284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Cover Page

Order ID : Q1514

Project ID : Amtrak Sawtooth Bridges 2025

Client : Portal Partners Tri-Venture

Lab Sample Number	Client Sample Number
Q1514-01	ENV-105-SB01
Q1514-02	ENV-105-SB01
Q1514-03	ENV-105-SB02
Q1514-04	ENV-105-SB02
Q1514-05	ENV-103-SB01
Q1514-06	ENV-103-SB01
Q1514-07	ENV-105-GW01
Q1514-08	ENV-103-GW01
Q1514-09	FB03062025
Q1514-10	TB03062025

I certify that the data package is in compliance with the terms and conditions of the contract,both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature : _____

Date: 3/12/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

284 Sheffield Street, Mountainside NJ 07092 Tel. 908-789-8900 Fax: 908-789-8922

DATA REPORTING QUALIFIERS- ORGANIC

For reporting results, the following " Results Qualifiers" are used:

Value	If the result is a value greater than or equal to the detection limit, report the value
U	Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. "10 U". This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
ND	Indicates the analyte was analyzed for, but not detected
J	Indicates an estimated value**.** This flag is used: (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.) (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This is flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.
B	Indicates the analyte was found in the blank as well as the sample report as "12 B".
E	Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
P	This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a "P".
N	This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.
A	This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.
Q	Indicates the LCS did not meet the control limits requirements

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: **Q1514**

	Completed
For thorough review, the report must have the following:	
GENERAL:	
Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)	✓
Check chain-of-custody for proper relinquish/return of samples	✓
Is the chain of custody signed and complete	✓
Check internal chain-of-custody for proper relinquish/return of samples /sample extracts	✓
Collect information for each project id from server. Were all requirements followed	✓
COVER PAGE:	
Do numbers of samples correspond to the number of samples in the Chain of Custody on login page	✓
Do lab numbers and client Ids on cover page agree with the Chain of Custody	✓
CHAIN OF CUSTODY:	
Do requested analyses on Chain of Custody agree with form I results	✓
Do requested analyses on Chain of Custody agree with the log-in page	✓
Were the correct method log-in for analysis according to the Analytical Request and Chain of Castody	✓
Were the samples received within hold time	✓
Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle	✓
ANALYTICAL:	
Was method requirement followed?	✓
Was client requirement followed?	✓
Does the case narrative summarize all QC failure?	✓
All runlogs and manual integration are reviewed for requirements	✓
All manual calculations and /or hand notations verified	✓

QA Review Signature: **KORI AMARNATH** **Date:** **03/12/2025**

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

LAB CHRONICLE

OrderID:	Q1514	**OrderDate:**	3/6/2025 2:08:00 PM
Client:	Portal Partners Tri-Venture	**Project:**	Amtrak Sawtooth Bridges 2025
Contact:	Joseph Krupansky	**Location:**	I31,VOA Ref. #2 Soil,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1514-02	**ENV-105-SB01**	**TCLP**			**03/05/25**			**03/06/25**
			TCLP VOA	8260D			03/11/25	
Q1514-04	**ENV-105-SB02**	**TCLP**			**03/05/25**			**03/06/25**
			TCLP VOA	8260D			03/11/25	
Q1514-06	**ENV-103-SB01**	**TCLP**			**03/05/25**			**03/06/25**
			TCLP VOA	8260D			03/11/25	

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Hit Summary Sheet
SW-846

SDG No.: Q1514

Client: Portal Partners Tri-Venture

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units

Client ID:

0

Total Voc :

Total Concentration:

QC SUMMARY

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Surrogate Summary

SDG No.: Q1514

Client: Portal Partners Tri-Venture

Analytical Method: SW8260D

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits Low	Limits High
Q1514-02	ENV-105-SB01	1,2-Dichloroethane-d4	50	59.3	119	70 (74)	130 (125)
		Dibromofluoromethane	50	51.0	102	70 (75)	130 (124)
		Toluene-d8	50	51.7	103	70 (86)	130 (113)
		4-Bromofluorobenzene	50	47.5	95	70 (77)	130 (121)
Q1514-04	ENV-105-SB02	1,2-Dichloroethane-d4	50	59.8	120	70 (74)	130 (125)
		Dibromofluoromethane	50	50.9	102	70 (75)	130 (124)
		Toluene-d8	50	50.7	101	70 (86)	130 (113)
		4-Bromofluorobenzene	50	49.4	99	70 (77)	130 (121)
Q1514-06	ENV-103-SB01	1,2-Dichloroethane-d4	50	58.2	116	70 (74)	130 (125)
		Dibromofluoromethane	50	49.1	98	70 (75)	130 (124)
		Toluene-d8	50	49.8	100	70 (86)	130 (113)
		4-Bromofluorobenzene	50	47.3	95	70 (77)	130 (121)

( ) = LABORATORY INHOUSE LIMIT

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Surrogate Summary

SDG No.: Q1514

Client: Portal Partners Tri-Venture

Analytical Method: SW8260-Low

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits Low	Limits High
VN0311WBL01	VN0311WBL01	1,2-Dichloroethane-d4	50	56.1	112	70 (74)	130 (125)
		Dibromofluoromethane	50	49.0	98	70 (75)	130 (124)
		Toluene-d8	50	44.5	89	70 (86)	130 (113)
		4-Bromofluorobenzene	50	42.2	84	70 (77)	130 (121)
VN0311WBS01	VN0311WBS01	1,2-Dichloroethane-d4	50	46.9	94	70 (74)	130 (125)
		Dibromofluoromethane	50	46.9	94	70 (75)	130 (124)
		Toluene-d8	50	46.3	93	70 (86)	130 (113)
		4-Bromofluorobenzene	50	48.7	97	70 (77)	130 (121)
VN0311WBSD0	VN0311WBSD01	1,2-Dichloroethane-d4	50	47.6	95	70 (74)	130 (125)
		Dibromofluoromethane	50	47.6	95	70 (75)	130 (124)
		Toluene-d8	50	46.6	93	70 (86)	130 (113)
		4-Bromofluorobenzene	50	50.2	100	70 (77)	130 (121)

( ) = LABORATORY INHOUSE LIMIT

( ) = LABORATORY INHOUSE LIMIT

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1514

Client: Portal Partners Tri-Venture

Analytical Method: SW8260-Low **Datafile :** VN085931.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VN0311WBS01	Vinyl chloride	20	17.4	ug/L	87			70 (65)	130 (117)	
	1,1-Dichloroethene	20	19.0	ug/L	95			70 (74)	130 (110)	
	2-Butanone	100	96.2	ug/L	96			40 (65)	160 (122)	
	Carbon Tetrachloride	20	19.7	ug/L	99			70 (77)	130 (113)	
	Chloroform	20	19.1	ug/L	96			70 (79)	130 (113)	
	Benzene	20	19.7	ug/L	99			70 (82)	130 (109)	
	1,2-Dichloroethane	20	19.8	ug/L	99			70 (80)	130 (115)	
	Trichloroethene	20	17.7	ug/L	89			70 (77)	130 (113)	
	Tetrachloroethene	20	19.1	ug/L	96			70 (67)	130 (123)	
	Chlorobenzene	20	18.5	ug/L	93			70 (82)	130 (109)	

( ) = LABORATORY INHOUSE LIMIT

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1514

Client: Portal Partners Tri-Venture

Analytical Method: SW8260-Low **Datafile :** VN085932.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VN0311WBSD01	Vinyl chloride	20	17.7	ug/L	89	2		70 (65)	130 (117)	20 (20)
	1,1-Dichloroethene	20	18.6	ug/L	93	2		70 (74)	130 (110)	20 (20)
	2-Butanone	100	100	ug/L	100	4		40 (65)	160 (122)	20 (20)
	Carbon Tetrachloride	20	20.2	ug/L	101	2		70 (77)	130 (113)	20 (20)
	Chloroform	20	19.0	ug/L	95	1		70 (79)	130 (113)	20 (20)
	Benzene	20	19.8	ug/L	99	0		70 (82)	130 (109)	20 (20)
	1,2-Dichloroethane	20	20.2	ug/L	101	2		70 (80)	130 (115)	20 (20)
	Trichloroethene	20	18.0	ug/L	90	1		70 (77)	130 (113)	20 (20)
	Tetrachloroethene	20	18.4	ug/L	92	4		70 (67)	130 (123)	20 (20)
	Chlorobenzene	20	18.3	ug/L	92	1		70 (82)	130 (109)	20 (20)

( ) = LABORATORY INHOUSE LIMIT

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VN0311WBL01

Lab Name: CHEMTECH Contract: PORT06

Lab Code: CHEM Case No.: Q1514 SAS No.: Q1514 SDG NO.: Q1514

Lab File ID: VN085930.D Lab Sample ID: VN0311WBL01

Date Analyzed: 03/11/2025 Time Analyzed: 14:21

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

Instrument ID: MSVOA_N

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VN0311WBS01	VN0311WBS01	VN085931.D	03/11/2025
VN0311WBSD01	VN0311WBSD01	VN085932.D	03/11/2025
ENV-105-SB01	Q1514-02	VN085947.D	03/11/2025
ENV-105-SB02	Q1514-04	VN085948.D	03/11/2025
ENV-103-SB01	Q1514-06	VN085949.D	03/11/2025

COMMENTS:

Alliance TECHNICAL GROUP

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: PORT06

Lab Code: CHEM Case No.: Q1514 SAS No.: Q1514 SDG NO.: Q1514

Lab File ID: VN085771.D BFB Injection Date: 02/18/2025

Instrument ID: MSVOA_N BFB Injection Time: 10:35

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.1
75	30.0 - 60.0% of mass 95	49.7
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	1.4 (1.8) 1
174	50.0 - 100.0% of mass 95	81.7
175	5.0 - 9.0% of mass 174	6 (7.4) 1
176	95.0 - 101.0% of mass 174	78.9 (96.5) 1
177	5.0 - 9.0% of mass 176	5.4 (6.9) 2

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

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDICC100	VSTDICC100	VN085772.D	02/18/2025	11:09
VSTDICCC050	VSTDICCC050	VN085773.D	02/18/2025	11:32
VSTDICC010	VSTDICC010	VN085775.D	02/18/2025	12:20
VSTDICC005	VSTDICC005	VN085776.D	02/18/2025	12:43
VSTDICC001	VSTDICC001	VN085777.D	02/18/2025	13:07
VSTDICC020	VSTDICC020	VN085779.D	02/18/2025	14:18

Alliance TECHNICAL GROUP

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: PORT06

Lab Code: CHEM Case No.: Q1514 SAS No.: Q1514 SDG NO.: Q1514

Lab File ID: VN085927.D BFB Injection Date: 03/11/2025

Instrument ID: MSVOA_N BFB Injection Time: 12:12

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.4
75	30.0 - 60.0% of mass 95	50.2
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	1.1 (1.4) 1
174	50.0 - 100.0% of mass 95	78.8
175	5.0 - 9.0% of mass 174	5.7 (7.3) 1
176	95.0 - 101.0% of mass 174	75.9 (96.3) 1
177	5.0 - 9.0% of mass 176	4.9 (6.5) 2

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

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VN085928.D	03/11/2025	13:22
VN0311WBL01	VN0311WBL01	VN085930.D	03/11/2025	14:21
VN0311WBS01	VN0311WBS01	VN085931.D	03/11/2025	14:54
VN0311WBSD01	VN0311WBSD01	VN085932.D	03/11/2025	15:28
ENV-105-SB01	Q1514-02	VN085947.D	03/11/2025	21:29
ENV-105-SB02	Q1514-04	VN085948.D	03/11/2025	21:53
ENV-103-SB01	Q1514-06	VN085949.D	03/11/2025	22:17

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: PORT06

Lab Code: CHEM Case No.: Q1514 SAS No.: Q1514 SDG NO.: Q1514

Lab File ID: VN085928.D Date Analyzed: 03/11/2025

Instrument ID: MSVOA_N Time Analyzed: 13:22

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	193697	8.22	310218	9.10	283255	11.87
UPPER LIMIT	387394	8.724	620436	9.6	566510	12.365
LOWER LIMIT	96848.5	7.724	155109	8.6	141628	11.365
EPA SAMPLE NO.						
ENV-105-SB01	154053	8.22	299260	9.10	282311	11.87
ENV-105-SB02	150437	8.22	296435	9.10	287045	11.87
ENV-103-SB01	159259	8.22	315656	9.10	300142	11.87
VN0311WBL01	166099	8.22	319285	9.10	277562	11.87
VN0311WBS01	171959	8.22	282309	9.10	250243	11.87
VN0311WBSD01	166815	8.22	269902	9.10	244088	11.87

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: PORT06

Lab Code: CHEM Case No.: Q1514 SAS No.: Q1514 SDG NO.: Q1514

Lab File ID: VN085928.D Date Analyzed: 03/11/2025

Instrument ID: MSVOA_N Time Analyzed: 13:22

GC Column: RXI-624 ID: 0.25 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	153775	13.788				
UPPER LIMIT	307550	14.288				
LOWER LIMIT	76887.5	13.288				
EPA SAMPLE NO.						
ENV-105-SB01	99543	13.79				
ENV-105-SB02	110049	13.79				
ENV-103-SB01	110799	13.79				
VN0311WBL01	106492	13.79				
VN0311WBS01	128349	13.79				
VN0311WBSD01	123338	13.79				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

SAMPLE DATA

Raw Data: **VN085947.D**

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	03/05/25
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	03/06/25
Client Sample ID:	ENV-105-SB01	SDG No.:	Q1514
Lab Sample ID:	Q1514-02	Matrix:	TCLP
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	TCLP VOA
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :	SW5035		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085947.D	1		03/11/25 21:29	VN031125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	0.34	U	0.34	5.00	ug/L
75-35-4	1,1-Dichloroethene	0.26	U	0.26	5.00	ug/L
78-93-3	2-Butanone	1.30	U	1.30	25.0	ug/L
56-23-5	Carbon Tetrachloride	0.25	U	0.25	5.00	ug/L
67-66-3	Chloroform	0.26	U	0.26	5.00	ug/L
71-43-2	Benzene	0.16	U	0.16	5.00	ug/L
107-06-2	1,2-Dichloroethane	0.24	U	0.24	5.00	ug/L
79-01-6	Trichloroethene	0.32	U	0.32	5.00	ug/L
127-18-4	Tetrachloroethene	0.25	U	0.25	5.00	ug/L
108-90-7	Chlorobenzene	0.13	U	0.13	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	59.3		70 (74) - 130 (125)	119%	SPK: 50
1868-53-7	Dibromofluoromethane	51.0		70 (75) - 130 (124)	102%	SPK: 50
2037-26-5	Toluene-d8	51.7		70 (86) - 130 (113)	103%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.5		70 (77) - 130 (121)	95%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	154000	8.224			
540-36-3	1,4-Difluorobenzene	299000	9.1			
3114-55-4	Chlorobenzene-d5	282000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	99500	13.794			

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031125\
Data File : VN085947.D
Acq On : 11 Mar 2025 21:29
Operator : JC\MD
Sample : Q1514-02
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 22 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ENV-105-SB01

Quant Time: Mar 12 01:31:16 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:43:32 2025
Response via : Initial Calibration

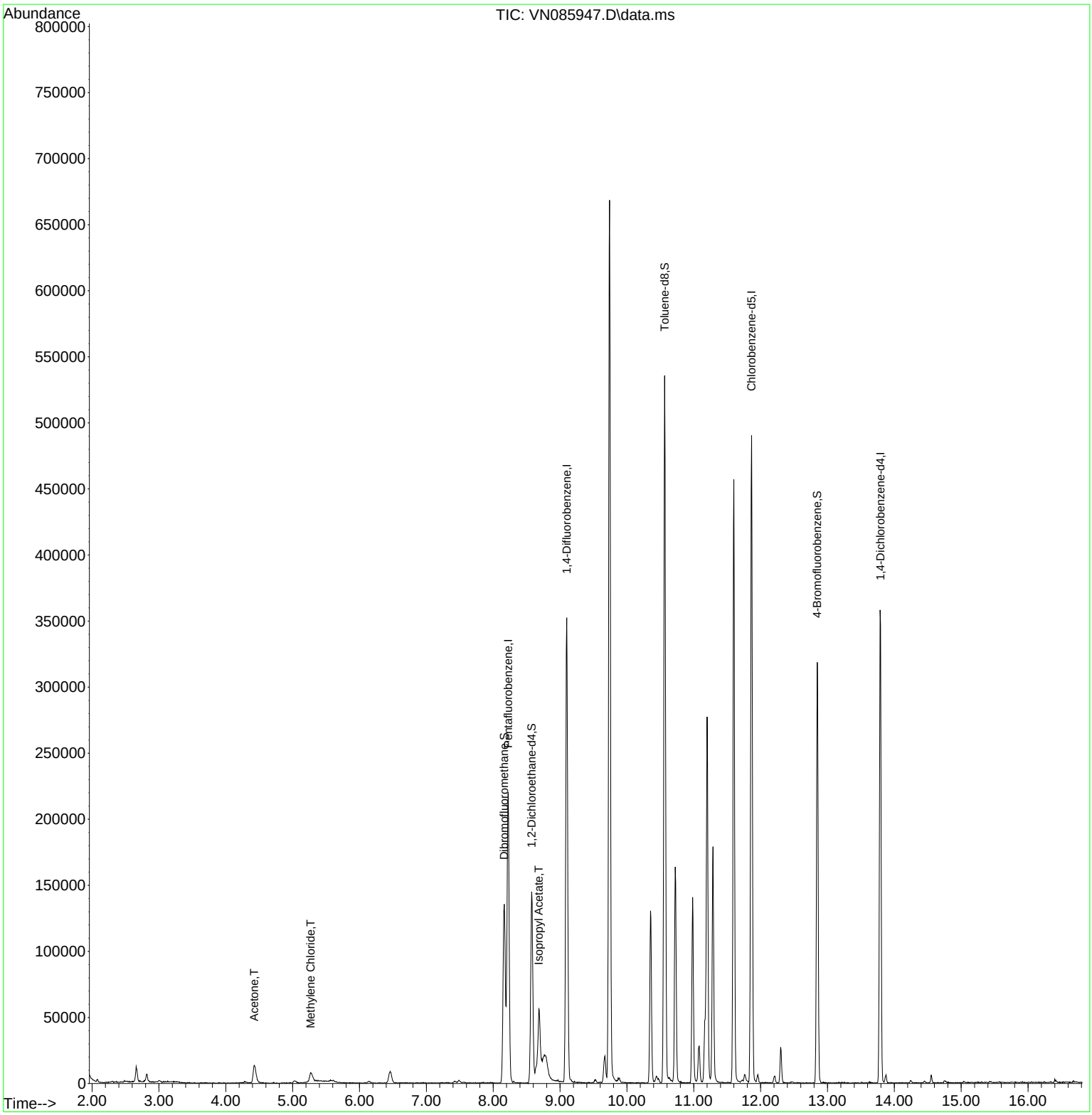
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.224	168	154053	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.100	114	299260	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.865	117	282311	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.794	152	99543	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.577	65	118390	59.277	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 118.560%			
35) Dibromofluoromethane	8.165	113	99800	50.965	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 101.920%			
50) Toluene-d8	10.565	98	368578	51.733	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 103.460%			
62) 4-Bromofluorobenzene	12.847	95	111523	47.509	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 95.020%			
Target Compounds						Qvalue
16) Acetone	4.424	43	25696	40.661	ug/l	95
20) Methylene Chloride	5.271	84	5536	2.724	ug/l #	88
43) Isopropyl Acetate	8.683	43	71882	17.605	ug/l #	78

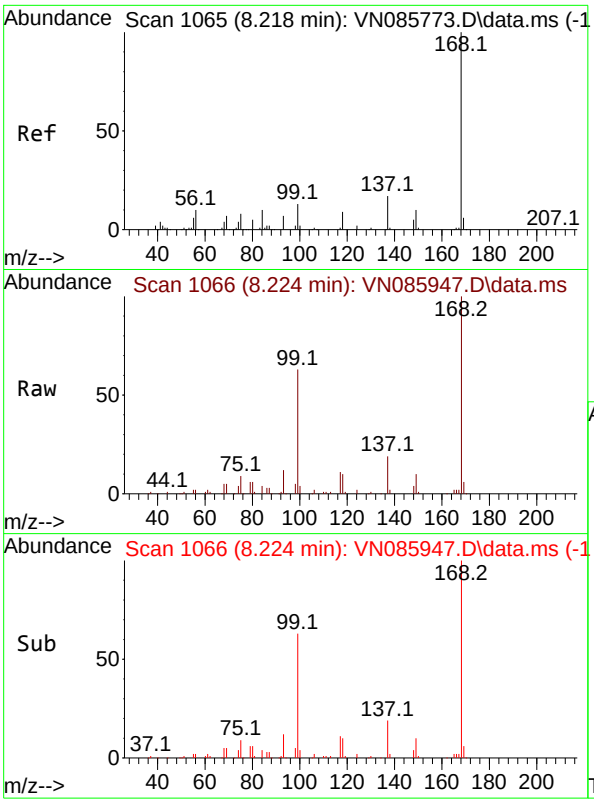
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031125\
Data File : VN085947.D
Acq On : 11 Mar 2025 21:29
Operator : JC\MD
Sample : Q1514-02
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 22 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ENV-105-SB01

Quant Time: Mar 12 01:31:16 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:43:32 2025
Response via : Initial Calibration



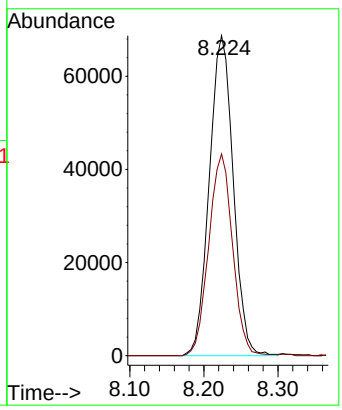


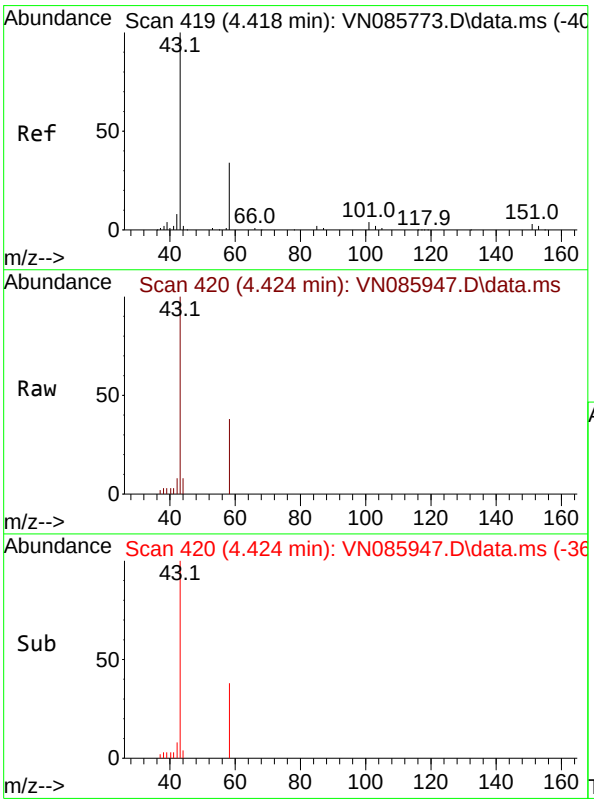
#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.224 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085947.D
Acq: 11 Mar 2025 21:29

Instrument :
MSVOA_N
ClientSampleId :
ENV-105-SB01

Tgt Ion:168 Resp: 154053

Ion	Ratio	Lower	Upper
168	100		
99	63.0	47.9	71.9

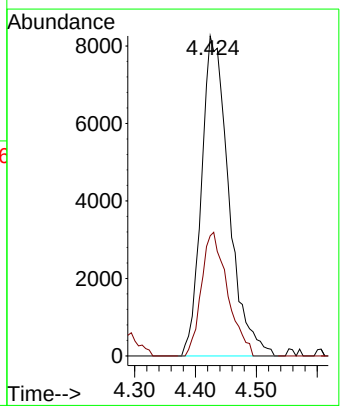


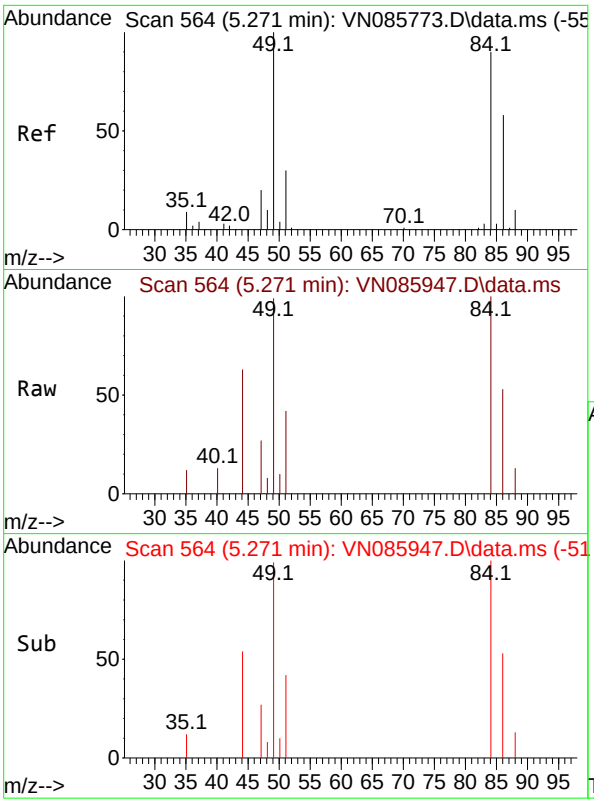


#16
Acetone
Concen: 40.661 ug/l
RT: 4.424 min Scan# 420
Delta R.T. 0.006 min
Lab File: VN085947.D
Acq: 11 Mar 2025 21:29

Tgt Ion: 43 Resp: 25696

Ion	Ratio	Lower	Upper
43	100		
58	37.5	27.5	41.3



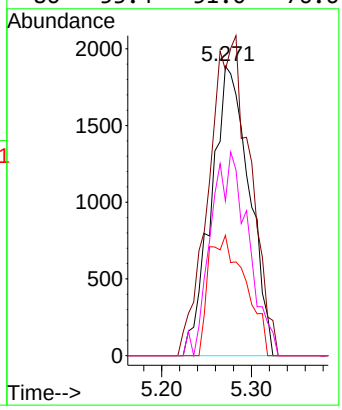


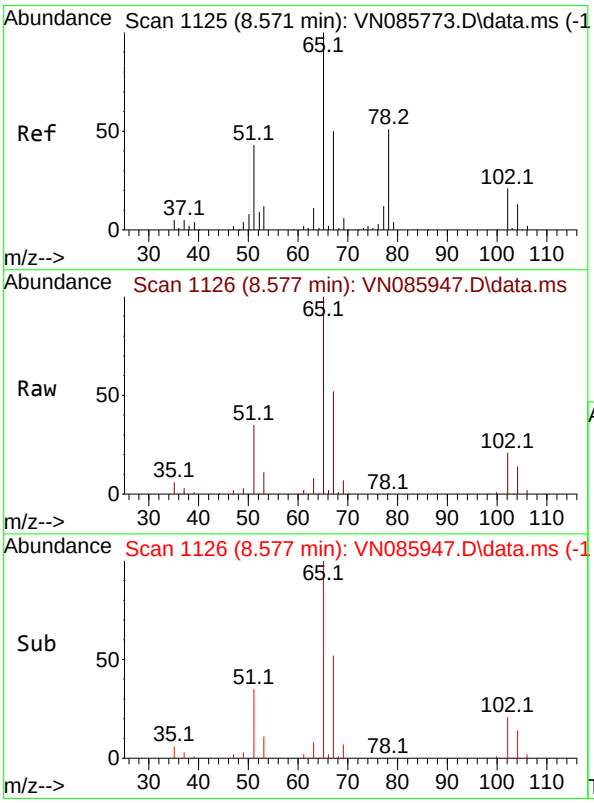
#20
Methylene Chloride
Concen: 2.724 ug/l
RT: 5.271 min Scan# 5
Delta R.T. 0.000 min
Lab File: VN085947.D
Acq: 11 Mar 2025 21:29

Instrument :
MSVOA_N
ClientSampleId :
ENV-105-SB01

Tgt Ion: 84 Resp: 5536

Ion	Ratio	Lower	Upper
84	100		
49	98.7	88.4	132.6
51	41.5	26.6	40.0#
86	53.4	51.0	76.6

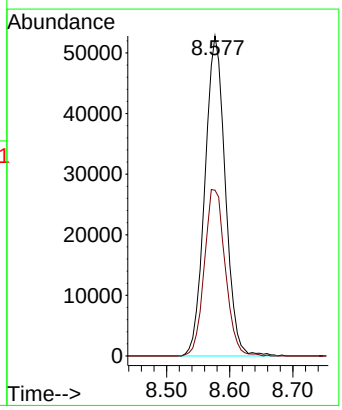


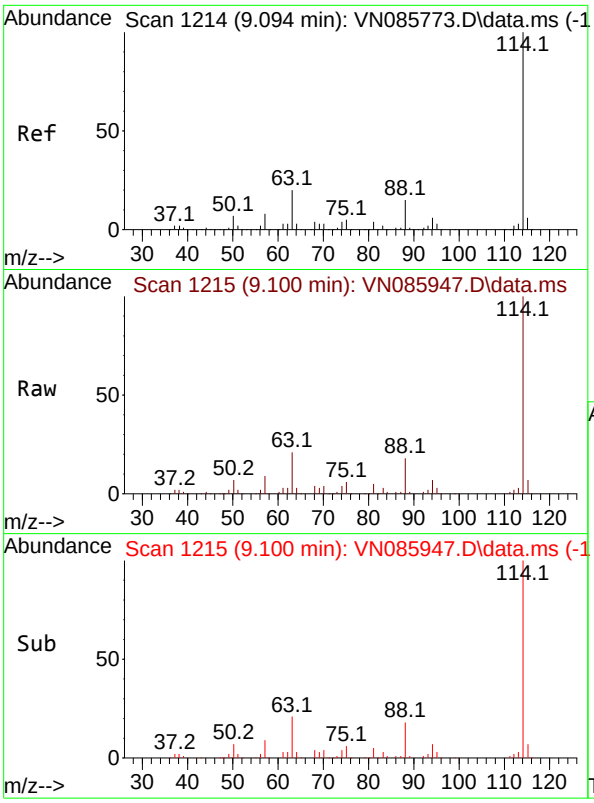


#33
1,2-Dichloroethane-d4
Concen: 59.277 ug/l
RT: 8.577 min Scan# 1126
Delta R.T. 0.006 min
Lab File: VN085947.D
Acq: 11 Mar 2025 21:29

Tgt Ion: 65 Resp: 118390

Ion	Ratio	Lower	Upper
65	100		
67	53.4	0.0	106.2



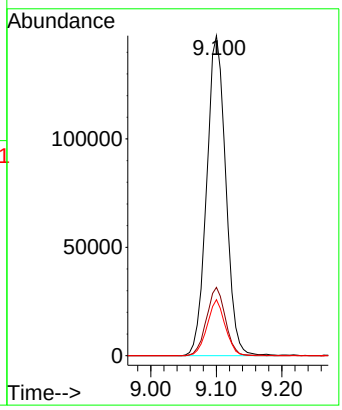


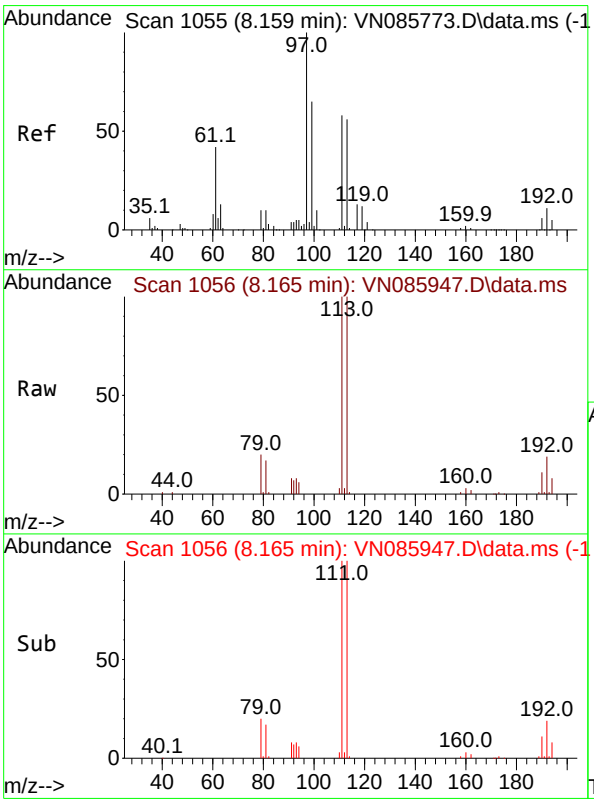
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.100 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085947.D
Acq: 11 Mar 2025 21:29

Instrument :
MSVOA_N
ClientSampleId :
ENV-105-SB01

Tgt Ion:114 Resp: 299260

Ion	Ratio	Lower	Upper
114	100		
63	21.3	0.0	39.2
88	17.5	0.0	30.0

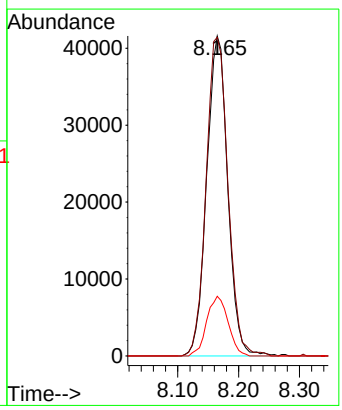


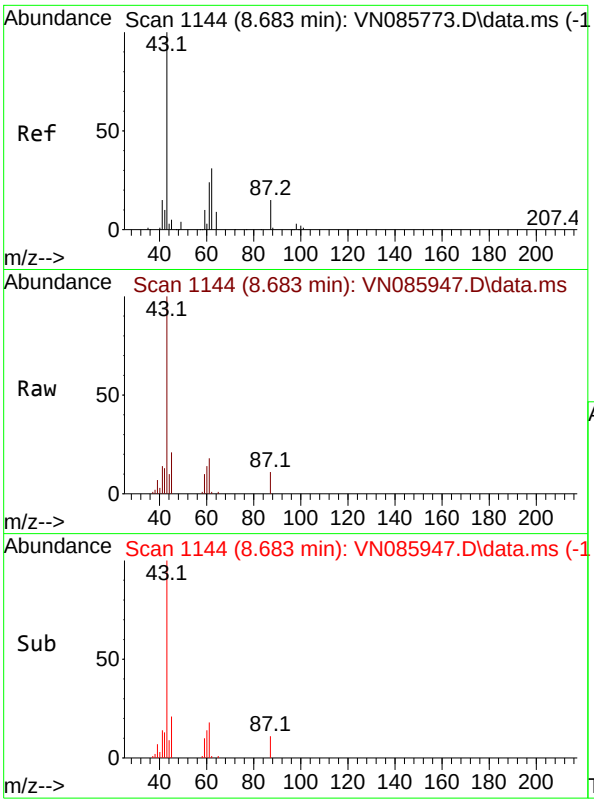


#35
Dibromofluoromethane
Concen: 50.965 ug/l
RT: 8.165 min Scan# 1056
Delta R.T. 0.006 min
Lab File: VN085947.D
Acq: 11 Mar 2025 21:29

Tgt Ion:113 Resp: 99800

Ion	Ratio	Lower	Upper
113	100		
111	103.4	82.2	123.4
192	19.0	14.7	22.1



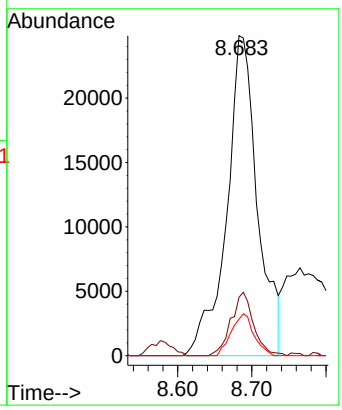


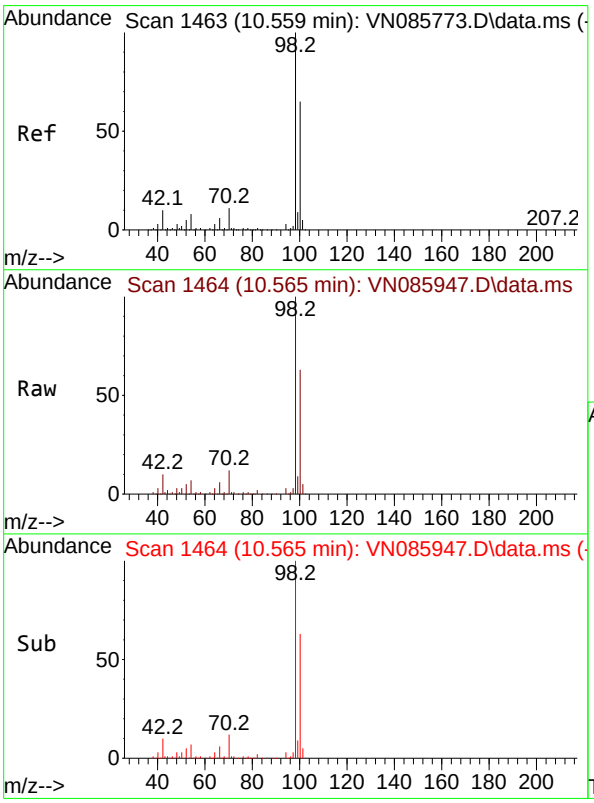
#43
Isopropyl Acetate
Concen: 17.605 ug/l
RT: 8.683 min Scan# 11
Delta R.T. -0.000 min
Lab File: VN085947.D
Acq: 11 Mar 2025 21:29

Instrument :
MSVOA_N
ClientSampleId :
ENV-105-SB01

Tgt Ion: 43 Resp: 71882

Ion	Ratio	Lower	Upper
43	100		
61	14.5	22.6	34.0#
87	9.5	11.8	17.8#

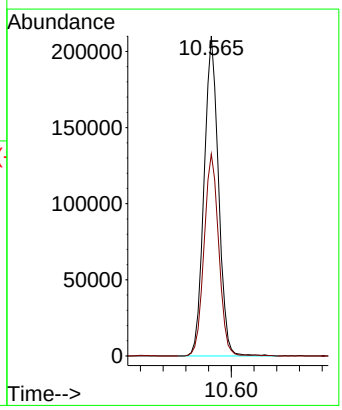


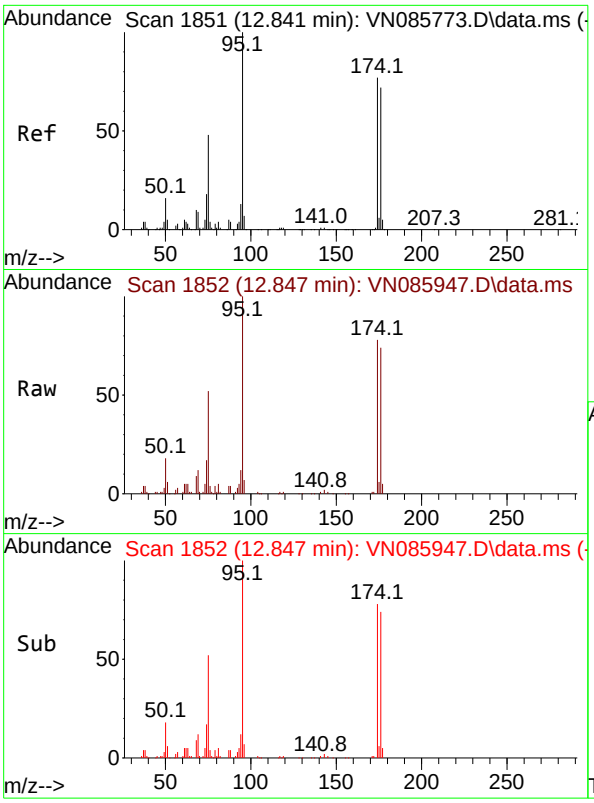


#50
Toluene-d8
Concen: 51.733 ug/l
RT: 10.565 min Scan# 1464
Delta R.T. 0.006 min
Lab File: VN085947.D
Acq: 11 Mar 2025 21:29

Tgt Ion: 98 Resp: 368578

Ion	Ratio	Lower	Upper
98	100		
100	64.3	52.1	78.1



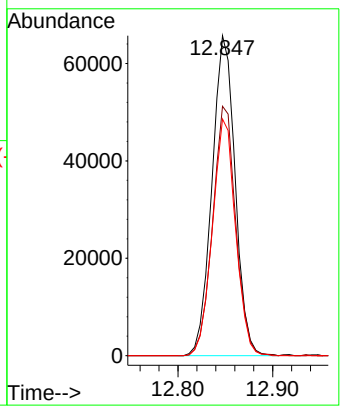


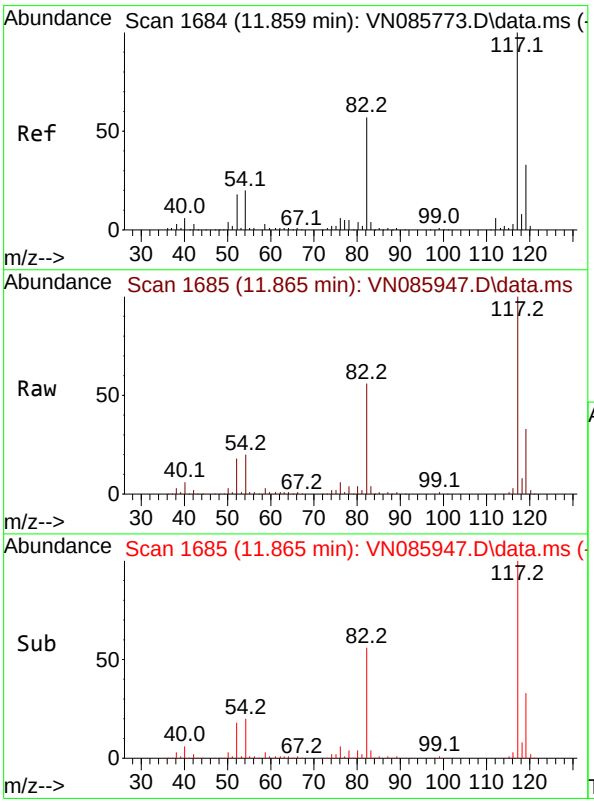
#62
4-Bromofluorobenzene
Concen: 47.509 ug/l
RT: 12.847 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085947.D
Acq: 11 Mar 2025 21:29

Instrument :
MSVOA_N
ClientSampleId :
ENV-105-SB01

Tgt Ion: 95 Resp: 111523

Ion	Ratio	Lower	Upper
95	100		
174	78.0	0.0	152.4
176	73.9	0.0	146.6

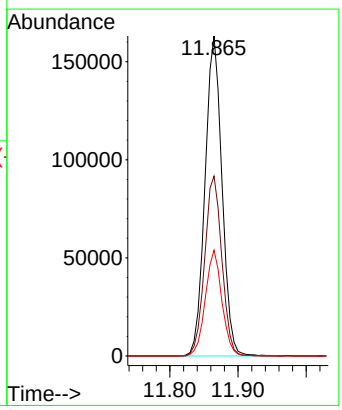


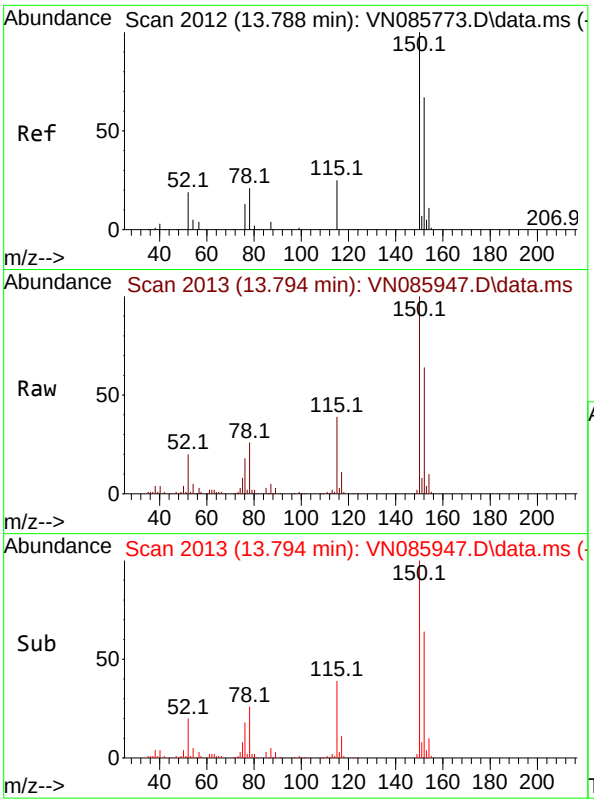


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.865 min Scan# 1685
Delta R.T. 0.006 min
Lab File: VN085947.D
Acq: 11 Mar 2025 21:29

Tgt Ion:117 Resp: 282311

Ion	Ratio	Lower	Upper
117	100		
82	56.2	45.7	68.5
119	33.1	26.2	39.2



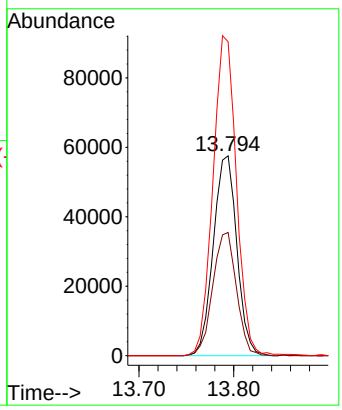


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.794 min Scan# 2
Delta R.T. 0.006 min
Lab File: VN085947.D
Acq: 11 Mar 2025 21:29

Instrument :
MSVOA_N
ClientSampleId :
ENV-105-SB01

Tgt Ion:152 Resp: 99543

Ion	Ratio	Lower	Upper
152	100		
115	62.0	30.4	91.3
150	159.8	0.0	345.4



Raw Data: **VN085948.D**

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	03/05/25
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	03/06/25
Client Sample ID:	ENV-105-SB02	SDG No.:	Q1514
Lab Sample ID:	Q1514-04	Matrix:	TCLP
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	TCLP VOA
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :	SW5035		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085948.D	1		03/11/25 21:53	VN031125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	0.34	U	0.34	5.00	ug/L
75-35-4	1,1-Dichloroethene	0.26	U	0.26	5.00	ug/L
78-93-3	2-Butanone	1.30	U	1.30	25.0	ug/L
56-23-5	Carbon Tetrachloride	0.25	U	0.25	5.00	ug/L
67-66-3	Chloroform	0.26	U	0.26	5.00	ug/L
71-43-2	Benzene	0.16	U	0.16	5.00	ug/L
107-06-2	1,2-Dichloroethane	0.24	U	0.24	5.00	ug/L
79-01-6	Trichloroethene	0.32	U	0.32	5.00	ug/L
127-18-4	Tetrachloroethene	0.25	U	0.25	5.00	ug/L
108-90-7	Chlorobenzene	0.13	U	0.13	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	59.8		70 (74) - 130 (125)	120%	SPK: 50
1868-53-7	Dibromofluoromethane	50.9		70 (75) - 130 (124)	102%	SPK: 50
2037-26-5	Toluene-d8	50.7		70 (86) - 130 (113)	101%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.4		70 (77) - 130 (121)	99%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	150000	8.224			
540-36-3	1,4-Difluorobenzene	296000	9.1			
3114-55-4	Chlorobenzene-d5	287000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	110000	13.788			

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031125\
Data File : VN085948.D
Acq On : 11 Mar 2025 21:53
Operator : JC\MD
Sample : Q1514-04
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 23 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ENV-105-SB02

Quant Time: Mar 12 01:31:50 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:43:32 2025
Response via : Initial Calibration

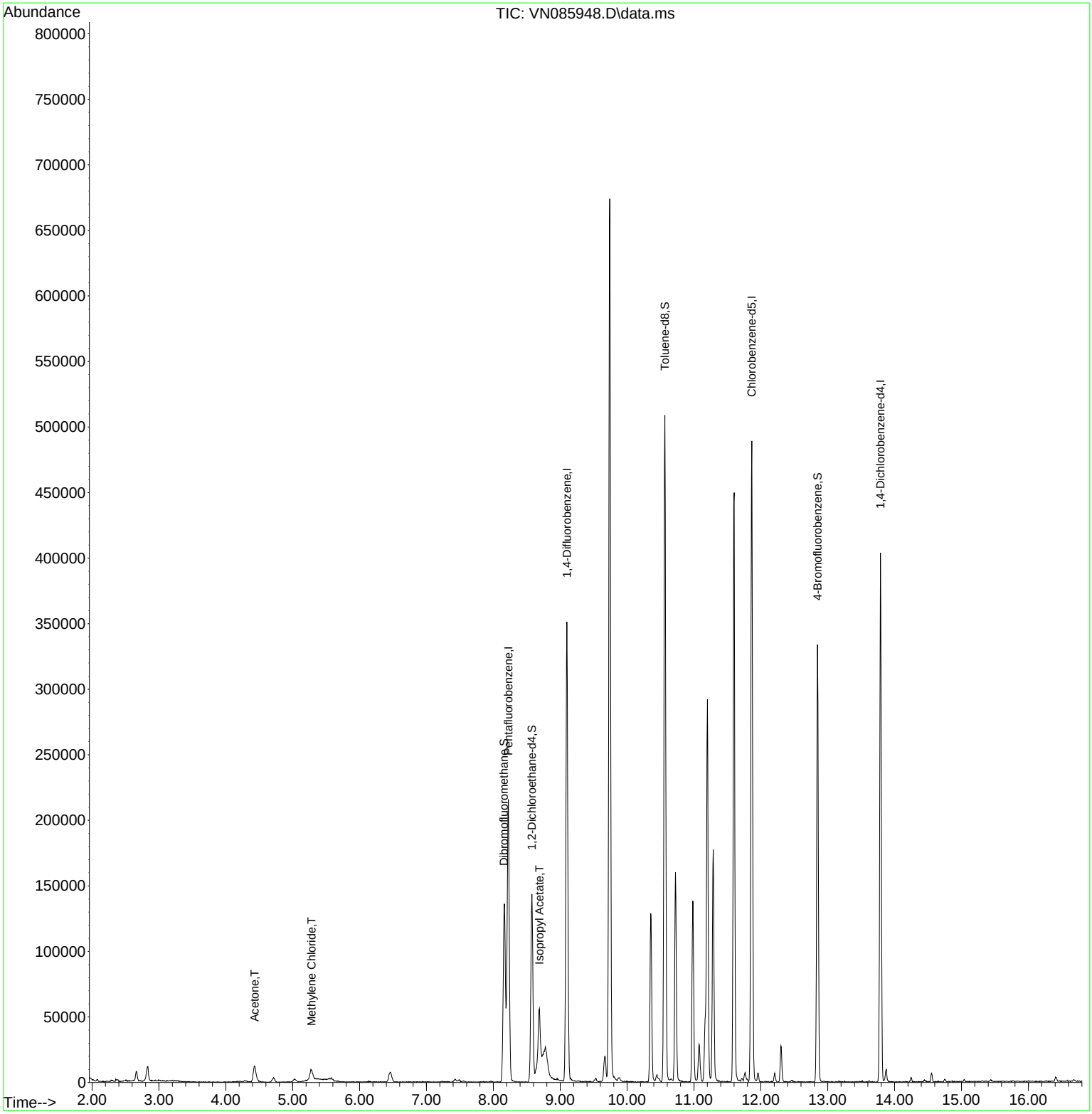
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.224	168	150437	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.100	114	296435	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.865	117	287045	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.788	152	110049	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.577	65	116697	59.833	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 119.660%			
35) Dibromofluoromethane	8.159	113	98753	50.911	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 101.820%			
50) Toluene-d8	10.565	98	358054	50.735	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 101.480%			
62) 4-Bromofluorobenzene	12.847	95	114862	49.398	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 98.800%			
Target Compounds						Qvalue
16) Acetone	4.430	43	23134	37.486	ug/l	99
20) Methylene Chloride	5.283	84	5982	3.014	ug/l #	85
43) Isopropyl Acetate	8.688	43	70964	17.544	ug/l #	79

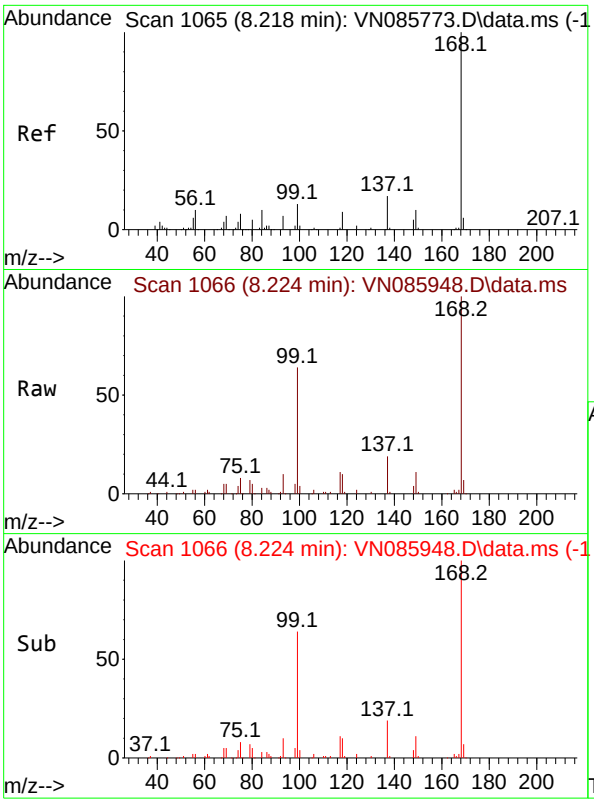
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031125\
Data File : VN085948.D
Acq On : 11 Mar 2025 21:53
Operator : JC\MD
Sample : Q1514-04
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 23 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ENV-105-SB02

Quant Time: Mar 12 01:31:50 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:43:32 2025
Response via : Initial Calibration



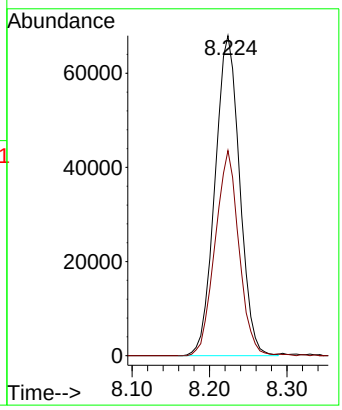


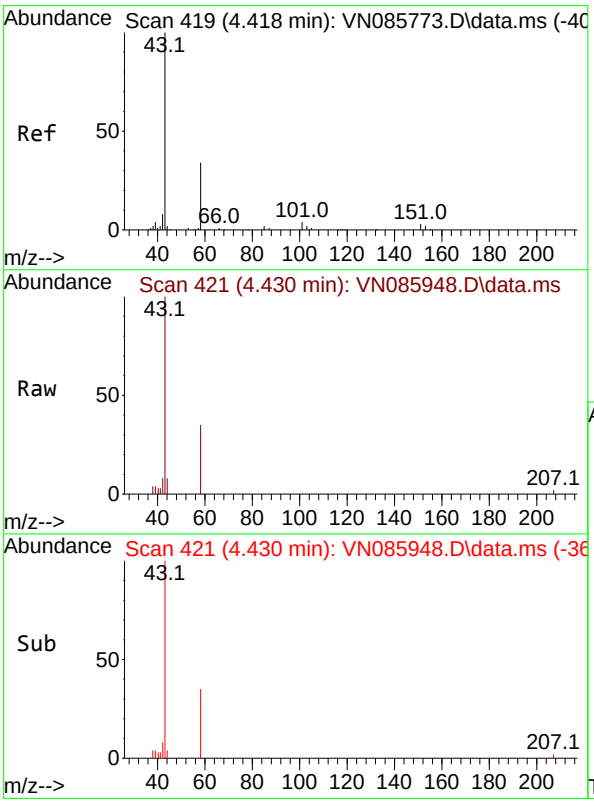
#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.224 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085948.D
Acq: 11 Mar 2025 21:53

Instrument :
MSVOA_N
ClientSampleId :
ENV-105-SB02

Tgt Ion:168 Resp: 150437

Ion	Ratio	Lower	Upper
168	100		
99	64.1	47.9	71.9

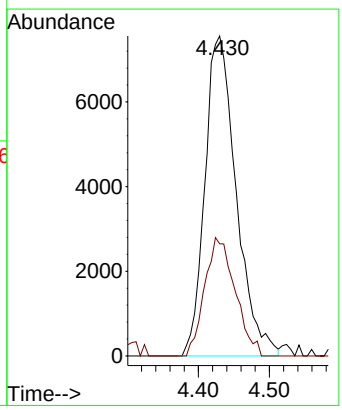


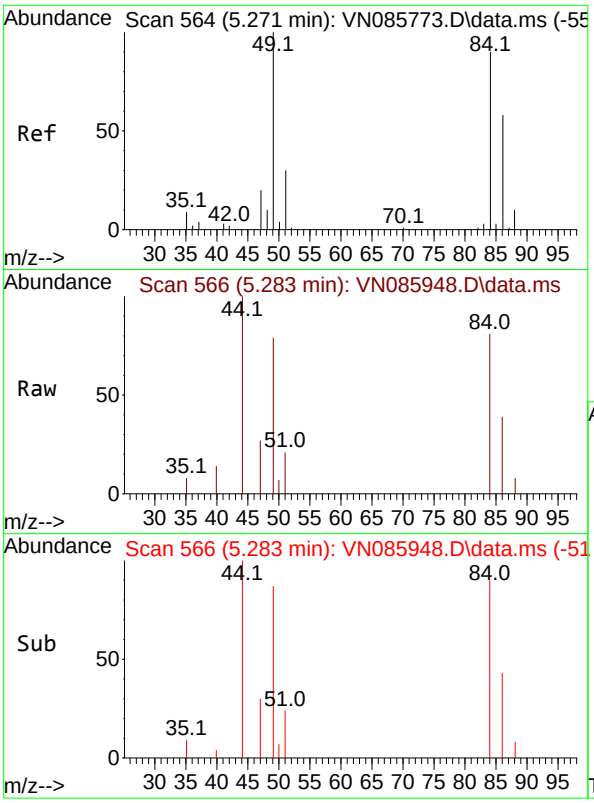


#16
Acetone
Concen: 37.486 ug/l
RT: 4.430 min Scan# 421
Delta R.T. 0.012 min
Lab File: VN085948.D
Acq: 11 Mar 2025 21:53

Tgt Ion: 43 Resp: 23134

Ion	Ratio	Lower	Upper
43	100		
58	35.1	27.5	41.3



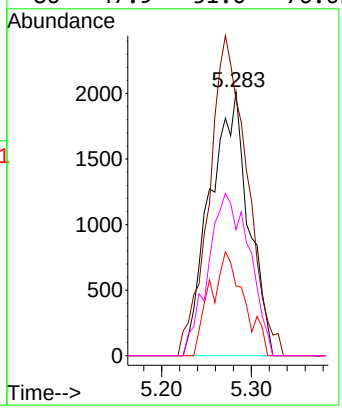


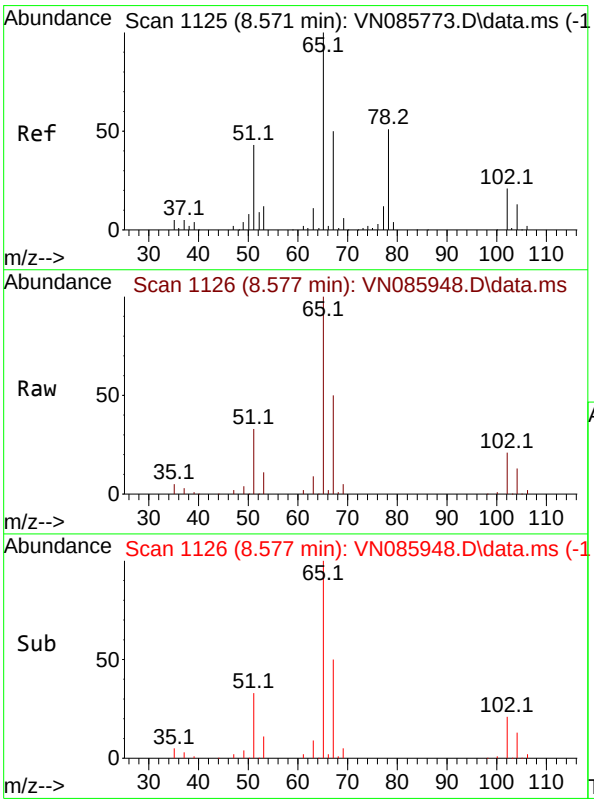
#20
Methylene Chloride
Concen: 3.014 ug/l
RT: 5.283 min Scan# 5
Delta R.T. 0.012 min
Lab File: VN085948.D
Acq: 11 Mar 2025 21:53

Instrument :
MSVOA_N
ClientSampleId :
ENV-105-SB02

Tgt Ion: 84 Resp: 5982

Ion	Ratio	Lower	Upper
84	100		
49	97.2	88.4	132.6
51	26.4	26.6	40.0#
86	47.9	51.0	76.6#

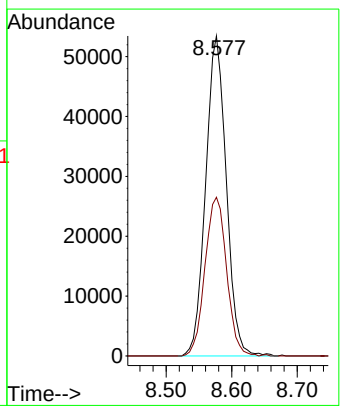


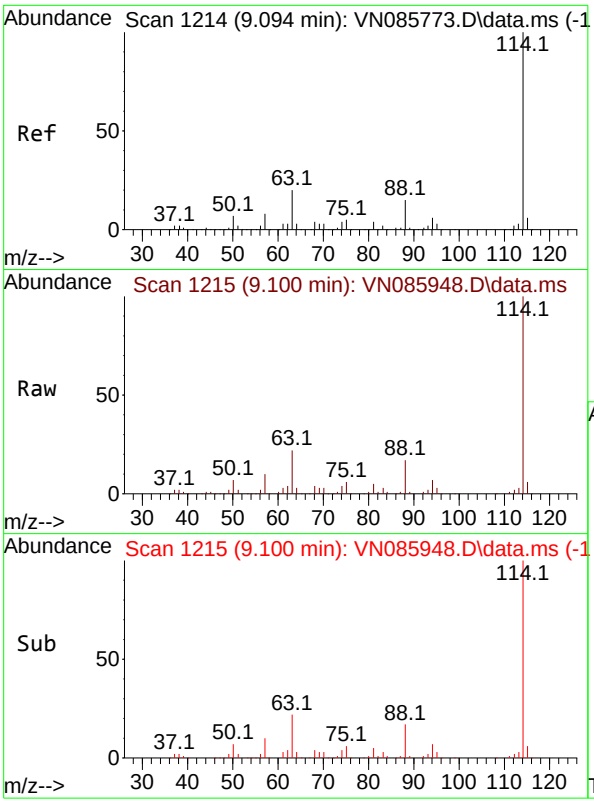


#33
1,2-Dichloroethane-d4
Concen: 59.833 ug/l
RT: 8.577 min Scan# 1126
Delta R.T. 0.006 min
Lab File: VN085948.D
Acq: 11 Mar 2025 21:53

Tgt Ion: 65 Resp: 116697

Ion	Ratio	Lower	Upper
65	100		
67	52.0	0.0	106.2



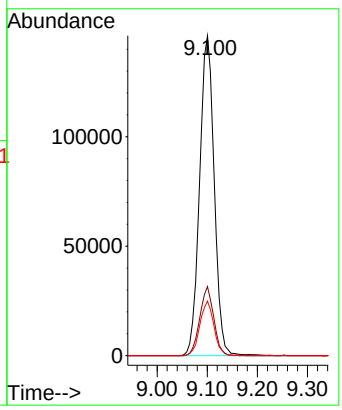


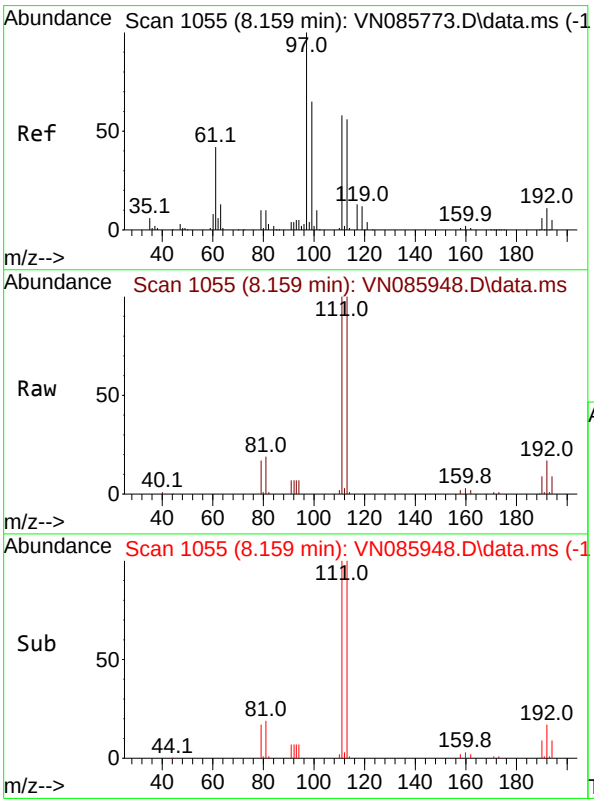
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.100 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085948.D
Acq: 11 Mar 2025 21:53

Instrument :
MSVOA_N
ClientSampleId :
ENV-105-SB02

Tgt Ion:114 Resp: 296435

Ion	Ratio	Lower	Upper
114	100		
63	21.6	0.0	39.2
88	17.0	0.0	30.0

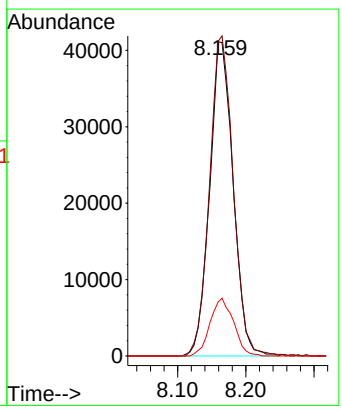


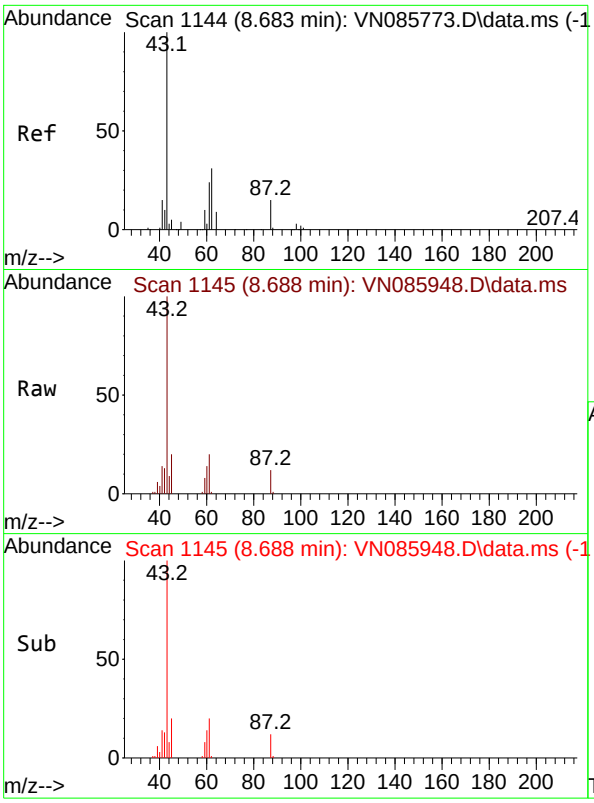


#35
Dibromofluoromethane
Concen: 50.911 ug/l
RT: 8.159 min Scan# 1055
Delta R.T. 0.000 min
Lab File: VN085948.D
Acq: 11 Mar 2025 21:53

Tgt Ion:113 Resp: 98753

Ion	Ratio	Lower	Upper
113	100		
111	102.3	82.2	123.4
192	18.4	14.7	22.1



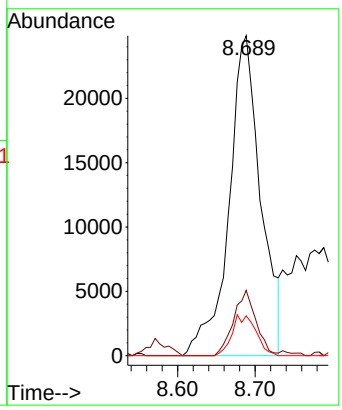


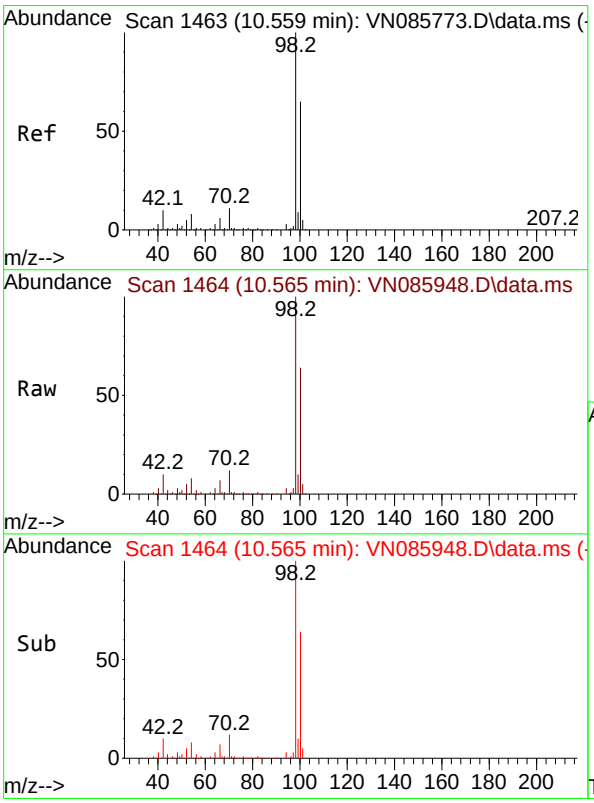
#43
Isopropyl Acetate
Concen: 17.544 ug/l
RT: 8.688 min Scan# 11
Delta R.T. 0.005 min
Lab File: VN085948.D
Acq: 11 Mar 2025 21:53

Instrument :
MSVOA_N
ClientSampleId :
ENV-105-SB02

Tgt Ion: 43 Resp: 70964

Ion	Ratio	Lower	Upper
43	100		
61	14.5	22.6	34.0#
87	9.6	11.8	17.8#

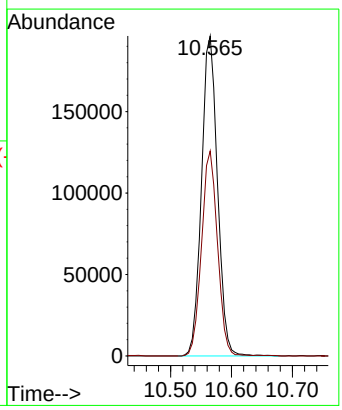


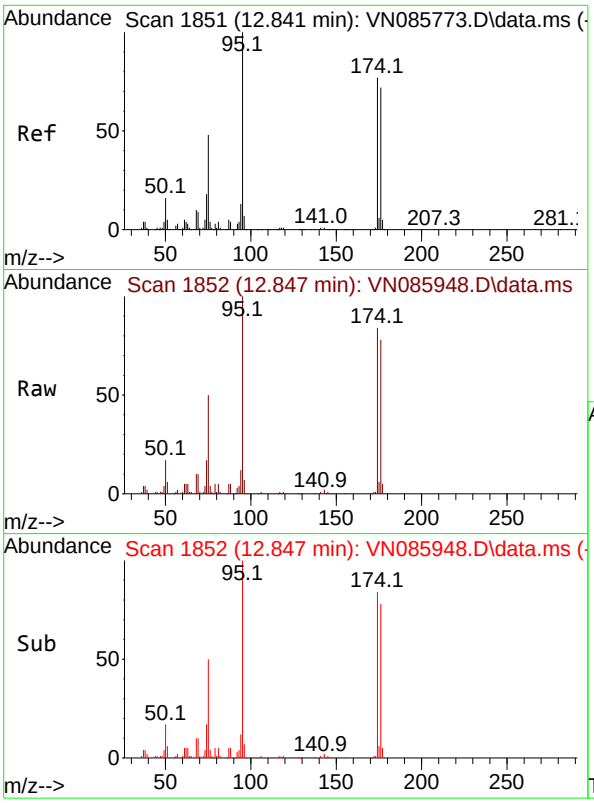


#50
Toluene-d8
Concen: 50.735 ug/l
RT: 10.565 min Scan# 1464
Delta R.T. 0.006 min
Lab File: VN085948.D
Acq: 11 Mar 2025 21:53

Tgt Ion: 98 Resp: 358054

Ion	Ratio	Lower	Upper
98	100		
100	63.9	52.1	78.1



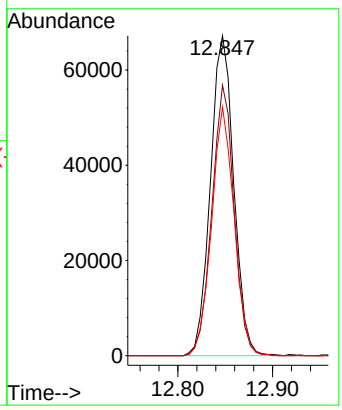


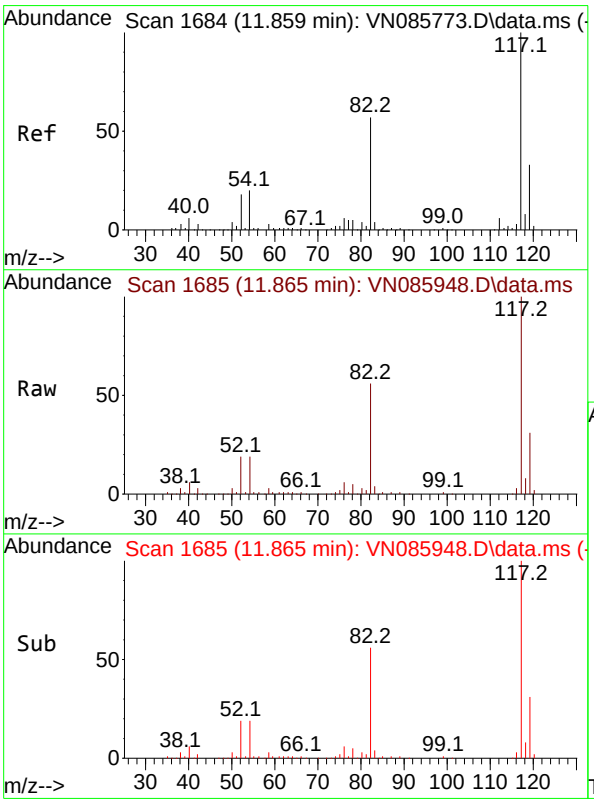
#62
4-Bromofluorobenzene
Concen: 49.398 ug/l
RT: 12.847 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085948.D
Acq: 11 Mar 2025 21:53

Instrument :
MSVOA_N
ClientSampleId :
ENV-105-SB02

Tgt Ion: 95 Resp: 114862

Ion	Ratio	Lower	Upper
95	100		
174	80.8	0.0	152.4
176	75.3	0.0	146.6

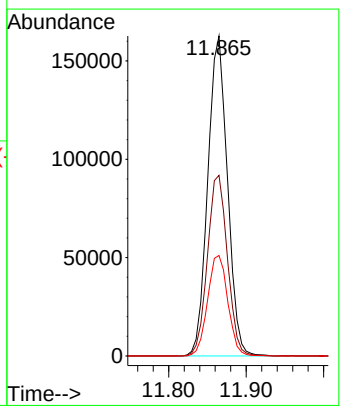


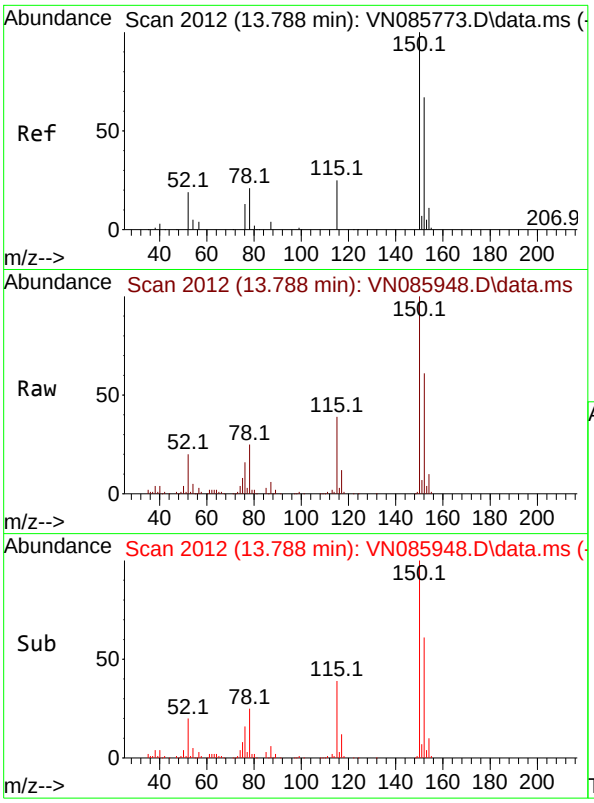


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.865 min Scan# 1685
Delta R.T. 0.006 min
Lab File: VN085948.D
Acq: 11 Mar 2025 21:53

Tgt Ion:117 Resp: 287045

Ion	Ratio	Lower	Upper
117	100		
82	56.4	45.7	68.5
119	31.4	26.2	39.2



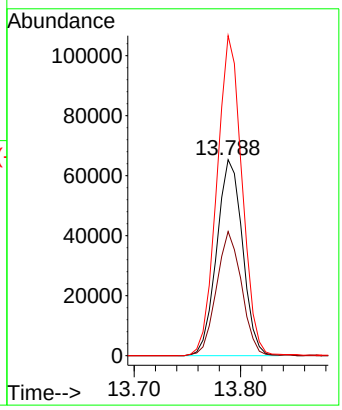


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.788 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN085948.D
Acq: 11 Mar 2025 21:53

Instrument :
MSVOA_N
ClientSampleId :
ENV-105-SB02

Tgt Ion:152 Resp: 110049

Ion	Ratio	Lower	Upper
152	100		
115	61.6	30.4	91.3
150	159.3	0.0	345.4



Raw Data: **VN085949.D**

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	03/05/25
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	03/06/25
Client Sample ID:	ENV-103-SB01	SDG No.:	Q1514
Lab Sample ID:	Q1514-06	Matrix:	TCLP
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	TCLP VOA
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :	SW5035		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085949.D	1		03/11/25 22:17	VN031125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	0.34	U	0.34	5.00	ug/L
75-35-4	1,1-Dichloroethene	0.26	U	0.26	5.00	ug/L
78-93-3	2-Butanone	1.30	U	1.30	25.0	ug/L
56-23-5	Carbon Tetrachloride	0.25	U	0.25	5.00	ug/L
67-66-3	Chloroform	0.26	U	0.26	5.00	ug/L
71-43-2	Benzene	0.16	U	0.16	5.00	ug/L
107-06-2	1,2-Dichloroethane	0.24	U	0.24	5.00	ug/L
79-01-6	Trichloroethene	0.32	U	0.32	5.00	ug/L
127-18-4	Tetrachloroethene	0.25	U	0.25	5.00	ug/L
108-90-7	Chlorobenzene	0.13	U	0.13	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	58.2		70 (74) - 130 (125)	116%	SPK: 50
1868-53-7	Dibromofluoromethane	49.1		70 (75) - 130 (124)	98%	SPK: 50
2037-26-5	Toluene-d8	49.8		70 (86) - 130 (113)	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.3		70 (77) - 130 (121)	95%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	159000	8.224			
540-36-3	1,4-Difluorobenzene	316000	9.1			
3114-55-4	Chlorobenzene-d5	300000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	111000	13.788			

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031125\
Data File : VN085949.D
Acq On : 11 Mar 2025 22:17
Operator : JC\MD
Sample : Q1514-06
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 24 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ENV-103-SB01

Quant Time: Mar 12 01:32:26 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:43:32 2025
Response via : Initial Calibration

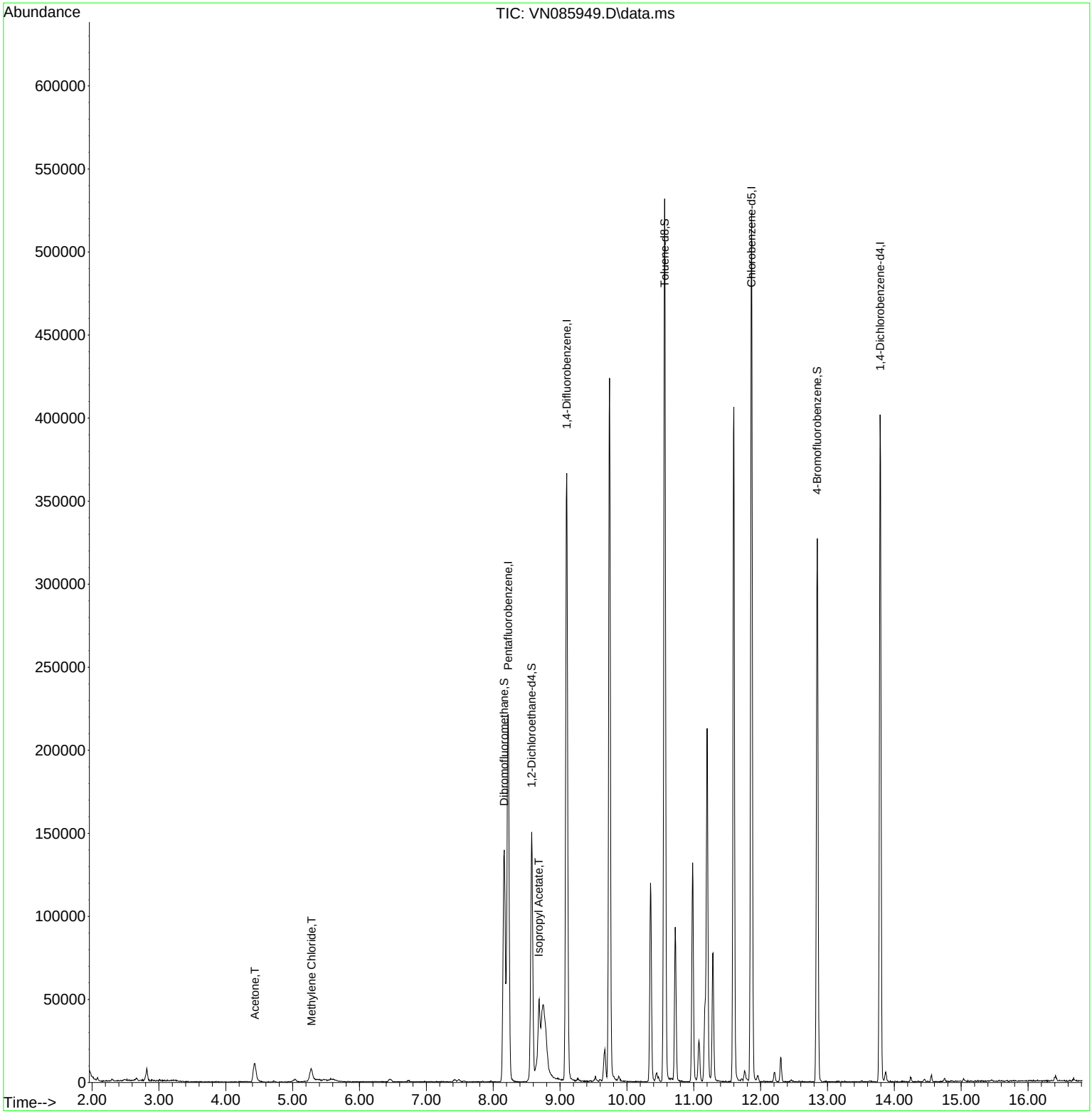
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.224	168	159259	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.100	114	315656	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.865	117	300142	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.788	152	110799	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.577	65	120192	58.212	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 116.420%			
35) Dibromofluoromethane	8.165	113	101409	49.097	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 98.200%			
50) Toluene-d8	10.565	98	374101	49.781	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 99.560%			
62) 4-Bromofluorobenzene	12.847	95	117023	47.263	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 94.520%			
Target Compounds						Qvalue
16) Acetone	4.436	43	22305	34.141	ug/l	97
20) Methylene Chloride	5.283	84	6134	2.920	ug/l	88
43) Isopropyl Acetate	8.683	43	61567	14.192	ug/l #	78

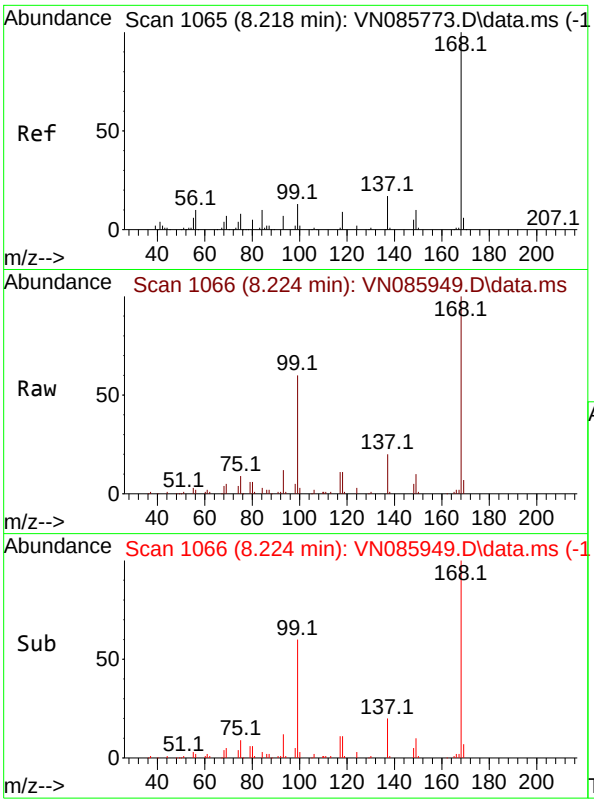
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031125\
Data File : VN085949.D
Acq On : 11 Mar 2025 22:17
Operator : JC\MD
Sample : Q1514-06
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 24 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ENV-103-SB01

Quant Time: Mar 12 01:32:26 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:43:32 2025
Response via : Initial Calibration



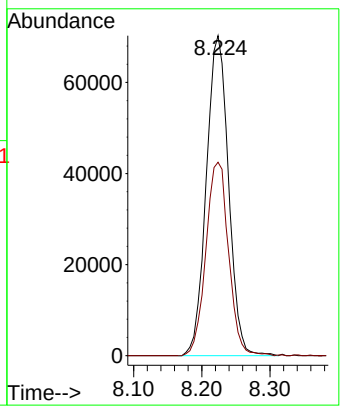


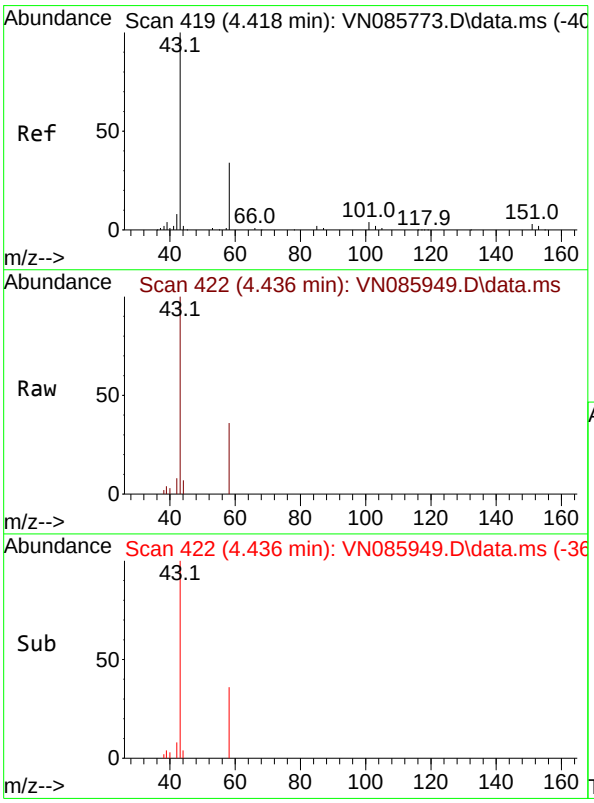
#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.224 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085949.D
Acq: 11 Mar 2025 22:17

Instrument :
MSVOA_N
ClientSampleId :
ENV-103-SB01

Tgt Ion:168 Resp: 159259

Ion	Ratio	Lower	Upper
168	100		
99	60.5	47.9	71.9

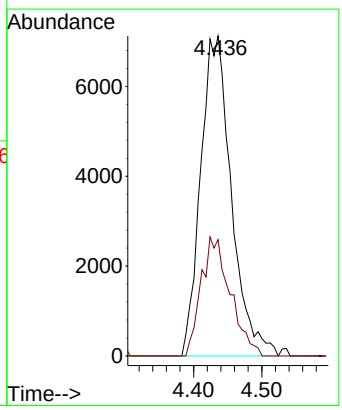


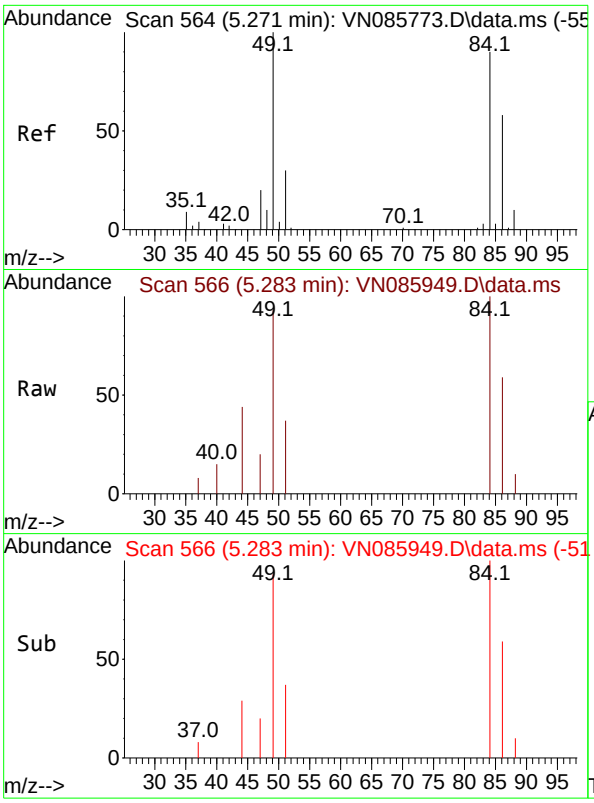


#16
Acetone
Concen: 34.141 ug/l
RT: 4.436 min Scan# 422
Delta R.T. 0.018 min
Lab File: VN085949.D
Acq: 11 Mar 2025 22:17

Tgt Ion: 43 Resp: 22305

Ion	Ratio	Lower	Upper
43	100		
58	36.3	27.5	41.3



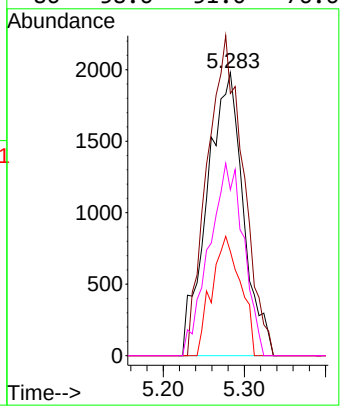


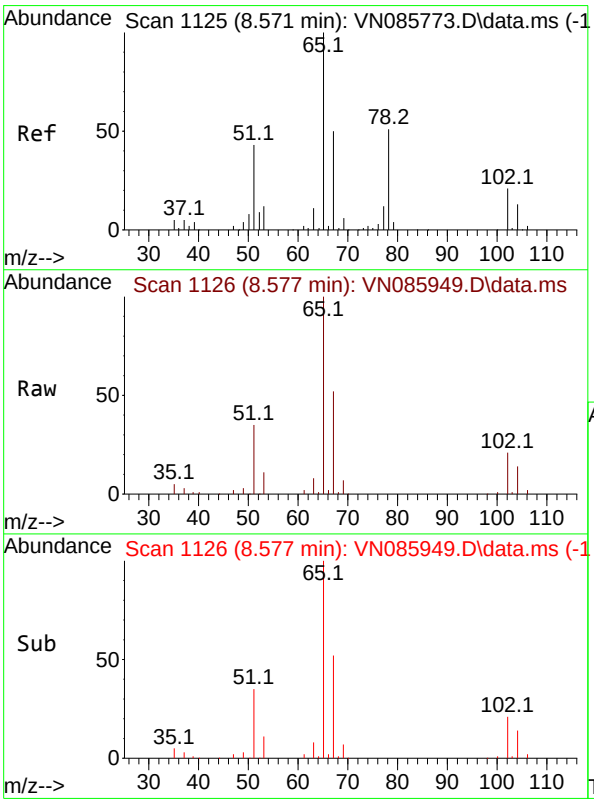
#20
Methylene Chloride
Concen: 2.920 ug/l
RT: 5.283 min Scan# 5
Delta R.T. 0.012 min
Lab File: VN085949.D
Acq: 11 Mar 2025 22:17

Instrument :
MSVOA_N
ClientSampleId :
ENV-103-SB01

Tgt Ion: 84 Resp: 6134

Ion	Ratio	Lower	Upper
84	100		
49	92.6	88.4	132.6
51	36.8	26.6	40.0
86	58.6	51.0	76.6

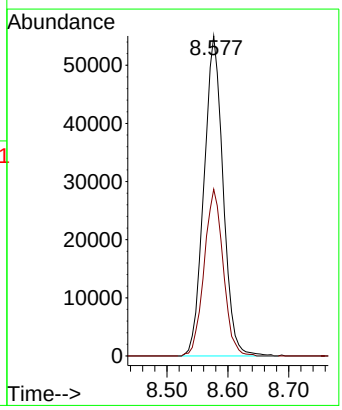


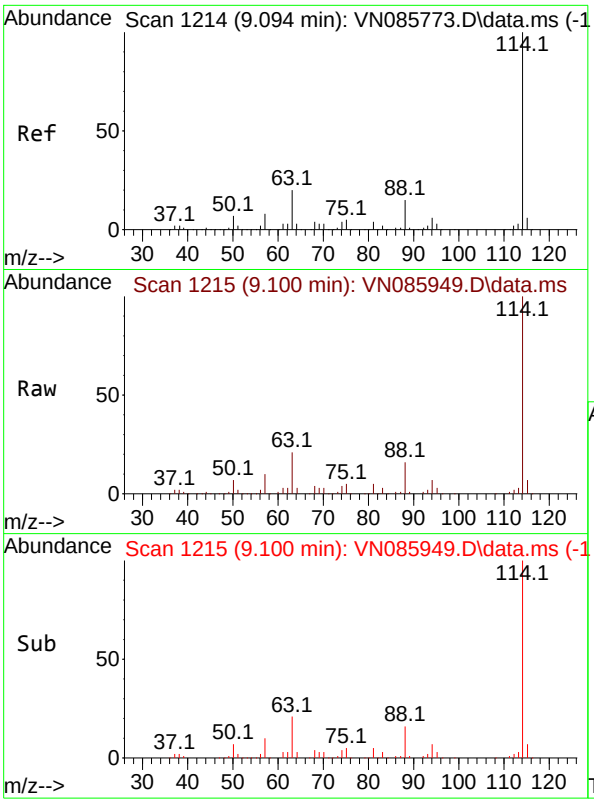


#33
1,2-Dichloroethane-d4
Concen: 58.212 ug/l
RT: 8.577 min Scan# 1126
Delta R.T. 0.006 min
Lab File: VN085949.D
Acq: 11 Mar 2025 22:17

Tgt Ion: 65 Resp: 120192

Ion	Ratio	Lower	Upper
65	100		
67	51.9	0.0	106.2



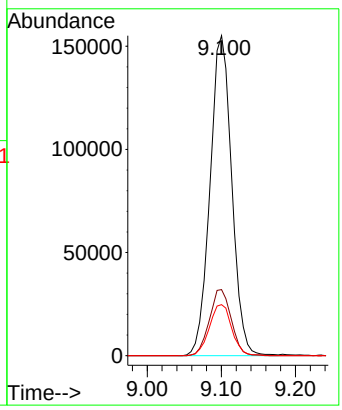


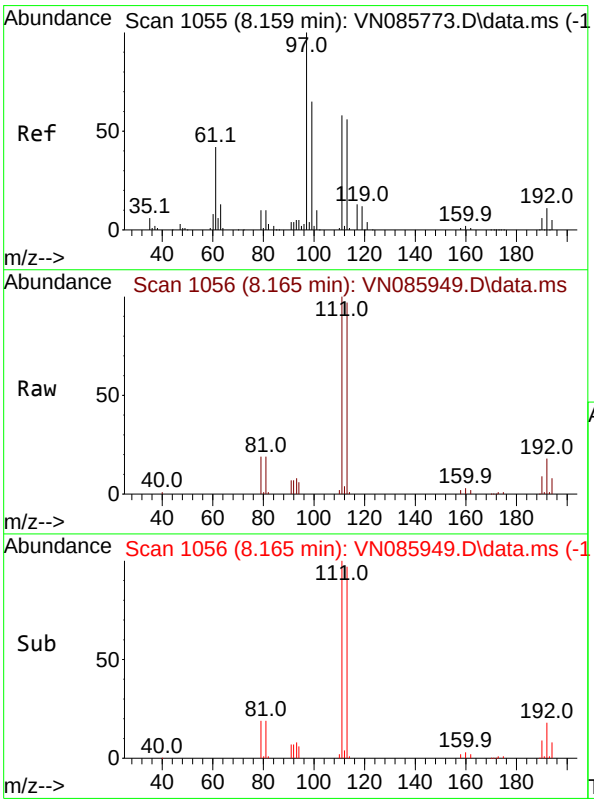
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.100 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085949.D
Acq: 11 Mar 2025 22:17

Instrument :
MSVOA_N
ClientSampleId :
ENV-103-SB01

Tgt Ion:114 Resp: 315656

Ion	Ratio	Lower	Upper
114	100		
63	20.7	0.0	39.2
88	16.0	0.0	30.0

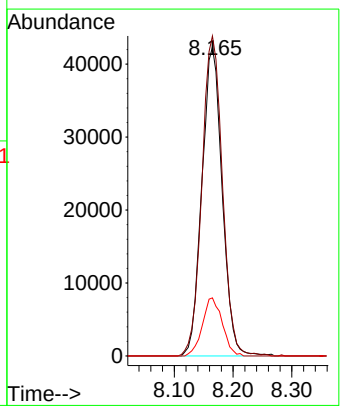


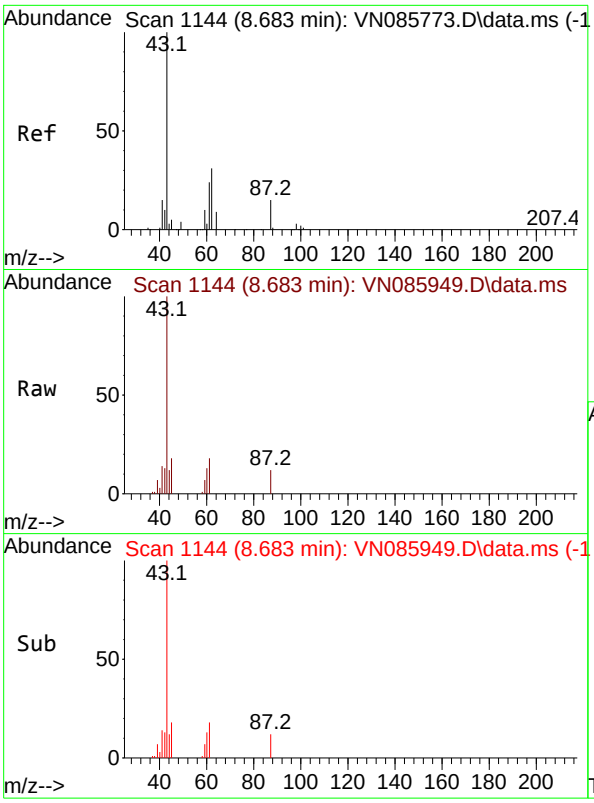


#35
Dibromofluoromethane
Concen: 49.097 ug/l
RT: 8.165 min Scan# 1056
Delta R.T. 0.006 min
Lab File: VN085949.D
Acq: 11 Mar 2025 22:17

Tgt Ion:113 Resp: 101409

Ion	Ratio	Lower	Upper
113	100		
111	104.5	82.2	123.4
192	18.4	14.7	22.1



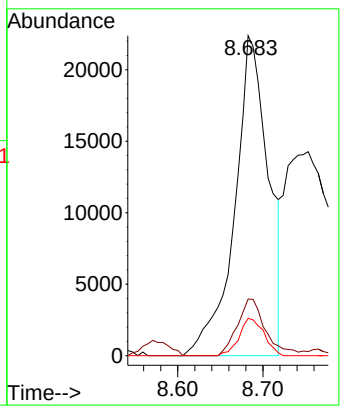


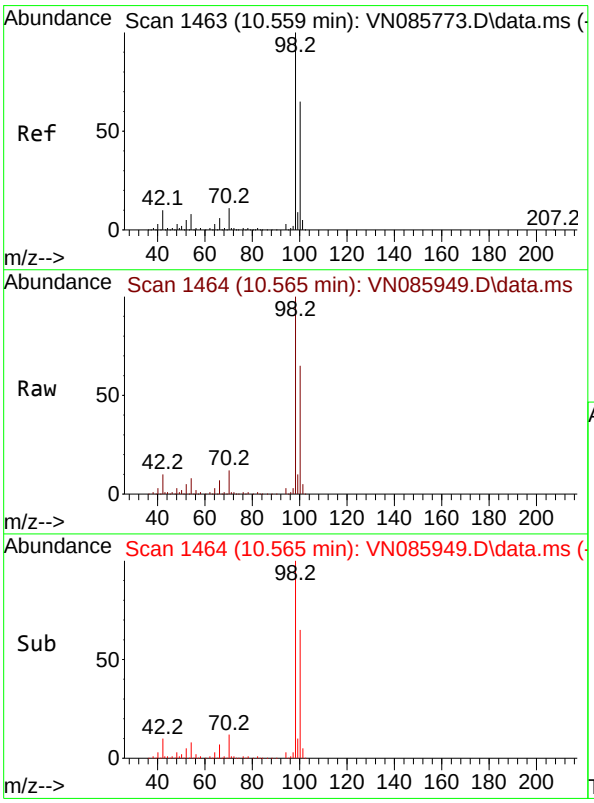
#43
Isopropyl Acetate
Concen: 14.192 ug/l
RT: 8.683 min Scan# 11
Delta R.T. -0.000 min
Lab File: VN085949.D
Acq: 11 Mar 2025 22:17

Instrument :
MSVOA_N
ClientSampleId :
ENV-103-SB01

Tgt Ion: 43 Resp: 61567

Ion	Ratio	Lower	Upper
43	100		
61	14.7	22.6	34.0#
87	8.6	11.8	17.8#

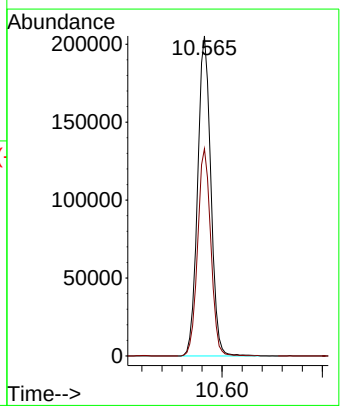


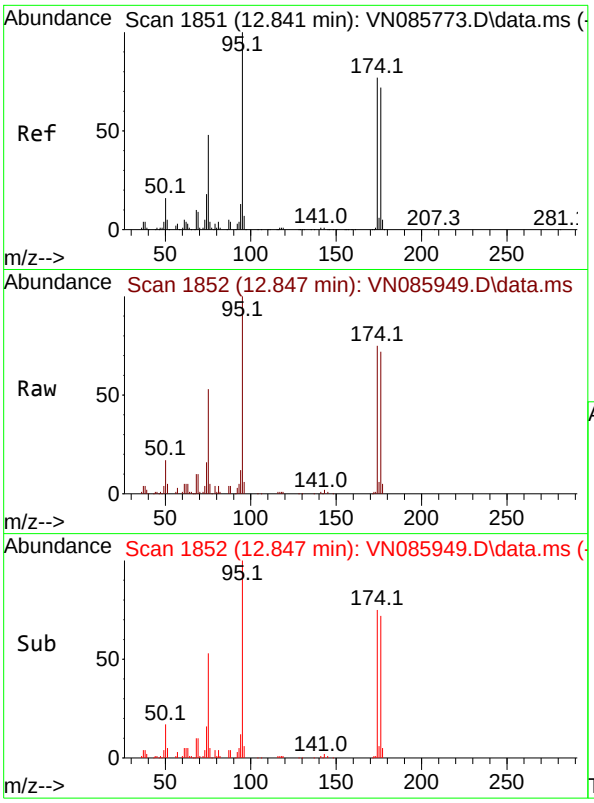


#50
Toluene-d8
Concen: 49.781 ug/l
RT: 10.565 min Scan# 1464
Delta R.T. 0.006 min
Lab File: VN085949.D
Acq: 11 Mar 2025 22:17

Tgt Ion: 98 Resp: 374101

Ion	Ratio	Lower	Upper
98	100		
100	64.6	52.1	78.1



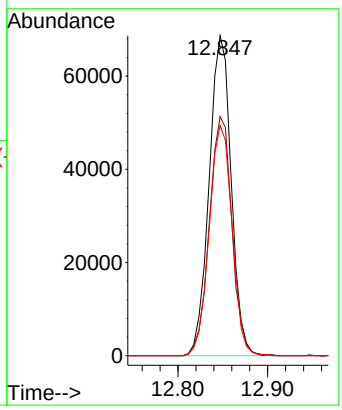


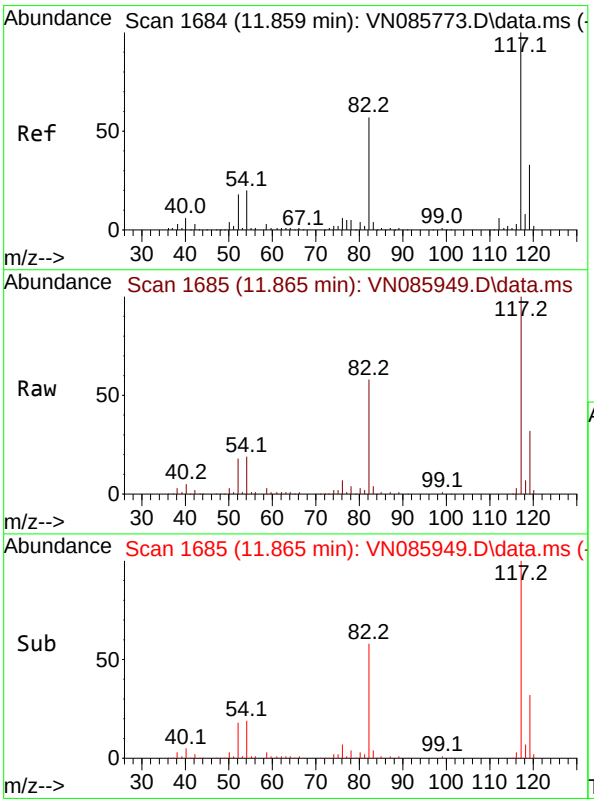
#62
4-Bromofluorobenzene
Concen: 47.263 ug/l
RT: 12.847 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085949.D
Acq: 11 Mar 2025 22:17

Instrument :
MSVOA_N
ClientSampleId :
ENV-103-SB01

Tgt Ion: 95 Resp: 117023

Ion	Ratio	Lower	Upper
95	100		
174	76.6	0.0	152.4
176	74.6	0.0	146.6

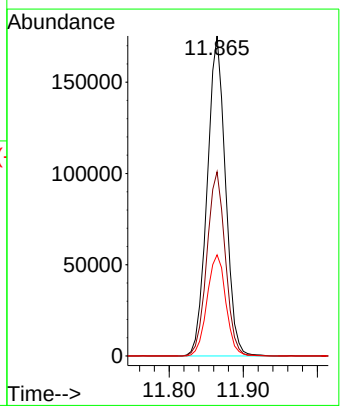


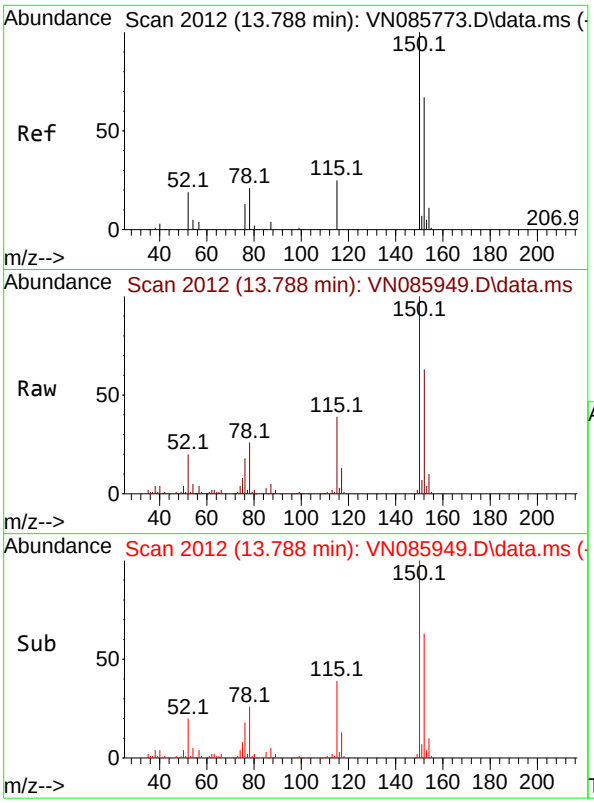


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.865 min Scan# 1685
Delta R.T. 0.006 min
Lab File: VN085949.D
Acq: 11 Mar 2025 22:17

Tgt Ion:117 Resp: 300142

Ion	Ratio	Lower	Upper
117	100		
82	57.5	45.7	68.5
119	31.6	26.2	39.2



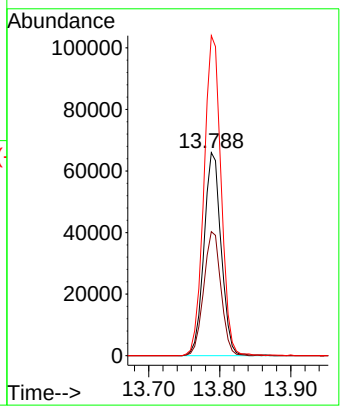


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.788 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN085949.D
Acq: 11 Mar 2025 22:17

Instrument :
MSVOA_N
ClientSampleId :
ENV-103-SB01

Tgt Ion:152 Resp: 110799

Ion	Ratio	Lower	Upper
152	100		
115	61.5	30.4	91.3
150	157.4	0.0	345.4



CALIBRATION SUMMARY

Raw Data

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: PORT06

Lab Code: CHEM Case No.: Q1514 SAS No.: Q1514 SDG No.: Q1514

Instrument ID: MSVOA_N Calibration Date(s): 02/18/2025 02/18/2025

Heated Purge: (Y/N) N Calibration Time(s): 11:09 14:18

GC Column: RXI-624 ID: 0.25 (mm)

LAB FILE ID: RRF100 = VN085772.D RRF050 = VN085773.D RRF010 = VN085775.D
RRF005 = VN085776.D RRF001 = VN085777.D RRF020 = VN085779.D

COMPOUND	RRF100	RRF050	RRF010	RRF005	RRF001	RRF020	$\overline{RRF}$	% RSD
Vinyl Chloride	0.698	0.678	0.796	0.729	0.761	0.674	0.723	6.7
1,1-Dichloroethene	0.555	0.527	0.591	0.571	0.514	0.531	0.548	5.3
2-Butanone	0.308	0.294	0.331	0.299	0.279	0.299	0.302	5.6
Carbon Tetrachloride	0.573	0.528	0.583	0.545	0.533	0.538	0.550	4.1
Chloroform	1.120	1.070	1.269	1.164	1.171	1.141	1.156	5.7
Benzene	1.581	1.441	1.568	1.421	1.420	1.474	1.484	4.9
1,2-Dichloroethane	0.499	0.456	0.527	0.464	0.472	0.483	0.483	5.4
Trichloroethene	0.370	0.339	0.384	0.350	0.395	0.348	0.364	6.1
Tetrachloroethene	0.384	0.361	0.420	0.391	0.393	0.375	0.387	5.2
Chlorobenzene	1.183	1.110	1.212	1.139	1.109	1.119	1.145	3.8
1,2-Dichloroethane-d4	0.698	0.613	0.588	0.767		0.575	0.648	12.6
Dibromofluoromethane	0.375	0.317	0.294	0.357		0.293	0.327	11.5
Toluene-d8	1.444	1.199	1.017	1.212		1.080	1.190	13.8
4-Bromofluorobenzene	0.503	0.419	0.323	0.370		0.346	0.392	18.2

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

Response Factor Report MSVOA_N_NEW

Method Path : Z:\voasrv\HPCHEM1\MSVOA_N\methods\
Method File : 82N021825W.M
Title : SW846 8260
Last Update : Wed Feb 19 03:43:32 2025
Response Via : Initial Calibration

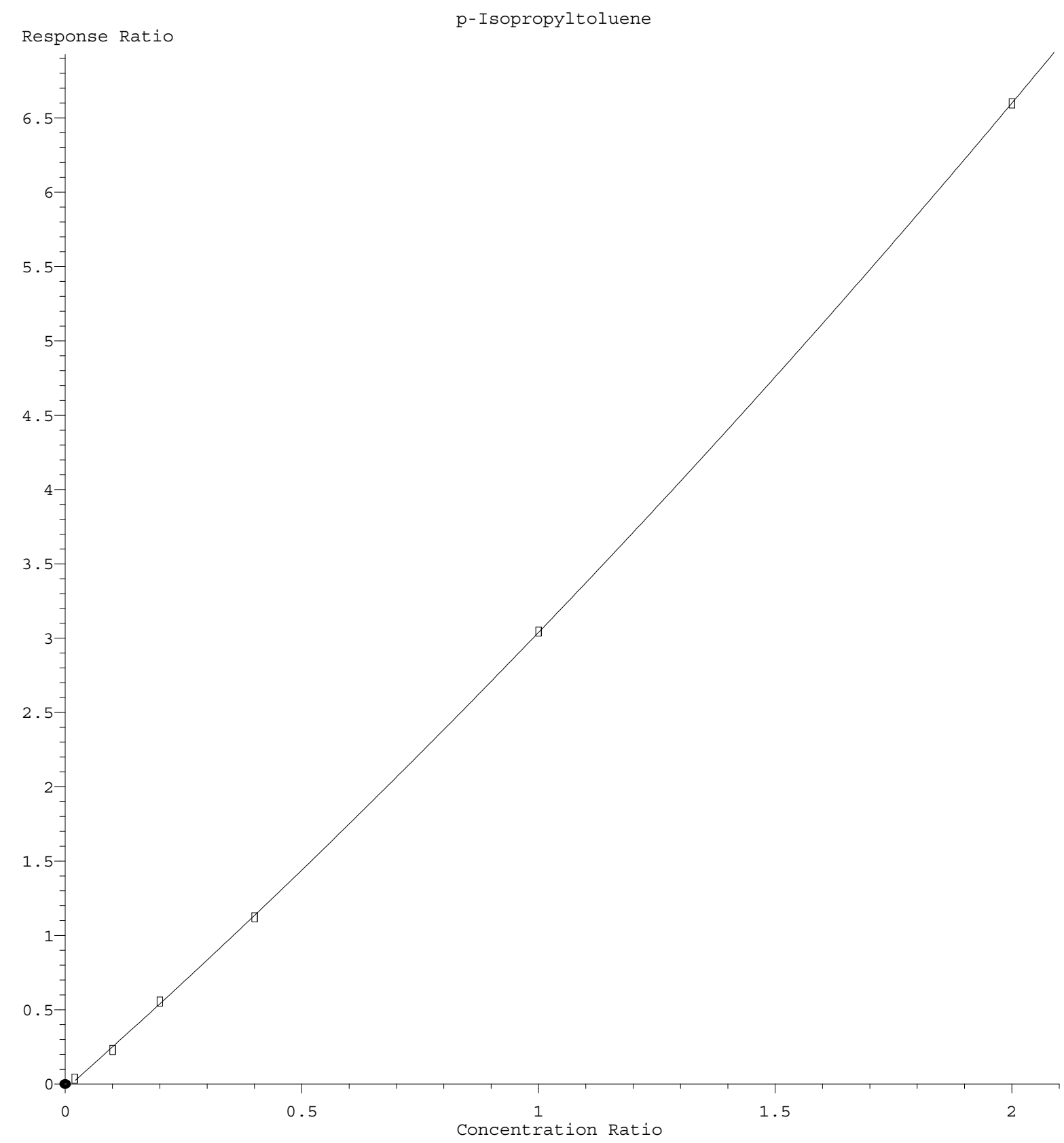
Calibration Files
1 =VN085777.D 5 =VN085776.D 10 =VN085775.D 20 =VN085779.D 50 =VN085773.D 100 =VN085772.D

		Compound	1	5	10	20	50	100	Avg	%RSD
1)	I	Pentafluorobenzene	----------ISTD----------							
2)	T	Dichlorodifluo...	0.660	0.650	0.779	0.628	0.669	0.694	0.680	7.78
3)	P	Chloromethane	0.817	0.662	0.742	0.604	0.622	0.647	0.682	11.93
4)	C	Vinyl Chloride	0.761	0.729	0.796	0.674	0.678	0.698	0.723	6.72#
5)	T	Bromomethane		0.496	0.543	0.413	0.424	0.434	0.462	12.05
6)	T	Chloroethane	0.584	0.470	0.516	0.438	0.417	0.447	0.479	12.88
7)	T	Trichlorofluor...	1.103	1.065	1.134	1.006	0.959	1.010	1.046	6.33
8)	T	Diethyl Ether	0.313	0.353	0.366	0.325	0.331	0.343	0.339	5.72
9)	T	1,1,2-Trichlor...	0.554	0.635	0.674	0.599	0.564	0.602	0.605	7.39
10)	T	Methyl Iodide		0.724	0.806	0.712	0.722	0.764	0.745	5.24
11)	T	Tert butyl alc...		0.083	0.092	0.073	0.078	0.072	0.080	9.91
12)	CM	1,1-Dichloroet...	0.514	0.571	0.591	0.531	0.527	0.555	0.548	5.35#
13)	T	Acrolein		0.126	0.117	0.105	0.126	0.116	0.118	7.35
14)	T	Allyl chloride	0.694	0.724	0.778	0.686	0.691	0.747	0.720	5.13
15)	T	Acrylonitrile	0.255	0.260	0.278	0.256	0.245	0.262	0.259	4.23
16)	T	Acetone	0.227	0.208	0.217	0.198	0.184	0.195	0.205	7.68
17)	T	Carbon Disulfide	1.848	1.604	1.804	1.455	1.473	1.565	1.625	10.22
18)	T	Methyl Acetate	0.853	0.690	0.794	0.625	0.619	0.653	0.705	13.70
19)	T	Methyl tert-bu...	1.438	1.560	1.714	1.659	1.658	1.747	1.629	6.95
20)	T	Methylene Chlo...	0.736	0.666	0.710	0.625	0.593	0.628	0.660	8.34
21)	T	trans-1,2-Dich...	0.623	0.599	0.621	0.566	0.549	0.585	0.590	5.05
22)	T	Diisopropyl ether	1.326	1.567	1.764	1.716	1.643	1.744	1.627	10.09
23)	T	Vinyl Acetate	0.999	1.034	1.189	1.126	1.118	1.218	1.114	7.63
24)	P	1,1-Dichloroet...	1.073	1.125	1.216	1.089	1.035	1.097	1.106	5.59
25)	T	2-Butanone	0.279	0.299	0.331	0.299	0.294	0.308	0.302	5.61
26)	T	2,2-Dichloropr...	0.943	0.987	1.069	0.971	0.946	0.984	0.983	4.68
27)	T	cis-1,2-Dichlo...	0.646	0.685	0.740	0.671	0.661	0.705	0.685	4.91
28)	T	Bromochloromet...	0.483	0.570	0.346	0.402	0.444	0.481	0.454	16.96
29)	T	Tetrahydrofuran	0.167	0.183	0.214	0.204	0.196	0.206	0.195	8.97
30)	C	Chloroform	1.171	1.164	1.269	1.141	1.070	1.120	1.156	5.74#
31)	T	Cyclohexane		1.056	0.977	0.858	0.860	0.878	0.926	9.50
32)	T	1,1,1-Trichlor...	1.030	1.058	1.089	1.012	0.967	1.012	1.028	4.09
33)	S	1,2-Dichloroet...		0.767	0.588	0.575	0.613	0.698	0.648	12.64
34)	I	1,4-Difluorobenzene	----------ISTD----------							
35)	S	Dibromofluorom...		0.357	0.294	0.293	0.317	0.375	0.327	11.46
36)	T	1,1-Dichloropr...	0.426	0.436	0.490	0.458	0.460	0.509	0.463	6.84
37)	T	Ethyl Acetate	0.353	0.376	0.385	0.396	0.375	0.400	0.381	4.47
38)	T	Carbon Tetrach...	0.533	0.545	0.583	0.538	0.528	0.573	0.550	4.11
39)	T	Methylcyclohexane	0.373	0.405	0.446	0.453	0.492	0.560	0.455	14.50
40)	TM	Benzene	1.420	1.421	1.568	1.474	1.441	1.581	1.484	4.89
41)	T	Methacrylonitrile	0.165	0.197	0.211	0.211	0.216	0.222	0.204	10.14
42)	TM	1,2-Dichloroet...	0.472	0.464	0.527	0.483	0.456	0.499	0.483	5.42
43)	T	Isopropyl Acetate	1.354	0.742	0.764	0.670	0.637	0.673	0.807	33.76
44)	TM	Trichloroethene	0.395	0.350	0.384	0.348	0.339	0.370	0.364	6.15
45)	C	1,2-Dichloropr...	0.339	0.344	0.385	0.357	0.347	0.377	0.358	5.25#
46)	T	Dibromomethane	0.242	0.245	0.265	0.256	0.243	0.266	0.253	4.42
47)	T	Bromodichlorom...	0.512	0.533	0.571	0.541	0.518	0.569	0.541	4.62
48)	T	Methyl methacr...	0.236	0.258	0.277	0.294	0.301	0.332	0.283	11.90
49)	T	1,4-Dioxane	0.005	0.005	0.006	0.005	0.006	0.005	0.005	5.54
50)	S	Toluene-d8		1.212	1.017	1.080	1.199	1.444	1.190	13.77
51)	T	4-Methyl-2-Pen...	0.290	0.342	0.392	0.388	0.379	0.414	0.367	12.11
52)	CM	Toluene	0.689	0.820	0.924	0.891	0.902	0.993	0.870	12.03#
53)	T	t-1,3-Dichloro...	0.408	0.471	0.518	0.505	0.521	0.576	0.500	11.31
54)	T	cis-1,3-Dichlo...	0.442	0.513	0.582	0.559	0.566	0.626	0.548	11.58
55)	T	1,1,2-Trichlor...	0.324	0.346	0.370	0.344	0.331	0.361	0.346	5.04
56)	T	Ethyl methacry...	0.264	0.382	0.448	0.457	0.497	0.557	0.434	23.32

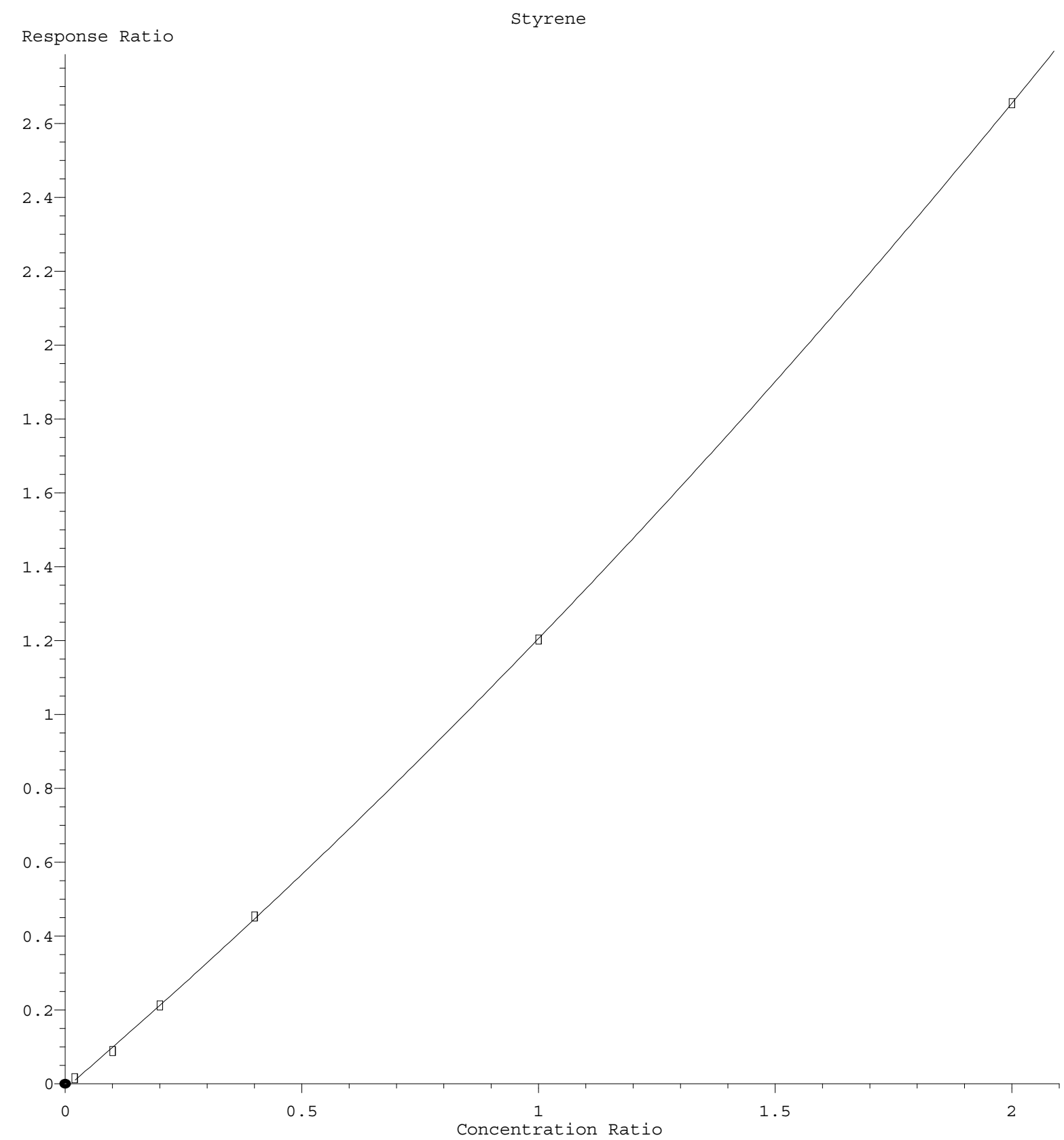
Method Path : Z:\voasrv\HPCHEM1\MSVOA_N\methods\
Method File : 82N021825W.M

57)	T	1,3-Dichloropr...	0.533	0.553	0.615	0.580	0.565	0.619	0.577	5.91
58)	T	2-Chloroethyl ...	0.133	0.176	0.170	0.249	0.174	0.266	0.195	26.24
59)	T	2-Hexanone	0.184	0.227	0.266	0.270	0.273	0.296	0.253	15.99
60)	T	Dibromochlorom...	0.355	0.384	0.431	0.405	0.402	0.440	0.403	7.70
61)	T	1,2-Dibromoethane	0.273	0.320	0.362	0.330	0.322	0.354	0.327	9.68
62)	S	4-Bromofluorob...		0.370	0.323	0.346	0.419	0.503	0.392	18.22
63)	I	Chlorobenzene-d5	----------ISTD----------							
64)	T	Tetrachloroethene	0.393	0.391	0.420	0.375	0.361	0.384	0.387	5.17
65)	PM	Chlorobenzene	1.109	1.139	1.212	1.119	1.110	1.183	1.145	3.75
66)	T	1,1,1,2-Tetrac...	0.408	0.402	0.444	0.401	0.395	0.420	0.412	4.31
67)	C	Ethyl Benzene	1.424	1.665	1.830	1.838	1.904	2.105	1.794	12.85#
68)	T	m/p-Xylenes	0.481	0.610	0.725	0.722	0.741	0.809	0.682	17.19
69)	T	o-Xylene	0.502	0.584	0.666	0.659	0.704	0.771	0.648	14.48
70)	T	Styrene	0.744	0.885	1.060	1.133	1.203	1.327	1.059	20.15
71)	P	Bromoform	0.274	0.301	0.322	0.309	0.303	0.327	0.306	6.20
72)	I	1,4-Dichlorobenzen...	----------ISTD----------							
73)	T	Isopropylbenzene	2.933	3.067	3.623	3.484	3.596	3.851	3.425	10.31
74)	T	N-amyl acetate	1.072	1.117	1.263	1.245	1.241	1.311	1.208	7.67
75)	P	1,1,2,2-Tetrac...	1.271	1.218	1.304	1.154	1.053	1.073	1.179	8.77
76)	T	1,2,3-Trichlor...	1.324	1.161	1.145	1.122	0.947	0.964	1.111	12.59
77)	T	Bromobenzene	0.862	0.905	1.024	0.908	0.904	0.950	0.925	6.01
78)	T	n-propylbenzene	3.031	3.463	4.126	4.090	4.256	4.572	3.923	14.46
79)	T	2-Chlorotoluene	2.385	2.425	2.842	2.681	2.616	2.779	2.621	7.07
80)	T	1,3,5-Trimethy...	2.032	2.418	2.989	3.004	3.056	3.243	2.790	16.62
81)	T	trans-1,4-Dich...		0.339	0.392	0.367	0.397	0.409	0.381	7.38
82)	T	4-Chlorotoluene	2.201	2.437	2.837	2.643	2.658	2.815	2.598	9.32
83)	T	tert-Butylbenzene	1.802	2.119	2.432	2.421	2.578	2.727	2.346	14.27
84)	T	1,2,4-Trimethy...	1.838	2.387	2.937	3.018	3.078	3.306	2.761	19.75
85)	T	sec-Butylbenzene	2.486	2.938	3.534	3.417	3.653	3.864	3.315	15.40
86)	T	p-Isopropyltol...	1.779	2.288	2.776	2.804	3.045	3.299	2.665	20.58
87)	T	1,3-Dichlorobe...	1.748	1.697	1.876	1.675	1.635	1.772	1.734	4.93
88)	T	1,4-Dichlorobe...	1.921	1.777	1.884	1.684	1.647	1.750	1.777	6.08
89)	T	n-Butylbenzene	2.102	2.032	2.338	2.271	2.551	2.829	2.354	12.58
90)	T	Hexachloroethane	0.707	0.629	0.635	0.589	0.587	0.620	0.628	6.99
91)	T	1,2-Dichlorobe...	1.744	1.642	1.768	1.617	1.574	1.660	1.667	4.48
92)	T	1,2-Dibromo-3-...	0.256	0.222	0.238	0.191	0.193	0.198	0.216	12.42
93)	T	1,2,4-Trichlor...	0.829	0.728	0.827	0.704	0.802	0.877	0.794	8.31
94)	T	Hexachlorobuta...	0.649	0.481	0.503	0.405	0.424	0.435	0.483	18.51
95)	T	Naphthalene	2.397	1.858	2.160	1.821	2.324	2.527	2.181	13.31
96)	T	1,2,3-Trichlor...	0.917	0.736	0.844	0.675	0.789	0.825	0.798	10.65

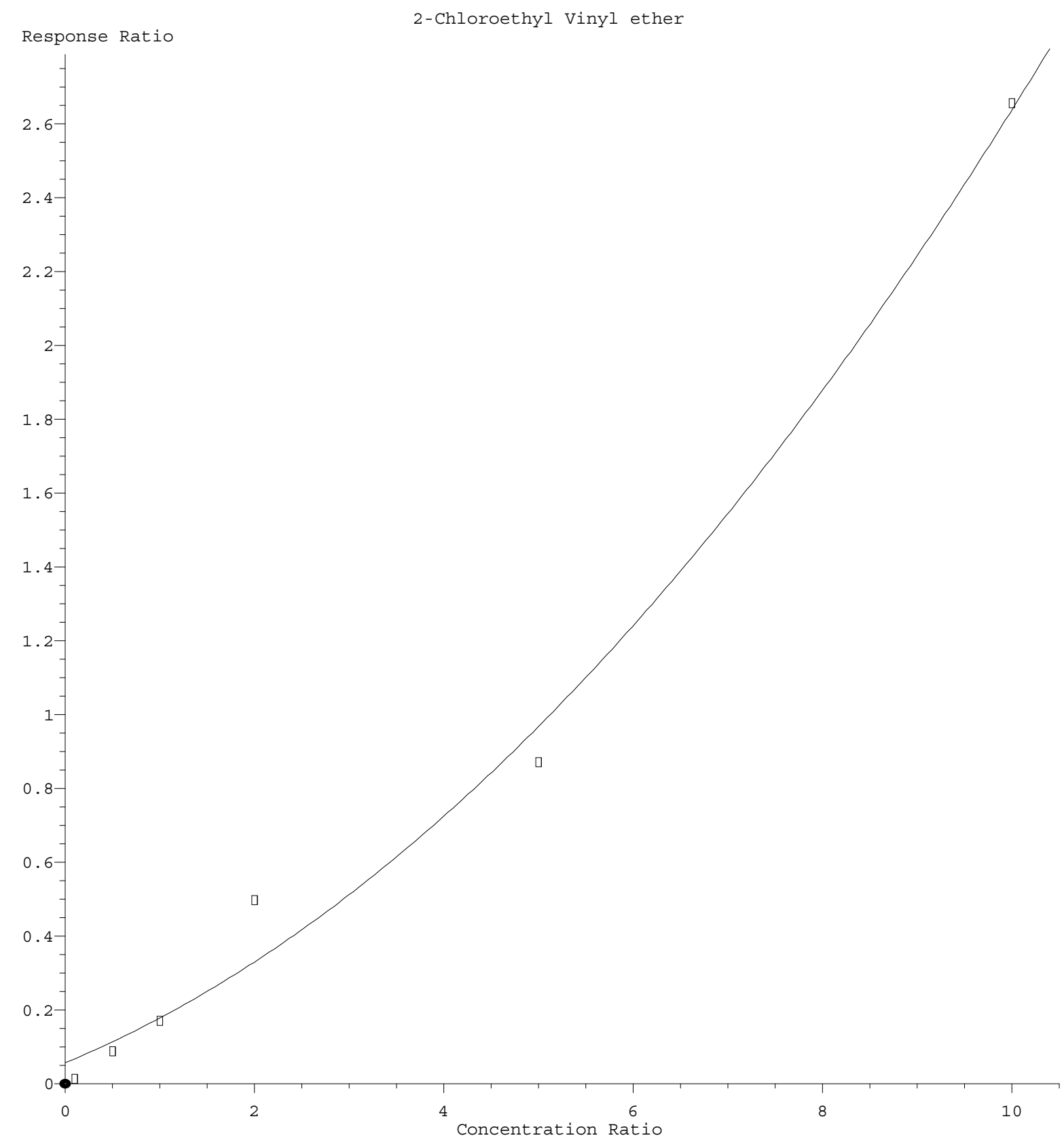
(#) = Out of Range



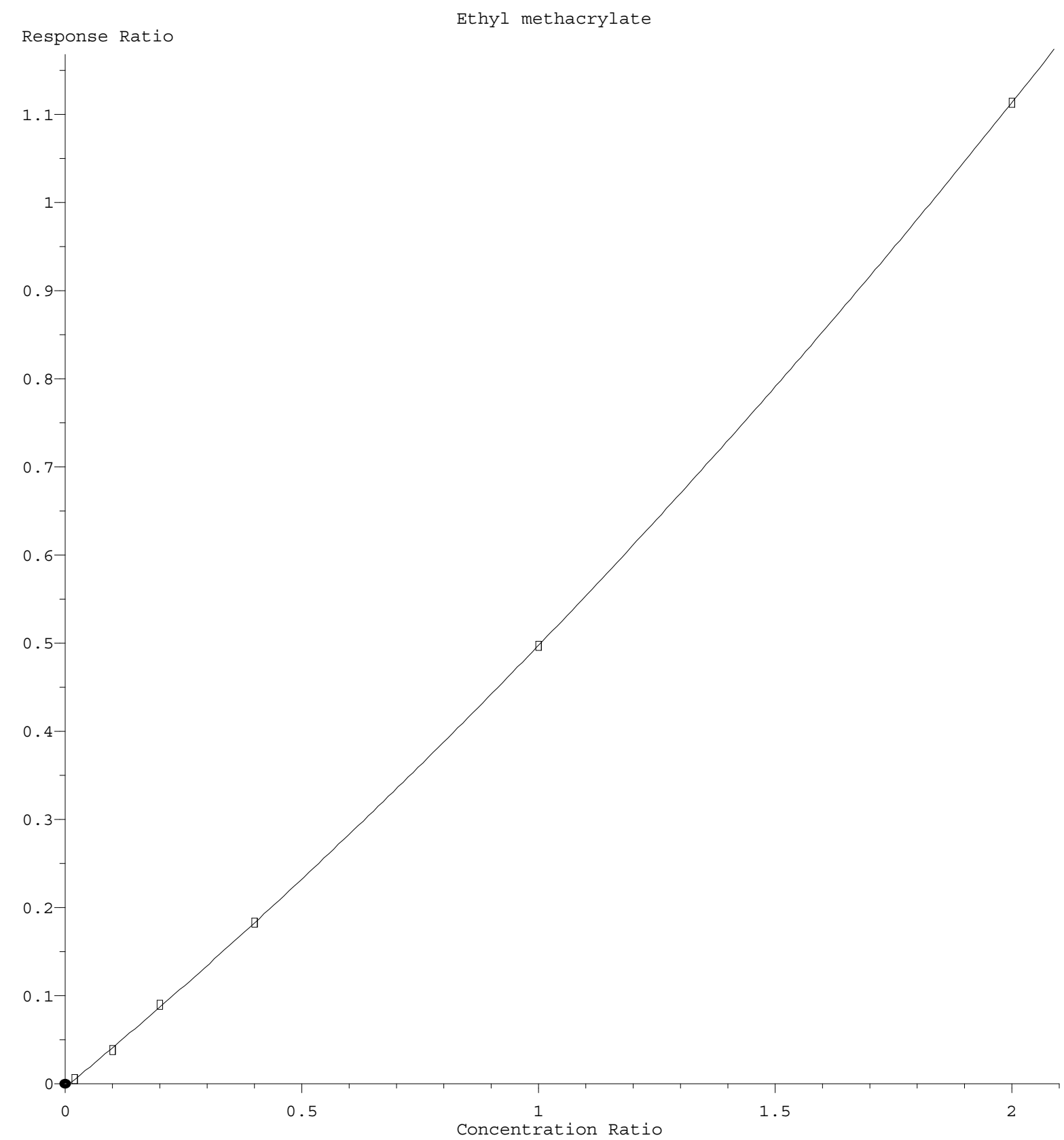
R = 2.438e-001 A*A + 2.829e+000 A - 3.541e-002
Coef of Det (r^2) = 0.999965 Curve Fit: Quadratic
Method Name: Z:\voasrv\HPCHEM1\MSVOA N\methods\82N021825W.M
Calibration Table Last Updated: Wed Feb 19 03:43:32 2025



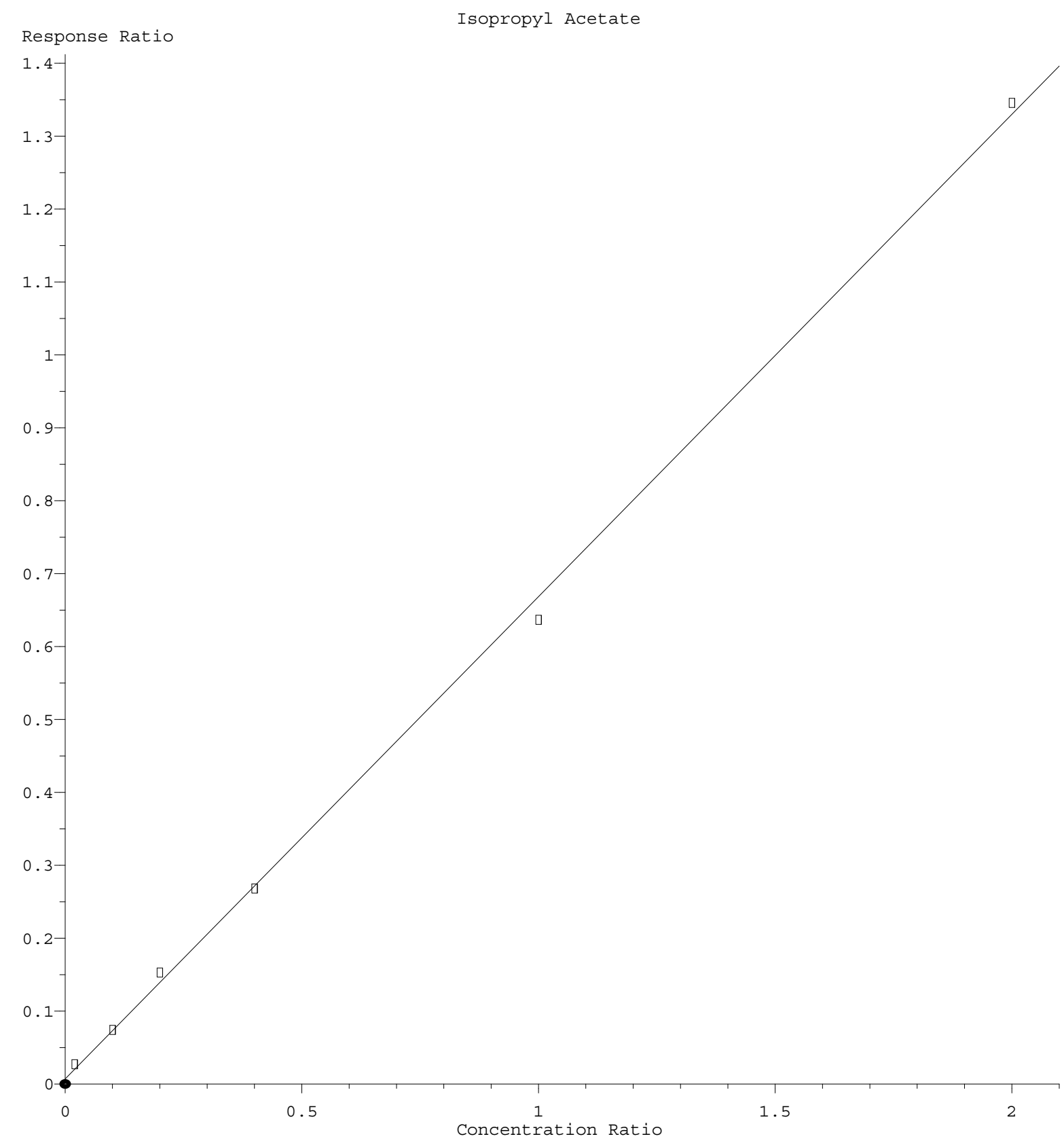
R = 1.156e-001 A*A + 1.102e+000 A - 1.290e-002
Coef of Det (r^2) = 0.999965 Curve Fit: Quadratic
Method Name: Z:\voasrv\HPCHEM1\MSVOA N\methods\82N021825W.M
Calibration Table Last Updated: Wed Feb 19 03:43:32 2025



R = 1.518e-002 A*A + 1.064e-001 A + 5.673e-002
Coef of Det (r^2) = 0.991781 Curve Fit: Quadratic
Method Name: Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Calibration Table Last Updated: Wed Feb 19 03:43:32 2025



R = 5.718e-002 A*A + 4.442e-001 A - 4.090e-003
Coef of Det (r^2) = 0.999984 Curve Fit: Quadratic
Method Name: Z:\voasrv\HPCHEM1\MSVOA N\methods\82N021825W.M
Calibration Table Last Updated: Wed Feb 19 03:43:32 2025



Response = 6.614e-001 * Amt + 7.307e-003
Coef of Det (r^2) = 0.998821 Curve Fit: Linear
Method Name: Z:\voasrv\HPCHEM1\MSVOA N\methods\82N021825W.M
Calibration Table Last Updated: Wed Feb 19 03:43:32 2025

Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN021825\
Data File : VN085772.D
Acq On : 18 Feb 2025 11:09
Operator : JC\MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 19 03:15:39 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:03:15 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.218	168	290979	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.094	114	458183	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.859	117	412615	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.788	152	208401	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.571	65	406028	107.630	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 215.260%#			
35) Dibromofluoromethane	8.159	113	343729	114.648	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 229.300%#			
50) Toluene-d8	10.559	98	1323681	121.348	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 242.700%#			
62) 4-Bromofluorobenzene	12.841	95	460996	128.269	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 256.540%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.124	85	403621	101.979	ug/l	99
3) Chloromethane	2.359	50	376343	94.759	ug/l	99
4) Vinyl Chloride	2.512	62	406434	96.652	ug/l	100
5) Bromomethane	2.948	94	252576	93.935	ug/l	99
6) Chloroethane	3.118	64	260404	93.490	ug/l	97
7) Trichlorofluoromethane	3.495	101	587970	96.574	ug/l	98
8) Diethyl Ether	3.959	74	199406	101.225	ug/l	98
9) 1,1,2-Trichlorotrifluo...	4.365	101	350536	99.604	ug/l	98
10) Methyl Iodide	4.583	142	444531	102.472	ug/l	98
11) Tert butyl alcohol	5.506	59	210616	453.930	ug/l	100
12) 1,1-Dichloroethene	4.336	96	323037	101.234	ug/l	96
13) Acrolein	4.171	56	337091	489.916	ug/l	98
14) Allyl chloride	5.018	41	434760	103.773	ug/l	97
15) Acrylonitrile	5.706	53	761272	504.697	ug/l	99
16) Acetone	4.418	43	567220	475.190	ug/l	99
17) Carbon Disulfide	4.706	76	910987	96.328	ug/l	99
18) Methyl Acetate	5.012	43	379901	92.531	ug/l	99
19) Methyl tert-butyl Ether	5.783	73	1016766	107.229	ug/l	100
20) Methylene Chloride	5.271	84	365222	95.142	ug/l	98
21) trans-1,2-Dichloroethene	5.783	96	340161	99.001	ug/l	96
22) Diisopropyl ether	6.665	45	1015041	107.223	ug/l	99
23) Vinyl Acetate	6.594	43	3542783	548.253	ug/l	100
24) 1,1-Dichloroethane	6.565	63	638203	99.172	ug/l	98
25) 2-Butanone	7.471	43	896027	510.235	ug/l	100
26) 2,2-Dichloropropane	7.483	77	572429	100.033	ug/l	99
27) cis-1,2-Dichloroethene	7.477	96	410066	102.929	ug/l	99
28) Bromochloromethane	7.806	49	280092	105.895	ug/l	97
29) Tetrahydrofuran	7.830	42	599504	528.664	ug/l	100
30) Chloroform	7.959	83	651761	96.914	ug/l	99
31) Cyclohexane	8.253	56	511031	94.843	ug/l	98
32) 1,1,1-Trichloroethane	8.165	97	589206	98.502	ug/l	98
36) 1,1-Dichloropropene	8.365	75	466531	109.949	ug/l	99
37) Ethyl Acetate	7.553	43	366887	105.069	ug/l	99
38) Carbon Tetrachloride	8.353	117	524870	104.105	ug/l	98
39) Methylcyclohexane	9.594	83	513492	123.184	ug/l	98
40) Benzene	8.600	78	1448660	106.522	ug/l	99

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN021825\
Data File : VN085772.D
Acq On : 18 Feb 2025 11:09
Operator : JC\MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Feb 19 03:15:39 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:03:15 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
41) Methacrylonitrile	7.771	41	203689	109.119 ug/l		95
42) 1,2-Dichloroethane	8.665	62	457707	103.326 ug/l		100
43) Isopropyl Acetate	8.683	43	616521	101.163 ug/l		98
44) Trichloroethene	9.347	130	339019	101.529 ug/l		100
45) 1,2-Dichloropropane	9.618	63	345721	105.316 ug/l		99
46) Dibromomethane	9.700	93	243628	105.216 ug/l		100
47) Bromodichloromethane	9.883	83	521496	105.269 ug/l		99
48) Methyl methacrylate	9.677	41	304067	117.252 ug/l		100
49) 1,4-Dioxane	9.688	88	100443	2036.793 ug/l		98
51) 4-Methyl-2-Pentanone	10.441	43	1896777	563.403 ug/l		100
52) Toluene	10.624	92	910251	114.182 ug/l		100
53) t-1,3-Dichloropropene	10.829	75	527815	115.223 ug/l		99
54) cis-1,3-Dichloropropene	10.306	75	573653	114.202 ug/l		99
55) 1,1,2-Trichloroethane	11.012	97	330642	104.317 ug/l		99
56) Ethyl methacrylate	10.871	69	510041	100.007 ug/l		100
57) 1,3-Dichloropropane	11.159	76	567039	107.169 ug/l		100
58) 2-Chloroethyl Vinyl ether	10.153	63	1216927	502.158 ug/l		99
59) 2-Hexanone	11.188	43	1358126	586.394 ug/l		99
60) Dibromochloromethane	11.353	129	402920	109.169 ug/l		99
61) 1,2-Dibromoethane	11.465	107	324747	108.439 ug/l		99
64) Tetrachloroethene	11.100	164	316658	99.063 ug/l		97
65) Chlorobenzene	11.888	112	976337	103.290 ug/l		98
66) 1,1,1,2-Tetrachloroethane	11.959	131	346777	102.068 ug/l		100
67) Ethyl Benzene	11.959	91	1736848	117.301 ug/l		100
68) m/p-Xylenes	12.065	106	1335750	237.496 ug/l		99
69) o-Xylene	12.394	106	635879	118.977 ug/l		99
70) Styrene	12.406	104	1095464	100.012 ug/l		100
71) Bromoform	12.576	173	269816	106.877 ug/l	#	98
73) Isopropylbenzene	12.688	105	1605096	112.422 ug/l		100
74) N-amyl acetate	12.488	43	546485	108.541 ug/l		99
75) 1,1,2,2-Tetrachloroethane	12.935	83	447332	91.050 ug/l		100
76) 1,2,3-Trichloropropane	12.988	75	401864m	87.774 ug/l		
77) Bromobenzene	12.976	156	395882	102.631 ug/l		100
78) n-propylbenzene	13.029	91	1905758	116.552 ug/l		100
79) 2-Chlorotoluene	13.118	91	1158348	106.029 ug/l		100
80) 1,3,5-Trimethylbenzene	13.171	105	1351753	116.226 ug/l		100
81) trans-1,4-Dichloro-2-b...	12.735	75	170494	107.459 ug/l		96
82) 4-Chlorotoluene	13.218	91	1173182	108.322 ug/l		99
83) tert-Butylbenzene	13.435	119	1136802	116.235 ug/l		100
84) 1,2,4-Trimethylbenzene	13.476	105	1378080	119.764 ug/l		100
85) sec-Butylbenzene	13.612	105	1610382	116.540 ug/l		100
86) p-Isopropyltoluene	13.723	119	1374884	99.983 ug/l		100
87) 1,3-Dichlorobenzene	13.729	146	738679	102.213 ug/l		99
88) 1,4-Dichlorobenzene	13.806	146	729470	98.484 ug/l		99
89) n-Butylbenzene	14.053	91	1179057	120.179 ug/l		99
90) Hexachloroethane	14.329	117	258559	98.800 ug/l		97
91) 1,2-Dichlorobenzene	14.100	146	691905	99.562 ug/l		99
92) 1,2-Dibromo-3-Chloropr...	14.717	75	82545	91.495 ug/l		97
93) 1,2,4-Trichlorobenzene	15.388	180	365599	110.404 ug/l		99
94) Hexachlorobutadiene	15.494	225	181264	90.068 ug/l		98
95) Naphthalene	15.635	128	1053414	115.870 ug/l		100
96) 1,2,3-Trichlorobenzene	15.835	180	343936	103.456 ug/l		99

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN021825\
Data File : VN085772.D
Acq On : 18 Feb 2025 11:09
Operator : JC\MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

Quant Time: Feb 19 03:15:39 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:03:15 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

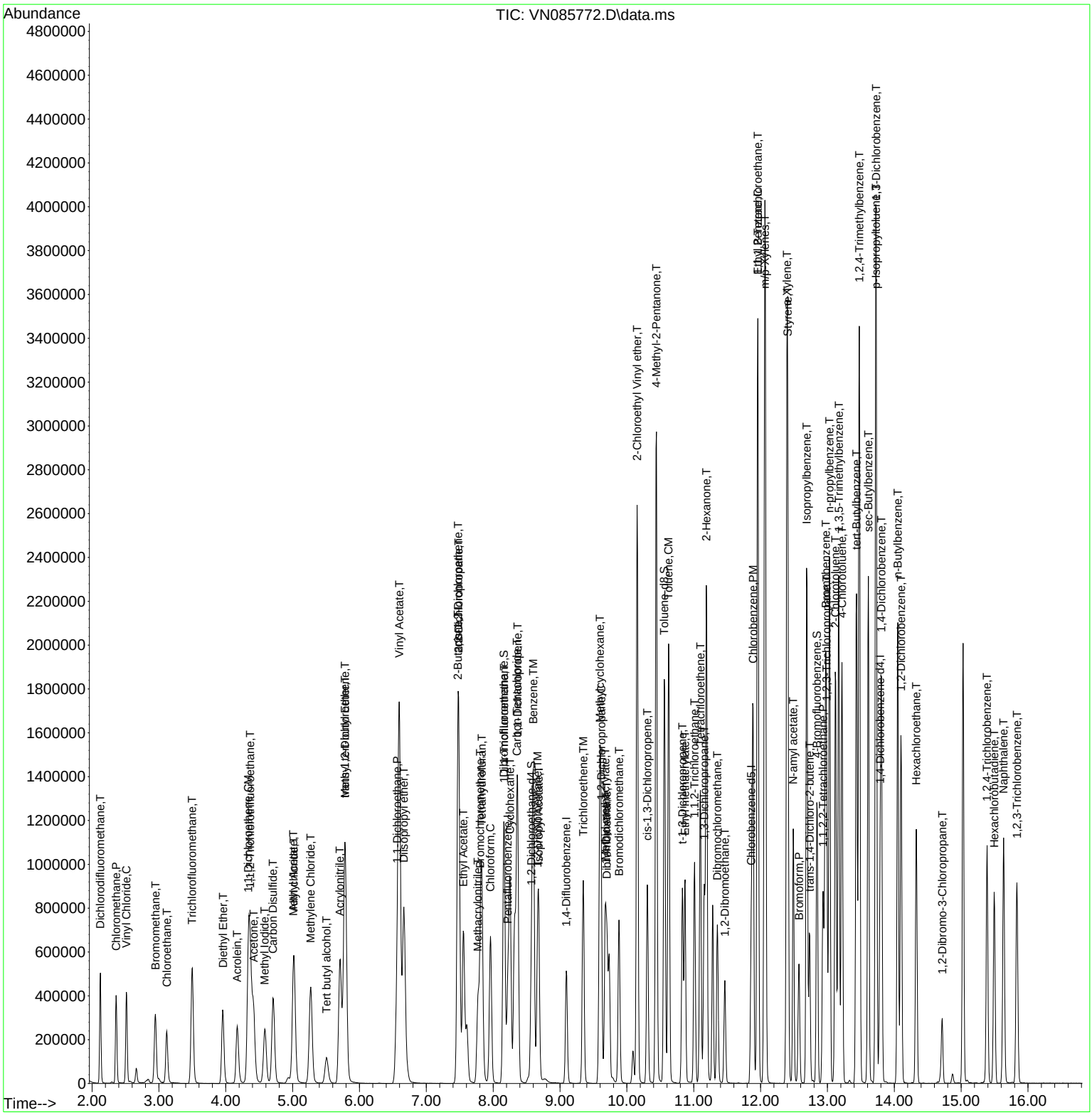
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN021825\
Data File : VN085772.D
Acq On : 18 Feb 2025 11:09
Operator : JC\MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

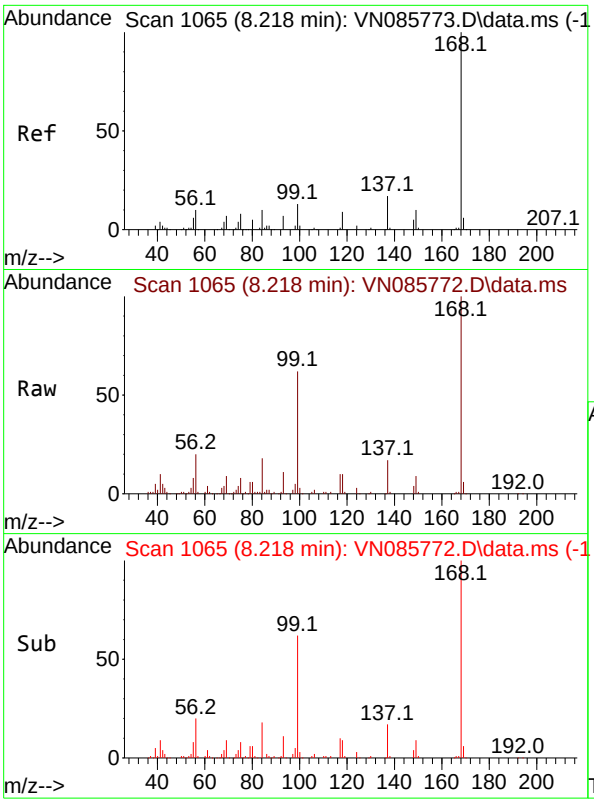
Quant Time: Feb 19 03:15:39 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:03:15 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025





#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.218 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

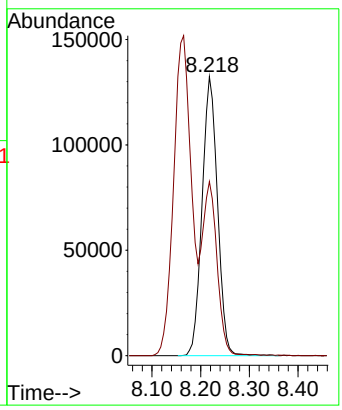
Tgt Ion:168 Resp: 29097

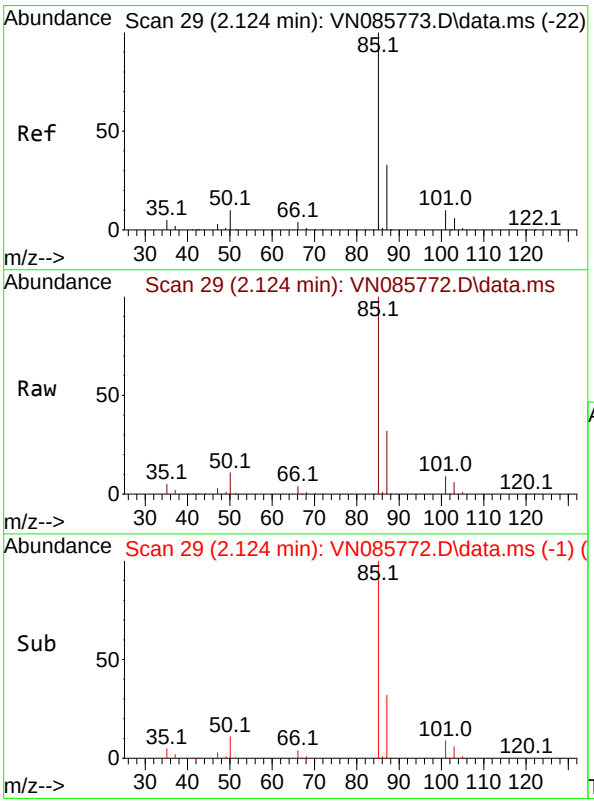
Ion	Ratio	Lower	Upper
168	100		
99	62.1	47.9	71.9

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

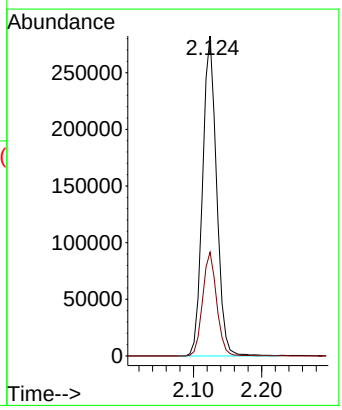


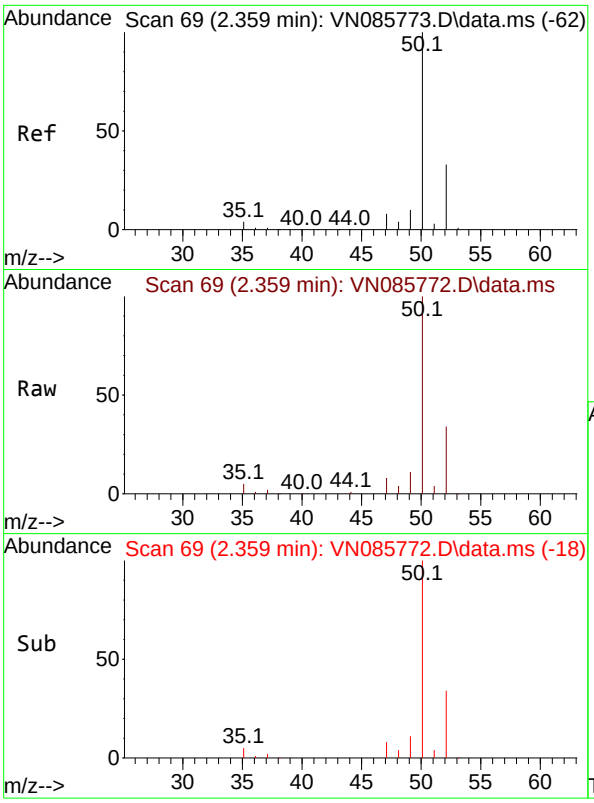


#2
Dichlorodifluoromethane
Concen: 101.979 ug/l
RT: 2.124 min Scan# 29
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 85 Resp: 403621

Ion	Ratio	Lower	Upper
85	100		
87	32.5	16.4	49.2

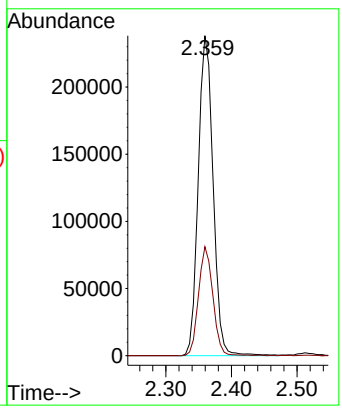




#3
Chloromethane
Concen: 94.759 ug/l
RT: 2.359 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 50 Resp: 37634

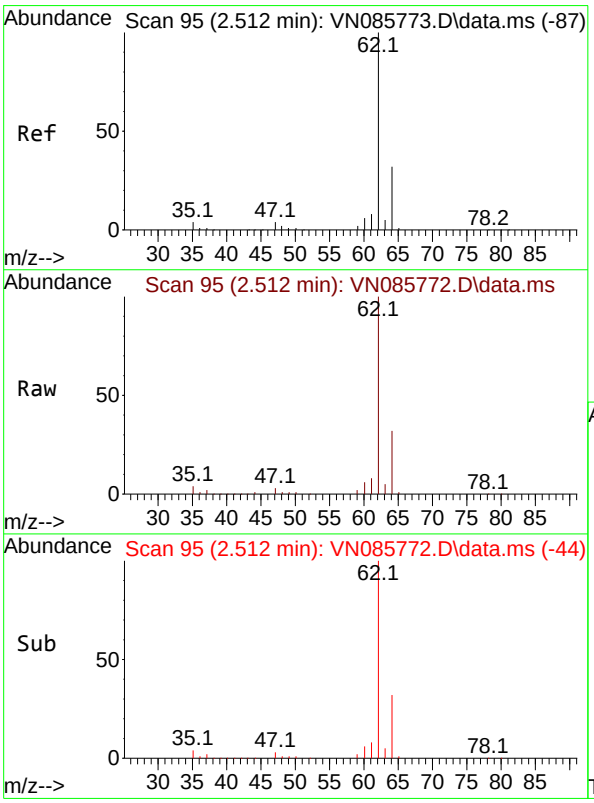
Ion	Ratio	Lower	Upper
50	100		
52	34.0	26.7	40.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

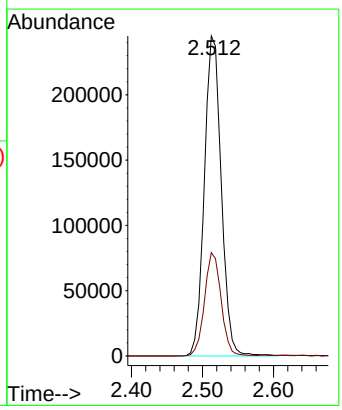
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

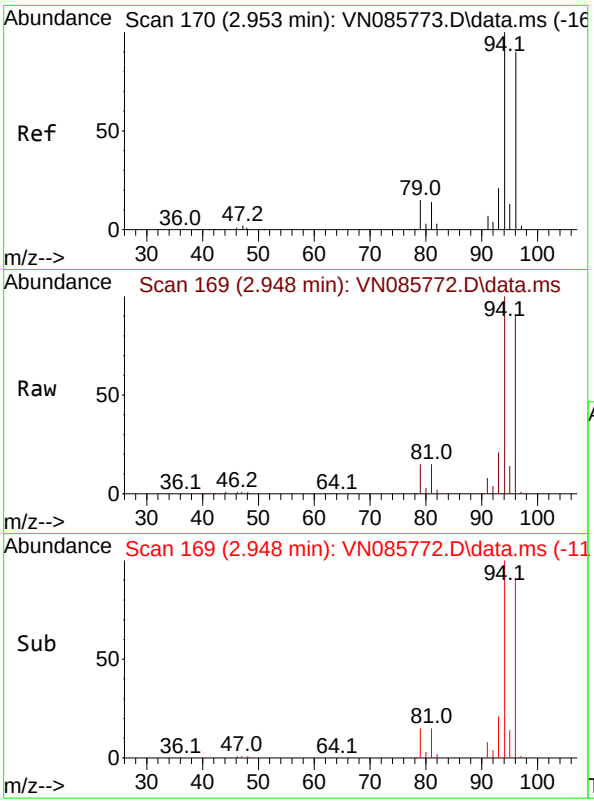


#4
Vinyl Chloride
Concen: 96.652 ug/l
RT: 2.512 min Scan# 95
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 62 Resp: 406434

Ion	Ratio	Lower	Upper
62	100		
64	32.3	25.9	38.9

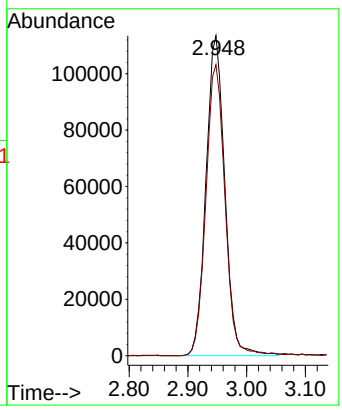




#5
Bromomethane
Concen: 93.935 ug/l
RT: 2.948 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 94 Resp: 25257

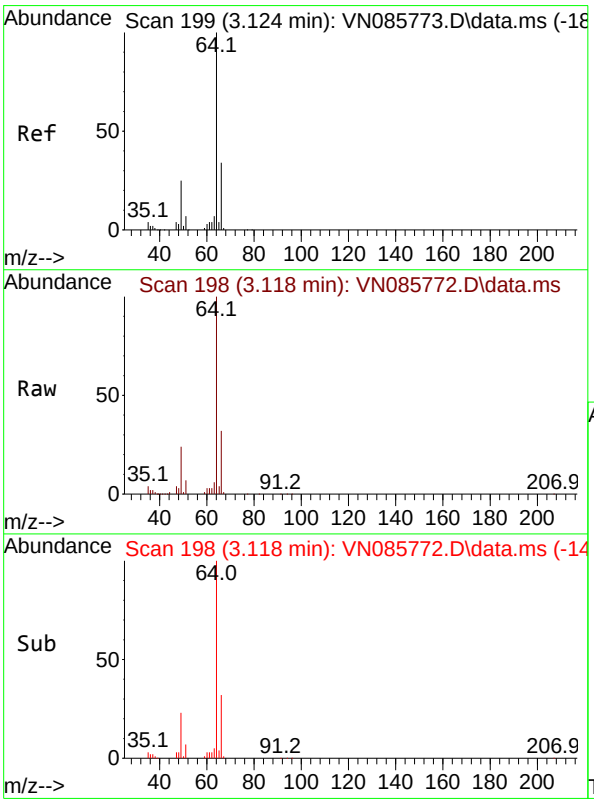
Ion	Ratio	Lower	Upper
94	100		
96	91.0	71.7	107.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

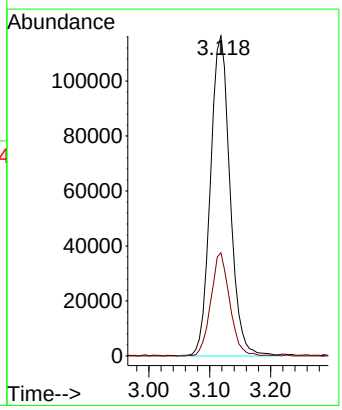
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

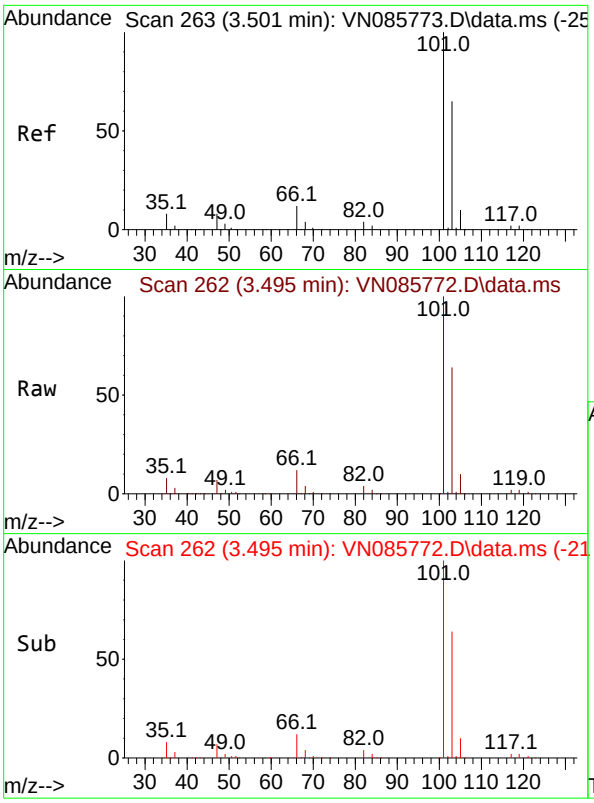


#6
Chloroethane
Concen: 93.490 ug/l
RT: 3.118 min Scan# 198
Delta R.T. -0.006 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 64 Resp: 260404

Ion	Ratio	Lower	Upper
64	100		
66	32.2	27.0	40.6





#7
Trichlorofluoromethane
Concen: 96.574 ug/l
RT: 3.495 min Scan# 2(
Delta R.T. -0.006 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

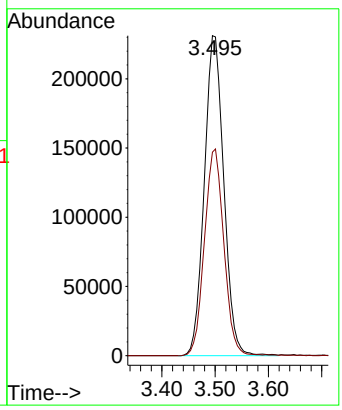
Tgt Ion:101 Resp: 58797(

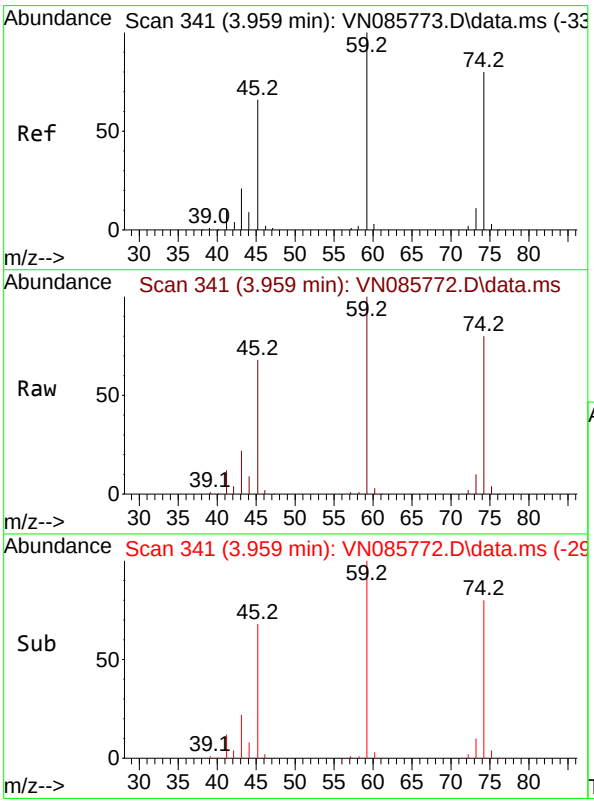
Ion	Ratio	Lower	Upper
101	100		
103	63.6	52.2	78.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

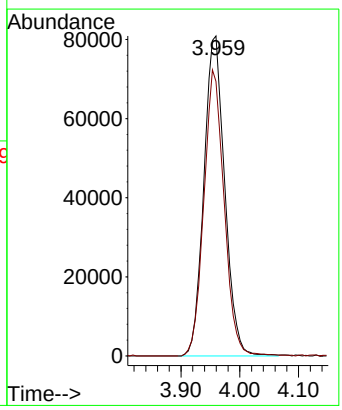


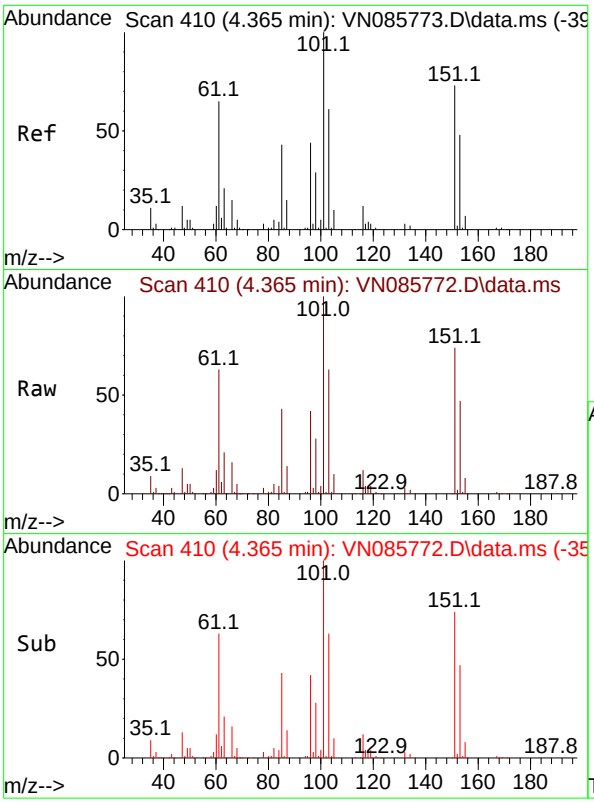


#8
Diethyl Ether
Concen: 101.225 ug/l
RT: 3.959 min Scan# 341
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 74 Resp: 199406

Ion	Ratio	Lower	Upper
74	100		
45	87.3	42.5	127.6





#9
1,1,2-Trichlorotrifluoroethane
Concen: 99.604 ug/l
RT: 4.365 min Scan# 4
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

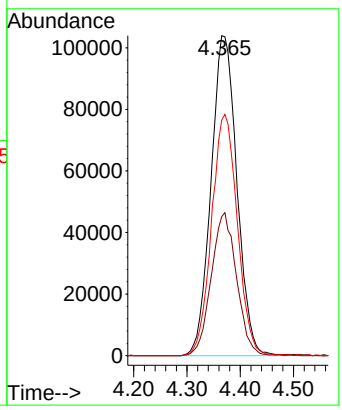
Tgt Ion:101 Resp: 35053

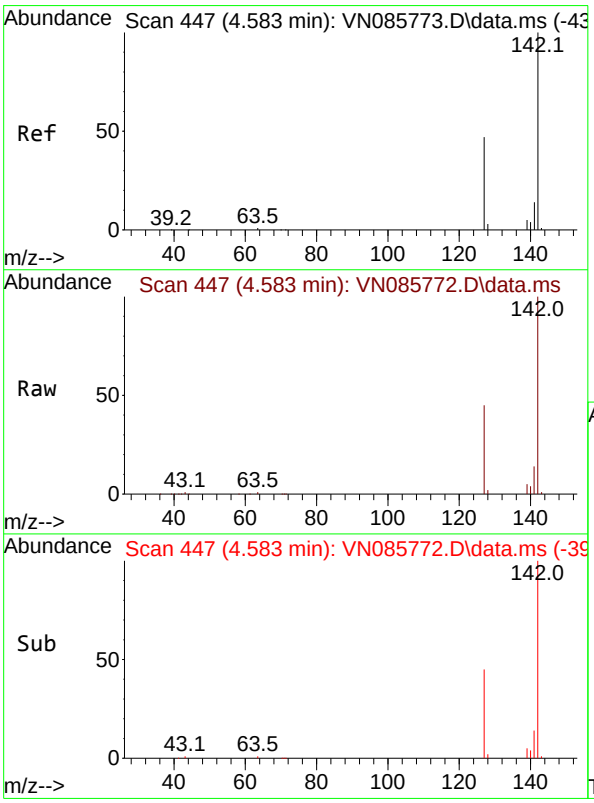
Ion	Ratio	Lower	Upper
101	100		
85	43.7	35.7	53.5
151	75.0	61.4	92.2

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

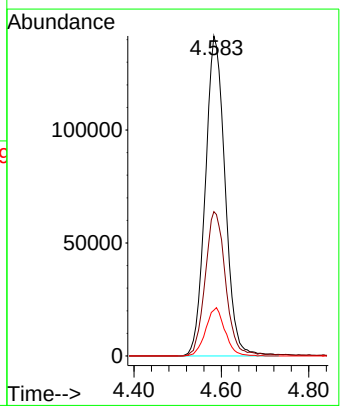


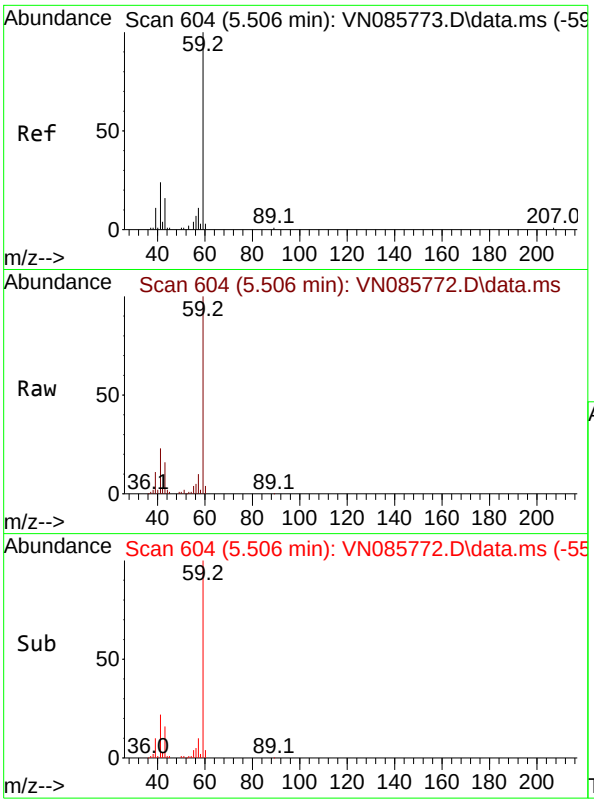


#10
Methyl Iodide
Concen: 102.472 ug/l
RT: 4.583 min Scan# 447
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion:142 Resp: 444531

Ion	Ratio	Lower	Upper
142	100		
127	45.1	37.6	56.4
141	14.3	11.4	17.2

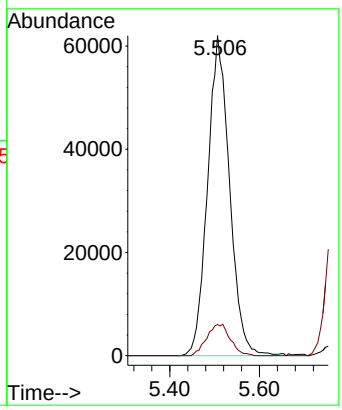




#11
Tert butyl alcohol
Concen: 453.930 ug/l
RT: 5.506 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 59 Resp: 21061

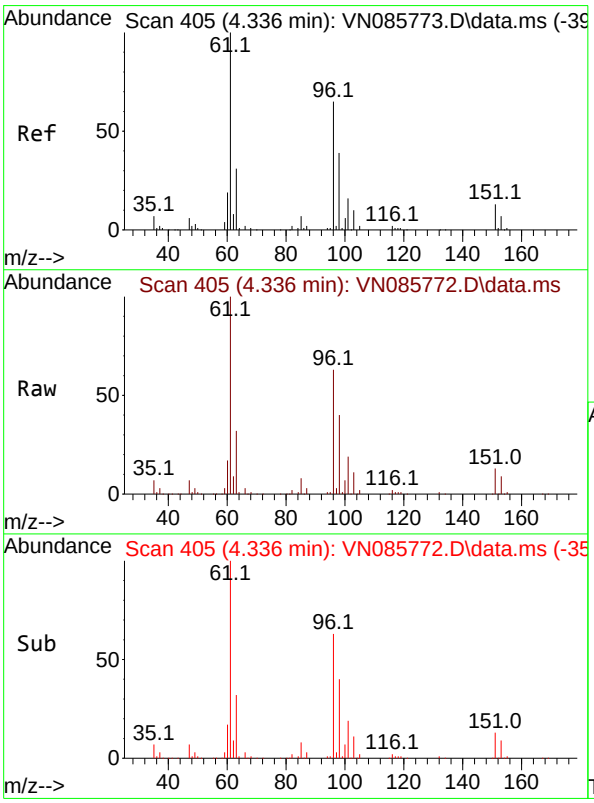
Ion	Ratio	Lower	Upper
59	100		
57	10.5	8.3	12.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

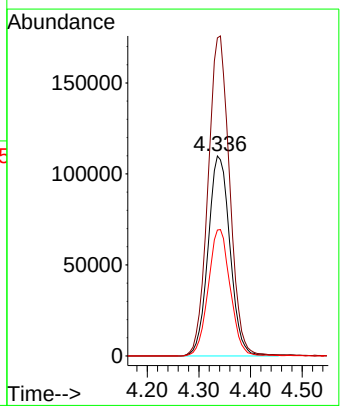
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

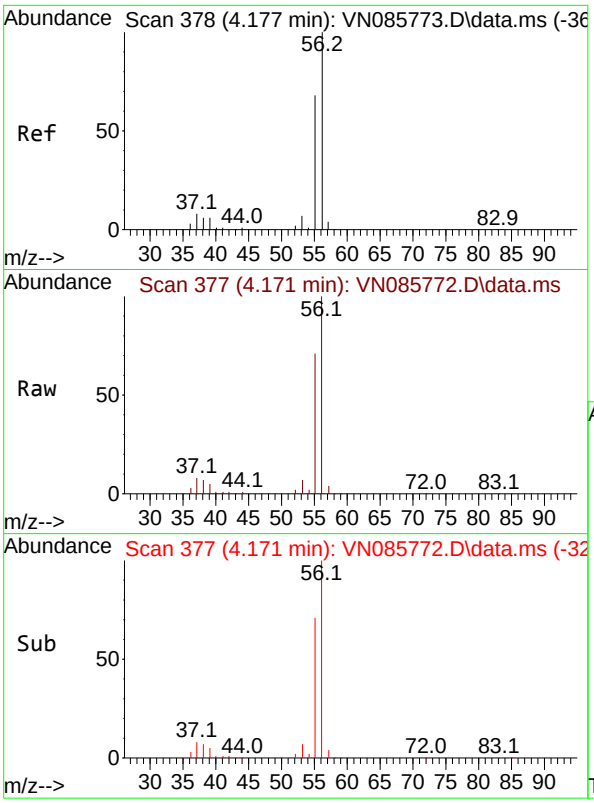


#12
1,1-Dichloroethene
Concen: 101.234 ug/l
RT: 4.336 min Scan# 405
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 96 Resp: 323037

Ion	Ratio	Lower	Upper
96	100		
61	159.1	123.3	184.9
98	63.0	48.6	72.8

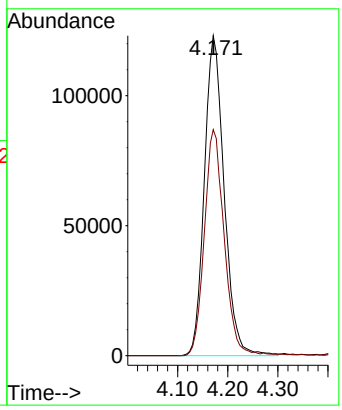




#13
Acrolein
Concen: 489.916 ug/l
RT: 4.171 min Scan# 3
Delta R.T. -0.006 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 56 Resp: 33709

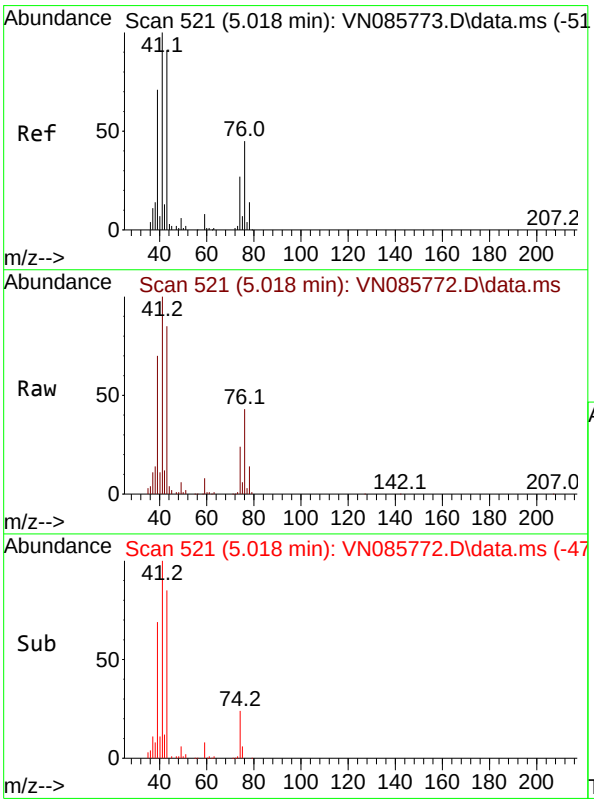
Ion	Ratio	Lower	Upper
56	100		
55	70.5	55.3	82.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

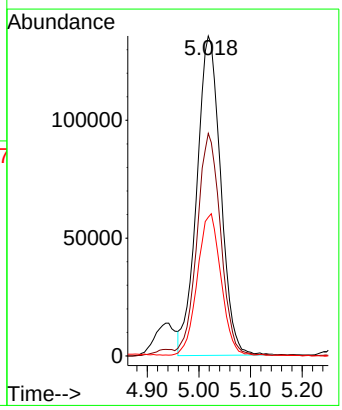
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

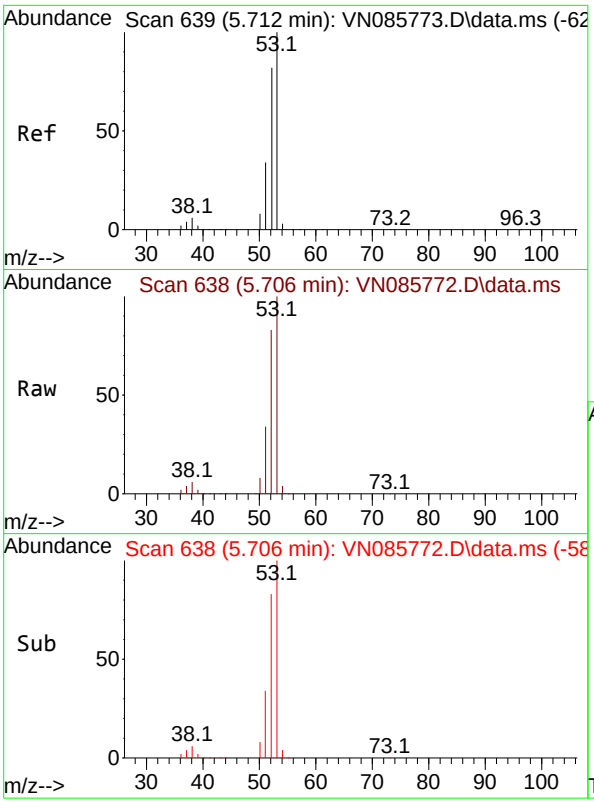


#14
Allyl chloride
Concen: 103.773 ug/l
RT: 5.018 min Scan# 521
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 41 Resp: 434760

Ion	Ratio	Lower	Upper
41	100		
39	68.8	57.4	86.2
76	43.6	36.2	54.2

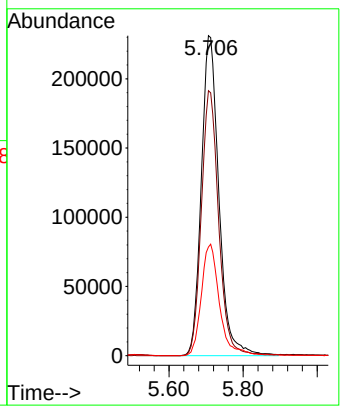




#15
Acrylonitrile
Concen: 504.697 ug/l
RT: 5.706 min Scan# 6
Delta R.T. -0.006 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 53 Resp: 76127

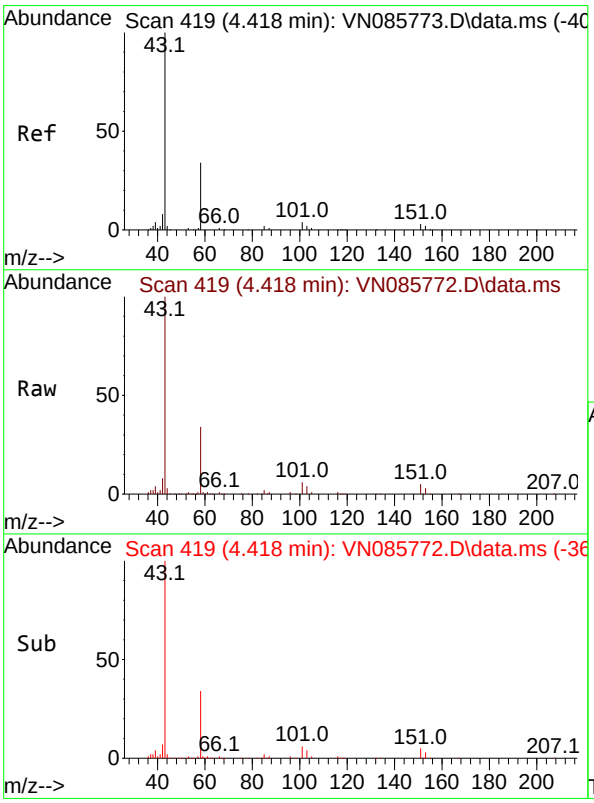
Ion	Ratio	Lower	Upper
53	100		
52	81.8	65.8	98.6
51	36.1	28.6	42.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

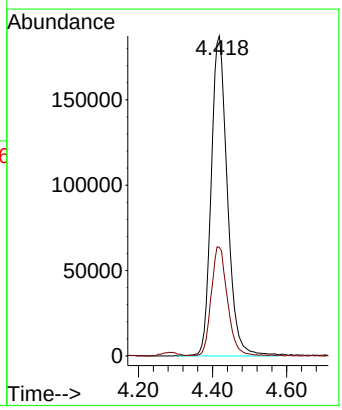
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

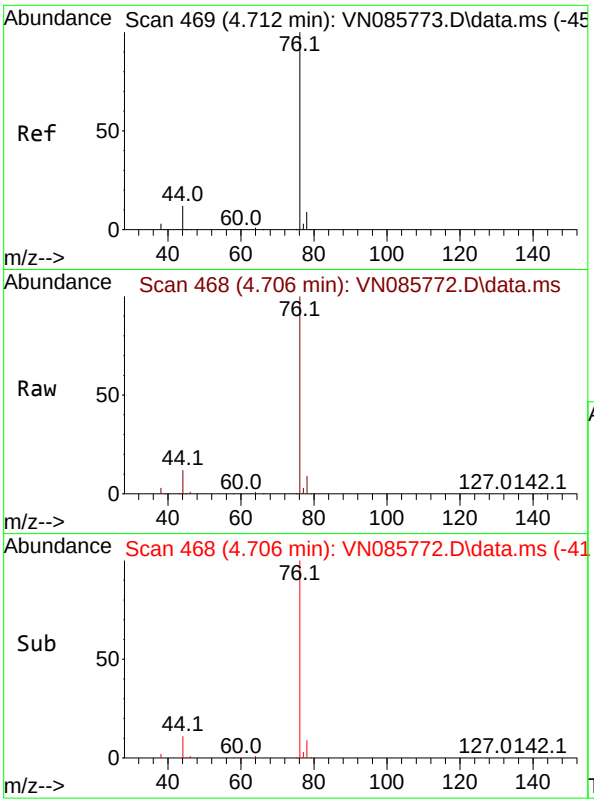


#16
Acetone
Concen: 475.190 ug/l
RT: 4.418 min Scan# 419
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 43 Resp: 567220

Ion	Ratio	Lower	Upper
43	100		
58	33.7	27.5	41.3





#17
Carbon Disulfide
Concen: 96.328 ug/l
RT: 4.706 min Scan# 4
Delta R.T. -0.006 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

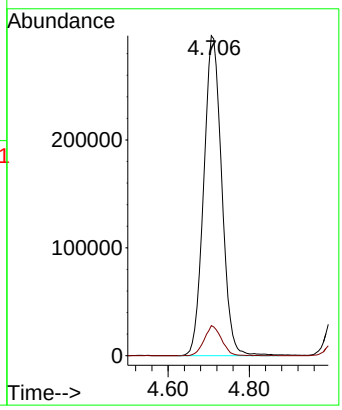
Tgt Ion: 76 Resp: 91098

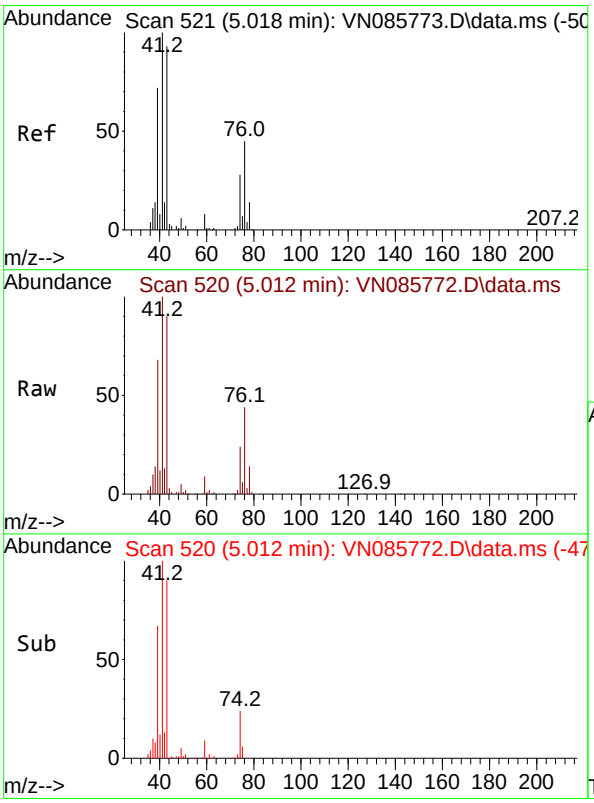
Ion	Ratio	Lower	Upper
76	100		
78	9.4	7.4	11.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

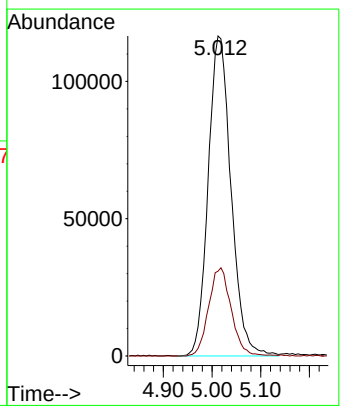


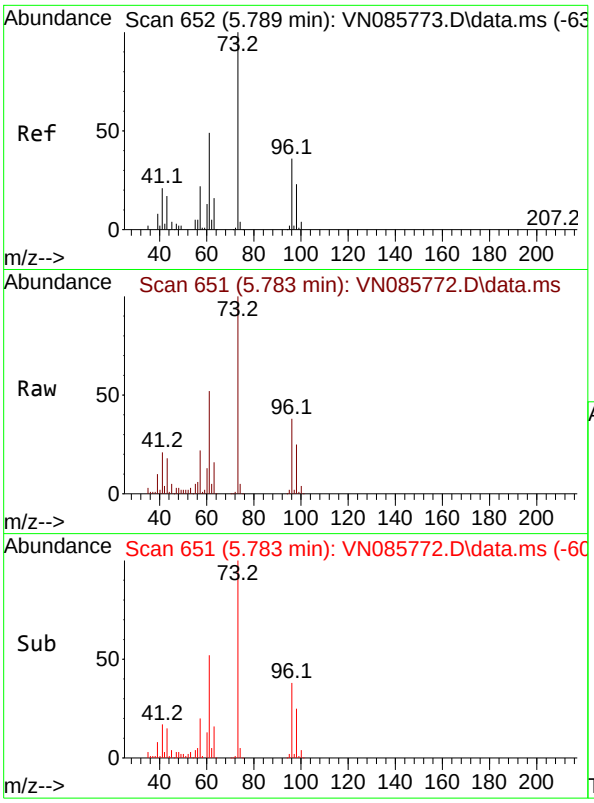


#18
Methyl Acetate
Concen: 92.531 ug/l
RT: 5.012 min Scan# 520
Delta R.T. -0.006 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 43 Resp: 379901

Ion	Ratio	Lower	Upper
43	100		
74	27.2	22.2	33.4

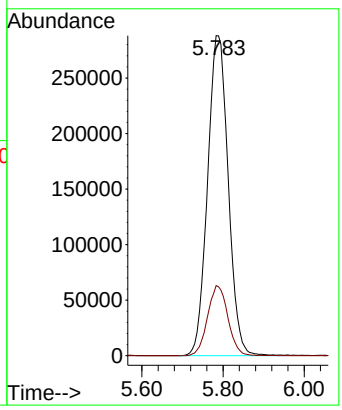




#19
Methyl tert-butyl Ether
Concen: 107.229 ug/l
RT: 5.783 min Scan# 6
Delta R.T. -0.006 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 73 Resp: 101676

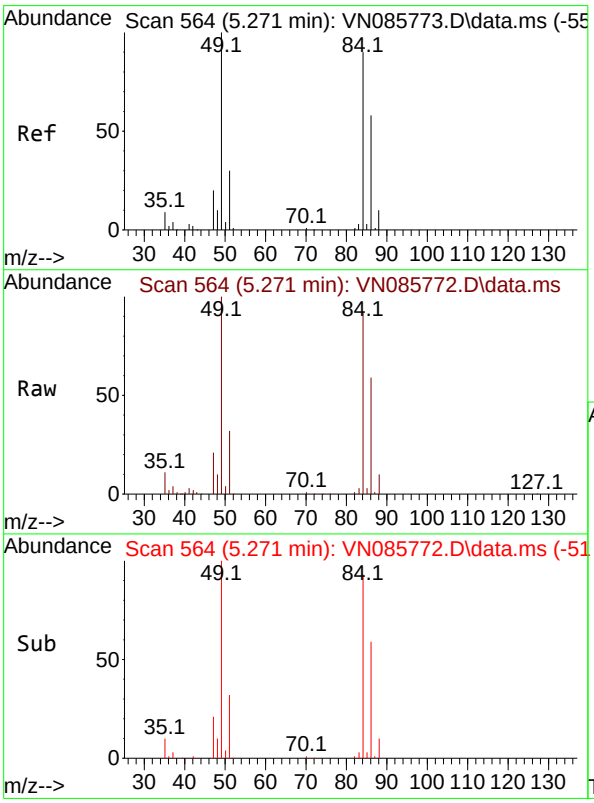
Ion	Ratio	Lower	Upper
73	100		
57	21.9	17.6	26.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

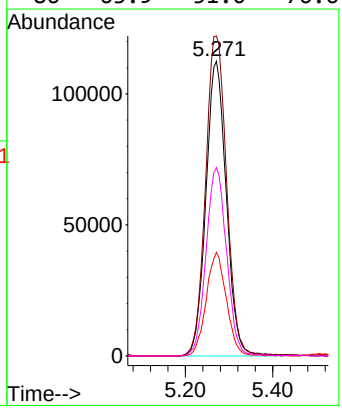
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

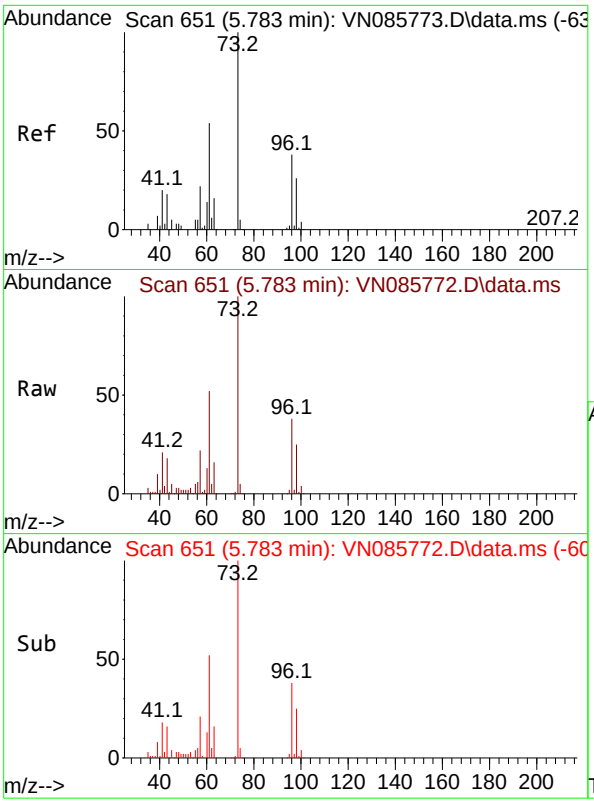


#20
Methylene Chloride
Concen: 95.142 ug/l
RT: 5.271 min Scan# 564
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 84 Resp: 365222

Ion	Ratio	Lower	Upper
84	100		
49	108.6	88.4	132.6
51	35.2	26.6	40.0
86	63.9	51.0	76.6

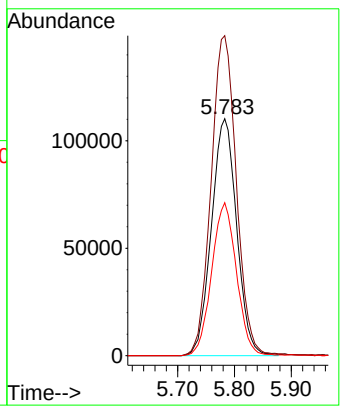




#21
trans-1,2-Dichloroethene
Concen: 99.001 ug/l
RT: 5.783 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 96 Resp: 34016

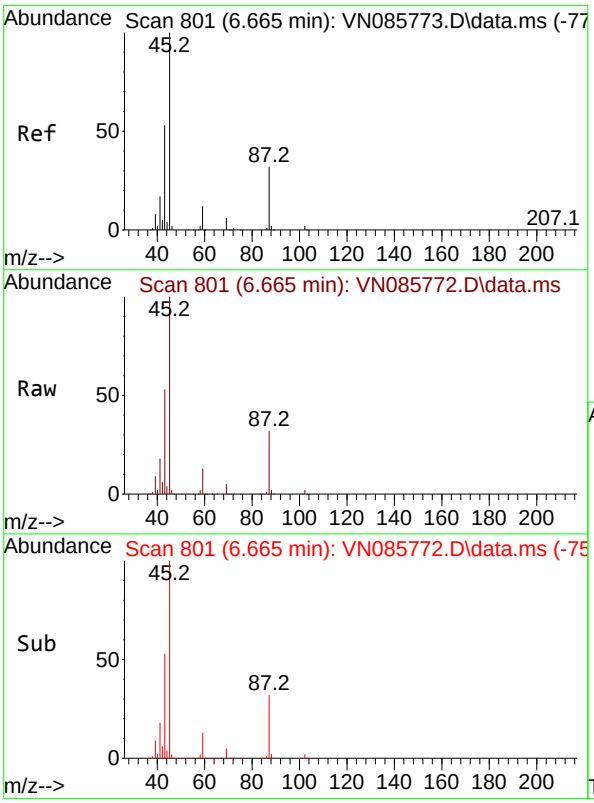
Ion	Ratio	Lower	Upper
96	100		
61	135.0	112.6	168.8
98	64.5	53.3	79.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

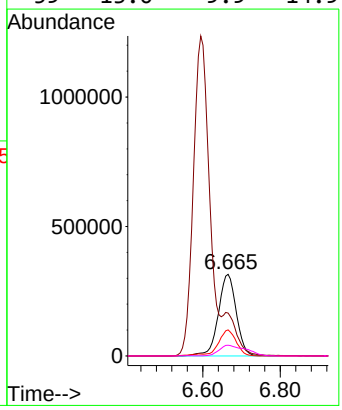
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

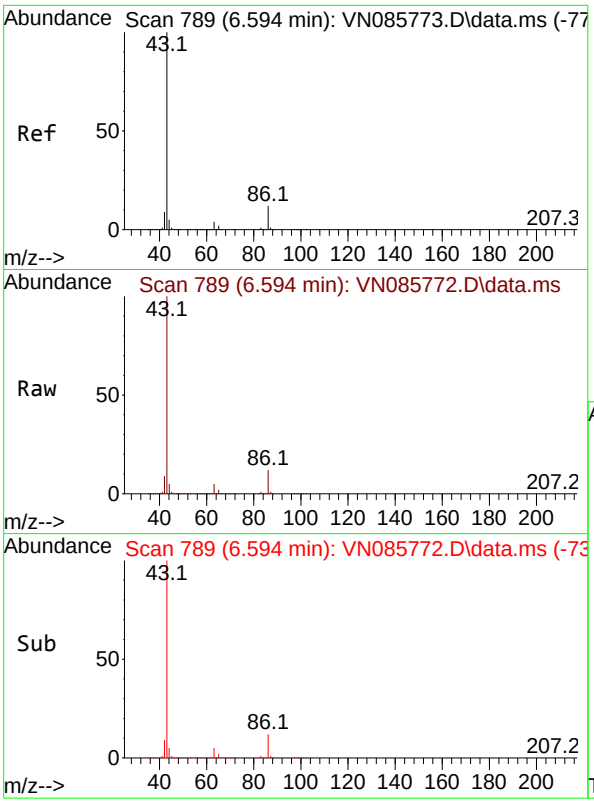


#22
Diisopropyl ether
Concen: 107.223 ug/l
RT: 6.665 min Scan# 801
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 45 Resp: 1015041

Ion	Ratio	Lower	Upper
45	100		
43	51.9	42.6	64.0
87	31.9	25.8	38.8
59	13.0	9.9	14.9

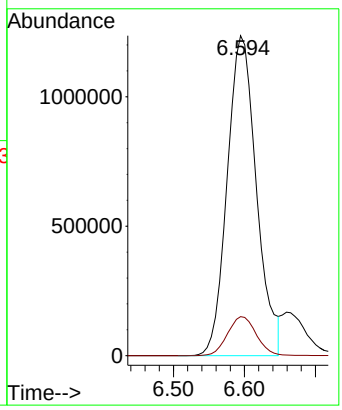




#23
Vinyl Acetate
Concen: 548.253 ug/l
RT: 6.594 min Scan# 7
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 43 Resp: 354278

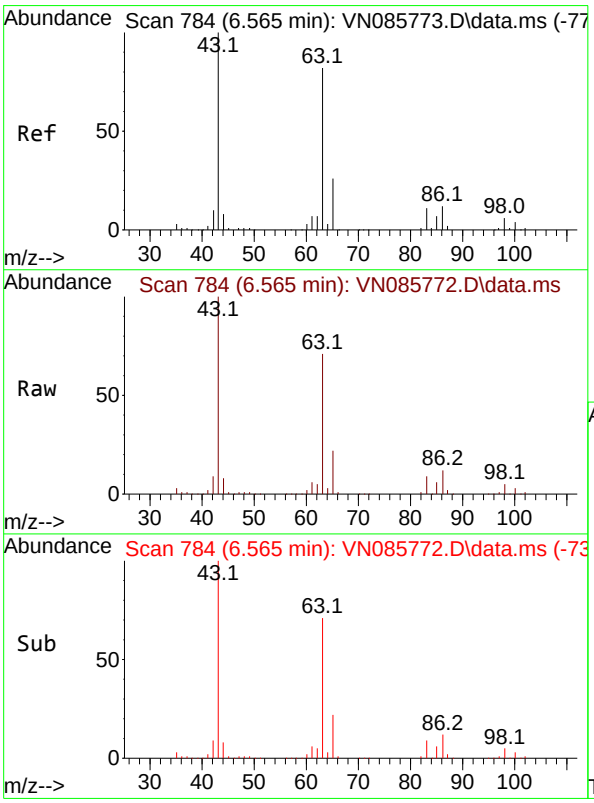
Ion	Ratio	Lower	Upper
43	100		
86	12.2	9.8	14.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

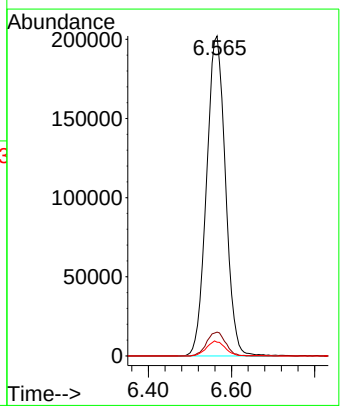
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

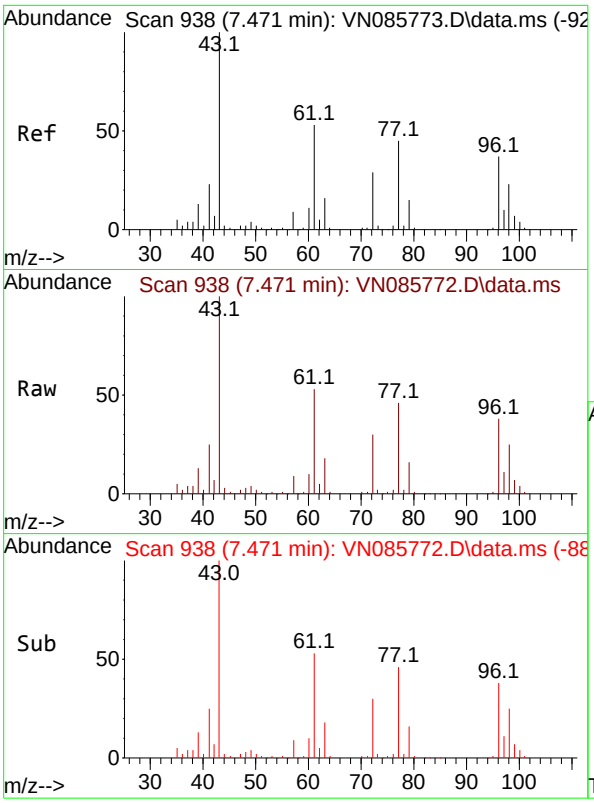


#24
1,1-Dichloroethane
Concen: 99.172 ug/l
RT: 6.565 min Scan# 784
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 63 Resp: 638203

Ion	Ratio	Lower	Upper
63	100		
98	7.4	3.5	10.4
100	4.3	2.4	7.2





#25
2-Butanone
Concen: 510.235 ug/l
RT: 7.471 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

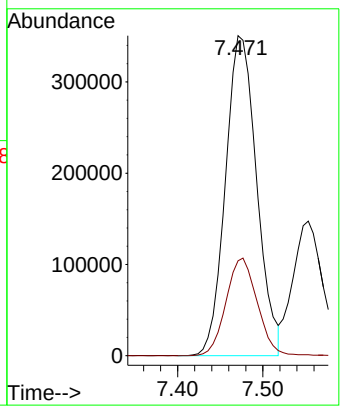
Tgt Ion: 43 Resp: 89602

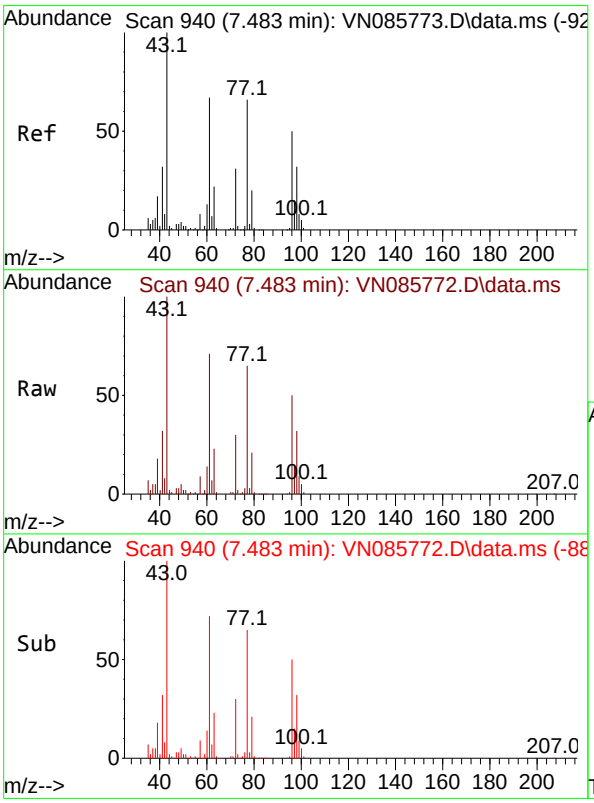
Ion	Ratio	Lower	Upper
43	100		
72	29.6	23.6	35.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

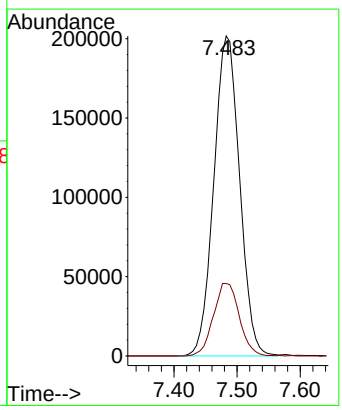


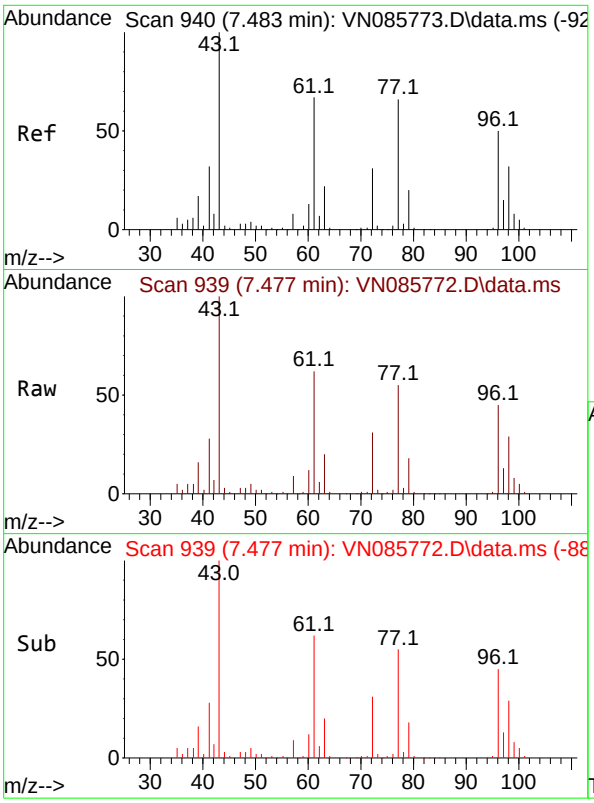


#26
2,2-Dichloropropane
Concen: 100.033 ug/l
RT: 7.483 min Scan# 940
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 77 Resp: 572429

Ion	Ratio	Lower	Upper
77	100		
97	22.7	11.3	33.8

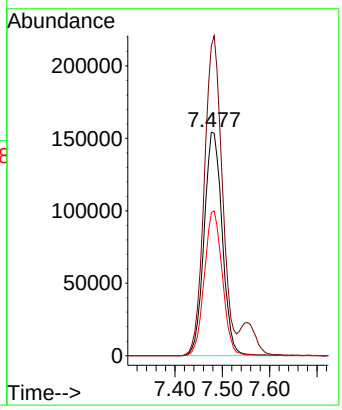




#27
cis-1,2-Dichloroethene
Concen: 102.929 ug/l
RT: 7.477 min Scan# 9
Delta R.T. -0.006 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 96 Resp: 41006

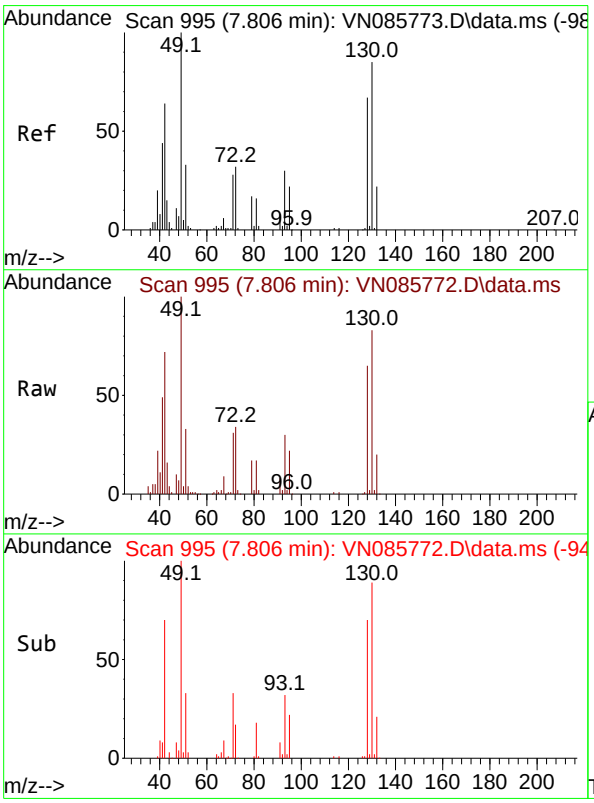
Ion	Ratio	Lower	Upper
96	100		
61	141.5	0.0	280.6
98	64.4	0.0	128.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

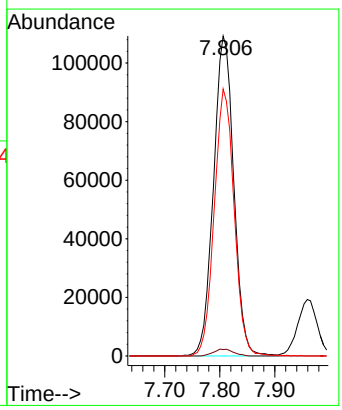
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

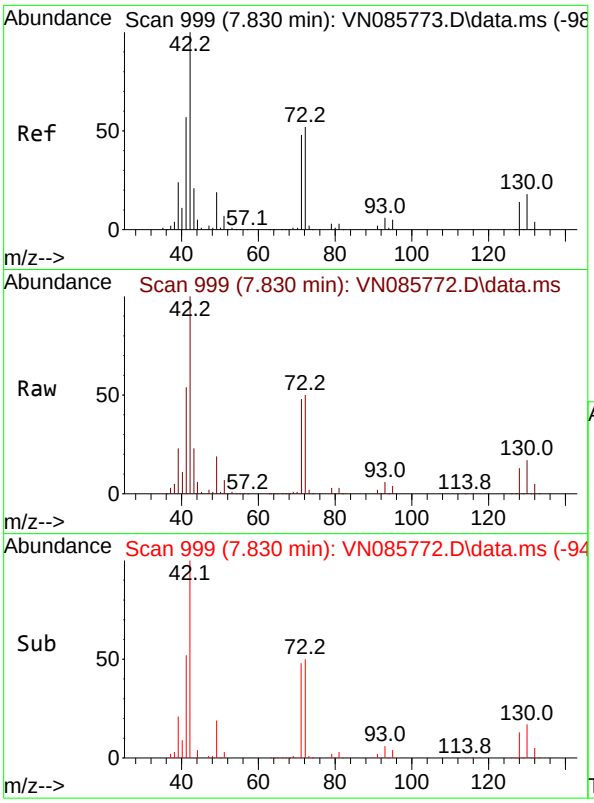


#28
Bromochloromethane
Concen: 105.895 ug/l
RT: 7.806 min Scan# 995
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 49 Resp: 280092

Ion	Ratio	Lower	Upper
49	100		
129	2.1	0.0	3.8
130	81.9	68.0	102.0

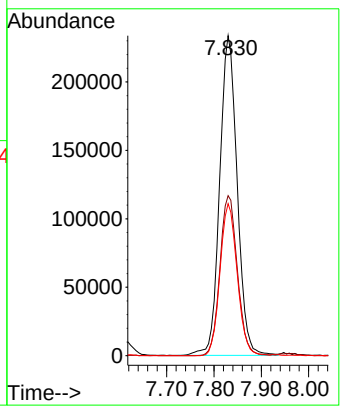




#29
Tetrahydrofuran
Concen: 528.664 ug/l
RT: 7.830 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 42 Resp: 59950

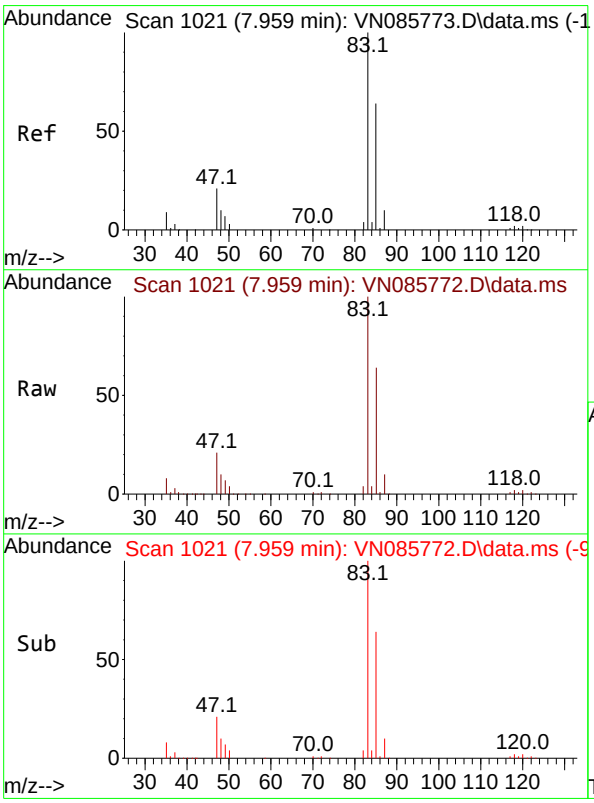
Ion	Ratio	Lower	Upper
42	100		
72	50.0	40.0	60.0
71	46.7	37.0	55.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

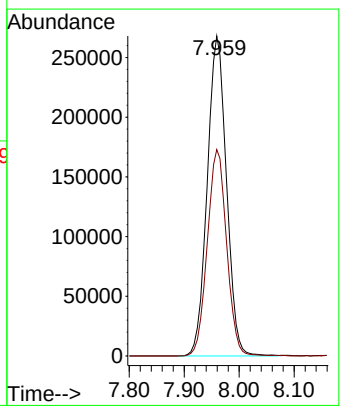
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

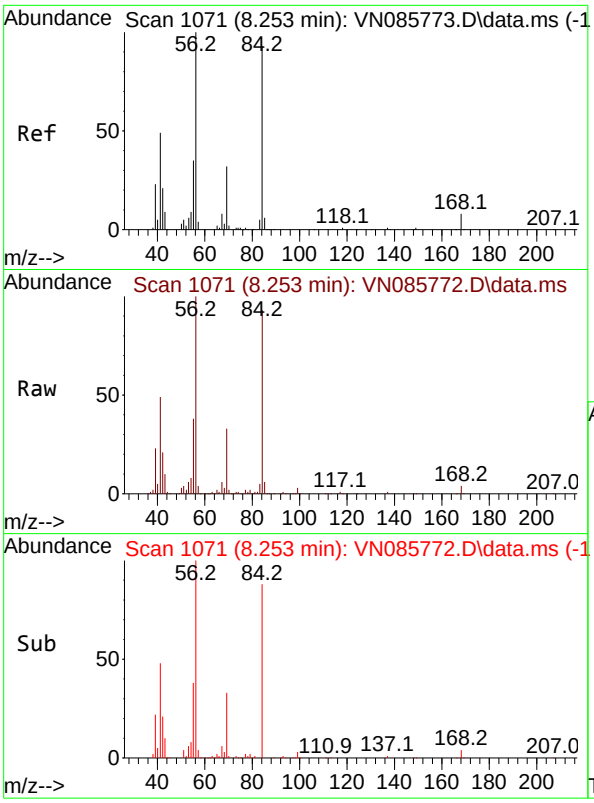


#30
Chloroform
Concen: 96.914 ug/l
RT: 7.959 min Scan# 1021
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 83 Resp: 651761

Ion	Ratio	Lower	Upper
83	100		
85	64.5	50.9	76.3





#31
Cyclohexane
Concen: 94.843 ug/l
RT: 8.253 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

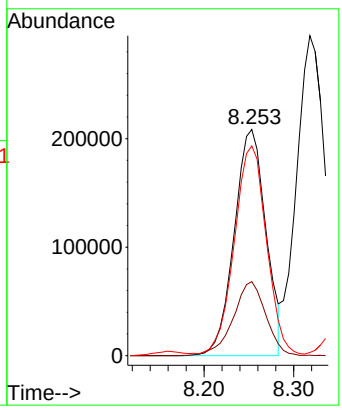
Tgt Ion: 56 Resp: 51103

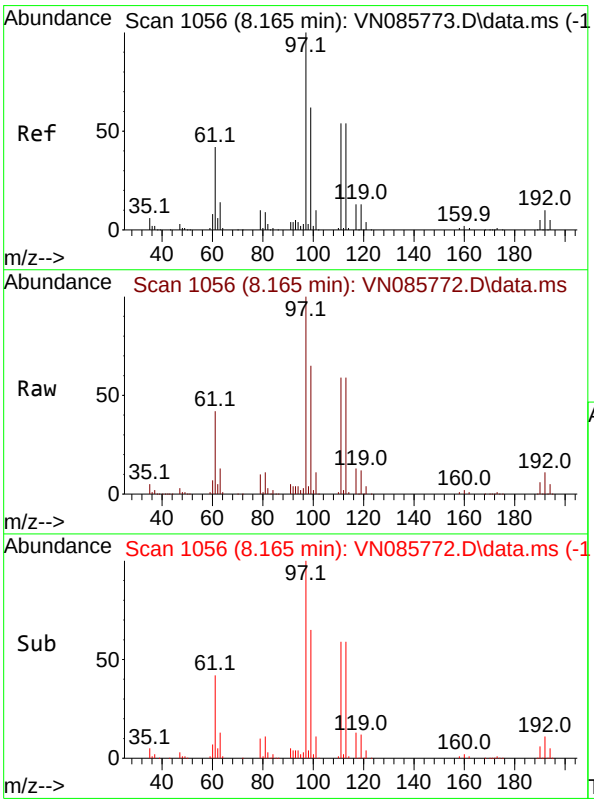
Ion	Ratio	Lower	Upper
56	100		
69	32.8	25.8	38.6
84	91.2	74.5	111.7

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

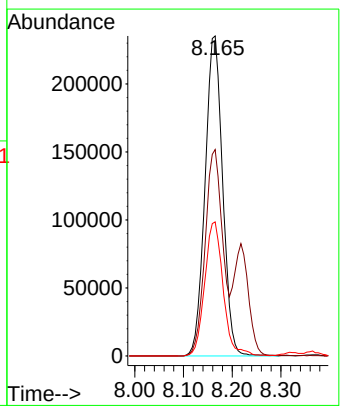


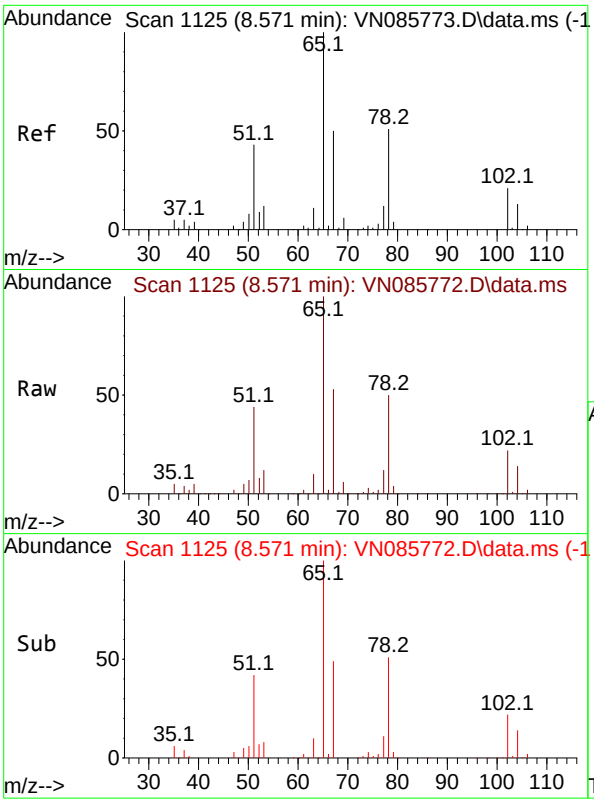


#32
1,1,1-Trichloroethane
Concen: 98.502 ug/l
RT: 8.165 min Scan# 1056
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 97 Resp: 589206

Ion	Ratio	Lower	Upper
97	100		
99	64.8	50.4	75.6
61	43.9	35.5	53.3





#33
1,2-Dichloroethane-d4
Concen: 107.630 ug/l
RT: 8.571 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

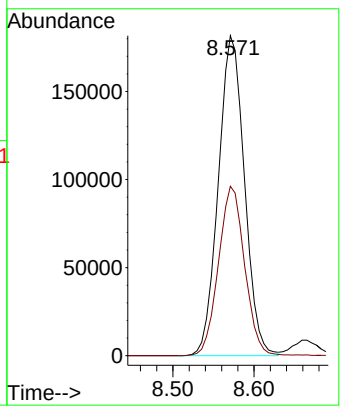
Tgt Ion: 65 Resp: 40602

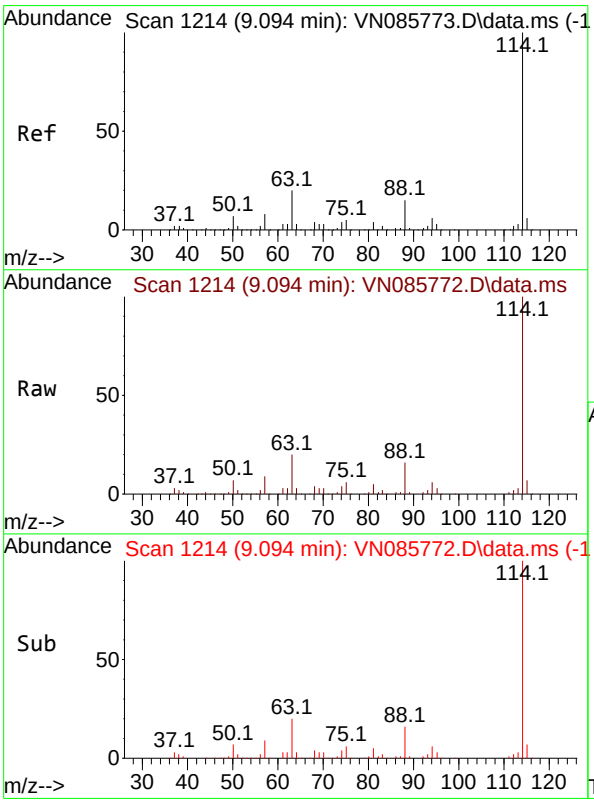
Ion	Ratio	Lower	Upper
65	100		
67	53.0	0.0	106.2

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

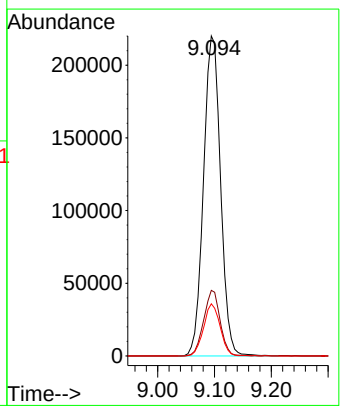


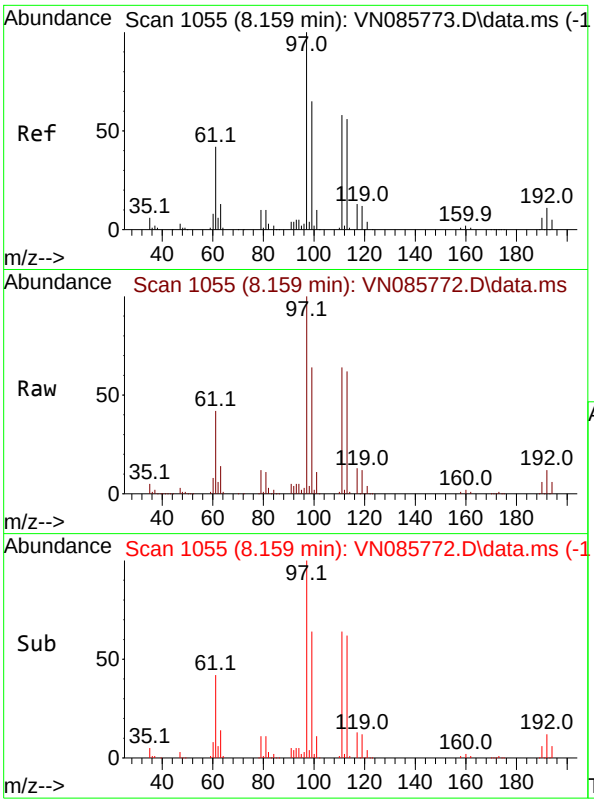


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.094 min Scan# 1214
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion:114 Resp: 458183

Ion	Ratio	Lower	Upper
114	100		
63	20.5	0.0	39.2
88	16.3	0.0	30.0





#35
Dibromofluoromethane
Concen: 114.648 ug/l
RT: 8.159 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

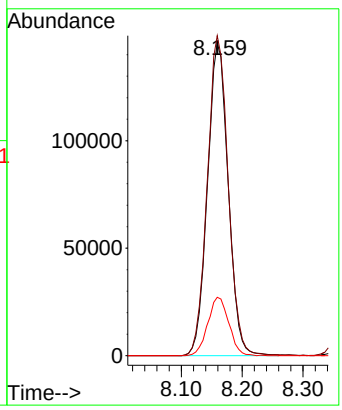
Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

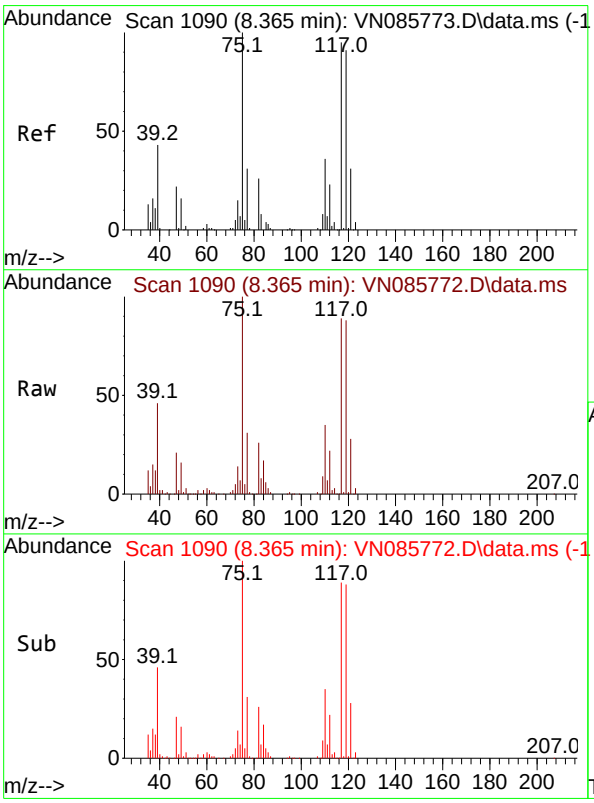
Tgt Ion:113 Resp: 34372

Ion	Ratio	Lower	Upper
113	100		
111	103.4	82.2	123.4
192	18.9	14.7	22.1

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

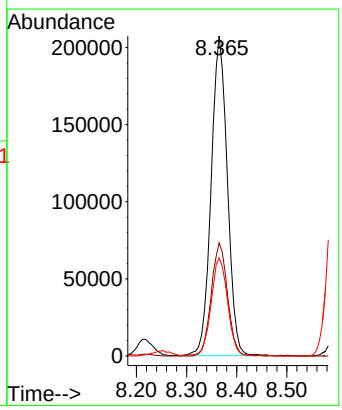


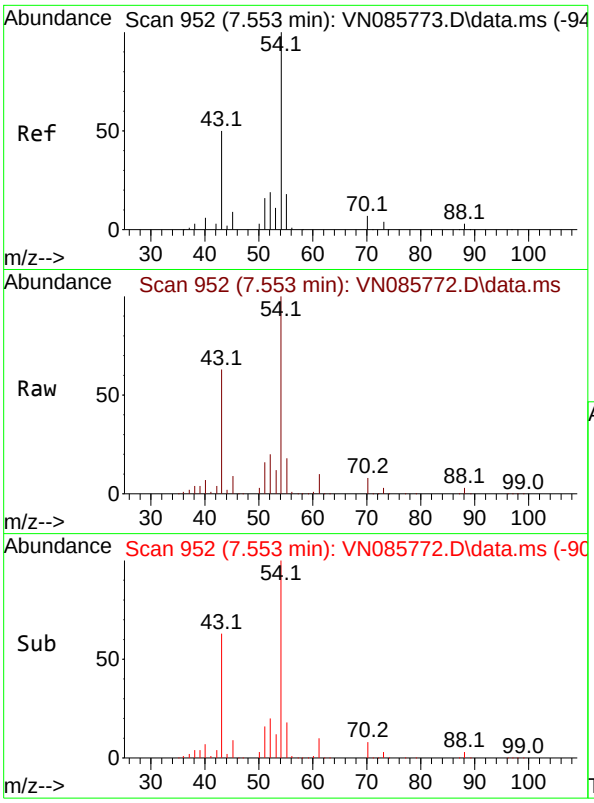


#36
1,1-Dichloropropene
Concen: 109.949 ug/l
RT: 8.365 min Scan# 1090
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 75 Resp: 466531

Ion	Ratio	Lower	Upper
75	100		
110	35.3	17.3	52.0
77	31.1	24.6	37.0





#37
Ethyl Acetate
Concen: 105.069 ug/l
RT: 7.553 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

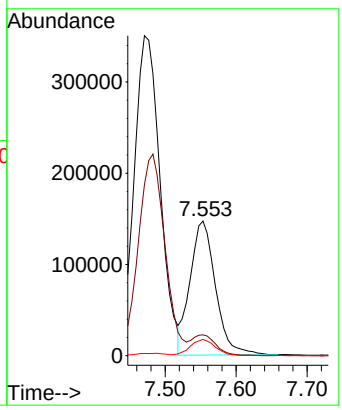
Tgt Ion: 43 Resp: 36688

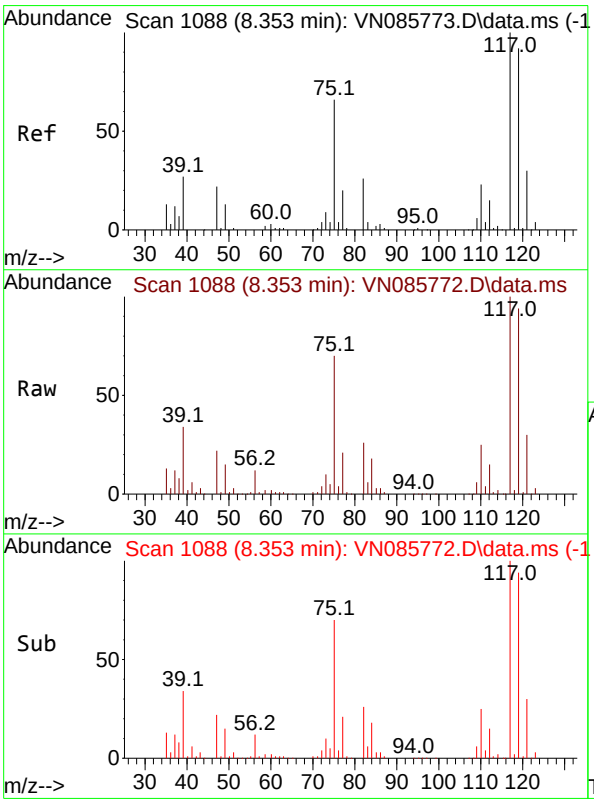
Ion	Ratio	Lower	Upper
43	100		
61	14.7	12.2	18.2
70	11.9	9.5	14.3

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

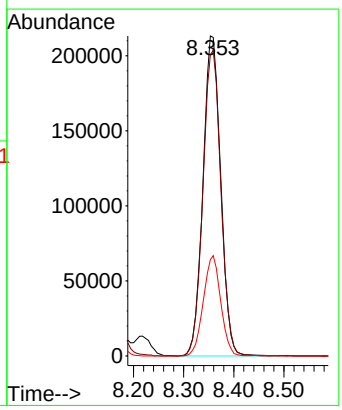


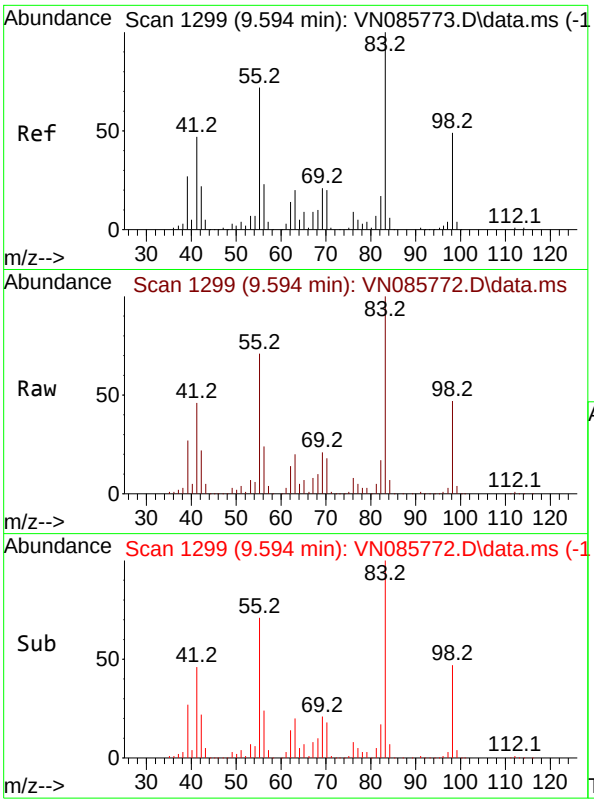


#38
Carbon Tetrachloride
Concen: 104.105 ug/l
RT: 8.353 min Scan# 1088
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion:117 Resp: 524870

Ion	Ratio	Lower	Upper
117	100		
119	94.1	73.8	110.6
121	30.0	24.3	36.5

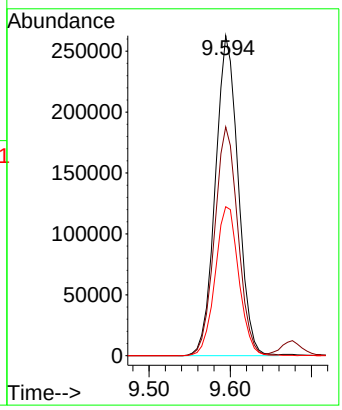




#39
Methylcyclohexane
Concen: 123.184 ug/l
RT: 9.594 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 83 Resp: 51349

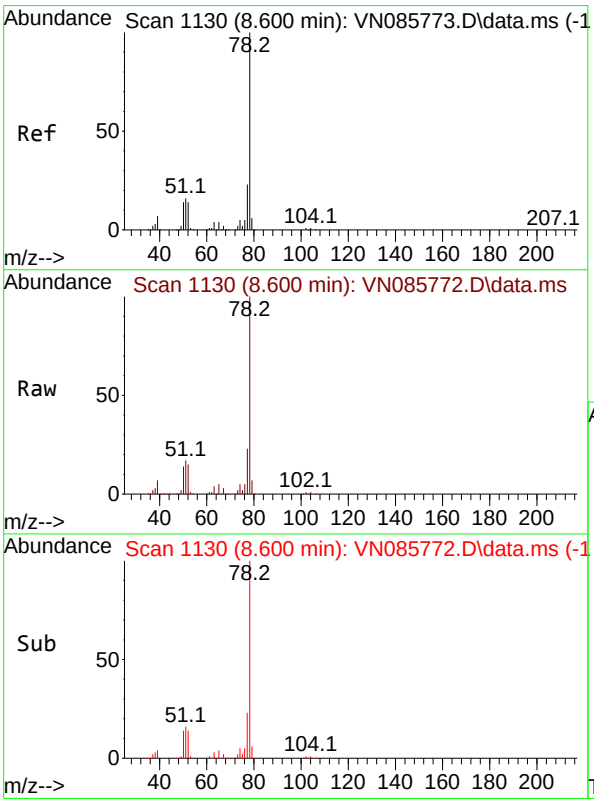
Ion	Ratio	Lower	Upper
83	100		
55	71.5	57.5	86.3
98	46.5	39.2	58.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

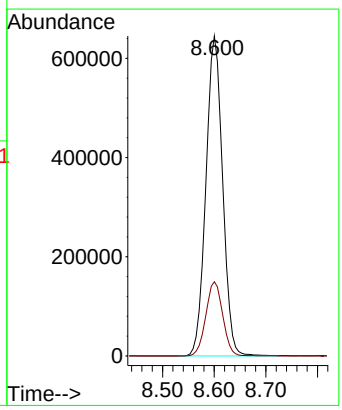
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

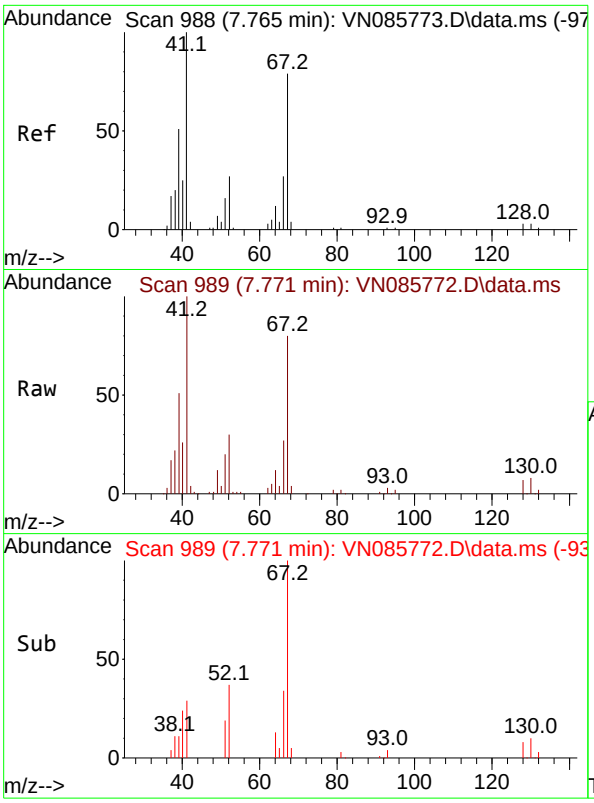


#40
Benzene
Concen: 106.522 ug/l
RT: 8.600 min Scan# 1130
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 78 Resp: 1448660

Ion	Ratio	Lower	Upper
78	100		
77	23.2	18.3	27.5

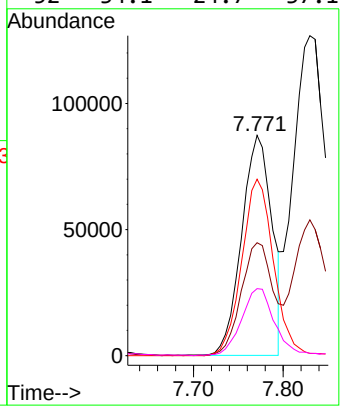




#41
Methacrylonitrile
Concen: 109.119 ug/l
RT: 7.771 min Scan# 9
Delta R.T. 0.006 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 41 Resp: 20368

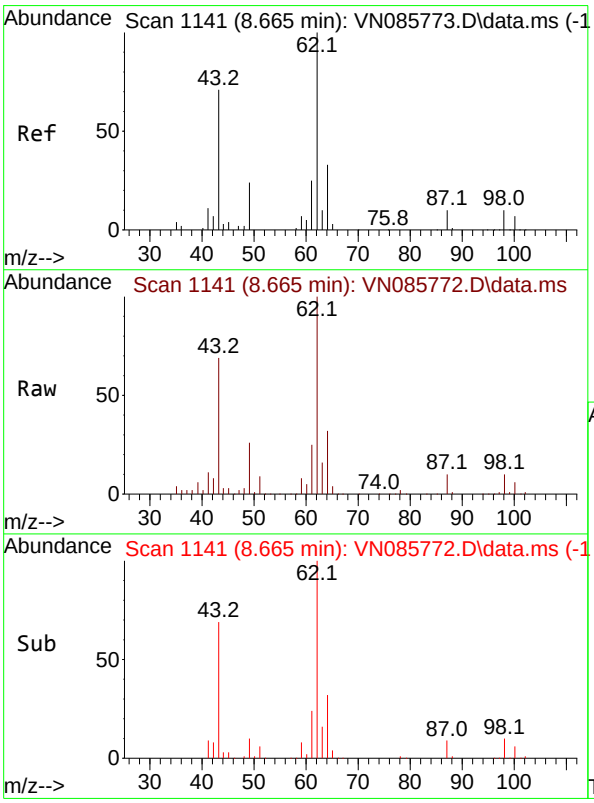
Ion	Ratio	Lower	Upper
41	100		
39	55.9	42.0	63.0
67	85.0	64.2	96.4
52	34.1	24.7	37.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

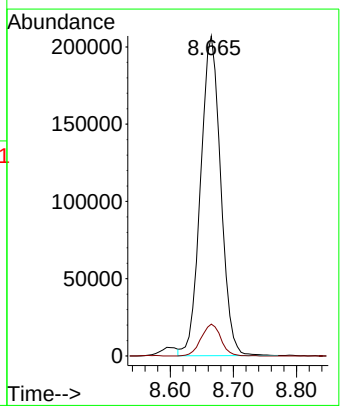
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

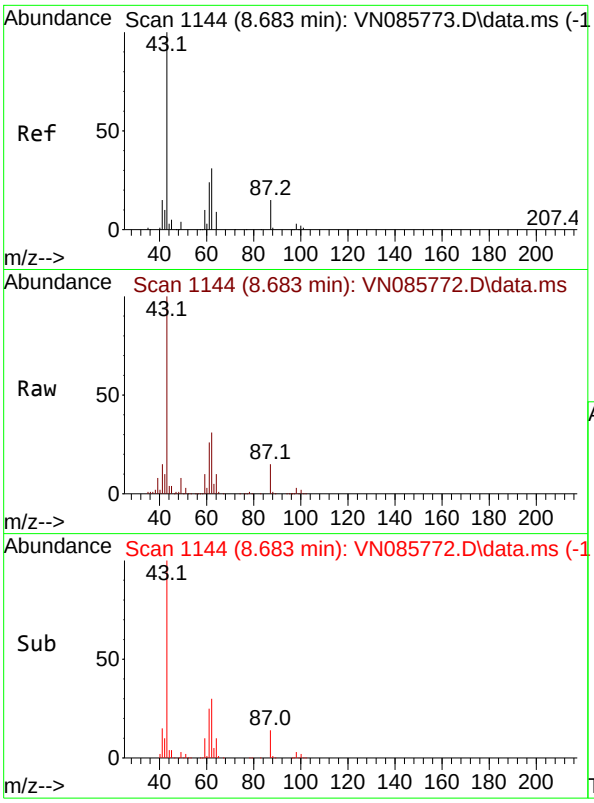


#42
1,2-Dichloroethane
Concen: 103.326 ug/l
RT: 8.665 min Scan# 1141
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 62 Resp: 457707

Ion	Ratio	Lower	Upper
62	100		
98	9.8	0.0	19.6





#43
Isopropyl Acetate
Concen: 101.163 ug/l
RT: 8.683 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

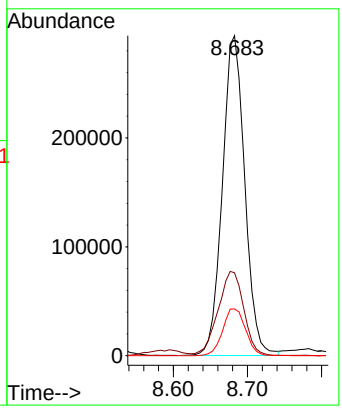
Tgt Ion: 43 Resp: 61652

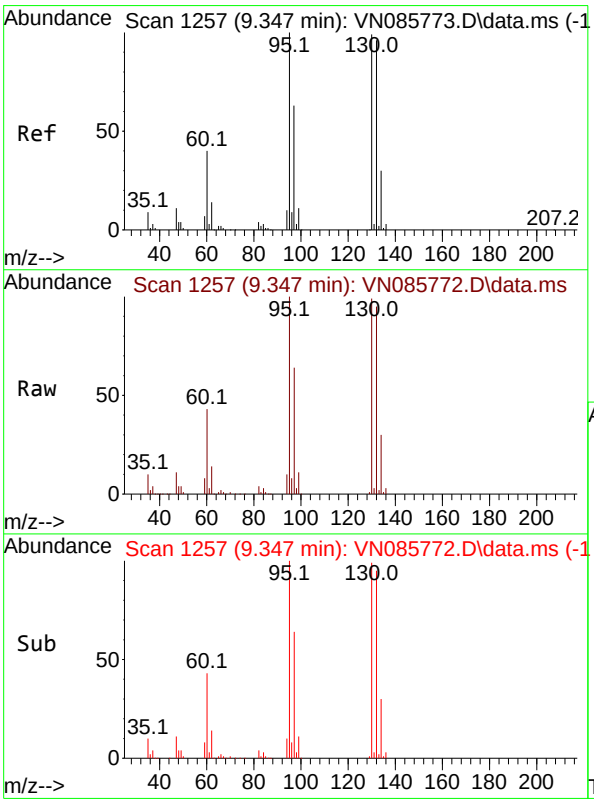
Ion	Ratio	Lower	Upper
43	100		
61	30.1	22.6	34.0
87	15.0	11.8	17.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

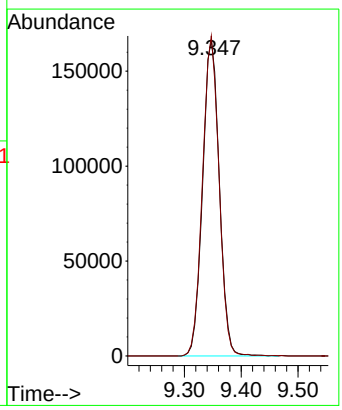


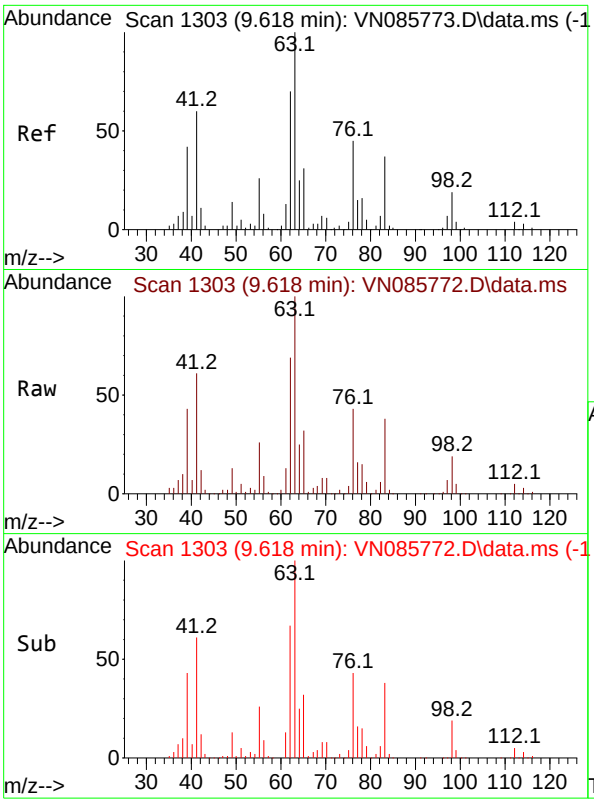


#44
Trichloroethene
Concen: 101.529 ug/l
RT: 9.347 min Scan# 1257
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion:130 Resp: 339019

Ion	Ratio	Lower	Upper
130	100		
95	101.4	0.0	202.6

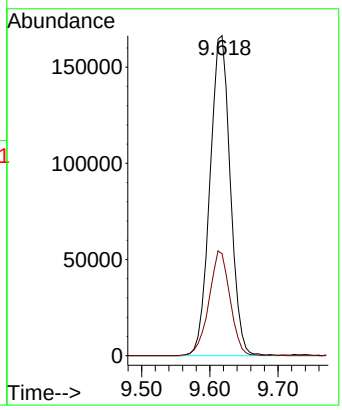




#45
1,2-Dichloropropane
Concen: 105.316 ug/l
RT: 9.618 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 63 Resp: 34572

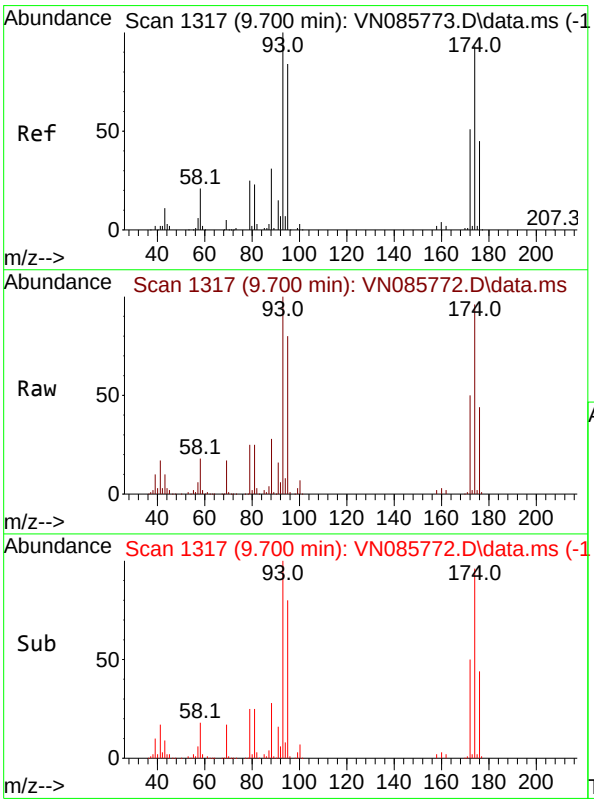
Ion	Ratio	Lower	Upper
63	100		
65	31.9	25.1	37.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

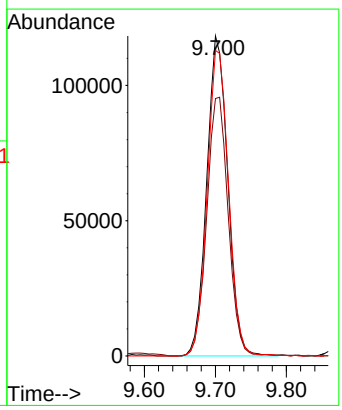
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

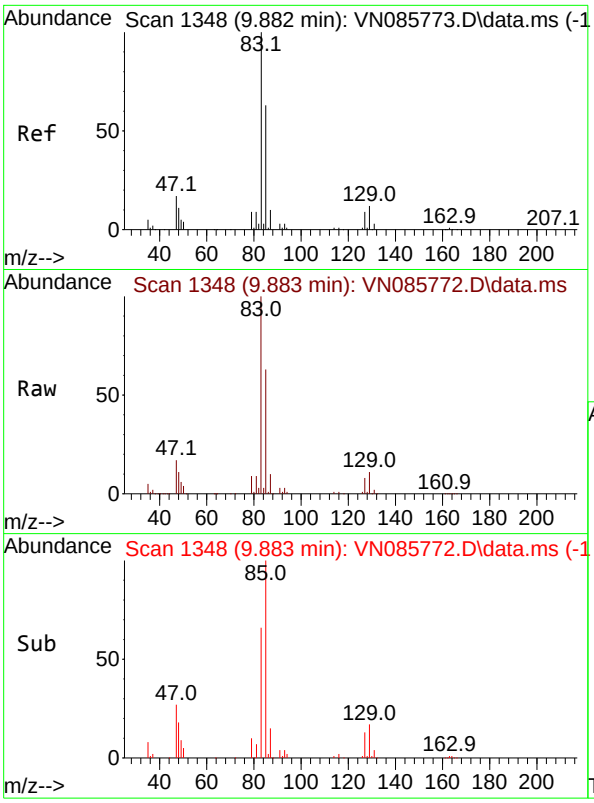


#46
Dibromomethane
Concen: 105.216 ug/l
RT: 9.700 min Scan# 1317
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 93 Resp: 243628

Ion	Ratio	Lower	Upper
93	100		
95	82.8	66.7	100.1
174	96.6	77.2	115.8

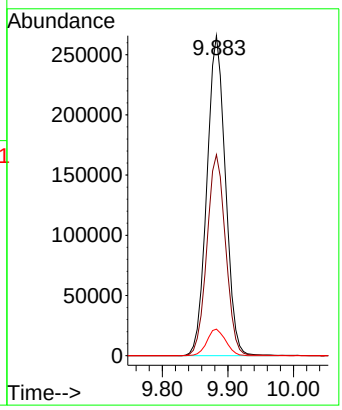




#47
Bromodichloromethane
Concen: 105.269 ug/l
RT: 9.883 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 83 Resp: 52149

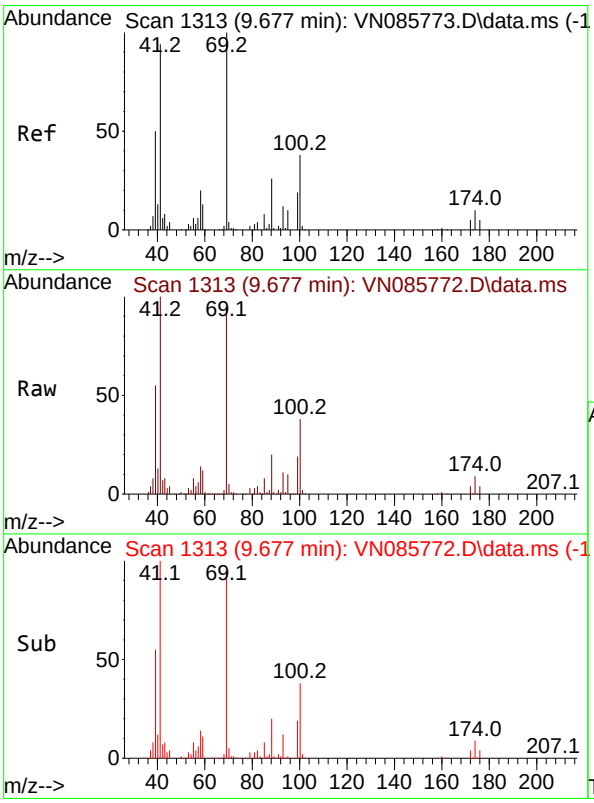
Ion	Ratio	Lower	Upper
83	100		
85	62.8	50.5	75.7
127	8.3	7.2	10.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

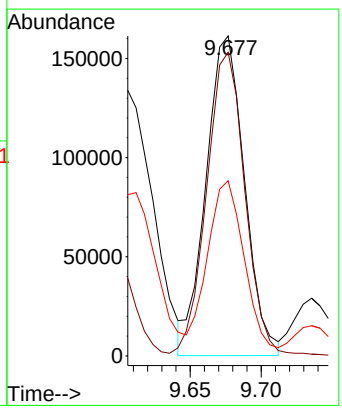
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

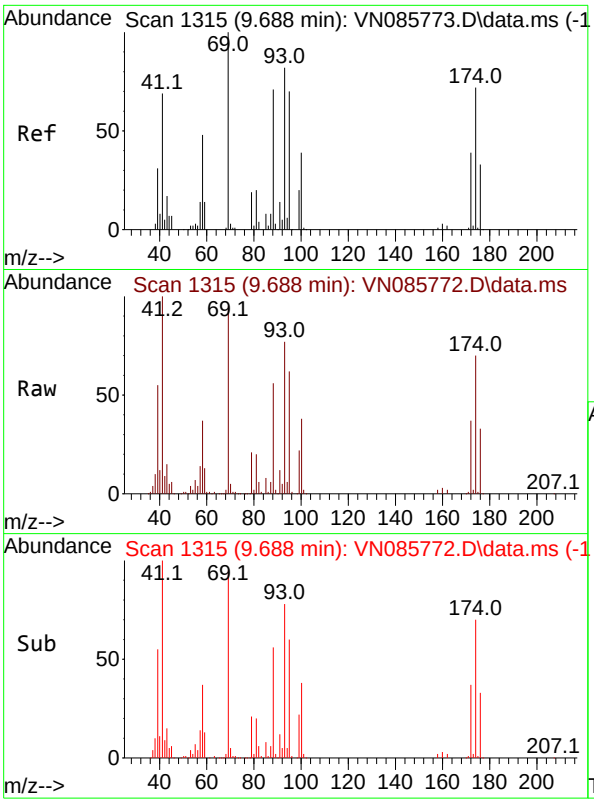


#48
Methyl methacrylate
Concen: 117.252 ug/l
RT: 9.677 min Scan# 1313
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 41 Resp: 304067

Ion	Ratio	Lower	Upper
41	100		
69	95.1	76.0	114.0
39	53.0	42.3	63.5





#49
1,4-Dioxane
Concen: 2036.793 ug/l
RT: 9.688 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

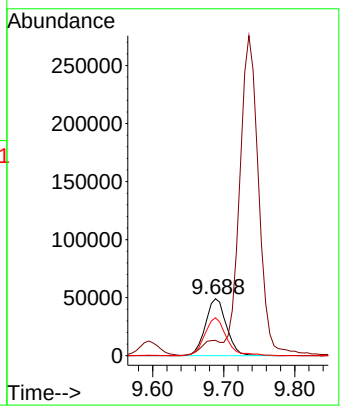
Tgt Ion: 88 Resp: 10044

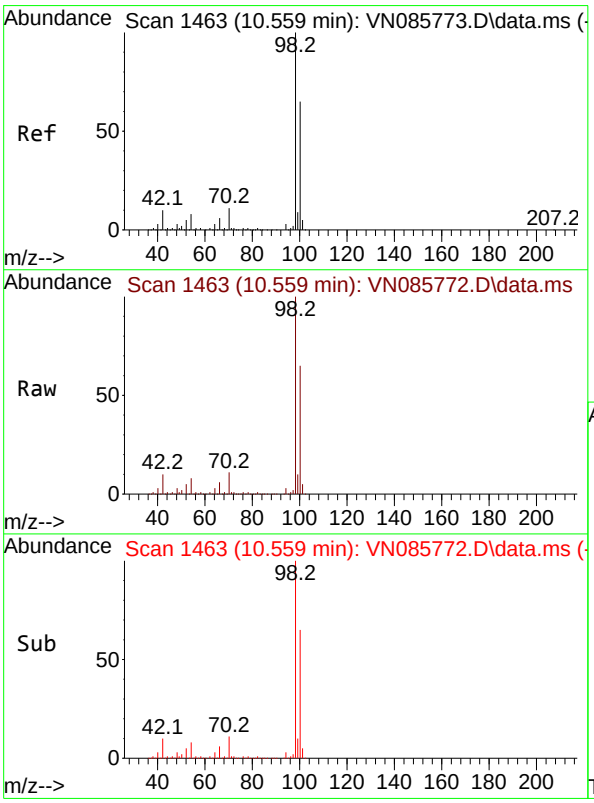
Ion	Ratio	Lower	Upper
88	100		
43	23.5	18.6	27.8
58	69.2	56.7	85.1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

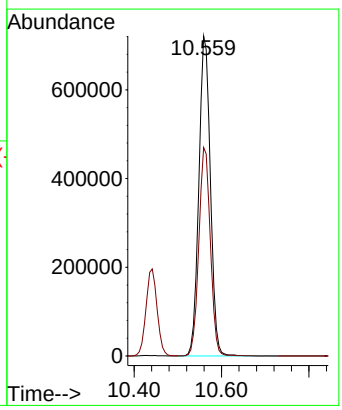


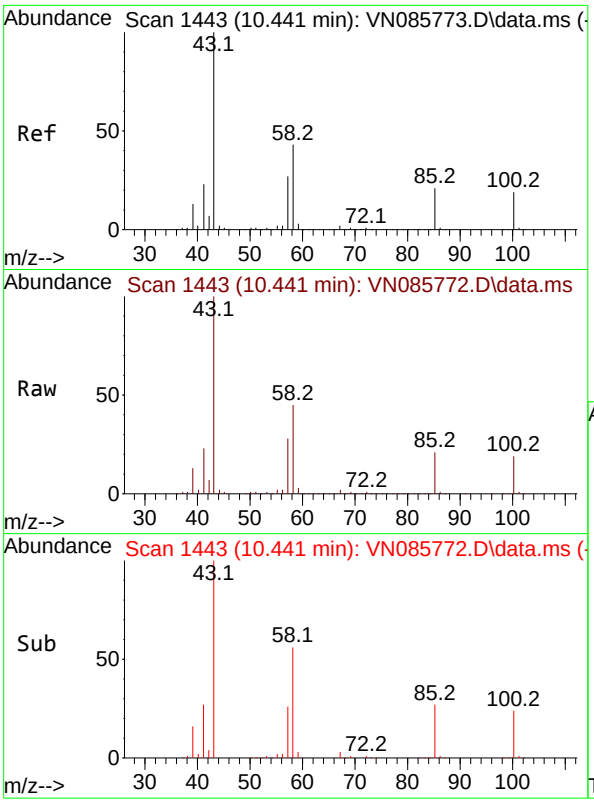


#50
Toluene-d8
Concen: 121.348 ug/l
RT: 10.559 min Scan# 1463
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 98 Resp: 1323681

Ion	Ratio	Lower	Upper
98	100		
100	65.1	52.1	78.1





#51
4-Methyl-2-Pentanone
Concen: 563.403 ug/l
RT: 10.441 min Scan# 14
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

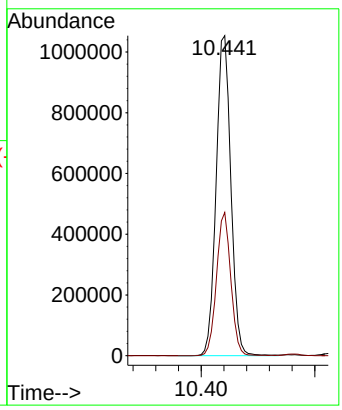
Tgt Ion: 43 Resp: 189677

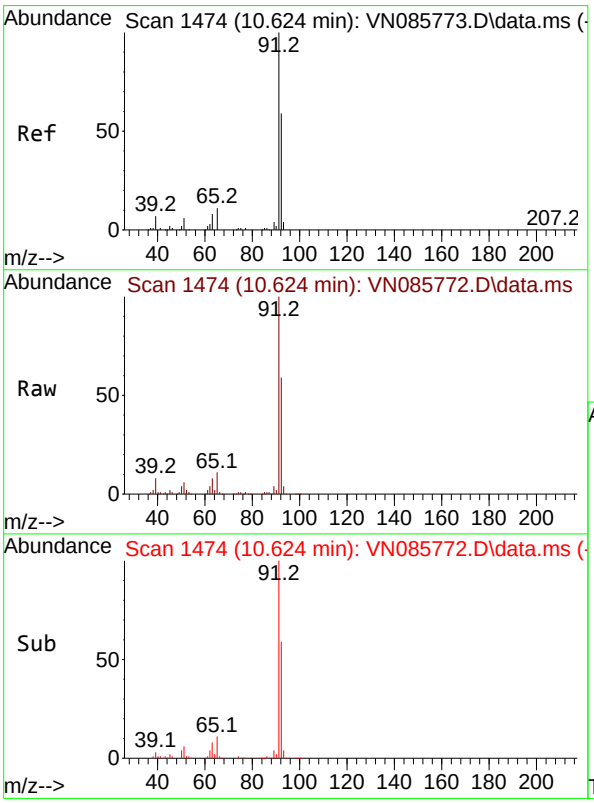
Ion	Ratio	Lower	Upper
43	100		
58	43.3	34.6	52.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

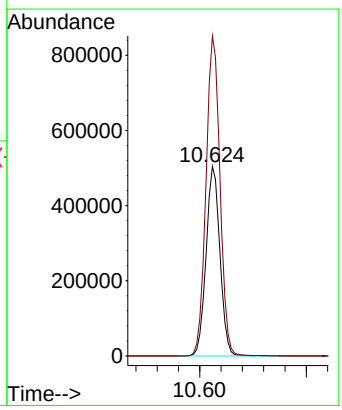


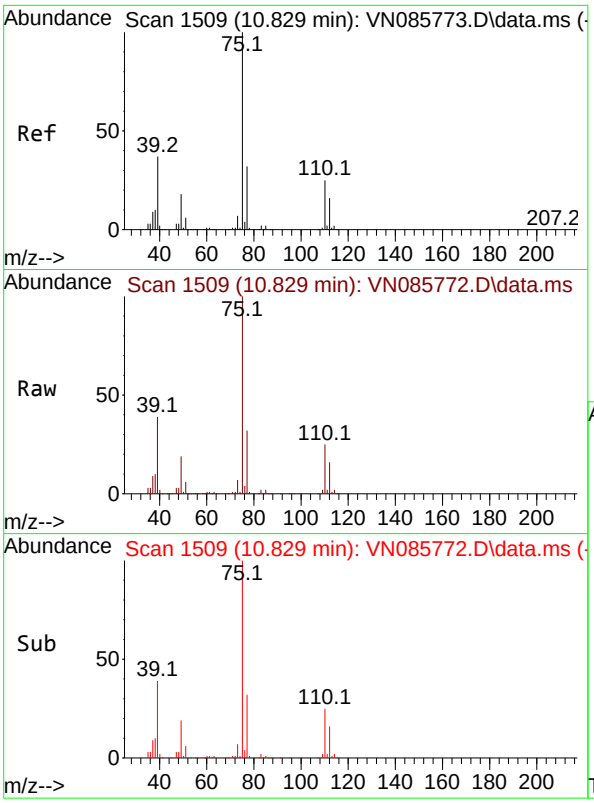


#52
Toluene
Concen: 114.182 ug/l
RT: 10.624 min Scan# 1474
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 92 Resp: 910251

Ion	Ratio	Lower	Upper
92	100		
91	170.7	136.9	205.3

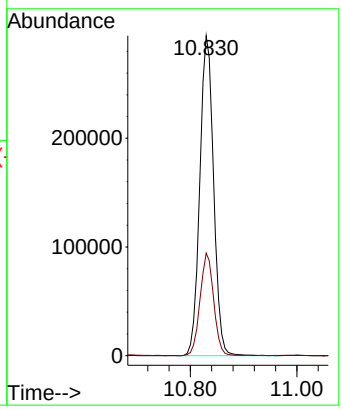




#53
t-1,3-Dichloropropene
Concen: 115.223 ug/l
RT: 10.829 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 75 Resp: 52781

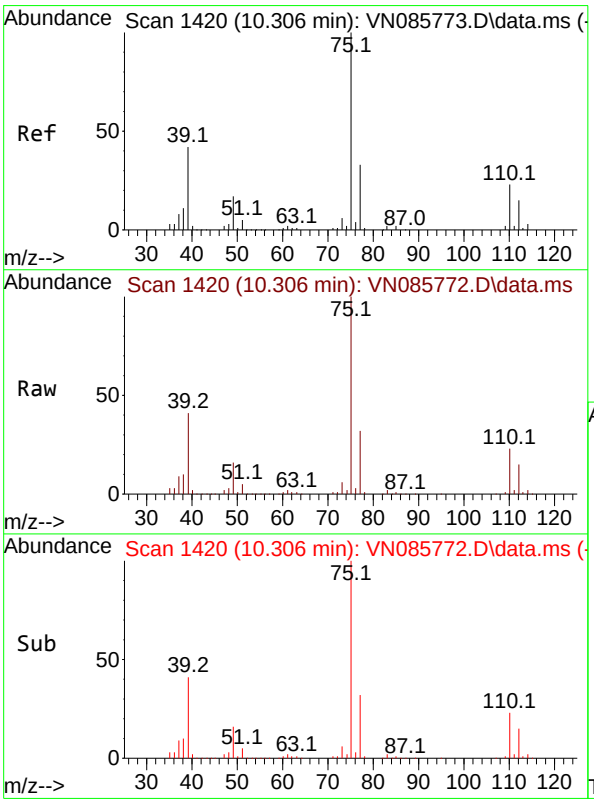
Ion	Ratio	Lower	Upper
75	100		
77	32.0	25.4	38.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

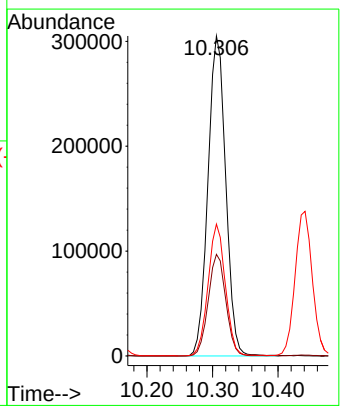
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

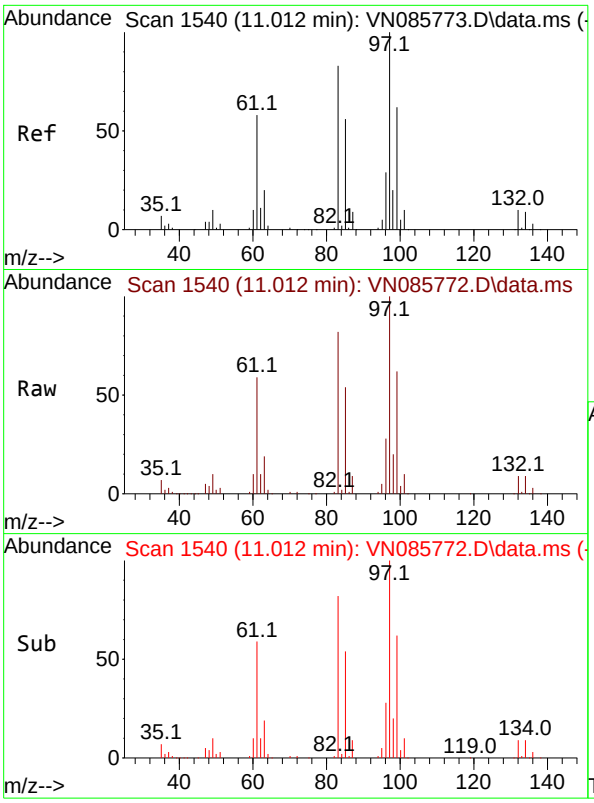


#54
cis-1,3-Dichloropropene
Concen: 114.202 ug/l
RT: 10.306 min Scan# 1420
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 75 Resp: 573653

Ion	Ratio	Lower	Upper
75	100		
77	31.7	26.1	39.1
39	41.2	33.4	50.0

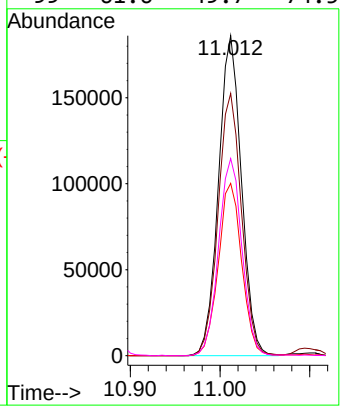




#55
1,1,2-Trichloroethane
Concen: 104.317 ug/l
RT: 11.012 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 97 Resp: 33064

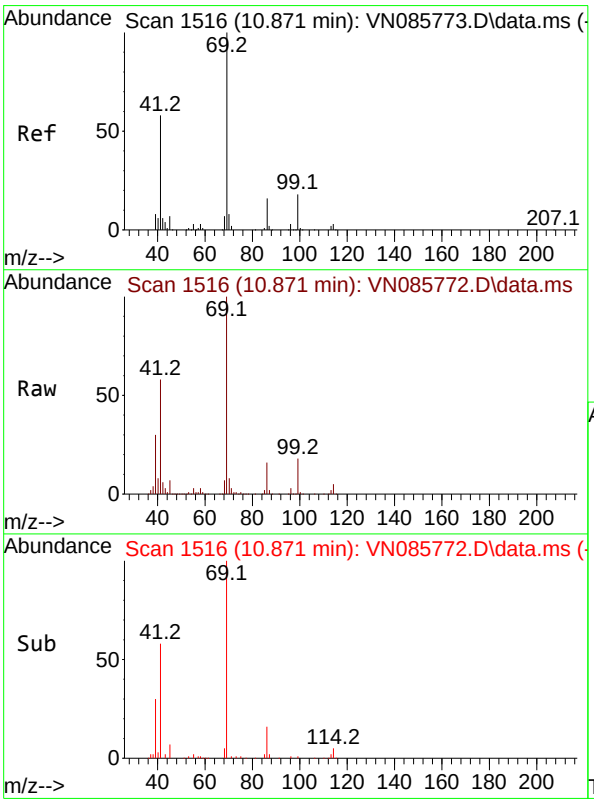
Ion	Ratio	Lower	Upper
97	100		
83	81.9	66.1	99.1
85	53.8	44.7	67.1
99	61.6	49.7	74.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

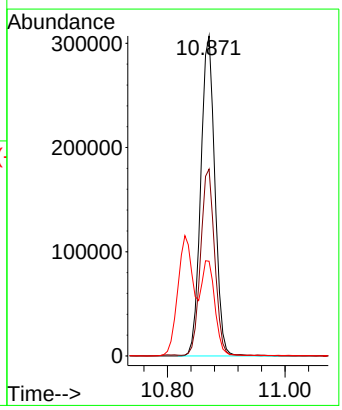
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

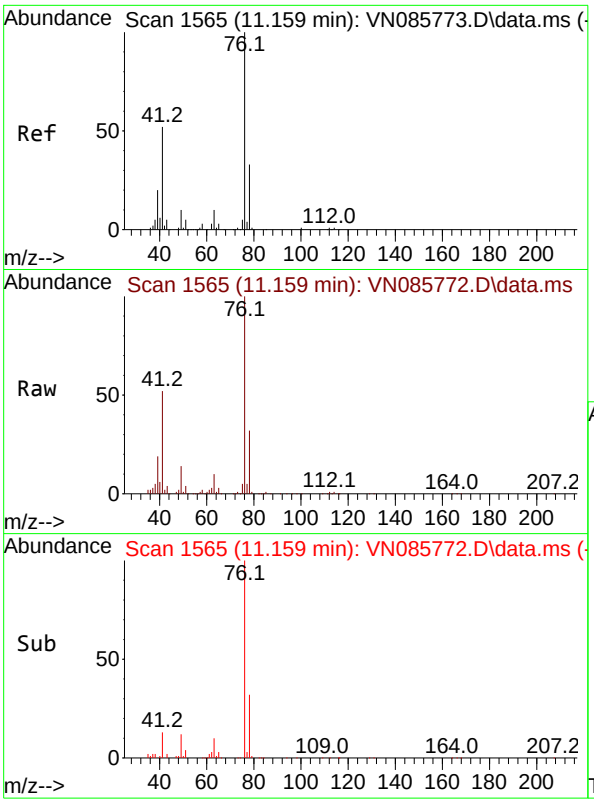


#56
Ethyl methacrylate
Concen: 100.007 ug/l
RT: 10.871 min Scan# 1516
Delta R.T. -0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 69 Resp: 510041

Ion	Ratio	Lower	Upper
69	100		
41	57.9	46.0	69.0
39	27.2	22.0	33.0

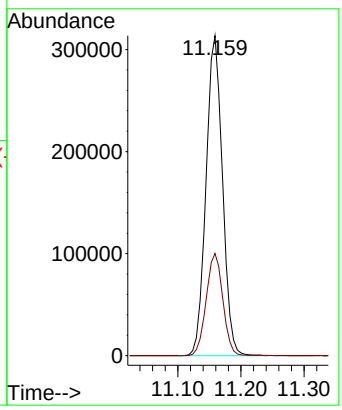




#57
1,3-Dichloropropane
Concen: 107.169 ug/l
RT: 11.159 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 76 Resp: 56703

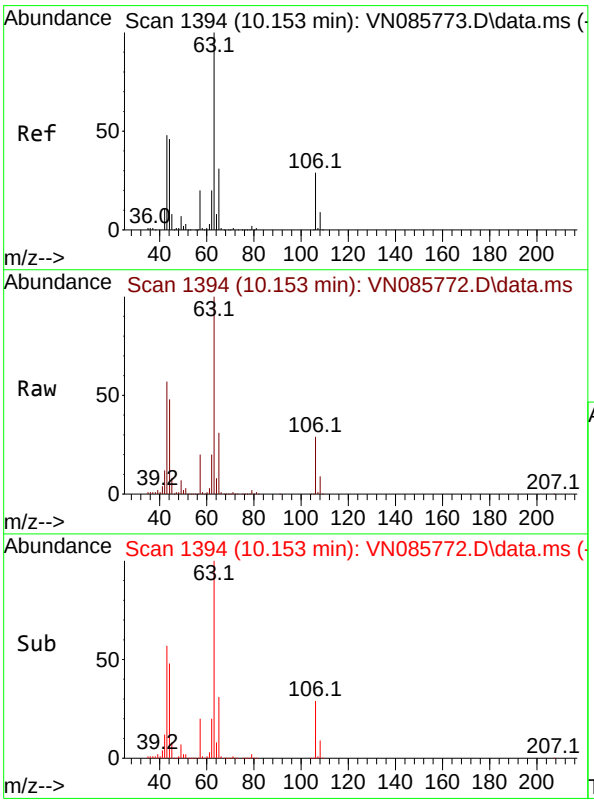
Ion	Ratio	Lower	Upper
76	100		
78	32.4	25.9	38.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

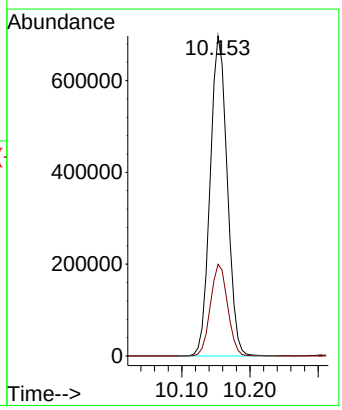
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

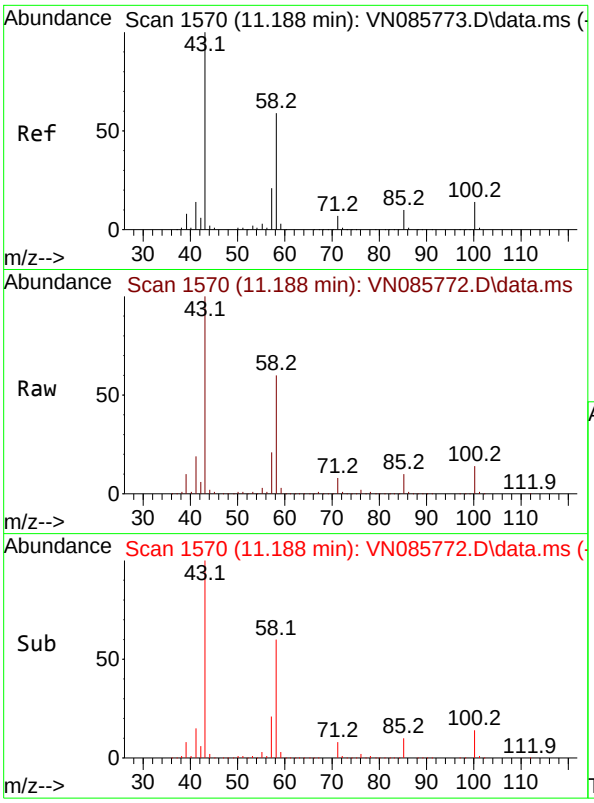


#58
2-Chloroethyl Vinyl ether
Concen: 502.158 ug/l
RT: 10.153 min Scan# 1394
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 63 Resp: 1216927

Ion	Ratio	Lower	Upper
63	100		
106	28.8	22.7	34.1





#59
2-Hexanone
Concen: 586.394 ug/l
RT: 11.188 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

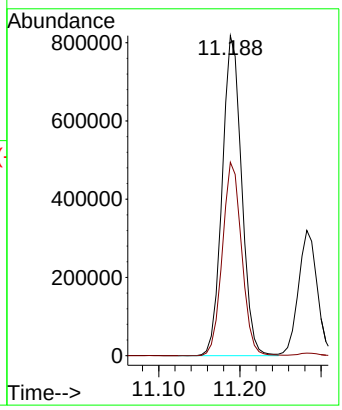
Tgt Ion: 43 Resp: 135812

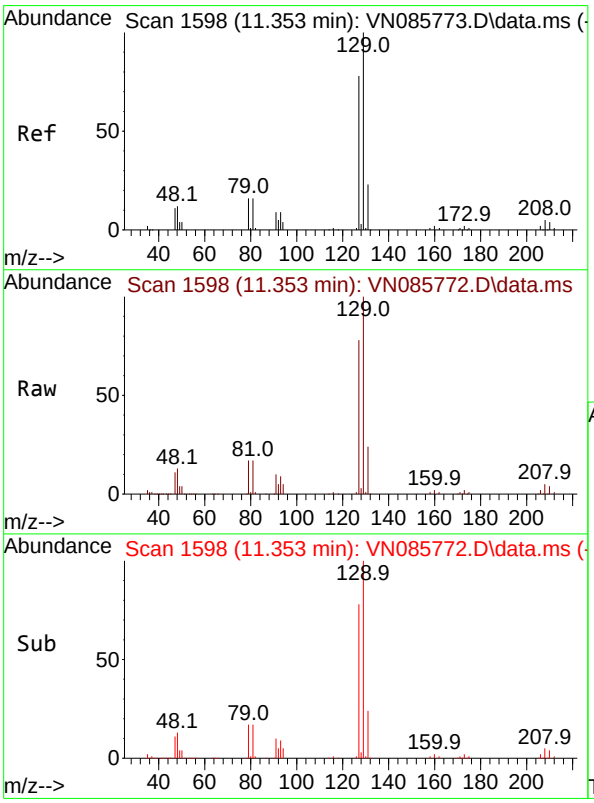
Ion	Ratio	Lower	Upper
43	100		
58	60.2	29.8	89.5

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

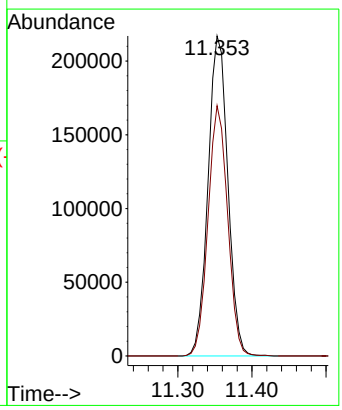


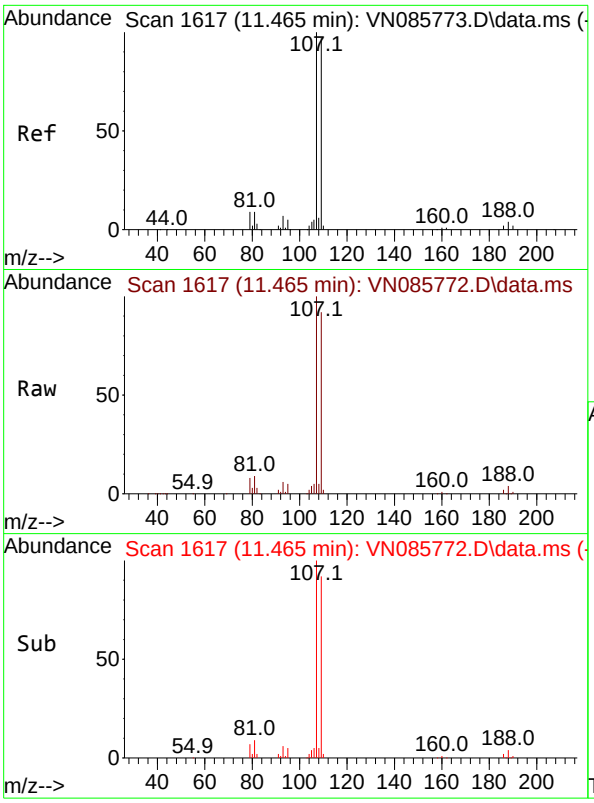


#60
Dibromochloromethane
Concen: 109.169 ug/l
RT: 11.353 min Scan# 1598
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion:129 Resp: 402920

Ion	Ratio	Lower	Upper
129	100		
127	77.4	39.1	117.5





#61
1,2-Dibromoethane
Concen: 108.439 ug/l
RT: 11.465 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

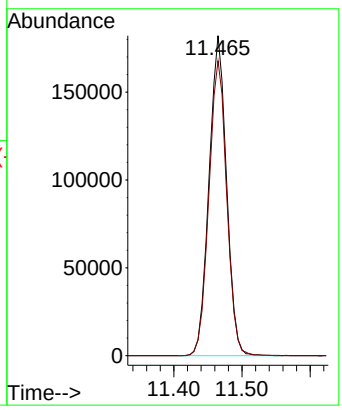
Tgt Ion:107 Resp: 32474

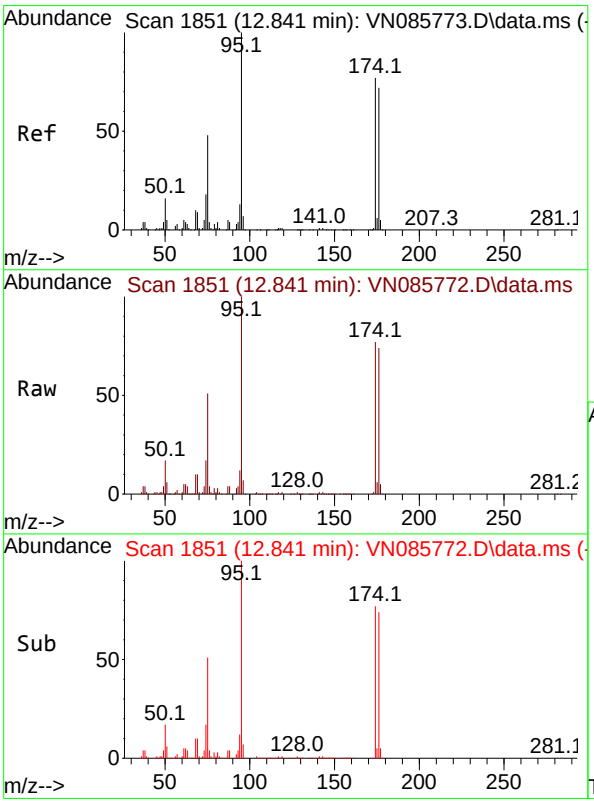
Ion	Ratio	Lower	Upper
107	100		
109	93.8	76.0	114.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

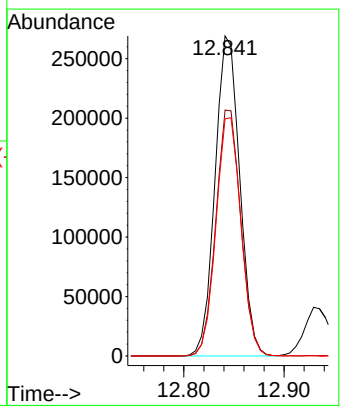


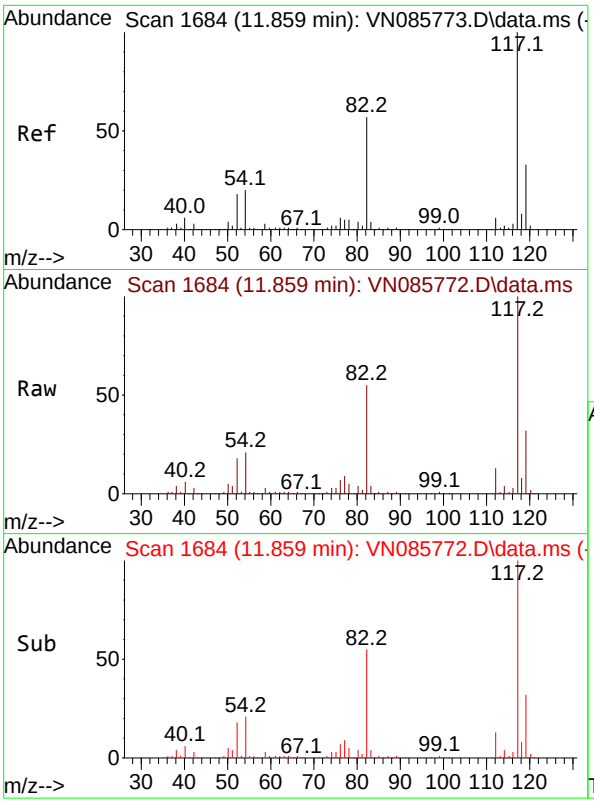


#62
4-Bromofluorobenzene
Concen: 128.269 ug/l
RT: 12.841 min Scan# 1851
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 95 Resp: 460996

Ion	Ratio	Lower	Upper
95	100		
174	77.6	0.0	152.4
176	75.2	0.0	146.6





#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.859 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

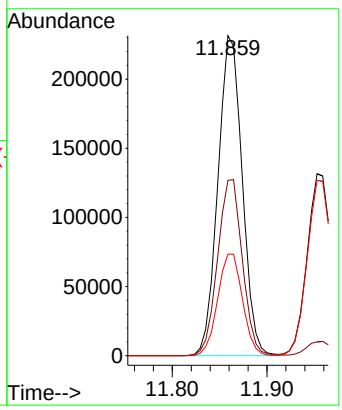
Tgt Ion:117 Resp: 41261

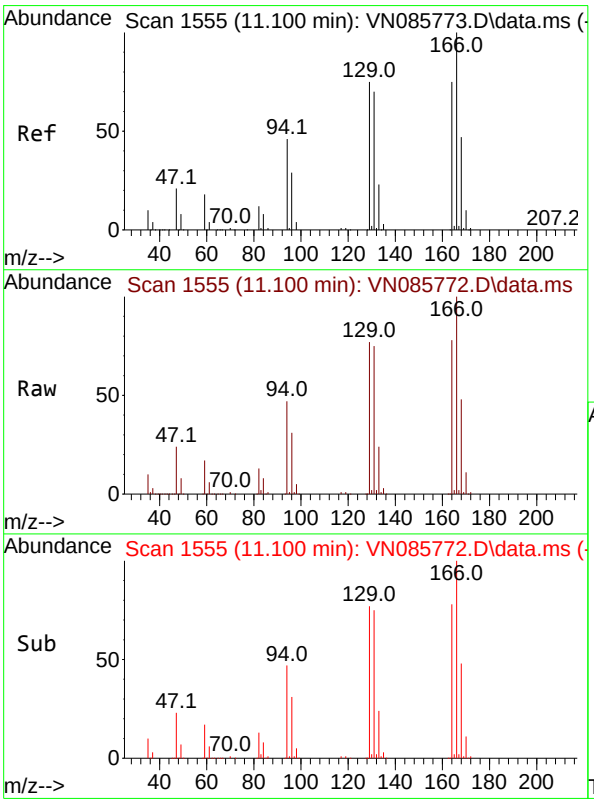
Ion	Ratio	Lower	Upper
117	100		
82	54.8	45.7	68.5
119	31.8	26.2	39.2

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

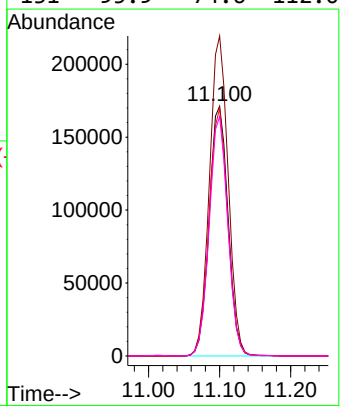


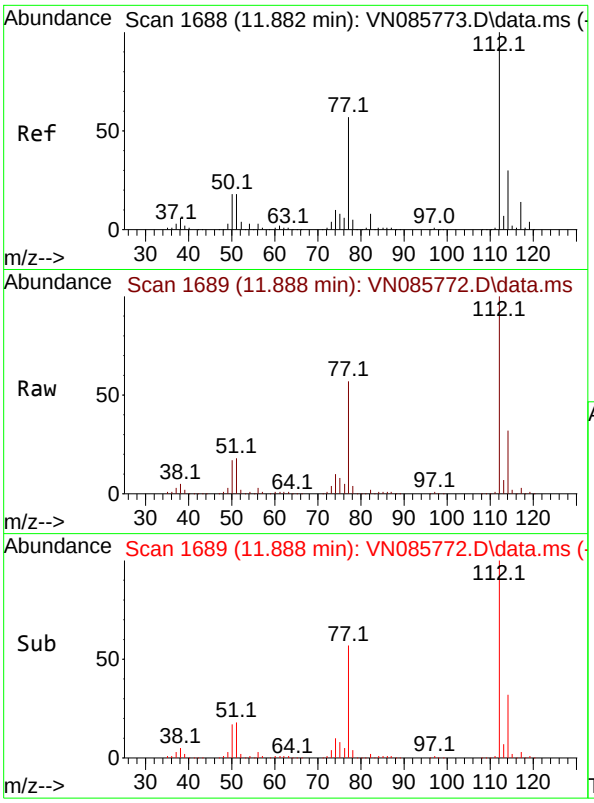


#64
Tetrachloroethene
Concen: 99.063 ug/l
RT: 11.100 min Scan# 1555
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion:164 Resp: 316658

Ion	Ratio	Lower	Upper
164	100		
166	128.1	107.2	160.8
129	99.1	80.7	121.1
131	95.9	74.6	112.0

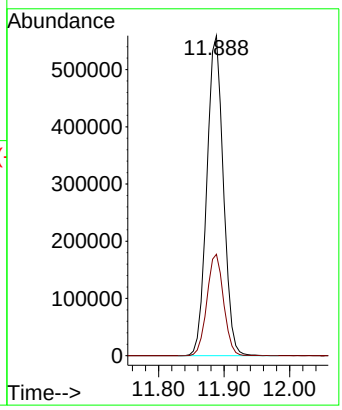




#65
Chlorobenzene
Concen: 103.290 ug/l
RT: 11.888 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion:112 Resp: 97633

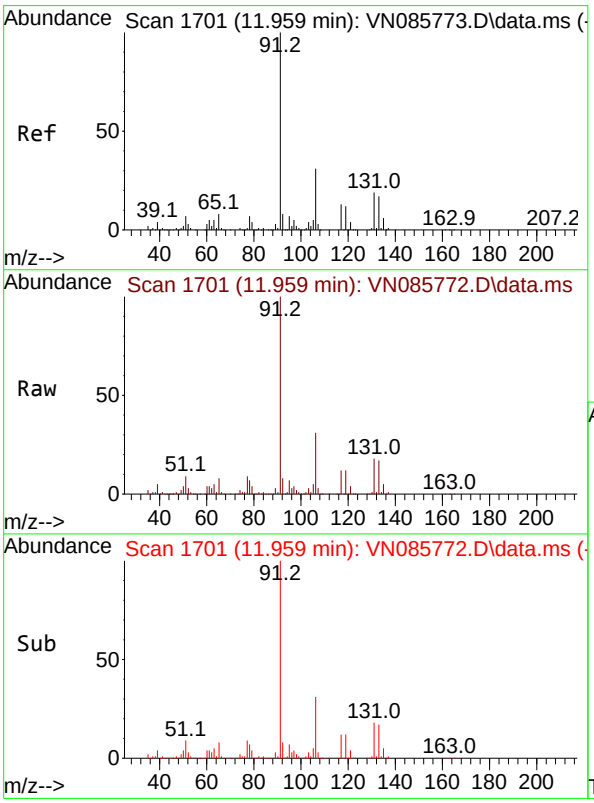
Ion	Ratio	Lower	Upper
112	100		
114	31.7	24.3	36.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

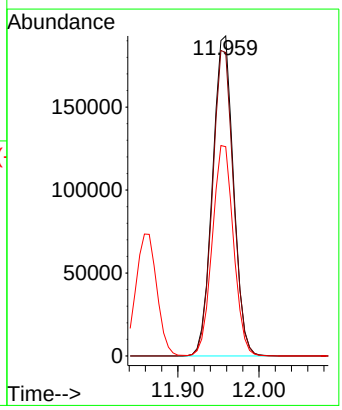
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

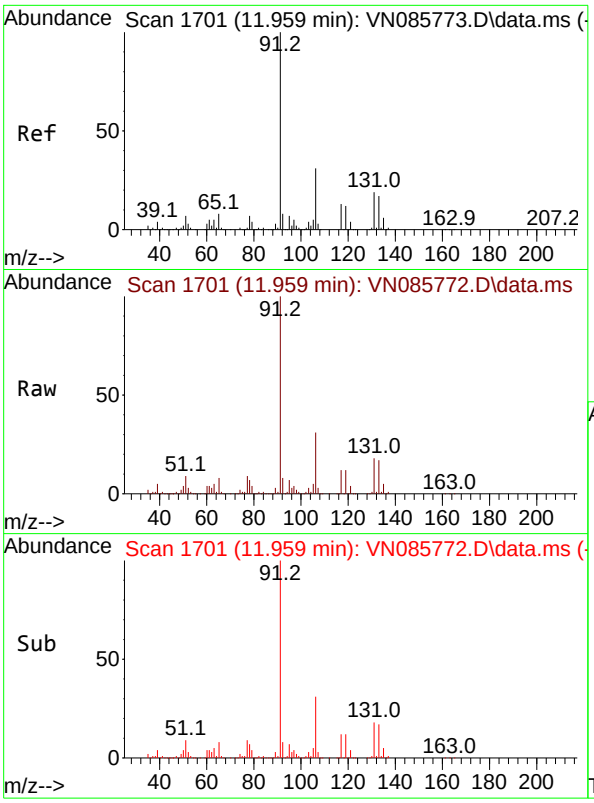


#66
1,1,1,2-Tetrachloroethane
Concen: 102.068 ug/l
RT: 11.959 min Scan# 1701
Delta R.T. -0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion:131 Resp: 346777

Ion	Ratio	Lower	Upper
131	100		
133	95.6	47.7	143.1
119	66.5	33.3	99.8





#67
Ethyl Benzene
Concen: 117.301 ug/l
RT: 11.959 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

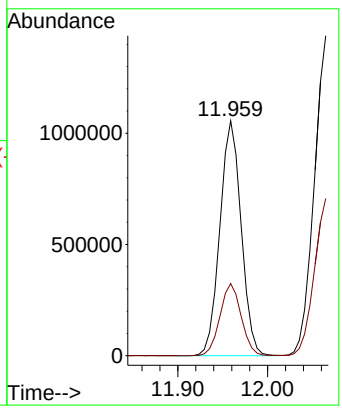
Tgt Ion: 91 Resp: 173684

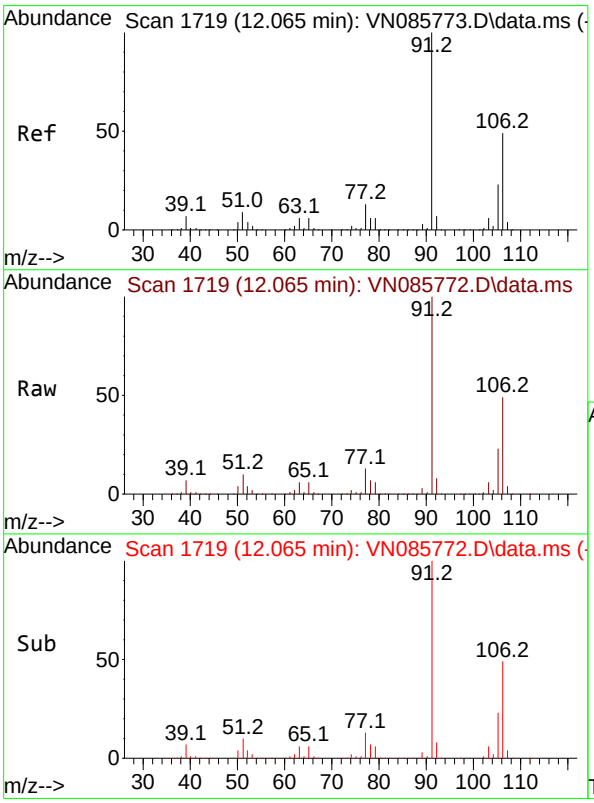
Ion	Ratio	Lower	Upper
91	100		
106	30.7	24.7	37.1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

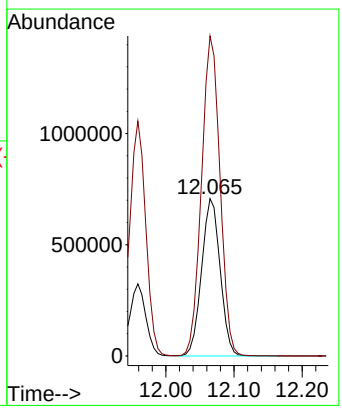


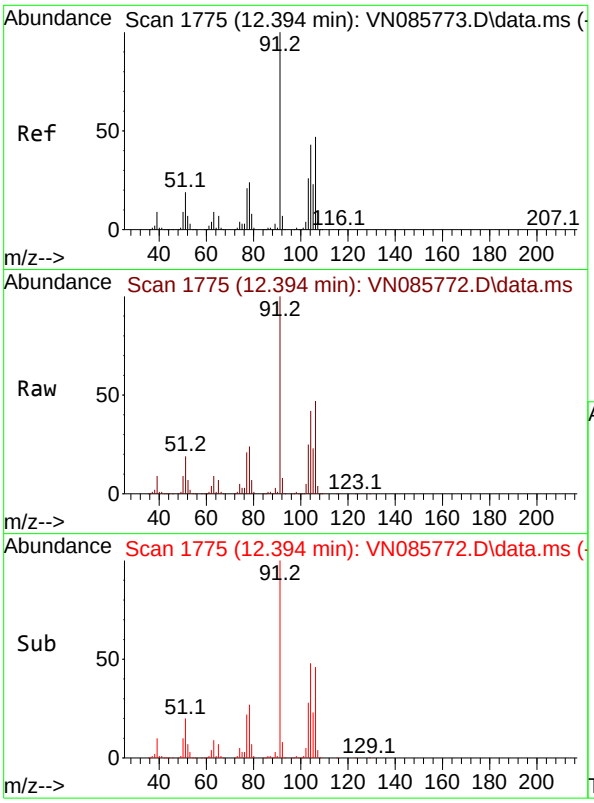


#68
m/p-Xylenes
Concen: 237.496 ug/l
RT: 12.065 min Scan# 1719
Delta R.T. -0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion:106 Resp: 1335750

Ion	Ratio	Lower	Upper
106	100		
91	203.3	163.3	244.9

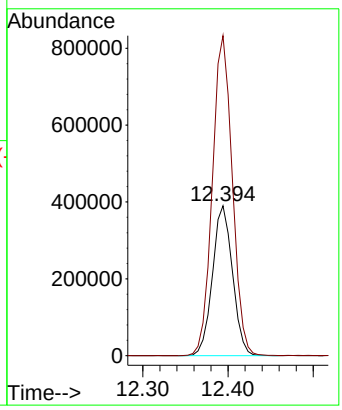




#69
o-Xylene
Concen: 118.977 ug/l
RT: 12.394 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion:106 Resp: 63587

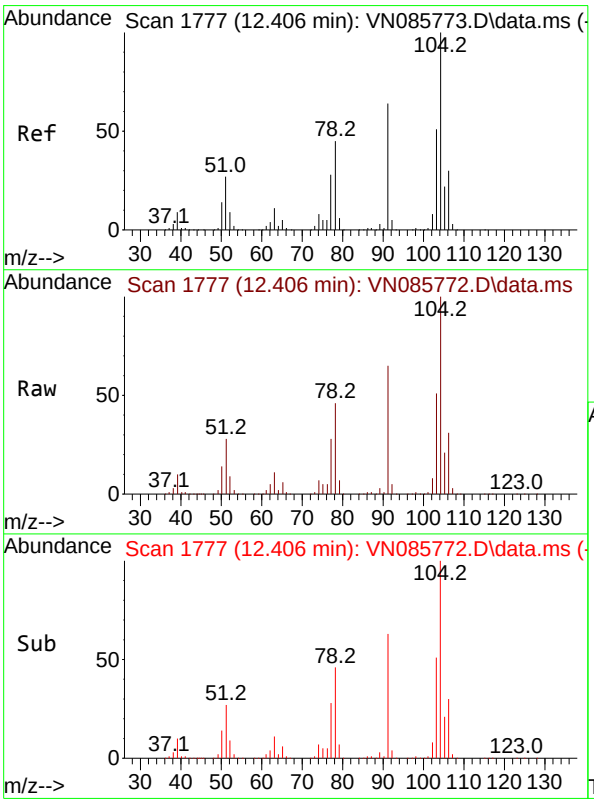
Ion	Ratio	Lower	Upper
106	100		
91	213.2	107.1	321.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

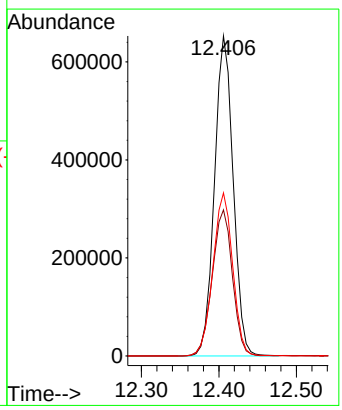
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

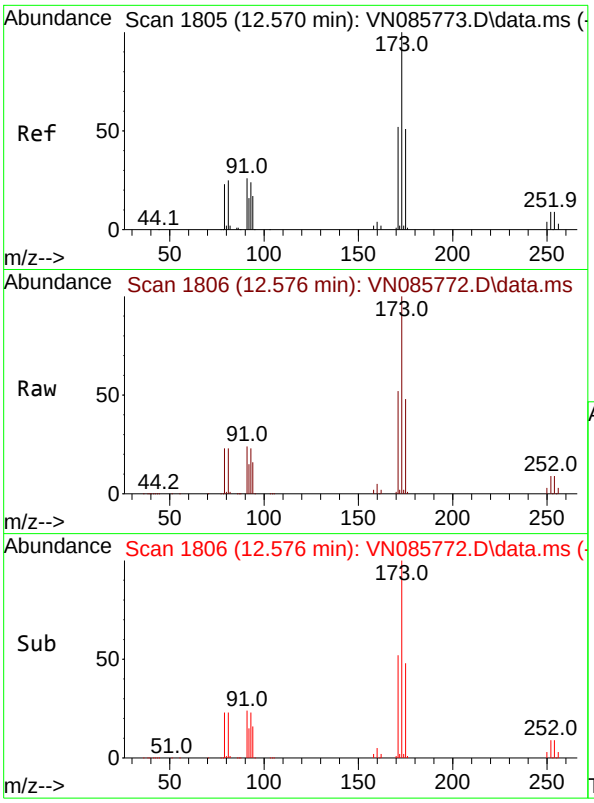


#70
Styrene
Concen: 100.012 ug/l
RT: 12.406 min Scan# 1777
Delta R.T. -0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion:104 Resp: 1095464

Ion	Ratio	Lower	Upper
104	100		
78	49.3	39.0	58.6
103	53.9	43.3	64.9

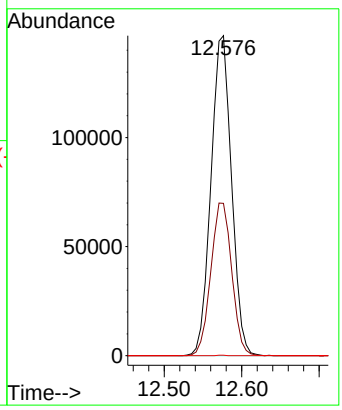




#71
Bromoform
Concen: 106.877 ug/l
RT: 12.576 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion:173 Resp: 26981

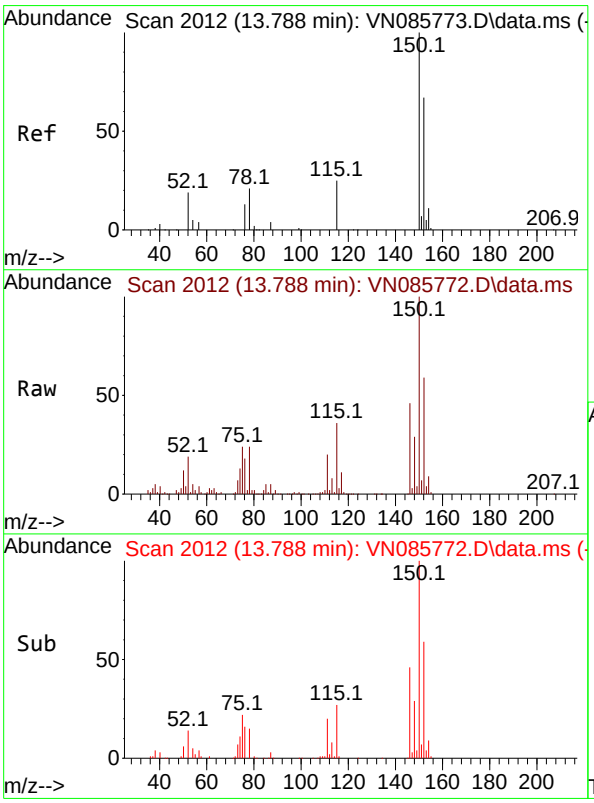
Ion	Ratio	Lower	Upper
173	100		
175	48.7	25.1	75.4
254	0.1	0.0	0.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

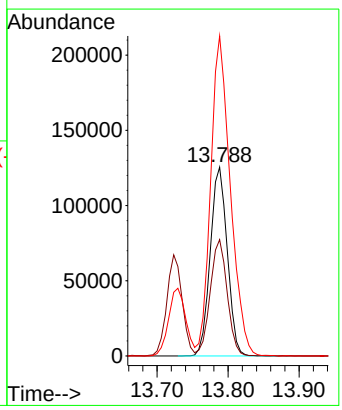
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

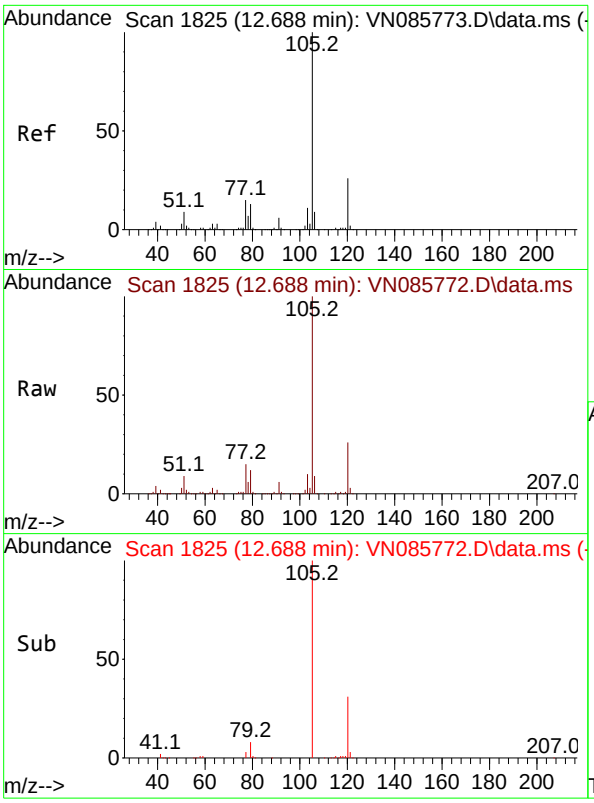


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.788 min Scan# 2012
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion:152 Resp: 208401

Ion	Ratio	Lower	Upper
152	100		
115	61.5	30.4	91.3
150	196.0	0.0	345.4





#73
Isopropylbenzene
Concen: 112.422 ug/l
RT: 12.688 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

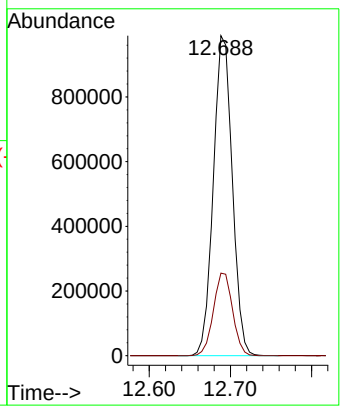
Tgt Ion:105 Resp: 160509

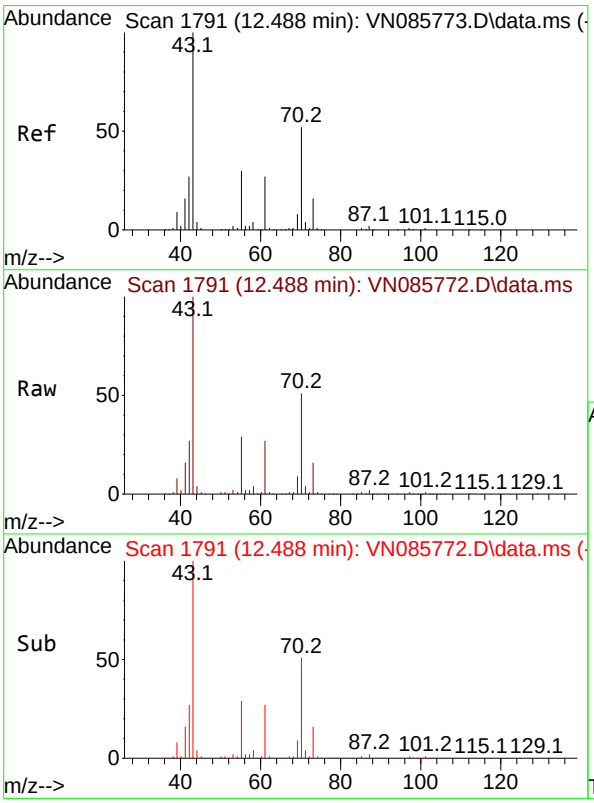
Ion	Ratio	Lower	Upper
105	100		
120	26.1	13.0	39.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

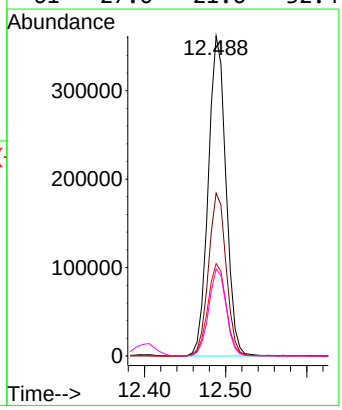


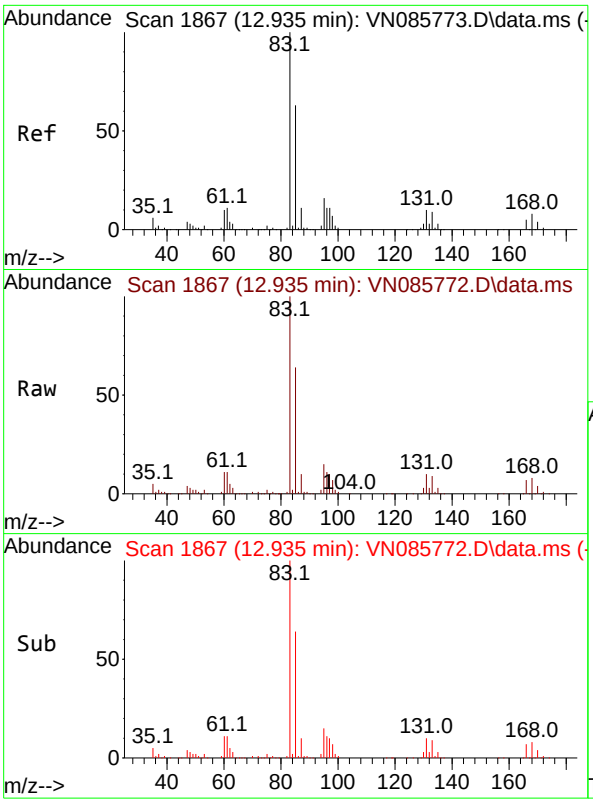


#74
N-amyl acetate
Concen: 108.541 ug/l
RT: 12.488 min Scan# 1791
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 43 Resp: 546485

Ion	Ratio	Lower	Upper
43	100		
70	50.8	41.0	61.4
55	29.9	24.6	36.8
61	27.0	21.6	32.4





#75
1,1,2,2-Tetrachloroethane
Concen: 91.050 ug/l
RT: 12.935 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

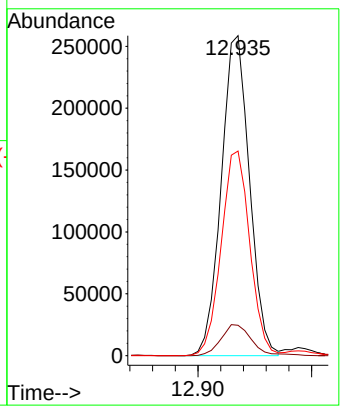
Tgt Ion: 83 Resp: 44733

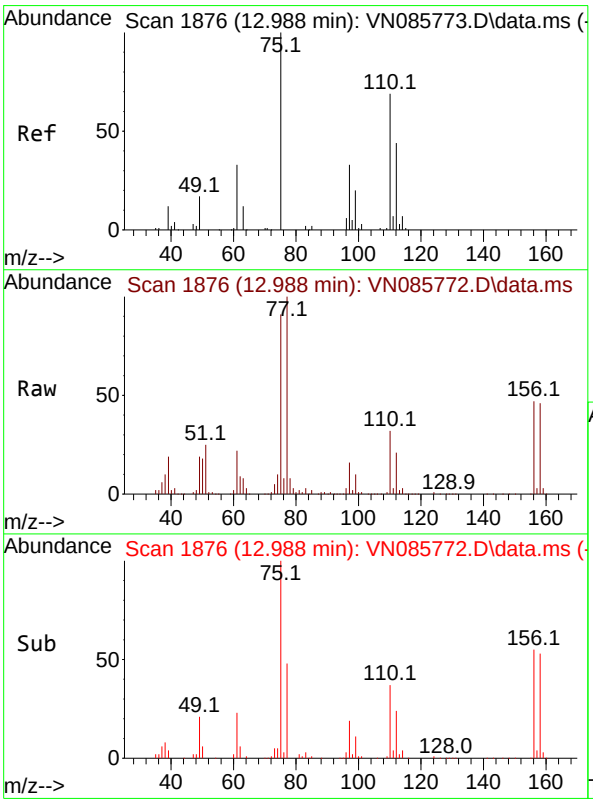
Ion	Ratio	Lower	Upper
83	100		
131	10.5	5.0	15.0
85	64.6	32.2	96.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

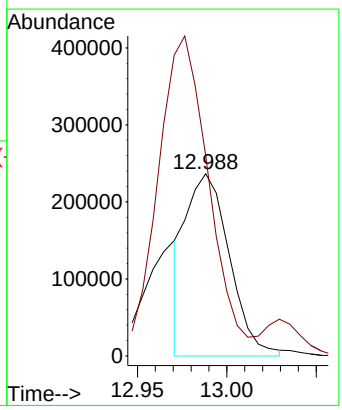


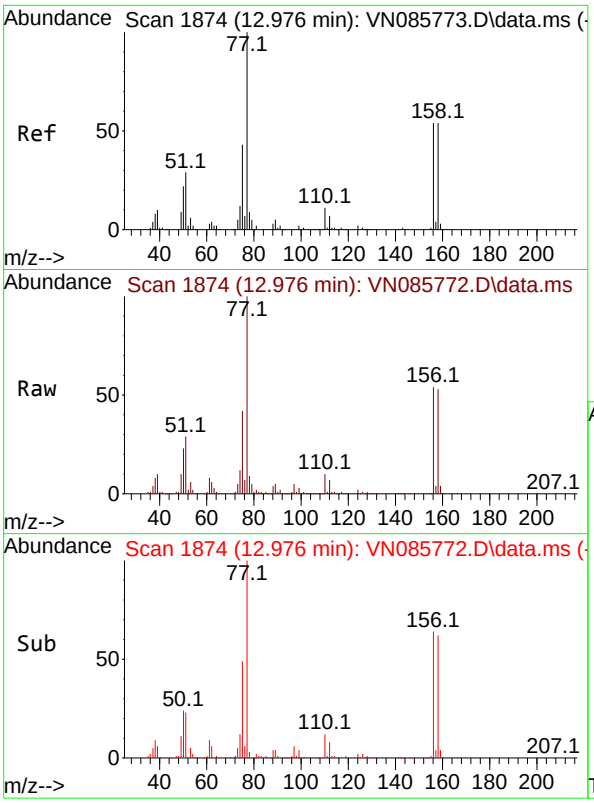


#76
1,2,3-Trichloropropane
Concen: 87.774 ug/l m
RT: 12.988 min Scan# 1876
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 75 Resp: 401864

Ion	Ratio	Lower	Upper
75	100		
77	204.4	100.0	300.0





#77
Bromobenzene
Concen: 102.631 ug/l
RT: 12.976 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

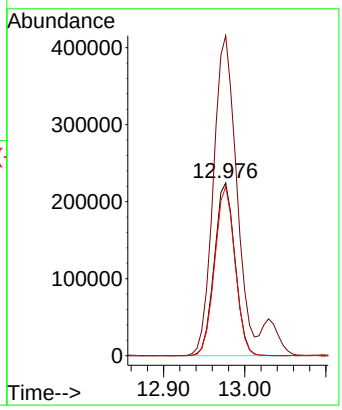
Tgt Ion:156 Resp: 39588

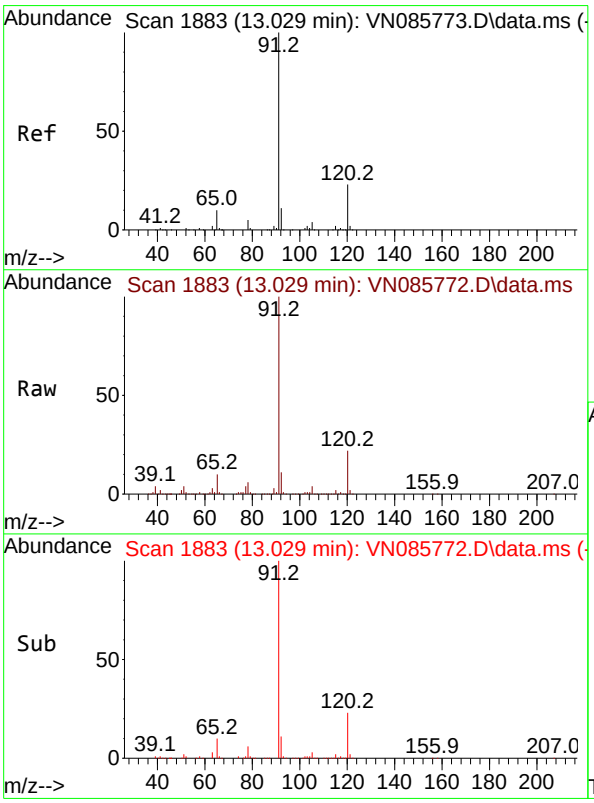
Ion	Ratio	Lower	Upper
156	100		
77	207.5	104.1	312.3
158	96.5	48.1	144.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

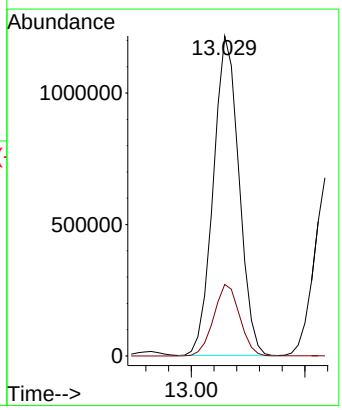


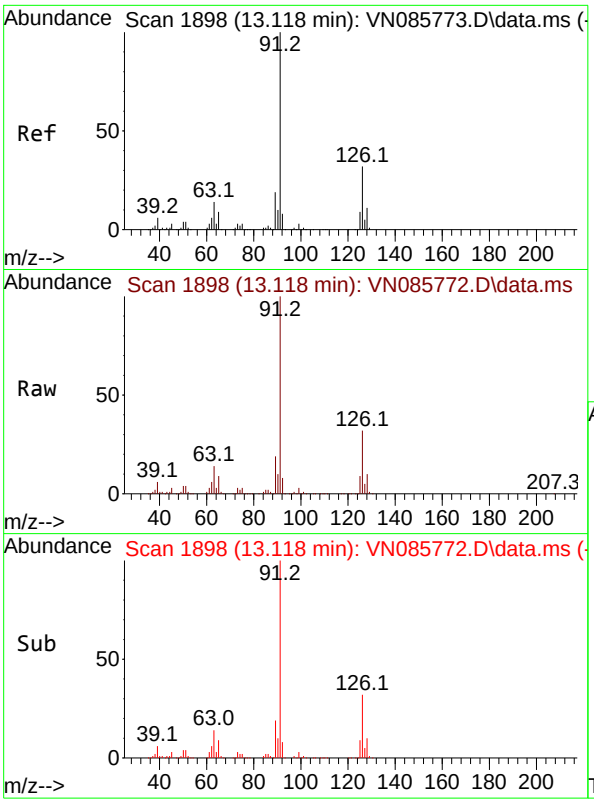


#78
n-propylbenzene
Concen: 116.552 ug/l
RT: 13.029 min Scan# 1883
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 91 Resp: 1905758

Ion	Ratio	Lower	Upper
91	100		
120	22.7	11.3	33.8





#79
2-Chlorotoluene
Concen: 106.029 ug/l
RT: 13.118 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

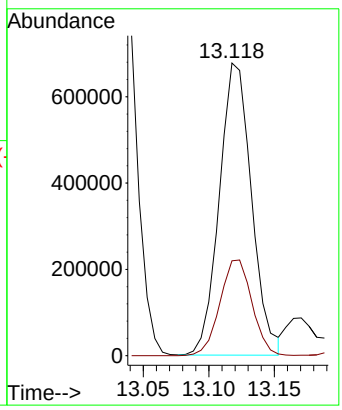
Tgt Ion: 91 Resp: 115834

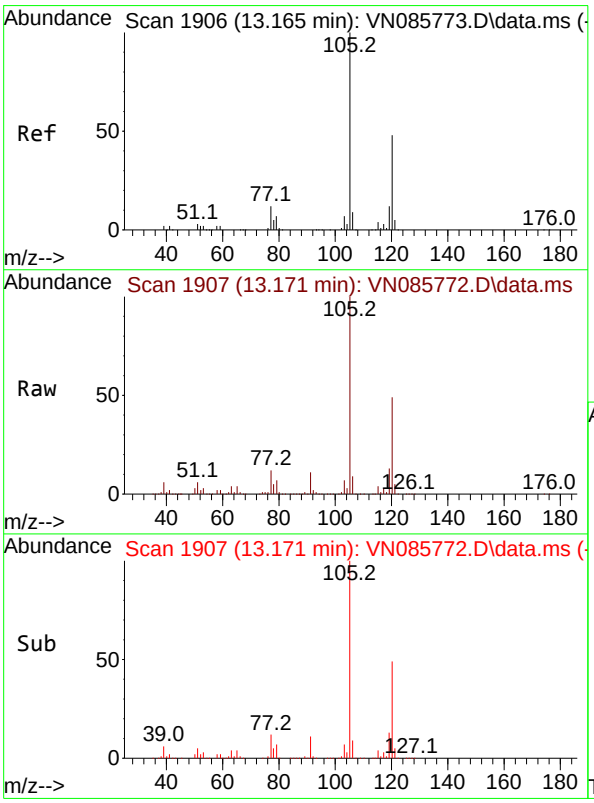
Ion	Ratio	Lower	Upper
91	100		
126	32.7	16.4	49.1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

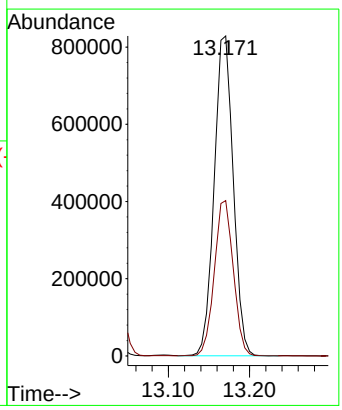


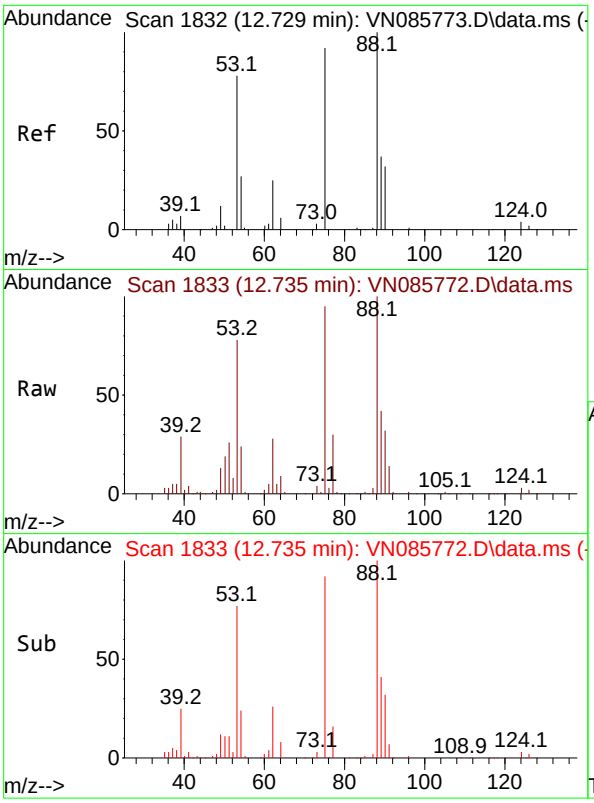


#80
1,3,5-Trimethylbenzene
Concen: 116.226 ug/l
RT: 13.171 min Scan# 1907
Delta R.T. 0.006 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion:105 Resp: 1351753

Ion	Ratio	Lower	Upper
105	100		
120	48.4	24.3	72.9





#81
trans-1,4-Dichloro-2-butene
Concen: 107.459 ug/l
RT: 12.735 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

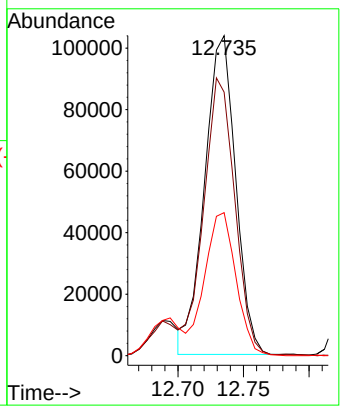
Tgt Ion: 75 Resp: 17049

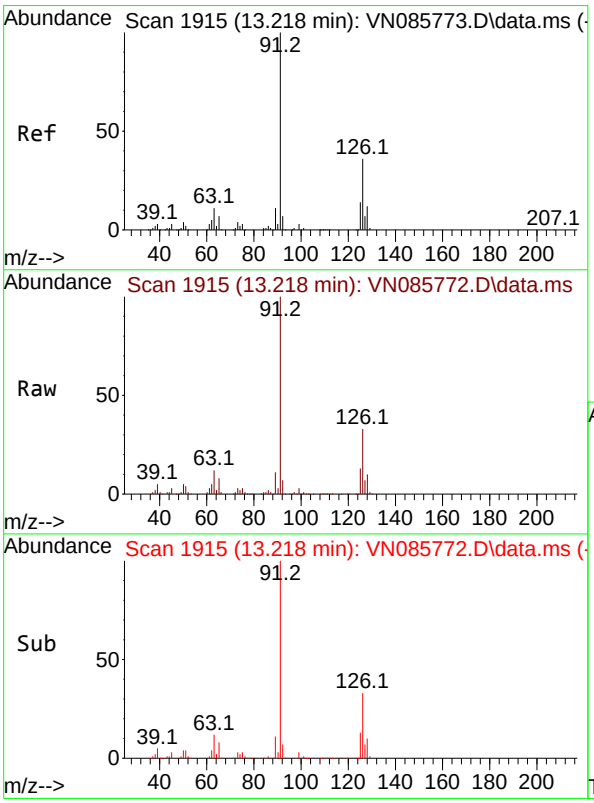
Ion	Ratio	Lower	Upper
75	100		
53	88.3	74.2	111.4
89	45.3	34.9	52.3

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

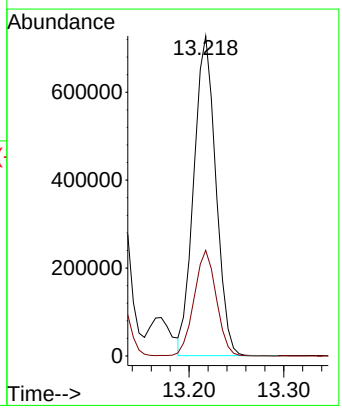


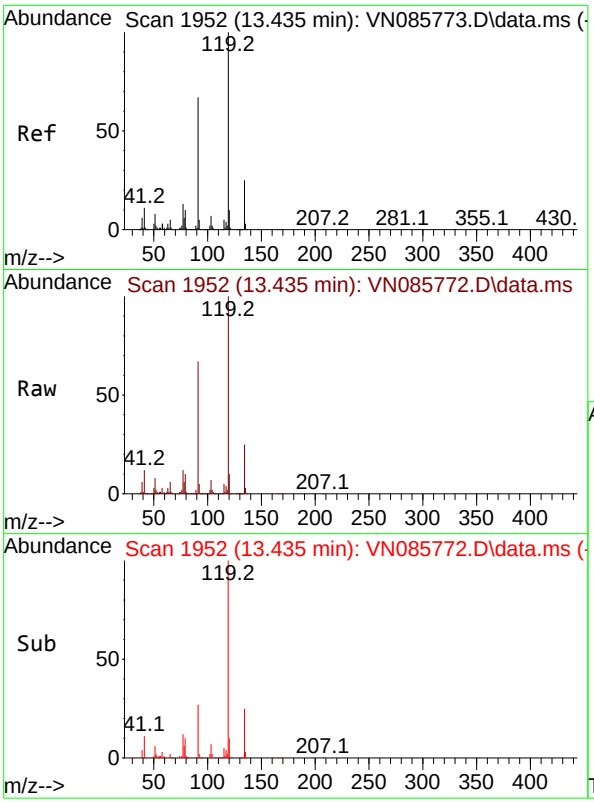


#82
4-Chlorotoluene
Concen: 108.322 ug/l
RT: 13.218 min Scan# 1915
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 91 Resp: 1173182

Ion	Ratio	Lower	Upper
91	100		
126	33.4	16.4	49.4

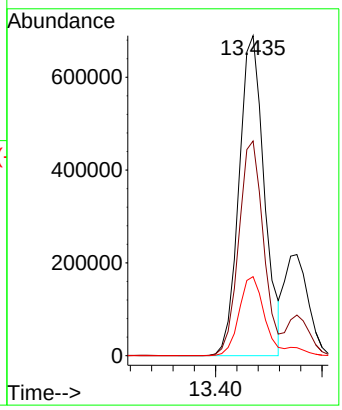




#83
tert-Butylbenzene
Concen: 116.235 ug/l
RT: 13.435 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion:119 Resp: 113680

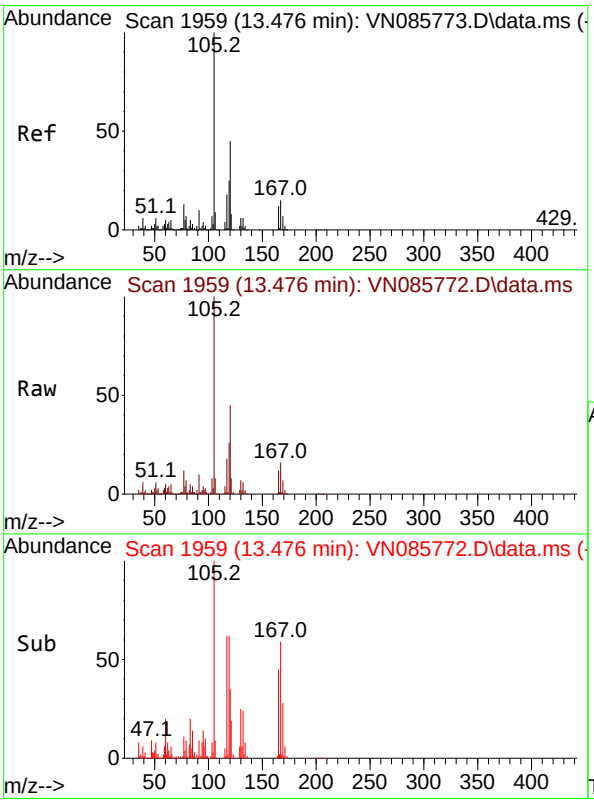
Ion	Ratio	Lower	Upper
119	100		
91	65.5	32.5	97.5
134	26.5	13.3	39.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

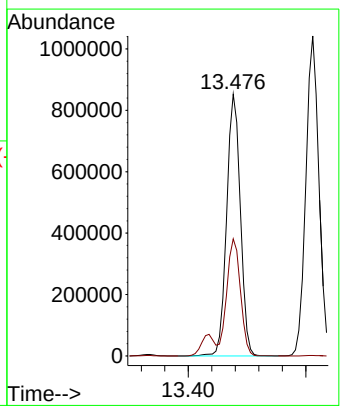
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

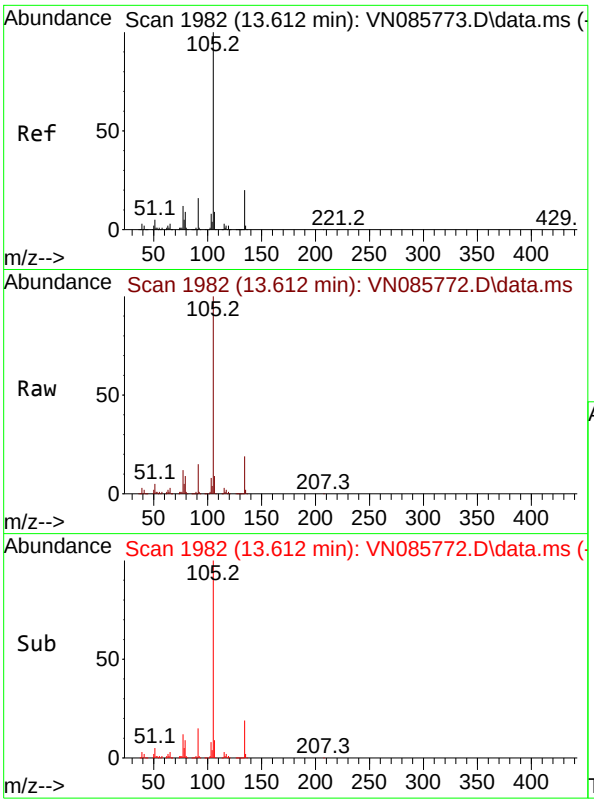


#84
1,2,4-Trimethylbenzene
Concen: 119.764 ug/l
RT: 13.476 min Scan# 1959
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion:105 Resp: 1378080

Ion	Ratio	Lower	Upper
105	100		
120	44.9	22.4	67.3

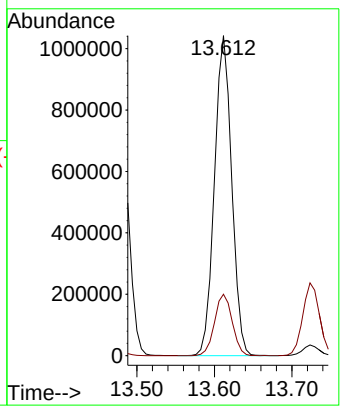




#85
sec-Butylbenzene
Concen: 116.540 ug/l
RT: 13.612 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion:105 Resp: 161038

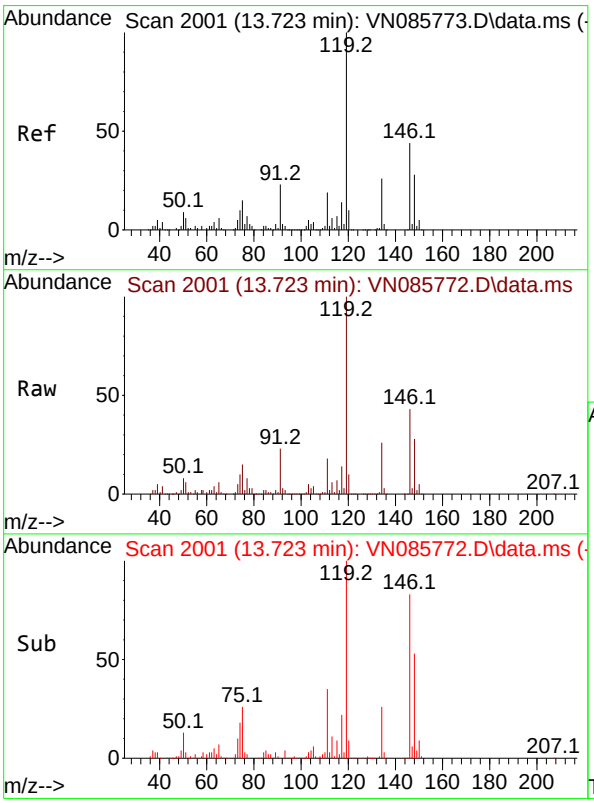
Ion	Ratio	Lower	Upper
105	100		
134	19.7	9.8	29.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

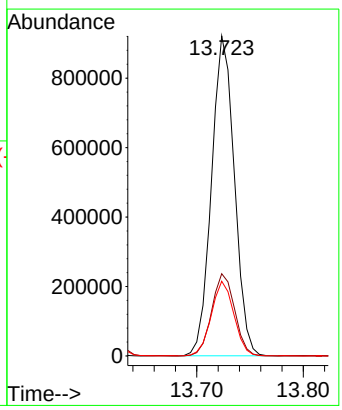
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

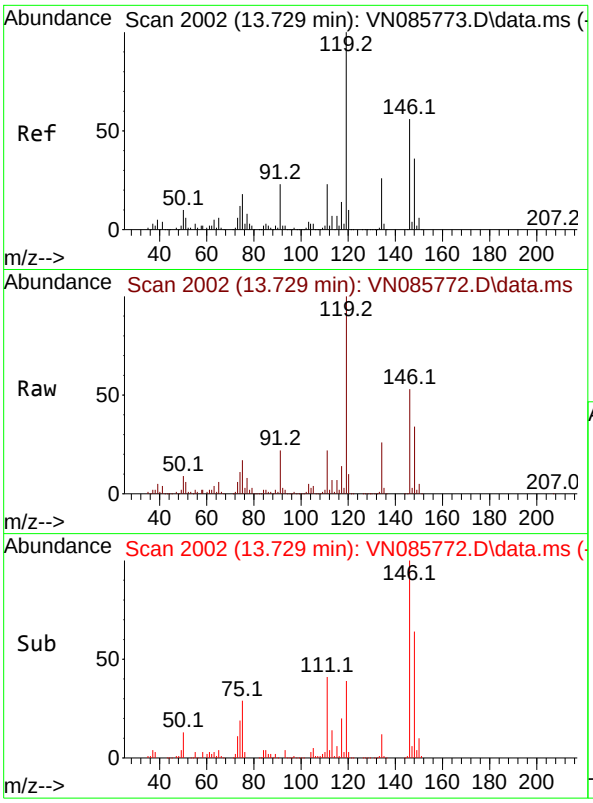


#86
p-Isopropyltoluene
Concen: 99.983 ug/l
RT: 13.723 min Scan# 2001
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion:119 Resp: 1374884

Ion	Ratio	Lower	Upper
119	100		
134	25.8	13.0	39.0
91	23.1	11.7	35.1

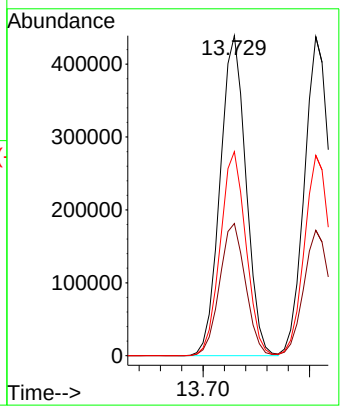




#87
1,3-Dichlorobenzene
Concen: 102.213 ug/l
RT: 13.729 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion:146 Resp: 73867

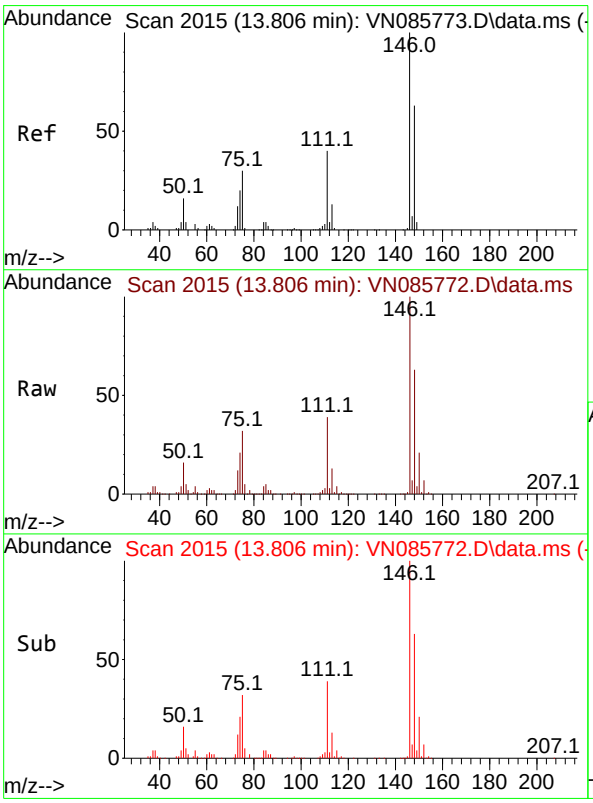
Ion	Ratio	Lower	Upper
146	100		
111	41.4	21.1	63.3
148	63.4	32.1	96.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

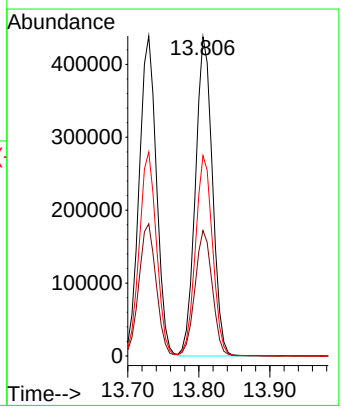
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

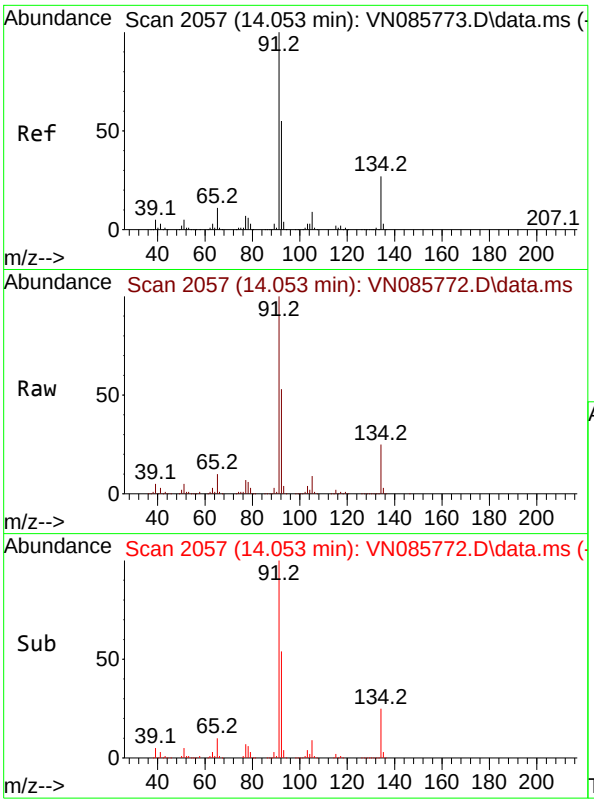


#88
1,4-Dichlorobenzene
Concen: 98.484 ug/l
RT: 13.806 min Scan# 2015
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion:146 Resp: 729470

Ion	Ratio	Lower	Upper
146	100		
111	40.1	20.4	61.3
148	63.1	31.8	95.4





#89
n-Butylbenzene
Concen: 120.179 ug/l
RT: 14.053 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

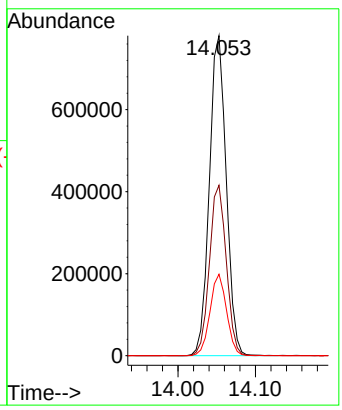
Tgt Ion: 91 Resp: 117905

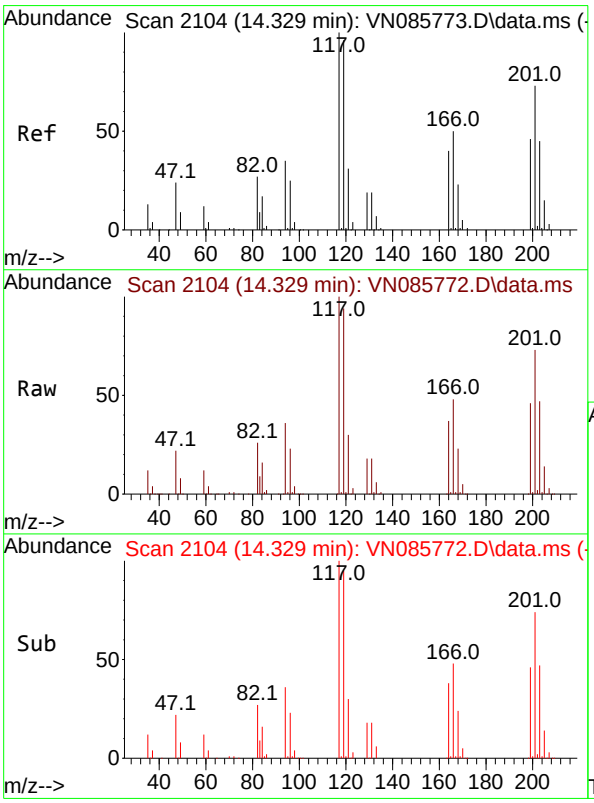
Ion	Ratio	Lower	Upper
91	100		
92	53.3	27.1	81.3
134	25.0	12.7	38.1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

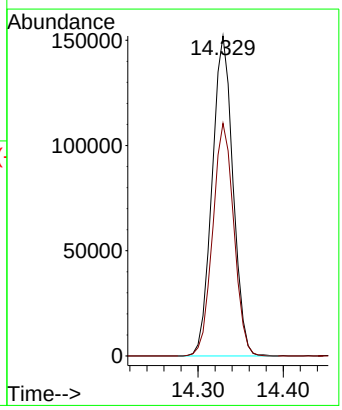


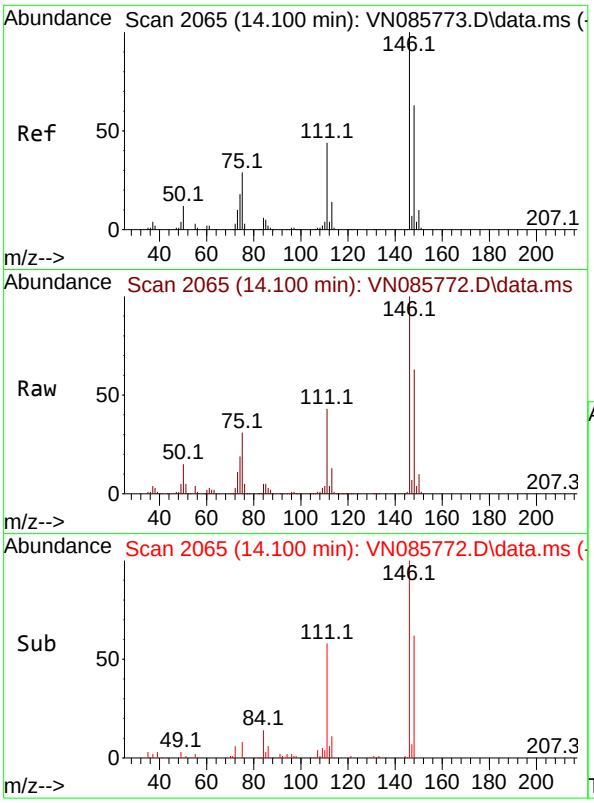


#90
Hexachloroethane
Concen: 98.800 ug/l
RT: 14.329 min Scan# 2104
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion:117 Resp: 258559

Ion	Ratio	Lower	Upper
117	100		
201	73.4	35.6	106.9

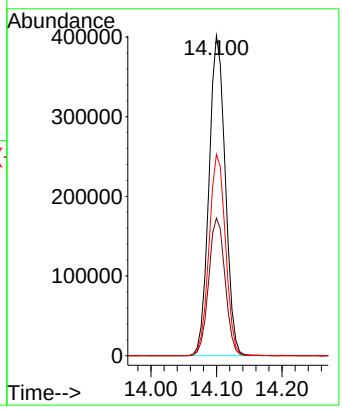




#91
1,2-Dichlorobenzene
Concen: 99.562 ug/l
RT: 14.100 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion:146 Resp: 69190

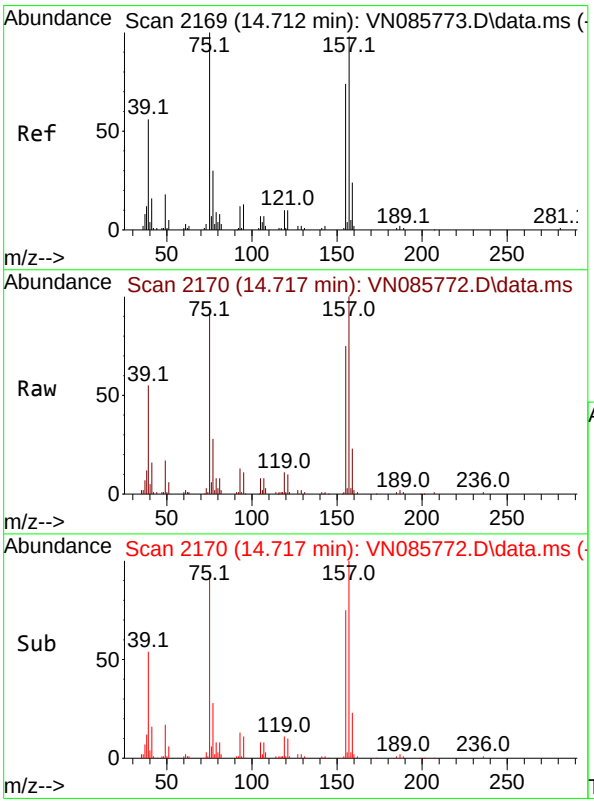
Ion	Ratio	Lower	Upper
146	100		
111	43.3	21.4	64.3
148	63.5	32.0	96.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

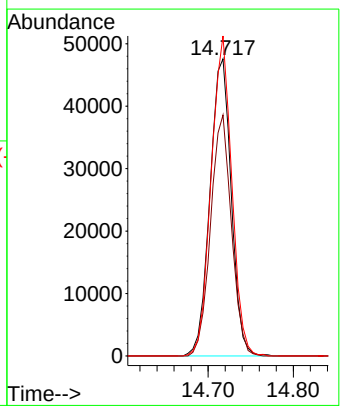
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

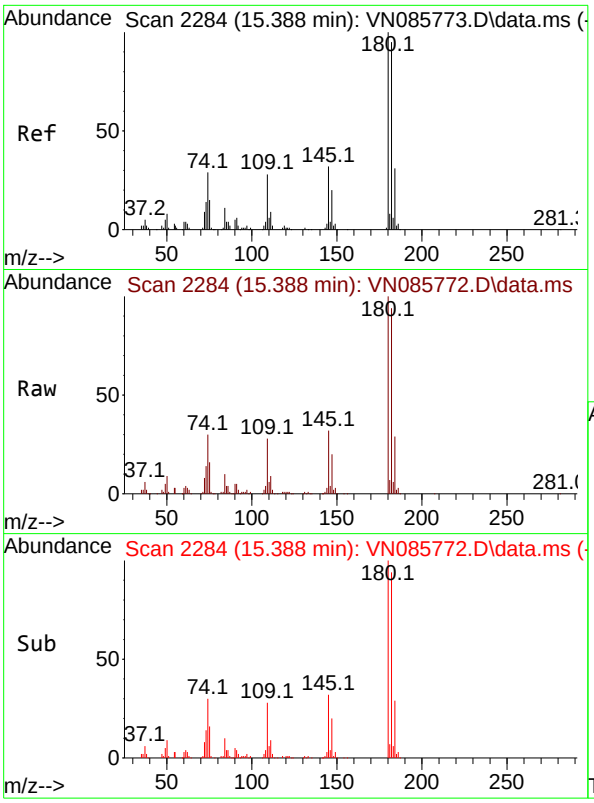


#92
1,2-Dibromo-3-Chloropropane
Concen: 91.495 ug/l
RT: 14.717 min Scan# 2170
Delta R.T. 0.006 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion: 75 Resp: 82545

Ion	Ratio	Lower	Upper
75	100		
155	79.3	39.9	119.6
157	104.4	49.9	149.7

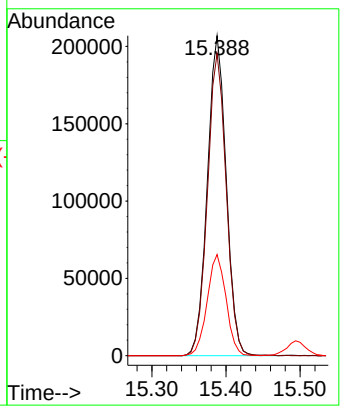




#93
1,2,4-Trichlorobenzene
Concen: 110.404 ug/l
RT: 15.388 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion:180 Resp: 365599

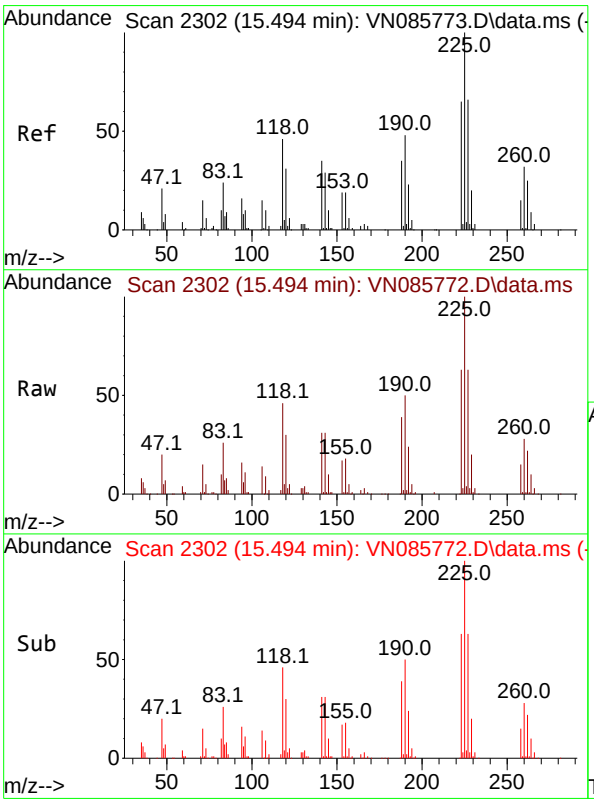
Ion	Ratio	Lower	Upper
180	100		
182	94.2	47.3	141.9
145	31.7	16.2	48.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

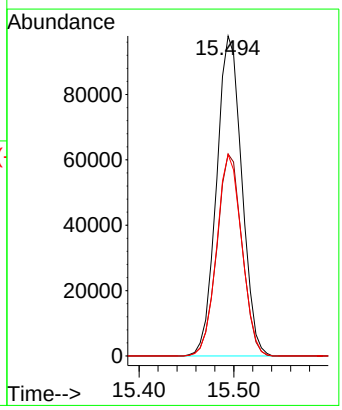
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

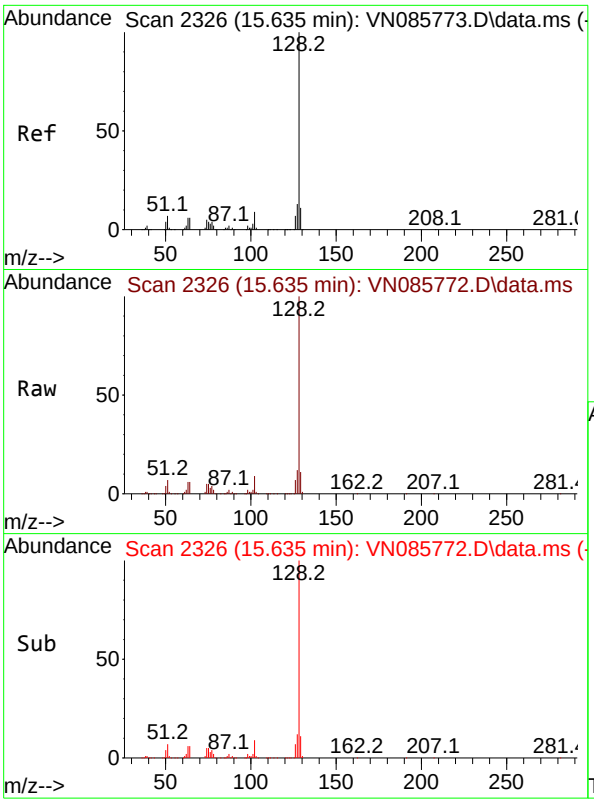


#94
Hexachlorobutadiene
Concen: 90.068 ug/l
RT: 15.494 min Scan# 2302
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion:225 Resp: 181264

Ion	Ratio	Lower	Upper
225	100		
223	62.8	31.9	95.5
227	62.6	32.2	96.6

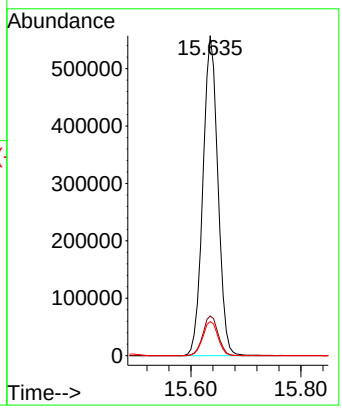




#95
Naphthalene
Concen: 115.870 ug/l
RT: 15.635 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion:128 Resp: 105341

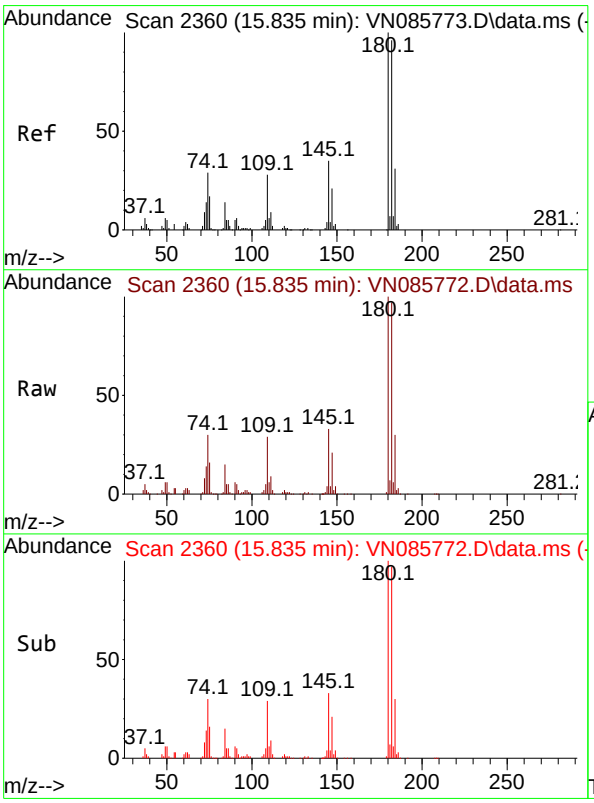
Ion	Ratio	Lower	Upper
128	100		
127	12.7	10.2	15.2
129	10.8	8.7	13.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

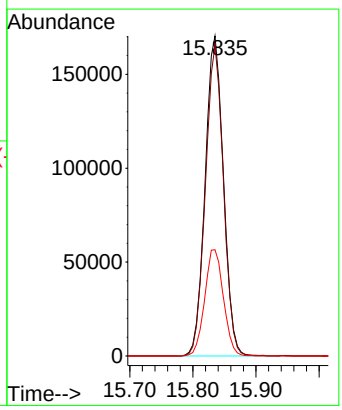
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025



#96
1,2,3-Trichlorobenzene
Concen: 103.456 ug/l
RT: 15.835 min Scan# 2360
Delta R.T. 0.000 min
Lab File: VN085772.D
Acq: 18 Feb 2025 11:09

Tgt Ion:180 Resp: 343936

Ion	Ratio	Lower	Upper
180	100		
182	95.3	47.3	141.8
145	33.9	16.9	50.6



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN021825\
Data File : VN085773.D
Acq On : 18 Feb 2025 11:32
Operator : JC\MD
Sample : VSTDICCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 19 03:16:32 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:03:15 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.218	168	322407	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.094	114	526945	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.859	117	461653	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.788	152	227499	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.571	65	197726	47.304	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 94.600%			
35) Dibromofluoromethane	8.159	113	167050	48.447	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 96.900%			
50) Toluene-d8	10.559	98	632021	50.380	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 100.760%			
62) 4-Bromofluorobenzene	12.841	95	220691	53.393	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 106.780%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.124	85	215740	49.195	ug/l	100
3) Chloromethane	2.359	50	200592	45.584	ug/l	100
4) Vinyl Chloride	2.512	62	218675	46.933	ug/l	100
5) Bromomethane	2.953	94	136563	45.838	ug/l	100
6) Chloroethane	3.124	64	134303	43.517	ug/l	100
7) Trichlorofluoromethane	3.501	101	309133	45.825	ug/l	100
8) Diethyl Ether	3.959	74	106634	48.854	ug/l	100
9) 1,1,2-Trichlorotrifluo...	4.365	101	181996	46.673	ug/l	100
10) Methyl Iodide	4.583	142	232889	48.452	ug/l	100
11) Tert butyl alcohol	5.506	59	126538	246.136	ug/l	100
12) 1,1-Dichloroethene	4.336	96	170063	48.100	ug/l	100
13) Acrolein	4.177	56	203891	267.442	ug/l	100
14) Allyl chloride	5.018	41	222754	47.986	ug/l	100
15) Acrylonitrile	5.712	53	394641	236.130	ug/l	100
16) Acetone	4.418	43	297175	224.691	ug/l	100
17) Carbon Disulfide	4.712	76	474860	45.317	ug/l	100
18) Methyl Acetate	5.018	43	199458	43.846	ug/l	100
19) Methyl tert-butyl Ether	5.789	73	534589	50.883	ug/l	100
20) Methylene Chloride	5.271	84	191098	44.929	ug/l	100
21) trans-1,2-Dichloroethene	5.783	96	176973	46.486	ug/l	100
22) Diisopropyl ether	6.665	45	529828	50.512	ug/l	100
23) Vinyl Acetate	6.594	43	1802342	251.727	ug/l	100
24) 1,1-Dichloroethane	6.565	63	333567	46.781	ug/l	100
25) 2-Butanone	7.471	43	474562	243.893	ug/l	100
26) 2,2-Dichloropropane	7.483	77	304840	48.079	ug/l	100
27) cis-1,2-Dichloroethene	7.483	96	213235	48.306	ug/l	100
28) Bromochloromethane	7.806	49	143276	48.888	ug/l	100
29) Tetrahydrofuran	7.830	42	315243	250.894	ug/l	100
30) Chloroform	7.959	83	344841	46.278	ug/l	100
31) Cyclohexane	8.253	56	277254	46.440	ug/l	100
32) 1,1,1-Trichloroethane	8.165	97	311700	47.030	ug/l	100
36) 1,1-Dichloropropene	8.365	75	242144	49.620	ug/l	100
37) Ethyl Acetate	7.553	43	197609	49.206	ug/l	100
38) Carbon Tetrachloride	8.353	117	278306	47.997	ug/l	100
39) Methylcyclohexane	9.594	83	259289	54.085	ug/l	100
40) Benzene	8.600	78	759363	48.551	ug/l	100

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN021825\
Data File : VN085773.D
Acq On : 18 Feb 2025 11:32
Operator : JC\MD
Sample : VSTDICCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Feb 19 03:16:32 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:03:15 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.765	41	113568	52.901	ug/l		100
42) 1,2-Dichloroethane	8.665	62	240115	47.132	ug/l		100
43) Isopropyl Acetate	8.683	43	335482	47.574	ug/l		100
44) Trichloroethene	9.347	130	178742	46.544	ug/l		100
45) 1,2-Dichloropropane	9.618	63	182649	48.379	ug/l		100
46) Dibromomethane	9.700	93	127850	48.010	ug/l		100
47) Bromodichloromethane	9.882	83	272912	47.901	ug/l		100
48) Methyl methacrylate	9.677	41	158375	53.102	ug/l		100
49) 1,4-Dioxane	9.688	88	60759	1071.301	ug/l		100
51) 4-Methyl-2-Pentanone	10.441	43	997906	257.731	ug/l		100
52) Toluene	10.624	92	475069	51.816	ug/l		100
53) t-1,3-Dichloropropene	10.829	75	274791	52.159	ug/l		100
54) cis-1,3-Dichloropropene	10.306	75	298359	51.646	ug/l		100
55) 1,1,2-Trichloroethane	11.012	97	174198	47.788	ug/l		100
56) Ethyl methacrylate	10.871	69	261825	49.960	ug/l		100
57) 1,3-Dichloropropane	11.159	76	297683	48.920	ug/l		100
58) 2-Chloroethyl Vinyl ether	10.153	63	458983	230.774	ug/l		100
59) 2-Hexanone	11.188	43	719870	270.257	ug/l		100
60) Dibromochloromethane	11.353	129	211769	49.890	ug/l		100
61) 1,2-Dibromoethane	11.465	107	169422	49.191	ug/l		100
64) Tetrachloroethene	11.100	164	166710	46.613	ug/l		100
65) Chlorobenzene	11.882	112	512436	48.454	ug/l		100
66) 1,1,1,2-Tetrachloroethane	11.959	131	182537	48.020	ug/l		100
67) Ethyl Benzene	11.959	91	879040	53.062	ug/l		100
68) m/p-Xylenes	12.065	106	684377	108.757	ug/l		100
69) o-Xylene	12.394	106	324948	54.342	ug/l		100
70) Styrene	12.406	104	555269	49.909	ug/l		100
71) Bromoform	12.570	173	139895	49.528	ug/l	#	100
73) Isopropylbenzene	12.688	105	817980	52.482	ug/l		100
74) N-amyl acetate	12.488	43	282288	51.360	ug/l		100
75) 1,1,2,2-Tetrachloroethane	12.935	83	239463	44.649	ug/l		100
76) 1,2,3-Trichloropropane	12.988	75	215451m	43.108	ug/l		
77) Bromobenzene	12.976	156	205754	48.863	ug/l		100
78) n-propylbenzene	13.029	91	968182	54.241	ug/l		100
79) 2-Chlorotoluene	13.118	91	595046	49.895	ug/l		100
80) 1,3,5-Trimethylbenzene	13.165	105	695205	54.757	ug/l		100
81) trans-1,4-Dichloro-2-b...	12.729	75	90255	52.111	ug/l		100
82) 4-Chlorotoluene	13.218	91	604612	51.139	ug/l		100
83) tert-Butylbenzene	13.435	119	586493	54.933	ug/l		100
84) 1,2,4-Trimethylbenzene	13.476	105	700260	55.748	ug/l		100
85) sec-Butylbenzene	13.612	105	831143	55.099	ug/l		100
86) p-Isopropyltoluene	13.723	119	692641	50.103	ug/l		100
87) 1,3-Dichlorobenzene	13.729	146	372004	47.154	ug/l		100
88) 1,4-Dichlorobenzene	13.806	146	374700	46.340	ug/l		100
89) n-Butylbenzene	14.053	91	580445	54.197	ug/l		100
90) Hexachloroethane	14.329	117	133438	46.708	ug/l		100
91) 1,2-Dichlorobenzene	14.100	146	358159	47.211	ug/l		100
92) 1,2-Dibromo-3-Chloropr...	14.712	75	43935	44.611	ug/l		100
93) 1,2,4-Trichlorobenzene	15.388	180	182458	50.473	ug/l		100
94) Hexachlorobutadiene	15.494	225	96444	43.899	ug/l		100
95) Naphthalene	15.635	128	528627	53.265	ug/l		100
96) 1,2,3-Trichlorobenzene	15.835	180	179544	49.473	ug/l		100

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN021825\
Data File : VN085773.D
Acq On : 18 Feb 2025 11:32
Operator : JC\MD
Sample : VSTDICCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

Quant Time: Feb 19 03:16:32 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:03:15 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

ICAL Form

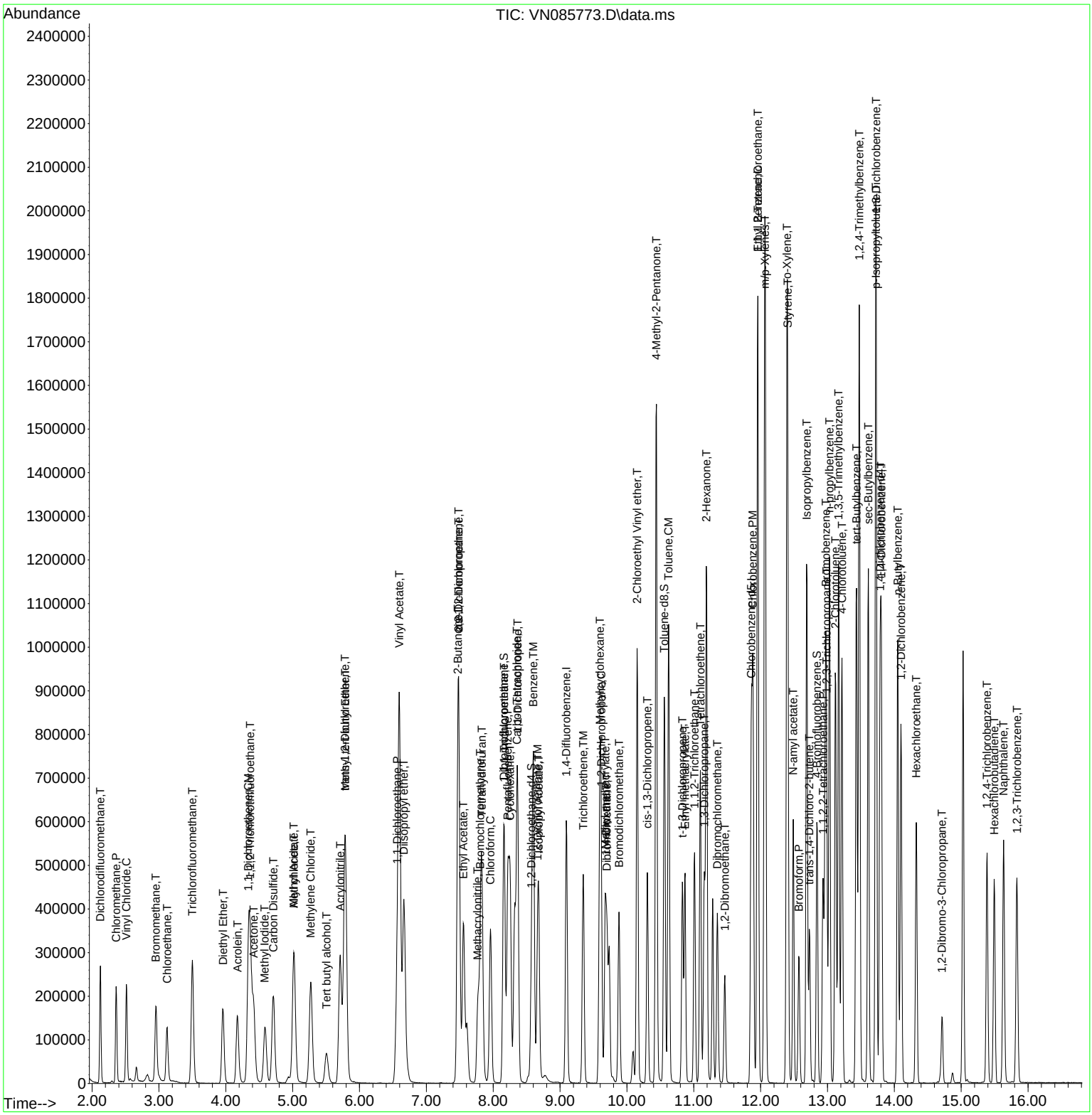
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN021825\
Data File : VN085773.D
Acq On : 18 Feb 2025 11:32
Operator : JC\MD
Sample : VSTDICCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 3 Sample Multiplier: 1

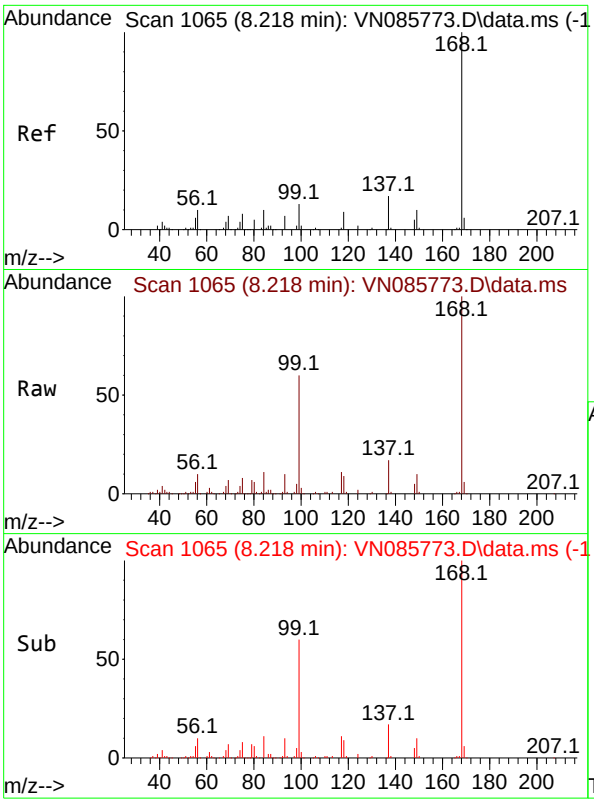
Quant Time: Feb 19 03:16:32 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:03:15 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

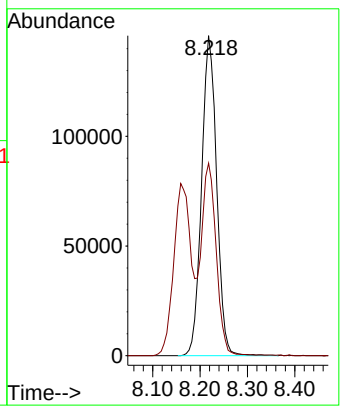




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.218 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion:168 Resp: 32240

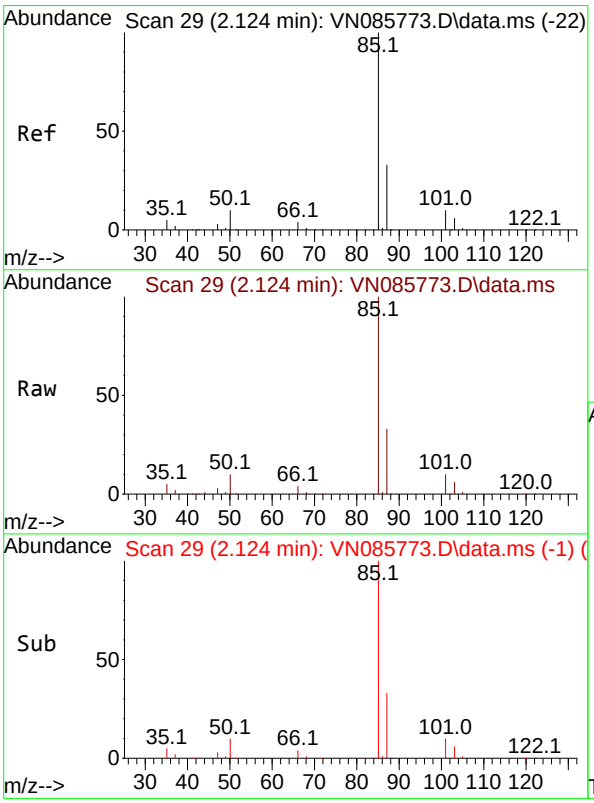
Ion	Ratio	Lower	Upper
168	100		
99	59.9	47.9	71.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

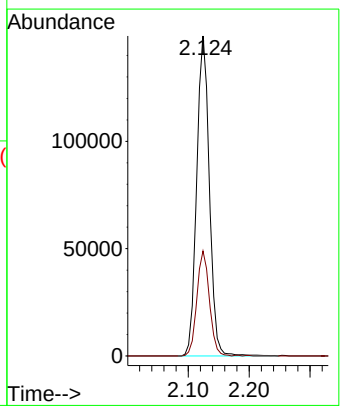
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

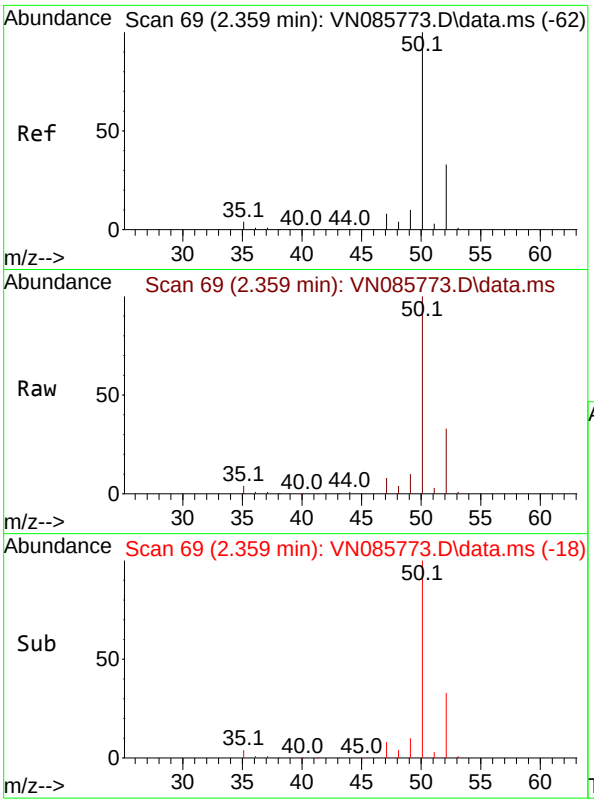


#2
Dichlorodifluoromethane
Concen: 49.195 ug/l
RT: 2.124 min Scan# 29
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 85 Resp: 215740

Ion	Ratio	Lower	Upper
85	100		
87	32.8	16.4	49.2

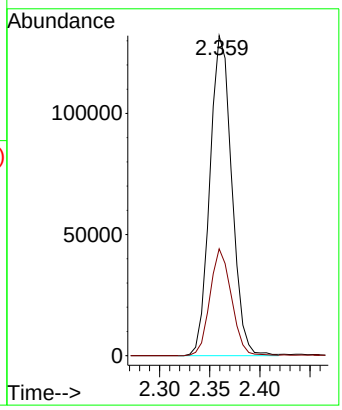




#3
Chloromethane
Concen: 45.584 ug/l
RT: 2.359 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 50 Resp: 20059

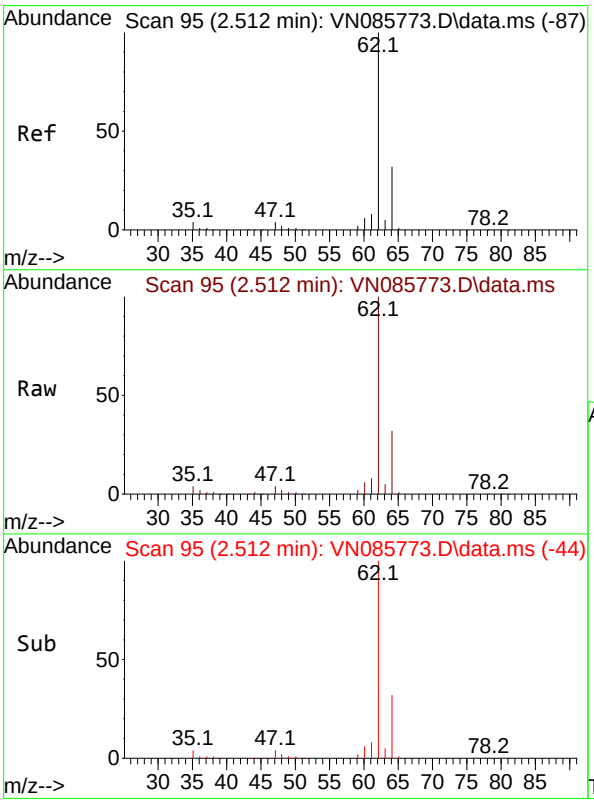
Ion	Ratio	Lower	Upper
50	100		
52	33.4	26.7	40.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

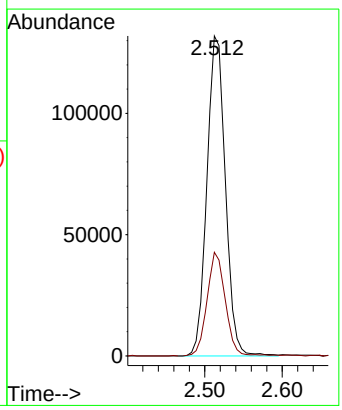
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

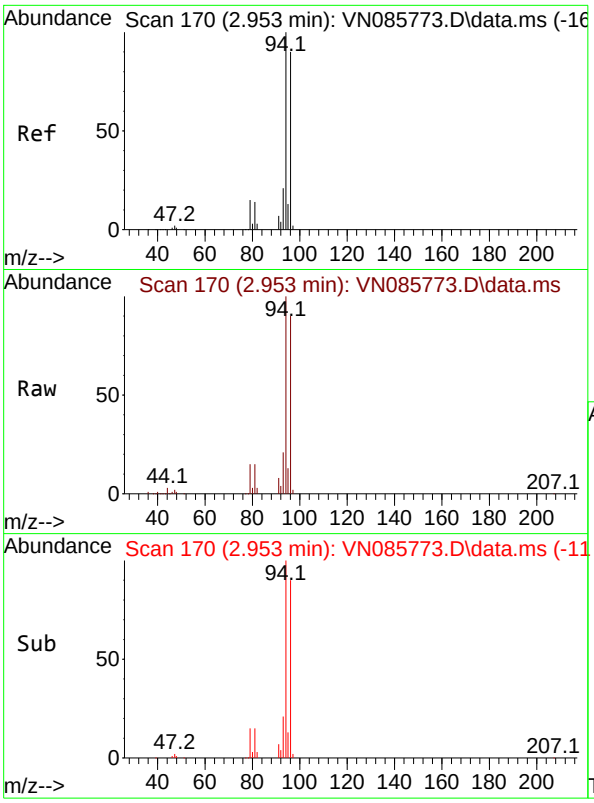


#4
Vinyl Chloride
Concen: 46.933 ug/l
RT: 2.512 min Scan# 95
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 62 Resp: 218675

Ion	Ratio	Lower	Upper
62	100		
64	32.4	25.9	38.9





#5
Bromomethane
Concen: 45.838 ug/l
RT: 2.953 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

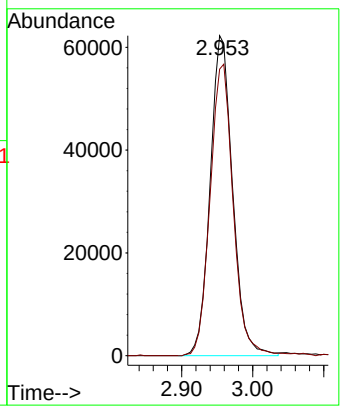
Tgt Ion: 94 Resp: 13656

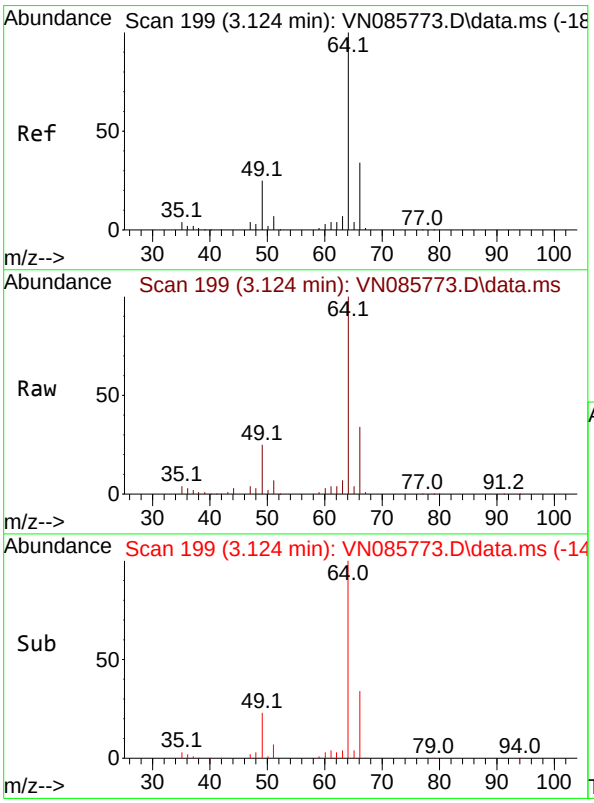
Ion	Ratio	Lower	Upper
94	100		
96	89.6	71.7	107.5

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

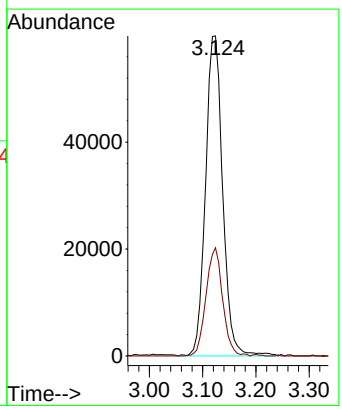


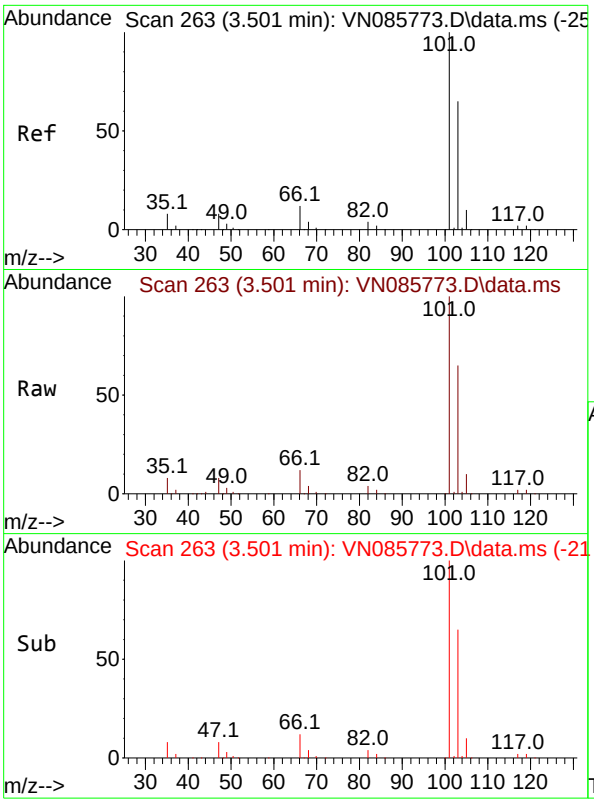


#6
Chloroethane
Concen: 43.517 ug/l
RT: 3.124 min Scan# 199
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 64 Resp: 134303

Ion	Ratio	Lower	Upper
64	100		
66	33.8	27.0	40.6





#7
Trichlorofluoromethane
Concen: 45.825 ug/l
RT: 3.501 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

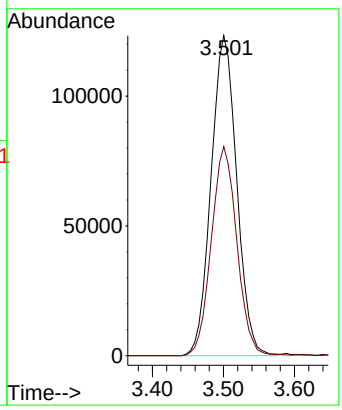
Tgt Ion:101 Resp: 30913

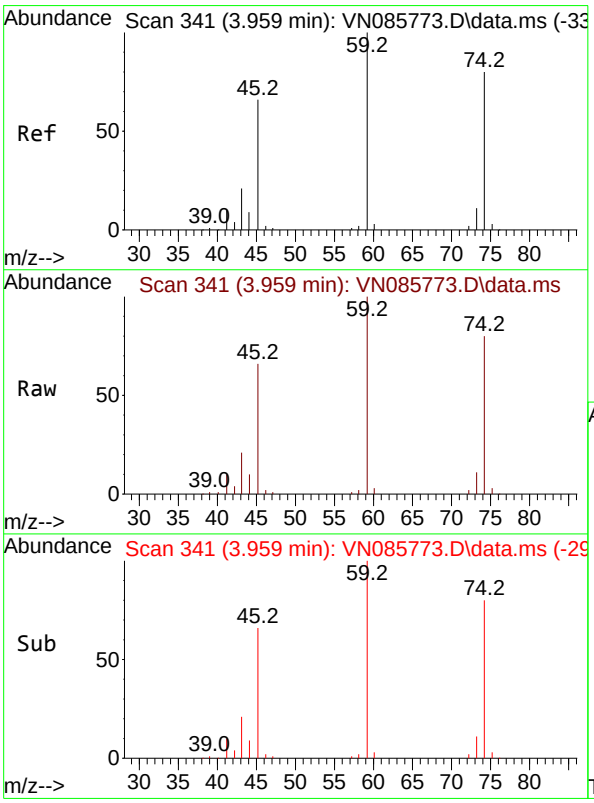
Ion	Ratio	Lower	Upper
101	100		
103	65.3	52.2	78.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

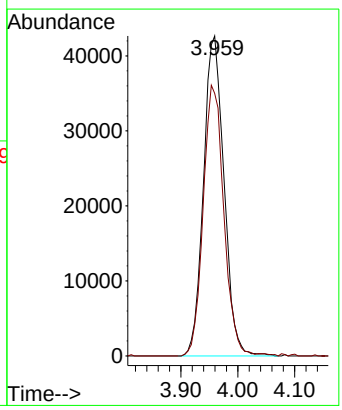


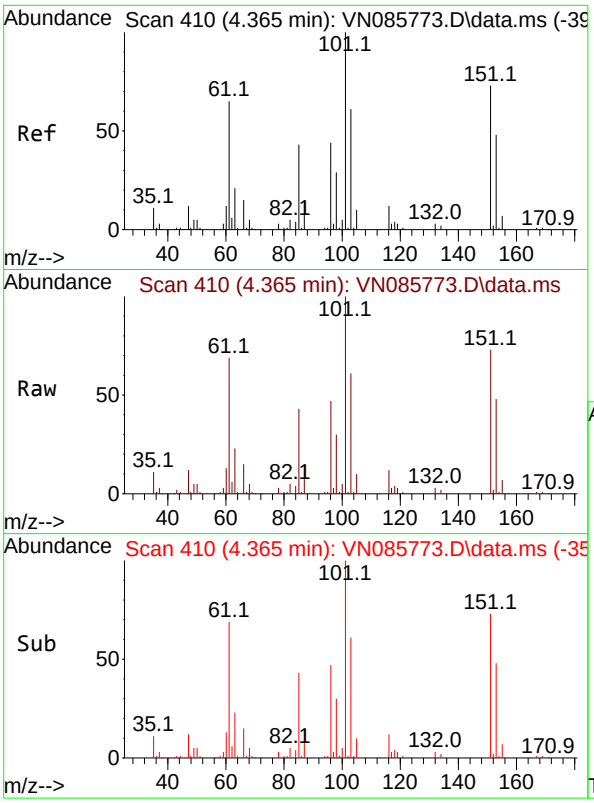


#8
Diethyl Ether
Concen: 48.854 ug/l
RT: 3.959 min Scan# 341
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 74 Resp: 106634

Ion	Ratio	Lower	Upper
74	100		
45	85.1	42.5	127.6





#9
1,1,2-Trichlorotrifluoroethane
Concen: 46.673 ug/l
RT: 4.365 min Scan# 41
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

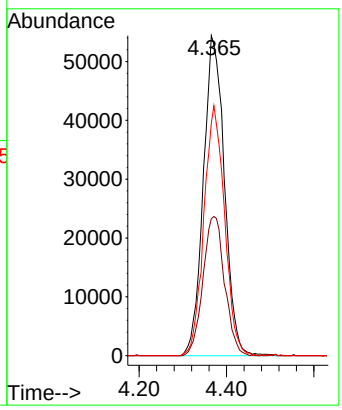
Tgt Ion:101 Resp: 18199

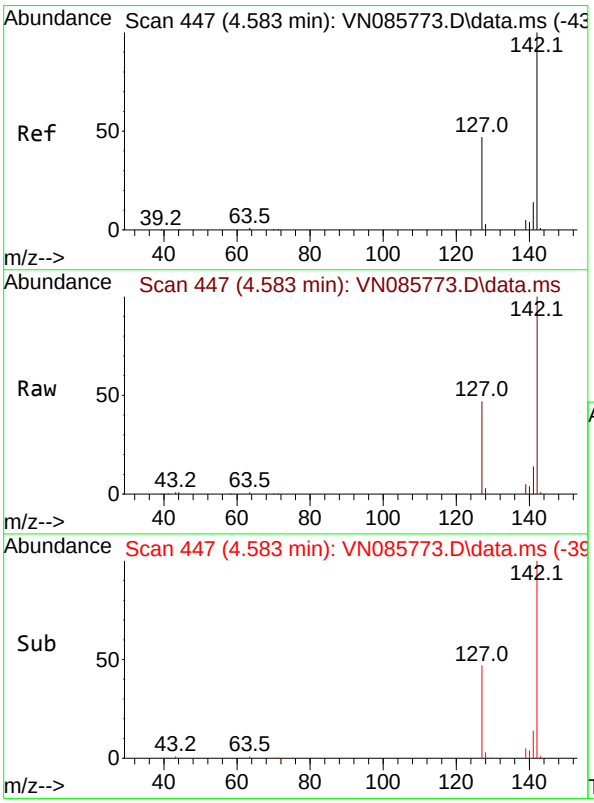
Ion	Ratio	Lower	Upper
101	100		
85	44.6	35.7	53.5
151	76.8	61.4	92.2

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

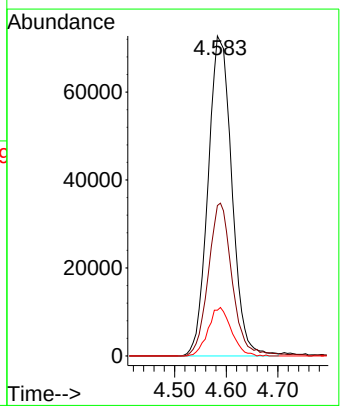


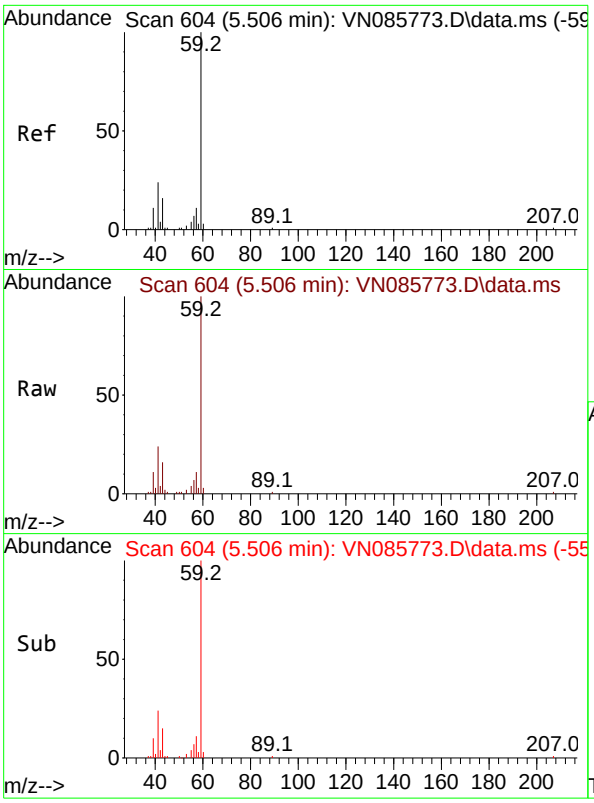


#10
Methyl Iodide
Concen: 48.452 ug/l
RT: 4.583 min Scan# 447
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion:142 Resp: 232889

Ion	Ratio	Lower	Upper
142	100		
127	47.0	37.6	56.4
141	14.3	11.4	17.2

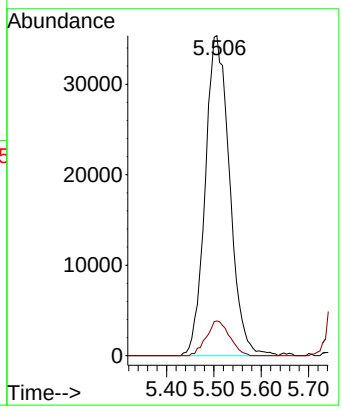




#11
Tert butyl alcohol
Concen: 246.136 ug/l
RT: 5.506 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 59 Resp: 12653

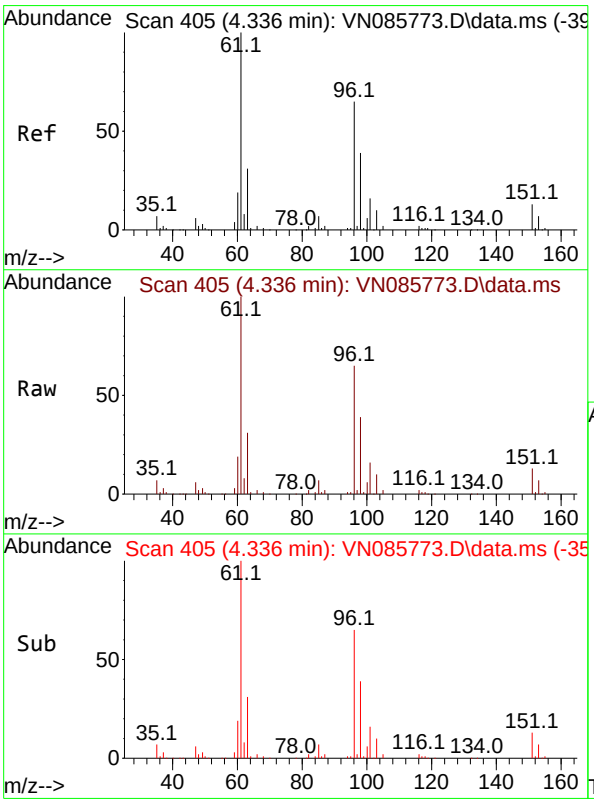
Ion	Ratio	Lower	Upper
59	100		
57	10.4	8.3	12.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

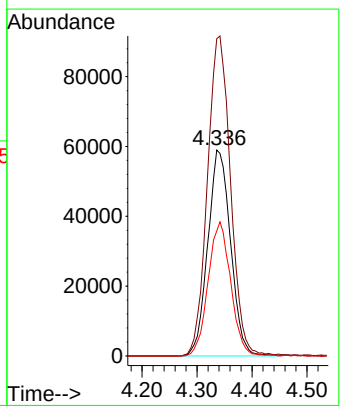
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

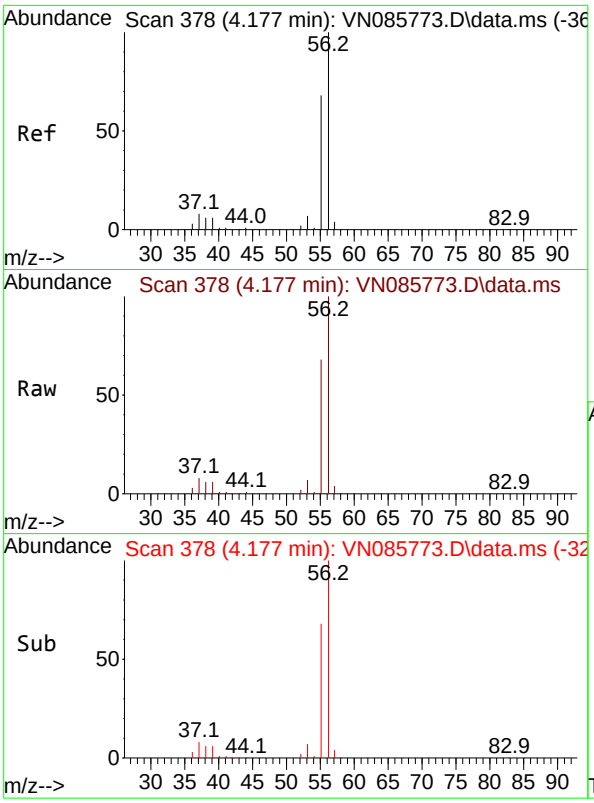


#12
1,1-Dichloroethene
Concen: 48.100 ug/l
RT: 4.336 min Scan# 405
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 96 Resp: 170063

Ion	Ratio	Lower	Upper
96	100		
61	154.1	123.3	184.9
98	60.7	48.6	72.8

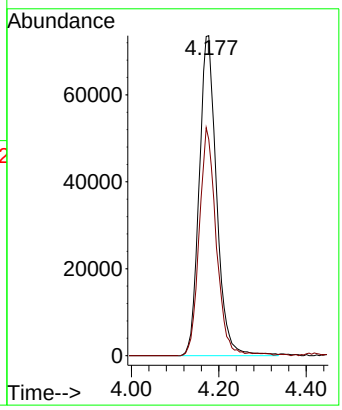




#13
Acrolein
Concen: 267.442 ug/l
RT: 4.177 min Scan# 3
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 56 Resp: 20389

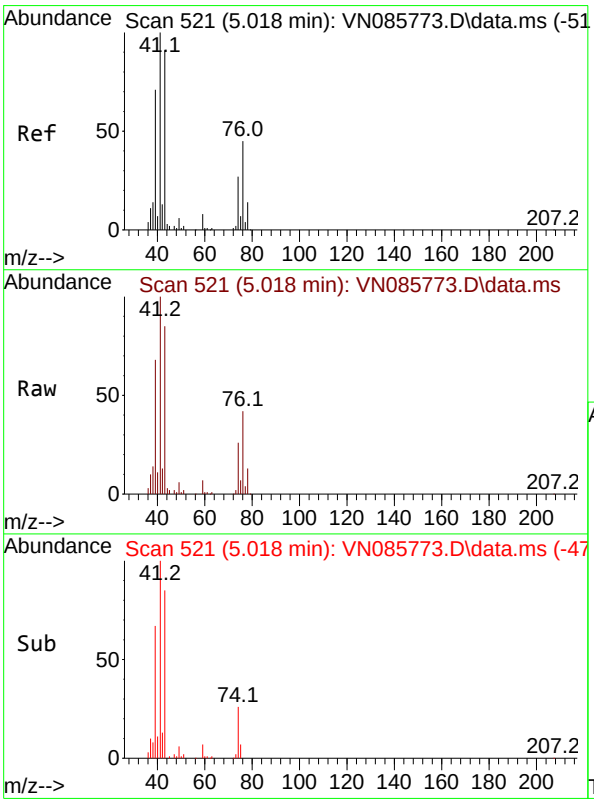
Ion	Ratio	Lower	Upper
56	100		
55	69.1	55.3	82.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

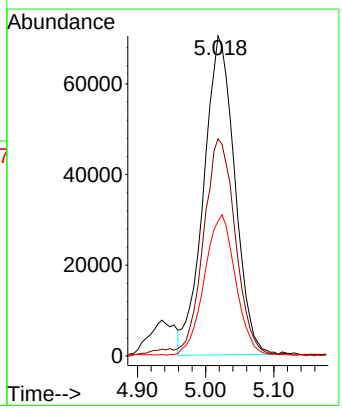
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

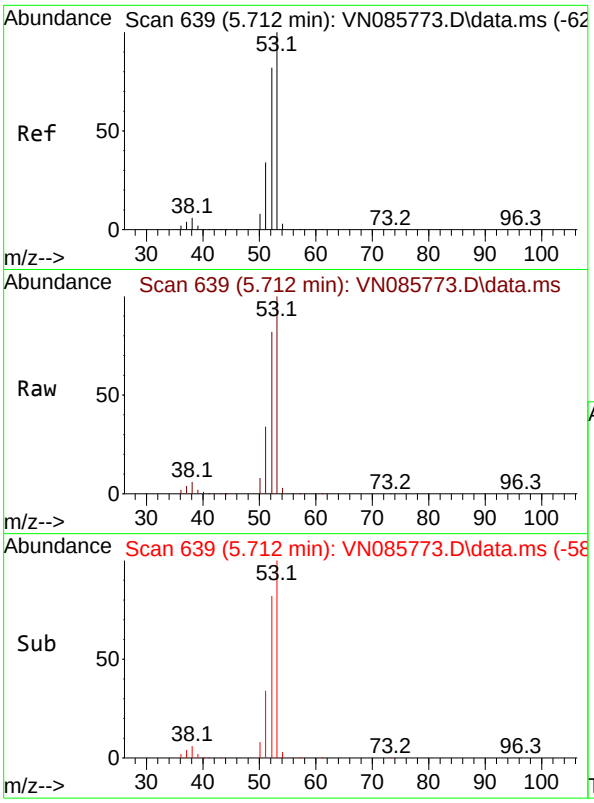


#14
Allyl chloride
Concen: 47.986 ug/l
RT: 5.018 min Scan# 521
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 41 Resp: 222754

Ion	Ratio	Lower	Upper
41	100		
39	71.8	57.4	86.2
76	45.2	36.2	54.2

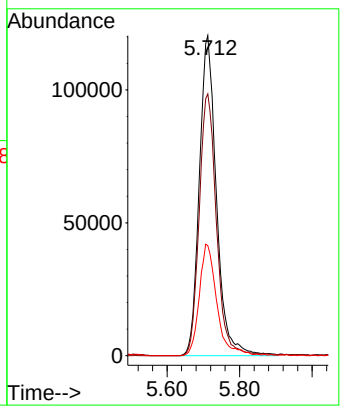




#15
Acrylonitrile
Concen: 236.130 ug/l
RT: 5.712 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 53 Resp: 39464

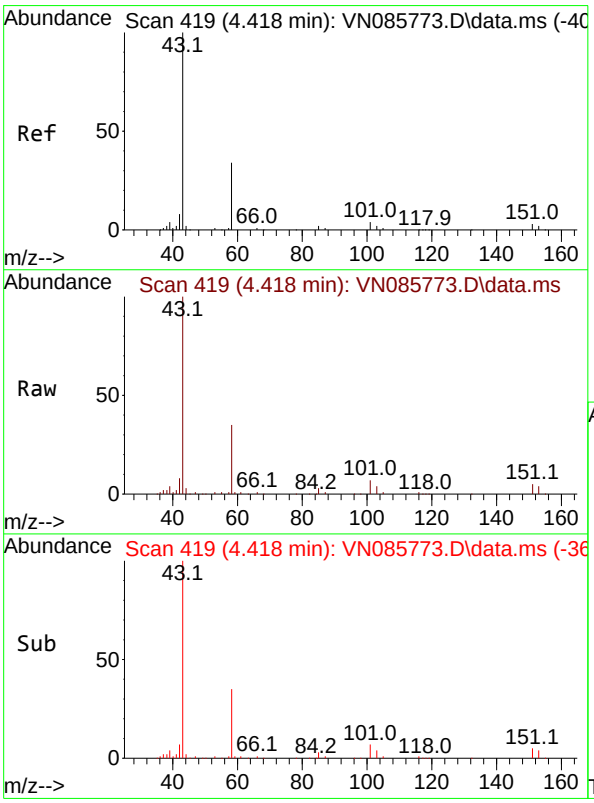
Ion	Ratio	Lower	Upper
53	100		
52	82.2	65.8	98.6
51	35.7	28.6	42.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

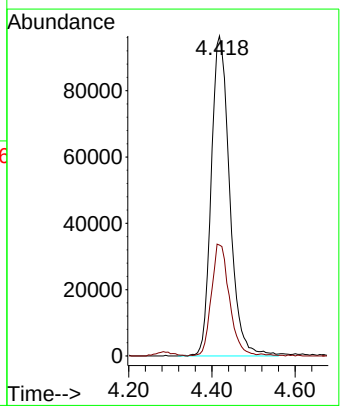
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

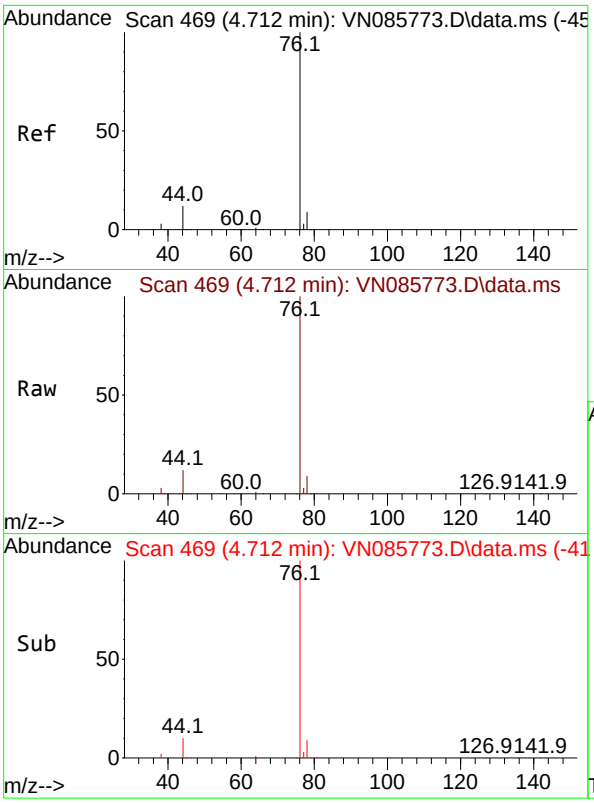


#16
Acetone
Concen: 224.691 ug/l
RT: 4.418 min Scan# 419
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 43 Resp: 297175

Ion	Ratio	Lower	Upper
43	100		
58	34.4	27.5	41.3

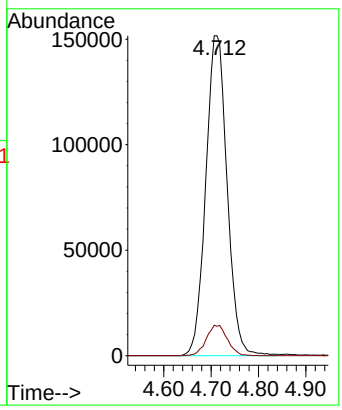




#17
Carbon Disulfide
Concen: 45.317 ug/l
RT: 4.712 min Scan# 4(
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 76 Resp: 47486(

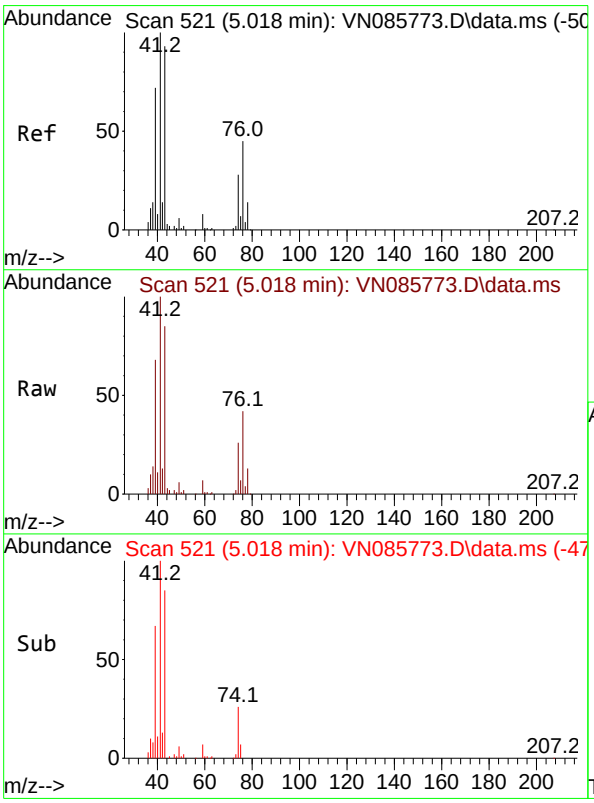
Ion	Ratio	Lower	Upper
76	100		
78	9.2	7.4	11.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

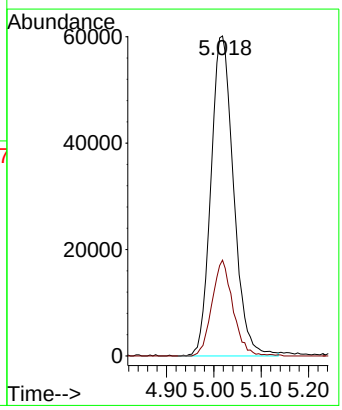
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

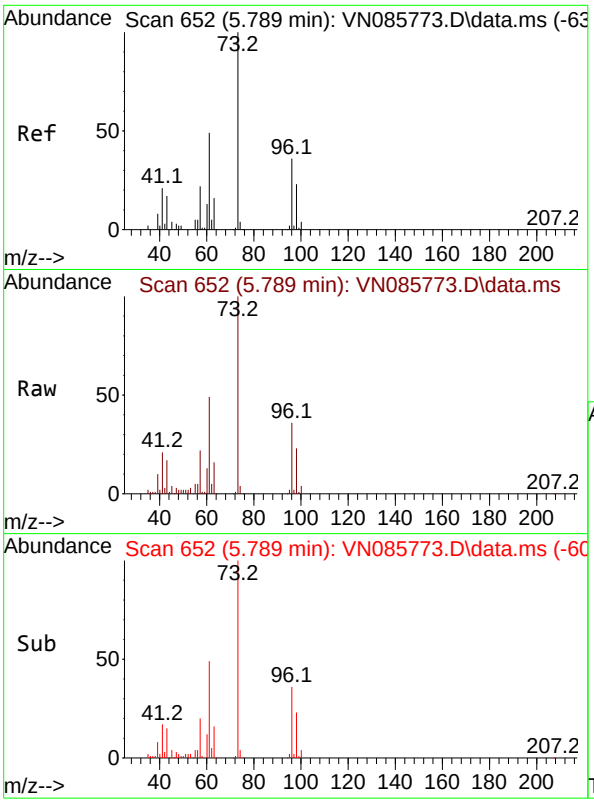


#18
Methyl Acetate
Concen: 43.846 ug/l
RT: 5.018 min Scan# 521
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 43 Resp: 199458

Ion	Ratio	Lower	Upper
43	100		
74	27.8	22.2	33.4

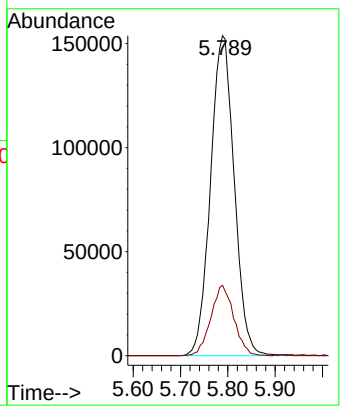




#19
Methyl tert-butyl Ether
Concen: 50.883 ug/l
RT: 5.789 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 73 Resp: 53458

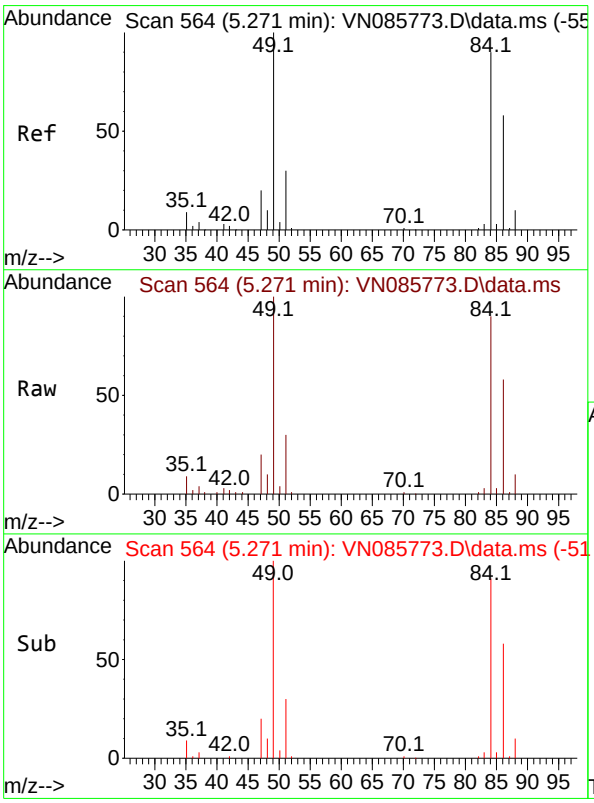
Ion	Ratio	Lower	Upper
73	100		
57	22.0	17.6	26.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

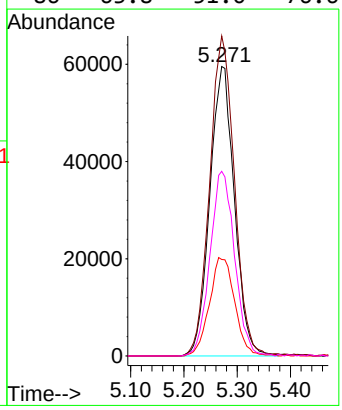
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

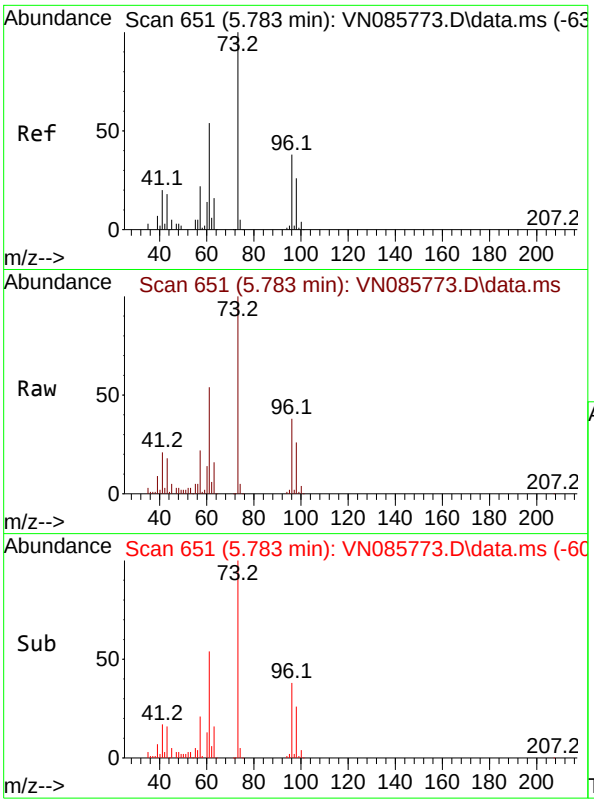


#20
Methylene Chloride
Concen: 44.929 ug/l
RT: 5.271 min Scan# 564
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 84 Resp: 191098

Ion	Ratio	Lower	Upper
84	100		
49	110.5	88.4	132.6
51	33.3	26.6	40.0
86	63.8	51.0	76.6

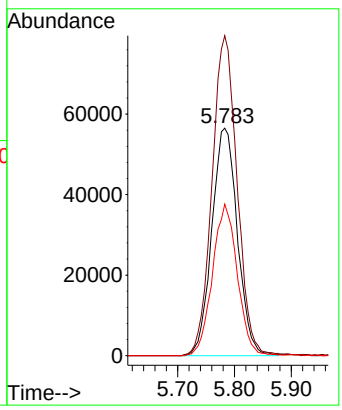




#21
trans-1,2-Dichloroethene
Concen: 46.486 ug/l
RT: 5.783 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 96 Resp: 17697

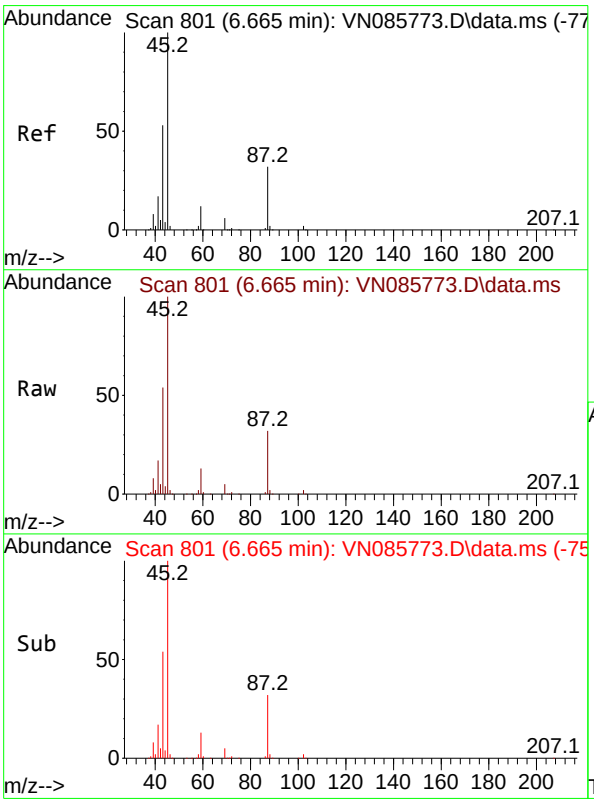
Ion	Ratio	Lower	Upper
96	100		
61	140.7	112.6	168.8
98	66.6	53.3	79.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

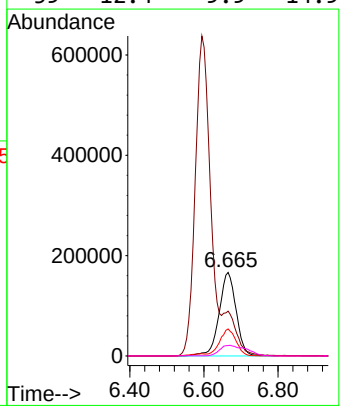
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

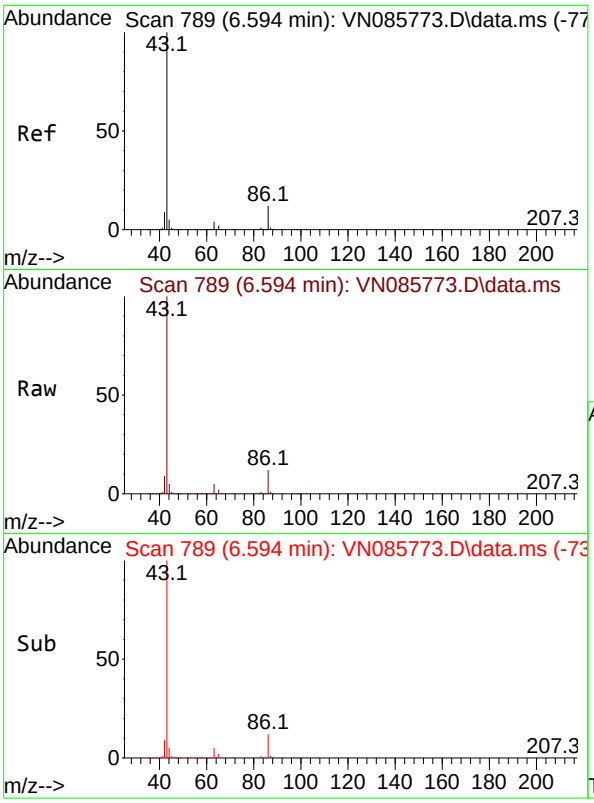


#22
Diisopropyl ether
Concen: 50.512 ug/l
RT: 6.665 min Scan# 801
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 45 Resp: 529828

Ion	Ratio	Lower	Upper
45	100		
43	53.3	42.6	64.0
87	32.3	25.8	38.8
59	12.4	9.9	14.9





#23
Vinyl Acetate
Concen: 251.727 ug/l
RT: 6.594 min Scan# 7
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

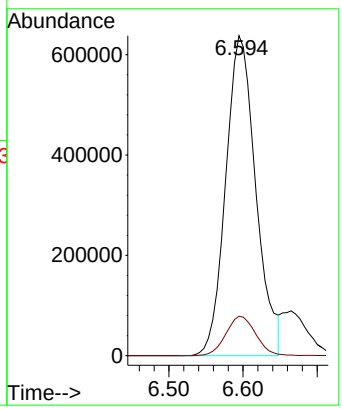
Tgt Ion: 43 Resp: 180234

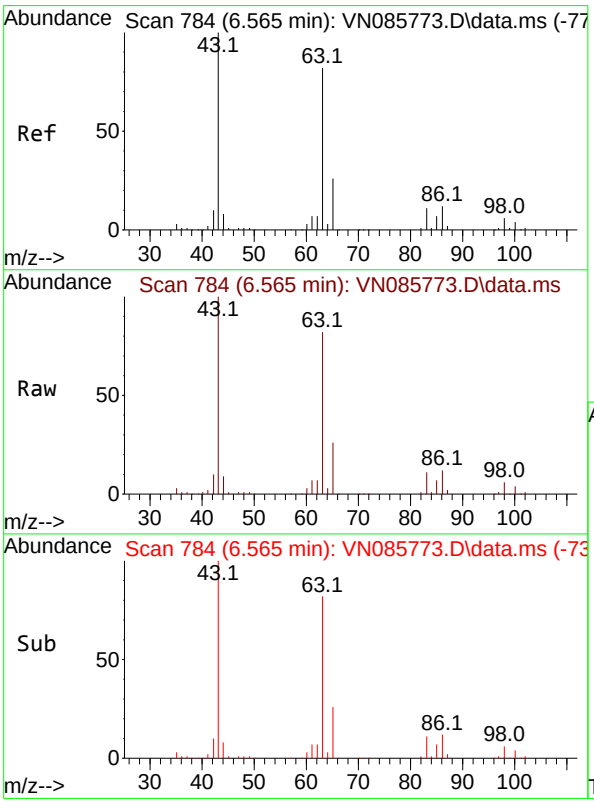
Ion	Ratio	Lower	Upper
43	100		
86	12.3	9.8	14.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

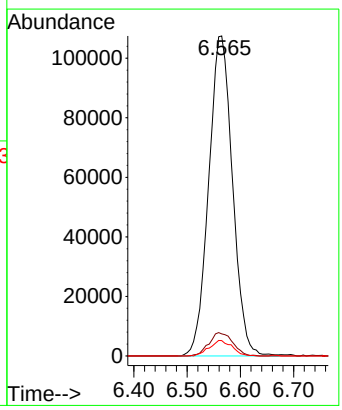


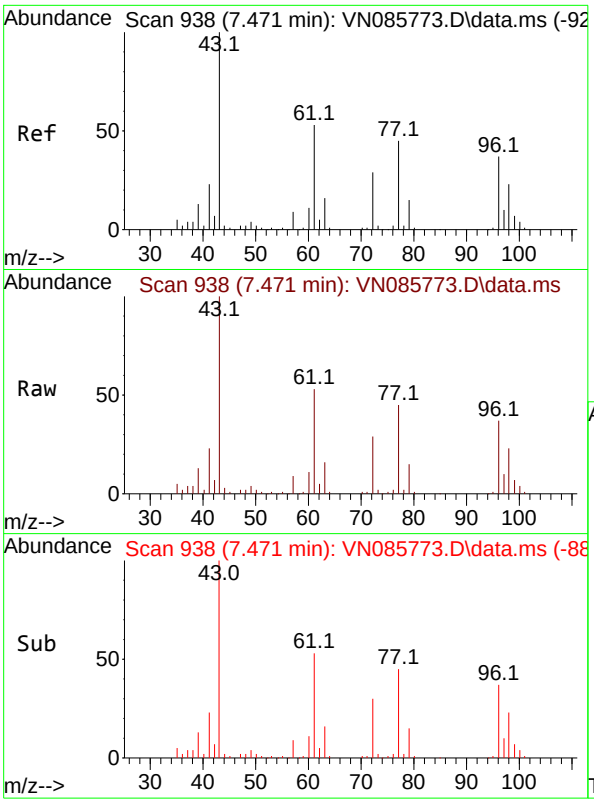


#24
1,1-Dichloroethane
Concen: 46.781 ug/l
RT: 6.565 min Scan# 784
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 63 Resp: 333567

Ion	Ratio	Lower	Upper
63	100		
98	6.9	3.5	10.4
100	4.8	2.4	7.2





#25
2-Butanone
Concen: 243.893 ug/l
RT: 7.471 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

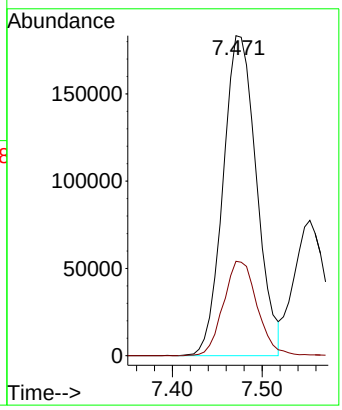
Tgt Ion: 43 Resp: 47456

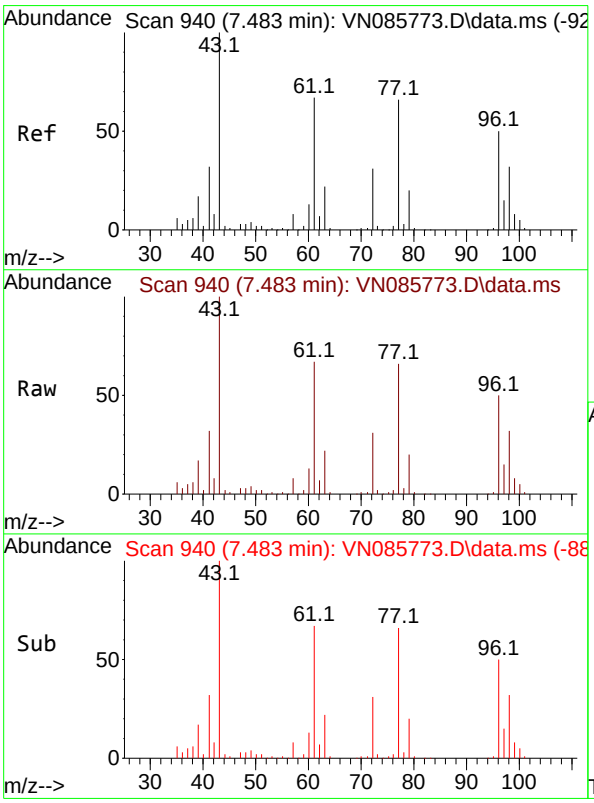
Ion	Ratio	Lower	Upper
43	100		
72	29.5	23.6	35.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

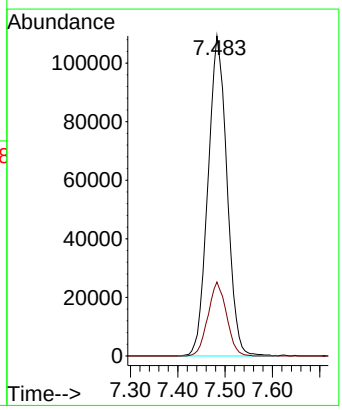


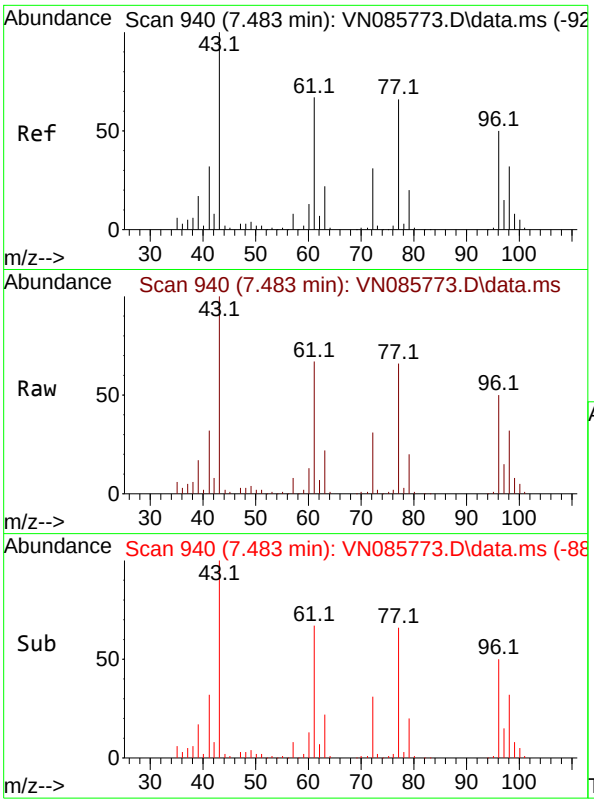


#26
2,2-Dichloropropane
Concen: 48.079 ug/l
RT: 7.483 min Scan# 940
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 77 Resp: 304840

Ion	Ratio	Lower	Upper
77	100		
97	22.5	11.3	33.8

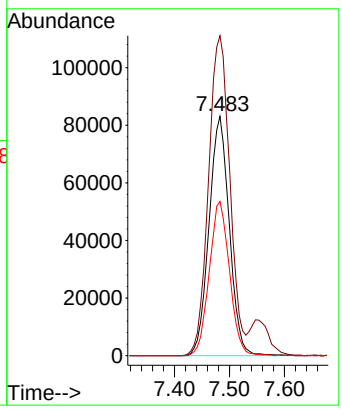




#27
cis-1,2-Dichloroethene
Concen: 48.306 ug/l
RT: 7.483 min Scan# 94
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 96 Resp: 21323

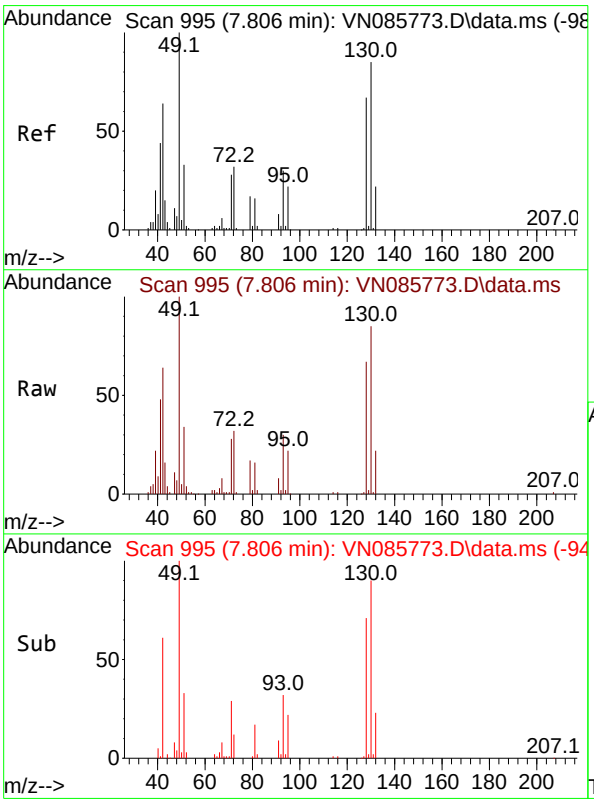
Ion	Ratio	Lower	Upper
96	100		
61	140.3	0.0	280.6
98	64.3	0.0	128.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

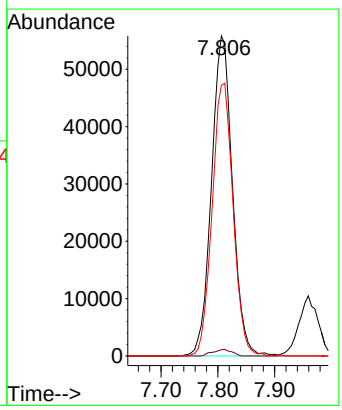
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

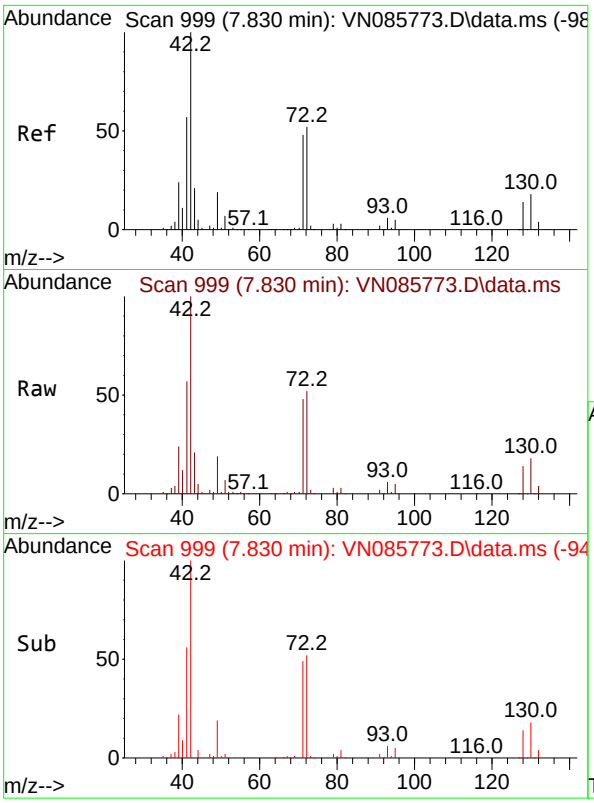


#28
Bromochloromethane
Concen: 48.888 ug/l
RT: 7.806 min Scan# 995
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 49 Resp: 143276

Ion	Ratio	Lower	Upper
49	100		
129	1.9	0.0	3.8
130	85.0	68.0	102.0

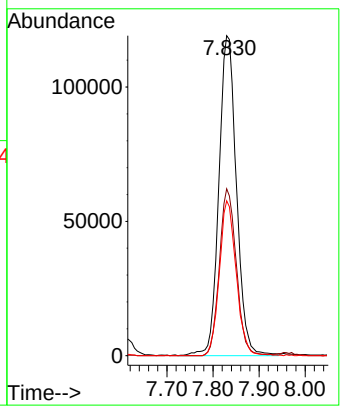




#29
Tetrahydrofuran
Concen: 250.894 ug/l
RT: 7.830 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 42 Resp: 31524

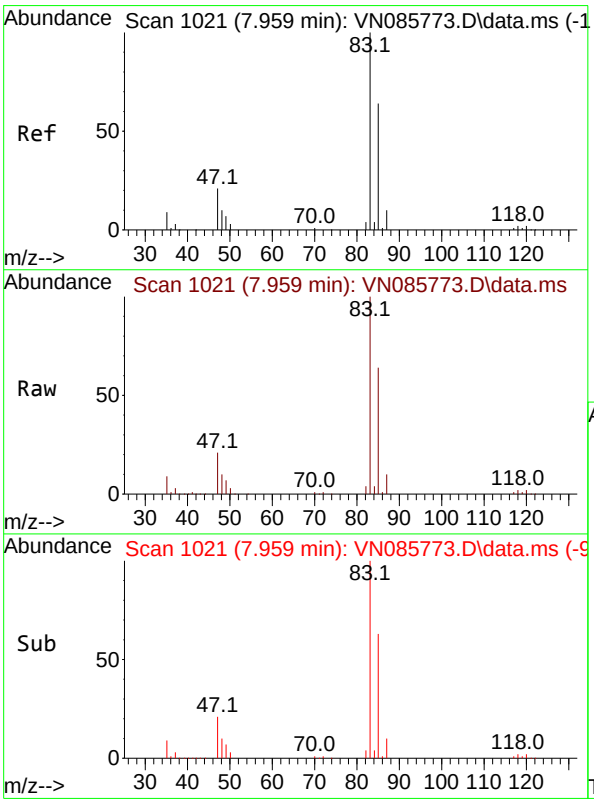
Ion	Ratio	Lower	Upper
42	100		
72	50.0	40.0	60.0
71	46.2	37.0	55.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

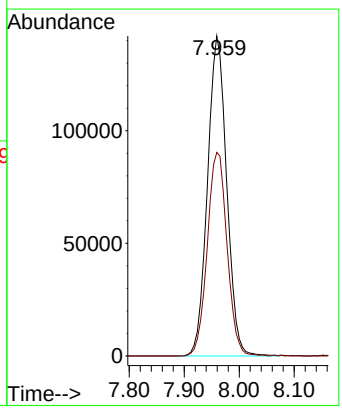
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

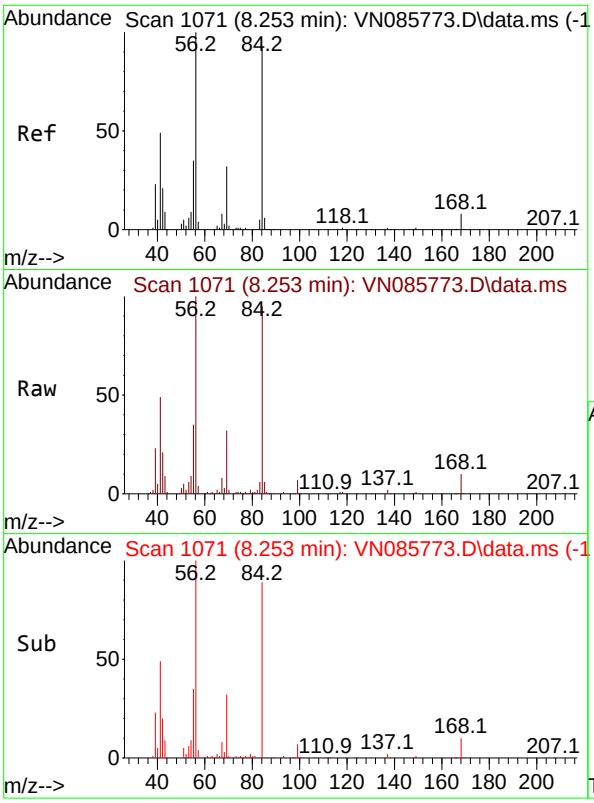


#30
Chloroform
Concen: 46.278 ug/l
RT: 7.959 min Scan# 1021
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 83 Resp: 344841

Ion	Ratio	Lower	Upper
83	100		
85	63.6	50.9	76.3

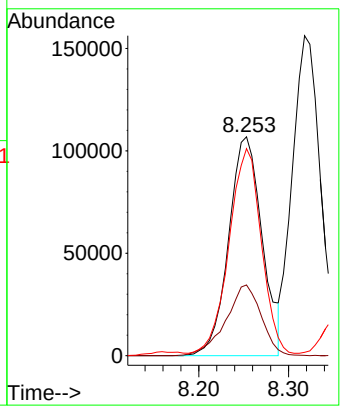




#31
Cyclohexane
Concen: 46.440 ug/l
RT: 8.253 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 56 Resp: 27725

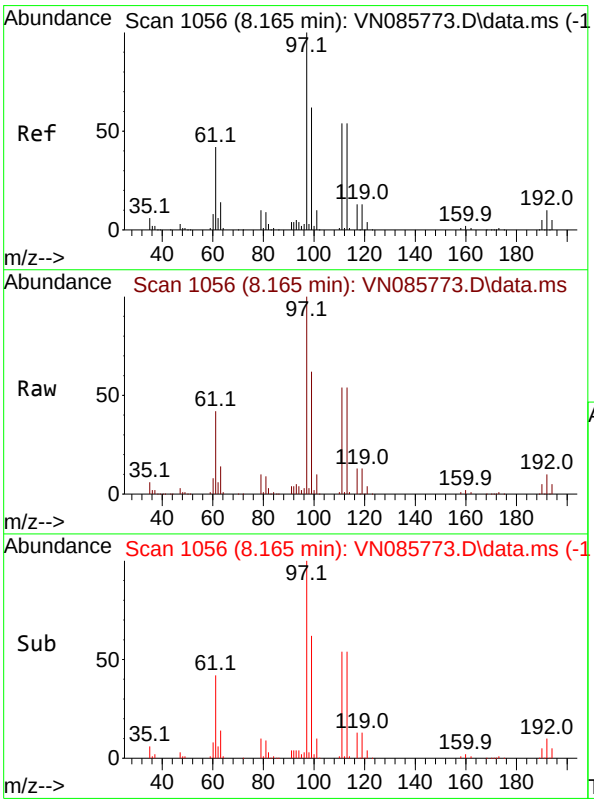
Ion	Ratio	Lower	Upper
56	100		
69	32.2	25.8	38.6
84	93.1	74.5	111.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

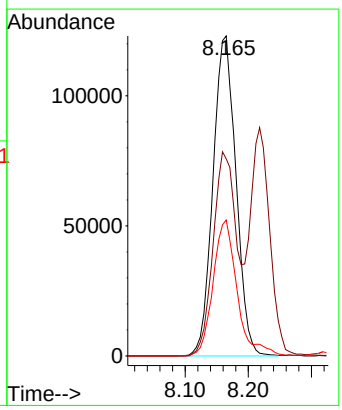
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

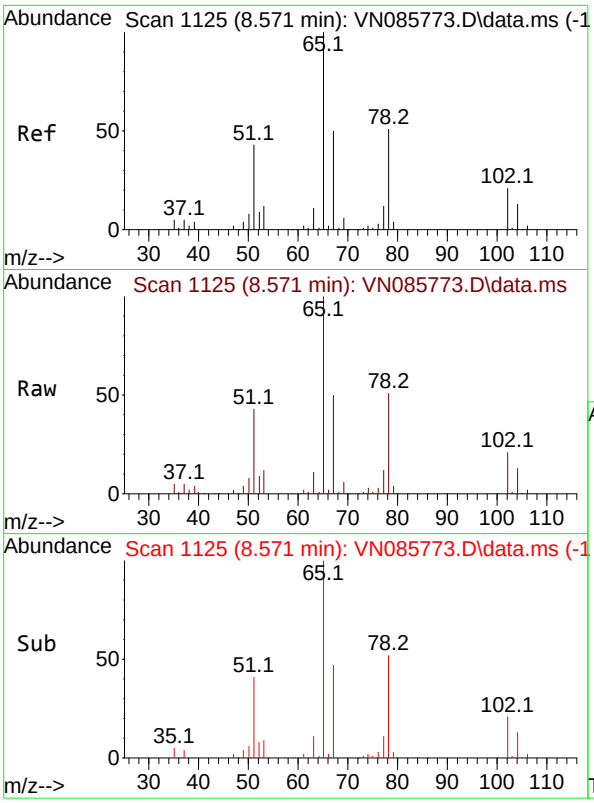


#32
1,1,1-Trichloroethane
Concen: 47.030 ug/l
RT: 8.165 min Scan# 1056
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 97 Resp: 311700

Ion	Ratio	Lower	Upper
97	100		
99	63.0	50.4	75.6
61	44.4	35.5	53.3

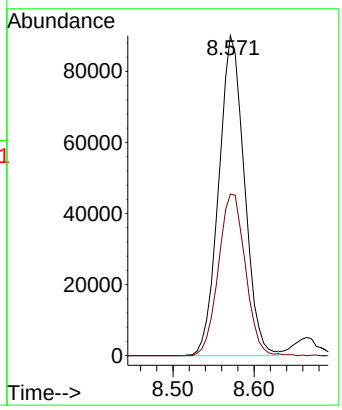




#33
1,2-Dichloroethane-d4
Concen: 47.304 ug/l
RT: 8.571 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 65 Resp: 19772

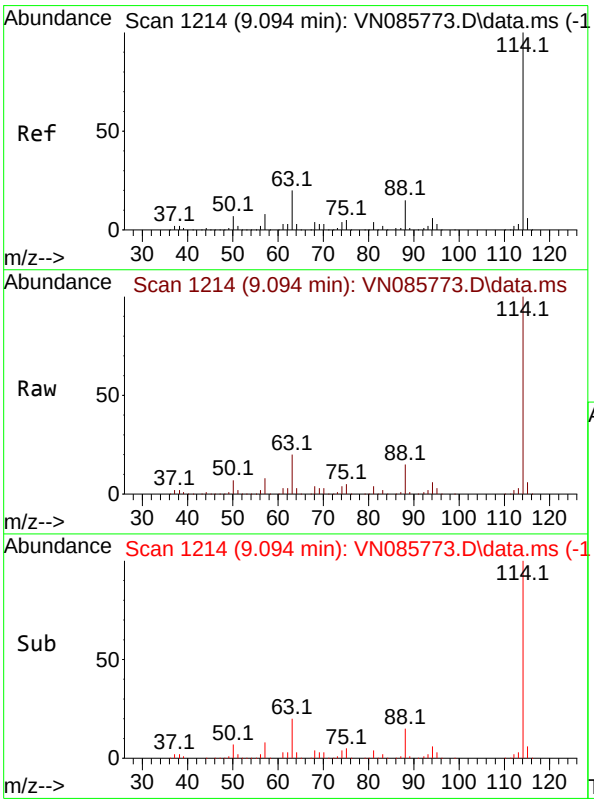
Ion	Ratio	Lower	Upper
65	100		
67	53.1	0.0	106.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

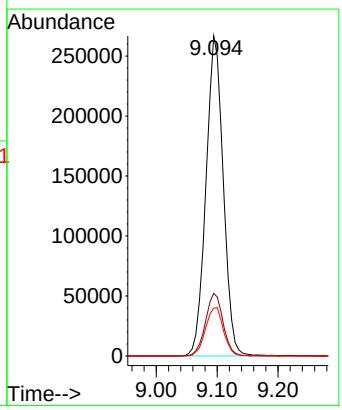
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

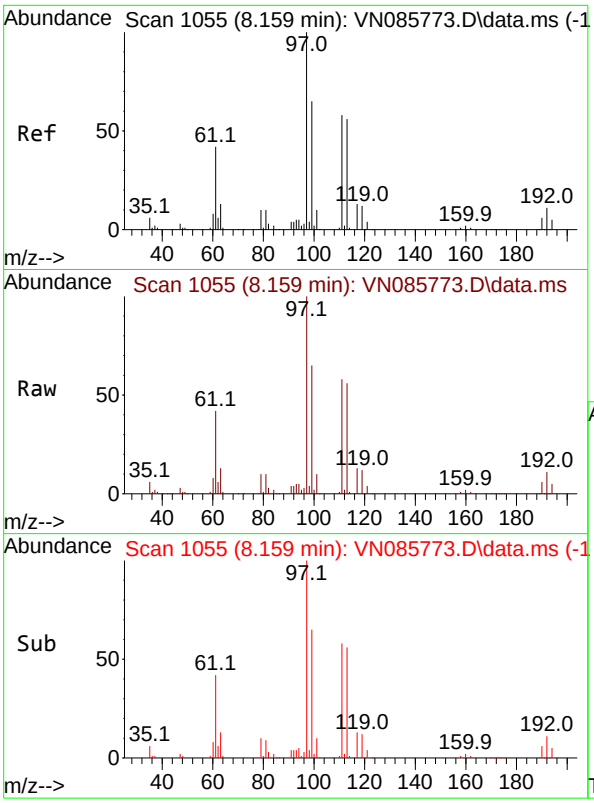


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.094 min Scan# 1214
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion:114 Resp: 526945

Ion	Ratio	Lower	Upper
114	100		
63	19.6	0.0	39.2
88	15.0	0.0	30.0

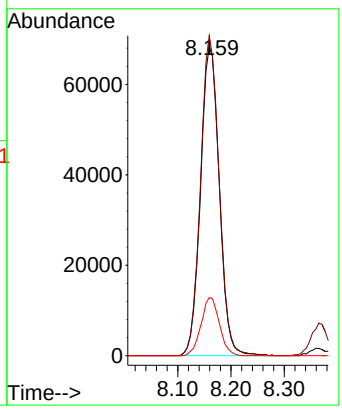




#35
Dibromofluoromethane
Concen: 48.447 ug/l
RT: 8.159 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion:113 Resp: 16705

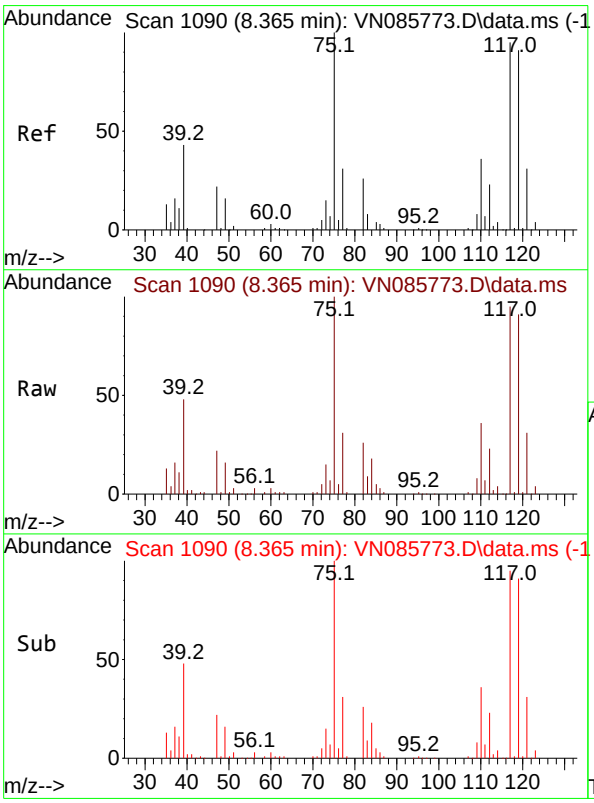
Ion	Ratio	Lower	Upper
113	100		
111	102.8	82.2	123.4
192	18.4	14.7	22.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

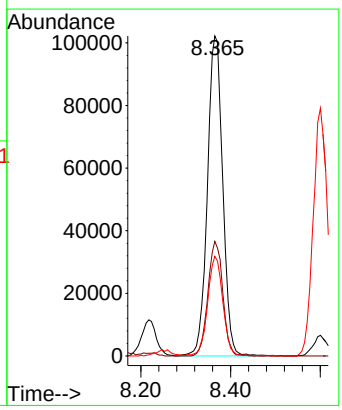
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

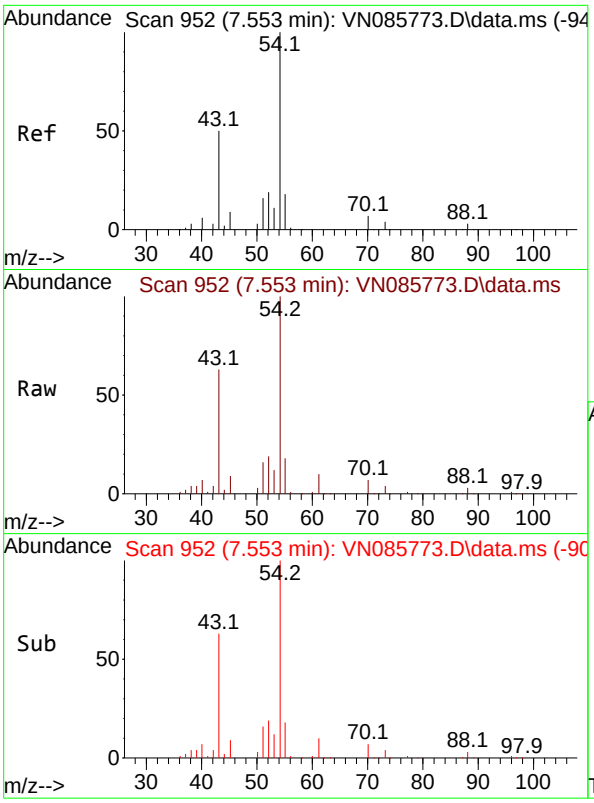


#36
1,1-Dichloropropene
Concen: 49.620 ug/l
RT: 8.365 min Scan# 1090
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 75 Resp: 242144

Ion	Ratio	Lower	Upper
75	100		
110	34.7	17.3	52.0
77	30.8	24.6	37.0





#37
Ethyl Acetate
Concen: 49.206 ug/l
RT: 7.553 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

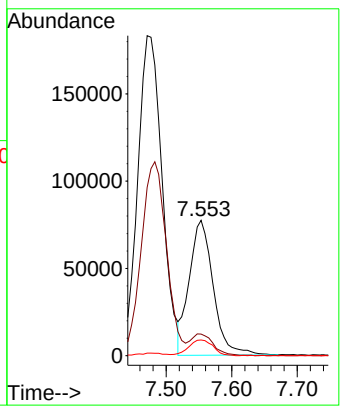
Tgt Ion: 43 Resp: 19760

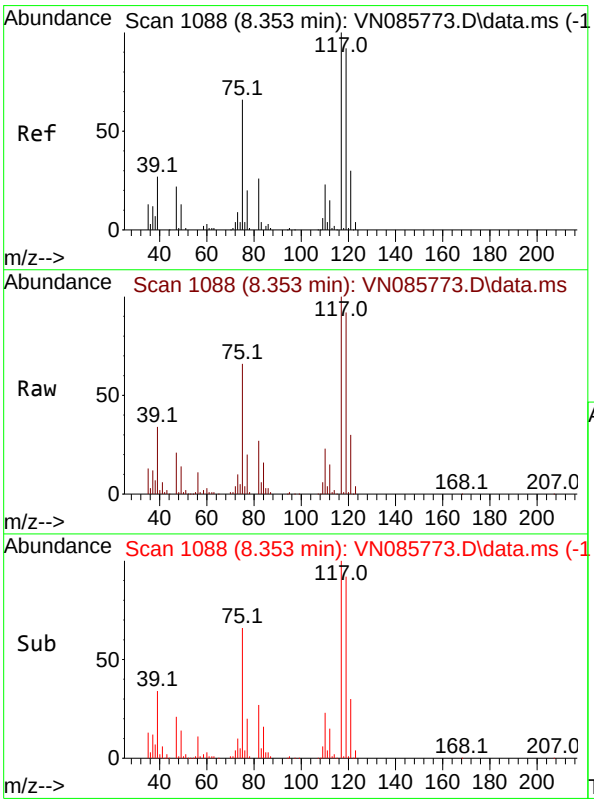
Ion	Ratio	Lower	Upper
43	100		
61	15.2	12.2	18.2
70	11.9	9.5	14.3

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

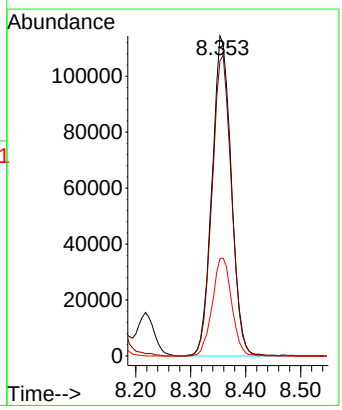


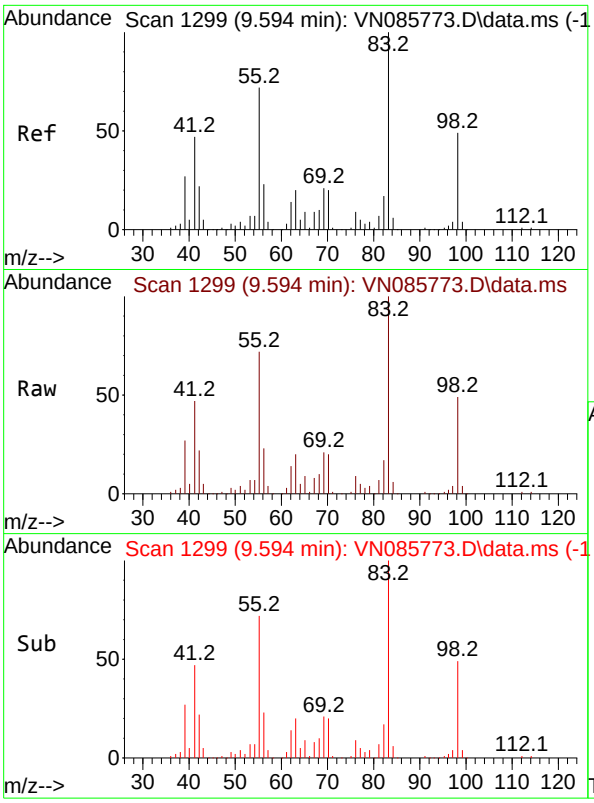


#38
Carbon Tetrachloride
Concen: 47.997 ug/l
RT: 8.353 min Scan# 1088
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion:117 Resp: 278306

Ion	Ratio	Lower	Upper
117	100		
119	92.2	73.8	110.6
121	30.4	24.3	36.5

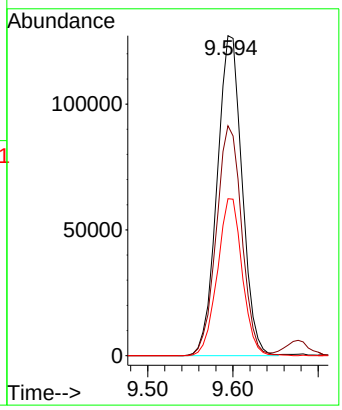




#39
Methylcyclohexane
Concen: 54.085 ug/l
RT: 9.594 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 83 Resp: 25928

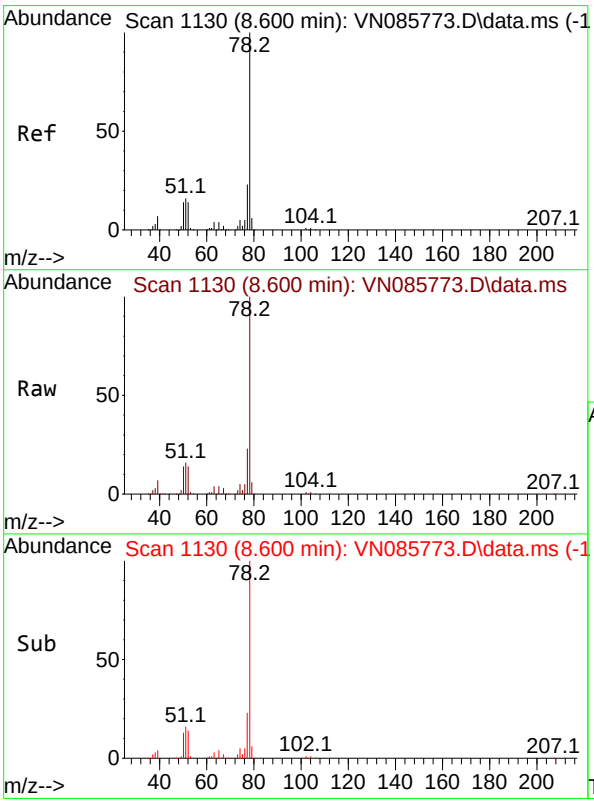
Ion	Ratio	Lower	Upper
83	100		
55	71.9	57.5	86.3
98	49.0	39.2	58.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

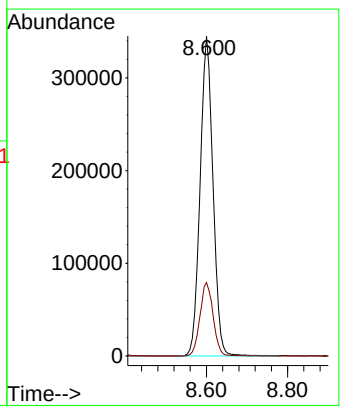
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

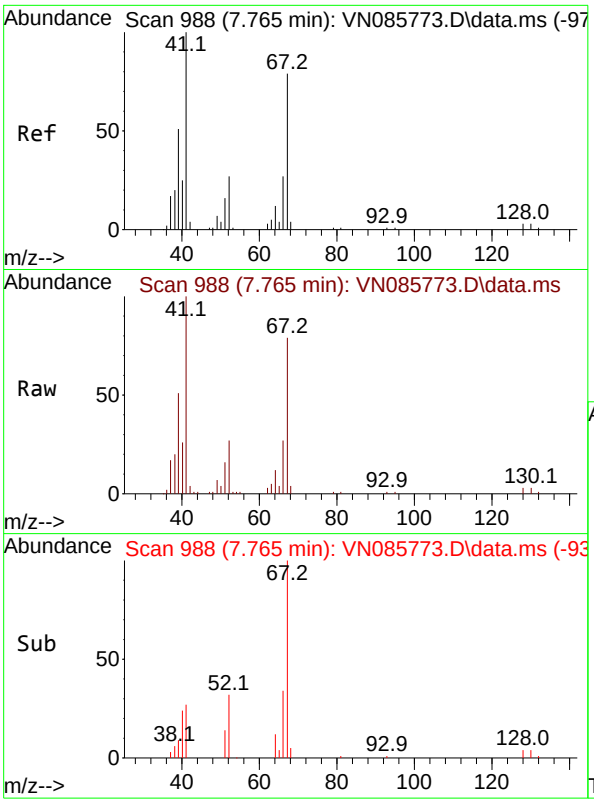


#40
Benzene
Concen: 48.551 ug/l
RT: 8.600 min Scan# 1130
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 78 Resp: 759363

Ion	Ratio	Lower	Upper
78	100		
77	22.9	18.3	27.5

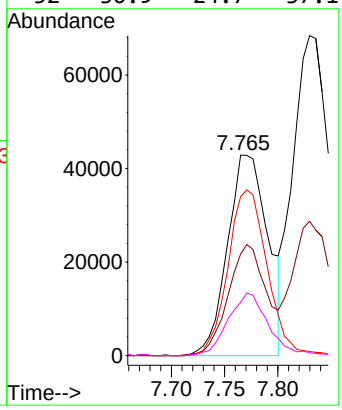




#41
Methacrylonitrile
Concen: 52.901 ug/l
RT: 7.765 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 41 Resp: 11356

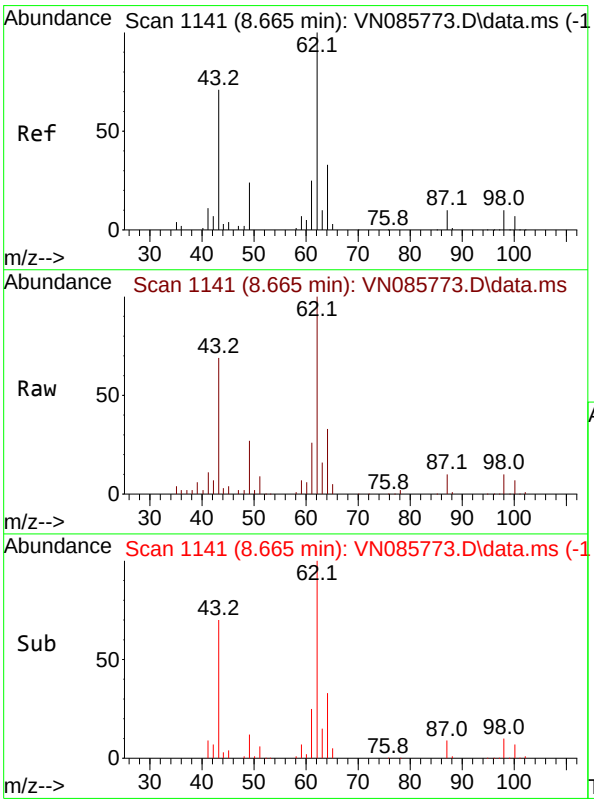
Ion	Ratio	Lower	Upper
41	100		
39	52.5	42.0	63.0
67	80.3	64.2	96.4
52	30.9	24.7	37.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

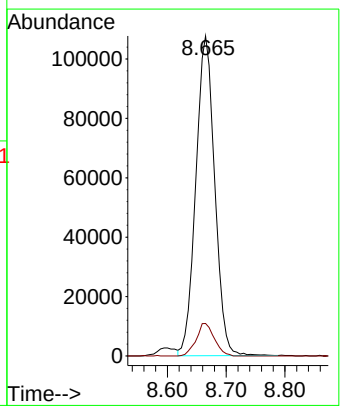
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

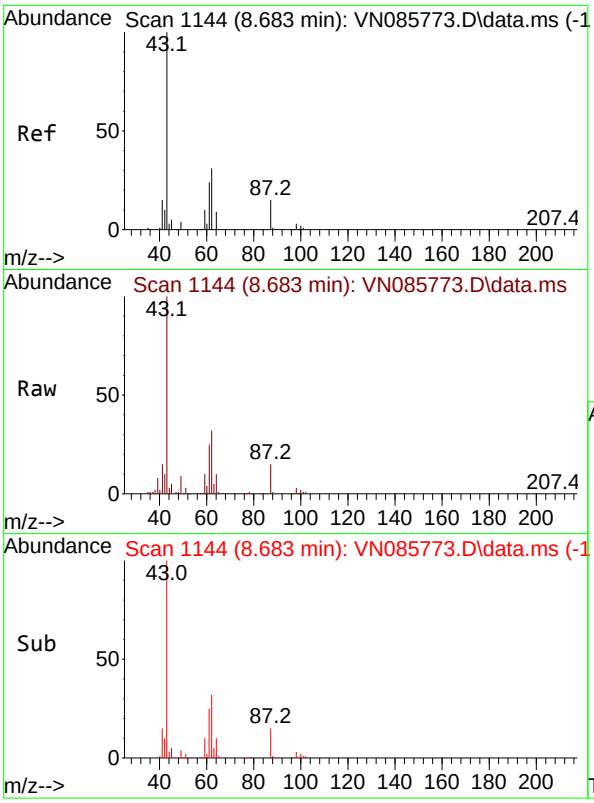


#42
1,2-Dichloroethane
Concen: 47.132 ug/l
RT: 8.665 min Scan# 1141
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 62 Resp: 240115

Ion	Ratio	Lower	Upper
62	100		
98	9.8	0.0	19.6





#43
Isopropyl Acetate
Concen: 47.574 ug/l
RT: 8.683 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

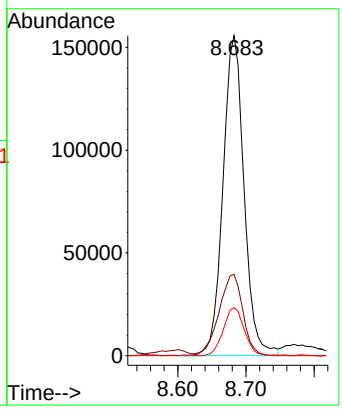
Tgt Ion: 43 Resp: 33548

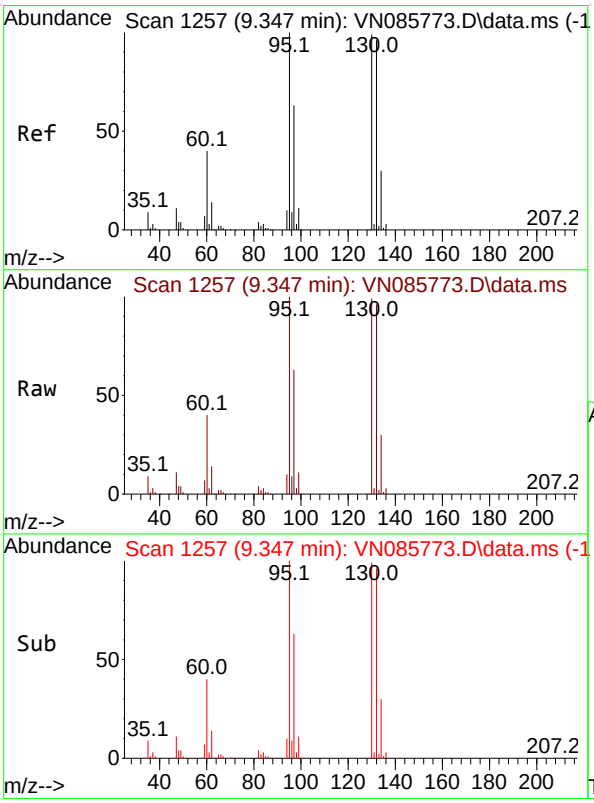
Ion	Ratio	Lower	Upper
43	100		
61	28.3	22.6	34.0
87	14.8	11.8	17.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

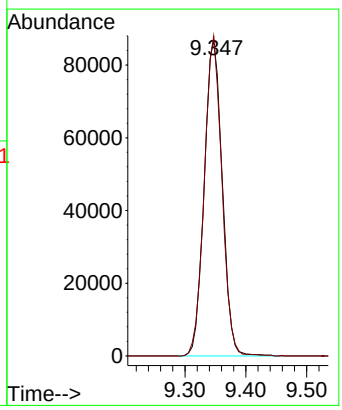


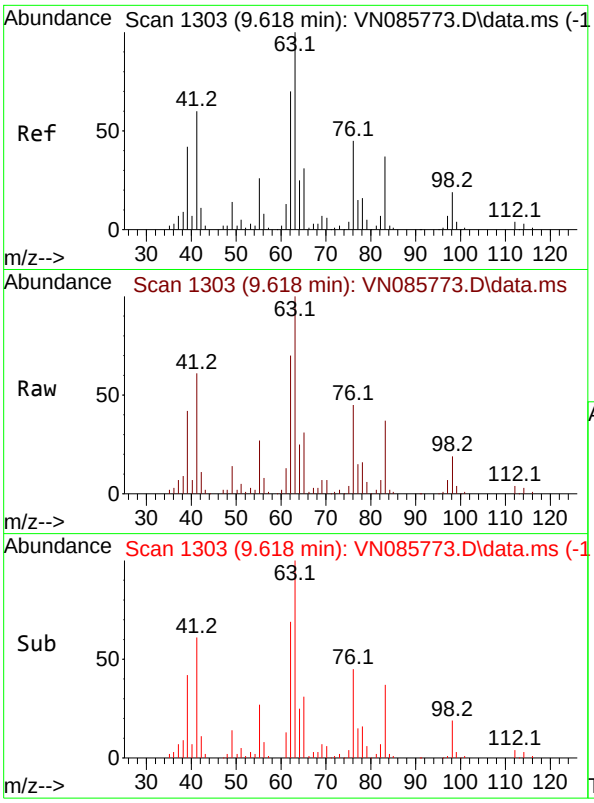


#44
Trichloroethene
Concen: 46.544 ug/l
RT: 9.347 min Scan# 1257
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion:130 Resp: 178742

Ion	Ratio	Lower	Upper
130	100		
95	101.3	0.0	202.6

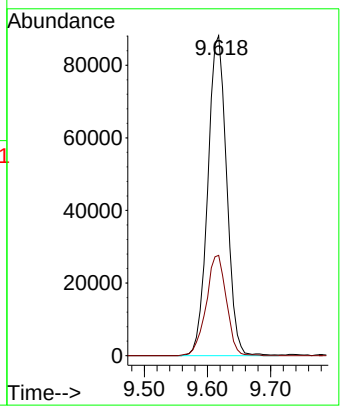




#45
1,2-Dichloropropane
Concen: 48.379 ug/l
RT: 9.618 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 63 Resp: 18264

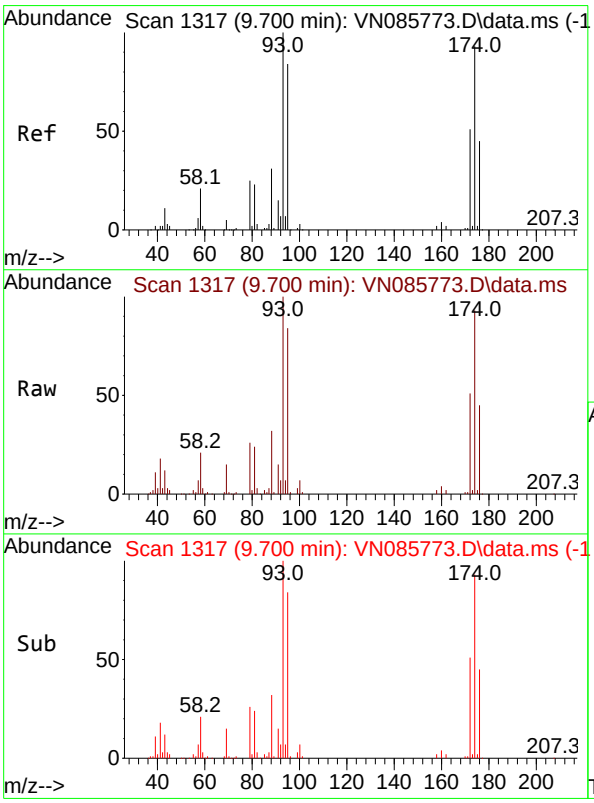
Ion	Ratio	Lower	Upper
63	100		
65	31.4	25.1	37.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

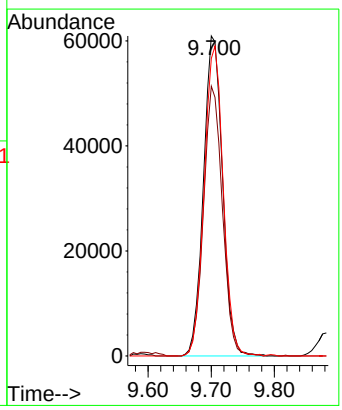
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

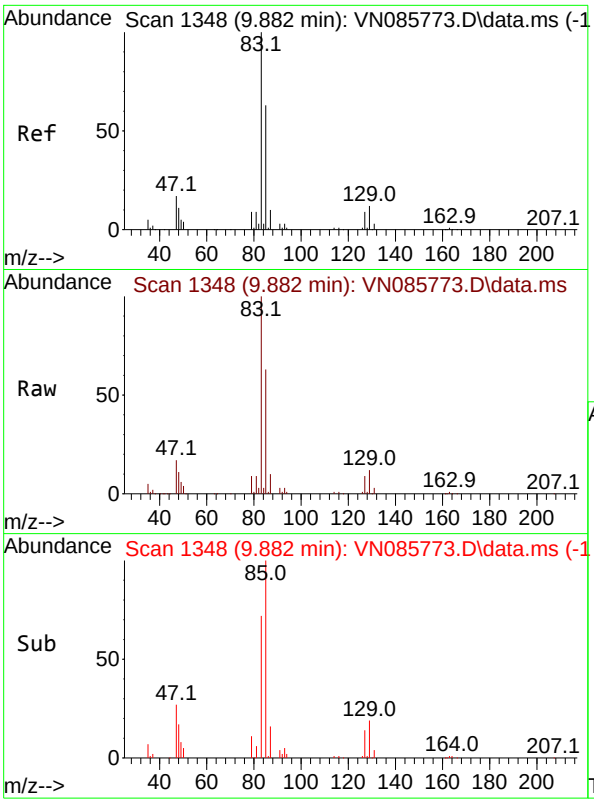


#46
Dibromomethane
Concen: 48.010 ug/l
RT: 9.700 min Scan# 1317
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 93 Resp: 127850

Ion	Ratio	Lower	Upper
93	100		
95	83.4	66.7	100.1
174	96.5	77.2	115.8

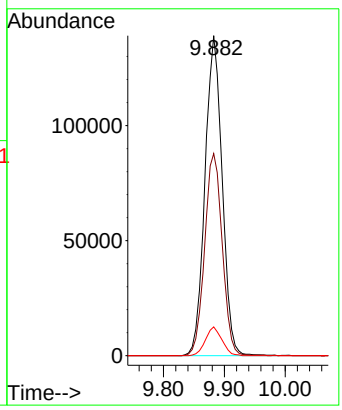




#47
Bromodichloromethane
Concen: 47.901 ug/l
RT: 9.882 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 83 Resp: 27291

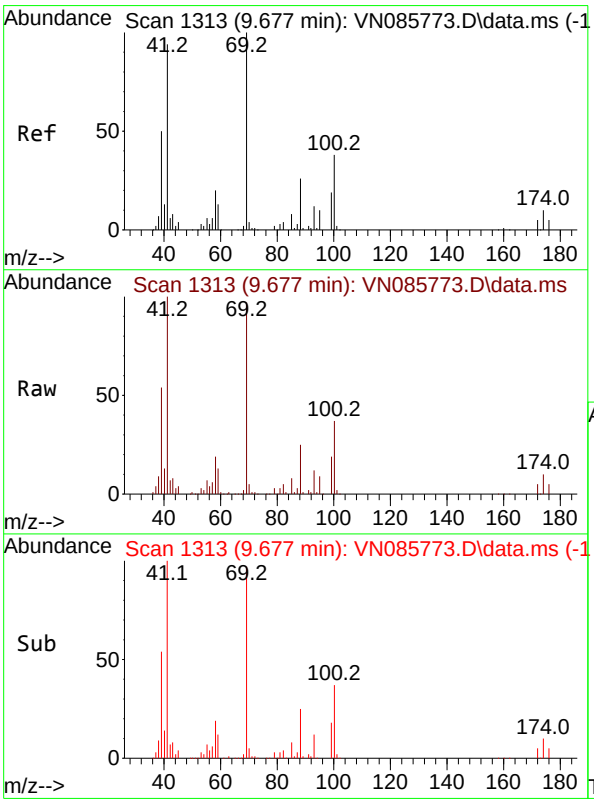
Ion	Ratio	Lower	Upper
83	100		
85	63.1	50.5	75.7
127	9.0	7.2	10.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

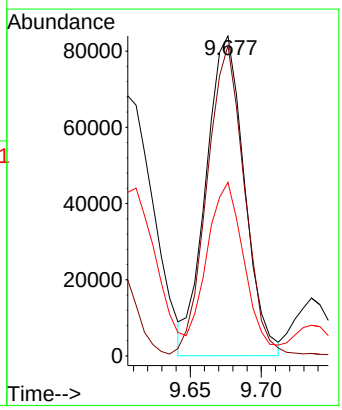
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

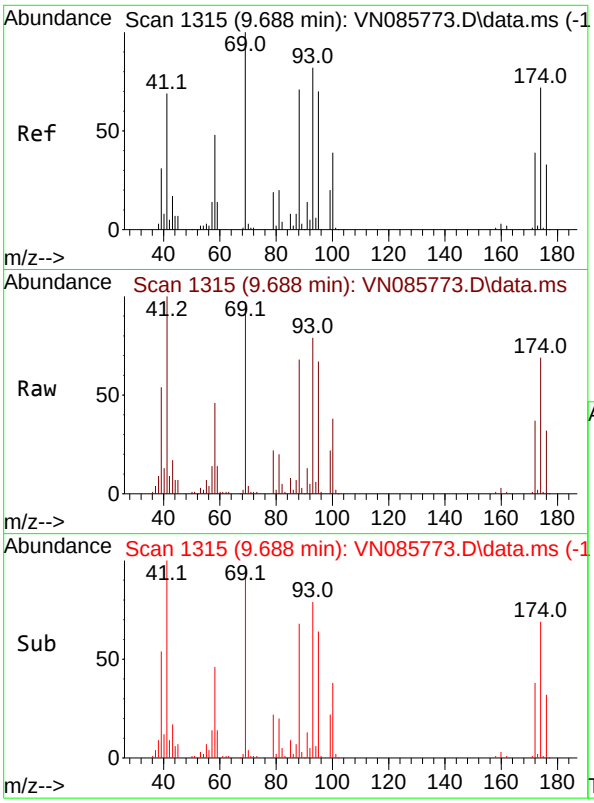


#48
Methyl methacrylate
Concen: 53.102 ug/l
RT: 9.677 min Scan# 1313
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 41 Resp: 158375

Ion	Ratio	Lower	Upper
41	100		
69	95.0	76.0	114.0
39	52.9	42.3	63.5

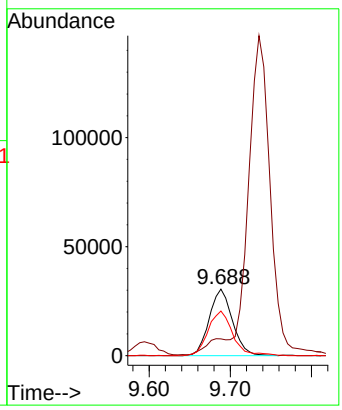




#49
1,4-Dioxane
Concen: 1071.301 ug/l
RT: 9.688 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 88 Resp: 6075

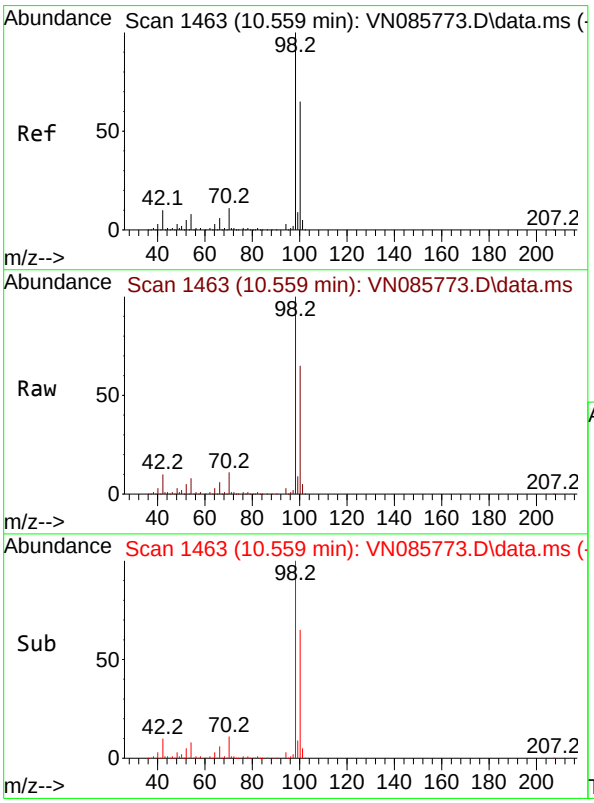
Ion	Ratio	Lower	Upper
88	100		
43	23.2	18.6	27.8
58	70.9	56.7	85.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

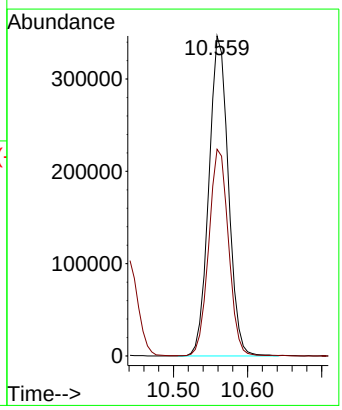
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

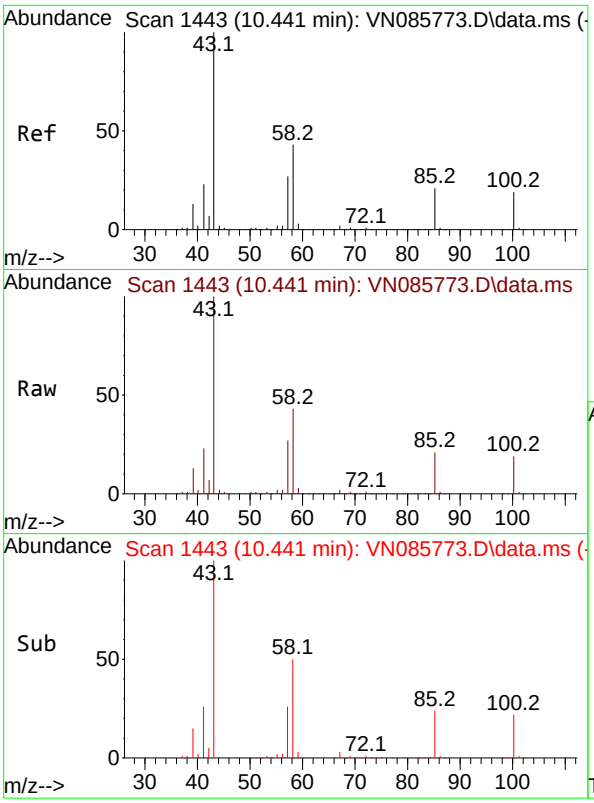


#50
Toluene-d8
Concen: 50.380 ug/l
RT: 10.559 min Scan# 1463
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 98 Resp: 632021

Ion	Ratio	Lower	Upper
98	100		
100	65.1	52.1	78.1





#51
4-Methyl-2-Pentanone
Concen: 257.731 ug/l
RT: 10.441 min Scan# 14
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

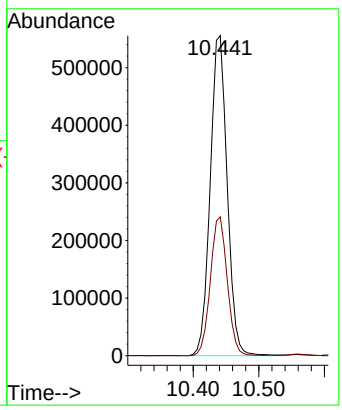
Tgt Ion: 43 Resp: 99790

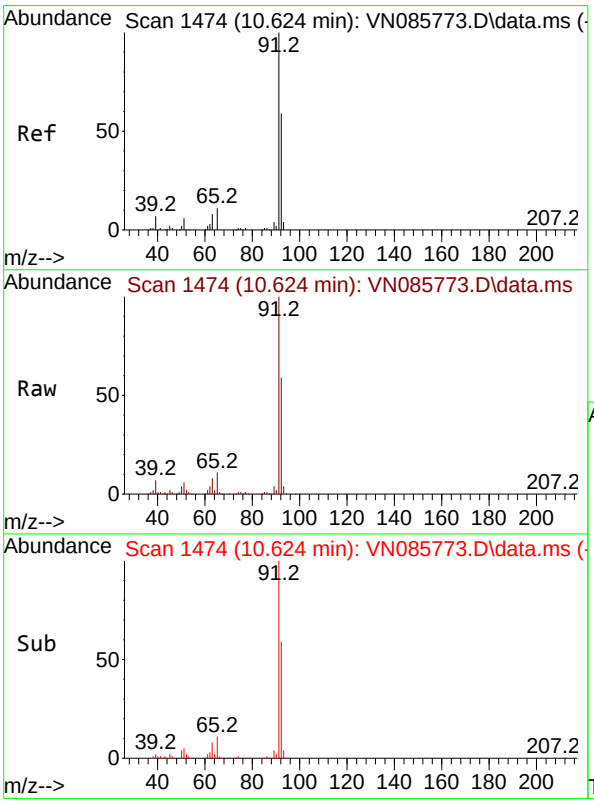
Ion	Ratio	Lower	Upper
43	100		
58	43.3	34.6	52.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

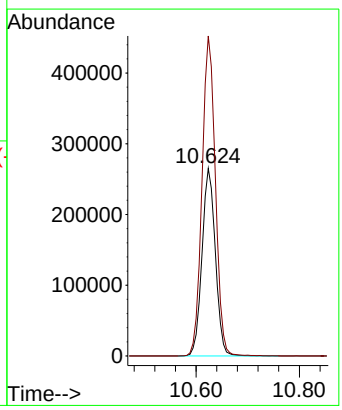


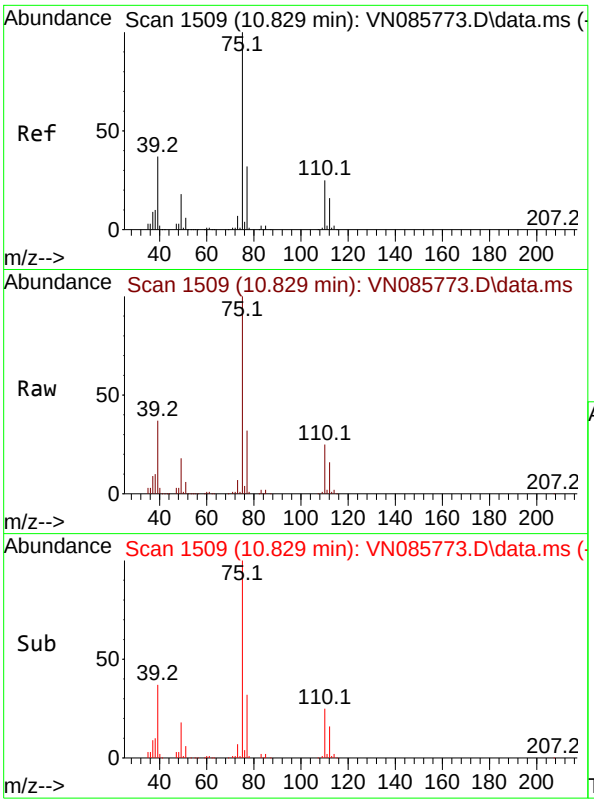


#52
Toluene
Concen: 51.816 ug/l
RT: 10.624 min Scan# 1474
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 92 Resp: 475069

Ion	Ratio	Lower	Upper
92	100		
91	171.1	136.9	205.3

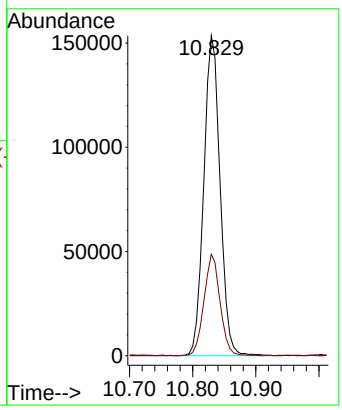




#53
t-1,3-Dichloropropene
Concen: 52.159 ug/l
RT: 10.829 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 75 Resp: 27479

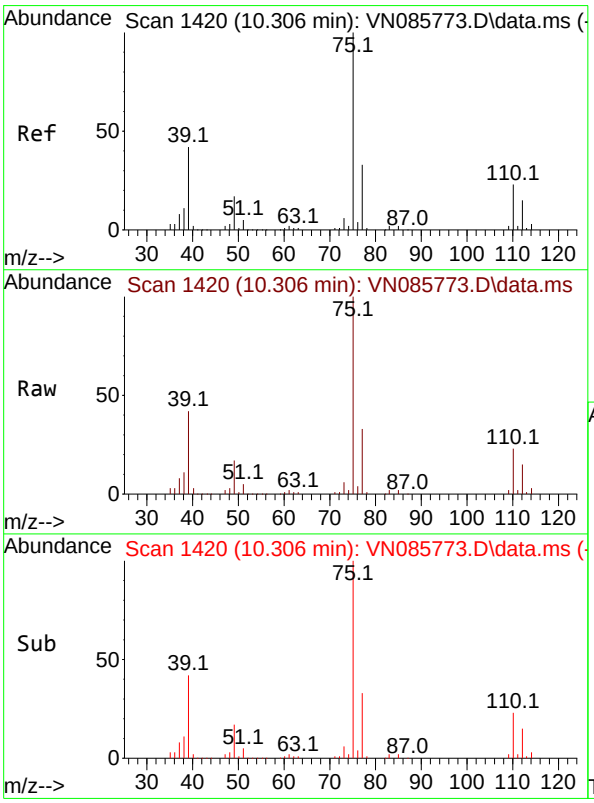
Ion	Ratio	Lower	Upper
75	100		
77	31.7	25.4	38.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

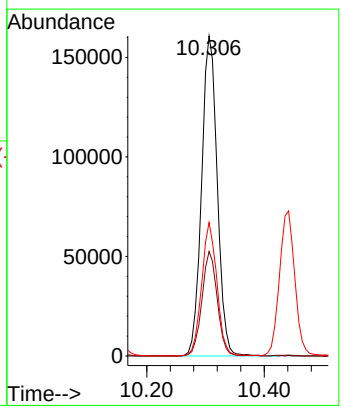
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

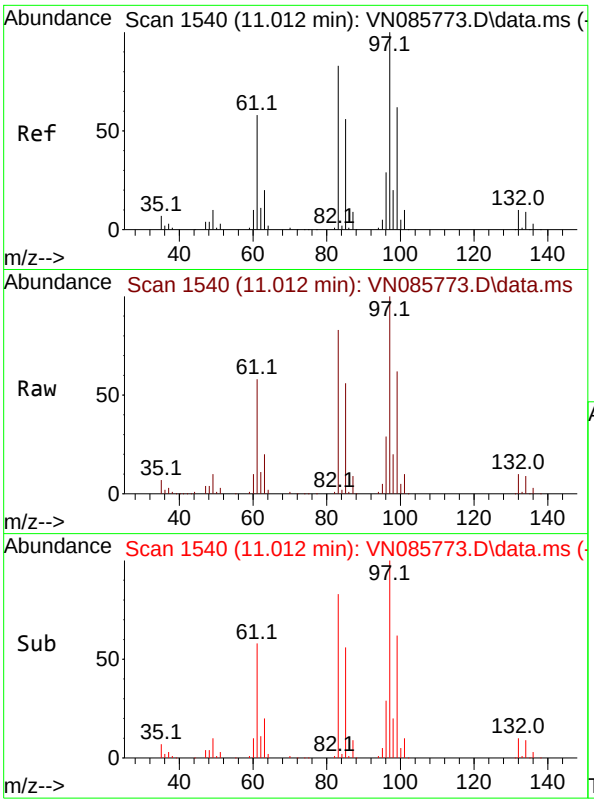


#54
cis-1,3-Dichloropropene
Concen: 51.646 ug/l
RT: 10.306 min Scan# 1420
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 75 Resp: 298359

Ion	Ratio	Lower	Upper
75	100		
77	32.6	26.1	39.1
39	41.7	33.4	50.0

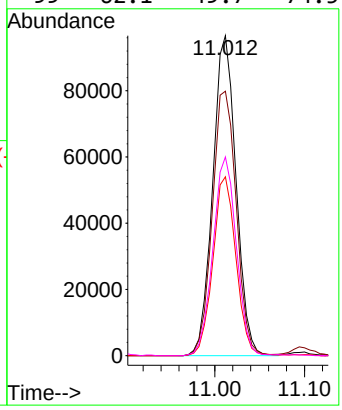




#55
1,1,2-Trichloroethane
Concen: 47.788 ug/l
RT: 11.012 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 97 Resp: 17419

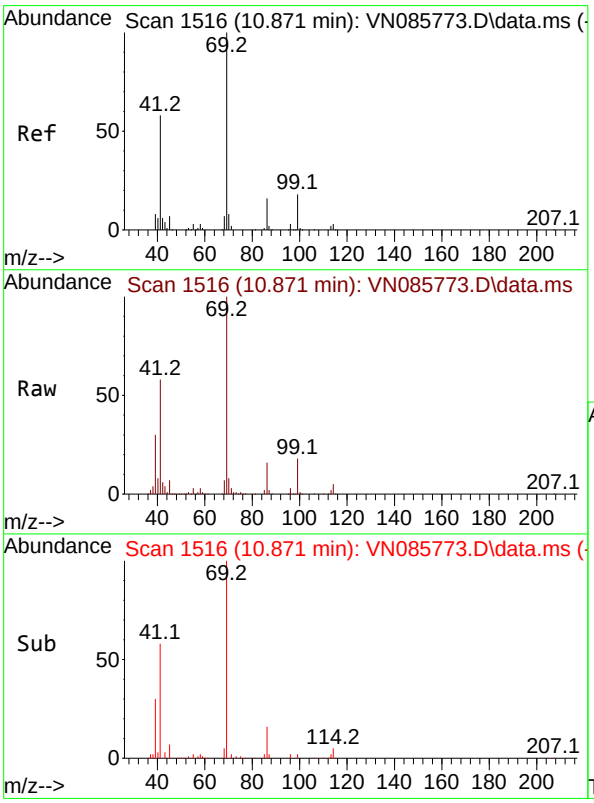
Ion	Ratio	Lower	Upper
97	100		
83	82.6	66.1	99.1
85	55.9	44.7	67.1
99	62.1	49.7	74.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

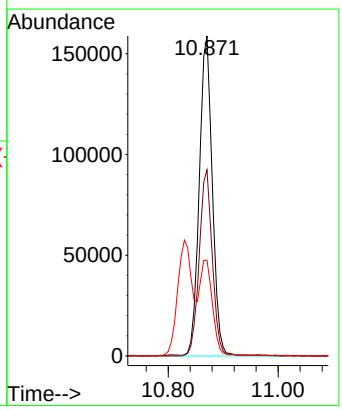
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

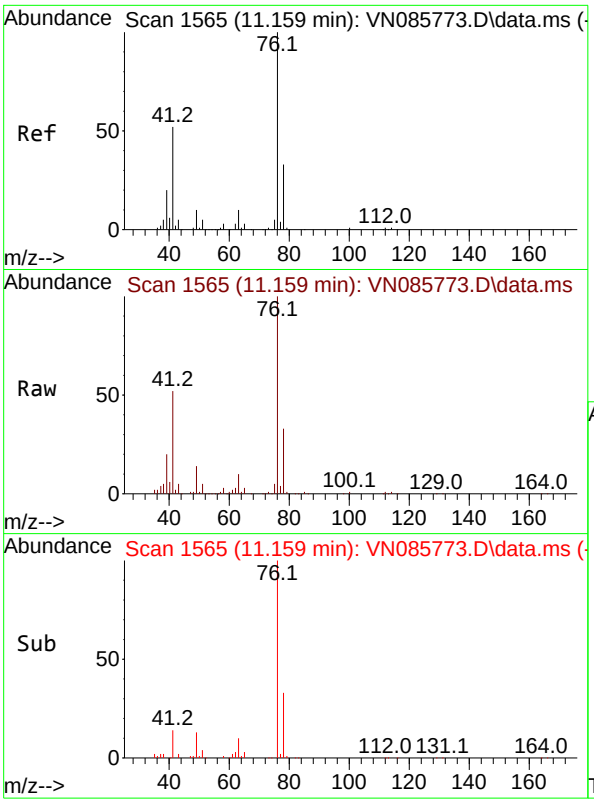


#56
Ethyl methacrylate
Concen: 49.960 ug/l
RT: 10.871 min Scan# 1516
Delta R.T. -0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 69 Resp: 261825

Ion	Ratio	Lower	Upper
69	100		
41	57.5	46.0	69.0
39	27.5	22.0	33.0

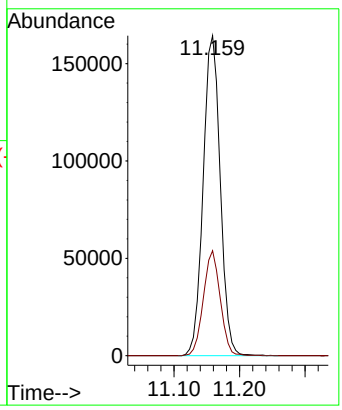




#57
1,3-Dichloropropane
Concen: 48.920 ug/l
RT: 11.159 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 76 Resp: 29768

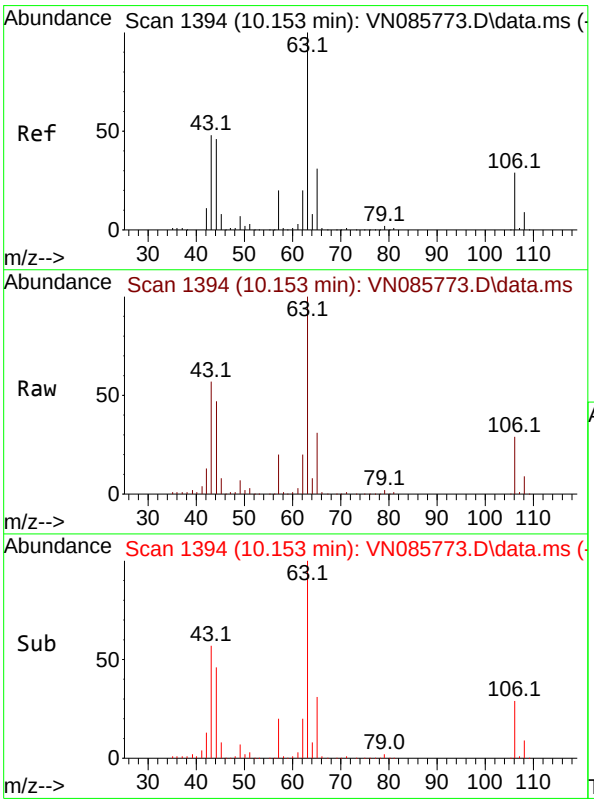
Ion	Ratio	Lower	Upper
76	100		
78	32.4	25.9	38.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

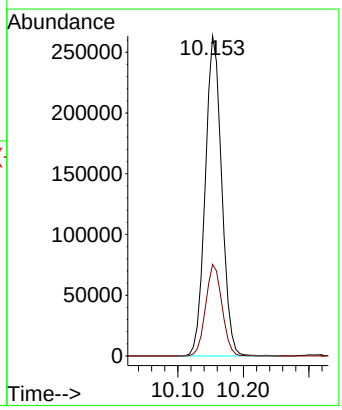
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

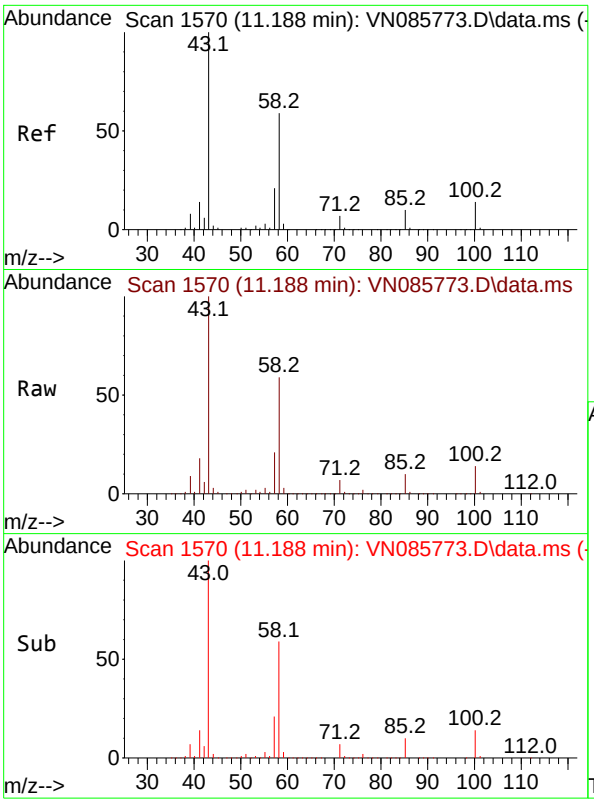


#58
2-Chloroethyl Vinyl ether
Concen: 230.774 ug/l
RT: 10.153 min Scan# 1394
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 63 Resp: 458983

Ion	Ratio	Lower	Upper
63	100		
106	28.4	22.7	34.1





#59
2-Hexanone
Concen: 270.257 ug/l
RT: 11.188 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

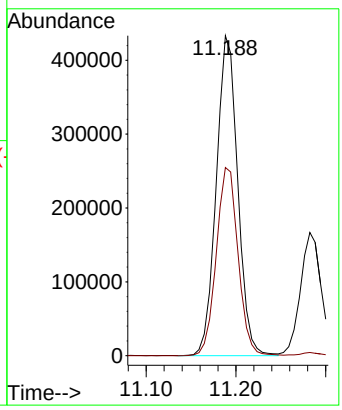
Tgt Ion: 43 Resp: 71987

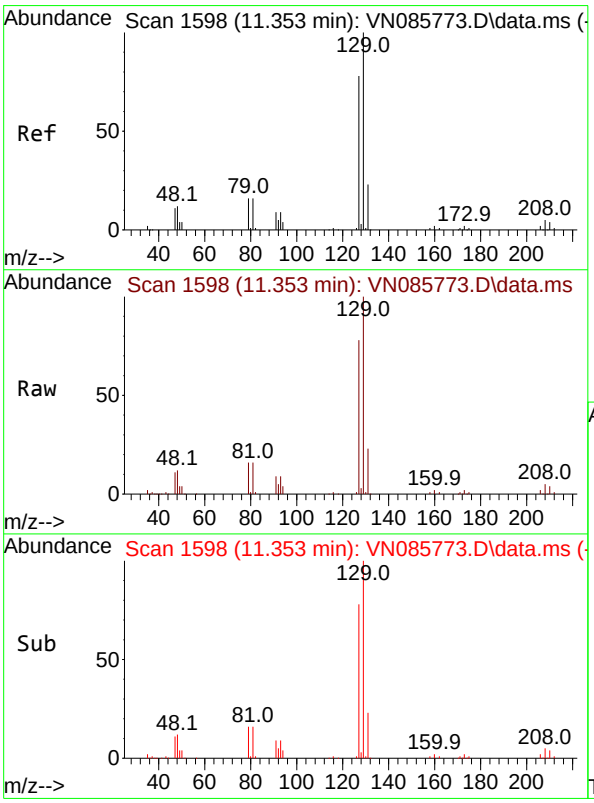
Ion	Ratio	Lower	Upper
43	100		
58	59.7	29.8	89.5

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

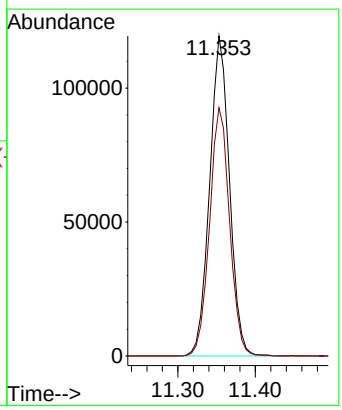


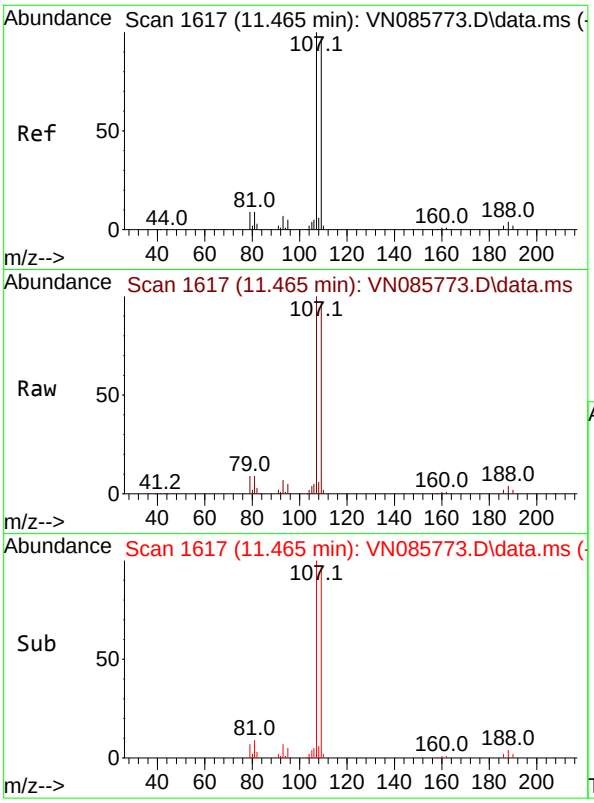


#60
Dibromochloromethane
Concen: 49.890 ug/l
RT: 11.353 min Scan# 1598
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion:129 Resp: 211769

Ion	Ratio	Lower	Upper
129	100		
127	78.3	39.1	117.5





#61
1,2-Dibromoethane
Concen: 49.191 ug/l
RT: 11.465 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

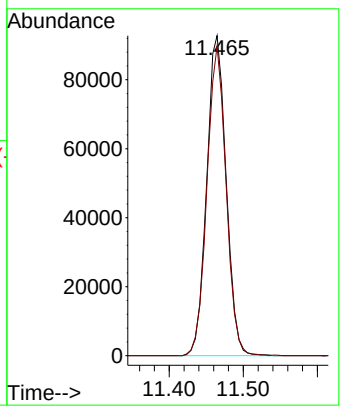
Tgt Ion:107 Resp: 16942

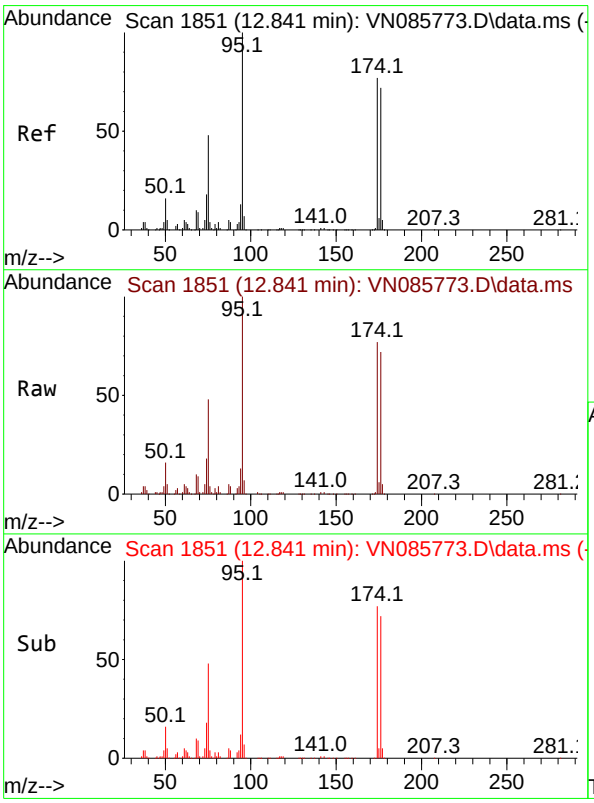
Ion	Ratio	Lower	Upper
107	100		
109	95.0	76.0	114.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

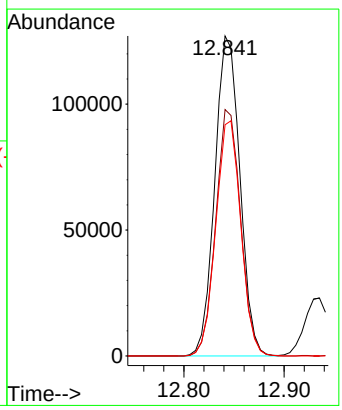


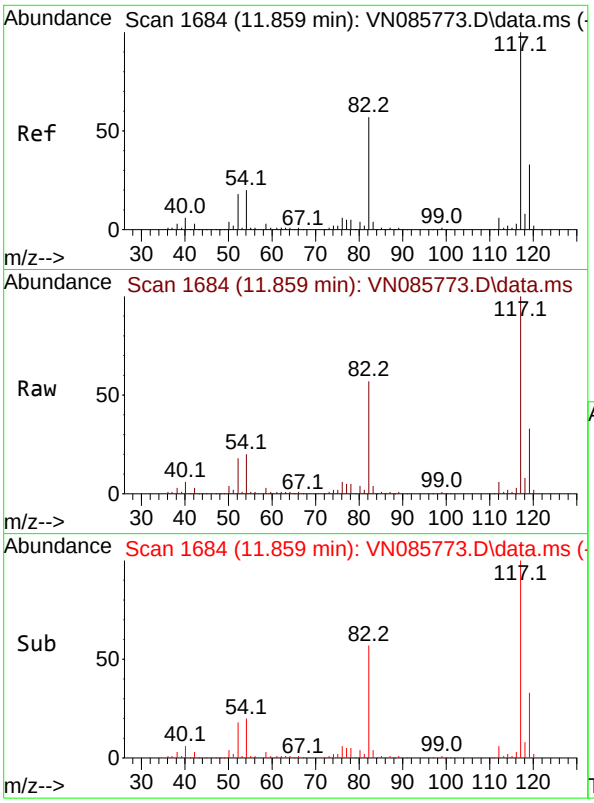


#62
4-Bromofluorobenzene
Concen: 53.393 ug/l
RT: 12.841 min Scan# 1851
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 95 Resp: 220691

Ion	Ratio	Lower	Upper
95	100		
174	76.2	0.0	152.4
176	73.3	0.0	146.6

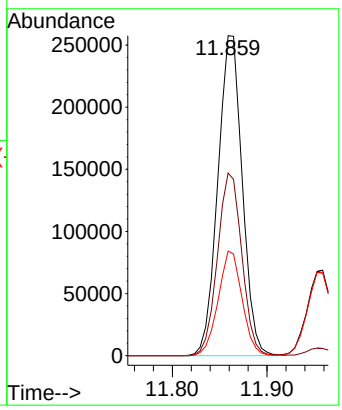




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.859 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion:117 Resp: 46165

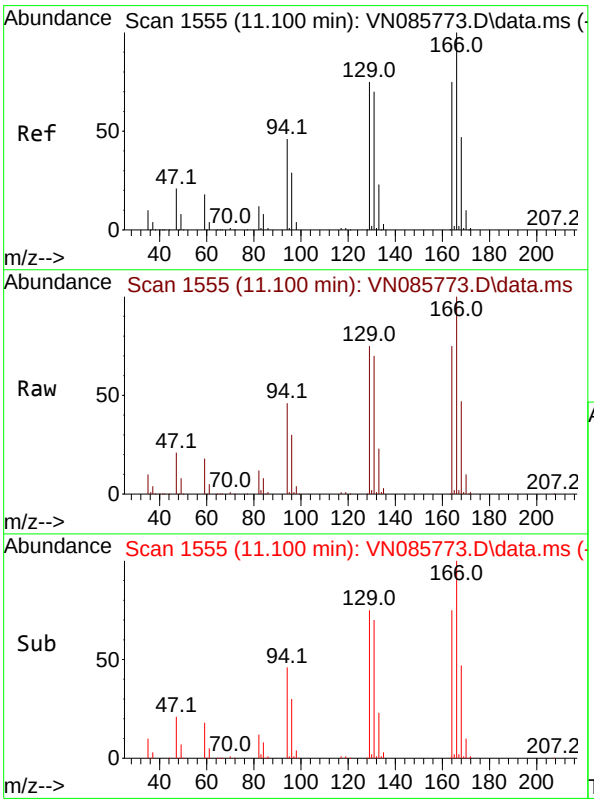
Ion	Ratio	Lower	Upper
117	100		
82	57.1	45.7	68.5
119	32.7	26.2	39.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

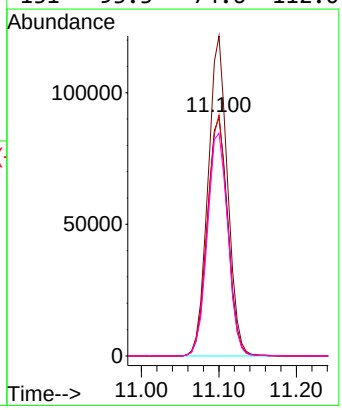
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

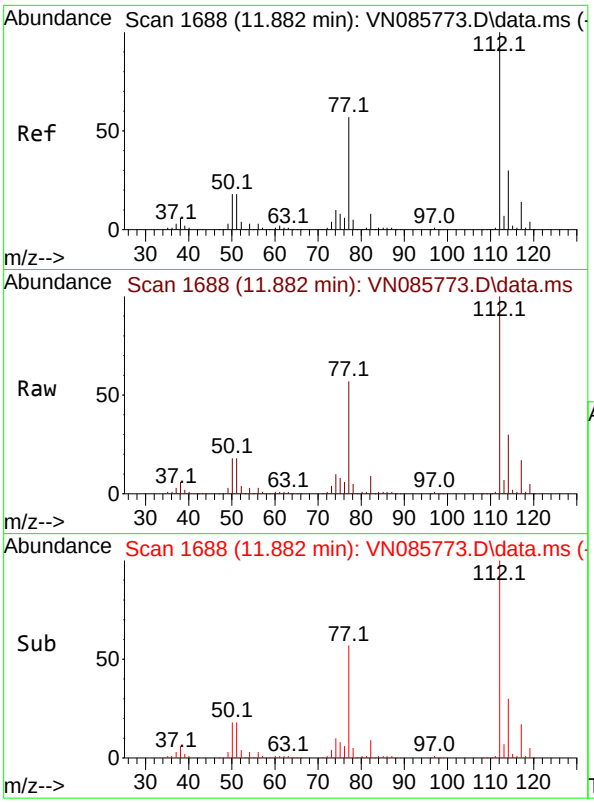


#64
Tetrachloroethene
Concen: 46.613 ug/l
RT: 11.100 min Scan# 1555
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion:164 Resp: 166710

Ion	Ratio	Lower	Upper
164	100		
166	134.0	107.2	160.8
129	100.9	80.7	121.1
131	93.3	74.6	112.0

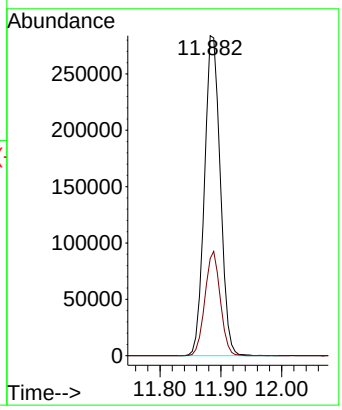




#65
Chlorobenzene
Concen: 48.454 ug/l
RT: 11.882 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion:112 Resp: 51243

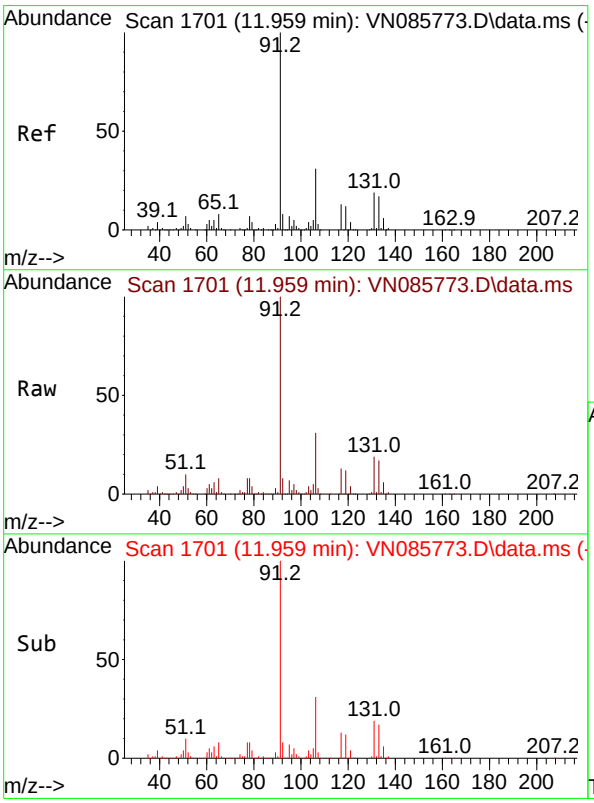
Ion	Ratio	Lower	Upper
112	100		
114	30.4	24.3	36.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

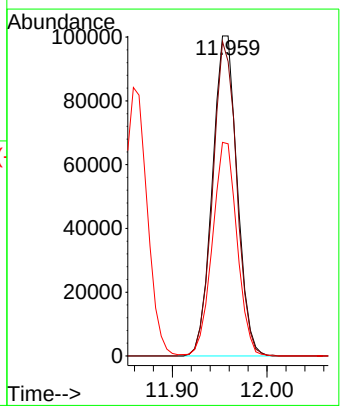
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

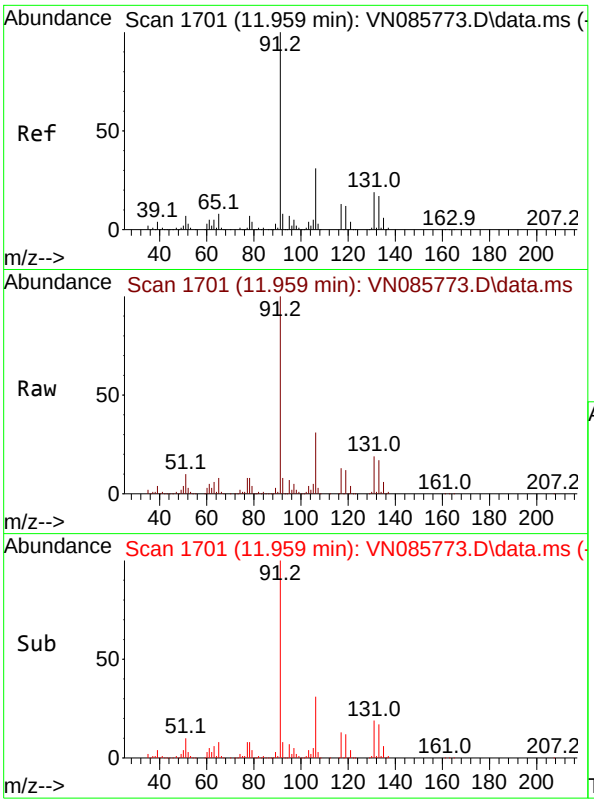


#66
1,1,1,2-Tetrachloroethane
Concen: 48.020 ug/l
RT: 11.959 min Scan# 1701
Delta R.T. -0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion:131 Resp: 182537

Ion	Ratio	Lower	Upper
131	100		
133	95.4	47.7	143.1
119	66.5	33.3	99.8





#67
Ethyl Benzene
Concen: 53.062 ug/l
RT: 11.959 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

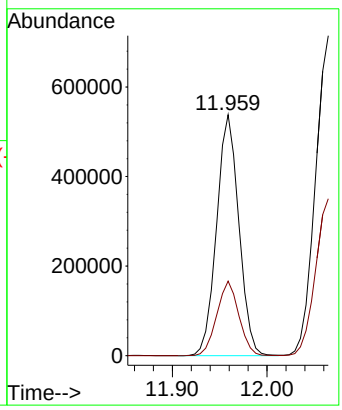
Tgt Ion: 91 Resp: 87904

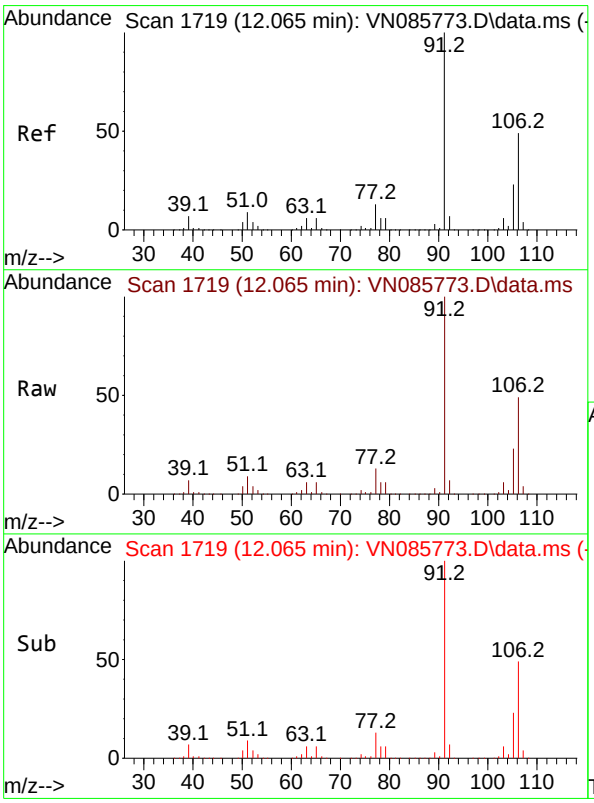
Ion	Ratio	Lower	Upper
91	100		
106	30.9	24.7	37.1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

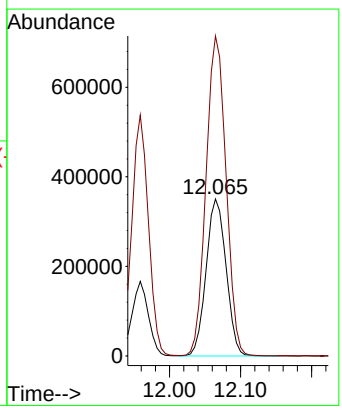


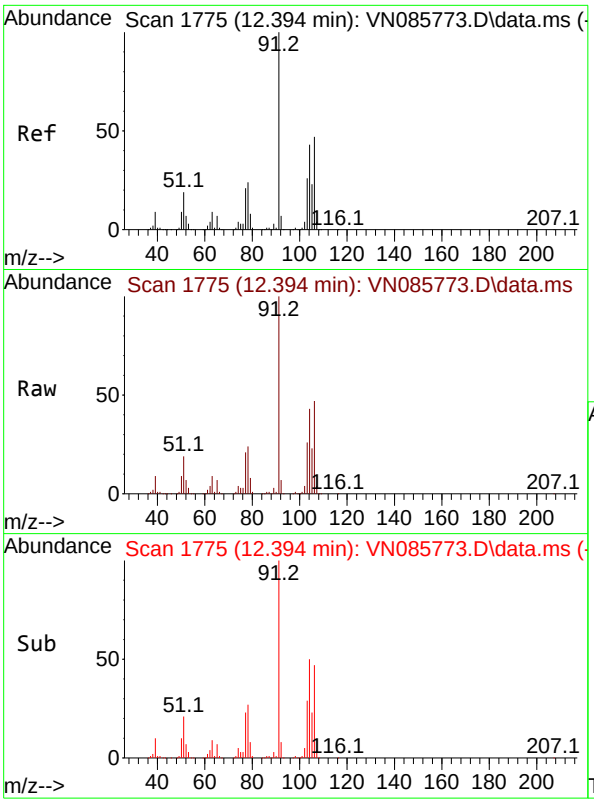


#68
m/p-Xylenes
Concen: 108.757 ug/l
RT: 12.065 min Scan# 1719
Delta R.T. -0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion:106 Resp: 684377

Ion	Ratio	Lower	Upper
106	100		
91	204.1	163.3	244.9





#69
o-Xylene
Concen: 54.342 ug/l
RT: 12.394 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

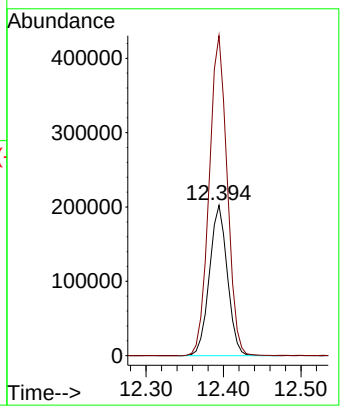
Tgt Ion:106 Resp: 32494

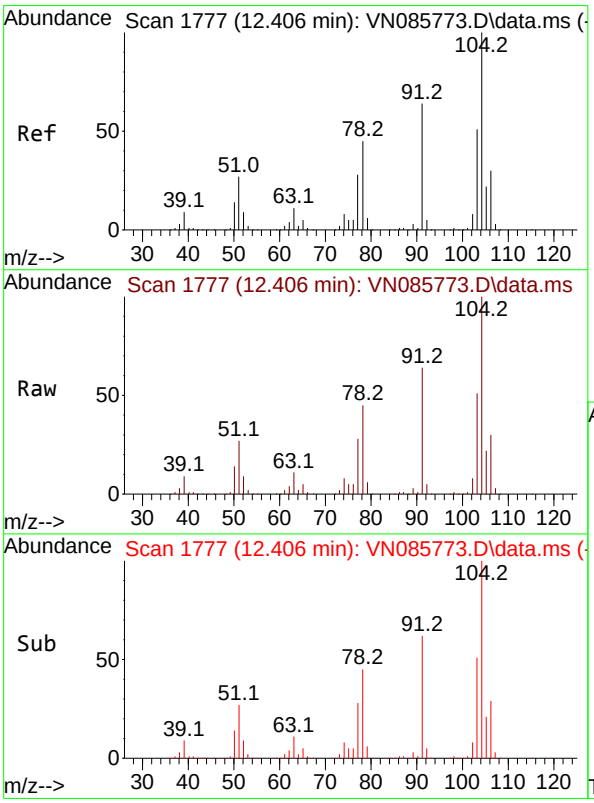
Ion	Ratio	Lower	Upper
106	100		
91	214.3	107.1	321.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

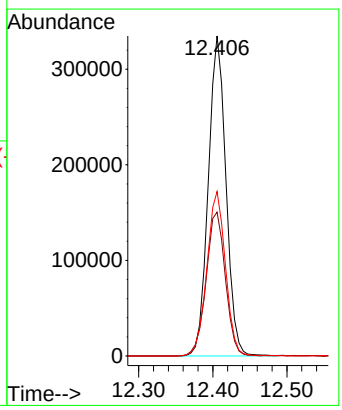


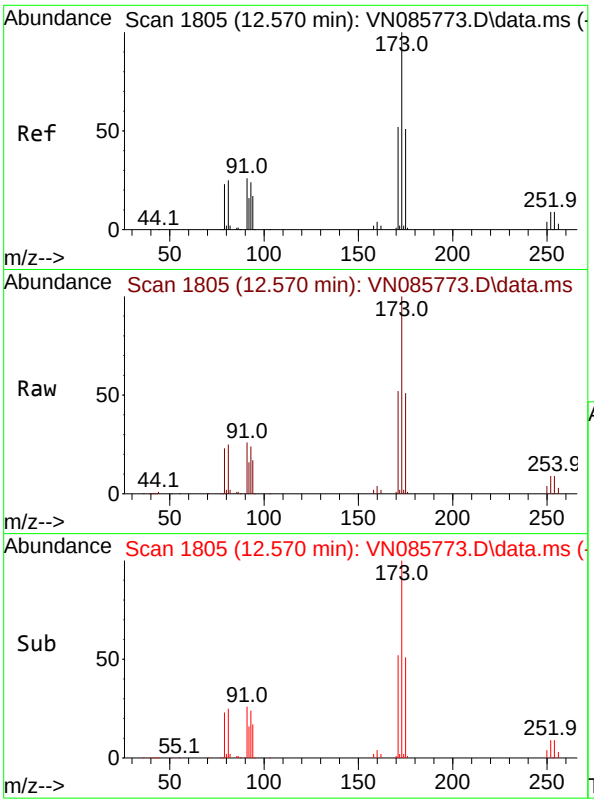


#70
Styrene
Concen: 49.909 ug/l
RT: 12.406 min Scan# 1777
Delta R.T. -0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion:104 Resp: 555269

Ion	Ratio	Lower	Upper
104	100		
78	48.8	39.0	58.6
103	54.1	43.3	64.9

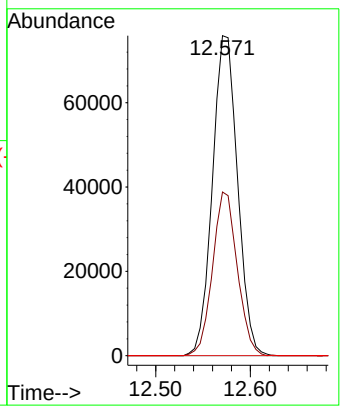




#71
Bromoform
Concen: 49.528 ug/l
RT: 12.570 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion:173 Resp: 13989

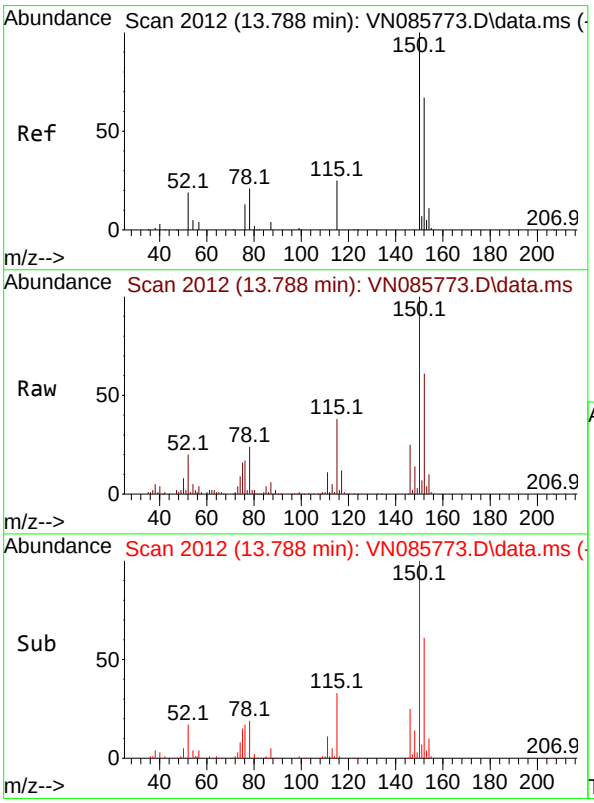
Ion	Ratio	Lower	Upper
173	100		
175	50.3	25.1	75.4
254	0.0	0.0	0.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

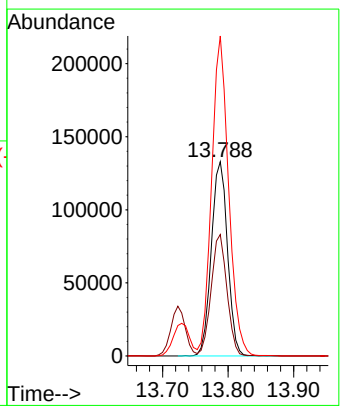
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

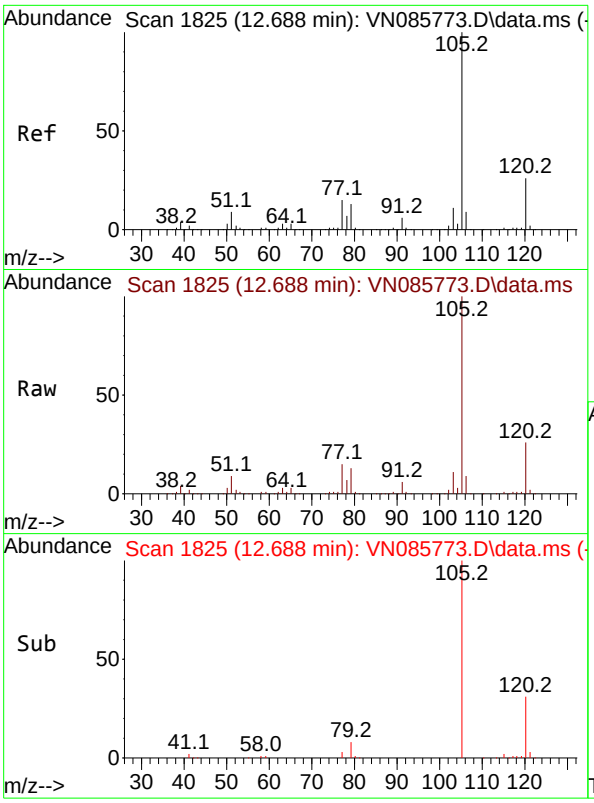


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.788 min Scan# 2012
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion:152 Resp: 227499

Ion	Ratio	Lower	Upper
152	100		
115	60.9	30.4	91.3
150	172.7	0.0	345.4





#73
Isopropylbenzene
Concen: 52.482 ug/l
RT: 12.688 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

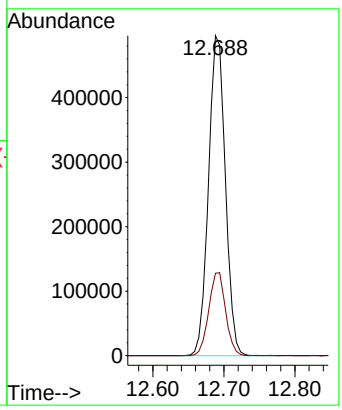
Tgt Ion:105 Resp: 81798

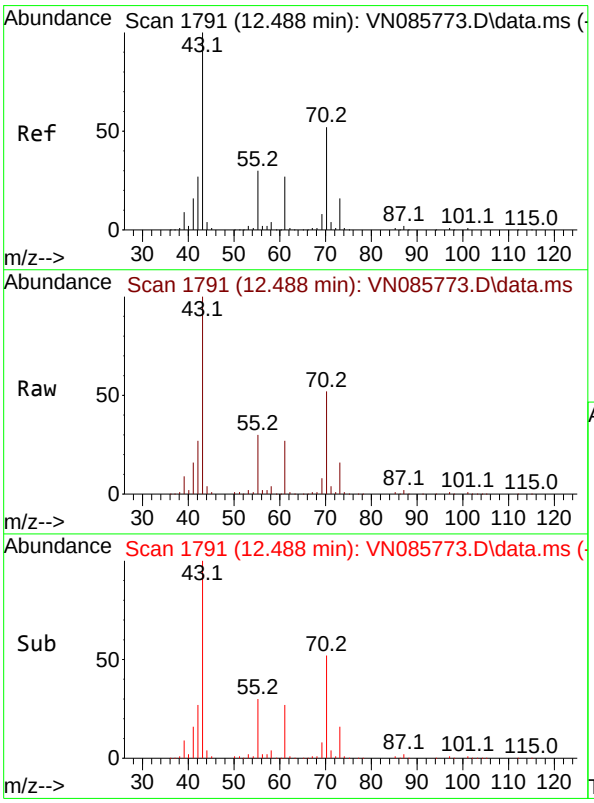
Ion	Ratio	Lower	Upper
105	100		
120	26.0	13.0	39.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

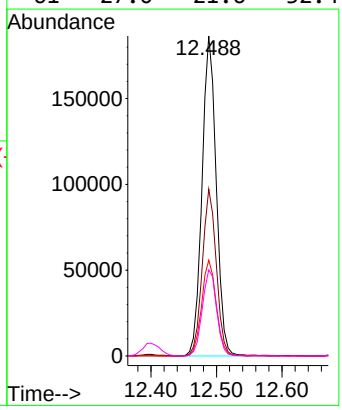


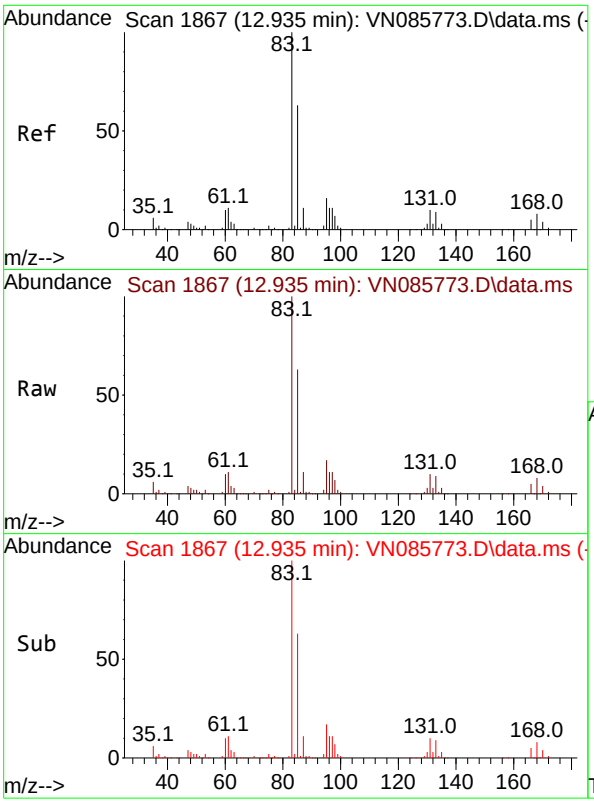


#74
N-amyl acetate
Concen: 51.360 ug/l
RT: 12.488 min Scan# 1791
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 43 Resp: 282288

Ion	Ratio	Lower	Upper
43	100		
70	51.2	41.0	61.4
55	30.7	24.6	36.8
61	27.0	21.6	32.4





#75
1,1,2,2-Tetrachloroethane
Concen: 44.649 ug/l
RT: 12.935 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

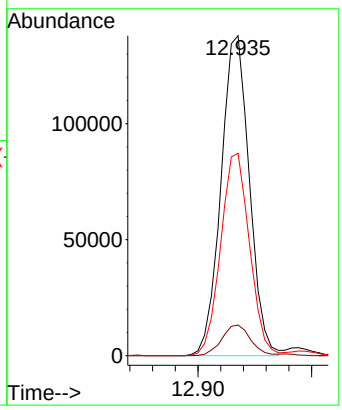
Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

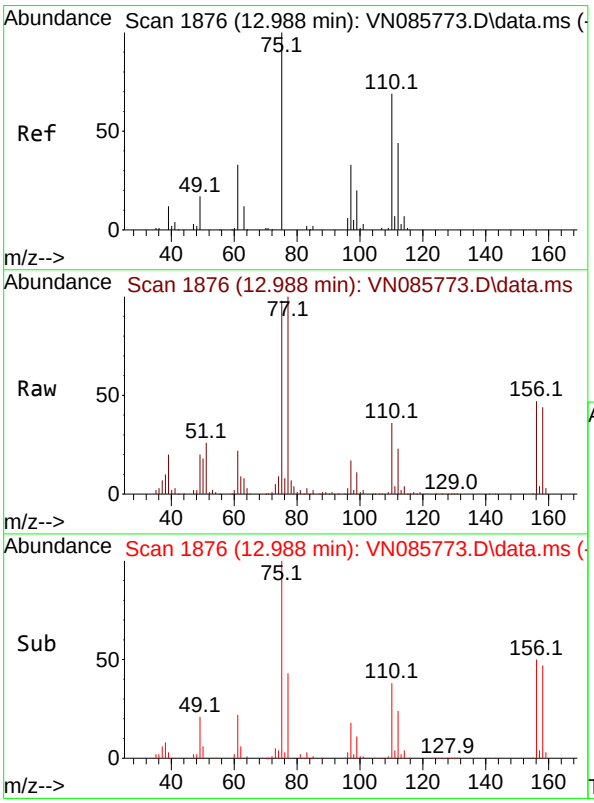
Tgt Ion: 83 Resp: 23946

Ion	Ratio	Lower	Upper
83	100		
131	10.0	5.0	15.0
85	64.4	32.2	96.6

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

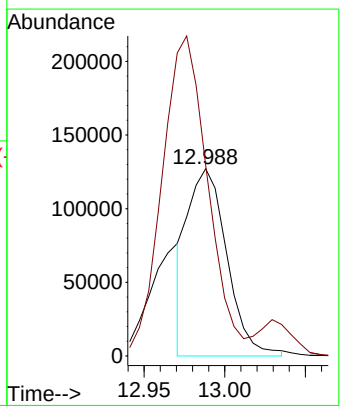


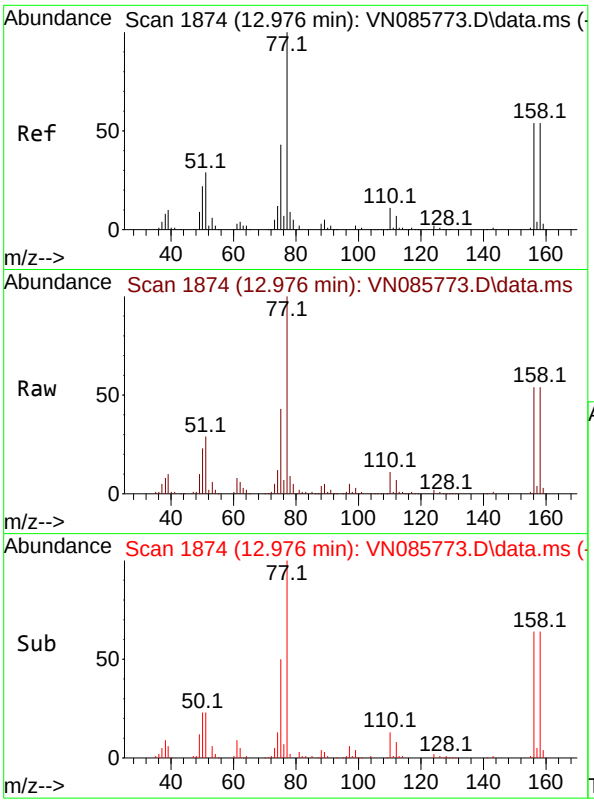


#76
1,2,3-Trichloropropane
Concen: 43.108 ug/l m
RT: 12.988 min Scan# 1876
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 75 Resp: 215451

Ion	Ratio	Lower	Upper
75	100		
77	198.9	100.0	300.0

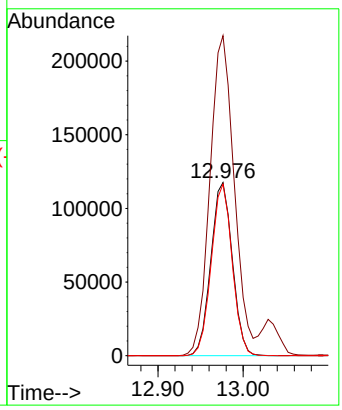




#77
Bromobenzene
Concen: 48.863 ug/l
RT: 12.976 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion:156 Resp: 20575

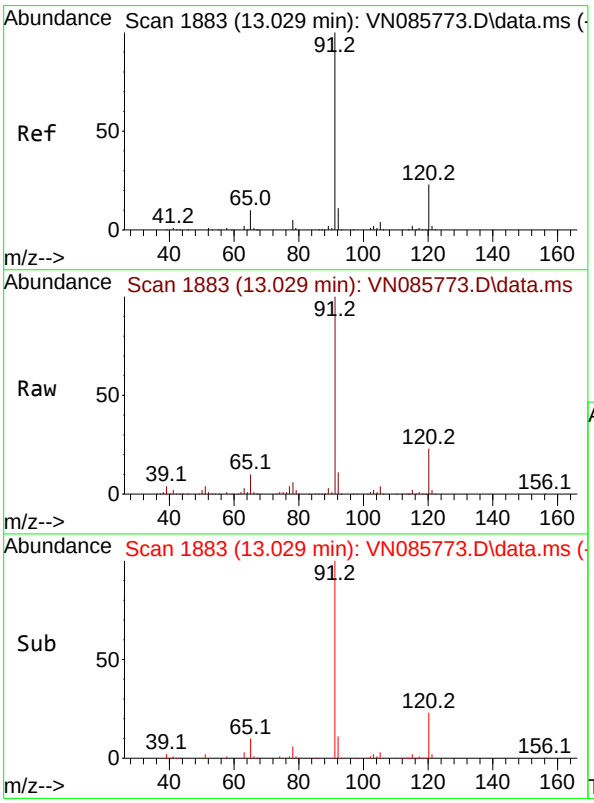
Ion	Ratio	Lower	Upper
156	100		
77	208.2	104.1	312.3
158	96.3	48.1	144.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

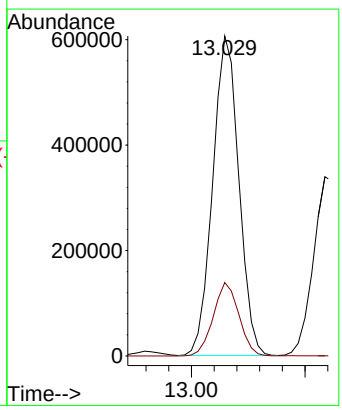
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

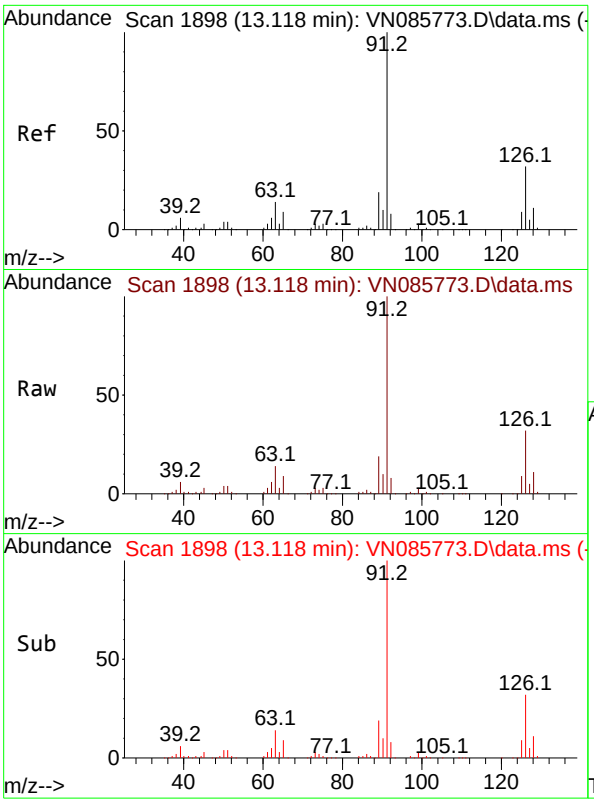


#78
n-propylbenzene
Concen: 54.241 ug/l
RT: 13.029 min Scan# 1883
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 91 Resp: 968182

Ion	Ratio	Lower	Upper
91	100		
120	22.5	11.3	33.8

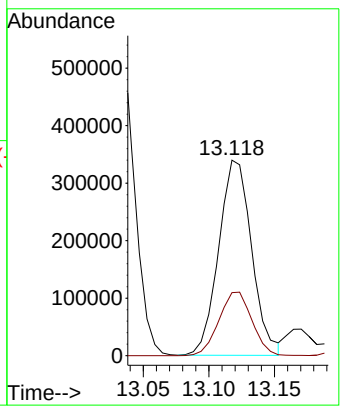




#79
2-Chlorotoluene
Concen: 49.895 ug/l
RT: 13.118 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 91 Resp: 59504

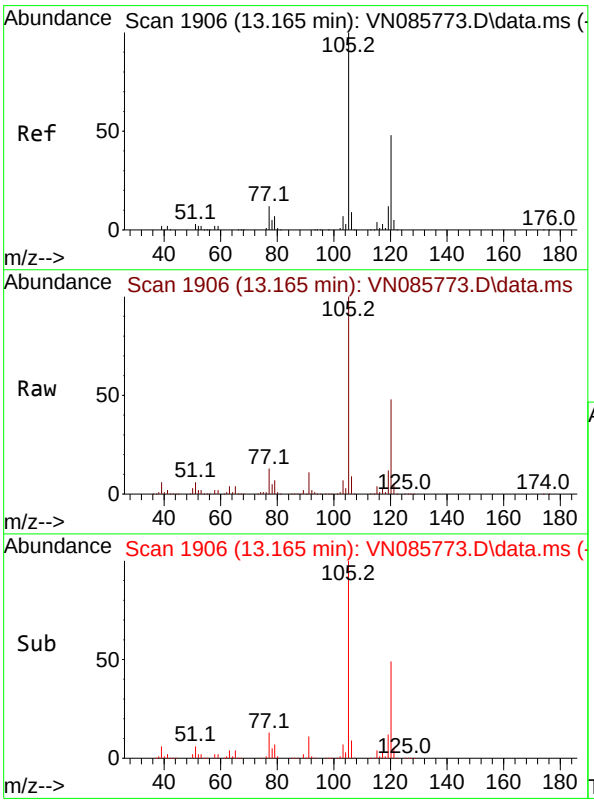
Ion	Ratio	Lower	Upper
91	100		
126	32.7	16.4	49.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

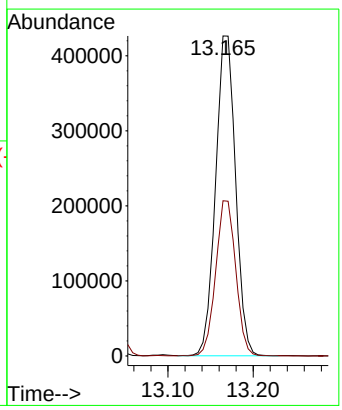
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

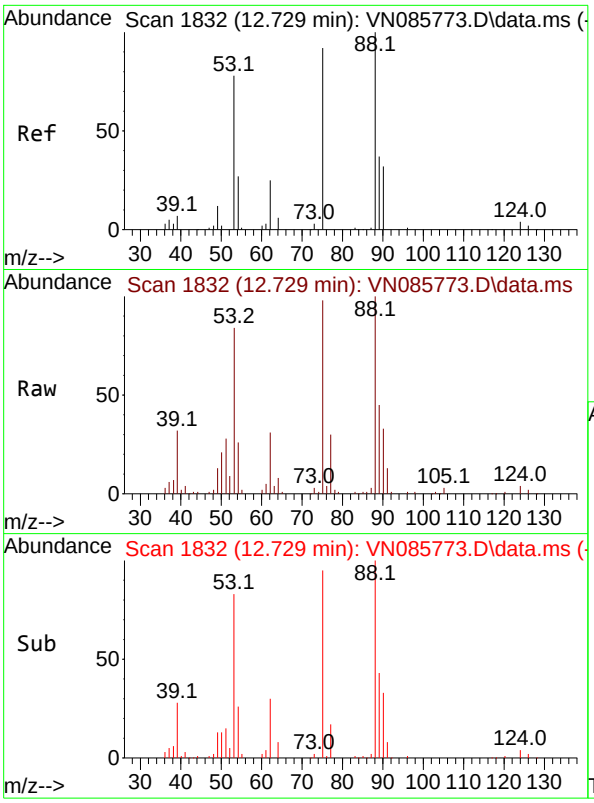


#80
1,3,5-Trimethylbenzene
Concen: 54.757 ug/l
RT: 13.165 min Scan# 1906
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion:105 Resp: 695205

Ion	Ratio	Lower	Upper
105	100		
120	48.6	24.3	72.9





#81
trans-1,4-Dichloro-2-butene
Concen: 52.111 ug/l
RT: 12.729 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

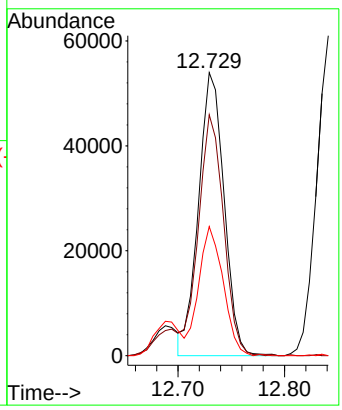
Tgt Ion: 75 Resp: 9025

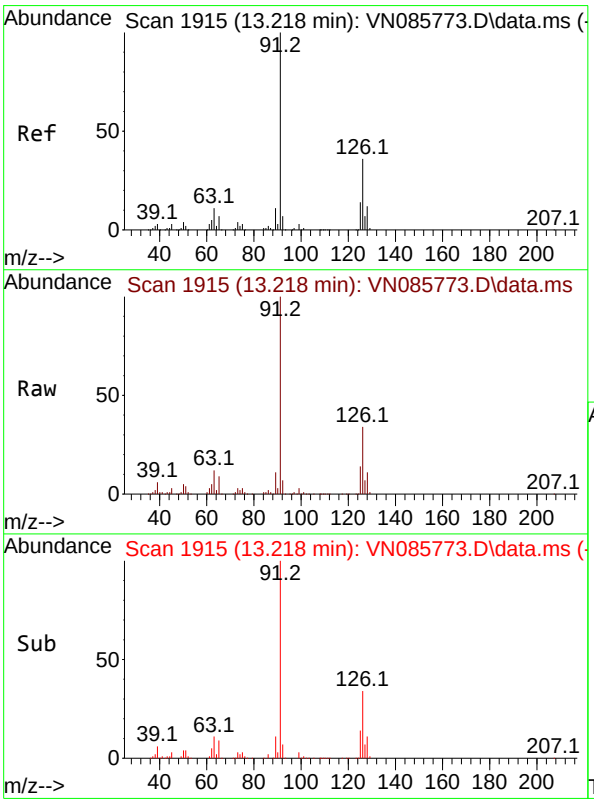
Ion	Ratio	Lower	Upper
75	100		
53	92.8	74.2	111.4
89	43.6	34.9	52.3

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

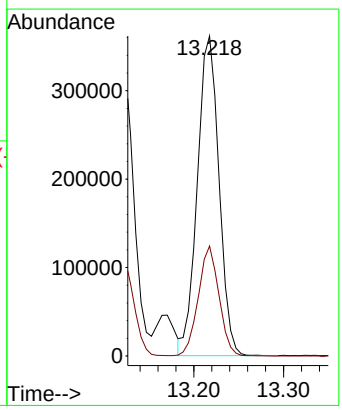


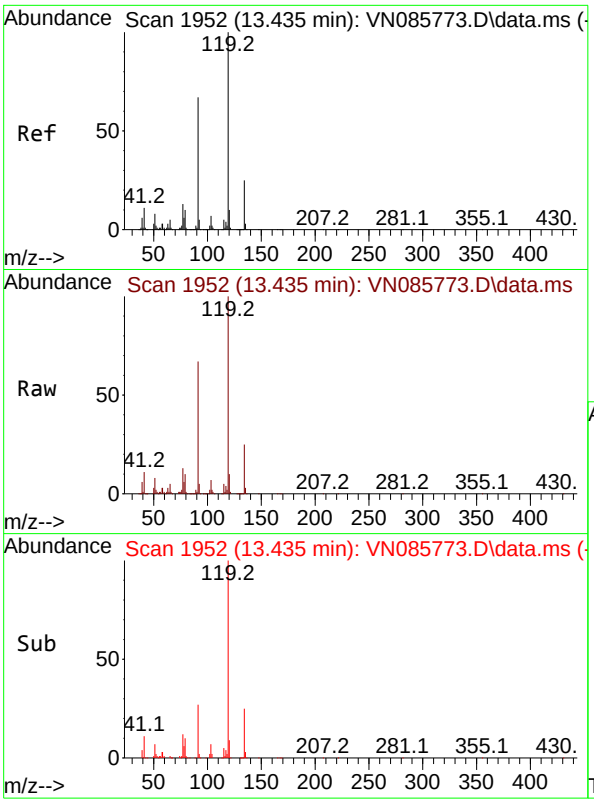


#82
4-Chlorotoluene
Concen: 51.139 ug/l
RT: 13.218 min Scan# 1915
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 91 Resp: 604612

Ion	Ratio	Lower	Upper
91	100		
126	32.9	16.4	49.4

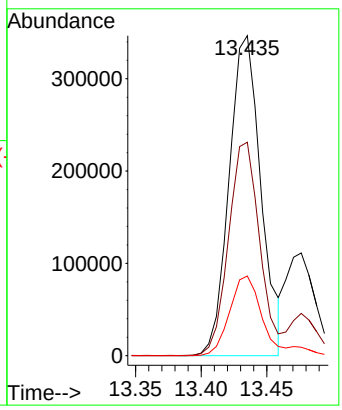




#83
tert-Butylbenzene
Concen: 54.933 ug/l
RT: 13.435 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion:119 Resp: 58649

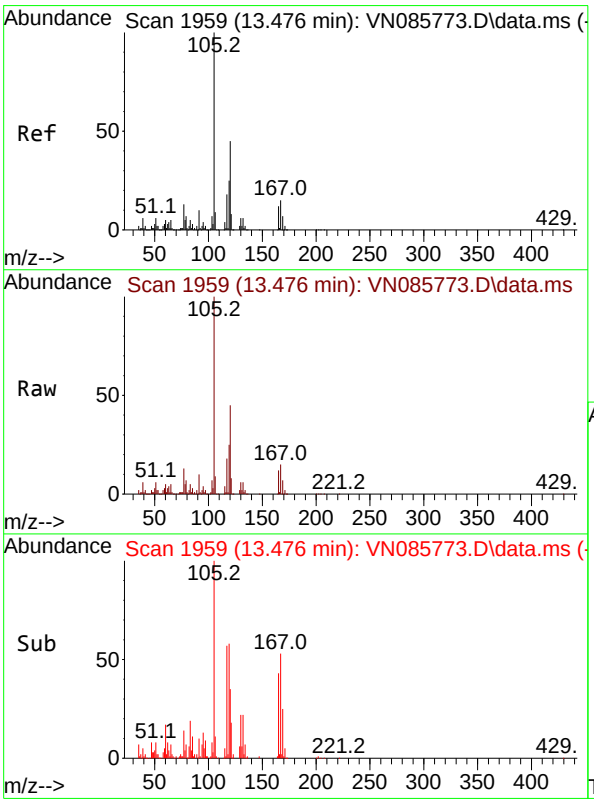
Ion	Ratio	Lower	Upper
119	100		
91	65.0	32.5	97.5
134	26.6	13.3	39.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

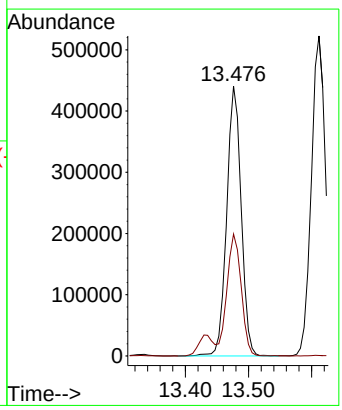
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

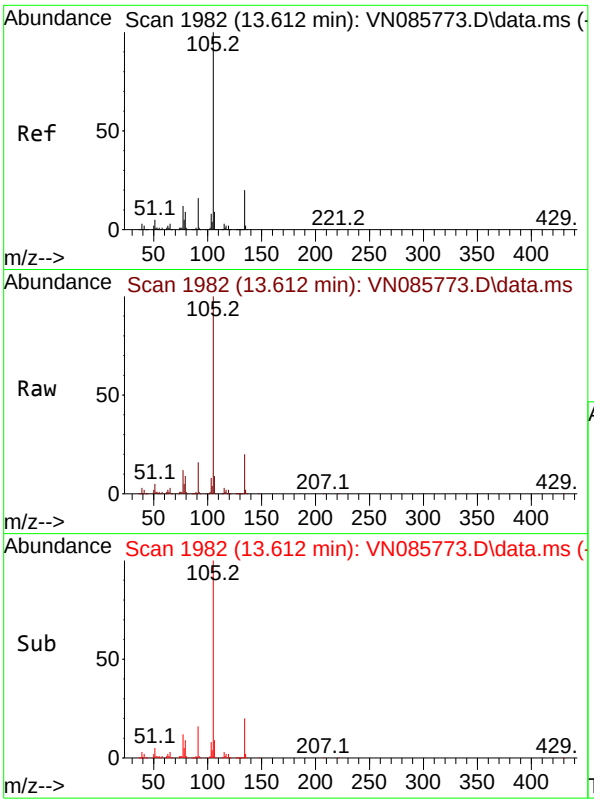


#84
1,2,4-Trimethylbenzene
Concen: 55.748 ug/l
RT: 13.476 min Scan# 1959
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion:105 Resp: 700260

Ion	Ratio	Lower	Upper
105	100		
120	44.9	22.4	67.3

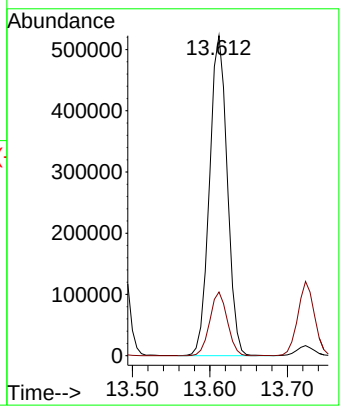




#85
sec-Butylbenzene
Concen: 55.099 ug/l
RT: 13.612 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion:105 Resp: 83114

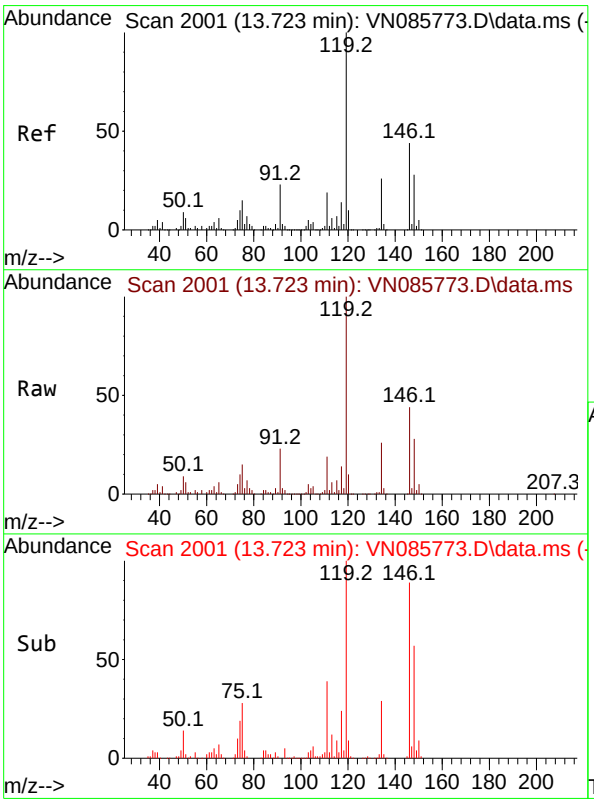
Ion	Ratio	Lower	Upper
105	100		
134	19.6	9.8	29.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

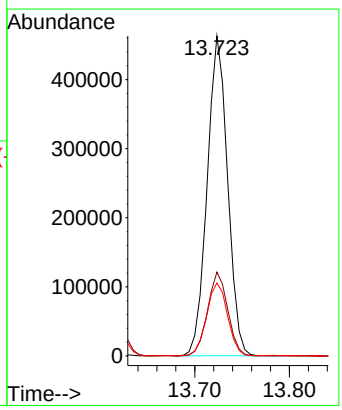
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

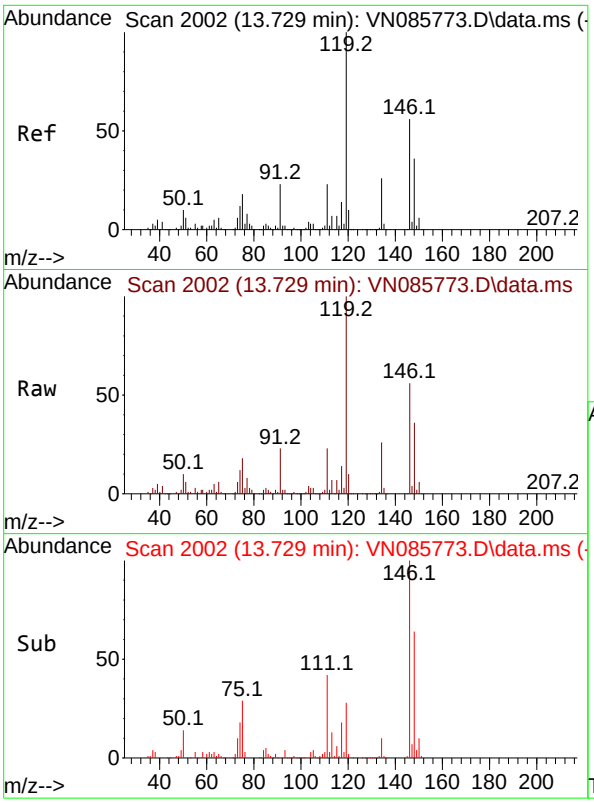


#86
p-Isopropyltoluene
Concen: 50.103 ug/l
RT: 13.723 min Scan# 2001
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion:119 Resp: 692641

Ion	Ratio	Lower	Upper
119	100		
134	26.0	13.0	39.0
91	23.4	11.7	35.1

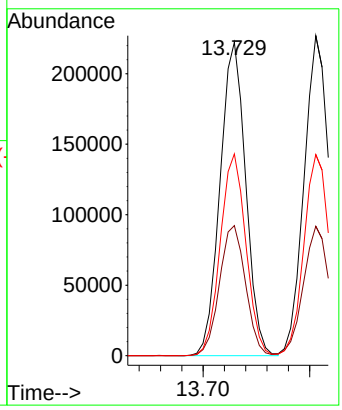




#87
1,3-Dichlorobenzene
Concen: 47.154 ug/l
RT: 13.729 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion:146 Resp: 37200

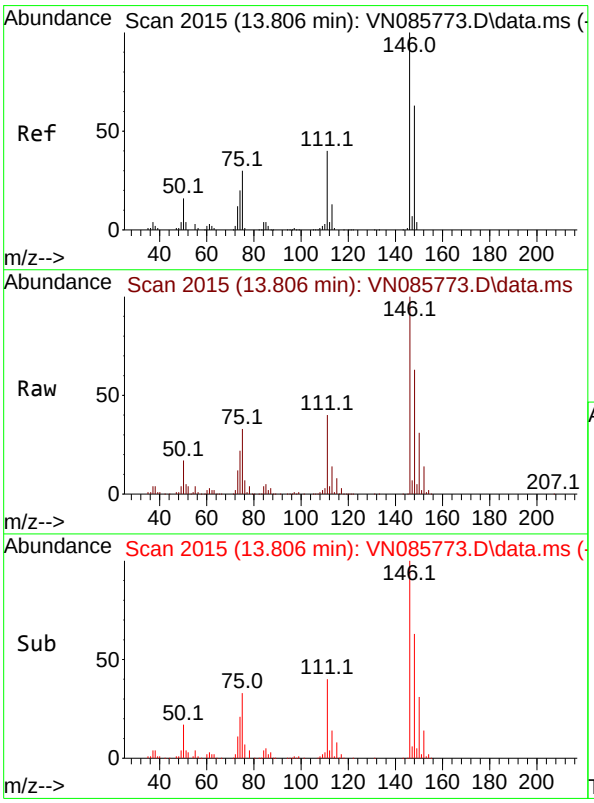
Ion	Ratio	Lower	Upper
146	100		
111	42.2	21.1	63.3
148	64.3	32.1	96.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

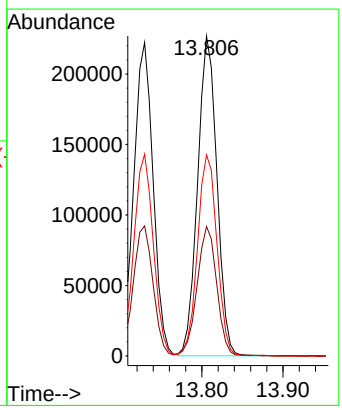
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

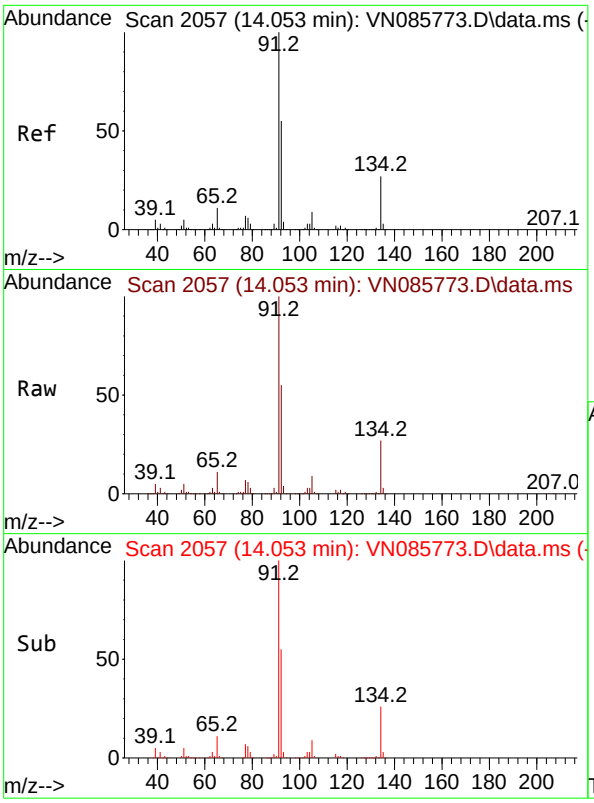


#88
1,4-Dichlorobenzene
Concen: 46.340 ug/l
RT: 13.806 min Scan# 2015
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion:146 Resp: 374700

Ion	Ratio	Lower	Upper
146	100		
111	40.9	20.4	61.3
148	63.6	31.8	95.4





#89
n-Butylbenzene
Concen: 54.197 ug/l
RT: 14.053 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

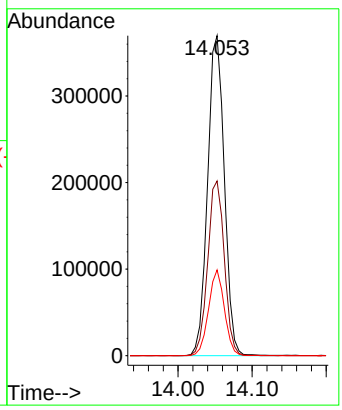
Tgt Ion: 91 Resp: 58044

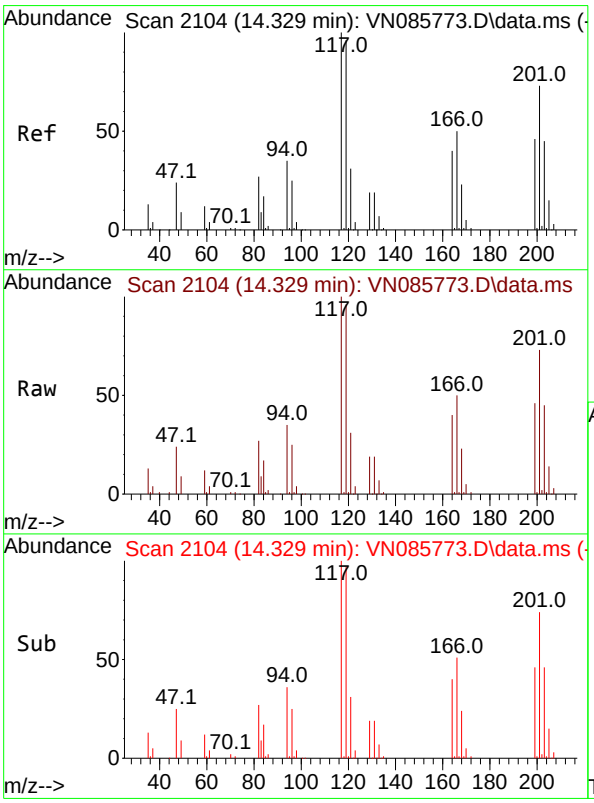
Ion	Ratio	Lower	Upper
91	100		
92	54.2	27.1	81.3
134	25.4	12.7	38.1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

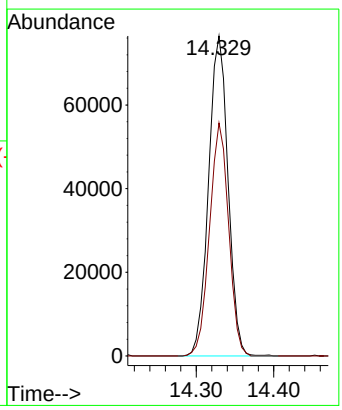


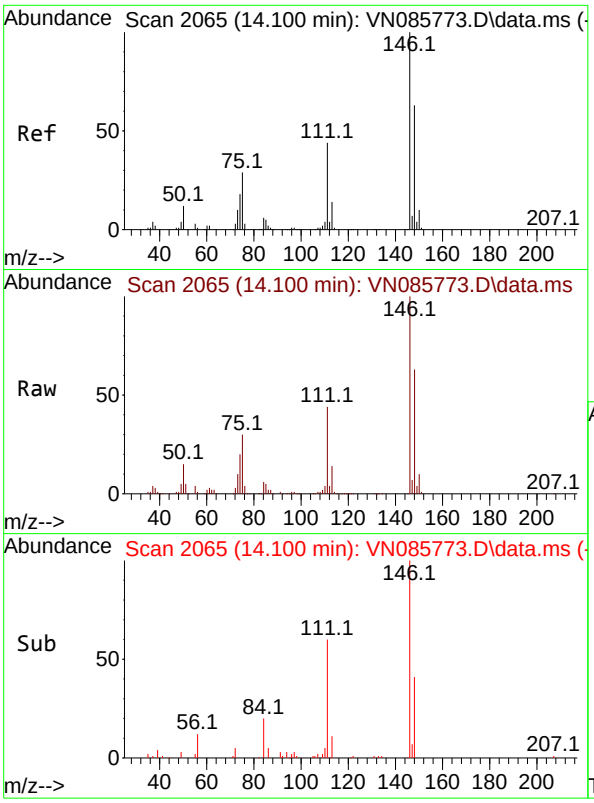


#90
Hexachloroethane
Concen: 46.708 ug/l
RT: 14.329 min Scan# 2104
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion:117 Resp: 133438

Ion	Ratio	Lower	Upper
117	100		
201	71.3	35.6	106.9

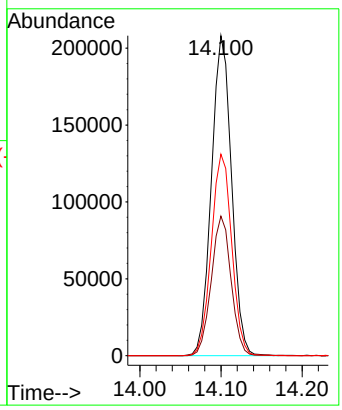




#91
1,2-Dichlorobenzene
Concen: 47.211 ug/l
RT: 14.100 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion:146 Resp: 35815

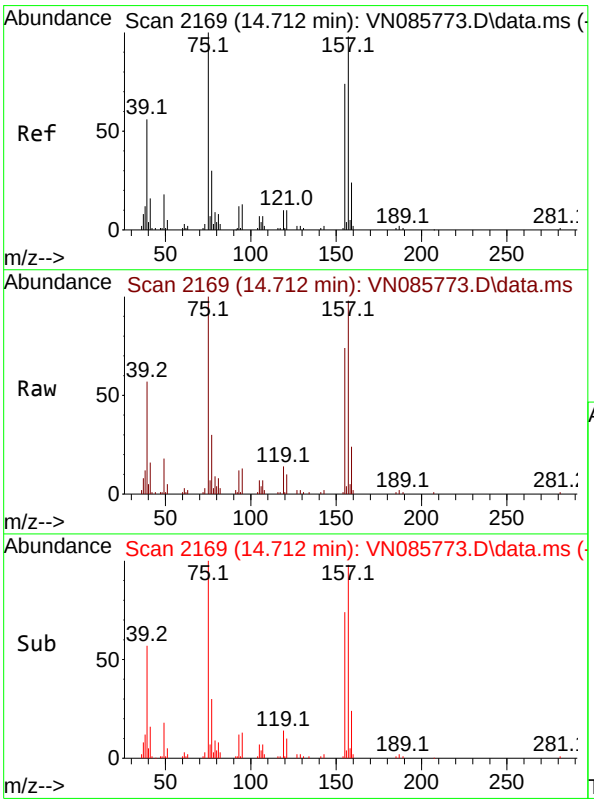
Ion	Ratio	Lower	Upper
146	100		
111	42.9	21.4	64.3
148	64.1	32.0	96.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

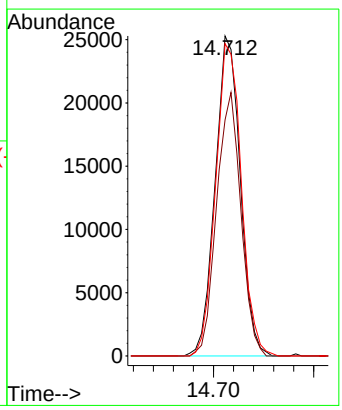
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

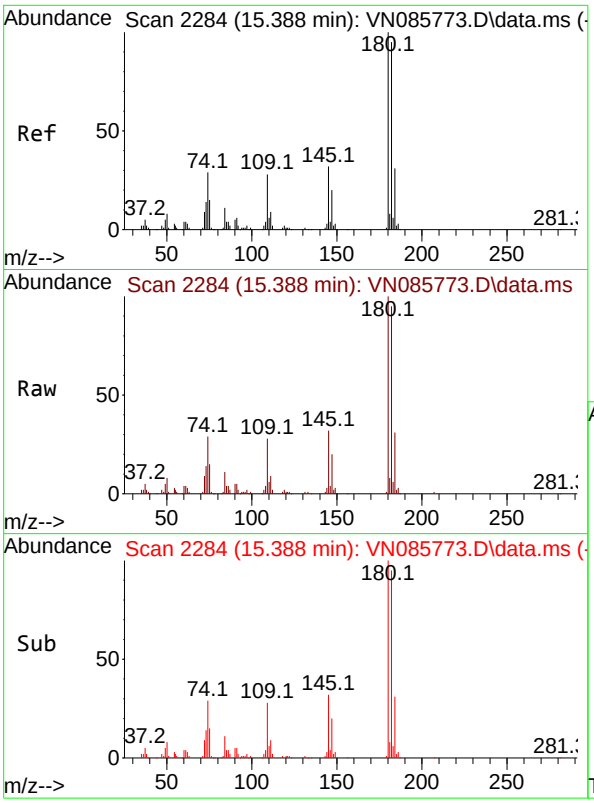


#92
1,2-Dibromo-3-Chloropropane
Concen: 44.611 ug/l
RT: 14.712 min Scan# 2169
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion: 75 Resp: 43935

Ion	Ratio	Lower	Upper
75	100		
155	79.7	39.9	119.6
157	99.8	49.9	149.7





#93
1,2,4-Trichlorobenzene
Concen: 50.473 ug/l
RT: 15.388 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

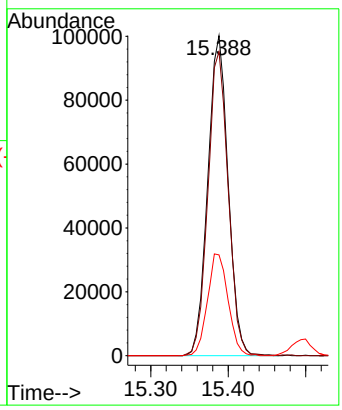
Tgt Ion:180 Resp: 18245

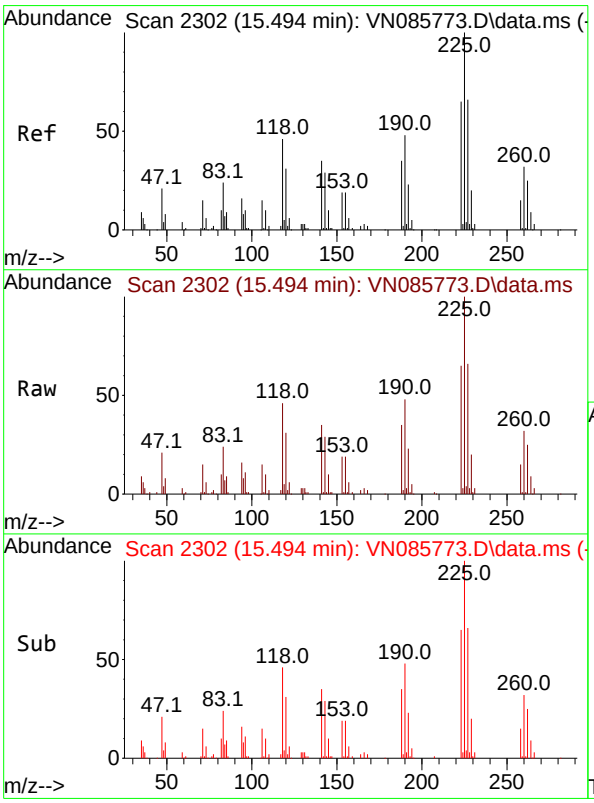
Ion	Ratio	Lower	Upper
180	100		
182	94.6	47.3	141.9
145	32.3	16.2	48.5

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

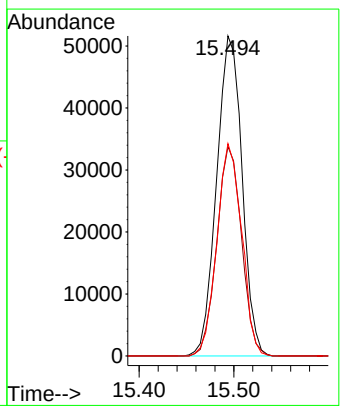


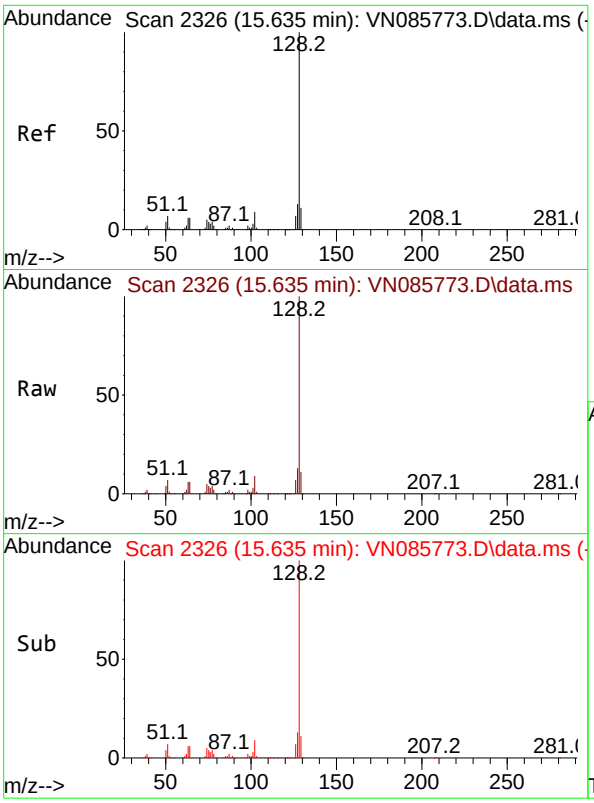


#94
Hexachlorobutadiene
Concen: 43.899 ug/l
RT: 15.494 min Scan# 2302
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion:225 Resp: 96444

Ion	Ratio	Lower	Upper
225	100		
223	63.7	31.9	95.5
227	64.4	32.2	96.6

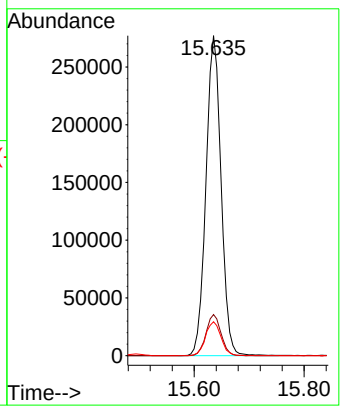




#95
Naphthalene
Concen: 53.265 ug/l
RT: 15.635 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion:128 Resp: 52862

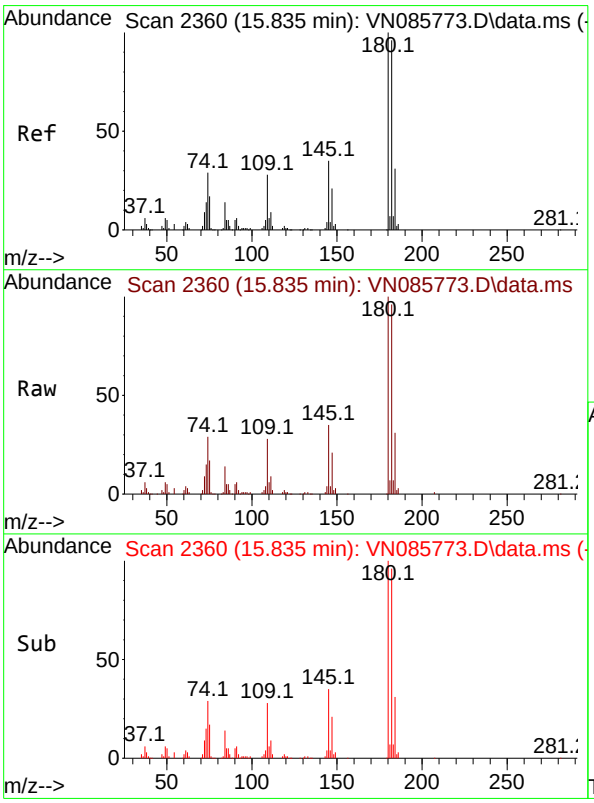
Ion	Ratio	Lower	Upper
128	100		
127	12.7	10.2	15.2
129	10.9	8.7	13.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

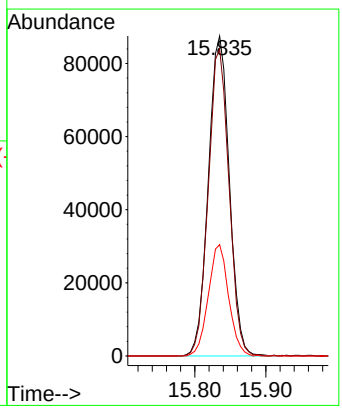
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025



#96
1,2,3-Trichlorobenzene
Concen: 49.473 ug/l
RT: 15.835 min Scan# 2360
Delta R.T. 0.000 min
Lab File: VN085773.D
Acq: 18 Feb 2025 11:32

Tgt Ion:180 Resp: 179544

Ion	Ratio	Lower	Upper
180	100		
182	94.5	47.3	141.8
145	33.7	16.9	50.6



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN021825\
Data File : VN085775.D
Acq On : 18 Feb 2025 12:20
Operator : JC\MD
Sample : VSTDICC010
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 19 03:17:27 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:03:15 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.218	168	235331	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.094	114	397776	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.859	117	339681	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.788	152	151740	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.577	65	27654	9.064	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery =	18.120%#		
35) Dibromofluoromethane	8.159	113	23353	8.972	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery =	17.940%#		
50) Toluene-d8	10.565	98	80889	8.542	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery =	17.080%#		
62) 4-Bromofluorobenzene	12.841	95	25697	8.236	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery =	16.480%#		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.124	85	36657	11.452	ug/l	96
3) Chloromethane	2.359	50	34946	10.880	ug/l	97
4) Vinyl Chloride	2.518	62	37462	11.015	ug/l	99
5) Bromomethane	2.965	94	25562	11.755	ug/l	100
6) Chloroethane	3.124	64	24265	10.772	ug/l	95
7) Trichlorofluoromethane	3.500	101	53380	10.841	ug/l	99
8) Diethyl Ether	3.959	74	17236	10.819	ug/l	94
9) 1,1,2-Trichlorotrifluo...	4.371	101	31724	11.146	ug/l	96
10) Methyl Iodide	4.589	142	37913	10.806	ug/l	93
11) Tert butyl alcohol	5.506	59	21584	57.519	ug/l	99
12) 1,1-Dichloroethene	4.342	96	27815	10.778	ug/l	97
13) Acrolein	4.177	56	27644	49.677	ug/l	98
14) Allyl chloride	5.024	41	36624	10.809	ug/l	98
15) Acrylonitrile	5.718	53	65440	53.643	ug/l	99
16) Acetone	4.424	43	51172	53.007	ug/l	97
17) Carbon Disulfide	4.712	76	84915	11.102	ug/l	99
18) Methyl Acetate	5.024	43	37354	11.250	ug/l	98
19) Methyl tert-butyl Ether	5.788	73	80686	10.521	ug/l	96
20) Methylene Chloride	5.271	84	33412	10.762	ug/l	98
21) trans-1,2-Dichloroethene	5.783	96	29226	10.517	ug/l	91
22) Diisopropyl ether	6.671	45	83002	10.841	ug/l	95
23) Vinyl Acetate	6.600	43	279697m	53.519	ug/l	
24) 1,1-Dichloroethane	6.565	63	57247	10.999	ug/l	97
25) 2-Butanone	7.477	43	77791	54.772	ug/l	98
26) 2,2-Dichloropropane	7.482	77	50333	10.876	ug/l	98
27) cis-1,2-Dichloroethene	7.488	96	34806	10.802	ug/l	98
28) Bromochloromethane	7.812	49	16276	7.609	ug/l #	99
29) Tetrahydrofuran	7.835	42	50478	55.039	ug/l	98
30) Chloroform	7.959	83	59719	10.980	ug/l	96
31) Cyclohexane	8.253	56	45995	10.555	ug/l	97
32) 1,1,1-Trichloroethane	8.165	97	51254	10.595	ug/l	98
36) 1,1-Dichloropropene	8.365	75	38983	10.582	ug/l	99
37) Ethyl Acetate	7.553	43	30665	10.115	ug/l	96
38) Carbon Tetrachloride	8.353	117	46420	10.605	ug/l	97
39) Methylcyclohexane	9.594	83	35475	9.803	ug/l #	85
40) Benzene	8.606	78	124704	10.562	ug/l	98

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN021825\
Data File : VN085775.D
Acq On : 18 Feb 2025 12:20
Operator : JC\MD
Sample : VSTDICC010
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 19 03:17:27 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:03:15 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.771	41	16811	10.373	ug/l		99
42) 1,2-Dichloroethane	8.665	62	41912	10.898	ug/l		98
43) Isopropyl Acetate	8.682	43	60794	11.001	ug/l		95
44) Trichloroethene	9.347	130	30561	10.542	ug/l		88
45) 1,2-Dichloropropane	9.618	63	30619	10.744	ug/l		100
46) Dibromomethane	9.706	93	21085	10.489	ug/l		98
47) Bromodichloromethane	9.882	83	45413	10.559	ug/l		95
48) Methyl methacrylate	9.676	41	22058	9.798	ug/l		96
49) 1,4-Dioxane	9.688	88	8936	208.723	ug/l	#	95
51) 4-Methyl-2-Pentanone	10.441	43	155789	53.302	ug/l		98
52) Toluene	10.623	92	73516	10.622	ug/l		98
53) t-1,3-Dichloropropene	10.829	75	41230	10.367	ug/l		100
54) cis-1,3-Dichloropropene	10.306	75	46300	10.617	ug/l		95
55) 1,1,2-Trichloroethane	11.012	97	29408	10.687	ug/l		96
56) Ethyl methacrylate	10.871	69	35641	10.274	ug/l		99
57) 1,3-Dichloropropane	11.159	76	48905	10.647	ug/l		98
58) 2-Chloroethyl Vinyl ether	10.159	63	67791	47.108	ug/l		97
59) 2-Hexanone	11.188	43	105782	52.609	ug/l		97
60) Dibromochloromethane	11.353	129	34267	10.694	ug/l		98
61) 1,2-Dibromoethane	11.465	107	28789	11.073	ug/l		97
64) Tetrachloroethene	11.100	164	28564	10.855	ug/l		92
65) Chlorobenzene	11.888	112	82365	10.585	ug/l		99
66) 1,1,1,2-Tetrachloroethane	11.953	131	30133	10.773	ug/l		99
67) Ethyl Benzene	11.959	91	124323	10.199	ug/l		98
68) m/p-Xylenes	12.065	106	98574	21.290	ug/l		98
69) o-Xylene	12.394	106	45263	10.287	ug/l		100
70) Styrene	12.406	104	72044	9.994	ug/l		98
71) Bromoform	12.576	173	21882	10.529	ug/l	#	98
73) Isopropylbenzene	12.688	105	109944	10.576	ug/l		99
74) N-amyl acetate	12.488	43	38318	10.452	ug/l		97
75) 1,1,2,2-Tetrachloroethane	12.935	83	39575	11.063	ug/l		99
76) 1,2,3-Trichloropropane	12.988	75	34754m	10.425	ug/l		
77) Bromobenzene	12.976	156	31066	11.061	ug/l		98
78) n-propylbenzene	13.029	91	125206	10.517	ug/l		99
79) 2-Chlorotoluene	13.117	91	86237	10.841	ug/l		100
80) 1,3,5-Trimethylbenzene	13.170	105	90718	10.713	ug/l		100
81) trans-1,4-Dichloro-2-b...	12.735	75	11901	10.302	ug/l		97
82) 4-Chlorotoluene	13.217	91	86106	10.919	ug/l		100
83) tert-Butylbenzene	13.435	119	73803	10.364	ug/l		96
84) 1,2,4-Trimethylbenzene	13.476	105	89125	10.638	ug/l		99
85) sec-Butylbenzene	13.611	105	107253	10.660	ug/l		99
86) p-Isopropyltoluene	13.723	119	84249	10.256	ug/l		99
87) 1,3-Dichlorobenzene	13.729	146	56944	10.822	ug/l		97
88) 1,4-Dichlorobenzene	13.806	146	57166	10.600	ug/l		99
89) n-Butylbenzene	14.053	91	70940	9.931	ug/l		96
90) Hexachloroethane	14.329	117	19282	10.119	ug/l		94
91) 1,2-Dichlorobenzene	14.100	146	53647	10.602	ug/l		100
92) 1,2-Dibromo-3-Chloropr...	14.717	75	7223	10.996	ug/l		95
93) 1,2,4-Trichlorobenzene	15.388	180	25090	10.406	ug/l		98
94) Hexachlorobutadiene	15.494	225	15278	10.426	ug/l		95
95) Naphthalene	15.635	128	65549	9.902	ug/l		99
96) 1,2,3-Trichlorobenzene	15.835	180	25612	10.581	ug/l		98

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN021825\
Data File : VN085775.D
Acq On : 18 Feb 2025 12:20
Operator : JC\MD
Sample : VSTDICC010
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

Quant Time: Feb 19 03:17:27 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:03:15 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

ICAL Form

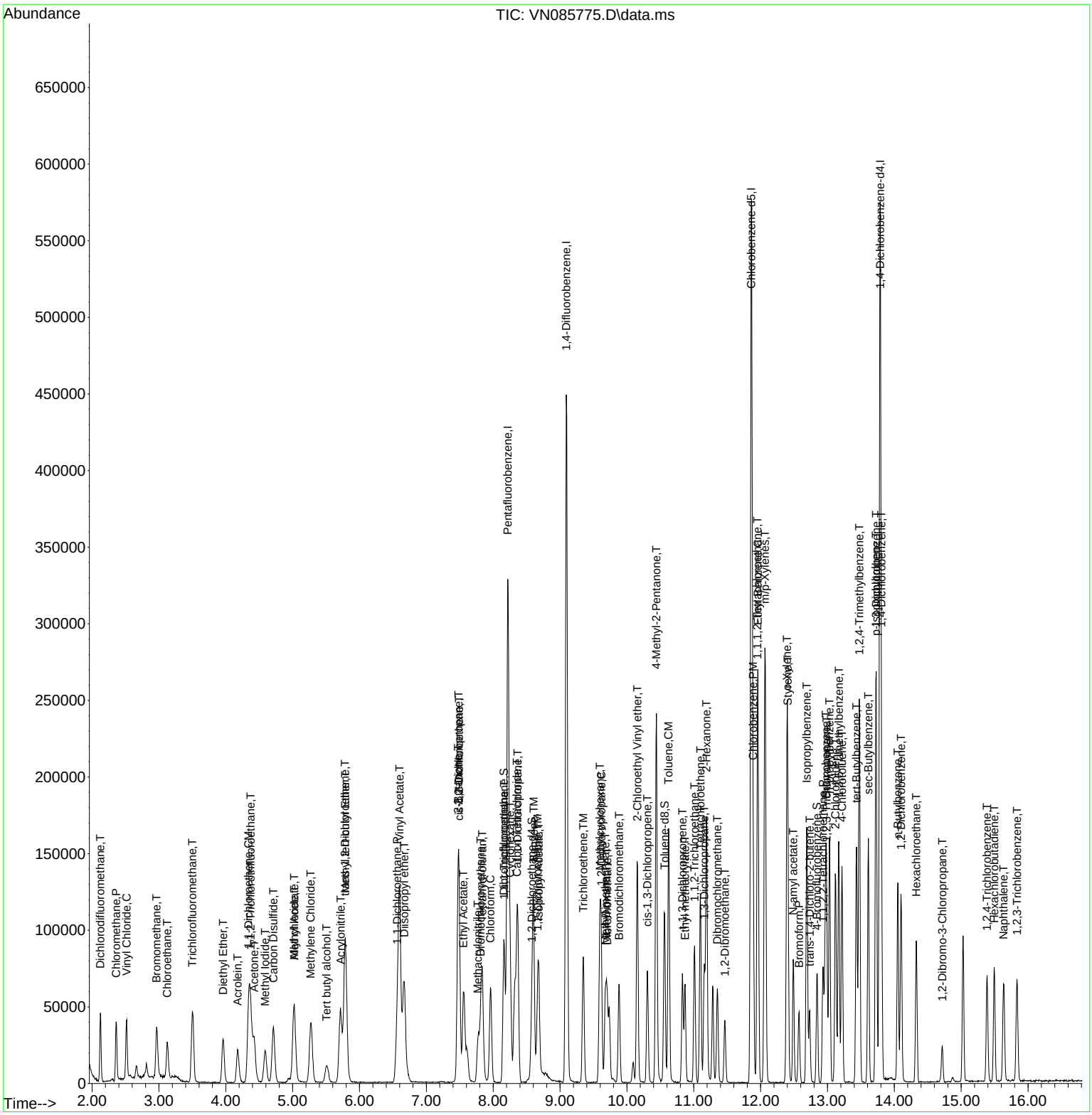
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN021825\
Data File : VN085775.D
Acq On : 18 Feb 2025 12:20
Operator : JC\MD
Sample : VSTDICC010
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

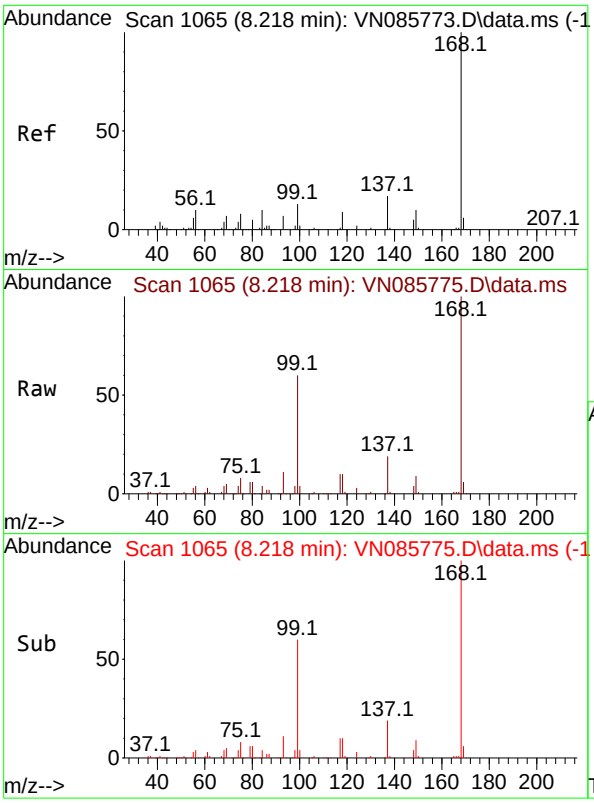
Quant Time: Feb 19 03:17:27 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:03:15 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

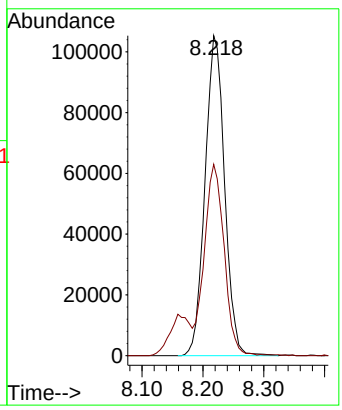




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.218 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion:168 Resp: 23533

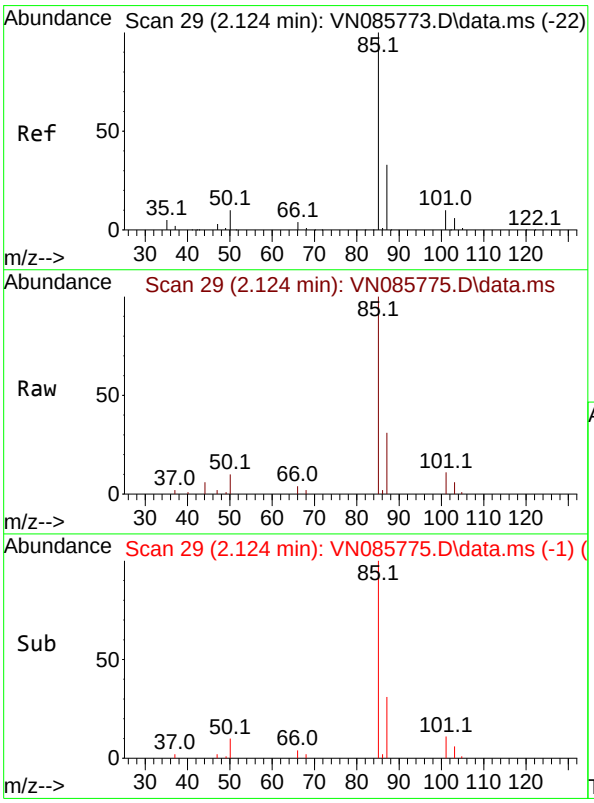
Ion	Ratio	Lower	Upper
168	100		
99	59.5	47.9	71.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

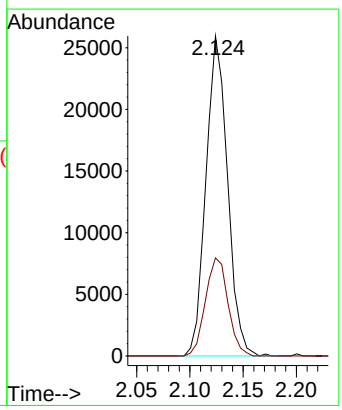
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

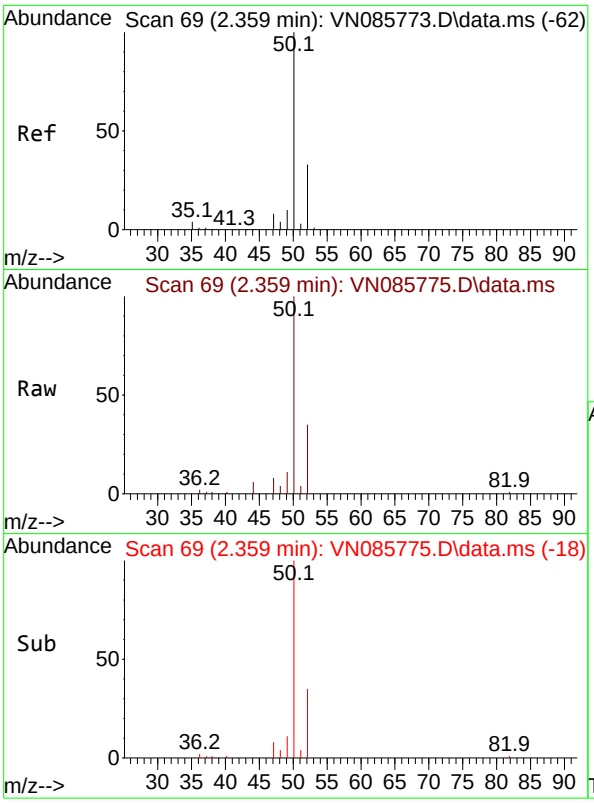


#2
Dichlorodifluoromethane
Concen: 11.452 ug/l
RT: 2.124 min Scan# 29
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 85 Resp: 36657

Ion	Ratio	Lower	Upper
85	100		
87	30.6	16.4	49.2

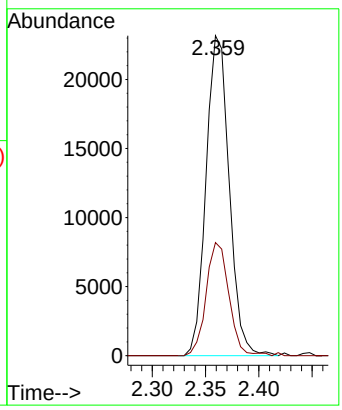




#3
Chloromethane
Concen: 10.880 ug/l
RT: 2.359 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 50 Resp: 3494

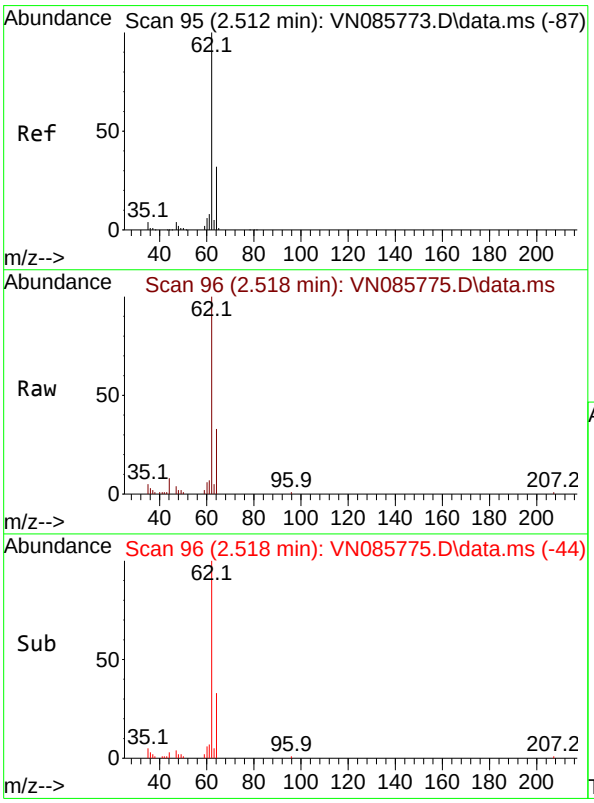
Ion	Ratio	Lower	Upper
50	100		
52	35.4	26.7	40.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

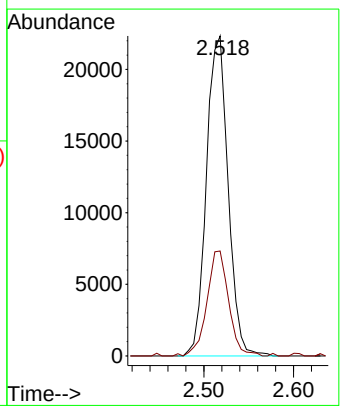
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

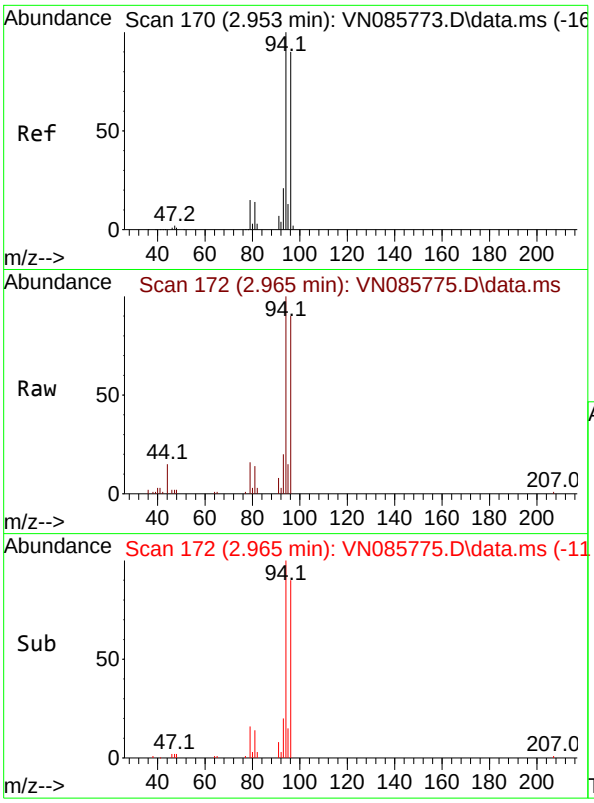


#4
Vinyl Chloride
Concen: 11.015 ug/l
RT: 2.518 min Scan# 96
Delta R.T. 0.006 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 62 Resp: 37462

Ion	Ratio	Lower	Upper
62	100		
64	32.8	25.9	38.9

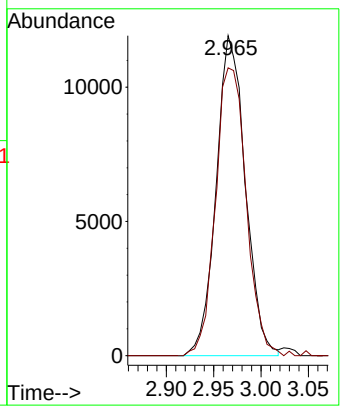




#5
Bromomethane
Concen: 11.755 ug/l
RT: 2.965 min Scan# 1
Delta R.T. 0.012 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 94 Resp: 2556

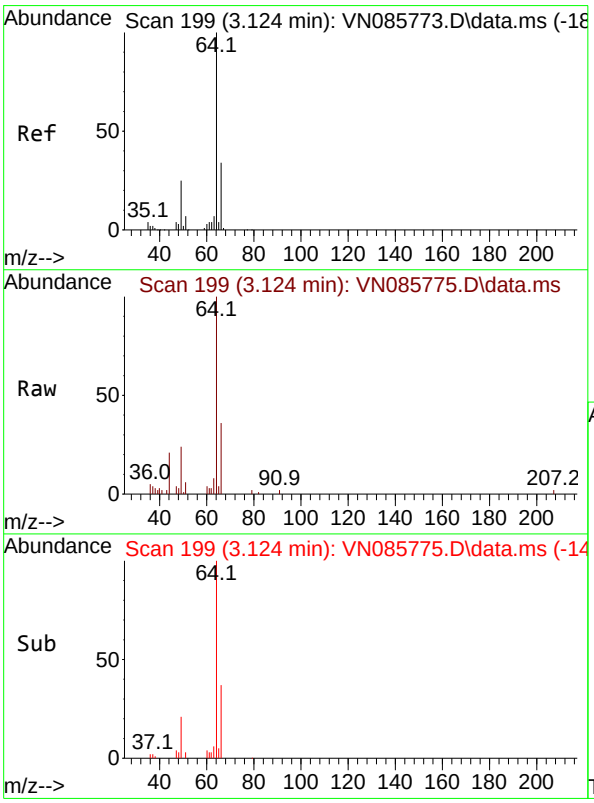
Ion	Ratio	Lower	Upper
94	100		
96	89.9	71.7	107.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

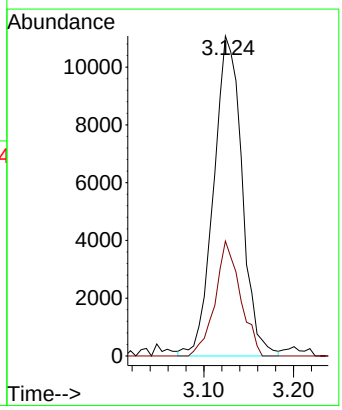
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

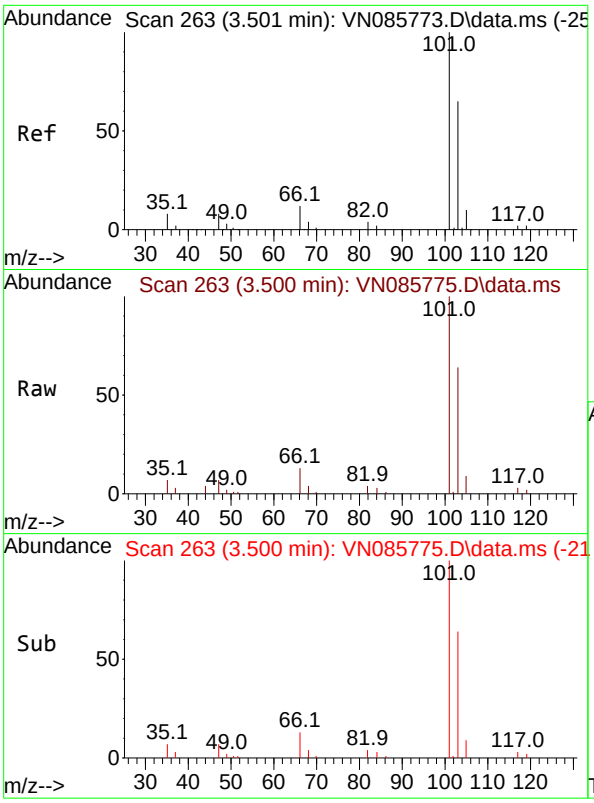


#6
Chloroethane
Concen: 10.772 ug/l
RT: 3.124 min Scan# 199
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 64 Resp: 24265

Ion	Ratio	Lower	Upper
64	100		
66	36.5	27.0	40.6





#7
Trichlorofluoromethane
Concen: 10.841 ug/l
RT: 3.500 min Scan# 2(
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

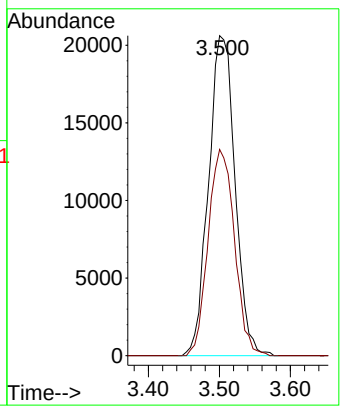
Tgt Ion:101 Resp: 5338(

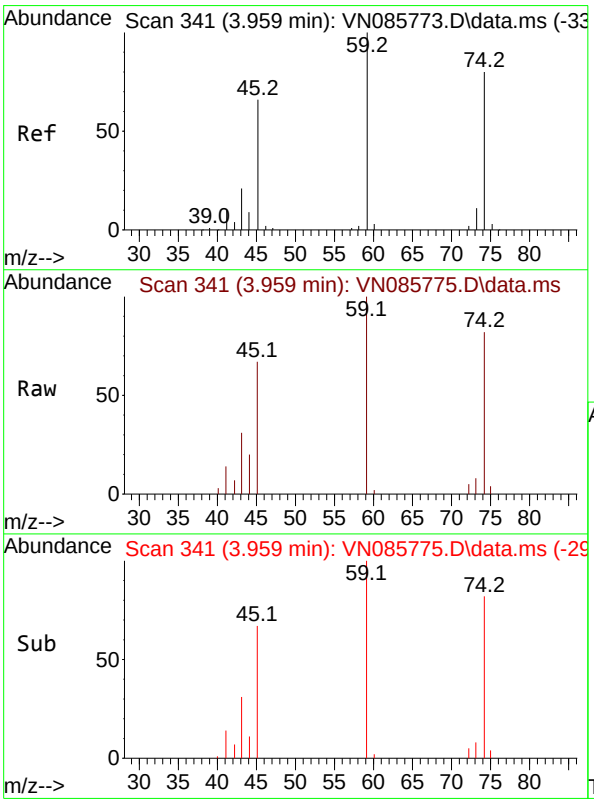
Ion	Ratio	Lower	Upper
101	100		
103	64.4	52.2	78.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

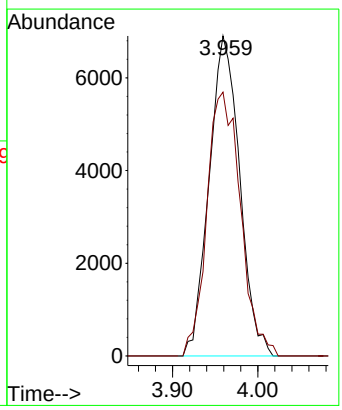


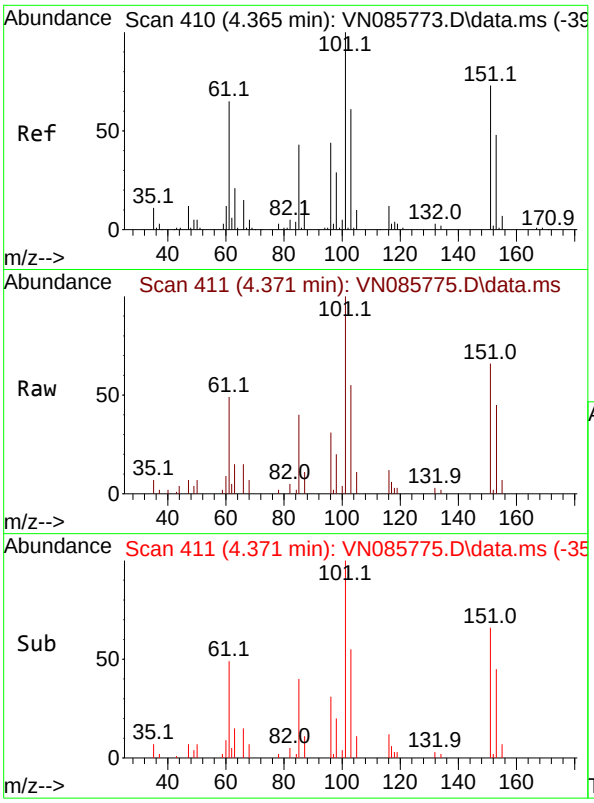


#8
Diethyl Ether
Concen: 10.819 ug/l
RT: 3.959 min Scan# 341
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 74 Resp: 17236

Ion	Ratio	Lower	Upper
74	100		
45	90.3	42.5	127.6





#9
1,1,2-Trichlorotrifluoroethane
Concen: 11.146 ug/l
RT: 4.371 min Scan# 41
Delta R.T. 0.006 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

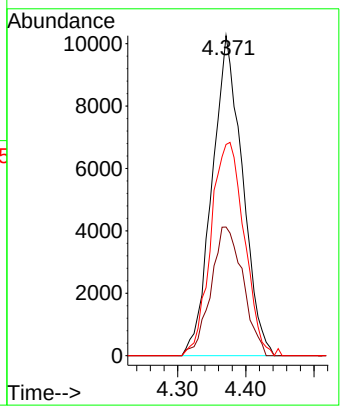
Tgt Ion:101 Resp: 3172

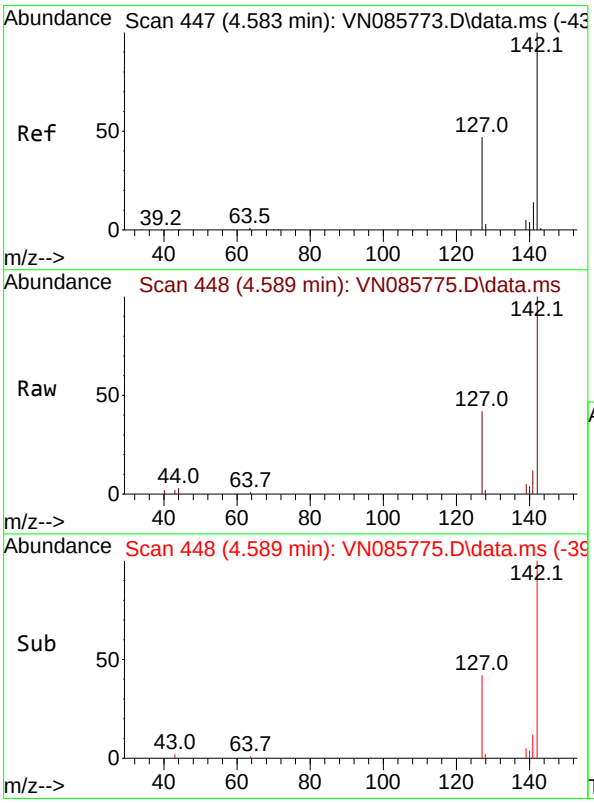
Ion	Ratio	Lower	Upper
101	100		
85	42.7	35.7	53.5
151	73.2	61.4	92.2

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

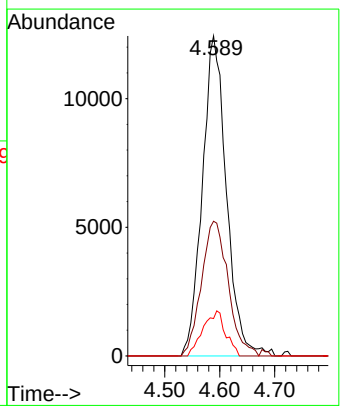


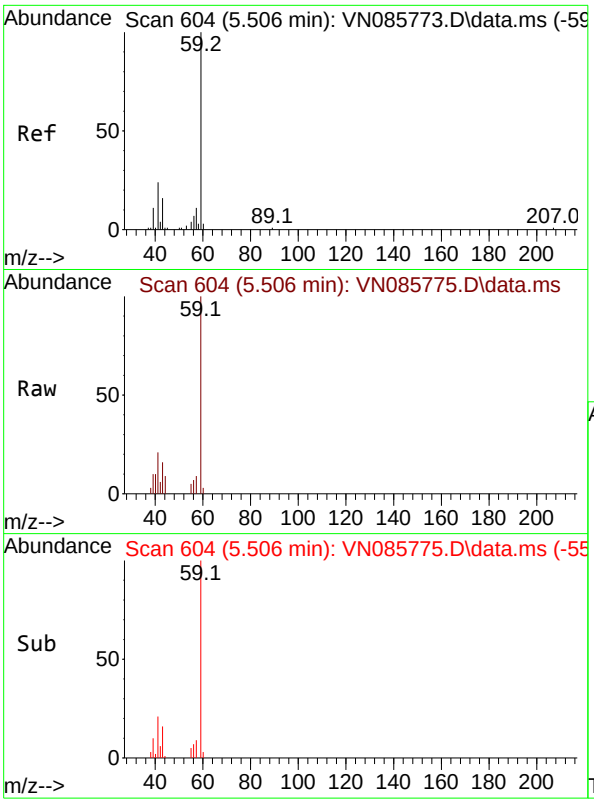


#10
Methyl Iodide
Concen: 10.806 ug/l
RT: 4.589 min Scan# 448
Delta R.T. 0.006 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion:142 Resp: 37913

Ion	Ratio	Lower	Upper
142	100		
127	42.1	37.6	56.4
141	11.7	11.4	17.2





#11
Tert butyl alcohol
Concen: 57.519 ug/l
RT: 5.506 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

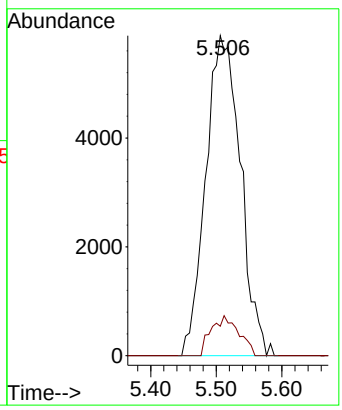
Tgt Ion: 59 Resp: 2158

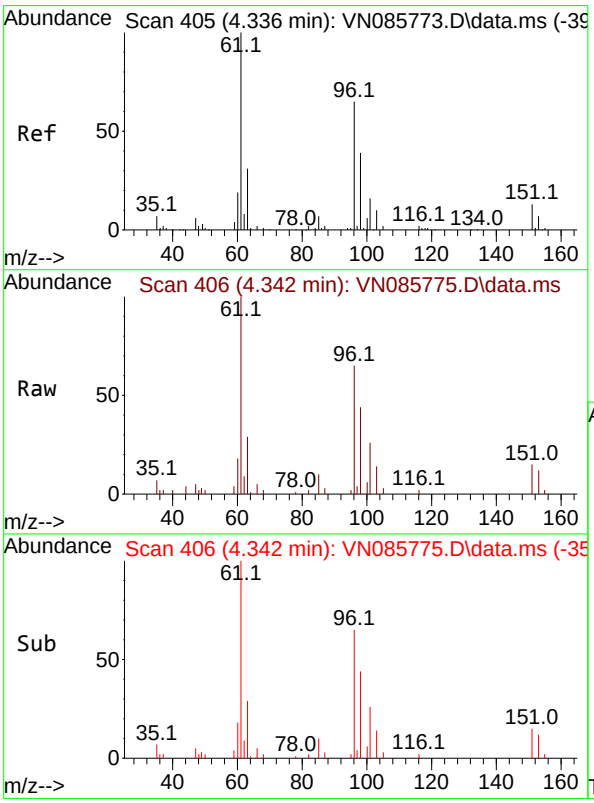
Ion	Ratio	Lower	Upper
59	100		
57	9.9	8.3	12.5

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

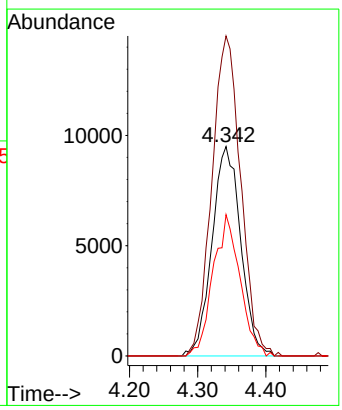


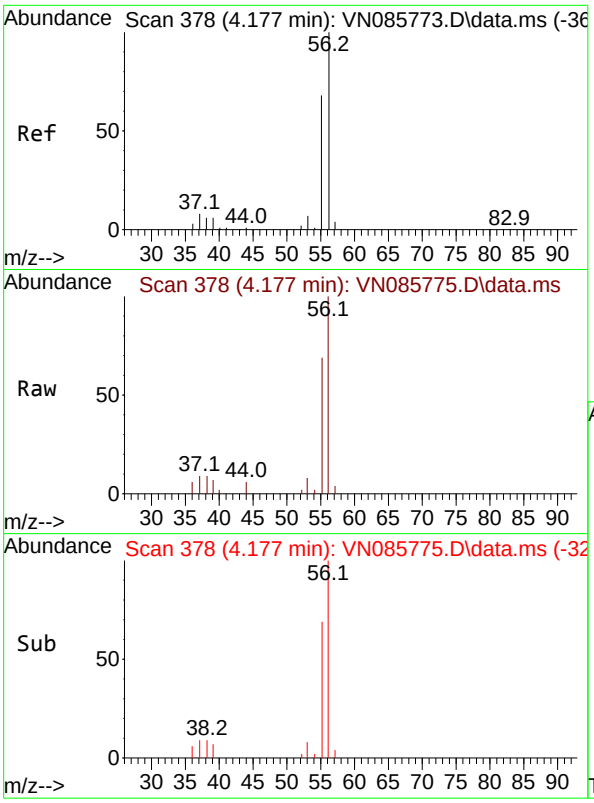


#12
1,1-Dichloroethene
Concen: 10.778 ug/l
RT: 4.342 min Scan# 406
Delta R.T. 0.006 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 96 Resp: 27815

Ion	Ratio	Lower	Upper
96	100		
61	152.7	123.3	184.9
98	67.4	48.6	72.8

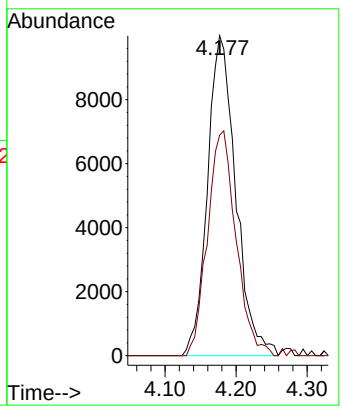




#13
Acrolein
Concen: 49.677 ug/l
RT: 4.177 min Scan# 3
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 56 Resp: 2764

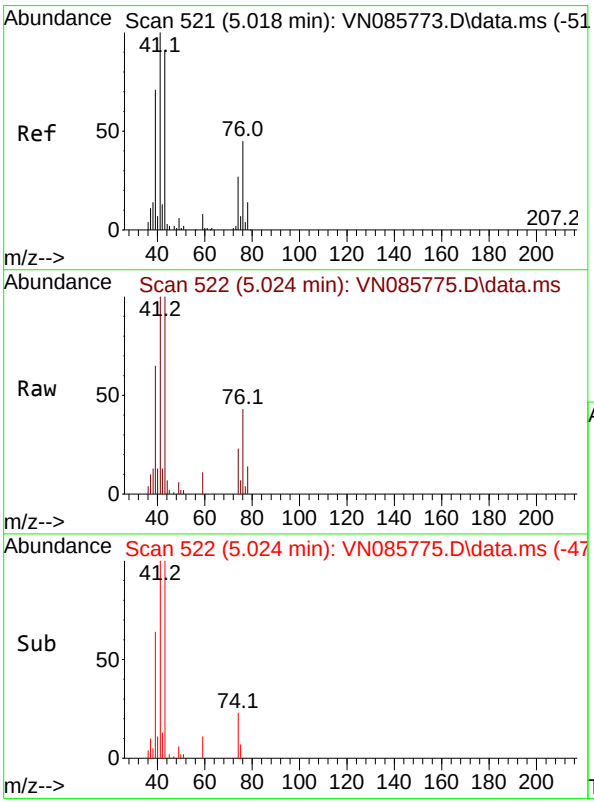
Ion	Ratio	Lower	Upper
56	100		
55	70.8	55.3	82.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

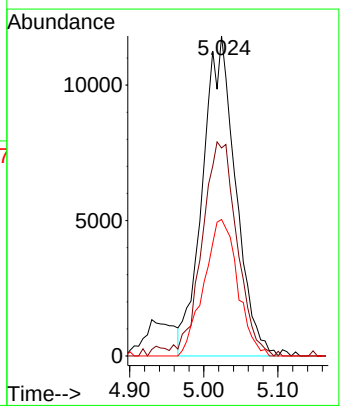
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

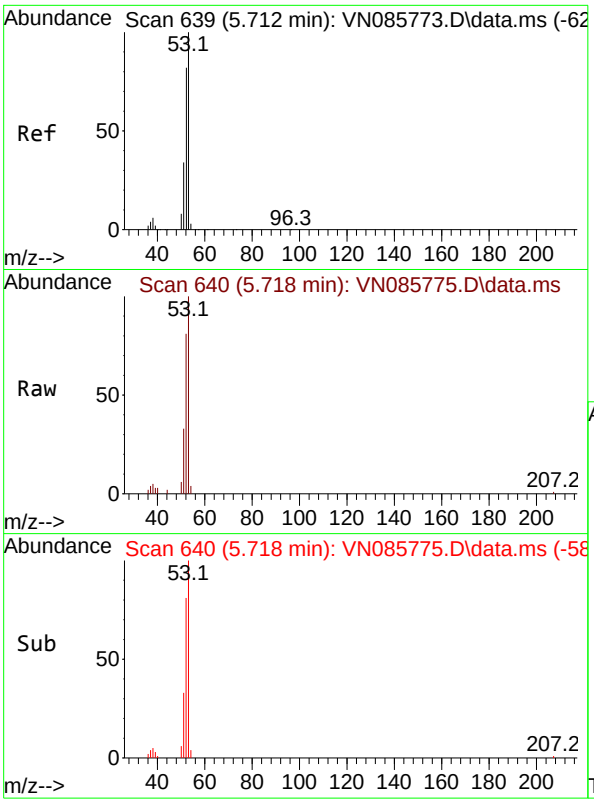


#14
Allyl chloride
Concen: 10.809 ug/l
RT: 5.024 min Scan# 522
Delta R.T. 0.006 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 41 Resp: 36624

Ion	Ratio	Lower	Upper
41	100		
39	70.9	57.4	86.2
76	43.4	36.2	54.2

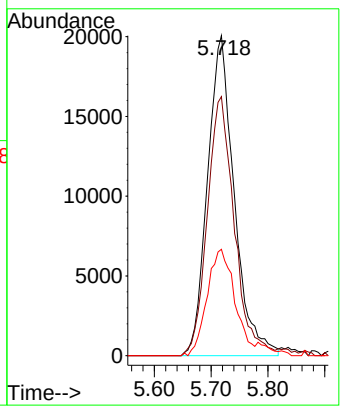




#15
Acrylonitrile
Concen: 53.643 ug/l
RT: 5.718 min Scan# 64
Delta R.T. 0.006 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 53 Resp: 6544

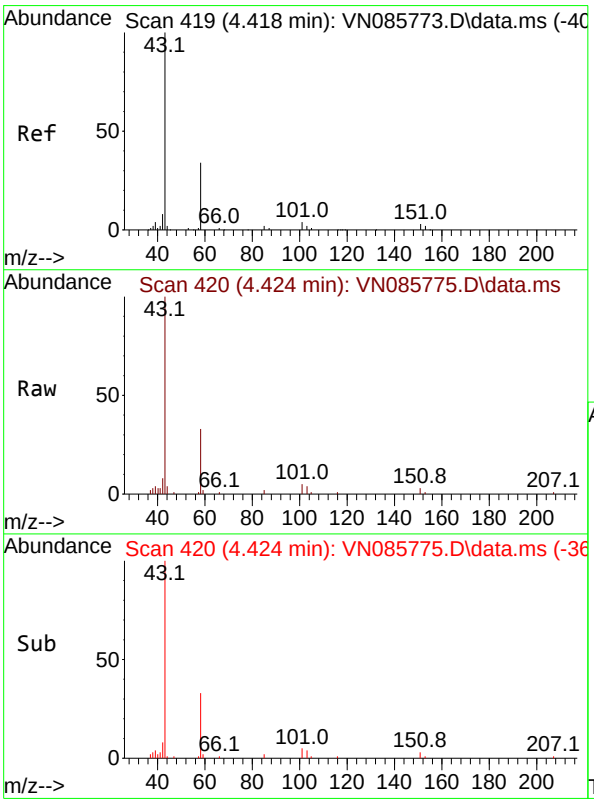
Ion	Ratio	Lower	Upper
53	100		
52	81.7	65.8	98.6
51	34.5	28.6	42.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

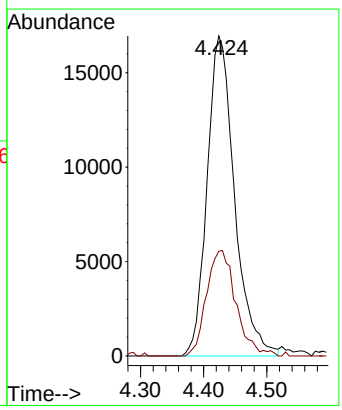
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

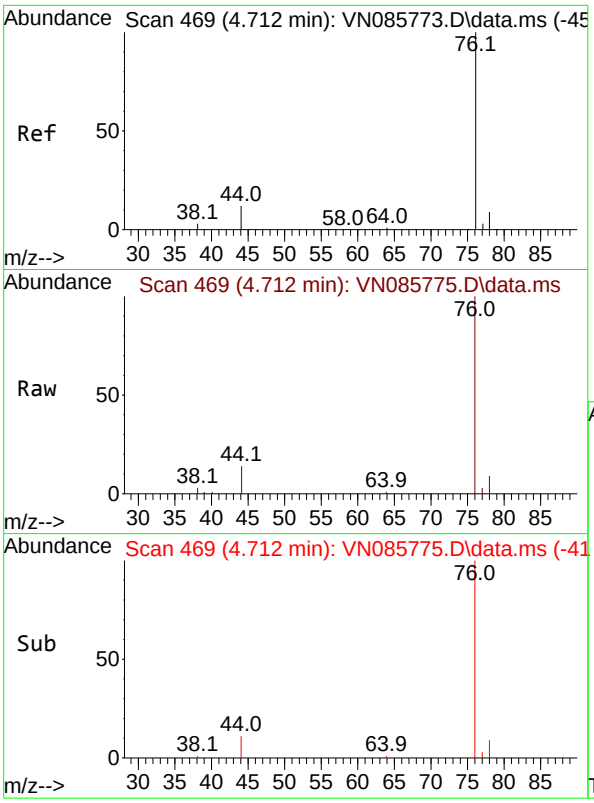


#16
Acetone
Concen: 53.007 ug/l
RT: 4.424 min Scan# 420
Delta R.T. 0.006 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 43 Resp: 51172

Ion	Ratio	Lower	Upper
43	100		
58	32.7	27.5	41.3

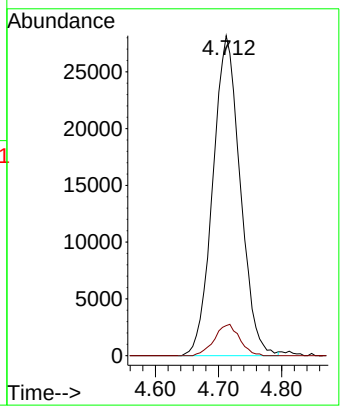




#17
Carbon Disulfide
Concen: 11.102 ug/l
RT: 4.712 min Scan# 4
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 76 Resp: 8491

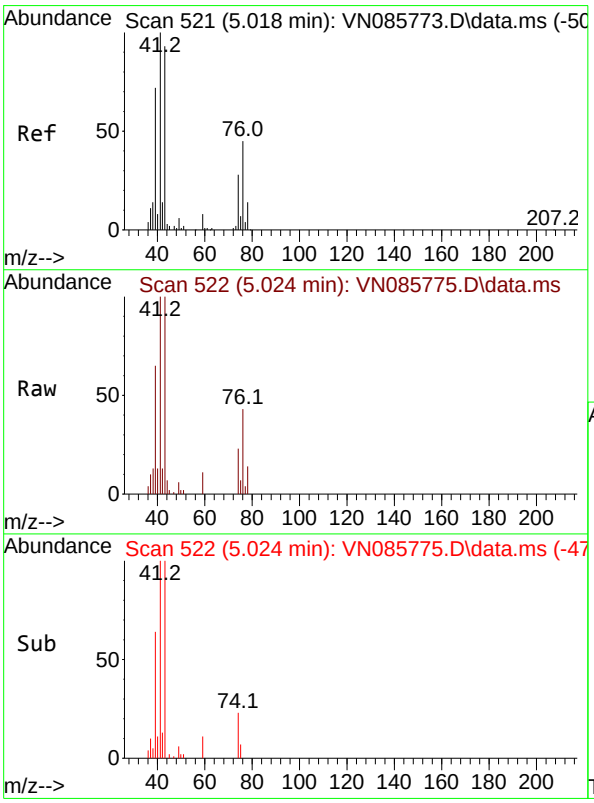
Ion	Ratio	Lower	Upper
76	100		
78	9.4	7.4	11.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

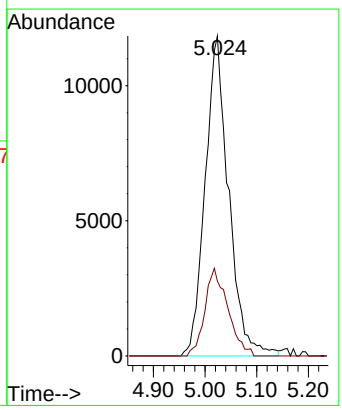
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

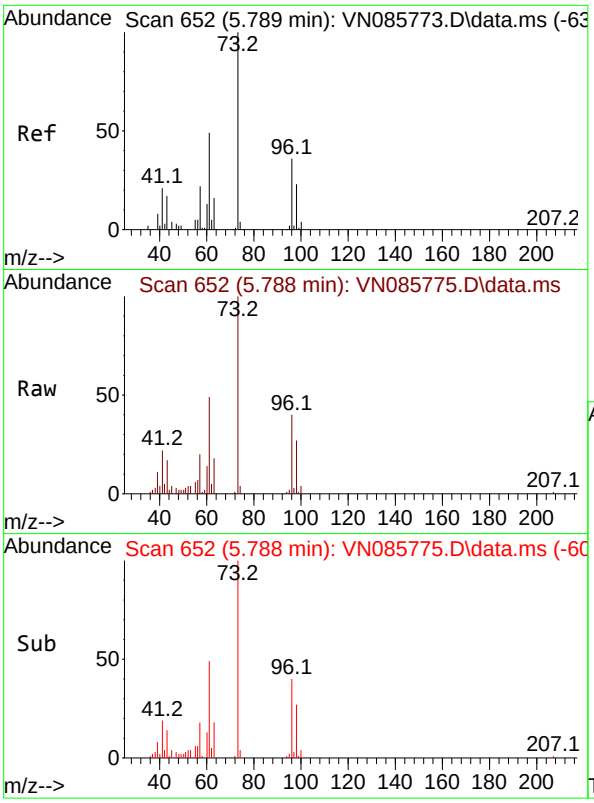


#18
Methyl Acetate
Concen: 11.250 ug/l
RT: 5.024 min Scan# 522
Delta R.T. 0.006 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 43 Resp: 37354

Ion	Ratio	Lower	Upper
43	100		
74	26.9	22.2	33.4

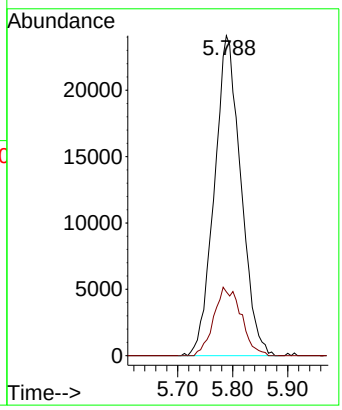




#19
Methyl tert-butyl Ether
Concen: 10.521 ug/l
RT: 5.788 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 73 Resp: 8068

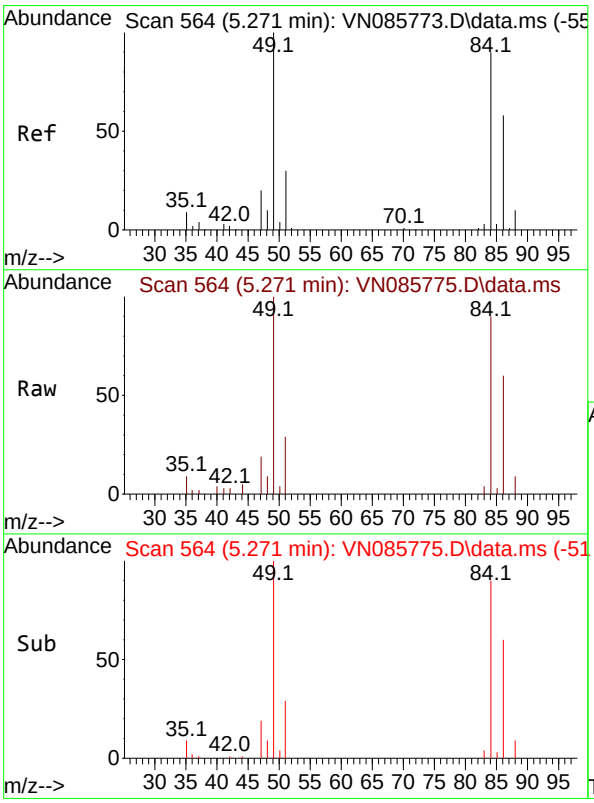
Ion	Ratio	Lower	Upper
73	100		
57	20.0	17.6	26.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

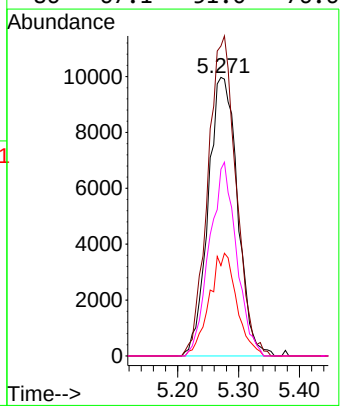
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

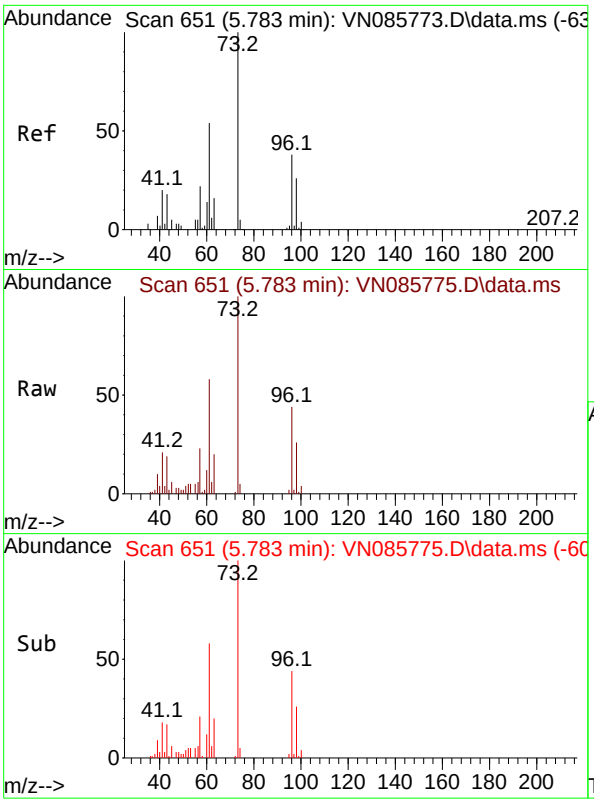


#20
Methylene Chloride
Concen: 10.762 ug/l
RT: 5.271 min Scan# 564
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 84 Resp: 33412

Ion	Ratio	Lower	Upper
84	100		
49	111.3	88.4	132.6
51	32.4	26.6	40.0
86	67.1	51.0	76.6

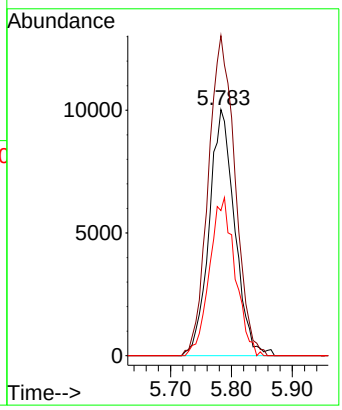




#21
trans-1,2-Dichloroethene
Concen: 10.517 ug/l
RT: 5.783 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 96 Resp: 2922

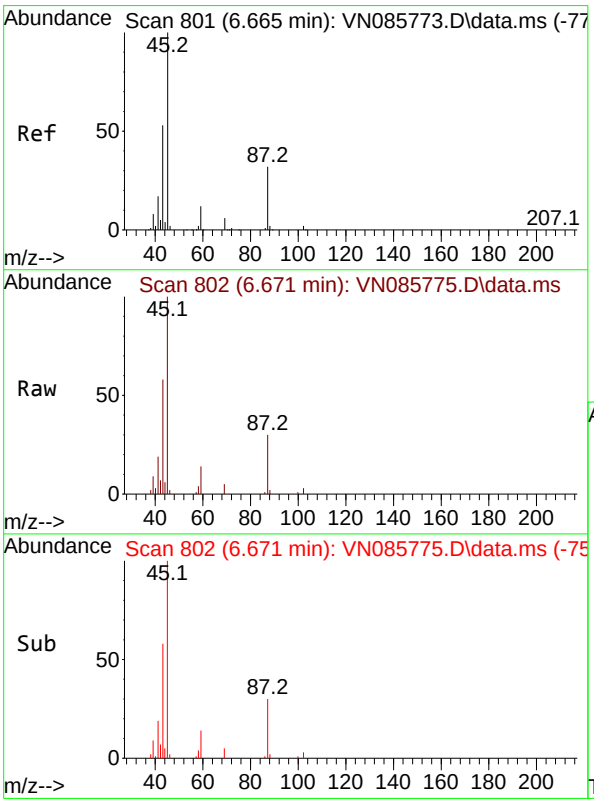
Ion	Ratio	Lower	Upper
96	100		
61	130.0	112.6	168.8
98	59.0	53.3	79.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

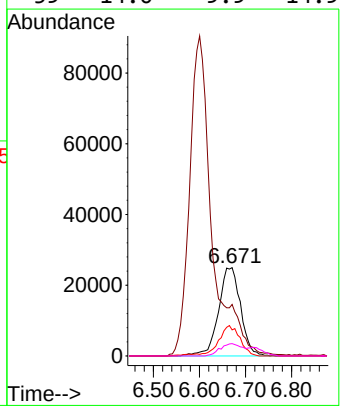
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

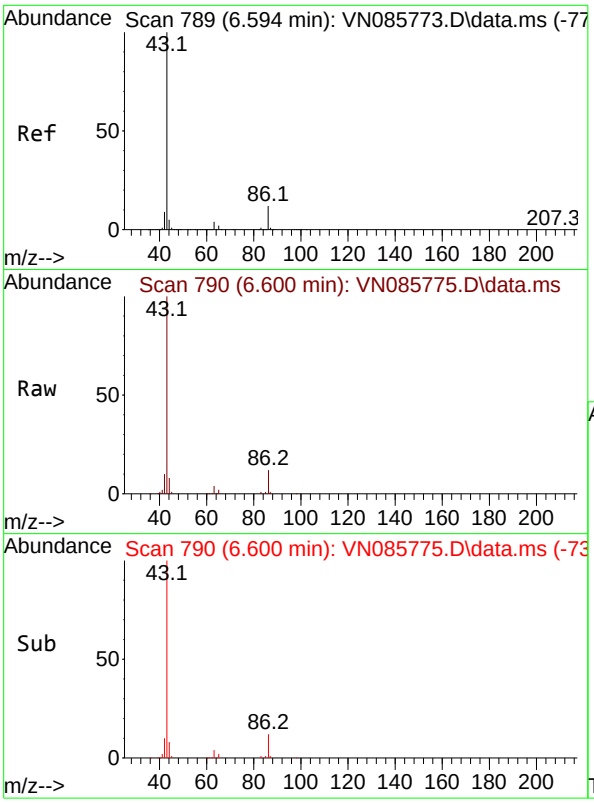


#22
Diisopropyl ether
Concen: 10.841 ug/l
RT: 6.671 min Scan# 802
Delta R.T. 0.006 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 45 Resp: 83002

Ion	Ratio	Lower	Upper
45	100		
43	56.6	42.6	64.0
87	29.5	25.8	38.8
59	14.0	9.9	14.9

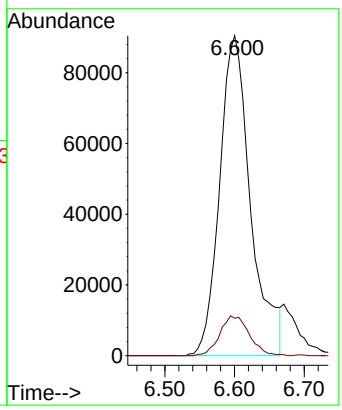




#23
Vinyl Acetate
Concen: 53.519 ug/l m
RT: 6.600 min Scan# 7
Delta R.T. 0.006 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 43 Resp: 27969

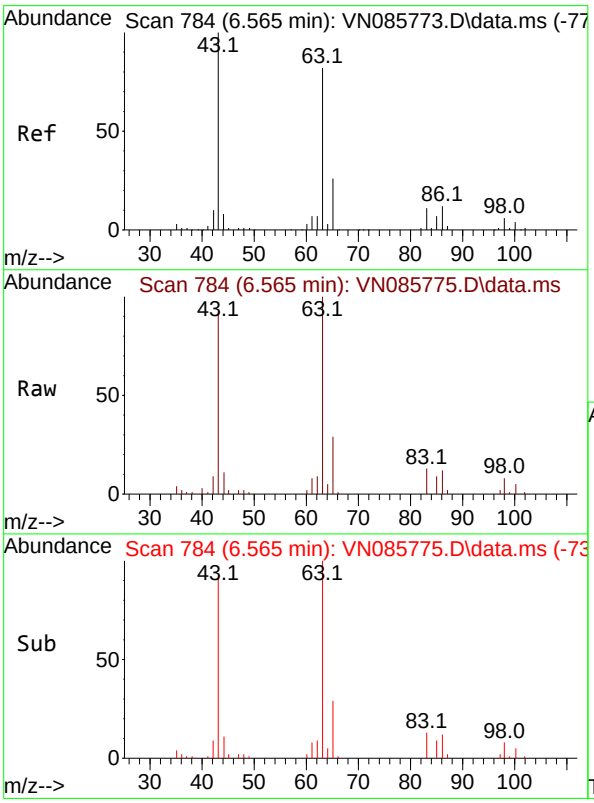
Ion	Ratio	Lower	Upper
43	100		
86	11.7	9.8	14.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

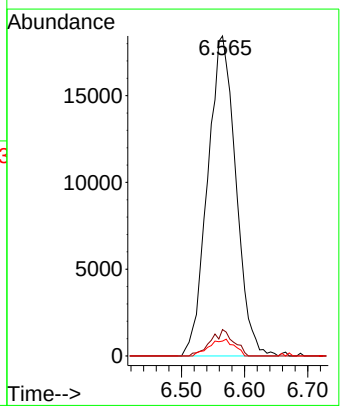
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

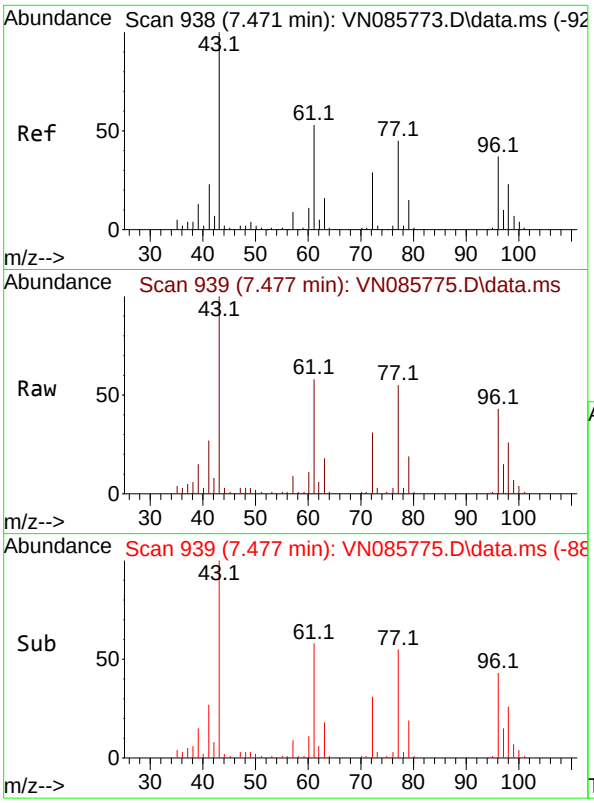


#24
1,1-Dichloroethane
Concen: 10.999 ug/l
RT: 6.565 min Scan# 784
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 63 Resp: 57247

Ion	Ratio	Lower	Upper
63	100		
98	8.3	3.5	10.4
100	4.6	2.4	7.2

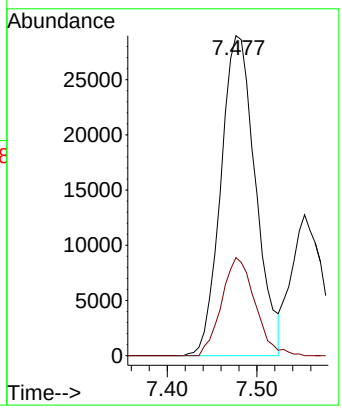




#25
2-Butanone
Concen: 54.772 ug/l
RT: 7.477 min Scan# 9
Delta R.T. 0.006 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 43 Resp: 7779

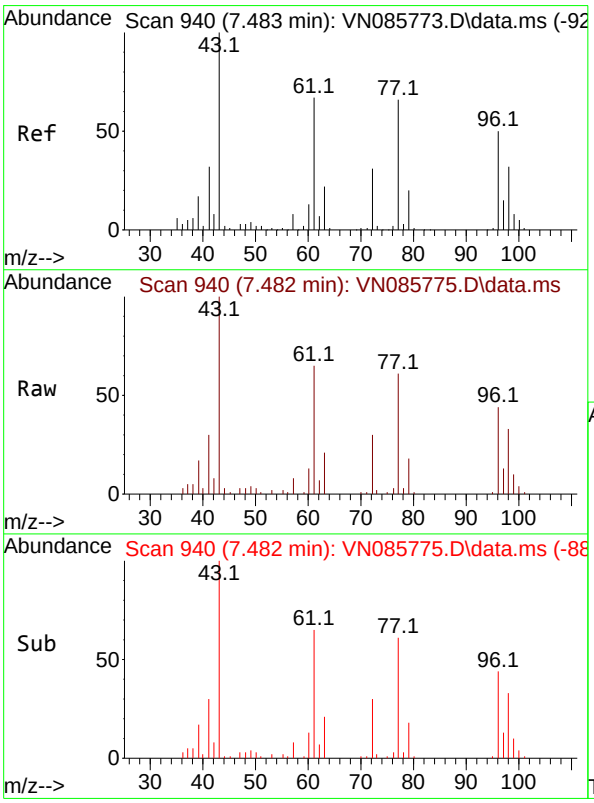
Ion	Ratio	Lower	Upper
43	100		
72	30.6	23.6	35.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

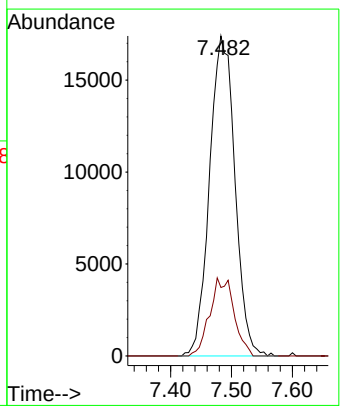
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

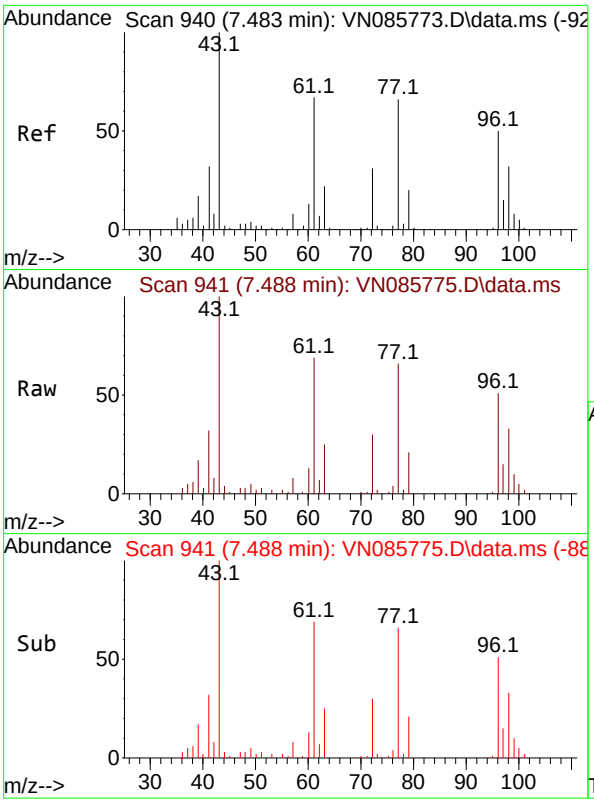


#26
2,2-Dichloropropane
Concen: 10.876 ug/l
RT: 7.482 min Scan# 940
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 77 Resp: 50333

Ion	Ratio	Lower	Upper
77	100		
97	23.3	11.3	33.8

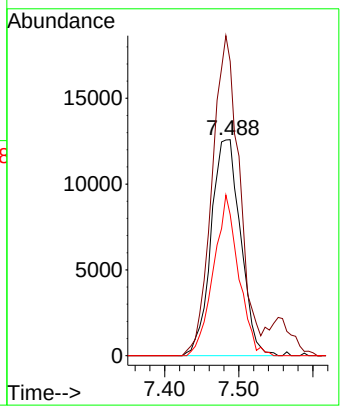




#27
cis-1,2-Dichloroethene
Concen: 10.802 ug/l
RT: 7.488 min Scan# 94
Delta R.T. 0.006 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 96 Resp: 3480

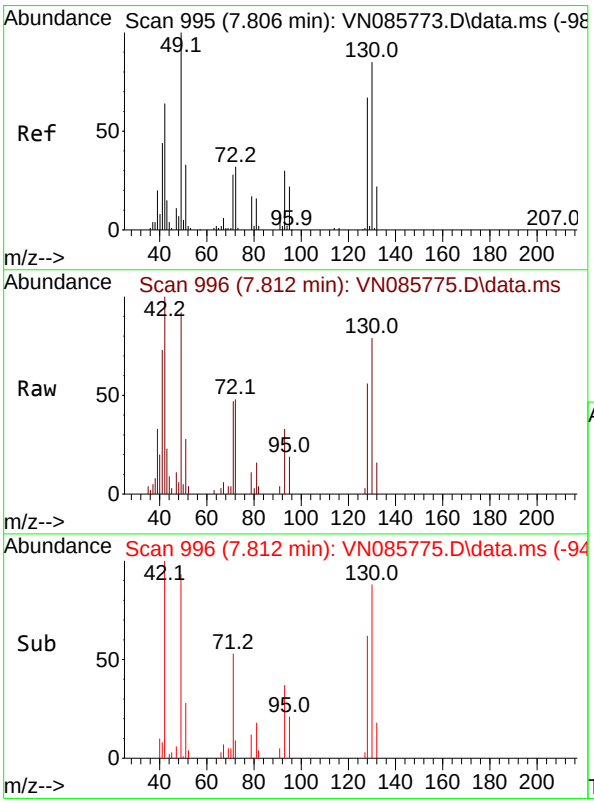
Ion	Ratio	Lower	Upper
96	100		
61	137.4	0.0	280.6
98	63.6	0.0	128.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

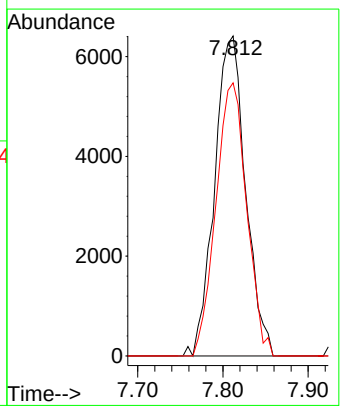
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

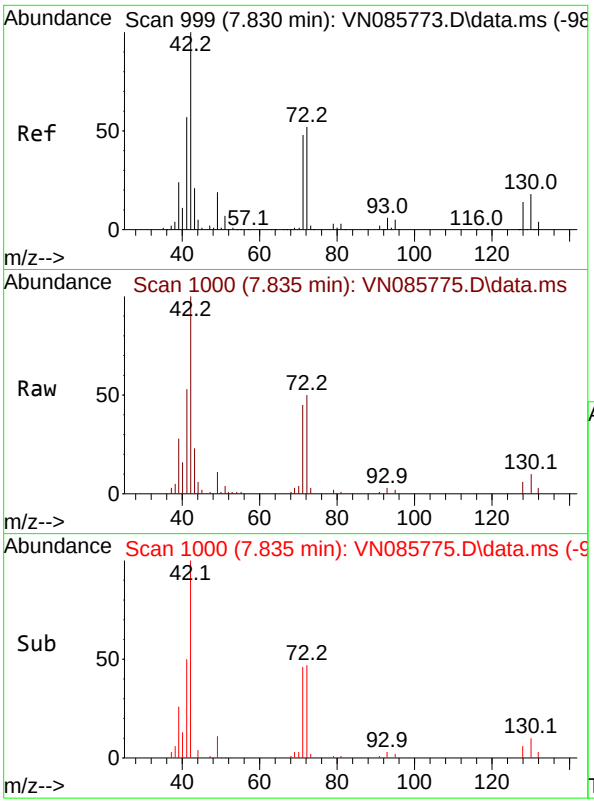


#28
Bromochloromethane
Concen: 7.609 ug/l
RT: 7.812 min Scan# 996
Delta R.T. 0.006 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 49 Resp: 16276

Ion	Ratio	Lower	Upper
49	100		
129	0.0	0.0	3.8
130	84.4	68.0	102.0

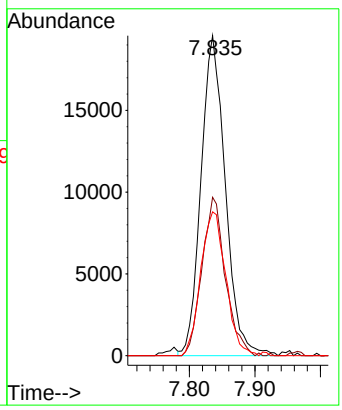




#29
Tetrahydrofuran
Concen: 55.039 ug/l
RT: 7.835 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 42 Resp: 5047

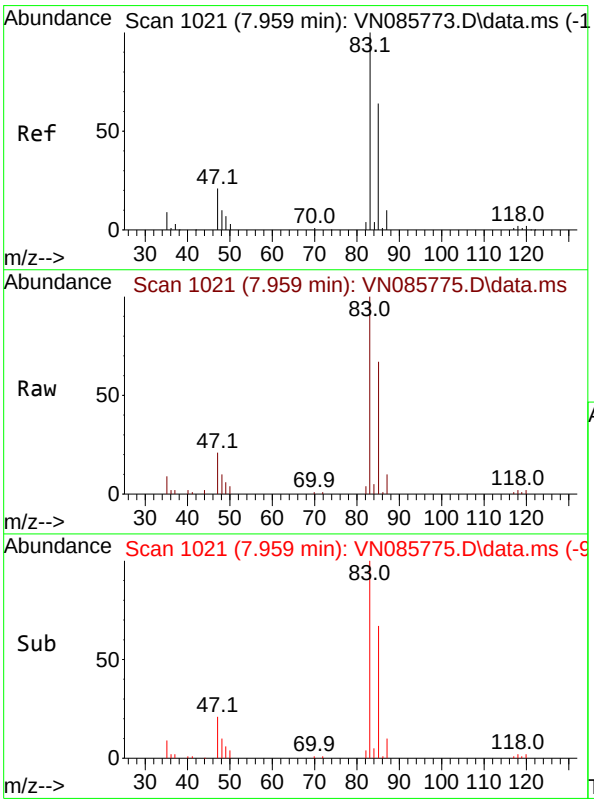
Ion	Ratio	Lower	Upper
42	100		
72	47.8	40.0	60.0
71	46.2	37.0	55.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

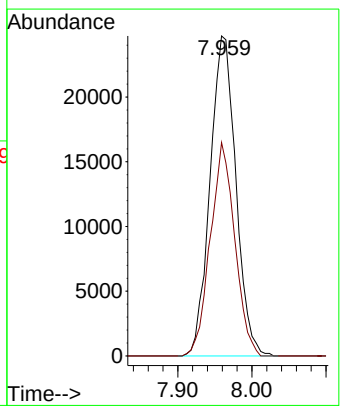
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

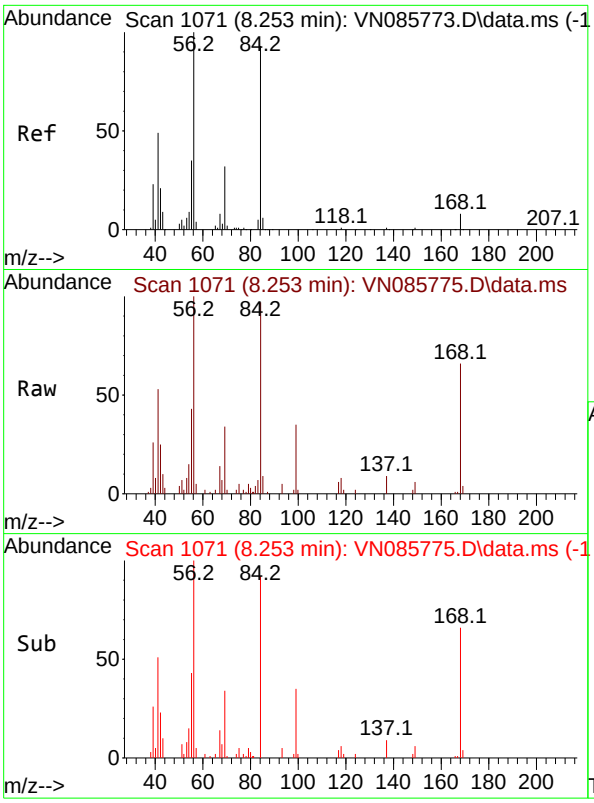


#30
Chloroform
Concen: 10.980 ug/l
RT: 7.959 min Scan# 1021
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 83 Resp: 59719

Ion	Ratio	Lower	Upper
83	100		
85	66.7	50.9	76.3

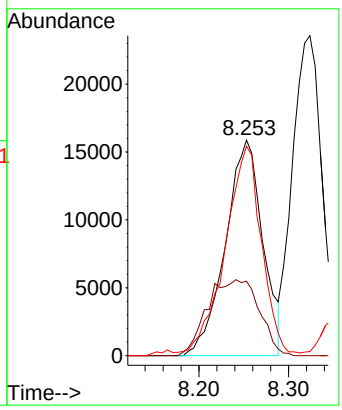




#31
Cyclohexane
Concen: 10.555 ug/l
RT: 8.253 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 56 Resp: 4599

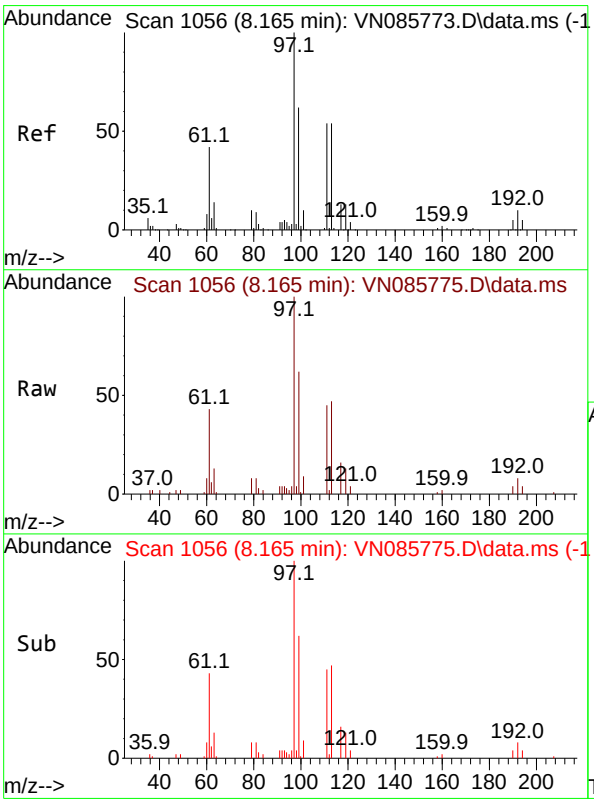
Ion	Ratio	Lower	Upper
56	100		
69	34.5	25.8	38.6
84	95.6	74.5	111.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

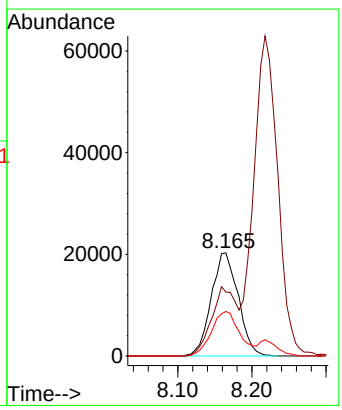
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

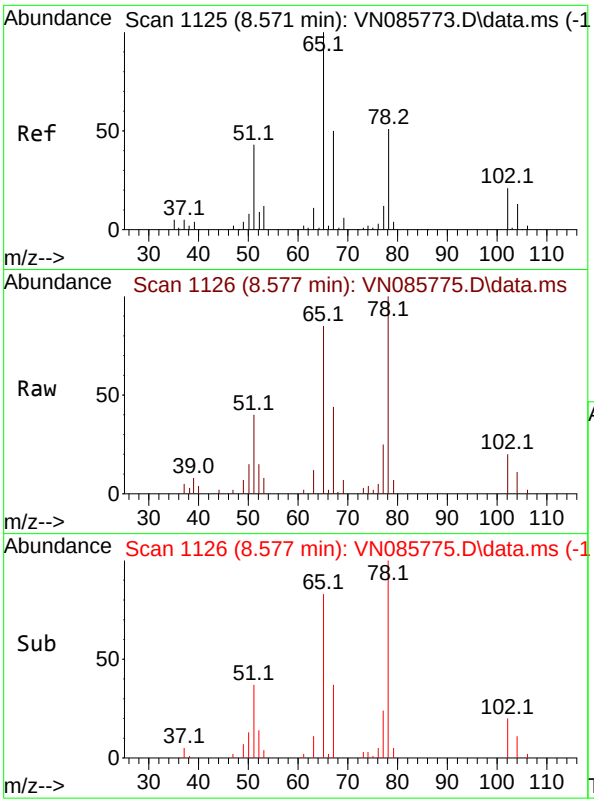


#32
1,1,1-Trichloroethane
Concen: 10.595 ug/l
RT: 8.165 min Scan# 1056
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 97 Resp: 51254

Ion	Ratio	Lower	Upper
97	100		
99	61.3	50.4	75.6
61	45.8	35.5	53.3

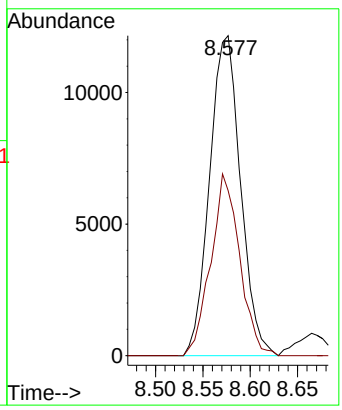




#33
1,2-Dichloroethane-d4
Concen: 9.064 ug/l
RT: 8.577 min Scan# 11
Delta R.T. 0.006 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 65 Resp: 2765

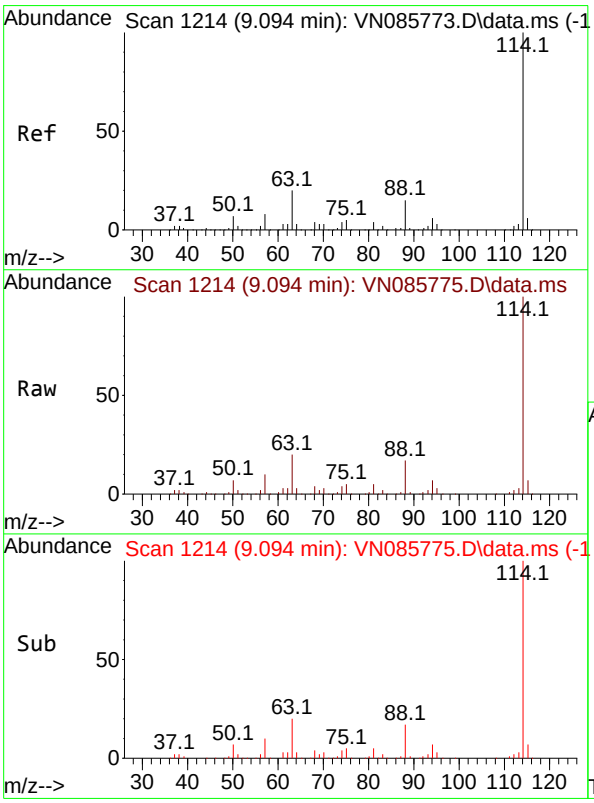
Ion	Ratio	Lower	Upper
65	100		
67	53.0	0.0	106.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

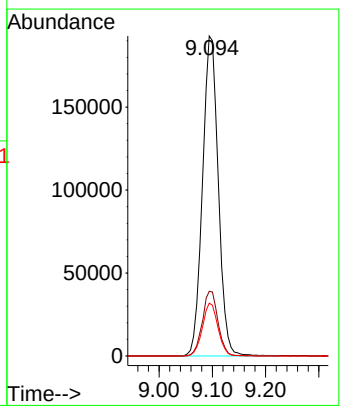
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

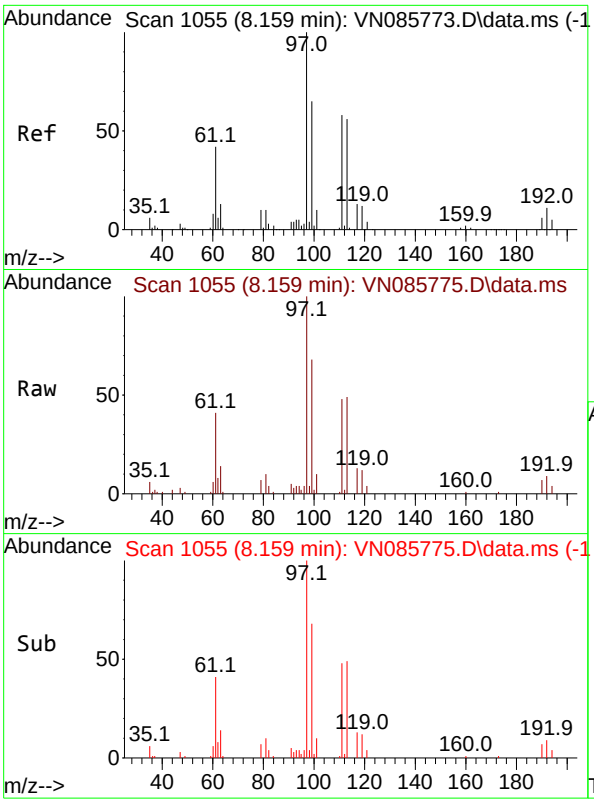


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.094 min Scan# 1214
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion:114 Resp: 397776

Ion	Ratio	Lower	Upper
114	100		
63	20.2	0.0	39.2
88	16.5	0.0	30.0

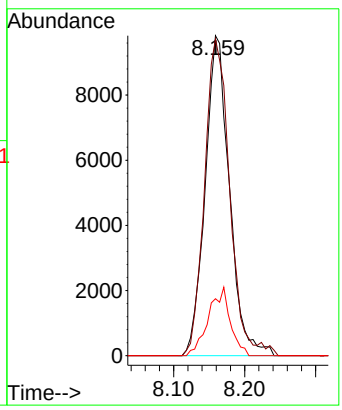




#35
Dibromofluoromethane
Concen: 8.972 ug/l
RT: 8.159 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion:113 Resp: 2335

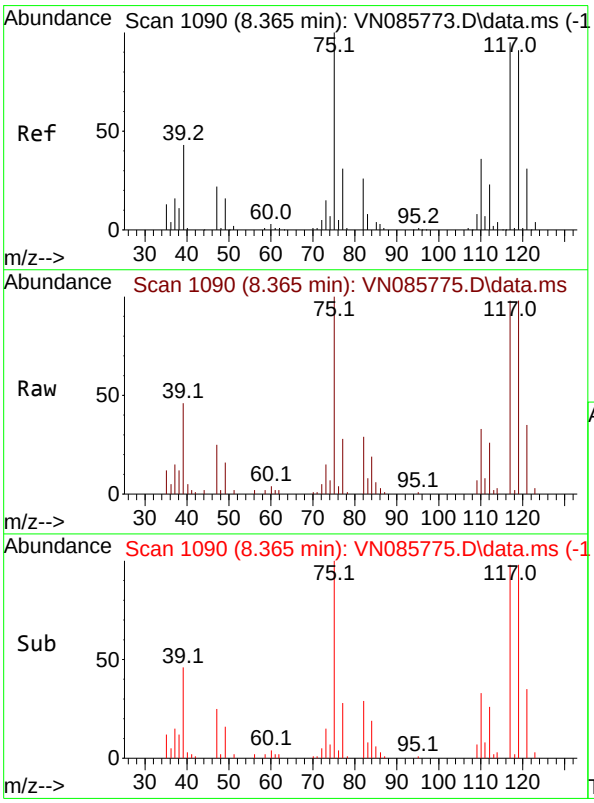
Ion	Ratio	Lower	Upper
113	100		
111	102.7	82.2	123.4
192	19.2	14.7	22.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

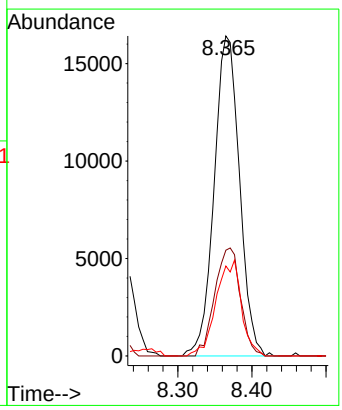
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

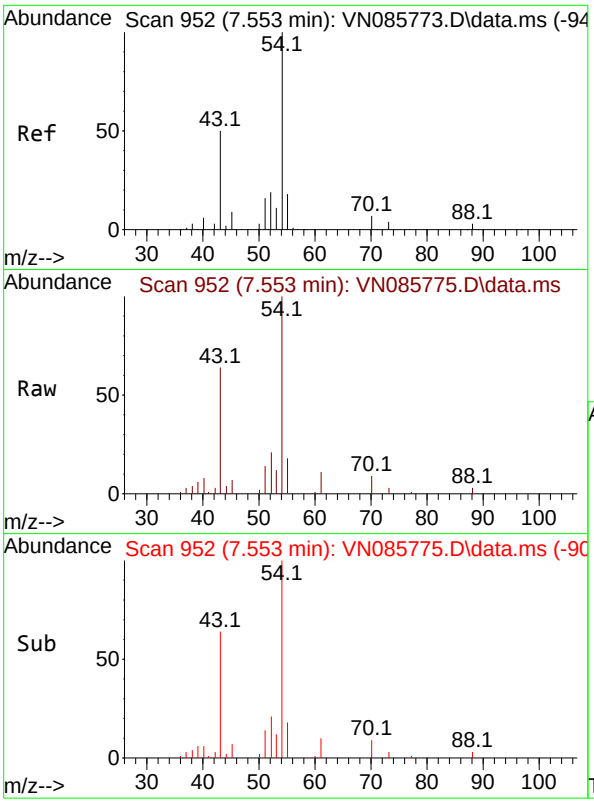


#36
1,1-Dichloropropene
Concen: 10.582 ug/l
RT: 8.365 min Scan# 1090
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 75 Resp: 38983

Ion	Ratio	Lower	Upper
75	100		
110	34.2	17.3	52.0
77	29.9	24.6	37.0

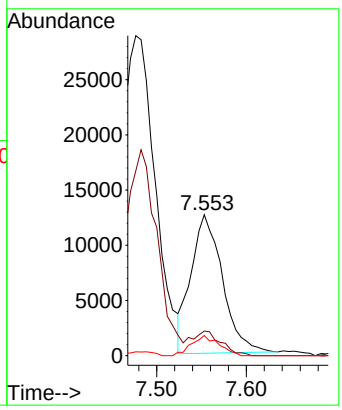




#37
Ethyl Acetate
Concen: 10.115 ug/l
RT: 7.553 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 43 Resp: 3066

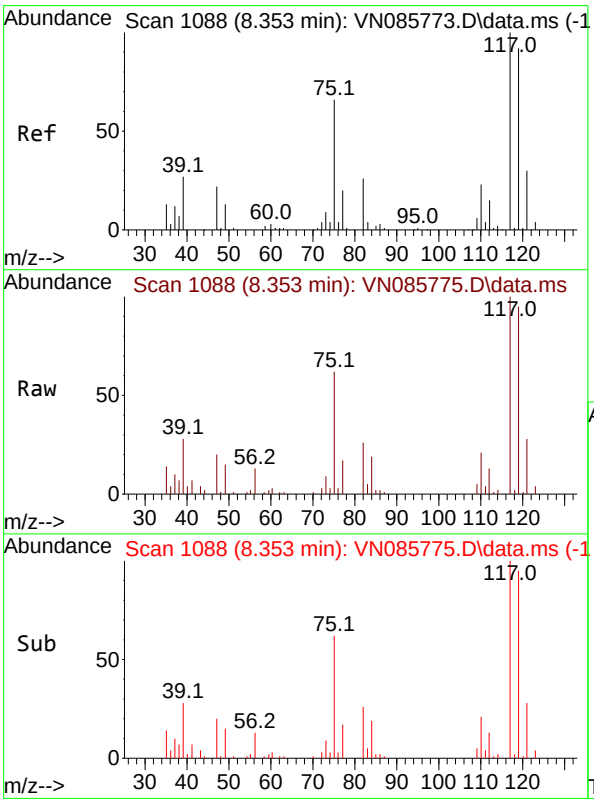
Ion	Ratio	Lower	Upper
43	100		
61	13.0	12.2	18.2
70	12.6	9.5	14.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

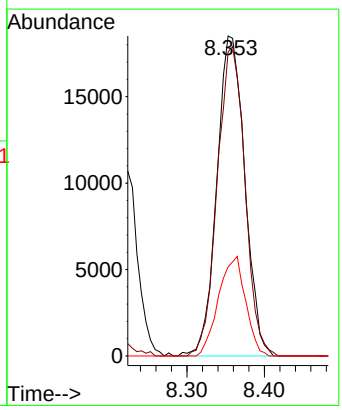
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

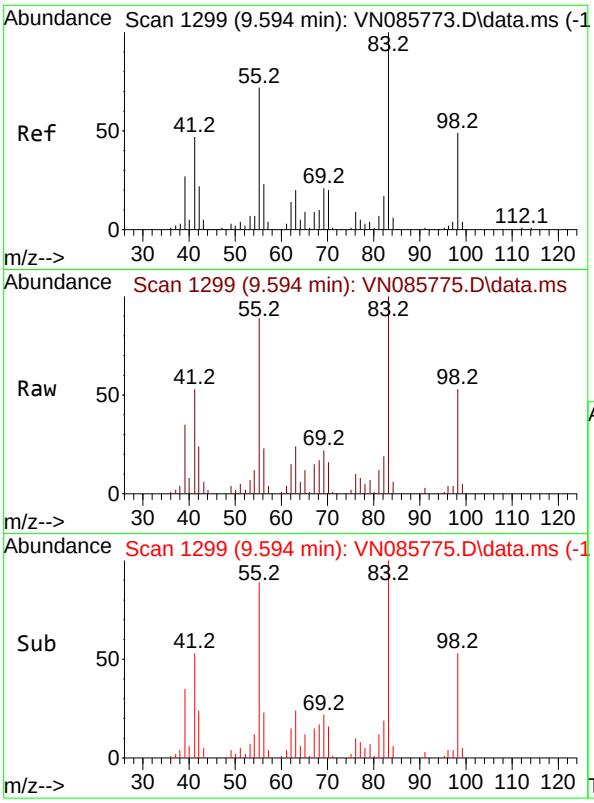


#38
Carbon Tetrachloride
Concen: 10.605 ug/l
RT: 8.353 min Scan# 1088
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion:117 Resp: 46420

Ion	Ratio	Lower	Upper
117	100		
119	95.1	73.8	110.6
121	27.8	24.3	36.5

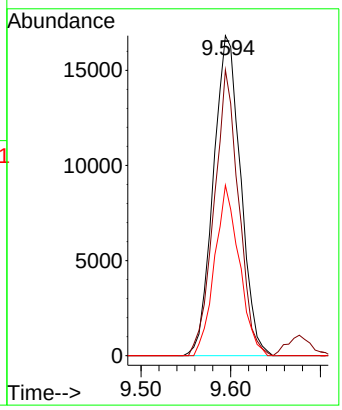




#39
Methylcyclohexane
Concen: 9.803 ug/l
RT: 9.594 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 83 Resp: 3547

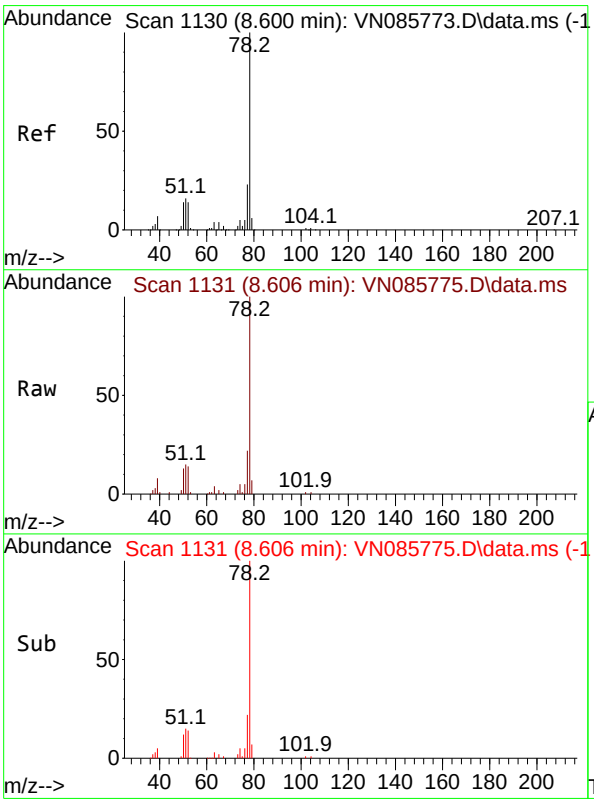
Ion	Ratio	Lower	Upper
83	100		
55	89.3	57.5	86.3#
98	53.2	39.2	58.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

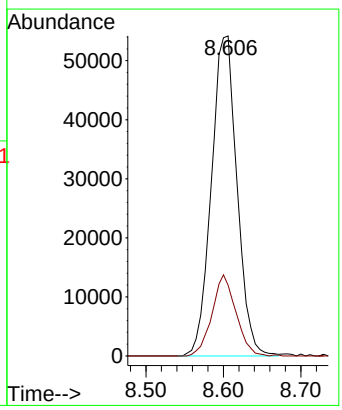
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

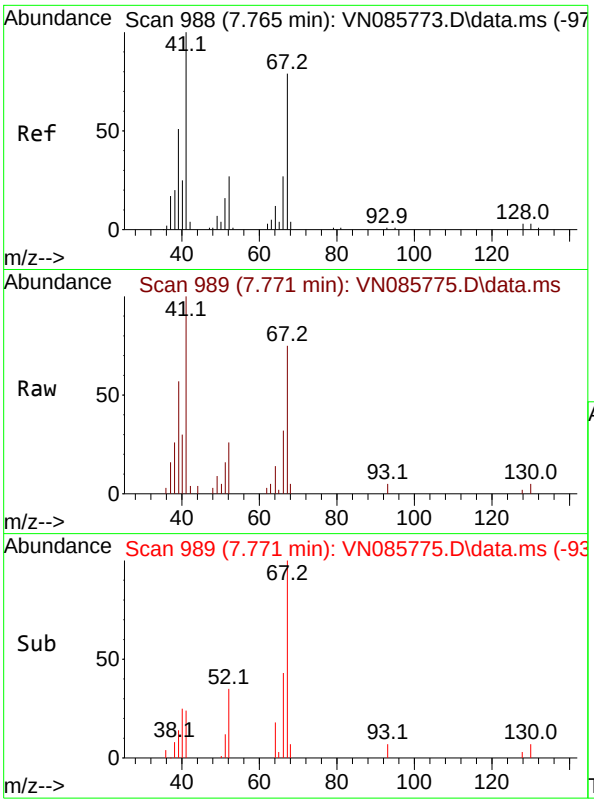


#40
Benzene
Concen: 10.562 ug/l
RT: 8.606 min Scan# 1131
Delta R.T. 0.006 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 78 Resp: 124704

Ion	Ratio	Lower	Upper
78	100		
77	22.1	18.3	27.5





#41
Methacrylonitrile
Concen: 10.373 ug/l
RT: 7.771 min Scan# 9
Delta R.T. 0.006 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

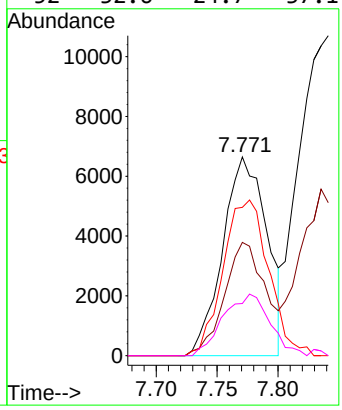
Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

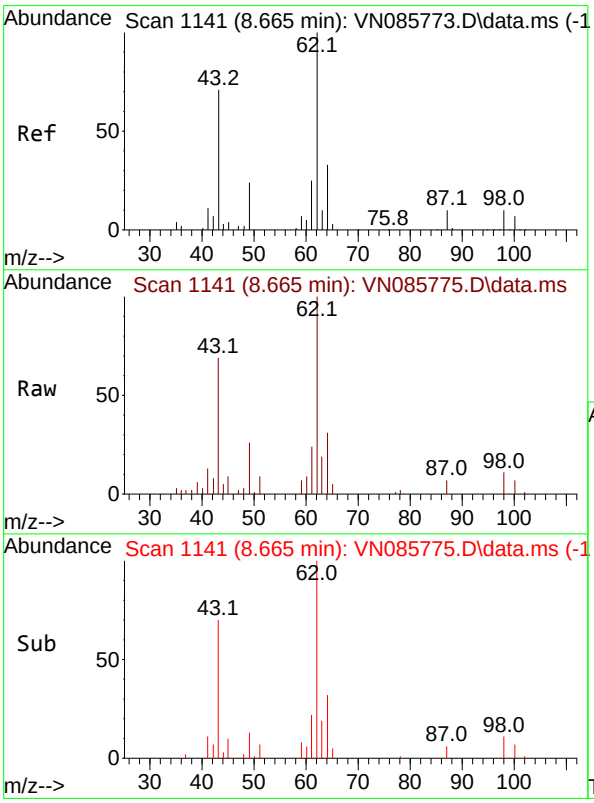
Tgt Ion: 41 Resp: 1681

Ion	Ratio	Lower	Upper
41	100		
39	52.8	42.0	63.0
67	80.7	64.2	96.4
52	32.6	24.7	37.1

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

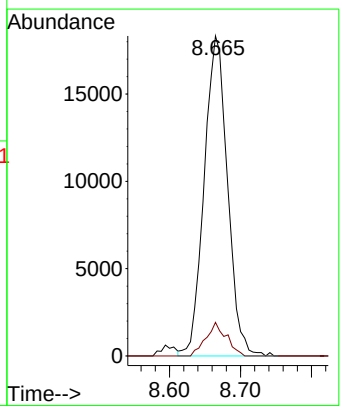


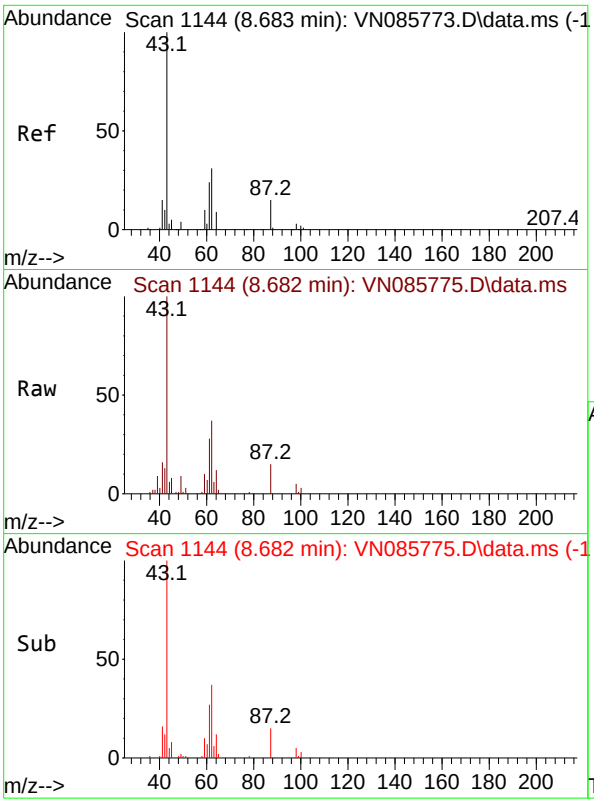


#42
1,2-Dichloroethane
Concen: 10.898 ug/l
RT: 8.665 min Scan# 1141
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 62 Resp: 41912

Ion	Ratio	Lower	Upper
62	100		
98	9.2	0.0	19.6





#43
Isopropyl Acetate
Concen: 11.001 ug/l
RT: 8.682 min Scan# 1
Delta R.T. -0.001 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

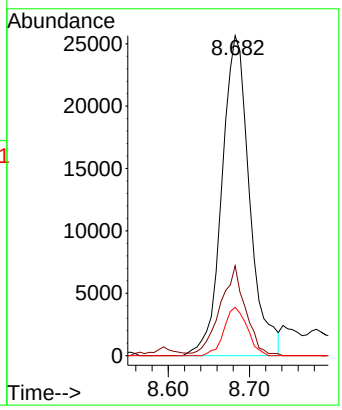
Tgt Ion: 43 Resp: 6079

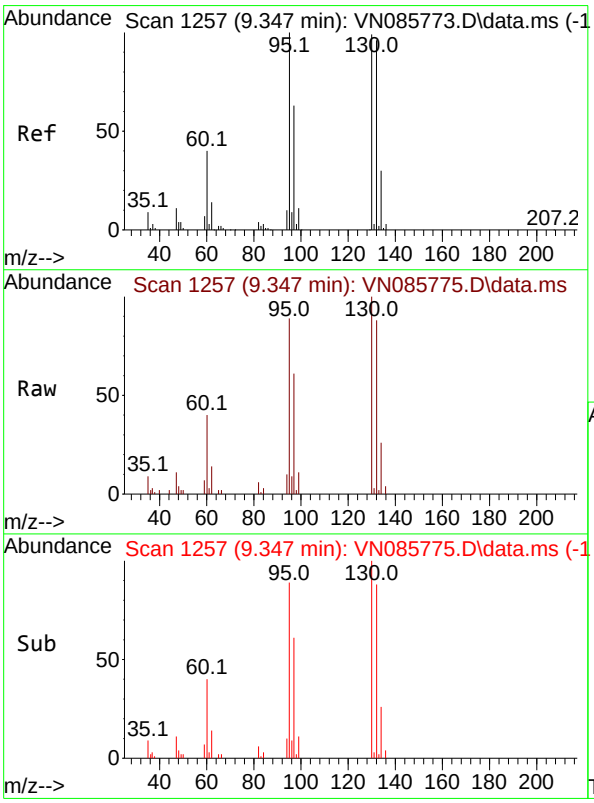
Ion	Ratio	Lower	Upper
43	100		
61	25.9	22.6	34.0
87	12.7	11.8	17.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

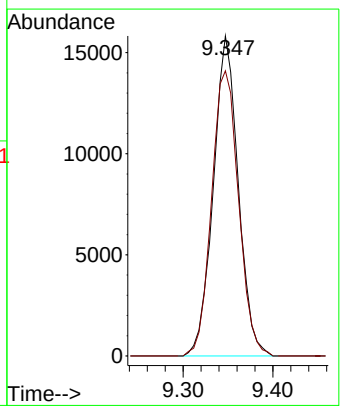


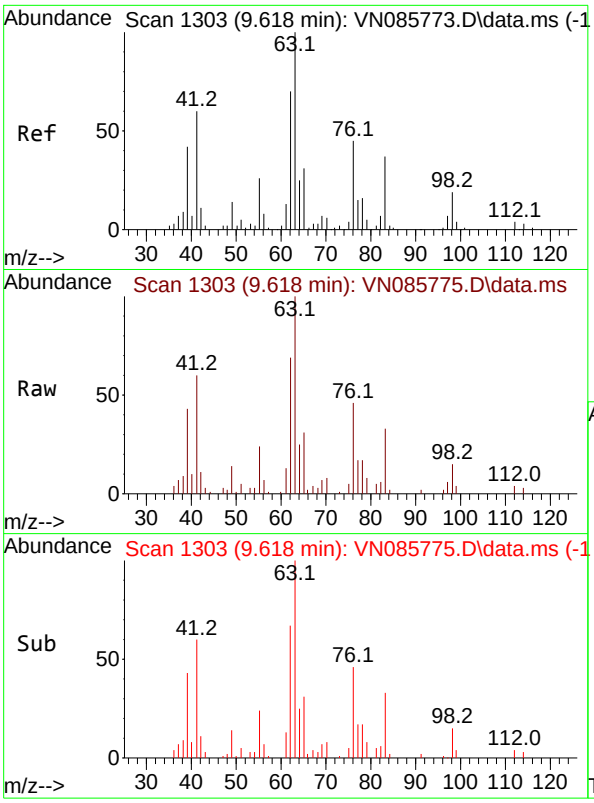


#44
Trichloroethene
Concen: 10.542 ug/l
RT: 9.347 min Scan# 1257
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion:130 Resp: 30561

Ion	Ratio	Lower	Upper
130	100		
95	89.1	0.0	202.6





#45
1,2-Dichloropropane
Concen: 10.744 ug/l
RT: 9.618 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

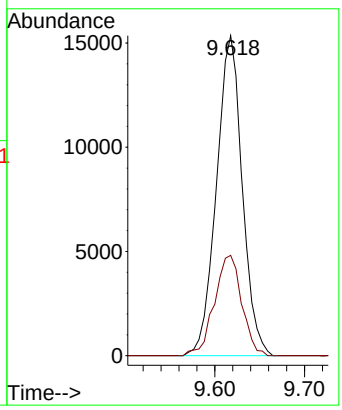
Tgt Ion: 63 Resp: 3061

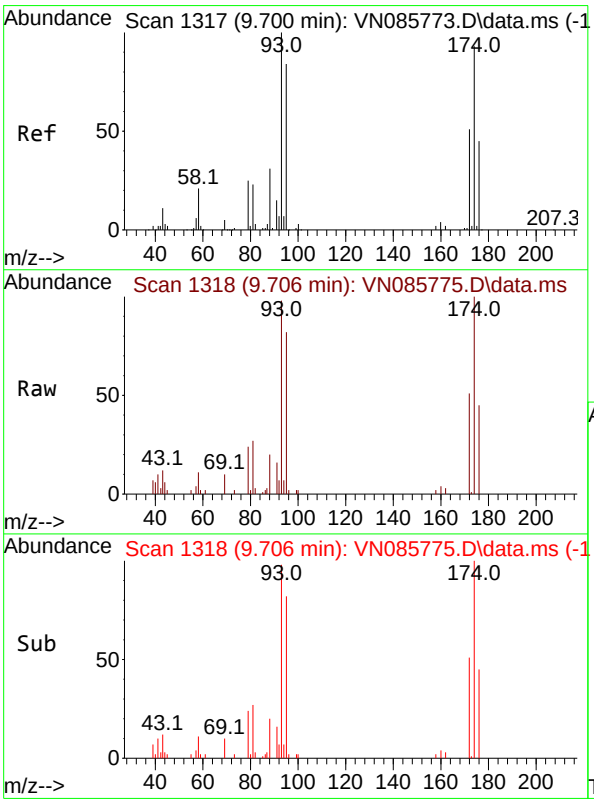
Ion	Ratio	Lower	Upper
63	100		
65	31.3	25.1	37.7

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

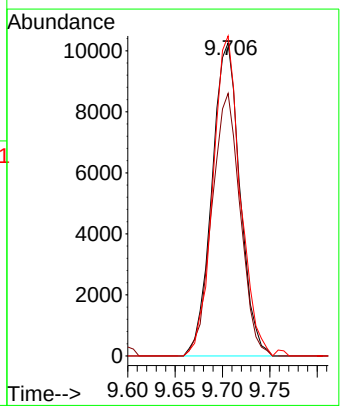


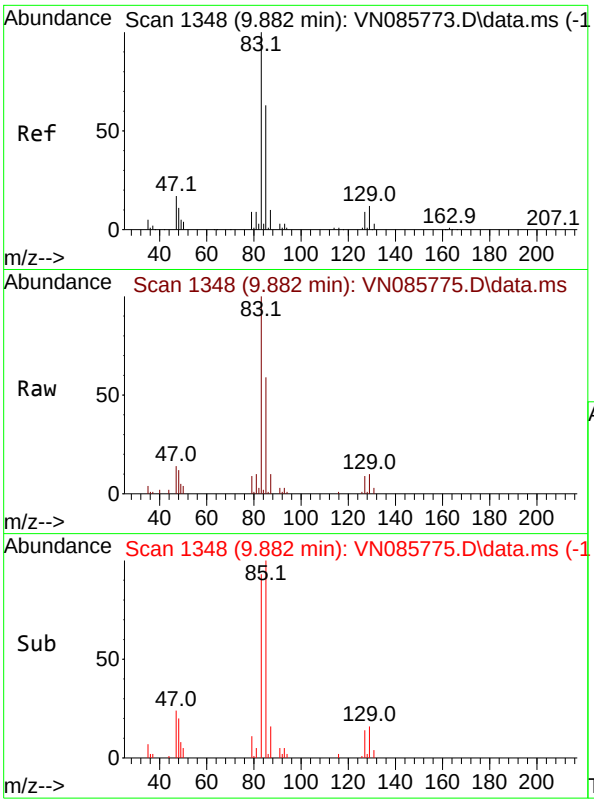


#46
Dibromomethane
Concen: 10.489 ug/l
RT: 9.706 min Scan# 1318
Delta R.T. 0.006 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 93 Resp: 21085

Ion	Ratio	Lower	Upper
93	100		
95	84.8	66.7	100.1
174	99.7	77.2	115.8

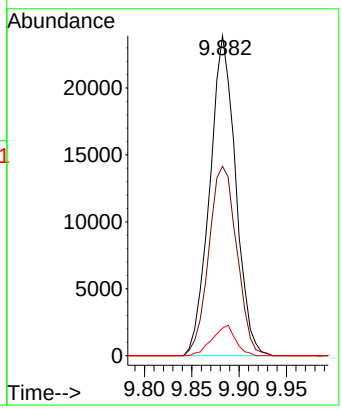




#47
Bromodichloromethane
Concen: 10.559 ug/l
RT: 9.882 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 83 Resp: 4541

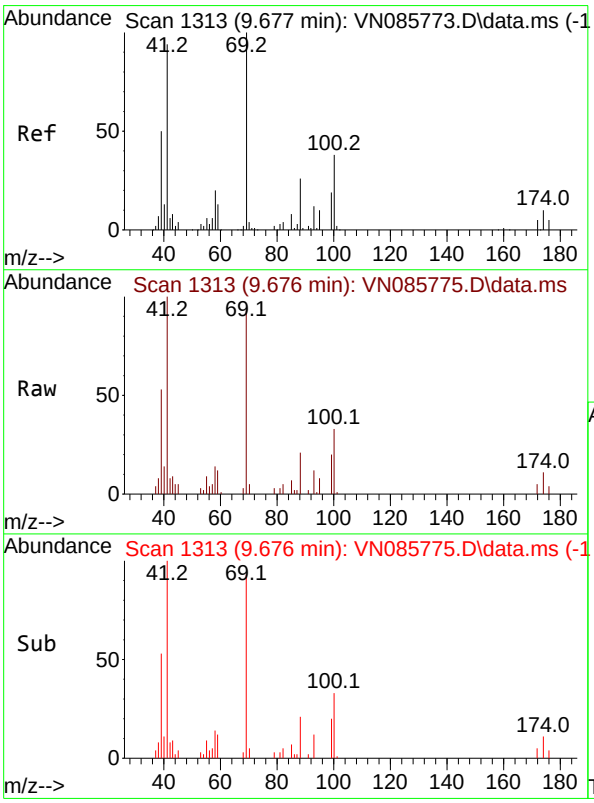
Ion	Ratio	Lower	Upper
83	100		
85	59.2	50.5	75.7
127	8.6	7.2	10.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

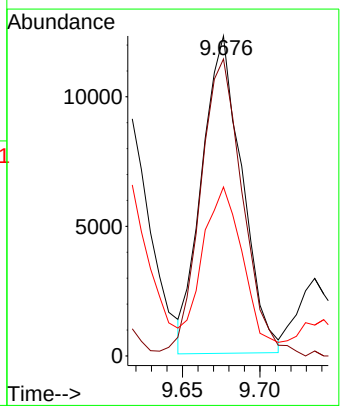
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

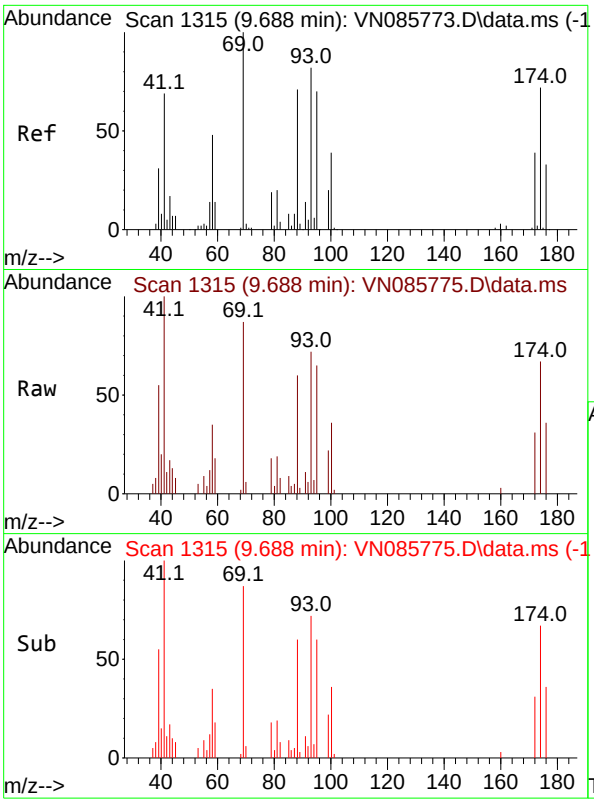


#48
Methyl methacrylate
Concen: 9.798 ug/l
RT: 9.676 min Scan# 1313
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 41 Resp: 22058

Ion	Ratio	Lower	Upper
41	100		
69	99.3	76.0	114.0
39	55.9	42.3	63.5

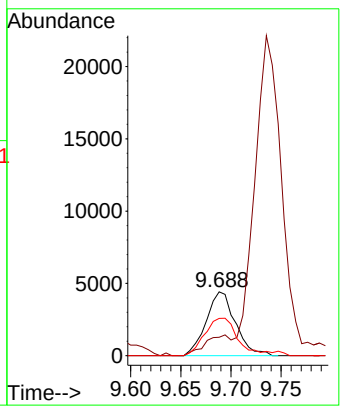




#49
1,4-Dioxane
Concen: 208.723 ug/l
RT: 9.688 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 88 Resp: 893

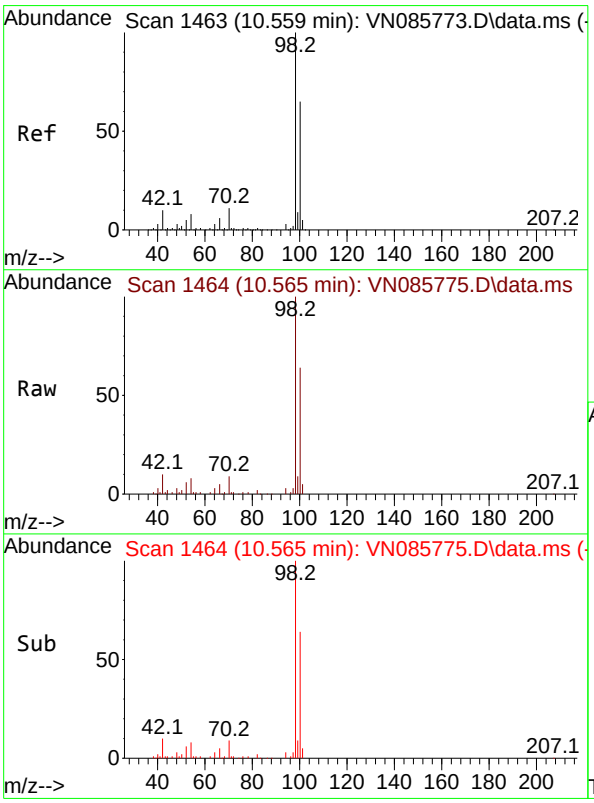
Ion	Ratio	Lower	Upper
88	100		
43	28.6	18.6	27.8
58	68.4	56.7	85.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

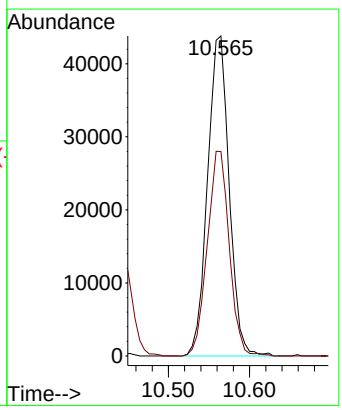
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

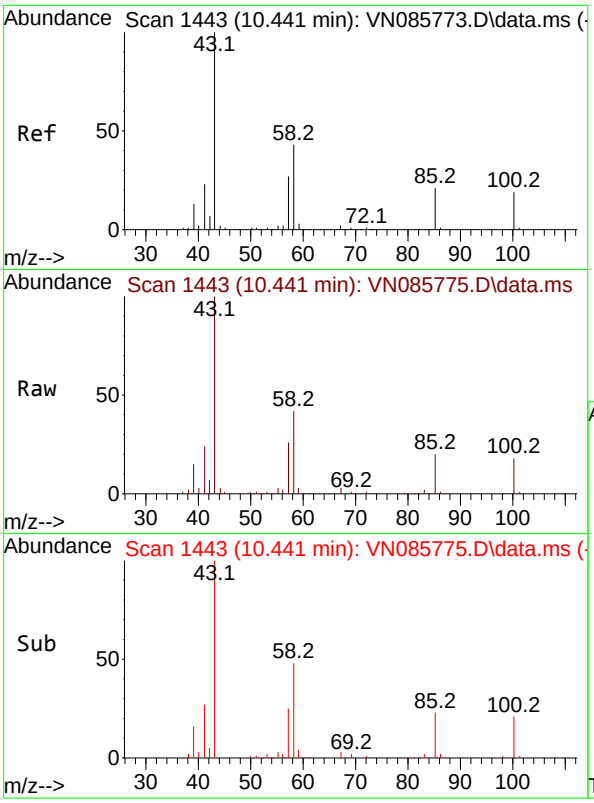


#50
Toluene-d8
Concen: 8.542 ug/l
RT: 10.565 min Scan# 1464
Delta R.T. 0.006 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 98 Resp: 80889

Ion	Ratio	Lower	Upper
98	100		
100	65.0	52.1	78.1





#51
4-Methyl-2-Pentanone
Concen: 53.302 ug/l
RT: 10.441 min Scan# 14
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

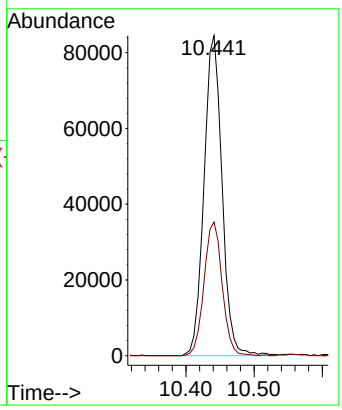
Tgt Ion: 43 Resp: 15578

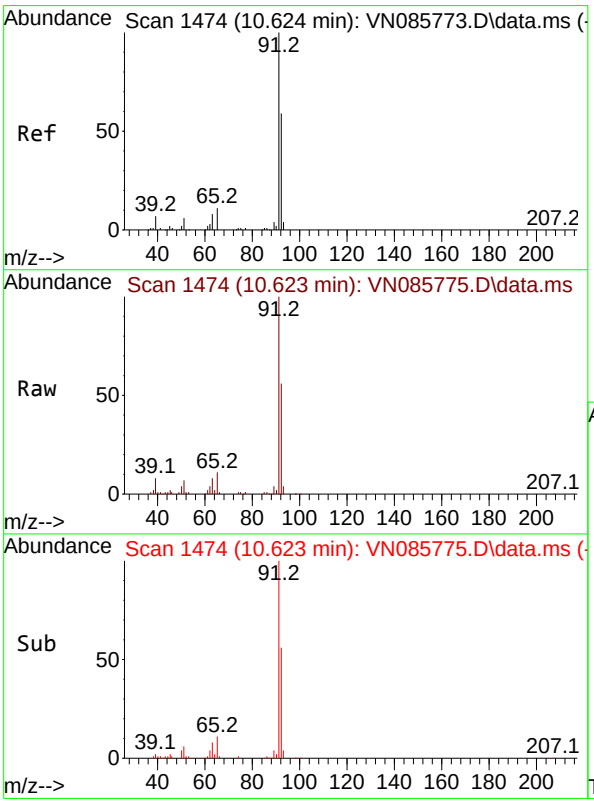
Ion	Ratio	Lower	Upper
43	100		
58	41.8	34.6	52.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

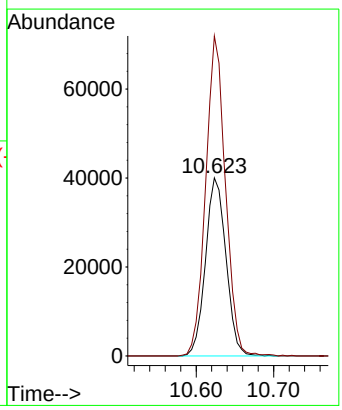


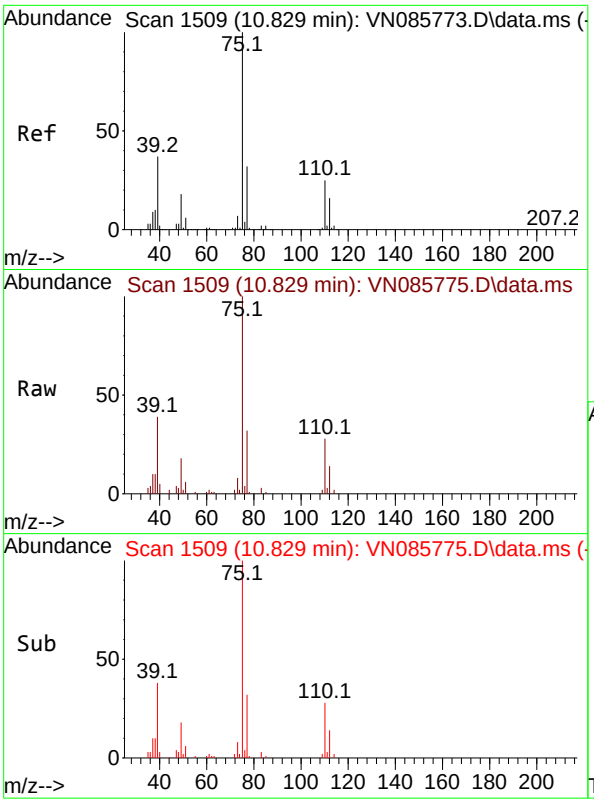


#52
Toluene
Concen: 10.622 ug/l
RT: 10.623 min Scan# 1474
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 92 Resp: 73516

Ion	Ratio	Lower	Upper
92	100		
91	173.5	136.9	205.3

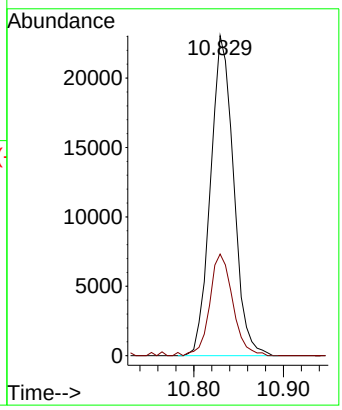




#53
t-1,3-Dichloropropene
Concen: 10.367 ug/l
RT: 10.829 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 75 Resp: 4123

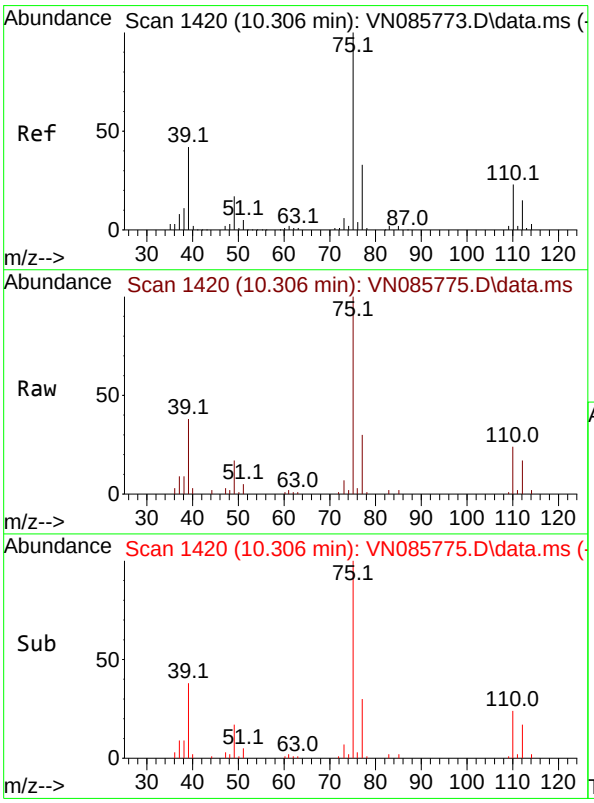
Ion	Ratio	Lower	Upper
75	100		
77	31.7	25.4	38.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

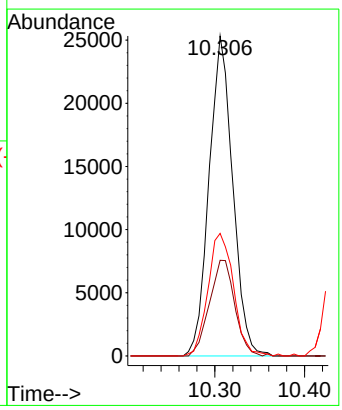
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

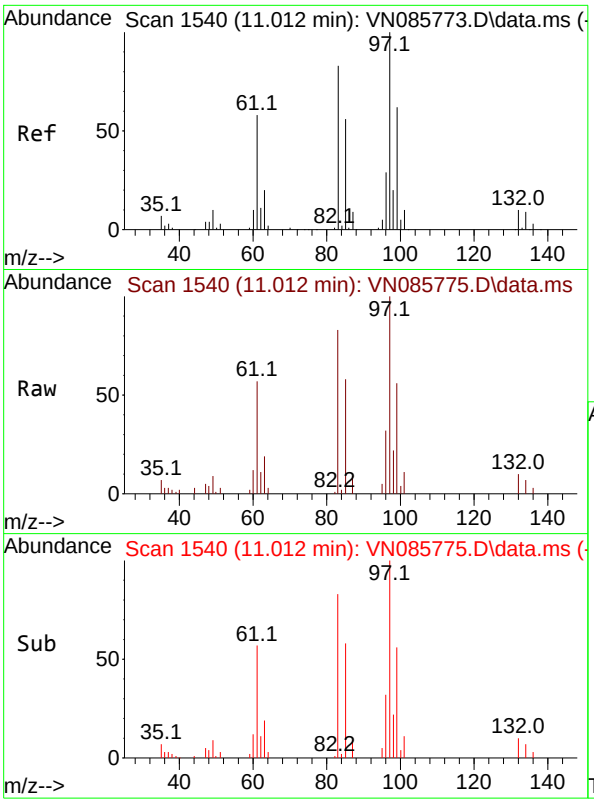


#54
cis-1,3-Dichloropropene
Concen: 10.617 ug/l
RT: 10.306 min Scan# 1420
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 75 Resp: 46300

Ion	Ratio	Lower	Upper
75	100		
77	29.9	26.1	39.1
39	38.3	33.4	50.0

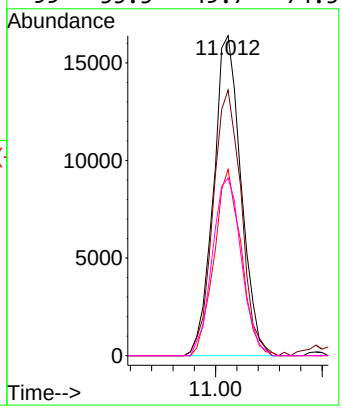




#55
1,1,2-Trichloroethane
Concen: 10.687 ug/l
RT: 11.012 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 97 Resp: 2940

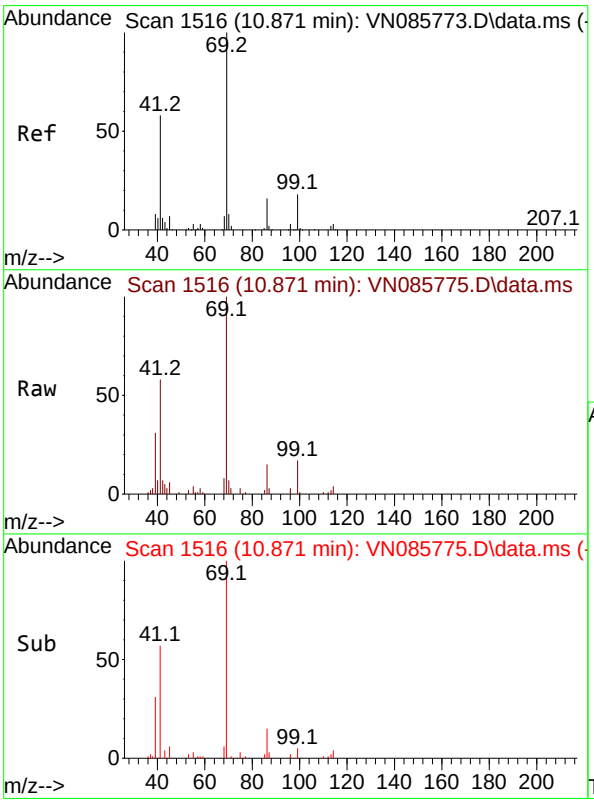
Ion	Ratio	Lower	Upper
97	100		
83	83.0	66.1	99.1
85	58.2	44.7	67.1
99	55.5	49.7	74.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

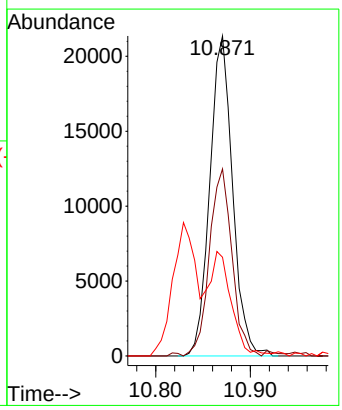
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

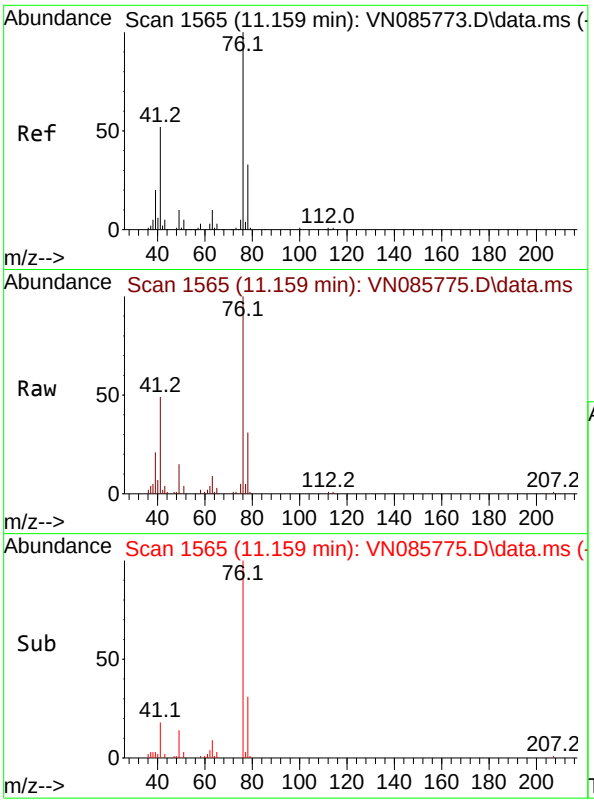


#56
Ethyl methacrylate
Concen: 10.274 ug/l
RT: 10.871 min Scan# 1516
Delta R.T. -0.001 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 69 Resp: 35641

Ion	Ratio	Lower	Upper
69	100		
41	58.2	46.0	69.0
39	27.6	22.0	33.0

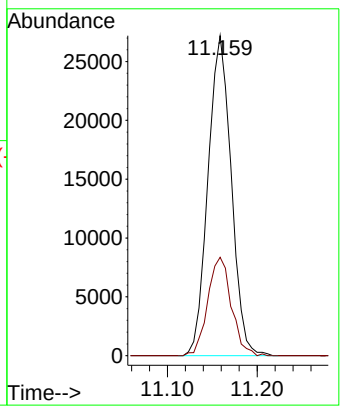




#57
1,3-Dichloropropane
Concen: 10.647 ug/l
RT: 11.159 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 76 Resp: 4890

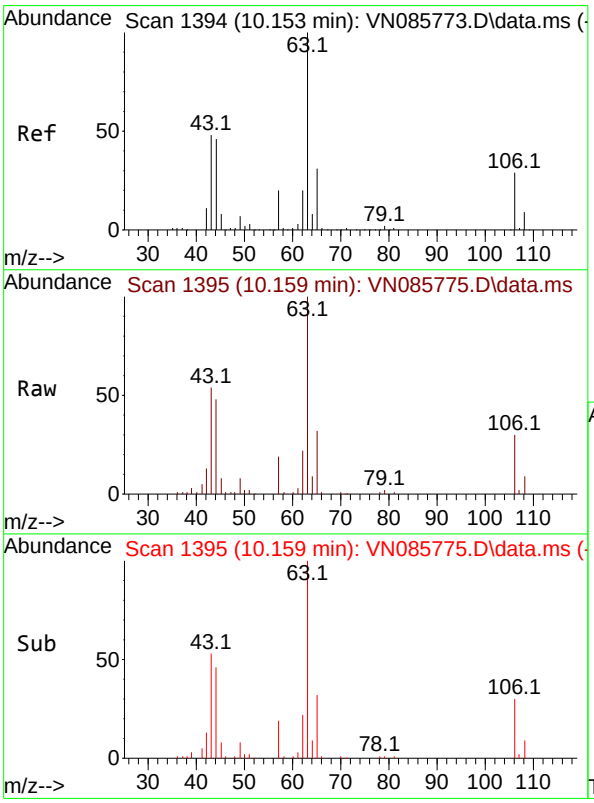
Ion	Ratio	Lower	Upper
76	100		
78	31.3	25.9	38.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

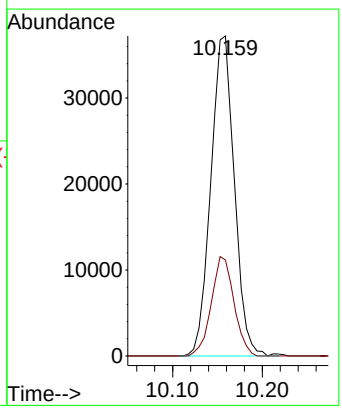
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

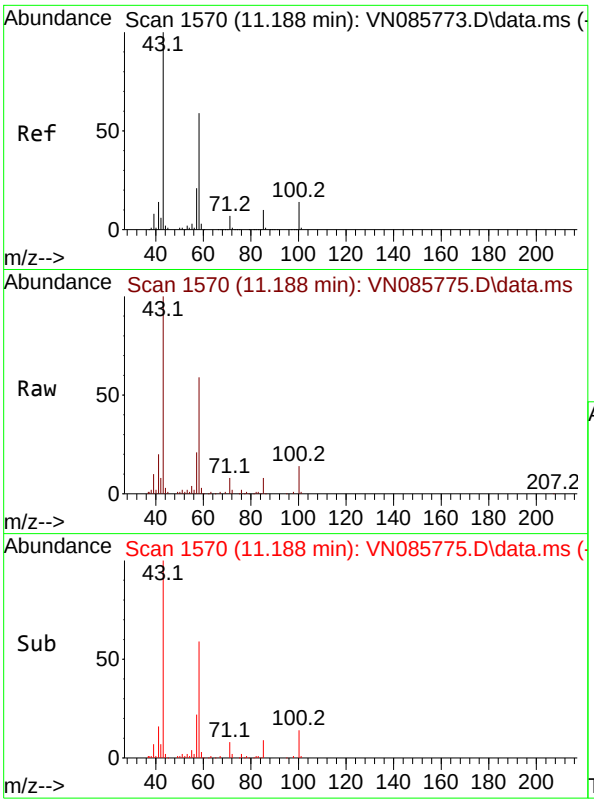


#58
2-Chloroethyl Vinyl ether
Concen: 47.108 ug/l
RT: 10.159 min Scan# 1395
Delta R.T. 0.006 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 63 Resp: 67791

Ion	Ratio	Lower	Upper
63	100		
106	29.9	22.7	34.1





#59
2-Hexanone
Concen: 52.609 ug/l
RT: 11.188 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

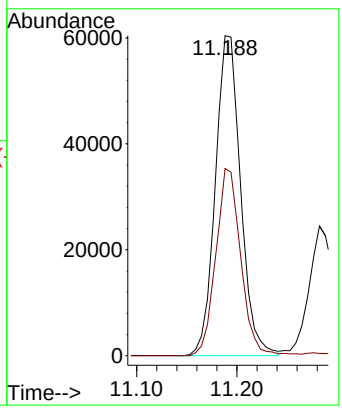
Tgt Ion: 43 Resp: 10578

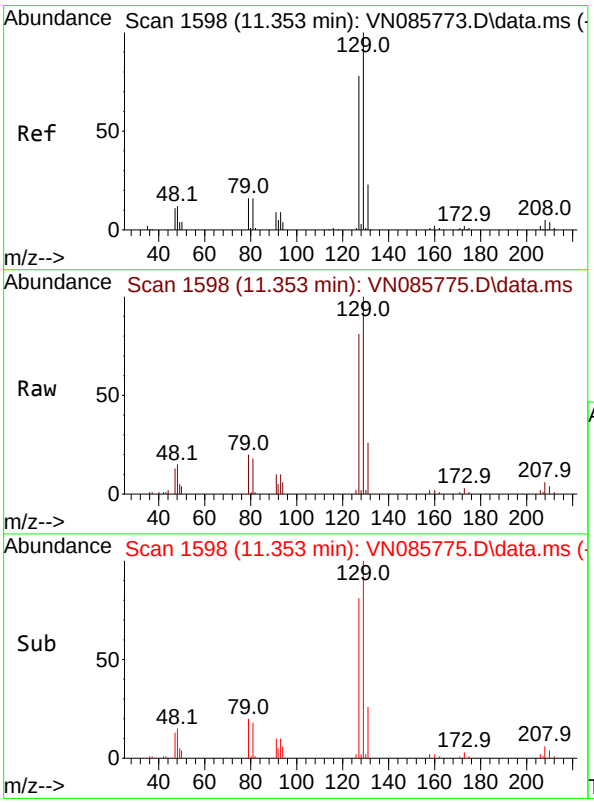
Ion	Ratio	Lower	Upper
43	100		
58	57.7	29.8	89.5

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

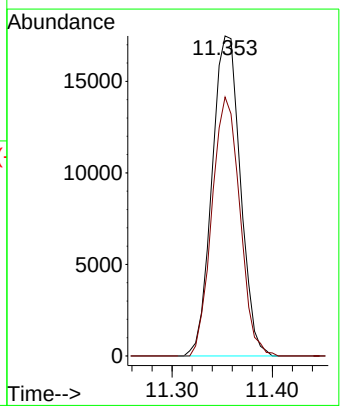


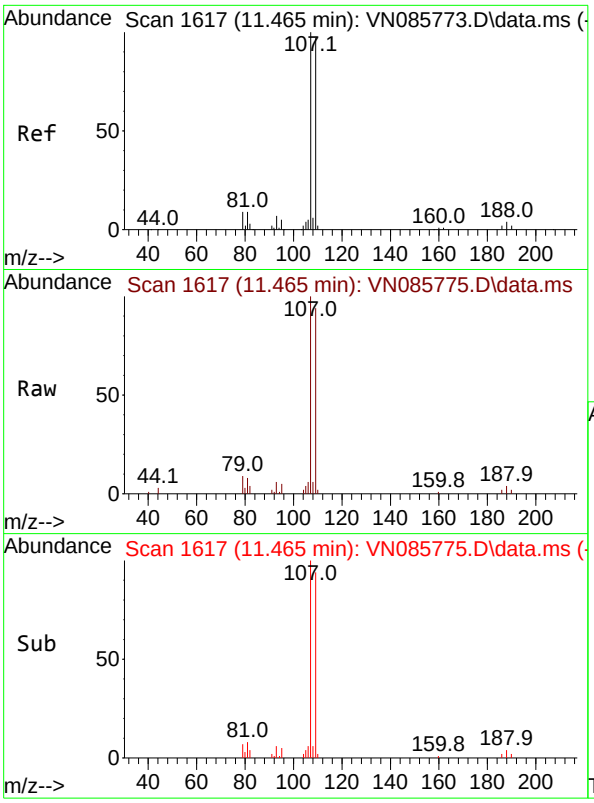


#60
Dibromochloromethane
Concen: 10.694 ug/l
RT: 11.353 min Scan# 1598
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion:129 Resp: 34267

Ion	Ratio	Lower	Upper
129	100		
127	79.6	39.1	117.5





#61
1,2-Dibromoethane
Concen: 11.073 ug/l
RT: 11.465 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

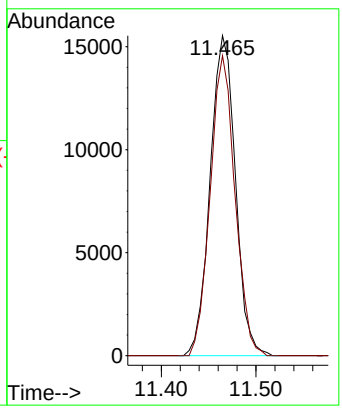
Tgt Ion:107 Resp: 2878

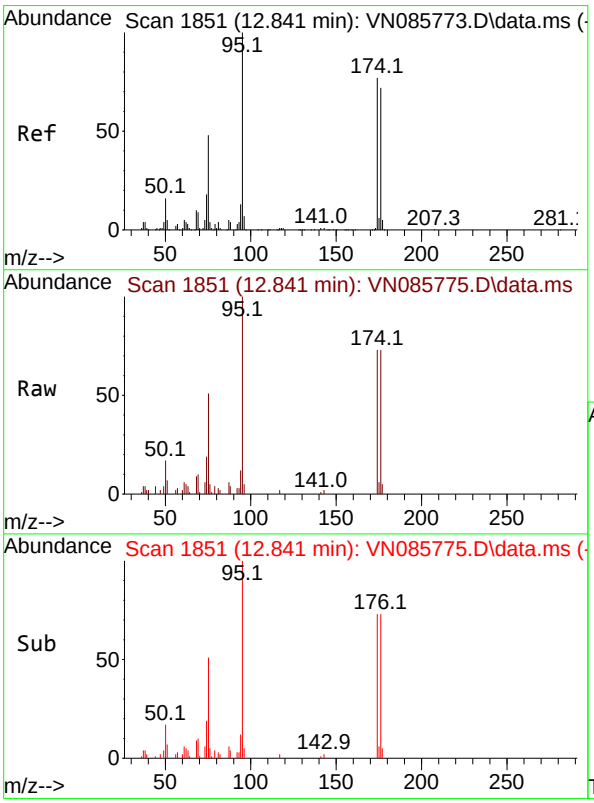
Ion	Ratio	Lower	Upper
107	100		
109	92.1	76.0	114.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

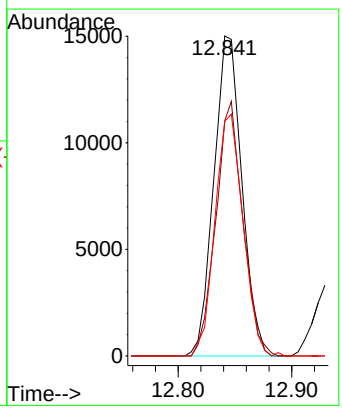


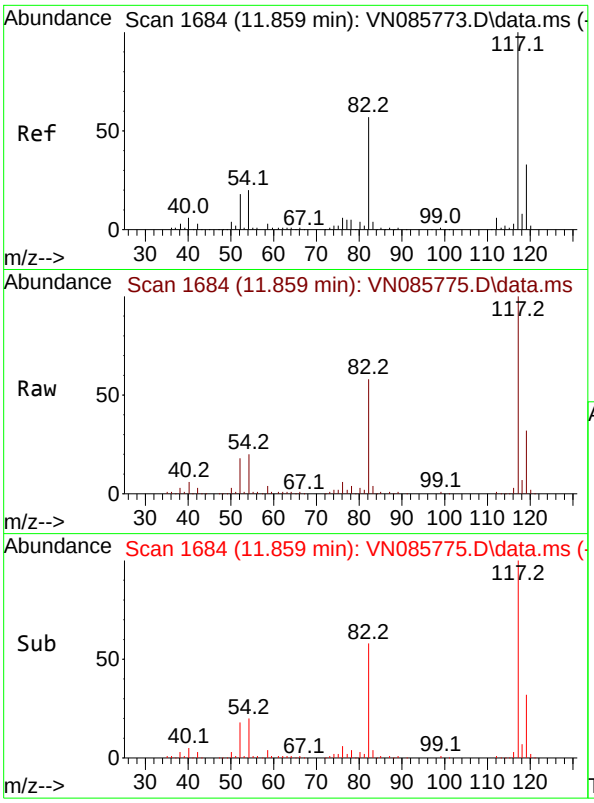


#62
4-Bromofluorobenzene
Concen: 8.236 ug/l
RT: 12.841 min Scan# 1851
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 95 Resp: 25697

Ion	Ratio	Lower	Upper
95	100		
174	77.0	0.0	152.4
176	75.9	0.0	146.6





#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.859 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

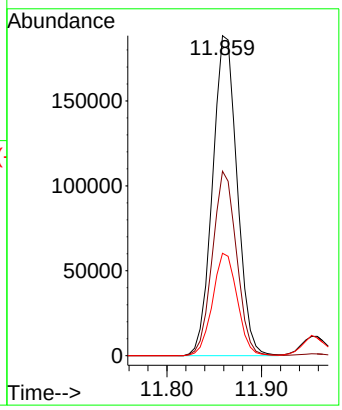
Tgt Ion:117 Resp: 33968

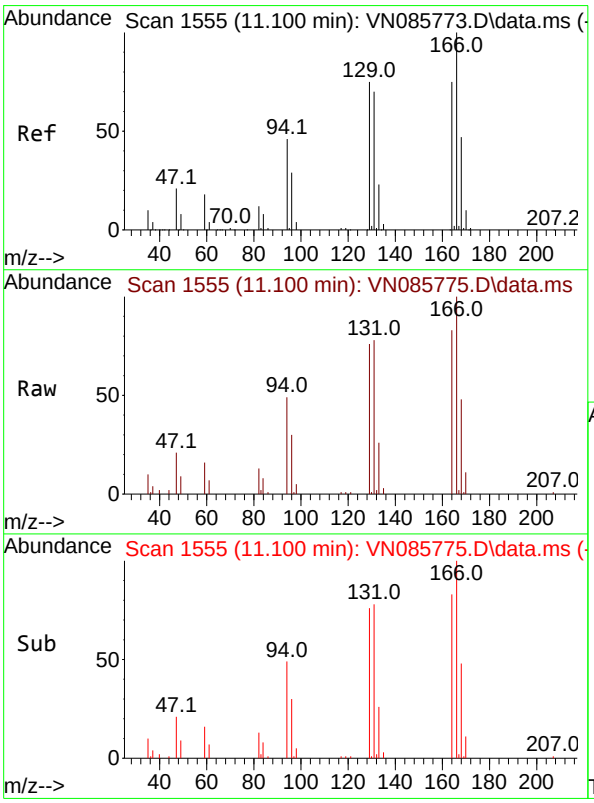
Ion	Ratio	Lower	Upper
117	100		
82	57.7	45.7	68.5
119	32.0	26.2	39.2

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

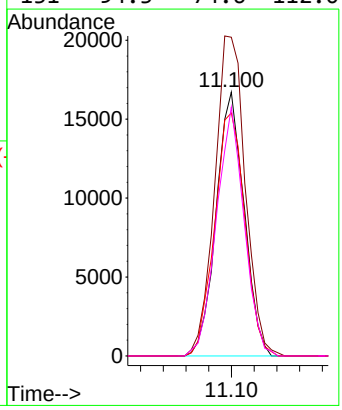


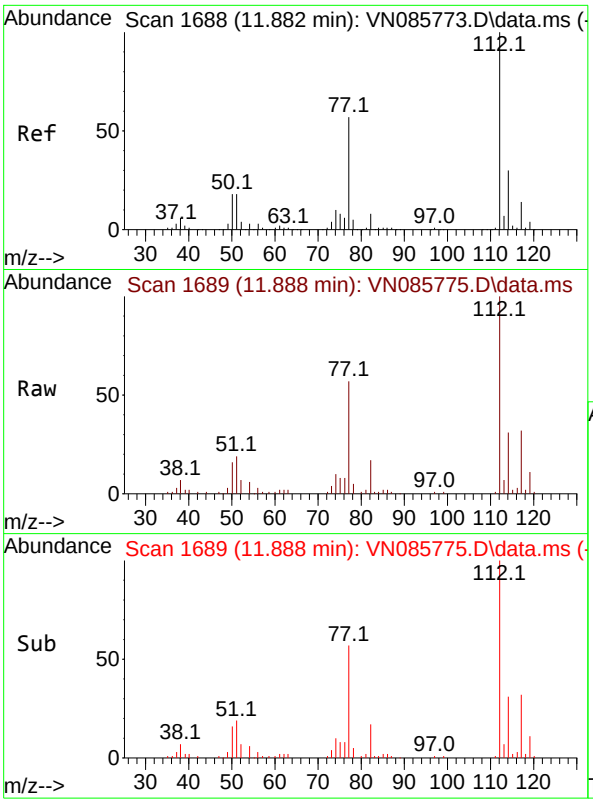


#64
Tetrachloroethene
Concen: 10.855 ug/l
RT: 11.100 min Scan# 1555
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion:164 Resp: 28564

Ion	Ratio	Lower	Upper
164	100		
166	120.8	107.2	160.8
129	92.1	80.7	121.1
131	94.3	74.6	112.0

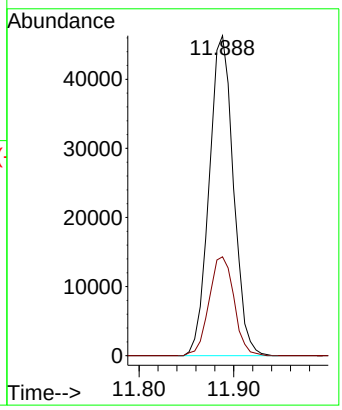




#65
Chlorobenzene
Concen: 10.585 ug/l
RT: 11.888 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion:112 Resp: 8236

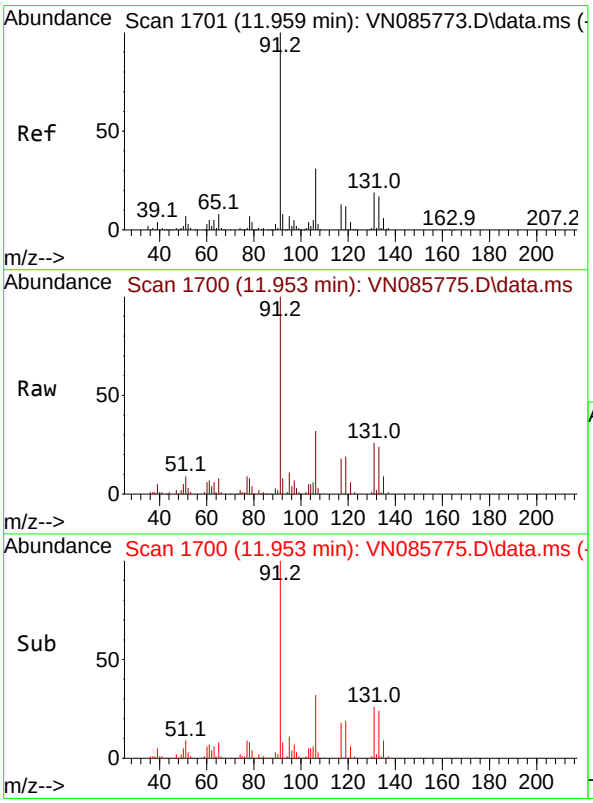
Ion	Ratio	Lower	Upper
112	100		
114	30.9	24.3	36.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

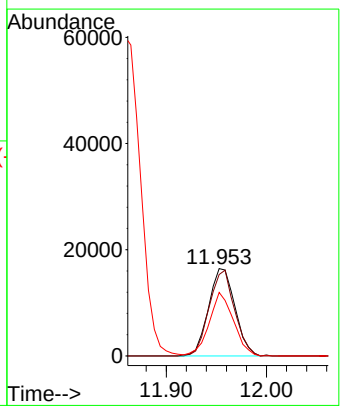
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

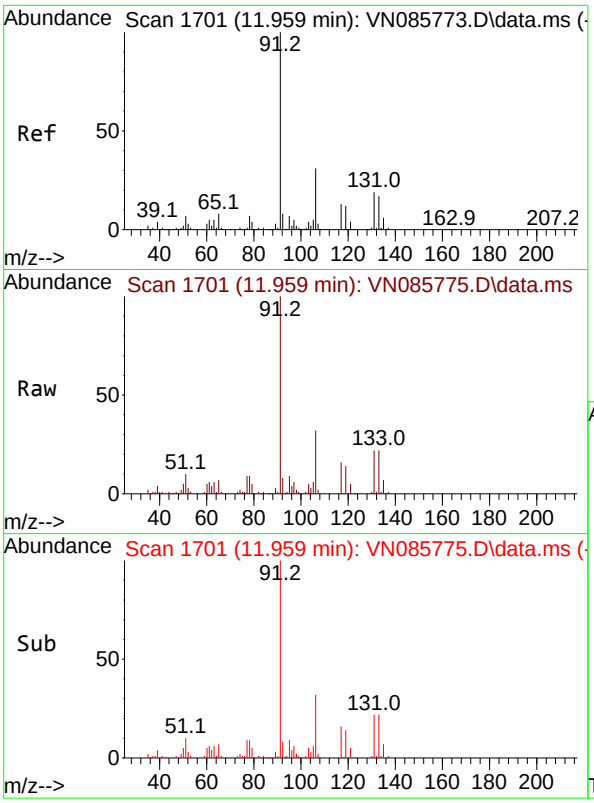


#66
1,1,1,2-Tetrachloroethane
Concen: 10.773 ug/l
RT: 11.953 min Scan# 1700
Delta R.T. -0.006 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion:131 Resp: 30133

Ion	Ratio	Lower	Upper
131	100		
133	94.7	47.7	143.1
119	66.8	33.3	99.8





#67
Ethyl Benzene
Concen: 10.199 ug/l
RT: 11.959 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

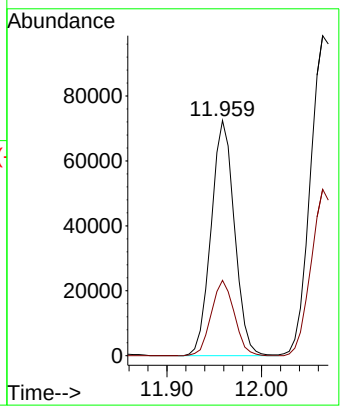
Tgt Ion: 91 Resp: 12432

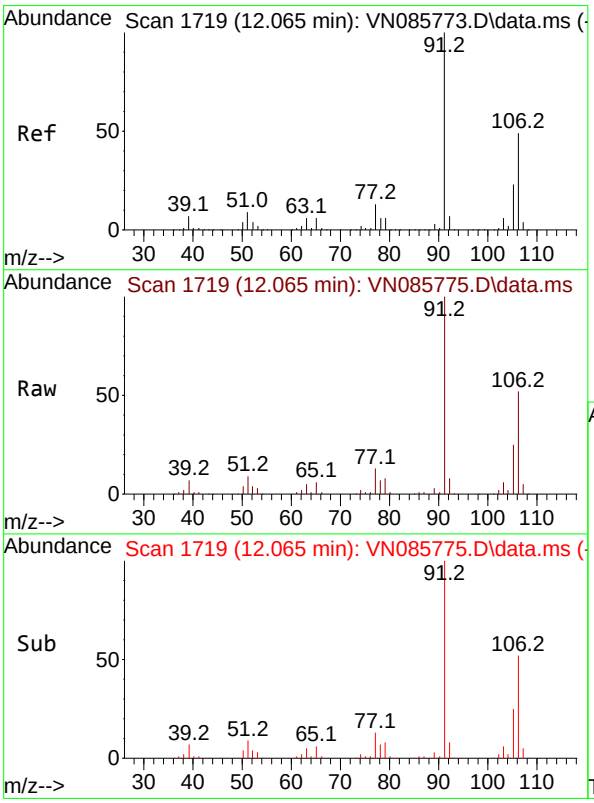
Ion	Ratio	Lower	Upper
91	100		
106	32.0	24.7	37.1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

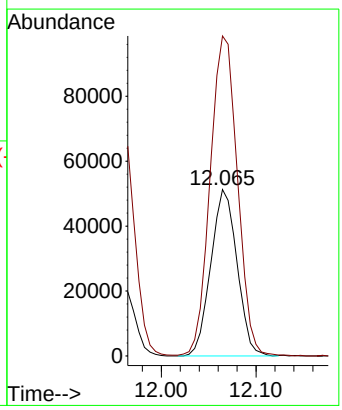


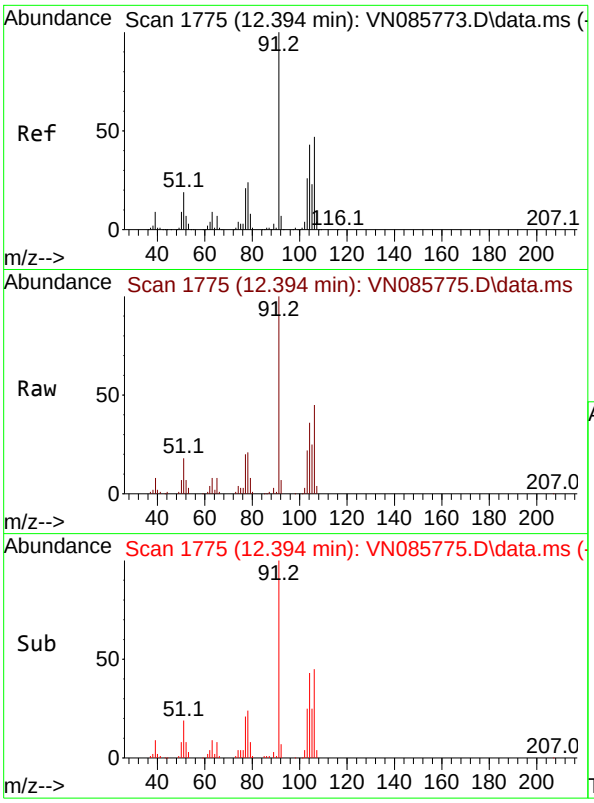


#68
m/p-Xylenes
Concen: 21.290 ug/l
RT: 12.065 min Scan# 1719
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion:106 Resp: 98574

Ion	Ratio	Lower	Upper
106	100		
91	200.5	163.3	244.9





#69
o-Xylene
Concen: 10.287 ug/l
RT: 12.394 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

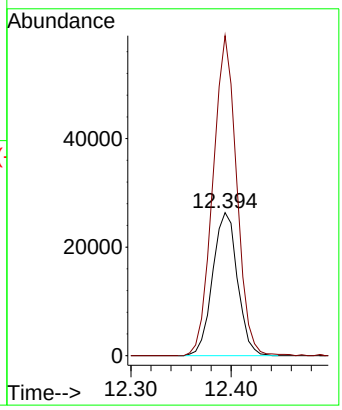
Tgt Ion:106 Resp: 4526

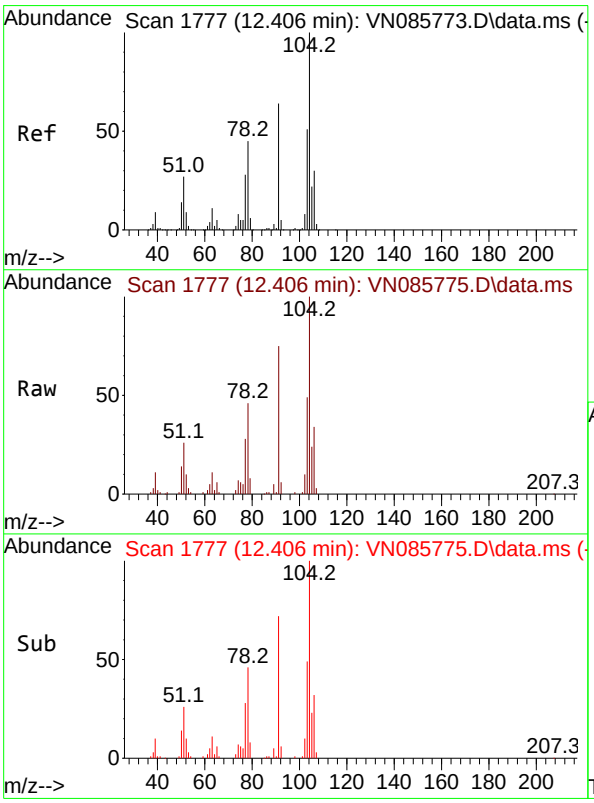
Ion	Ratio	Lower	Upper
106	100		
91	214.9	107.1	321.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

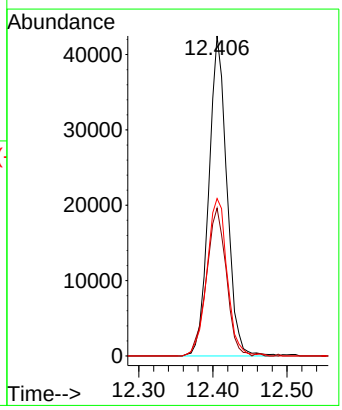


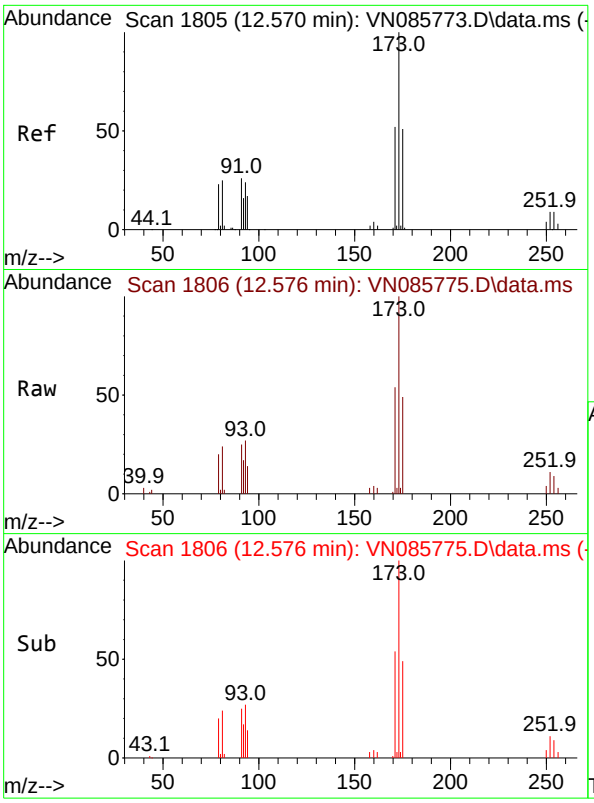


#70
Styrene
Concen: 9.994 ug/l
RT: 12.406 min Scan# 1777
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion:104 Resp: 72044

Ion	Ratio	Lower	Upper
104	100		
78	50.4	39.0	58.6
103	55.1	43.3	64.9

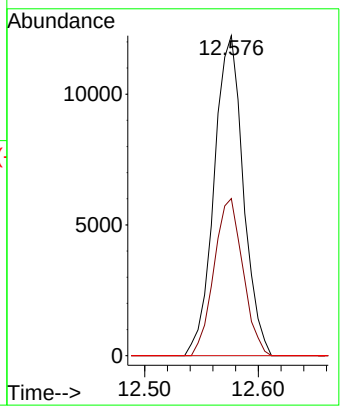




#71
Bromoform
Concen: 10.529 ug/l
RT: 12.576 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion:173 Resp: 2188

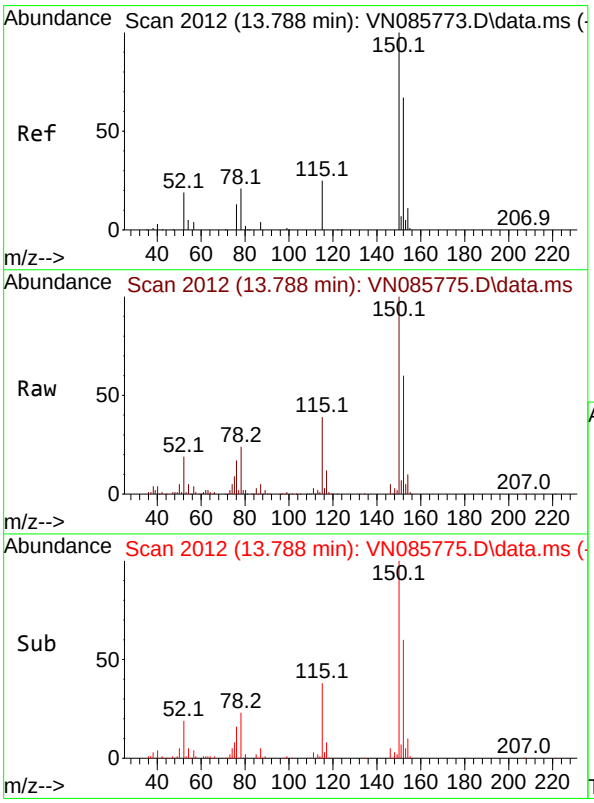
Ion	Ratio	Lower	Upper
173	100		
175	48.6	25.1	75.4
254	0.0	0.0	0.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

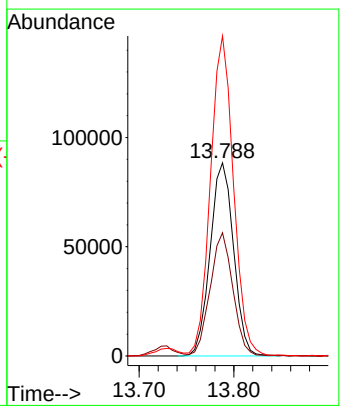
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

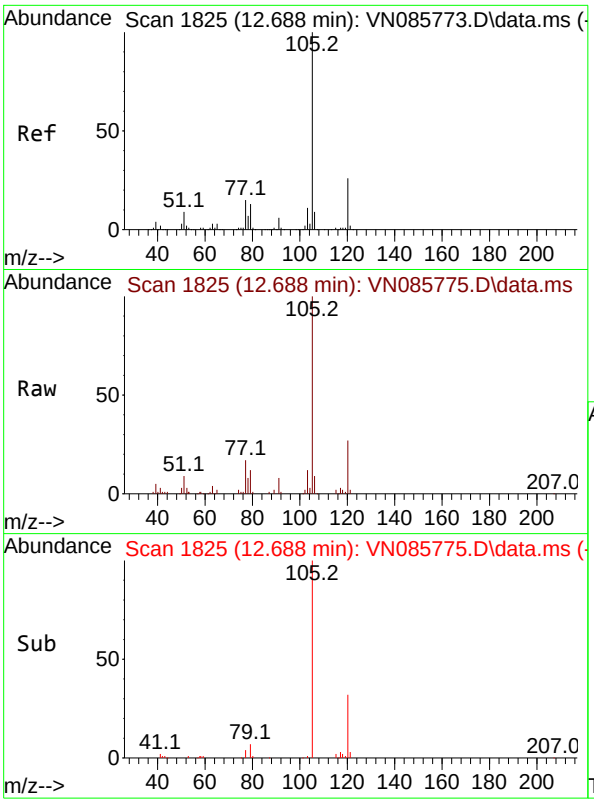


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.788 min Scan# 2012
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion:152 Resp: 151740

Ion	Ratio	Lower	Upper
152	100		
115	61.4	30.4	91.3
150	163.2	0.0	345.4

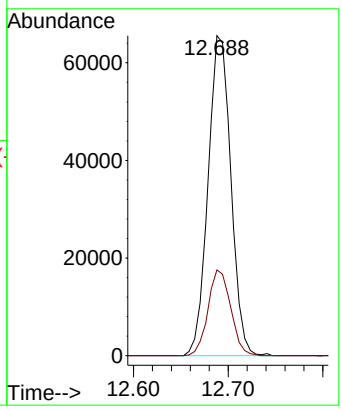




#73
Isopropylbenzene
Concen: 10.576 ug/l
RT: 12.688 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion:105 Resp: 10994

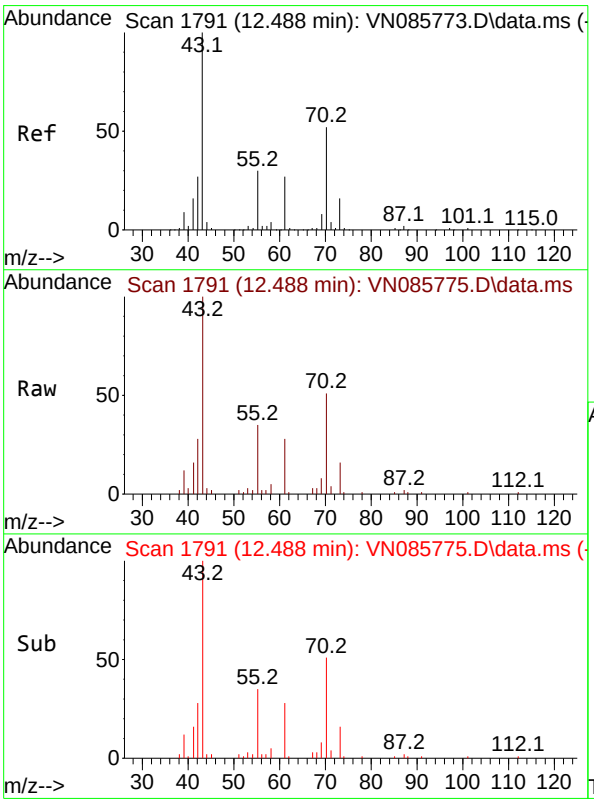
Ion	Ratio	Lower	Upper
105	100		
120	26.6	13.0	39.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

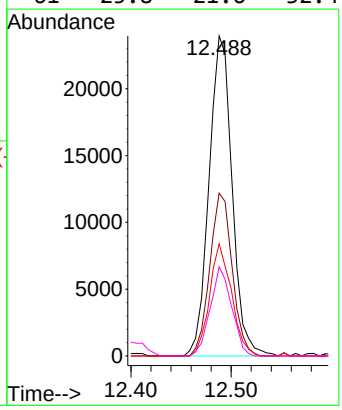
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

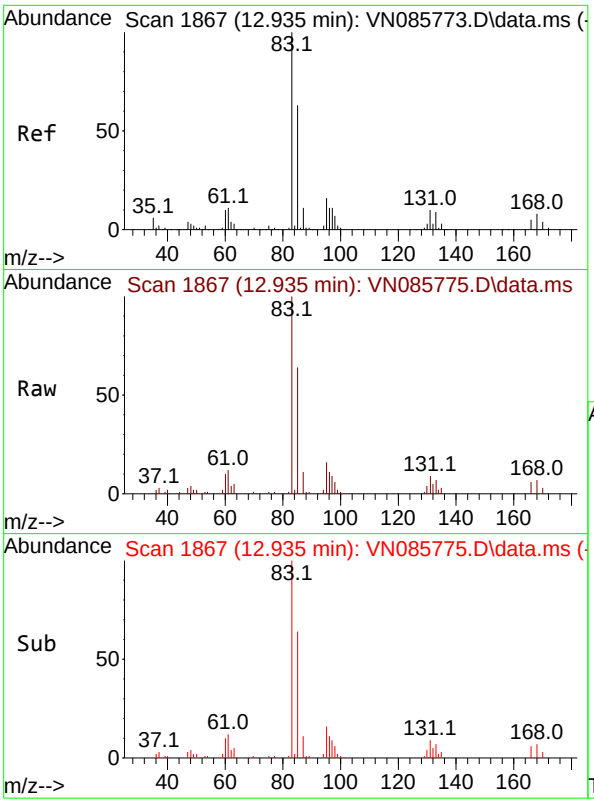


#74
N-amyl acetate
Concen: 10.452 ug/l
RT: 12.488 min Scan# 1791
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 43 Resp: 38318

Ion	Ratio	Lower	Upper
43	100		
70	49.4	41.0	61.4
55	33.3	24.6	36.8
61	25.8	21.6	32.4





#75
1,1,2,2-Tetrachloroethane
Concen: 11.063 ug/l
RT: 12.935 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

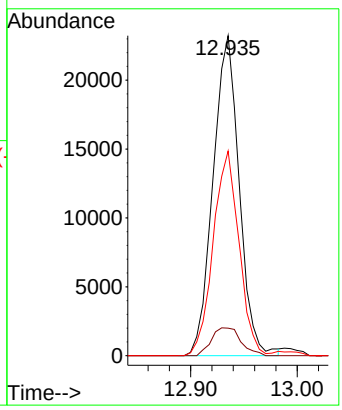
Tgt Ion: 83 Resp: 3957

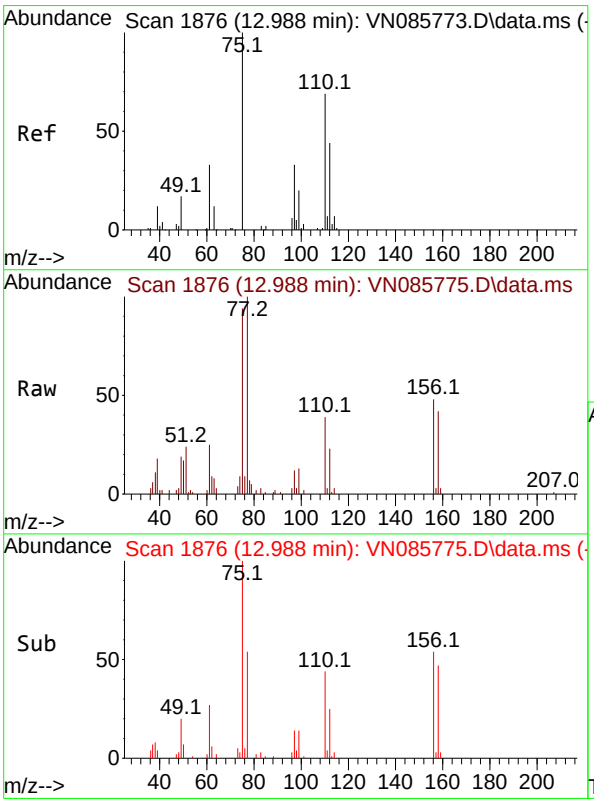
Ion	Ratio	Lower	Upper
83	100		
131	9.8	5.0	15.0
85	63.3	32.2	96.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

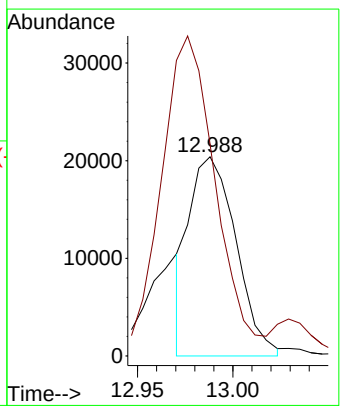


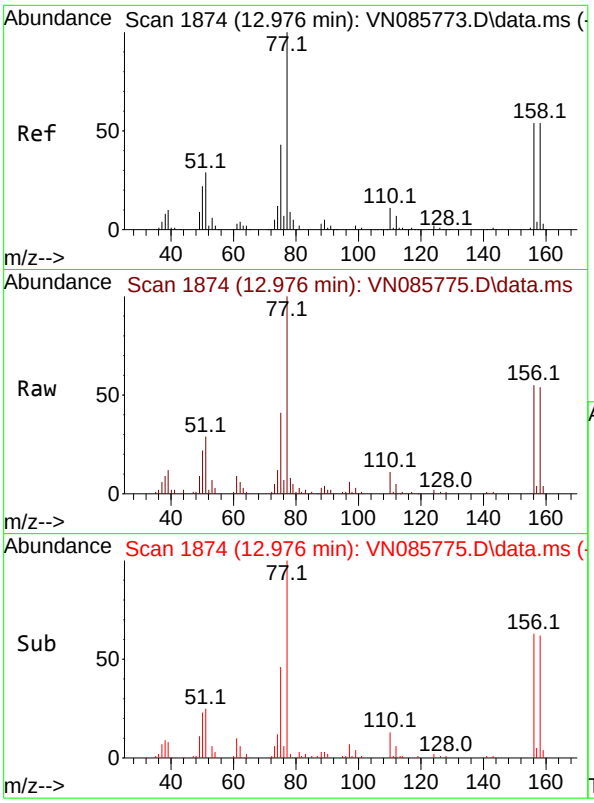


#76
1,2,3-Trichloropropane
Concen: 10.425 ug/l m
RT: 12.988 min Scan# 1876
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 75 Resp: 34754

Ion	Ratio	Lower	Upper
75	100		
77	188.3	100.0	300.0

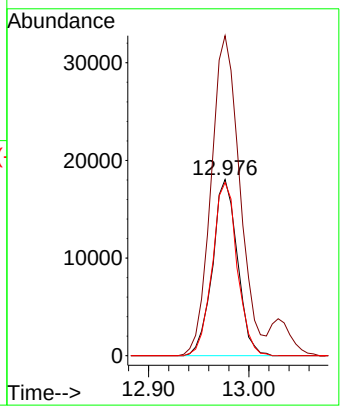




#77
Bromobenzene
Concen: 11.061 ug/l
RT: 12.976 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion:156 Resp: 3106

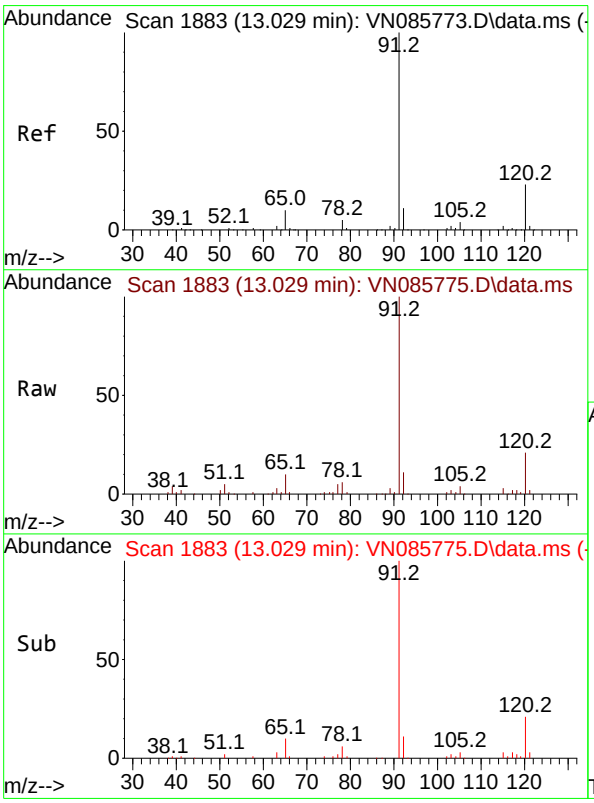
Ion	Ratio	Lower	Upper
156	100		
77	210.7	104.1	312.3
158	98.4	48.1	144.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

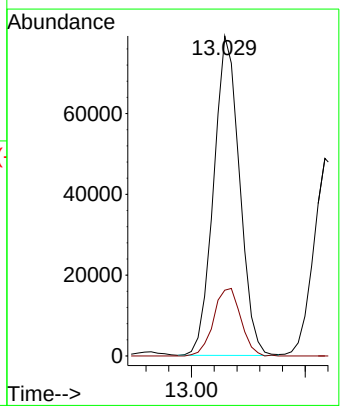
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

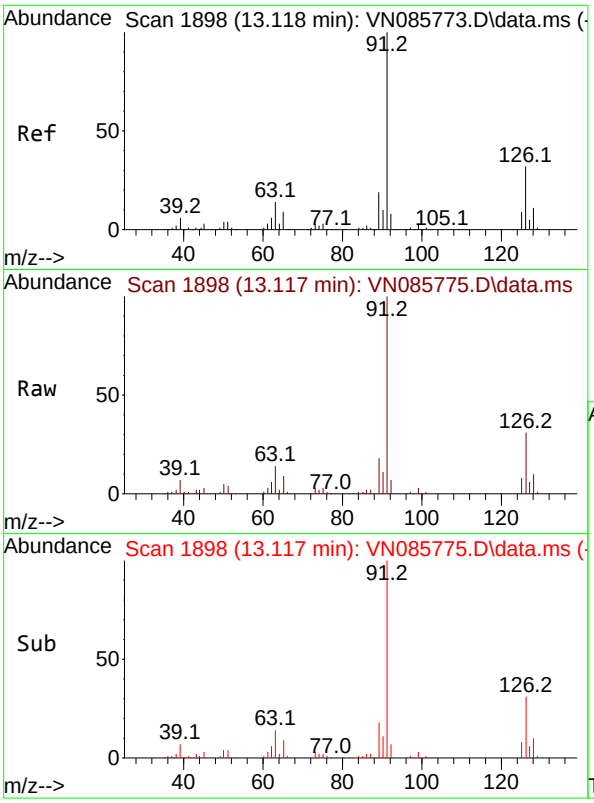


#78
n-propylbenzene
Concen: 10.517 ug/l
RT: 13.029 min Scan# 1883
Delta R.T. 0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 91 Resp: 125206

Ion	Ratio	Lower	Upper
91	100		
120	22.2	11.3	33.8





#79
2-Chlorotoluene
Concen: 10.841 ug/l
RT: 13.117 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

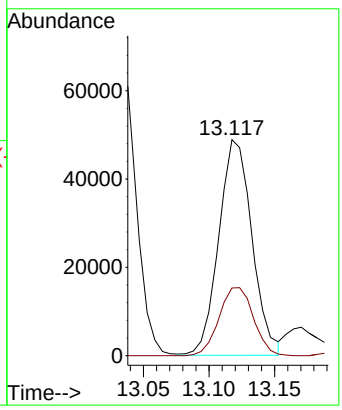
Tgt Ion: 91 Resp: 8623

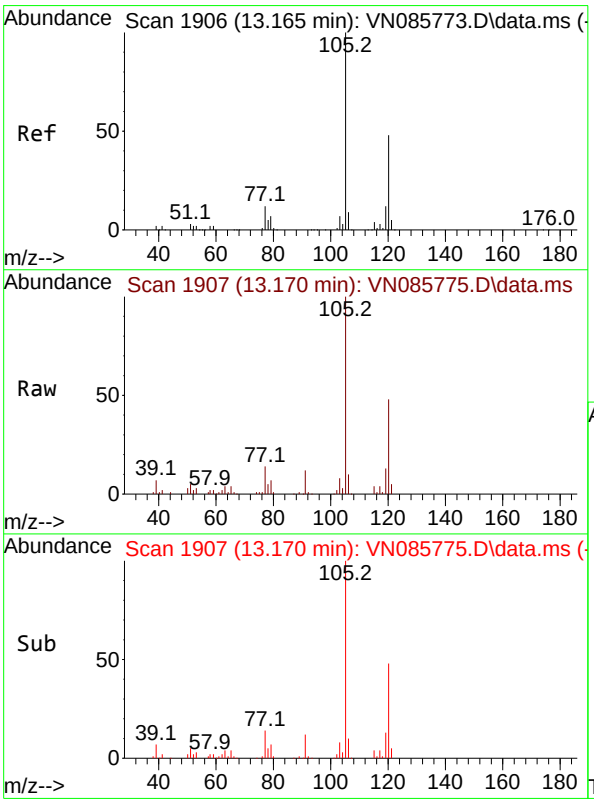
Ion	Ratio	Lower	Upper
91	100		
126	32.6	16.4	49.1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

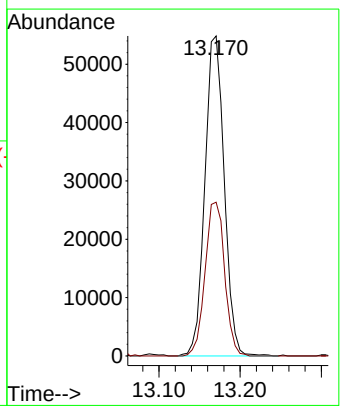


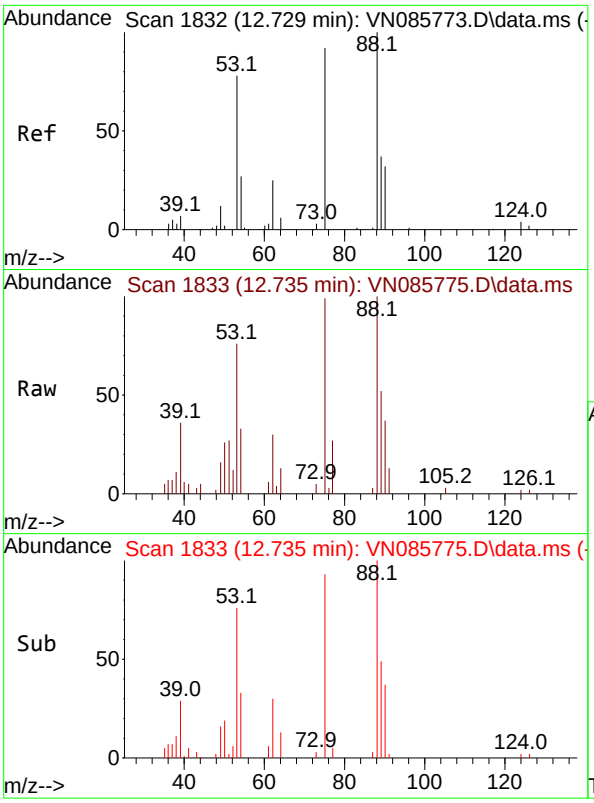


#80
1,3,5-Trimethylbenzene
Concen: 10.713 ug/l
RT: 13.170 min Scan# 1907
Delta R.T. 0.006 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion:105 Resp: 90718

Ion	Ratio	Lower	Upper
105	100		
120	48.6	24.3	72.9





#81
trans-1,4-Dichloro-2-butene
Concen: 10.302 ug/l
RT: 12.735 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

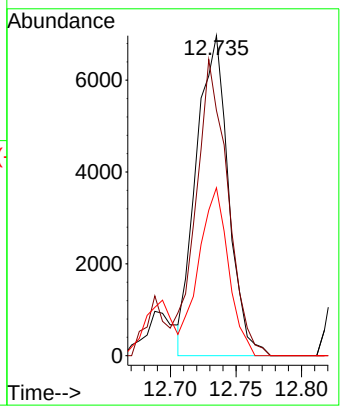
Tgt Ion: 75 Resp: 1190

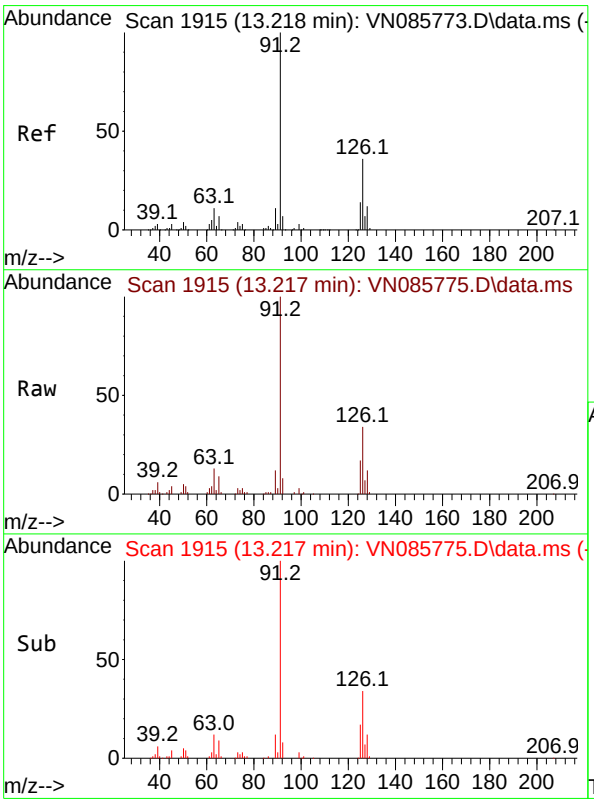
Ion	Ratio	Lower	Upper
75	100		
53	92.1	74.2	111.4
89	48.8	34.9	52.3

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

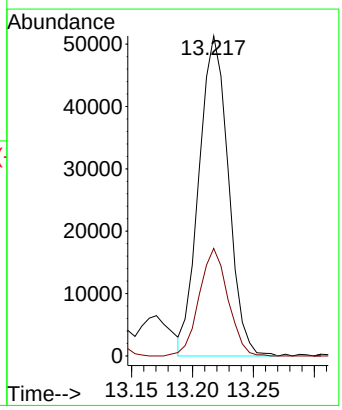


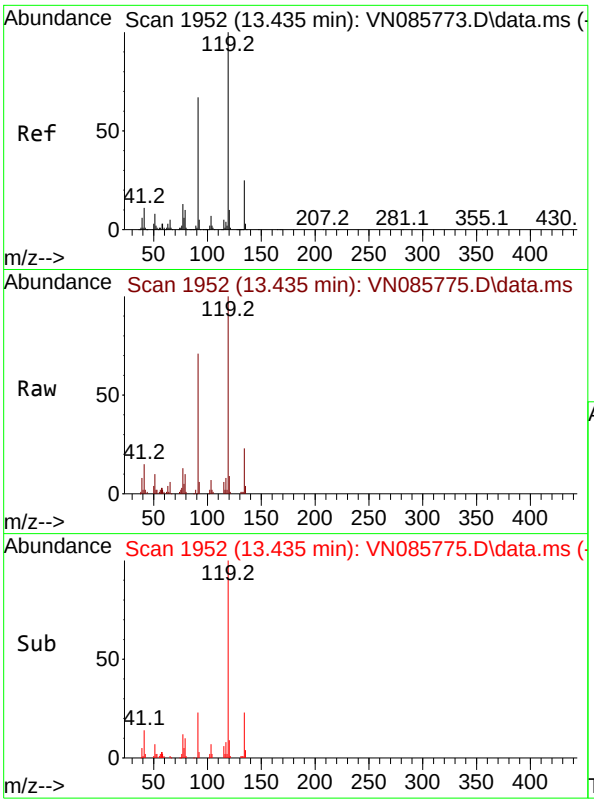


#82
4-Chlorotoluene
Concen: 10.919 ug/l
RT: 13.217 min Scan# 1915
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 91 Resp: 86106

Ion	Ratio	Lower	Upper
91	100		
126	32.8	16.4	49.4

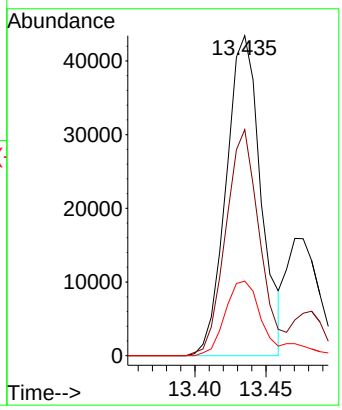




#83
tert-Butylbenzene
Concen: 10.364 ug/l
RT: 13.435 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion:119 Resp: 7380

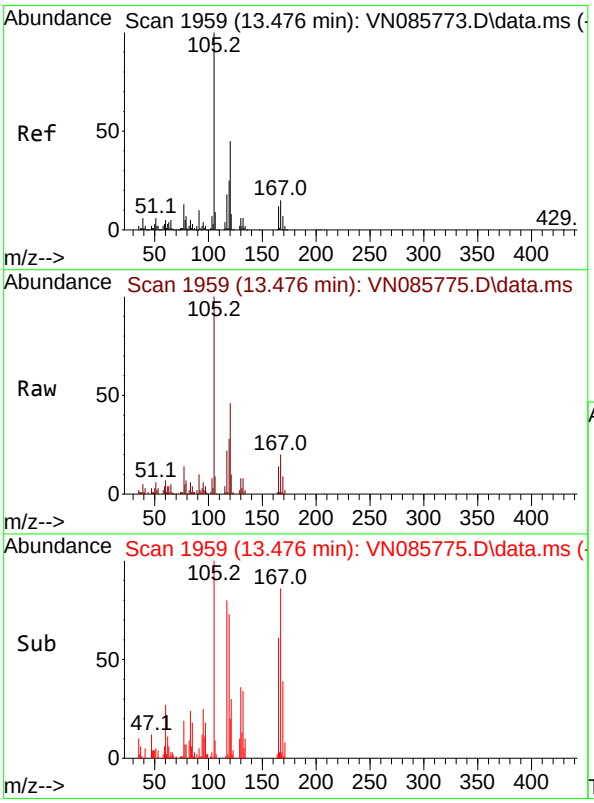
Ion	Ratio	Lower	Upper
119	100		
91	69.5	32.5	97.5
134	26.5	13.3	39.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

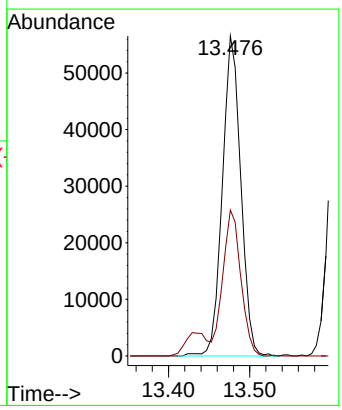
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

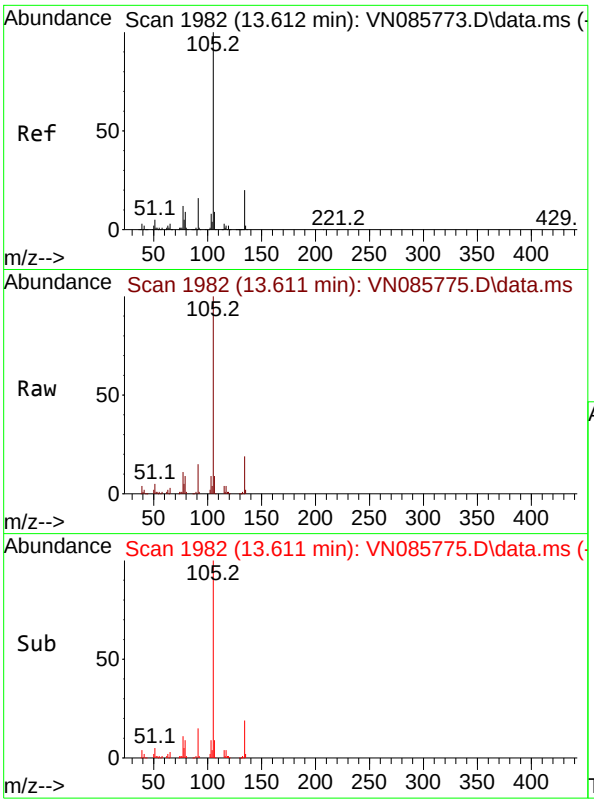


#84
1,2,4-Trimethylbenzene
Concen: 10.638 ug/l
RT: 13.476 min Scan# 1959
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion:105 Resp: 89125

Ion	Ratio	Lower	Upper
105	100		
120	44.6	22.4	67.3

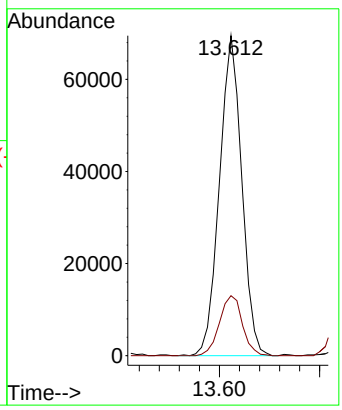




#85
sec-Butylbenzene
Concen: 10.660 ug/l
RT: 13.611 min Scan# 1
Delta R.T. -0.001 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion:105 Resp: 10725

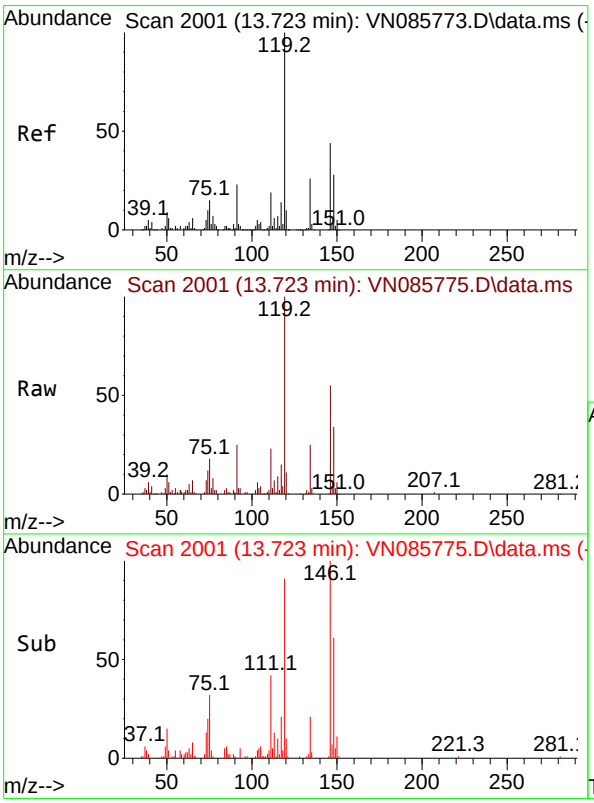
Ion	Ratio	Lower	Upper
105	100		
134	19.3	9.8	29.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

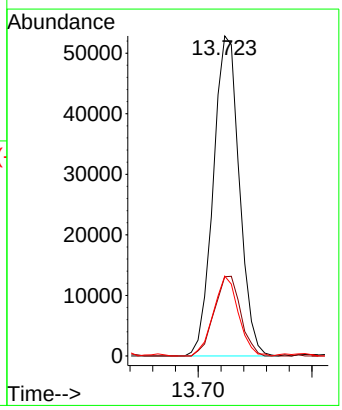
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

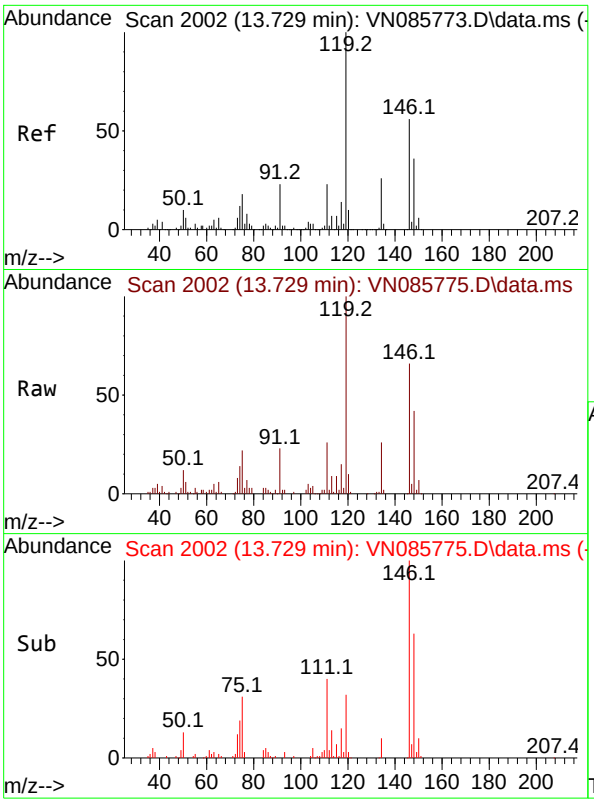


#86
p-Isopropyltoluene
Concen: 10.256 ug/l
RT: 13.723 min Scan# 2001
Delta R.T. 0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion:119 Resp: 84249

Ion	Ratio	Lower	Upper
119	100		
134	25.3	13.0	39.0
91	23.9	11.7	35.1

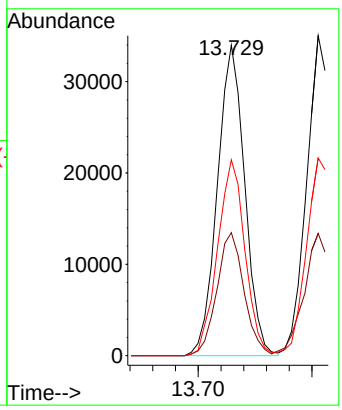




#87
1,3-Dichlorobenzene
Concen: 10.822 ug/l
RT: 13.729 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion:146 Resp: 5694

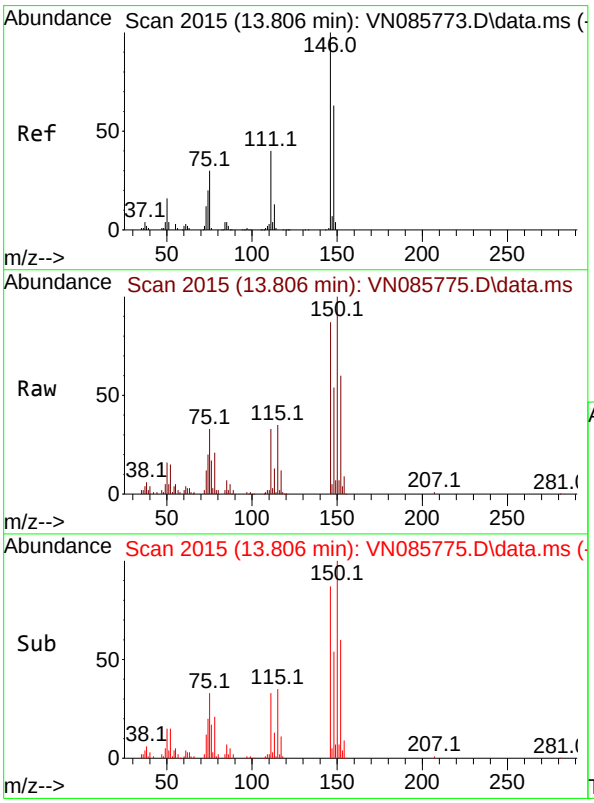
Ion	Ratio	Lower	Upper
146	100		
111	39.4	21.1	63.3
148	63.2	32.1	96.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

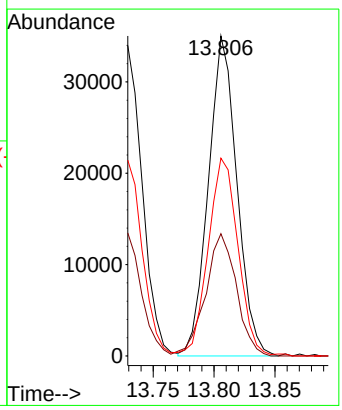
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

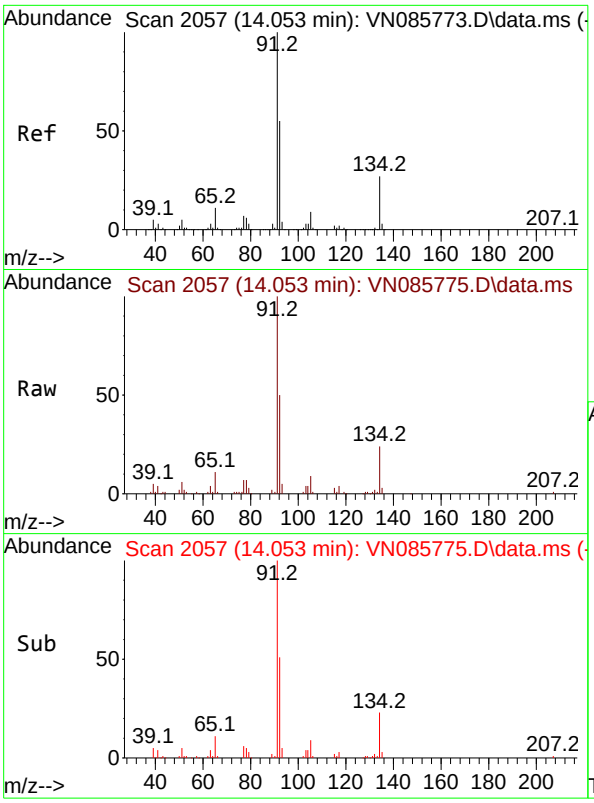


#88
1,4-Dichlorobenzene
Concen: 10.600 ug/l
RT: 13.806 min Scan# 2015
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion:146 Resp: 57166

Ion	Ratio	Lower	Upper
146	100		
111	41.3	20.4	61.3
148	65.0	31.8	95.4

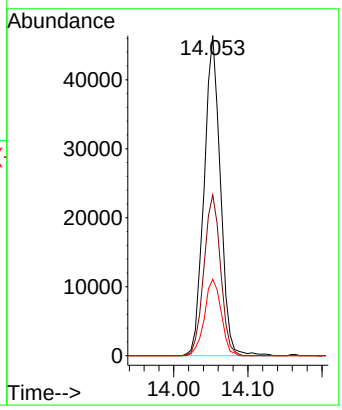




#89
n-Butylbenzene
Concen: 9.931 ug/l
RT: 14.053 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 91 Resp: 7094

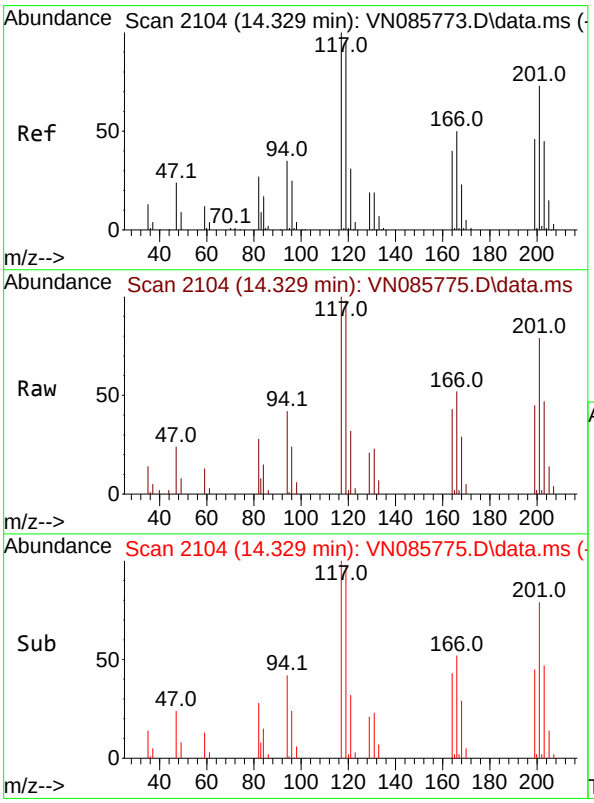
Ion	Ratio	Lower	Upper
91	100		
92	51.2	27.1	81.3
134	24.4	12.7	38.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

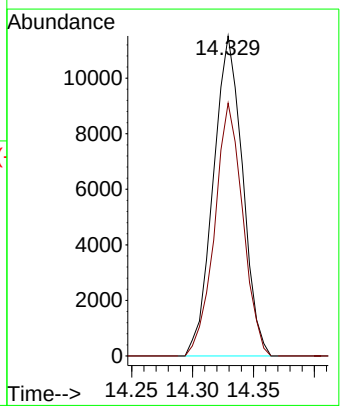
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

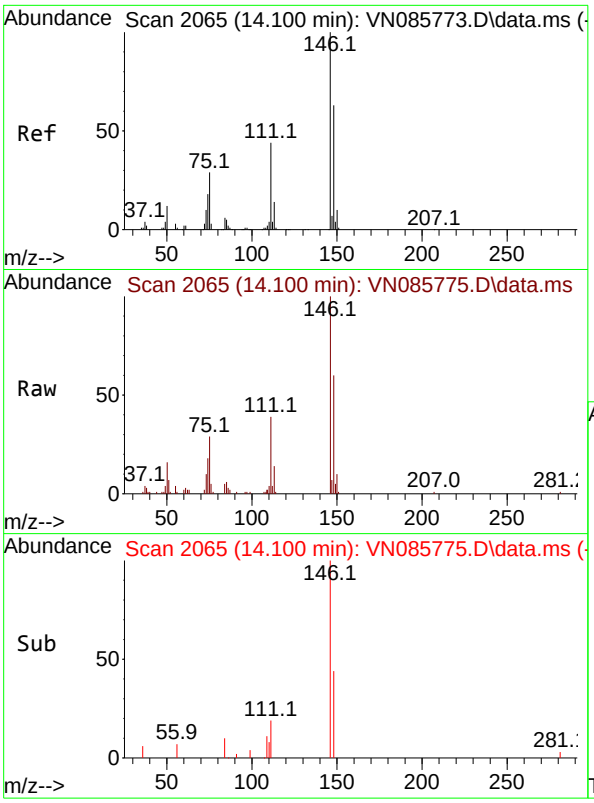


#90
Hexachloroethane
Concen: 10.119 ug/l
RT: 14.329 min Scan# 2104
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion:117 Resp: 19282

Ion	Ratio	Lower	Upper
117	100		
201	76.1	35.6	106.9

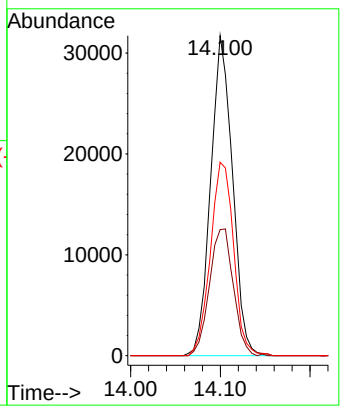




#91
1,2-Dichlorobenzene
Concen: 10.602 ug/l
RT: 14.100 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion:146 Resp: 5364

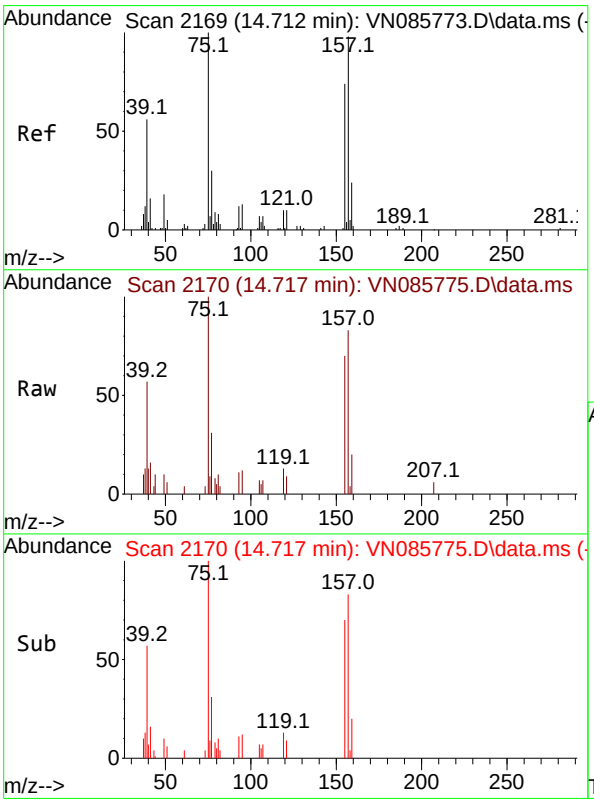
Ion	Ratio	Lower	Upper
146	100		
111	43.4	21.4	64.3
148	64.3	32.0	96.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations APPROVED

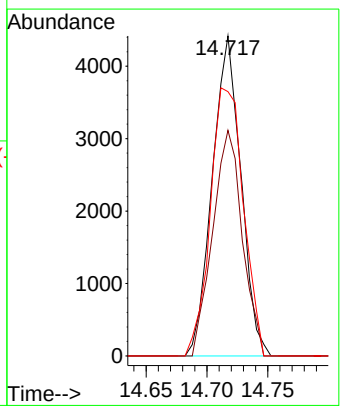
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

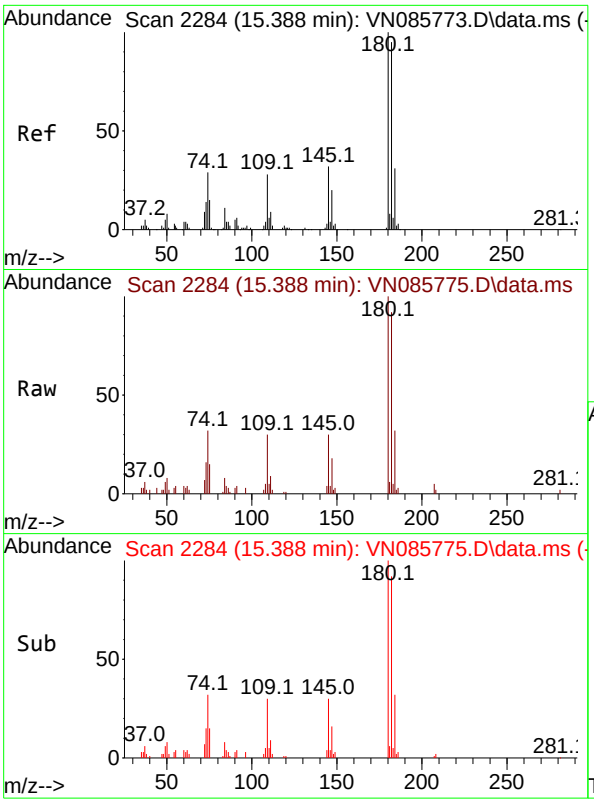


#92
1,2-Dibromo-3-Chloropropane
Concen: 10.996 ug/l
RT: 14.717 min Scan# 2170
Delta R.T. 0.006 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion: 75 Resp: 7223

Ion	Ratio	Lower	Upper
75	100		
155	73.0	39.9	119.6
157	96.9	49.9	149.7





#93
1,2,4-Trichlorobenzene
Concen: 10.406 ug/l
RT: 15.388 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

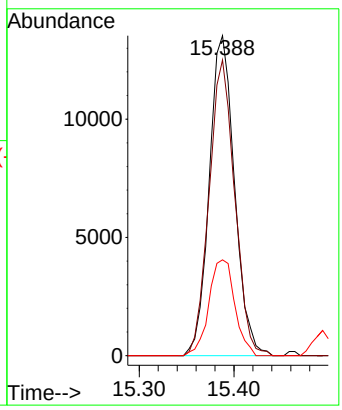
Tgt Ion:180 Resp: 2509

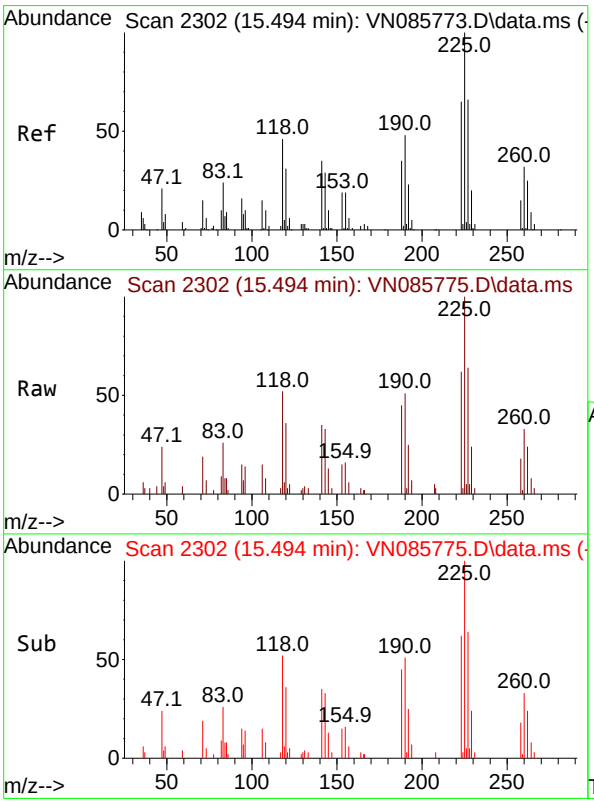
Ion	Ratio	Lower	Upper
180	100		
182	93.4	47.3	141.9
145	30.7	16.2	48.5

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

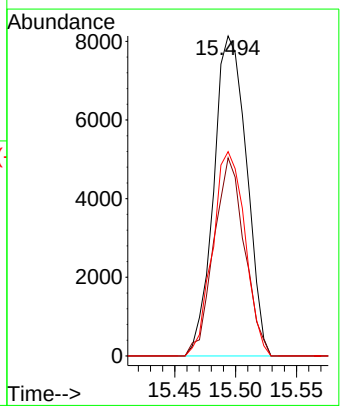


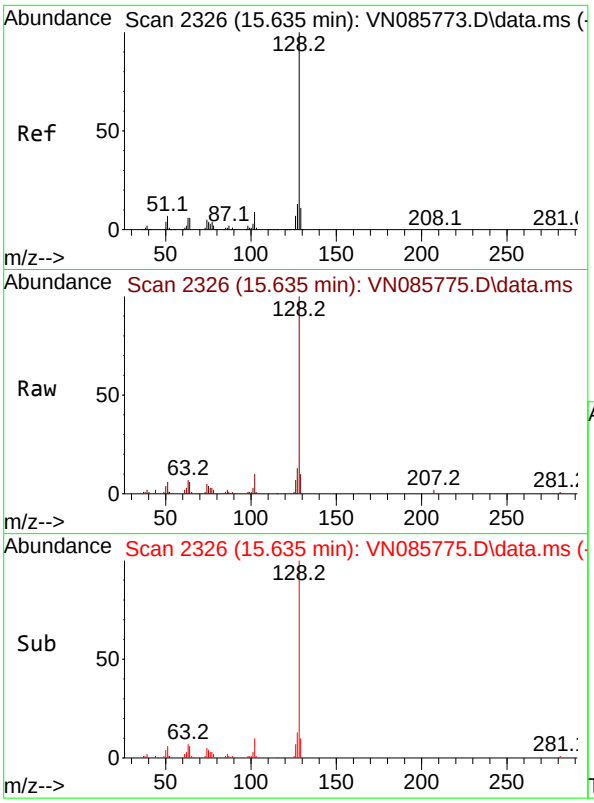


#94
Hexachlorobutadiene
Concen: 10.426 ug/l
RT: 15.494 min Scan# 2302
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion:225 Resp: 15278

Ion	Ratio	Lower	Upper
225	100		
223	58.1	31.9	95.5
227	62.8	32.2	96.6

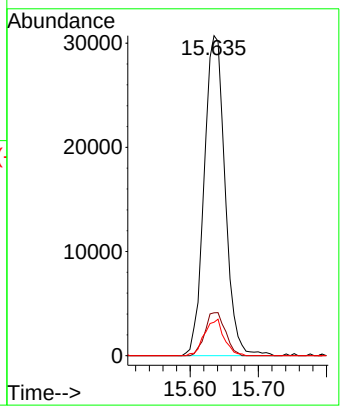




#95
Naphthalene
Concen: 9.902 ug/l
RT: 15.635 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion:128 Resp: 6554

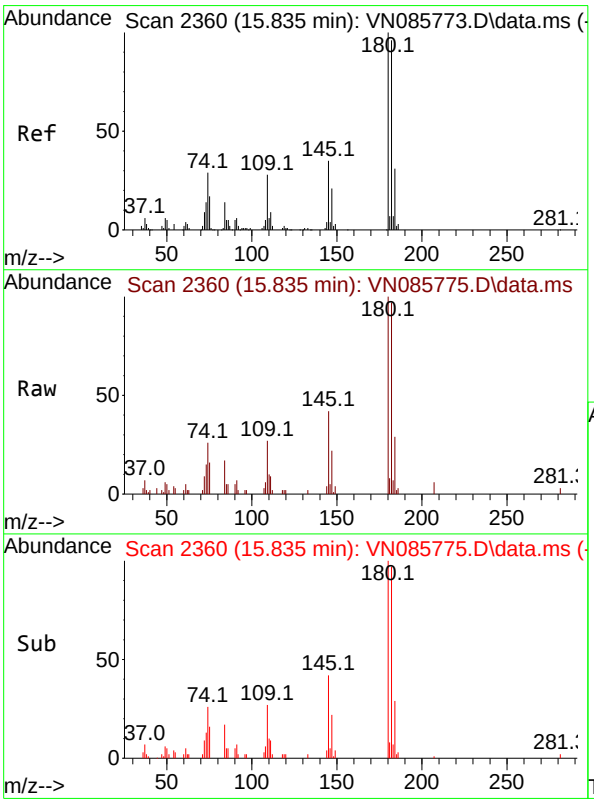
Ion	Ratio	Lower	Upper
128	100		
127	13.2	10.2	15.2
129	10.7	8.7	13.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC010

Manual Integrations
APPROVED

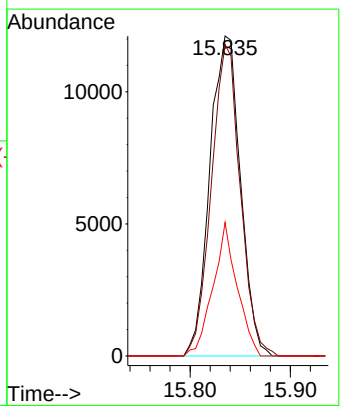
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025



#96
1,2,3-Trichlorobenzene
Concen: 10.581 ug/l
RT: 15.835 min Scan# 2360
Delta R.T. -0.000 min
Lab File: VN085775.D
Acq: 18 Feb 2025 12:20

Tgt Ion:180 Resp: 25612

Ion	Ratio	Lower	Upper
180	100		
182	92.2	47.3	141.8
145	33.0	16.9	50.6



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN021825\
Data File : VN085776.D
Acq On : 18 Feb 2025 12:43
Operator : JC\MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

Quant Time: Feb 19 03:18:16 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:03:15 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	8.218	168	272461	50.000	ug/l		0.00
34) 1,4-Difluorobenzene	9.094	114	471970	50.000	ug/l		0.00
63) Chlorobenzene-d5	11.859	117	396883	50.000	ug/l		0.00
72) 1,4-Dichlorobenzene-d4	13.788	152	179241	50.000	ug/l		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	8.571	65	20906	5.918	ug/l		0.00
Spiked Amount 50.000	Range 74 - 125		Recovery =	11.840%#			
35) Dibromofluoromethane	8.165	113	16866	5.461	ug/l		0.00
Spiked Amount 50.000	Range 75 - 124		Recovery =	10.920%#			
50) Toluene-d8	10.559	98	57180	5.089	ug/l		0.00
Spiked Amount 50.000	Range 86 - 113		Recovery =	10.180%#			
62) 4-Bromofluorobenzene	12.841	95	17484	4.723	ug/l		0.00
Spiked Amount 50.000	Range 77 - 121		Recovery =	9.440%#			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	2.124	85	17717	4.781	ug/l		97
3) Chloromethane	2.359	50	18038	4.850	ug/l		98
4) Vinyl Chloride	2.512	62	19849	5.041	ug/l		93
5) Bromomethane	2.953	94	13523	5.371	ug/l		97
6) Chloroethane	3.118	64	12801	4.908	ug/l		93
7) Trichlorofluoromethane	3.500	101	29008	5.088	ug/l		92
8) Diethyl Ether	3.959	74	9618	5.214	ug/l		96
9) 1,1,2-Trichlorotrifluo...	4.371	101	17299	5.250	ug/l		98
10) Methyl Iodide	4.595	142	19721	4.855	ug/l	#	88
11) Tert butyl alcohol	5.518	59	11272	25.945	ug/l	#	94
12) 1,1-Dichloroethene	4.342	96	15564	5.209	ug/l		96
13) Acrolein	4.177	56	17171	26.652	ug/l		95
14) Allyl chloride	5.012	41	19720	5.027	ug/l		94
15) Acrylonitrile	5.718	53	35404	25.067	ug/l		98
16) Acetone	4.424	43	28402	25.411	ug/l		100
17) Carbon Disulfide	4.706	76	43711	4.936	ug/l		96
18) Methyl Acetate	5.018	43	18793	4.888	ug/l		98
19) Methyl tert-butyl Ether	5.783	73	42491	4.786	ug/l		98
20) Methylene Chloride	5.271	84	18139	5.046	ug/l	#	88
21) trans-1,2-Dichloroethene	5.783	96	16330	5.076	ug/l		93
22) Diisopropyl ether	6.671	45	42703	4.817	ug/l		95
23) Vinyl Acetate	6.594	43	140821m	23.273	ug/l		
24) 1,1-Dichloroethane	6.565	63	30658	5.088	ug/l	#	93
25) 2-Butanone	7.477	43	40795	24.809	ug/l		95
26) 2,2-Dichloropropane	7.488	77	26889	5.018	ug/l		99
27) cis-1,2-Dichloroethene	7.483	96	18673	5.006	ug/l		98
28) Bromochloromethane	7.806	49	15543	6.276	ug/l		91
29) Tetrahydrofuran	7.841	42	24907	23.457	ug/l		98
30) Chloroform	7.959	83	31702	5.034	ug/l		100
31) Cyclohexane	8.247	56	28784	5.705	ug/l		91
32) 1,1,1-Trichloroethane	8.165	97	28815	5.145	ug/l	#	50
36) 1,1-Dichloropropene	8.365	75	20593	4.711	ug/l		98
37) Ethyl Acetate	7.553	43	17768	4.940	ug/l	#	85
38) Carbon Tetrachloride	8.353	117	25734	4.955	ug/l		95
39) Methylcyclohexane	9.594	83	19113	4.451	ug/l		97
40) Benzene	8.600	78	67051	4.786	ug/l		97

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN021825\
Data File : VN085776.D
Acq On : 18 Feb 2025 12:43
Operator : JC\MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 19 03:18:16 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:03:15 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.777	41	9296	4.835	ug/l		98
42) 1,2-Dichloroethane	8.665	62	21886	4.796	ug/l		99
43) Isopropyl Acetate	8.682	43	35032	5.059	ug/l		92
44) Trichloroethene	9.347	130	16513	4.801	ug/l		96
45) 1,2-Dichloropropane	9.618	63	16228	4.799	ug/l		97
46) Dibromomethane	9.706	93	11544	4.840	ug/l		98
47) Bromodichloromethane	9.888	83	25152	4.929	ug/l		96
48) Methyl methacrylate	9.677	41	12200	4.567	ug/l		97
49) 1,4-Dioxane	9.688	88	4669	91.913	ug/l	#	89
51) 4-Methyl-2-Pentanone	10.441	43	80666	23.260	ug/l		96
52) Toluene	10.629	92	38701	4.713	ug/l		100
53) t-1,3-Dichloropropene	10.829	75	22215	4.708	ug/l		99
54) cis-1,3-Dichloropropene	10.312	75	24235	4.684	ug/l	#	91
55) 1,1,2-Trichloroethane	11.012	97	16352	5.008	ug/l		94
56) Ethyl methacrylate	10.871	69	18032	4.704	ug/l		99
57) 1,3-Dichloropropane	11.159	76	26117	4.792	ug/l		100
58) 2-Chloroethyl Vinyl ether	10.153	63	41567	14.159	ug/l		97
59) 2-Hexanone	11.188	43	53498	22.424	ug/l		94
60) Dibromochloromethane	11.353	129	18137	4.771	ug/l		98
61) 1,2-Dibromoethane	11.465	107	15097	4.894	ug/l		99
64) Tetrachloroethene	11.100	164	15504	5.043	ug/l		92
65) Chlorobenzene	11.888	112	45215	4.973	ug/l		95
66) 1,1,1,2-Tetrachloroethane	11.959	131	15949	4.880	ug/l		98
67) Ethyl Benzene	11.959	91	66079	4.640	ug/l		99
68) m/p-Xylenes	12.065	106	48412	8.949	ug/l		99
69) o-Xylene	12.394	106	23196	4.512	ug/l		100
70) Styrene	12.406	104	35138	4.557	ug/l		97
71) Bromoform	12.576	173	11934	4.915	ug/l	#	94
73) Isopropylbenzene	12.694	105	54982	4.477	ug/l		99
74) N-amyl acetate	12.488	43	20017	4.623	ug/l		96
75) 1,1,2,2-Tetrachloroethane	12.929	83	21823	5.164	ug/l		98
76) 1,2,3-Trichloropropane	12.988	75	20813m	5.285	ug/l		
77) Bromobenzene	12.976	156	16215	4.888	ug/l		95
78) n-propylbenzene	13.029	91	62073	4.414	ug/l		99
79) 2-Chlorotoluene	13.117	91	43457	4.625	ug/l		99
80) 1,3,5-Trimethylbenzene	13.170	105	43342	4.333	ug/l		97
81) trans-1,4-Dichloro-2-b...	12.729	75	6070	4.448	ug/l		90
82) 4-Chlorotoluene	13.217	91	43684	4.690	ug/l		100
83) tert-Butylbenzene	13.435	119	37975	4.515	ug/l		96
84) 1,2,4-Trimethylbenzene	13.476	105	42792	4.324	ug/l		97
85) sec-Butylbenzene	13.612	105	52659	4.431	ug/l		98
86) p-Isopropyltoluene	13.723	119	41010	4.632	ug/l		97
87) 1,3-Dichlorobenzene	13.729	146	30417	4.894	ug/l		99
88) 1,4-Dichlorobenzene	13.806	146	31847	4.999	ug/l		96
89) n-Butylbenzene	14.053	91	36427	4.317	ug/l		98
90) Hexachloroethane	14.329	117	11276	5.010	ug/l		99
91) 1,2-Dichlorobenzene	14.100	146	29424	4.923	ug/l		98
92) 1,2-Dibromo-3-Chloropr...	14.711	75	3987	5.138	ug/l		89
93) 1,2,4-Trichlorobenzene	15.388	180	13040	4.578	ug/l		96
94) Hexachlorobutadiene	15.494	225	8623	4.982	ug/l		98
95) Naphthalene	15.635	128	33300	4.259	ug/l		100
96) 1,2,3-Trichlorobenzene	15.835	180	13188	4.612	ug/l		98

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN021825\
Data File : VN085776.D
Acq On : 18 Feb 2025 12:43
Operator : JC\MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

Quant Time: Feb 19 03:18:16 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:03:15 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

ICAL Form

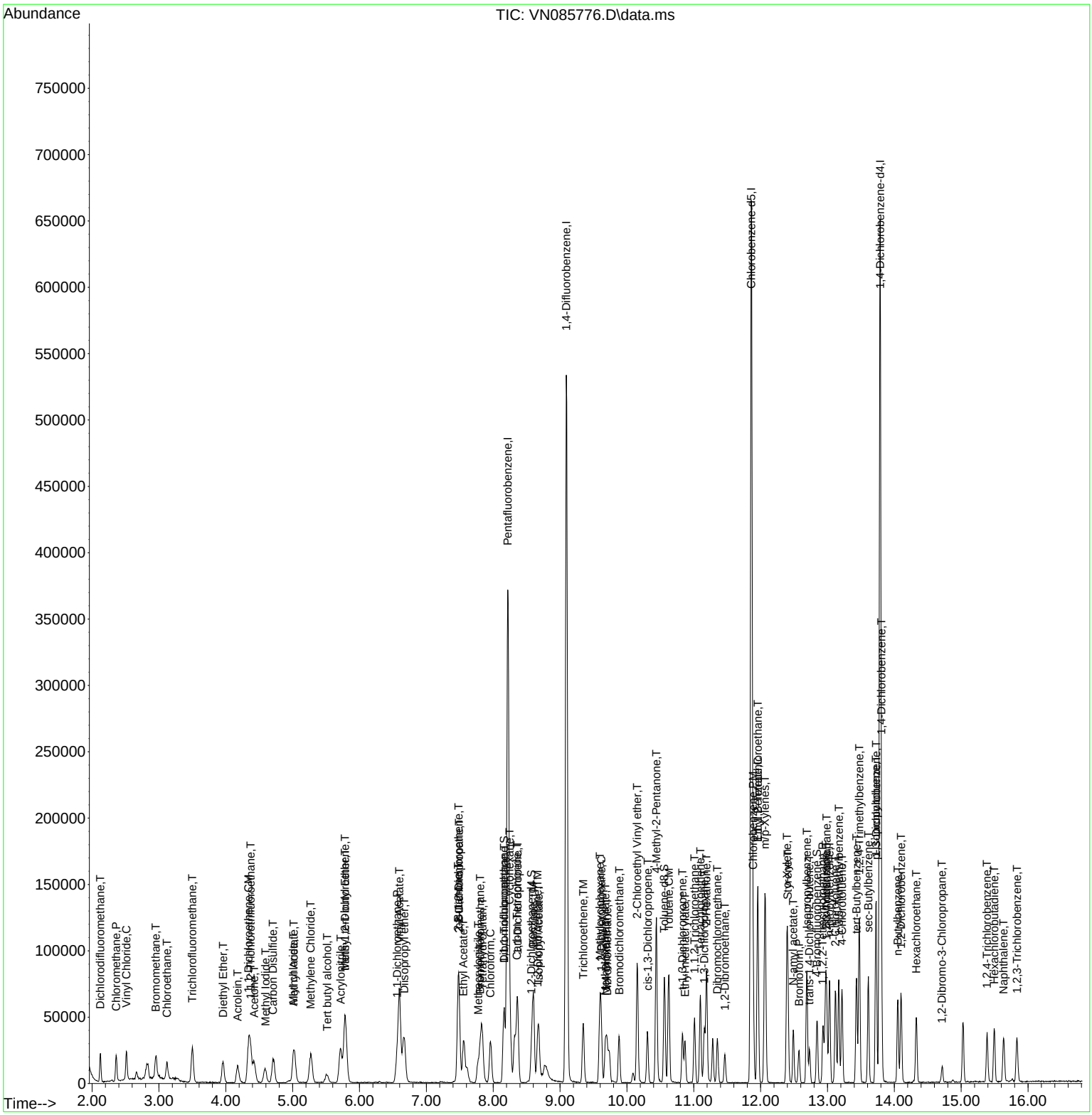
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN021825\
Data File : VN085776.D
Acq On : 18 Feb 2025 12:43
Operator : JC\MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

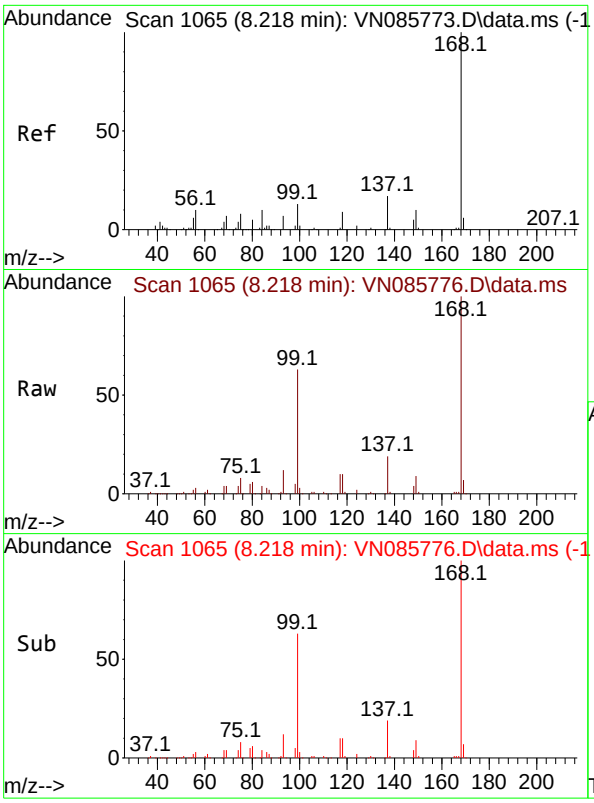
Quant Time: Feb 19 03:18:16 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:03:15 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

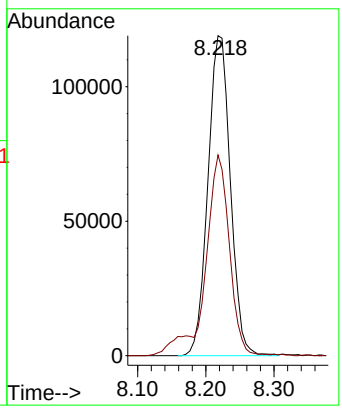




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.218 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion:168 Resp: 27246

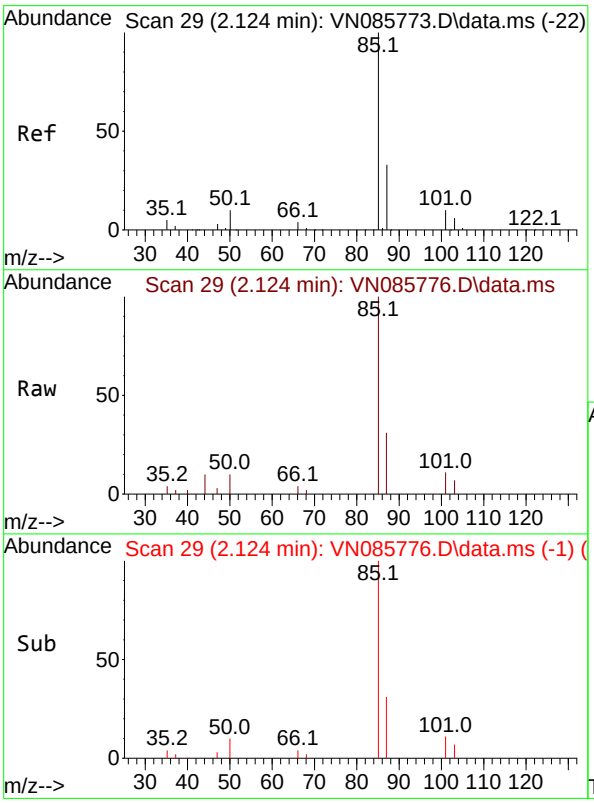
Ion	Ratio	Lower	Upper
168	100		
99	62.5	47.9	71.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

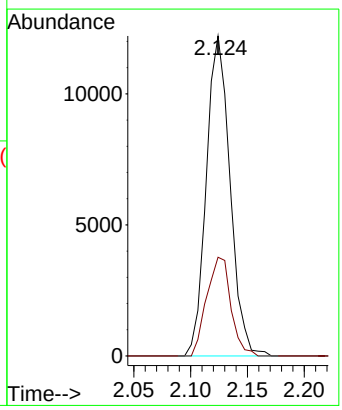
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

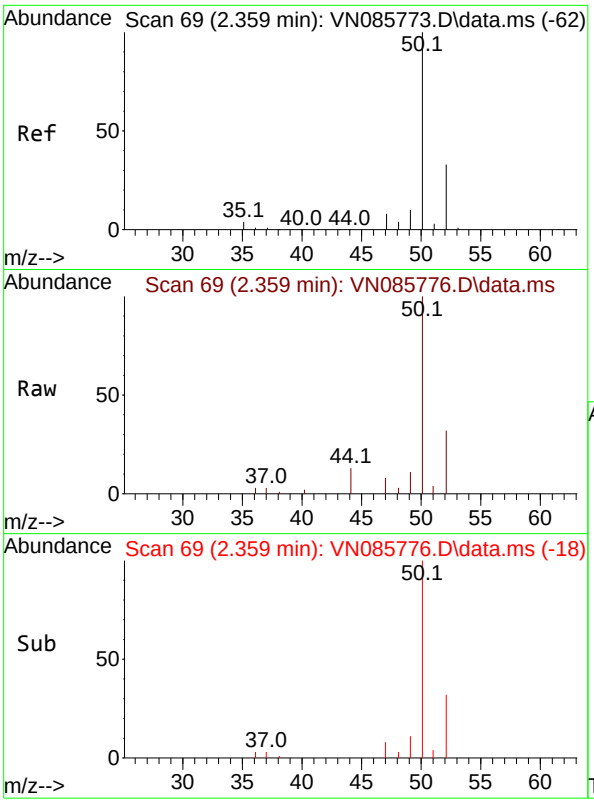


#2
Dichlorodifluoromethane
Concen: 4.781 ug/l
RT: 2.124 min Scan# 29
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 85 Resp: 17717

Ion	Ratio	Lower	Upper
85	100		
87	30.9	16.4	49.2





#3
Chloromethane
Concen: 4.850 ug/l
RT: 2.359 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

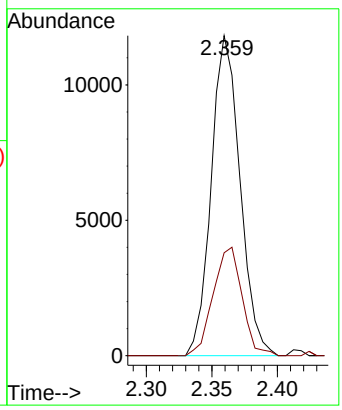
Tgt Ion: 50 Resp: 1803

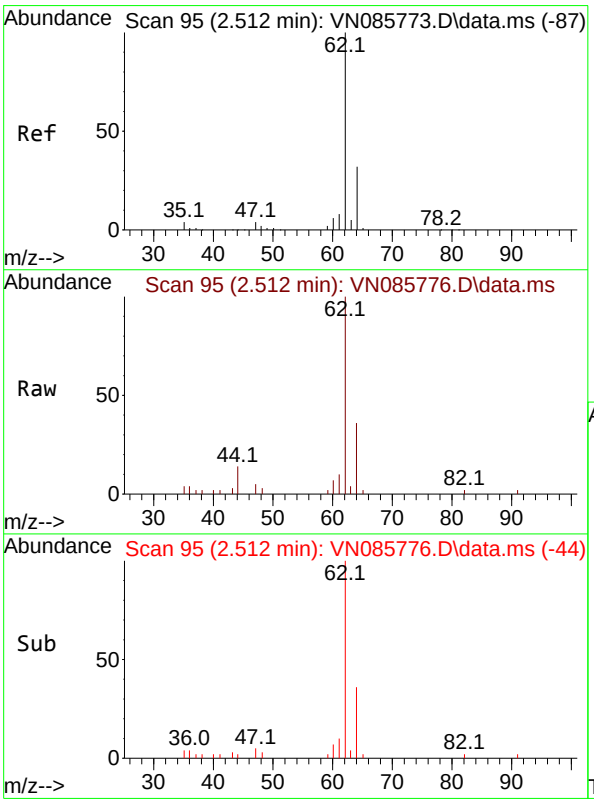
Ion	Ratio	Lower	Upper
50	100		
52	32.1	26.7	40.1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

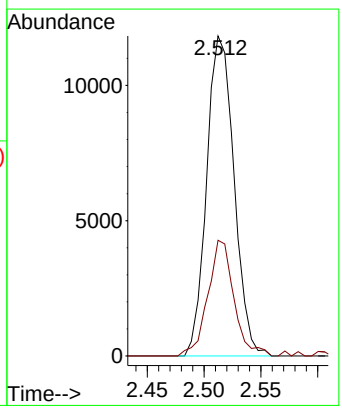


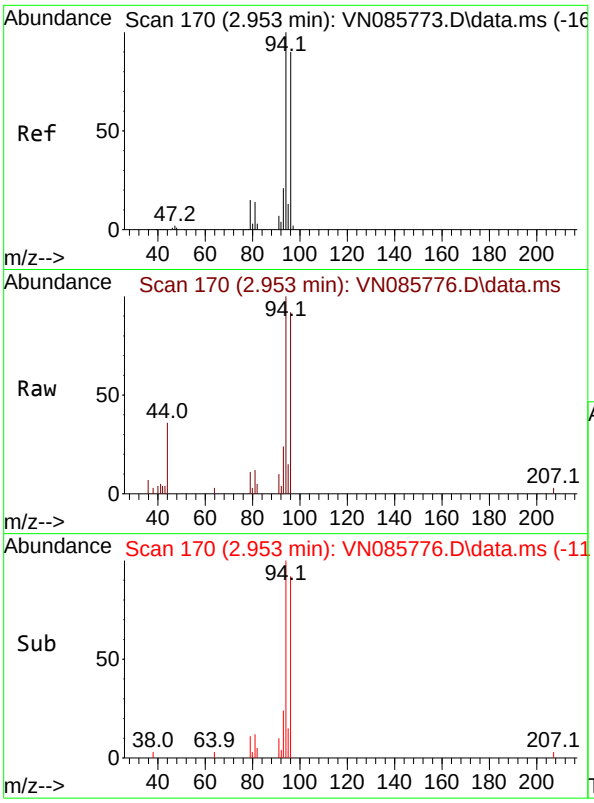


#4
Vinyl Chloride
Concen: 5.041 ug/l
RT: 2.512 min Scan# 95
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 62 Resp: 19849

Ion	Ratio	Lower	Upper
62	100		
64	36.2	25.9	38.9





#5
Bromomethane
Concen: 5.371 ug/l
RT: 2.953 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

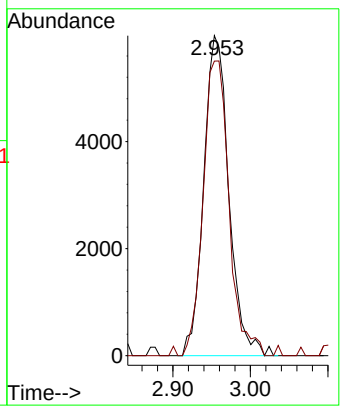
Tgt Ion: 94 Resp: 1352

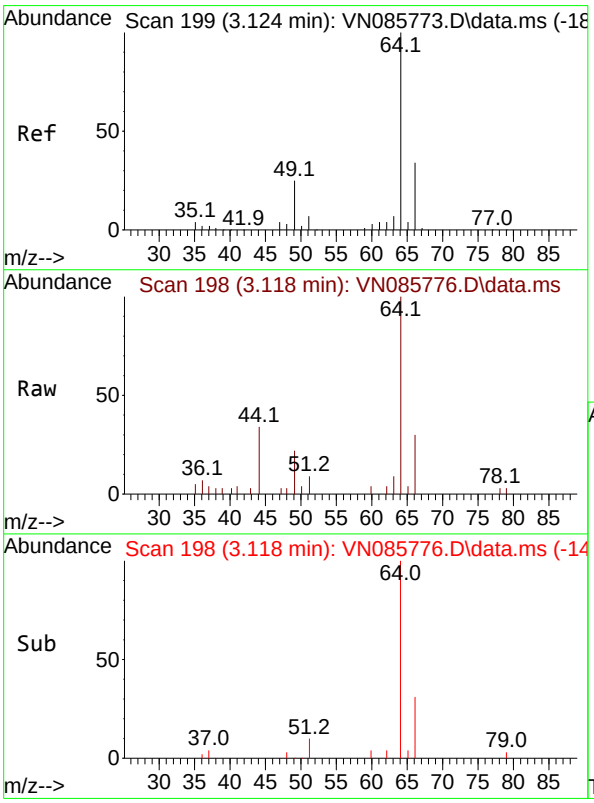
Ion	Ratio	Lower	Upper
94	100		
96	92.1	71.7	107.5

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

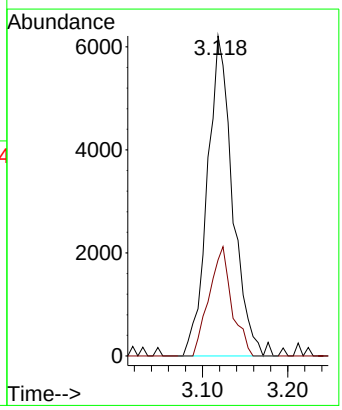


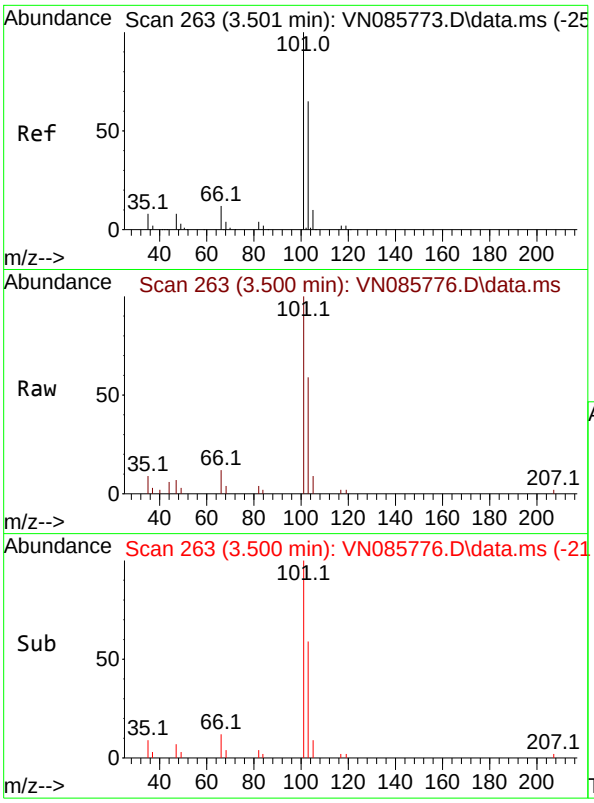


#6
Chloroethane
Concen: 4.908 ug/l
RT: 3.118 min Scan# 198
Delta R.T. -0.006 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 64 Resp: 12801

Ion	Ratio	Lower	Upper
64	100		
66	30.0	27.0	40.6

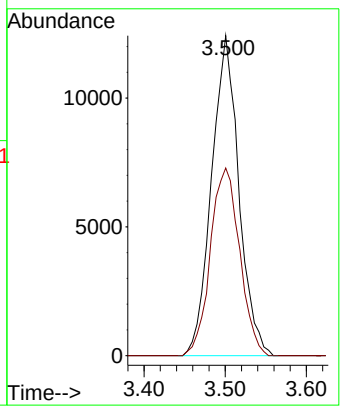




#7
Trichlorofluoromethane
Concen: 5.088 ug/l
RT: 3.500 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion:101 Resp: 2900

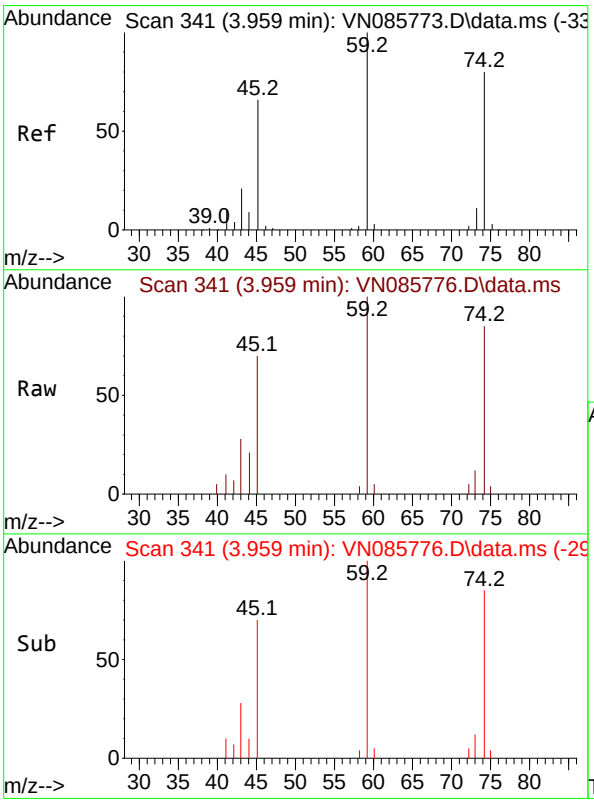
Ion	Ratio	Lower	Upper
101	100		
103	58.7	52.2	78.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

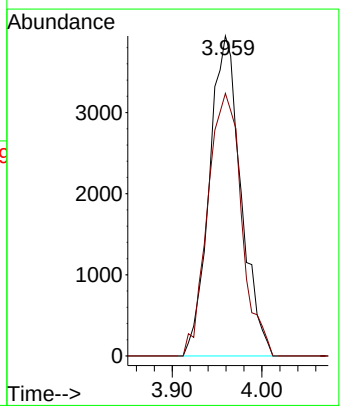
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

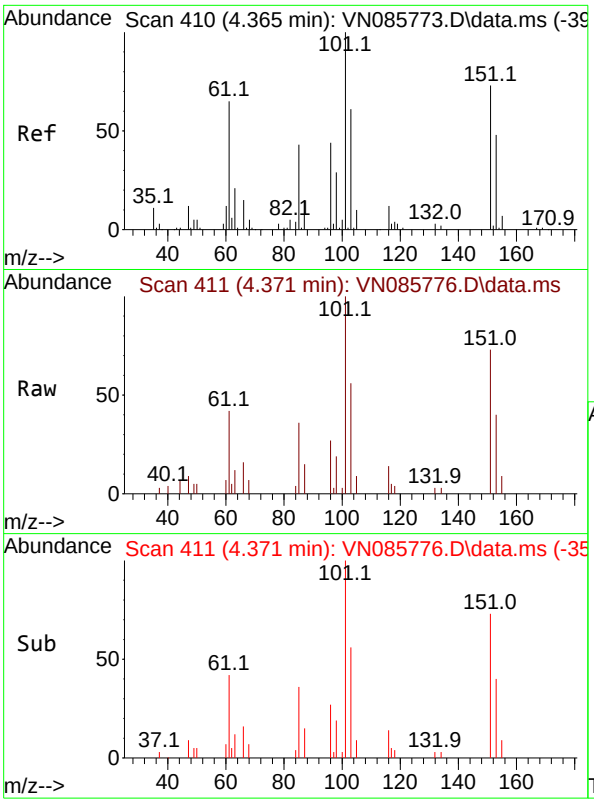


#8
Diethyl Ether
Concen: 5.214 ug/l
RT: 3.959 min Scan# 341
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 74 Resp: 9618

Ion	Ratio	Lower	Upper
74	100		
45	88.3	42.5	127.6





#9
1,1,2-Trichlorotrifluoroethane
Concen: 5.250 ug/l
RT: 4.371 min Scan# 4
Delta R.T. 0.006 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

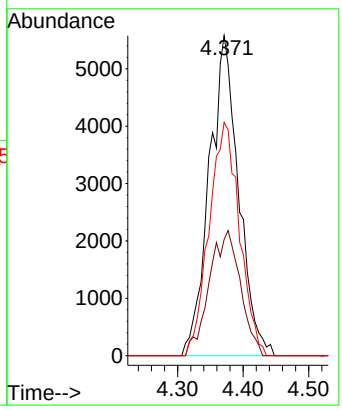
Tgt Ion:101 Resp: 1729

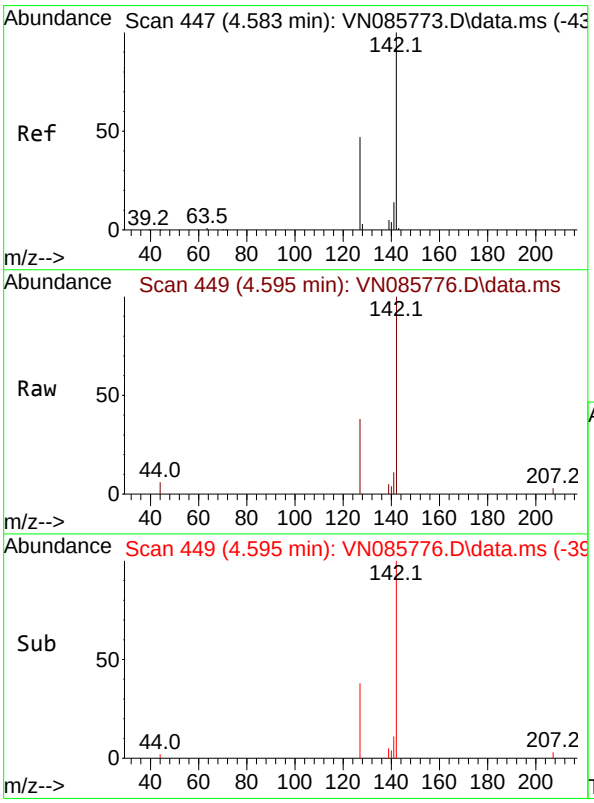
Ion	Ratio	Lower	Upper
101	100		
85	41.7	35.7	53.5
151	75.6	61.4	92.2

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

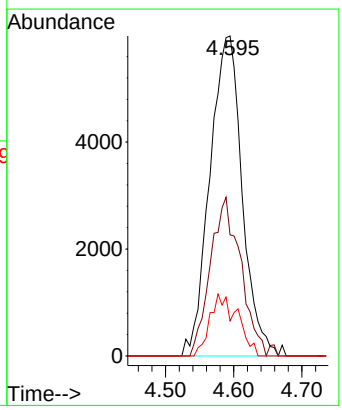


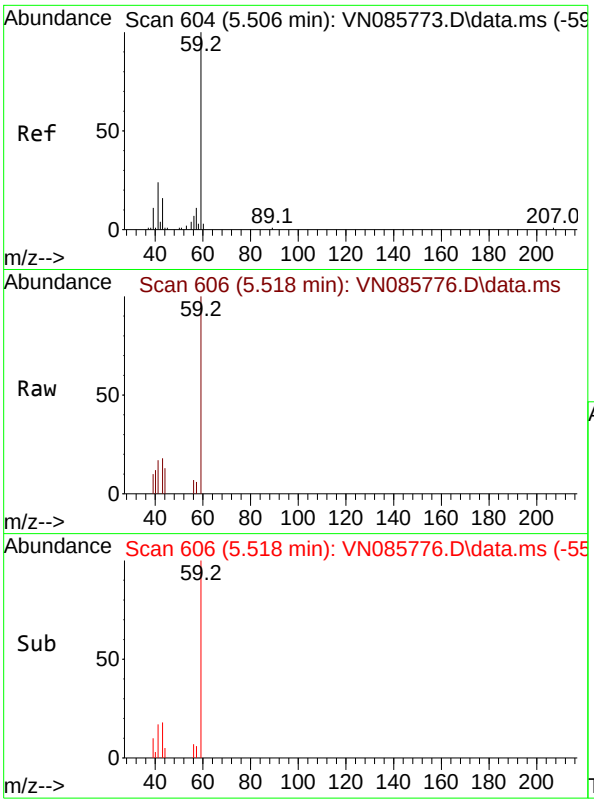


#10
Methyl Iodide
Concen: 4.855 ug/l
RT: 4.595 min Scan# 449
Delta R.T. 0.012 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion:142 Resp: 19721

Ion	Ratio	Lower	Upper
142	100		
127	37.8	37.6	56.4
141	10.9	11.4	17.2#

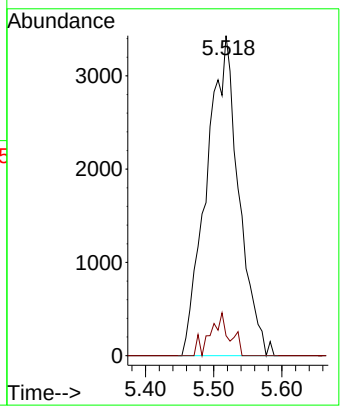




#11
Tert butyl alcohol
Concen: 25.945 ug/l
RT: 5.518 min Scan# 6
Delta R.T. 0.012 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 59 Resp: 1127

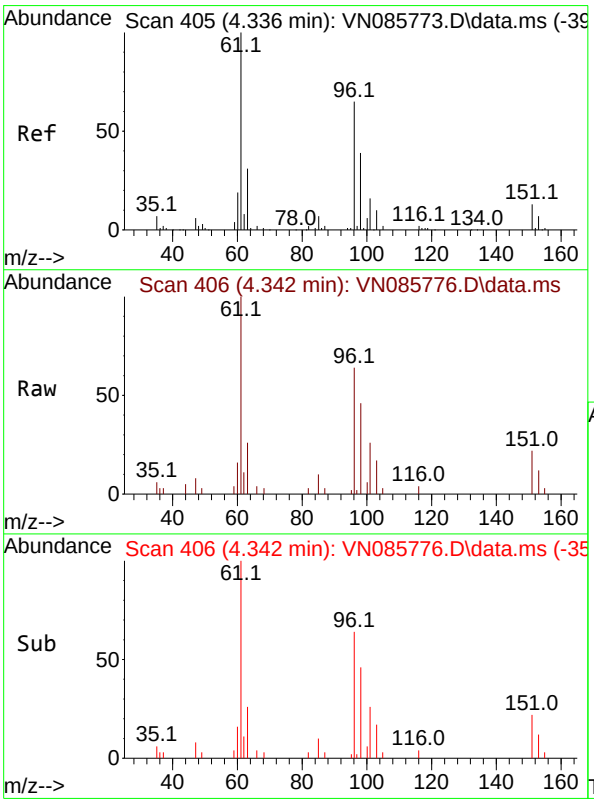
Ion	Ratio	Lower	Upper
59	100		
57	8.0	8.3	12.5#



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

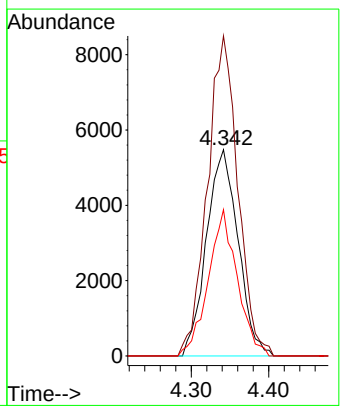
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

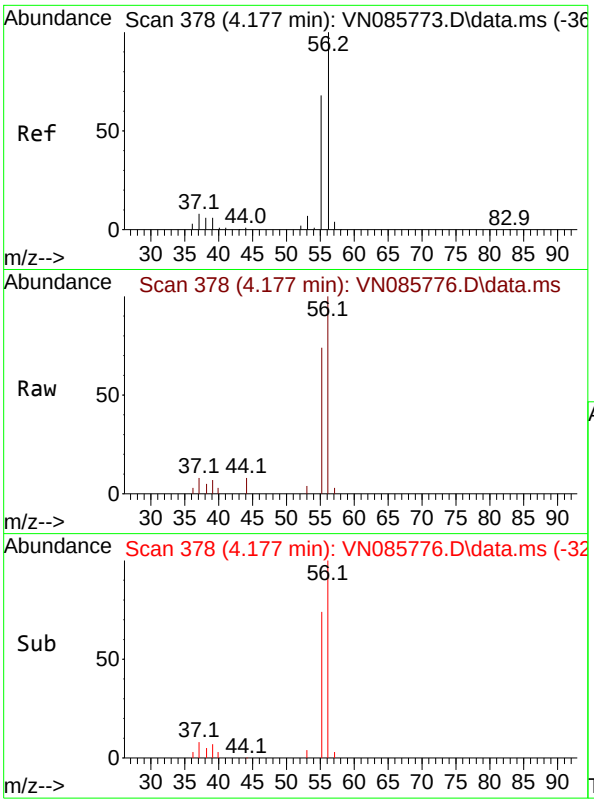


#12
1,1-Dichloroethene
Concen: 5.209 ug/l
RT: 4.342 min Scan# 406
Delta R.T. 0.006 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 96 Resp: 15564

Ion	Ratio	Lower	Upper
96	100		
61	155.1	123.3	184.9
98	70.9	48.6	72.8

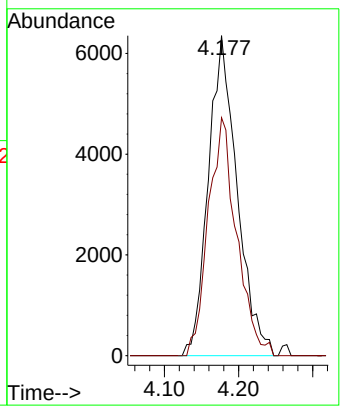




#13
Acrolein
Concen: 26.652 ug/l
RT: 4.177 min Scan# 3
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 56 Resp: 1717

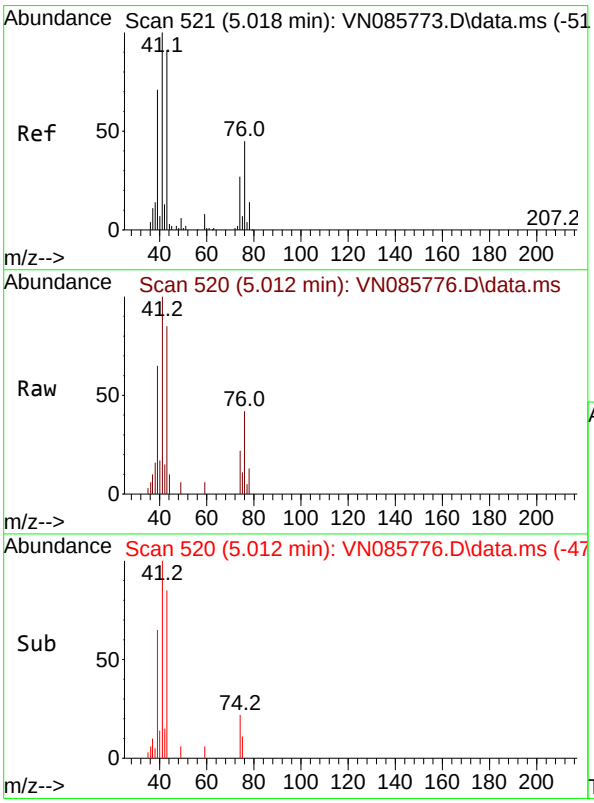
Ion	Ratio	Lower	Upper
56	100		
55	73.1	55.3	82.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

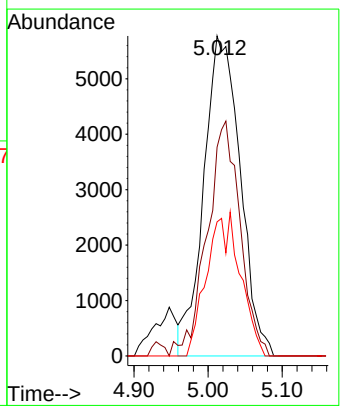
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

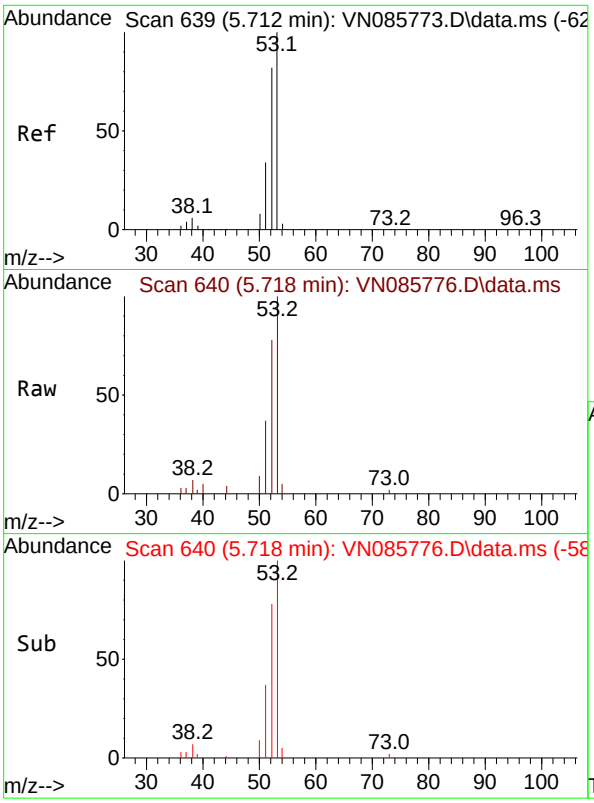


#14
Allyl chloride
Concen: 5.027 ug/l
RT: 5.012 min Scan# 520
Delta R.T. -0.006 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 41 Resp: 19720

Ion	Ratio	Lower	Upper
41	100		
39	66.6	57.4	86.2
76	41.3	36.2	54.2

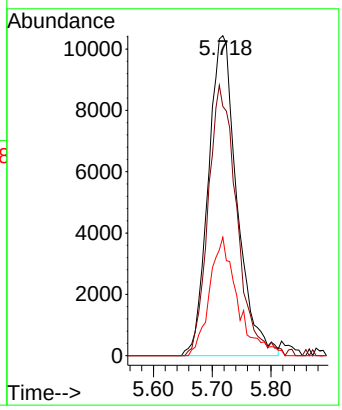




#15
Acrylonitrile
Concen: 25.067 ug/l
RT: 5.718 min Scan# 64
Delta R.T. 0.006 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 53 Resp: 3540

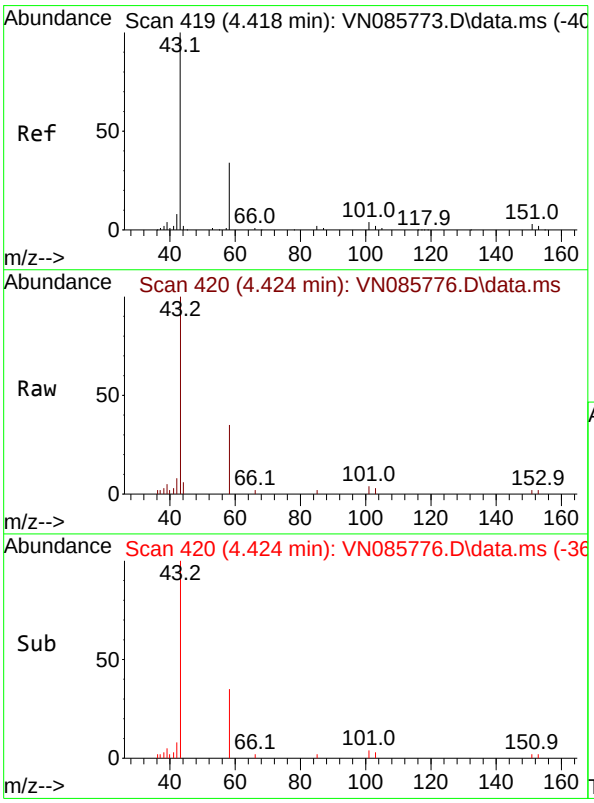
Ion	Ratio	Lower	Upper
53	100		
52	83.9	65.8	98.6
51	36.2	28.6	42.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

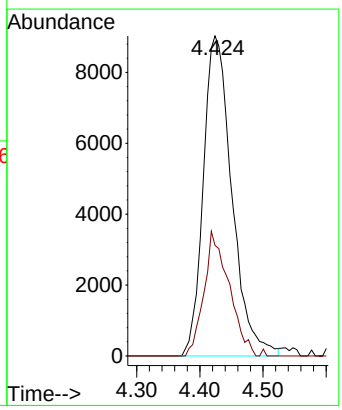
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

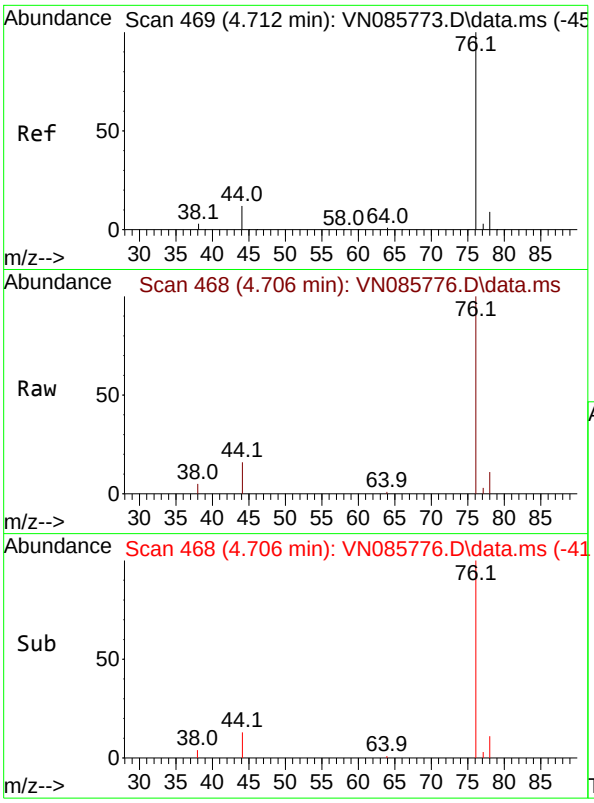


#16
Acetone
Concen: 25.411 ug/l
RT: 4.424 min Scan# 420
Delta R.T. 0.006 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 43 Resp: 28402

Ion	Ratio	Lower	Upper
43	100		
58	34.5	27.5	41.3

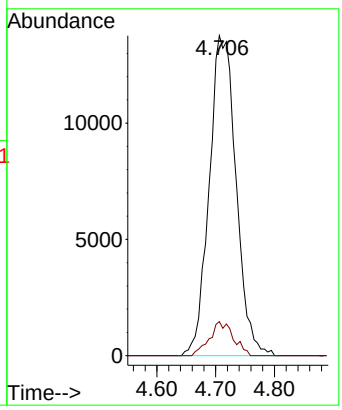




#17
Carbon Disulfide
Concen: 4.936 ug/l
RT: 4.706 min Scan# 4
Delta R.T. -0.006 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 76 Resp: 4371

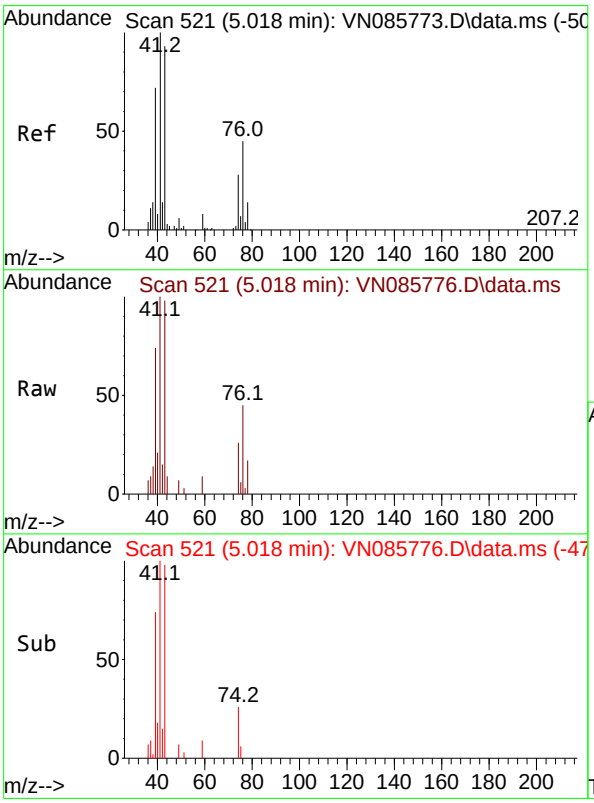
Ion	Ratio	Lower	Upper
76	100		
78	10.7	7.4	11.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

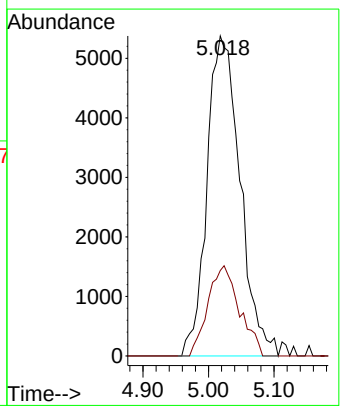
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

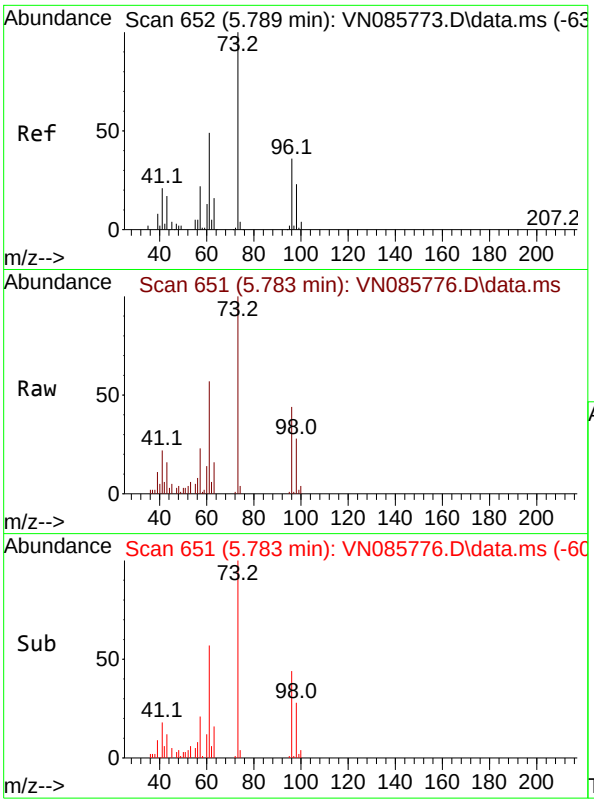


#18
Methyl Acetate
Concen: 4.888 ug/l
RT: 5.018 min Scan# 521
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 43 Resp: 18793

Ion	Ratio	Lower	Upper
43	100		
74	26.9	22.2	33.4

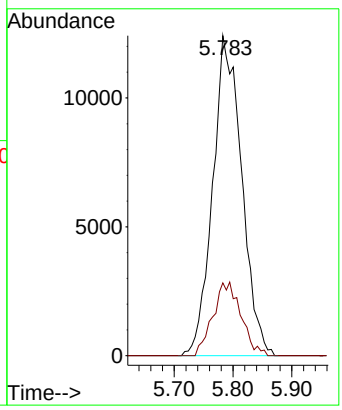




#19
Methyl tert-butyl Ether
Concen: 4.786 ug/l
RT: 5.783 min Scan# 6
Delta R.T. -0.006 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 73 Resp: 4249

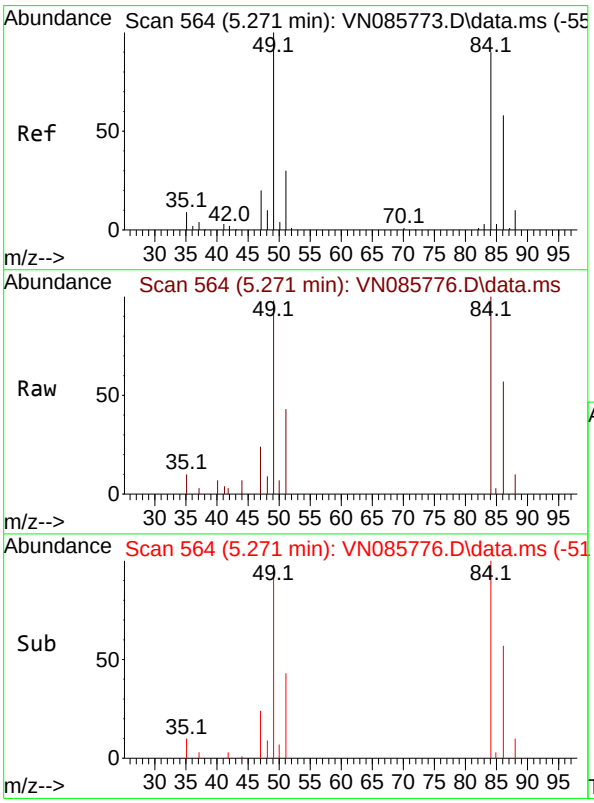
Ion	Ratio	Lower	Upper
73	100		
57	22.7	17.6	26.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

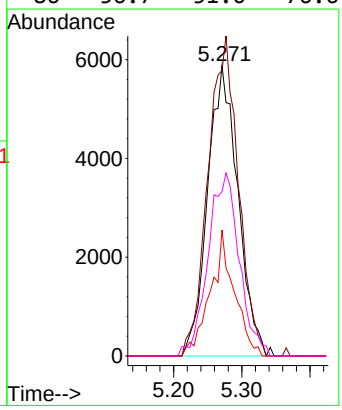
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

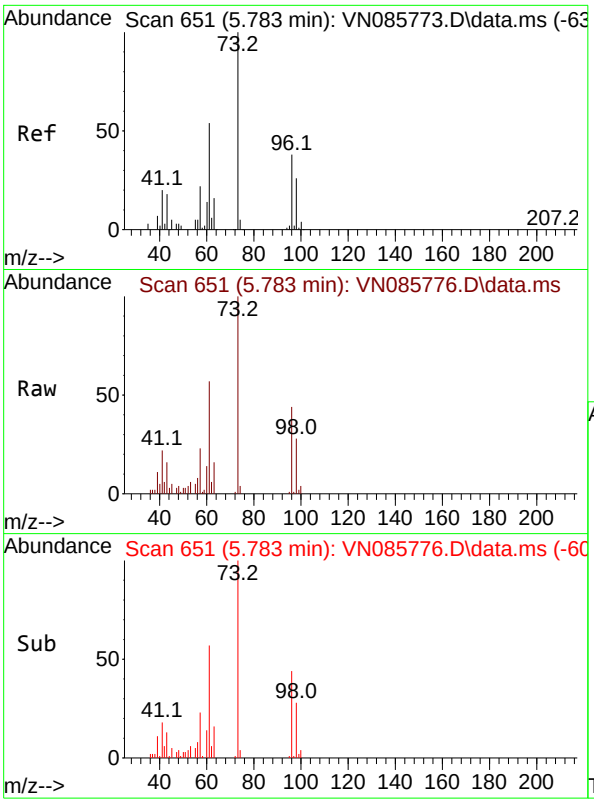


#20
Methylene Chloride
Concen: 5.046 ug/l
RT: 5.271 min Scan# 564
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 84 Resp: 18139

Ion	Ratio	Lower	Upper
84	100		
49	98.4	88.4	132.6
51	43.4	26.6	40.0#
86	56.7	51.0	76.6

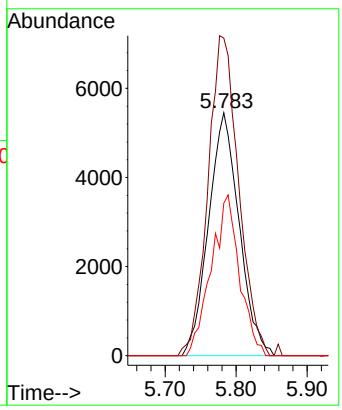




#21
trans-1,2-Dichloroethene
Concen: 5.076 ug/l
RT: 5.783 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 96 Resp: 1633

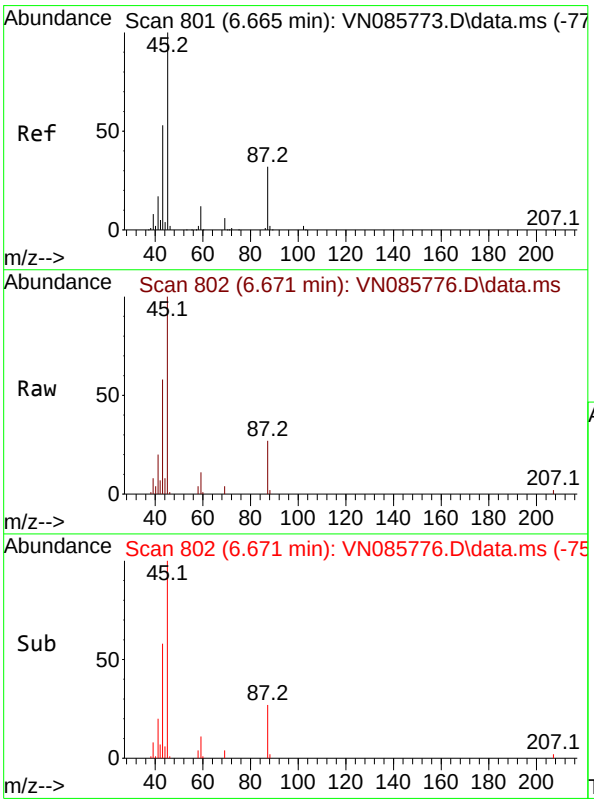
Ion	Ratio	Lower	Upper
96	100		
61	130.8	112.6	168.8
98	62.8	53.3	79.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

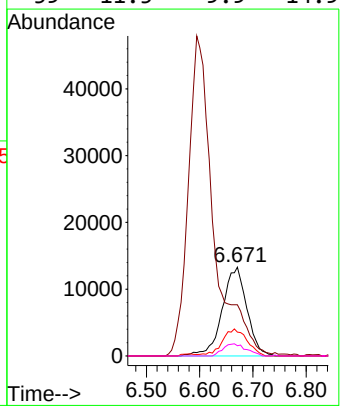
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

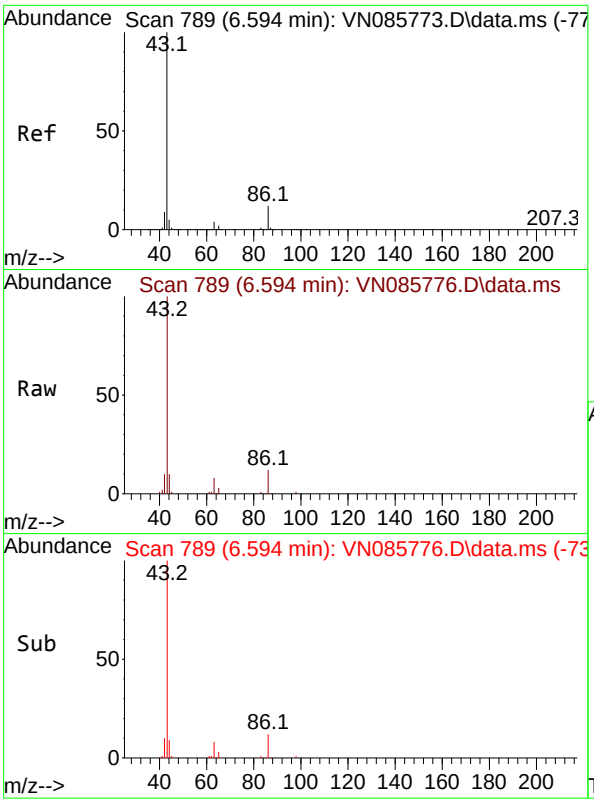


#22
Diisopropyl ether
Concen: 4.817 ug/l
RT: 6.671 min Scan# 802
Delta R.T. 0.006 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 45 Resp: 42703

Ion	Ratio	Lower	Upper
45	100		
43	55.5	42.6	64.0
87	26.8	25.8	38.8
59	11.5	9.9	14.9





#23
Vinyl Acetate
Concen: 23.273 ug/l m
RT: 6.594 min Scan# 7
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

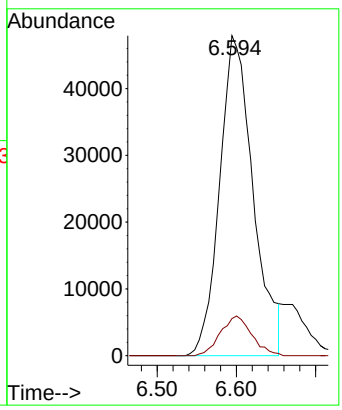
Tgt Ion: 43 Resp: 14082

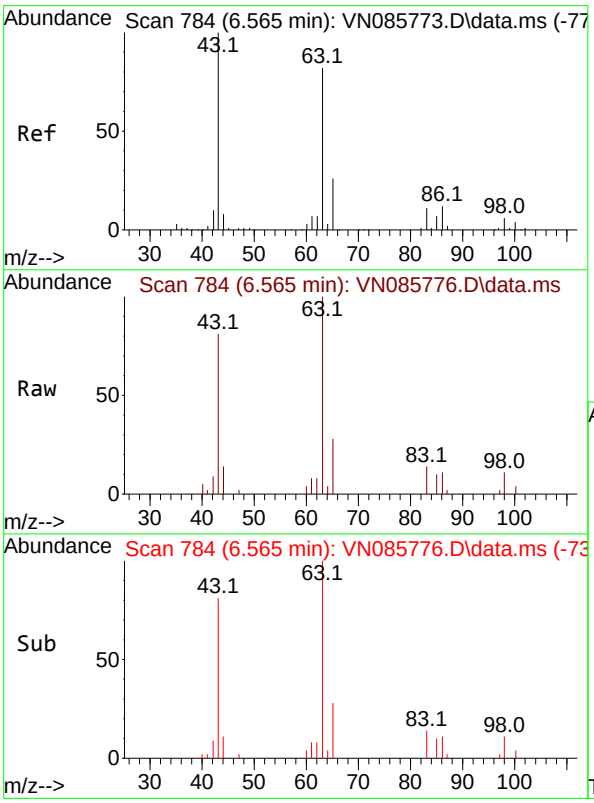
Ion	Ratio	Lower	Upper
43	100		
86	11.6	9.8	14.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

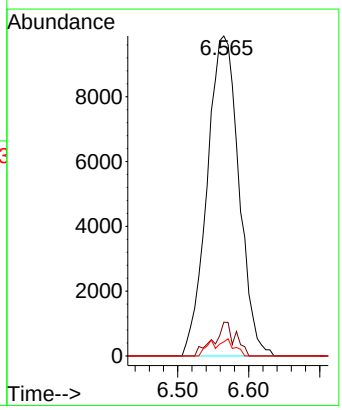


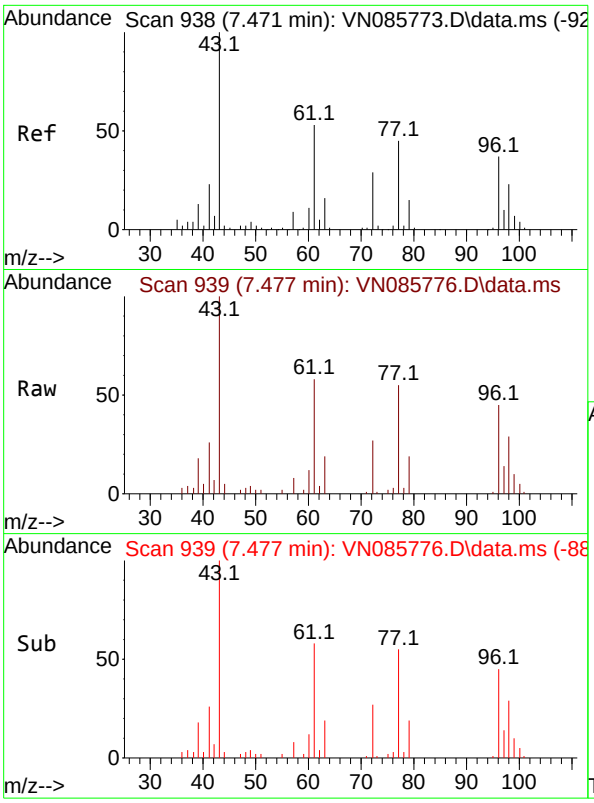


#24
1,1-Dichloroethane
Concen: 5.088 ug/l
RT: 6.565 min Scan# 784
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 63 Resp: 30658

Ion	Ratio	Lower	Upper
63	100		
98	10.6	3.5	10.4#
100	4.4	2.4	7.2

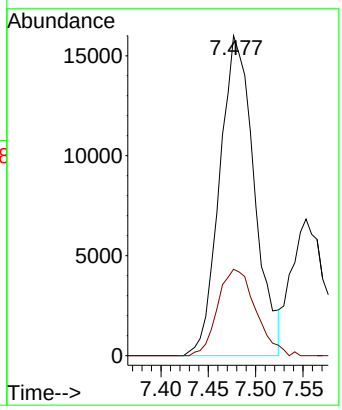




#25
2-Butanone
Concen: 24.809 ug/l
RT: 7.477 min Scan# 9
Delta R.T. 0.006 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 43 Resp: 4079

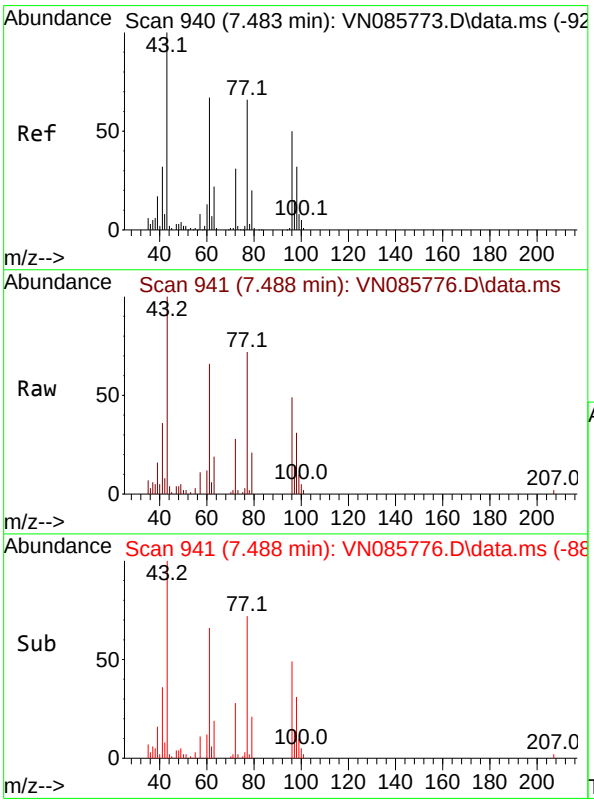
Ion	Ratio	Lower	Upper
43	100		
72	27.0	23.6	35.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

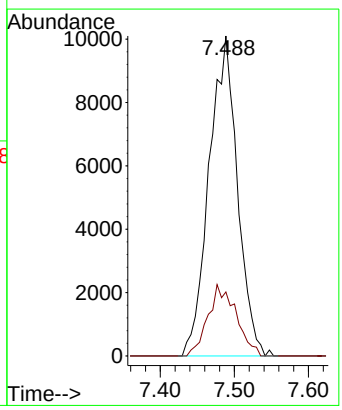
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

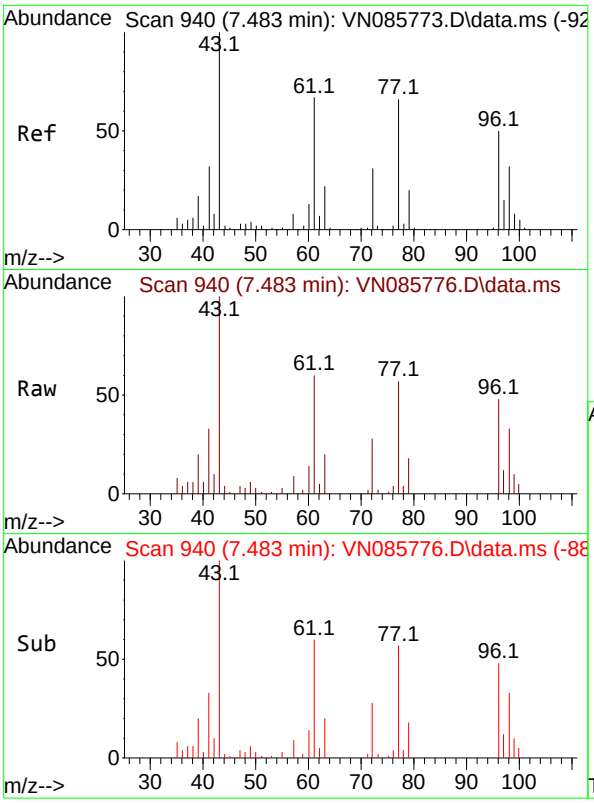


#26
2,2-Dichloropropane
Concen: 5.018 ug/l
RT: 7.488 min Scan# 941
Delta R.T. 0.006 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 77 Resp: 26889

Ion	Ratio	Lower	Upper
77	100		
97	22.0	11.3	33.8





#27
cis-1,2-Dichloroethene
Concen: 5.006 ug/l
RT: 7.483 min Scan# 94
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

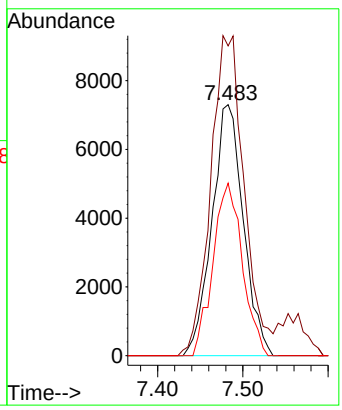
Tgt Ion: 96 Resp: 1867

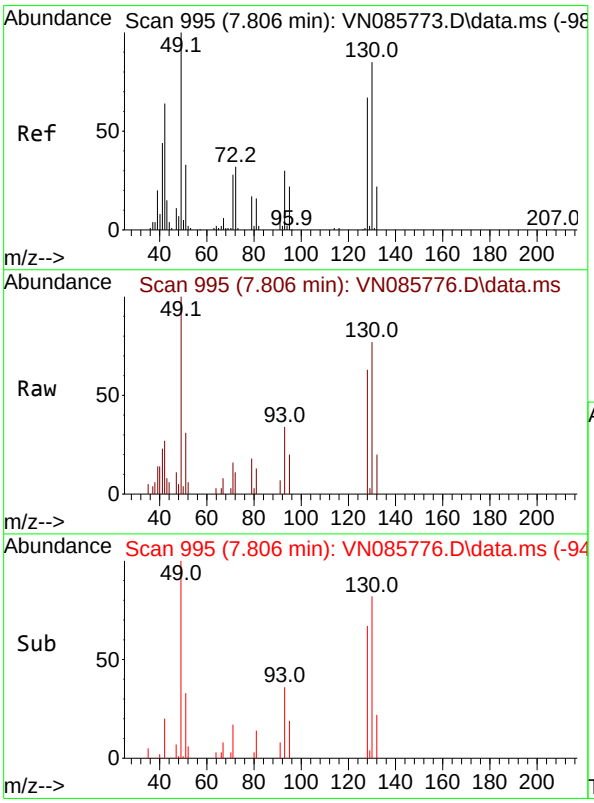
Ion	Ratio	Lower	Upper
96	100		
61	136.1	0.0	280.6
98	64.4	0.0	128.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

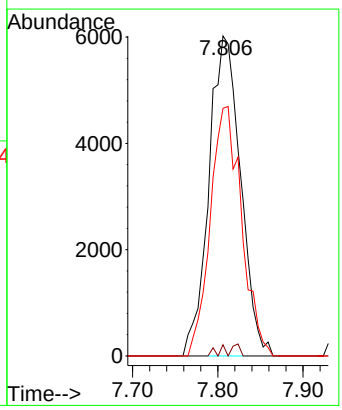


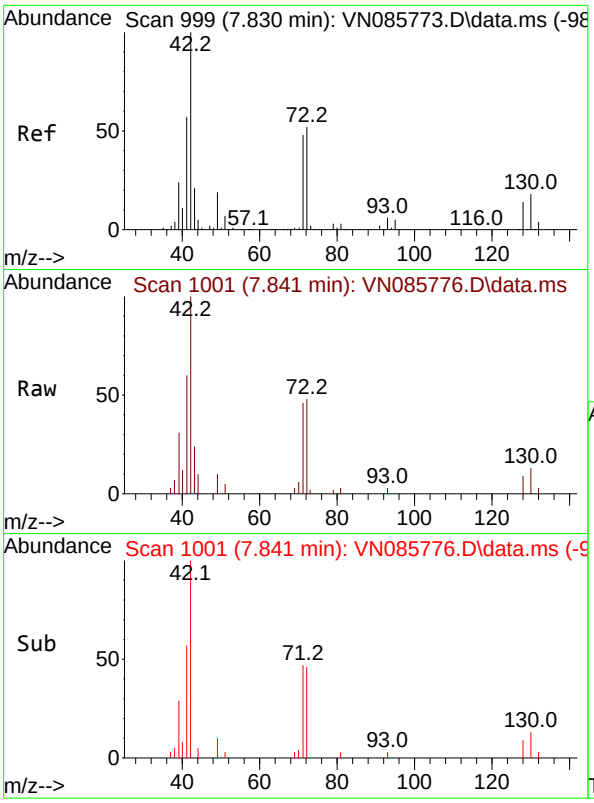


#28
Bromochloromethane
Concen: 6.276 ug/l
RT: 7.806 min Scan# 995
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 49 Resp: 15543

Ion	Ratio	Lower	Upper
49	100		
129	1.4	0.0	3.8
130	76.8	68.0	102.0

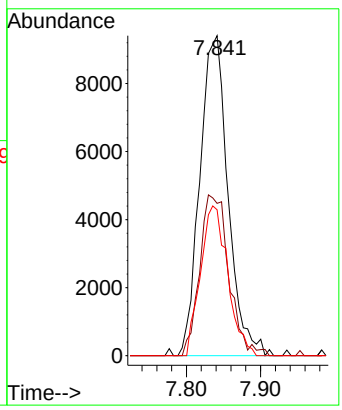




#29
Tetrahydrofuran
Concen: 23.457 ug/l
RT: 7.841 min Scan# 1
Delta R.T. 0.012 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 42 Resp: 2490

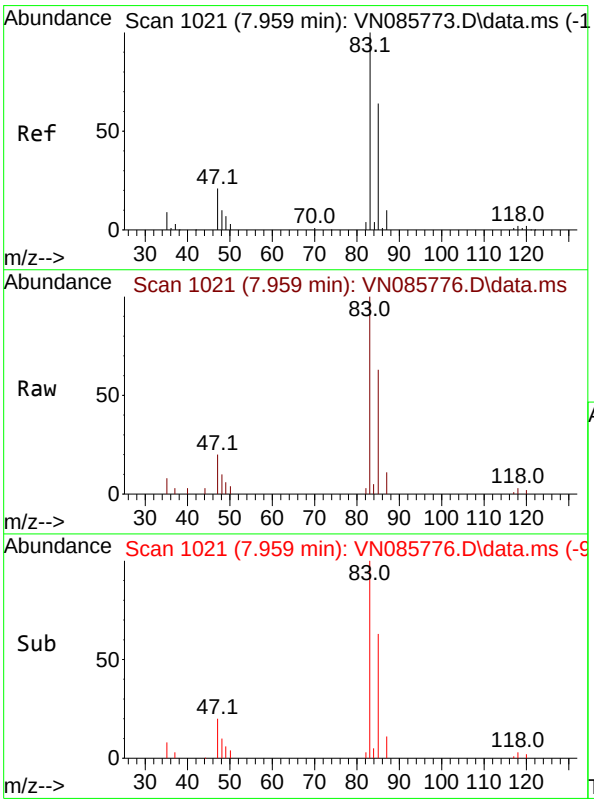
Ion	Ratio	Lower	Upper
42	100		
72	51.7	40.0	60.0
71	45.2	37.0	55.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

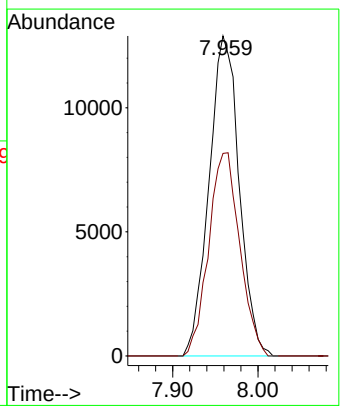
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

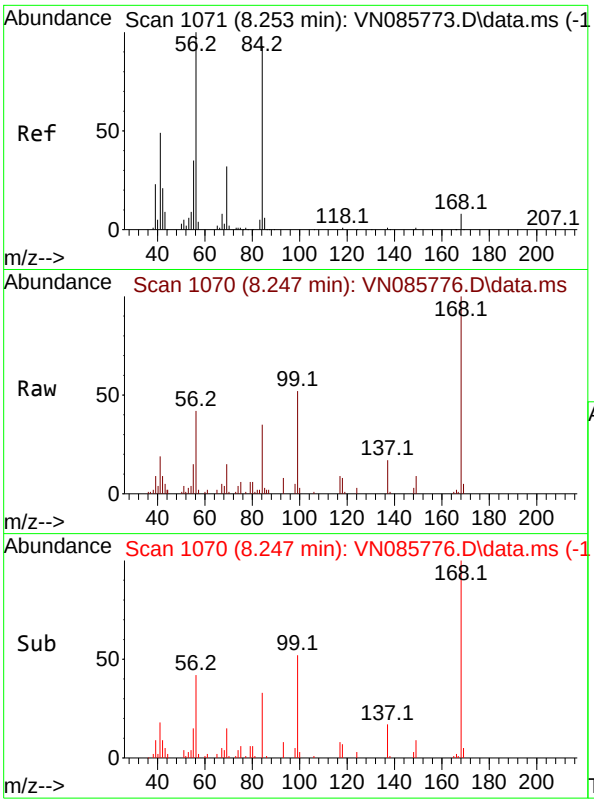


#30
Chloroform
Concen: 5.034 ug/l
RT: 7.959 min Scan# 1021
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 83 Resp: 31702

Ion	Ratio	Lower	Upper
83	100		
85	63.3	50.9	76.3

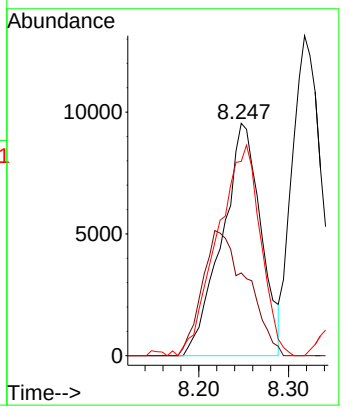




#31
Cyclohexane
Concen: 5.705 ug/l
RT: 8.247 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 56 Resp: 2878

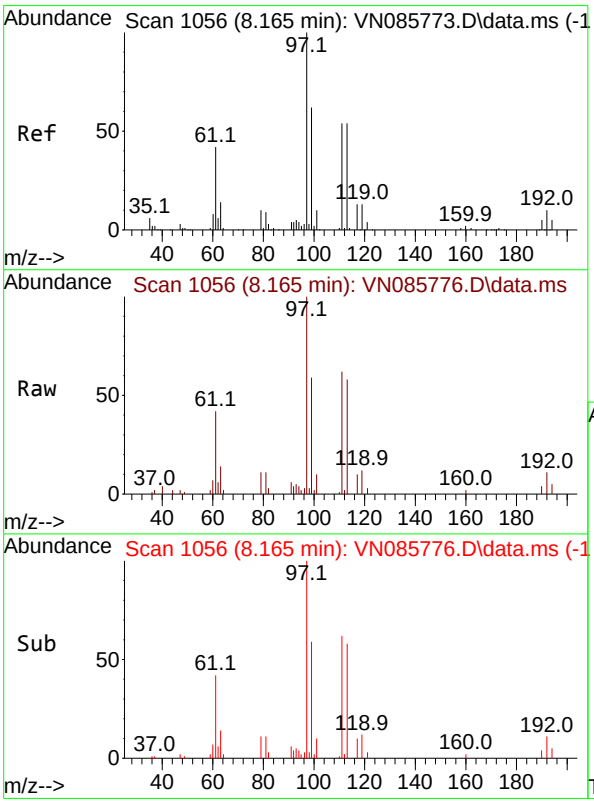
Ion	Ratio	Lower	Upper
56	100		
69	35.6	25.8	38.6
84	83.6	74.5	111.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

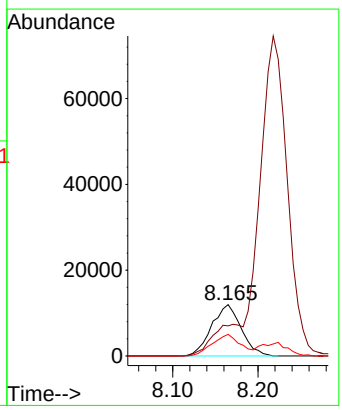
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

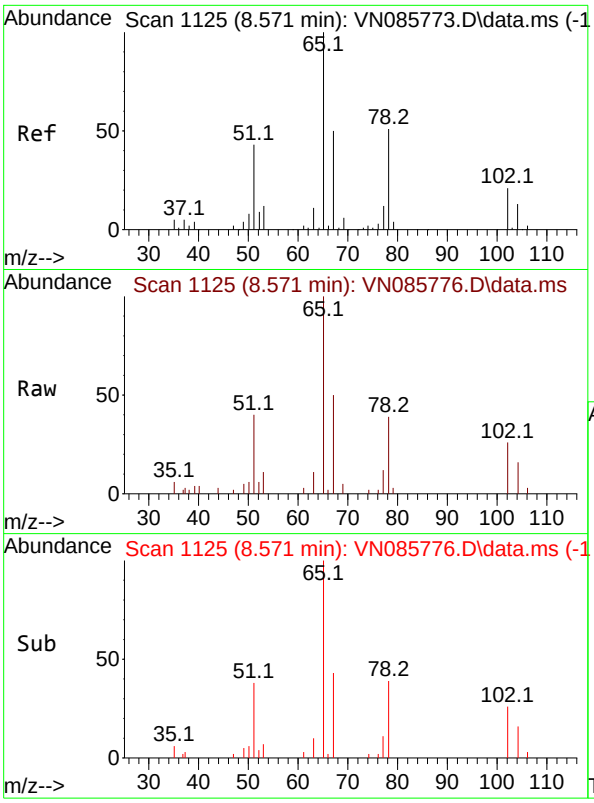


#32
1,1,1-Trichloroethane
Concen: 5.145 ug/l
RT: 8.165 min Scan# 1056
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 97 Resp: 28815

Ion	Ratio	Lower	Upper
97	100		
99	0.0	50.4	75.6#
61	40.7	35.5	53.3

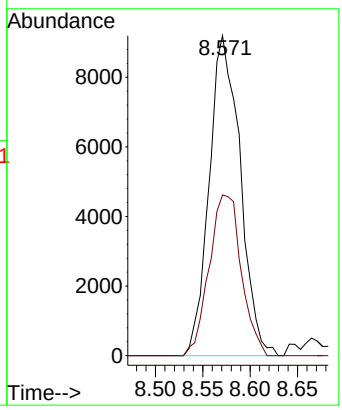




#33
1,2-Dichloroethane-d4
Concen: 5.918 ug/l
RT: 8.571 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 65 Resp: 2090

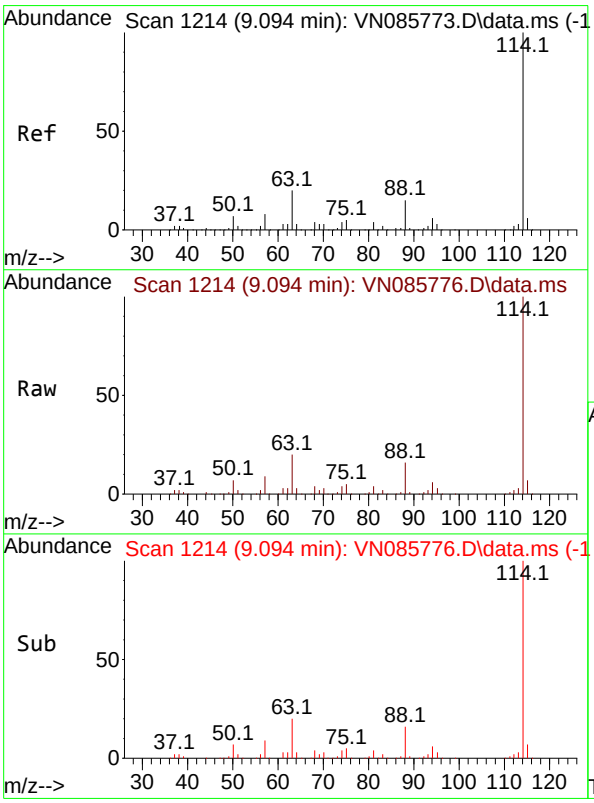
Ion	Ratio	Lower	Upper
65	100		
67	52.2	0.0	106.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

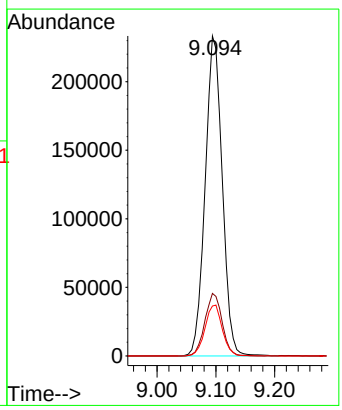
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

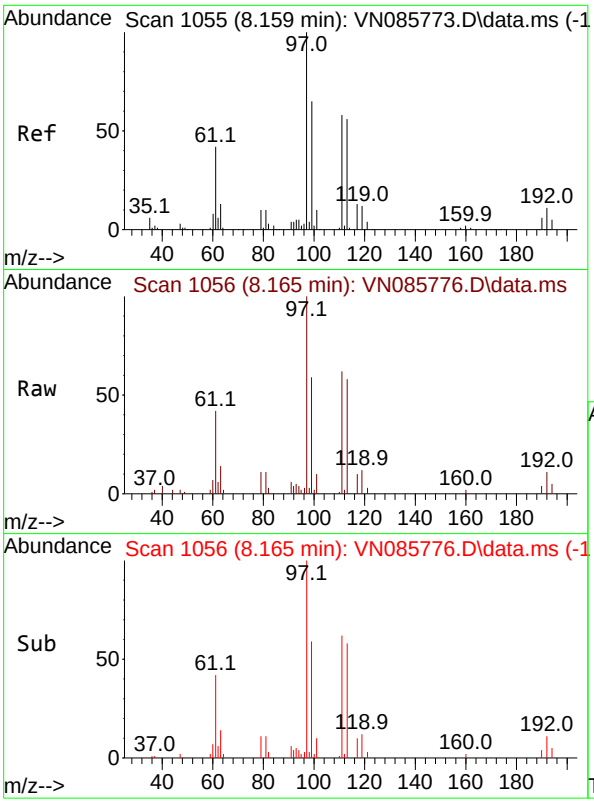


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.094 min Scan# 1214
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion:114 Resp: 471970

Ion	Ratio	Lower	Upper
114	100		
63	19.5	0.0	39.2
88	15.6	0.0	30.0

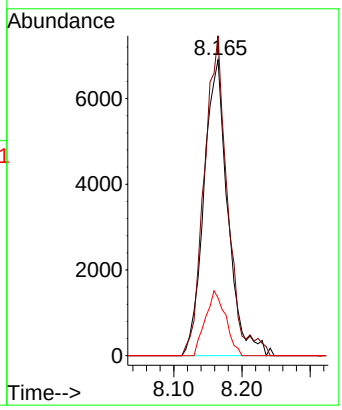




#35
Dibromofluoromethane
Concen: 5.461 ug/l
RT: 8.165 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion:113 Resp: 1686

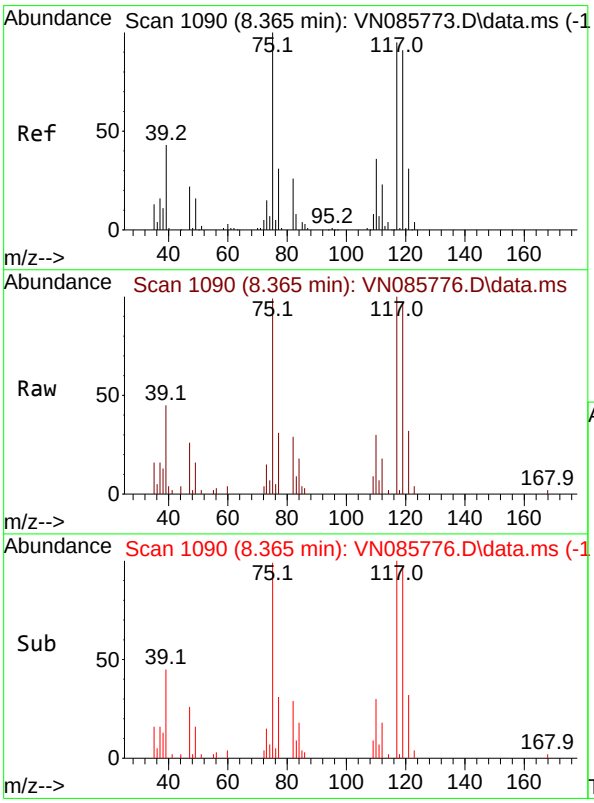
Ion	Ratio	Lower	Upper
113	100		
111	105.6	82.2	123.4
192	18.5	14.7	22.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

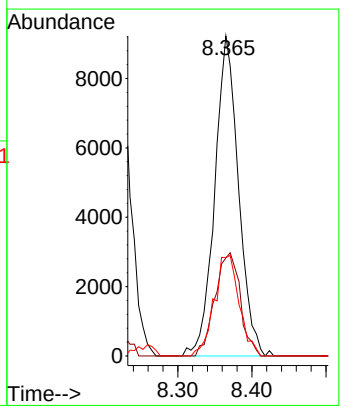
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

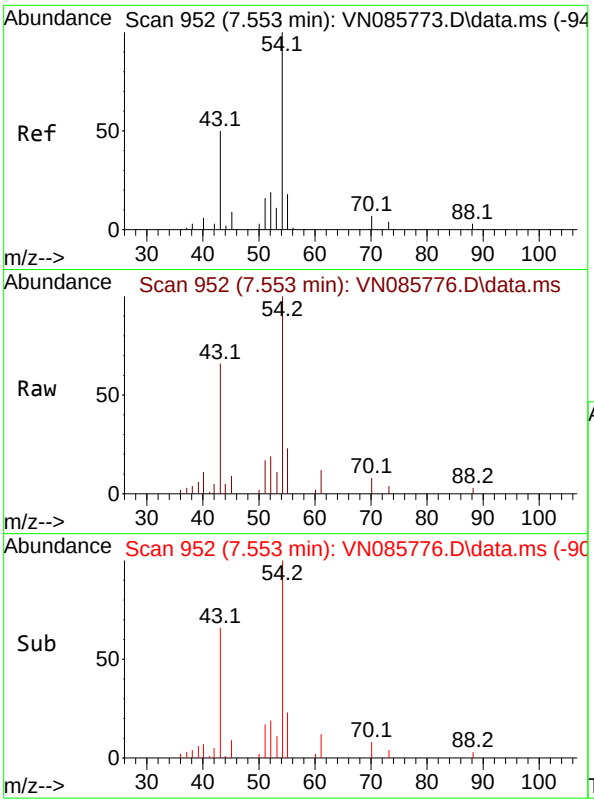


#36
1,1-Dichloropropene
Concen: 4.711 ug/l
RT: 8.365 min Scan# 1090
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 75 Resp: 20593

Ion	Ratio	Lower	Upper
75	100		
110	34.2	17.3	52.0
77	33.0	24.6	37.0

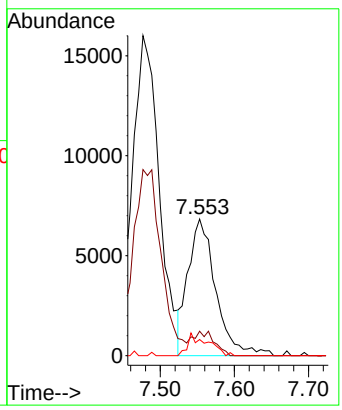




#37
Ethyl Acetate
Concen: 4.940 ug/l
RT: 7.553 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 43 Resp: 1776

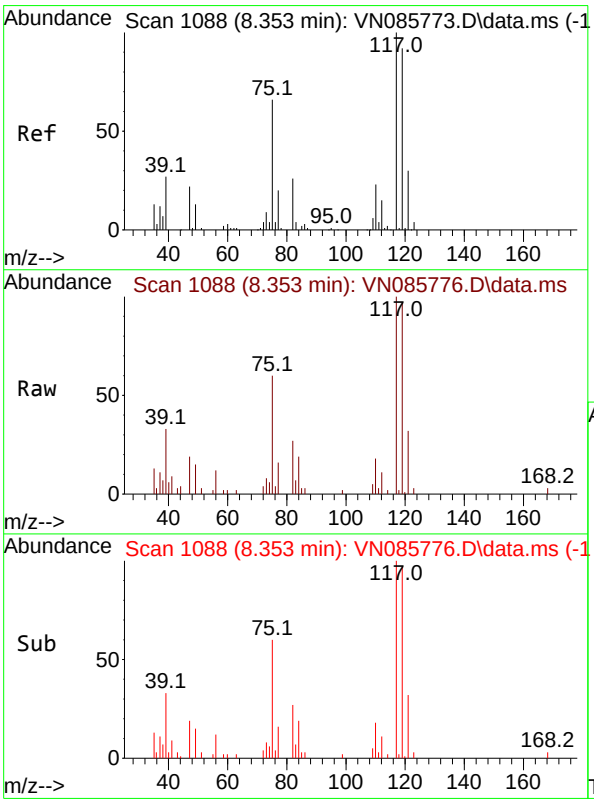
Ion	Ratio	Lower	Upper
43	100		
61	14.0	12.2	18.2
70	0.0	9.5	14.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

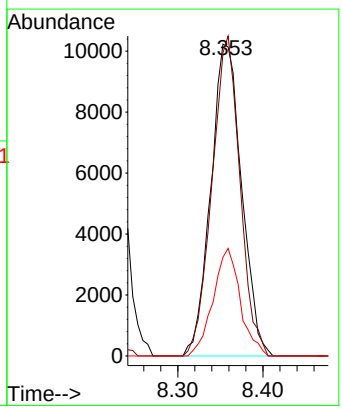
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

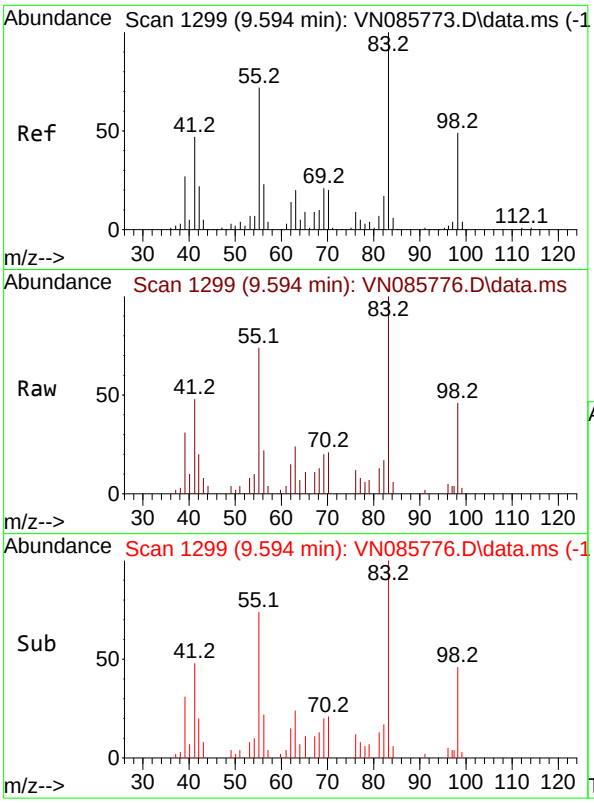


#38
Carbon Tetrachloride
Concen: 4.955 ug/l
RT: 8.353 min Scan# 1088
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion:117 Resp: 25734

Ion	Ratio	Lower	Upper
117	100		
119	97.3	73.8	110.6
121	31.7	24.3	36.5





#39
Methylcyclohexane
Concen: 4.451 ug/l
RT: 9.594 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

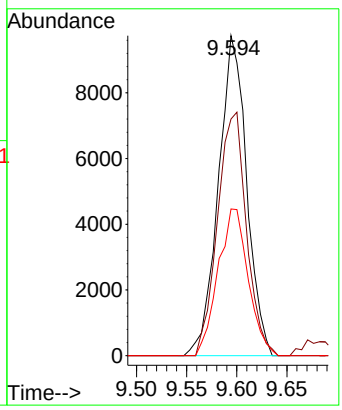
Tgt Ion: 83 Resp: 1911

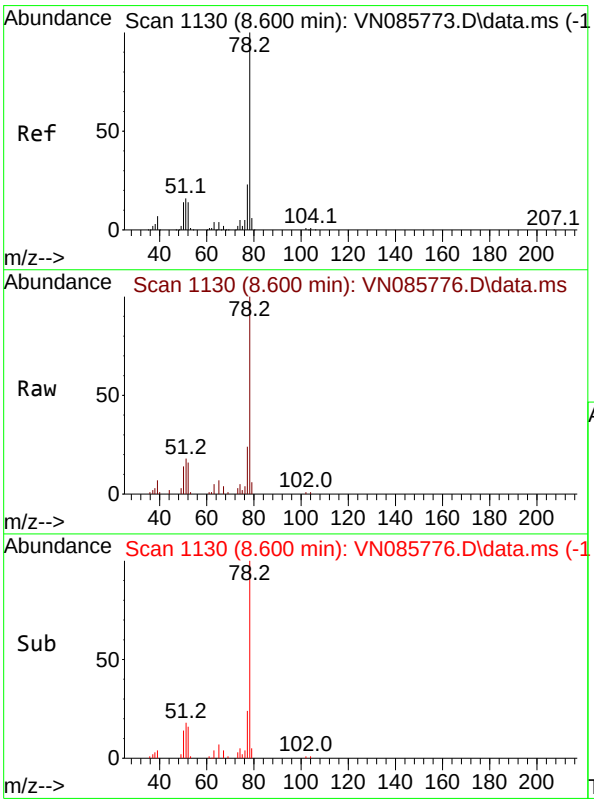
Ion	Ratio	Lower	Upper
83	100		
55	73.9	57.5	86.3
98	45.8	39.2	58.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

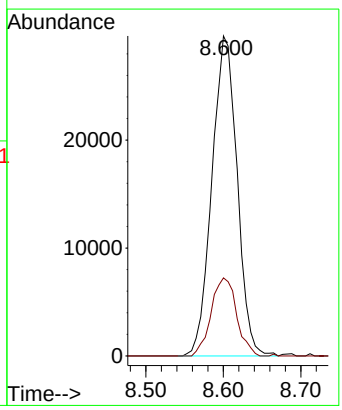


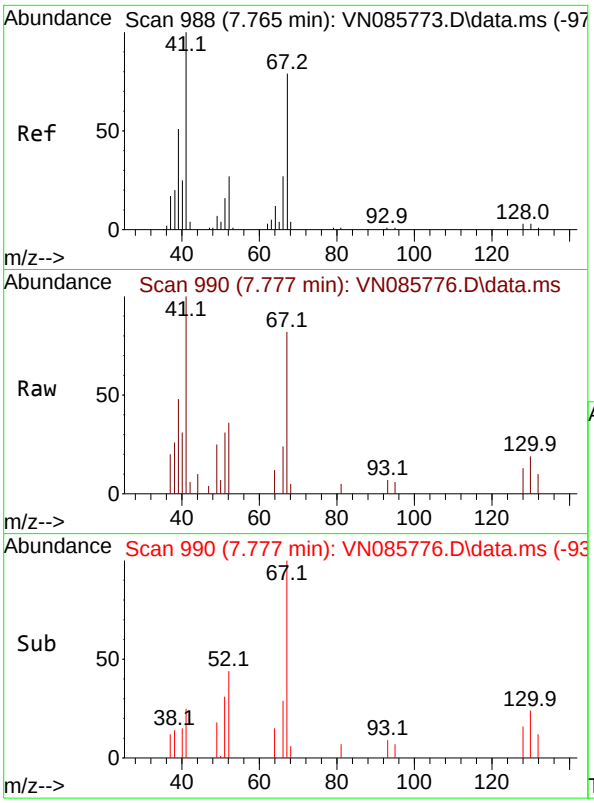


#40
Benzene
Concen: 4.786 ug/l
RT: 8.600 min Scan# 1130
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 78 Resp: 67051

Ion	Ratio	Lower	Upper
78	100		
77	24.4	18.3	27.5

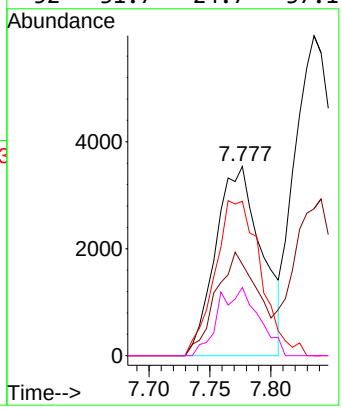




#41
Methacrylonitrile
Concen: 4.835 ug/l
RT: 7.777 min Scan# 9
Delta R.T. 0.012 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 41 Resp: 929

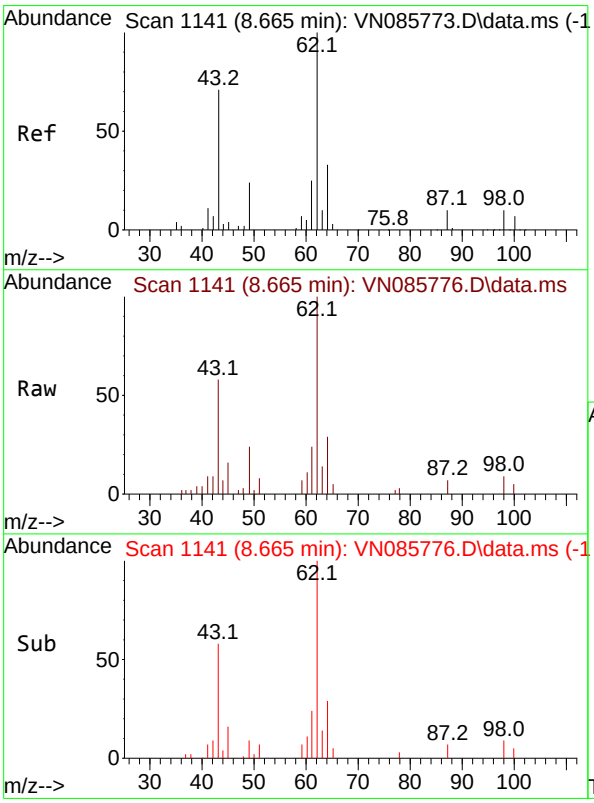
Ion	Ratio	Lower	Upper
41	100		
39	49.9	42.0	63.0
67	81.8	64.2	96.4
52	31.7	24.7	37.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

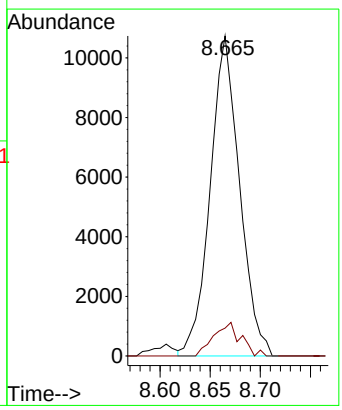
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

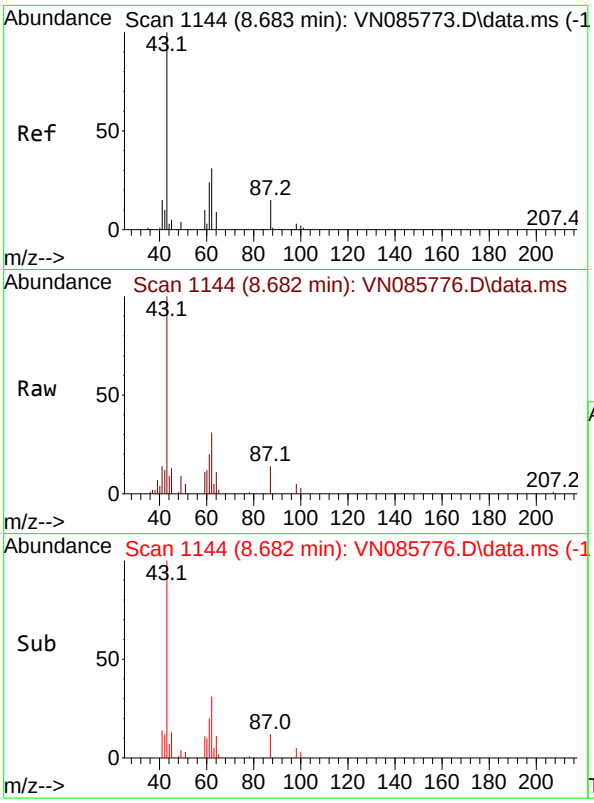


#42
1,2-Dichloroethane
Concen: 4.796 ug/l
RT: 8.665 min Scan# 1141
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 62 Resp: 21886

Ion	Ratio	Lower	Upper
62	100		
98	9.6	0.0	19.6





#43
Isopropyl Acetate
Concen: 5.059 ug/l
RT: 8.682 min Scan# 1
Delta R.T. -0.001 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

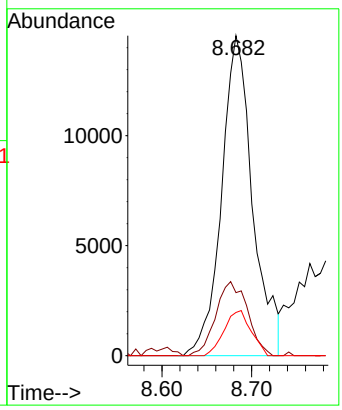
Tgt Ion: 43 Resp: 3503

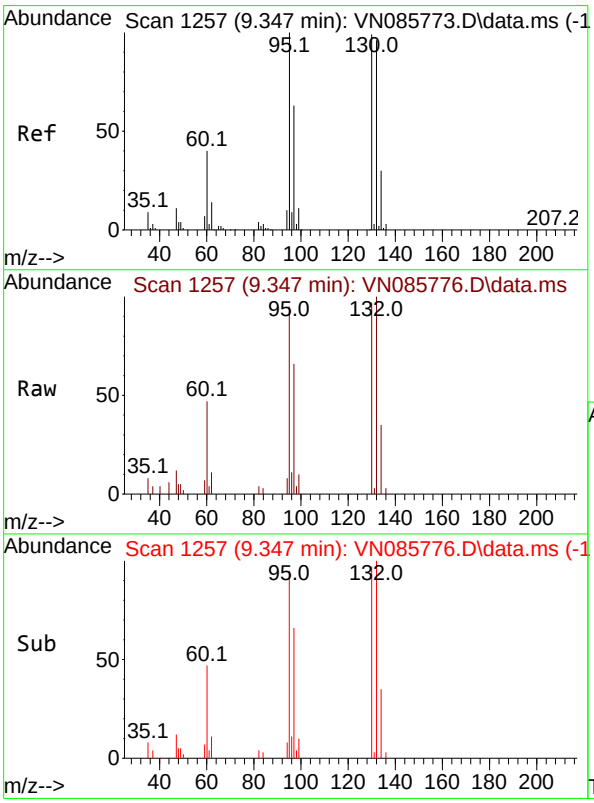
Ion	Ratio	Lower	Upper
43	100		
61	23.7	22.6	34.0
87	12.2	11.8	17.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

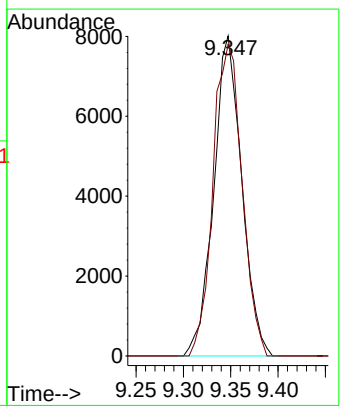


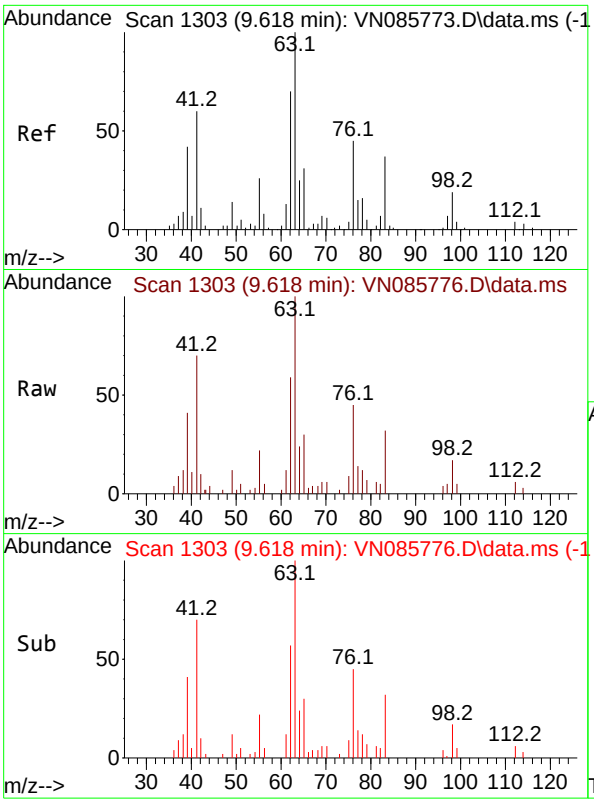


#44
Trichloroethene
Concen: 4.801 ug/l
RT: 9.347 min Scan# 1257
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion:130 Resp: 16513

Ion	Ratio	Lower	Upper
130	100		
95	97.3	0.0	202.6

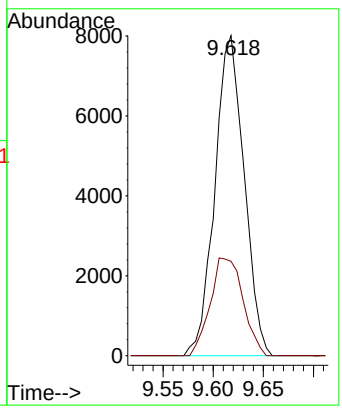




#45
1,2-Dichloropropane
Concen: 4.799 ug/l
RT: 9.618 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 63 Resp: 1622

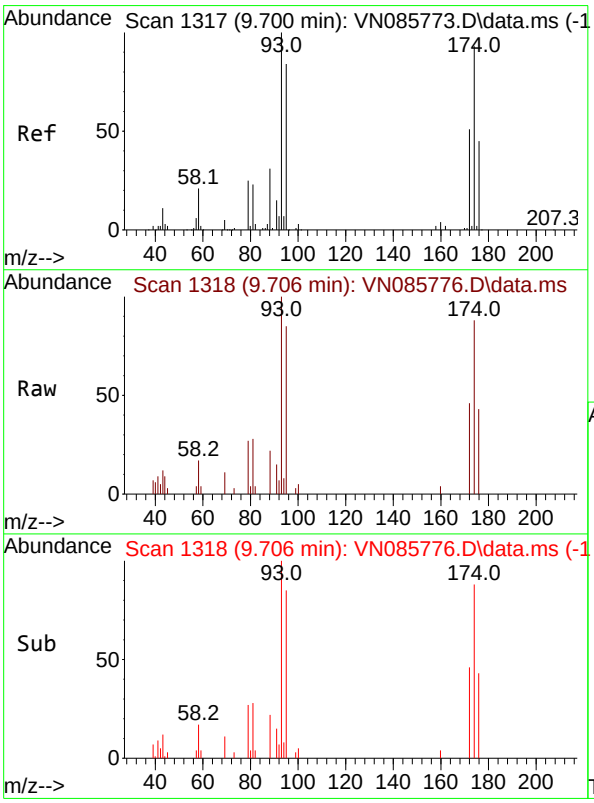
Ion	Ratio	Lower	Upper
63	100		
65	29.5	25.1	37.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

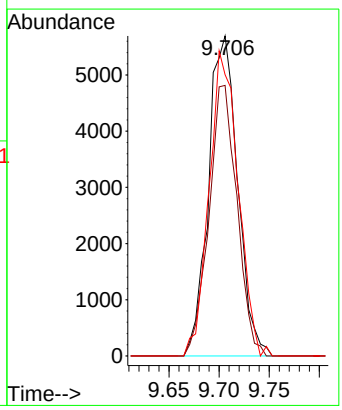
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

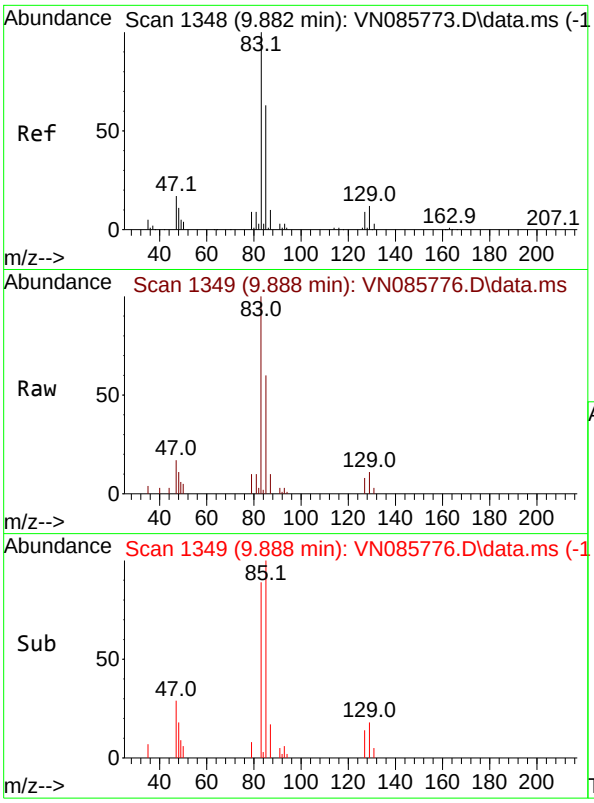


#46
Dibromomethane
Concen: 4.840 ug/l
RT: 9.706 min Scan# 1318
Delta R.T. 0.006 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 93 Resp: 11544

Ion	Ratio	Lower	Upper
93	100		
95	81.1	66.7	100.1
174	94.4	77.2	115.8

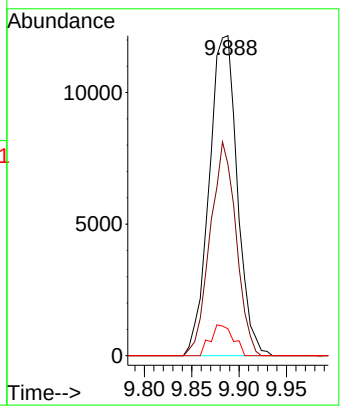




#47
Bromodichloromethane
Concen: 4.929 ug/l
RT: 9.888 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 83 Resp: 2515

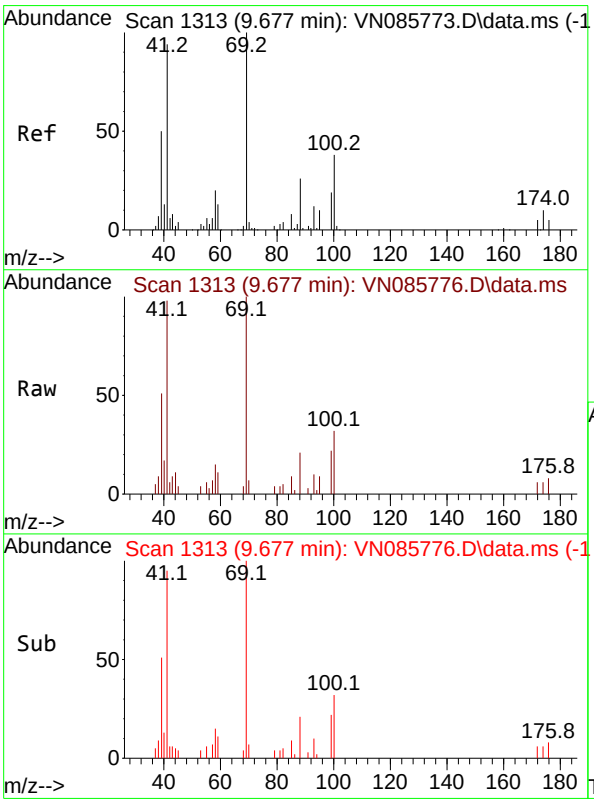
Ion	Ratio	Lower	Upper
83	100		
85	59.8	50.5	75.7
127	8.4	7.2	10.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

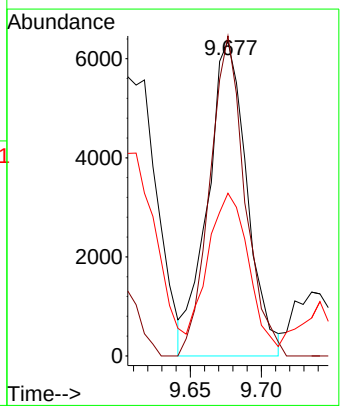
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

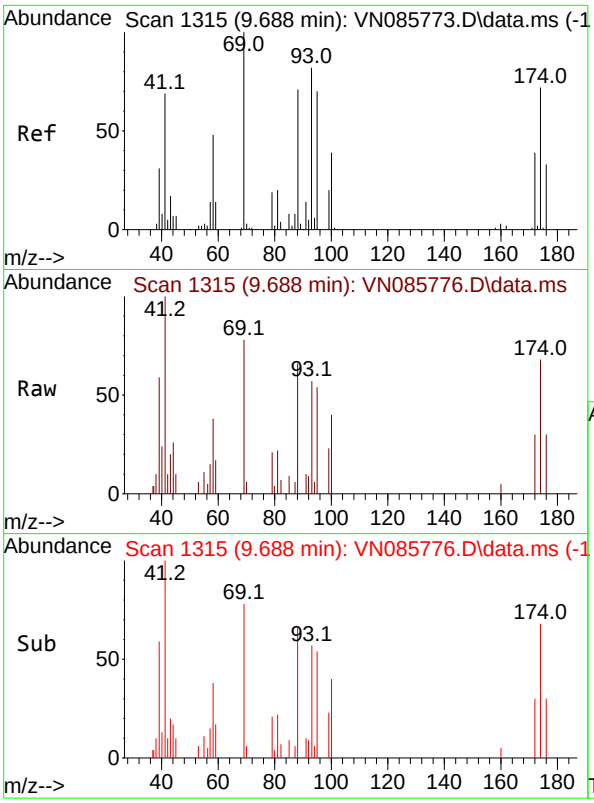


#48
Methyl methacrylate
Concen: 4.567 ug/l
RT: 9.677 min Scan# 1313
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 41 Resp: 12200

Ion	Ratio	Lower	Upper
41	100		
69	91.5	76.0	114.0
39	55.0	42.3	63.5





#49
1,4-Dioxane
Concen: 91.913 ug/l
RT: 9.688 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

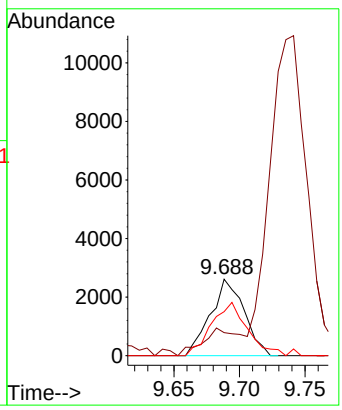
Tgt Ion: 88 Resp: 466

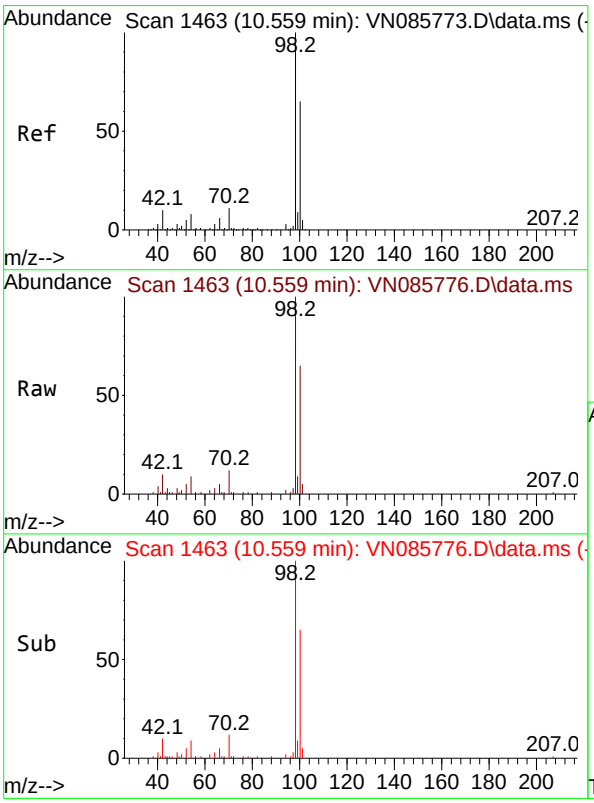
Ion	Ratio	Lower	Upper
88	100		
43	36.1	18.6	27.8
58	75.8	56.7	85.1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

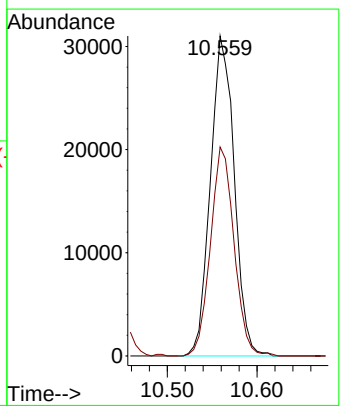


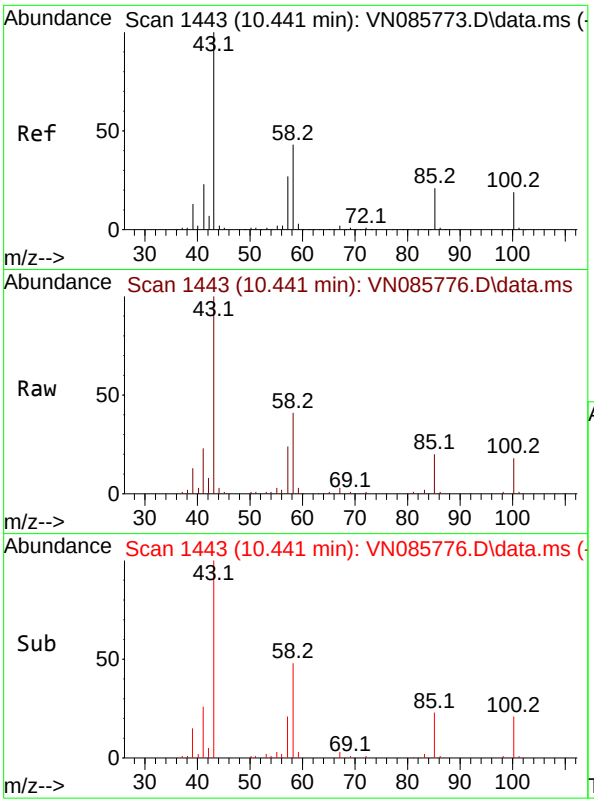


#50
Toluene-d8
Concen: 5.089 ug/l
RT: 10.559 min Scan# 1463
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 98 Resp: 57180

Ion	Ratio	Lower	Upper
98	100		
100	64.8	52.1	78.1





#51
4-Methyl-2-Pentanone
Concen: 23.260 ug/l
RT: 10.441 min Scan# 14
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

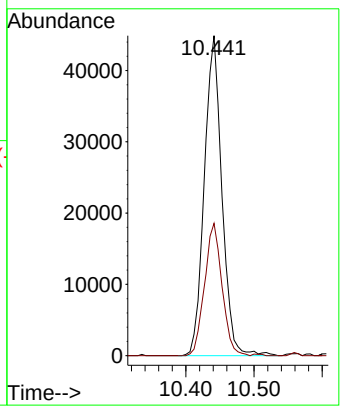
Tgt Ion: 43 Resp: 8066

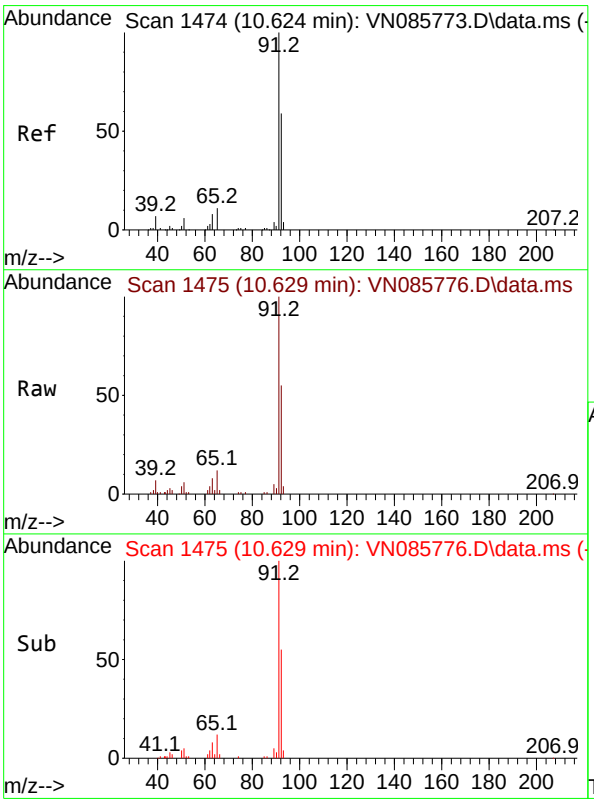
Ion	Ratio	Lower	Upper
43	100		
58	41.0	34.6	52.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

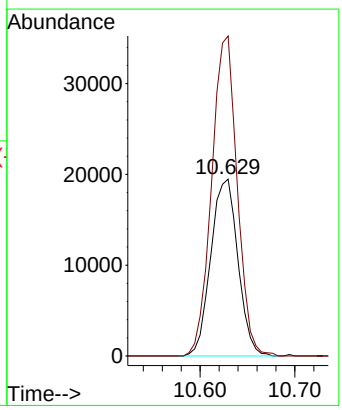


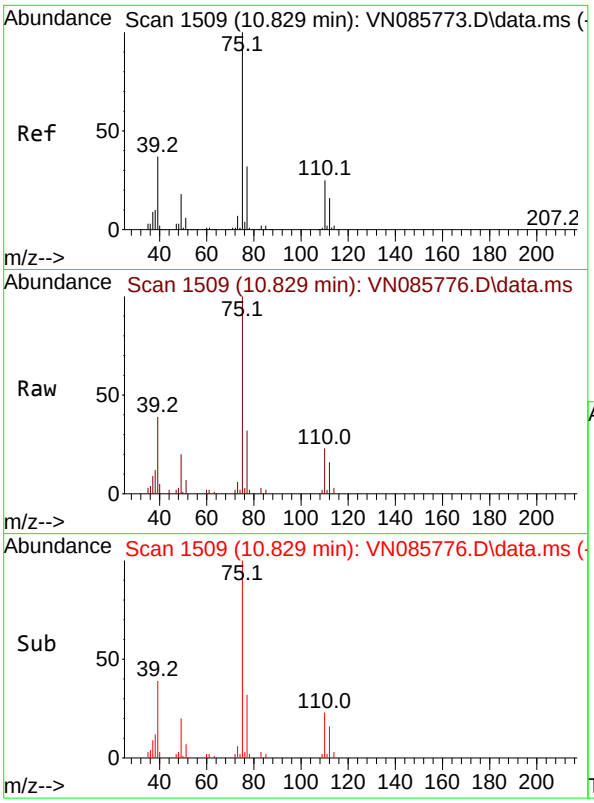


#52
Toluene
Concen: 4.713 ug/l
RT: 10.629 min Scan# 1475
Delta R.T. 0.006 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 92 Resp: 38701

Ion	Ratio	Lower	Upper
92	100		
91	170.6	136.9	205.3

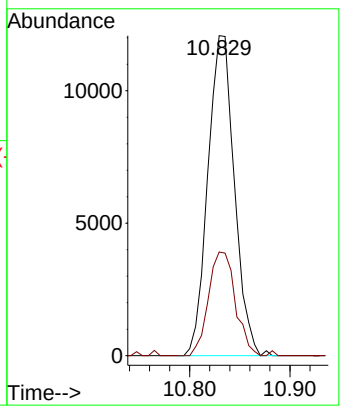




#53
t-1,3-Dichloropropene
Concen: 4.708 ug/l
RT: 10.829 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 75 Resp: 2221

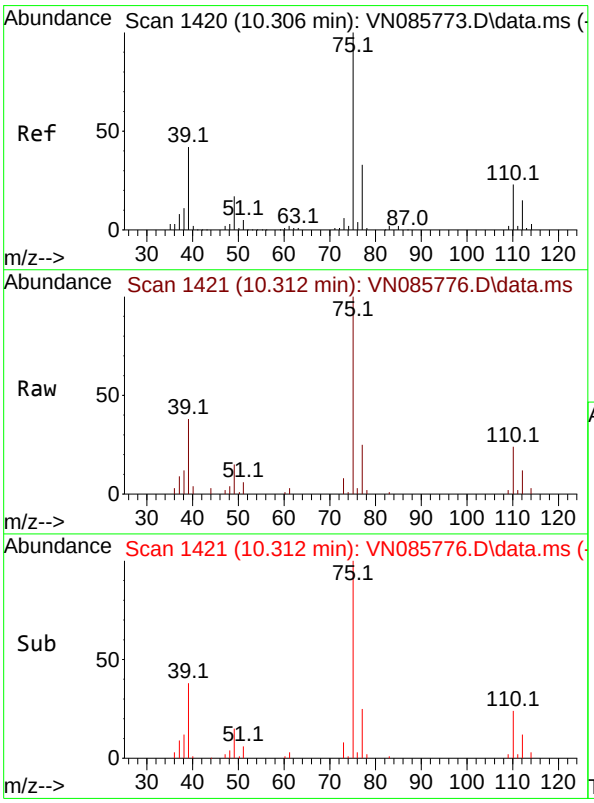
Ion	Ratio	Lower	Upper
75	100		
77	32.4	25.4	38.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

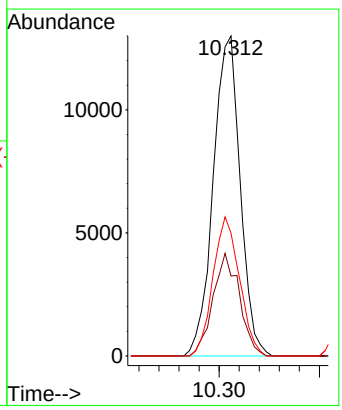
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

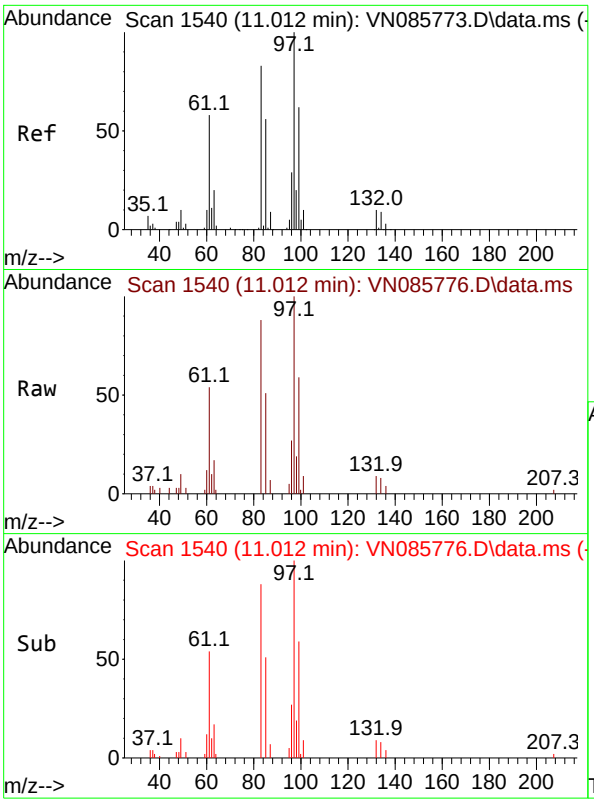


#54
cis-1,3-Dichloropropene
Concen: 4.684 ug/l
RT: 10.312 min Scan# 1421
Delta R.T. 0.006 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 75 Resp: 24235

Ion	Ratio	Lower	Upper
75	100		
77	25.0	26.1	39.1#
39	38.4	33.4	50.0

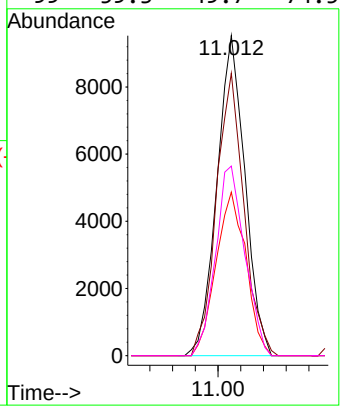




#55
1,1,2-Trichloroethane
Concen: 5.008 ug/l
RT: 11.012 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 97 Resp: 1635

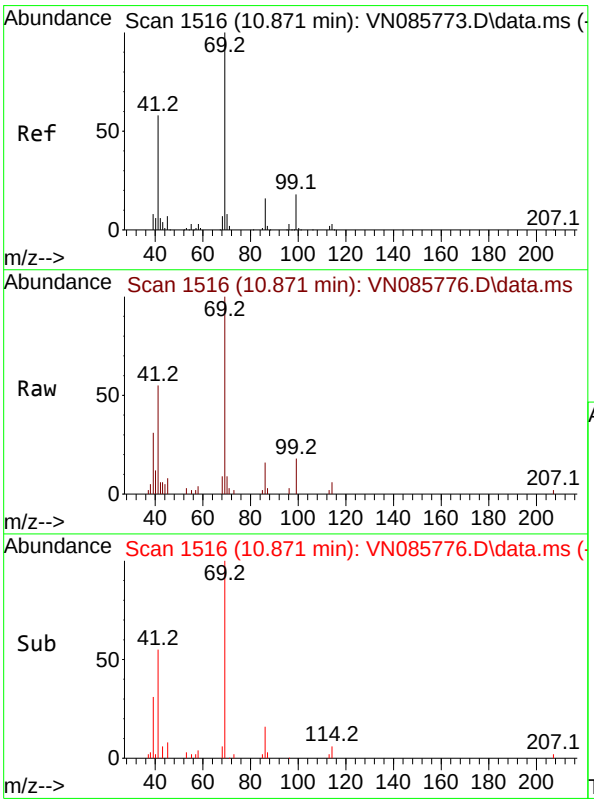
Ion	Ratio	Lower	Upper
97	100		
83	88.2	66.1	99.1
85	51.1	44.7	67.1
99	59.3	49.7	74.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

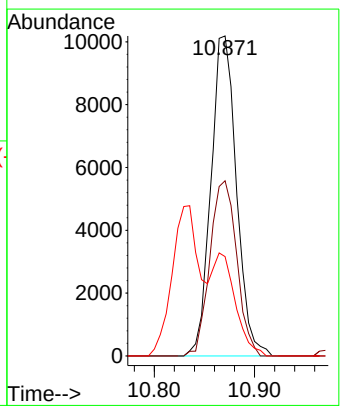
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

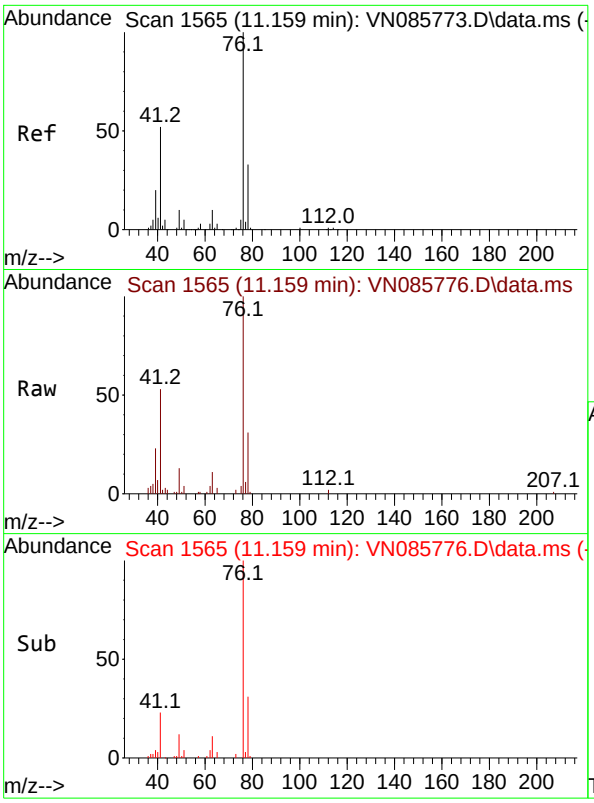


#56
Ethyl methacrylate
Concen: 4.704 ug/l
RT: 10.871 min Scan# 1516
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 69 Resp: 18032

Ion	Ratio	Lower	Upper
69	100		
41	57.4	46.0	69.0
39	28.9	22.0	33.0

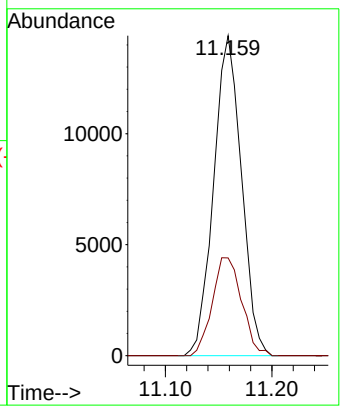




#57
1,3-Dichloropropane
Concen: 4.792 ug/l
RT: 11.159 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 76 Resp: 2611

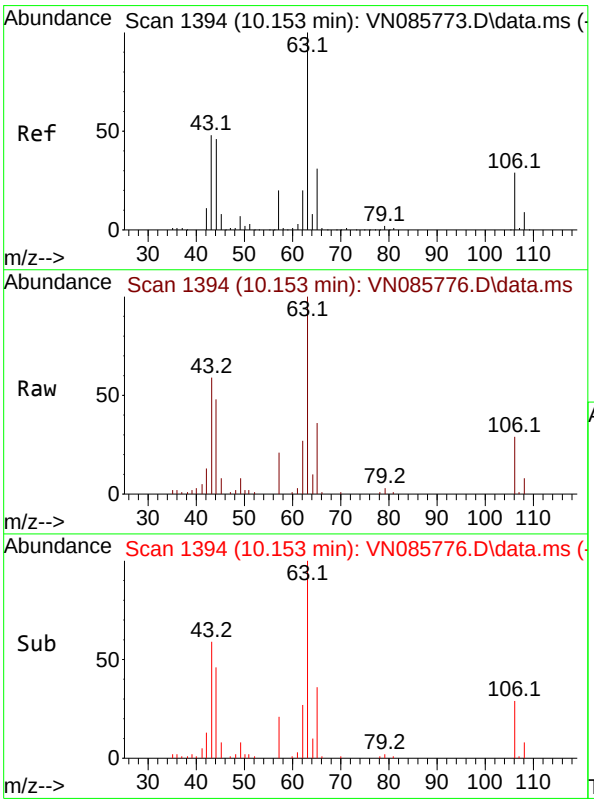
Ion	Ratio	Lower	Upper
76	100		
78	32.5	25.9	38.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

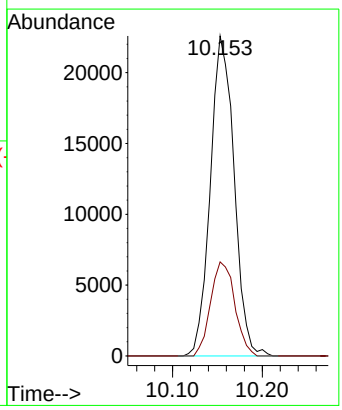
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

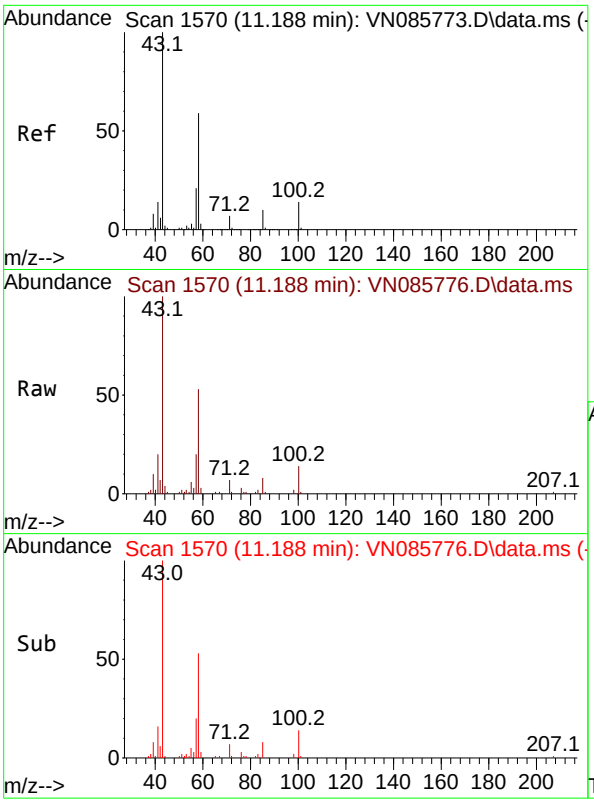


#58
2-Chloroethyl Vinyl ether
Concen: 14.159 ug/l
RT: 10.153 min Scan# 1394
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 63 Resp: 41567

Ion	Ratio	Lower	Upper
63	100		
106	29.9	22.7	34.1





#59
2-Hexanone
Concen: 22.424 ug/l
RT: 11.188 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

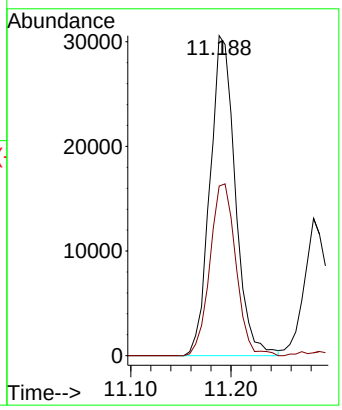
Tgt Ion: 43 Resp: 5349

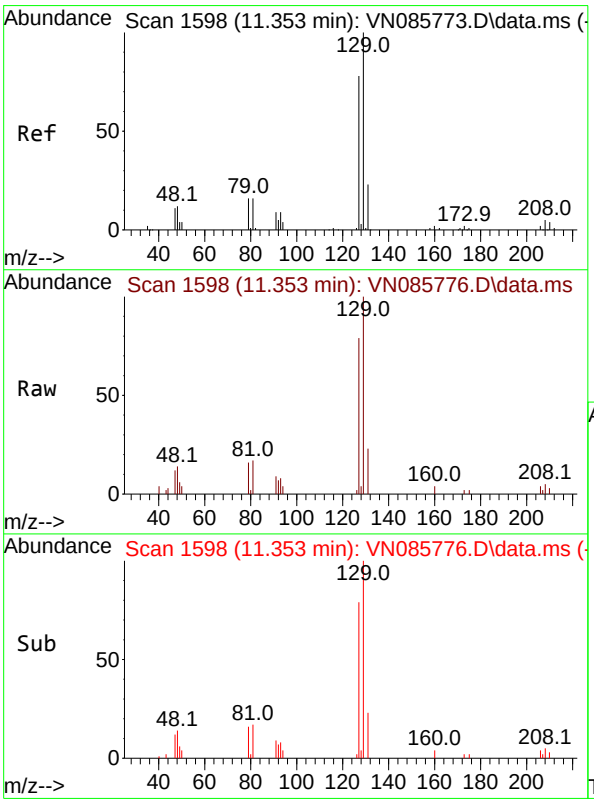
Ion	Ratio	Lower	Upper
43	100		
58	55.1	29.8	89.5

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

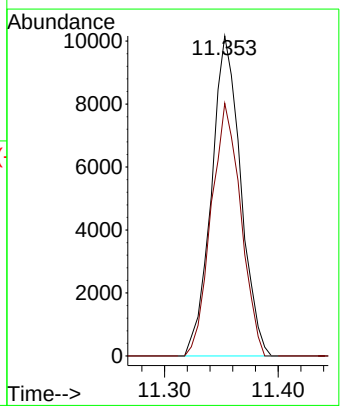


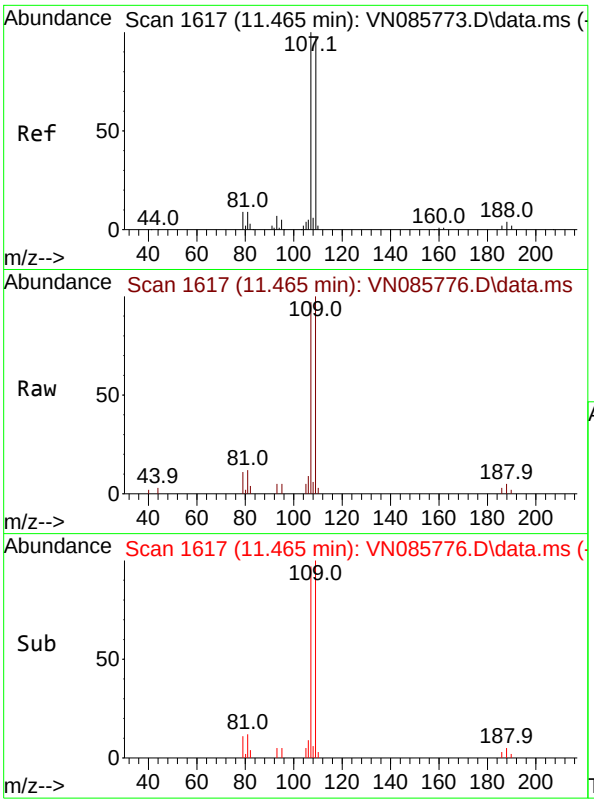


#60
Dibromochloromethane
Concen: 4.771 ug/l
RT: 11.353 min Scan# 1598
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion:129 Resp: 18137

Ion	Ratio	Lower	Upper
129	100		
127	79.9	39.1	117.5





#61
1,2-Dibromoethane
Concen: 4.894 ug/l
RT: 11.465 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

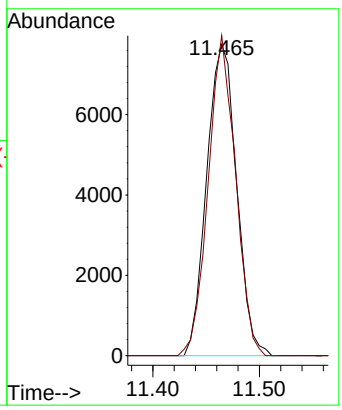
Tgt Ion:107 Resp: 1509

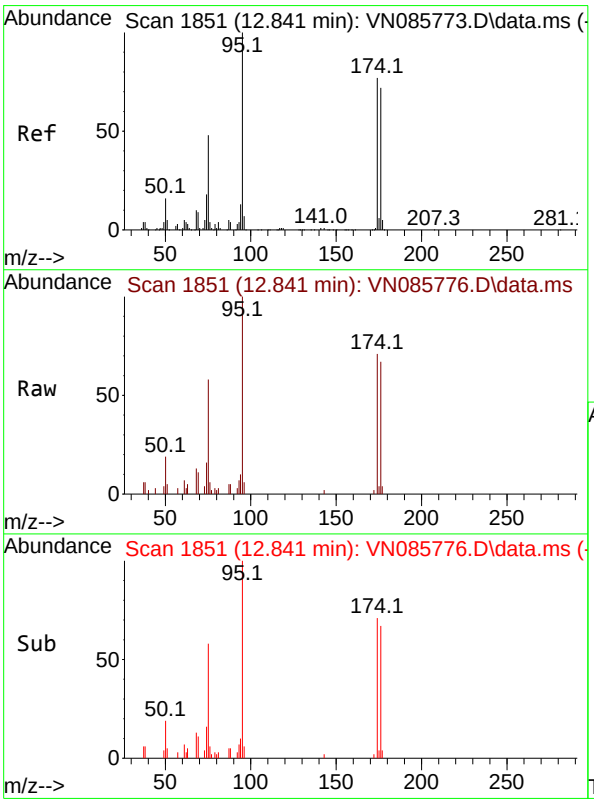
Ion	Ratio	Lower	Upper
107	100		
109	94.2	76.0	114.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

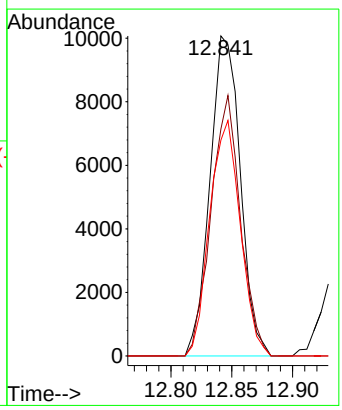


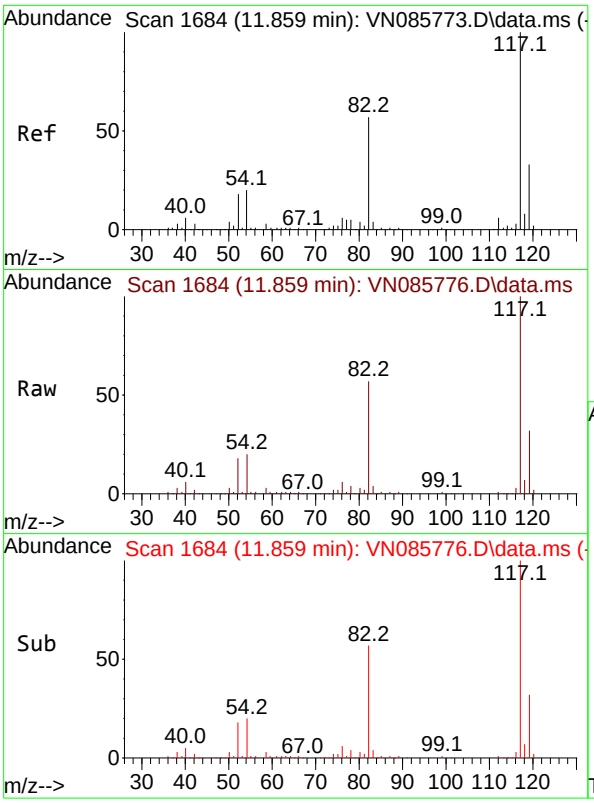


#62
4-Bromofluorobenzene
Concen: 4.723 ug/l
RT: 12.841 min Scan# 1851
Delta R.T. 0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 95 Resp: 17484

Ion	Ratio	Lower	Upper
95	100		
174	79.1	0.0	152.4
176	74.1	0.0	146.6





#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.859 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

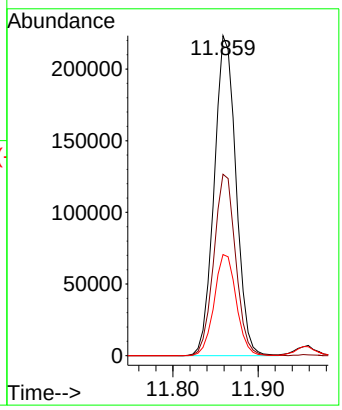
Tgt Ion:117 Resp: 39688

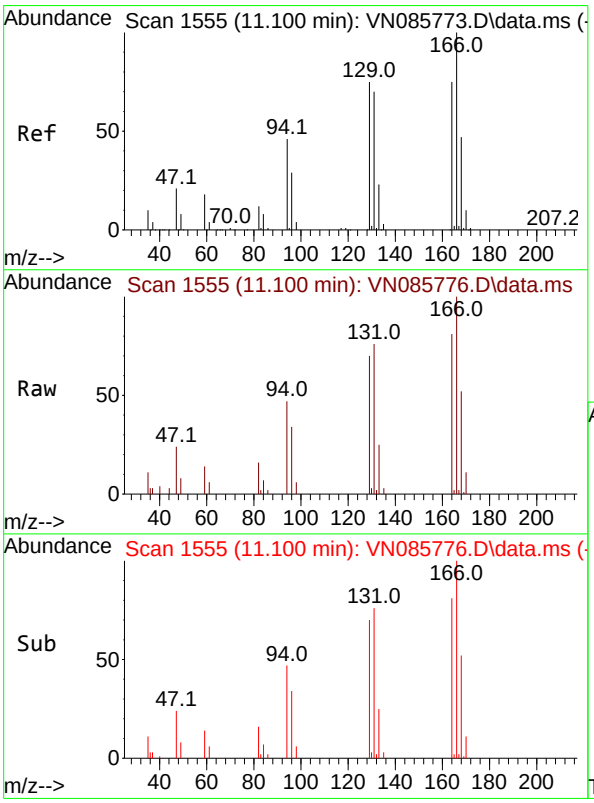
Ion	Ratio	Lower	Upper
117	100		
82	56.7	45.7	68.5
119	31.6	26.2	39.2

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

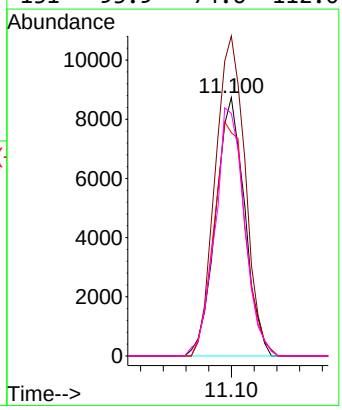


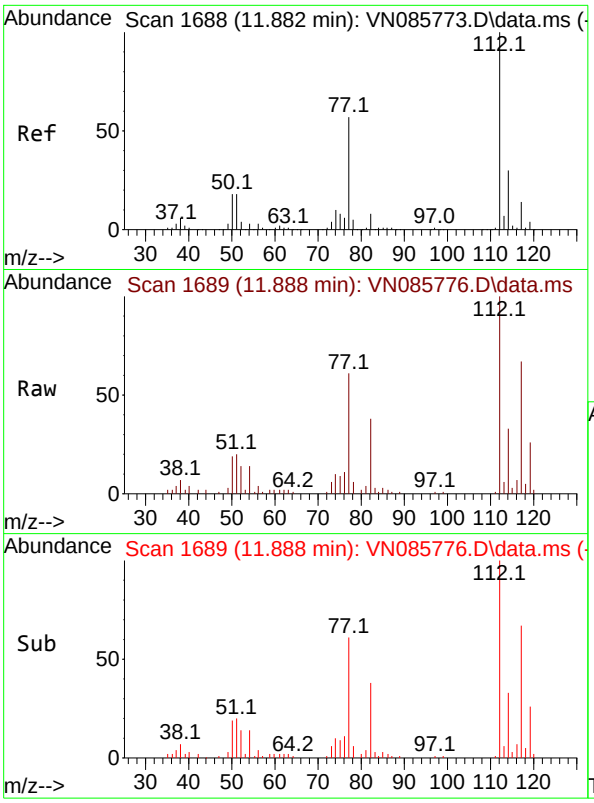


#64
Tetrachloroethene
Concen: 5.043 ug/l
RT: 11.100 min Scan# 1555
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion:164 Resp: 15504

Ion	Ratio	Lower	Upper
164	100		
166	123.9	107.2	160.8
129	86.5	80.7	121.1
131	93.9	74.6	112.0

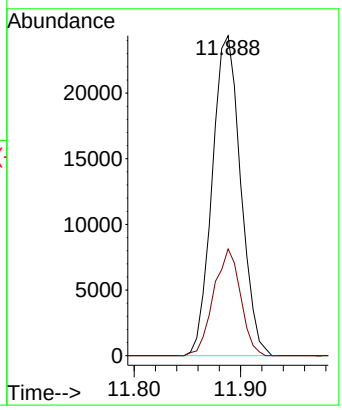




#65
Chlorobenzene
Concen: 4.973 ug/l
RT: 11.888 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion:112 Resp: 4521

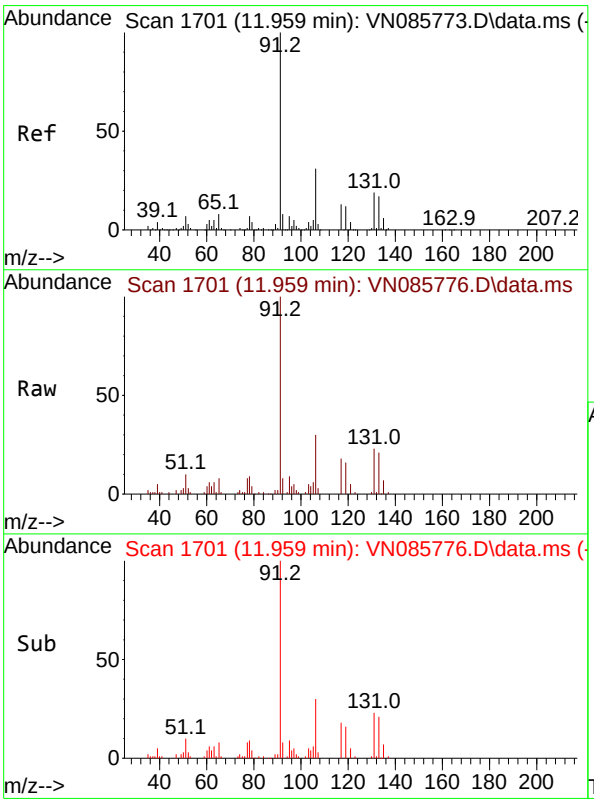
Ion	Ratio	Lower	Upper
112	100		
114	33.4	24.3	36.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

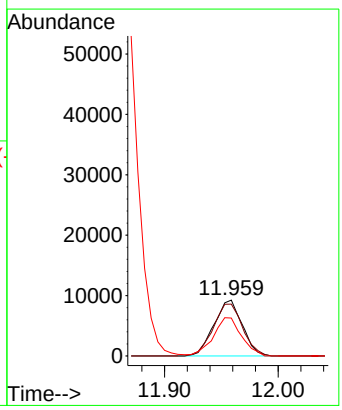
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

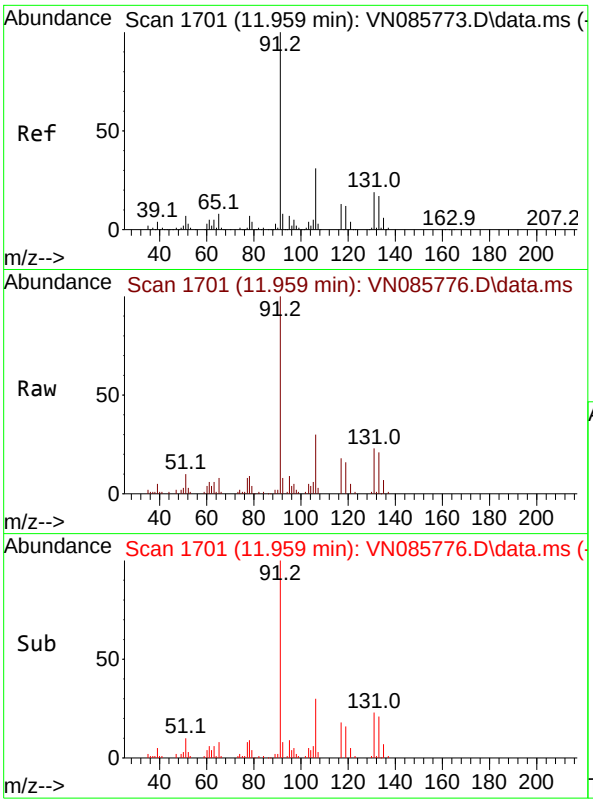


#66
1,1,1,2-Tetrachloroethane
Concen: 4.880 ug/l
RT: 11.959 min Scan# 1701
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion:131 Resp: 15949

Ion	Ratio	Lower	Upper
131	100		
133	97.4	47.7	143.1
119	68.5	33.3	99.8





#67
Ethyl Benzene
Concen: 4.640 ug/l
RT: 11.959 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

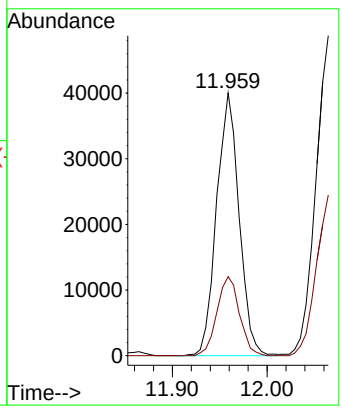
Tgt Ion: 91 Resp: 6607

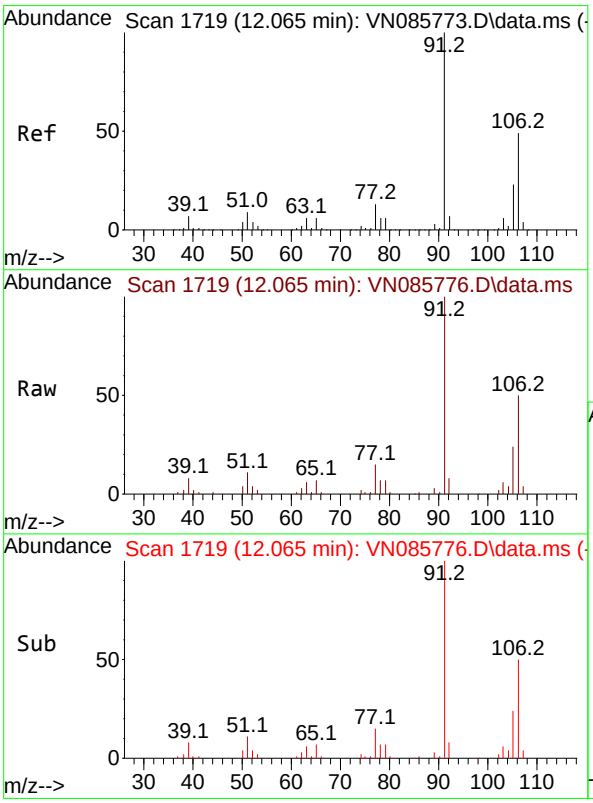
Ion	Ratio	Lower	Upper
91	100		
106	30.1	24.7	37.1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

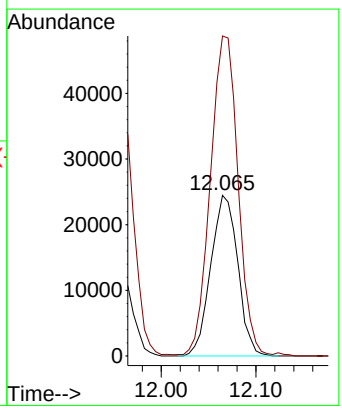


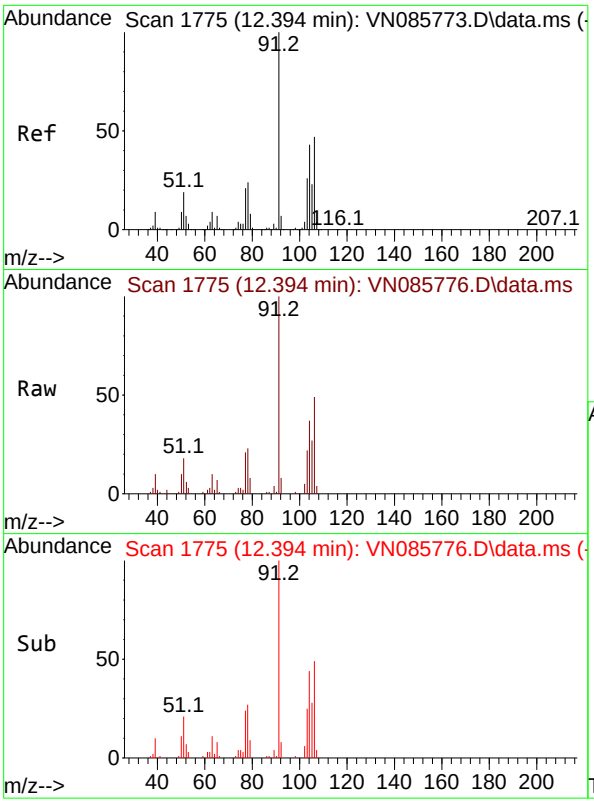


#68
m/p-Xylenes
Concen: 8.949 ug/l
RT: 12.065 min Scan# 1719
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion:106 Resp: 48412

Ion	Ratio	Lower	Upper
106	100		
91	202.4	163.3	244.9





#69
o-Xylene
Concen: 4.512 ug/l
RT: 12.394 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

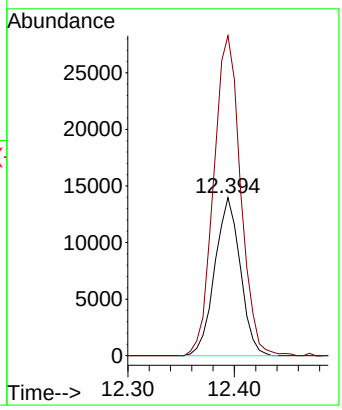
Tgt Ion:106 Resp: 2319

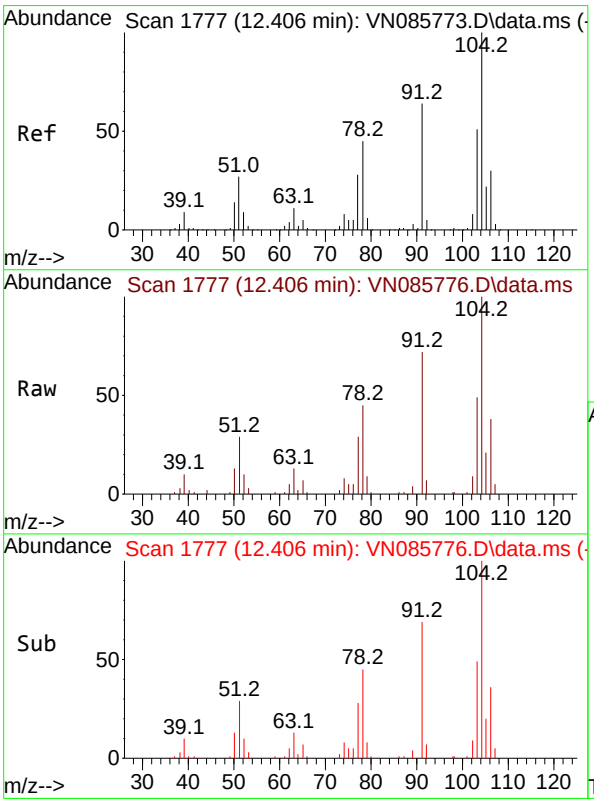
Ion	Ratio	Lower	Upper
106	100		
91	213.9	107.1	321.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

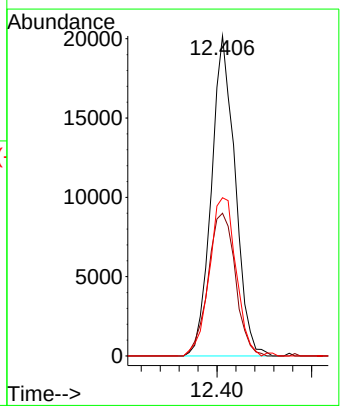


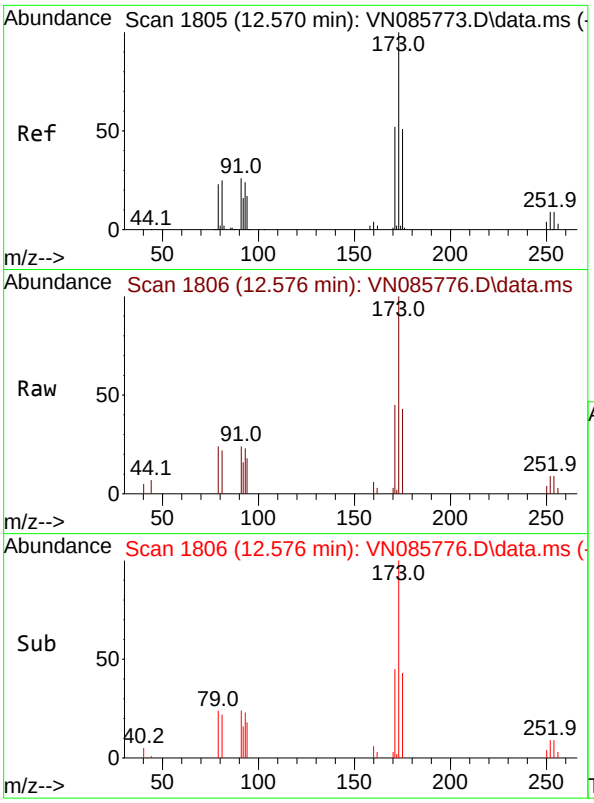


#70
Styrene
Concen: 4.557 ug/l
RT: 12.406 min Scan# 1777
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion:104 Resp: 35138

Ion	Ratio	Lower	Upper
104	100		
78	51.3	39.0	58.6
103	55.4	43.3	64.9

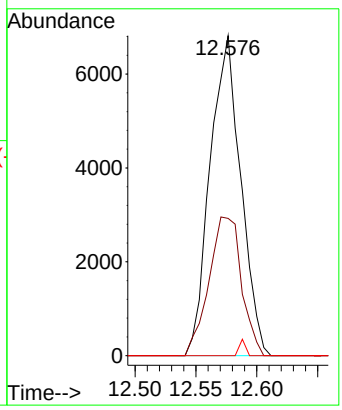




#71
Bromoform
Concen: 4.915 ug/l
RT: 12.576 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion:173 Resp: 1193

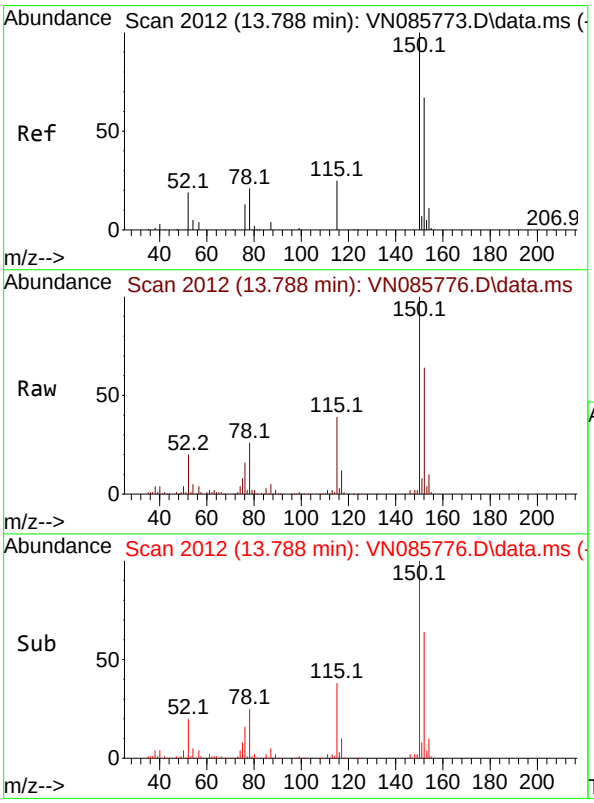
Ion	Ratio	Lower	Upper
173	100		
175	46.0	25.1	75.4
254	1.0	0.0	0.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

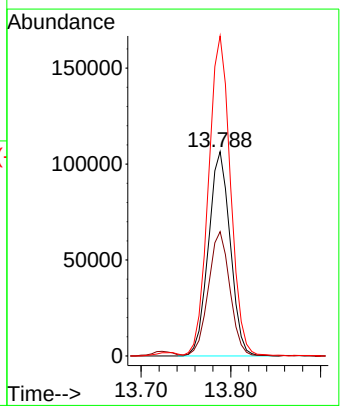
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

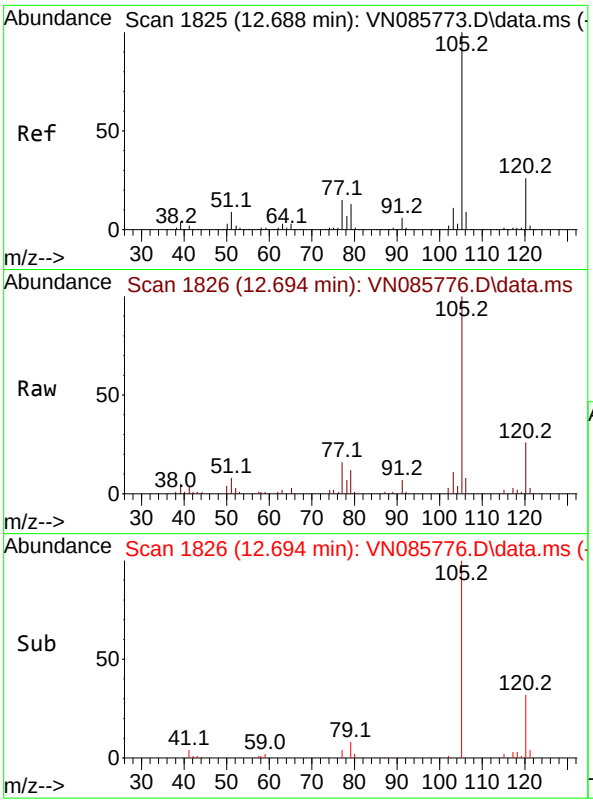


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.788 min Scan# 2012
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion:152 Resp: 179241

Ion	Ratio	Lower	Upper
152	100		
115	60.3	30.4	91.3
150	158.2	0.0	345.4





#73
Isopropylbenzene
Concen: 4.477 ug/l
RT: 12.694 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

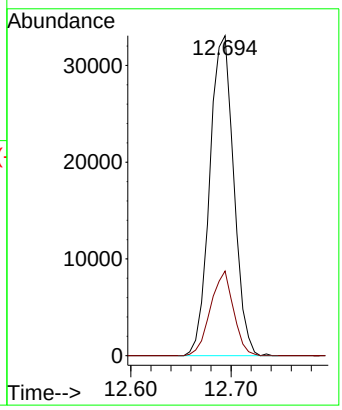
Tgt Ion:105 Resp: 5498

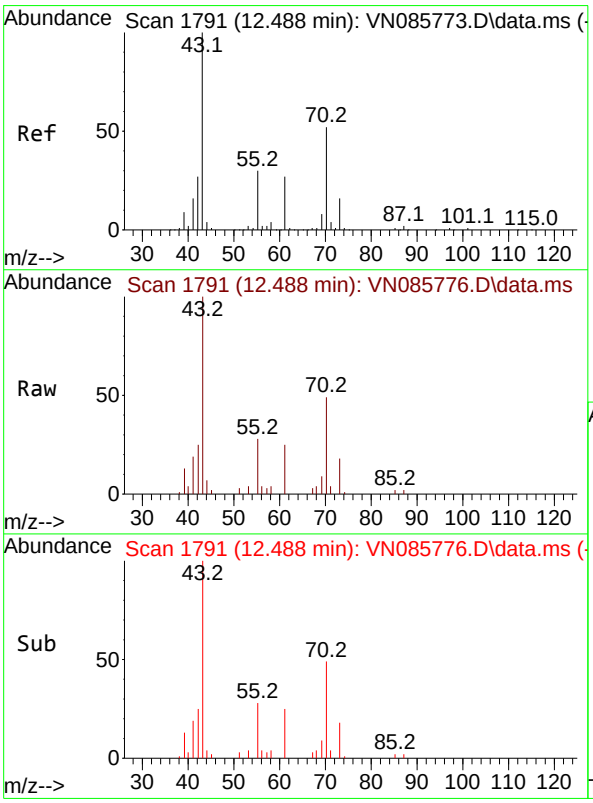
Ion	Ratio	Lower	Upper
105	100		
120	25.4	13.0	39.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

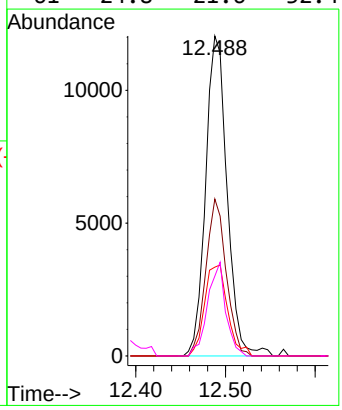


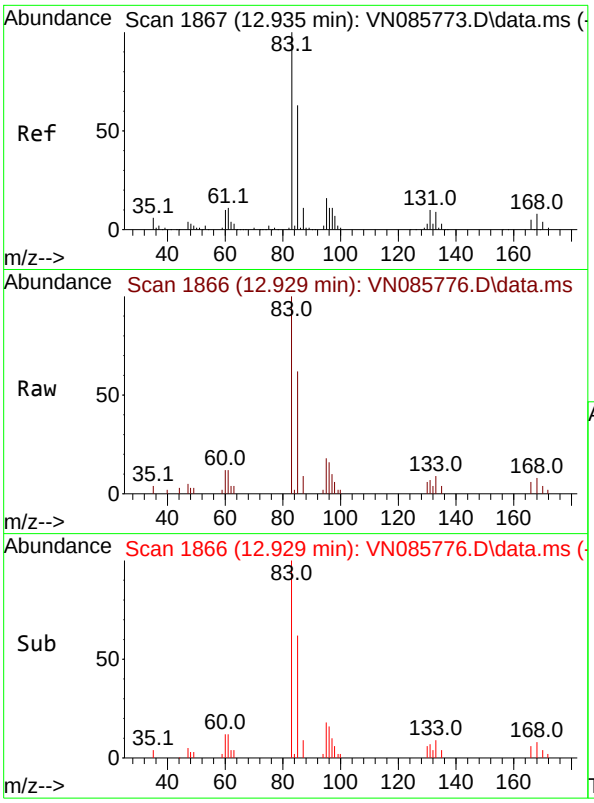


#74
N-amyl acetate
Concen: 4.623 ug/l
RT: 12.488 min Scan# 1791
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 43 Resp: 20017

Ion	Ratio	Lower	Upper
43	100		
70	46.5	41.0	61.4
55	30.4	24.6	36.8
61	24.8	21.6	32.4





#75
1,1,2,2-Tetrachloroethane
Concen: 5.164 ug/l
RT: 12.929 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

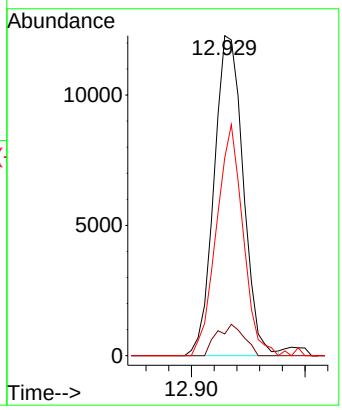
Tgt Ion: 83 Resp: 2182

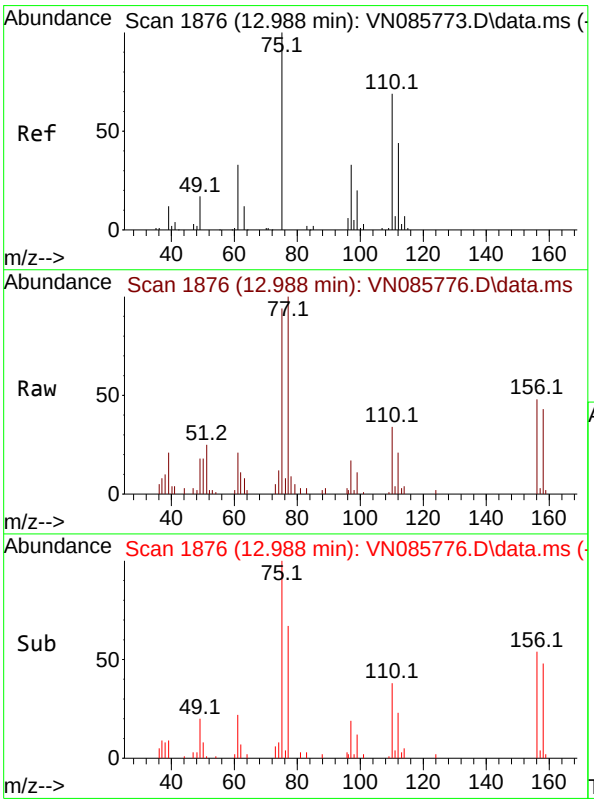
Ion	Ratio	Lower	Upper
83	100		
131	9.2	5.0	15.0
85	66.1	32.2	96.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

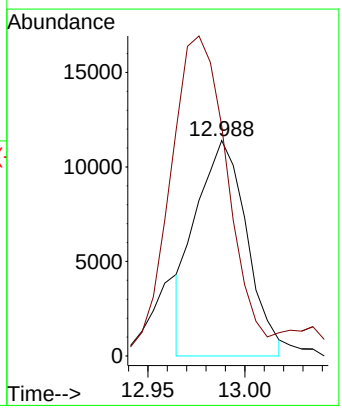


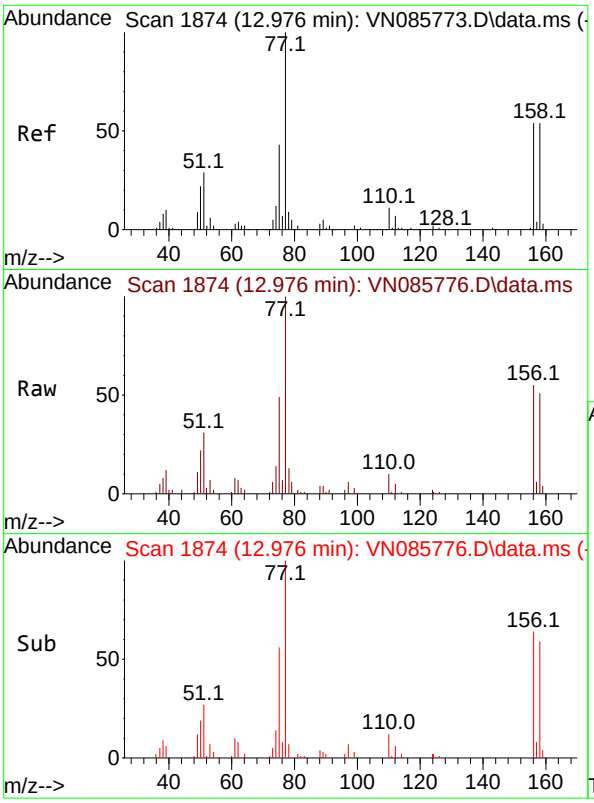


#76
1,2,3-Trichloropropane
Concen: 5.285 ug/l m
RT: 12.988 min Scan# 1876
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 75 Resp: 20813

Ion	Ratio	Lower	Upper
75	100		
77	170.0	100.0	300.0

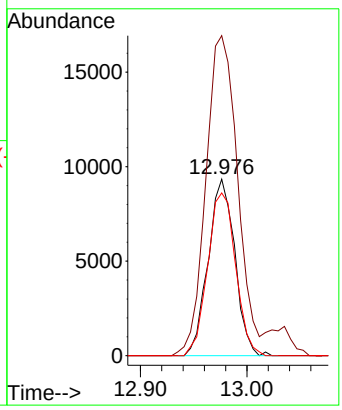




#77
Bromobenzene
Concen: 4.888 ug/l
RT: 12.976 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion:156 Resp: 1621

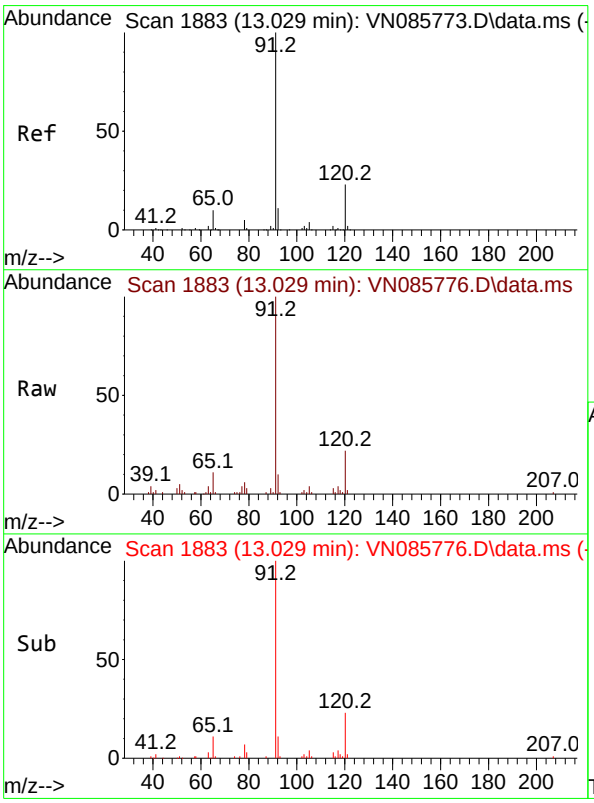
Ion	Ratio	Lower	Upper
156	100		
77	218.2	104.1	312.3
158	96.9	48.1	144.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

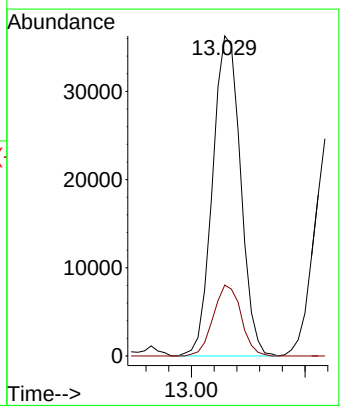
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

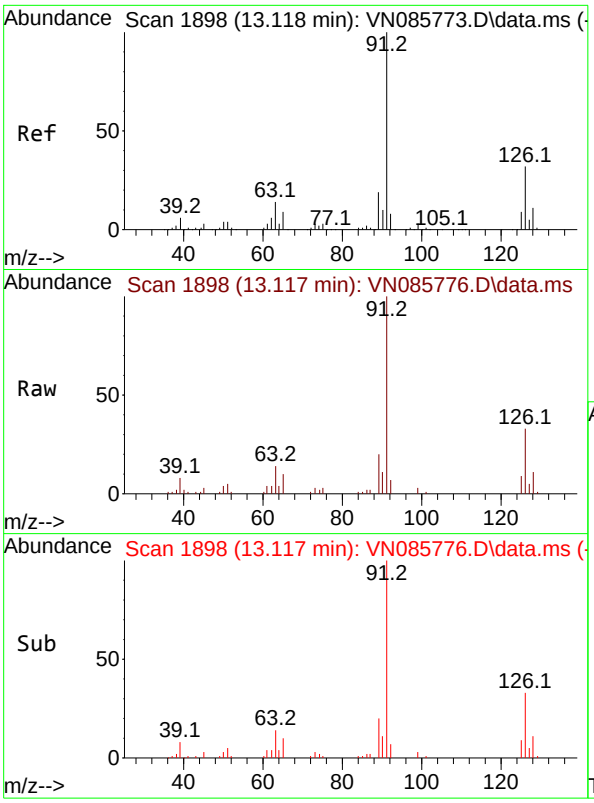


#78
n-propylbenzene
Concen: 4.414 ug/l
RT: 13.029 min Scan# 1883
Delta R.T. 0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 91 Resp: 62073

Ion	Ratio	Lower	Upper
91	100		
120	22.0	11.3	33.8





#79
2-Chlorotoluene
Concen: 4.625 ug/l
RT: 13.117 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

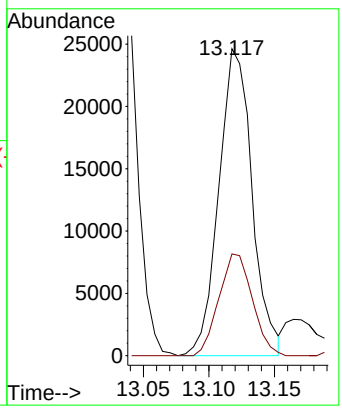
Tgt Ion: 91 Resp: 4345

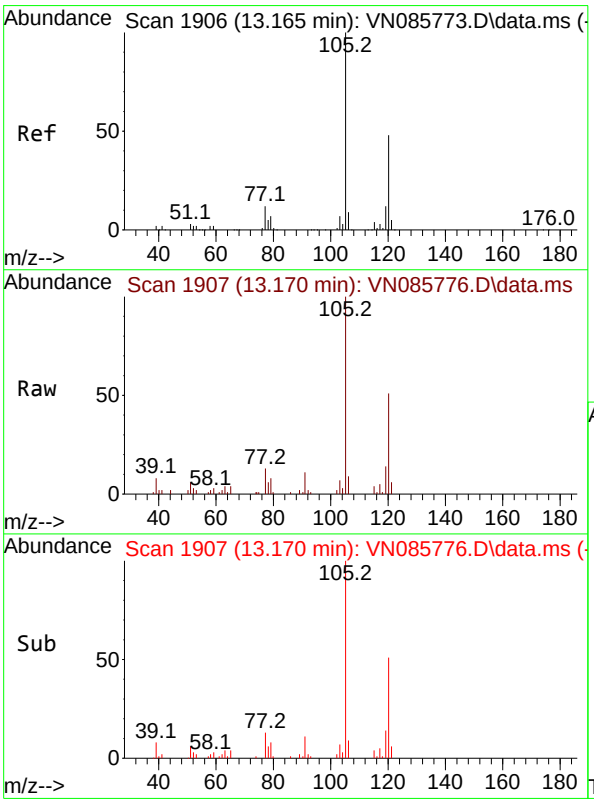
Ion	Ratio	Lower	Upper
91	100		
126	33.3	16.4	49.1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

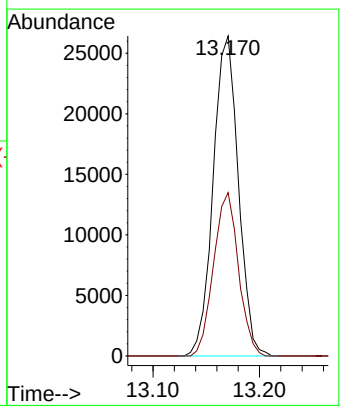


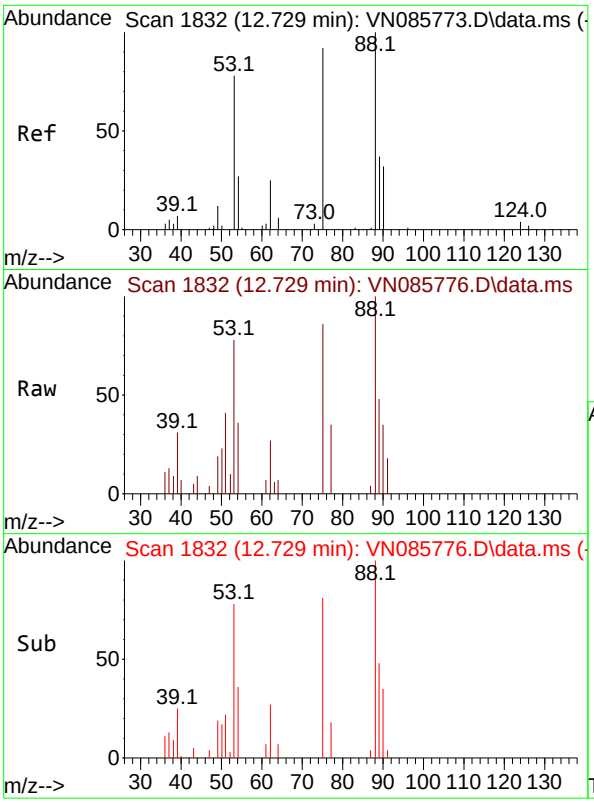


#80
1,3,5-Trimethylbenzene
Concen: 4.333 ug/l
RT: 13.170 min Scan# 1907
Delta R.T. 0.006 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion:105 Resp: 43342

Ion	Ratio	Lower	Upper
105	100		
120	50.4	24.3	72.9

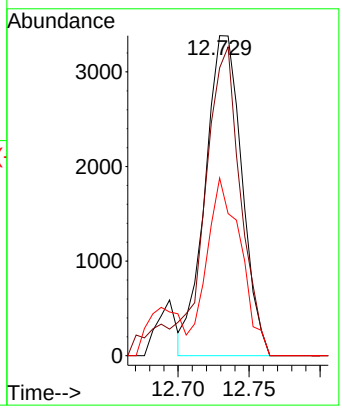




#81
trans-1,4-Dichloro-2-butene
Concen: 4.448 ug/l
RT: 12.729 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 75 Resp: 607

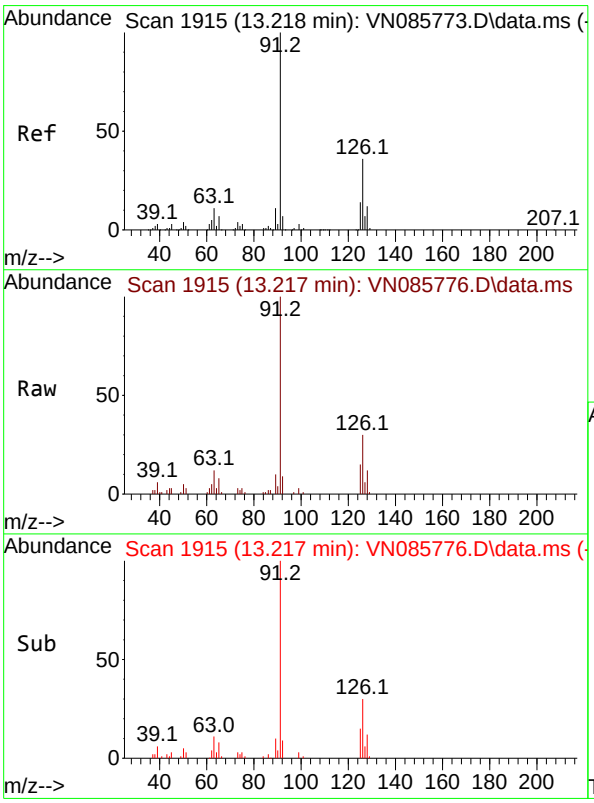
Ion	Ratio	Lower	Upper
75	100		
53	100.7	74.2	111.4
89	51.5	34.9	52.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

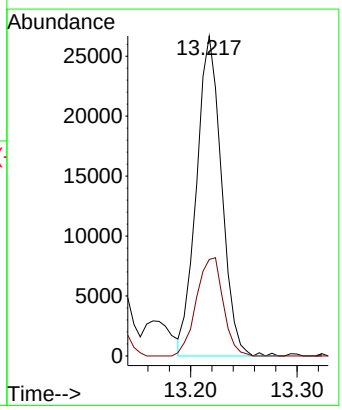
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

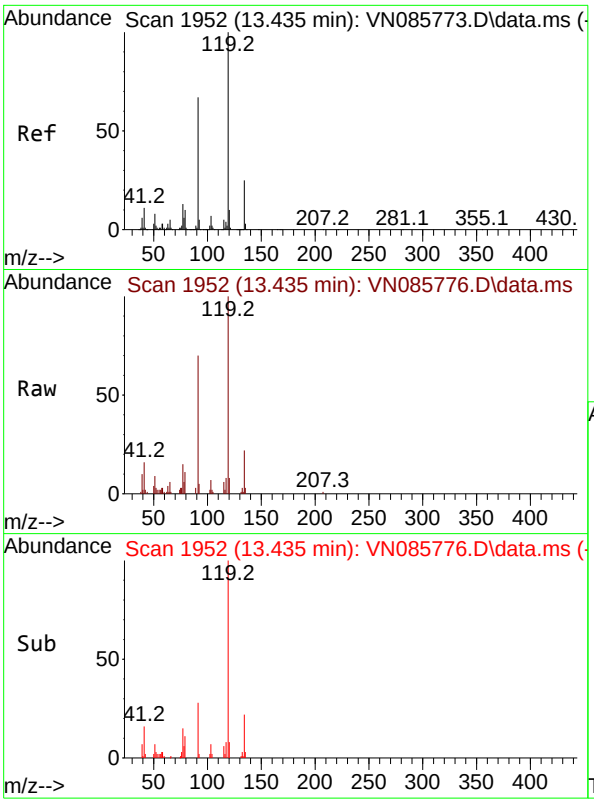


#82
4-Chlorotoluene
Concen: 4.690 ug/l
RT: 13.217 min Scan# 1915
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 91 Resp: 43684

Ion	Ratio	Lower	Upper
91	100		
126	32.8	16.4	49.4

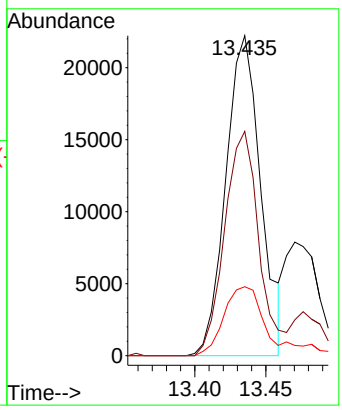




#83
tert-Butylbenzene
Concen: 4.515 ug/l
RT: 13.435 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion:119 Resp: 3797

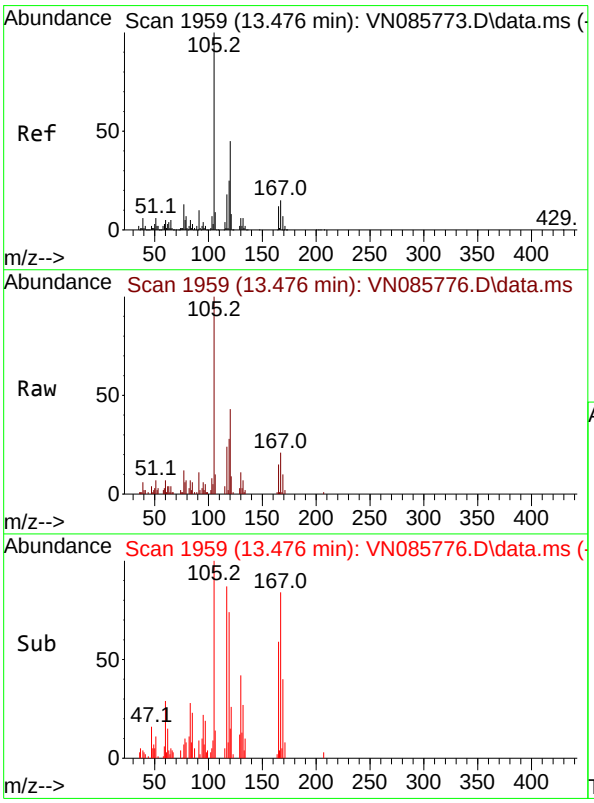
Ion	Ratio	Lower	Upper
119	100		
91	69.1	32.5	97.5
134	26.9	13.3	39.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

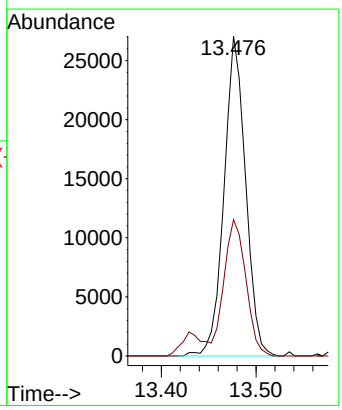
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

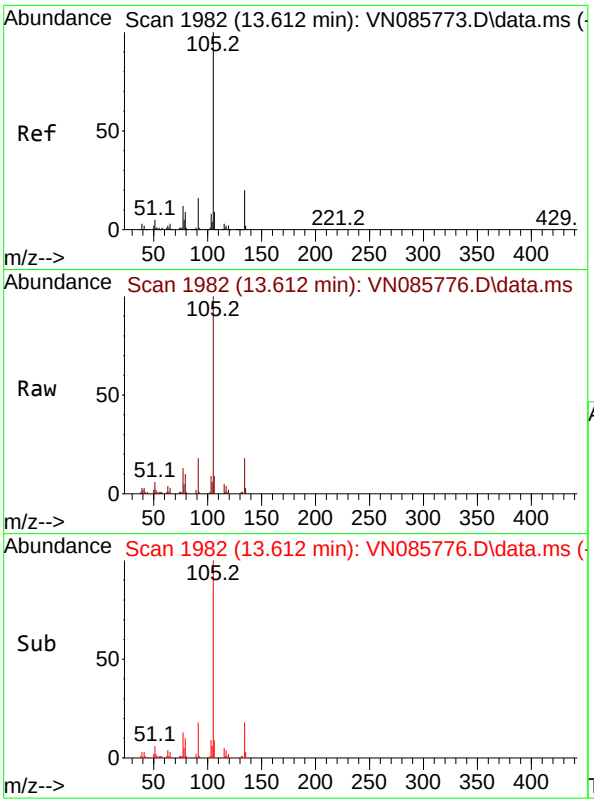


#84
1,2,4-Trimethylbenzene
Concen: 4.324 ug/l
RT: 13.476 min Scan# 1959
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion:105 Resp: 42792

Ion	Ratio	Lower	Upper
105	100		
120	43.1	22.4	67.3





#85
sec-Butylbenzene
Concen: 4.431 ug/l
RT: 13.612 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

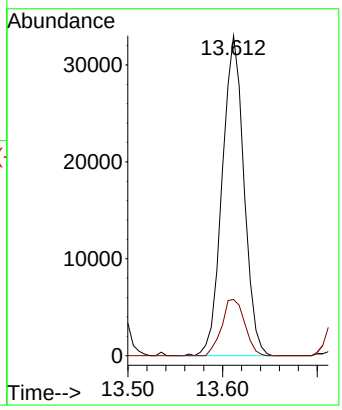
Tgt Ion:105 Resp: 5265

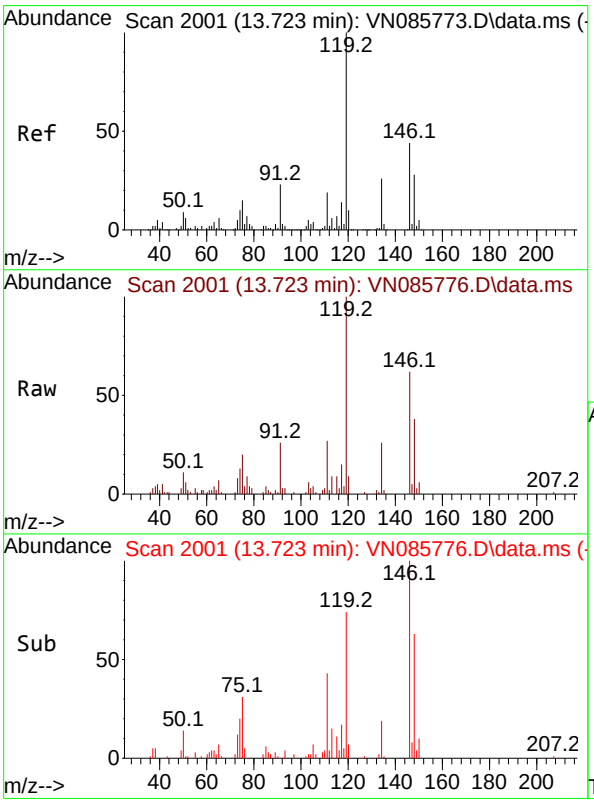
Ion	Ratio	Lower	Upper
105	100		
134	18.6	9.8	29.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

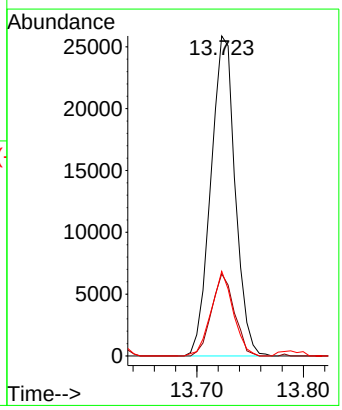


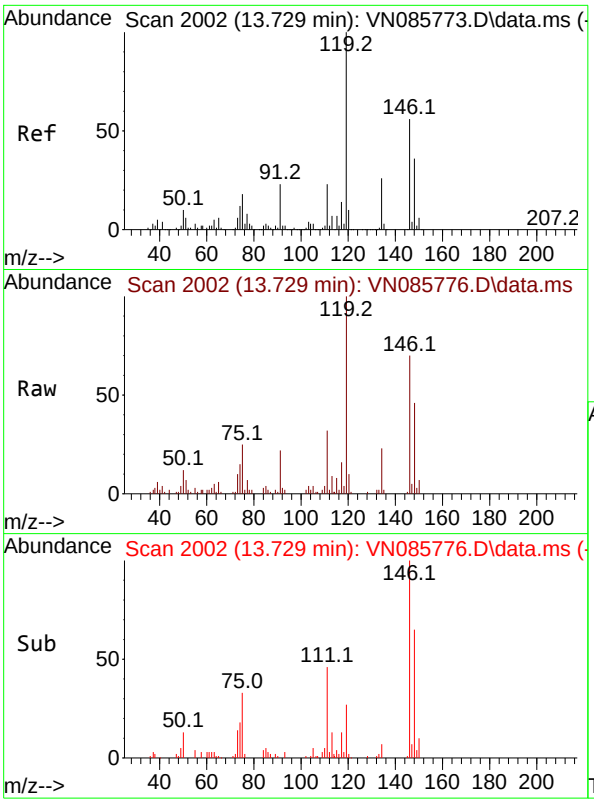


#86
p-Isopropyltoluene
Concen: 4.632 ug/l
RT: 13.723 min Scan# 2001
Delta R.T. 0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion:119 Resp: 41010

Ion	Ratio	Lower	Upper
119	100		
134	24.0	13.0	39.0
91	24.0	11.7	35.1

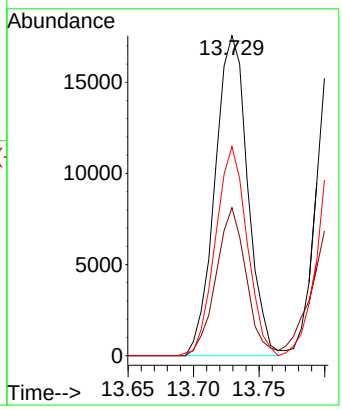




#87
1,3-Dichlorobenzene
Concen: 4.894 ug/l
RT: 13.729 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion:146 Resp: 3041

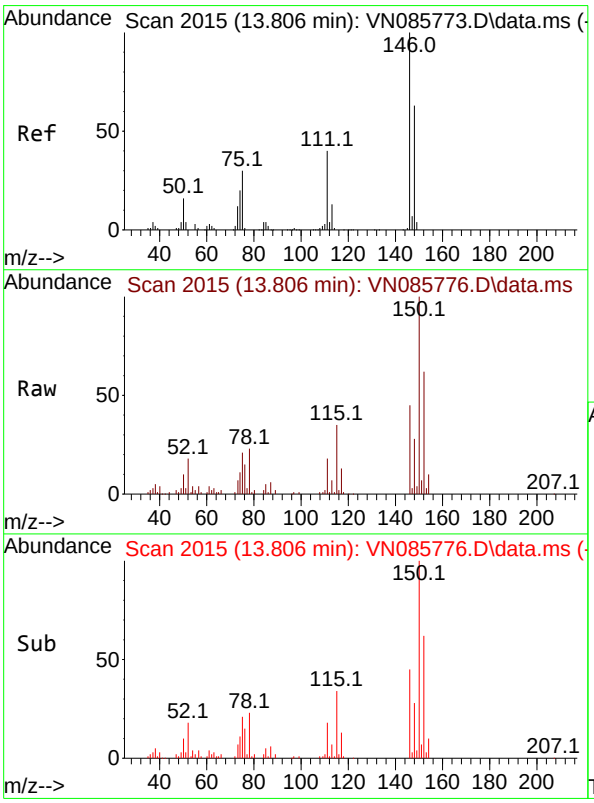
Ion	Ratio	Lower	Upper
146	100		
111	42.8	21.1	63.3
148	63.2	32.1	96.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

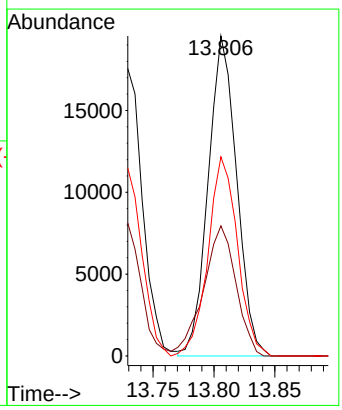
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

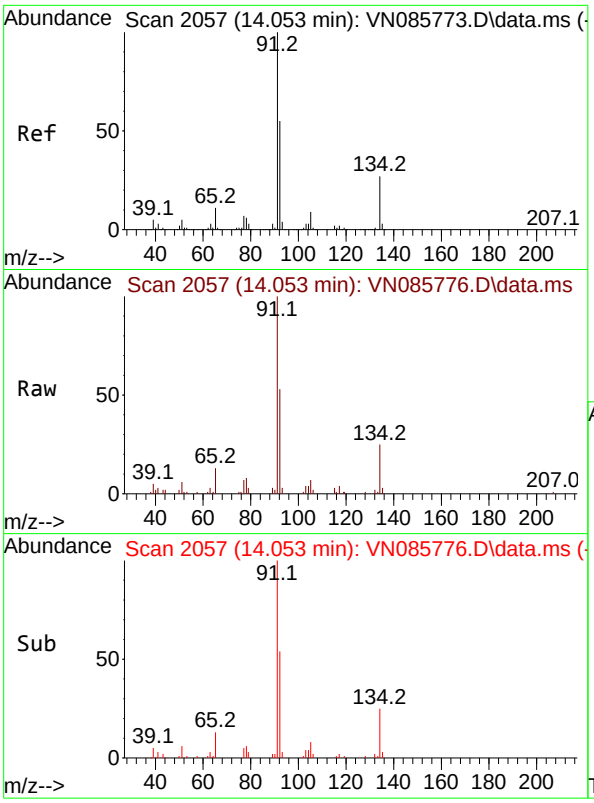


#88
1,4-Dichlorobenzene
Concen: 4.999 ug/l
RT: 13.806 min Scan# 2015
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion:146 Resp: 31847

Ion	Ratio	Lower	Upper
146	100		
111	46.4	20.4	61.3
148	64.5	31.8	95.4

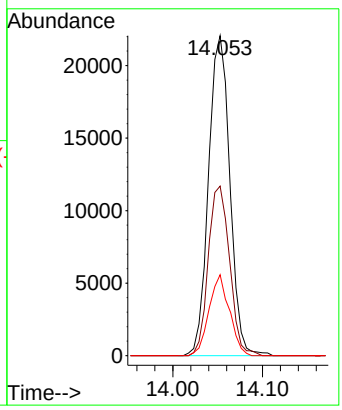




#89
n-Butylbenzene
Concen: 4.317 ug/l
RT: 14.053 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 91 Resp: 3642

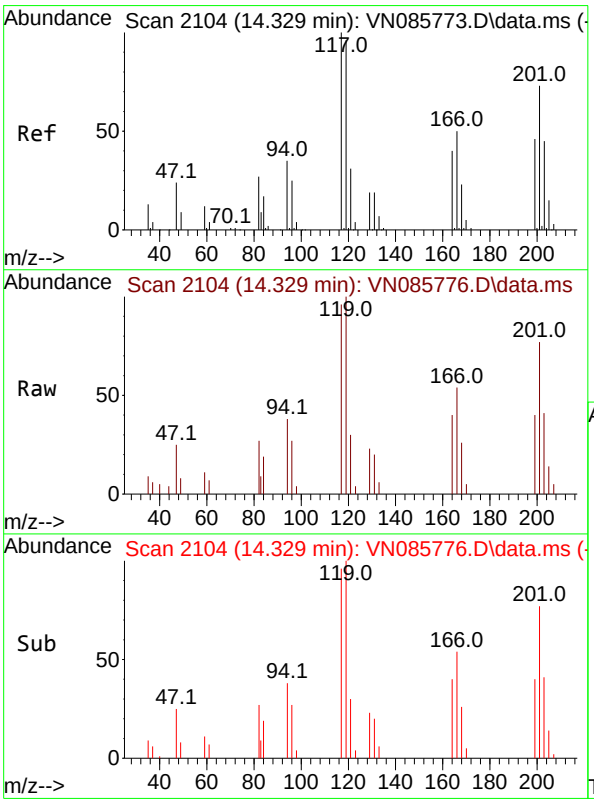
Ion	Ratio	Lower	Upper
91	100		
92	53.0	27.1	81.3
134	24.3	12.7	38.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

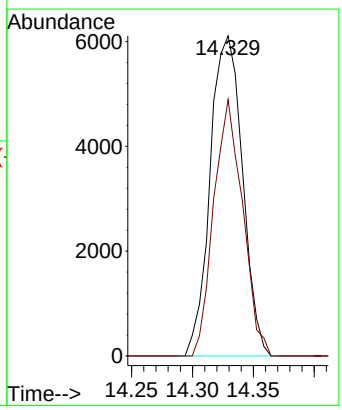
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

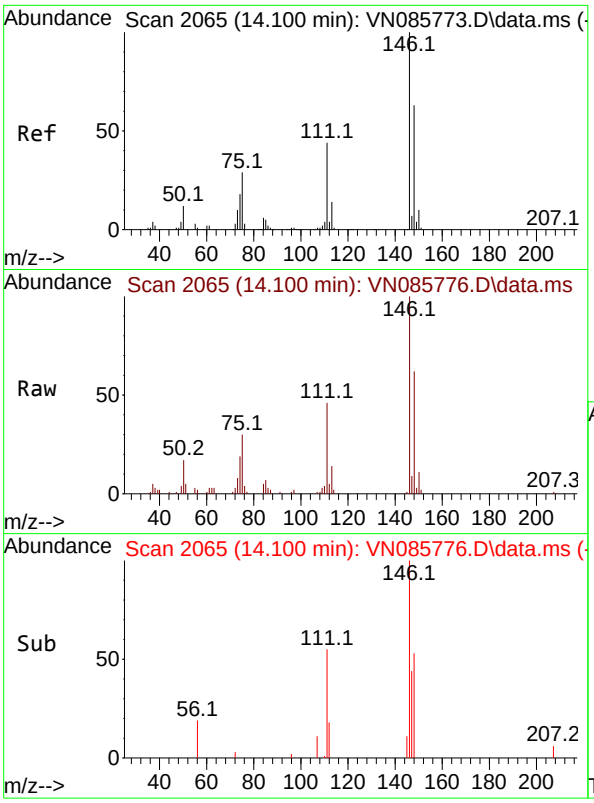


#90
Hexachloroethane
Concen: 5.010 ug/l
RT: 14.329 min Scan# 2104
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion:117 Resp: 11276

Ion	Ratio	Lower	Upper
117	100		
201	71.8	35.6	106.9

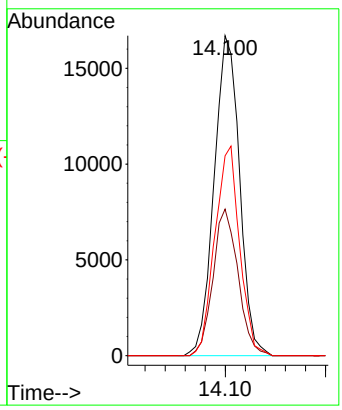




#91
1,2-Dichlorobenzene
Concen: 4.923 ug/l
RT: 14.100 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion:146 Resp: 2942

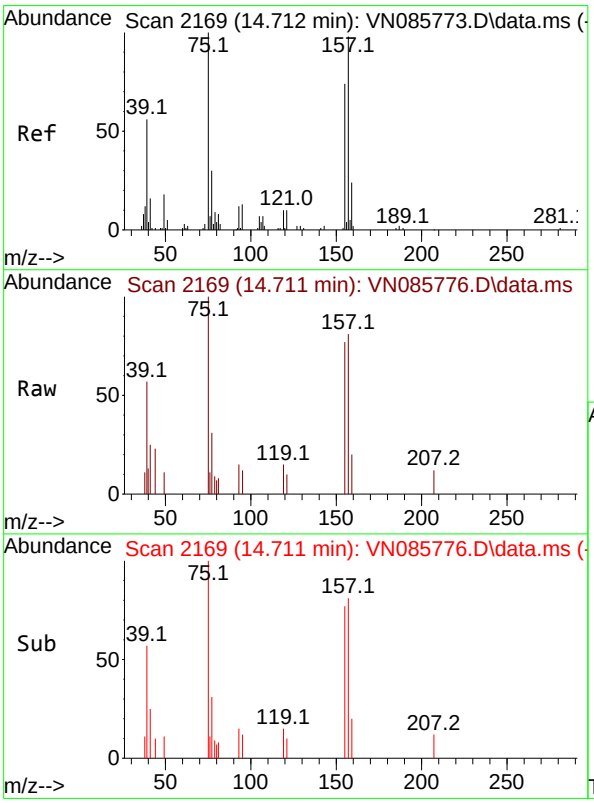
Ion	Ratio	Lower	Upper
146	100		
111	45.1	21.4	64.3
148	63.8	32.0	96.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

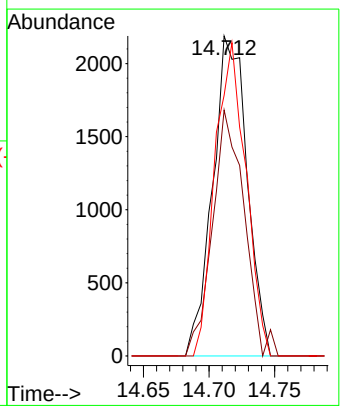
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

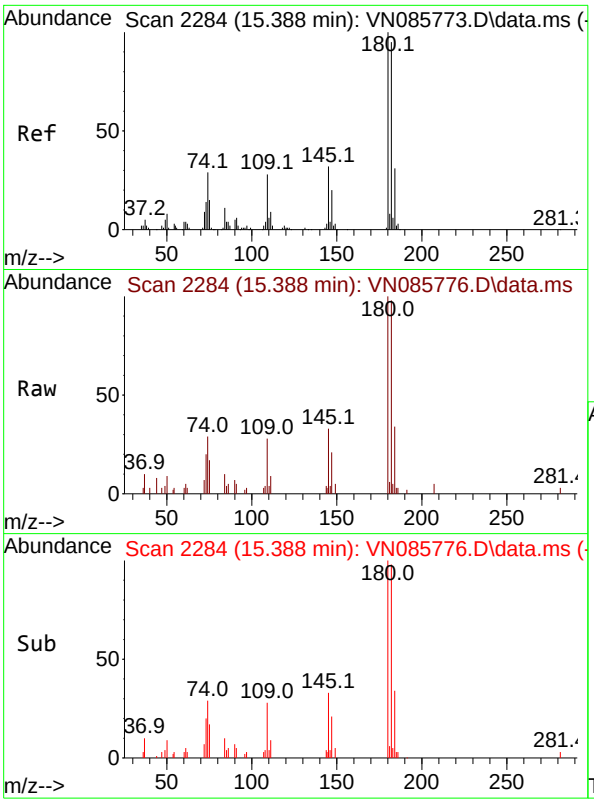


#92
1,2-Dibromo-3-Chloropropane
Concen: 5.138 ug/l
RT: 14.711 min Scan# 2169
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion: 75 Resp: 3987

Ion	Ratio	Lower	Upper
75	100		
155	70.9	39.9	119.6
157	88.2	49.9	149.7

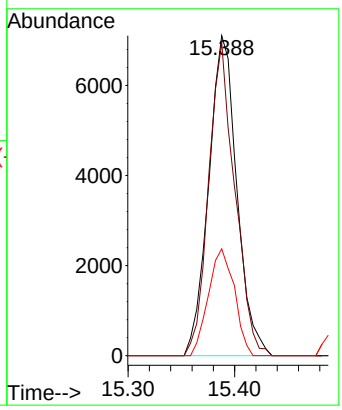




#93
1,2,4-Trichlorobenzene
Concen: 4.578 ug/l
RT: 15.388 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion:180 Resp: 1304

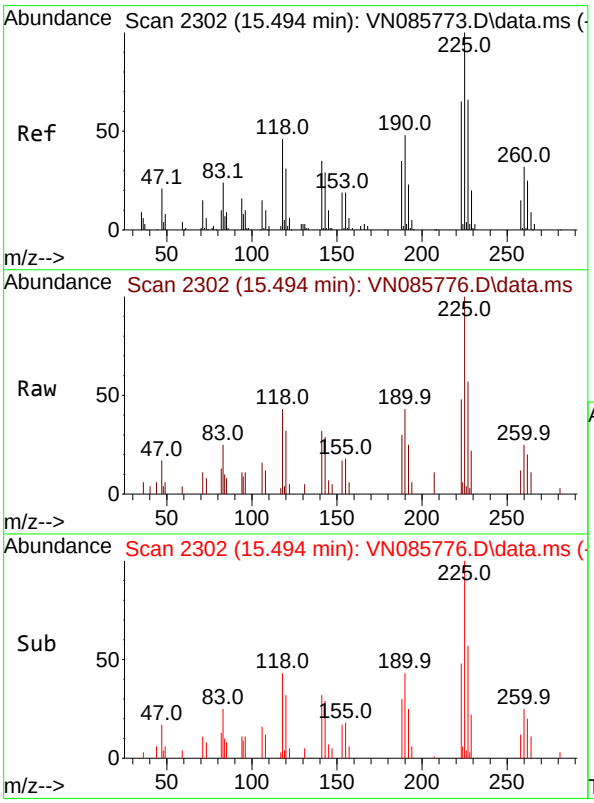
Ion	Ratio	Lower	Upper
180	100		
182	90.9	47.3	141.9
145	30.8	16.2	48.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

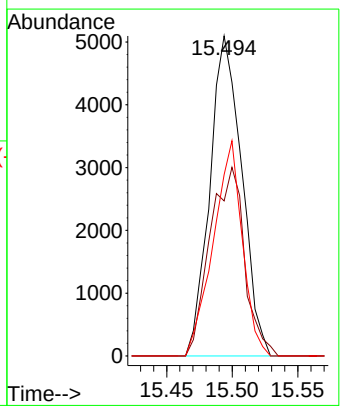
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

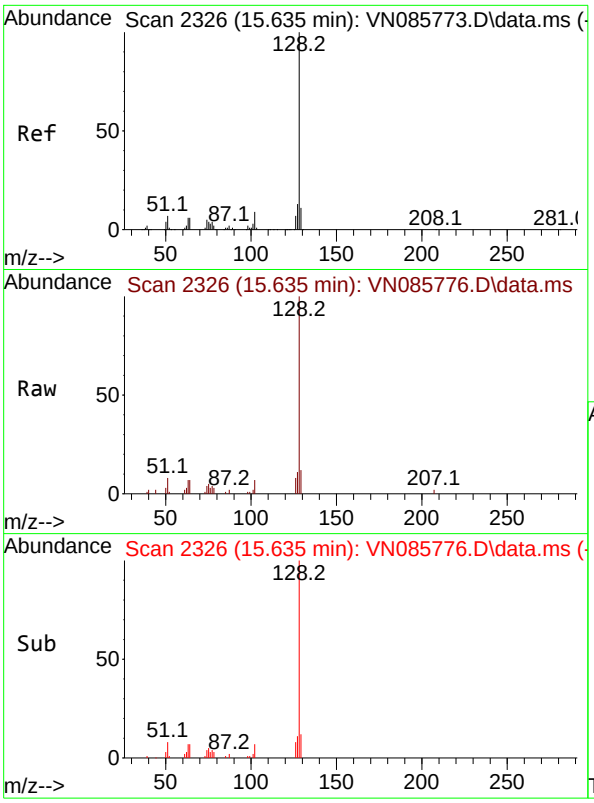


#94
Hexachlorobutadiene
Concen: 4.982 ug/l
RT: 15.494 min Scan# 2302
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion:225 Resp: 8623

Ion	Ratio	Lower	Upper
225	100		
223	64.0	31.9	95.5
227	61.2	32.2	96.6

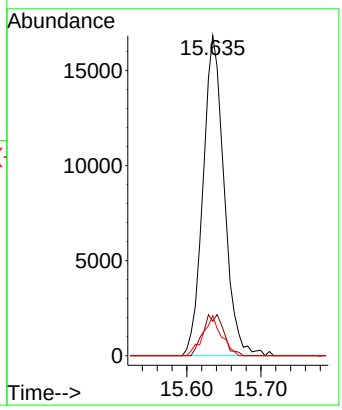




#95
Naphthalene
Concen: 4.259 ug/l
RT: 15.635 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion:128 Resp: 3330

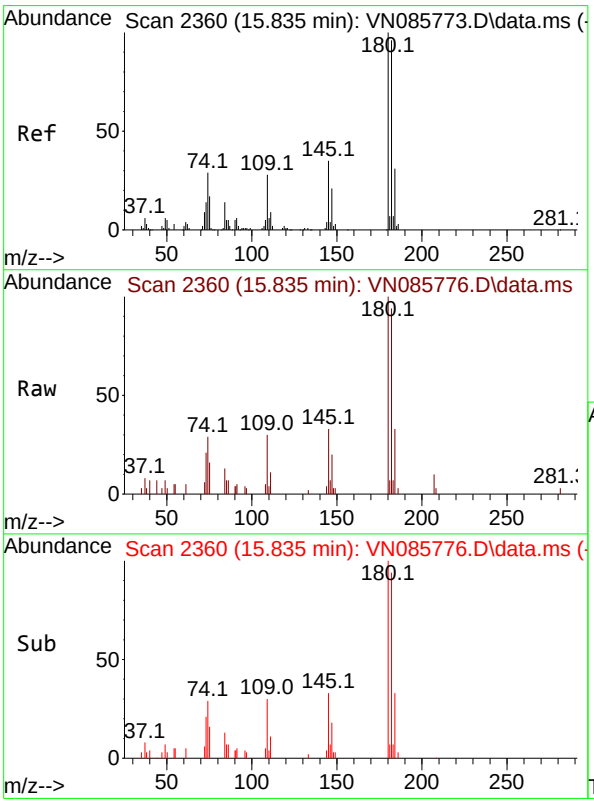
Ion	Ratio	Lower	Upper
128	100		
127	12.7	10.2	15.2
129	10.9	8.7	13.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

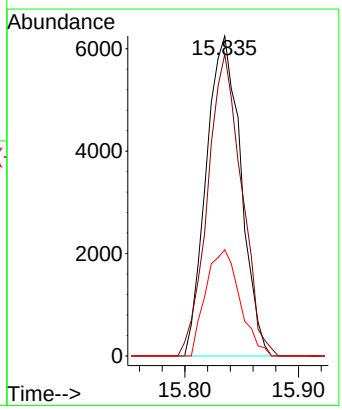
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025



#96
1,2,3-Trichlorobenzene
Concen: 4.612 ug/l
RT: 15.835 min Scan# 2360
Delta R.T. -0.000 min
Lab File: VN085776.D
Acq: 18 Feb 2025 12:43

Tgt Ion:180 Resp: 13188

Ion	Ratio	Lower	Upper
180	100		
182	93.0	47.3	141.8
145	32.8	16.9	50.6



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN021825\
Data File : VN085777.D
Acq On : 18 Feb 2025 13:07
Operator : JC\MD
Sample : VSTDICC001
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 19 03:01:21 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 02:27:19 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	8.224	168	274051	50.000	ug/l		0.00
34) 1,4-Difluorobenzene	9.094	114	476457	50.000	ug/l		0.00
63) Chlorobenzene-d5	11.859	117	394997	50.000	ug/l		0.00
72) 1,4-Dichlorobenzene-d4	13.788	152	152224	50.000	ug/l		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	0.000	65	0d	0.000	ug/l		
Spiked Amount 50.000	Range 74 - 125		Recovery =	0.000%#			
35) Dibromofluoromethane	0.000	113	0d	0.000	ug/l		
Spiked Amount 50.000	Range 75 - 124		Recovery =	0.000%#			
50) Toluene-d8	0.000	98	0d	0.000	ug/l		
Spiked Amount 50.000	Range 86 - 113		Recovery =	0.000%#			
62) 4-Bromofluorobenzene	0.000	95	0d	0.000	ug/l		
Spiked Amount 50.000	Range 77 - 121		Recovery =	0.000%#			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	2.124	85	3620	0.971	ug/l		84
3) Chloromethane	2.359	50	4478	1.197	ug/l	#	83
4) Vinyl Chloride	2.518	62	4169	1.053	ug/l	#	80
6) Chloroethane	3.124	64	3201	1.220	ug/l		100
7) Trichlorofluoromethane	3.500	101	6048	1.055	ug/l	#	71
8) Diethyl Ether	3.965	74	1716m	0.925	ug/l		
9) 1,1,2-Trichlorotrifluo...	4.371	101	3034	0.915	ug/l		90
12) 1,1-Dichloroethene	4.341	96	2817	0.937	ug/l	#	75
14) Allyl chloride	5.024	41	3802m	0.964	ug/l		
15) Acrylonitrile	5.718	53	6980	4.913	ug/l		98
16) Acetone	4.436	43	6230	5.542	ug/l	#	73
17) Carbon Disulfide	4.712	76	10131	1.137	ug/l		98
18) Methyl Acetate	5.030	43	4677	1.210	ug/l	#	52
19) Methyl tert-butyl Ether	5.794	73	7883	0.883	ug/l		97
20) Methylene Chloride	5.277	84	4036	1.116	ug/l	#	84
21) trans-1,2-Dichloroethene	5.788	96	3415	1.055	ug/l		91
22) Diisopropyl ether	6.659	45	7268	0.815	ug/l	#	80
23) Vinyl Acetate	6.600	43	27376m	4.498	ug/l		
24) 1,1-Dichloroethane	6.571	63	5881	0.970	ug/l	#	82
25) 2-Butanone	7.482	43	7658	4.630	ug/l		92
26) 2,2-Dichloropropane	7.477	77	5170m	0.959	ug/l		
27) cis-1,2-Dichloroethene	7.488	96	3541	0.944	ug/l		92
28) Bromochloromethane	7.812	49	2649	1.063	ug/l	#	98
29) Tetrahydrofuran	7.841	42	4567	4.276	ug/l		93
30) Chloroform	7.959	83	6416	1.013	ug/l		98
32) 1,1,1-Trichloroethane	8.159	97	5643	1.002	ug/l	#	47
36) 1,1-Dichloropropene	8.365	75	4055	0.919	ug/l		93
37) Ethyl Acetate	7.553	43	3365	0.927	ug/l	#	84
38) Carbon Tetrachloride	8.353	117	5079	0.969	ug/l	#	94
39) Methylcyclohexane	9.594	83	3557	0.821	ug/l	#	89
40) Benzene	8.606	78	13536	0.957	ug/l		96
41) Methacrylonitrile	7.771	41	1573	0.810	ug/l	#	85
42) 1,2-Dichloroethane	8.671	62	4497	0.976	ug/l		88
43) Isopropyl Acetate	8.677	43	12901	1.494	ug/l	#	73
44) Trichloroethene	9.347	130	3768	1.085	ug/l		98
45) 1,2-Dichloropropane	9.618	63	3235	0.948	ug/l		91

Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN021825\
Data File : VN085777.D
Acq On : 18 Feb 2025 13:07
Operator : JC\MD
Sample : VSTDICC001
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Feb 19 03:01:21 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 02:27:19 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
46) Dibromomethane	9.706	93	2304	0.957	ug/l		96
47) Bromodichloromethane	9.882	83	4879	0.947	ug/l	#	92
48) Methyl methacrylate	9.676	41	2247	0.833	ug/l		92
49) 1,4-Dioxane	9.694	88	992	19.344	ug/l	#	76
51) 4-Methyl-2-Pentanone	10.441	43	13832	3.951	ug/l		94
52) Toluene	10.629	92	6568	0.792	ug/l		98
53) t-1,3-Dichloropropene	10.829	75	3884	0.815	ug/l		95
54) cis-1,3-Dichloropropene	10.312	75	4211	0.806	ug/l	#	87
55) 1,1,2-Trichloroethane	11.012	97	3084	0.936	ug/l	#	88
56) Ethyl methacrylate	10.859	69	2517	1.052	ug/l	#	75
57) 1,3-Dichloropropane	11.153	76	5078	0.923	ug/l		93
58) 2-Chloroethyl Vinyl ether	10.153	63	6353	3.424	ug/l		99
59) 2-Hexanone	11.194	43	8780	3.646	ug/l		91
60) Dibromochloromethane	11.353	129	3380	0.881	ug/l		91
61) 1,2-Dibromoethane	11.465	107	2599	0.835	ug/l		89
64) Tetrachloroethene	11.094	164	3108	1.016	ug/l		87
65) Chlorobenzene	11.882	112	8761	0.968	ug/l		92
66) 1,1,1,2-Tetrachloroethane	11.959	131	3222	0.991	ug/l	#	66
67) Ethyl Benzene	11.959	91	11246	0.793	ug/l		100
68) m/p-Xylenes	12.065	106	7606	1.413	ug/l		91
69) o-Xylene	12.394	106	3965	0.775	ug/l		95
70) Styrene	12.406	104	5877	1.257	ug/l		99
71) Bromoform	12.570	173	2161	0.894	ug/l	#	87
73) Isopropylbenzene	12.694	105	8928	0.856	ug/l		95
74) N-amyl acetate	12.488	43	3263	0.887	ug/l	#	91
75) 1,1,2,2-Tetrachloroethane	12.935	83	3870	1.078	ug/l		99
76) 1,2,3-Trichloropropane	12.988	75	4032m	1.206	ug/l		
77) Bromobenzene	12.976	156	2624	0.931	ug/l		76
78) n-propylbenzene	13.029	91	9228	0.773	ug/l		99
79) 2-Chlorotoluene	13.123	91	7260	0.910	ug/l		95
80) 1,3,5-Trimethylbenzene	13.164	105	6185	0.728	ug/l		98
82) 4-Chlorotoluene	13.217	91	6700	0.847	ug/l		99
83) tert-Butylbenzene	13.435	119	5485	0.768	ug/l		93
84) 1,2,4-Trimethylbenzene	13.482	105	5595	0.666	ug/l		96
85) sec-Butylbenzene	13.611	105	7569	0.750	ug/l		99
86) p-Isopropyltoluene	13.723	119	5416	1.252	ug/l		95
87) 1,3-Dichlorobenzene	13.729	146	5321	1.008	ug/l		98
88) 1,4-Dichlorobenzene	13.806	146	5848m	1.081	ug/l		
89) n-Butylbenzene	14.047	91	6398	0.893	ug/l		91
90) Hexachloroethane	14.329	117	2153	1.126	ug/l		91
91) 1,2-Dichlorobenzene	14.100	146	5309	1.046	ug/l		97
92) 1,2-Dibromo-3-Chloropr...	14.711	75	780	1.184	ug/l		93
93) 1,2,4-Trichlorobenzene	15.394	180	2525	1.044	ug/l		95
94) Hexachlorobutadiene	15.494	225	1976	1.344	ug/l		94
95) Naphthalene	15.635	128	7298	1.099	ug/l	#	94
96) 1,2,3-Trichlorobenzene	15.841	180	2791	1.149	ug/l		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

ICAL Form

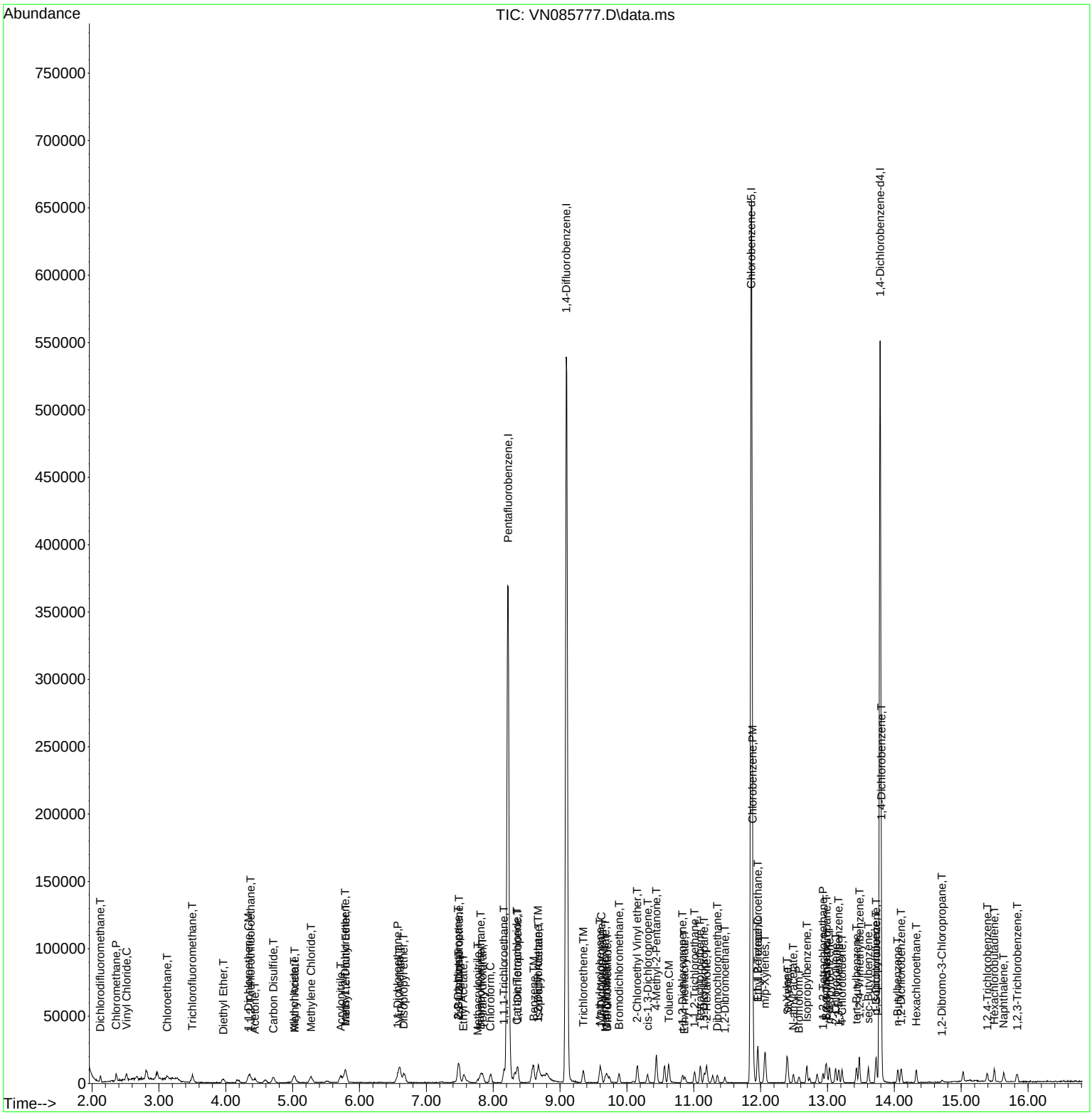
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN021825\
Data File : VN085777.D
Acq On : 18 Feb 2025 13:07
Operator : JC\MD
Sample : VSTDICC001
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 7 Sample Multiplier: 1

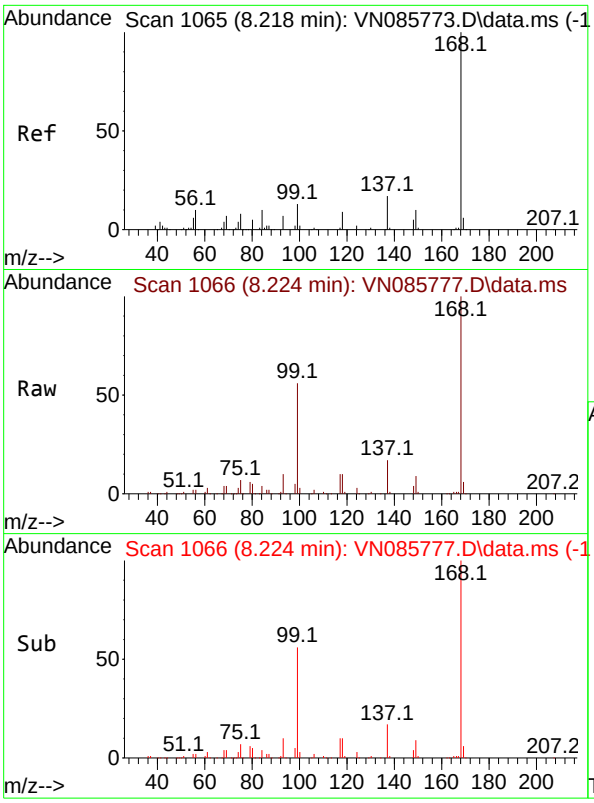
Quant Time: Feb 19 03:01:21 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 02:27:19 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

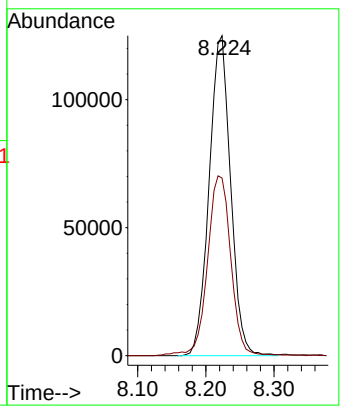




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.224 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion:168 Resp: 27405

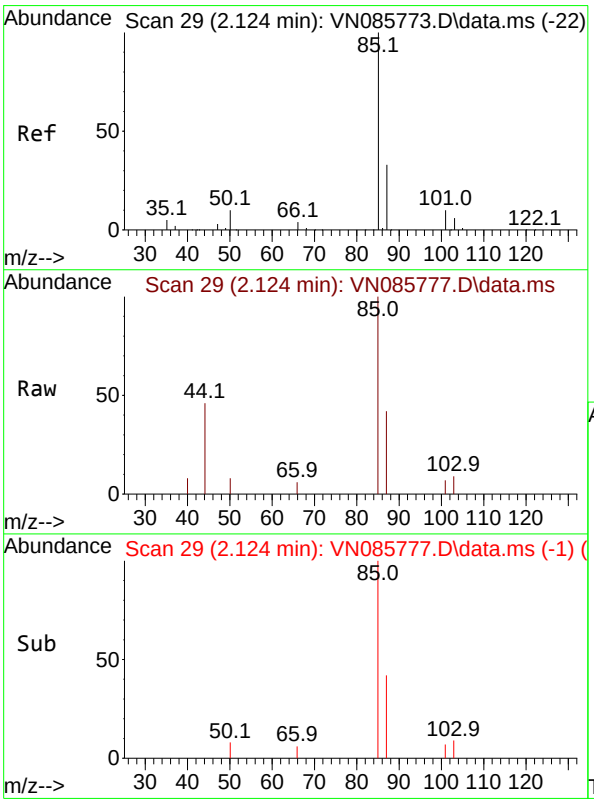
Ion	Ratio	Lower	Upper
168	100		
99	55.2	47.9	71.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

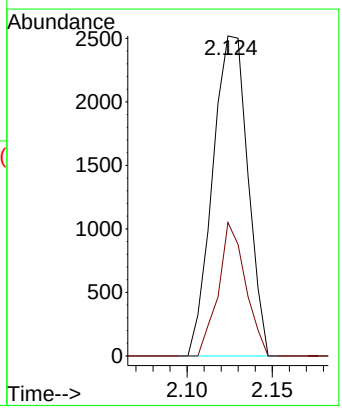
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

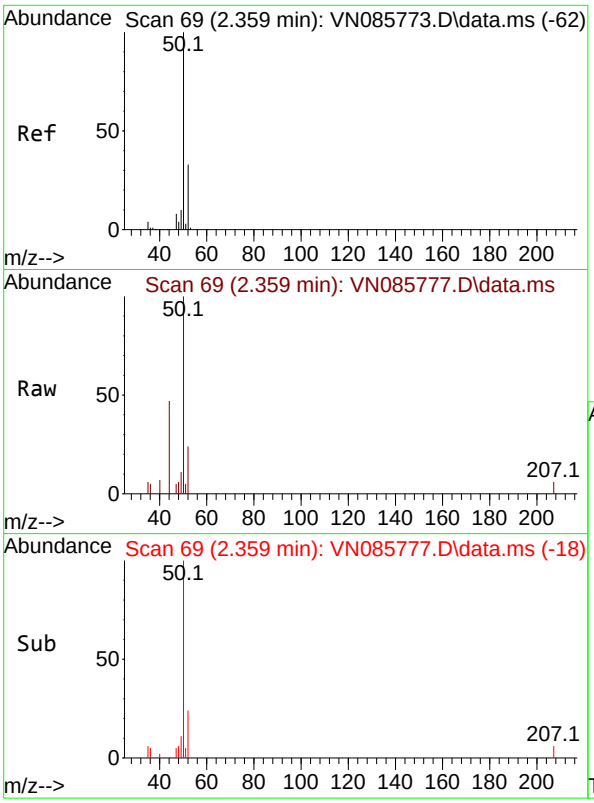


#2
Dichlorodifluoromethane
Concen: 0.971 ug/l
RT: 2.124 min Scan# 29
Delta R.T. -0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 85 Resp: 3620

Ion	Ratio	Lower	Upper
85	100		
87	41.7	16.4	49.2

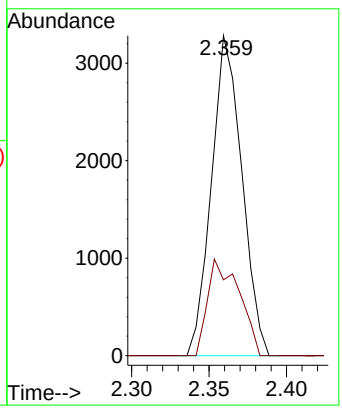




#3
Chloromethane
Concen: 1.197 ug/l
RT: 2.359 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 50 Resp: 447

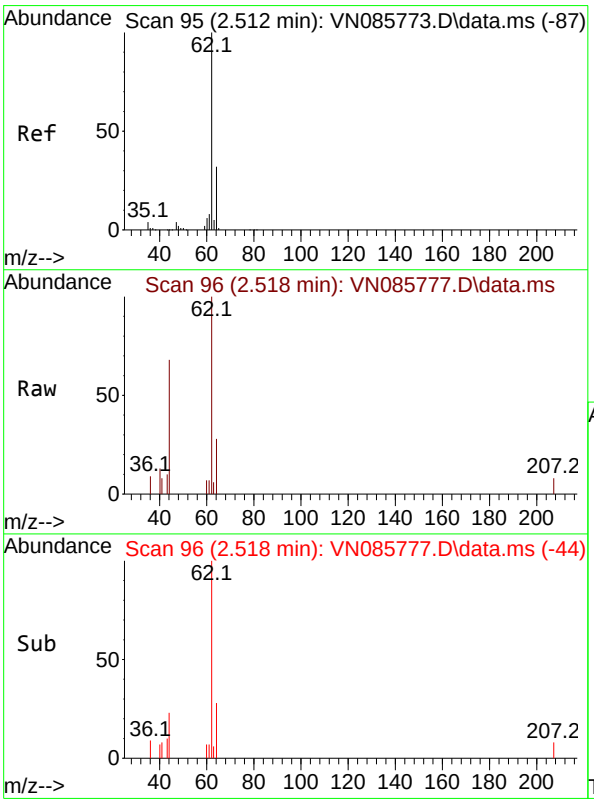
Ion	Ratio	Lower	Upper
50	100		
52	23.7	26.7	40.1#



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

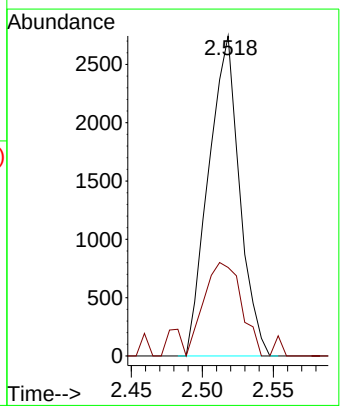
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

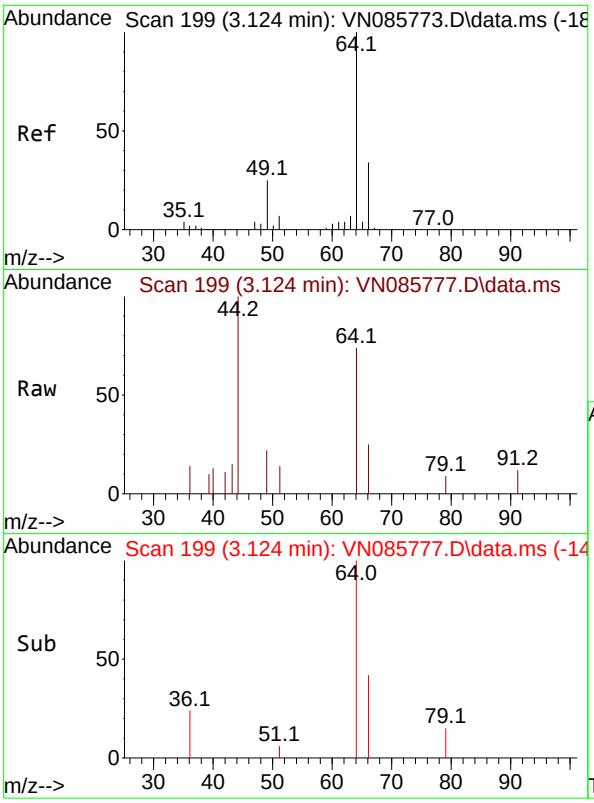


#4
Vinyl Chloride
Concen: 1.053 ug/l
RT: 2.518 min Scan# 96
Delta R.T. 0.006 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 62 Resp: 4169

Ion	Ratio	Lower	Upper
62	100		
64	21.4	25.9	38.9#

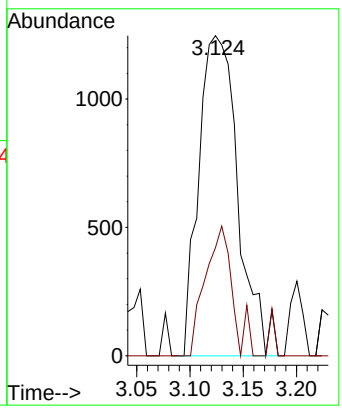




#6
Chloroethane
Concen: 1.220 ug/l
RT: 3.124 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 64 Resp: 320

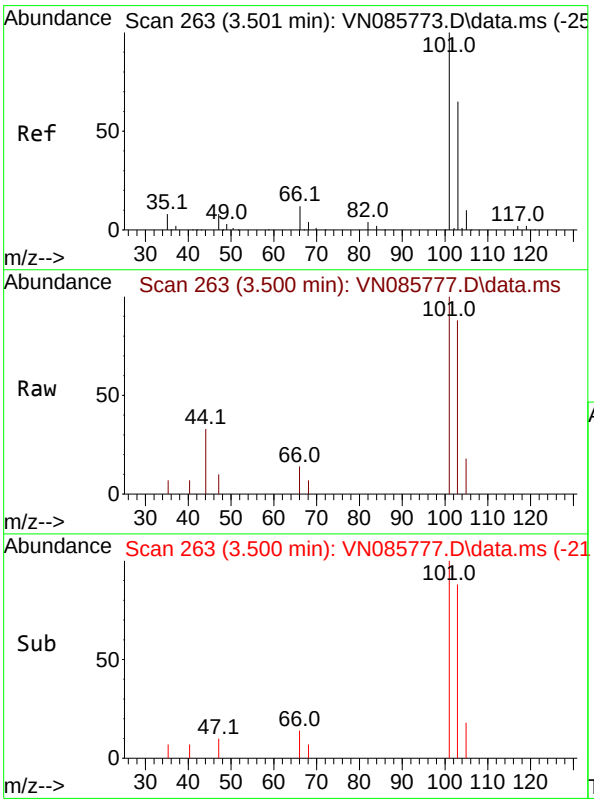
Ion	Ratio	Lower	Upper
64	100		
66	33.8	27.0	40.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

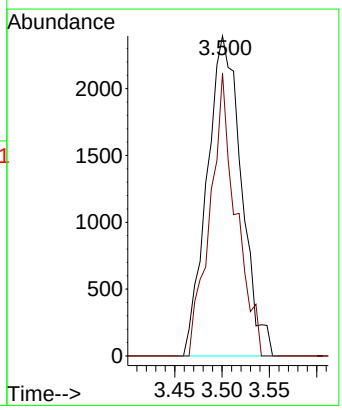
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

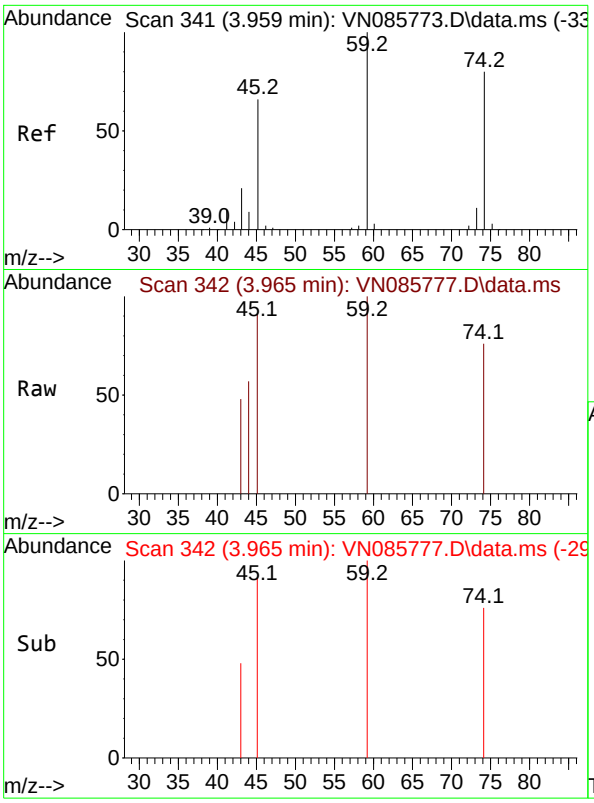


#7
Trichlorofluoromethane
Concen: 1.055 ug/l
RT: 3.500 min Scan# 263
Delta R.T. -0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion:101 Resp: 6048

Ion	Ratio	Lower	Upper
101	100		
103	88.5	52.2	78.4#





#8
Diethyl Ether
Concen: 0.925 ug/l m
RT: 3.965 min Scan# 34
Delta R.T. 0.006 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

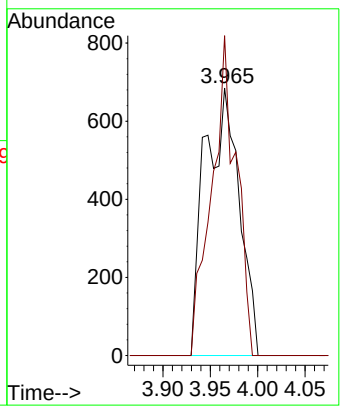
Tgt Ion: 74 Resp: 171

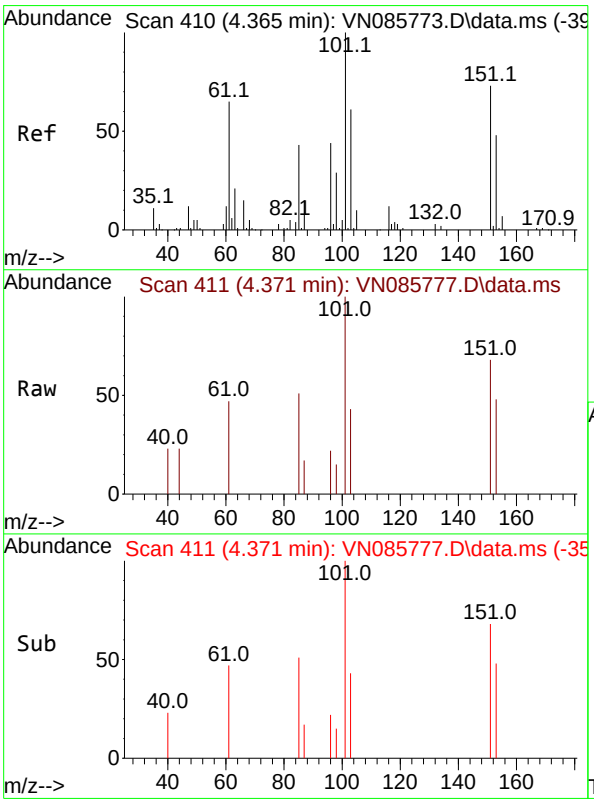
Ion	Ratio	Lower	Upper
74	100		
45	86.6	42.5	127.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

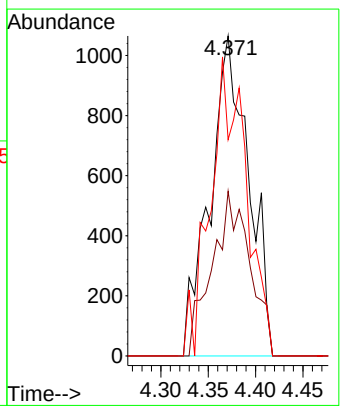


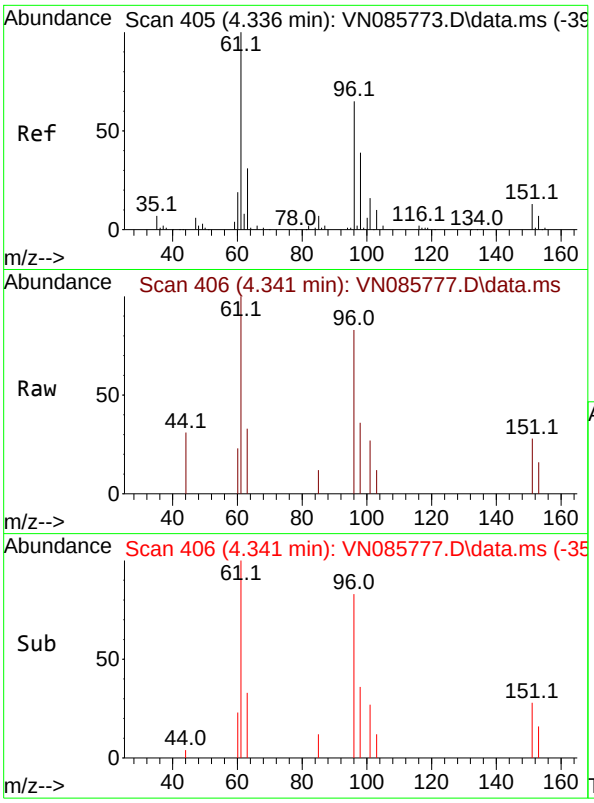


#9
1,1,2-Trichlorotrifluoroethane
Concen: 0.915 ug/l
RT: 4.371 min Scan# 411
Delta R.T. 0.006 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion:101 Resp: 3034

Ion	Ratio	Lower	Upper
101	100		
85	50.2	35.7	53.5
151	86.4	61.4	92.2

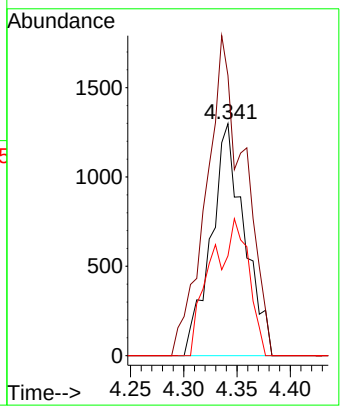




#12
1,1-Dichloroethene
Concen: 0.937 ug/l
RT: 4.341 min Scan# 4(
Delta R.T. 0.006 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 96 Resp: 281

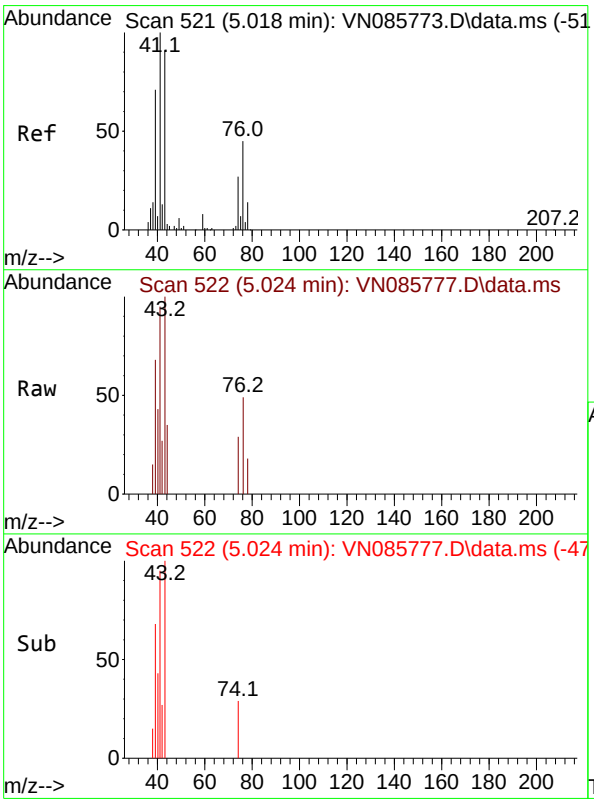
Ion	Ratio	Lower	Upper
96	100		
61	120.8	123.3	184.9#
98	43.1	48.6	72.8#



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

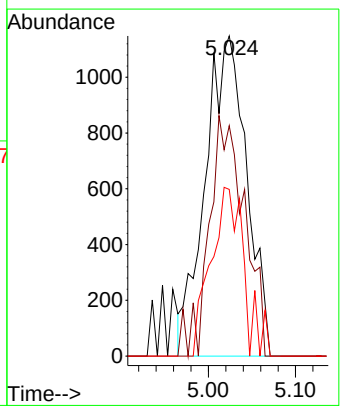
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

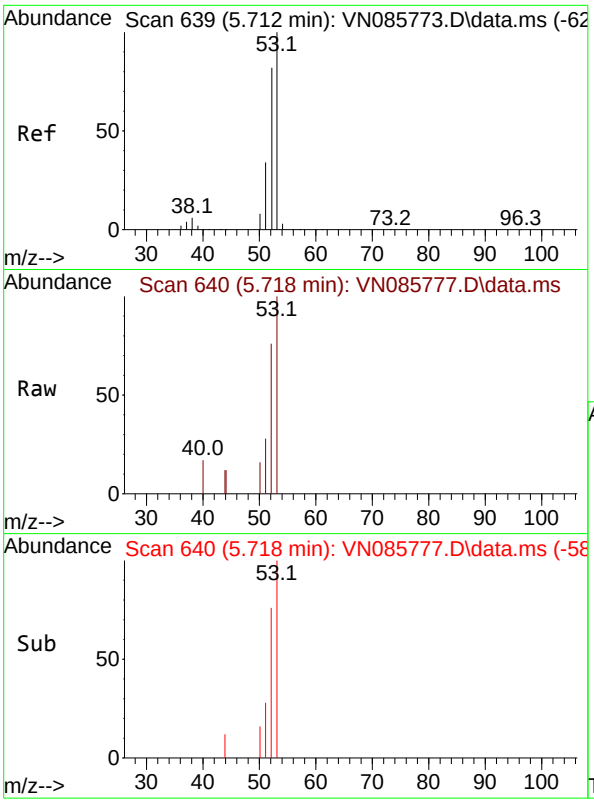


#14
Allyl chloride
Concen: 0.964 ug/l m
RT: 5.024 min Scan# 522
Delta R.T. 0.006 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 41 Resp: 3802

Ion	Ratio	Lower	Upper
41	100		
39	62.8	57.4	86.2
76	41.9	36.2	54.2





#15
Acrylonitrile
Concen: 4.913 ug/l
RT: 5.718 min Scan# 64
Delta R.T. 0.006 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

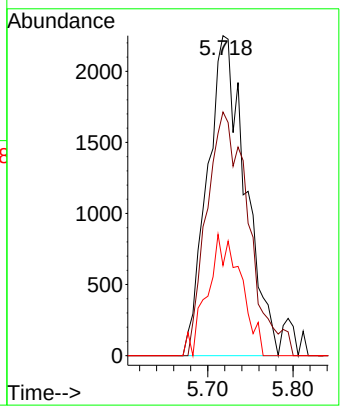
Tgt Ion: 53 Resp: 698

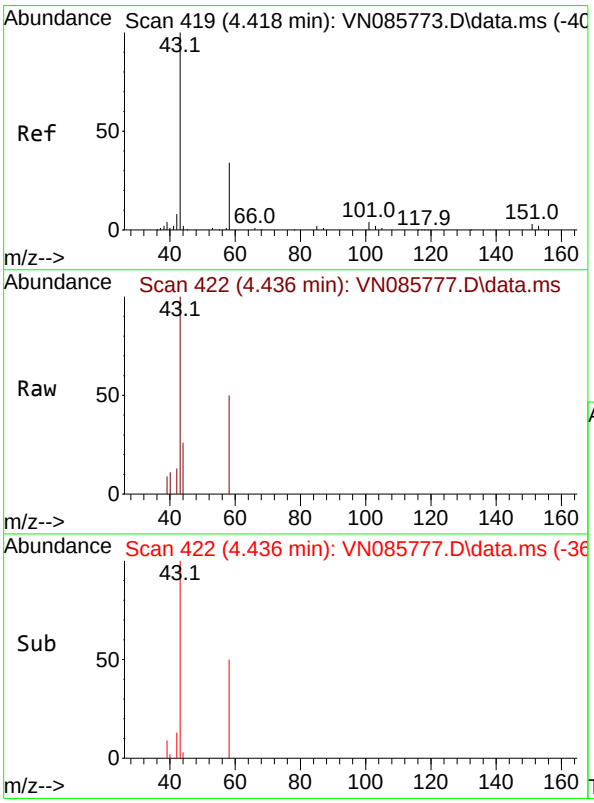
Ion	Ratio	Lower	Upper
53	100		
52	83.6	65.8	98.6
51	33.5	28.6	42.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

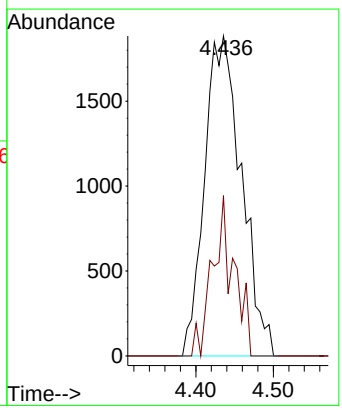


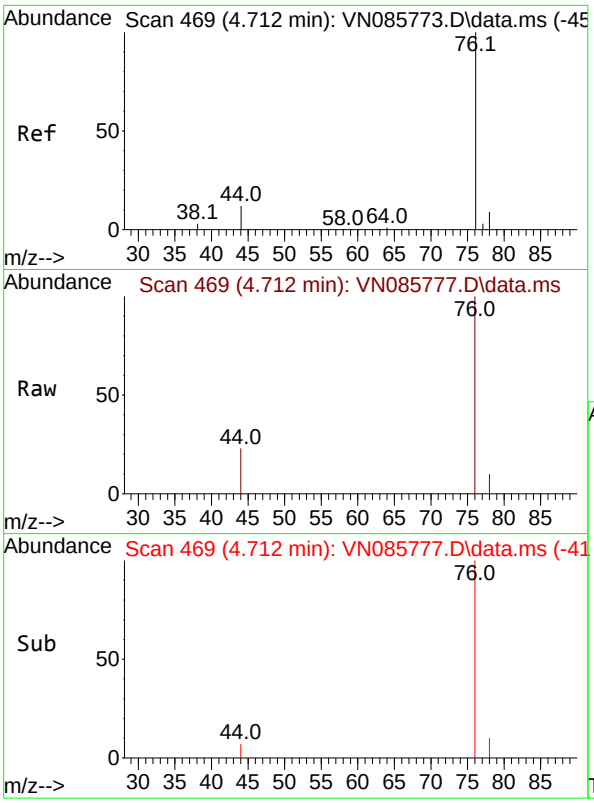


#16
Acetone
Concen: 5.542 ug/l
RT: 4.436 min Scan# 422
Delta R.T. 0.018 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 43 Resp: 6230

Ion	Ratio	Lower	Upper
43	100		
58	50.1	27.5	41.3#





#17
Carbon Disulfide
Concen: 1.137 ug/l
RT: 4.712 min Scan# 4
Delta R.T. -0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

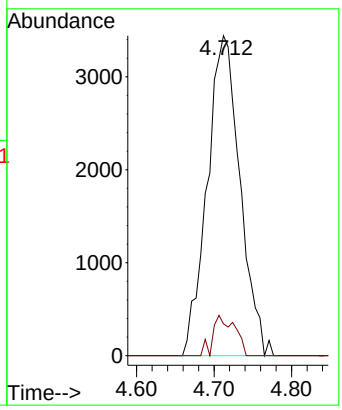
Tgt Ion: 76 Resp: 1013

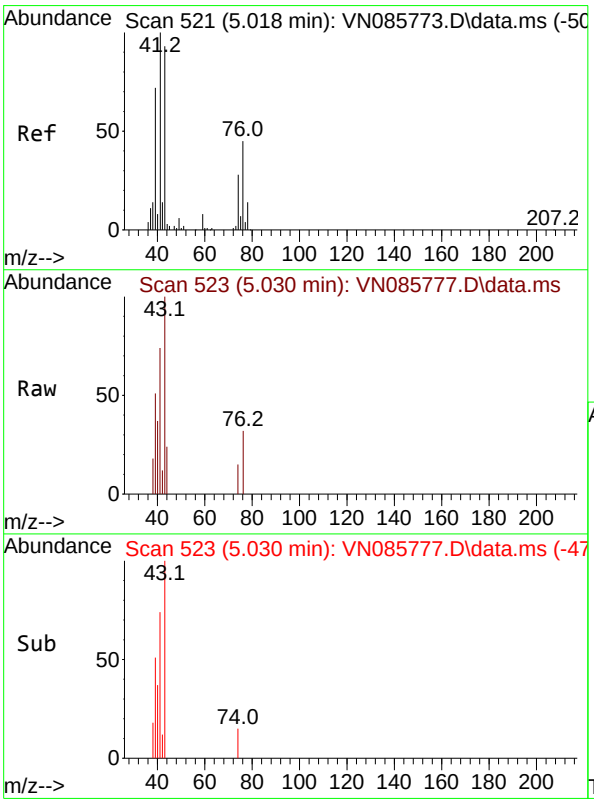
Ion	Ratio	Lower	Upper
76	100		
78	10.0	7.4	11.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

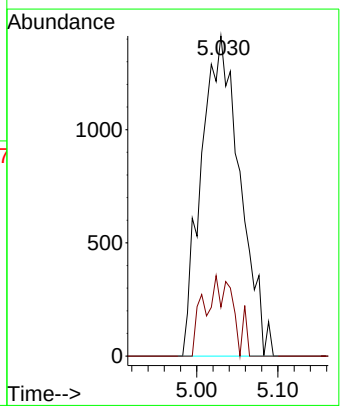


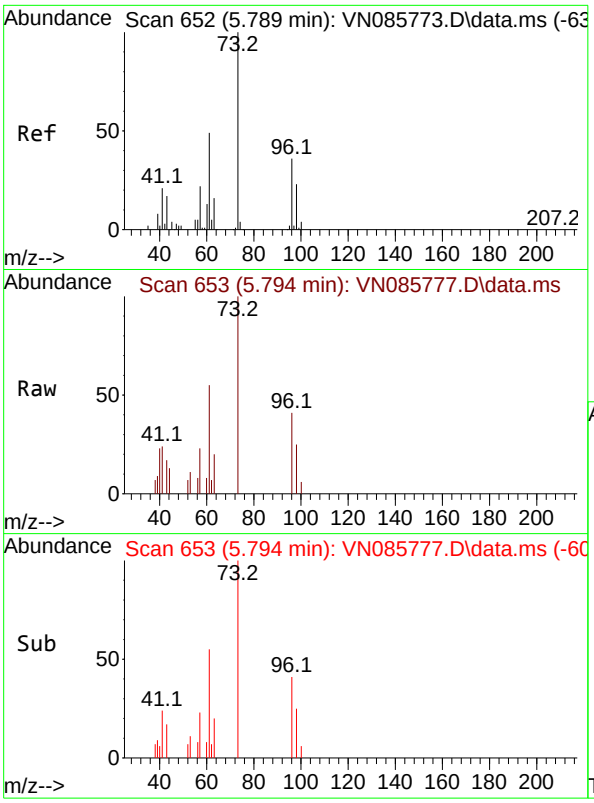


#18
Methyl Acetate
Concen: 1.210 ug/l
RT: 5.030 min Scan# 523
Delta R.T. 0.012 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 43 Resp: 4677

Ion	Ratio	Lower	Upper
43	100		
74	2.5	22.2	33.4#

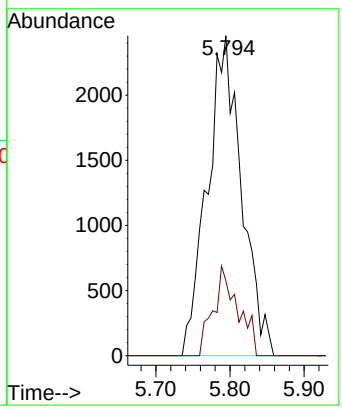




#19
Methyl tert-butyl Ether
Concen: 0.883 ug/l
RT: 5.794 min Scan# 6
Delta R.T. 0.006 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 73 Resp: 788

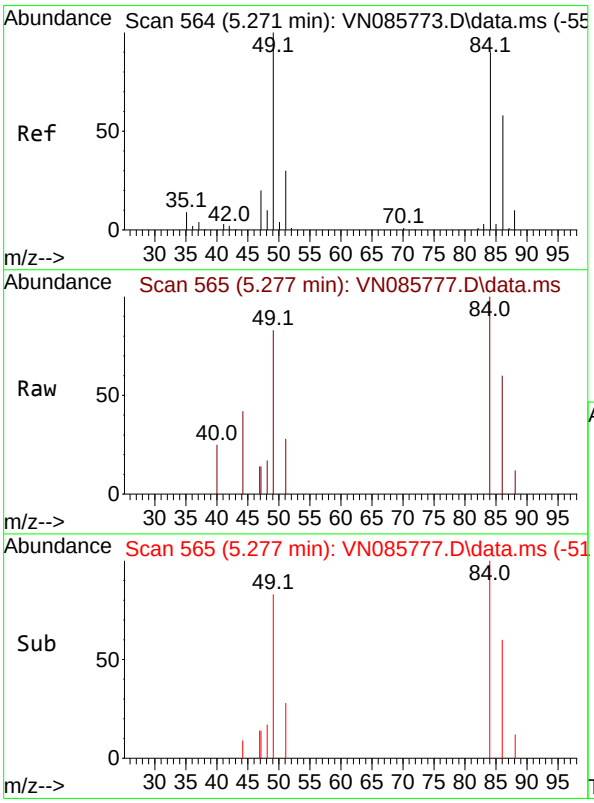
Ion	Ratio	Lower	Upper
73	100		
57	23.4	17.6	26.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

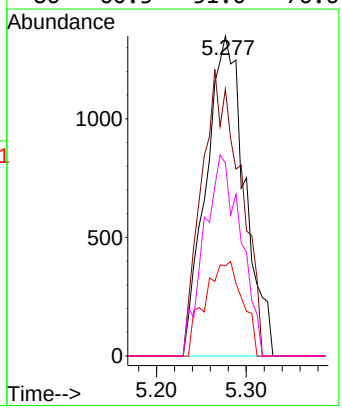
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

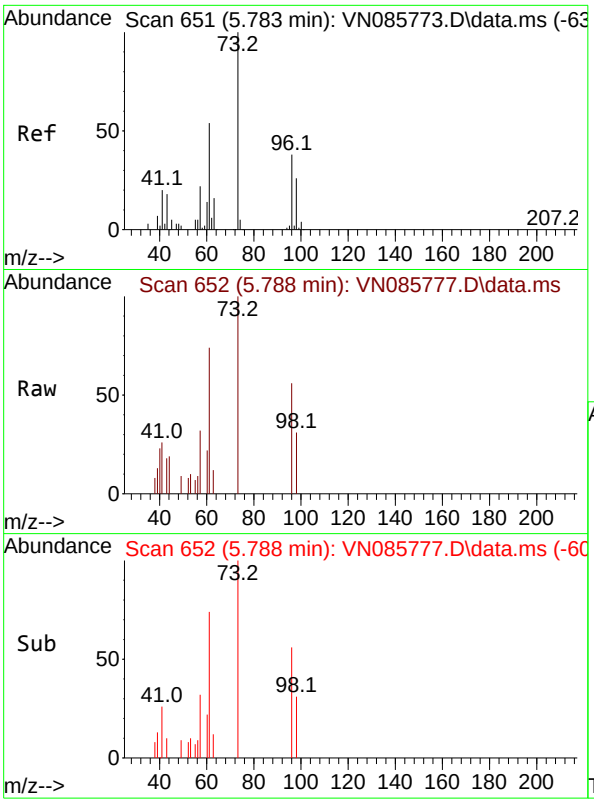


#20
Methylene Chloride
Concen: 1.116 ug/l
RT: 5.277 min Scan# 565
Delta R.T. 0.006 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 84 Resp: 4036

Ion	Ratio	Lower	Upper
84	100		
49	83.4	88.4	132.6#
51	28.2	26.6	40.0
86	60.3	51.0	76.6

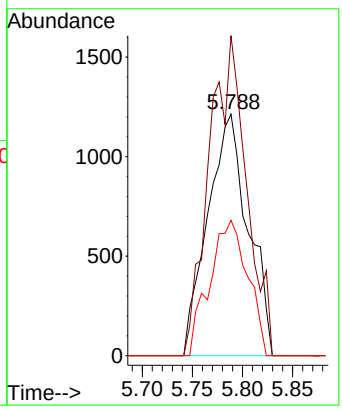




#21
trans-1,2-Dichloroethene
Concen: 1.055 ug/l
RT: 5.788 min Scan# 6
Delta R.T. 0.006 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 96 Resp: 341

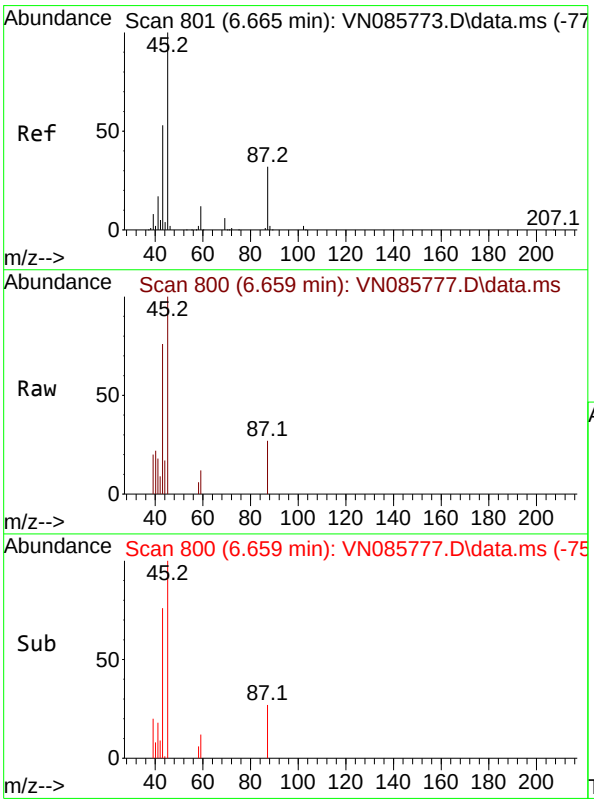
Ion	Ratio	Lower	Upper
96	100		
61	132.6	112.6	168.8
98	56.1	53.3	79.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

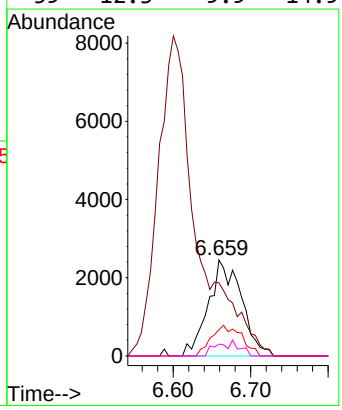
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

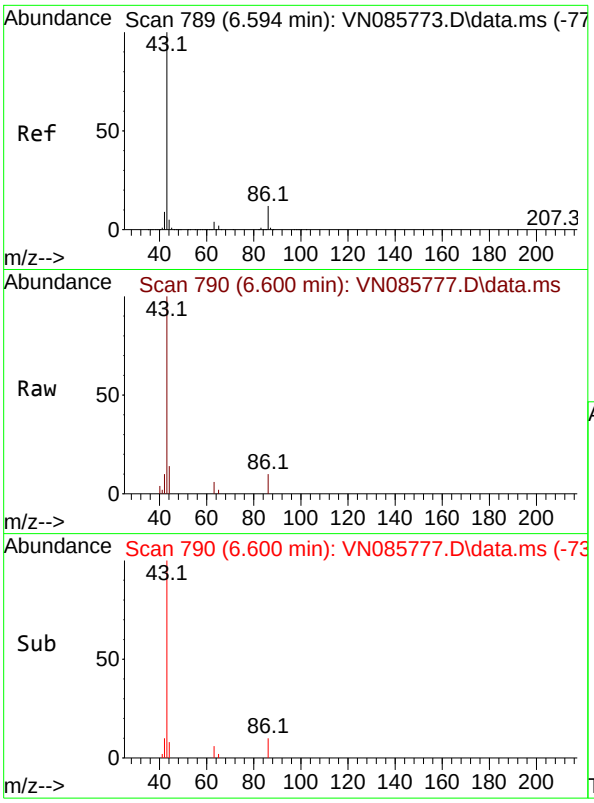


#22
Diisopropyl ether
Concen: 0.815 ug/l
RT: 6.659 min Scan# 800
Delta R.T. -0.006 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 45 Resp: 7268

Ion	Ratio	Lower	Upper
45	100		
43	76.2	42.6	64.0#
87	27.4	25.8	38.8
59	12.3	9.9	14.9

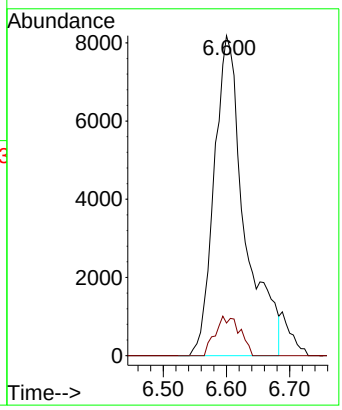




#23
Vinyl Acetate
Concen: 4.498 ug/l m
RT: 6.600 min Scan# 7
Delta R.T. 0.006 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 43 Resp: 2737

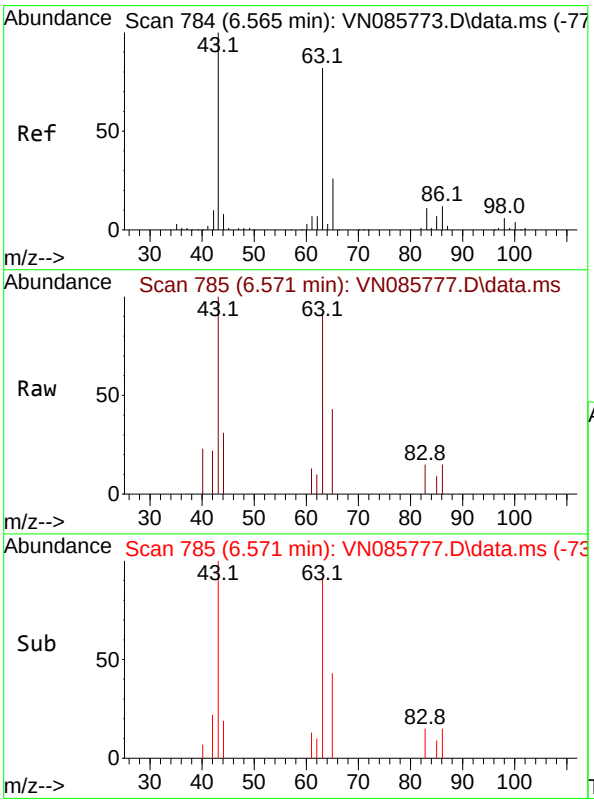
Ion	Ratio	Lower	Upper
43	100		
86	10.2	9.8	14.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

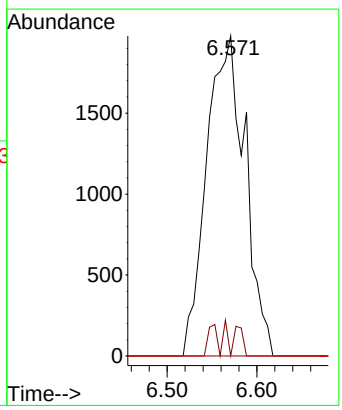
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

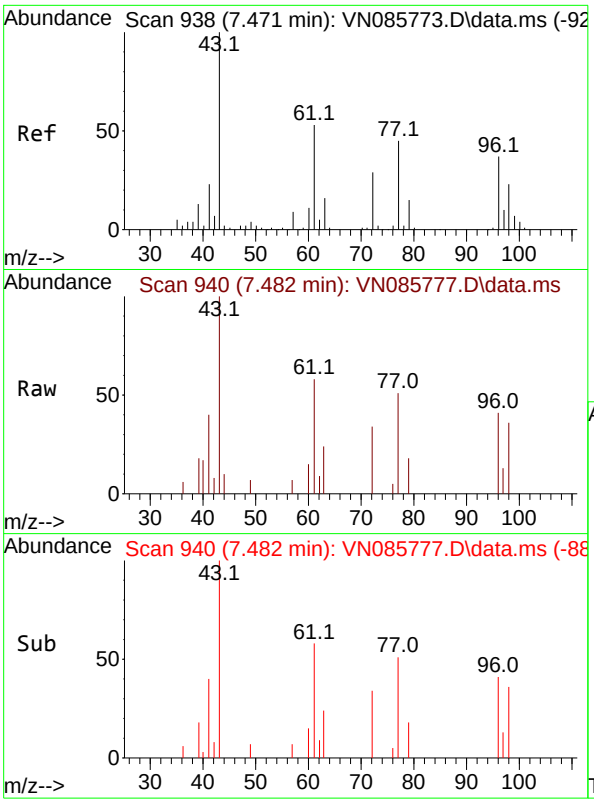


#24
1,1-Dichloroethane
Concen: 0.970 ug/l
RT: 6.571 min Scan# 785
Delta R.T. 0.006 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 63 Resp: 5881

Ion	Ratio	Lower	Upper
63	100		
98	0.0	3.5	10.4#
100	0.0	2.4	7.2#

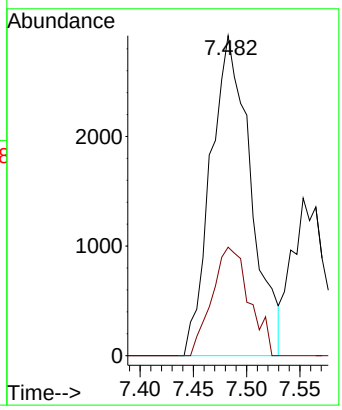




#25
2-Butanone
Concen: 4.630 ug/l
RT: 7.482 min Scan# 94
Delta R.T. 0.012 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 43 Resp: 765

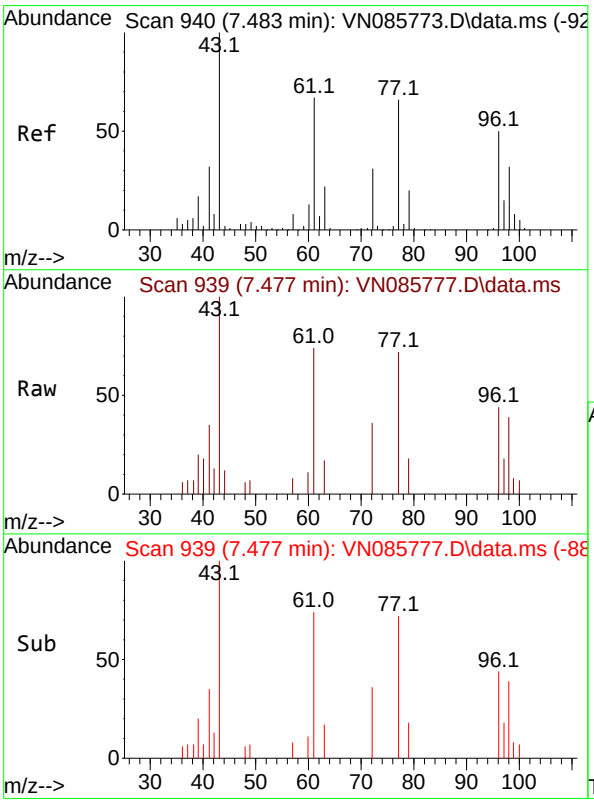
Ion	Ratio	Lower	Upper
43	100		
72	33.9	23.6	35.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

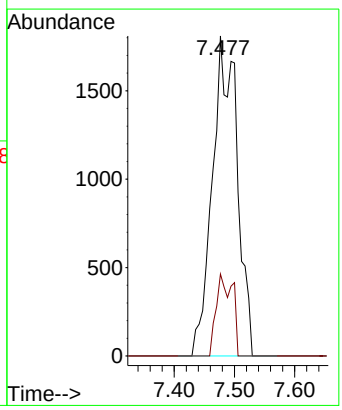
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

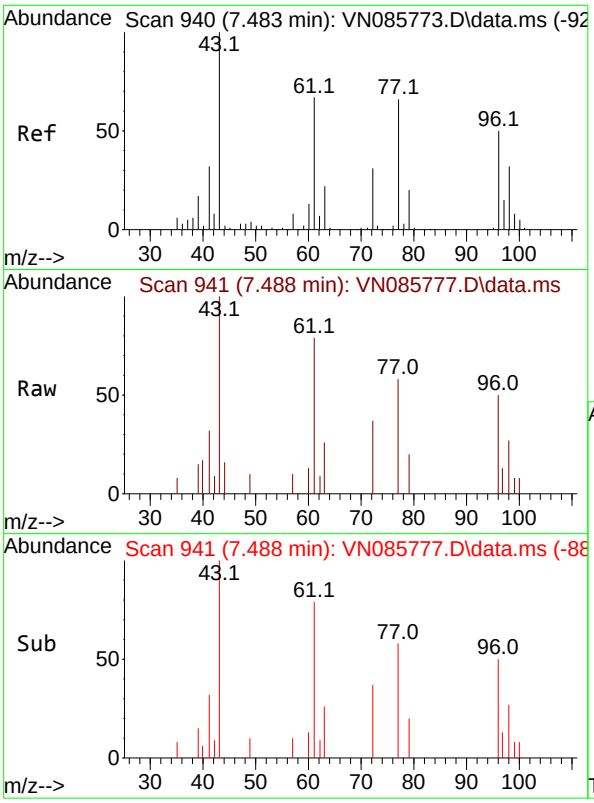


#26
2,2-Dichloropropane
Concen: 0.959 ug/l m
RT: 7.477 min Scan# 939
Delta R.T. -0.006 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 77 Resp: 5170

Ion	Ratio	Lower	Upper
77	100		
97	16.8	11.3	33.8

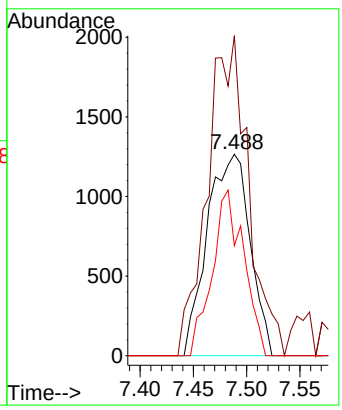




#27
cis-1,2-Dichloroethene
Concen: 0.944 ug/l
RT: 7.488 min Scan# 94
Delta R.T. 0.006 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 96 Resp: 354

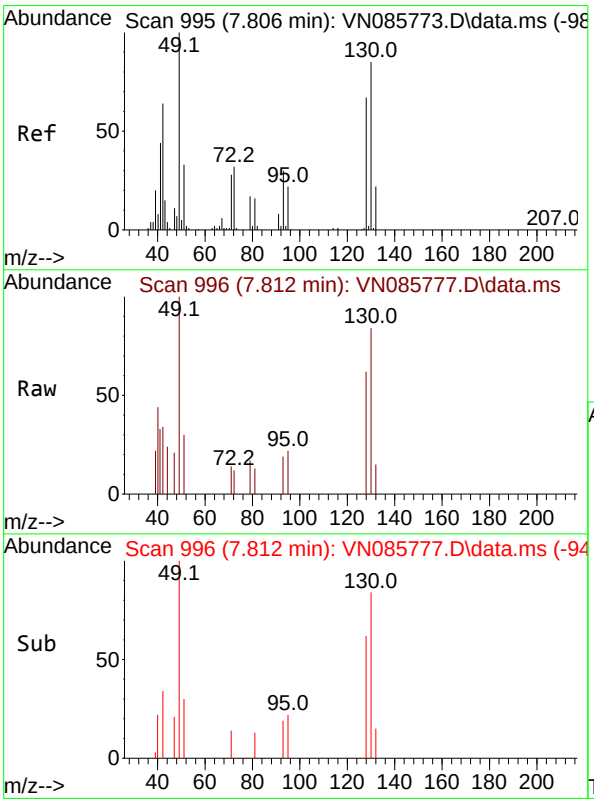
Ion	Ratio	Lower	Upper
96	100		
61	151.4	0.0	280.6
98	60.5	0.0	128.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

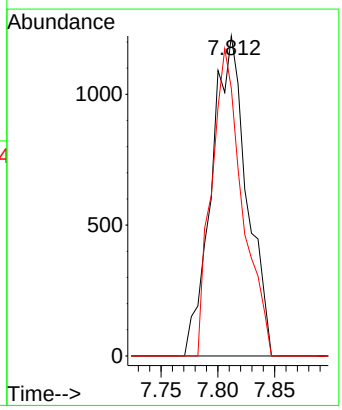
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

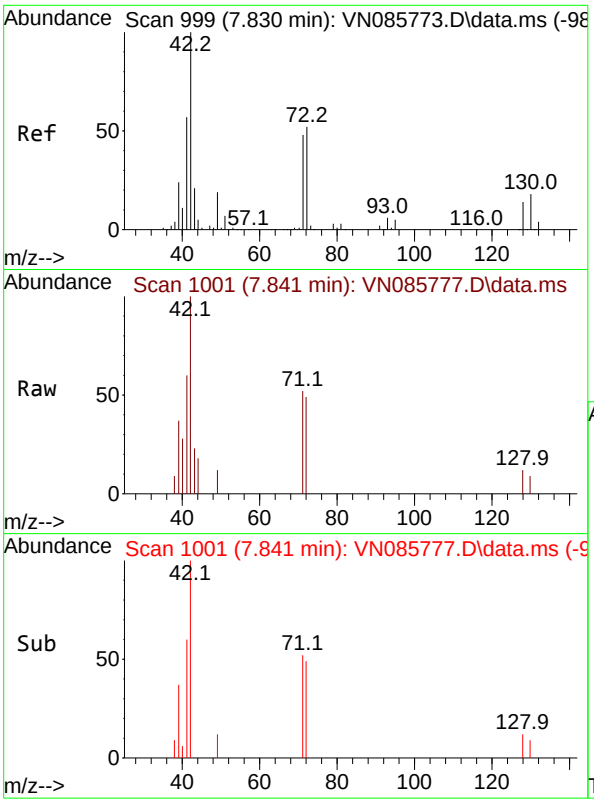


#28
Bromochloromethane
Concen: 1.063 ug/l
RT: 7.812 min Scan# 996
Delta R.T. 0.006 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 49 Resp: 2649

Ion	Ratio	Lower	Upper
49	100		
129	0.0	0.0	3.8
130	83.6	68.0	102.0

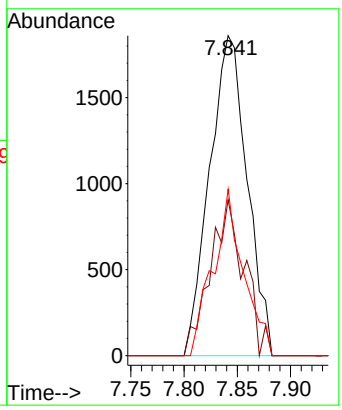




#29
Tetrahydrofuran
Concen: 4.276 ug/l
RT: 7.841 min Scan# 1
Delta R.T. 0.012 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 42 Resp: 456

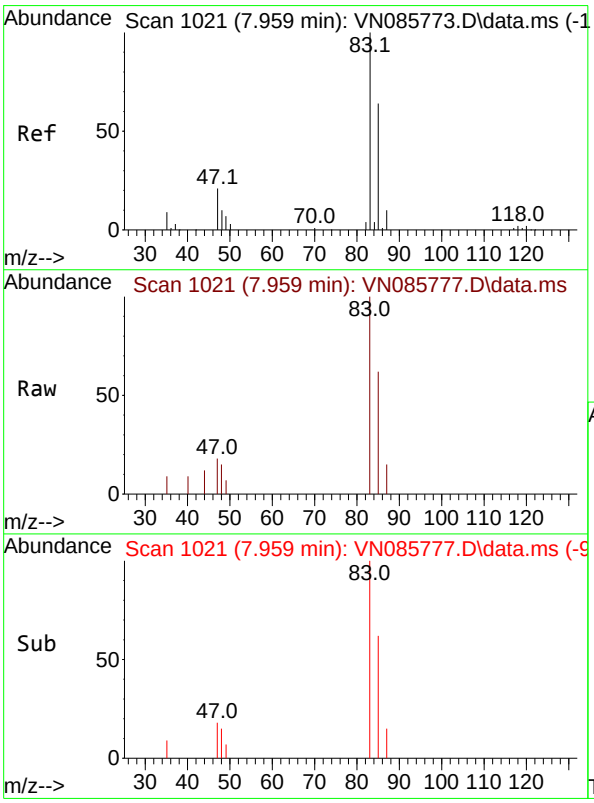
Ion	Ratio	Lower	Upper
42	100		
72	44.3	40.0	60.0
71	42.4	37.0	55.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

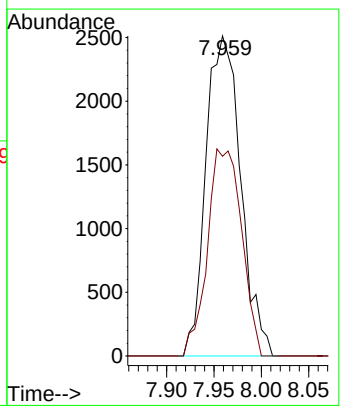
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

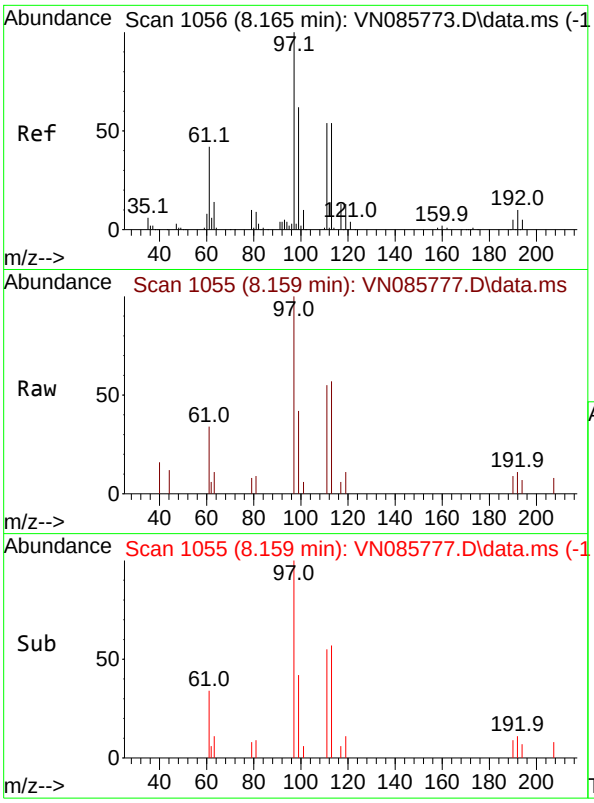


#30
Chloroform
Concen: 1.013 ug/l
RT: 7.959 min Scan# 1021
Delta R.T. -0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 83 Resp: 6416

Ion	Ratio	Lower	Upper
83	100		
85	62.4	50.9	76.3

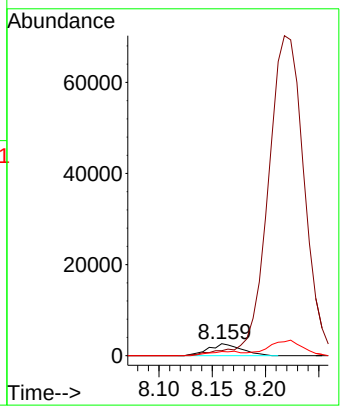




#32
1,1,1-Trichloroethane
Concen: 1.002 ug/l
RT: 8.159 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 97 Resp: 564

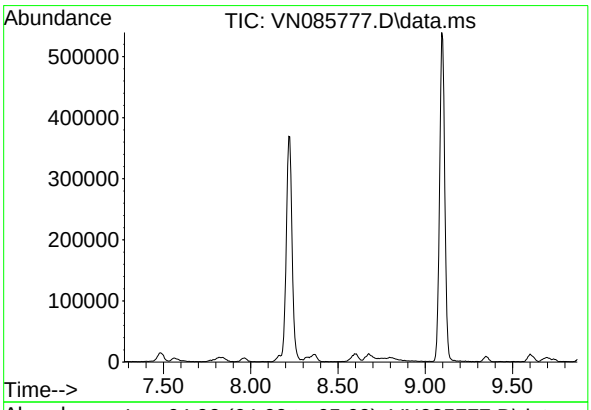
Ion	Ratio	Lower	Upper
97	100		
99	0.0	50.4	75.6#
61	36.6	35.5	53.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

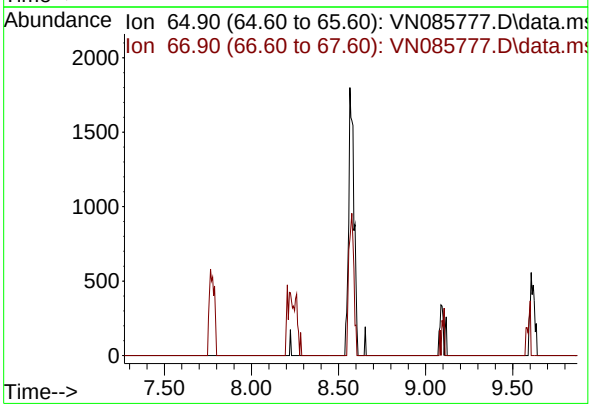


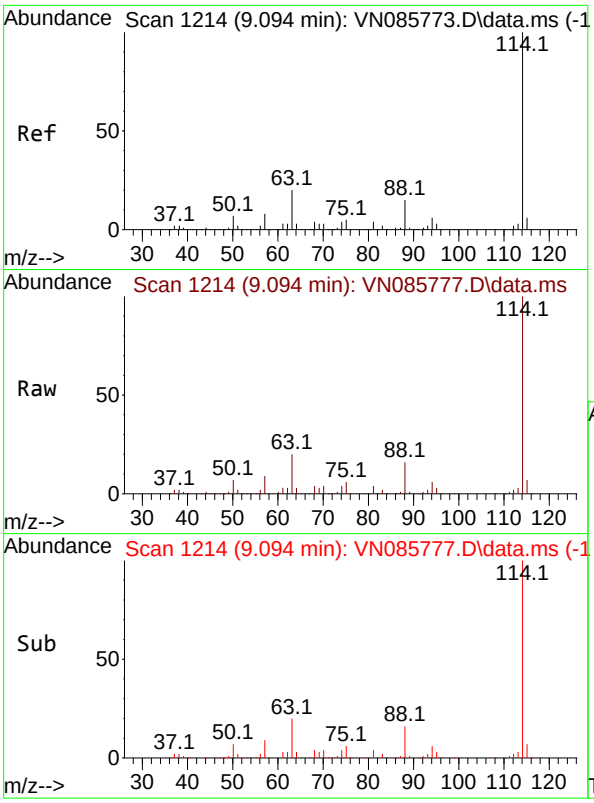
#33
1,2-Dichloroethane-d4
Concen: 0.000 ug/l
Expected RT: 8.57 min

Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 65

Sig	Exp Ratio
65	100
67	53.1





#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.094 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

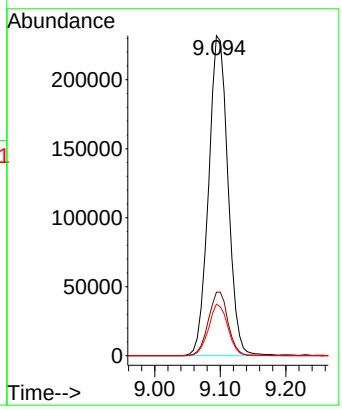
Tgt Ion:114 Resp: 47645

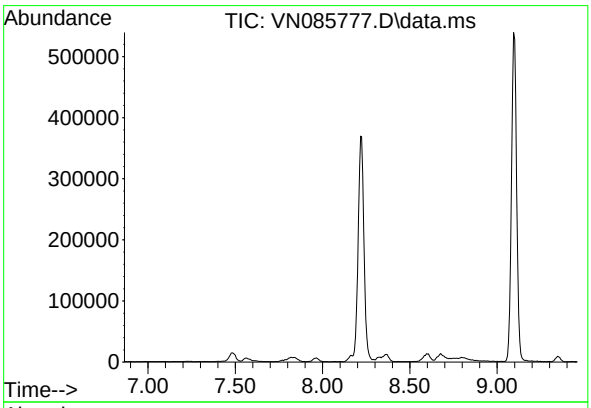
Ion	Ratio	Lower	Upper
114	100		
63	19.9	0.0	39.2
88	16.1	0.0	30.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025



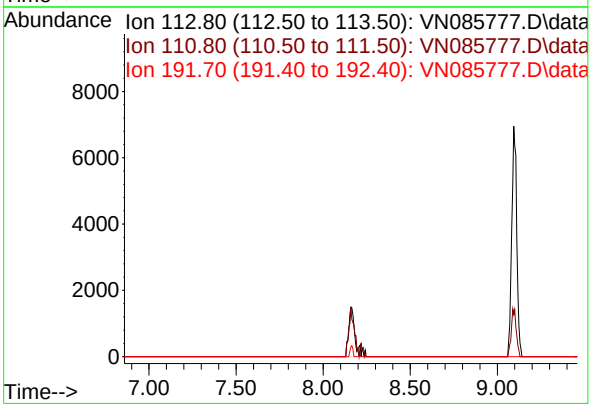


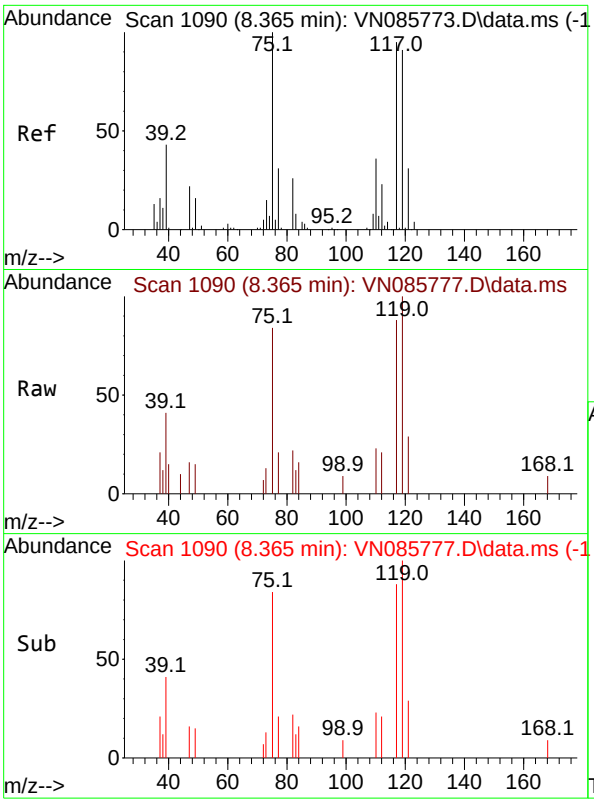
#35
Dibromofluoromethane
Concen: 0.000 ug/l
Expected RT: 8.16 min

Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 113

Sig	Exp Ratio
113	100
111	102.8
192	18.4

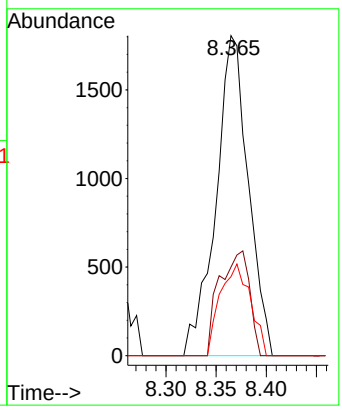




#36
1,1-Dichloropropene
Concen: 0.919 ug/l
RT: 8.365 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 75 Resp: 405

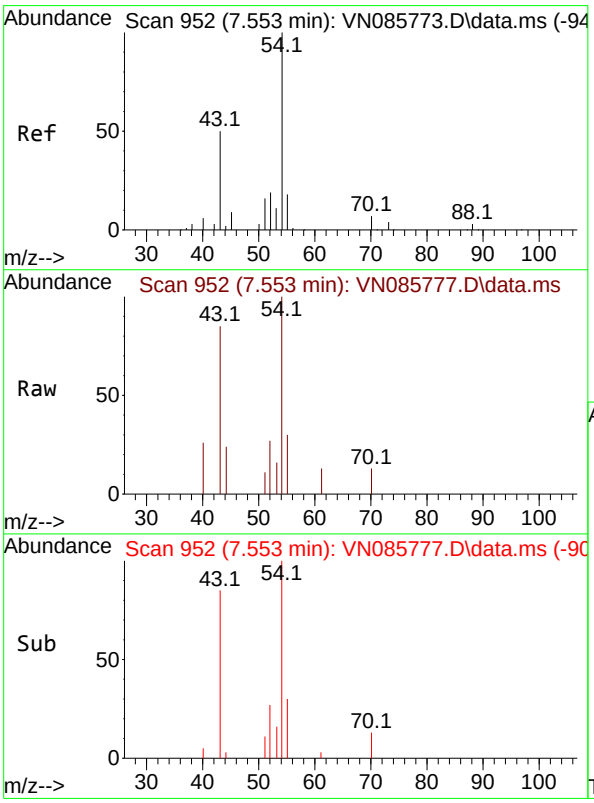
Ion	Ratio	Lower	Upper
75	100		
110	30.3	17.3	52.0
77	26.7	24.6	37.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

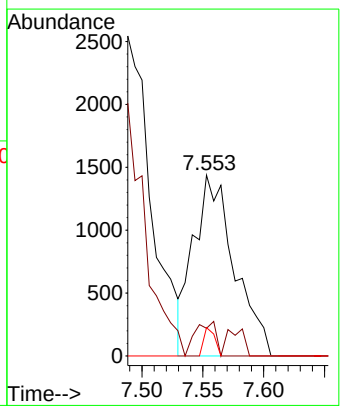
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

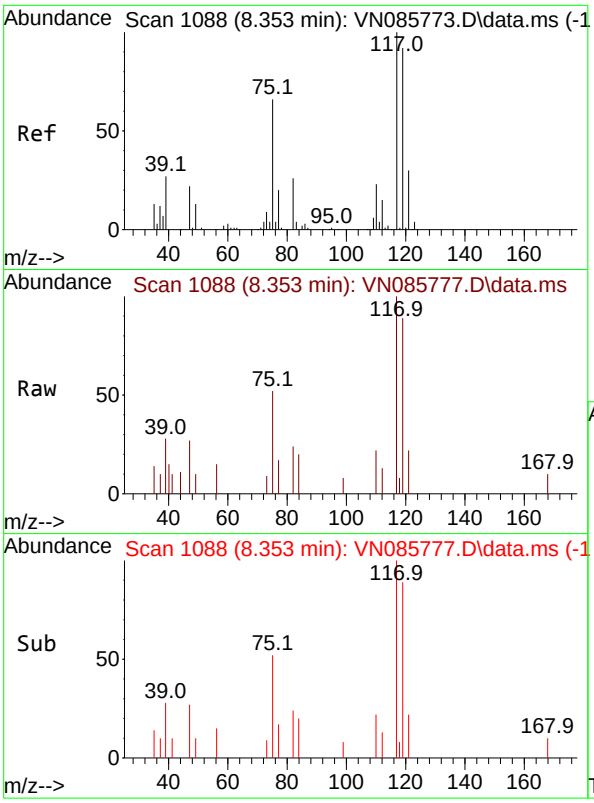


#37
Ethyl Acetate
Concen: 0.927 ug/l
RT: 7.553 min Scan# 952
Delta R.T. -0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 43 Resp: 3365

Ion	Ratio	Lower	Upper
43	100		
61	9.5	12.2	18.2#
70	4.2	9.5	14.3#

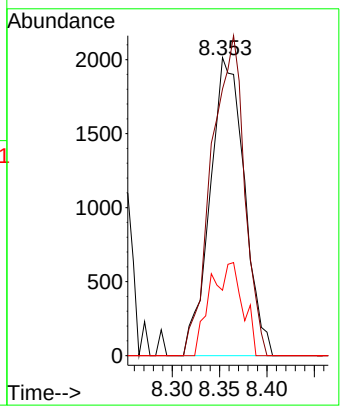




#38
Carbon Tetrachloride
Concen: 0.969 ug/l
RT: 8.353 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion:117 Resp: 507

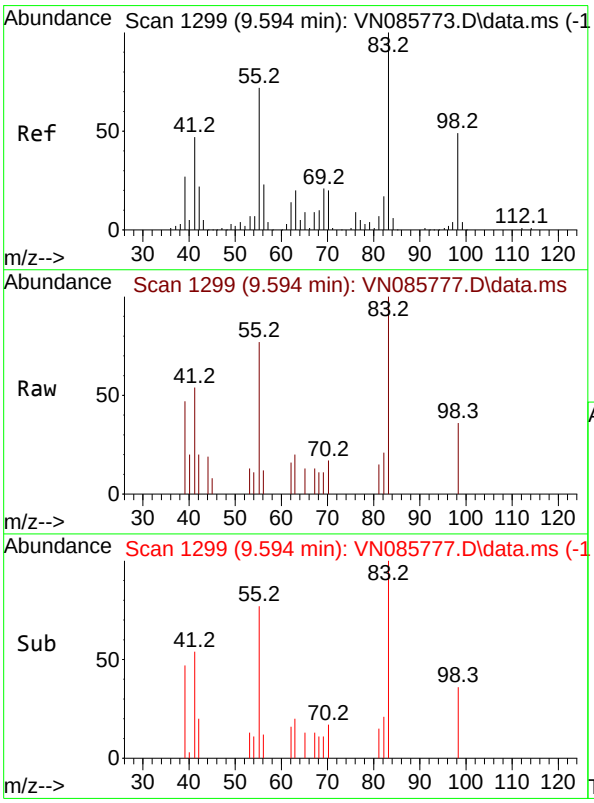
Ion	Ratio	Lower	Upper
117	100		
119	89.5	73.8	110.6
121	21.9	24.3	36.5#



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

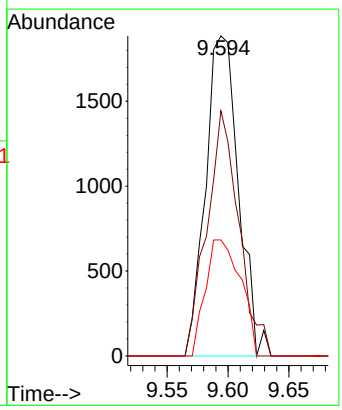
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

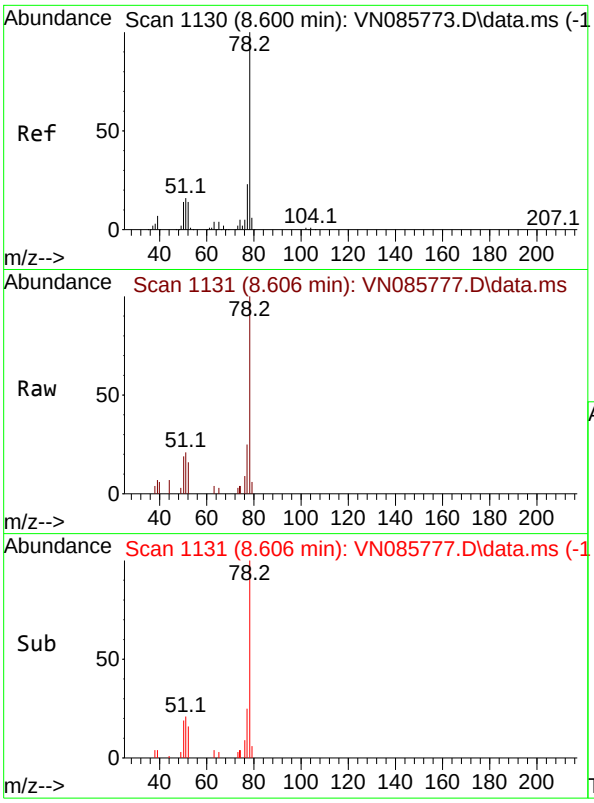


#39
Methylcyclohexane
Concen: 0.821 ug/l
RT: 9.594 min Scan# 1299
Delta R.T. -0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 83 Resp: 3557

Ion	Ratio	Lower	Upper
83	100		
55	76.6	57.5	86.3
98	36.2	39.2	58.8#

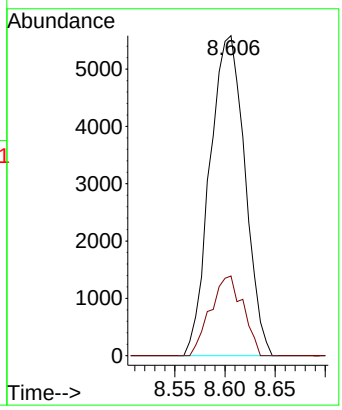




#40
Benzene
Concen: 0.957 ug/l
RT: 8.606 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 78 Resp: 1353

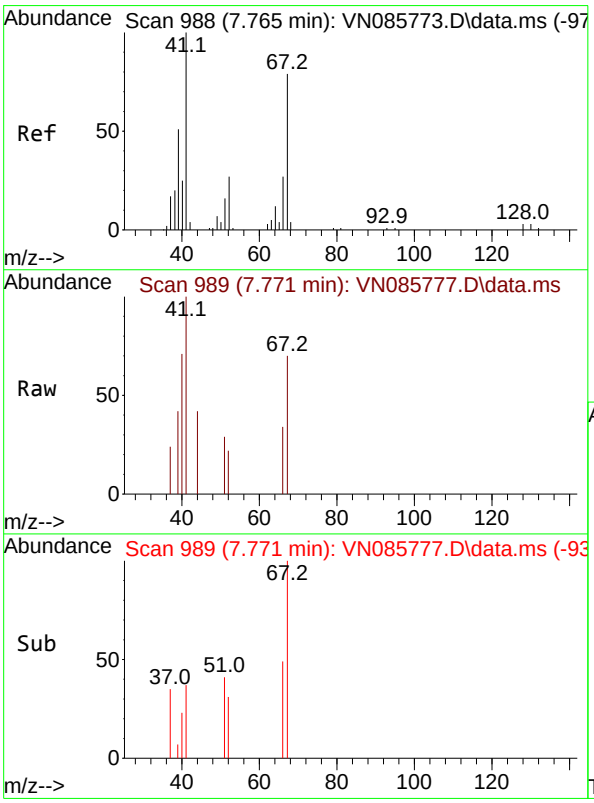
Ion	Ratio	Lower	Upper
78	100		
77	24.9	18.3	27.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

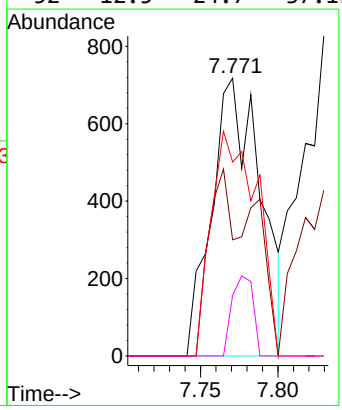
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

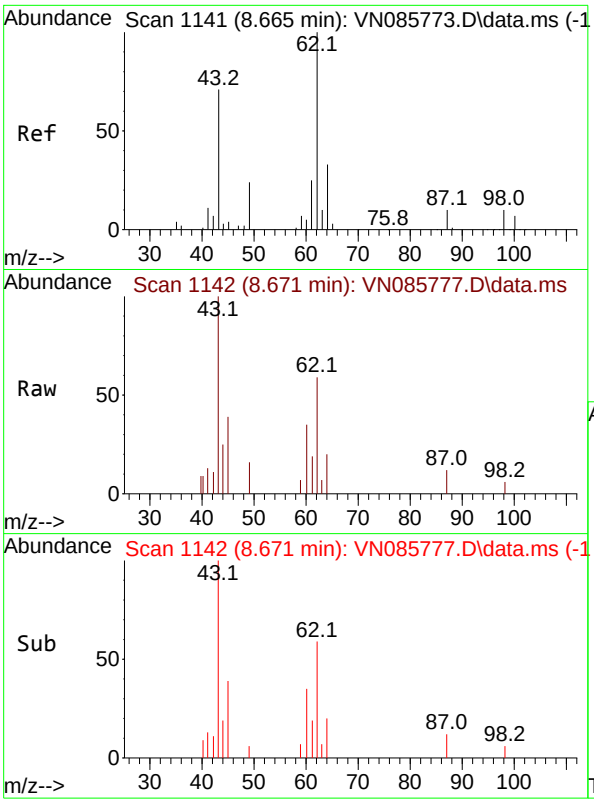


#41
Methacrylonitrile
Concen: 0.810 ug/l
RT: 7.771 min Scan# 989
Delta R.T. 0.006 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 41 Resp: 1573

Ion	Ratio	Lower	Upper
41	100		
39	39.4	42.0	63.0#
67	75.6	64.2	96.4
52	12.5	24.7	37.1#





#42
1,2-Dichloroethane
Concen: 0.976 ug/l
RT: 8.671 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

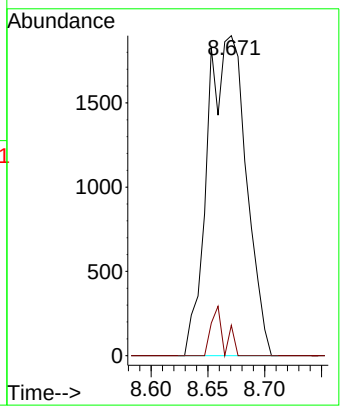
Tgt Ion: 62 Resp: 449

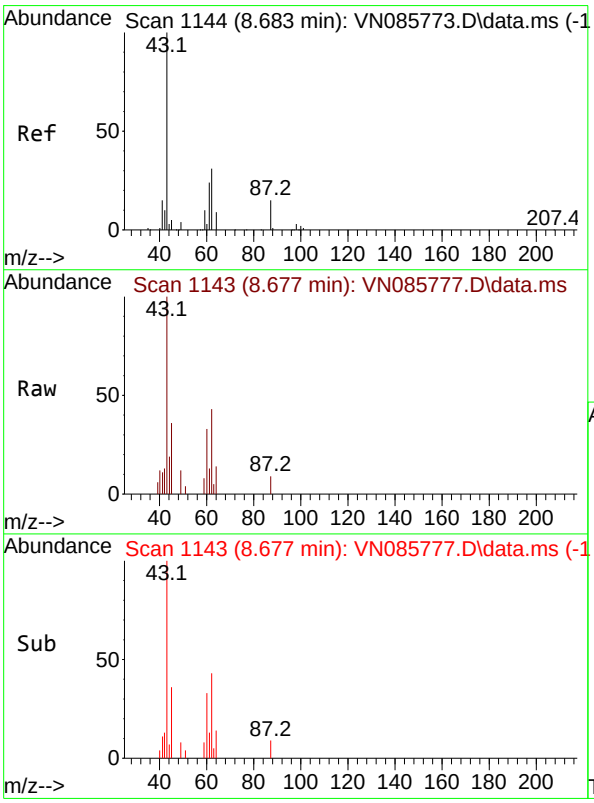
Ion	Ratio	Lower	Upper
62	100		
98	5.2	0.0	19.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

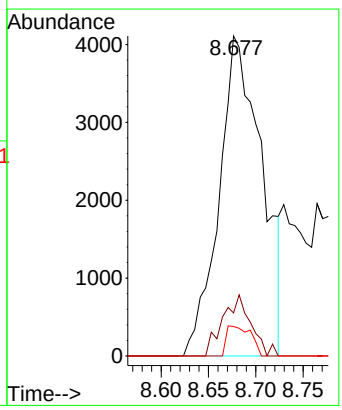


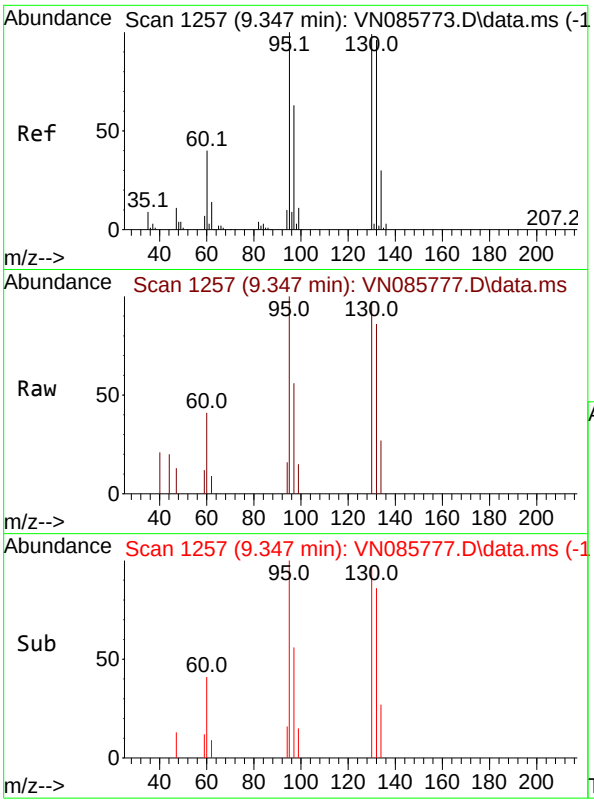


#43
Isopropyl Acetate
Concen: 1.494 ug/l
RT: 8.677 min Scan# 1143
Delta R.T. -0.006 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 43 Resp: 12901

Ion	Ratio	Lower	Upper
43	100		
61	12.7	22.6	34.0#
87	5.3	11.8	17.8#

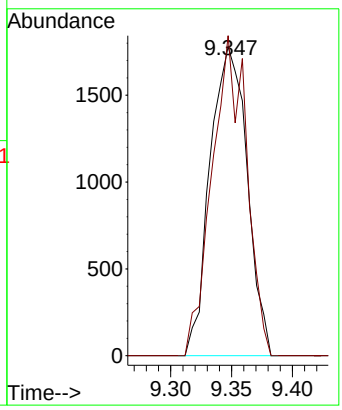




#44
Trichloroethene
Concen: 1.085 ug/l
RT: 9.347 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion:130 Resp: 376

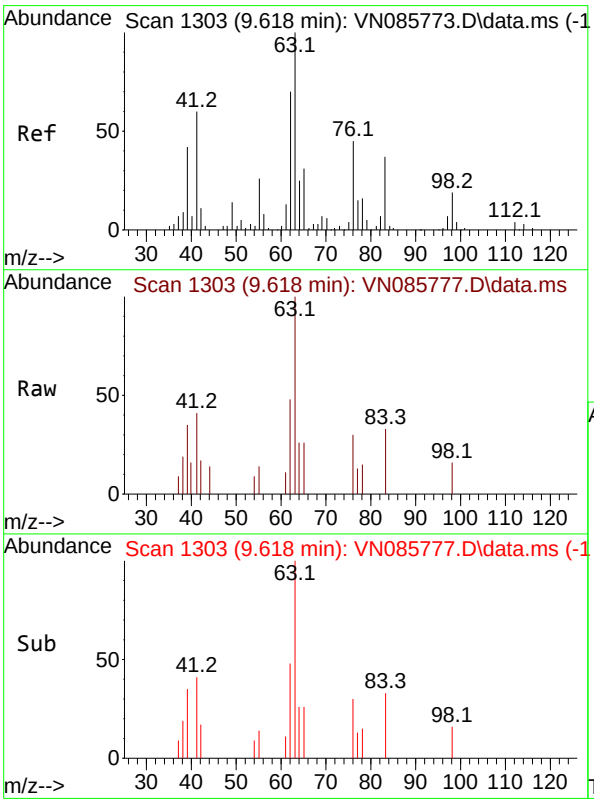
Ion	Ratio	Lower	Upper
130	100		
95	103.6	0.0	202.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

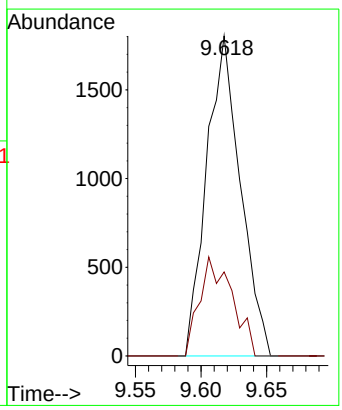
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

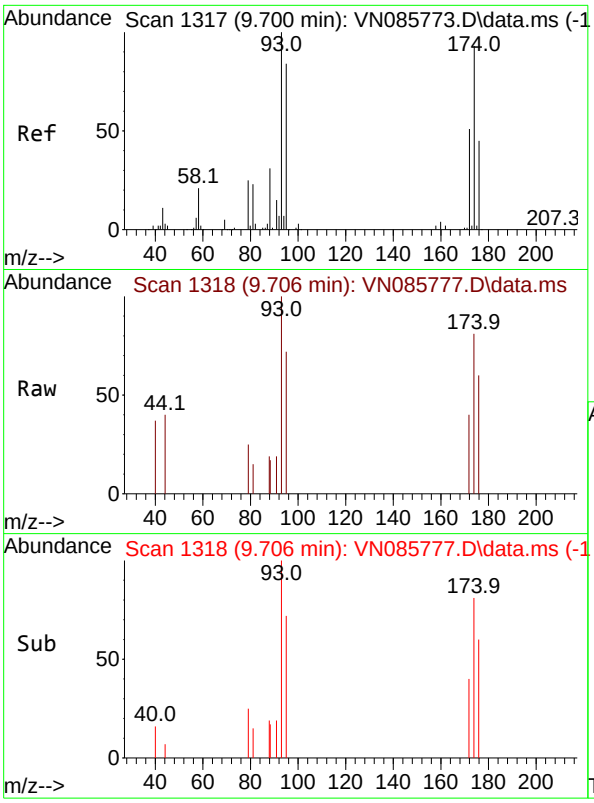


#45
1,2-Dichloropropane
Concen: 0.948 ug/l
RT: 9.618 min Scan# 1303
Delta R.T. -0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 63 Resp: 3235

Ion	Ratio	Lower	Upper
63	100		
65	26.3	25.1	37.7

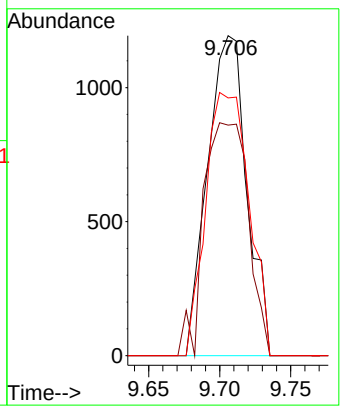




#46
Dibromomethane
Concen: 0.957 ug/l
RT: 9.706 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 93 Resp: 230

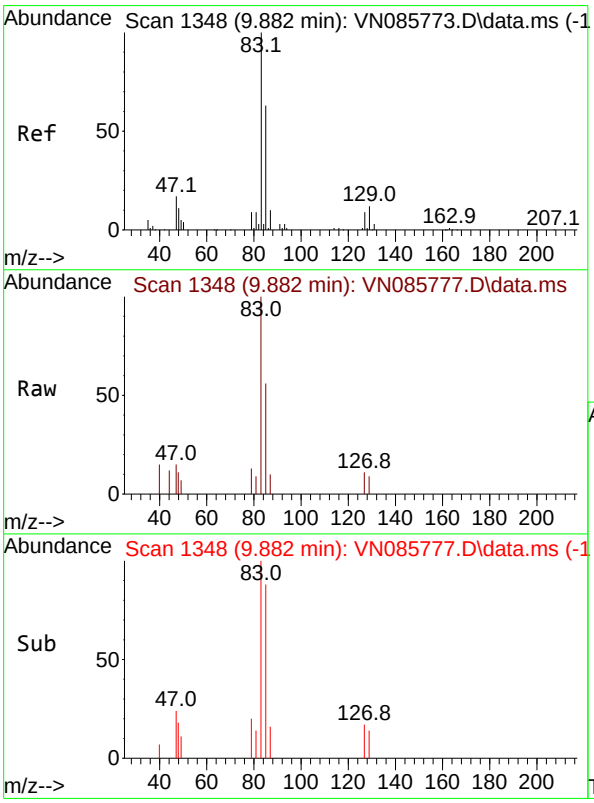
Ion	Ratio	Lower	Upper
93	100		
95	82.3	66.7	100.1
174	90.5	77.2	115.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

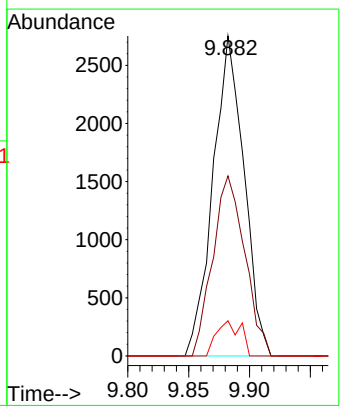
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

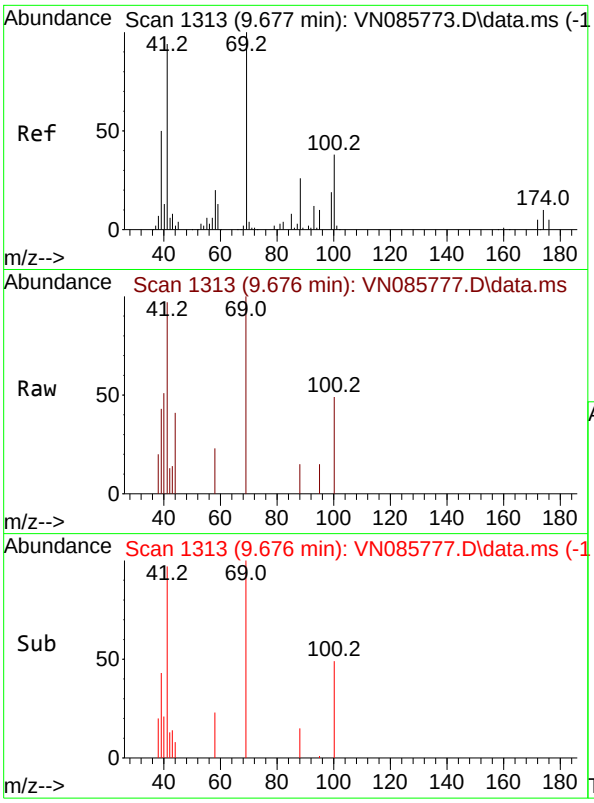


#47
Bromodichloromethane
Concen: 0.947 ug/l
RT: 9.882 min Scan# 1348
Delta R.T. -0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 83 Resp: 4879

Ion	Ratio	Lower	Upper
83	100		
85	56.2	50.5	75.7
127	11.0	7.2	10.8#

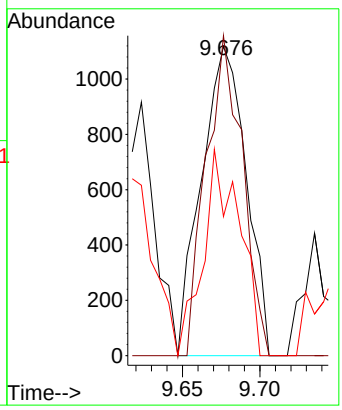




#48
Methyl methacrylate
Concen: 0.833 ug/l
RT: 9.676 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 41 Resp: 224

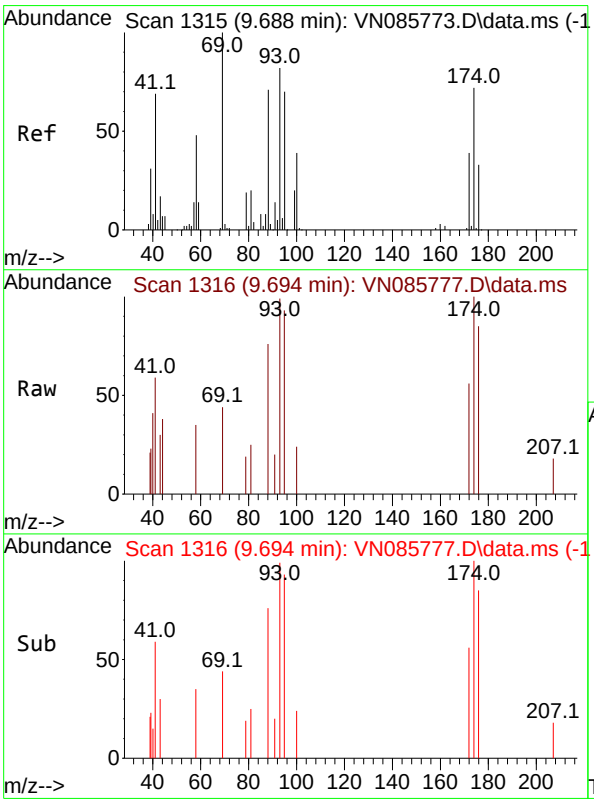
Ion	Ratio	Lower	Upper
41	100		
69	83.9	76.0	114.0
39	53.9	42.3	63.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

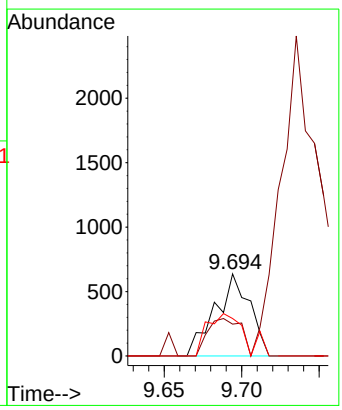
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

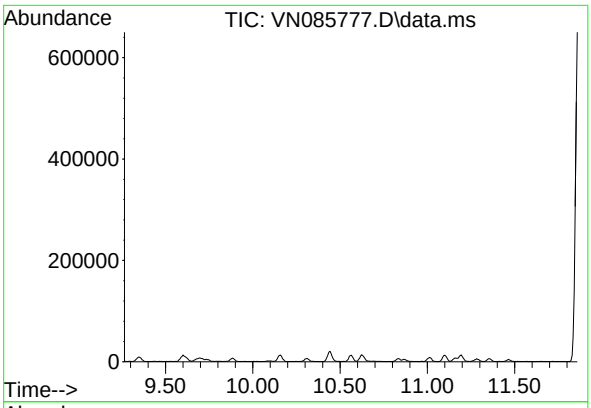


#49
1,4-Dioxane
Concen: 19.344 ug/l
RT: 9.694 min Scan# 1316
Delta R.T. 0.006 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 88 Resp: 992

Ion	Ratio	Lower	Upper
88	100		
43	43.8	18.6	27.8#
58	55.7	56.7	85.1#





#50
Toluene-d8
Concen: 0.000 ug/l
Expected RT: 10.56 min

Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

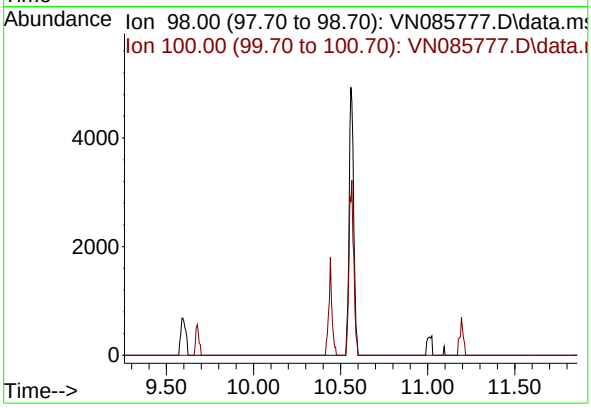
Tgt Ion: 98

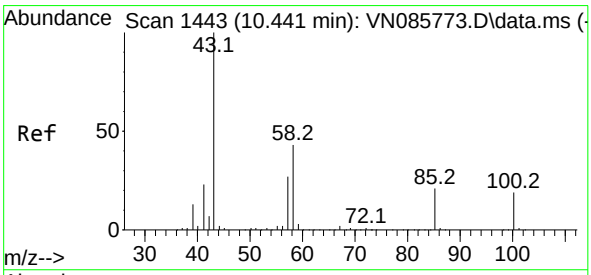
Sig	Exp Ratio
98	100
100	65.1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

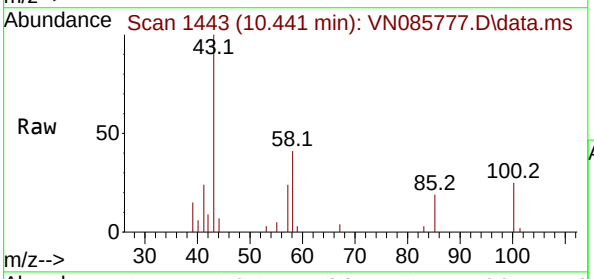


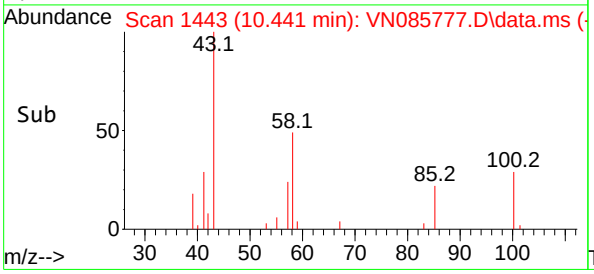


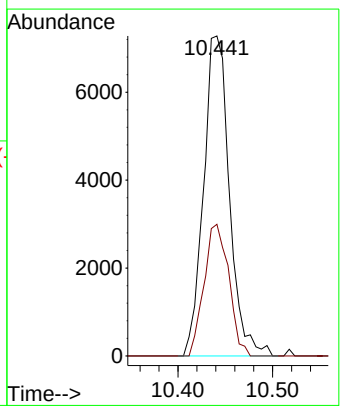
#51
4-Methyl-2-Pentanone
Concen: 3.951 ug/l
RT: 10.441 min Scan# 1443
Delta R.T. -0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

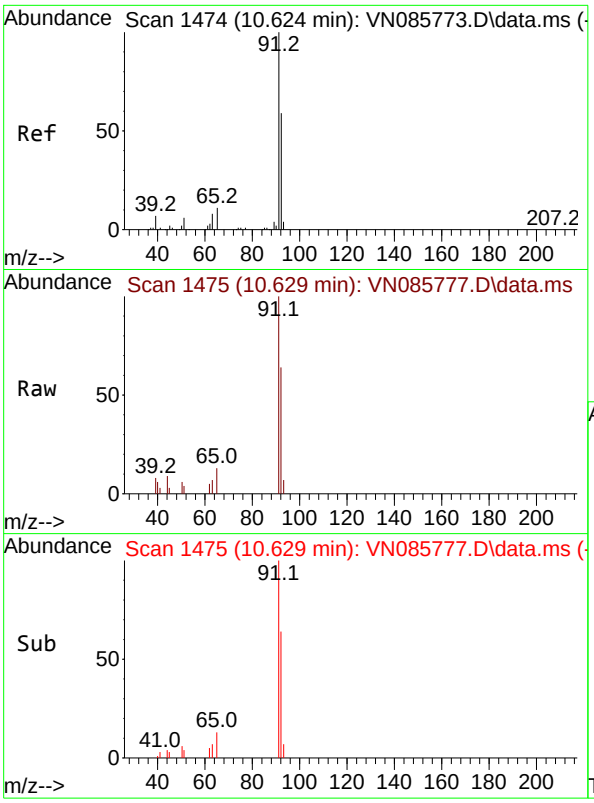
Tgt Ion: 43 Resp: 13832

Ion	Ratio	Lower	Upper
43	100		
58	39.3	34.6	52.0





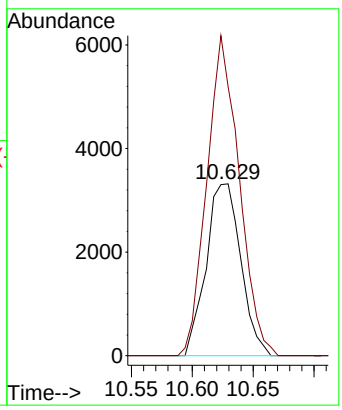




#52
Toluene
Concen: 0.792 ug/l
RT: 10.629 min Scan# 14
Delta R.T. 0.006 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 92 Resp: 656

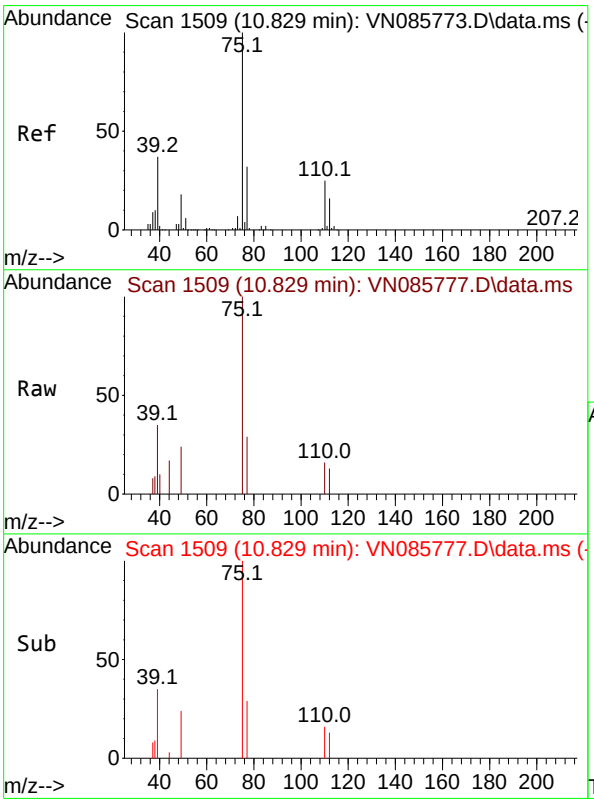
Ion	Ratio	Lower	Upper
92	100		
91	173.8	136.9	205.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

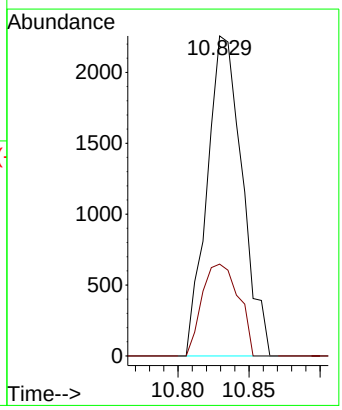
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

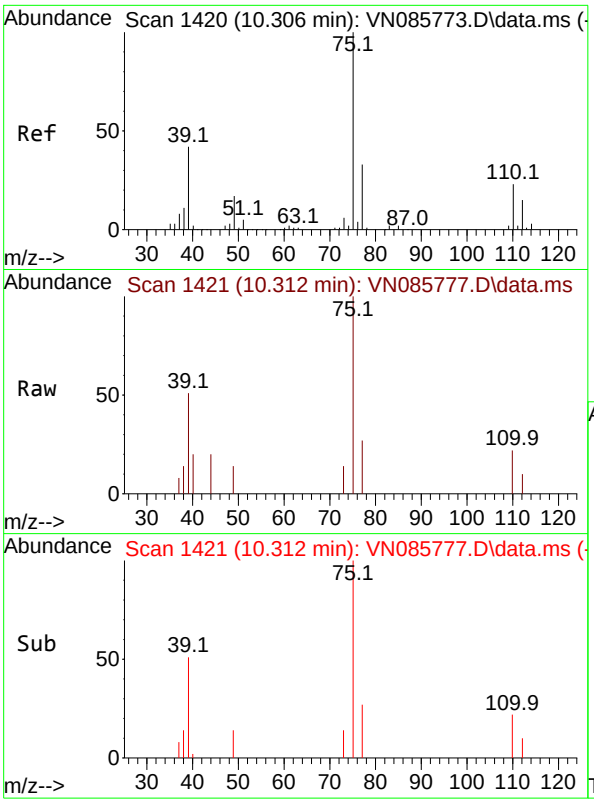


#53
t-1,3-Dichloropropene
Concen: 0.815 ug/l
RT: 10.829 min Scan# 1509
Delta R.T. 0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 75 Resp: 3884

Ion	Ratio	Lower	Upper
75	100		
77	28.7	25.4	38.0

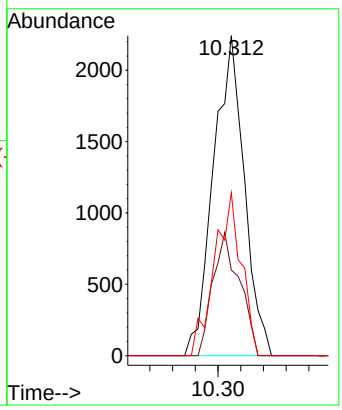




#54
cis-1,3-Dichloropropene
Concen: 0.806 ug/l
RT: 10.312 min Scan# 14
Delta R.T. 0.006 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 75 Resp: 421

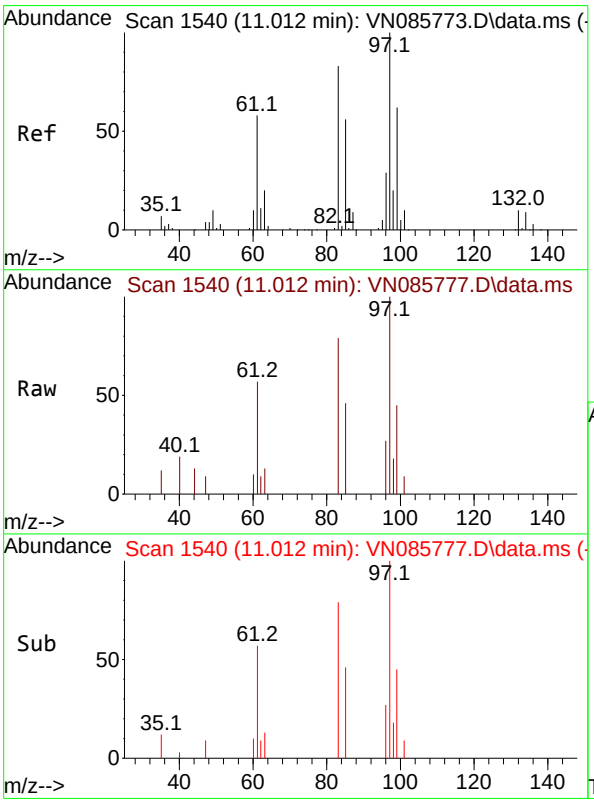
Ion	Ratio	Lower	Upper
75	100		
77	26.8	26.1	39.1
39	50.9	33.4	50.0#



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

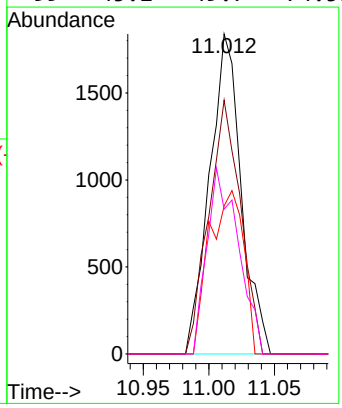
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

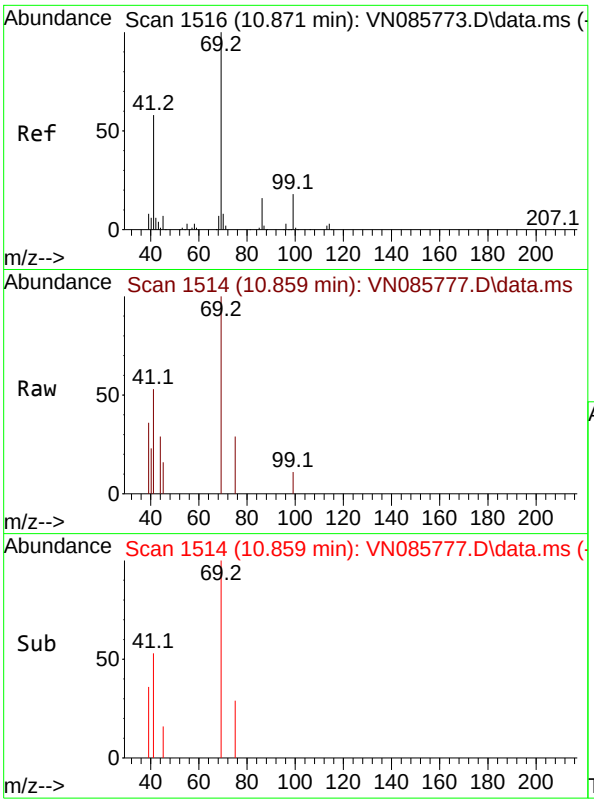


#55
1,1,2-Trichloroethane
Concen: 0.936 ug/l
RT: 11.012 min Scan# 1540
Delta R.T. -0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 97 Resp: 3084

Ion	Ratio	Lower	Upper
97	100		
83	79.3	66.1	99.1
85	46.3	44.7	67.1
99	45.2	49.7	74.5#

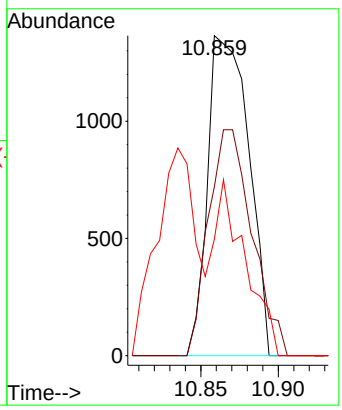




#56
Ethyl methacrylate
Concen: 1.052 ug/l
RT: 10.859 min Scan# 1
Delta R.T. -0.012 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 69 Resp: 251

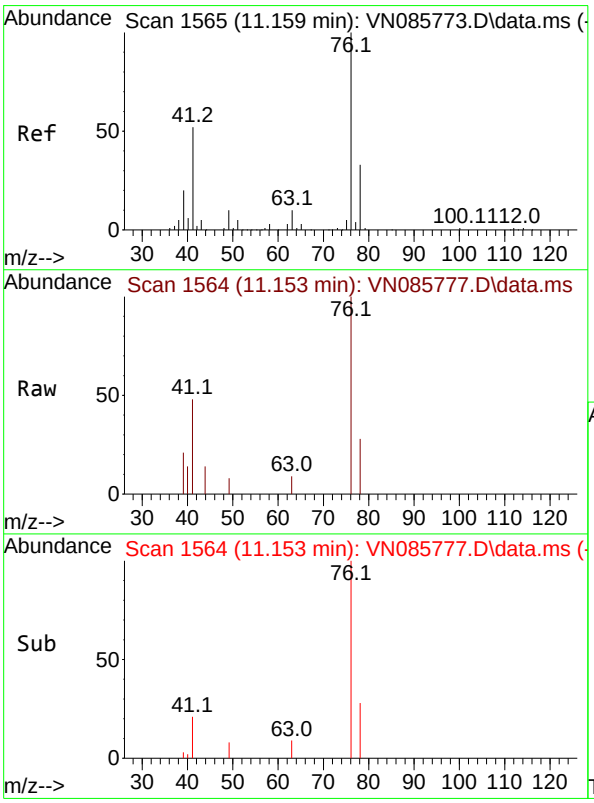
Ion	Ratio	Lower	Upper
69	100		
41	75.0	46.0	69.0#
39	41.8	22.0	33.0#



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

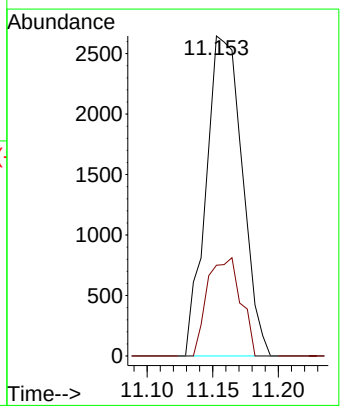
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

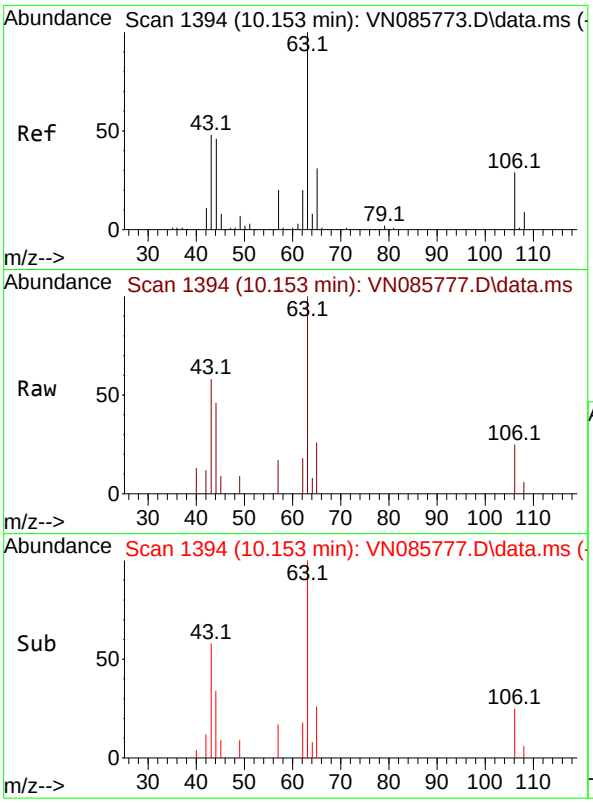


#57
1,3-Dichloropropane
Concen: 0.923 ug/l
RT: 11.153 min Scan# 1564
Delta R.T. -0.006 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 76 Resp: 5078

Ion	Ratio	Lower	Upper
76	100		
78	28.3	25.9	38.9





#58
2-Chloroethyl Vinyl ether
Concen: 3.424 ug/l
RT: 10.153 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

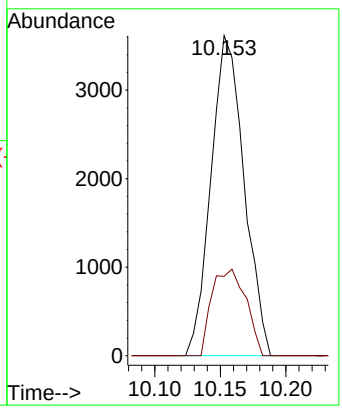
Tgt Ion: 63 Resp: 635

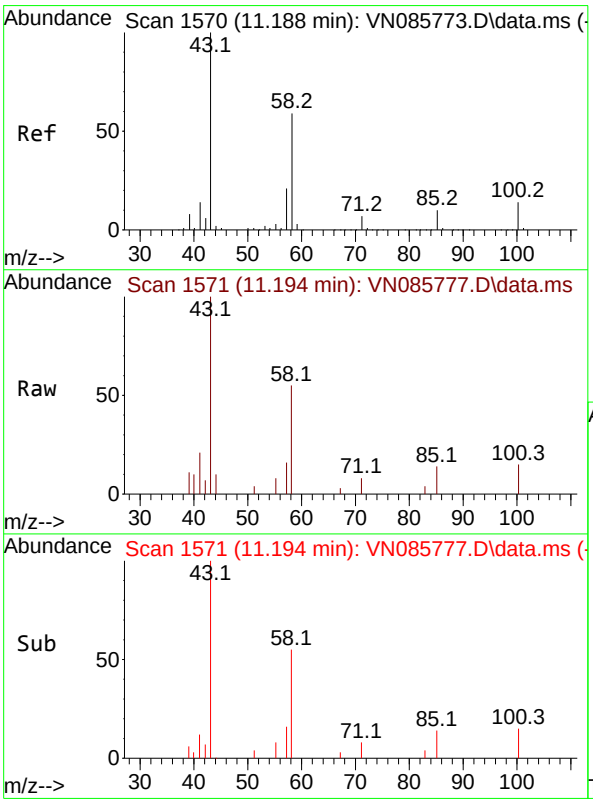
Ion	Ratio	Lower	Upper
63	100		
106	27.8	22.7	34.1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

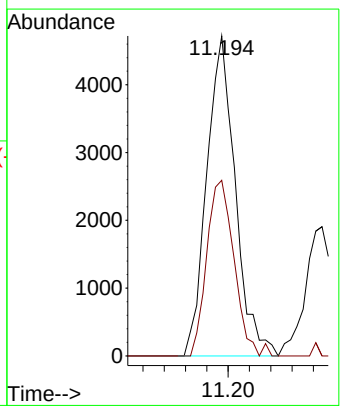


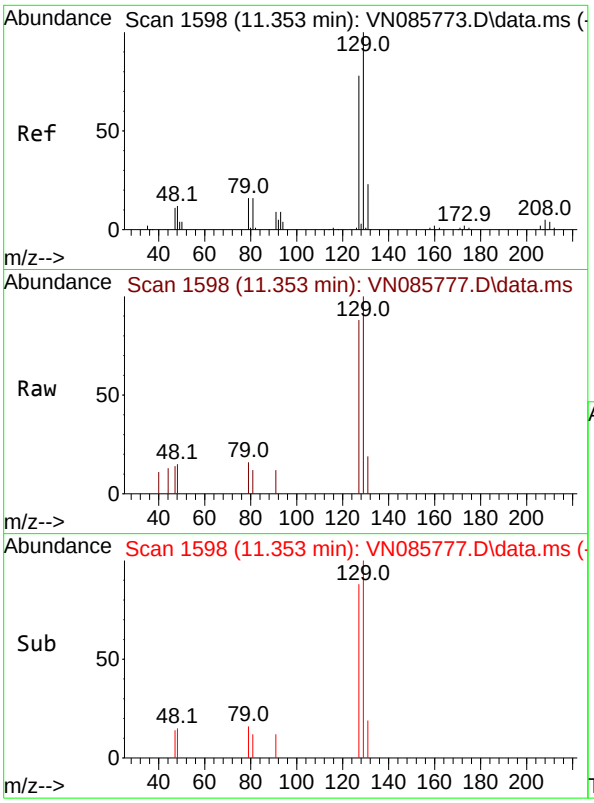


#59
2-Hexanone
Concen: 3.646 ug/l
RT: 11.194 min Scan# 1571
Delta R.T. 0.006 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 43 Resp: 8780

Ion	Ratio	Lower	Upper
43	100		
58	52.6	29.8	89.5

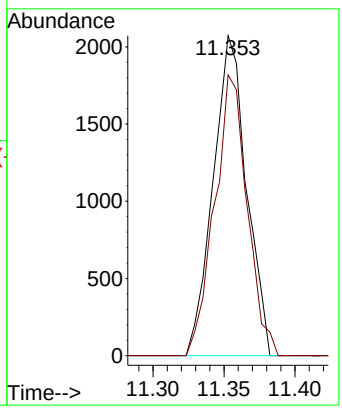




#60
Dibromochloromethane
Concen: 0.881 ug/l
RT: 11.353 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion:129 Resp: 338

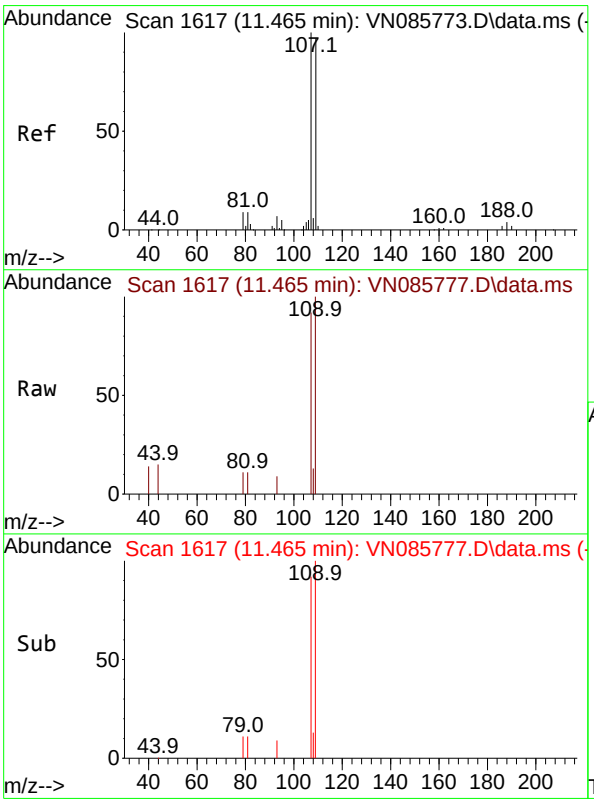
Ion	Ratio	Lower	Upper
129	100		
127	85.8	39.1	117.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

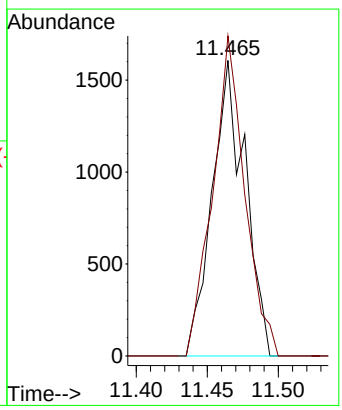
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

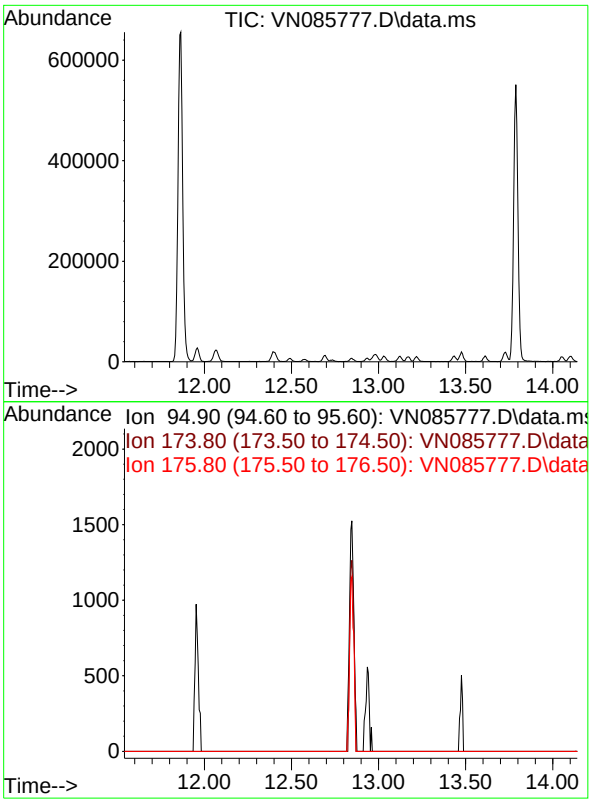


#61
1,2-Dibromoethane
Concen: 0.835 ug/l
RT: 11.465 min Scan# 1617
Delta R.T. -0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion:107 Resp: 2599

Ion	Ratio	Lower	Upper
107	100		
109	105.4	76.0	114.0





#62
4-Bromofluorobenzene
Concen: 0.000 ug/l
Expected RT: 12.84 min

Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

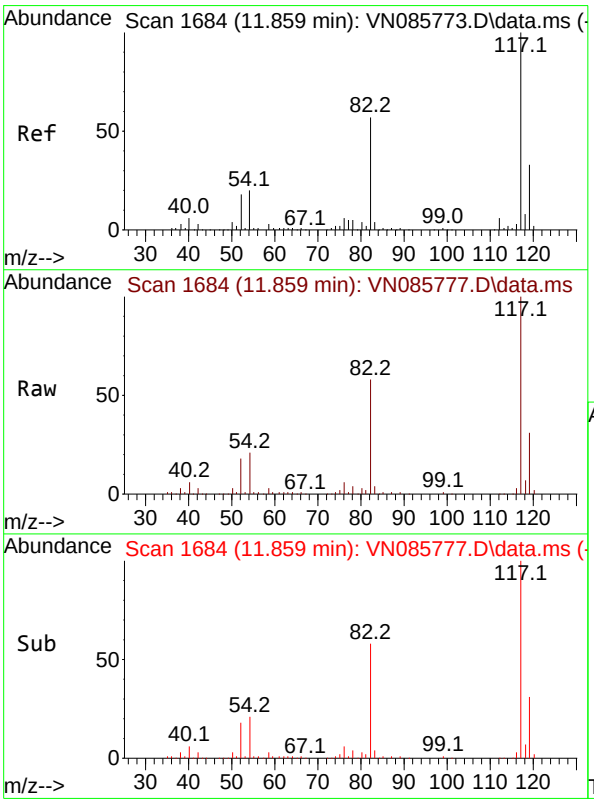
Tgt Ion: 95

Sig	Exp Ratio
95	100
174	76.2
176	73.3

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

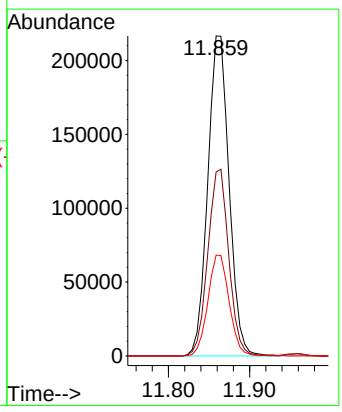
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

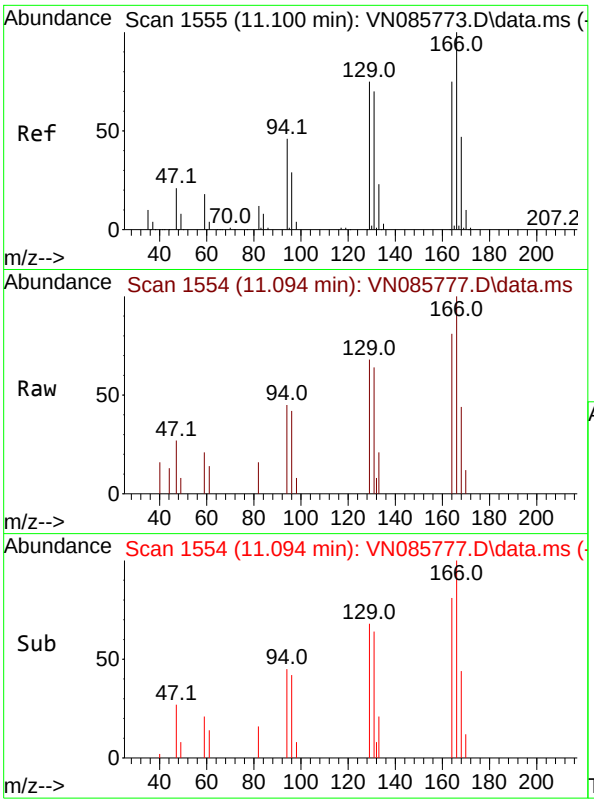


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.859 min Scan# 1684
Delta R.T. -0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion:117 Resp: 394997

Ion	Ratio	Lower	Upper
117	100		
82	57.5	45.7	68.5
119	31.5	26.2	39.2

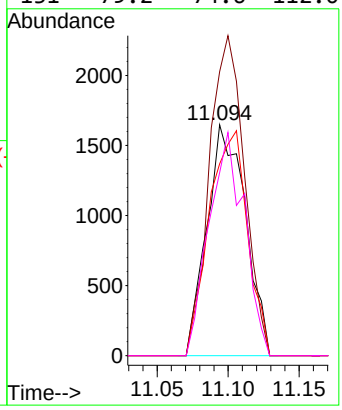




#64
Tetrachloroethene
Concen: 1.016 ug/l
RT: 11.094 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion:164 Resp: 310

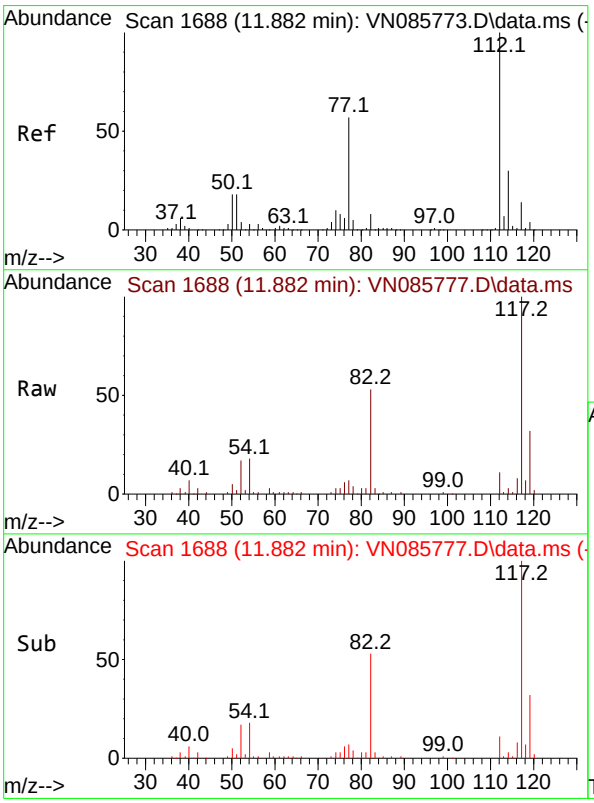
Ion	Ratio	Lower	Upper
164	100		
166	123.0	107.2	160.8
129	83.1	80.7	121.1
131	79.2	74.6	112.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

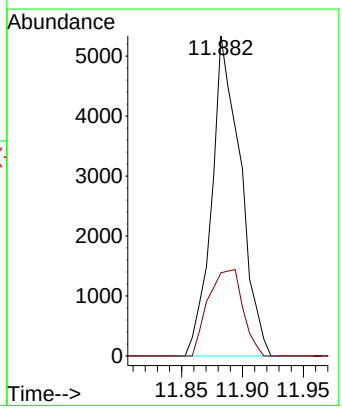
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

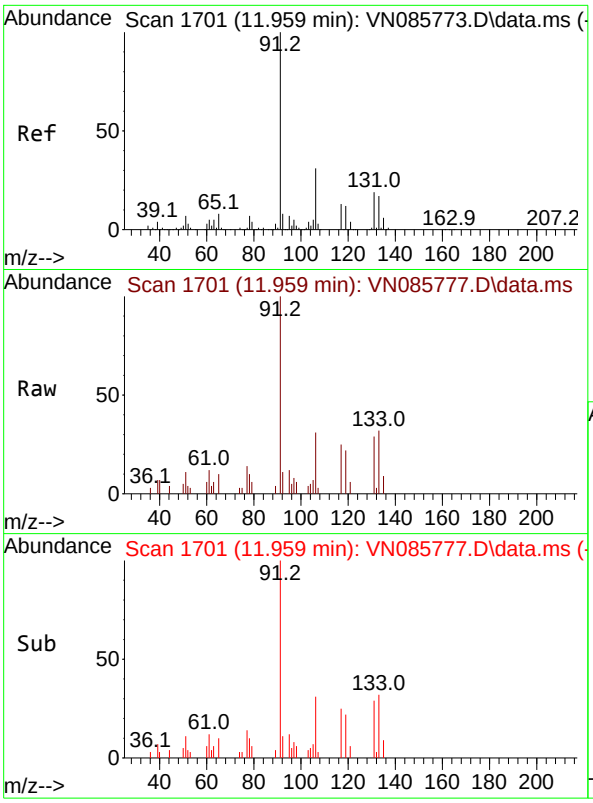


#65
Chlorobenzene
Concen: 0.968 ug/l
RT: 11.882 min Scan# 1688
Delta R.T. -0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion:112 Resp: 8761

Ion	Ratio	Lower	Upper
112	100		
114	26.0	24.3	36.5

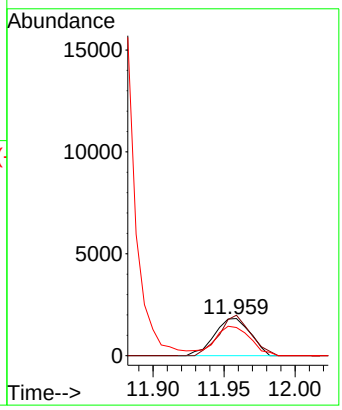




#66
1,1,1,2-Tetrachloroethane
Concen: 0.991 ug/l
RT: 11.959 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion:131 Resp: 322

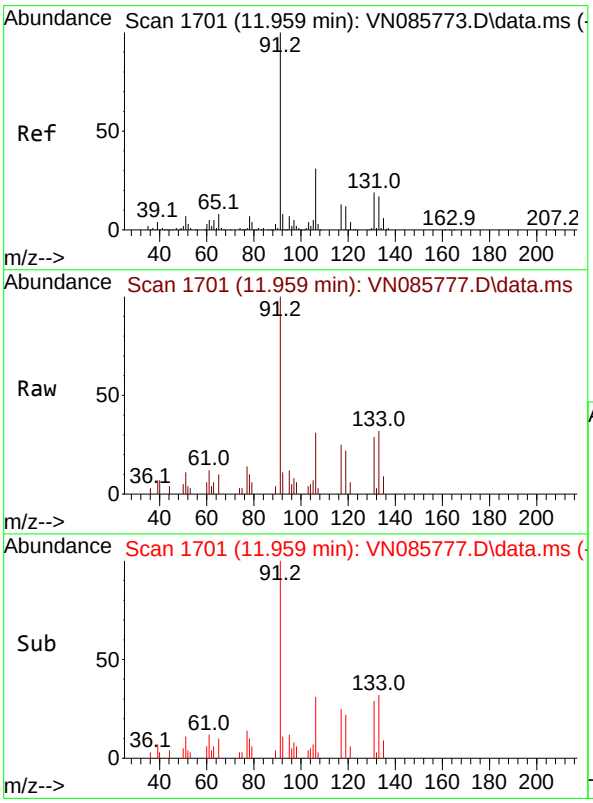
Ion	Ratio	Lower	Upper
131	100		
133	95.6	47.7	143.1
119	0.0	33.3	99.8#



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

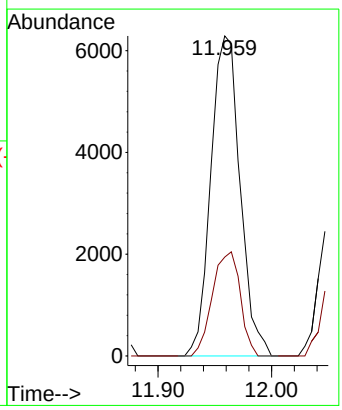
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

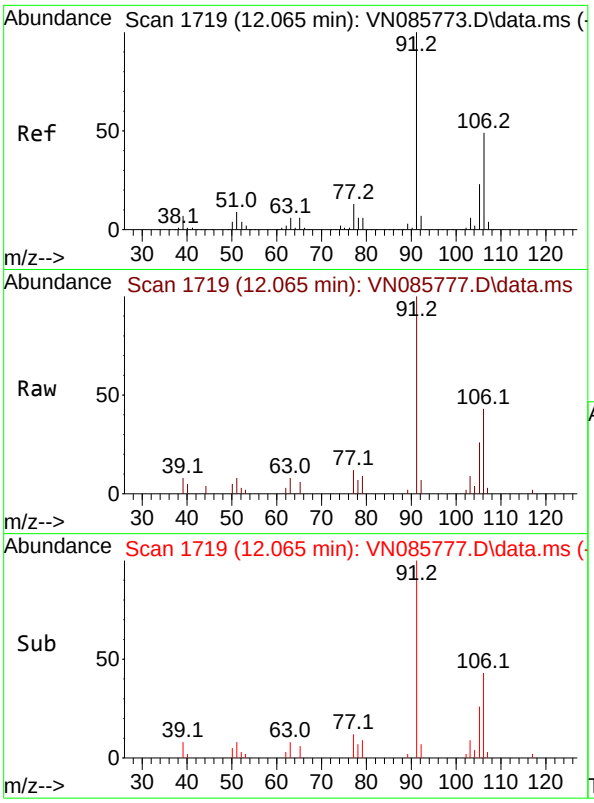


#67
Ethyl Benzene
Concen: 0.793 ug/l
RT: 11.959 min Scan# 1701
Delta R.T. -0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 91 Resp: 11246

Ion	Ratio	Lower	Upper
91	100		
106	30.9	24.7	37.1

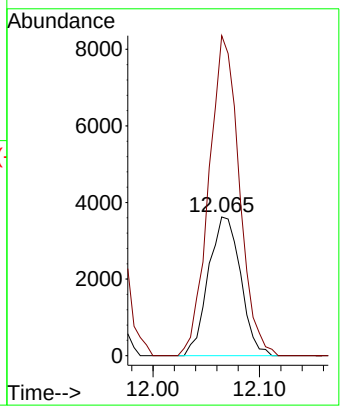




#68
m/p-Xylenes
Concen: 1.413 ug/l
RT: 12.065 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion:106 Resp: 760

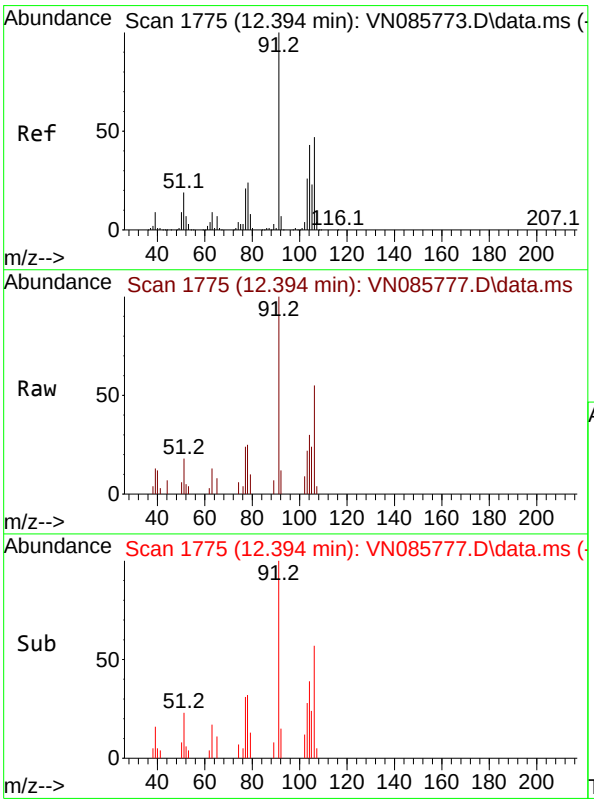
Ion	Ratio	Lower	Upper
106	100		
91	218.1	163.3	244.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

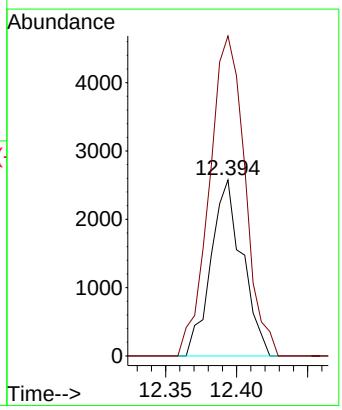
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

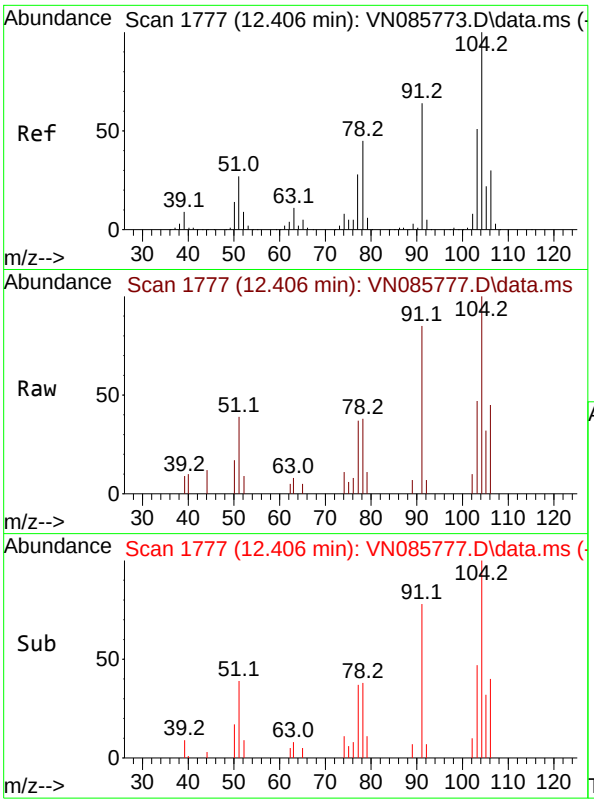


#69
o-Xylene
Concen: 0.775 ug/l
RT: 12.394 min Scan# 1775
Delta R.T. -0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion:106 Resp: 3965

Ion	Ratio	Lower	Upper
106	100		
91	206.1	107.1	321.4

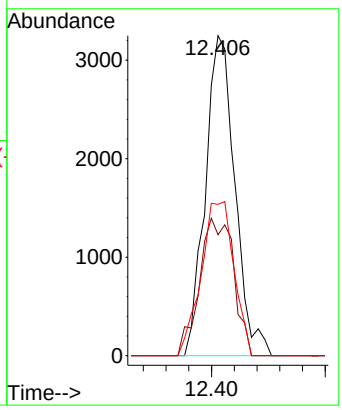




#70
Styrene
Concen: 1.257 ug/l
RT: 12.406 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion:104 Resp: 587

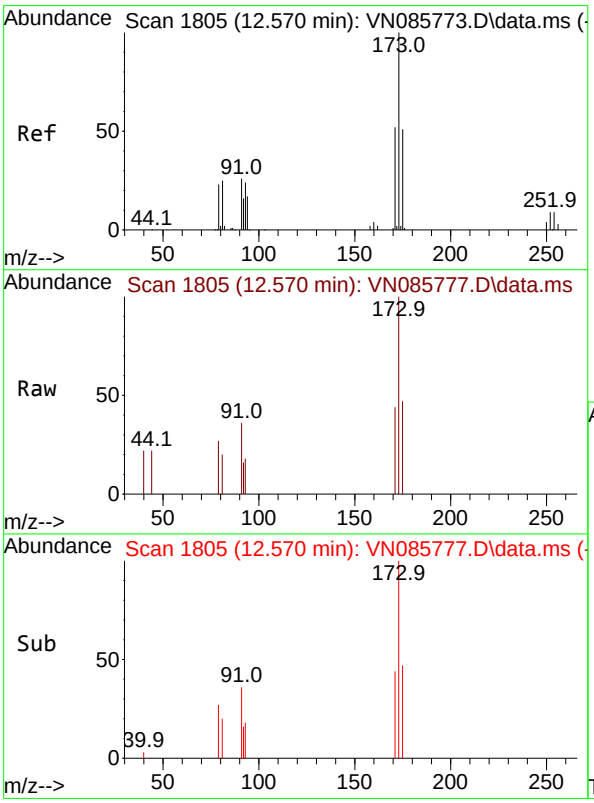
Ion	Ratio	Lower	Upper
104	100		
78	49.4	39.0	58.6
103	53.4	43.3	64.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

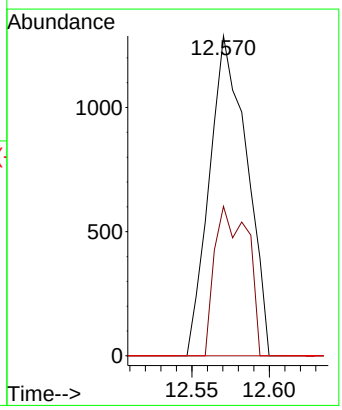
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

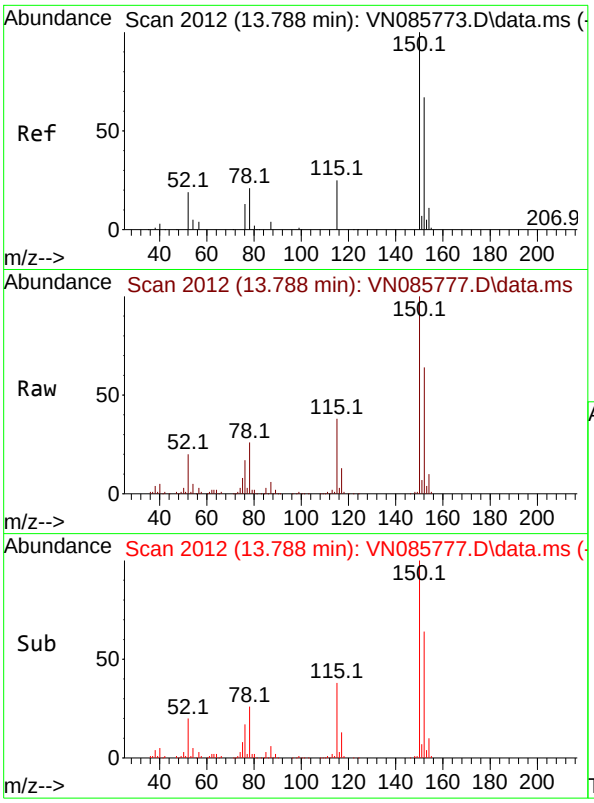


#71
Bromoform
Concen: 0.894 ug/l
RT: 12.570 min Scan# 1805
Delta R.T. -0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion:173 Resp: 2161

Ion	Ratio	Lower	Upper
173	100		
175	41.3	25.1	75.4
254	0.0	0.0	0.0

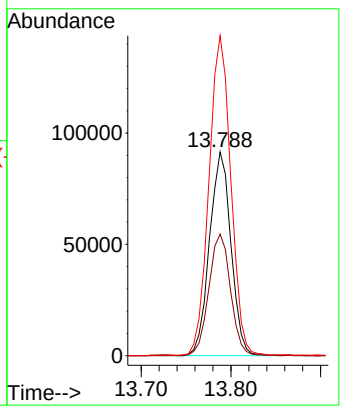




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.788 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion:152 Resp: 15222

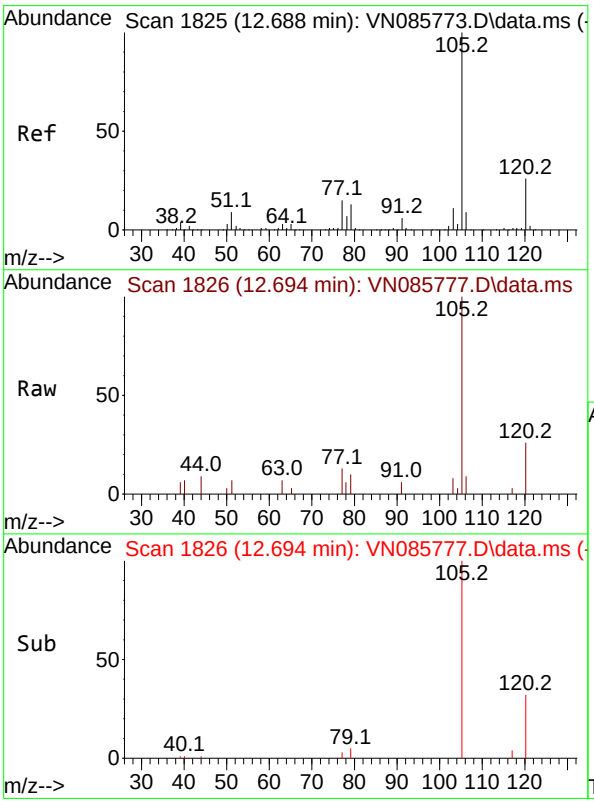
Ion	Ratio	Lower	Upper
152	100		
115	60.2	30.4	91.3
150	160.8	0.0	345.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

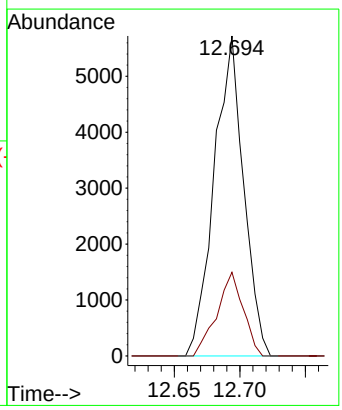
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

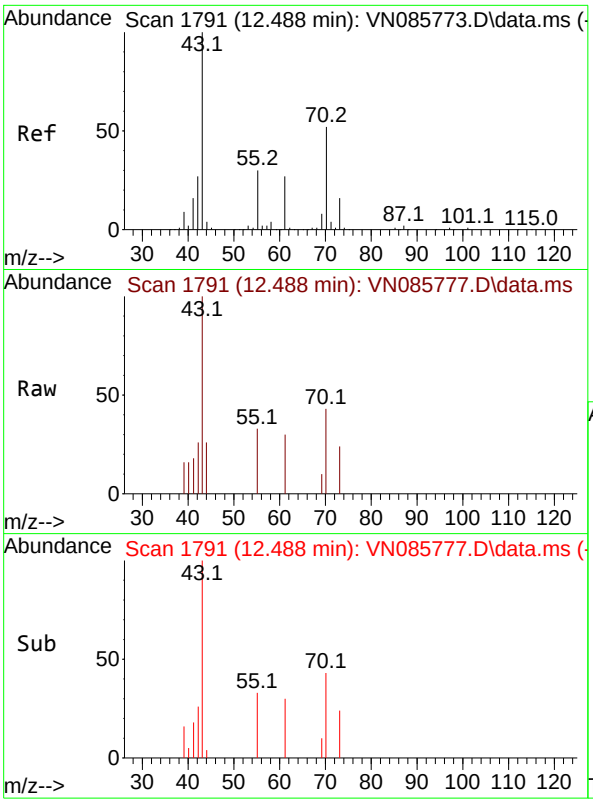


#73
Isopropylbenzene
Concen: 0.856 ug/l
RT: 12.694 min Scan# 1826
Delta R.T. 0.006 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion:105 Resp: 8928

Ion	Ratio	Lower	Upper
105	100		
120	23.4	13.0	39.0

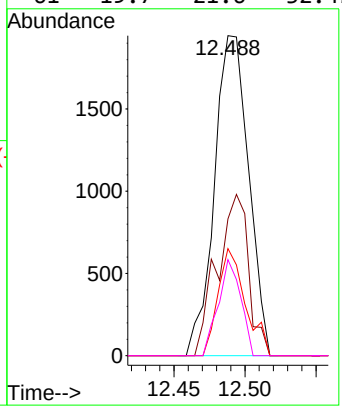




#74
N-amyl acetate
Concen: 0.887 ug/l
RT: 12.488 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 43 Resp: 326

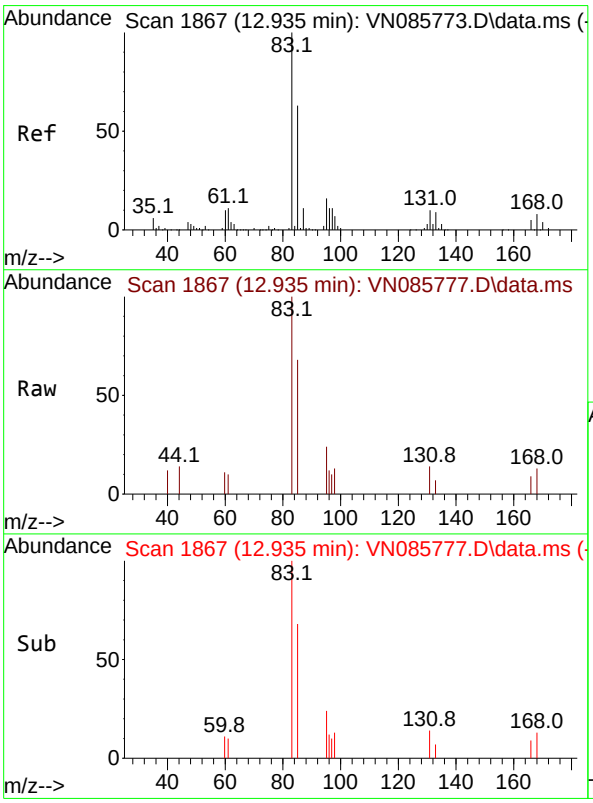
Ion	Ratio	Lower	Upper
43	100		
70	46.2	41.0	61.4
55	26.7	24.6	36.8
61	19.7	21.6	32.4#



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

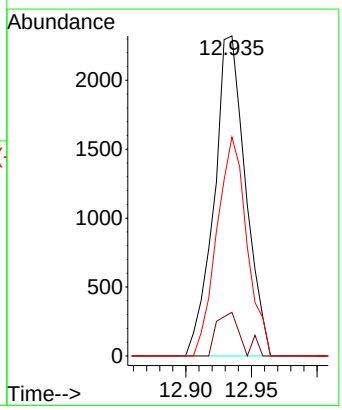
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

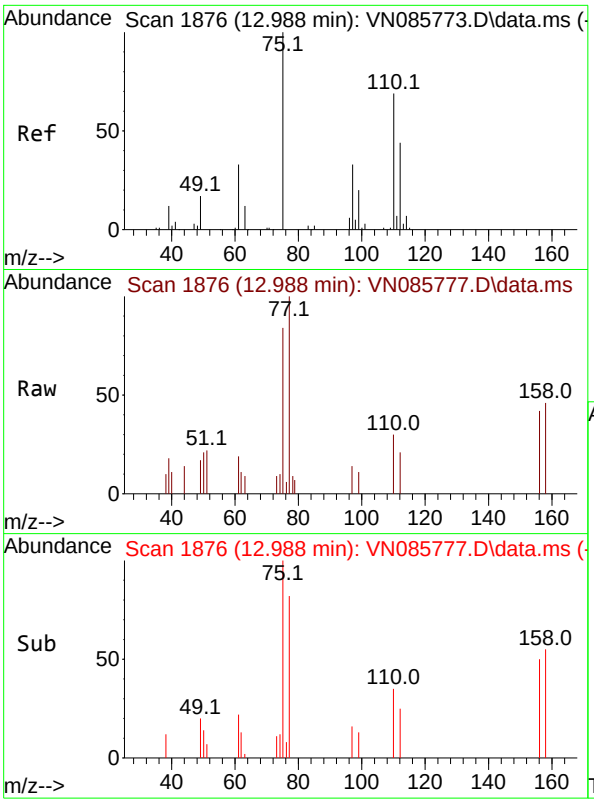


#75
1,1,2,2-Tetrachloroethane
Concen: 1.078 ug/l
RT: 12.935 min Scan# 1867
Delta R.T. -0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 83 Resp: 3870

Ion	Ratio	Lower	Upper
83	100		
131	10.6	5.0	15.0
85	65.5	32.2	96.6





#76
1,2,3-Trichloropropane
Concen: 1.206 ug/l m
RT: 12.988 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

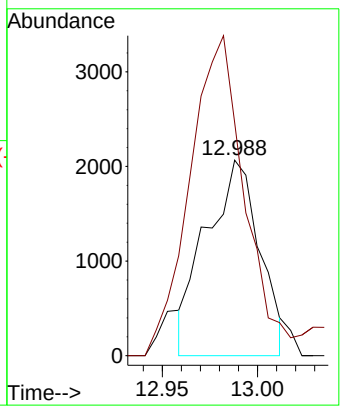
Tgt Ion: 75 Resp: 403

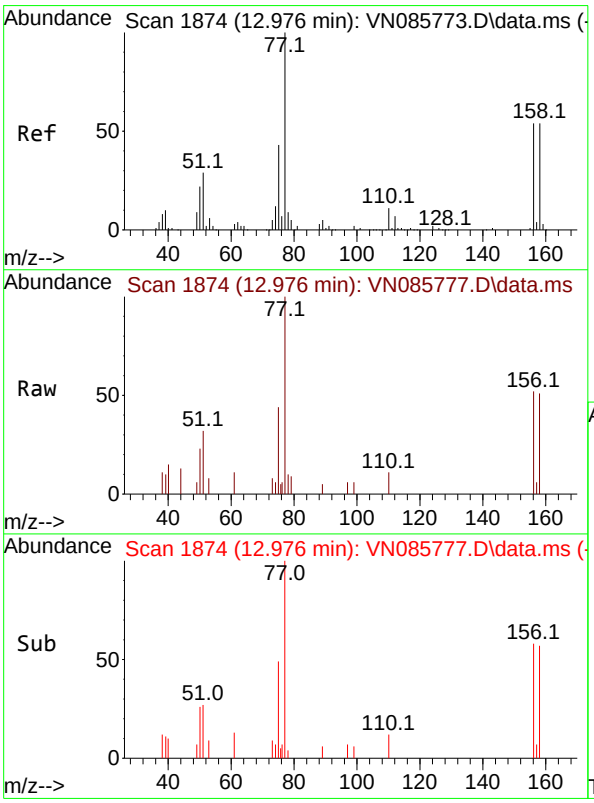
Ion	Ratio	Lower	Upper
75	100		
77	166.9	100.0	300.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

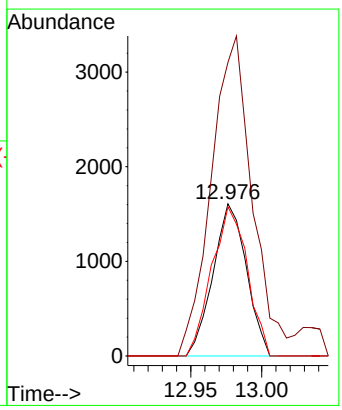


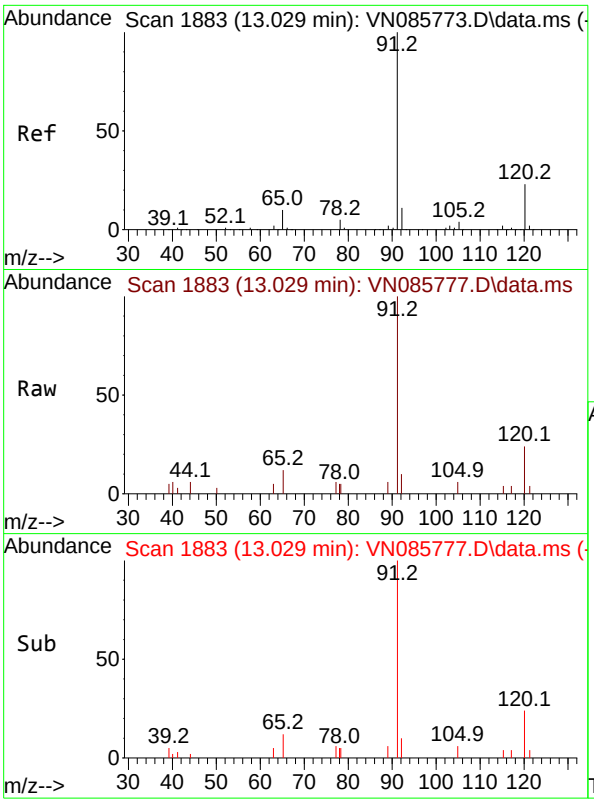


#77
Bromobenzene
Concen: 0.931 ug/l
RT: 12.976 min Scan# 1874
Delta R.T. -0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion:156 Resp: 2624

Ion	Ratio	Lower	Upper
156	100		
77	256.5	104.1	312.3
158	104.8	48.1	144.4





#78
n-propylbenzene
Concen: 0.773 ug/l
RT: 13.029 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

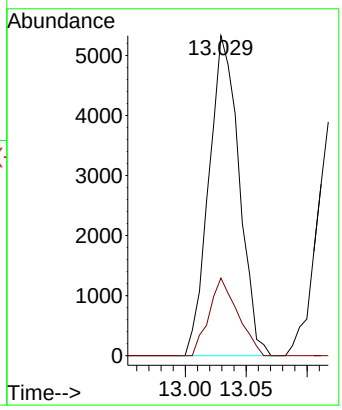
Tgt Ion: 91 Resp: 922

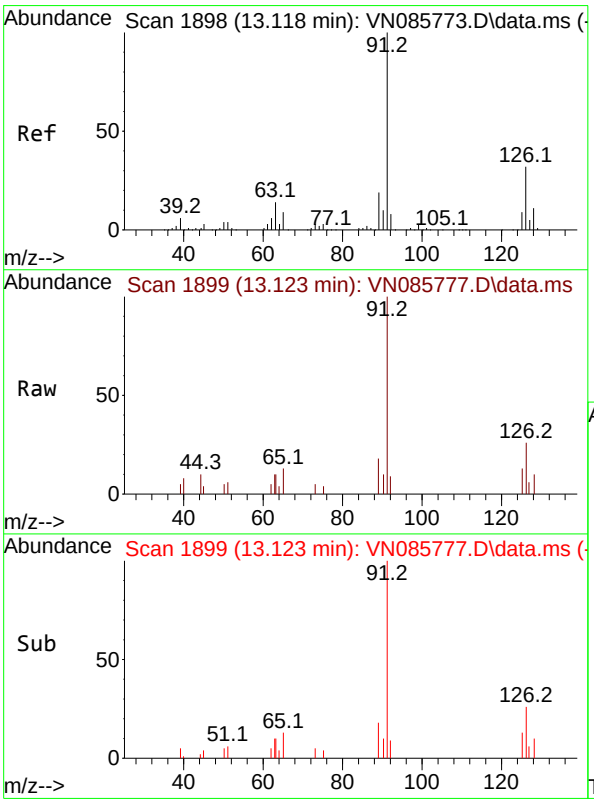
Ion	Ratio	Lower	Upper
91	100		
120	23.0	11.3	33.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

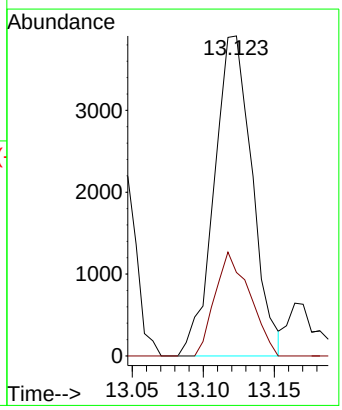


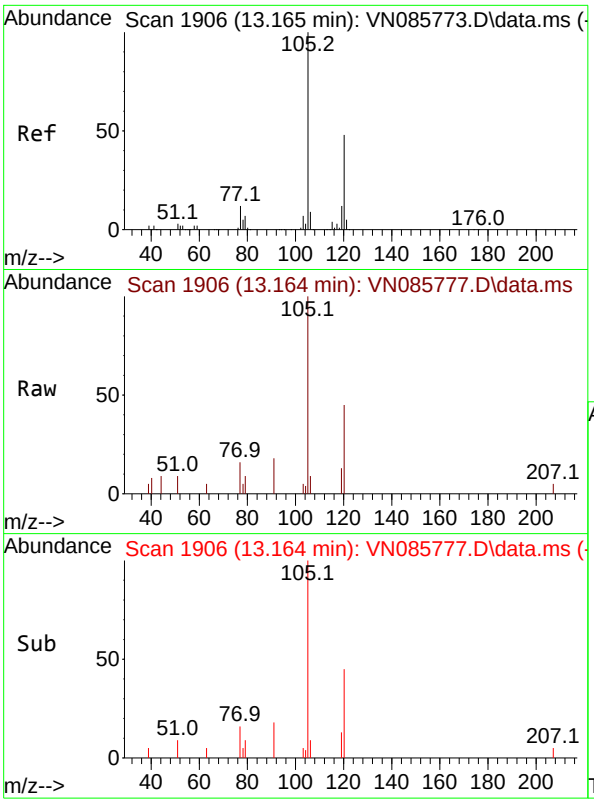


#79
2-Chlorotoluene
Concen: 0.910 ug/l
RT: 13.123 min Scan# 1899
Delta R.T. 0.006 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 91 Resp: 7260

Ion	Ratio	Lower	Upper
91	100		
126	29.8	16.4	49.1





#80
1,3,5-Trimethylbenzene
Concen: 0.728 ug/l
RT: 13.164 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

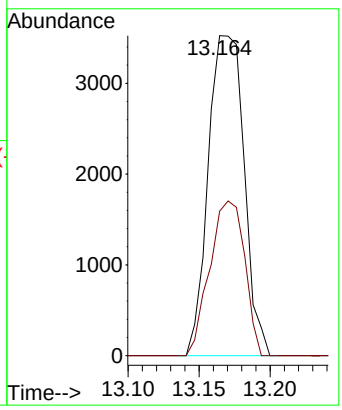
Tgt Ion:105 Resp: 618

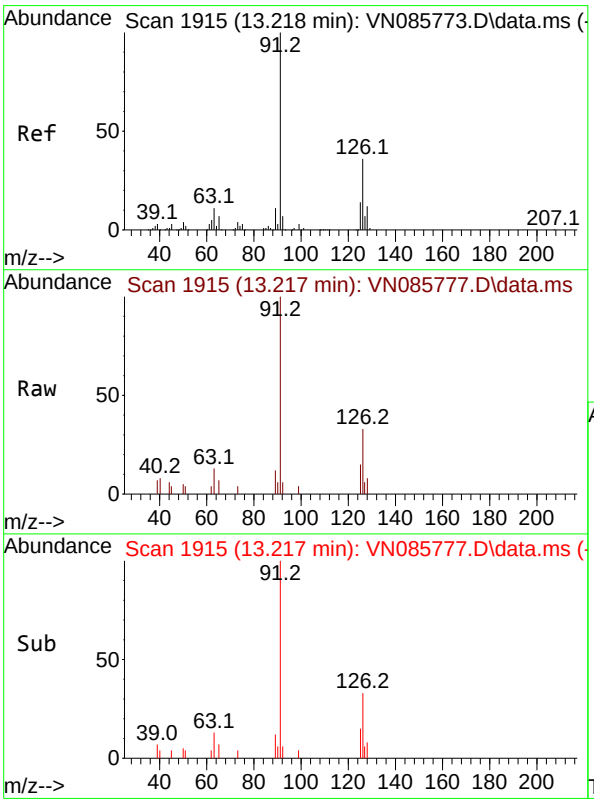
Ion	Ratio	Lower	Upper
105	100		
120	47.1	24.3	72.9

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

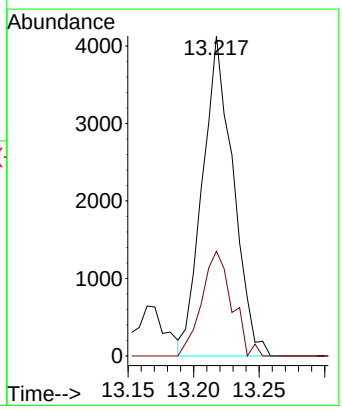


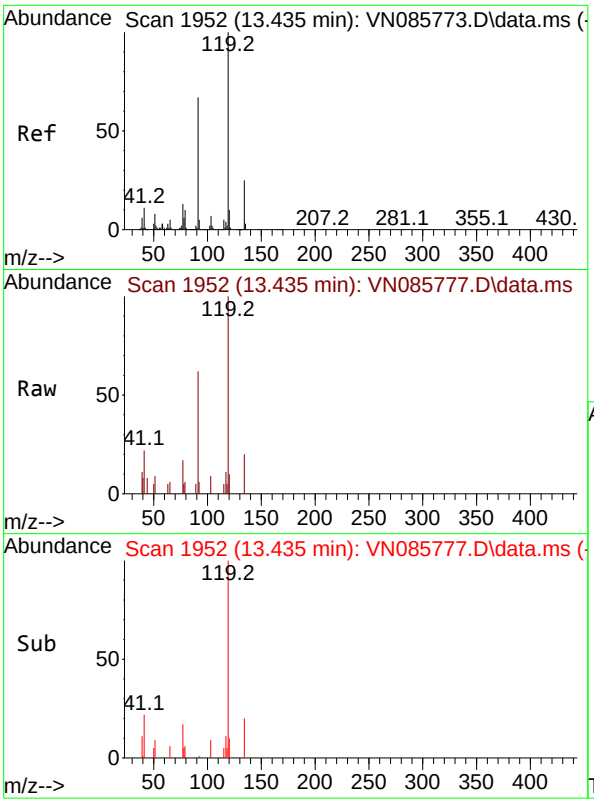


#82
4-Chlorotoluene
Concen: 0.847 ug/l
RT: 13.217 min Scan# 1915
Delta R.T. -0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 91 Resp: 6700

Ion	Ratio	Lower	Upper
91	100		
126	32.3	16.4	49.4

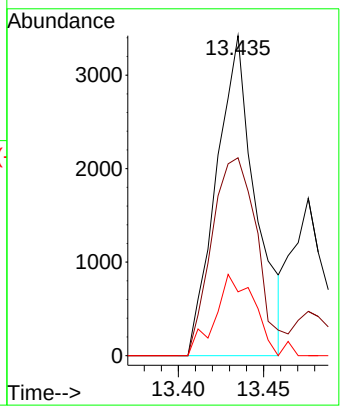




#83
tert-Butylbenzene
Concen: 0.768 ug/l
RT: 13.435 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion:119 Resp: 548

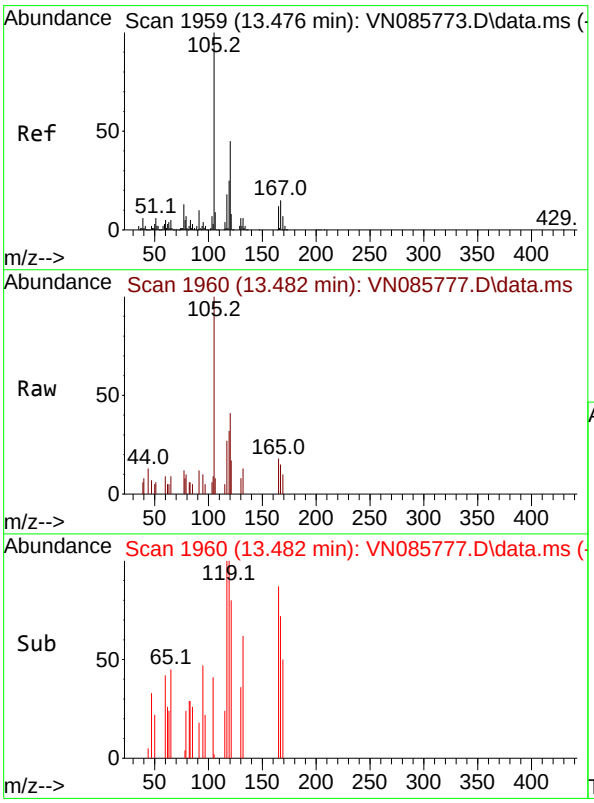
Ion	Ratio	Lower	Upper
119	100		
91	72.3	32.5	97.5
134	26.0	13.3	39.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

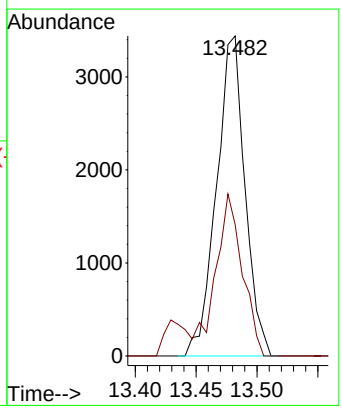
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

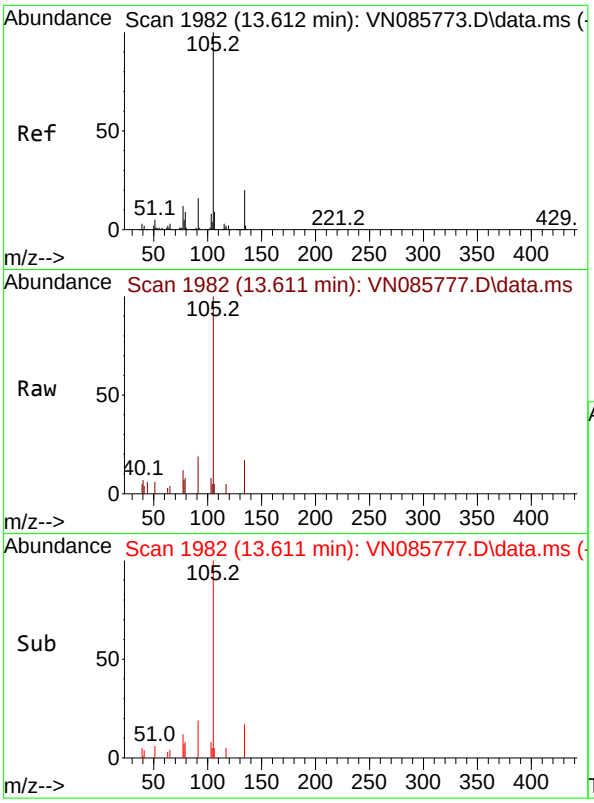


#84
1,2,4-Trimethylbenzene
Concen: 0.666 ug/l
RT: 13.482 min Scan# 1960
Delta R.T. 0.006 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion:105 Resp: 5595

Ion	Ratio	Lower	Upper
105	100		
120	47.4	22.4	67.3





#85
sec-Butylbenzene
Concen: 0.750 ug/l
RT: 13.611 min Scan# 1
Delta R.T. -0.001 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

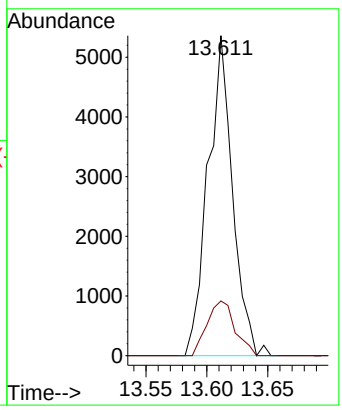
Tgt Ion:105 Resp: 756

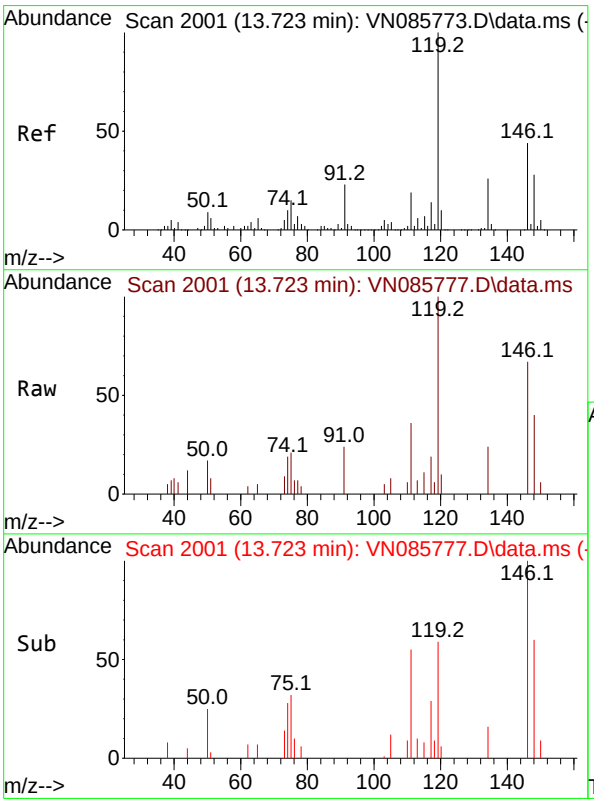
Ion	Ratio	Lower	Upper
105	100		
134	19.4	9.8	29.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

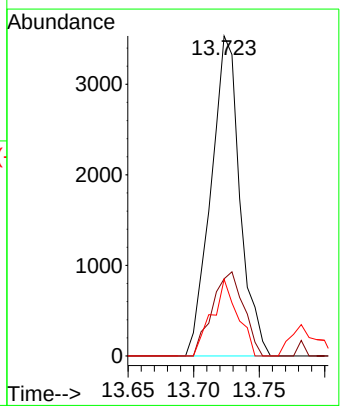


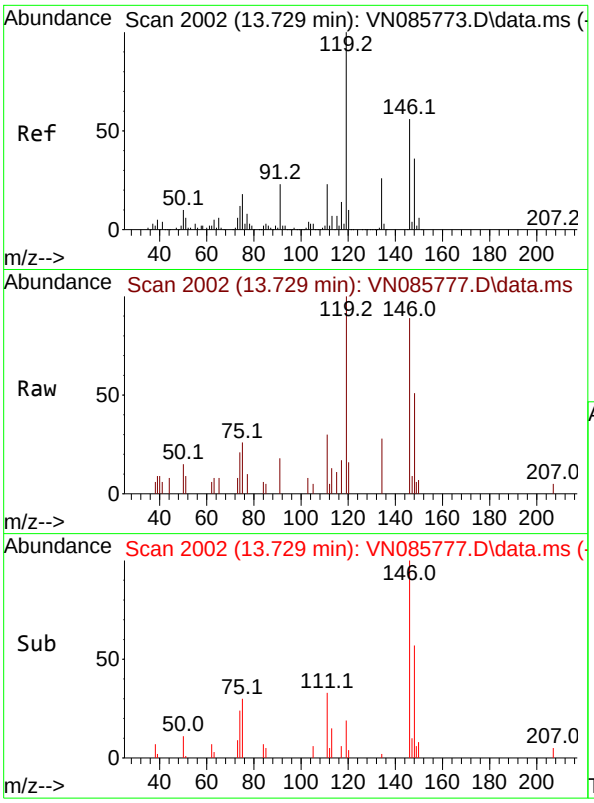


#86
p-Isopropyltoluene
Concen: 1.252 ug/l
RT: 13.723 min Scan# 2001
Delta R.T. 0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion:119 Resp: 5416

Ion	Ratio	Lower	Upper
119	100		
134	28.5	13.0	39.0
91	21.2	11.7	35.1

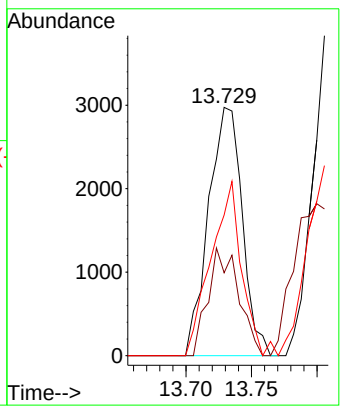




#87
1,3-Dichlorobenzene
Concen: 1.008 ug/l
RT: 13.729 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion:146 Resp: 532

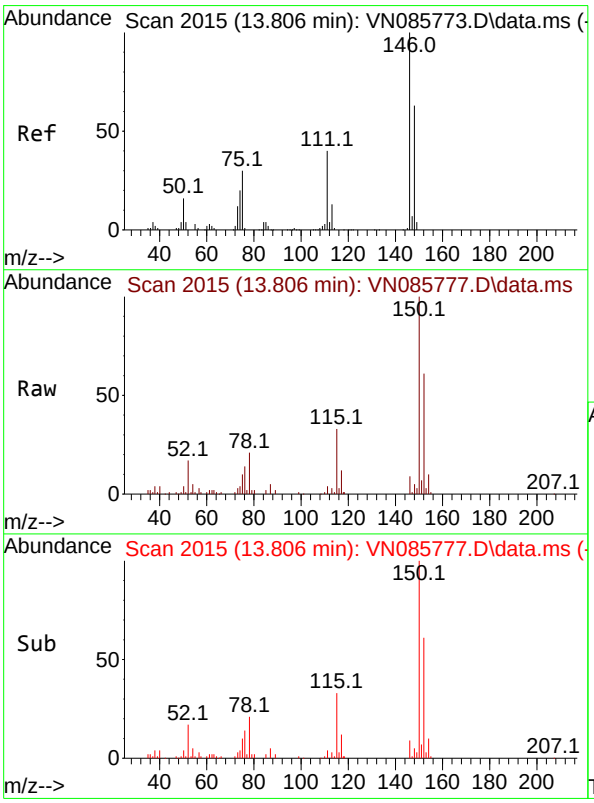
Ion	Ratio	Lower	Upper
146	100		
111	39.2	21.1	63.3
148	63.9	32.1	96.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

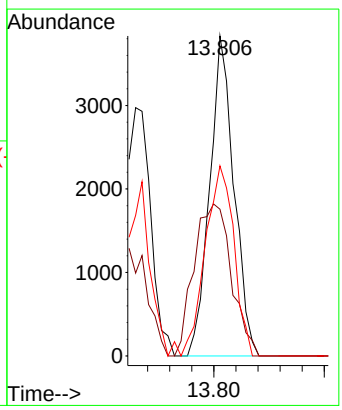
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

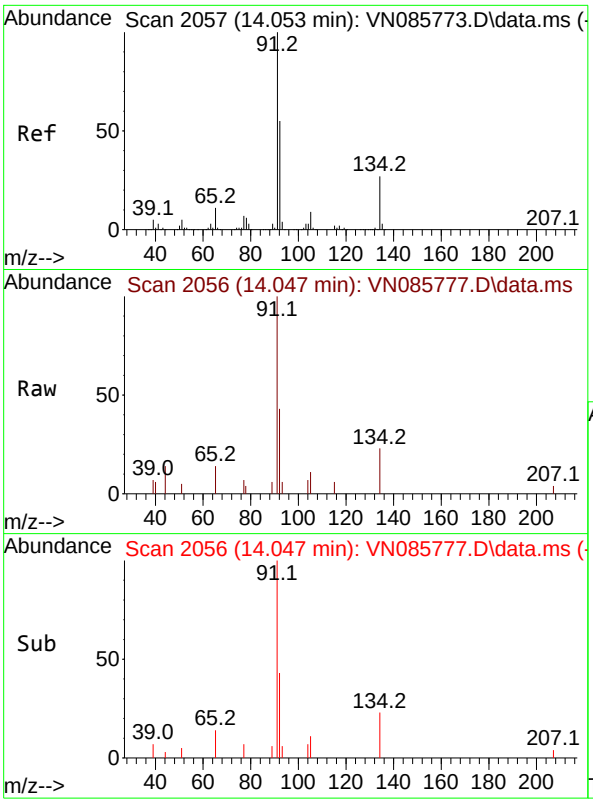


#88
1,4-Dichlorobenzene
Concen: 1.081 ug/l m
RT: 13.806 min Scan# 2015
Delta R.T. -0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion:146 Resp: 5848

Ion	Ratio	Lower	Upper
146	100		
111	35.7	20.4	61.3
148	58.1	31.8	95.4

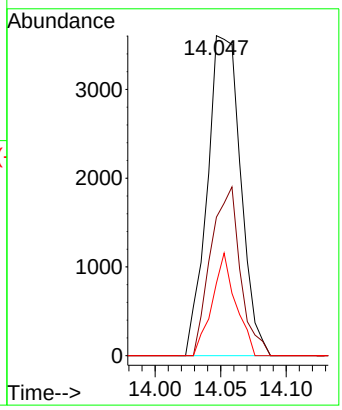




#89
n-Butylbenzene
Concen: 0.893 ug/l
RT: 14.047 min Scan# 2
Delta R.T. -0.006 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 91 Resp: 639

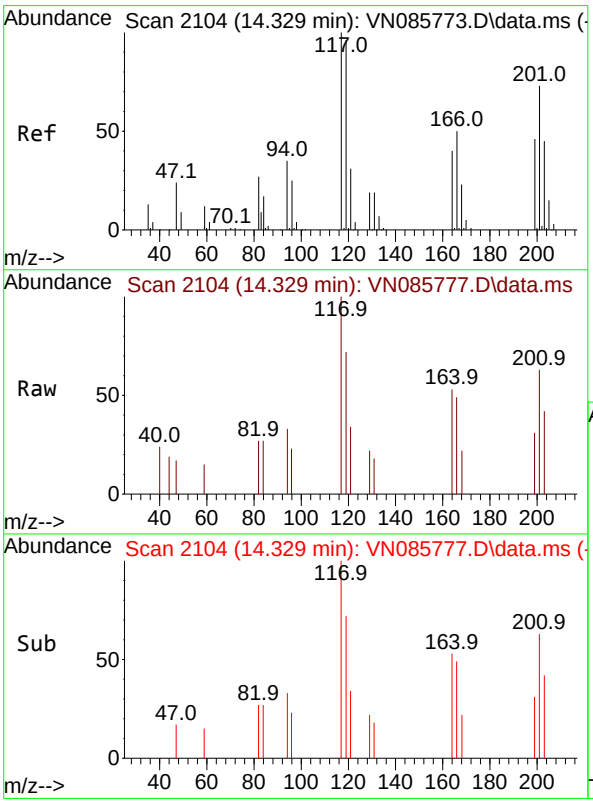
Ion	Ratio	Lower	Upper
91	100		
92	46.6	27.1	81.3
134	22.6	12.7	38.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

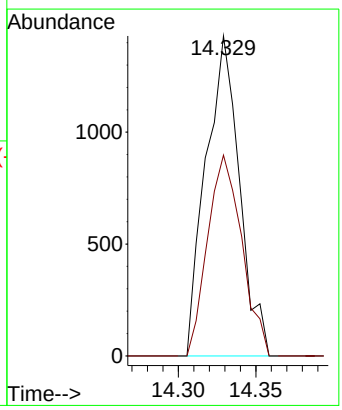
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

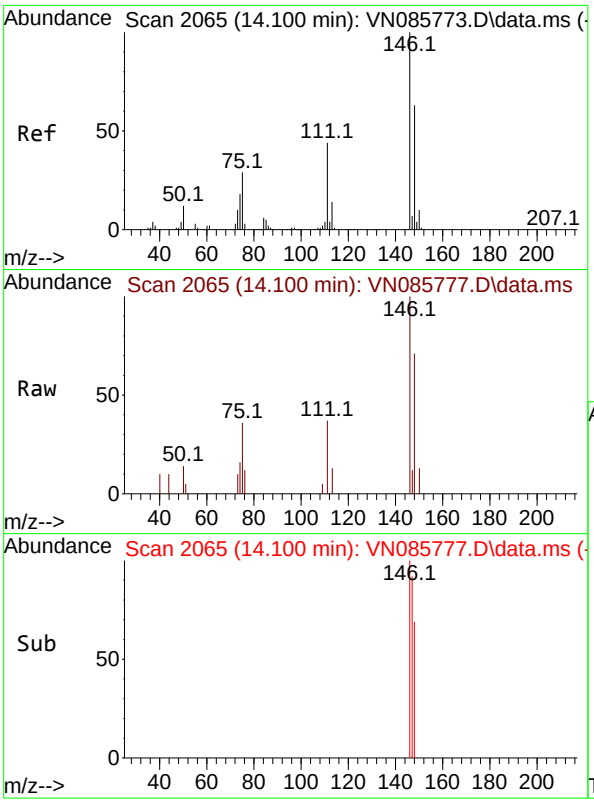


#90
Hexachloroethane
Concen: 1.126 ug/l
RT: 14.329 min Scan# 2104
Delta R.T. -0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion:117 Resp: 2153

Ion	Ratio	Lower	Upper
117	100		
201	63.9	35.6	106.9

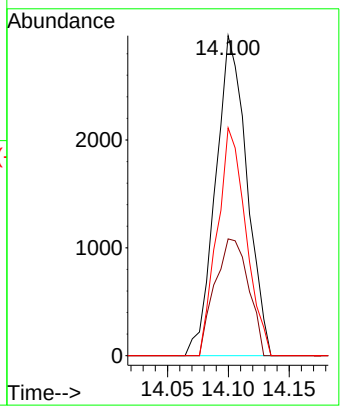




#91
1,2-Dichlorobenzene
Concen: 1.046 ug/l
RT: 14.100 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion:146 Resp: 530

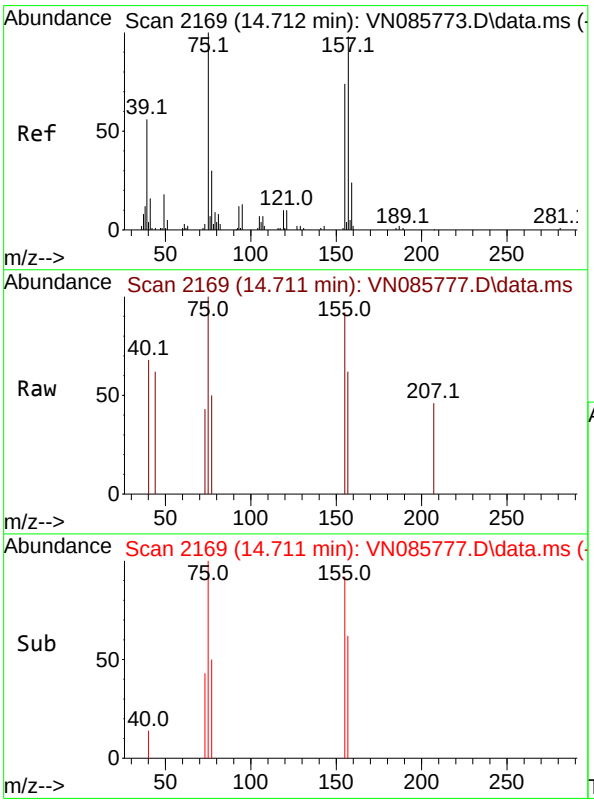
Ion	Ratio	Lower	Upper
146	100		
111	39.1	21.4	64.3
148	65.3	32.0	96.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

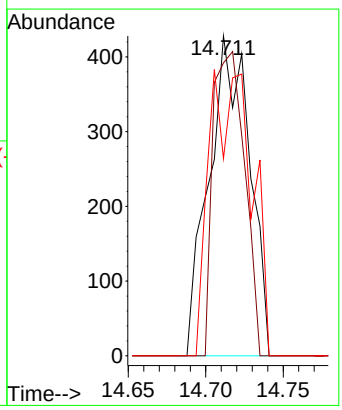
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

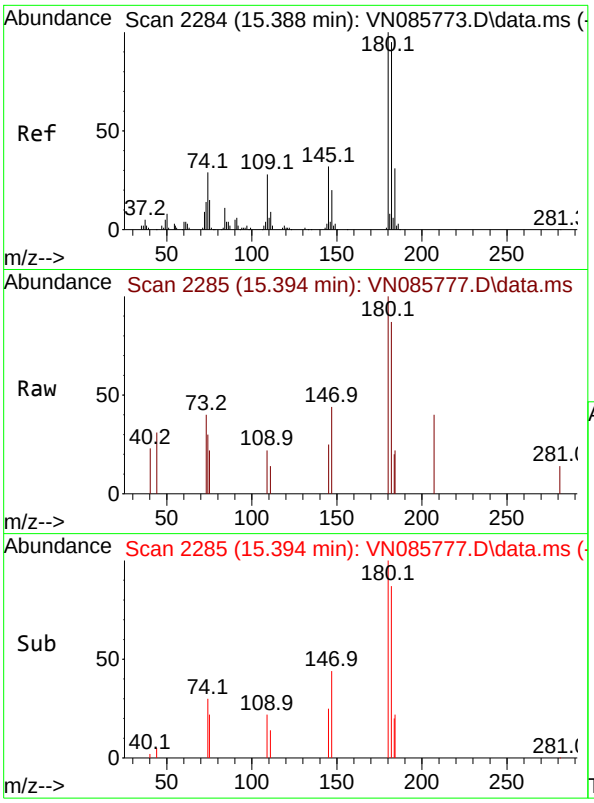


#92
1,2-Dibromo-3-Chloropropane
Concen: 1.184 ug/l
RT: 14.711 min Scan# 2169
Delta R.T. -0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion: 75 Resp: 780

Ion	Ratio	Lower	Upper
75	100		
155	73.8	39.9	119.6
157	92.8	49.9	149.7

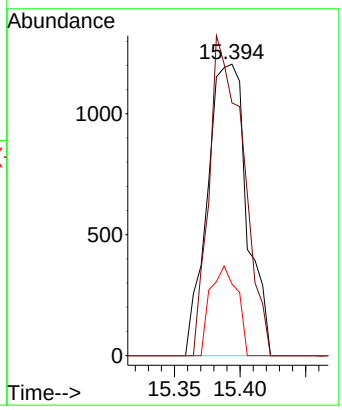




#93
1,2,4-Trichlorobenzene
Concen: 1.044 ug/l
RT: 15.394 min Scan# 2
Delta R.T. 0.006 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion:180 Resp: 252

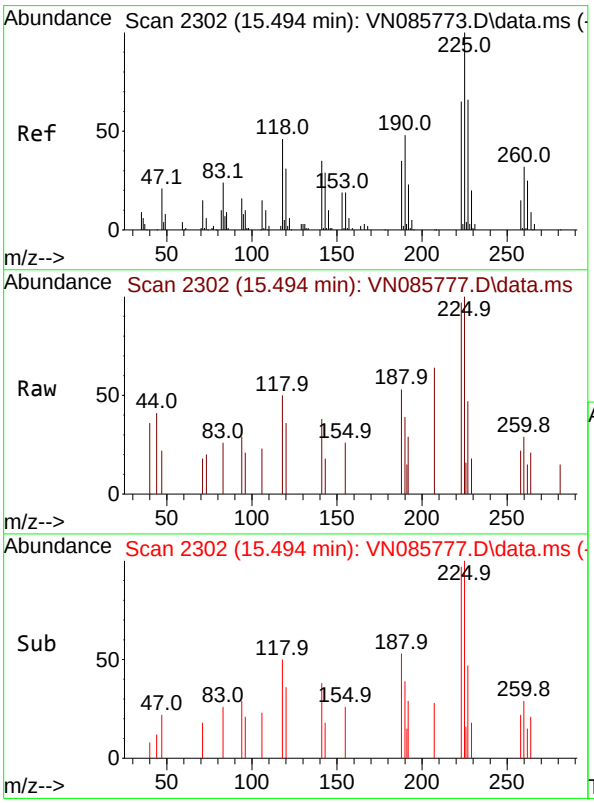
Ion	Ratio	Lower	Upper
180	100		
182	94.7	47.3	141.9
145	21.0	16.2	48.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

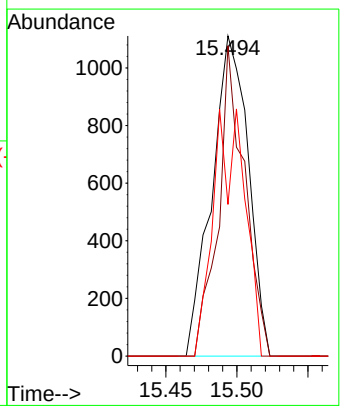
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

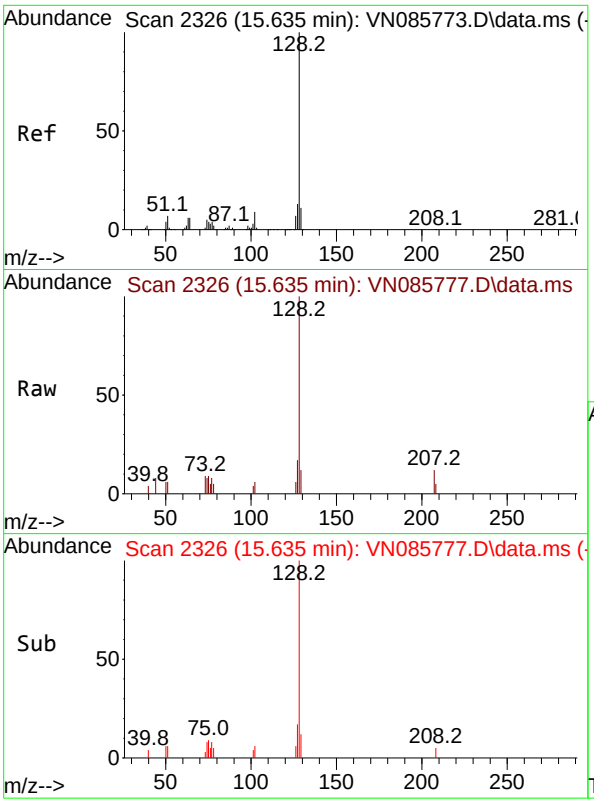


#94
Hexachlorobutadiene
Concen: 1.344 ug/l
RT: 15.494 min Scan# 2302
Delta R.T. -0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion:225 Resp: 1976

Ion	Ratio	Lower	Upper
225	100		
223	70.2	31.9	95.5
227	66.8	32.2	96.6

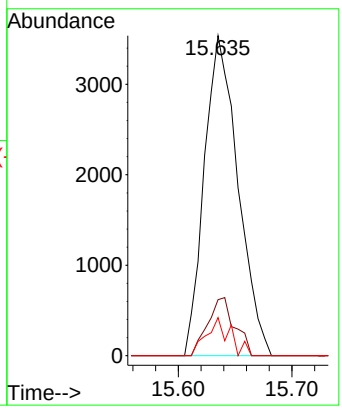




#95
Naphthalene
Concen: 1.099 ug/l
RT: 15.635 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion:128 Resp: 729

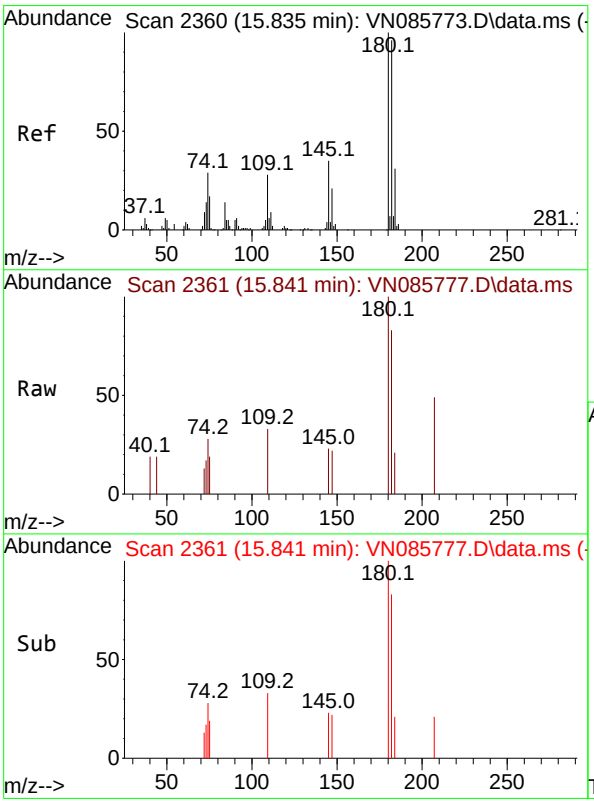
Ion	Ratio	Lower	Upper
128	100		
127	14.6	10.2	15.2
129	8.3	8.7	13.1#



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC001

Manual Integrations
APPROVED

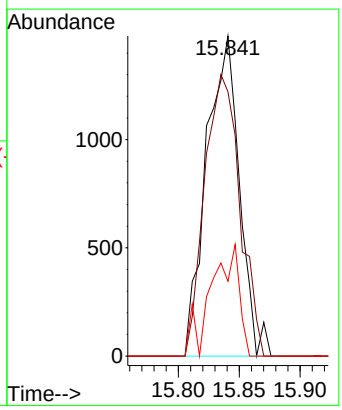
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025



#96
1,2,3-Trichlorobenzene
Concen: 1.149 ug/l
RT: 15.841 min Scan# 2361
Delta R.T. 0.006 min
Lab File: VN085777.D
Acq: 18 Feb 2025 13:07

Tgt Ion:180 Resp: 2791

Ion	Ratio	Lower	Upper
180	100		
182	93.7	47.3	141.8
145	29.6	16.9	50.6



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN021825\
Data File : VN085779.D
Acq On : 18 Feb 2025 14:18
Operator : JC\MD
Sample : VSTDICC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

Quant Time: Feb 19 03:19:11 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:03:15 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.218	168	309026	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.094	114	515996	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.859	117	448882	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.788	152	214863	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.571	65	71117	17.751	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery =	35.500%#		
35) Dibromofluoromethane	8.159	113	60447	17.903	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery =	35.800%#		
50) Toluene-d8	10.559	98	222839	18.140	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery =	36.280%#		
62) 4-Bromofluorobenzene	12.847	95	71343	17.627	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery =	35.260%#		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.124	85	77669	18.478	ug/l	96
3) Chloromethane	2.360	50	74700	17.710	ug/l	98
4) Vinyl Chloride	2.512	62	83284	18.649	ug/l	96
5) Bromomethane	2.954	94	51068	17.884	ug/l	97
6) Chloroethane	3.118	64	54178	18.315	ug/l	98
7) Trichlorofluoromethane	3.501	101	124306	19.225	ug/l	100
8) Diethyl Ether	3.959	74	40213	19.221	ug/l	97
9) 1,1,2-Trichlorotrifluo...	4.377	101	74051	19.813	ug/l	98
10) Methyl Iodide	4.589	142	87963	19.093	ug/l	96
11) Tert butyl alcohol	5.512	59	45305	91.941	ug/l	99
12) 1,1-Dichloroethene	4.336	96	65660	19.375	ug/l	95
13) Acrolein	4.177	56	65092	89.078	ug/l	99
14) Allyl chloride	5.024	41	84778	19.054	ug/l	98
15) Acrylonitrile	5.712	53	158250	98.787	ug/l	99
16) Acetone	4.418	43	122455	96.596	ug/l	97
17) Carbon Disulfide	4.706	76	179885	17.910	ug/l	100
18) Methyl Acetate	5.012	43	77229	17.712	ug/l	99
19) Methyl tert-butyl Ether	5.795	73	205047	20.362	ug/l	97
20) Methylene Chloride	5.271	84	77308	18.963	ug/l	98
21) trans-1,2-Dichloroethene	5.777	96	69924	19.162	ug/l	91
22) Diisopropyl ether	6.665	45	212086	21.095	ug/l	99
23) Vinyl Acetate	6.600	43	695943	101.409	ug/l	99
24) 1,1-Dichloroethane	6.565	63	134620	19.697	ug/l	98
25) 2-Butanone	7.477	43	184659	99.012	ug/l	98
26) 2,2-Dichloropropane	7.489	77	120039	19.752	ug/l	99
27) cis-1,2-Dichloroethene	7.483	96	82886	19.590	ug/l	99
28) Bromochloromethane	7.806	49	49657	17.678	ug/l	95
29) Tetrahydrofuran	7.836	42	125831	104.482	ug/l	100
30) Chloroform	7.959	83	141059	19.750	ug/l	98
31) Cyclohexane	8.253	56	106009	18.525	ug/l	97
32) 1,1,1-Trichloroethane	8.165	97	125061	19.686	ug/l	98
36) 1,1-Dichloropropene	8.365	75	94481	19.772	ug/l	99
37) Ethyl Acetate	7.553	43	81716	20.780	ug/l	99
38) Carbon Tetrachloride	8.359	117	111137	19.574	ug/l	96
39) Methylcyclohexane	9.600	83	93454	19.907	ug/l	99
40) Benzene	8.600	78	304209	19.863	ug/l	99

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN021825\
Data File : VN085779.D
Acq On : 18 Feb 2025 14:18
Operator : JC\MD
Sample : VSTDICC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 19 03:19:11 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:03:15 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.771	41	43566	20.724	ug/l		98
42) 1,2-Dichloroethane	8.665	62	99651	19.975	ug/l		99
43) Isopropyl Acetate	8.683	43	138304	19.709	ug/l		99
44) Trichloroethene	9.347	130	71769	19.085	ug/l		97
45) 1,2-Dichloropropane	9.618	63	73743	19.947	ug/l		98
46) Dibromomethane	9.706	93	52878	20.278	ug/l		97
47) Bromodichloromethane	9.883	83	111634	20.010	ug/l		97
48) Methyl methacrylate	9.677	41	60690	20.781	ug/l		99
49) 1,4-Dioxane	9.688	88	21778	392.137	ug/l	#	88
51) 4-Methyl-2-Pentanone	10.441	43	400235	105.563	ug/l		99
52) Toluene	10.624	92	184001	20.495	ug/l		98
53) t-1,3-Dichloropropene	10.830	75	104301	20.218	ug/l		99
54) cis-1,3-Dichloropropene	10.306	75	115451	20.409	ug/l		98
55) 1,1,2-Trichloroethane	11.012	97	71034	19.900	ug/l		97
56) Ethyl methacrylate	10.871	69	94315	20.003	ug/l		97
57) 1,3-Dichloropropane	11.159	76	119649	20.080	ug/l		99
58) 2-Chloroethyl Vinyl ether	10.159	63	256540	146.107	ug/l		99
59) 2-Hexanone	11.188	43	278550	106.794	ug/l		99
60) Dibromochloromethane	11.353	129	83651	20.125	ug/l		100
61) 1,2-Dibromoethane	11.465	107	68205	20.223	ug/l		99
64) Tetrachloroethene	11.100	164	67288	19.350	ug/l		94
65) Chlorobenzene	11.888	112	200885	19.535	ug/l		97
66) 1,1,1,2-Tetrachloroethane	11.959	131	72064	19.497	ug/l		99
67) Ethyl Benzene	11.959	91	330056	20.490	ug/l		97
68) m/p-Xylenes	12.065	106	259251	42.371	ug/l		100
69) o-Xylene	12.394	106	118291	20.345	ug/l		96
70) Styrene	12.406	104	203369	20.270	ug/l		100
71) Bromoform	12.576	173	55518	20.214	ug/l	#	96
73) Isopropylbenzene	12.688	105	299398	20.339	ug/l		100
74) N-amyl acetate	12.488	43	106973	20.608	ug/l		98
75) 1,1,2,2-Tetrachloroethane	12.935	83	99174	19.579	ug/l		99
76) 1,2,3-Trichloropropane	12.988	75	96439m	20.431	ug/l		
77) Bromobenzene	12.976	156	78068	19.630	ug/l		98
78) n-propylbenzene	13.029	91	351518	20.852	ug/l		100
79) 2-Chlorotoluene	13.124	91	230434	20.458	ug/l		99
80) 1,3,5-Trimethylbenzene	13.171	105	258212	21.534	ug/l		99
81) trans-1,4-Dichloro-2-b...	12.729	75	31517	19.267	ug/l		92
82) 4-Chlorotoluene	13.218	91	227177	20.345	ug/l		100
83) tert-Butylbenzene	13.435	119	208096	20.637	ug/l		97
84) 1,2,4-Trimethylbenzene	13.476	105	259373	21.863	ug/l		99
85) sec-Butylbenzene	13.612	105	293653	20.612	ug/l		99
86) p-Isopropyltoluene	13.723	119	240984	19.772	ug/l		99
87) 1,3-Dichlorobenzene	13.729	146	143937	19.318	ug/l		99
88) 1,4-Dichlorobenzene	13.806	146	144744	18.954	ug/l		99
89) n-Butylbenzene	14.053	91	195221	19.300	ug/l		97
90) Hexachloroethane	14.329	117	50599	18.753	ug/l		98
91) 1,2-Dichlorobenzene	14.100	146	138931	19.390	ug/l		99
92) 1,2-Dibromo-3-Chloropr...	14.718	75	16407	17.639	ug/l		98
93) 1,2,4-Trichlorobenzene	15.388	180	60520	17.726	ug/l		98
94) Hexachlorobutadiene	15.500	225	34783	16.763	ug/l		97
95) Naphthalene	15.635	128	156537	16.700	ug/l		99
96) 1,2,3-Trichlorobenzene	15.835	180	57998	16.921	ug/l		98

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN021825\
Data File : VN085779.D
Acq On : 18 Feb 2025 14:18
Operator : JC\MD
Sample : VSTDICC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

Quant Time: Feb 19 03:19:11 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:03:15 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

ICAL Form

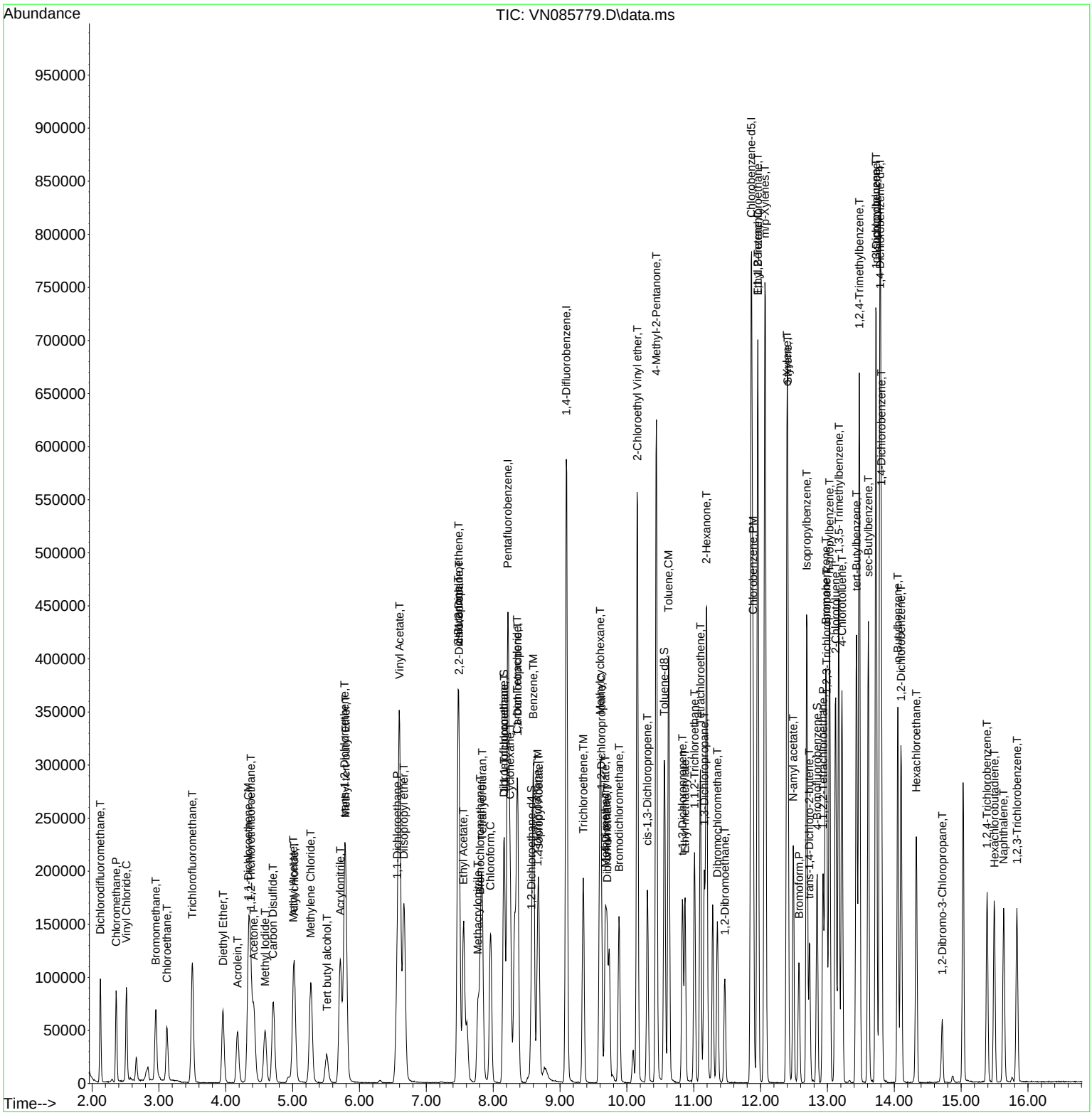
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN021825\
Data File : VN085779.D
Acq On : 18 Feb 2025 14:18
Operator : JC\MD
Sample : VSTDICC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 10 Sample Multiplier: 1

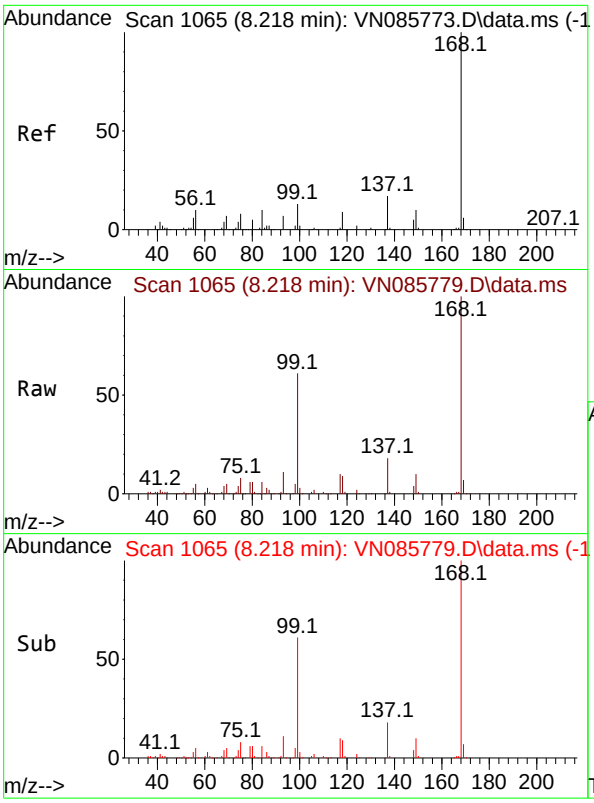
Quant Time: Feb 19 03:19:11 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:03:15 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

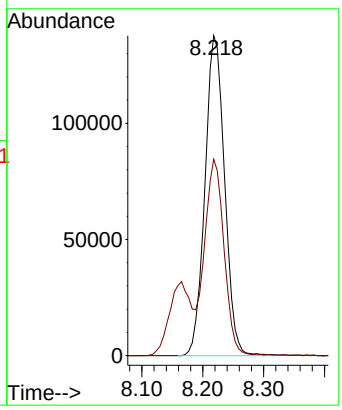




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.218 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion:168 Resp: 30902

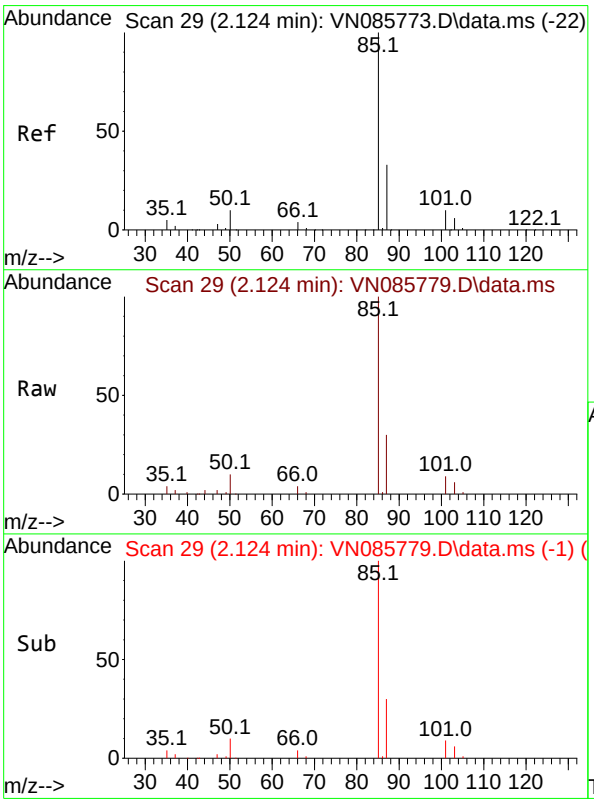
Ion	Ratio	Lower	Upper
168	100		
99	61.3	47.9	71.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

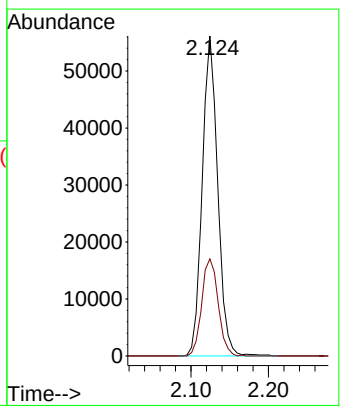
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

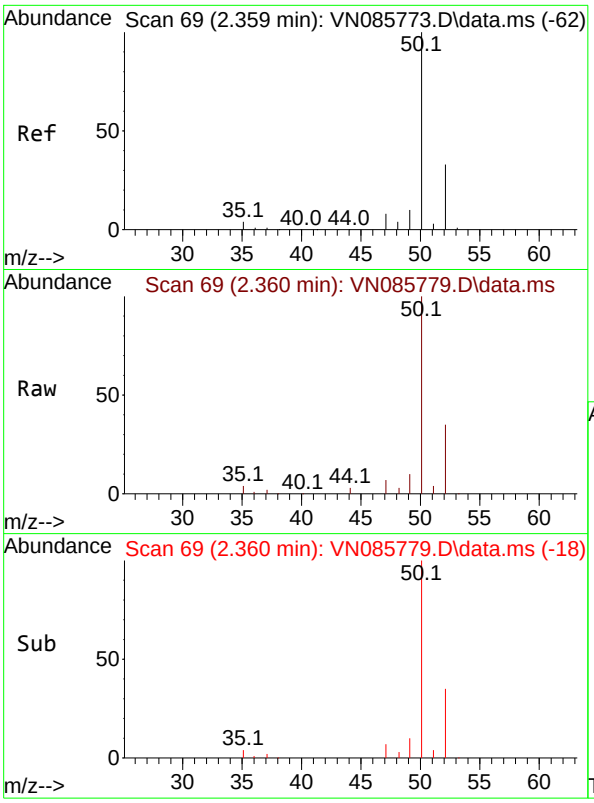


#2
Dichlorodifluoromethane
Concen: 18.478 ug/l
RT: 2.124 min Scan# 29
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 85 Resp: 77669

Ion	Ratio	Lower	Upper
85	100		
87	30.4	16.4	49.2

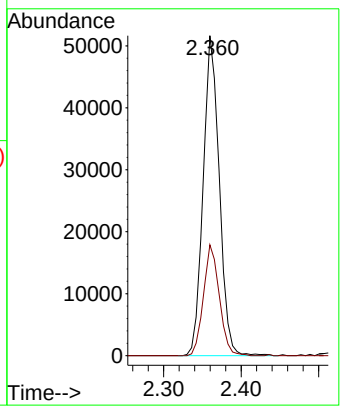




#3
Chloromethane
Concen: 17.710 ug/l
RT: 2.360 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 50 Resp: 7470

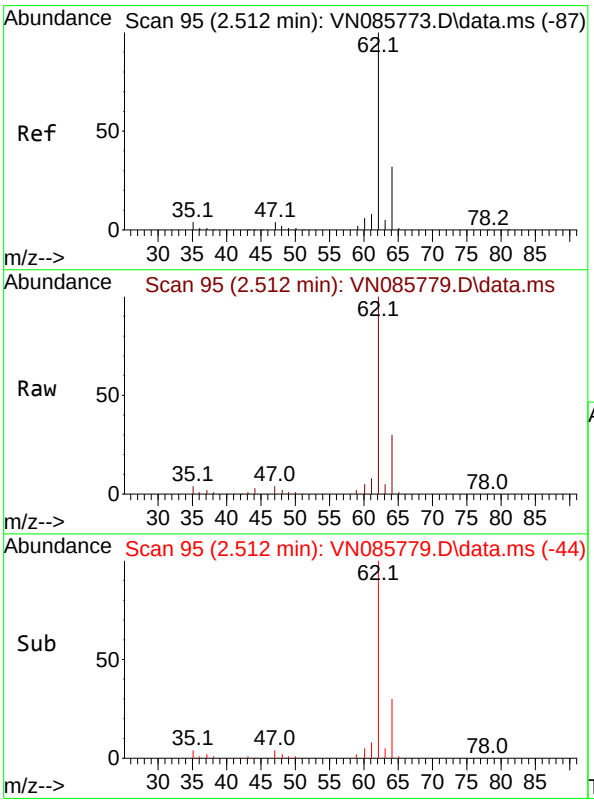
Ion	Ratio	Lower	Upper
50	100		
52	34.6	26.7	40.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

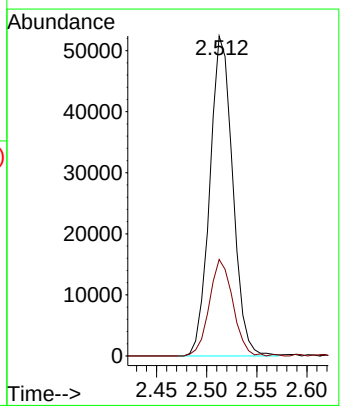
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

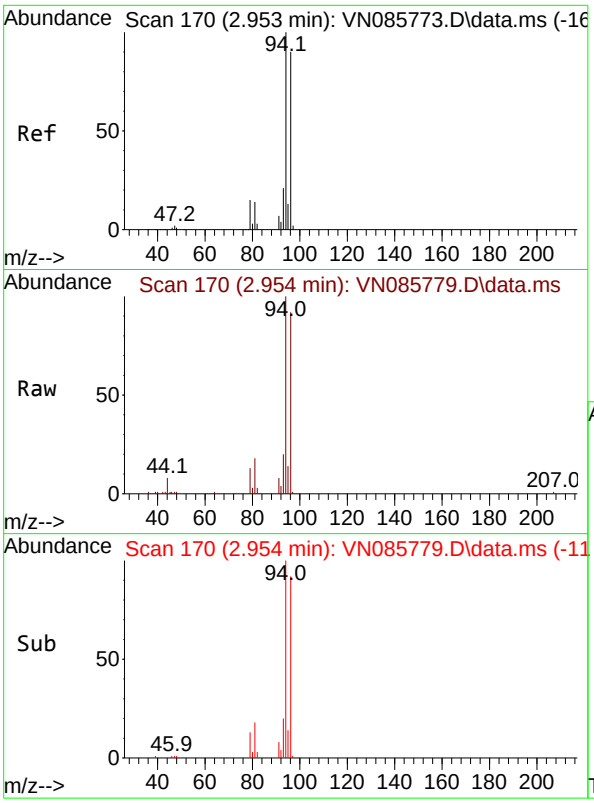


#4
Vinyl Chloride
Concen: 18.649 ug/l
RT: 2.512 min Scan# 95
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 62 Resp: 83284

Ion	Ratio	Lower	Upper
62	100		
64	30.2	25.9	38.9

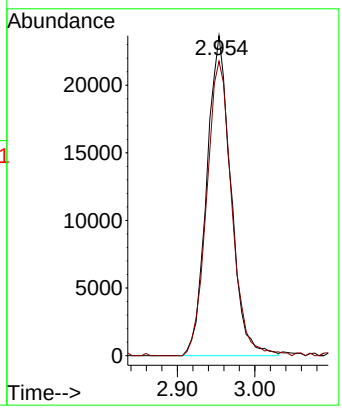




#5
Bromomethane
Concen: 17.884 ug/l
RT: 2.954 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 94 Resp: 5106

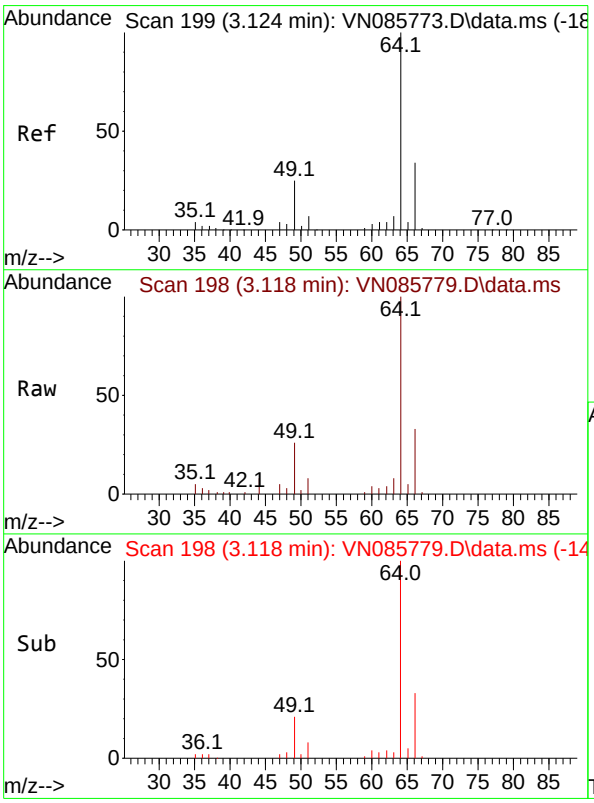
Ion	Ratio	Lower	Upper
94	100		
96	92.0	71.7	107.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

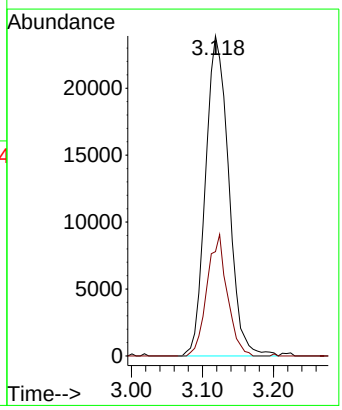
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

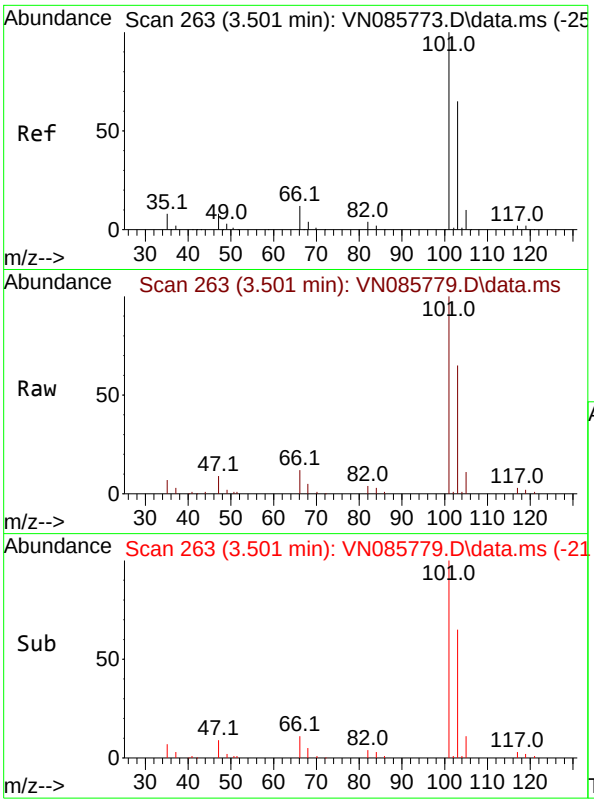


#6
Chloroethane
Concen: 18.315 ug/l
RT: 3.118 min Scan# 198
Delta R.T. -0.006 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 64 Resp: 54178

Ion	Ratio	Lower	Upper
64	100		
66	32.6	27.0	40.6





#7
Trichlorofluoromethane
Concen: 19.225 ug/l
RT: 3.501 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

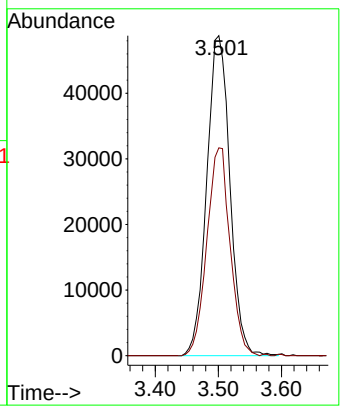
Tgt Ion:101 Resp: 12430

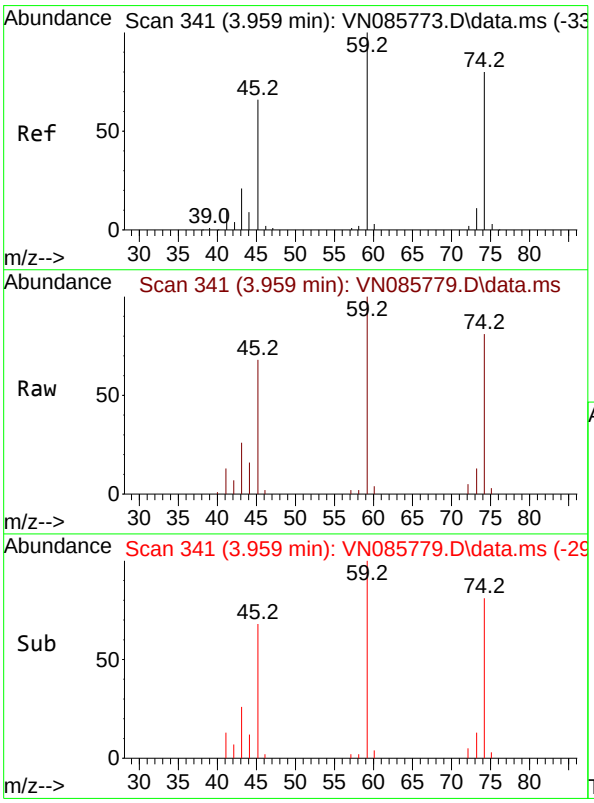
Ion	Ratio	Lower	Upper
101	100		
103	64.9	52.2	78.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

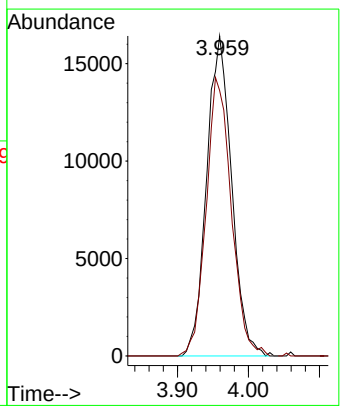


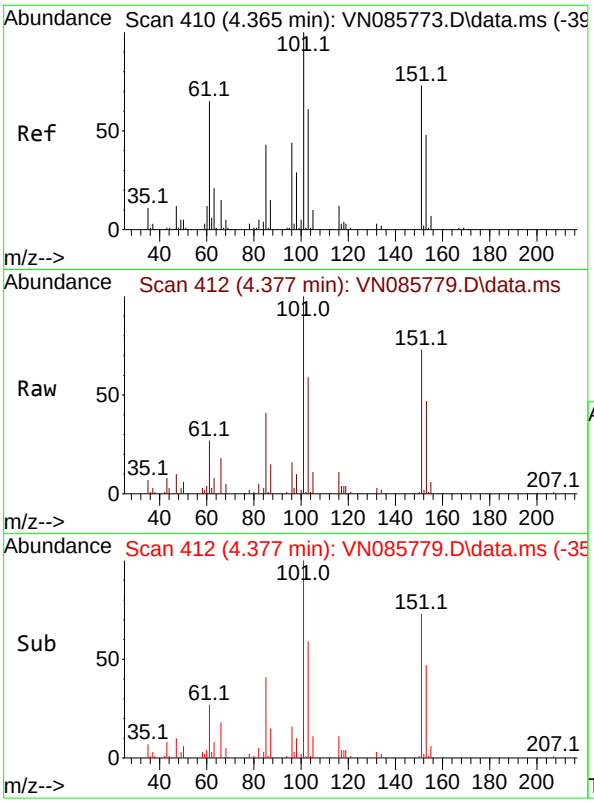


#8
Diethyl Ether
Concen: 19.221 ug/l
RT: 3.959 min Scan# 341
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 74 Resp: 40213

Ion	Ratio	Lower	Upper
74	100		
45	87.5	42.5	127.6





#9
1,1,2-Trichlorotrifluoroethane
Concen: 19.813 ug/l
RT: 4.377 min Scan# 41
Delta R.T. 0.012 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

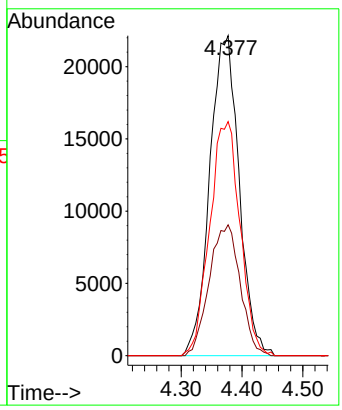
Tgt Ion:101 Resp: 7405

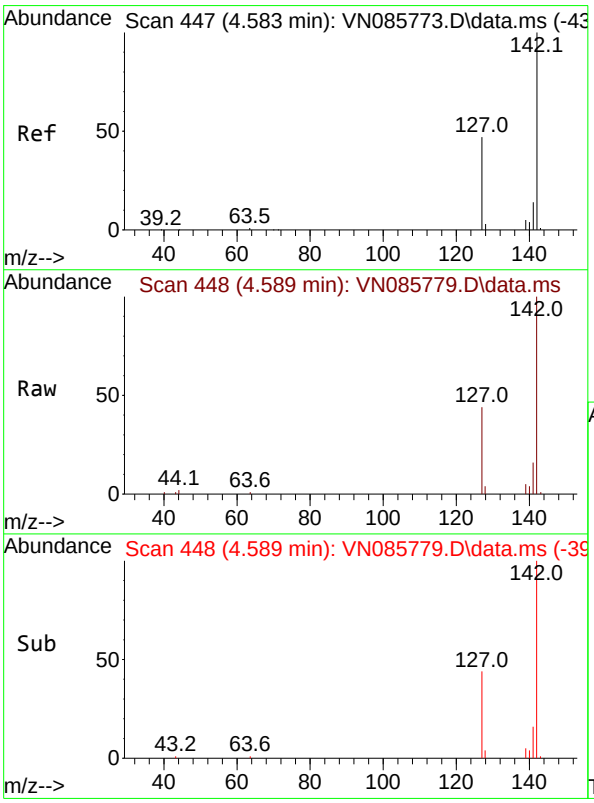
Ion	Ratio	Lower	Upper
101	100		
85	43.1	35.7	53.5
151	75.8	61.4	92.2

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

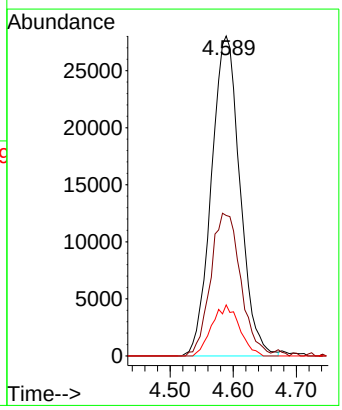


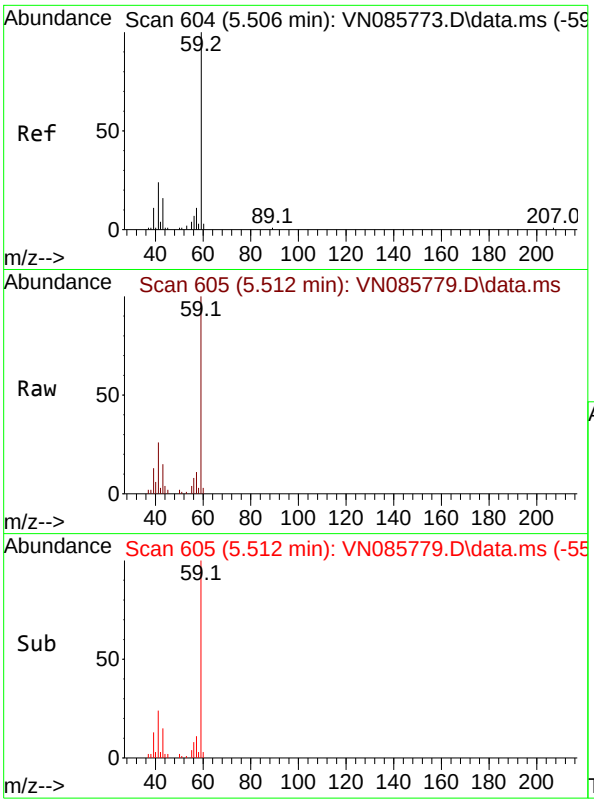


#10
Methyl Iodide
Concen: 19.093 ug/l
RT: 4.589 min Scan# 448
Delta R.T. 0.006 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion:142 Resp: 87963

Ion	Ratio	Lower	Upper
142	100		
127	43.9	37.6	56.4
141	15.9	11.4	17.2

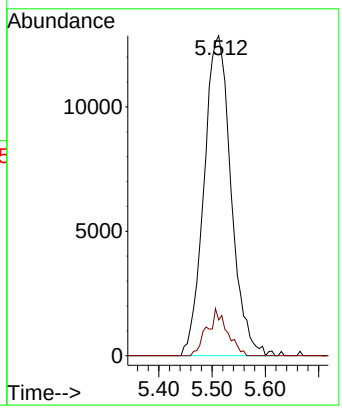




#11
Tert butyl alcohol
Concen: 91.941 ug/l
RT: 5.512 min Scan# 6
Delta R.T. 0.006 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 59 Resp: 4530

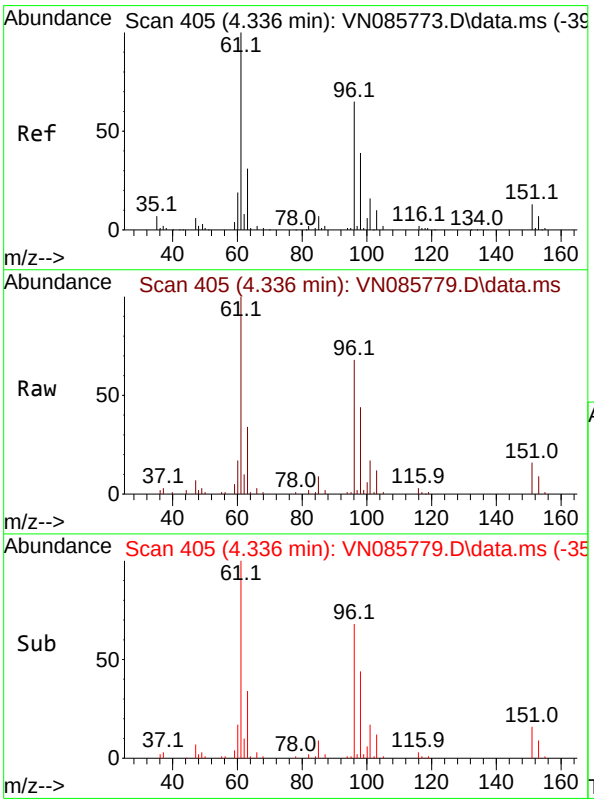
Ion	Ratio	Lower	Upper
59	100		
57	10.9	8.3	12.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

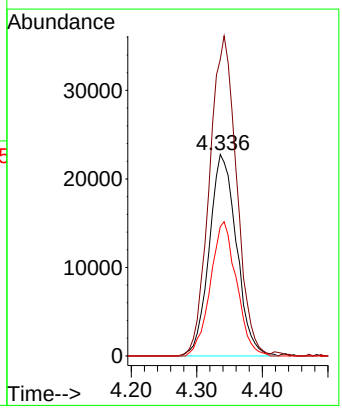
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

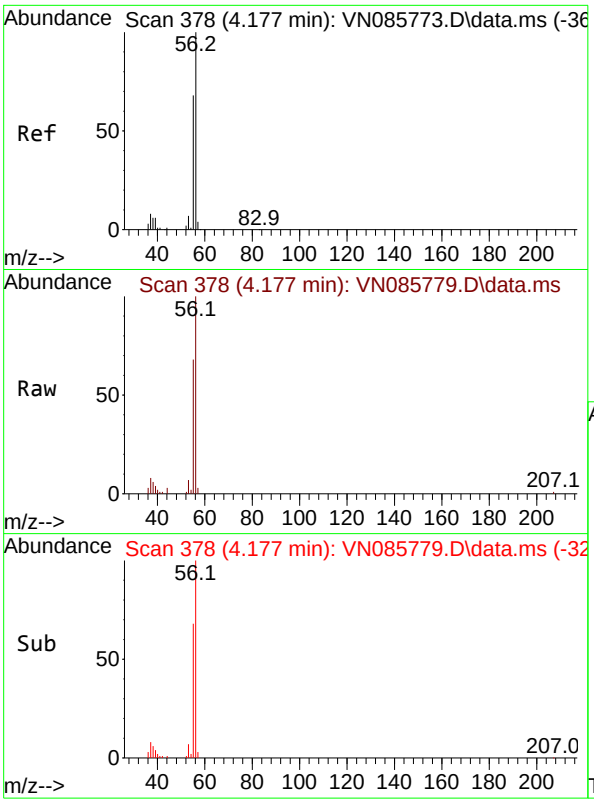


#12
1,1-Dichloroethene
Concen: 19.375 ug/l
RT: 4.336 min Scan# 405
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 96 Resp: 65660

Ion	Ratio	Lower	Upper
96	100		
61	147.3	123.3	184.9
98	64.2	48.6	72.8

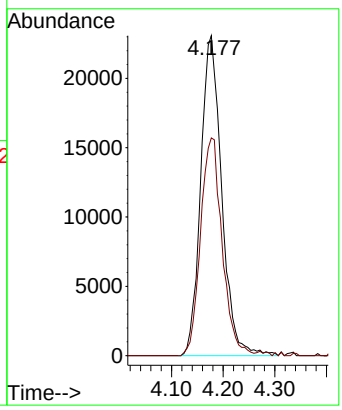




#13
Acrolein
Concen: 89.078 ug/l
RT: 4.177 min Scan# 3
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 56 Resp: 6509

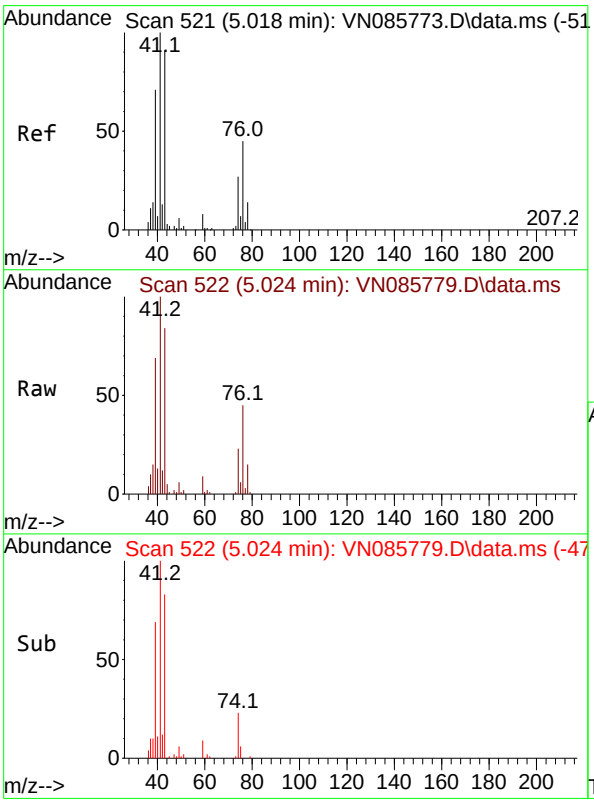
Ion	Ratio	Lower	Upper
56	100		
55	69.9	55.3	82.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

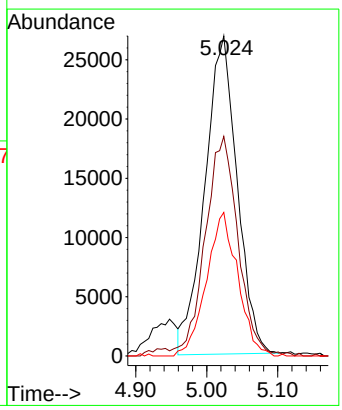
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

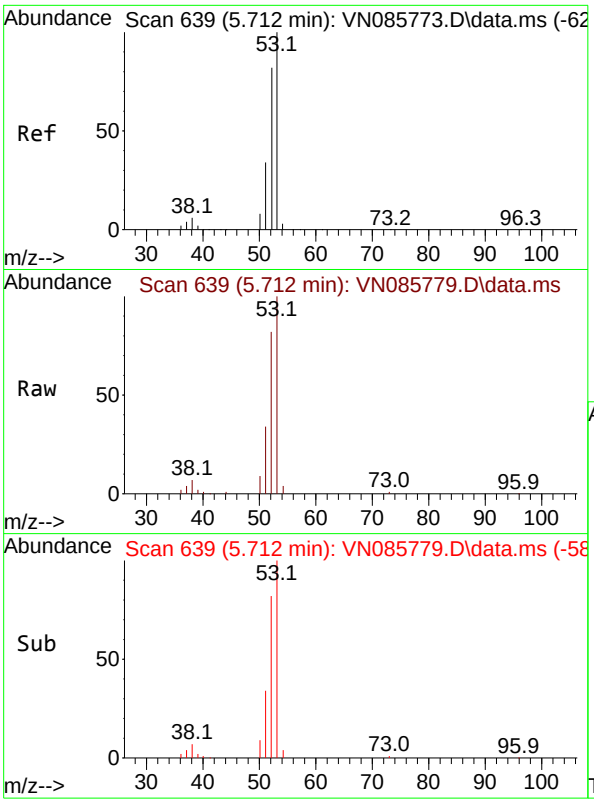


#14
Allyl chloride
Concen: 19.054 ug/l
RT: 5.024 min Scan# 522
Delta R.T. 0.006 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 41 Resp: 84778

Ion	Ratio	Lower	Upper
41	100		
39	70.2	57.4	86.2
76	43.8	36.2	54.2

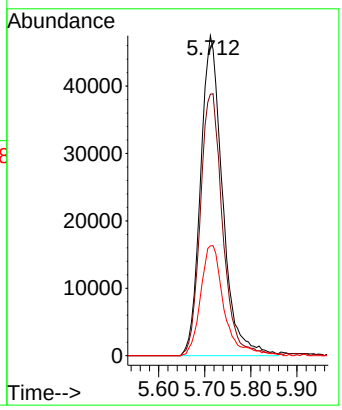




#15
Acrylonitrile
Concen: 98.787 ug/l
RT: 5.712 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 53 Resp: 15825

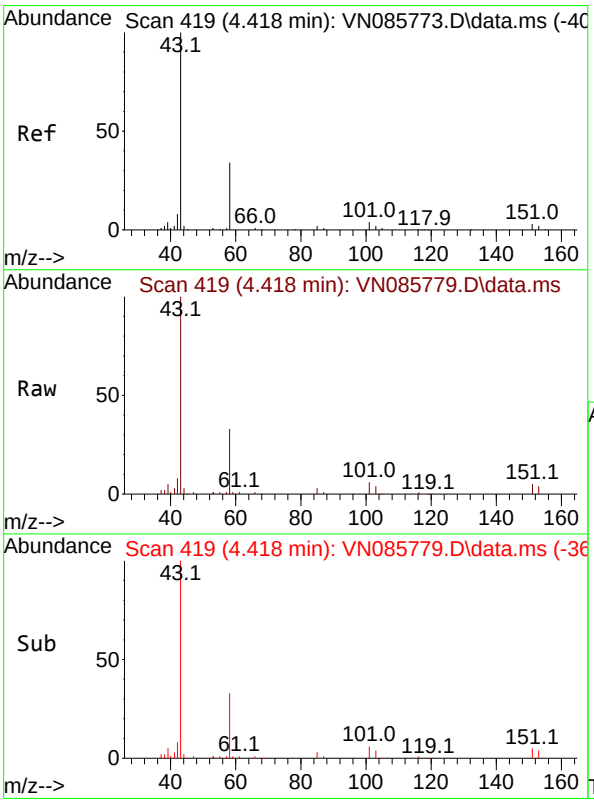
Ion	Ratio	Lower	Upper
53	100		
52	83.0	65.8	98.6
51	36.5	28.6	42.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

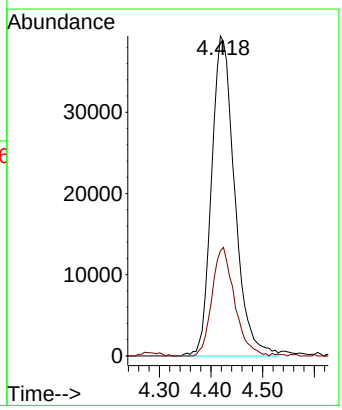
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

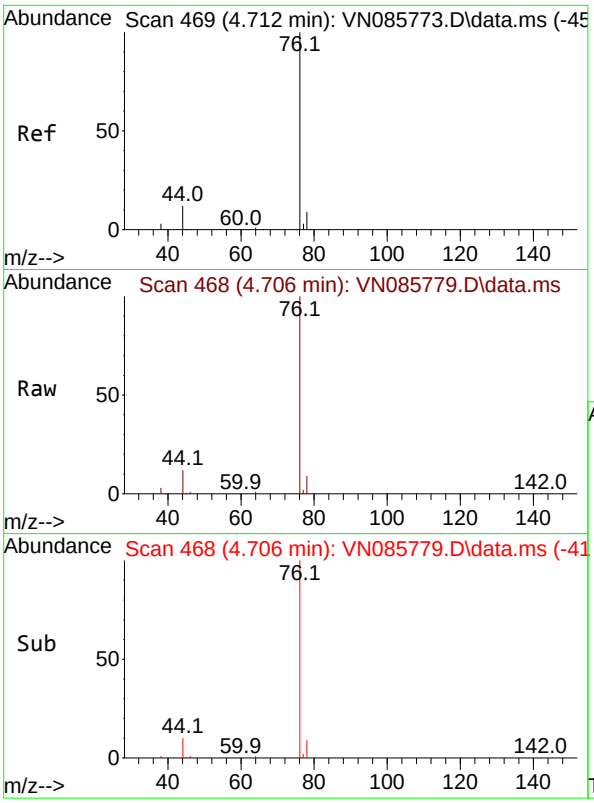


#16
Acetone
Concen: 96.596 ug/l
RT: 4.418 min Scan# 419
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 43 Resp: 122455

Ion	Ratio	Lower	Upper
43	100		
58	32.9	27.5	41.3





#17
Carbon Disulfide
Concen: 17.910 ug/l
RT: 4.706 min Scan# 4
Delta R.T. -0.006 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

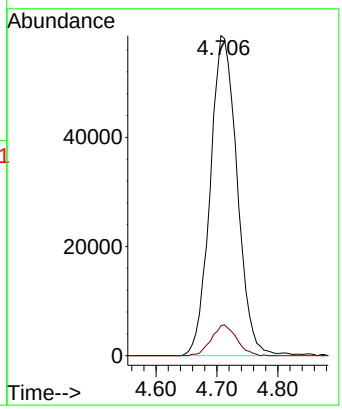
Tgt Ion: 76 Resp: 17988

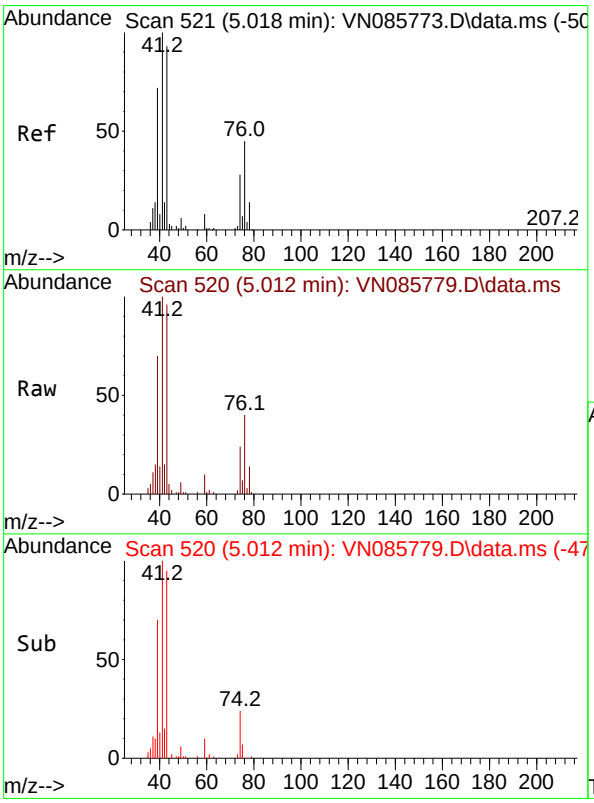
Ion	Ratio	Lower	Upper
76	100		
78	9.4	7.4	11.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

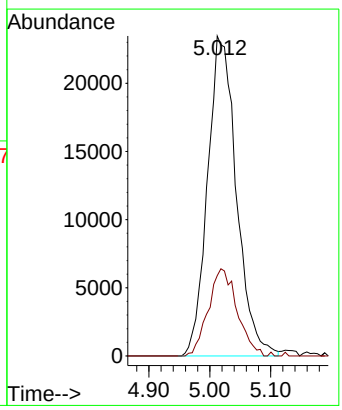


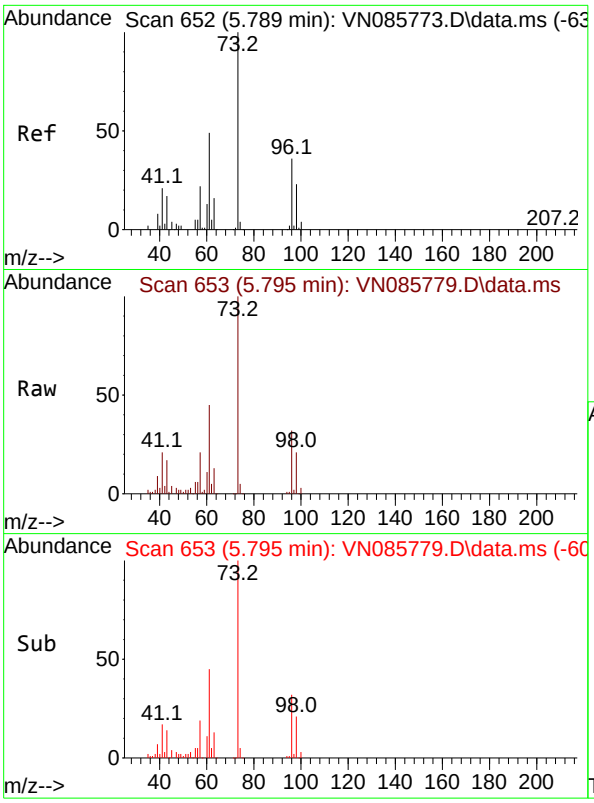


#18
Methyl Acetate
Concen: 17.712 ug/l
RT: 5.012 min Scan# 520
Delta R.T. -0.006 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 43 Resp: 77229

Ion	Ratio	Lower	Upper
43	100		
74	27.2	22.2	33.4

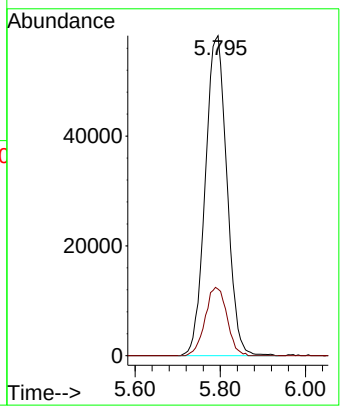




#19
Methyl tert-butyl Ether
Concen: 20.362 ug/l
RT: 5.795 min Scan# 6
Delta R.T. 0.006 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 73 Resp: 20504

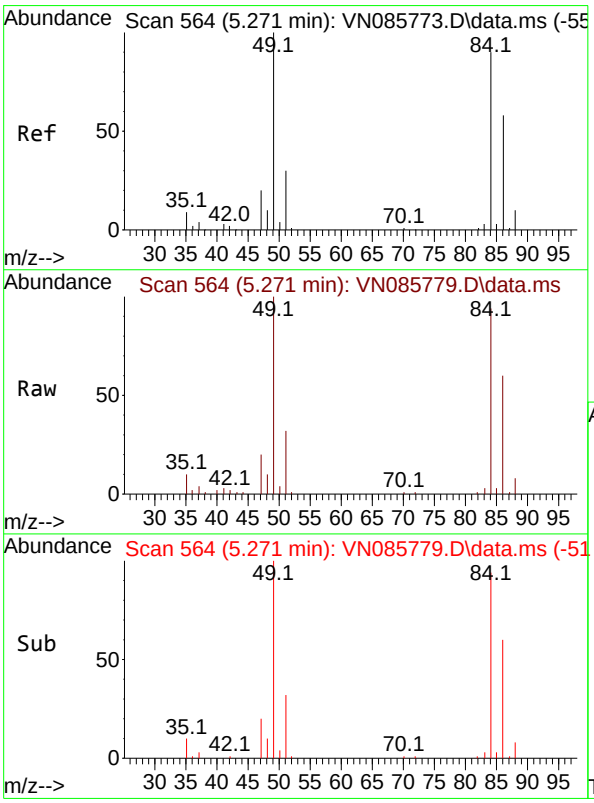
Ion	Ratio	Lower	Upper
73	100		
57	20.8	17.6	26.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

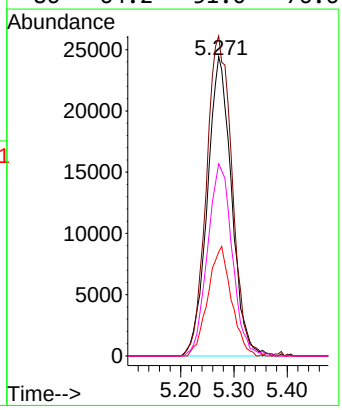
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

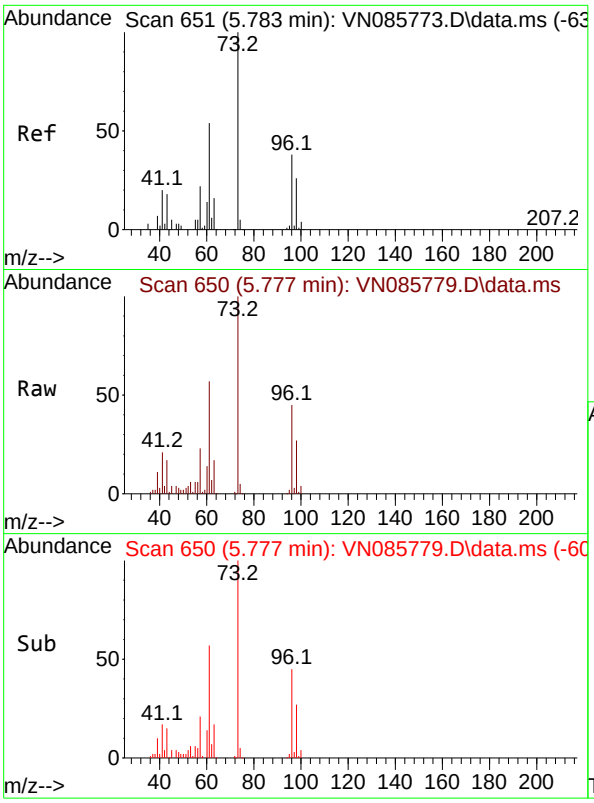


#20
Methylene Chloride
Concen: 18.963 ug/l
RT: 5.271 min Scan# 564
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 84 Resp: 77308

Ion	Ratio	Lower	Upper
84	100		
49	106.9	88.4	132.6
51	34.7	26.6	40.0
86	64.2	51.0	76.6

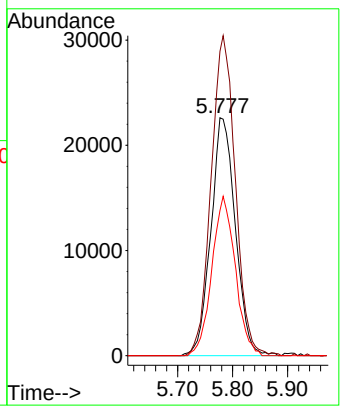




#21
trans-1,2-Dichloroethene
Concen: 19.162 ug/l
RT: 5.777 min Scan# 6
Delta R.T. -0.006 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 96 Resp: 6992

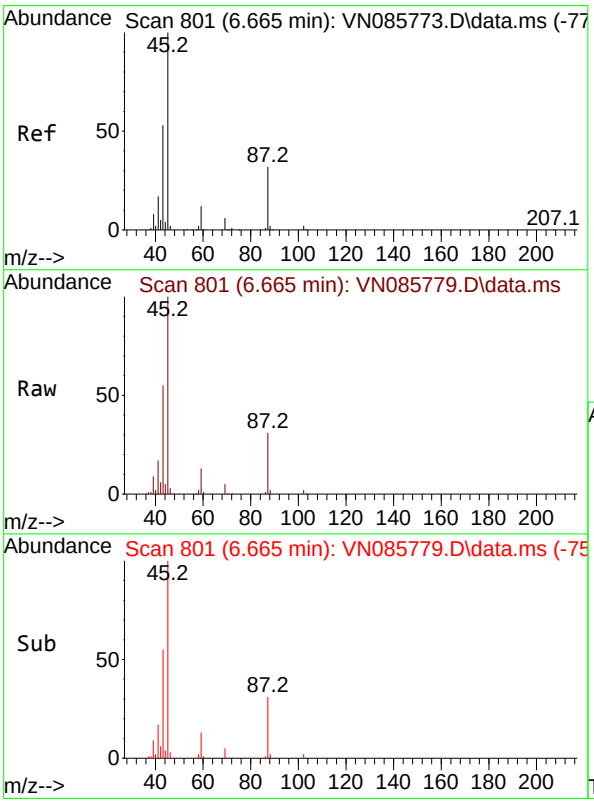
Ion	Ratio	Lower	Upper
96	100		
61	127.9	112.6	168.8
98	61.0	53.3	79.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

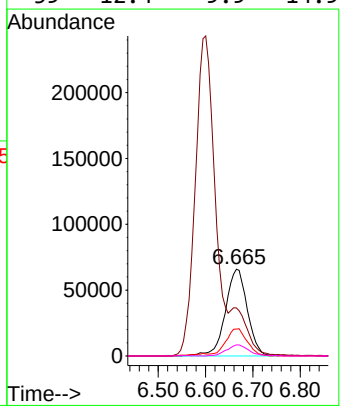
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

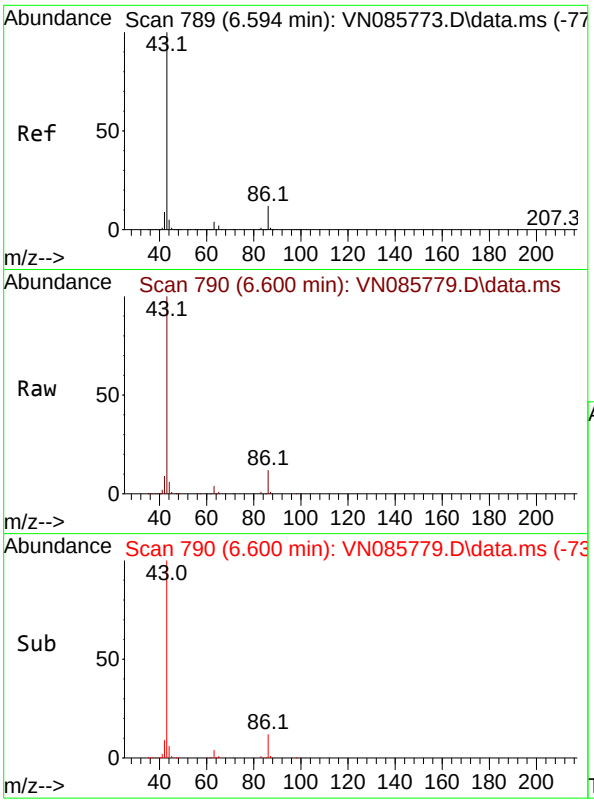


#22
Diisopropyl ether
Concen: 21.095 ug/l
RT: 6.665 min Scan# 801
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 45 Resp: 212086

Ion	Ratio	Lower	Upper
45	100		
43	53.6	42.6	64.0
87	31.0	25.8	38.8
59	12.4	9.9	14.9





#23
Vinyl Acetate
Concen: 101.409 ug/l
RT: 6.600 min Scan# 7
Delta R.T. 0.006 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

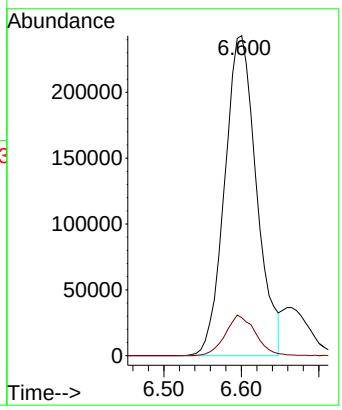
Tgt Ion: 43 Resp: 69594

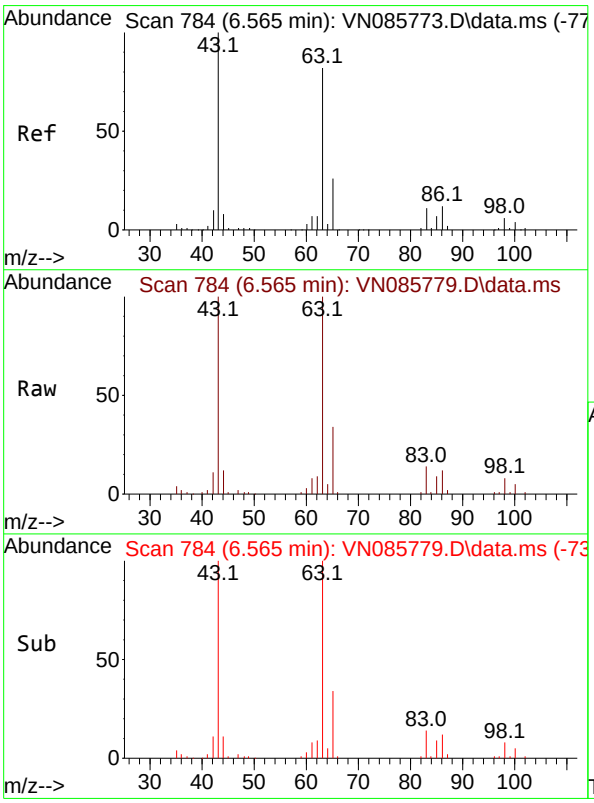
Ion	Ratio	Lower	Upper
43	100		
86	11.9	9.8	14.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

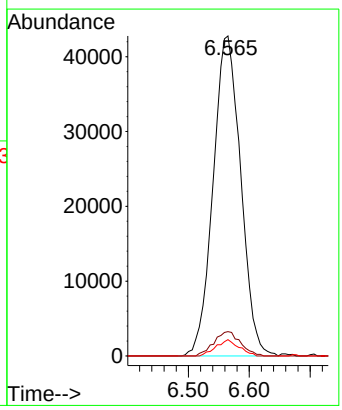


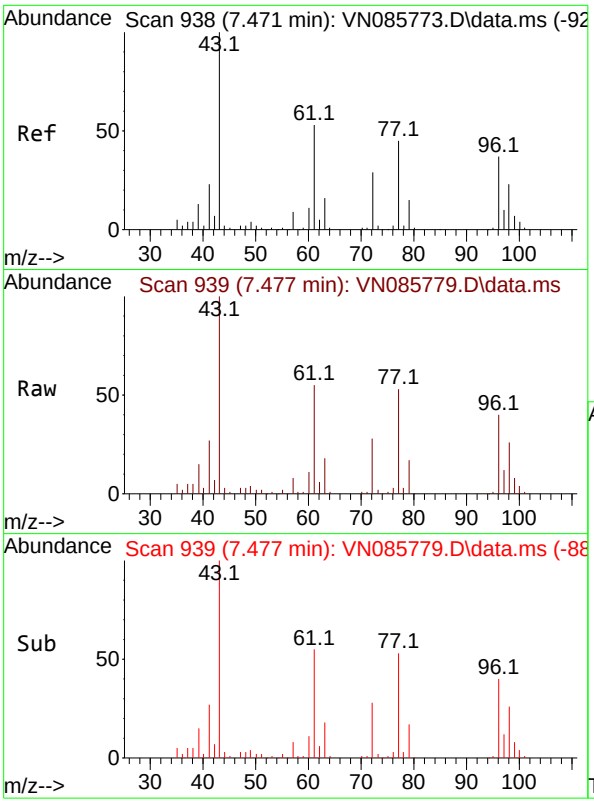


#24
1,1-Dichloroethane
Concen: 19.697 ug/l
RT: 6.565 min Scan# 784
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 63 Resp: 134620

Ion	Ratio	Lower	Upper
63	100		
98	7.6	3.5	10.4
100	5.1	2.4	7.2





#25
2-Butanone
Concen: 99.012 ug/l
RT: 7.477 min Scan# 9
Delta R.T. 0.006 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

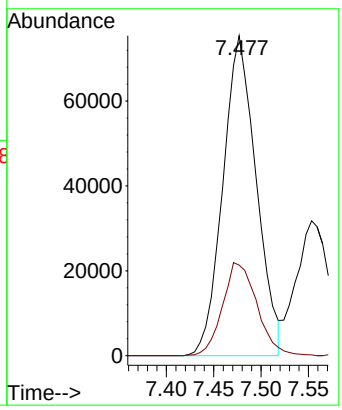
Tgt Ion: 43 Resp: 18465

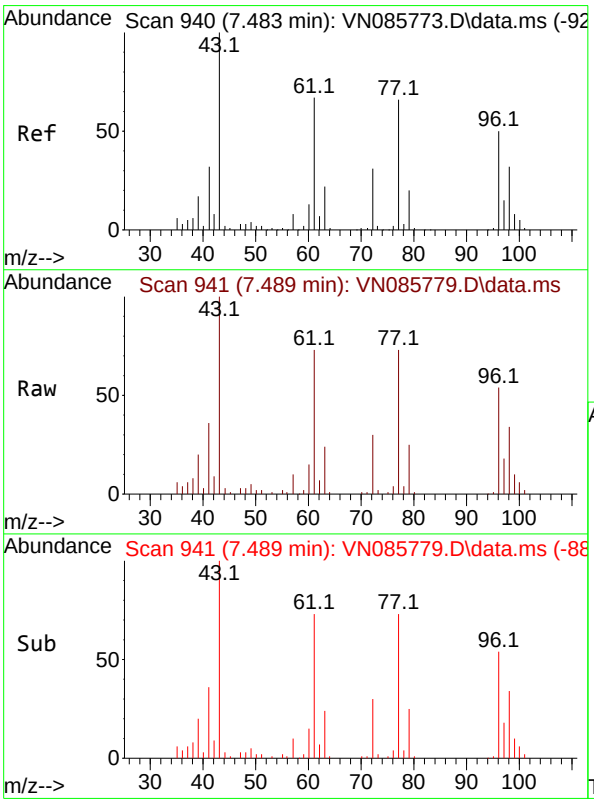
Ion	Ratio	Lower	Upper
43	100		
72	28.3	23.6	35.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

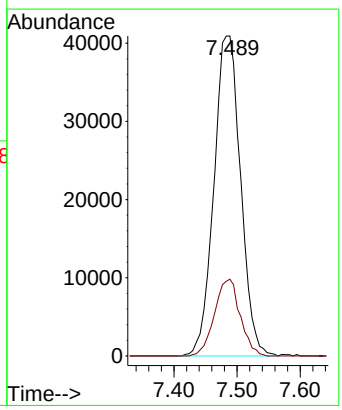


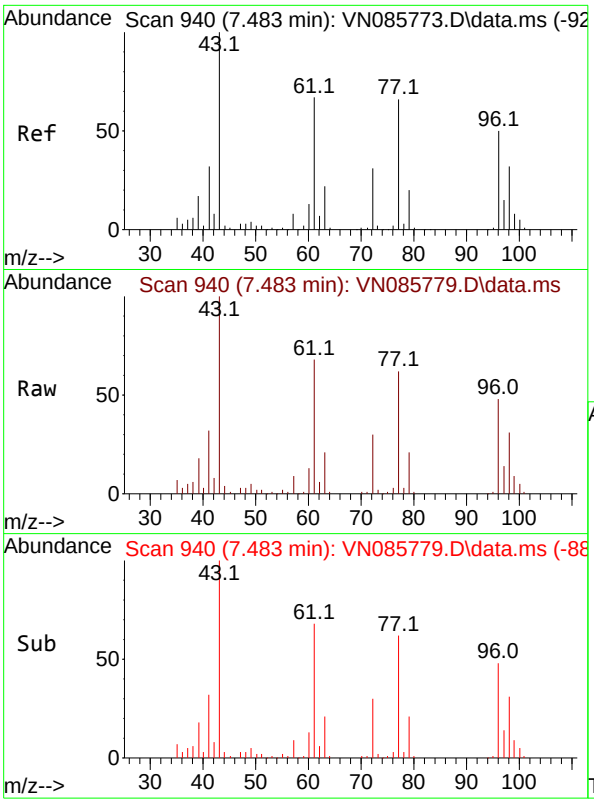


#26
2,2-Dichloropropane
Concen: 19.752 ug/l
RT: 7.489 min Scan# 941
Delta R.T. 0.006 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 77 Resp: 120039

Ion	Ratio	Lower	Upper
77	100		
97	23.1	11.3	33.8





#27
cis-1,2-Dichloroethene
Concen: 19.590 ug/l
RT: 7.483 min Scan# 94
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

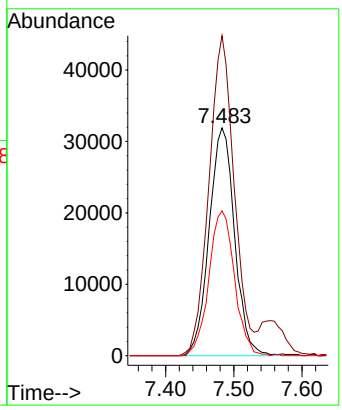
Tgt Ion: 96 Resp: 8288

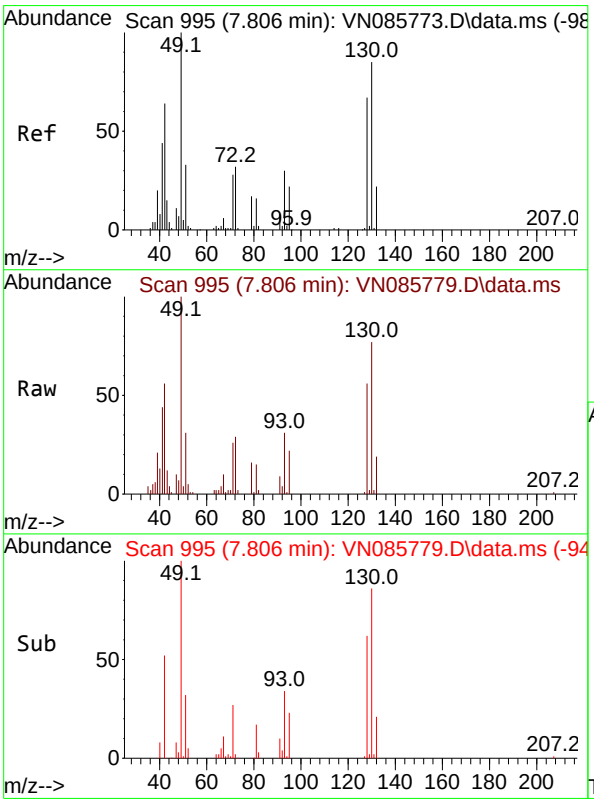
Ion	Ratio	Lower	Upper
96	100		
61	139.2	0.0	280.6
98	63.9	0.0	128.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

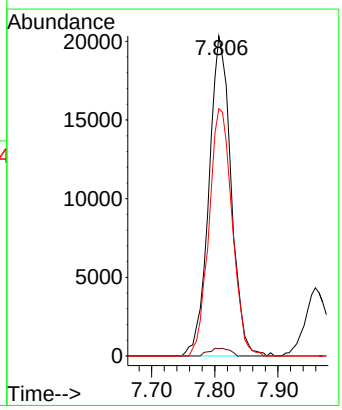


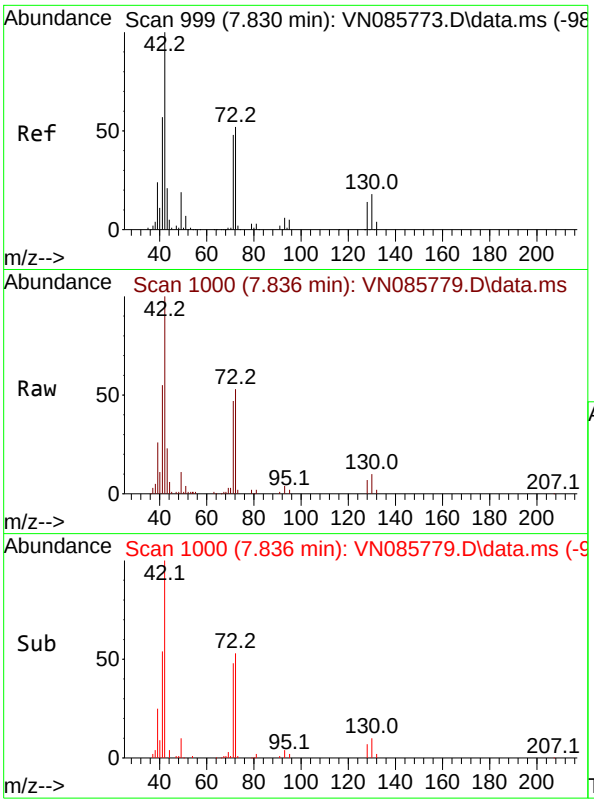


#28
Bromochloromethane
Concen: 17.678 ug/l
RT: 7.806 min Scan# 995
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 49 Resp: 49657

Ion	Ratio	Lower	Upper
49	100		
129	2.3	0.0	3.8
130	80.5	68.0	102.0

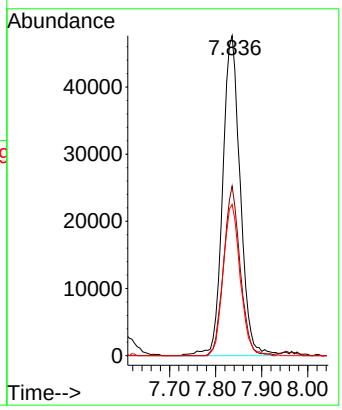




#29
Tetrahydrofuran
Concen: 104.482 ug/l
RT: 7.836 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 42 Resp: 12583

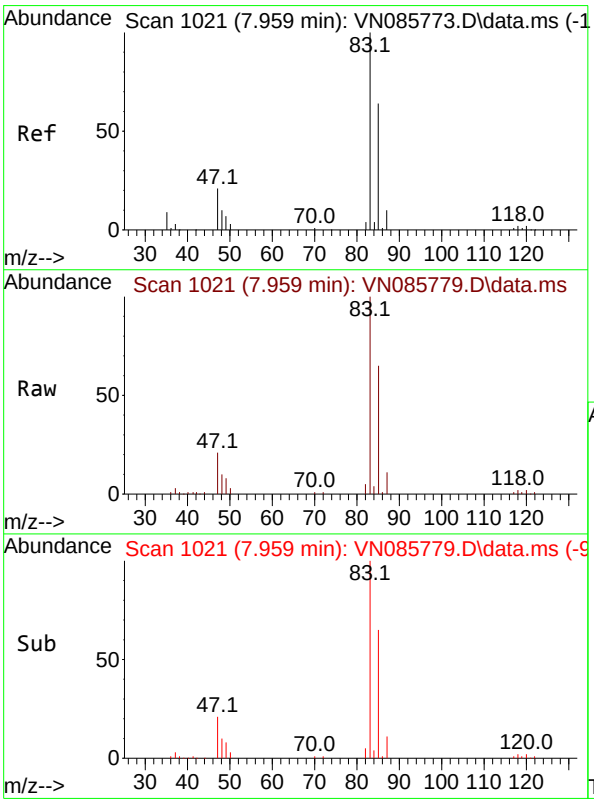
Ion	Ratio	Lower	Upper
42	100		
72	50.0	40.0	60.0
71	46.0	37.0	55.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

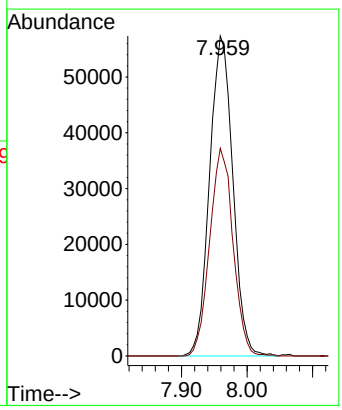
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

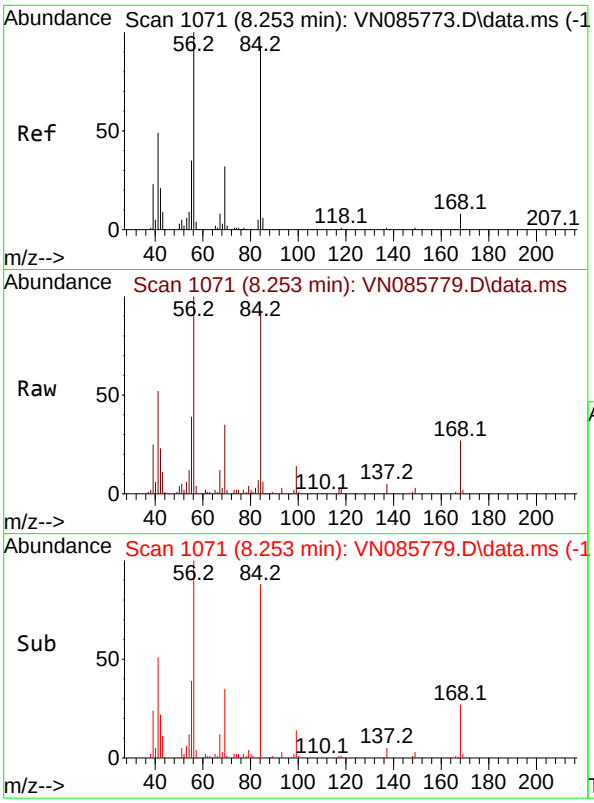


#30
Chloroform
Concen: 19.750 ug/l
RT: 7.959 min Scan# 1021
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 83 Resp: 141059

Ion	Ratio	Lower	Upper
83	100		
85	64.9	50.9	76.3





#31
Cyclohexane
Concen: 18.525 ug/l
RT: 8.253 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

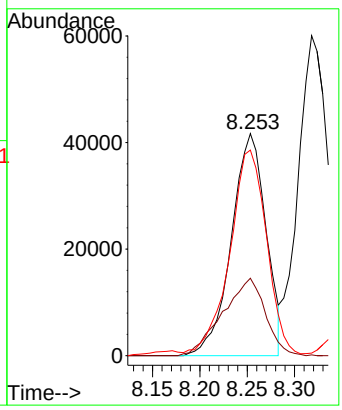
Tgt Ion: 56 Resp: 10600

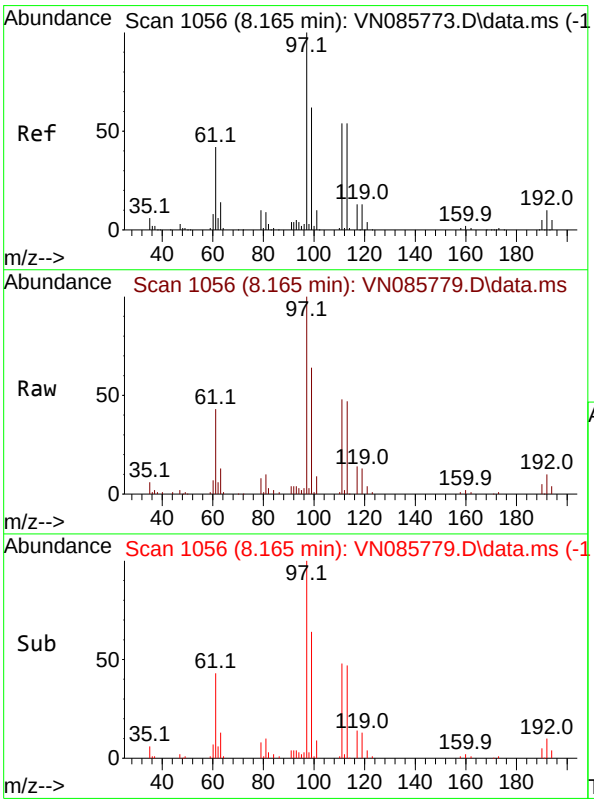
Ion	Ratio	Lower	Upper
56	100		
69	34.9	25.8	38.6
84	91.1	74.5	111.7

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

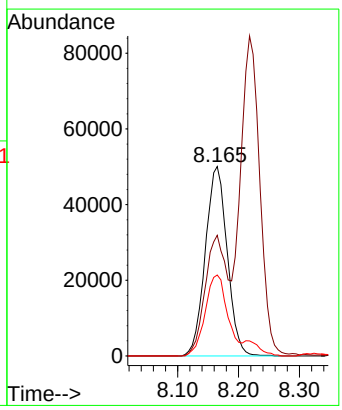


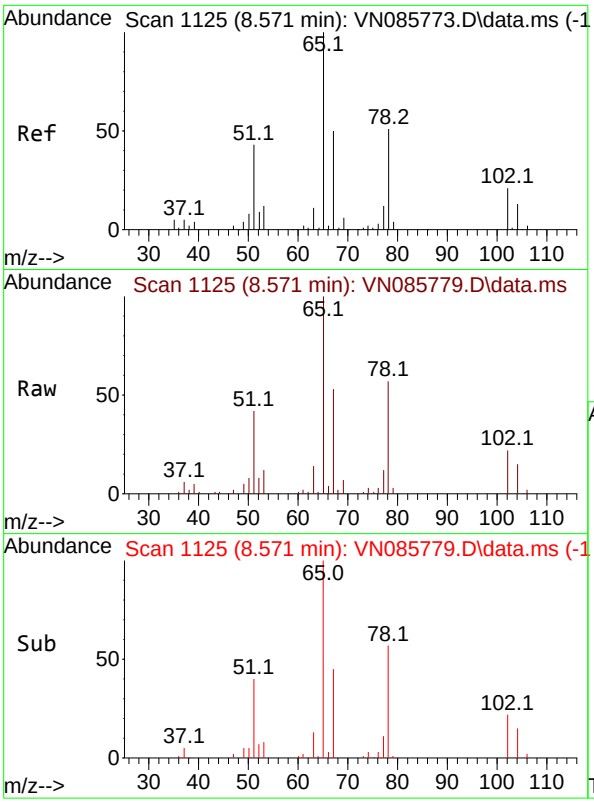


#32
1,1,1-Trichloroethane
Concen: 19.686 ug/l
RT: 8.165 min Scan# 1056
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 97 Resp: 125061

Ion	Ratio	Lower	Upper
97	100		
99	65.6	50.4	75.6
61	44.4	35.5	53.3

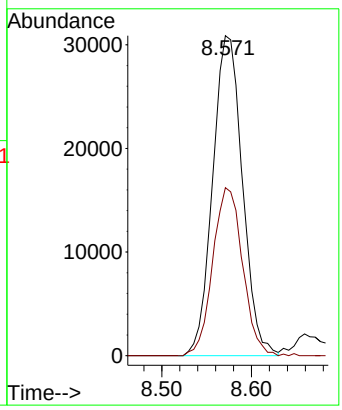




#33
1,2-Dichloroethane-d4
Concen: 17.751 ug/l
RT: 8.571 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 65 Resp: 7111

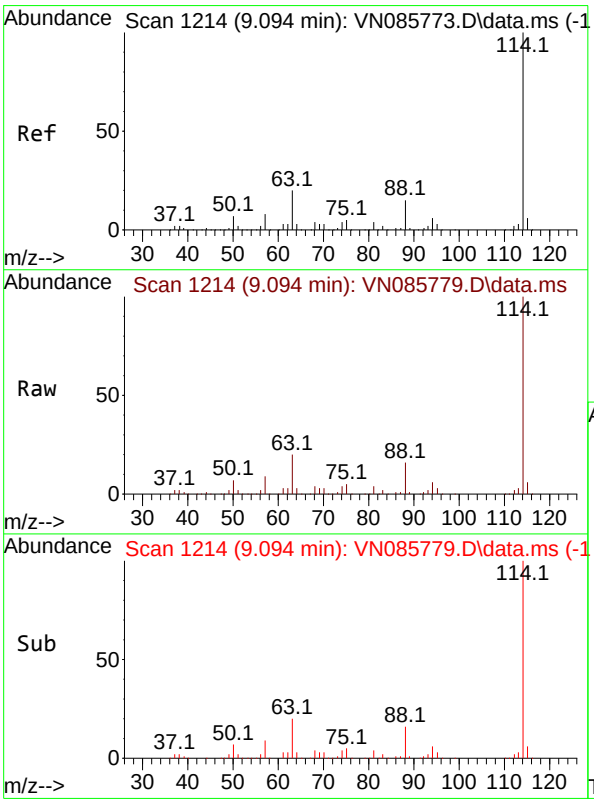
Ion	Ratio	Lower	Upper
65	100		
67	52.6	0.0	106.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

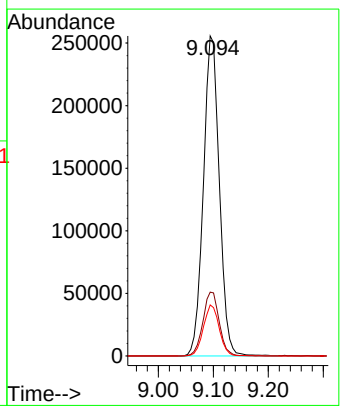
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

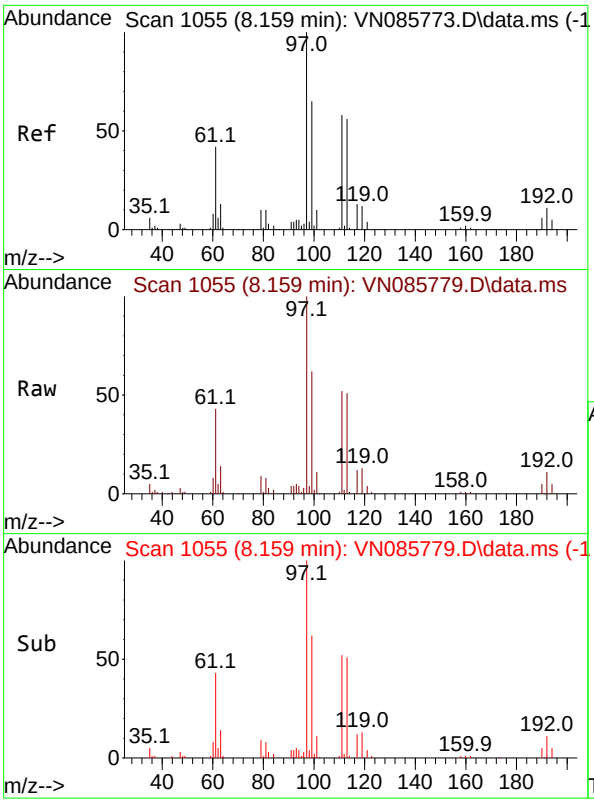


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.094 min Scan# 1214
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion:114 Resp: 515996

Ion	Ratio	Lower	Upper
114	100		
63	20.0	0.0	39.2
88	16.0	0.0	30.0

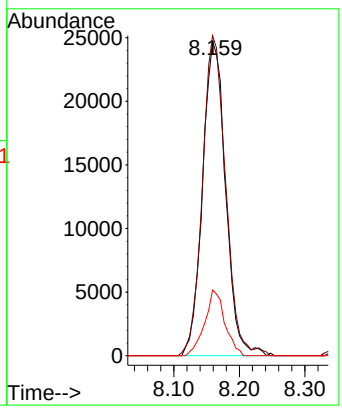




#35
Dibromofluoromethane
Concen: 17.903 ug/l
RT: 8.159 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion:113 Resp: 6044

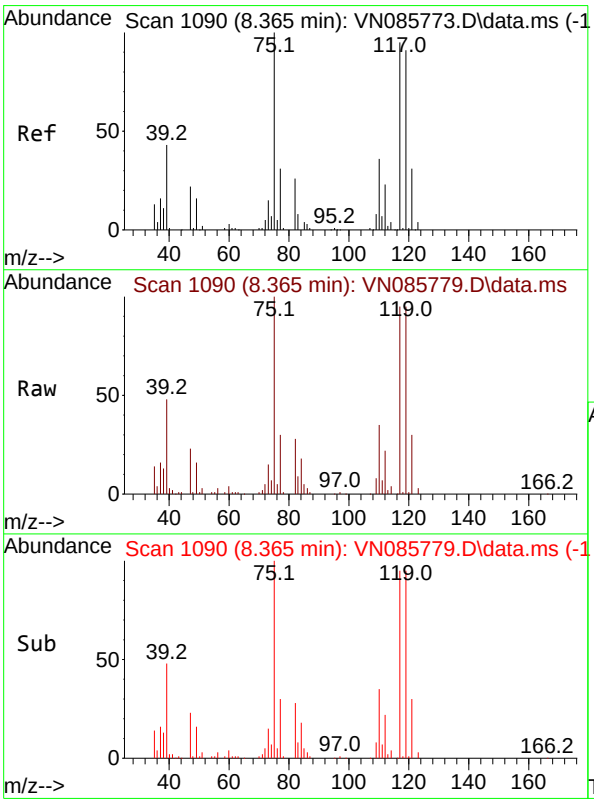
Ion	Ratio	Lower	Upper
113	100		
111	102.4	82.2	123.4
192	18.2	14.7	22.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

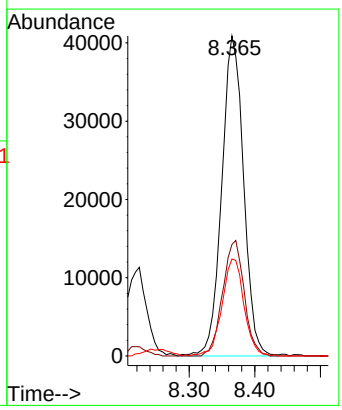
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

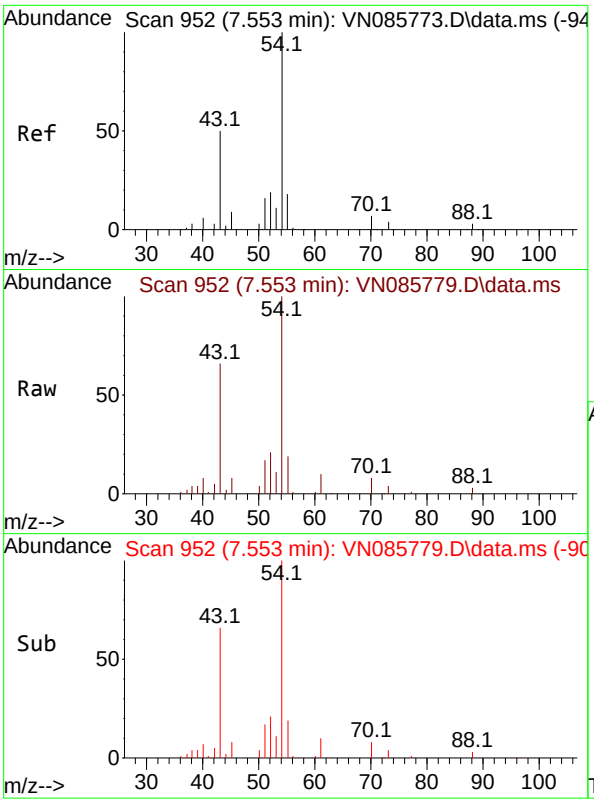


#36
1,1-Dichloropropene
Concen: 19.772 ug/l
RT: 8.365 min Scan# 1090
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 75 Resp: 94481

Ion	Ratio	Lower	Upper
75	100		
110	35.6	17.3	52.0
77	30.5	24.6	37.0

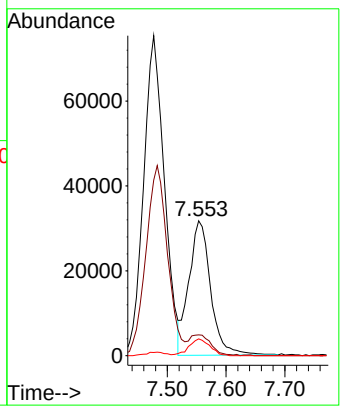




#37
Ethyl Acetate
Concen: 20.780 ug/l
RT: 7.553 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 43 Resp: 8171

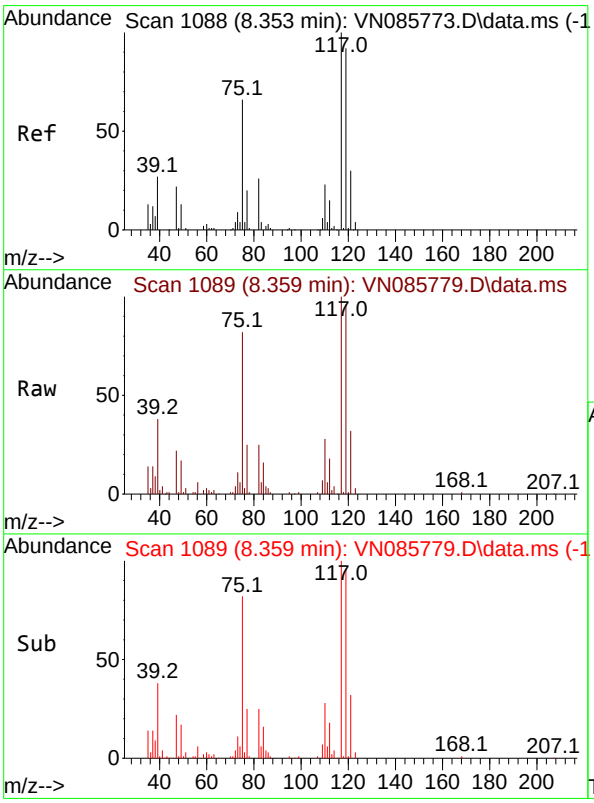
Ion	Ratio	Lower	Upper
43	100		
61	15.7	12.2	18.2
70	12.0	9.5	14.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

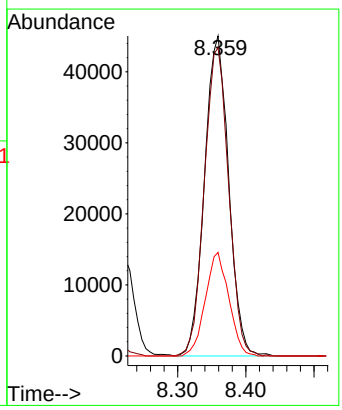
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

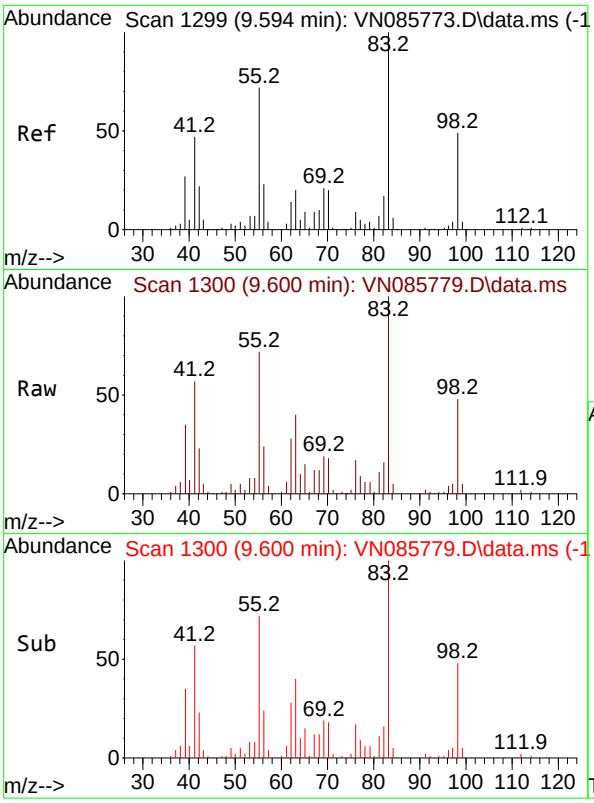


#38
Carbon Tetrachloride
Concen: 19.574 ug/l
RT: 8.359 min Scan# 1089
Delta R.T. 0.006 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion:117 Resp: 111137

Ion	Ratio	Lower	Upper
117	100		
119	96.4	73.8	110.6
121	32.4	24.3	36.5

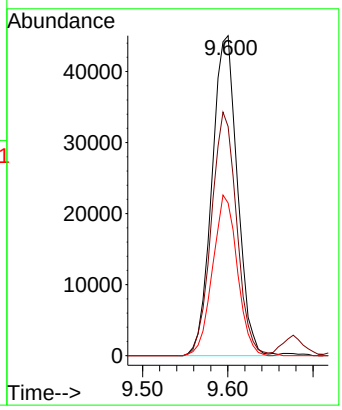




#39
Methylcyclohexane
Concen: 19.907 ug/l
RT: 9.600 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 83 Resp: 9345

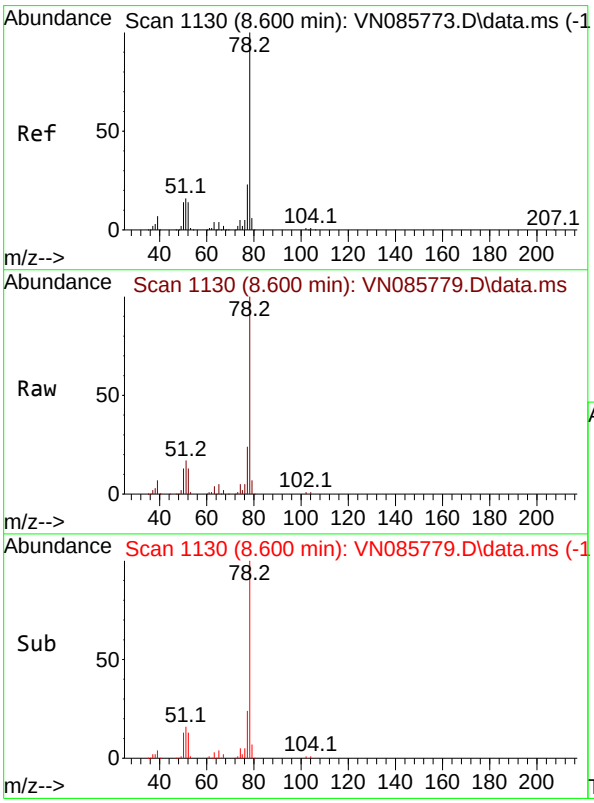
Ion	Ratio	Lower	Upper
83	100		
55	71.6	57.5	86.3
98	47.7	39.2	58.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

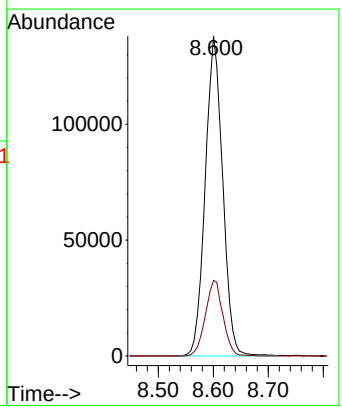
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

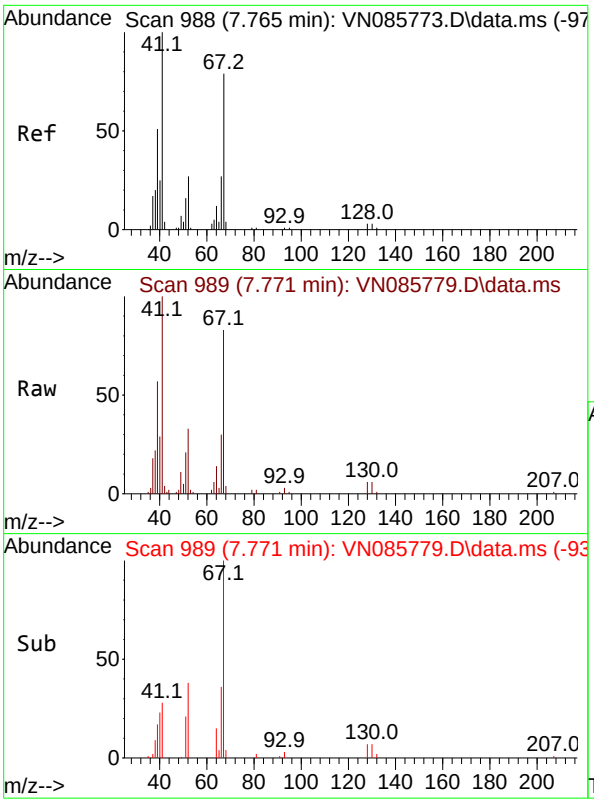


#40
Benzene
Concen: 19.863 ug/l
RT: 8.600 min Scan# 1130
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 78 Resp: 304209

Ion	Ratio	Lower	Upper
78	100		
77	23.6	18.3	27.5

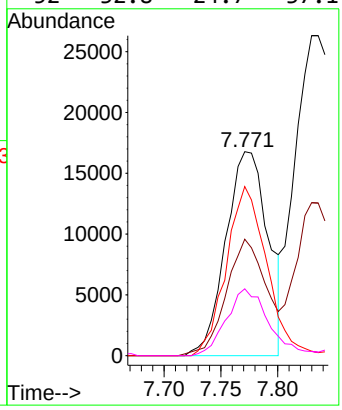




#41
Methacrylonitrile
Concen: 20.724 ug/l
RT: 7.771 min Scan# 9
Delta R.T. 0.006 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 41 Resp: 4356

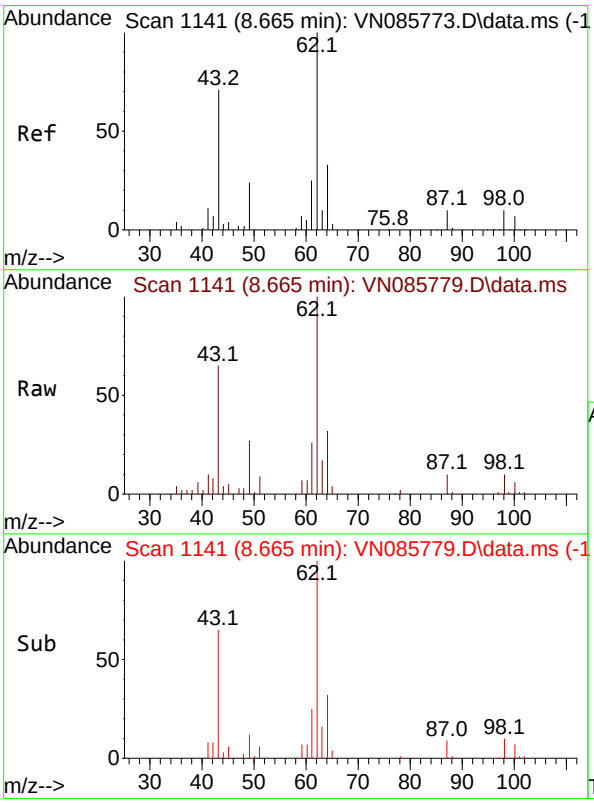
Ion	Ratio	Lower	Upper
41	100		
39	53.7	42.0	63.0
67	79.2	64.2	96.4
52	32.8	24.7	37.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

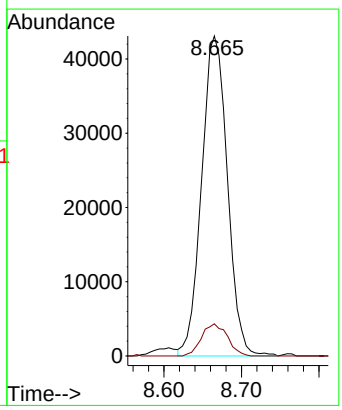
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

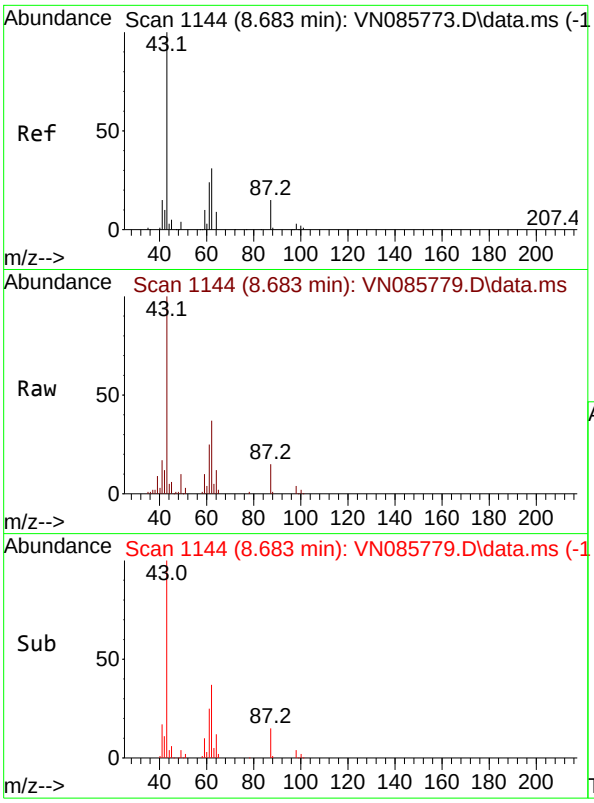


#42
1,2-Dichloroethane
Concen: 19.975 ug/l
RT: 8.665 min Scan# 1141
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 62 Resp: 99651

Ion	Ratio	Lower	Upper
62	100		
98	10.1	0.0	19.6





#43
Isopropyl Acetate
Concen: 19.709 ug/l
RT: 8.683 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

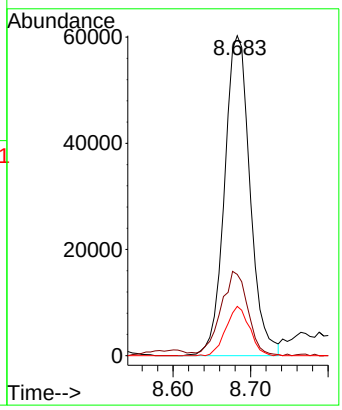
Tgt Ion: 43 Resp: 13830

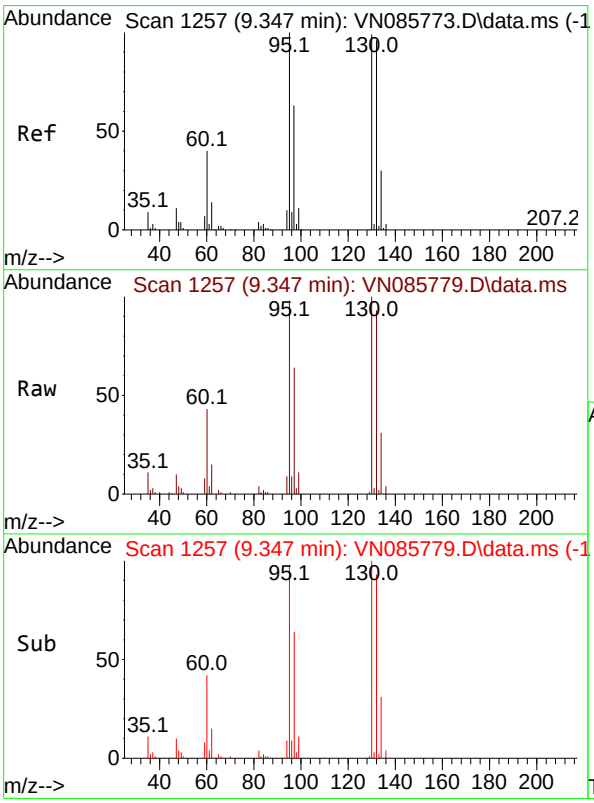
Ion	Ratio	Lower	Upper
43	100		
61	27.8	22.6	34.0
87	14.2	11.8	17.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

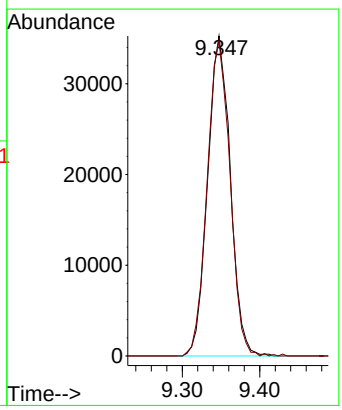


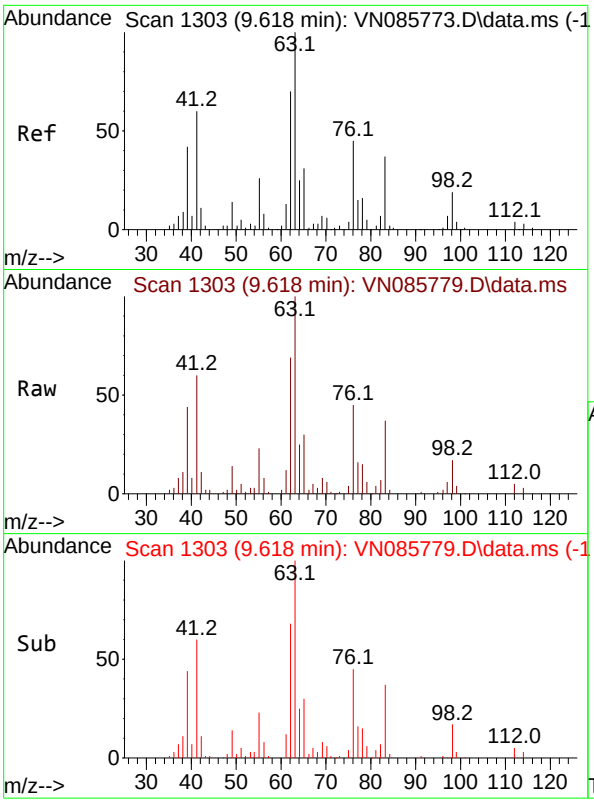


#44
Trichloroethene
Concen: 19.085 ug/l
RT: 9.347 min Scan# 1257
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion:130 Resp: 71769

Ion	Ratio	Lower	Upper
130	100		
95	98.3	0.0	202.6





#45
1,2-Dichloropropane
Concen: 19.947 ug/l
RT: 9.618 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

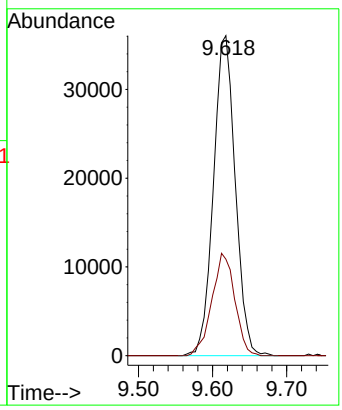
Tgt Ion: 63 Resp: 7374

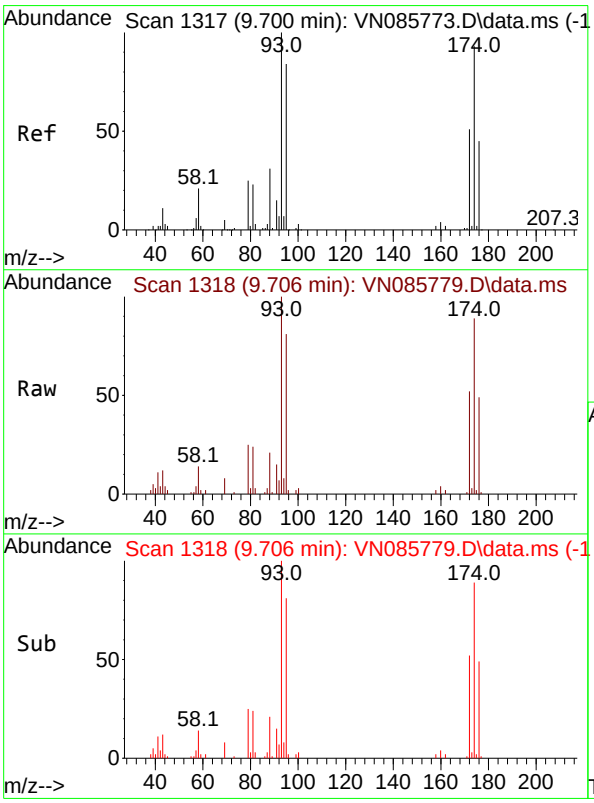
Ion	Ratio	Lower	Upper
63	100		
65	30.1	25.1	37.7

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

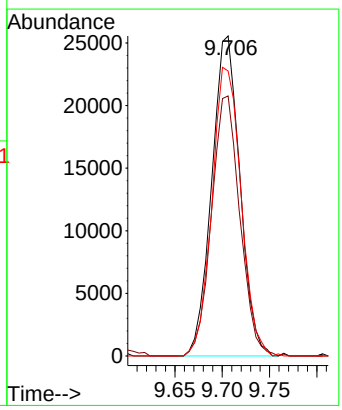


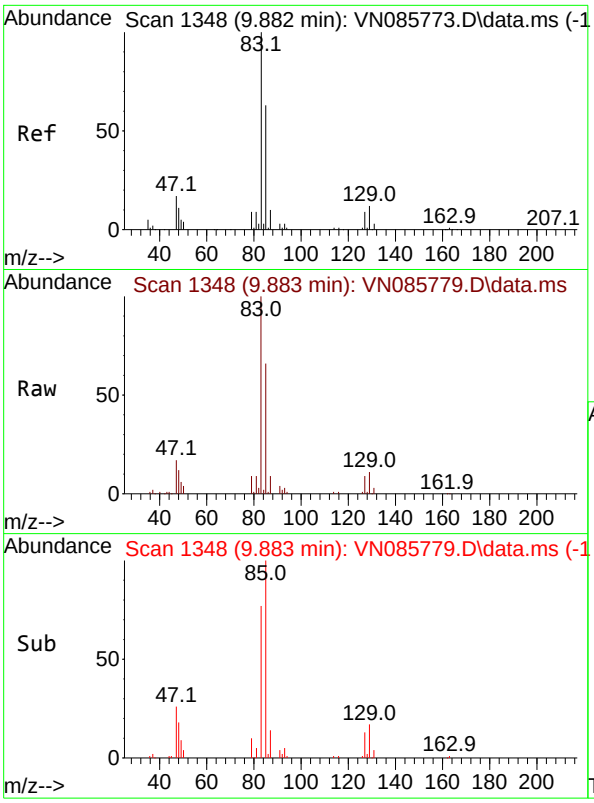


#46
Dibromomethane
Concen: 20.278 ug/l
RT: 9.706 min Scan# 1318
Delta R.T. 0.006 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 93 Resp: 52878

Ion	Ratio	Lower	Upper
93	100		
95	81.7	66.7	100.1
174	93.0	77.2	115.8

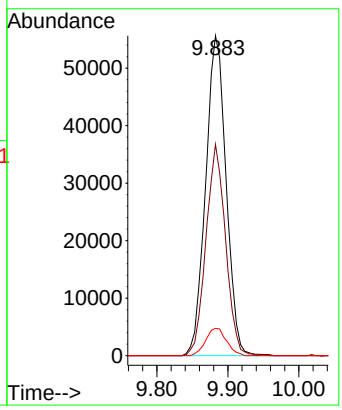




#47
Bromodichloromethane
Concen: 20.010 ug/l
RT: 9.883 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 83 Resp: 11163

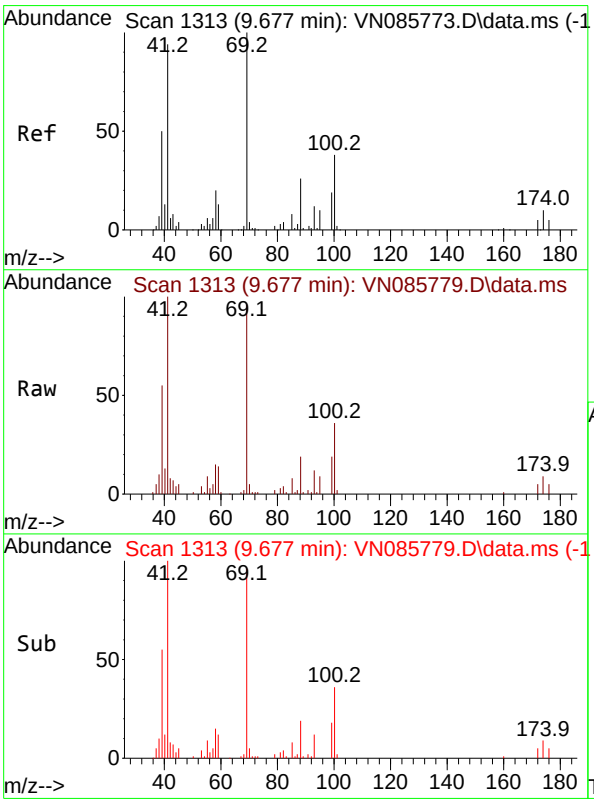
Ion	Ratio	Lower	Upper
83	100		
85	66.1	50.5	75.7
127	8.6	7.2	10.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

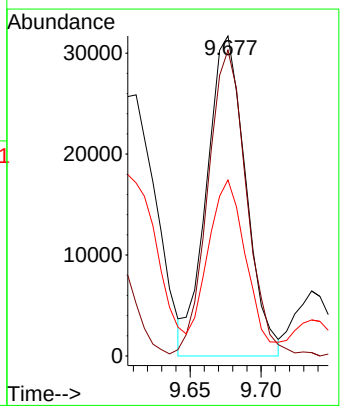
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

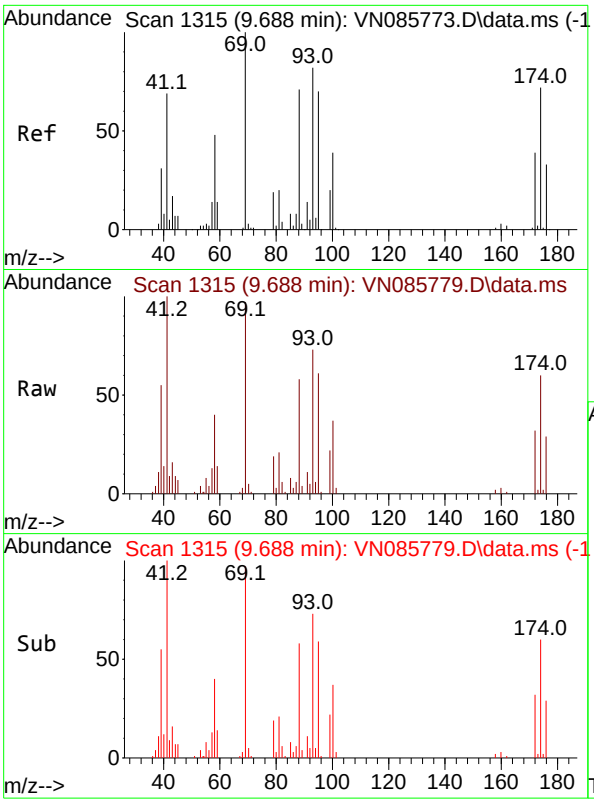


#48
Methyl methacrylate
Concen: 20.781 ug/l
RT: 9.677 min Scan# 1313
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 41 Resp: 60690

Ion	Ratio	Lower	Upper
41	100		
69	95.1	76.0	114.0
39	54.7	42.3	63.5

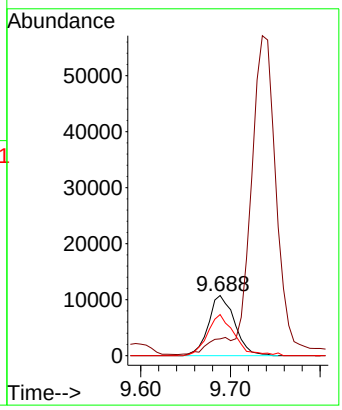




#49
1,4-Dioxane
Concen: 392.137 ug/l
RT: 9.688 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 88 Resp: 2177

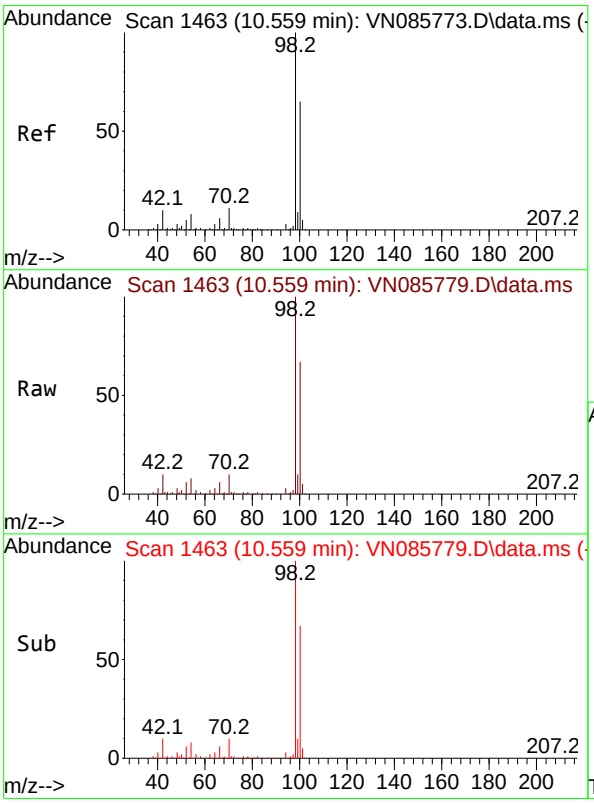
Ion	Ratio	Lower	Upper
88	100		
43	0.0	18.6	27.8
58	70.5	56.7	85.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

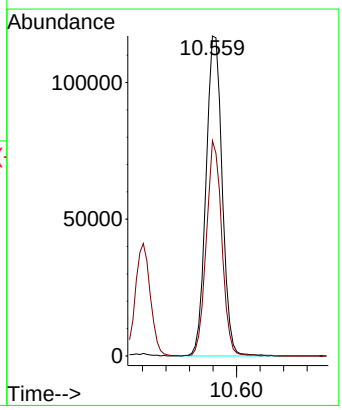
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

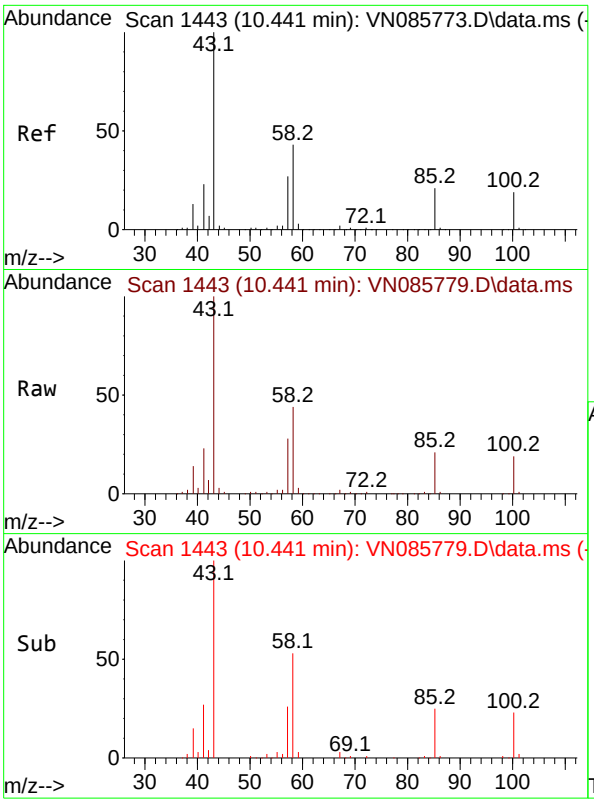


#50
Toluene-d8
Concen: 18.140 ug/l
RT: 10.559 min Scan# 1463
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 98 Resp: 222839

Ion	Ratio	Lower	Upper
98	100		
100	64.3	52.1	78.1





#51
4-Methyl-2-Pentanone
Concen: 105.563 ug/l
RT: 10.441 min Scan# 14
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

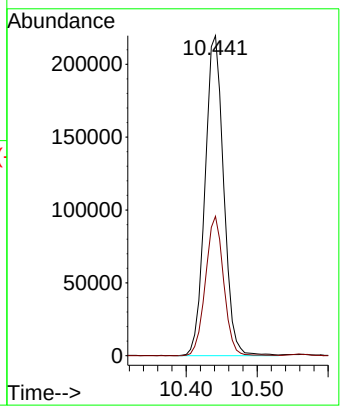
Tgt Ion: 43 Resp: 40023

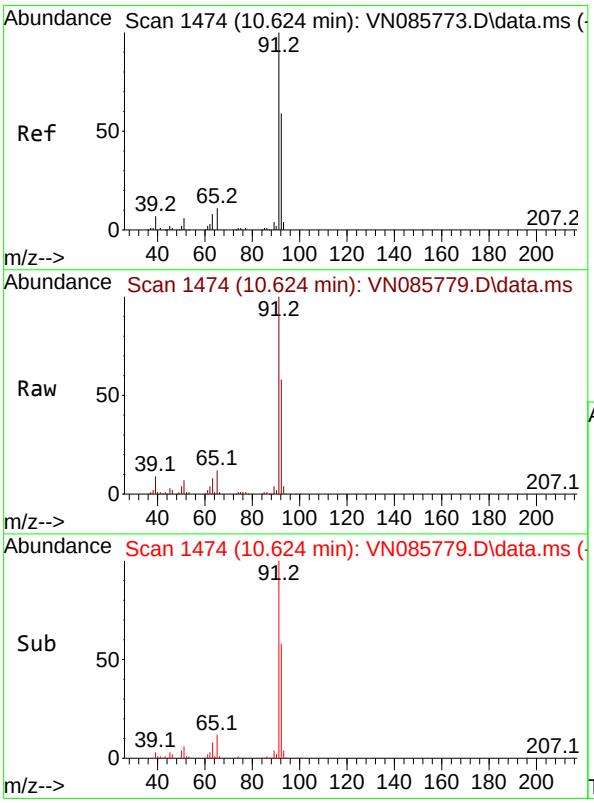
Ion	Ratio	Lower	Upper
43	100		
58	42.5	34.6	52.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

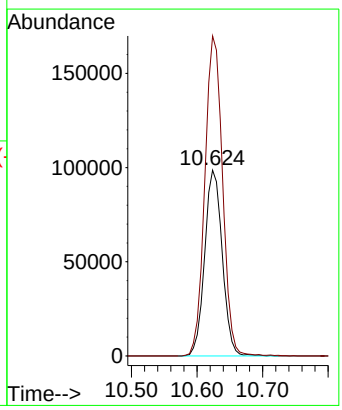


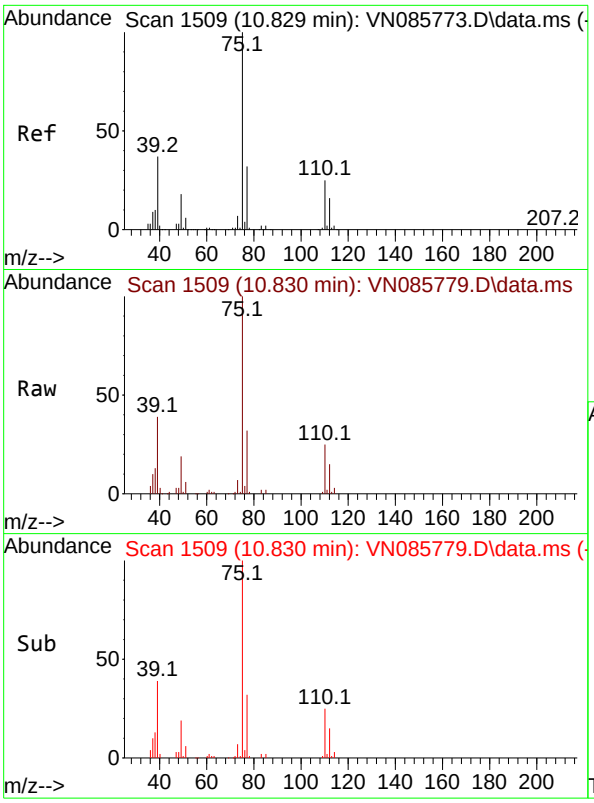


#52
Toluene
Concen: 20.495 ug/l
RT: 10.624 min Scan# 1474
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 92 Resp: 184001

Ion	Ratio	Lower	Upper
92	100		
91	173.5	136.9	205.3

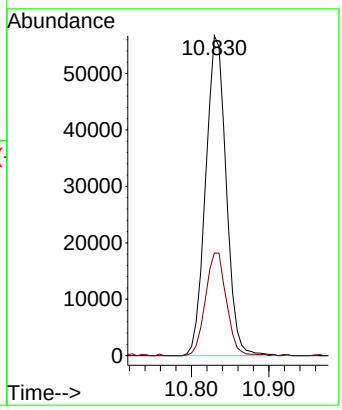




#53
t-1,3-Dichloropropene
Concen: 20.218 ug/l
RT: 10.830 min Scan# 1
Delta R.T. 0.001 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 75 Resp: 10430

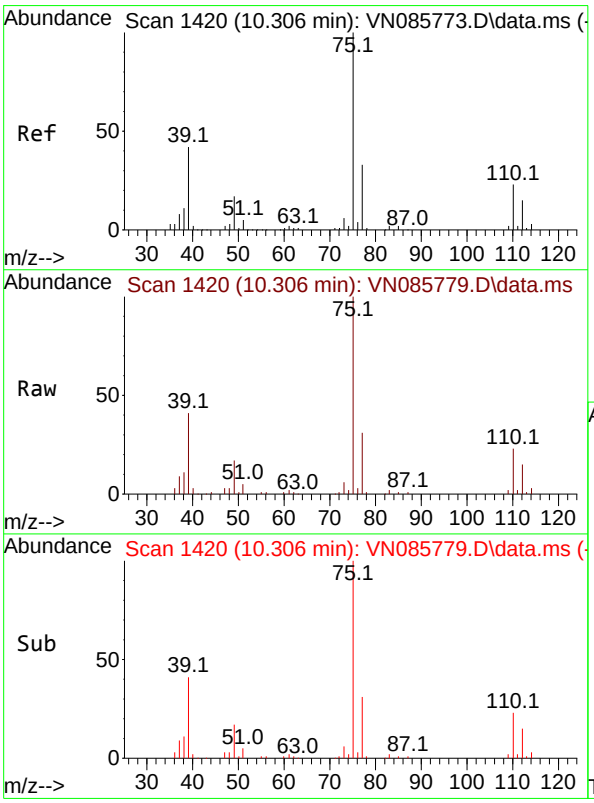
Ion	Ratio	Lower	Upper
75	100		
77	32.1	25.4	38.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

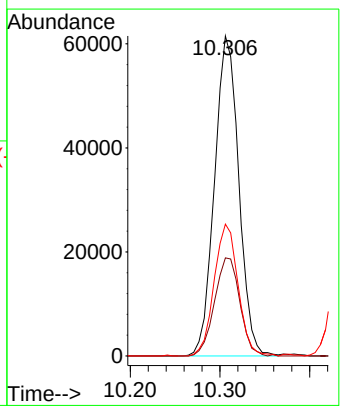
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

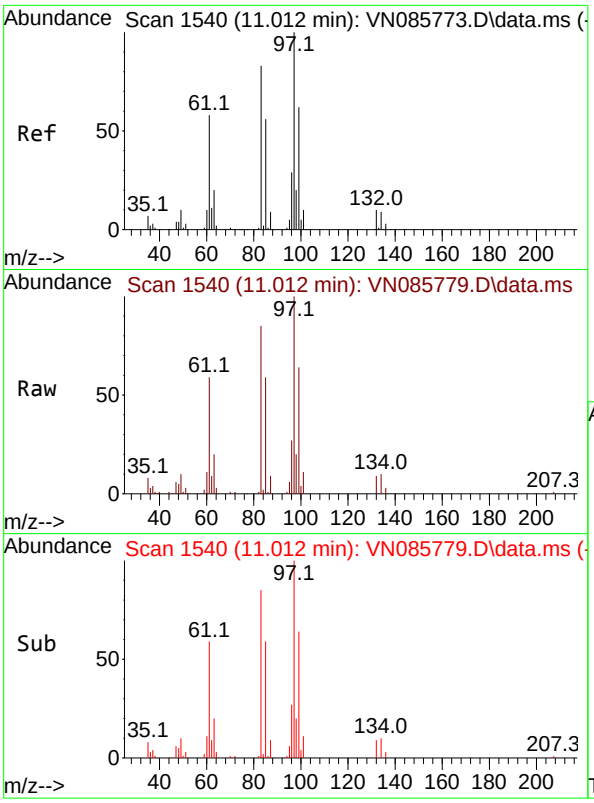


#54
cis-1,3-Dichloropropene
Concen: 20.409 ug/l
RT: 10.306 min Scan# 1420
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 75 Resp: 115451

Ion	Ratio	Lower	Upper
75	100		
77	30.6	26.1	39.1
39	41.2	33.4	50.0

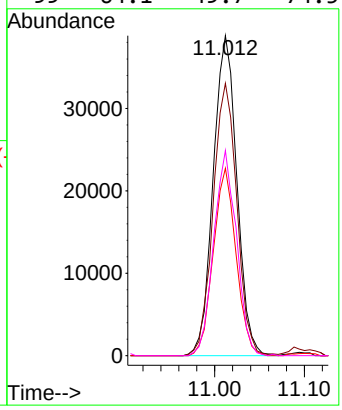




#55
1,1,2-Trichloroethane
Concen: 19.900 ug/l
RT: 11.012 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 97 Resp: 7103

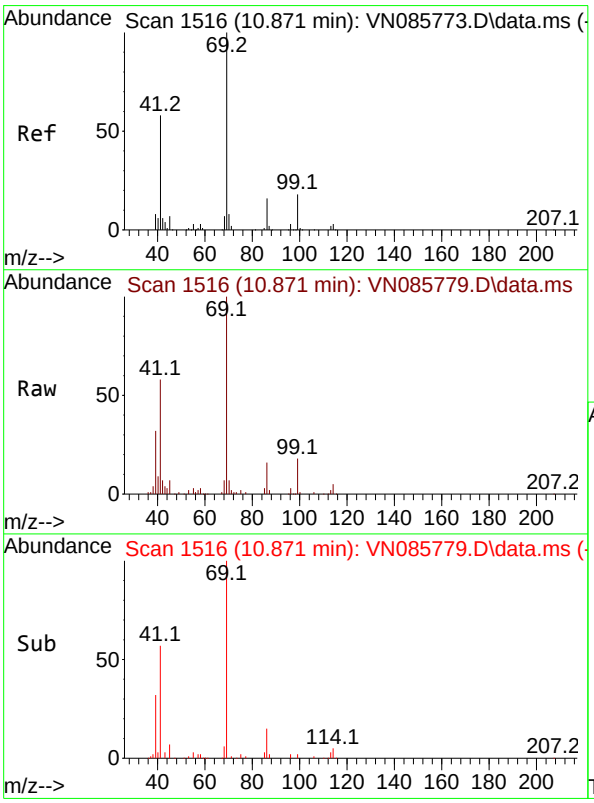
Ion	Ratio	Lower	Upper
97	100		
83	85.1	66.1	99.1
85	58.6	44.7	67.1
99	64.1	49.7	74.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

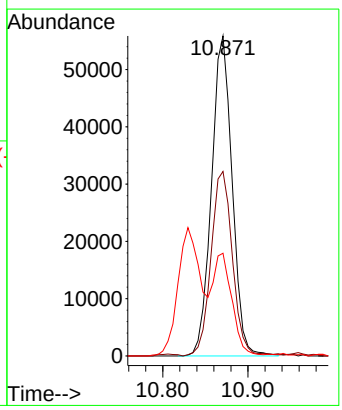
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

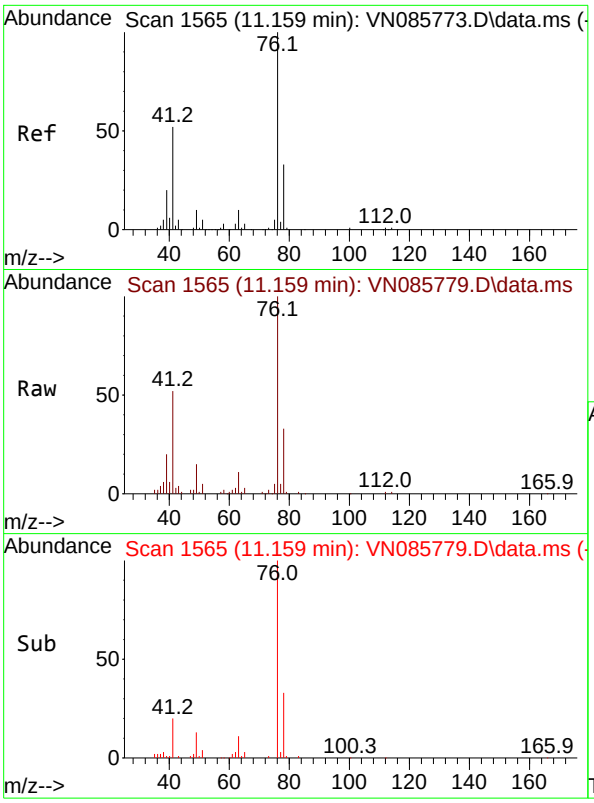


#56
Ethyl methacrylate
Concen: 20.003 ug/l
RT: 10.871 min Scan# 1516
Delta R.T. -0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 69 Resp: 94315

Ion	Ratio	Lower	Upper
69	100		
41	60.1	46.0	69.0
39	28.6	22.0	33.0

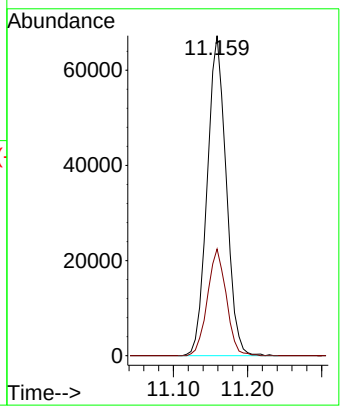




#57
1,3-Dichloropropane
Concen: 20.080 ug/l
RT: 11.159 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 76 Resp: 11964

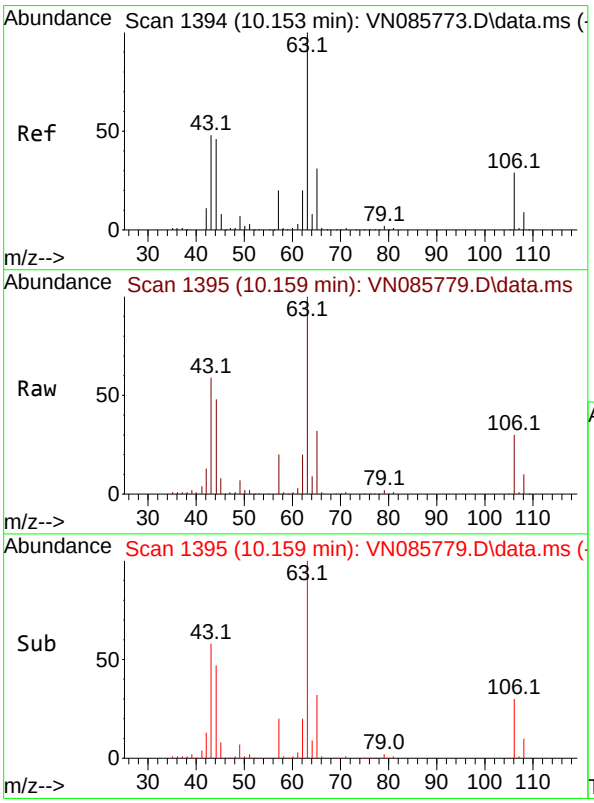
Ion	Ratio	Lower	Upper
76	100		
78	33.1	25.9	38.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

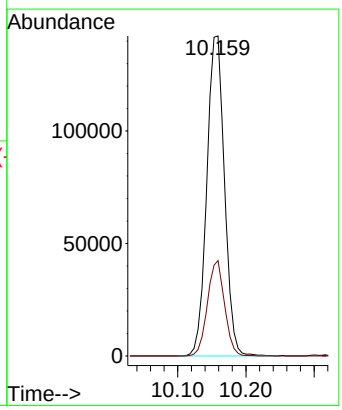
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

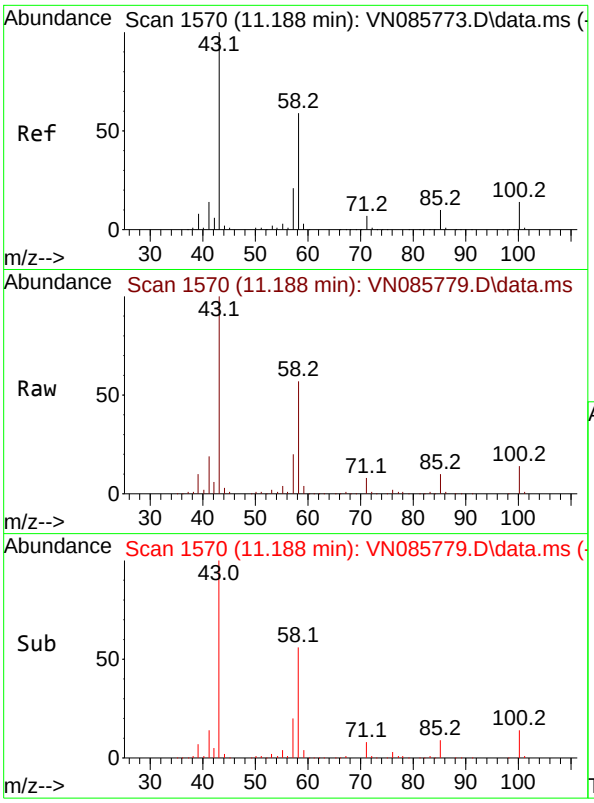


#58
2-Chloroethyl Vinyl ether
Concen: 146.107 ug/l
RT: 10.159 min Scan# 1395
Delta R.T. 0.006 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 63 Resp: 256540

Ion	Ratio	Lower	Upper
63	100		
106	28.9	22.7	34.1





#59
2-Hexanone
Concen: 106.794 ug/l
RT: 11.188 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

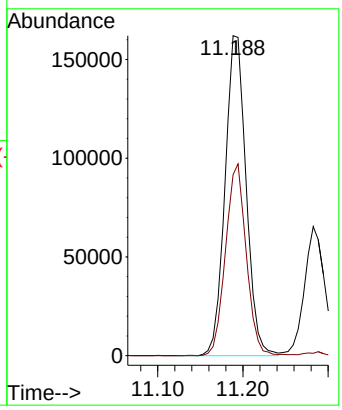
Tgt Ion: 43 Resp: 27855

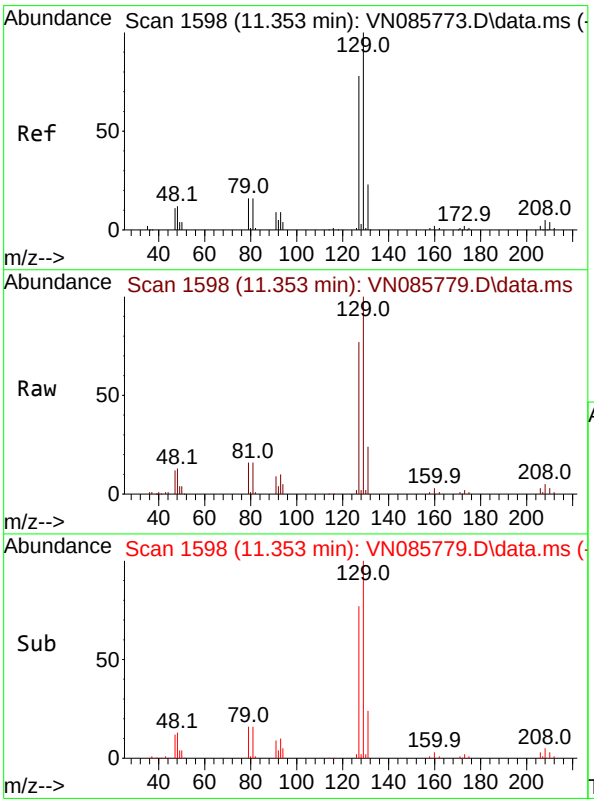
Ion	Ratio	Lower	Upper
43	100		
58	58.8	29.8	89.5

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

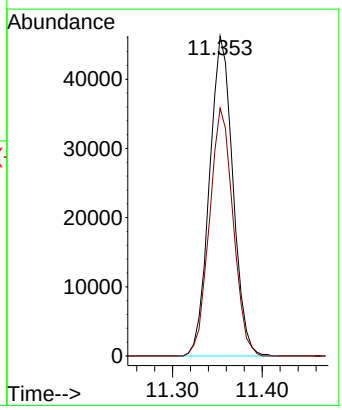


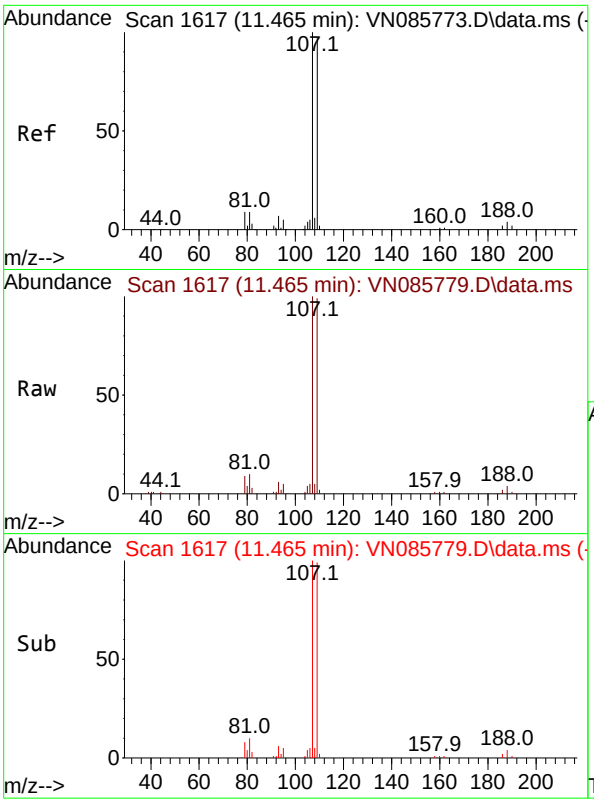


#60
Dibromochloromethane
Concen: 20.125 ug/l
RT: 11.353 min Scan# 1598
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion:129 Resp: 83651

Ion	Ratio	Lower	Upper
129	100		
127	78.4	39.1	117.5

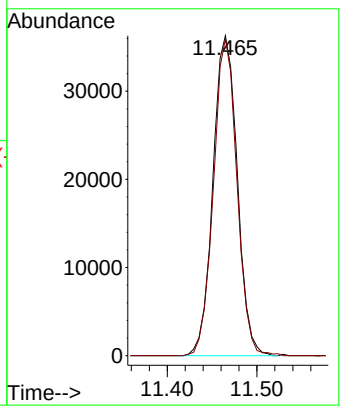




#61
1,2-Dibromoethane
Concen: 20.223 ug/l
RT: 11.465 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion:107 Resp: 6820

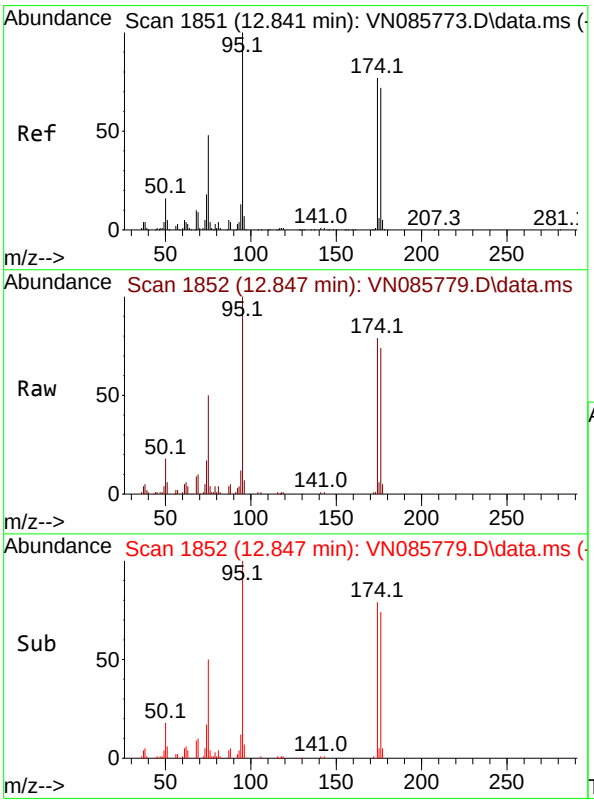
Ion	Ratio	Lower	Upper
107	100		
109	95.6	76.0	114.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

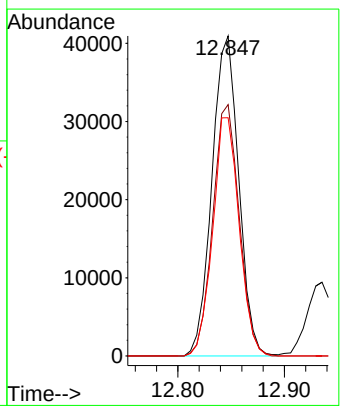
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

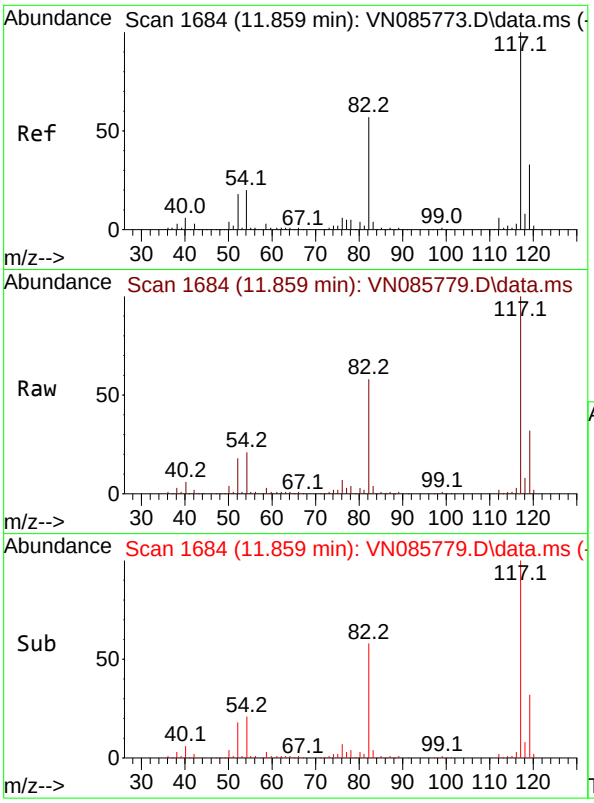


#62
4-Bromofluorobenzene
Concen: 17.627 ug/l
RT: 12.847 min Scan# 1852
Delta R.T. 0.006 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 95 Resp: 71343

Ion	Ratio	Lower	Upper
95	100		
174	77.7	0.0	152.4
176	73.6	0.0	146.6

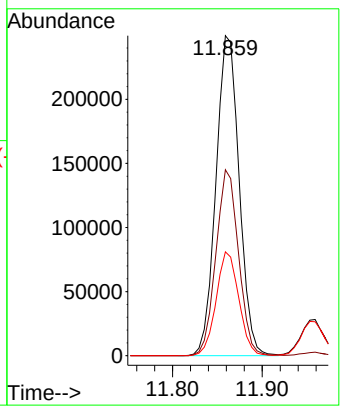




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.859 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion:117 Resp: 44888

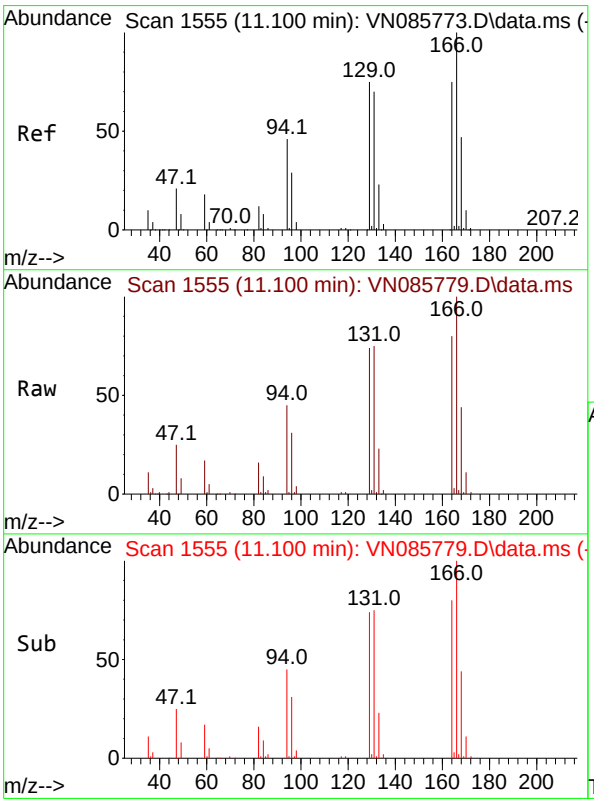
Ion	Ratio	Lower	Upper
117	100		
82	58.1	45.7	68.5
119	32.5	26.2	39.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

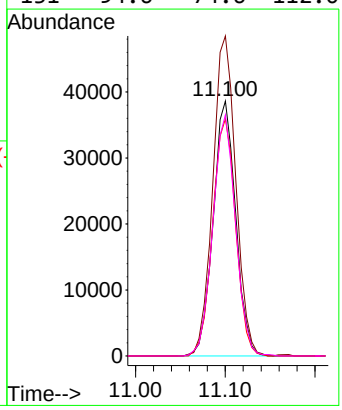
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

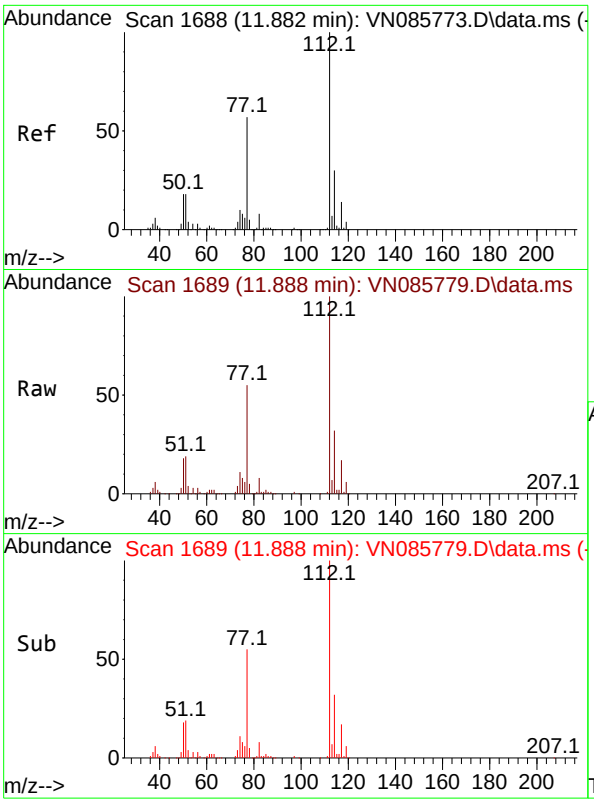


#64
Tetrachloroethene
Concen: 19.350 ug/l
RT: 11.100 min Scan# 1555
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion:164 Resp: 67288

Ion	Ratio	Lower	Upper
164	100		
166	125.5	107.2	160.8
129	93.0	80.7	121.1
131	94.6	74.6	112.0

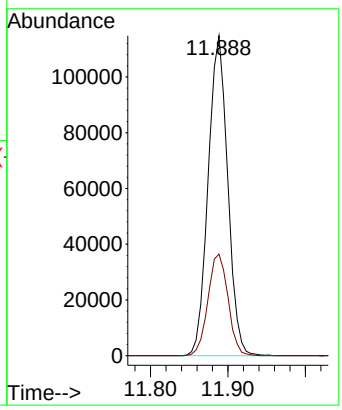




#65
Chlorobenzene
Concen: 19.535 ug/l
RT: 11.888 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion:112 Resp: 20088

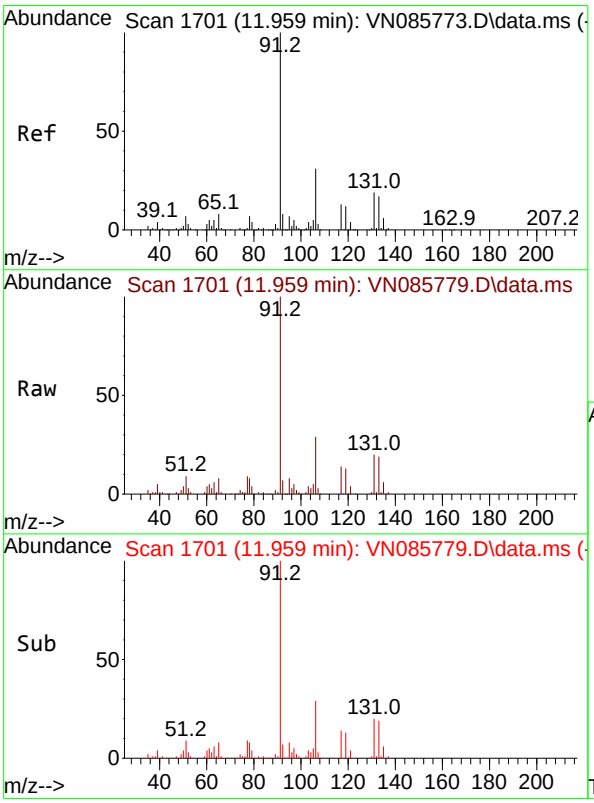
Ion	Ratio	Lower	Upper
112	100		
114	31.8	24.3	36.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

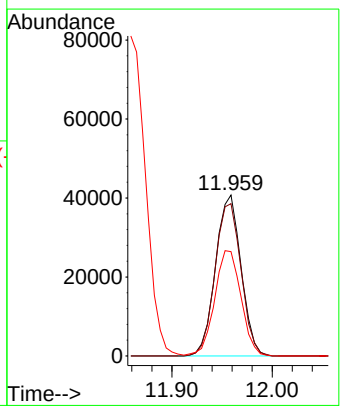
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

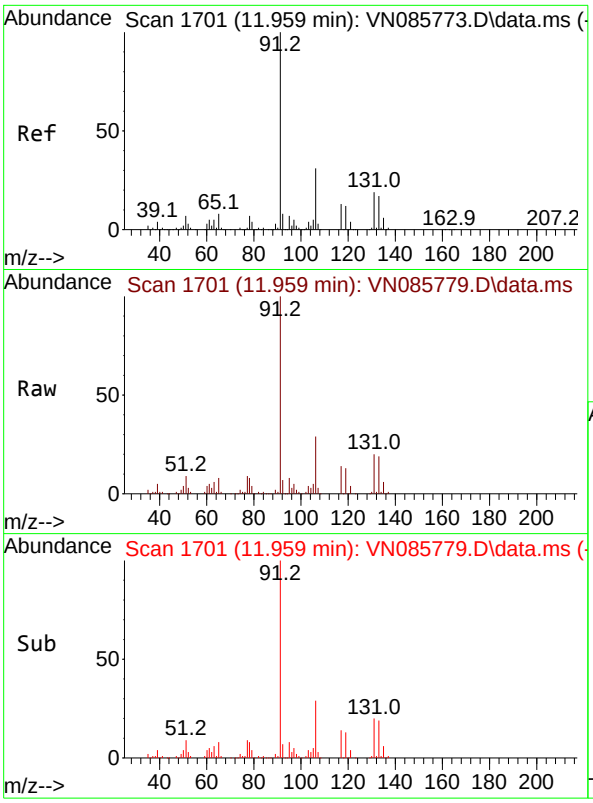


#66
1,1,1,2-Tetrachloroethane
Concen: 19.497 ug/l
RT: 11.959 min Scan# 1701
Delta R.T. -0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion:131 Resp: 72064

Ion	Ratio	Lower	Upper
131	100		
133	96.8	47.7	143.1
119	67.5	33.3	99.8





#67
Ethyl Benzene
Concen: 20.490 ug/l
RT: 11.959 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

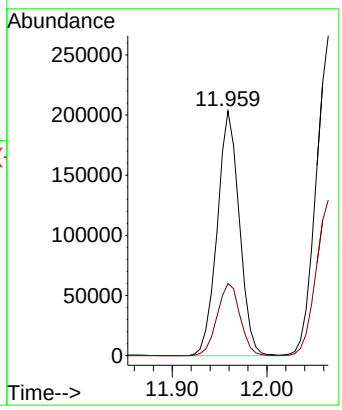
Tgt Ion: 91 Resp: 33005

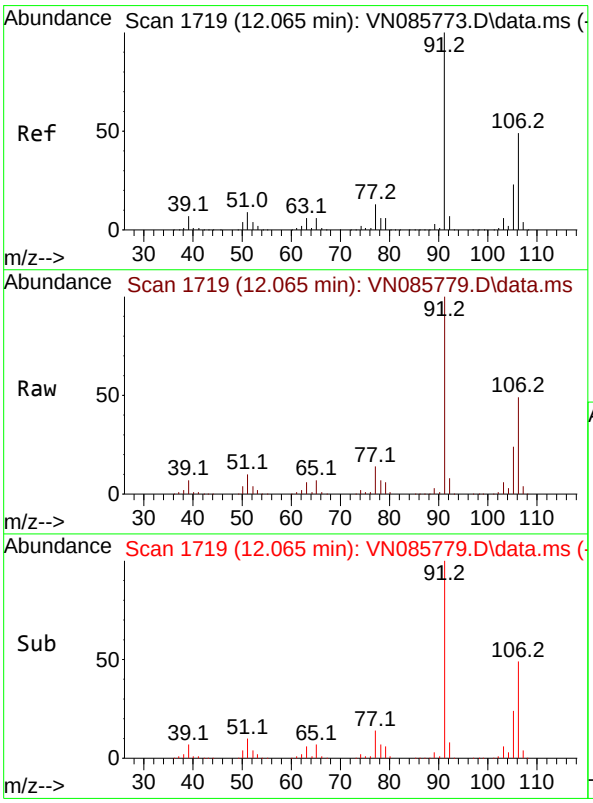
Ion	Ratio	Lower	Upper
91	100		
106	29.5	24.7	37.1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

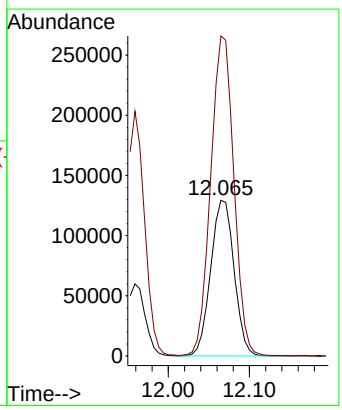


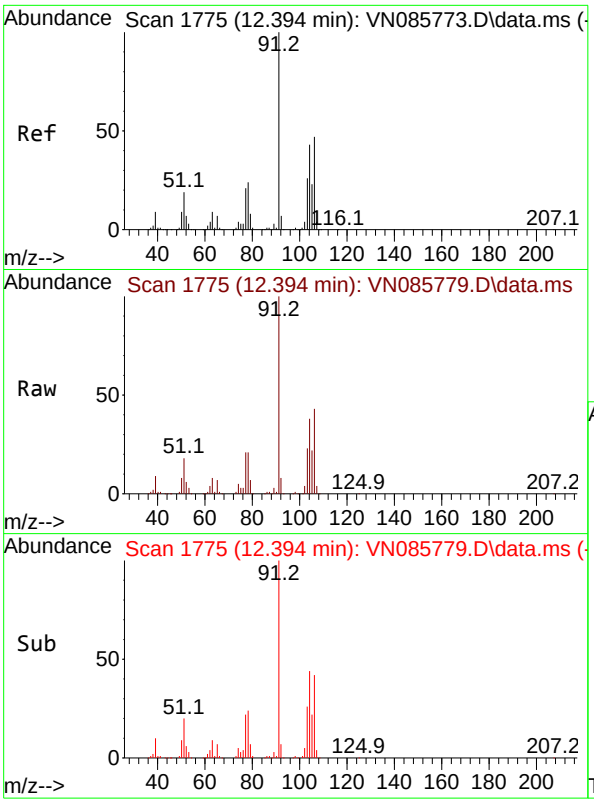


#68
m/p-Xylenes
Concen: 42.371 ug/l
RT: 12.065 min Scan# 1719
Delta R.T. -0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion:106 Resp: 259251

Ion	Ratio	Lower	Upper
106	100		
91	203.4	163.3	244.9





#69
o-Xylene
Concen: 20.345 ug/l
RT: 12.394 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

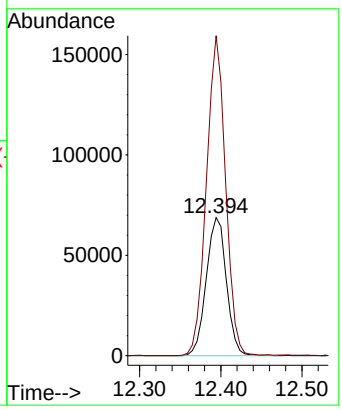
Tgt Ion:106 Resp: 11829

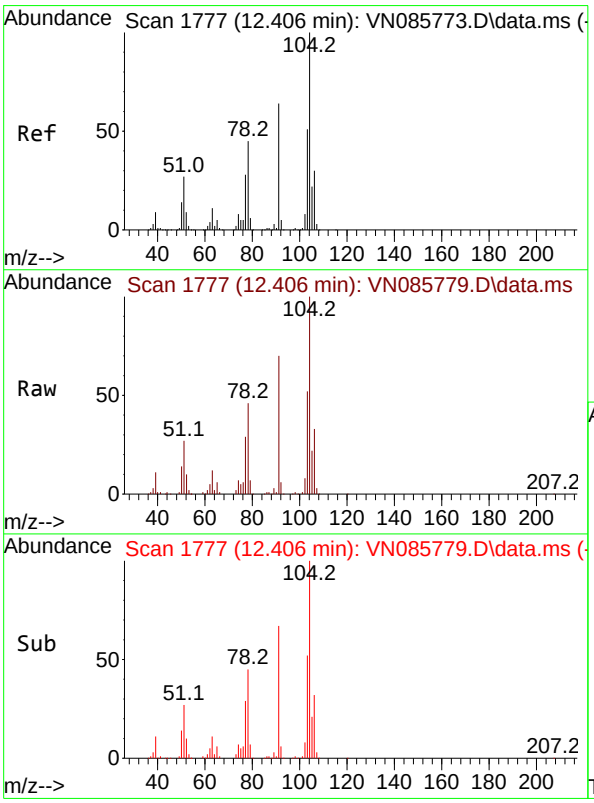
Ion	Ratio	Lower	Upper
106	100		
91	220.6	107.1	321.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

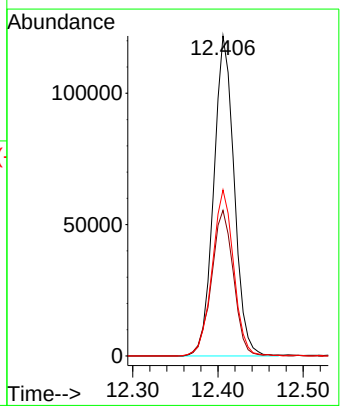


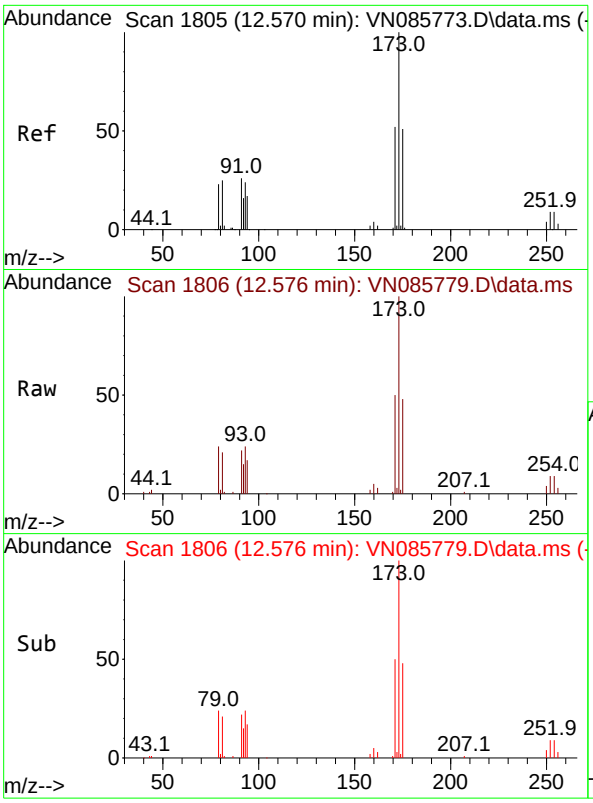


#70
Styrene
Concen: 20.270 ug/l
RT: 12.406 min Scan# 1777
Delta R.T. -0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion:104 Resp: 203369

Ion	Ratio	Lower	Upper
104	100		
78	49.0	39.0	58.6
103	54.5	43.3	64.9

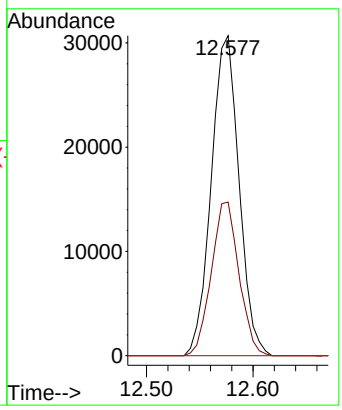




#71
Bromoform
Concen: 20.214 ug/l
RT: 12.576 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion:173 Resp: 5551

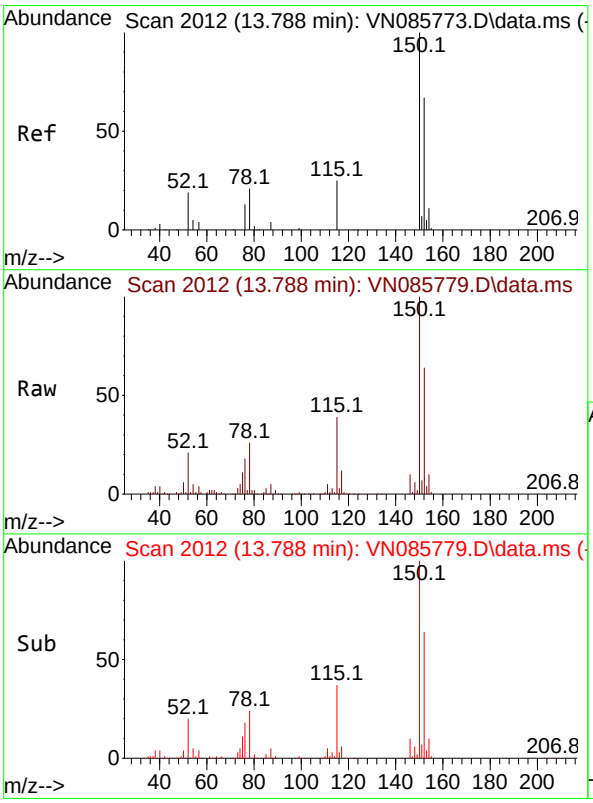
Ion	Ratio	Lower	Upper
173	100		
175	47.8	25.1	75.4
254	0.0	0.0	0.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

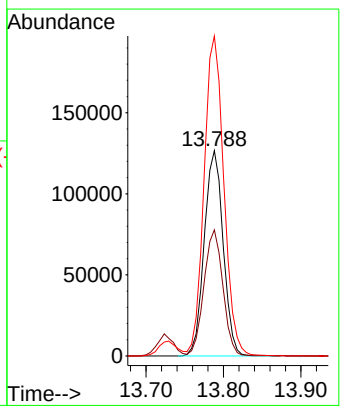
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

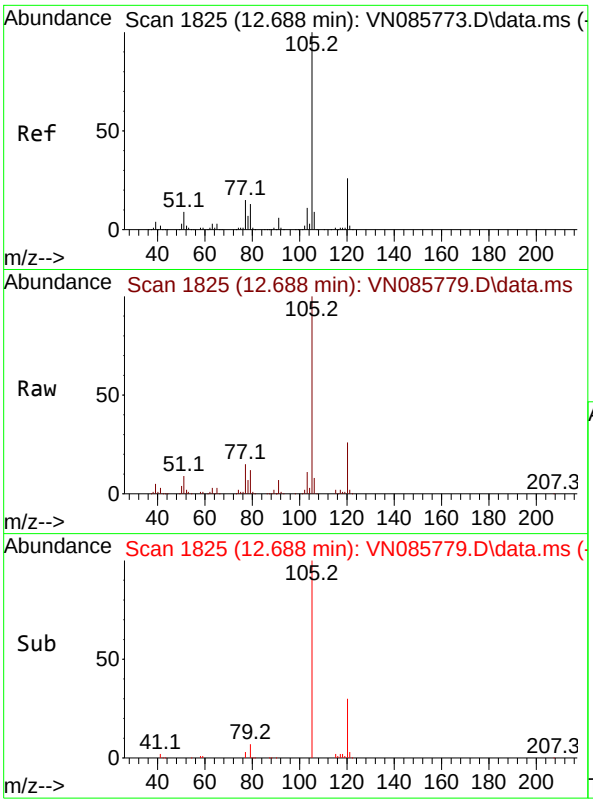


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.788 min Scan# 2012
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion:152 Resp: 214863

Ion	Ratio	Lower	Upper
152	100		
115	61.0	30.4	91.3
150	162.5	0.0	345.4

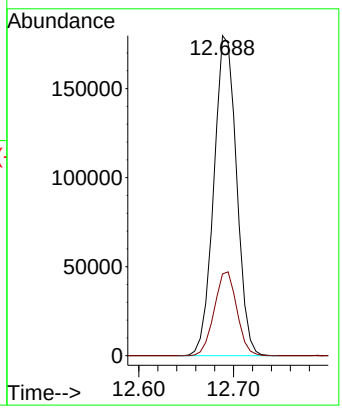




#73
Isopropylbenzene
Concen: 20.339 ug/l
RT: 12.688 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion:105 Resp: 29939

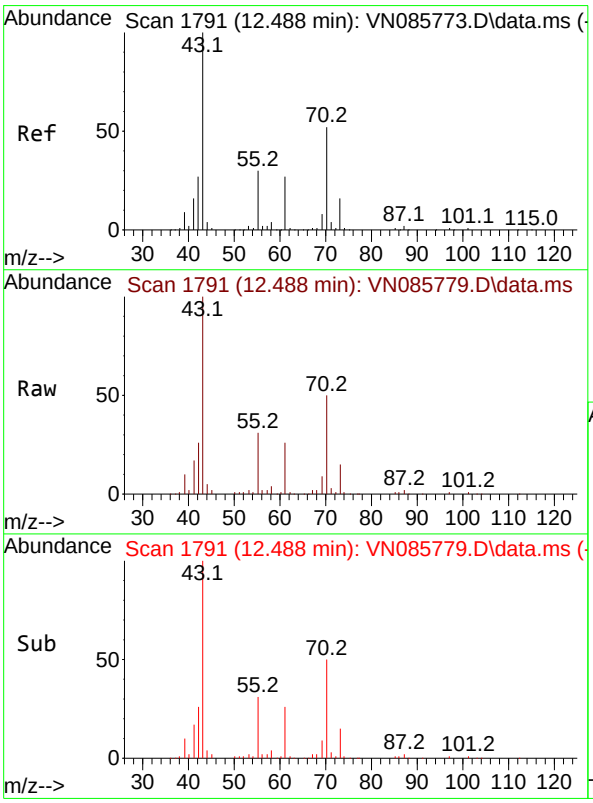
Ion	Ratio	Lower	Upper
105	100		
120	26.1	13.0	39.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

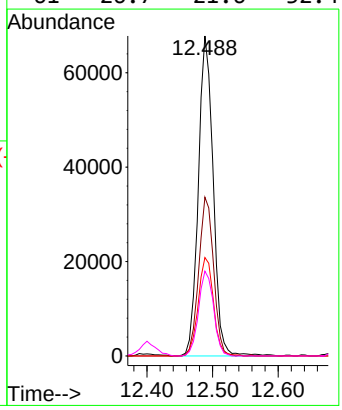
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

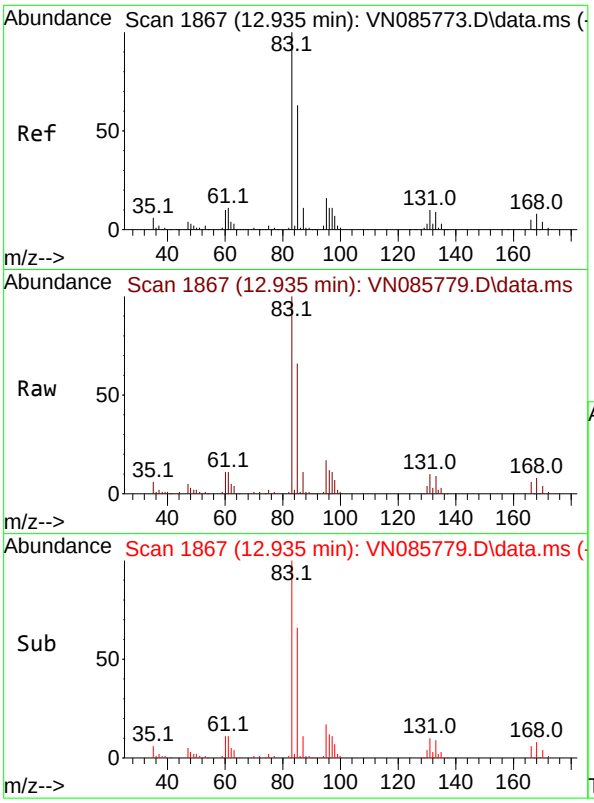


#74
N-amyl acetate
Concen: 20.608 ug/l
RT: 12.488 min Scan# 1791
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 43 Resp: 106973

Ion	Ratio	Lower	Upper
43	100		
70	49.5	41.0	61.4
55	31.5	24.6	36.8
61	26.7	21.6	32.4





#75
1,1,2,2-Tetrachloroethane
Concen: 19.579 ug/l
RT: 12.935 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

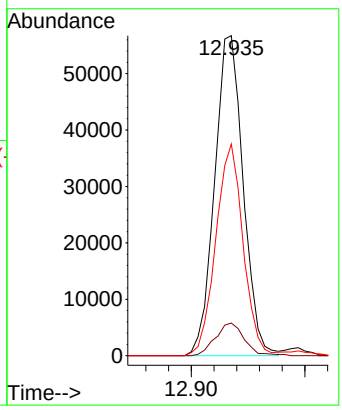
Tgt Ion: 83 Resp: 9917

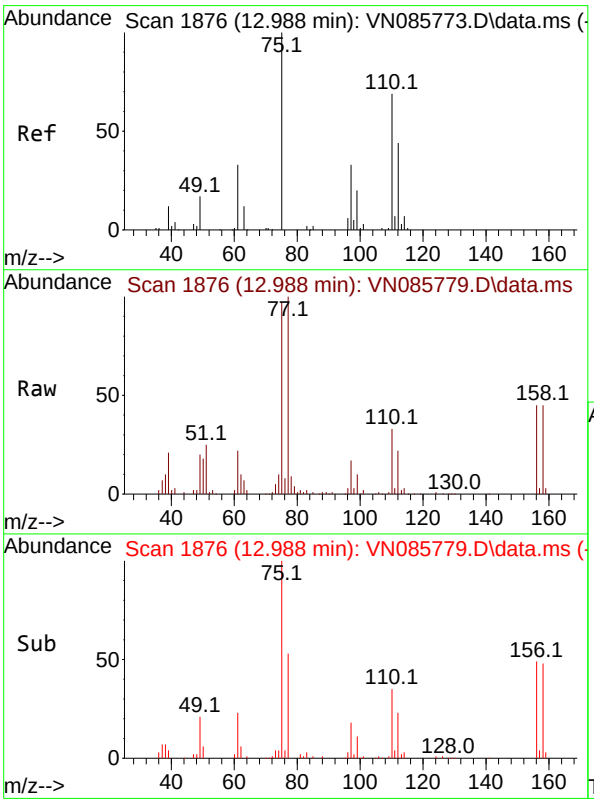
Ion	Ratio	Lower	Upper
83	100		
131	10.3	5.0	15.0
85	63.2	32.2	96.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

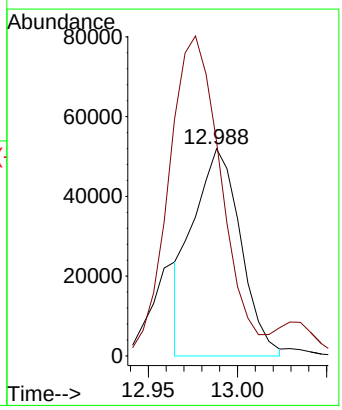


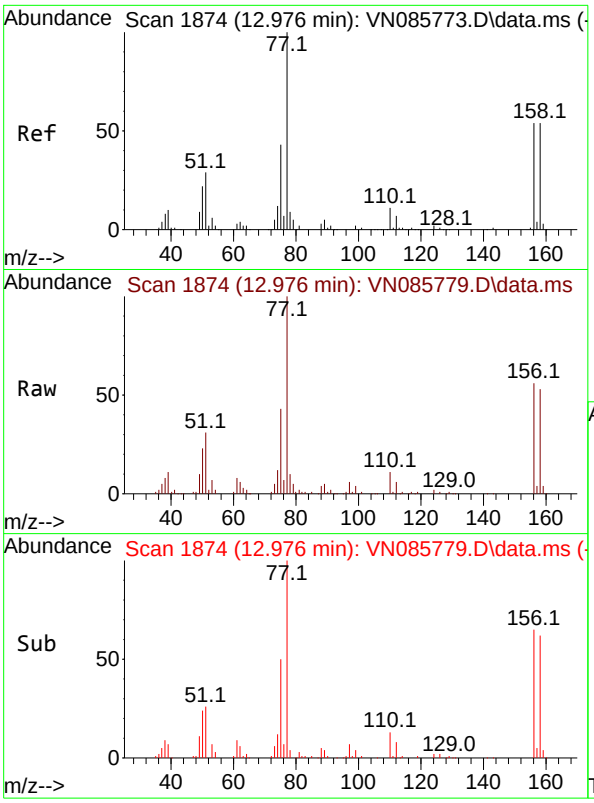


#76
1,2,3-Trichloropropane
Concen: 20.431 ug/l m
RT: 12.988 min Scan# 1876
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 75 Resp: 96439

Ion	Ratio	Lower	Upper
75	100		
77	171.8	100.0	300.0





#77
Bromobenzene
Concen: 19.630 ug/l
RT: 12.976 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

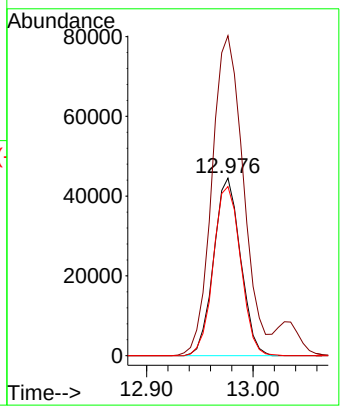
Tgt Ion:156 Resp: 7806

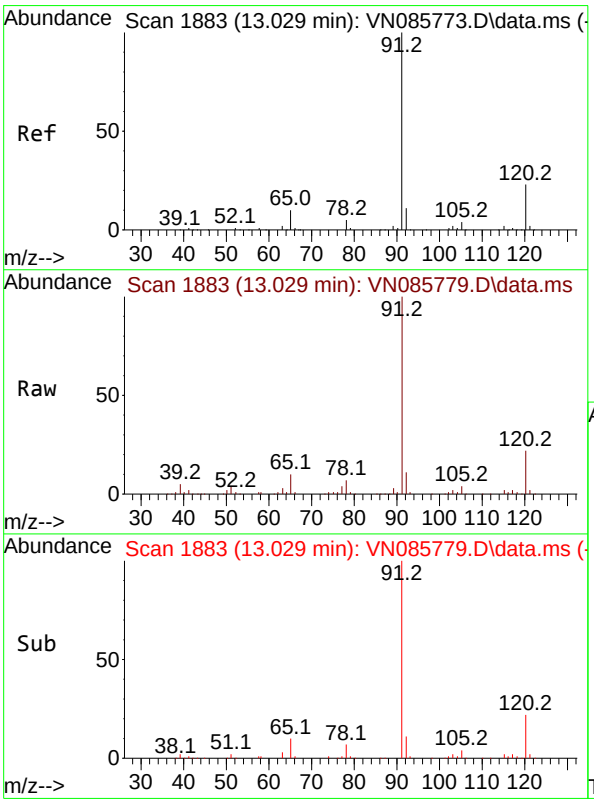
Ion	Ratio	Lower	Upper
156	100		
77	212.2	104.1	312.3
158	96.5	48.1	144.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

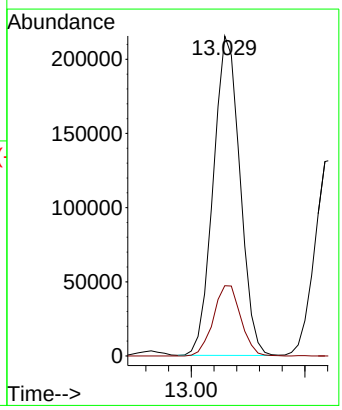


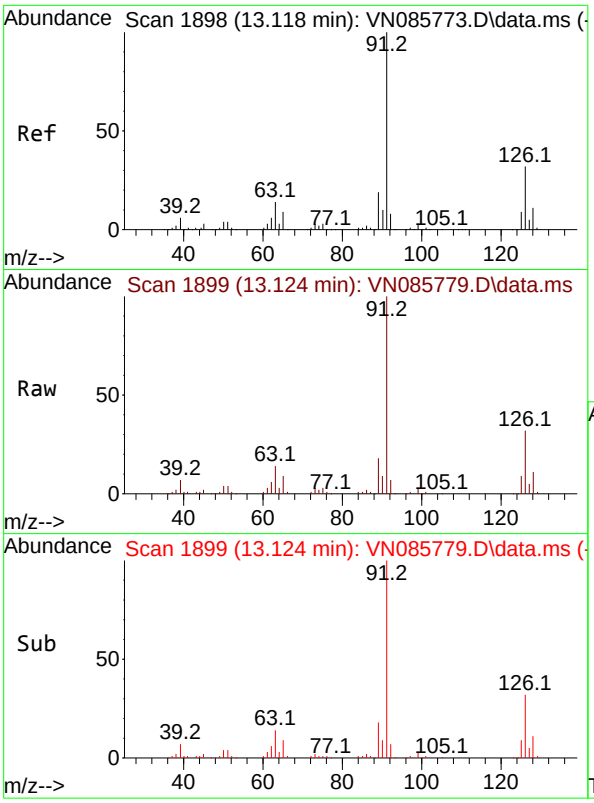


#78
n-propylbenzene
Concen: 20.852 ug/l
RT: 13.029 min Scan# 1883
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 91 Resp: 351518

Ion	Ratio	Lower	Upper
91	100		
120	22.6	11.3	33.8

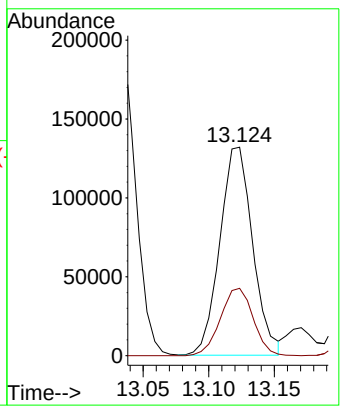




#79
2-Chlorotoluene
Concen: 20.458 ug/l
RT: 13.124 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 91 Resp: 23043

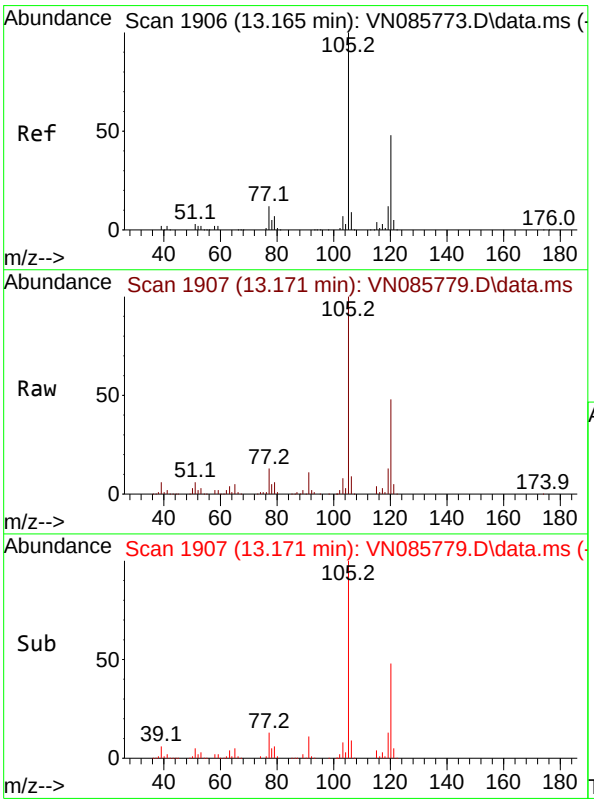
Ion	Ratio	Lower	Upper
91	100		
126	32.2	16.4	49.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

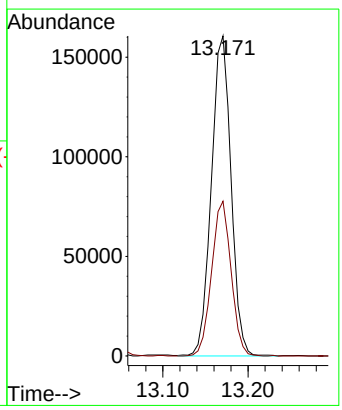
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

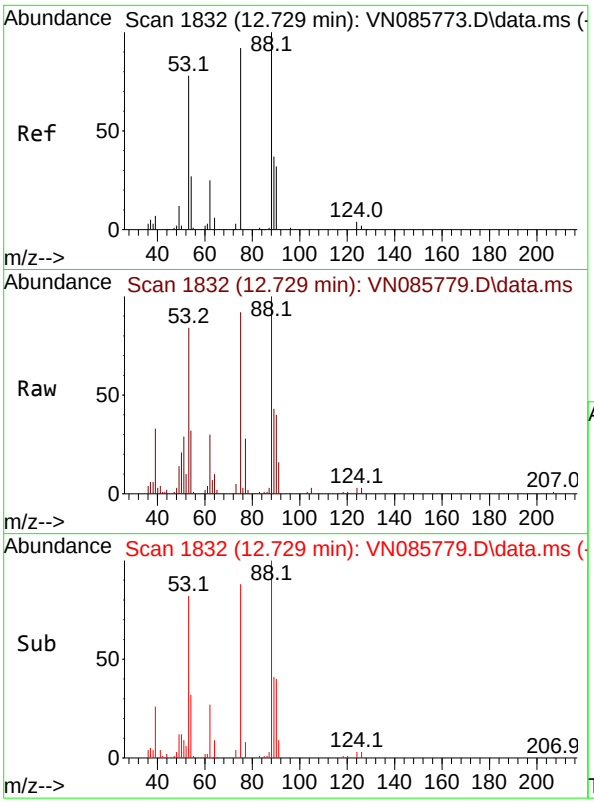


#80
1,3,5-Trimethylbenzene
Concen: 21.534 ug/l
RT: 13.171 min Scan# 1907
Delta R.T. 0.006 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion:105 Resp: 258212

Ion	Ratio	Lower	Upper
105	100		
120	47.8	24.3	72.9





#81
trans-1,4-Dichloro-2-butene
Concen: 19.267 ug/l
RT: 12.729 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

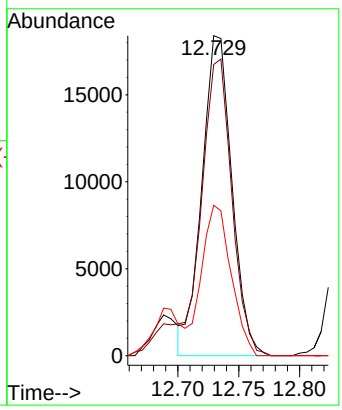
Tgt Ion: 75 Resp: 3151

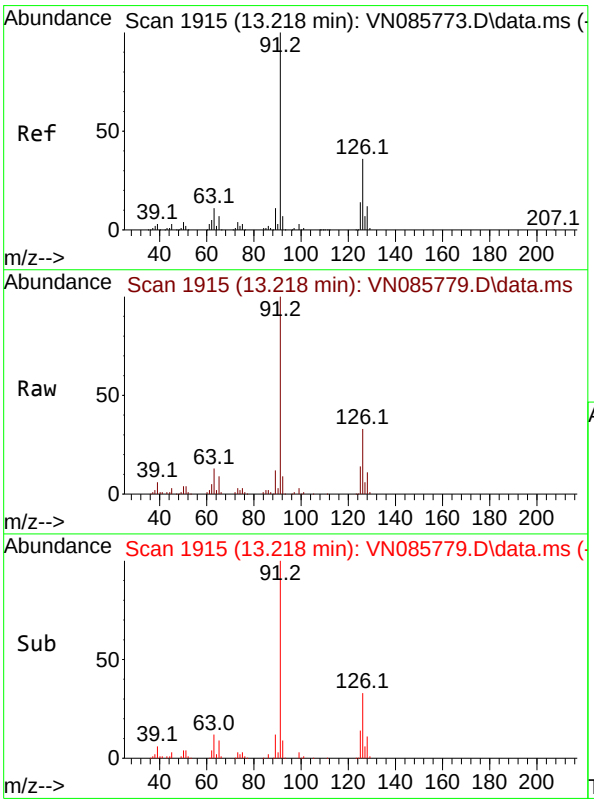
Ion	Ratio	Lower	Upper
75	100		
53	102.2	74.2	111.4
89	46.3	34.9	52.3

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

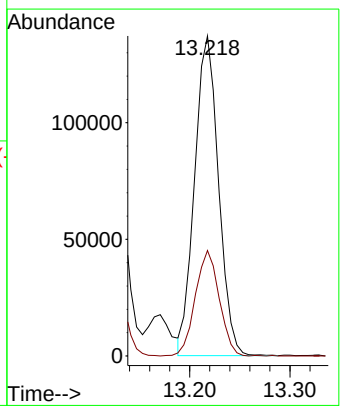


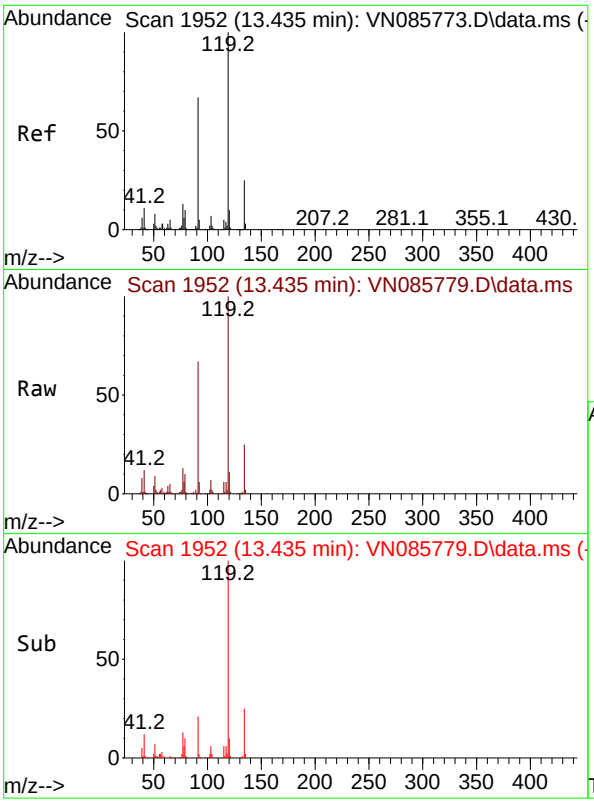


#82
4-Chlorotoluene
Concen: 20.345 ug/l
RT: 13.218 min Scan# 1915
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 91 Resp: 227177

Ion	Ratio	Lower	Upper
91	100		
126	33.0	16.4	49.4





#83
tert-Butylbenzene
Concen: 20.637 ug/l
RT: 13.435 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

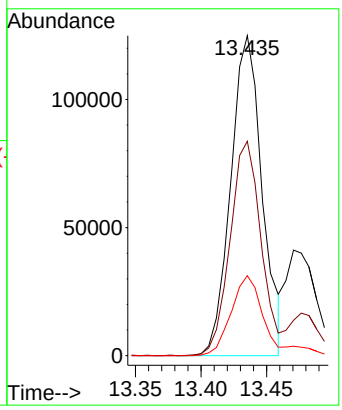
Tgt Ion:119 Resp: 20809

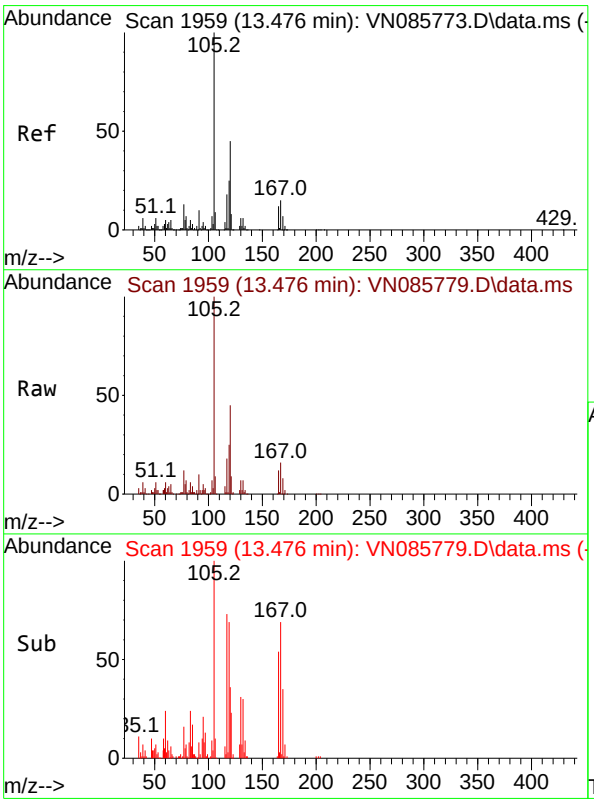
Ion	Ratio	Lower	Upper
119	100		
91	67.6	32.5	97.5
134	27.0	13.3	39.9

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

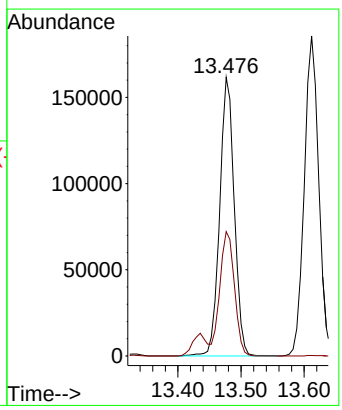


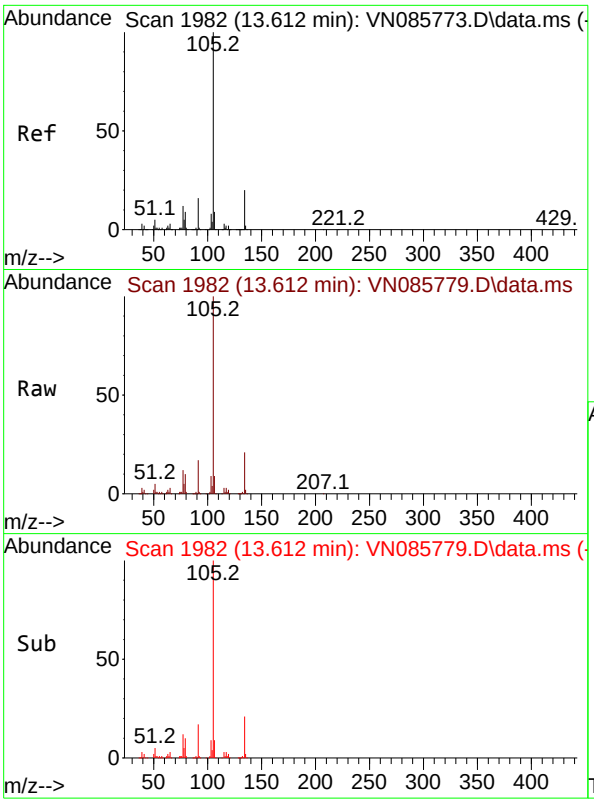


#84
1,2,4-Trimethylbenzene
Concen: 21.863 ug/l
RT: 13.476 min Scan# 1959
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion:105 Resp: 259373

Ion	Ratio	Lower	Upper
105	100		
120	44.4	22.4	67.3

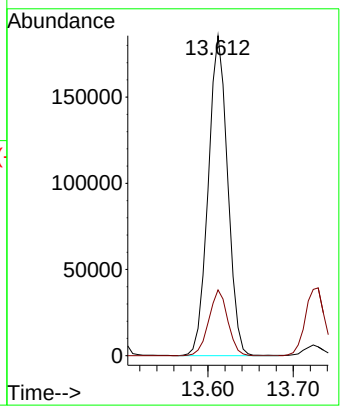




#85
sec-Butylbenzene
Concen: 20.612 ug/l
RT: 13.612 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion:105 Resp: 29365

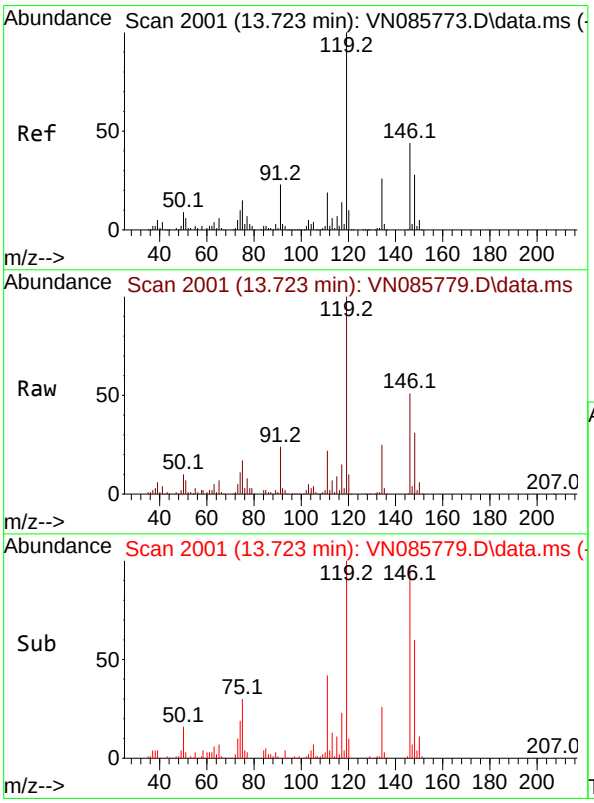
Ion	Ratio	Lower	Upper
105	100		
134	20.1	9.8	29.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

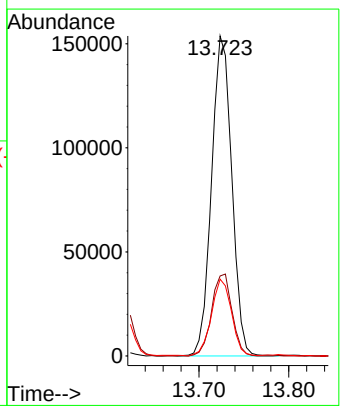
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

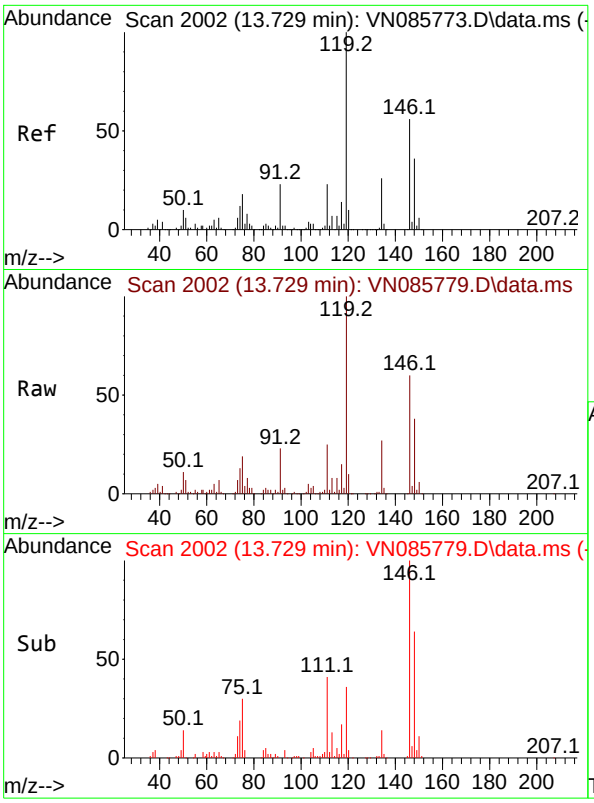


#86
p-Isopropyltoluene
Concen: 19.772 ug/l
RT: 13.723 min Scan# 2001
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion:119 Resp: 240984

Ion	Ratio	Lower	Upper
119	100		
134	25.7	13.0	39.0
91	23.8	11.7	35.1

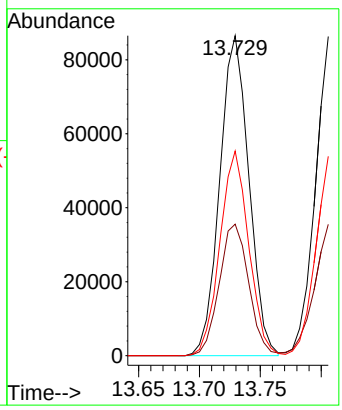




#87
1,3-Dichlorobenzene
Concen: 19.318 ug/l
RT: 13.729 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion:146 Resp: 14393

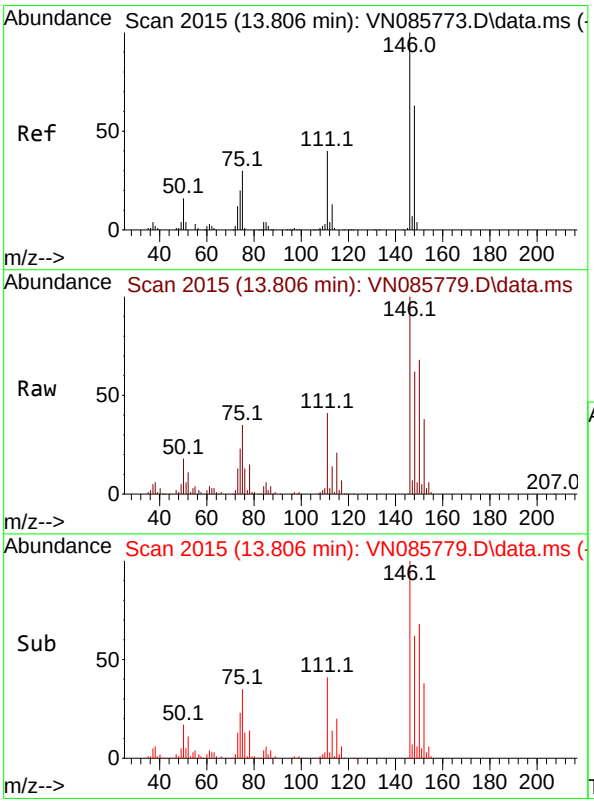
Ion	Ratio	Lower	Upper
146	100		
111	41.7	21.1	63.3
148	63.3	32.1	96.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

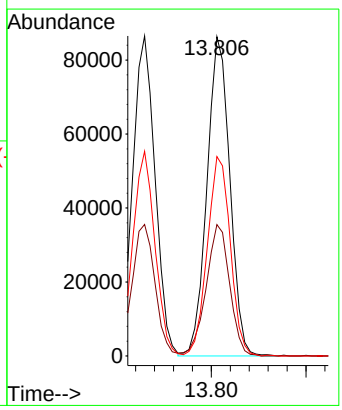
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

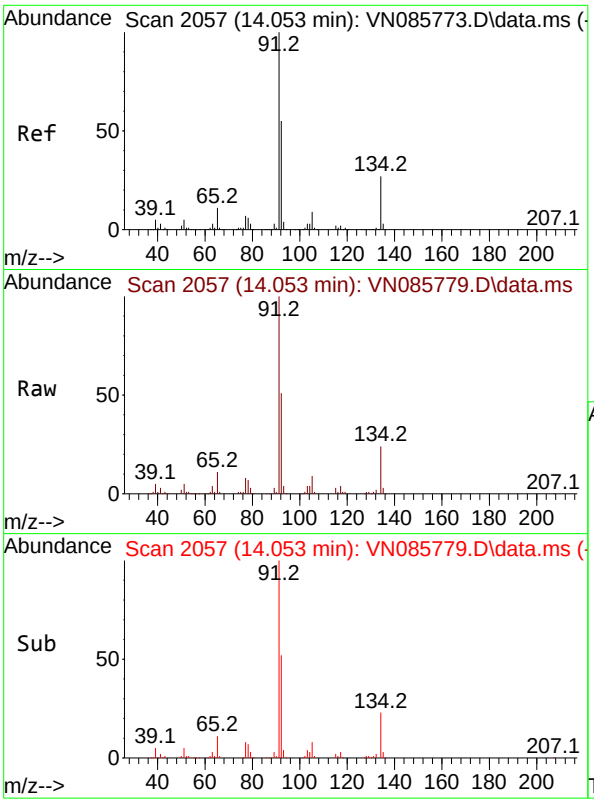


#88
1,4-Dichlorobenzene
Concen: 18.954 ug/l
RT: 13.806 min Scan# 2015
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion:146 Resp: 144744

Ion	Ratio	Lower	Upper
146	100		
111	42.4	20.4	61.3
148	63.0	31.8	95.4

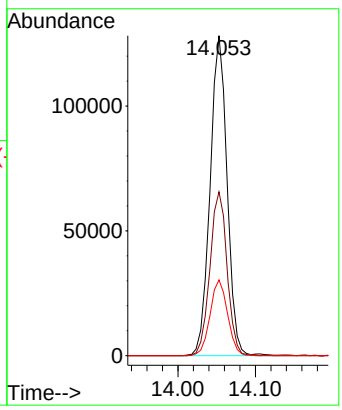




#89
n-Butylbenzene
Concen: 19.300 ug/l
RT: 14.053 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 91 Resp: 19522

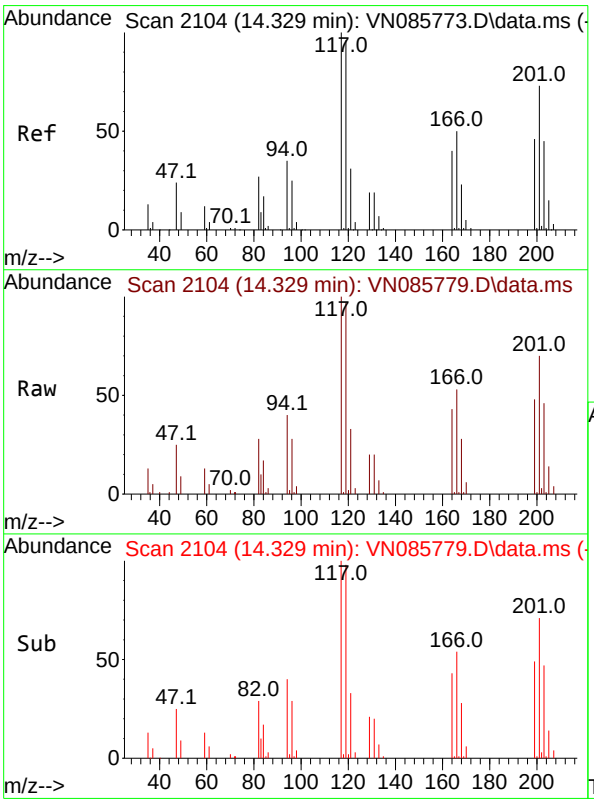
Ion	Ratio	Lower	Upper
91	100		
92	51.6	27.1	81.3
134	24.4	12.7	38.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

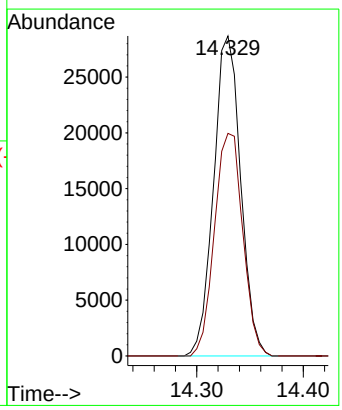
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

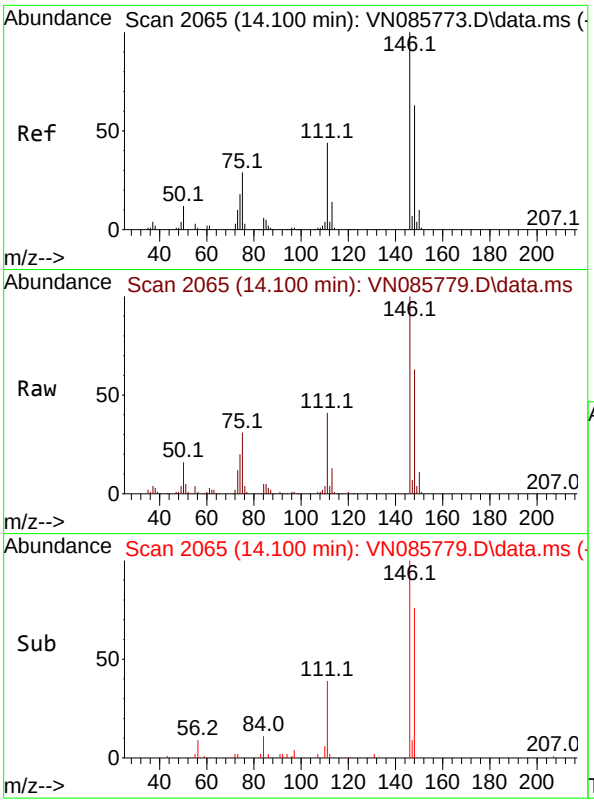


#90
Hexachloroethane
Concen: 18.753 ug/l
RT: 14.329 min Scan# 2104
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion:117 Resp: 50599

Ion	Ratio	Lower	Upper
117	100		
201	72.8	35.6	106.9

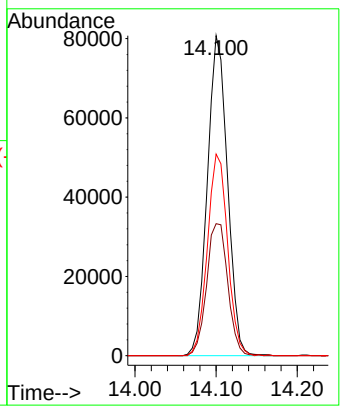




#91
1,2-Dichlorobenzene
Concen: 19.390 ug/l
RT: 14.100 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion:146 Resp: 13893

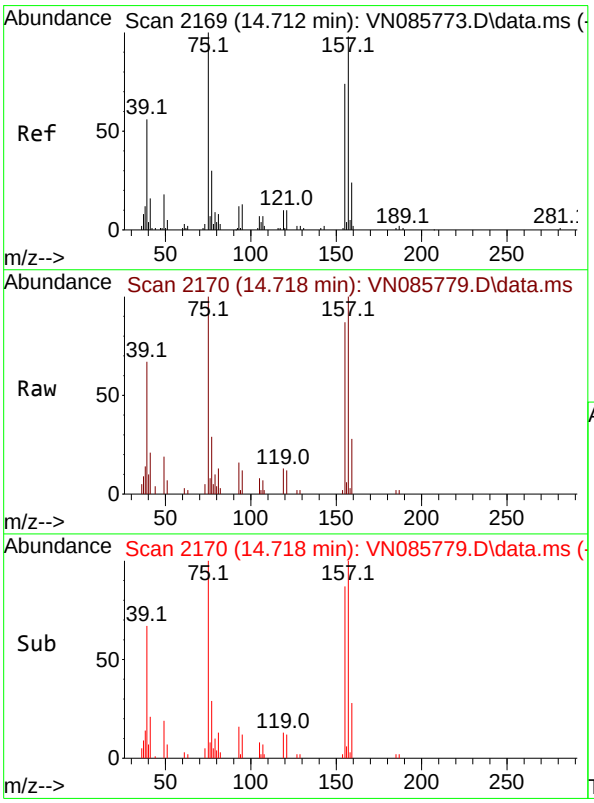
Ion	Ratio	Lower	Upper
146	100		
111	43.5	21.4	64.3
148	63.3	32.0	96.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

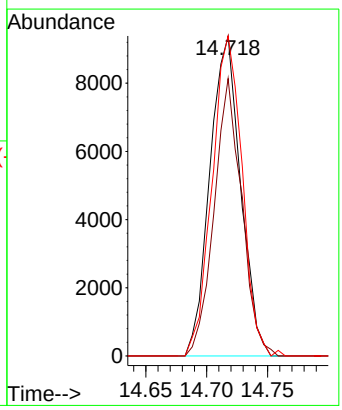
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

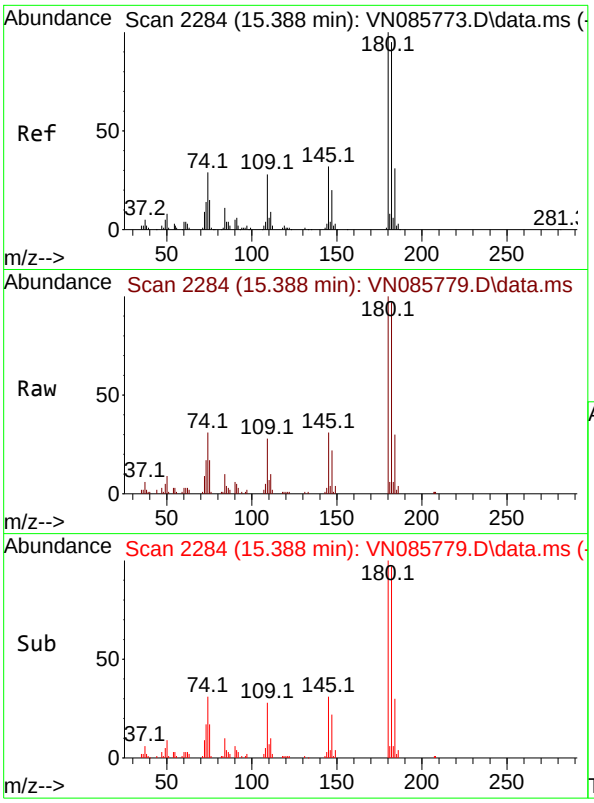


#92
1,2-Dibromo-3-Chloropropane
Concen: 17.639 ug/l
RT: 14.718 min Scan# 2170
Delta R.T. 0.006 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion: 75 Resp: 16407

Ion	Ratio	Lower	Upper
75	100		
155	78.2	39.9	119.6
157	98.0	49.9	149.7

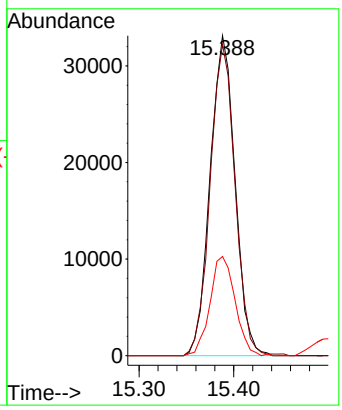




#93
1,2,4-Trichlorobenzene
Concen: 17.726 ug/l
RT: 15.388 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion:180 Resp: 6052

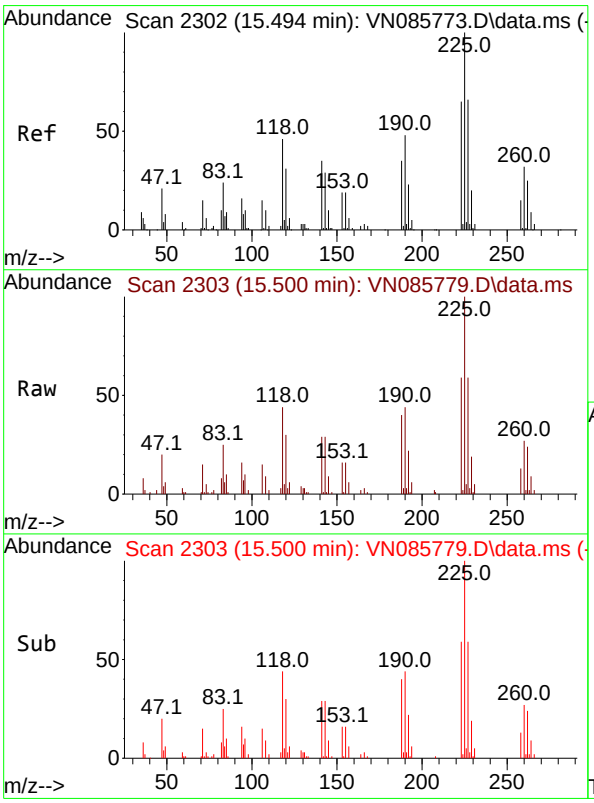
Ion	Ratio	Lower	Upper
180	100		
182	97.3	47.3	141.9
145	31.3	16.2	48.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

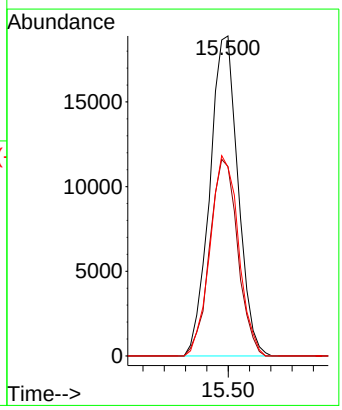
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

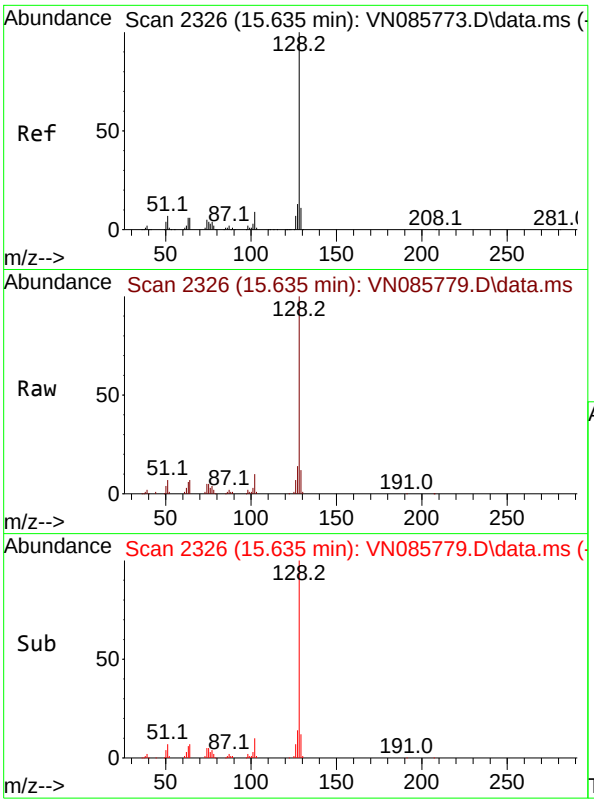


#94
Hexachlorobutadiene
Concen: 16.763 ug/l
RT: 15.500 min Scan# 2303
Delta R.T. 0.006 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion:225 Resp: 34783

Ion	Ratio	Lower	Upper
225	100		
223	61.0	31.9	95.5
227	63.1	32.2	96.6

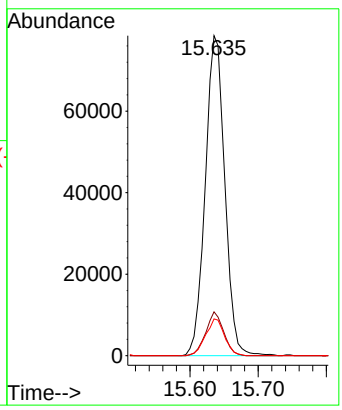




#95
Naphthalene
Concen: 16.700 ug/l
RT: 15.635 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion:128 Resp: 15653

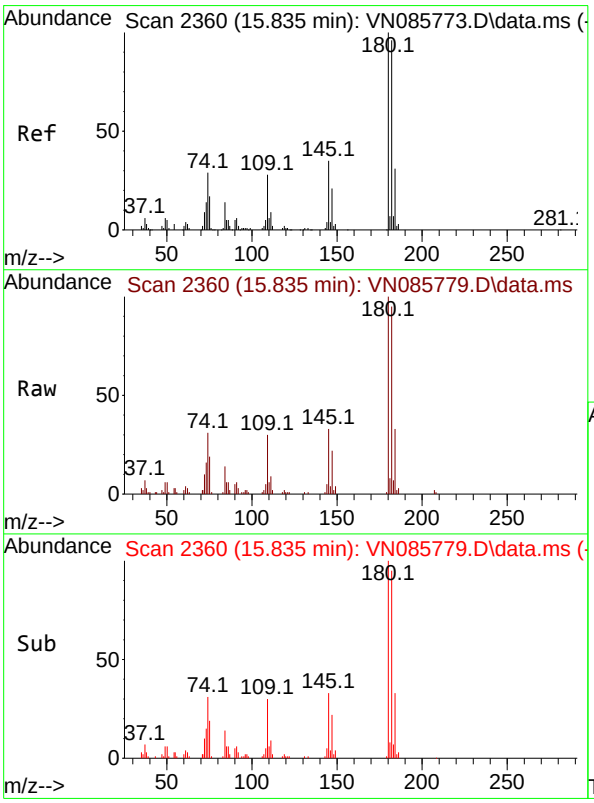
Ion	Ratio	Lower	Upper
128	100		
127	12.5	10.2	15.2
129	11.2	8.7	13.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

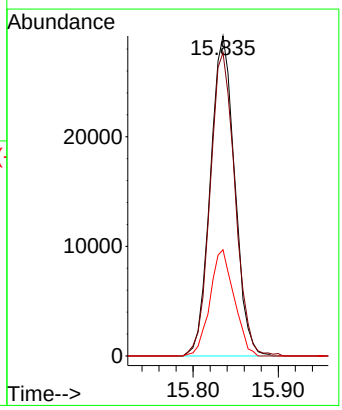
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025



#96
1,2,3-Trichlorobenzene
Concen: 16.921 ug/l
RT: 15.835 min Scan# 2360
Delta R.T. 0.000 min
Lab File: VN085779.D
Acq: 18 Feb 2025 14:18

Tgt Ion:180 Resp: 57998

Ion	Ratio	Lower	Upper
180	100		
182	96.6	47.3	141.8
145	32.9	16.9	50.6



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN021825\
Data File : VN085780.D
Acq On : 18 Feb 2025 16:28
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 19 05:09:13 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:43:32 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.218	168	314015	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.094	114	510764	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.859	117	456487	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.788	152	222696	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.577	65	204064	50.125	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 100.260%			
35) Dibromofluoromethane	8.165	113	170358	50.972	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 101.940%			
50) Toluene-d8	10.559	98	651463	53.575	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 107.140%			
62) 4-Bromofluorobenzene	12.841	95	227023	56.665	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 113.320%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.124	85	193054	45.199	ug/l	98
3) Chloromethane	2.359	50	181889	42.438	ug/l	98
4) Vinyl Chloride	2.512	62	197171	43.449	ug/l	97
5) Bromomethane	2.953	94	119789	41.282	ug/l	95
6) Chloroethane	3.118	64	122900	40.887	ug/l	95
7) Trichlorofluoromethane	3.500	101	279842	42.592	ug/l	98
8) Diethyl Ether	3.959	74	96415	45.353	ug/l	97
9) 1,1,2-Trichlorotrifluo...	4.371	101	165520	43.582	ug/l	98
10) Methyl Iodide	4.589	142	211559	45.190	ug/l	99
11) Tert butyl alcohol	5.506	59	118845	237.350	ug/l	99
12) 1,1-Dichloroethene	4.336	96	153815	44.667	ug/l	98
13) Acrolein	4.171	56	179054	241.140	ug/l	97
14) Allyl chloride	5.024	41	201442	44.555	ug/l	99
15) Acrylonitrile	5.712	53	378819	232.720	ug/l	99
16) Acetone	4.418	43	279680	217.115	ug/l	99
17) Carbon Disulfide	4.712	76	423019	41.449	ug/l	99
18) Methyl Acetate	5.018	43	194998	44.011	ug/l	100
19) Methyl tert-butyl Ether	5.789	73	491324	48.014	ug/l	99
20) Methylene Chloride	5.277	84	173805	41.955	ug/l	99
21) trans-1,2-Dichloroethene	5.783	96	161205	43.475	ug/l	94
22) Diisopropyl ether	6.665	45	483670	47.344	ug/l	99
23) Vinyl Acetate	6.600	43	1698852	242.867	ug/l	99
24) 1,1-Dichloroethane	6.565	63	301375	43.396	ug/l	99
25) 2-Butanone	7.477	43	456416	240.836	ug/l	100
26) 2,2-Dichloropropane	7.482	77	274082	44.383	ug/l	99
27) cis-1,2-Dichloroethene	7.482	96	190393	44.284	ug/l	99
28) Bromochloromethane	7.812	49	142695	49.991	ug/l	97
29) Tetrahydrofuran	7.830	42	304613	248.913	ug/l	99
30) Chloroform	7.965	83	312547	43.065	ug/l	97
31) Cyclohexane	8.253	56	248433	42.725	ug/l	99
32) 1,1,1-Trichloroethane	8.165	97	281708	43.640	ug/l	99
36) 1,1-Dichloropropene	8.365	75	220335	46.581	ug/l	99
37) Ethyl Acetate	7.553	43	182091	46.779	ug/l	99
38) Carbon Tetrachloride	8.359	117	251949	44.828	ug/l	99
39) Methylcyclohexane	9.600	83	230541	49.612	ug/l	98
40) Benzene	8.600	78	682453	45.016	ug/l	98

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN021825\
Data File : VN085780.D
Acq On : 18 Feb 2025 16:28
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Feb 19 05:09:13 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:43:32 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.771	41	105287	50.597	ug/l		99
42) 1,2-Dichloroethane	8.665	62	223798	45.321	ug/l		100
43) Isopropyl Acetate	8.682	43	317074	46.374	ug/l		99
44) Trichloroethene	9.347	130	161430	43.368	ug/l		99
45) 1,2-Dichloropropane	9.618	63	165383	45.194	ug/l		99
46) Dibromomethane	9.700	93	118394	45.867	ug/l		98
47) Bromodichloromethane	9.882	83	245433	44.443	ug/l		96
48) Methyl methacrylate	9.676	41	149072	51.566	ug/l		99
49) 1,4-Dioxane	9.688	88	55529	1010.103	ug/l		98
51) 4-Methyl-2-Pentanone	10.441	43	954888	254.433	ug/l		100
52) Toluene	10.623	92	429445	48.324	ug/l		100
53) t-1,3-Dichloropropene	10.829	75	249572	48.873	ug/l		100
54) cis-1,3-Dichloropropene	10.306	75	269744	48.172	ug/l		98
55) 1,1,2-Trichloroethane	11.012	97	160020	45.289	ug/l		99
56) Ethyl methacrylate	10.871	69	243449	48.142	ug/l		99
57) 1,3-Dichloropropane	11.159	76	272817	46.254	ug/l		99
58) 2-Chloroethyl Vinyl ether	10.153	63	565673	276.203	ug/l		99
59) 2-Hexanone	11.188	43	687507	266.284	ug/l		100
60) Dibromochloromethane	11.353	129	192169	46.707	ug/l		100
61) 1,2-Dibromoethane	11.465	107	157602	47.208	ug/l		99
64) Tetrachloroethene	11.100	164	148840	42.088	ug/l		98
65) Chlorobenzene	11.888	112	464545	44.422	ug/l		98
66) 1,1,1,2-Tetrachloroethane	11.959	131	163676	43.545	ug/l		100
67) Ethyl Benzene	11.959	91	797025	48.655	ug/l		99
68) m/p-Xylenes	12.065	106	619505	99.562	ug/l		100
69) o-Xylene	12.394	106	294679	49.837	ug/l		100
70) Styrene	12.406	104	498501	45.726	ug/l		99
71) Bromoform	12.576	173	130201	46.617	ug/l	#	97
73) Isopropylbenzene	12.694	105	747608	49.002	ug/l		100
74) N-amyl acetate	12.488	43	265786	49.401	ug/l		99
75) 1,1,2,2-Tetrachloroethane	12.935	83	225776	43.005	ug/l		100
76) 1,2,3-Trichloropropane	12.988	75	227901m	46.070	ug/l		
77) Bromobenzene	12.976	156	185833	45.084	ug/l		98
78) n-propylbenzene	13.029	91	872362	49.927	ug/l		99
79) 2-Chlorotoluene	13.123	91	541105	46.350	ug/l		100
80) 1,3,5-Trimethylbenzene	13.170	105	622090	50.055	ug/l		100
81) trans-1,4-Dichloro-2-b...	12.729	75	79943	47.152	ug/l		94
82) 4-Chlorotoluene	13.217	91	548585	47.401	ug/l		99
83) tert-Butylbenzene	13.435	119	521552	49.904	ug/l		98
84) 1,2,4-Trimethylbenzene	13.476	105	633621	51.531	ug/l		99
85) sec-Butylbenzene	13.612	105	737200	49.925	ug/l		100
86) p-Isopropyltoluene	13.723	119	617918	46.012	ug/l		99
87) 1,3-Dichlorobenzene	13.729	146	341228	44.186	ug/l		99
88) 1,4-Dichlorobenzene	13.806	146	338619	42.781	ug/l		100
89) n-Butylbenzene	14.053	91	513863	49.015	ug/l		98
90) Hexachloroethane	14.329	117	119768	42.828	ug/l		98
91) 1,2-Dichlorobenzene	14.100	146	325885	43.883	ug/l		100
92) 1,2-Dibromo-3-Chloropr...	14.717	75	41836	43.396	ug/l		98
93) 1,2,4-Trichlorobenzene	15.388	180	161503	45.640	ug/l		99
94) Hexachlorobutadiene	15.494	225	84060	39.087	ug/l		99
95) Naphthalene	15.635	128	487372	50.167	ug/l		99
96) 1,2,3-Trichlorobenzene	15.835	180	158416	44.593	ug/l		99

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN021825\
Data File : VN085780.D
Acq On : 18 Feb 2025 16:28
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 13 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

Quant Time: Feb 19 05:09:13 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:43:32 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

ICAL Form

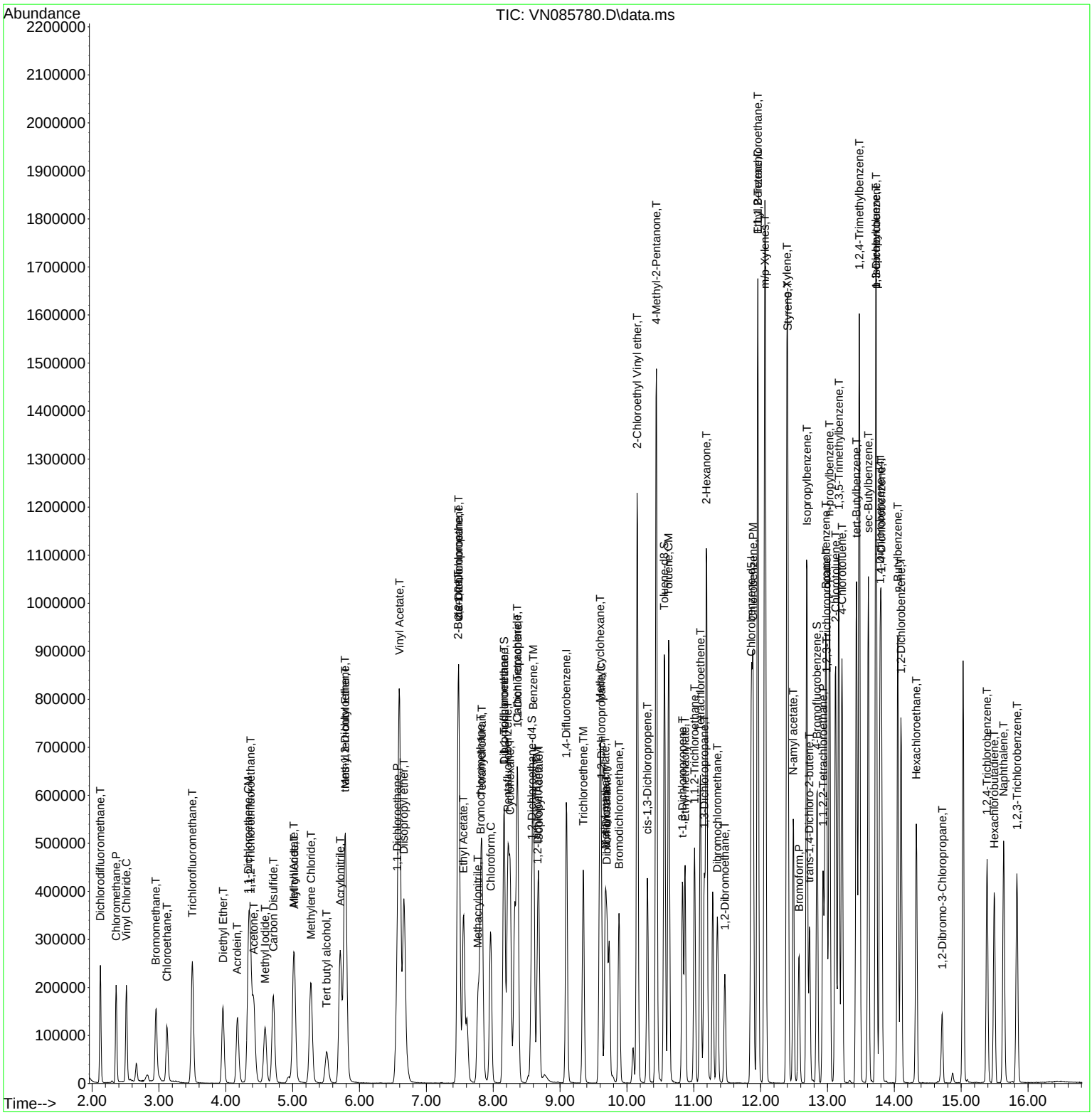
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN021825\
Data File : VN085780.D
Acq On : 18 Feb 2025 16:28
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 13 Sample Multiplier: 1

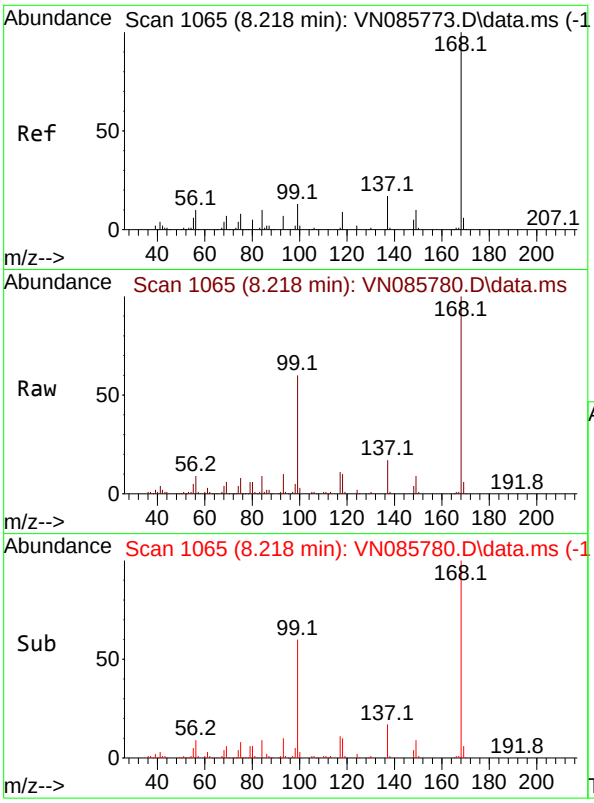
Quant Time: Feb 19 05:09:13 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:43:32 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

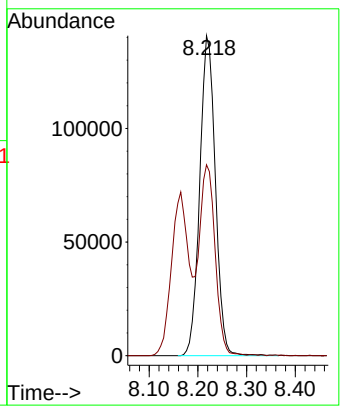




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.218 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion:168 Resp: 31401

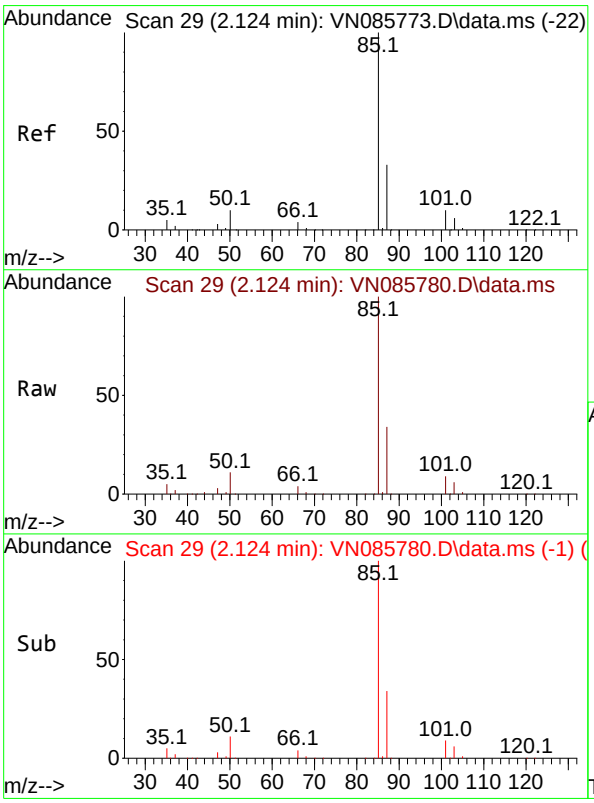
Ion	Ratio	Lower	Upper
168	100		
99	59.5	47.9	71.9



Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

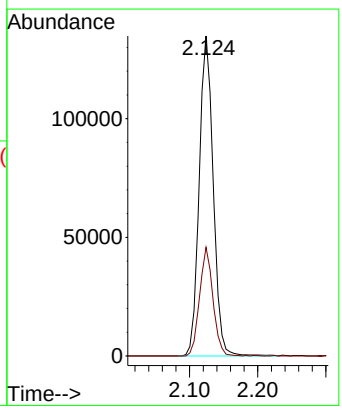
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

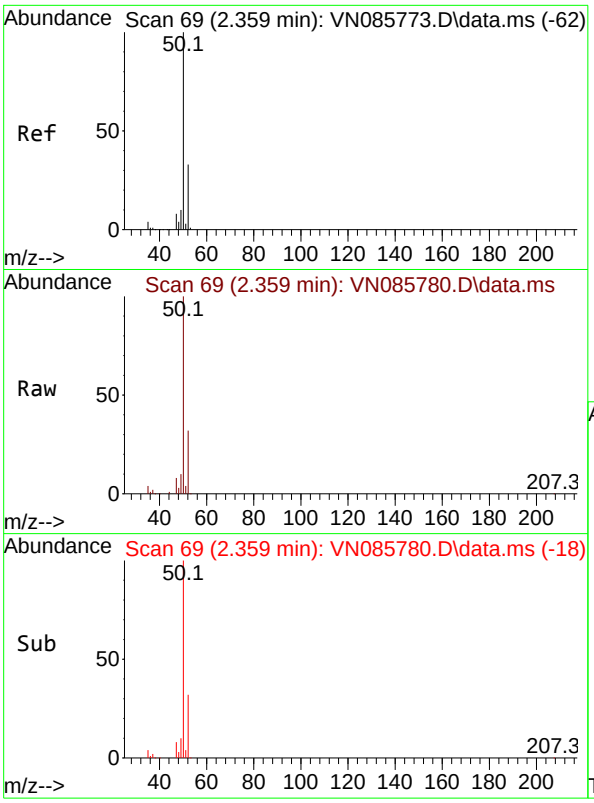


#2
Dichlorodifluoromethane
Concen: 45.199 ug/l
RT: 2.124 min Scan# 29
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 85 Resp: 193054

Ion	Ratio	Lower	Upper
85	100		
87	34.0	16.4	49.2

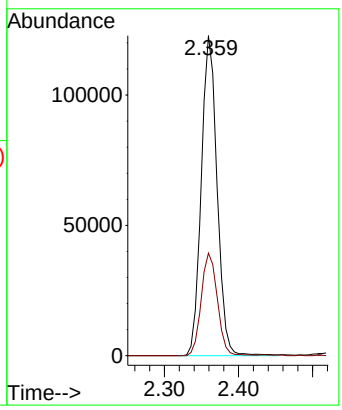




#3
Chloromethane
Concen: 42.438 ug/l
RT: 2.359 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 50 Resp: 18188

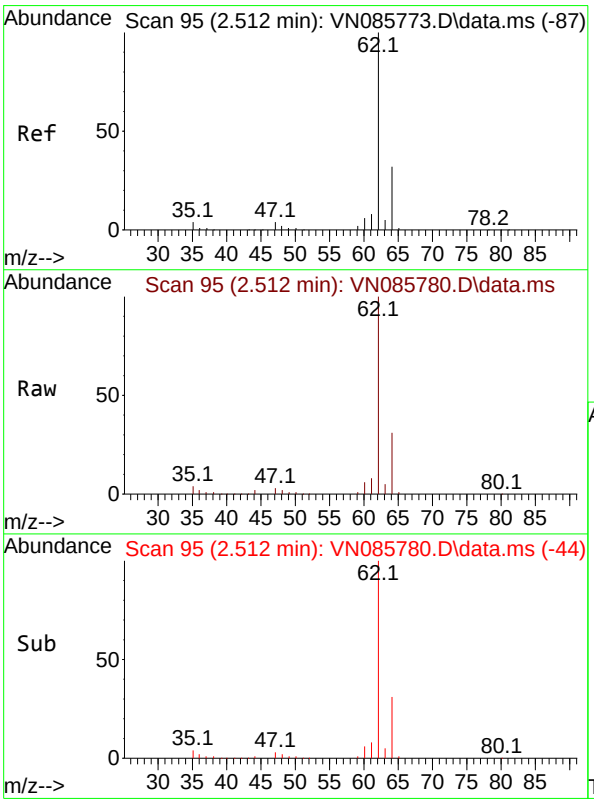
Ion	Ratio	Lower	Upper
50	100		
52	32.0	26.7	40.1



Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

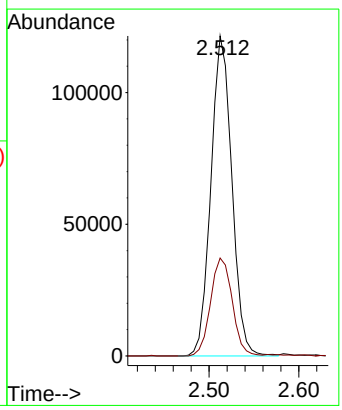
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

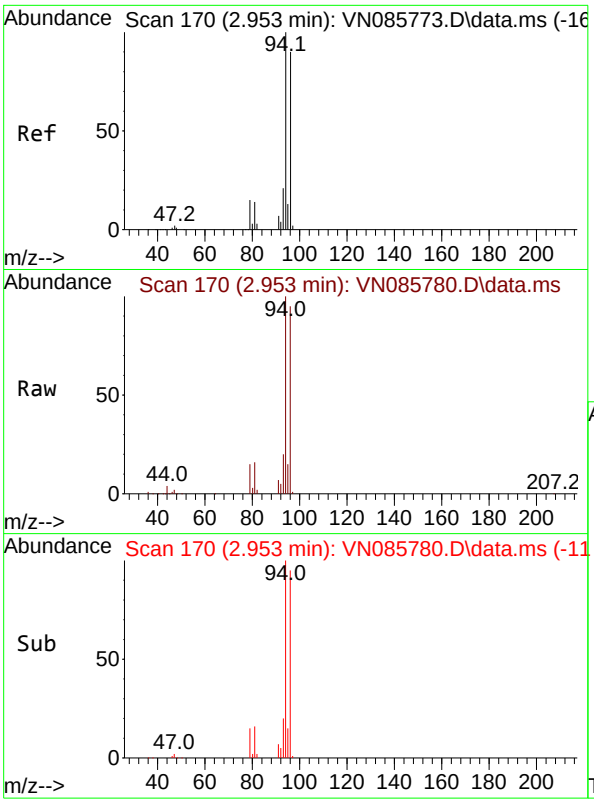


#4
Vinyl Chloride
Concen: 43.449 ug/l
RT: 2.512 min Scan# 95
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 62 Resp: 197171

Ion	Ratio	Lower	Upper
62	100		
64	30.6	25.9	38.9





#5
Bromomethane
Concen: 41.282 ug/l
RT: 2.953 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

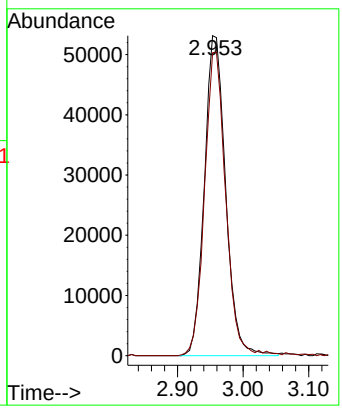
Tgt Ion: 94 Resp: 11978

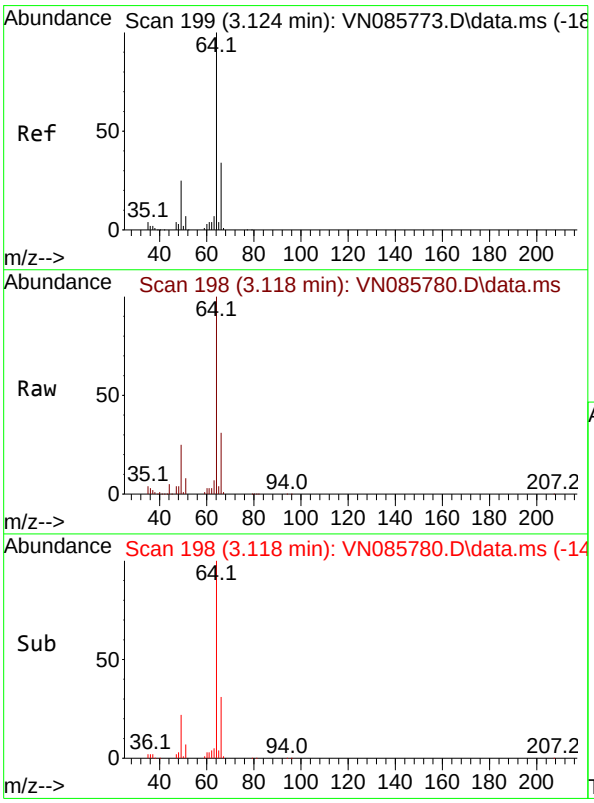
Ion	Ratio	Lower	Upper
94	100		
96	94.6	71.7	107.5

Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

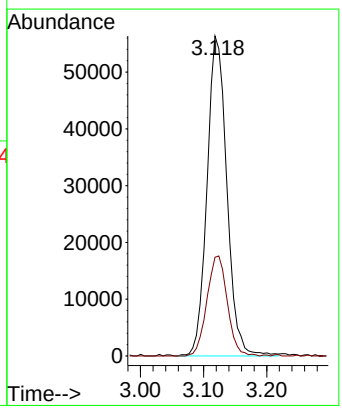


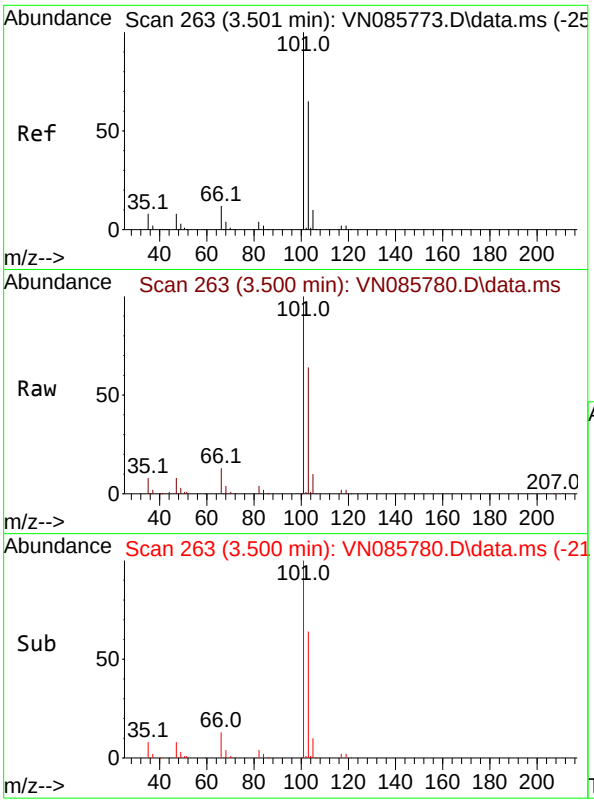


#6
Chloroethane
Concen: 40.887 ug/l
RT: 3.118 min Scan# 198
Delta R.T. -0.006 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 64 Resp: 122900

Ion	Ratio	Lower	Upper
64	100		
66	30.8	27.0	40.6

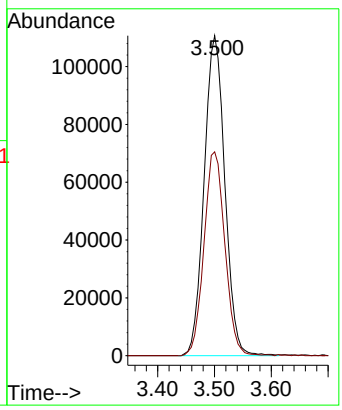




#7
Trichlorofluoromethane
Concen: 42.592 ug/l
RT: 3.500 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion:101 Resp: 27984

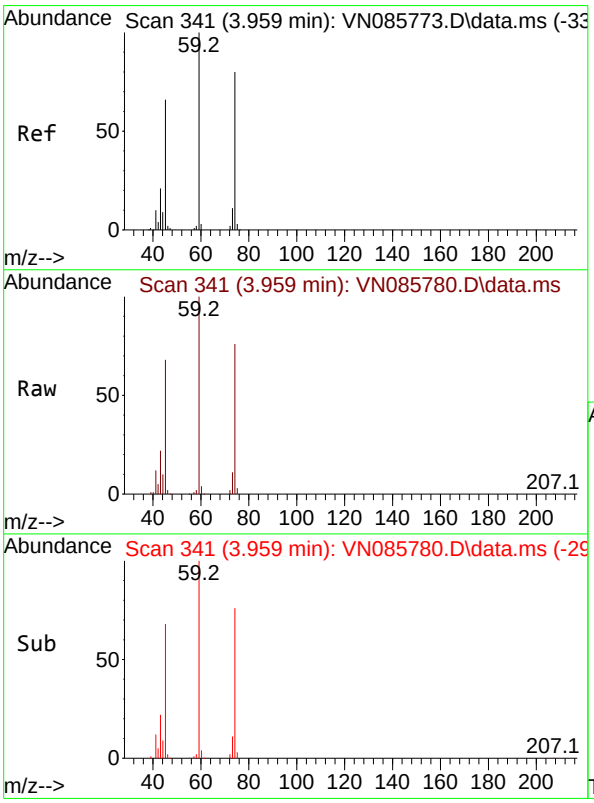
Ion	Ratio	Lower	Upper
101	100		
103	63.7	52.2	78.4



Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

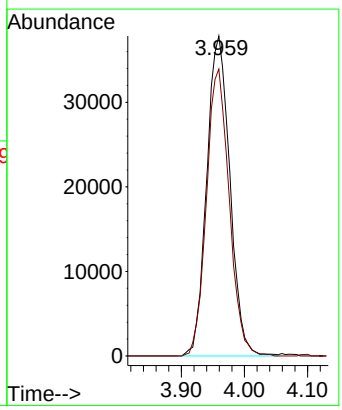
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

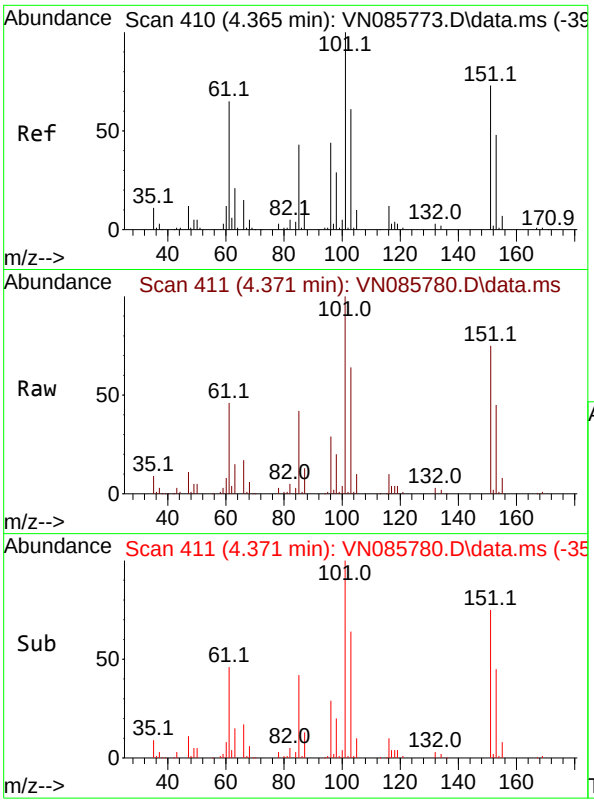


#8
Diethyl Ether
Concen: 45.353 ug/l
RT: 3.959 min Scan# 341
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 74 Resp: 96415

Ion	Ratio	Lower	Upper
74	100		
45	88.2	42.5	127.6





#9
1,1,2-Trichlorotrifluoroethane
Concen: 43.582 ug/l
RT: 4.371 min Scan# 4
Delta R.T. 0.006 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

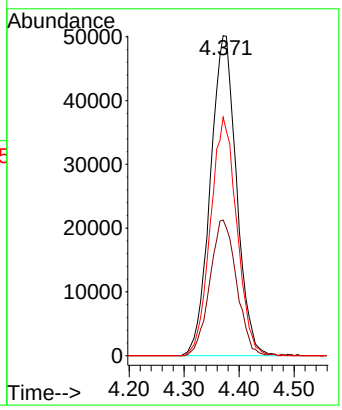
Tgt Ion:101 Resp: 16552

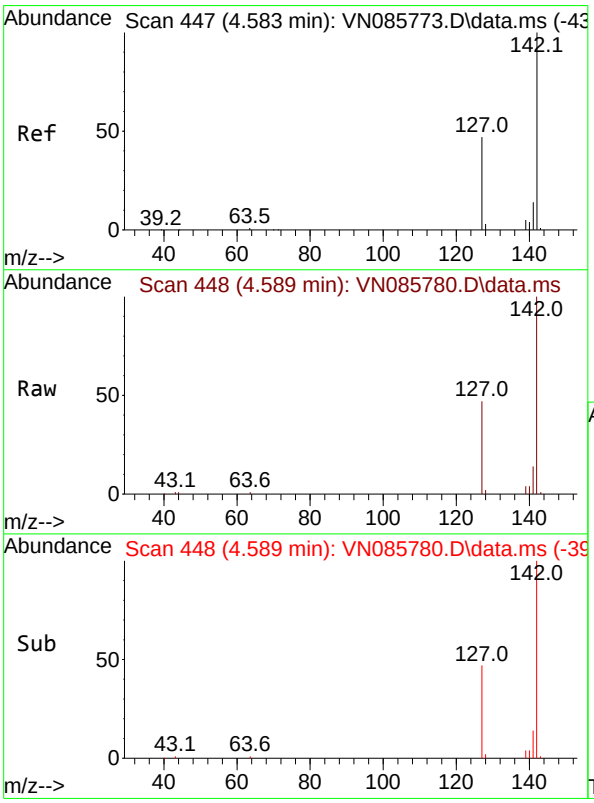
Ion	Ratio	Lower	Upper
101	100		
85	43.4	35.7	53.5
151	75.0	61.4	92.2

Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

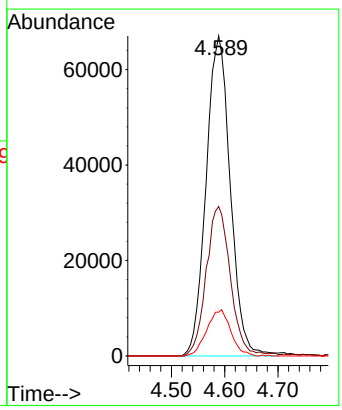


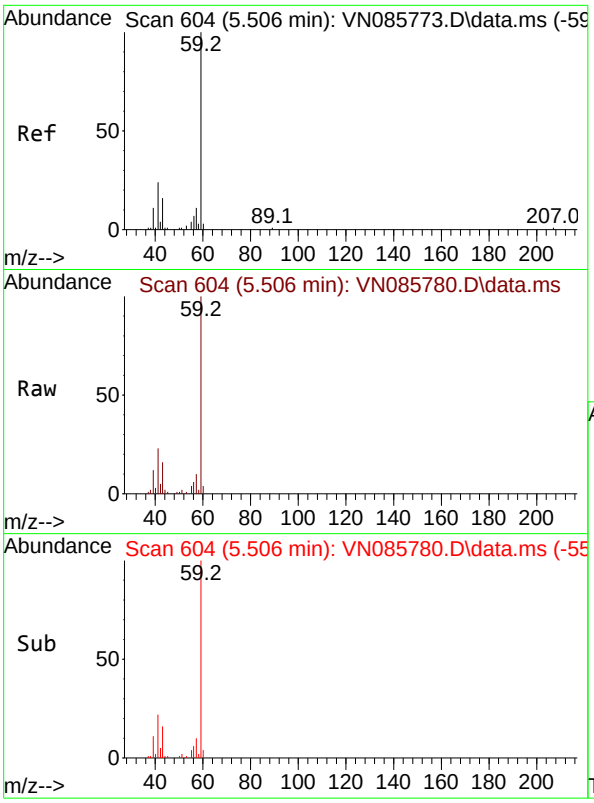


#10
Methyl Iodide
Concen: 45.190 ug/l
RT: 4.589 min Scan# 448
Delta R.T. 0.006 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion:142 Resp: 211559

Ion	Ratio	Lower	Upper
142	100		
127	46.7	37.6	56.4
141	13.7	11.4	17.2

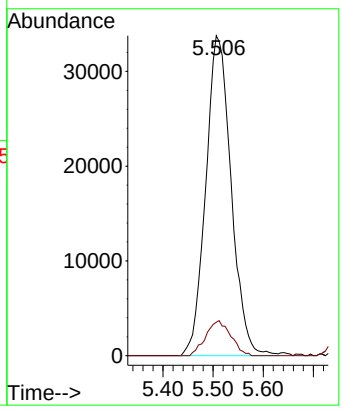




#11
Tert butyl alcohol
Concen: 237.350 ug/l
RT: 5.506 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 59 Resp: 11884

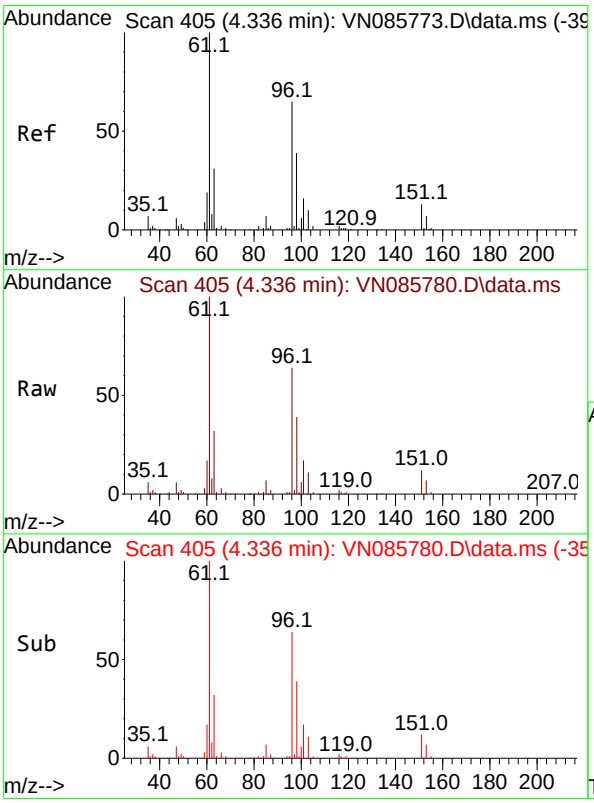
Ion	Ratio	Lower	Upper
59	100		
57	10.7	8.3	12.5



Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

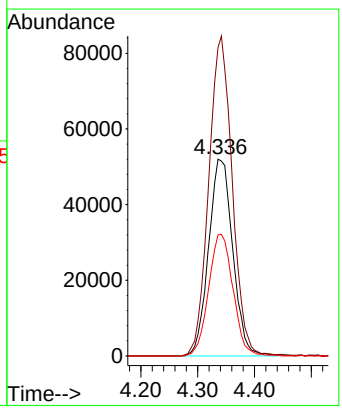
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

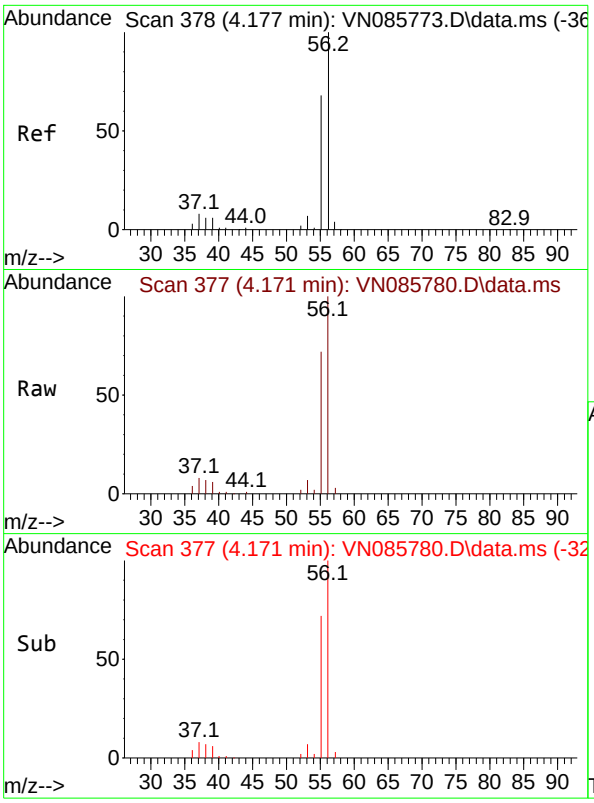


#12
1,1-Dichloroethene
Concen: 44.667 ug/l
RT: 4.336 min Scan# 405
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 96 Resp: 153815

Ion	Ratio	Lower	Upper
96	100		
61	156.7	123.3	184.9
98	61.6	48.6	72.8





#13
Acrolein
Concen: 241.140 ug/l
RT: 4.171 min Scan# 3
Delta R.T. -0.006 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

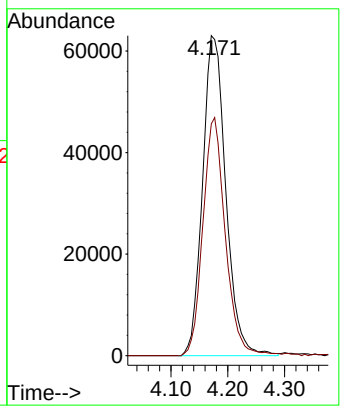
Tgt Ion: 56 Resp: 17905

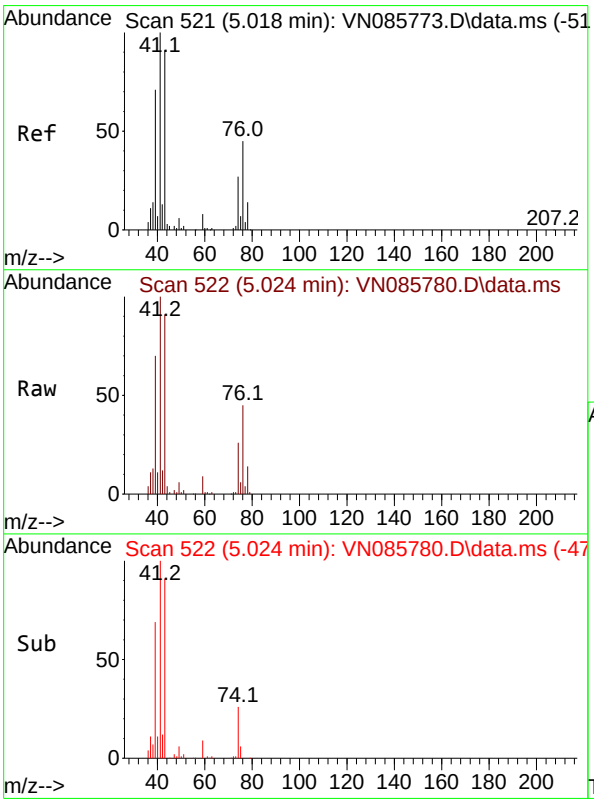
Ion	Ratio	Lower	Upper
56	100		
55	71.6	55.3	82.9

Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

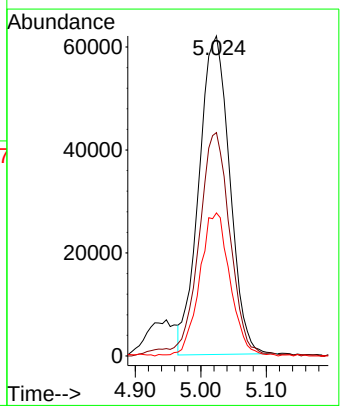


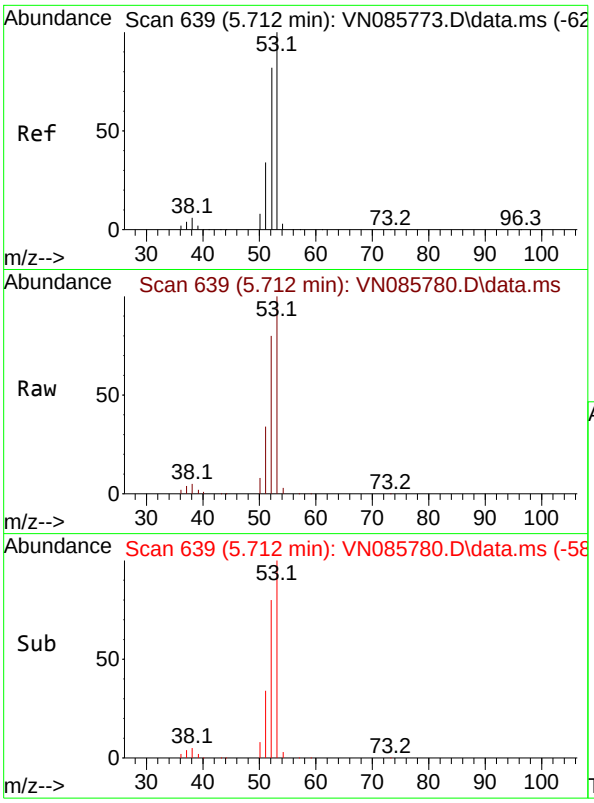


#14
Allyl chloride
Concen: 44.555 ug/l
RT: 5.024 min Scan# 522
Delta R.T. 0.006 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 41 Resp: 201442

Ion	Ratio	Lower	Upper
41	100		
39	72.4	57.4	86.2
76	44.6	36.2	54.2

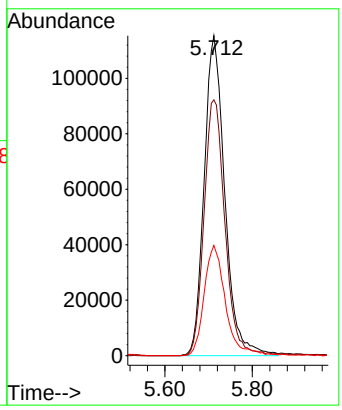




#15
Acrylonitrile
Concen: 232.720 ug/l
RT: 5.712 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 53 Resp: 37881

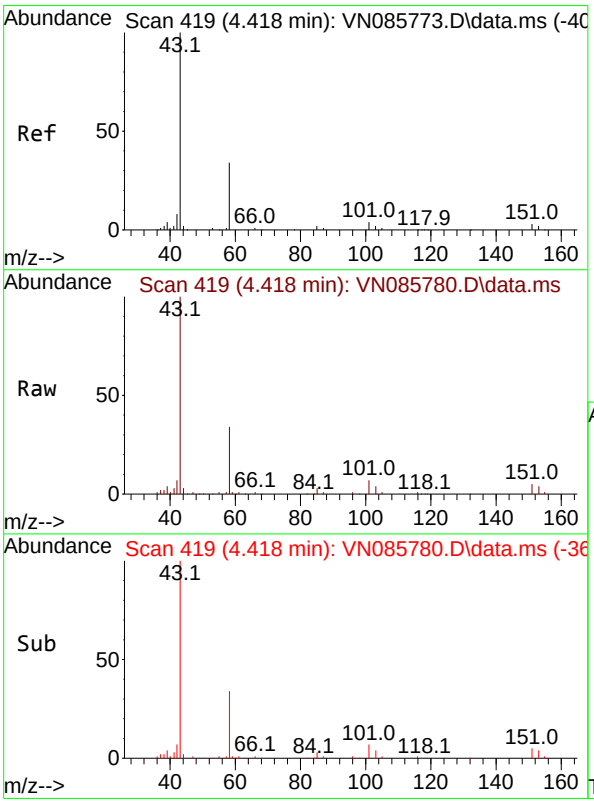
Ion	Ratio	Lower	Upper
53	100		
52	81.0	65.8	98.6
51	35.6	28.6	42.8



Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

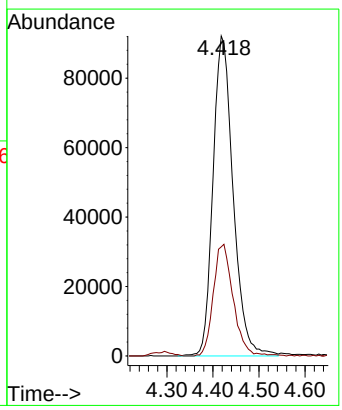
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

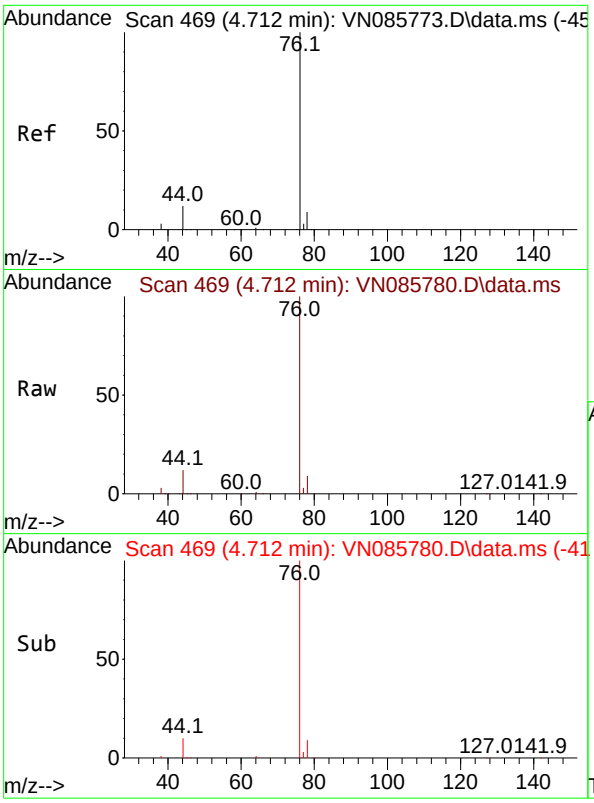


#16
Acetone
Concen: 217.115 ug/l
RT: 4.418 min Scan# 419
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 43 Resp: 279680

Ion	Ratio	Lower	Upper
43	100		
58	33.8	27.5	41.3





#17
Carbon Disulfide
Concen: 41.449 ug/l
RT: 4.712 min Scan# 4
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

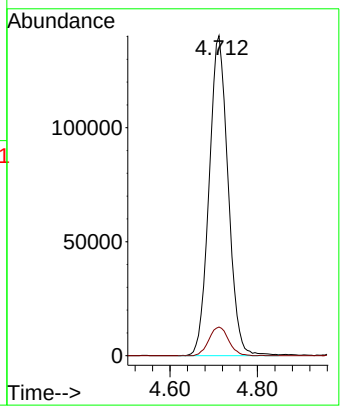
Tgt Ion: 76 Resp: 42301

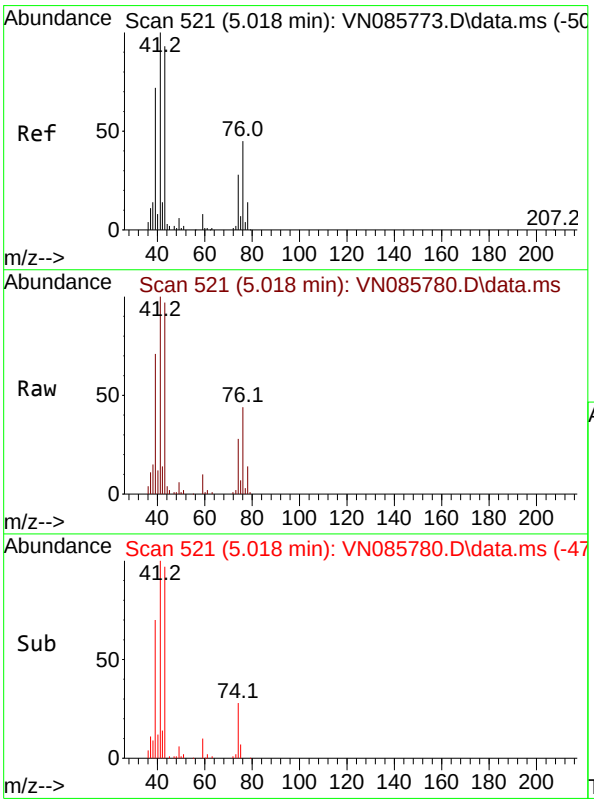
Ion	Ratio	Lower	Upper
76	100		
78	9.0	7.4	11.0

Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

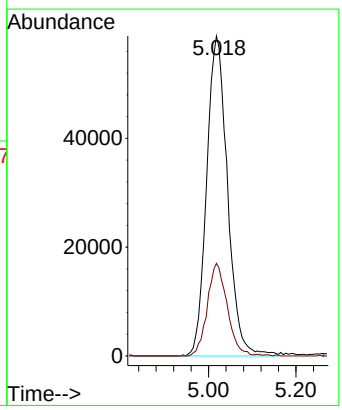


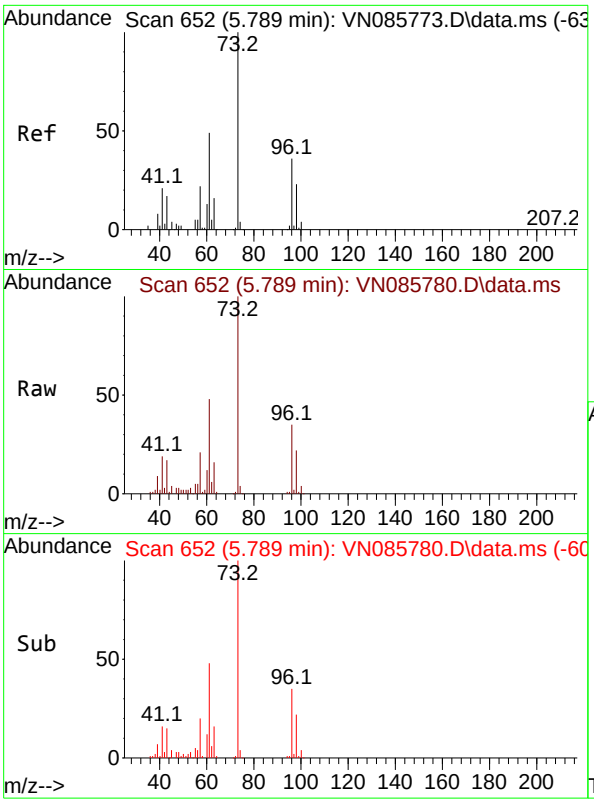


#18
Methyl Acetate
Concen: 44.011 ug/l
RT: 5.018 min Scan# 521
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 43 Resp: 194998

Ion	Ratio	Lower	Upper
43	100		
74	27.5	22.2	33.4

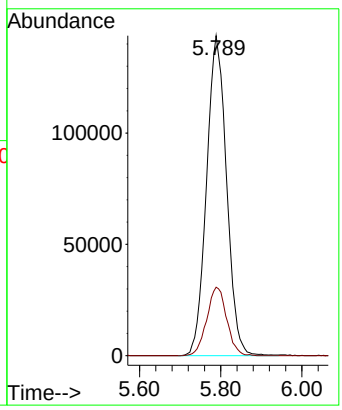




#19
Methyl tert-butyl Ether
Concen: 48.014 ug/l
RT: 5.789 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 73 Resp: 49132

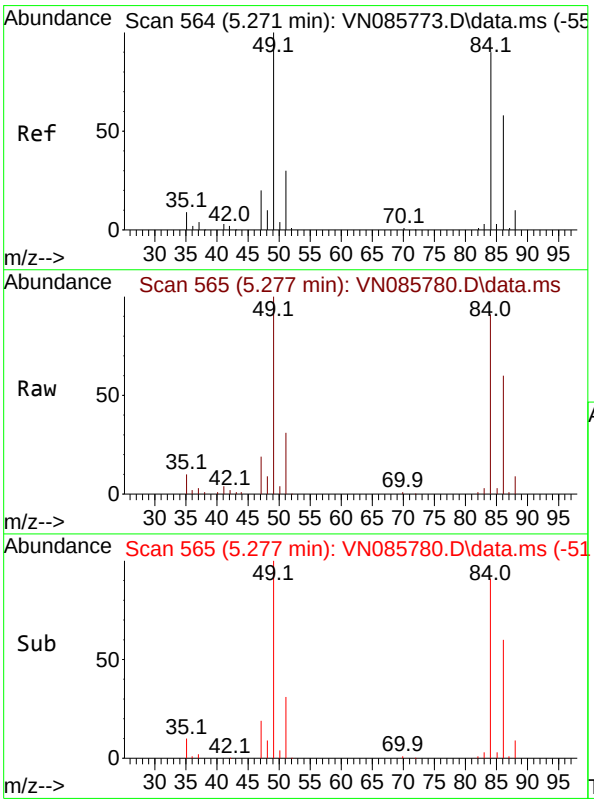
Ion	Ratio	Lower	Upper
73	100		
57	21.4	17.6	26.4



Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

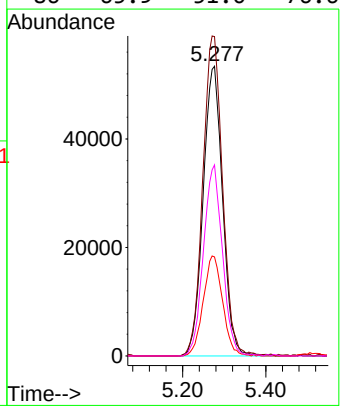
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

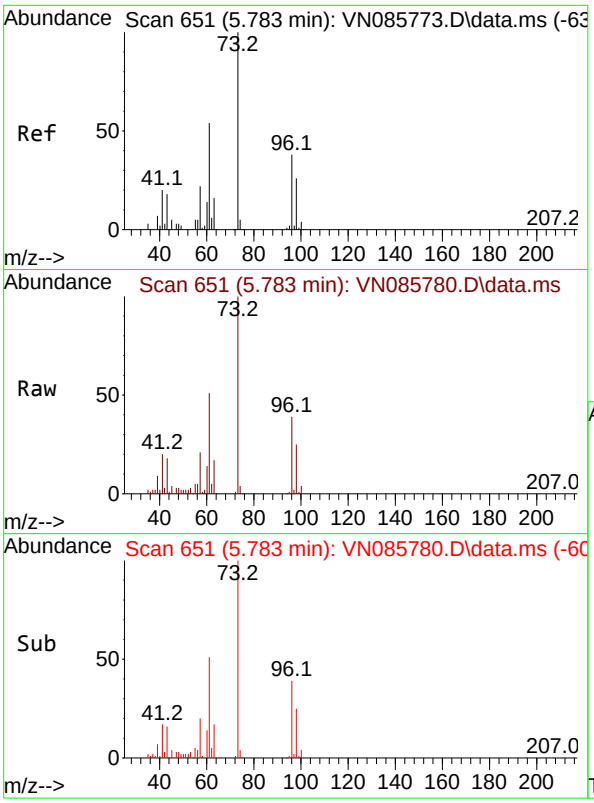


#20
Methylene Chloride
Concen: 41.955 ug/l
RT: 5.277 min Scan# 565
Delta R.T. 0.006 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 84 Resp: 173805

Ion	Ratio	Lower	Upper
84	100		
49	110.2	88.4	132.6
51	34.2	26.6	40.0
86	65.9	51.0	76.6

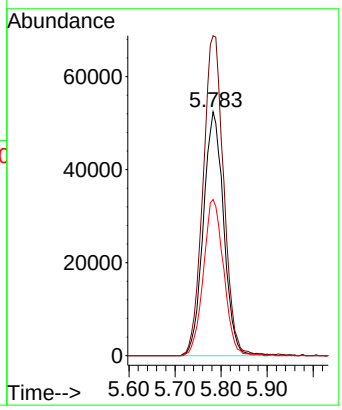




#21
trans-1,2-Dichloroethene
Concen: 43.475 ug/l
RT: 5.783 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 96 Resp: 16120

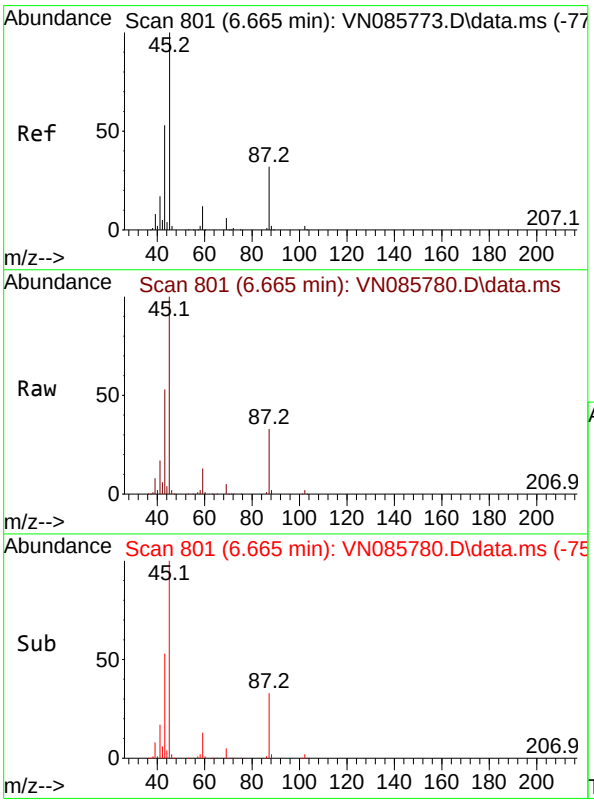
Ion	Ratio	Lower	Upper
96	100		
61	131.3	112.6	168.8
98	64.1	53.3	79.9



Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

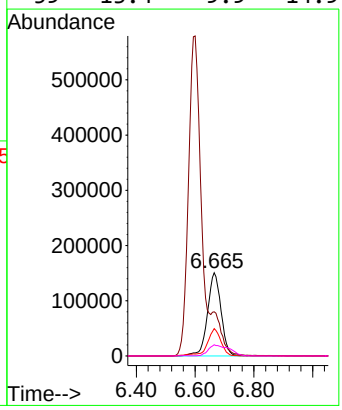
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

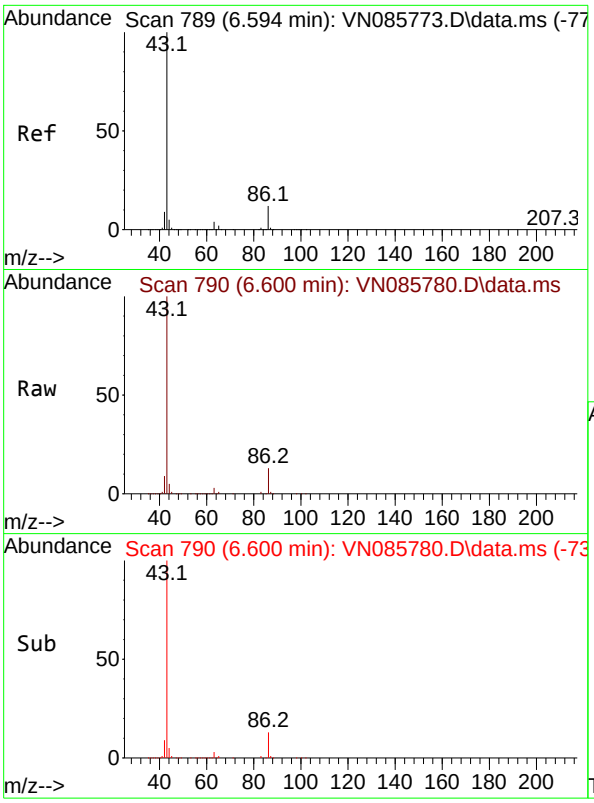


#22
Diisopropyl ether
Concen: 47.344 ug/l
RT: 6.665 min Scan# 801
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 45 Resp: 483670

Ion	Ratio	Lower	Upper
45	100		
43	52.7	42.6	64.0
87	32.9	25.8	38.8
59	13.4	9.9	14.9





#23
Vinyl Acetate
Concen: 242.867 ug/l
RT: 6.600 min Scan# 7
Delta R.T. 0.006 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

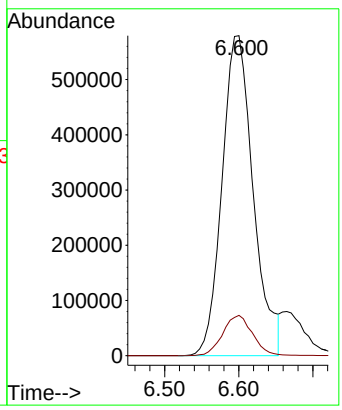
Tgt Ion: 43 Resp: 169885

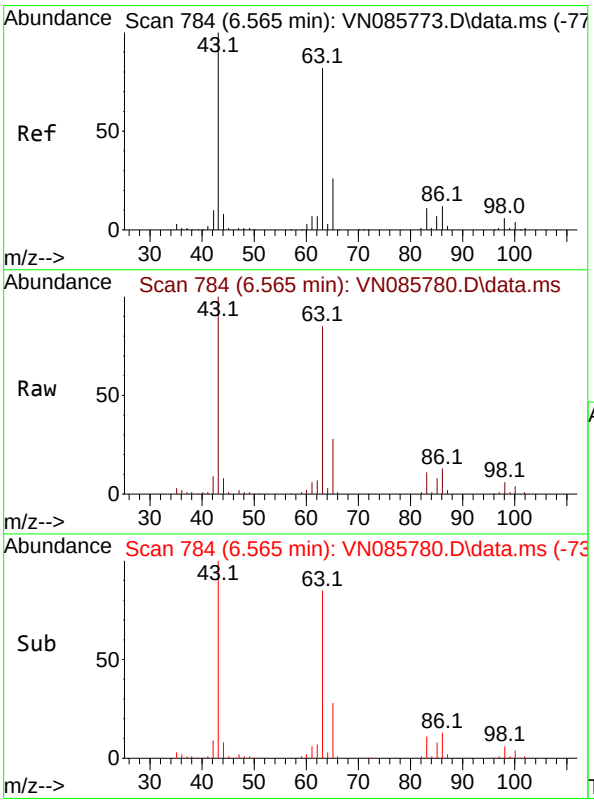
Ion	Ratio	Lower	Upper
43	100		
86	12.6	9.8	14.8

Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

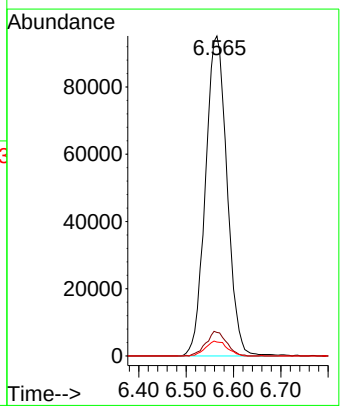


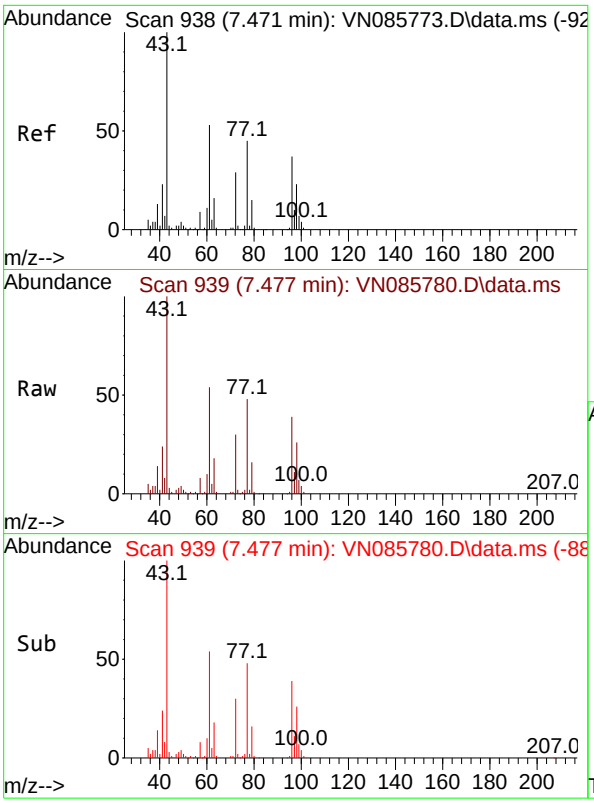


#24
1,1-Dichloroethane
Concen: 43.396 ug/l
RT: 6.565 min Scan# 784
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 63 Resp: 301375

Ion	Ratio	Lower	Upper
63	100		
98	7.3	3.5	10.4
100	4.4	2.4	7.2





#25
2-Butanone
Concen: 240.836 ug/l
RT: 7.477 min Scan# 9
Delta R.T. 0.006 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

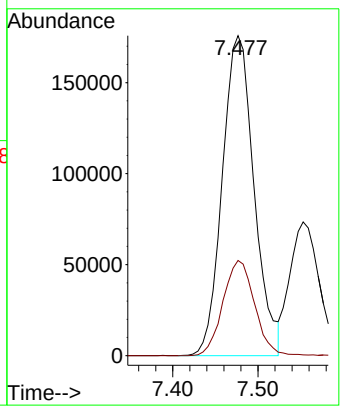
Tgt Ion: 43 Resp: 45641

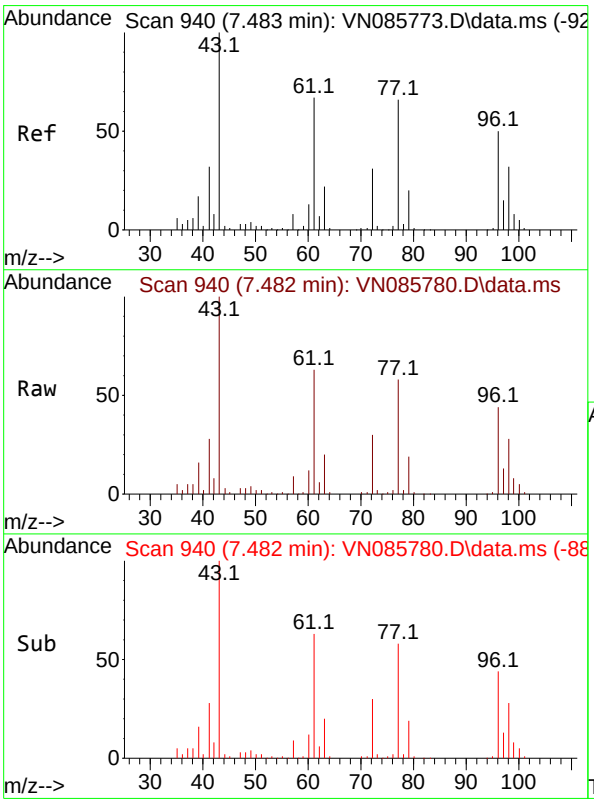
Ion	Ratio	Lower	Upper
43	100		
72	29.8	23.6	35.4

Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

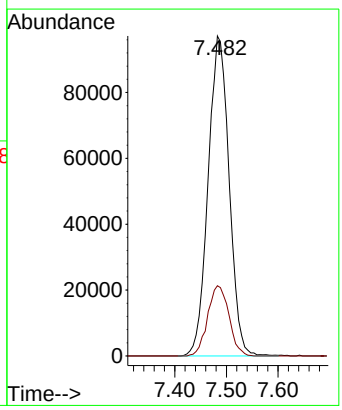


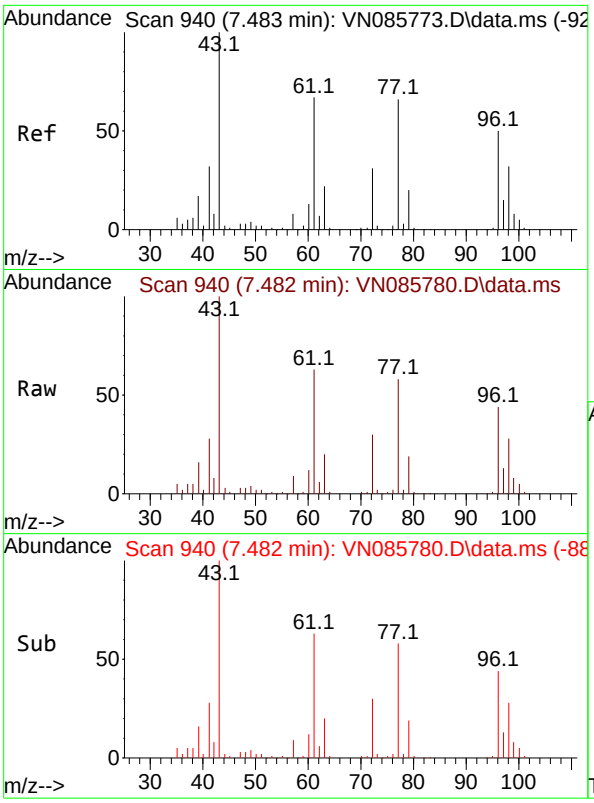


#26
2,2-Dichloropropane
Concen: 44.383 ug/l
RT: 7.482 min Scan# 940
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 77 Resp: 274082

Ion	Ratio	Lower	Upper
77	100		
97	22.2	11.3	33.8

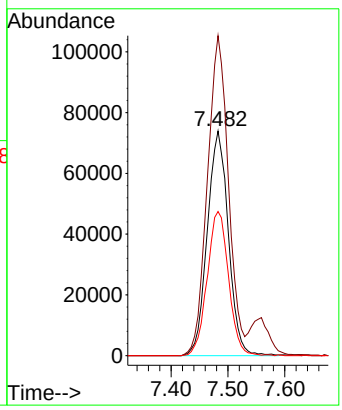




#27
cis-1,2-Dichloroethene
Concen: 44.284 ug/l
RT: 7.482 min Scan# 94
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 96 Resp: 19039

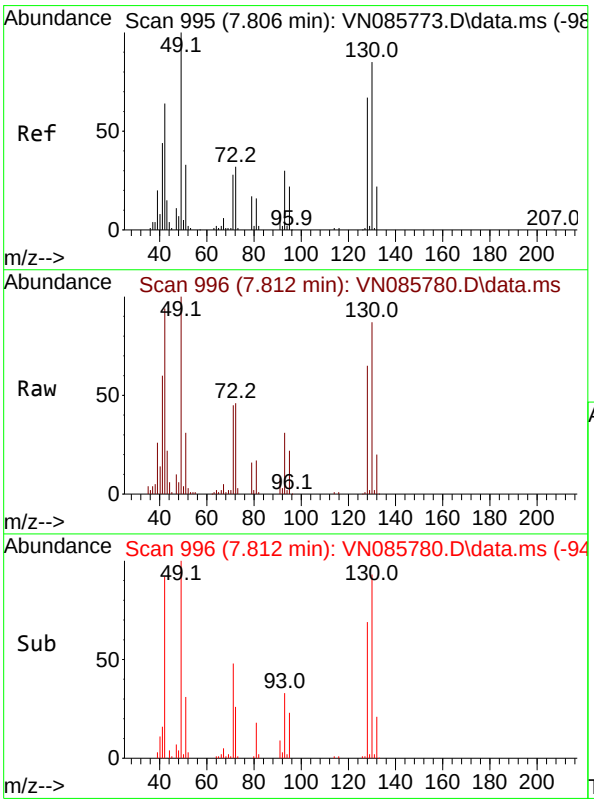
Ion	Ratio	Lower	Upper
96	100		
61	142.1	0.0	280.6
98	65.2	0.0	128.6



Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

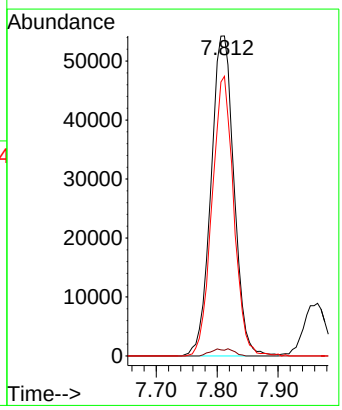
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

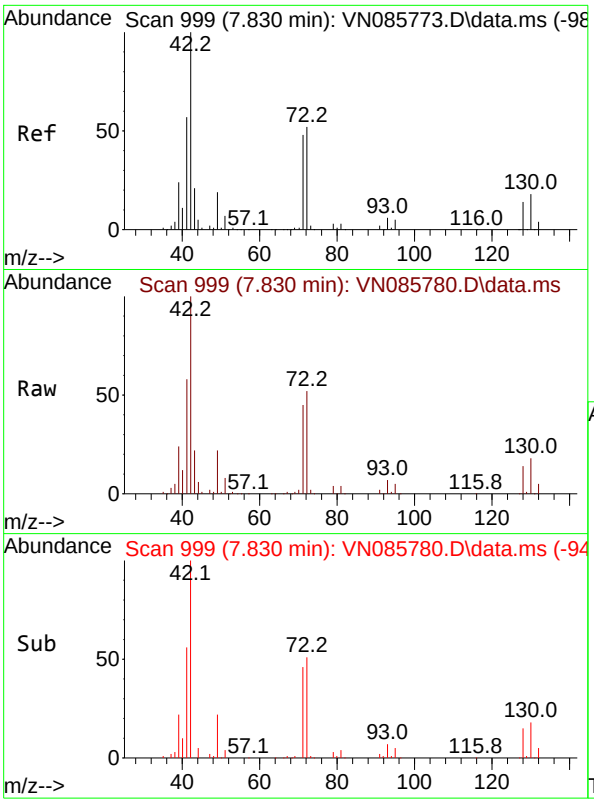


#28
Bromochloromethane
Concen: 49.991 ug/l
RT: 7.812 min Scan# 996
Delta R.T. 0.006 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 49 Resp: 142695

Ion	Ratio	Lower	Upper
49	100		
129	2.2	0.0	3.8
130	82.4	68.0	102.0

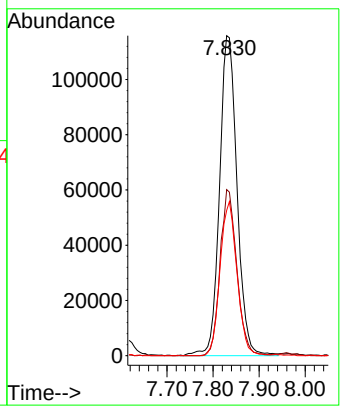




#29
Tetrahydrofuran
Concen: 248.913 ug/l
RT: 7.830 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 42 Resp: 30461

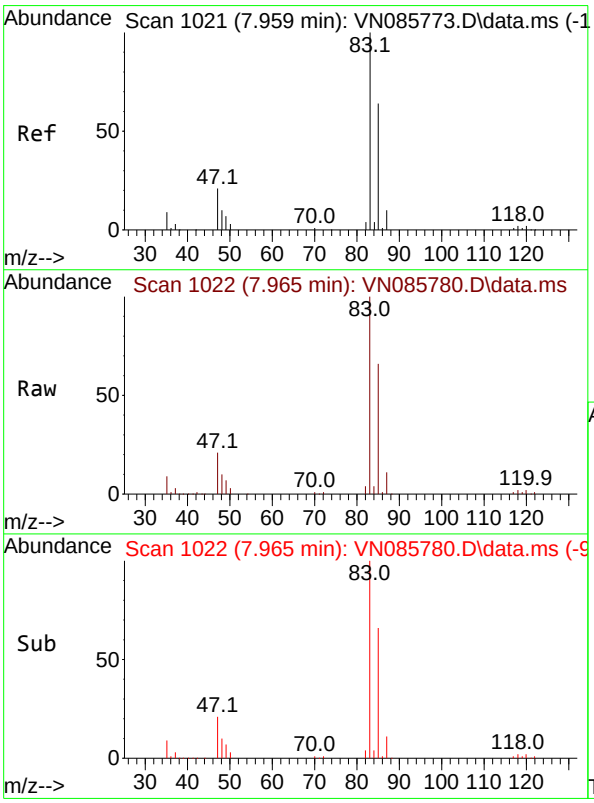
Ion	Ratio	Lower	Upper
42	100		
72	49.7	40.0	60.0
71	46.6	37.0	55.4



Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

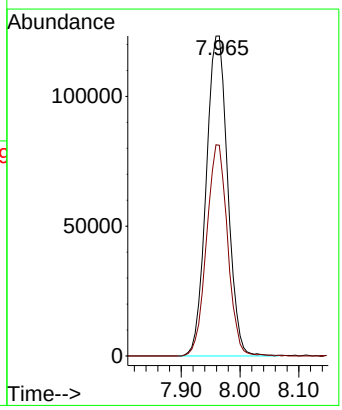
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

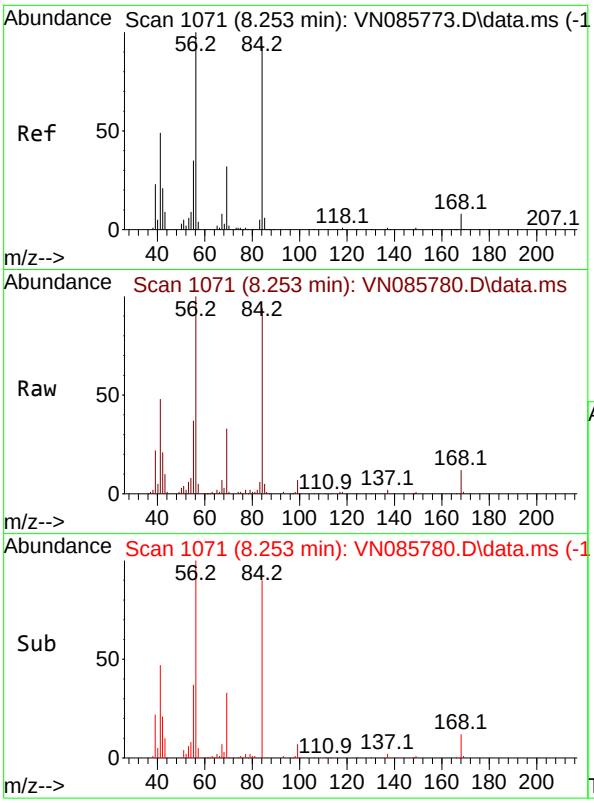


#30
Chloroform
Concen: 43.065 ug/l
RT: 7.965 min Scan# 1022
Delta R.T. 0.006 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 83 Resp: 312547

Ion	Ratio	Lower	Upper
83	100		
85	65.9	50.9	76.3

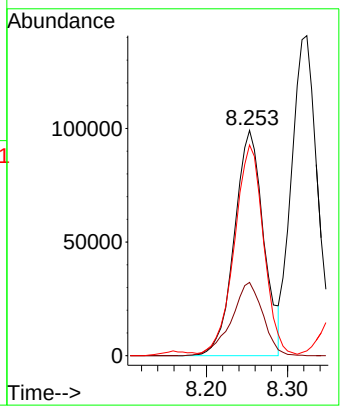




#31
Cyclohexane
Concen: 42.725 ug/l
RT: 8.253 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 56 Resp: 24843

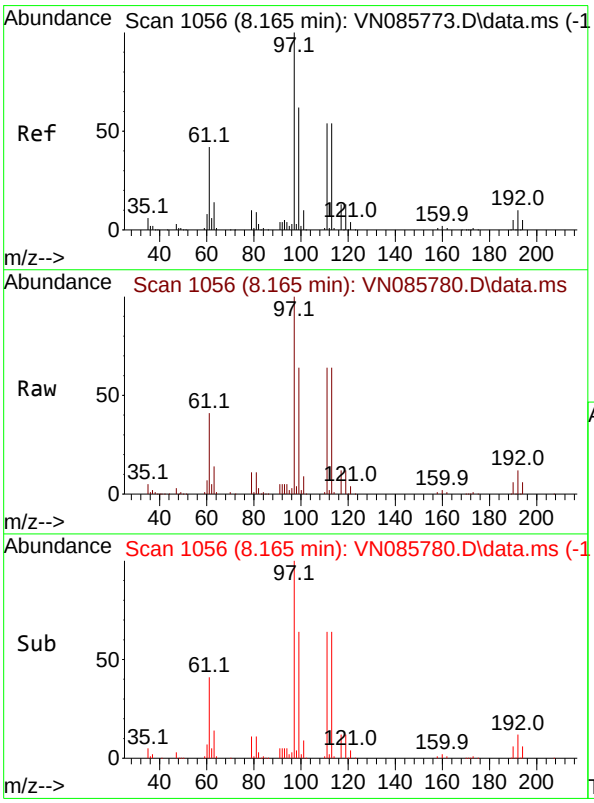
Ion	Ratio	Lower	Upper
56	100		
69	32.5	25.8	38.6
84	91.8	74.5	111.7



Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

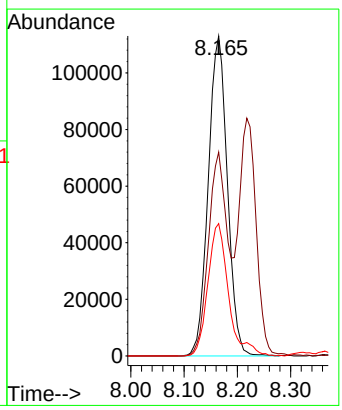
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

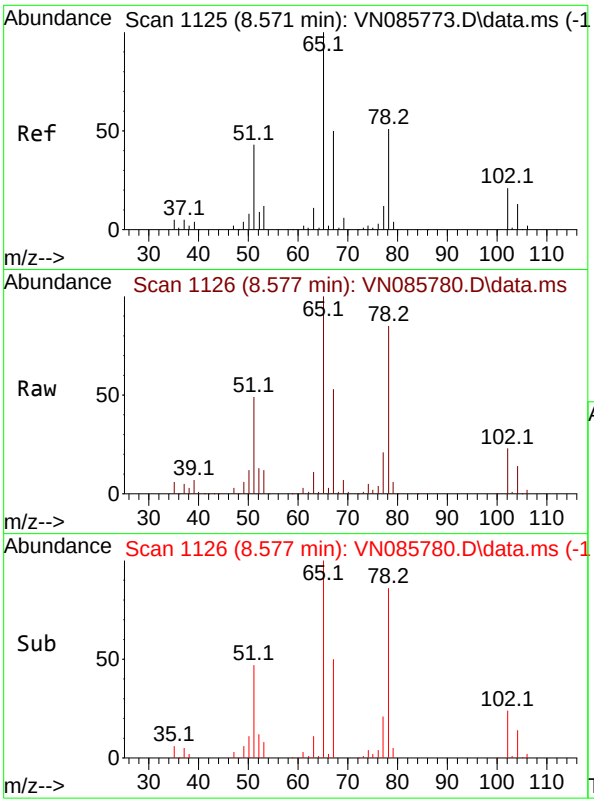


#32
1,1,1-Trichloroethane
Concen: 43.640 ug/l
RT: 8.165 min Scan# 1056
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 97 Resp: 281708

Ion	Ratio	Lower	Upper
97	100		
99	61.8	50.4	75.6
61	44.7	35.5	53.3

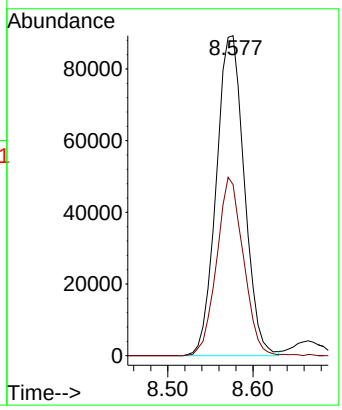




#33
1,2-Dichloroethane-d4
Concen: 50.125 ug/l
RT: 8.577 min Scan# 11
Delta R.T. 0.006 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 65 Resp: 20406

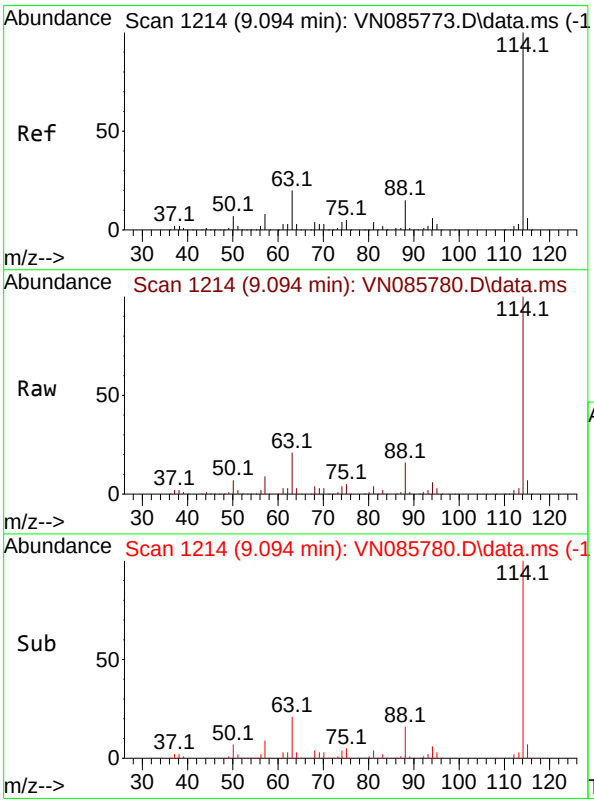
Ion	Ratio	Lower	Upper
65	100		
67	53.4	0.0	106.2



Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

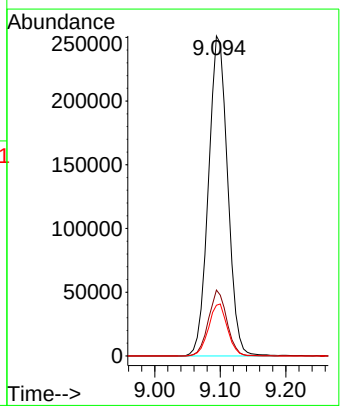
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

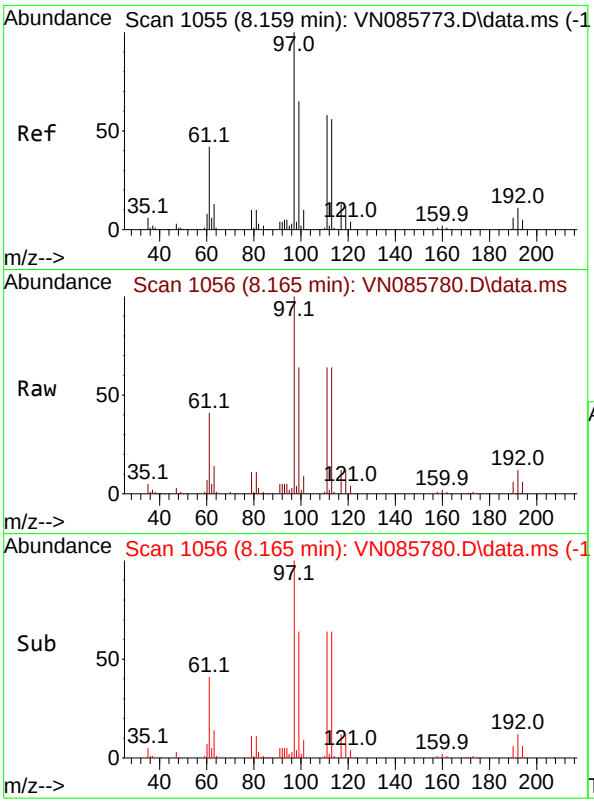


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.094 min Scan# 1214
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion:114 Resp: 510764

Ion	Ratio	Lower	Upper
114	100		
63	20.6	0.0	39.2
88	15.9	0.0	30.0

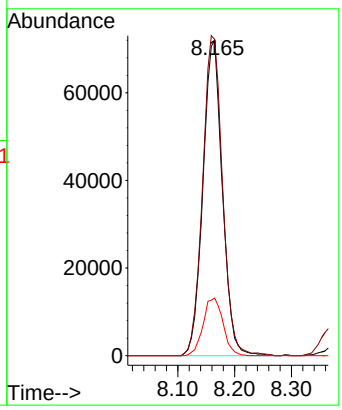




#35
Dibromofluoromethane
Concen: 50.972 ug/l
RT: 8.165 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion:113 Resp: 17035

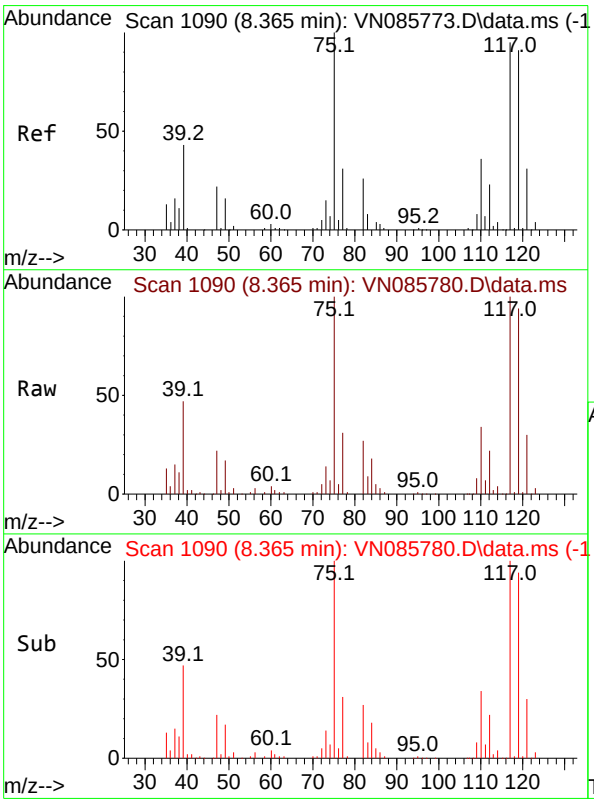
Ion	Ratio	Lower	Upper
113	100		
111	104.1	82.2	123.4
192	18.8	14.7	22.1



Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

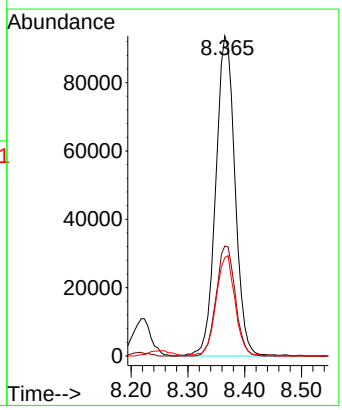
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

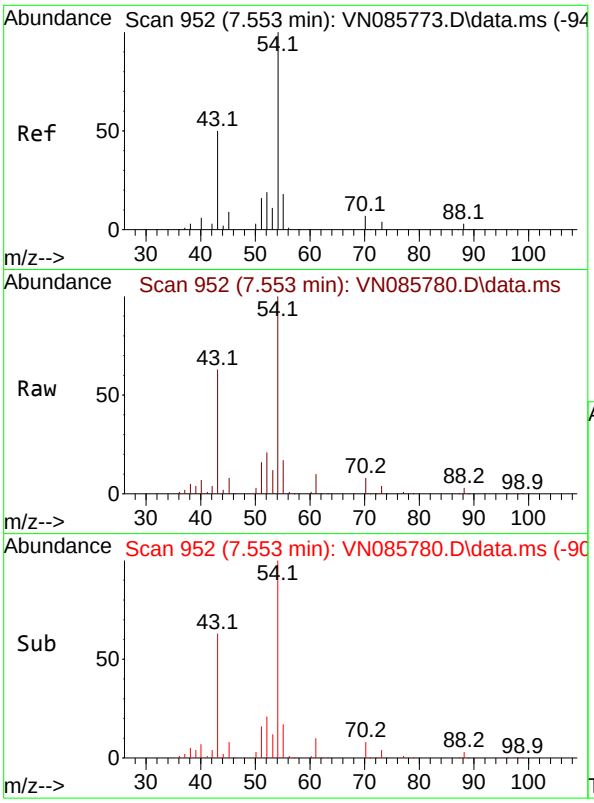


#36
1,1-Dichloropropene
Concen: 46.581 ug/l
RT: 8.365 min Scan# 1090
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 75 Resp: 220335

Ion	Ratio	Lower	Upper
75	100		
110	34.2	17.3	52.0
77	31.1	24.6	37.0

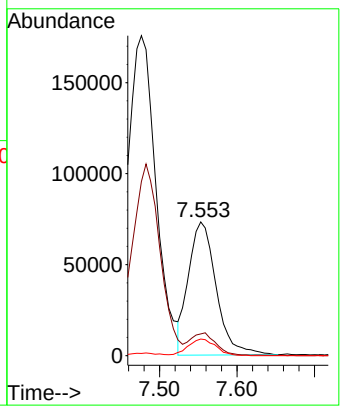




#37
Ethyl Acetate
Concen: 46.779 ug/l
RT: 7.553 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 43 Resp: 18209

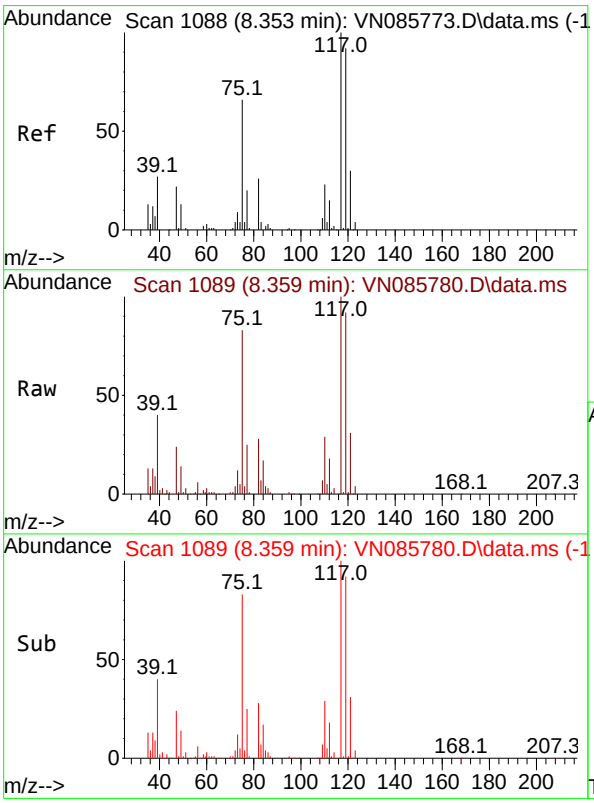
Ion	Ratio	Lower	Upper
43	100		
61	15.5	12.2	18.2
70	12.5	9.5	14.3



Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

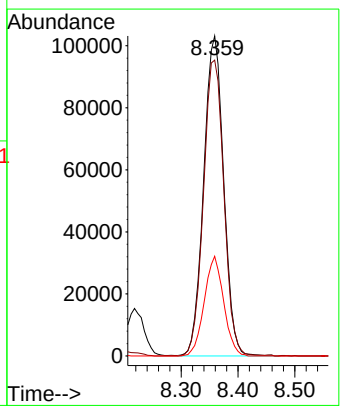
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

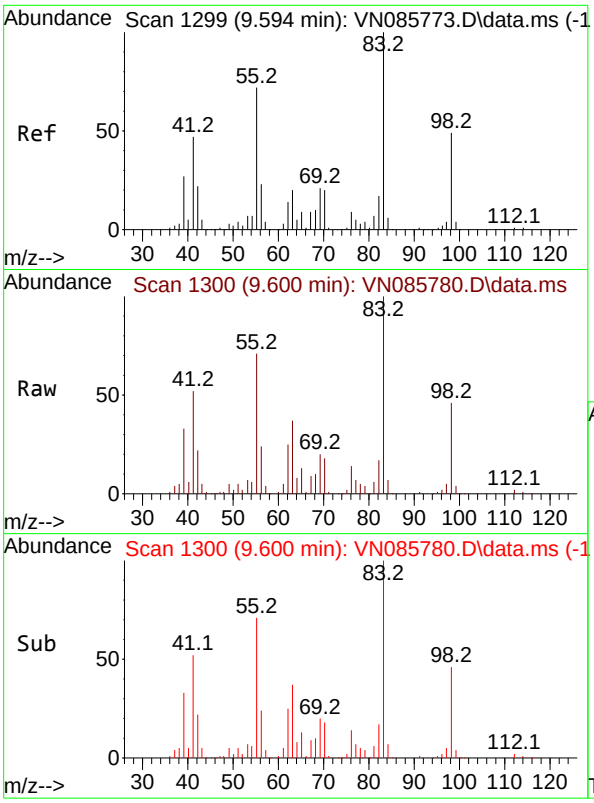


#38
Carbon Tetrachloride
Concen: 44.828 ug/l
RT: 8.359 min Scan# 1089
Delta R.T. 0.006 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion:117 Resp: 251949

Ion	Ratio	Lower	Upper
117	100		
119	92.5	73.8	110.6
121	31.1	24.3	36.5

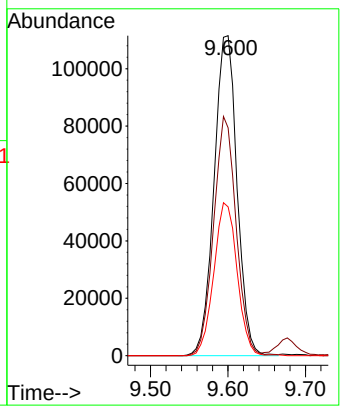




#39
Methylcyclohexane
Concen: 49.612 ug/l
RT: 9.600 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 83 Resp: 23054

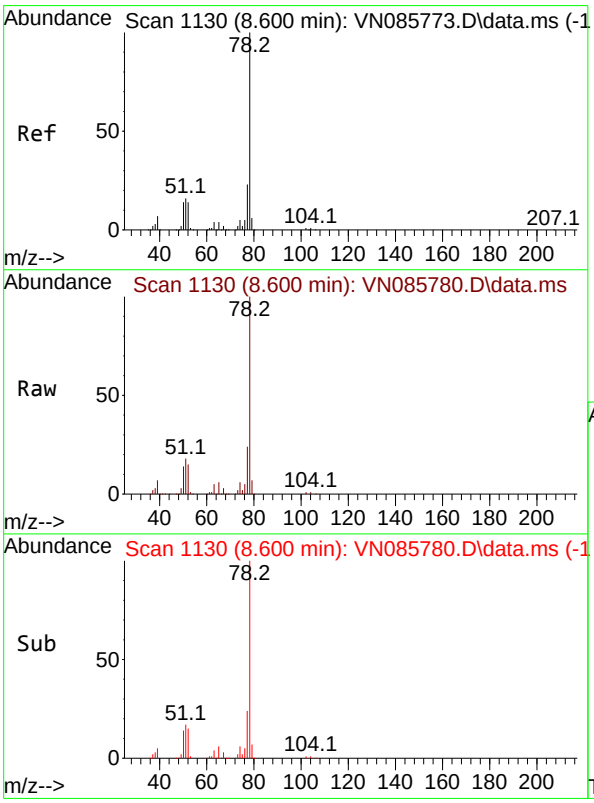
Ion	Ratio	Lower	Upper
83	100		
55	71.2	57.5	86.3
98	46.5	39.2	58.8



Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

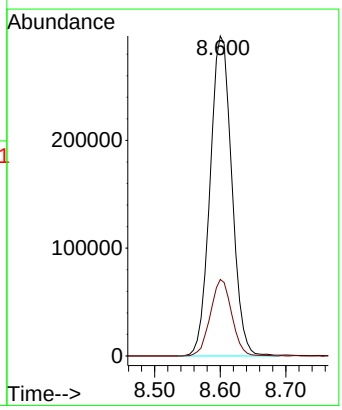
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

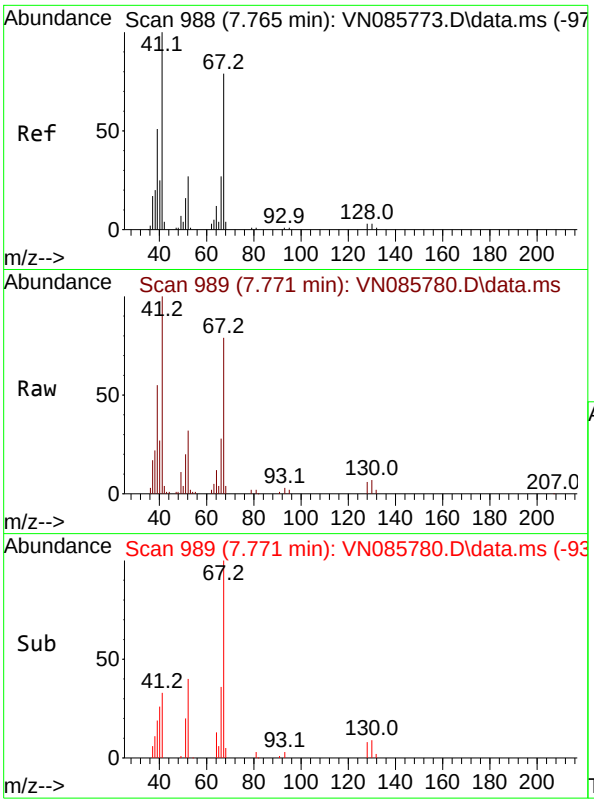


#40
Benzene
Concen: 45.016 ug/l
RT: 8.600 min Scan# 1130
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 78 Resp: 682453

Ion	Ratio	Lower	Upper
78	100		
77	23.9	18.3	27.5

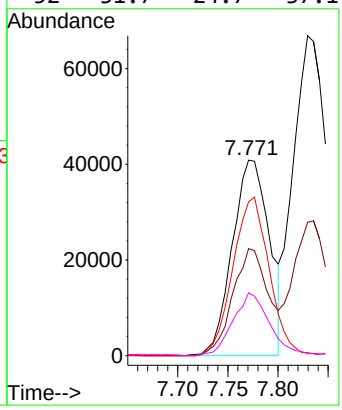




#41
Methacrylonitrile
Concen: 50.597 ug/l
RT: 7.771 min Scan# 9
Delta R.T. 0.006 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 41 Resp: 10528

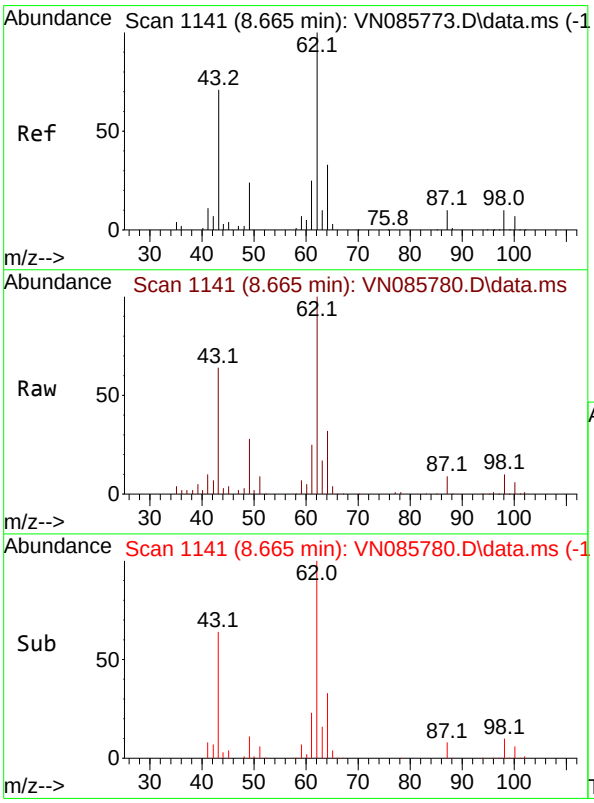
Ion	Ratio	Lower	Upper
41	100		
39	52.3	42.0	63.0
67	79.2	64.2	96.4
52	31.7	24.7	37.1



Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

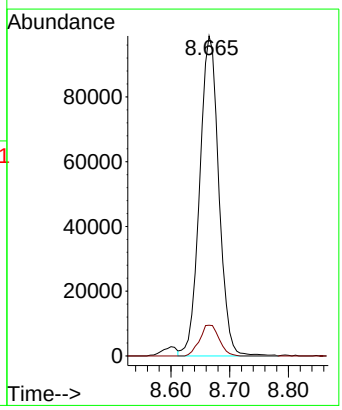
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

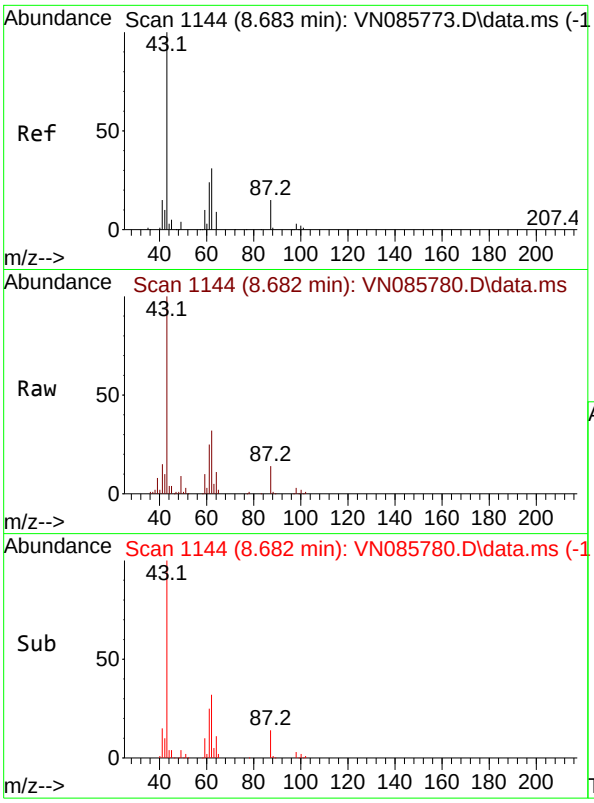


#42
1,2-Dichloroethane
Concen: 45.321 ug/l
RT: 8.665 min Scan# 1141
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 62 Resp: 223798

Ion	Ratio	Lower	Upper
62	100		
98	9.8	0.0	19.6





#43
Isopropyl Acetate
Concen: 46.374 ug/l
RT: 8.682 min Scan# 1
Delta R.T. -0.001 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

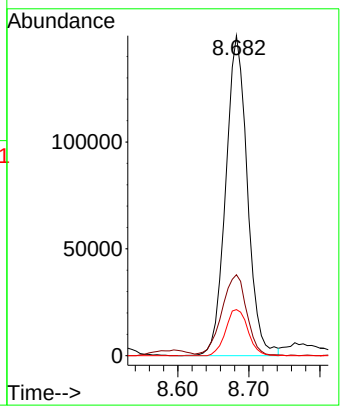
Tgt Ion: 43 Resp: 31707

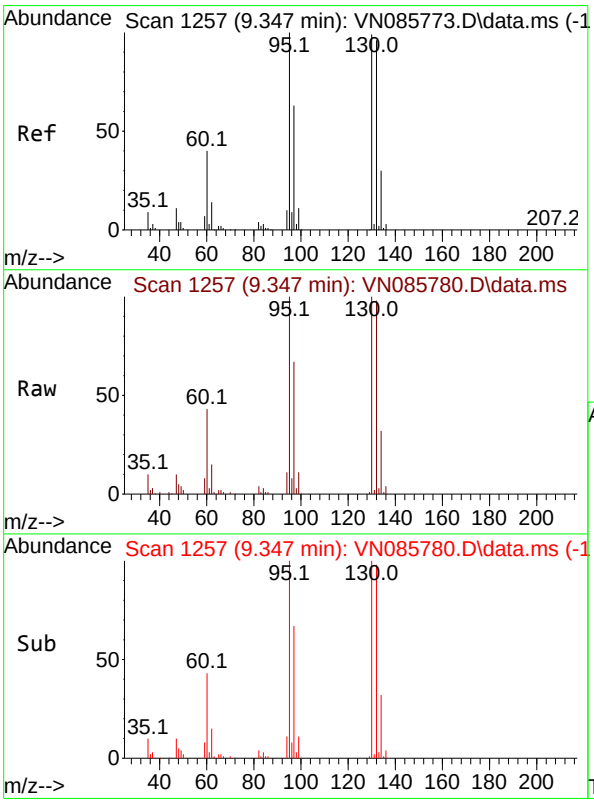
Ion	Ratio	Lower	Upper
43	100		
61	29.1	22.6	34.0
87	14.9	11.8	17.8

Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

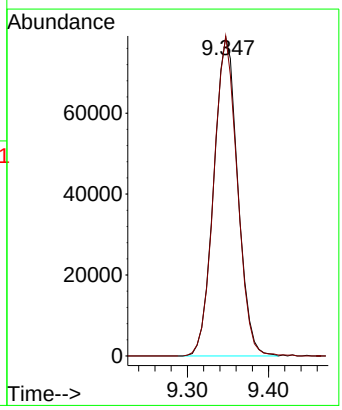


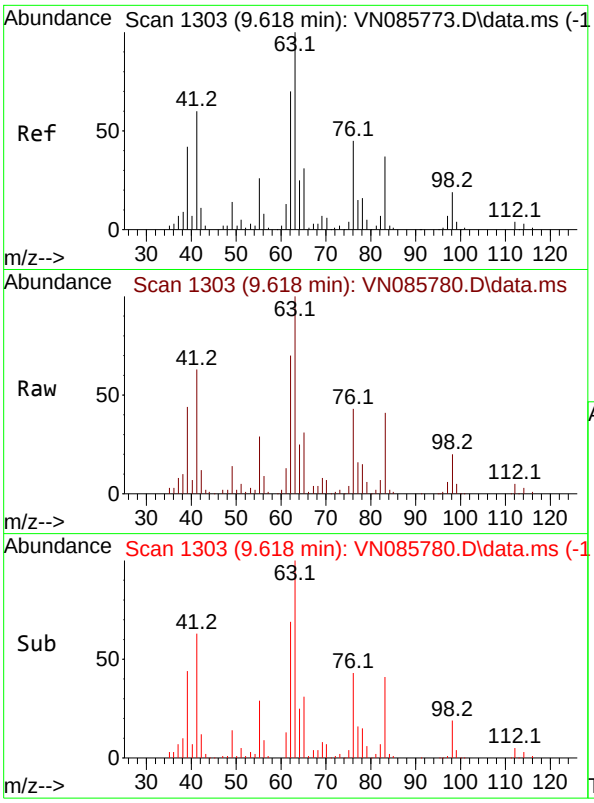


#44
Trichloroethene
Concen: 43.368 ug/l
RT: 9.347 min Scan# 1257
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion:130 Resp: 161430

Ion	Ratio	Lower	Upper
130	100		
95	100.5	0.0	202.6

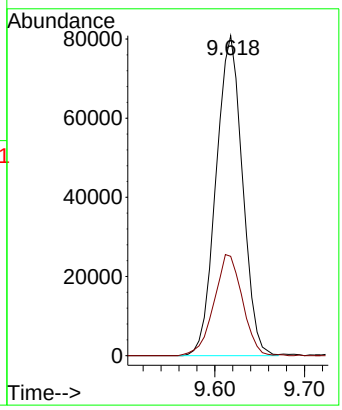




#45
1,2-Dichloropropane
Concen: 45.194 ug/l
RT: 9.618 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 63 Resp: 16538

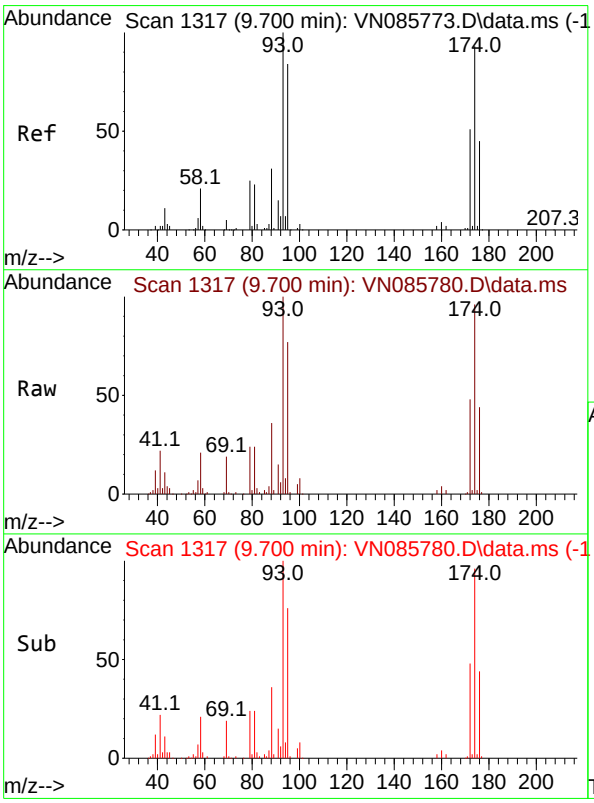
Ion	Ratio	Lower	Upper
63	100		
65	31.1	25.1	37.7



Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

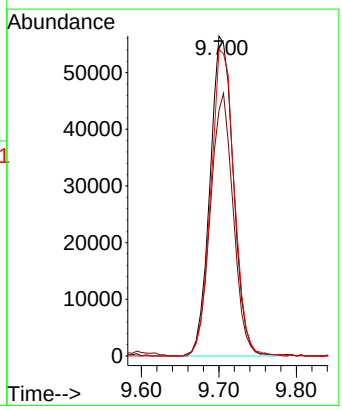
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

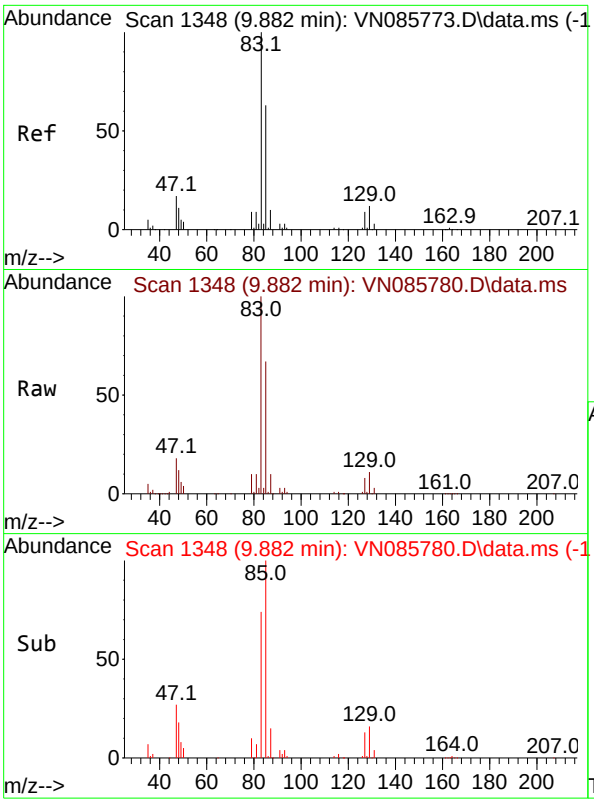


#46
Dibromomethane
Concen: 45.867 ug/l
RT: 9.700 min Scan# 1317
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 93 Resp: 118394

Ion	Ratio	Lower	Upper
93	100		
95	80.3	66.7	100.1
174	96.1	77.2	115.8

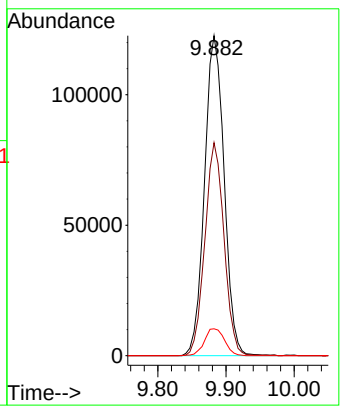




#47
Bromodichloromethane
Concen: 44.443 ug/l
RT: 9.882 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 83 Resp: 24543

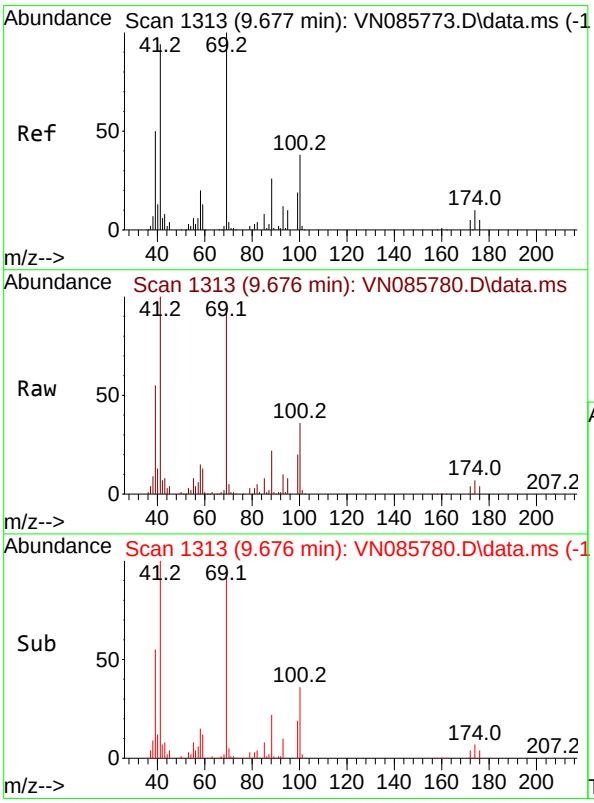
Ion	Ratio	Lower	Upper
83	100		
85	66.5	50.5	75.7
127	8.4	7.2	10.8



Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

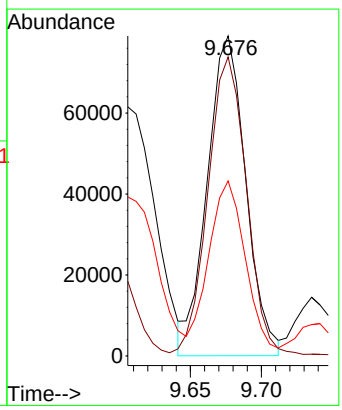
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

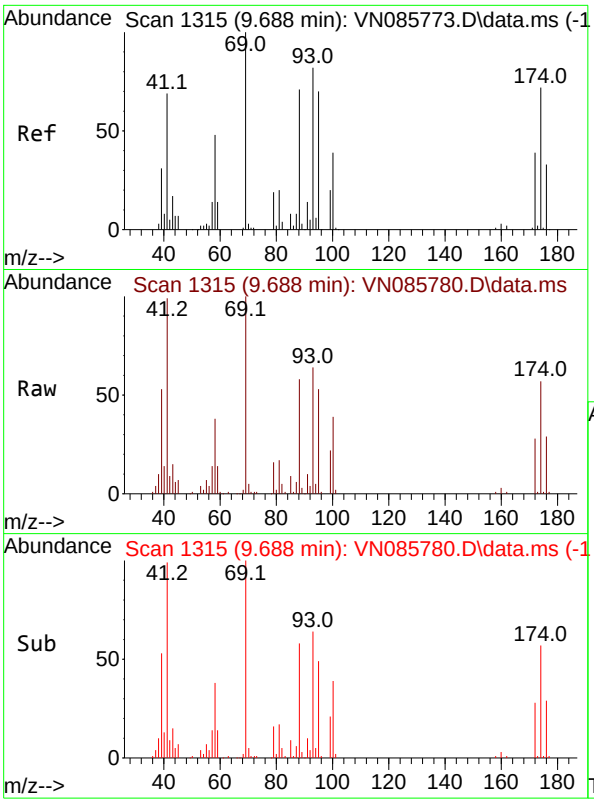


#48
Methyl methacrylate
Concen: 51.566 ug/l
RT: 9.676 min Scan# 1313
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 41 Resp: 149072

Ion	Ratio	Lower	Upper
41	100		
69	93.7	76.0	114.0
39	53.0	42.3	63.5

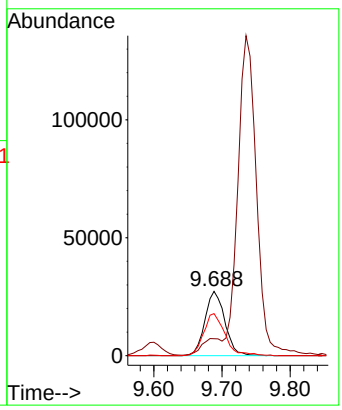




#49
1,4-Dioxane
Concen: 1010.103 ug/l
RT: 9.688 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 88 Resp: 5552

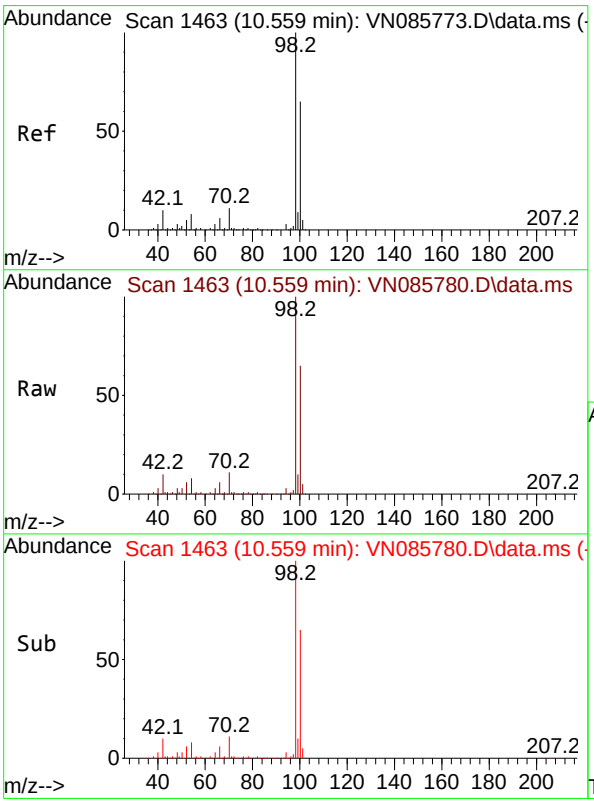
Ion	Ratio	Lower	Upper
88	100		
43	26.0	18.6	27.8
58	70.1	56.7	85.1



Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

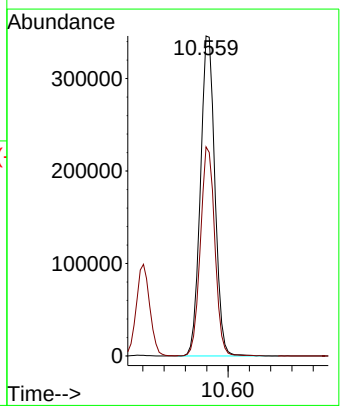
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

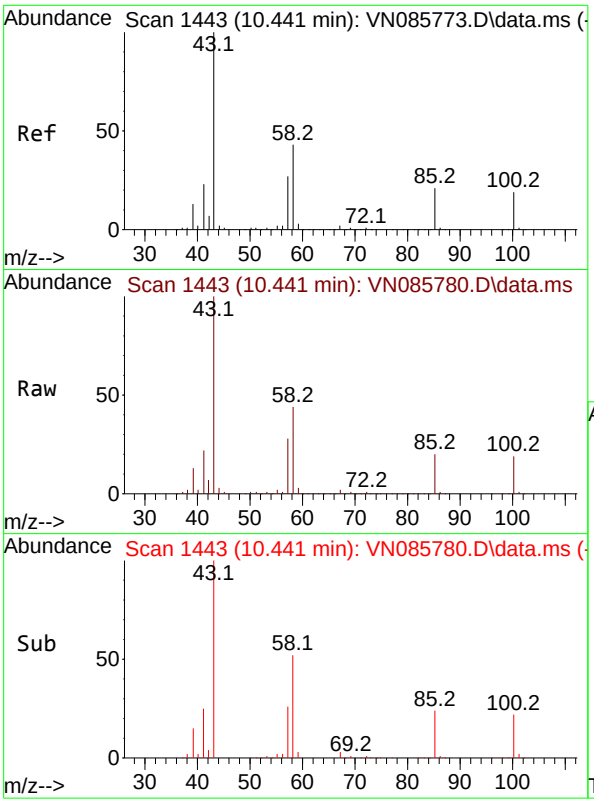


#50
Toluene-d8
Concen: 53.575 ug/l
RT: 10.559 min Scan# 1463
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 98 Resp: 651463

Ion	Ratio	Lower	Upper
98	100		
100	65.2	52.1	78.1





#51
4-Methyl-2-Pentanone
Concen: 254.433 ug/l
RT: 10.441 min Scan# 14
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

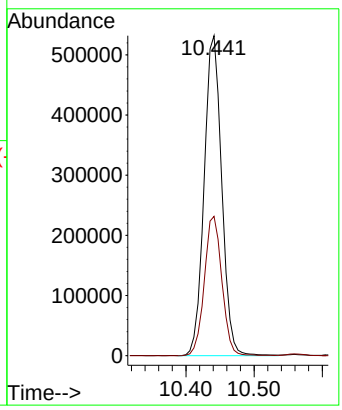
Tgt Ion: 43 Resp: 95488

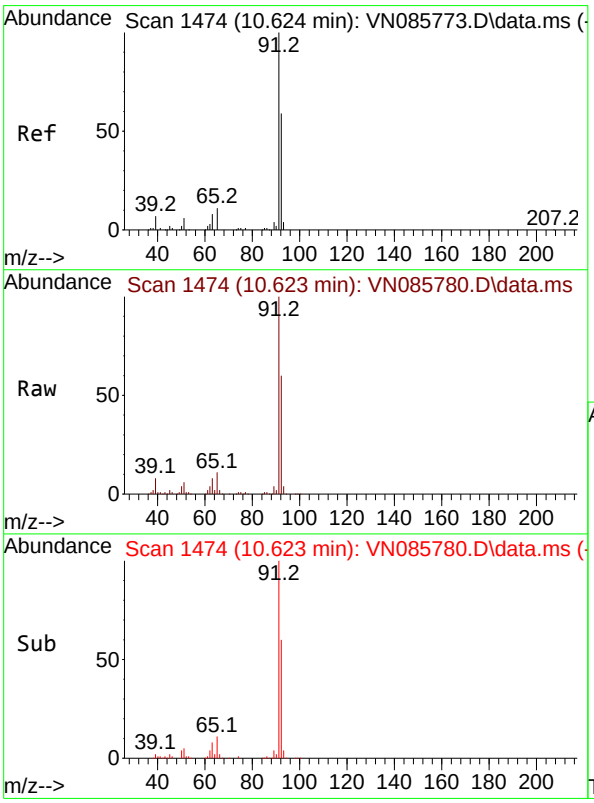
Ion	Ratio	Lower	Upper
43	100		
58	43.4	34.6	52.0

Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

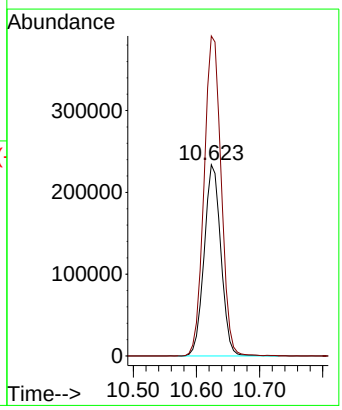


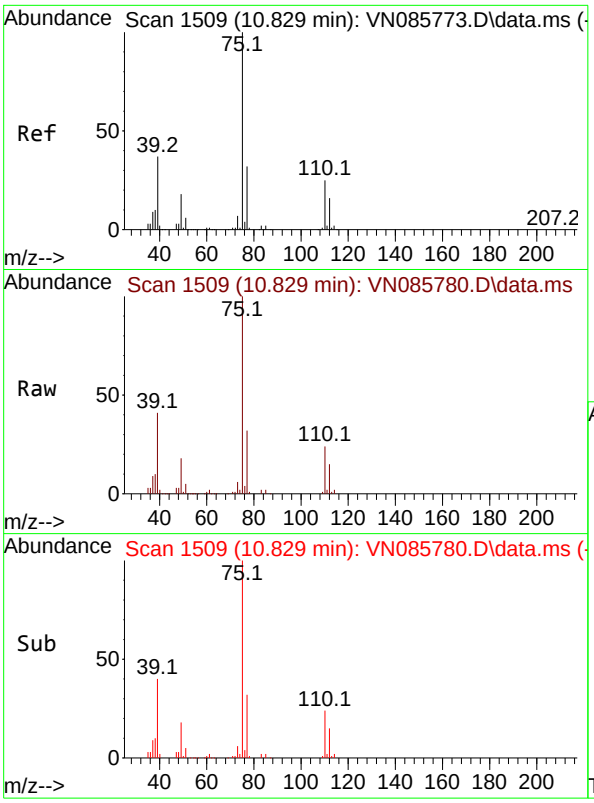


#52
Toluene
Concen: 48.324 ug/l
RT: 10.623 min Scan# 1474
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 92 Resp: 429445

Ion	Ratio	Lower	Upper
92	100		
91	171.4	136.9	205.3

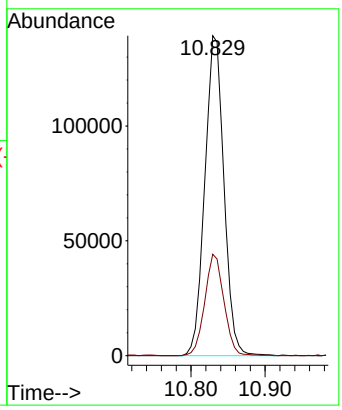




#53
t-1,3-Dichloropropene
Concen: 48.873 ug/l
RT: 10.829 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 75 Resp: 24957

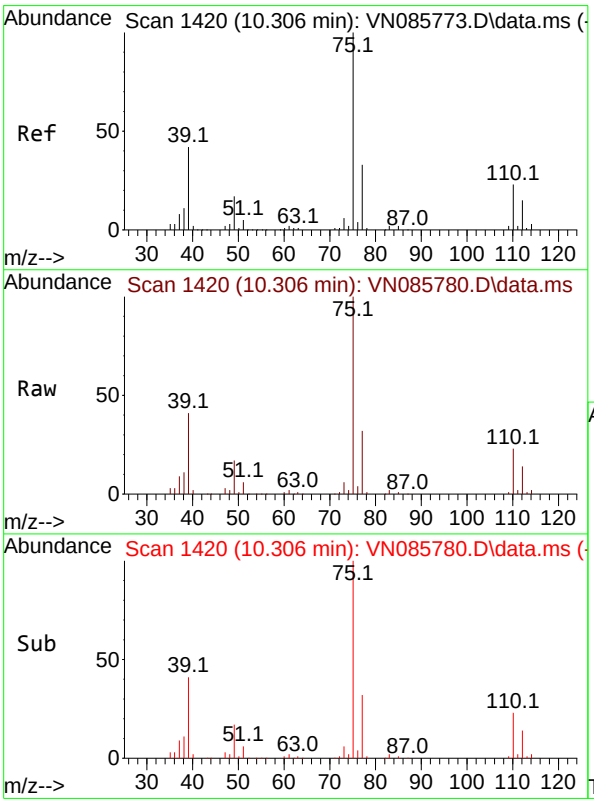
Ion	Ratio	Lower	Upper
75	100		
77	31.7	25.4	38.0



Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

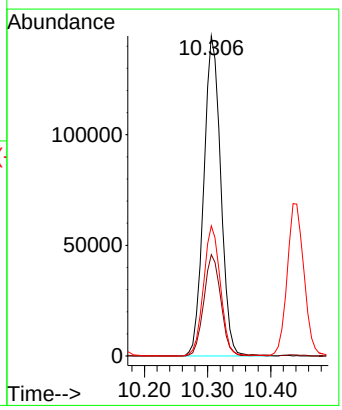
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

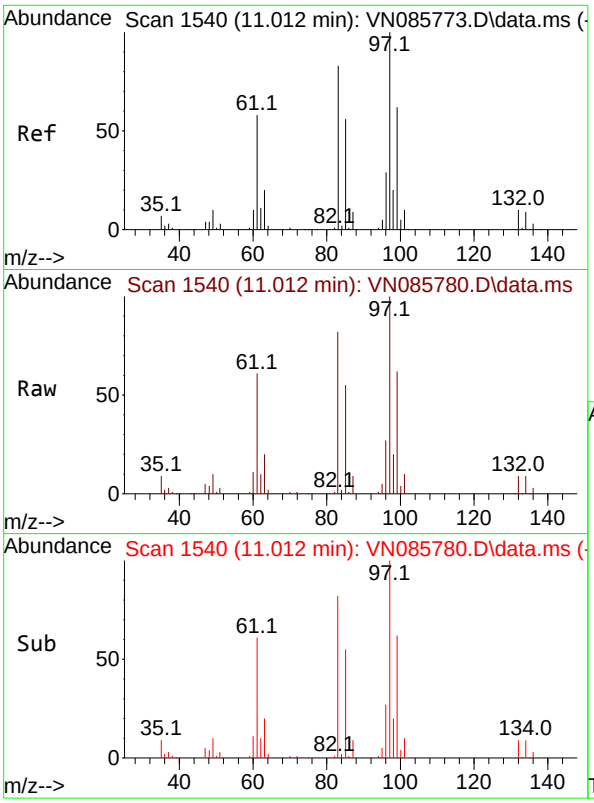


#54
cis-1,3-Dichloropropene
Concen: 48.172 ug/l
RT: 10.306 min Scan# 1420
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 75 Resp: 269744

Ion	Ratio	Lower	Upper
75	100		
77	31.6	26.1	39.1
39	40.7	33.4	50.0

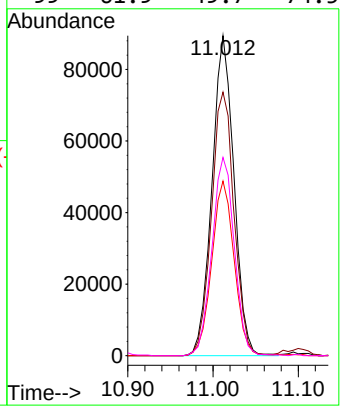




#55
1,1,2-Trichloroethane
Concen: 45.289 ug/l
RT: 11.012 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 97 Resp: 16002

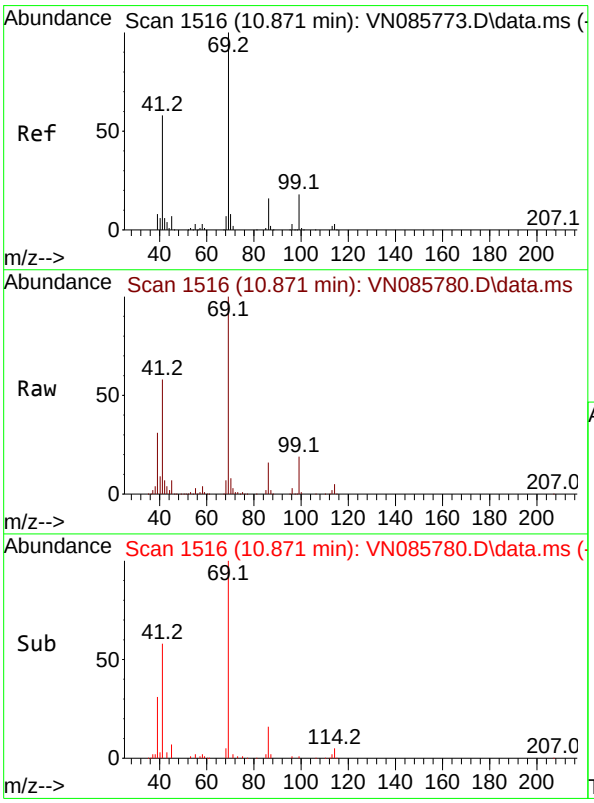
Ion	Ratio	Lower	Upper
97	100		
83	82.4	66.1	99.1
85	54.5	44.7	67.1
99	61.9	49.7	74.5



Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

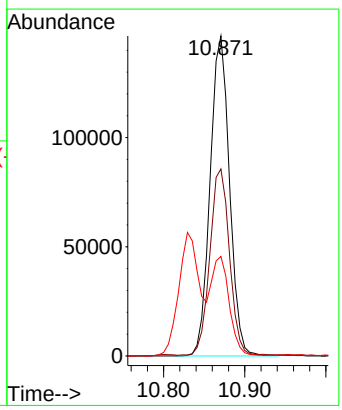
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

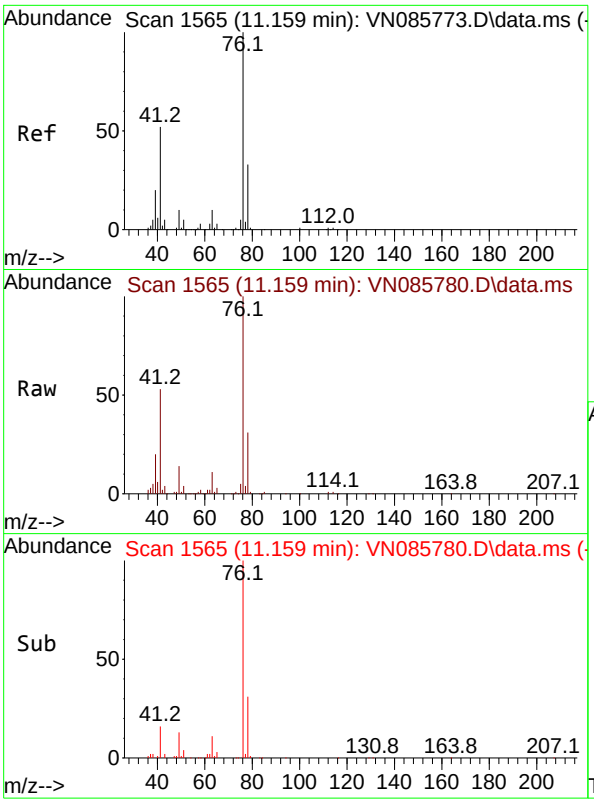


#56
Ethyl methacrylate
Concen: 48.142 ug/l
RT: 10.871 min Scan# 1516
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 69 Resp: 243449

Ion	Ratio	Lower	Upper
69	100		
41	58.6	46.0	69.0
39	28.2	22.0	33.0

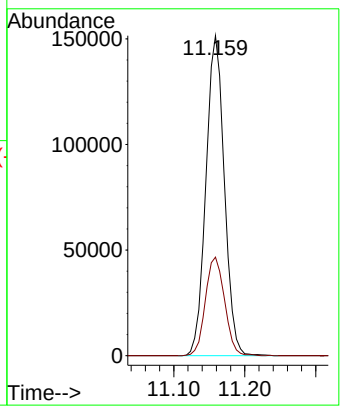




#57
1,3-Dichloropropane
Concen: 46.254 ug/l
RT: 11.159 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 76 Resp: 27281

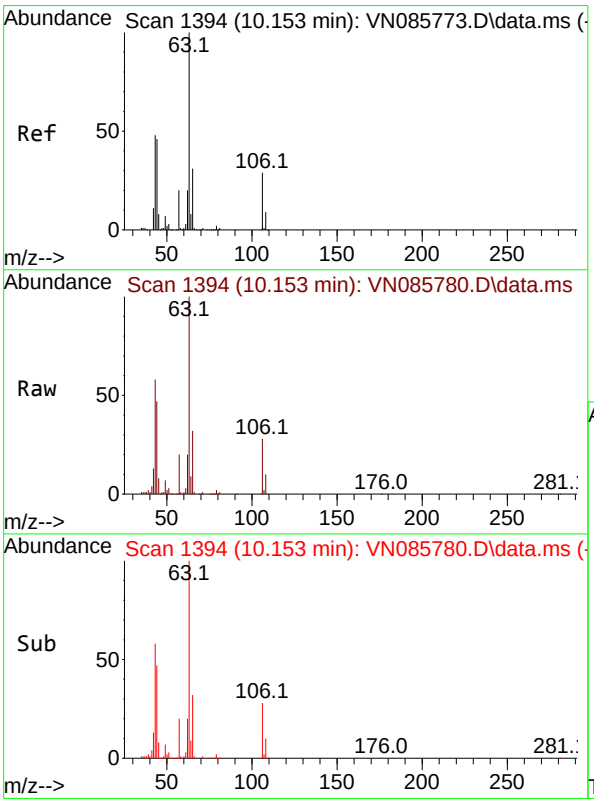
Ion	Ratio	Lower	Upper
76	100		
78	32.1	25.9	38.9



Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

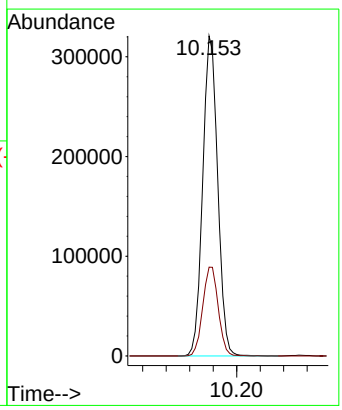
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

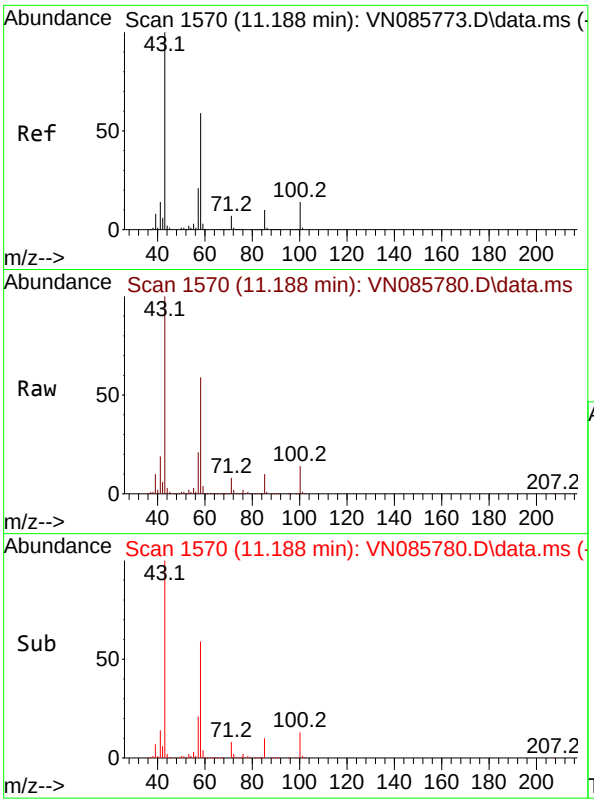


#58
2-Chloroethyl Vinyl ether
Concen: 276.203 ug/l
RT: 10.153 min Scan# 1394
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 63 Resp: 565673

Ion	Ratio	Lower	Upper
63	100		
106	28.7	22.7	34.1

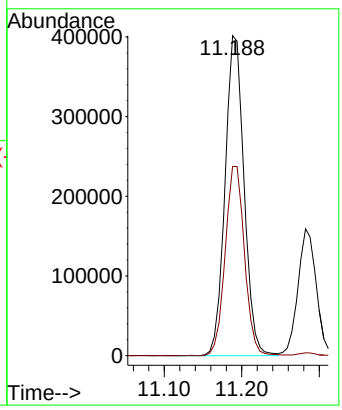




#59
2-Hexanone
Concen: 266.284 ug/l
RT: 11.188 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 43 Resp: 68750

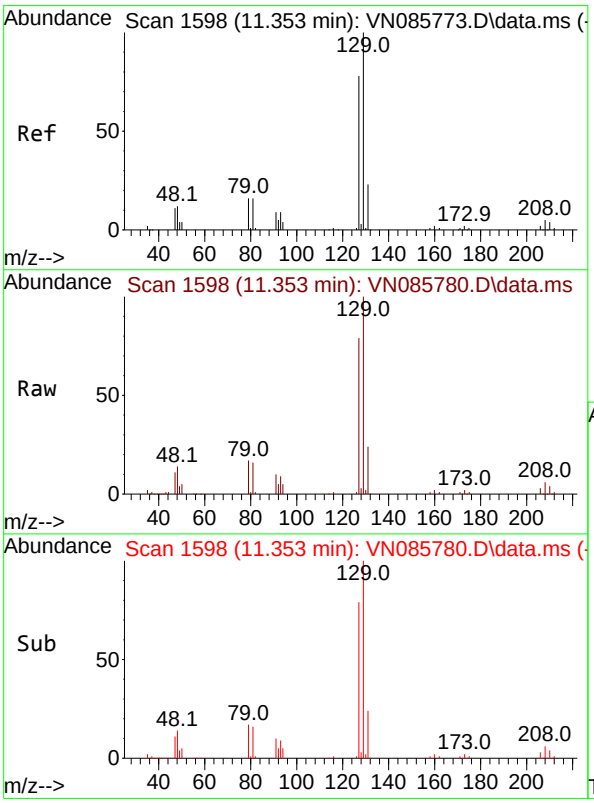
Ion	Ratio	Lower	Upper
43	100		
58	60.0	29.8	89.5



Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

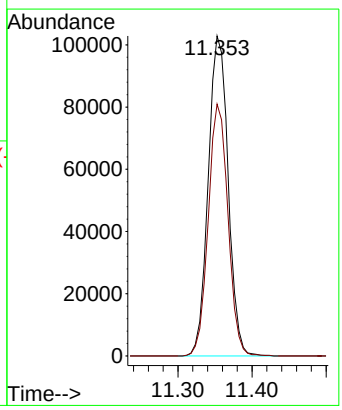
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

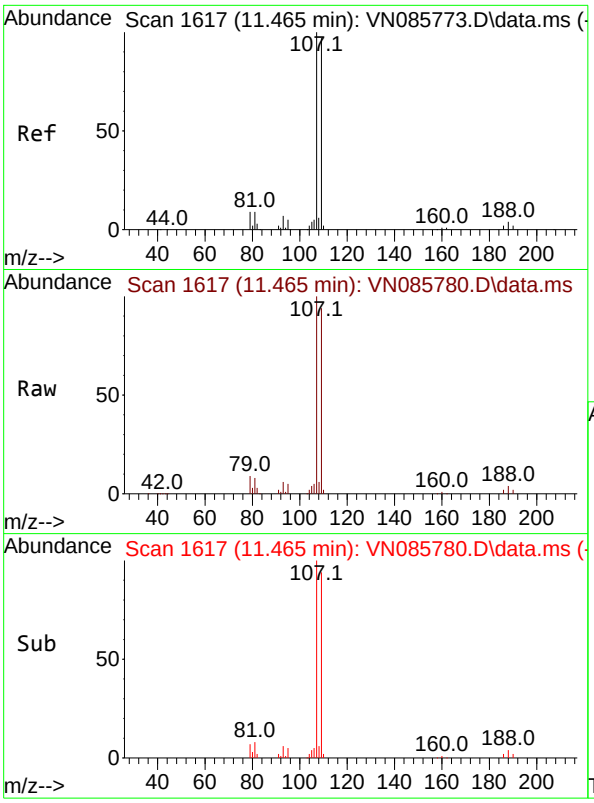


#60
Dibromochloromethane
Concen: 46.707 ug/l
RT: 11.353 min Scan# 1598
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion:129 Resp: 192169

Ion	Ratio	Lower	Upper
129	100		
127	78.0	39.1	117.5





#61
1,2-Dibromoethane
Concen: 47.208 ug/l
RT: 11.465 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

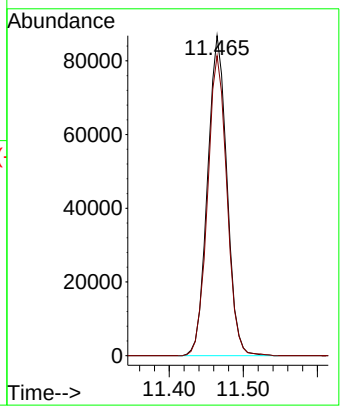
Tgt Ion:107 Resp: 15760

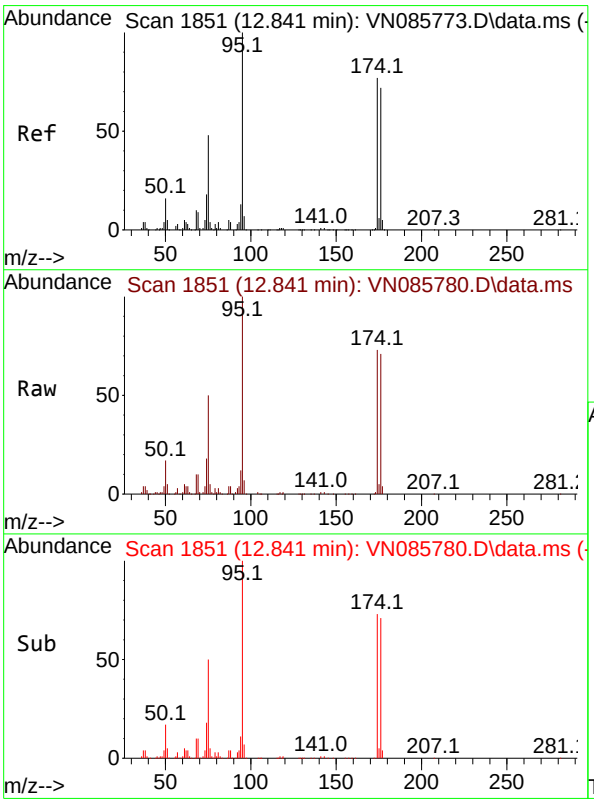
Ion	Ratio	Lower	Upper
107	100		
109	93.7	76.0	114.0

Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

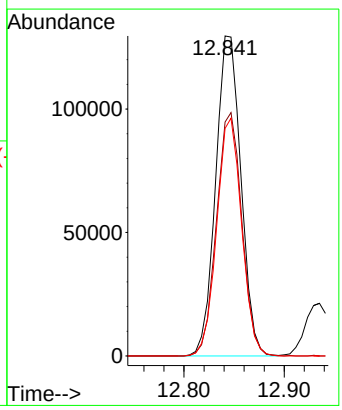


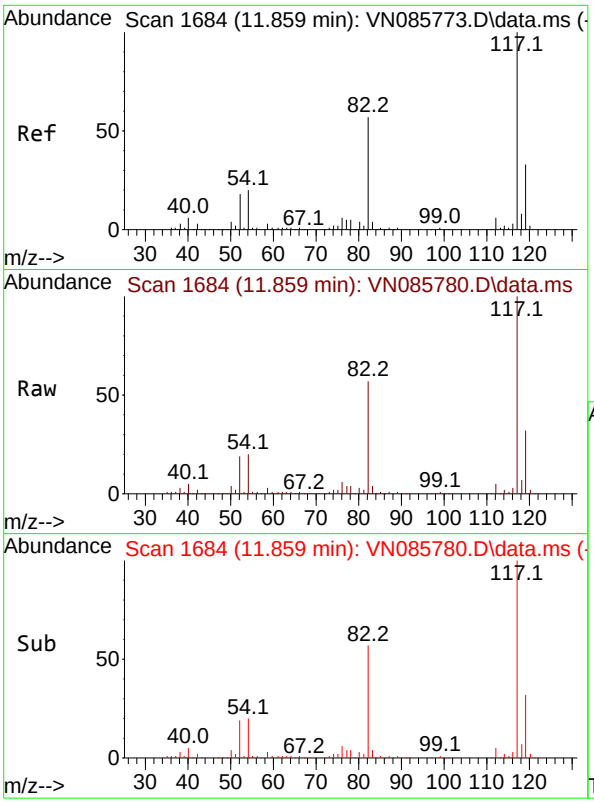


#62
4-Bromofluorobenzene
Concen: 56.665 ug/l
RT: 12.841 min Scan# 1851
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 95 Resp: 227023

Ion	Ratio	Lower	Upper
95	100		
174	76.1	0.0	152.4
176	73.1	0.0	146.6

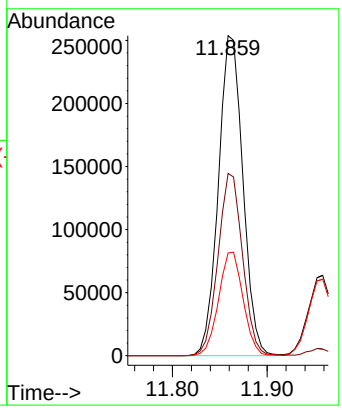




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.859 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion:117 Resp: 45648

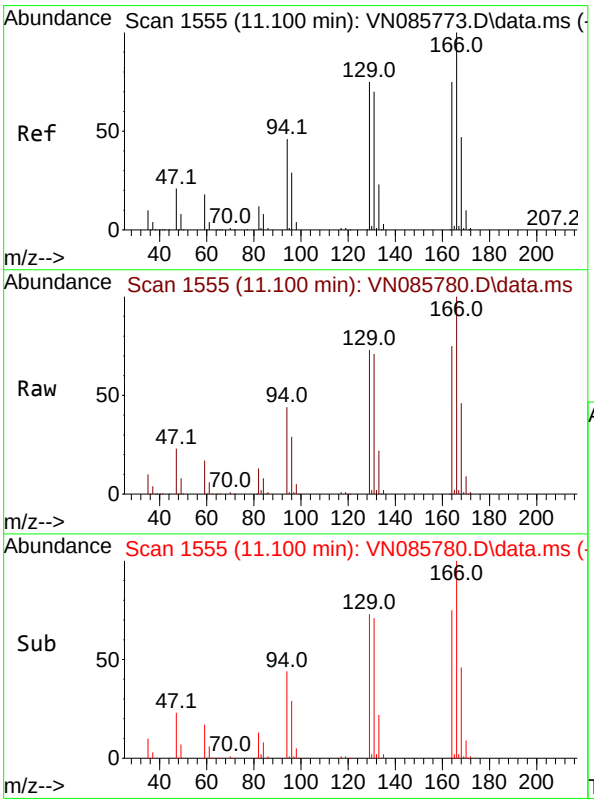
Ion	Ratio	Lower	Upper
117	100		
82	56.9	45.7	68.5
119	32.1	26.2	39.2



Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

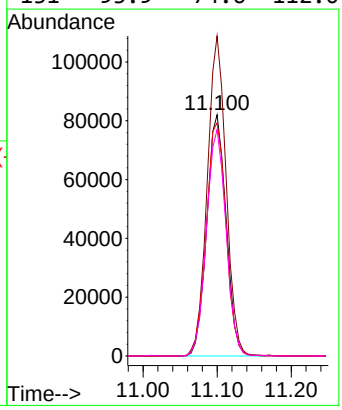
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

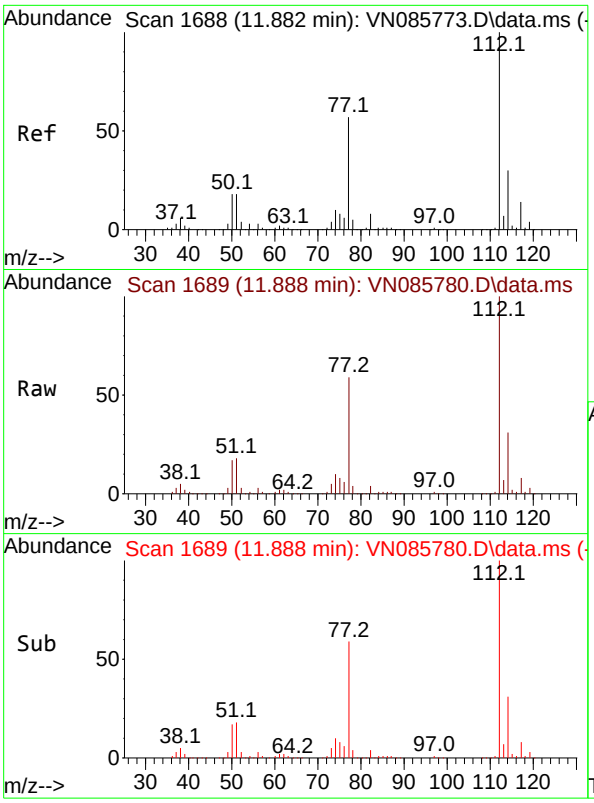


#64
Tetrachloroethene
Concen: 42.088 ug/l
RT: 11.100 min Scan# 1555
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion:164 Resp: 148840

Ion	Ratio	Lower	Upper
164	100		
166	132.7	107.2	160.8
129	96.7	80.7	121.1
131	93.9	74.6	112.0

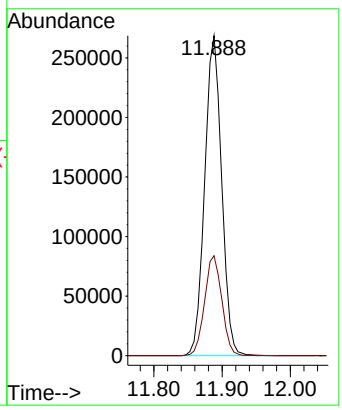




#65
Chlorobenzene
Concen: 44.422 ug/l
RT: 11.888 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion:112 Resp: 46454

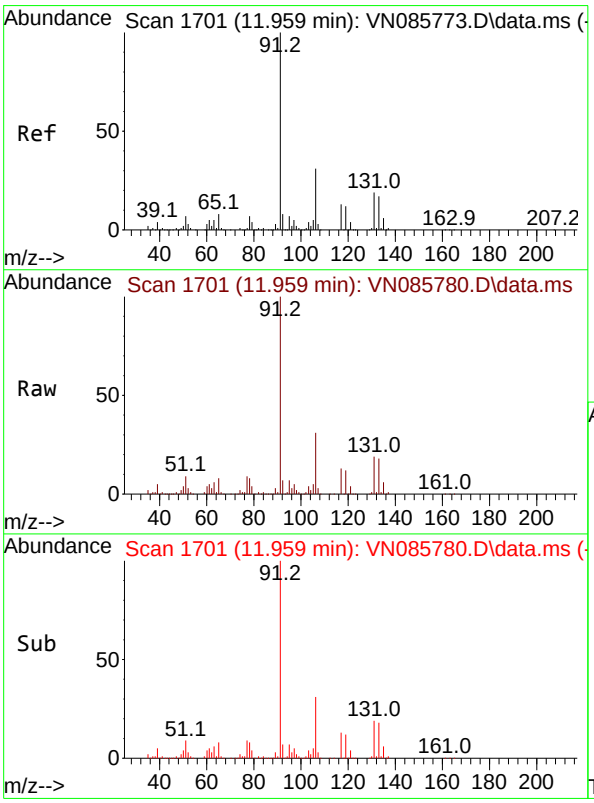
Ion	Ratio	Lower	Upper
112	100		
114	31.2	24.3	36.5



Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

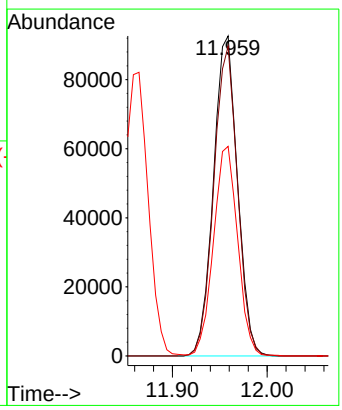
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

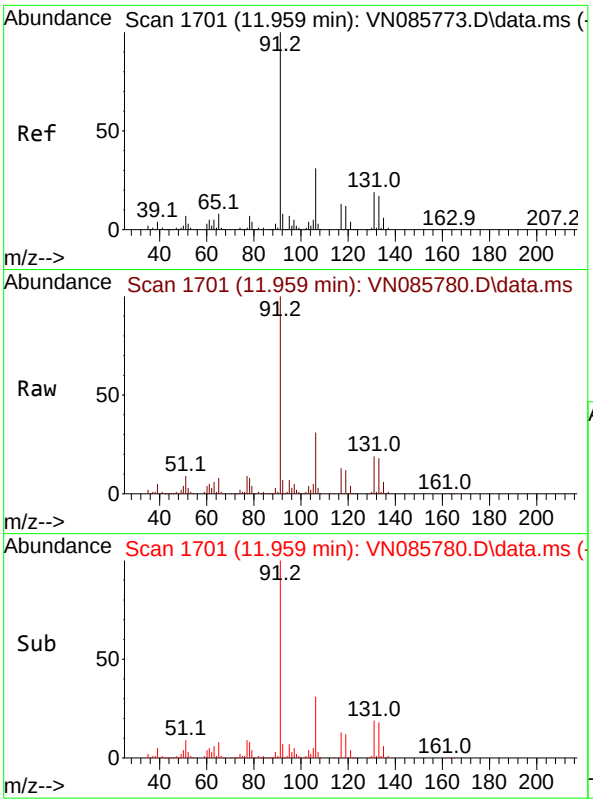


#66
1,1,1,2-Tetrachloroethane
Concen: 43.545 ug/l
RT: 11.959 min Scan# 1701
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion:131 Resp: 163676

Ion	Ratio	Lower	Upper
131	100		
133	95.5	47.7	143.1
119	65.9	33.3	99.8





#67
Ethyl Benzene
Concen: 48.655 ug/l
RT: 11.959 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

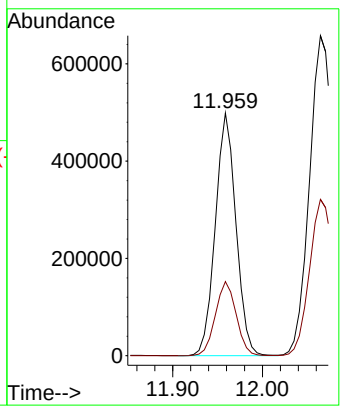
Tgt Ion: 91 Resp: 79702

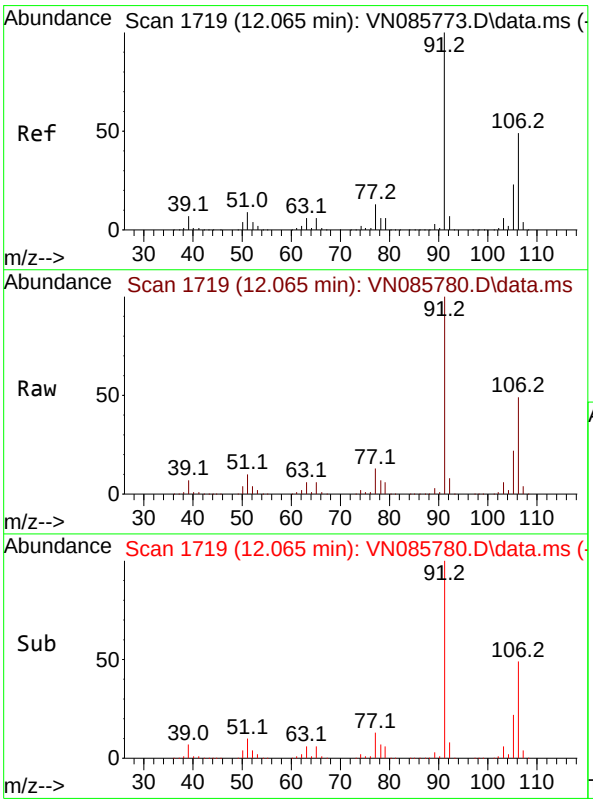
Ion	Ratio	Lower	Upper
91	100		
106	30.5	24.7	37.1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

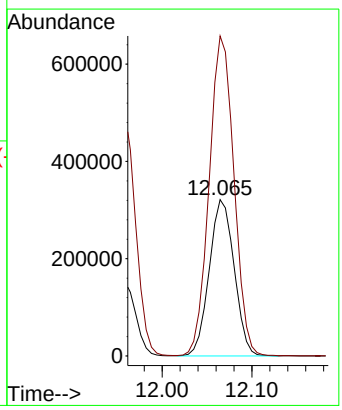


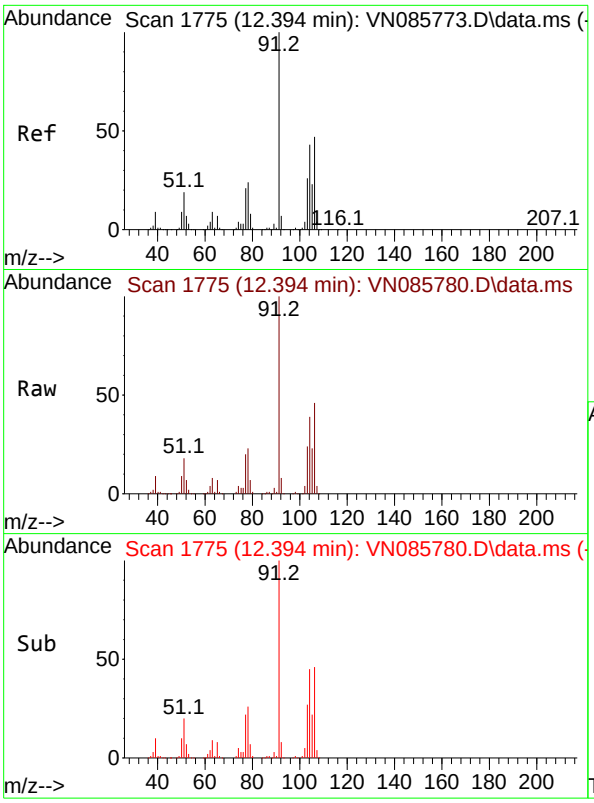


#68
m/p-Xylenes
Concen: 99.562 ug/l
RT: 12.065 min Scan# 1719
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion:106 Resp: 619505

Ion	Ratio	Lower	Upper
106	100		
91	204.1	163.3	244.9





#69
o-Xylene
Concen: 49.837 ug/l
RT: 12.394 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

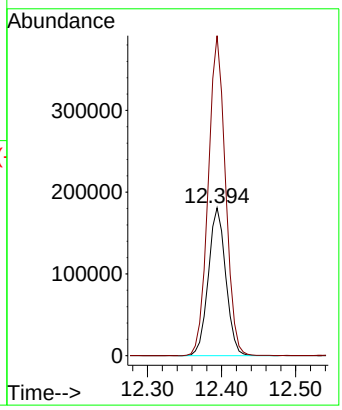
Tgt Ion:106 Resp: 29467

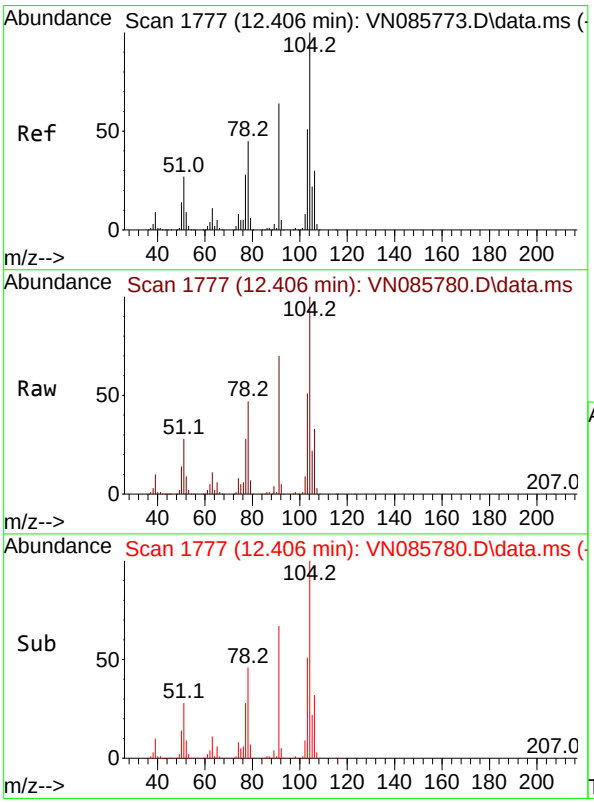
Ion	Ratio	Lower	Upper
106	100		
91	214.7	107.1	321.4

Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

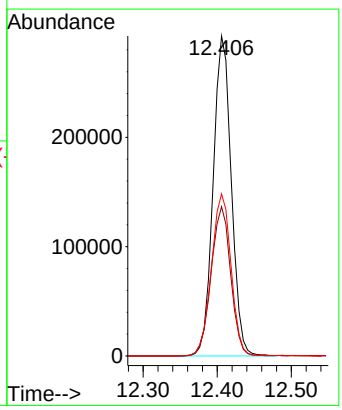


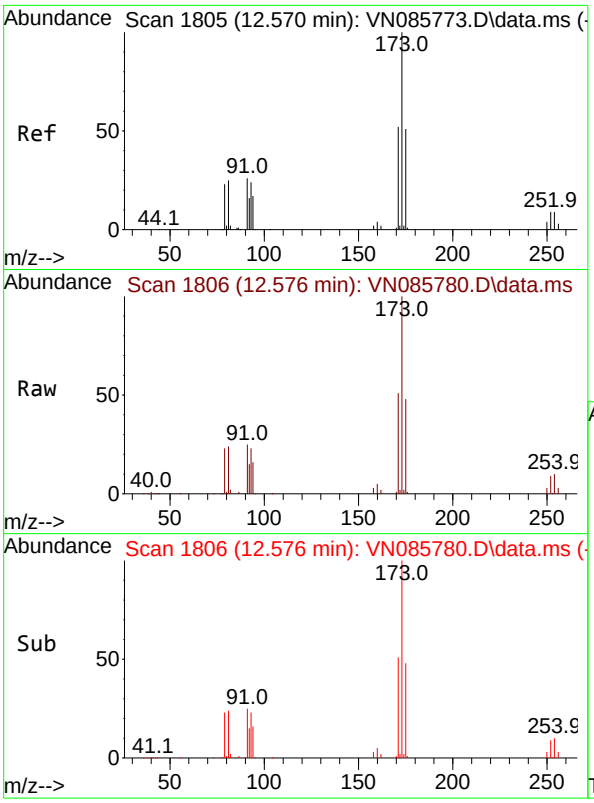


#70
Styrene
Concen: 45.726 ug/l
RT: 12.406 min Scan# 1777
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion:104 Resp: 498501

Ion	Ratio	Lower	Upper
104	100		
78	50.3	39.0	58.6
103	54.7	43.3	64.9

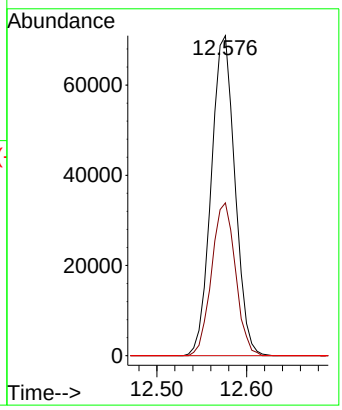




#71
Bromoform
Concen: 46.617 ug/l
RT: 12.576 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion:173 Resp: 13020

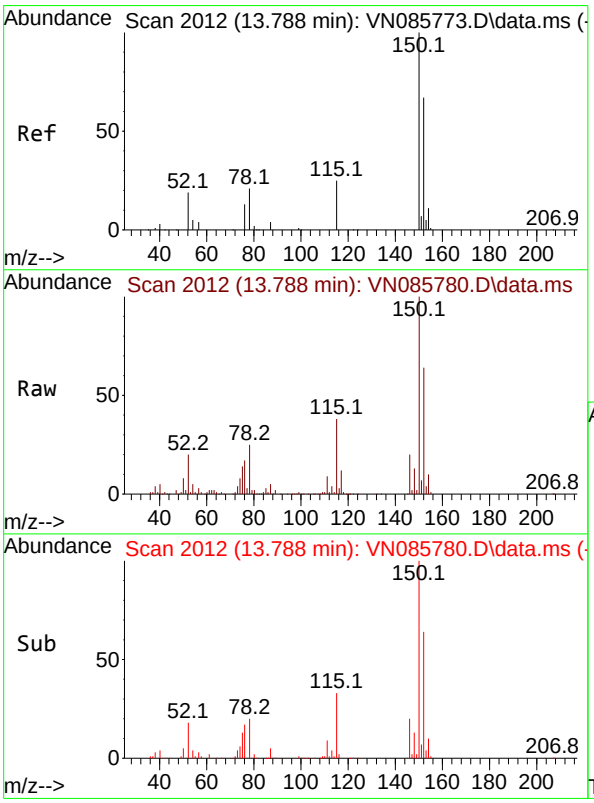
Ion	Ratio	Lower	Upper
173	100		
175	48.1	25.1	75.4
254	0.0	0.0	0.0



Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

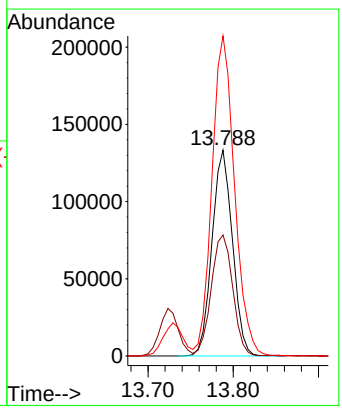
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

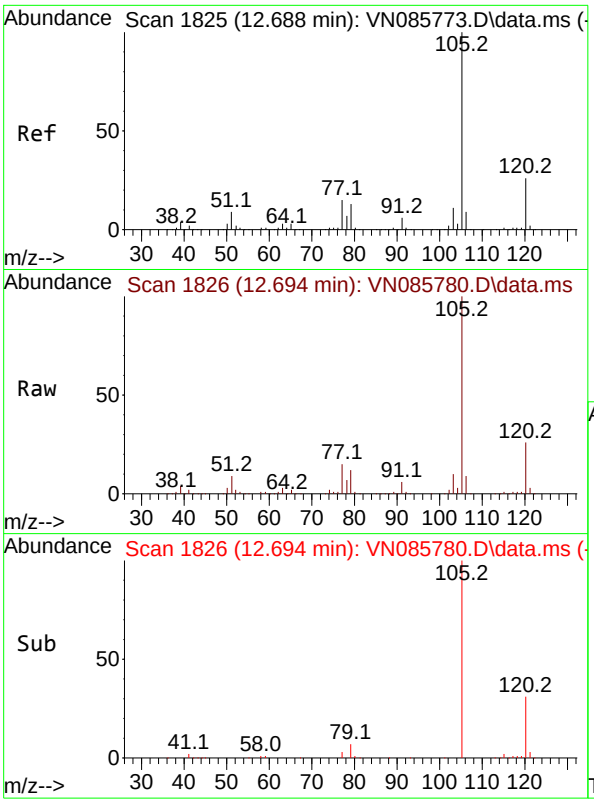


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.788 min Scan# 2012
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion:152 Resp: 222696

Ion	Ratio	Lower	Upper
152	100		
115	61.4	30.4	91.3
150	171.4	0.0	345.4





#73
Isopropylbenzene
Concen: 49.002 ug/l
RT: 12.694 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

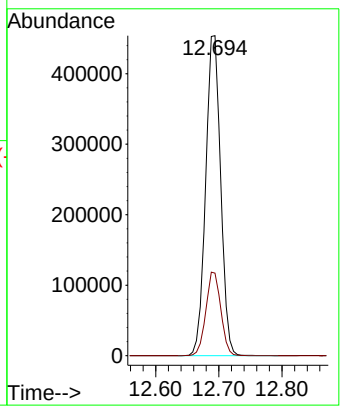
Tgt Ion:105 Resp: 74760

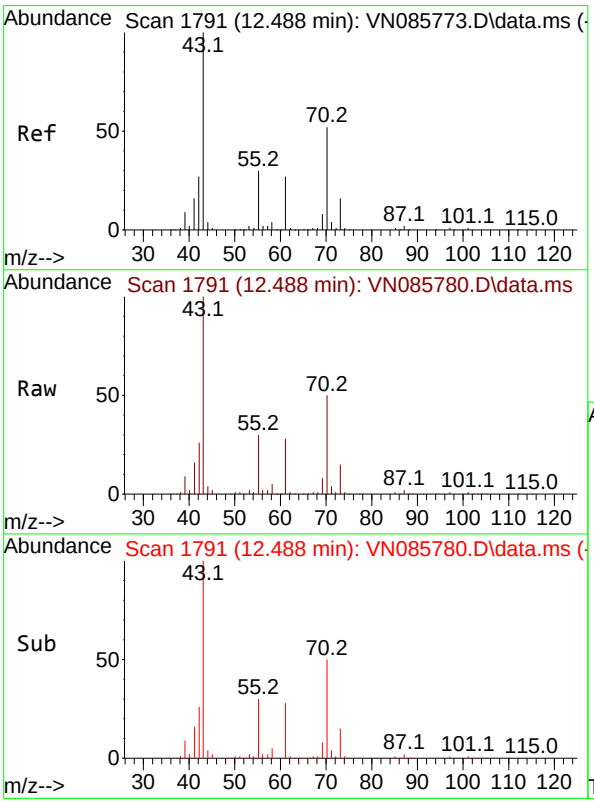
Ion	Ratio	Lower	Upper
105	100		
120	26.0	13.0	39.0

Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

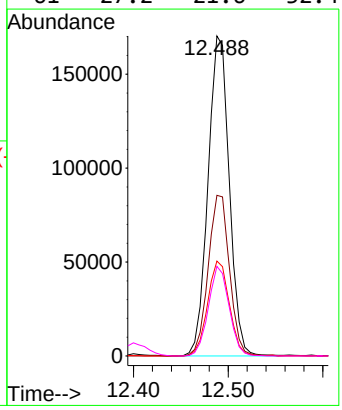


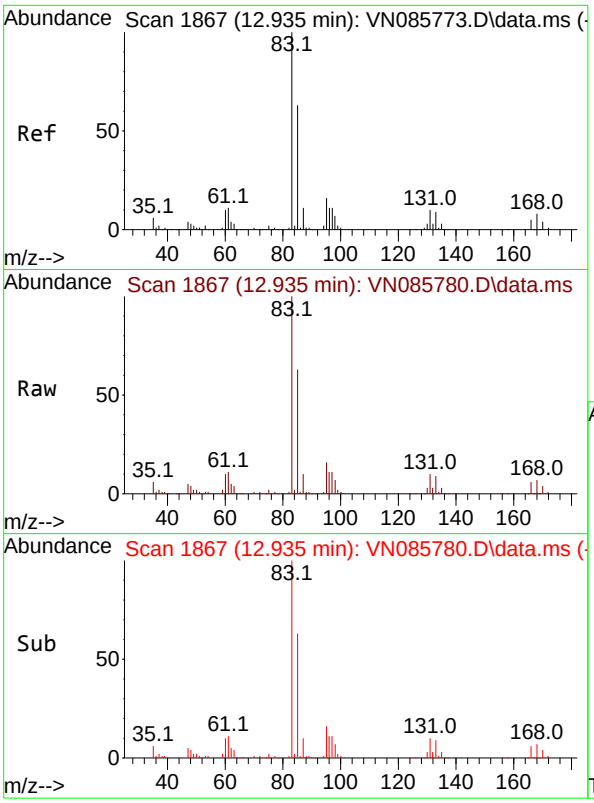


#74
N-amyl acetate
Concen: 49.401 ug/l
RT: 12.488 min Scan# 1791
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 43 Resp: 265786

Ion	Ratio	Lower	Upper
43	100		
70	50.4	41.0	61.4
55	30.4	24.6	36.8
61	27.2	21.6	32.4





#75
1,1,2,2-Tetrachloroethane
Concen: 43.005 ug/l
RT: 12.935 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

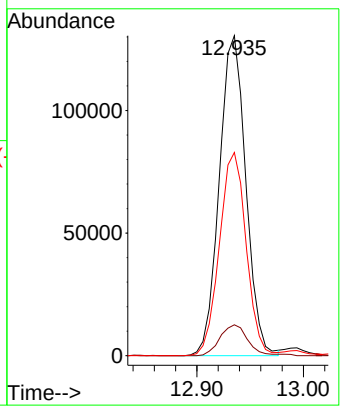
Tgt Ion: 83 Resp: 22577

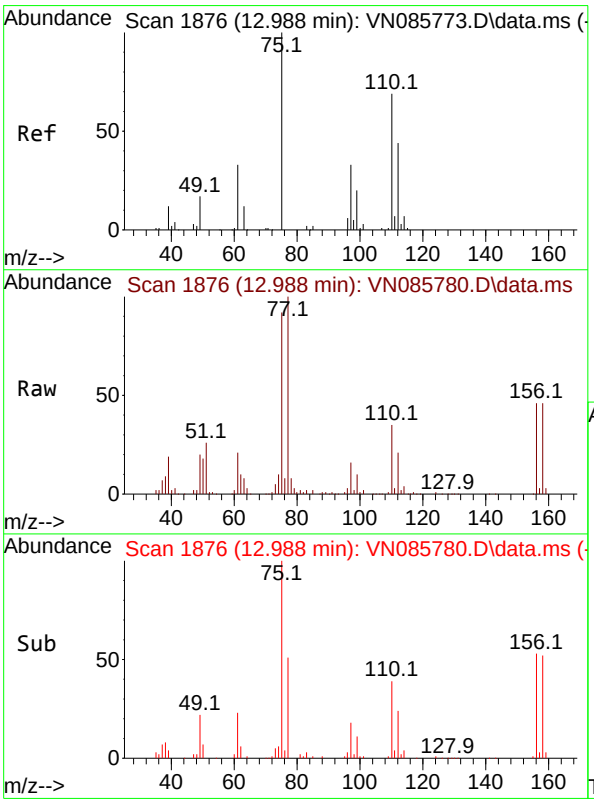
Ion	Ratio	Lower	Upper
83	100		
131	10.2	5.0	15.0
85	64.1	32.2	96.6

Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

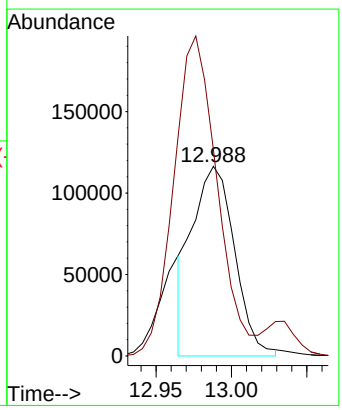


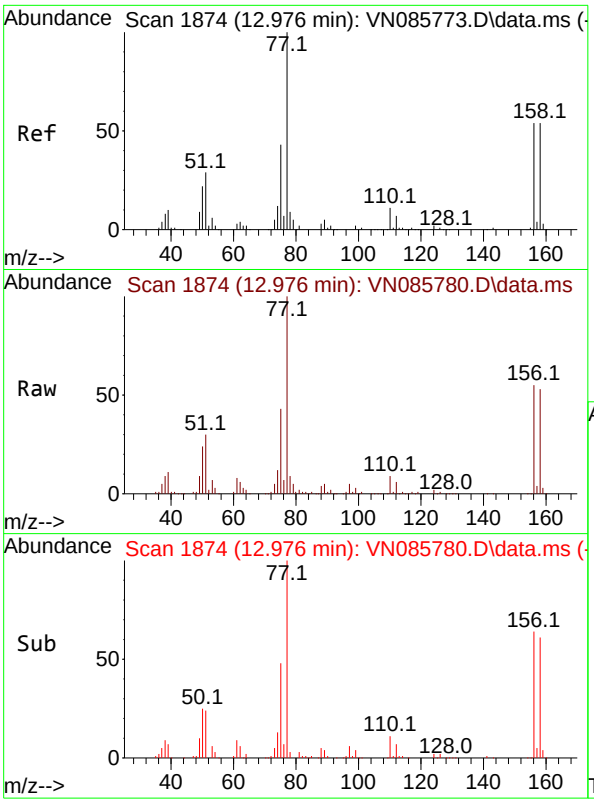


#76
1,2,3-Trichloropropane
Concen: 46.070 ug/l m
RT: 12.988 min Scan# 1876
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 75 Resp: 227901

Ion	Ratio	Lower	Upper
75	100		
77	173.0	100.0	300.0





#77
Bromobenzene
Concen: 45.084 ug/l
RT: 12.976 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

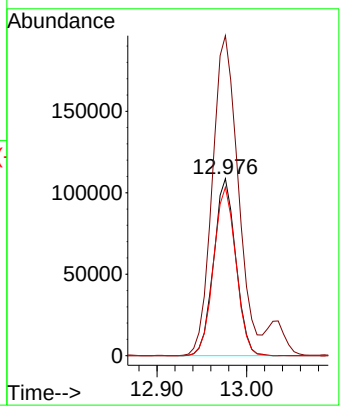
Tgt Ion:156 Resp: 18583

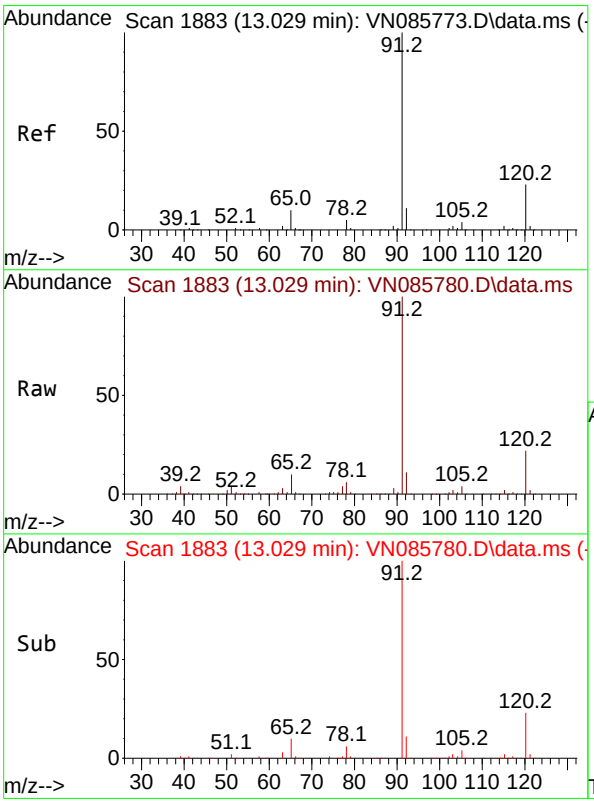
Ion	Ratio	Lower	Upper
156	100		
77	212.1	104.1	312.3
158	96.2	48.1	144.4

Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

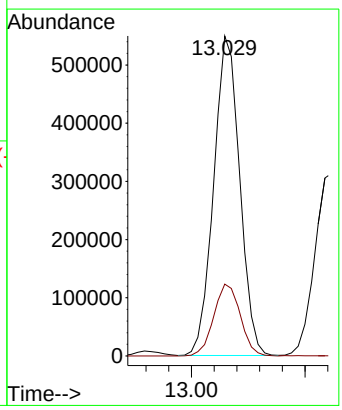


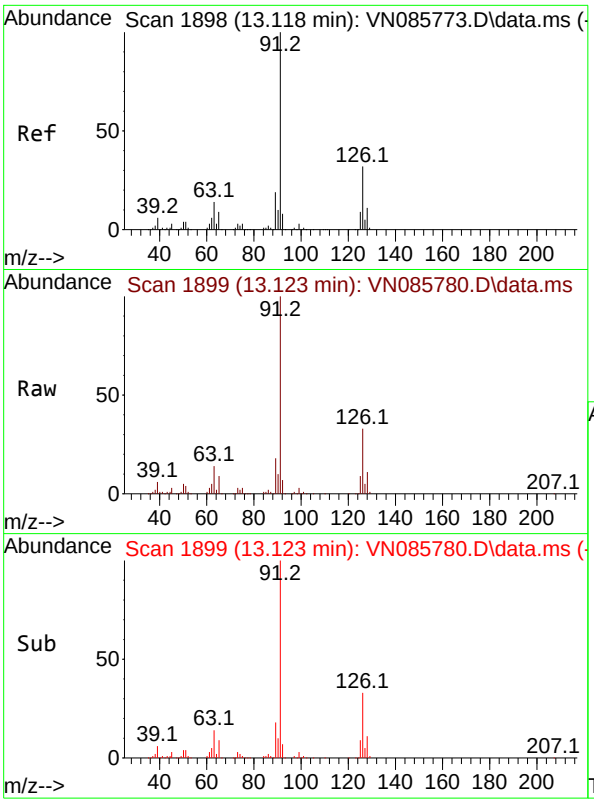


#78
n-propylbenzene
Concen: 49.927 ug/l
RT: 13.029 min Scan# 1883
Delta R.T. 0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 91 Resp: 872362

Ion	Ratio	Lower	Upper
91	100		
120	22.9	11.3	33.8





#79
2-Chlorotoluene
Concen: 46.350 ug/l
RT: 13.123 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

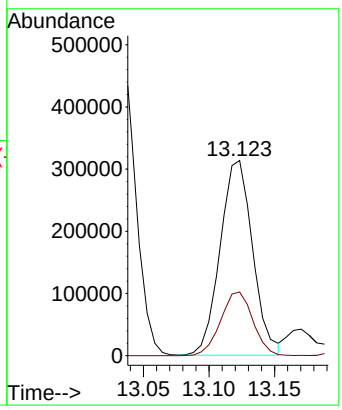
Tgt Ion: 91 Resp: 54110

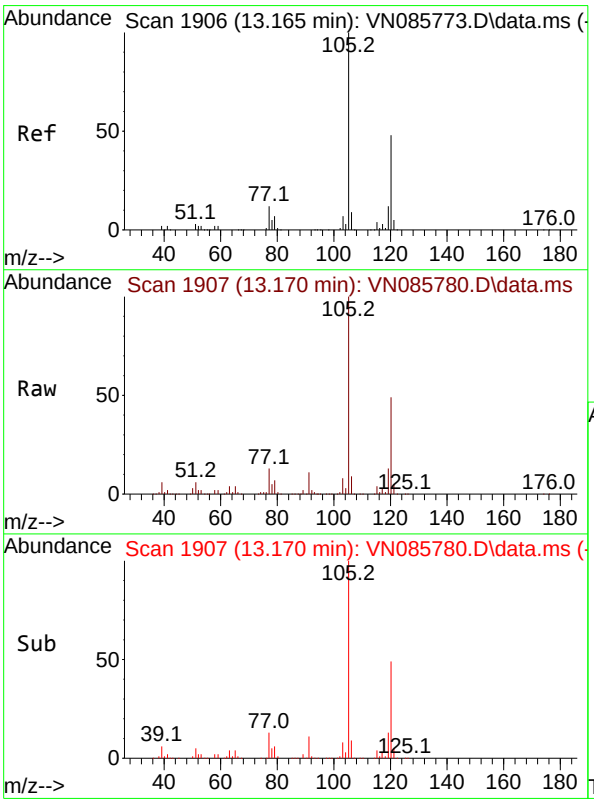
Ion	Ratio	Lower	Upper
91	100		
126	32.5	16.4	49.1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

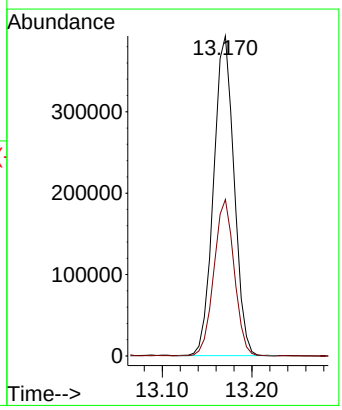


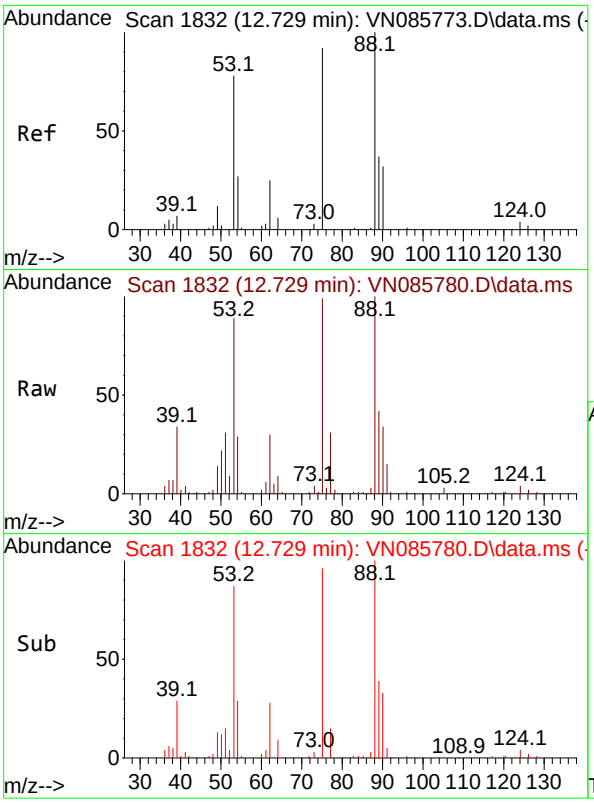


#80
1,3,5-Trimethylbenzene
Concen: 50.055 ug/l
RT: 13.170 min Scan# 1907
Delta R.T. 0.006 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion:105 Resp: 622090

Ion	Ratio	Lower	Upper
105	100		
120	48.6	24.3	72.9





#81
trans-1,4-Dichloro-2-butene
Concen: 47.152 ug/l
RT: 12.729 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

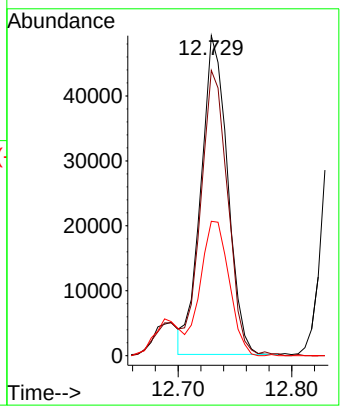
Tgt Ion: 75 Resp: 7994

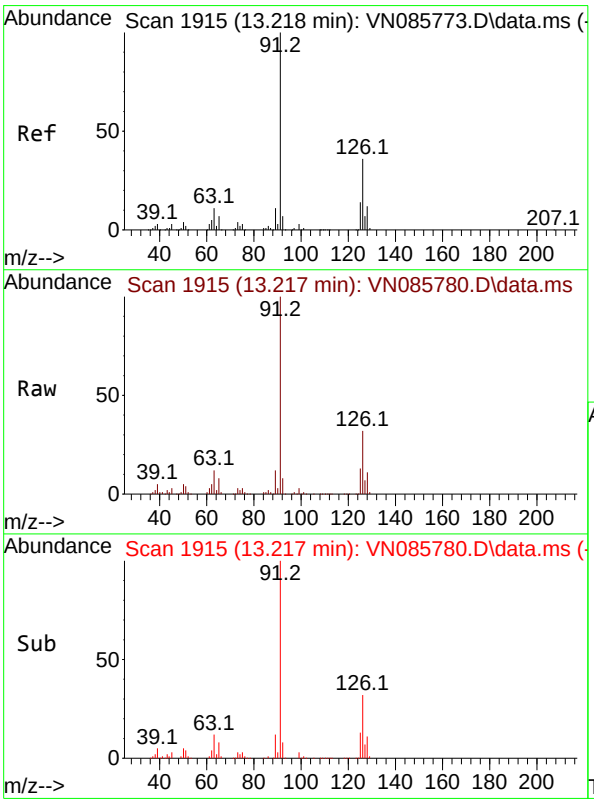
Ion	Ratio	Lower	Upper
75	100		
53	100.7	74.2	111.4
89	45.0	34.9	52.3

Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

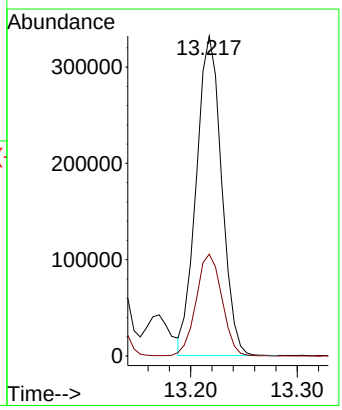


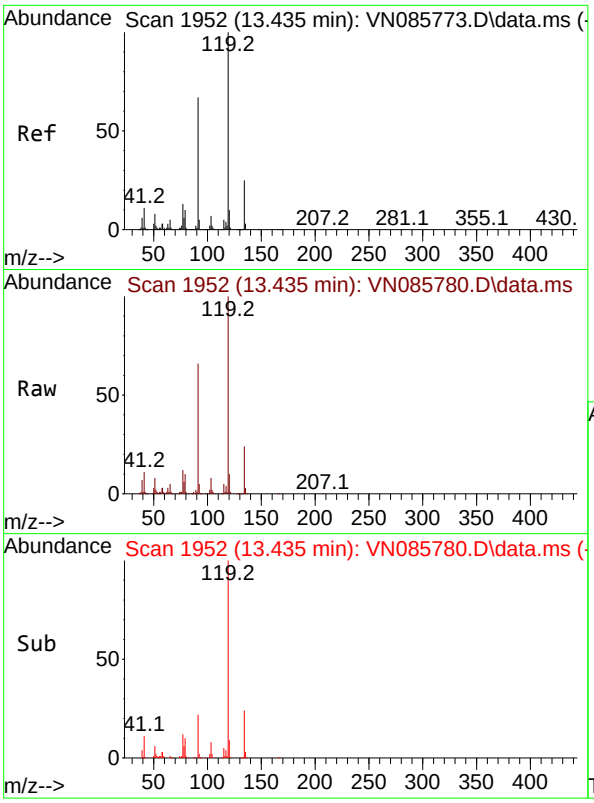


#82
4-Chlorotoluene
Concen: 47.401 ug/l
RT: 13.217 min Scan# 1915
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 91 Resp: 548585

Ion	Ratio	Lower	Upper
91	100		
126	32.5	16.4	49.4





#83
tert-Butylbenzene
Concen: 49.904 ug/l
RT: 13.435 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

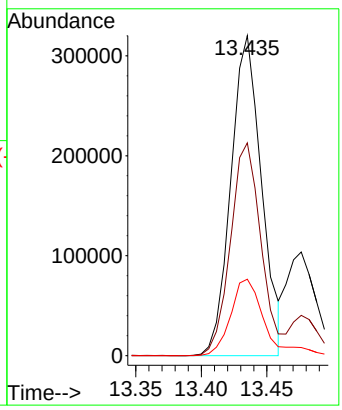
Tgt Ion:119 Resp: 52155

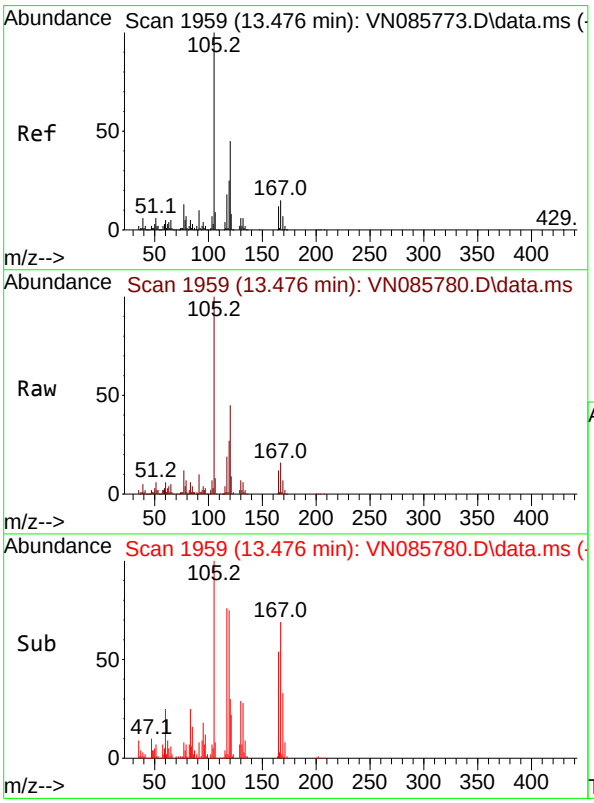
Ion	Ratio	Lower	Upper
119	100		
91	66.9	32.5	97.5
134	26.4	13.3	39.9

Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

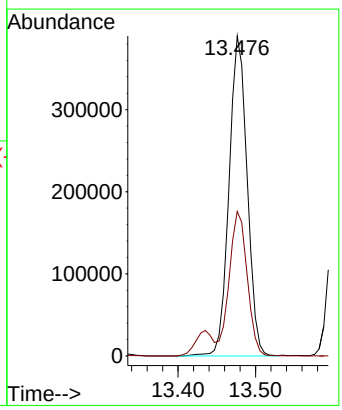


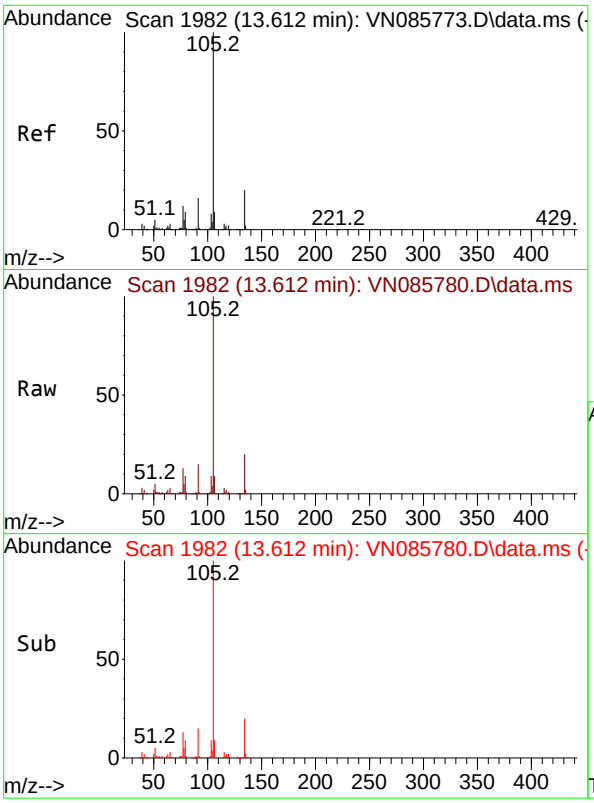


#84
1,2,4-Trimethylbenzene
Concen: 51.531 ug/l
RT: 13.476 min Scan# 1959
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion:105 Resp: 633621

Ion	Ratio	Lower	Upper
105	100		
120	45.2	22.4	67.3

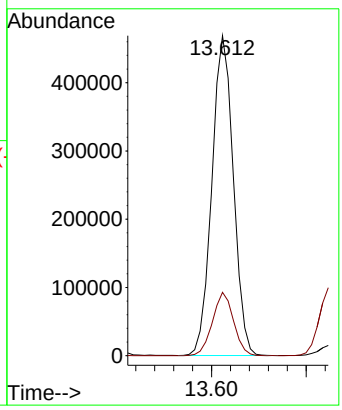




#85
sec-Butylbenzene
Concen: 49.925 ug/l
RT: 13.612 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion:105 Resp: 73720

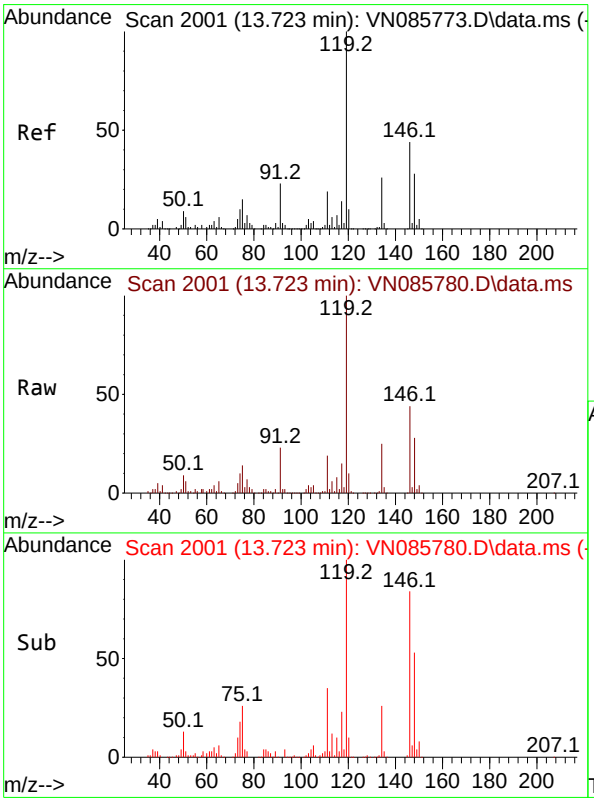
Ion	Ratio	Lower	Upper
105	100		
134	19.5	9.8	29.4



Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

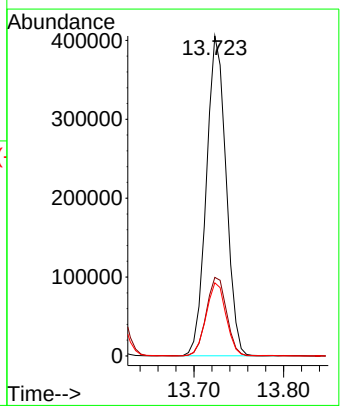
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

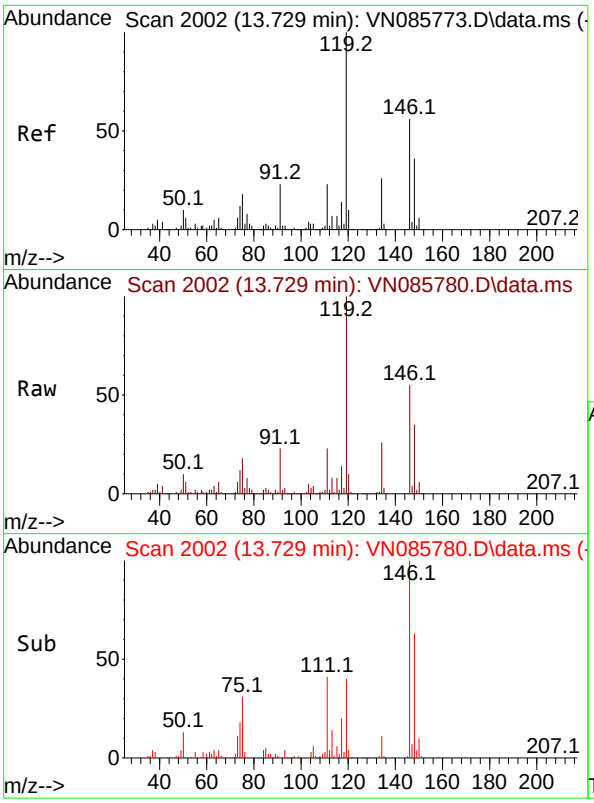


#86
p-Isopropyltoluene
Concen: 46.012 ug/l
RT: 13.723 min Scan# 2001
Delta R.T. 0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion:119 Resp: 617918

Ion	Ratio	Lower	Upper
119	100		
134	25.4	13.0	39.0
91	23.1	11.7	35.1

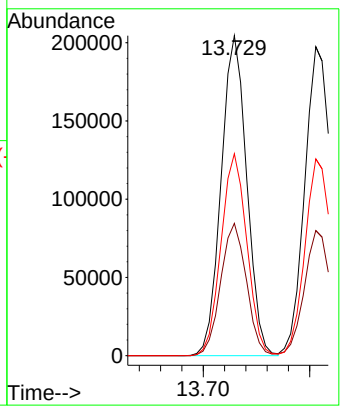




#87
1,3-Dichlorobenzene
Concen: 44.186 ug/l
RT: 13.729 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion:146 Resp: 34122

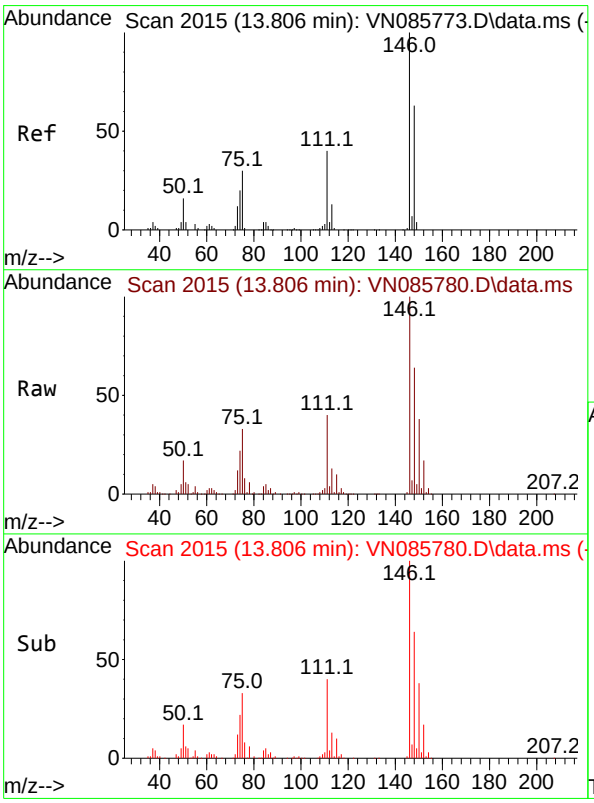
Ion	Ratio	Lower	Upper
146	100		
111	41.5	21.1	63.3
148	63.7	32.1	96.5



Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

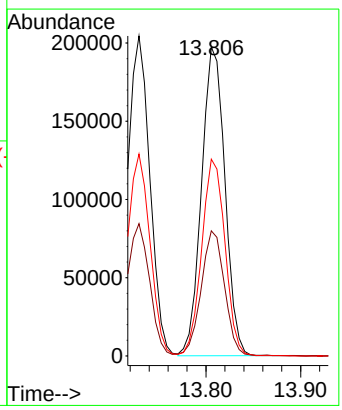
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

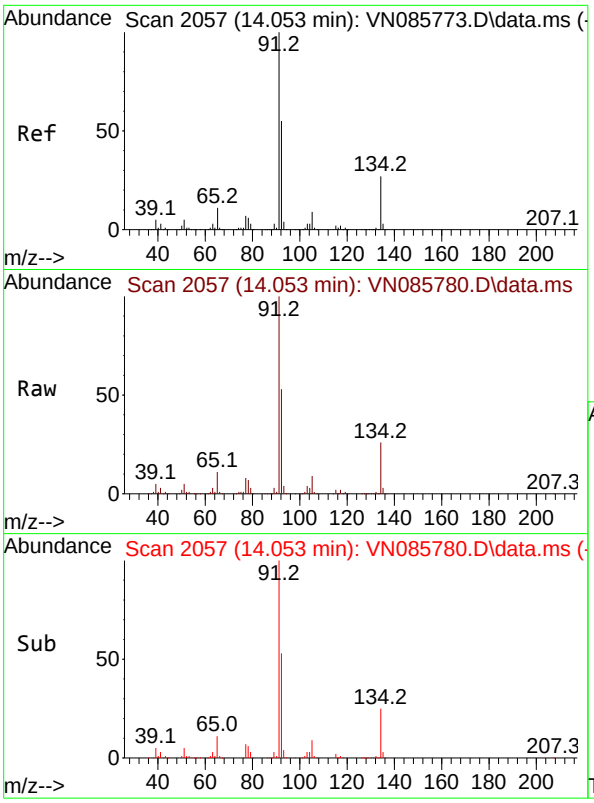


#88
1,4-Dichlorobenzene
Concen: 42.781 ug/l
RT: 13.806 min Scan# 2015
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion:146 Resp: 338619

Ion	Ratio	Lower	Upper
146	100		
111	40.3	20.4	61.3
148	63.6	31.8	95.4

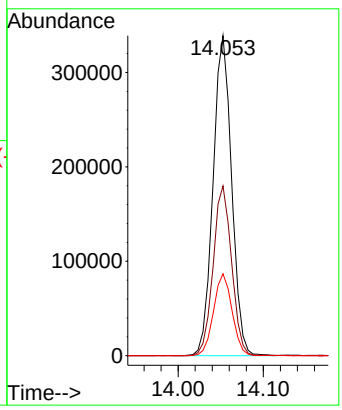




#89
n-Butylbenzene
Concen: 49.015 ug/l
RT: 14.053 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 91 Resp: 51386

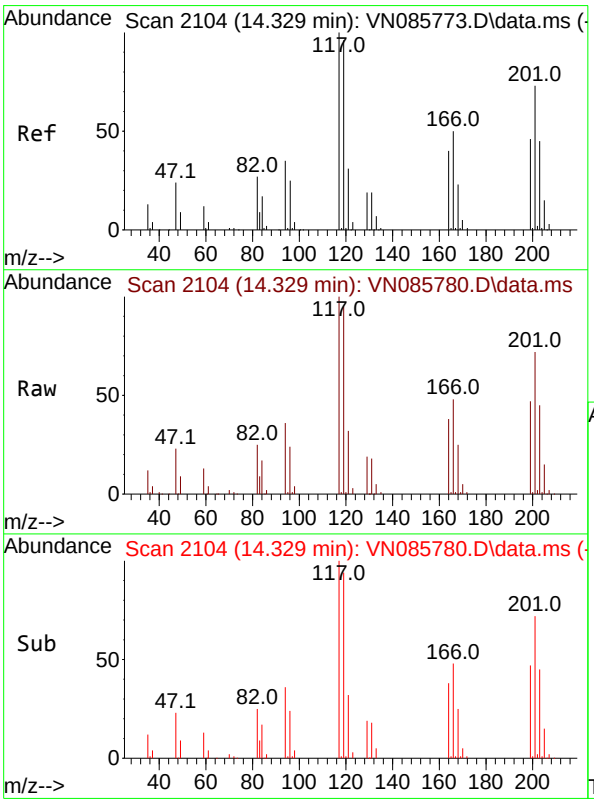
Ion	Ratio	Lower	Upper
91	100		
92	52.7	27.1	81.3
134	25.5	12.7	38.1



Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

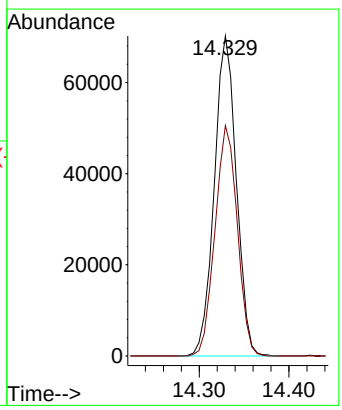
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

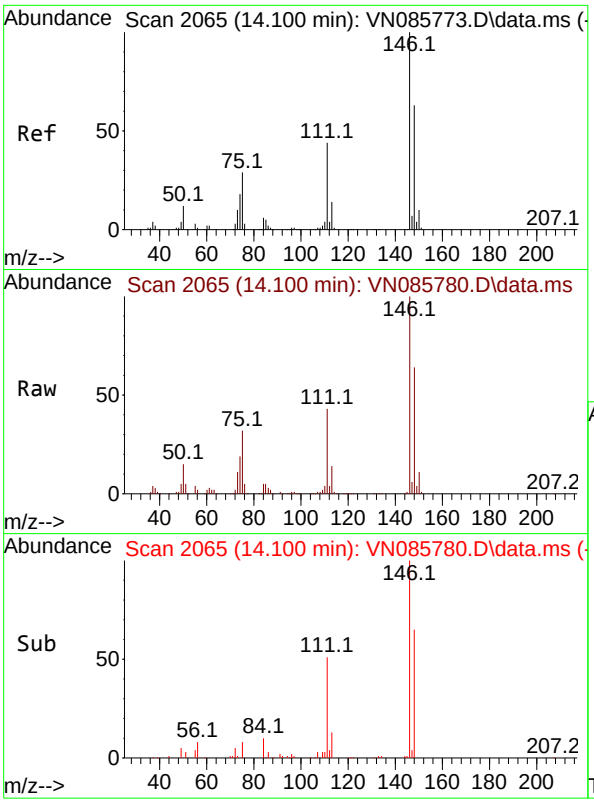


#90
Hexachloroethane
Concen: 42.828 ug/l
RT: 14.329 min Scan# 2104
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion:117 Resp: 119768

Ion	Ratio	Lower	Upper
117	100		
201	72.7	35.6	106.9

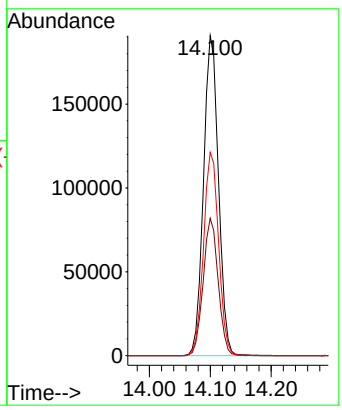




#91
1,2-Dichlorobenzene
Concen: 43.883 ug/l
RT: 14.100 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion:146 Resp: 32588

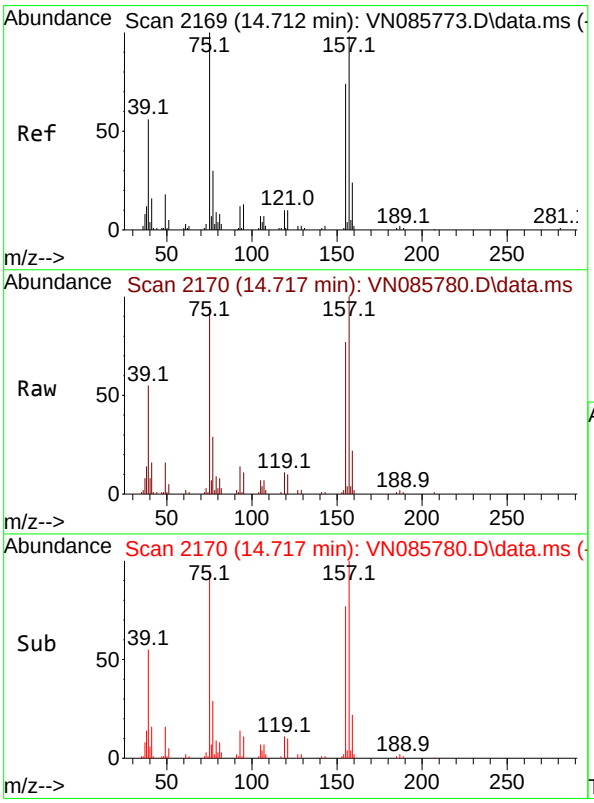
Ion	Ratio	Lower	Upper
146	100		
111	42.9	21.4	64.3
148	64.0	32.0	96.2



Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

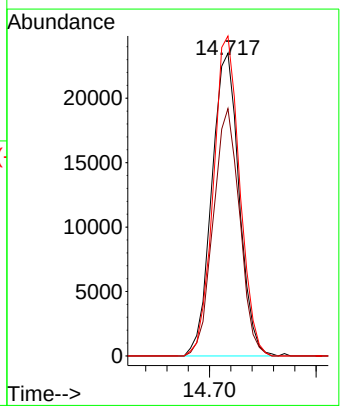
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

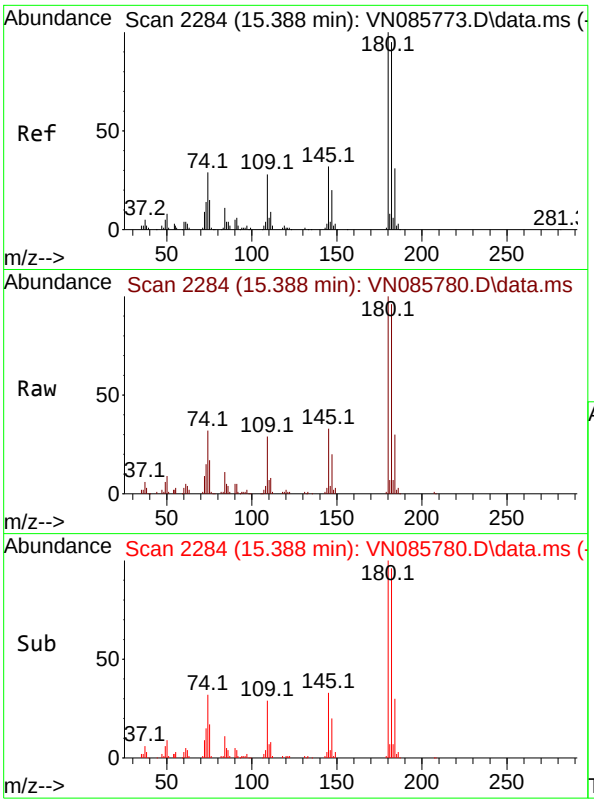


#92
1,2-Dibromo-3-Chloropropane
Concen: 43.396 ug/l
RT: 14.717 min Scan# 2170
Delta R.T. 0.006 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion: 75 Resp: 41836

Ion	Ratio	Lower	Upper
75	100		
155	78.9	39.9	119.6
157	102.1	49.9	149.7





#93
1,2,4-Trichlorobenzene
Concen: 45.640 ug/l
RT: 15.388 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

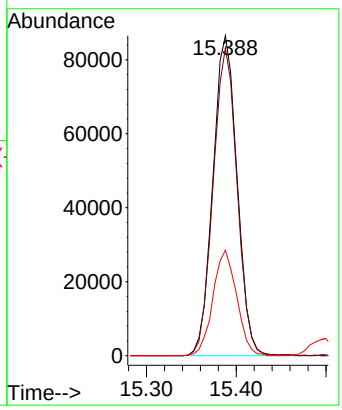
Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

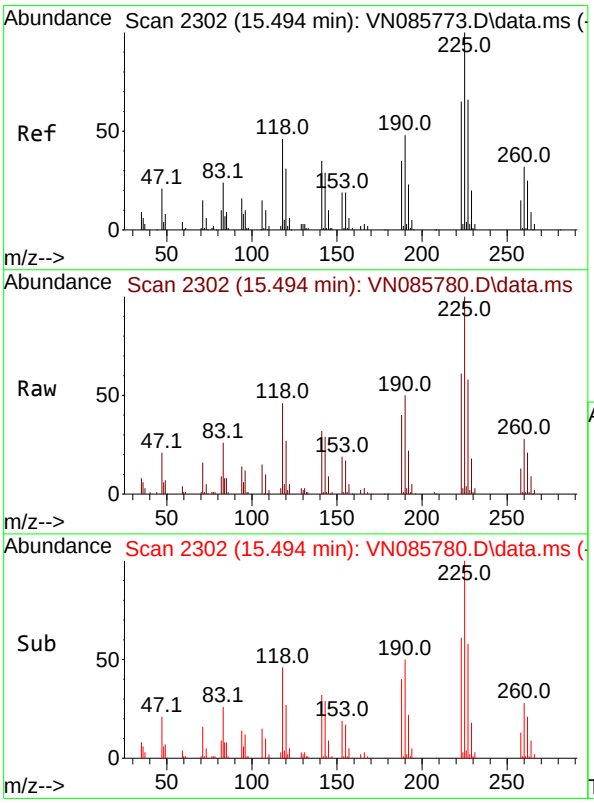
Tgt Ion:180 Resp: 16150

Ion	Ratio	Lower	Upper
180	100		
182	95.5	47.3	141.9
145	32.4	16.2	48.5

Manual Integrations
APPROVED

Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025

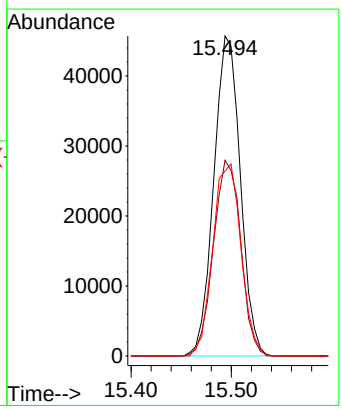


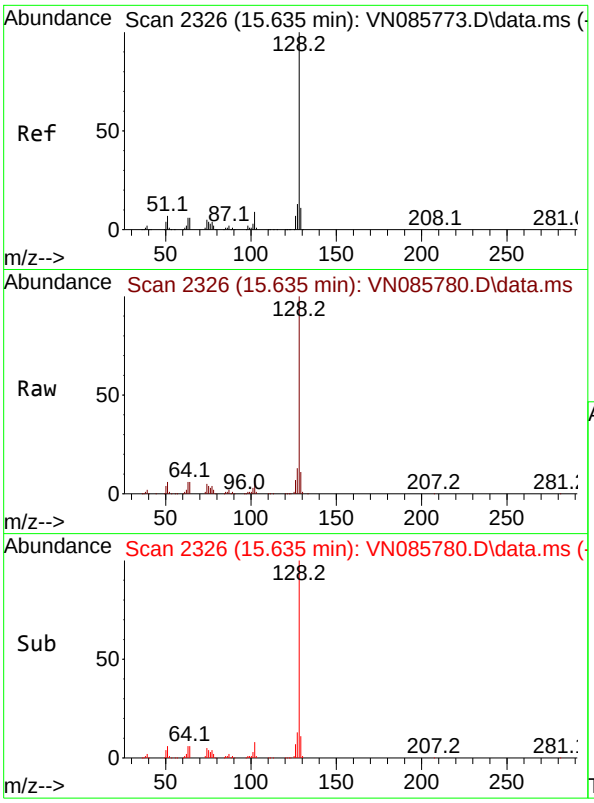


#94
Hexachlorobutadiene
Concen: 39.087 ug/l
RT: 15.494 min Scan# 2302
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion:225 Resp: 84060

Ion	Ratio	Lower	Upper
225	100		
223	62.9	31.9	95.5
227	63.8	32.2	96.6

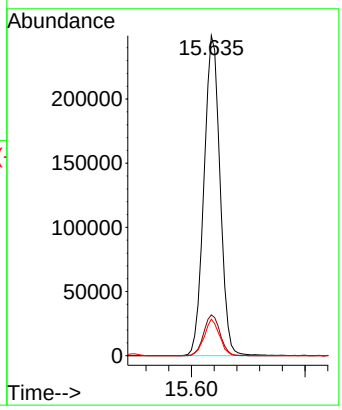




#95
Naphthalene
Concen: 50.167 ug/l
RT: 15.635 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion:128 Resp: 48737

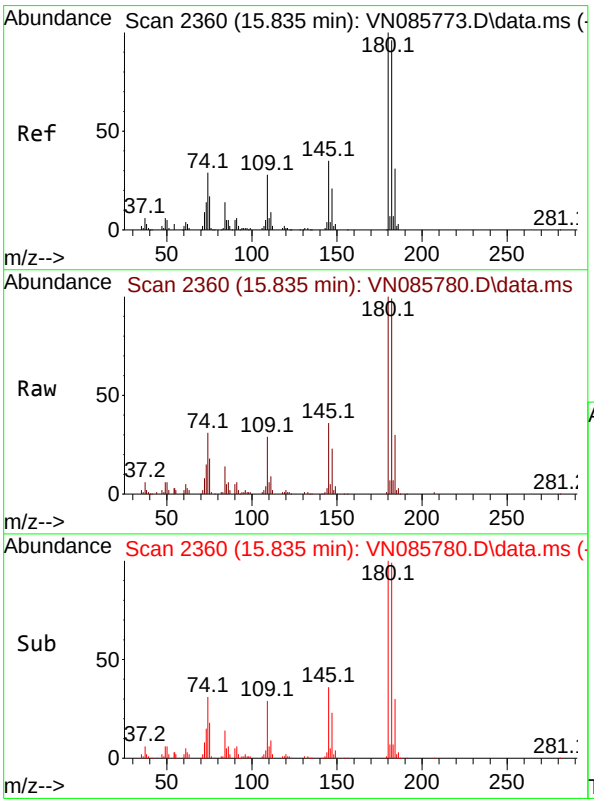
Ion	Ratio	Lower	Upper
128	100		
127	13.0	10.2	15.2
129	10.8	8.7	13.1



Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Manual Integrations
APPROVED

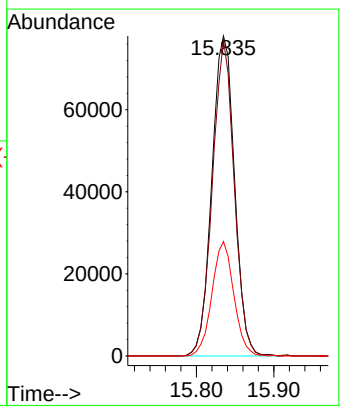
Reviewed By :John Carlone 02/19/2025
Supervised By :Mahesh Dadoda 02/19/2025



#96
1,2,3-Trichlorobenzene
Concen: 44.593 ug/l
RT: 15.835 min Scan# 2360
Delta R.T. -0.000 min
Lab File: VN085780.D
Acq: 18 Feb 2025 16:28

Tgt Ion:180 Resp: 158416

Ion	Ratio	Lower	Upper
180	100		
182	94.9	47.3	141.8
145	34.6	16.9	50.6



Evaluate Continuing Calibration Report

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN021825\
Data File : VN085780.D
Acq On : 18 Feb 2025 16:28
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 13 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Quant Time: Feb 19 05:09:13 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:43:32 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	97	0.00
2	T	Dichlorodifluoromethane	0.680	0.615	9.6	89	0.00
3	P	Chloromethane	0.682	0.579	15.1	91	0.00
4	C	Vinyl Chloride	0.723	0.628	13.1#	90	0.00
5	T	Bromomethane	0.462	0.381	17.5	88	0.00
6	T	Chloroethane	0.479	0.391	18.4	92	0.00
7	T	Trichlorofluoromethane	1.046	0.891	14.8	91	0.00
8	T	Diethyl Ether	0.339	0.307	9.4	90	0.00
9	T	1,1,2-Trichlorotrifluoroeth	0.605	0.527	12.9	91	0.00
10	T	Methyl Iodide	0.745	0.674	9.5	91	0.00
11	T	Tert butyl alcohol	0.080	0.076	5.0	94	0.00
12	CM	1,1-Dichloroethene	0.548	0.490	10.6#	90	0.00
13	T	Acrolein	0.118	0.114	3.4	88	0.00
14	T	Allyl chloride	0.720	0.642	10.8	90	0.00
15	T	Acrylonitrile	0.259	0.241	6.9	96	0.00
16	T	Acetone	0.205	0.178	13.2	94	0.00
17	T	Carbon Disulfide	1.625	1.347	17.1	89	0.00
18	T	Methyl Acetate	0.705	0.621	11.9	98	0.00
19	T	Methyl tert-butyl Ether	1.629	1.565	3.9	92	0.00
20	T	Methylene Chloride	0.660	0.553	16.2	91	0.00
21	T	trans-1,2-Dichloroethene	0.590	0.513	13.1	91	0.00
22	T	Diisopropyl ether	1.627	1.540	5.3	91	0.00
23	T	Vinyl Acetate	1.114	1.082	2.9	94	0.00
24	P	1,1-Dichloroethane	1.106	0.960	13.2	90	0.00
25	T	2-Butanone	0.302	0.291	3.6	96	0.00
26	T	2,2-Dichloropropane	0.983	0.873	11.2	90	0.00
27	T	cis-1,2-Dichloroethene	0.685	0.606	11.5	89	0.00
28	T	Bromochloromethane	0.454	0.454	0.0	100	0.00
29	T	Tetrahydrofuran	0.195	0.194	0.5	97	0.00
30	C	Chloroform	1.156	0.995	13.9#	91	0.00
31	T	Cyclohexane	0.926	0.791	14.6	90	0.00
32	T	1,1,1-Trichloroethane	1.028	0.897	12.7	90	0.00
33	S	1,2-Dichloroethane-d4	0.648	0.650	-0.3	103	0.00
34	I	1,4-Difluorobenzene	1.000	1.000	0.0	97	0.00
35	S	Dibromofluoromethane	0.327	0.334	-2.1	102	0.00
36	T	1,1-Dichloropropene	0.463	0.431	6.9	91	0.00
37	T	Ethyl Acetate	0.381	0.357	6.3	92	0.00
38	T	Carbon Tetrachloride	0.550	0.493	10.4	91	0.00
39	T	Methylcyclohexane	0.455	0.451	0.9	89	0.00
40	TM	Benzene	1.484	1.336	10.0	90	0.00
41	T	Methacrylonitrile	0.204	0.206	-1.0	93	0.00
42	TM	1,2-Dichloroethane	0.483	0.438	9.3	93	0.00
43	T	Isopropyl Acetate	0.807	0.621	23.0	95	0.00
44	TM	Trichloroethene	0.364	0.316	13.2	90	0.00
45	C	1,2-Dichloropropane	0.358	0.324	9.5#	91	0.00
46	T	Dibromomethane	0.253	0.232	8.3	93	0.00
47	T	Bromodichloromethane	0.541	0.481	11.1	90	0.00
48	T	Methyl methacrylate	0.283	0.292	-3.2	94	0.00

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN021825\
Data File : VN085780.D
Acq On : 18 Feb 2025 16:28
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 13 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Quant Time: Feb 19 05:09:13 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:43:32 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49	T	1,4-Dioxane	0.005	0.005	0.0	91	0.00
50	S	Toluene-d8	1.190	1.275	-7.1	103	0.00
51	T	4-Methyl-2-Pentanone	0.367	0.374	-1.9	96	0.00
52	CM	Toluene	0.870	0.841	3.3#	90	0.00
53	T	t-1,3-Dichloropropene	0.500	0.489	2.2	91	0.00
54	T	cis-1,3-Dichloropropene	0.548	0.528	3.6	90	0.00
55	T	1,1,2-Trichloroethane	0.346	0.313	9.5	92	0.00
56	T	Ethyl methacrylate	0.434	0.477	-9.9	93	0.00
57	T	1,3-Dichloropropane	0.577	0.534	7.5	92	0.00
58	T	2-Chloroethyl Vinyl ether	0.195	0.222	-13.8	123	0.00
59	T	2-Hexanone	0.253	0.269	-6.3	96	0.00
60	T	Dibromochloromethane	0.403	0.376	6.7	91	0.00
61	T	1,2-Dibromoethane	0.327	0.309	5.5	93	0.00
62	S	4-Bromofluorobenzene	0.392	0.444	-13.3	103	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	99	0.00
64	T	Tetrachloroethene	0.387	0.326	15.8	89	0.00
65	PM	Chlorobenzene	1.145	1.018	11.1	91	0.00
66	T	1,1,1,2-Tetrachloroethane	0.412	0.359	12.9	90	0.00
67	C	Ethyl Benzene	1.794	1.746	2.7#	91	0.00
68	T	m/p-Xylenes	0.682	0.679	0.4	91	0.00
69	T	o-Xylene	0.648	0.646	0.3	91	0.00
70	T	Styrene	1.059	1.092	-3.1	90	0.00
71	P	Bromoform	0.306	0.285	6.9	93	0.00
72	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	98	0.00
73	T	Isopropylbenzene	3.425	3.357	2.0	91	0.00
74	T	N-amyl acetate	1.208	1.193	1.2	94	0.00
75	P	1,1,2,2-Tetrachloroethane	1.179	1.014	14.0	94	0.00
76	T	1,2,3-Trichloropropane	1.111	1.023	7.9	106	0.00
77	T	Bromobenzene	0.925	0.834	9.8	90	0.00
78	T	n-propylbenzene	3.923	3.917	0.2	90	0.00
79	T	2-Chlorotoluene	2.621	2.430	7.3	91	0.00
80	T	1,3,5-Trimethylbenzene	2.790	2.793	-0.1	89	0.00
81	T	trans-1,4-Dichloro-2-butene	0.381	0.359	5.8	89	0.00
82	T	4-Chlorotoluene	2.598	2.463	5.2	91	0.00
83	T	tert-Butylbenzene	2.346	2.342	0.2	89	0.00
84	T	1,2,4-Trimethylbenzene	2.761	2.845	-3.0	90	0.00
85	T	sec-Butylbenzene	3.315	3.310	0.2	89	0.00
86	T	p-Isopropyltoluene	2.665	2.775	-4.1	89	0.00
87	T	1,3-Dichlorobenzene	1.734	1.532	11.6	92	0.00
88	T	1,4-Dichlorobenzene	1.777	1.521	14.4	90	0.00
89	T	n-Butylbenzene	2.354	2.307	2.0	89	0.00
90	T	Hexachloroethane	0.628	0.538	14.3	90	0.00
91	T	1,2-Dichlorobenzene	1.667	1.463	12.2	91	0.00
92	T	1,2-Dibromo-3-Chloropropane	0.216	0.188	13.0	95	0.00
93	T	1,2,4-Trichlorobenzene	0.794	0.725	8.7	89	0.00
94	T	Hexachlorobutadiene	0.483	0.377	21.9	87	0.00
95	T	Naphthalene	2.181	2.189	-0.4	92	0.00

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN021825\
Data File : VN085780.D
Acq On : 18 Feb 2025 16:28
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 13 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Quant Time: Feb 19 05:09:13 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:43:32 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
96 T	1,2,3-Trichlorobenzene	0.798	0.711	10.9	88	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Evaluate Continuing Calibration Report

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN021825\
Data File : VN085780.D
Acq On : 18 Feb 2025 16:28
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 13 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Quant Time: Feb 19 05:09:13 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:43:32 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	50.000	50.000	0.0	97	0.00
2	T	Dichlorodifluoromethane	50.000	45.199	9.6	89	0.00
3	P	Chloromethane	50.000	42.438	15.1	91	0.00
4	C	Vinyl Chloride	50.000	43.449	13.1#	90	0.00
5	T	Bromomethane	50.000	41.282	17.4	88	0.00
6	T	Chloroethane	50.000	40.887	18.2	92	0.00
7	T	Trichlorofluoromethane	50.000	42.592	14.8	91	0.00
8	T	Diethyl Ether	50.000	45.353	9.3	90	0.00
9	T	1,1,2-Trichlorotrifluoroeth	50.000	43.582	12.8	91	0.00
10	T	Methyl Iodide	50.000	45.190	9.6	91	0.00
11	T	Tert butyl alcohol	250.000	237.350	5.1	94	0.00
12	CM	1,1-Dichloroethene	50.000	44.667	10.7#	90	0.00
13	T	Acrolein	250.000	241.140	3.5	88	0.00
14	T	Allyl chloride	50.000	44.555	10.9	90	0.00
15	T	Acrylonitrile	250.000	232.720	6.9	96	0.00
16	T	Acetone	250.000	217.115	13.2	94	0.00
17	T	Carbon Disulfide	50.000	41.449	17.1	89	0.00
18	T	Methyl Acetate	50.000	44.011	12.0	98	0.00
19	T	Methyl tert-butyl Ether	50.000	48.014	4.0	92	0.00
20	T	Methylene Chloride	50.000	41.955	16.1	91	0.00
21	T	trans-1,2-Dichloroethene	50.000	43.475	13.0	91	0.00
22	T	Diisopropyl ether	50.000	47.344	5.3	91	0.00
23	T	Vinyl Acetate	250.000	242.867	2.9	94	0.00
24	P	1,1-Dichloroethane	50.000	43.396	13.2	90	0.00
25	T	2-Butanone	250.000	240.836	3.7	96	0.00
26	T	2,2-Dichloropropane	50.000	44.383	11.2	90	0.00
27	T	cis-1,2-Dichloroethene	50.000	44.284	11.4	89	0.00
28	T	Bromochloromethane	50.000	49.991	0.0	100	0.00
29	T	Tetrahydrofuran	250.000	248.913	0.4	97	0.00
30	C	Chloroform	50.000	43.065	13.9#	91	0.00
31	T	Cyclohexane	50.000	42.725	14.5	90	0.00
32	T	1,1,1-Trichloroethane	50.000	43.640	12.7	90	0.00
33	S	1,2-Dichloroethane-d4	50.000	50.125	-0.3	103	0.00
34	I	1,4-Difluorobenzene	50.000	50.000	0.0	97	0.00
35	S	Dibromofluoromethane	50.000	50.972	-1.9	102	0.00
36	T	1,1-Dichloropropene	50.000	46.581	6.8	91	0.00
37	T	Ethyl Acetate	50.000	46.779	6.4	92	0.00
38	T	Carbon Tetrachloride	50.000	44.828	10.3	91	0.00
39	T	Methylcyclohexane	50.000	49.612	0.8	89	0.00
40	TM	Benzene	50.000	45.016	10.0	90	0.00
41	T	Methacrylonitrile	50.000	50.597	-1.2	93	0.00
42	TM	1,2-Dichloroethane	50.000	45.321	9.4	93	0.00
43	T	Isopropyl Acetate	50.000	46.374	7.3	95	0.00
44	TM	Trichloroethene	50.000	43.368	13.3	90	0.00
45	C	1,2-Dichloropropane	50.000	45.194	9.6#	91	0.00
46	T	Dibromomethane	50.000	45.867	8.3	93	0.00
47	T	Bromodichloromethane	50.000	44.443	11.1	90	0.00
48	T	Methyl methacrylate	50.000	51.566	-3.1	94	0.00

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN021825\
Data File : VN085780.D
Acq On : 18 Feb 2025 16:28
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 13 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Quant Time: Feb 19 05:09:13 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:43:32 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49	T	1,4-Dioxane	1000.000	1010.103	-1.0	91	0.00
50	S	Toluene-d8	50.000	53.575	-7.2	103	0.00
51	T	4-Methyl-2-Pentanone	250.000	254.433	-1.8	96	0.00
52	CM	Toluene	50.000	48.324	3.4#	90	0.00
53	T	t-1,3-Dichloropropene	50.000	48.873	2.3	91	0.00
54	T	cis-1,3-Dichloropropene	50.000	48.172	3.7	90	0.00
55	T	1,1,2-Trichloroethane	50.000	45.289	9.4	92	0.00
56	T	Ethyl methacrylate	50.000	48.142	3.7	93	0.00
57	T	1,3-Dichloropropane	50.000	46.254	7.5	92	0.00
58	T	2-Chloroethyl Vinyl ether	250.000	276.203	-10.5	123	0.00
59	T	2-Hexanone	250.000	266.284	-6.5	96	0.00
60	T	Dibromochloromethane	50.000	46.707	6.6	91	0.00
61	T	1,2-Dibromoethane	50.000	47.208	5.6	93	0.00
62	S	4-Bromofluorobenzene	50.000	56.665	-13.3	103	0.00
63	I	Chlorobenzene-d5	50.000	50.000	0.0	99	0.00
64	T	Tetrachloroethene	50.000	42.088	15.8	89	0.00
65	PM	Chlorobenzene	50.000	44.422	11.2	91	0.00
66	T	1,1,1,2-Tetrachloroethane	50.000	43.545	12.9	90	0.00
67	C	Ethyl Benzene	50.000	48.655	2.7#	91	0.00
68	T	m/p-Xylenes	100.000	99.562	0.4	91	0.00
69	T	o-Xylene	50.000	49.837	0.3	91	0.00
70	T	Styrene	50.000	45.726	8.5	90	0.00
71	P	Bromoform	50.000	46.617	6.8	93	0.00
72	I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	98	0.00
73	T	Isopropylbenzene	50.000	49.002	2.0	91	0.00
74	T	N-amyl acetate	50.000	49.401	1.2	94	0.00
75	P	1,1,2,2-Tetrachloroethane	50.000	43.005	14.0	94	0.00
76	T	1,2,3-Trichloropropane	50.000	46.070	7.9	106	0.00
77	T	Bromobenzene	50.000	45.084	9.8	90	0.00
78	T	n-propylbenzene	50.000	49.927	0.1	90	0.00
79	T	2-Chlorotoluene	50.000	46.350	7.3	91	0.00
80	T	1,3,5-Trimethylbenzene	50.000	50.055	-0.1	89	0.00
81	T	trans-1,4-Dichloro-2-butene	50.000	47.152	5.7	89	0.00
82	T	4-Chlorotoluene	50.000	47.401	5.2	91	0.00
83	T	tert-Butylbenzene	50.000	49.904	0.2	89	0.00
84	T	1,2,4-Trimethylbenzene	50.000	51.531	-3.1	90	0.00
85	T	sec-Butylbenzene	50.000	49.925	0.2	89	0.00
86	T	p-Isopropyltoluene	50.000	46.012	8.0	89	0.00
87	T	1,3-Dichlorobenzene	50.000	44.186	11.6	92	0.00
88	T	1,4-Dichlorobenzene	50.000	42.781	14.4	90	0.00
89	T	n-Butylbenzene	50.000	49.015	2.0	89	0.00
90	T	Hexachloroethane	50.000	42.828	14.3	90	0.00
91	T	1,2-Dichlorobenzene	50.000	43.883	12.2	91	0.00
92	T	1,2-Dibromo-3-Chloropropane	50.000	43.396	13.2	95	0.00
93	T	1,2,4-Trichlorobenzene	50.000	45.640	8.7	89	0.00
94	T	Hexachlorobutadiene	50.000	39.087	21.8	87	0.00
95	T	Naphthalene	50.000	50.167	-0.3	92	0.00

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN021825\
Data File : VN085780.D
Acq On : 18 Feb 2025 16:28
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 13 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN021825

Quant Time: Feb 19 05:09:13 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:43:32 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
96 T	1,2,3-Trichlorobenzene	50.000	44.593	10.8	88	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Raw Data: **VN085928.D**

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: PORT06

Lab Code: CHEM Case No.: Q1514 SAS No.: Q1514 SDG No.: Q1514

Instrument ID: MSVOA_N Calibration Date/Time: 03/11/2025 13:22

Lab File ID: VN085928.D Init. Calib. Date(s): 02/18/2025 02/18/2025

Heated Purge: (Y/N) N Init. Calib. Time(s): 11:09 14:18

GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Vinyl Chloride	0.723	0.746		3.18	20
1,1-Dichloroethene	0.548	0.594		8.39	20
2-Butanone	0.302	0.338		11.92	20
Carbon Tetrachloride	0.550	0.625		13.64	20
Chloroform	1.156	1.221		5.62	20
Benzene	1.484	1.669		12.47	20
1,2-Dichloroethane	0.483	0.541		12.01	20
Trichloroethene	0.364	0.369		1.37	20
Tetrachloroethene	0.387	0.405		4.65	20
Chlorobenzene	1.145	1.212	0.3	5.85	20
1,2-Dichloroethane-d4	0.648	0.719		10.96	20
Dibromofluoromethane	0.327	0.367		12.23	20
Toluene-d8	1.190	1.369		15.04	20
4-Bromofluorobenzene	0.392	0.506		29.08	20

All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031125\
Data File : VN085928.D
Acq On : 11 Mar 2025 13:22
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 12 01:17:51 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:43:32 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.224	168	193697	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.100	114	310218	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.865	117	283255	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.788	152	153775	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.577	65	139175	55.421	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 110.840%			
35) Dibromofluoromethane	8.165	113	113839	56.081	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 112.160%			
50) Toluene-d8	10.565	98	424670	57.501	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 115.000%#			
62) 4-Bromofluorobenzene	12.847	95	156821	64.447	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 128.900%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.124	85	149052	56.573	ug/l	98
3) Chloromethane	2.359	50	143124	54.136	ug/l	100
4) Vinyl Chloride	2.512	62	144535	51.634	ug/l	100
5) Bromomethane	2.953	94	82079	45.857	ug/l	97
6) Chloroethane	3.118	64	81737	44.083	ug/l	99
7) Trichlorofluoromethane	3.494	101	211138	52.097	ug/l	96
8) Diethyl Ether	3.959	74	70014	53.392	ug/l	96
9) 1,1,2-Trichlorotrifluo...	4.365	101	124057	52.955	ug/l	99
10) Methyl Iodide	4.589	142	150351	52.065	ug/l	97
11) Tert butyl alcohol	5.524	59	74854	242.354	ug/l	100
12) 1,1-Dichloroethene	4.336	96	115016	54.147	ug/l	99
13) Acrolein	4.177	56	96839	211.429	ug/l	97
14) Allyl chloride	5.030	41	150912	54.113	ug/l	95
15) Acrylonitrile	5.712	53	276910	275.784	ug/l	100
16) Acetone	4.424	43	219737	276.540	ug/l	98
17) Carbon Disulfide	4.712	76	349600	55.533	ug/l	100
18) Methyl Acetate	5.018	43	120090	43.940	ug/l	98
19) Methyl tert-butyl Ether	5.788	73	359275	56.919	ug/l	98
20) Methylene Chloride	5.277	84	130189	50.948	ug/l	93
21) trans-1,2-Dichloroethene	5.783	96	124616	54.484	ug/l	93
22) Diisopropyl ether	6.671	45	362103	57.461	ug/l	96
23) Vinyl Acetate	6.600	43	1270226	294.389	ug/l	99
24) 1,1-Dichloroethane	6.565	63	228563	53.355	ug/l	99
25) 2-Butanone	7.482	43	327494	280.150	ug/l	98
26) 2,2-Dichloropropane	7.488	77	203466	53.414	ug/l	99
27) cis-1,2-Dichloroethene	7.482	96	138418	52.194	ug/l	96
28) Bromochloromethane	7.812	49	113720	64.588	ug/l	93
29) Tetrahydrofuran	7.835	42	220221	291.733	ug/l	98
30) Chloroform	7.965	83	236440	52.815	ug/l	100
31) Cyclohexane	8.253	56	200072	55.780	ug/l	94
32) 1,1,1-Trichloroethane	8.165	97	211810	53.194	ug/l	98
36) 1,1-Dichloropropene	8.365	75	165790	57.708	ug/l	99
37) Ethyl Acetate	7.559	43	134008	56.682	ug/l	99
38) Carbon Tetrachloride	8.359	117	193937	56.814	ug/l	94
39) Methylcyclohexane	9.600	83	174606	61.866	ug/l	96
40) Benzene	8.600	78	517879	56.244	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031125\
Data File : VN085928.D
Acq On : 11 Mar 2025 13:22
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 12 01:17:51 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:43:32 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.777	41	75757	59.941	ug/l		97
42) 1,2-Dichloroethane	8.671	62	167949	55.998	ug/l		100
43) Isopropyl Acetate	8.688	43	229745	55.431	ug/l		98
44) Trichloroethene	9.347	130	114319	50.566	ug/l		98
45) 1,2-Dichloropropane	9.618	63	125922	56.656	ug/l		97
46) Dibromomethane	9.706	93	87140	55.583	ug/l		99
47) Bromodichloromethane	9.882	83	184314	54.952	ug/l		100
48) Methyl methacrylate	9.676	41	106445	60.625	ug/l		98
49) 1,4-Dioxane	9.688	88	41048	1229.394	ug/l		98
51) 4-Methyl-2-Pentanone	10.441	43	696920	305.744	ug/l		100
52) Toluene	10.629	92	330401	61.214	ug/l		99
53) t-1,3-Dichloropropene	10.835	75	187593	60.485	ug/l		100
54) cis-1,3-Dichloropropene	10.312	75	200954	59.087	ug/l		97
55) 1,1,2-Trichloroethane	11.012	97	117216	54.621	ug/l		95
56) Ethyl methacrylate	10.870	69	177513	56.615	ug/l		99
57) 1,3-Dichloropropane	11.159	76	203447	56.791	ug/l		99
58) 2-Chloroethyl Vinyl ether	10.159	63	282710	238.868	ug/l		100
59) 2-Hexanone	11.194	43	510866	325.783	ug/l		99
60) Dibromochloromethane	11.359	129	145539	58.241	ug/l		98
61) 1,2-Dibromoethane	11.465	107	117538	57.968	ug/l		99
64) Tetrachloroethene	11.100	164	114845	52.336	ug/l		95
65) Chlorobenzene	11.888	112	343241	52.896	ug/l		98
66) 1,1,1,2-Tetrachloroethane	11.959	131	125659	53.877	ug/l		99
67) Ethyl Benzene	11.959	91	611796	60.189	ug/l		99
68) m/p-Xylenes	12.070	106	484997	125.614	ug/l		100
69) o-Xylene	12.394	106	222427	60.624	ug/l		97
70) Styrene	12.406	104	388800	56.209	ug/l		98
71) Bromoform	12.576	173	99094	57.178	ug/l	#	96
73) Isopropylbenzene	12.694	105	559356	53.095	ug/l		99
74) N-amyl acetate	12.494	43	199571	53.719	ug/l		99
75) 1,1,2,2-Tetrachloroethane	12.935	83	168671	46.527	ug/l		100
76) 1,2,3-Trichloropropane	12.988	75	178136m	52.150	ug/l		
77) Bromobenzene	12.976	156	143525	50.426	ug/l		98
78) n-propylbenzene	13.035	91	682397	56.559	ug/l		99
79) 2-Chlorotoluene	13.123	91	424345	52.640	ug/l		99
80) 1,3,5-Trimethylbenzene	13.170	105	489718	57.065	ug/l		99
81) trans-1,4-Dichloro-2-b...	12.735	75	69980	59.775	ug/l		87
82) 4-Chlorotoluene	13.217	91	436573	54.629	ug/l		100
83) tert-Butylbenzene	13.435	119	392056	54.327	ug/l		96
84) 1,2,4-Trimethylbenzene	13.476	105	505780	59.570	ug/l		99
85) sec-Butylbenzene	13.611	105	567243	55.632	ug/l		100
86) p-Isopropyltoluene	13.729	119	483401	51.591	ug/l		99
87) 1,3-Dichlorobenzene	13.729	146	268224	50.299	ug/l		100
88) 1,4-Dichlorobenzene	13.811	146	267568	48.956	ug/l		100
89) n-Butylbenzene	14.053	91	404902	55.932	ug/l		98
90) Hexachloroethane	14.335	117	93901	48.627	ug/l		99
91) 1,2-Dichlorobenzene	14.106	146	256774	50.074	ug/l		99
92) 1,2-Dibromo-3-Chloropr...	14.717	75	31337	47.074	ug/l		97
93) 1,2,4-Trichlorobenzene	15.388	180	125292	51.276	ug/l		98
94) Hexachlorobutadiene	15.500	225	67213	45.261	ug/l		99
95) Naphthalene	15.641	128	352544	52.553	ug/l		100
96) 1,2,3-Trichlorobenzene	15.841	180	121186	49.402	ug/l		98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031125\
Data File : VN085928.D
Acq On : 11 Mar 2025 13:22
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 12 01:17:51 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:43:32 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

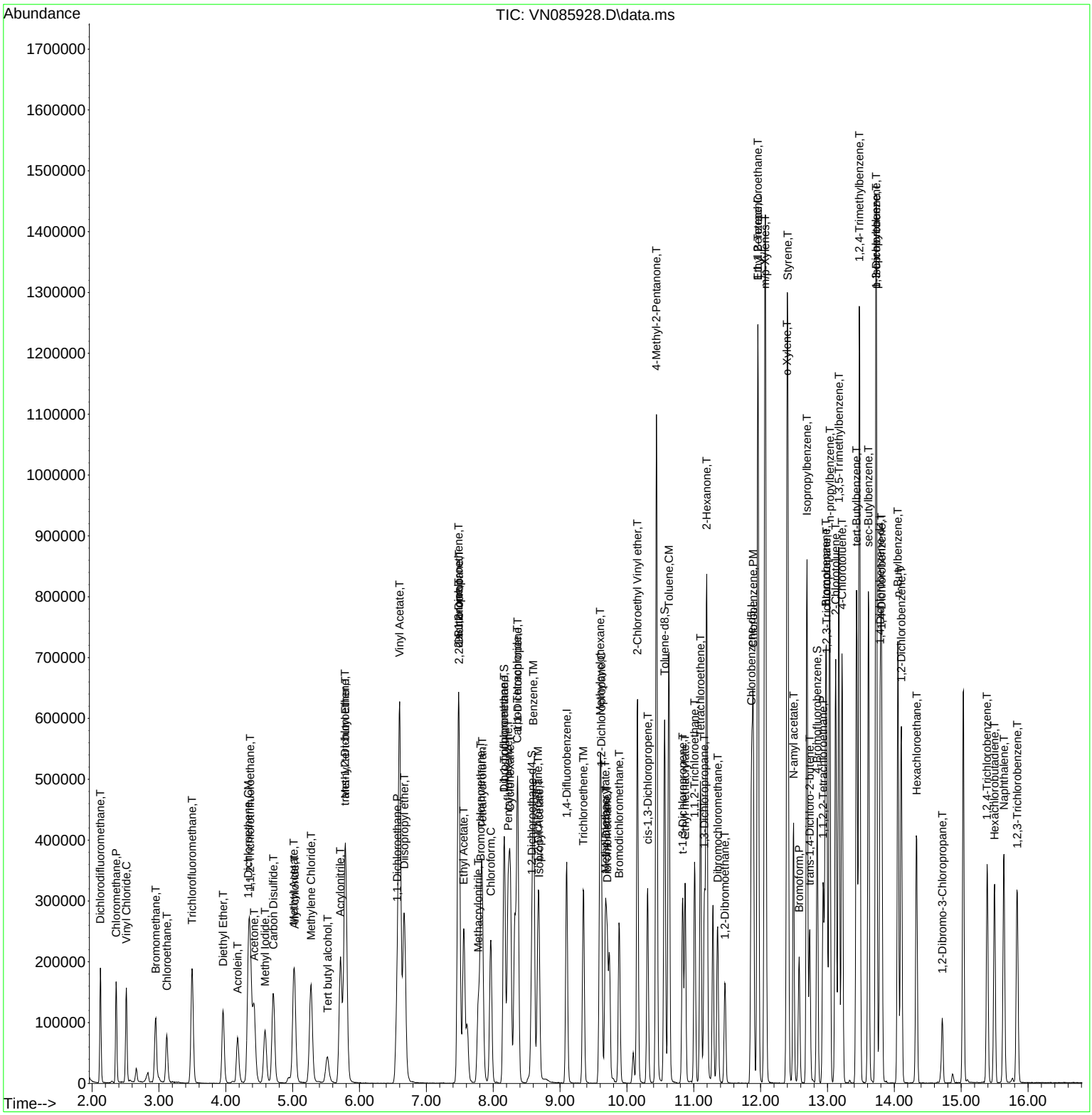
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031125\
Data File : VN085928.D
Acq On : 11 Mar 2025 13:22
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 3 Sample Multiplier: 1

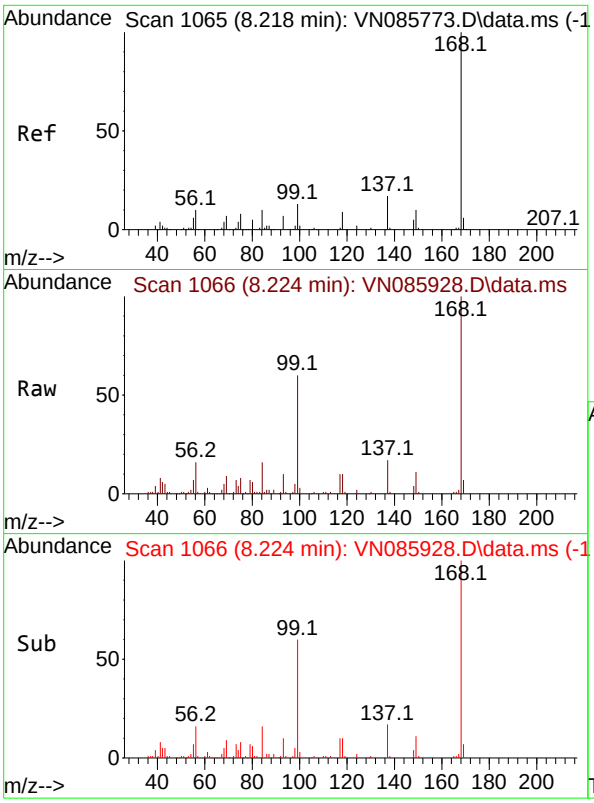
Quant Time: Mar 12 01:17:51 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:43:32 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

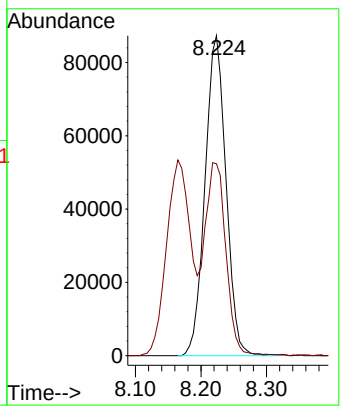




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.224 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion:168 Resp: 19369

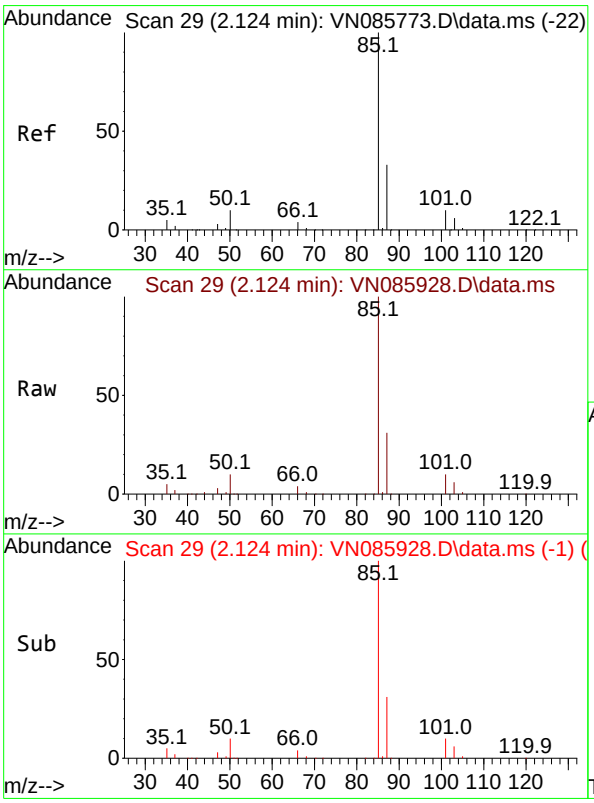
Ion	Ratio	Lower	Upper
168	100		
99	59.7	47.9	71.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

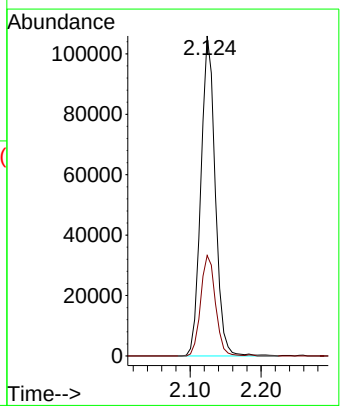
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

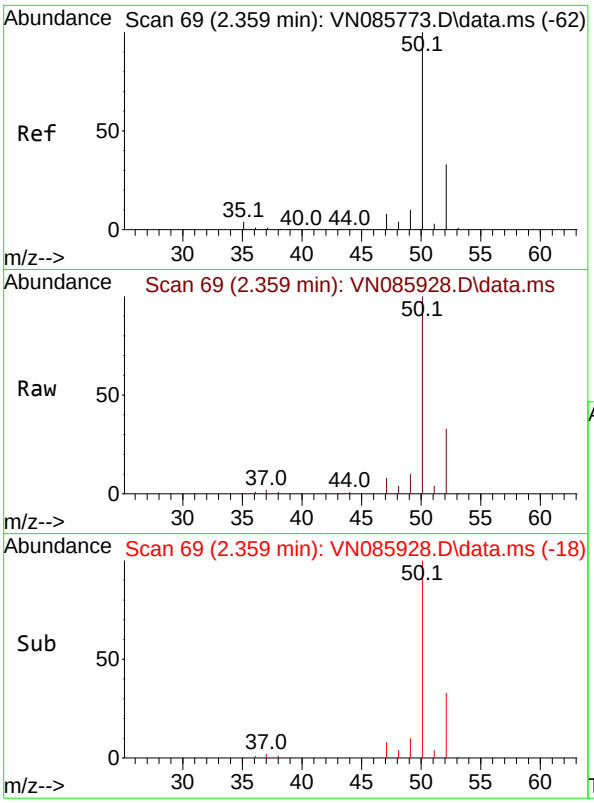


#2
Dichlorodifluoromethane
Concen: 56.573 ug/l
RT: 2.124 min Scan# 29
Delta R.T. -0.000 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 85 Resp: 149052

Ion	Ratio	Lower	Upper
85	100		
87	31.4	16.4	49.2





#3
Chloromethane
Concen: 54.136 ug/l
RT: 2.359 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

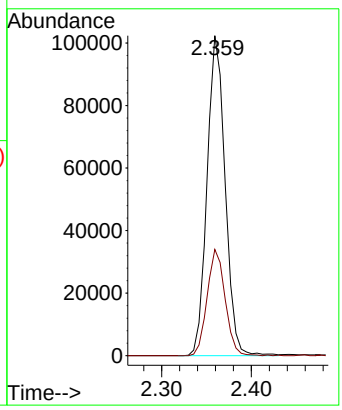
Tgt Ion: 50 Resp: 14312

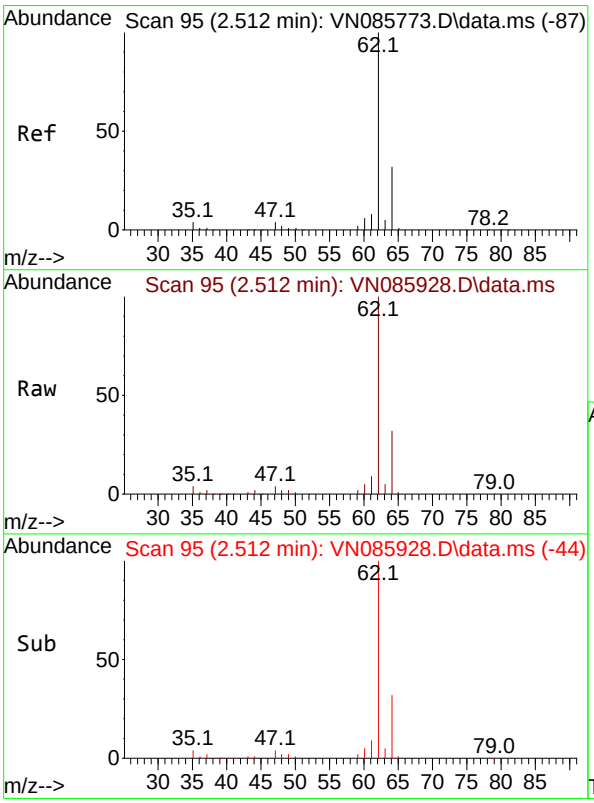
Ion	Ratio	Lower	Upper
50	100		
52	33.2	26.7	40.1

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

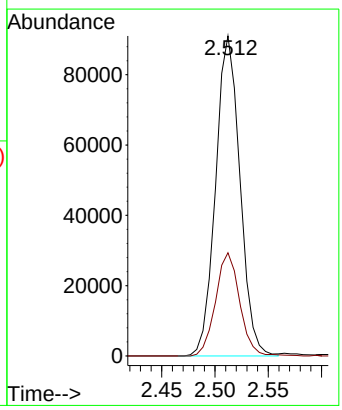


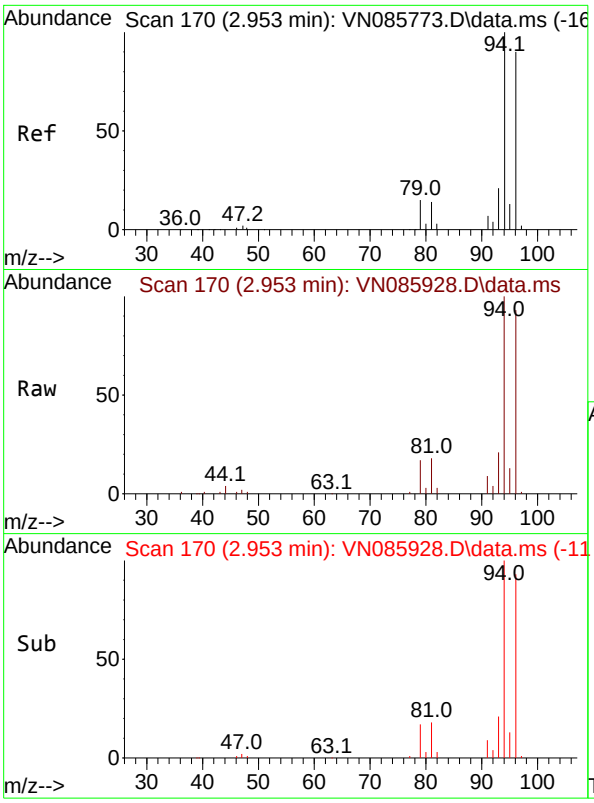


#4
Vinyl Chloride
Concen: 51.634 ug/l
RT: 2.512 min Scan# 95
Delta R.T. -0.000 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 62 Resp: 144535

Ion	Ratio	Lower	Upper
62	100		
64	32.2	25.9	38.9





#5
Bromomethane
Concen: 45.857 ug/l
RT: 2.953 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

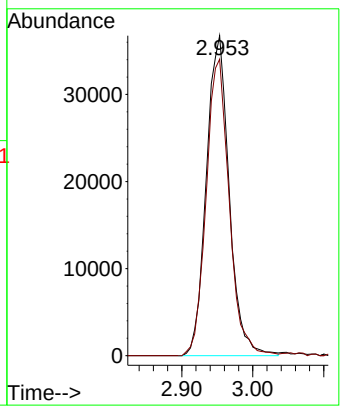
Tgt Ion: 94 Resp: 8207

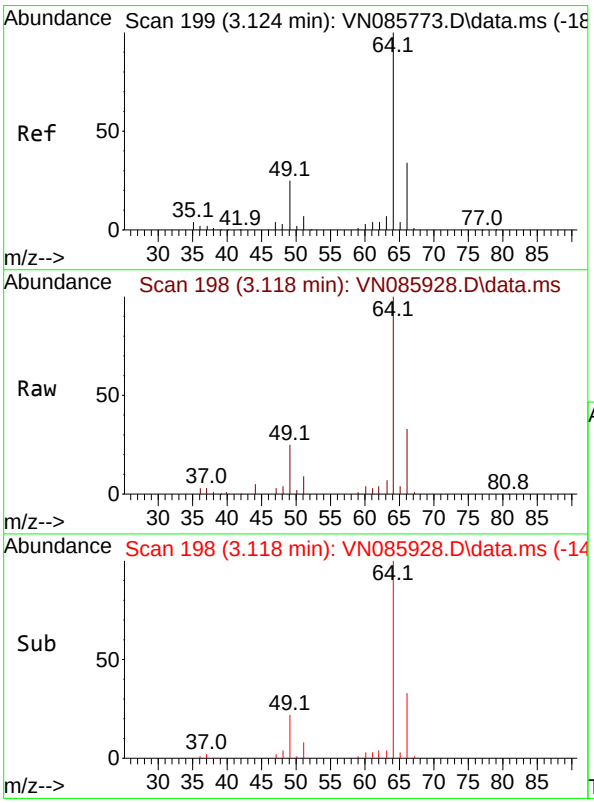
Ion	Ratio	Lower	Upper
94	100		
96	92.7	71.7	107.5

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

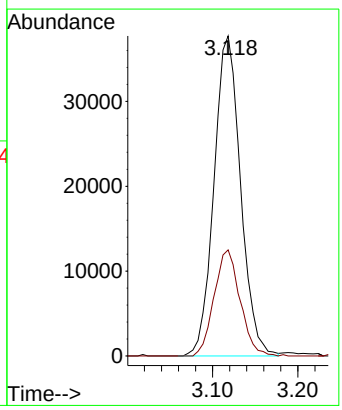


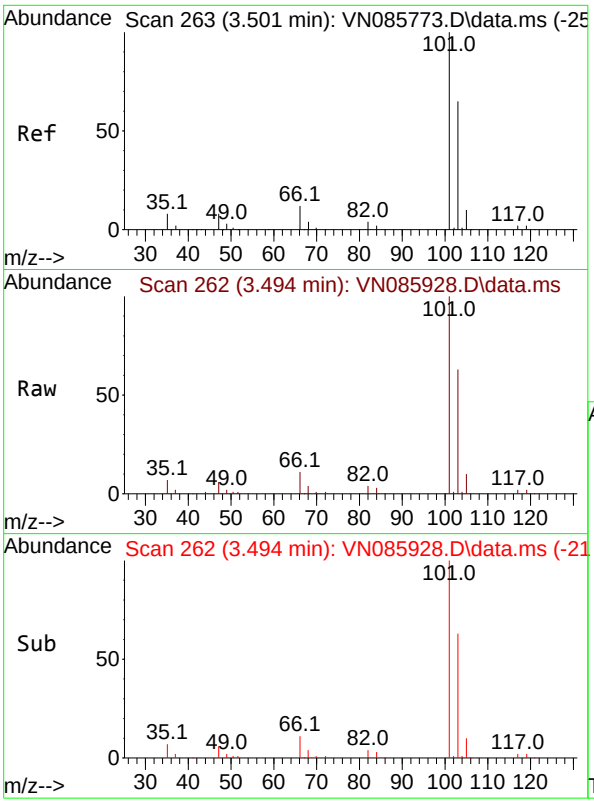


#6
Chloroethane
Concen: 44.083 ug/l
RT: 3.118 min Scan# 198
Delta R.T. -0.006 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 64 Resp: 81737

Ion	Ratio	Lower	Upper
64	100		
66	33.2	27.0	40.6





#7
Trichlorofluoromethane
Concen: 52.097 ug/l
RT: 3.494 min Scan# 2
Delta R.T. -0.006 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

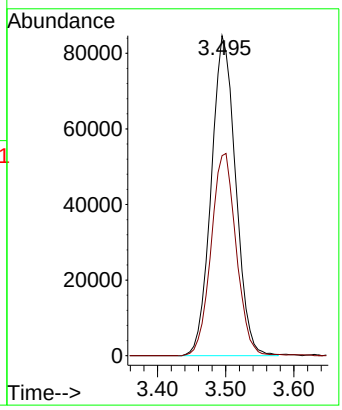
Tgt Ion:101 Resp: 21113

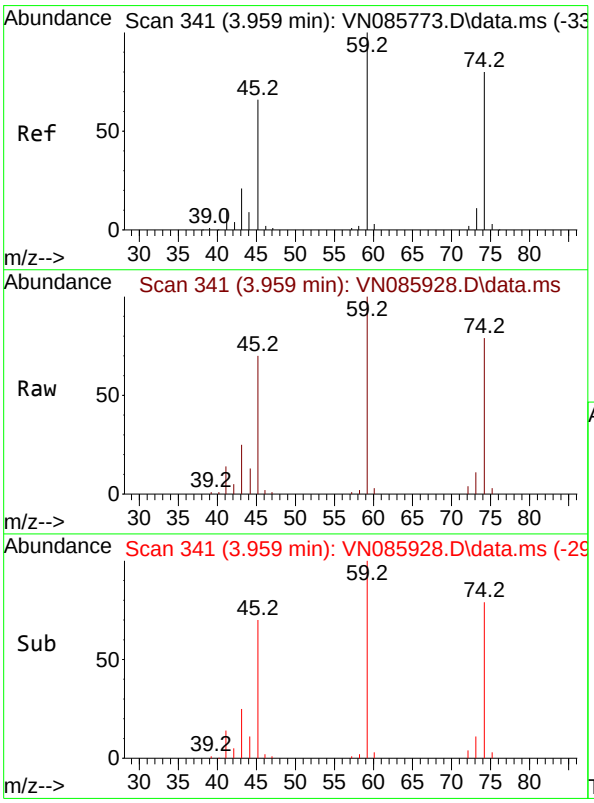
Ion	Ratio	Lower	Upper
101	100		
103	62.5	52.2	78.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

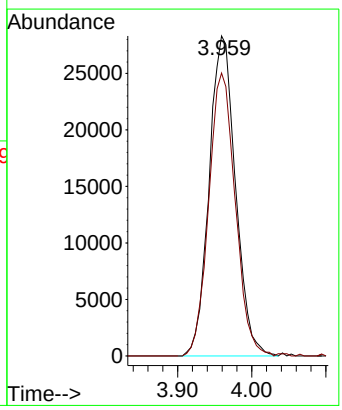


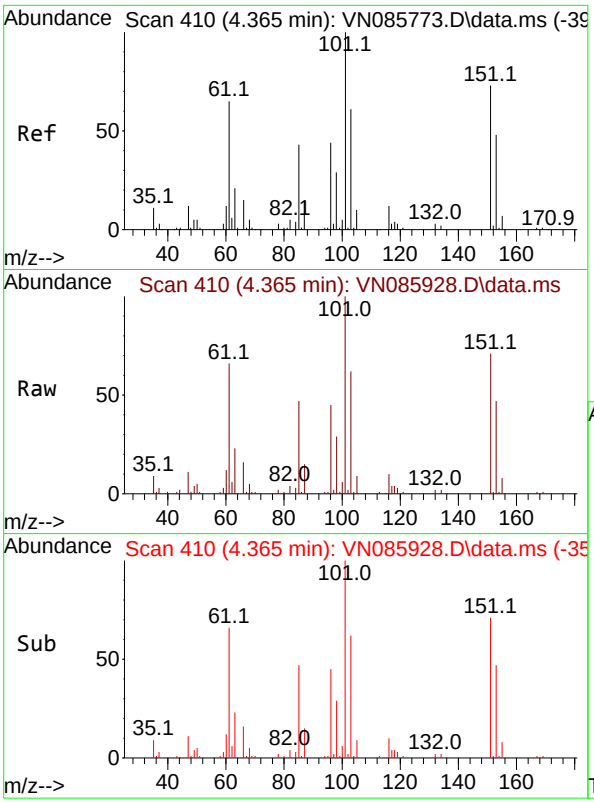


#8
Diethyl Ether
Concen: 53.392 ug/l
RT: 3.959 min Scan# 341
Delta R.T. -0.000 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 74 Resp: 70014

Ion	Ratio	Lower	Upper
74	100		
45	88.9	42.5	127.6





#9
1,1,2-Trichlorotrifluoroethane
Concen: 52.955 ug/l
RT: 4.365 min Scan# 41
Delta R.T. -0.000 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

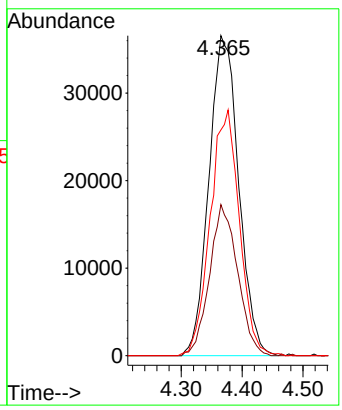
Tgt Ion:101 Resp: 12405

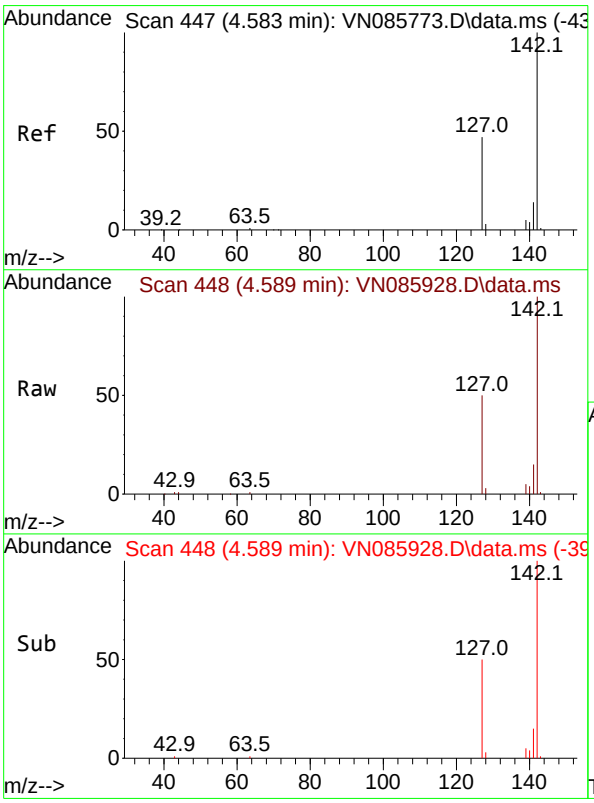
Ion	Ratio	Lower	Upper
101	100		
85	44.6	35.7	53.5
151	75.3	61.4	92.2

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

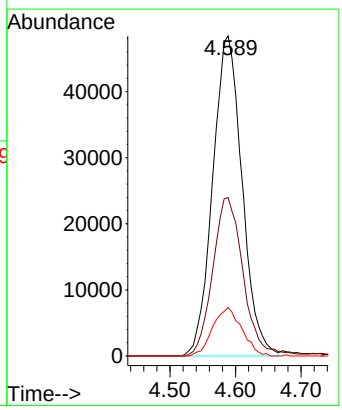


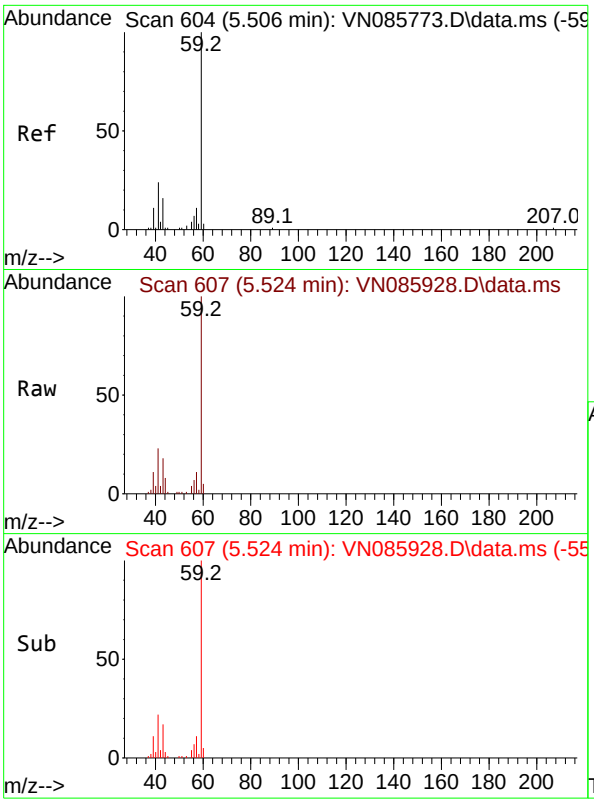


#10
Methyl Iodide
Concen: 52.065 ug/l
RT: 4.589 min Scan# 448
Delta R.T. 0.006 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion:142 Resp: 150351

Ion	Ratio	Lower	Upper
142	100		
127	49.5	37.6	56.4
141	15.2	11.4	17.2

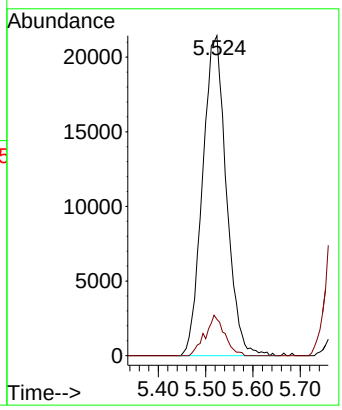




#11
Tert butyl alcohol
Concen: 242.354 ug/l
RT: 5.524 min Scan# 6
Delta R.T. 0.018 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 59 Resp: 7485

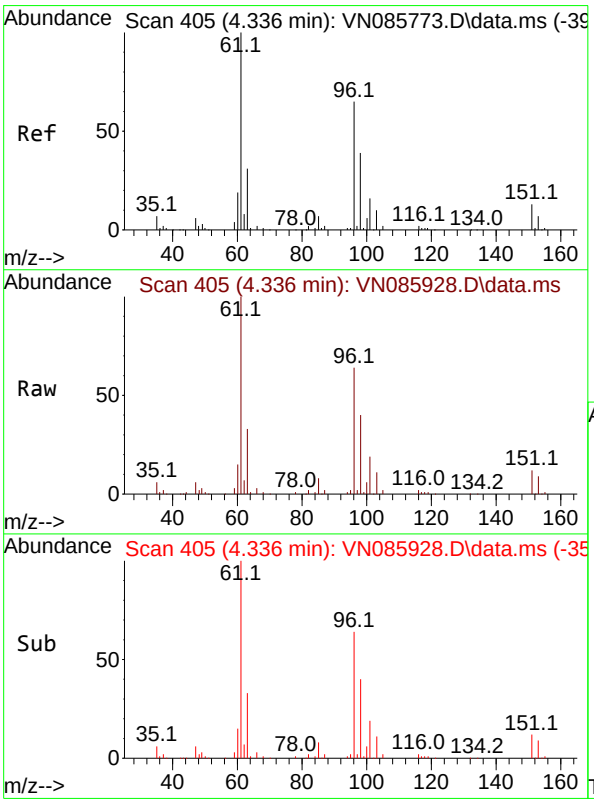
Ion	Ratio	Lower	Upper
59	100		
57	10.3	8.3	12.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

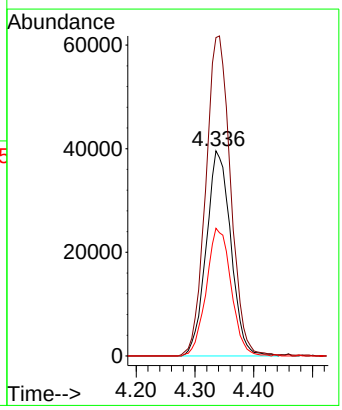
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

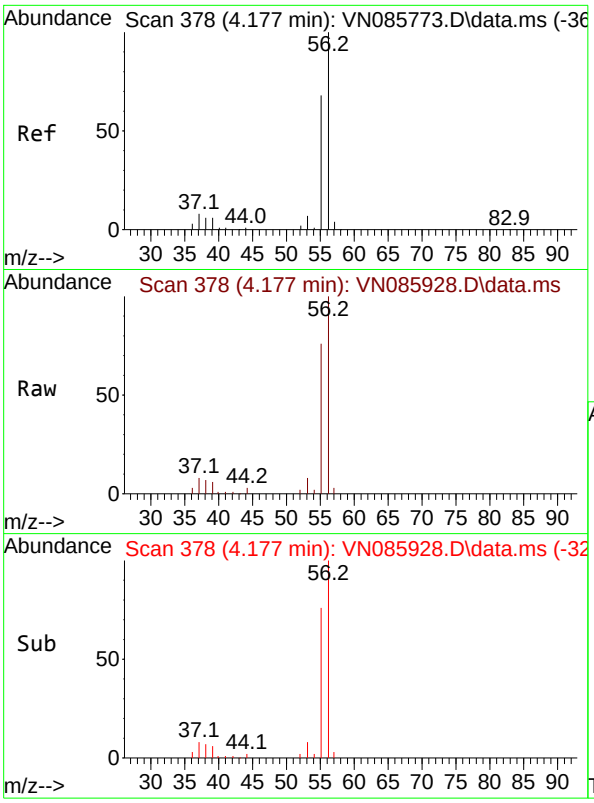


#12
1,1-Dichloroethene
Concen: 54.147 ug/l
RT: 4.336 min Scan# 405
Delta R.T. -0.000 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 96 Resp: 115016

Ion	Ratio	Lower	Upper
96	100		
61	155.2	123.3	184.9
98	62.3	48.6	72.8

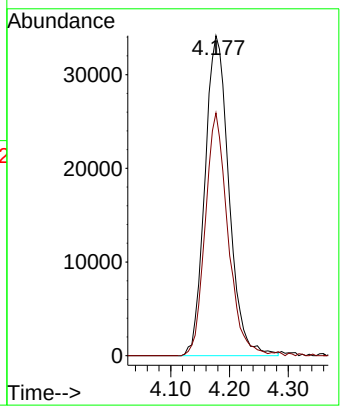




#13
Acrolein
Concen: 211.429 ug/l
RT: 4.177 min Scan# 3
Delta R.T. -0.000 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 56 Resp: 9683

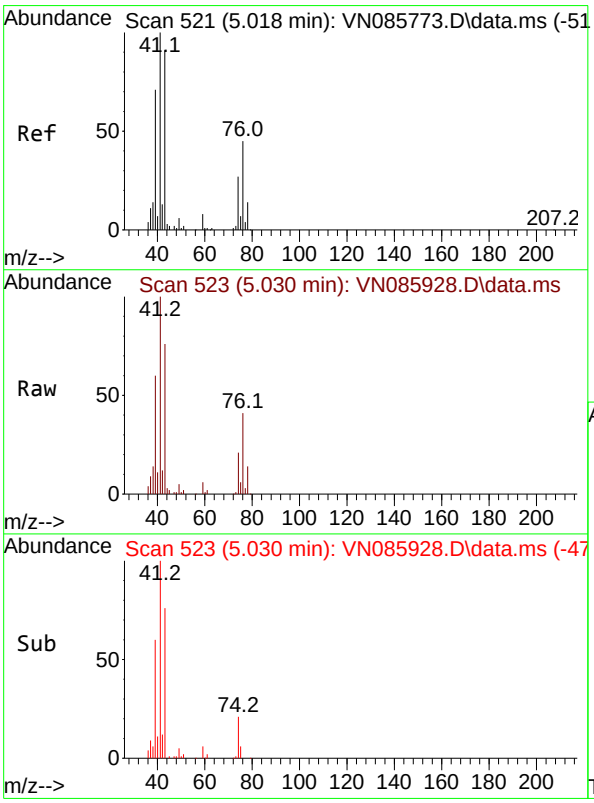
Ion	Ratio	Lower	Upper
56	100		
55	71.5	55.3	82.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

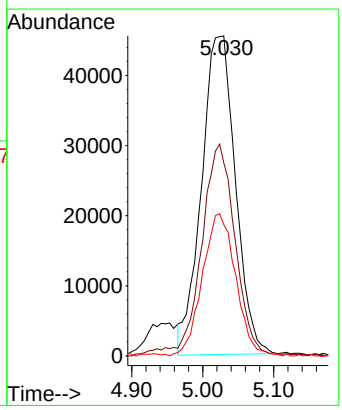
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

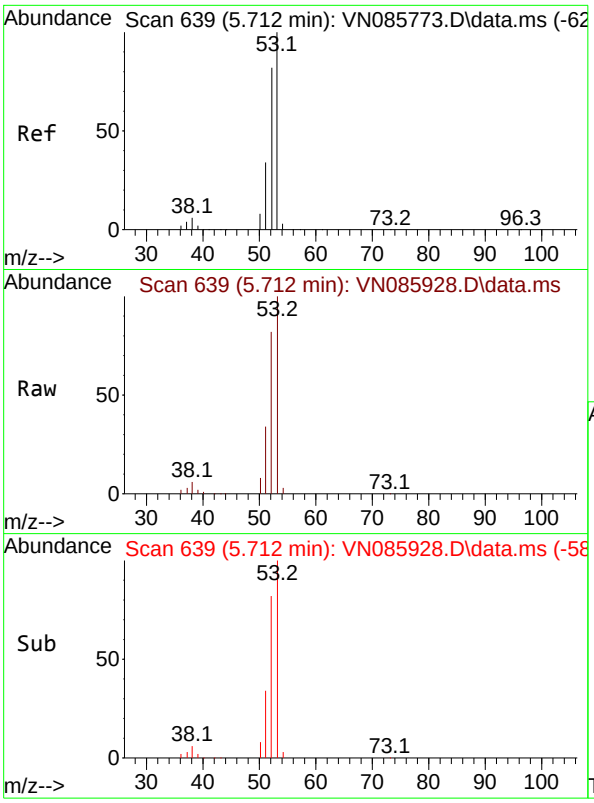


#14
Allyl chloride
Concen: 54.113 ug/l
RT: 5.030 min Scan# 523
Delta R.T. 0.012 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 41 Resp: 150912

Ion	Ratio	Lower	Upper
41	100		
39	66.7	57.4	86.2
76	43.8	36.2	54.2

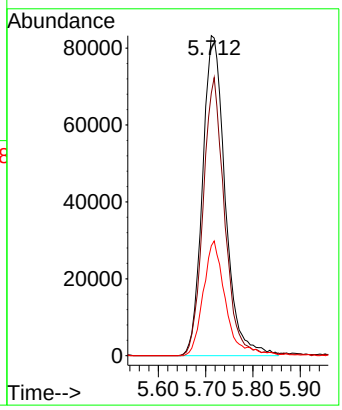




#15
Acrylonitrile
Concen: 275.784 ug/l
RT: 5.712 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 53 Resp: 27691

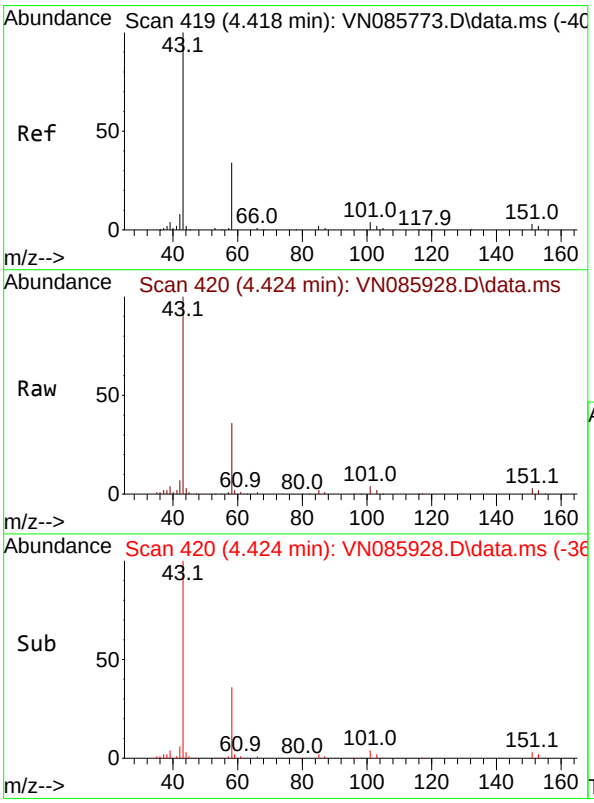
Ion	Ratio	Lower	Upper
53	100		
52	82.5	65.8	98.6
51	35.3	28.6	42.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

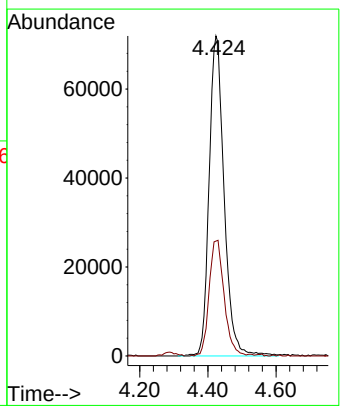
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

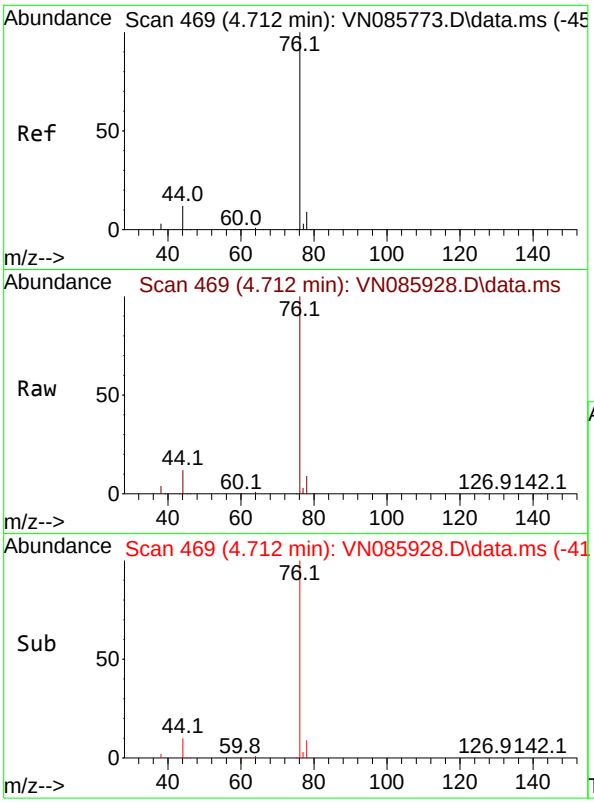


#16
Acetone
Concen: 276.540 ug/l
RT: 4.424 min Scan# 420
Delta R.T. 0.006 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 43 Resp: 219737

Ion	Ratio	Lower	Upper
43	100		
58	35.6	27.5	41.3





#17
Carbon Disulfide
Concen: 55.533 ug/l
RT: 4.712 min Scan# 4(
Delta R.T. -0.000 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

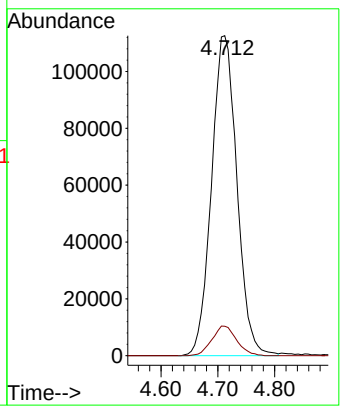
Tgt Ion: 76 Resp: 34960(

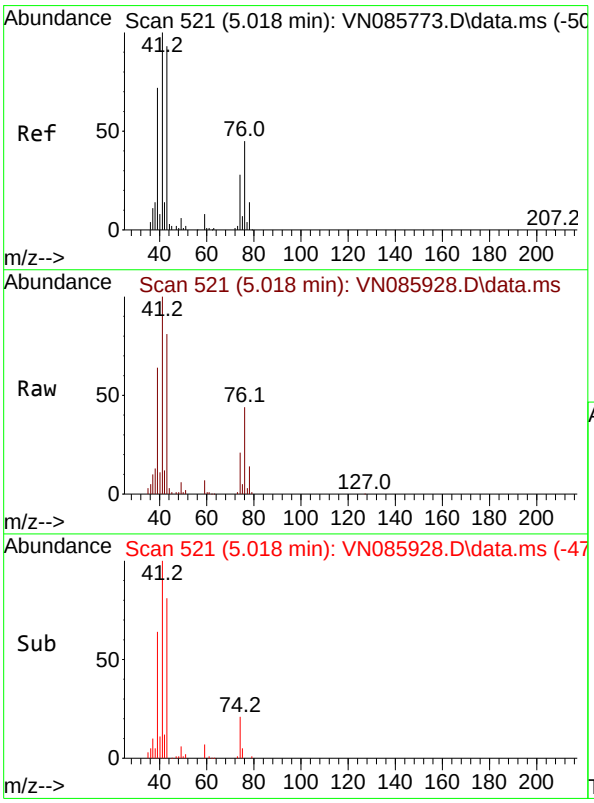
Ion	Ratio	Lower	Upper
76	100		
78	9.2	7.4	11.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

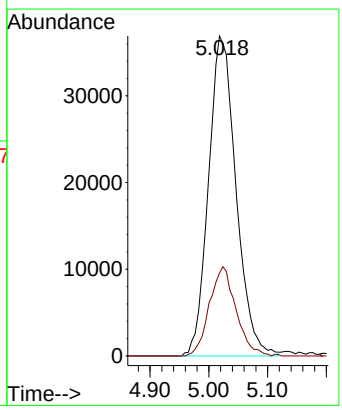


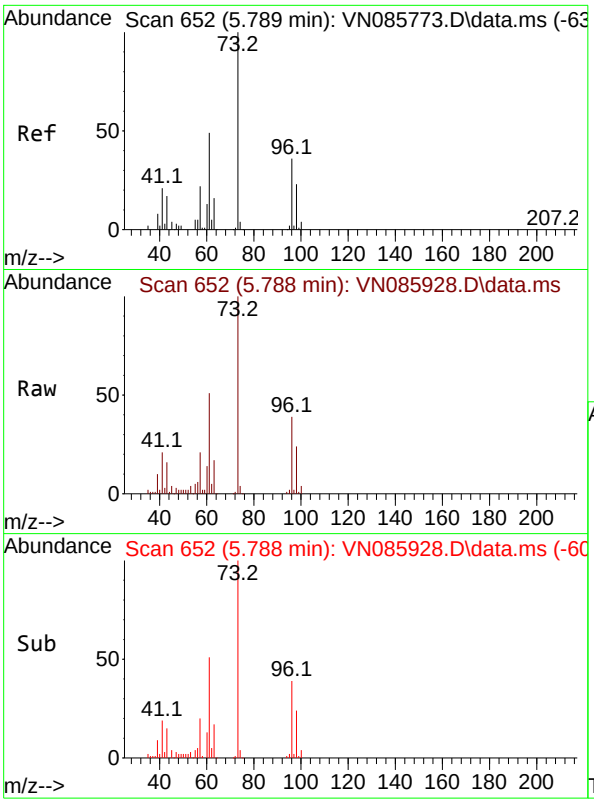


#18
Methyl Acetate
Concen: 43.940 ug/l
RT: 5.018 min Scan# 521
Delta R.T. -0.000 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 43 Resp: 120090

Ion	Ratio	Lower	Upper
43	100		
74	26.9	22.2	33.4

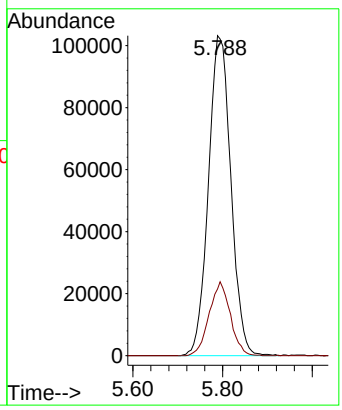




#19
Methyl tert-butyl Ether
Concen: 56.919 ug/l
RT: 5.788 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 73 Resp: 35927

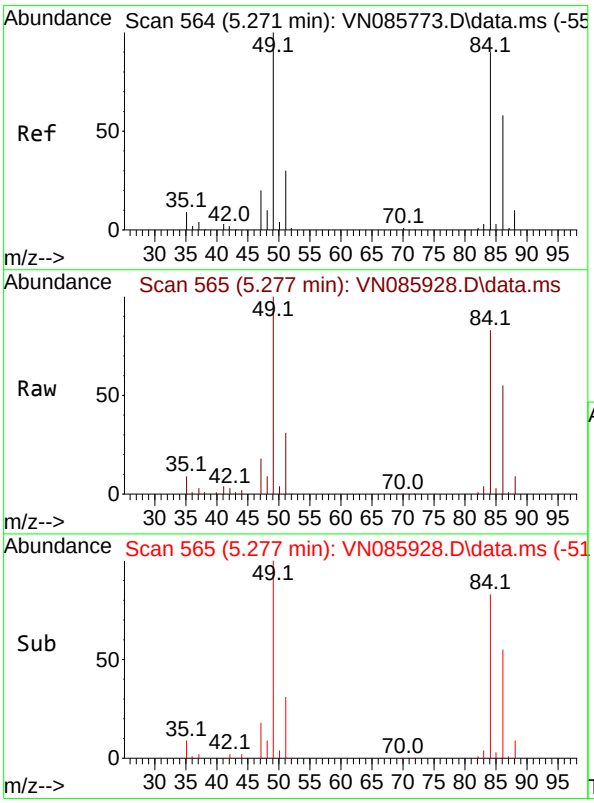
Ion	Ratio	Lower	Upper
73	100		
57	20.9	17.6	26.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

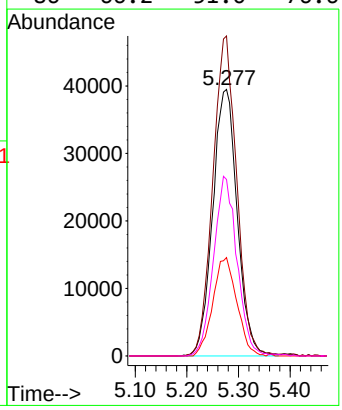
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

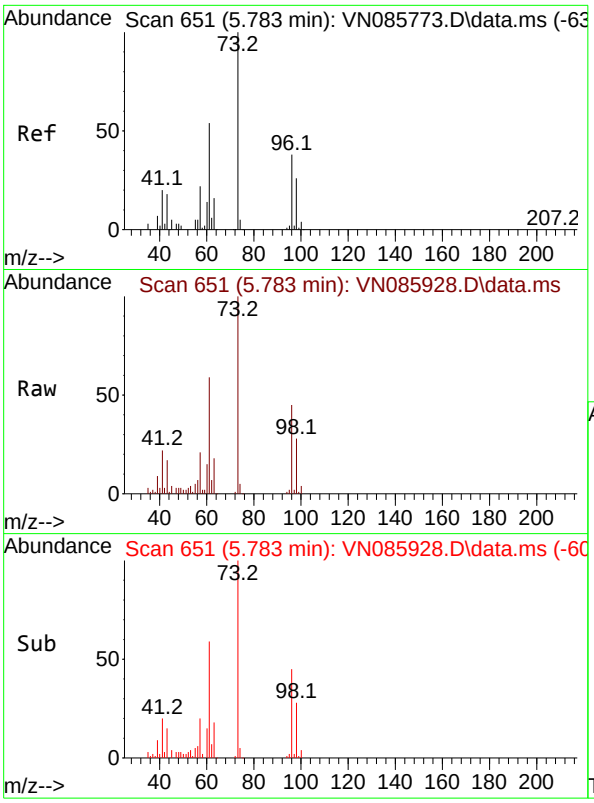


#20
Methylene Chloride
Concen: 50.948 ug/l
RT: 5.277 min Scan# 565
Delta R.T. 0.006 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 84 Resp: 130189

Ion	Ratio	Lower	Upper
84	100		
49	120.1	88.4	132.6
51	36.9	26.6	40.0
86	66.2	51.0	76.6

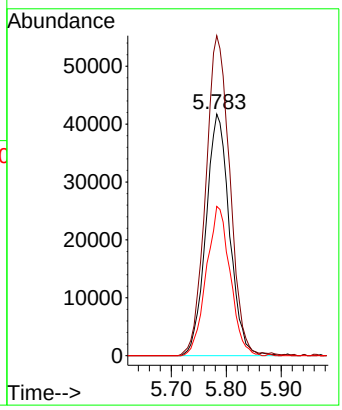




#21
trans-1,2-Dichloroethene
Concen: 54.484 ug/l
RT: 5.783 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 96 Resp: 12461

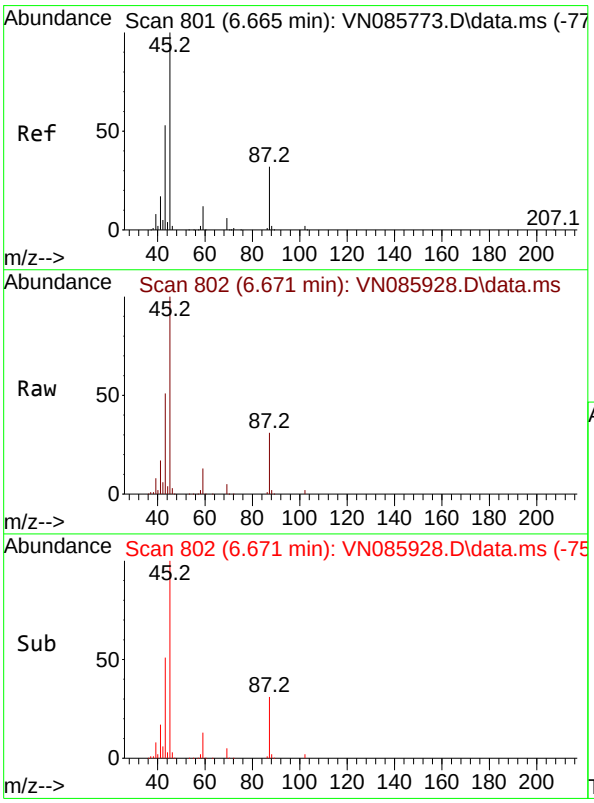
Ion	Ratio	Lower	Upper
96	100		
61	132.5	112.6	168.8
98	61.8	53.3	79.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

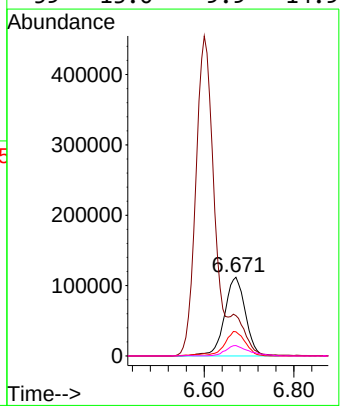
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

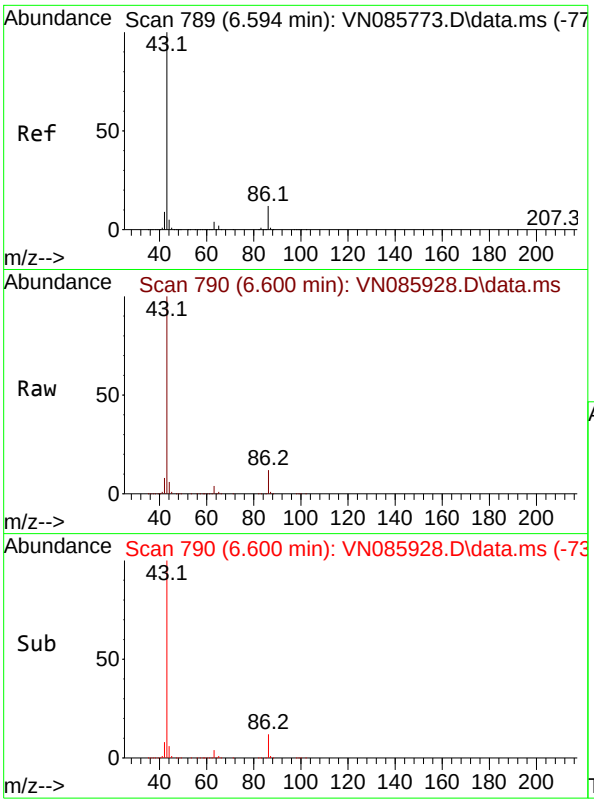


#22
Diisopropyl ether
Concen: 57.461 ug/l
RT: 6.671 min Scan# 802
Delta R.T. 0.006 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 45 Resp: 362103

Ion	Ratio	Lower	Upper
45	100		
43	50.2	42.6	64.0
87	30.6	25.8	38.8
59	13.0	9.9	14.9





#23
Vinyl Acetate
Concen: 294.389 ug/l
RT: 6.600 min Scan# 7
Delta R.T. 0.006 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

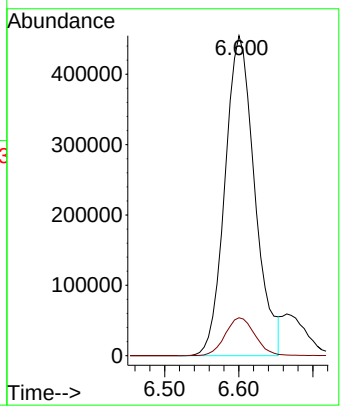
Tgt Ion: 43 Resp: 127022

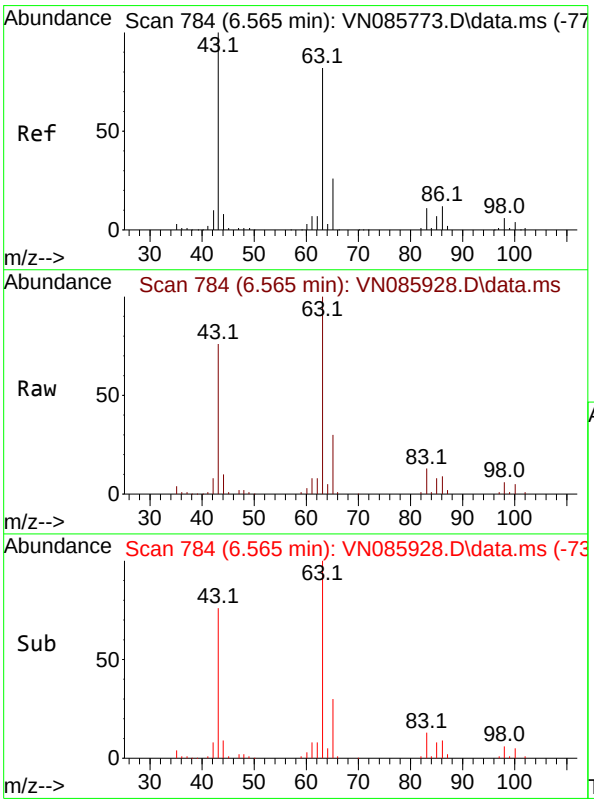
Ion	Ratio	Lower	Upper
43	100		
86	11.9	9.8	14.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

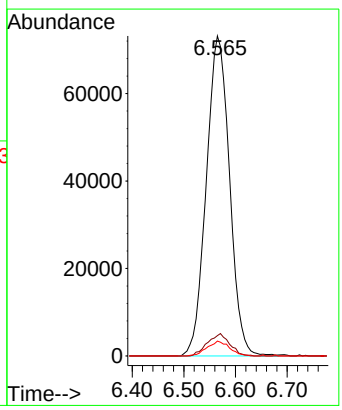


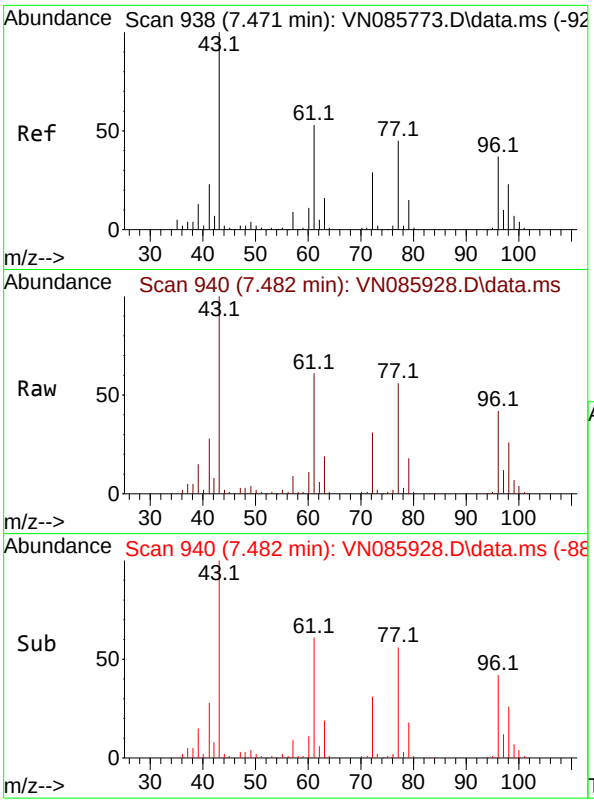


#24
1,1-Dichloroethane
Concen: 53.355 ug/l
RT: 6.565 min Scan# 784
Delta R.T. -0.000 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 63 Resp: 228563

Ion	Ratio	Lower	Upper
63	100		
98	6.4	3.5	10.4
100	4.7	2.4	7.2





#25
2-Butanone
Concen: 280.150 ug/l
RT: 7.482 min Scan# 94
Delta R.T. 0.012 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

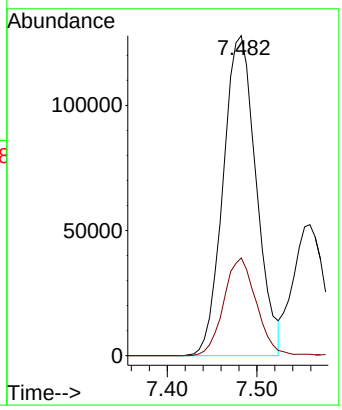
Tgt Ion: 43 Resp: 32749

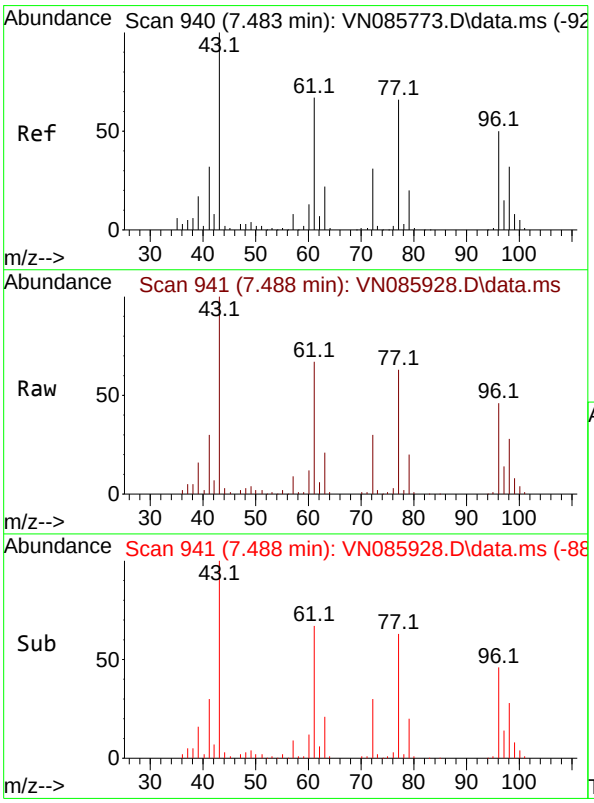
Ion	Ratio	Lower	Upper
43	100		
72	30.6	23.6	35.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

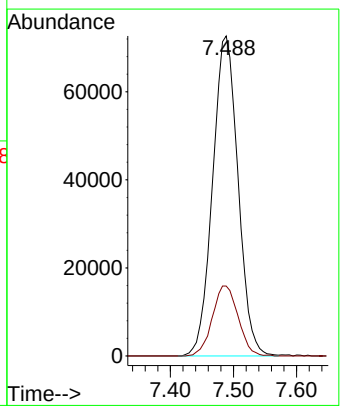


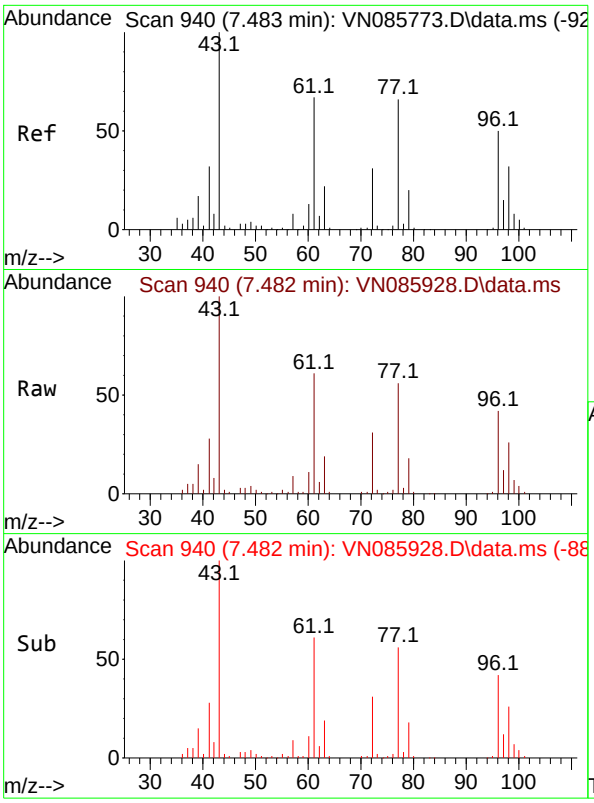


#26
2,2-Dichloropropane
Concen: 53.414 ug/l
RT: 7.488 min Scan# 941
Delta R.T. 0.006 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 77 Resp: 203466

Ion	Ratio	Lower	Upper
77	100		
97	22.2	11.3	33.8





#27
cis-1,2-Dichloroethene
Concen: 52.194 ug/l
RT: 7.482 min Scan# 94
Delta R.T. -0.000 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

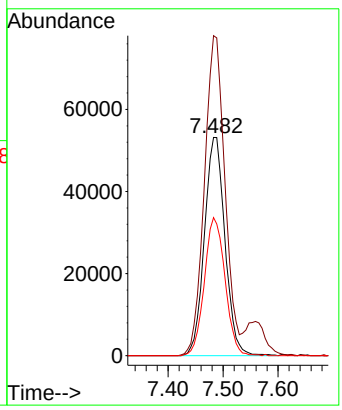
Tgt Ion: 96 Resp: 13841

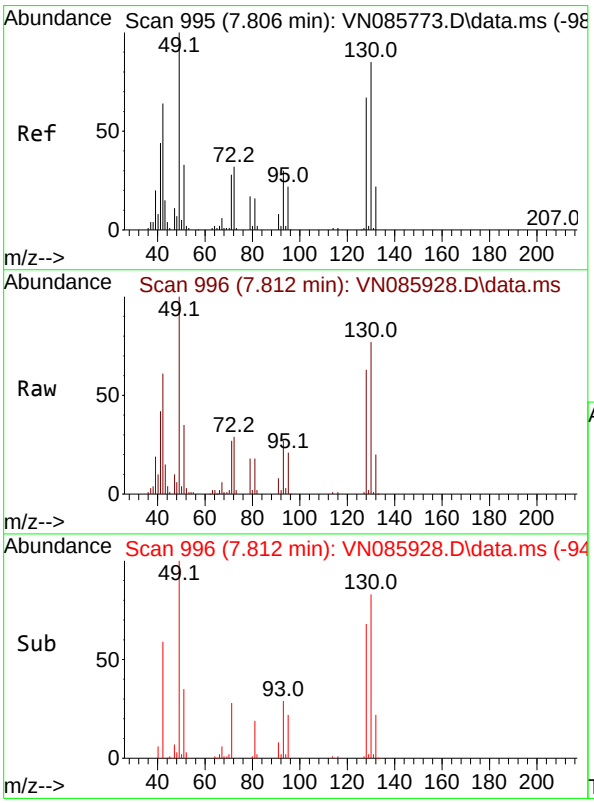
Ion	Ratio	Lower	Upper
96	100		
61	147.3	0.0	280.6
98	63.5	0.0	128.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

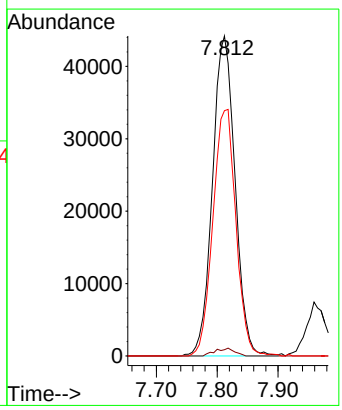


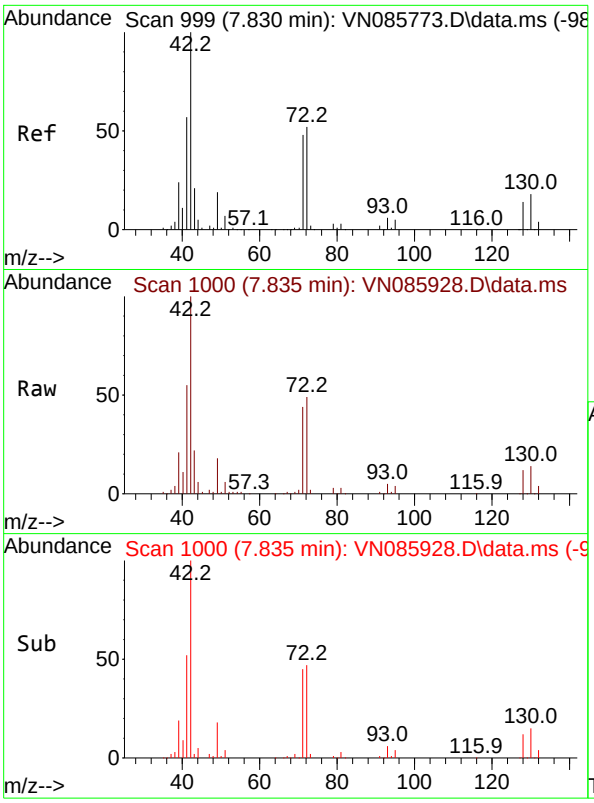


#28
Bromochloromethane
Concen: 64.588 ug/l
RT: 7.812 min Scan# 996
Delta R.T. 0.006 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 49 Resp: 113720

Ion	Ratio	Lower	Upper
49	100		
129	2.1	0.0	3.8
130	78.7	68.0	102.0





#29
Tetrahydrofuran
Concen: 291.733 ug/l
RT: 7.835 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

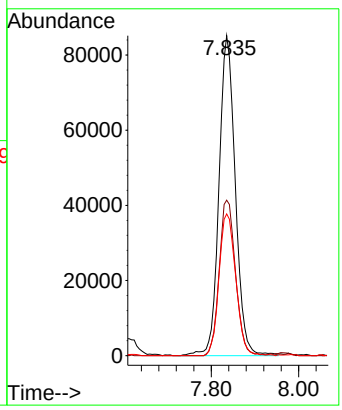
Tgt Ion: 42 Resp: 22022

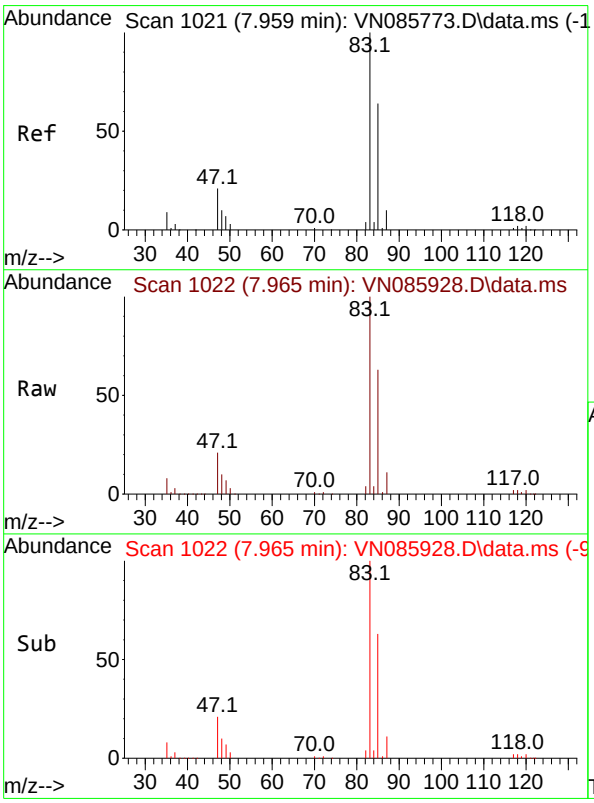
Ion	Ratio	Lower	Upper
42	100		
72	48.5	40.0	60.0
71	45.4	37.0	55.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

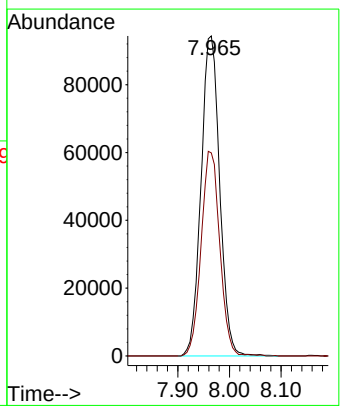


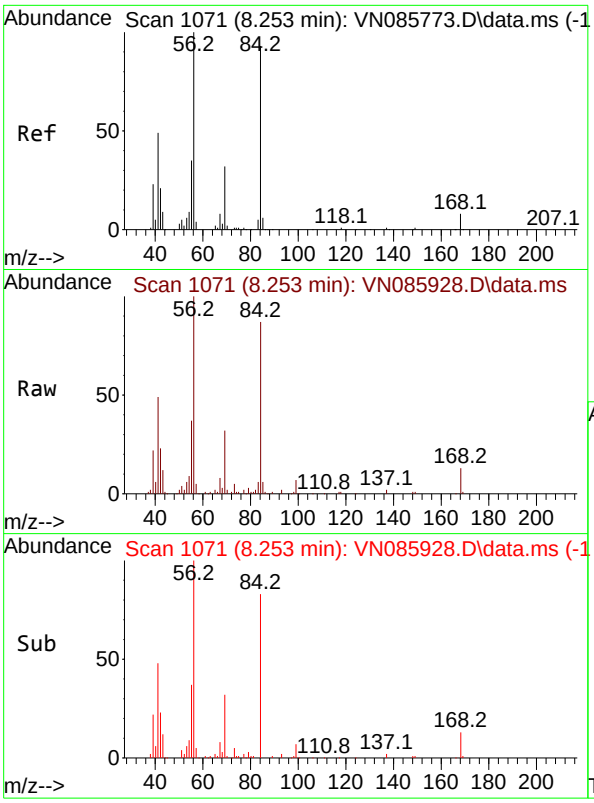


#30
Chloroform
Concen: 52.815 ug/l
RT: 7.965 min Scan# 1022
Delta R.T. 0.006 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 83 Resp: 236440

Ion	Ratio	Lower	Upper
83	100		
85	63.4	50.9	76.3

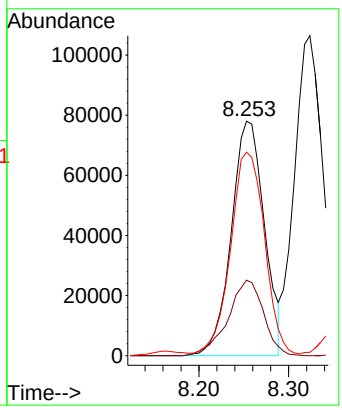




#31
Cyclohexane
Concen: 55.780 ug/l
RT: 8.253 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 56 Resp: 20007

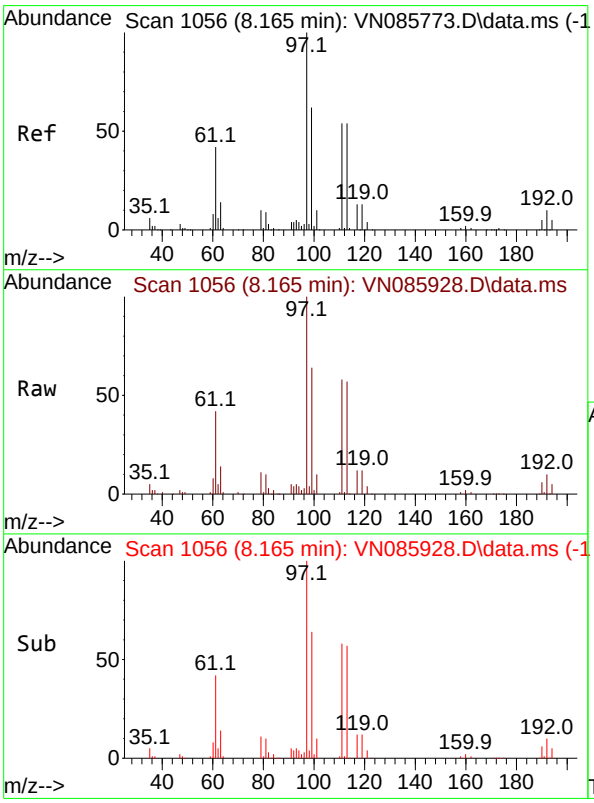
Ion	Ratio	Lower	Upper
56	100		
69	32.2	25.8	38.6
84	85.4	74.5	111.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

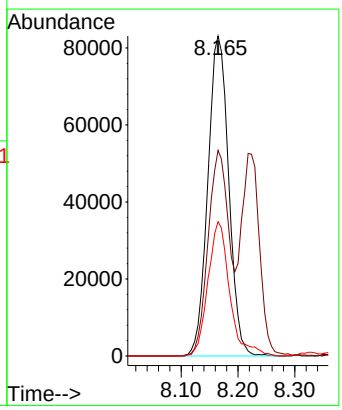
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

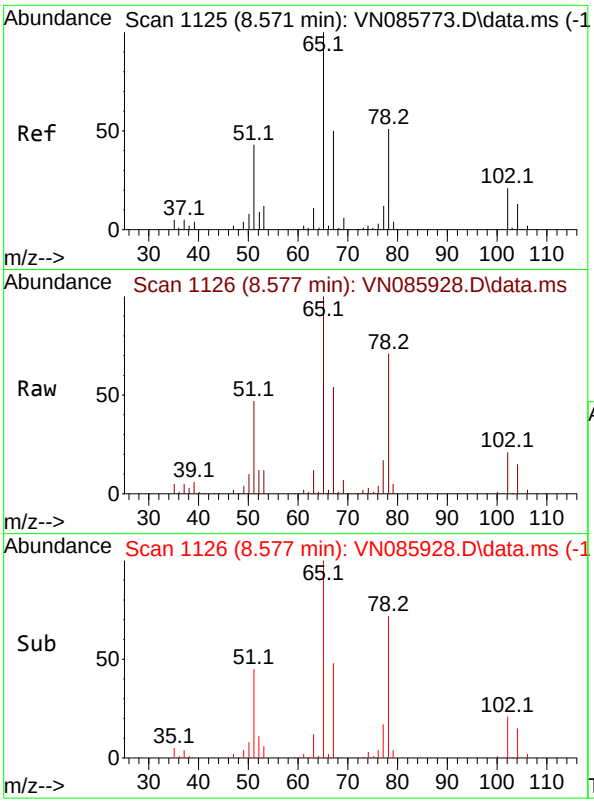


#32
1,1,1-Trichloroethane
Concen: 53.194 ug/l
RT: 8.165 min Scan# 1056
Delta R.T. -0.000 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 97 Resp: 211810

Ion	Ratio	Lower	Upper
97	100		
99	64.6	50.4	75.6
61	43.7	35.5	53.3

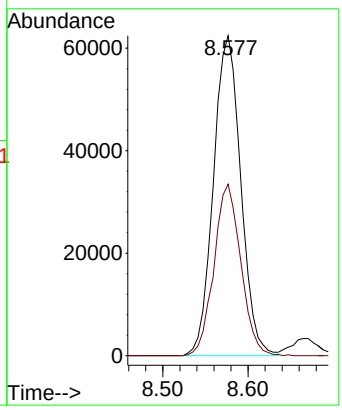




#33
1,2-Dichloroethane-d4
Concen: 55.421 ug/l
RT: 8.577 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 65 Resp: 13917

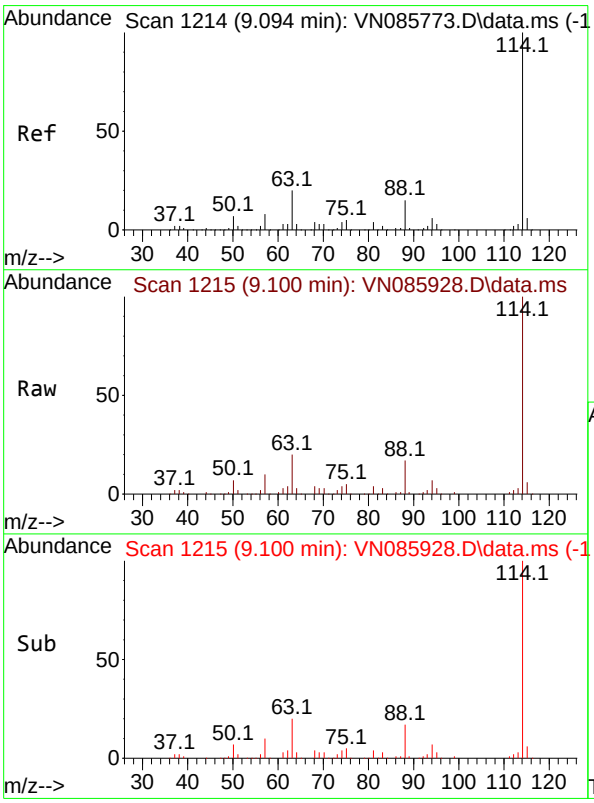
Ion	Ratio	Lower	Upper
65	100		
67	52.6	0.0	106.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

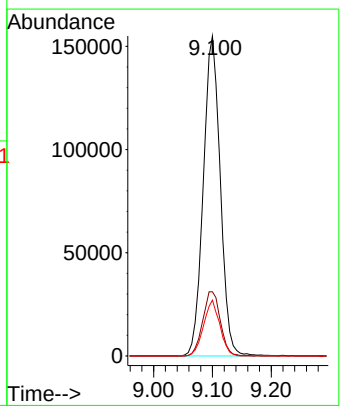
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

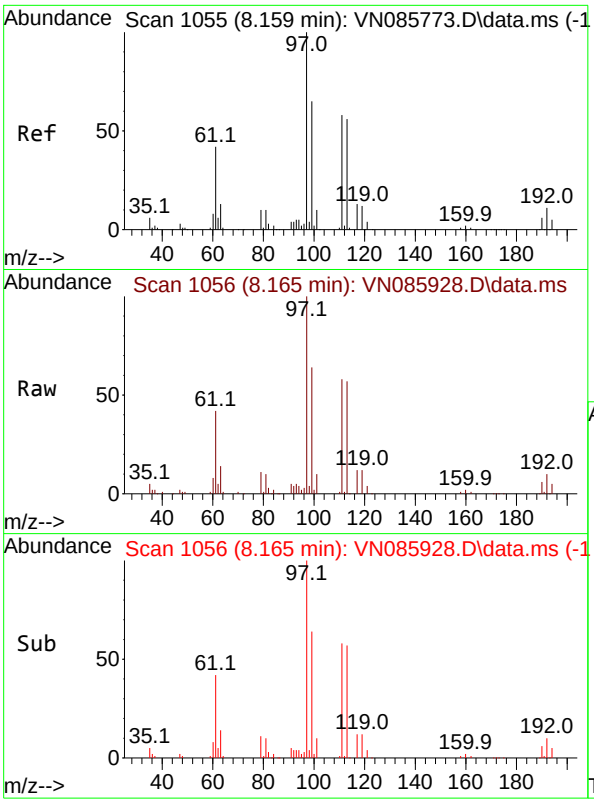


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.100 min Scan# 1215
Delta R.T. 0.006 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion:114 Resp: 310218

Ion	Ratio	Lower	Upper
114	100		
63	20.1	0.0	39.2
88	17.4	0.0	30.0





#35
Dibromofluoromethane
Concen: 56.081 ug/l
RT: 8.165 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

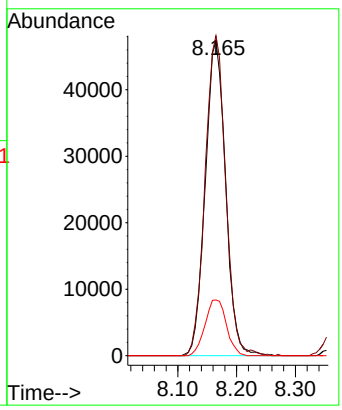
Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

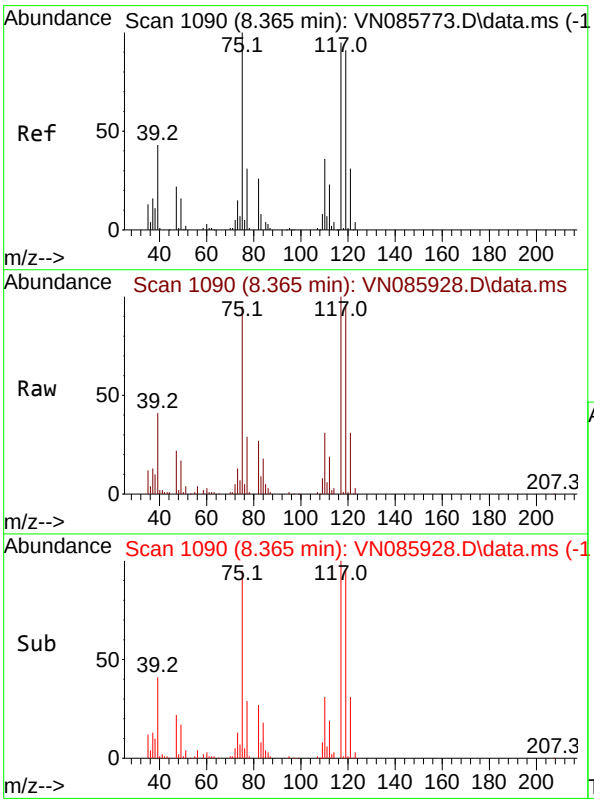
Tgt Ion:113 Resp: 11383

Ion	Ratio	Lower	Upper
113	100		
111	102.2	82.2	123.4
192	18.6	14.7	22.1

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

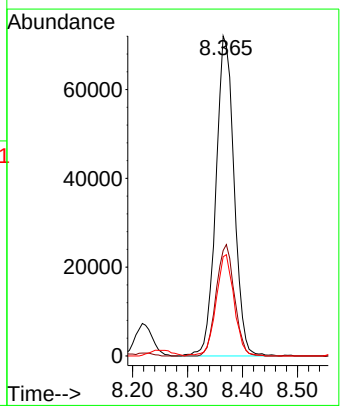


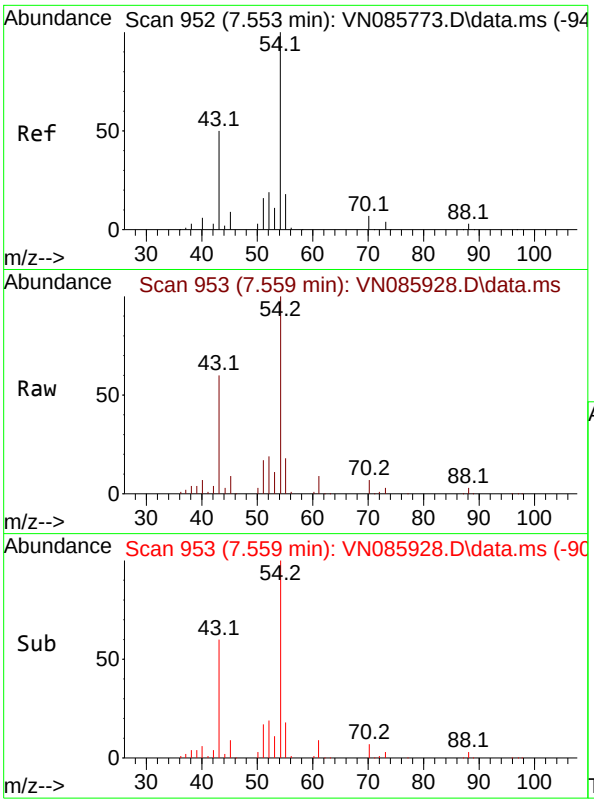


#36
1,1-Dichloropropene
Concen: 57.708 ug/l
RT: 8.365 min Scan# 1090
Delta R.T. -0.000 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 75 Resp: 165790

Ion	Ratio	Lower	Upper
75	100		
110	34.9	17.3	52.0
77	31.5	24.6	37.0





#37
Ethyl Acetate
Concen: 56.682 ug/l
RT: 7.559 min Scan# 9
Delta R.T. 0.006 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

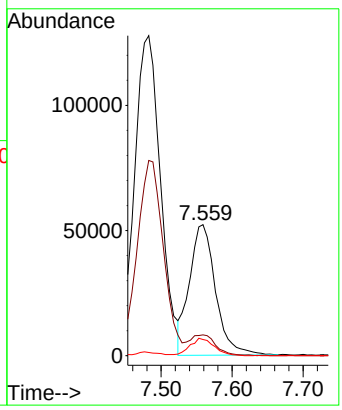
Tgt Ion: 43 Resp: 13400

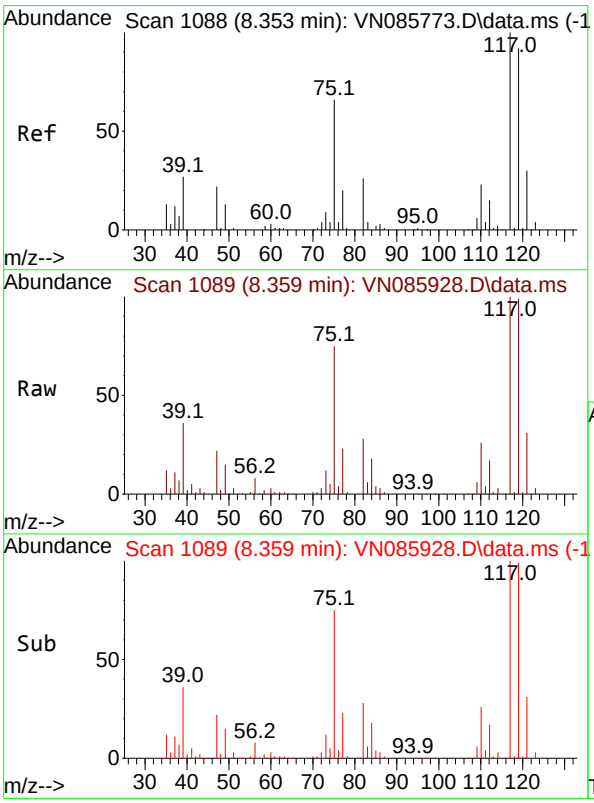
Ion	Ratio	Lower	Upper
43	100		
61	15.1	12.2	18.2
70	12.4	9.5	14.3

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

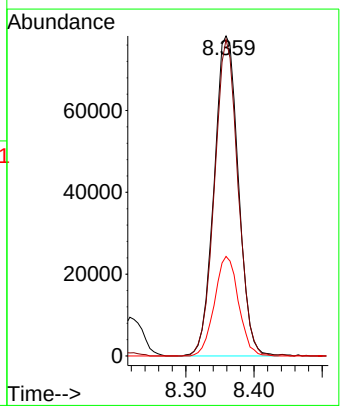


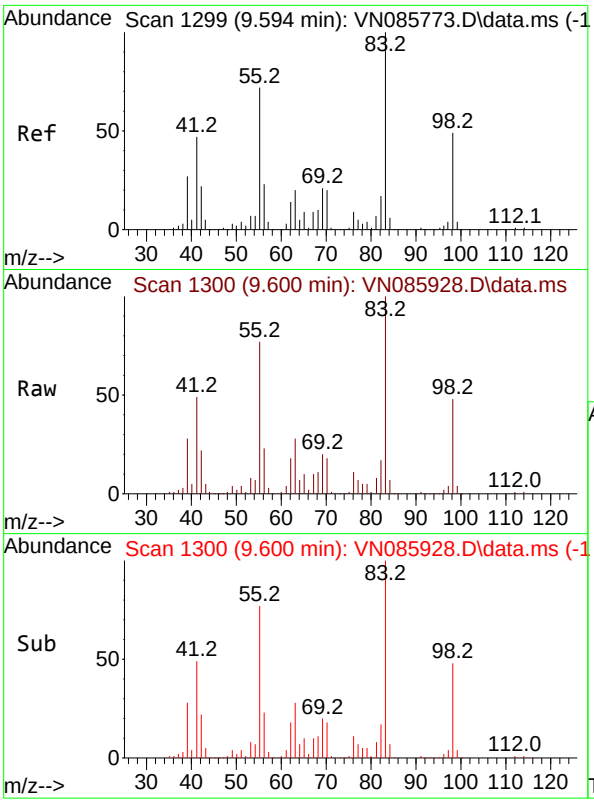


#38
Carbon Tetrachloride
Concen: 56.814 ug/l
RT: 8.359 min Scan# 1089
Delta R.T. 0.006 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion:117 Resp: 193937

Ion	Ratio	Lower	Upper
117	100		
119	98.9	73.8	110.6
121	31.1	24.3	36.5





#39
Methylcyclohexane
Concen: 61.866 ug/l
RT: 9.600 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

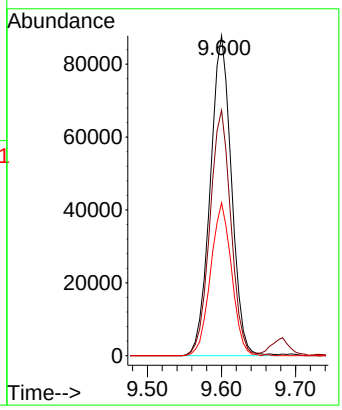
Tgt Ion: 83 Resp: 17460

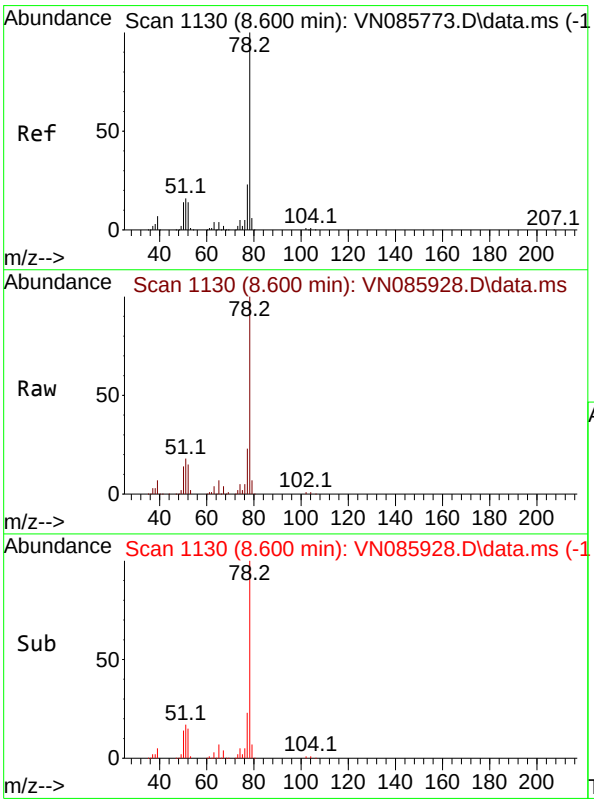
Ion	Ratio	Lower	Upper
83	100		
55	76.7	57.5	86.3
98	47.8	39.2	58.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

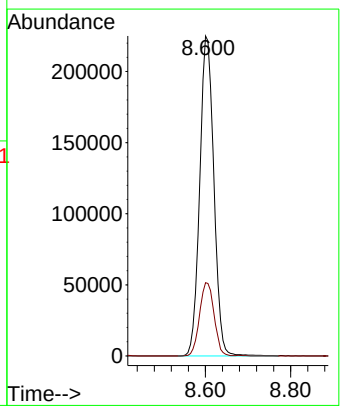


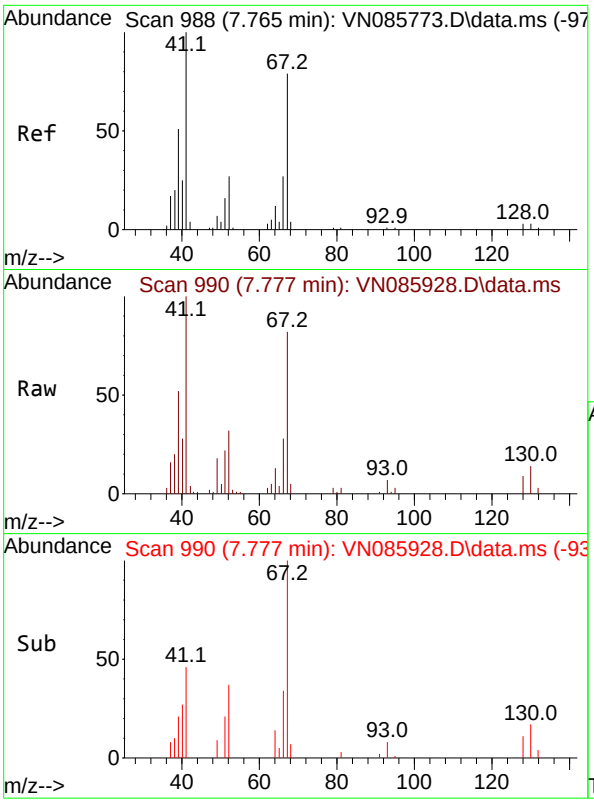


#40
Benzene
Concen: 56.244 ug/l
RT: 8.600 min Scan# 1130
Delta R.T. -0.000 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 78 Resp: 517879

Ion	Ratio	Lower	Upper
78	100		
77	22.9	18.3	27.5

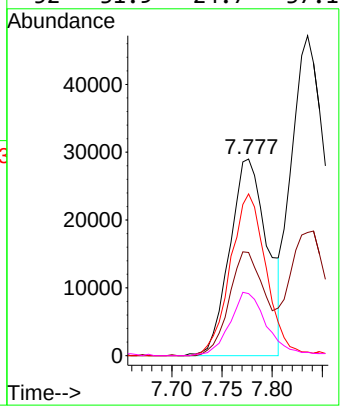




#41
Methacrylonitrile
Concen: 59.941 ug/l
RT: 7.777 min Scan# 9
Delta R.T. 0.012 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 41 Resp: 7575

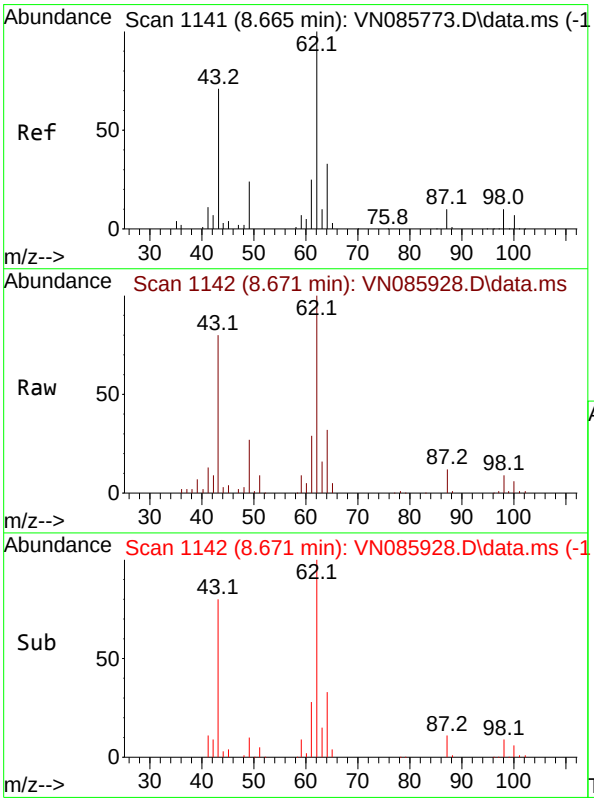
Ion	Ratio	Lower	Upper
41	100		
39	48.5	42.0	63.0
67	79.1	64.2	96.4
52	31.9	24.7	37.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

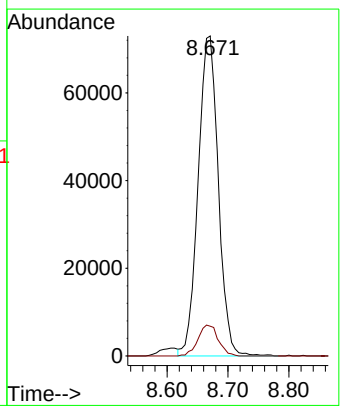
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

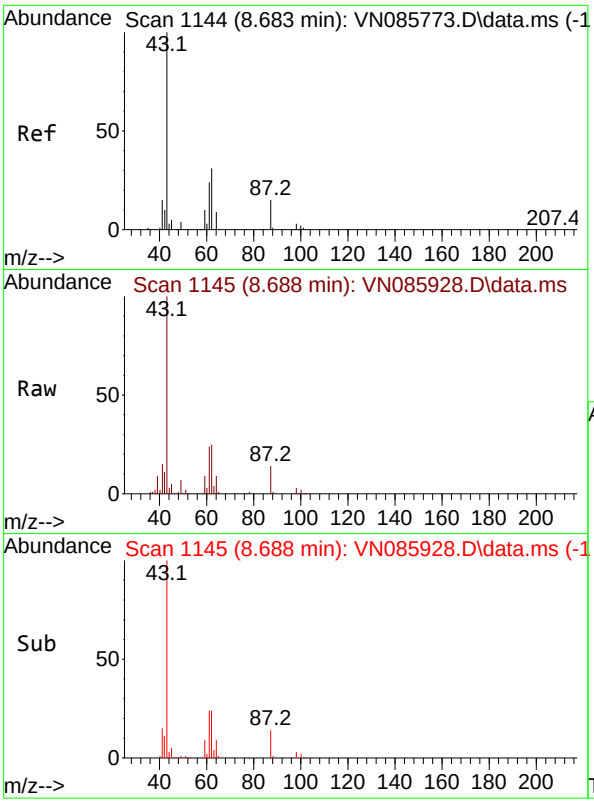


#42
1,2-Dichloroethane
Concen: 55.998 ug/l
RT: 8.671 min Scan# 1142
Delta R.T. 0.006 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 62 Resp: 167949

Ion	Ratio	Lower	Upper
62	100		
98	9.7	0.0	19.6

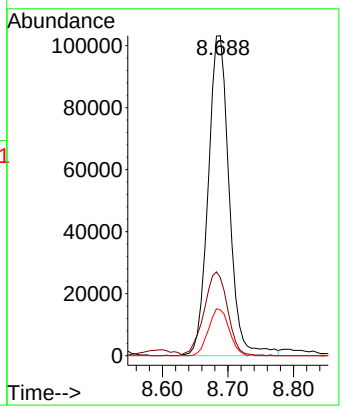




#43
Isopropyl Acetate
Concen: 55.431 ug/l
RT: 8.688 min Scan# 1
Delta R.T. 0.005 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 43 Resp: 22974

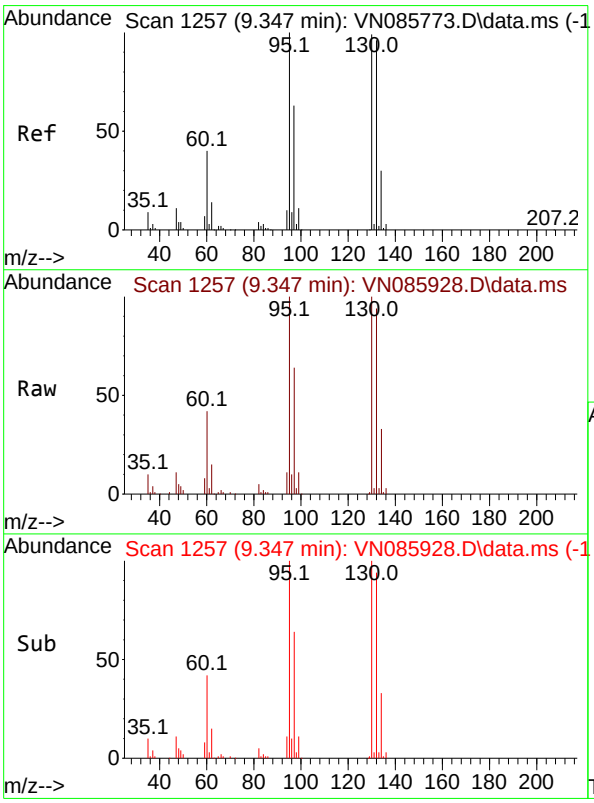
Ion	Ratio	Lower	Upper
43	100		
61	29.4	22.6	34.0
87	14.4	11.8	17.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

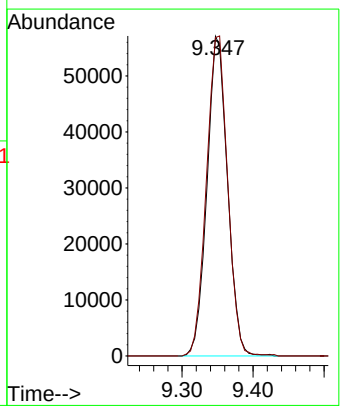
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

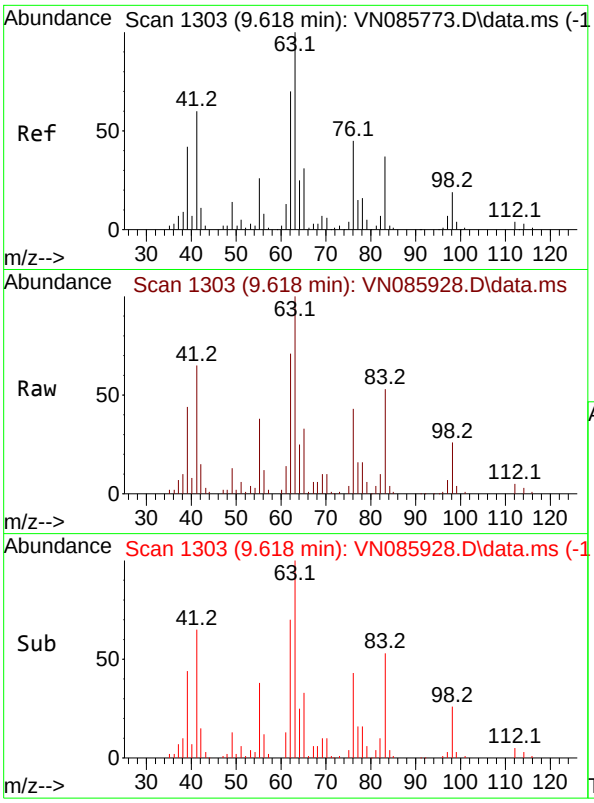


#44
Trichloroethene
Concen: 50.566 ug/l
RT: 9.347 min Scan# 1257
Delta R.T. -0.000 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion:130 Resp: 114319

Ion	Ratio	Lower	Upper
130	100		
95	99.6	0.0	202.6





#45
1,2-Dichloropropane
Concen: 56.656 ug/l
RT: 9.618 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

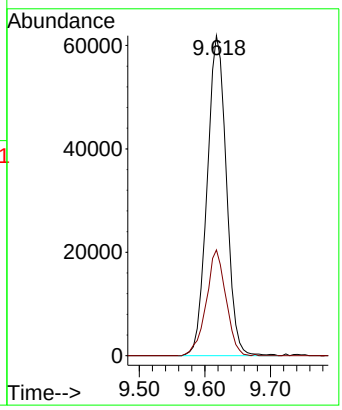
Tgt Ion: 63 Resp: 12592

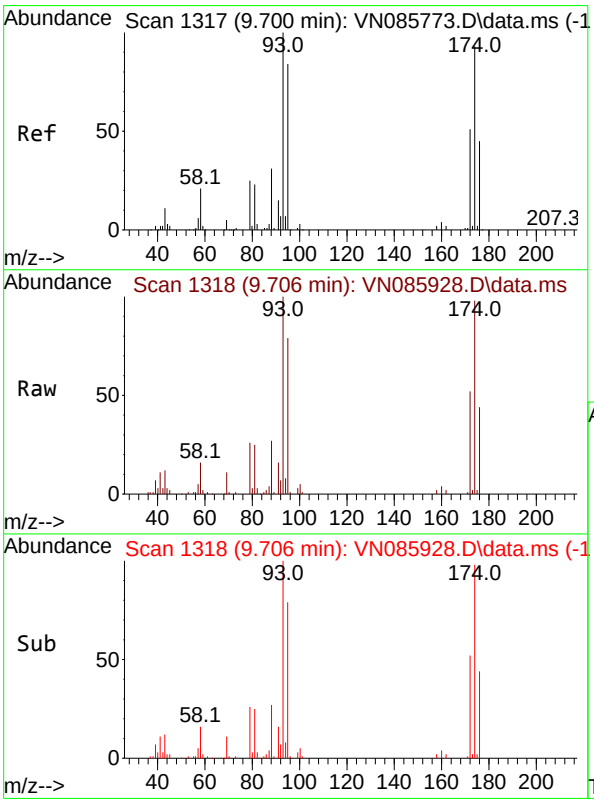
Ion	Ratio	Lower	Upper
63	100		
65	33.0	25.1	37.7

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

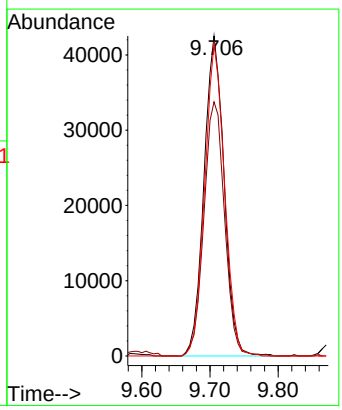


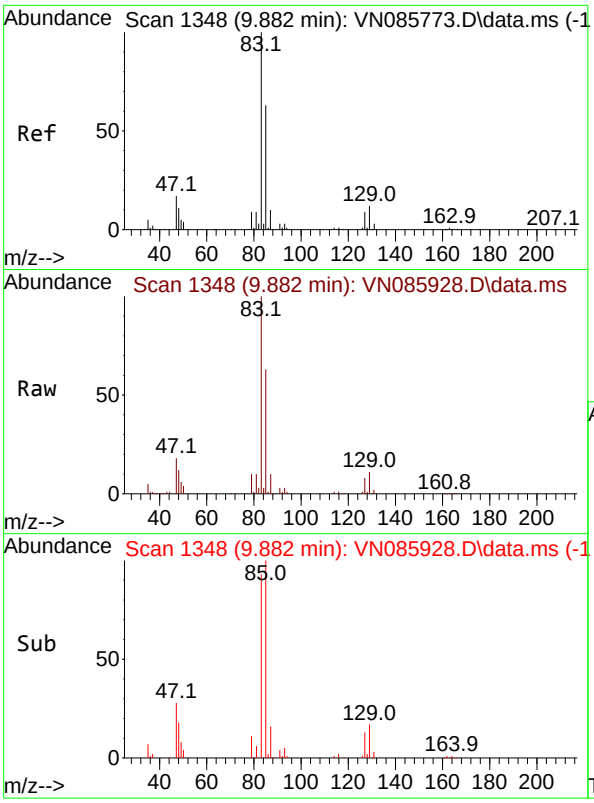


#46
Dibromomethane
Concen: 55.583 ug/l
RT: 9.706 min Scan# 1318
Delta R.T. 0.006 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 93 Resp: 87140

Ion	Ratio	Lower	Upper
93	100		
95	81.8	66.7	100.1
174	96.3	77.2	115.8





#47
Bromodichloromethane
Concen: 54.952 ug/l
RT: 9.882 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

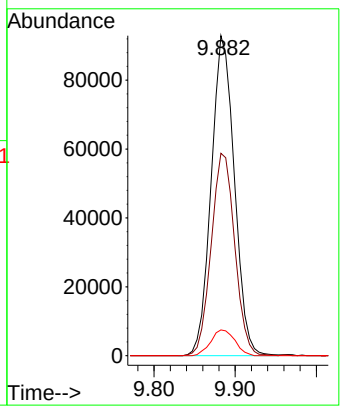
Tgt Ion: 83 Resp: 18431

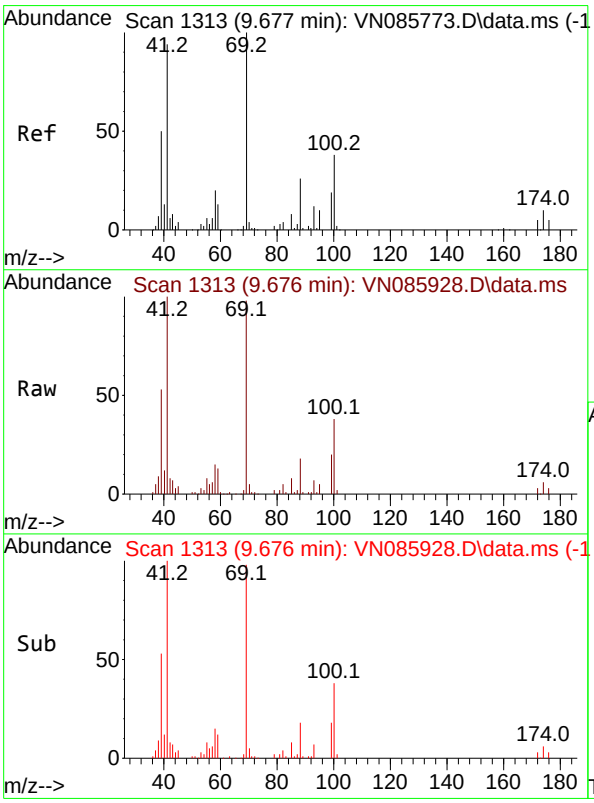
Ion	Ratio	Lower	Upper
83	100		
85	63.2	50.5	75.7
127	8.1	7.2	10.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

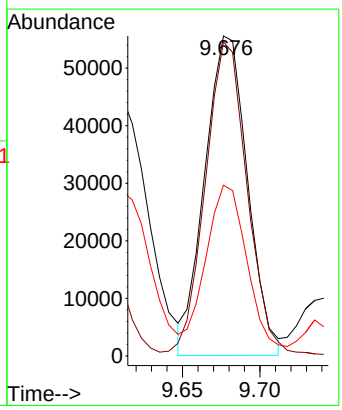


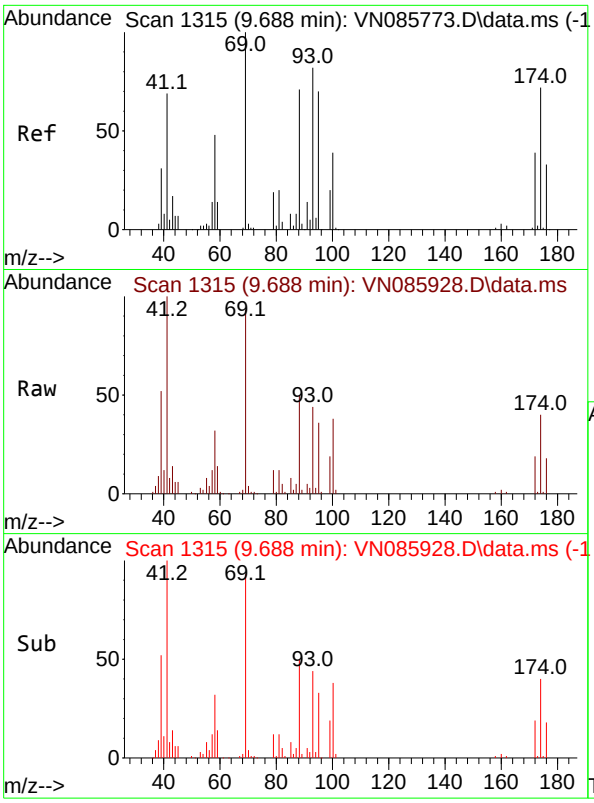


#48
Methyl methacrylate
Concen: 60.625 ug/l
RT: 9.676 min Scan# 1313
Delta R.T. -0.000 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 41 Resp: 106445

Ion	Ratio	Lower	Upper
41	100		
69	97.2	76.0	114.0
39	53.3	42.3	63.5

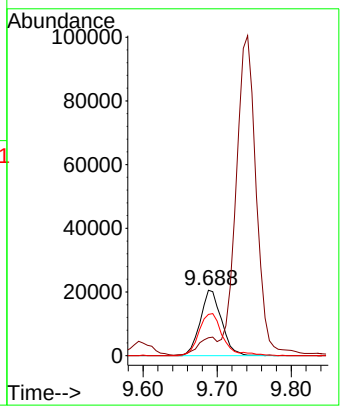




#49
1,4-Dioxane
Concen: 1229.394 ug/l
RT: 9.688 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 88 Resp: 4104

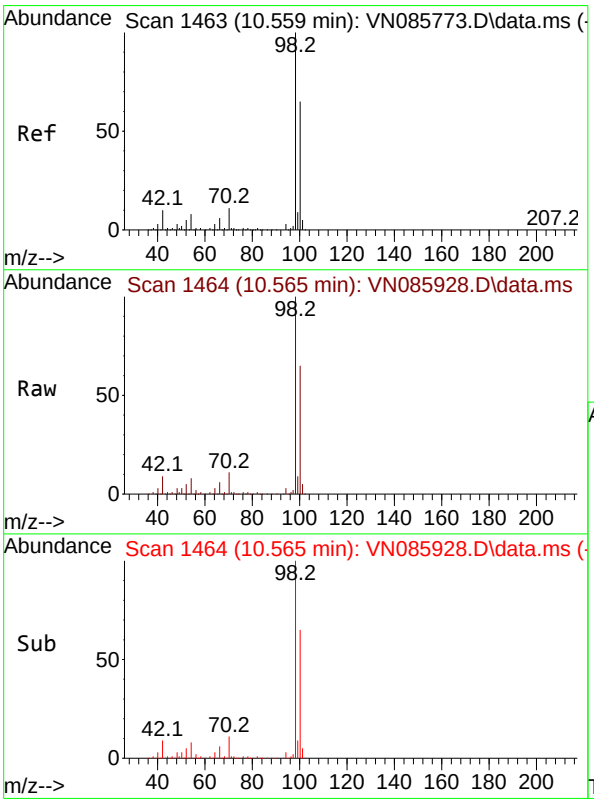
Ion	Ratio	Lower	Upper
88	100		
43	24.1	18.6	27.8
58	72.1	56.7	85.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

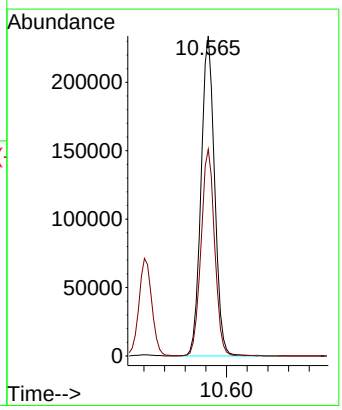
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

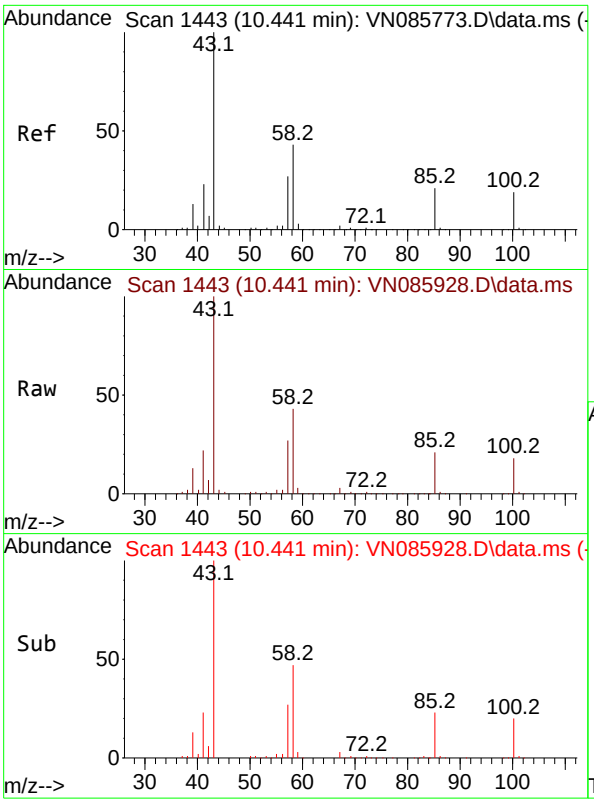


#50
Toluene-d8
Concen: 57.501 ug/l
RT: 10.565 min Scan# 1464
Delta R.T. 0.006 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 98 Resp: 424670

Ion	Ratio	Lower	Upper
98	100		
100	65.0	52.1	78.1





#51
4-Methyl-2-Pentanone
Concen: 305.744 ug/l
RT: 10.441 min Scan# 14
Delta R.T. -0.000 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

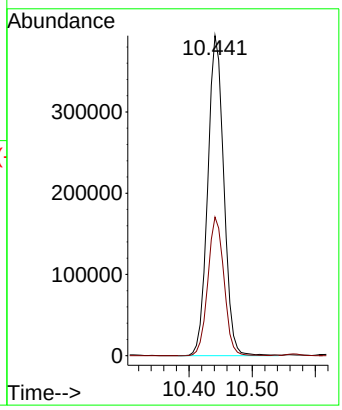
Tgt Ion: 43 Resp: 69692

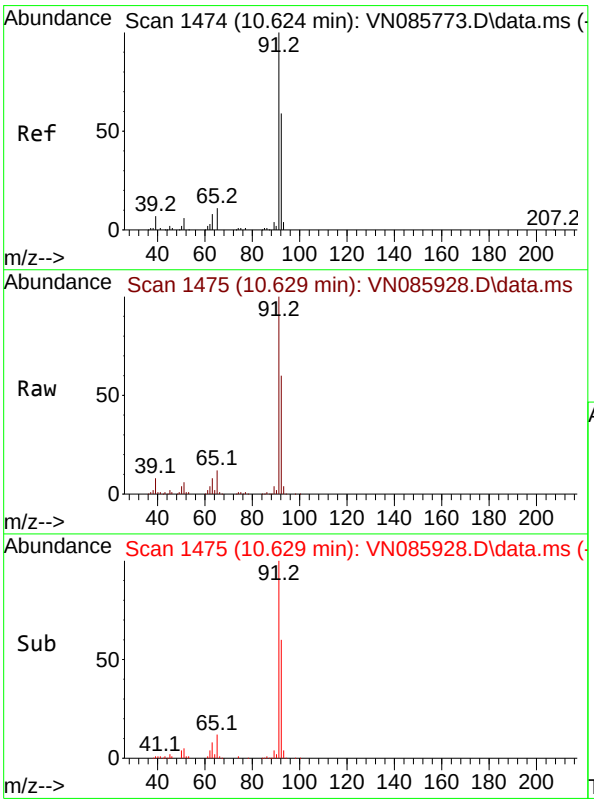
Ion	Ratio	Lower	Upper
43	100		
58	43.4	34.6	52.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

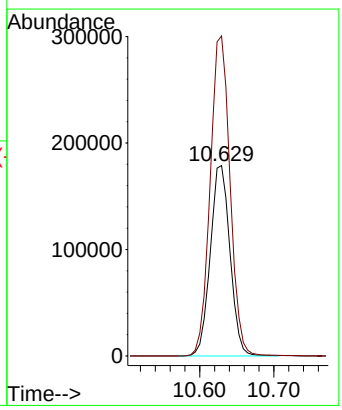


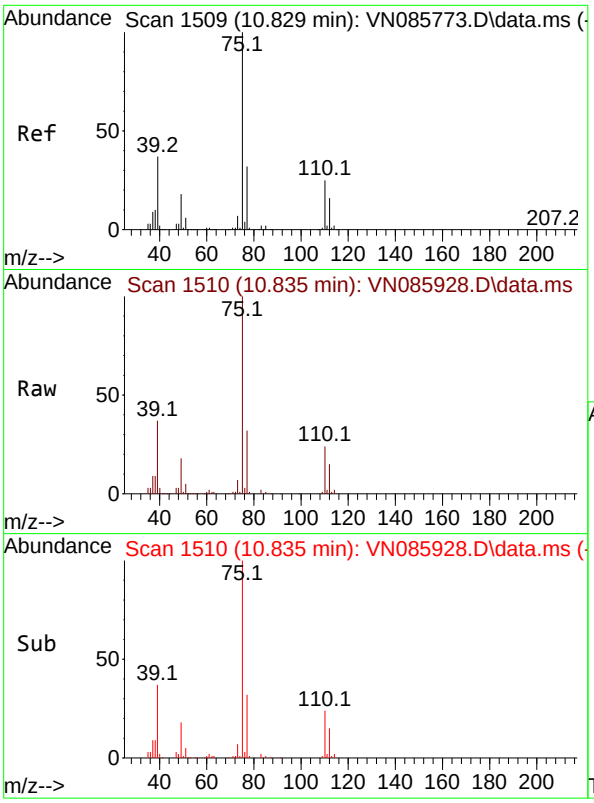


#52
Toluene
Concen: 61.214 ug/l
RT: 10.629 min Scan# 1475
Delta R.T. 0.006 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 92 Resp: 330401

Ion	Ratio	Lower	Upper
92	100		
91	169.4	136.9	205.3

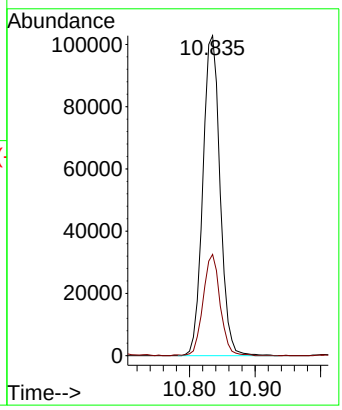




#53
t-1,3-Dichloropropene
Concen: 60.485 ug/l
RT: 10.835 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 75 Resp: 18759

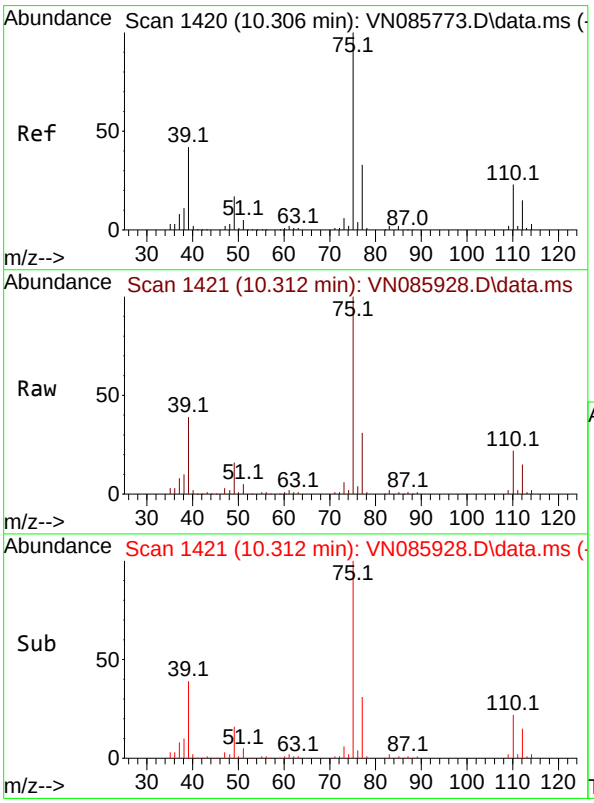
Ion	Ratio	Lower	Upper
75	100		
77	31.6	25.4	38.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

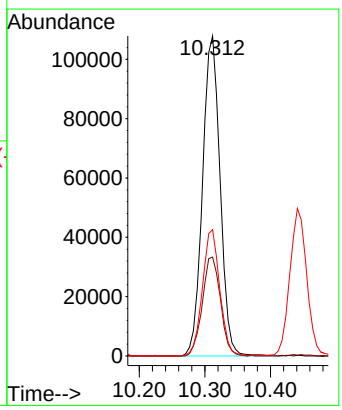
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

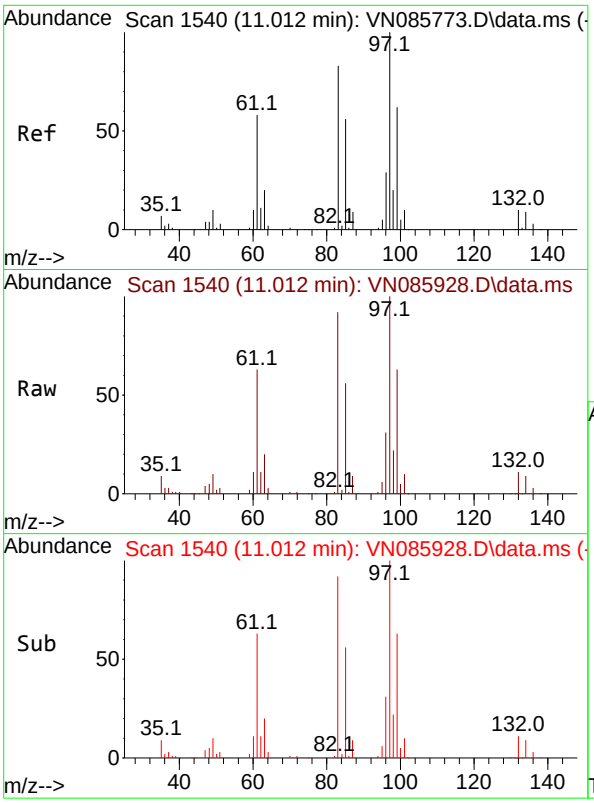


#54
cis-1,3-Dichloropropene
Concen: 59.087 ug/l
RT: 10.312 min Scan# 1421
Delta R.T. 0.006 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 75 Resp: 200954

Ion	Ratio	Lower	Upper
75	100		
77	30.9	26.1	39.1
39	39.5	33.4	50.0

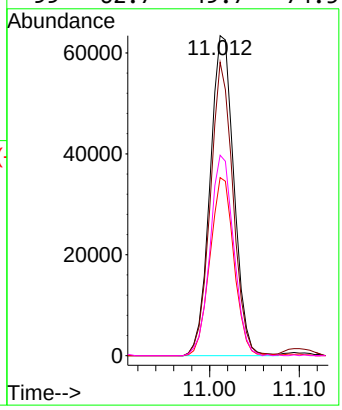




#55
1,1,2-Trichloroethane
Concen: 54.621 ug/l
RT: 11.012 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 97 Resp: 11721

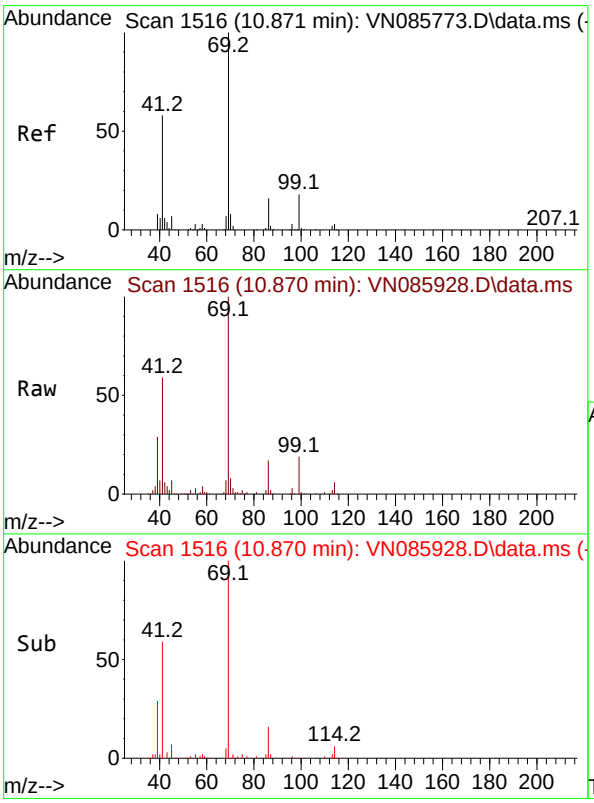
Ion	Ratio	Lower	Upper
97	100		
83	91.7	66.1	99.1
85	55.6	44.7	67.1
99	62.7	49.7	74.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

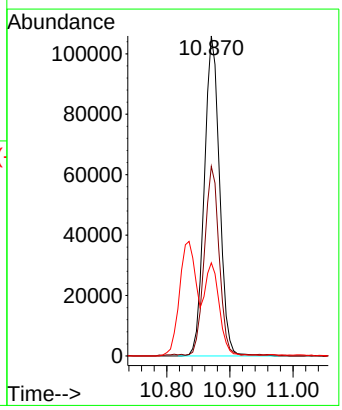
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

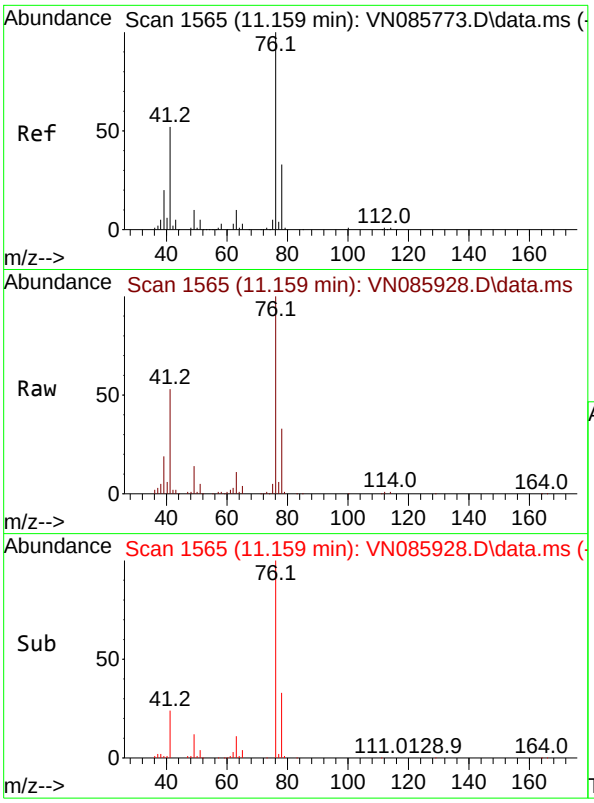


#56
Ethyl methacrylate
Concen: 56.615 ug/l
RT: 10.870 min Scan# 1516
Delta R.T. -0.001 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 69 Resp: 177513

Ion	Ratio	Lower	Upper
69	100		
41	56.8	46.0	69.0
39	27.7	22.0	33.0

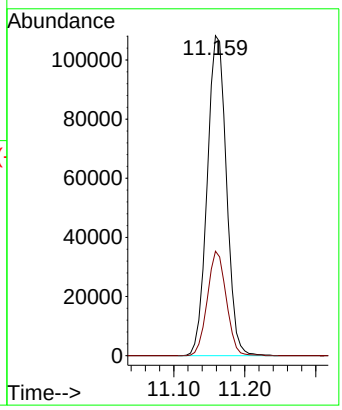




#57
1,3-Dichloropropane
Concen: 56.791 ug/l
RT: 11.159 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 76 Resp: 20344

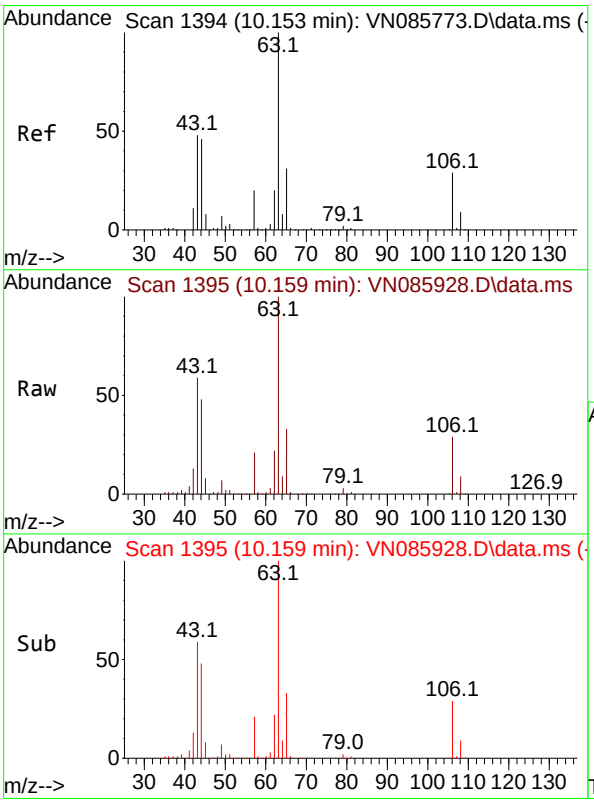
Ion	Ratio	Lower	Upper
76	100		
78	32.1	25.9	38.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

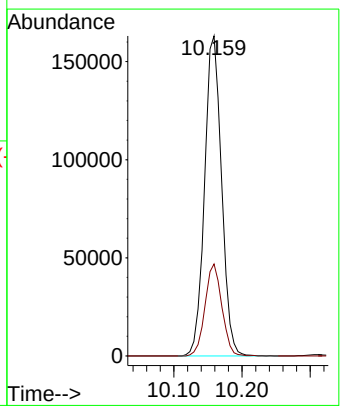
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

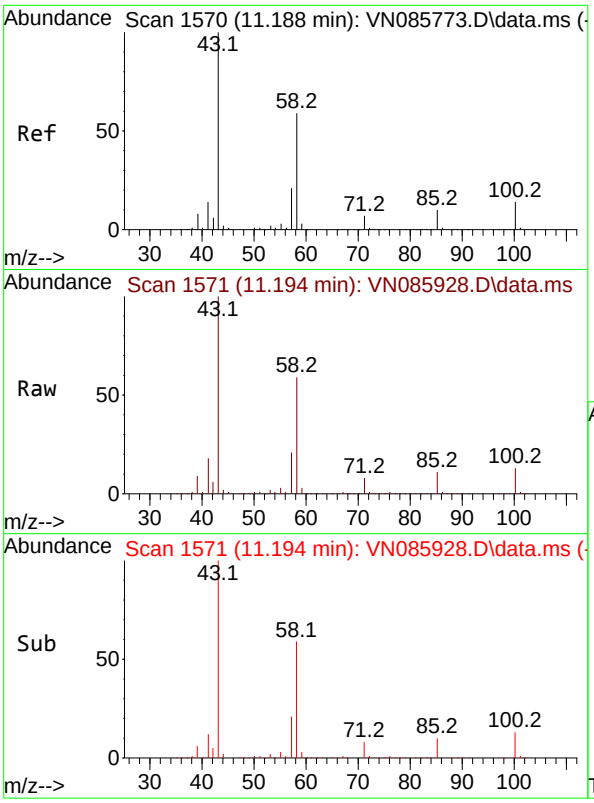


#58
2-Chloroethyl Vinyl ether
Concen: 238.868 ug/l
RT: 10.159 min Scan# 1395
Delta R.T. 0.006 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 63 Resp: 282710

Ion	Ratio	Lower	Upper
63	100		
106	28.4	22.7	34.1

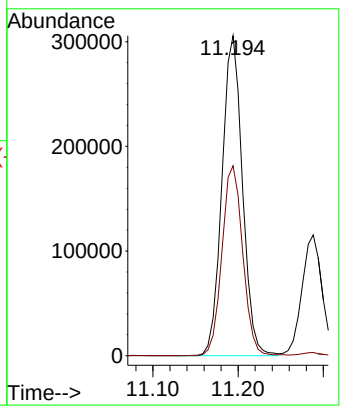




#59
2-Hexanone
Concen: 325.783 ug/l
RT: 11.194 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 43 Resp: 51086

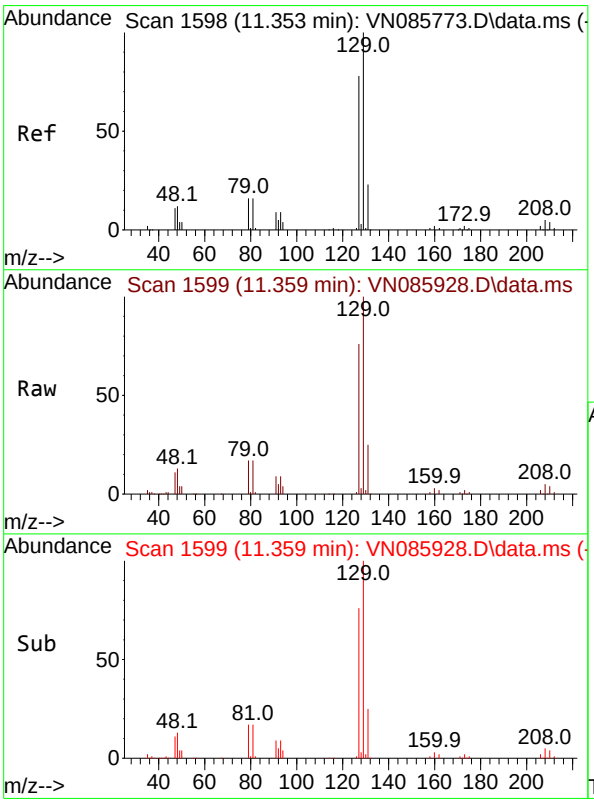
Ion	Ratio	Lower	Upper
43	100		
58	60.2	29.8	89.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

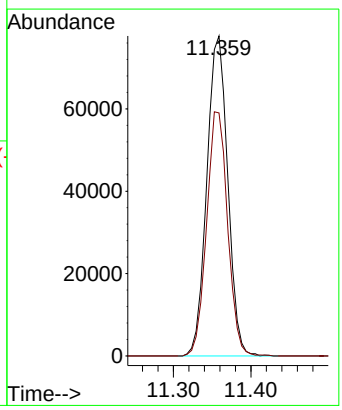
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

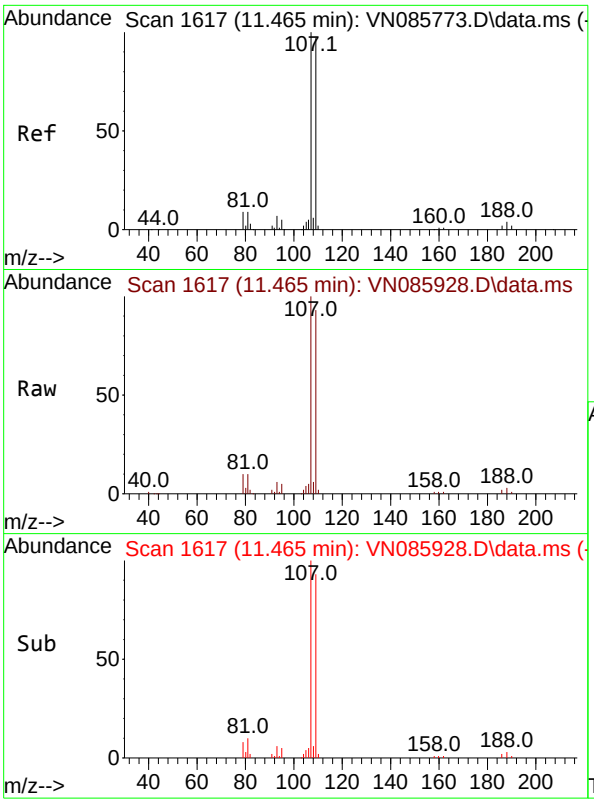


#60
Dibromochloromethane
Concen: 58.241 ug/l
RT: 11.359 min Scan# 1599
Delta R.T. 0.006 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion:129 Resp: 145539

Ion	Ratio	Lower	Upper
129	100		
127	76.7	39.1	117.5





#61
1,2-Dibromoethane
Concen: 57.968 ug/l
RT: 11.465 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

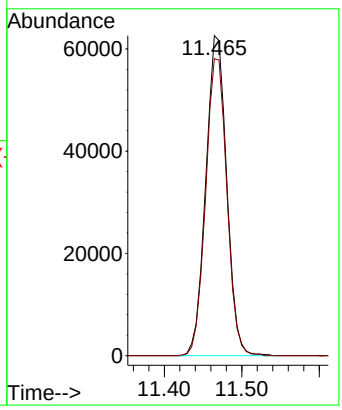
Tgt Ion:107 Resp: 11753

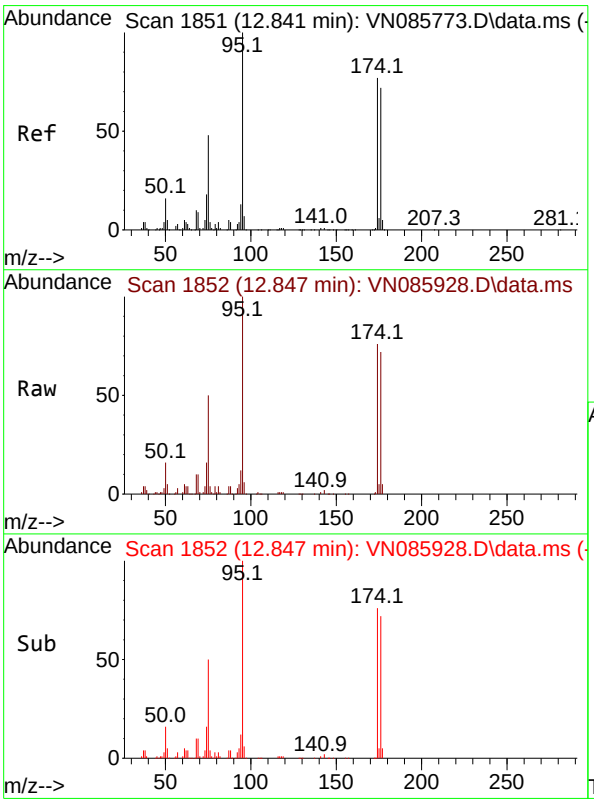
Ion	Ratio	Lower	Upper
107	100		
109	94.1	76.0	114.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

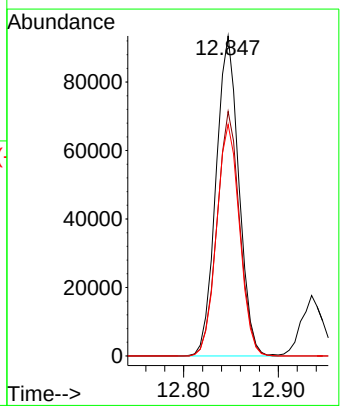


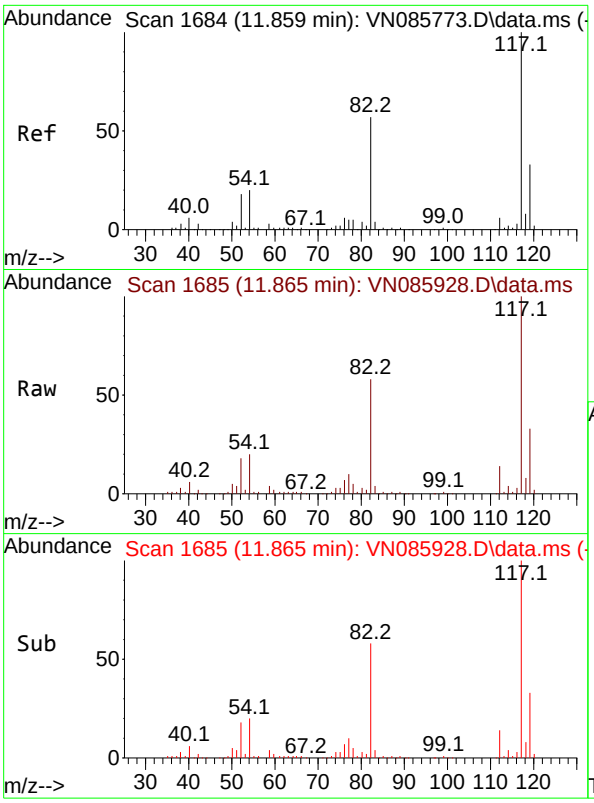


#62
4-Bromofluorobenzene
Concen: 64.447 ug/l
RT: 12.847 min Scan# 1852
Delta R.T. 0.006 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 95 Resp: 156821

Ion	Ratio	Lower	Upper
95	100		
174	75.9	0.0	152.4
176	72.7	0.0	146.6





#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.865 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

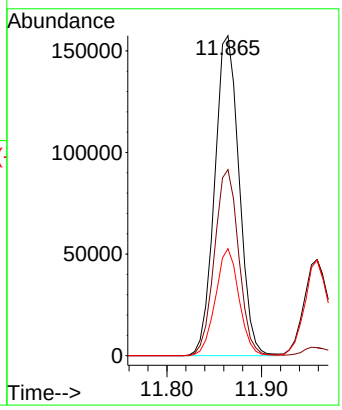
Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

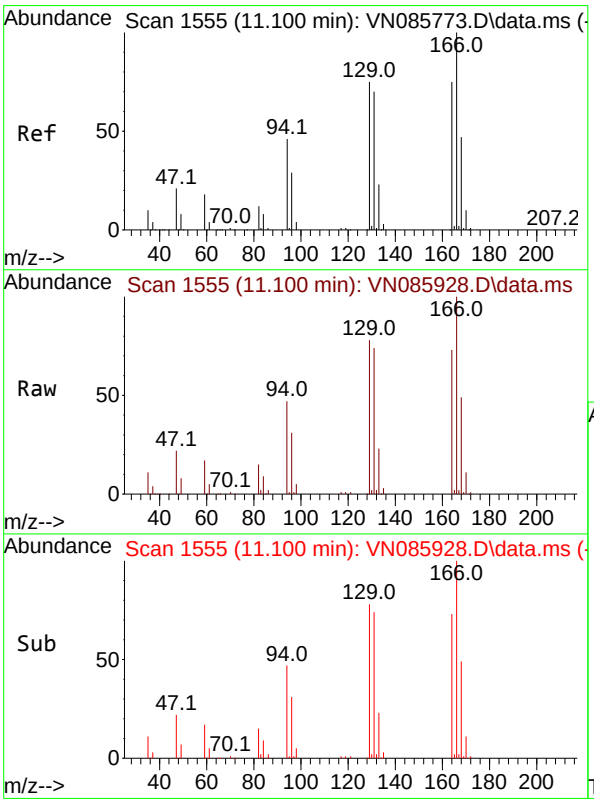
Tgt Ion:117 Resp: 28325

Ion	Ratio	Lower	Upper
117	100		
82	58.2	45.7	68.5
119	33.5	26.2	39.2

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

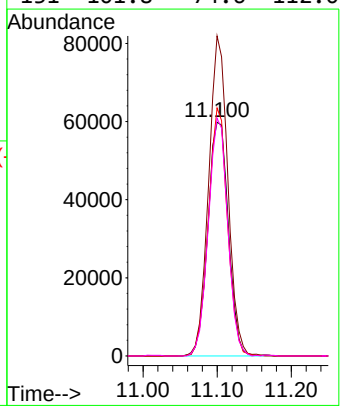


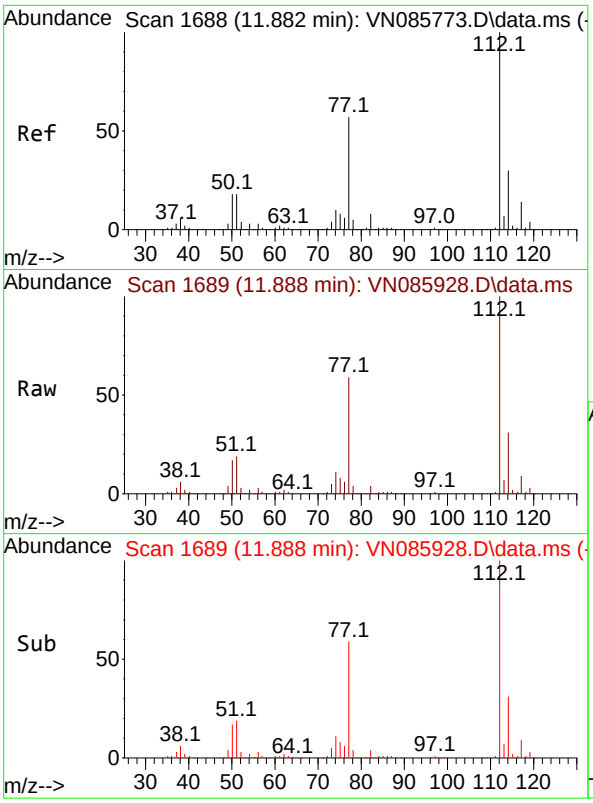


#64
Tetrachloroethene
Concen: 52.336 ug/l
RT: 11.100 min Scan# 1555
Delta R.T. -0.000 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion:164 Resp: 114845

Ion	Ratio	Lower	Upper
164	100		
166	136.9	107.2	160.8
129	106.2	80.7	121.1
131	101.8	74.6	112.0

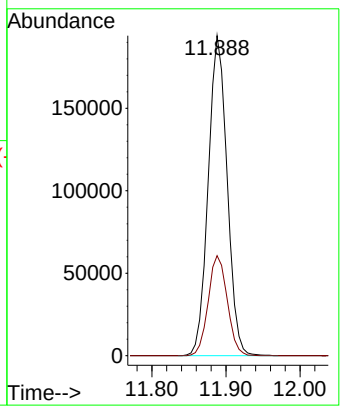




#65
Chlorobenzene
Concen: 52.896 ug/l
RT: 11.888 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion:112 Resp: 34324

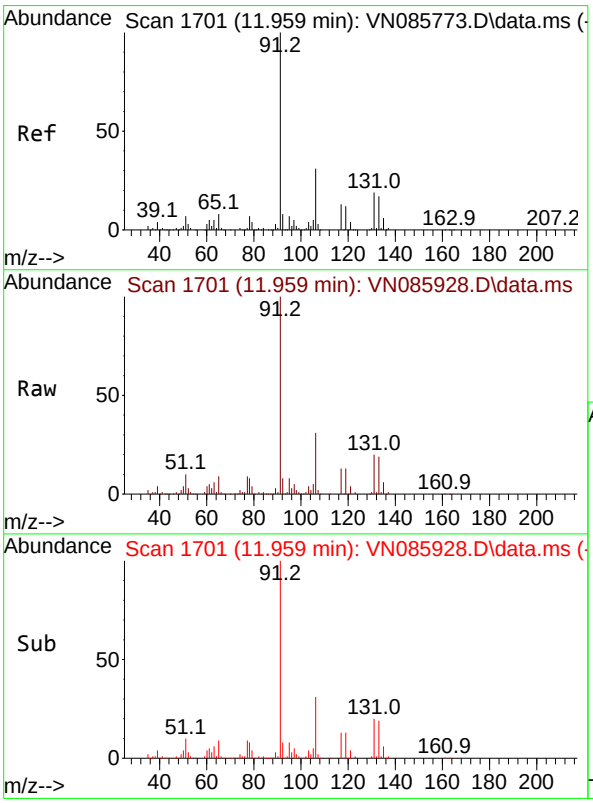
Ion	Ratio	Lower	Upper
112	100		
114	31.3	24.3	36.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

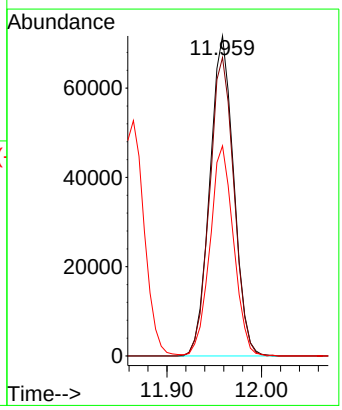
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

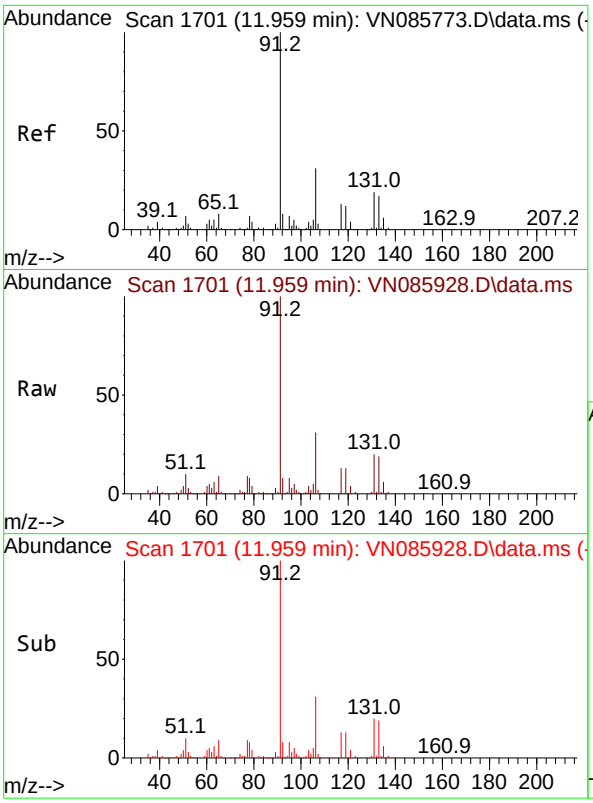


#66
1,1,1,2-Tetrachloroethane
Concen: 53.877 ug/l
RT: 11.959 min Scan# 1701
Delta R.T. -0.000 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion:131 Resp: 125659

Ion	Ratio	Lower	Upper
131	100		
133	95.1	47.7	143.1
119	64.8	33.3	99.8

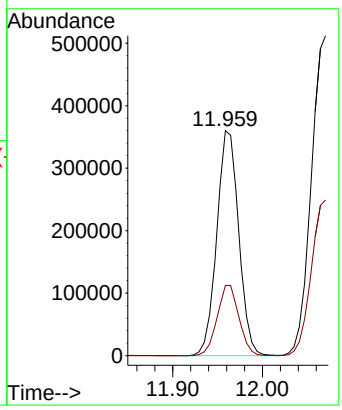




#67
Ethyl Benzene
Concen: 60.189 ug/l
RT: 11.959 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 91 Resp: 61179

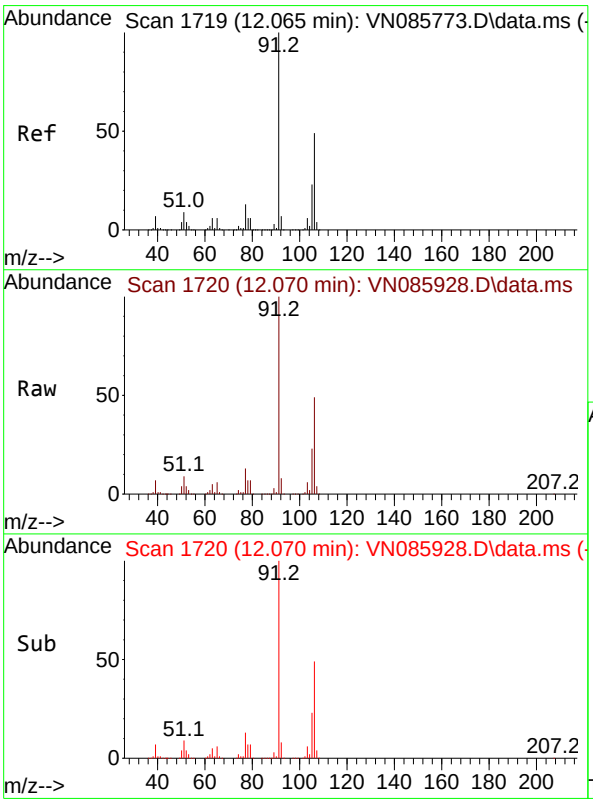
Ion	Ratio	Lower	Upper
91	100		
106	31.2	24.7	37.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

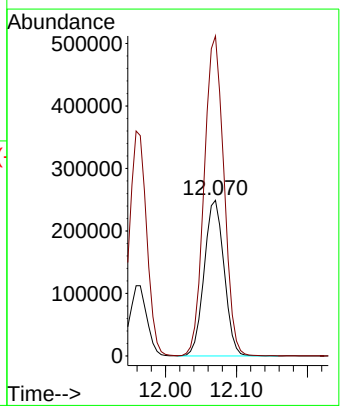
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

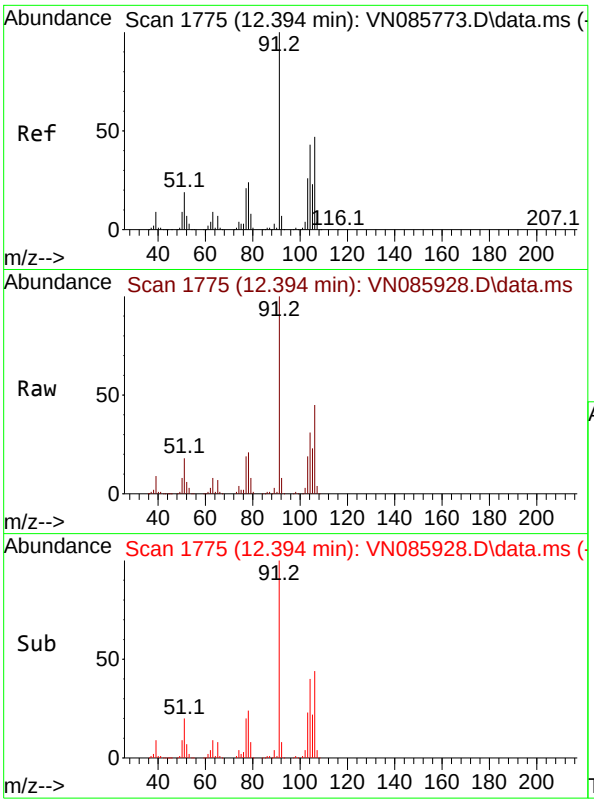


#68
m/p-Xylenes
Concen: 125.614 ug/l
RT: 12.070 min Scan# 1720
Delta R.T. 0.005 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion:106 Resp: 484997

Ion	Ratio	Lower	Upper
106	100		
91	203.6	163.3	244.9





#69
o-Xylene
Concen: 60.624 ug/l
RT: 12.394 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

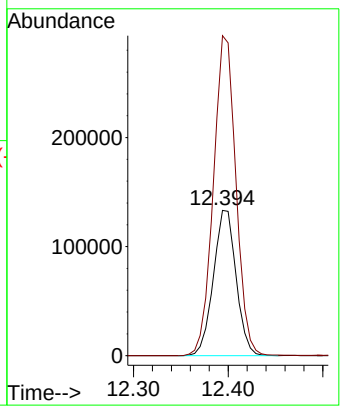
Tgt Ion:106 Resp: 22242

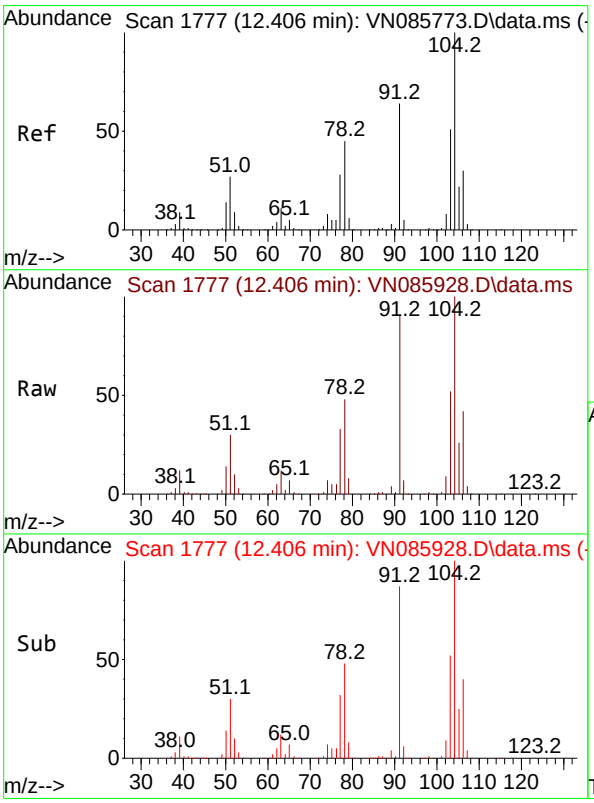
Ion	Ratio	Lower	Upper
106	100		
91	218.4	107.1	321.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

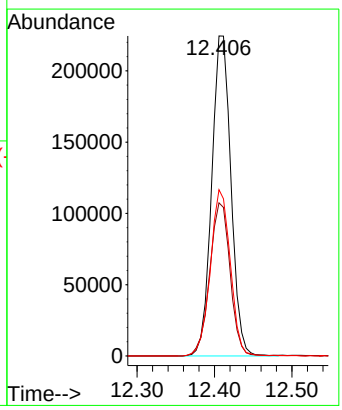


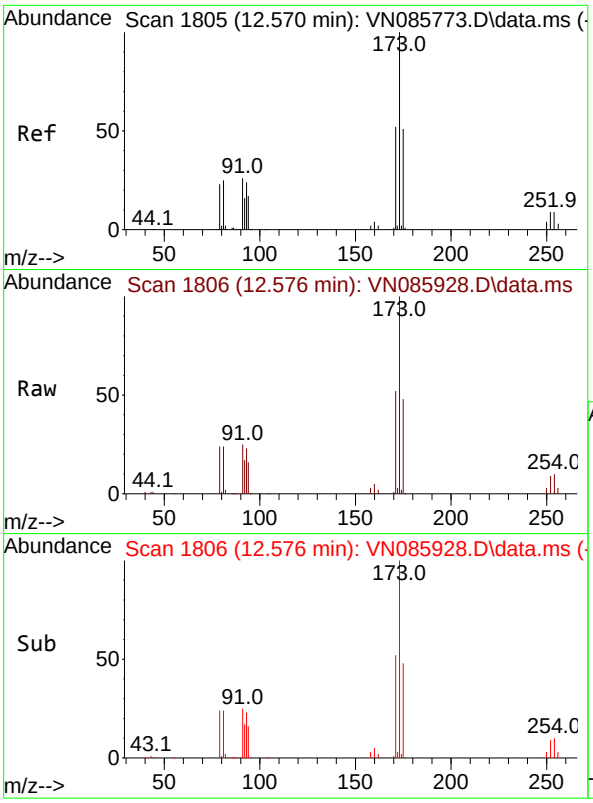


#70
Styrene
Concen: 56.209 ug/l
RT: 12.406 min Scan# 1777
Delta R.T. -0.000 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion:104 Resp: 388800

Ion	Ratio	Lower	Upper
104	100		
78	50.7	39.0	58.6
103	53.8	43.3	64.9





#71
Bromoform
Concen: 57.178 ug/l
RT: 12.576 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

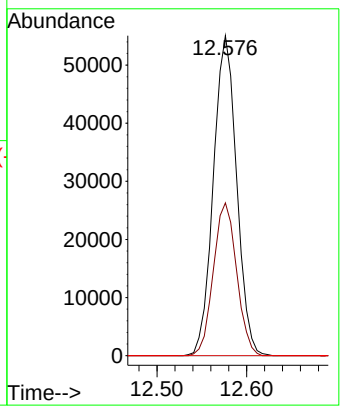
Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

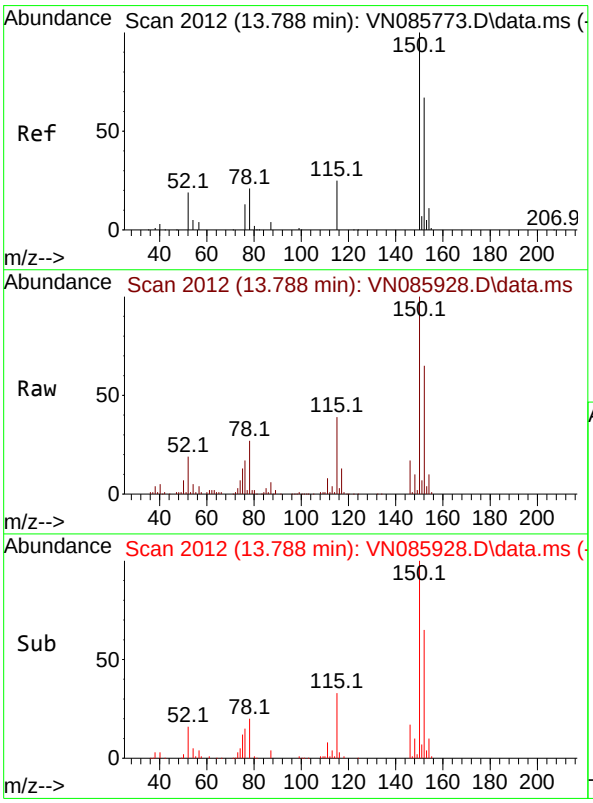
Tgt Ion:173 Resp: 9909

Ion	Ratio	Lower	Upper
173	100		
175	47.7	25.1	75.4
254	0.0	0.0	0.0

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

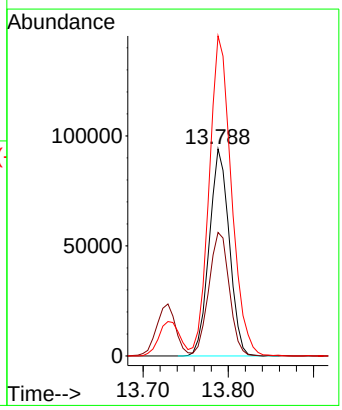


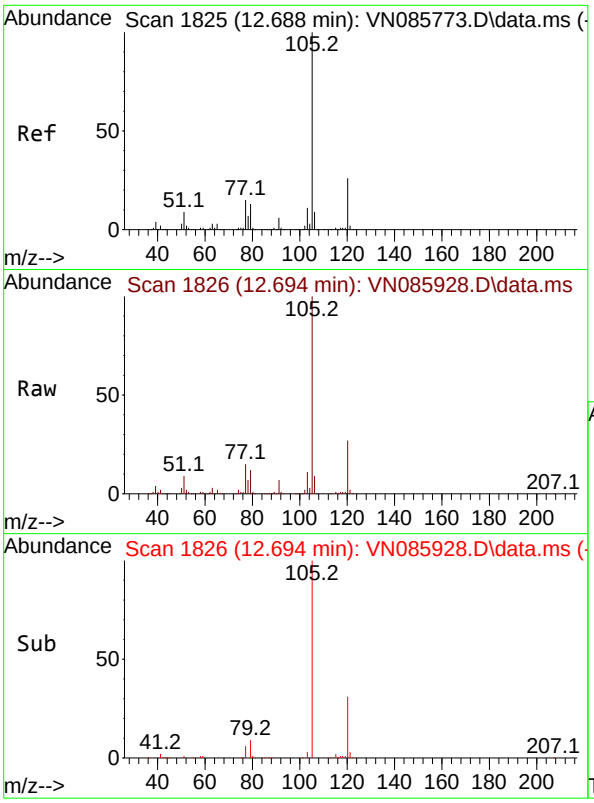


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.788 min Scan# 2012
Delta R.T. -0.000 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion:152 Resp: 153775

Ion	Ratio	Lower	Upper
152	100		
115	61.0	30.4	91.3
150	171.8	0.0	345.4





#73
Isopropylbenzene
Concen: 53.095 ug/l
RT: 12.694 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

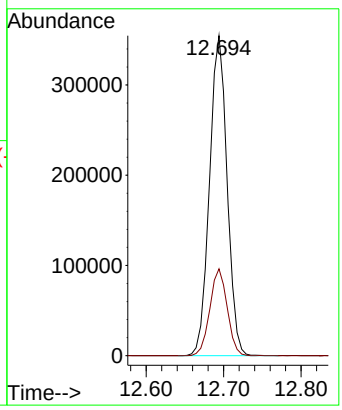
Tgt Ion:105 Resp: 55935

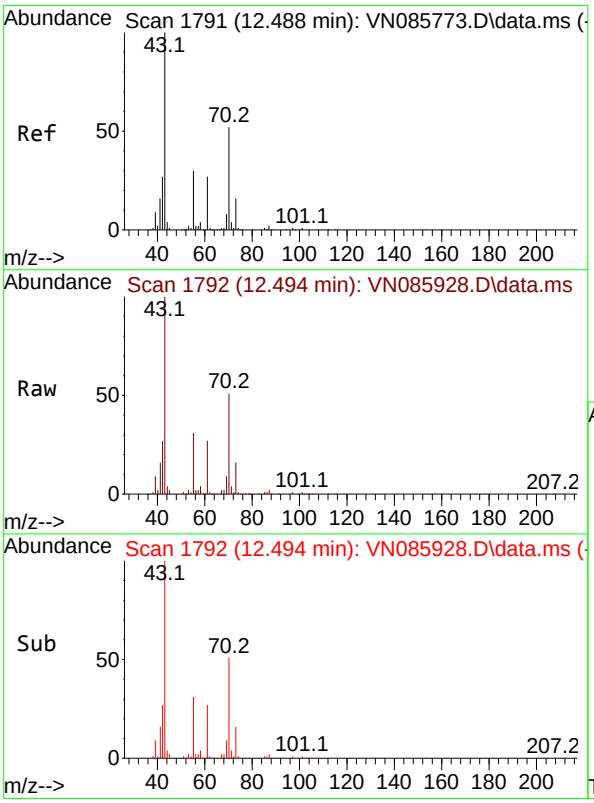
Ion	Ratio	Lower	Upper
105	100		
120	26.7	13.0	39.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

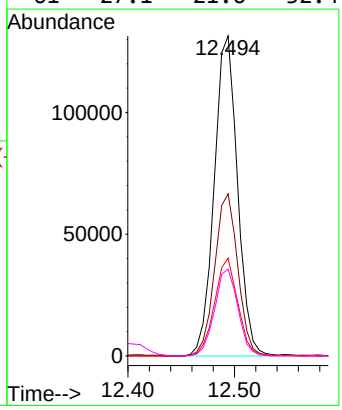


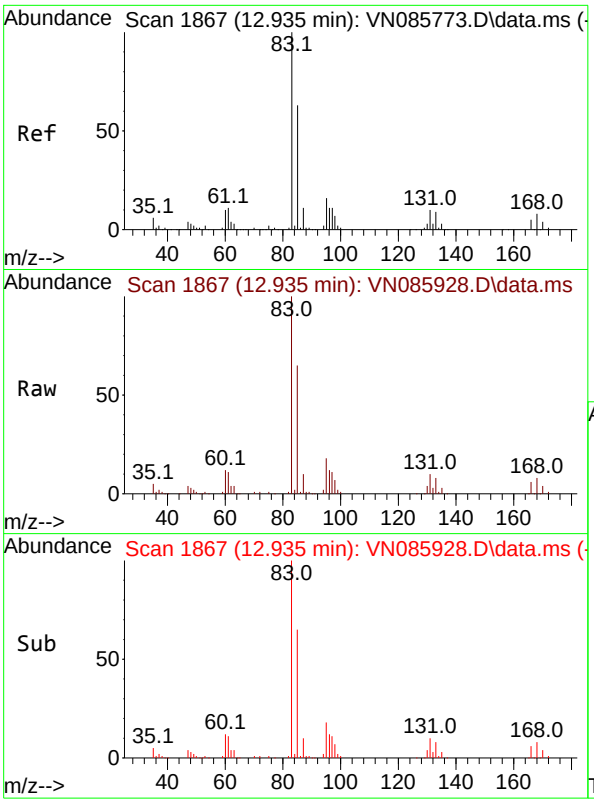


#74
N-amyl acetate
Concen: 53.719 ug/l
RT: 12.494 min Scan# 1792
Delta R.T. 0.006 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 43 Resp: 199571

Ion	Ratio	Lower	Upper
43	100		
70	50.5	41.0	61.4
55	30.7	24.6	36.8
61	27.1	21.6	32.4





#75
1,1,2,2-Tetrachloroethane
Concen: 46.527 ug/l
RT: 12.935 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

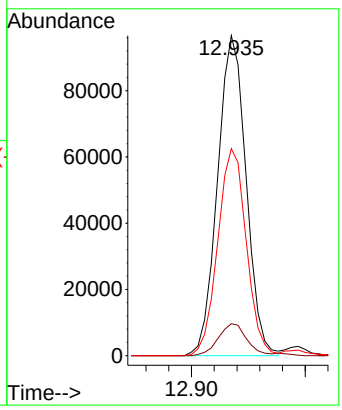
Tgt Ion: 83 Resp: 16867

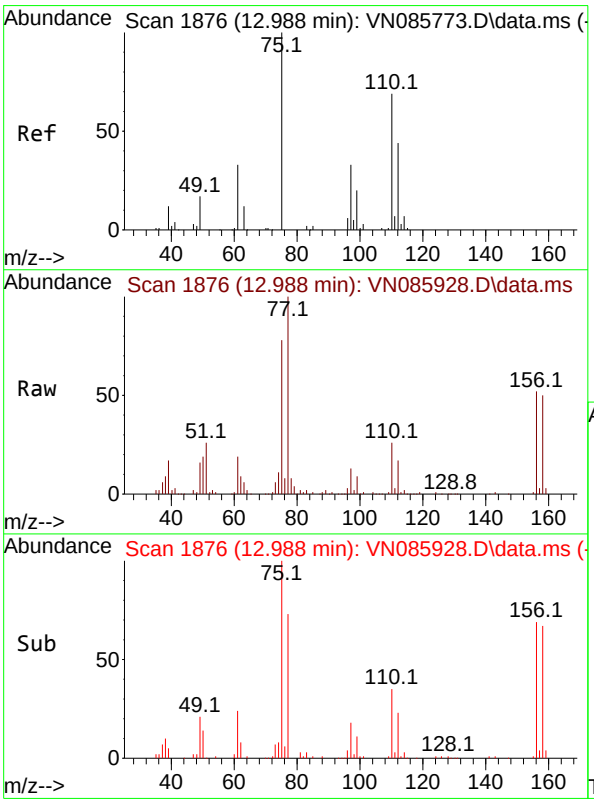
Ion	Ratio	Lower	Upper
83	100		
131	10.3	5.0	15.0
85	64.6	32.2	96.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

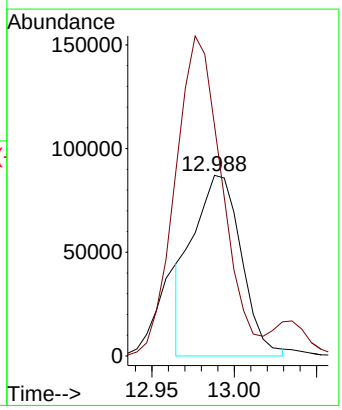


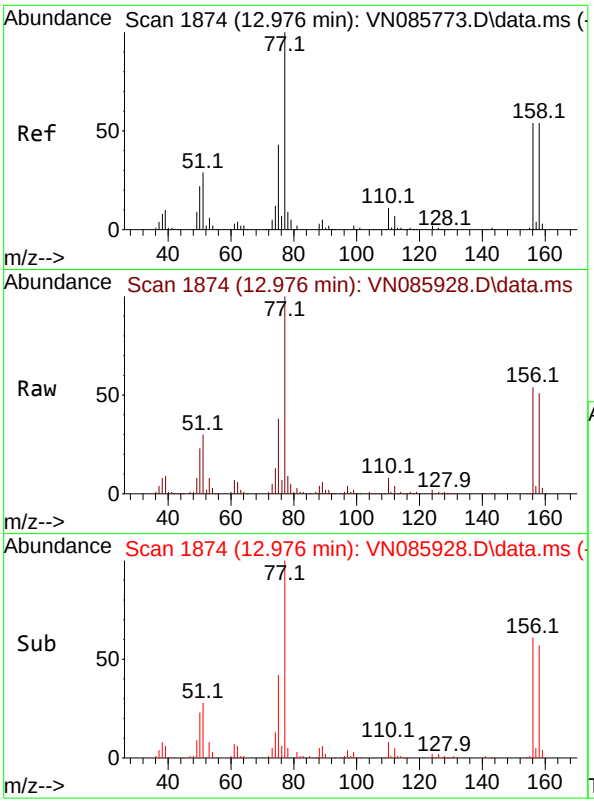


#76
1,2,3-Trichloropropane
Concen: 52.150 ug/l m
RT: 12.988 min Scan# 1876
Delta R.T. -0.000 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 75 Resp: 178136

Ion	Ratio	Lower	Upper
75	100		
77	171.6	100.0	300.0





#77
Bromobenzene
Concen: 50.426 ug/l
RT: 12.976 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

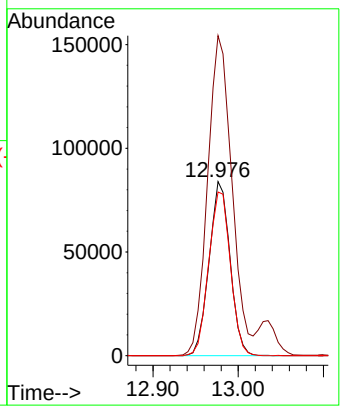
Tgt Ion:156 Resp: 14352

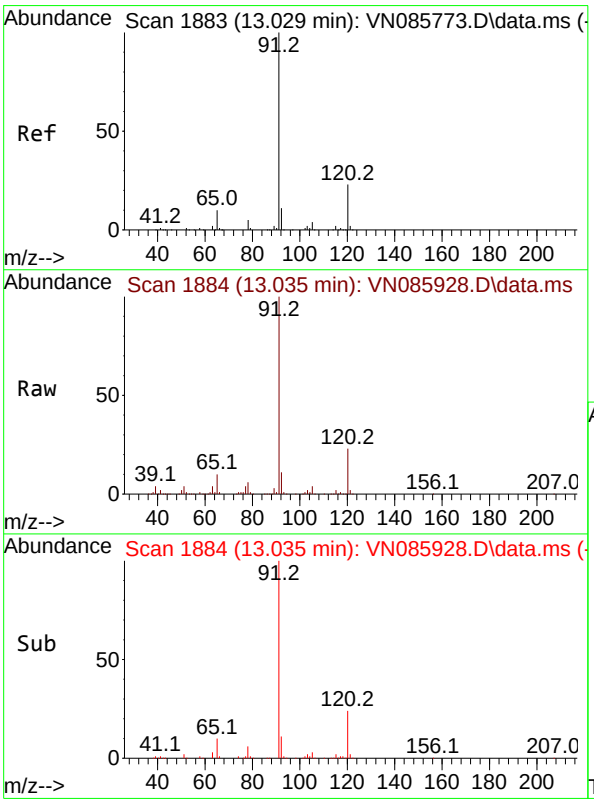
Ion	Ratio	Lower	Upper
156	100		
77	213.0	104.1	312.3
158	97.5	48.1	144.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

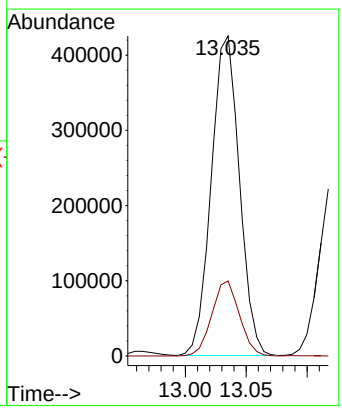


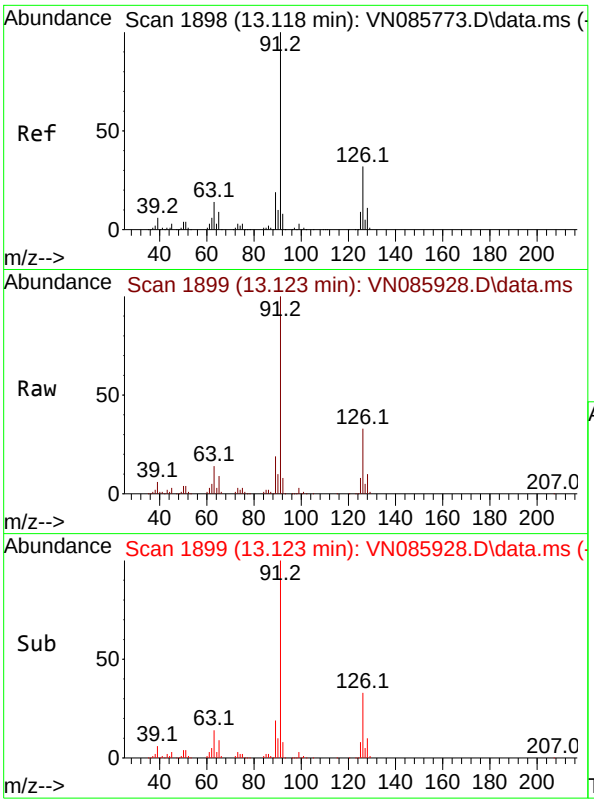


#78
n-propylbenzene
Concen: 56.559 ug/l
RT: 13.035 min Scan# 1884
Delta R.T. 0.006 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 91 Resp: 682397

Ion	Ratio	Lower	Upper
91	100		
120	23.0	11.3	33.8

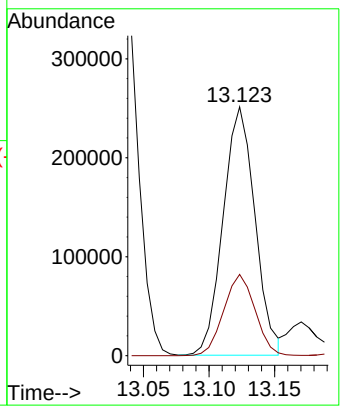




#79
2-Chlorotoluene
Concen: 52.640 ug/l
RT: 13.123 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 91 Resp: 42434

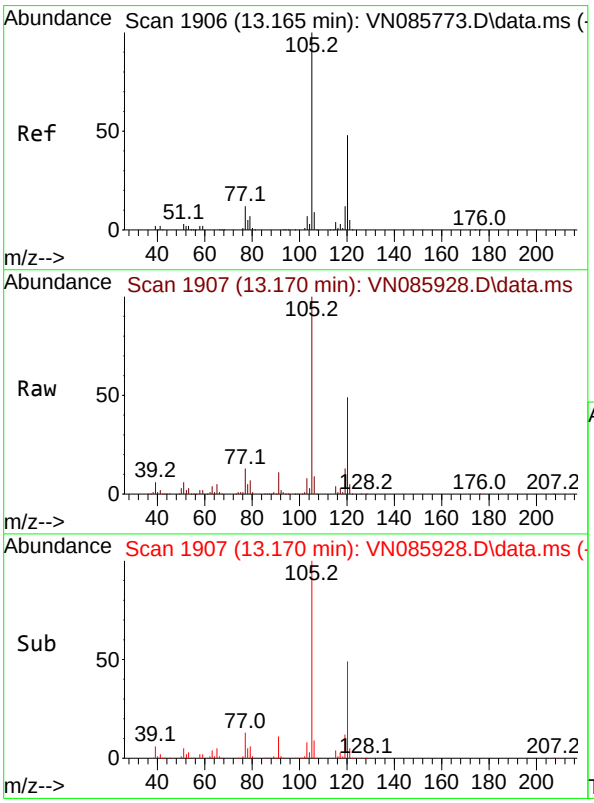
Ion	Ratio	Lower	Upper
91	100		
126	32.3	16.4	49.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

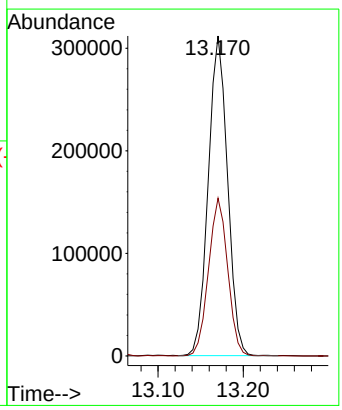
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

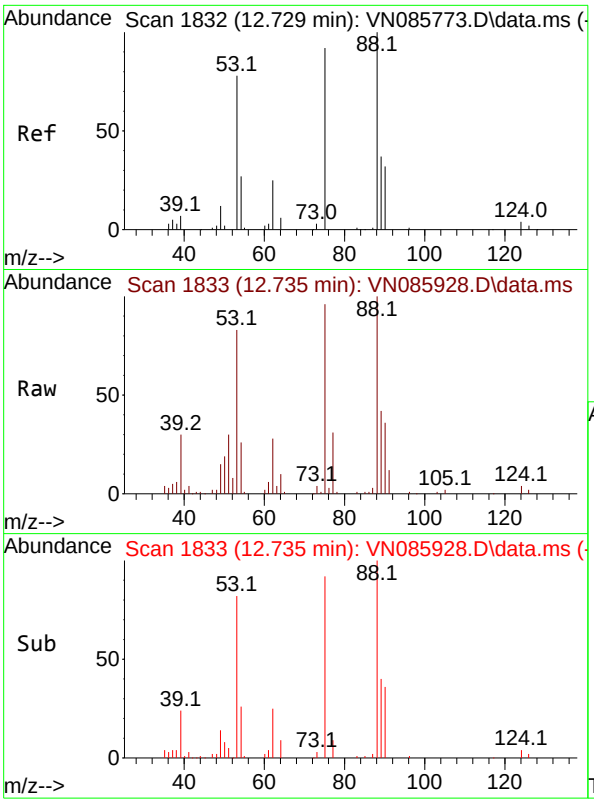


#80
1,3,5-Trimethylbenzene
Concen: 57.065 ug/l
RT: 13.170 min Scan# 1907
Delta R.T. 0.006 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion:105 Resp: 489718

Ion	Ratio	Lower	Upper
105	100		
120	49.2	24.3	72.9





#81
trans-1,4-Dichloro-2-butene
Concen: 59.775 ug/l
RT: 12.735 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

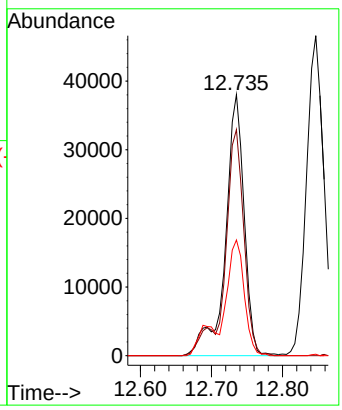
Tgt Ion: 75 Resp: 6998

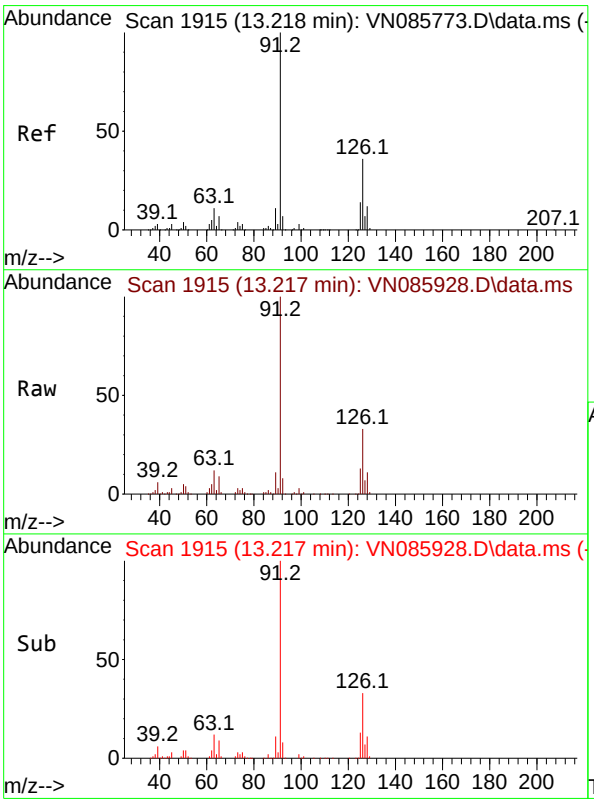
Ion	Ratio	Lower	Upper
75	100		
53	77.2	74.2	111.4
89	39.4	34.9	52.3

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

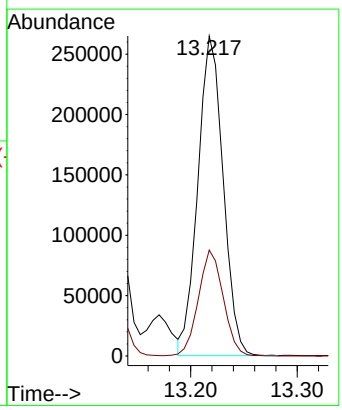


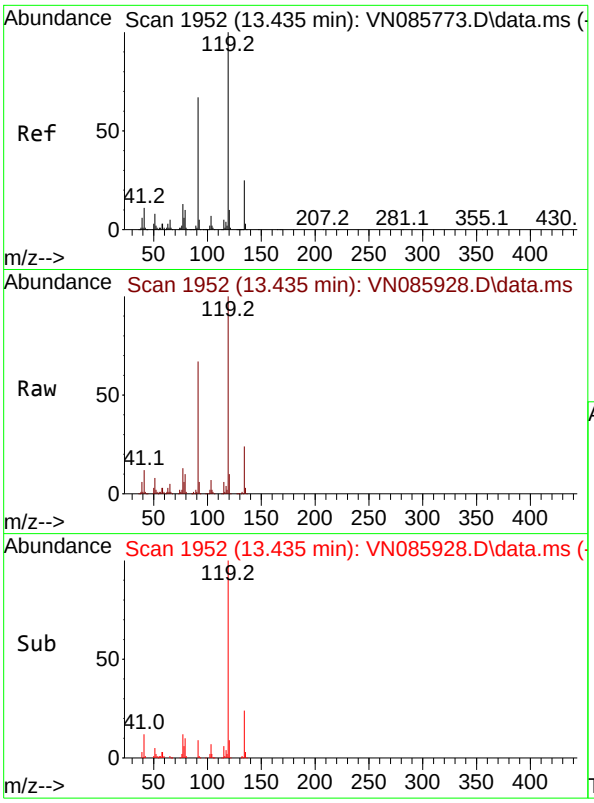


#82
4-Chlorotoluene
Concen: 54.629 ug/l
RT: 13.217 min Scan# 1915
Delta R.T. -0.000 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 91 Resp: 436573

Ion	Ratio	Lower	Upper
91	100		
126	32.7	16.4	49.4

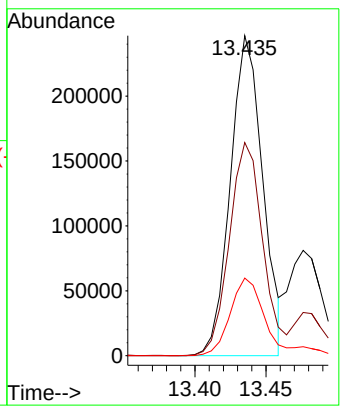




#83
tert-Butylbenzene
Concen: 54.327 ug/l
RT: 13.435 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion:119 Resp: 39205

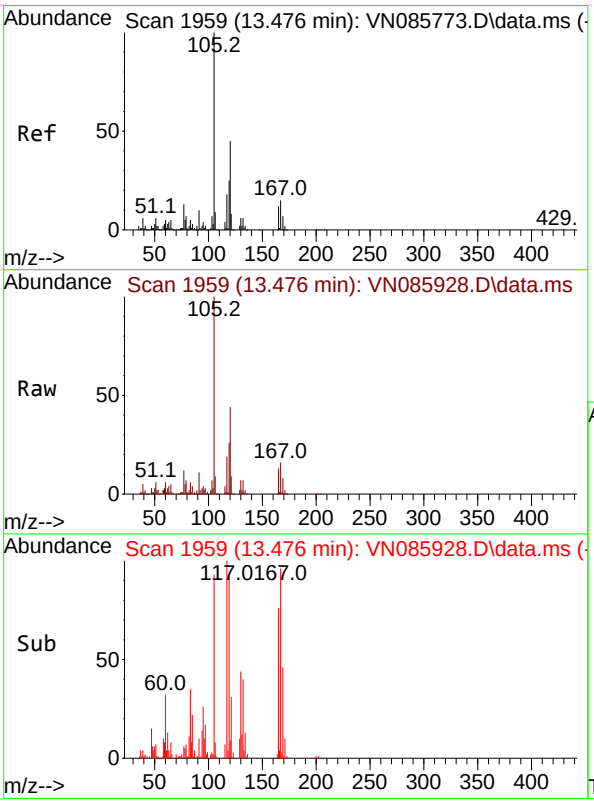
Ion	Ratio	Lower	Upper
119	100		
91	69.1	32.5	97.5
134	27.0	13.3	39.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

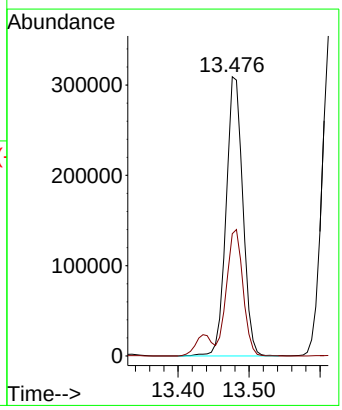
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

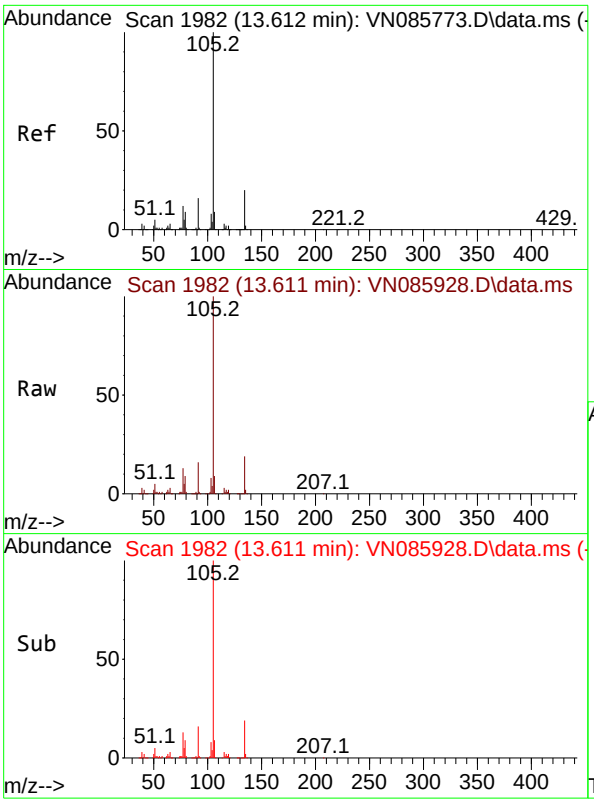


#84
1,2,4-Trimethylbenzene
Concen: 59.570 ug/l
RT: 13.476 min Scan# 1959
Delta R.T. -0.000 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion:105 Resp: 505780

Ion	Ratio	Lower	Upper
105	100		
120	44.5	22.4	67.3





#85
sec-Butylbenzene
Concen: 55.632 ug/l
RT: 13.611 min Scan# 1
Delta R.T. -0.001 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

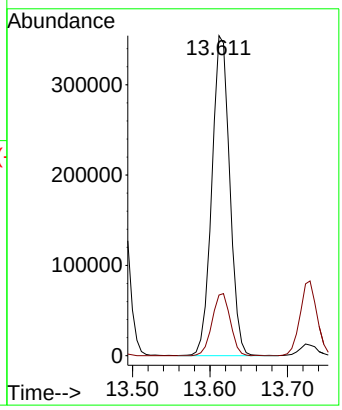
Tgt Ion:105 Resp: 56724

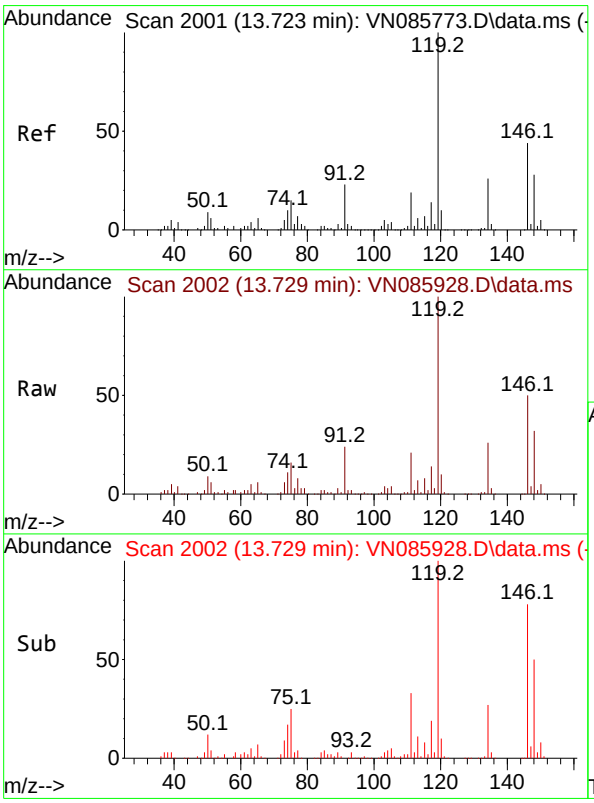
Ion	Ratio	Lower	Upper
105	100		
134	19.7	9.8	29.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

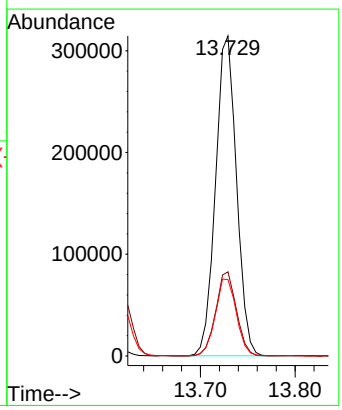


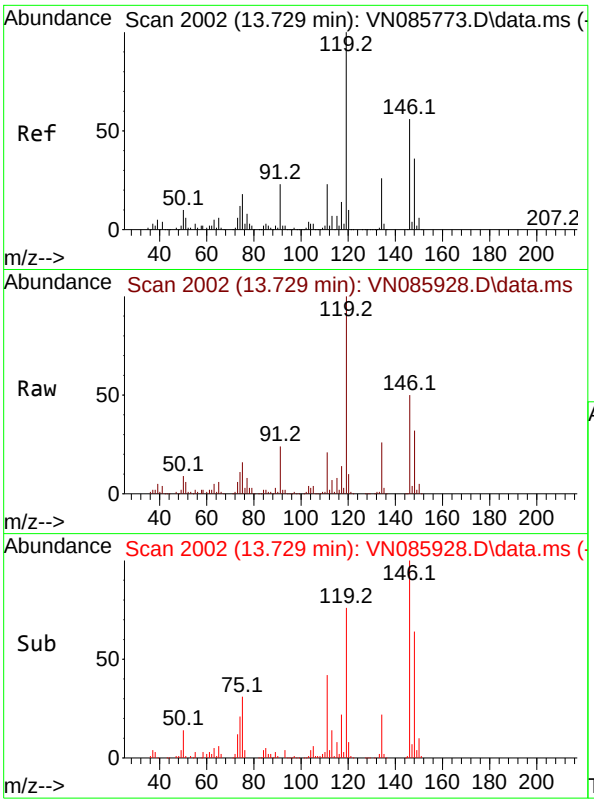


#86
p-Isopropyltoluene
Concen: 51.591 ug/l
RT: 13.729 min Scan# 2002
Delta R.T. 0.006 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion:119 Resp: 483401

Ion	Ratio	Lower	Upper
119	100		
134	26.0	13.0	39.0
91	24.1	11.7	35.1





#87
1,3-Dichlorobenzene
Concen: 50.299 ug/l
RT: 13.729 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

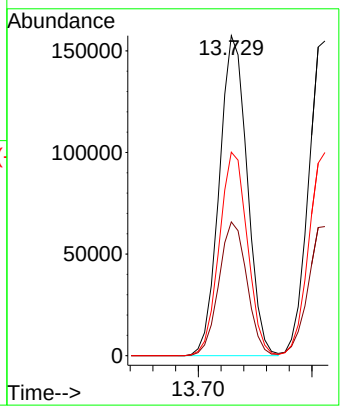
Tgt Ion:146 Resp: 26822

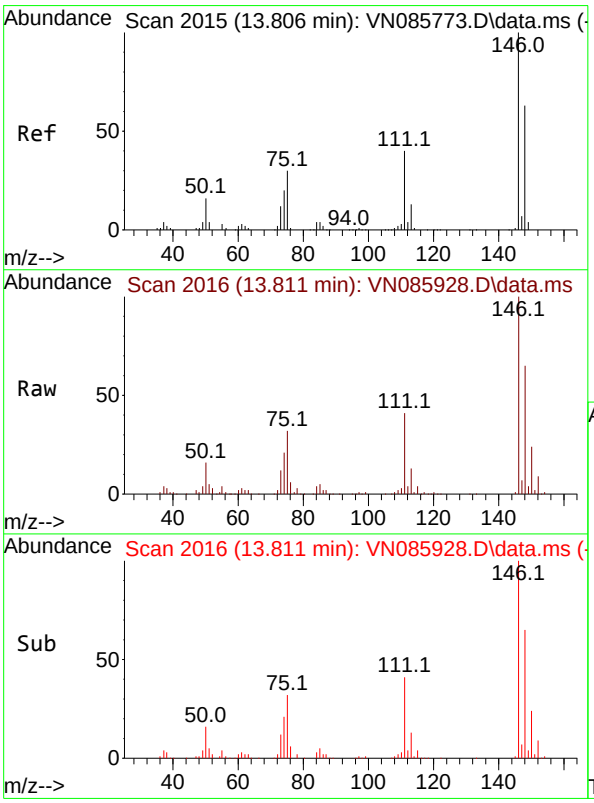
Ion	Ratio	Lower	Upper
146	100		
111	42.1	21.1	63.3
148	64.2	32.1	96.5

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

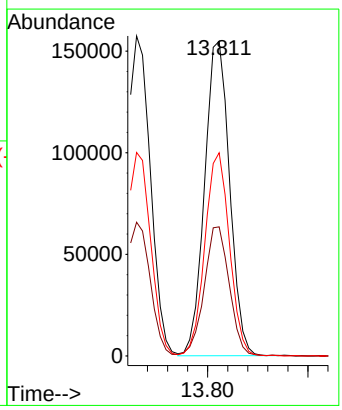


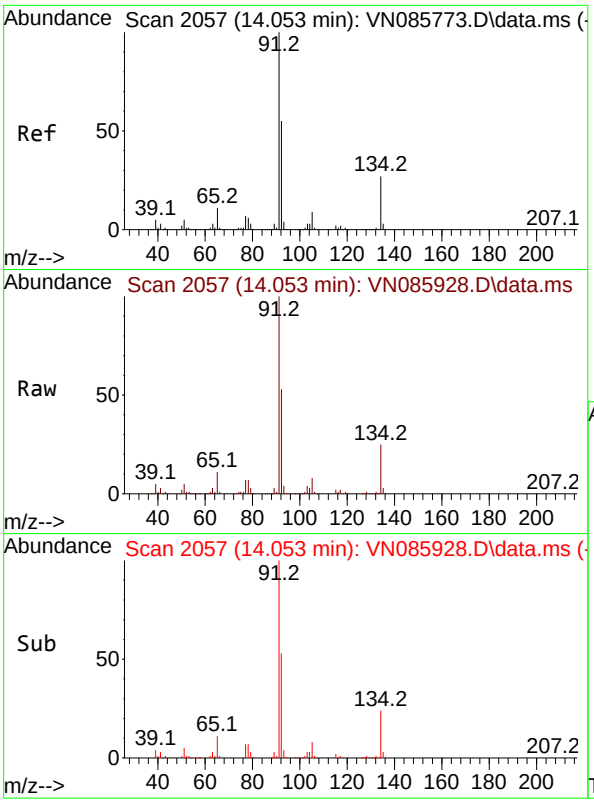


#88
1,4-Dichlorobenzene
Concen: 48.956 ug/l
RT: 13.811 min Scan# 2016
Delta R.T. 0.006 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion:146 Resp: 267568

Ion	Ratio	Lower	Upper
146	100		
111	41.0	20.4	61.3
148	63.8	31.8	95.4





#89
n-Butylbenzene
Concen: 55.932 ug/l
RT: 14.053 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

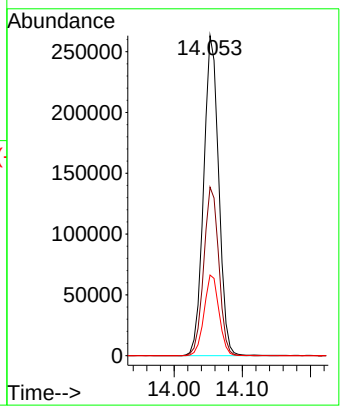
Tgt Ion: 91 Resp: 40490

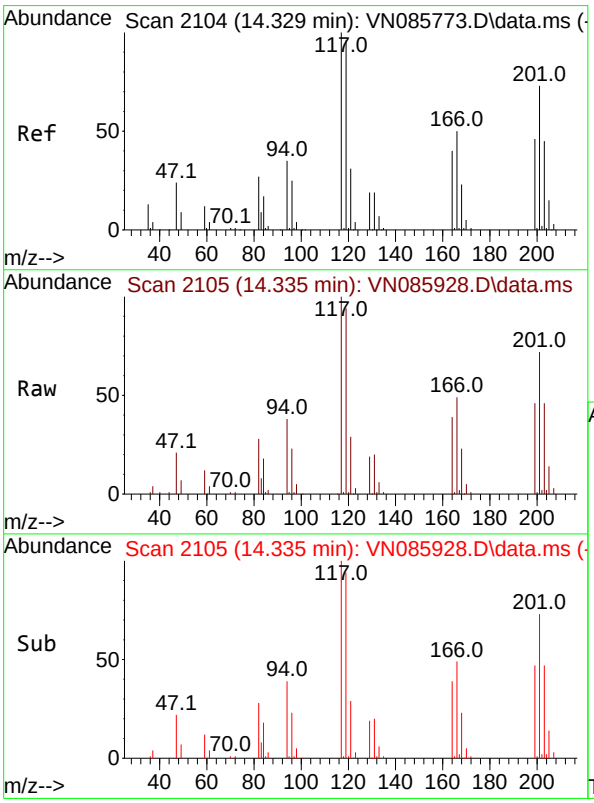
Ion	Ratio	Lower	Upper
91	100		
92	52.6	27.1	81.3
134	25.0	12.7	38.1

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

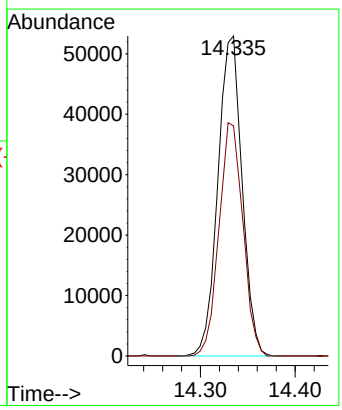


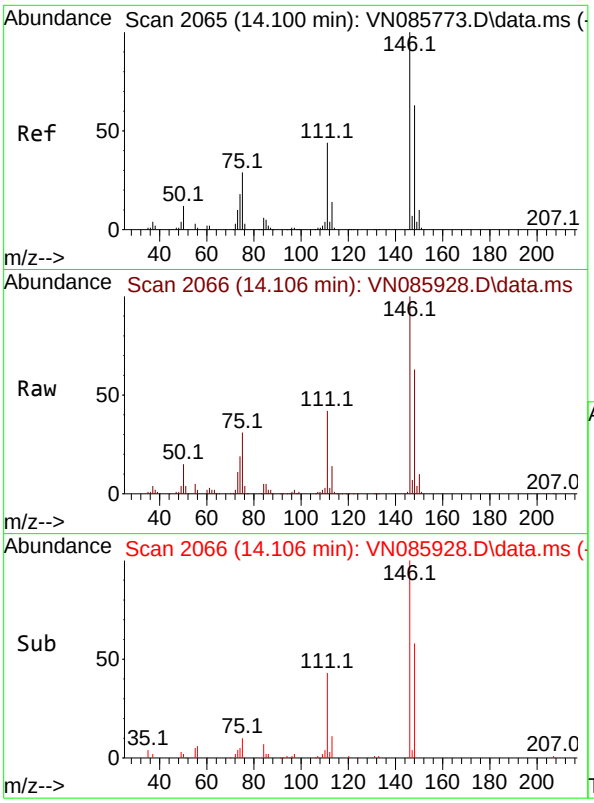


#90
Hexachloroethane
Concen: 48.627 ug/l
RT: 14.335 min Scan# 2105
Delta R.T. 0.006 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion:117 Resp: 93901

Ion	Ratio	Lower	Upper
117	100		
201	72.1	35.6	106.9

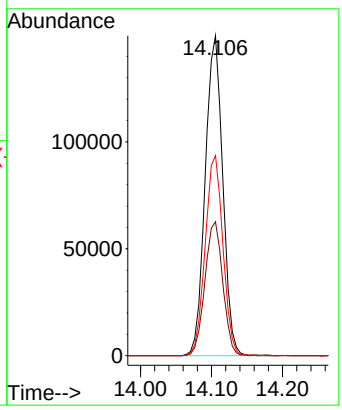




#91
1,2-Dichlorobenzene
Concen: 50.074 ug/l
RT: 14.106 min Scan# 2
Delta R.T. 0.006 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion:146 Resp: 25677

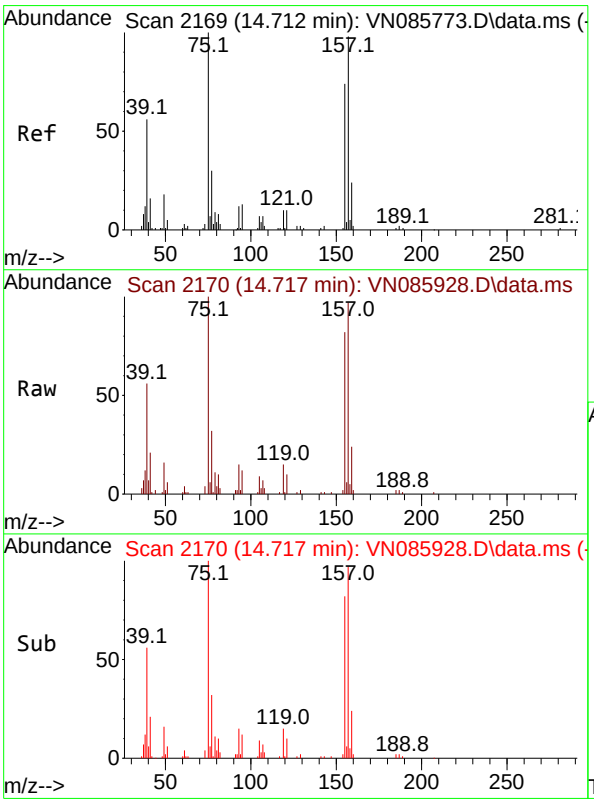
Ion	Ratio	Lower	Upper
146	100		
111	42.7	21.4	64.3
148	63.4	32.0	96.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

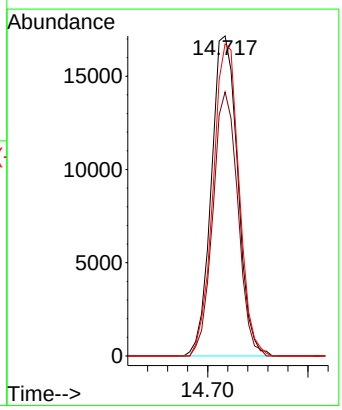
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

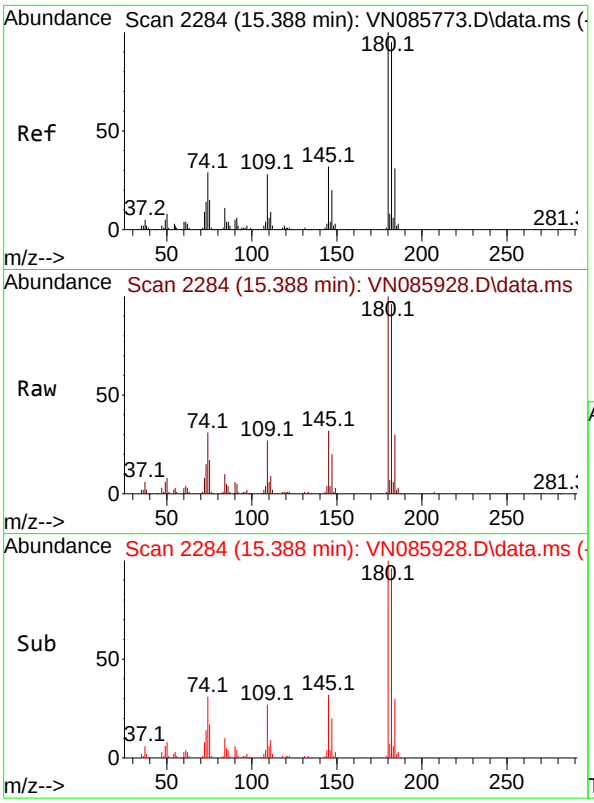


#92
1,2-Dibromo-3-Chloropropane
Concen: 47.074 ug/l
RT: 14.717 min Scan# 2170
Delta R.T. 0.006 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion: 75 Resp: 31337

Ion	Ratio	Lower	Upper
75	100		
155	78.1	39.9	119.6
157	95.8	49.9	149.7





#93
1,2,4-Trichlorobenzene
Concen: 51.276 ug/l
RT: 15.388 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

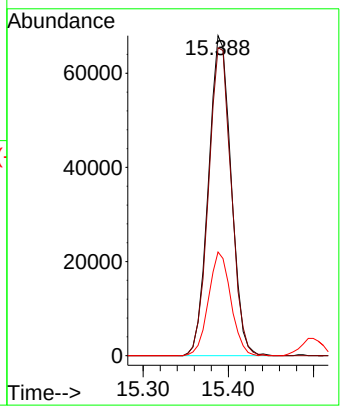
Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

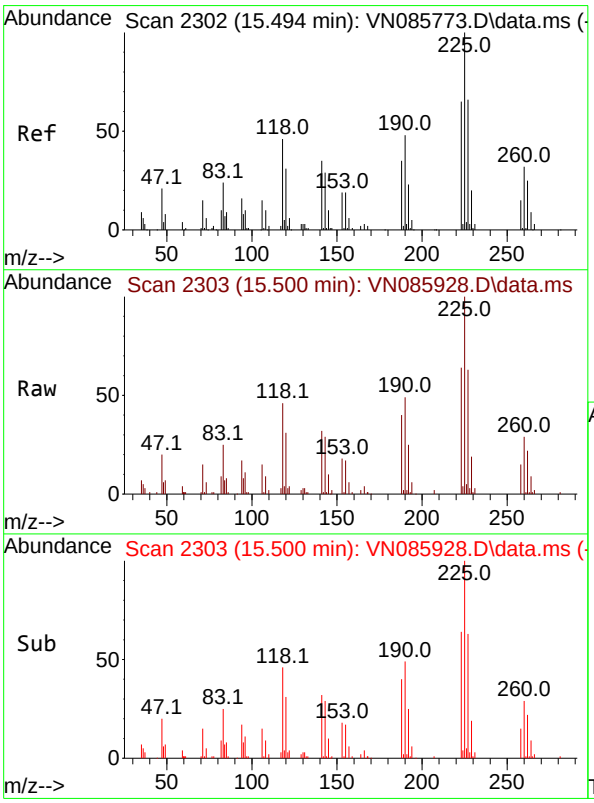
Tgt Ion:180 Resp: 12529

Ion	Ratio	Lower	Upper
180	100		
182	96.6	47.3	141.9
145	31.9	16.2	48.5

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

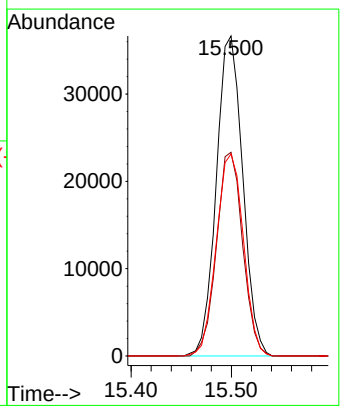


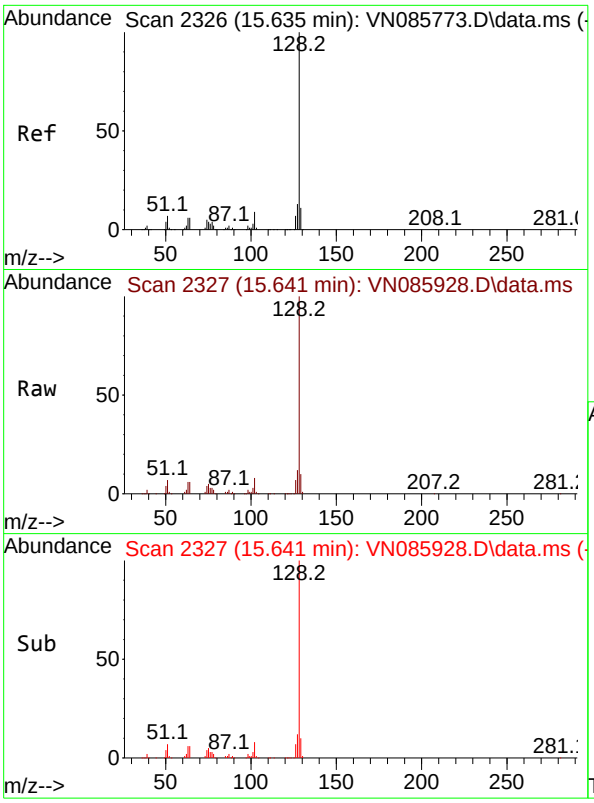


#94
Hexachlorobutadiene
Concen: 45.261 ug/l
RT: 15.500 min Scan# 2303
Delta R.T. 0.006 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion:225 Resp: 67213

Ion	Ratio	Lower	Upper
225	100		
223	63.0	31.9	95.5
227	64.8	32.2	96.6

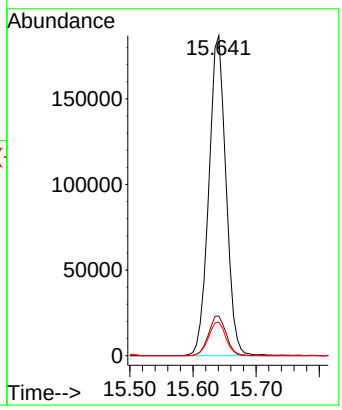




#95
Naphthalene
Concen: 52.553 ug/l
RT: 15.641 min Scan# 2
Delta R.T. 0.006 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion:128 Resp: 35254

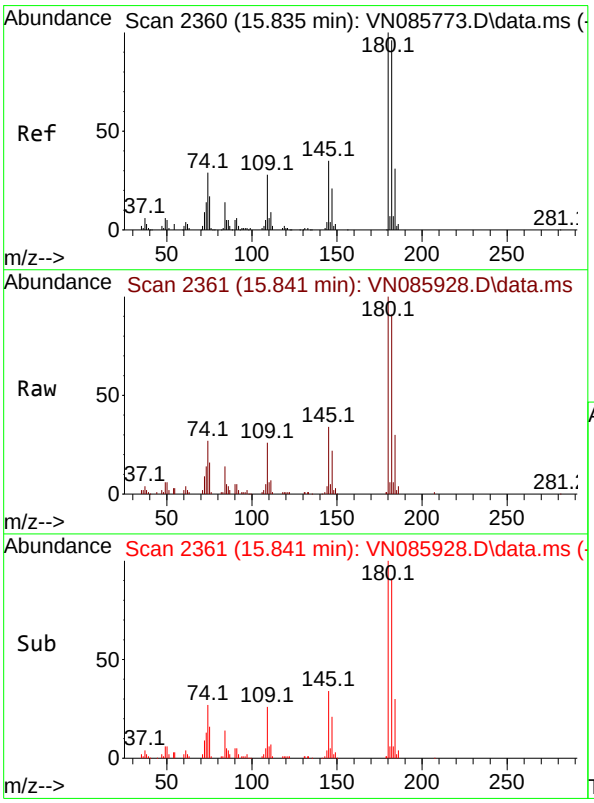
Ion	Ratio	Lower	Upper
128	100		
127	12.8	10.2	15.2
129	10.6	8.7	13.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

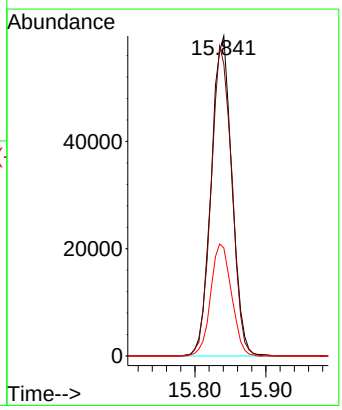
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025



#96
1,2,3-Trichlorobenzene
Concen: 49.402 ug/l
RT: 15.841 min Scan# 2361
Delta R.T. 0.006 min
Lab File: VN085928.D
Acq: 11 Mar 2025 13:22

Tgt Ion:180 Resp: 121186

Ion	Ratio	Lower	Upper
180	100		
182	96.2	47.3	141.8
145	35.0	16.9	50.6



Sample Results: **VN085928.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031125\
Data File : VN085928.D
Acq On : 11 Mar 2025 13:22
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_N
LabSampleId :
VSTDCCC050

Quant Time: Mar 12 01:17:51 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:43:32 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	60	0.00
2	T	Dichlorodifluoromethane	0.680	0.770	-13.2	69	0.00
3	P	Chloromethane	0.682	0.739	-8.4	71	0.00
4	C	Vinyl Chloride	0.723	0.746	-3.2#	66	0.00
5	T	Bromomethane	0.462	0.424	8.2	60	0.00
6	T	Chloroethane	0.479	0.422	11.9	61	0.00
7	T	Trichlorofluoromethane	1.046	1.090	-4.2	68	0.00
8	T	Diethyl Ether	0.339	0.361	-6.5	66	0.00
9	T	1,1,2-Trichlorotrifluoroeth	0.605	0.640	-5.8	68	0.00
10	T	Methyl Iodide	0.745	0.776	-4.2	65	0.00
11	T	Tert butyl alcohol	0.080	0.077	3.8	59	0.02
12	CM	1,1-Dichloroethene	0.548	0.594	-8.4#	68	0.00
13	T	Acrolein	0.118	0.100	15.3	47#	0.00
14	T	Allyl chloride	0.720	0.779	-8.2	68	0.01
15	T	Acrylonitrile	0.259	0.286	-10.4	70	0.00
16	T	Acetone	0.205	0.227	-10.7	74	0.00
17	T	Carbon Disulfide	1.625	1.805	-11.1	74	0.00
18	T	Methyl Acetate	0.705	0.620	12.1	60	0.00
19	T	Methyl tert-butyl Ether	1.629	1.855	-13.9	67	0.00
20	T	Methylene Chloride	0.660	0.672	-1.8	68	0.00
21	T	trans-1,2-Dichloroethene	0.590	0.643	-9.0	70	0.00
22	T	Diisopropyl ether	1.627	1.869	-14.9	68	0.00
23	T	Vinyl Acetate	1.114	1.312	-17.8	70	0.00
24	P	1,1-Dichloroethane	1.106	1.180	-6.7	69	0.00
25	T	2-Butanone	0.302	0.338	-11.9	69	0.01
26	T	2,2-Dichloropropane	0.983	1.050	-6.8	67	0.00
27	T	cis-1,2-Dichloroethene	0.685	0.715	-4.4	65	0.00
28	T	Bromochloromethane	0.454	0.587	-29.3#	79	0.00
29	T	Tetrahydrofuran	0.195	0.227	-16.4	70	0.00
30	C	Chloroform	1.156	1.221	-5.6#	69	0.00
31	T	Cyclohexane	0.926	1.033	-11.6	72	0.00
32	T	1,1,1-Trichloroethane	1.028	1.094	-6.4	68	0.00
33	S	1,2-Dichloroethane-d4	0.648	0.719	-11.0	70	0.00
34	I	1,4-Difluorobenzene	1.000	1.000	0.0	59	0.00
35	S	Dibromofluoromethane	0.327	0.367	-12.2	68	0.00
36	T	1,1-Dichloropropene	0.463	0.534	-15.3	68	0.00
37	T	Ethyl Acetate	0.381	0.432	-13.4	68	0.00
38	T	Carbon Tetrachloride	0.550	0.625	-13.6	70	0.00
39	T	Methylcyclohexane	0.455	0.563	-23.7	67	0.00
40	TM	Benzene	1.484	1.669	-12.5	68	0.00
41	T	Methacrylonitrile	0.204	0.244	-19.6	67	0.01
42	TM	1,2-Dichloroethane	0.483	0.541	-12.0	70	0.00
43	T	Isopropyl Acetate	0.807	0.741	8.2	68	0.00
44	TM	Trichloroethene	0.364	0.369	-1.4	64	0.00
45	C	1,2-Dichloropropane	0.358	0.406	-13.4#	69	0.00
46	T	Dibromomethane	0.253	0.281	-11.1	68	0.00
47	T	Bromodichloromethane	0.541	0.594	-9.8	68	0.00
48	T	Methyl methacrylate	0.283	0.343	-21.2	67	0.00

Sample Results: **VN085928.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031125\
Data File : VN085928.D
Acq On : 11 Mar 2025 13:22
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_N
LabSampleId :
VSTDCCC050

Quant Time: Mar 12 01:17:51 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:43:32 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49	T	1,4-Dioxane	0.005	0.007	-40.0#	68	0.00
50	S	Toluene-d8	1.190	1.369	-15.0	67	0.00
51	T	4-Methyl-2-Pentanone	0.367	0.449	-22.3	70	0.00
52	CM	Toluene	0.870	1.065	-22.4#	70	0.00
53	T	t-1,3-Dichloropropene	0.500	0.605	-21.0	68	0.00
54	T	cis-1,3-Dichloropropene	0.548	0.648	-18.2	67	0.00
55	T	1,1,2-Trichloroethane	0.346	0.378	-9.2	67	0.00
56	T	Ethyl methacrylate	0.434	0.572	-31.8#	68	0.00
57	T	1,3-Dichloropropane	0.577	0.656	-13.7	68	0.00
58	T	2-Chloroethyl Vinyl ether	0.195	0.182	6.7	62	0.00
59	T	2-Hexanone	0.253	0.329	-30.0#	71	0.00
60	T	Dibromochloromethane	0.403	0.469	-16.4	69	0.00
61	T	1,2-Dibromoethane	0.327	0.379	-15.9	69	0.00
62	S	4-Bromofluorobenzene	0.392	0.506	-29.1#	71	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	61	0.00
64	T	Tetrachloroethene	0.387	0.405	-4.7	69	0.00
65	PM	Chlorobenzene	1.145	1.212	-5.9	67	0.00
66	T	1,1,1,2-Tetrachloroethane	0.412	0.444	-7.8	69	0.00
67	C	Ethyl Benzene	1.794	2.160	-20.4#	70	0.00
68	T	m/p-Xylenes	0.682	0.856	-25.5#	71	0.00
69	T	o-Xylene	0.648	0.785	-21.1	68	0.00
70	T	Styrene	1.059	1.373	-29.7#	70	0.00
71	P	Bromoform	0.306	0.350	-14.4	71	0.00
72	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	68	0.00
73	T	Isopropylbenzene	3.425	3.637	-6.2	68	0.00
74	T	N-amyl acetate	1.208	1.298	-7.5	71	0.00
75	P	1,1,2,2-Tetrachloroethane	1.179	1.097	7.0	70	0.00
76	T	1,2,3-Trichloropropane	1.111	1.158	-4.2	83	0.00
77	T	Bromobenzene	0.925	0.933	-0.9	70	0.00
78	T	n-propylbenzene	3.923	4.438	-13.1	70	0.00
79	T	2-Chlorotoluene	2.621	2.760	-5.3	71	0.00
80	T	1,3,5-Trimethylbenzene	2.790	3.185	-14.2	70	0.00
81	T	trans-1,4-Dichloro-2-butene	0.381	0.455	-19.4	78	0.00
82	T	4-Chlorotoluene	2.598	2.839	-9.3	72	0.00
83	T	tert-Butylbenzene	2.346	2.550	-8.7	67	0.00
84	T	1,2,4-Trimethylbenzene	2.761	3.289	-19.1	72	0.00
85	T	sec-Butylbenzene	3.315	3.689	-11.3	68	0.00
86	T	p-Isopropyltoluene	2.665	3.144	-18.0	70	0.00
87	T	1,3-Dichlorobenzene	1.734	1.744	-0.6	72	0.00
88	T	1,4-Dichlorobenzene	1.777	1.740	2.1	71	0.00
89	T	n-Butylbenzene	2.354	2.633	-11.9	70	0.00
90	T	Hexachloroethane	0.628	0.611	2.7	70	0.00
91	T	1,2-Dichlorobenzene	1.667	1.670	-0.2	72	0.00
92	T	1,2-Dibromo-3-Chloropropane	0.216	0.204	5.6	71	0.00
93	T	1,2,4-Trichlorobenzene	0.794	0.815	-2.6	69	0.00
94	T	Hexachlorobutadiene	0.483	0.437	9.5	70	0.00
95	T	Naphthalene	2.181	2.293	-5.1	67	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031125\
Data File : VN085928.D
Acq On : 11 Mar 2025 13:22
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_N
LabSampleId :
VSTDCCC050

Quant Time: Mar 12 01:17:51 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:43:32 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
96 T	1,2,3-Trichlorobenzene	0.798	0.788	1.3	67	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Sample Results: **VN085928.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031125\
Data File : VN085928.D
Acq On : 11 Mar 2025 13:22
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_N
LabSampleId :
VSTDCCC050

Quant Time: Mar 12 01:17:51 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:43:32 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	50.000	50.000	0.0	60	0.00
2	T	Dichlorodifluoromethane	50.000	56.573	-13.1	69	0.00
3	P	Chloromethane	50.000	54.136	-8.3	71	0.00
4	C	Vinyl Chloride	50.000	51.634	-3.3#	66	0.00
5	T	Bromomethane	50.000	45.857	8.3	60	0.00
6	T	Chloroethane	50.000	44.083	11.8	61	0.00
7	T	Trichlorofluoromethane	50.000	52.097	-4.2	68	0.00
8	T	Diethyl Ether	50.000	53.392	-6.8	66	0.00
9	T	1,1,2-Trichlorotrifluoroeth	50.000	52.955	-5.9	68	0.00
10	T	Methyl Iodide	50.000	52.065	-4.1	65	0.00
11	T	Tert butyl alcohol	250.000	242.354	3.1	59	0.02
12	CM	1,1-Dichloroethene	50.000	54.147	-8.3#	68	0.00
13	T	Acrolein	250.000	211.429	15.4	47	0.00
14	T	Allyl chloride	50.000	54.113	-8.2	68	0.01
15	T	Acrylonitrile	250.000	275.784	-10.3	70	0.00
16	T	Acetone	250.000	276.540	-10.6	74	0.00
17	T	Carbon Disulfide	50.000	55.533	-11.1	74	0.00
18	T	Methyl Acetate	50.000	43.940	12.1	60	0.00
19	T	Methyl tert-butyl Ether	50.000	56.919	-13.8	67	0.00
20	T	Methylene Chloride	50.000	50.948	-1.9	68	0.00
21	T	trans-1,2-Dichloroethene	50.000	54.484	-9.0	70	0.00
22	T	Diisopropyl ether	50.000	57.461	-14.9	68	0.00
23	T	Vinyl Acetate	250.000	294.389	-17.8	70	0.00
24	P	1,1-Dichloroethane	50.000	53.355	-6.7	69	0.00
25	T	2-Butanone	250.000	280.150	-12.1	69	0.01
26	T	2,2-Dichloropropane	50.000	53.414	-6.8	67	0.00
27	T	cis-1,2-Dichloroethene	50.000	52.194	-4.4	65	0.00
28	T	Bromochloromethane	50.000	64.588	-29.2#	79	0.00
29	T	Tetrahydrofuran	250.000	291.733	-16.7	70	0.00
30	C	Chloroform	50.000	52.815	-5.6#	69	0.00
31	T	Cyclohexane	50.000	55.780	-11.6	72	0.00
32	T	1,1,1-Trichloroethane	50.000	53.194	-6.4	68	0.00
33	S	1,2-Dichloroethane-d4	50.000	55.421	-10.8	70	0.00
34	I	1,4-Difluorobenzene	50.000	50.000	0.0	59	0.00
35	S	Dibromofluoromethane	50.000	56.081	-12.2	68	0.00
36	T	1,1-Dichloropropene	50.000	57.708	-15.4	68	0.00
37	T	Ethyl Acetate	50.000	56.682	-13.4	68	0.00
38	T	Carbon Tetrachloride	50.000	56.814	-13.6	70	0.00
39	T	Methylcyclohexane	50.000	61.866	-23.7	67	0.00
40	TM	Benzene	50.000	56.244	-12.5	68	0.00
41	T	Methacrylonitrile	50.000	59.941	-19.9	67	0.01
42	TM	1,2-Dichloroethane	50.000	55.998	-12.0	70	0.00
43	T	Isopropyl Acetate	50.000	55.431	-10.9	68	0.00
44	TM	Trichloroethene	50.000	50.566	-1.1	64	0.00
45	C	1,2-Dichloropropane	50.000	56.656	-13.3#	69	0.00
46	T	Dibromomethane	50.000	55.583	-11.2	68	0.00
47	T	Bromodichloromethane	50.000	54.952	-9.9	68	0.00
48	T	Methyl methacrylate	50.000	60.625	-21.3	67	0.00

Sample Results: **VN085928.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031125\
Data File : VN085928.D
Acq On : 11 Mar 2025 13:22
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_N
LabSampleId :
VSTDCCC050

Quant Time: Mar 12 01:17:51 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:43:32 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49	T	1,4-Dioxane	1000.000	1229.394	-22.9	68	0.00
50	S	Toluene-d8	50.000	57.501	-15.0	67	0.00
51	T	4-Methyl-2-Pentanone	250.000	305.744	-22.3	70	0.00
52	CM	Toluene	50.000	61.214	-22.4#	70	0.00
53	T	t-1,3-Dichloropropene	50.000	60.485	-21.0	68	0.00
54	T	cis-1,3-Dichloropropene	50.000	59.087	-18.2	67	0.00
55	T	1,1,2-Trichloroethane	50.000	54.621	-9.2	67	0.00
56	T	Ethyl methacrylate	50.000	56.615	-13.2	68	0.00
57	T	1,3-Dichloropropane	50.000	56.791	-13.6	68	0.00
58	T	2-Chloroethyl Vinyl ether	250.000	238.868	4.5	62	0.00
59	T	2-Hexanone	250.000	325.783	-30.3#	71	0.00
60	T	Dibromochloromethane	50.000	58.241	-16.5	69	0.00
61	T	1,2-Dibromoethane	50.000	57.968	-15.9	69	0.00
62	S	4-Bromofluorobenzene	50.000	64.447	-28.9#	71	0.00
63	I	Chlorobenzene-d5	50.000	50.000	0.0	61	0.00
64	T	Tetrachloroethene	50.000	52.336	-4.7	69	0.00
65	PM	Chlorobenzene	50.000	52.896	-5.8	67	0.00
66	T	1,1,1,2-Tetrachloroethane	50.000	53.877	-7.8	69	0.00
67	C	Ethyl Benzene	50.000	60.189	-20.4#	70	0.00
68	T	m/p-Xylenes	100.000	125.614	-25.6#	71	0.00
69	T	o-Xylene	50.000	60.624	-21.2	68	0.00
70	T	Styrene	50.000	56.209	-12.4	70	0.00
71	P	Bromoform	50.000	57.178	-14.4	71	0.00
72	I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	68	0.00
73	T	Isopropylbenzene	50.000	53.095	-6.2	68	0.00
74	T	N-amyl acetate	50.000	53.719	-7.4	71	0.00
75	P	1,1,2,2-Tetrachloroethane	50.000	46.527	6.9	70	0.00
76	T	1,2,3-Trichloropropane	50.000	52.150	-4.3	83	0.00
77	T	Bromobenzene	50.000	50.426	-0.9	70	0.00
78	T	n-propylbenzene	50.000	56.559	-13.1	70	0.00
79	T	2-Chlorotoluene	50.000	52.640	-5.3	71	0.00
80	T	1,3,5-Trimethylbenzene	50.000	57.065	-14.1	70	0.00
81	T	trans-1,4-Dichloro-2-butene	50.000	59.775	-19.5	78	0.00
82	T	4-Chlorotoluene	50.000	54.629	-9.3	72	0.00
83	T	tert-Butylbenzene	50.000	54.327	-8.7	67	0.00
84	T	1,2,4-Trimethylbenzene	50.000	59.570	-19.1	72	0.00
85	T	sec-Butylbenzene	50.000	55.632	-11.3	68	0.00
86	T	p-Isopropyltoluene	50.000	51.591	-3.2	70	0.00
87	T	1,3-Dichlorobenzene	50.000	50.299	-0.6	72	0.00
88	T	1,4-Dichlorobenzene	50.000	48.956	2.1	71	0.00
89	T	n-Butylbenzene	50.000	55.932	-11.9	70	0.00
90	T	Hexachloroethane	50.000	48.627	2.7	70	0.00
91	T	1,2-Dichlorobenzene	50.000	50.074	-0.1	72	0.00
92	T	1,2-Dibromo-3-Chloropropane	50.000	47.074	5.9	71	0.00
93	T	1,2,4-Trichlorobenzene	50.000	51.276	-2.6	69	0.00
94	T	Hexachlorobutadiene	50.000	45.261	9.5	70	0.00
95	T	Naphthalene	50.000	52.553	-5.1	67	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031125\
Data File : VN085928.D
Acq On : 11 Mar 2025 13:22
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_N
LabSampleId :
VSTDCCC050

Quant Time: Mar 12 01:17:51 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:43:32 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
96 T	1,2,3-Trichlorobenzene	50.000	49.402	1.2	67	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

QC SAMPLE DATA

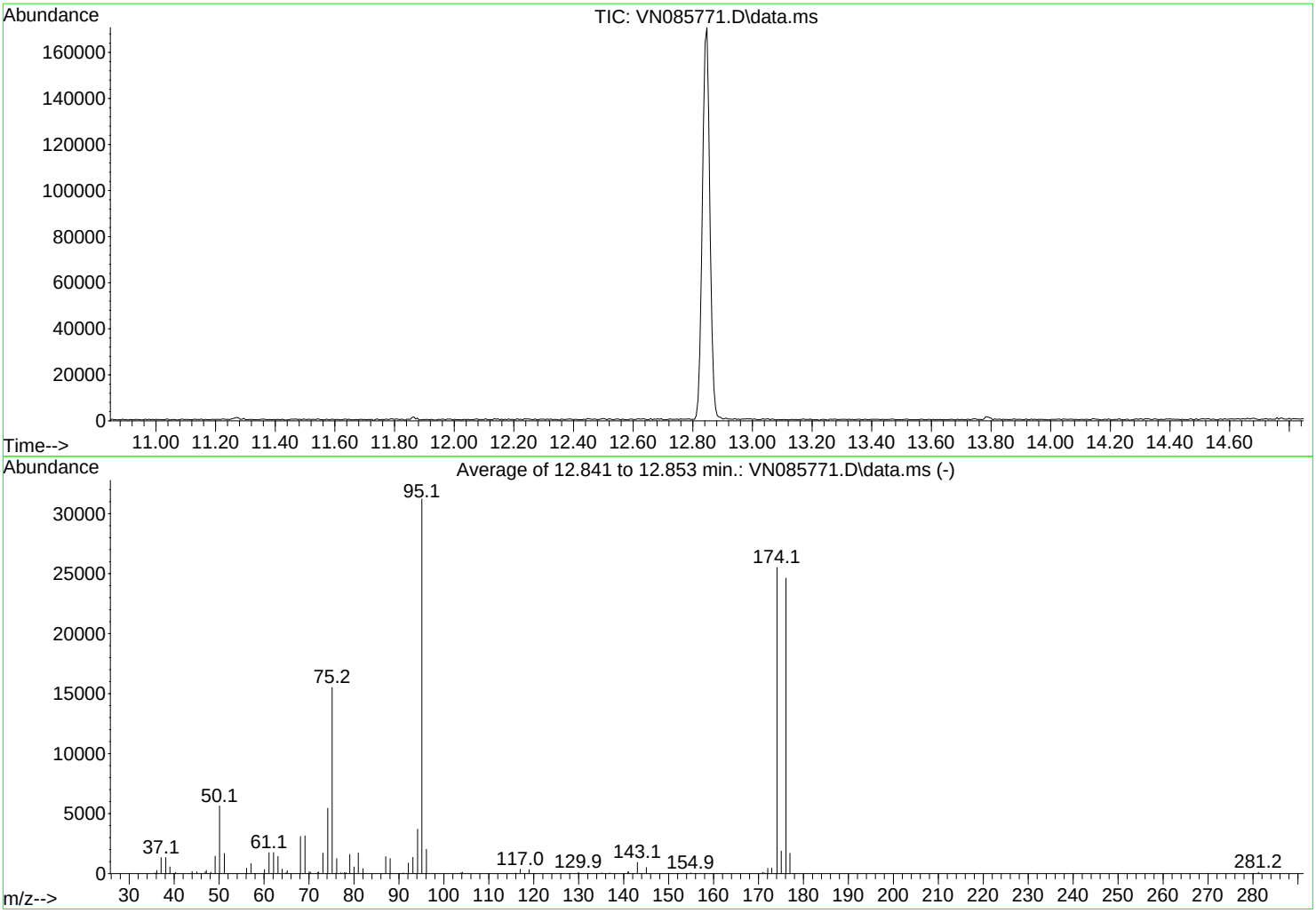
Sample Results: **VN085771.D**

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN021825\
Data File : VN085771.D
Acq On : 18 Feb 2025 10:35
Operator : JC\MD
Sample : BFB
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Title : SW846 8260
Last Update : Wed Feb 19 03:43:32 2025



AutoFind: Scans 1851, 1852, 1853; Background Corrected with Scan 1843

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.1	5643	PASS
75	95	30	60	49.7	15509	PASS
95	95	100	100	100.0	31224	PASS
96	95	5	9	6.5	2024	PASS
173	174	0.00	2	1.8	452	PASS
174	95	50	100	81.7	25509	PASS
175	174	5	9	7.4	1882	PASS
176	174	95	101	96.5	24621	PASS
177	176	5	9	6.9	1699	PASS

Average of 12.841 to 12.853 min.: VN085771.D\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.80	65	48.15	124	64.90	70	76.15	124
36.15	261	49.10	1454	65.15	255	77.10	8
37.10	1338	50.10	5643	68.10	3096	77.90	8
38.15	1335	51.15	1680	69.10	3155	78.20	8
39.05	560	56.10	443	70.05	161	79.05	1595
40.00	21	57.10	824	70.30	106	80.00	557
40.30	99	60.10	333	71.90	80	80.95	1716
44.00	176	61.10	1754	72.15	148	82.00	419
45.05	157	62.10	1754	73.10	1710	87.05	1414
46.90	145	63.10	1428	74.15	5444	88.05	1255
47.15	276	64.05	377	75.15	15509	91.00	59

Instrument :
MSVOA_N
ClientSampleId :
BFB

Average of 12.841 to 12.853 min.: VN085771.D\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
92.10	882	135.10	54	174.10	25509		
93.10	1346	136.90	57	175.05	1882		
94.15	3713	140.90	114	176.10	24621		
95.10	31224	141.05	164	177.00	1699		
96.10	2024	143.05	938	281.20	112		
103.80	81	145.05	510				
104.10	121	154.90	54				
116.00	52	170.90	116				
117.00	351	171.30	58				
118.95	331	172.05	440				
129.95	112	172.95	452				

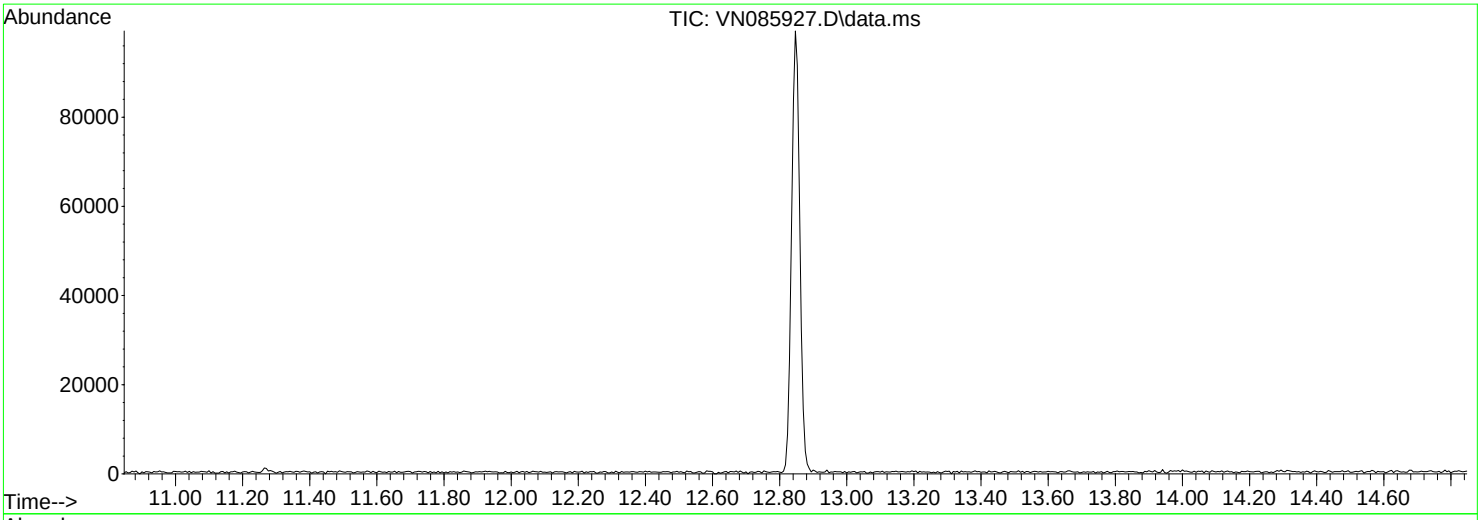
Sample Results: **VN085927.D**

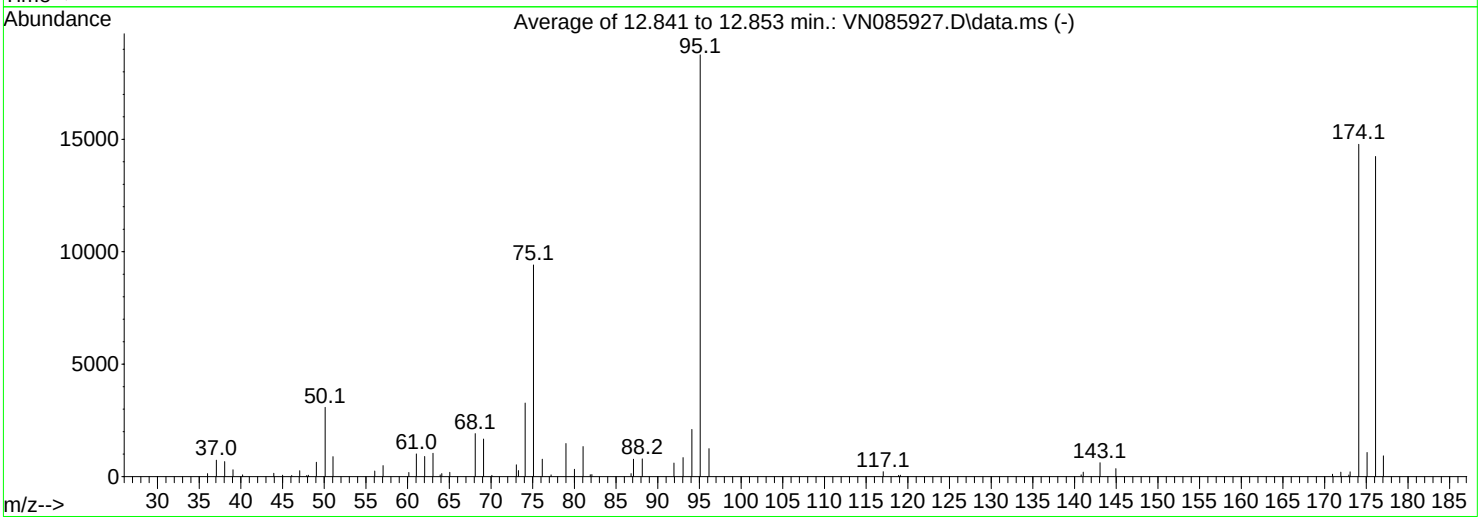
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031125\
Data File : VN085927.D
Acq On : 11 Mar 2025 12:12
Operator : JC\MD
Sample : BFB
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Title : SW846 8260
Last Update : Wed Feb 19 03:43:32 2025





AutoFind: Scans 1851, 1852, 1853; Background Corrected with Scan 1844

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.4	3078	PASS
75	95	30	60	50.2	9414	PASS
95	95	100	100	100.0	18755	PASS
96	95	5	9	6.6	1247	PASS
173	174	0.00	2	1.4	214	PASS
174	95	50	100	78.8	14780	PASS
175	174	5	9	7.3	1076	PASS
176	174	95	101	96.3	14234	PASS
177	176	5	9	6.5	923	PASS

Average of 12.841 to 12.853 min.: VN085927.D\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	136	49.05	643	65.05	193	80.00	32
37.05	733	50.10	3078	68.10	1917	81.05	133
38.05	671	51.05	888	69.10	1669	81.90	8
39.05	309	56.05	249	70.10	57	82.10	9
40.20	75	57.05	488	73.05	525	86.80	136
43.95	149	60.15	182	73.30	268	87.10	777
45.00	66	61.05	1010	74.10	3275	88.15	787
46.10	53	62.05	899	75.10	9414	91.95	607
47.05	266	63.05	1037	76.15	779	93.05	850
47.90	50	63.90	76	77.20	79	94.10	2096
48.10	62	64.10	138	79.00	1472	95.10	18755

Instrument :
MSVOA_N
ClientSampleId :
BFB

Average of 12.841 to 12.853 min.: VN085927.D\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.15	1247	173.05	214				
117.05	223	174.10	14780				
118.90	57	175.10	1076				
119.10	64	176.10	14234				
140.80	78	177.05	923				
141.05	199						
143.05	616						
144.95	358						
170.95	108						
171.95	200						
172.90	72						

Raw Data: **VN085930.D**

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	
Client Sample ID:	VN0311WBL01	SDG No.:	Q1514
Lab Sample ID:	VN0311WBL01	Matrix:	TCLP
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	TCLP VOA
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085930.D	1		03/11/25 14:21	VN031125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	0.34	U	0.34	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.26	U	0.26	1.00	ug/L
78-93-3	2-Butanone	1.30	U	1.30	5.00	ug/L
56-23-5	Carbon Tetrachloride	0.25	U	0.25	1.00	ug/L
67-66-3	Chloroform	0.26	U	0.26	1.00	ug/L
71-43-2	Benzene	0.16	U	0.16	1.00	ug/L
107-06-2	1,2-Dichloroethane	0.24	U	0.24	1.00	ug/L
79-01-6	Trichloroethene	0.32	U	0.32	1.00	ug/L
127-18-4	Tetrachloroethene	0.25	U	0.25	1.00	ug/L
108-90-7	Chlorobenzene	0.13	U	0.13	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	56.1		70 (74) - 130 (125)	112%	SPK: 50
1868-53-7	Dibromofluoromethane	49.0		70 (75) - 130 (124)	98%	SPK: 50
2037-26-5	Toluene-d8	44.5		70 (86) - 130 (113)	89%	SPK: 50
460-00-4	4-Bromofluorobenzene	42.2		70 (77) - 130 (121)	84%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	166000	8.224			
540-36-3	1,4-Difluorobenzene	319000	9.1			
3114-55-4	Chlorobenzene-d5	278000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	106000	13.788			

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031125\
Data File : VN085930.D
Acq On : 11 Mar 2025 14:21
Operator : JC\MD
Sample : VN0311WBL01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBL01

Quant Time: Mar 12 01:19:43 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:43:32 2025
Response via : Initial Calibration

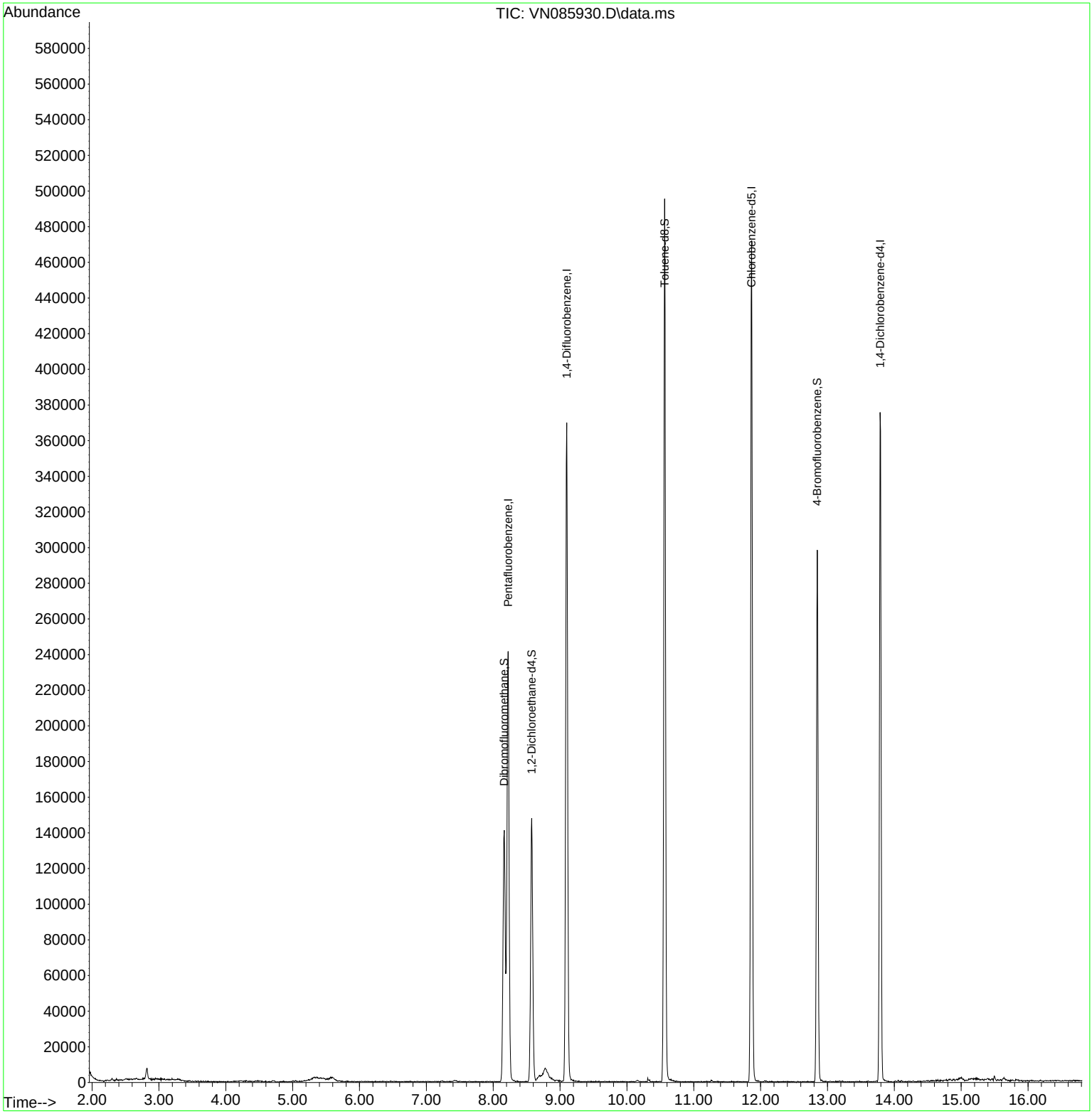
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.224	168	166099	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.100	114	319285	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.865	117	277562	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.788	152	106492	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.577	65	120828	56.110	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 112.220%			
35) Dibromofluoromethane	8.165	113	102406	49.016	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 98.040%			
50) Toluene-d8	10.565	98	338496	44.531	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 89.060%			
62) 4-Bromofluorobenzene	12.847	95	105788	42.240	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 84.480%			
Target Compounds						Qvalue

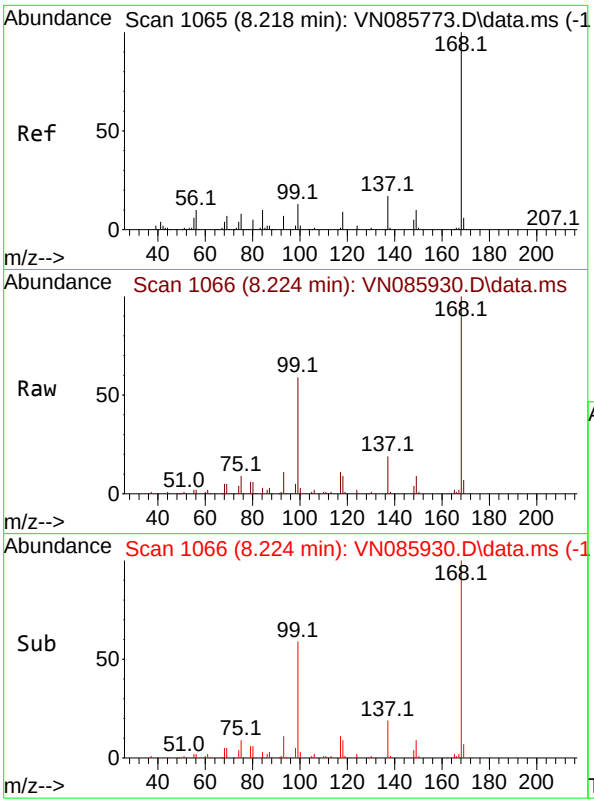
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031125\
Data File : VN085930.D
Acq On : 11 Mar 2025 14:21
Operator : JC\MD
Sample : VN0311WBL01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBL01

Quant Time: Mar 12 01:19:43 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:43:32 2025
Response via : Initial Calibration



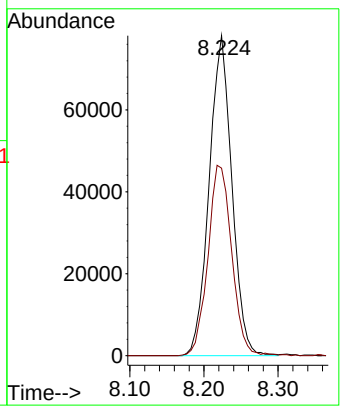


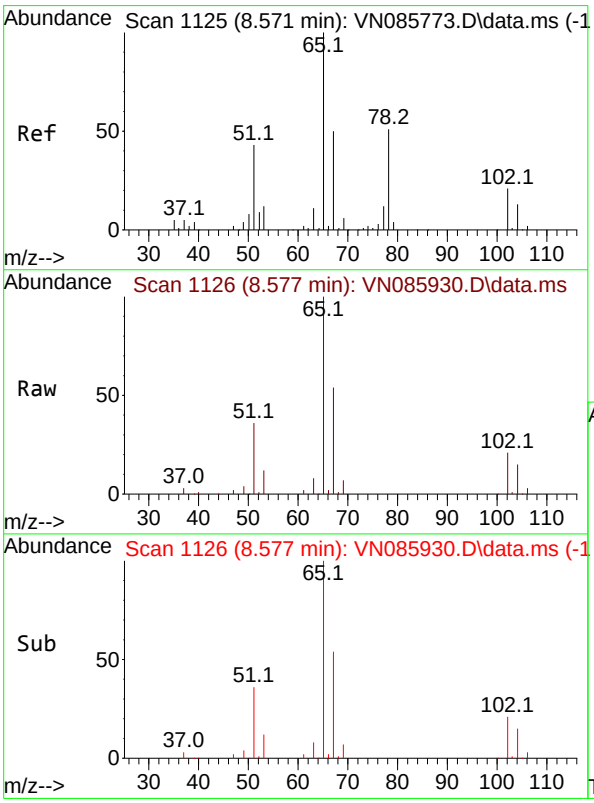
#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.224 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085930.D
Acq: 11 Mar 2025 14:21

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBL01

Tgt Ion:168 Resp: 166099

Ion	Ratio	Lower	Upper
168	100		
99	58.6	47.9	71.9

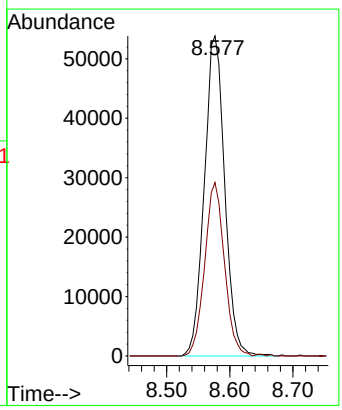


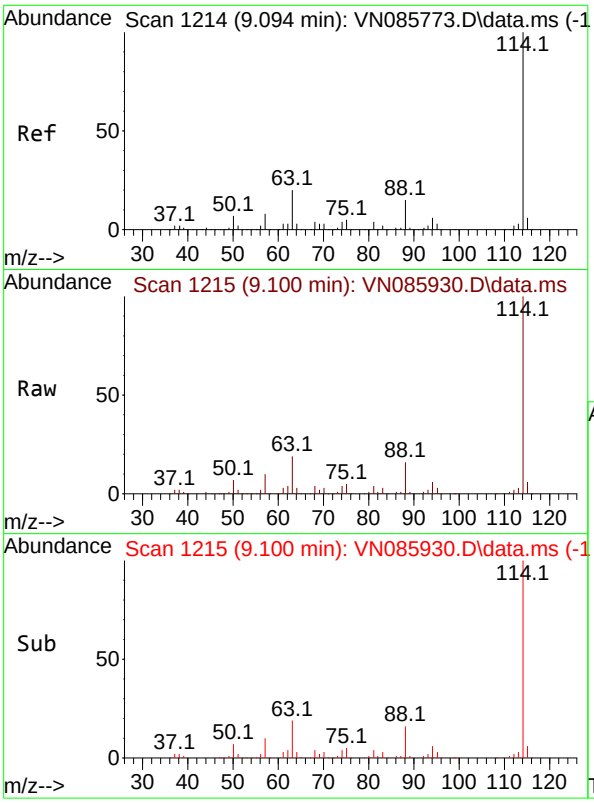


#33
1,2-Dichloroethane-d4
Concen: 56.110 ug/l
RT: 8.577 min Scan# 1126
Delta R.T. 0.006 min
Lab File: VN085930.D
Acq: 11 Mar 2025 14:21

Tgt Ion: 65 Resp: 120828

Ion	Ratio	Lower	Upper
65	100		
67	52.3	0.0	106.2



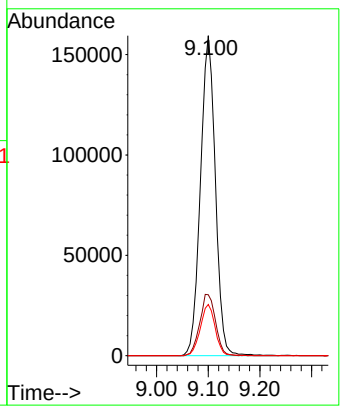


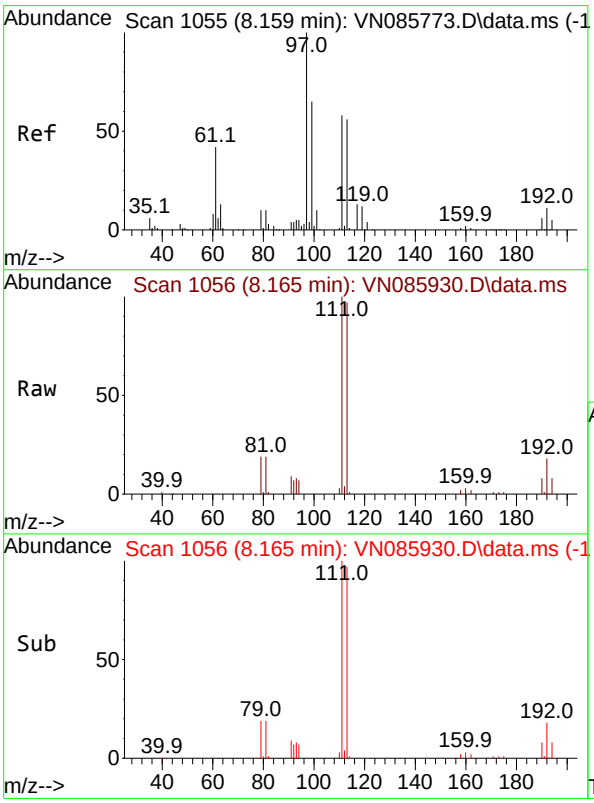
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.100 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085930.D
Acq: 11 Mar 2025 14:21

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBL01

Tgt Ion:114 Resp: 319285

Ion	Ratio	Lower	Upper
114	100		
63	19.1	0.0	39.2
88	16.0	0.0	30.0

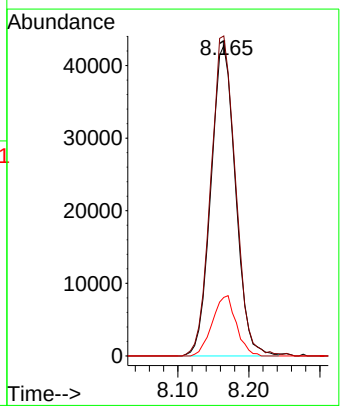


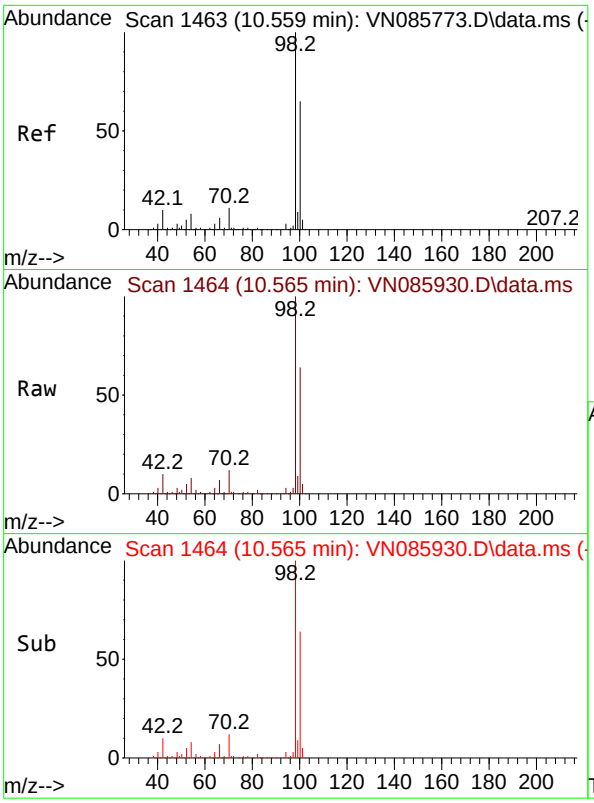


#35
Dibromofluoromethane
Concen: 49.016 ug/l
RT: 8.165 min Scan# 1056
Delta R.T. 0.006 min
Lab File: VN085930.D
Acq: 11 Mar 2025 14:21

Tgt Ion:113 Resp: 102406

Ion	Ratio	Lower	Upper
113	100		
111	104.2	82.2	123.4
192	18.9	14.7	22.1



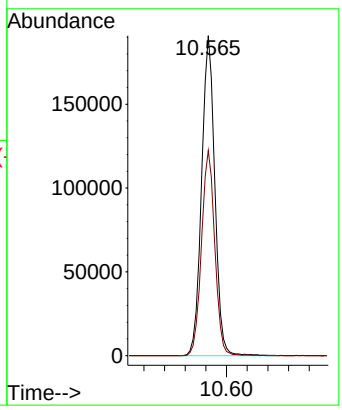


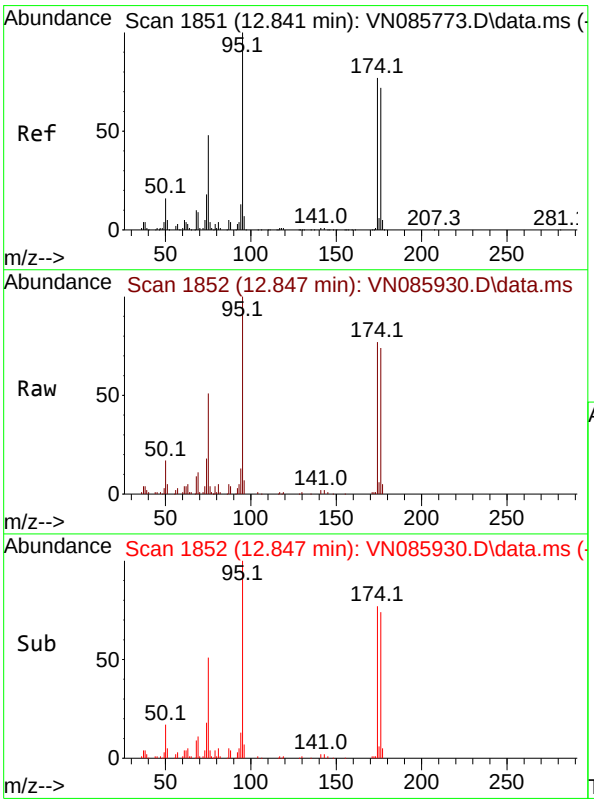
#50
Toluene-d8
Concen: 44.531 ug/l
RT: 10.565 min Scan# 14
Delta R.T. 0.006 min
Lab File: VN085930.D
Acq: 11 Mar 2025 14:21

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBL01

Tgt Ion: 98 Resp: 338496

Ion	Ratio	Lower	Upper
98	100		
100	64.5	52.1	78.1

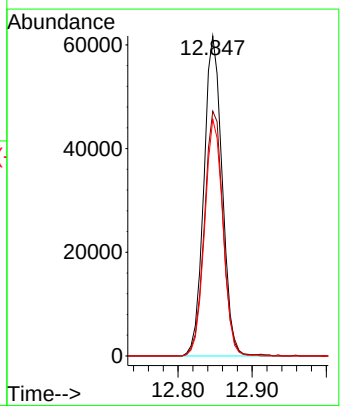


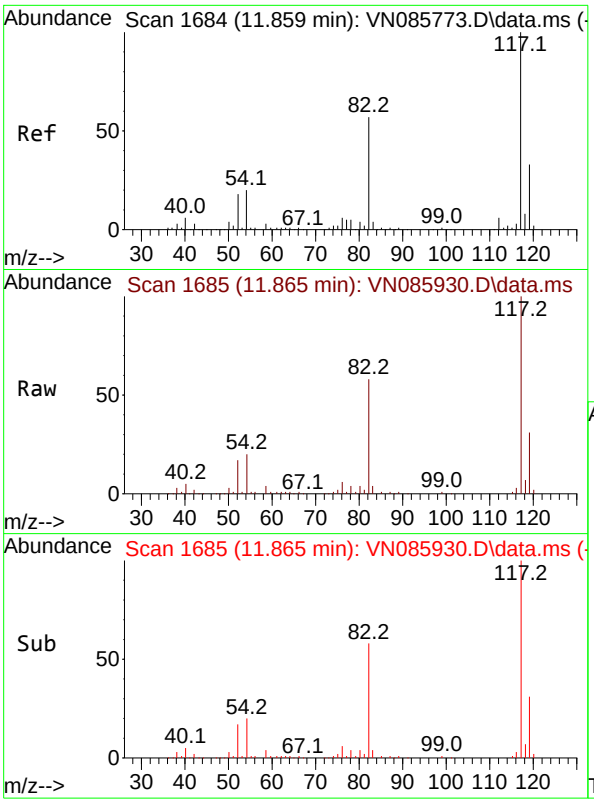


#62
4-Bromofluorobenzene
Concen: 42.240 ug/l
RT: 12.847 min Scan# 1852
Delta R.T. 0.006 min
Lab File: VN085930.D
Acq: 11 Mar 2025 14:21

Tgt Ion: 95 Resp: 105788

Ion	Ratio	Lower	Upper
95	100		
174	78.2	0.0	152.4
176	73.8	0.0	146.6



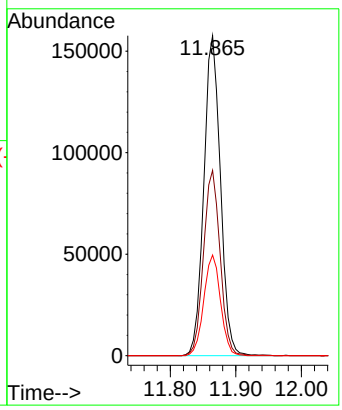


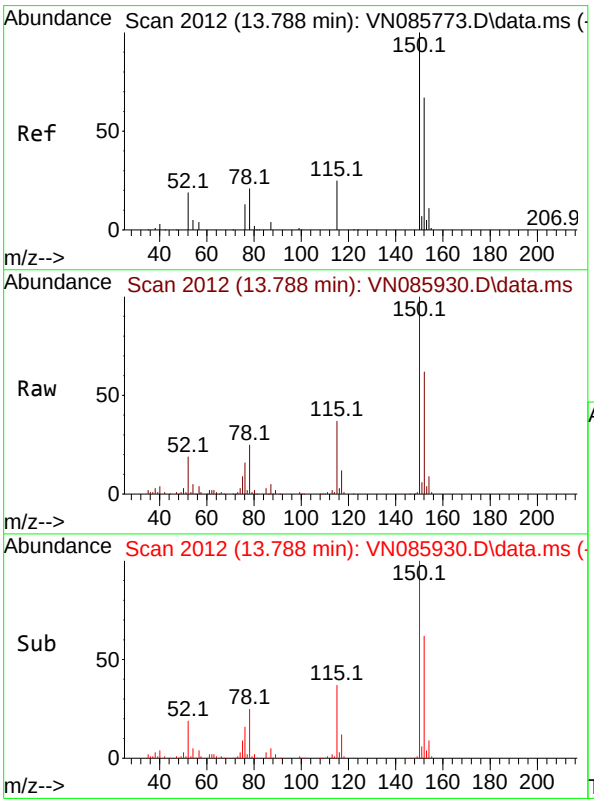
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.865 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085930.D
Acq: 11 Mar 2025 14:21

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBL01

Tgt Ion:117 Resp: 277562

Ion	Ratio	Lower	Upper
117	100		
82	57.9	45.7	68.5
119	31.5	26.2	39.2

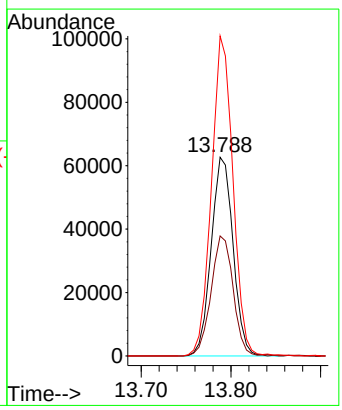




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.788 min Scan# 2012
Delta R.T. -0.000 min
Lab File: VN085930.D
Acq: 11 Mar 2025 14:21

Tgt Ion:152 Resp: 106492

Ion	Ratio	Lower	Upper
152	100		
115	60.6	30.4	91.3
150	157.7	0.0	345.4



Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	Portal Partners Tri-Venture		Date Collected:		
Project:	Amtrak Sawtooth Bridges 2025		Date Received:		
Client Sample ID:	VN0311WBS01		SDG No.:	Q1514	
Lab Sample ID:	VN0311WBS01		Matrix:	TCLP	
Analytical Method:	SW8260		% Solid:	0	
Sample Wt/Vol:	5 Units:	mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	TCLP VOA	
GC Column:	RXI-624 ID :	0.25	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085931.D	1		03/11/25 14:54	VN031125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	17.4		0.34	1.00	ug/L
75-35-4	1,1-Dichloroethene	19.0		0.26	1.00	ug/L
78-93-3	2-Butanone	96.2		1.30	5.00	ug/L
56-23-5	Carbon Tetrachloride	19.7		0.25	1.00	ug/L
67-66-3	Chloroform	19.1		0.26	1.00	ug/L
71-43-2	Benzene	19.7		0.16	1.00	ug/L
107-06-2	1,2-Dichloroethane	19.8		0.24	1.00	ug/L
79-01-6	Trichloroethene	17.7		0.32	1.00	ug/L
127-18-4	Tetrachloroethene	19.1		0.25	1.00	ug/L
108-90-7	Chlorobenzene	18.5		0.13	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	46.9		70 (74) - 130 (125)	94%	SPK: 50
1868-53-7	Dibromofluoromethane	46.9		70 (75) - 130 (124)	94%	SPK: 50
2037-26-5	Toluene-d8	46.3		70 (86) - 130 (113)	93%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.7		70 (77) - 130 (121)	97%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	172000	8.218			
540-36-3	1,4-Difluorobenzene	282000	9.1			
3114-55-4	Chlorobenzene-d5	250000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	128000	13.788			

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031125\
Data File : VN085931.D
Acq On : 11 Mar 2025 14:54
Operator : JC\MD
Sample : VN0311WBS01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 12 01:20:14 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:43:32 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.218	168	171959	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.100	114	282309	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.865	117	250243	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.788	152	128349	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.577	65	104493	46.871	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 93.740%			
35) Dibromofluoromethane	8.165	113	86656	46.910	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 93.820%			
50) Toluene-d8	10.565	98	311283	46.315	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 92.620%			
62) 4-Bromofluorobenzene	12.847	95	107765	48.665	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 97.320%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.124	85	46040	19.684	ug/l	95
3) Chloromethane	2.359	50	43998	18.746	ug/l	100
4) Vinyl Chloride	2.512	62	43138	17.359	ug/l	98
5) Bromomethane	2.954	94	27066	17.033	ug/l	98
6) Chloroethane	3.118	64	25922	15.748	ug/l	98
7) Trichlorofluoromethane	3.495	101	68309	18.985	ug/l	97
8) Diethyl Ether	3.959	74	20408	17.530	ug/l	91
9) 1,1,2-Trichlorotrifluo...	4.371	101	39761	19.118	ug/l	98
10) Methyl Iodide	4.589	142	46990	18.329	ug/l	97
11) Tert butyl alcohol	5.518	59	24987	91.127	ug/l #	90
12) 1,1-Dichloroethene	4.342	96	35866	19.019	ug/l	97
13) Acrolein	4.171	56	36561	89.914	ug/l	95
14) Allyl chloride	5.024	41	45099	18.215	ug/l	94
15) Acrylonitrile	5.718	53	88991	99.833	ug/l	98
16) Acetone	4.424	43	64479	91.405	ug/l	97
17) Carbon Disulfide	4.712	76	110141	19.707	ug/l	99
18) Methyl Acetate	5.024	43	38972	16.062	ug/l	97
19) Methyl tert-butyl Ether	5.789	73	103840	18.531	ug/l	99
20) Methylene Chloride	5.271	84	42432	18.704	ug/l	91
21) trans-1,2-Dichloroethene	5.789	96	37463	18.450	ug/l	88
22) Diisopropyl ether	6.671	45	111397	19.912	ug/l	98
23) Vinyl Acetate	6.600	43	368840	96.289	ug/l	99
24) 1,1-Dichloroethane	6.571	63	72568	19.081	ug/l	98
25) 2-Butanone	7.477	43	99858	96.221	ug/l	99
26) 2,2-Dichloropropane	7.489	77	62578	18.505	ug/l	98
27) cis-1,2-Dichloroethene	7.483	96	42379	18.000	ug/l	97
28) Bromochloromethane	7.812	49	37741	24.145	ug/l	92
29) Tetrahydrofuran	7.841	42	65823	98.221	ug/l	99
30) Chloroform	7.965	83	75940	19.108	ug/l	99
31) Cyclohexane	8.253	56	59584	18.712	ug/l	98
32) 1,1,1-Trichloroethane	8.165	97	67340	19.050	ug/l	97
36) 1,1-Dichloropropene	8.365	75	49565	18.958	ug/l	99
37) Ethyl Acetate	7.553	43	41433	19.258	ug/l	99
38) Carbon Tetrachloride	8.359	117	61348	19.749	ug/l	93
39) Methylcyclohexane	9.600	83	45454	17.697	ug/l	91
40) Benzene	8.600	78	165147	19.709	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031125\
Data File : VN085931.D
Acq On : 11 Mar 2025 14:54
Operator : JC\MD
Sample : VN0311WBS01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 12 01:20:14 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:43:32 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.777	41	22880	19.893	ug/l		98
42) 1,2-Dichloroethane	8.665	62	54080	19.814	ug/l		98
43) Isopropyl Acetate	8.688	43	72385	18.830	ug/l		99
44) Trichloroethene	9.347	130	36357	17.671	ug/l		99
45) 1,2-Dichloropropane	9.618	63	39742	19.649	ug/l		99
46) Dibromomethane	9.706	93	28013	19.635	ug/l		97
47) Bromodichloromethane	9.883	83	58843	19.278	ug/l		98
48) Methyl methacrylate	9.677	41	30151	18.870	ug/l		98
49) 1,4-Dioxane	9.694	88	12170	400.527	ug/l	#	92
51) 4-Methyl-2-Pentanone	10.441	43	211308	101.867	ug/l		98
52) Toluene	10.630	92	100609	20.483	ug/l		100
53) t-1,3-Dichloropropene	10.835	75	53811	19.065	ug/l		97
54) cis-1,3-Dichloropropene	10.306	75	59621	19.264	ug/l		97
55) 1,1,2-Trichloroethane	11.012	97	38483	19.705	ug/l		97
56) Ethyl methacrylate	10.871	69	47794	18.623	ug/l		97
57) 1,3-Dichloropropane	11.159	76	63091	19.352	ug/l		100
58) 2-Chloroethyl Vinyl ether	10.159	63	90341	96.936	ug/l		100
59) 2-Hexanone	11.194	43	146567	102.707	ug/l		99
60) Dibromochloromethane	11.353	129	44279	19.471	ug/l		98
61) 1,2-Dibromoethane	11.465	107	35743	19.371	ug/l		100
64) Tetrachloroethene	11.100	164	36978	19.074	ug/l		95
65) Chlorobenzene	11.888	112	106130	18.513	ug/l		95
66) 1,1,1,2-Tetrachloroethane	11.959	131	39196	19.022	ug/l		98
67) Ethyl Benzene	11.959	91	168567	18.771	ug/l		99
68) m/p-Xylenes	12.065	106	137476	40.303	ug/l		99
69) o-Xylene	12.394	106	61515	18.978	ug/l		100
70) Styrene	12.412	104	106050	19.044	ug/l		99
71) Bromoform	12.576	173	29845	19.493	ug/l	#	98
73) Isopropylbenzene	12.694	105	153371	17.442	ug/l		100
74) N-amyl acetate	12.494	43	55670	17.953	ug/l		98
75) 1,1,2,2-Tetrachloroethane	12.935	83	53621	17.721	ug/l		99
76) 1,2,3-Trichloropropane	12.988	75	55548m	19.483	ug/l		
77) Bromobenzene	12.976	156	41957	17.661	ug/l		96
78) n-propylbenzene	13.035	91	185851	18.455	ug/l		100
79) 2-Chlorotoluene	13.123	91	119676	17.787	ug/l		100
80) 1,3,5-Trimethylbenzene	13.171	105	135483	18.915	ug/l		99
81) trans-1,4-Dichloro-2-b...	12.735	75	17168	17.570	ug/l		94
82) 4-Chlorotoluene	13.218	91	124042	18.596	ug/l		97
83) tert-Butylbenzene	13.435	119	101170	16.796	ug/l		95
84) 1,2,4-Trimethylbenzene	13.482	105	133778	18.877	ug/l		99
85) sec-Butylbenzene	13.612	105	150326	17.664	ug/l		99
86) p-Isopropyltoluene	13.729	119	121044	16.805	ug/l		98
87) 1,3-Dichlorobenzene	13.729	146	77221	17.350	ug/l		100
88) 1,4-Dichlorobenzene	13.812	146	76516	16.773	ug/l		97
89) n-Butylbenzene	14.053	91	95450	15.797	ug/l		96
90) Hexachloroethane	14.329	117	26658	16.540	ug/l		95
91) 1,2-Dichlorobenzene	14.106	146	74904	17.501	ug/l		99
92) 1,2-Dibromo-3-Chloropr...	14.717	75	8752	15.752	ug/l		98
93) 1,2,4-Trichlorobenzene	15.388	180	31181	15.289	ug/l		99
94) Hexachlorobutadiene	15.500	225	19246	15.528	ug/l		95
95) Naphthalene	15.641	128	78375	13.998	ug/l		99
96) 1,2,3-Trichlorobenzene	15.835	180	30568	14.930	ug/l		98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031125\
Data File : VN085931.D
Acq On : 11 Mar 2025 14:54
Operator : JC\MD
Sample : VN0311WBS01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 12 01:20:14 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:43:32 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

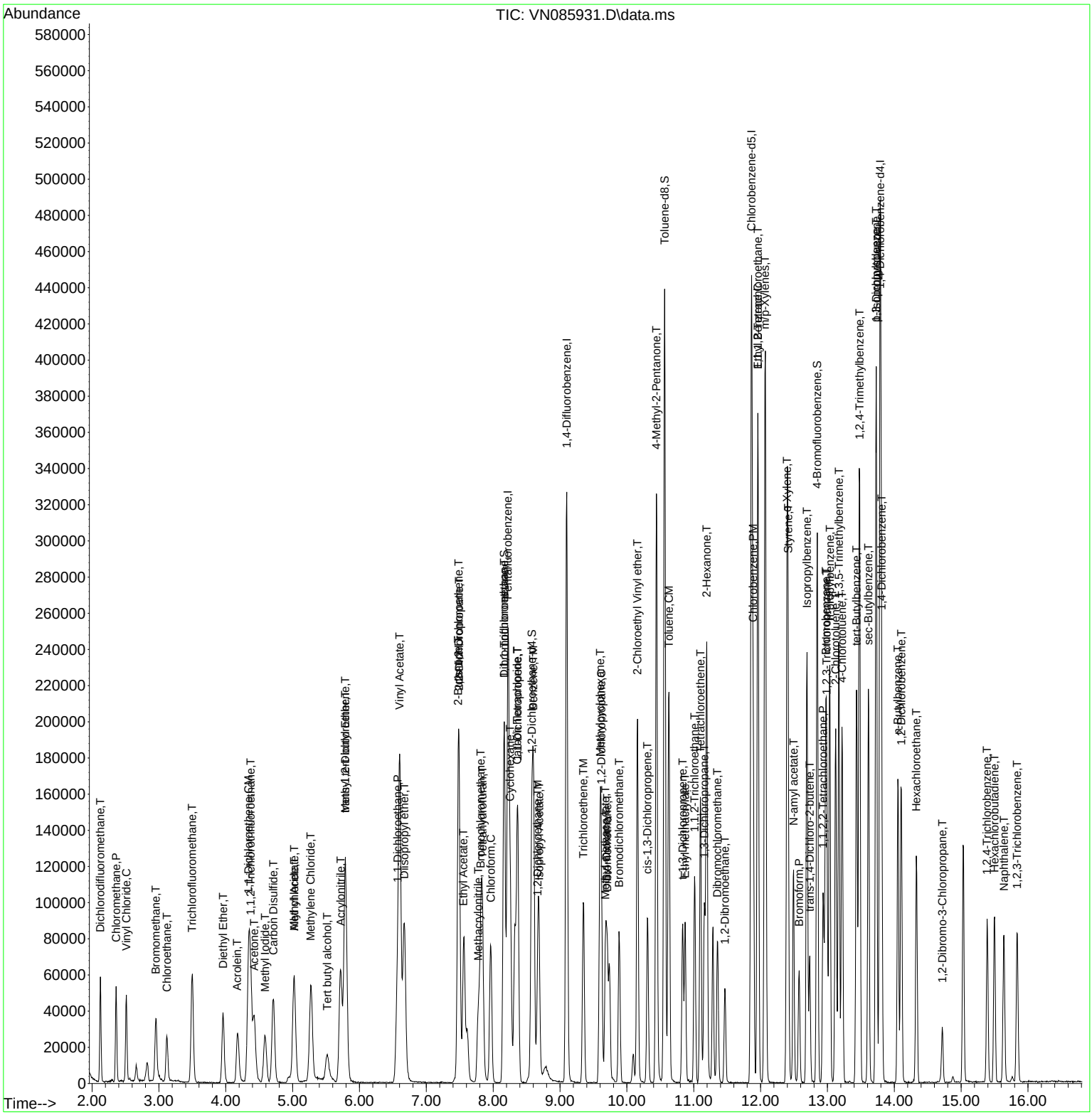
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031125\
Data File : VN085931.D
Acq On : 11 Mar 2025 14:54
Operator : JC\MD
Sample : VN0311WBS01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

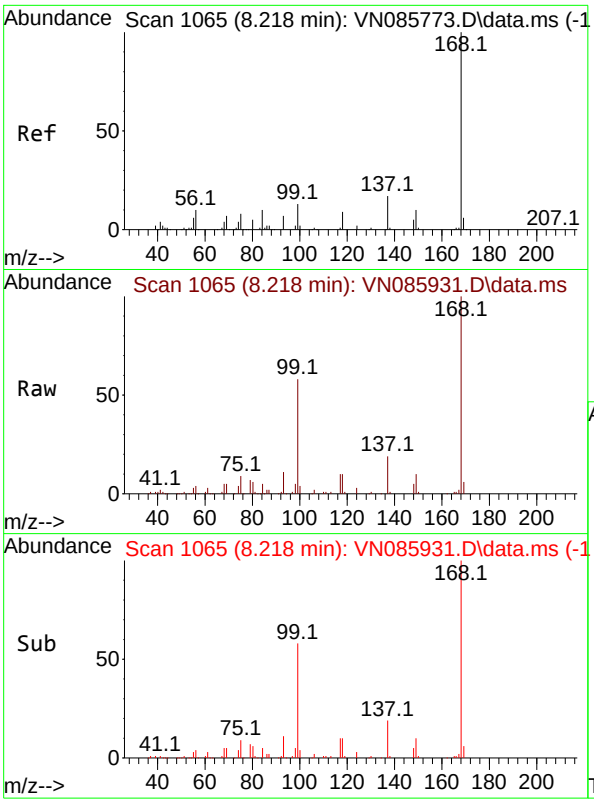
Quant Time: Mar 12 01:20:14 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:43:32 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

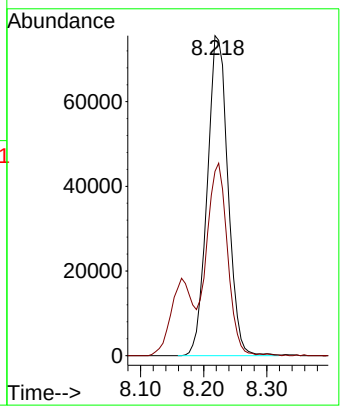




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.218 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion:168 Resp: 171959

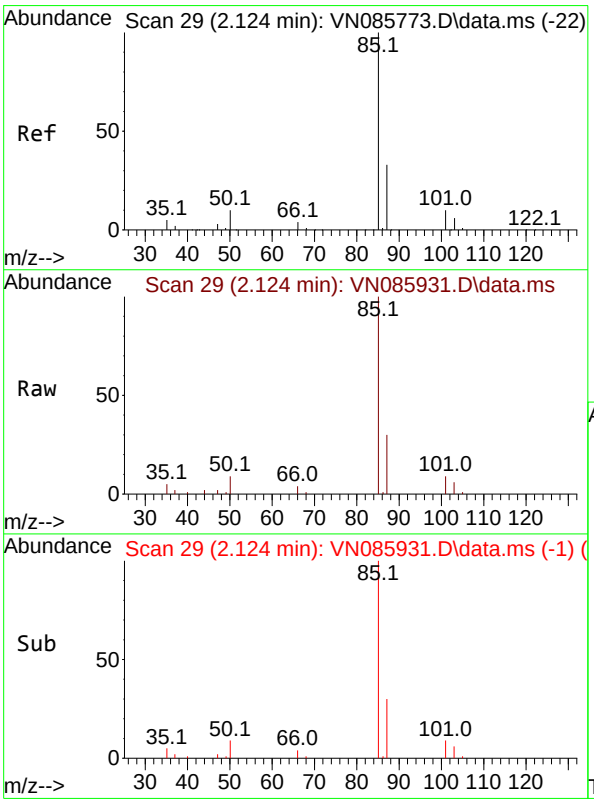
Ion	Ratio	Lower	Upper
168	100		
99	57.4	47.9	71.9



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

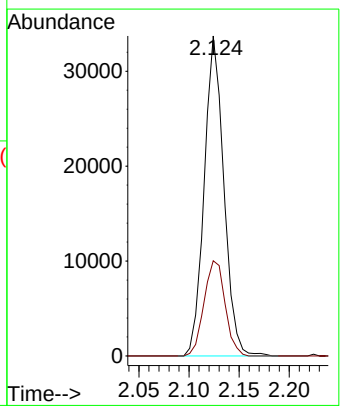
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

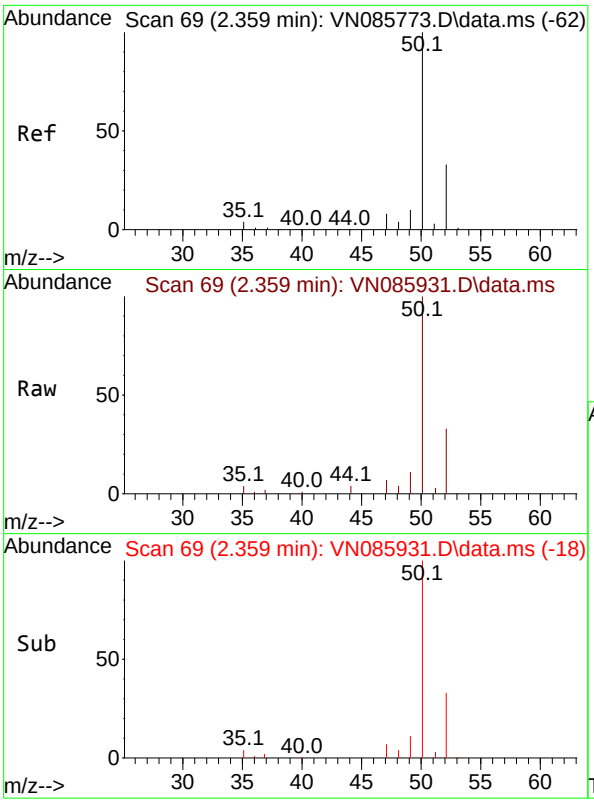


#2
Dichlorodifluoromethane
Concen: 19.684 ug/l
RT: 2.124 min Scan# 29
Delta R.T. 0.000 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 85 Resp: 46040

Ion	Ratio	Lower	Upper
85	100		
87	29.7	16.4	49.2

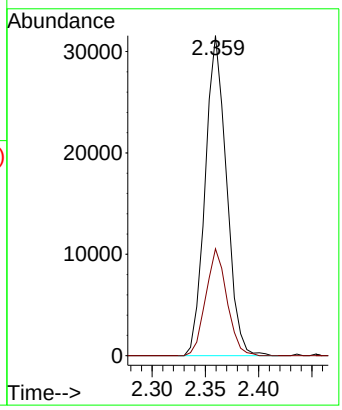




#3
Chloromethane
Concen: 18.746 ug/l
RT: 2.359 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 50 Resp: 4399

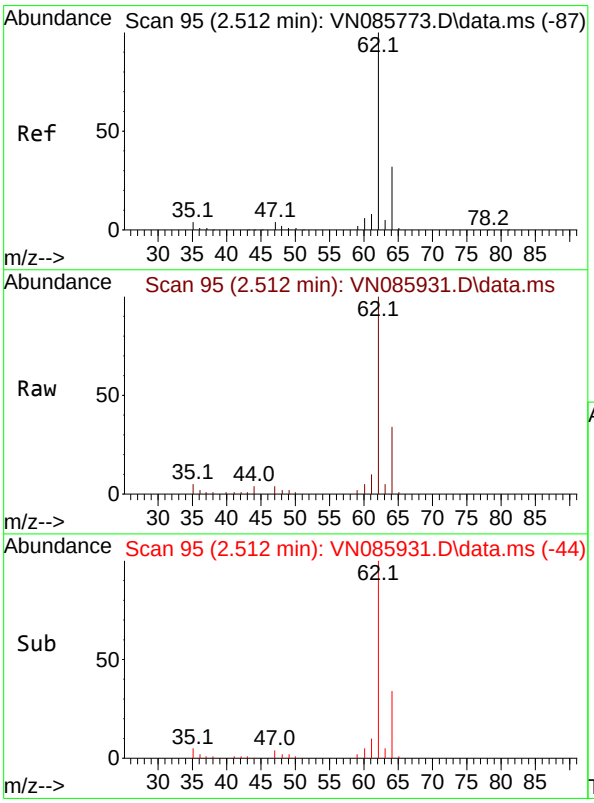
Ion	Ratio	Lower	Upper
50	100		
52	33.4	26.7	40.1



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

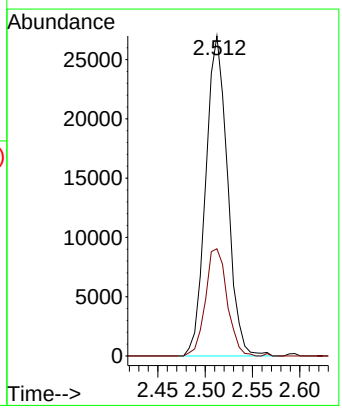
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

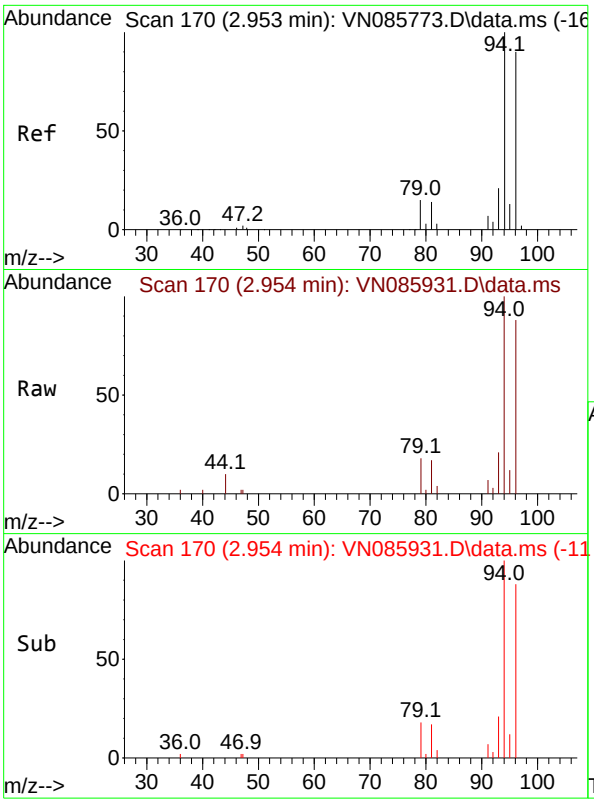


#4
Vinyl Chloride
Concen: 17.359 ug/l
RT: 2.512 min Scan# 95
Delta R.T. 0.000 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 62 Resp: 43138

Ion	Ratio	Lower	Upper
62	100		
64	33.5	25.9	38.9

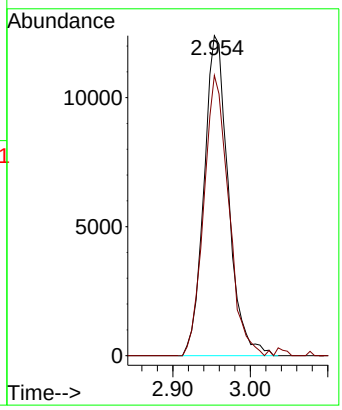




#5
Bromomethane
Concen: 17.033 ug/l
RT: 2.954 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 94 Resp: 2706

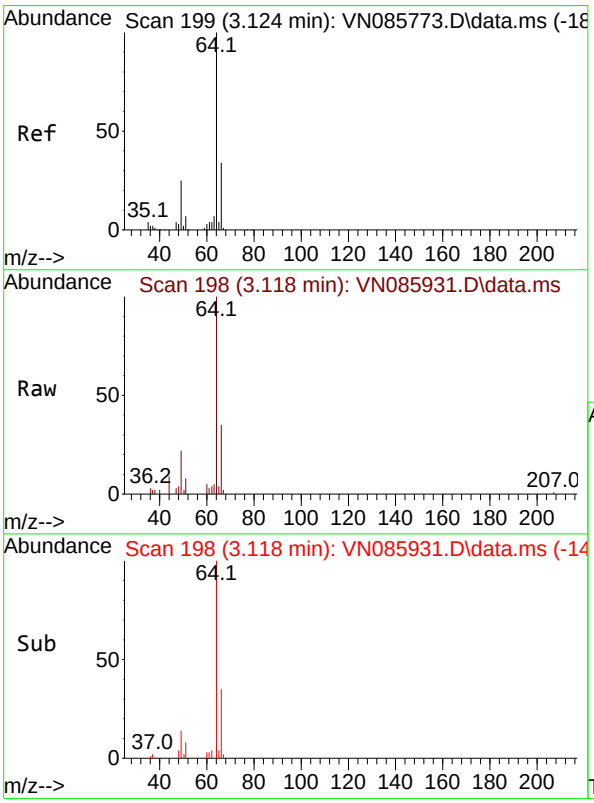
Ion	Ratio	Lower	Upper
94	100		
96	87.6	71.7	107.5



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

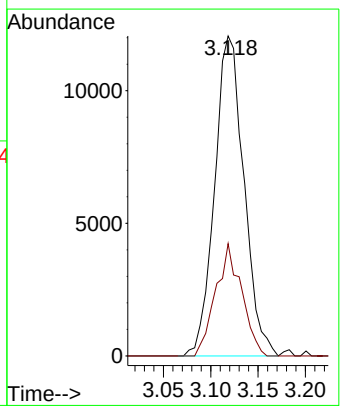
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

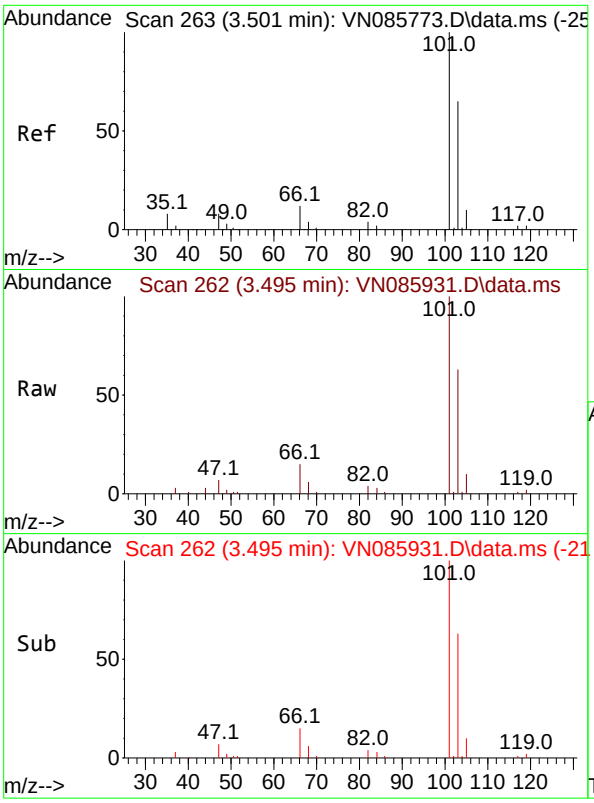


#6
Chloroethane
Concen: 15.748 ug/l
RT: 3.118 min Scan# 198
Delta R.T. -0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 64 Resp: 25922

Ion	Ratio	Lower	Upper
64	100		
66	35.1	27.0	40.6





#7
Trichlorofluoromethane
Concen: 18.985 ug/l
RT: 3.495 min Scan# 2
Delta R.T. -0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

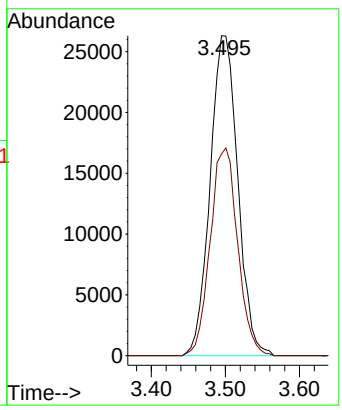
Tgt Ion:101 Resp: 6830

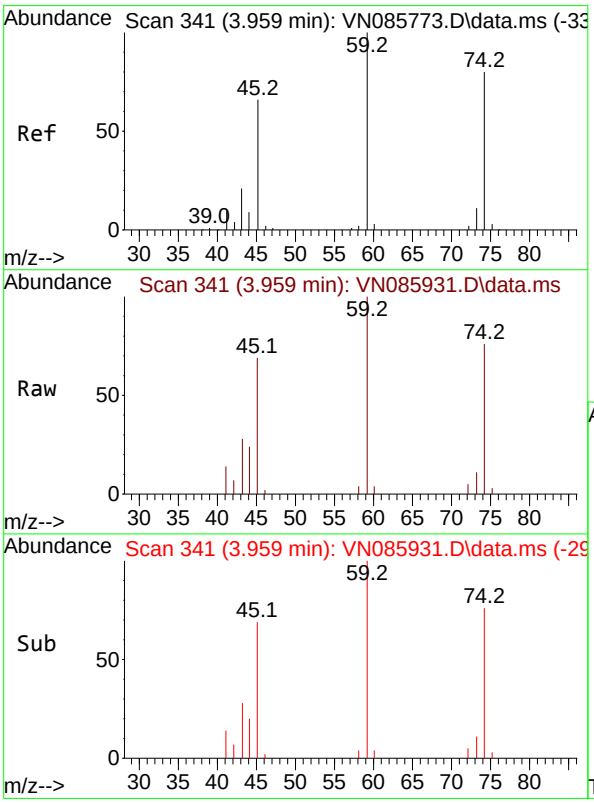
Ion	Ratio	Lower	Upper
101	100		
103	63.1	52.2	78.4

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

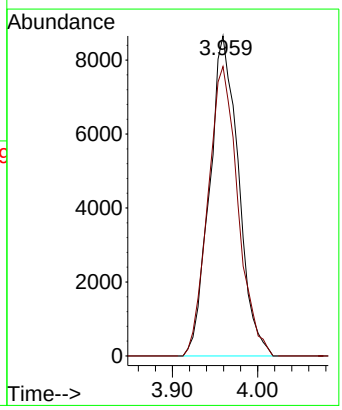


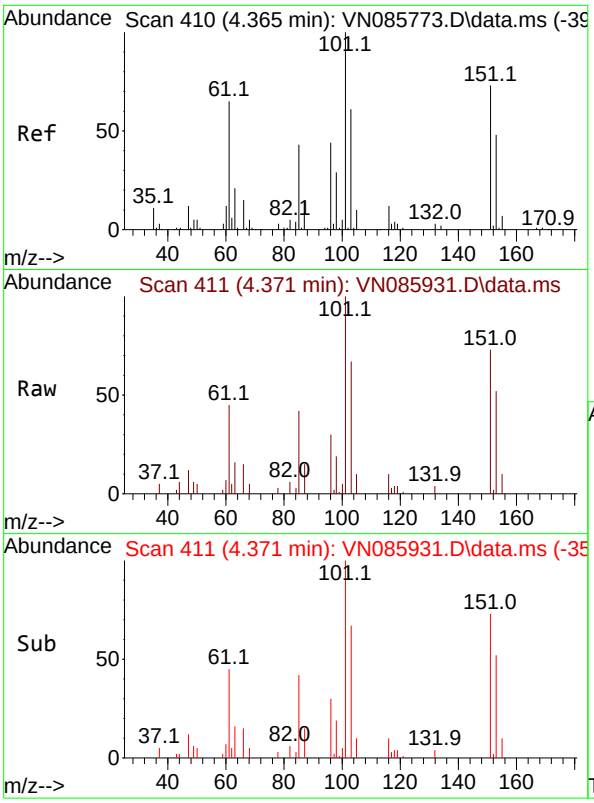


#8
Diethyl Ether
Concen: 17.530 ug/l
RT: 3.959 min Scan# 341
Delta R.T. 0.000 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 74 Resp: 20408

Ion	Ratio	Lower	Upper
74	100		
45	93.5	42.5	127.6

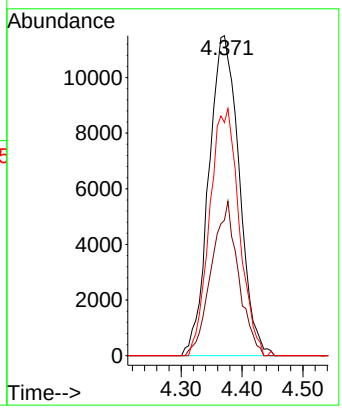




#9
1,1,2-Trichlorotrifluoroethane
Concen: 19.118 ug/l
RT: 4.371 min Scan# 4
Delta R.T. 0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion:101 Resp: 3976

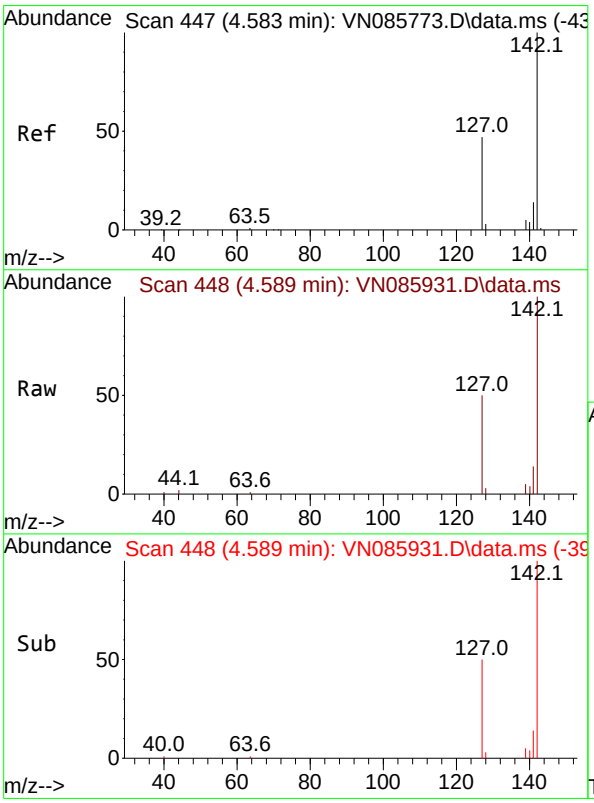
Ion	Ratio	Lower	Upper
101	100		
85	43.0	35.7	53.5
151	75.0	61.4	92.2



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

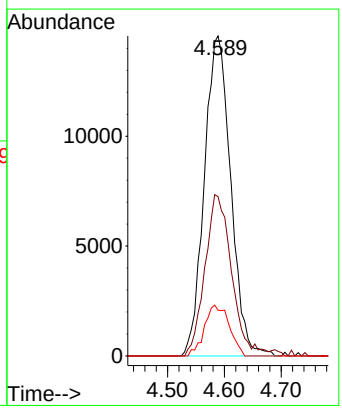
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

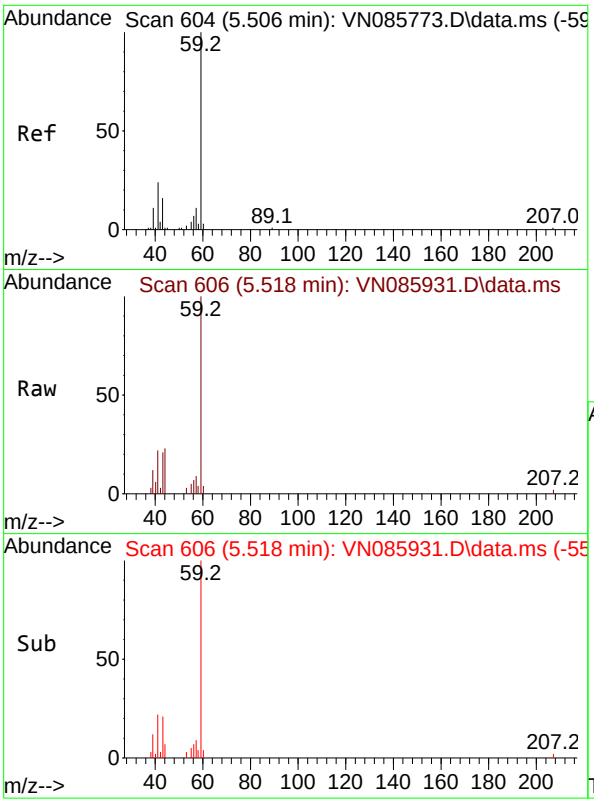


#10
Methyl Iodide
Concen: 18.329 ug/l
RT: 4.589 min Scan# 448
Delta R.T. 0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion:142 Resp: 46990

Ion	Ratio	Lower	Upper
142	100		
127	49.8	37.6	56.4
141	14.3	11.4	17.2





#11
Tert butyl alcohol
Concen: 91.127 ug/l
RT: 5.518 min Scan# 6
Delta R.T. 0.012 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

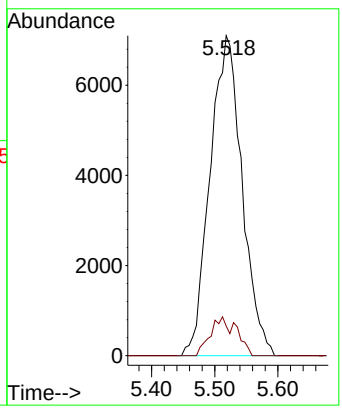
Tgt Ion: 59 Resp: 2498

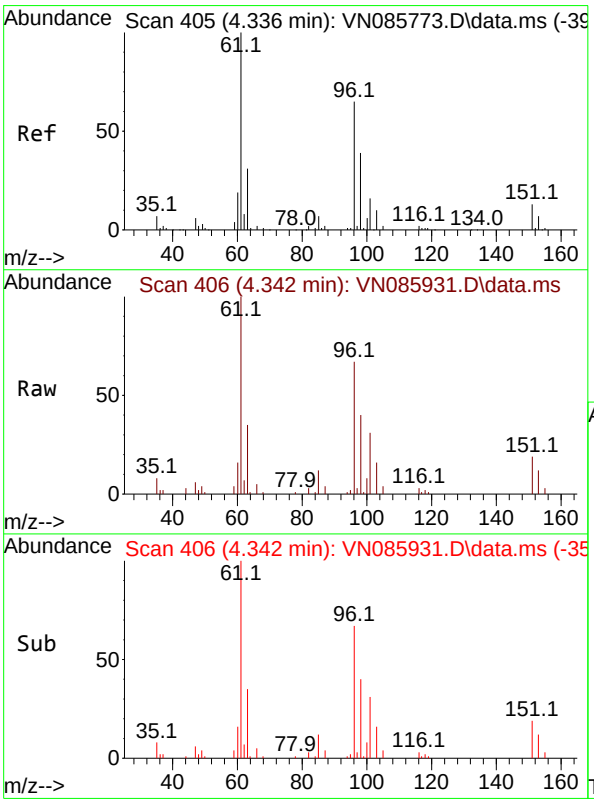
Ion	Ratio	Lower	Upper
59	100		
57	6.8	8.3	12.5#

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

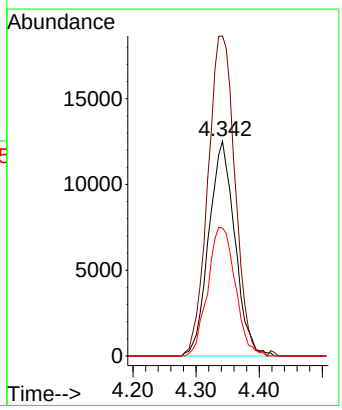


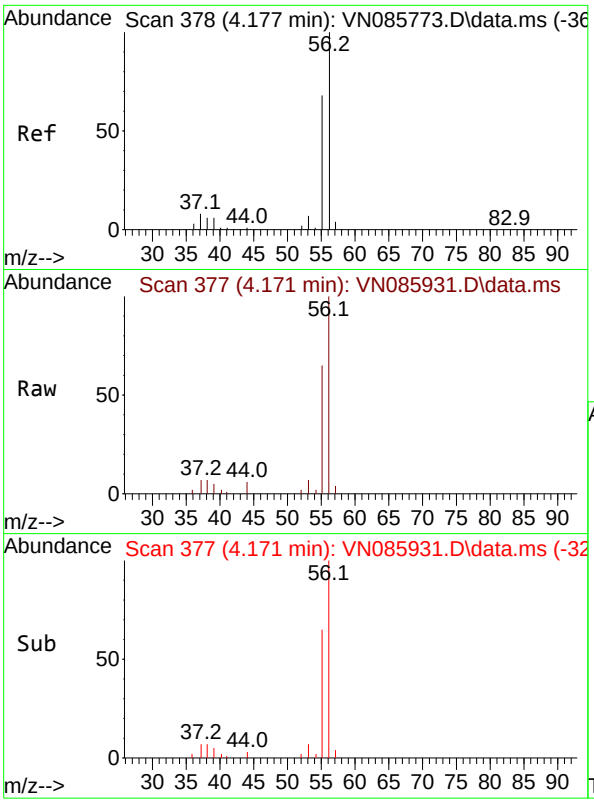


#12
1,1-Dichloroethene
Concen: 19.019 ug/l
RT: 4.342 min Scan# 406
Delta R.T. 0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 96 Resp: 35866

Ion	Ratio	Lower	Upper
96	100		
61	149.1	123.3	184.9
98	59.6	48.6	72.8

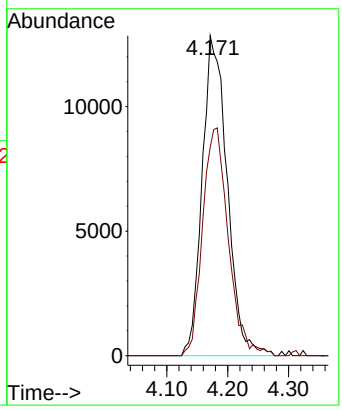




#13
Acrolein
Concen: 89.914 ug/l
RT: 4.171 min Scan# 3
Delta R.T. -0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 56 Resp: 3656

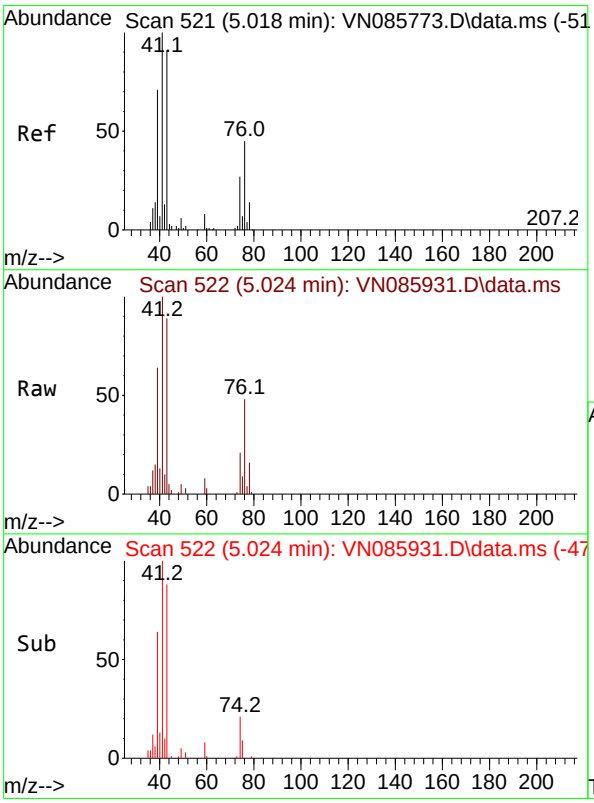
Ion	Ratio	Lower	Upper
56	100		
55	73.4	55.3	82.9



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

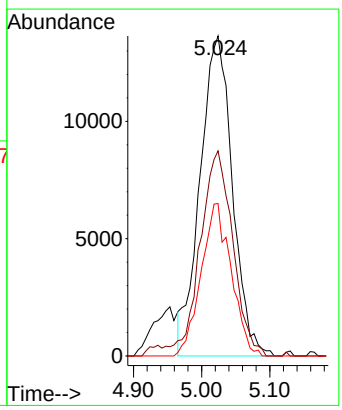
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

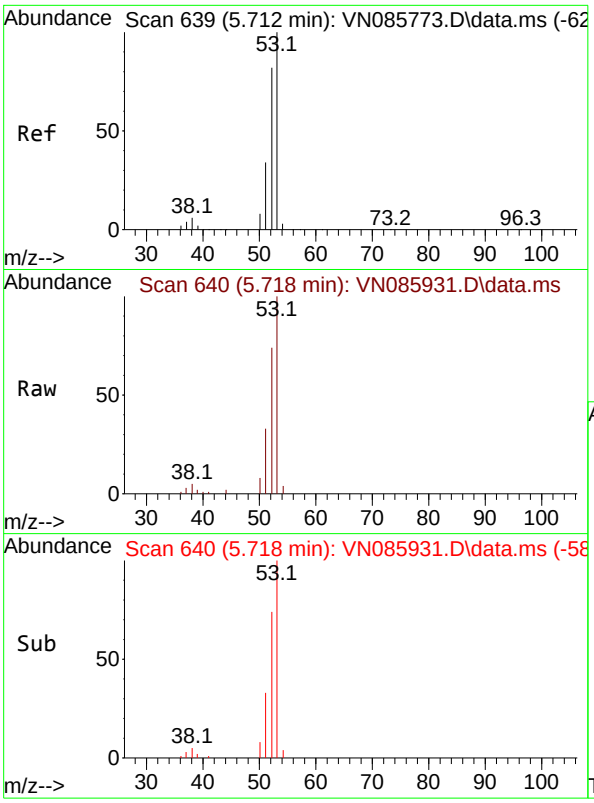


#14
Allyl chloride
Concen: 18.215 ug/l
RT: 5.024 min Scan# 522
Delta R.T. 0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 41 Resp: 45099

Ion	Ratio	Lower	Upper
41	100		
39	64.0	57.4	86.2
76	44.2	36.2	54.2

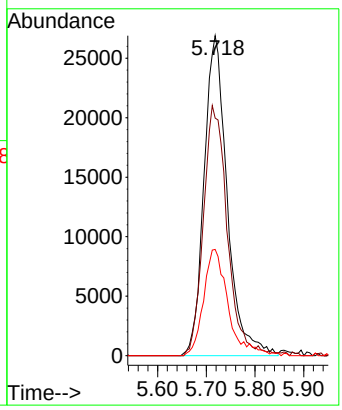




#15
Acrylonitrile
Concen: 99.833 ug/l
RT: 5.718 min Scan# 64
Delta R.T. 0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 53 Resp: 8899

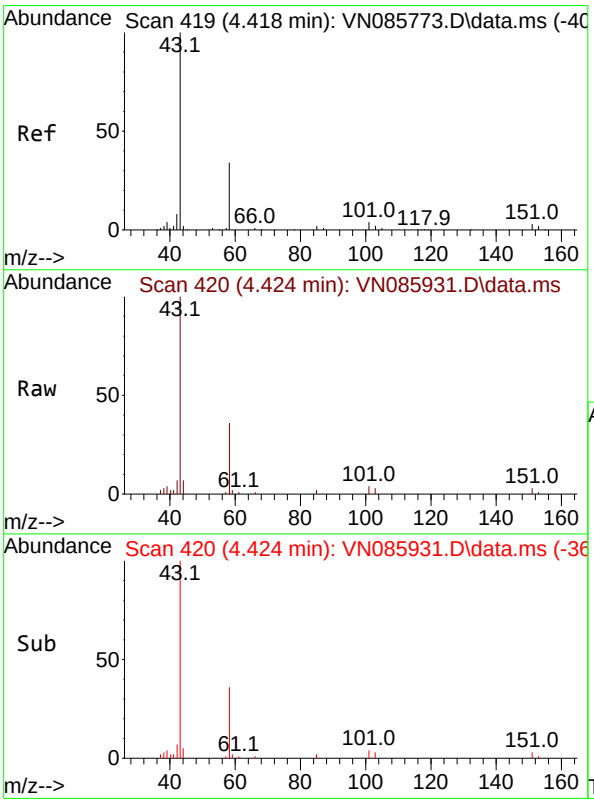
Ion	Ratio	Lower	Upper
53	100		
52	80.3	65.8	98.6
51	35.0	28.6	42.8



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

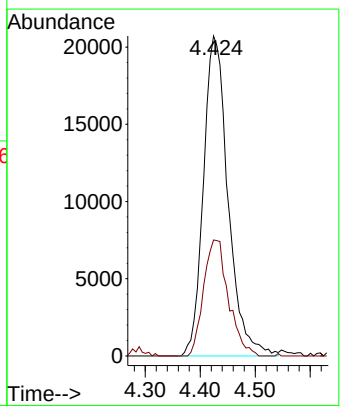
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

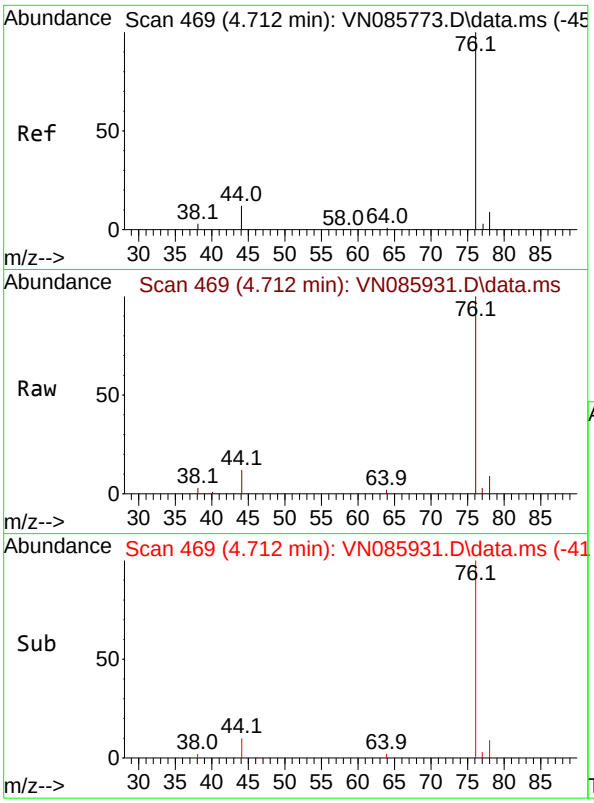


#16
Acetone
Concen: 91.405 ug/l
RT: 4.424 min Scan# 420
Delta R.T. 0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 43 Resp: 64479

Ion	Ratio	Lower	Upper
43	100		
58	36.2	27.5	41.3





#17
Carbon Disulfide
Concen: 19.707 ug/l
RT: 4.712 min Scan# 4
Delta R.T. 0.000 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

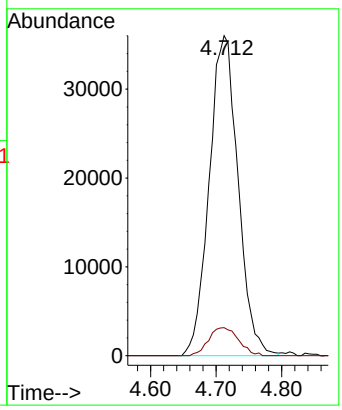
Tgt Ion: 76 Resp: 11014

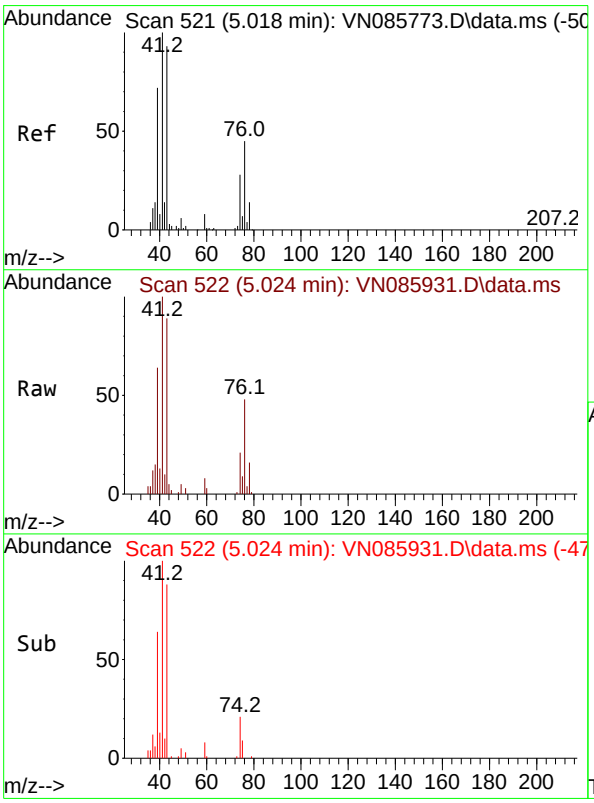
Ion	Ratio	Lower	Upper
76	100		
78	8.8	7.4	11.0

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

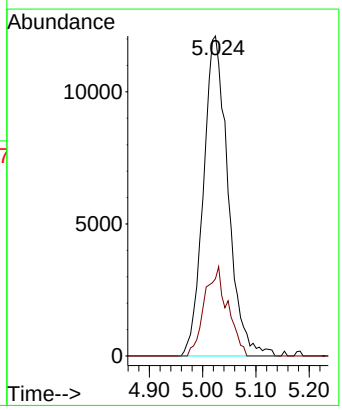


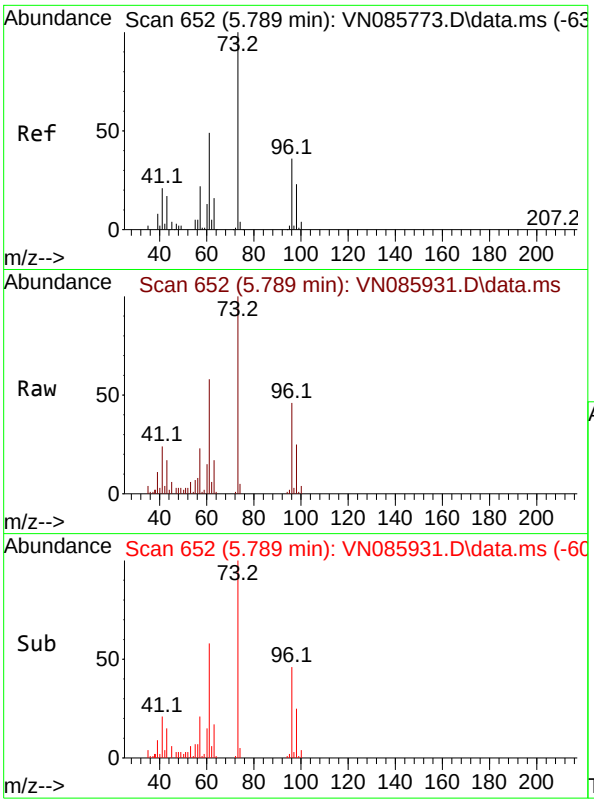


#18
Methyl Acetate
Concen: 16.062 ug/l
RT: 5.024 min Scan# 522
Delta R.T. 0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 43 Resp: 38972

Ion	Ratio	Lower	Upper
43	100		
74	26.2	22.2	33.4

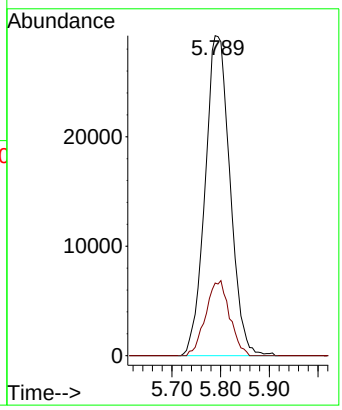




#19
Methyl tert-butyl Ether
Concen: 18.531 ug/l
RT: 5.789 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 73 Resp: 10384

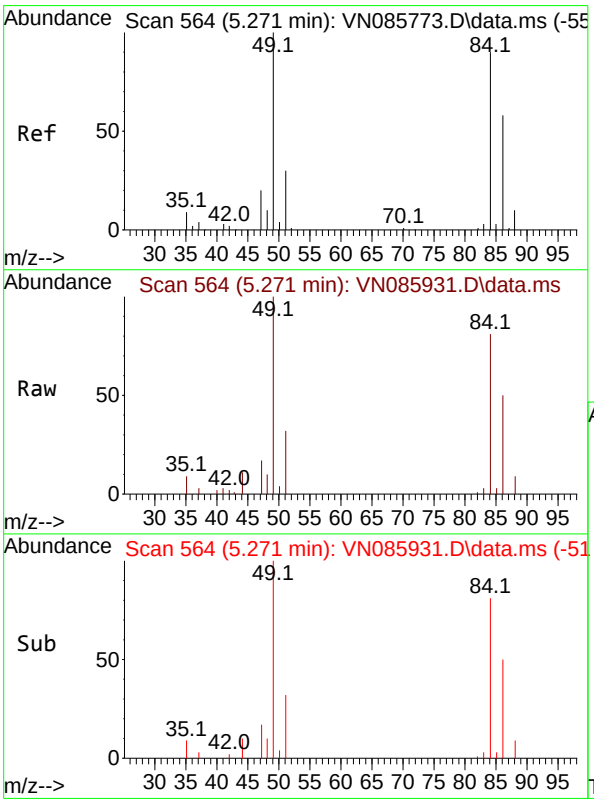
Ion	Ratio	Lower	Upper
73	100		
57	22.7	17.6	26.4



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

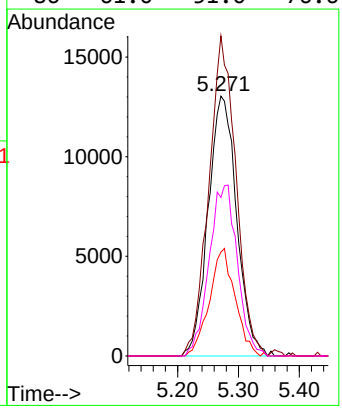
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

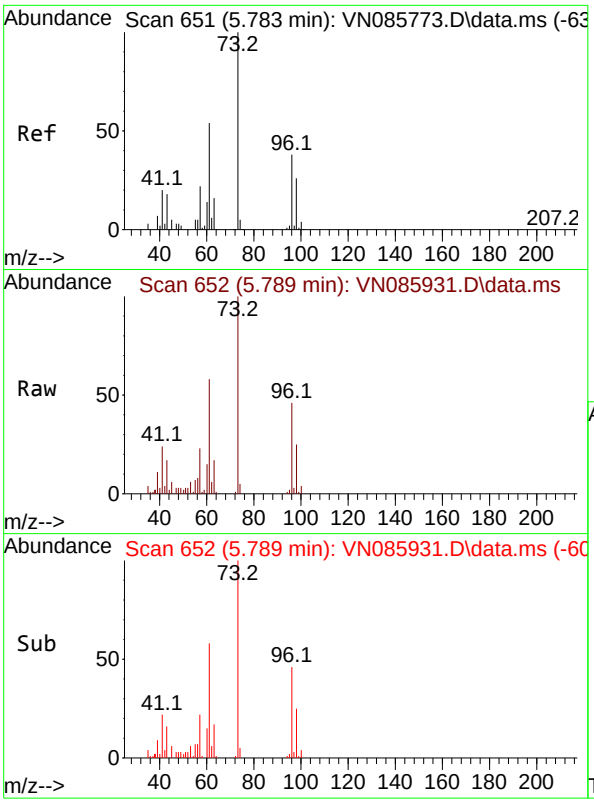


#20
Methylene Chloride
Concen: 18.704 ug/l
RT: 5.271 min Scan# 564
Delta R.T. 0.000 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 84 Resp: 42432

Ion	Ratio	Lower	Upper
84	100		
49	123.1	88.4	132.6
51	39.9	26.6	40.0
86	61.0	51.0	76.6

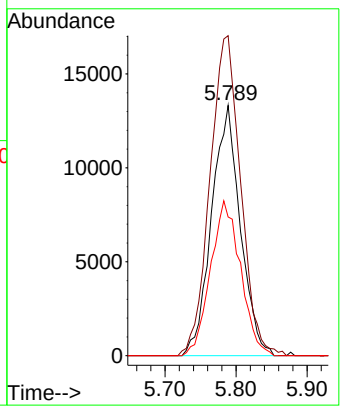




#21
trans-1,2-Dichloroethene
Concen: 18.450 ug/l
RT: 5.789 min Scan# 6
Delta R.T. 0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 96 Resp: 3746

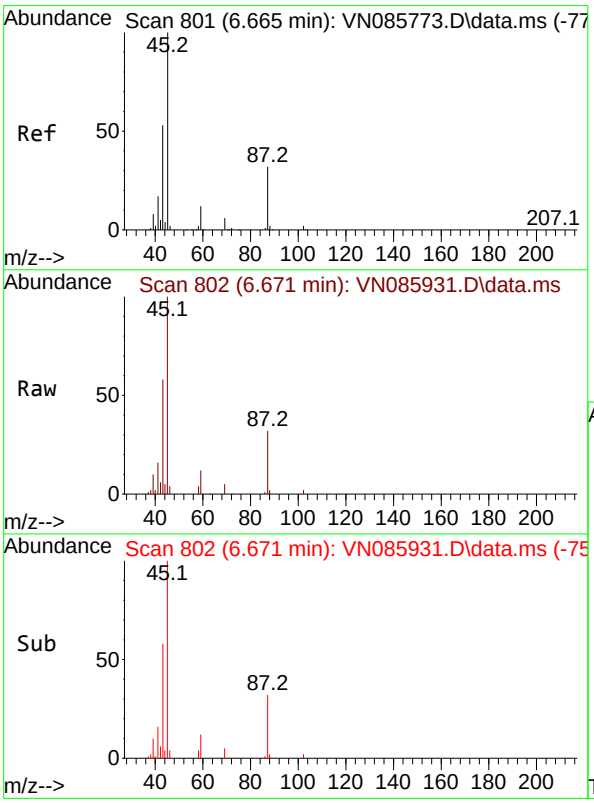
Ion	Ratio	Lower	Upper
96	100		
61	127.9	112.6	168.8
98	55.4	53.3	79.9



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

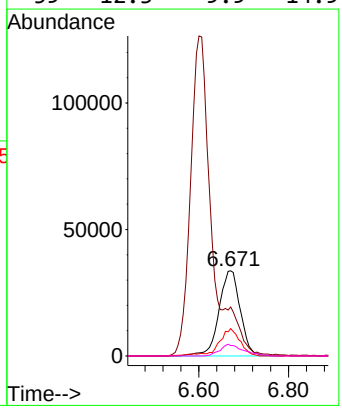
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

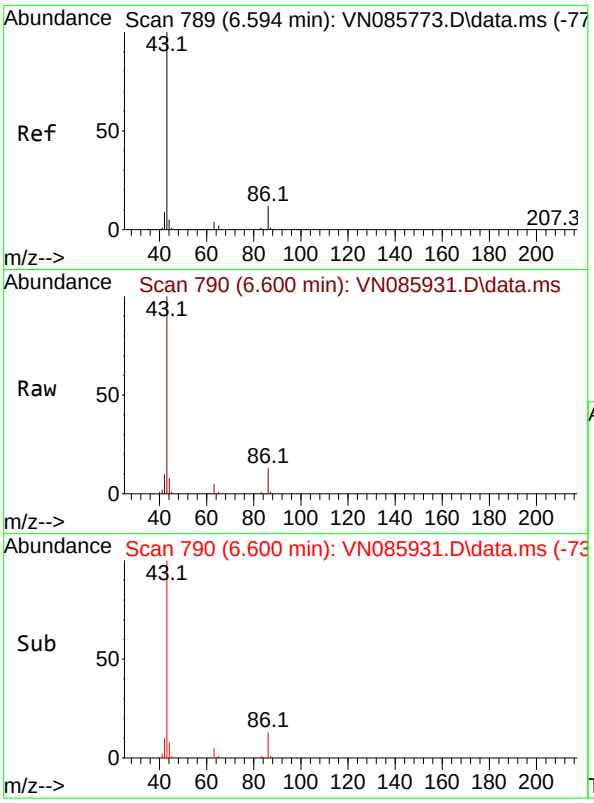


#22
Diisopropyl ether
Concen: 19.912 ug/l
RT: 6.671 min Scan# 802
Delta R.T. 0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 45 Resp: 111397

Ion	Ratio	Lower	Upper
45	100		
43	56.1	42.6	64.0
87	32.1	25.8	38.8
59	12.3	9.9	14.9





#23
Vinyl Acetate
Concen: 96.289 ug/l
RT: 6.600 min Scan# 7
Delta R.T. 0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

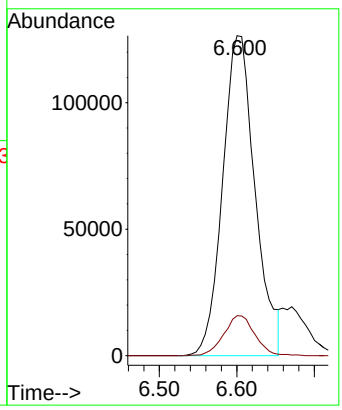
Tgt Ion: 43 Resp: 36884

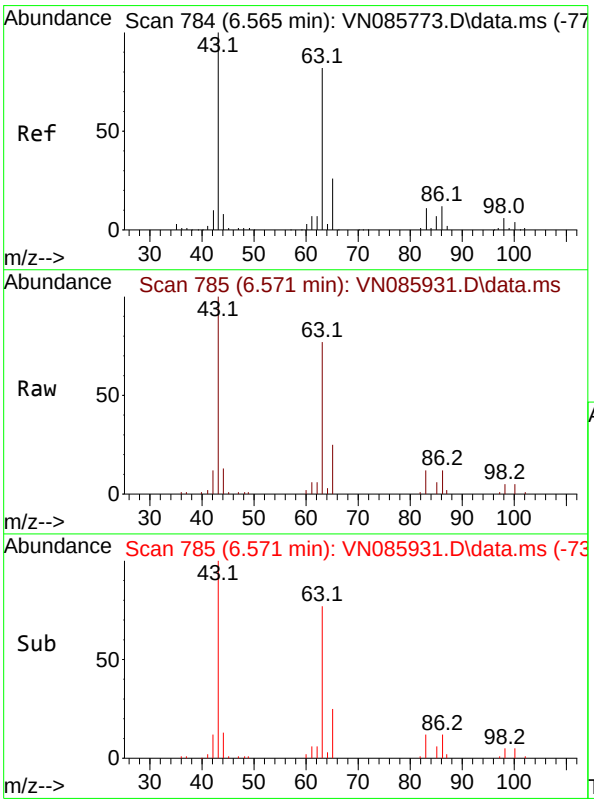
Ion	Ratio	Lower	Upper
43	100		
86	12.5	9.8	14.8

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

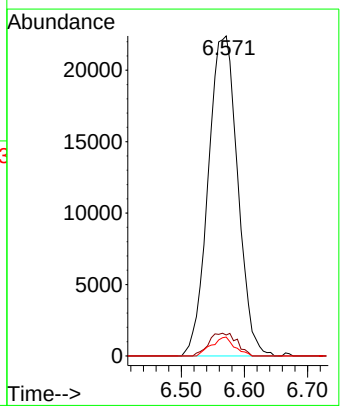


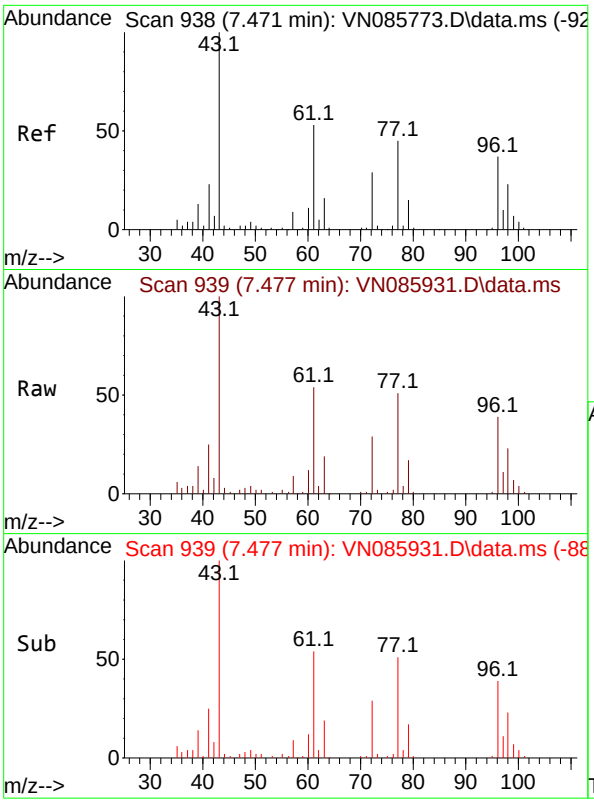


#24
1,1-Dichloroethane
Concen: 19.081 ug/l
RT: 6.571 min Scan# 785
Delta R.T. 0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 63 Resp: 72568

Ion	Ratio	Lower	Upper
63	100		
98	6.5	3.5	10.4
100	5.9	2.4	7.2





#25
2-Butanone
Concen: 96.221 ug/l
RT: 7.477 min Scan# 9
Delta R.T. 0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

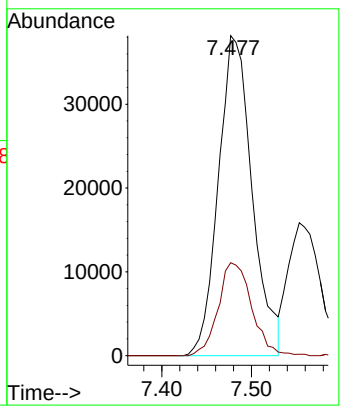
Tgt Ion: 43 Resp: 9985

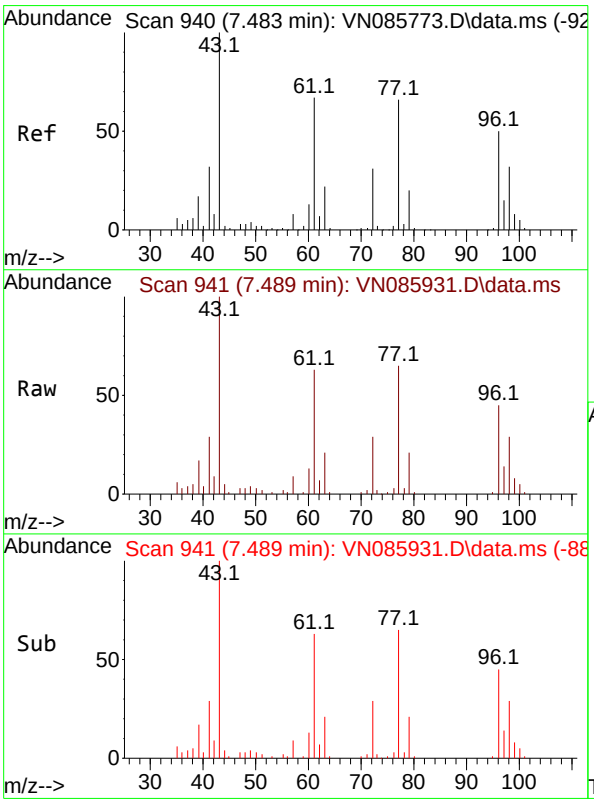
Ion	Ratio	Lower	Upper
43	100		
72	29.0	23.6	35.4

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

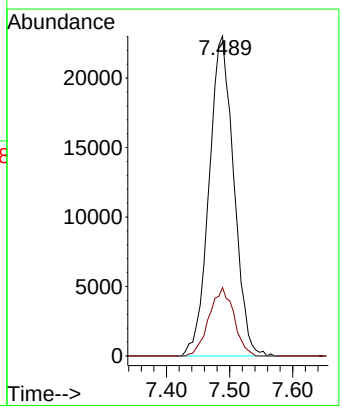


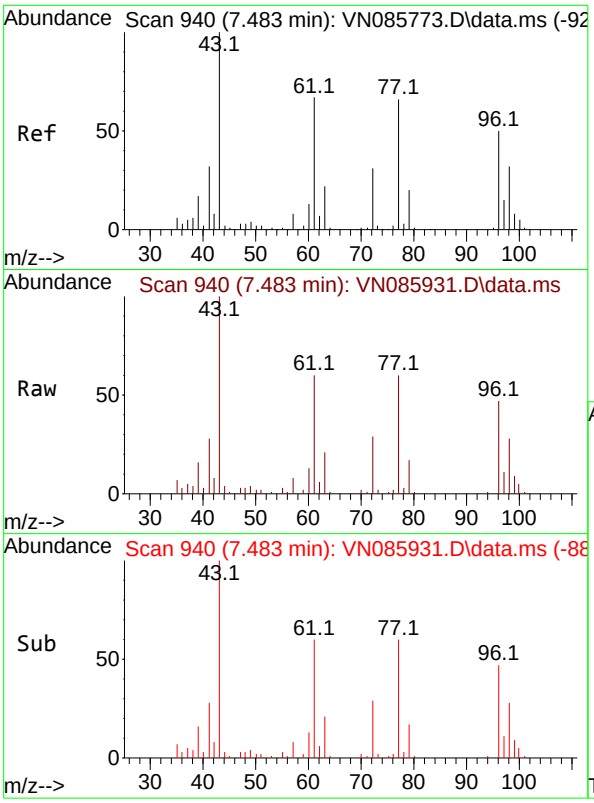


#26
2,2-Dichloropropane
Concen: 18.505 ug/l
RT: 7.489 min Scan# 941
Delta R.T. 0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 77 Resp: 62578

Ion	Ratio	Lower	Upper
77	100		
97	21.5	11.3	33.8





#27
cis-1,2-Dichloroethene
Concen: 18.000 ug/l
RT: 7.483 min Scan# 94
Delta R.T. 0.000 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

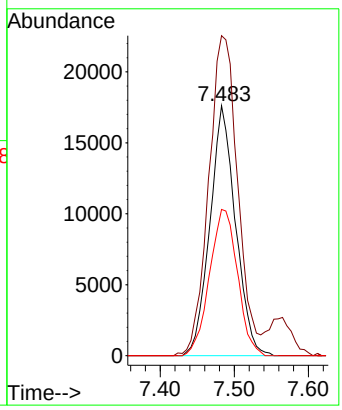
Tgt Ion: 96 Resp: 4237

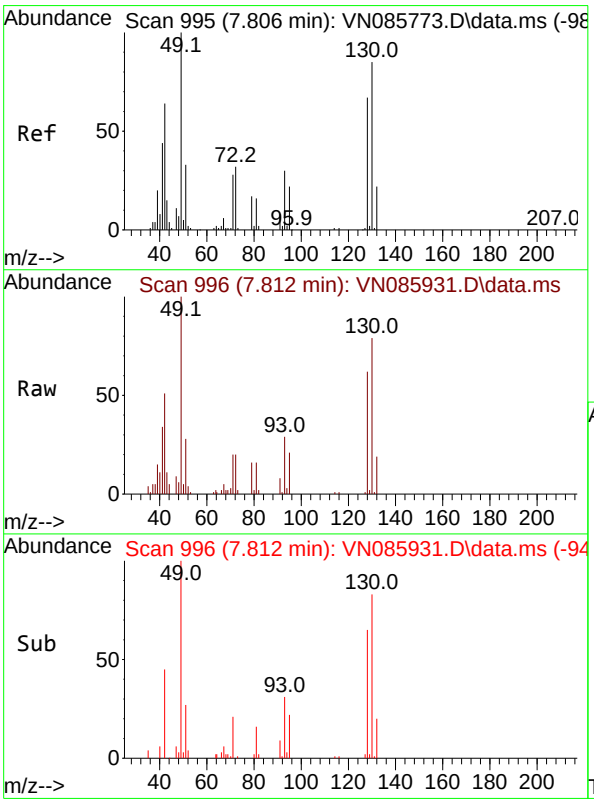
Ion	Ratio	Lower	Upper
96	100		
61	144.7	0.0	280.6
98	63.7	0.0	128.6

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

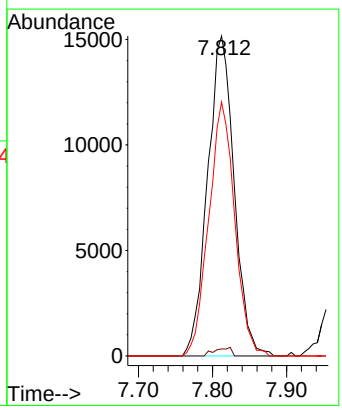


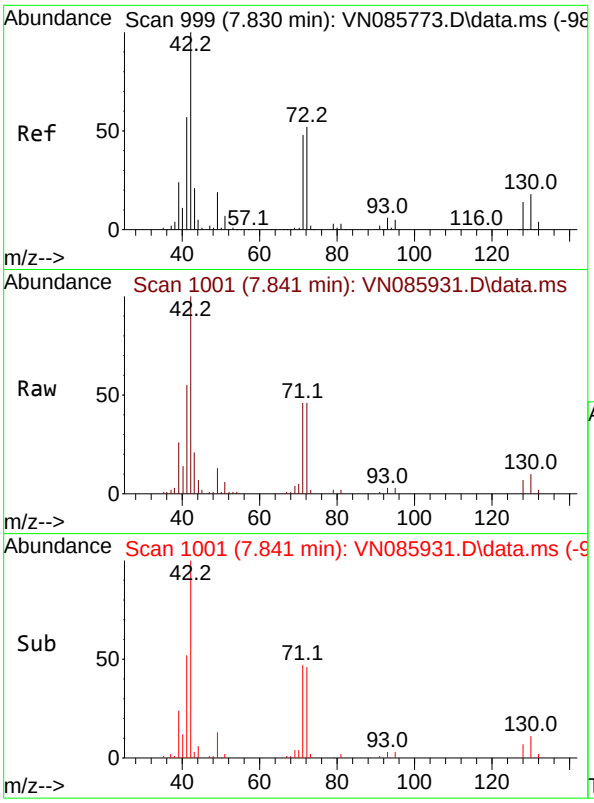


#28
Bromochloromethane
Concen: 24.145 ug/l
RT: 7.812 min Scan# 996
Delta R.T. 0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 49 Resp: 37741

Ion	Ratio	Lower	Upper
49	100		
129	1.7	0.0	3.8
130	77.6	68.0	102.0





#29
Tetrahydrofuran
Concen: 98.221 ug/l
RT: 7.841 min Scan# 1
Delta R.T. 0.012 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

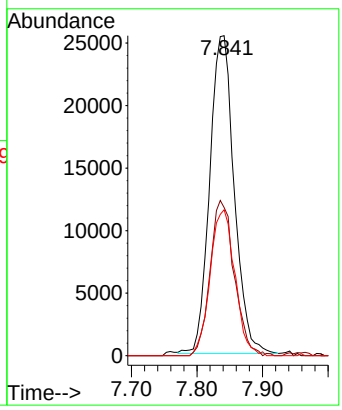
Tgt Ion: 42 Resp: 6582

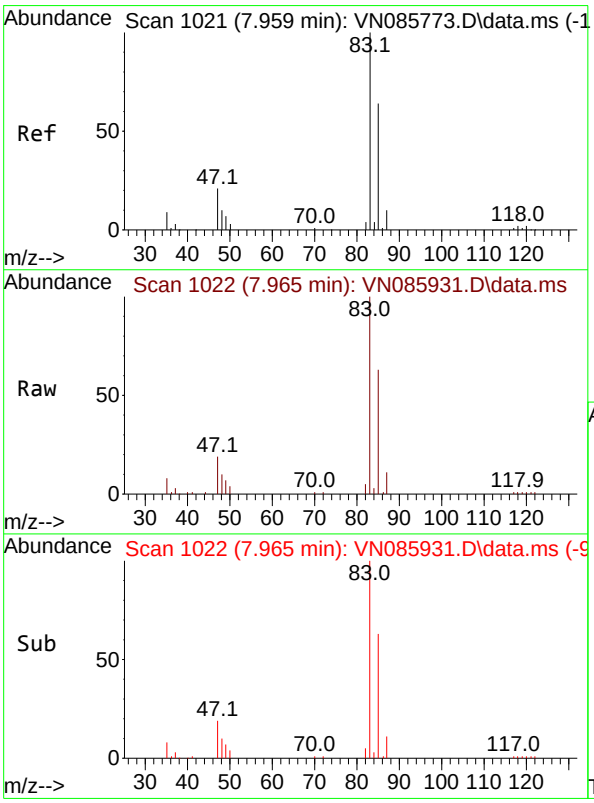
Ion	Ratio	Lower	Upper
42	100		
72	48.3	40.0	60.0
71	46.4	37.0	55.4

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

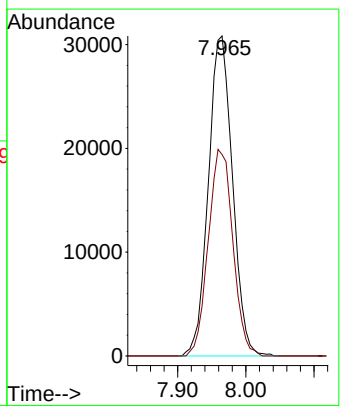


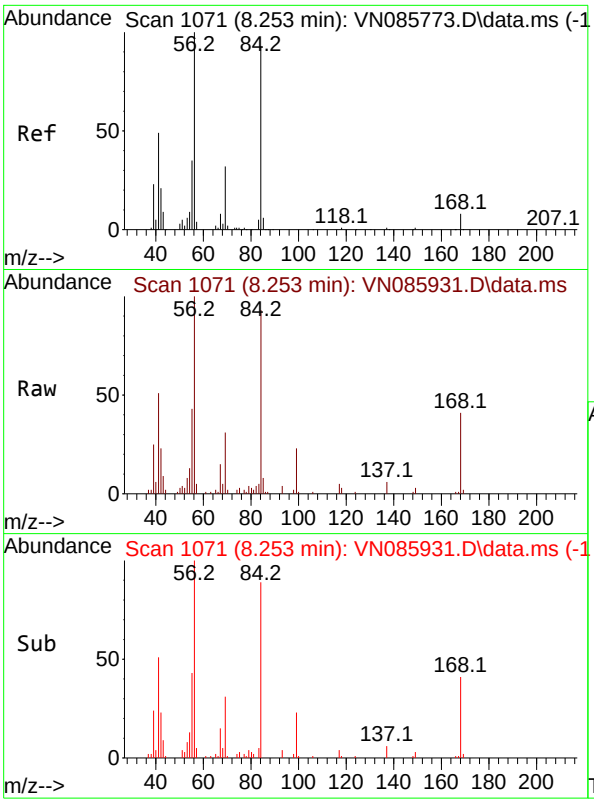


#30
Chloroform
Concen: 19.108 ug/l
RT: 7.965 min Scan# 1022
Delta R.T. 0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 83 Resp: 75940

Ion	Ratio	Lower	Upper
83	100		
85	63.0	50.9	76.3

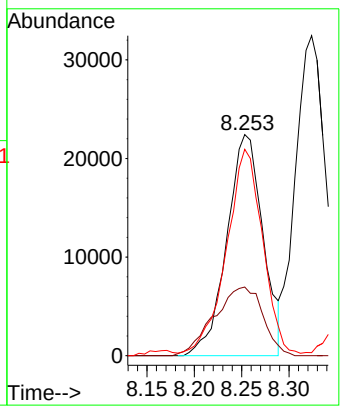




#31
Cyclohexane
Concen: 18.712 ug/l
RT: 8.253 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 56 Resp: 5958

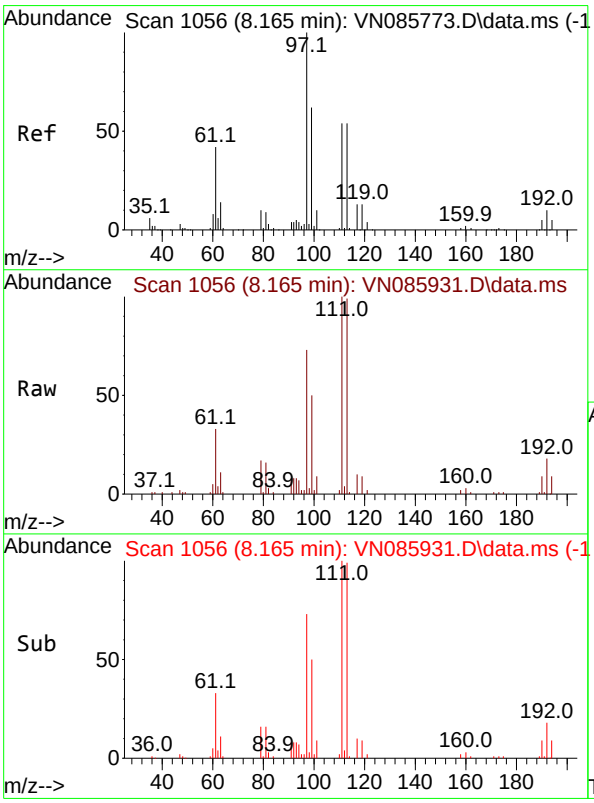
Ion	Ratio	Lower	Upper
56	100		
69	30.1	25.8	38.6
84	92.2	74.5	111.7



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

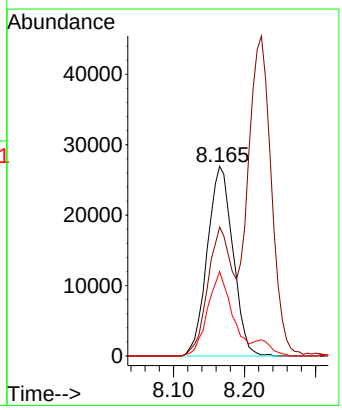
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

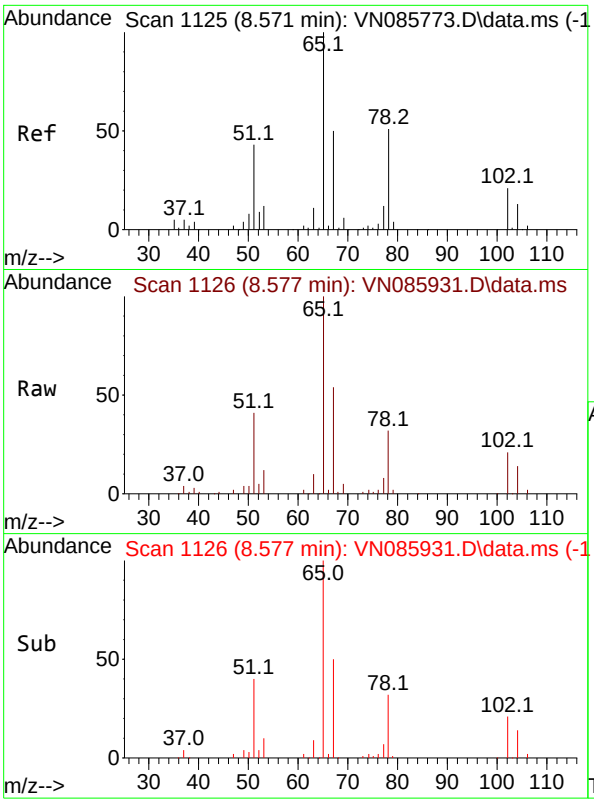


#32
1,1,1-Trichloroethane
Concen: 19.050 ug/l
RT: 8.165 min Scan# 1056
Delta R.T. 0.000 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 97 Resp: 67340

Ion	Ratio	Lower	Upper
97	100		
99	65.0	50.4	75.6
61	42.5	35.5	53.3

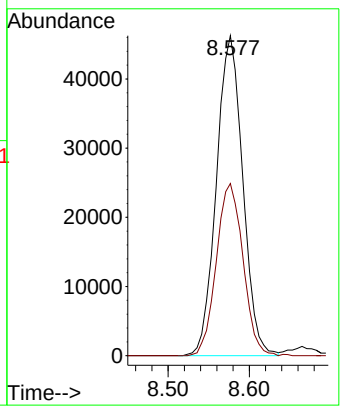




#33
1,2-Dichloroethane-d4
Concen: 46.871 ug/l
RT: 8.577 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 65 Resp: 10449

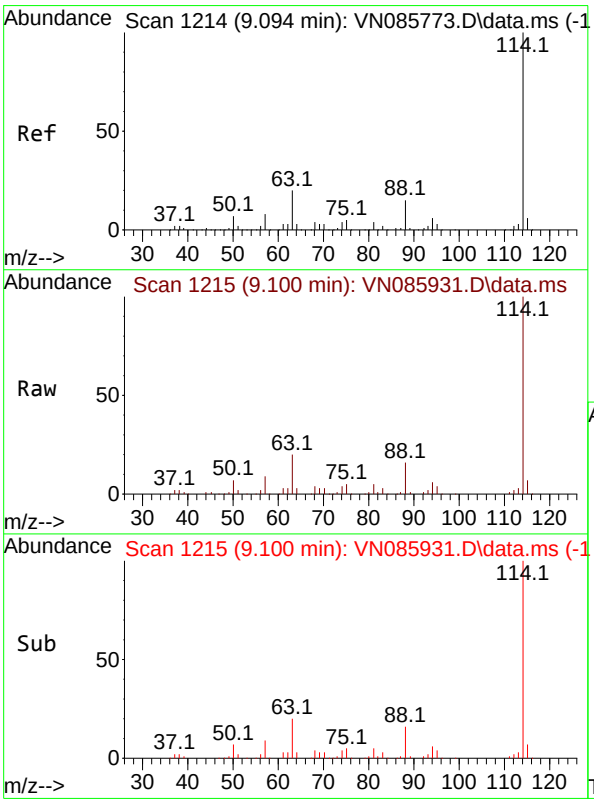
Ion	Ratio	Lower	Upper
65	100		
67	54.4	0.0	106.2



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

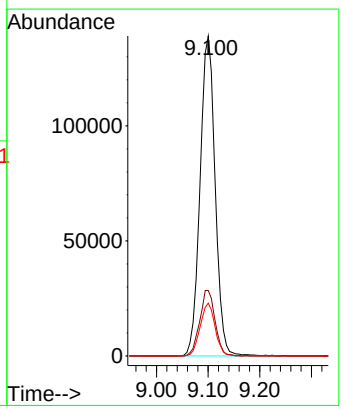
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

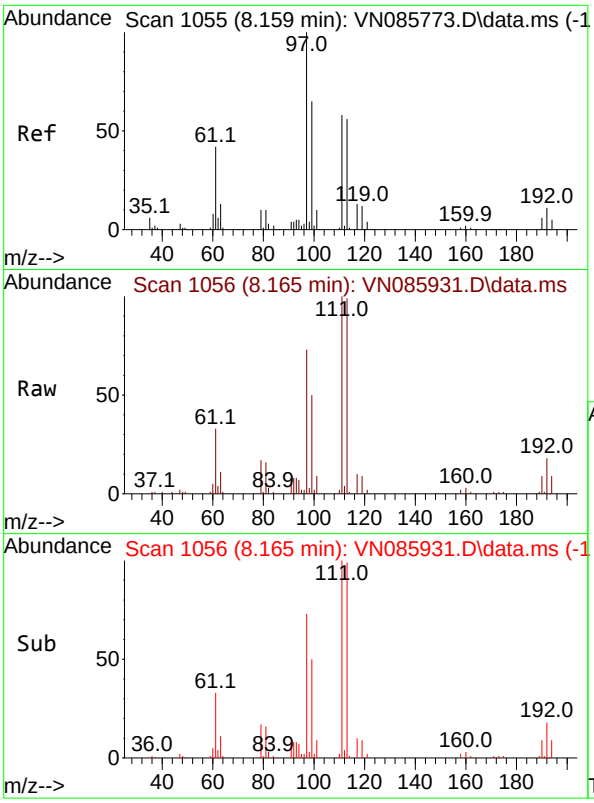


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.100 min Scan# 1215
Delta R.T. 0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion:114 Resp: 282309

Ion	Ratio	Lower	Upper
114	100		
63	20.5	0.0	39.2
88	16.5	0.0	30.0

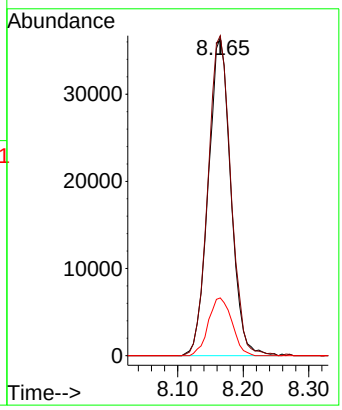




#35
Dibromofluoromethane
Concen: 46.910 ug/l
RT: 8.165 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion:113 Resp: 8665

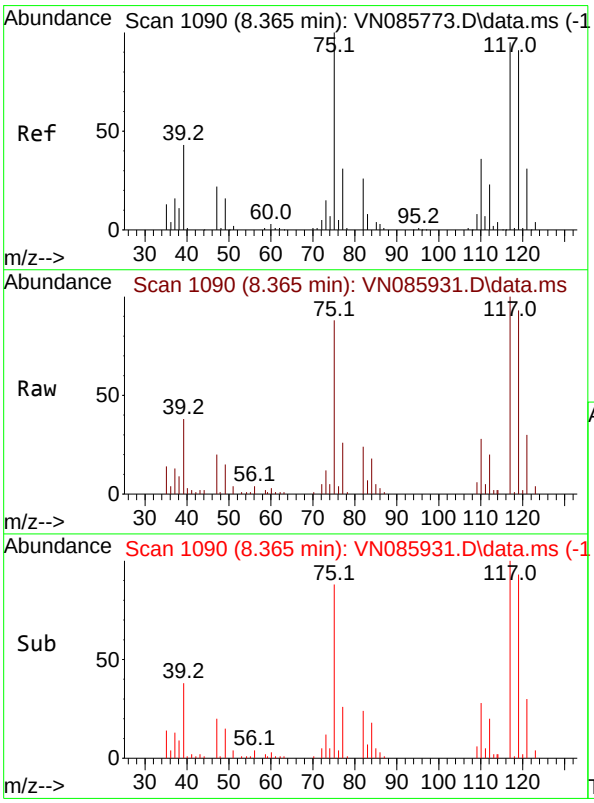
Ion	Ratio	Lower	Upper
113	100		
111	102.5	82.2	123.4
192	19.1	14.7	22.1



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

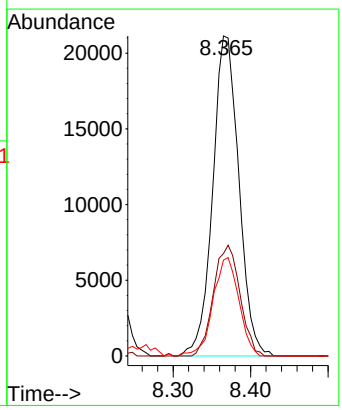
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

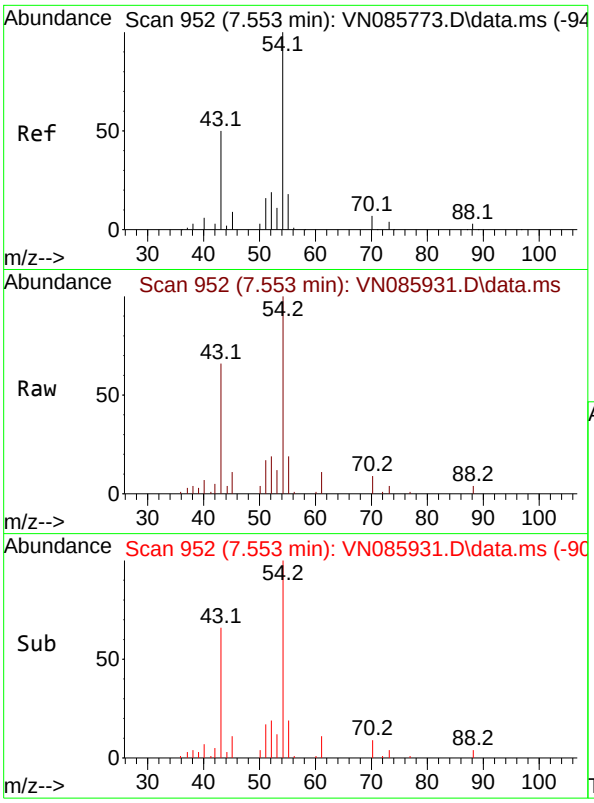


#36
1,1-Dichloropropene
Concen: 18.958 ug/l
RT: 8.365 min Scan# 1090
Delta R.T. 0.000 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 75 Resp: 49565

Ion	Ratio	Lower	Upper
75	100		
110	35.1	17.3	52.0
77	30.4	24.6	37.0





#37
Ethyl Acetate
Concen: 19.258 ug/l
RT: 7.553 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

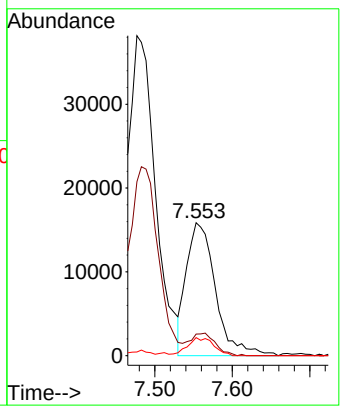
Tgt Ion: 43 Resp: 4143

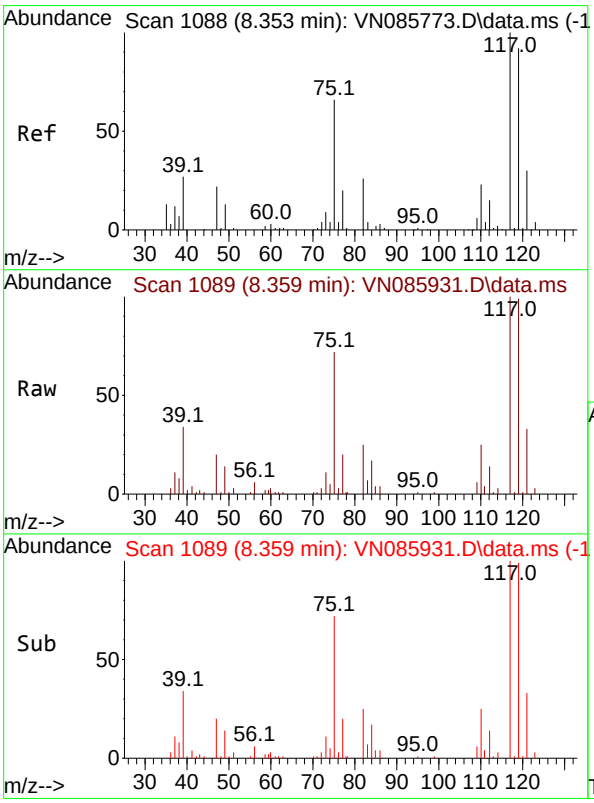
Ion	Ratio	Lower	Upper
43	100		
61	14.9	12.2	18.2
70	12.2	9.5	14.3

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

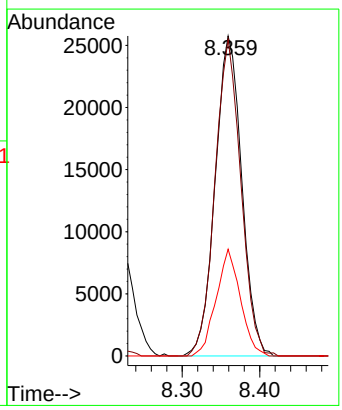


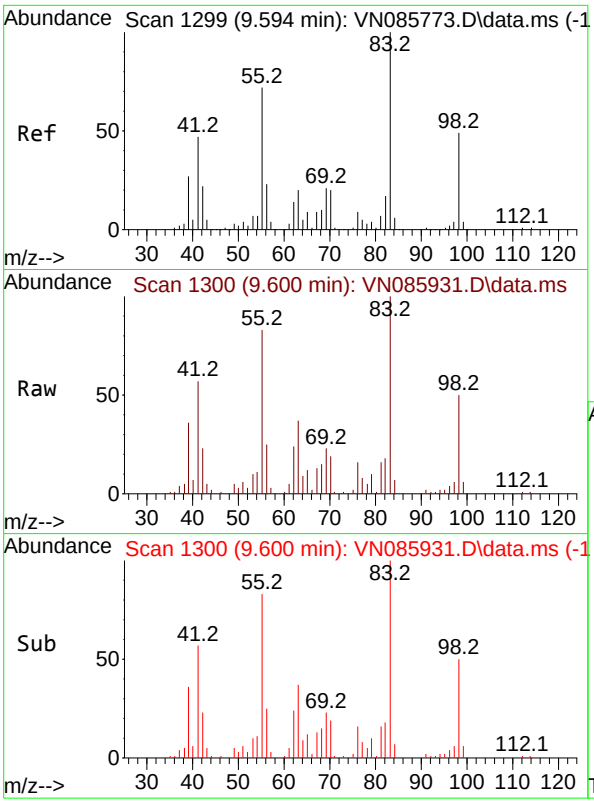


#38
Carbon Tetrachloride
Concen: 19.749 ug/l
RT: 8.359 min Scan# 1089
Delta R.T. 0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion:117 Resp: 61348

Ion	Ratio	Lower	Upper
117	100		
119	99.0	73.8	110.6
121	33.3	24.3	36.5

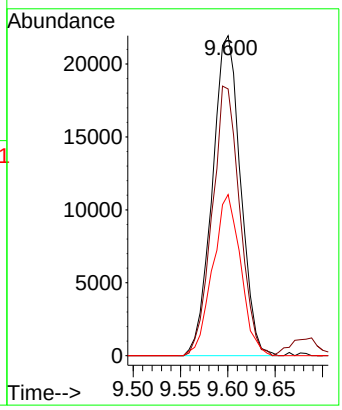




#39
Methylcyclohexane
Concen: 17.697 ug/l
RT: 9.600 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 83 Resp: 4545

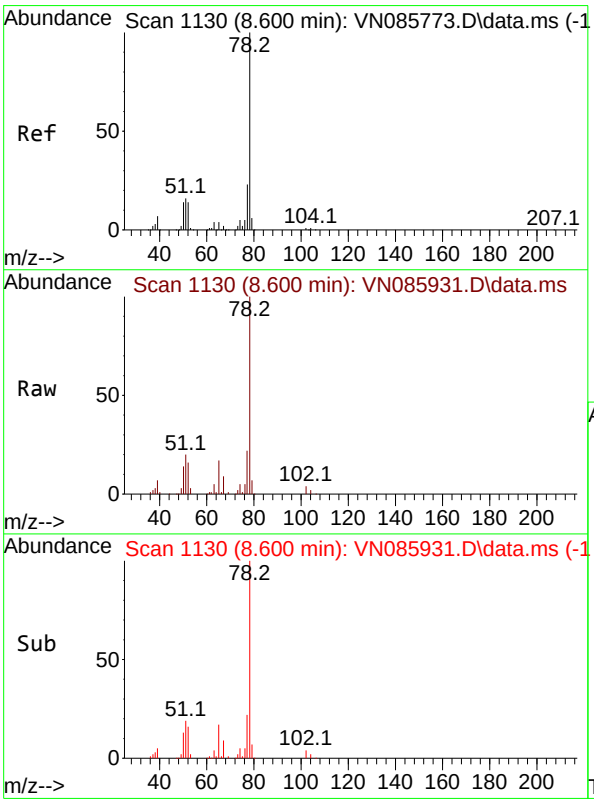
Ion	Ratio	Lower	Upper
83	100		
55	83.3	57.5	86.3
98	50.3	39.2	58.8



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

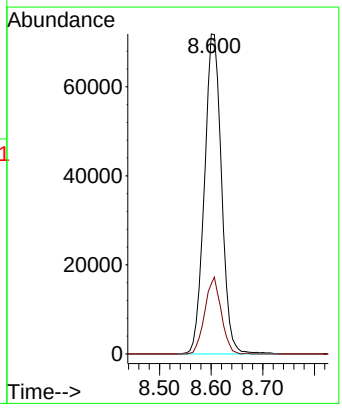
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

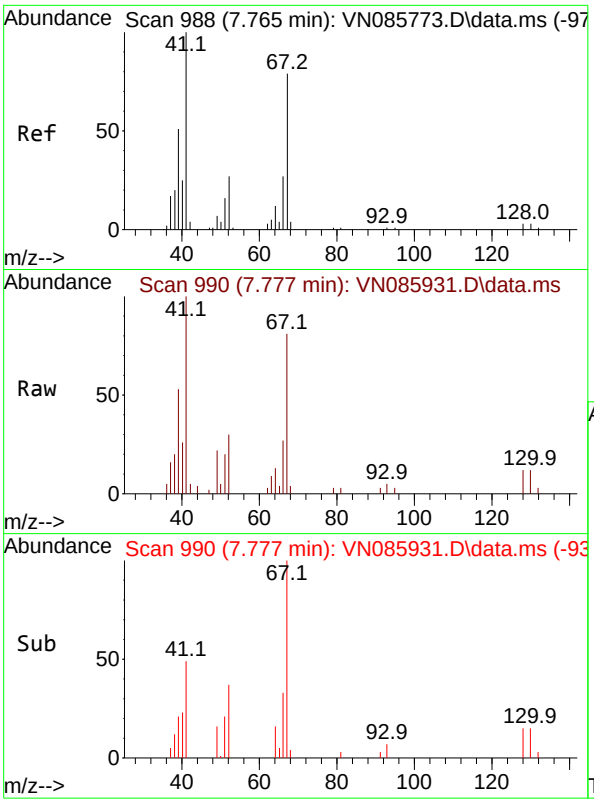


#40
Benzene
Concen: 19.709 ug/l
RT: 8.600 min Scan# 1130
Delta R.T. 0.000 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 78 Resp: 165147

Ion	Ratio	Lower	Upper
78	100		
77	21.9	18.3	27.5

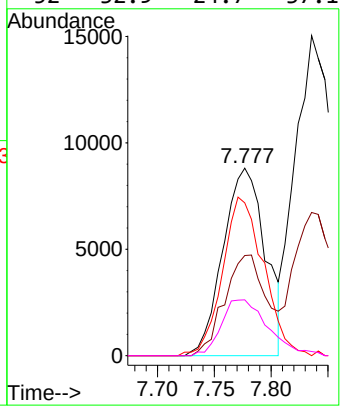




#41
Methacrylonitrile
Concen: 19.893 ug/l
RT: 7.777 min Scan# 9
Delta R.T. 0.012 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 41 Resp: 2288

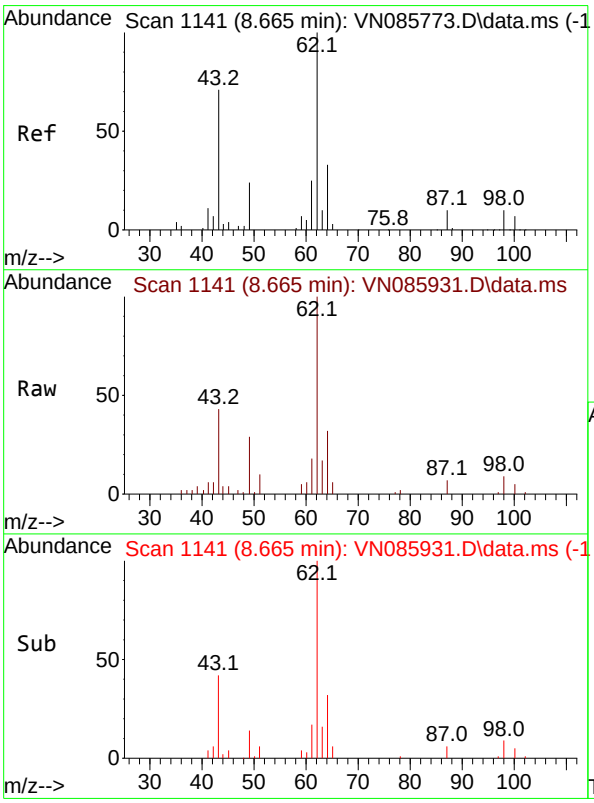
Ion	Ratio	Lower	Upper
41	100		
39	52.9	42.0	63.0
67	81.8	64.2	96.4
52	32.9	24.7	37.1



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

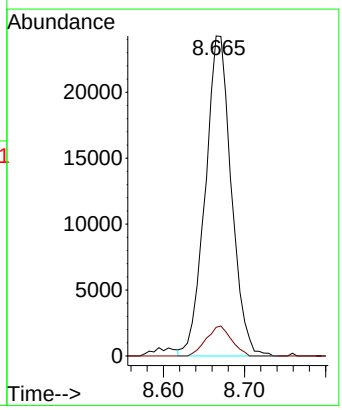
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

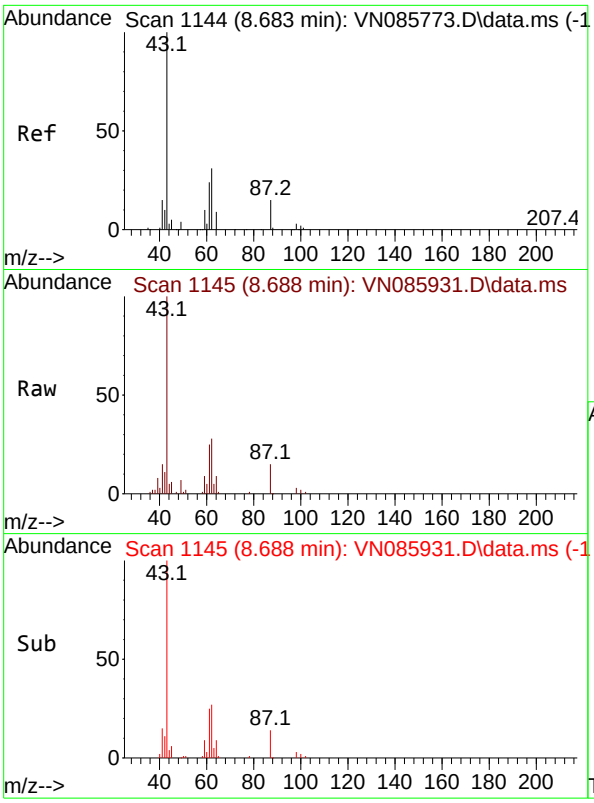


#42
1,2-Dichloroethane
Concen: 19.814 ug/l
RT: 8.665 min Scan# 1141
Delta R.T. 0.000 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 62 Resp: 54080

Ion	Ratio	Lower	Upper
62	100		
98	9.0	0.0	19.6





#43
Isopropyl Acetate
Concen: 18.830 ug/l
RT: 8.688 min Scan# 1
Delta R.T. 0.005 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

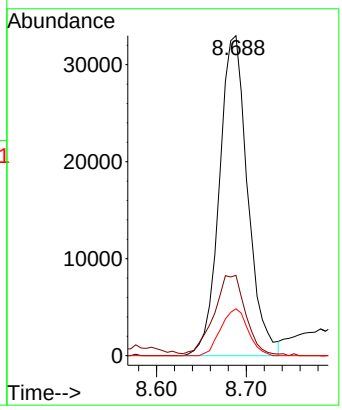
Tgt Ion: 43 Resp: 7238

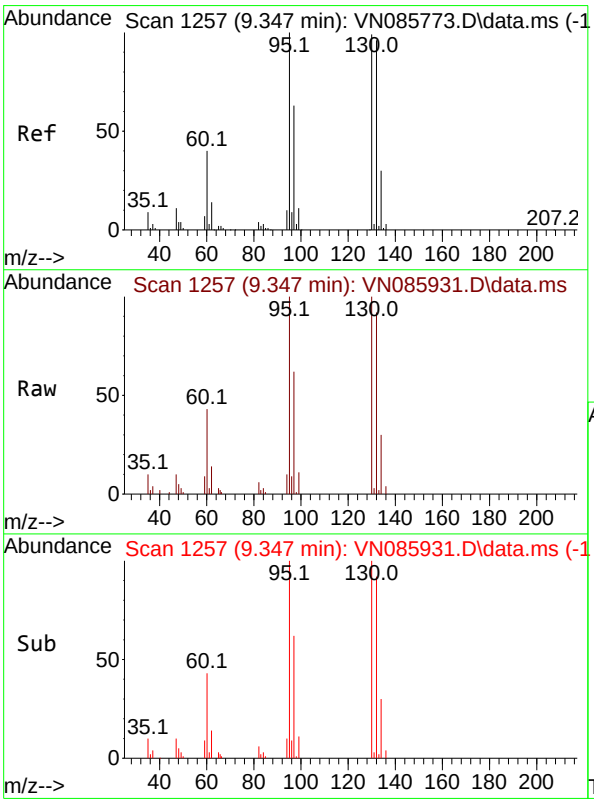
Ion	Ratio	Lower	Upper
43	100		
61	28.5	22.6	34.0
87	14.1	11.8	17.8

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

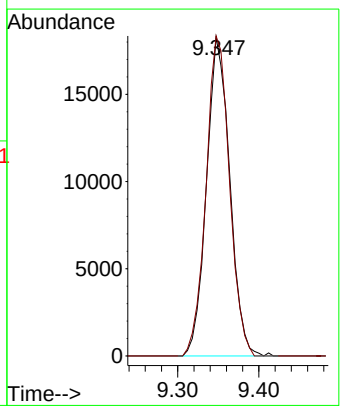


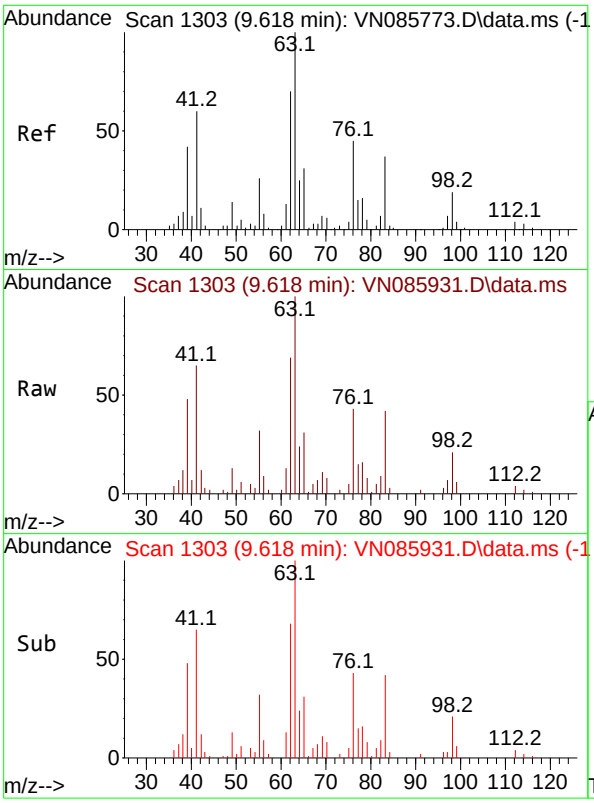


#44
Trichloroethene
Concen: 17.671 ug/l
RT: 9.347 min Scan# 1257
Delta R.T. 0.000 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion:130 Resp: 36357

Ion	Ratio	Lower	Upper
130	100		
95	100.4	0.0	202.6

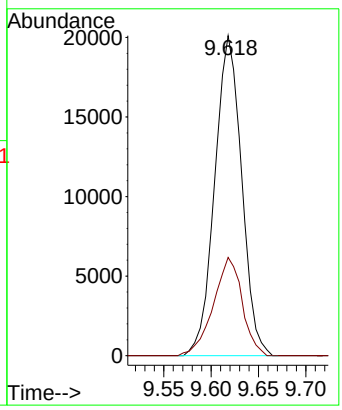




#45
1,2-Dichloropropane
Concen: 19.649 ug/l
RT: 9.618 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 63 Resp: 3974

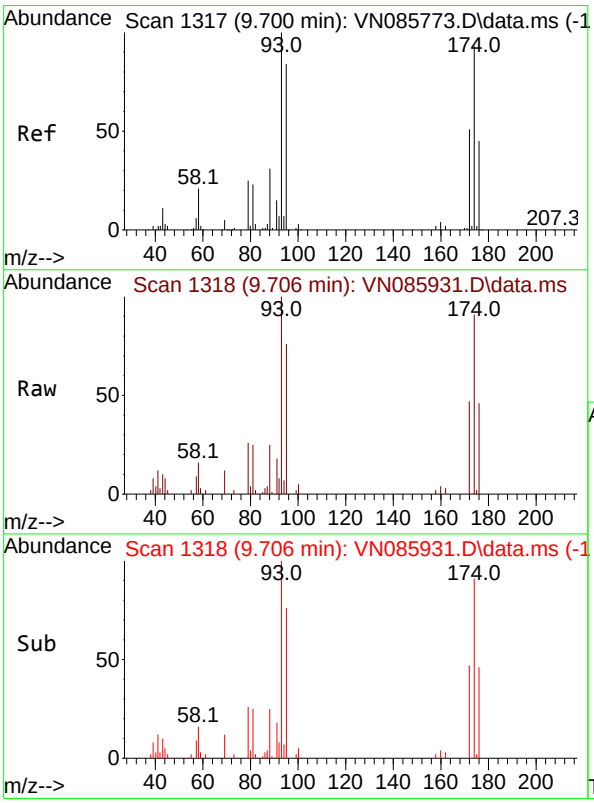
Ion	Ratio	Lower	Upper
63	100		
65	30.7	25.1	37.7



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

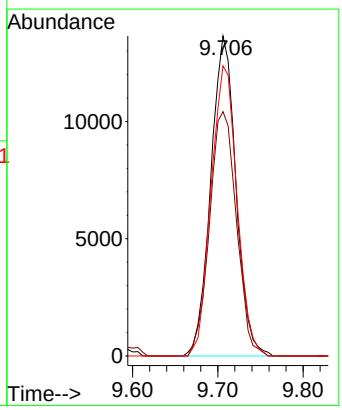
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

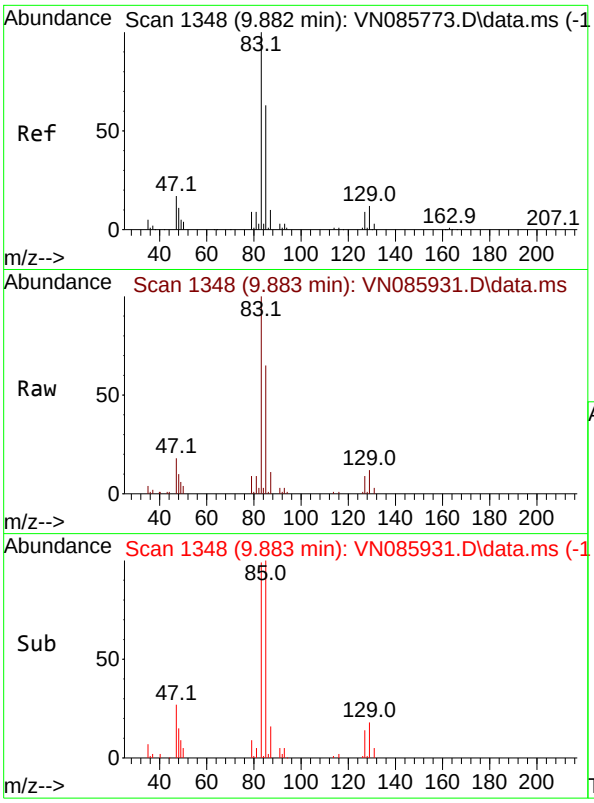


#46
Dibromomethane
Concen: 19.635 ug/l
RT: 9.706 min Scan# 1318
Delta R.T. 0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 93 Resp: 28013

Ion	Ratio	Lower	Upper
93	100		
95	81.3	66.7	100.1
174	93.3	77.2	115.8

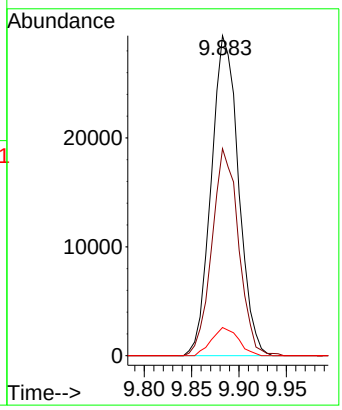




#47
Bromodichloromethane
Concen: 19.278 ug/l
RT: 9.883 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 83 Resp: 5884

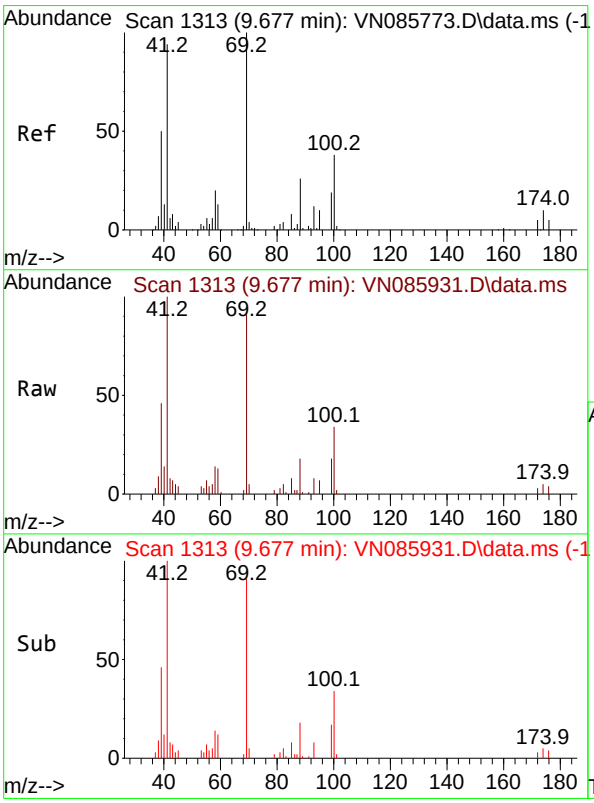
Ion	Ratio	Lower	Upper
83	100		
85	64.7	50.5	75.7
127	8.8	7.2	10.8



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

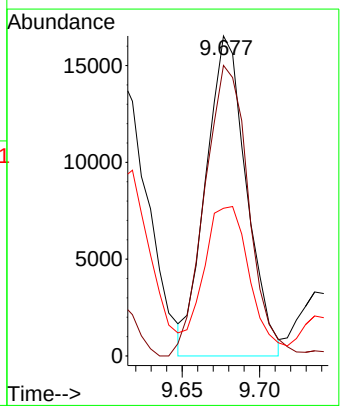
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

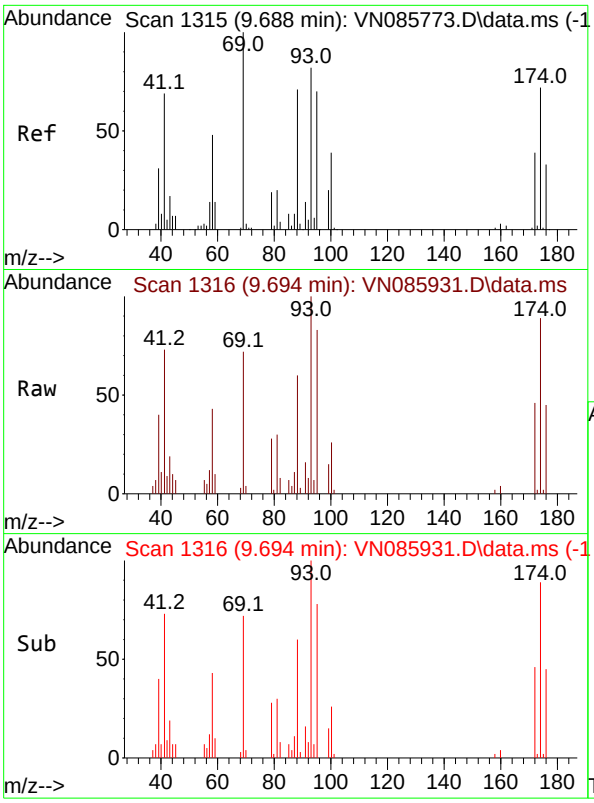


#48
Methyl methacrylate
Concen: 18.870 ug/l
RT: 9.677 min Scan# 1313
Delta R.T. 0.000 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 41 Resp: 30151

Ion	Ratio	Lower	Upper
41	100		
69	97.9	76.0	114.0
39	53.7	42.3	63.5

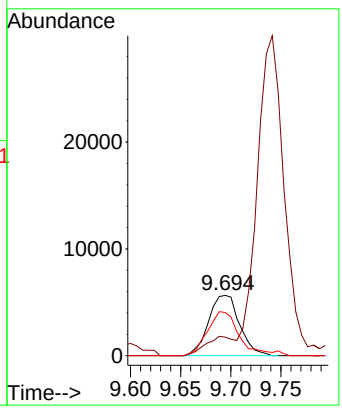




#49
1,4-Dioxane
Concen: 400.527 ug/l
RT: 9.694 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 88 Resp: 1217

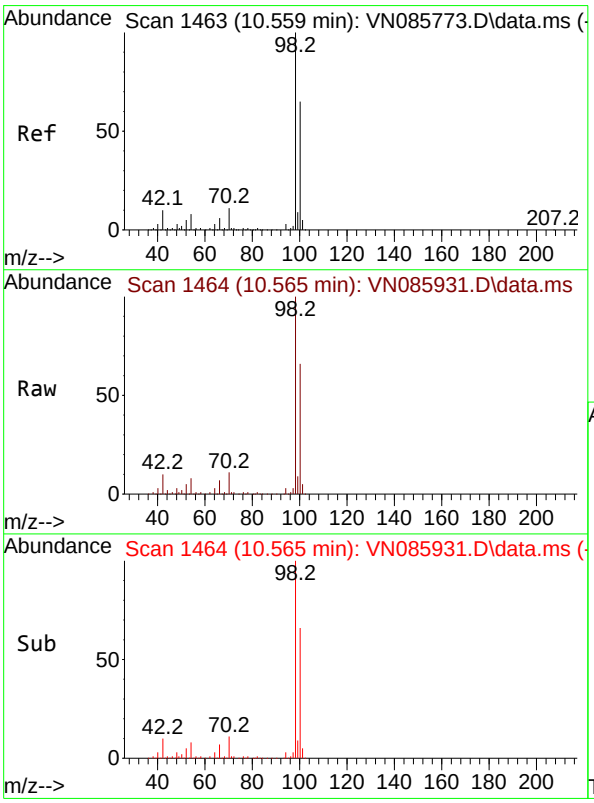
Ion	Ratio	Lower	Upper
88	100		
43	30.4	18.6	27.8
58	75.7	56.7	85.1



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

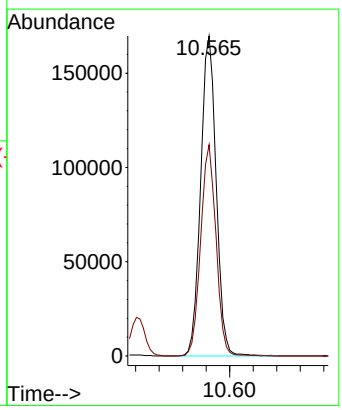
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

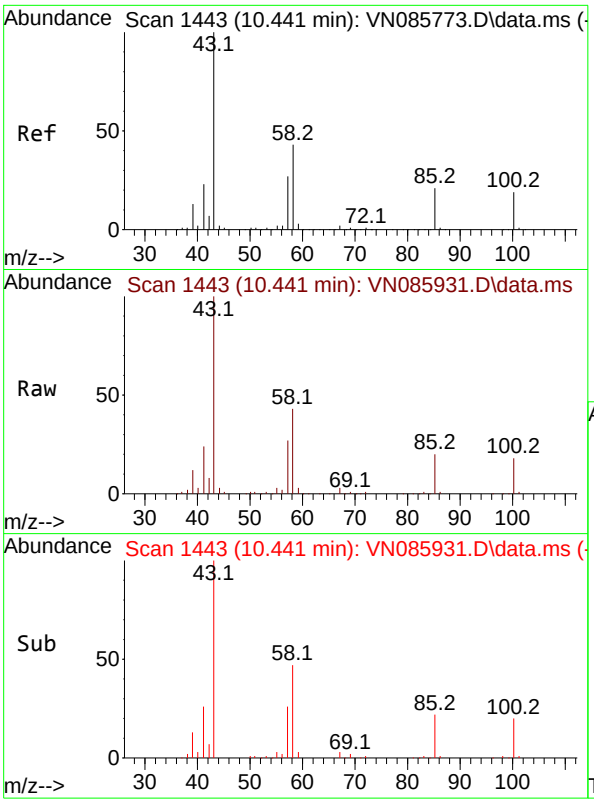


#50
Toluene-d8
Concen: 46.315 ug/l
RT: 10.565 min Scan# 1464
Delta R.T. 0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 98 Resp: 311283

Ion	Ratio	Lower	Upper
98	100		
100	65.4	52.1	78.1

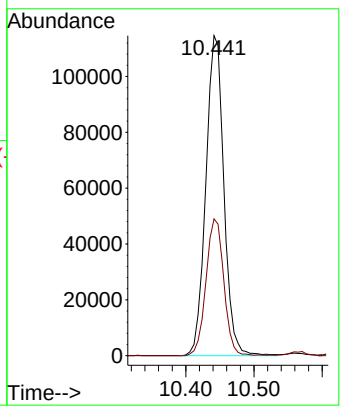




#51
4-Methyl-2-Pentanone
Concen: 101.867 ug/l
RT: 10.441 min Scan# 14
Delta R.T. 0.000 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 43 Resp: 21130

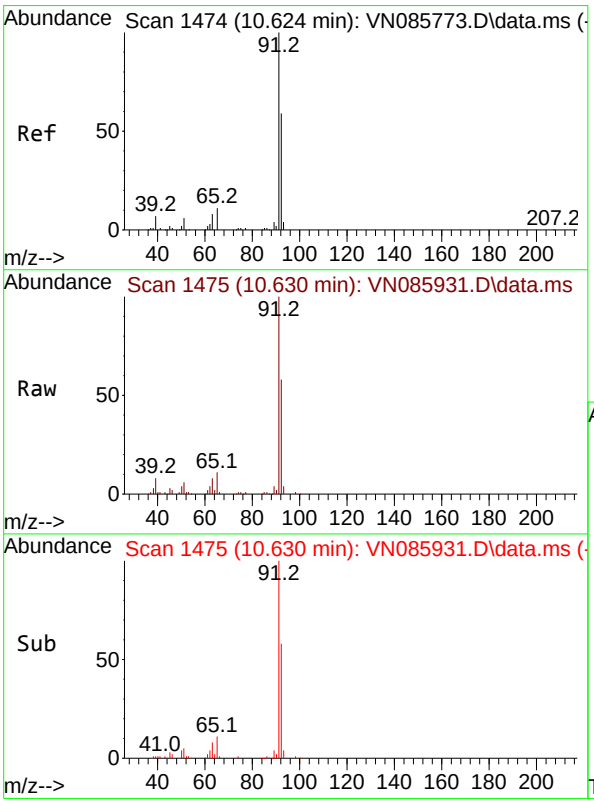
Ion	Ratio	Lower	Upper
43	100		
58	42.2	34.6	52.0



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

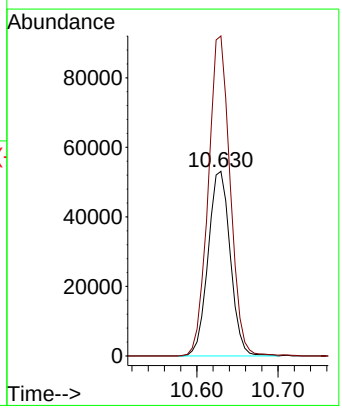
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

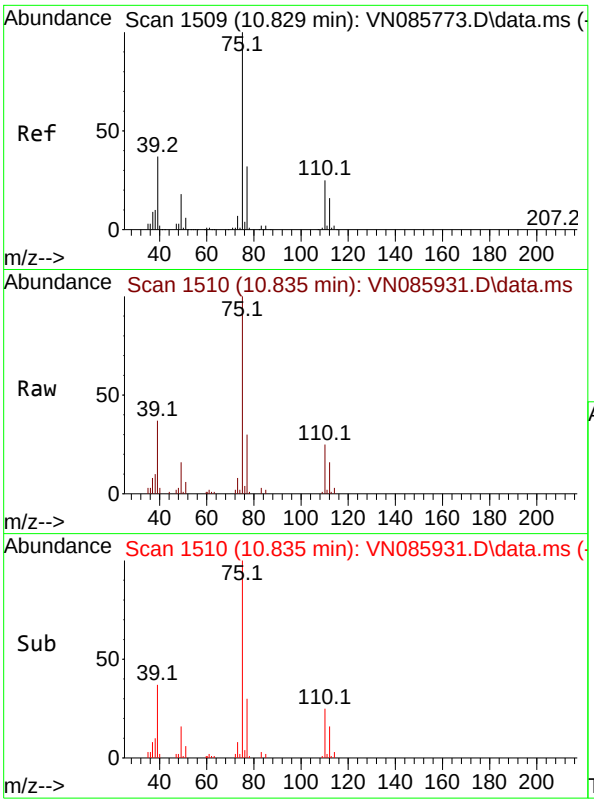


#52
Toluene
Concen: 20.483 ug/l
RT: 10.630 min Scan# 1475
Delta R.T. 0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 92 Resp: 100609

Ion	Ratio	Lower	Upper
92	100		
91	171.2	136.9	205.3

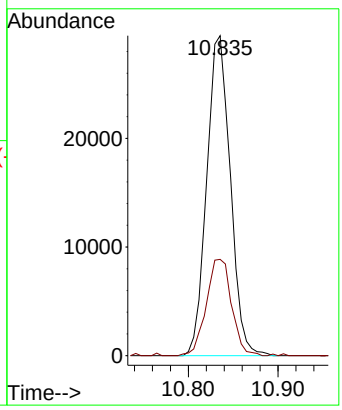




#53
t-1,3-Dichloropropene
Concen: 19.065 ug/l
RT: 10.835 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 75 Resp: 5381

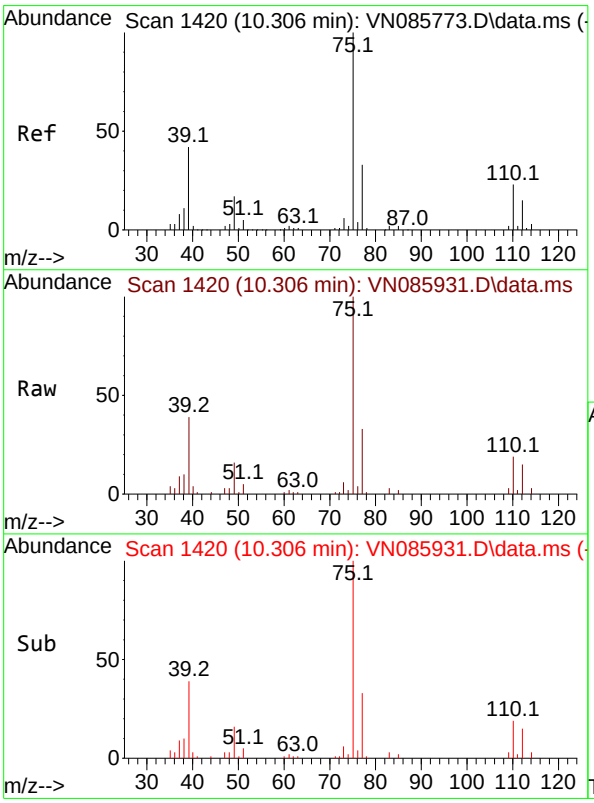
Ion	Ratio	Lower	Upper
75	100		
77	30.1	25.4	38.0



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

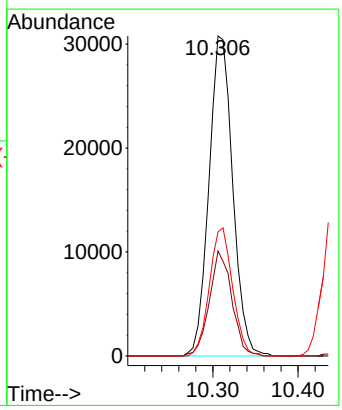
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

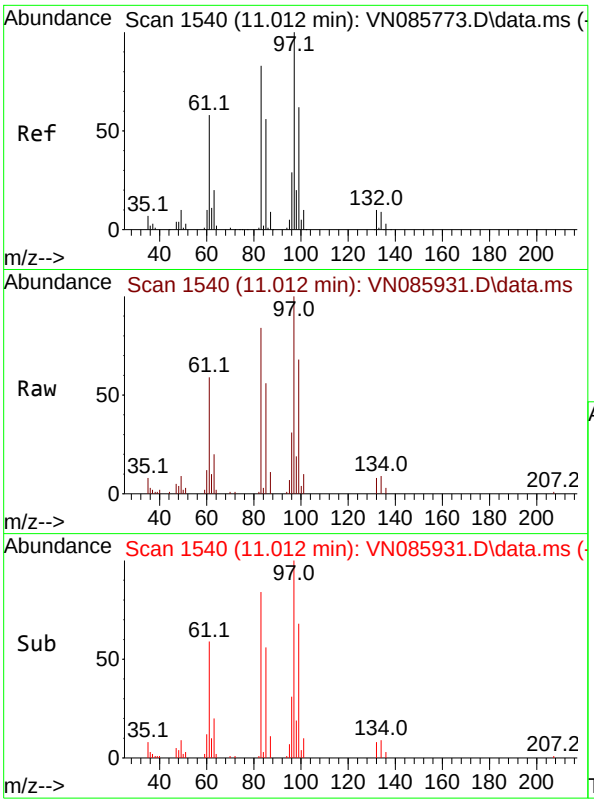


#54
cis-1,3-Dichloropropene
Concen: 19.264 ug/l
RT: 10.306 min Scan# 1420
Delta R.T. 0.000 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 75 Resp: 59621

Ion	Ratio	Lower	Upper
75	100		
77	32.8	26.1	39.1
39	38.8	33.4	50.0

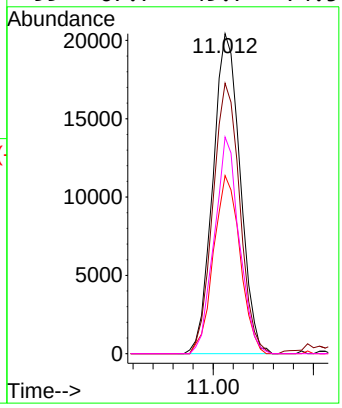




#55
1,1,2-Trichloroethane
Concen: 19.705 ug/l
RT: 11.012 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 97 Resp: 3848

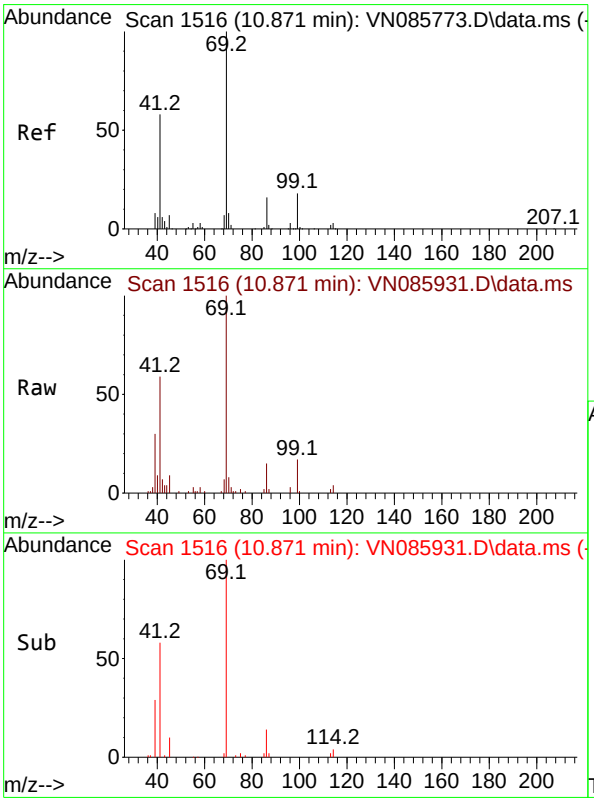
Ion	Ratio	Lower	Upper
97	100		
83	84.5	66.1	99.1
85	55.6	44.7	67.1
99	67.7	49.7	74.5



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

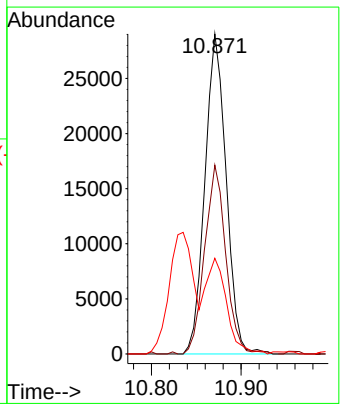
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

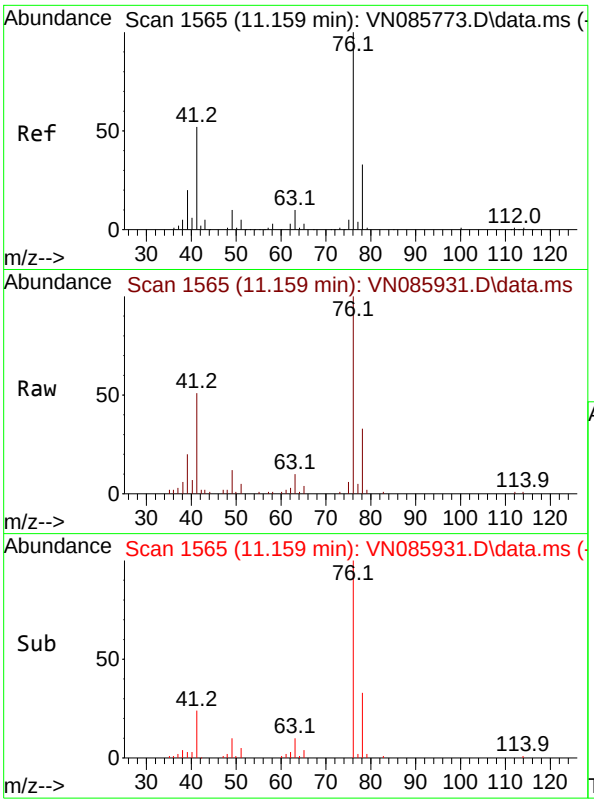


#56
Ethyl methacrylate
Concen: 18.623 ug/l
RT: 10.871 min Scan# 1516
Delta R.T. -0.000 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 69 Resp: 47794

Ion	Ratio	Lower	Upper
69	100		
41	58.9	46.0	69.0
39	29.9	22.0	33.0

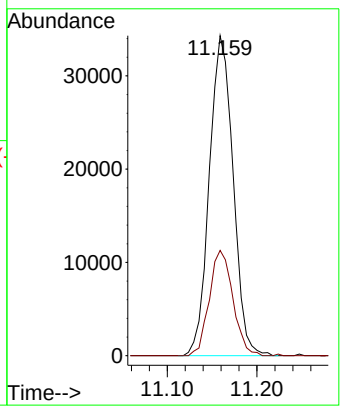




#57
1,3-Dichloropropane
Concen: 19.352 ug/l
RT: 11.159 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 76 Resp: 6309

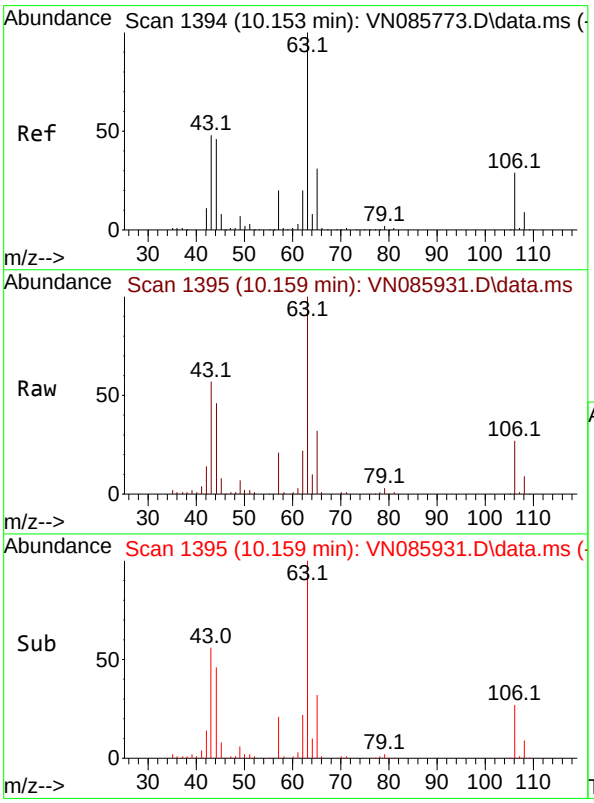
Ion	Ratio	Lower	Upper
76	100		
78	32.7	25.9	38.9



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

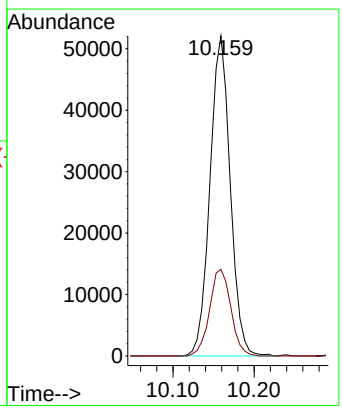
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

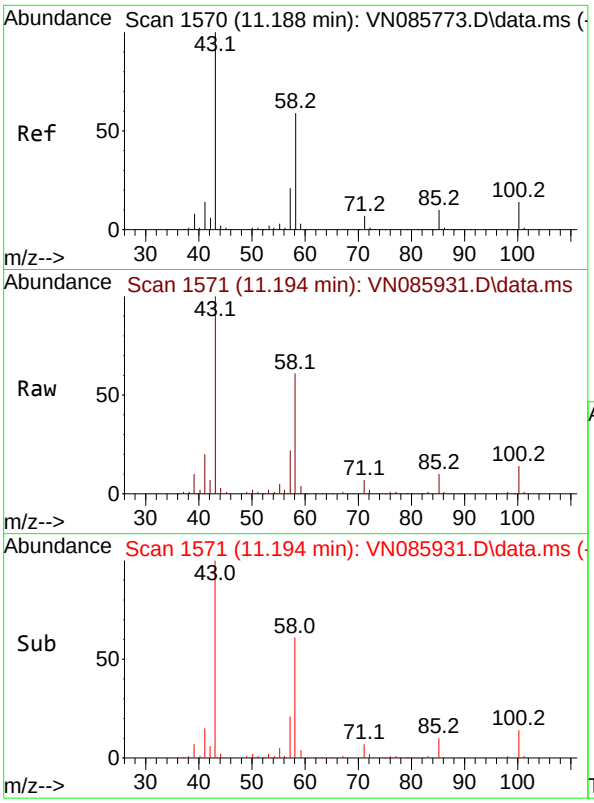


#58
2-Chloroethyl Vinyl ether
Concen: 96.936 ug/l
RT: 10.159 min Scan# 1395
Delta R.T. 0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 63 Resp: 90341

Ion	Ratio	Lower	Upper
63	100		
106	28.4	22.7	34.1





#59
2-Hexanone
Concen: 102.707 ug/l
RT: 11.194 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

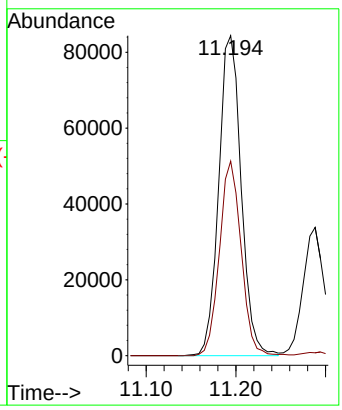
Tgt Ion: 43 Resp: 14656

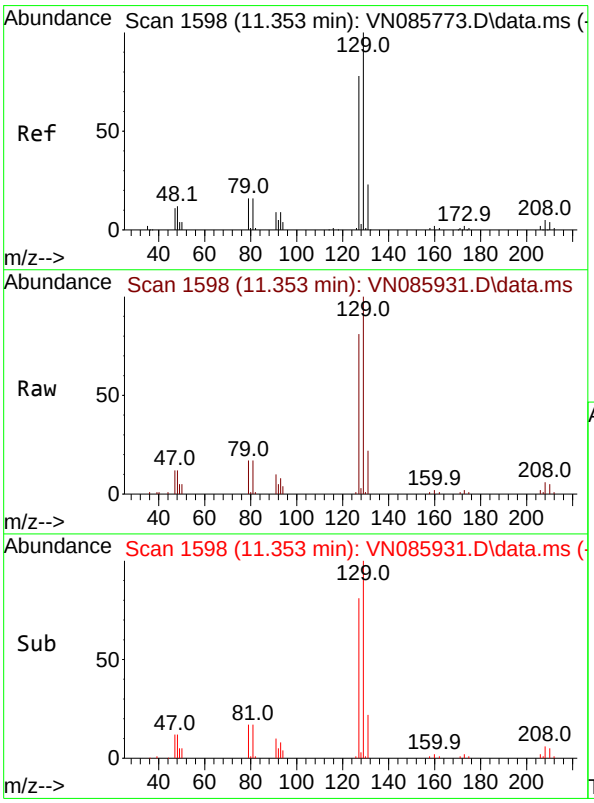
Ion	Ratio	Lower	Upper
43	100		
58	58.8	29.8	89.5

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

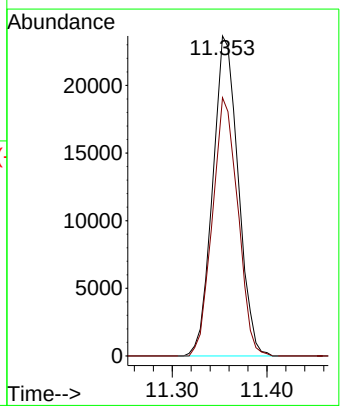


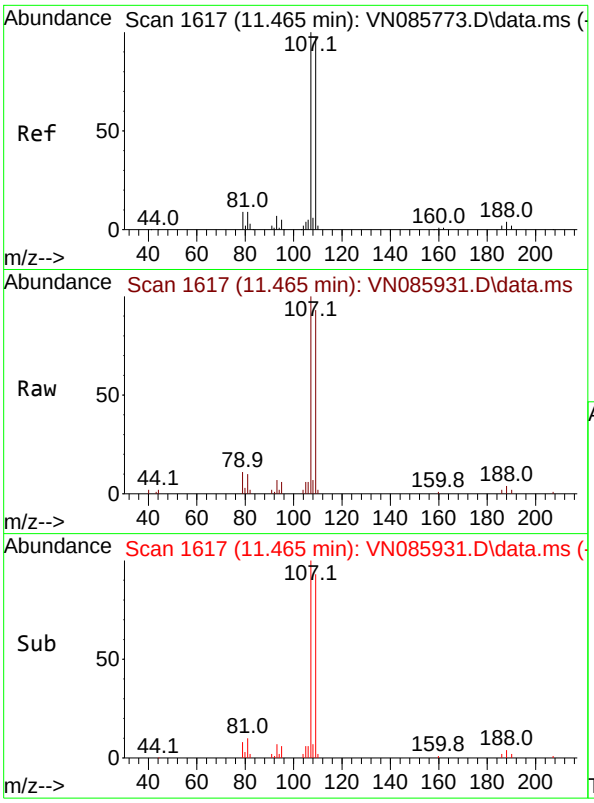


#60
Dibromochloromethane
Concen: 19.471 ug/l
RT: 11.353 min Scan# 1598
Delta R.T. 0.000 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion:129 Resp: 44279

Ion	Ratio	Lower	Upper
129	100		
127	80.3	39.1	117.5





#61
1,2-Dibromoethane
Concen: 19.371 ug/l
RT: 11.465 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

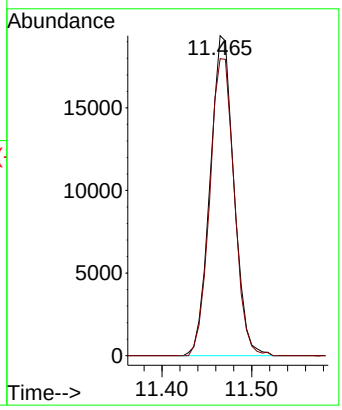
Tgt Ion:107 Resp: 3574

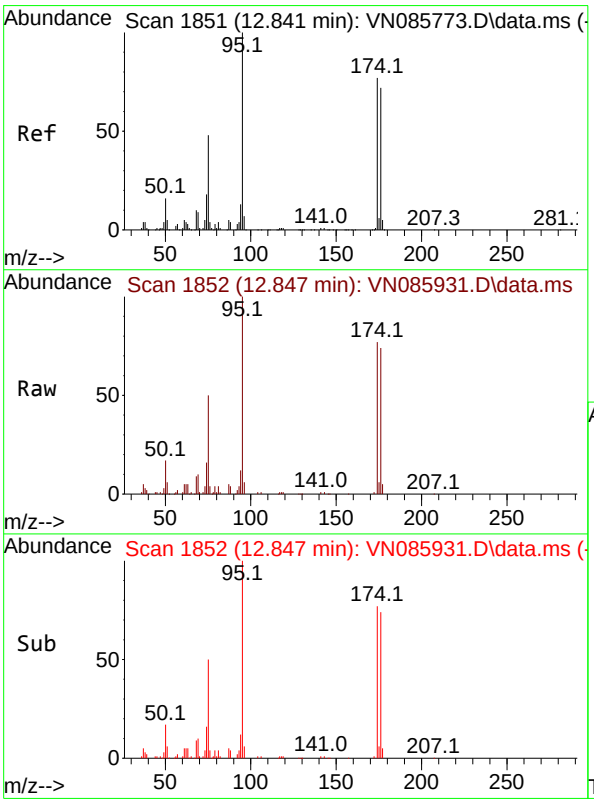
Ion	Ratio	Lower	Upper
107	100		
109	95.1	76.0	114.0

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

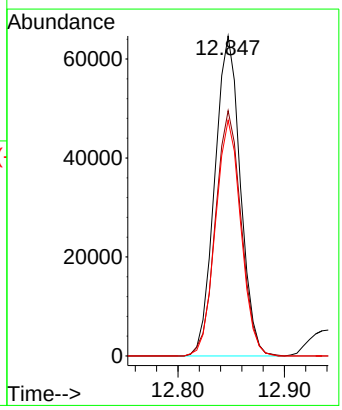


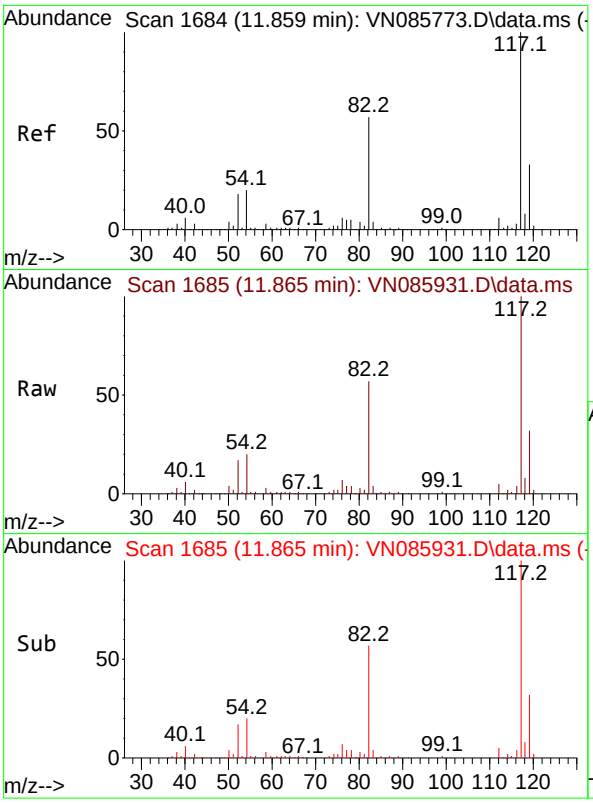


#62
4-Bromofluorobenzene
Concen: 48.665 ug/l
RT: 12.847 min Scan# 1852
Delta R.T. 0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 95 Resp: 107765

Ion	Ratio	Lower	Upper
95	100		
174	77.0	0.0	152.4
176	73.3	0.0	146.6

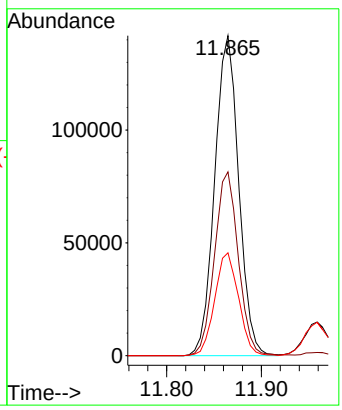




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.865 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion:117 Resp: 25024

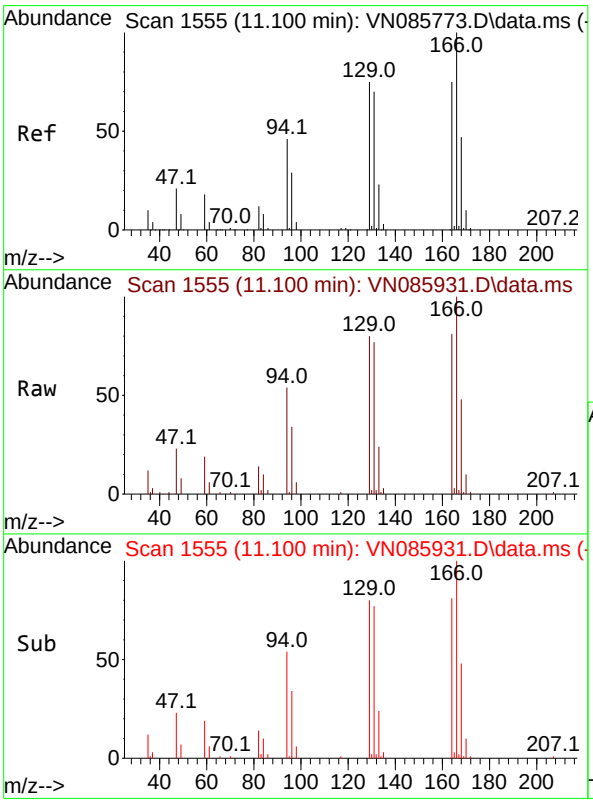
Ion	Ratio	Lower	Upper
117	100		
82	57.5	45.7	68.5
119	32.2	26.2	39.2



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

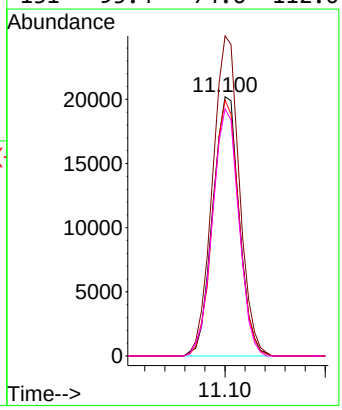
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

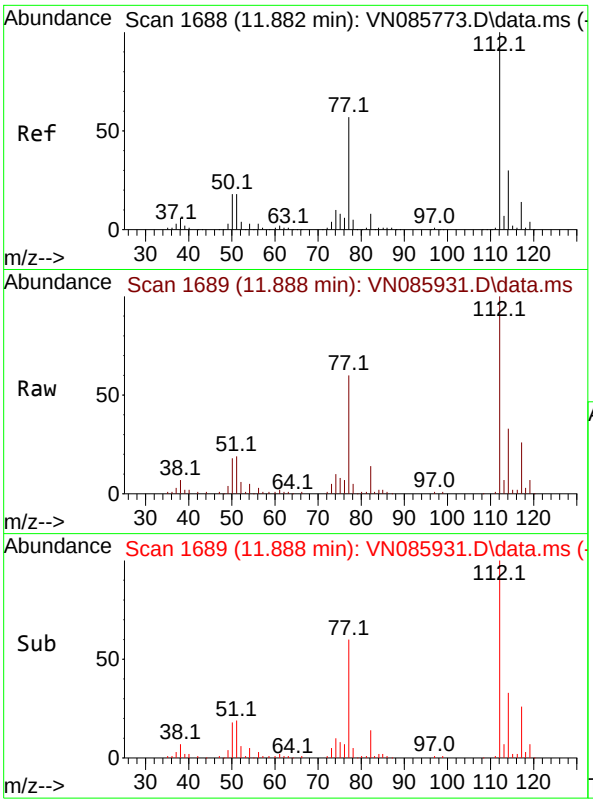


#64
Tetrachloroethene
Concen: 19.074 ug/l
RT: 11.100 min Scan# 1555
Delta R.T. 0.000 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion:164 Resp: 36978

Ion	Ratio	Lower	Upper
164	100		
166	123.5	107.2	160.8
129	98.7	80.7	121.1
131	95.4	74.6	112.0

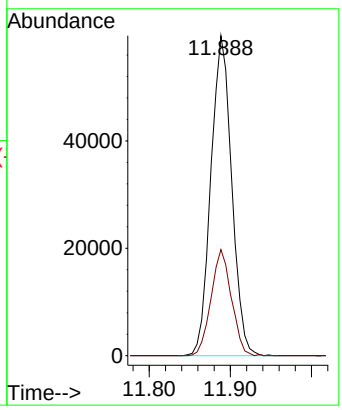




#65
Chlorobenzene
Concen: 18.513 ug/l
RT: 11.888 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion:112 Resp: 10613

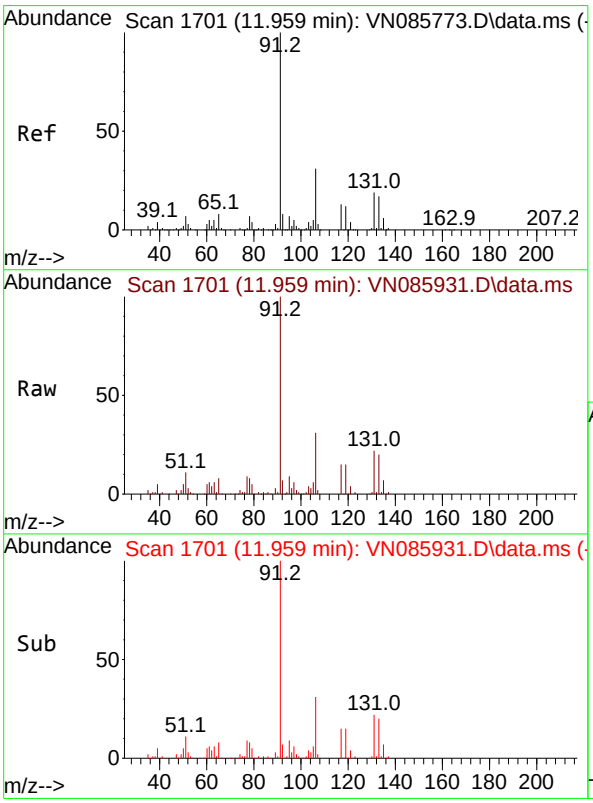
Ion	Ratio	Lower	Upper
112	100		
114	33.2	24.3	36.5



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

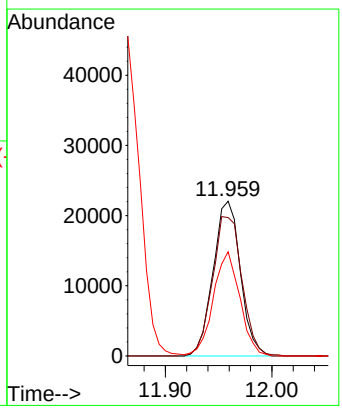
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

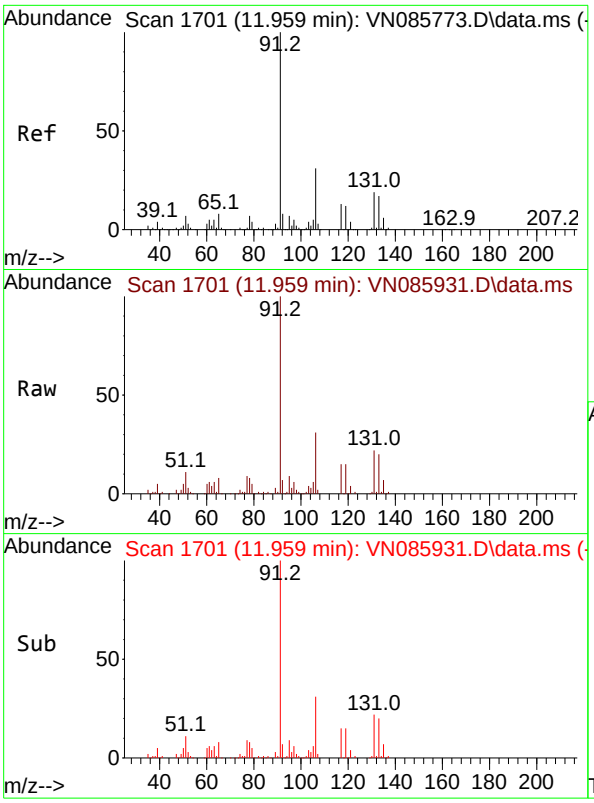


#66
1,1,1,2-Tetrachloroethane
Concen: 19.022 ug/l
RT: 11.959 min Scan# 1701
Delta R.T. -0.000 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion:131 Resp: 39196

Ion	Ratio	Lower	Upper
131	100		
133	97.4	47.7	143.1
119	65.6	33.3	99.8

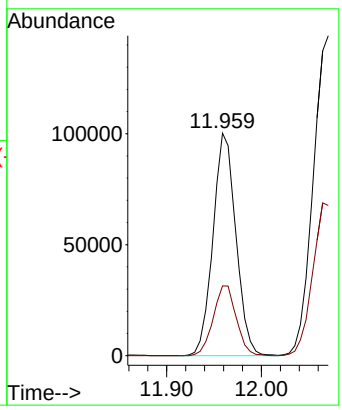




#67
Ethyl Benzene
Concen: 18.771 ug/l
RT: 11.959 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 91 Resp: 16856

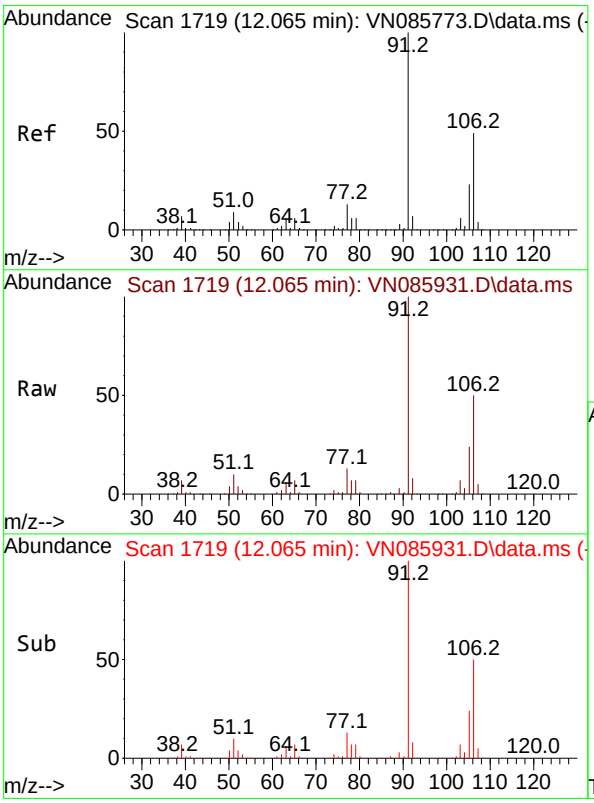
Ion	Ratio	Lower	Upper
91	100		
106	31.4	24.7	37.1



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

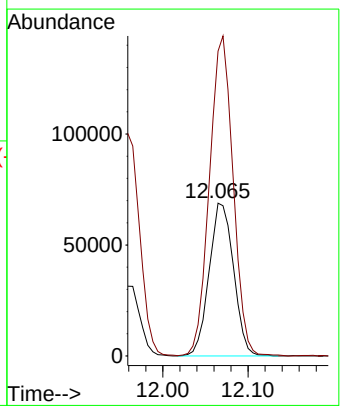
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

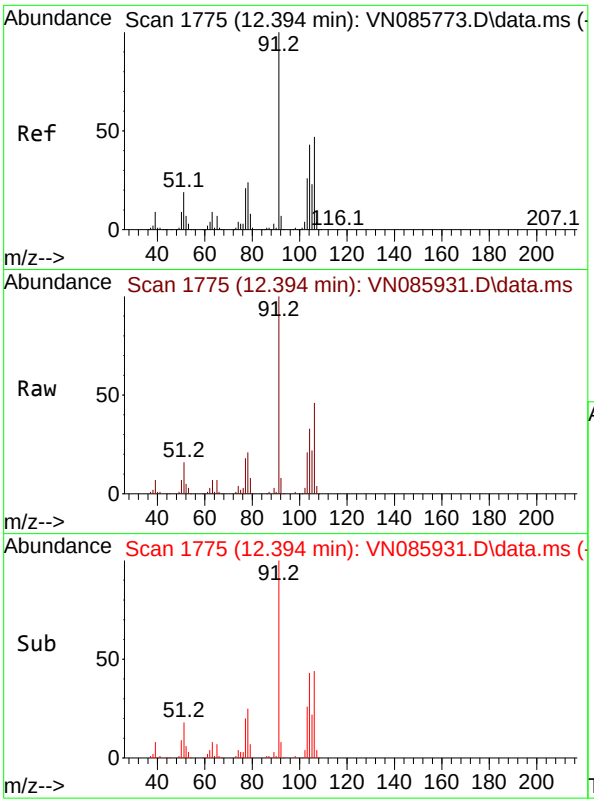


#68
m/p-Xylenes
Concen: 40.303 ug/l
RT: 12.065 min Scan# 1719
Delta R.T. -0.000 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion:106 Resp: 137476

Ion	Ratio	Lower	Upper
106	100		
91	202.7	163.3	244.9

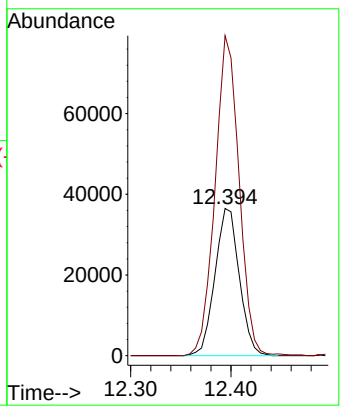




#69
o-Xylene
Concen: 18.978 ug/l
RT: 12.394 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion:106 Resp: 6151

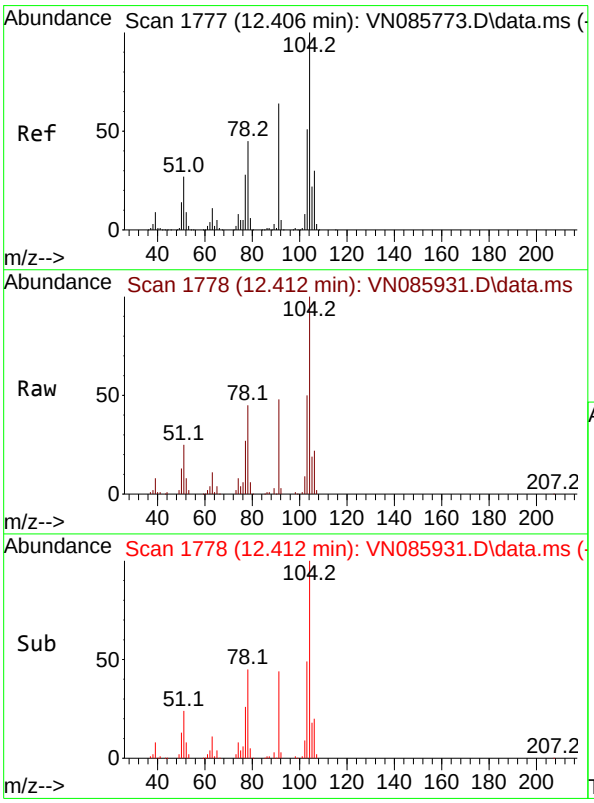
Ion	Ratio	Lower	Upper
106	100		
91	214.8	107.1	321.4



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

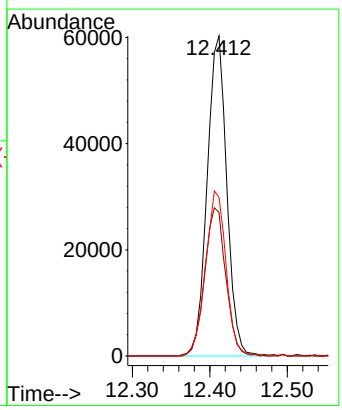
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

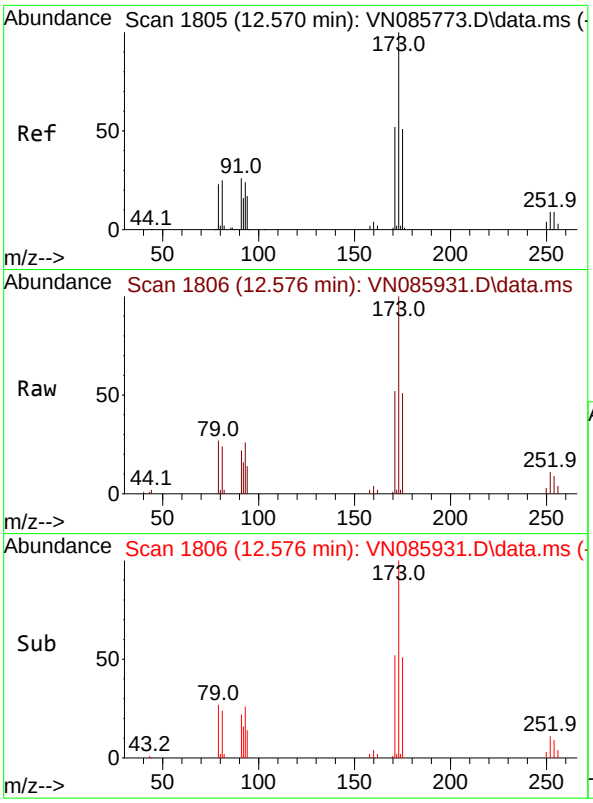


#70
Styrene
Concen: 19.044 ug/l
RT: 12.412 min Scan# 1778
Delta R.T. 0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion:104 Resp: 106050

Ion	Ratio	Lower	Upper
104	100		
78	50.2	39.0	58.6
103	54.0	43.3	64.9





#71
Bromoform
Concen: 19.493 ug/l
RT: 12.576 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

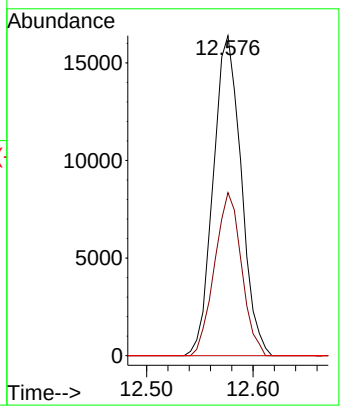
Tgt Ion:173 Resp: 2984

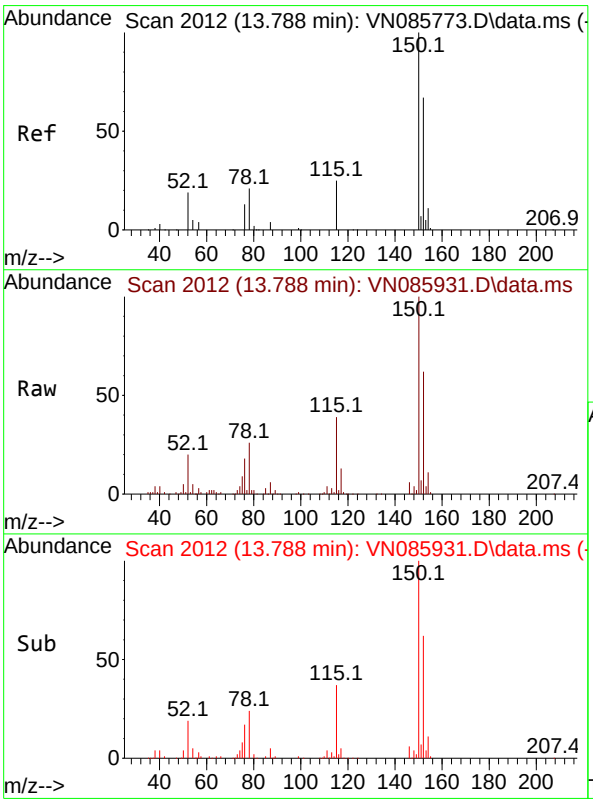
Ion	Ratio	Lower	Upper
173	100		
175	49.2	25.1	75.4
254	0.0	0.0	0.0

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

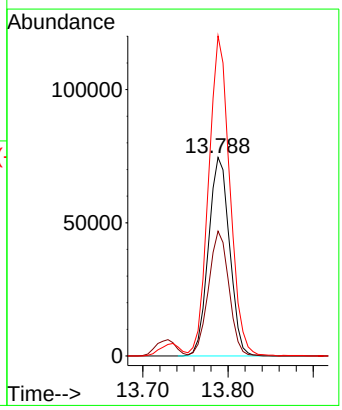


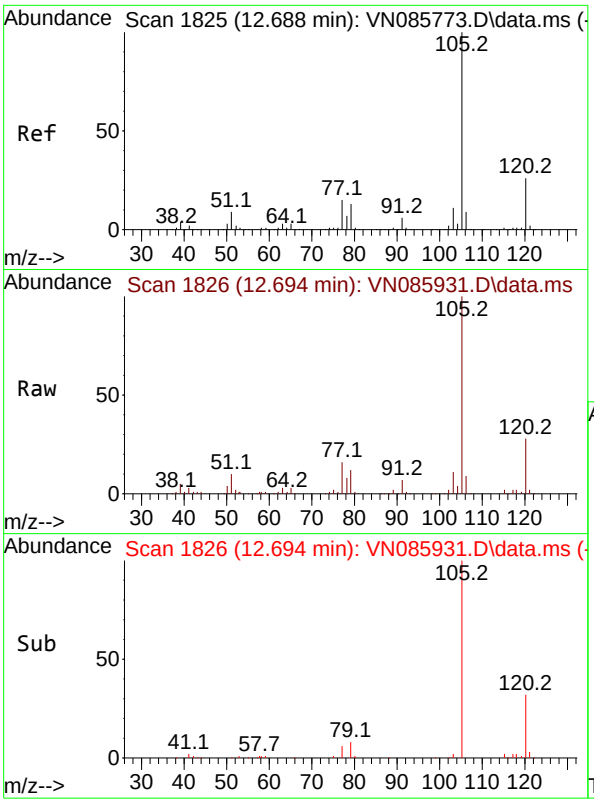


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.788 min Scan# 2012
Delta R.T. 0.000 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion:152 Resp: 128349

Ion	Ratio	Lower	Upper
152	100		
115	60.9	30.4	91.3
150	161.5	0.0	345.4





#73
Isopropylbenzene
Concen: 17.442 ug/l
RT: 12.694 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

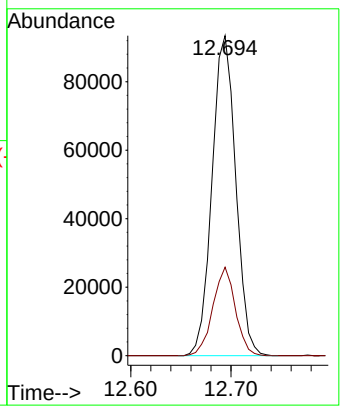
Tgt Ion:105 Resp: 15337

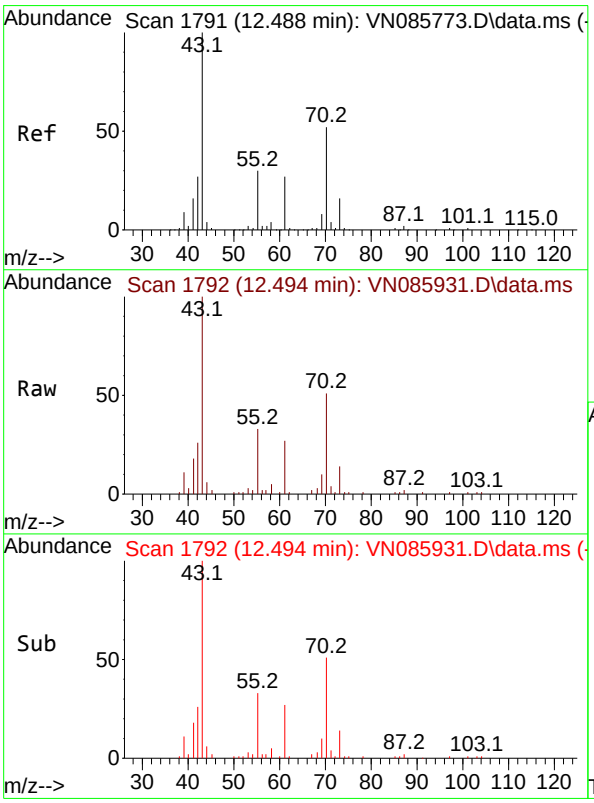
Ion	Ratio	Lower	Upper
105	100		
120	26.3	13.0	39.0

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

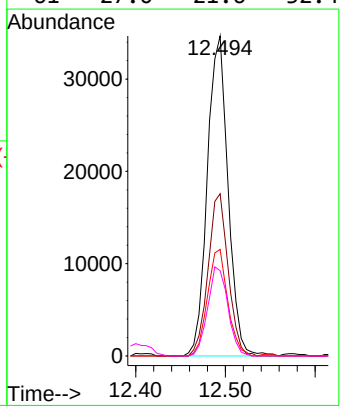


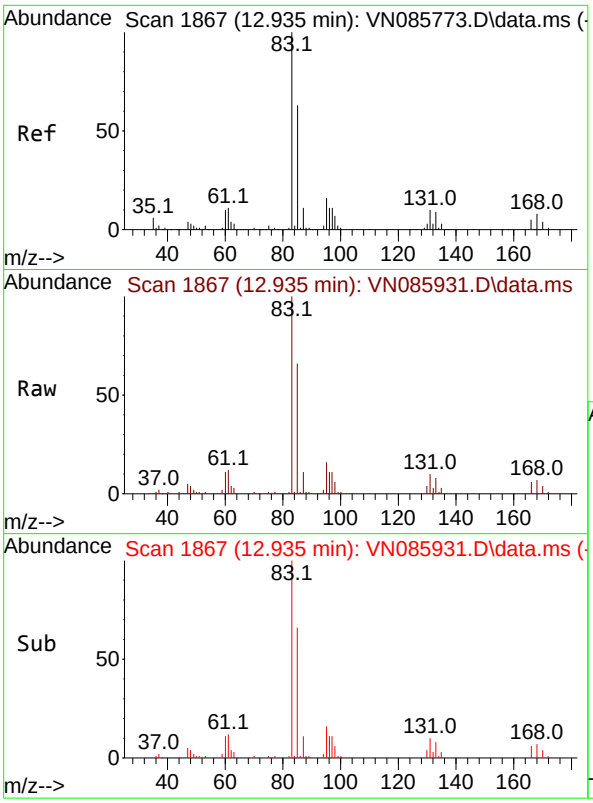


#74
N-amyl acetate
Concen: 17.953 ug/l
RT: 12.494 min Scan# 1792
Delta R.T. 0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 43 Resp: 55670

Ion	Ratio	Lower	Upper
43	100		
70	49.1	41.0	61.4
55	32.5	24.6	36.8
61	27.0	21.6	32.4

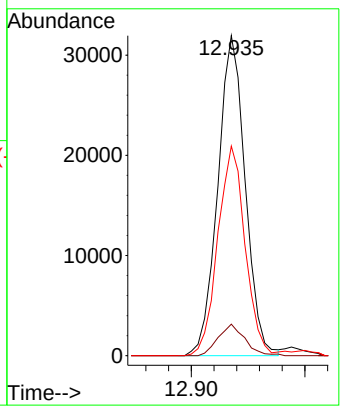




#75
1,1,2,2-Tetrachloroethane
Concen: 17.721 ug/l
RT: 12.935 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 83 Resp: 5362

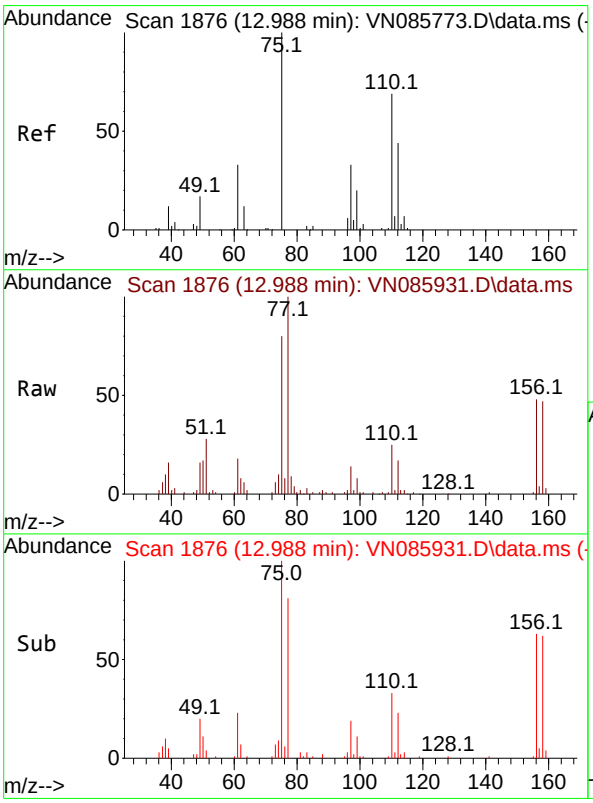
Ion	Ratio	Lower	Upper
83	100		
131	9.6	5.0	15.0
85	65.2	32.2	96.6



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

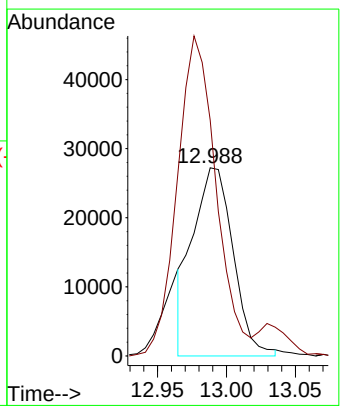
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

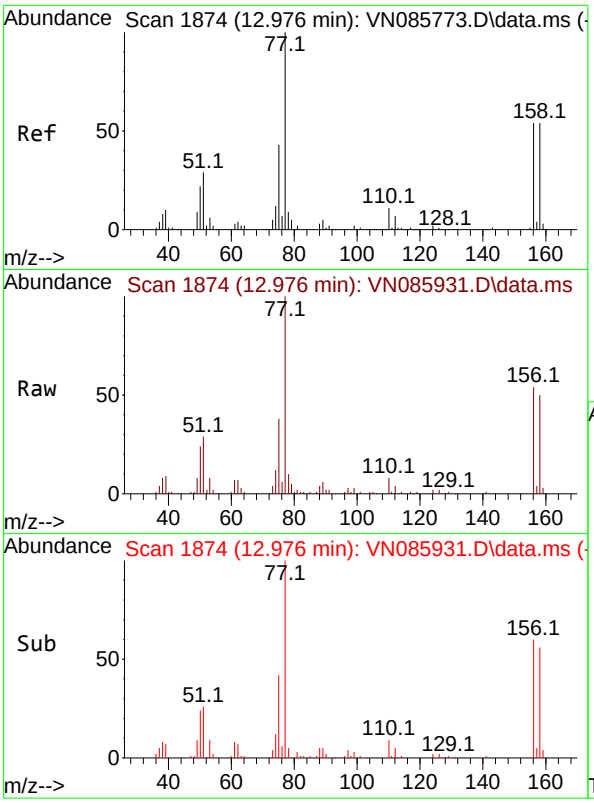


#76
1,2,3-Trichloropropane
Concen: 19.483 ug/l m
RT: 12.988 min Scan# 1876
Delta R.T. 0.000 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 75 Resp: 55548

Ion	Ratio	Lower	Upper
75	100		
77	163.1	100.0	300.0

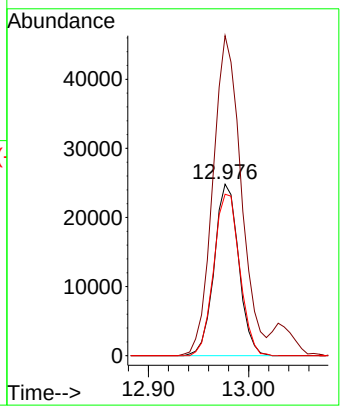




#77
Bromobenzene
Concen: 17.661 ug/l
RT: 12.976 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion:156 Resp: 4195

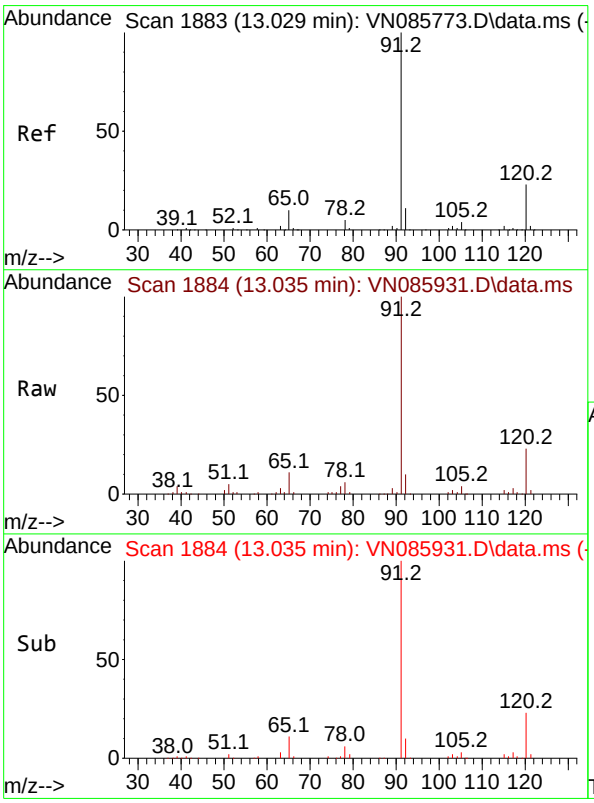
Ion	Ratio	Lower	Upper
156	100		
77	215.9	104.1	312.3
158	99.7	48.1	144.4



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

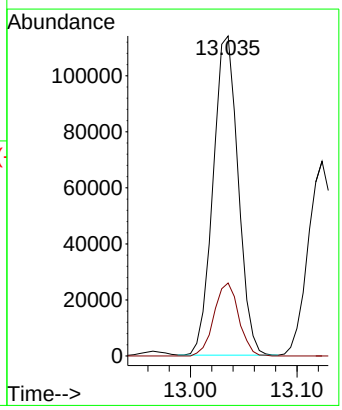
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

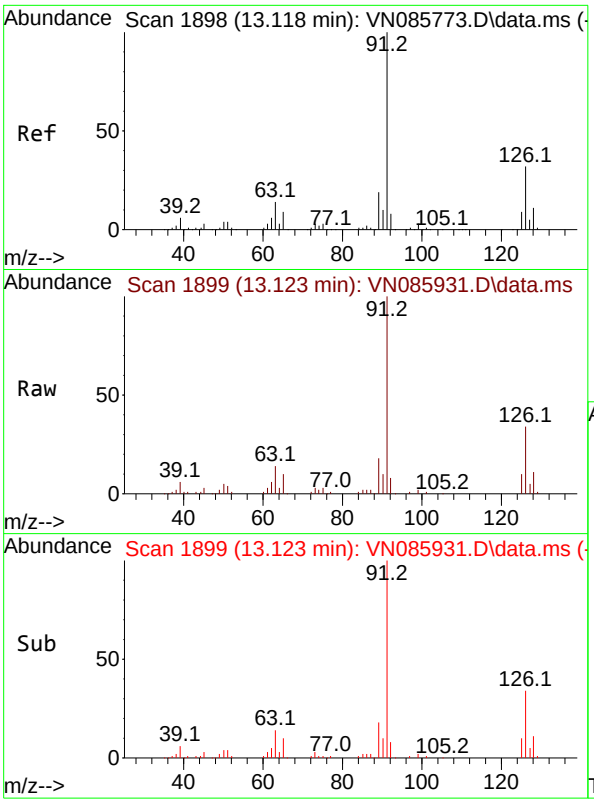


#78
n-propylbenzene
Concen: 18.455 ug/l
RT: 13.035 min Scan# 1884
Delta R.T. 0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 91 Resp: 185851

Ion	Ratio	Lower	Upper
91	100		
120	22.5	11.3	33.8

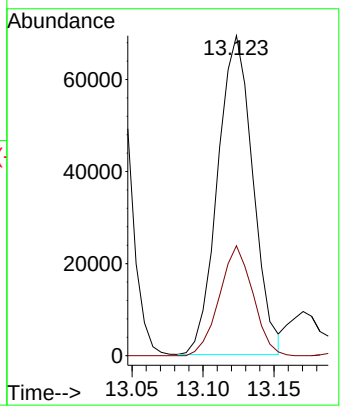




#79
2-Chlorotoluene
Concen: 17.787 ug/l
RT: 13.123 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 91 Resp: 11967

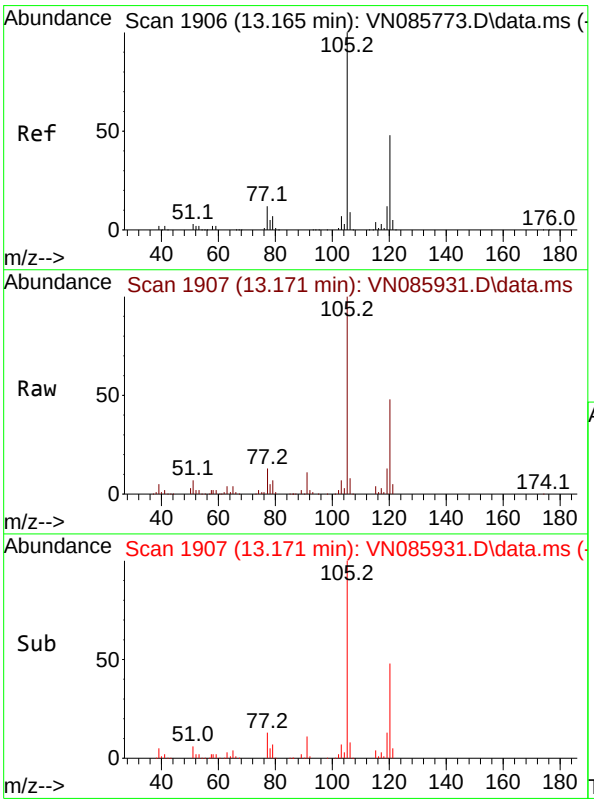
Ion	Ratio	Lower	Upper
91	100		
126	32.6	16.4	49.1



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

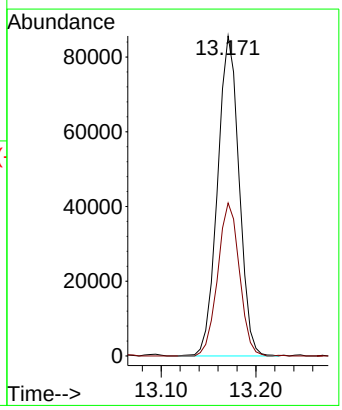
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

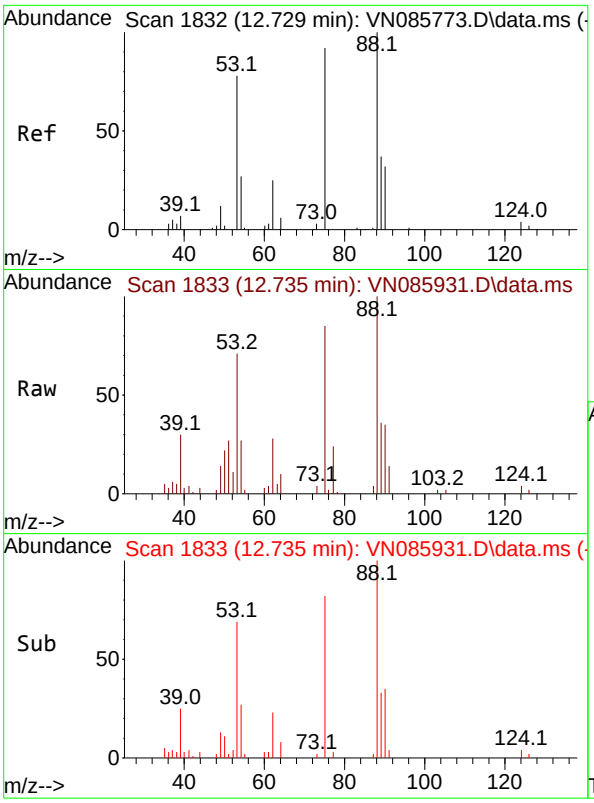


#80
1,3,5-Trimethylbenzene
Concen: 18.915 ug/l
RT: 13.171 min Scan# 1907
Delta R.T. 0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion:105 Resp: 135483

Ion	Ratio	Lower	Upper
105	100		
120	48.0	24.3	72.9





#81
trans-1,4-Dichloro-2-butene
Concen: 17.570 ug/l
RT: 12.735 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

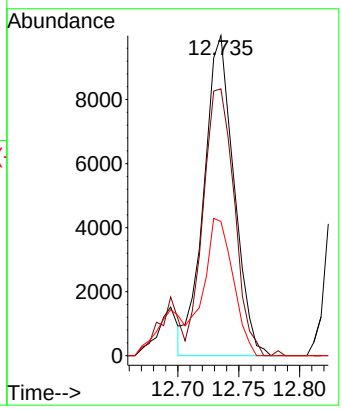
Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

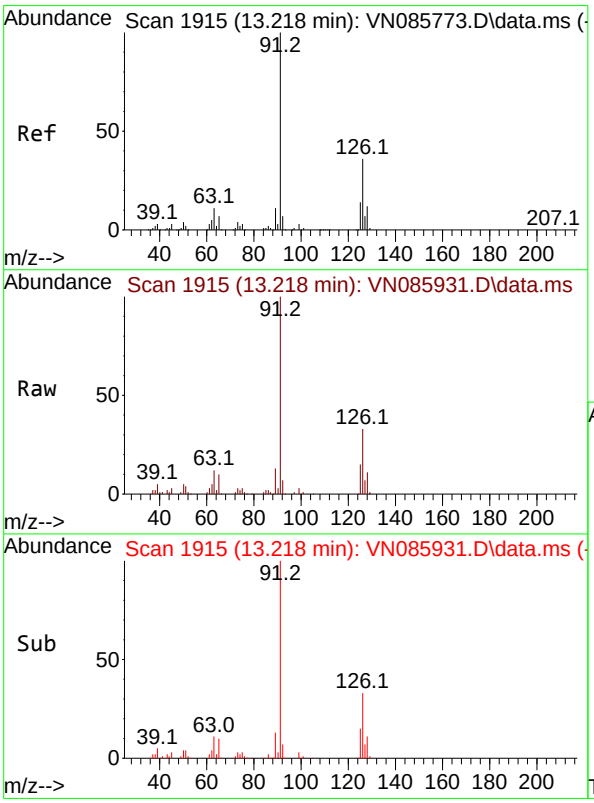
Tgt Ion: 75 Resp: 1716

Ion	Ratio	Lower	Upper
75	100		
53	85.7	74.2	111.4
89	42.1	34.9	52.3

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

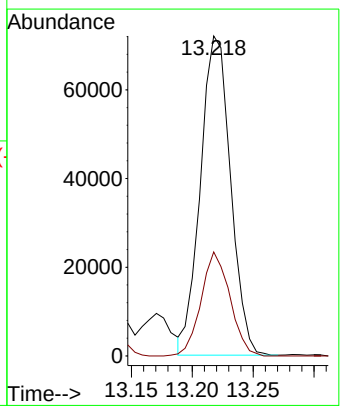


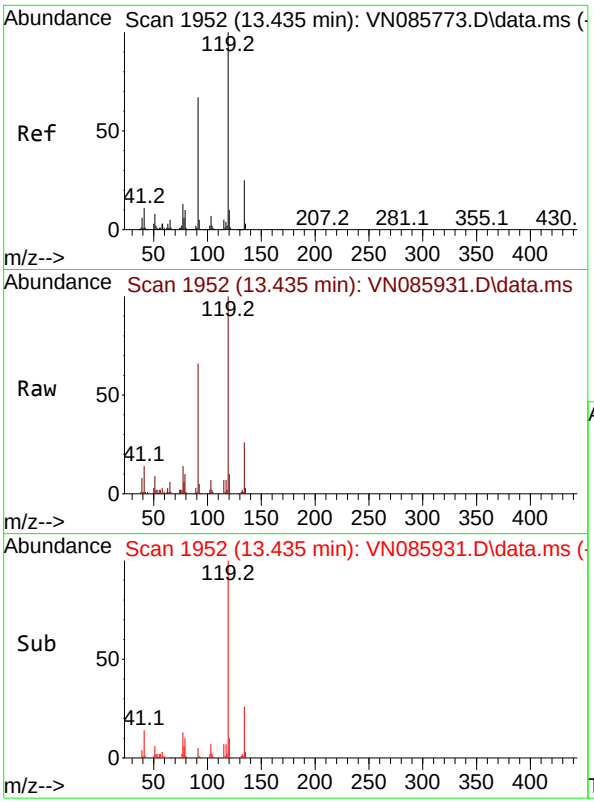


#82
4-Chlorotoluene
Concen: 18.596 ug/l
RT: 13.218 min Scan# 1915
Delta R.T. 0.000 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 91 Resp: 124042

Ion	Ratio	Lower	Upper
91	100		
126	31.2	16.4	49.4

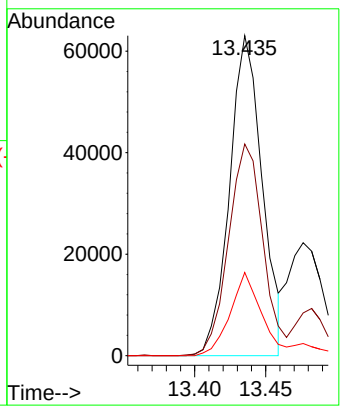




#83
tert-Butylbenzene
Concen: 16.796 ug/l
RT: 13.435 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion:119 Resp: 10117

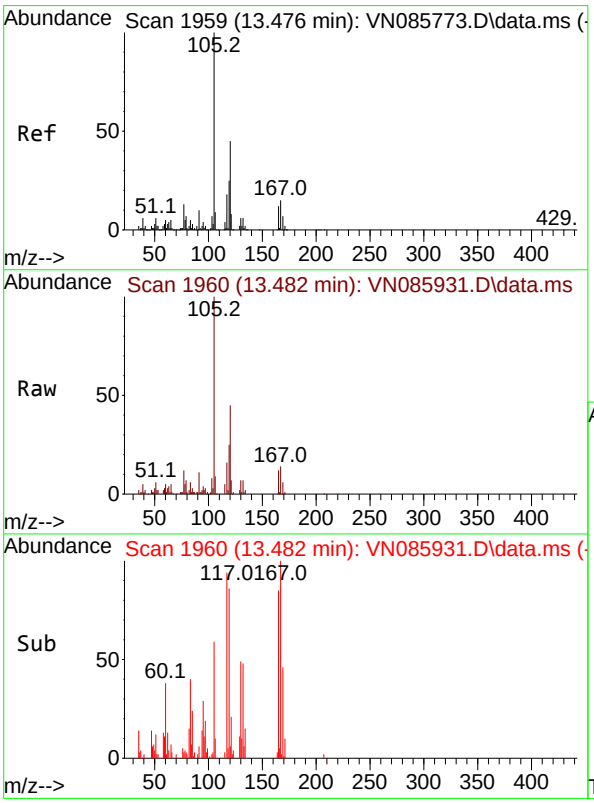
Ion	Ratio	Lower	Upper
119	100		
91	69.8	32.5	97.5
134	24.6	13.3	39.9



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

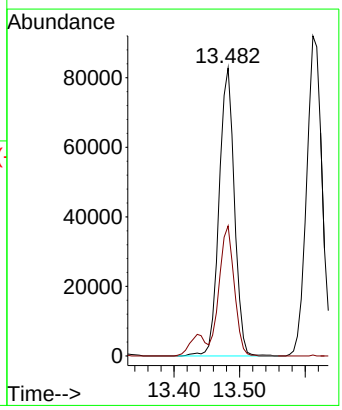
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

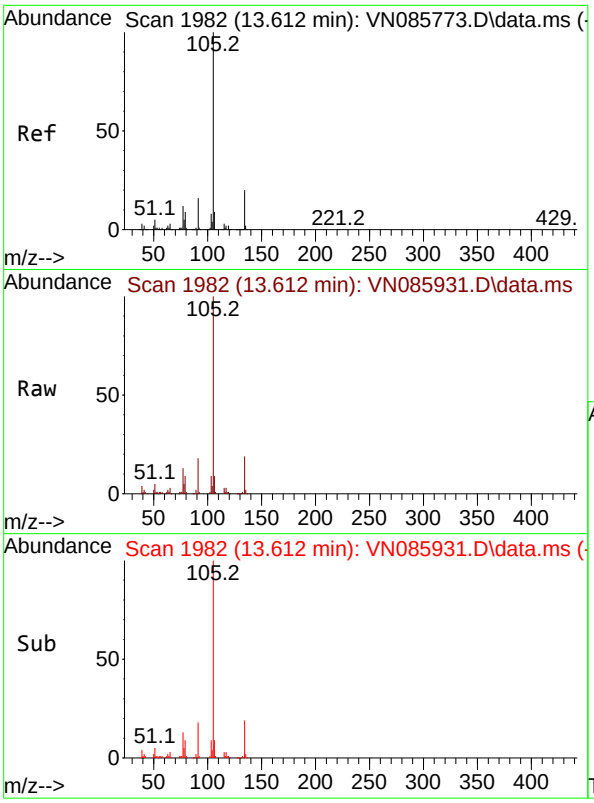


#84
1,2,4-Trimethylbenzene
Concen: 18.877 ug/l
RT: 13.482 min Scan# 1960
Delta R.T. 0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion:105 Resp: 133778

Ion	Ratio	Lower	Upper
105	100		
120	44.3	22.4	67.3

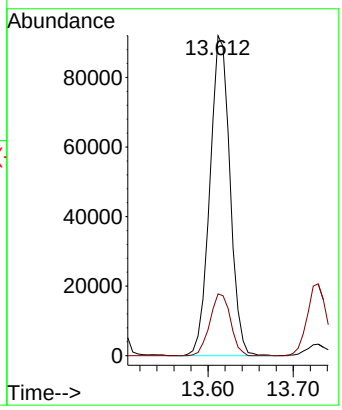




#85
sec-Butylbenzene
Concen: 17.664 ug/l
RT: 13.612 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion:105 Resp: 15032

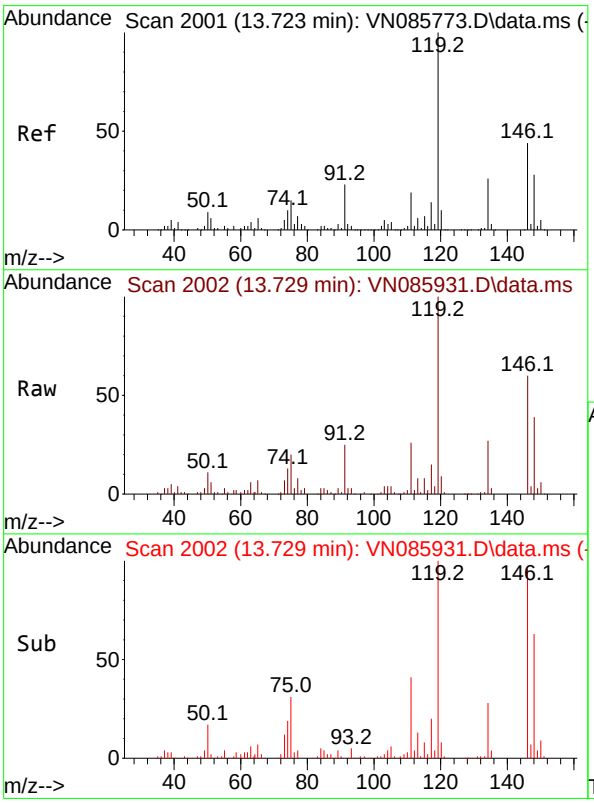
Ion	Ratio	Lower	Upper
105	100		
134	19.9	9.8	29.4



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

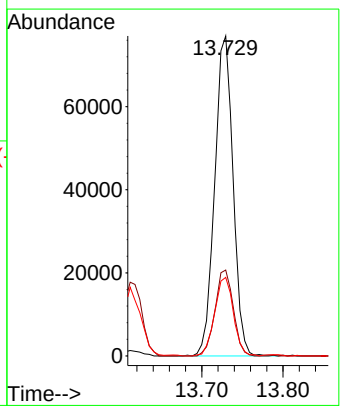
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

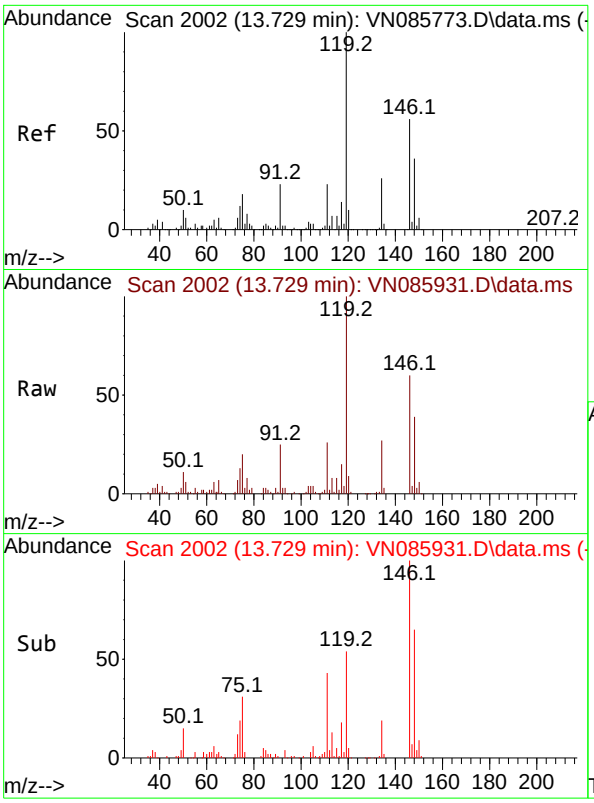


#86
p-Isopropyltoluene
Concen: 16.805 ug/l
RT: 13.729 min Scan# 2002
Delta R.T. 0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion:119 Resp: 121044

Ion	Ratio	Lower	Upper
119	100		
134	26.8	13.0	39.0
91	25.1	11.7	35.1





#87
1,3-Dichlorobenzene
Concen: 17.350 ug/l
RT: 13.729 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

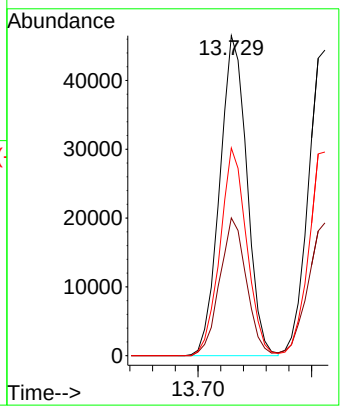
Tgt Ion:146 Resp: 7722

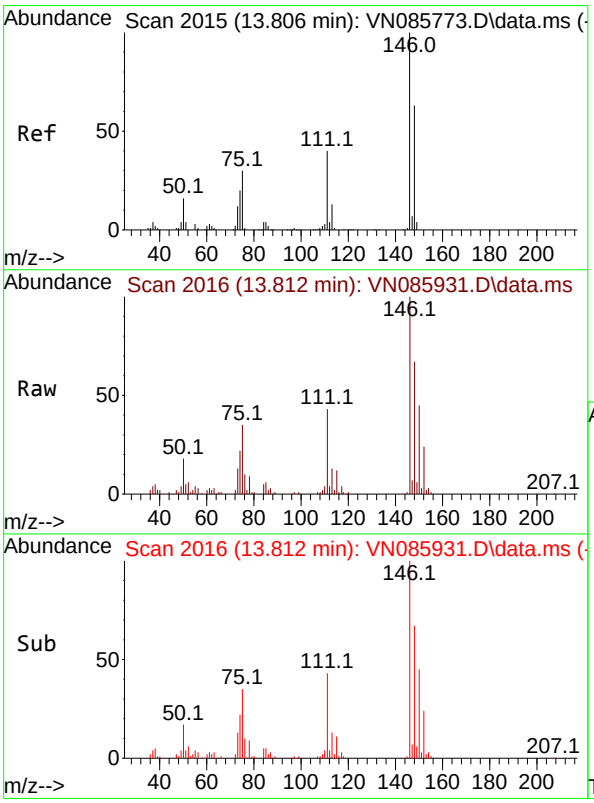
Ion	Ratio	Lower	Upper
146	100		
111	42.3	21.1	63.3
148	63.9	32.1	96.5

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

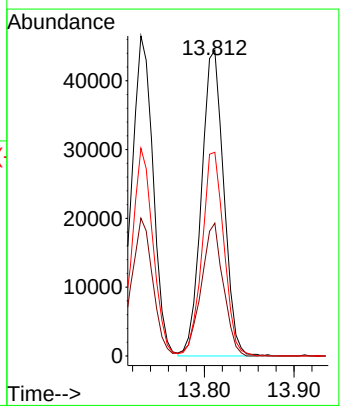


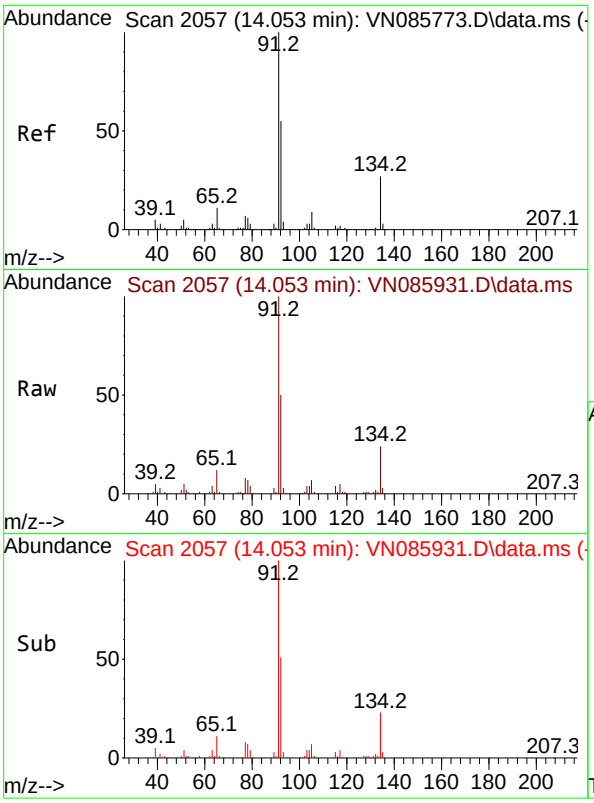


#88
1,4-Dichlorobenzene
Concen: 16.773 ug/l
RT: 13.812 min Scan# 2016
Delta R.T. 0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion:146 Resp: 76516

Ion	Ratio	Lower	Upper
146	100		
111	43.3	20.4	61.3
148	65.8	31.8	95.4

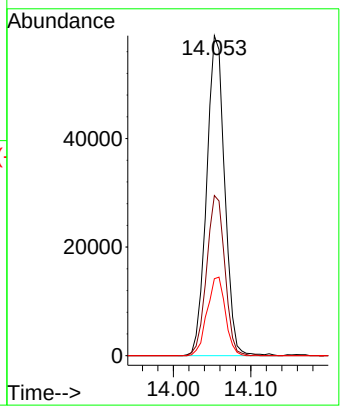




#89
n-Butylbenzene
Concen: 15.797 ug/l
RT: 14.053 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 91 Resp: 9545

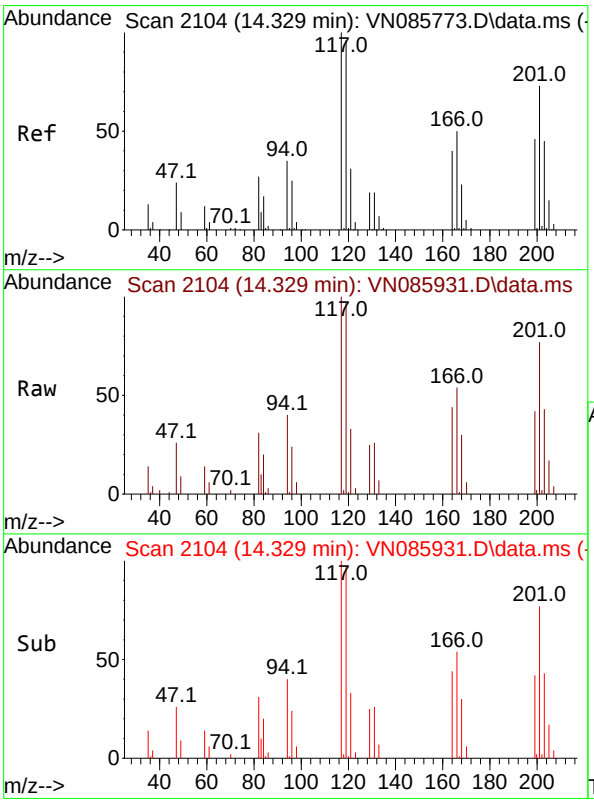
Ion	Ratio	Lower	Upper
91	100		
92	50.4	27.1	81.3
134	24.8	12.7	38.1



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

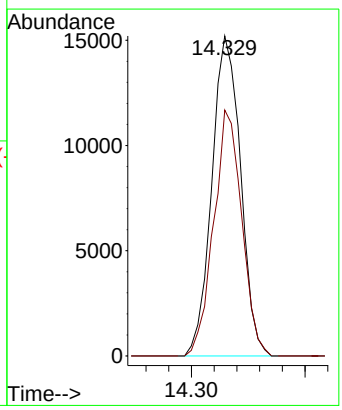
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

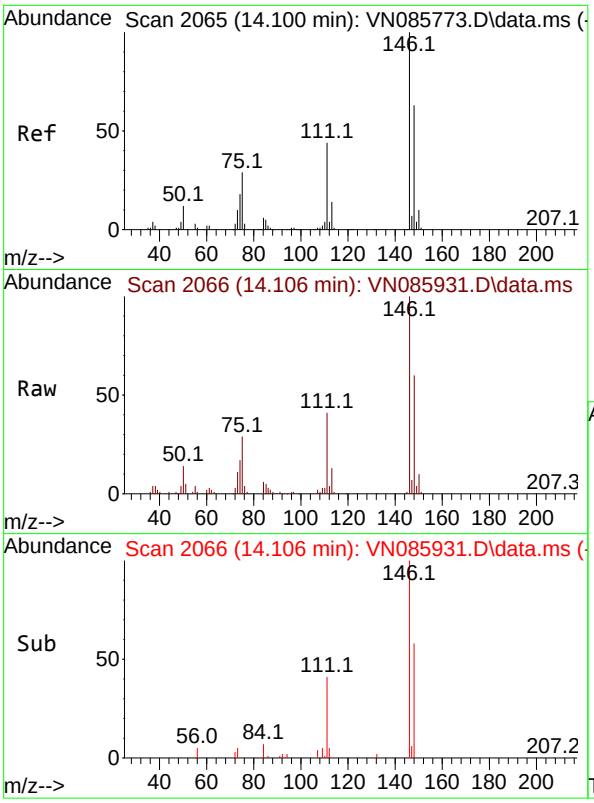


#90
Hexachloroethane
Concen: 16.540 ug/l
RT: 14.329 min Scan# 2104
Delta R.T. 0.000 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion:117 Resp: 26658

Ion	Ratio	Lower	Upper
117	100		
201	75.3	35.6	106.9

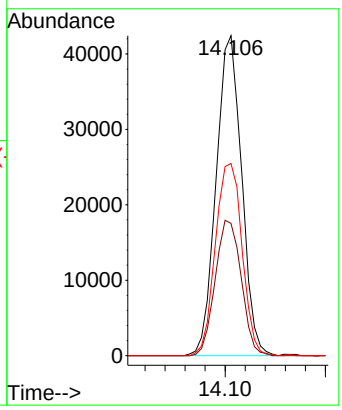




#91
1,2-Dichlorobenzene
Concen: 17.501 ug/l
RT: 14.106 min Scan# 2
Delta R.T. 0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion:146 Resp: 7490

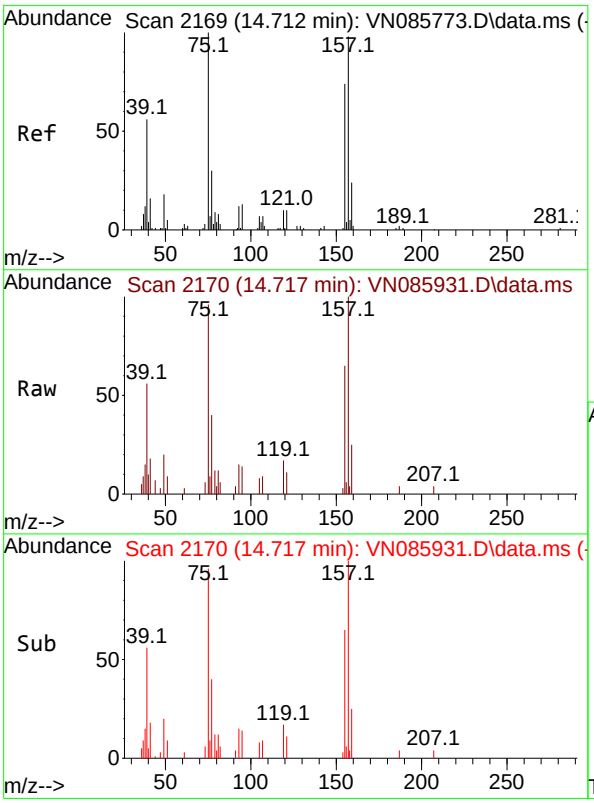
Ion	Ratio	Lower	Upper
146	100		
111	43.1	21.4	64.3
148	62.8	32.0	96.2



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

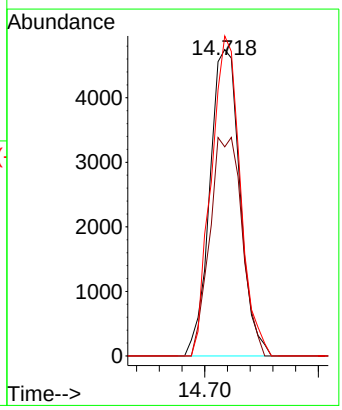
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

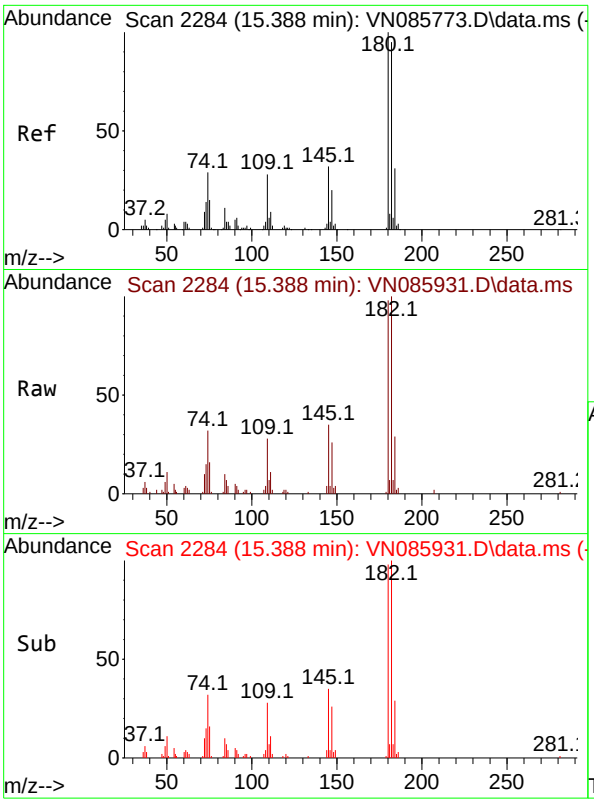


#92
1,2-Dibromo-3-Chloropropane
Concen: 15.752 ug/l
RT: 14.717 min Scan# 2170
Delta R.T. 0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion: 75 Resp: 8752

Ion	Ratio	Lower	Upper
75	100		
155	76.3	39.9	119.6
157	100.5	49.9	149.7





#93
1,2,4-Trichlorobenzene
Concen: 15.289 ug/l
RT: 15.388 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

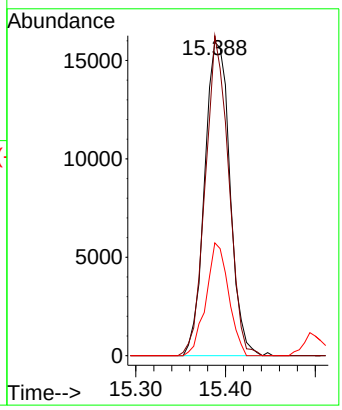
Tgt Ion:180 Resp: 3118

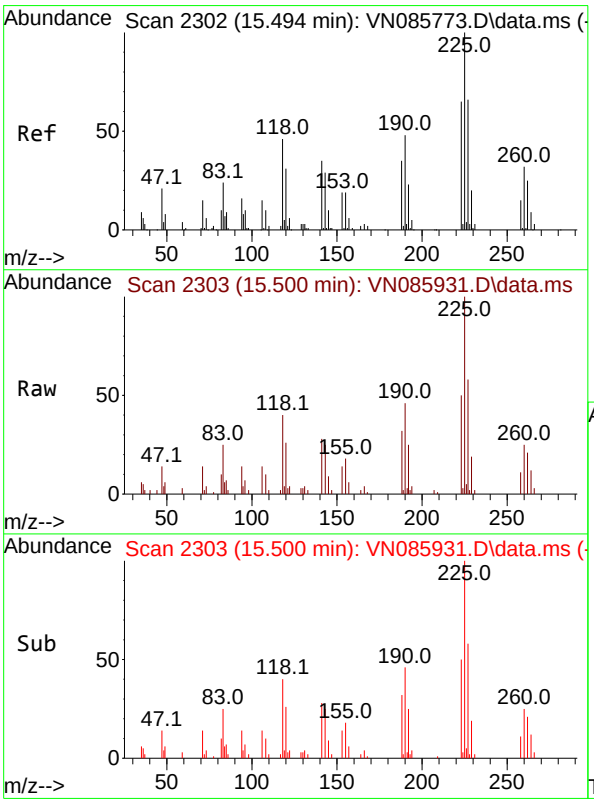
Ion	Ratio	Lower	Upper
180	100		
182	93.9	47.3	141.9
145	32.0	16.2	48.5

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

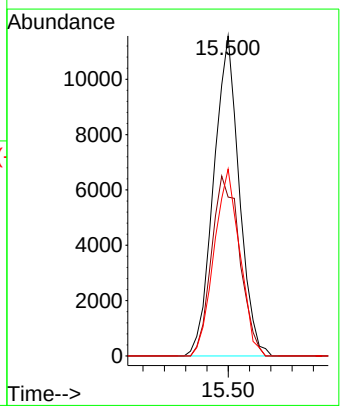


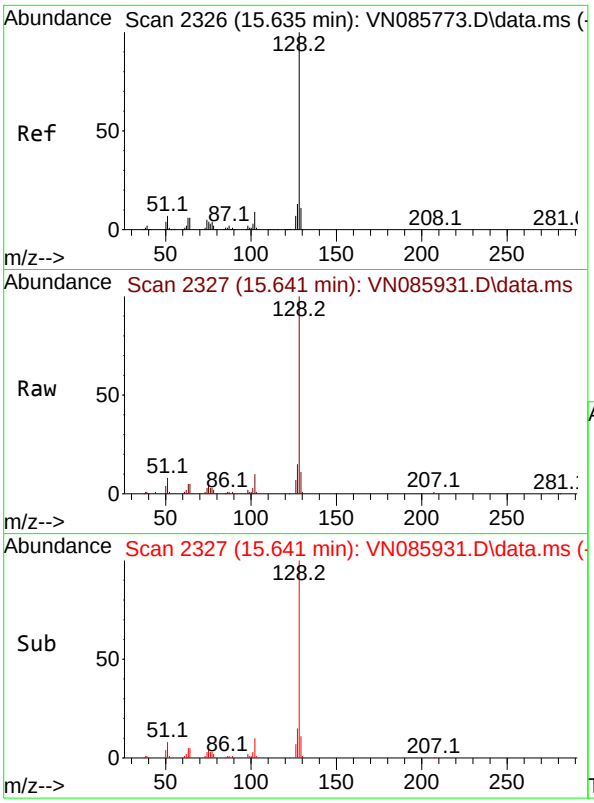


#94
Hexachlorobutadiene
Concen: 15.528 ug/l
RT: 15.500 min Scan# 2303
Delta R.T. 0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion:225 Resp: 19246

Ion	Ratio	Lower	Upper
225	100		
223	62.1	31.9	95.5
227	58.9	32.2	96.6

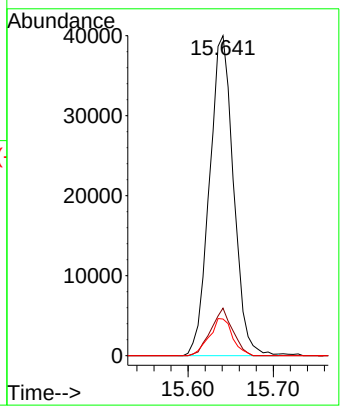




#95
Naphthalene
Concen: 13.998 ug/l
RT: 15.641 min Scan# 2
Delta R.T. 0.006 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion:128 Resp: 7837

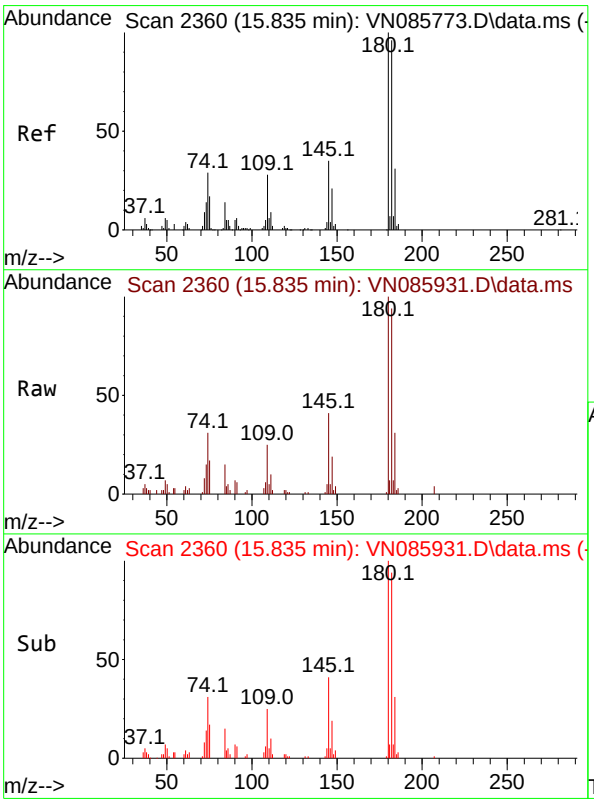
Ion	Ratio	Lower	Upper
128	100		
127	13.5	10.2	15.2
129	11.2	8.7	13.1



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBS01

Manual Integrations
APPROVED

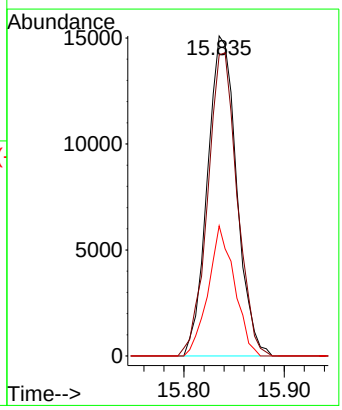
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025



#96
1,2,3-Trichlorobenzene
Concen: 14.930 ug/l
RT: 15.835 min Scan# 2360
Delta R.T. 0.000 min
Lab File: VN085931.D
Acq: 11 Mar 2025 14:54

Tgt Ion:180 Resp: 30568

Ion	Ratio	Lower	Upper
180	100		
182	95.3	47.3	141.8
145	36.4	16.9	50.6



Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	
Client Sample ID:	VN0311WBSD01	SDG No.:	Q1514
Lab Sample ID:	VN0311WBSD01	Matrix:	TCLP
Analytical Method:	SW8260	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	TCLP VOA
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VN085932.D	1		03/11/25 15:28	VN031125

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-01-4	Vinyl Chloride	17.7		0.34	1.00	ug/L
75-35-4	1,1-Dichloroethene	18.6		0.26	1.00	ug/L
78-93-3	2-Butanone	100		1.30	5.00	ug/L
56-23-5	Carbon Tetrachloride	20.2		0.25	1.00	ug/L
67-66-3	Chloroform	19.0		0.26	1.00	ug/L
71-43-2	Benzene	19.8		0.16	1.00	ug/L
107-06-2	1,2-Dichloroethane	20.2		0.24	1.00	ug/L
79-01-6	Trichloroethene	18.0		0.32	1.00	ug/L
127-18-4	Tetrachloroethene	18.4		0.25	1.00	ug/L
108-90-7	Chlorobenzene	18.3		0.13	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	47.6		70 (74) - 130 (125)	95%	SPK: 50
1868-53-7	Dibromofluoromethane	47.6		70 (75) - 130 (124)	95%	SPK: 50
2037-26-5	Toluene-d8	46.6		70 (86) - 130 (113)	93%	SPK: 50
460-00-4	4-Bromofluorobenzene	50.2		70 (77) - 130 (121)	100%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	167000	8.224			
540-36-3	1,4-Difluorobenzene	270000	9.1			
3114-55-4	Chlorobenzene-d5	244000	11.865			
3855-82-1	1,4-Dichlorobenzene-d4	123000	13.794			

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031125\
Data File : VN085932.D
Acq On : 11 Mar 2025 15:28
Operator : JC\MD
Sample : VN0311WBSD01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 12 01:21:25 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:43:32 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.224	168	166815	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.100	114	269902	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.865	117	244088	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.794	152	123338	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.576	65	102925	47.591	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 95.180%			
35) Dibromofluoromethane	8.165	113	84117	47.628	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 95.260%			
50) Toluene-d8	10.565	98	299527	46.614	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 93.220%			
62) 4-Bromofluorobenzene	12.847	95	106317	50.218	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 100.440%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.124	85	44409	19.572	ug/l	99
3) Chloromethane	2.359	50	44374	19.489	ug/l	97
4) Vinyl Chloride	2.512	62	42608	17.674	ug/l	97
5) Bromomethane	2.953	94	24991	16.212	ug/l	97
6) Chloroethane	3.118	64	25347	15.873	ug/l	99
7) Trichlorofluoromethane	3.500	101	64484	18.475	ug/l	94
8) Diethyl Ether	3.959	74	20885	18.493	ug/l	92
9) 1,1,2-Trichlorotrifluo...	4.371	101	38431	19.048	ug/l	98
10) Methyl Iodide	4.588	142	45692	18.373	ug/l	94
11) Tert butyl alcohol	5.518	59	27546	103.558	ug/l #	85
12) 1,1-Dichloroethene	4.341	96	34031	18.603	ug/l	90
13) Acrolein	4.183	56	37037	93.894	ug/l	92
14) Allyl chloride	5.018	41	45313	18.866	ug/l	93
15) Acrylonitrile	5.712	53	89670	103.697	ug/l	98
16) Acetone	4.430	43	68828	100.579	ug/l	99
17) Carbon Disulfide	4.712	76	105501	19.459	ug/l	99
18) Methyl Acetate	5.024	43	40057	17.019	ug/l	96
19) Methyl tert-butyl Ether	5.794	73	104432	19.211	ug/l	96
20) Methylene Chloride	5.271	84	42240	19.194	ug/l	99
21) trans-1,2-Dichloroethene	5.783	96	35362	17.952	ug/l	97
22) Diisopropyl ether	6.671	45	110291	20.322	ug/l	96
23) Vinyl Acetate	6.600	43	373467	100.504	ug/l	99
24) 1,1-Dichloroethane	6.571	63	71060	19.261	ug/l	98
25) 2-Butanone	7.482	43	102911	102.220	ug/l	99
26) 2,2-Dichloropropane	7.482	77	59355	18.093	ug/l	97
27) cis-1,2-Dichloroethene	7.482	96	41008	17.955	ug/l	96
28) Bromochloromethane	7.812	49	36994	24.397	ug/l	94
29) Tetrahydrofuran	7.835	42	67190	103.352	ug/l	98
30) Chloroform	7.965	83	73399	19.038	ug/l	100
31) Cyclohexane	8.253	56	58750	19.019	ug/l	99
32) 1,1,1-Trichloroethane	8.165	97	65410	19.074	ug/l	99
36) 1,1-Dichloropropene	8.371	75	47425	18.974	ug/l	96
37) Ethyl Acetate	7.559	43	46512	22.612	ug/l	98
38) Carbon Tetrachloride	8.359	117	60097	20.235	ug/l	97
39) Methylcyclohexane	9.600	83	44632	18.176	ug/l	91
40) Benzene	8.600	78	158231	19.751	ug/l	96

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031125\
Data File : VN085932.D
Acq On : 11 Mar 2025 15:28
Operator : JC\MD
Sample : VN0311WBSD01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 12 01:21:25 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:43:32 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.782	41	23989	21.816	ug/l		97
42) 1,2-Dichloroethane	8.671	62	52687	20.191	ug/l		99
43) Isopropyl Acetate	8.688	43	73303	19.978	ug/l		99
44) Trichloroethene	9.347	130	35475	18.035	ug/l		97
45) 1,2-Dichloropropane	9.612	63	39256	20.301	ug/l		97
46) Dibromomethane	9.706	93	27667	20.284	ug/l		96
47) Bromodichloromethane	9.882	83	57554	19.722	ug/l		98
48) Methyl methacrylate	9.676	41	31149	20.391	ug/l		99
49) 1,4-Dioxane	9.688	88	12981	446.857	ug/l		97
51) 4-Methyl-2-Pentanone	10.441	43	217937	109.892	ug/l		98
52) Toluene	10.629	92	97359	20.732	ug/l		99
53) t-1,3-Dichloropropene	10.835	75	54176	20.077	ug/l		98
54) cis-1,3-Dichloropropene	10.312	75	59404	20.076	ug/l		93
55) 1,1,2-Trichloroethane	11.012	97	36590	19.597	ug/l		97
56) Ethyl methacrylate	10.870	69	48469	19.676	ug/l		97
57) 1,3-Dichloropropane	11.159	76	62641	20.098	ug/l		99
58) 2-Chloroethyl Vinyl ether	10.159	63	92918	104.180	ug/l		98
59) 2-Hexanone	11.194	43	154345	113.129	ug/l		99
60) Dibromochloromethane	11.359	129	45593	20.971	ug/l		95
61) 1,2-Dibromoethane	11.465	107	35932	20.368	ug/l		99
64) Tetrachloroethene	11.100	164	34886	18.449	ug/l		94
65) Chlorobenzene	11.888	112	102428	18.318	ug/l		96
66) 1,1,1,2-Tetrachloroethane	11.959	131	37980	18.897	ug/l		100
67) Ethyl Benzene	11.959	91	164011	18.725	ug/l		99
68) m/p-Xylenes	12.070	106	132245	39.747	ug/l		99
69) o-Xylene	12.400	106	60408	19.107	ug/l		98
70) Styrene	12.412	104	103470	19.049	ug/l		98
71) Bromoform	12.576	173	30578	20.475	ug/l	#	99
73) Isopropylbenzene	12.694	105	149903	17.740	ug/l		99
74) N-amyl acetate	12.494	43	56542	18.975	ug/l		99
75) 1,1,2,2-Tetrachloroethane	12.935	83	53436	18.378	ug/l		100
76) 1,2,3-Trichloropropane	12.994	75	51299m	18.724	ug/l		
77) Bromobenzene	12.976	156	41022	17.969	ug/l		93
78) n-propylbenzene	13.035	91	179451	18.544	ug/l		99
79) 2-Chlorotoluene	13.123	91	119913	18.546	ug/l		98
80) 1,3,5-Trimethylbenzene	13.170	105	130459	18.953	ug/l		100
81) trans-1,4-Dichloro-2-b...	12.735	75	19541	20.811	ug/l		90
82) 4-Chlorotoluene	13.217	91	122450	19.104	ug/l		99
83) tert-Butylbenzene	13.435	119	102074	17.635	ug/l		96
84) 1,2,4-Trimethylbenzene	13.482	105	131448	19.302	ug/l		99
85) sec-Butylbenzene	13.611	105	145745	17.821	ug/l		99
86) p-Isopropyltoluene	13.729	119	119735	17.268	ug/l		98
87) 1,3-Dichlorobenzene	13.729	146	76798	17.956	ug/l		99
88) 1,4-Dichlorobenzene	13.811	146	77090	17.586	ug/l		100
89) n-Butylbenzene	14.053	91	95229	16.401	ug/l		96
90) Hexachloroethane	14.329	117	26609	17.180	ug/l		100
91) 1,2-Dichlorobenzene	14.106	146	73481	17.866	ug/l		99
92) 1,2-Dibromo-3-Chloropr...	14.717	75	9607	17.993	ug/l		95
93) 1,2,4-Trichlorobenzene	15.394	180	31550	16.098	ug/l		99
94) Hexachlorobutadiene	15.494	225	18407	15.454	ug/l		98
95) Naphthalene	15.635	128	82066	15.252	ug/l		99
96) 1,2,3-Trichlorobenzene	15.841	180	31176	15.845	ug/l		99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031125\
Data File : VN085932.D
Acq On : 11 Mar 2025 15:28
Operator : JC\MD
Sample : VN0311WBSD01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 12 01:21:25 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:43:32 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

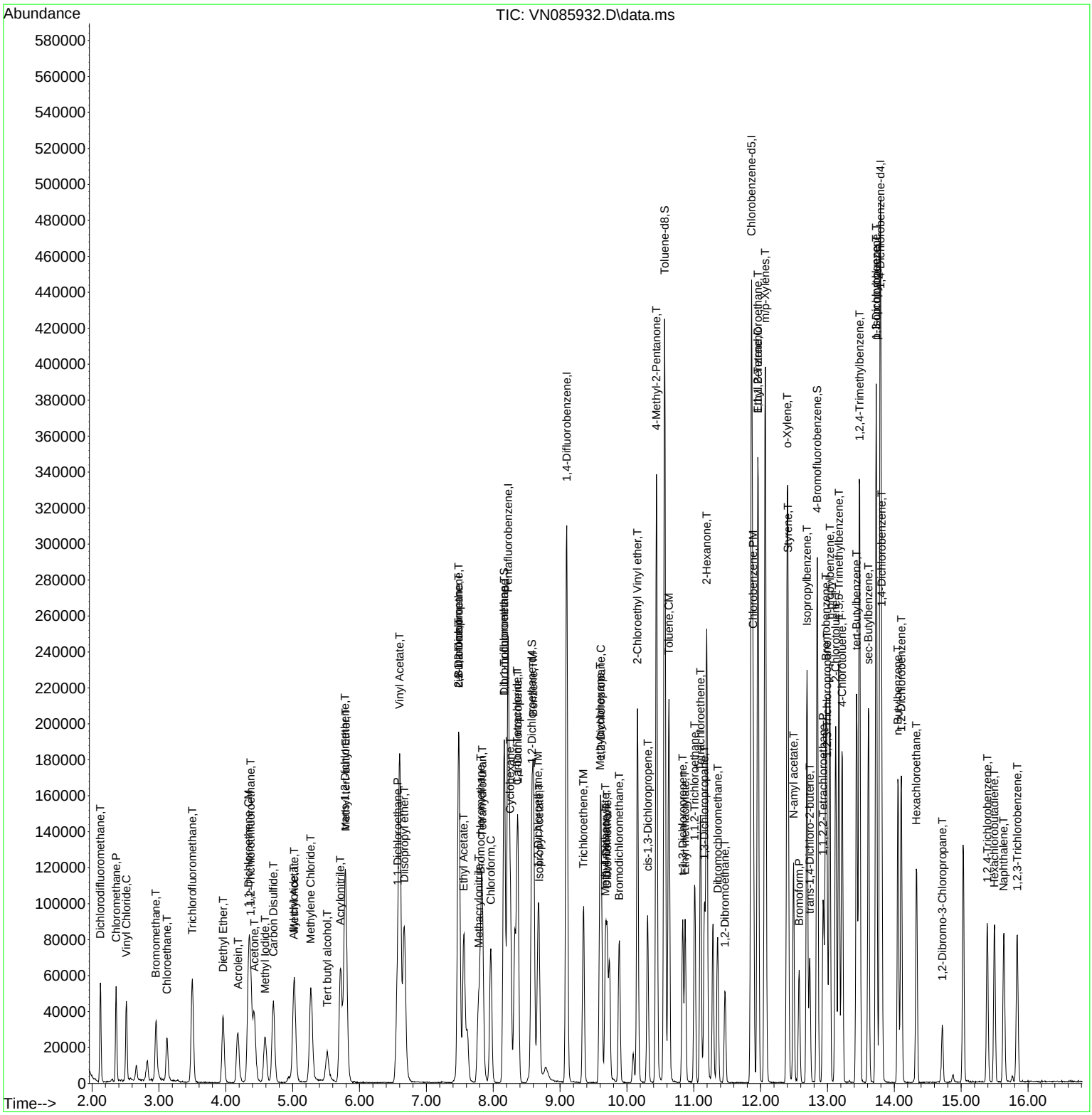
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN031125\
Data File : VN085932.D
Acq On : 11 Mar 2025 15:28
Operator : JC\MD
Sample : VN0311WBSD01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 7 Sample Multiplier: 1

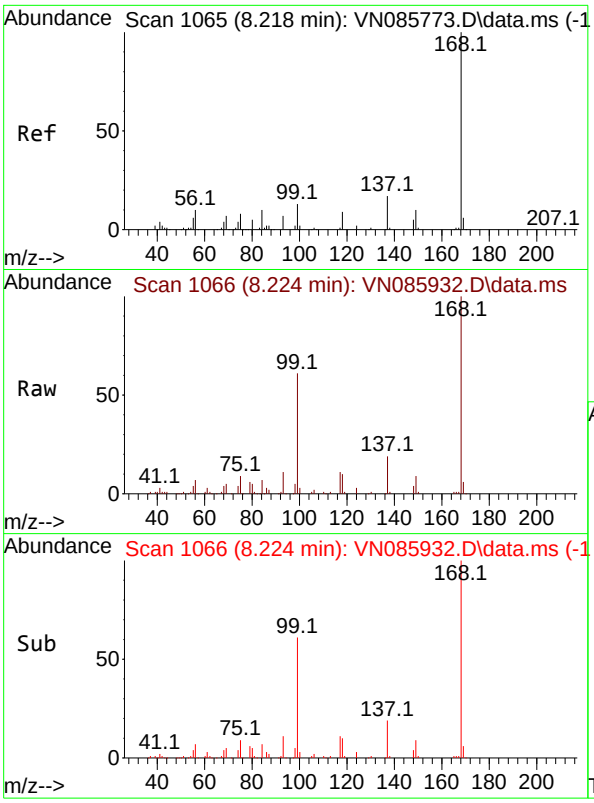
Quant Time: Mar 12 01:21:25 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N021825W.M
Quant Title : SW846 8260
QLast Update : Wed Feb 19 03:43:32 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

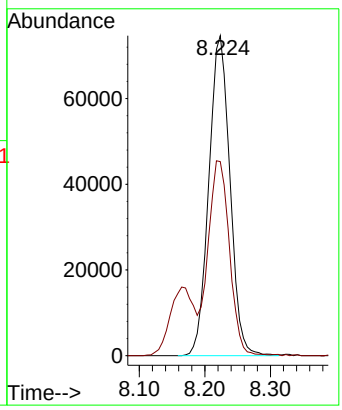




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.224 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion:168 Resp: 16681

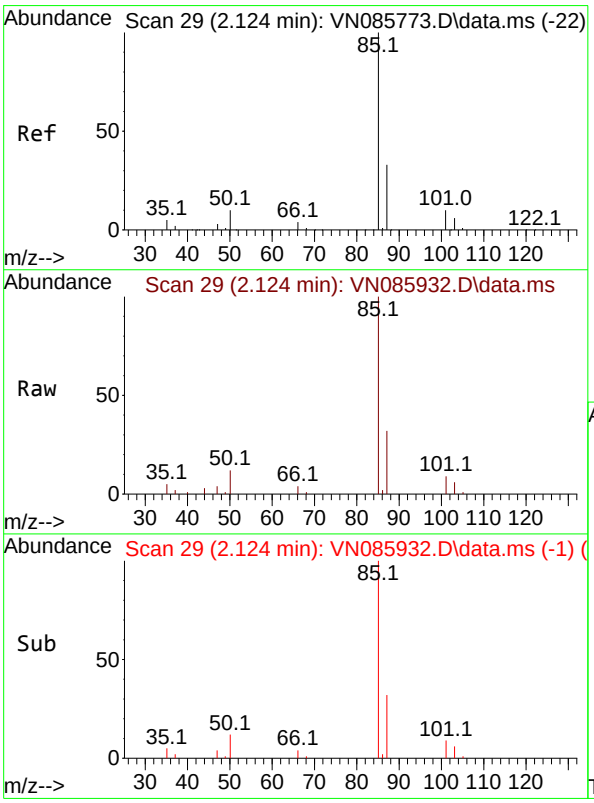
Ion	Ratio	Lower	Upper
168	100		
99	60.3	47.9	71.9



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

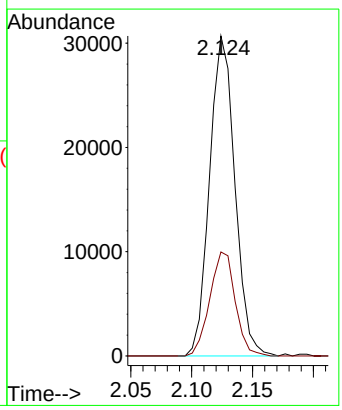
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

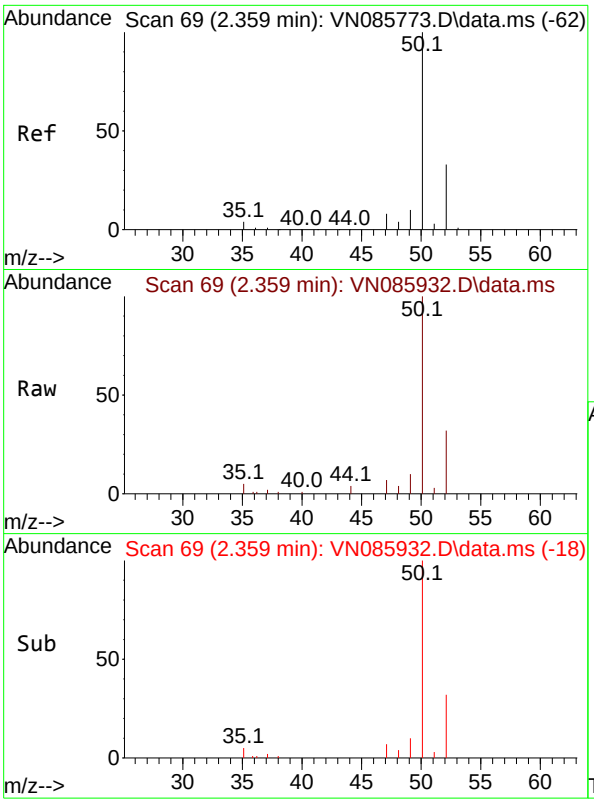


#2
Dichlorodifluoromethane
Concen: 19.572 ug/l
RT: 2.124 min Scan# 29
Delta R.T. -0.000 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 85 Resp: 44409

Ion	Ratio	Lower	Upper
85	100		
87	32.5	16.4	49.2

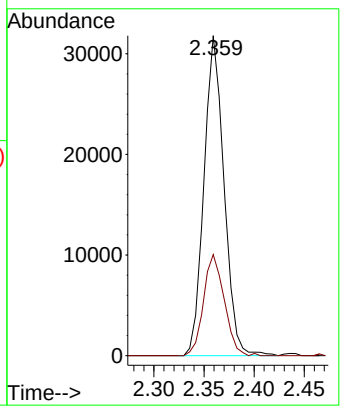




#3
Chloromethane
Concen: 19.489 ug/l
RT: 2.359 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 50 Resp: 4437

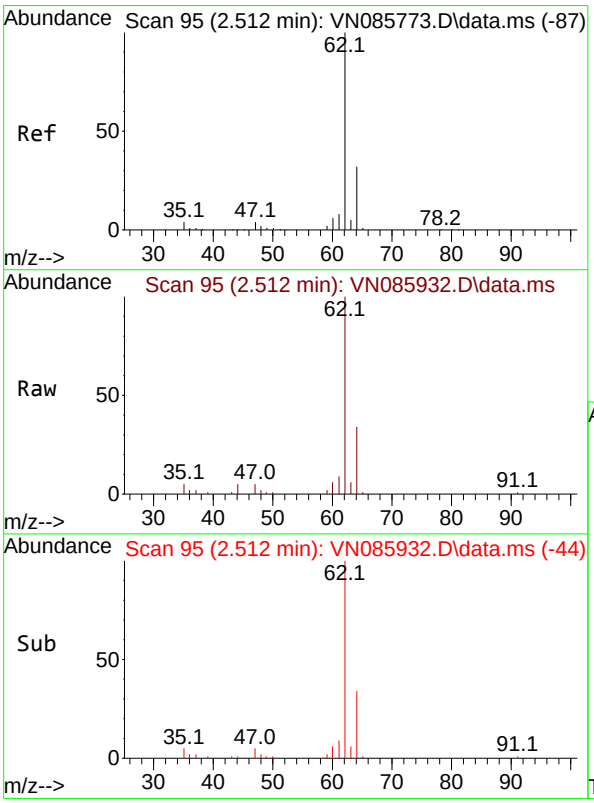
Ion	Ratio	Lower	Upper
50	100		
52	31.6	26.7	40.1



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

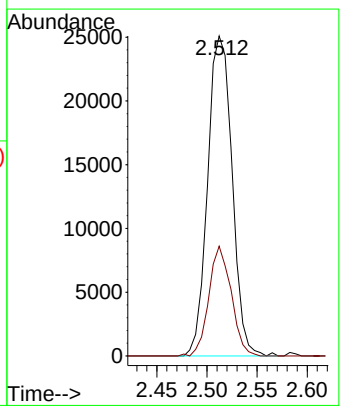
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

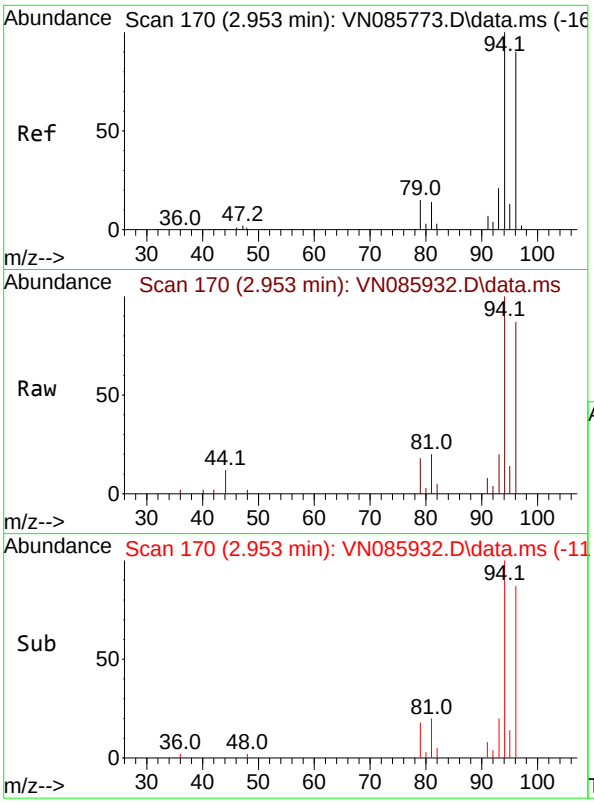


#4
Vinyl Chloride
Concen: 17.674 ug/l
RT: 2.512 min Scan# 95
Delta R.T. -0.000 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 62 Resp: 42608

Ion	Ratio	Lower	Upper
62	100		
64	34.3	25.9	38.9





#5
Bromomethane
Concen: 16.212 ug/l
RT: 2.953 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

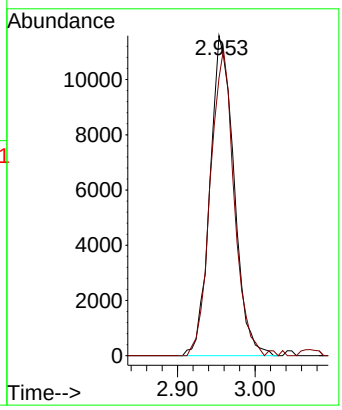
Tgt Ion: 94 Resp: 2499

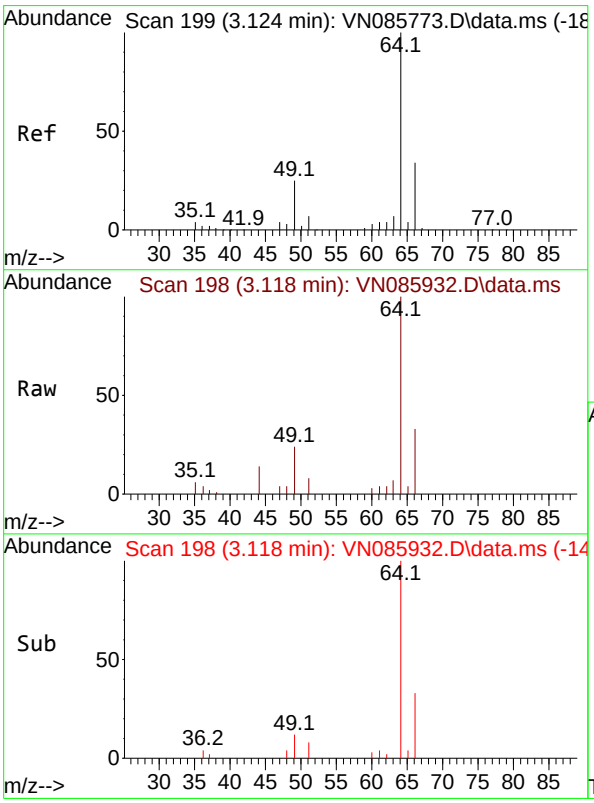
Ion	Ratio	Lower	Upper
94	100		
96	86.8	71.7	107.5

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

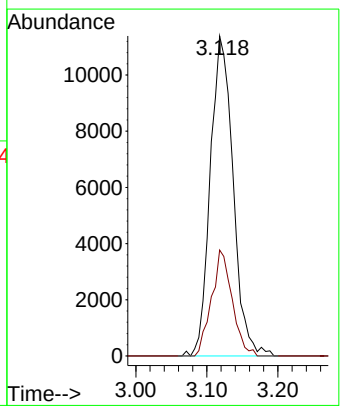


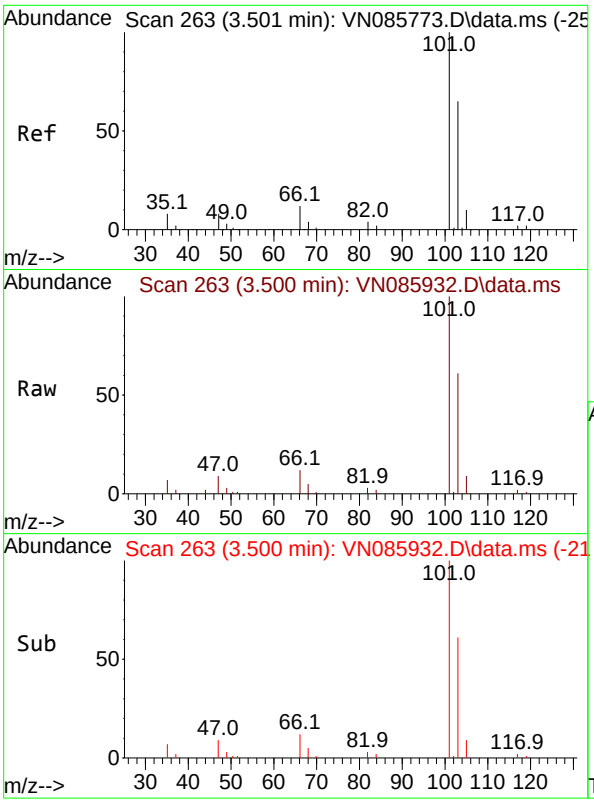


#6
Chloroethane
Concen: 15.873 ug/l
RT: 3.118 min Scan# 198
Delta R.T. -0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 64 Resp: 25347

Ion	Ratio	Lower	Upper
64	100		
66	33.1	27.0	40.6





#7
Trichlorofluoromethane
Concen: 18.475 ug/l
RT: 3.500 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

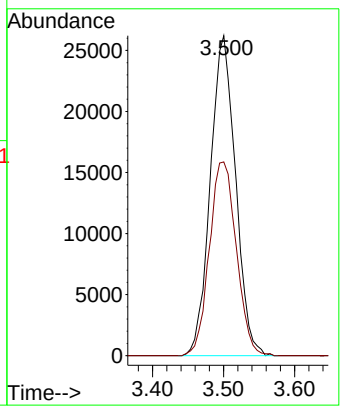
Tgt Ion:101 Resp: 6448

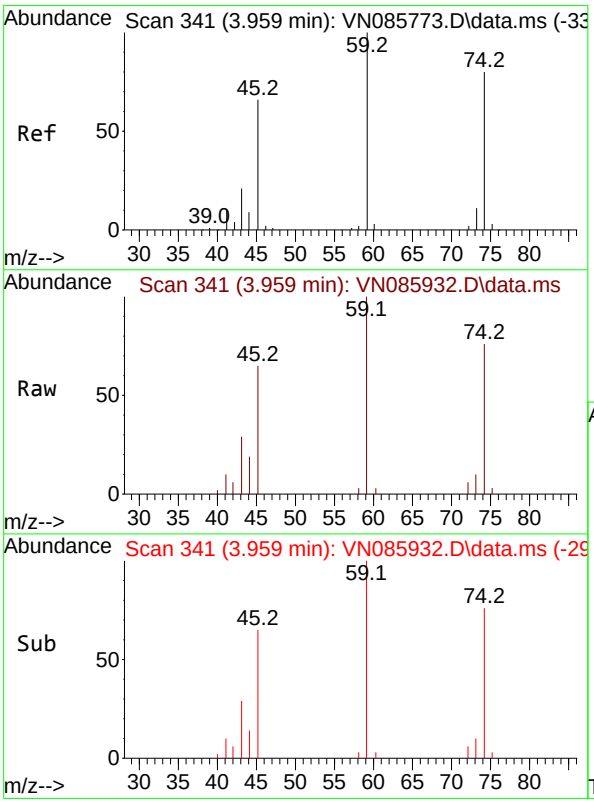
Ion	Ratio	Lower	Upper
101	100		
103	60.6	52.2	78.4

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

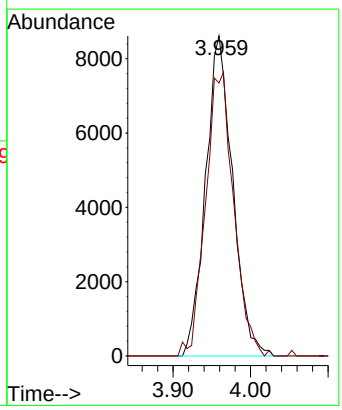


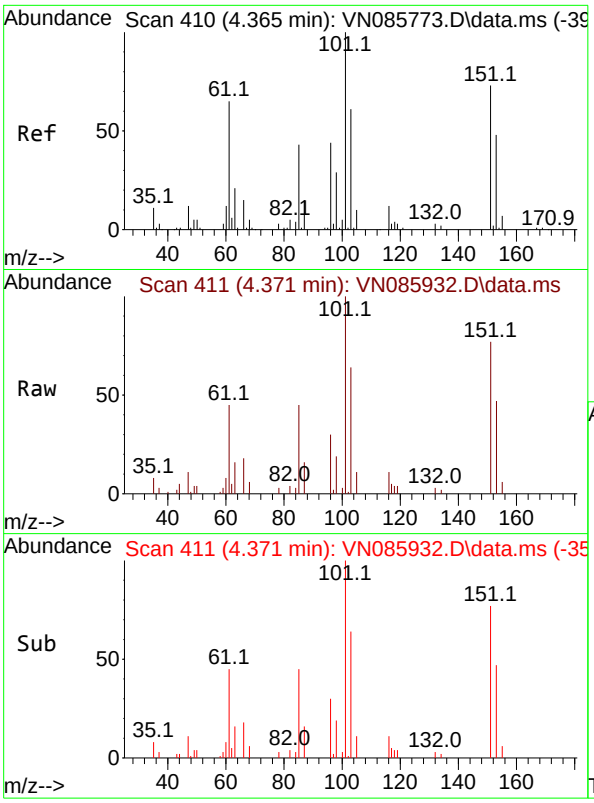


#8
Diethyl Ether
Concen: 18.493 ug/l
RT: 3.959 min Scan# 341
Delta R.T. -0.000 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 74 Resp: 20885

Ion	Ratio	Lower	Upper
74	100		
45	92.4	42.5	127.6





#9
1,1,2-Trichlorotrifluoroethane
Concen: 19.048 ug/l
RT: 4.371 min Scan# 41
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

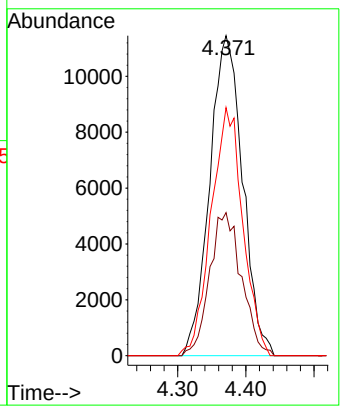
Tgt Ion:101 Resp: 3843

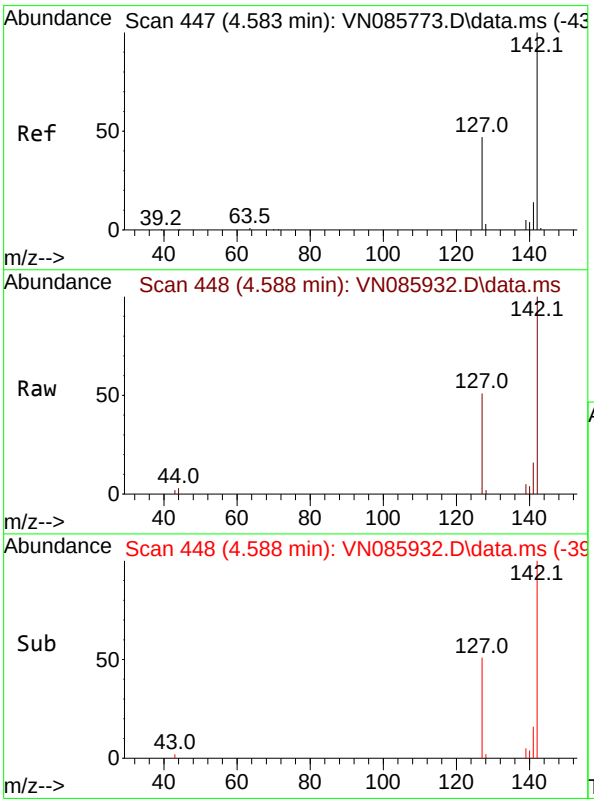
Ion	Ratio	Lower	Upper
101	100		
85	43.5	35.7	53.5
151	74.8	61.4	92.2

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

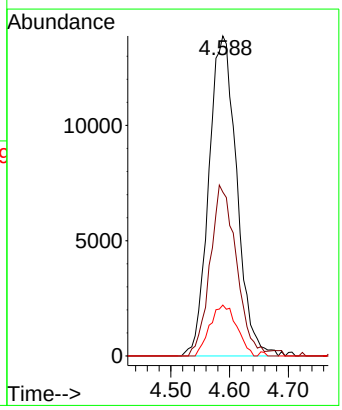


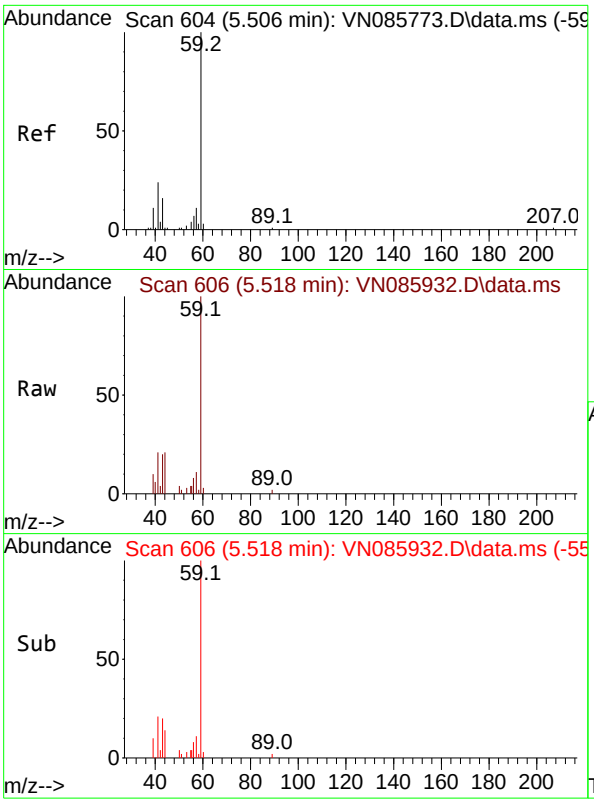


#10
Methyl Iodide
Concen: 18.373 ug/l
RT: 4.588 min Scan# 448
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion:142 Resp: 45692

Ion	Ratio	Lower	Upper
142	100		
127	51.2	37.6	56.4
141	15.9	11.4	17.2





#11
Tert butyl alcohol
Concen: 103.558 ug/l
RT: 5.518 min Scan# 6
Delta R.T. 0.012 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

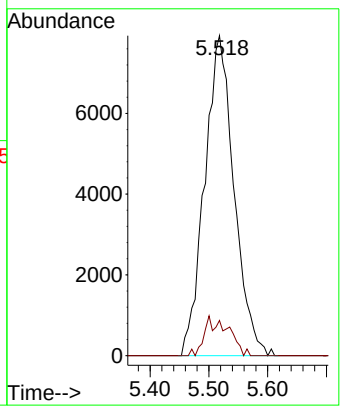
Tgt Ion: 59 Resp: 2754

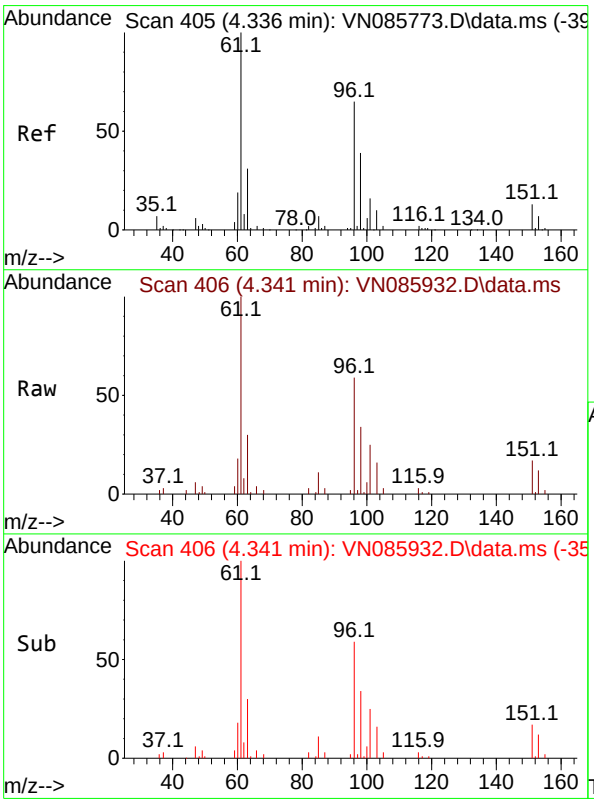
Ion	Ratio	Lower	Upper
59	100		
57	4.7	8.3	12.5#

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

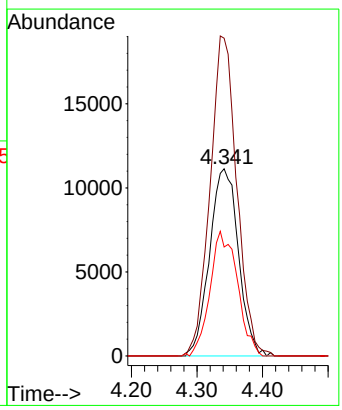


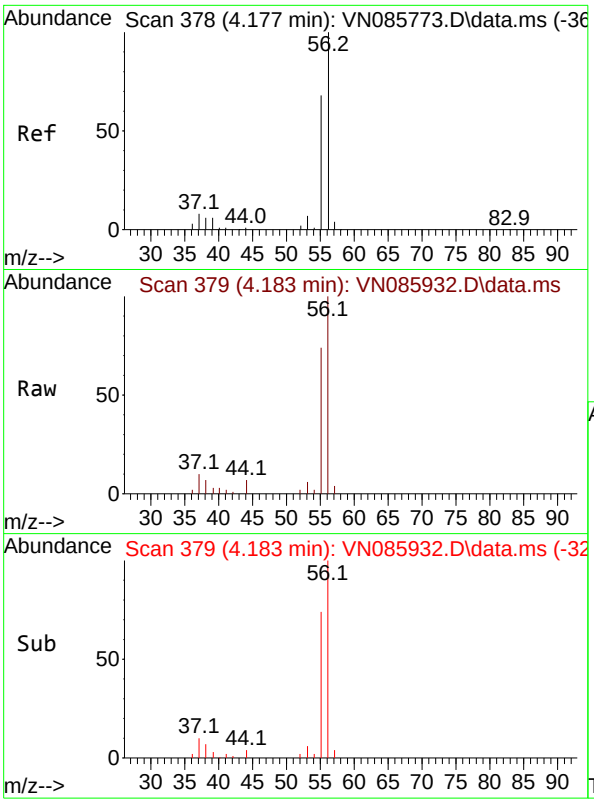


#12
1,1-Dichloroethene
Concen: 18.603 ug/l
RT: 4.341 min Scan# 406
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 96 Resp: 34031

Ion	Ratio	Lower	Upper
96	100		
61	169.7	123.3	184.9
98	58.2	48.6	72.8

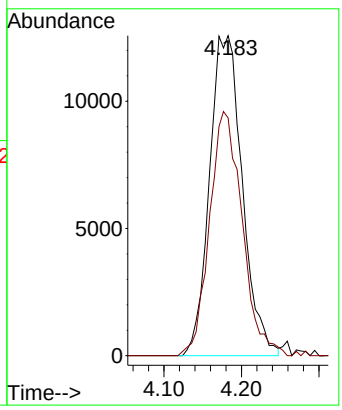




#13
Acrolein
Concen: 93.894 ug/l
RT: 4.183 min Scan# 3
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 56 Resp: 3703

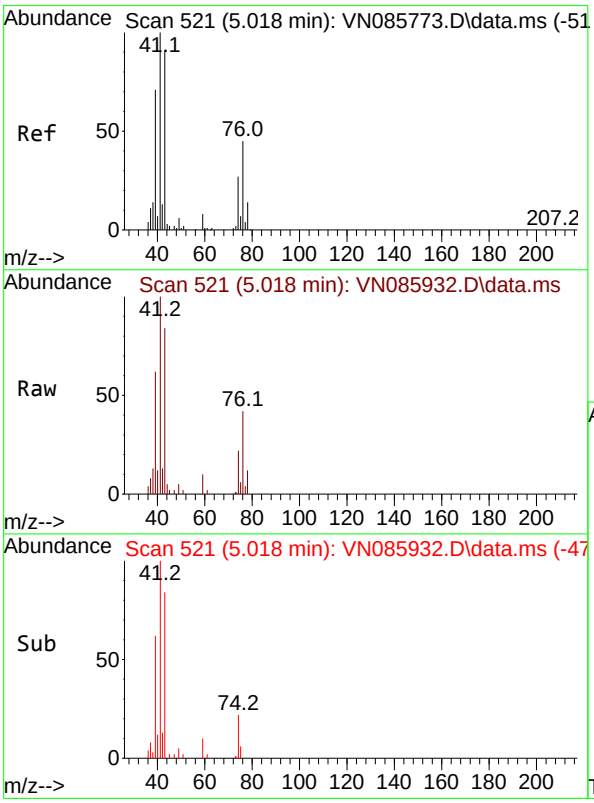
Ion	Ratio	Lower	Upper
56	100		
55	75.9	55.3	82.9



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

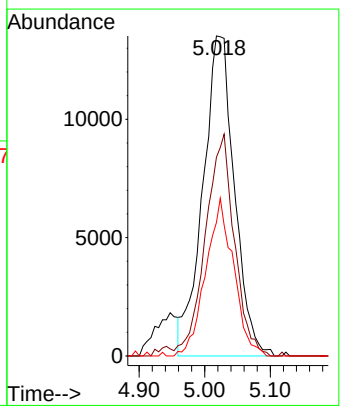
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

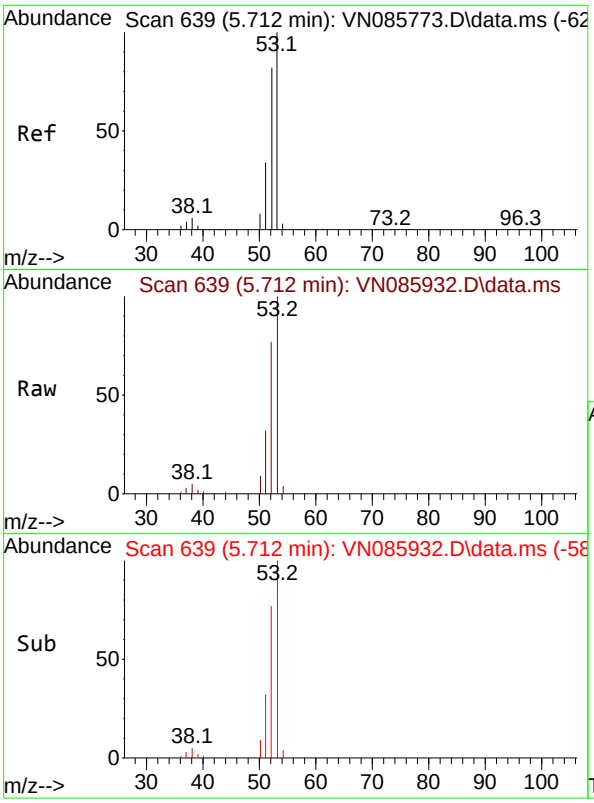


#14
Allyl chloride
Concen: 18.866 ug/l
RT: 5.018 min Scan# 521
Delta R.T. -0.000 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 41 Resp: 45313

Ion	Ratio	Lower	Upper
41	100		
39	63.4	57.4	86.2
76	43.3	36.2	54.2

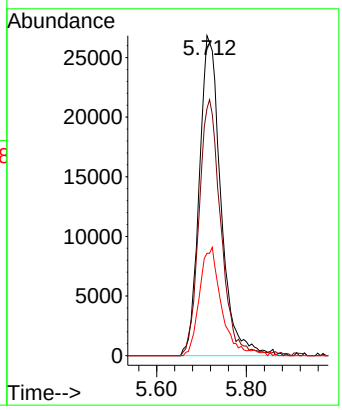




#15
Acrylonitrile
Concen: 103.697 ug/l
RT: 5.712 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 53 Resp: 8967

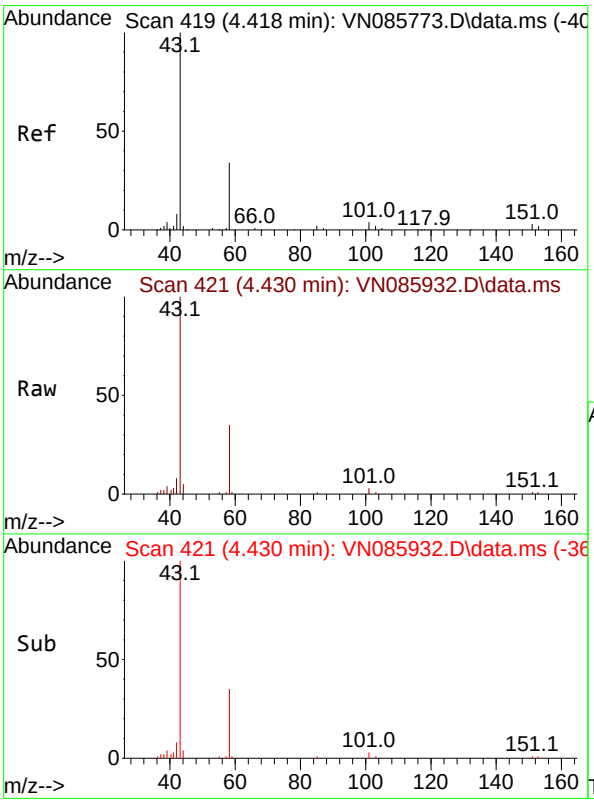
Ion	Ratio	Lower	Upper
53	100		
52	80.7	65.8	98.6
51	34.6	28.6	42.8



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

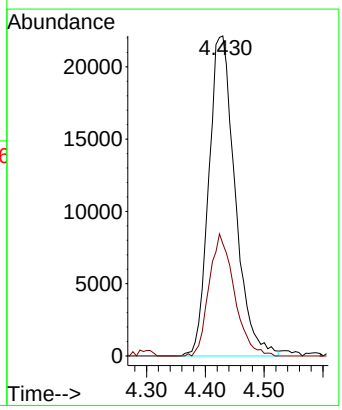
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

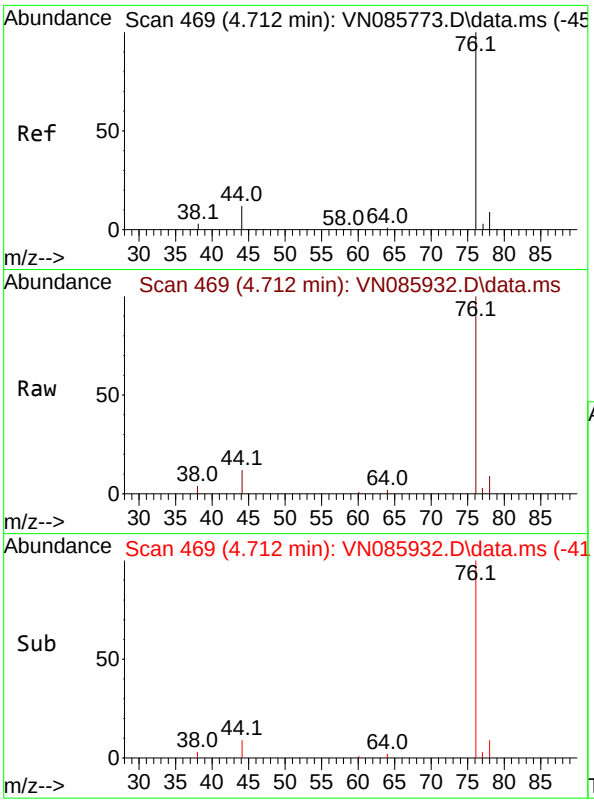


#16
Acetone
Concen: 100.579 ug/l
RT: 4.430 min Scan# 421
Delta R.T. 0.012 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 43 Resp: 68828

Ion	Ratio	Lower	Upper
43	100		
58	35.1	27.5	41.3





#17
Carbon Disulfide
Concen: 19.459 ug/l
RT: 4.712 min Scan# 4
Delta R.T. -0.000 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

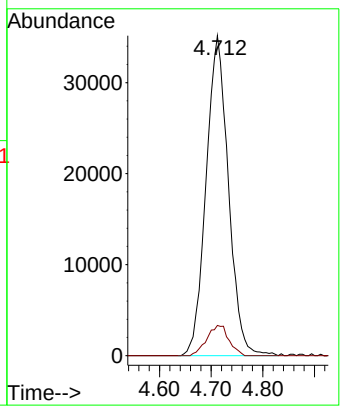
Tgt Ion: 76 Resp: 10550

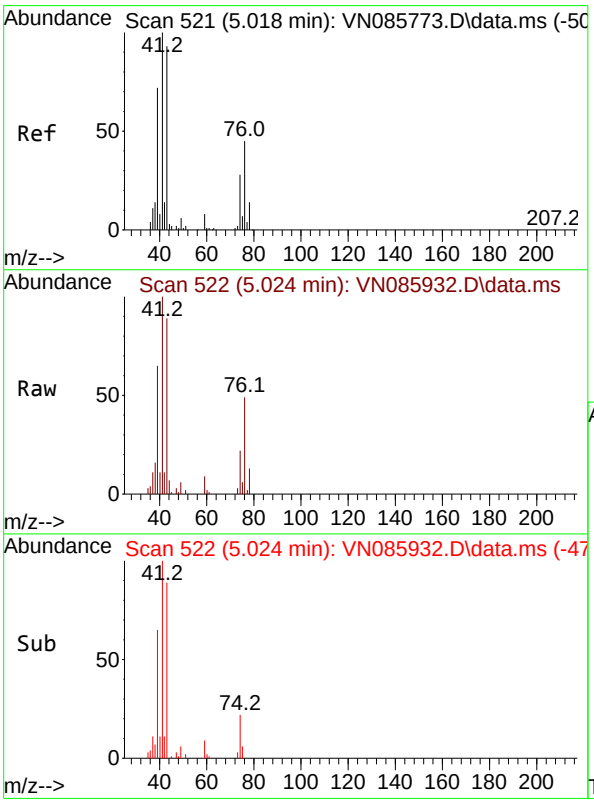
Ion	Ratio	Lower	Upper
76	100		
78	9.4	7.4	11.0

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

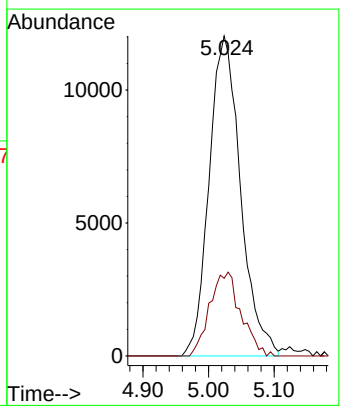


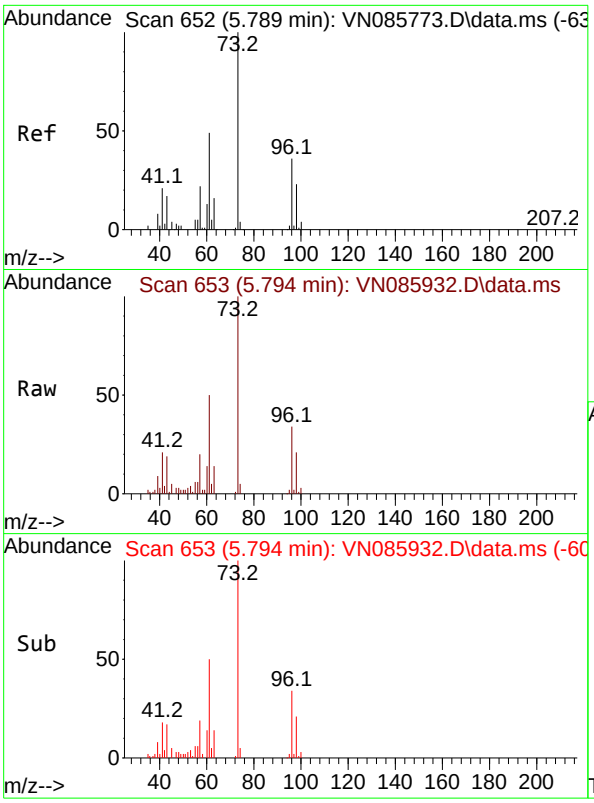


#18
Methyl Acetate
Concen: 17.019 ug/l
RT: 5.024 min Scan# 522
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 43 Resp: 40057

Ion	Ratio	Lower	Upper
43	100		
74	25.9	22.2	33.4

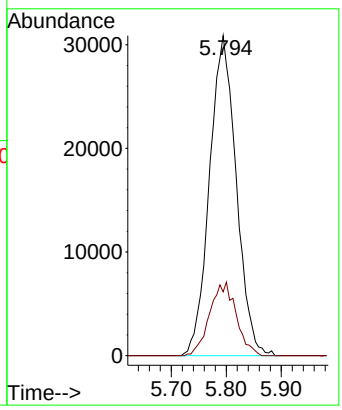




#19
Methyl tert-butyl Ether
Concen: 19.211 ug/l
RT: 5.794 min Scan# 6
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 73 Resp: 10443

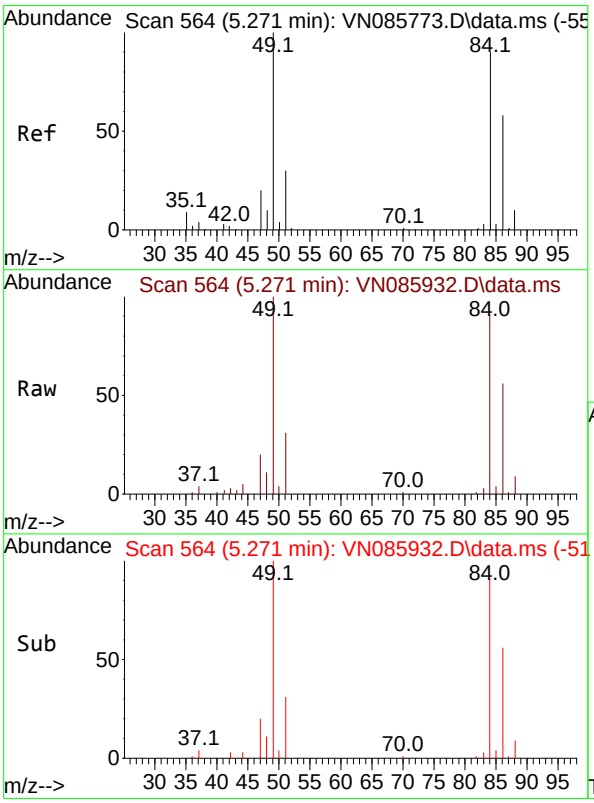
Ion	Ratio	Lower	Upper
73	100		
57	20.0	17.6	26.4



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

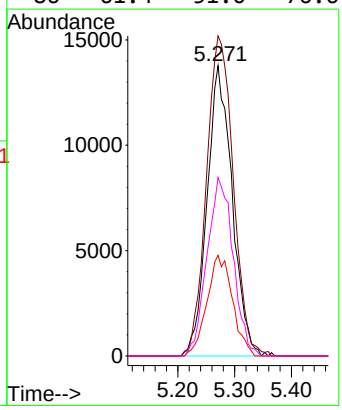
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

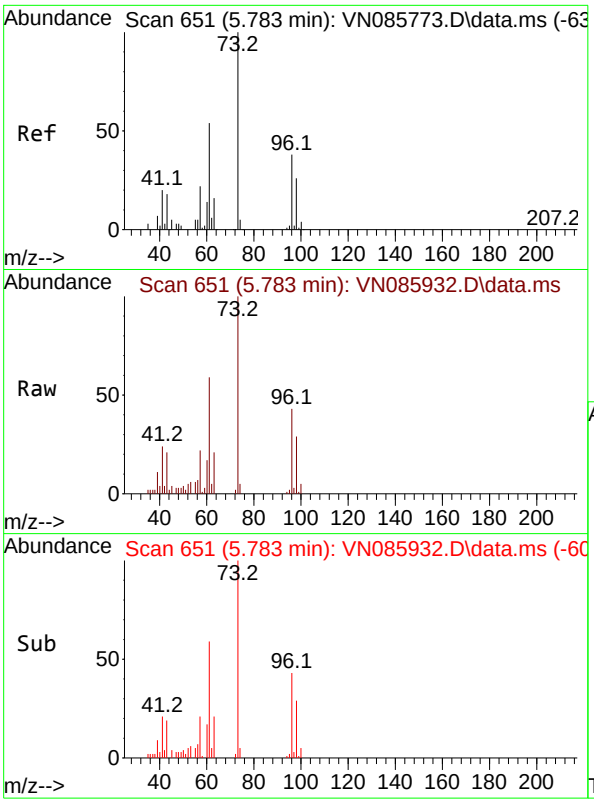


#20
Methylene Chloride
Concen: 19.194 ug/l
RT: 5.271 min Scan# 564
Delta R.T. -0.000 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 84 Resp: 42240

Ion	Ratio	Lower	Upper
84	100		
49	110.2	88.4	132.6
51	34.6	26.6	40.0
86	61.4	51.0	76.6

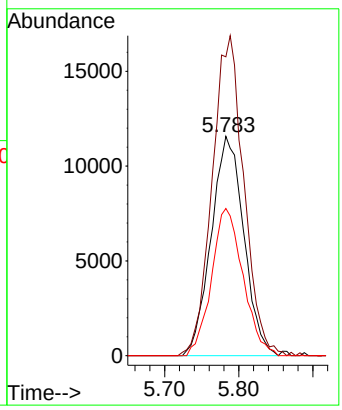




#21
trans-1,2-Dichloroethene
Concen: 17.952 ug/l
RT: 5.783 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 96 Resp: 3536

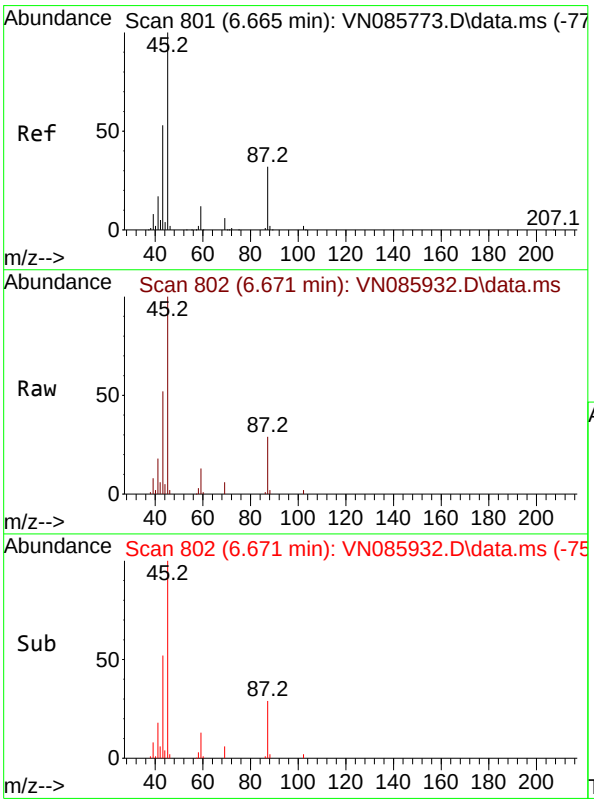
Ion	Ratio	Lower	Upper
96	100		
61	136.3	112.6	168.8
98	67.1	53.3	79.9



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

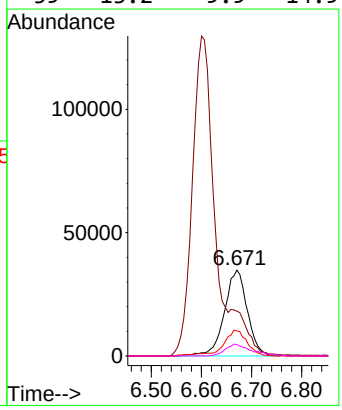
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

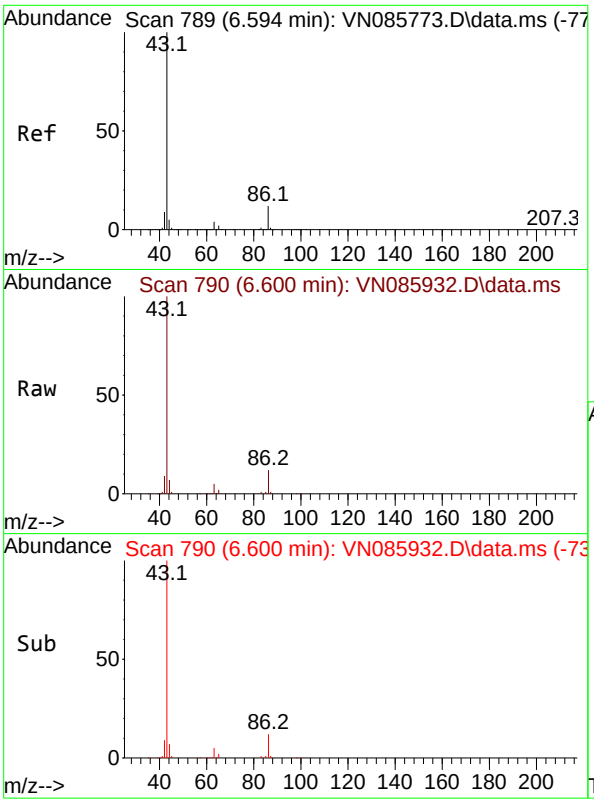


#22
Diisopropyl ether
Concen: 20.322 ug/l
RT: 6.671 min Scan# 802
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 45 Resp: 110291

Ion	Ratio	Lower	Upper
45	100		
43	50.8	42.6	64.0
87	29.2	25.8	38.8
59	13.2	9.9	14.9

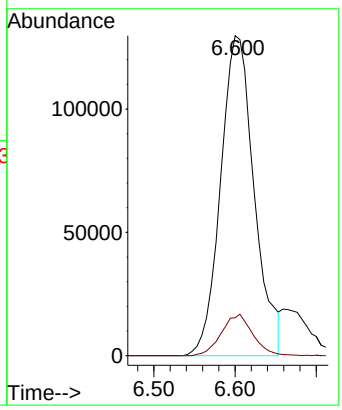




#23
Vinyl Acetate
Concen: 100.504 ug/l
RT: 6.600 min Scan# 7
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 43 Resp: 37346

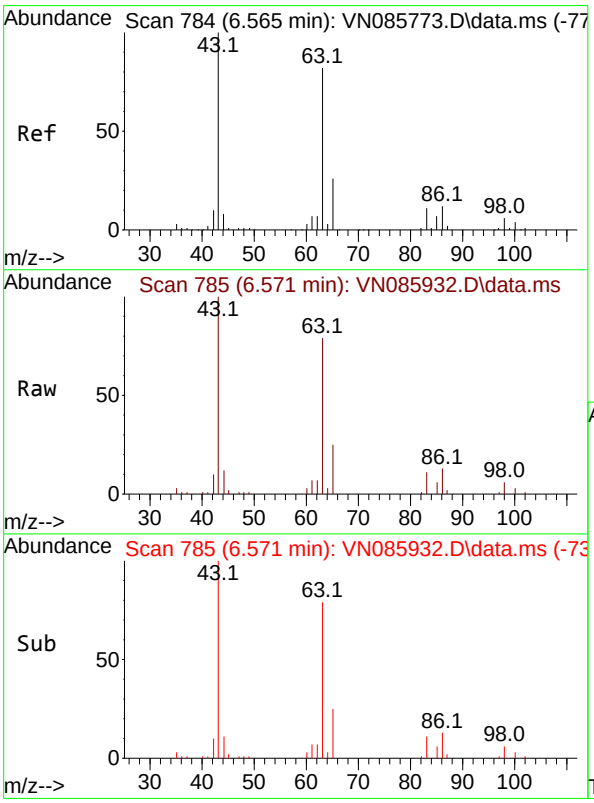
Ion	Ratio	Lower	Upper
43	100		
86	11.9	9.8	14.8



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

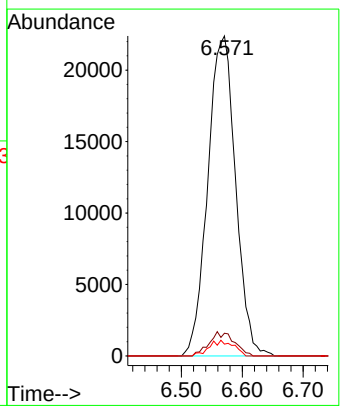
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

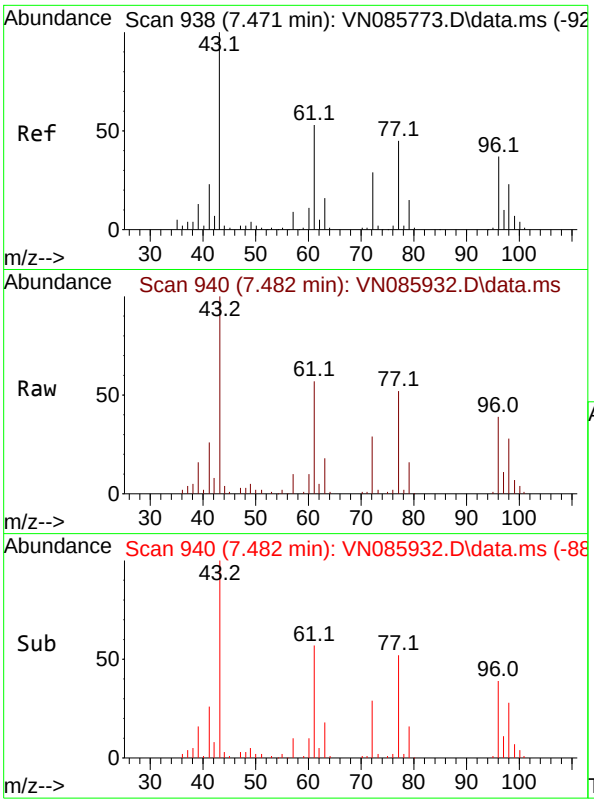


#24
1,1-Dichloroethane
Concen: 19.261 ug/l
RT: 6.571 min Scan# 785
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 63 Resp: 71060

Ion	Ratio	Lower	Upper
63	100		
98	7.1	3.5	10.4
100	3.7	2.4	7.2





#25
2-Butanone
Concen: 102.220 ug/l
RT: 7.482 min Scan# 94
Delta R.T. 0.012 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

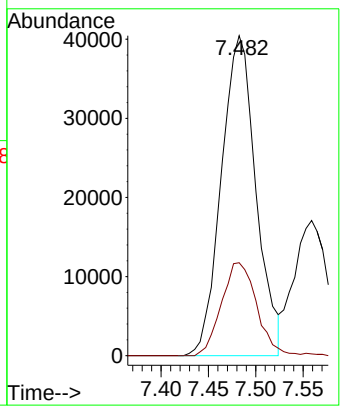
Tgt Ion: 43 Resp: 10291

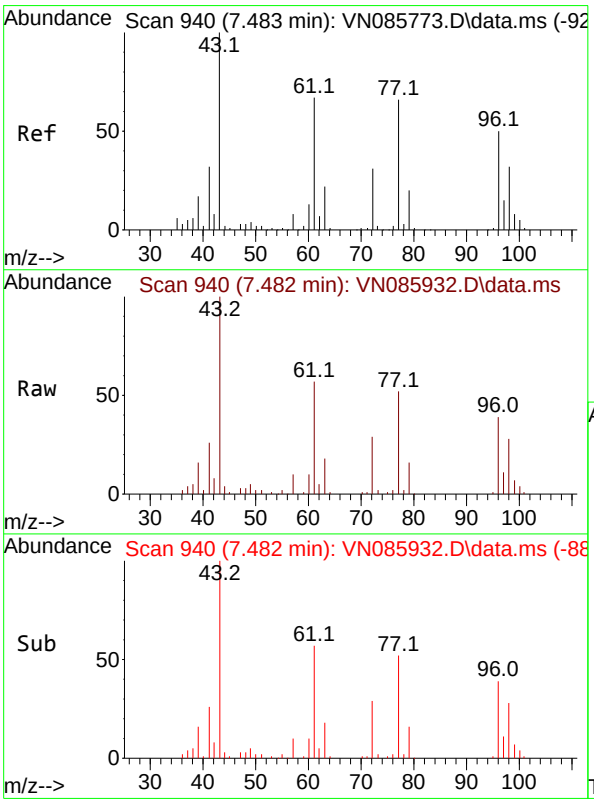
Ion	Ratio	Lower	Upper
43	100		
72	29.0	23.6	35.4

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

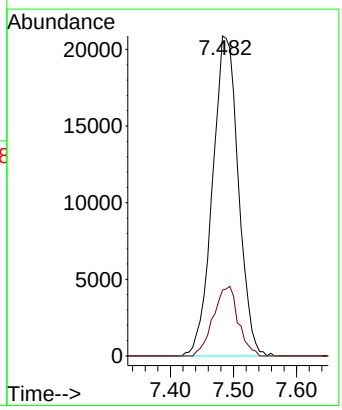


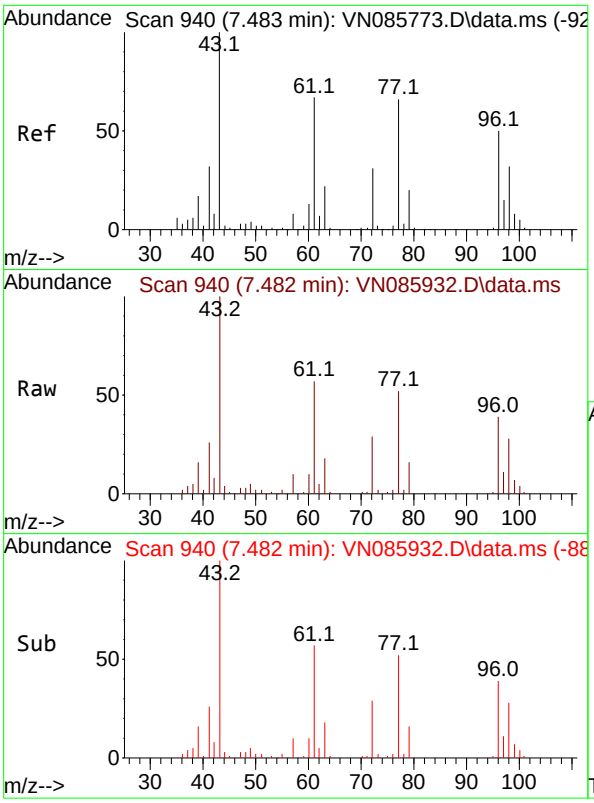


#26
2,2-Dichloropropane
Concen: 18.093 ug/l
RT: 7.482 min Scan# 940
Delta R.T. -0.000 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 77 Resp: 59355

Ion	Ratio	Lower	Upper
77	100		
97	21.0	11.3	33.8





#27
cis-1,2-Dichloroethene
Concen: 17.955 ug/l
RT: 7.482 min Scan# 94
Delta R.T. -0.000 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

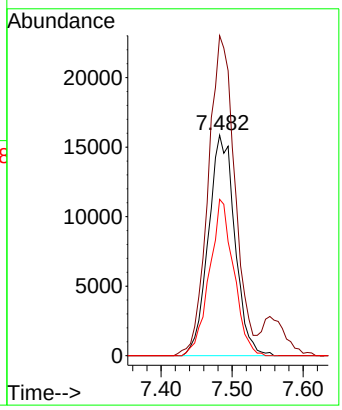
Tgt Ion: 96 Resp: 4100

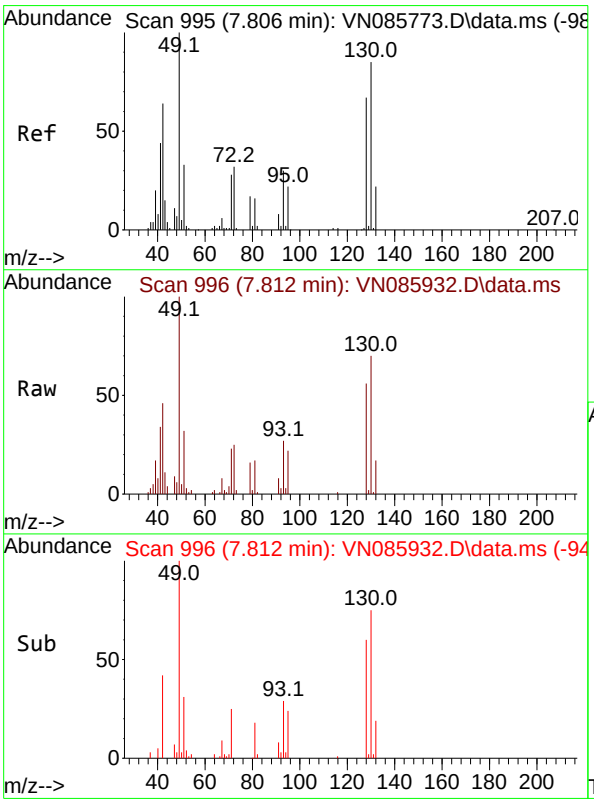
Ion	Ratio	Lower	Upper
96	100		
61	146.9	0.0	280.6
98	65.2	0.0	128.6

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

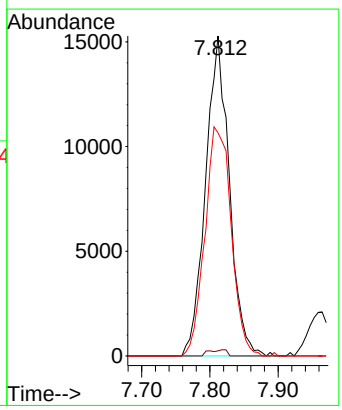


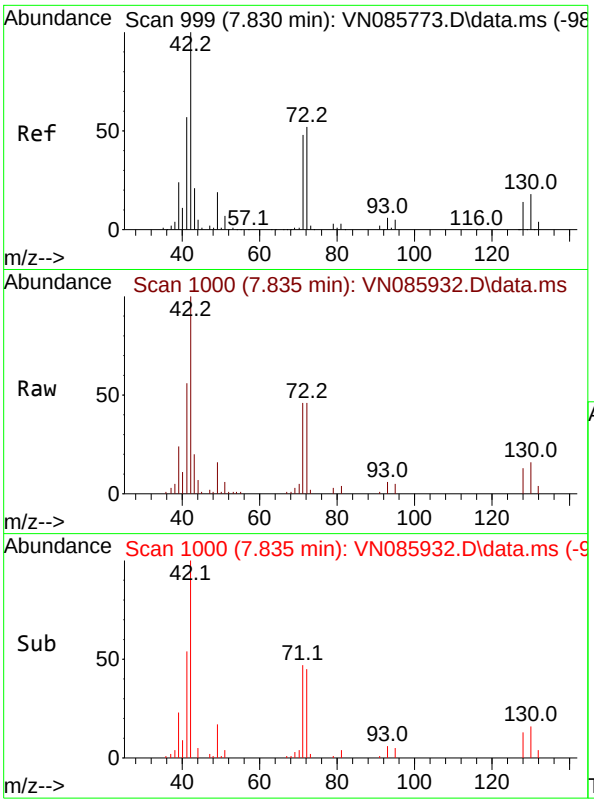


#28
Bromochloromethane
Concen: 24.397 ug/l
RT: 7.812 min Scan# 996
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 49 Resp: 36994

Ion	Ratio	Lower	Upper
49	100		
129	1.4	0.0	3.8
130	79.2	68.0	102.0





#29
Tetrahydrofuran
Concen: 103.352 ug/l
RT: 7.835 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

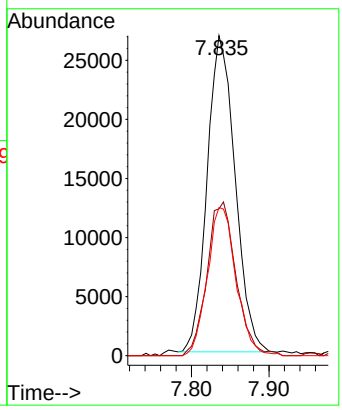
Tgt Ion: 42 Resp: 6719

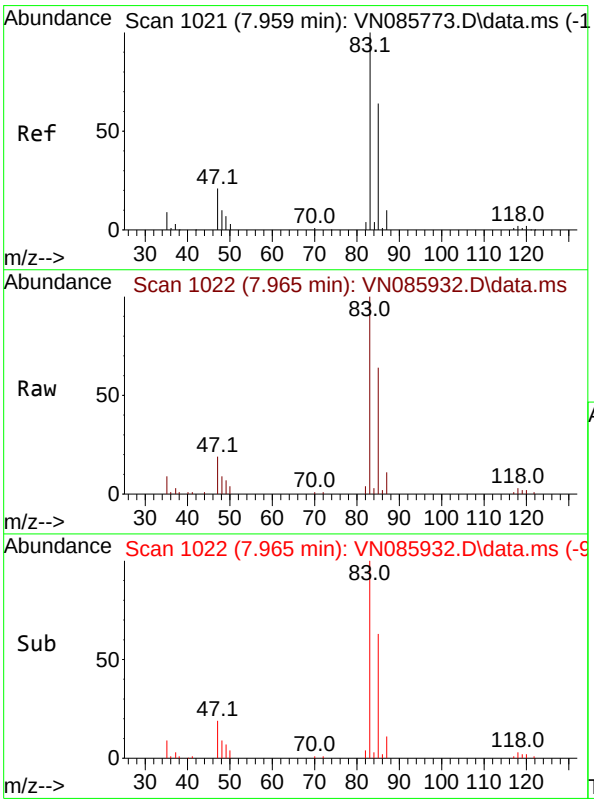
Ion	Ratio	Lower	Upper
42	100		
72	50.5	40.0	60.0
71	48.0	37.0	55.4

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

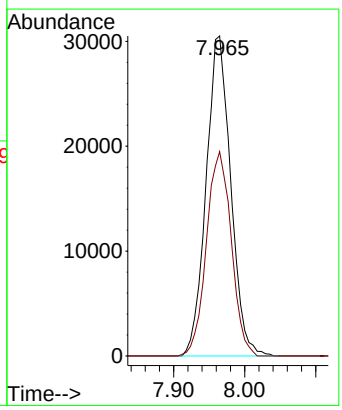


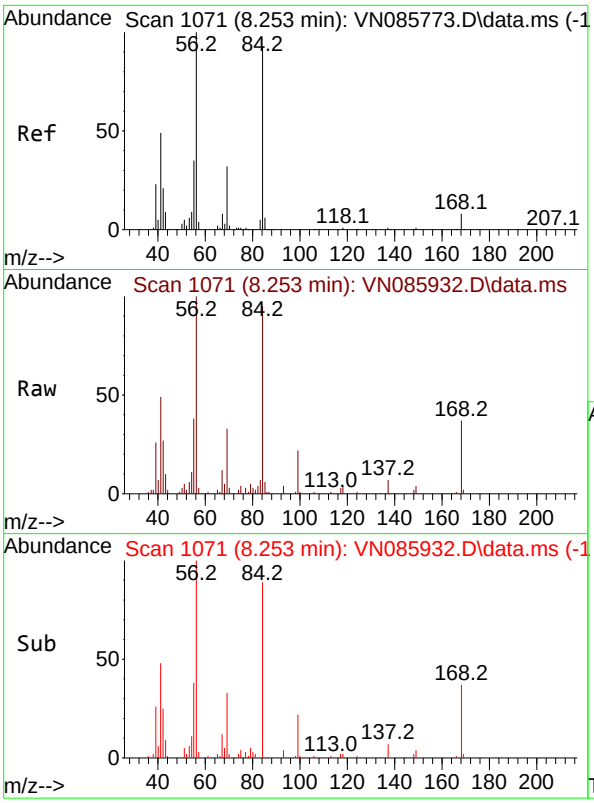


#30
Chloroform
Concen: 19.038 ug/l
RT: 7.965 min Scan# 1022
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 83 Resp: 73399

Ion	Ratio	Lower	Upper
83	100		
85	63.9	50.9	76.3

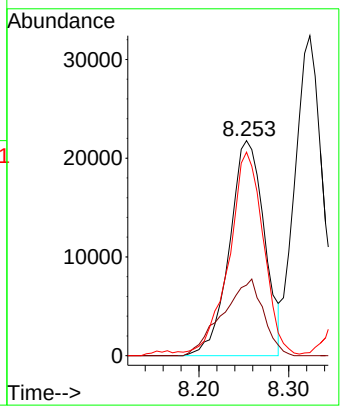




#31
Cyclohexane
Concen: 19.019 ug/l
RT: 8.253 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 56 Resp: 5875

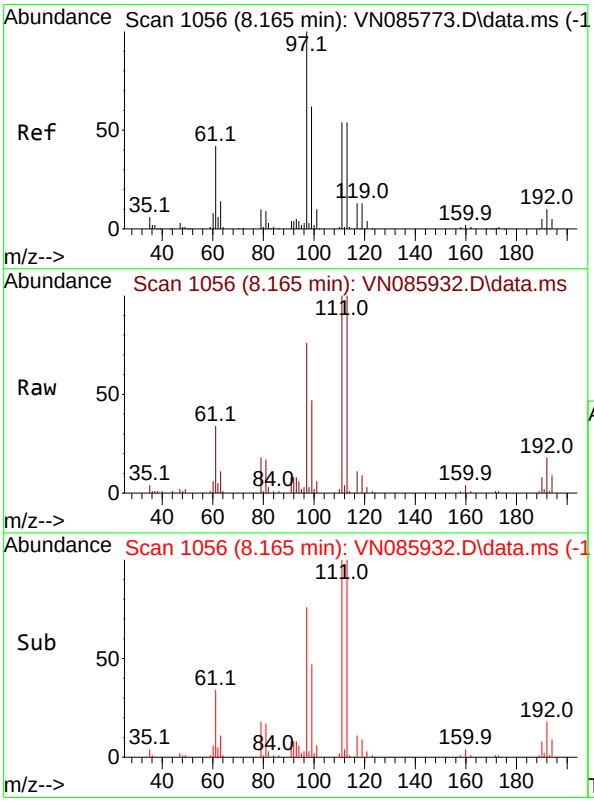
Ion	Ratio	Lower	Upper
56	100		
69	32.8	25.8	38.6
84	92.8	74.5	111.7



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

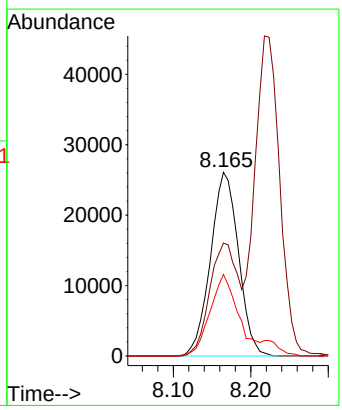
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

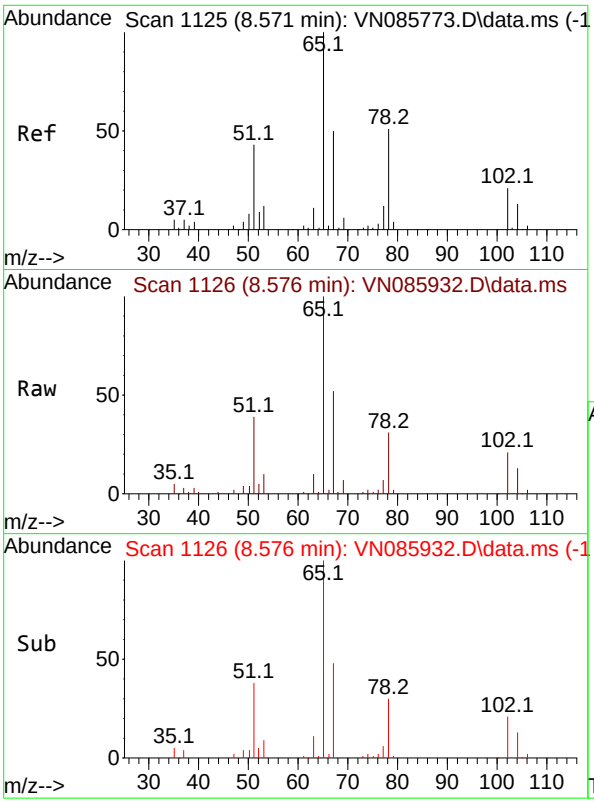


#32
1,1,1-Trichloroethane
Concen: 19.074 ug/l
RT: 8.165 min Scan# 1056
Delta R.T. -0.000 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 97 Resp: 65410

Ion	Ratio	Lower	Upper
97	100		
99	62.0	50.4	75.6
61	45.1	35.5	53.3

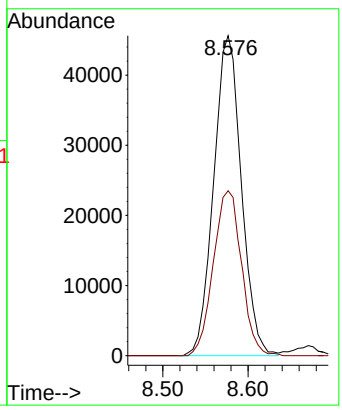




#33
1,2-Dichloroethane-d4
Concen: 47.591 ug/l
RT: 8.576 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 65 Resp: 10292

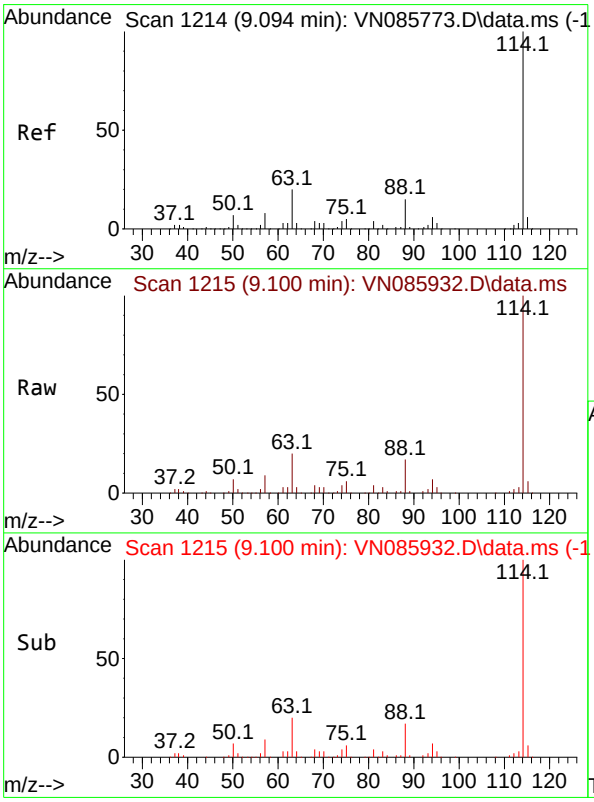
Ion	Ratio	Lower	Upper
65	100		
67	52.5	0.0	106.2



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

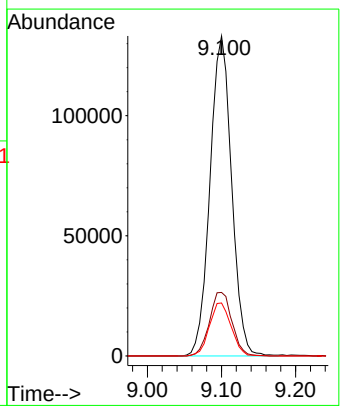
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

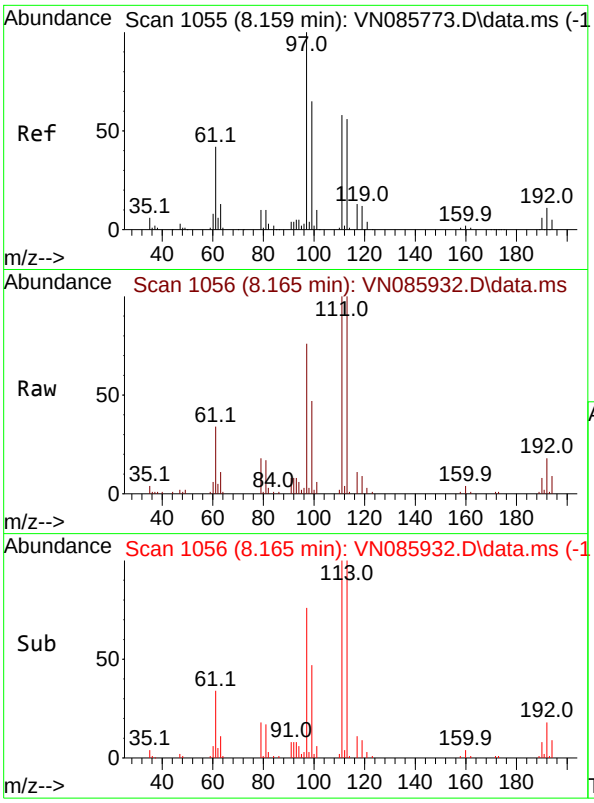


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.100 min Scan# 1215
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion:114 Resp: 269902

Ion	Ratio	Lower	Upper
114	100		
63	19.9	0.0	39.2
88	16.6	0.0	30.0

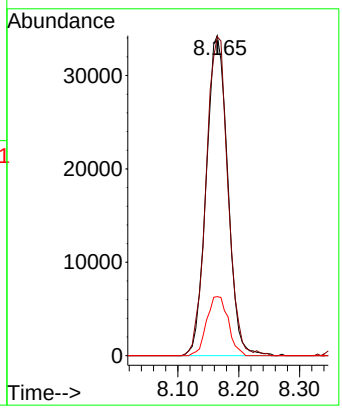




#35
Dibromofluoromethane
Concen: 47.628 ug/l
RT: 8.165 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion:113 Resp: 8411

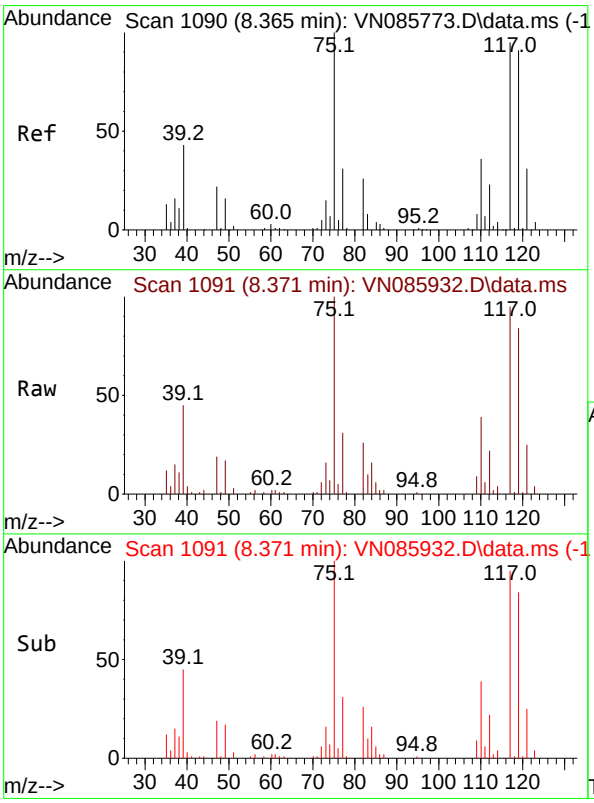
Ion	Ratio	Lower	Upper
113	100		
111	101.1	82.2	123.4
192	18.5	14.7	22.1



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

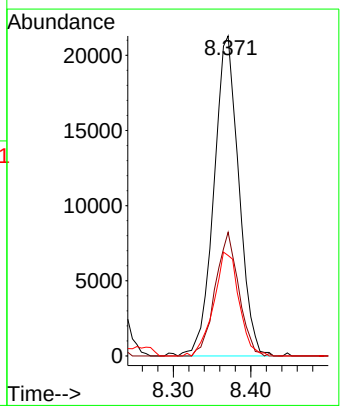
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

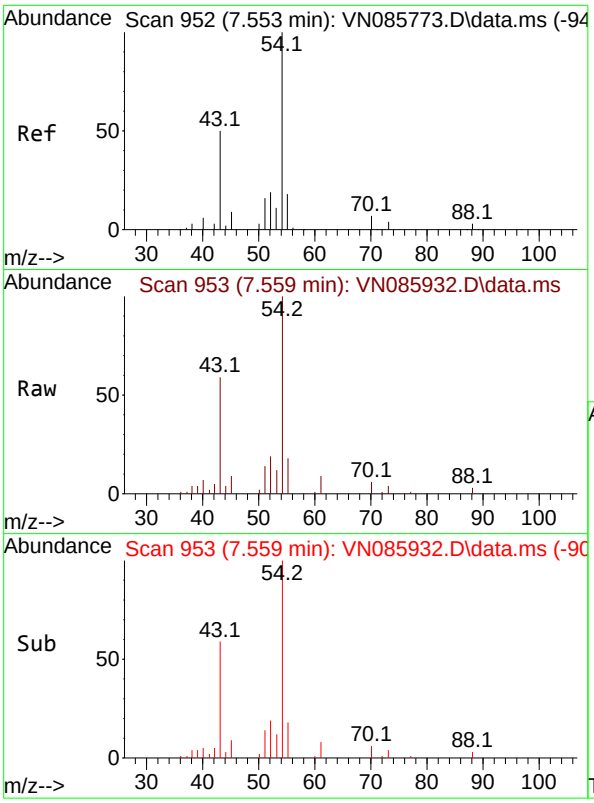


#36
1,1-Dichloropropene
Concen: 18.974 ug/l
RT: 8.371 min Scan# 1091
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 75 Resp: 47425

Ion	Ratio	Lower	Upper
75	100		
110	36.6	17.3	52.0
77	33.1	24.6	37.0





#37
Ethyl Acetate
Concen: 22.612 ug/l
RT: 7.559 min Scan# 9
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

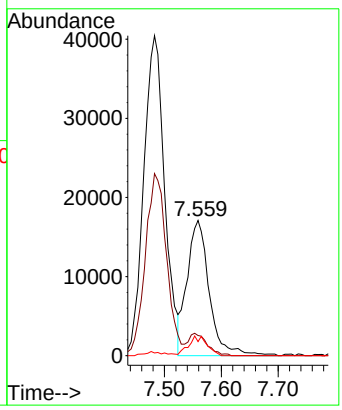
Tgt Ion: 43 Resp: 4651

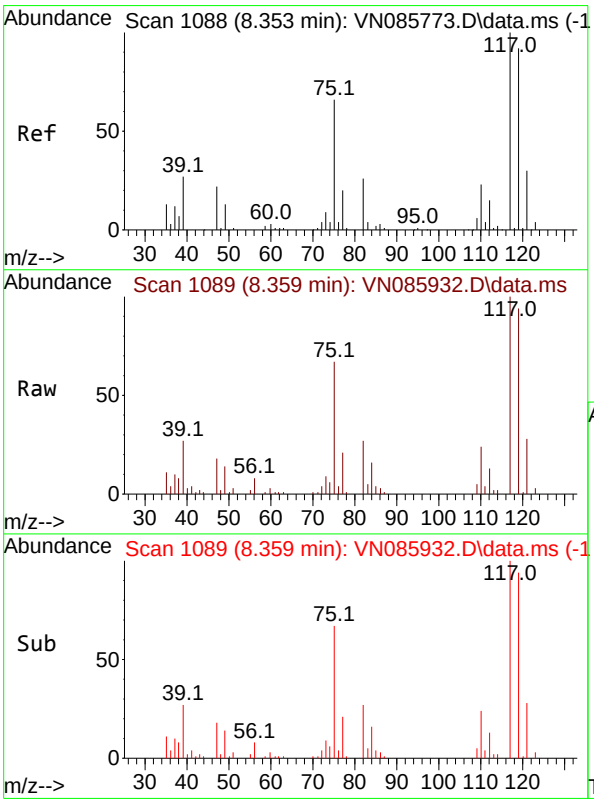
Ion	Ratio	Lower	Upper
43	100		
61	13.7	12.2	18.2
70	12.0	9.5	14.3

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

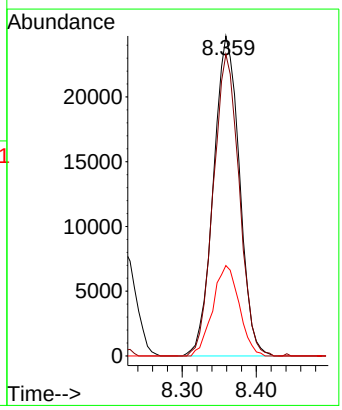


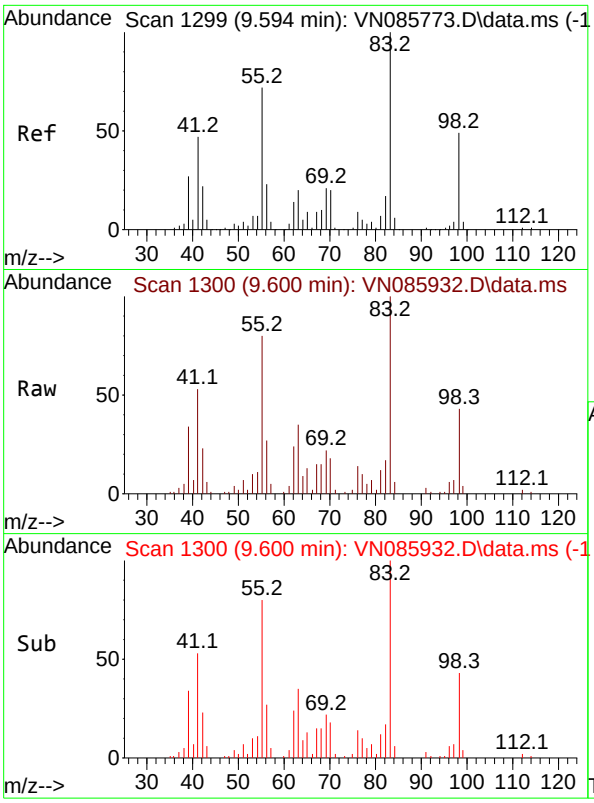


#38
Carbon Tetrachloride
Concen: 20.235 ug/l
RT: 8.359 min Scan# 1089
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion:117 Resp: 60097

Ion	Ratio	Lower	Upper
117	100		
119	94.3	73.8	110.6
121	28.2	24.3	36.5

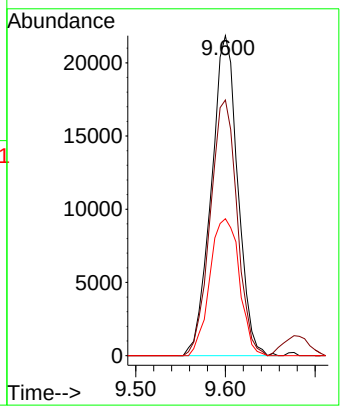




#39
Methylcyclohexane
Concen: 18.176 ug/l
RT: 9.600 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 83 Resp: 4463

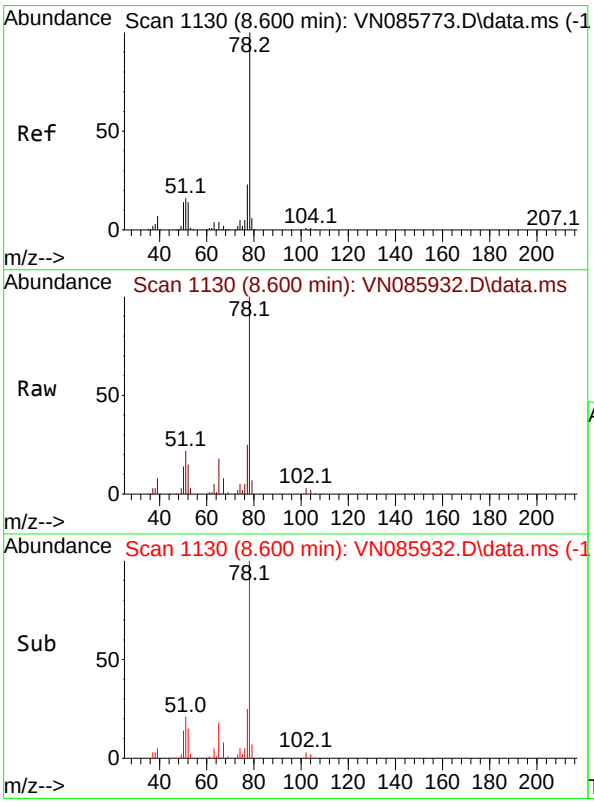
Ion	Ratio	Lower	Upper
83	100		
55	79.9	57.5	86.3
98	42.8	39.2	58.8



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

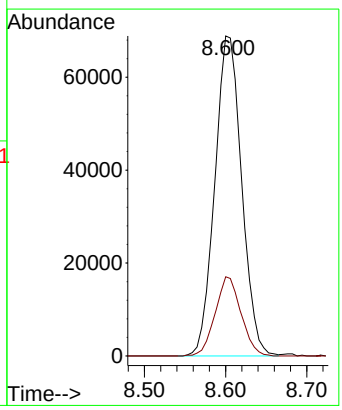
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

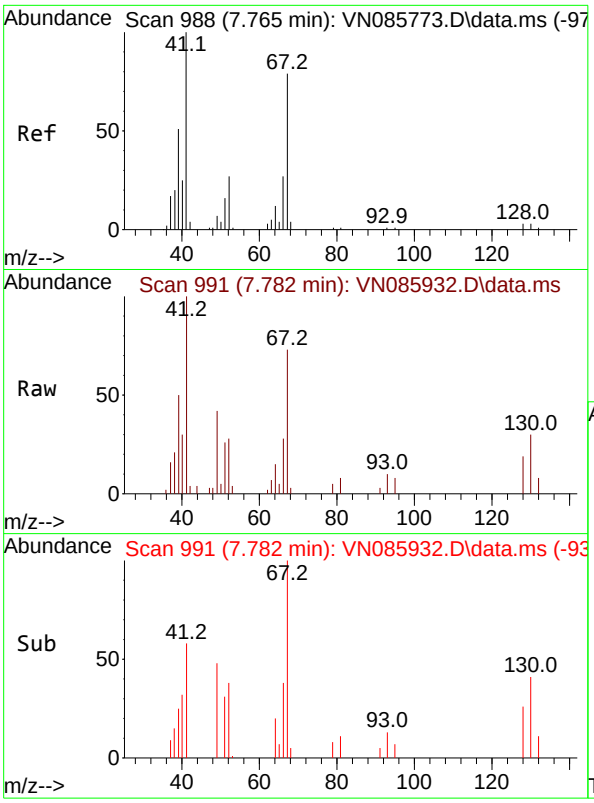


#40
Benzene
Concen: 19.751 ug/l
RT: 8.600 min Scan# 1130
Delta R.T. -0.000 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 78 Resp: 158231

Ion	Ratio	Lower	Upper
78	100		
77	24.8	18.3	27.5

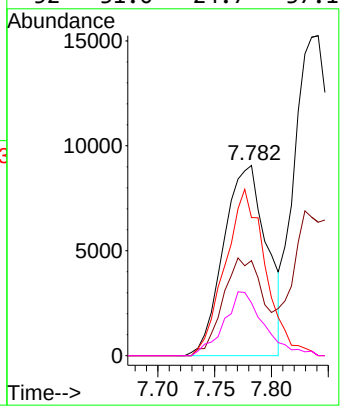




#41
Methacrylonitrile
Concen: 21.816 ug/l
RT: 7.782 min Scan# 9
Delta R.T. 0.017 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 41 Resp: 2398

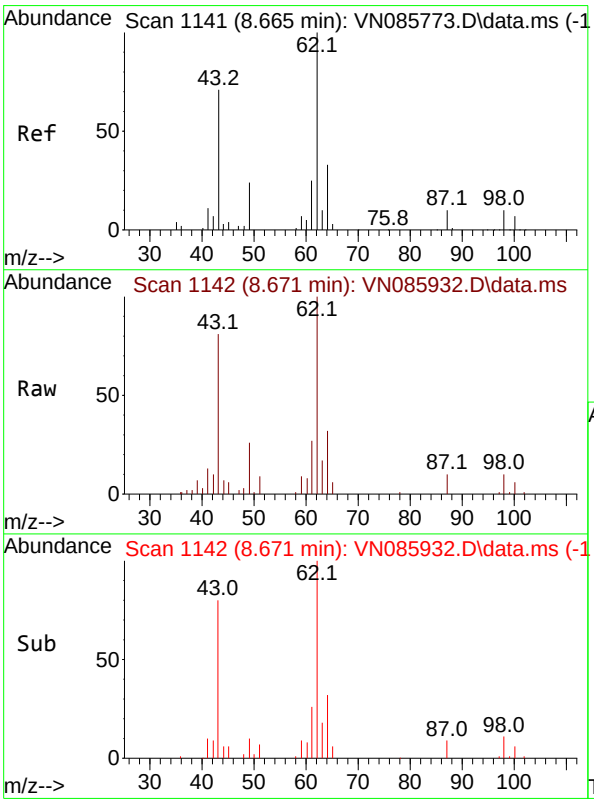
Ion	Ratio	Lower	Upper
41	100		
39	47.3	42.0	63.0
67	81.8	64.2	96.4
52	31.0	24.7	37.1



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

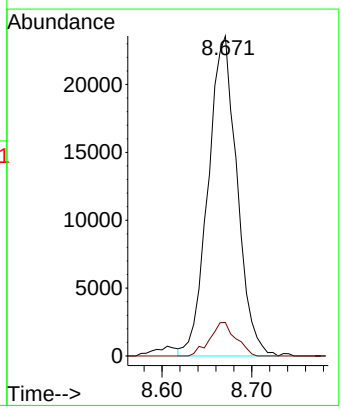
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

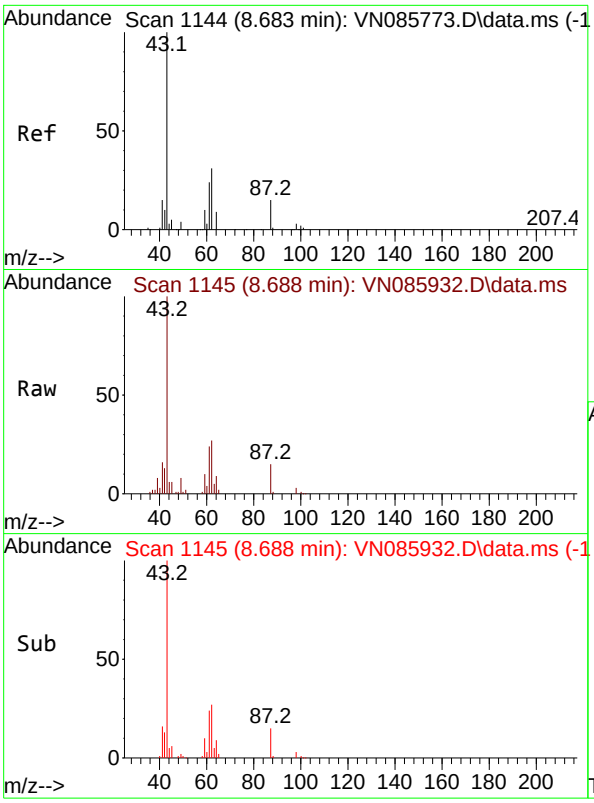


#42
1,2-Dichloroethane
Concen: 20.191 ug/l
RT: 8.671 min Scan# 1142
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 62 Resp: 52687

Ion	Ratio	Lower	Upper
62	100		
98	9.4	0.0	19.6

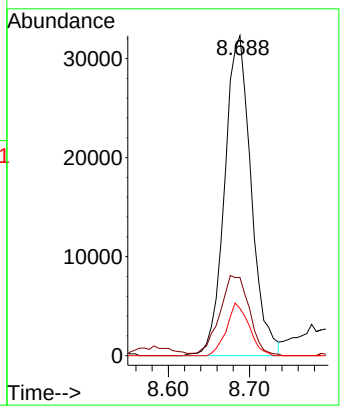




#43
Isopropyl Acetate
Concen: 19.978 ug/l
RT: 8.688 min Scan# 1
Delta R.T. 0.005 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 43 Resp: 7330

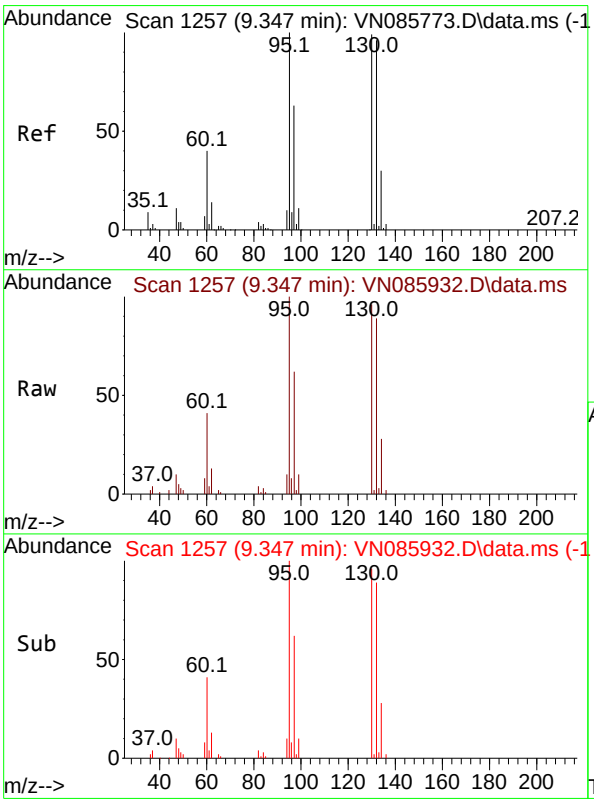
Ion	Ratio	Lower	Upper
43	100		
61	28.2	22.6	34.0
87	14.0	11.8	17.8



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

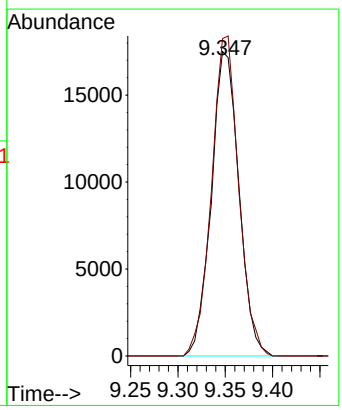
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

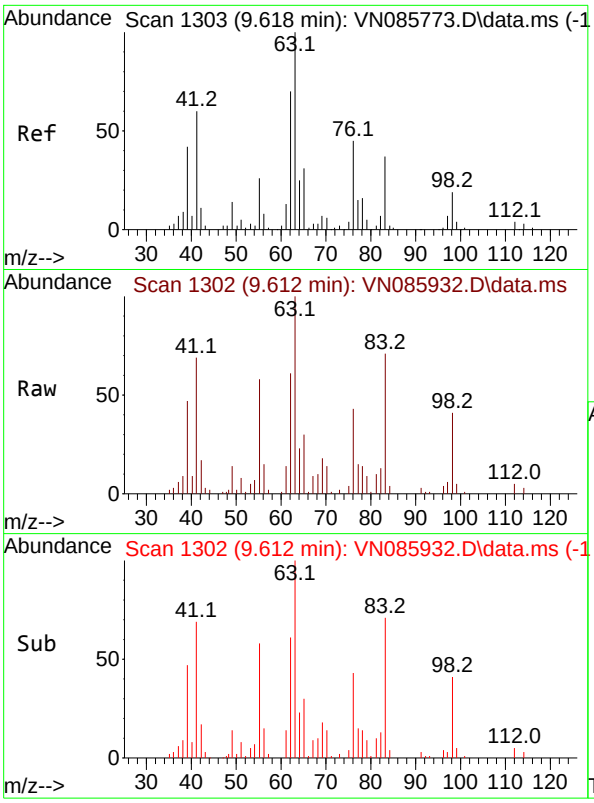


#44
Trichloroethene
Concen: 18.035 ug/l
RT: 9.347 min Scan# 1257
Delta R.T. -0.000 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion:130 Resp: 35475

Ion	Ratio	Lower	Upper
130	100		
95	104.3	0.0	202.6





#45
1,2-Dichloropropane
Concen: 20.301 ug/l
RT: 9.612 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

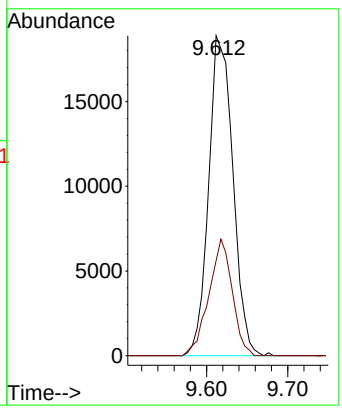
Tgt Ion: 63 Resp: 3925

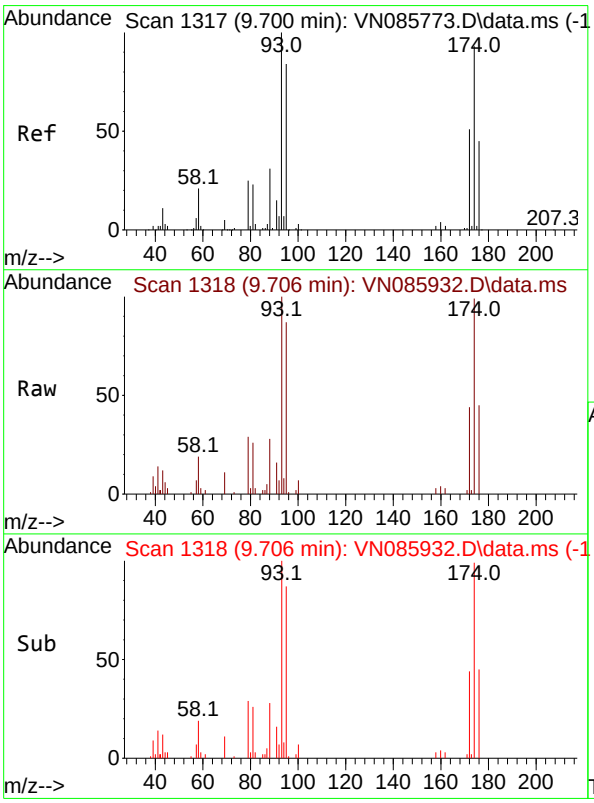
Ion	Ratio	Lower	Upper
63	100		
65	29.7	25.1	37.7

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

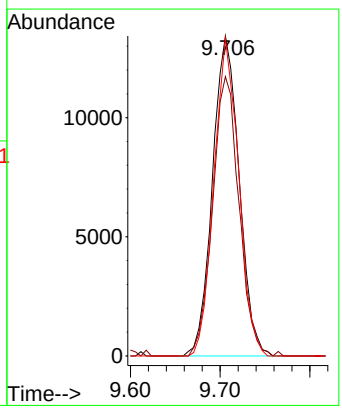


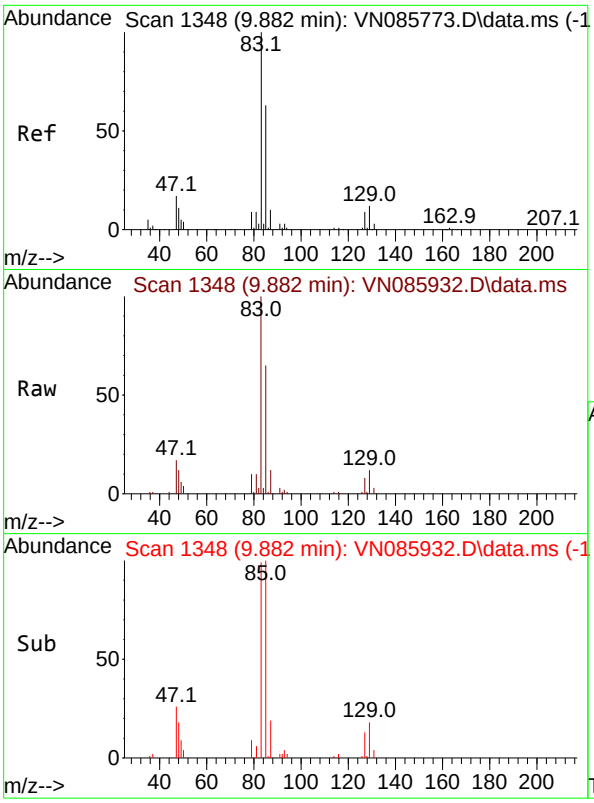


#46
Dibromomethane
Concen: 20.284 ug/l
RT: 9.706 min Scan# 1318
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 93 Resp: 27667

Ion	Ratio	Lower	Upper
93	100		
95	86.4	66.7	100.1
174	92.6	77.2	115.8

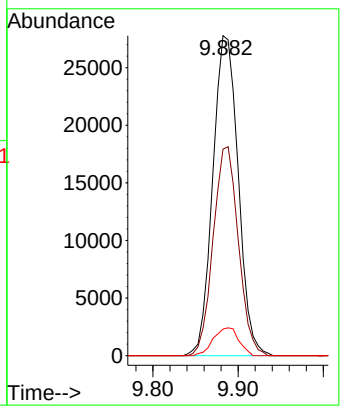




#47
Bromodichloromethane
Concen: 19.722 ug/l
RT: 9.882 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 83 Resp: 5755

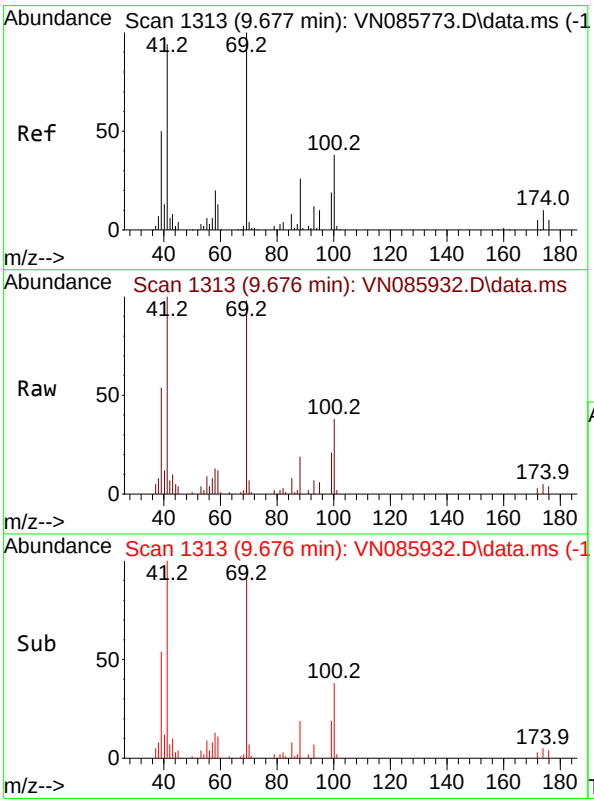
Ion	Ratio	Lower	Upper
83	100		
85	64.5	50.5	75.7
127	8.3	7.2	10.8



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

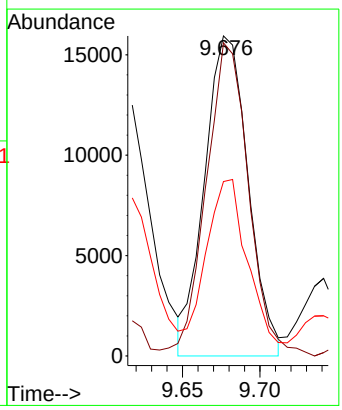
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

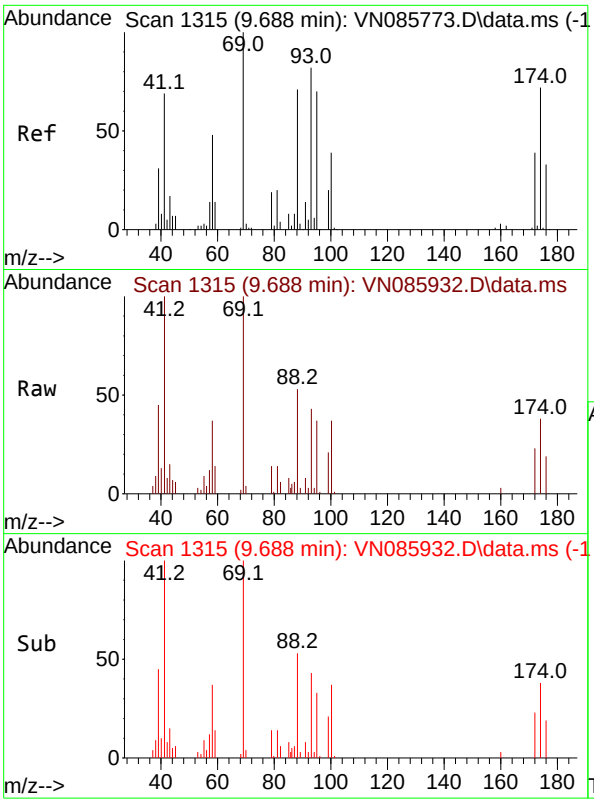


#48
Methyl methacrylate
Concen: 20.391 ug/l
RT: 9.676 min Scan# 1313
Delta R.T. -0.000 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 41 Resp: 31149

Ion	Ratio	Lower	Upper
41	100		
69	95.4	76.0	114.0
39	54.9	42.3	63.5





#49
1,4-Dioxane
Concen: 446.857 ug/l
RT: 9.688 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

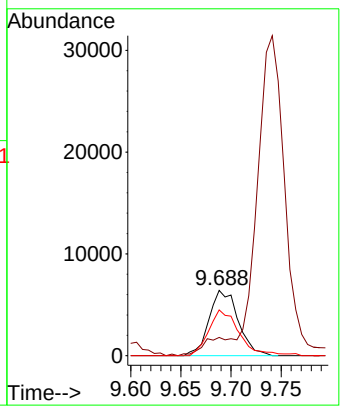
Tgt Ion: 88 Resp: 1298

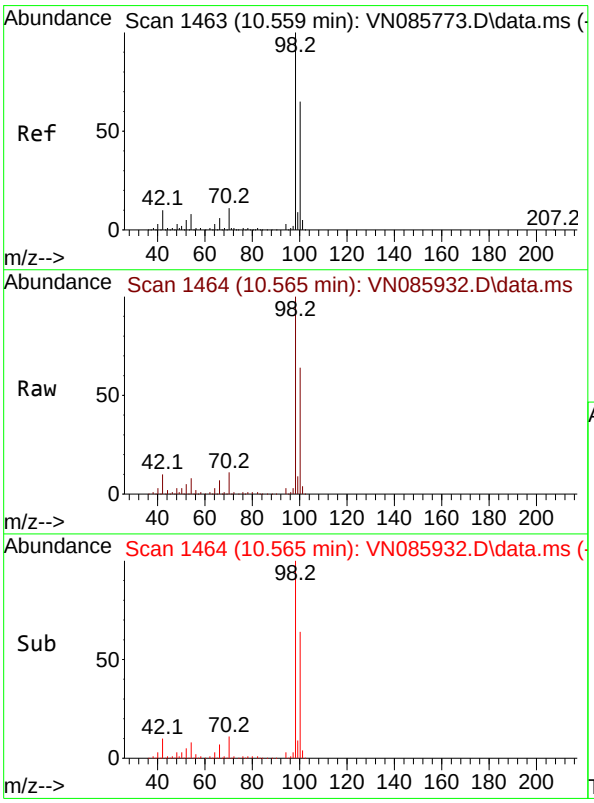
Ion	Ratio	Lower	Upper
88	100		
43	22.2	18.6	27.8
58	73.6	56.7	85.1

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

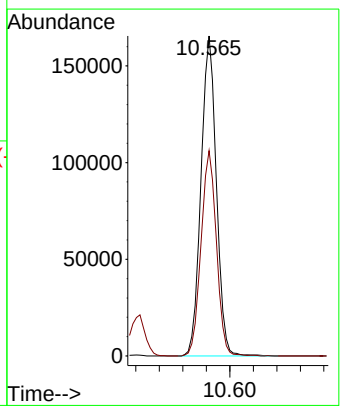


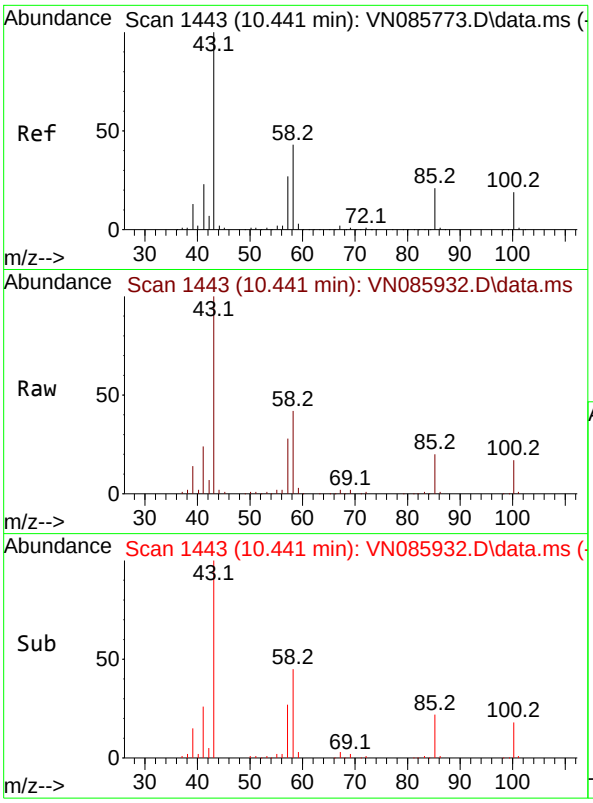


#50
Toluene-d8
Concen: 46.614 ug/l
RT: 10.565 min Scan# 1464
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 98 Resp: 299527

Ion	Ratio	Lower	Upper
98	100		
100	64.2	52.1	78.1





#51
4-Methyl-2-Pentanone
Concen: 109.892 ug/l
RT: 10.441 min Scan# 14
Delta R.T. -0.000 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

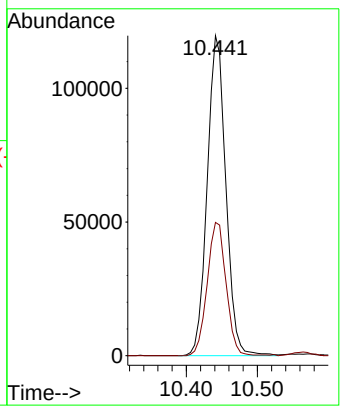
Tgt Ion: 43 Resp: 21793

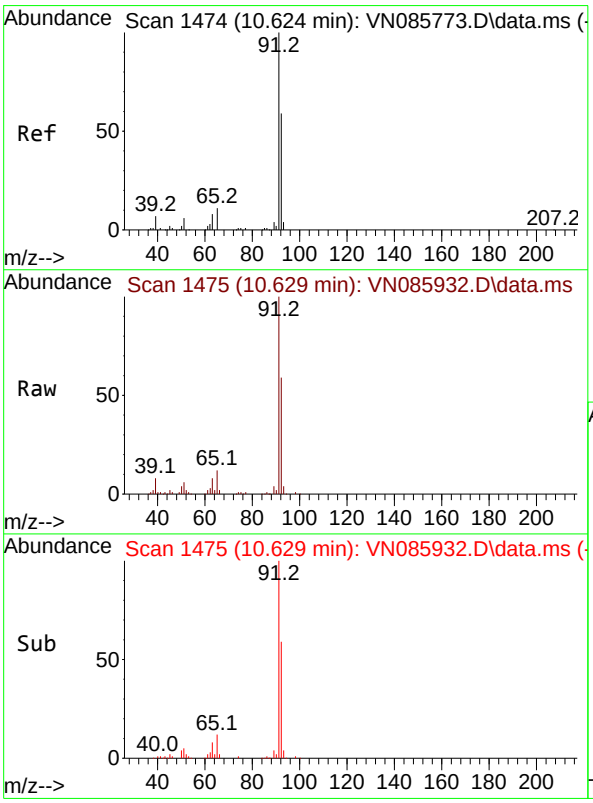
Ion	Ratio	Lower	Upper
43	100		
58	42.2	34.6	52.0

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

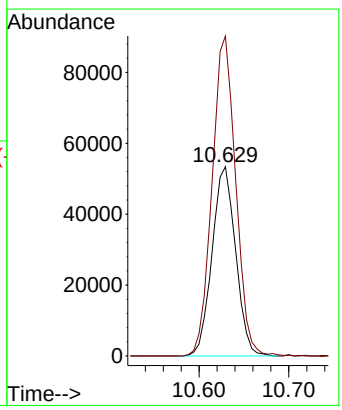


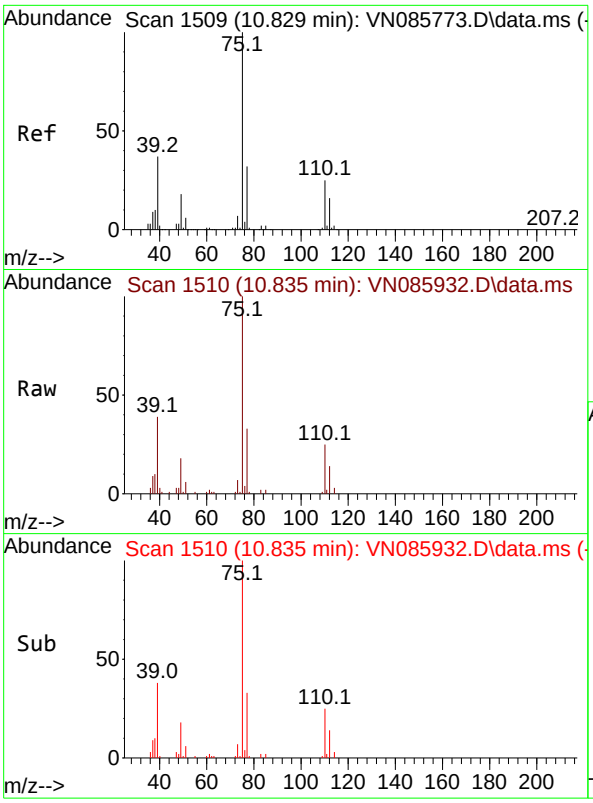


#52
Toluene
Concen: 20.732 ug/l
RT: 10.629 min Scan# 1475
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 92 Resp: 97359

Ion	Ratio	Lower	Upper
92	100		
91	169.2	136.9	205.3





#53
t-1,3-Dichloropropene
Concen: 20.077 ug/l
RT: 10.835 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

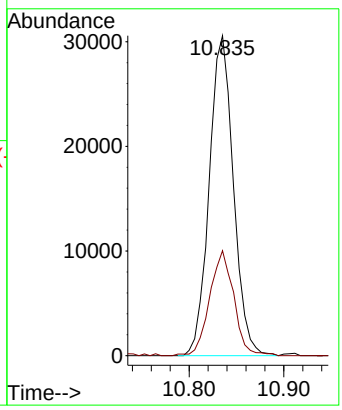
Tgt Ion: 75 Resp: 5417

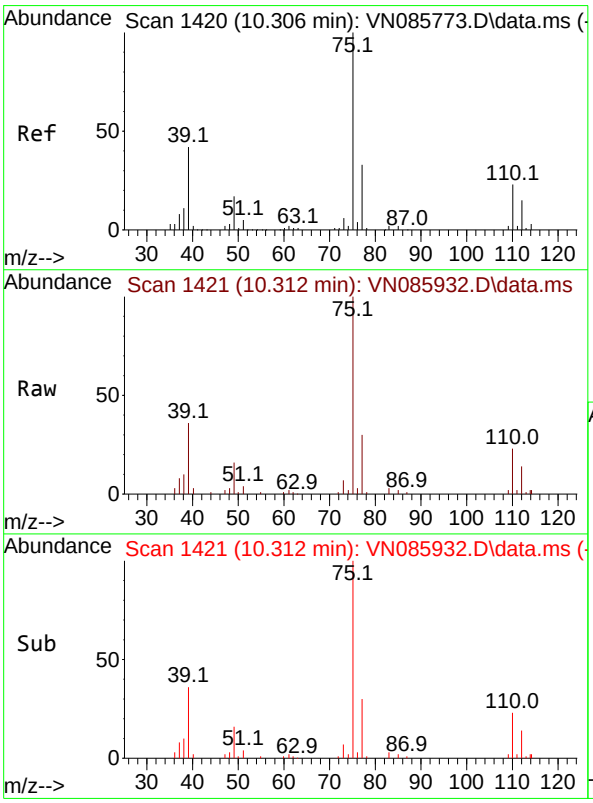
Ion	Ratio	Lower	Upper
75	100		
77	32.8	25.4	38.0

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

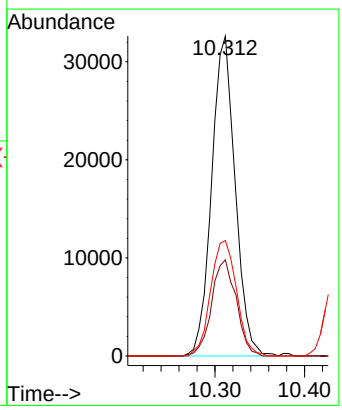


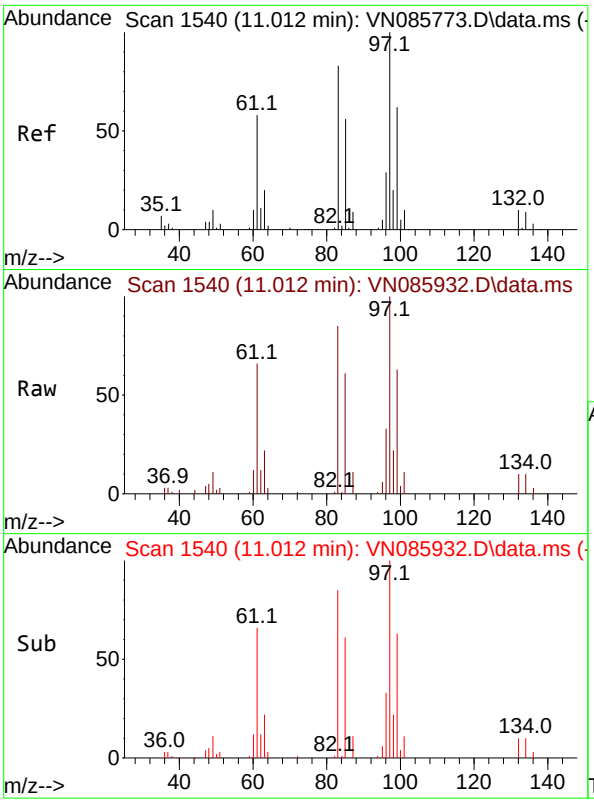


#54
cis-1,3-Dichloropropene
Concen: 20.076 ug/l
RT: 10.312 min Scan# 1421
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 75 Resp: 59404

Ion	Ratio	Lower	Upper
75	100		
77	30.0	26.1	39.1
39	36.0	33.4	50.0

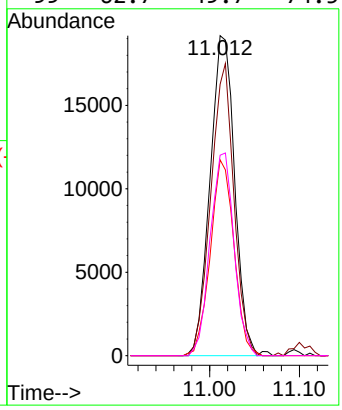




#55
1,1,2-Trichloroethane
Concen: 19.597 ug/l
RT: 11.012 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 97 Resp: 3659

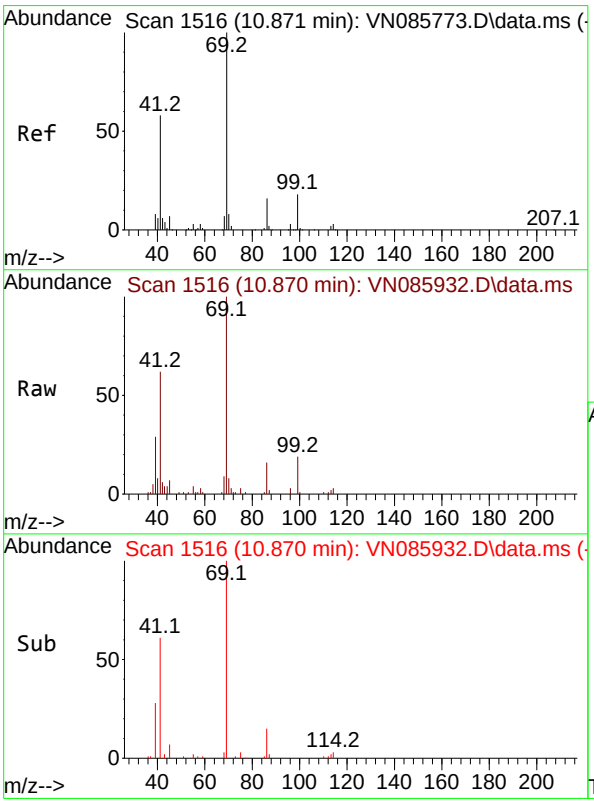
Ion	Ratio	Lower	Upper
97	100		
83	84.8	66.1	99.1
85	61.2	44.7	67.1
99	62.7	49.7	74.5



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

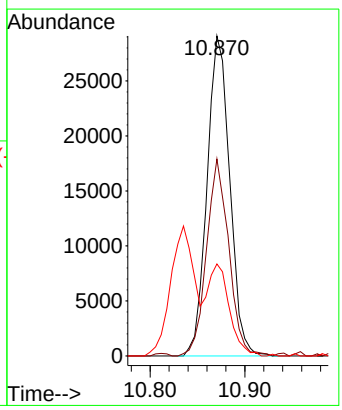
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

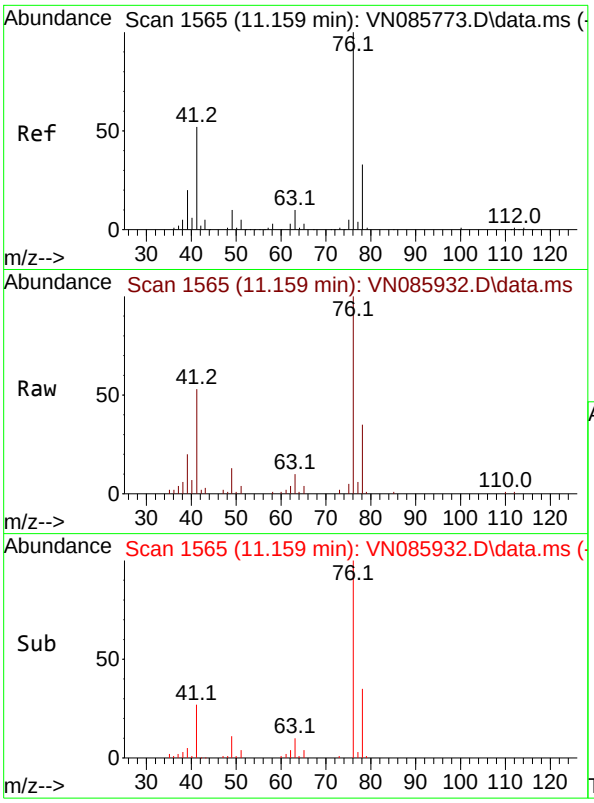


#56
Ethyl methacrylate
Concen: 19.676 ug/l
RT: 10.870 min Scan# 1516
Delta R.T. -0.001 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 69 Resp: 48469

Ion	Ratio	Lower	Upper
69	100		
41	60.4	46.0	69.0
39	28.3	22.0	33.0

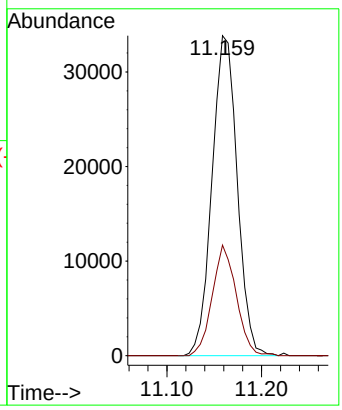




#57
1,3-Dichloropropane
Concen: 20.098 ug/l
RT: 11.159 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 76 Resp: 6264

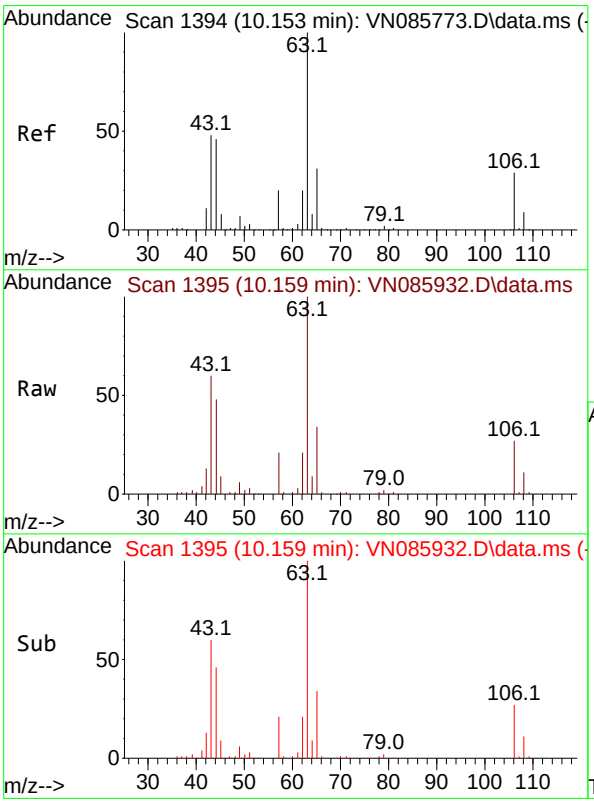
Ion	Ratio	Lower	Upper
76	100		
78	33.0	25.9	38.9



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

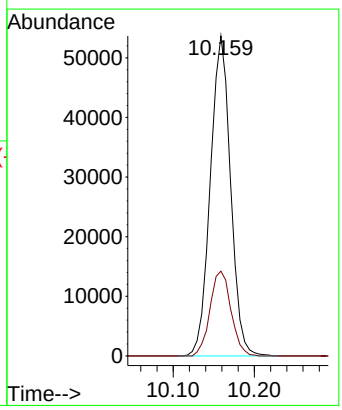
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

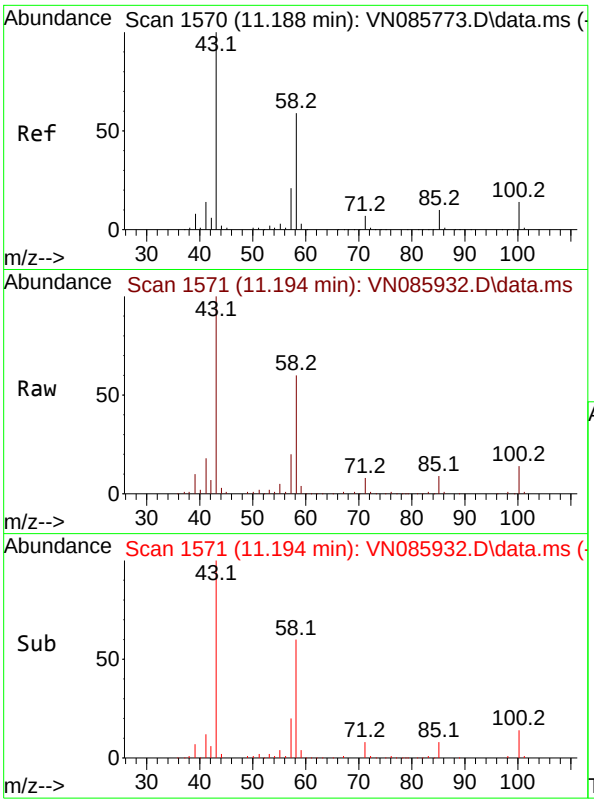


#58
2-Chloroethyl Vinyl ether
Concen: 104.180 ug/l
RT: 10.159 min Scan# 1395
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 63 Resp: 92918

Ion	Ratio	Lower	Upper
63	100		
106	27.5	22.7	34.1





#59
2-Hexanone
Concen: 113.129 ug/l
RT: 11.194 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

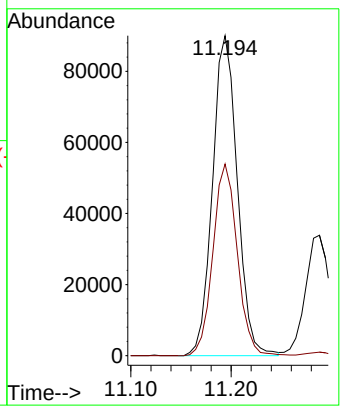
Tgt Ion: 43 Resp: 15434

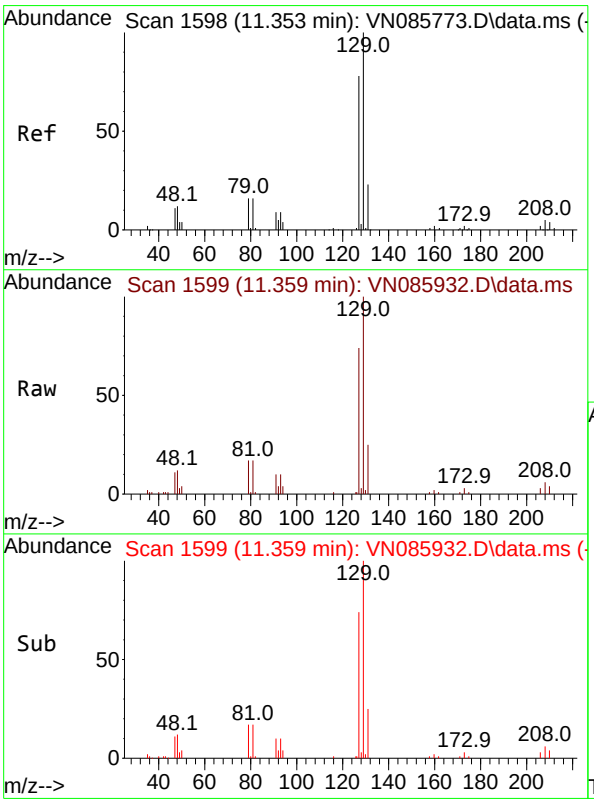
Ion	Ratio	Lower	Upper
43	100		
58	58.8	29.8	89.5

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

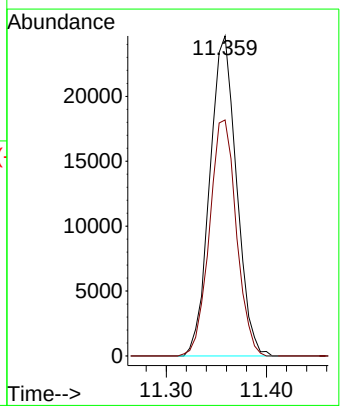


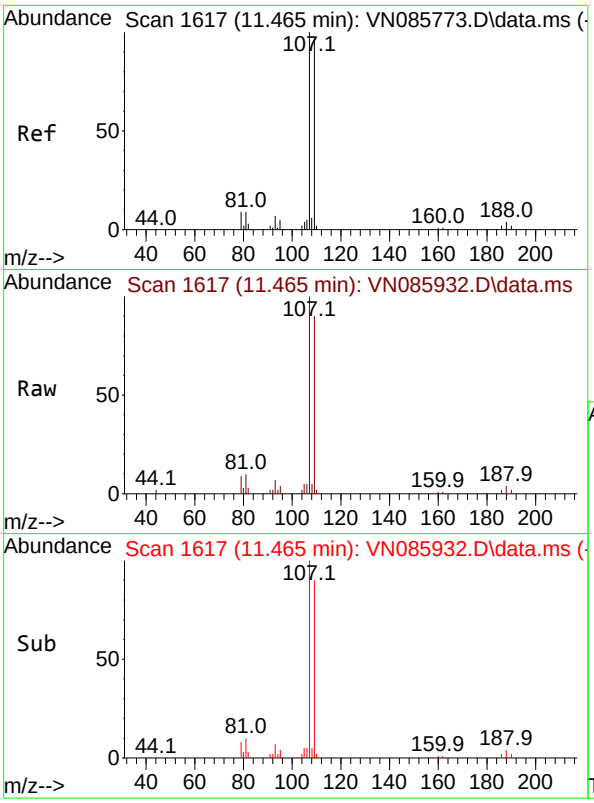


#60
Dibromochloromethane
Concen: 20.971 ug/l
RT: 11.359 min Scan# 1599
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion:129 Resp: 45593

Ion	Ratio	Lower	Upper
129	100		
127	74.2	39.1	117.5





#61
1,2-Dibromoethane
Concen: 20.368 ug/l
RT: 11.465 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

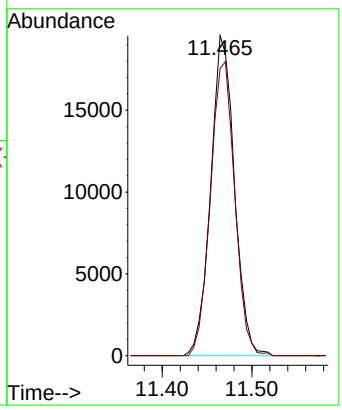
Tgt Ion:107 Resp: 3593

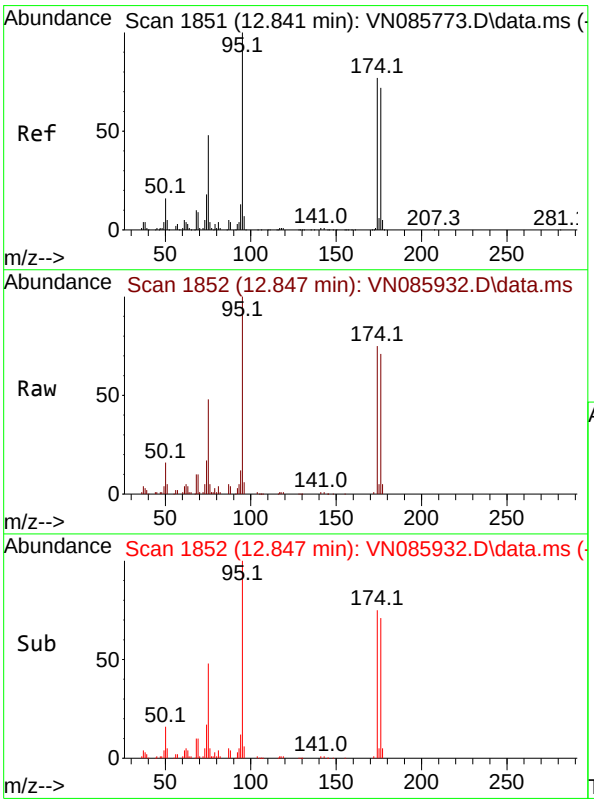
Ion	Ratio	Lower	Upper
107	100		
109	93.8	76.0	114.0

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

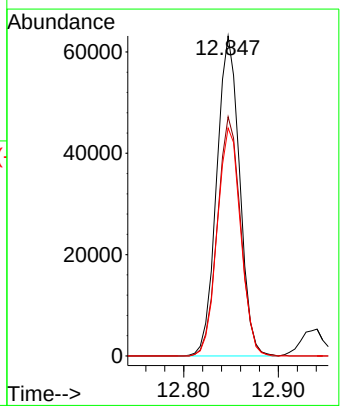


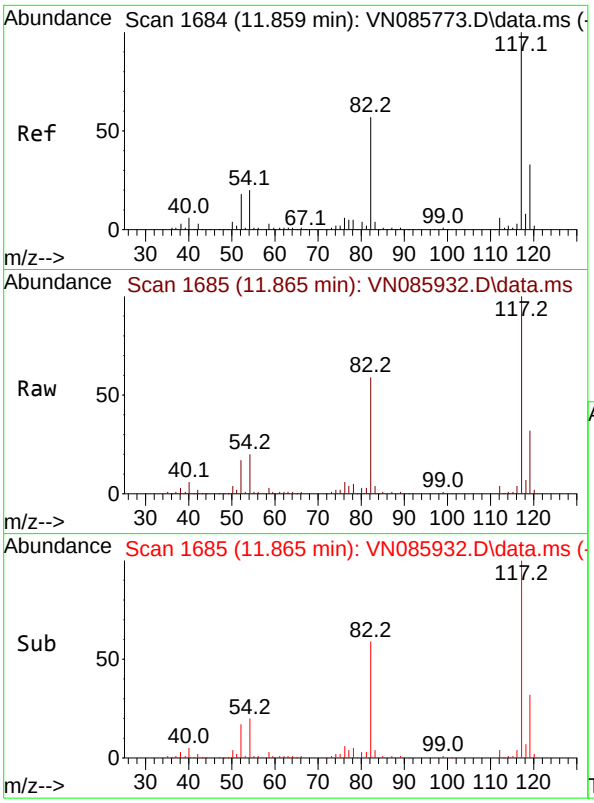


#62
4-Bromofluorobenzene
Concen: 50.218 ug/l
RT: 12.847 min Scan# 1852
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 95 Resp: 106317

Ion	Ratio	Lower	Upper
95	100		
174	75.6	0.0	152.4
176	72.7	0.0	146.6





#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.865 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

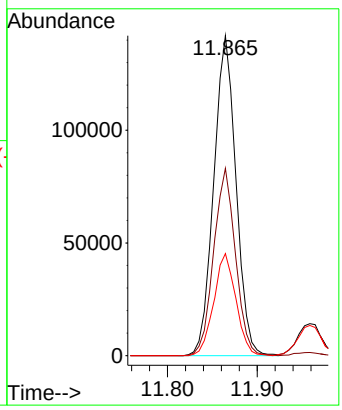
Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

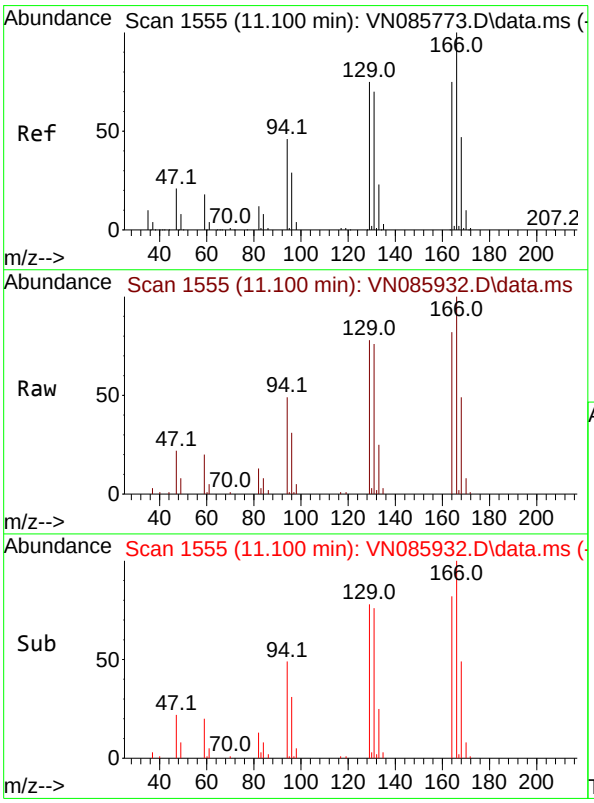
Tgt Ion:117 Resp: 24408

Ion	Ratio	Lower	Upper
117	100		
82	58.6	45.7	68.5
119	31.9	26.2	39.2

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

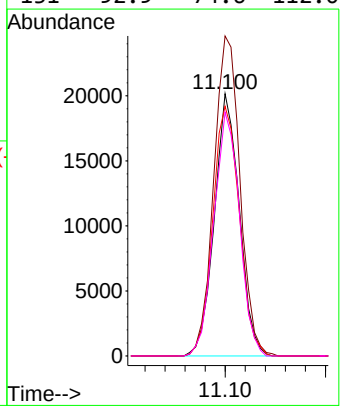


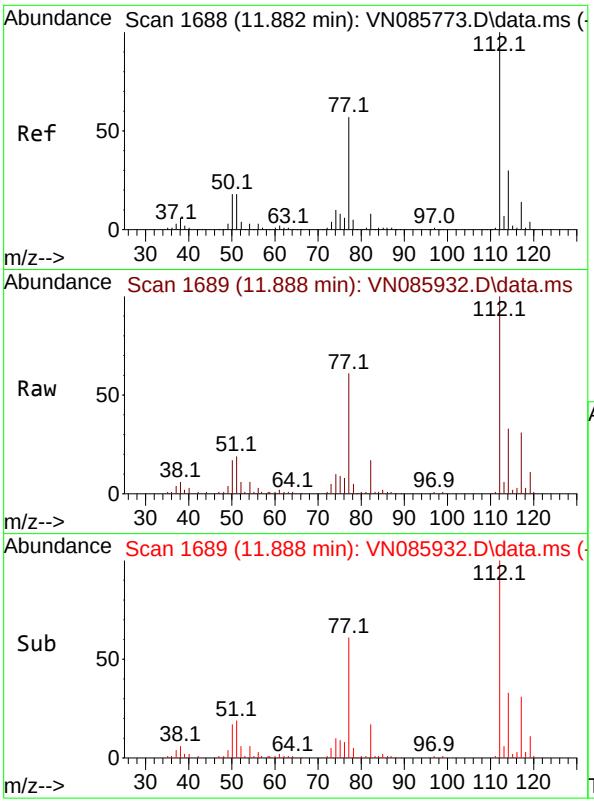


#64
Tetrachloroethene
Concen: 18.449 ug/l
RT: 11.100 min Scan# 1555
Delta R.T. -0.000 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion:164 Resp: 34886

Ion	Ratio	Lower	Upper
164	100		
166	122.0	107.2	160.8
129	95.2	80.7	121.1
131	92.9	74.6	112.0

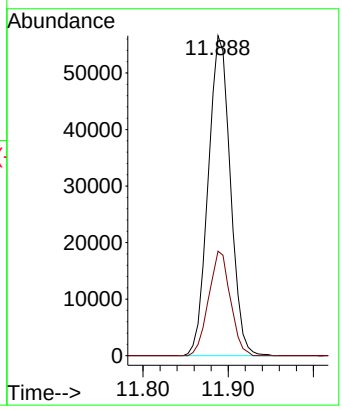




#65
Chlorobenzene
Concen: 18.318 ug/l
RT: 11.888 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion:112 Resp: 10242

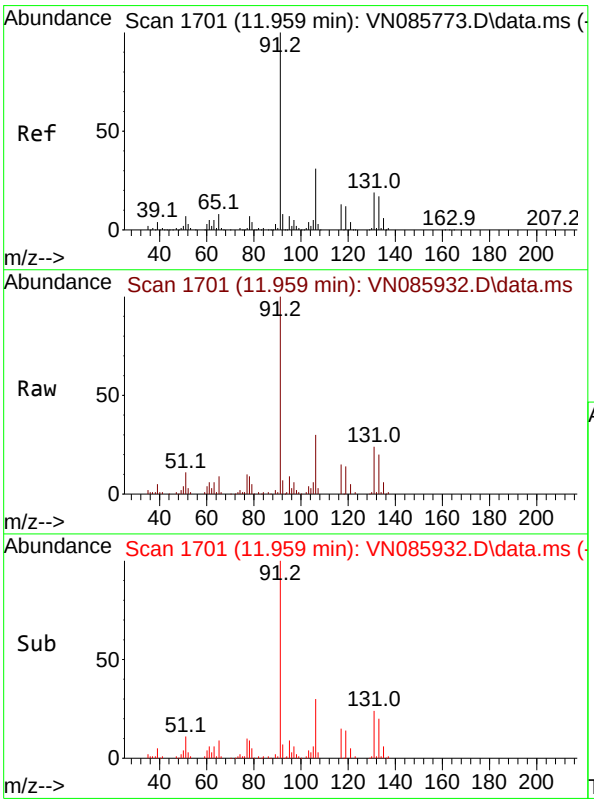
Ion	Ratio	Lower	Upper
112	100		
114	32.7	24.3	36.5



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

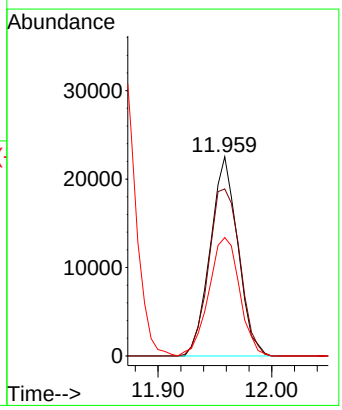
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

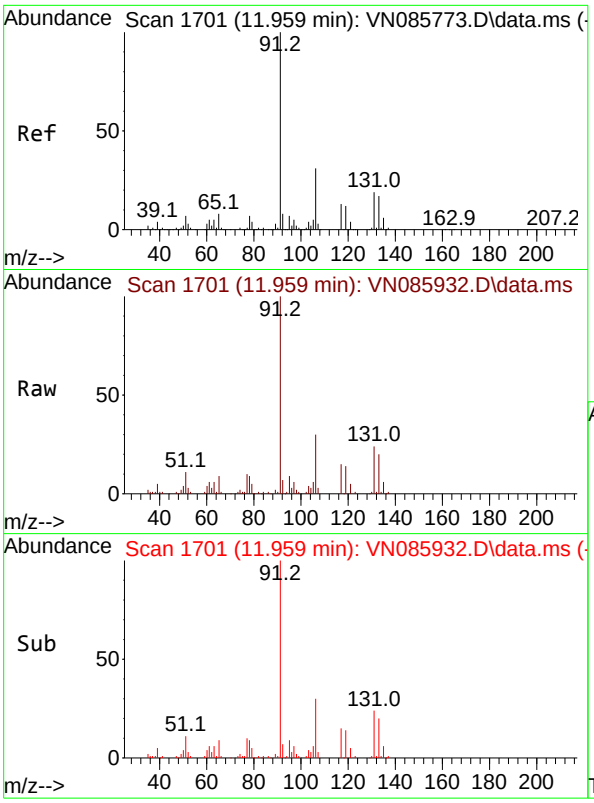


#66
1,1,1,2-Tetrachloroethane
Concen: 18.897 ug/l
RT: 11.959 min Scan# 1701
Delta R.T. -0.000 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion:131 Resp: 37980

Ion	Ratio	Lower	Upper
131	100		
133	95.3	47.7	143.1
119	66.4	33.3	99.8





#67
Ethyl Benzene
Concen: 18.725 ug/l
RT: 11.959 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

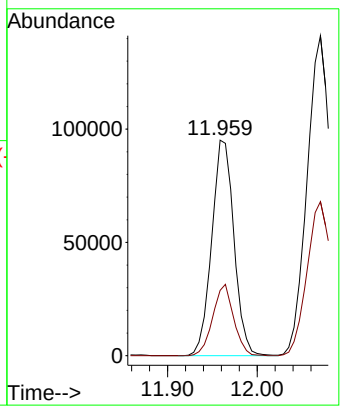
Tgt Ion: 91 Resp: 16401

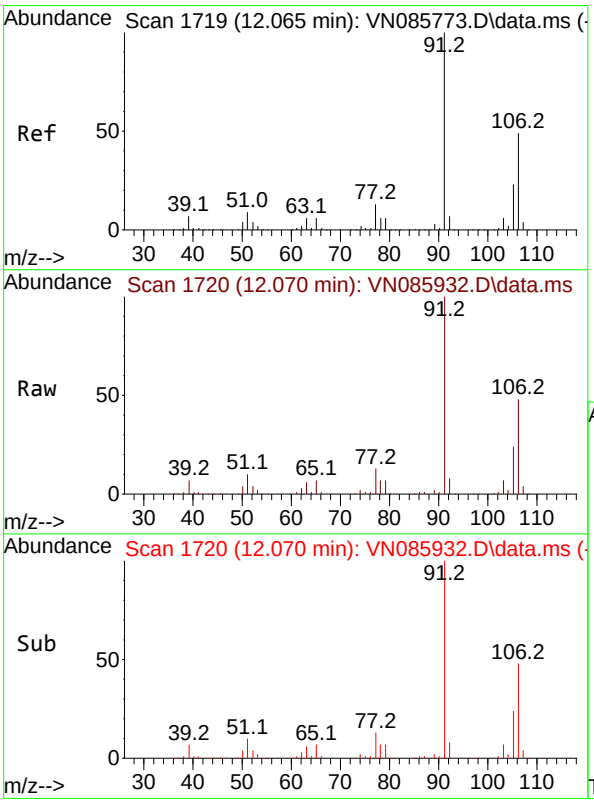
Ion	Ratio	Lower	Upper
91	100		
106	30.3	24.7	37.1

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

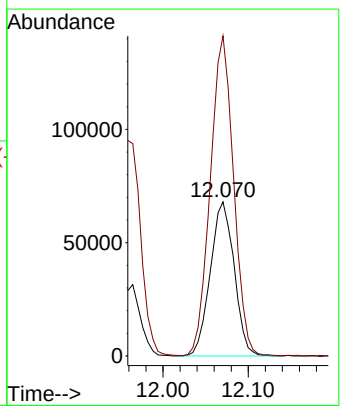


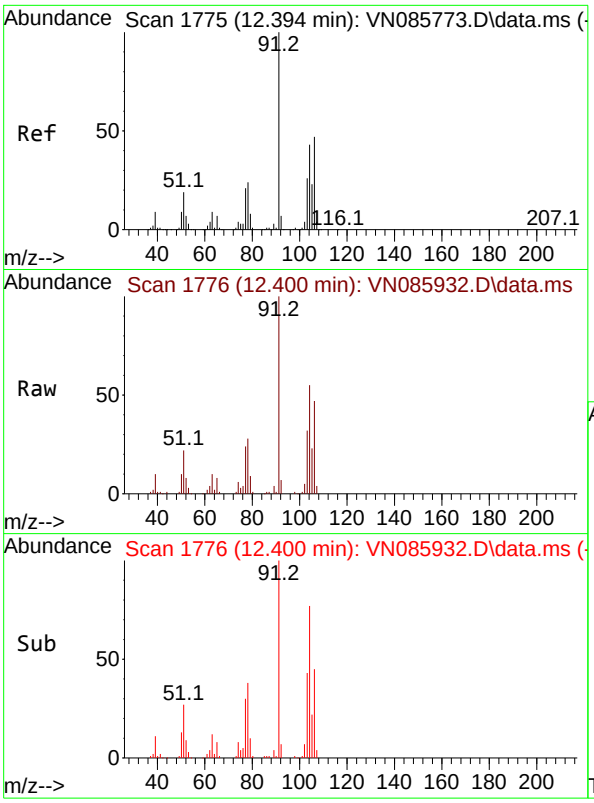


#68
m/p-Xylenes
Concen: 39.747 ug/l
RT: 12.070 min Scan# 1720
Delta R.T. 0.005 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion:106 Resp: 132245

Ion	Ratio	Lower	Upper
106	100		
91	202.4	163.3	244.9





#69
o-Xylene
Concen: 19.107 ug/l
RT: 12.400 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

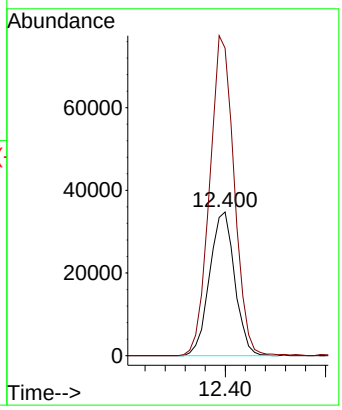
Tgt Ion:106 Resp: 6040

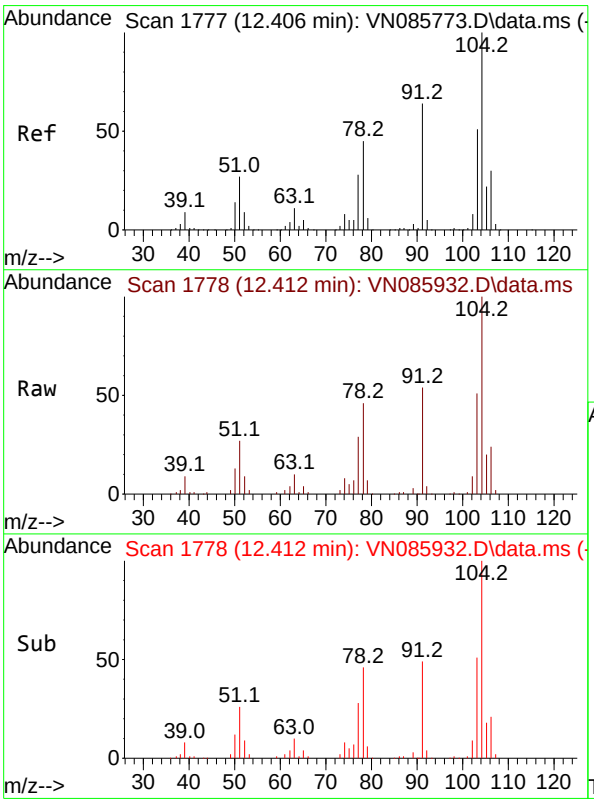
Ion	Ratio	Lower	Upper
106	100		
91	218.0	107.1	321.4

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

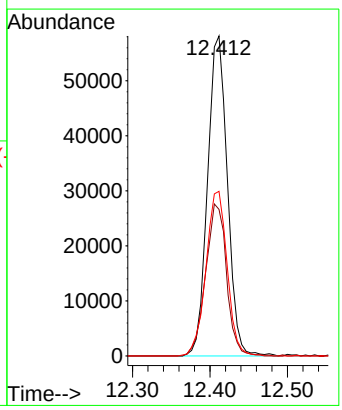


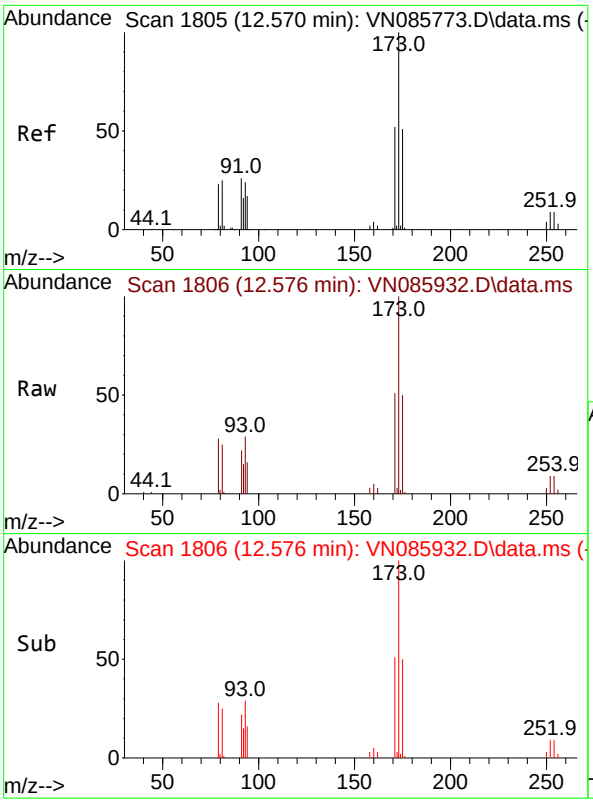


#70
Styrene
Concen: 19.049 ug/l
RT: 12.412 min Scan# 1778
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion:104 Resp: 103470

Ion	Ratio	Lower	Upper
104	100		
78	50.1	39.0	58.6
103	55.0	43.3	64.9





#71
Bromoform
Concen: 20.475 ug/l
RT: 12.576 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

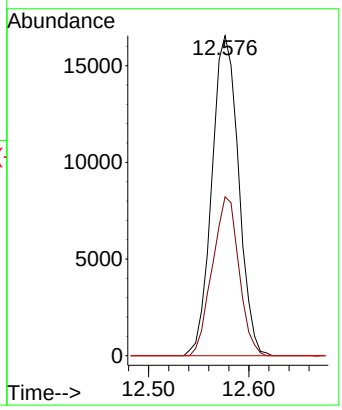
Tgt Ion:173 Resp: 3057

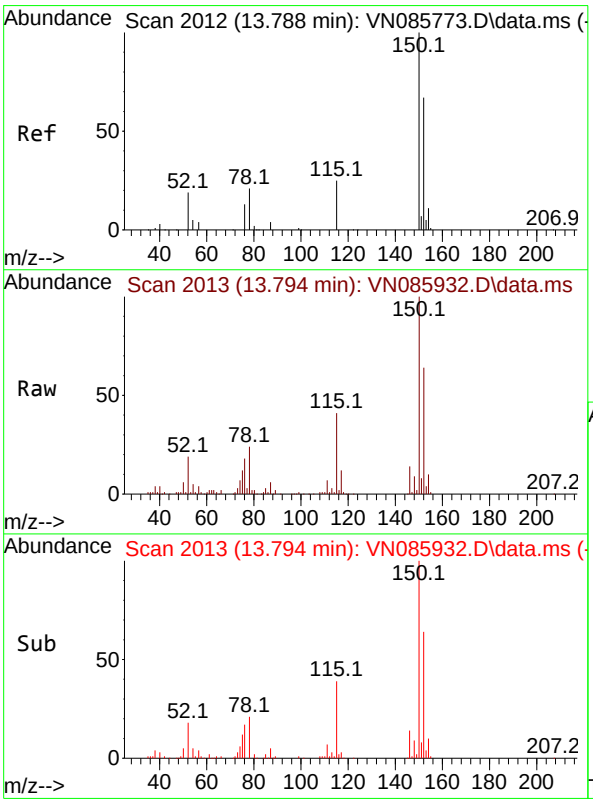
Ion	Ratio	Lower	Upper
173	100		
175	49.4	25.1	75.4
254	0.0	0.0	0.0

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

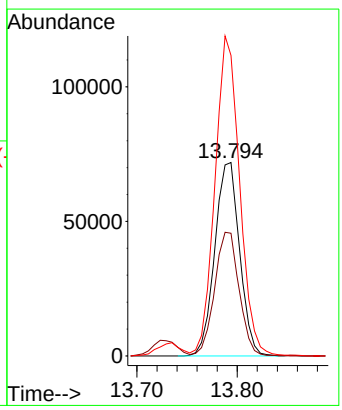


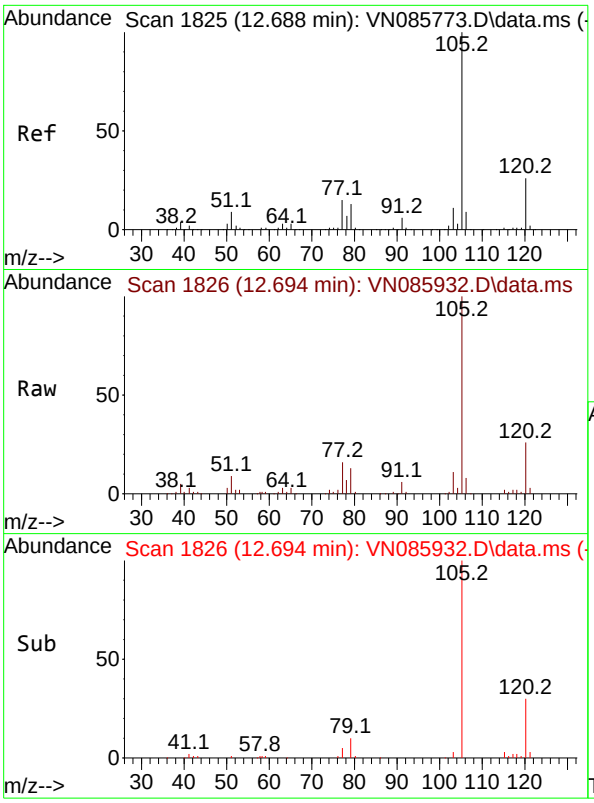


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.794 min Scan# 2013
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion:152 Resp: 123338

Ion	Ratio	Lower	Upper
152	100		
115	63.2	30.4	91.3
150	164.5	0.0	345.4





#73
Isopropylbenzene
Concen: 17.740 ug/l
RT: 12.694 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

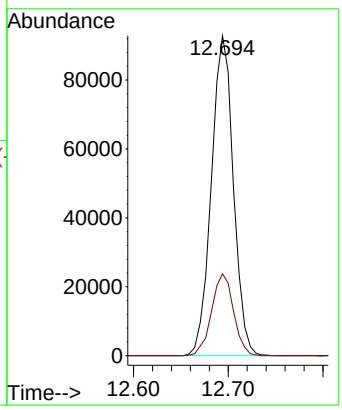
Tgt Ion:105 Resp: 14990

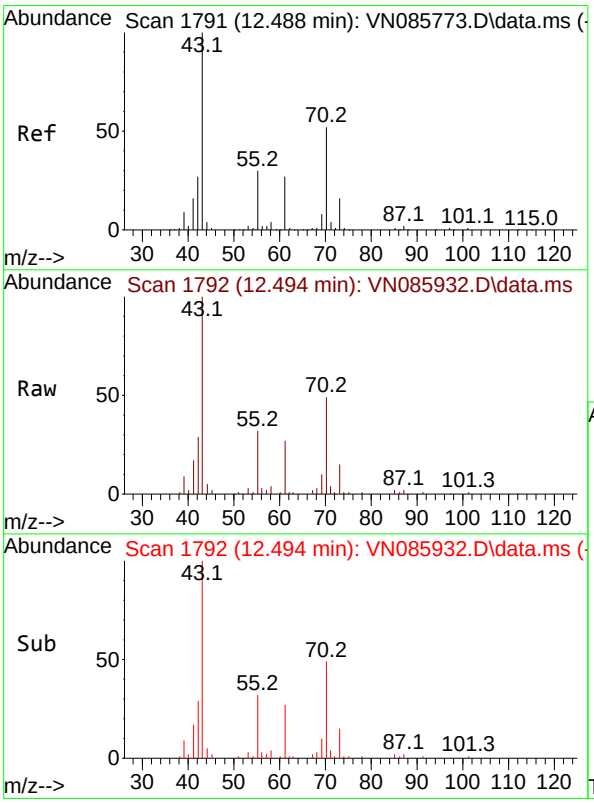
Ion	Ratio	Lower	Upper
105	100		
120	25.5	13.0	39.0

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

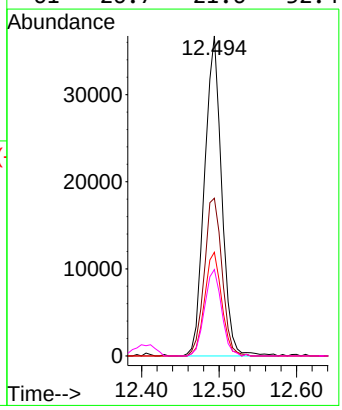


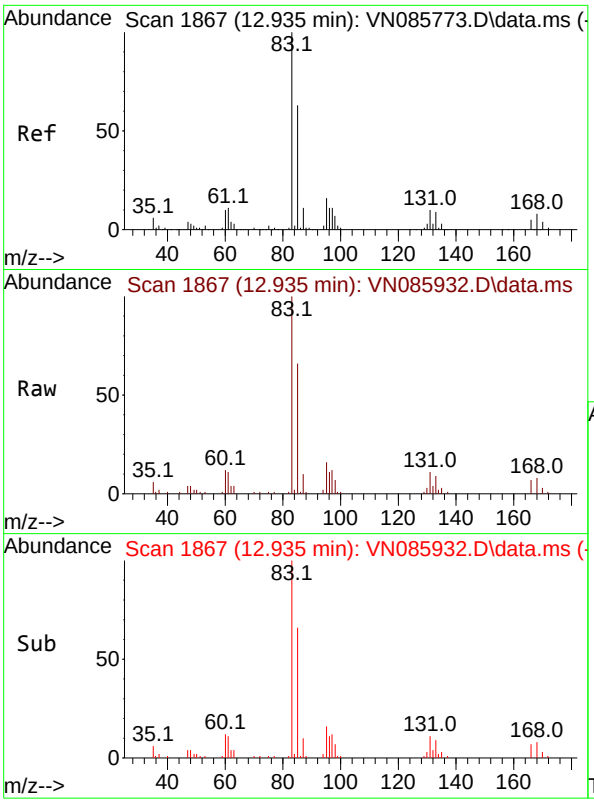


#74
N-amyl acetate
Concen: 18.975 ug/l
RT: 12.494 min Scan# 1792
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 43 Resp: 56542

Ion	Ratio	Lower	Upper
43	100		
70	50.7	41.0	61.4
55	32.1	24.6	36.8
61	26.7	21.6	32.4





#75
1,1,2,2-Tetrachloroethane
Concen: 18.378 ug/l
RT: 12.935 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

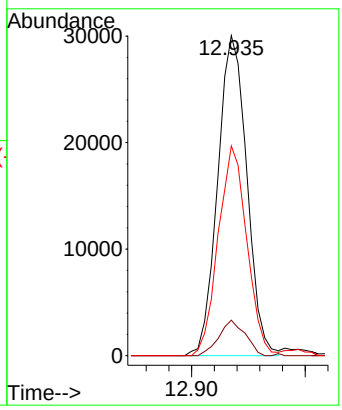
Tgt Ion: 83 Resp: 5343

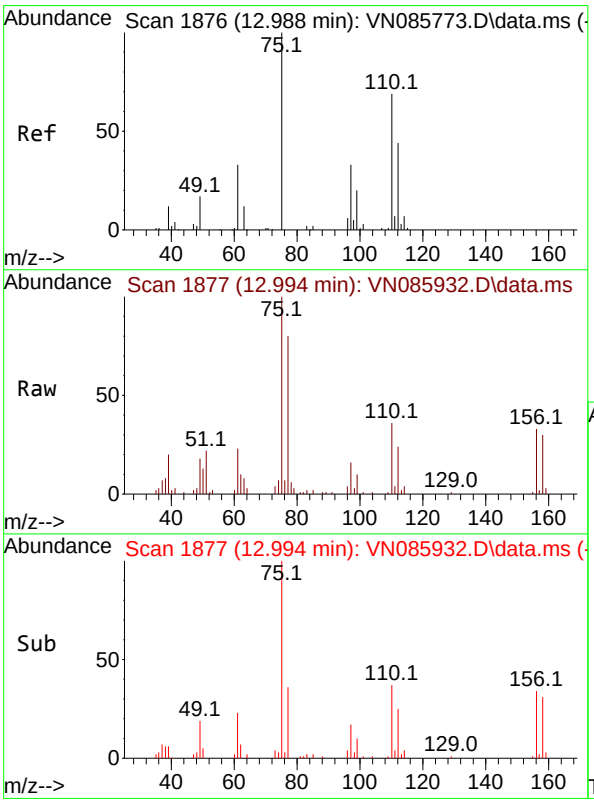
Ion	Ratio	Lower	Upper
83	100		
131	10.0	5.0	15.0
85	64.4	32.2	96.6

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

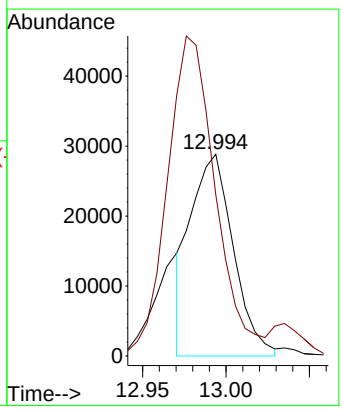


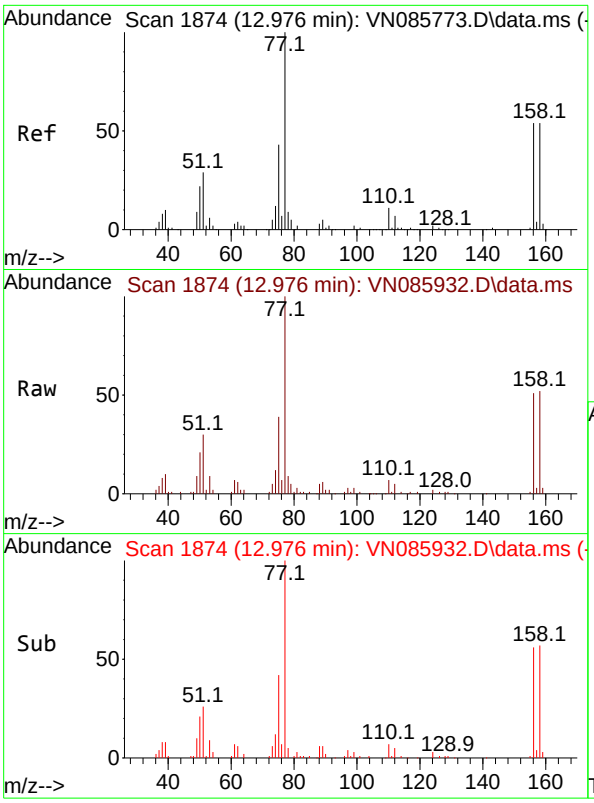


#76
1,2,3-Trichloropropane
Concen: 18.724 ug/l m
RT: 12.994 min Scan# 1877
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 75 Resp: 51299

Ion	Ratio	Lower	Upper
75	100		
77	178.9	100.0	300.0

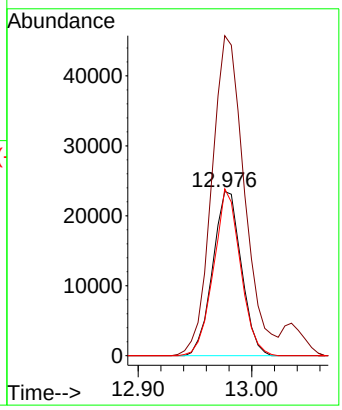




#77
Bromobenzene
Concen: 17.969 ug/l
RT: 12.976 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion:156 Resp: 4102

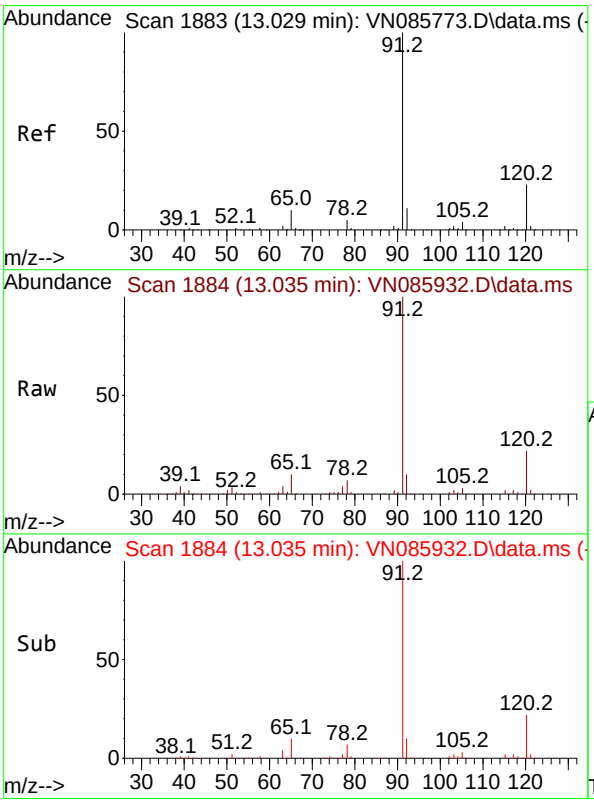
Ion	Ratio	Lower	Upper
156	100		
77	223.7	104.1	312.3
158	95.8	48.1	144.4



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

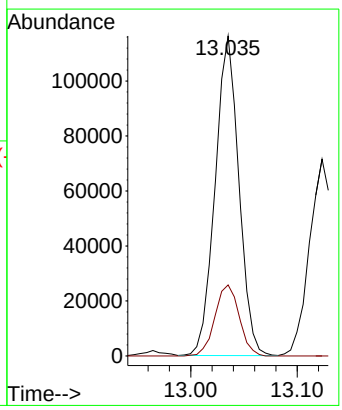
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

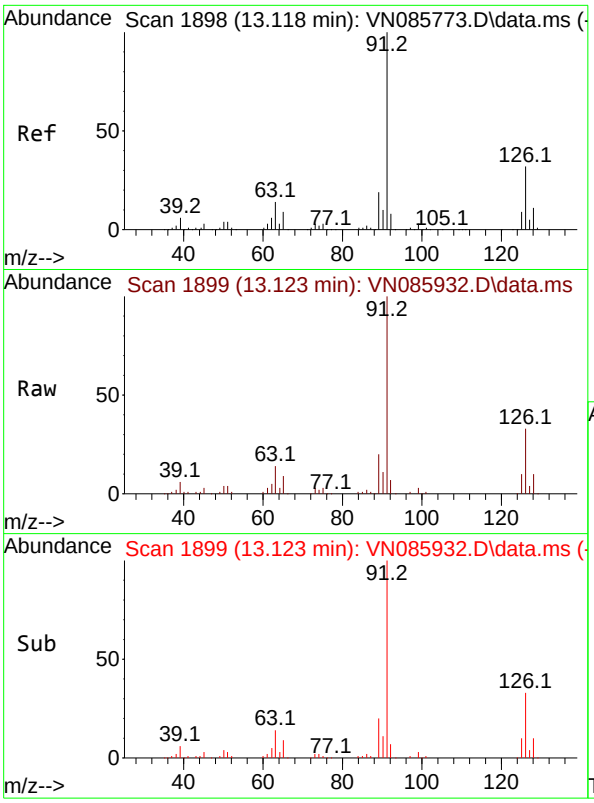


#78
n-propylbenzene
Concen: 18.544 ug/l
RT: 13.035 min Scan# 1884
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 91 Resp: 179451

Ion	Ratio	Lower	Upper
91	100		
120	22.7	11.3	33.8

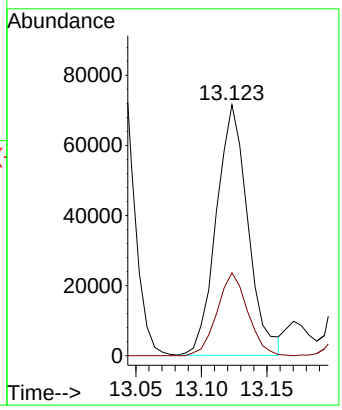




#79
2-Chlorotoluene
Concen: 18.546 ug/l
RT: 13.123 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 91 Resp: 11991

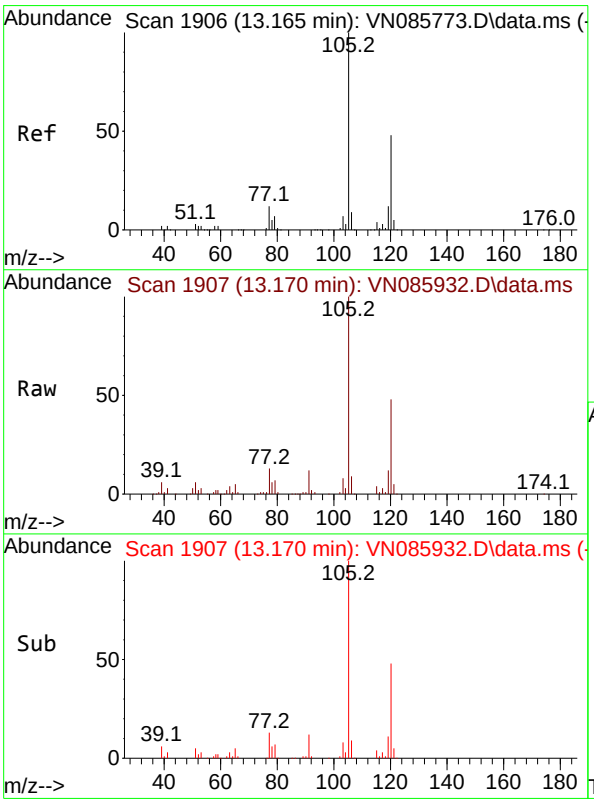
Ion	Ratio	Lower	Upper
91	100		
126	31.8	16.4	49.1



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

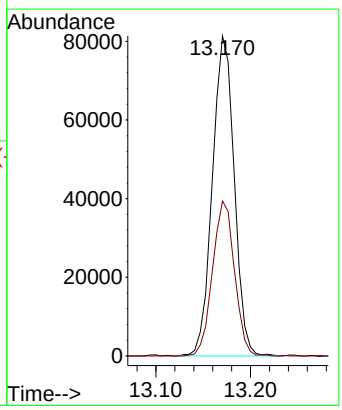
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

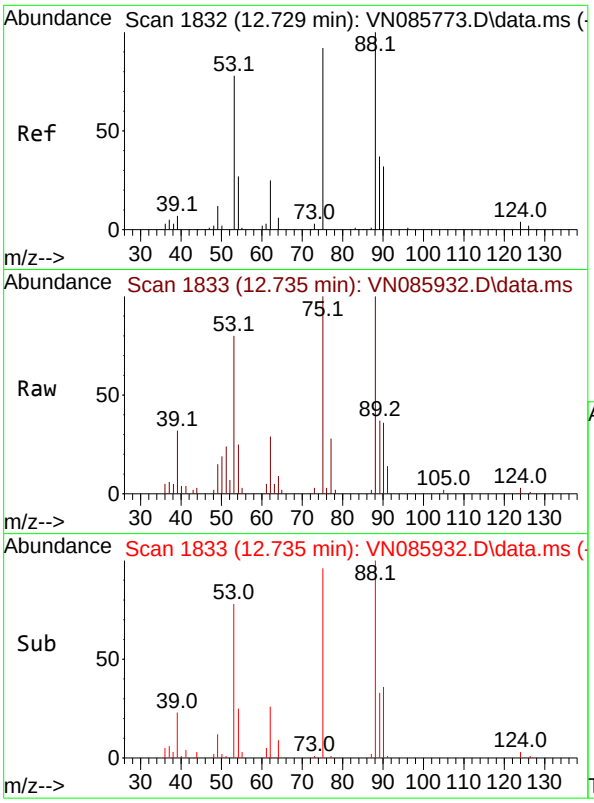


#80
1,3,5-Trimethylbenzene
Concen: 18.953 ug/l
RT: 13.170 min Scan# 1907
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion:105 Resp: 130459

Ion	Ratio	Lower	Upper
105	100		
120	48.7	24.3	72.9





#81
trans-1,4-Dichloro-2-butene
Concen: 20.811 ug/l
RT: 12.735 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

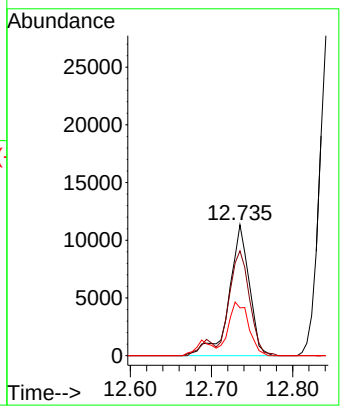
Tgt Ion: 75 Resp: 1954

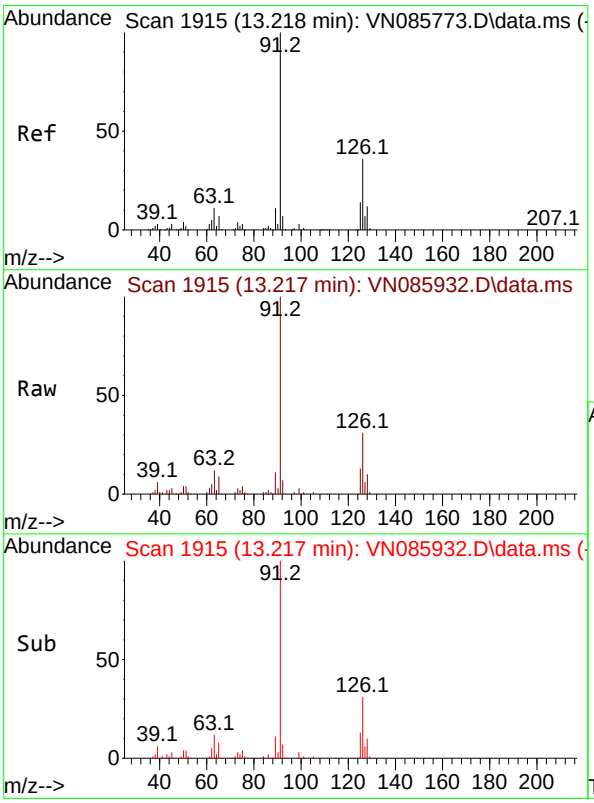
Ion	Ratio	Lower	Upper
75	100		
53	79.8	74.2	111.4
89	41.2	34.9	52.3

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

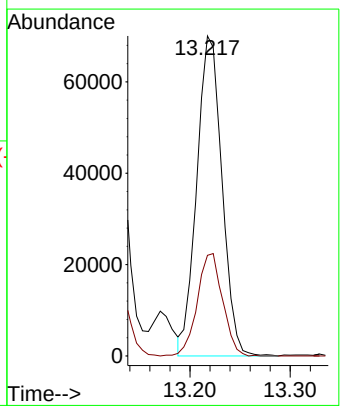


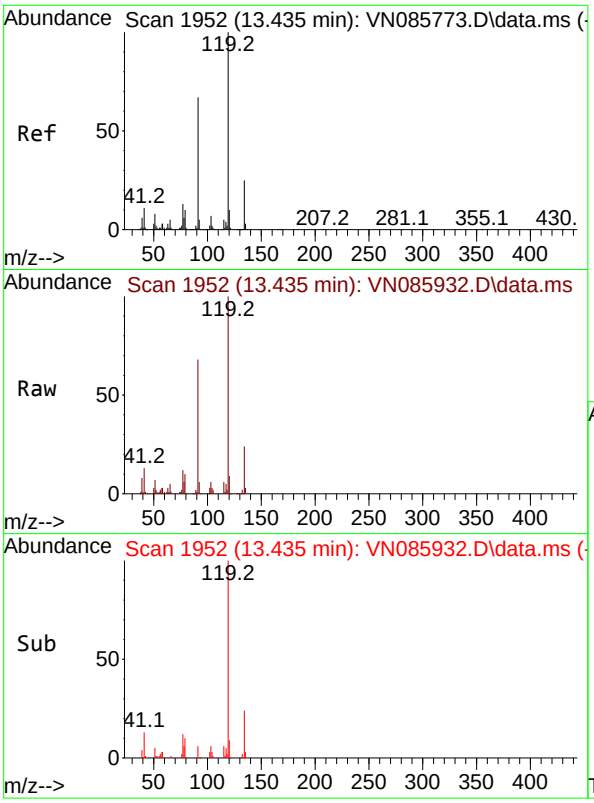


#82
4-Chlorotoluene
Concen: 19.104 ug/l
RT: 13.217 min Scan# 1915
Delta R.T. -0.000 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 91 Resp: 122450

Ion	Ratio	Lower	Upper
91	100		
126	32.2	16.4	49.4





#83
tert-Butylbenzene
Concen: 17.635 ug/l
RT: 13.435 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

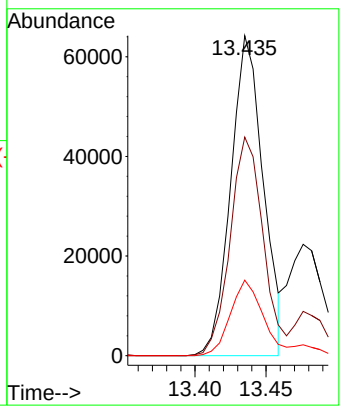
Tgt Ion:119 Resp: 10207

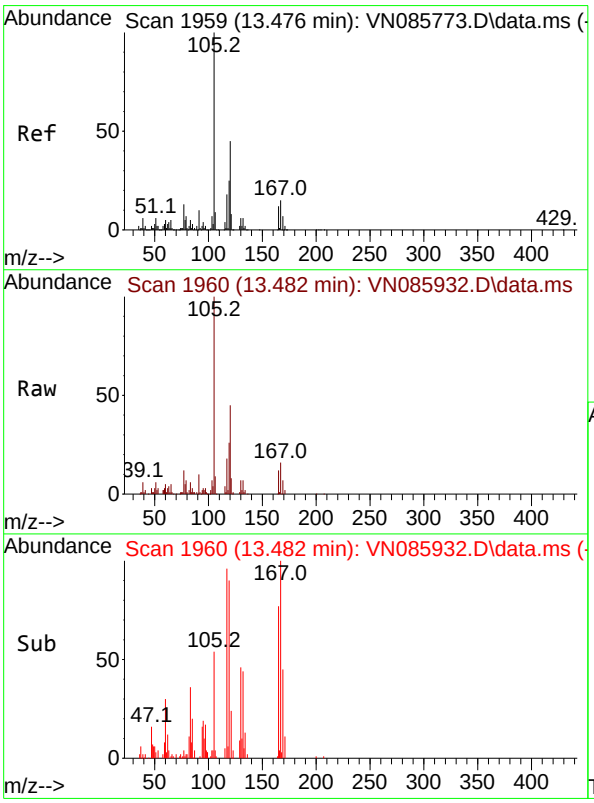
Ion	Ratio	Lower	Upper
119	100		
91	69.7	32.5	97.5
134	26.3	13.3	39.9

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

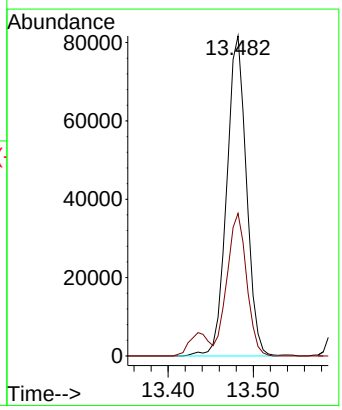


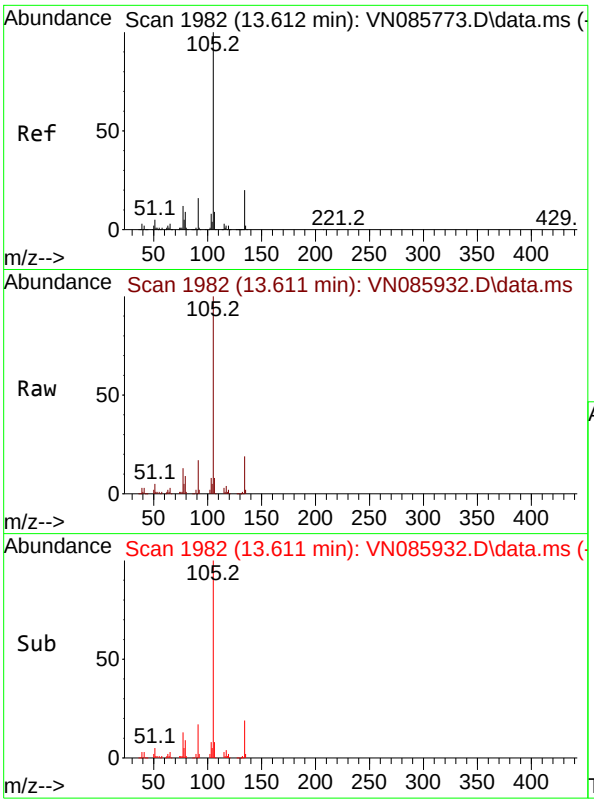


#84
1,2,4-Trimethylbenzene
Concen: 19.302 ug/l
RT: 13.482 min Scan# 1960
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion:105 Resp: 131448

Ion	Ratio	Lower	Upper
105	100		
120	44.2	22.4	67.3





#85
sec-Butylbenzene
Concen: 17.821 ug/l
RT: 13.611 min Scan# 1
Delta R.T. -0.001 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

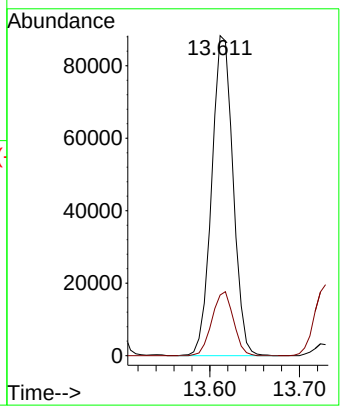
Tgt Ion:105 Resp: 14574

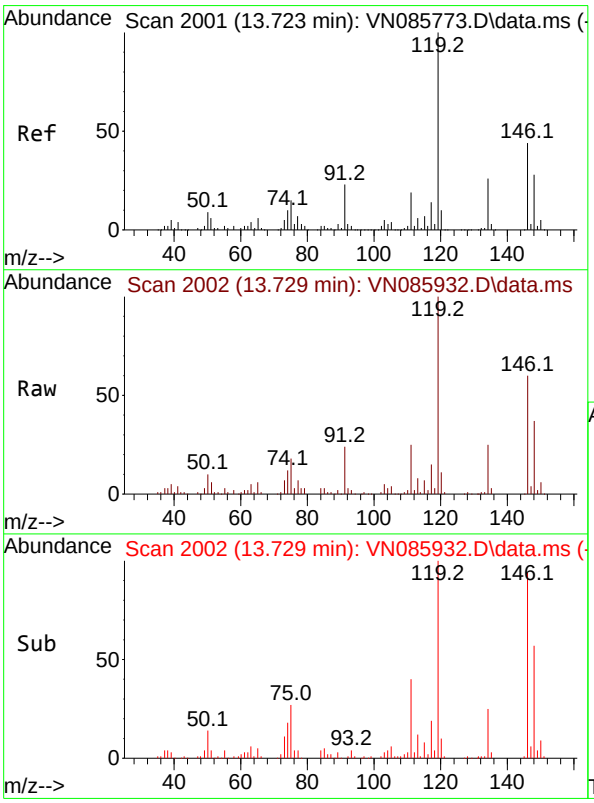
Ion	Ratio	Lower	Upper
105	100		
134	20.1	9.8	29.4

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

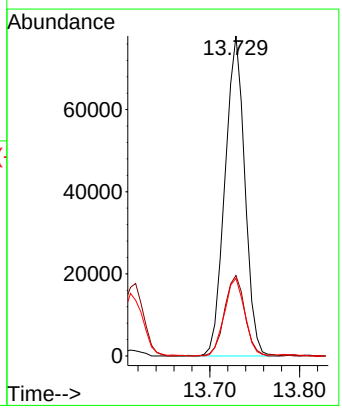


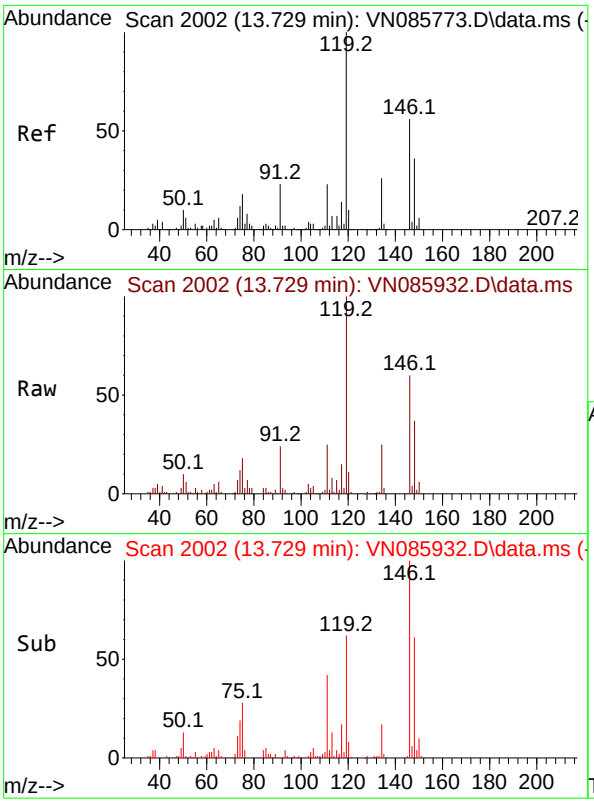


#86
p-Isopropyltoluene
Concen: 17.268 ug/l
RT: 13.729 min Scan# 2002
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion:119 Resp: 119735

Ion	Ratio	Lower	Upper
119	100		
134	25.7	13.0	39.0
91	24.9	11.7	35.1

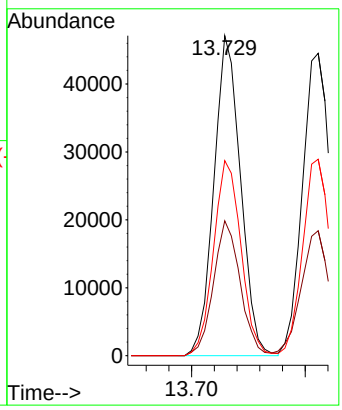




#87
1,3-Dichlorobenzene
Concen: 17.956 ug/l
RT: 13.729 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion:146 Resp: 7679

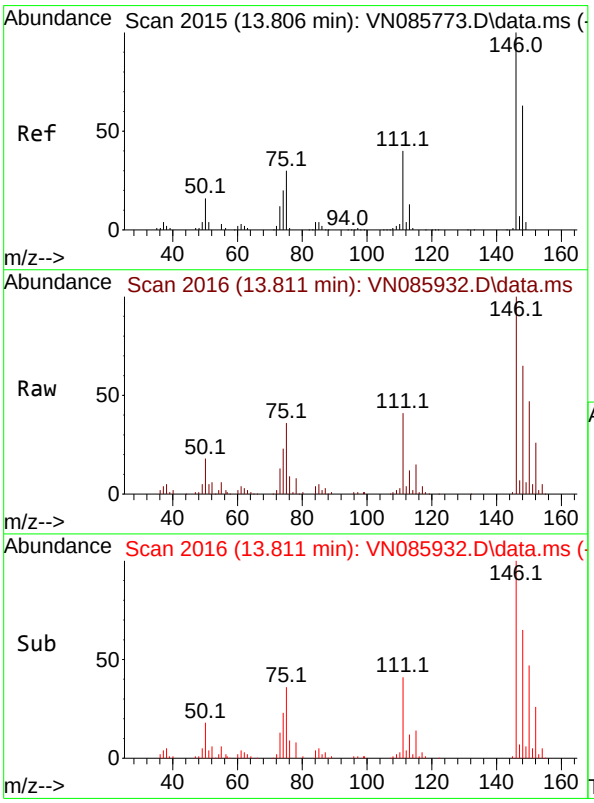
Ion	Ratio	Lower	Upper
146	100		
111	42.3	21.1	63.3
148	63.0	32.1	96.5



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

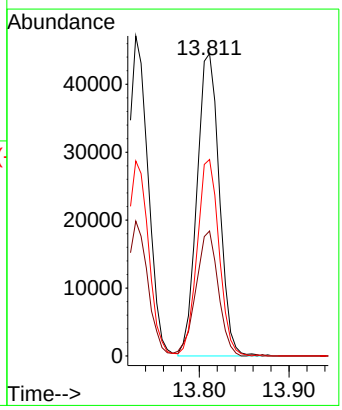
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

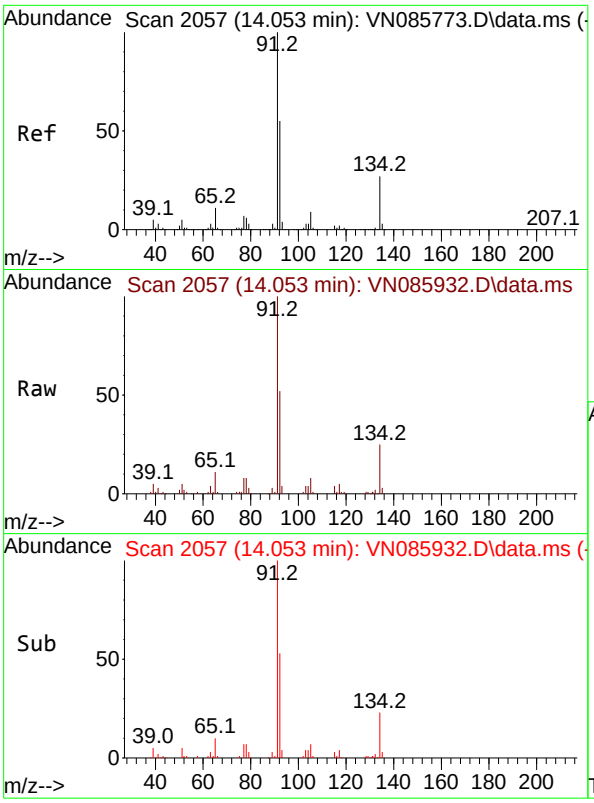


#88
1,4-Dichlorobenzene
Concen: 17.586 ug/l
RT: 13.811 min Scan# 2016
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion:146 Resp: 77090

Ion	Ratio	Lower	Upper
146	100		
111	41.3	20.4	61.3
148	63.7	31.8	95.4

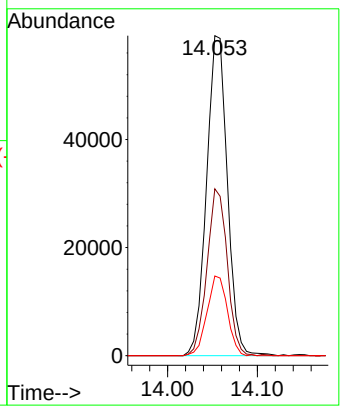




#89
n-Butylbenzene
Concen: 16.401 ug/l
RT: 14.053 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 91 Resp: 9522

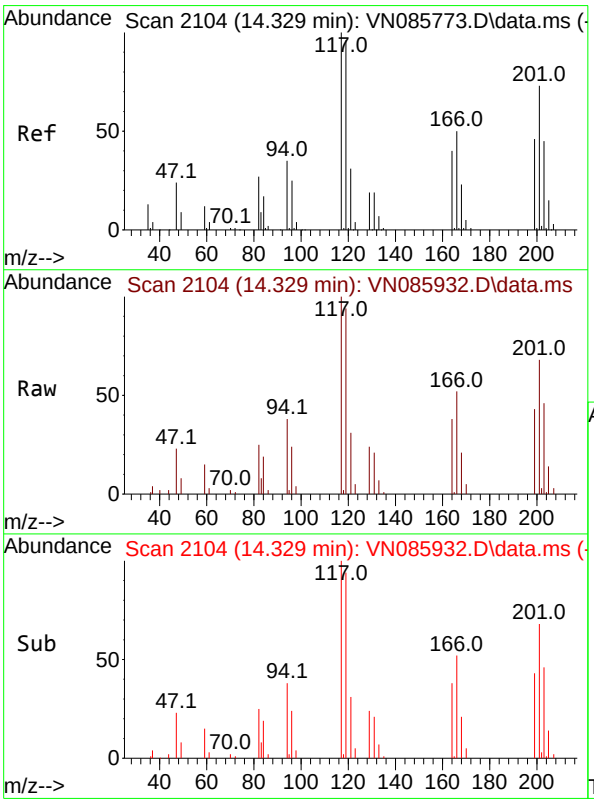
Ion	Ratio	Lower	Upper
91	100		
92	50.8	27.1	81.3
134	24.4	12.7	38.1



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

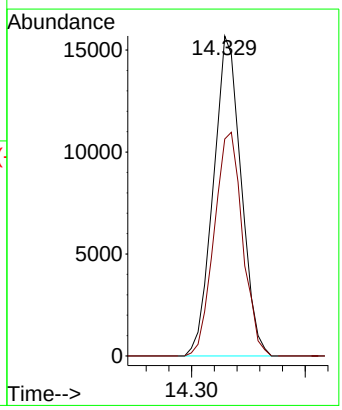
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

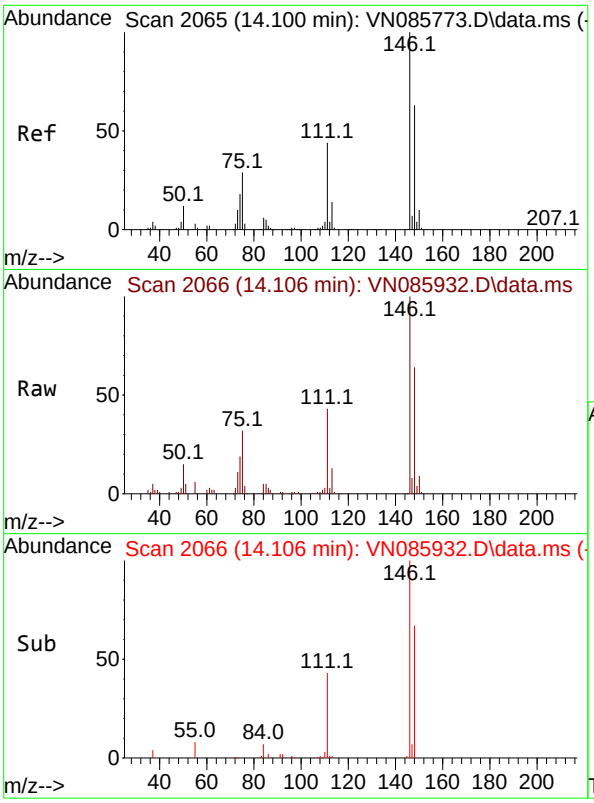


#90
Hexachloroethane
Concen: 17.180 ug/l
RT: 14.329 min Scan# 2104
Delta R.T. -0.000 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion:117 Resp: 26609

Ion	Ratio	Lower	Upper
117	100		
201	71.7	35.6	106.9

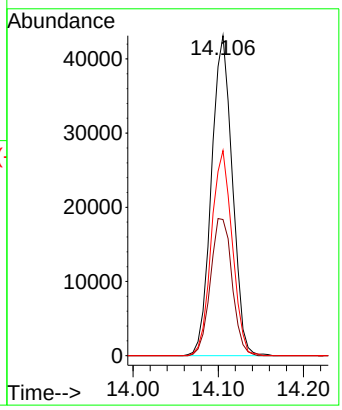




#91
1,2-Dichlorobenzene
Concen: 17.866 ug/l
RT: 14.106 min Scan# 2
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion:146 Resp: 7348

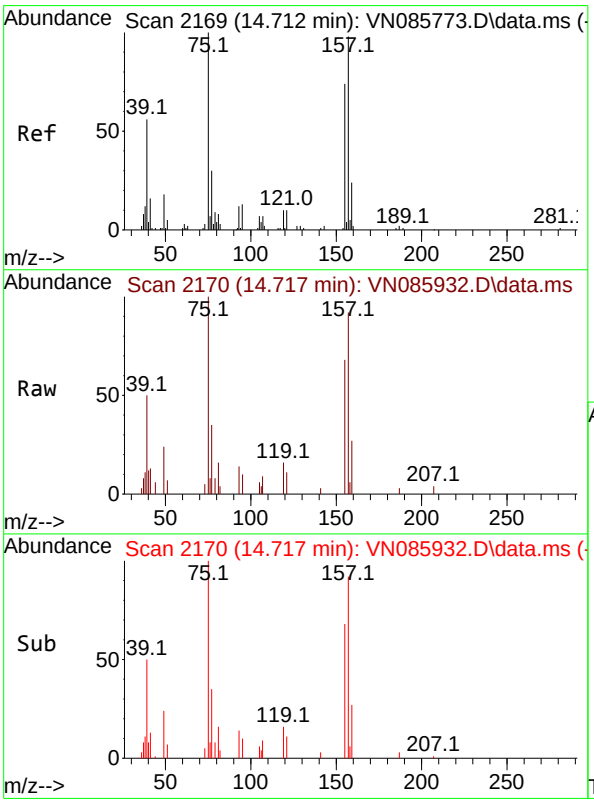
Ion	Ratio	Lower	Upper
146	100		
111	44.4	21.4	64.3
148	64.0	32.0	96.2



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

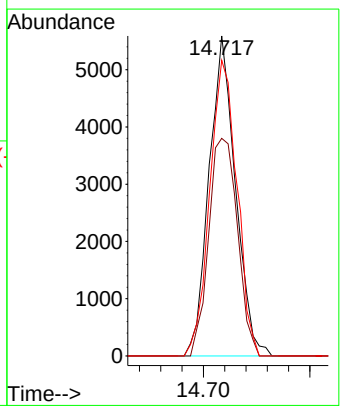
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

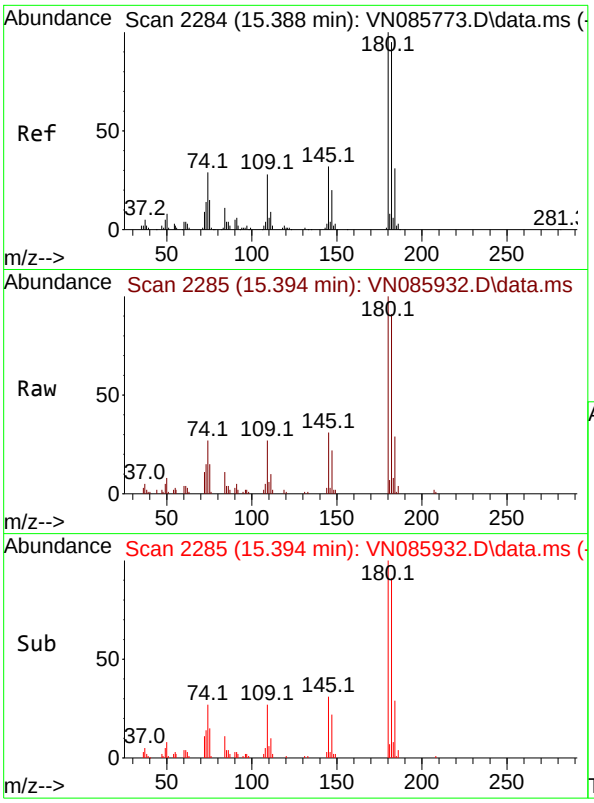


#92
1,2-Dibromo-3-Chloropropane
Concen: 17.993 ug/l
RT: 14.717 min Scan# 2170
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion: 75 Resp: 9607

Ion	Ratio	Lower	Upper
75	100		
155	74.1	39.9	119.6
157	95.1	49.9	149.7

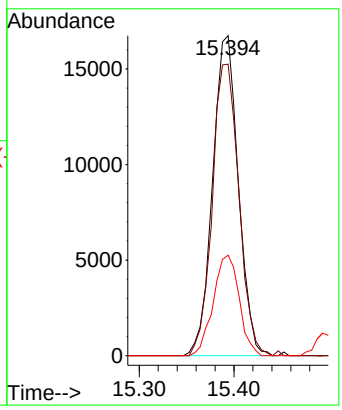




#93
1,2,4-Trichlorobenzene
Concen: 16.098 ug/l
RT: 15.394 min Scan# 2
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion:180 Resp: 3155

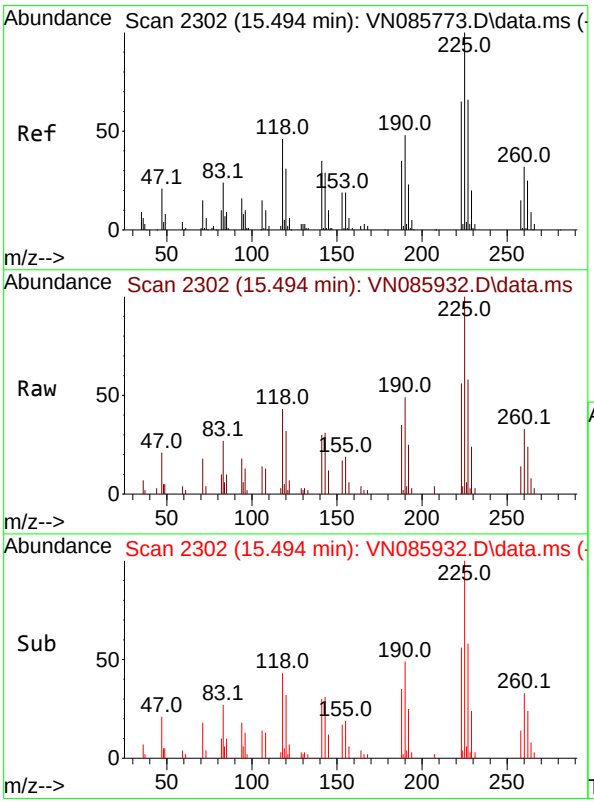
Ion	Ratio	Lower	Upper
180	100		
182	94.1	47.3	141.9
145	31.6	16.2	48.5



Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

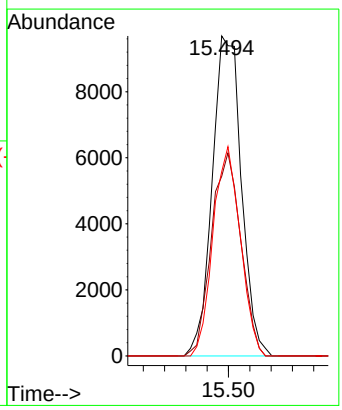
Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

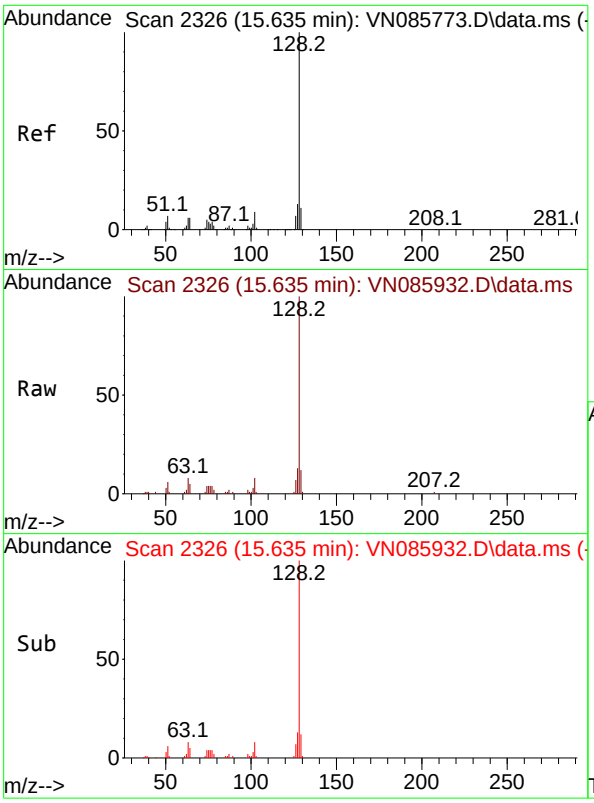


#94
Hexachlorobutadiene
Concen: 15.454 ug/l
RT: 15.494 min Scan# 2302
Delta R.T. -0.000 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion:225 Resp: 18407

Ion	Ratio	Lower	Upper
225	100		
223	63.9	31.9	95.5
227	61.2	32.2	96.6





#95
Naphthalene
Concen: 15.252 ug/l
RT: 15.635 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

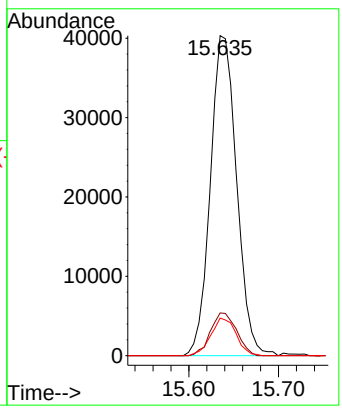
Tgt Ion:128 Resp: 8206

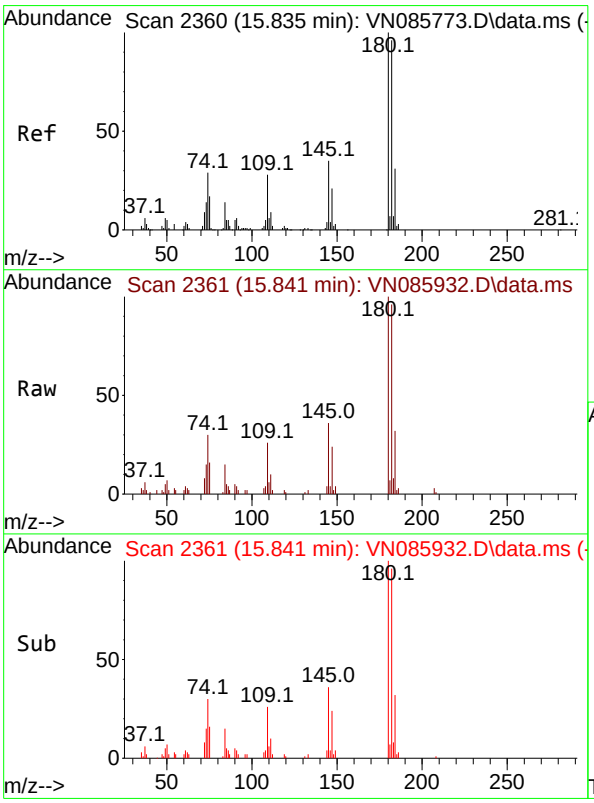
Ion	Ratio	Lower	Upper
128	100		
127	13.3	10.2	15.2
129	11.3	8.7	13.1

Instrument :
MSVOA_N
ClientSampleId :
VN0311WBSD01

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/12/2025
Supervised By :Mahesh Dadoda 03/12/2025

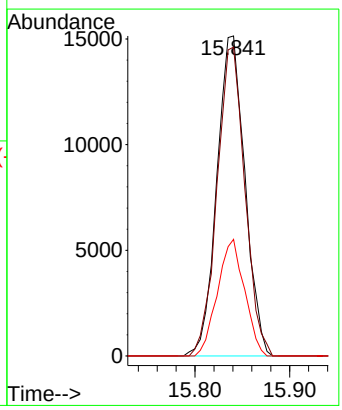




#96
1,2,3-Trichlorobenzene
Concen: 15.845 ug/l
RT: 15.841 min Scan# 2361
Delta R.T. 0.006 min
Lab File: VN085932.D
Acq: 11 Mar 2025 15:28

Tgt Ion:180 Resp: 31176

Ion	Ratio	Lower	Upper
180	100		
182	95.6	47.3	141.8
145	35.1	16.9	50.6



284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

Manual Integration Report

Sequence:	VN021825	Instrument	MSVOA_n

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICC100	VN085772.D	1,2,3-Trichloropropane	JOHN	2/19/2025 9:44:09 AM	MMDadoda	2/19/2025 12:44:43 PM	Peak Integrated by Software
VSTDICCC050	VN085773.D	1,2,3-Trichloropropane	JOHN	2/19/2025 9:44:14 AM	MMDadoda	2/19/2025 12:44:47 PM	Peak Integrated by Software
VSTDICC010	VN085775.D	1,2,3-Trichloropropane	JOHN	2/19/2025 9:44:23 AM	MMDadoda	2/19/2025 12:44:56 PM	Peak Integrated by Software
VSTDICC010	VN085775.D	Vinyl Acetate	JOHN	2/19/2025 9:44:23 AM	MMDadoda	2/19/2025 12:44:56 PM	Peak Integrated by Software
VSTDICC005	VN085776.D	1,2,3-Trichloropropane	JOHN	2/19/2025 9:44:27 AM	MMDadoda	2/19/2025 12:45:01 PM	Peak Integrated by Software
VSTDICC005	VN085776.D	Vinyl Acetate	JOHN	2/19/2025 9:44:27 AM	MMDadoda	2/19/2025 12:45:01 PM	Peak Integrated by Software
VSTDICC001	VN085777.D	1,2,3-Trichloropropane	JOHN	2/19/2025 9:44:33 AM	MMDadoda	2/19/2025 12:45:05 PM	Peak Integrated by Software
VSTDICC001	VN085777.D	1,4-Dichlorobenzene	JOHN	2/19/2025 9:44:33 AM	MMDadoda	2/19/2025 12:45:05 PM	Peak Integrated by Software
VSTDICC001	VN085777.D	2,2-Dichloropropane	JOHN	2/19/2025 9:44:33 AM	MMDadoda	2/19/2025 12:45:05 PM	Peak Integrated by Software
VSTDICC001	VN085777.D	Allyl chloride	JOHN	2/19/2025 9:44:33 AM	MMDadoda	2/19/2025 12:45:05 PM	Peak Integrated by Software
VSTDICC001	VN085777.D	Diethyl Ether	JOHN	2/19/2025 9:44:33 AM	MMDadoda	2/19/2025 12:45:05 PM	Peak Integrated by Software
VSTDICC001	VN085777.D	Vinyl Acetate	JOHN	2/19/2025 9:44:33 AM	MMDadoda	2/19/2025 12:45:05 PM	Peak Integrated by Software
VSTDICC020	VN085779.D	1,2,3-Trichloropropane	JOHN	2/19/2025 9:44:37 AM	MMDadoda	2/19/2025 12:45:09 PM	Peak Integrated by Software

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

Manual Integration Report

Sequence:	VN021825	Instrument	MSVOA_n

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICV050	VN085780.D	1,2,3-Trichloropropane	JOHN	2/19/2025 9:44:42 AM	MMDadoda	2/19/2025 12:45:13 PM	Peak Integrated by Software

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

Manual Integration Report

Sequence:	VN031125	Instrument	MSVOA_n

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDCCC050	VN085928.D	1,2,3-Trichloropropane	JOHN	3/12/2025 9:46:21 AM	MMDadoda	3/12/2025 3:16:48 PM	Peak Integrated by Software
VN0311WBS01	VN085931.D	1,2,3-Trichloropropane	JOHN	3/12/2025 9:46:26 AM	MMDadoda	3/12/2025 3:16:49 PM	Peak Integrated by Software
VN0311WBSD01	VN085932.D	1,2,3-Trichloropropane	JOHN	3/12/2025 9:46:30 AM	MMDadoda	3/12/2025 3:16:50 PM	Peak Integrated by Software
VSTDCCC050	VN085952.D	1,2,3-Trichloropropane	JOHN	3/12/2025 9:46:55 AM	MMDadoda	3/12/2025 3:16:58 PM	Peak Integrated by Software

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QCBatch ID # VN021825

Review By	John Carlone	Review On	2/19/2025 9:44:55 AM		
Supervise By	Mahesh Dadoda	Supervise On	2/19/2025 1:34:51 PM		
SubDirectory	VN021825	HP Acquire Method		HP Processing Method	82N021825W.M

STD. NAME	STD REF.#
Tune/Reschk	VP133068
Initial Calibration Stds	VP133070,VP133071,VP133072,VP133073,VP133074,VP133075
CCC	
Internal Standard/PEM	
ICV/I.BLK	VP133076
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VN085771.D	18 Feb 2025 10:35	JC\MD	Ok
2	VSTDICC100	VN085772.D	18 Feb 2025 11:09	JC\MD	Ok,M
3	VSTDICCC050	VN085773.D	18 Feb 2025 11:32	JC\MD	Ok,M
4	VSTDICC020	VN085774.D	18 Feb 2025 11:56	JC\MD	Not Ok
5	VSTDICC010	VN085775.D	18 Feb 2025 12:20	JC\MD	Ok,M
6	VSTDICC005	VN085776.D	18 Feb 2025 12:43	JC\MD	Ok,M
7	VSTDICC001	VN085777.D	18 Feb 2025 13:07	JC\MD	Ok,M
8	IBLK	VN085778.D	18 Feb 2025 13:54	JC\MD	Ok
9	VSTDICC020	VN085779.D	18 Feb 2025 14:18	JC\MD	Ok,M
10	VSTDICV050	VN085780.D	18 Feb 2025 16:28	JC\MD	Ok,M

M : Manual Integration

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QCBatch ID # VN031125

Review By	John Carlone	Review On	3/12/2025 9:49:06 AM		
Supervise By	Mahesh Dadoda	Supervise On	3/12/2025 3:17:04 PM		
SubDirectory	VN031125	HP Acquire Method		HP Processing Method	82N021825W.M

STD. NAME	STD REF.#
Tune/Reschk	VP133247
Initial Calibration Stds	
CCC	VP133248,VP133249
Internal Standard/PEM	
ICV/I.BLK	
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VN085927.D	11 Mar 2025 12:12	JC\MD	Ok
2	VSTDCCC050	VN085928.D	11 Mar 2025 13:22	JC\MD	Ok,M
3	VN0311MBL01	VN085929.D	11 Mar 2025 13:56	JC\MD	Ok
4	VN0311WBL01	VN085930.D	11 Mar 2025 14:21	JC\MD	Ok
5	VN0311WBS01	VN085931.D	11 Mar 2025 14:54	JC\MD	Ok,M
6	VN0311WBSD01	VN085932.D	11 Mar 2025 15:28	JC\MD	Ok,M
7	PB167050TB	VN085933.D	11 Mar 2025 15:52	JC\MD	Ok
8	Q1514-09	VN085934.D	11 Mar 2025 16:16	JC\MD	Ok
9	PB167050ZHE#02	VN085935.D	11 Mar 2025 16:40	JC\MD	Ok
10	PB167050ZHE#03	VN085936.D	11 Mar 2025 17:04	JC\MD	Ok
11	PB167050ZHE#04	VN085937.D	11 Mar 2025 17:28	JC\MD	Ok
12	PB167050ZHE#05	VN085938.D	11 Mar 2025 17:52	JC\MD	Ok
13	PB167050ZHE#06	VN085939.D	11 Mar 2025 18:16	JC\MD	Ok
14	PB167050ZHE#07	VN085940.D	11 Mar 2025 18:40	JC\MD	Ok
15	PB167050ZHE#08	VN085941.D	11 Mar 2025 19:04	JC\MD	Ok
16	PB167050ZHE#09	VN085942.D	11 Mar 2025 19:29	JC\MD	Ok
17	Q1534-06	VN085943.D	11 Mar 2025 19:53	JC\MD	Ok,M
18	Q1534-12	VN085944.D	11 Mar 2025 20:17	JC\MD	Ok,M
19	Q1534-18	VN085945.D	11 Mar 2025 20:41	JC\MD	Ok,M
20	Q1534-24	VN085946.D	11 Mar 2025 21:05	JC\MD	Ok,M
21	Q1514-02	VN085947.D	11 Mar 2025 21:29	JC\MD	Ok

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QCBatch ID # VN031125

Review By	John Carlone	Review On	3/12/2025 9:49:06 AM		
Supervise By	Mahesh Dadoda	Supervise On	3/12/2025 3:17:04 PM		
SubDirectory	VN031125	HP Acquire Method		HP Processing Method	82N021825W.M

STD. NAME	STD REF.#
Tune/Reschk	VP133247
Initial Calibration Stds	
CCC	VP133248,VP133249
Internal Standard/PEM	
ICV/I.BLK	
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

22	Q1514-04	VN085948.D	11 Mar 2025 21:53	JC\MD	Ok
23	Q1514-06	VN085949.D	11 Mar 2025 22:17	JC\MD	Ok
24	Q1523-01	VN085950.D	11 Mar 2025 22:41	JC\MD	Ok
25	Q1523-04	VN085951.D	11 Mar 2025 23:05	JC\MD	Ok
26	VSTDCCC050	VN085952.D	11 Mar 2025 23:29	JC\MD	Ok,M

M : Manual Integration

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QCBatch ID # VN021825

Review By	John Carlone	Review On	2/19/2025 9:44:55 AM		
Supervise By	Mahesh Dadoda	Supervise On	2/19/2025 1:34:51 PM		
SubDirectory	VN021825	HP Acquire Method		HP Processing Method	82N021825W.M

STD. NAME	STD REF.#
Tune/Reschk	VP133068
Initial Calibration Stds	VP133070,VP133071,VP133072,VP133073,VP133074,VP133075
CCC	
Internal Standard/PEM	
ICV/I.BLK	VP133076
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VN085771.D	18 Feb 2025 10:35		JC\MD	Ok
2	VSTDICC100	VSTDICC100	VN085772.D	18 Feb 2025 11:09	Comp.#43 is on Linear Regression	JC\MD	Ok,M
3	VSTDICCC050	VSTDICCC050	VN085773.D	18 Feb 2025 11:32	Comp.#56,58,70,86 is on Quadratic Regression	JC\MD	Ok,M
4	VSTDICC020	VSTDICC020	VN085774.D	18 Feb 2025 11:56	Not used	JC\MD	Not Ok
5	VSTDICC010	VSTDICC010	VN085775.D	18 Feb 2025 12:20		JC\MD	Ok,M
6	VSTDICC005	VSTDICC005	VN085776.D	18 Feb 2025 12:43	%D failed for Comp. #58 in 01PPB, 05PPB and 20PPB	JC\MD	Ok,M
7	VSTDICC001	VSTDICC001	VN085777.D	18 Feb 2025 13:07		JC\MD	Ok,M
8	IBLK	IBLK	VN085778.D	18 Feb 2025 13:54		JC\MD	Ok
9	VSTDICC020	VSTDICC020	VN085779.D	18 Feb 2025 14:18		JC\MD	Ok,M
10	VSTDICV050	ICVVN021825	VN085780.D	18 Feb 2025 16:28	ICV Failed for comp. #95	JC\MD	Ok,M

M : Manual Integration

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QCBatch ID # VN031125

Review By	John Carlone	Review On	3/12/2025 9:49:06 AM		
Supervise By	Mahesh Dadoda	Supervise On	3/12/2025 3:17:04 PM		
SubDirectory	VN031125	HP Acquire Method		HP Processing Method	82N021825W.M

STD. NAME	STD REF.#
Tune/Reschk	VP133247
Initial Calibration Stds	
CCC	VP133248,VP133249
Internal Standard/PEM	
ICV/I.BLK	
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VN085927.D	11 Mar 2025 12:12		JC\MD	Ok
2	VSTDCCC050	VSTDCCC050	VN085928.D	11 Mar 2025 13:22	pH#Lot#V12668	JC\MD	Ok,M
3	VN0311MBL01	VN0311MBL01	VN085929.D	11 Mar 2025 13:56		JC\MD	Ok
4	VN0311WBL01	VN0311WBL01	VN085930.D	11 Mar 2025 14:21		JC\MD	Ok
5	VN0311WBS01	VN0311WBS01	VN085931.D	11 Mar 2025 14:54		JC\MD	Ok,M
6	VN0311WBSD01	VN0311WBSD01	VN085932.D	11 Mar 2025 15:28		JC\MD	Ok,M
7	PB167050TB	PB167050TB	VN085933.D	11 Mar 2025 15:52		JC\MD	Ok
8	Q1514-09	FB03062025	VN085934.D	11 Mar 2025 16:16	vial B pH<2 FB	JC\MD	Ok
9	PB167050ZHE#02	PB167050ZHE#02	VN085935.D	11 Mar 2025 16:40		JC\MD	Ok
10	PB167050ZHE#03	PB167050ZHE#03	VN085936.D	11 Mar 2025 17:04		JC\MD	Ok
11	PB167050ZHE#04	PB167050ZHE#04	VN085937.D	11 Mar 2025 17:28		JC\MD	Ok
12	PB167050ZHE#05	PB167050ZHE#05	VN085938.D	11 Mar 2025 17:52		JC\MD	Ok
13	PB167050ZHE#06	PB167050ZHE#06	VN085939.D	11 Mar 2025 18:16		JC\MD	Ok
14	PB167050ZHE#07	PB167050ZHE#07	VN085940.D	11 Mar 2025 18:40		JC\MD	Ok
15	PB167050ZHE#08	PB167050ZHE#08	VN085941.D	11 Mar 2025 19:04		JC\MD	Ok
16	PB167050ZHE#09	PB167050ZHE#09	VN085942.D	11 Mar 2025 19:29		JC\MD	Ok
17	Q1534-06	OR-363-COMP-16	VN085943.D	11 Mar 2025 19:53	vial A pH#5.0	JC\MD	Ok,M
18	Q1534-12	OR-363-COMP-17	VN085944.D	11 Mar 2025 20:17	vial A pH#5.0	JC\MD	Ok,M

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Instrument ID: MSVOA_N

Daily Analysis Runlog For Sequence/QCBatch ID # VN031125

Review By	John Carlone	Review On	3/12/2025 9:49:06 AM		
Supervise By	Mahesh Dadoda	Supervise On	3/12/2025 3:17:04 PM		
SubDirectory	VN031125	HP Acquire Method		HP Processing Method	82N021825W.M

STD. NAME	STD REF.#
Tune/Reschk	VP133247
Initial Calibration Stds	
CCC	VP133248,VP133249
Internal Standard/PEM	
ICV/I.BLK	
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

19	Q1534-18	OR-363-COMP-18	VN085945.D	11 Mar 2025 20:41	vial A pH#5.0	JC\MD	Ok,M
20	Q1534-24	OR-363OR-363-COMP	VN085946.D	11 Mar 2025 21:05	vial A pH#5.0	JC\MD	Ok,M
21	Q1514-02	ENV-105-SB01	VN085947.D	11 Mar 2025 21:29	vial A pH#5.0	JC\MD	Ok
22	Q1514-04	ENV-105-SB02	VN085948.D	11 Mar 2025 21:53	vial A pH#5.0	JC\MD	Ok
23	Q1514-06	ENV-103-SB01	VN085949.D	11 Mar 2025 22:17	vial A pH#5.0	JC\MD	Ok
24	Q1523-01	WC-A1-01-G	VN085950.D	11 Mar 2025 22:41	vial A pH#5.0	JC\MD	Ok
25	Q1523-04	WC-A1-02-G	VN085951.D	11 Mar 2025 23:05	vial A pH#5.0	JC\MD	Ok
26	VSTDCCC050	VSTDCCC050EC	VN085952.D	11 Mar 2025 23:29		JC\MD	Ok,M

M : Manual Integration

Alliance TECHNICAL GROUP

TCLP EXTRACTION LOGPAGE

PB167050

SOP ID : M1311-TCLP-15

SDG No : N/A

Weigh By : JP

Balance ID : WC SC-7

pH Meter ID : WC PH METER-1

Extraction By : JP

Filter By : JP

Pippete ID : WC

Tumbler ID : ZHE-1

TCLP Filter ID : 50223706

Start Prep Date : 03/10/2025 **Time :** 15:30

End Prep Date : 03/11/2025 **Time :** 09:45

Combination Ratio : 20

ZHE Cleaning Batch : ~~N/A~~ JP VN031125.

Initial Room Temperature: 24 °C

Final Room Temperature: 22 °C

TCLP Technician Signature : JP

Supervisor By : JZ

Standared Name	MLS USED	STD REF. # FROM LOG
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE U	Lot Number
TCLP-FLUID-1	N/A	WP110802
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
40ml VOA Vials	23237	N/A

Extraction Conformance/Non-Conformance Comments:

ALL ZHE samples are extracted and given as vial A & B. Leak checked after 10 mintues of tumbling. TUMBLER ZHE-1 checked,30 rpm.

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
03/11/25 10:30	JP TCLP Room	[signature] 100C Lab
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

TCLP EXTRACTION LOGPAGE

PB167050

Sample ID	ClientID	ZHE Vessel ID	Sample Wt (g)	Volume Extraction Fluid #1 (mL)	Multi phasic	Phase Miscible	Phases Combined	Final Leachate PH	Metals Leachate Adj. PH	Prep Pos
PB167050TB	LEB050	10	N/A	500	N/A	N/A	N/A	4.94	N/A	ZHE-1
Q1514-02	ENV-105-SB01	01	25.02	500	N/A	N/A	N/A	N/A	N/A	ZHE-1
Q1514-04	ENV-105-SB02	02	25.03	500	N/A	N/A	N/A	N/A	N/A	ZHE-1
Q1514-06	ENV-103-SB01	03	25.02	500	N/A	N/A	N/A	N/A	N/A	ZHE-1
Q1523-01	WC-A1-01-G	04	25.01	500	N/A	N/A	N/A	N/A	N/A	ZHE-1
Q1523-04	WC-A1-02-G	05	25.02	500	N/A	N/A	N/A	N/A	N/A	ZHE-1
Q1534-06	OR-363-COMP-16	06	25.03	500	N/A	N/A	N/A	N/A	N/A	ZHE-1
Q1534-12	OR-363-COMP-17	07	25.02	500	N/A	N/A	N/A	N/A	N/A	ZHE-1
Q1534-18	OR-363-COMP-18	08	25.03	500	N/A	N/A	N/A	N/A	N/A	ZHE-1
Q1534-24	OR-363OR-363-COMP-19-	09	25.02	500	N/A	N/A	N/A	N/A	N/A	ZHE-1

SampleID	ClientID	Sample Weight (g)	Filter Weight (g)	Filtrate (mL)	Filter + Solid (After 100°C)	% solids	% Dry Solids
PB167050TB	LEB050	N/A	N/A	N/A	N/A	N/A	N/A
Q1514-02	ENV-105-SB01	N/A	N/A	N/A	N/A	100	N/A
Q1514-04	ENV-105-SB02	N/A	N/A	N/A	N/A	100	N/A
Q1514-06	ENV-103-SB01	N/A	N/A	N/A	N/A	100	N/A
Q1523-01	WC-A1-01-G	N/A	N/A	N/A	N/A	100	N/A
Q1523-04	WC-A1-02-G	N/A	N/A	N/A	N/A	100	N/A
Q1534-06	OR-363-COMP-16	N/A	N/A	N/A	N/A	100	N/A
Q1534-12	OR-363-COMP-17	N/A	N/A	N/A	N/A	100	N/A
Q1534-18	OR-363-COMP-18	N/A	N/A	N/A	N/A	100	N/A
Q1534-24	OR-363OR-363-COMP-19-	N/A	N/A	N/A	N/A	100	N/A

WORKLIST(Hardcopy Internal Chain)

WorkList Name : TCLP ZHW Q1534 **WorkList ID :** 188162 **Department :** TCLP Extraction **Date :** 03-10-2025 13:43:59

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1514-02	ENV-105-SB01	Solid	TCLP ZHE Extraction	Cool 4 deg C	PORT06	I31	03/05/2025	1311 ZHE
Q1514-04	ENV-105-SB02	Solid	TCLP ZHE Extraction	Cool 4 deg C	PORT06	I31	03/05/2025	1311 ZHE
Q1514-06	ENV-103-SB01	Solid	TCLP ZHE Extraction	Cool 4 deg C	PORT06	I31	03/05/2025	1311 ZHE
Q1523-01	WC-A1-01-G	Solid	TCLP ZHE Extraction	Cool 4 deg C	PORT06	I31	03/05/2025	1311 ZHE
Q1523-04	WC-A1-02-G	Solid	TCLP ZHE Extraction	Cool 4 deg C	ENTA05	I31	03/06/2025	1311 ZHE
Q1534-06	OR-363-COMP-16	Solid	TCLP ZHE Extraction	Cool 4 deg C	ENTA05	I31	03/06/2025	1311 ZHE
Q1534-12	OR-363-COMP-17	Solid	TCLP ZHE Extraction	Cool 4 deg C	PSEG03	H31	03/07/2025	1311 ZHE
Q1534-18	OR-363-COMP-18	Solid	TCLP ZHE Extraction	Cool 4 deg C	PSEG03	H31	03/07/2025	1311 ZHE
Q1534-24	OR-363OR-363-COMP-19-	Solid	TCLP ZHE Extraction	Cool 4 deg C	PSEG03	H31	03/07/2025	1311 ZHE

Date/Time 03/10/25 13:55

Raw Sample Received by:

Raw Sample Relinquished by:

Date/Time 03/10/25 17:30

Raw Sample Received by:

Raw Sample Relinquished by:

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900, Fax : 908 789 8922

Prep Standard - Chemical Standard Summary

Order ID : Q1514

Test : TCLP VOA

Prepbatch ID :

Sequence ID/Qc Batch ID: VN031125,

Standard ID :
VP131746,VP131767,VP132035,VP132096,VP133036,VP133174,VP133178,VP133247,VP133248,VP133249,

Chemical ID :
V13391,V13457,V13460,V13465,V13466,V13706,V14154,V14175,V14176,V14289,V14433,V14439,V14521,V14522,V14613,V14614,V14624,V14630,V14631,V14632,V14633,V14722,V14723,V14724,V14744,V14754,V14809,V14814,V14842,V14872,V14873,V14874,V14875,W3112,

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
247	8260 Internal Standard, 250PPM	VP131746	11/22/2024	05/18/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 11/23/2024

FROM 0.50000ml of V14289 + 49.50000ml of V14154 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
218	BFB, 25PPM	VP131767	11/22/2024	05/18/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 11/27/2024

FROM 0.50000ml of V13391 + 49.50000ml of V14154 = Final Quantity: 50.000 ml

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1810	8260 Working Std(2-CVE)-800ppm	VP132035	12/10/2024	06/10/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 12/12/2024

FROM 1.00000ml of V14630 + 1.00000ml of V14631 + 1.00000ml of V14632 + 1.00000ml of V14633 + 46.00000ml of V14614 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
719	8260 Working STD (BCM)-First source, 400PPM	VP132096	12/12/2024	06/10/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 12/19/2024

FROM 1.00000ml of V13465 + 1.00000ml of V13466 + 1.50000ml of V13457 + 1.50000ml of V13460 + 20.00000ml of V14614 = Final Quantity: 25.000 ml

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
51	8260 Working STD (Acrolein) -first source, 800PPM	VP133036	02/14/2025	03/13/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 02/18/2025

FROM 1.00000ml of V14872 + 1.00000ml of V14873 + 1.00000ml of V14874 + 1.00000ml of V14875 + 21.00000ml of V14624 = Final Quantity: 25.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
617	8260 Surrogate, 400PPM	VP133174	02/27/2025	08/27/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 03/04/2025

FROM 0.40000ml of V13706 + 24.60000ml of V14613 = Final Quantity: 25.000 ml

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
257	8260 Calibration Working STD Mix-First source, 160PPM	VP133178	02/27/2025	03/31/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 03/04/2025

FROM 0.40000ml of V14842 + 1.00000ml of V14175 + 1.00000ml of V14176 + 1.00000ml of V14433 + 1.00000ml of V14439 + 1.00000ml of V14521 + 1.00000ml of V14522 + 1.00000ml of V14724 + 1.00000ml of V14744 + 1.00000ml of V14754 + 1.00000ml of V14809 + 1.00000ml of V14814 + 1.50000ml of V14722 + 1.50000ml of V14723 + 10.60000ml of V14613 = Final Quantity: 25.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
589	BFB TUNE CHECK	VP133247	03/11/2025	03/12/2025	John Carlone	None	None	Romaben Patel 03/11/2025

FROM 39.98400ml of W3112 + 0.01600ml of VP131767 = Final Quantity: 40.000 ml

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
620	50 PPB CCC, 8260-Water	VP133248	03/11/2025	03/12/2025	John Carlone	None	None	Romaben Patel 03/11/2025

FROM 39.94450ml of W3112 + 0.00500ml of VP132096 + 0.00500ml of VP133174 + 0.00800ml of VP131746 + 0.01250ml of VP132035 + 0.01250ml of VP133036 + 0.01250ml of VP133178 = Final Quantity: 40.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
620	50 PPB CCC, 8260-Water	VP133249	03/11/2025	03/12/2025	John Carlone	None	None	Romaben Patel 03/11/2025

FROM 39.94450ml of W3112 + 0.00500ml of VP132096 + 0.00500ml of VP133174 + 0.00800ml of VP131746 + 0.01250ml of VP132035 + 0.01250ml of VP133036 + 0.01250ml of VP133178 = Final Quantity: 40.000 ml

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30067 / BFB tuneing solution	A0191805	11/22/2025	11/22/2024 / SAM	01/13/2023 / SAM	V13391

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul	A0193071	06/12/2025	12/12/2024 / SAM	01/27/2023 / SAM	V13457

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul	A0193071	06/12/2025	12/12/2024 / SAM	01/27/2023 / SAM	V13460

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul	A0193071	06/12/2025	12/12/2024 / SAM	01/27/2023 / SAM	V13465

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul	A0193071	06/12/2025	12/12/2024 / SAM	01/27/2023 / SAM	V13466

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555582 / Custom Mixture, 8260 A/B Surrogate Mix [CS 5179-2]	A0196865	02/27/2026	02/27/2025 / SAM	04/12/2023 / SAM	V13706

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	22L0562016	05/18/2025	11/18/2024 / pedro	02/06/2024 / SAM	V14154

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95317 / Universal VOA Mega Mix (Min order = 5)	021624	07/10/2025	01/10/2025 / SAM	02/20/2024 / SAM	V14175

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95317 / Universal VOA Mega Mix (Min order = 5)	021624	07/10/2025	01/10/2025 / SAM	02/20/2024 / SAM	V14176

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555581 / Custom Standard, 8260 Internal Std [CS 5179-1]	A0210184	11/22/2025	11/22/2024 / SAM	04/15/2024 / SAM	V14289

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30489 / VOA Mix, 8260B Acetates Mix, P&TM, 1mL	A0209618	07/10/2025	01/10/2025 / SAM	08/15/2024 / SAM	V14433

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30489 / VOA Mix, 8260B Acetates Mix, P&TM, 1mL	A0209618	07/10/2025	01/10/2025 / SAM	08/15/2024 / SAM	V14439

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95319 / Revised Additions Mix (Min = 5)	091724	07/10/2025	01/10/2025 / SAM	09/18/2024 / SAM	V14521

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95319 / Revised Additions Mix (Min = 5)	091724	07/10/2025	01/10/2025 / SAM	09/18/2024 / SAM	V14522

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	22L0562016	08/27/2025	02/27/2025 / SAM	11/26/2024 / SAM	V14613

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	22L0562016	06/10/2025	12/10/2024 / SAM	11/26/2024 / SAM	V14614

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	23I0762004	07/13/2025	01/13/2025 / SAM	11/26/2024 / SAM	V14624

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ 2-Chloroethyl vinyl ether	120524	06/10/2025	12/10/2024 / SAM	12/06/2024 / SAM	V14630

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ 2-Chloroethyl vinyl ether	120524	06/10/2025	12/10/2024 / SAM	12/06/2024 / SAM	V14631

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ 2-Chloroethyl vinyl ether	120524	06/10/2025	12/10/2024 / SAM	12/06/2024 / SAM	V14632

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ 2-Chloroethyl vinyl ether	120524	06/10/2025	12/10/2024 / SAM	12/06/2024 / SAM	V14633

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml	A02110618	07/10/2025	01/10/2025 / SAM	12/17/2024 / SAM	V14722

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml	A02110618	07/10/2025	01/10/2025 / SAM	12/17/2024 / SAM	V14723

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml	A02110618	07/10/2025	01/10/2025 / SAM	12/17/2024 / SAM	V14724

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30042 / VOA Mix,500 series method 502.2 Calibration Std #1 gases, 2000uq/ml, PTM, 1ml	A0216826	08/27/2025	02/27/2025 / SAM	12/17/2024 / SAM	V14744

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30042 / VOA Mix,500 series method 502.2 Calibration Std #1 gases, 2000uq/ml, PTM, 1ml	A0216826	05/31/2031	01/10/2025 / SAM	12/17/2024 / SAM	V14754

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555408 / Custom Standard, Vinyl Acetate Standard w/ Grav [CS 5066-6] TWO SEPARATE LOTS	A0220471	07/10/2025	01/10/2025 / SAM	01/08/2025 / SAM	V14809

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555408 / Custom Standard, Vinyl Acetate Standard w/ Grav [CS 5066-6] TWO SEPARATE LOTS	A0220471	07/10/2025	01/10/2025 / SAM	01/08/2025 / SAM	V14814

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30470 / VOA Stock Solution, tert-butanol std, 1mL, P&TM	A0217535	08/27/2025	02/27/2025 / SAM	01/21/2025 / SAM	V14842

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	021325	03/13/2025	02/14/2025 / SAM	02/14/2025 / SAM	V14872

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	021325	03/13/2025	02/14/2025 / SAM	02/14/2025 / SAM	V14873

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	021325	03/13/2025	02/14/2025 / SAM	02/14/2025 / SAM	V14874

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	021325	03/13/2025	02/14/2025 / SAM	02/14/2025 / SAM	V14875

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	07/03/2029	07/03/2024 / Iwona	07/03/2024 / Iwona	W3112

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

avantor™ | J.T.Baker®

Material No.: 9077-02
Batch No.: 2310762004
Manufactured Date: 2023-08-11
Expiration Date: 2026-08-10
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (CH_3OH) (by GC, corrected for water)	≥ 99.9 %	100.0 %
Residue after Evaporation	≤ 1.0 ppm	0.5 ppm
Titrable Acid (µeq/g)	≤ 0.3	0.2
Titrable Base (µeq/g)	≤ 0.10	0.01
Water (by KF, coulometric)	≤ 0.08 %	< 0.01 %
Volatile Organic Trace Analysis – Below EPA 8260B CRQL	Conforms	Conforms

For Laboratory,Research,or Manufacturing Use
Performance Tested for Use in EPA Methods
500 Series for Drinking Water
600 Series for Wastewater
846 for Solid Waste

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Ken Koehnlein
Sr. Manager, Quality Assurance

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

12 Bottles

avantor™ | J.T.Baker®

Material No.: 9077-02
Batch No.: 22L0562016
Manufactured Date: 2022-10-26
Expiration Date: 2025-10-25
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (CH_3OH) (by GC, corrected for water)	≥ 99.9 %	100.0 %
Residue after Evaporation	≤ 1.0 ppm	0.2 ppm
Titrable Acid (µeq/g)	≤ 0.3	0.2
Titrable Base (µeq/g)	≤ 0.10	0.03
Water (by KF, coulometric)	≤ 0.08 %	< 0.01 %
Volatile Organic Trace Analysis – Below EPA 8260B CRQL	Conforms	Conforms

For Laboratory,Research,or Manufacturing Use
Performance Tested for Use in EPA Methods
500 Series for Drinking Water
600 Series for Wastewater
846 for Solid Waste

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

James Ethier

Jamie Ethier
Vice President Global Quality

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

12 Bottles

avantor™ | J.T.Baker®

Material No.: 9077-02
Batch No.: 22L0562016
Manufactured Date: 2022-10-26
Expiration Date: 2025-10-25
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (CH_3OH) (by GC, corrected for water)	≥ 99.9 %	100.0 %
Residue after Evaporation	≤ 1.0 ppm	0.2 ppm
Titrable Acid (µeq/g)	≤ 0.3	0.2
Titrable Base (µeq/g)	≤ 0.10	0.03
Water (by KF, coulometric)	≤ 0.08 %	< 0.01 %
Volatile Organic Trace Analysis – Below EPA 8260B CRQL	Conforms	Conforms

For Laboratory,Research,or Manufacturing Use
Performance Tested for Use in EPA Methods
500 Series for Drinking Water
600 Series for Wastewater
846 for Solid Waste

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

James Ethier

Jamie Ethier
Vice President Global Quality

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

5 J14

Dec 02/14/25

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 021325
Description: Acrolein

Expiration Date: 031325
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB

Solvent(s): **Lot#**
Water 072324Q

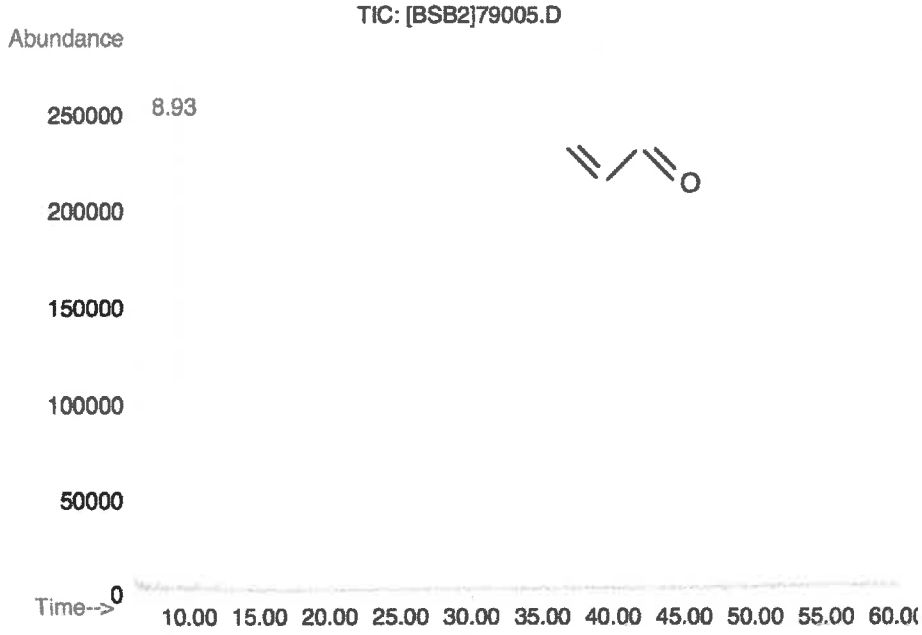
V14872 to
V14876

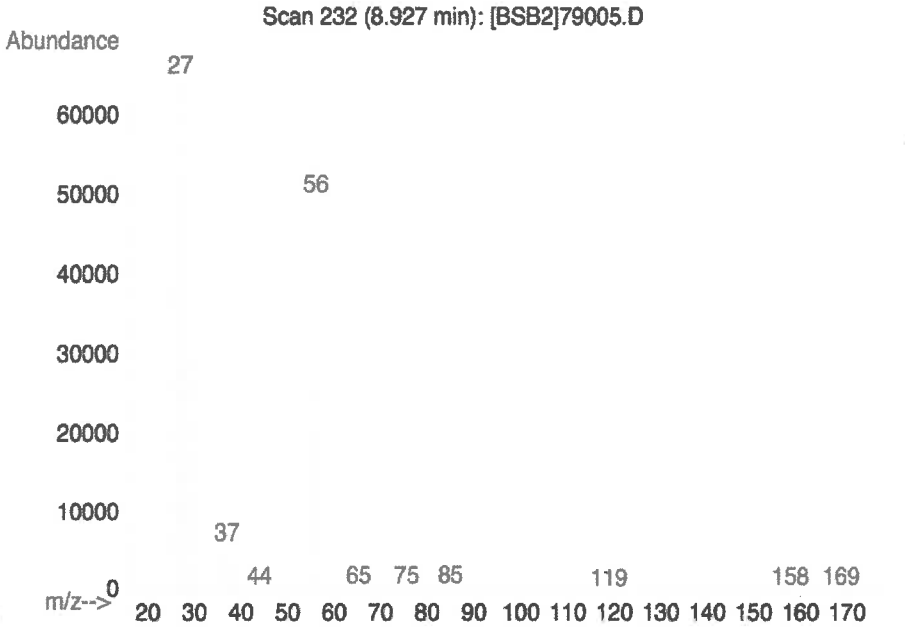
		021325
Formulated By:	Anthony Mahoney	DATE
		021325
Reviewed By:	Pedro L. Rentas	DATE

5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 10.0 0.001 Flask Uncertainty

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acrolein	5	103755V10F	5000	97	0.5	0.05166	0.05178	5011.8	52.6	107-02-8	0.1 ppm	orl-rat 46mg/kg

Method: GC6MSD-1. **Detector:** Mass Selective Detector (Scan mode). **Column:** Vocol (60m X 0.25mm ID X 1.5µm film thickness). **Oven Profile:** Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2=200°C (Time 2 = 8.75 min.) Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. **Analyst:** Pedro Rentas. **NOTE:** Due to the instability of acrolein in solution, all solutions of acrolein, and any dilutions thereof, should be used immediately Long term storage is not recommended. Please contact our technical department if further information is required.





- **The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.**
- **Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).**
- **Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.**
- **All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.**
- **Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).**

Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

Safety Data Sheet (SDS) GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY **ANALYTICAL STANDARD DISSOLVED IN WATER**

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	**1-800-535-5053**
Address	44 Rossotto Dr. Hamden CT, 06514	Emergency Telephone International	**1-352-323-3500**
		Date Prepared/Revised	January 1, 2024

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

P271	**Use in ventilated area**	**H315**	**Causes skin and eye irritation.**
P302,332	**If on skin, wash with soap and water**	**P280**	**Use gloves, eye protection/face sheild**
		P305,351,338	**If in eyes, remove contacts, rinse with water**

Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))		% (optional)
Water	CAS#: 7732-18-5	> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.
Hazardous Decomposition products	Carbon oxides

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Water CAS#: 7732-18-5 TWA: 500 ppm

Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

Section IX - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point	100°C	Specific Gravity (H2O = 1)	1
Vapor Pressure (mm Hg)		Melting Point	

	NA		0°C
Vapor Density (AIR = 1)	NA	Evaporation rate (Butyl Acetate = 1)	NA

Solubility in Water Completely miscible

Appearance and Odor CLEAR, COLORLESS LIQUID WITH SLIGHT CHEMICAL ODOR.

Section X. STABILITY AND REACTIVITY

Chemical stability Stable under recommended storage conditions.
Possibility of hazardous reactions NA
Conditions to avoid NA
Materials to avoid NA
Hazardous decomposition products - No data available

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - Rat NA
LC50 Inhalation - Rat NA
LD50 Dermal - Guinea pig NA
Causes skin irritation.
Eye irritation

Section XII. ECOLOGICAL INFORMATION

LC50 NA
EC50 NA

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)
Not dangerous goods
Proper shipping name: Water

IATA
Not dangerous goods
Proper shipping name: Water

Section XV. REGULATORY INFORMATION

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Material Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

5 J14

Dec 02/14/25

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 021325
Description: Acrolein

Expiration Date: 031325
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB

Solvent(s): **Lot#**
Water 072324Q

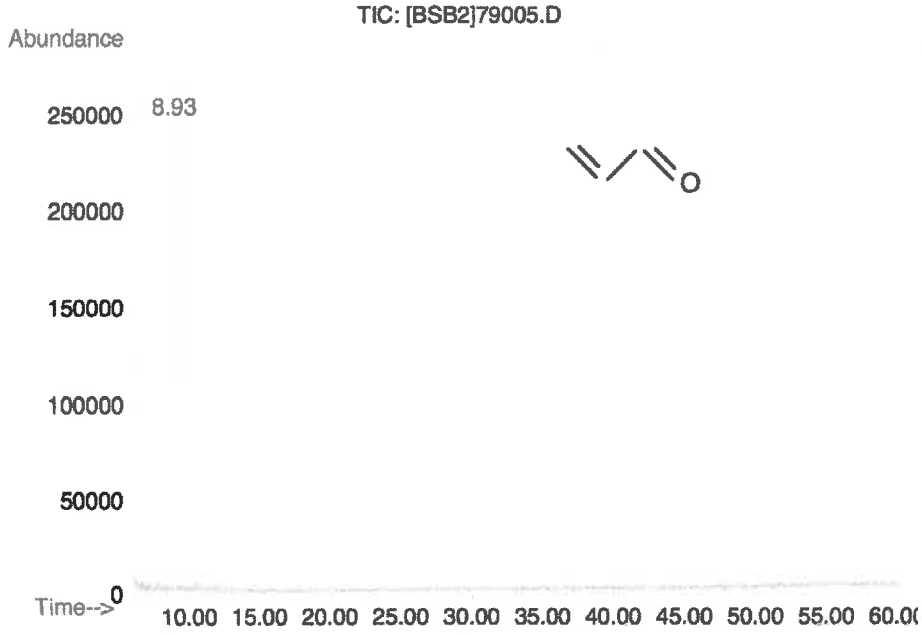
V14872 to
V14876

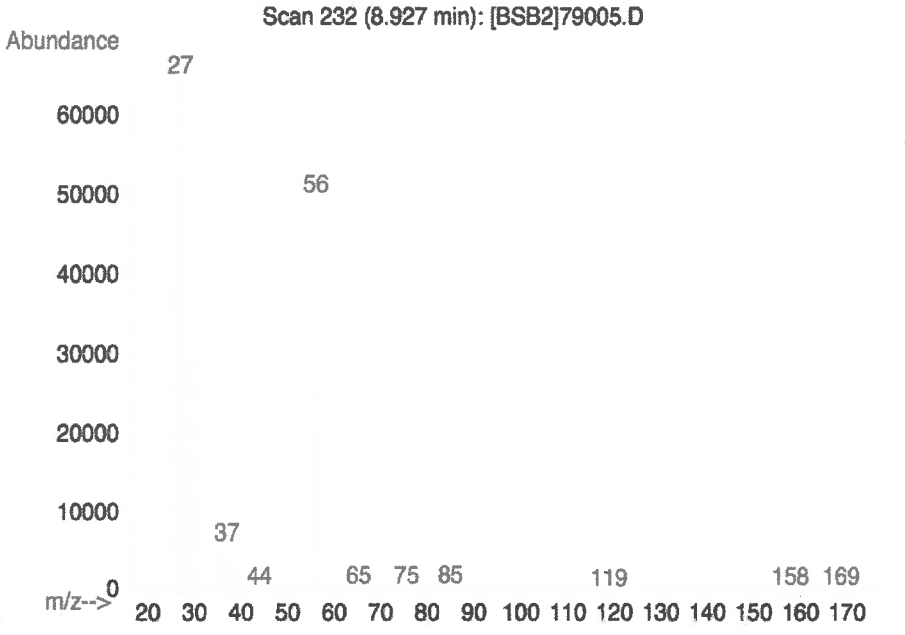
		021325
Formulated By:	Anthony Mahoney	DATE
		021325
Reviewed By:	Pedro L. Rentas	DATE

5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 10.0 0.001 Flask Uncertainty

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acrolein	5	103755V10F	5000	97	0.5	0.05166	0.05178	5011.8	52.6	107-02-8	0.1 ppm	orl-rat 46mg/kg

Method: GC6MSD-1. **Detector:** Mass Selective Detector (Scan mode). **Column:** Vocol (60m X 0.25mm ID X 1.5µm film thickness). **Oven Profile:** Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2=200°C (Time 2 = 8.75 min.) Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. **Analyst:** Pedro Rentas. **NOTE:** Due to the instability of acrolein in solution, all solutions of acrolein, and any dilutions thereof, should be used immediately Long term storage is not recommended. Please contact our technical department if further information is required.





- **The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.**
- **Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).**
- **Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.**
- **All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.**
- **Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).**

Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

Safety Data Sheet (SDS) GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY **ANALYTICAL STANDARD DISSOLVED IN WATER**

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	**1-800-535-5053**
Address	44 Rossotto Dr. Hamden CT, 06514	Emergency Telephone International	**1-352-323-3500**
		Date Prepared/Revised	January 1, 2024

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

P271	**Use in ventilated area**	**H315**	**Causes skin and eye irritation.**
P302,332	**If on skin, wash with soap and water**	**P280**	**Use gloves, eye protection/face sheild**
		P305,351,338	**If in eyes, remove contacts, rinse with water**

Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))		% (optional)
Water	CAS#: 7732-18-5	> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.
Hazardous Decomposition products	Carbon oxides

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Water CAS#: 7732-18-5 TWA: 500 ppm

Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

Section IX - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point	100°C	Specific Gravity (H2O = 1)	1
Vapor Pressure (mm Hg)		Melting Point	

	NA		0°C
Vapor Density (AIR = 1)	NA	Evaporation rate (Butyl Acetate = 1)	NA

Solubility in Water Completely miscible

Appearance and Odor CLEAR, COLORLESS LIQUID WITH SLIGHT CHEMICAL ODOR.

Section X. STABILITY AND REACTIVITY

Chemical stability Stable under recommended storage conditions.
Possibility of hazardous reactions NA
Conditions to avoid NA
Materials to avoid NA
Hazardous decomposition products - No data available

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - Rat NA
LC50 Inhalation - Rat NA
LD50 Dermal - Guinea pig NA
Causes skin irritation.
Eye irritation

Section XII. ECOLOGICAL INFORMATION

LC50 NA
EC50 NA

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)
Not dangerous goods
Proper shipping name: Water

IATA
Not dangerous goods
Proper shipping name: Water

Section XV. REGULATORY INFORMATION

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Material Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

5 J14

Dec 02/14/25

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 021325
Description: Acrolein

Expiration Date: 031325
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB

Solvent(s): **Lot#**
Water 072324Q

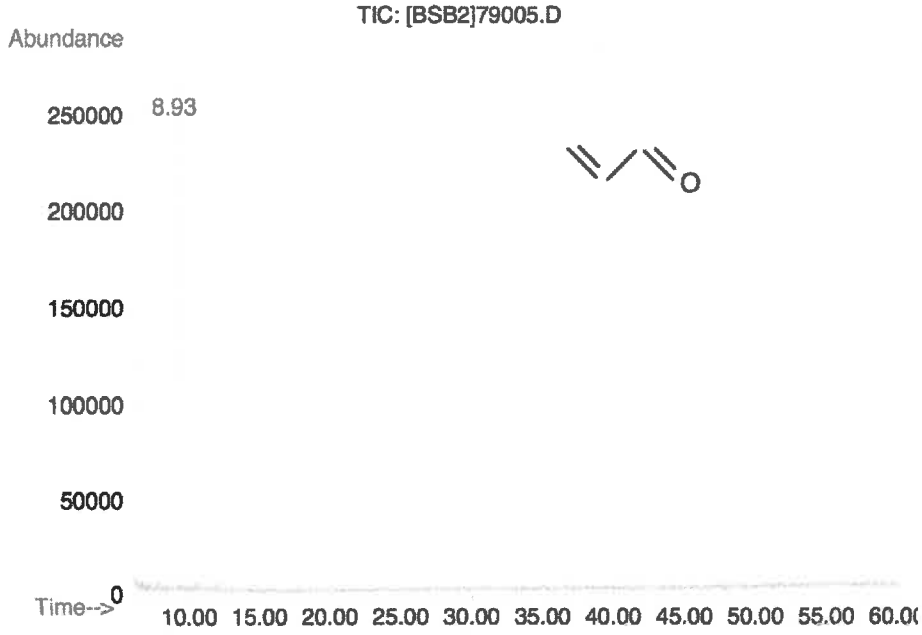
V14872 to
V14876

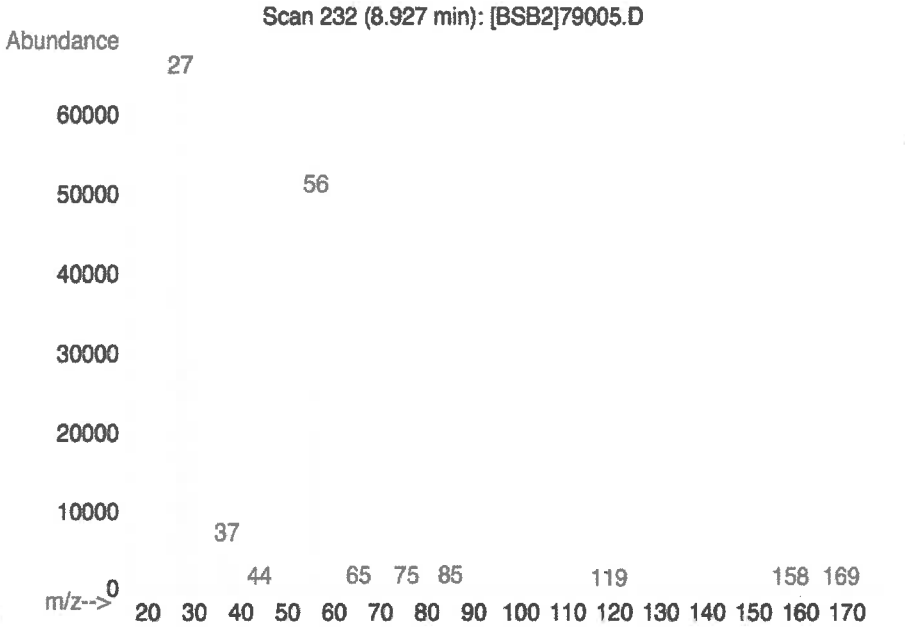
		021325
Formulated By:	Anthony Mahoney	DATE
		021325
Reviewed By:	Pedro L. Rentas	DATE

5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 10.0 0.001 Flask Uncertainty

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acrolein	5	103755V10F	5000	97	0.5	0.05166	0.05178	5011.8	52.6	107-02-8	0.1 ppm	orl-rat 46mg/kg

Method: GC6MSD-1. **Detector:** Mass Selective Detector (Scan mode). **Column:** Vocol (60m X 0.25mm ID X 1.5µm film thickness). **Oven Profile:** Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2=200°C (Time 2 = 8.75 min.) Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. **Analyst:** Pedro Rentas. **NOTE:** Due to the instability of acrolein in solution, all solutions of acrolein, and any dilutions thereof, should be used immediately Long term storage is not recommended. Please contact our technical department if further information is required.





- **The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.**
- **Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).**
- **Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.**
- **All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.**
- **Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).**

Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

Safety Data Sheet (SDS) GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY **ANALYTICAL STANDARD DISSOLVED IN WATER**

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	**1-800-535-5053**
Address	44 Rossotto Dr. Hamden CT, 06514	Emergency Telephone International	**1-352-323-3500**
		Date Prepared/Revised	January 1, 2024

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

P271	**Use in ventilated area**	**H315**	**Causes skin and eye irritation.**
P302,332	**If on skin, wash with soap and water**	**P280**	**Use gloves, eye protection/face sheild**
		P305,351,338	**If in eyes, remove contacts, rinse with water**

Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))		% (optional)
Water	CAS#: 7732-18-5	> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.
Hazardous Decomposition products	Carbon oxides

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Water CAS#: 7732-18-5 TWA: 500 ppm

Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

Section IX - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point	100°C	Specific Gravity (H2O = 1)	1
Vapor Pressure (mm Hg)		Melting Point	

	NA		0°C
Vapor Density (AIR = 1)	NA	Evaporation rate (Butyl Acetate = 1)	NA

Solubility in Water Completely miscible

Appearance and Odor CLEAR, COLORLESS LIQUID WITH SLIGHT CHEMICAL ODOR.

Section X. STABILITY AND REACTIVITY

Chemical stability Stable under recommended storage conditions.
Possibility of hazardous reactions NA
Conditions to avoid NA
Materials to avoid NA
Hazardous decomposition products - No data available

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - Rat NA
LC50 Inhalation - Rat NA
LD50 Dermal - Guinea pig NA
Causes skin irritation.
Eye irritation

Section XII. ECOLOGICAL INFORMATION

LC50 NA
EC50 NA

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)
Not dangerous goods
Proper shipping name: Water

IATA
Not dangerous goods
Proper shipping name: Water

Section XV. REGULATORY INFORMATION

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Material Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

5 J14

Dec 02/14/25

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 021325
Description: Acrolein

Expiration Date: 031325
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB

Solvent(s): **Lot#**
Water 072324Q

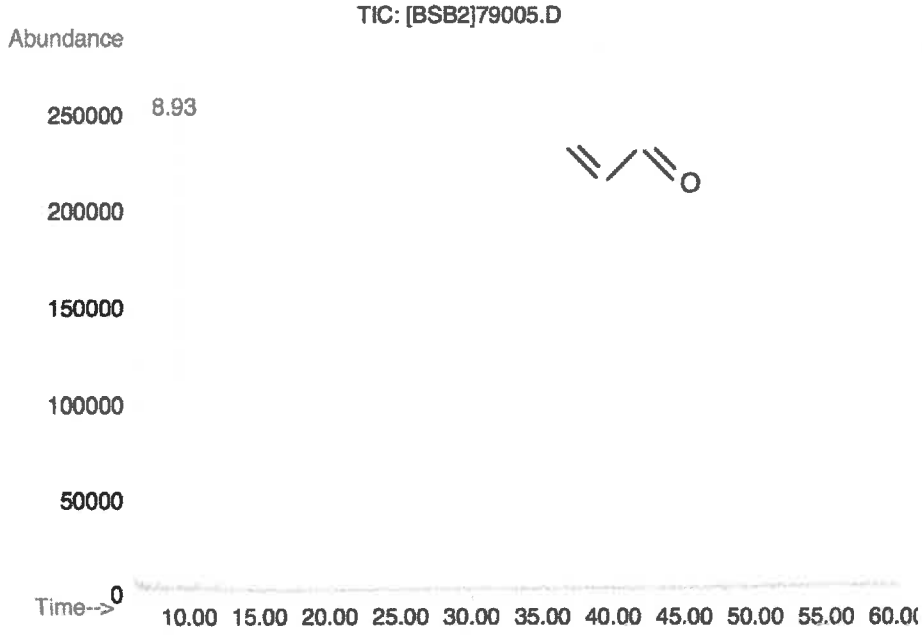
V14872 to
V14876

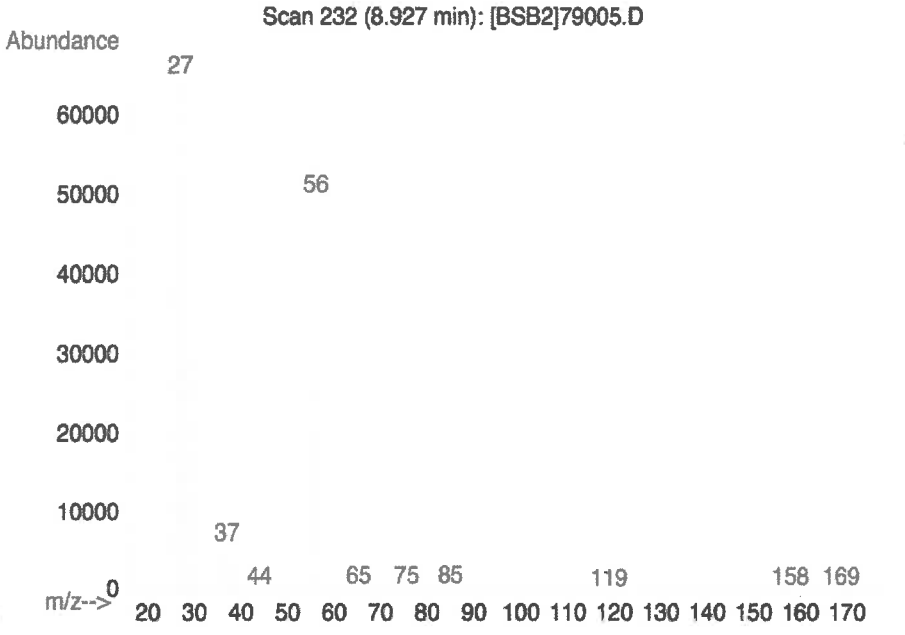
		021325
Formulated By:	Anthony Mahoney	DATE
		021325
Reviewed By:	Pedro L. Rentas	DATE

5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 10.0 0.001 Flask Uncertainty

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acrolein	5	103755V10F	5000	97	0.5	0.05166	0.05178	5011.8	52.6	107-02-8	0.1 ppm	orl-rat 46mg/kg

Method: GC6MSD-1. **Detector:** Mass Selective Detector (Scan mode). **Column:** Vocol (60m X 0.25mm ID X 1.5µm film thickness). **Oven Profile:** Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2=200°C (Time 2 = 8.75 min.) Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. **Analyst:** Pedro Rentas. **NOTE:** Due to the instability of acrolein in solution, all solutions of acrolein, and any dilutions thereof, should be used immediately Long term storage is not recommended. Please contact our technical department if further information is required.





- **The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.**
- **Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).**
- **Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.**
- **All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.**
- **Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).**

Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

Safety Data Sheet (SDS) GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY **ANALYTICAL STANDARD DISSOLVED IN WATER**

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	**1-800-535-5053**
Address	44 Rossotto Dr. Hamden CT, 06514	Emergency Telephone International	**1-352-323-3500**
		Date Prepared/Revised	January 1, 2024

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

P271	**Use in ventilated area**	**H315**	**Causes skin and eye irritation.**
P302,332	**If on skin, wash with soap and water**	**P280**	**Use gloves, eye protection/face sheild**
		P305,351,338	**If in eyes, remove contacts, rinse with water**

Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))		% (optional)
Water	CAS#: 7732-18-5	> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.
Hazardous Decomposition products	Carbon oxides

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Water CAS#: 7732-18-5 TWA: 500 ppm

Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

Section IX - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point	100°C	Specific Gravity (H2O = 1)	1
Vapor Pressure (mm Hg)		Melting Point	

	NA		0°C
Vapor Density (AIR = 1)	NA	Evaporation rate (Butyl Acetate = 1)	NA

Solubility in Water Completely miscible

Appearance and Odor CLEAR, COLORLESS LIQUID WITH SLIGHT CHEMICAL ODOR.

Section X. STABILITY AND REACTIVITY

Chemical stability Stable under recommended storage conditions.
Possibility of hazardous reactions NA
Conditions to avoid NA
Materials to avoid NA
Hazardous decomposition products - No data available

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - Rat NA
LC50 Inhalation - Rat NA
LD50 Dermal - Guinea pig NA
Causes skin irritation.
Eye irritation

Section XII. ECOLOGICAL INFORMATION

LC50 NA
EC50 NA

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)
Not dangerous goods
Proper shipping name: Water

IATA
Not dangerous goods
Proper shipping name: Water

Section XV. REGULATORY INFORMATION

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Material Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.

CERTIFIED WEIGHT REPORT

Part Number: 95317
Lot Number: 021624
Description: Universal VOA Megamix
69 components
Expiration Date: 021627
Recommended Storage: Freezer (0 °C)
Nominal Concentration (µg/mL): 2000
NIST Test ID#: 6UTB

Solvent(s): Lot#
Methanol EG359-USQ12

Formulated By: Prashant Chauhan 021624 DATE

Reviewed By: Pedro L. Rentas 021624 DATE

Weight(s) shown below were combined and diluted to (mL):	100.0	0.021	Flask Uncertainty
		5E-05	Balance Uncertainty

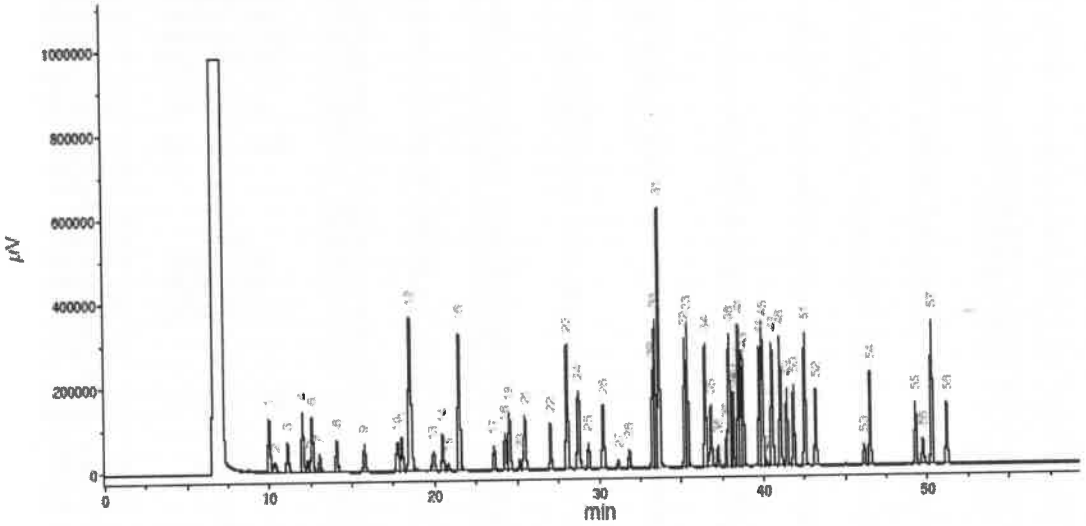
Compound	(RM#) Part Number	Lot Number	Dil. Factor	Initial Vol. (mL)	Initial Conc.(ug/mL)	Nominal Conc (µg/mL)	Purity (%)	Purity Uncertainty	Uncertainty Pipette (mL)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acetonitrile	(0324)	021644	NA	NA	NA	2000	99.99	0.2	NA	0.20007	0.20020	2001.3	8.1	75-05-8	40 ppm (70mg/m3/8H)	orl-rat 2460mg/kg
2. Allyl chloride (3-Chloropropene)	(0325)	102396	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20221	2001.4	8.2	107-05-1	1 ppm (3mg/m3/8H)	orl-rat 700mg/kg
3. Carbon disulphide	(0060)	MKCR8561	NA	NA	NA	2000	99.99	0.2	NA	0.20007	0.20023	2001.6	8.1	75-15-0	4 ppm (12mg/m3) (skin)	orl-rat 1200mg/kg
4. cis-1,4-Dichloro-2-butene	(1196)	14718EF	NA	NA	NA	2000	95	0.2	NA	0.21058	0.21069	2001.1	8.5	1476-11-5	N/A	N/A
5. trans-1,4-Dichloro-2-butene	(0486)	MKBP6041V	NA	NA	NA	2000	96.5	0.2	NA	0.20731	0.20748	2001.7	8.4	110-57-6	N/A	N/A
6. Diethyl ether	(0153)	IK18CAS000(	NA	NA	NA	2000	99.9	0.2	NA	0.20025	0.20040	2001.5	8.1	60-29-7	N/A	N/A
7. Ethyl methacrylate	(0361)	06126PX	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20230	2002.3	8.2	97-63-2	N/A	orl-rat 14800mg/kg
8. Iodomethane	(0489)	SHBF8718V	NA	NA	NA	2000	99.5	0.2	NA	0.20106	0.20121	2001.5	8.2	74-88-4	5 ppm(28mg/m3/8H)(skin)	orl-rat 76mg/kg
9. 2-Methyl-1-propanol	(0445)	15241EB	NA	NA	NA	2000	99.5	0.2	NA	0.20106	0.20120	2001.4	8.1	78-83-1	50 ppm (150mg/m3/8H)	orl-rat 2460mg/kg
10. Methacrylonitrile	(0442)	00427ET	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20221	2001.4	8.2	126-98-7	1 ppm (3mg/m3/8H)(skin)	orl-rat 120mg/kg
11. Methyl acrylate	(1075)	SHBK0679	NA	NA	NA	2000	99.9	0.2	NA	0.20025	0.20040	2001.5	8.1	96-33-3	10 ppm(35mg/m3/8H)(skin)	orl-rat 277mg/kg
12. Methyl methacrylate	(0404)	MKBW5137V	NA	NA	NA	2000	99.9	0.2	NA	0.20025	0.20041	2001.6	8.1	80-62-6	100 ppm (410mg/m3/8H)	orl-rat 7872mg/kg
13. Nitrobenzene	(0228)	01213TV	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20220	2001.3	8.2	98-95-3	1 ppm (5mg/m3/8H)(skin)	orl-rat 780mg/kg
14. 2-Nitropropane	(0461)	14002JX	NA	NA	NA	2000	97.3	0.2	NA	0.20560	0.20577	2001.6	8.3	79-46-9	10 ppm (35mg/m3/8H)	orl-rat 720mg/kg
15. Pentachloroethane	(0450)	HGA01	NA	NA	NA	2000	98	0.2	NA	0.20413	0.20430	2001.6	8.3	76-01-7	N/A	N/A
16. 1,1,2-Trichlorotrifluoroethane	(0474)	18930	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20225	2001.8	8.2	76-13-1	1000 ppm (7600mg/m3/8H)	orl-rat 43g/kg
17. Bromodichloromethane	35171	101623	0.05	5.00	40001.7	2000	NA	NA	0.017	NA	NA	1999.6	22.9	75-27-4	N/A	orl-rat 916mg/kg
18. Dibromochloromethane	35171	101623	0.05	5.00	40002.1	2000	NA	NA	0.017	NA	NA	1999.6	23.0	124-48-1	N/A	orl-rat 848mg/kg
19. cis-1,2-Dichloroethene	35171	101623	0.05	5.00	40003.1	2000	NA	NA	0.017	NA	NA	1999.7	22.9	156-59-2	N/A	N/A
20. trans-1,2-Dichloroethene	35171	101623	0.05	5.00	40002.4	2000	NA	NA	0.017	NA	NA	1999.6	23.0	156-60-5	N/A	orl-rat 1235mg/kg
21. Methylene chloride	35171	101623	0.05	5.00	40002.8	2000	NA	NA	0.017	NA	NA	1999.6	22.9	75-09-2	500 ppm	orl-rat 820mg/kg
22. 1,1-Dichloroethene	32251	102023	0.10	10.00	20001.6	2000	NA	NA	0.042	NA	NA	1999.7	20.4	75-35-4	1 ppm (4mg/m3/8H)	orl-rat 200mg/kg
23. Bromoform	95321	020724	0.10	10.00	20003.2	2000	NA	NA	0.042	NA	NA	1999.8	20.5	75-25-2	0.5 ppm (5mg/m3) (skin)	orl-rat 933mg/kg
24. Carbon tetrachloride	95321	020724	0.10	10.00	20003.4	2000	NA	NA	0.042	NA	NA	1999.8	20.4	56-23-5	2 ppm (12.6mg/m3/8H)	orl-rat 2350mg/kg
25. Chloroform	95321	020724	0.10	10.00	20024.0	2000	NA	NA	0.042	NA	NA	2001.9	20.5	67-66-3	50 ppm (240mg/m3) (CL)	orl-rat 908mg/kg
26. Dibromomethane	95321	020724	0.10	10.00	20002.9	2000	NA	NA	0.042	NA	NA	1999.8	20.5	74-95-3	N/A	orl-rat 108mg/kg
27. 1,1-Dichloroethane	95321	020724	0.10	10.00	20003.4	2000	NA	NA	0.042	NA	NA	1999.8	20.5	75-34-3	100 ppm	orl-rat 725mg/kg
28. 2,2-Dichloropropane	95321	020724	0.10	10.00	20003.4	2000	NA	NA	0.042	NA	NA	1999.8	20.4	594-20-7	N/A	N/A
29. Tetrachloroethene	95321	020724	0.10	10.00	20201.1	2000	NA	NA	0.042	NA	NA	2019.6	20.6	127-18-4	25 ppm (170mg/m3/8H)(final)	orl-rat 2629mg/kg
30. 1,1,1-Trichloroethane	95321	020724	0.10	10.00	20003.0	2000	NA	NA	0.042	NA	NA	1999.8	20.5	71-55-6	350 ppm (1900mg/m3/8H)	orl-rat 10300mg/kg
31. 1,2-Dibromo-3-chloropropane	35161	112322	0.05	5.00	40016.5	2000	NA	NA	0.017	NA	NA	2000.3	22.9	96-12-8	0.001 ppm	orl-rat 170mg/kg
32. 1,2-Dibromoethane	35161	112322	0.05	5.00	40024.8	2000	NA	NA	0.017	NA	NA	2000.7	22.9	106-93-4	20 ppm (8H)	orl-rat 108mg/kg
33. 1,2-Dichloroethane	35161	112322	0.05	5.00	40018.0	2000	NA	NA	0.017	NA	NA	2000.4	22.9	107-06-2	50 ppm (8H)	orl-rat 670mg/kg
34. 1,2-Dichloropropane	35161	112322	0.05	5.00	40051.0	2000	NA	NA	0.017	NA	NA	2002.0	22.9	78-87-5	75 ppm (350mg/m3/8H)	orl-rat 1947mg/kg
35. 1,3-Dichloropropane	35161	112322	0.05	5.00	40005.9	2000	NA	NA	0.017	NA	NA	1999.8	22.9	142-28-9	N/A	unr-mus 3600mg/kg
36. 1,1-Dichloropropene	35161	112322	0.05	5.00	40012.1	2000	NA	NA	0.017	NA	NA	2000.1	29.7	563-58-6	N/A	N/A
37. cis-1,3-Dichloropropene	35161	112322	0.05	5.00	40010.0	2000	NA	NA	0.017	NA	NA	2000.0	23.0	10061-01-5	N/A	N/A
38. trans-1,3-Dichloropropene	35161	112322	0.05	5.00	40017.8	2000	NA	NA	0.017	NA	NA	2000.4	23.0	10061-02-6	N/A	N/A
39. Hexachloro-1,3-butadiene	35161	112322	0.05	5.00	40021.9	2000	NA	NA	0.017	NA	NA	2000.6	29.7	87-68-3	0.02 ppm (0.24mg/m3/8H)	orl-rat 82mg/kg
40. 1,1,1,2-Tetrachloroethane	35161	112322	0.05	5.00	40011.9	2000	NA	NA	0.017	NA	NA	2000.1	22.9	630-20-6	N/A	orl-rat 670mg/kg
41. 1,1,2,2-Tetrachloroethane	35161	112322	0.05	5.00	40007.5	2000	NA	NA	0.017	NA	NA	1999.9	22.9	79-34-5	5 ppm (35mg/m3/8H)(skin)	orl-rat 800mg/kg
42. 1,1,2-Trichloroethane	35161	112322	0.05	5.00	40006.6	2000	NA	NA	0.017	NA	NA	1999.8	23.0	79-00-5	10 ppm (46mg/m3/8H)(skin)	orl-rat 836mg/kg
43. Trichloroethene	35161	112322	0.05	5.00	40029.0	2000	NA	NA	0.017	NA	NA	2000.9	22.9	79-01-6	50 ppm (270mg/m3/8H)	orl-mus 2402mg/kg
44. 1,2,3-Trichloropropane	35161	112322	0.05	5.00	40007.5	2000	NA	NA	0.017	NA	NA	1999.9	22.9	96-18-4	10 ppm (60mg/m3/8H)	orl-rat 149.6mg/kg
45. Benzene	35162	050823	0.05	5.00	40005.0	2000	NA	NA	0.017	NA	NA	1999.7	22.9	71-43-2	1 ppm	orl-rat 4894mg/kg
46. Bromobenzene	35162	050823	0.05	5.00	40006.9	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-86-1	N/A	orl-rat 2699mg/kg
47. n-Butyl benzene	35162	050823	0.05	5.00	40003.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	104-51-8	N/A	N/A
48. Ethyl benzene	35162	050823	0.05	5.00	40004.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	100-41-4	100 ppm (435mg/m3/8H)	orl-rat >2000mg/kg
49. p-Isopropyl toluene	35162	050823	0.05	5.00	40005.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	99-87-6	N/A	orl-rat 4750mg/kg
50. Naphthalene	35162	050823	0.05	5.00	40006.2	2000	NA	NA	0.017	NA	NA	1999.8	22.9	91-20-3	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
51. Styrene	35162	050823	0.05	5.00	40004.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	100-42-5	100 ppm	orl-rat 5000mg/kg
52. Toluene	35162	050823	0.05	5.00	40006.2	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-88-3	200 ppm	orl-rat 5000mg/kg
53. 1,2,3-Trichlorobenzene	35162	050823	0.05	5.00	40003.1	2000	NA	NA	0.017	NA	NA	1999.7	22.9	87-61-6	N/A	ipr-mus 1390mg/kg
54. 1,2,4-Trichlorobenzene	35162	050823	0.05	5.00	40006.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	120-82-1	5 ppm (CL) (40mg/m3)	orl-rat 756mg/kg
55. 1,2,4-Trimethylbenzene	35162	050823	0.05	5.00	40001.6	2000	NA	NA	0.017	NA	NA	1999.6	23.0	95-63-6	N/A	orl-rat 5g/kg
56. 1,3,5-Trimethylbenzene	35162	050823	0.05	5.00	40006.7	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-67-8	N/A	orl-rat 5000mg/kg
57. m-Xylene	35162	050823	0.05	5.00	40005.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-38-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
58. tert-Butyl benzene	35163	101923	0.05	5.00	40001.2	2000	NA	NA	0.017	NA	NA	1999.6	22.9	98-06-6	N/A	N/A
59. sec-Butyl benzene	35163	101923	0.05	5.00	40002.4	2000	NA	NA	0.017	NA	NA	1999.6	22.9	135-98-8	N/A	orl-rat 2240mg/kg
60. Chlorobenzene	35163	101923	0.05	5.00	40003.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	108-90-7	75 ppm (350mg/m3/8H)	orl-rat 2290mg/kg
61. 2-Chlorotoluene	35163	101923	0.05	5.00	40000.3	2000	NA	NA	0.017	NA	NA	1999.5	22.9	95-49-8	50 ppm (250mg/m3/8H)	orl-rat 3900mg/kg
62. 4-Chlorotoluene	35163	101923	0.05	5.00	40003.3	2000	NA	NA	0.017	NA	NA	1999.7	22.9	106-43-4	N/A	orl-rat 2100mg/kg
63. 1,2-Dichlorobenzene	35163	101923	0.05	5.00	40003.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	95-50-1	50 ppm (300mg/m3) (CL)	orl-rat 500mg/kg
64. 1,3-Dichlorobenzene	35163	101923	0.05	5.00	40001.7	2000	NA	NA	0.017	NA	NA	1999.6	23.0	541-73-1	N/A	ipr-mus 1062mg/kg
65. 1,4-Dichlorobenzene	35163	101923	0.05	5.00	40001.8	2000	NA	NA	0.017	NA	NA	1999.6	22.9	106-46-7	75 ppm (450mg/m3/8H)	orl-rat 500mg/kg
66. Isopropylbenzene	35163	101923	0.05	5.00	40000.8	2000	NA	NA	0.017	NA	NA	1999.5	22.9	98-82-8	50 ppm (245mg/m3/8H)	orl-rat 1400mg/kg
67. n-Propylbenzene	35163	101923	0.05	5.00	40003.4	2000	NA	NA	0.017	NA	NA	1999.7	23.0	103-65-1	N/A	orl-rat 6040mg/kg
68. o-Xylene	35163	101923	0.05	5.00	40040.8	2000	NA	NA	0.017	NA	NA	2001.5	23.0	95-47-6	100 ppm (435mg/m3/8H)	ipr-mus 1364mg/kg
69. p-Xylene	35163	101923	0.05	5.00	40000.6	2000	NA	NA	0.017	NA	NA	1999.5	22.9	106-42-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening sample, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty References: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Run 16, "P95317 L021624 [2000µg/mL in MeOH]"

Run Length: 60.00 min, 35998 points at 10 points/second.
Created: Sat, Feb 17, 2024 at 8:56:46 AM.
Sampled: Sequence "021624-GC5M1", Method "GC5-M1".
Analyzed using Method "GC5-M1".

Comments
GC5-M1 Analysis by Candice Warren
Column ID SPB-Vocol 105 meter X 0.53mm X 3.0µm film thickness
Flow rates: Total flow=290mL/min., Helium (carrier)=10mL/min.,
Helium(make-up)=10mL/min., Hydogen(make-up)=40mL/min., Air(make-up)=230mL/min.
Oven Profile: Temp. 1=35°C (Time 1=10 min.), Temp 2=200°C (Time 2=8.75 min.),
Rate = 4°C/min., Total run time=60 min. Injector temp.=200°C, FID Temp.=200°C.
FID Signal = Edaq Channel 1
Standard injection = 0.5µL, Range=3



Peak #	Name	FID RT (min.)
1	Ether	9.97
2	1,1,2-Trichloro-1,2,2-trifluoroethane	10.33
3	1,1-Dichloroethene	11.10
4	Acetonitrile	12.00
5	Iodomethane	12.31
6	Allyl chloride	12.56
7	Carbon disulfide/Methylene chloride	13.04
8	trans-1,2-Dichloroethene	14.07
9	1,1-Dichloroethane	15.74
10	2,2-Dichloropropane	17.74
11	cis-1,2-Dichloroethene	18.00
12	Methacrylonitrile/Methyl acrylate/Chloroform	18.46
13	Isobutanol/1,1,1-Trichloroethane	19.91
14	1,1-Dichloropropene	20.46
15	Carbon tetrachloride	20.79
16	Benzene/1,2-Dichloroethane	21.49
17	Trichloroethene	23.58
18	1,2-Dichloropropane	24.28
19	Methyl methacrylate	24.52
20	Bromodichloromethane	25.13
21	Dibromomethane/2-Nitropropane	25.46
22	cis-1,3-Dichloropropene	27.02
23	Toluene	28.05
24	Ethyl methacrylate/trans-1,3-Dichloropropene	28.73
25	1,1,2-Trichloroethane	29.34
26	Tetrachloroethene/1,3-Dichloropropane	30.24
27	Dibromochloromethane	31.16
28	1,2-Dibromoethene	31.84
29	Chlorobenzene	33.26
30	Ethylbenzene/1,1,1,2-Tetrachloroethane	33.40
31	m-Xylene/p-Xylene	33.88
32	o-Xylene	35.22
33	Styrene	35.38
34	Isopropylbenzene/Bromoform	36.18
35	cis-1,4-Dichloro-2-Butene	36.80
36	1,1,2,2-Tetrachloroethane	37.23
37	1,2,3-Trichloropropane	37.77
38	n-Propylbenzene	37.93
39	trans-1,4-Dichloro-2-Butene	38.05
40	Bromobenzene	38.14
41	1,3,5-Trimethylbenzene	38.80
42	2-Chlorotoluene	38.82
43	4-Chlorotoluene	38.77
44	tert-Butylbenzene	39.76
45	1,2,4-Trimethylbenzene	39.91
46	Pentachloroethane	40.17
47	sec-Butylbenzene	40.52
48	p-Isopropyltoluene	41.02
49	1,3-Dichlorobenzene	41.42
50	1,4-Dichlorobenzene	41.83
51	n-Butylbenzene	42.53
52	1,2-Dichlorobenzene	43.18
53	1,2-Dibromo-3-chloropropane	46.12
54	Nitrobenzene	46.46
55	1,2,4-Trichlorobenzene	49.26
56	Hexachlorobutadiene	49.72
57	Naphthalene	50.26
58	1,2,3-Trichlorobenzene	51.16

Absolute Standards Inc.
PO Box 5585
Hamden, CT 06518-0585
Phone: 203-281-2917
FAX: 203-281-2922

Safety Data Sheet (SDS) GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY **ANALYTICAL STANDARD DISSOLVED IN METHANOL**

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	**1-800-535-5053**
Address	44 Rossotto Dr. Hamden CT, 06514	Emergency Telephone International	**1-352-323-3500**
		Date Prepared/Revised	January 1, 2023

Section II - Hazards Identification

GHS Classification In accordance with 29 CFR 1910 (OSHA HCS)

H225	**Highly Flammable Liquid and Vapor**	**H301, 311, 331**	**Toxic if swallowed, skin contact, inhaled**
H370	**Cause damage to organs**	**H351**	**Suspected of causing cancer**
P271	**Use in ventilated area**	**P280**	**Use gloves, eye protection/face sheild**
P302,332	**If on skin, wash with soap and water**	**P305,351,338**	**If in eyes, remove contacts, rinse with water**

Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))			% (optional)
Methanol	METHYL ALCOHOL	CAS#: 67-56-1	> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Flammability	Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methanol 67-56-1 TWA 200 ppm
Skin notation TWA 200 ppm
Potential for skin absorption , ingestion and inhalation.
Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

Section IX - Physical/Chemical Characteristics

Boiling Point	65°C	Specific Gravity (H2O = 1)	0.79
Vapor Pressure (mm Hg)	96	Melting Point	-98°C
Vapor Density (AIR = 1)	1.11	Evaporation rate (Butyl Acetate = 1)	4.6

Solubility in Water COMPLETE

Appearance and Odor CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.

Section X. STABILITY AND REACTIVITY

Chemical stability — Stable under recommended storage conditions.
Possibility of hazardous reactions — Vapours may form explosive mixture with air.
Conditions to avoid — Heat, flames, sparks, extreme temperature and sunlight.
Materials to avoid — Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids
Hazardous decomposition products formed under fire conditions. - Carbon oxides

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - rat - 5,628 mg/kg
LC50 Inhalation - rat - 4 h - 64000 ppm
LD50 Dermal - rabbit - 15,800 mg/kg
Toxic if absorbed through skin. Causes skin irritation.
Eye damage/eye irritation
Toxic if inhaled. Causes respiratory tract irritation.
Toxic if swallowed.

Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.

LC50	15,400 mg/l - 96 h
EC50	24,500.00 mg/l - 48 h
EC100	10,000.00 mg/l - 24 h

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

IATA
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

Section XV. REGULATORY INFORMATION

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.

CERTIFIED WEIGHT REPORT

Part Number: 95317
Lot Number: 021624
Description: Universal VOA Megamix
69 components
Expiration Date: 021627
Recommended Storage: Freezer (0 °C)
Nominal Concentration (µg/mL): 2000
NIST Test ID#: 6UTB

Solvent(s): Lot#
Methanol EG359-USQ12

Formulated By: Prashant Chauhan 021624 DATE

Reviewed By: Pedro L. Rentas 021624 DATE

Weight(s) shown below were combined and diluted to (mL):	100.0	0.021	Flask Uncertainty
		5E-05	Balance Uncertainty

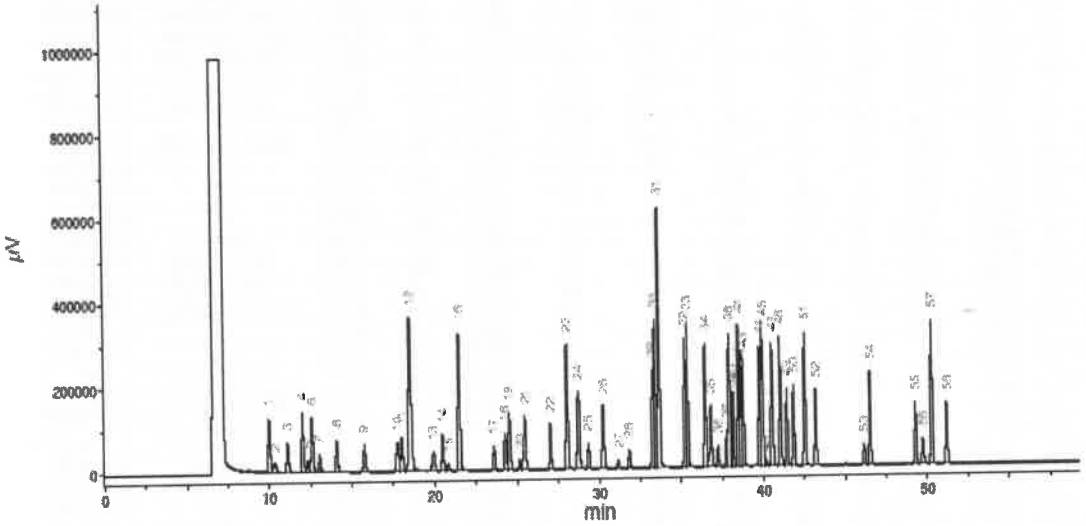
Compound	(RM#) Part Number	Lot Number	Dil. Factor	Initial Vol. (mL)	Initial Conc.(ug/mL)	Nominal Conc (µg/mL)	Purity (%)	Purity Uncertainty	Uncertainty Pipette (mL)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acetonitrile	(0324)	021644	NA	NA	NA	2000	99.99	0.2	NA	0.20007	0.20020	2001.3	8.1	75-05-8	40 ppm (70mg/m3/8H)	orl-rat 2460mg/kg
2. Allyl chloride (3-Chloropropene)	(0325)	102396	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20221	2001.4	8.2	107-05-1	1 ppm (3mg/m3/8H)	orl-rat 700mg/kg
3. Carbon disulphide	(0060)	MKCR8561	NA	NA	NA	2000	99.99	0.2	NA	0.20007	0.20023	2001.6	8.1	75-15-0	4 ppm (12mg/m3) (skin)	orl-rat 1200mg/kg
4. cis-1,4-Dichloro-2-butene	(1196)	14718EF	NA	NA	NA	2000	95	0.2	NA	0.21058	0.21069	2001.1	8.5	1476-11-5	N/A	N/A
5. trans-1,4-Dichloro-2-butene	(0486)	MKBP6041V	NA	NA	NA	2000	96.5	0.2	NA	0.20731	0.20748	2001.7	8.4	110-57-6	N/A	N/A
6. Diethyl ether	(0153)	IK18CAS000(	NA	NA	NA	2000	99.9	0.2	NA	0.20025	0.20040	2001.5	8.1	60-29-7	N/A	N/A
7. Ethyl methacrylate	(0361)	06126PX	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20230	2002.3	8.2	97-63-2	N/A	orl-rat 14800mg/kg
8. Iodomethane	(0489)	SHBF8718V	NA	NA	NA	2000	99.5	0.2	NA	0.20106	0.20121	2001.5	8.2	74-88-4	5 ppm(28mg/m3/8H)(skin)	orl-rat 76mg/kg
9. 2-Methyl-1-propanol	(0445)	15241EB	NA	NA	NA	2000	99.5	0.2	NA	0.20106	0.20120	2001.4	8.1	78-83-1	50 ppm (150mg/m3/8H)	orl-rat 2460mg/kg
10. Methacrylonitrile	(0442)	00427ET	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20221	2001.4	8.2	126-98-7	1 ppm (3mg/m3/8H)(skin)	orl-rat 120mg/kg
11. Methyl acrylate	(1075)	SHBK0679	NA	NA	NA	2000	99.9	0.2	NA	0.20025	0.20040	2001.5	8.1	96-33-3	10 ppm(35mg/m3/8H)(skin)	orl-rat 277mg/kg
12. Methyl methacrylate	(0404)	MKBW5137V	NA	NA	NA	2000	99.9	0.2	NA	0.20025	0.20041	2001.6	8.1	80-62-6	100 ppm (410mg/m3/8H)	orl-rat 7872mg/kg
13. Nitrobenzene	(0228)	01213TV	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20220	2001.3	8.2	98-95-3	1 ppm (5mg/m3/8H)(skin)	orl-rat 780mg/kg
14. 2-Nitropropane	(0461)	14002JX	NA	NA	NA	2000	97.3	0.2	NA	0.20560	0.20577	2001.6	8.3	79-46-9	10 ppm (35mg/m3/8H)	orl-rat 720mg/kg
15. Pentachloroethane	(0450)	HGA01	NA	NA	NA	2000	98	0.2	NA	0.20413	0.20430	2001.6	8.3	76-01-7	N/A	N/A
16. 1,1,2-Trichlorotrifluoroethane	(0474)	18930	NA	NA	NA	2000	99	0.2	NA	0.20207	0.20225	2001.8	8.2	76-13-1	1000 ppm (7600mg/m3/8H)	orl-rat 43g/kg
17. Bromodichloromethane	35171	101623	0.05	5.00	40001.7	2000	NA	NA	0.017	NA	NA	1999.6	22.9	75-27-4	N/A	orl-rat 916mg/kg
18. Dibromochloromethane	35171	101623	0.05	5.00	40002.1	2000	NA	NA	0.017	NA	NA	1999.6	23.0	124-48-1	N/A	orl-rat 848mg/kg
19. cis-1,2-Dichloroethene	35171	101623	0.05	5.00	40003.1	2000	NA	NA	0.017	NA	NA	1999.7	22.9	156-59-2	N/A	N/A
20. trans-1,2-Dichloroethene	35171	101623	0.05	5.00	40002.4	2000	NA	NA	0.017	NA	NA	1999.6	23.0	156-60-5	N/A	orl-rat 1235mg/kg
21. Methylene chloride	35171	101623	0.05	5.00	40002.8	2000	NA	NA	0.017	NA	NA	1999.6	22.9	75-09-2	500 ppm	orl-rat 820mg/kg
22. 1,1-Dichloroethene	32251	102023	0.10	10.00	20001.6	2000	NA	NA	0.042	NA	NA	1999.7	20.4	75-35-4	1 ppm (4mg/m3/8H)	orl-rat 200mg/kg
23. Bromoform	95321	020724	0.10	10.00	20003.2	2000	NA	NA	0.042	NA	NA	1999.8	20.5	75-25-2	0.5 ppm (5mg/m3) (skin)	orl-rat 933mg/kg
24. Carbon tetrachloride	95321	020724	0.10	10.00	20003.4	2000	NA	NA	0.042	NA	NA	1999.8	20.4	56-23-5	2 ppm (12.6mg/m3/8H)	orl-rat 2350mg/kg
25. Chloroform	95321	020724	0.10	10.00	20024.0	2000	NA	NA	0.042	NA	NA	2001.9	20.5	67-66-3	50 ppm (240mg/m3) (CL)	orl-rat 908mg/kg
26. Dibromomethane	95321	020724	0.10	10.00	20002.9	2000	NA	NA	0.042	NA	NA	1999.8	20.5	74-95-3	N/A	orl-rat 108mg/kg
27. 1,1-Dichloroethane	95321	020724	0.10	10.00	20003.4	2000	NA	NA	0.042	NA	NA	1999.8	20.5	75-34-3	100 ppm	orl-rat 725mg/kg
28. 2,2-Dichloropropane	95321	020724	0.10	10.00	20003.4	2000	NA	NA	0.042	NA	NA	1999.8	20.4	594-20-7	N/A	N/A
29. Tetrachloroethene	95321	020724	0.10	10.00	20201.1	2000	NA	NA	0.042	NA	NA	2019.6	20.6	127-18-4	25 ppm (170mg/m3/8H)(final)	orl-rat 2629mg/kg
30. 1,1,1-Trichloroethane	95321	020724	0.10	10.00	20003.0	2000	NA	NA	0.042	NA	NA	1999.8	20.5	71-55-6	350 ppm (1900mg/m3/8H)	orl-rat 10300mg/kg
31. 1,2-Dibromo-3-chloropropane	35161	112322	0.05	5.00	40016.5	2000	NA	NA	0.017	NA	NA	2000.3	22.9	96-12-8	0.001 ppm	orl-rat 170mg/kg
32. 1,2-Dibromoethane	35161	112322	0.05	5.00	40024.8	2000	NA	NA	0.017	NA	NA	2000.7	22.9	106-93-4	20 ppm (8H)	orl-rat 108mg/kg
33. 1,2-Dichloroethane	35161	112322	0.05	5.00	40018.0	2000	NA	NA	0.017	NA	NA	2000.4	22.9	107-06-2	50 ppm (8H)	orl-rat 670mg/kg
34. 1,2-Dichloropropane	35161	112322	0.05	5.00	40051.0	2000	NA	NA	0.017	NA	NA	2002.0	22.9	78-87-5	75 ppm (350mg/m3/8H)	orl-rat 1947mg/kg
35. 1,3-Dichloropropane	35161	112322	0.05	5.00	40005.9	2000	NA	NA	0.017	NA	NA	1999.8	22.9	142-28-9	N/A	unr-mus 3600mg/kg
36. 1,1-Dichloropropene	35161	112322	0.05	5.00	40012.1	2000	NA	NA	0.017	NA	NA	2000.1	29.7	563-58-6	N/A	N/A
37. cis-1,3-Dichloropropene	35161	112322	0.05	5.00	40010.0	2000	NA	NA	0.017	NA	NA	2000.0	23.0	10061-01-5	N/A	N/A
38. trans-1,3-Dichloropropene	35161	112322	0.05	5.00	40017.8	2000	NA	NA	0.017	NA	NA	2000.4	23.0	10061-02-6	N/A	N/A
39. Hexachloro-1,3-butadiene	35161	112322	0.05	5.00	40021.9	2000	NA	NA	0.017	NA	NA	2000.6	29.7	87-68-3	0.02 ppm (0.24mg/m3/8H)	orl-rat 82mg/kg
40. 1,1,1,2-Tetrachloroethane	35161	112322	0.05	5.00	40011.9	2000	NA	NA	0.017	NA	NA	2000.1	22.9	630-20-6	N/A	orl-rat 670mg/kg
41. 1,1,2,2-Tetrachloroethane	35161	112322	0.05	5.00	40007.5	2000	NA	NA	0.017	NA	NA	1999.9	22.9	79-34-5	5 ppm (35mg/m3/8H)(skin)	orl-rat 800mg/kg
42. 1,1,2-Trichloroethane	35161	112322	0.05	5.00	40006.6	2000	NA	NA	0.017	NA	NA	1999.8	23.0	79-00-5	10 ppm (46mg/m3/8H)(skin)	orl-rat 836mg/kg
43. Trichloroethene	35161	112322	0.05	5.00	40029.0	2000	NA	NA	0.017	NA	NA	2000.9	22.9	79-01-6	50 ppm (270mg/m3/8H)	orl-mus 2402mg/kg
44. 1,2,3-Trichloropropane	35161	112322	0.05	5.00	40007.5	2000	NA	NA	0.017	NA	NA	1999.9	22.9	96-18-4	10 ppm (60mg/m3/8H)	orl-rat 149.6mg/kg
45. Benzene	35162	050823	0.05	5.00	40005.0	2000	NA	NA	0.017	NA	NA	1999.7	22.9	71-43-2	1 ppm	orl-rat 4894mg/kg
46. Bromobenzene	35162	050823	0.05	5.00	40006.9	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-86-1	N/A	orl-rat 2699mg/kg
47. n-Butyl benzene	35162	050823	0.05	5.00	40003.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	104-51-8	N/A	N/A
48. Ethyl benzene	35162	050823	0.05	5.00	40004.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	100-41-4	100 ppm (435mg/m3/8H)	orl-rat >2000mg/kg
49. p-Isopropyl toluene	35162	050823	0.05	5.00	40005.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	99-87-6	N/A	orl-rat 4750mg/kg
50. Naphthalene	35162	050823	0.05	5.00	40006.2	2000	NA	NA	0.017	NA	NA	1999.8	22.9	91-20-3	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
51. Styrene	35162	050823	0.05	5.00	40004.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	100-42-5	100 ppm	orl-rat 5000mg/kg
52. Toluene	35162	050823	0.05	5.00	40006.2	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-88-3	200 ppm	orl-rat 5000mg/kg
53. 1,2,3-Trichlorobenzene	35162	050823	0.05	5.00	40003.1	2000	NA	NA	0.017	NA	NA	1999.7	22.9	87-61-6	N/A	ipr-mus 1390mg/kg
54. 1,2,4-Trichlorobenzene	35162	050823	0.05	5.00	40006.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	120-82-1	5 ppm (CL) (40mg/m3)	orl-rat 756mg/kg
55. 1,2,4-Trimethylbenzene	35162	050823	0.05	5.00	40001.6	2000	NA	NA	0.017	NA	NA	1999.6	23.0	95-63-6	N/A	orl-rat 5g/kg
56. 1,3,5-Trimethylbenzene	35162	050823	0.05	5.00	40006.7	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-67-8	N/A	orl-rat 5000mg/kg
57. m-Xylene	35162	050823	0.05	5.00	40005.8	2000	NA	NA	0.017	NA	NA	1999.8	22.9	108-38-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
58. tert-Butyl benzene	35163	101923	0.05	5.00	40001.2	2000	NA	NA	0.017	NA	NA	1999.6	22.9	98-06-6	N/A	N/A
59. sec-Butyl benzene	35163	101923	0.05	5.00	40002.4	2000	NA	NA	0.017	NA	NA	1999.6	22.9	135-98-8	N/A	orl-rat 2240mg/kg
60. Chlorobenzene	35163	101923	0.05	5.00	40003.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	108-90-7	75 ppm (350mg/m3/8H)	orl-rat 2290mg/kg
61. 2-Chlorotoluene	35163	101923	0.05	5.00	40000.3	2000	NA	NA	0.017	NA	NA	1999.5	22.9	95-49-8	50 ppm (250mg/m3/8H)	orl-rat 3900mg/kg
62. 4-Chlorotoluene	35163	101923	0.05	5.00	40003.3	2000	NA	NA	0.017	NA	NA	1999.7	22.9	106-43-4	N/A	orl-rat 2100mg/kg
63. 1,2-Dichlorobenzene	35163	101923	0.05	5.00	40003.8	2000	NA	NA	0.017	NA	NA	1999.7	22.9	95-50-1	50 ppm (300mg/m3) (CL)	orl-rat 500mg/kg
64. 1,3-Dichlorobenzene	35163	101923	0.05	5.00	40001.7	2000	NA	NA	0.017	NA	NA	1999.6	23.0	541-73-1	N/A	ipr-mus 1062mg/kg
65. 1,4-Dichlorobenzene	35163	101923	0.05	5.00	40001.8	2000	NA	NA	0.017	NA	NA	1999.6	22.9	106-46-7	75 ppm (450mg/m3/8H)	orl-rat 500mg/kg
66. Isopropylbenzene	35163	101923	0.05	5.00	40000.8	2000	NA	NA	0.017	NA	NA	1999.5	22.9	98-82-8	50 ppm (245mg/m3/8H)	orl-rat 1400mg/kg
67. n-Propylbenzene	35163	101923	0.05	5.00	40003.4	2000	NA	NA	0.017	NA	NA	1999.7	23.0	103-65-1	N/A	orl-rat 6040mg/kg
68. o-Xylene	35163	101923	0.05	5.00	40040.8	2000	NA	NA	0.017	NA	NA	2001.5	23.0	95-47-6	100 ppm (435mg/m3/8H)	ipr-mus 1364mg/kg
69. p-Xylene	35163	101923	0.05	5.00	40000.6	2000	NA	NA	0.017	NA	NA	1999.5	22.9	106-42-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening sample, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty References: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Run 16, "P95317 L021624 [2000µg/mL in MeOH]"

Run Length: 60.00 min, 35998 points at 10 points/second.
Created: Sat, Feb 17, 2024 at 8:56:46 AM.
Sampled: Sequence "021624-GC5M1", Method "GC5-M1".
Analyzed using Method "GC5-M1".

Comments
GC5-M1 Analysis by Candice Warren
Column ID SPB-Vocol 105 meter X 0.53mm X 3.0µm film thickness
Flow rates: Total flow=290mL/min., Helium (carrier)=10mL/min.,
Helium(make-up)=10mL/min., Hydogen(make-up)=40mL/min., Air(make-up)=230mL/min.
Oven Profile: Temp. 1=35°C (Time 1=10 min.), Temp 2=200°C (Time 2=8.75 min.),
Rate = 4°C/min., Total run time=60 min. Injector temp.=200°C, FID Temp.=200°C.
FID Signal = Edaq Channel 1
Standard injection = 0.5µL, Range=3



Peak #	Name	FID RT (min.)
1	Ether	9.97
2	1,1,2-Trichloro-1,2,2-trifluoroethane	10.33
3	1,1-Dichloroethene	11.10
4	Acetonitrile	12.00
5	Iodomethane	12.31
6	Allyl chloride	12.56
7	Carbon disulfide/Methylene chloride	13.04
8	trans-1,2-Dichloroethene	14.07
9	1,1-Dichloroethane	15.74
10	2,2-Dichloropropane	17.74
11	cis-1,2-Dichloroethene	18.00
12	Methacrylonitrile/Methyl acrylate/Chloroform	18.46
13	Isobutanol/1,1,1-Trichloroethane	19.91
14	1,1-Dichloropropene	20.46
15	Carbon tetrachloride	20.79
16	Benzene/1,2-Dichloroethane	21.49
17	Trichloroethene	23.58
18	1,2-Dichloropropane	24.28
19	Methyl methacrylate	24.52
20	Bromodichloromethane	25.13
21	Dibromomethane/2-Nitropropane	25.46
22	cis-1,3-Dichloropropene	27.02
23	Toluene	28.05
24	Ethyl methacrylate/trans-1,3-Dichloropropene	28.73
25	1,1,2-Trichloroethane	29.34
26	Tetrachloroethene/1,3-Dichloropropane	30.24
27	Dibromochloromethane	31.16
28	1,2-Dibromoethene	31.84
29	Chlorobenzene	33.26
30	Ethylbenzene/1,1,1,2-Tetrachloroethane	33.40
31	m-Xylene/p-Xylene	33.88
32	o-Xylene	35.22
33	Styrene	35.38
34	Isopropylbenzene/Bromoform	36.18
35	cis-1,4-Dichloro-2-Butene	36.80
36	1,1,2,2-Tetrachloroethane	37.23
37	1,2,3-Trichloropropane	37.77
38	n-Propylbenzene	37.93
39	trans-1,4-Dichloro-2-Butene	38.05
40	Bromobenzene	38.14
41	1,3,5-Trimethylbenzene	38.80
42	2-Chlorotoluene	38.82
43	4-Chlorotoluene	38.77
44	tert-Butylbenzene	39.76
45	1,2,4-Trimethylbenzene	39.91
46	Pentachloroethane	40.17
47	sec-Butylbenzene	40.52
48	p-Isopropyltoluene	41.02
49	1,3-Dichlorobenzene	41.42
50	1,4-Dichlorobenzene	41.83
51	n-Butylbenzene	42.53
52	1,2-Dichlorobenzene	43.18
53	1,2-Dibromo-3-chloropropane	46.12
54	Nitrobenzene	46.46
55	1,2,4-Trichlorobenzene	49.26
56	Hexachlorobutadiene	49.72
57	Naphthalene	50.26
58	1,2,3-Trichlorobenzene	51.16

Absolute Standards Inc.
PO Box 5585
Hamden, CT 06518-0585
Phone: 203-281-2917
FAX: 203-281-2922

Safety Data Sheet (SDS) GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY **ANALYTICAL STANDARD DISSOLVED IN METHANOL**

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	**1-800-535-5053**
Address	44 Rossotto Dr. Hamden CT, 06514	Emergency Telephone International	**1-352-323-3500**
		Date Prepared/Revised	January 1, 2023

Section II - Hazards Identification

GHS Classification In accordance with 29 CFR 1910 (OSHA HCS)

H225	**Highly Flammable Liquid and Vapor**	**H301, 311, 331**	**Toxic if swallowed, skin contact, inhaled**
H370	**Cause damage to organs**	**H351**	**Suspected of causing cancer**
P271	**Use in ventilated area**	**P280**	**Use gloves, eye protection/face sheild**
P302,332	**If on skin, wash with soap and water**	**P305,351,338**	**If in eyes, remove contacts, rinse with water**

Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))			% (optional)
Methanol	METHYL ALCOHOL	CAS#: 67-56-1	> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Flammability	Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methanol 67-56-1 TWA 200 ppm
Skin notation TWA 200 ppm
Potential for skin absorption , ingestion and inhalation.
Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

Section IX - Physical/Chemical Characteristics

Boiling Point	65°C	Specific Gravity (H2O = 1)	0.79
Vapor Pressure (mm Hg)	96	Melting Point	-98°C
Vapor Density (AIR = 1)	1.11	Evaporation rate (Butyl Acetate = 1)	4.6

Solubility in Water COMPLETE

Appearance and Odor CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.

Section X. STABILITY AND REACTIVITY

Chemical stability — Stable under recommended storage conditions.
Possibility of hazardous reactions — Vapours may form explosive mixture with air.
Conditions to avoid — Heat, flames, sparks, extreme temperature and sunlight.
Materials to avoid — Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids
Hazardous decomposition products formed under fire conditions. - Carbon oxides

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - rat - 5,628 mg/kg
LC50 Inhalation - rat - 4 h - 64000 ppm
LD50 Dermal - rabbit - 15,800 mg/kg
Toxic if absorbed through skin. Causes skin irritation.
Eye damage/eye irritation
Toxic if inhaled. Causes respiratory tract irritation.
Toxic if swallowed.

Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.

LC50	15,400 mg/l - 96 h
EC50	24,500.00 mg/l - 48 h
EC100	10,000.00 mg/l - 24 h

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

IATA
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

Section XV. REGULATORY INFORMATION

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

Rec 09/16/24 2 Vials

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 091424
Description: Acrolein

Expiration Date: 101424
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB

Solvent(s): **Lot#**
Water 072324Q

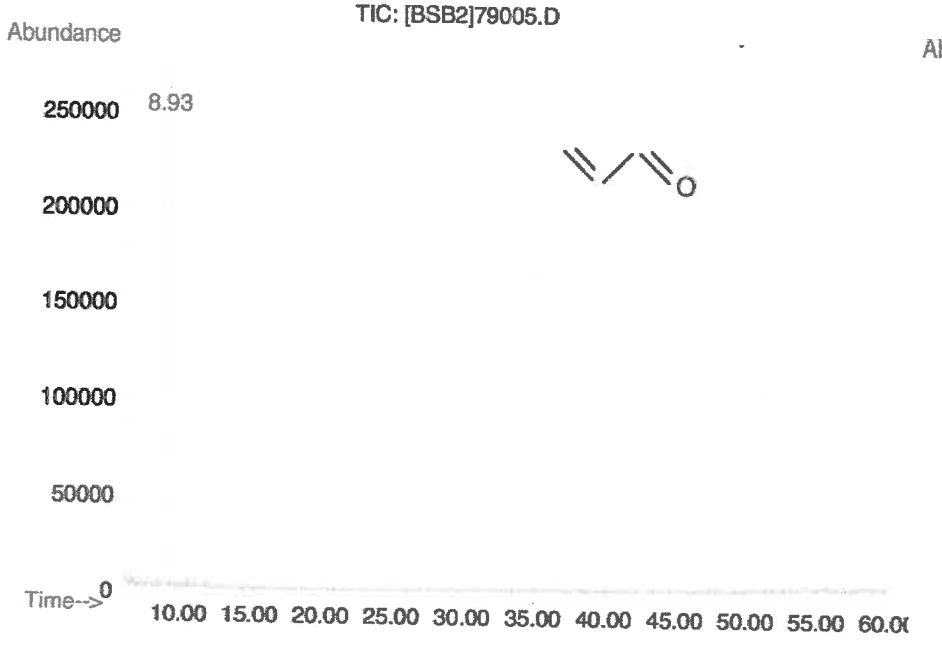
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 10.0 0.001 Flask Uncertainty

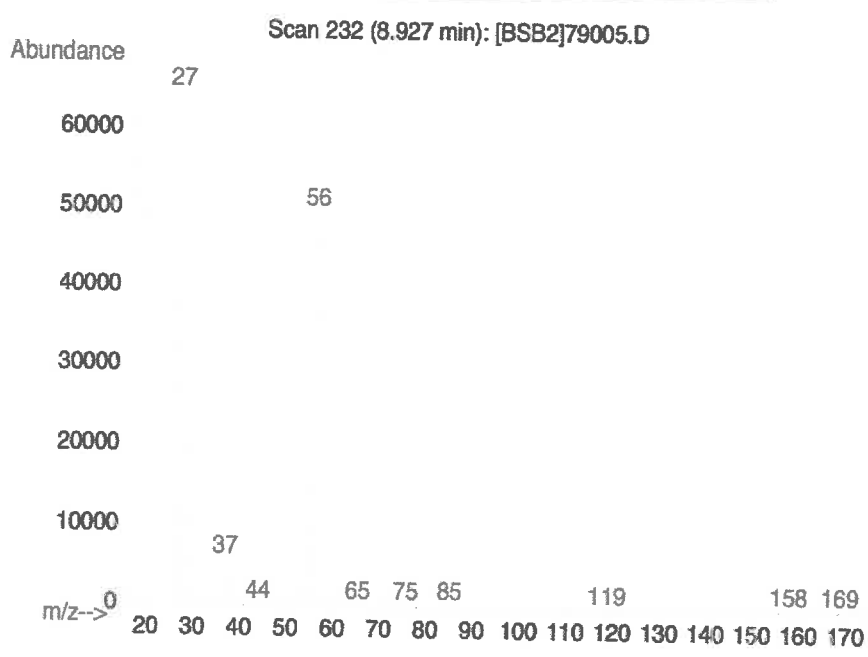
Formulated By: Justin Dippold 091424 DATE

Reviewed By: Pedro L. Rentas 091424 DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acrolein	5	103755V10F	5000	97	0.5	0.05166	0.05175	5008.9	52.5	107-02-8	0.1 ppm	orl-rat 46mg/kg

Method: GC6MSD-1. **Detector:** Mass Selective Detector (Scan mode). **Column:** Vocol (60m X 0.25mm ID X 1.5µm film thickness). **Oven Profile:** Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2=200°C (Time 2 = 8.75 min.). Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. **Analyst:** Pedro Rentas. **NOTE:** Due to the instability of acrolein in solution, all solutions of acrolein, and any dilutions thereof, should be used immediately Long term storage is not recommended. Please contact our technical department if further information is required.





- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

Rec 09/16/24 2 Vials

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 091424
Description: Acrolein

Expiration Date: 101424
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB

Solvent(s): **Lot#**
Water 072324Q

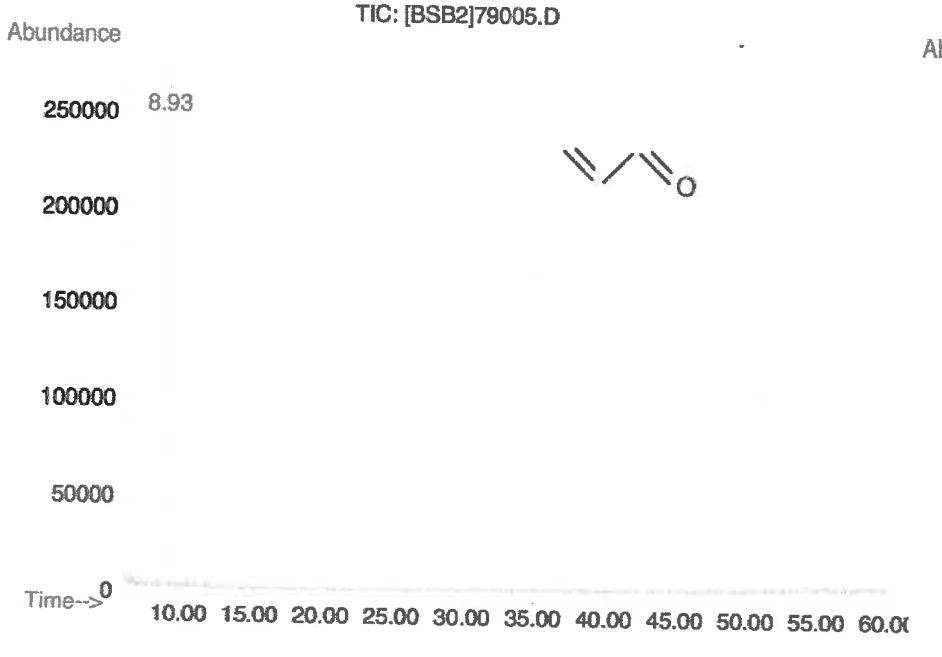
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 10.0 0.001 Flask Uncertainty

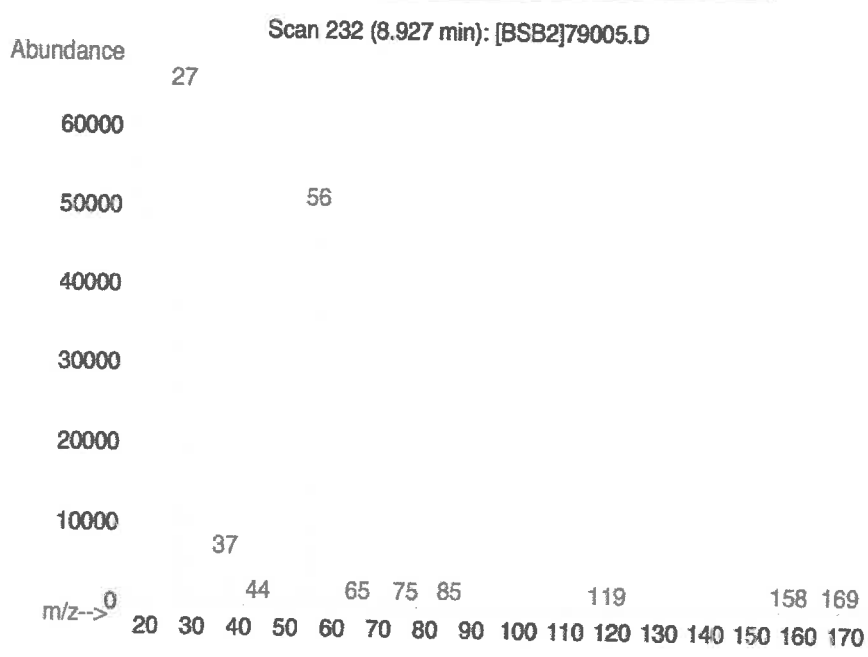
Formulated By: Justin Dippold 091424 DATE

Reviewed By: Pedro L. Rentas 091424 DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acrolein	5	103755V10F	5000	97	0.5	0.05166	0.05175	5008.9	52.5	107-02-8	0.1 ppm	orl-rat 46mg/kg

Method: GC6MSD-1. **Detector:** Mass Selective Detector (Scan mode). **Column:** Vocol (60m X 0.25mm ID X 1.5µm film thickness). **Oven Profile:** Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2=200°C (Time 2 = 8.75 min.). Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. **Analyst:** Pedro Rentas. **NOTE:** Due to the instability of acrolein in solution, all solutions of acrolein, and any dilutions thereof, should be used immediately Long term storage is not recommended. Please contact our technical department if further information is required.





- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

Rec 12/6/24
20 vial

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 95318
Lot Number: 120524
Description: 2-Chloroethyl vinyl ether

Expiration Date: 120527
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 10000
NIST Test ID#: 6UTB

Solvent(s): Methanol **Lot#** EJ143-US

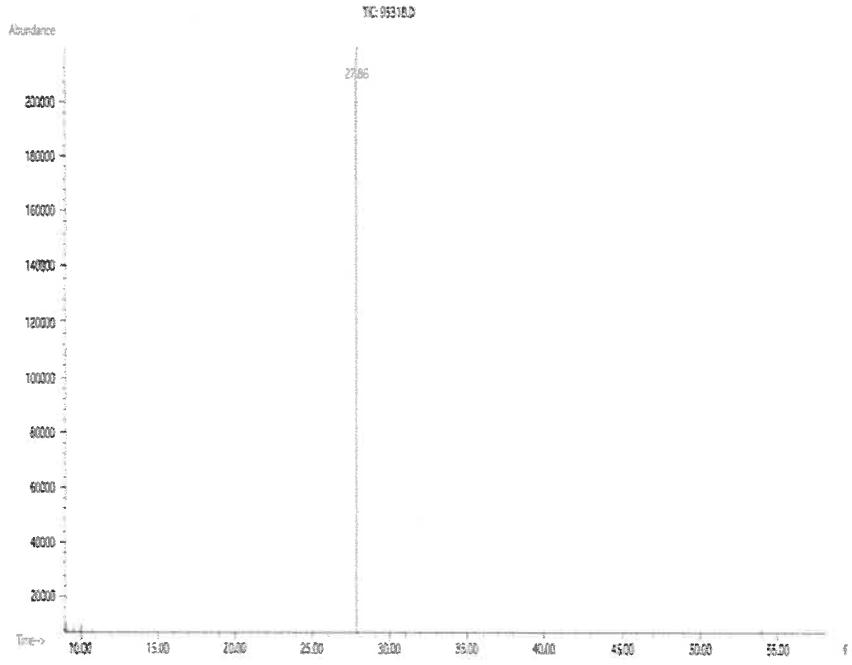
V14630 to V14649

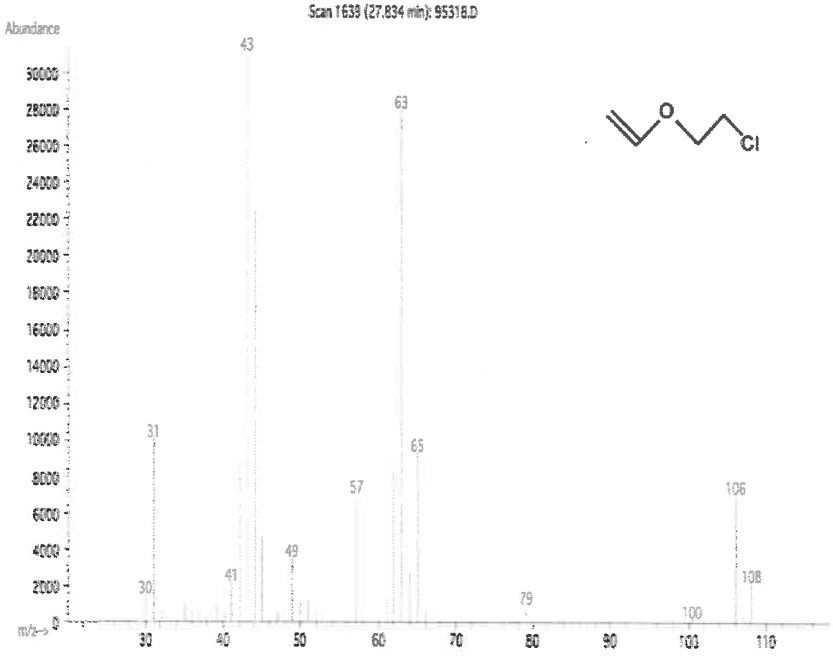
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 50.0 0.001 Flask Uncertainty

Prashant Chauhan	120524
Formulated By: Prashant Chauhan	DATE
Pedro L. Rentas	120524
Reviewed By: Pedro L. Rentas	DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (g)	Actual Weight (g)	Actual Conc(µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. 2-Chloroethyl vinyl ether	74	MKCD0033	10000	99	0.2	0.50536	0.50550	10002.9	40.5	110-75-8	N/A	ori-rat 250mg/kg

Method: GC6MSD-1.M. **Detector:** MSD. **Column:** (60m X 0.25mm X 1.5 µm). **Oven Profile:** Temp 1 = 35°C (Time 1=10min.), Temp 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., Injector B Temp.= 200°C, Detector B Temp. = 220°C. **Analyst:** Candice Warren.





- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Absolute Standards Inc.
PO Box 5585
Hamden, CT 06518-0585
Phone: 203-281-2917
FAX: 203-281-2922

Safety Data Sheet (SDS) GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY **ANALYTICAL STANDARD DISSOLVED IN METHANOL**

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	**1-800-535-5053**
Address	44 Rossotto Dr. Hamden CT, 06514	Emergency Telephone International Date Prepared/Revised	**1-352-323-3500** January 1, 2024

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

H225	**Highly Flammable Liquid and Vapor**	**H301, 311, 331**	**Toxic if swallowed, skin contact, inhaled**
H370	**Cause damage to organs**	**H351**	**Suspected of causing cancer**
P271	**Use in ventilated area**	**P280**	**Use gloves, eye protection/face sheild**
P302,332	**If on skin, wash with soap and water**	**P305,351,338**	**If in eyes, remove contacts, rinse with water**

Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))			% (optional)
Methanol	METHYL ALCOHOL	CAS#: 67-56-1	> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Flammability	Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methanol 67-56-1 TWA 200 ppm
Skin notation TWA 200 ppm
Potential for skin absorption , ingestion and inhalation.
Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

Section IX - Physical/Chemical Characteristics

Boiling Point	65°C	Specific Gravity (H2O = 1)	0.79
Vapor Pressure (mm Hg)	96	Melting Point	-98°C
Vapor Density (AIR = 1)	1.11	Evaporation rate (Butyl Acetate = 1)	4.6

Solubility in Water COMPLETE

Appearance and Odor CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.

Section X. STABILITY AND REACTIVITY

Chemical stability Stable under recommended storage conditions.
Possibility of hazardous reactions Vapours may form explosive mixture with air.
Conditions to avoid Heat, flames, sparks, extreme temperature and sunlight.
Materials to avoid Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids
Hazardous decomposition products formed under fire conditions. - Carbon oxides

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - rat - 5,628 mg/kg
LC50 Inhalation - rat - 4 h - 64000 ppm
LD50 Dermal - rabbit - 15,800 mg/kg
Toxic if absorbed through skin. Causes skin irritation.
Eye damage/eye irritation
Toxic if inhaled. Causes respiratory tract irritation.
Toxic if swallowed.

Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.

LC50	15,400 mg/l - 96 h
EC50	24,500.00 mg/l - 48 h
EC100	10,000.00 mg/l - 24 h

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

IATA
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

Section XV. REGULATORY INFORMATION

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

Rec 12/6/24
20 vial

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 95318
Lot Number: 120524
Description: 2-Chloroethyl vinyl ether

Expiration Date: 120527
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 10000
NIST Test ID#: 6UTB

Solvent(s): Methanol **Lot#** EJ143-US

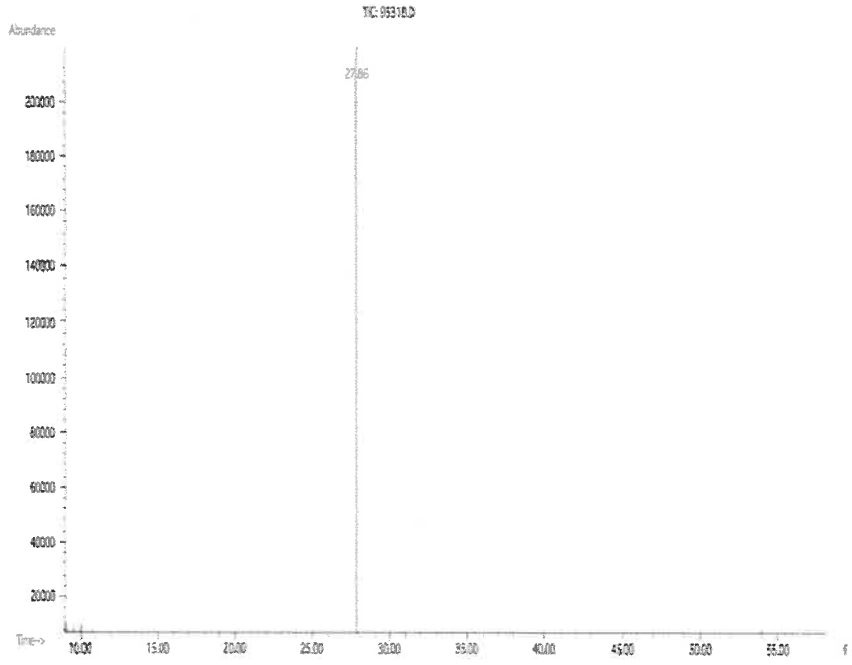
V14630 to V14649

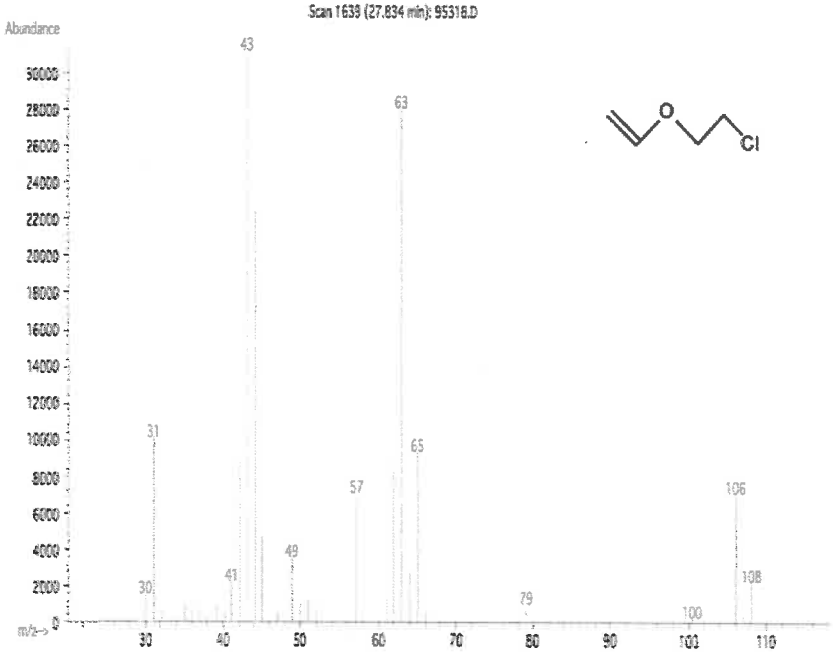
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 50.0 0.001 Flask Uncertainty

Prashant Chauhan	120524
Formulated By: Prashant Chauhan	DATE
Pedro L. Rentas	120524
Reviewed By: Pedro L. Rentas	DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (g)	Actual Weight (g)	Actual Conc(µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. 2-Chloroethyl vinyl ether	74	MKCD0033	10000	99	0.2	0.50536	0.50550	10002.9	40.5	110-75-8	N/A	ori-rat 250mg/kg

Method: GC6MSD-1.M. **Detector:** MSD. **Column:** (60m X 0.25mm X 1.5 µm). **Oven Profile:** Temp 1 = 35°C (Time 1=10min.), Temp 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., Injector B Temp.= 200°C, Detector B Temp. = 220°C. **Analyst:** Candice Warren.





- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Absolute Standards Inc.
PO Box 5585
Hamden, CT 06518-0585
Phone: 203-281-2917
FAX: 203-281-2922

Safety Data Sheet (SDS) GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY **ANALYTICAL STANDARD DISSOLVED IN METHANOL**

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	**1-800-535-5053**
Address	44 Rossotto Dr. Hamden CT, 06514	Emergency Telephone International Date Prepared/Revised	**1-352-323-3500** January 1, 2024

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

H225	**Highly Flammable Liquid and Vapor**	**H301, 311, 331**	**Toxic if swallowed, skin contact, inhaled**
H370	**Cause damage to organs**	**H351**	**Suspected of causing cancer**
P271	**Use in ventilated area**	**P280**	**Use gloves, eye protection/face sheild**
P302,332	**If on skin, wash with soap and water**	**P305,351,338**	**If in eyes, remove contacts, rinse with water**

Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))			% (optional)
Methanol	METHYL ALCOHOL	CAS#: 67-56-1	> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Flammability	Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methanol 67-56-1 TWA 200 ppm
Skin notation TWA 200 ppm
Potential for skin absorption , ingestion and inhalation.
Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

Section IX - Physical/Chemical Characteristics

Boiling Point	65°C	Specific Gravity (H2O = 1)	0.79
Vapor Pressure (mm Hg)	96	Melting Point	-98°C
Vapor Density (AIR = 1)	1.11	Evaporation rate (Butyl Acetate = 1)	4.6

Solubility in Water COMPLETE

Appearance and Odor CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.

Section X. STABILITY AND REACTIVITY

Chemical stability Stable under recommended storage conditions.
Possibility of hazardous reactions Vapours may form explosive mixture with air.
Conditions to avoid Heat, flames, sparks, extreme temperature and sunlight.
Materials to avoid Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids
Hazardous decomposition products formed under fire conditions. - Carbon oxides

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - rat - 5,628 mg/kg
LC50 Inhalation - rat - 4 h - 64000 ppm
LD50 Dermal - rabbit - 15,800 mg/kg
Toxic if absorbed through skin. Causes skin irritation.
Eye damage/eye irritation
Toxic if inhaled. Causes respiratory tract irritation.
Toxic if swallowed.

Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.

LC50	15,400 mg/l - 96 h
EC50	24,500.00 mg/l - 48 h
EC100	10,000.00 mg/l - 24 h

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

IATA
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

Section XV. REGULATORY INFORMATION

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

Rec 12/6/24
20 vial

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 95318
Lot Number: 120524
Description: 2-Chloroethyl vinyl ether

Expiration Date: 120527
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 10000
NIST Test ID#: 6UTB

Solvent(s): Methanol **Lot#** EJ143-US

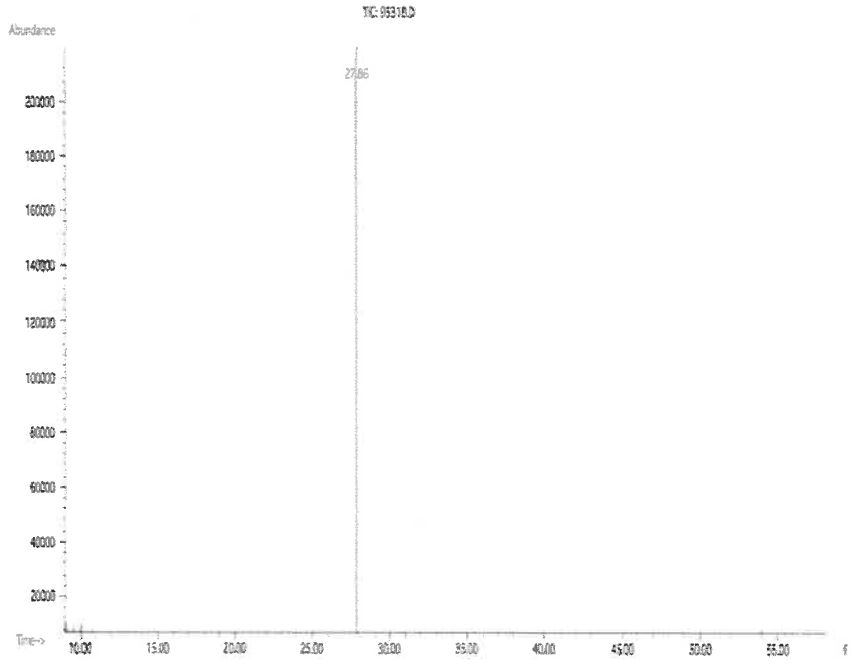
V14630 to V14649

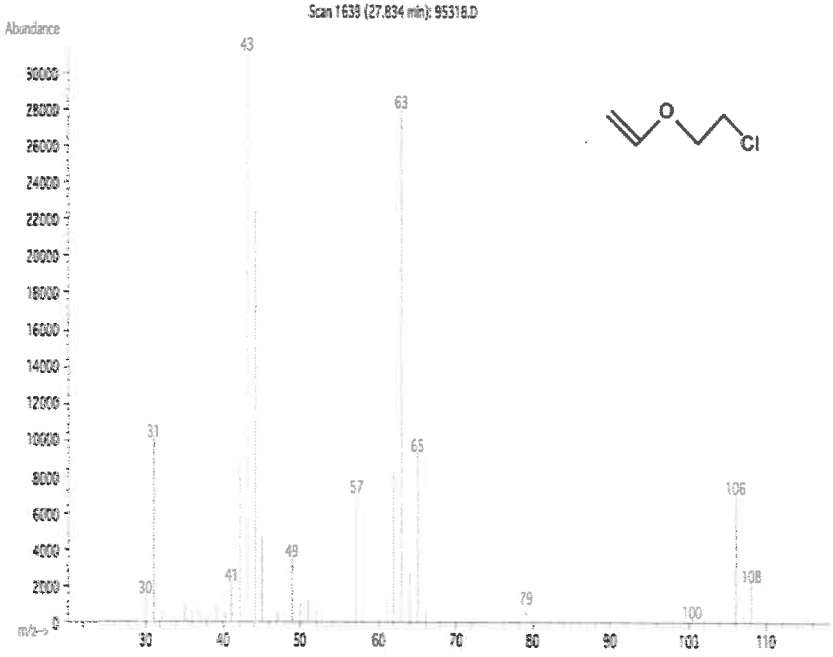
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 50.0 0.001 Flask Uncertainty

Prashant Chauhan	120524
Formulated By: Prashant Chauhan	DATE
Pedro L. Rentas	120524
Reviewed By: Pedro L. Rentas	DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (g)	Actual Weight (g)	Actual Conc(µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. 2-Chloroethyl vinyl ether	74	MKCD0033	10000	99	0.2	0.50536	0.50550	10002.9	40.5	110-75-8	N/A	ori-rat 250mg/kg

Method: GC6MSD-1.M. **Detector:** MSD. **Column:** (60m X 0.25mm X 1.5 µm). **Oven Profile:** Temp 1 = 35°C (Time 1=10min.), Temp 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., Injector B Temp.= 200°C, Detector B Temp. = 220°C. **Analyst:** Candice Warren.





- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Absolute Standards Inc.
PO Box 5585
Hamden, CT 06518-0585
Phone: 203-281-2917
FAX: 203-281-2922

Safety Data Sheet (SDS) GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY **ANALYTICAL STANDARD DISSOLVED IN METHANOL**

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	**1-800-535-5053**
Address	44 Rossotto Dr. Hamden CT, 06514	Emergency Telephone International Date Prepared/Revised	**1-352-323-3500** January 1, 2024

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

H225	**Highly Flammable Liquid and Vapor**	**H301, 311, 331**	**Toxic if swallowed, skin contact, inhaled**
H370	**Cause damage to organs**	**H351**	**Suspected of causing cancer**
P271	**Use in ventilated area**	**P280**	**Use gloves, eye protection/face sheild**
P302,332	**If on skin, wash with soap and water**	**P305,351,338**	**If in eyes, remove contacts, rinse with water**

Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))			% (optional)
Methanol	METHYL ALCOHOL	CAS#: 67-56-1	> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Flammability	Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methanol 67-56-1 TWA 200 ppm
Skin notation TWA 200 ppm
Potential for skin absorption , ingestion and inhalation.
Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

Section IX - Physical/Chemical Characteristics

Boiling Point	65°C	Specific Gravity (H2O = 1)	0.79
Vapor Pressure (mm Hg)	96	Melting Point	-98°C
Vapor Density (AIR = 1)	1.11	Evaporation rate (Butyl Acetate = 1)	4.6

Solubility in Water COMPLETE

Appearance and Odor CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.

Section X. STABILITY AND REACTIVITY

Chemical stability Stable under recommended storage conditions.
Possibility of hazardous reactions Vapours may form explosive mixture with air.
Conditions to avoid Heat, flames, sparks, extreme temperature and sunlight.
Materials to avoid Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids
Hazardous decomposition products formed under fire conditions. - Carbon oxides

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - rat - 5,628 mg/kg
LC50 Inhalation - rat - 4 h - 64000 ppm
LD50 Dermal - rabbit - 15,800 mg/kg
Toxic if absorbed through skin. Causes skin irritation.
Eye damage/eye irritation
Toxic if inhaled. Causes respiratory tract irritation.
Toxic if swallowed.

Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.

LC50	15,400 mg/l - 96 h
EC50	24,500.00 mg/l - 48 h
EC100	10,000.00 mg/l - 24 h

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

IATA
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

Section XV. REGULATORY INFORMATION

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

Rec 12/6/24
20 vial

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 95318
Lot Number: 120524
Description: 2-Chloroethyl vinyl ether

Expiration Date: 120527
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 10000
NIST Test ID#: 6UTB

Solvent(s): Methanol **Lot#** EJ143-US

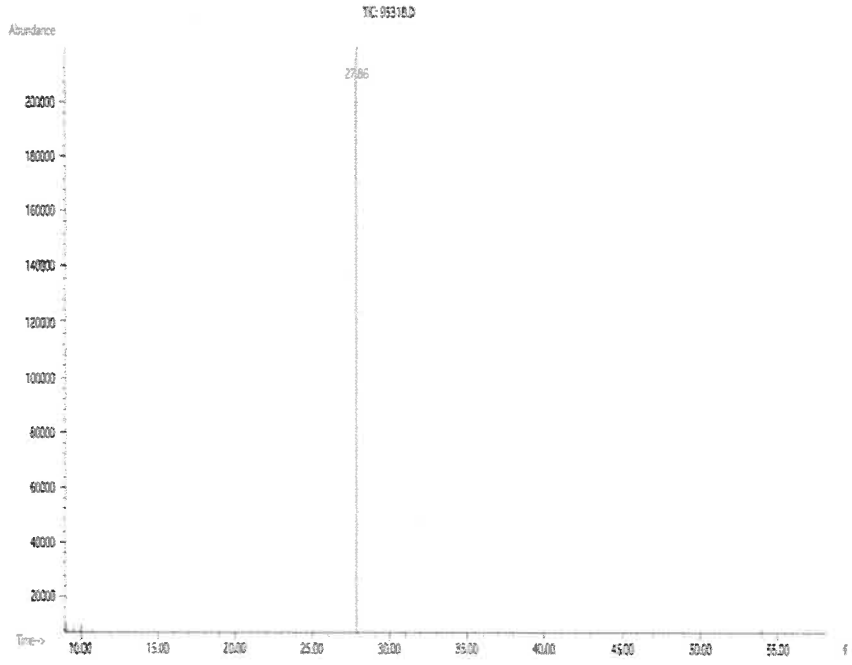
V14630 to V14649

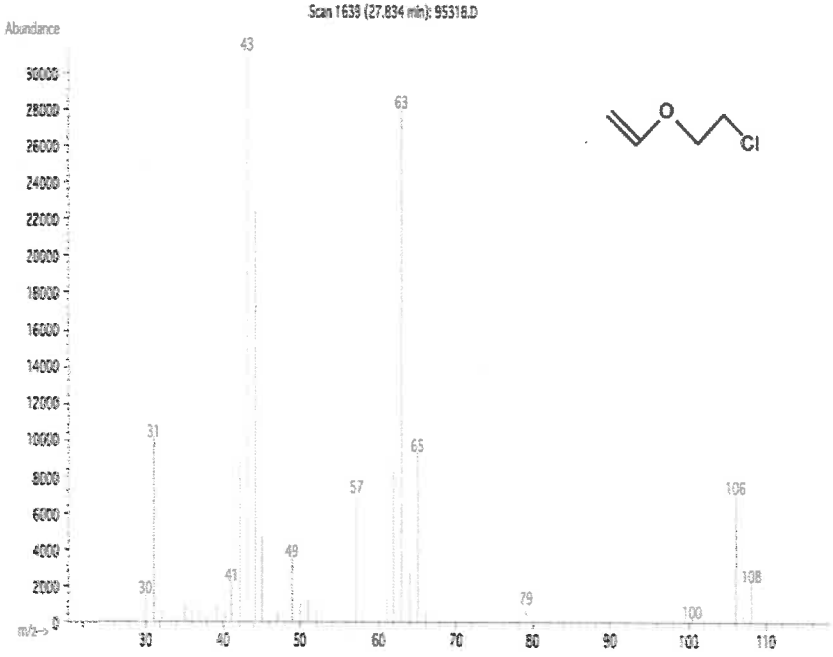
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 50.0 0.001 Flask Uncertainty

Prashant Chauhan	120524
Formulated By: Prashant Chauhan	DATE
Pedro L. Rentas	120524
Reviewed By: Pedro L. Rentas	DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (g)	Actual Weight (g)	Actual Conc(µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. 2-Chloroethyl vinyl ether	74	MKCD0033	10000	99	0.2	0.50536	0.50550	10002.9	40.5	110-75-8	N/A	ori-rat 250mg/kg

Method: GC6MSD-1.M. **Detector:** MSD. **Column:** (60m X 0.25mm X 1.5 µm). **Oven Profile:** Temp 1 = 35°C (Time 1=10min.), Temp 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., Injector B Temp.= 200°C, Detector B Temp. = 220°C. **Analyst:** Candice Warren.





- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Absolute Standards Inc.
PO Box 5585
Hamden, CT 06518-0585
Phone: 203-281-2917
FAX: 203-281-2922

Safety Data Sheet (SDS) GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY **ANALYTICAL STANDARD DISSOLVED IN METHANOL**

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	**1-800-535-5053**
Address	44 Rossotto Dr. Hamden CT, 06514	Emergency Telephone International Date Prepared/Revised	**1-352-323-3500** January 1, 2024

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

H225	**Highly Flammable Liquid and Vapor**	**H301, 311, 331**	**Toxic if swallowed, skin contact, inhaled**
H370	**Cause damage to organs**	**H351**	**Suspected of causing cancer**
P271	**Use in ventilated area**	**P280**	**Use gloves, eye protection/face sheild**
P302,332	**If on skin, wash with soap and water**	**P305,351,338**	**If in eyes, remove contacts, rinse with water**

Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))			% (optional)
Methanol	METHYL ALCOHOL	CAS#: 67-56-1	> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Flammability	Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methanol 67-56-1 TWA 200 ppm
Skin notation TWA 200 ppm
Potential for skin absorption , ingestion and inhalation.
Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

Section IX - Physical/Chemical Characteristics

Boiling Point	65°C	Specific Gravity (H2O = 1)	0.79
Vapor Pressure (mm Hg)	96	Melting Point	-98°C
Vapor Density (AIR = 1)	1.11	Evaporation rate (Butyl Acetate = 1)	4.6

Solubility in Water COMPLETE

Appearance and Odor CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.

Section X. STABILITY AND REACTIVITY

Chemical stability Stable under recommended storage conditions.
Possibility of hazardous reactions Vapours may form explosive mixture with air.
Conditions to avoid Heat, flames, sparks, extreme temperature and sunlight.
Materials to avoid Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids
Hazardous decomposition products formed under fire conditions. - Carbon oxides

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - rat - 5,628 mg/kg
LC50 Inhalation - rat - 4 h - 64000 ppm
LD50 Dermal - rabbit - 15,800 mg/kg
Toxic if absorbed through skin. Causes skin irritation.
Eye damage/eye irritation
Toxic if inhaled. Causes respiratory tract irritation.
Toxic if swallowed.

Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.

LC50	15,400 mg/l - 96 h
EC50	24,500.00 mg/l - 48 h
EC100	10,000.00 mg/l - 24 h

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

IATA
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

Section XV. REGULATORY INFORMATION

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

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. : 30067 **Lot No.:** A0191805

Description : 4-Bromofluorobenzene Standard

4-Bromofluorobenzene Standard 2,500µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : November 30, 2027 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1-Bromo-4-fluorobenzene (BFB)	460-00-4	184975	99%	2,483.9 µg/mL	+/- 139.5488

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Quality Confirmation Test

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.)

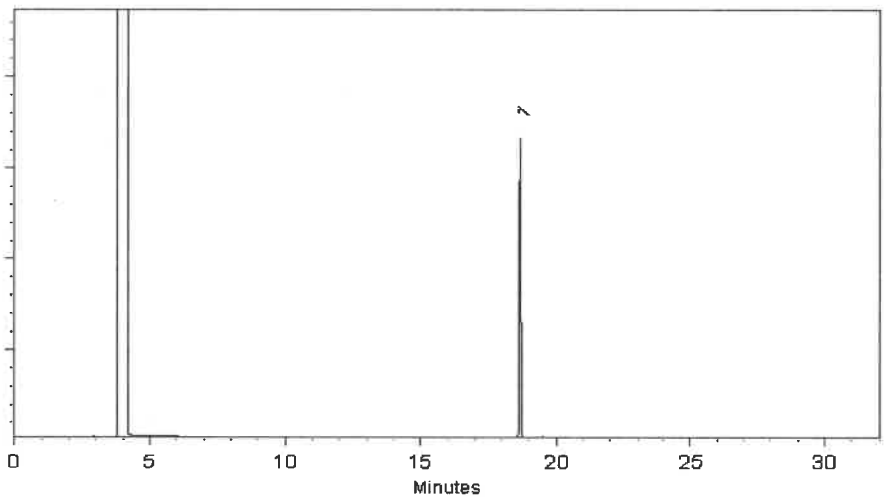
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



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.

Alicia Leathers - Operation Technician I **Date Mixed:** 17-Nov-2022 **Balance Serial #** B251644995

Jennifer Pollino - Operations Tech III - ARM QC **Date Passed:** 21-Nov-2022

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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.

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

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. : 30225 **Lot No.:** A0193071

Description : Bromochloromethane Standard

Bromochloromethane 2000µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : December 31, 2027 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Bromochloromethane	74-97-5	00008541	99%	2,018.0 µg/mL	+/- 113.3890

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Quality Confirmation Test

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.)

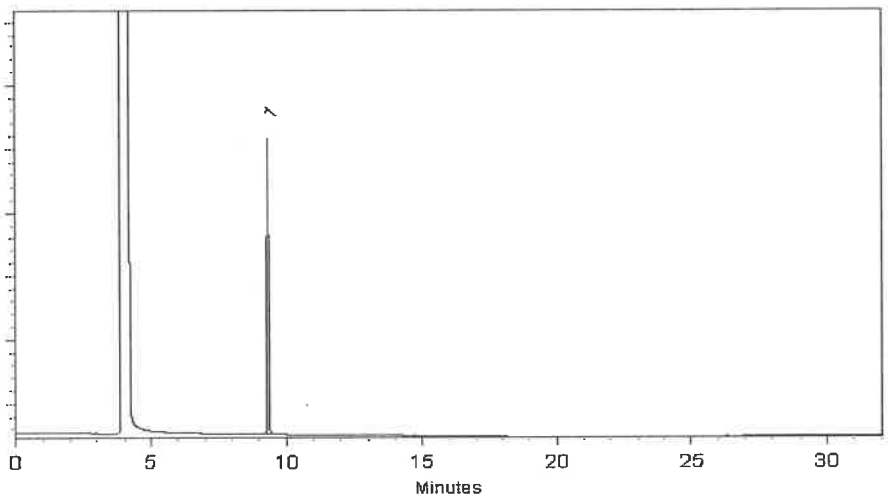
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



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: 29-Dec-2022 **Balance Serial #** B707717271

Christie Mills - Operations Tech II - ARM QC

Date Passed: 03-Jan-2023

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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.

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

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. : 30225 **Lot No.:** A0193071

Description : Bromochloromethane Standard

Bromochloromethane 2000µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : December 31, 2027 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Bromochloromethane	74-97-5	00008541	99%	2,018.0 µg/mL	+/- 113.3890

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Quality Confirmation Test

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.)

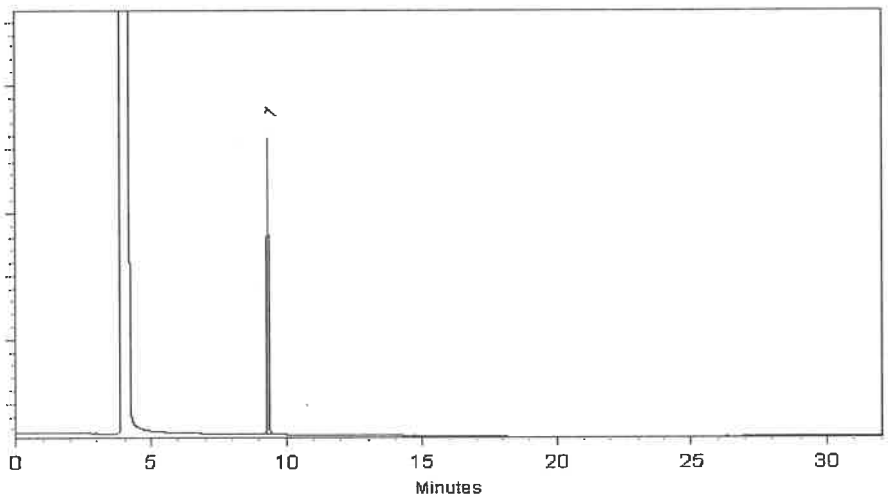
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



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: 29-Dec-2022 **Balance Serial #** B707717271

Christie Mills - Operations Tech II - ARM QC

Date Passed: 03-Jan-2023

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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.

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

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. : 30225 **Lot No.:** A0193071

Description : Bromochloromethane Standard

Bromochloromethane 2000µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : December 31, 2027 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Bromochloromethane	74-97-5	00008541	99%	2,018.0 µg/mL	+/- 113.3890

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Quality Confirmation Test

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.)

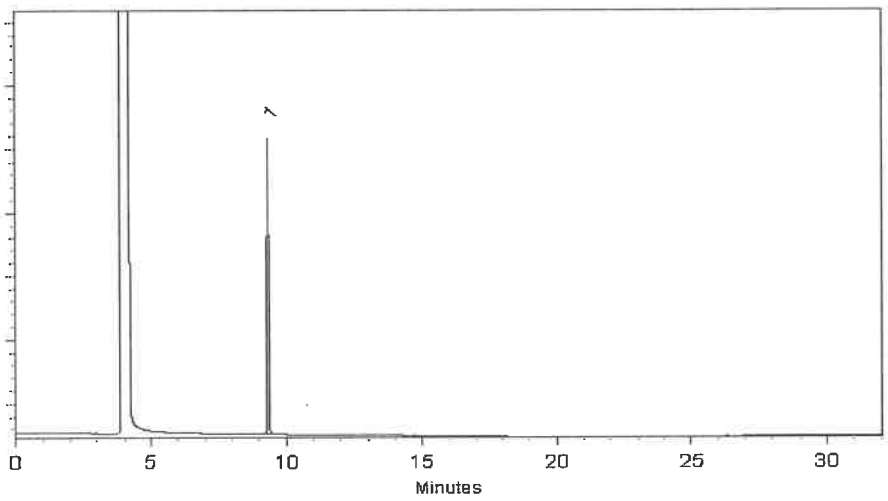
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



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: 29-Dec-2022 **Balance Serial #** B707717271

Christie Mills - Operations Tech II - ARM QC

Date Passed: 03-Jan-2023

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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.

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

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. : 30225 **Lot No.:** A0193071

Description : Bromochloromethane Standard

Bromochloromethane 2000µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : December 31, 2027 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Bromochloromethane	74-97-5	00008541	99%	2,018.0 µg/mL	+/- 113.3890

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Quality Confirmation Test

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.)

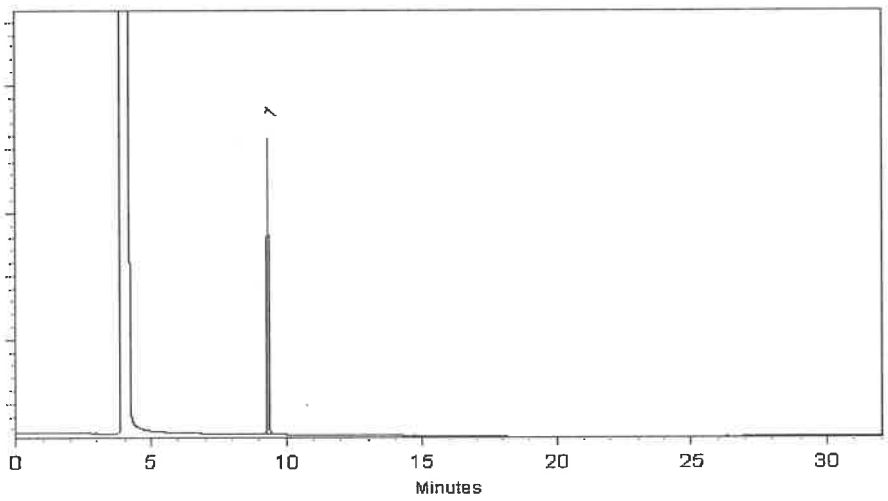
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



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: 29-Dec-2022 **Balance Serial #** B707717271

Christie Mills - Operations Tech II - ARM QC

Date Passed: 03-Jan-2023

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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.

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

gravimetric

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. : 555582 **Lot No.:** A0196865

Description : Custom 8260A/B Surrogate Mix

Custom 8260A/B Surrogate Mix 25,000µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : April 30, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dichloroethane-d4	17060-07-0	PR-32845	99%	25,036.0 µg/mL	+/- 1,417.9179
2	1-Bromo-4-fluorobenzene (BFB)	460-00-4	184975	99%	25,132.0 µg/mL	+/- 1,423.3549
3	Dibromofluoromethane	1868-53-7	022013	99%	25,040.0 µg/mL	+/- 1,418.1445
4	Toluene-d8	2037-26-5	PR-33397	99%	25,028.0 µg/mL	+/- 1,417.4648

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

Russ Bookhamer - Operations Technician I

Date Mixed: 11-Apr-2023 **Balance:** 1127510105

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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.

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

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. : 30489 **Lot No.:** A0209618

Description : 8260B Acetates Mix

8260B Acetates Mix 2,000 µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : September 30, 2025 **Storage:** -20°C or colder

Handling: This product is photosensitive. **Ship:** On Ice

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Methyl acetate	79-20-9	SHBP3100	99%	2,019.3 µg/mL	+/- 69.7974
2	Vinyl acetate	108-05-4	RP231030CTH	98%	2,016.8 µg/mL	+/- 69.7112
3	Ethyl acetate	141-78-6	SHBQ9682	99%	2,010.7 µg/mL	+/- 69.4979
4	Isopropyl acetate	108-21-4	BCCG7069	99%	2,016.0 µg/mL	+/- 69.6822
5	Propyl acetate	109-60-4	P8XLN	99%	2,008.0 µg/mL	+/- 69.4057
6	Butyl acetate	123-86-4	SHBP6314	99%	2,007.3 µg/mL	+/- 69.3826
7	Amyl acetate	628-63-7	41325/1	97%	2,004.7 µg/mL	+/- 69.2905

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods . Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this

reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Quality Confirmation Test

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.)

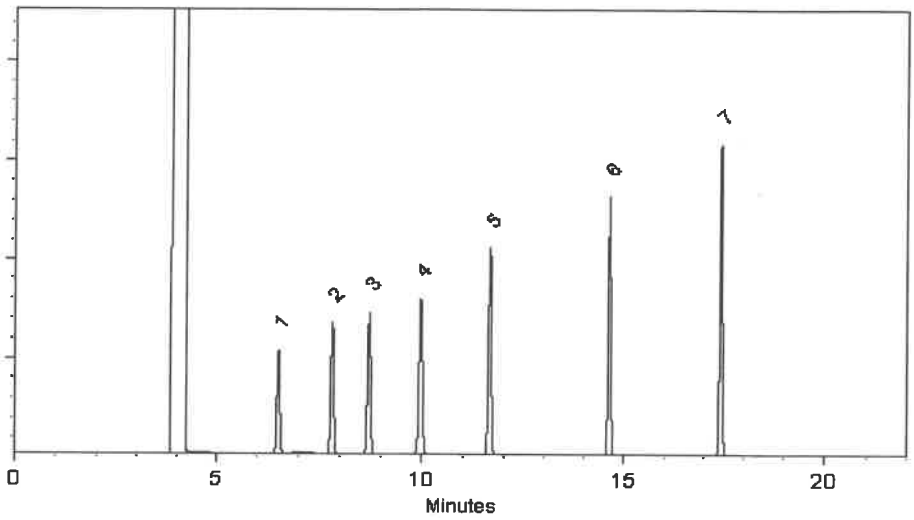
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



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: 28-Mar-2024 **Balance Serial #** B707717271

Dillan Murphy - Operations Technician I

Date Passed: 01-Apr-2024

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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.

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

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. : 30489 **Lot No.:** A0209618

Description : 8260B Acetates Mix

8260B Acetates Mix 2,000 µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : September 30, 2025 **Storage:** -20°C or colder

Handling: This product is photosensitive. **Ship:** On Ice

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Methyl acetate	79-20-9	SHBP3100	99%	2,019.3 µg/mL	+/- 69.7974
2	Vinyl acetate	108-05-4	RP231030CTH	98%	2,016.8 µg/mL	+/- 69.7112
3	Ethyl acetate	141-78-6	SHBQ9682	99%	2,010.7 µg/mL	+/- 69.4979
4	Isopropyl acetate	108-21-4	BCCG7069	99%	2,016.0 µg/mL	+/- 69.6822
5	Propyl acetate	109-60-4	P8XLN	99%	2,008.0 µg/mL	+/- 69.4057
6	Butyl acetate	123-86-4	SHBP6314	99%	2,007.3 µg/mL	+/- 69.3826
7	Amyl acetate	628-63-7	41325/1	97%	2,004.7 µg/mL	+/- 69.2905

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods . Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this

reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Quality Confirmation Test

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.)

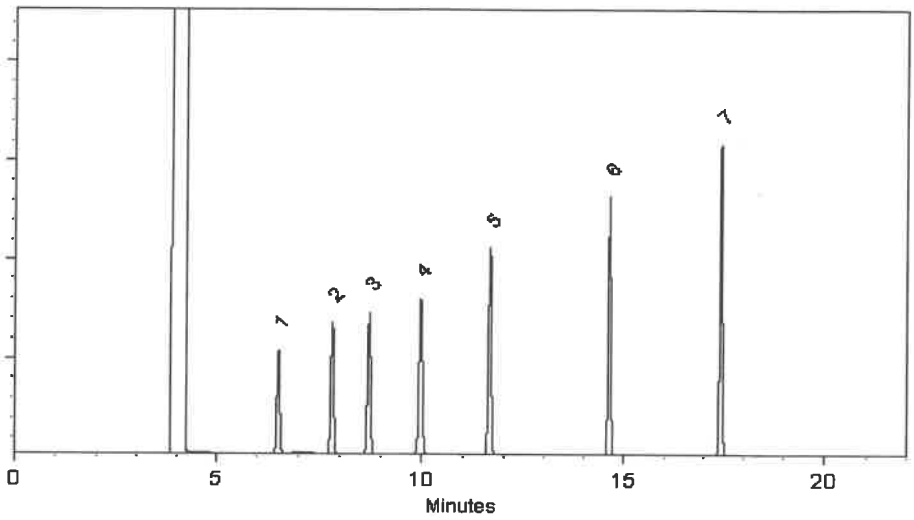
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



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: 28-Mar-2024 **Balance Serial #** B707717271

Dillan Murphy - Operations Technician I

Date Passed: 01-Apr-2024

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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.

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

gravimetric

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. : 555581 **Lot No.:** A0210184

Description : Custom 8260 Internal Standard Mix

Custom 8260 Internal Standard Mix 25,000µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : April 30, 2027 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Component #	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,4-Dichlorobenzene-d4	3855-82-1	PR-30447	99%	25,212.0 µg/mL	+/- 1,427.8857
2	1,4-Difluorobenzene	540-36-3	MKCS8657	99%	25,220.0 µg/mL	+/- 1,428.3388
3	Chlorobenzene-d5	3114-55-4	PR-31132	99%	25,116.0 µg/mL	+/- 1,422.4487
4	Pentafluorobenzene	363-72-4	MKCR9383	99%	25,180.0 µg/mL	+/- 1,426.0734

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

John Friedline - Operations Technician I

Date Mixed: 11-Apr-2024 **Balance:** 1127510105

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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.

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

Rec 12/17/24

CERTIFIED REFERENCE MATERIAL

30 V.4

Certificate of Analysis

chromatographic plus

V14697-to-14726

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. : 30006 **Lot No.:** A0210618

Description : VOA Calibration Mix #1

VOA Calibration Mix #1 5,000µg/mL, P&T Methanol/Water(90:10), 1mL/ampul

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

Expiration Date : July 31, 2027 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Acetone	67-64-1	SHBQ8504	99%	5,014.8 µg/mL	+/- 173.2883
2	2-Butanone (MEK)	78-93-3	SHBQ4704	99%	5,012.4 µg/mL	+/- 173.2054
3	4-Methyl-2-pentanone (MIBK)	108-10-1	SHBP9200	99%	5,011.6 µg/mL	+/- 173.1777
4	2-Hexanone	591-78-6	MKCQ6663	99%	5,013.0 µg/mL	+/- 173.2261

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Quality Confirmation Test

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.)

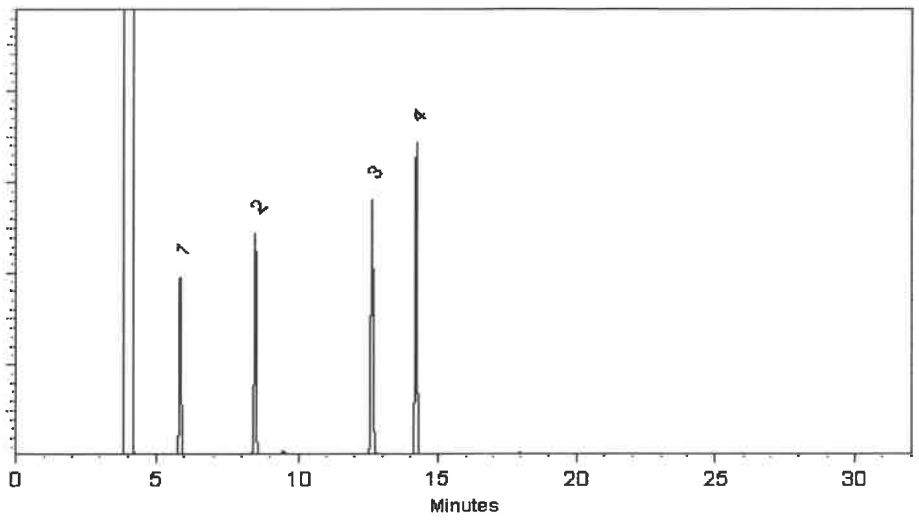
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



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.

Dakota Parson - Operations Technician I

Date Mixed: 22-Apr-2024 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 24-Apr-2024

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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.

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

Rec 12/17/24

CERTIFIED REFERENCE MATERIAL

30 V.4

Certificate of Analysis

chromatographic plus

V14697-to-14726

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. : 30006 **Lot No.:** A0210618

Description : VOA Calibration Mix #1

VOA Calibration Mix #1 5,000µg/mL, P&T Methanol/Water(90:10), 1mL/ampul

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

Expiration Date : July 31, 2027 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Acetone	67-64-1	SHBQ8504	99%	5,014.8 µg/mL	+/- 173.2883
2	2-Butanone (MEK)	78-93-3	SHBQ4704	99%	5,012.4 µg/mL	+/- 173.2054
3	4-Methyl-2-pentanone (MIBK)	108-10-1	SHBP9200	99%	5,011.6 µg/mL	+/- 173.1777
4	2-Hexanone	591-78-6	MKCQ6663	99%	5,013.0 µg/mL	+/- 173.2261

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Quality Confirmation Test

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.)

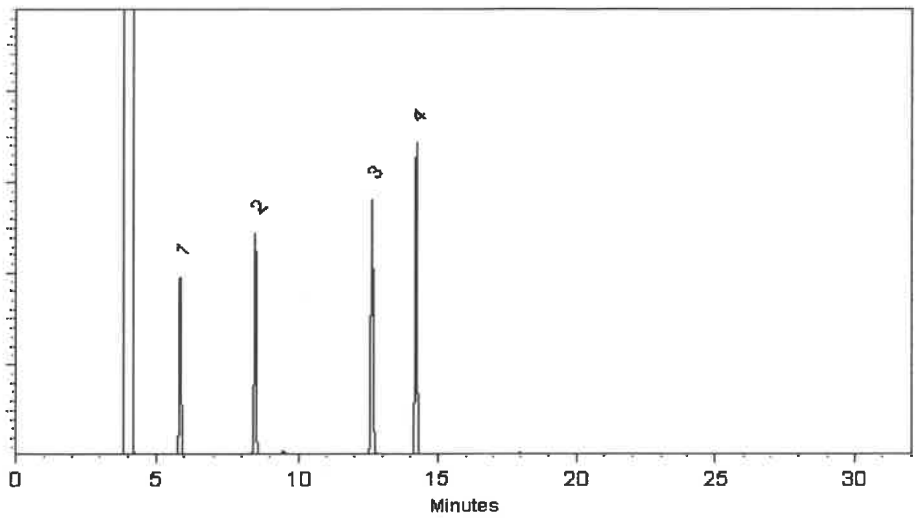
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



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.

Dakota Parson - Operations Technician I

Date Mixed: 22-Apr-2024 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 24-Apr-2024

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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.

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

Rec 12/17/24

CERTIFIED REFERENCE MATERIAL

30 V.4

Certificate of Analysis

chromatographic plus

V14697-to-14726

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. : 30006 **Lot No.:** A0210618

Description : VOA Calibration Mix #1

VOA Calibration Mix #1 5,000µg/mL, P&T Methanol/Water(90:10), 1mL/ampul

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

Expiration Date : July 31, 2027 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Acetone	67-64-1	SHBQ8504	99%	5,014.8 µg/mL	+/- 173.2883
2	2-Butanone (MEK)	78-93-3	SHBQ4704	99%	5,012.4 µg/mL	+/- 173.2054
3	4-Methyl-2-pentanone (MIBK)	108-10-1	SHBP9200	99%	5,011.6 µg/mL	+/- 173.1777
4	2-Hexanone	591-78-6	MKCQ6663	99%	5,013.0 µg/mL	+/- 173.2261

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Quality Confirmation Test

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.)

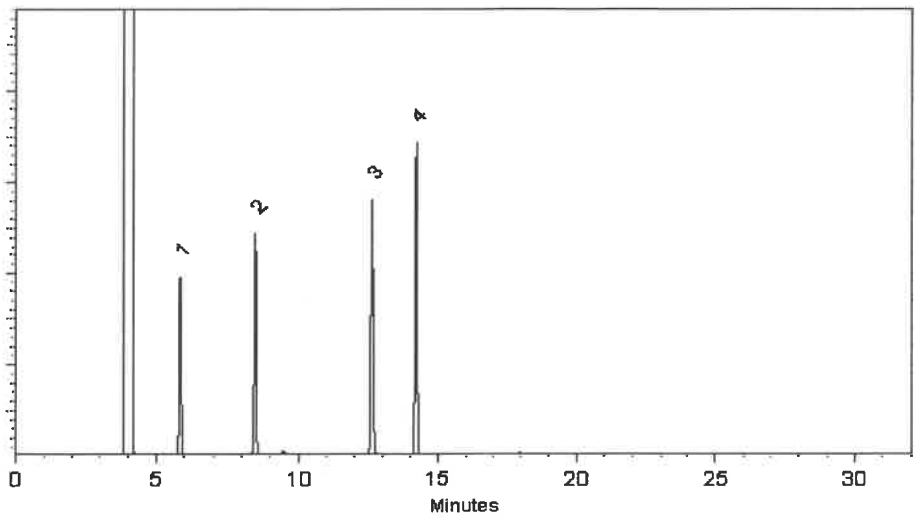
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



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.

Dakota Parson - Operations Technician I

Date Mixed: 22-Apr-2024 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 24-Apr-2024

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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.

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

Rec 12/17/24

CERTIFIED REFERENCE MATERIAL

30 Vial

Certificate of Analysis

chromatographic plus

V14727 to
V14756

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. : 30042 **Lot No.:** A0216826

Description : 502.2 Calibration Mix #1

502.2 Calibration Mix #1 2,000µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : May 31, 2031 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Dichlorodifluoromethane (CFC-12)	75-71-8	00022922	99%	2,000.9 µg/mL	+/- 112.4144
2	Chloromethane (methyl chloride)	74-87-3	00022694	99%	2,000.7 µg/mL	+/- 112.3998
3	Vinyl chloride	75-01-4	00015559	99%	2,000.3 µg/mL	+/- 112.3779
4	Bromomethane (methyl bromide)	74-83-9	00017022	99%	2,001.8 µg/mL	+/- 112.4650
5	Chloroethane (ethyl chloride)	75-00-3	107-401039114-1	99%	2,000.1 µg/mL	+/- 112.3700
6	Trichlorofluoromethane (CFC-11)	75-69-4	MKCJ8658	99%	2,000.7 µg/mL	+/- 112.3992

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Quality Confirmation Test

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.

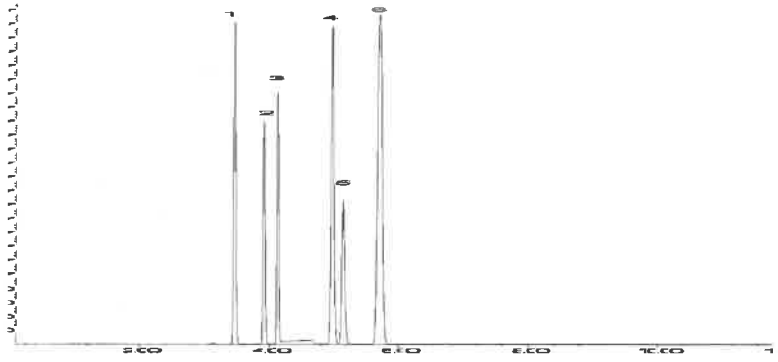
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD

Split Vent:
Split ratio 10:1

Inj. Vol
1µl



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: 23-Sep-2024 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 04-Oct-2024

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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.

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

Rec 12/17/24

CERTIFIED REFERENCE MATERIAL

30 Vial

Certificate of Analysis

chromatographic plus

V14727 to
V14756

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. : 30042 **Lot No.:** A0216826

Description : 502.2 Calibration Mix #1

502.2 Calibration Mix #1 2,000µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : May 31, 2031 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Dichlorodifluoromethane (CFC-12)	75-71-8	00022922	99%	2,000.9 µg/mL	+/- 112.4144
2	Chloromethane (methyl chloride)	74-87-3	00022694	99%	2,000.7 µg/mL	+/- 112.3998
3	Vinyl chloride	75-01-4	00015559	99%	2,000.3 µg/mL	+/- 112.3779
4	Bromomethane (methyl bromide)	74-83-9	00017022	99%	2,001.8 µg/mL	+/- 112.4650
5	Chloroethane (ethyl chloride)	75-00-3	107-401039114-1	99%	2,000.1 µg/mL	+/- 112.3700
6	Trichlorofluoromethane (CFC-11)	75-69-4	MKCJ8658	99%	2,000.7 µg/mL	+/- 112.3992

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Quality Confirmation Test

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.

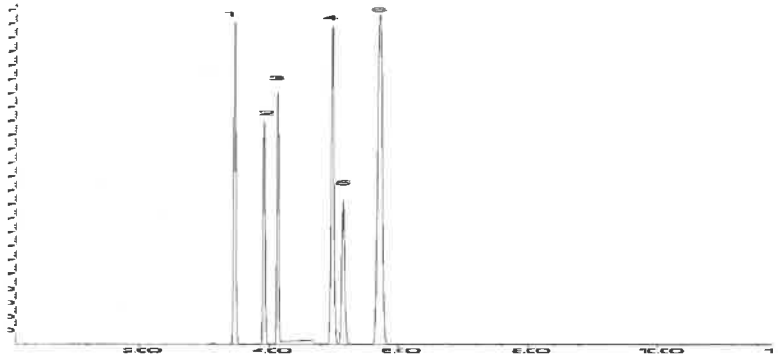
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD

Split Vent:
Split ratio 10:1

Inj. Vol
1µl



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: 23-Sep-2024 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 04-Oct-2024

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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.

RESTEK

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

J14842 to 14846

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. : 30470 **Lot No.:** A0217535

Description : tert-Butanol Standard

tert-Butanol Std 50,000µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : October 31, 2027 **Storage:** 0°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	tert-Butanol (TBA)	75-65-0	SHBQ8002-1	99%	50,007.5 µg/mL	+/- 717.6137

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Quality Confirmation Test

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.)

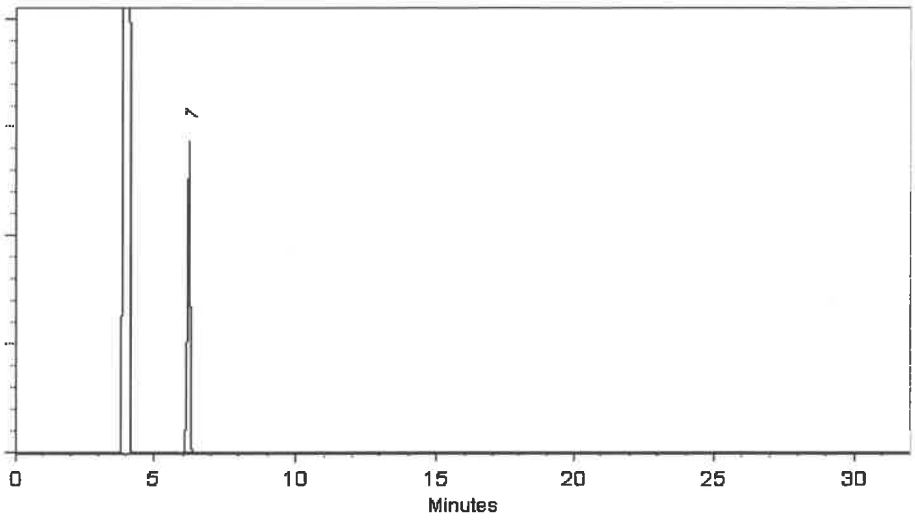
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



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.

Aaron Enyart - Operations Tech I

Date Mixed: 07-Oct-2024 **Balance Serial #** B251644995

Brittany Federinko - Operations Tech I

Date Passed: 09-Oct-2024

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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.

Zoviny Rec 01/08/21

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic

V14803 - V14822

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. : 555408-SL **Lot No.:** A0220471

Description : Custom Vinyl Acetate Standard

Custom Vinyl Acetate Standard 8,000µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : June 30, 2026 **Storage:** -20°C or colder

Handling: This product is photosensitive. **Ship:** On Ice

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Vinyl acetate	108-05-4	RD240423RSR	99%	8,066.0 µg/mL	+/- 278.7979

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods . Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Quality Confirmation Test

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.)

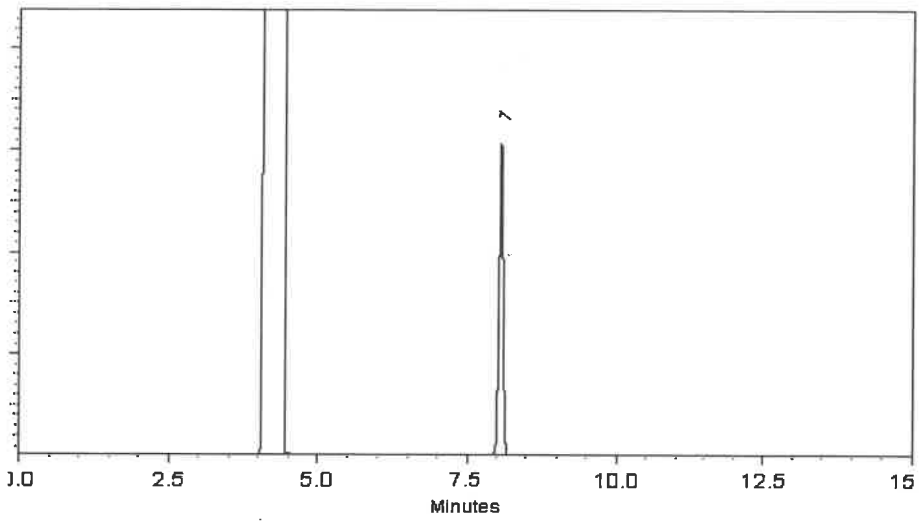
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



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.

Ethan Winiarski - Operations Tech I

Date Mixed: 24-Dec-2024 **Balance Serial #** 1127510105

Dillan Murphy - Operations Technician I

Date Passed: 02-Jan-2025

REVIEWED

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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.

Zoviny Rec 01/08/21

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic

V14803 - V14822

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. : 555408-SL **Lot No.:** A0220471

Description : Custom Vinyl Acetate Standard

Custom Vinyl Acetate Standard 8,000µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : June 30, 2026 **Storage:** -20°C or colder

Handling: This product is photosensitive. **Ship:** On Ice

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Vinyl acetate	108-05-4	RD240423RSR	99%	8,066.0 µg/mL	+/- 278.7979

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods . Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Quality Confirmation Test

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.)

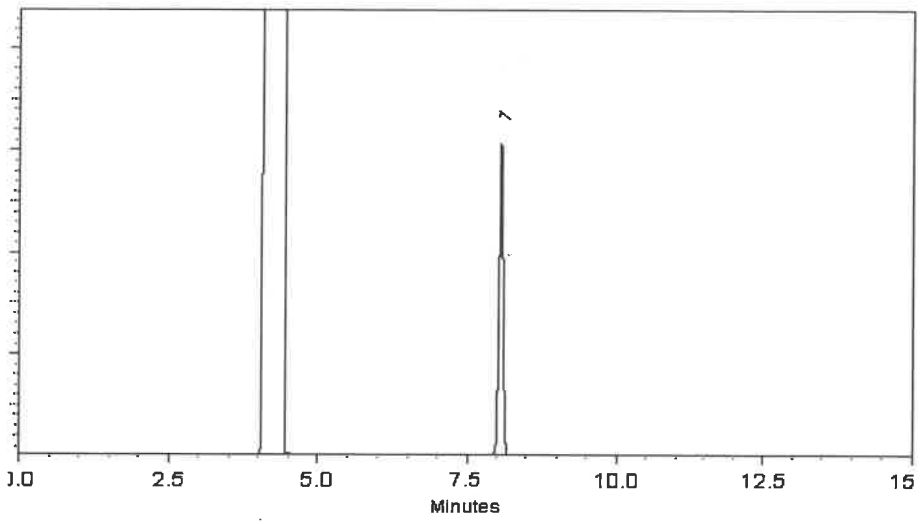
Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

Split Vent:
40 ml/min

Inj. Vol
1µl



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.

Ethan Winiarski - Operations Tech I

Date Mixed: 24-Dec-2024 **Balance Serial #** 1127510105

Dillan Murphy - Operations Technician I

Date Passed: 02-Jan-2025

REVIEWED

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 expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls 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 ampuls. 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.

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

avantor™ | J.T.Baker®

Material No.: 9077-02
Batch No.: 22L0562016
Manufactured Date: 2022-10-26
Expiration Date: 2025-10-25
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (CH_3OH) (by GC, corrected for water)	≥ 99.9 %	100.0 %
Residue after Evaporation	≤ 1.0 ppm	0.2 ppm
Titrable Acid (µeq/g)	≤ 0.3	0.2
Titrable Base (µeq/g)	≤ 0.10	0.03
Water (by KF, coulometric)	≤ 0.08 %	< 0.01 %
Volatile Organic Trace Analysis - Below EPA 8260B CRQL	Conforms	Conforms

For Laboratory,Research,or Manufacturing Use
Performance Tested for Use in EPA Methods
500 Series for Drinking Water
600 Series for Wastewater
846 for Solid Waste

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

James T Ethier

Jamie Ethier
Vice President Global Quality

SHIPPING DOCUMENTS

Alliance TECHNICAL GROUP

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 • Fax (908) 789-8922
www.chemtech.net

ALLIANCE PROJECT NO.
QUOTE NO. 01514
COC Number 2046198

CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: Gannett Fleming
ADDRESS: 610 Adams Ave
CITY Audubon STATE: PA ZIP: 19405
ATTENTION: Joe Krupansky
PHONE: 610-301-8342 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: Amtrak Procurement of SB
PROJECT NO: 9500 000818 LOCATION: Kearny, NJ
PROJECT MANAGER: Joe Krupansky
e-mail: QAQC@BEMSYS.COM
PHONE: 610-301-8342 FAX:

CLIENT BILLING INFORMATION

BILL TO: Alliance PO#:
ADDRESS: 284 Sheffield St
CITY Mountainside STATE: NJ ZIP: 07092
ATTENTION: Samantha Beasley PHONE: 908-789-3148

DATA TURNAROUND INFORMATION

FAX (RUSH) _____ DAYS*
HARDCOPY (DATA PACKAGE): 10 DAYS*
EDD: 10 DAYS*
*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS

DATA DELIVERABLE INFORMATION

☐ Level 1 (Results Only) ☐ Level 4 (QC + Full Raw Data)
☐ Level 2 (Results + QC) ☒ NJ Reduced ☐ US EPA CLP
☐ Level 3 (Results + QC + Raw Data) ☐ NYS ASP A ☐ NYS ASP B
☐ Other _____
☐ EDD FORMAT BEM EDD

ANALYSIS

1. PCBs
2. TAL Metals
3. TCL - VOC + 10
4. Cr(VI) Cr(III)
5. TCL - SVOCs - BN+20
6. EPH
7. RCRA
8. TCLP
9.

PRESERVATIVES

COMMENTS

← Specify Preservatives
A-HCl D-NaOH
B-HN03 E-ICE
C-H2SO4 F-OTHER

	ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	1	2	3	4	5	6	7	8	9
1.		ENV-105-SB01	S		X	3/5/25	745	9	X	X	X	X	X	X	X	X	
2.		ENV-105-SB02	S		X		800	9			X	X	X	X	X	X	
3.		ENV-105-GW01	GW		X		815	8			X	X	X	X			
4.		ENV-103-SB01	S		X		1025	9			X	X	X	X	X	X	
5.		ENV-103-GW01	GW		X	↓	1040	8	↓	↓	X	X	X	X			
6.		FB03062025	W			3/6/25			X	X	X	X	X	X			
7.		TB03062025				NA	NA				X						
8.																	
9.																	
10.																	

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

	DATE/TIME		DATE/TIME
RELINQUISHED BY SAMPLER: 1.	1205 3-6-25	RECEIVED BY: 1.	1205 3-6-25
RELINQUISHED BY SAMPLER: 2.	DATE/TIME:	RECEIVED BY: 2.	
RELINQUISHED BY SAMPLER: 3.	DATE/TIME: 1515 3-6-25	RECEIVED BY: 3.	

Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 2.9 °C
Comments:

Page _____ of

CLIENT: ☐ Hand Delivered ☐ Other

Shipment Complete ☐ YES ☐ NO

Copyright© 2024

WHITE - ALLIANCE COPY FOR RETURN TO CLIENT YELLOW - ALLIANCE COPY PINK - SAMPLER COPY

284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255424 Rev 1
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488

QA Control Code: A2070148

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q1514 PORT06
Client Name : Portal Partners Tri-Venture
Client Contact : Joseph Krupansky
Invoice Name : Portal Partners Tri-Venture
Invoice Contact : Joseph Krupansky

Order Date : 3/6/2025 2:08:00 PM
Project Name : Amtrak Sawtooth Bridges 2
Receive DateTime : 3/6/2025 ~~12:00:00~~ AM 15:15
Purchase Order :

Project Mgr :
Report Type : NJ Reduced
EDD Type : EXCEL NJCLEANUP
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q1514-01	ENV-105-SB01	Solid	03/05/2025	07:45					
					VOC-TCLVOA-10		8260D		10 Bus. Days
Q1514-03	ENV-105-SB02	Solid	03/05/2025	08:00					
					VOC-TCLVOA-10		8260D		10 Bus. Days
Q1514-05	ENV-103-SB01	Solid	03/05/2025	10:25					
					VOC-TCLVOA-10		8260D		10 Bus. Days
Q1514-07	ENV-105-GW01	Water	03/05/2025	08:15					
					VOC-TCLVOA-10		8260-Low		10 Bus. Days
Q1514-08	ENV-103-GW01	Water	03/05/2025	10:40					
					VOC-TCLVOA-10		8260-Low		10 Bus. Days
Q1514-09	FB03062025	Water	~~03/05/2025~~ 03/06/2025	00:00					
					VOC-TCLVOA-10		8260-Low		10 Bus. Days
Q1514-10	TB03062025	Water	03/05/2025	00:00					
					VOC-TCLVOA-10		8260-Low		10 Bus. Days

284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q1514 PORT06
Client Name : Portal Partners Tri-Venture
Client Contact : Joseph Krupansky
Invoice Name : Portal Partners Tri-Venture
Invoice Contact : Joseph Krupansky

Order Date : 3/6/2025 2:08:00 PM
Project Name : Amtrak Sawtooth Bridges 2
Receive DateTime : 3/6/2025 ~~12:00:00~~ 15:15 AM
Purchase Order :

Project Mgr :
Report Type : NJ Reduced
EDD Type : EXCEL NJCLEANUP
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES

Relinguished By
Date / Time : 3-6-25 1617

Received By :
Date / Time : 3.6.25 16:17

Storage Area : VOA Refridgerator Room