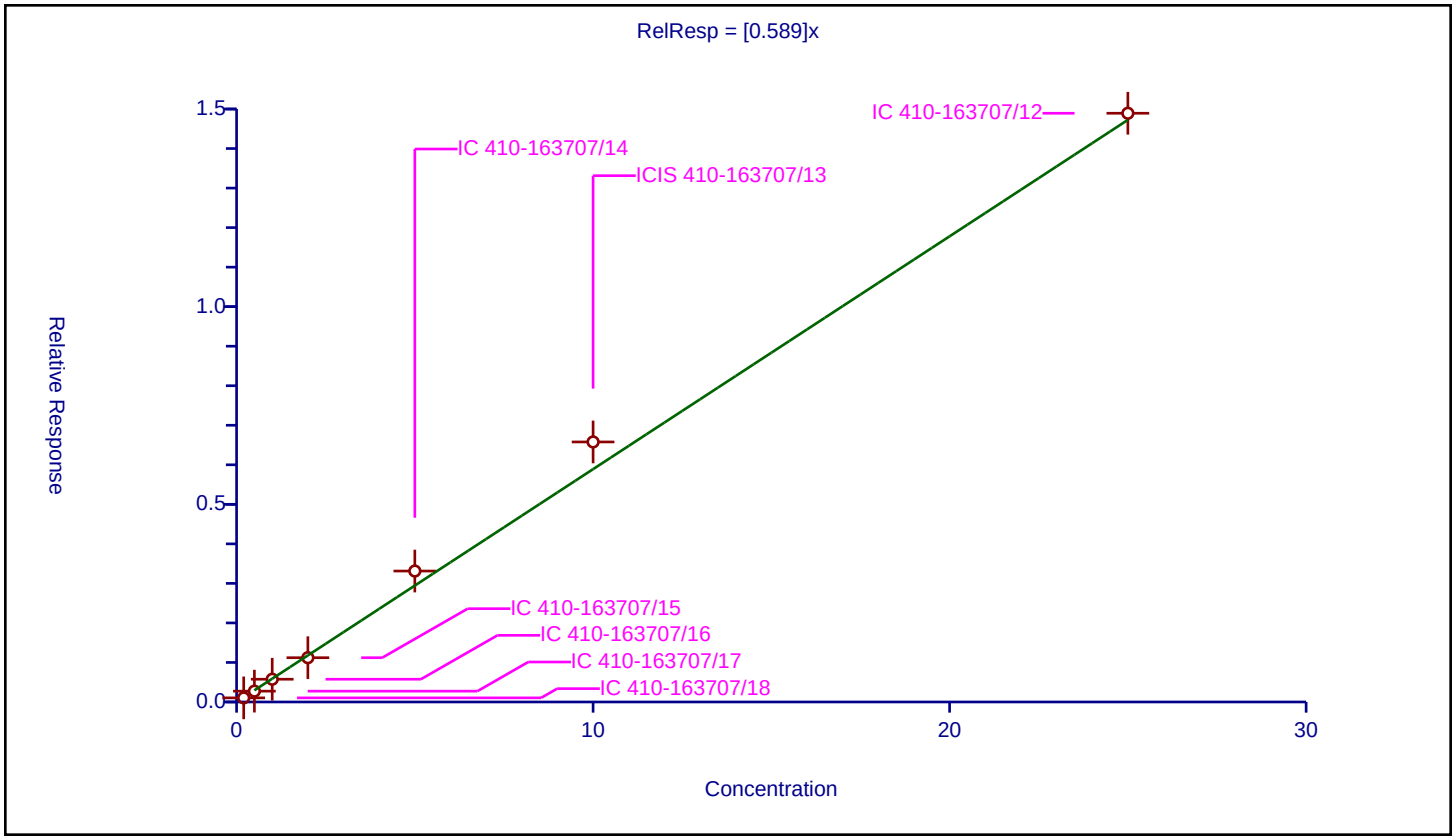
Curve Coefficients

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

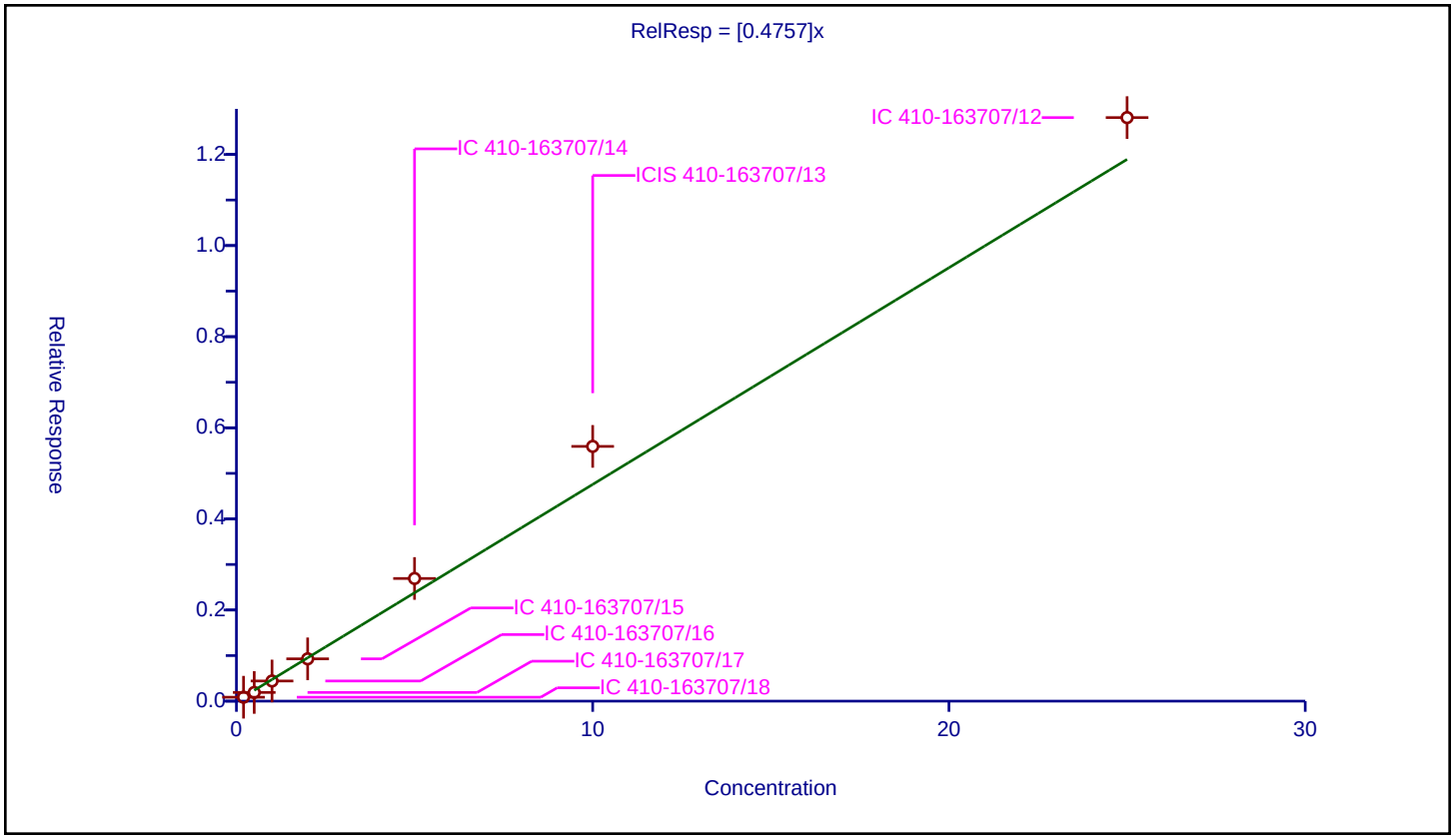
Curve Coefficients

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

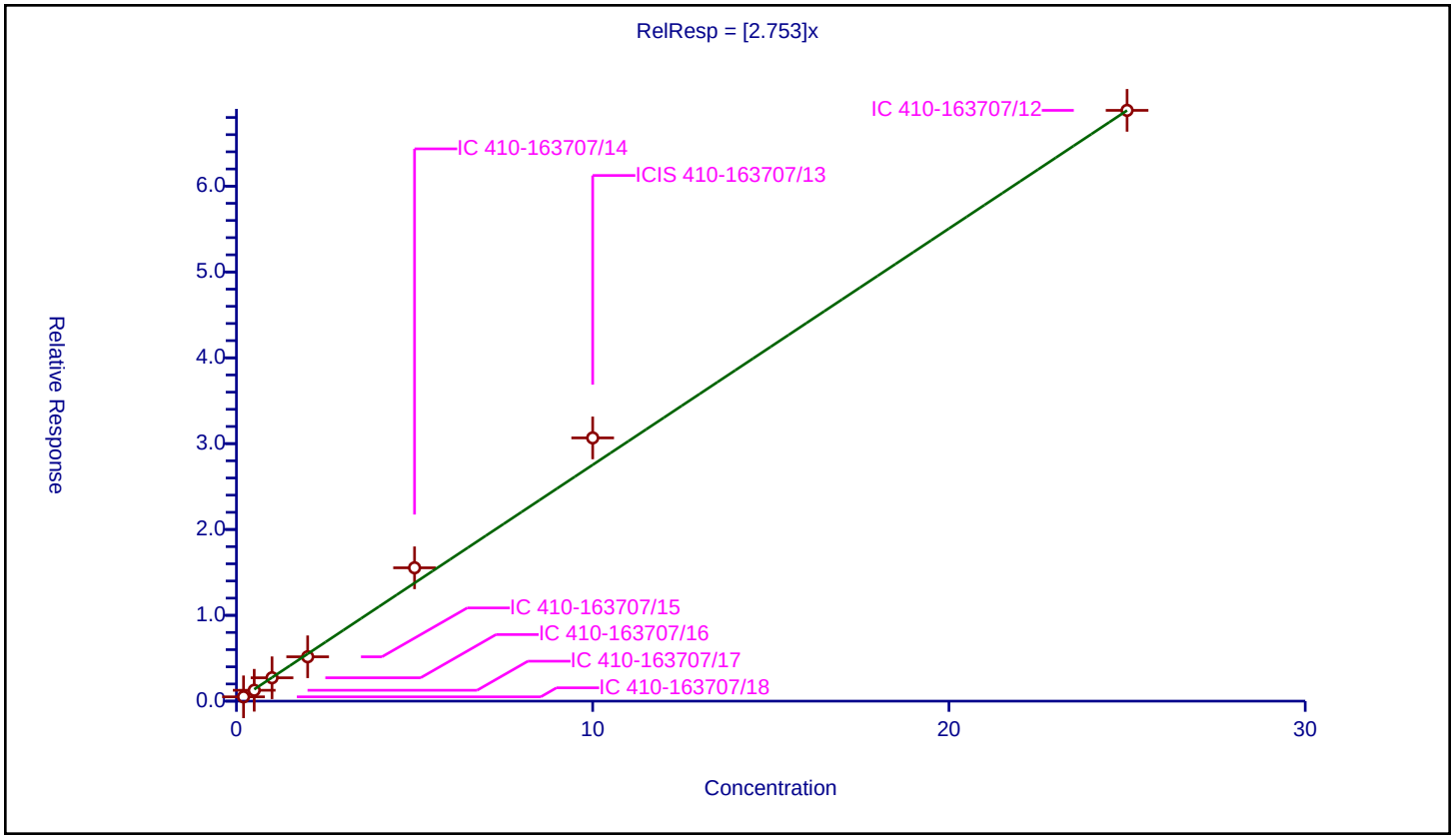
Curve Coefficients

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

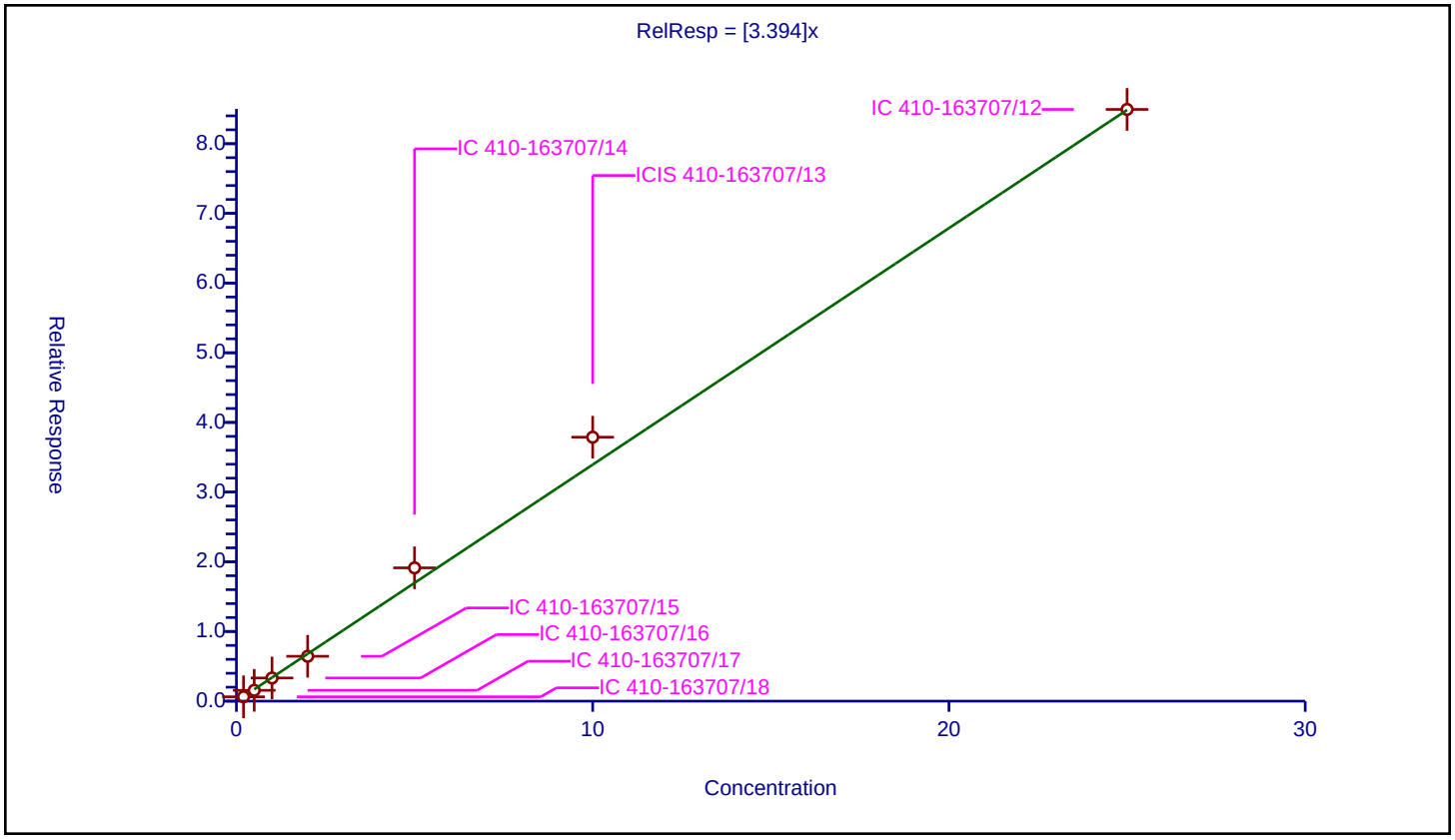
Curve Coefficients

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

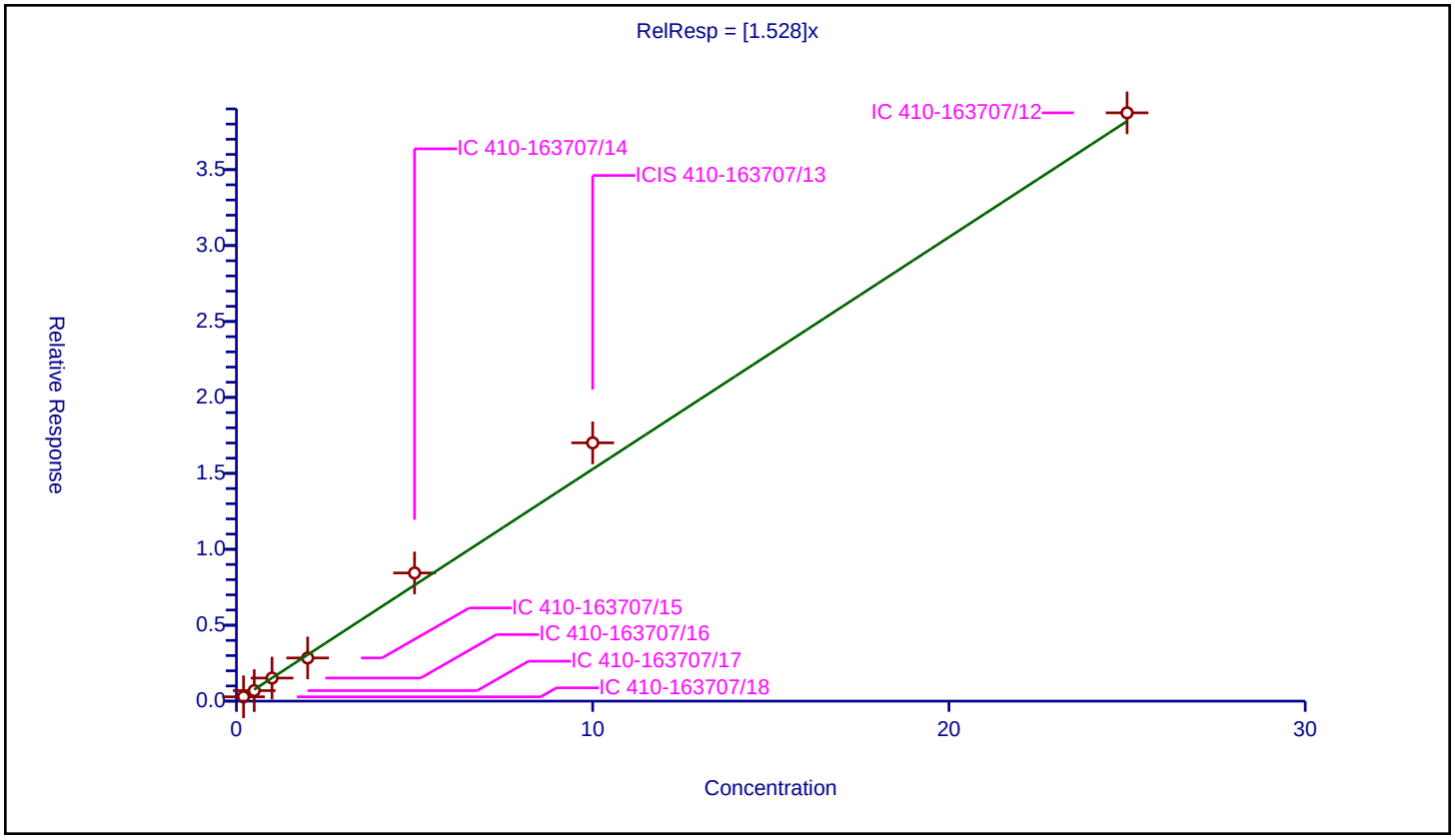
Curve Coefficients

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

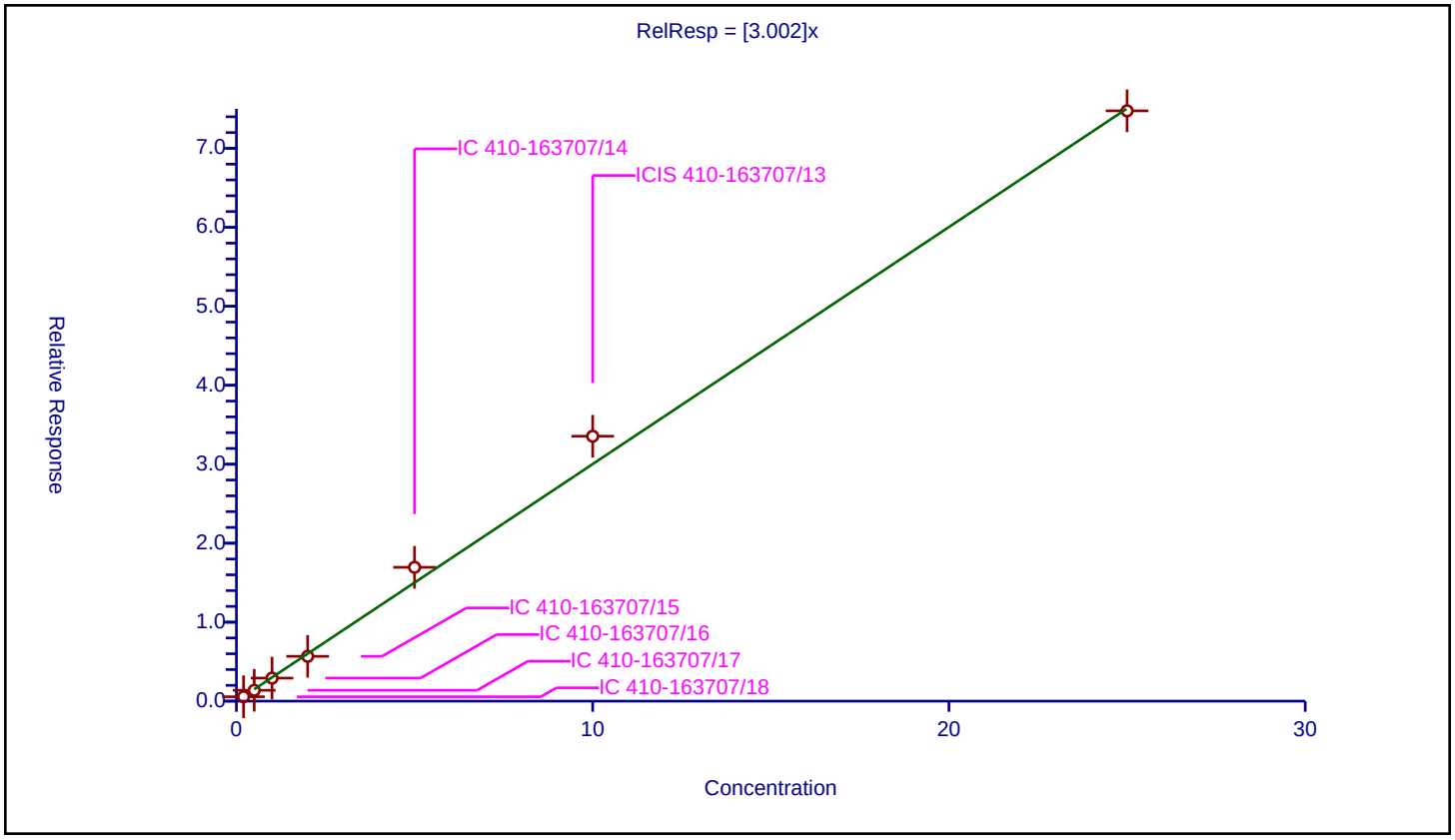
Curve Coefficients

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

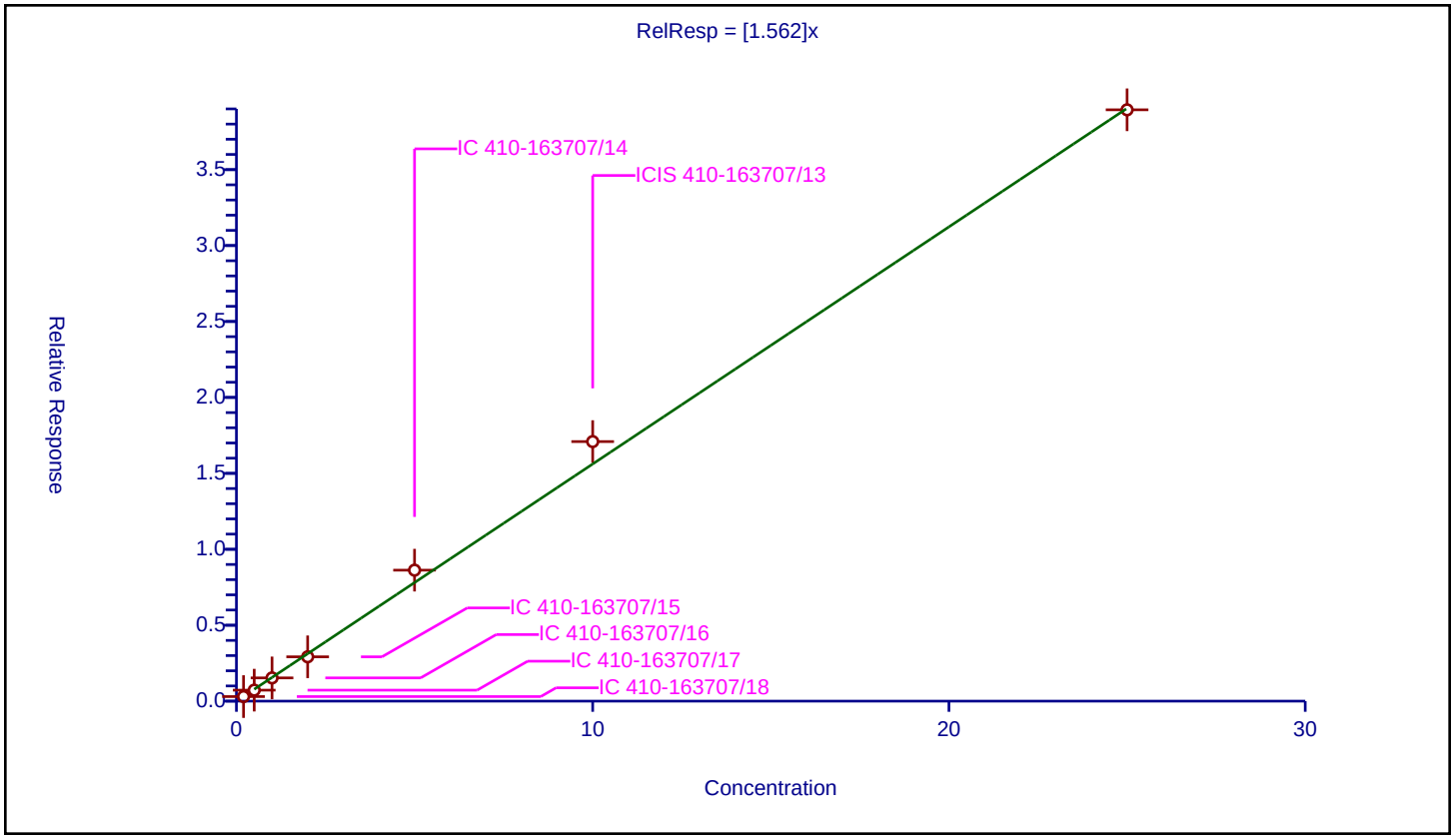
Curve Coefficients

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

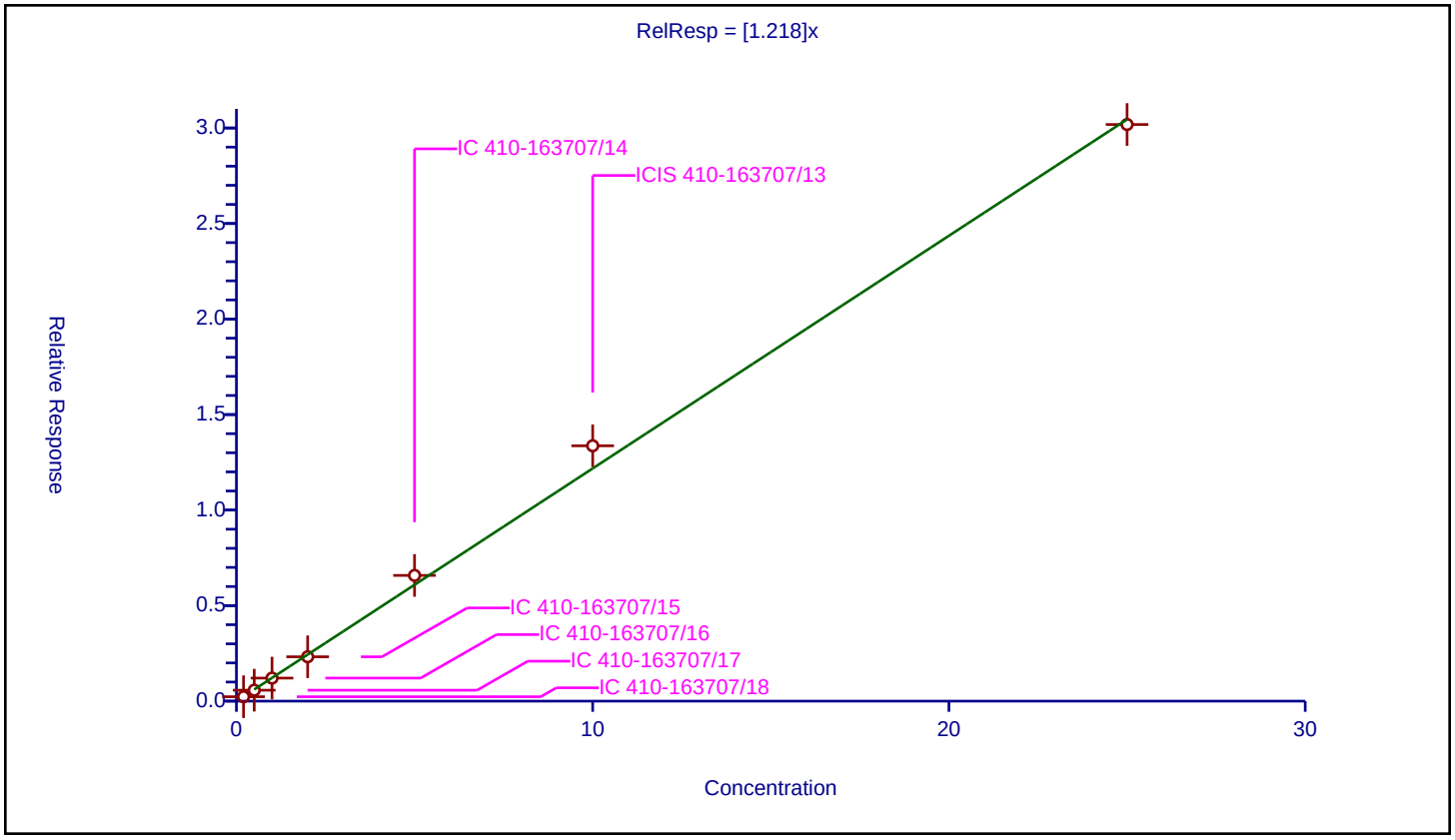
Curve Coefficients

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

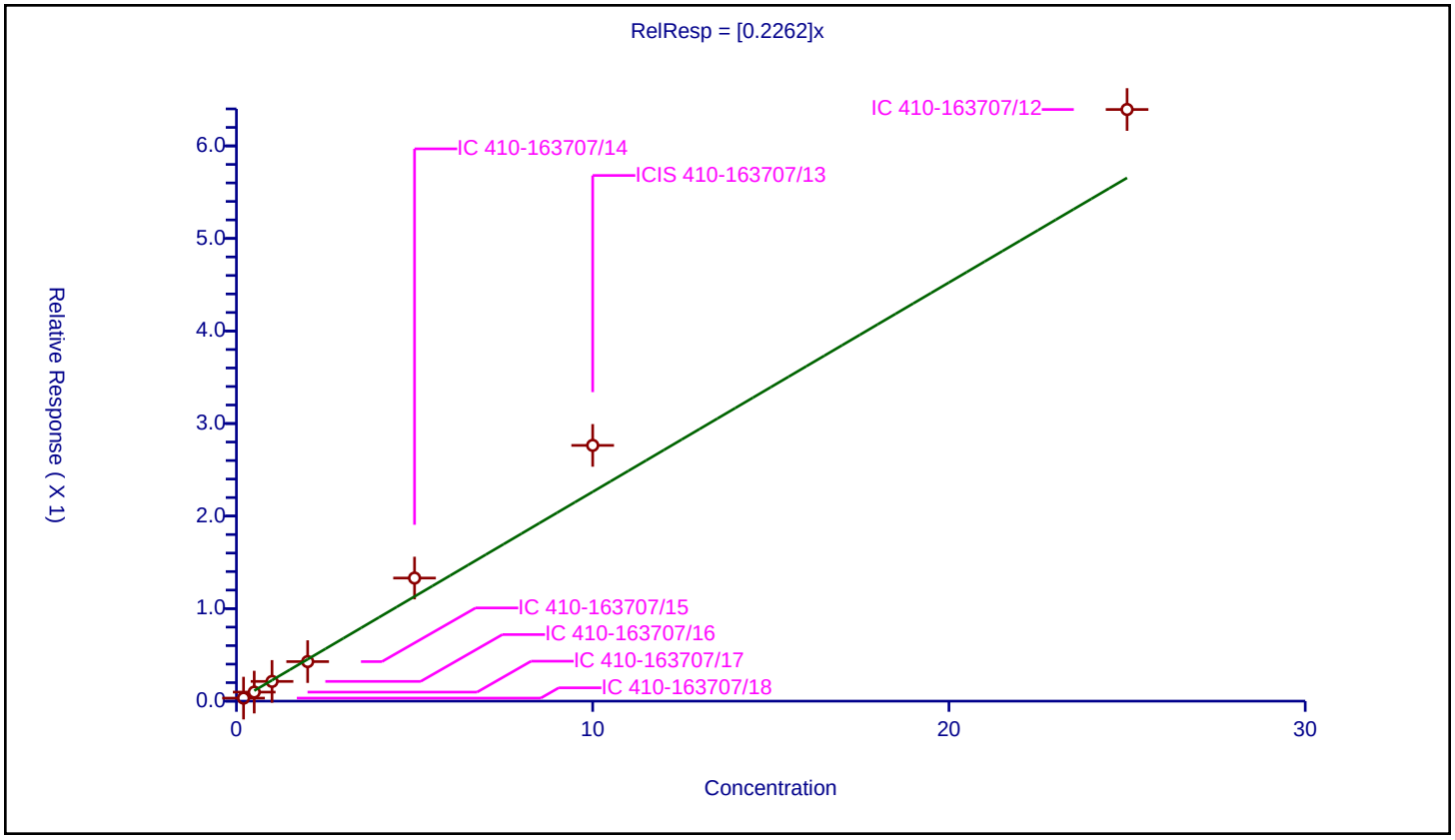
Curve Coefficients

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

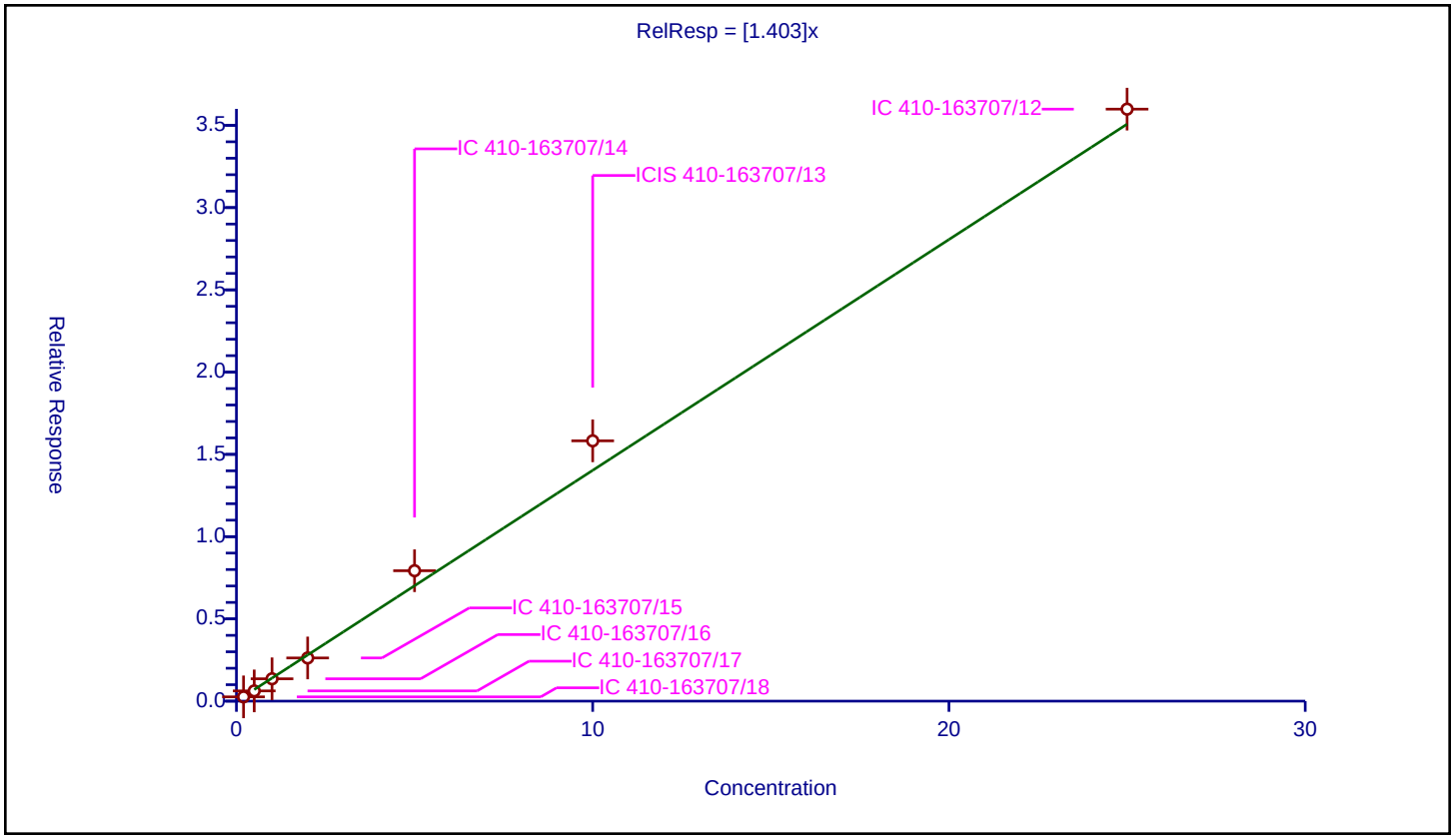
Curve Coefficients

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

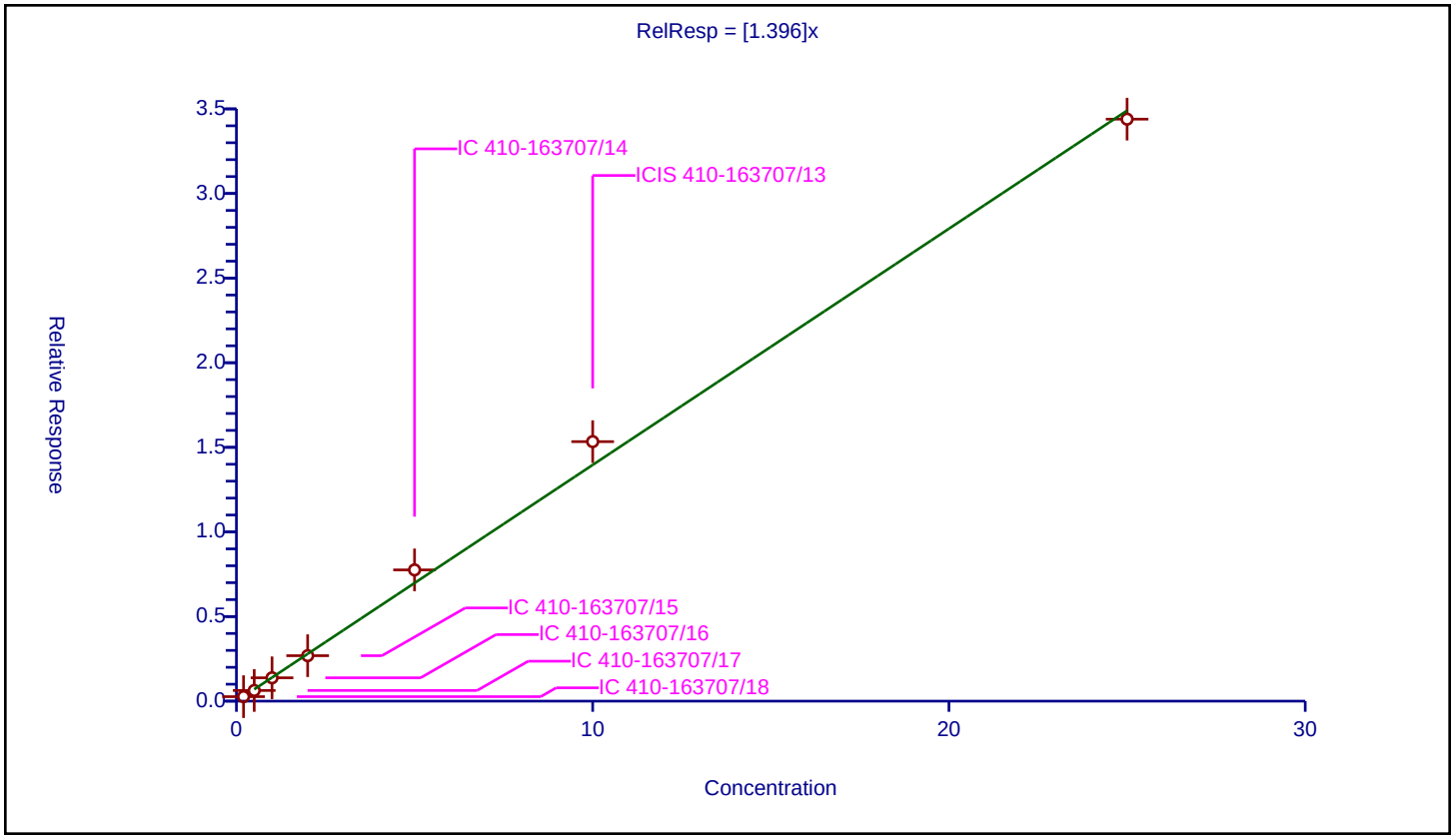
Curve Coefficients

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

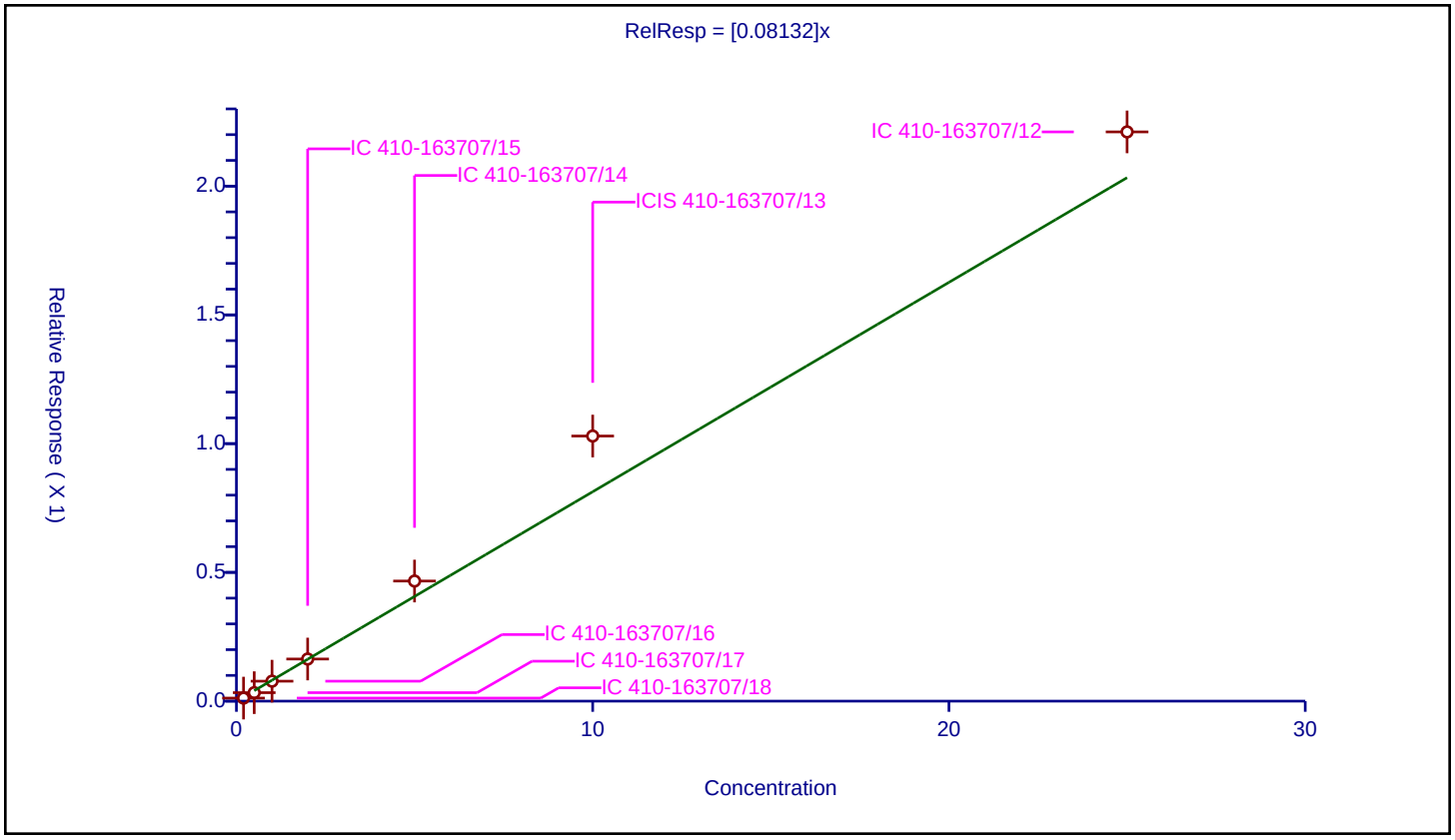
Curve Coefficients

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

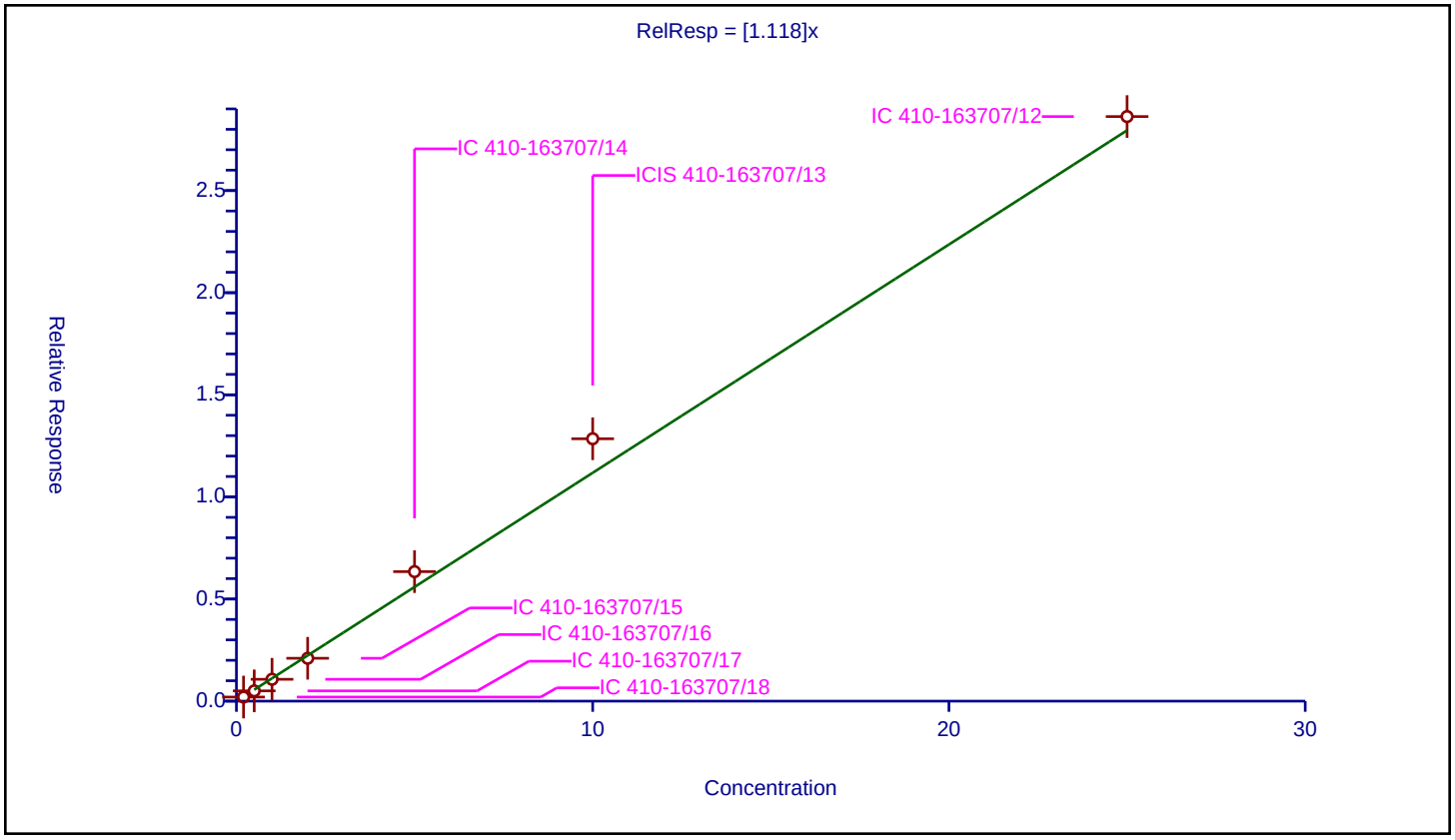
Curve Coefficients

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

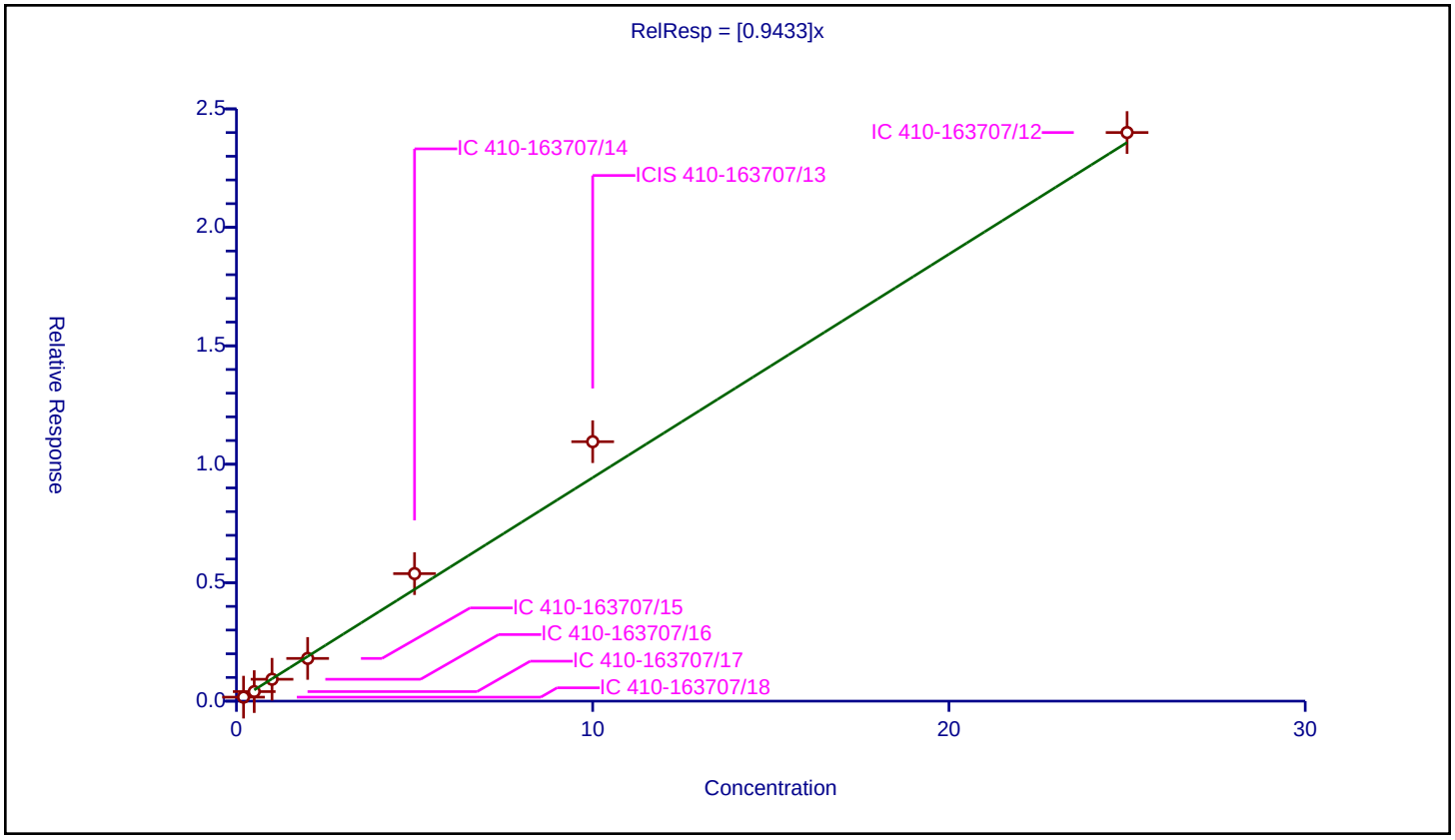
Curve Coefficients

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



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

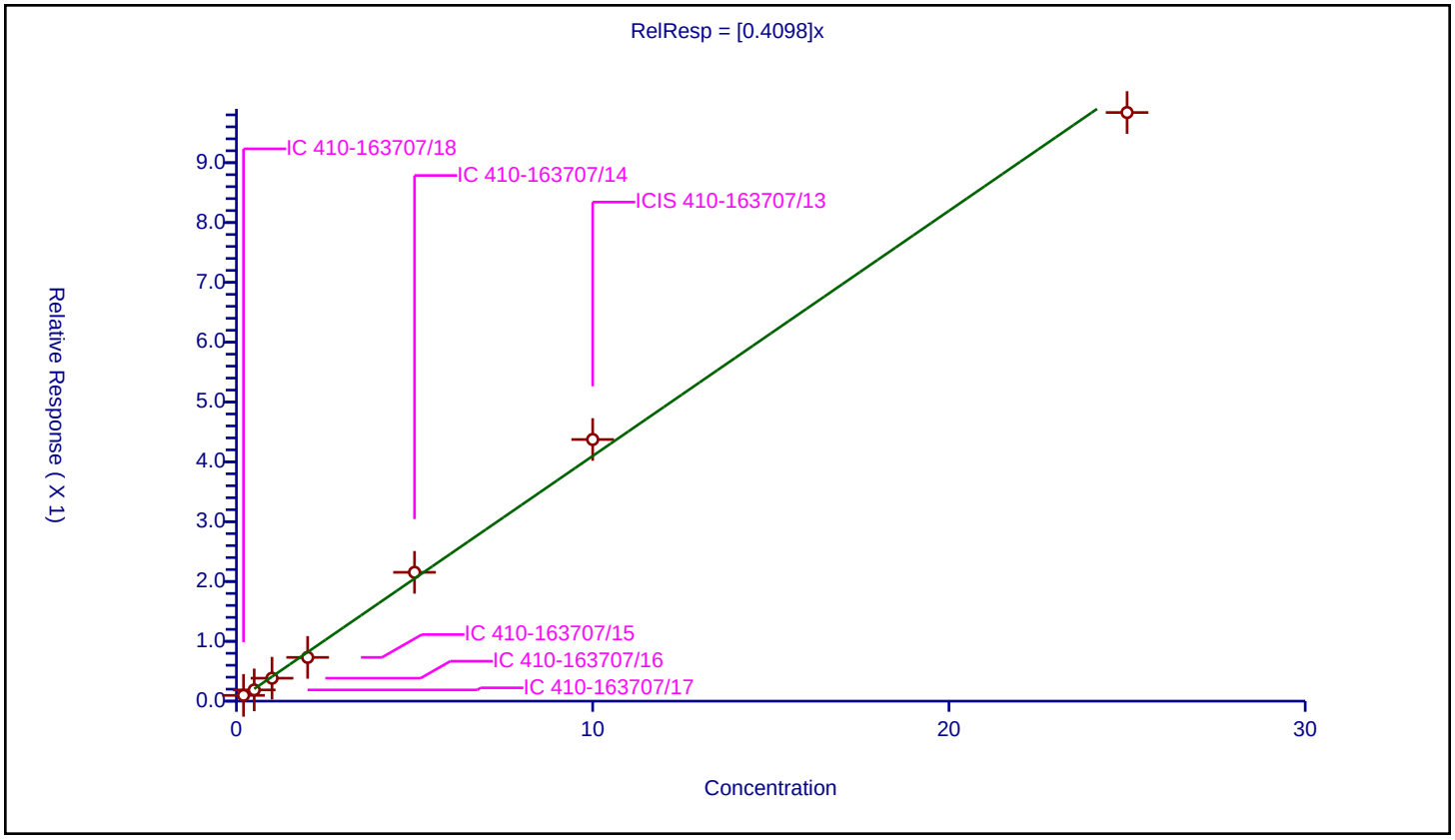
Curve Coefficients

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

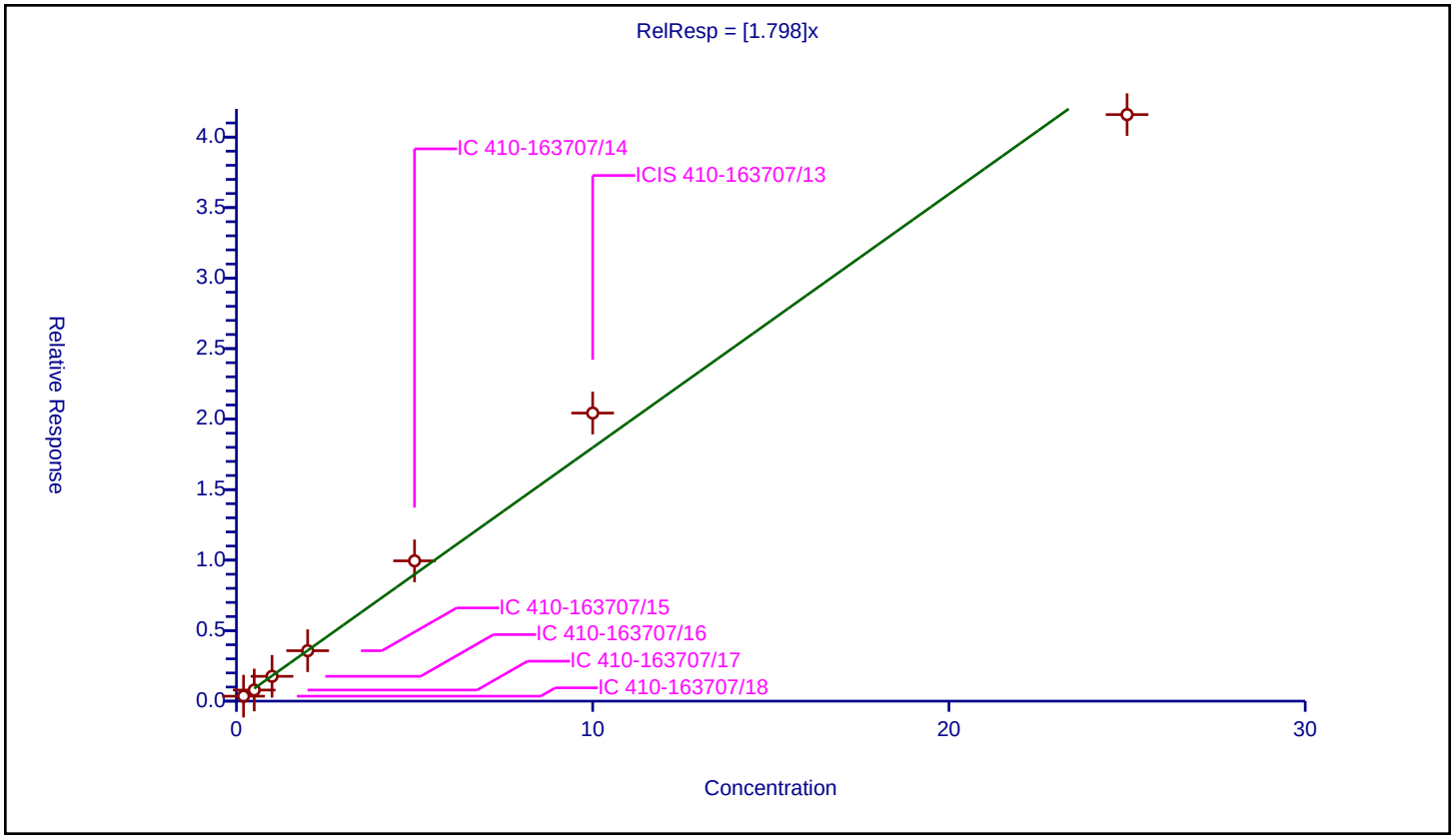
Curve Coefficients

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

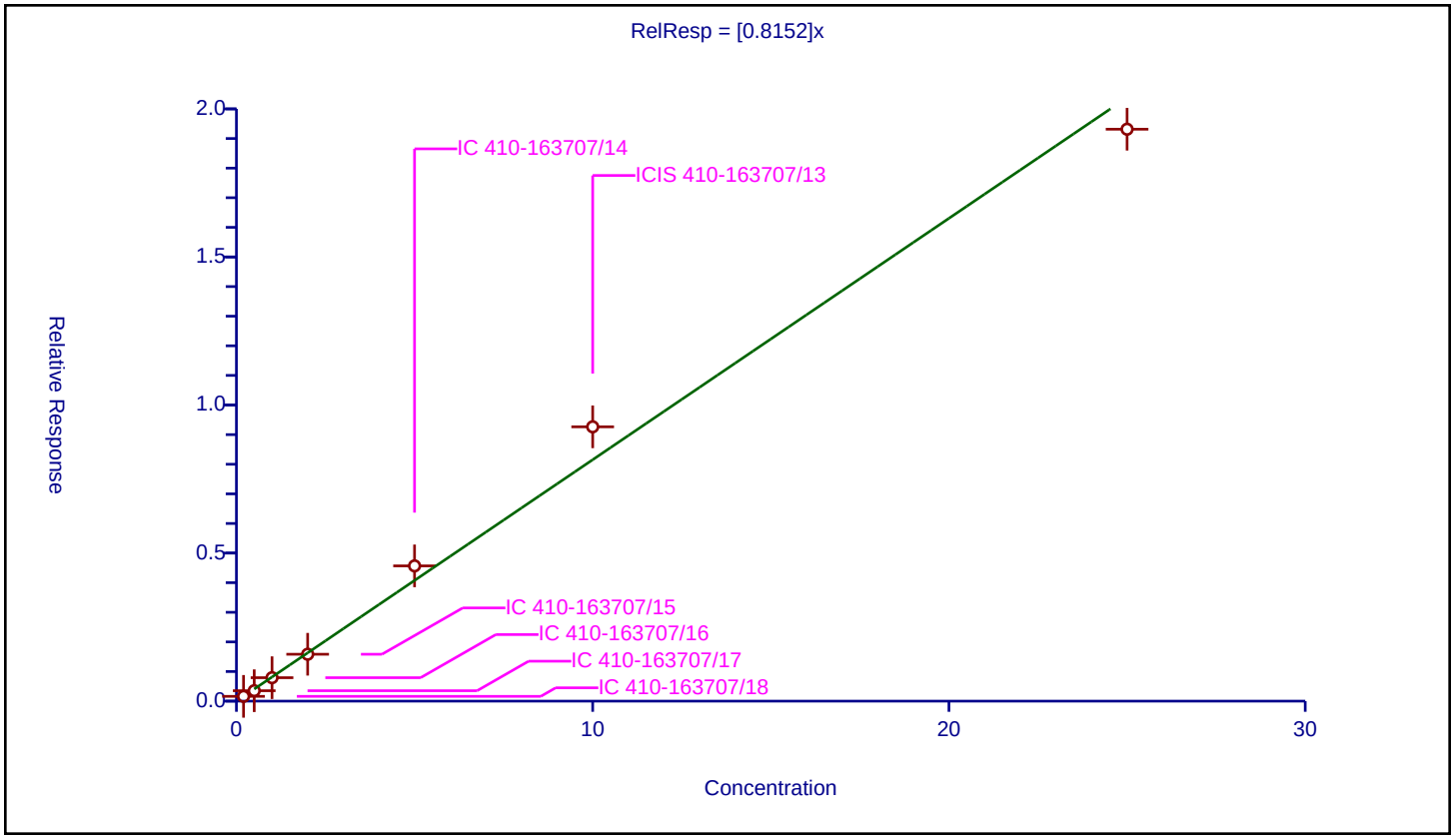
Curve Coefficients

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.: 410-60154-1

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.: 410-60154-1

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
1,1,2,2-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.: 410-60154-1

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-trifluoroetha	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

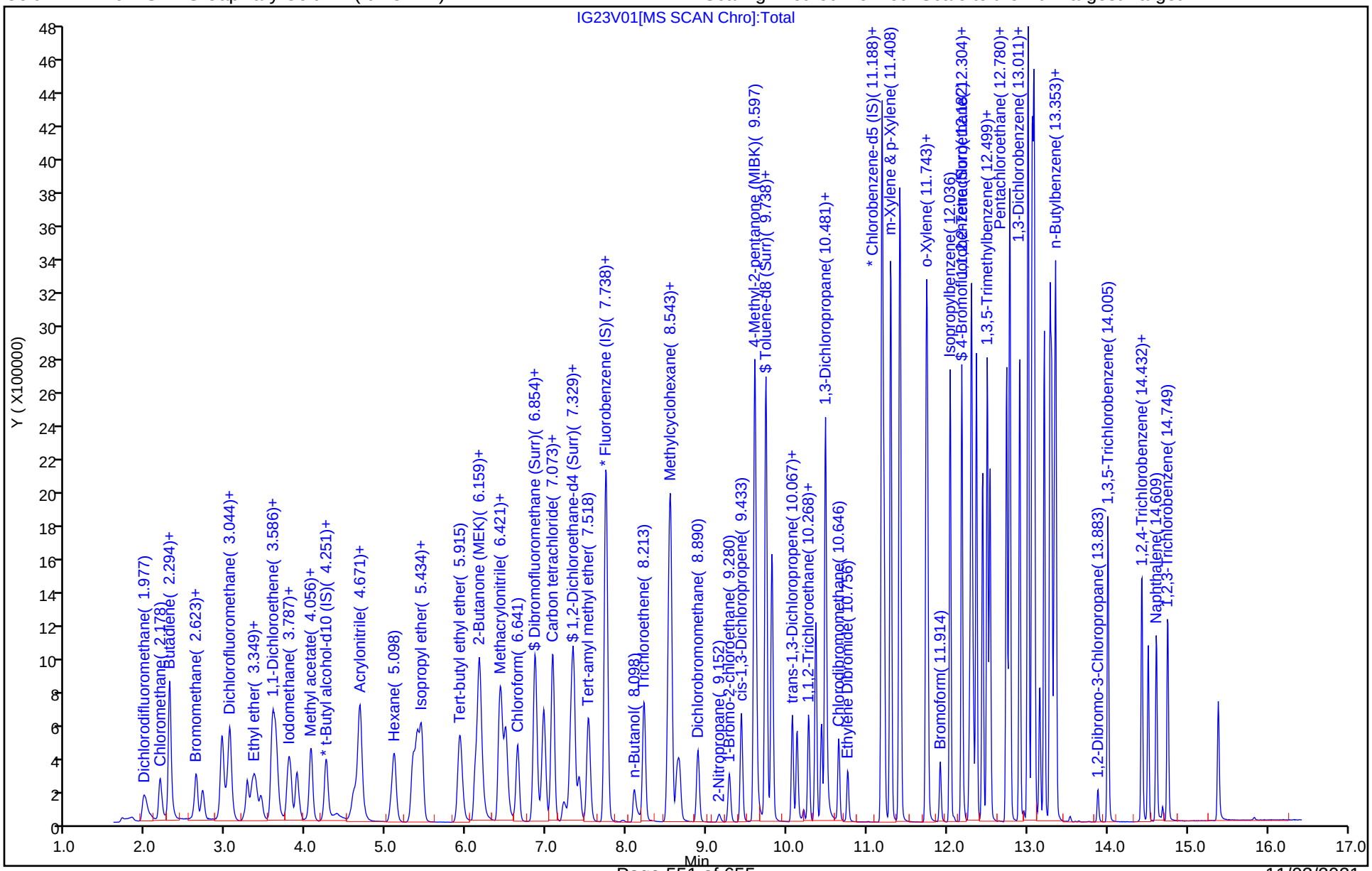
Report Date: 24-Aug-2021 16:07:56 Chrom Revision: 2.3 03-Aug-2021 10:08:16

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	Operator ID:	mec29284
Lims ID:	ICV LG			Worklist Smp#:	19
Client ID:					
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	18
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

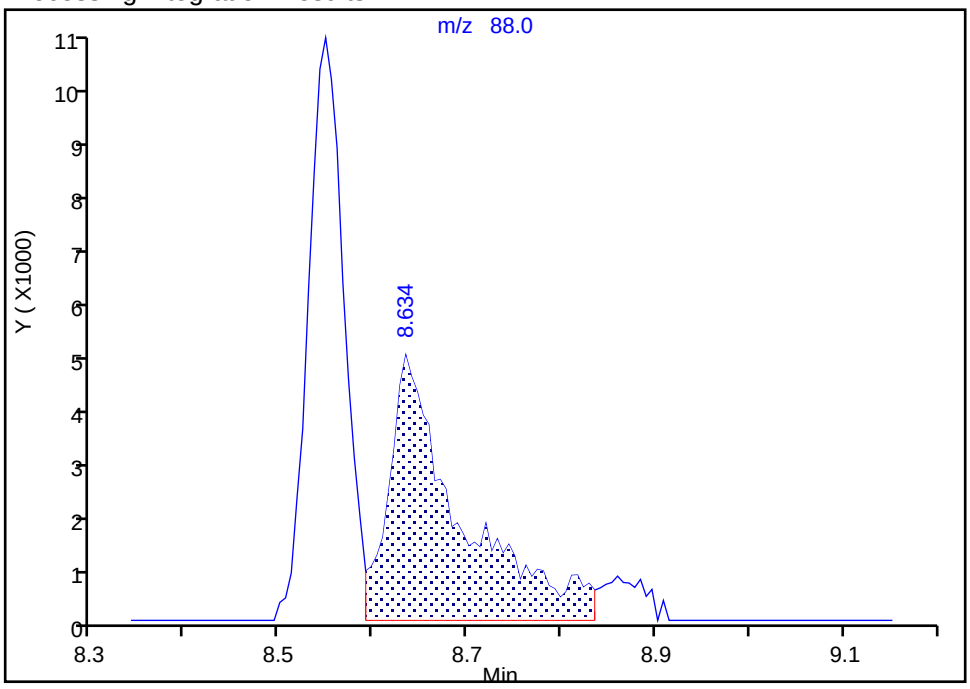
Data File:	\\chromfs\Lancaster\ChromData\19930\20210823-37607.b\IG23V01.D				
Injection Date:	24-Aug-2021 03:13:30	Instrument ID:	19930		
Lims ID:	ICV LG				
Client ID:					
Operator ID:	mec29284	ALS Bottle#:	18	Worklist Smp#:	19
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

65 1,4-Dioxane, CAS: 123-91-1

Signal: 1

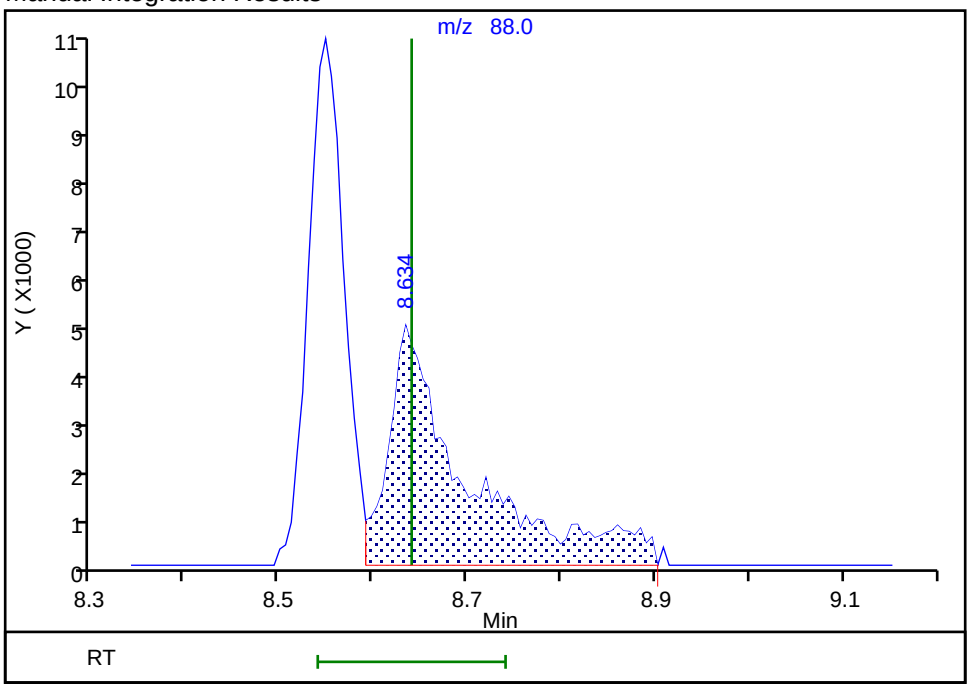
Processing Integration Results

RT: 8.63
Area: 24779
Amount: 87.218368
Amount Units: ug/l



Manual Integration Results

RT: 8.63
Area: 27070
Amount: 90.099969
Amount Units: ug/l



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.: 410-60154-1

SDG No.:

Lab Sample ID: CCVIS 410-188555/3 Calibration Date: 10/29/2021 08:30

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: IC29X02.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	0.3085	0.1000	9.86	10.0	-1.4	20.0
Chloromethane	Ave	0.3563	0.4030	0.1000	11.3	10.0	13.1	20.0
1,3-Butadiene	Ave	0.3273	0.5225		16.0	10.0	59.6*	20.0
Vinyl chloride	Ave	0.3592	0.3859	0.1000	10.7	10.0	7.4	20.0
Bromomethane	Ave	0.2603	0.2728	0.1000	10.5	10.0	4.8	20.0
Chloroethane	Ave	0.2153	0.2294	0.1000	10.7	10.0	6.5	20.0
Dichlorofluoromethane	Ave	0.5179	0.5522		10.7	10.0	6.6	20.0
Trichlorofluoromethane	Ave	0.4629	0.5067	0.1000	10.9	10.0	9.5	20.0
Ethyl ether	Ave	0.1881	0.2343		12.5	10.0	24.6*	20.0
Freon 123a	Ave	0.3316	0.3753		11.3	10.0	13.2	20.0
Acrolein	Ave	2.185	1.956		448	501	-10.5	20.0
1,1-Dichloroethene	Ave	0.2387	0.2504	0.1000	10.5	10.0	4.9	20.0
Acetone	Ave	2.778	2.440	0.1000	87.9	100	-12.1	20.0
Freon 113	Ave	0.2492	0.2639	0.1000	10.6	10.0	5.9	20.0
Methyl iodide	Ave	0.4771	0.4944		10.4	10.0	3.6	20.0
Ethyl bromide	Ave	0.2175	0.2411		11.1	9.99	10.9	20.0
Carbon disulfide	Ave	0.6588	0.6984	0.1000	10.6	10.0	6.0	20.0
Methyl acetate	Ave	8.176	7.517	0.1000	9.19	10.0	-8.1	20.0
Allyl chloride	Ave	0.3915	0.3882		9.91	10.0	-0.9	20.0
Methylene Chloride	Ave	0.2605	0.2837	0.1000	10.9	10.0	8.9	20.0
t-Butyl alcohol	Ave	1.053	1.080		205	200	2.6	20.0
Acrylonitrile	Ave	3.702	3.609		24.4	25.0	-2.5	20.0
Methyl tert-butyl ether	Ave	0.6808	0.7264	0.1000	10.7	10.0	6.7	20.0
trans-1,2-Dichloroethene	Ave	0.2711	0.2899	0.1000	10.7	10.0	6.9	20.0
n-Hexane	Ave	0.3785	0.3773		9.97	10.0	-0.3	20.0
1,1-Dichloroethane	Ave	0.4919	0.5293	0.2000	10.8	10.0	7.6	20.0
di-Isopropyl ether	Ave	0.8217	0.8615		10.5	10.0	4.8	20.0
2-Chloro-1,3-butadiene	Ave	0.4101	0.4298		10.5	10.0	4.8	20.0
Ethyl t-butyl ether	Ave	0.8035	0.8286		10.3	10.0	3.1	20.0
2-Butanone (MEK)	Ave	4.850	4.649	0.1000	95.9	100	-4.1	20.0
cis-1,2-Dichloroethene	Ave	0.3020	0.3251	0.1000	10.8	10.0	7.6	20.0
2,2-Dichloropropane	Ave	0.4277	0.4529		10.6	10.0	5.9	20.0
Propionitrile	Ave	1.288	1.404		218	200	9.0	20.0
Methacrylonitrile	Ave	4.873	4.490		92.1	100	-7.9	20.0
Bromochloromethane	Ave	0.1303	0.1427		11.0	10.0	9.5	20.0
Tetrahydrofuran	Ave	1.439	1.382		48.0	50.0	-3.9	20.0
Chloroform	Ave	0.4873	0.5350	0.2000	11.0	10.0	9.8	20.0
1,1,1-Trichloroethane	Ave	0.4528	0.4892	0.1000	10.8	10.0	8.0	20.0
Cyclohexane	Ave	0.4489	0.4703	0.1000	10.5	10.0	4.8	20.0
1,1-Dichloropropene	Ave	0.3820	0.4150		10.9	10.0	8.7	20.0
Carbon tetrachloride	Ave	0.3908	0.4319	0.1000	11.1	10.0	10.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-60154-1

SDG No.:

Lab Sample ID: CCVIS 410-188555/3 Calibration Date: 10/29/2021 08:30

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: IC29X02.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	0.3526		525	500	5.0	20.0
Benzene	Ave	1.124	1.229	0.5000	10.9	10.0	9.3	20.0
1,2-Dichloroethane	Ave	0.3046	0.3274	0.1000	10.7	10.0	7.5	20.0
t-Amyl methyl ether	Ave	0.7459	0.7797		10.5	10.0	4.5	20.0
n-Heptane	Ave	0.3892	0.3808		9.78	10.0	-2.2	20.0
n-Butanol	Ave	0.3118	0.3381		949	875	8.4	20.0
Trichloroethene	Ave	0.3022	0.3323	0.2000	11.0	10.0	10.0	20.0
Methylcyclohexane	Ave	0.5026	0.5267	0.1000	10.5	10.0	4.8	20.0
1,2-Dichloropropane	Ave	0.2761	0.3134	0.1000	11.3	10.0	13.5	20.0
Methyl methacrylate	Ave	9.578	8.664		9.05	10.0	-9.5	20.0
1,4-Dioxane	Qua		0.0803	0.0050	433	500	-13.5	20.0
Dibromomethane	Ave	0.1350	0.1518		11.2	10.0	12.5	20.0
Bromodichloromethane	Ave	0.3347	0.3805	0.2000	11.4	10.0	13.7	20.0
2-Nitropropane	Ave	2.740	2.402		43.8	50.0	-12.3	20.0
cis-1,3-Dichloropropene	Ave	0.4206	0.4618	0.2000	11.0	10.0	9.8	20.0
4-Methyl-2-pentanone (MIBK)	Ave	12.21	11.67	0.1000	95.6	100	-4.4	20.0
Toluene	Ave	0.9586	1.008	0.4000	10.5	10.0	5.1	20.0
trans-1,3-Dichloropropene	Ave	0.4420	0.4738	0.1000	10.7	10.0	7.2	20.0
Ethyl methacrylate	Ave	0.3689	0.3881		10.5	10.0	5.2	20.0
1,1,2-Trichloroethane	Ave	0.2557	0.2821	0.1000	11.0	10.0	10.3	20.0
Tetrachloroethene	Ave	0.4567	0.4923	0.2000	10.8	10.0	7.8	20.0
1,3-Dichloropropane	Ave	0.4348	0.4731		10.9	10.0	8.8	20.0
2-Hexanone	Ave	8.554	8.129	0.1000	95.0	100	-5.0	20.0
Dibromochloromethane	Ave	0.3116	0.3546		11.4	10.0	13.8	20.0
1,2-Dibromoethane (EDB)	Ave	0.2467	0.2693	0.1000	10.9	10.0	9.2	20.0
1-Chlorohexane	Ave	0.5606	0.5666		10.1	10.0	1.1	20.0
Chlorobenzene	Ave	1.062	1.134	0.5000	10.7	10.0	6.8	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3708	0.4005		10.8	10.0	8.0	20.0
Ethylbenzene	Ave	1.846	1.991	0.1000	10.8	10.0	7.8	20.0
m&p-Xylene	Ave	0.7292	0.7757	0.1000	21.3	20.0	6.4	20.0
o-Xylene	Ave	0.7197	0.7659	0.3000	10.6	10.0	6.4	20.0
Styrene	Ave	1.162	1.260	0.3000	10.8	10.0	8.4	20.0
Bromoform	Ave	0.1867	0.2172	0.1000	11.6	10.0	16.4	20.0
Isopropylbenzene	Ave	1.900	2.037	0.1000	10.7	10.0	7.2	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5528	0.6283	0.3000	11.4	10.0	13.7	20.0
Bromobenzene	Ave	0.7576	0.8327		11.0	10.0	9.9	20.0
trans-1,4-Dichloro-2-butene	Ave	4.418	3.080		69.7	100	-30.3*	20.0
1,2,3-Trichloropropane	Ave	0.1520	0.1740		11.4	10.0	14.5	20.0
N-Propylbenzene	Ave	3.678	4.066		11.1	10.0	10.6	20.0
2-Chlorotoluene	Ave	0.7546	0.8160		10.8	10.0	8.1	20.0
1,3,5-Trimethylbenzene	Ave	2.686	2.975		11.1	10.0	10.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-60154-1

SDG No.:

Lab Sample ID: CCVIS 410-188555/3 Calibration Date: 10/29/2021 08:30

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: IC29X02.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
4-Chlorotoluene	Ave	0.7706	0.8414		10.9	10.0	9.2	20.0
tert-Butylbenzene	Ave	0.5890	0.6924		11.8	10.0	17.6	20.0
Pentachloroethane	Ave	0.4757	0.5462		11.5	10.0	14.8	20.0
1,2,4-Trimethylbenzene	Ave	2.753	3.046		11.1	10.0	10.7	20.0
sec-Butylbenzene	Ave	3.394	3.774		11.1	10.0	11.2	20.0
1,3-Dichlorobenzene	Ave	1.528	1.687	0.6000	11.0	10.0	10.4	20.0
p-Isopropyltoluene	Ave	3.002	3.303		11.0	10.0	10.0	20.0
1,4-Dichlorobenzene	Ave	1.562	1.710	0.5000	10.9	10.0	9.5	20.0
1,2,3-Trimethylbenzene	Ave	1.218	1.307		10.7	10.0	7.3	20.0
Benzyl chloride	Ave	0.2262	0.2556		11.3	10.0	13.0	20.0
n-Butylbenzene	Ave	1.403	1.592		11.3	10.0	13.5	20.0
1,2-Dichlorobenzene	Ave	1.396	1.534	0.4000	11.0	10.0	9.9	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.0813	0.0971	0.0500	11.9	10.0	19.4	20.0
1,3,5-Trichlorobenzene	Ave	1.118	1.244		11.1	10.0	11.3	20.0
1,2,4-Trichlorobenzene	Ave	0.9433	1.016	0.2000	10.8	10.0	7.7	20.0
Hexachlorobutadiene	Ave	0.4098	0.4180		10.2	10.0	2.0	20.0
Naphthalene	Ave	1.798	1.778		9.89	10.0	-1.1	20.0
1,2,3-Trichlorobenzene	Ave	0.8152	0.8067		9.90	10.0	-1.0	20.0
Dibromofluoromethane (Surr)	Ave	0.2519	0.2590		10.3	10.0	2.8	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0504	0.0528		10.5	10.0	4.8	20.0
Toluene-d8 (Surr)	Ave	1.292	1.308		10.1	10.0	1.2	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4939	0.4794		9.71	10.0	-2.9	20.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X02.D
Lims ID: CCVIS VSTD10
Client ID:
Sample Type: CCVIS
Inject. Date: 29-Oct-2021 08:30:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0042796-003
Misc. Info.: CCVIS VSTD10
Operator ID: SRK36897 Instrument ID: 19930
Sublist: chrom-8260 25ml HP31*sub49

Method: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 29-Oct-2021 11:49:06 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: CTX1645

First Level Reviewer: knouses Date: 29-Oct-2021 10:39:18

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.971	1.971	0.000	99	588399	10.0	9.86	
4 Chloromethane	50	2.172	2.172	0.000	99	768650	10.0	11.3	
6 Butadiene	39	2.288	2.288	0.000	90	996396	10.0	16.0	
5 Vinyl chloride	62	2.294	2.294	0.000	71	735936	10.0	10.7	
7 Bromomethane	94	2.623	2.623	0.000	91	520287	10.0	10.5	
8 Chloroethane	64	2.708	2.708	0.000	100	437495	10.0	10.7	
9 Dichlorofluoromethane	67	2.940	2.940	0.000	97	1053100	10.0	10.7	
10 Trichlorofluoromethane	101	3.013	3.013	0.000	98	966413	10.0	10.9	
11 Ethyl ether	59	3.251	3.251	0.000	91	446914	10.0	12.5	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.342	3.342	0.000	91	715767	10.0	11.3	
13 Acrolein	56	3.422	3.422	0.000	100	3247324	501.1	448.5	
14 1,1-Dichloroethene	96	3.562	3.562	0.000	98	477464	10.0	10.5	
15 Acetone	43	3.592	3.592	0.000	100	808574	100.0	87.9	
16 112TCTFE	101	3.611	3.611	0.000	90	503367	10.0	10.6	
17 Iodomethane	142	3.763	3.763	0.000	99	942927	10.0	10.4	
18 Ethyl bromide	108	3.794	3.794	0.000	99	459628	10.0	11.1	
19 Carbon disulfide	76	3.873	3.873	0.000	99	1331829	10.0	10.6	
21 Methyl acetate	43	4.019	4.019	0.000	97	249073	10.0	9.19	
22 3-Chloro-1-propene	41	4.044	4.044	0.000	91	740292	10.0	9.91	
23 Methylene Chloride	84	4.233	4.233	0.000	91	541087	10.0	10.9	
* 24 t-Butyl alcohol-d10 (IS)	65	4.251	4.251	0.000	96	165669	50.0	50.0	
25 2-Methyl-2-propanol	59	4.385	4.385	0.000	99	715509	200.0	205.1	
26 Acrylonitrile	53	4.580	4.580	0.000	98	298969	25.0	24.4	
27 Methyl tert-butyl ether	73	4.647	4.647	0.000	94	1385261	10.0	10.7	
28 trans-1,2-Dichloroethene	96	4.659	4.659	0.000	99	552775	10.0	10.7	
29 Hexane	57	5.086	5.086	0.000	91	719505	10.0	9.97	
31 1,1-Dichloroethane	63	5.318	5.318	0.000	96	1009336	10.0	10.8	
32 Isopropyl ether	45	5.373	5.373	0.000	93	1642958	10.0	10.5	
33 2-Chloro-1,3-butadiene	53	5.427	5.427	0.000	91	819733	10.0	10.5	
34 Tert-butyl ethyl ether	59	5.909	5.909	0.000	97	1580149	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
36 2-Butanone (MEK)	43	6.116	6.116	0.000	99	1540512	100.0	95.9	
37 cis-1,2-Dichloroethene	96	6.147	6.147	0.000	81	619912	10.0	10.8	
38 2,2-Dichloropropane	77	6.159	6.159	0.000	87	863707	10.0	10.6	
40 Propionitrile	54	6.202	6.202	0.000	99	930072	200.0	217.9	
42 Methacrylonitrile	67	6.415	6.415	0.000	91	1487637	100.0	92.1	
43 Chlorobromomethane	128	6.476	6.476	0.000	92	272177	10.0	11.0	
44 Tetrahydrofuran	71	6.488	6.488	0.000	81	229029	50.0	48.0	
45 Chloroform	83	6.628	6.628	0.000	93	1020258	10.0	11.0	
$ 46 Dibromofluoromethane (Surr)	113	6.842	6.842	0.000	93	494017	10.0	10.3	
47 1,1,1-Trichloroethane	97	6.854	6.854	0.000	98	932894	10.0	10.8	
48 Cyclohexane	56	6.958	6.958	0.000	89	896885	10.0	10.5	
51 1,1-Dichloropropene	75	7.067	7.067	0.000	97	791464	10.0	10.9	
50 Carbon tetrachloride	117	7.067	7.067	0.000	95	823773	10.0	11.1	
52 Isobutyl alcohol	41	7.208	7.208	0.000	94	584217	500.0	524.8	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.299	7.299	0.000	83	100742	10.0	10.5	
54 Benzene	78	7.329	7.329	0.000	96	2343287	10.0	10.9	
56 1,2-Dichloroethane	62	7.397	7.397	0.000	98	624340	10.0	10.7	
57 Tert-amyl methyl ether	73	7.512	7.512	0.000	99	1487021	10.0	10.5	
* 58 Fluorobenzene (IS)	96	7.732	7.732	0.000	99	1907105	10.0	10.0	
59 n-Heptane	43	7.738	7.738	0.000	93	726201	10.0	9.78	
60 n-Butanol	56	8.085	8.085	0.000	87	980206	875.0	948.7	
61 Trichloroethene	95	8.207	8.207	0.000	98	633735	10.0	11.0	
62 Methylcyclohexane	83	8.518	8.518	0.000	93	1004489	10.0	10.5	
63 1,2-Dichloropropane	63	8.537	8.537	0.000	85	597661	10.0	11.3	
64 Methyl methacrylate	69	8.622	8.622	0.000	88	287083	10.0	9.05	
65 1,4-Dioxane	88	8.628	8.628	0.000	41	132993	500.0	432.6	
66 Dibromomethane	93	8.646	8.646	0.000	93	289435	10.0	11.2	
68 Dichlorobromomethane	83	8.884	8.884	0.000	99	725567	10.0	11.4	
69 2-Nitropropane	41	9.146	9.146	0.000	99	397989	50.0	43.8	
73 cis-1,3-Dichloropropene	75	9.427	9.427	0.000	97	880792	10.0	11.0	
74 4-Methyl-2-pentanone (MIBK)	43	9.591	9.591	0.000	96	3866527	100.0	95.6	
$ 75 Toluene-d8 (Surr)	98	9.731	9.731	0.000	93	2003473	10.0	10.1	
76 Toluene	92	9.811	9.811	0.000	98	1543745	10.0	10.5	
78 trans-1,3-Dichloropropene	75	10.067	10.067	0.000	91	725765	10.0	10.7	
79 Ethyl methacrylate	69	10.122	10.122	0.000	88	594473	10.0	10.5	
80 1,1,2-Trichloroethane	97	10.268	10.268	0.000	91	432182	10.0	11.0	
81 Tetrachloroethene	166	10.359	10.359	0.000	98	754098	10.0	10.8	
82 1,3-Dichloropropane	76	10.426	10.426	0.000	89	724711	10.0	10.9	
83 2-Hexanone	43	10.475	10.475	0.000	96	2693295	100.0	95.0	
85 Chlorodibromomethane	129	10.646	10.646	0.000	89	543258	10.0	11.4	
86 Ethylene Dibromide	107	10.756	10.756	0.000	98	412594	10.0	10.9	
* 87 Chlorobenzene-d5 (IS)	117	11.182	11.182	0.000	85	1531830	10.0	10.0	
88 1-Chlorohexane	91	11.188	11.188	0.000	97	867859	10.0	10.1	
90 Chlorobenzene	112	11.207	11.207	0.000	96	1737720	10.0	10.7	
91 1,1,1,2-Tetrachloroethane	131	11.292	11.292	0.000	94	613449	10.0	10.8	
92 Ethylbenzene	91	11.292	11.292	0.000	98	3049234	10.0	10.8	
93 m-Xylene & p-Xylene	106	11.408	11.408	0.000	100	2376453	20.0	21.3	
94 o-Xylene	106	11.737	11.737	0.000	96	1173174	10.0	10.6	
95 Styrene	104	11.755	11.755	0.000	95	1929913	10.0	10.8	
96 Bromoform	173	11.914	11.914	0.000	97	332787	10.0	11.6	
97 Isopropylbenzene	105	12.036	12.036	0.000	95	3120512	10.0	10.7	
$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	94	734324	10.0	9.71	

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	12.280	12.280	0.000	93	558360	10.0	11.4	
102 Bromobenzene	156	12.298	12.298	0.000	96	739925	10.0	11.0	
103 trans-1,4-Dichloro-2-butene	53	12.304	12.304	0.000	93	1020667	100.0	69.7	
104 1,2,3-Trichloropropane	110	12.328	12.328	0.000	83	154602	10.0	11.4	
105 N-Propylbenzene	91	12.365	12.365	0.000	99	3613104	10.0	11.1	
106 2-Chlorotoluene	126	12.444	12.444	0.000	97	725167	10.0	10.8	
107 1,3,5-Trimethylbenzene	105	12.499	12.499	0.000	94	2643462	10.0	11.1	
108 4-Chlorotoluene	126	12.536	12.536	0.000	97	747652	10.0	10.9	
109 tert-Butylbenzene	134	12.743	12.743	0.000	93	615285	10.0	11.8	
110 Pentachloroethane	167	12.774	12.774	0.000	93	485360	10.0	11.5	
111 1,2,4-Trimethylbenzene	105	12.786	12.786	0.000	97	2706990	10.0	11.1	
112 sec-Butylbenzene	105	12.908	12.908	0.000	94	3354044	10.0	11.1	
113 1,3-Dichlorobenzene	146	13.005	13.005	0.000	98	1498842	10.0	11.0	
114 4-Isopropyltoluene	119	13.011	13.011	0.000	97	2935214	10.0	11.0	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	94	888632	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.078	13.078	0.000	95	1519151	10.0	10.9	
117 1,2,3-Trimethylbenzene	120	13.091	13.091	0.000	98	1161688	10.0	10.7	
118 Benzyl chloride	126	13.158	13.158	0.000	98	227099	10.0	11.3	
119 n-Butylbenzene	92	13.304	13.304	0.000	97	1414445	10.0	11.3	
120 1,2-Dichlorobenzene	146	13.340	13.340	0.000	99	1363496	10.0	11.0	
122 1,2-Dibromo-3-Chloropropane	155	13.883	13.883	0.000	89	86279	10.0	11.9	
123 1,3,5-Trichlorobenzene	180	14.005	14.005	0.000	98	1105531	10.0	11.1	
124 1,2,4-Trichlorobenzene	180	14.432	14.432	0.000	94	902432	10.0	10.8	
125 Hexachlorobutadiene	225	14.511	14.511	0.000	96	371424	10.0	10.2	
126 Naphthalene	128	14.609	14.609	0.000	97	1579888	10.0	9.89	
127 1,2,3-Trichlorobenzene	180	14.755	14.755	0.000	96	716882	10.0	9.90	
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

Reagents:

MSV_LL_#1_826_00020	Amount Added: 20.00	Units: uL	
MSV_LL_#2_826_00022	Amount Added: 20.00	Units: uL	
MSV_LL_GAS826_00046	Amount Added: 20.00	Units: uL	
MSV_LLcentISS_00002	Amount Added: 5.00	Units: uL	Run Reagent

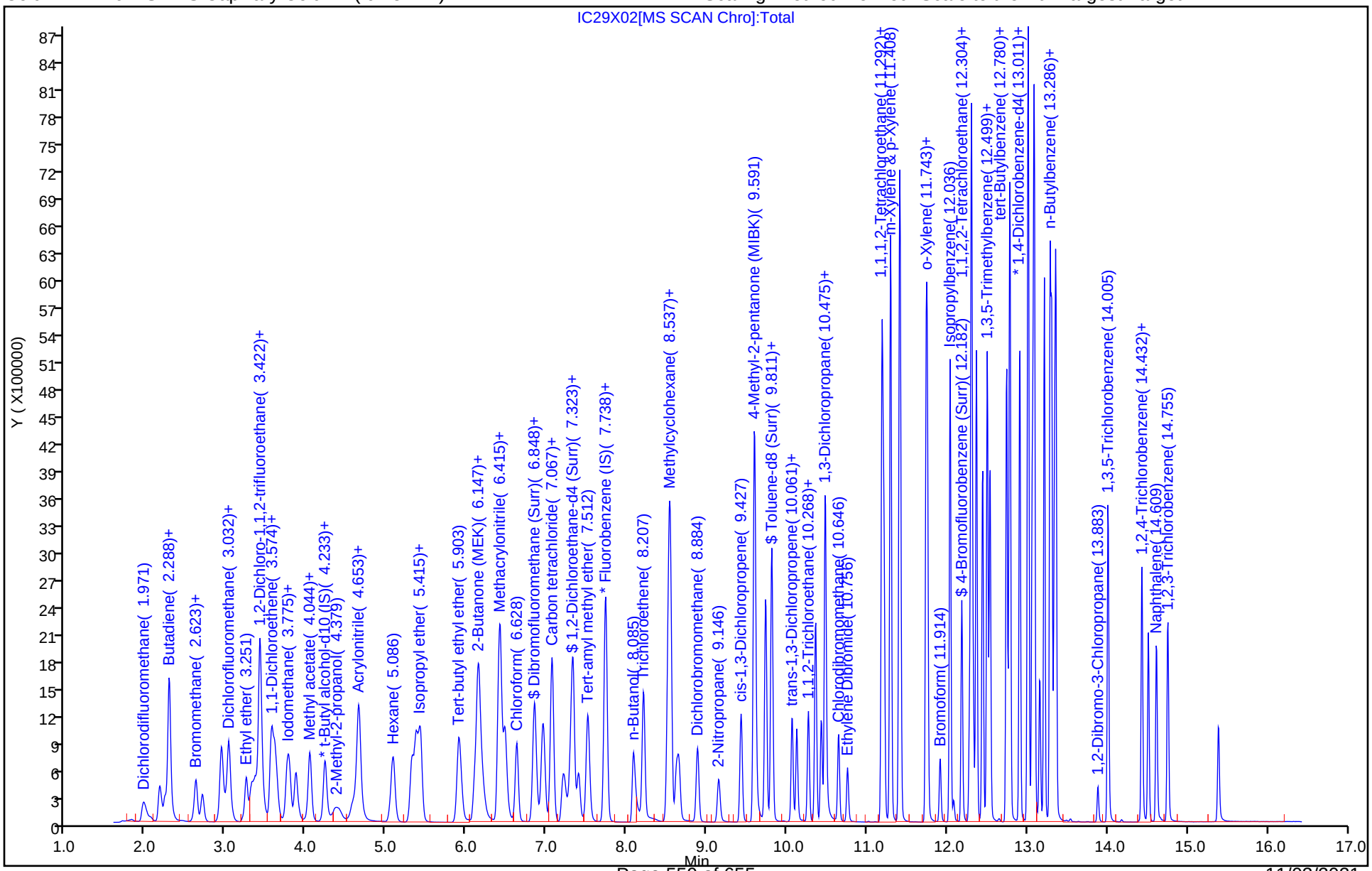
Report Date: 29-Oct-2021 11:49:08 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X02.D

Injection Date:	29-Oct-2021 08:30:30	Instrument ID:	19930	Operator ID:	SRK36897
Lims ID:	CCVIS VSTD10			Worklist Smp#:	3
Client ID:					
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-60154-1

SDG No.:

Lab Sample ID: CCVIS 410-189194/3 Calibration Date: 11/01/2021 09:16

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: IN01X02.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	0.3888	0.1000	15.5	12.5	24.3*	20.0
Chloromethane	Ave	0.3563	0.4019	0.1000	14.1	12.5	12.8	20.0
1,3-Butadiene	Ave	0.3273	0.4950		18.9	12.5	51.2*	20.0
Vinyl chloride	Ave	0.3592	0.3922	0.1000	13.6	12.5	9.2	20.0
Bromomethane	Ave	0.2603	0.2755	0.1000	13.2	12.5	5.8	20.0
Chloroethane	Ave	0.2153	0.2266	0.1000	13.2	12.5	5.2	20.0
Dichlorofluoromethane	Ave	0.5179	0.5445		13.1	12.5	5.2	20.0
Trichlorofluoromethane	Ave	0.4629	0.5372	0.1000	14.5	12.5	16.0	20.0
Ethyl ether	Ave	0.1881	0.2326		15.5	12.5	23.7*	20.0
Freon 123a	Ave	0.3316	0.3808		14.4	12.5	14.8	20.0
Acrolein	Ave	2.185	1.986		569	626	-9.1	20.0
1,1-Dichloroethene	Ave	0.2387	0.2905	0.1000	15.2	12.5	21.7*	20.0
Acetone	Ave	2.778	2.792	0.1000	126	125	0.5	20.0
Freon 113	Ave	0.2492	0.3050	0.1000	15.3	12.5	22.4*	20.0
Methyl iodide	Ave	0.4771	0.5142		13.5	12.5	7.8	20.0
Ethyl bromide	Ave	0.2175	0.2433		14.0	12.5	11.8	20.0
Carbon disulfide	Ave	0.6588	0.7297	0.1000	13.8	12.5	10.8	20.0
Methyl acetate	Ave	8.176	8.274	0.1000	12.6	12.5	1.2	20.0
Allyl chloride	Ave	0.3915	0.4162		13.3	12.5	6.3	20.0
Methylene Chloride	Ave	0.2605	0.3103	0.1000	14.9	12.5	19.1	20.0
t-Butyl alcohol	Ave	1.053	1.070		254	250	1.7	20.0
Acrylonitrile	Ave	3.702	3.896		32.9	31.3	5.2	20.0
Methyl tert-butyl ether	Ave	0.6808	0.7697	0.1000	14.1	12.5	13.1	20.0
trans-1,2-Dichloroethene	Ave	0.2711	0.3214	0.1000	14.8	12.5	18.6	20.0
n-Hexane	Ave	0.3785	0.4680		15.5	12.5	23.6*	20.0
1,1-Dichloroethane	Ave	0.4919	0.5777	0.2000	14.7	12.5	17.4	20.0
di-Isopropyl ether	Ave	0.8217	0.9132		13.9	12.5	11.1	20.0
2-Chloro-1,3-butadiene	Ave	0.4101	0.4664		14.2	12.5	13.7	20.0
Ethyl t-butyl ether	Ave	0.8035	0.8860		13.8	12.5	10.3	20.0
2-Butanone (MEK)	Ave	4.850	4.929	0.1000	127	125	1.6	20.0
cis-1,2-Dichloroethene	Ave	0.3020	0.3550	0.1000	14.7	12.5	17.5	20.0
2,2-Dichloropropane	Ave	0.4277	0.4910		14.4	12.5	14.8	20.0
Propionitrile	Ave	1.288	1.490		289	250	15.7	20.0
Methacrylonitrile	Ave	4.873	4.802		123	125	-1.4	20.0
Bromochloromethane	Ave	0.1303	0.1551		14.9	12.5	19.0	20.0
Tetrahydrofuran	Ave	1.439	1.439		62.5	62.5	0.0	20.0
Chloroform	Ave	0.4873	0.5734	0.2000	14.7	12.5	17.7	20.0
1,1,1-Trichloroethane	Ave	0.4528	0.5390	0.1000	14.9	12.5	19.0	20.0
Cyclohexane	Ave	0.4489	0.5562	0.1000	15.5	12.5	23.9*	20.0
1,1-Dichloropropene	Ave	0.3820	0.4624		15.1	12.5	21.1*	20.0
Carbon tetrachloride	Ave	0.3908	0.4770	0.1000	15.3	12.5	22.1*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-60154-1

SDG No.:

Lab Sample ID: CCVIS 410-189194/3 Calibration Date: 11/01/2021 09:16

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: IN01X02.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	0.3846		716	625	14.5	20.0
Benzene	Ave	1.124	1.330	0.5000	14.8	12.5	18.3	20.0
1,2-Dichloroethane	Ave	0.3046	0.3568	0.1000	14.6	12.5	17.1	20.0
t-Amyl methyl ether	Ave	0.7459	0.8350		14.0	12.5	11.9	20.0
n-Heptane	Ave	0.3892	0.4686		15.0	12.5	20.4*	20.0
n-Butanol	Ave	0.3118	0.3541		1240	1090	13.6	20.0
Trichloroethene	Ave	0.3022	0.3677	0.2000	15.2	12.5	21.7*	20.0
Methylcyclohexane	Ave	0.5026	0.6320	0.1000	15.7	12.5	25.7*	20.0
1,2-Dichloropropane	Ave	0.2761	0.3381	0.1000	15.3	12.5	22.4*	20.0
Methyl methacrylate	Ave	9.578	9.348		12.2	12.5	-2.4	20.0
1,4-Dioxane	Qua		0.0844	0.0050	625	625	-0.0	20.0
Dibromomethane	Ave	0.1350	0.1638		15.2	12.5	21.4*	20.0
Bromodichloromethane	Ave	0.3347	0.4111	0.2000	15.4	12.5	22.8*	20.0
2-Nitropropane	Ave	2.740	2.592		59.1	62.5	-5.4	20.0
cis-1,3-Dichloropropene	Ave	0.4206	0.5046	0.2000	15.0	12.5	20.0	20.0
4-Methyl-2-pentanone (MIBK)	Ave	12.21	12.11	0.1000	124	125	-0.8	20.0
Toluene	Ave	0.9586	1.075	0.4000	14.0	12.5	12.2	20.0
trans-1,3-Dichloropropene	Ave	0.4420	0.5072	0.1000	14.3	12.5	14.7	20.0
Ethyl methacrylate	Ave	0.3689	0.4157		14.1	12.5	12.7	20.0
1,1,2-Trichloroethane	Ave	0.2557	0.3036	0.1000	14.8	12.5	18.7	20.0
Tetrachloroethene	Ave	0.4567	0.5372	0.2000	14.7	12.5	17.6	20.0
1,3-Dichloropropane	Ave	0.4348	0.5083		14.6	12.5	16.9	20.0
2-Hexanone	Ave	8.554	8.520	0.1000	124	125	-0.4	20.0
Dibromochloromethane	Ave	0.3116	0.3740		15.0	12.5	20.0	20.0
1,2-Dibromoethane (EDB)	Ave	0.2467	0.2900	0.1000	14.7	12.5	17.6	20.0
1-Chlorohexane	Ave	0.5606	0.6130		13.7	12.5	9.3	20.0
Chlorobenzene	Ave	1.062	1.205	0.5000	14.2	12.5	13.5	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3708	0.4244		14.3	12.5	14.5	20.0
Ethylbenzene	Ave	1.846	2.114	0.1000	14.3	12.5	14.5	20.0
m&p-Xylene	Ave	0.7292	0.8326	0.1000	28.5	25.0	14.2	20.0
o-Xylene	Ave	0.7197	0.8141	0.3000	14.1	12.5	13.1	20.0
Styrene	Ave	1.162	1.346	0.3000	14.5	12.5	15.8	20.0
Bromoform	Ave	0.1867	0.2315	0.1000	15.5	12.5	24.0*	20.0
Isopropylbenzene	Ave	1.900	2.169	0.1000	14.3	12.5	14.2	20.0
1,1,2,2-Tetrachloroethane	Ave	0.5528	0.6577	0.3000	14.9	12.5	19.0	20.0
Bromobenzene	Ave	0.7576	0.8774		14.5	12.5	15.8	20.0
trans-1,4-Dichloro-2-butene	Ave	4.418	3.850		109	125	-12.9	20.0
1,2,3-Trichloropropane	Ave	0.1520	0.1838		15.1	12.5	20.9*	20.0
N-Propylbenzene	Ave	3.678	4.246		14.4	12.5	15.5	20.0
2-Chlorotoluene	Ave	0.7546	0.8493		14.1	12.5	12.6	20.0
1,3,5-Trimethylbenzene	Ave	2.686	3.070		14.3	12.5	14.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-60154-1

SDG No.:

Lab Sample ID: CCVIS 410-189194/3 Calibration Date: 11/01/2021 09:16

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: IN01X02.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
4-Chlorotoluene	Ave	0.7706	0.8838		14.3	12.5	14.7	20.0
tert-Butylbenzene	Ave	0.5890	0.6667		14.2	12.5	13.2	20.0
Pentachloroethane	Ave	0.4757	0.5330		14.0	12.5	12.0	20.0
1,2,4-Trimethylbenzene	Ave	2.753	3.169		14.4	12.5	15.1	20.0
sec-Butylbenzene	Ave	3.394	3.947		14.5	12.5	16.3	20.0
1,3-Dichlorobenzene	Ave	1.528	1.769	0.6000	14.5	12.5	15.8	20.0
p-Isopropyltoluene	Ave	3.002	3.421		14.2	12.5	14.0	20.0
1,4-Dichlorobenzene	Ave	1.562	1.770	0.5000	14.2	12.5	13.4	20.0
1,2,3-Trimethylbenzene	Ave	1.218	1.368		14.0	12.5	12.3	20.0
Benzyl chloride	Ave	0.2262	0.2673		14.8	12.5	18.2	20.0
n-Butylbenzene	Ave	1.403	1.623		14.5	12.5	15.7	20.0
1,2-Dichlorobenzene	Ave	1.396	1.609	0.4000	14.4	12.5	15.2	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.0813	0.1029	0.0500	15.8	12.5	26.5*	20.0
1,3,5-Trichlorobenzene	Ave	1.118	1.281		14.3	12.5	14.6	20.0
1,2,4-Trichlorobenzene	Ave	0.9433	1.067	0.2000	14.1	12.5	13.2	20.0
Hexachlorobutadiene	Ave	0.4098	0.4235		12.9	12.5	3.3	20.0
Naphthalene	Ave	1.798	1.885		13.1	12.5	4.9	20.0
1,2,3-Trichlorobenzene	Ave	0.8152	0.8400		12.9	12.5	3.0	20.0
Dibromofluoromethane (Surr)	Ave	0.2519	0.2566		10.2	10.0	1.9	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0504	0.0528		10.5	10.0	4.8	20.0
Toluene-d8 (Surr)	Ave	1.292	1.277		9.88	10.0	-1.2	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4939	0.4745		9.61	10.0	-3.9	20.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\19930\20211101-42940.b\IN01X02.D
Lims ID: CCVIS VSTD12.5
Client ID:
Sample Type: CCVIS
Inject. Date: 01-Nov-2021 09:16:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0042940-003
Misc. Info.: CCVIS VSTD12.5
Operator ID: SRK36897 Instrument ID: 19930
Sublist: chrom-8260 25ml HP31*sub49

Method: \\chromfs\Lancaster\ChromData\19930\20211101-42940.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 01-Nov-2021 12:34:03 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: CTX1643

First Level Reviewer: knouses Date: 01-Nov-2021 10:02:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.971	1.971	0.000	99	917808	12.5	15.5	
4 Chloromethane	50	2.178	2.178	0.000	99	948859	12.5	14.1	
6 Butadiene	39	2.294	2.294	0.000	90	1168552	12.5	18.9	
5 Vinyl chloride	62	2.294	2.294	0.000	86	925890	12.5	13.6	
7 Bromomethane	94	2.629	2.629	0.000	91	650249	12.5	13.2	
8 Chloroethane	64	2.709	2.709	0.000	100	534929	12.5	13.2	
9 Dichlorofluoromethane	67	2.946	2.946	0.000	97	1285455	12.5	13.1	
10 Trichlorofluoromethane	101	3.020	3.020	0.000	98	1268085	12.5	14.5	M
11 Ethyl ether	59	3.251	3.251	0.000	90	549035	12.5	15.5	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.355	3.355	0.000	91	898945	12.5	14.4	
13 Acrolein	56	3.422	3.422	0.000	100	4095924	626.4	569.2	
14 1,1-Dichloroethene	96	3.568	3.568	0.000	98	685759	12.5	15.2	
15 Acetone	43	3.593	3.593	0.000	100	1149405	125.0	125.7	
16 112TCTFE	101	3.617	3.617	0.000	91	719929	12.5	15.3	
17 Iodomethane	142	3.763	3.763	0.000	99	1213900	12.5	13.5	
18 Ethyl bromide	108	3.794	3.794	0.000	98	573938	12.5	14.0	
19 Carbon disulfide	76	3.879	3.879	0.000	99	1722532	12.5	13.8	
21 Methyl acetate	43	4.026	4.026	0.000	97	340565	12.5	12.6	M
22 3-Chloro-1-propene	41	4.050	4.050	0.000	91	982388	12.5	13.3	
23 Methylene Chloride	84	4.239	4.239	0.000	91	732534	12.5	14.9	
* 24 t-Butyl alcohol-d10 (IS)	65	4.275	4.275	0.000	97	164650	50.0	50.0	
25 2-Methyl-2-propanol	59	4.379	4.379	0.000	99	881168	250.0	254.2	
26 Acrylonitrile	53	4.574	4.574	0.000	100	400907	31.3	32.9	
27 Methyl tert-butyl ether	73	4.647	4.647	0.000	95	1816986	12.5	14.1	
28 trans-1,2-Dichloroethene	96	4.660	4.660	0.000	99	758667	12.5	14.8	
29 Hexane	57	5.086	5.086	0.000	91	1104695	12.5	15.5	
31 1,1-Dichloroethane	63	5.318	5.318	0.000	96	1363762	12.5	14.7	
32 Isopropyl ether	45	5.379	5.379	0.000	93	2155757	12.5	13.9	
33 2-Chloro-1,3-butadiene	53	5.428	5.428	0.000	91	1101016	12.5	14.2	
34 Tert-butyl ethyl ether	59	5.909	5.909	0.000	97	2091567	12.5	13.8	

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	6.117	6.117	0.000	99	2028910	125.0	127.0	
37 cis-1,2-Dichloroethene	96	6.147	6.147	0.000	82	837935	12.5	14.7	
38 2,2-Dichloropropane	77	6.165	6.165	0.000	90	1159079	12.5	14.4	
40 Propionitrile	54	6.202	6.202	0.000	99	1226708	250.0	289.2	
42 Methacrylonitrile	67	6.421	6.421	0.000	90	1976824	125.0	123.2	
43 Chlorobromomethane	128	6.482	6.482	0.000	92	366215	12.5	14.9	
44 Tetrahydrofuran	71	6.501	6.501	0.000	84	296165	62.5	62.5	
45 Chloroform	83	6.629	6.629	0.000	93	1353614	12.5	14.7	
$ 46 Dibromofluoromethane (Surr)	113	6.842	6.842	0.000	94	484590	10.0	10.2	
47 1,1,1-Trichloroethane	97	6.854	6.854	0.000	98	1272376	12.5	14.9	
48 Cyclohexane	56	6.958	6.958	0.000	89	1312987	12.5	15.5	
51 1,1-Dichloropropene	75	7.068	7.068	0.000	96	1091678	12.5	15.1	
50 Carbon tetrachloride	117	7.068	7.068	0.000	86	1126062	12.5	15.3	
52 Isobutyl alcohol	41	7.214	7.214	0.000	94	791593	625.0	715.6	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.293	7.293	0.000	83	99703	10.0	10.5	
54 Benzene	78	7.330	7.330	0.000	96	3139795	12.5	14.8	
56 1,2-Dichloroethane	62	7.403	7.403	0.000	98	842188	12.5	14.6	
57 Tert-amyl methyl ether	73	7.519	7.519	0.000	99	1971110	12.5	14.0	
* 58 Fluorobenzene (IS)	96	7.732	7.732	0.000	99	1888514	10.0	10.0	
59 n-Heptane	43	7.744	7.744	0.000	90	1106198	12.5	15.0	
60 n-Butanol	56	8.092	8.092	0.000	86	1275456	1093.8	1242.1	
61 Trichloroethene	95	8.214	8.214	0.000	98	868115	12.5	15.2	
62 Methylcyclohexane	83	8.519	8.519	0.000	93	1491912	12.5	15.7	
63 1,2-Dichloropropane	63	8.543	8.543	0.000	86	798215	12.5	15.3	
64 Methyl methacrylate	69	8.622	8.622	0.000	88	384771	12.5	12.2	
65 1,4-Dioxane	88	8.634	8.634	0.000	41	173708	625.0	624.9	
66 Dibromomethane	93	8.653	8.653	0.000	93	386665	12.5	15.2	
68 Dichlorobromomethane	83	8.884	8.884	0.000	99	970444	12.5	15.4	
69 2-Nitropropane	41	9.147	9.147	0.000	98	533366	62.5	59.1	
73 cis-1,3-Dichloropropene	75	9.427	9.427	0.000	97	1191165	12.5	15.0	
74 4-Methyl-2-pentanone (MIBK)	43	9.598	9.598	0.000	96	4986081	125.0	124.0	
$ 75 Toluene-d8 (Surr)	98	9.738	9.738	0.000	93	1963195	10.0	9.88	
76 Toluene	92	9.811	9.811	0.000	98	2066498	12.5	14.0	
78 trans-1,3-Dichloropropene	75	10.067	10.067	0.000	91	974483	12.5	14.3	
79 Ethyl methacrylate	69	10.122	10.122	0.000	88	798707	12.5	14.1	
80 1,1,2-Trichloroethane	97	10.268	10.268	0.000	91	583327	12.5	14.8	
81 Tetrachloroethene	166	10.360	10.360	0.000	98	1032105	12.5	14.7	
82 1,3-Dichloropropane	76	10.427	10.427	0.000	89	976672	12.5	14.6	
83 2-Hexanone	43	10.476	10.476	0.000	96	3506894	125.0	124.5	
85 Chlorodibromomethane	129	10.646	10.646	0.000	90	718574	12.5	15.0	
86 Ethylene Dibromide	107	10.756	10.756	0.000	98	557284	12.5	14.7	
* 87 Chlorobenzene-d5 (IS)	117	11.183	11.183	0.000	85	1537151	10.0	10.0	
88 1-Chlorohexane	91	11.189	11.189	0.000	97	1177791	12.5	13.7	
90 Chlorobenzene	112	11.213	11.213	0.000	96	2315598	12.5	14.2	
91 1,1,1,2-Tetrachloroethane	131	11.292	11.292	0.000	95	815369	12.5	14.3	
92 Ethylbenzene	91	11.292	11.292	0.000	98	4061175	12.5	14.3	
93 m-Xylene & p-Xylene	106	11.408	11.408	0.000	100	3199598	25.0	28.5	
94 o-Xylene	106	11.737	11.737	0.000	96	1564193	12.5	14.1	
95 Styrene	104	11.756	11.756	0.000	95	2586140	12.5	14.5	
96 Bromoform	173	11.914	11.914	0.000	98	444767	12.5	15.5	
97 Isopropylbenzene	105	12.036	12.036	0.000	96	4168547	12.5	14.3	
$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	94	729326	10.0	9.61	

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	12.280	12.280	0.000	93	741557	12.5	14.9	
102 Bromobenzene	156	12.298	12.298	0.000	96	989346	12.5	14.5	
103 trans-1,4-Dichloro-2-butene	53	12.304	12.304	0.000	93	1584598	125.0	108.9	
104 1,2,3-Trichloropropane	110	12.329	12.329	0.000	82	207213	12.5	15.1	
105 N-Propylbenzene	91	12.365	12.365	0.000	99	4787301	12.5	14.4	
106 2-Chlorotoluene	126	12.445	12.445	0.000	97	957670	12.5	14.1	
107 1,3,5-Trimethylbenzene	105	12.500	12.500	0.000	94	3461802	12.5	14.3	
108 4-Chlorotoluene	126	12.536	12.536	0.000	97	996506	12.5	14.3	
109 tert-Butylbenzene	134	12.743	12.743	0.000	93	751783	12.5	14.2	
110 Pentachloroethane	167	12.774	12.774	0.000	93	600927	12.5	14.0	
111 1,2,4-Trimethylbenzene	105	12.786	12.786	0.000	97	3572935	12.5	14.4	
112 sec-Butylbenzene	105	12.908	12.908	0.000	94	4450338	12.5	14.5	
113 1,3-Dichlorobenzene	146	13.006	13.006	0.000	98	1994777	12.5	14.5	
114 4-Isopropyltoluene	119	13.012	13.012	0.000	97	3857275	12.5	14.2	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	93	902028	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.079	13.079	0.000	96	1996290	12.5	14.2	
117 1,2,3-Trimethylbenzene	120	13.091	13.091	0.000	98	1541981	12.5	14.0	
118 Benzyl chloride	126	13.158	13.158	0.000	98	301384	12.5	14.8	
119 n-Butylbenzene	92	13.304	13.304	0.000	97	1830223	12.5	14.5	
120 1,2-Dichlorobenzene	146	13.341	13.341	0.000	99	1813802	12.5	14.4	
122 1,2-Dibromo-3-Chloropropane	155	13.883	13.883	0.000	89	115969	12.5	15.8	
123 1,3,5-Trichlorobenzene	180	14.005	14.005	0.000	98	1444528	12.5	14.3	
124 1,2,4-Trichlorobenzene	180	14.432	14.432	0.000	94	1203550	12.5	14.1	
125 Hexachlorobutadiene	225	14.511	14.511	0.000	97	477536	12.5	12.9	
126 Naphthalene	128	14.609	14.609	0.000	97	2125889	12.5	13.1	
127 1,2,3-Trichlorobenzene	180	14.755	14.755	0.000	96	947138	12.5	12.9	
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

Review Flags

M - Manually Integrated

Reagents:

MSV_LL_#1_826_00020	Amount Added: 25.00	Units: uL	
MSV_LL_#2_826_00022	Amount Added: 25.00	Units: uL	
MSV_LL_GAS826_00046	Amount Added: 25.00	Units: uL	
MSV_LLcentISS_00002	Amount Added: 5.00	Units: uL	Run Reagent

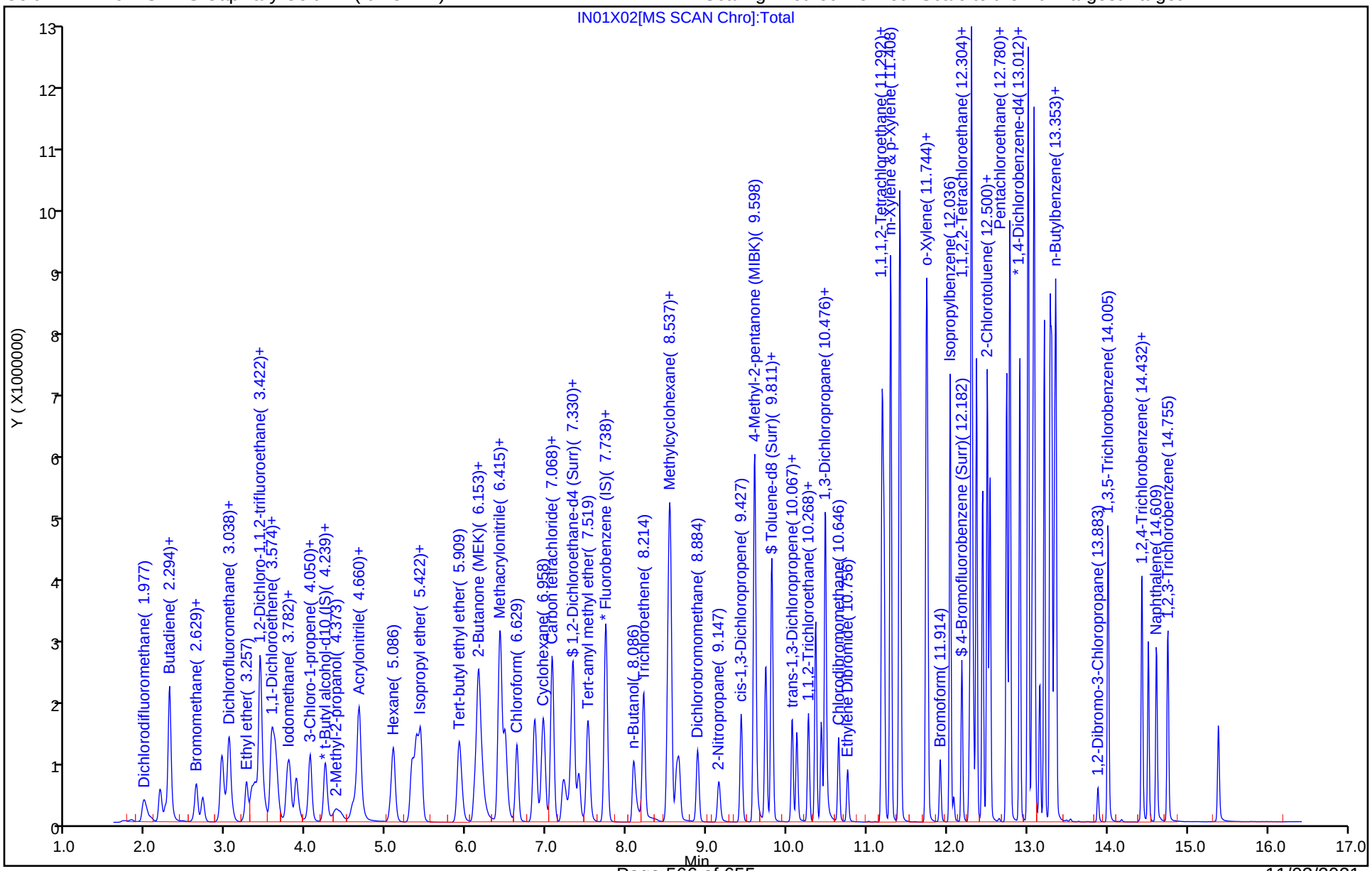
Report Date: 01-Nov-2021 12:34:05 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211101-42940.b\IN01X02.D

Injection Date:	01-Nov-2021 09:16:30	Instrument ID:	19930	Operator ID:	SRK36897
Lims ID:	CCVIS VSTD12.5			Worklist Smp#:	3
Client ID:					
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

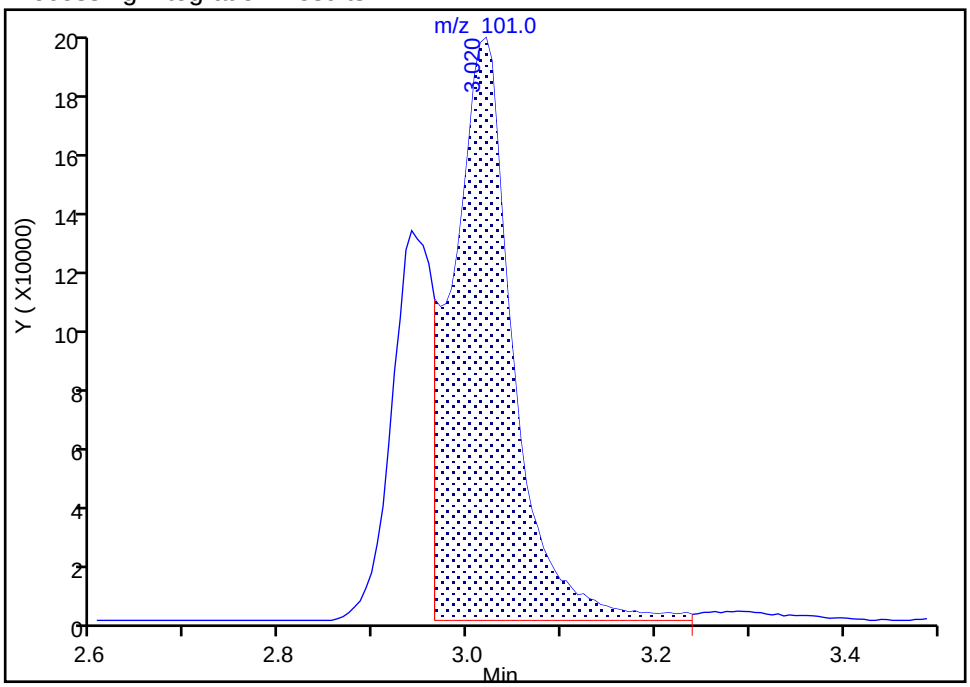
Data File:	\\chromfs\Lancaster\ChromData\19930\20211101-42940.b\IN01X02.D				
Injection Date:	01-Nov-2021 09:16:30	Instrument ID:	19930		
Lims ID:	CCVIS VSTD12.5				
Client ID:					
Operator ID:	SRK36897	ALS Bottle#:	2	Worklist Smp#:	3
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

10 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

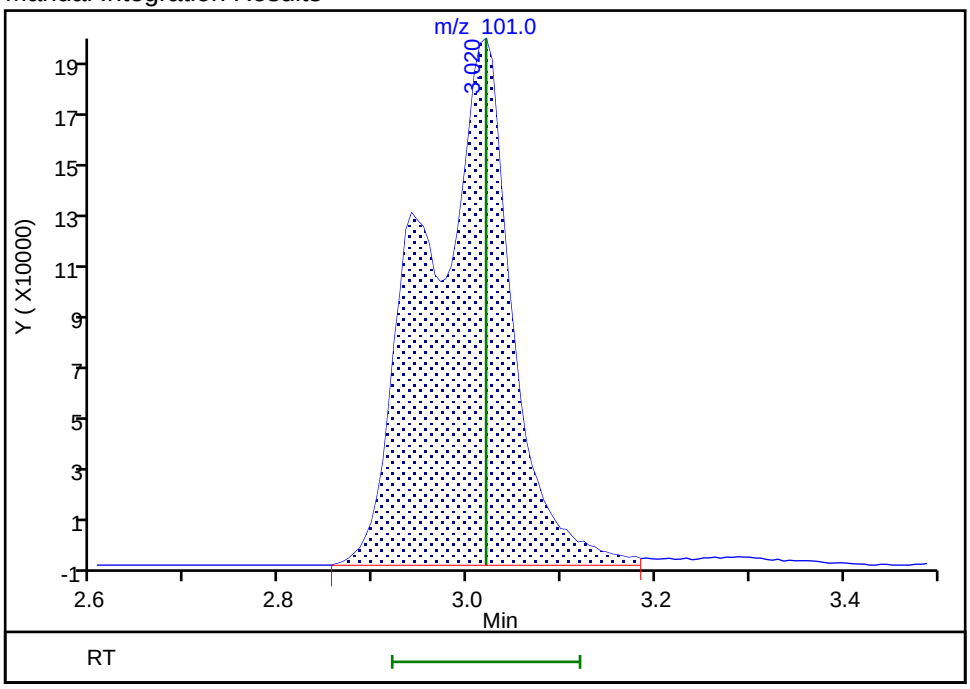
Processing Integration Results

RT: 3.02
Area: 910977
Amount: 10.419993
Amount Units: ug/l



Manual Integration Results

RT: 3.02
Area: 1268085
Amount: 14.504687
Amount Units: ug/l



Reviewer: knouses, 01-Nov-2021 09:40:43
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

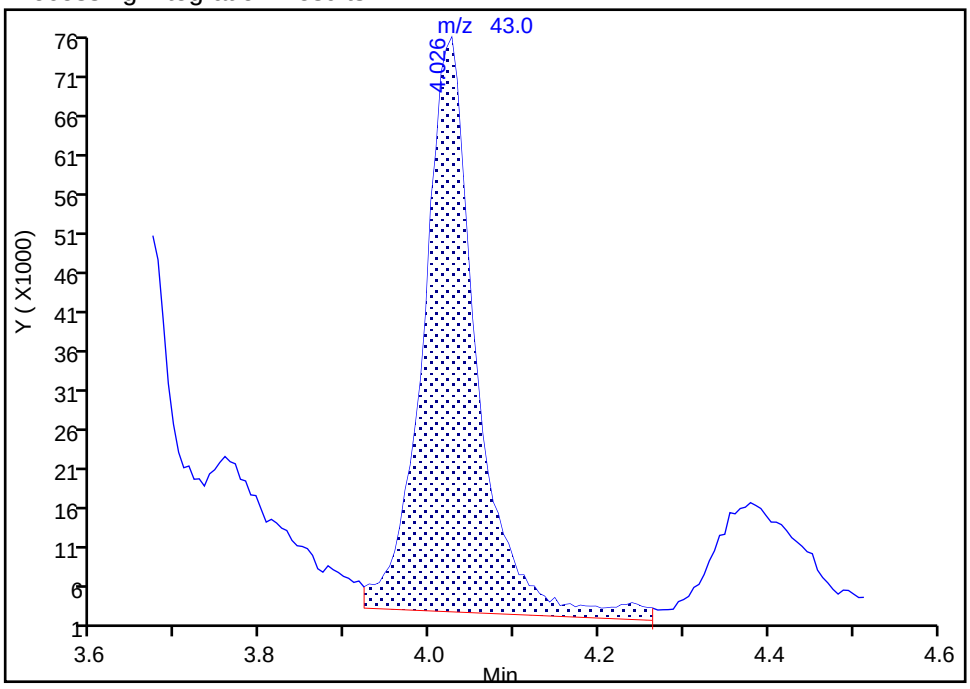
Data File:	\\chromfs\Lancaster\ChromData\19930\20211101-42940.b\IN01X02.D				
Injection Date:	01-Nov-2021 09:16:30	Instrument ID:	19930		
Lims ID:	CCVIS VSTD12.5				
Client ID:					
Operator ID:	SRK36897	ALS Bottle#:	2	Worklist Smp#:	3
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

21 Methyl acetate, CAS: 79-20-9

Signal: 1

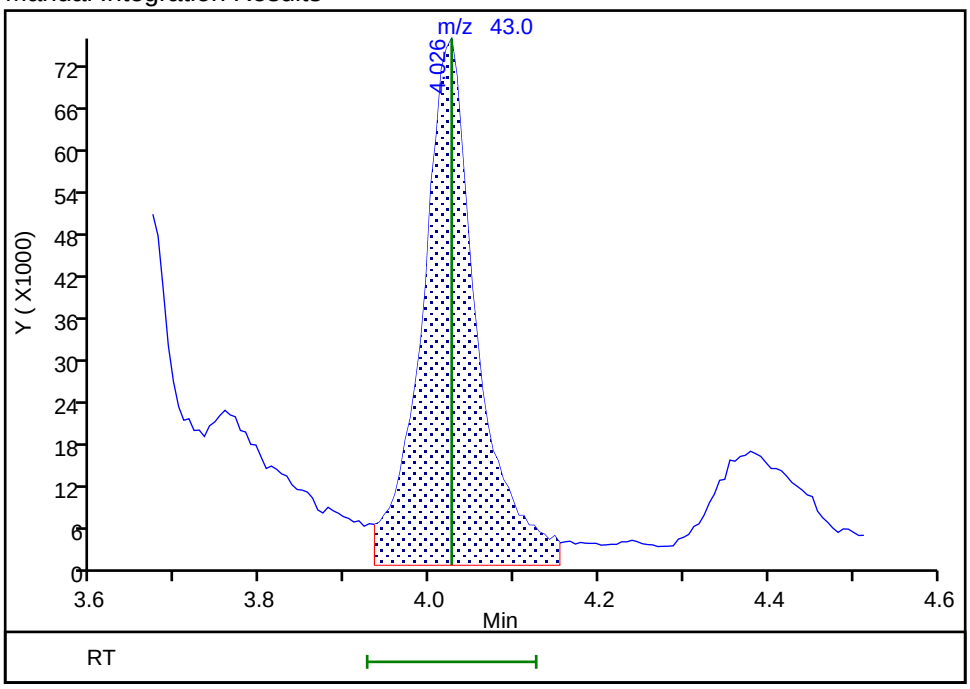
Processing Integration Results

RT: 4.03
Area: 321057
Amount: 11.924498
Amount Units: ug/l



Manual Integration Results

RT: 4.03
Area: 340565
Amount: 12.649052
Amount Units: ug/l



Reviewer: knouses, 01-Nov-2021 09:40:59

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\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
$ 145 BFB	95	5.190	5.190	0.000	0	215193	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

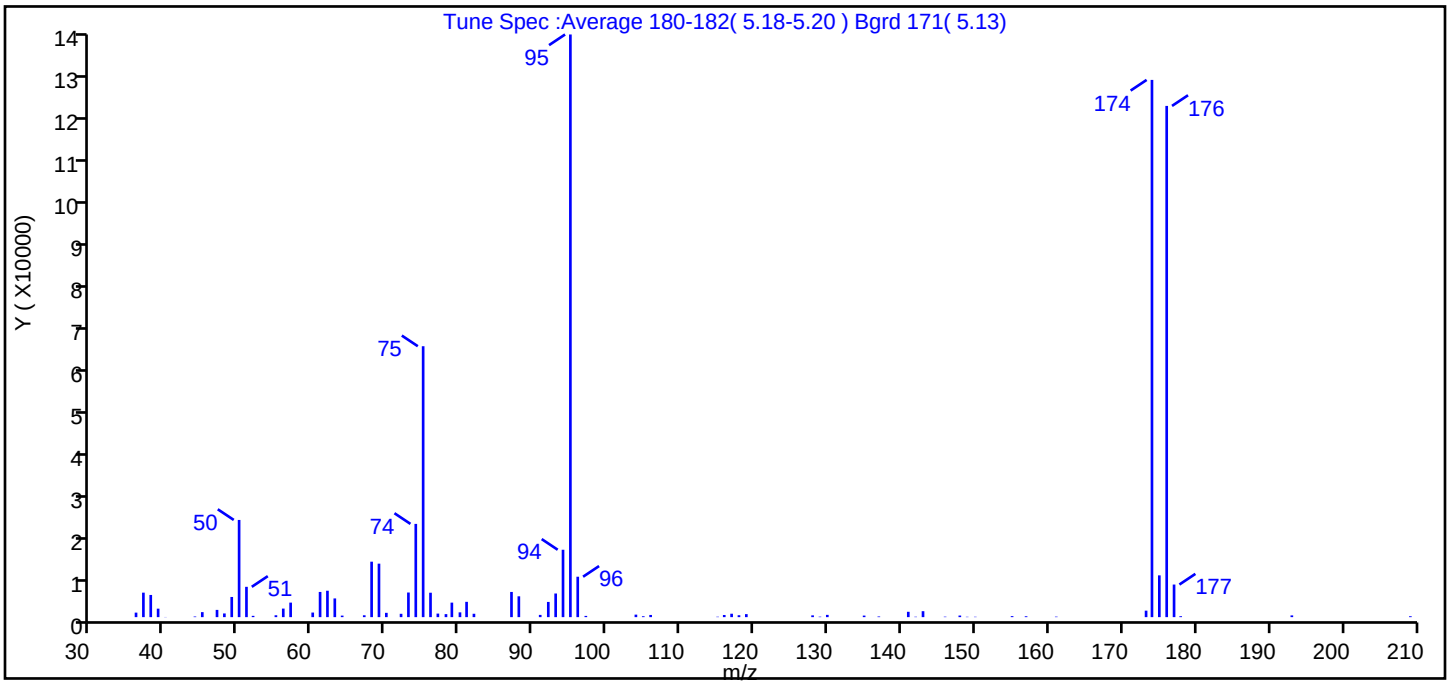
MSV_V_BFB_00006 Amount Added: 1.00 Units: uL

MS Tune Report

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

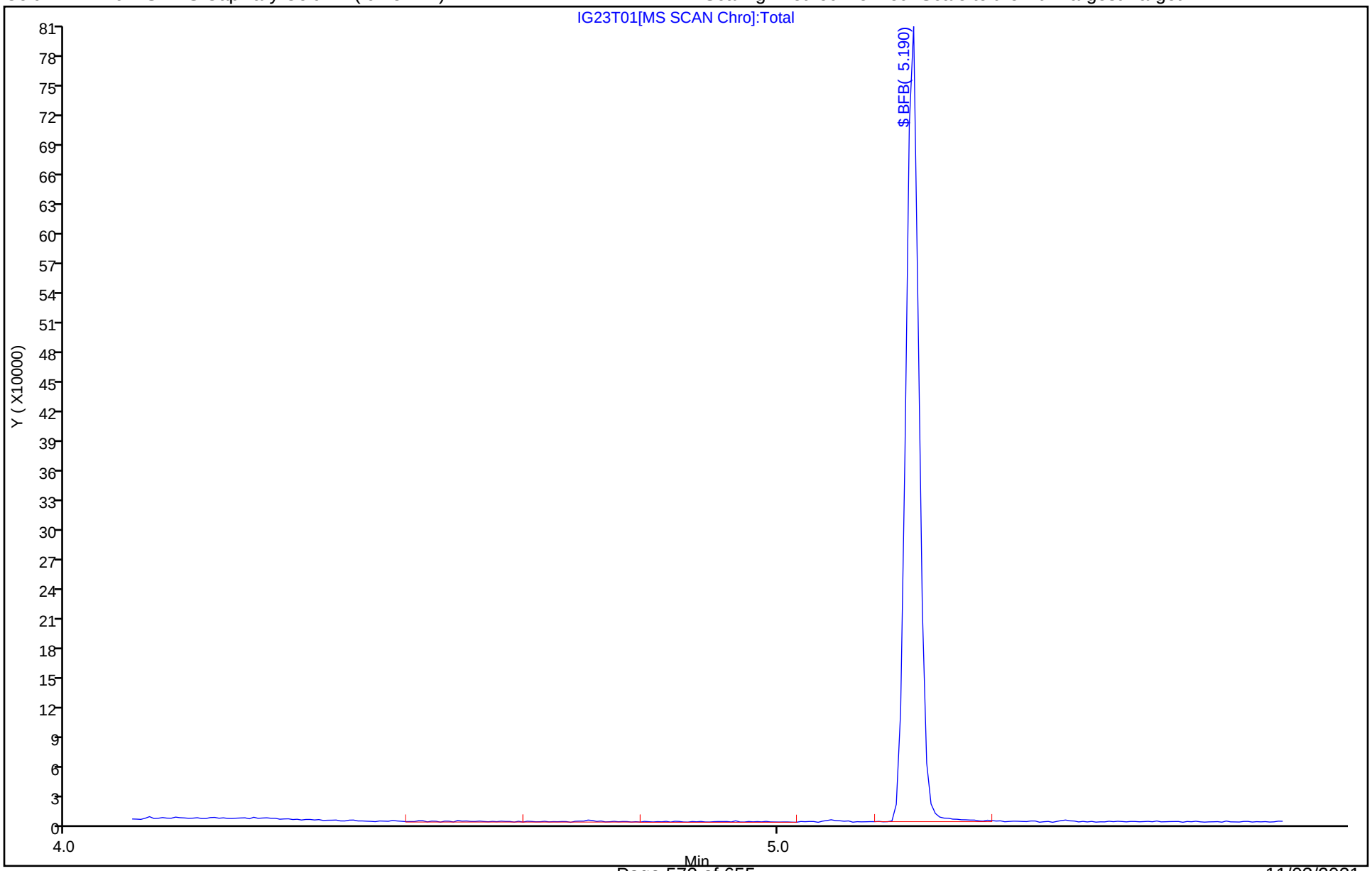
Report Date: 24-Aug-2021 15:42:35 Chrom Revision: 2.3 03-Aug-2021 10:08:16

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\20211029-42796.b\IC29T01.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	29-Oct-2021 07:54:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 uL	Dil. Factor:	1.0000		
Sample Info:	410-0042796-001				
Misc. Info.:	BFB				
Operator ID:	SRK36897	Instrument ID:	19930		
Method:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\8260 25ml HP31.m				
Limit Group:	MSV - 8260C_D				
Last Update:	29-Oct-2021 11:49:28	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:	CTX1645				

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 145 BFB	95	5.190	5.190	0.000	0	112363	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

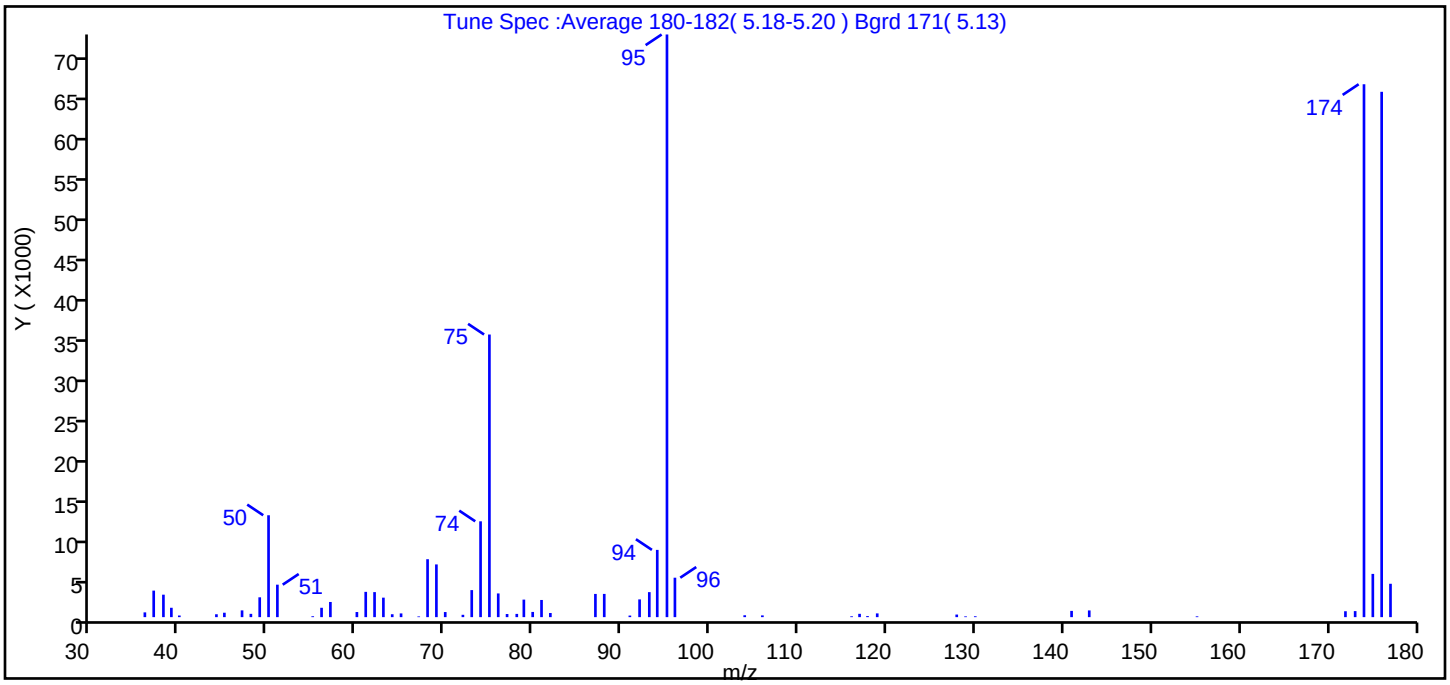
MSV_V_BFB_00006 Amount Added: 1.00 Units: uL

MS Tune Report

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29T01.D
Injection Date: 29-Oct-2021 07:54:30 Instrument ID: 19930
Lims ID: BFB
Client ID:
Operator ID: SRK36897 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	17.5
75	30 to 60% of m/z 95	48.5
96	5 to 9% of m/z 95	6.8
173	Less than 2% of m/z 174	1.0 (1.1)
174	50 to 120% of m/z 95	91.5
175	5 to 9% of m/z 174	7.4 (8.1)
176	Greater than 95% but less than 101% of m/z 174	90.2 (98.6)
177	5 to 9% of m/z 176	5.7 (6.4)

Data File: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29T01.D\8260 25ml HP31.rslt\spectra.d
Injection Date: 29-Oct-2021 07:54:30
Spectrum: Tune Spec :Average 180-182(5.18-5.20) Bgrd 171(5.13)
Base Peak: 95.10
Minimum % Base Peak: 0
Number of Points: 62

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	596	61.00	3158	79.00	2190	118.00	133
37.00	3313	62.00	3126	80.00	650	119.00	468
38.00	2806	63.00	2434	81.00	2144	128.00	323
39.00	1171	64.00	363	82.00	516	129.00	95
40.00	205	65.00	466	87.00	2899	130.00	108
44.00	361	67.00	88	88.00	2902	141.00	781
45.00	552	68.00	7235	91.00	197	143.00	839
47.00	845	69.00	6585	92.00	2217	155.00	98
48.00	412	70.00	637	93.00	3123	172.00	737
49.00	2477	72.00	293	94.00	8399	173.00	754
50.00	12724	73.00	3377	95.00	72768	174.00	66552
51.00	4055	74.00	11968	96.00	4925	175.00	5401
55.00	111	75.00	35296	104.00	235	176.00	65608
56.00	1170	76.00	2961	106.00	219	177.00	4168
57.00	1894	77.00	390	116.00	104		
60.00	640	78.00	405	117.00	414		

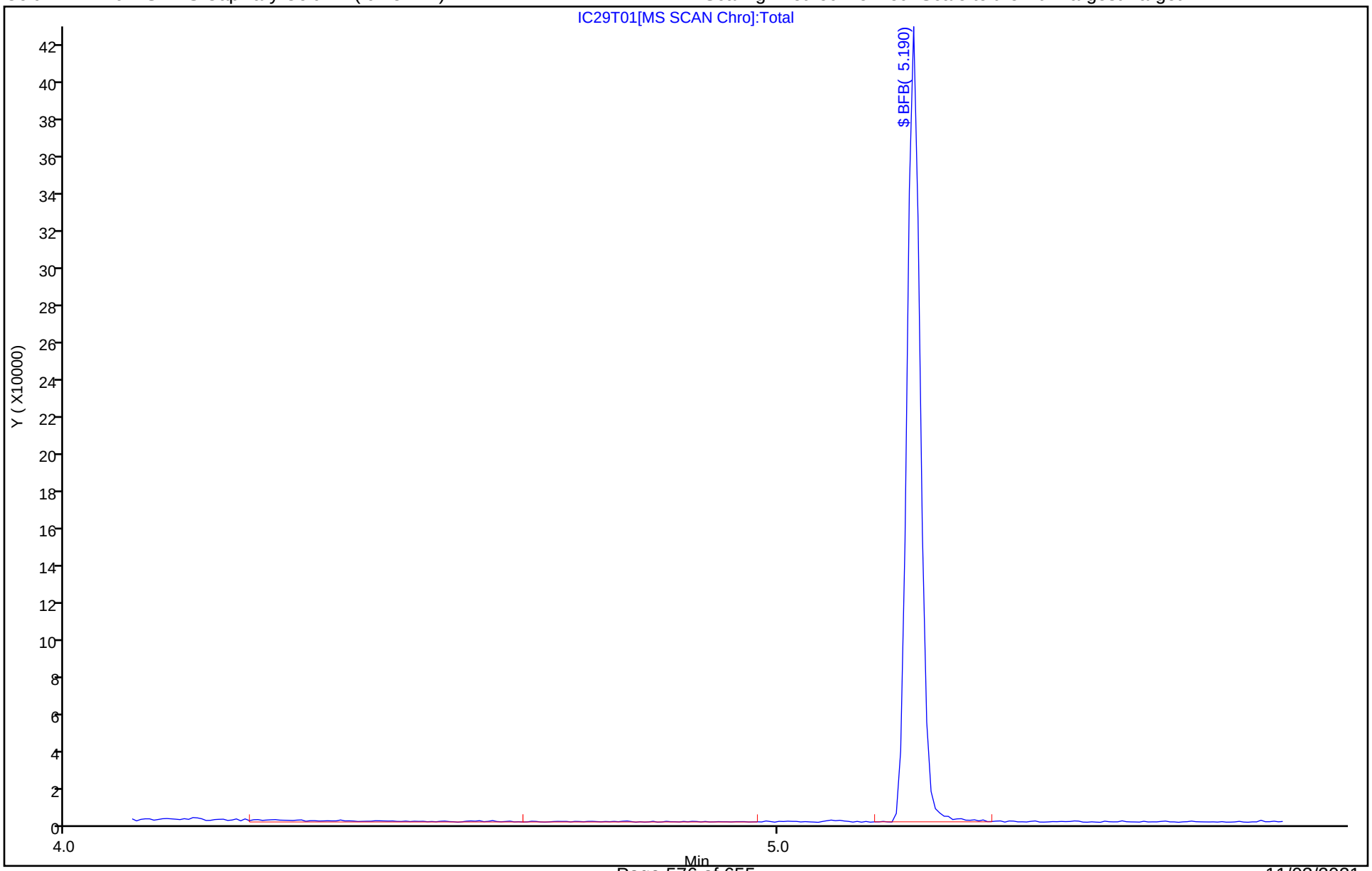
Report Date: 29-Oct-2021 11:49:28 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29T01.D

Injection Date:	29-Oct-2021 07:54:30	Instrument ID:	19930	Operator ID:	SRK36897
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\20211101-42940.b\IN01T01.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	01-Nov-2021 08:41:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 uL	Dil. Factor:	1.0000		
Sample Info:	410-0042940-001				
Misc. Info.:	BFB				
Operator ID:	SRK36897	Instrument ID:	19930		
Method:	\\chromfs\Lancaster\ChromData\19930\20211101-42940.b\8260 25ml HP31.m				
Limit Group:	MSV - 8260C_D				
Last Update:	01-Nov-2021 12:34:26	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:	CTX1643				

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 145 BFB	95	5.190	5.190	0.000	0	176224	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

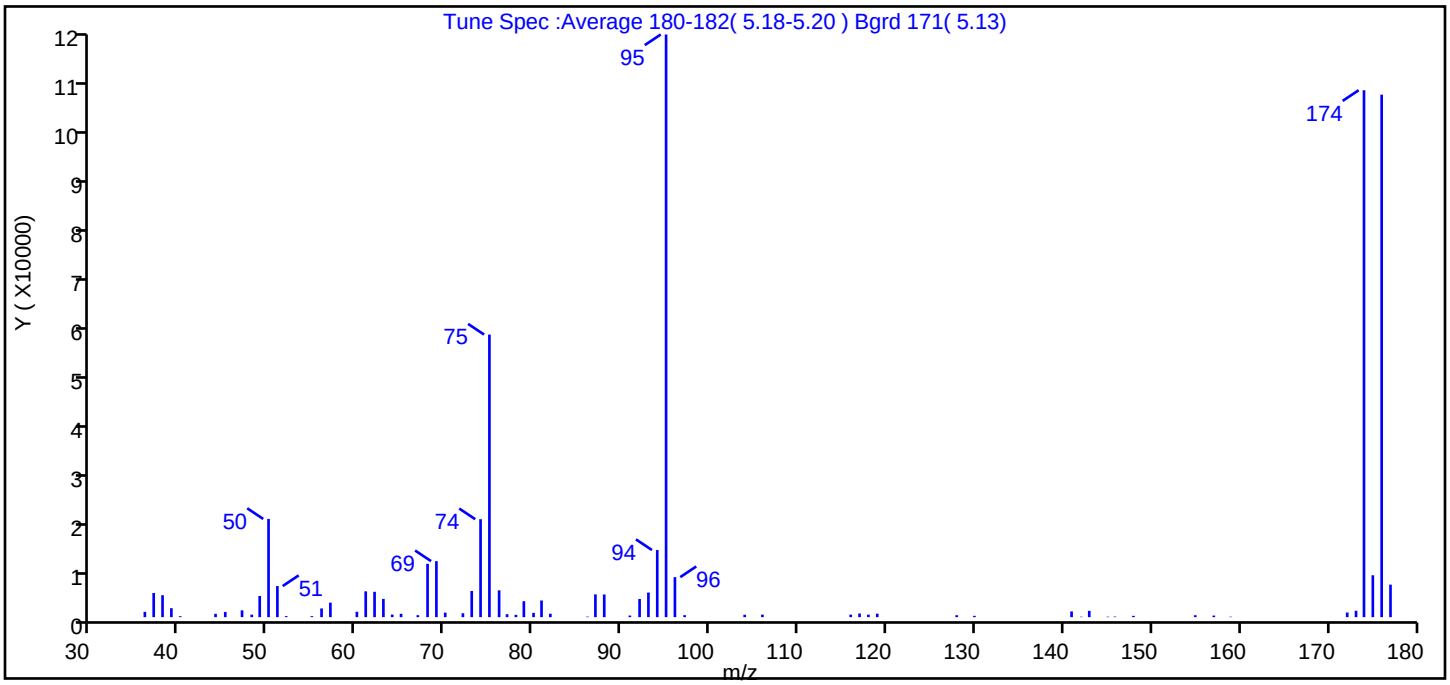
MSV_V_BFB_00006 Amount Added: 1.00 Units: uL

MS Tune Report

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211101-42940.b\IN01T01.D
Injection Date: 01-Nov-2021 08:41:30 Instrument ID: 19930
Lims ID: BFB
Client ID:
Operator ID: SRK36897 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	16.9
75	30 to 60% of m/z 95	48.5
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	90.4
175	5 to 9% of m/z 174	7.2 (7.9)
176	Greater than 95% but less than 101% of m/z 174	89.7 (99.2)
177	5 to 9% of m/z 176	5.6 (6.2)

Data File: \\chromfs\Lancaster\ChromData\19930\20211101-42940.b\IN01T01.D\8260 25ml HP31.rslt\spectra.d
Injection Date: 01-Nov-2021 08:41:30
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: 70

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1026	62.00	4900	82.00	661	130.00	258
37.00	4670	63.00	3520	86.00	105	141.00	1104
38.00	4238	64.00	492	87.00	4397	142.00	84
39.00	1728	65.00	644	88.00	4380	143.00	1214
40.00	179	67.00	381	91.00	306	145.00	91
44.00	647	68.00	10309	92.00	3504	146.00	112
45.00	1003	69.00	10821	93.00	4750	148.00	252
47.00	1314	70.00	873	94.00	12972	155.00	371
48.00	483	72.00	752	95.00	112600	157.00	308
49.00	4091	73.00	5059	96.00	7733	159.00	86
50.00	18976	74.00	18928	97.00	384	172.00	890
51.00	6010	75.00	54608	104.00	463	173.00	1237
52.00	200	76.00	5178	106.00	484	174.00	101824
55.00	189	77.00	570	116.00	484	175.00	8093
56.00	1682	78.00	445	117.00	707	176.00	100968
57.00	2805	79.00	3080	118.00	485	177.00	6283
60.00	1037	80.00	822	119.00	672		
61.00	4988	81.00	3221	128.00	372		

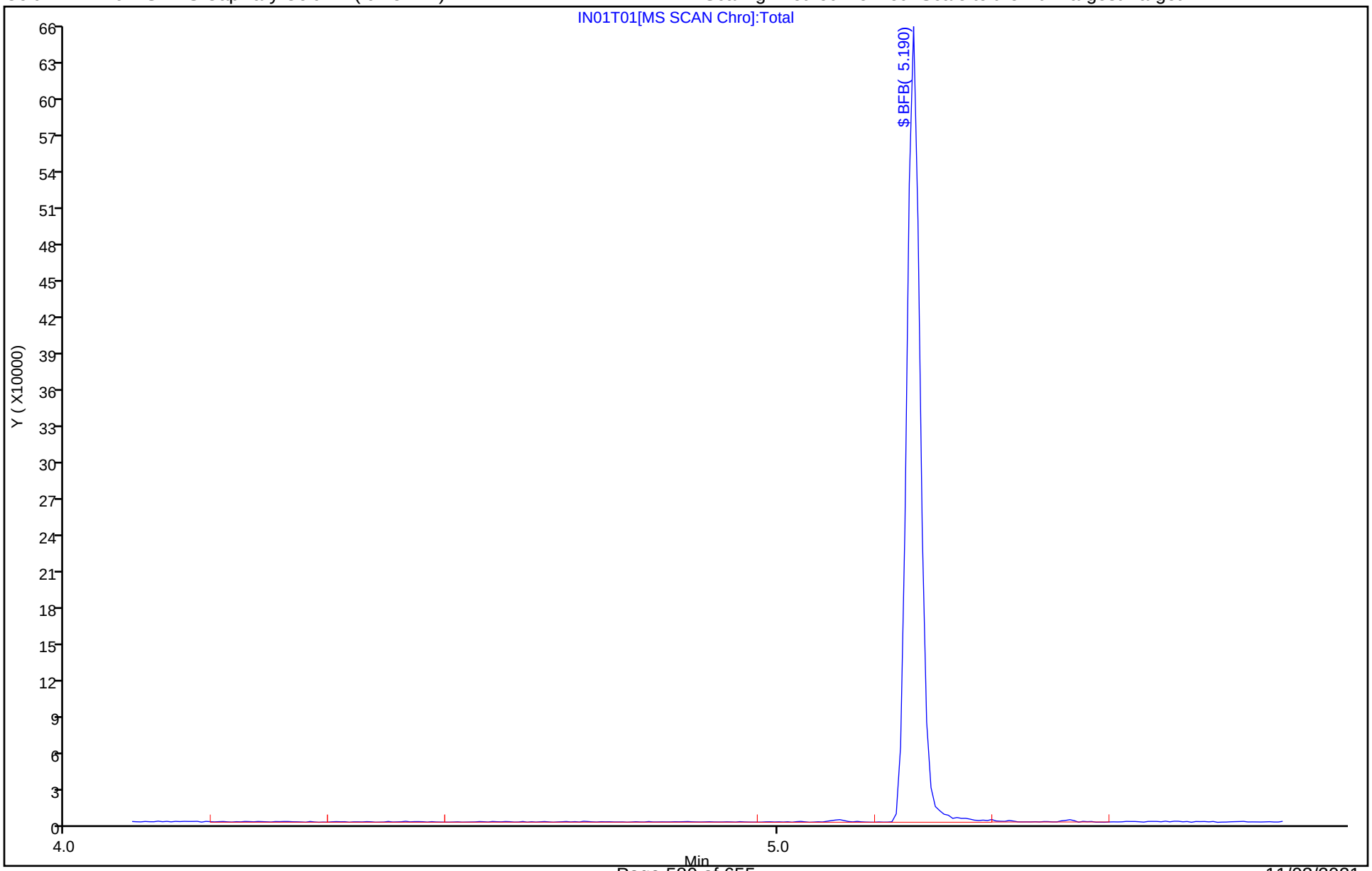
Report Date: 01-Nov-2021 12:34:27 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211101-42940.b\IN01T01.D

Injection Date:	01-Nov-2021 08:41:30	Instrument ID:	19930	Operator ID:	SRK36897
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.: 410-60154-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 410-188555/11

Matrix: Water Lab File ID: IC29X10.D

Analysis Method: 8260D Date Collected:

Sample wt/vol: 25(mL) Date Analyzed: 10/29/2021 11:20

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 188555 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.: 410-60154-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 410-188555/11

Matrix: Water Lab File ID: IC29X10.D

Analysis Method: 8260D Date Collected:

Sample wt/vol: 25(mL) Date Analyzed: 10/29/2021 11:20

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 188555 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	107		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	105		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\20211029-42796.b\IC29X10.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 29-Oct-2021 11:20:30 ALS Bottle#: 10 Worklist Smp#: 11
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0042796-011
Misc. Info.: MB
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 29-Oct-2021 11:49:19 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: CTX1645

First Level Reviewer: knouses Date: 29-Oct-2021 11:47:48

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85		1.971					ND	
2 Chlorodifluoromethane	51		1.989					ND	
3 Dimethyl ether	45		2.050					ND	
4 Chloromethane	50		2.172					ND	
6 Butadiene	39		2.288					ND	7
5 Vinyl chloride	62		2.294					ND	
7 Bromomethane	94		2.623					ND	
8 Chloroethane	64		2.708					ND	
9 Dichlorofluoromethane	67		2.940					ND	
10 Trichlorofluoromethane	101		3.013					ND	
11 Ethyl ether	59		3.251					ND	
12 1,2-Dichloro-1,1,2-trifluoroetha	67		3.342					ND	
13 Acrolein	56		3.422					ND	
14 1,1-Dichloroethene	96		3.562					ND	
15 Acetone	43		3.592					ND	7
16 112TCTFE	101		3.611					ND	
17 Iodomethane	142		3.763					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		4.044					ND	
23 Methylene Chloride	84		4.233					ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.257	4.251	0.006	17	164586	50.0	50.0	
25 2-Methyl-2-propanol	59		4.385					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		5.086					ND	
30 Vinyl acetate	43		5.312					ND	
31 1,1-Dichloroethane	63		5.318					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		5.427				ND		
34 Tert-butyl ethyl ether	59		5.909				ND		
36 2-Butanone (MEK)	43		6.116				ND		
37 cis-1,2-Dichloroethene	96		6.147				ND		
S 35 1,2-Dichloroethene, Total	100		6.155				ND		7
38 2,2-Dichloropropane	77		6.159				ND		
39 Ethyl acetate	43		6.190				ND		
40 Propionitrile	54		6.202				ND		
41 Methyl acrylate	55		6.220				ND		
42 Methacrylonitrile	67		6.415				ND		
43 Chlorobromomethane	128		6.476				ND		
44 Tetrahydrofuran	71		6.488				ND		
45 Chloroform	83		6.628				ND		
$ 46 Dibromofluoromethane (Surr)	113	6.848	6.842	0.006	94	510763	10.0	10.5	
47 1,1,1-Trichloroethane	97		6.854				ND		
48 Cyclohexane	56		6.958				ND		
49 1-Chlorobutane	56		7.019				ND		
51 1,1-Dichloropropene	75		7.067				ND		
50 Carbon tetrachloride	117		7.067				ND		
52 Isobutyl alcohol	41		7.208				ND		
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.299	7.299	0.000	83	103950	10.0	10.7	
54 Benzene	78		7.329				ND		
56 1,2-Dichloroethane	62		7.397				ND		
55 Isopropyl acetate	43		7.415				ND		
57 Tert-amyl methyl ether	73		7.512				ND		
* 58 Fluorobenzene (IS)	96	7.738	7.732	0.006	99	1935882	10.0	10.0	
59 n-Heptane	43		7.738				ND		7
60 n-Butanol	56		8.085				ND		
61 Trichloroethene	95		8.207				ND		
62 Methylcyclohexane	83		8.518				ND		
63 1,2-Dichloropropane	63		8.537				ND		
64 Methyl methacrylate	69		8.622				ND		
65 1,4-Dioxane	88		8.628				ND		
66 Dibromomethane	93		8.646				ND		
67 n-Propyl acetate	43		8.707				ND		
68 Dichlorobromomethane	83		8.884				ND		
69 2-Nitropropane	41		9.146				ND		
70 Chloroacetonitrile	75		9.226				ND		
71 2-Chloroethyl vinyl ether	63		9.256				ND		
72 1-Bromo-2-chloroethane	63		9.281				ND		
73 cis-1,3-Dichloropropene	75		9.427				ND		
74 4-Methyl-2-pentanone (MIBK)	43		9.591				ND		
$ 75 Toluene-d8 (Surr)	98	9.738	9.731	0.007	93	1996883	10.0	10.0	
76 Toluene	92		9.811				ND		
S 77 1,3-Dichloropropene, Total	100		10.060				ND		7
78 trans-1,3-Dichloropropene	75		10.067				ND		
79 Ethyl methacrylate	69		10.122				ND		
80 1,1,2-Trichloroethane	97		10.268				ND		
81 Tetrachloroethene	166		10.359				ND		
82 1,3-Dichloropropane	76		10.426				ND		
83 2-Hexanone	43		10.475				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		10.646				ND		
	86 Ethylene Dibromide	107		10.756				ND		
*	87 Chlorobenzene-d5 (IS)	117	11.183	11.182	0.001	85	1544331	10.0	10.0	
	88 1-Chlorohexane	91		11.188				ND		7
	90 Chlorobenzene	112		11.207				ND		
S	89 Xylenes, Total	106		11.245				ND		7
	91 1,1,1,2-Tetrachloroethane	131		11.292				ND		
	92 Ethylbenzene	91		11.292				ND		
	93 m-Xylene & p-Xylene	106		11.408				ND		
	94 o-Xylene	106		11.737				ND		
	95 Styrene	104		11.755				ND		
	96 Bromoform	173		11.914				ND		
	97 Isopropylbenzene	105		12.036				ND		
	98 cis-1,4-Dichloro-2-butene	88		12.079				ND		
	99 Cyclohexanone	55		12.121				ND		
$	100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	93	730234	10.0	9.57	
	101 1,1,2,2-Tetrachloroethane	83		12.280				ND		
	102 Bromobenzene	156		12.298				ND		
	103 trans-1,4-Dichloro-2-butene	53		12.304				ND		
	104 1,2,3-Trichloropropane	110		12.328				ND		
	105 N-Propylbenzene	91		12.365				ND		
	106 2-Chlorotoluene	126		12.444				ND		
	107 1,3,5-Trimethylbenzene	105		12.499				ND		
	108 4-Chlorotoluene	126		12.536				ND		
	109 tert-Butylbenzene	134		12.743				ND		
	110 Pentachloroethane	167		12.774				ND		
	111 1,2,4-Trimethylbenzene	105		12.786				ND		
	112 sec-Butylbenzene	105		12.908				ND		
	113 1,3-Dichlorobenzene	146		13.005				ND		
	114 4-Isopropyltoluene	119		13.011				ND		7
*	115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	94	898176	10.0	10.0	
	116 1,4-Dichlorobenzene	146		13.078				ND		
	117 1,2,3-Trimethylbenzene	120		13.091				ND		7
	118 Benzyl chloride	126		13.158				ND		7
	119 n-Butylbenzene	92		13.304				ND		
	120 1,2-Dichlorobenzene	146		13.340				ND		
	121 Hexachloroethane	117		13.542				ND		
	122 1,2-Dibromo-3-Chloropropane	155		13.883				ND		
	123 1,3,5-Trichlorobenzene	180		14.005				ND		
	124 1,2,4-Trichlorobenzene	180		14.432				ND		
	125 Hexachlorobutadiene	225		14.511				ND		
	126 Naphthalene	128		14.609				ND		7
	127 1,2,3-Trichlorobenzene	180		14.755				ND		
	128 Dodecane	57		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		
	206 Pentachloroethane TIC	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
142 2-Bromo-1-chloropropane	1		0.000					ND	
131 tert-Butyl Formate	1		0.000					ND	
132 Methylal	1		0.000					ND	
137 2-Methylnaphthalene	142		0.000					ND	
138 1,1-Dichloro-1-fluoroethane	1		0.000					ND	
202 1,3-Dichloro-2-propanol TIC	1		0.000					ND	
203 Propargyl alcohol TIC	1		0.000					ND	
204 Pentane	43		0.000					ND	
143 n-Decane	57		0.000					ND	
139 1-Bromo-3-Chloropropane	1		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	
140 Ethanol	45		3.269					ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_LLcentISS_00002 Amount Added: 5.00 Units: uL Run Reagent

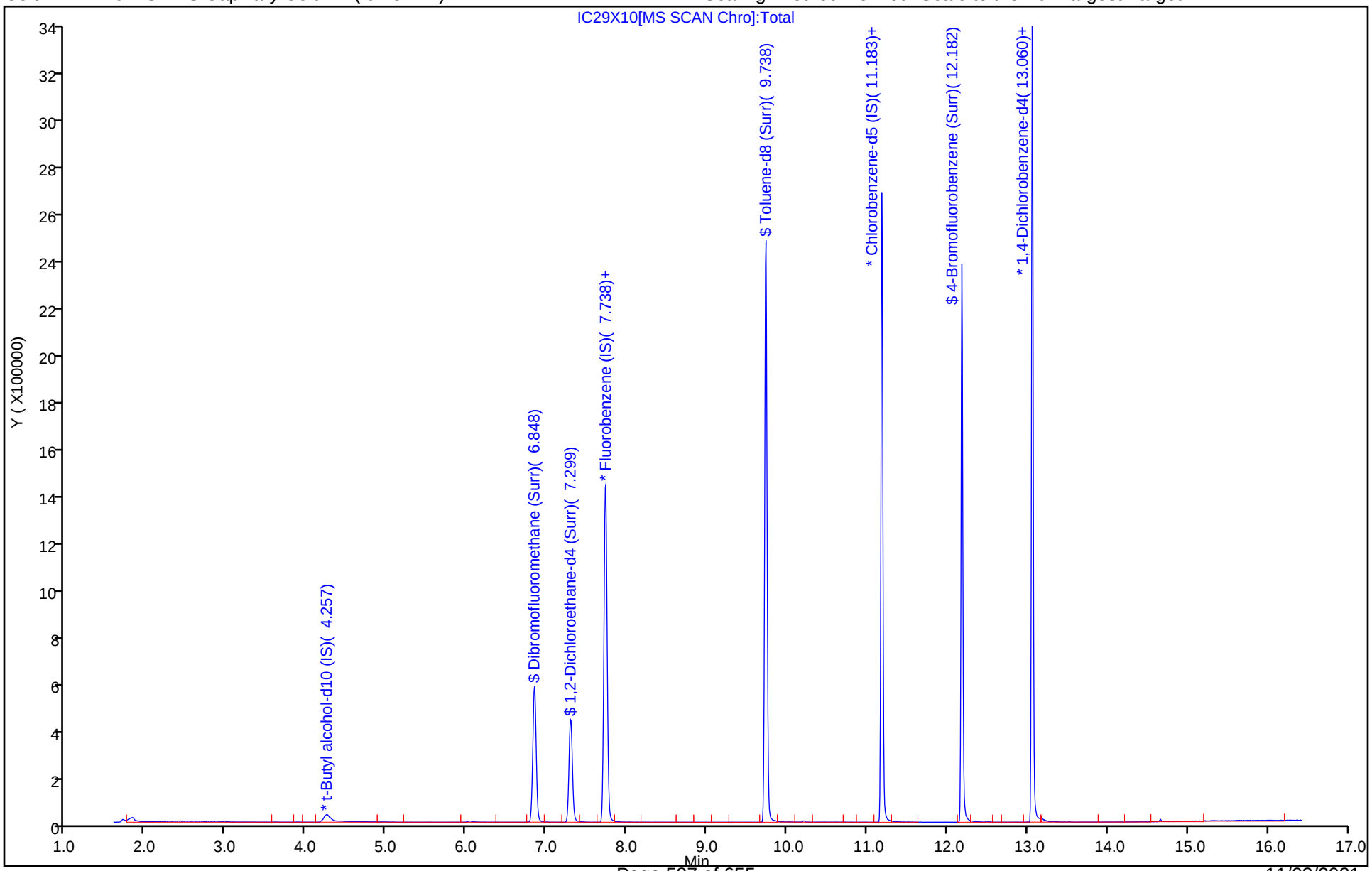
Report Date: 29-Oct-2021 11:49:27 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X10.D

Injection Date:	29-Oct-2021 11:20:30	Instrument ID:	19930	Operator ID:	SRK36897
Lims ID:	MB			Worklist Smp#:	11
Client ID:					
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X10.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 29-Oct-2021 11:20:30 ALS Bottle#: 10 Worklist Smp#: 11
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0042796-011
Misc. Info.: MB
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 29-Oct-2021 11:49:19 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: CTX1645

First Level Reviewer: knouses Date: 29-Oct-2021 11:47:48

Compound	Amount Added	Amount Recovered	% Rec.
$ 46 Dibromofluoromethane (Surr)	10.0	10.5	104.74
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.7	106.55
$ 75 Toluene-d8 (Surr)	10.0	10.0	100.06
$ 100 4-Bromofluorobenzene (Surr)	10.0	9.57	95.74

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-60154-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 410-189194/11

Matrix: Water Lab File ID: IN01X10.D

Analysis Method: 8260D Date Collected:

Sample wt/vol: 25(mL) Date Analyzed: 11/01/2021 12:06

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 189194 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.: 410-60154-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 410-189194/11

Matrix: Water Lab File ID: IN01X10.D

Analysis Method: 8260D Date Collected:

Sample wt/vol: 25(mL) Date Analyzed: 11/01/2021 12:06

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 189194 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	105		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\20211101-42940.b\IN01X10.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 01-Nov-2021 12:06:30 ALS Bottle#: 10 Worklist Smp#: 11
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0042940-011
Misc. Info.: MB
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211101-42940.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 01-Nov-2021 16:51:12 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: knouses Date: 01-Nov-2021 12:32:14

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85		1.971					ND	
2 Chlorodifluoromethane	51		1.989					ND	
3 Dimethyl ether	45		2.050					ND	
4 Chloromethane	50		2.178					ND	
6 Butadiene	39		2.294					ND	7
5 Vinyl chloride	62		2.294					ND	
7 Bromomethane	94		2.629					ND	
8 Chloroethane	64		2.709					ND	
9 Dichlorofluoromethane	67		2.946					ND	
10 Trichlorofluoromethane	101		3.020					ND	
11 Ethyl ether	59		3.251					ND	
12 1,2-Dichloro-1,1,2-trifluoroetha	67		3.355					ND	
13 Acrolein	56		3.422					ND	7
14 1,1-Dichloroethene	96		3.568					ND	
15 Acetone	43		3.593					ND	7
16 112TCTFE	101		3.617					ND	
17 Iodomethane	142		3.763					ND	
18 Ethyl bromide	108		3.794					ND	
19 Carbon disulfide	76	3.873	3.879	-0.006	4	938		0.007338	7M
20 Acetonitrile	41		3.995					ND	
21 Methyl acetate	43		4.026					ND	
22 3-Chloro-1-propene	41		4.050					ND	
23 Methylene Chloride	84		4.239					ND	
* 24 t-Butyl alcohol-d10 (IS)	65	4.263	4.275	-0.012	22	163694	50.0	50.0	
25 2-Methyl-2-propanol	59		4.379					ND	
26 Acrylonitrile	53		4.574					ND	
27 Methyl tert-butyl ether	73		4.647					ND	
28 trans-1,2-Dichloroethene	96		4.660					ND	
29 Hexane	57		5.086					ND	
30 Vinyl acetate	43		5.312					ND	
31 1,1-Dichloroethane	63		5.318					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		5.379				ND		
33 2-Chloro-1,3-butadiene	53		5.428				ND		
34 Tert-butyl ethyl ether	59		5.909				ND		
36 2-Butanone (MEK)	43		6.117				ND		
37 cis-1,2-Dichloroethene	96		6.147				ND		
S 35 1,2-Dichloroethene, Total	100		6.155				ND		7
38 2,2-Dichloropropane	77		6.165				ND		
39 Ethyl acetate	43		6.190				ND		
40 Propionitrile	54		6.202				ND		
41 Methyl acrylate	55		6.220				ND		
42 Methacrylonitrile	67		6.421				ND		
43 Chlorobromomethane	128		6.482				ND		
44 Tetrahydrofuran	71		6.501				ND		
45 Chloroform	83		6.629				ND		
$ 46 Dibromofluoromethane (Surr)	113	6.848	6.842	0.006	94	512859	10.0	10.5	
47 1,1,1-Trichloroethane	97		6.854				ND		
48 Cyclohexane	56		6.958				ND		
49 1-Chlorobutane	56		7.019				ND		
51 1,1-Dichloropropene	75		7.068				ND		
50 Carbon tetrachloride	117		7.068				ND		
52 Isobutyl alcohol	41		7.214				ND		
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.299	7.293	0.006	83	103003	10.0	10.5	
54 Benzene	78		7.330				ND		
56 1,2-Dichloroethane	62		7.403				ND		
55 Isopropyl acetate	43		7.415				ND		
57 Tert-amyl methyl ether	73		7.519				ND		
* 58 Fluorobenzene (IS)	96	7.738	7.732	0.006	99	1940348	10.0	10.0	
59 n-Heptane	43		7.744				ND		7
60 n-Butanol	56		8.092				ND		
61 Trichloroethene	95		8.214				ND		
62 Methylcyclohexane	83		8.519				ND		
63 1,2-Dichloropropane	63		8.543				ND		
64 Methyl methacrylate	69		8.622				ND		
65 1,4-Dioxane	88		8.634				ND		
66 Dibromomethane	93		8.653				ND		
67 n-Propyl acetate	43		8.707				ND		
68 Dichlorobromomethane	83		8.884				ND		
69 2-Nitropropane	41		9.147				ND		
70 Chloroacetonitrile	75		9.226				ND		
71 2-Chloroethyl vinyl ether	63		9.256				ND		
72 1-Bromo-2-chloroethane	63		9.281				ND		
73 cis-1,3-Dichloropropene	75		9.427				ND		
74 4-Methyl-2-pentanone (MIBK)	43		9.598				ND		
$ 75 Toluene-d8 (Surr)	98	9.738	9.738	0.000	93	2025429	10.0	10.1	
76 Toluene	92		9.811				ND		
S 77 1,3-Dichloropropene, Total	100		10.060				ND		7
78 trans-1,3-Dichloropropene	75		10.067				ND		
79 Ethyl methacrylate	69		10.122				ND		
80 1,1,2-Trichloroethane	97		10.268				ND		
81 Tetrachloroethene	166		10.360				ND		
82 1,3-Dichloropropane	76		10.427				ND		
83 2-Hexanone	43		10.476				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		10.646				ND		
86 Ethylene Dibromide	107		10.756				ND		
* 87 Chlorobenzene-d5 (IS)	117	11.182	11.183	-0.001	85	1557646	10.0	10.0	
88 1-Chlorohexane	91		11.189				ND		7
90 Chlorobenzene	112		11.213				ND		
S 89 Xylenes, Total	106		11.245				ND		7
91 1,1,1,2-Tetrachloroethane	131		11.292				ND		
92 Ethylbenzene	91		11.292				ND		
93 m-Xylene & p-Xylene	106		11.408				ND		
94 o-Xylene	106		11.737				ND		
95 Styrene	104		11.756				ND		
96 Bromoform	173		11.914				ND		
97 Isopropylbenzene	105		12.036				ND		
98 cis-1,4-Dichloro-2-butene	88		12.079				ND		
99 Cyclohexanone	55		12.121				ND		
$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	94	737433	10.0	9.59	
101 1,1,2,2-Tetrachloroethane	83		12.280				ND		
102 Bromobenzene	156		12.298				ND		
103 trans-1,4-Dichloro-2-butene	53		12.304				ND		
104 1,2,3-Trichloropropane	110		12.329				ND		
105 N-Propylbenzene	91		12.365				ND		
106 2-Chlorotoluene	126		12.445				ND		
107 1,3,5-Trimethylbenzene	105		12.500				ND		
108 4-Chlorotoluene	126		12.536				ND		
109 tert-Butylbenzene	134		12.743				ND		
110 Pentachloroethane	167		12.774				ND		
111 1,2,4-Trimethylbenzene	105		12.786				ND		
112 sec-Butylbenzene	105		12.908				ND		
113 1,3-Dichlorobenzene	146		13.006				ND		
114 4-Isopropyltoluene	119		13.012				ND		
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	94	910929	10.0	10.0	
116 1,4-Dichlorobenzene	146		13.079				ND		
117 1,2,3-Trimethylbenzene	120		13.091				ND		7
118 Benzyl chloride	126		13.158				ND		
119 n-Butylbenzene	92		13.304				ND		
120 1,2-Dichlorobenzene	146		13.341				ND		
121 Hexachloroethane	117		13.542				ND		
122 1,2-Dibromo-3-Chloropropane	155		13.883				ND		
123 1,3,5-Trichlorobenzene	180		14.005				ND		
124 1,2,4-Trichlorobenzene	180		14.432				ND		
125 Hexachlorobutadiene	225		14.511				ND		7
126 Naphthalene	128		14.609				ND		7
127 1,2,3-Trichlorobenzene	180		14.755				ND		
128 Dodecane	57		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		
206 Pentachloroethane TIC	1		0.000				ND		
142 2-Bromo-1-chloropropane	1		0.000				ND		

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
131 tert-Butyl Formate	1		0.000					ND	
132 Methylal	1		0.000					ND	
133 t-Amyl alcohol	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	
202 1,3-Dichloro-2-propanol TIC	1		0.000					ND	
203 Propargyl alcohol TIC	1		0.000					ND	
204 Pentane	43		0.000					ND	
143 n-Decane	57		0.000					ND	
139 1-Bromo-3-Chloropropane	1		0.000					ND	
205 1,1-Dichloroacetone	1		0.000					ND	
144 2-ethoxy-2-methyl butane	1		0.000					ND	
140 Ethanol	45		3.269					ND	

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

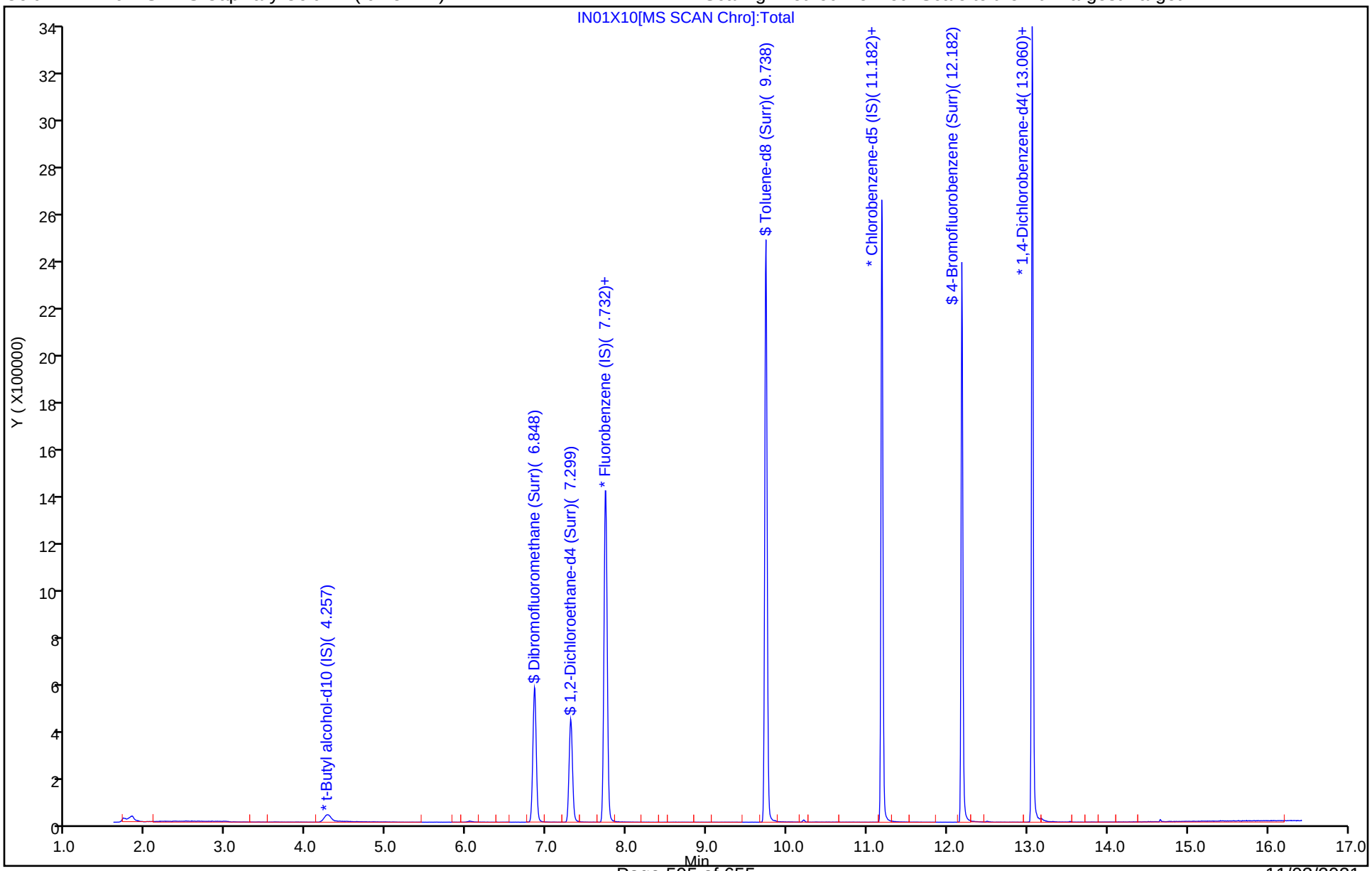
Report Date: 02-Nov-2021 08:35:50 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211101-42940.b\IN01X10.D

Injection Date:	01-Nov-2021 12:06:30	Instrument ID:	19930	Operator ID:	SRK36897
Lims ID:	MB			Worklist Smp#:	11
Client ID:					
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20211101-42940.b\IN01X10.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 01-Nov-2021 12:06:30 ALS Bottle#: 10 Worklist Smp#: 11
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0042940-011
Misc. Info.: MB
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211101-42940.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 01-Nov-2021 16:51:12 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: knouses Date: 01-Nov-2021 12:32:14

Compound	Amount Added	Amount Recovered	% Rec.
$ 46 Dibromofluoromethane (Surr)	10.0	10.5	104.92
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.5	105.34
$ 75 Toluene-d8 (Surr)	10.0	10.1	100.62
$ 100 4-Bromofluorobenzene (Surr)	10.0	9.59	95.85

Eurofins Lancaster Laboratories Env, LLC

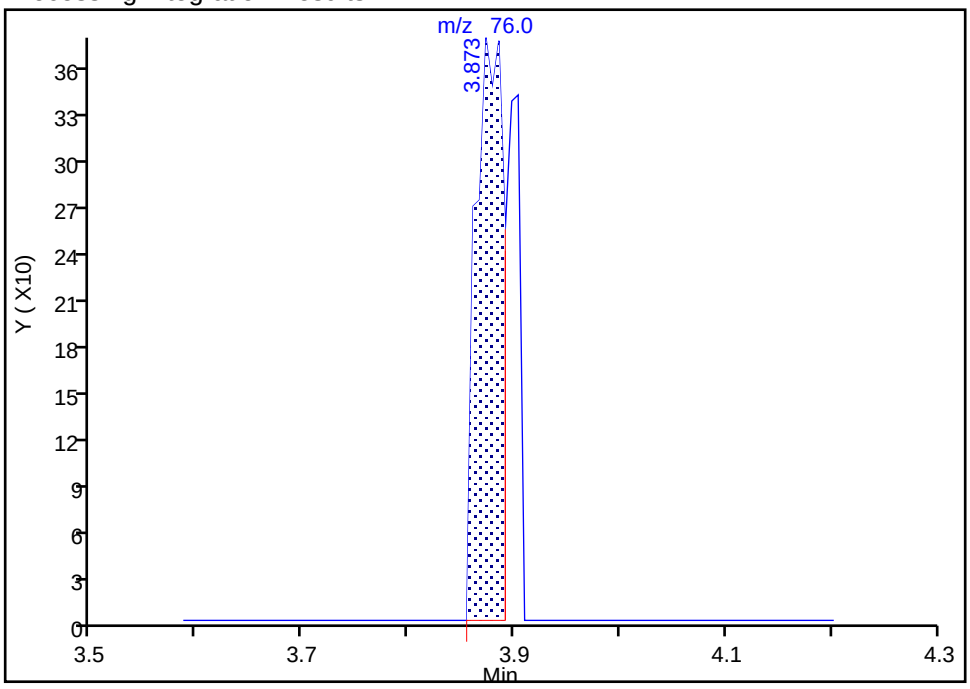
Data File: \\chromfs\Lancaster\ChromData\19930\20211101-42940.b\IN01X10.D
Injection Date: 01-Nov-2021 12:06:30 Instrument ID: 19930
Lims ID: MB
Client ID:
Operator ID: SRK36897 ALS Bottle#: 10 Worklist Smp#: 11
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Method: 8260 25ml HP31 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

19 Carbon disulfide, CAS: 75-15-0

Signal: 1

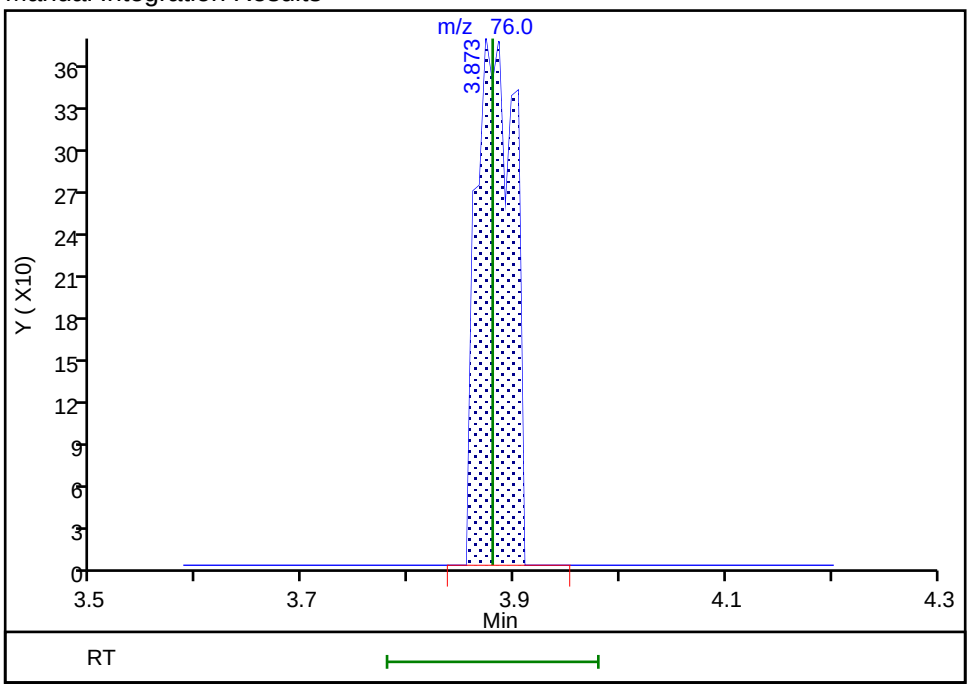
Processing Integration Results

RT: 3.87
Area: 691
Amount: 0.005406
Amount Units: ug/l



Manual Integration Results

RT: 3.87
Area: 938
Amount: 0.007338
Amount Units: ug/l



Reviewer: knouses, 01-Nov-2021 12:31:40
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.: 410-60154-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 410-188555/4

Matrix: Water Lab File ID: IC29X03.D

Analysis Method: 8260D Date Collected:

Sample wt/vol: 25(mL) Date Analyzed: 10/29/2021 08:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 188555 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.46		0.50	0.070
71-55-6	1,1,1-Trichloroethane	5.60		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	5.62		0.50	0.070
79-00-5	1,1,2-Trichloroethane	5.66		0.50	0.060
75-34-3	1,1-Dichloroethane	5.47		0.50	0.070
75-35-4	1,1-Dichloroethene	5.69		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	5.57		0.50	0.060
107-06-2	1,2-Dichloroethane	5.37		0.50	0.050
78-87-5	1,2-Dichloropropane	5.66		0.50	0.060
78-93-3	2-Butanone (MEK)	61.4		5.0	0.60
591-78-6	2-Hexanone	60.6		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	59.6		5.0	0.70
67-64-1	Acetone	60.5		5.0	0.90
71-43-2	Benzene	5.51		0.50	0.050
74-97-5	Bromochloromethane	5.83		0.50	0.050
75-27-4	Bromodichloromethane	5.81		0.50	0.050
75-25-2	Bromoform	5.69		1.0	0.30
74-83-9	Bromomethane	5.18		0.50	0.070
75-15-0	Carbon disulfide	5.28		1.0	0.060
56-23-5	Carbon tetrachloride	5.67		0.50	0.070
108-90-7	Chlorobenzene	5.36		0.50	0.060
75-00-3	Chloroethane	5.23		0.50	0.070
67-66-3	Chloroform	5.62		0.50	0.090
74-87-3	Chloromethane	5.63		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	5.64		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	5.25		0.50	0.050
124-48-1	Dibromochloromethane	5.67		0.50	0.070
100-41-4	Ethylbenzene	5.42		0.50	0.060
1634-04-4	Methyl tert-butyl ether	5.40		0.50	0.050
75-09-2	Methylene Chloride	5.73		0.50	0.070
100-42-5	Styrene	5.42		0.50	0.050
127-18-4	Tetrachloroethene	5.41		0.50	0.060
108-88-3	Toluene	5.36		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	5.40		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	5.45		0.50	0.060
79-01-6	Trichloroethene	5.49		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-60154-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 410-188555/4

Matrix: Water Lab File ID: IC29X03.D

Analysis Method: 8260D Date Collected:

Sample wt/vol: 25(mL) Date Analyzed: 10/29/2021 08:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 188555 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	5.38		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)	107		80-120
460-00-4	4-Bromofluorobenzene (Surr)	98		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		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\20211029-42796.b\IC29X03.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 29-Oct-2021 08:51:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0042796-004
Misc. Info.: LCS
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 29-Oct-2021 11:49:06 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: CTX1645

First Level Reviewer: knouses Date: 29-Oct-2021 10:34:56

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.983	1.971	0.012	99	366978	5.00	5.99	
4 Chloromethane	50	2.184	2.172	0.012	99	392801	5.00	5.63	
6 Butadiene	39	2.306	2.288	0.018	89	436336	5.00	6.81	
5 Vinyl chloride	62	2.306	2.294	0.012	77	378458	5.00	5.38	
7 Bromomethane	94	2.635	2.623	0.012	91	263907	5.00	5.18	
8 Chloroethane	64	2.721	2.708	0.013	100	220723	5.00	5.23	
9 Dichlorofluoromethane	67	2.959	2.940	0.019	97	553479	5.00	5.46	
10 Trichlorofluoromethane	101	3.026	3.013	0.013	97	521856	5.00	5.76	
11 Ethyl ether	59	3.263	3.251	0.012	90	222601	5.00	6.05	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.361	3.342	0.019	92	371089	5.00	5.71	
14 1,1-Dichloroethene	96	3.580	3.562	0.018	98	265931	5.00	5.69	
15 Acetone	43	3.611	3.592	0.019	100	582349	62.5	60.5	
16 112TCTFE	101	3.629	3.611	0.018	90	297430	5.00	6.09	
17 Iodomethane	142	3.775	3.763	0.012	99	488909	5.00	5.23	
18 Ethyl bromide	108	3.806	3.794	0.012	98	228801	5.07	5.37	
19 Carbon disulfide	76	3.891	3.873	0.018	99	681568	5.00	5.28	
21 Methyl acetate	43	4.032	4.019	0.013	98	138932	5.00	4.90	
22 3-Chloro-1-propene	41	4.062	4.044	0.018	92	392814	5.00	5.12	
23 Methylene Chloride	84	4.251	4.233	0.019	92	292350	5.00	5.73	
* 24 t-Butyl alcohol-d10 (IS)	65	4.269	4.251	0.018	96	173382	50.0	50.0	
25 2-Methyl-2-propanol	59	4.403	4.385	0.018	98	161273	50.0	44.2	
26 Acrylonitrile	53	4.586	4.580	0.006	98	307720	25.0	24.0	
27 Methyl tert-butyl ether	73	4.659	4.647	0.012	95	719298	5.00	5.40	
28 trans-1,2-Dichloroethene	96	4.672	4.659	0.013	99	286679	5.00	5.40	
29 Hexane	57	5.098	5.086	0.012	91	389116	5.00	5.25	
31 1,1-Dichloroethane	63	5.330	5.318	0.012	96	526597	5.00	5.47	
32 Isopropyl ether	45	5.385	5.373	0.012	93	836774	5.00	5.20	
33 2-Chloro-1,3-butadiene	53	5.440	5.427	0.013	90	440296	5.00	5.48	
34 Tert-butyl ethyl ether	59	5.921	5.909	0.012	97	828626	5.00	5.27	
36 2-Butanone (MEK)	43	6.123	6.116	0.007	99	1031802	62.5	61.4	
37 cis-1,2-Dichloroethene	96	6.153	6.147	0.006	81	333283	5.00	5.64	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
38 2,2-Dichloropropane	77	6.171	6.159	0.012	87	468591	5.00	5.60	
40 Propionitrile	54	6.214	6.202	0.012	98	175609	37.5	39.3	
42 Methacrylonitrile	67	6.427	6.415	0.012	90	592558	37.5	35.1	
43 Chlorobromomethane	128	6.488	6.476	0.012	92	148692	5.00	5.83	
44 Tetrahydrofuran	71	6.501	6.488	0.013	81	119691	25.0	24.0	
45 Chloroform	83	6.635	6.628	0.007	93	536329	5.00	5.62	
$ 46 Dibromofluoromethane (Surr)	113	6.848	6.842	0.006	94	502933	10.0	10.2	
47 1,1,1-Trichloroethane	97	6.866	6.854	0.012	98	496217	5.00	5.60	
48 Cyclohexane	56	6.964	6.958	0.006	89	479798	5.00	5.46	
51 1,1-Dichloropropene	75	7.080	7.067	0.013	96	420626	5.00	5.62	
50 Carbon tetrachloride	117	7.074	7.067	0.007	95	434006	5.00	5.67	
52 Isobutyl alcohol	41	7.220	7.208	0.012	93	159513	125.0	136.9	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.305	7.299	0.006	93	105280	10.0	10.7	
54 Benzene	78	7.336	7.329	0.007	97	1213455	5.00	5.51	
56 1,2-Dichloroethane	62	7.403	7.397	0.006	97	320506	5.00	5.37	
57 Tert-amyl methyl ether	73	7.525	7.512	0.013	99	758993	5.00	5.20	
* 58 Fluorobenzene (IS)	96	7.738	7.732	0.006	99	1958077	10.0	10.0	
59 n-Heptane	43	7.750	7.738	0.012	91	398648	5.00	5.23	
60 n-Butanol	56	8.092	8.085	0.007	88	293163	250.0	271.1	
61 Trichloroethene	95	8.214	8.207	0.007	98	324872	5.00	5.49	
62 Methylcyclohexane	83	8.525	8.518	0.007	93	541398	5.00	5.50	
63 1,2-Dichloropropane	63	8.543	8.537	0.006	92	305895	5.00	5.66	
64 Methyl methacrylate	69	8.622	8.622	0.000	87	146416	5.00	4.41	
65 1,4-Dioxane	88	8.634	8.628	0.006	32	38396	125.0	118.5	M
66 Dibromomethane	93	8.659	8.646	0.013	93	149426	5.00	5.65	
68 Dichlorobromomethane	83	8.884	8.884	0.000	99	380940	5.00	5.81	
69 2-Nitropropane	41	9.152	9.146	0.006	98	42475	5.00	4.47	
73 cis-1,3-Dichloropropene	75	9.433	9.427	0.006	97	432184	5.00	5.25	
74 4-Methyl-2-pentanone (MIBK)	43	9.597	9.591	0.006	96	2525648	62.5	59.6	
$ 75 Toluene-d8 (Surr)	98	9.738	9.731	0.007	93	2041219	10.0	10.2	
76 Toluene	92	9.811	9.811	0.000	98	797343	5.00	5.36	
78 trans-1,3-Dichloropropene	75	10.067	10.067	0.000	92	374097	5.00	5.45	
79 Ethyl methacrylate	69	10.128	10.122	0.006	88	303296	5.00	5.29	
80 1,1,2-Trichloroethane	97	10.268	10.268	0.000	91	224940	5.00	5.66	
81 Tetrachloroethene	166	10.360	10.359	0.001	98	383907	5.00	5.41	
82 1,3-Dichloropropane	76	10.433	10.426	0.007	88	373546	5.00	5.53	
83 2-Hexanone	43	10.481	10.475	0.006	96	1798386	62.5	60.6	
85 Chlorodibromomethane	129	10.646	10.646	0.000	90	274282	5.00	5.67	
86 Ethylene Dibromide	107	10.756	10.756	0.000	99	213303	5.00	5.57	
* 87 Chlorobenzene-d5 (IS)	117	11.183	11.182	0.001	85	1553140	10.0	10.0	
88 1-Chlorohexane	91	11.189	11.188	0.001	96	437570	5.00	5.03	
90 Chlorobenzene	112	11.213	11.207	0.006	96	883445	5.00	5.36	
91 1,1,1,2-Tetrachloroethane	131	11.292	11.292	0.000	95	314388	5.00	5.46	
92 Ethylbenzene	91	11.298	11.292	0.006	98	1553454	5.00	5.42	
93 m-Xylene & p-Xylene	106	11.408	11.408	0.000	99	1228445	10.0	10.8	
94 o-Xylene	106	11.737	11.737	0.000	96	581959	5.00	5.21	
95 Styrene	104	11.756	11.755	0.001	94	977833	5.00	5.42	
96 Bromoform	173	11.914	11.914	0.000	97	164900	5.00	5.69	
97 Isopropylbenzene	105	12.036	12.036	0.000	95	1610965	5.00	5.46	
$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	93	748254	10.0	9.75	
101 1,1,2,2-Tetrachloroethane	83	12.280	12.280	0.000	94	281942	5.00	5.62	
102 Bromobenzene	156	12.298	12.298	0.000	94	389051	5.00	5.66	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
103 trans-1,4-Dichloro-2-butene	53	12.304	12.304	0.000	93	227214	25.0	14.8	
104 1,2,3-Trichloropropane	110	12.329	12.328	0.001	83	80209	5.00	5.82	
105 N-Propylbenzene	91	12.365	12.365	0.000	99	1837452	5.00	5.51	
106 2-Chlorotoluene	126	12.444	12.444	0.000	97	372626	5.00	5.44	
107 1,3,5-Trimethylbenzene	105	12.499	12.499	0.000	94	1322985	5.00	5.43	
108 4-Chlorotoluene	126	12.536	12.536	0.000	97	378175	5.00	5.41	
109 tert-Butylbenzene	134	12.743	12.743	0.000	92	279709	5.00	5.23	
111 1,2,4-Trimethylbenzene	105	12.786	12.786	0.000	97	1344163	5.00	5.38	
112 sec-Butylbenzene	105	12.908	12.908	0.000	94	1725262	5.00	5.60	
113 1,3-Dichlorobenzene	146	13.005	13.005	0.000	98	753594	5.00	5.44	
114 4-Isopropyltoluene	119	13.011	13.011	0.000	97	1478313	5.00	5.43	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	94	907247	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.079	13.078	0.001	95	772209	5.00	5.45	
117 1,2,3-Trimethylbenzene	120	13.091	13.091	0.000	98	583979	5.00	5.28	
118 Benzyl chloride	126	13.158	13.158	0.000	98	106024	5.00	5.17	
119 n-Butylbenzene	92	13.304	13.304	0.000	97	683833	5.00	5.37	
120 1,2-Dichlorobenzene	146	13.341	13.340	0.001	99	696377	5.00	5.50	
122 1,2-Dibromo-3-Chloropropane	155	13.883	13.883	0.000	89	42636	5.00	5.78	
123 1,3,5-Trichlorobenzene	180	14.005	14.005	0.000	98	551141	5.00	5.43	
124 1,2,4-Trichlorobenzene	180	14.432	14.432	0.000	94	452374	5.00	5.29	
125 Hexachlorobutadiene	225	14.511	14.511	0.000	96	182790	5.00	4.92	
126 Naphthalene	128	14.609	14.609	0.000	97	834804	5.00	5.12	
127 1,2,3-Trichlorobenzene	180	14.755	14.755	0.000	96	388279	5.00	5.25	
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_Q_EE_00005	Amount Added:	12.50	Units: uL	
MSV_Q_ETBR_00008	Amount Added:	12.50	Units: uL	
MSV_LCS_VOC#1_00024	Amount Added:	12.50	Units: uL	
MSV_QC_Gas826_00046	Amount Added:	12.50	Units: uL	
MSV_LLcentISS_00002	Amount Added:	5.00	Units: uL	Run Reagent

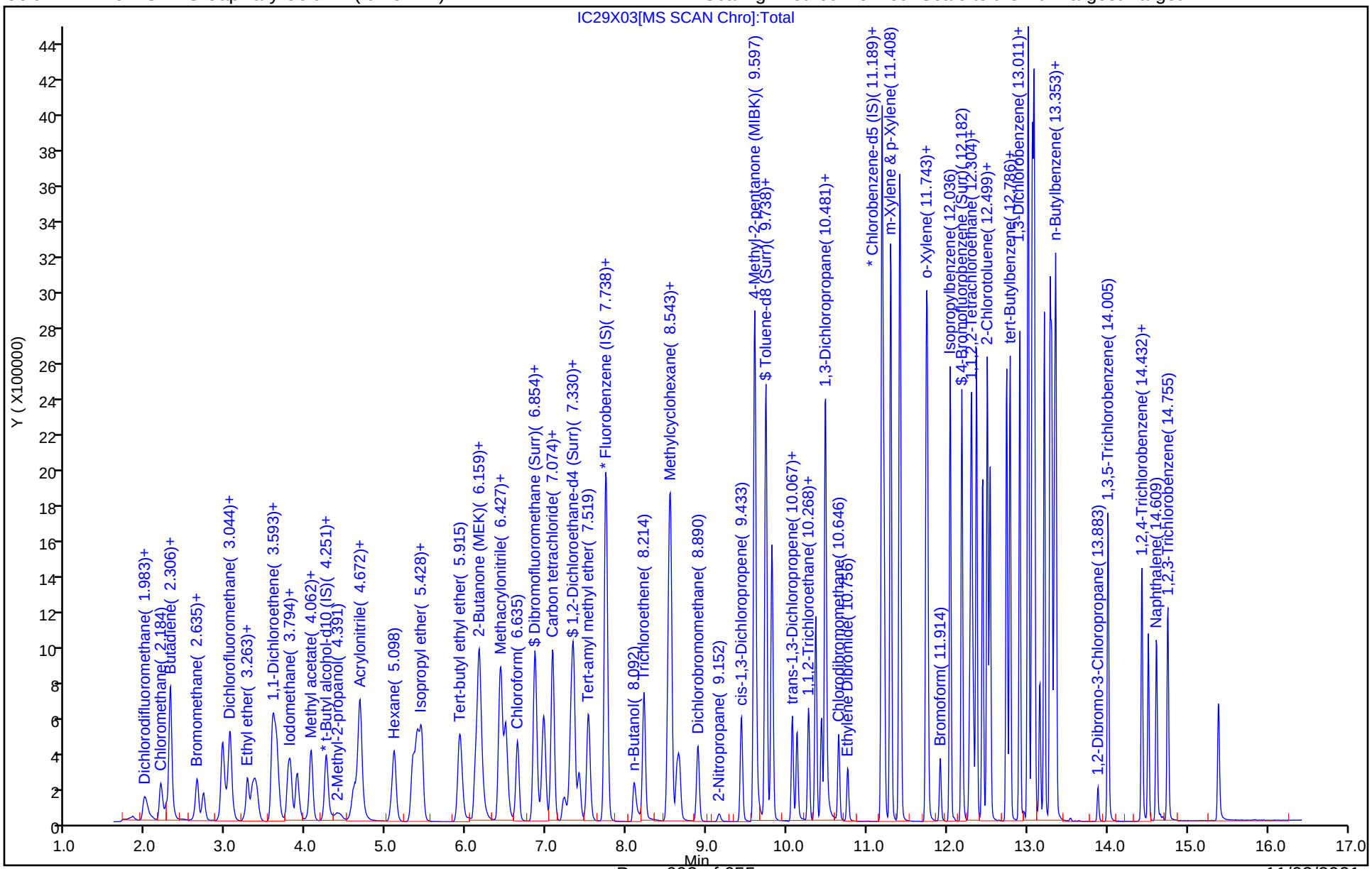
Report Date: 29-Oct-2021 11:49:12 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X03.D

Injection Date:	29-Oct-2021 08:51:30	Instrument ID:	19930	Operator ID:	SRK36897
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X03.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 29-Oct-2021 08:51:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0042796-004
Misc. Info.: LCS
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 29-Oct-2021 11:49:06 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: CTX1645

First Level Reviewer: knouses Date: 29-Oct-2021 10:34:56

Compound	Amount Added	Amount Recovered	% Rec.
$ 46 Dibromofluoromethane (Surr)	10.0	10.2	101.96
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.7	106.69
$ 75 Toluene-d8 (Surr)	10.0	10.2	101.70
$ 100 4-Bromofluorobenzene (Surr)	10.0	9.75	97.54

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-60154-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 410-189194/4

Matrix: Water Lab File ID: IN01X03.D

Analysis Method: 8260D Date Collected:

Sample wt/vol: 25(mL) Date Analyzed: 11/01/2021 09:37

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.: 189194 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.69		0.50	0.070
71-55-6	1,1,1-Trichloroethane	5.70		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	5.90		0.50	0.070
79-00-5	1,1,2-Trichloroethane	5.90		0.50	0.060
75-34-3	1,1-Dichloroethane	5.52		0.50	0.070
75-35-4	1,1-Dichloroethene	5.89		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	5.77		0.50	0.060
107-06-2	1,2-Dichloroethane	5.67		0.50	0.050
78-87-5	1,2-Dichloropropane	5.88		0.50	0.060
78-93-3	2-Butanone (MEK)	61.7		5.0	0.60
591-78-6	2-Hexanone	62.2		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	61.2		5.0	0.70
67-64-1	Acetone	59.5		5.0	0.90
71-43-2	Benzene	5.72		0.50	0.050
74-97-5	Bromochloromethane	5.82		0.50	0.050
75-27-4	Bromodichloromethane	5.93		0.50	0.050
75-25-2	Bromoform	6.01		1.0	0.30
74-83-9	Bromomethane	4.93		0.50	0.070
75-15-0	Carbon disulfide	5.65		1.0	0.060
56-23-5	Carbon tetrachloride	5.82		0.50	0.070
108-90-7	Chlorobenzene	5.58		0.50	0.060
75-00-3	Chloroethane	5.02		0.50	0.070
67-66-3	Chloroform	5.64		0.50	0.090
74-87-3	Chloromethane	5.08		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	5.79		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	5.47		0.50	0.050
124-48-1	Dibromochloromethane	5.86		0.50	0.070
100-41-4	Ethylbenzene	5.61		0.50	0.060
1634-04-4	Methyl tert-butyl ether	5.54		0.50	0.050
75-09-2	Methylene Chloride	5.81		0.50	0.070
100-42-5	Styrene	5.62		0.50	0.050
127-18-4	Tetrachloroethene	5.74		0.50	0.060
108-88-3	Toluene	5.52		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	5.57		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	5.70		0.50	0.060
79-01-6	Trichloroethene	5.67		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-60154-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 410-189194/4

Matrix: Water Lab File ID: IN01X03.D

Analysis Method: 8260D Date Collected:

Sample wt/vol: 25(mL) Date Analyzed: 11/01/2021 09:37

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.: 189194 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	4.98		0.50	0.10
1330-20-7	Xylenes, Total	16.7		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)	98		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		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\20211101-42940.b\IN01X03.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 01-Nov-2021 09:37:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0042940-004
Misc. Info.: LCS
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211101-42940.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 01-Nov-2021 12:34:03 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: CTX1643

First Level Reviewer: knouses Date: 01-Nov-2021 10:08:00

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.983	1.971	0.012	99	319132	5.00	5.20	
4 Chloromethane	50	2.184	2.178	0.006	99	355197	5.00	5.08	
6 Butadiene	39	2.300	2.294	0.006	90	366920	5.00	5.72	
5 Vinyl chloride	62	2.300	2.294	0.006	76	350510	5.00	4.98	
7 Bromomethane	94	2.635	2.629	0.006	91	251661	5.00	4.93	
8 Chloroethane	64	2.721	2.709	0.012	100	211882	5.00	5.02	
9 Dichlorofluoromethane	67	2.958	2.946	0.012	97	536818	5.00	5.29	
10 Trichlorofluoromethane	101	3.026	3.020	0.006	95	480353	5.00	5.29	M
11 Ethyl ether	59	3.263	3.251	0.012	89	214420	5.00	5.81	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.361	3.355	0.006	92	351938	5.00	5.41	
13 Acrolein	56	3.440	3.422	0.018	100	254090	37.6	32.1	
14 1,1-Dichloroethene	96	3.574	3.568	0.006	98	275796	5.00	5.89	
15 Acetone	43	3.605	3.593	0.012	100	598335	62.5	59.5	
16 112TCTFE	101	3.629	3.617	0.012	91	308612	5.00	6.31	
17 Iodomethane	142	3.775	3.763	0.012	99	506310	5.00	5.41	
18 Ethyl bromide	108	3.806	3.794	0.012	99	220696	5.07	5.17	
19 Carbon disulfide	76	3.885	3.879	0.006	99	730460	5.00	5.65	
21 Methyl acetate	43	4.031	4.026	0.005	98	139304	5.00	4.71	M
22 3-Chloro-1-propene	41	4.056	4.050	0.006	91	399014	5.00	5.20	
23 Methylene Chloride	84	4.245	4.239	0.006	91	296993	5.00	5.81	
* 24 t-Butyl alcohol-d10 (IS)	65	4.263	4.275	-0.012	95	180940	50.0	50.0	
25 2-Methyl-2-propanol	59	4.397	4.379	0.018	99	205425	50.0	53.9	
26 Acrylonitrile	53	4.592	4.574	0.018	99	315340	25.0	23.5	
27 Methyl tert-butyl ether	73	4.653	4.647	0.006	95	739094	5.00	5.54	
28 trans-1,2-Dichloroethene	96	4.672	4.660	0.012	99	296180	5.00	5.57	
29 Hexane	57	5.092	5.086	0.006	91	422780	5.00	5.70	
31 1,1-Dichloroethane	63	5.330	5.318	0.012	96	532366	5.00	5.52	
32 Isopropyl ether	45	5.391	5.379	0.012	93	855389	5.00	5.31	
33 2-Chloro-1,3-butadiene	53	5.434	5.428	0.006	90	444809	5.00	5.53	
34 Tert-butyl ethyl ether	59	5.915	5.909	0.006	97	862457	5.00	5.47	
36 2-Butanone (MEK)	43	6.116	6.117	-0.001	99	1083657	62.5	61.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
37 cis-1,2-Dichloroethene	96	6.153	6.147	0.006	82	343113	5.00	5.79	
38 2,2-Dichloropropane	77	6.171	6.165	0.006	88	474131	5.00	5.65	
40 Propionitrile	54	6.214	6.202	0.012	98	186333	37.5	40.0	
42 Methacrylonitrile	67	6.421	6.421	0.000	91	613902	37.5	34.8	
43 Chlorobromomethane	128	6.488	6.482	0.006	92	148664	5.00	5.82	
44 Tetrahydrofuran	71	6.507	6.501	0.006	81	126654	25.0	24.3	
45 Chloroform	83	6.635	6.629	0.006	93	539006	5.00	5.64	
$ 46 Dibromofluoromethane (Surr)	113	6.848	6.842	0.006	94	503966	10.0	10.2	
47 1,1,1-Trichloroethane	97	6.860	6.854	0.006	98	505952	5.00	5.70	
48 Cyclohexane	56	6.964	6.958	0.006	89	511171	5.00	5.81	
51 1,1-Dichloropropene	75	7.074	7.068	0.006	96	432792	5.00	5.78	
50 Carbon tetrachloride	117	7.074	7.068	0.006	88	445654	5.00	5.82	
52 Isobutyl alcohol	41	7.220	7.214	0.006	94	169453	125.0	139.4	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.305	7.293	0.012	89	101158	10.0	10.2	
54 Benzene	78	7.336	7.330	0.006	97	1260510	5.00	5.72	
56 1,2-Dichloroethane	62	7.403	7.403	0.000	98	338765	5.00	5.67	
57 Tert-amyl methyl ether	73	7.519	7.519	0.000	99	796024	5.00	5.44	
* 58 Fluorobenzene (IS)	96	7.738	7.732	0.006	99	1960843	10.0	10.0	
59 n-Heptane	43	7.744	7.744	0.000	89	431283	5.00	5.65	
60 n-Butanol	56	8.092	8.092	0.000	87	322889	250.0	286.1	
61 Trichloroethene	95	8.214	8.214	0.000	98	335911	5.00	5.67	
62 Methylcyclohexane	83	8.524	8.519	0.005	93	586318	5.00	5.95	
63 1,2-Dichloropropane	63	8.543	8.543	0.000	84	318305	5.00	5.88	
64 Methyl methacrylate	69	8.622	8.622	0.000	89	155330	5.00	4.48	
65 1,4-Dioxane	88	8.634	8.634	0.000	36	42673	125.0	125.1	
66 Dibromomethane	93	8.652	8.653	-0.001	94	157380	5.00	5.95	
68 Dichlorobromomethane	83	8.890	8.884	0.006	99	389201	5.00	5.93	
69 2-Nitropropane	41	9.152	9.147	0.006	98	41804	5.00	4.22	
73 cis-1,3-Dichloropropene	75	9.433	9.427	0.006	97	451009	5.00	5.47	
74 4-Methyl-2-pentanone (MIBK)	43	9.597	9.598	-0.001	96	2705965	62.5	61.2	
$ 75 Toluene-d8 (Surr)	98	9.738	9.738	0.000	93	2049533	10.0	10.2	
76 Toluene	92	9.811	9.811	0.000	98	825436	5.00	5.52	
78 trans-1,3-Dichloropropene	75	10.067	10.067	0.000	91	392688	5.00	5.70	
79 Ethyl methacrylate	69	10.128	10.122	0.006	89	320031	5.00	5.56	
80 1,1,2-Trichloroethane	97	10.268	10.268	0.000	90	235446	5.00	5.90	
81 Tetrachloroethene	166	10.359	10.360	-0.001	98	408516	5.00	5.74	
82 1,3-Dichloropropane	76	10.433	10.427	0.006	88	394715	5.00	5.82	
83 2-Hexanone	43	10.481	10.476	0.005	96	1926182	62.5	62.2	
85 Chlorodibromomethane	129	10.646	10.646	0.000	89	284545	5.00	5.86	
86 Ethylene Dibromide	107	10.756	10.756	0.000	98	222041	5.00	5.77	
* 87 Chlorobenzene-d5 (IS)	117	11.182	11.183	-0.001	86	1559640	10.0	10.0	
88 1-Chlorohexane	91	11.189	11.189	0.000	96	460985	5.00	5.27	
90 Chlorobenzene	112	11.213	11.213	0.000	96	923602	5.00	5.58	
91 1,1,1,2-Tetrachloroethane	131	11.292	11.292	0.000	95	328935	5.00	5.69	
92 Ethylbenzene	91	11.298	11.292	0.006	98	1613789	5.00	5.61	
93 m-Xylene & p-Xylene	106	11.408	11.408	0.000	99	1268353	10.0	11.2	
94 o-Xylene	106	11.737	11.737	0.000	96	618853	5.00	5.51	
95 Styrene	104	11.756	11.756	0.000	95	1019076	5.00	5.62	
96 Bromoform	173	11.914	11.914	0.000	98	174853	5.00	6.01	
97 Isopropylbenzene	105	12.036	12.036	0.000	96	1676373	5.00	5.66	
$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	94	752189	10.0	9.76	
101 1,1,2,2-Tetrachloroethane	83	12.280	12.280	0.000	94	300214	5.00	5.90	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
102 Bromobenzene	156	12.298	12.298	0.000	95	409190	5.00	5.87	
103 trans-1,4-Dichloro-2-butene	53	12.304	12.304	0.000	92	319919	25.0	20.0	
104 1,2,3-Trichloropropane	110	12.329	12.329	0.000	83	84698	5.00	6.06	
105 N-Propylbenzene	91	12.365	12.365	0.000	99	1919709	5.00	5.67	
106 2-Chlorotoluene	126	12.444	12.445	-0.001	97	388679	5.00	5.60	
107 1,3,5-Trimethylbenzene	105	12.499	12.500	-0.001	94	1381462	5.00	5.59	
108 4-Chlorotoluene	126	12.536	12.536	0.000	97	397588	5.00	5.61	
109 tert-Butylbenzene	134	12.743	12.743	0.000	93	301505	5.00	5.56	
110 Pentachloroethane	167	12.780	12.774	0.006	89	229524	5.00	5.24	
111 1,2,4-Trimethylbenzene	105	12.786	12.786	0.000	97	1423395	5.00	5.62	
112 sec-Butylbenzene	105	12.908	12.908	0.000	94	1783449	5.00	5.71	
113 1,3-Dichlorobenzene	146	13.005	13.006	-0.001	98	785624	5.00	5.59	
114 4-Isopropyltoluene	119	13.011	13.012	-0.001	97	1542128	5.00	5.58	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	94	920301	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.078	13.079	-0.001	96	815532	5.00	5.67	
117 1,2,3-Trimethylbenzene	120	13.091	13.091	0.000	98	607412	5.00	5.42	
118 Benzyl chloride	126	13.158	13.158	0.000	98	116792	5.00	5.61	
119 n-Butylbenzene	92	13.304	13.304	0.000	97	719916	5.00	5.58	
120 1,2-Dichlorobenzene	146	13.341	13.341	0.000	99	737246	5.00	5.74	
122 1,2-Dibromo-3-Chloropropane	155	13.883	13.883	0.000	89	46855	5.00	6.26	
123 1,3,5-Trichlorobenzene	180	14.005	14.005	0.000	98	592407	5.00	5.76	
124 1,2,4-Trichlorobenzene	180	14.432	14.432	0.000	94	492534	5.00	5.67	
125 Hexachlorobutadiene	225	14.511	14.511	0.000	97	195670	5.00	5.19	
126 Naphthalene	128	14.615	14.609	0.006	97	931526	5.00	5.63	
127 1,2,3-Trichlorobenzene	180	14.755	14.755	0.000	95	422060	5.00	5.63	
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_00005	Amount Added:	12.50	Units: uL	
MSV_Q_ETBR_00008	Amount Added:	12.50	Units: uL	
MSV_LCS_VOC#1_00025	Amount Added:	12.50	Units: uL	
MSV_QC_Gas826_00046	Amount Added:	12.50	Units: uL	
MSV_LCS_Penta_00008	Amount Added:	12.50	Units: uL	
MSV_LCS_ACROL_00023	Amount Added:	12.50	Units: uL	
MSV_LLcentISS_00002	Amount Added:	5.00	Units: uL	Run Reagent

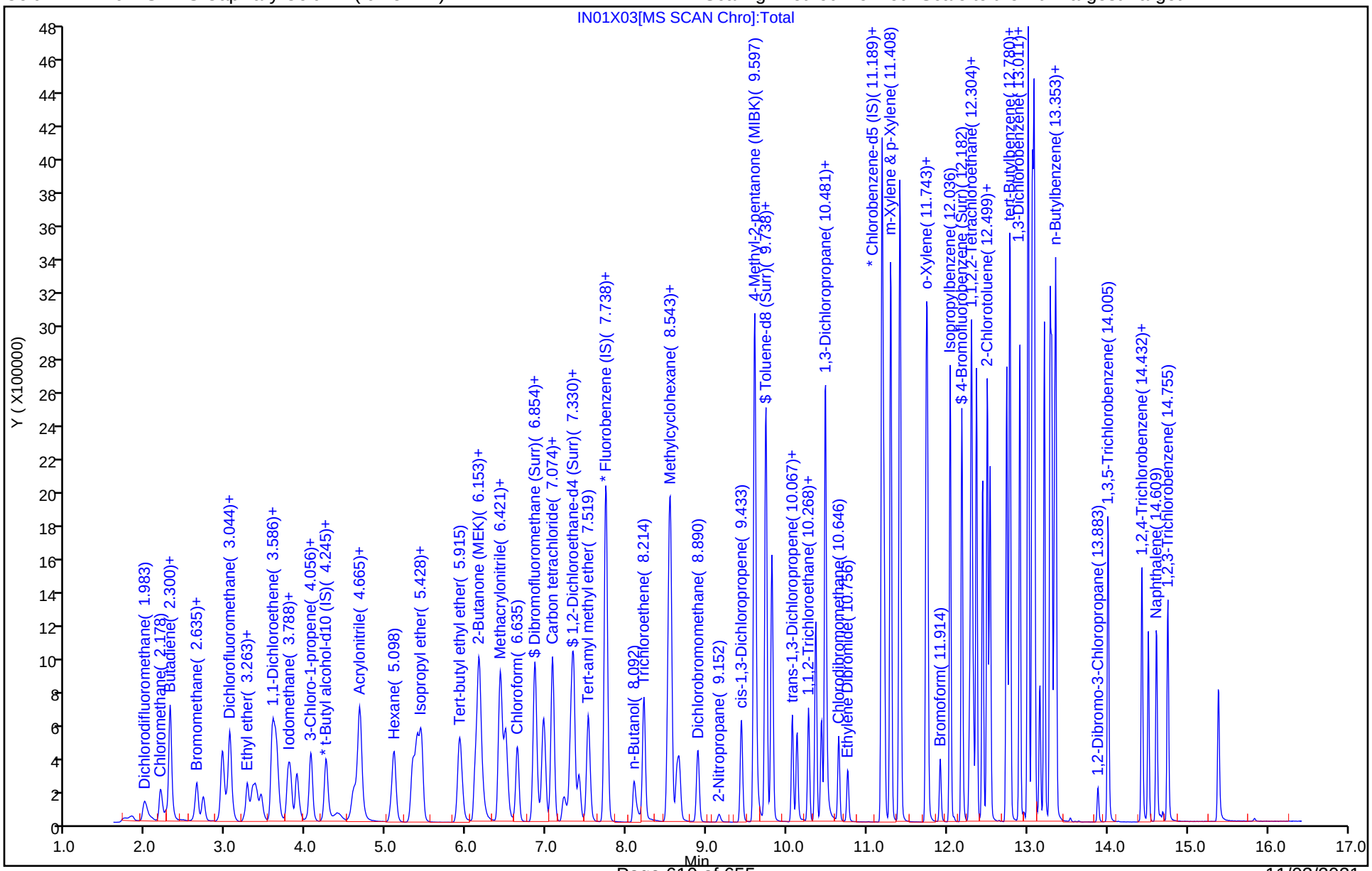
Report Date: 01-Nov-2021 12:34:10 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211101-42940.b\IN01X03.D

Injection Date:	01-Nov-2021 09:37:30	Instrument ID:	19930	Operator ID:	SRK36897
Lims ID:	LCS			Worklist Smp#:	4
Client ID:					
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20211101-42940.b\IN01X03.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 01-Nov-2021 09:37:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0042940-004
Misc. Info.: LCS
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211101-42940.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 01-Nov-2021 12:34:03 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: CTX1643

First Level Reviewer: knouses Date: 01-Nov-2021 10:08:00

Compound	Amount Added	Amount Recovered	% Rec.
$ 46 Dibromofluoromethane (Surr)	10.0	10.2	102.03
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.2	102.37
$ 75 Toluene-d8 (Surr)	10.0	10.2	101.69
$ 100 4-Bromofluorobenzene (Surr)	10.0	9.76	97.65

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-60154-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 410-188555/5

Matrix: Water Lab File ID: IC29X04.D

Analysis Method: 8260D Date Collected:

Sample wt/vol: 25(mL) Date Analyzed: 10/29/2021 09:12

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.: 188555 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.24		0.50	0.070
71-55-6	1,1,1-Trichloroethane	5.36		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	5.55		0.50	0.070
79-00-5	1,1,2-Trichloroethane	5.47		0.50	0.060
75-34-3	1,1-Dichloroethane	5.23		0.50	0.070
75-35-4	1,1-Dichloroethene	5.53		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	5.36		0.50	0.060
107-06-2	1,2-Dichloroethane	5.28		0.50	0.050
78-87-5	1,2-Dichloropropane	5.57		0.50	0.060
78-93-3	2-Butanone (MEK)	61.9		5.0	0.60
591-78-6	2-Hexanone	62.1		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	60.7		5.0	0.70
67-64-1	Acetone	60.6		5.0	0.90
71-43-2	Benzene	5.39		0.50	0.050
74-97-5	Bromochloromethane	5.66		0.50	0.050
75-27-4	Bromodichloromethane	5.58		0.50	0.050
75-25-2	Bromoform	5.44		1.0	0.30
74-83-9	Bromomethane	4.97		0.50	0.070
75-15-0	Carbon disulfide	5.07		1.0	0.060
56-23-5	Carbon tetrachloride	5.51		0.50	0.070
108-90-7	Chlorobenzene	5.20		0.50	0.060
75-00-3	Chloroethane	5.16		0.50	0.070
67-66-3	Chloroform	5.43		0.50	0.090
74-87-3	Chloromethane	5.26		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	5.49		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	5.09		0.50	0.050
124-48-1	Dibromochloromethane	5.44		0.50	0.070
100-41-4	Ethylbenzene	5.22		0.50	0.060
1634-04-4	Methyl tert-butyl ether	5.31		0.50	0.050
75-09-2	Methylene Chloride	5.45		0.50	0.070
100-42-5	Styrene	5.24		0.50	0.050
127-18-4	Tetrachloroethene	5.24		0.50	0.060
108-88-3	Toluene	5.17		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	5.34		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	5.24		0.50	0.060
79-01-6	Trichloroethene	5.35		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-60154-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 410-188555/5

Matrix: Water Lab File ID: IC29X04.D

Analysis Method: 8260D Date Collected:

Sample wt/vol: 25(mL) Date Analyzed: 10/29/2021 09:12

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.: 188555 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	5.09		0.50	0.10
1330-20-7	Xylenes, Total	15.4		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)	98		80-120
1868-53-7	Dibromofluoromethane (Surr)	103		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\20211029-42796.b\IC29X04.D
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 29-Oct-2021 09:12:30 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0042796-005
Misc. Info.: LCSD
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 29-Oct-2021 11:49:06 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: CTX1645

First Level Reviewer: knouses Date: 29-Oct-2021 10:04:49

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	1.971	0.006	99	365240	5.00	5.80	
4 Chloromethane	50	2.172	2.172	0.000	99	377671	5.00	5.26	
6 Butadiene	39	2.288	2.288	0.000	90	445447	5.00	6.75	
5 Vinyl chloride	62	2.288	2.294	-0.006	77	368564	5.00	5.09	
7 Bromomethane	94	2.629	2.623	0.006	91	260623	5.00	4.97	
8 Chloroethane	64	2.702	2.708	-0.006	100	223887	5.00	5.16	
9 Dichlorofluoromethane	67	2.940	2.940	0.000	97	554540	5.00	5.31	
10 Trichlorofluoromethane	101	3.013	3.013	0.000	97	496895	5.00	5.33	M
11 Ethyl ether	59	3.251	3.251	0.000	91	221166	5.00	5.84	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.349	3.342	0.007	92	369729	5.00	5.53	
14 1,1-Dichloroethene	96	3.568	3.562	0.006	98	266155	5.00	5.53	
15 Acetone	43	3.593	3.592	0.000	100	576445	62.5	60.6	
16 112TCTFE	101	3.617	3.611	0.006	92	296820	5.00	5.91	
17 Iodomethane	142	3.763	3.763	0.000	99	484883	5.00	5.04	
18 Ethyl bromide	108	3.788	3.794	-0.006	99	226610	5.07	5.17	
19 Carbon disulfide	76	3.867	3.873	-0.006	99	672702	5.00	5.07	
21 Methyl acetate	43	4.019	4.019	0.000	97	130818	5.00	4.68	M
22 3-Chloro-1-propene	41	4.044	4.044	0.000	91	395417	5.00	5.01	
23 Methylene Chloride	84	4.233	4.233	0.001	91	286024	5.00	5.45	
* 24 t-Butyl alcohol-d10 (IS)	65	4.257	4.251	0.006	96	171095	50.0	50.0	
25 2-Methyl-2-propanol	59	4.367	4.385	-0.018	99	179713	50.0	49.9	
26 Acrylonitrile	53	4.574	4.580	-0.006	99	309416	25.0	24.4	
27 Methyl tert-butyl ether	73	4.647	4.647	0.000	95	728294	5.00	5.31	
28 trans-1,2-Dichloroethene	96	4.659	4.659	0.000	99	291912	5.00	5.34	
29 Hexane	57	5.080	5.086	-0.006	91	387806	5.00	5.08	
31 1,1-Dichloroethane	63	5.318	5.318	0.000	96	518713	5.00	5.23	
32 Isopropyl ether	45	5.379	5.373	0.006	93	850388	5.00	5.14	
33 2-Chloro-1,3-butadiene	53	5.428	5.427	0.001	90	434859	5.00	5.26	
34 Tert-butyl ethyl ether	59	5.909	5.909	0.000	97	837883	5.00	5.18	
36 2-Butanone (MEK)	43	6.110	6.116	-0.006	99	1026793	62.5	61.9	
37 cis-1,2-Dichloroethene	96	6.147	6.147	0.000	82	334192	5.00	5.49	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
38 2,2-Dichloropropane	77	6.165	6.159	0.006	87	469030	5.00	5.44	
40 Propionitrile	54	6.202	6.202	0.000	98	179425	37.5	40.7	
42 Methacrylonitrile	67	6.415	6.415	0.000	90	598368	37.5	35.9	
43 Chlorobromomethane	128	6.482	6.476	0.006	93	148592	5.00	5.66	
44 Tetrahydrofuran	71	6.488	6.488	0.000	78	121298	25.0	24.6	
45 Chloroform	83	6.629	6.628	0.000	93	533179	5.00	5.43	
$ 46 Dibromofluoromethane (Surr)	113	6.842	6.842	0.000	94	521205	10.0	10.3	
47 1,1,1-Trichloroethane	97	6.854	6.854	0.000	99	489284	5.00	5.36	
48 Cyclohexane	56	6.958	6.958	0.000	90	479934	5.00	5.31	
51 1,1-Dichloropropene	75	7.067	7.067	0.000	96	420472	5.00	5.46	
50 Carbon tetrachloride	117	7.067	7.067	0.000	88	433653	5.00	5.51	
52 Isobutyl alcohol	41	7.214	7.208	0.006	94	150606	125.0	131.0	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.299	7.299	0.000	94	105241	10.0	10.4	
54 Benzene	78	7.330	7.329	0.001	96	1221466	5.00	5.39	
56 1,2-Dichloroethane	62	7.403	7.397	0.006	97	324345	5.00	5.28	
57 Tert-amyl methyl ether	73	7.519	7.512	0.007	99	774672	5.00	5.15	
* 58 Fluorobenzene (IS)	96	7.732	7.732	0.000	99	2014944	10.0	10.0	
59 n-Heptane	43	7.744	7.738	0.006	89	397931	5.00	5.07	
60 n-Butanol	56	8.092	8.085	0.007	87	277932	250.0	260.5	
61 Trichloroethene	95	8.207	8.207	0.000	98	325600	5.00	5.35	
62 Methylcyclohexane	83	8.518	8.518	0.000	93	544154	5.00	5.37	
63 1,2-Dichloropropane	63	8.543	8.537	0.006	84	309923	5.00	5.57	
64 Methyl methacrylate	69	8.622	8.622	0.000	89	146395	5.00	4.47	
65 1,4-Dioxane	88	8.628	8.628	0.000	34	35858	125.0	113.1	M
66 Dibromomethane	93	8.652	8.646	0.006	94	150717	5.00	5.54	
68 Dichlorobromomethane	83	8.884	8.884	0.000	99	376145	5.00	5.58	
69 2-Nitropropane	41	9.146	9.146	0.000	99	42018	5.00	4.48	
73 cis-1,3-Dichloropropene	75	9.427	9.427	0.000	97	431146	5.00	5.09	
74 4-Methyl-2-pentanone (MIBK)	43	9.597	9.591	0.006	96	2536852	62.5	60.7	
$ 75 Toluene-d8 (Surr)	98	9.738	9.731	0.007	93	2112209	10.0	10.2	
76 Toluene	92	9.811	9.811	0.000	98	796955	5.00	5.17	
78 trans-1,3-Dichloropropene	75	10.067	10.067	0.000	91	372284	5.00	5.24	
79 Ethyl methacrylate	69	10.122	10.122	0.000	88	299846	5.00	5.05	
80 1,1,2-Trichloroethane	97	10.268	10.268	0.000	91	224850	5.00	5.47	
81 Tetrachloroethene	166	10.359	10.359	0.000	97	384806	5.00	5.24	
82 1,3-Dichloropropane	76	10.427	10.426	0.001	89	375800	5.00	5.37	
83 2-Hexanone	43	10.475	10.475	0.000	96	1817402	62.5	62.1	
85 Chlorodibromomethane	129	10.646	10.646	0.000	90	272480	5.00	5.44	
86 Ethylene Dibromide	107	10.756	10.756	0.000	98	212491	5.00	5.36	
* 87 Chlorobenzene-d5 (IS)	117	11.182	11.182	0.000	85	1608269	10.0	10.0	
88 1-Chlorohexane	91	11.189	11.188	0.001	97	435670	5.00	4.83	
90 Chlorobenzene	112	11.213	11.207	0.006	96	888515	5.00	5.20	
91 1,1,1,2-Tetrachloroethane	131	11.292	11.292	0.000	95	312365	5.00	5.24	
92 Ethylbenzene	91	11.292	11.292	0.000	98	1549248	5.00	5.22	
93 m-Xylene & p-Xylene	106	11.408	11.408	0.000	99	1211065	10.0	10.3	
94 o-Xylene	106	11.737	11.737	0.000	96	584442	5.00	5.05	
95 Styrene	104	11.756	11.755	0.001	95	979866	5.00	5.24	
96 Bromoform	173	11.914	11.914	0.000	97	163230	5.00	5.44	
97 Isopropylbenzene	105	12.036	12.036	0.000	95	1592541	5.00	5.21	
$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	94	777591	10.0	9.79	
101 1,1,2,2-Tetrachloroethane	83	12.280	12.280	0.000	94	287401	5.00	5.55	
102 Bromobenzene	156	12.298	12.298	0.000	94	387539	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
103 trans-1,4-Dichloro-2-butene	53	12.304	12.304	0.000	91	225434	25.0	14.9	
104 1,2,3-Trichloropropane	110	12.329	12.328	0.001	83	81128	5.00	5.70	
105 N-Propylbenzene	91	12.365	12.365	0.000	99	1855866	5.00	5.39	
106 2-Chlorotoluene	126	12.444	12.444	0.000	97	368847	5.00	5.22	
107 1,3,5-Trimethylbenzene	105	12.499	12.499	0.000	94	1318860	5.00	5.25	
108 4-Chlorotoluene	126	12.536	12.536	0.000	97	378917	5.00	5.25	
109 tert-Butylbenzene	134	12.743	12.743	0.000	92	278004	5.00	5.04	
111 1,2,4-Trimethylbenzene	105	12.786	12.786	0.000	97	1339539	5.00	5.20	
112 sec-Butylbenzene	105	12.908	12.908	0.000	94	1704379	5.00	5.36	
113 1,3-Dichlorobenzene	146	13.005	13.005	0.000	98	741552	5.00	5.18	
114 4-Isopropyltoluene	119	13.011	13.011	0.000	97	1457032	5.00	5.18	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	94	936232	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.078	13.078	0.000	96	768926	5.00	5.26	
117 1,2,3-Trimethylbenzene	120	13.091	13.091	0.000	98	588760	5.00	5.16	
118 Benzyl chloride	126	13.158	13.158	0.000	98	105707	5.00	4.99	
119 n-Butylbenzene	92	13.304	13.304	0.000	97	679216	5.00	5.17	
120 1,2-Dichlorobenzene	146	13.341	13.340	0.001	99	693305	5.00	5.30	
122 1,2-Dibromo-3-Chloropropane	155	13.883	13.883	0.000	88	41841	5.00	5.50	
123 1,3,5-Trichlorobenzene	180	14.011	14.005	0.006	98	543606	5.00	5.19	
124 1,2,4-Trichlorobenzene	180	14.432	14.432	0.000	94	447921	5.00	5.07	
125 Hexachlorobutadiene	225	14.511	14.511	0.000	96	180050	5.00	4.69	
126 Naphthalene	128	14.609	14.609	0.000	97	816806	5.00	4.85	
127 1,2,3-Trichlorobenzene	180	14.755	14.755	0.000	96	371847	5.00	4.87	
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_Q_EE_00005	Amount Added:	12.50	Units: uL	
MSV_Q_ETBR_00008	Amount Added:	12.50	Units: uL	
MSV_LCS_VOC#1_00024	Amount Added:	12.50	Units: uL	
MSV_QC_Gas826_00046	Amount Added:	12.50	Units: uL	
MSV_LLcentISS_00002	Amount Added:	5.00	Units: uL	Run Reagent

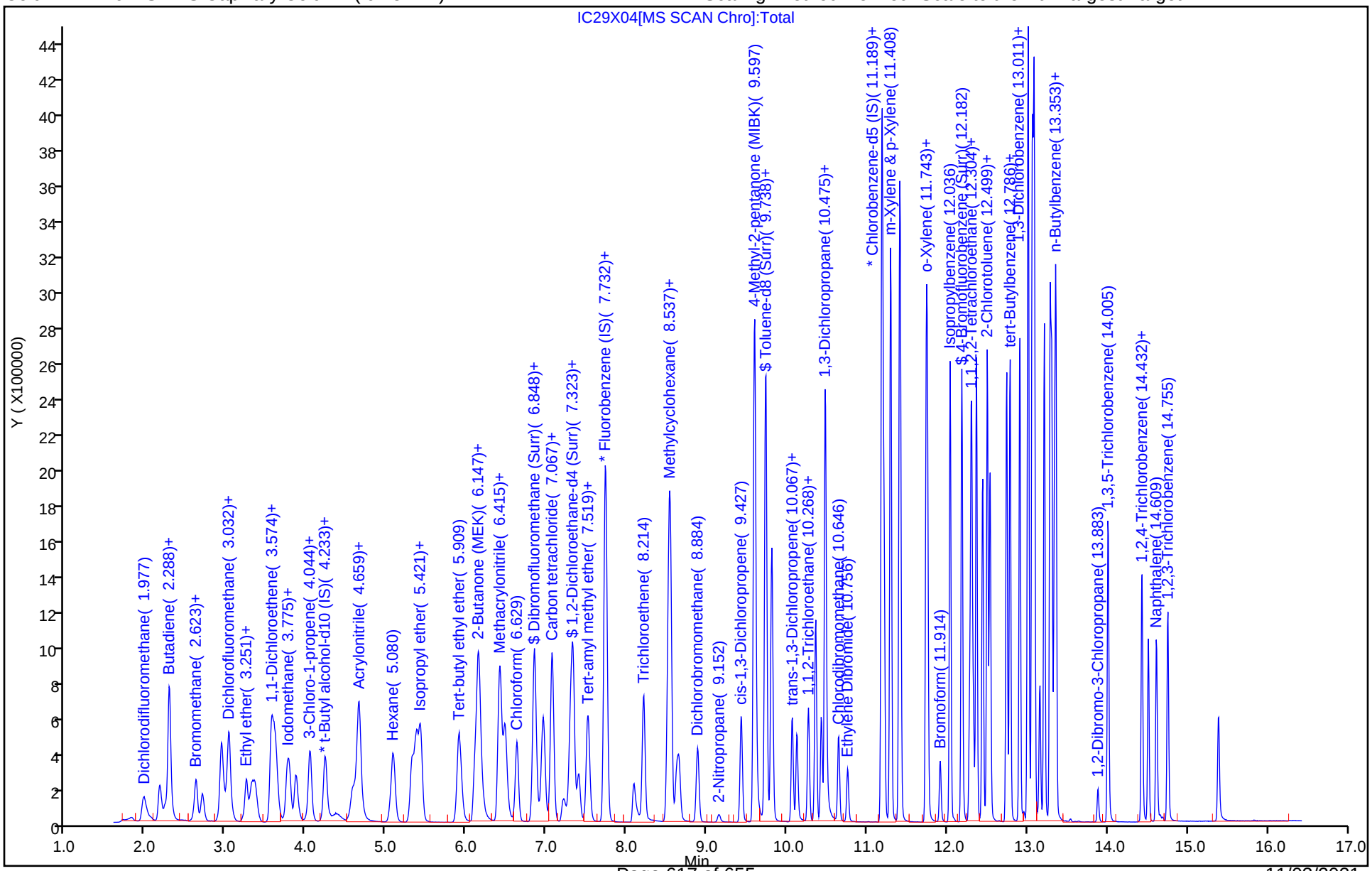
Report Date: 29-Oct-2021 11:49:16 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X04.D

Injection Date:	29-Oct-2021 09:12:30	Instrument ID:	19930	Operator ID:	SRK36897
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\20211029-42796.b\IC29X04.D
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 29-Oct-2021 09:12:30 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0042796-005
Misc. Info.: LCSD
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 29-Oct-2021 11:49:06 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: CTX1645

First Level Reviewer: knouses Date: 29-Oct-2021 10:04:49

Compound	Amount Added	Amount Recovered	% Rec.
$ 46 Dibromofluoromethane (Surr)	10.0	10.3	102.68
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.4	103.64
$ 75 Toluene-d8 (Surr)	10.0	10.2	101.63
$ 100 4-Bromofluorobenzene (Surr)	10.0	9.79	97.89

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-60154-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 410-189194/5

Matrix: Water Lab File ID: IN01X04.D

Analysis Method: 8260D Date Collected:

Sample wt/vol: 25(mL) Date Analyzed: 11/01/2021 09:58

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 189194 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.11		0.50	0.070
71-55-6	1,1,1-Trichloroethane	5.20		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	5.42		0.50	0.070
79-00-5	1,1,2-Trichloroethane	5.41		0.50	0.060
75-34-3	1,1-Dichloroethane	5.09		0.50	0.070
75-35-4	1,1-Dichloroethene	5.35		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	5.25		0.50	0.060
107-06-2	1,2-Dichloroethane	5.24		0.50	0.050
78-87-5	1,2-Dichloropropane	5.47		0.50	0.060
78-93-3	2-Butanone (MEK)	55.5		5.0	0.60
591-78-6	2-Hexanone	56.5		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	54.7		5.0	0.70
67-64-1	Acetone	54.2		5.0	0.90
71-43-2	Benzene	5.25		0.50	0.050
74-97-5	Bromochloromethane	5.40		0.50	0.050
75-27-4	Bromodichloromethane	5.47		0.50	0.050
75-25-2	Bromoform	5.41		1.0	0.30
74-83-9	Bromomethane	4.52		0.50	0.070
75-15-0	Carbon disulfide	5.12		1.0	0.060
56-23-5	Carbon tetrachloride	5.34		0.50	0.070
108-90-7	Chlorobenzene	5.11		0.50	0.060
75-00-3	Chloroethane	4.64		0.50	0.070
67-66-3	Chloroform	5.23		0.50	0.090
74-87-3	Chloromethane	4.69		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	5.29		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	5.03		0.50	0.050
124-48-1	Dibromochloromethane	5.31		0.50	0.070
100-41-4	Ethylbenzene	5.12		0.50	0.060
1634-04-4	Methyl tert-butyl ether	5.12		0.50	0.050
75-09-2	Methylene Chloride	5.26		0.50	0.070
100-42-5	Styrene	5.15		0.50	0.050
127-18-4	Tetrachloroethene	5.20		0.50	0.060
108-88-3	Toluene	5.04		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	5.16		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	5.18		0.50	0.060
79-01-6	Trichloroethene	5.22		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-60154-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 410-189194/5

Matrix: Water Lab File ID: IN01X04.D

Analysis Method: 8260D Date Collected:

Sample wt/vol: 25(mL) Date Analyzed: 11/01/2021 09:58

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 189194 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	4.50		0.50	0.10
1330-20-7	Xylenes, Total	15.2		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)	98		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		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\20211101-42940.b\IN01X04.D
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 01-Nov-2021 09:58:30 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0042940-005
Misc. Info.: LCSD
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211101-42940.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 01-Nov-2021 12:34:03 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: CTX1643

First Level Reviewer: knouses Date: 01-Nov-2021 10:42:27

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	1.971	0.006	99	319910	5.00	4.78	
4 Chloromethane	50	2.172	2.178	-0.006	99	357391	5.00	4.69	
6 Butadiene	39	2.294	2.294	0.000	90	369249	5.00	5.27	
5 Vinyl chloride	62	2.288	2.294	-0.006	75	345486	5.00	4.50	
7 Bromomethane	94	2.623	2.629	-0.006	91	251765	5.00	4.52	
8 Chloroethane	64	2.702	2.709	-0.007	100	213645	5.00	4.64	
9 Dichlorofluoromethane	67	2.946	2.946	0.000	97	532505	5.00	4.81	
10 Trichlorofluoromethane	101	3.013	3.020	-0.007	98	476328	5.00	4.81	M
11 Ethyl ether	59	3.257	3.251	0.006	90	215403	5.00	5.36	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.343	3.355	-0.013	93	353936	5.00	4.99	
13 Acrolein	56	3.428	3.422	0.006	98	251741	37.6	28.6	
14 1,1-Dichloroethene	96	3.568	3.568	0.000	98	272952	5.00	5.35	
15 Acetone	43	3.592	3.593	-0.001	100	606268	62.5	54.2	
16 112TCTFE	101	3.611	3.617	-0.006	91	305145	5.00	5.72	
17 Iodomethane	142	3.763	3.763	0.000	99	506717	5.00	4.97	
18 Ethyl bromide	108	3.794	3.794	0.000	98	220542	5.07	4.74	
19 Carbon disulfide	76	3.873	3.879	-0.006	99	721809	5.00	5.12	
21 Methyl acetate	43	4.019	4.026	-0.007	97	140570	5.00	4.27	M
22 3-Chloro-1-propene	41	4.050	4.050	0.000	92	403794	5.00	4.82	
23 Methylene Chloride	84	4.233	4.239	-0.006	91	293155	5.00	5.26	
* 24 t-Butyl alcohol-d10 (IS)	65	4.245	4.275	-0.030	95	201236	50.0	50.0	
25 2-Methyl-2-propanol	59	4.379	4.379	0.000	98	190471	50.0	45.0	
26 Acrylonitrile	53	4.574	4.574	0.000	99	322234	25.0	21.6	
27 Methyl tert-butyl ether	73	4.647	4.647	0.000	95	745017	5.00	5.12	
28 trans-1,2-Dichloroethene	96	4.659	4.660	-0.001	99	299247	5.00	5.16	
29 Hexane	57	5.086	5.086	0.000	91	426188	5.00	5.26	
31 1,1-Dichloroethane	63	5.318	5.318	0.000	96	536018	5.00	5.09	
32 Isopropyl ether	45	5.379	5.379	0.000	93	872035	5.00	4.96	
33 2-Chloro-1,3-butadiene	53	5.427	5.428	-0.001	91	447777	5.00	5.10	
34 Tert-butyl ethyl ether	59	5.909	5.909	0.000	97	865578	5.00	5.04	
36 2-Butanone (MEK)	43	6.110	6.117	-0.007	99	1082808	62.5	55.5	

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	6.153	6.147	0.006	82	341693	5.00	5.29	
38 2,2-Dichloropropane	77	6.165	6.165	0.000	92	475355	5.00	5.20	
40 Propionitrile	54	6.208	6.202	0.006	98	200161	37.5	38.6	
42 Methacrylonitrile	67	6.415	6.421	-0.006	90	618357	37.5	31.5	
43 Chlorobromomethane	128	6.482	6.482	0.000	92	150478	5.00	5.40	
44 Tetrahydrofuran	71	6.494	6.501	-0.007	81	124296	25.0	21.5	
45 Chloroform	83	6.628	6.629	-0.001	93	545454	5.00	5.23	
$ 46 Dibromofluoromethane (Surr)	113	6.842	6.842	0.000	94	551396	10.0	10.2	
47 1,1,1-Trichloroethane	97	6.854	6.854	0.000	98	503657	5.00	5.20	
48 Cyclohexane	56	6.952	6.958	-0.006	89	516813	5.00	5.38	
51 1,1-Dichloropropene	75	7.067	7.068	-0.001	96	431898	5.00	5.29	
50 Carbon tetrachloride	117	7.073	7.068	0.005	88	446338	5.00	5.34	
52 Isobutyl alcohol	41	7.220	7.214	0.006	94	171453	125.0	126.8	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.299	7.293	0.006	95	112287	10.0	10.4	
54 Benzene	78	7.330	7.330	0.000	96	1261854	5.00	5.25	
56 1,2-Dichloroethane	62	7.403	7.403	0.000	98	341192	5.00	5.24	
57 Tert-amyl methyl ether	73	7.519	7.519	0.000	99	804839	5.00	5.04	
* 58 Fluorobenzene (IS)	96	7.732	7.732	0.000	99	2138952	10.0	10.0	
59 n-Heptane	43	7.744	7.744	0.000	90	433415	5.00	5.21	
60 n-Butanol	56	8.092	8.092	0.000	88	319639	250.0	254.7	
61 Trichloroethene	95	8.214	8.214	0.000	98	337458	5.00	5.22	
62 Methylcyclohexane	83	8.518	8.519	-0.001	93	578919	5.00	5.39	
63 1,2-Dichloropropane	63	8.543	8.543	0.000	89	322938	5.00	5.47	
64 Methyl methacrylate	69	8.622	8.622	0.000	90	153459	5.00	3.98	
65 1,4-Dioxane	88	8.640	8.634	0.006	70	38577	125.0	105.0	
66 Dibromomethane	93	8.652	8.653	-0.001	93	158574	5.00	5.49	
68 Dichlorobromomethane	83	8.884	8.884	0.000	99	391808	5.00	5.47	
69 2-Nitropropane	41	9.152	9.147	0.006	100	42249	5.00	3.83	
73 cis-1,3-Dichloropropene	75	9.427	9.427	0.000	97	452311	5.00	5.03	
74 4-Methyl-2-pentanone (MIBK)	43	9.597	9.598	-0.001	96	2689465	62.5	54.7	
$ 75 Toluene-d8 (Surr)	98	9.738	9.738	0.000	93	2241459	10.0	10.1	
76 Toluene	92	9.811	9.811	0.000	98	831378	5.00	5.04	
78 trans-1,3-Dichloropropene	75	10.067	10.067	0.000	92	393573	5.00	5.18	
79 Ethyl methacrylate	69	10.122	10.122	0.000	89	318799	5.00	5.02	
80 1,1,2-Trichloroethane	97	10.268	10.268	0.000	91	237701	5.00	5.41	
81 Tetrachloroethene	166	10.359	10.360	-0.001	98	408272	5.00	5.20	
82 1,3-Dichloropropane	76	10.433	10.427	0.006	88	392172	5.00	5.24	
83 2-Hexanone	43	10.481	10.476	0.005	96	1943531	62.5	56.5	
85 Chlorodibromomethane	129	10.646	10.646	0.000	89	284568	5.00	5.31	
86 Ethylene Dibromide	107	10.756	10.756	0.000	99	222950	5.00	5.25	
* 87 Chlorobenzene-d5 (IS)	117	11.182	11.183	-0.001	85	1719888	10.0	10.0	
88 1-Chlorohexane	91	11.189	11.189	0.000	96	452789	5.00	4.70	
90 Chlorobenzene	112	11.213	11.213	0.000	96	932802	5.00	5.11	
91 1,1,1,2-Tetrachloroethane	131	11.292	11.292	0.000	95	326096	5.00	5.11	
92 Ethylbenzene	91	11.292	11.292	0.000	98	1624860	5.00	5.12	
93 m-Xylene & p-Xylene	106	11.408	11.408	0.000	100	1279692	10.0	10.2	
94 o-Xylene	106	11.737	11.737	0.000	96	616980	5.00	4.98	
95 Styrene	104	11.755	11.756	-0.001	95	1028253	5.00	5.15	
96 Bromoform	173	11.914	11.914	0.000	97	173820	5.00	5.41	
97 Isopropylbenzene	105	12.036	12.036	0.000	96	1672379	5.00	5.12	
$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	93	834224	10.0	9.82	
101 1,1,2,2-Tetrachloroethane	83	12.280	12.280	0.000	94	301238	5.00	5.42	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
102 Bromobenzene	156	12.298	12.298	0.000	95	411077	5.00	5.40	
103 trans-1,4-Dichloro-2-butene	53	12.304	12.304	0.000	93	312870	25.0	17.6	
104 1,2,3-Trichloropropane	110	12.329	12.329	0.000	83	86032	5.00	5.63	
105 N-Propylbenzene	91	12.365	12.365	0.000	99	1940500	5.00	5.25	
106 2-Chlorotoluene	126	12.444	12.445	-0.001	97	389032	5.00	5.13	
107 1,3,5-Trimethylbenzene	105	12.499	12.500	-0.001	94	1385893	5.00	5.13	
108 4-Chlorotoluene	126	12.536	12.536	0.000	97	393038	5.00	5.07	
109 tert-Butylbenzene	134	12.743	12.743	0.000	93	300444	5.00	5.07	
110 Pentachloroethane	167	12.774	12.774	0.000	92	226788	5.00	4.74	
111 1,2,4-Trimethylbenzene	105	12.786	12.786	0.000	97	1411278	5.00	5.10	
112 sec-Butylbenzene	105	12.908	12.908	0.000	94	1796561	5.00	5.27	
113 1,3-Dichlorobenzene	146	13.005	13.006	-0.001	98	786289	5.00	5.12	
114 4-Isopropyltoluene	119	13.011	13.012	-0.001	97	1534943	5.00	5.09	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	94	1005288	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.078	13.079	-0.001	96	813509	5.00	5.18	
117 1,2,3-Trimethylbenzene	120	13.091	13.091	0.000	98	611678	5.00	5.00	
118 Benzyl chloride	126	13.158	13.158	0.000	98	116428	5.00	5.12	
119 n-Butylbenzene	92	13.304	13.304	0.000	97	717279	5.00	5.09	
120 1,2-Dichlorobenzene	146	13.341	13.341	0.000	99	731200	5.00	5.21	
122 1,2-Dibromo-3-Chloropropane	155	13.883	13.883	0.000	90	46220	5.00	5.65	
123 1,3,5-Trichlorobenzene	180	14.011	14.005	0.006	98	578703	5.00	5.15	
124 1,2,4-Trichlorobenzene	180	14.432	14.432	0.000	94	481109	5.00	5.07	
125 Hexachlorobutadiene	225	14.511	14.511	0.000	97	191254	5.00	4.64	
126 Naphthalene	128	14.615	14.609	0.006	97	881074	5.00	4.88	
127 1,2,3-Trichlorobenzene	180	14.755	14.755	0.000	96	397843	5.00	4.85	
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_00005	Amount Added:	12.50	Units: uL	
MSV_Q_ETBR_00008	Amount Added:	12.50	Units: uL	
MSV_LCS_VOC#1_00025	Amount Added:	12.50	Units: uL	
MSV_QC_Gas826_00046	Amount Added:	12.50	Units: uL	
MSV_LCS_Penta_00008	Amount Added:	12.50	Units: uL	
MSV_LCS_ACROL_00023	Amount Added:	12.50	Units: uL	
MSV_LLcentISS_00002	Amount Added:	5.00	Units: uL	Run Reagent

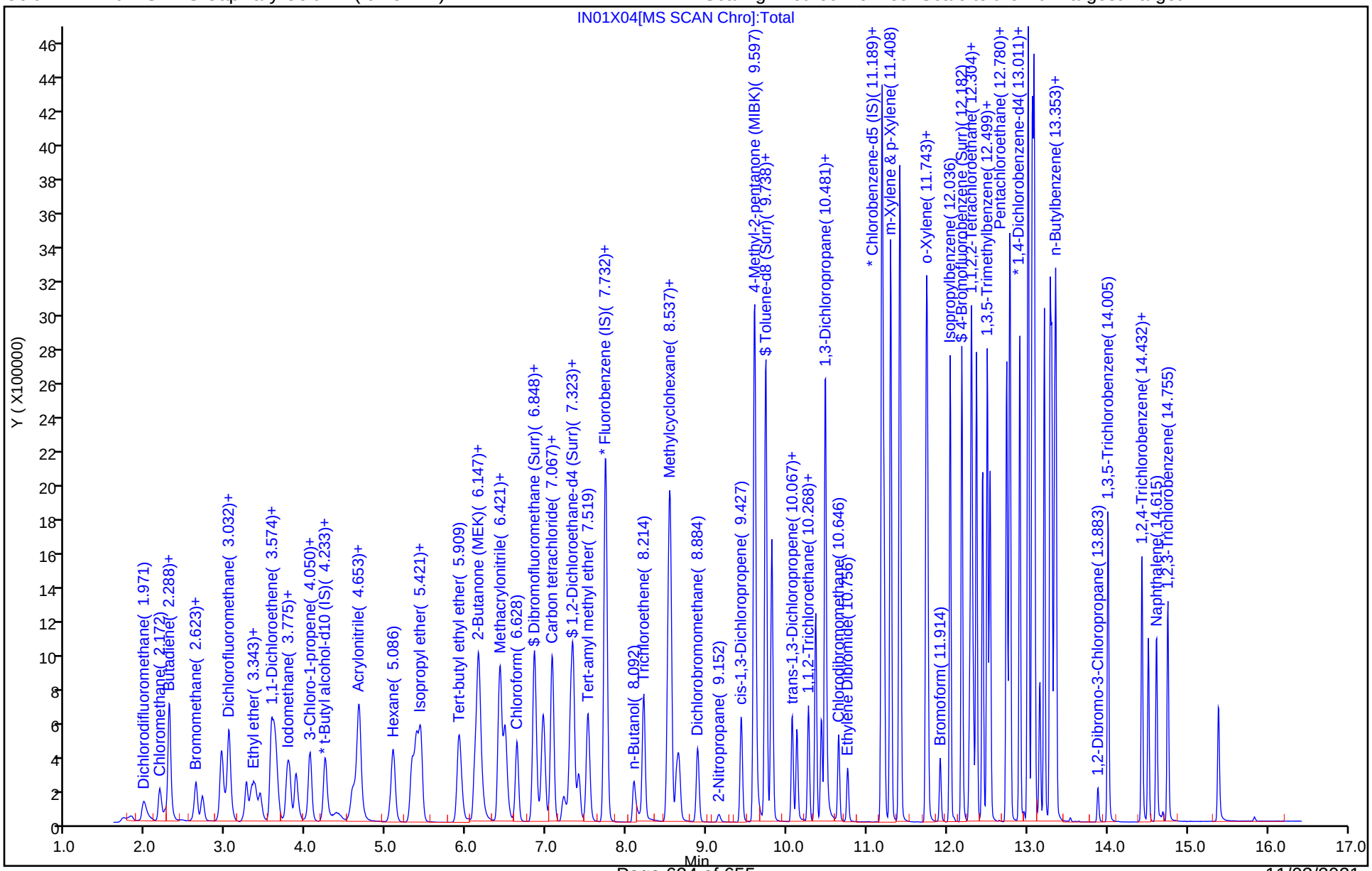
Report Date: 01-Nov-2021 12:34:14 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211101-42940.b\IN01X04.D

Injection Date:	01-Nov-2021 09:58:30	Instrument ID:	19930	Operator ID:	SRK36897
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\20211101-42940.b\IN01X04.D
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 01-Nov-2021 09:58:30 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0042940-005
Misc. Info.: LCSD
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211101-42940.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 01-Nov-2021 12:34:03 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: CTX1643

First Level Reviewer: knouses Date: 01-Nov-2021 10:42:27

Compound	Amount Added	Amount Recovered	% Rec.
$ 46 Dibromofluoromethane (Surr)	10.0	10.2	102.33
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.4	104.17
$ 75 Toluene-d8 (Surr)	10.0	10.1	100.85
$ 100 4-Bromofluorobenzene (Surr)	10.0	9.82	98.21

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-60154-1

SDG No.:

Client Sample ID: HD-COD-SW-15-0/1-0 MS MS Lab Sample ID: 410-60154-6 MS

Matrix: Water Lab File ID: IC29X17.D

Analysis Method: 8260D Date Collected: 10/20/2021 12:30

Sample wt/vol: 25(mL) Date Analyzed: 10/29/2021 13:48

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 188555 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.72		0.50	0.070
71-55-6	1,1,1-Trichloroethane	6.26		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	5.61		0.50	0.070
79-00-5	1,1,2-Trichloroethane	5.82		0.50	0.060
75-34-3	1,1-Dichloroethane	5.82		0.50	0.070
75-35-4	1,1-Dichloroethene	6.24		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	5.57		0.50	0.060
107-06-2	1,2-Dichloroethane	5.60		0.50	0.050
78-87-5	1,2-Dichloropropane	6.03		0.50	0.060
78-93-3	2-Butanone (MEK)	65.6		5.0	0.60
591-78-6	2-Hexanone	66.7		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	65.6		5.0	0.70
67-64-1	Acetone	63.9		5.0	0.90
71-43-2	Benzene	5.97		0.50	0.050
74-97-5	Bromochloromethane	6.01		0.50	0.050
75-27-4	Bromodichloromethane	6.05		0.50	0.050
75-25-2	Bromoform	5.67		1.0	0.30
74-83-9	Bromomethane	5.55		0.50	0.070
75-15-0	Carbon disulfide	5.61		1.0	0.060
56-23-5	Carbon tetrachloride	6.27		0.50	0.070
108-90-7	Chlorobenzene	5.71		0.50	0.060
75-00-3	Chloroethane	5.91		0.50	0.070
67-66-3	Chloroform	6.35		0.50	0.090
74-87-3	Chloromethane	6.13		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	6.97		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	5.40		0.50	0.050
124-48-1	Dibromochloromethane	5.74		0.50	0.070
100-41-4	Ethylbenzene	5.83		0.50	0.060
1634-04-4	Methyl tert-butyl ether	5.42		0.50	0.050
75-09-2	Methylene Chloride	5.85		0.50	0.070
100-42-5	Styrene	5.65		0.50	0.050
127-18-4	Tetrachloroethene	9.69		0.50	0.060
108-88-3	Toluene	5.72		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	5.90		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	5.48		0.50	0.060
79-01-6	Trichloroethene	7.03		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-60154-1

SDG No.:

Client Sample ID: HD-COD-SW-15-0/1-0 MS MS Lab Sample ID: 410-60154-6 MS

Matrix: Water Lab File ID: IC29X17.D

Analysis Method: 8260D Date Collected: 10/20/2021 12:30

Sample wt/vol: 25(mL) Date Analyzed: 10/29/2021 13:48

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 188555 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-01-4	Vinyl chloride	6.08		0.50	0.10
1330-20-7	Xylenes, Total	17.2		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		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\20211029-42796.b\IC29X17.D
Lims ID: 410-60154-A-6 MS
Client ID: HD-COD-SW-15-0/1-0 MS
Sample Type: MS
Inject. Date: 29-Oct-2021 13:48:30 ALS Bottle#: 17 Worklist Smp#: 18
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0042796-018
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 29-Oct-2021 19:24:36 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: CTX1664

First Level Reviewer: johnsons Date: 29-Oct-2021 19:14:36

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	1.971	-0.006	99	406138	5.00	6.68	
4 Chloromethane	50	2.172	2.172	0.000	99	424910	5.00	6.13	
6 Butadiene	39	2.288	2.288	0.000	90	508362	5.00	7.99	
5 Vinyl chloride	62	2.288	2.294	-0.006	75	424916	5.00	6.08	
7 Bromomethane	94	2.623	2.623	0.000	91	281059	5.00	5.55	
8 Chloroethane	64	2.709	2.708	0.001	100	247434	5.00	5.91	
9 Dichlorofluoromethane	67	2.946	2.940	0.006	97	606042	5.00	6.02	
10 Trichlorofluoromethane	101	3.013	3.013	0.000	97	591942	5.00	6.58	
11 Ethyl ether	59	3.251	3.251	0.000	90	222835	5.00	6.09	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.349	3.342	0.007	91	412930	5.00	6.40	
14 1,1-Dichloroethene	96	3.568	3.562	0.006	98	289571	5.00	6.24	
15 Acetone	43	3.599	3.592	0.007	100	547234	62.6	63.9	
16 112TCTFE	101	3.617	3.611	0.006	89	329804	5.00	6.80	
17 Iodomethane	142	3.763	3.763	0.000	99	504022	5.00	5.43	
18 Ethyl bromide	108	3.794	3.794	0.000	99	243300	5.07	5.75	
19 Carbon disulfide	76	3.873	3.873	0.000	99	718430	5.00	5.61	
21 Methyl acetate	43	4.025	4.019	0.006	97	118075	5.00	4.69	
22 3-Chloro-1-propene	41	4.050	4.044	0.006	91	414138	5.00	5.44	
23 Methylene Chloride	84	4.239	4.233	0.007	93	296558	5.00	5.85	
* 24 t-Butyl alcohol-d10 (IS)	65	4.269	4.251	0.018	94	154115	50.0	50.0	
25 2-Methyl-2-propanol	59	4.397	4.385	0.012	98	167766	50.0	51.7	
26 Acrylonitrile	53	4.574	4.580	-0.006	99	297105	25.0	26.0	
27 Methyl tert-butyl ether	73	4.647	4.647	0.000	95	717677	5.00	5.42	
28 trans-1,2-Dichloroethene	96	4.659	4.659	0.000	99	310851	5.00	5.90	
29 Hexane	57	5.086	5.086	0.000	92	421526	5.00	5.73	
31 1,1-Dichloroethane	63	5.318	5.318	0.000	96	557250	5.00	5.82	
32 Isopropyl ether	45	5.379	5.373	0.006	93	858183	5.00	5.37	
33 2-Chloro-1,3-butadiene	53	5.428	5.427	0.001	91	472187	5.00	5.92	
34 Tert-butyl ethyl ether	59	5.909	5.909	0.000	97	829788	5.00	5.31	
36 2-Butanone (MEK)	43	6.117	6.116	0.000	99	981309	62.6	65.6	
37 cis-1,2-Dichloroethene	96	6.153	6.147	0.006	81	409365	5.00	6.97	
38 2,2-Dichloropropane	77	6.171	6.159	0.012	91	502361	5.00	6.04	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
40 Propionitrile	54	6.208	6.202	0.006	98	170125	37.5	42.8	
42 Methacrylonitrile	67	6.415	6.415	0.000	91	579200	37.5	38.6	
43 Chlorobromomethane	128	6.476	6.476	0.000	92	152240	5.00	6.01	
44 Tetrahydrofuran	71	6.494	6.488	0.006	84	113072	25.0	25.5	
45 Chloroform	83	6.629	6.628	0.001	93	601816	5.00	6.35	
$ 46 Dibromofluoromethane (Surr)	113	6.842	6.842	0.000	94	499880	10.0	10.2	
47 1,1,1-Trichloroethane	97	6.860	6.854	0.006	98	551057	5.00	6.26	
48 Cyclohexane	56	6.958	6.958	0.000	89	541014	5.00	6.20	
51 1,1-Dichloropropene	75	7.068	7.067	0.001	97	458879	5.00	6.18	
50 Carbon tetrachloride	117	7.068	7.067	0.001	95	476911	5.00	6.27	
52 Isobutyl alcohol	41	7.220	7.208	0.012	93	138656	125.1	133.9	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.293	7.299	-0.006	98	100466	10.0	10.3	
54 Benzene	78	7.330	7.329	0.001	96	1305372	5.00	5.97	
56 1,2-Dichloroethane	62	7.403	7.397	0.006	97	331530	5.00	5.60	
57 Tert-amyl methyl ether	73	7.519	7.512	0.007	99	767734	5.00	5.29	
* 58 Fluorobenzene (IS)	96	7.732	7.732	0.000	99	1944743	10.0	10.0	
59 n-Heptane	43	7.744	7.738	0.006	90	442475	5.00	5.85	
60 n-Butanol	56	8.092	8.085	0.007	90	240356	250.2	250.1	
61 Trichloroethene	95	8.208	8.207	0.001	98	413069	5.00	7.03	
62 Methylcyclohexane	83	8.518	8.518	0.000	94	607258	5.00	6.21	
63 1,2-Dichloropropane	63	8.543	8.537	0.006	79	324017	5.00	6.03	
64 Methyl methacrylate	69	8.622	8.622	0.000	89	143403	5.00	4.86	
65 1,4-Dioxane	88	8.640	8.628	0.012	80	18713	125.1	73.7	
66 Dibromomethane	93	8.653	8.646	0.007	94	153404	5.00	5.85	
68 Dichlorobromomethane	83	8.884	8.884	0.000	99	393566	5.00	6.05	
69 2-Nitropropane	41	9.153	9.146	0.006	99	36768	5.00	4.35	
73 cis-1,3-Dichloropropene	75	9.427	9.427	0.000	97	441586	5.00	5.40	
74 4-Methyl-2-pentanone (MIBK)	43	9.598	9.591	0.007	96	2467596	62.6	65.6	
$ 75 Toluene-d8 (Surr)	98	9.738	9.731	0.007	93	2028517	10.0	10.2	
76 Toluene	92	9.811	9.811	0.000	98	845100	5.00	5.72	
78 trans-1,3-Dichloropropene	75	10.067	10.067	0.000	92	373239	5.00	5.48	
79 Ethyl methacrylate	69	10.122	10.122	0.000	88	301688	5.00	5.31	
80 1,1,2-Trichloroethane	97	10.268	10.268	0.000	91	229430	5.00	5.82	
81 Tetrachloroethene	166	10.360	10.359	0.001	98	681986	5.00	9.69	
82 1,3-Dichloropropane	76	10.427	10.426	0.001	89	383626	5.00	5.72	
83 2-Hexanone	43	10.475	10.475	0.000	96	1757674	62.6	66.7	
85 Chlorodibromomethane	129	10.646	10.646	0.000	89	275855	5.00	5.74	
86 Ethylene Dibromide	107	10.756	10.756	0.000	98	211815	5.00	5.57	
* 87 Chlorobenzene-d5 (IS)	117	11.183	11.182	0.001	86	1541064	10.0	10.0	
88 1-Chlorohexane	91	11.189	11.188	0.001	97	479515	5.00	5.55	
90 Chlorobenzene	112	11.207	11.207	0.000	96	933611	5.00	5.71	
91 1,1,1,2-Tetrachloroethane	131	11.292	11.292	0.000	96	327095	5.00	5.72	
92 Ethylbenzene	91	11.292	11.292	0.000	98	1657974	5.00	5.83	
93 m-Xylene & p-Xylene	106	11.408	11.408	0.000	100	1304992	10.0	11.6	
94 o-Xylene	106	11.737	11.737	0.000	96	617331	5.00	5.57	
95 Styrene	104	11.756	11.755	0.001	95	1012487	5.00	5.65	
96 Bromoform	173	11.914	11.914	0.000	98	163005	5.00	5.67	
97 Isopropylbenzene	105	12.036	12.036	0.000	96	1720118	5.00	5.87	
$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	94	741089	10.0	9.74	
101 1,1,2,2-Tetrachloroethane	83	12.280	12.280	0.000	94	281237	5.00	5.61	
102 Bromobenzene	156	12.298	12.298	0.000	95	396825	5.00	5.78	
103 trans-1,4-Dichloro-2-butene	53	12.304	12.304	0.000	92	198246	25.0	14.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 1,2,3-Trichloropropane	110	12.329	12.328	0.001	83	77617	5.00	5.63	
105 N-Propylbenzene	91	12.365	12.365	0.000	99	1991323	5.00	5.97	
106 2-Chlorotoluene	126	12.445	12.444	0.001	97	383046	5.00	5.60	
107 1,3,5-Trimethylbenzene	105	12.499	12.499	0.000	94	1396548	5.00	5.73	
108 4-Chlorotoluene	126	12.536	12.536	0.000	97	392159	5.00	5.61	
109 tert-Butylbenzene	134	12.743	12.743	0.000	92	298332	5.00	5.58	
111 1,2,4-Trimethylbenzene	105	12.786	12.786	0.000	97	1410507	5.00	5.65	
112 sec-Butylbenzene	105	12.908	12.908	0.000	94	1828335	5.00	5.94	
113 1,3-Dichlorobenzene	146	13.005	13.005	0.000	98	779036	5.00	5.62	
114 4-Isopropyltoluene	119	13.012	13.011	0.001	97	1576114	5.00	5.79	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	93	906966	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.079	13.078	0.001	95	796502	5.00	5.62	
117 1,2,3-Trimethylbenzene	120	13.091	13.091	0.000	98	607286	5.00	5.50	
118 Benzyl chloride	126	13.158	13.158	0.000	98	105301	5.00	5.13	
119 n-Butylbenzene	92	13.304	13.304	0.000	97	735974	5.00	5.78	
120 1,2-Dichlorobenzene	146	13.341	13.340	0.001	99	711363	5.00	5.62	
122 1,2-Dibromo-3-Chloropropane	155	13.883	13.883	0.000	88	39284	5.00	5.33	
123 1,3,5-Trichlorobenzene	180	14.005	14.005	0.000	98	568569	5.00	5.61	
124 1,2,4-Trichlorobenzene	180	14.432	14.432	0.000	94	454093	5.00	5.31	
125 Hexachlorobutadiene	225	14.511	14.511	0.000	97	190546	5.00	5.13	
126 Naphthalene	128	14.615	14.609	0.006	97	778720	5.00	4.78	
127 1,2,3-Trichlorobenzene	180	14.755	14.755	0.000	96	368294	5.00	4.98	
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

Reagents:

MSV_Q_EE_00005	Amount Added:	5.38	Units: uL	
MSV_Q_ETBR_00008	Amount Added:	5.38	Units: uL	
MSV_LCS_VOC#1_00024	Amount Added:	5.38	Units: uL	
MSV_QC_Gas826_00046	Amount Added:	5.38	Units: uL	
MSV_LLcentISS_00002	Amount Added:	5.00	Units: uL	Run Reagent

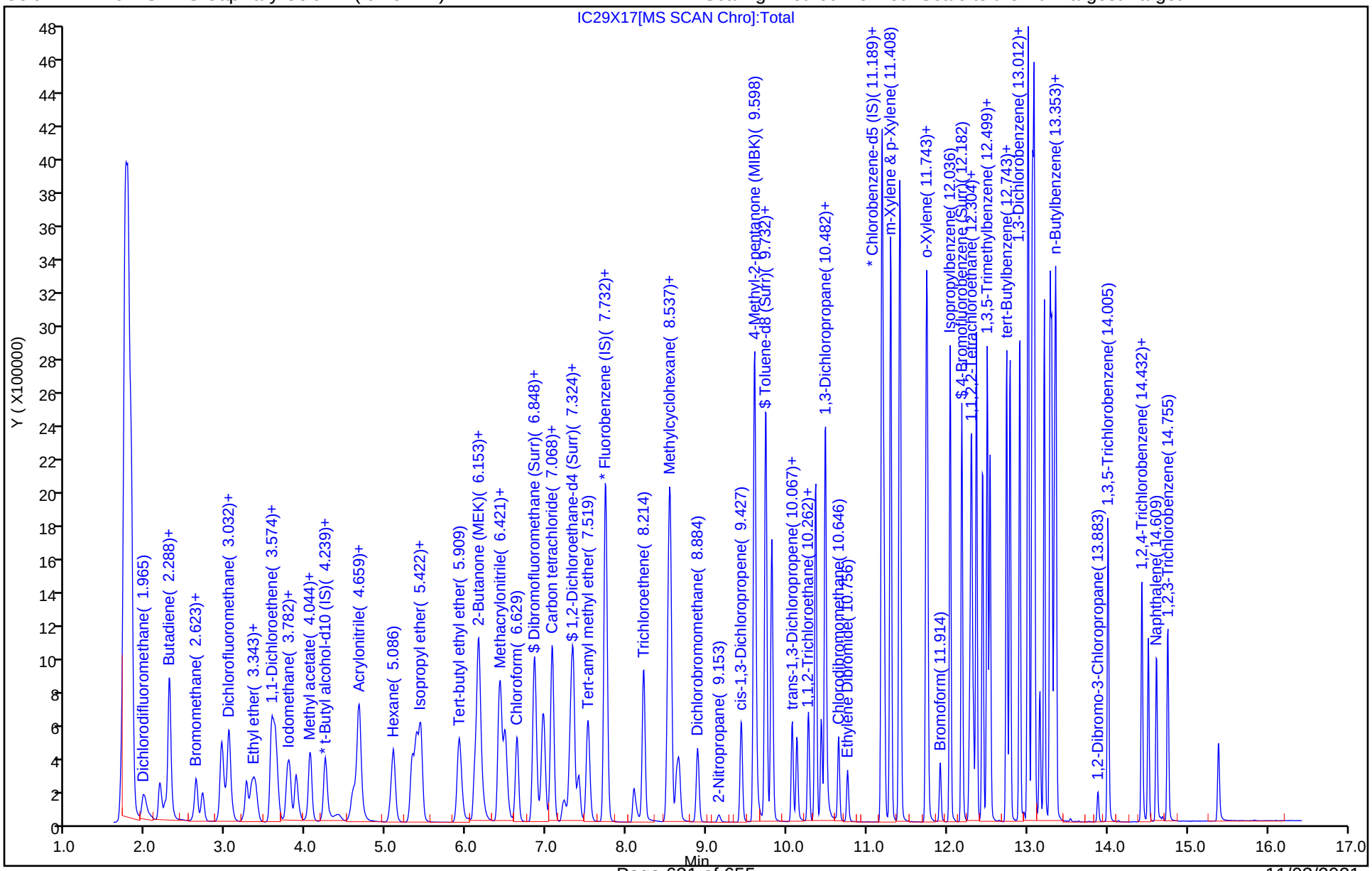
Report Date: 29-Oct-2021 19:25:20 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X17.D

Injection Date:	29-Oct-2021 13:48:30	Instrument ID:	19930	Operator ID:	SRK36897
Lims ID:	410-60154-A-6 MS			Worklist Smp#:	18
Client ID:	HD-COD-SW-15-0/1-0 MS				
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

Recovery Report

Data File: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X17.D
Lims ID: 410-60154-A-6 MS
Client ID: HD-COD-SW-15-0/1-0 MS
Sample Type: MS
Inject. Date: 29-Oct-2021 13:48:30 ALS Bottle#: 17 Worklist Smp#: 18
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0042796-018
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 29-Oct-2021 19:24:36 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: CTX1664

First Level Reviewer: johnsons Date: 29-Oct-2021 19:14:36

Compound	Amount Added	Amount Recovered	% Rec.
$ 46 Dibromofluoromethane (Surr)	10.0	10.2	102.04
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.3	102.51
$ 75 Toluene-d8 (Surr)	10.0	10.2	101.86
$ 100 4-Bromofluorobenzene (Surr)	10.0	9.74	97.37

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-60154-1

SDG No.:

Client Sample ID: HD-COD-SW-15-0/1-0 MSD MSD Lab Sample ID: 410-60154-6 MSD

Matrix: Water Lab File ID: IC29X18.D

Analysis Method: 8260D Date Collected: 10/20/2021 12:30

Sample wt/vol: 25(mL) Date Analyzed: 10/29/2021 14:09

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.: 188555 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
630-20-6	1,1,1,2-Tetrachloroethane	5.73		0.50	0.070
71-55-6	1,1,1-Trichloroethane	6.29		0.50	0.060
79-34-5	1,1,2,2-Tetrachloroethane	5.69		0.50	0.070
79-00-5	1,1,2-Trichloroethane	5.88		0.50	0.060
75-34-3	1,1-Dichloroethane	5.91		0.50	0.070
75-35-4	1,1-Dichloroethene	6.33		0.50	0.060
106-93-4	1,2-Dibromoethane (EDB)	5.69		0.50	0.060
107-06-2	1,2-Dichloroethane	5.77		0.50	0.050
78-87-5	1,2-Dichloropropane	6.03		0.50	0.060
78-93-3	2-Butanone (MEK)	64.3		5.0	0.60
591-78-6	2-Hexanone	65.9		5.0	0.60
108-10-1	4-Methyl-2-pentanone (MIBK)	64.6		5.0	0.70
67-64-1	Acetone	62.7		5.0	0.90
71-43-2	Benzene	5.96		0.50	0.050
74-97-5	Bromochloromethane	5.98		0.50	0.050
75-27-4	Bromodichloromethane	6.04		0.50	0.050
75-25-2	Bromoform	5.78		1.0	0.30
74-83-9	Bromomethane	5.70		0.50	0.070
75-15-0	Carbon disulfide	5.63		1.0	0.060
56-23-5	Carbon tetrachloride	6.36		0.50	0.070
108-90-7	Chlorobenzene	5.80		0.50	0.060
75-00-3	Chloroethane	5.84		0.50	0.070
67-66-3	Chloroform	6.34		0.50	0.090
74-87-3	Chloromethane	6.20		0.50	0.060
156-59-2	cis-1,2-Dichloroethene	7.06		0.50	0.050
10061-01-5	cis-1,3-Dichloropropene	5.44		0.50	0.050
124-48-1	Dibromochloromethane	5.84		0.50	0.070
100-41-4	Ethylbenzene	5.92		0.50	0.060
1634-04-4	Methyl tert-butyl ether	5.55		0.50	0.050
75-09-2	Methylene Chloride	5.90		0.50	0.070
100-42-5	Styrene	5.77		0.50	0.050
127-18-4	Tetrachloroethene	9.89		0.50	0.060
108-88-3	Toluene	5.81		0.50	0.070
156-60-5	trans-1,2-Dichloroethene	5.89		0.50	0.060
10061-02-6	trans-1,3-Dichloropropene	5.59		0.50	0.060

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-60154-1

SDG No.:

Client Sample ID: HD-COD-SW-15-0/1-0 MSD MSD Lab Sample ID: 410-60154-6 MSD

Matrix: Water Lab File ID: IC29X18.D

Analysis Method: 8260D Date Collected: 10/20/2021 12:30

Sample wt/vol: 25(mL) Date Analyzed: 10/29/2021 14:09

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.: 188555 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	7.07		0.50	0.060
75-01-4	Vinyl chloride	6.04		0.50	0.10
1330-20-7	Xylenes, Total	17.2		1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		80-120
460-00-4	4-Bromofluorobenzene (Surr)	98		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		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\20211029-42796.b\IC29X18.D
Lims ID: 410-60154-A-6 MSD
Client ID: HD-COD-SW-15-0/1-0 MSD
Sample Type: MSD
Inject. Date: 29-Oct-2021 14:09:30 ALS Bottle#: 18 Worklist Smp#: 19
Purge Vol: 25.000 mL Dil. Factor: 1.0000
Sample Info: 410-0042796-019
Operator ID: SRK36897 Instrument ID: 19930

Method: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\8260 25ml HP31.m
Limit Group: MSV - 8260C_D
Last Update: 29-Oct-2021 19:24:36 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: CTX1664

First Level Reviewer: johnsons Date: 29-Oct-2021 19:15:53

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Dichlorodifluoromethane	85	1.983	1.971	0.012	99	416981	5.00	6.87	
4 Chloromethane	50	2.184	2.172	0.012	99	428241	5.00	6.20	
6 Butadiene	39	2.300	2.288	0.012	90	503113	5.00	7.92	
5 Vinyl chloride	62	2.300	2.294	0.006	98	420742	5.00	6.04	
7 Bromomethane	94	2.635	2.623	0.012	91	287754	5.00	5.70	
8 Chloroethane	64	2.721	2.708	0.013	100	243826	5.00	5.84	
9 Dichlorofluoromethane	67	2.958	2.940	0.018	97	607803	5.00	6.05	
10 Trichlorofluoromethane	101	3.019	3.013	0.006	98	594011	5.00	6.62	
11 Ethyl ether	59	3.263	3.251	0.012	91	226584	5.00	6.21	
12 1,2-Dichloro-1,1,2-trifluoroetha	67	3.367	3.342	0.025	90	409788	5.00	6.37	
14 1,1-Dichloroethene	96	3.574	3.562	0.012	98	293129	5.00	6.33	
15 Acetone	43	3.605	3.592	0.013	100	548709	62.6	62.7	
16 112TCTFE	101	3.623	3.611	0.012	90	328189	5.00	6.79	
17 Iodomethane	142	3.775	3.763	0.012	99	507507	5.00	5.48	
18 Ethyl bromide	108	3.806	3.794	0.012	98	243969	5.07	5.78	
19 Carbon disulfide	76	3.885	3.873	0.012	99	719736	5.00	5.63	
21 Methyl acetate	43	4.025	4.019	0.006	97	135308	5.00	5.26	
22 3-Chloro-1-propene	41	4.056	4.044	0.012	91	418112	5.00	5.51	
23 Methylene Chloride	84	4.245	4.233	0.013	91	298288	5.00	5.90	
* 24 t-Butyl alcohol-d10 (IS)	65	4.269	4.251	0.018	96	157415	50.0	50.0	
25 2-Methyl-2-propanol	59	4.403	4.385	0.018	99	157052	50.0	47.4	
26 Acrylonitrile	53	4.586	4.580	0.006	99	299129	25.0	25.7	
27 Methyl tert-butyl ether	73	4.653	4.647	0.006	95	732351	5.00	5.55	
28 trans-1,2-Dichloroethene	96	4.672	4.659	0.013	99	309591	5.00	5.89	
29 Hexane	57	5.092	5.086	0.006	91	426227	5.00	5.81	
31 1,1-Dichloroethane	63	5.330	5.318	0.012	96	563824	5.00	5.91	
32 Isopropyl ether	45	5.391	5.373	0.018	93	864452	5.00	5.42	
33 2-Chloro-1,3-butadiene	53	5.434	5.427	0.007	90	479776	5.00	6.03	
34 Tert-butyl ethyl ether	59	5.915	5.909	0.006	97	846605	5.00	5.43	
36 2-Butanone (MEK)	43	6.116	6.116	0.000	99	982186	62.6	64.3	
37 cis-1,2-Dichloroethene	96	6.159	6.147	0.012	81	413449	5.00	7.06	
38 2,2-Dichloropropane	77	6.171	6.159	0.012	86	505721	5.00	6.10	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
40 Propionitrile	54	6.202	6.202	0.000	97	178442	37.5	44.0	
42 Methacrylonitrile	67	6.421	6.415	0.006	90	586901	37.5	38.3	
43 Chlorobromomethane	128	6.488	6.476	0.012	91	151068	5.00	5.98	
44 Tetrahydrofuran	71	6.500	6.488	0.012	81	116829	25.0	25.8	
45 Chloroform	83	6.635	6.628	0.007	93	598703	5.00	6.34	
$ 46 Dibromofluoromethane (Surr)	113	6.848	6.842	0.006	94	497045	10.0	10.2	
47 1,1,1-Trichloroethane	97	6.866	6.854	0.012	98	552384	5.00	6.29	
48 Cyclohexane	56	6.958	6.958	0.000	89	538879	5.00	6.19	
51 1,1-Dichloropropene	75	7.073	7.067	0.006	96	459649	5.00	6.20	
50 Carbon tetrachloride	117	7.073	7.067	0.006	96	481809	5.00	6.36	
52 Isobutyl alcohol	41	7.214	7.208	0.006	95	137279	125.1	129.8	
$ 53 1,2-Dichloroethane-d4 (Surr)	102	7.299	7.299	0.000	99	101055	10.0	10.3	
54 Benzene	78	7.336	7.329	0.007	97	1298819	5.00	5.96	
56 1,2-Dichloroethane	62	7.403	7.397	0.006	98	341048	5.00	5.77	
57 Tert-amyl methyl ether	73	7.525	7.512	0.013	99	776990	5.00	5.37	
* 58 Fluorobenzene (IS)	96	7.738	7.732	0.006	99	1939452	10.0	10.0	
59 n-Heptane	43	7.750	7.738	0.012	89	445231	5.00	5.90	
60 n-Butanol	56	8.092	8.085	0.007	88	247829	250.2	252.4	
61 Trichloroethene	95	8.214	8.207	0.007	98	414499	5.00	7.07	
62 Methylcyclohexane	83	8.524	8.518	0.006	93	618743	5.00	6.35	
63 1,2-Dichloropropane	63	8.543	8.537	0.006	93	322761	5.00	6.03	
64 Methyl methacrylate	69	8.622	8.622	0.000	89	140370	5.00	4.66	
65 1,4-Dioxane	88	8.628	8.628	0.000	32	26160	125.1	93.5	
66 Dibromomethane	93	8.652	8.646	0.006	94	153893	5.00	5.88	
68 Dichlorobromomethane	83	8.890	8.884	0.006	99	392425	5.00	6.04	
69 2-Nitropropane	41	9.152	9.146	0.006	98	40778	5.00	4.73	
73 cis-1,3-Dichloropropene	75	9.433	9.427	0.006	96	443627	5.00	5.44	
74 4-Methyl-2-pentanone (MIBK)	43	9.597	9.591	0.006	96	2485046	62.6	64.6	
$ 75 Toluene-d8 (Surr)	98	9.738	9.731	0.007	93	2021281	10.0	10.2	
76 Toluene	92	9.811	9.811	0.000	98	854100	5.00	5.81	
78 trans-1,3-Dichloropropene	75	10.067	10.067	0.000	92	379101	5.00	5.59	
79 Ethyl methacrylate	69	10.128	10.122	0.006	88	306405	5.00	5.42	
80 1,1,2-Trichloroethane	97	10.268	10.268	0.000	91	230690	5.00	5.88	
81 Tetrachloroethene	166	10.359	10.359	0.000	98	692527	5.00	9.89	
82 1,3-Dichloropropane	76	10.433	10.426	0.007	89	383020	5.00	5.74	
83 2-Hexanone	43	10.481	10.475	0.006	96	1774509	62.6	65.9	
85 Chlorodibromomethane	129	10.646	10.646	0.000	89	278869	5.00	5.84	
86 Ethylene Dibromide	107	10.756	10.756	0.000	98	215071	5.00	5.69	
* 87 Chlorobenzene-d5 (IS)	117	11.182	11.182	0.000	85	1533247	10.0	10.0	
88 1-Chlorohexane	91	11.189	11.188	0.001	97	485654	5.00	5.65	
90 Chlorobenzene	112	11.213	11.207	0.006	96	943751	5.00	5.80	
91 1,1,1,2-Tetrachloroethane	131	11.292	11.292	0.000	95	325531	5.00	5.73	
92 Ethylbenzene	91	11.298	11.292	0.006	98	1674468	5.00	5.92	
93 m-Xylene & p-Xylene	106	11.408	11.408	0.000	99	1296421	10.0	11.6	
94 o-Xylene	106	11.737	11.737	0.000	96	622086	5.00	5.64	
95 Styrene	104	11.756	11.755	0.001	95	1027711	5.00	5.77	
96 Bromoform	173	11.914	11.914	0.000	98	165555	5.00	5.78	
97 Isopropylbenzene	105	12.036	12.036	0.000	96	1742931	5.00	5.98	
$ 100 4-Bromofluorobenzene (Surr)	95	12.182	12.182	0.000	93	743958	10.0	9.82	
101 1,1,2,2-Tetrachloroethane	83	12.280	12.280	0.000	94	281973	5.00	5.69	
102 Bromobenzene	156	12.298	12.298	0.000	93	406533	5.00	5.98	
103 trans-1,4-Dichloro-2-butene	53	12.304	12.304	0.000	92	198977	25.0	14.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 1,2,3-Trichloropropane	110	12.329	12.328	0.001	83	79182	5.00	5.81	
105 N-Propylbenzene	91	12.365	12.365	0.000	99	2006322	5.00	6.08	
106 2-Chlorotoluene	126	12.444	12.444	0.000	97	390509	5.00	5.77	
107 1,3,5-Trimethylbenzene	105	12.499	12.499	0.000	94	1398737	5.00	5.81	
108 4-Chlorotoluene	126	12.536	12.536	0.000	97	396928	5.00	5.74	
109 tert-Butylbenzene	134	12.743	12.743	0.000	92	302226	5.00	5.72	
111 1,2,4-Trimethylbenzene	105	12.786	12.786	0.000	97	1433173	5.00	5.81	
112 sec-Butylbenzene	105	12.908	12.908	0.000	94	1874370	5.00	6.16	
113 1,3-Dichlorobenzene	146	13.005	13.005	0.000	98	783806	5.00	5.72	
114 4-Isopropyltoluene	119	13.011	13.011	0.000	97	1589819	5.00	5.91	
* 115 1,4-Dichlorobenzene-d4	152	13.060	13.060	0.000	94	896657	10.0	10.0	
116 1,4-Dichlorobenzene	146	13.078	13.078	0.000	94	795127	5.00	5.68	
117 1,2,3-Trimethylbenzene	120	13.091	13.091	0.000	98	616345	5.00	5.64	
118 Benzyl chloride	126	13.158	13.158	0.000	98	106521	5.00	5.25	
119 n-Butylbenzene	92	13.304	13.304	0.000	97	742132	5.00	5.90	
120 1,2-Dichlorobenzene	146	13.341	13.340	0.001	99	719402	5.00	5.75	
122 1,2-Dibromo-3-Chloropropane	155	13.883	13.883	0.000	87	40007	5.00	5.49	
123 1,3,5-Trichlorobenzene	180	14.011	14.005	0.006	98	580975	5.00	5.80	
124 1,2,4-Trichlorobenzene	180	14.432	14.432	0.000	94	469722	5.00	5.55	
125 Hexachlorobutadiene	225	14.511	14.511	0.000	96	199551	5.00	5.43	
126 Naphthalene	128	14.615	14.609	0.006	97	817525	5.00	5.07	
127 1,2,3-Trichlorobenzene	180	14.755	14.755	0.000	96	387813	5.00	5.31	
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

Reagents:

MSV_Q_ETBR_00008	Amount Added:	5.38	Units: uL	
MSV_LCS_VOC#1_00024	Amount Added:	5.38	Units: uL	
MSV_QC_Gas826_00046	Amount Added:	5.38	Units: uL	
MSV_Q_EE_00005	Amount Added:	5.38	Units: uL	
MSV_LLcentISS_00002	Amount Added:	5.00	Units: uL	Run Reagent

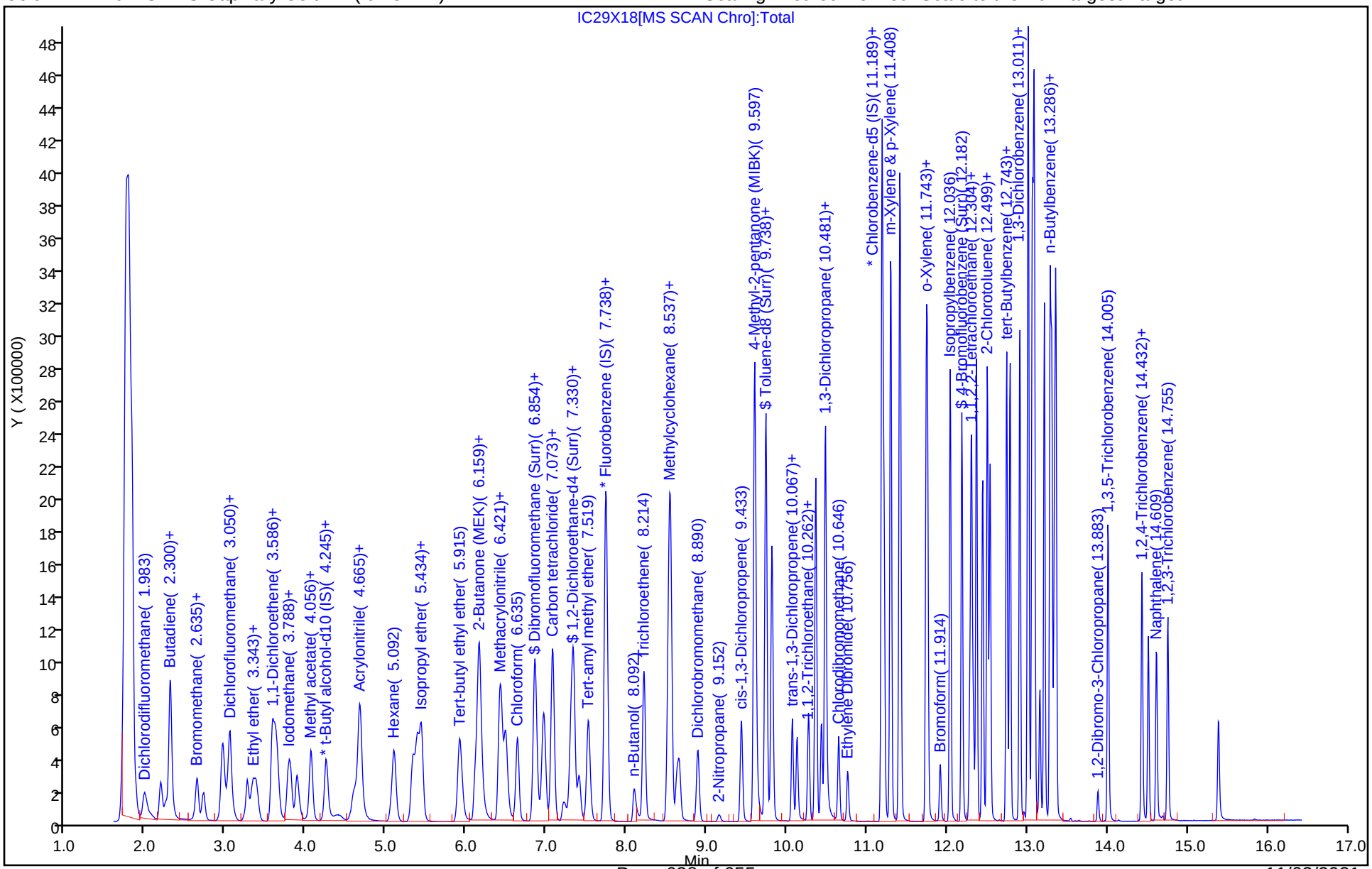
Report Date: 29-Oct-2021 19:25:21 Chrom Revision: 2.3 22-Sep-2021 15:38:46

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X18.D

Injection Date:	29-Oct-2021 14:09:30	Instrument ID:	19930	Operator ID:	SRK36897
Lims ID:	410-60154-A-6 MSD			Worklist Smp#:	19
Client ID:	HD-COD-SW-15-0/1-0 MSD				
Purge Vol:	25.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	18
Method:	8260 25ml HP31	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Eurofins Lancaster Laboratories Env, LLC

Recovery Report

Data File:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\IC29X18.D				
Lims ID:	410-60154-A-6 MSD				
Client ID:	HD-COD-SW-15-0/1-0 MSD				
Sample Type:	MSD				
Inject. Date:	29-Oct-2021 14:09:30	ALS Bottle#:	18	Worklist Smp#:	19
Purge Vol:	25.000 mL	Dil. Factor:	1.0000		
Sample Info:	410-0042796-019				
Operator ID:	SRK36897	Instrument ID:	19930		
Method:	\\chromfs\Lancaster\ChromData\19930\20211029-42796.b\8260 25ml HP31.m				
Limit Group:	MSV - 8260C_D				
Last Update:	29-Oct-2021 19:24:36	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:	CTX1664				

First Level Reviewer: johnsons Date: 29-Oct-2021 19:15:53

Compound	Amount Added	Amount Recovered	% Rec.
$ 46 Dibromofluoromethane (Surr)	10.0	10.2	101.74
$ 53 1,2-Dichloroethane-d4 (Surr)	10.0	10.3	103.39
$ 75 Toluene-d8 (Surr)	10.0	10.2	102.01
$ 100 4-Bromofluorobenzene (Surr)	10.0	9.82	98.24

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-60154-1

SDG No.:

Instrument ID: 19930 Start Date: 08/23/2021 20:56

Analysis Batch Number: 163707 End 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	IG23V11.D	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.: 410-60154-1

SDG No.:

Instrument ID: 19930 Start Date: 10/29/2021 07:54

Analysis Batch Number: 188555 End Date: 10/29/2021 19:06

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-188555/1		10/29/2021 07:54	1	IC29T01.D	R-624SilMS 30m 0.25(mm)
CCVIS 410-188555/3		10/29/2021 08:30	1	IC29X02.D	R-624SilMS 30m 0.25(mm)
LCS 410-188555/4		10/29/2021 08:51	1	IC29X03.D	R-624SilMS 30m 0.25(mm)
LCSD 410-188555/5		10/29/2021 09:12	1	IC29X04.D	R-624SilMS 30m 0.25(mm)
CCV 410-188555/6		10/29/2021 09:33	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		10/29/2021 09:54	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		10/29/2021 10:16	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		10/29/2021 10:37	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		10/29/2021 10:58	1		R-624SilMS 30m 0.25(mm)
MB 410-188555/11		10/29/2021 11:20	1	IC29X10.D	R-624SilMS 30m 0.25(mm)
410-60154-14	HD-QC1-0/1-2	10/29/2021 11:41	1	IC29X11.D	R-624SilMS 30m 0.25(mm)
ZZZZZ		10/29/2021 12:02	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		10/29/2021 12:23	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		10/29/2021 12:44	10		R-624SilMS 30m 0.25(mm)
ZZZZZ		10/29/2021 13:05	1		R-624SilMS 30m 0.25(mm)
410-60154-6	HD-COD-SW-15-0/1-0	10/29/2021 13:26	1	IC29X16.D	R-624SilMS 30m 0.25(mm)
410-60154-6 MS	HD-COD-SW-15-0/1-0 MS MS	10/29/2021 13:48	1	IC29X17.D	R-624SilMS 30m 0.25(mm)
410-60154-6 MSD	HD-COD-SW-15-0/1-0 MSD MSD	10/29/2021 14:09	1	IC29X18.D	R-624SilMS 30m 0.25(mm)
410-60154-1	HD-COD-SW-6-0/1-0	10/29/2021 14:51	1	IC29X20.D	R-624SilMS 30m 0.25(mm)
410-60154-2	HD-COD-SW-7-0/1-0	10/29/2021 15:13	1	IC29X21.D	R-624SilMS 30m 0.25(mm)
410-60154-3	HD-COD-SW-8-0/1-0	10/29/2021 15:34	1	IC29X22.D	R-624SilMS 30m 0.25(mm)
410-60154-4	HD-COD-SW-9-0/1-0	10/29/2021 15:55	1	IC29X23.D	R-624SilMS 30m 0.25(mm)
410-60154-5	HD-COD-SW-13-0/1-0	10/29/2021 16:16	1	IC29X24.D	R-624SilMS 30m 0.25(mm)
410-60154-7	HD-COD-SW-16-0/1-0	10/29/2021 16:37	1	IC29X25.D	R-624SilMS 30m 0.25(mm)
410-60154-8	HD-COD-SW-17-0/1-0	10/29/2021 16:59	1	IC29X26.D	R-624SilMS 30m 0.25(mm)
410-60154-9	HD-COD-SW-26-0/1-0	10/29/2021 17:20	1	IC29X27.D	R-624SilMS 30m 0.25(mm)
410-60154-10	HD-COD-SW-27-0/1-0	10/29/2021 17:41	1	IC29X28.D	R-624SilMS 30m 0.25(mm)
410-60154-11	HD-COD-SW-28-0/1-0	10/29/2021 18:02	1	IC29X29.D	R-624SilMS 30m 0.25(mm)
410-60154-12	HD-COD-SW-29-0/1-0	10/29/2021 18:24	1	IC29X30.D	R-624SilMS 30m 0.25(mm)
410-60154-13	HD-QC1-0/1-1	10/29/2021 18:45	1	IC29X31.D	R-624SilMS 30m 0.25(mm)
ZZZZZ		10/29/2021 19:06	1		R-624SilMS 30m 0.25(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env, Job No.: 410-60154-1

SDG No.:

Instrument ID: 19930 Start Date: 11/01/2021 08:41

Analysis Batch Number: 189194 End Date: 11/01/2021 17:24

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-189194/1		11/01/2021 08:41	1	IN01T01.D	R-624SilMS 30m 0.25(mm)
CCVIS 410-189194/3		11/01/2021 09:16	1	IN01X02.D	R-624SilMS 30m 0.25(mm)
LCS 410-189194/4		11/01/2021 09:37	1	IN01X03.D	R-624SilMS 30m 0.25(mm)
LCSD 410-189194/5		11/01/2021 09:58	1	IN01X04.D	R-624SilMS 30m 0.25(mm)
CCV 410-189194/6		11/01/2021 10:20	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/01/2021 10:41	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/01/2021 11:02	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/01/2021 11:23	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/01/2021 11:44	1		R-624SilMS 30m 0.25(mm)
MB 410-189194/11		11/01/2021 12:06	1	IN01X10.D	R-624SilMS 30m 0.25(mm)
ZZZZZ		11/01/2021 12:27	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/01/2021 12:48	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/01/2021 13:09	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/01/2021 13:30	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/01/2021 13:51	10		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/01/2021 14:13	10		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/01/2021 14:34	10		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/01/2021 14:55	10		R-624SilMS 30m 0.25(mm)
410-60154-8 DL	HD-COD-SW-17-0/1-0 DL	11/01/2021 15:16	10	IN01X19.D	R-624SilMS 30m 0.25(mm)
410-60154-13 DL	HD-QC1-0/1-1 DL	11/01/2021 15:38	10	IN01X20.D	R-624SilMS 30m 0.25(mm)
ZZZZZ		11/01/2021 15:59	200		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/01/2021 16:20	500		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/01/2021 16:42	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/01/2021 17:03	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/01/2021 17:24	1		R-624SilMS 30m 0.25(mm)

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-60154-1

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_2CEVE 00016	MSV_LCS_ACROL 00017	MSV_LCS_Penta 00006
BFB 410-163707/1		8260D		1 uL	1 uL				
ICV 410-163707/10		8260D		25 mL	25 mL	2602	12.5 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

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_LCS_SMFre 00002	MSV_LCS_VOC#1 00015	MSV_LL_#1_826 00015	MSV_LL_#2_826 00015	MSV_LL_GAS826 00027	MSV_LLcentISS 00001
BFB 410-163707/1		8260D							
ICV 410-163707/10		8260D		12.5 uL					5 uL
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

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.: 410-60154-1

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_LCS_SMFre 00002	MSV_LCS_VOC#1 00015	MSV_LL_#1_826 00015	MSV_LL_#2_826 00015	MSV_LL_GAS826 00027	MSV_LLcentISS 00001
ICV 410-163707/19		8260D			12.5 uL				5 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_Q_EE 00004	MSV_Q_ETBR 00008	MSV_Q_QDME 00017	MSV_Q_VOA5 00032	MSV_QAcet 00013	MSV_QC_Gas826 00026
BFB 410-163707/1		8260D							
ICV 410-163707/10		8260D				5 uL	25 uL	7.5 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	12.5 uL				12.5 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_QCYC 00006	MSV_QLKB 00004	MSV_V_BFB 00006			
BFB 410-163707/1		8260D				1 uL			
ICV 410-163707/10		8260D		12.5 uL	25 uL				
IC 410-163707/12		8260D							
ICIS 410-163707/13		8260D							
IC 410-163707/14		8260D							
IC 410-163707/15		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.: 410-60154-1

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_QCYC 00006	MSV_QLKB 00004	MSV_V_BFB 00006			
IC 410-163707/16		8260D							
IC 410-163707/17		8260D							
IC 410-163707/18		8260D							
ICV 410-163707/19		8260D							

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-60154-1

SDG No.:

Batch Number: 188555 Batch Start Date: 10/29/21 07:54 Batch Analyst: Pape, Linda C

Batch Method: 8260D Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	ResidualChloCheck	Headspace	Lot#Vial
BFB 410-188555/1		8260D		1 uL	1 uL				
CCVIS 410-188555/3		8260D		25 mL	25 mL				2608
LCS 410-188555/4		8260D		25 mL	25 mL				2608
LCSD 410-188555/5		8260D		25 mL	25 mL				2608
MB 410-188555/11		8260D		25 mL	25 mL				2608
410-60154-A-14	HD-QC1-0/1-2	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-60154-A-6	HD-COD-SW-15-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-60154-A-6 MS	HD-COD-SW-15-0/1-0 MS	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-60154-A-6 MSD	HD-COD-SW-15-0/1-0 MSD	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-60154-A-1	HD-COD-SW-6-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-60154-A-2	HD-COD-SW-7-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-60154-A-3	HD-COD-SW-8-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-60154-A-4	HD-COD-SW-9-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-60154-A-5	HD-COD-SW-13-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-60154-A-7	HD-COD-SW-16-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-60154-A-8	HD-COD-SW-17-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-60154-A-9	HD-COD-SW-26-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-60154-A-10	HD-COD-SW-27-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-60154-A-11	HD-COD-SW-28-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-60154-A-12	HD-COD-SW-29-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	
410-60154-A-13	HD-QC1-0/1-1	8260D	T	25 mL	25 mL	<2 SU	N	N	

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-60154-1

SDG No.:

Batch Number: 188555 Batch Start Date: 10/29/21 07:54 Batch Analyst: Pape, Linda C

Batch Method: 8260D Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_LCS_VOC#1 00024	MSV_LL_#1_826 00020	MSV_LL_#2_826 00022	MSV_LL_GAS826 00046	MSV_LLcentISS 00002	MSV_Q_EE 00005
BFB 410-188555/1		8260D							
CCVIS 410-188555/3		8260D			20 uL	20 uL	20 uL	5 uL	
LCS 410-188555/4		8260D		12.5 uL				5 uL	12.5 uL
LCSD 410-188555/5		8260D		12.5 uL				5 uL	12.5 uL
MB 410-188555/11		8260D						5 uL	
410-60154-A-14	HD-QC1-0/1-2	8260D	T					5 uL	
410-60154-A-6	HD-COD-SW-15-0/1-0	8260D	T					5 uL	
410-60154-A-6 MS	HD-COD-SW-15-0/1-0 MS	8260D	T	5.38 uL				5 uL	5.38 uL
410-60154-A-6 MSD	HD-COD-SW-15-0/1-0 MSD	8260D	T	5.38 uL				5 uL	5.38 uL
410-60154-A-1	HD-COD-SW-6-0/1-0	8260D	T					5 uL	
410-60154-A-2	HD-COD-SW-7-0/1-0	8260D	T					5 uL	
410-60154-A-3	HD-COD-SW-8-0/1-0	8260D	T					5 uL	
410-60154-A-4	HD-COD-SW-9-0/1-0	8260D	T					5 uL	
410-60154-A-5	HD-COD-SW-13-0/1-0	8260D	T					5 uL	
410-60154-A-7	HD-COD-SW-16-0/1-0	8260D	T					5 uL	
410-60154-A-8	HD-COD-SW-17-0/1-0	8260D	T					5 uL	
410-60154-A-9	HD-COD-SW-26-0/1-0	8260D	T					5 uL	
410-60154-A-10	HD-COD-SW-27-0/1-0	8260D	T					5 uL	
410-60154-A-11	HD-COD-SW-28-0/1-0	8260D	T					5 uL	
410-60154-A-12	HD-COD-SW-29-0/1-0	8260D	T					5 uL	
410-60154-A-13	HD-QC1-0/1-1	8260D	T					5 uL	

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-60154-1

SDG No.:

Batch Number: 188555 Batch Start Date: 10/29/21 07:54 Batch Analyst: Pape, Linda C

Batch Method: 8260D Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_Q_ETBR 00008	MSV_QC_Gas826 00046	MSV_V_BFB 00006			
BFB 410-188555/1		8260D				1 uL			
CCVIS 410-188555/3		8260D							
LCS 410-188555/4		8260D		12.5 uL	12.5 uL				
LCSD 410-188555/5		8260D		12.5 uL	12.5 uL				
MB 410-188555/11		8260D							
410-60154-A-14	HD-QC1-0/1-2	8260D	T						
410-60154-A-6	HD-COD-SW-15-0/1-0	8260D	T						
410-60154-A-6 MS	HD-COD-SW-15-0/1-0 MS	8260D	T	5.38 uL	5.38 uL				
410-60154-A-6 MSD	HD-COD-SW-15-0/1-0 MSD	8260D	T	5.38 uL	5.38 uL				
410-60154-A-1	HD-COD-SW-6-0/1-0	8260D	T						
410-60154-A-2	HD-COD-SW-7-0/1-0	8260D	T						
410-60154-A-3	HD-COD-SW-8-0/1-0	8260D	T						
410-60154-A-4	HD-COD-SW-9-0/1-0	8260D	T						
410-60154-A-5	HD-COD-SW-13-0/1-0	8260D	T						
410-60154-A-7	HD-COD-SW-16-0/1-0	8260D	T						
410-60154-A-8	HD-COD-SW-17-0/1-0	8260D	T						
410-60154-A-9	HD-COD-SW-26-0/1-0	8260D	T						
410-60154-A-10	HD-COD-SW-27-0/1-0	8260D	T						
410-60154-A-11	HD-COD-SW-28-0/1-0	8260D	T						
410-60154-A-12	HD-COD-SW-29-0/1-0	8260D	T						
410-60154-A-13	HD-QC1-0/1-1	8260D	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-60154-1

SDG No.:

Batch Number: 188555 Batch Start Date: 10/29/21 07:54 Batch Analyst: Pape, Linda C

Batch Method: 8260D Batch End Date:

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-60154-1

SDG No.:

Batch Number: 189194 Batch Start Date: 11/01/21 08:41 Batch Analyst: Knouse, Shian

Batch Method: 8260D Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	ResidualChloCheck	Headspace	Lot#Vial
BFB 410-189194/1		8260D		1 uL	1 uL				
CCVIS 410-189194/3		8260D		25 mL	25 mL				2608
LCS 410-189194/4		8260D		25 mL	25 mL				2608
LCSD 410-189194/5		8260D		25 mL	25 mL				2608
MB 410-189194/11		8260D		25 mL	25 mL				2608
410-60154-B-8	HD-COD-SW-17-0/1-0	8260D	T	25 mL	25 mL	<2 SU	N	N	2608
410-60154-B-13	HD-QC1-0/1-1	8260D	T	25 mL	25 mL	<2 SU	N	N	2608

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_LCS_ACROL 00023	MSV_LCS_Penta 00008	MSV_LCS_VOC#1 00025	MSV_LL_#1_826 00020	MSV_LL_#2_826 00022	MSV_LL_GAS826 00046
BFB 410-189194/1		8260D							
CCVIS 410-189194/3		8260D					25 uL	25 uL	25 uL
LCS 410-189194/4		8260D		12.5 uL	12.5 uL	12.5 uL			
LCSD 410-189194/5		8260D		12.5 uL	12.5 uL	12.5 uL			
MB 410-189194/11		8260D							
410-60154-B-8	HD-COD-SW-17-0/1-0	8260D	T						
410-60154-B-13	HD-QC1-0/1-1	8260D	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_LLcentISS 00002	MSV_Q_EE 00005	MSV_Q_ETBR 00008	MSV_QC_Gas826 00046	MSV_V_BFB 00006	
BFB 410-189194/1		8260D						1 uL	
CCVIS 410-189194/3		8260D		5 uL					
LCS 410-189194/4		8260D		5 uL	12.5 uL	12.5 uL	12.5 uL		
LCSD 410-189194/5		8260D		5 uL	12.5 uL	12.5 uL	12.5 uL		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-60154-1

SDG No.:

Batch Number: 189194 Batch Start Date: 11/01/21 08:41 Batch Analyst: Knouse, Shian

Batch Method: 8260D Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_LLcentISS 00002	MSV_Q_EE 00005	MSV_Q_ETBR 00008	MSV_QC_Gas826 00046	MSV_V_BFB 00006	
MB 410-189194/11		8260D		5 uL					
410-60154-B-8	HD-COD-SW-17-0/1-0	8260D	T	5 uL					
410-60154-B-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

Environmental Analy ... of Custody

eurofins | Lancaster Laboratories Environmental

Acct. # _____ Group # _____

410-60154 Chain of Custody

Client: Groundwater Sciences Corporation			
Project Name/#: fYNOP Monthly Surface Water	Site ID #: fYNOP, York PA		
Project Manager: Chris O'Neil	P.O. #: 10012.47		
Sampler: Casey Littlefield / Erin Peeling	PWSID #: N/A		
Phone #: (717) 901-8176 / (717) 756-1246	Quote #:		
State where samples were collected: York, PA	For Compliance: Yes ☐ No ☑		

Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil	Sediment	Tissue	Potable Water	Ground	NPDES	Surface	Other:	Total # of Containers	Analyses Requested: Aqueous VOCs via 8260D (low level - 25 ml purge)	Preservation Codes: H	Remarks
HD-COD-SW-6-0/1-0	10/20/21	1120	X					X					3	X		
HD-COD-SW-7-0/1-0		1205	X					X					3	X		
HD-COD-SW-8-0/1-0		0910	X					X					3	X		
HD-COD-SW-9-0/1-0		1318	X					X					3	X		
HD-COD-SW-13-0/1-0		0935	X					X					3	X		
HD-COD-SW-15-0/1-0		1230	X					X					3	X		
HD-COD-SW-15-0/1-0 MS		1230	X					X					3	X		
HD-COD-SW-15-0/1-0 MSD		1230	X					X					3	X		
HD-COD-SW-16-0/1-0		0950	X					X					3	X		
HD-COD-SW-17-0/1-0		1015	X					X					3	X		

For Lab Use Only
SF #: _____
SCR #: _____

Preservation Codes
H = HCl T = Thiosulfate
N = HNO_3 B = NaOH
S = H_2SO_4 P = H_3PO_4
O = Other

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐
(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed:

Rush results requested by (please check): E-Mail ☐ Phone ☐

E-mail Address:

Phone:

Data Package Options (please check if required)

Type I (Validation/non-CLP)	☐	MA MCP	☐
Type III (Reduced non-CLP)	☐	CT RCP	☐
Type VI (Raw Data Only)	☐	TX TRRP-13	☐
NJ DKQP	☐	NYSDEC Category	☐ A or ☐ B

EDD Required? Yes ☑ No ☐ If yes, format: CLP Like Deliverables, Project Specific Analyte List

	Date	Time		Date	Time
Relinquished by: CASEY LITTLEFIELD	10/20/21	0830	Received by: Dennis Rowe	10/21/21	0830
Relinquished by: Dennis Rowe	10/21/21	1211	Received by:	10/21/21	1211
Relinquished by:	10/21/21	1517	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	10-21-21	1858

Relinquished by Commercial Carrier:
UPS _____ FedEx _____ Other _____

Temperature upon receipt 2.4 °C

AEH

Environmental Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories Environmental

Acct. # _____ Group # _____ Sample # _____

Client:	Groundwater Sciences Corporation		
Project Name/#:	fYNOP Monthly Surface Water	Site ID #:	fYNOP, York PA
Project Manager:	Chris O'Neil	P.O. #:	10012.427
Sampler:	Casey Littlefield / Erin Peeling	PWSID #:	N/A
Phone #:	(717) 901-8176 / (717) 756-1246	Quote #:	
State where samples were collected: York, PA		For Compliance: Yes ☐ No ☑	

Sample Identification	Collection Date	Collection Time	Grab	Composite	Matrix: Soil	Sediment	Tissue	Water: Potable	Ground	Surface	NPDES	Other: Trip Blank	Total # of Containers	Analyses Requested: Aqueous VOCs via 8260D (low level - 25 ml purge)	Preservation Codes: H	Remarks
HD-COD-SW-26-0/1-0	10/20/21	1150	X						X				3	X		
HD-COD-SW-27-0/1-0		1220	X						X				3	X		
HD-COD-SW-28-0/1-0		1340	X						X				3	X		
HD-COD-SW-29-0/1-0		0900	X						X				3	X		
HD-QC1-0/1-1		1200	X						X				3	X		Dup
HD-QC1-0/1-2	↓	—	X									X	2	X		TRIP BLANK

Preservation Codes: H = HCl; T = Thiosulfate; N = HNO_3; B = NaOH; S = H_2SO_4; P = H_3PO_4; O = Other

For Lab Use Only: SF #: _____ SCR #: _____

Turnaround Time Requested (TAT) (please check): Standard ☑ Rush ☐

(Rush TAT is subject to laboratory approval and surcharges.)

Date results are needed:

Rush results requested by (please check): E-Mail ☐ Phone ☐

E-mail Address:

Phone:

Data Package Options (please check if required)

Type I (Validation/non-CLP) ☐ MA MCP ☐

Type III (Reduced non-CLP) ☐ CT RCP ☐

Type VI (Raw Data Only) ☐ TX TRRP-13 ☐

NJ DKQP ☐ NYSDEC Category ☐ A or ☐ B

EDD Required? Yes ☑ No ☐ If yes, format: _ CLP Like Deliverables, Project Specific Analyte List

Relinquished by:	Date	Time	Received by:	Date	Time
[signature]	10/21/21	0830	[signature]	10/21/21	0830
[signature]	10/21/21	1241	[signature]	10/21/21	1211
[signature]	10/21/21	1837			
			[signature]	10-21-21	1858

Relinquished by Commercial Carrier:

UPS _____ FedEx _____ Other _____

Temperature upon receipt _____ °C

Login Sample Receipt Checklist

Client: Groundwater Sciences Corporation

Job Number: 410-60154-1

Login Number: 60154
List Number: 1
Creator: Lugardo, Tamara

List Source: Eurofins Lancaster Laboratories Env, LLC

Question	Answer	Comment
The cooler's custody seal is intact.	True	
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 (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, 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	