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

DATA PACKAGE

VOLATILE ORGANICS

PROJECT NAME : RFP 916

WESTON SOLUTIONS, INC.

1090 King Georges Post Road

Suite 201

Edison, NJ - 08837-3703

Phone No: 732-585-4410

ORDER ID : Q3179

ATTENTION : Smita Sumbaly

Laboratory Certification ID # 20012

Table Of Contents for Q3179

1) VOLATILES DATA 2
2) Signature Page 4
3) Case Narrative 5
4) Qualifier Page 7
5) Conformance/Non Conformance 8
6) QA Checklist 10
7) Chronicle 11
8) Hit Summary 12
9) QC Data Summary For SPLP VOA 13
9.1) Deuterated Monitoring Compound Summary 14
9.2) MS/MSD Summary 15
9.3) LCS/LCSD Summary 19
9.4) Method Blank Summary 21
9.5) GS/MS Tune Summary 22
9.6) Internal Standard Area and RT Summary 24
10) Sample Data 26
10.1) EME-TS14-01 27
11) Calibration Data Summary 37
11.1) Initial Calibration Data 38
11.1.1) VN092325 38
11.2) Continued Calibration Data 361
11.2.1) VN087948.D 361
12) QC Sample Data 421
12.1) Tune Raw Data 422
12.2) Method Blank Data 424
12.3) LCS Data 433
12.4) MS Data 488
12.5) MSD Data 543
13) Manual Integration 598
14) Analytical Runlogs 601
15) Extraction Logs 605
15.1) PB169819 605
15.2) PB169819IC 608
16) Standard Prep Logs 609
17) Shipping Document 695

17.1) Chain Of Custody 696

17.2) Lab Certificate 697

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

Cover Page

Order ID : Q3179

Project ID : RFP 916

Client : Weston Solutions, Inc.

Lab Sample Number	Client Sample Number
Q3179-01	EME-TS14-01
Q3179-02	EME-TS14-01MS
Q3179-03	EME-TS14-01MSD

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: 10/2/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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

CASE NARRATIVE

Weston Solutions, Inc.
Project Name: RFP 916
Project # N/A
Order ID # Q3179
Test Name: SPLP VOA

A. Number of Samples and Date of Receipt:
3 Solid samples were received on 09/23/2025.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: SPLP VOA. This data package contains results for SPLP VOA.

C. Analytical Techniques:
The analysis performed on instrument MSVOA_N were done using GC column Rxi-624SIL MS 30m, 0.25mm, 1.4 um, Cat. #13868.The analysis of SPLP VOA was based on method 8260D.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries were met for all analysis.
The Internal Standards Areas were met for all analysis.
The Retention Times were met for all analysis.

The MS {Q3179-02MS} with File ID: VN087957.D recoveries met the requirements for all compounds except for 2-Hexanone [132%], Methylene Chloride[116%] due to matrix interference.

The MSD {Q3179-03MSD} with File ID: VN087958.D recoveries met the requirements for all compounds except for 2-Chloroethyl vinyl ether [132%], Methyl iodide [123%] due to matrix interference.

The RPD were met for all analysis.
The Blank Spike met requirements for all compounds.

The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements.

The Continuous Calibration File ID VN087948.D met the requirements except for 2-Chloroethyl Vinyl ether is failing high but no positive hit in associate sample therefore no corrective action taken.

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

The Tuning criteria met requirements.

E. Calculation:
Water Calculation in ug/L

$$\frac{(A_x)(I_s)(Df)}{(A_{is})(RRF)(V_0)}$$

Where,
Ax = Area for the compound to be measured
Ais = Area for the specific internal standard
Is = Amount of internal standard added in nanograms (ng)
RRF = Relative response factor of the initial calibration curve standard.
Vo = Volume of water purged in milliliters (mL)
Df = Dilution factor.

F. Additional Comments:
Trip Blank was not provided with this set of samples.

G. Manual Integration Comments:
Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

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. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature_____

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

GC/MS VOA CONFORMANCE/NON-CONFORMANCE SUMMARY

ORDER ID: Q3179 MATRIX: Solid

METHOD: 8260D

		NA	NO	YES
1.	Chromatograms Labeled/Compounds Identified. (Field samples and Method Blanks)			✓
2.	GC/MS Tuning Specifications BFB Meet Criteria (NOTE THAT THERE ARE DIFFERENT CRITERIA FOR NY ASP CLP, CLP AND NJ)			✓
3.	GC/MS Tuning Frequency - Performed every 24 hours for 600 series and 12 hours for 8000 Series.			✓
4.	GC/MS Calibration - Initial Calibration performed before sample analysis and continuing calibration performed within 24 hours of sample analysis for 600 series and 12 hours for 8000 series.			✓
5.	GC/MS Calibration Requirements. The Initial Calibration met the requirements. The Continuous Calibration File ID VN087948.D met the requirements except for 2-Chloroethyl Vinyl ether is failing high but no positive hit in associate sample therefore no corrective action taken.		✓	
6.	Blank Contamination - If yes, list compounds and concentrations in each blank:		✓	
7.	Surrogate Recoveries Meet Criteria If not met, list those compounds and their recoveries which fall outside the acceptable ranges.			✓
8.	Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria If not met, list those compounds and their recoveries which fall outside the acceptable range. The MS {Q3179-02MS} with File ID: VN087957.D recoveries met the requirements for all compounds except for 2-Hexanone[132%], Methylene Chloride[116%] due to matrix interference. The MSD {Q3179-03MSD} with File ID: VN087958.D recoveries met the requirements for all compounds except for 2-Chloroethyl vinyl ether[132%], Methyl iodide [123%] due to matrix interference.		✓	
9.	Internal Standard Area/Retention Time Shift Meet Criteria Comments:			✓
10.	Analysis Holding Time Met If not met, list number of days exceeded for each sample:			✓

GC/MS VOA CONFORMANCE/NON-CONFORMANCE SUMMARY (CONTINUED)

NA NO YES

ADDITIONAL COMMENTS:

Trip Blank was not provided with this set of samples.

_____ _____

QA REVIEW Date

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

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q3179

	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: SOHIL JODHANI **Date:** 10/02/2025

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

LAB CHRONICLE

OrderID:	Q3179	**OrderDate:**	9/24/2025 11:08:00 AM
Client:	Weston Solutions, Inc.	**Project:**	RFP 916
Contact:	Smita Sumbaly	**Location:**	J42

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q3179-01	**EME-TS14-01**	**Water**			**09/23/25**			**09/23/25**
			SPLP VOA	8260D			09/25/25	

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

Hit Summary Sheet
SW-846

SDG No.: Q3179

Client: Weston Solutions, Inc.

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID:	**EME-TS14-01**							
Q3179-01	EME-TS14-01	WATER	Methylene Chloride	7.60		0.28	5.00	ug/L
			Total Voc :	7.60				
			Total Concentration:	7.60				

QC SUMMARY

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

Surrogate Summary

SDG No.: Q3179

Client: Weston Solutions, Inc.

Analytical Method: SW8260D

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery (%)	Qual	Limits (%) Low	Limits (%) High
Q3179-01	EME-TS14-01	1,2-Dichloroethane-d4	50	55.8	112		74	125
		Dibromofluoromethane	50	50.8	102		75	124
		Toluene-d8	50	47.6	95		86	113
		4-Bromofluorobenzene	50	43.5	87		77	121
Q3179-02MS	EME-TS14-01MS	1,2-Dichloroethane-d4	50	52.0	104		74	125
		Dibromofluoromethane	50	49.4	99		75	124
		Toluene-d8	50	50.0	100		86	113
		4-Bromofluorobenzene	50	51.0	102		77	121
Q3179-03MSD	EME-TS14-01MSD	1,2-Dichloroethane-d4	50	48.9	98		74	125
		Dibromofluoromethane	50	45.3	91		75	124
		Toluene-d8	50	44.5	89		86	113
		4-Bromofluorobenzene	50	44.8	90		77	121
VN0925WBL01	VN0925WBL01	1,2-Dichloroethane-d4	50	58.4	117		74	125
		Dibromofluoromethane	50	53.4	107		75	124
		Toluene-d8	50	50.1	100		86	113
		4-Bromofluorobenzene	50	45.7	91		77	121
VN0925WBS01	VN0925WBS01	1,2-Dichloroethane-d4	50	49.1	98		74	125
		Dibromofluoromethane	50	48.4	97		75	124
		Toluene-d8	50	51.8	104		86	113
		4-Bromofluorobenzene	50	49.8	100		77	121

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

Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q3179 **Analytical Method:** SW8260D

Client: Weston Solutions, Inc. **Datafile :** VN087957.D

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Lab Sample ID : Q3179-02MS		**Client Sample ID : EME-TS14-01MS**									
Dichlorodifluoromethane	50	0	53.5	ug/L	107				73	120	
Chloromethane	50	0	54.9	ug/L	110				58	133	
Vinyl chloride	50	0	55.4	ug/L	111				69	125	
Ethyl Acetate	50	0	56.8	ug/L	114				60	147	
Bromomethane	50	0	55.2	ug/L	110				28	165	
Chloroethane	50	0	55.6	ug/L	111				70	141	
Trichlorofluoromethane	50	0	55.4	ug/L	111				72	124	
1,1,2-Trichlorotrifluoroethane	50	0	55.2	ug/L	110				75	117	
1,1-Dichloroethene	50	0	55.8	ug/L	112				53	162	
Acrolein	250	0	250	ug/L	100				32	157	
Acrylonitrile	250	0	300	ug/L	120				60	146	
Acetone	250	0	300	ug/L	120				44	150	
Carbon disulfide	50	0	52.5	ug/L	105				44	135	
Methyl tert-butyl Ether	50	0	59.0	ug/L	118				82	133	
Methyl Acetate	50	0	68.9	ug/L	138				76	138	
Methylene Chloride	50	7.60	65.4	ug/L	116	*			79	115	
trans-1,2-Dichloroethene	50	0	53.1	ug/L	106				76	118	
1,1-Dichloroethane	50	0	57.7	ug/L	115				78	122	
Cyclohexane	50	0	54.5	ug/L	109				71	119	
2-Butanone	250	0	310	ug/L	124				67	137	
Carbon Tetrachloride	50	0	56.2	ug/L	112				66	133	
2,2-Dichloropropane	50	0	53.3	ug/L	107				39	146	
cis-1,2-Dichloroethene	50	0	57.6	ug/L	115				82	124	
Bromochloromethane	50	0	48.4	ug/L	97				72	130	
Chloroform	50	0	58.2	ug/L	116				83	119	
1,1,1-Trichloroethane	50	0	57.8	ug/L	116				83	117	
Methylcyclohexane	50	0	57.0	ug/L	114				64	120	
1,1-Dichloropropene	50	0	56.2	ug/L	112				64	132	
Benzene	50	0	56.7	ug/L	113				81	128	
1,2-Dichloroethane	50	0	56.4	ug/L	113				76	120	
Trichloroethene	50	0	54.7	ug/L	109				28	175	
1,2-Dichloropropane	50	0	57.1	ug/L	114				85	116	
Dibromomethane	50	0	58.2	ug/L	116				71	132	
Bromodichloromethane	50	0	57.7	ug/L	115				54	157	
4-Methyl-2-Pentanone	250	0	310	ug/L	124				72	137	
Toluene	50	0	57.0	ug/L	114				85	115	
t-1,3-Dichloropropene	50	0	57.7	ug/L	115				60	141	
cis-1,3-Dichloropropene	50	0	56.6	ug/L	113				36	161	
1,1,2-Trichloroethane	50	0	58.1	ug/L	116				27	175	
1,3-Dichloropropane	50	0	58.7	ug/L	117				71	132	
2-Chloroethyl vinyl ether	250	0	300	ug/L	120				70	128	
2-Hexanone	250	0	330	ug/L	132	*			75	131	
Dibromochloromethane	50	0	58.5	ug/L	117				59	164	
1,2-Dibromoethane	50	0	57.3	ug/L	115				85	119	
Tetrachloroethene	50	0	59.8	ug/L	120				48	153	

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

Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q3179 **Analytical Method:** SW8260D

Client: Weston Solutions, Inc. **Datafile :** VN087957.D

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Chlorobenzene	50	0	55.3	ug/L	111				85	114	
1,1,1,2-Tetrachloroethane	50	0	57.1	ug/L	114				69	129	
Ethyl Benzene	50	0	56.9	ug/L	114				81	128	
m/p-Xylenes	100	0	120	ug/L	120				69	129	
o-Xylene	50	0	57.5	ug/L	115				75	127	
Styrene	50	0	59.9	ug/L	120				84	128	
Bromoform	50	0	57.4	ug/L	115				73	147	
Isopropylbenzene	50	0	56.1	ug/L	112				76	121	
1,1,2,2-Tetrachloroethane	50	0	55.0	ug/L	110				81	131	
1,2,3-Trichloropropane	50	0	50.3	ug/L	101				68	128	
Bromobenzene	50	0	53.5	ug/L	107				65	126	
2-Chlorotoluene	50	0	54.0	ug/L	108				63	125	
1,3,5-Trimethylbenzene	50	0	56.2	ug/L	112				40	169	
4-Chlorotoluene	50	0	56.7	ug/L	113				63	126	
1,2,4-Trimethylbenzene	50	0	56.6	ug/L	113				81	116	
1,3-Dichlorobenzene	50	0	54.2	ug/L	108				84	110	
1,4-Dichlorobenzene	50	0	54.1	ug/L	108				81	111	
1,2-Dichlorobenzene	50	0	54.6	ug/L	109				82	113	
1,2-Dibromo-3-Chloropropane	50	0	51.0	ug/L	102				79	137	
1,2,4-Trichlorobenzene	50	0	54.4	ug/L	109				73	120	
1,2,3-Trichlorobenzene	50	0	55.9	ug/L	112				75	119	
Methyl iodide	50	0	58.1	ug/L	116				77	120	

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

Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q3179 **Analytical Method:** SW8260D

Client: Weston Solutions, Inc. **Datafile :** VN087958.D

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Lab Sample ID : Q3179-03MSD		**Client Sample ID : EME-TS14-01MSD**									
Dichlorodifluoromethane	50	0	52.8	ug/L	106		1		73	120	20
Chloromethane	50	0	52.0	ug/L	104		5		58	133	20
Vinyl chloride	50	0	52.4	ug/L	105		6		69	125	20
Ethyl Acetate	50	0	50.6	ug/L	101		12		60	147	20
Bromomethane	50	0	58.1	ug/L	116		5		28	165	20
Chloroethane	50	0	54.7	ug/L	109		2		70	141	20
Trichlorofluoromethane	50	0	52.8	ug/L	106		5		72	124	20
1,1,2-Trichlorotrifluoroethane	50	0	53.4	ug/L	107		3		75	117	20
1,1-Dichloroethene	50	0	52.6	ug/L	105		6		53	162	20
Acrolein	250	0	250	ug/L	100		0		32	157	20
Acrylonitrile	250	0	280	ug/L	112		7		60	146	20
Acetone	250	0	280	ug/L	112		7		44	150	20
Carbon disulfide	50	0	49.7	ug/L	99		5		44	135	20
Methyl tert-butyl Ether	50	0	55.9	ug/L	112		5		82	133	20
Methyl Acetate	50	0	66.8	ug/L	134		3		76	138	20
Methylene Chloride	50	7.60	61.8	ug/L	108		7		79	115	20
trans-1,2-Dichloroethene	50	0	51.4	ug/L	103		3		76	118	20
1,1-Dichloroethane	50	0	53.8	ug/L	108		7		78	122	20
Cyclohexane	50	0	49.8	ug/L	100		9		71	119	20
2-Butanone	250	0	280	ug/L	112		10		67	137	20
Carbon Tetrachloride	50	0	51.1	ug/L	102		10		66	133	20
2,2-Dichloropropane	50	0	48.1	ug/L	96		10		39	146	20
cis-1,2-Dichloroethene	50	0	54.1	ug/L	108		6		82	124	20
Bromochloromethane	50	0	44.1	ug/L	88		9		72	130	20
Chloroform	50	0	54.2	ug/L	108		7		83	119	20
1,1,1-Trichloroethane	50	0	53.5	ug/L	107		8		83	117	20
Methylcyclohexane	50	0	49.7	ug/L	99		14		64	120	20
1,1-Dichloropropene	50	0	50.8	ug/L	102		10		64	132	20
Benzene	50	0	51.7	ug/L	103		9		81	128	20
1,2-Dichloroethane	50	0	51.0	ug/L	102		10		76	120	20
Trichloroethene	50	0	50.3	ug/L	101		8		28	175	20
1,2-Dichloropropane	50	0	51.3	ug/L	103		11		85	116	20
Dibromomethane	50	0	51.3	ug/L	103		13		71	132	20
Bromodichloromethane	50	0	52.2	ug/L	104		10		54	157	20
4-Methyl-2-Pentanone	250	0	280	ug/L	112		10		72	137	20
Toluene	50	0	51.5	ug/L	103		10		85	115	20
t-1,3-Dichloropropene	50	0	51.4	ug/L	103		12		60	141	20
cis-1,3-Dichloropropene	50	0	52.2	ug/L	104		8		36	161	20
1,1,2-Trichloroethane	50	0	52.3	ug/L	105		11		27	175	20
1,3-Dichloropropane	50	0	52.6	ug/L	105		11		71	132	20
2-Chloroethyl vinyl ether	250	0	330	ug/L	132	*	10		70	128	20
2-Hexanone	250	0	290	ug/L	116		13		75	131	20
Dibromochloromethane	50	0	53.8	ug/L	108		8		59	164	20
1,2-Dibromoethane	50	0	51.7	ug/L	103		10		85	119	20
Tetrachloroethene	50	0	57.8	ug/L	116		3		48	153	20

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

Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: Q3179 **Analytical Method:** SW8260D

Client: Weston Solutions, Inc. **Datafile :** VN087958.D

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Chlorobenzene	50	0	53.0	ug/L	106		4		85	114	20
1,1,1,2-Tetrachloroethane	50	0	53.6	ug/L	107		6		69	129	20
Ethyl Benzene	50	0	54.3	ug/L	109		5		81	128	20
m/p-Xylenes	100	0	110	ug/L	110		9		69	129	20
o-Xylene	50	0	55.6	ug/L	111		3		75	127	20
Styrene	50	0	57.0	ug/L	114		5		84	128	20
Bromoform	50	0	55.8	ug/L	112		3		73	147	20
Isopropylbenzene	50	0	54.0	ug/L	108		4		76	121	20
1,1,2,2-Tetrachloroethane	50	0	53.8	ug/L	108		2		81	131	20
1,2,3-Trichloropropane	50	0	47.8	ug/L	96		5		68	128	20
Bromobenzene	50	0	52.5	ug/L	105		2		65	126	20
2-Chlorotoluene	50	0	52.1	ug/L	104		4		63	125	20
1,3,5-Trimethylbenzene	50	0	54.3	ug/L	109		3		40	169	20
4-Chlorotoluene	50	0	53.8	ug/L	108		5		63	126	20
1,2,4-Trimethylbenzene	50	0	54.2	ug/L	108		4		81	116	20
1,3-Dichlorobenzene	50	0	53.1	ug/L	106		2		84	110	20
1,4-Dichlorobenzene	50	0	51.6	ug/L	103		5		81	111	20
1,2-Dichlorobenzene	50	0	53.0	ug/L	106		3		82	113	20
1,2-Dibromo-3-Chloropropane	50	0	50.0	ug/L	100		2		79	137	20
1,2,4-Trichlorobenzene	50	0	51.7	ug/L	103		5		73	120	20
1,2,3-Trichlorobenzene	50	0	53.0	ug/L	106		5		75	119	20
Methyl iodide	50	0	61.3	ug/L	123	*	5		77	120	20

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.: Q3179 **Analytical Method:** SW8260D

Client: Weston Solutions, Inc. **Datafile :** VN087951.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VN0925WBS01	Dichlorodifluoromethane	20	22.0	ug/L	110			69	116	
	Chloromethane	20	19.2	ug/L	96			65	116	
	Vinyl chloride	20	20.5	ug/L	103			65	117	
	Ethyl Acetate	20	18.8	ug/L	94			75	115	
	Bromomethane	20	20.1	ug/L	101			58	125	
	Chloroethane	20	19.8	ug/L	99			56	128	
	Trichlorofluoromethane	20	21.1	ug/L	106			73	115	
	1,1,2-Trichlorotrifluoroethane	20	21.4	ug/L	107			80	112	
	1,1-Dichloroethene	20	20.7	ug/L	104			74	110	
	Acrolein	100	73.6	ug/L	74			28	144	
	Acrylonitrile	100	94.6	ug/L	95			73	113	
	Acetone	100	98.5	ug/L	99			60	125	
	Carbon disulfide	20	18.9	ug/L	95			64	112	
	Methyl tert-butyl Ether	20	18.3	ug/L	92			78	114	
	Methyl Acetate	20	20.3	ug/L	102			67	125	
	Methylene Chloride	20	18.1	ug/L	91			72	114	
	trans-1,2-Dichloroethene	20	18.5	ug/L	93			75	108	
	1,1-Dichloroethane	20	18.7	ug/L	94			78	112	
	Cyclohexane	20	20.3	ug/L	102			75	110	
	2-Butanone	100	94.9	ug/L	95			65	122	
	Carbon Tetrachloride	20	20.4	ug/L	102			77	113	
	2,2-Dichloropropane	20	20.0	ug/L	100			56	164	
	cis-1,2-Dichloroethene	20	18.5	ug/L	93			77	110	
	Bromochloromethane	20	17.4	ug/L	87			70	124	
	Chloroform	20	18.8	ug/L	94			79	113	
	1,1,1-Trichloroethane	20	19.9	ug/L	100			80	108	
	Methylcyclohexane	20	21.4	ug/L	107			72	115	
	1,1-Dichloropropene	20	20.2	ug/L	101			79	110	
	Benzene	20	19.3	ug/L	97			82	109	
	1,2-Dichloroethane	20	19.0	ug/L	95			80	115	
	Trichloroethene	20	19.4	ug/L	97			77	113	
	1,2-Dichloropropane	20	19.4	ug/L	97			83	111	
	Dibromomethane	20	18.7	ug/L	94			82	110	
	Bromodichloromethane	20	19.3	ug/L	97			83	110	
	4-Methyl-2-Pentanone	100	98.4	ug/L	98			74	118	
	Toluene	20	19.7	ug/L	99			82	110	
	t-1,3-Dichloropropene	20	18.9	ug/L	95			79	110	
	cis-1,3-Dichloropropene	20	18.8	ug/L	94			82	110	
	1,1,2-Trichloroethane	20	19.3	ug/L	97			83	112	
	1,3-Dichloropropane	20	18.9	ug/L	95			83	111	
	2-Chloroethyl vinyl ether	100	110	ug/L	110			75	124	
	2-Hexanone	100	97.4	ug/L	97			73	117	
	Dibromochloromethane	20	18.9	ug/L	95			82	110	
	1,2-Dibromoethane	20	18.9	ug/L	95			81	110	
	Tetrachloroethene	20	20.5	ug/L	103			67	123	
	Chlorobenzene	20	20.4	ug/L	102			82	109	
	1,1,1,2-Tetrachloroethane	20	19.5	ug/L	98			84	111	
	Ethyl Benzene	20	20.2	ug/L	101			83	109	

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.: Q3179 **Analytical Method:** SW8260D

Client: Weston Solutions, Inc. **Datafile :** VN087951.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VN0925WBS01	m/p-Xylenes	40	41.2	ug/L	103			82	110	
	o-Xylene	20	20.1	ug/L	101			83	109	
	Styrene	20	19.9	ug/L	100			80	111	
	Bromoform	20	19.3	ug/L	97			79	109	
	Isopropylbenzene	20	20.5	ug/L	103			83	112	
	1,1,2,2-Tetrachloroethane	20	20.1	ug/L	101			76	118	
	1,2,3-Trichloropropane	20	21.6	ug/L	108			75	112	
	Bromobenzene	20	20.1	ug/L	101			77	116	
	2-Chlorotoluene	20	19.9	ug/L	100			83	110	
	1,3,5-Trimethylbenzene	20	20.6	ug/L	103			85	112	
	4-Chlorotoluene	20	20.7	ug/L	104			82	110	
	1,2,4-Trimethylbenzene	20	20.5	ug/L	103			85	111	
	1,3-Dichlorobenzene	20	19.7	ug/L	99			82	108	
	1,4-Dichlorobenzene	20	20.8	ug/L	104			82	107	
	1,2-Dichlorobenzene	20	19.9	ug/L	100			82	109	
	1,2-Dibromo-3-Chloropropane	20	18.6	ug/L	93			68	112	
	1,2,4-Trichlorobenzene	20	20.1	ug/L	101			75	113	
	1,2,3-Trichlorobenzene	20	19.8	ug/L	99			76	114	
	Methyl iodide	20	18.4	ug/L	92			70	130	

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

VOLATILE METHOD BLANK SUMMARY

Client ID: VN0925WBL01

Lab Name: Alliance | Contract: ROYF02

Lab Code: ACE | SDG NO.: Q3179

Lab File ID: VN087950.D | Lab Sample ID: VN0925WBL01

Date Analyzed: 09/25/2025 | Time Analyzed: 12:59

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
VN0925WBS01	VN0925WBS01	VN087951.D	09/25/2025
EME-TS14-01	Q3179-01	VN087956.D	09/25/2025
EME-TS14-01MS	Q3179-02MS	VN087957.D	09/25/2025
EME-TS14-01MSD	Q3179-03MSD	VN087958.D	09/25/2025

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: Alliance
Contract: ROYF02
Lab Code: ACE
SDG NO.: Q3179
Lab File ID: VN087922.D
BFB Injection Date: 09/23/2025
Instrument ID: MSVOA_N
BFB Injection Time: 08:31
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	21.1
75	30.0 - 60.0% of mass 95	55.8
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	1.2 (1.6) 1
174	50.0 - 100.0% of mass 95	75.3
175	5.0 - 9.0% of mass 174	6.2 (8.3) 1
176	95.0 - 101.0% of mass 174	74.2 (98.4) 1
177	5.0 - 9.0% of mass 176	4.4 (6) 2

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

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

CLIENT ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDICC005	VSTDICC005	VN087924.D	09/23/2025	09:33
VSTDICCC050	VSTDICCC050	VN087926.D	09/23/2025	10:15
VSTDICC100	VSTDICC100	VN087927.D	09/23/2025	10:36
VSTDICC150	VSTDICC150	VN087928.D	09/23/2025	10:56
VSTDICC020	VSTDICC020	VN087930.D	09/23/2025	11:47

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: Alliance | Contract: ROYF02

Lab Code: ACE | SDG NO.: Q3179

Lab File ID: VN087947.D | BFB Injection Date: 09/25/2025

Instrument ID: MSVOA_N | BFB Injection Time: 10:47

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	22
75	30.0 - 60.0% of mass 95	56.4
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	5.8
173	Less than 2.0% of mass 174	1.1 (1.5) 1
174	50.0 - 100.0% of mass 95	75.1
175	5.0 - 9.0% of mass 174	5.9 (7.8) 1
176	95.0 - 101.0% of mass 174	74.5 (99.2) 1
177	5.0 - 9.0% of mass 176	5.9 (7.9) 2

1-Value is % mass 174

2-Value is % mass 176

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

CLIENT ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VN087948.D	09/25/2025	12:04
VN0925WBL01	VN0925WBL01	VN087950.D	09/25/2025	12:59
VN0925WBS01	VN0925WBS01	VN087951.D	09/25/2025	13:56
EME-TS14-01	Q3179-01	VN087956.D	09/25/2025	15:45
EME-TS14-01MS	Q3179-02MS	VN087957.D	09/25/2025	16:07
EME-TS14-01MSD	Q3179-03MSD	VN087958.D	09/25/2025	16:28

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

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alliance Contract: ROYF02

Lab Code: ACE SDG NO.: Q3179

Lab File ID: VN087948.D Date Analyzed: 09/25/2025

Instrument ID: MSVOA_N Time Analyzed: 12:04

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	252288	8.21	466714	9.08	446080	11.85
UPPER LIMIT	504576	8.706	933428	9.583	892160	12.347
LOWER LIMIT	126144	7.706	233357	8.583	223040	11.347
EPA SAMPLE NO.						
EME-TS14-01	165132	8.21	364672	9.08	356852	11.85
EME-TS14-01MS	218032	8.21	405927	9.08	395864	11.84
EME-TS14-01MSD	240403	8.21	461373	9.08	428179	11.85
VN0925WBL01	168763	8.21	367239	9.08	361992	11.85
VN0925WBS01	279067	8.21	498231	9.08	456591	11.85

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: Alliance Contract: ROYF02

Lab Code: ACE SDG NO.: Q3179

Lab File ID: VN087948.D Date Analyzed: 09/25/2025

Instrument ID: MSVOA_N Time Analyzed: 12:04

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

	IS4 AREA #	RT #				
12 HOUR STD	240530	13.77				
UPPER LIMIT	481060	14.27				
LOWER LIMIT	120265	13.27				
EPA SAMPLE NO.						
EME-TS14-01	166506	13.77				
EME-TS14-01MS	221292	13.77				
EME-TS14-01MSD	236701	13.77				
VN0925WBL01	171513	13.77				
VN0925WBS01	244468	13.77				

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

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

Report of Analysis

Client:	Weston Solutions, Inc.	Date Collected:	09/23/25
Project:	RFP 916	Date Received:	09/23/25
Client Sample ID:	EME-TS14-01	SDG No.:	Q3179
Lab Sample ID:	Q3179-01	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	SPLP VOA
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VN087956.D	1	09/25/25 15:45	VN092525

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.22	U	0.22	5.00	ug/L
74-87-3	Chloromethane	0.32	U	0.32	5.00	ug/L
75-01-4	Vinyl Chloride	0.26	U	0.26	5.00	ug/L
141-78-6	Ethyl Acetate	0.31	U	0.31	5.00	ug/L
74-83-9	Bromomethane	1.40	U	1.40	5.00	ug/L
75-00-3	Chloroethane	0.47	U	0.47	5.00	ug/L
75-69-4	Trichlorofluoromethane	0.33	U	0.33	5.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.25	U	0.25	5.00	ug/L
75-35-4	1,1-Dichloroethene	0.23	U	0.23	5.00	ug/L
107-02-8	Acrolein	7.10	U	7.10	25.0	ug/L
107-13-1	Acrylonitrile	0.83	U	0.83	25.0	ug/L
67-64-1	Acetone	1.50	U	1.50	25.0	ug/L
75-15-0	Carbon Disulfide	0.21	U	0.21	5.00	ug/L
1634-04-4	Methyl tert-butyl Ether	0.16	U	0.16	5.00	ug/L
79-20-9	Methyl Acetate	0.27	U	0.27	5.00	ug/L
75-09-2	Methylene Chloride	7.60		0.28	5.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.23	U	0.23	5.00	ug/L
75-34-3	1,1-Dichloroethane	0.23	U	0.23	5.00	ug/L
110-82-7	Cyclohexane	1.50	U	1.50	5.00	ug/L
78-93-3	2-Butanone	0.98	U	0.98	25.0	ug/L
56-23-5	Carbon Tetrachloride	0.25	U	0.25	5.00	ug/L
594-20-7	2,2-Dichloropropane	0.21	U	0.21	5.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.19	U	0.19	5.00	ug/L
74-97-5	Bromochloromethane	0.22	U	0.22	5.00	ug/L
67-66-3	Chloroform	0.25	U	0.25	5.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.20	U	0.20	5.00	ug/L
108-87-2	Methylcyclohexane	0.16	U	0.16	5.00	ug/L
563-58-6	1,1-Dichloropropene	0.15	U	0.15	5.00	ug/L
71-43-2	Benzene	0.15	U	0.15	5.00	ug/L
107-06-2	1,2-Dichloroethane	0.22	U	0.22	5.00	ug/L

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

Report of Analysis

Client:	Weston Solutions, Inc.	Date Collected:	09/23/25
Project:	RFP 916	Date Received:	09/23/25
Client Sample ID:	EME-TS14-01	SDG No.:	Q3179
Lab Sample ID:	Q3179-01	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	SPLP VOA
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VN087956.D	1	09/25/25 15:45	VN092525

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-01-6	Trichloroethene	0.090	U	0.090	5.00	ug/L
78-87-5	1,2-Dichloropropane	0.20	U	0.20	5.00	ug/L
74-95-3	Dibromomethane	0.25	U	0.25	5.00	ug/L
75-27-4	Bromodichloromethane	0.22	U	0.22	5.00	ug/L
108-10-1	4-Methyl-2-Pentanone	0.68	U	0.68	25.0	ug/L
108-88-3	Toluene	0.14	U	0.14	5.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.17	U	0.17	5.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.16	U	0.16	5.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.21	U	0.21	5.00	ug/L
142-28-9	1,3-Dichloropropane	0.19	U	0.19	5.00	ug/L
110-75-8	2-Chloroethyl Vinyl ether	0.30	U	0.30	25.0	ug/L
591-78-6	2-Hexanone	0.89	U	0.89	25.0	ug/L
124-48-1	Dibromochloromethane	0.18	U	0.18	5.00	ug/L
106-93-4	1,2-Dibromoethane	0.15	U	0.15	5.00	ug/L
127-18-4	Tetrachloroethene	0.23	U	0.23	5.00	ug/L
108-90-7	Chlorobenzene	0.12	U	0.12	5.00	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.19	U	0.19	5.00	ug/L
100-41-4	Ethyl Benzene	0.13	U	0.13	5.00	ug/L
179601-23-1	m/p-Xylenes	0.24	U	0.24	10.0	ug/L
95-47-6	o-Xylene	0.12	U	0.12	5.00	ug/L
100-42-5	Styrene	0.15	U	0.15	5.00	ug/L
75-25-2	Bromoform	0.19	U	0.19	5.00	ug/L
98-82-8	Isopropylbenzene	0.12	U	0.12	5.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.26	U	0.26	5.00	ug/L
96-18-4	1,2,3-Trichloropropane	0.35	U	0.35	5.00	ug/L
108-86-1	Bromobenzene	0.24	U	0.24	5.00	ug/L
95-49-8	2-Chlorotoluene	0.14	U	0.14	5.00	ug/L
108-67-8	1,3,5-Trimethylbenzene	0.15	U	0.15	5.00	ug/L
106-43-4	4-Chlorotoluene	0.13	U	0.13	5.00	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.14	U	0.14	5.00	ug/L
541-73-1	1,3-Dichlorobenzene	0.16	U	0.16	5.00	ug/L

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

Report of Analysis

Client:	Weston Solutions, Inc.	Date Collected:	09/23/25
Project:	RFP 916	Date Received:	09/23/25
Client Sample ID:	EME-TS14-01	SDG No.:	Q3179
Lab Sample ID:	Q3179-01	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	SPLP VOA
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VN087956.D	1	09/25/25 15:45	VN092525

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
106-46-7	1,4-Dichlorobenzene	0.19	U	0.19	5.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.16	U	0.16	5.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.53	U	0.53	5.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.20	U	0.20	5.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.20	U	0.20	5.00	ug/L
74-88-4	Methyl Iodide	0.83	U	0.83	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	55.8		74 - 125	112%	SPK: 50
1868-53-7	Dibromofluoromethane	50.8		75 - 124	102%	SPK: 50
2037-26-5	Toluene-d8	47.6		86 - 113	95%	SPK: 50
460-00-4	4-Bromofluorobenzene	43.5		77 - 121	87%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	165000	8.206			
540-36-3	1,4-Difluorobenzene	365000	9.082			
3114-55-4	Chlorobenzene-d5	357000	11.847			
3855-82-1	1,4-Dichlorobenzene-d4	167000	13.77			

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\VN092525\
Data File : VN087956.D
Acq On : 25 Sep 2025 15:45
Operator : JC\MD
Sample : Q3179-01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01

Quant Time: Sep 26 07:32:58 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 05:05:30 2025
Response via : Initial Calibration

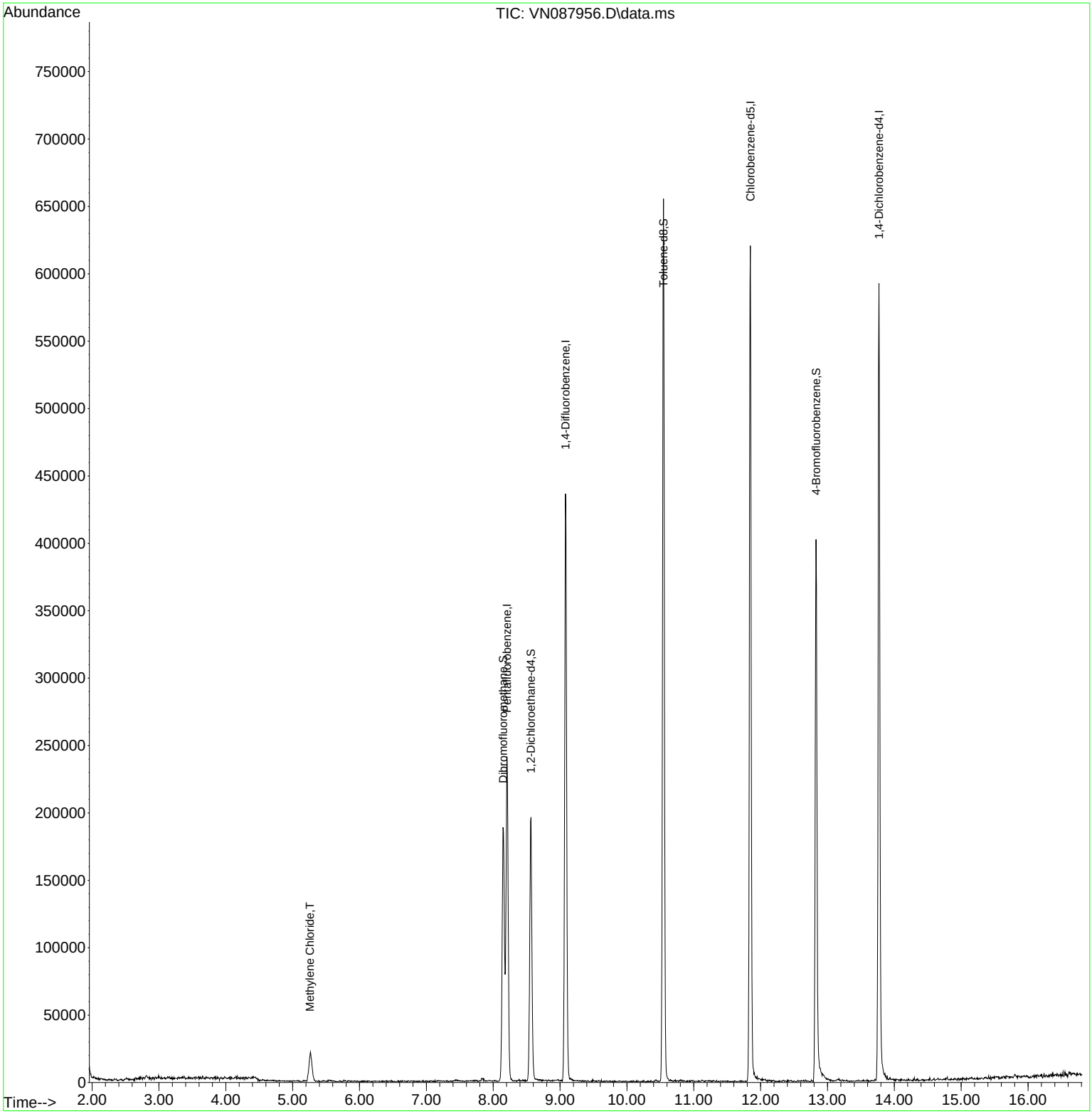
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.206	168	165132	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.082	114	364672	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.847	117	356852	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.770	152	166506	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.565	65	155058	55.795	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 111.600%			
35) Dibromofluoromethane	8.147	113	134371	50.750	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 101.500%			
50) Toluene-d8	10.547	98	443603	47.643	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 95.280%			
62) 4-Bromofluorobenzene	12.829	95	144724	43.484	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 86.960%			
Target Compounds						Qvalue
20) Methylene Chloride	5.259	84	17513	7.567	ug/l	86

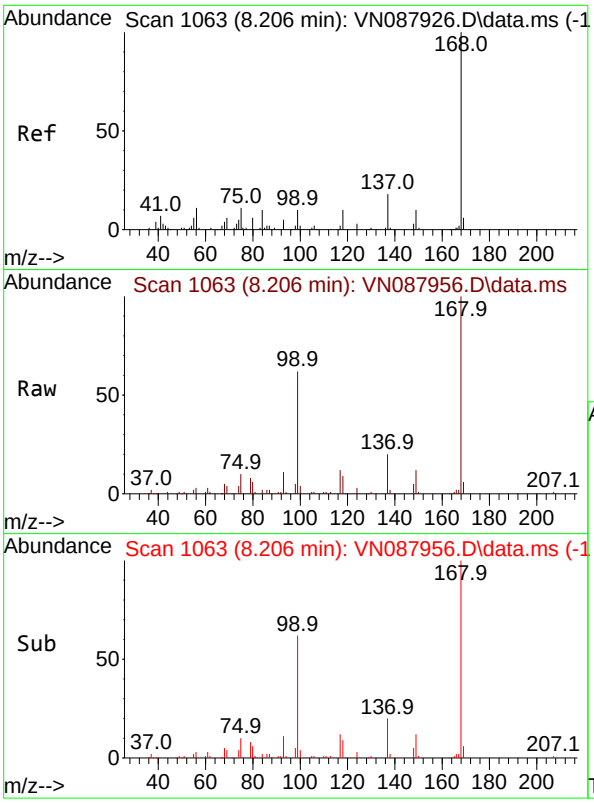
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092525\
Data File : VN087956.D
Acq On : 25 Sep 2025 15:45
Operator : JC\MD
Sample : Q3179-01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01

Quant Time: Sep 26 07:32:58 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 05:05:30 2025
Response via : Initial Calibration



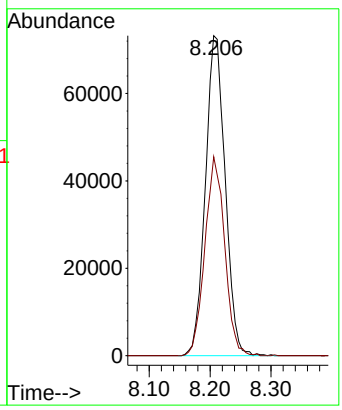


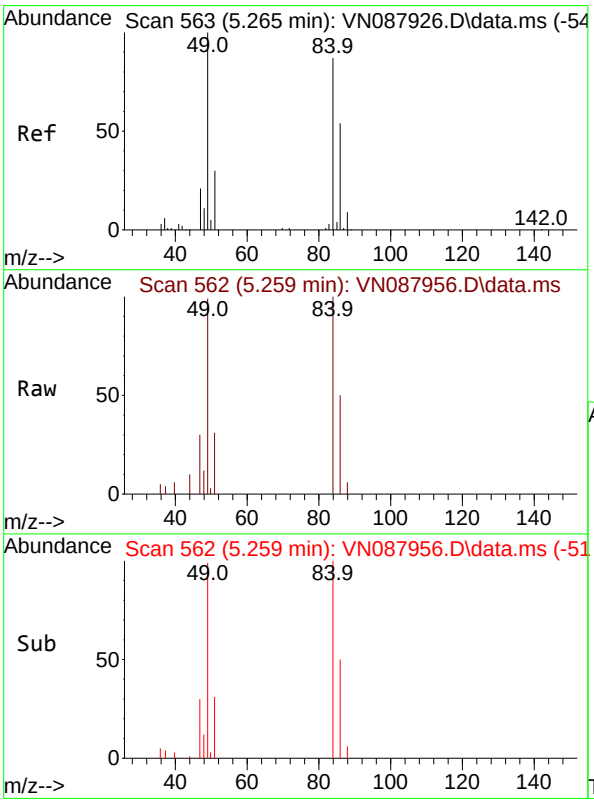
#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.206 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087956.D
Acq: 25 Sep 2025 15:45

Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01

Tgt Ion:168 Resp: 165132

Ion	Ratio	Lower	Upper
168	100		
99	62.2	52.2	78.2

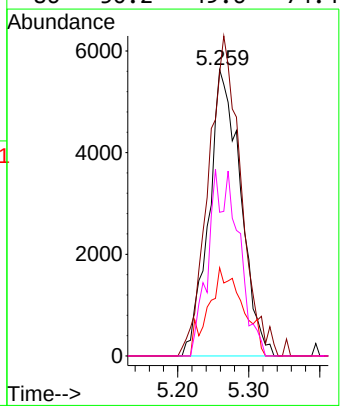


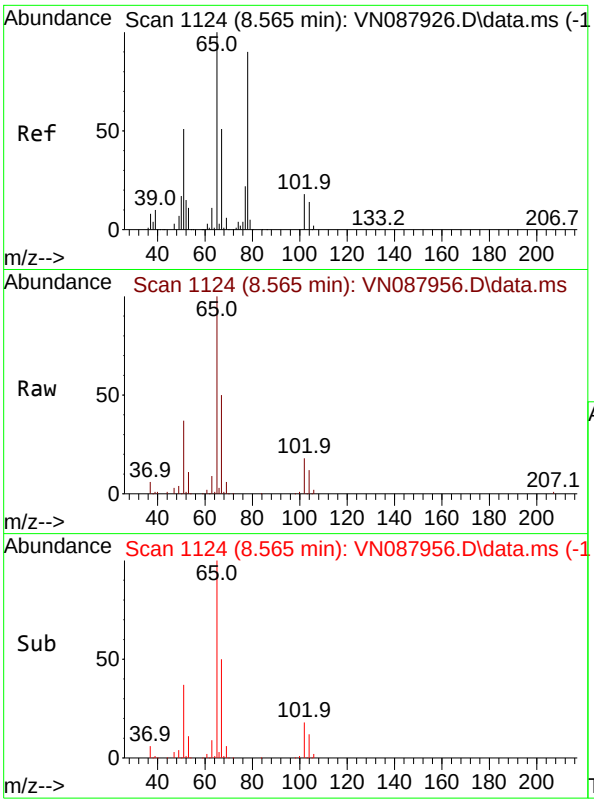


#20
Methylene Chloride
Concen: 7.567 ug/l
RT: 5.259 min Scan# 562
Delta R.T. -0.006 min
Lab File: VN087956.D
Acq: 25 Sep 2025 15:45

Tgt Ion: 84 Resp: 17513

Ion	Ratio	Lower	Upper
84	100		
49	98.8	92.1	138.1
51	30.8	27.7	41.5
86	50.2	49.6	74.4



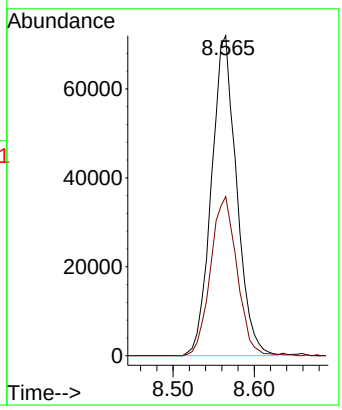


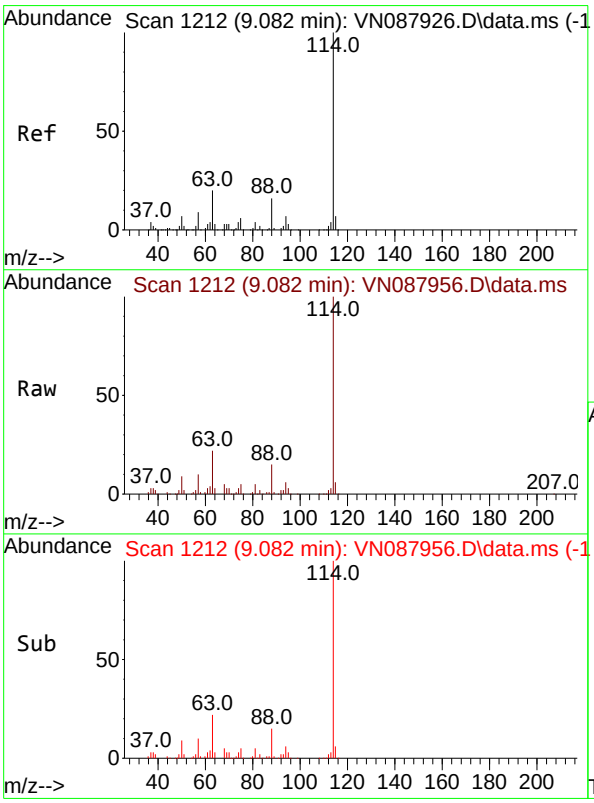
#33
1,2-Dichloroethane-d4
Concen: 55.795 ug/l
RT: 8.565 min Scan# 11
Delta R.T. -0.000 min
Lab File: VN087956.D
Acq: 25 Sep 2025 15:45

Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01

Tgt Ion: 65 Resp: 155058

Ion	Ratio	Lower	Upper
65	100		
67	52.2	0.0	103.4

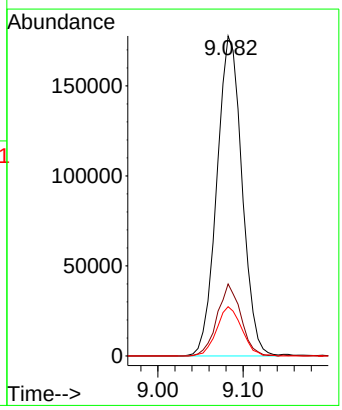


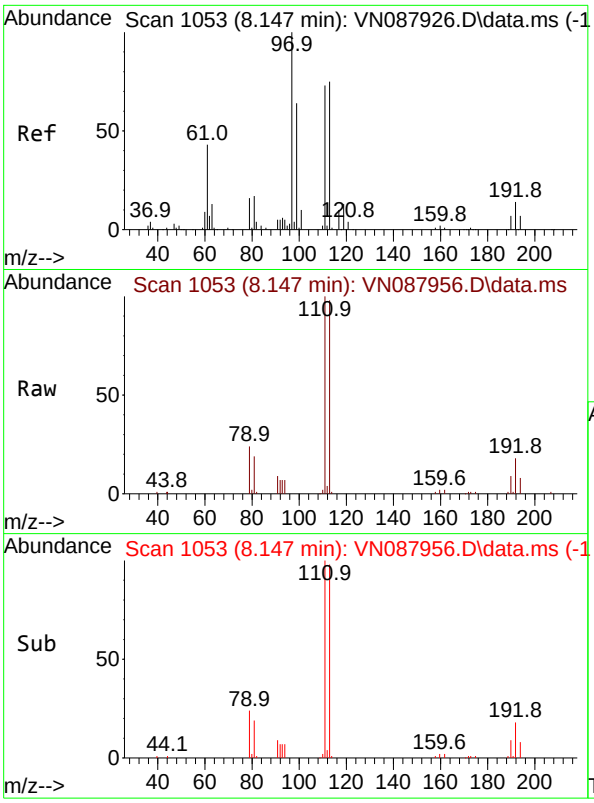


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.082 min Scan# 1212
Delta R.T. -0.000 min
Lab File: VN087956.D
Acq: 25 Sep 2025 15:45

Tgt Ion:114 Resp: 364672

Ion	Ratio	Lower	Upper
114	100		
63	22.5	0.0	40.0
88	15.4	0.0	31.8



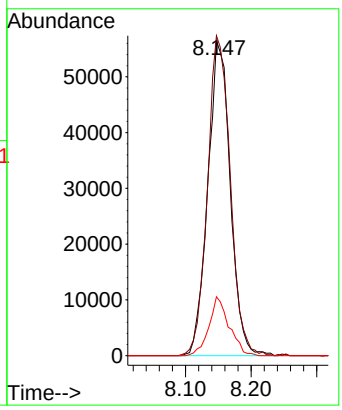


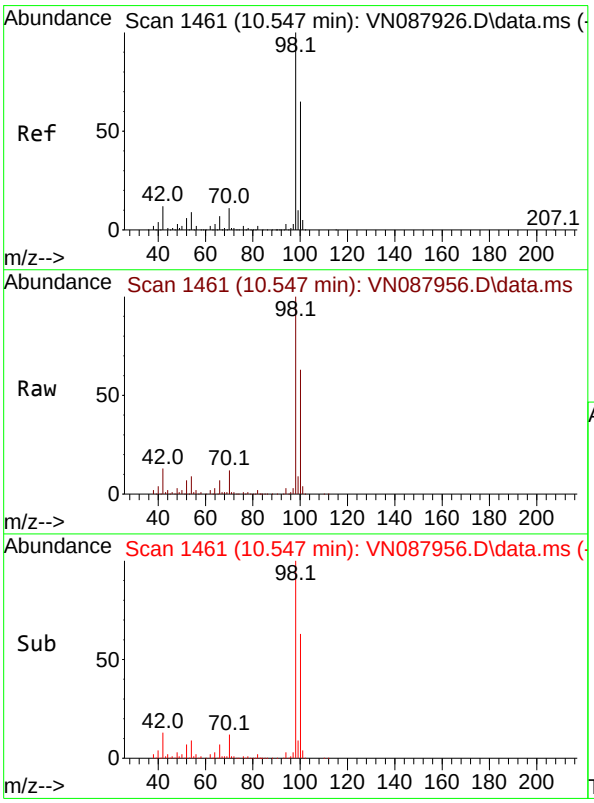
#35
Dibromofluoromethane
Concen: 50.750 ug/l
RT: 8.147 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087956.D
Acq: 25 Sep 2025 15:45

Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01

Tgt Ion:113 Resp: 134371

Ion	Ratio	Lower	Upper
113	100		
111	102.9	82.2	123.2
192	16.9	14.2	21.2

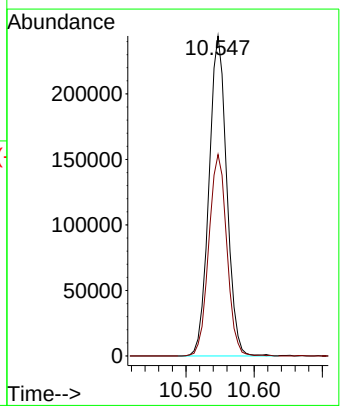


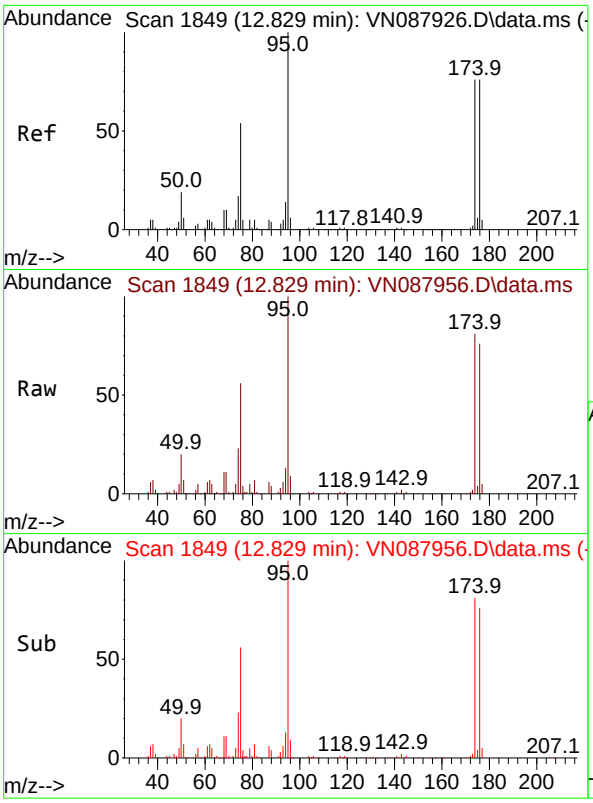


#50
Toluene-d8
Concen: 47.643 ug/l
RT: 10.547 min Scan# 1461
Delta R.T. -0.000 min
Lab File: VN087956.D
Acq: 25 Sep 2025 15:45

Tgt Ion: 98 Resp: 443603

Ion	Ratio	Lower	Upper
98	100		
100	63.7	51.7	77.5



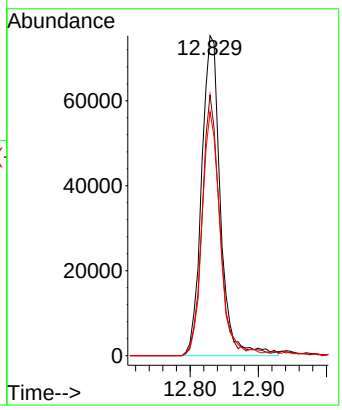


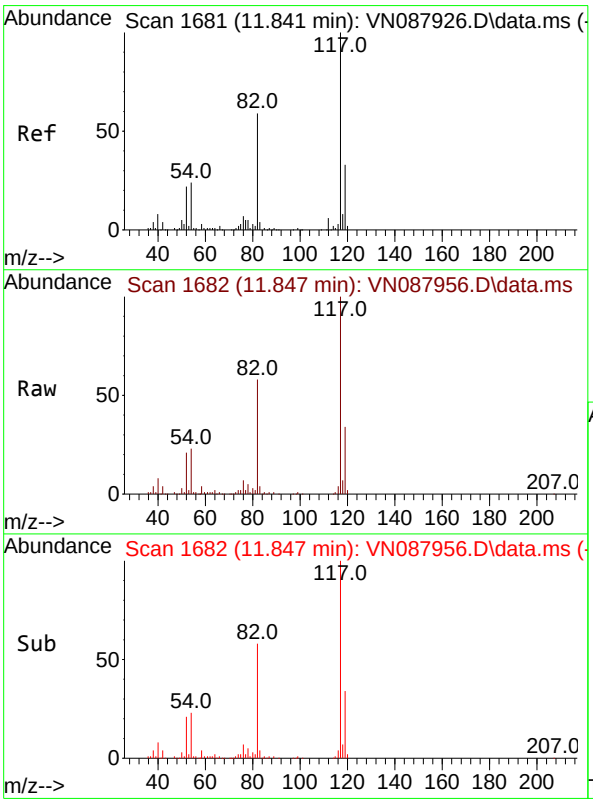
#62
4-Bromofluorobenzene
Concen: 43.484 ug/l
RT: 12.829 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087956.D
Acq: 25 Sep 2025 15:45

Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01

Tgt Ion: 95 Resp: 144724

Ion	Ratio	Lower	Upper
95	100		
174	77.2	0.0	159.2
176	73.4	0.0	152.6

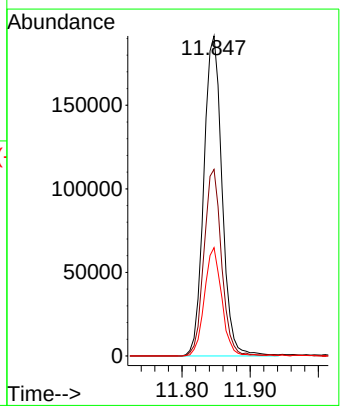


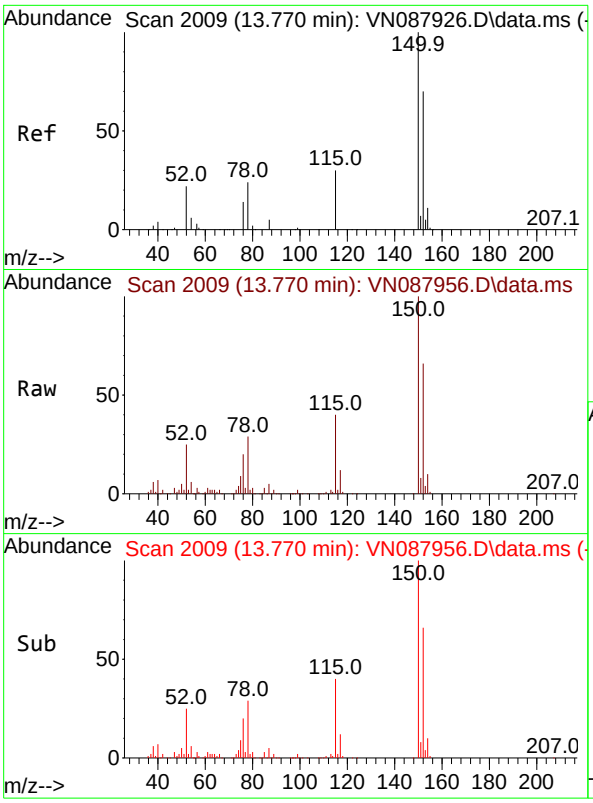


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.847 min Scan# 1682
Delta R.T. 0.006 min
Lab File: VN087956.D
Acq: 25 Sep 2025 15:45

Tgt Ion:117 Resp: 356852

Ion	Ratio	Lower	Upper
117	100		
82	58.3	47.0	70.4
119	33.9	26.1	39.1



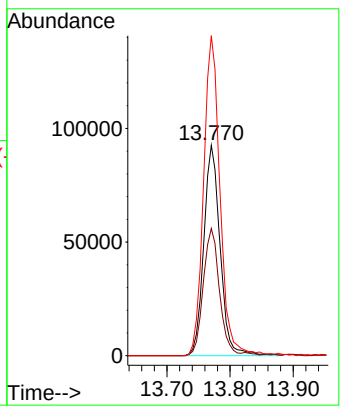


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.770 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN087956.D
Acq: 25 Sep 2025 15:45

Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01

Tgt Ion:152 Resp: 166506

Ion	Ratio	Lower	Upper
152	100		
115	59.6	29.9	89.7
150	152.4	0.0	335.0



CALIBRATION SUMMARY

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

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alliance Contract: ROYF02

Lab Code: ACE SDG No.: Q3179

Instrument ID: MSVOA_N Calibration Date(s): 09/23/2025 09/23/2025

Heated Purge: (Y/N) N Calibration Time(s): 09:33 11:47

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

LAB FILE ID: RRF005 = VN087924.D RRF050 = VN087926.D RRF100 = VN087927.D
RRF150 = VN087928.D RRF020 = VN087930.D RRF =

COMPOUND	RRF005	RRF050	RRF100	RRF150	RRF020	RRF	$\overline{RRF}$	% RSD
Dichlorodifluoromethane	0.590	0.526	0.505	0.612	0.662		0.579	11
Chloromethane	0.662	0.532	0.497	0.602	0.672		0.593	13.1
Vinyl Chloride	0.656	0.553	0.516	0.613	0.686		0.605	11.7
Ethyl Acetate	0.602	0.536	0.503	0.621	0.605		0.573	8.9
Bromomethane	0.388	0.320	0.331	0.415	0.422		0.375	12.6
Chloroethane	0.442	0.355	0.337	0.407	0.425		0.393	11.5
Trichlorofluoromethane	1.169	0.883	0.816	0.987	1.068		0.985	14.3
1,1,2-Trichlorotrifluoroethane	0.597	0.475	0.439	0.528	0.563		0.521	12.3
1,1-Dichloroethene	0.591	0.470	0.448	0.539	0.579		0.525	12.2
Acrolein	0.170	0.120	0.165	0.174	0.148		0.156	14.2
Acrylonitrile	0.395	0.348	0.328	0.400	0.430		0.380	10.9
Acetone	0.417	0.298	0.274	0.326	0.417		0.346	19.4
Carbon Disulfide	1.788	1.485	1.399	1.672	1.862		1.641	12
Methyl tert-butyl Ether	2.047	1.907	1.811	2.256	2.237		2.052	9.6
Methyl Acetate	0.822	0.813	0.767	0.934	0.997		0.866	11
Methylene Chloride	0.871	0.621	0.571	0.680	0.761		0.701	16.9
trans-1,2-Dichloroethene	0.758	0.570	0.542	0.654	0.695		0.644	13.8
1,1-Dichloroethane	1.315	1.057	0.984	1.206	1.268		1.166	12.1
Cyclohexane	1.163	0.827	0.758	0.951	1.020		0.944	16.9
2-Butanone	0.557	0.479	0.453	0.554	0.602		0.529	11.6
Carbon Tetrachloride	0.524	0.461	0.432	0.542	0.545		0.501	10.3
2,2-Dichloropropane	1.136	0.932	0.868	1.069	1.175		1.036	12.7
cis-1,2-Dichloroethene	0.852	0.690	0.656	0.804	0.829		0.766	11.5
Bromochloromethane	0.667	0.662	0.598	0.570	0.671		0.634	7.3
Chloroform	1.419	1.145	1.075	1.313	1.424		1.275	12.5
1,1,1-Trichloroethane	1.190	0.958	0.908	1.133	1.197		1.077	12.5
Methylcyclohexane	0.445	0.444	0.435	0.562	0.521		0.482	11.8
1,1-Dichloropropene	0.435	0.408	0.390	0.478	0.472		0.437	8.8
Benzene	1.507	1.353	1.258	1.540	1.569		1.445	9.3
1,2-Dichloroethane	0.572	0.484	0.467	0.565	0.609		0.539	11.3

* 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.

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

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alliance Contract: ROYF02

Lab Code: ACE SDG No.: Q3179

Instrument ID: MSVOA_N Calibration Date(s): 09/23/2025 09/23/2025

Heated Purge: (Y/N) N Calibration Time(s): 09:33 11:47

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

LAB FILE ID: RRF005 = VN087924.D RRF050 = VN087926.D RRF100 = VN087927.D
RRF150 = VN087928.D RRF020 = VN087930.D RRF =

COMPOUND	RRF005	RRF050	RRF100	RRF150	RRF020	RRF	$\overline{RRF}$	% RSD
Trichloroethene	0.367	0.315	0.304	0.367	0.374		0.345	9.6
1,2-Dichloropropane	0.391	0.333	0.310	0.377	0.402		0.362	10.9
Dibromomethane	0.283	0.260	0.250	0.307	0.329		0.286	11.4
Bromodichloromethane	0.581	0.521	0.489	0.597	0.616		0.561	9.6
4-Methyl-2-Pentanone	0.532	0.537	0.509	0.614	0.623		0.563	9.2
Toluene	0.897	0.848	0.811	0.998	0.981		0.907	9
t-1,3-Dichloropropene	0.556	0.528	0.518	0.650	0.617		0.574	10
cis-1,3-Dichloropropene	0.593	0.544	0.534	0.659	0.651		0.596	9.8
1,1,2-Trichloroethane	0.390	0.339	0.318	0.384	0.413		0.369	10.5
1,3-Dichloropropane	0.610	0.567	0.539	0.651	0.667		0.607	8.9
2-Chloroethyl Vinyl ether	0.193	0.219	0.250	0.312	0.278		0.251	18.7
2-Hexanone	0.297	0.369	0.358	0.436	0.402		0.372	14.1
Dibromochloromethane	0.425	0.402	0.391	0.479	0.472		0.434	9.2
1,2-Dibromoethane	0.395	0.362	0.341	0.420	0.435		0.390	10
Tetrachloroethene	0.308	0.279	0.264	0.328	0.345		0.305	11
Chlorobenzene	1.057	0.951	0.940	1.153	1.218		1.064	11.5
1,1,1,2-Tetrachloroethane	0.402	0.349	0.335	0.409	0.423		0.384	10.1
Ethyl Benzene	1.650	1.601	1.637	2.022	1.968		1.775	11.4
m/p-Xylenes	0.612	0.637	0.615	0.767	0.765		0.679	11.8
o-Xylene	0.593	0.598	0.601	0.752	0.718		0.652	11.7
Styrene	0.906	1.063	1.061	1.312	1.260		1.120	14.7
Bromoform	0.286	0.285	0.289	0.352	0.344		0.311	10.9
Isopropylbenzene	2.660	2.804	2.859	3.653	3.518		3.099	14.6
1,1,2,2-Tetrachloroethane	1.212	0.979	0.954	1.168	1.269		1.117	12.7
1,2,3-Trichloropropane	0.969	0.866	0.857	1.064	1.172		0.986	13.6
Bromobenzene	0.851	0.716	0.720	0.916	0.919		0.825	12.2
2-Chlorotoluene	2.330	2.084	2.098	2.647	2.636		2.359	11.7
1,3,5-Trimethylbenzene	2.388	2.400	2.472	3.079	3.064		2.680	13.4
4-Chlorotoluene	2.124	2.146	2.162	2.705	2.748		2.377	13.4
1,2,4-Trimethylbenzene	2.418	2.514	2.539	3.174	3.101		2.749	13

* 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.

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

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alliance Contract: ROYF02

Lab Code: ACE SDG No.: Q3179

Instrument ID: MSVOA_N Calibration Date(s): 09/23/2025 09/23/2025

Heated Purge: (Y/N) N Calibration Time(s): 09:33 11:47

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

LAB FILE ID: RRF005 = VN087924.D RRF050 = VN087926.D RRF100 = VN087927.D
RRF150 = VN087928.D RRF020 = VN087930.D RRF =

COMPOUND	RRF005	RRF050	RRF100	RRF150	RRF020	RRF	$\overline{RRF}$	% RSD
1,3-Dichlorobenzene	1.689	1.403	1.409	1.745	1.798		1.609	11.7
1,4-Dichlorobenzene	1.800	1.413	1.423	1.744	1.888		1.654	13.4
1,2-Dichlorobenzene	1.591	1.357	1.358	1.673	1.776		1.551	12.2
1,2-Dibromo-3-Chloropropane	0.285	0.220	0.221	0.286	0.285		0.259	13.7
1,2,4-Trichlorobenzene	0.867	0.791	0.830	1.099	0.991		0.916	13.9
1,2,3-Trichlorobenzene	0.780	0.783	0.800	1.068	1.020		0.890	15.9
1,2-Dichloroethane-d4	0.852	0.872	0.901	0.877	0.705		0.841	9.3
Dibromofluoromethane	0.376	0.372	0.385	0.376	0.305		0.363	9
Toluene-d8	1.189	1.352	1.429	1.387	1.026		1.277	13.1
4-Bromofluorobenzene	0.432	0.476	0.511	0.496	0.367		0.456	12.8
Methyl Iodide	0.335	0.462	0.478	0.593	0.474		0.468	19.6

* 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 : 82N092325W.M
Title : SW846 8260
Last Update : Wed Sep 24 05:05:30 2025
Response Via : Initial Calibration

Calibration Files
5 =VN087924.D 20 =VN087930.D 50 =VN087926.D 100 =VN087927.D 150 =VN087928.D

		Compound	5	20	50	100	150	Avg	%RSD
1)	I	Pentafluorobenzene	----------ISTD----------						
2)	T	Dichlorodifluoro...	0.590	0.662	0.526	0.505	0.612	0.579	11.05
3)	P	Chloromethane	0.662	0.672	0.532	0.497	0.602	0.593	13.10
4)	C	Vinyl Chloride	0.656	0.686	0.553	0.516	0.613	0.605	11.66#
5)	T	Bromomethane	0.388	0.422	0.320	0.331	0.415	0.375	12.64
6)	T	Chloroethane	0.442	0.425	0.355	0.337	0.407	0.393	11.53
7)	T	Trichlorofluorom...	1.169	1.068	0.883	0.816	0.987	0.985	14.32
8)	T	Diethyl Ether	0.400	0.419	0.339	0.315	0.387	0.372	11.73
9)	T	1,1,2-Trichlorot...	0.597	0.563	0.475	0.439	0.528	0.521	12.30
10)	T	Methyl Iodide	0.335	0.474	0.462	0.478	0.593	0.468	19.57
11)	T	Tert butyl alcohol	0.125	0.139	0.108	0.105	0.129	0.121	12.18
12)	CM	1,1-Dichloroethene	0.591	0.579	0.470	0.448	0.539	0.525	12.18#
13)	T	Acrolein	0.170	0.148	0.120	0.165	0.174	0.156	14.22
14)	T	Allyl chloride	0.898	0.941	0.760	0.750	0.926	0.855	10.82
15)	T	Acrylonitrile	0.395	0.430	0.348	0.328	0.400	0.380	10.86
16)	T	Acetone	0.417	0.417	0.298	0.274	0.326	0.346	19.36
17)	T	Carbon Disulfide	1.788	1.862	1.485	1.399	1.672	1.641	11.96
18)	T	Methyl Acetate	0.822	0.997	0.813	0.767	0.934	0.866	11.00
19)	T	Methyl tert-buty...	2.047	2.237	1.907	1.811	2.256	2.052	9.60
20)	T	Methylene Chloride	0.871	0.761	0.621	0.571	0.680	0.701	16.92
21)	T	trans-1,2-Dichlo...	0.758	0.695	0.570	0.542	0.654	0.644	13.79
22)	T	Diisopropyl ether	2.040	2.153	1.826	1.763	2.199	1.996	9.75
23)	T	Vinyl Acetate	1.585	1.884	1.566	1.502	1.867	1.681	10.75
24)	P	1,1-Dichloroethane	1.315	1.268	1.057	0.984	1.206	1.166	12.08
25)	T	2-Butanone	0.557	0.602	0.479	0.453	0.554	0.529	11.56
26)	T	2,2-Dichloropropane	1.136	1.175	0.932	0.868	1.069	1.036	12.71
27)	T	cis-1,2-Dichloro...	0.852	0.829	0.690	0.656	0.804	0.766	11.45
28)	T	Bromochloromethane	0.667	0.671	0.662	0.598	0.570	0.634	7.35
29)	T	Tetrahydrofuran	0.335	0.379	0.311	0.298	0.371	0.339	10.57
30)	C	Chloroform	1.419	1.424	1.145	1.075	1.313	1.275	12.49#
31)	T	Cyclohexane	1.163	1.020	0.827	0.758	0.951	0.944	16.90
32)	T	1,1,1-Trichloroe...	1.190	1.197	0.958	0.908	1.133	1.077	12.54
33)	S	1,2-Dichloroetha...	0.852	0.705	0.872	0.901	0.877	0.841	9.28
34)	I	1,4-Difluorobenzene	----------ISTD----------						
35)	S	Dibromofluoromet...	0.376	0.305	0.372	0.385	0.376	0.363	8.96
36)	T	1,1-Dichloropropene	0.435	0.472	0.408	0.390	0.478	0.437	8.78
37)	T	Ethyl Acetate	0.602	0.605	0.536	0.503	0.621	0.573	8.88
38)	T	Carbon Tetrachlo...	0.524	0.545	0.461	0.432	0.542	0.501	10.26
39)	T	Methylcyclohexane	0.445	0.521	0.444	0.435	0.562	0.482	11.81
40)	TM	Benzene	1.507	1.569	1.353	1.258	1.540	1.445	9.26
41)	T	Methacrylonitrile	0.290	0.314	0.288	0.263	0.327	0.296	8.37
42)	TM	1,2-Dichloroethane	0.572	0.609	0.484	0.467	0.565	0.539	11.30
43)	T	Isopropyl Acetate	0.885	0.976	0.834	0.809	1.007	0.902	9.63
44)	TM	Trichloroethene	0.367	0.374	0.315	0.304	0.367	0.345	9.59
45)	C	1,2-Dichloropropane	0.391	0.402	0.333	0.310	0.377	0.362	10.93#
46)	T	Dibromomethane	0.283	0.329	0.260	0.250	0.307	0.286	11.42
47)	T	Bromodichloromet...	0.581	0.616	0.521	0.489	0.597	0.561	9.56
48)	T	Methyl methacrylate	0.392	0.446	0.389	0.384	0.479	0.418	10.19
49)	T	1,4-Dioxane	0.006	0.007	0.006	0.005	0.007	0.006	11.38
50)	S	Toluene-d8	1.189	1.026	1.352	1.429	1.387	1.277	13.06
51)	T	4-Methyl-2-Penta...	0.532	0.623	0.537	0.509	0.614	0.563	9.20
52)	CM	Toluene	0.897	0.981	0.848	0.811	0.998	0.907	9.02#
53)	T	t-1,3-Dichloropr...	0.556	0.617	0.528	0.518	0.650	0.574	10.00
54)	T	cis-1,3-Dichloro...	0.593	0.651	0.544	0.534	0.659	0.596	9.76
55)	T	1,1,2-Trichloroe...	0.390	0.413	0.339	0.318	0.384	0.369	10.55
56)	T	Ethyl methacrylate	0.433	0.561	0.515	0.513	0.644	0.533	14.50

Method Path : Z:\voasrv\HPCHEM1\MSVOA_N\methods\
Method File : 82N092325W.M

57)	T	1,3-Dichloropropane	0.610	0.667	0.567	0.539	0.651	0.607	8.94
58)	T	2-Chloroethyl Vi...	0.193	0.278	0.219	0.250	0.312	0.251	18.74
59)	T	2-Hexanone	0.297	0.402	0.369	0.358	0.436	0.372	14.07
60)	T	Dibromochloromet...	0.425	0.472	0.402	0.391	0.479	0.434	9.19
61)	T	1,2-Dibromoethane	0.395	0.435	0.362	0.341	0.420	0.390	10.02
62)	S	4-Bromofluoroben...	0.432	0.367	0.476	0.511	0.496	0.456	12.76
63)	I	Chlorobenzene-d5	----------ISTD----------						
64)	T	Tetrachloroethene	0.308	0.345	0.279	0.264	0.328	0.305	10.99
65)	PM	Chlorobenzene	1.057	1.218	0.951	0.940	1.153	1.064	11.49
66)	T	1,1,1,2-Tetrachl...	0.402	0.423	0.349	0.335	0.409	0.384	10.11
67)	C	Ethyl Benzene	1.650	1.968	1.601	1.637	2.022	1.775	11.39#
68)	T	m/p-Xylenes	0.612	0.765	0.637	0.615	0.767	0.679	11.77
69)	T	o-Xylene	0.593	0.718	0.598	0.601	0.752	0.652	11.72
70)	T	Styrene	0.906	1.260	1.063	1.061	1.312	1.120	14.72
71)	P	Bromoform	0.286	0.344	0.285	0.289	0.352	0.311	10.91
72)	I	1,4-Dichlorobenzen...	----------ISTD----------						
73)	T	Isopropylbenzene	2.660	3.518	2.804	2.859	3.653	3.099	14.61
74)	T	N-amyl acetate		1.023	0.884	0.942	1.236	1.021	15.09
75)	P	1,1,2,2-Tetrachl...	1.212	1.269	0.979	0.954	1.168	1.117	12.71
76)	T	1,2,3-Trichlorop...	0.969	1.172	0.866	0.857	1.064	0.986	13.63
77)	T	Bromobenzene	0.851	0.919	0.716	0.720	0.916	0.825	12.22
78)	T	n-propylbenzene	3.637	4.345	3.468	3.493	4.429	3.874	12.22
79)	T	2-Chlorotoluene	2.330	2.636	2.084	2.098	2.647	2.359	11.68
80)	T	1,3,5-Trimethylb...	2.388	3.064	2.400	2.472	3.079	2.680	13.36
81)	T	trans-1,4-Dichlo...	0.303	0.381	0.308	0.337	0.447	0.355	16.84
82)	T	4-Chlorotoluene	2.124	2.748	2.146	2.162	2.705	2.377	13.44
83)	T	tert-Butylbenzene	1.963	2.581	2.059	2.118	2.623	2.269	13.64
84)	T	1,2,4-Trimethylb...	2.418	3.101	2.514	2.539	3.174	2.749	13.04
85)	T	sec-Butylbenzene	3.078	3.736	3.004	3.023	3.790	3.326	12.03
86)	T	p-Isopropyltoluene	2.496	3.176	2.558	2.591	3.264	2.817	13.16
87)	T	1,3-Dichlorobenzene	1.689	1.798	1.403	1.409	1.745	1.609	11.75
88)	T	1,4-Dichlorobenzene	1.800	1.888	1.413	1.423	1.744	1.654	13.39
89)	T	n-Butylbenzene	2.481	3.002	2.372	2.418	3.039	2.662	12.36
90)	T	Hexachloroethane	0.631	0.665	0.505	0.509	0.633	0.588	12.88
91)	T	1,2-Dichlorobenzene	1.591	1.776	1.357	1.358	1.673	1.551	12.15
92)	T	1,2-Dibromo-3-Ch...	0.285	0.285	0.220	0.221	0.286	0.259	13.71
93)	T	1,2,4-Trichlorob...	0.867	0.991	0.791	0.830	1.099	0.916	13.89
94)	T	Hexachlorobutadiene	0.348	0.381	0.293	0.288	0.375	0.337	13.11
95)	T	Naphthalene	2.398	3.241	2.601	2.761	3.697	2.939	17.88
96)	T	1,2,3-Trichlorob...	0.780	1.020	0.783	0.800	1.068	0.890	15.91

(#) = Out of Range

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092325\
Data File : VN087924.D
Acq On : 23 Sep 2025 09:33
Operator : JC\MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 24 04:47:17 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 04:45:42 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.206	168	222356	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.082	114	420635	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.847	117	399169	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.770	152	202125	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.559	65	18952	5.065	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 10.120%#			
35) Dibromofluoromethane	8.153	113	15821	5.180	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 10.360%#			
50) Toluene-d8	10.541	98	50031	4.658	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 9.320%#			
62) 4-Bromofluorobenzene	12.829	95	18155	4.729	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 9.460%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.142	85	13126	5.097	ug/l	99
3) Chloromethane	2.383	50	14715	5.581	ug/l	93
4) Vinyl Chloride	2.536	62	14589	5.423	ug/l	93
5) Bromomethane	2.971	94	8627	5.173	ug/l	89
6) Chloroethane	3.136	64	9834	5.623	ug/l	93
7) Trichlorofluoromethane	3.512	101	25997	5.936	ug/l	99
8) Diethyl Ether	3.965	74	8903	5.381	ug/l	81
9) 1,1,2-Trichlorotrifluo...	4.365	101	13274	5.734	ug/l	97
10) Methyl Iodide	4.589	142	7442	3.572	ug/l	98
11) Tert butyl alcohol	5.518	59	13898	25.785	ug/l #	84
12) 1,1-Dichloroethene	4.336	96	13134	5.623	ug/l	85
13) Acrolein	4.171	56	18861	27.272	ug/l	100
14) Allyl chloride	5.012	41	19959	5.249	ug/l	92
15) Acrylonitrile	5.712	53	43865	25.945	ug/l	99
16) Acetone	4.430	43	46306m	29.892	ug/l	
17) Carbon Disulfide	4.700	76	39748	5.447	ug/l	100
18) Methyl Acetate	5.012	43	18268	4.741	ug/l #	57
19) Methyl tert-butyl Ether	5.794	73	45522	4.989	ug/l	100
20) Methylene Chloride	5.265	84	19358	6.212	ug/l #	94
21) trans-1,2-Dichloroethene	5.777	96	16849	5.884	ug/l	91
22) Diisopropyl ether	6.665	45	45352	5.109	ug/l #	94
23) Vinyl Acetate	6.588	43	176170	23.571	ug/l	98
24) 1,1-Dichloroethane	6.553	63	29249	5.640	ug/l	95
25) 2-Butanone	7.477	43	61960	26.329	ug/l	94
26) 2,2-Dichloropropane	7.471	77	25251	5.480	ug/l	97
27) cis-1,2-Dichloroethene	7.465	96	18948	5.562	ug/l	97
28) Bromochloromethane	7.794	49	14841	5.267	ug/l	98
29) Tetrahydrofuran	7.824	42	37229	24.706	ug/l	98
30) Chloroform	7.947	83	31560	5.566	ug/l	94
31) Cyclohexane	8.235	56	25850	6.160	ug/l	86
32) 1,1,1-Trichloroethane	8.153	97	26469	5.524	ug/l #	86
36) 1,1-Dichloropropene	8.359	75	18296	4.982	ug/l	95
37) Ethyl Acetate	7.553	43	25308	5.248	ug/l #	96
38) Carbon Tetrachloride	8.347	117	22056	5.234	ug/l	99
39) Methylcyclohexane	9.582	83	18721	4.621	ug/l #	85
40) Benzene	8.594	78	63389	5.213	ug/l	95

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092325\
Data File : VN087924.D
Acq On : 23 Sep 2025 09:33
Operator : JC\MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 24 04:47:17 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 04:45:42 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.759	41	12197	4.894	ug/l	#	93
42) 1,2-Dichloroethane	8.647	62	24064	5.303	ug/l		99
43) Isopropyl Acetate	8.676	43	37238	4.906	ug/l		99
44) Trichloroethene	9.329	130	15430	5.313	ug/l		87
45) 1,2-Dichloropropane	9.606	63	16459	5.398	ug/l	#	75
46) Dibromomethane	9.694	93	11919	4.954	ug/l		97
47) Bromodichloromethane	9.865	83	24450	5.181	ug/l	#	93
48) Methyl methacrylate	9.665	41	16484	4.689	ug/l		89
49) 1,4-Dioxane	9.688	88	5284	101.752	ug/l	#	76
51) 4-Methyl-2-Pentanone	10.423	43	111966	23.639	ug/l		97
52) Toluene	10.606	92	37730	4.945	ug/l		99
53) t-1,3-Dichloropropene	10.818	75	23406	4.847	ug/l		96
54) cis-1,3-Dichloropropene	10.294	75	24940	4.972	ug/l		93
55) 1,1,2-Trichloroethane	10.994	97	16385	5.281	ug/l	#	82
56) Ethyl methacrylate	10.859	69	18199	4.060	ug/l		96
57) 1,3-Dichloropropane	11.141	76	25677	5.032	ug/l		94
58) 2-Chloroethyl Vinyl ether	10.141	63	40658	19.289	ug/l		100
59) 2-Hexanone	11.182	43	62373	19.915	ug/l		98
60) Dibromochloromethane	11.335	129	17873	4.900	ug/l		97
61) 1,2-Dibromoethane	11.447	107	16603	5.055	ug/l		96
64) Tetrachloroethene	11.076	164	12289	5.054	ug/l		94
65) Chlorobenzene	11.870	112	42197	4.968	ug/l		98
66) 1,1,1,2-Tetrachloroethane	11.935	131	16032	5.234	ug/l		94
67) Ethyl Benzene	11.947	91	65844	4.645	ug/l		99
68) m/p-Xylenes	12.053	106	48826	9.007	ug/l		100
69) o-Xylene	12.382	106	23662	4.543	ug/l		99
70) Styrene	12.388	104	36168	4.043	ug/l		98
71) Bromoform	12.564	173	11400	4.587	ug/l	#	94
73) Isopropylbenzene	12.670	105	53756	4.291	ug/l		99
75) 1,1,2,2-Tetrachloroethane	12.917	83	24506	5.429	ug/l		98
76) 1,2,3-Trichloropropane	12.970	75	19585m	4.885	ug/l		
77) Bromobenzene	12.959	156	17210	5.163	ug/l		95
78) n-propylbenzene	13.011	91	73512	4.694	ug/l		100
79) 2-Chlorotoluene	13.106	91	47102	4.939	ug/l		100
80) 1,3,5-Trimethylbenzene	13.153	105	48265	4.454	ug/l		96
81) trans-1,4-Dichloro-2-b...	12.729	75	6119	4.265	ug/l		95
82) 4-Chlorotoluene	13.200	91	42937	4.468	ug/l		95
83) tert-Butylbenzene	13.411	119	39678	4.326	ug/l		93
84) 1,2,4-Trimethylbenzene	13.464	105	48866	4.397	ug/l		99
85) sec-Butylbenzene	13.594	105	62218	4.627	ug/l		100
86) p-Isopropyltoluene	13.706	119	50459	4.431	ug/l		97
87) 1,3-Dichlorobenzene	13.711	146	34148	5.250	ug/l		96
88) 1,4-Dichlorobenzene	13.788	146	36387	5.444	ug/l		92
89) n-Butylbenzene	14.029	91	50142	4.659	ug/l		94
90) Hexachloroethane	14.311	117	12750	5.359	ug/l		95
91) 1,2-Dichlorobenzene	14.088	146	32149	5.128	ug/l		98
92) 1,2-Dibromo-3-Chloropr...	14.688	75	5752	5.485	ug/l		83
93) 1,2,4-Trichlorobenzene	15.370	180	17526	4.735	ug/l		95
94) Hexachlorobutadiene	15.476	225	7041	5.168	ug/l		95
95) Naphthalene	15.611	128	48467	4.079	ug/l		97
96) 1,2,3-Trichlorobenzene	15.811	180	15763	4.380	ug/l		95

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092325\
Data File : VN087924.D
Acq On : 23 Sep 2025 09:33
Operator : JC\MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 24 04:47:17 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 04:45:42 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

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

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

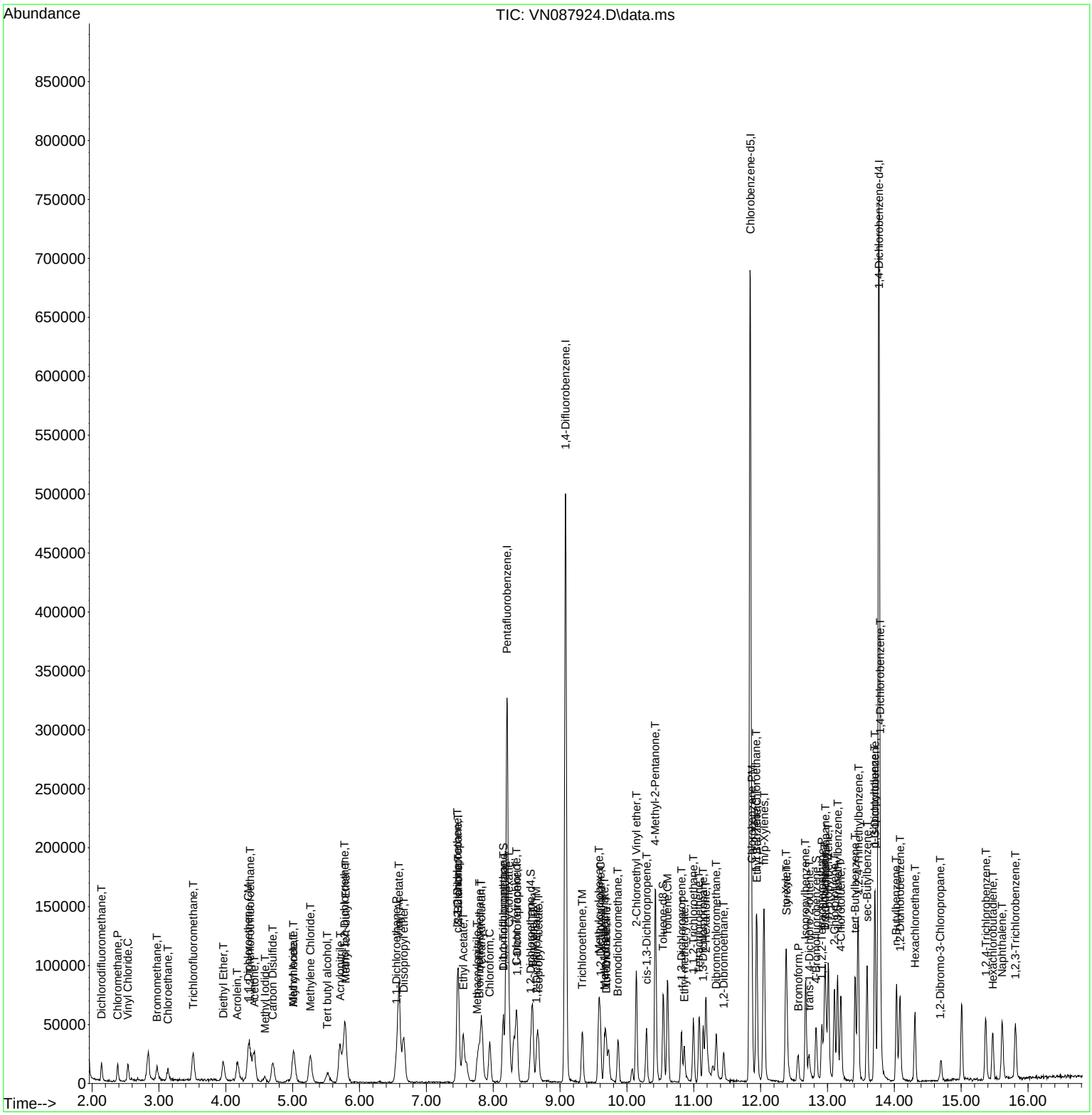
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092325\
Data File : VN087924.D
Acq On : 23 Sep 2025 09:33
Operator : JC\MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

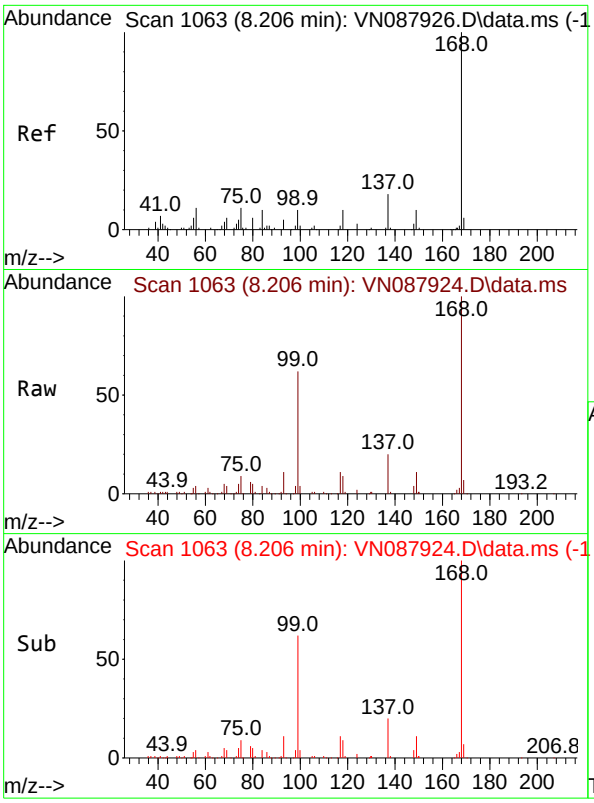
Quant Time: Sep 24 04:47:17 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 04:45:42 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

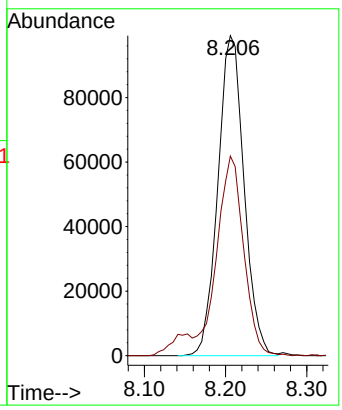




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.206 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion:168 Resp: 22235

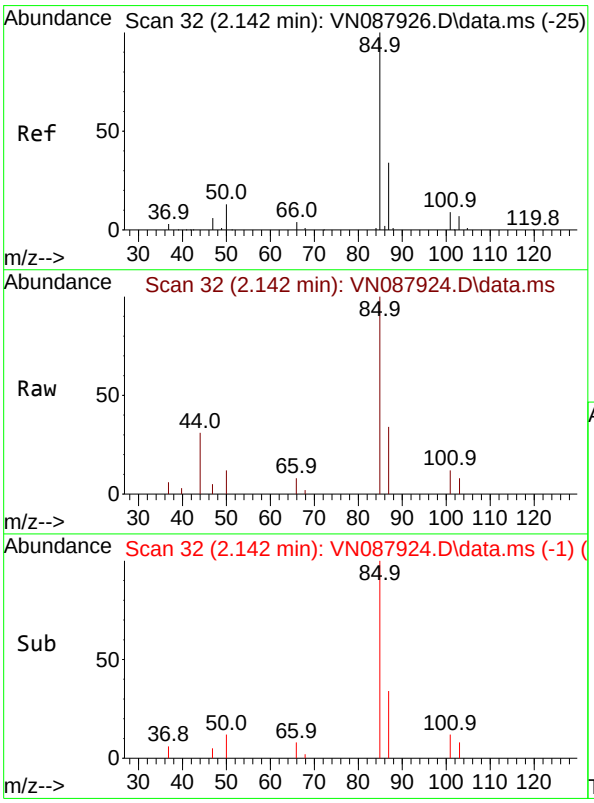
Ion	Ratio	Lower	Upper
168	100		
99	62.0	52.2	78.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

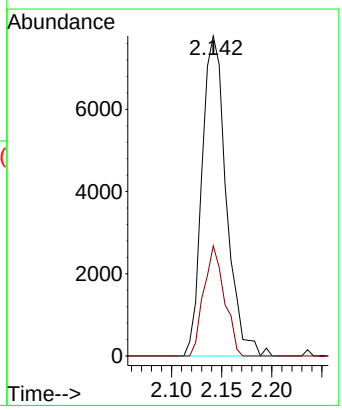
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

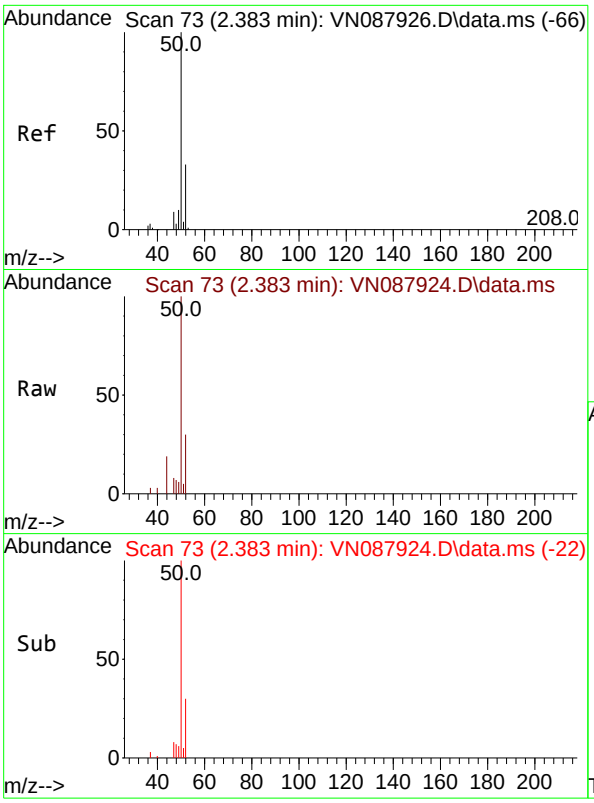


#2
Dichlorodifluoromethane
Concen: 5.097 ug/l
RT: 2.142 min Scan# 32
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 85 Resp: 13126

Ion	Ratio	Lower	Upper
85	100		
87	34.4	16.9	50.6

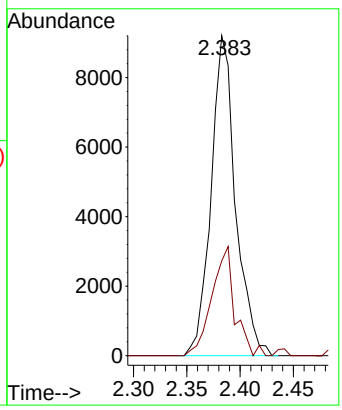




#3
Chloromethane
Concen: 5.581 ug/l
RT: 2.383 min Scan# 7
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 50 Resp: 1471

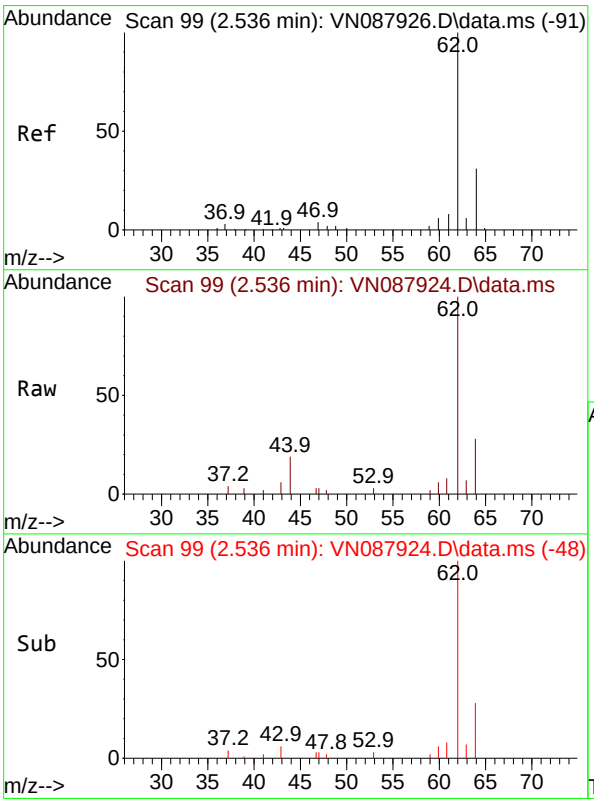
Ion	Ratio	Lower	Upper
50	100		
52	29.6	26.6	40.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

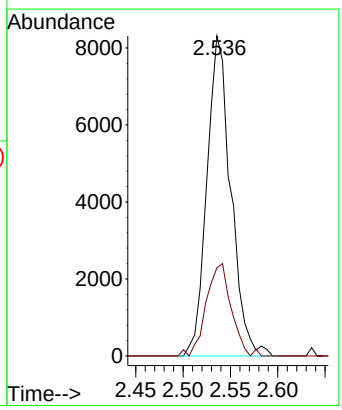
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

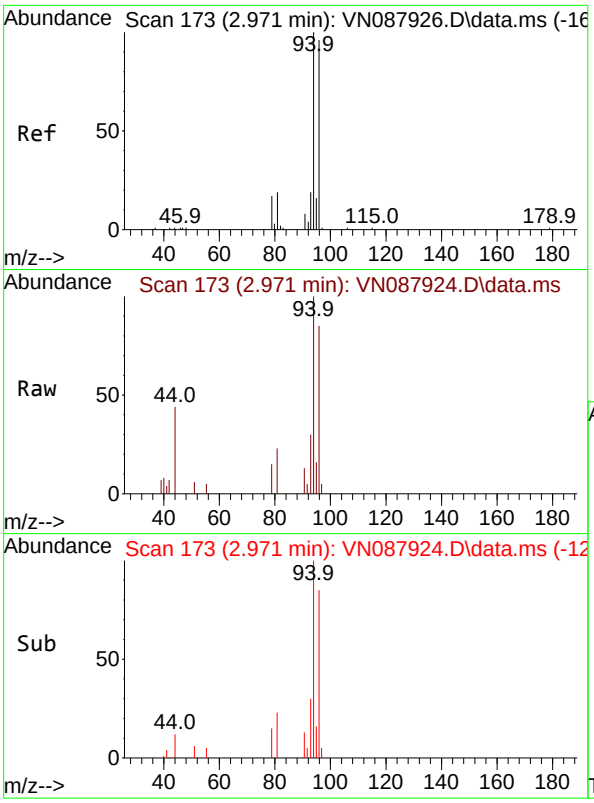


#4
Vinyl Chloride
Concen: 5.423 ug/l
RT: 2.536 min Scan# 99
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 62 Resp: 14589

Ion	Ratio	Lower	Upper
62	100		
64	27.6	25.2	37.8

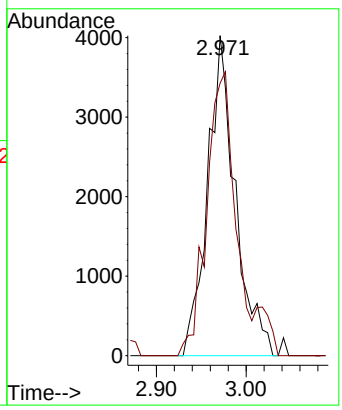




#5
Bromomethane
Concen: 5.173 ug/l
RT: 2.971 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 94 Resp: 862

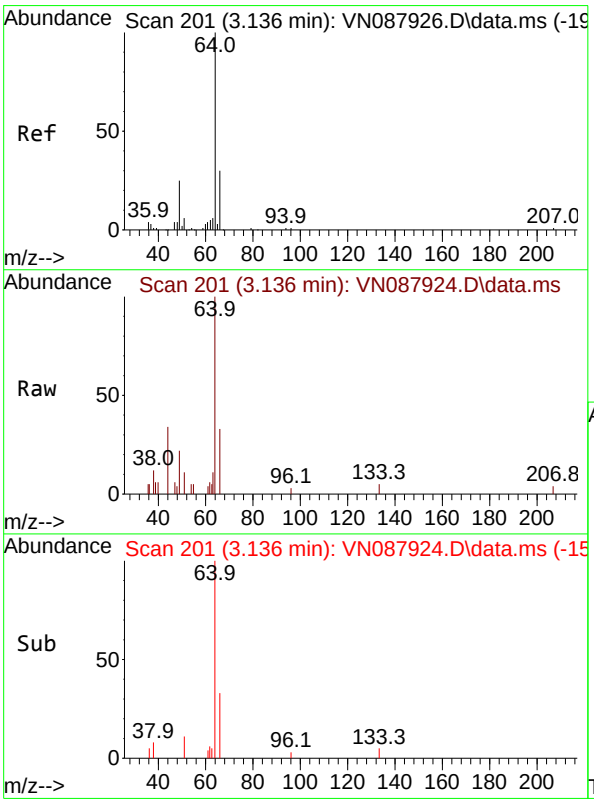
Ion	Ratio	Lower	Upper
94	100		
96	85.2	76.8	115.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

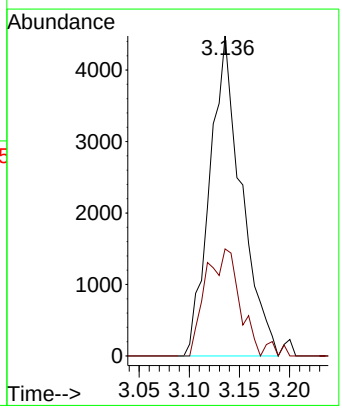
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

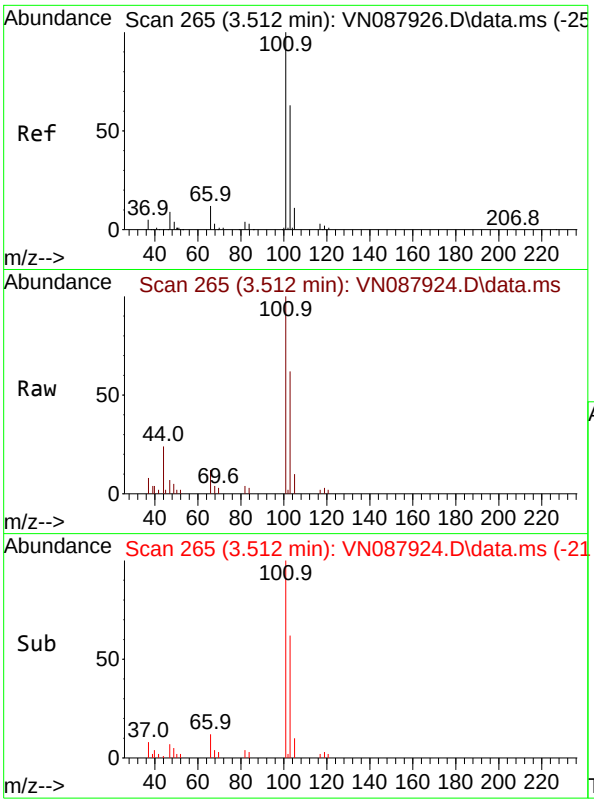


#6
Chloroethane
Concen: 5.623 ug/l
RT: 3.136 min Scan# 201
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 64 Resp: 9834

Ion	Ratio	Lower	Upper
64	100		
66	33.5	23.8	35.8

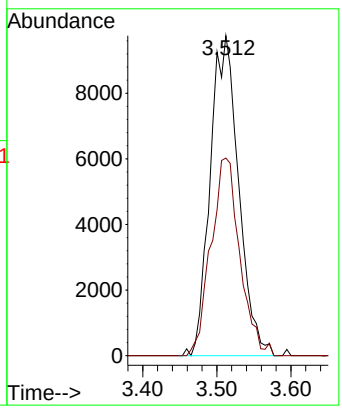




#7
Trichlorofluoromethane
Concen: 5.936 ug/l
RT: 3.512 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion:101 Resp: 2599

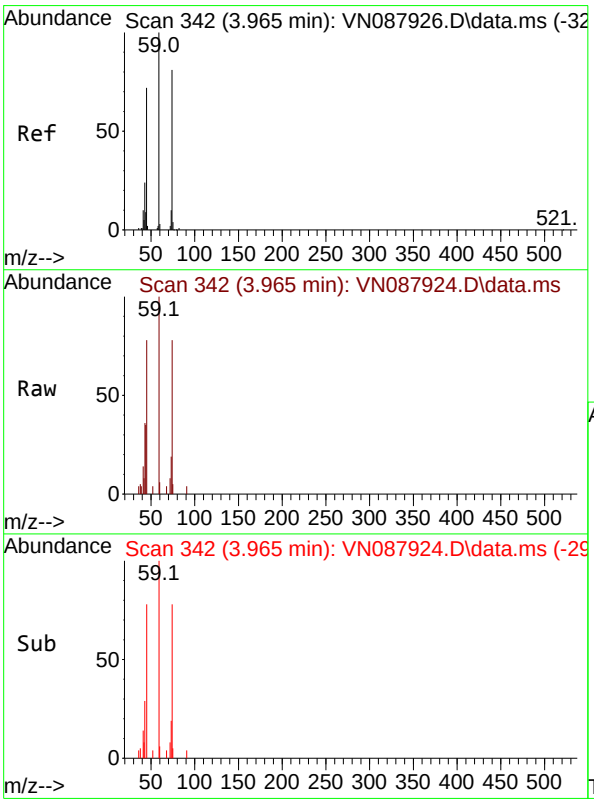
Ion	Ratio	Lower	Upper
101	100		
103	61.8	50.2	75.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

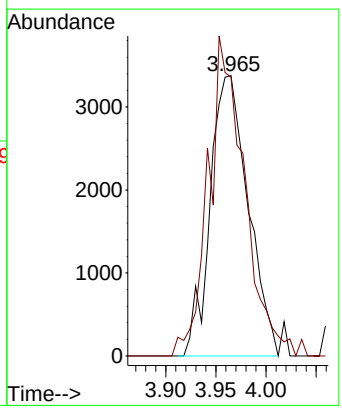
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

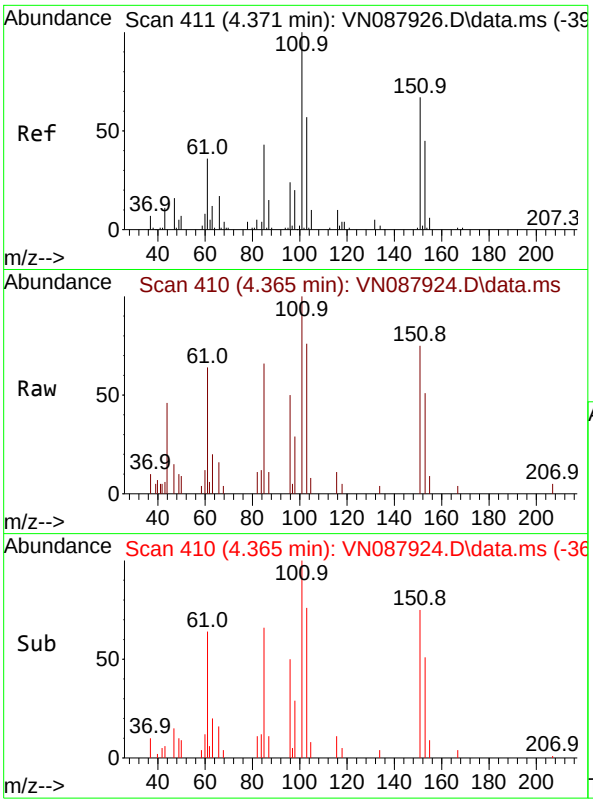


#8
Diethyl Ether
Concen: 5.381 ug/l
RT: 3.965 min Scan# 342
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 74 Resp: 8903

Ion	Ratio	Lower	Upper
74	100		
45	108.9	45.4	136.1

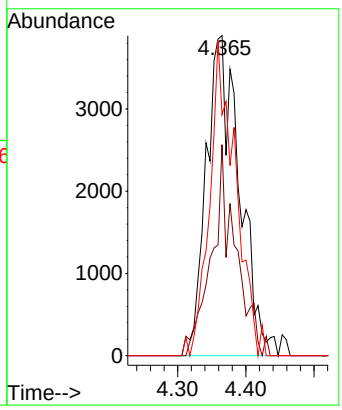




#9
1,1,2-Trichlorotrifluoroethane
Concen: 5.734 ug/l
RT: 4.365 min Scan# 4
Delta R.T. -0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion:101 Resp: 1327

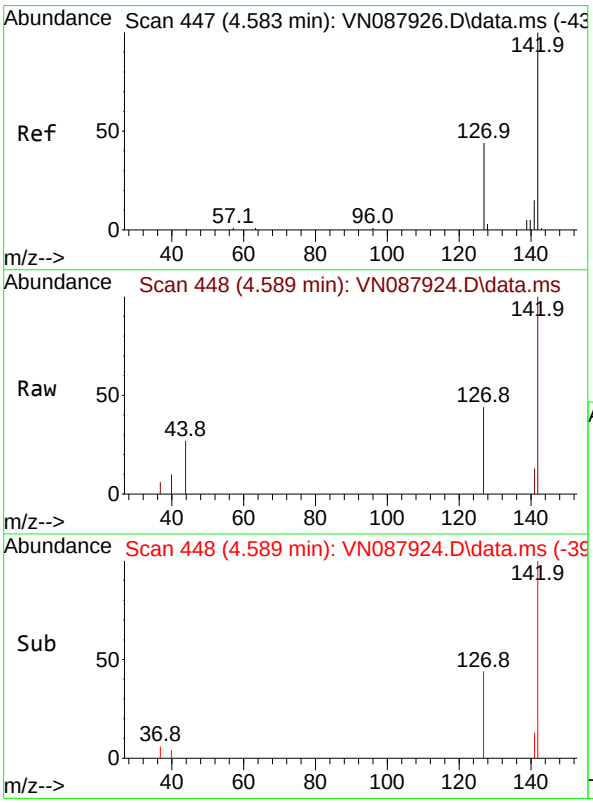
Ion	Ratio	Lower	Upper
101	100		
85	46.2	36.5	54.7
151	76.2	58.6	87.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

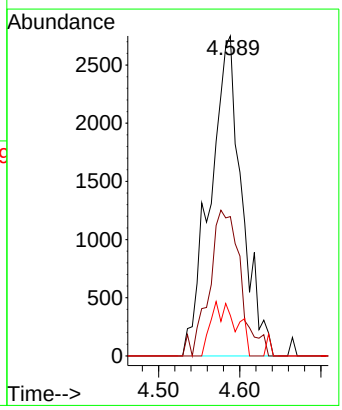
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

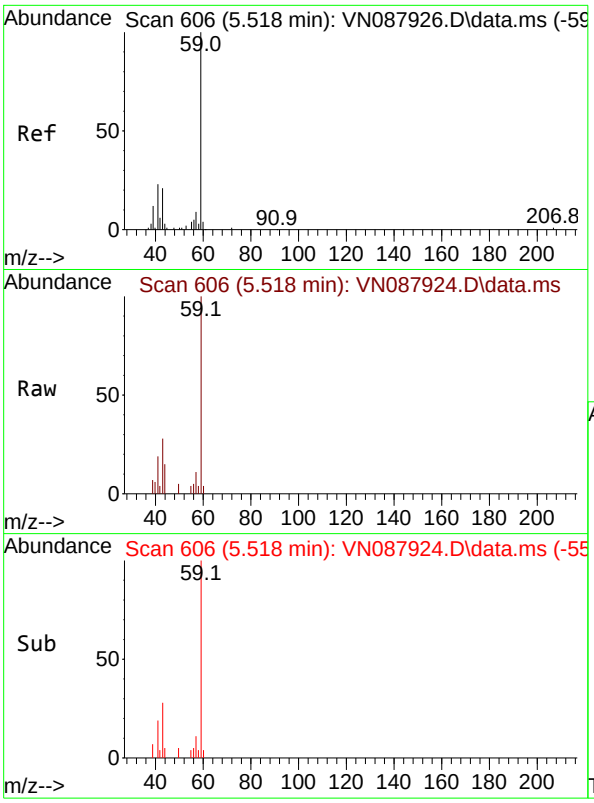


#10
Methyl Iodide
Concen: 3.572 ug/l
RT: 4.589 min Scan# 448
Delta R.T. 0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion:142 Resp: 7442

Ion	Ratio	Lower	Upper
142	100		
127	43.5	35.3	52.9
141	12.6	11.8	17.8

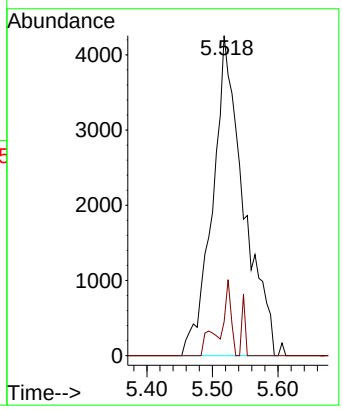




#11
Tert butyl alcohol
Concen: 25.785 ug/l
RT: 5.518 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 59 Resp: 1389

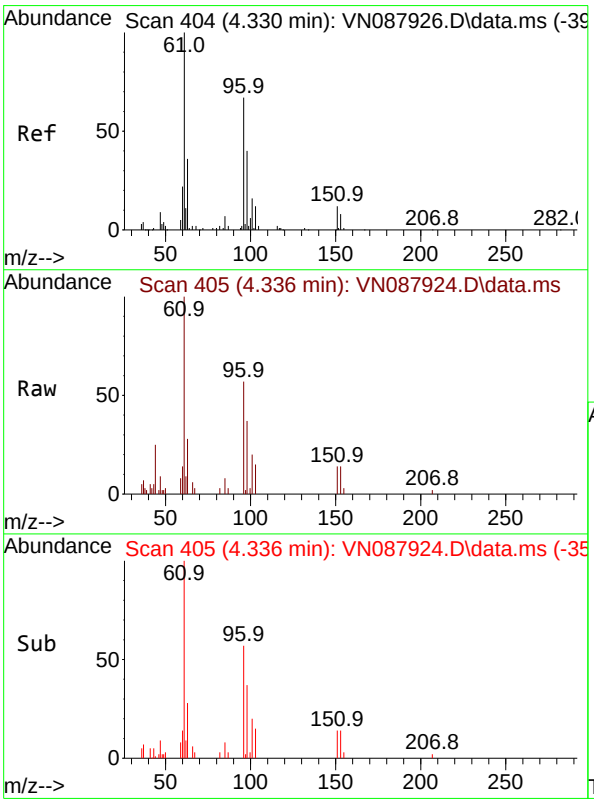
Ion	Ratio	Lower	Upper
59	100		
57	4.8	8.8	13.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

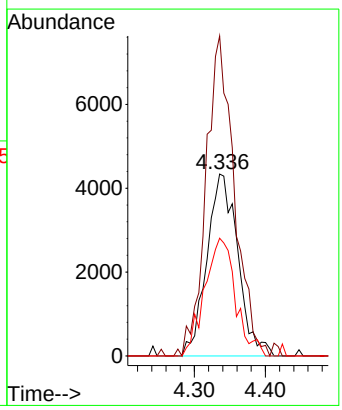
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

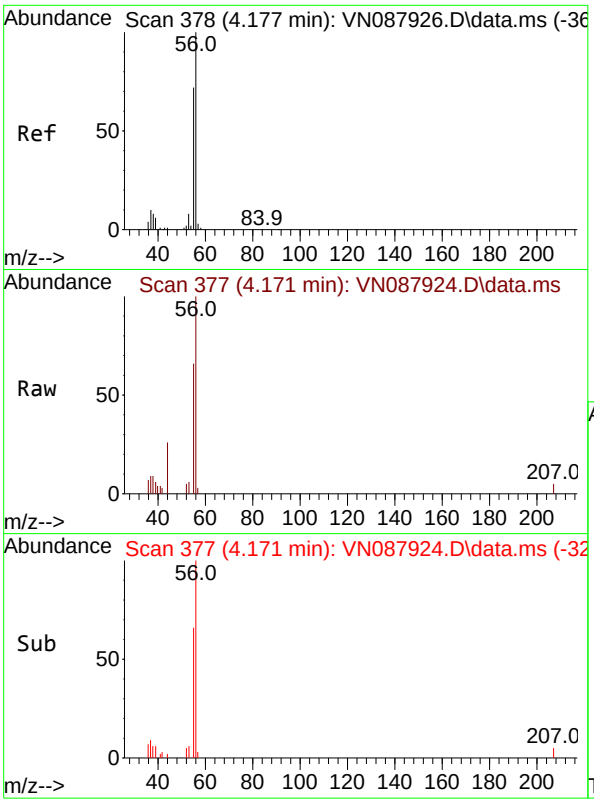


#12
1,1-Dichloroethene
Concen: 5.623 ug/l
RT: 4.336 min Scan# 405
Delta R.T. 0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 96 Resp: 13134

Ion	Ratio	Lower	Upper
96	100		
61	172.1	119.2	178.8
98	64.8	47.5	71.3

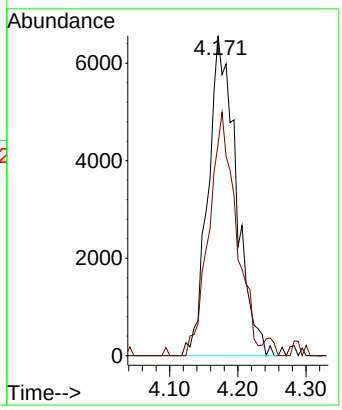




#13
Acrolein
Concen: 27.272 ug/l
RT: 4.171 min Scan# 3
Delta R.T. -0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 56 Resp: 1886

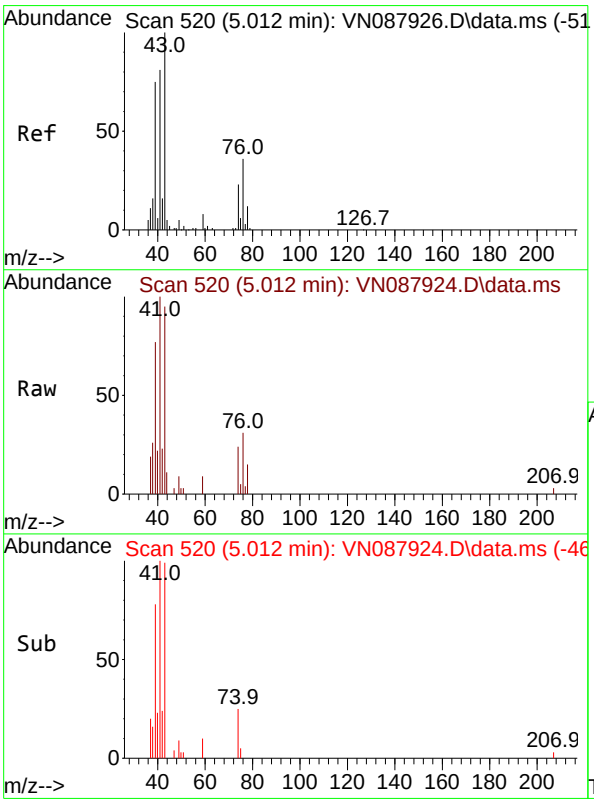
Ion	Ratio	Lower	Upper
56	100		
55	73.7	59.3	88.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

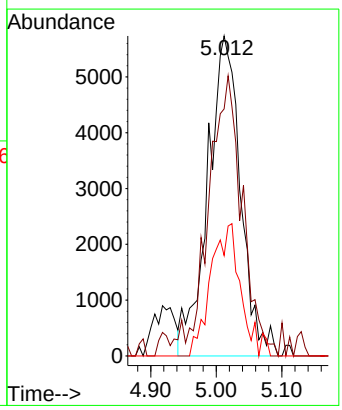
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

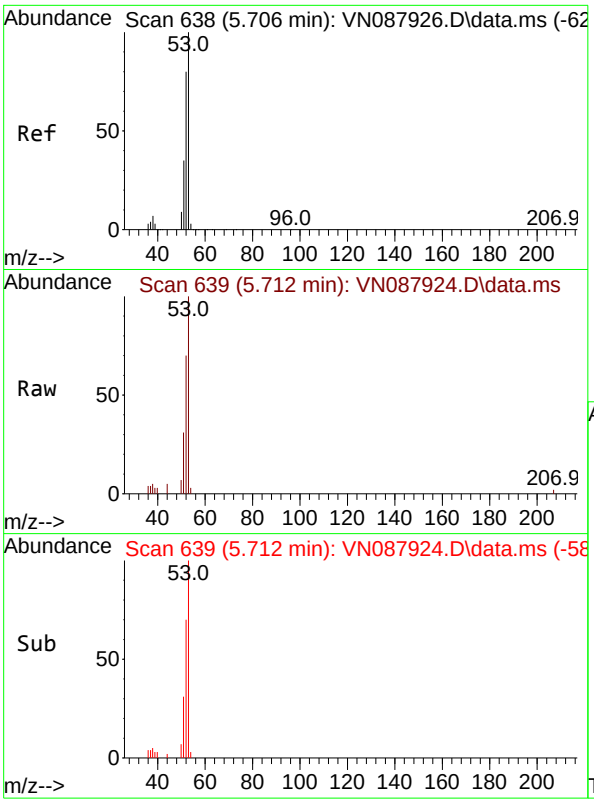


#14
Allyl chloride
Concen: 5.249 ug/l
RT: 5.012 min Scan# 520
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 41 Resp: 19959

Ion	Ratio	Lower	Upper
41	100		
39	86.8	63.8	95.8
76	36.4	33.0	49.6

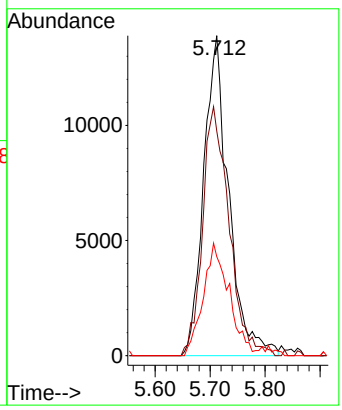




#15
Acrylonitrile
Concen: 25.945 ug/l
RT: 5.712 min Scan# 6
Delta R.T. 0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 53 Resp: 4386

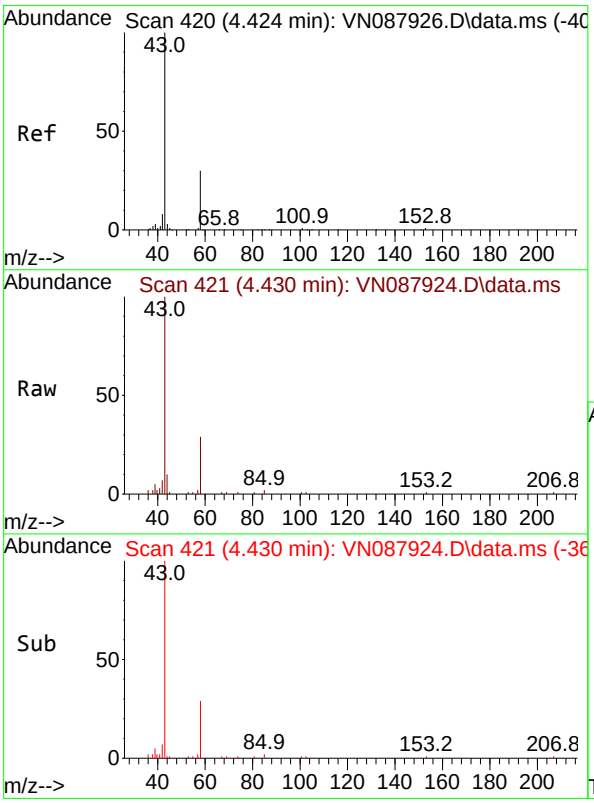
Ion	Ratio	Lower	Upper
53	100		
52	82.4	66.6	99.8
51	36.3	29.0	43.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

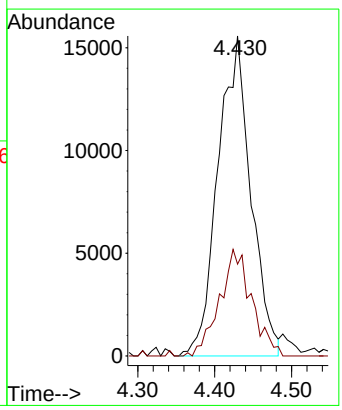
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

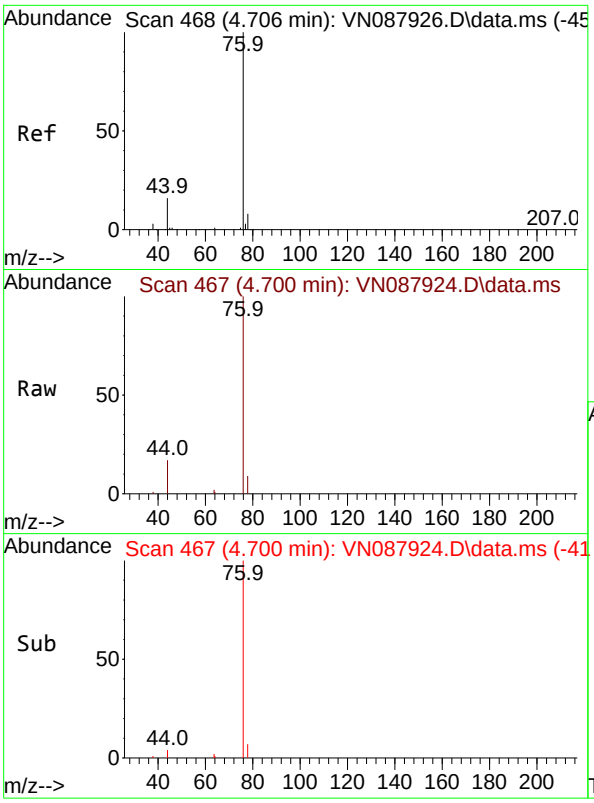


#16
Acetone
Concen: 29.892 ug/l m
RT: 4.430 min Scan# 421
Delta R.T. 0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 43 Resp: 46306

Ion	Ratio	Lower	Upper
43	100		
58	28.7	24.1	36.1

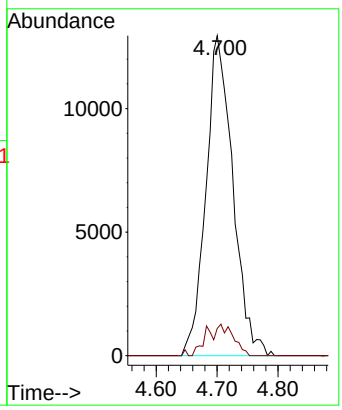




#17
Carbon Disulfide
Concen: 5.447 ug/l
RT: 4.700 min Scan# 4
Delta R.T. -0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 76 Resp: 3974

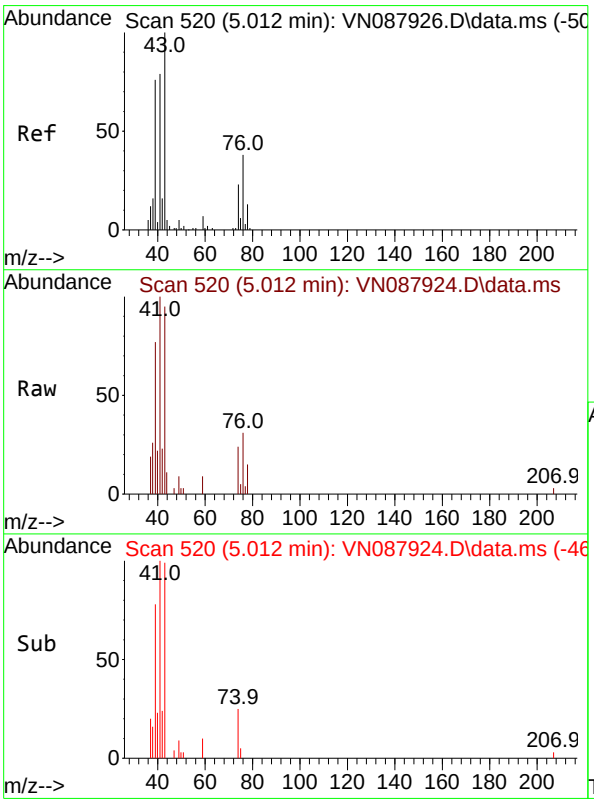
Ion	Ratio	Lower	Upper
76	100		
78	8.5	6.7	10.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

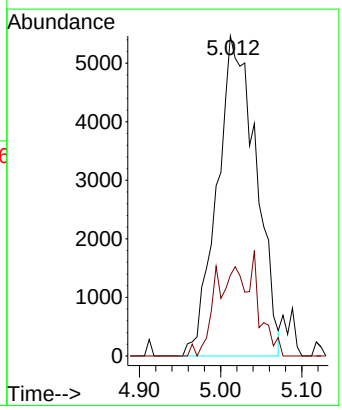
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

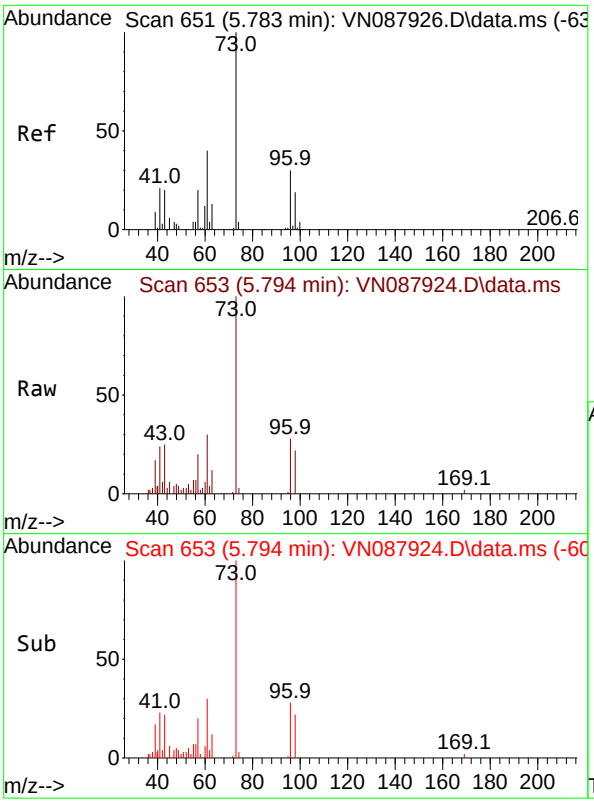


#18
Methyl Acetate
Concen: 4.741 ug/l
RT: 5.012 min Scan# 520
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 43 Resp: 18268

Ion	Ratio	Lower	Upper
43	100		
74	3.2	19.7	29.5#





#19
Methyl tert-butyl Ether
Concen: 4.989 ug/l
RT: 5.794 min Scan# 6
Delta R.T. 0.012 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

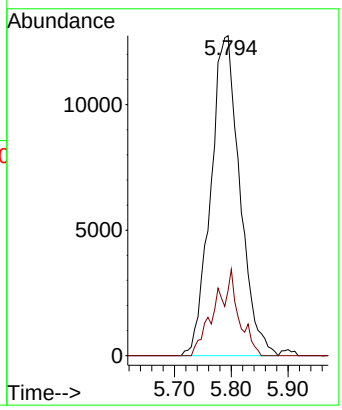
Tgt Ion: 73 Resp: 4552

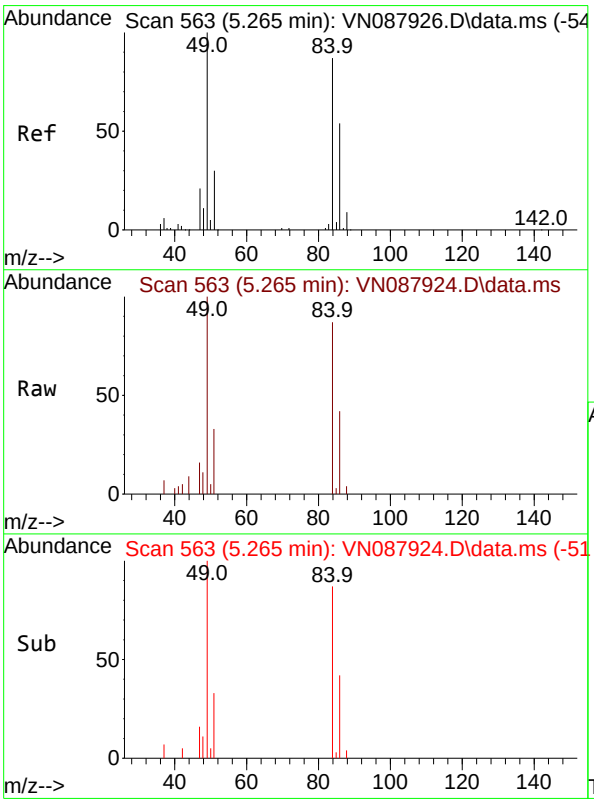
Ion	Ratio	Lower	Upper
73	100		
57	20.5	16.3	24.5

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

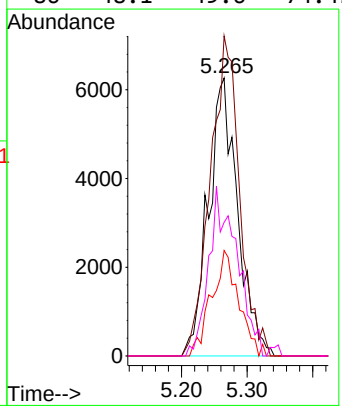


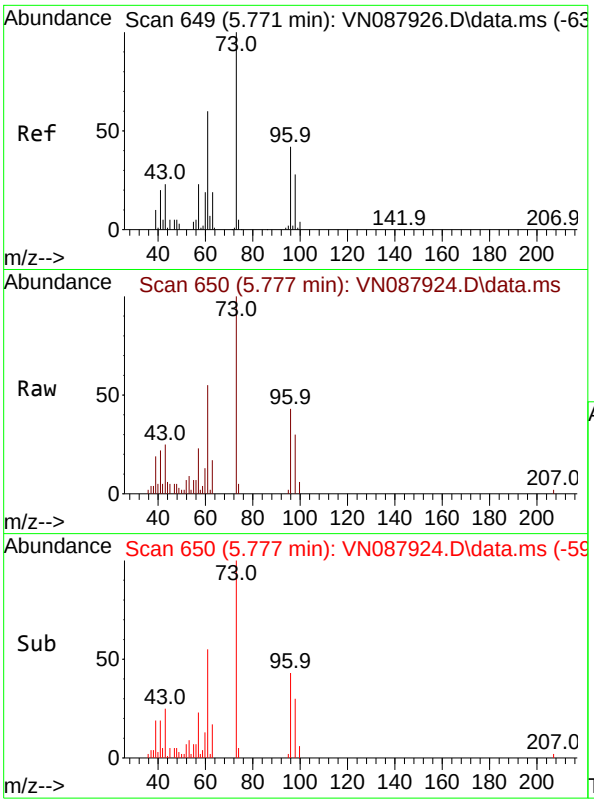


#20
Methylene Chloride
Concen: 6.212 ug/l
RT: 5.265 min Scan# 563
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 84 Resp: 19358

Ion	Ratio	Lower	Upper
84	100		
49	115.2	92.1	138.1
51	38.0	27.7	41.5
86	48.1	49.6	74.4#

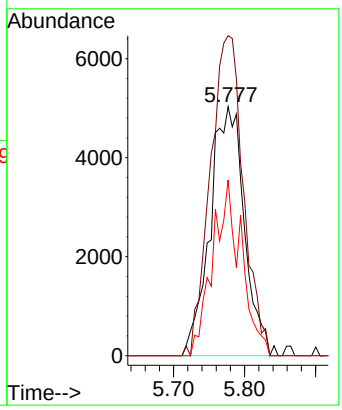




#21
trans-1,2-Dichloroethene
Concen: 5.884 ug/l
RT: 5.777 min Scan# 6
Delta R.T. 0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 96 Resp: 1684

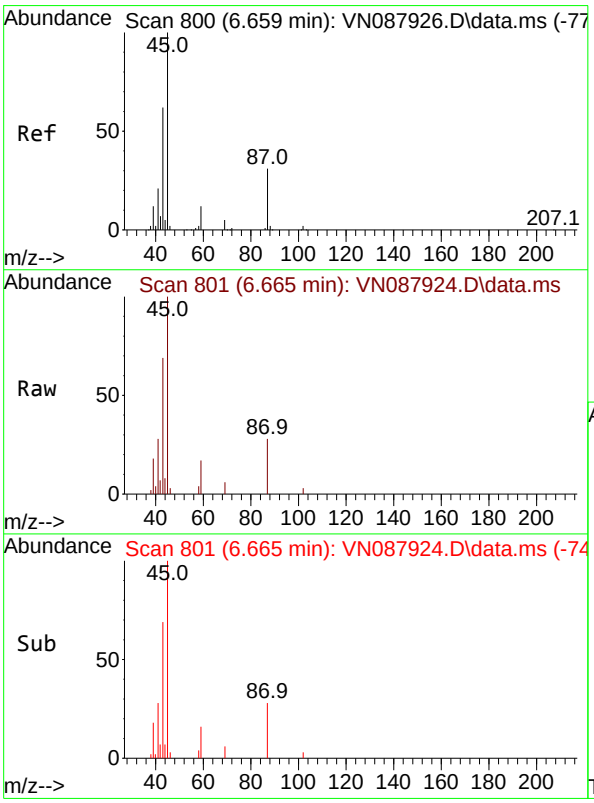
Ion	Ratio	Lower	Upper
96	100		
61	128.5	114.4	171.6
98	70.6	53.6	80.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

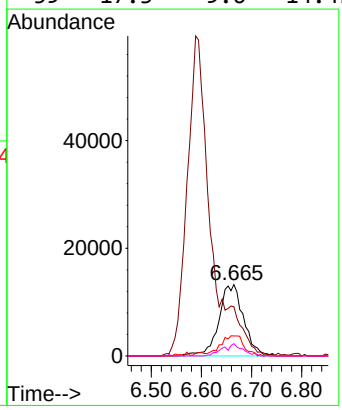
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

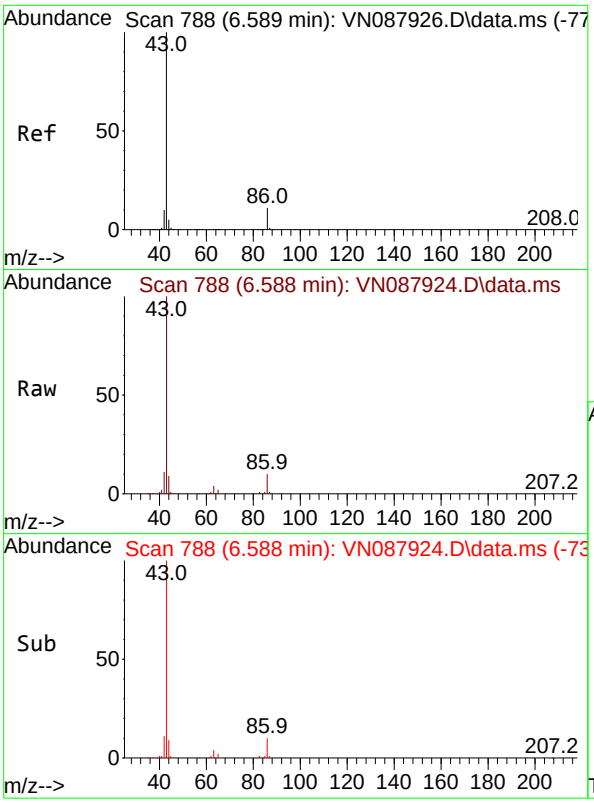


#22
Diisopropyl ether
Concen: 5.109 ug/l
RT: 6.665 min Scan# 801
Delta R.T. 0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 45 Resp: 45352

Ion	Ratio	Lower	Upper
45	100		
43	65.2	49.9	74.9
87	28.1	25.2	37.8
59	17.3	9.6	14.4#





#23
Vinyl Acetate
Concen: 23.571 ug/l
RT: 6.588 min Scan# 7
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

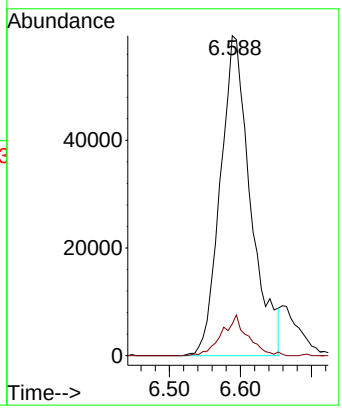
Tgt Ion: 43 Resp: 17617

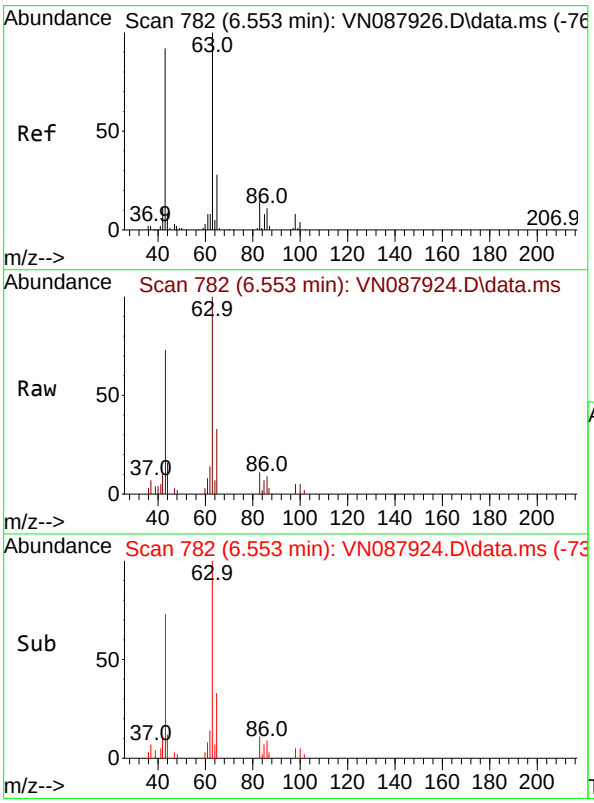
Ion	Ratio	Lower	Upper
43	100		
86	10.0	8.6	12.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

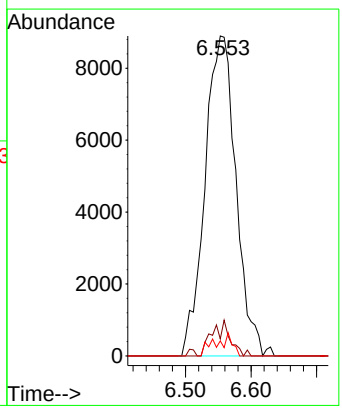


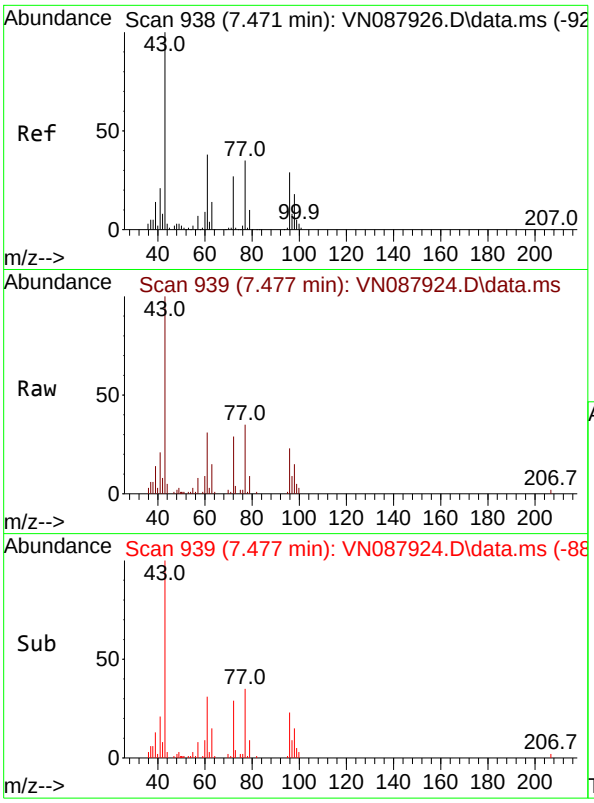


#24
1,1-Dichloroethane
Concen: 5.640 ug/l
RT: 6.553 min Scan# 782
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 63 Resp: 29249

Ion	Ratio	Lower	Upper
63	100		
98	5.3	3.9	11.5
100	4.7	2.1	6.5

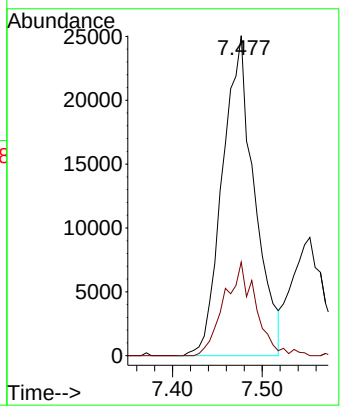




#25
2-Butanone
Concen: 26.329 ug/l
RT: 7.477 min Scan# 9
Delta R.T. 0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 43 Resp: 6196

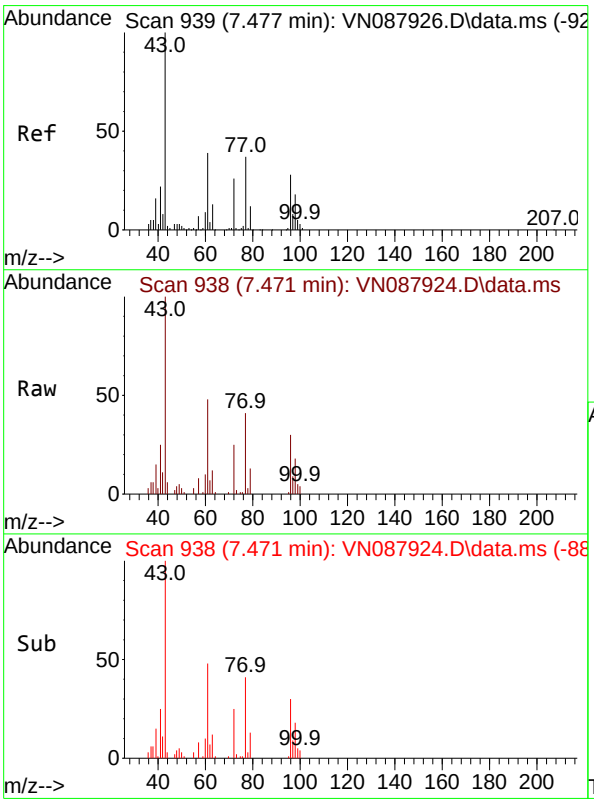
Ion	Ratio	Lower	Upper
43	100		
72	30.0	21.5	32.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

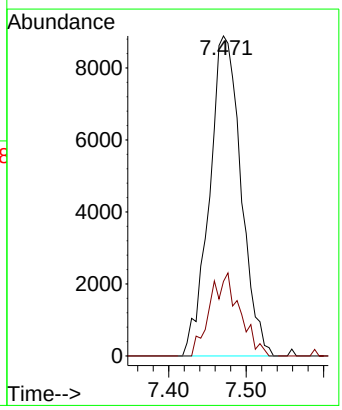
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

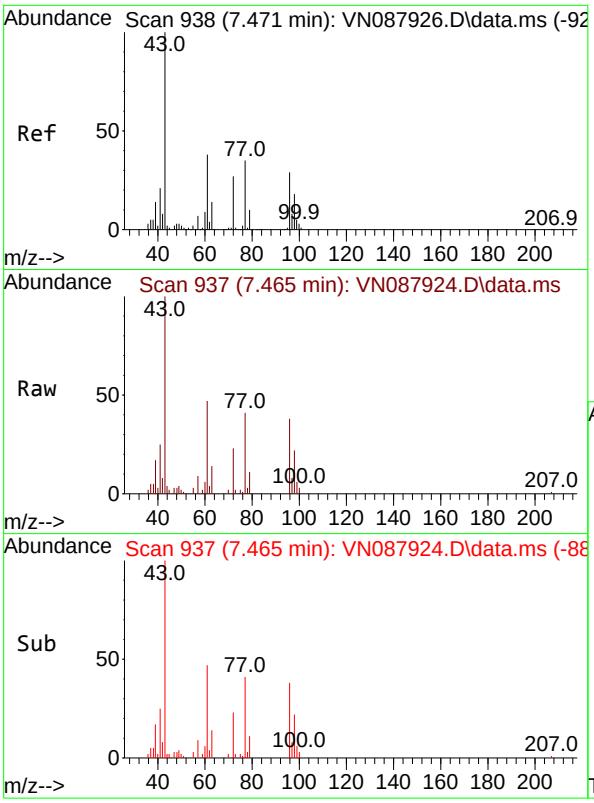


#26
2,2-Dichloropropane
Concen: 5.480 ug/l
RT: 7.471 min Scan# 938
Delta R.T. -0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 77 Resp: 25251

Ion	Ratio	Lower	Upper
77	100		
97	24.5	11.5	34.5

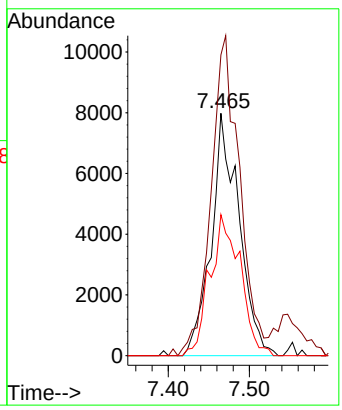




#27
cis-1,2-Dichloroethene
Concen: 5.562 ug/l
RT: 7.465 min Scan# 9
Delta R.T. -0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 96 Resp: 1894

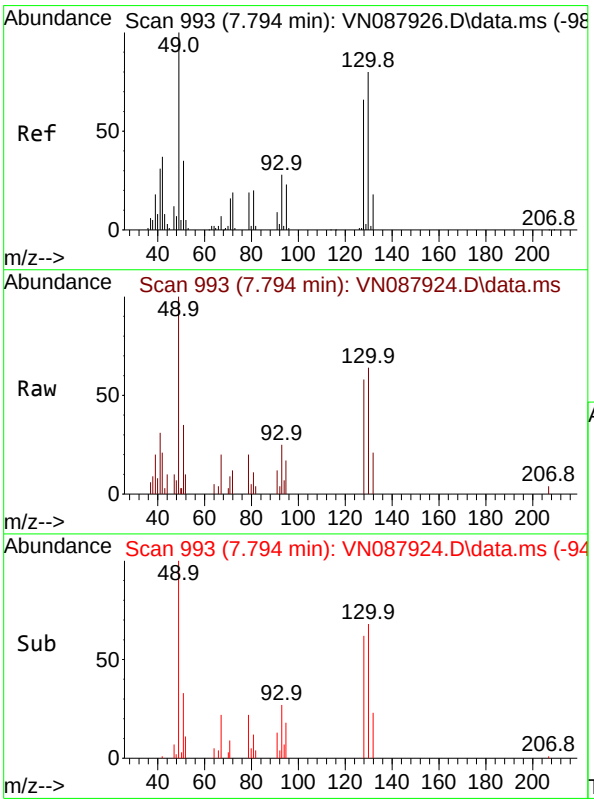
Ion	Ratio	Lower	Upper
96	100		
61	136.4	0.0	283.0
98	63.8	0.0	127.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

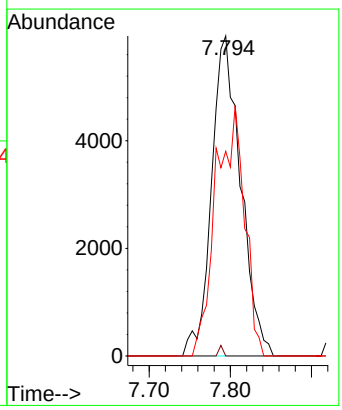
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

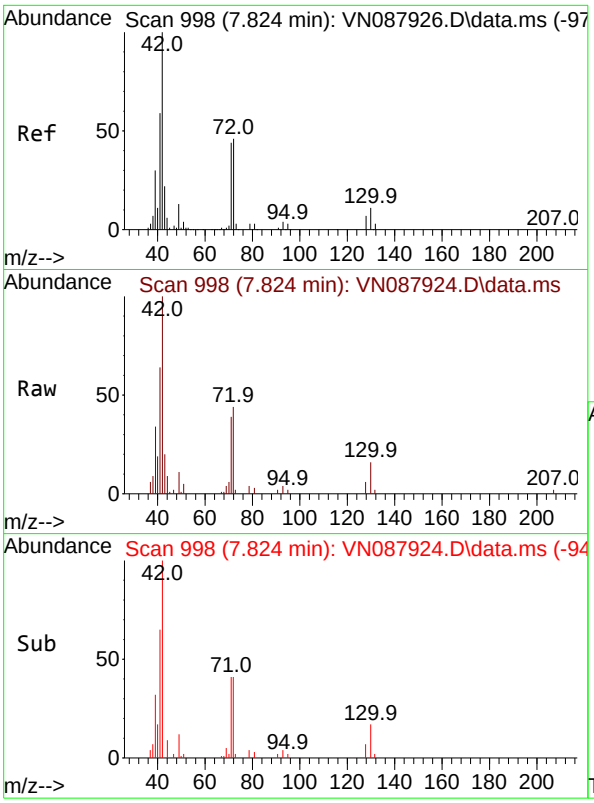


#28
Bromochloromethane
Concen: 5.267 ug/l
RT: 7.794 min Scan# 993
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 49 Resp: 14841

Ion	Ratio	Lower	Upper
49	100		
129	0.5	0.0	5.4
130	77.0	62.6	94.0





#29
Tetrahydrofuran
Concen: 24.706 ug/l
RT: 7.824 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

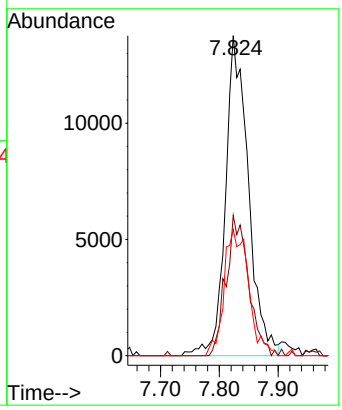
Tgt Ion: 42 Resp: 3722

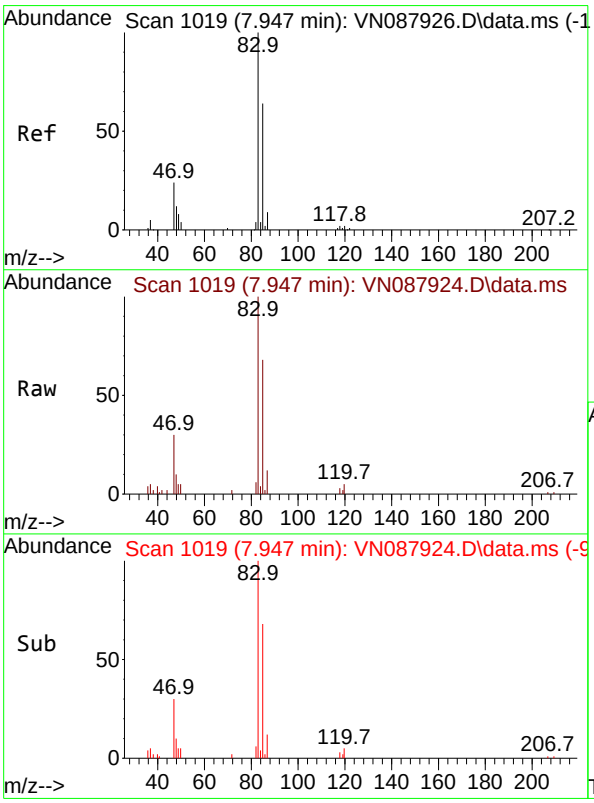
Ion	Ratio	Lower	Upper
42	100		
72	43.1	36.5	54.7
71	42.2	33.8	50.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

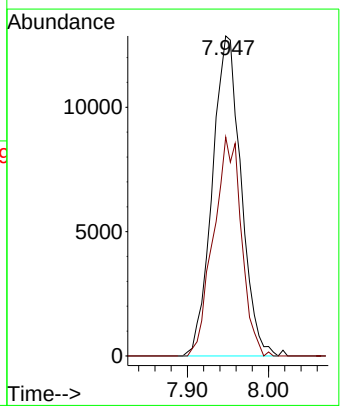


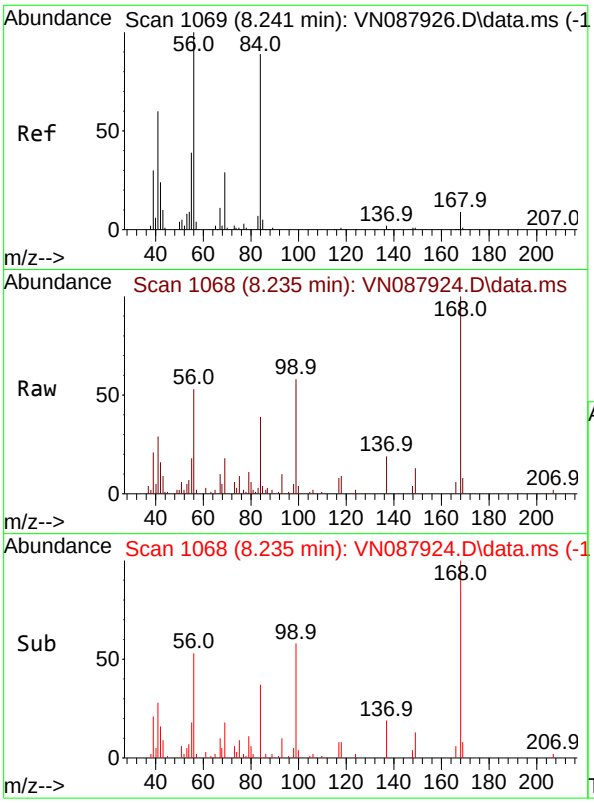


#30
Chloroform
Concen: 5.566 ug/l
RT: 7.947 min Scan# 1019
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 83 Resp: 31560

Ion	Ratio	Lower	Upper
83	100		
85	68.4	50.9	76.3

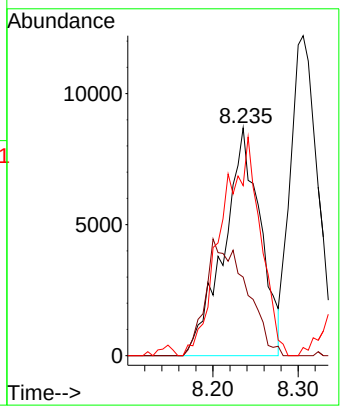




#31
Cyclohexane
Concen: 6.160 ug/l
RT: 8.235 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 56 Resp: 2585

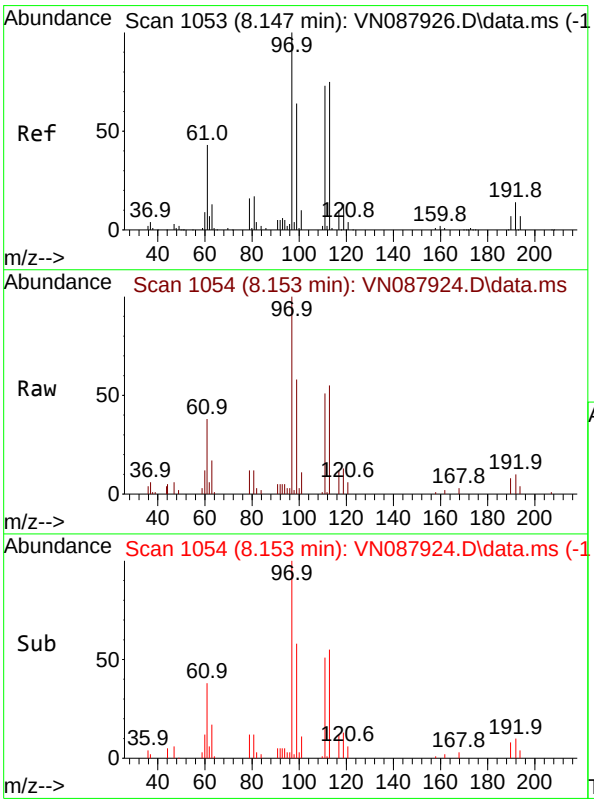
Ion	Ratio	Lower	Upper
56	100		
69	34.5	23.4	35.0
84	74.7	70.8	106.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

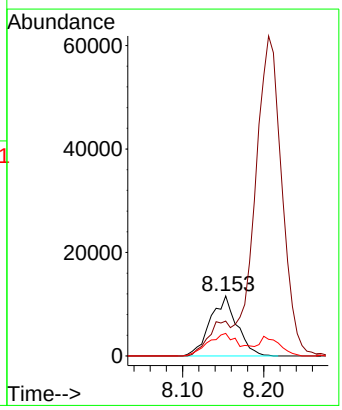
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

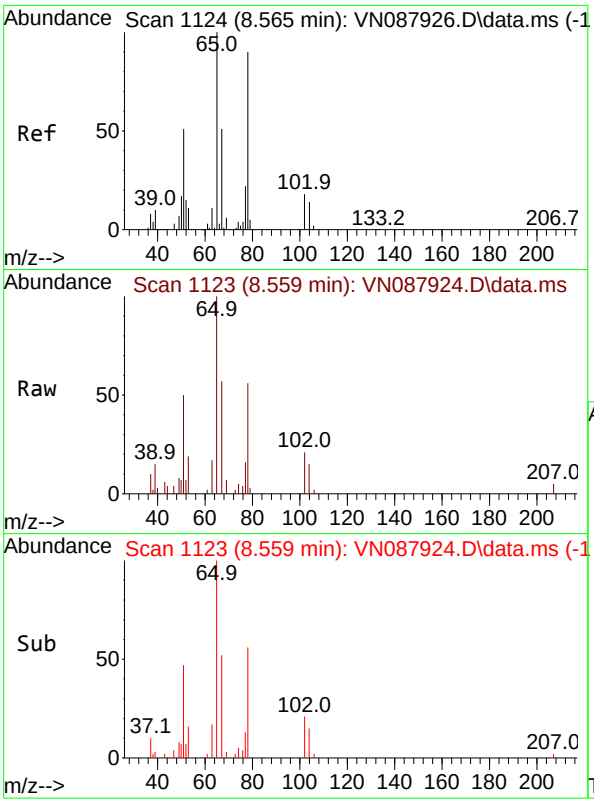


#32
1,1,1-Trichloroethane
Concen: 5.524 ug/l
RT: 8.153 min Scan# 1054
Delta R.T. 0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 97 Resp: 26469

Ion	Ratio	Lower	Upper
97	100		
99	48.1	51.1	76.7#
61	43.7	38.6	58.0

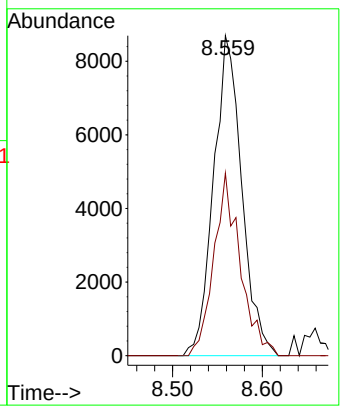




#33
1,2-Dichloroethane-d4
Concen: 5.065 ug/l
RT: 8.559 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 65 Resp: 1895

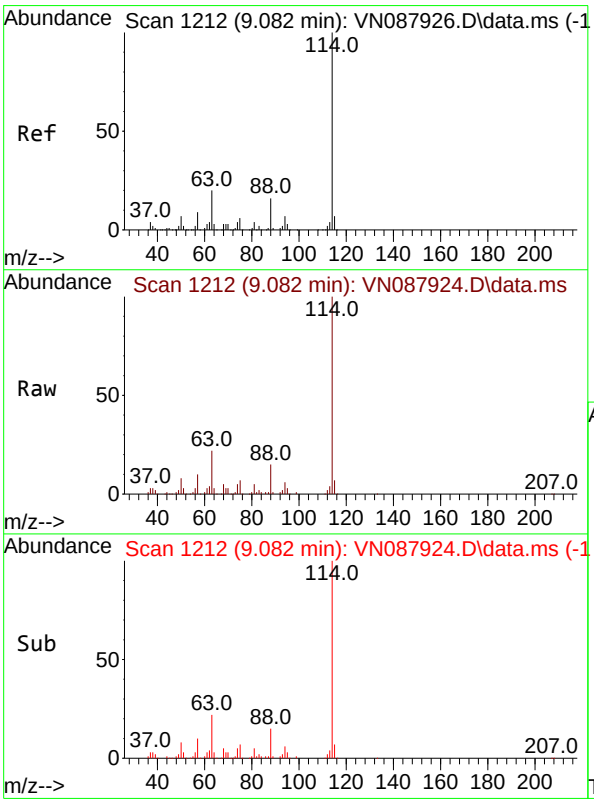
Ion	Ratio	Lower	Upper
65	100		
67	53.5	0.0	103.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

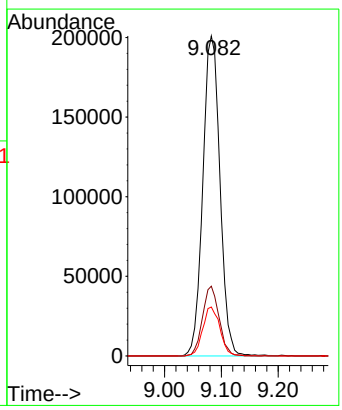
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

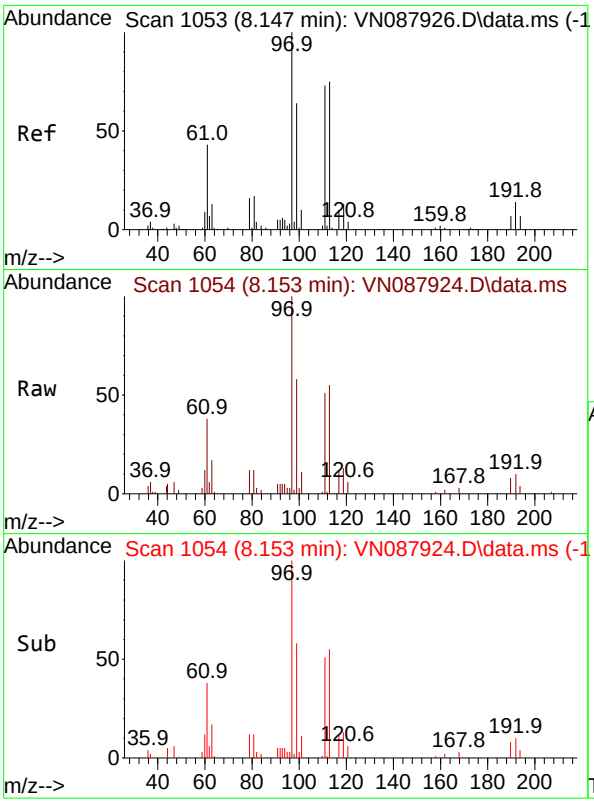


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.082 min Scan# 1212
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion:114 Resp: 420635

Ion	Ratio	Lower	Upper
114	100		
63	21.8	0.0	40.0
88	15.3	0.0	31.8

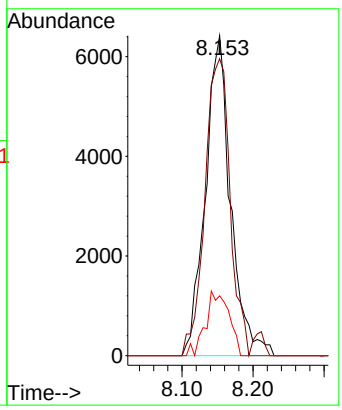




#35
Dibromofluoromethane
Concen: 5.180 ug/l
RT: 8.153 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion:113 Resp: 1582

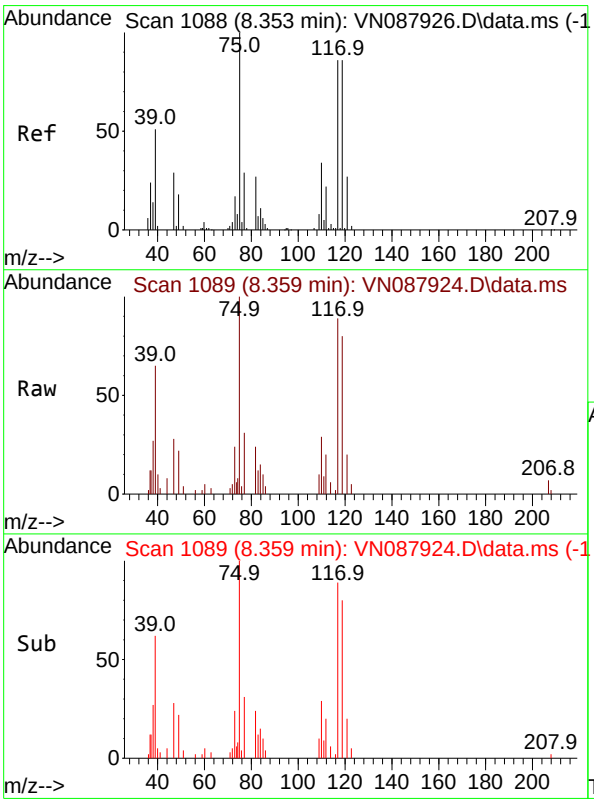
Ion	Ratio	Lower	Upper
113	100		
111	92.9	82.2	123.2
192	18.6	14.2	21.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

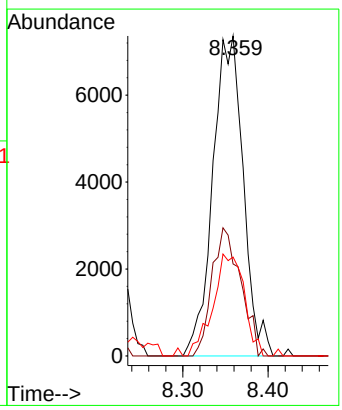
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

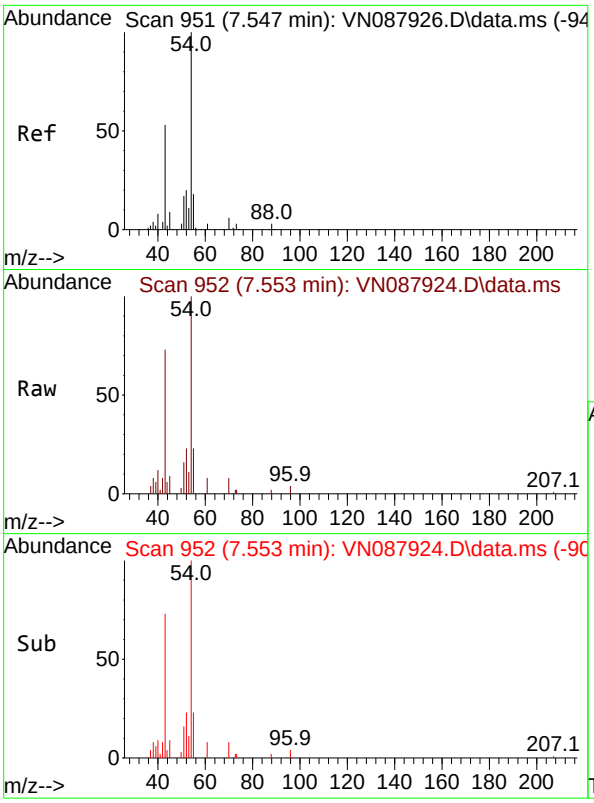


#36
1,1-Dichloropropene
Concen: 4.982 ug/l
RT: 8.359 min Scan# 1089
Delta R.T. 0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 75 Resp: 18296

Ion	Ratio	Lower	Upper
75	100		
110	37.6	17.1	51.3
77	32.6	24.8	37.2

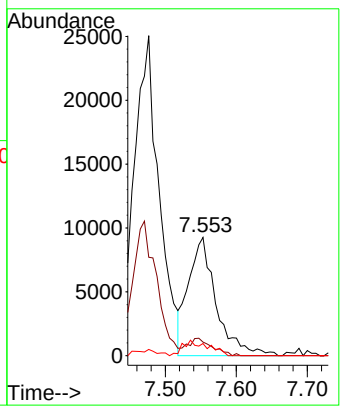




#37
Ethyl Acetate
Concen: 5.248 ug/l
RT: 7.553 min Scan# 9
Delta R.T. 0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 43 Resp: 2530

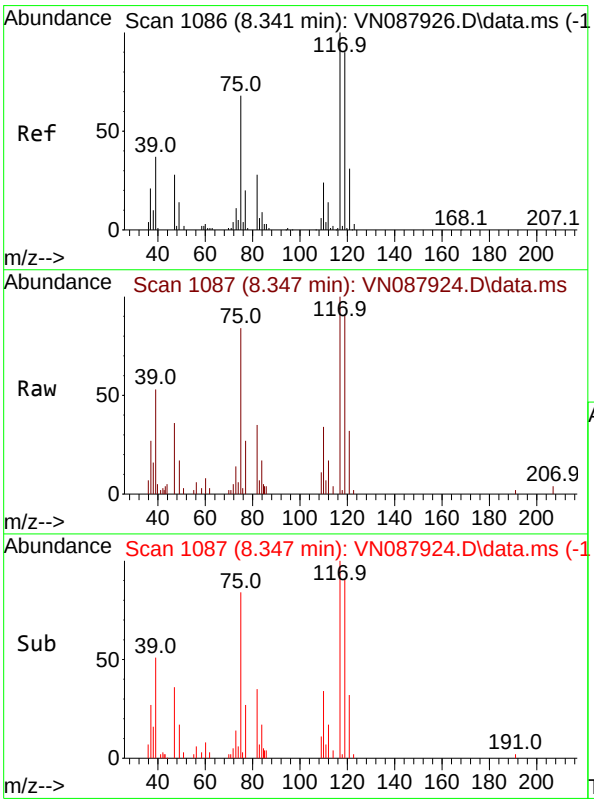
Ion	Ratio	Lower	Upper
43	100		
61	12.3	10.7	16.1
70	11.8	7.8	11.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

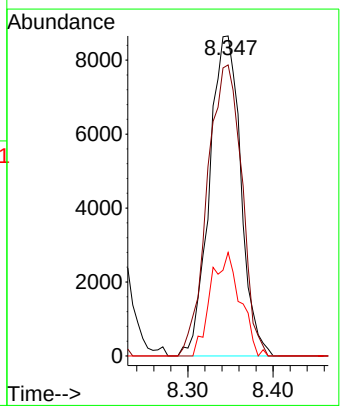
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

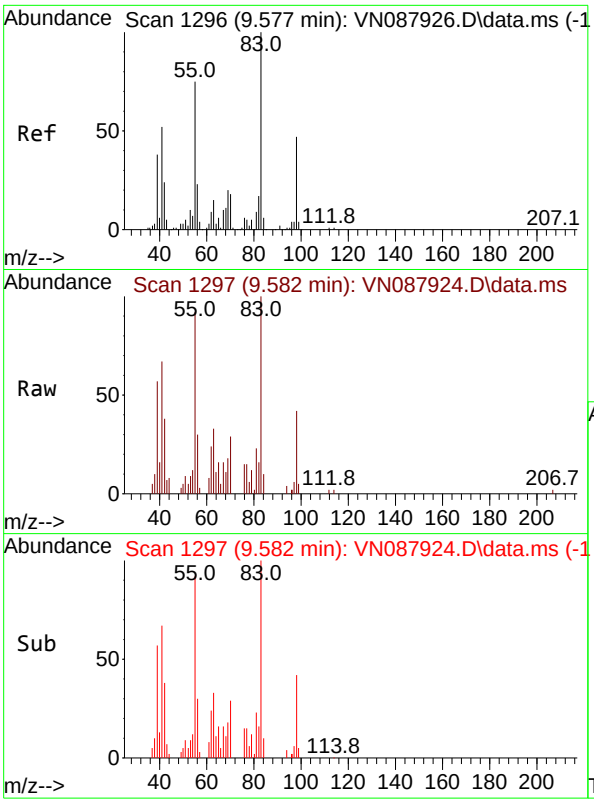


#38
Carbon Tetrachloride
Concen: 5.234 ug/l
RT: 8.347 min Scan# 1087
Delta R.T. 0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion:117 Resp: 22056

Ion	Ratio	Lower	Upper
117	100		
119	91.0	72.1	108.1
121	32.3	24.6	36.8

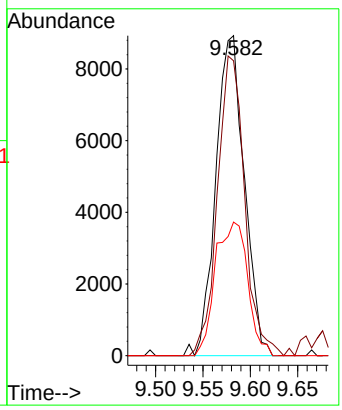




#39
Methylcyclohexane
Concen: 4.621 ug/l
RT: 9.582 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 83 Resp: 1872

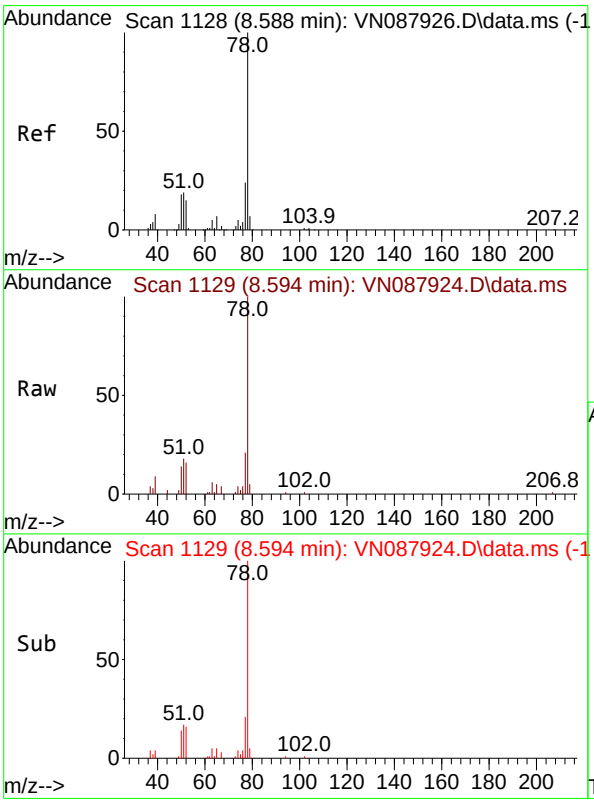
Ion	Ratio	Lower	Upper
83	100		
55	92.2	59.9	89.9
98	41.8	37.4	56.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

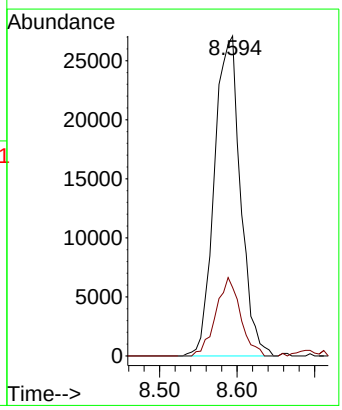
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

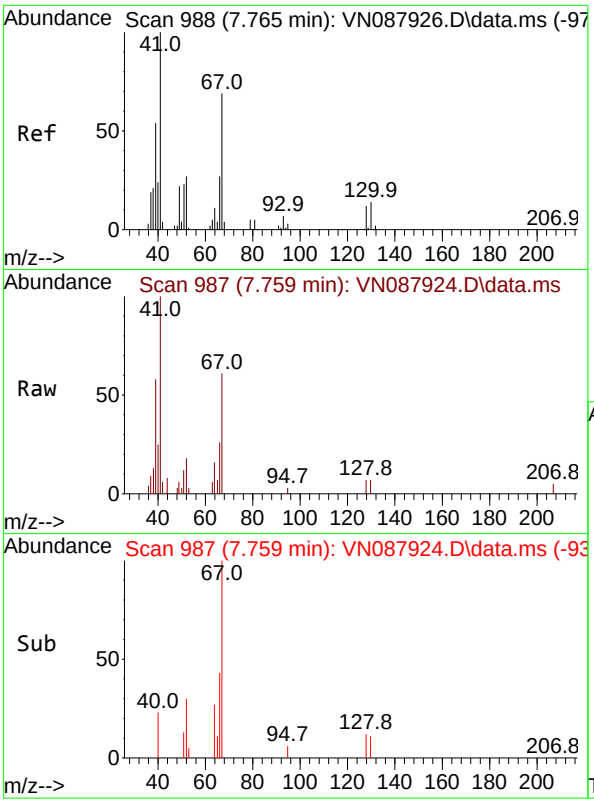


#40
Benzene
Concen: 5.213 ug/l
RT: 8.594 min Scan# 1129
Delta R.T. 0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 78 Resp: 63389

Ion	Ratio	Lower	Upper
78	100		
77	21.4	19.0	28.6

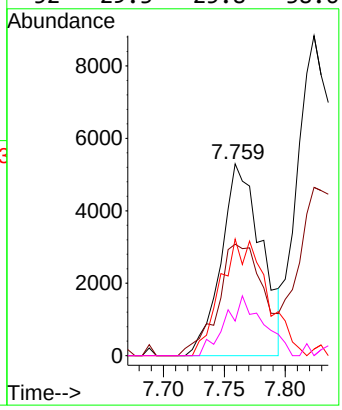




#41
Methacrylonitrile
Concen: 4.894 ug/l
RT: 7.759 min Scan# 9
Delta R.T. -0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 41 Resp: 1219

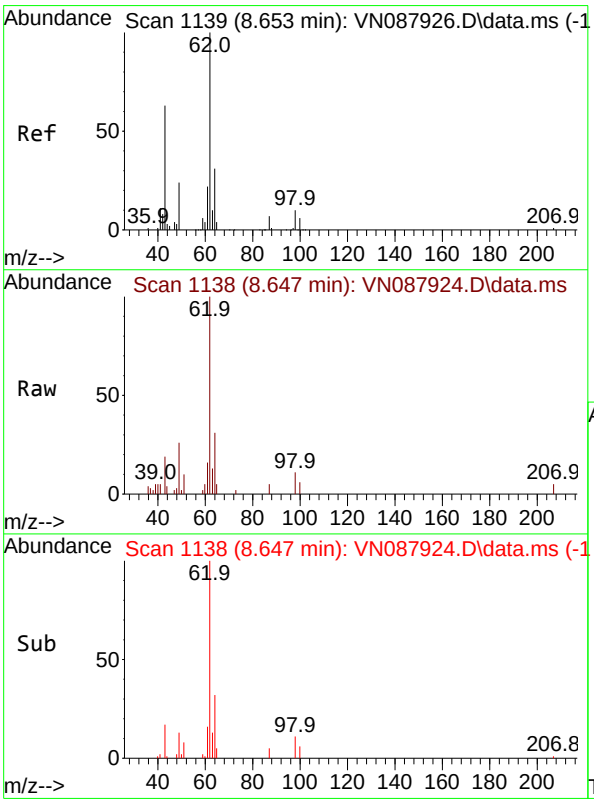
Ion	Ratio	Lower	Upper
41	100		
39	65.8	43.5	65.3
67	70.3	57.6	86.4
52	29.3	25.8	38.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

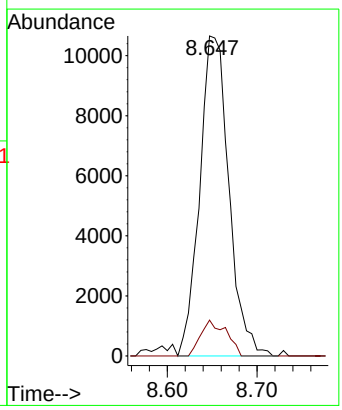
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

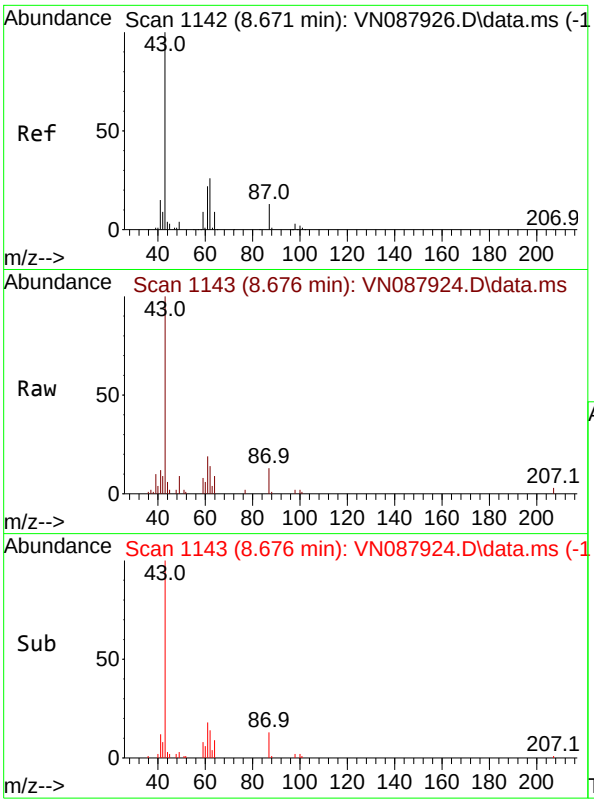


#42
1,2-Dichloroethane
Concen: 5.303 ug/l
RT: 8.647 min Scan# 1138
Delta R.T. -0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 62 Resp: 24064

Ion	Ratio	Lower	Upper
62	100		
98	9.8	0.0	18.6

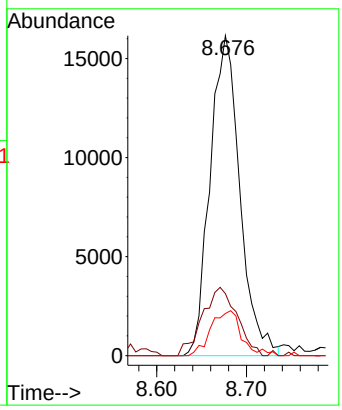




#43
Isopropyl Acetate
Concen: 4.906 ug/l
RT: 8.676 min Scan# 11
Delta R.T. 0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 43 Resp: 3723

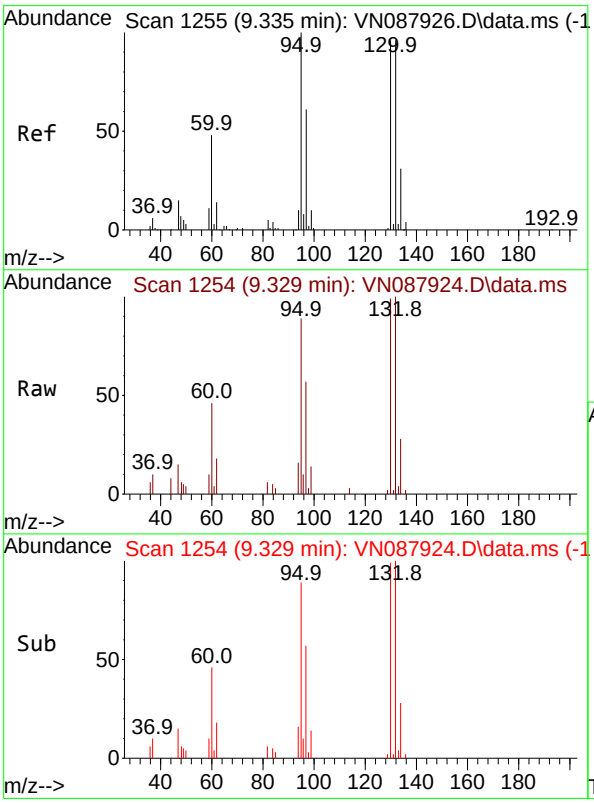
Ion	Ratio	Lower	Upper
43	100		
61	24.8	20.2	30.2
87	13.8	10.9	16.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

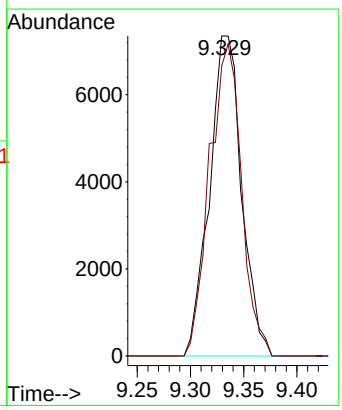
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

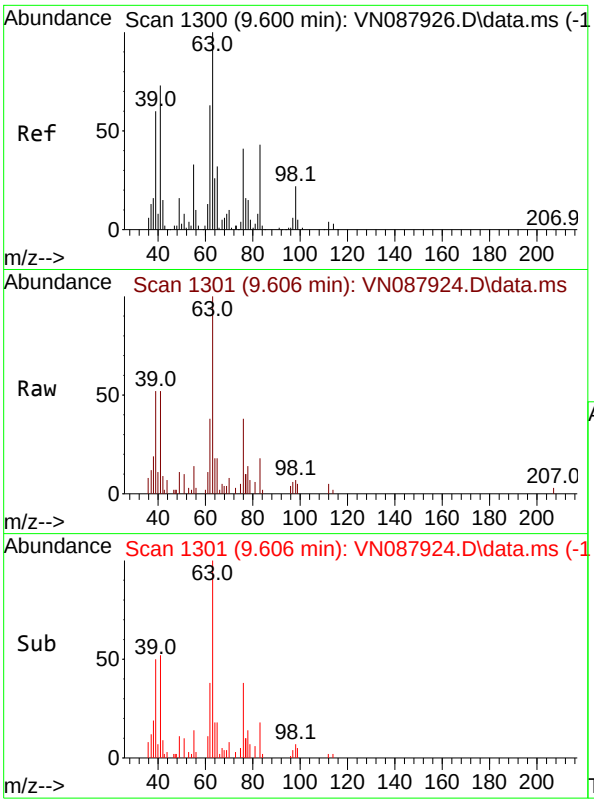


#44
Trichloroethene
Concen: 5.313 ug/l
RT: 9.329 min Scan# 1254
Delta R.T. -0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion:130 Resp: 15430

Ion	Ratio	Lower	Upper
130	100		
95	90.6	0.0	208.0

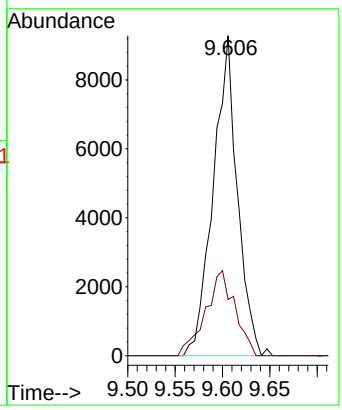




#45
1,2-Dichloropropane
Concen: 5.398 ug/l
RT: 9.606 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 63 Resp: 1645

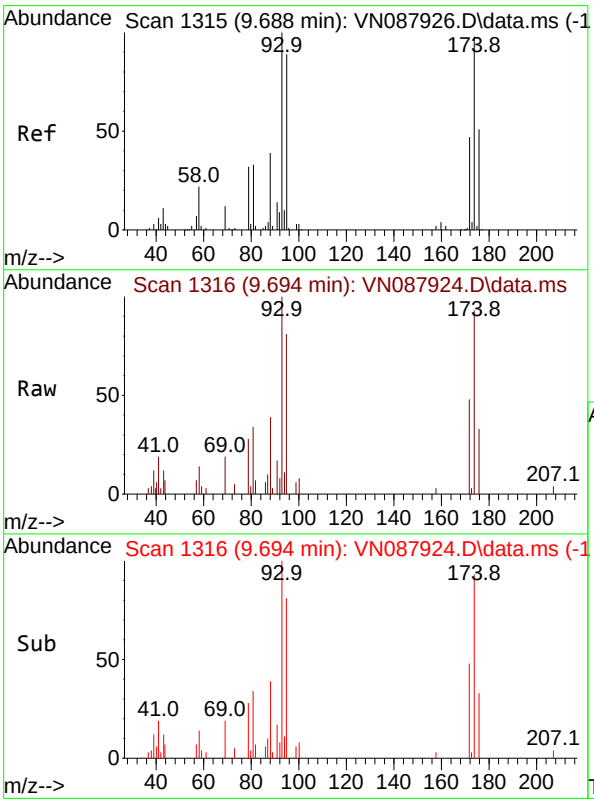
Ion	Ratio	Lower	Upper
63	100		
65	17.6	25.4	38.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

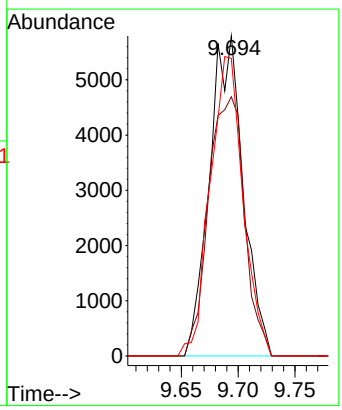
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

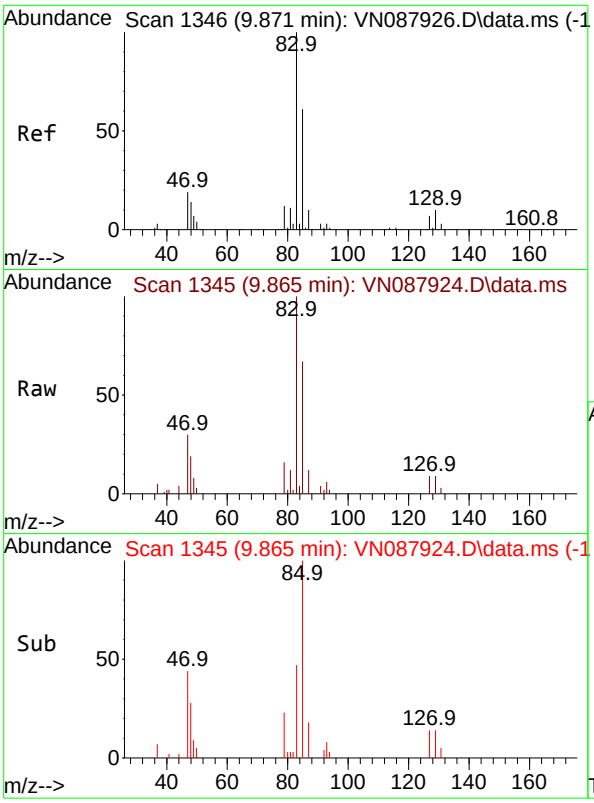


#46
Dibromomethane
Concen: 4.954 ug/l
RT: 9.694 min Scan# 1316
Delta R.T. 0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 93 Resp: 11919

Ion	Ratio	Lower	Upper
93	100		
95	86.9	67.6	101.4
174	91.7	75.4	113.0

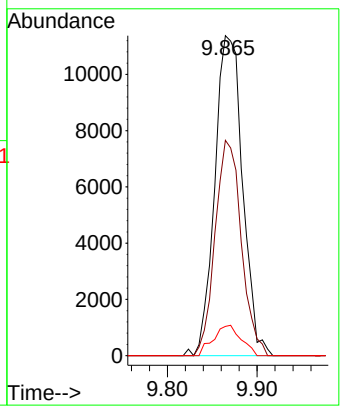




#47
Bromodichloromethane
Concen: 5.181 ug/l
RT: 9.865 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 83 Resp: 2445

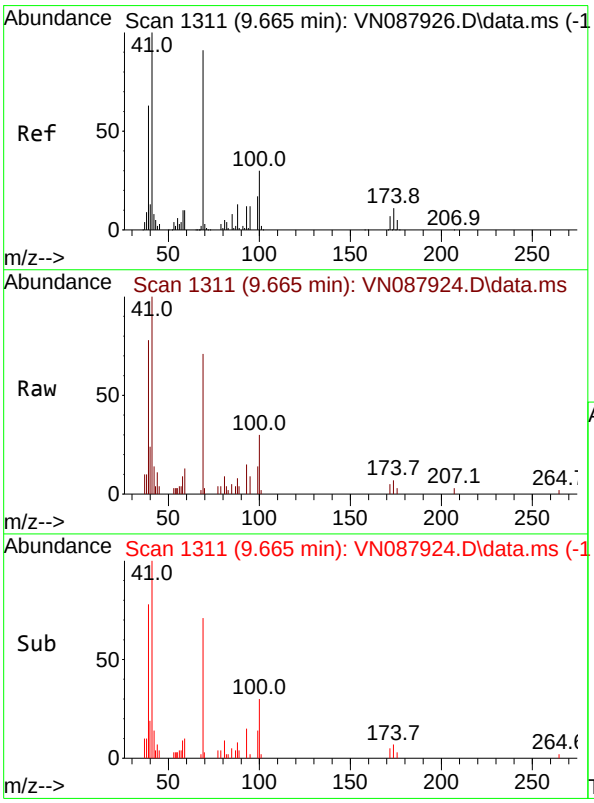
Ion	Ratio	Lower	Upper
83	100		
85	67.3	49.1	73.7
127	9.2	5.9	8.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

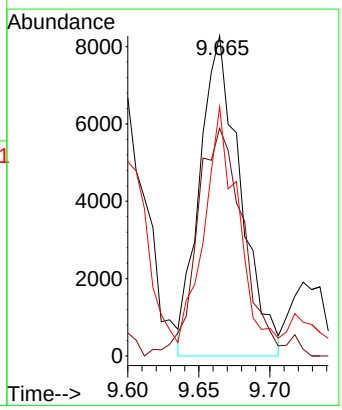
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

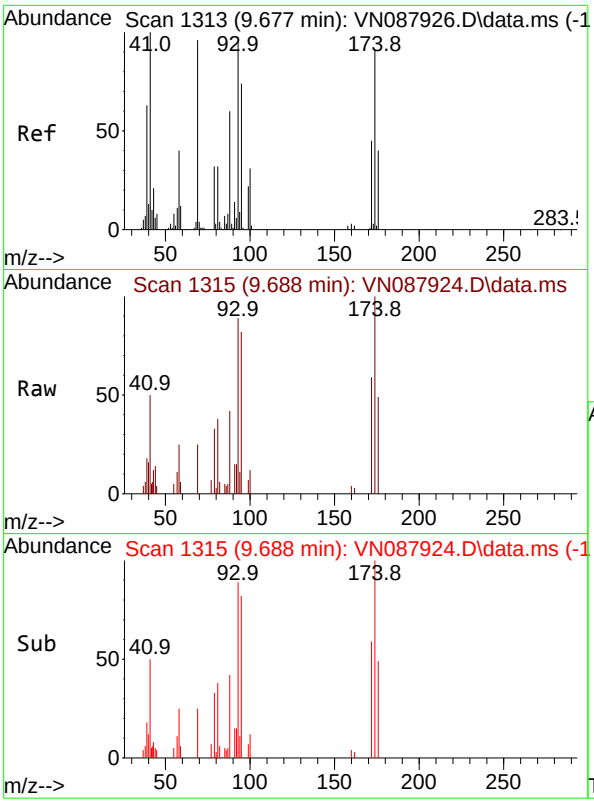


#48
Methyl methacrylate
Concen: 4.689 ug/l
RT: 9.665 min Scan# 1311
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 41 Resp: 16484

Ion	Ratio	Lower	Upper
41	100		
69	74.9	70.9	106.3
39	60.5	52.9	79.3

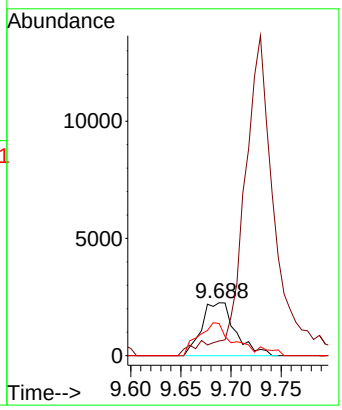




#49
1,4-Dioxane
Concen: 101.752 ug/l
RT: 9.688 min Scan# 1
Delta R.T. 0.012 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 88 Resp: 528

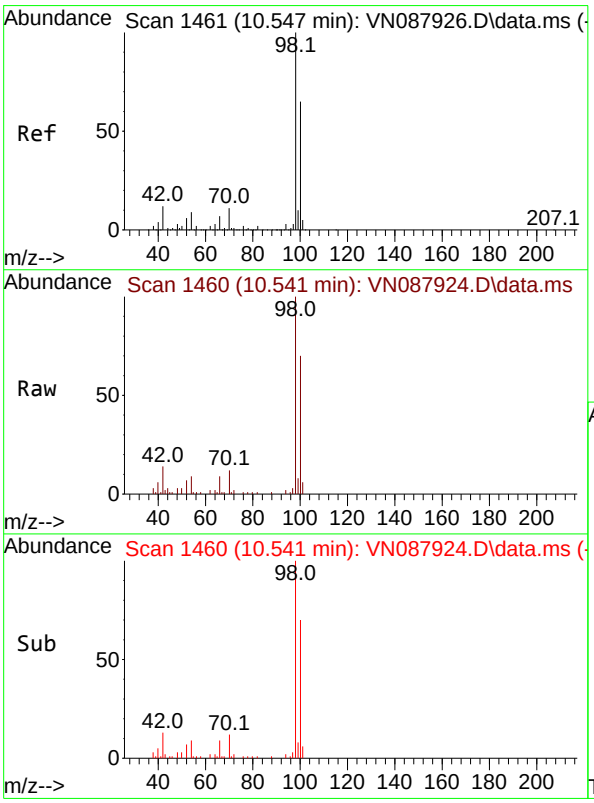
Ion	Ratio	Lower	Upper
88	100		
43	0.0	22.6	33.8
58	62.0	57.4	86.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

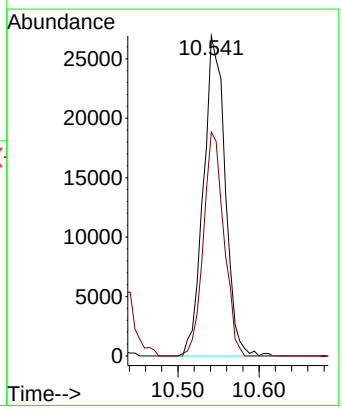
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

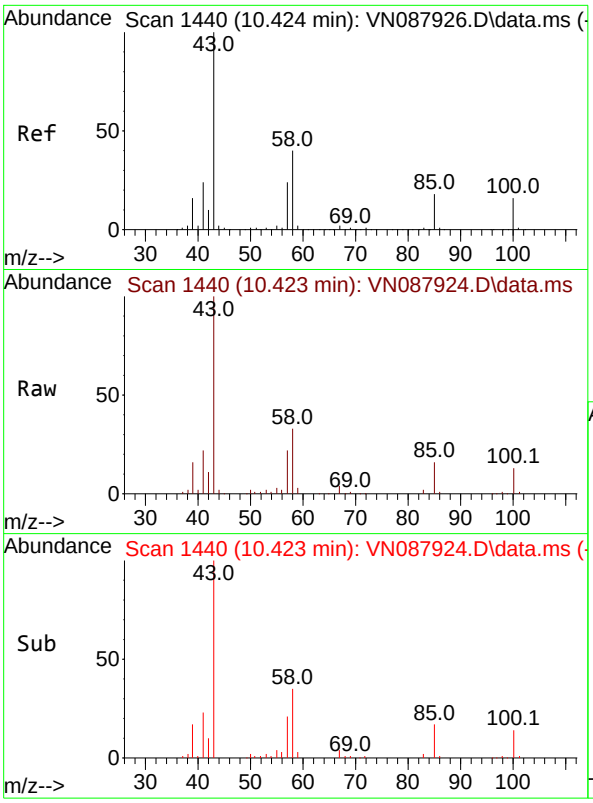


#50
Toluene-d8
Concen: 4.658 ug/l
RT: 10.541 min Scan# 1460
Delta R.T. -0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 98 Resp: 50031

Ion	Ratio	Lower	Upper
98	100		
100	65.9	51.7	77.5





#51
4-Methyl-2-Pentanone
Concen: 23.639 ug/l
RT: 10.423 min Scan# 14
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

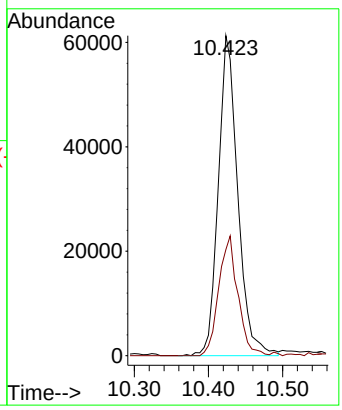
Tgt Ion: 43 Resp: 11196

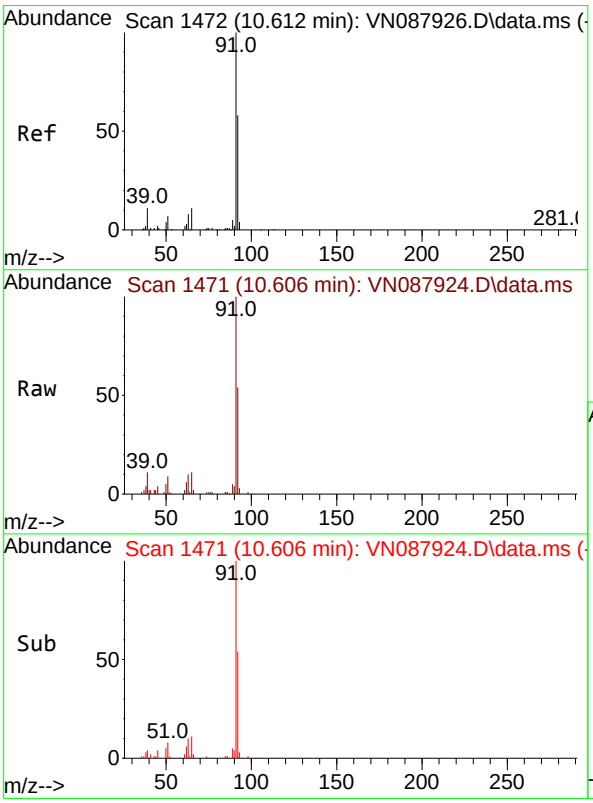
Ion	Ratio	Lower	Upper
43	100		
58	36.7	31.0	46.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

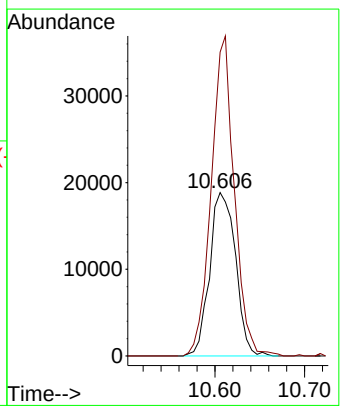


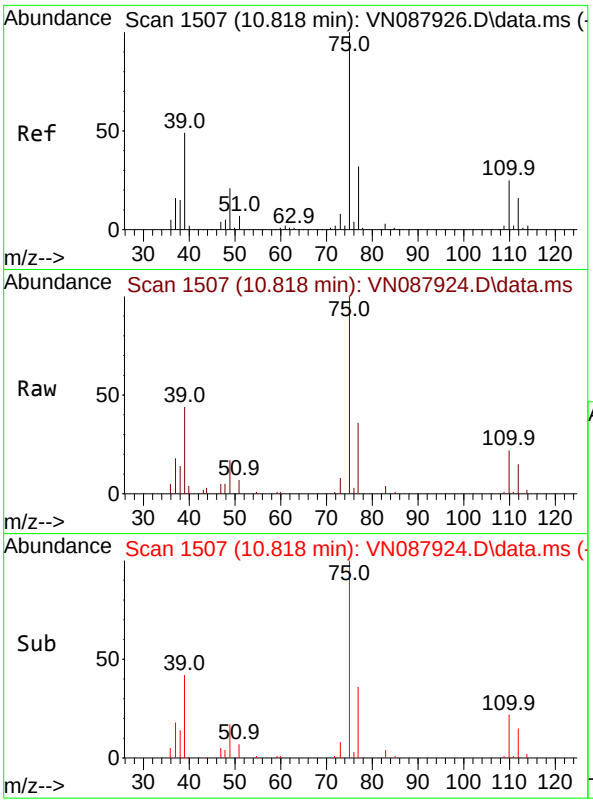


#52
Toluene
Concen: 4.945 ug/l
RT: 10.606 min Scan# 1471
Delta R.T. -0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 92 Resp: 37730

Ion	Ratio	Lower	Upper
92	100		
91	174.6	138.2	207.2

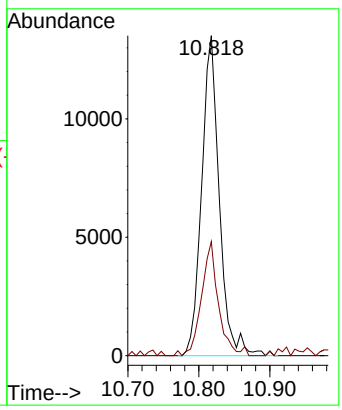




#53
t-1,3-Dichloropropene
Concen: 4.847 ug/l
RT: 10.818 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 75 Resp: 2340

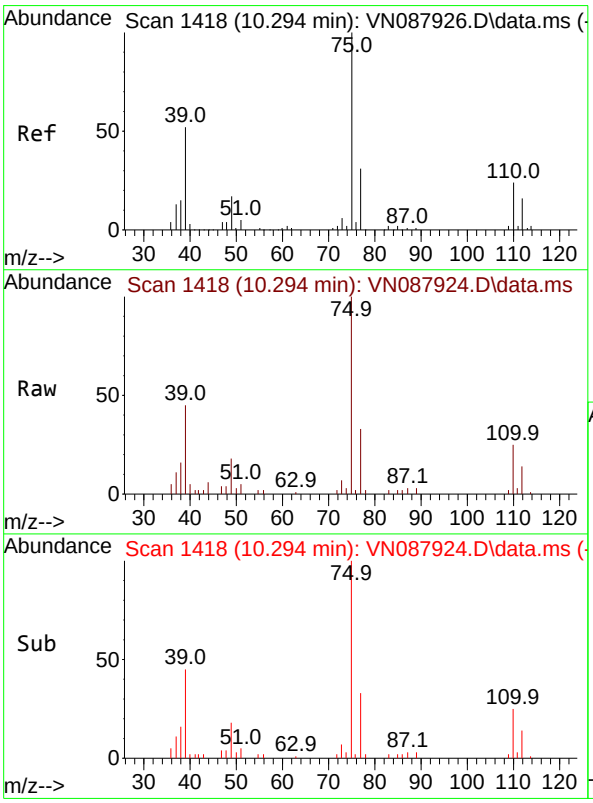
Ion	Ratio	Lower	Upper
75	100		
77	34.1	25.3	37.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

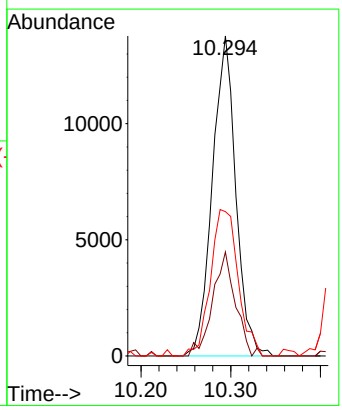
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

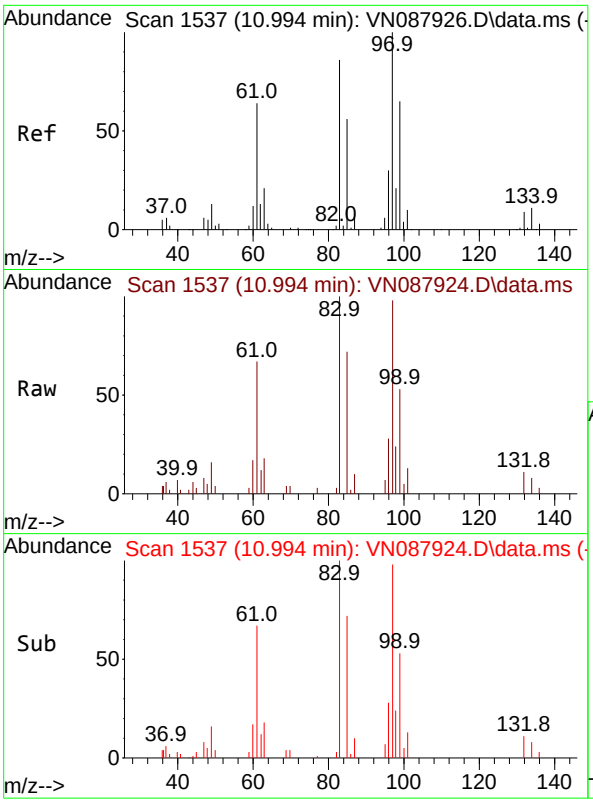


#54
cis-1,3-Dichloropropene
Concen: 4.972 ug/l
RT: 10.294 min Scan# 1418
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 75 Resp: 24940

Ion	Ratio	Lower	Upper
75	100		
77	32.5	24.7	37.1
39	45.1	41.4	62.0

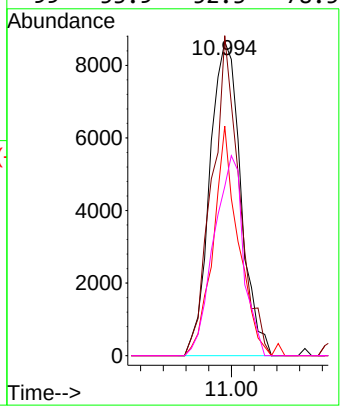




#55
1,1,2-Trichloroethane
Concen: 5.281 ug/l
RT: 10.994 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 97 Resp: 1638

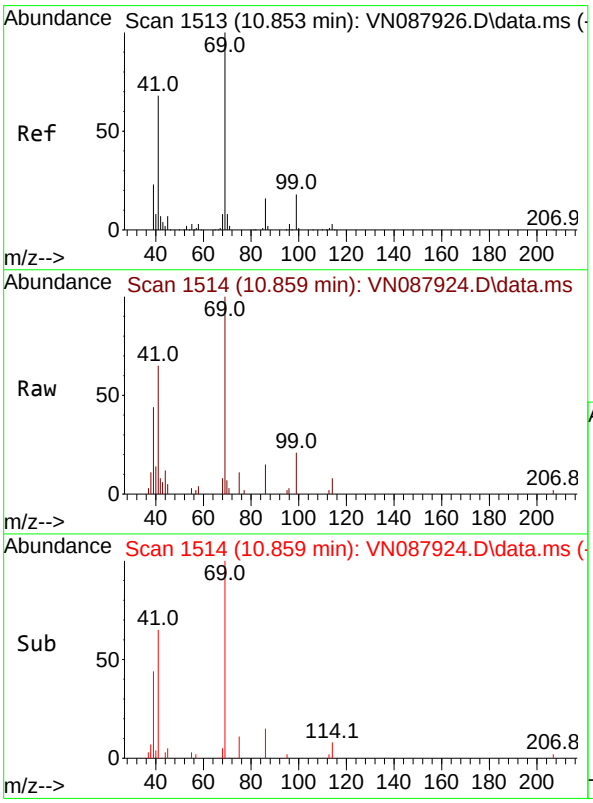
Ion	Ratio	Lower	Upper
97	100		
83	101.9	69.0	103.4
85	73.1	44.4	66.6
99	53.9	52.3	78.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

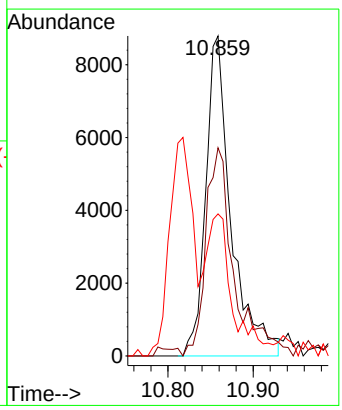
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

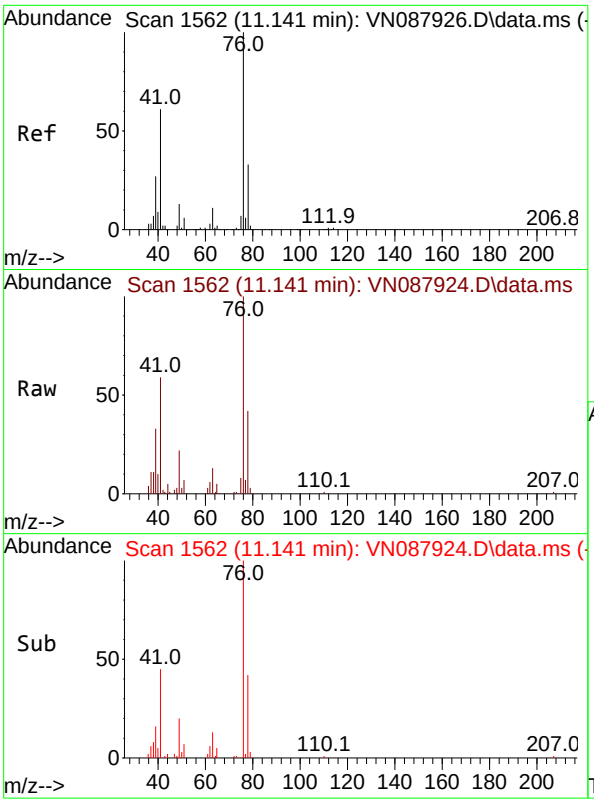


#56
Ethyl methacrylate
Concen: 4.060 ug/l
RT: 10.859 min Scan# 1514
Delta R.T. 0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 69 Resp: 18199

Ion	Ratio	Lower	Upper
69	100		
41	71.8	53.8	80.6
39	42.8	34.7	52.1

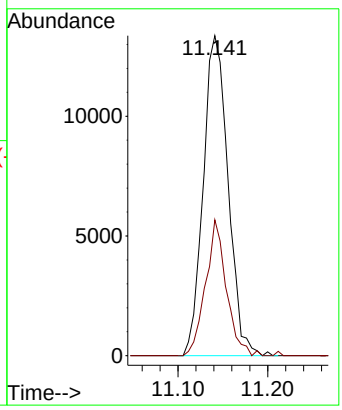




#57
1,3-Dichloropropane
Concen: 5.032 ug/l
RT: 11.141 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 76 Resp: 2567

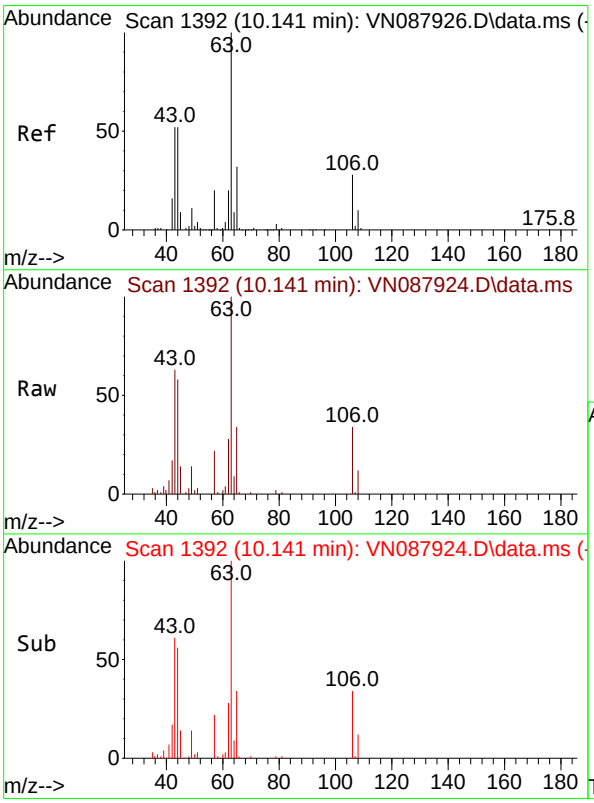
Ion	Ratio	Lower	Upper
76	100		
78	35.6	26.0	39.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

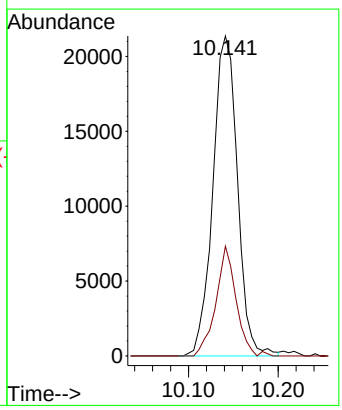
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

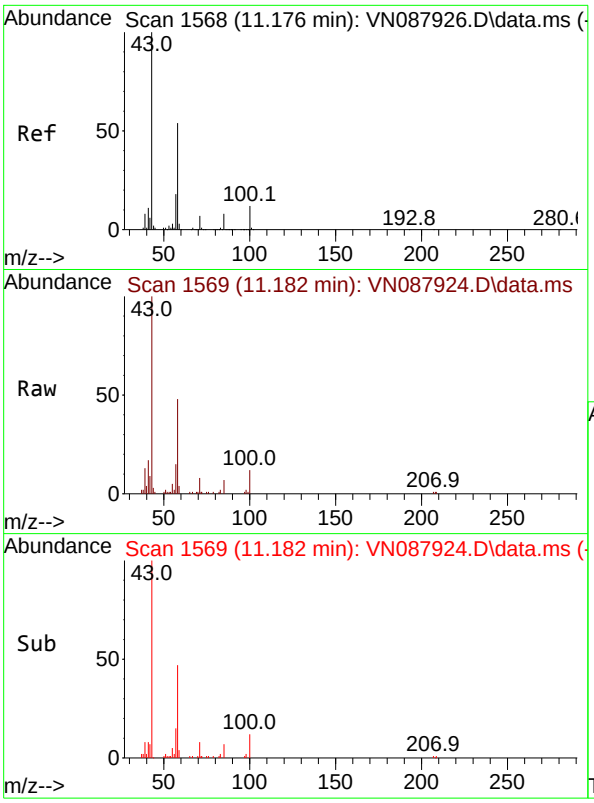


#58
2-Chloroethyl Vinyl ether
Concen: 19.289 ug/l
RT: 10.141 min Scan# 1392
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 63 Resp: 40658

Ion	Ratio	Lower	Upper
63	100		
106	28.2	22.6	33.8





#59
2-Hexanone
Concen: 19.915 ug/l
RT: 11.182 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

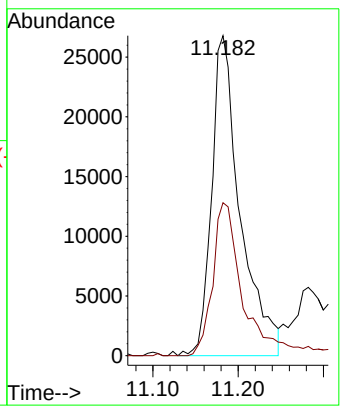
Tgt Ion: 43 Resp: 6237

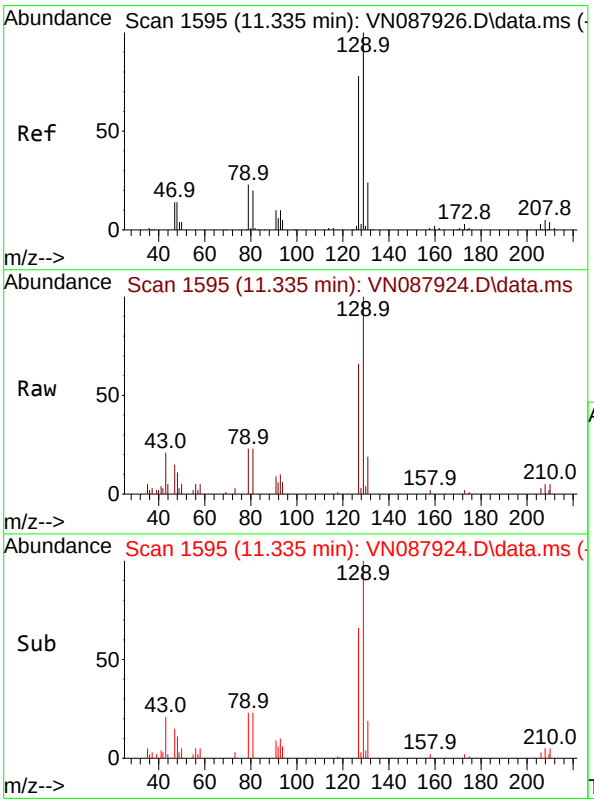
Ion	Ratio	Lower	Upper
43	100		
58	51.1	26.4	79.2

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

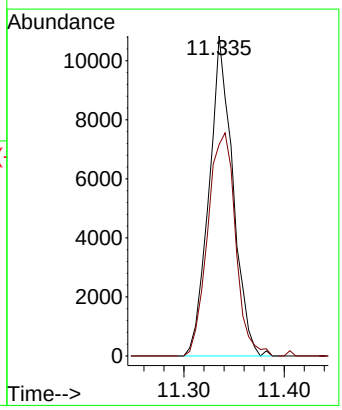


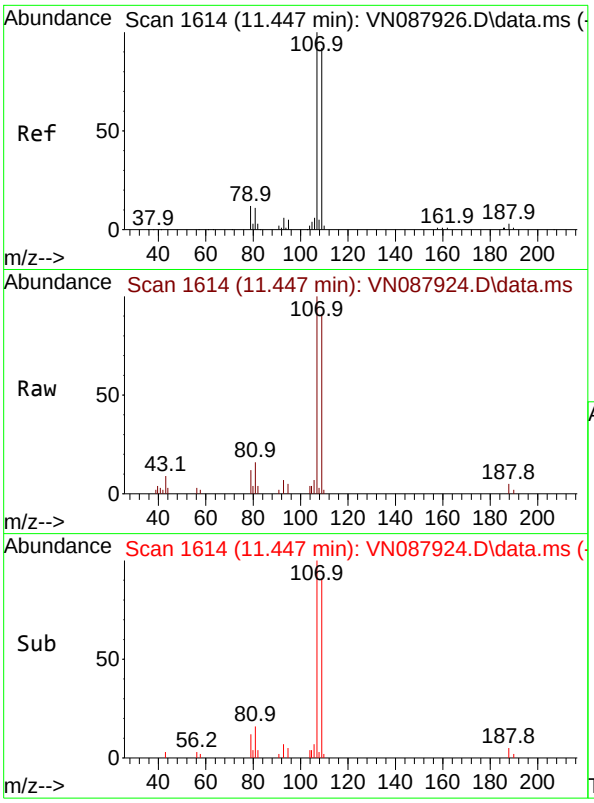


#60
Dibromochloromethane
Concen: 4.900 ug/l
RT: 11.335 min Scan# 1595
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion:129 Resp: 17873

Ion	Ratio	Lower	Upper
129	100		
127	81.3	39.3	117.9

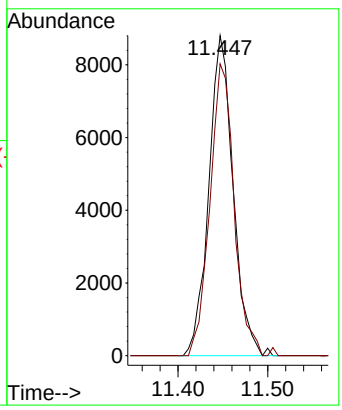




#61
1,2-Dibromoethane
Concen: 5.055 ug/l
RT: 11.447 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion:107 Resp: 1660

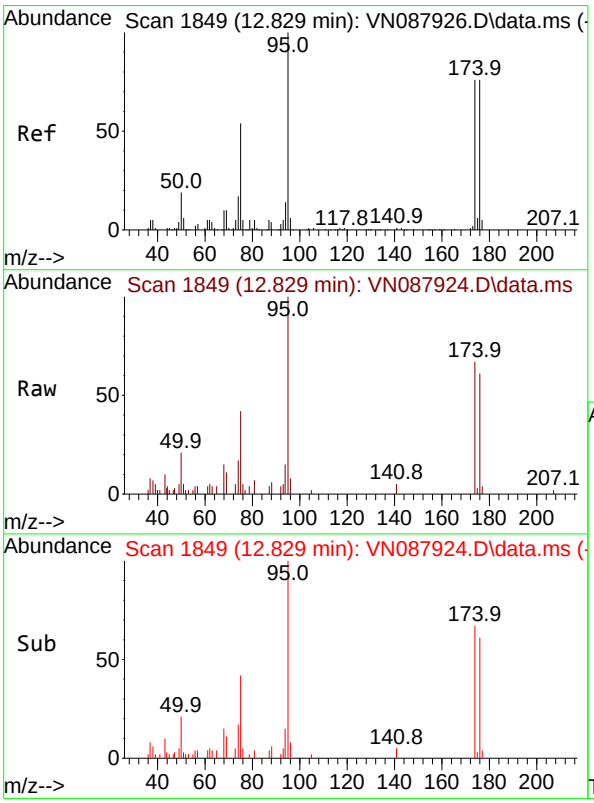
Ion	Ratio	Lower	Upper
107	100		
109	90.4	75.3	112.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

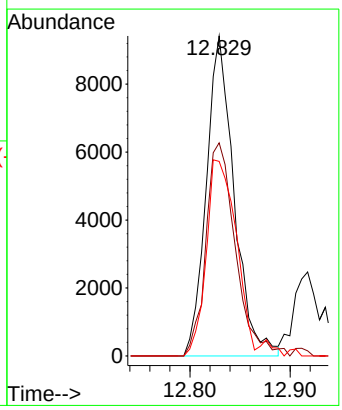
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

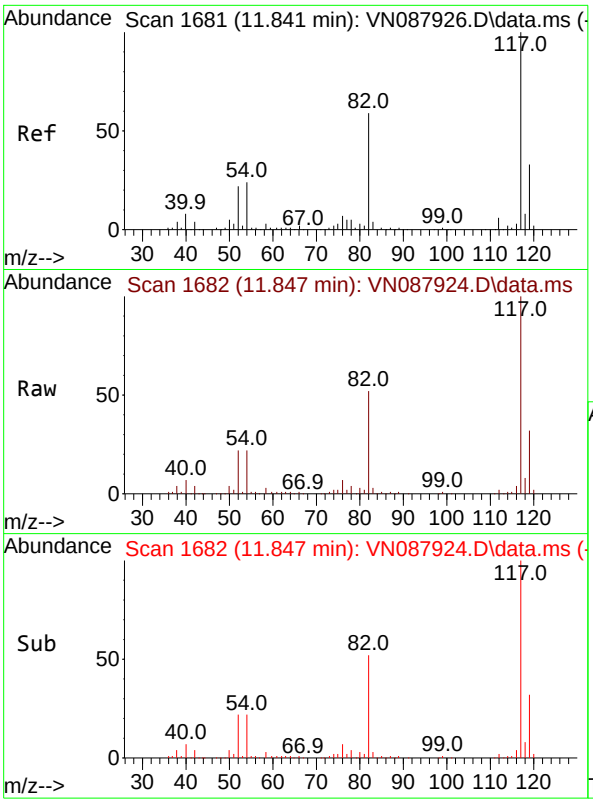


#62
4-Bromofluorobenzene
Concen: 4.729 ug/l
RT: 12.829 min Scan# 1849
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 95 Resp: 18155

Ion	Ratio	Lower	Upper
95	100		
174	70.7	0.0	159.2
176	66.2	0.0	152.6

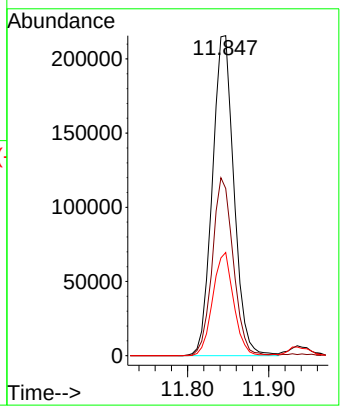




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.847 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion:117 Resp: 39916

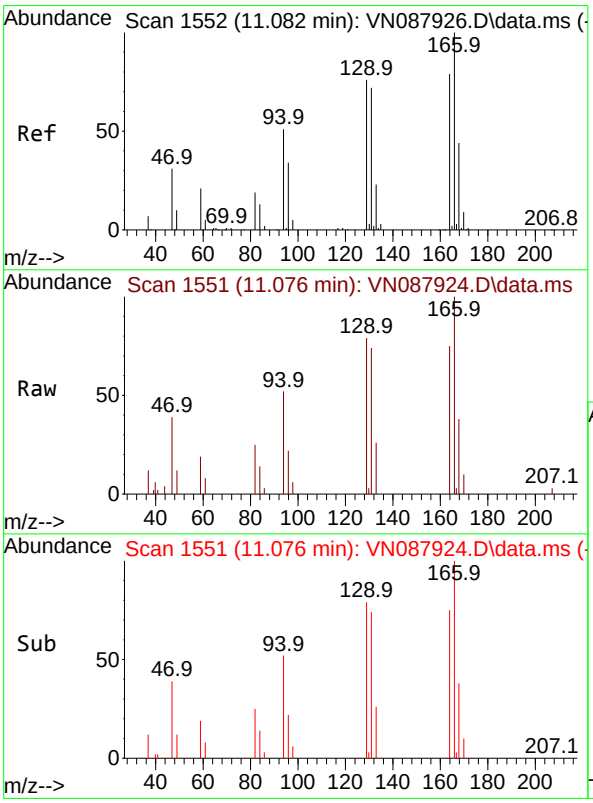
Ion	Ratio	Lower	Upper
117	100		
82	52.2	47.0	70.4
119	32.2	26.1	39.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

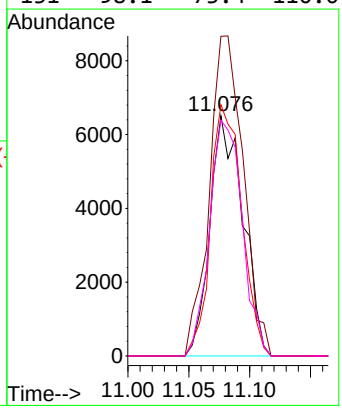
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

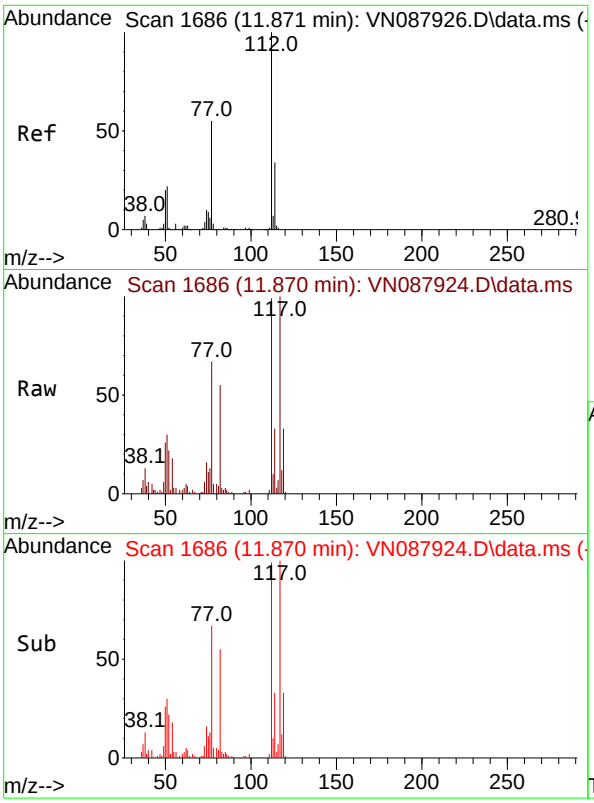


#64
Tetrachloroethene
Concen: 5.054 ug/l
RT: 11.076 min Scan# 1551
Delta R.T. -0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion:164 Resp: 12289

Ion	Ratio	Lower	Upper
164	100		
166	133.1	101.6	152.4
129	104.6	77.5	116.3
131	98.1	73.4	110.0

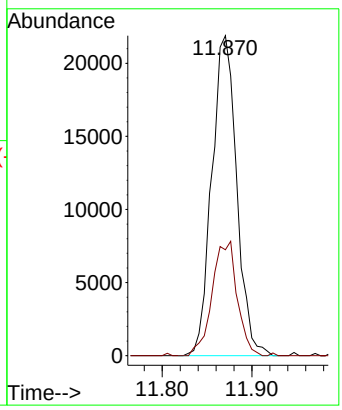




#65
Chlorobenzene
Concen: 4.968 ug/l
RT: 11.870 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion:112 Resp: 4219

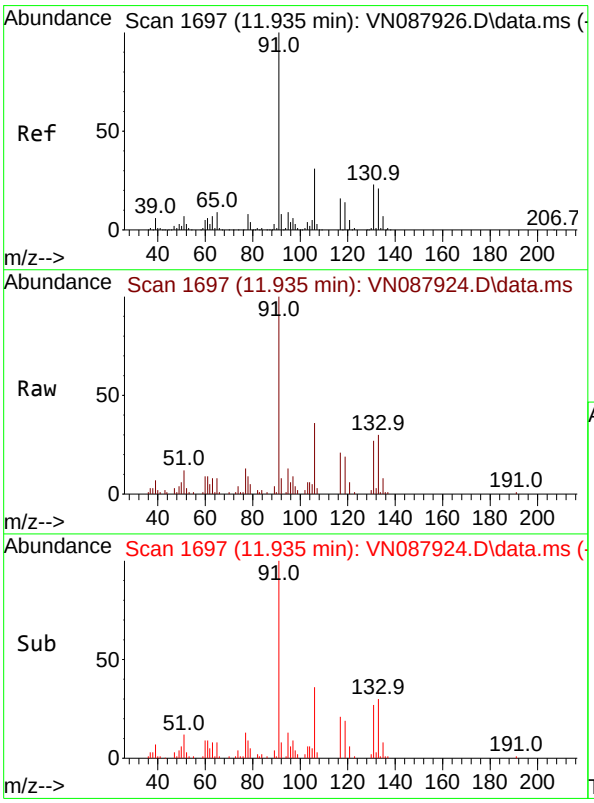
Ion	Ratio	Lower	Upper
112	100		
114	33.1	27.2	40.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

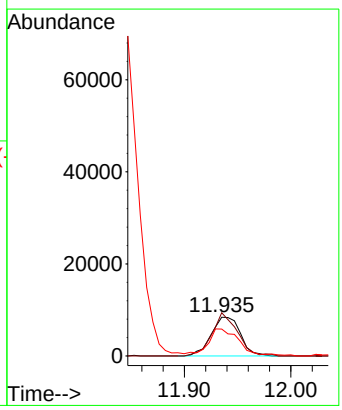
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

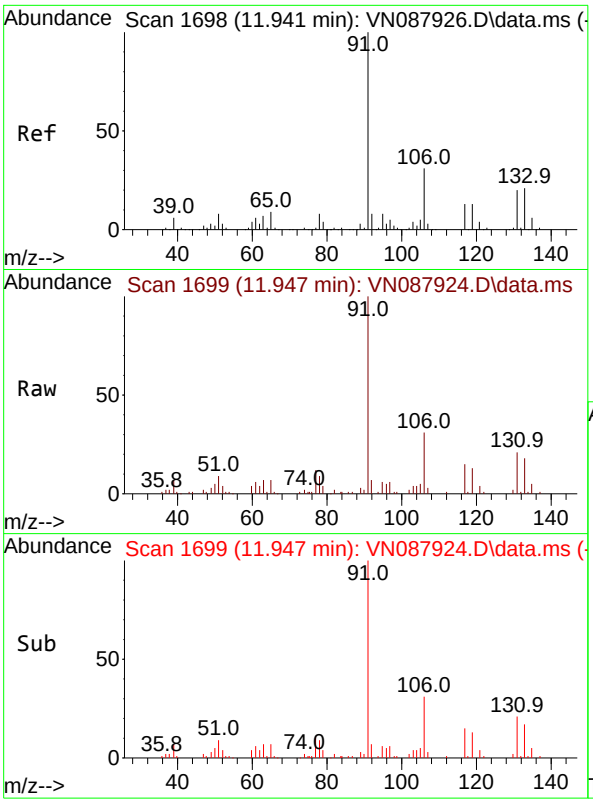


#66
1,1,1,2-Tetrachloroethane
Concen: 5.234 ug/l
RT: 11.935 min Scan# 1697
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion:131 Resp: 16032

Ion	Ratio	Lower	Upper
131	100		
133	97.6	48.4	145.0
119	74.8	31.9	95.5

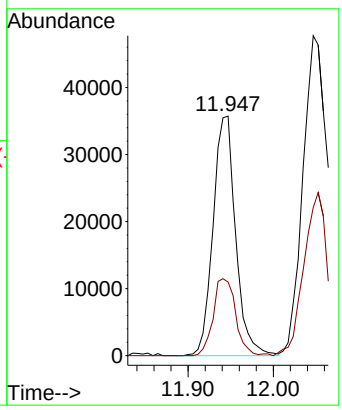




#67
Ethyl Benzene
Concen: 4.645 ug/l
RT: 11.947 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 91 Resp: 6584

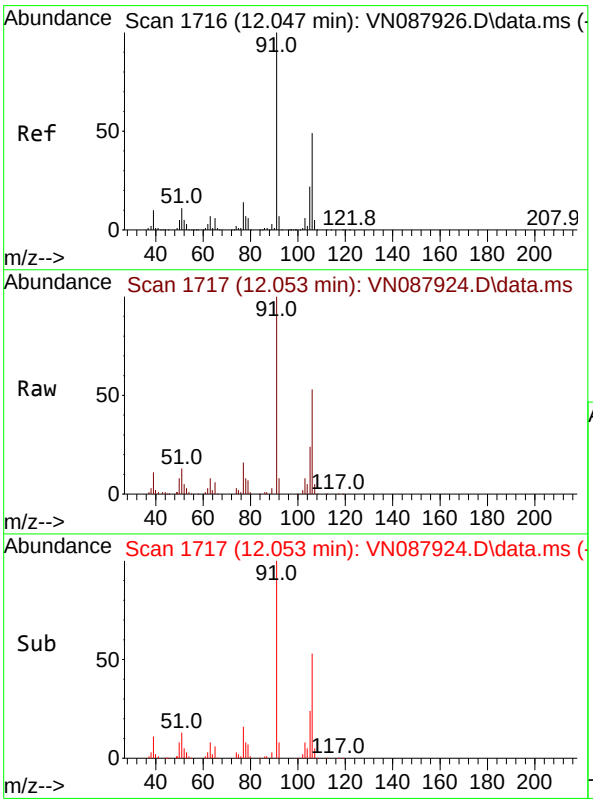
Ion	Ratio	Lower	Upper
91	100		
106	30.8	25.2	37.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

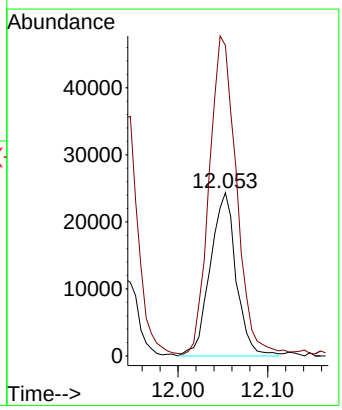
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

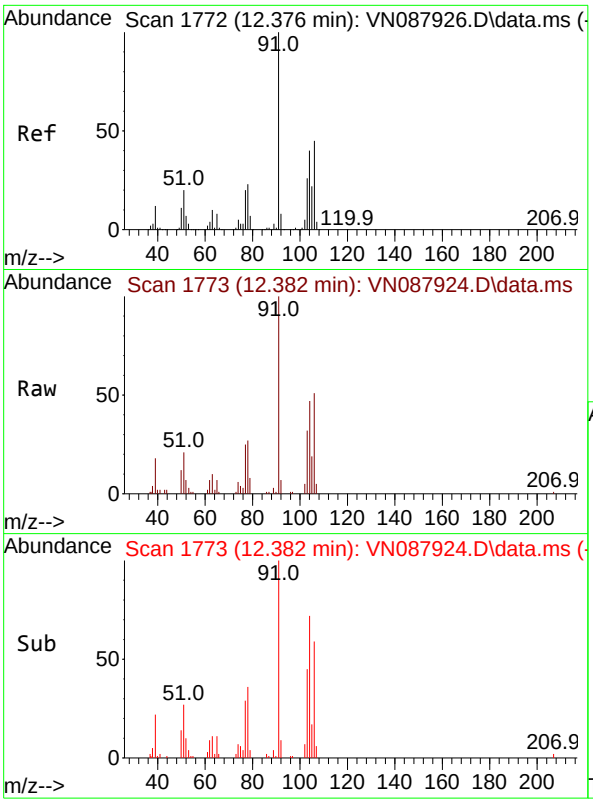


#68
m/p-Xylenes
Concen: 9.007 ug/l
RT: 12.053 min Scan# 1717
Delta R.T. 0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion:106 Resp: 48826

Ion	Ratio	Lower	Upper
106	100		
91	203.7	162.9	244.3

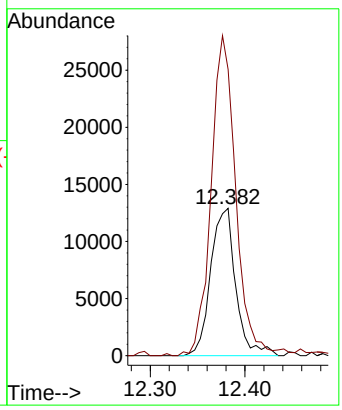




#69
o-Xylene
Concen: 4.543 ug/l
RT: 12.382 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion:106 Resp: 2366

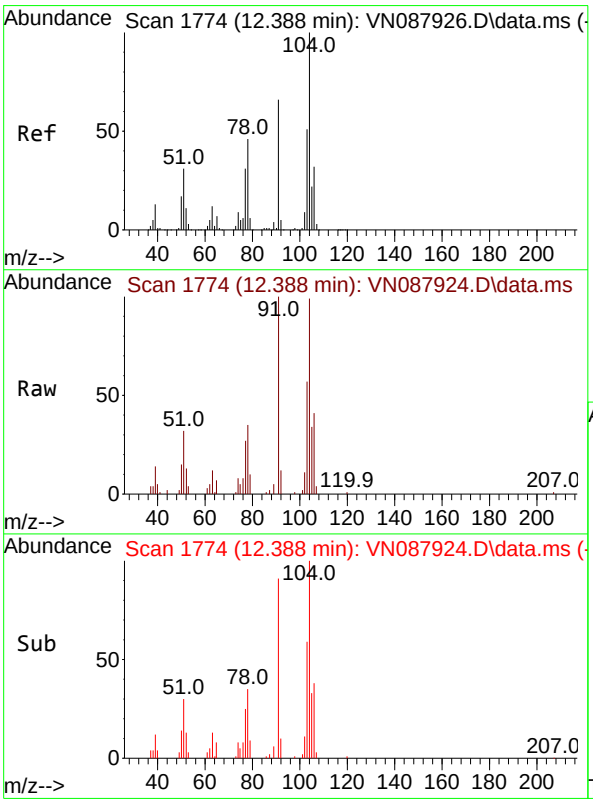
Ion	Ratio	Lower	Upper
106	100		
91	214.9	108.2	324.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

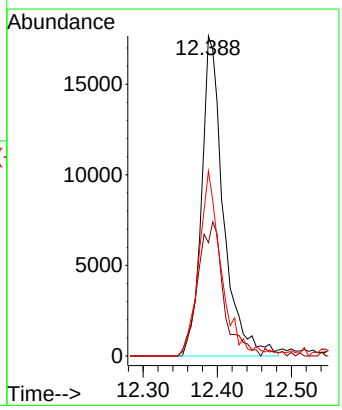
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

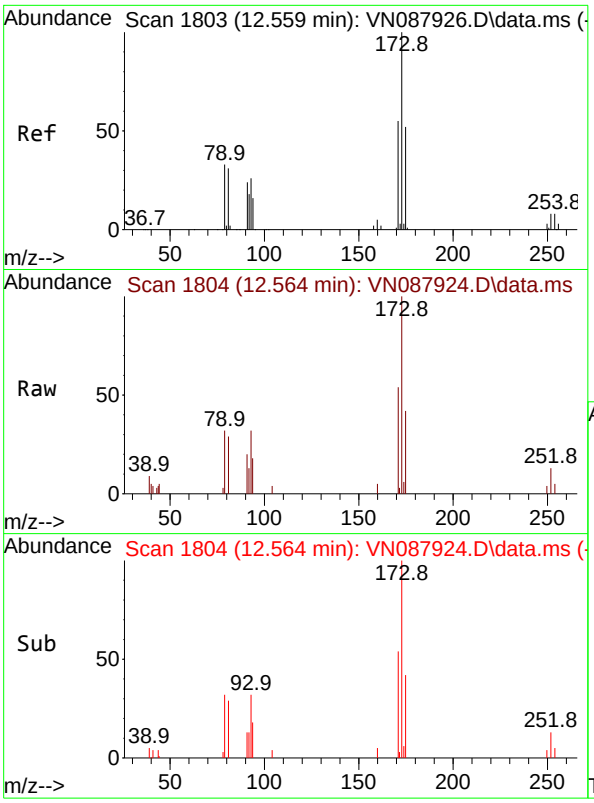


#70
Styrene
Concen: 4.043 ug/l
RT: 12.388 min Scan# 1774
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion:104 Resp: 36168

Ion	Ratio	Lower	Upper
104	100		
78	48.8	39.7	59.5
103	57.8	44.6	67.0

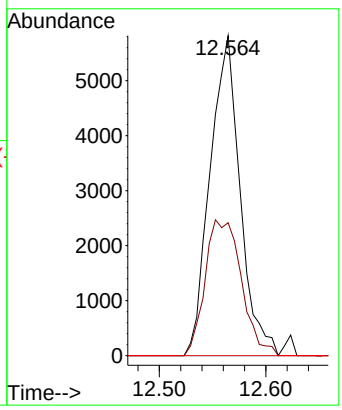




#71
Bromoform
Concen: 4.587 ug/l
RT: 12.564 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion:173 Resp: 1140

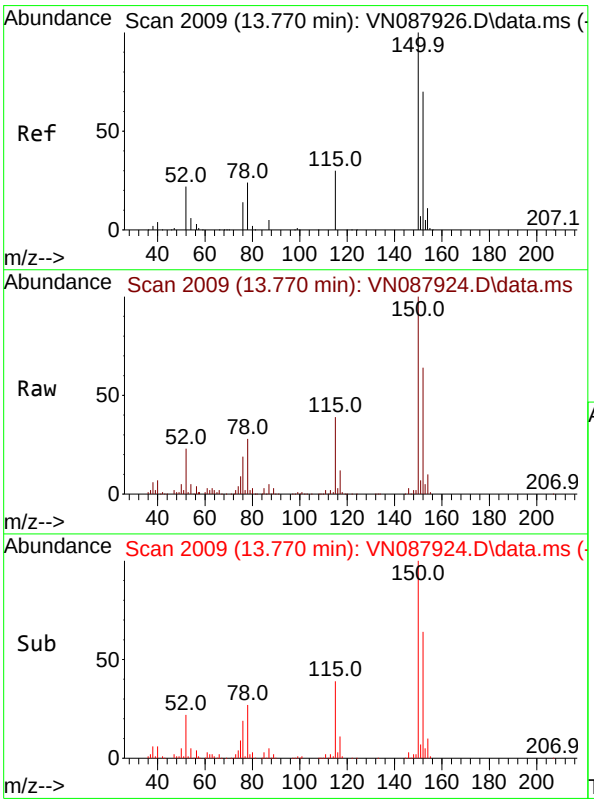
Ion	Ratio	Lower	Upper
173	100		
175	51.2	23.7	71.1
254	0.0	0.1	0.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

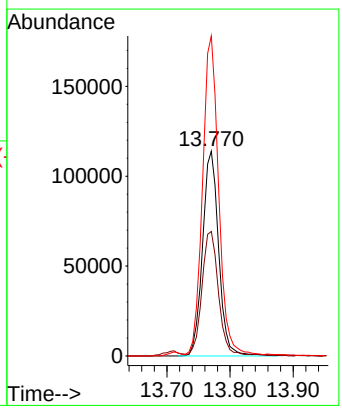
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

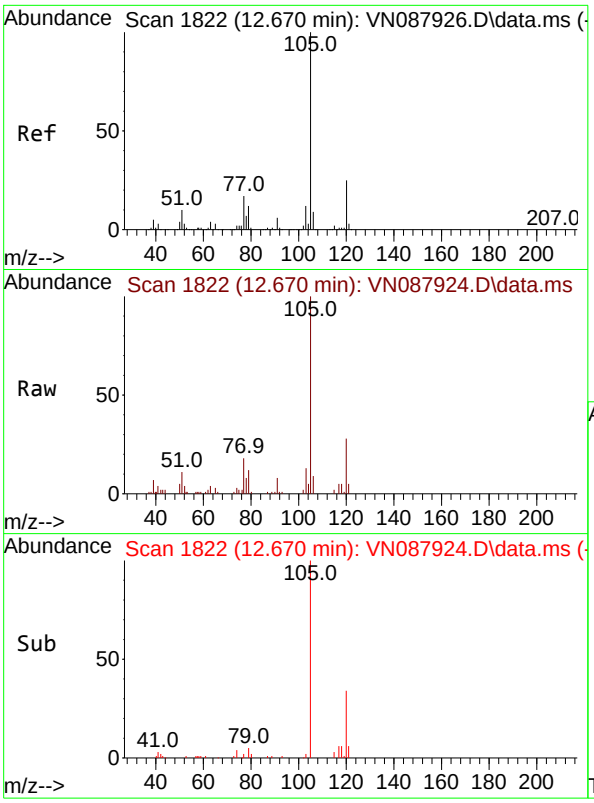


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.770 min Scan# 2009
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion:152 Resp: 202125

Ion	Ratio	Lower	Upper
152	100		
115	62.8	29.9	89.7
150	153.8	0.0	335.0

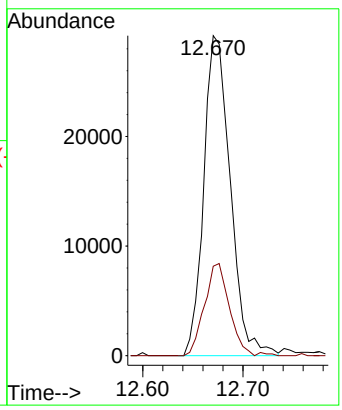




#73
Isopropylbenzene
Concen: 4.291 ug/l
RT: 12.670 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion:105 Resp: 5375

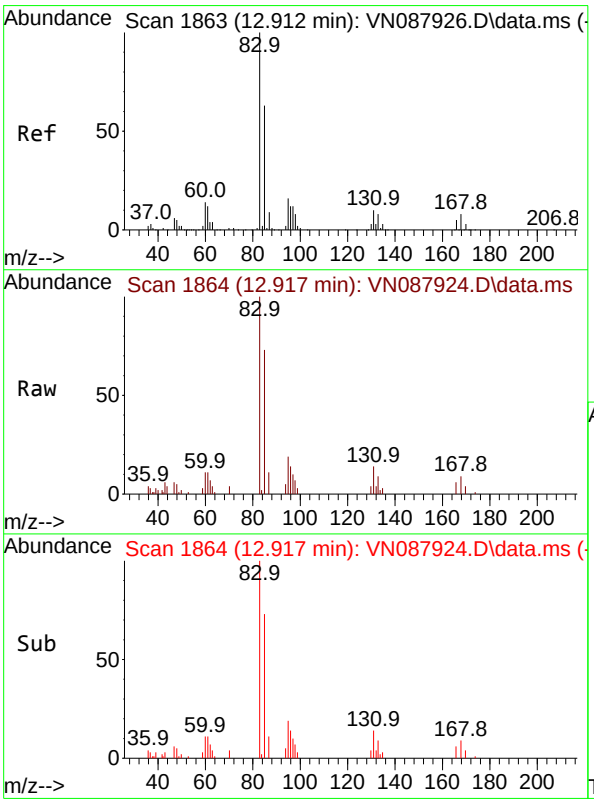
Ion	Ratio	Lower	Upper
105	100		
120	26.8	13.1	39.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

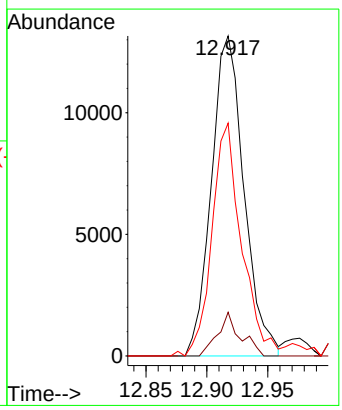
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

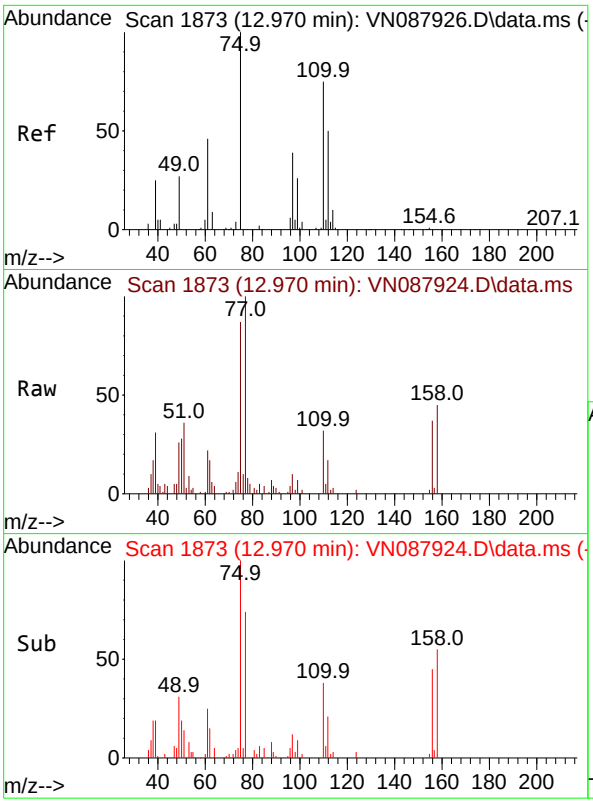


#75
1,1,2,2-Tetrachloroethane
Concen: 5.429 ug/l
RT: 12.917 min Scan# 1864
Delta R.T. 0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 83 Resp: 24506

Ion	Ratio	Lower	Upper
83	100		
131	9.5	5.2	15.6
85	66.4	32.4	97.0

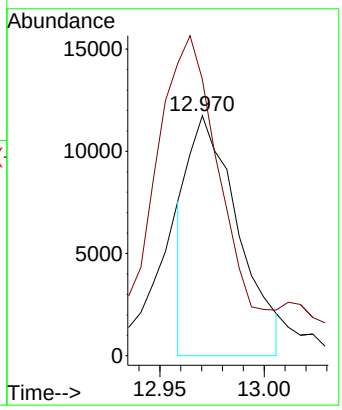




#76
1,2,3-Trichloropropane
Concen: 4.885 ug/l m
RT: 12.970 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 75 Resp: 1958

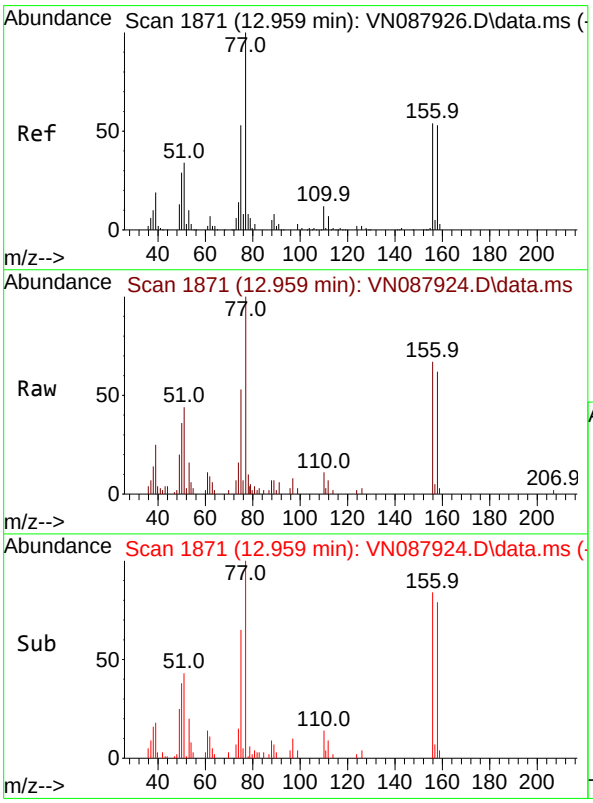
Ion	Ratio	Lower	Upper
75	100		
77	181.6	89.5	268.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

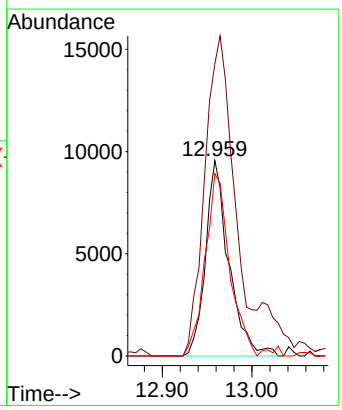
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

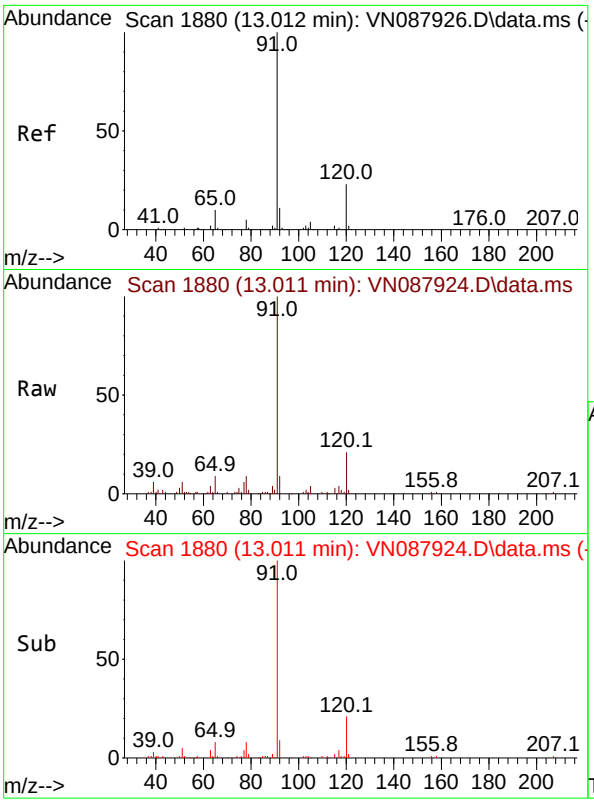


#77
Bromobenzene
Concen: 5.163 ug/l
RT: 12.959 min Scan# 1871
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion:156 Resp: 17210

Ion	Ratio	Lower	Upper
156	100		
77	206.6	108.2	324.6
158	98.3	49.6	149.0

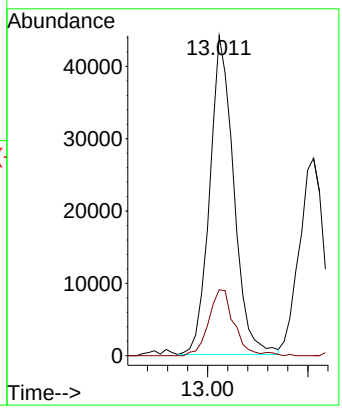




#78
n-propylbenzene
Concen: 4.694 ug/l
RT: 13.011 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 91 Resp: 7351

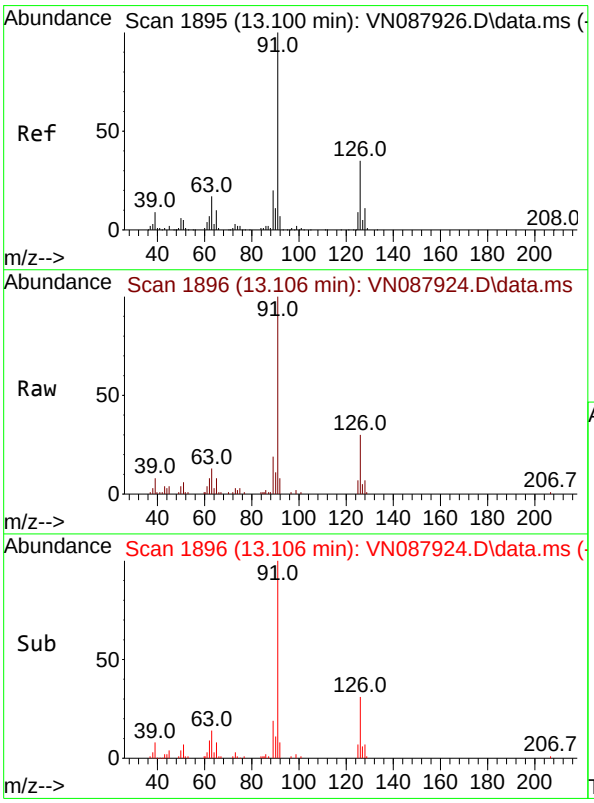
Ion	Ratio	Lower	Upper
91	100		
120	22.0	11.1	33.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

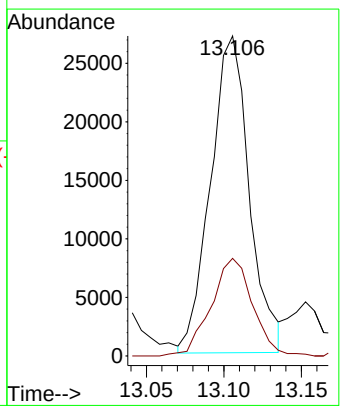
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

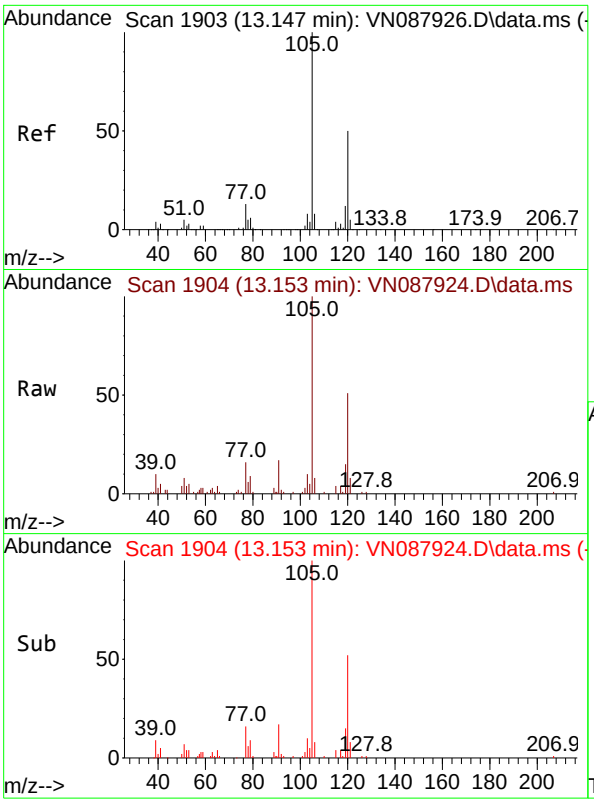


#79
2-Chlorotoluene
Concen: 4.939 ug/l
RT: 13.106 min Scan# 1896
Delta R.T. 0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 91 Resp: 47102

Ion	Ratio	Lower	Upper
91	100		
126	33.0	16.6	49.8

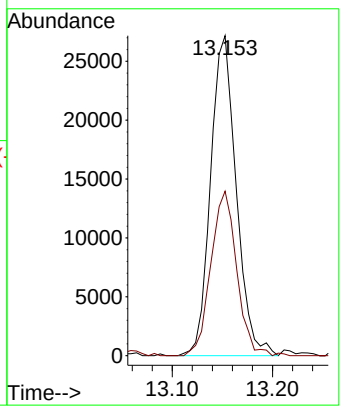




#80
1,3,5-Trimethylbenzene
Concen: 4.454 ug/l
RT: 13.153 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion:105 Resp: 4826

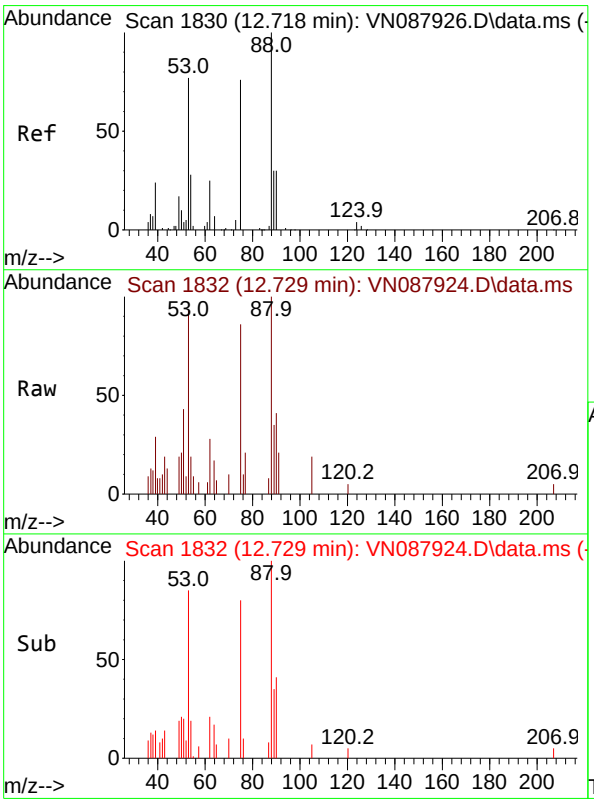
Ion	Ratio	Lower	Upper
105	100		
120	52.0	24.7	74.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

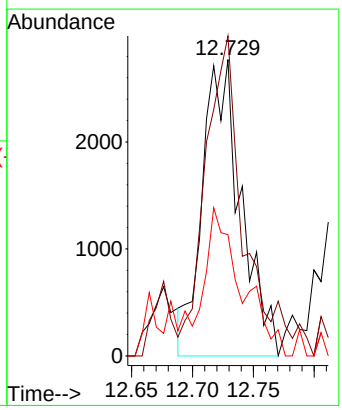
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

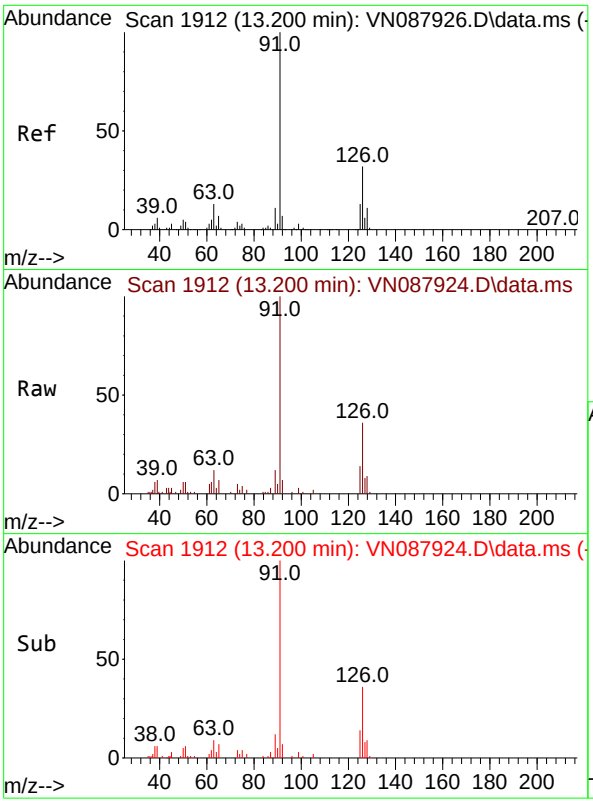


#81
trans-1,4-Dichloro-2-butene
Concen: 4.265 ug/l
RT: 12.729 min Scan# 1832
Delta R.T. 0.012 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 75 Resp: 6119

Ion	Ratio	Lower	Upper
75	100		
53	108.1	82.0	123.0
89	46.6	36.1	54.1

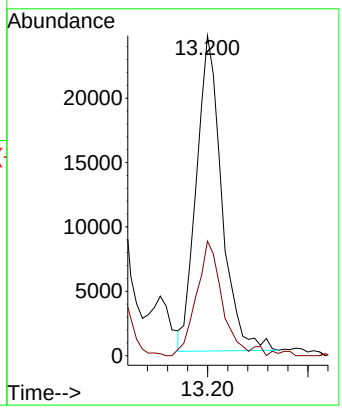




#82
4-Chlorotoluene
Concen: 4.468 ug/l
RT: 13.200 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 91 Resp: 4293

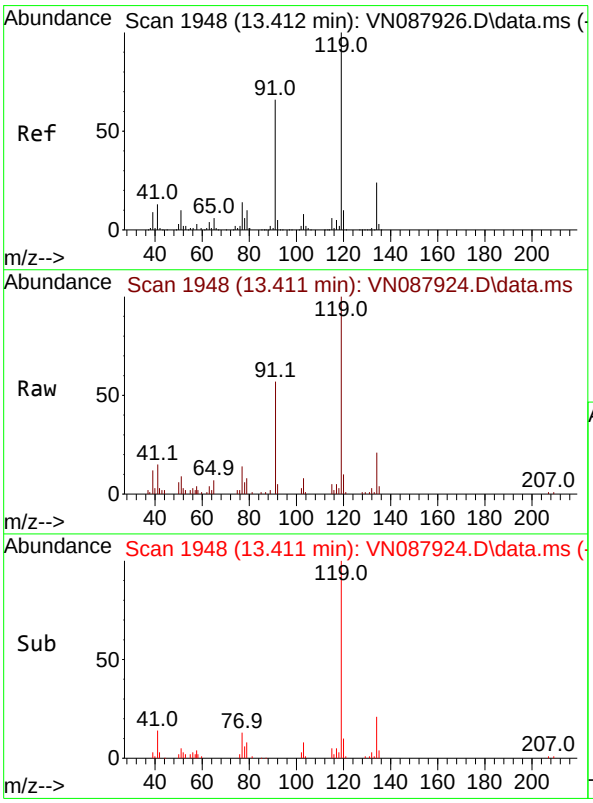
Ion	Ratio	Lower	Upper
91	100		
126	36.4	16.9	50.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

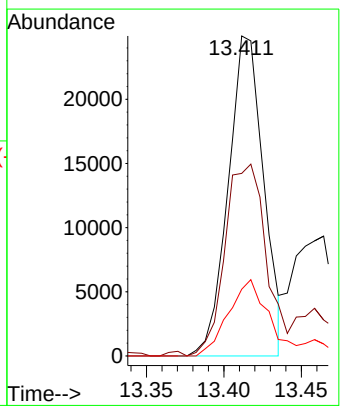
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

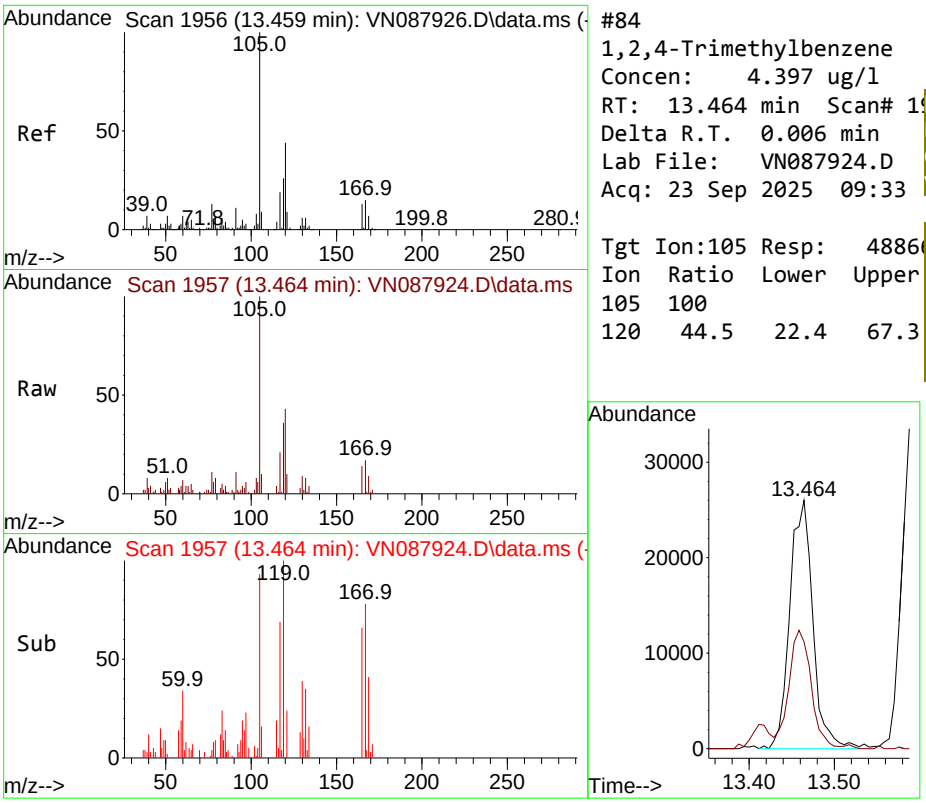


#83
tert-Butylbenzene
Concen: 4.326 ug/l
RT: 13.411 min Scan# 1948
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion:119 Resp: 39678

Ion	Ratio	Lower	Upper
119	100		
91	70.2	32.1	96.3
134	26.9	12.3	36.8





#84
1,2,4-Trimethylbenzene
Concen: 4.397 ug/l
RT: 13.464 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

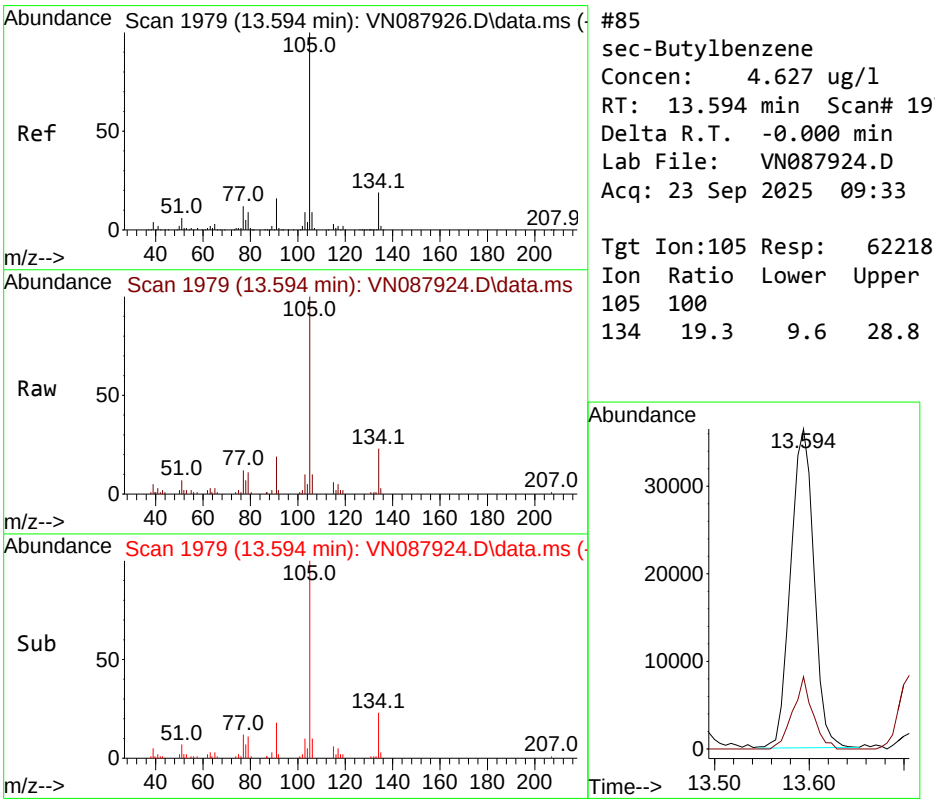
Tgt Ion:105 Resp: 4886

Ion	Ratio	Lower	Upper
105	100		
120	44.5	22.4	67.3

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

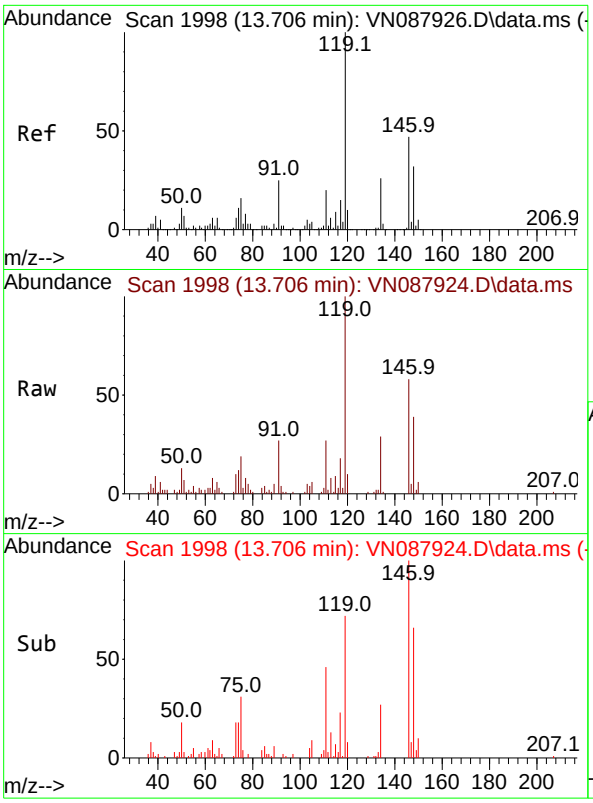
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025



#85
sec-Butylbenzene
Concen: 4.627 ug/l
RT: 13.594 min Scan# 1979
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion:105 Resp: 62218

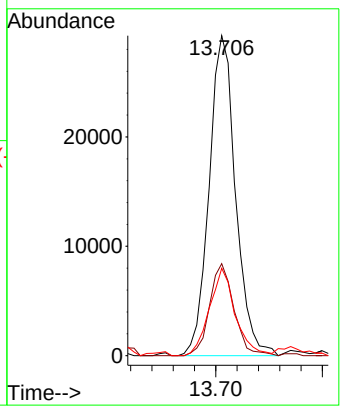
Ion	Ratio	Lower	Upper
105	100		
134	19.3	9.6	28.8



#86
p-Isopropyltoluene
Concen: 4.431 ug/l
RT: 13.706 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion:119 Resp: 5045

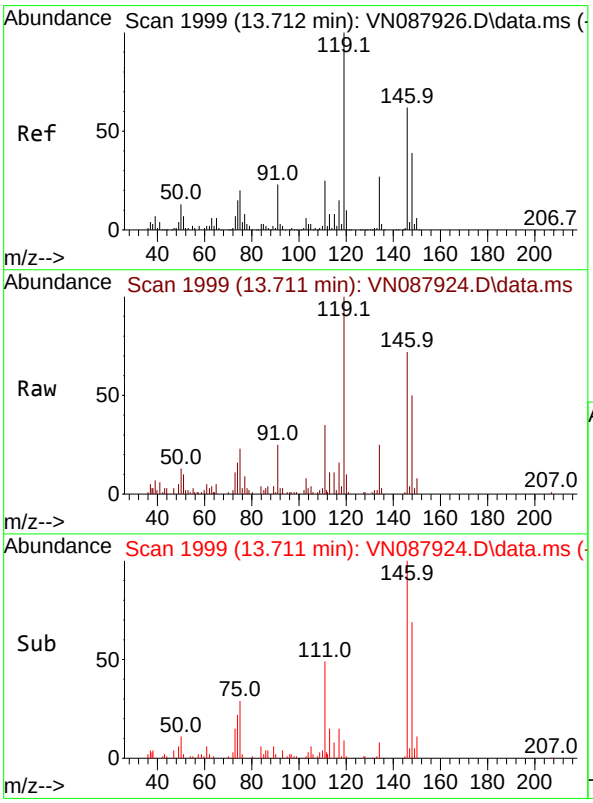
Ion	Ratio	Lower	Upper
119	100		
134	26.4	13.1	39.3
91	26.6	11.9	35.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

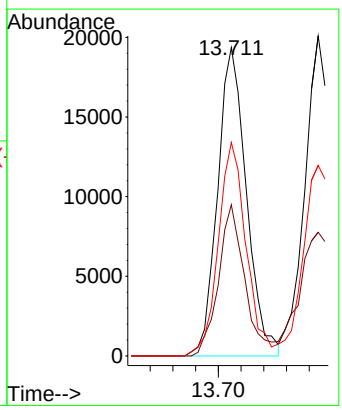
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

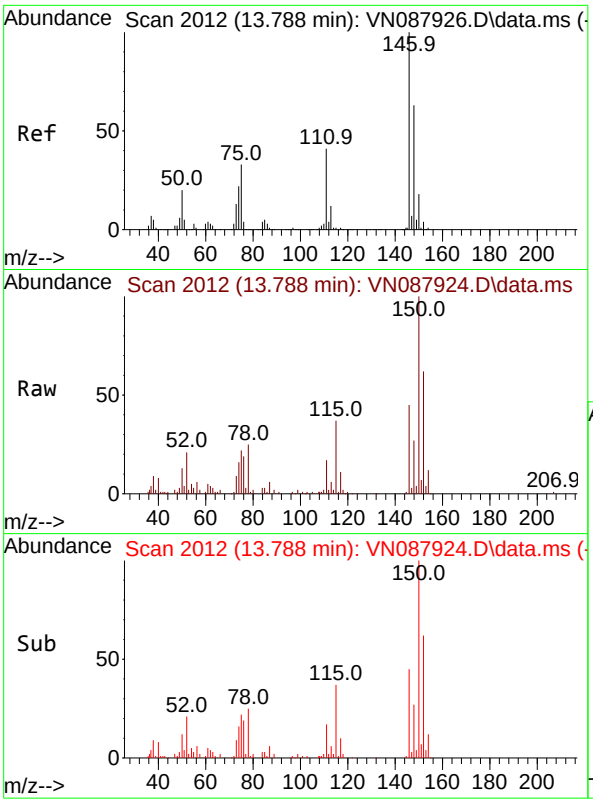


#87
1,3-Dichlorobenzene
Concen: 5.250 ug/l
RT: 13.711 min Scan# 1999
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion:146 Resp: 34148

Ion	Ratio	Lower	Upper
146	100		
111	44.7	20.3	60.8
148	66.5	32.4	97.2

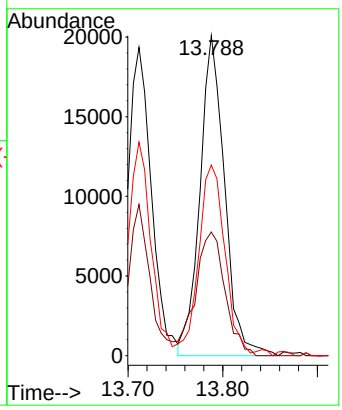




#88
1,4-Dichlorobenzene
Concen: 5.444 ug/l
RT: 13.788 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion:146 Resp: 3638

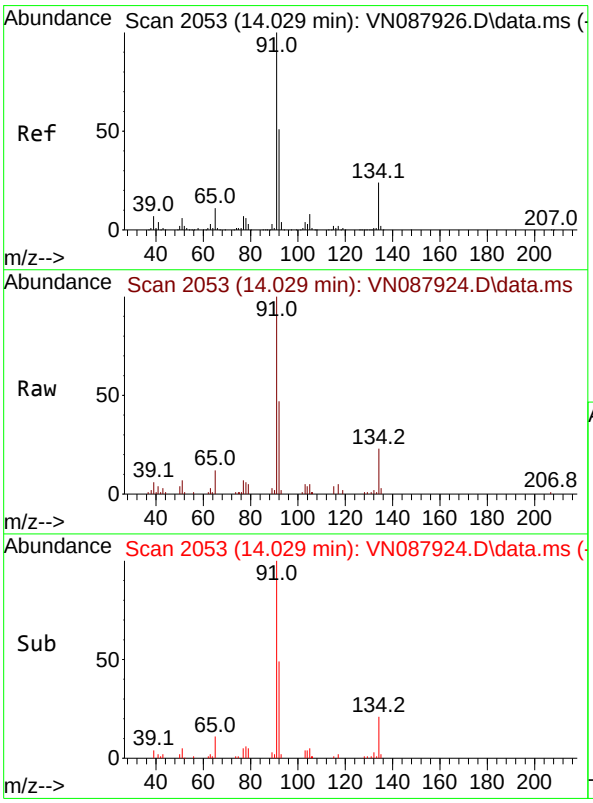
Ion	Ratio	Lower	Upper
146	100		
111	46.8	20.5	61.5
148	60.5	32.8	98.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

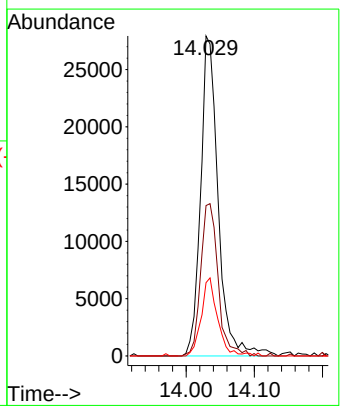
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

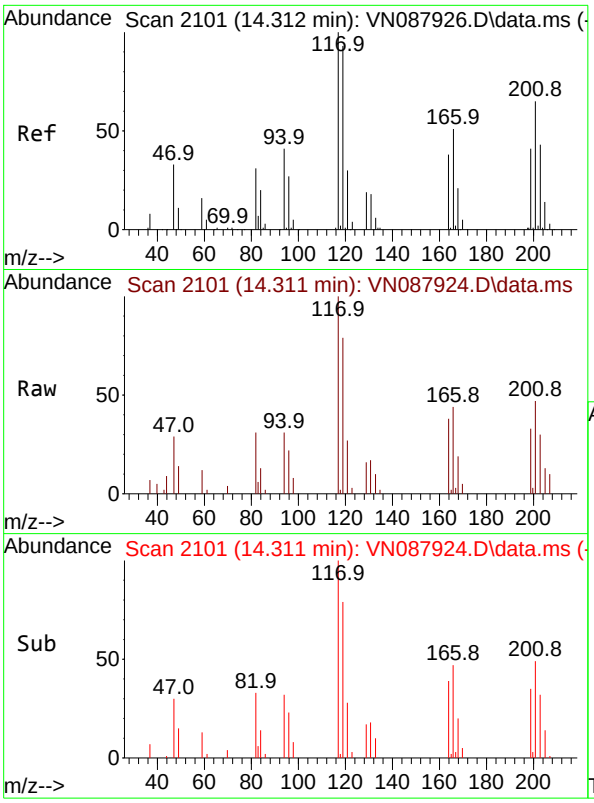


#89
n-Butylbenzene
Concen: 4.659 ug/l
RT: 14.029 min Scan# 2053
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 91 Resp: 50142

Ion	Ratio	Lower	Upper
91	100		
92	47.2	25.9	77.8
134	22.3	12.6	37.8

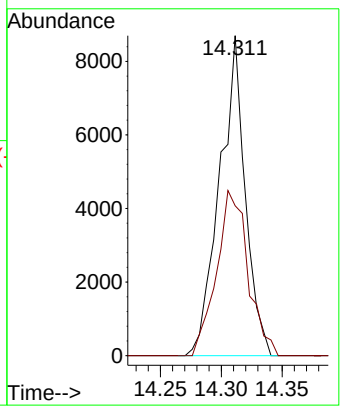




#90
Hexachloroethane
Concen: 5.359 ug/l
RT: 14.311 min Scan# 21
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion:117 Resp: 1275

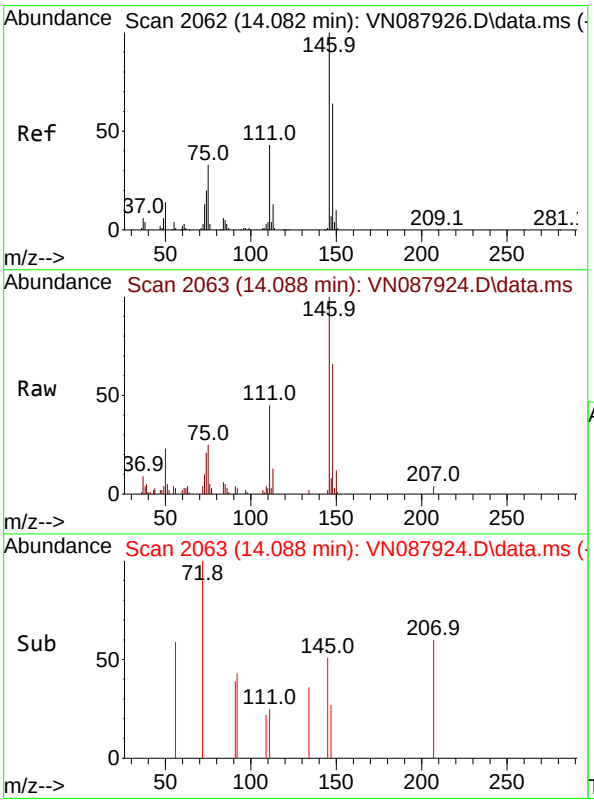
Ion	Ratio	Lower	Upper
117	100		
201	63.3	33.6	100.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

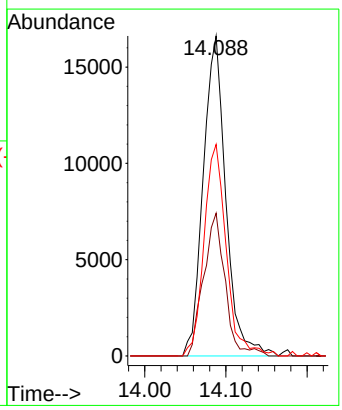
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

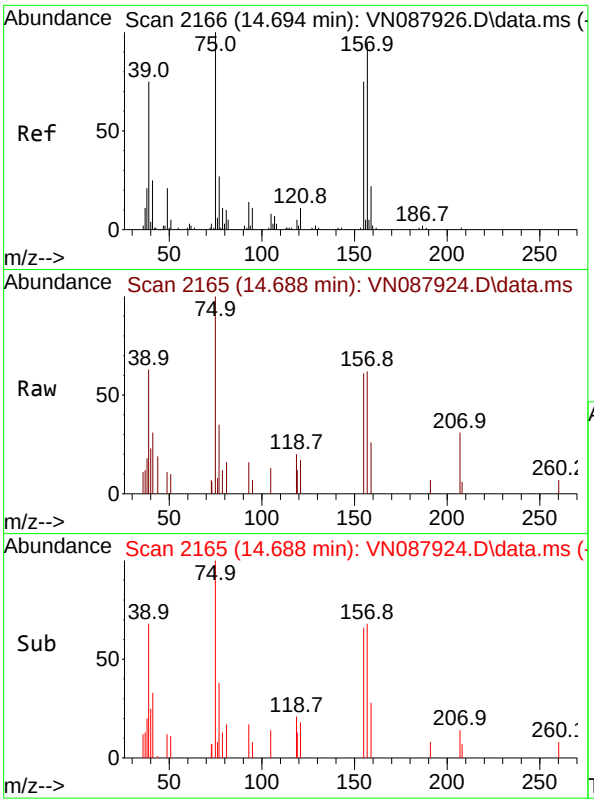


#91
1,2-Dichlorobenzene
Concen: 5.128 ug/l
RT: 14.088 min Scan# 2063
Delta R.T. 0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion:146 Resp: 32149

Ion	Ratio	Lower	Upper
146	100		
111	42.7	20.9	62.7
148	65.2	31.9	95.9

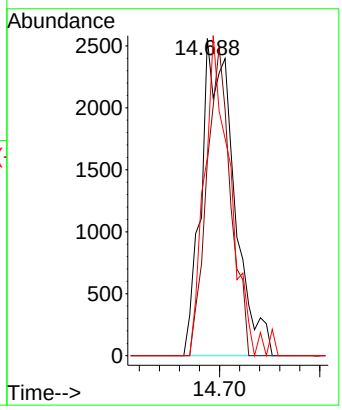




#92
1,2-Dibromo-3-Chloropropane
Concen: 5.485 ug/l
RT: 14.688 min Scan# 2
Delta R.T. -0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion: 75 Resp: 575

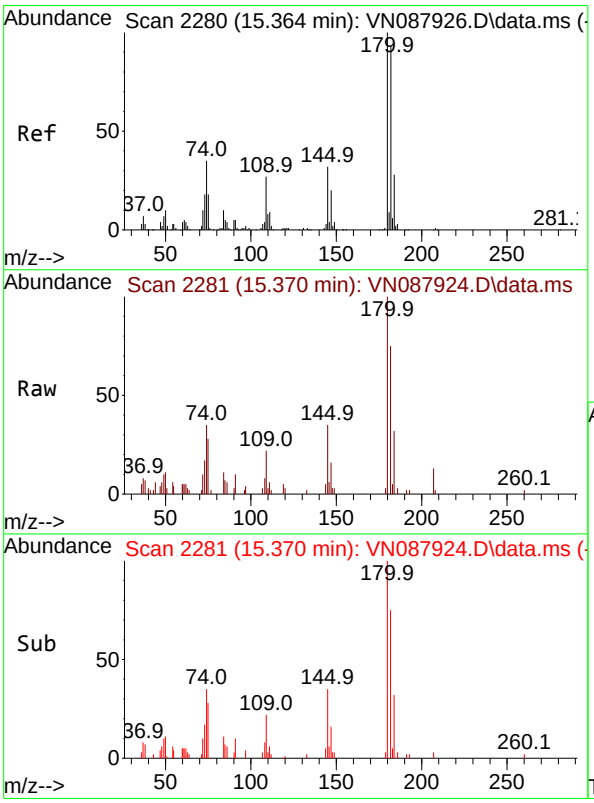
Ion	Ratio	Lower	Upper
75	100		
155	71.8	40.2	120.6
157	78.1	50.9	152.7



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

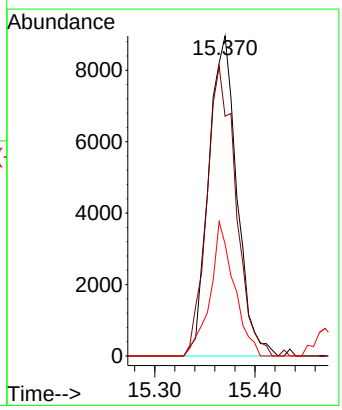
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

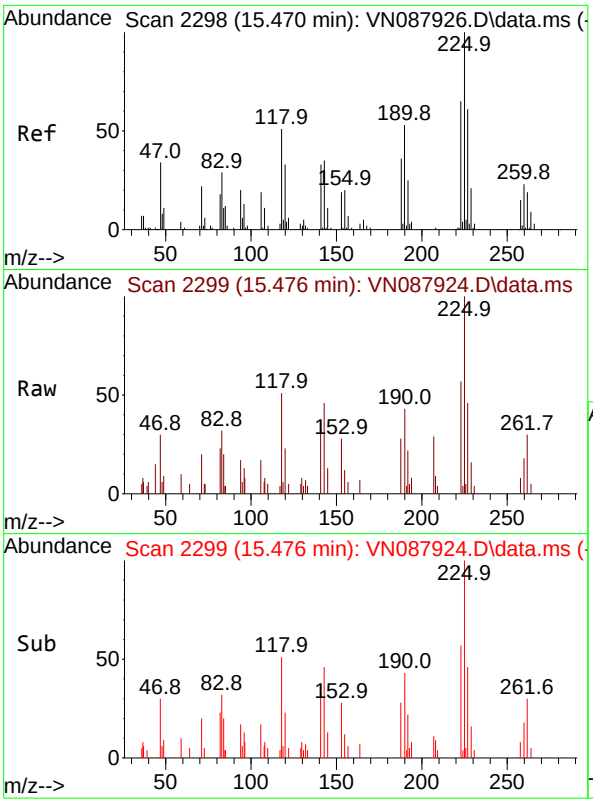


#93
1,2,4-Trichlorobenzene
Concen: 4.735 ug/l
RT: 15.370 min Scan# 2281
Delta R.T. 0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion:180 Resp: 17526

Ion	Ratio	Lower	Upper
180	100		
182	92.8	48.5	145.5
145	35.5	15.9	47.6

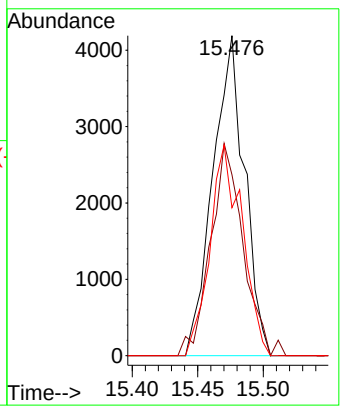




#94
Hexachlorobutadiene
Concen: 5.168 ug/l
RT: 15.476 min Scan# 2
Delta R.T. 0.006 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion:225 Resp: 704

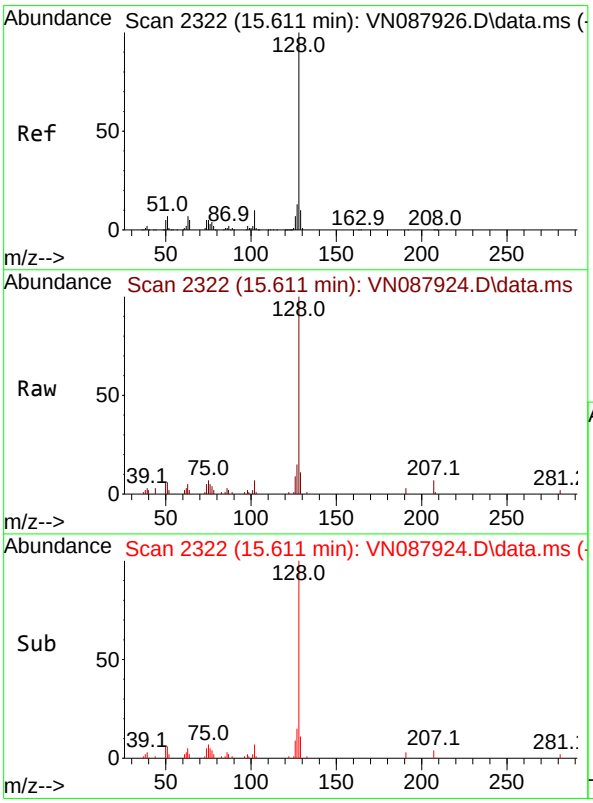
Ion	Ratio	Lower	Upper
225	100		
223	68.2	31.8	95.4
227	67.1	31.9	95.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations
APPROVED

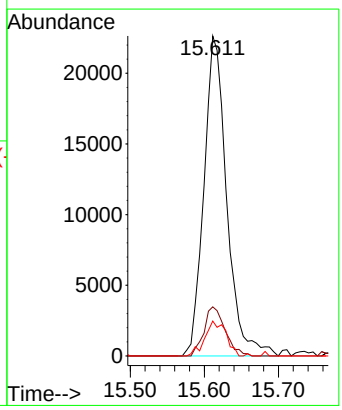
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

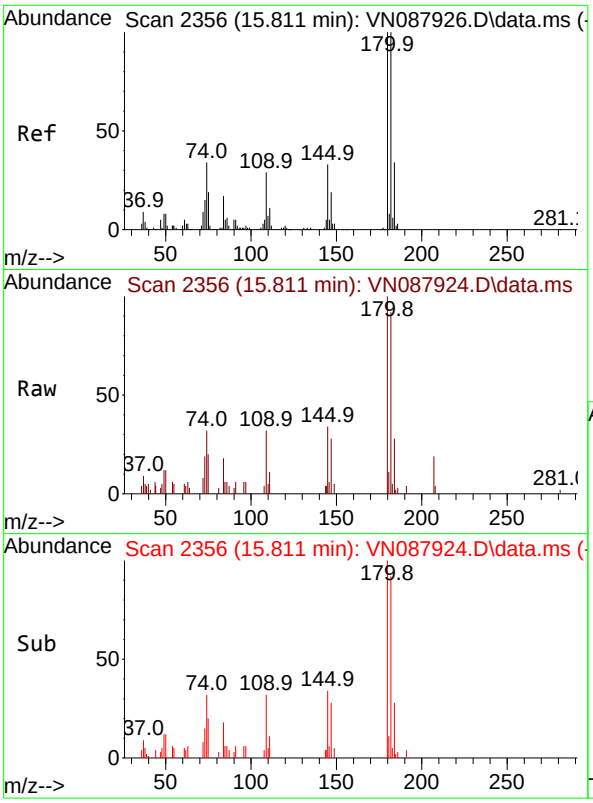


#95
Naphthalene
Concen: 4.079 ug/l
RT: 15.611 min Scan# 2322
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion:128 Resp: 48467

Ion	Ratio	Lower	Upper
128	100		
127	14.2	10.2	15.4
129	10.1	8.6	13.0

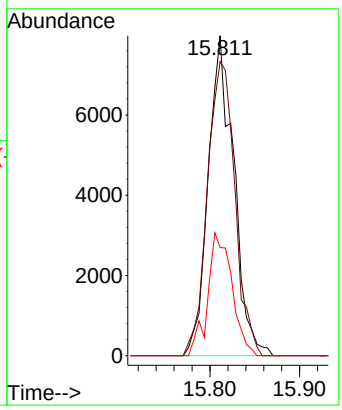




#96
1,2,3-Trichlorobenzene
Concen: 4.380 ug/l
RT: 15.811 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN087924.D
Acq: 23 Sep 2025 09:33

Tgt Ion:180 Resp: 1576

Ion	Ratio	Lower	Upper
180	100		
182	98.7	47.3	142.0
145	36.4	16.1	48.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

Quantitation Report (QT Reviewed)

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092325\
Data File : VN087926.D
Acq On : 23 Sep 2025 10:15
Operator : JC\MD
Sample : VSTDICCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 24 04:48:05 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 04:45:42 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.206	168	254576	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.082	114	459281	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.841	117	454459	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.770	152	250450	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.565	65	222035	51.825	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 103.660%			
35) Dibromofluoromethane	8.147	113	170968	51.270	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 102.540%			
50) Toluene-d8	10.547	98	621058	52.961	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 105.920%			
62) 4-Bromofluorobenzene	12.829	95	218627	52.158	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 104.320%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.142	85	133988	45.447	ug/l	100
3) Chloromethane	2.383	50	135318	44.826	ug/l	100
4) Vinyl Chloride	2.536	62	140827	45.727	ug/l	100
5) Bromomethane	2.971	94	81343	42.604	ug/l	100
6) Chloroethane	3.136	64	90403	45.146	ug/l	100
7) Trichlorofluoromethane	3.512	101	224857	44.843	ug/l	100
8) Diethyl Ether	3.965	74	86217	45.512	ug/l	100
9) 1,1,2-Trichlorotrifluo...	4.371	101	120911	45.623	ug/l	100
10) Methyl Iodide	4.583	142	117736	49.360	ug/l	100
11) Tert butyl alcohol	5.518	59	137080	222.139	ug/l	100
12) 1,1-Dichloroethene	4.330	96	119621	44.733	ug/l	100
13) Acrolein	4.177	56	152801	192.981	ug/l	100
14) Allyl chloride	5.012	41	193562	44.461	ug/l	100
15) Acrylonitrile	5.706	53	443203	228.967	ug/l	100
16) Acetone	4.424	43	379293	213.856	ug/l	100
17) Carbon Disulfide	4.706	76	378095	45.253	ug/l	100
18) Methyl Acetate	5.012	43	206999	46.922	ug/l	100
19) Methyl tert-butyl Ether	5.783	73	485562	46.482	ug/l	100
20) Methylene Chloride	5.265	84	158103	44.311	ug/l	100
21) trans-1,2-Dichloroethene	5.771	96	145042	44.244	ug/l	100
22) Diisopropyl ether	6.659	45	464786	45.733	ug/l	100
23) Vinyl Acetate	6.589	43	1993514m	232.968	ug/l	
24) 1,1-Dichloroethane	6.553	63	269051	45.314	ug/l	100
25) 2-Butanone	7.471	43	609821	226.338	ug/l	100
26) 2,2-Dichloropropane	7.477	77	237294	44.982	ug/l	100
27) cis-1,2-Dichloroethene	7.471	96	175636	45.028	ug/l	100
28) Bromochloromethane	7.794	49	168545	52.246	ug/l	100
29) Tetrahydrofuran	7.824	42	395920	229.492	ug/l	100
30) Chloroform	7.947	83	291394	44.884	ug/l	100
31) Cyclohexane	8.241	56	210496	43.814	ug/l	100
32) 1,1,1-Trichloroethane	8.147	97	243908	44.463	ug/l	100
36) 1,1-Dichloropropene	8.353	75	187383	46.732	ug/l	100
37) Ethyl Acetate	7.547	43	245980	46.716	ug/l	100
38) Carbon Tetrachloride	8.341	117	211771	46.026	ug/l	100
39) Methylcyclohexane	9.577	83	204121	46.146	ug/l	100
40) Benzene	8.588	78	621393	46.804	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092325\
Data File : VN087926.D
Acq On : 23 Sep 2025 10:15
Operator : JC\MD
Sample : VSTDICCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 24 04:48:05 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 04:45:42 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) Methacrylonitrile	7.765	41	132245	48.599 ug/l	100
42) 1,2-Dichloroethane	8.653	62	222149	44.838 ug/l	100
43) Isopropyl Acetate	8.671	43	383082	46.221 ug/l	100
44) Trichloroethene	9.335	130	144464	45.554 ug/l	100
45) 1,2-Dichloropropane	9.600	63	152778	45.892 ug/l	100
46) Dibromomethane	9.688	93	119379	45.445 ug/l	100
47) Bromodichloromethane	9.871	83	239213	46.428 ug/l	100
48) Methyl methacrylate	9.665	41	178460	46.496 ug/l	100
49) 1,4-Dioxane	9.677	88	51757	912.802 ug/l	100
51) 4-Methyl-2-Pentanone	10.424	43	1234001	238.604 ug/l	100
52) Toluene	10.612	92	389268	46.724 ug/l	100
53) t-1,3-Dichloropropene	10.818	75	242702	46.026 ug/l	100
54) cis-1,3-Dichloropropene	10.294	75	249831	45.616 ug/l	100
55) 1,1,2-Trichloroethane	10.994	97	155665	45.952 ug/l	100
56) Ethyl methacrylate	10.853	69	236371	48.290 ug/l	100
57) 1,3-Dichloropropane	11.141	76	260217	46.703 ug/l	100
58) 2-Chloroethyl Vinyl ether	10.141	63	503361	218.716 ug/l	100
59) 2-Hexanone	11.176	43	846472	247.530 ug/l	100
60) Dibromochloromethane	11.335	129	184637	46.357 ug/l	100
61) 1,2-Dibromoethane	11.447	107	166047	46.302 ug/l	100
64) Tetrachloroethene	11.082	164	126588	45.728 ug/l	100
65) Chlorobenzene	11.871	112	432322	44.702 ug/l	100
66) 1,1,1,2-Tetrachloroethane	11.935	131	158774	45.525 ug/l	100
67) Ethyl Benzene	11.941	91	727479	45.080 ug/l	100
68) m/p-Xylenes	12.047	106	578820	93.784 ug/l	100
69) o-Xylene	12.376	106	271677	45.817 ug/l	100
70) Styrene	12.388	104	483179	47.446 ug/l	100
71) Bromoform	12.559	173	129687	45.833 ug/l	100
73) Isopropylbenzene	12.670	105	702353	45.248 ug/l	100
74) N-amyl acetate	12.500	43	221335m	47.870 ug/l	
75) 1,1,2,2-Tetrachloroethane	12.912	83	245260	43.853 ug/l	100
76) 1,2,3-Trichloropropane	12.970	75	216939m	43.667 ug/l	
77) Bromobenzene	12.959	156	179418	43.443 ug/l	100
78) n-propylbenzene	13.012	91	868436	44.749 ug/l	100
79) 2-Chlorotoluene	13.100	91	521993	44.174 ug/l	100
80) 1,3,5-Trimethylbenzene	13.147	105	601032	44.765 ug/l	100
81) trans-1,4-Dichloro-2-b...	12.718	75	77199	43.422 ug/l	100
82) 4-Chlorotoluene	13.200	91	537514	45.143 ug/l	100
83) tert-Butylbenzene	13.412	119	515745	45.383 ug/l	100
84) 1,2,4-Trimethylbenzene	13.459	105	629687	45.724 ug/l	100
85) sec-Butylbenzene	13.594	105	752465	45.162 ug/l	100
86) p-Isopropyltoluene	13.706	119	640667	45.400 ug/l	100
87) 1,3-Dichlorobenzene	13.712	146	351453	43.608 ug/l	100
88) 1,4-Dichlorobenzene	13.788	146	353807	42.717 ug/l	100
89) n-Butylbenzene	14.029	91	594156	44.552 ug/l	100
90) Hexachloroethane	14.312	117	126396	42.879 ug/l	100
91) 1,2-Dichlorobenzene	14.082	146	339824	43.744 ug/l	100
92) 1,2-Dibromo-3-Chloropr...	14.694	75	55187	42.468 ug/l	100
93) 1,2,4-Trichlorobenzene	15.364	180	198112	43.192 ug/l	100
94) Hexachlorobutadiene	15.470	225	73457	43.512 ug/l	100
95) Naphthalene	15.611	128	651337	44.238 ug/l	100
96) 1,2,3-Trichlorobenzene	15.811	180	196179	43.995 ug/l	100

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092325\
Data File : VN087926.D
Acq On : 23 Sep 2025 10:15
Operator : JC\MD
Sample : VSTDICCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 24 04:48:05 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 04:45:42 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

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

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

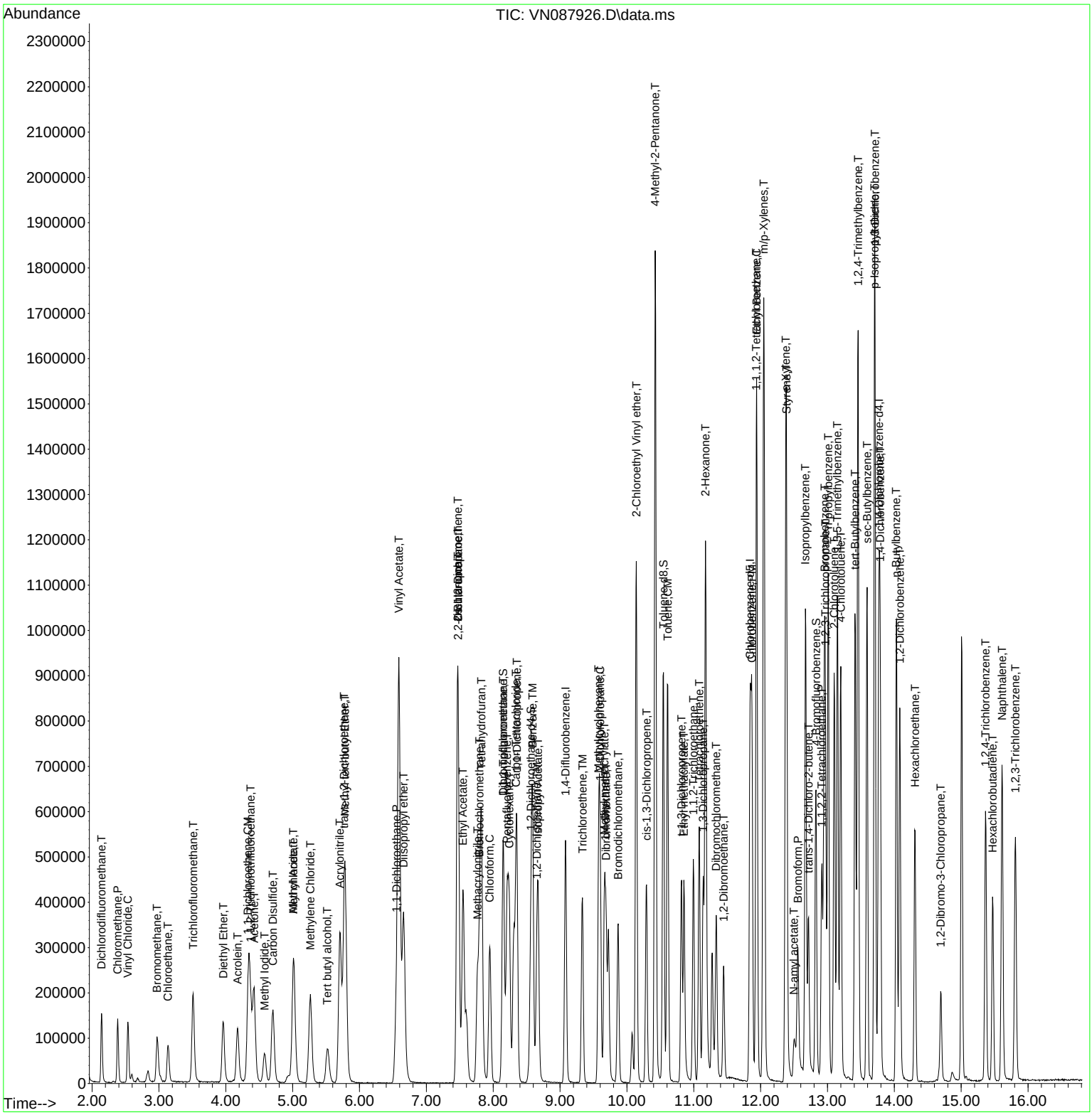
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092325\
Data File : VN087926.D
Acq On : 23 Sep 2025 10:15
Operator : JC\MD
Sample : VSTDICCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 7 Sample Multiplier: 1

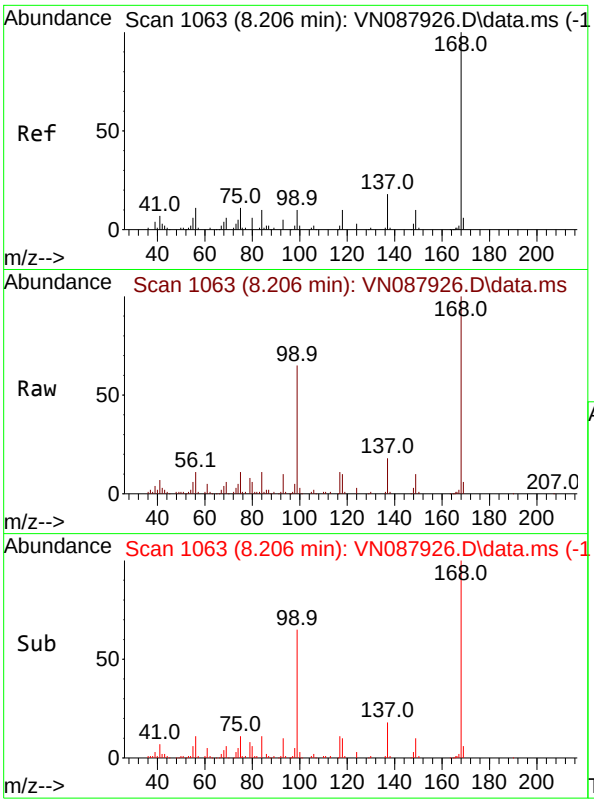
Quant Time: Sep 24 04:48:05 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 04:45:42 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

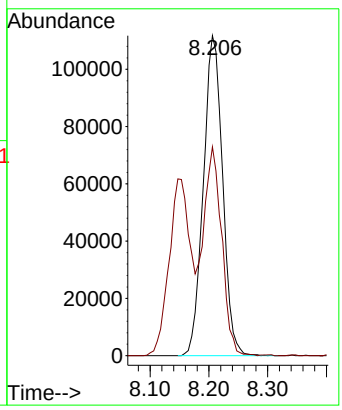




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.206 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion:168 Resp: 25457

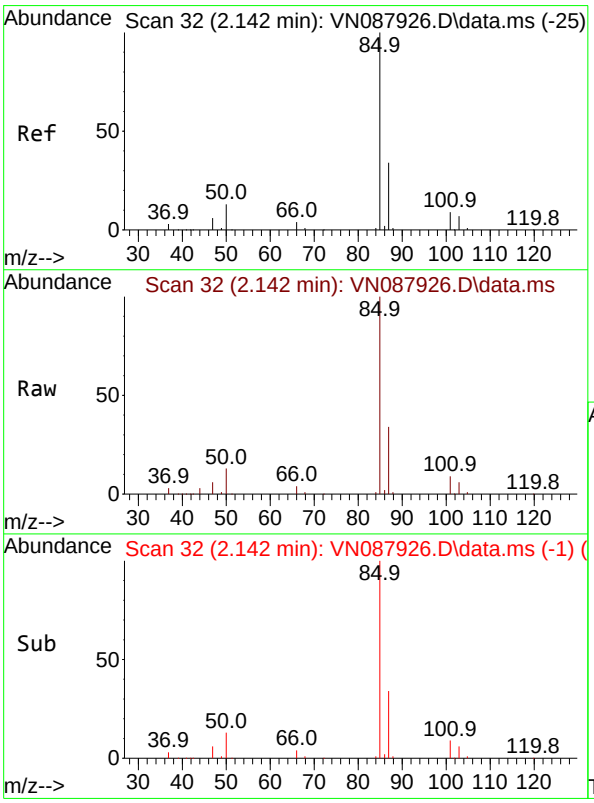
Ion	Ratio	Lower	Upper
168	100		
99	65.2	52.2	78.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

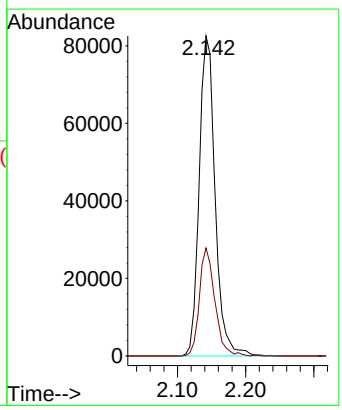
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

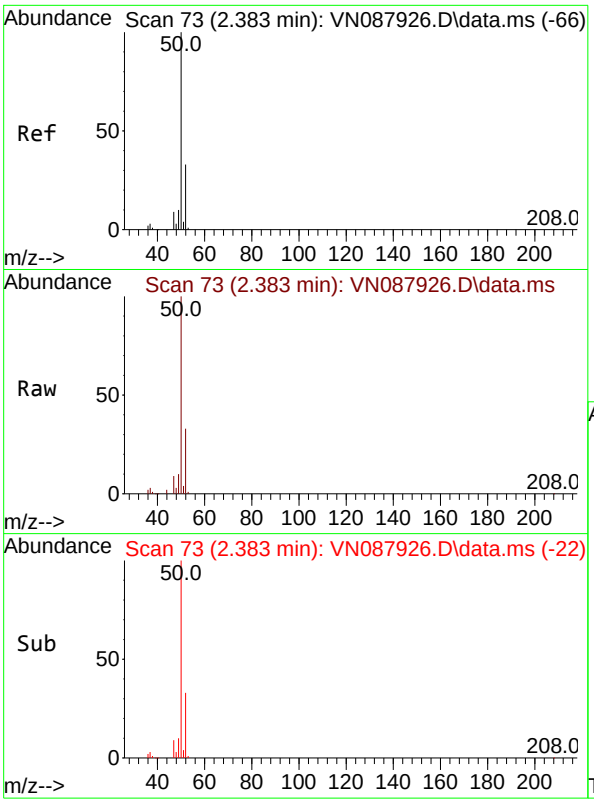


#2
Dichlorodifluoromethane
Concen: 45.447 ug/l
RT: 2.142 min Scan# 32
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 85 Resp: 133988

Ion	Ratio	Lower	Upper
85	100		
87	33.7	16.9	50.6

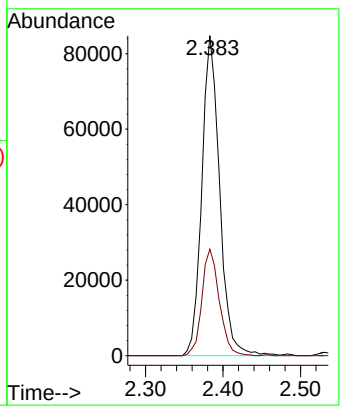




#3
Chloromethane
Concen: 44.826 ug/l
RT: 2.383 min Scan# 7
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 50 Resp: 13531

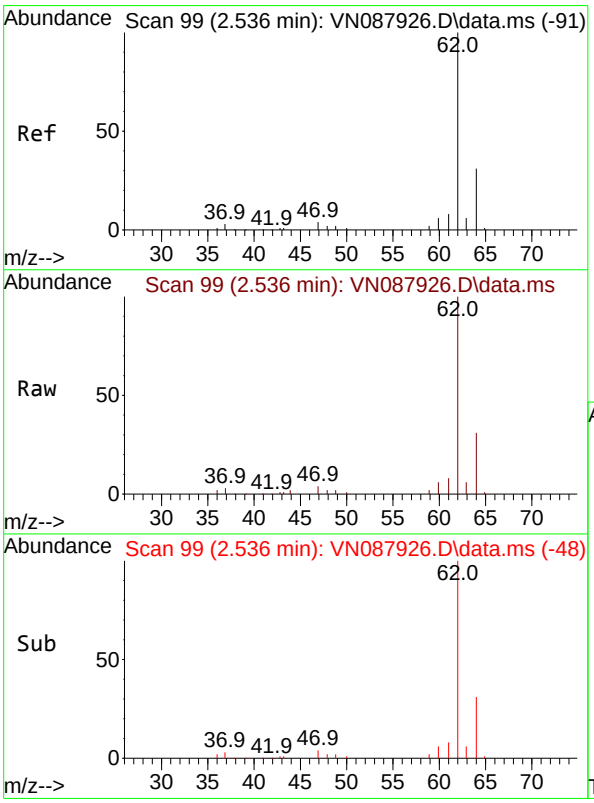
Ion	Ratio	Lower	Upper
50	100		
52	33.3	26.6	40.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

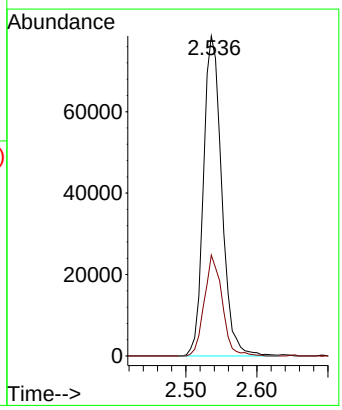
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

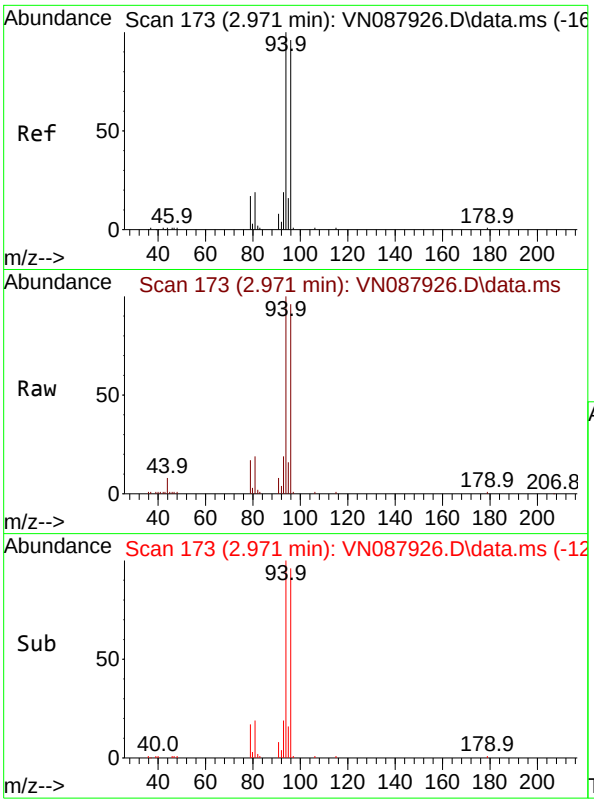


#4
Vinyl Chloride
Concen: 45.727 ug/l
RT: 2.536 min Scan# 99
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 62 Resp: 140827

Ion	Ratio	Lower	Upper
62	100		
64	31.5	25.2	37.8

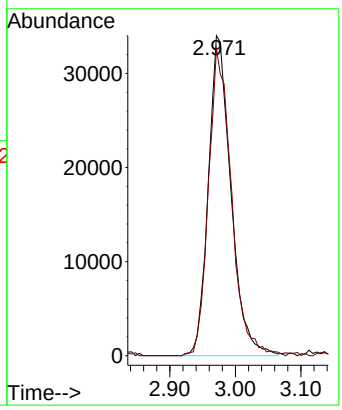




#5
Bromomethane
Concen: 42.604 ug/l
RT: 2.971 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 94 Resp: 8134

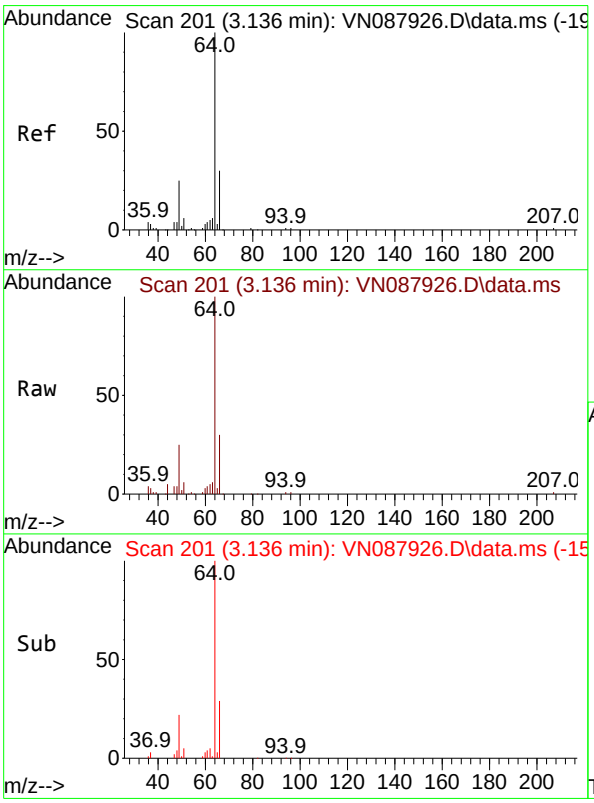
Ion	Ratio	Lower	Upper
94	100		
96	96.0	76.8	115.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

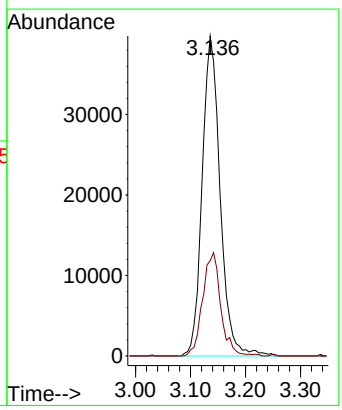
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

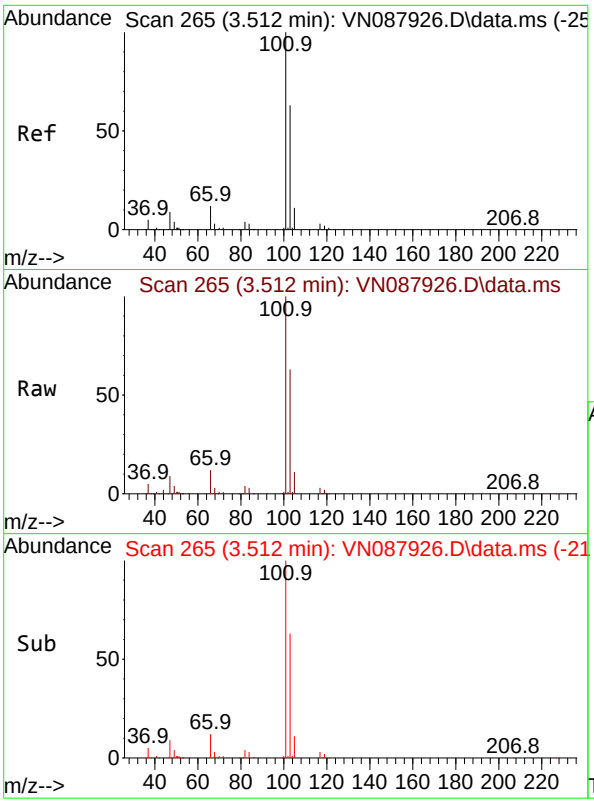


#6
Chloroethane
Concen: 45.146 ug/l
RT: 3.136 min Scan# 201
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 64 Resp: 90403

Ion	Ratio	Lower	Upper
64	100		
66	29.8	23.8	35.8

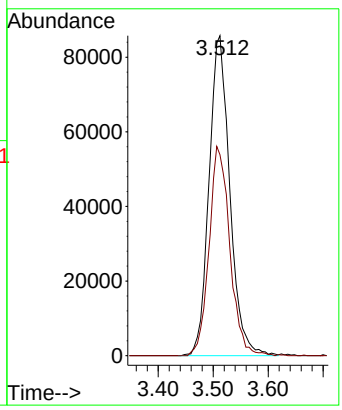




#7
Trichlorofluoromethane
Concen: 44.843 ug/l
RT: 3.512 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion:101 Resp: 22485

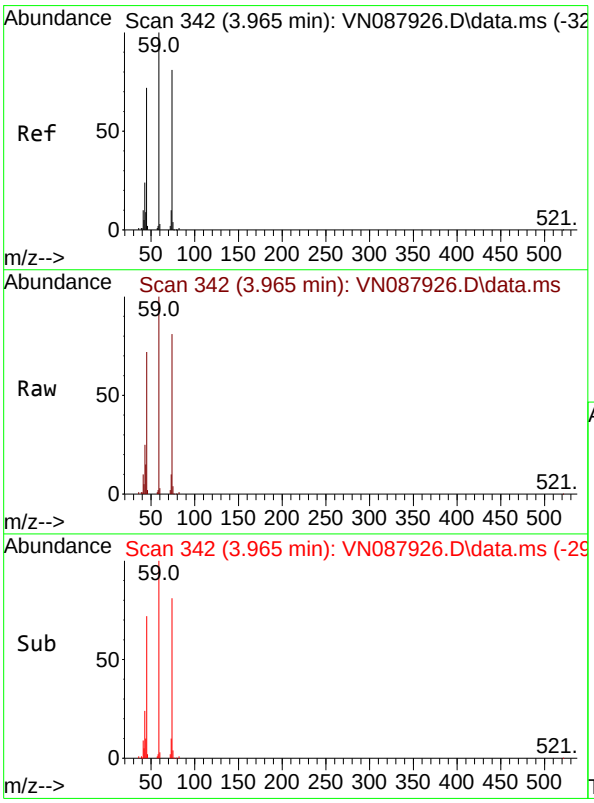
Ion	Ratio	Lower	Upper
101	100		
103	62.8	50.2	75.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

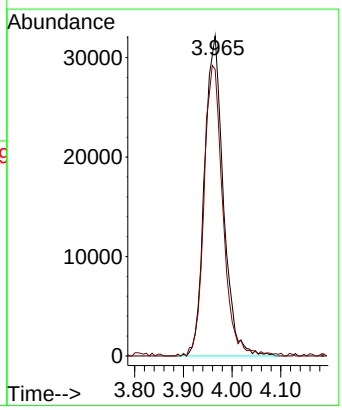
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

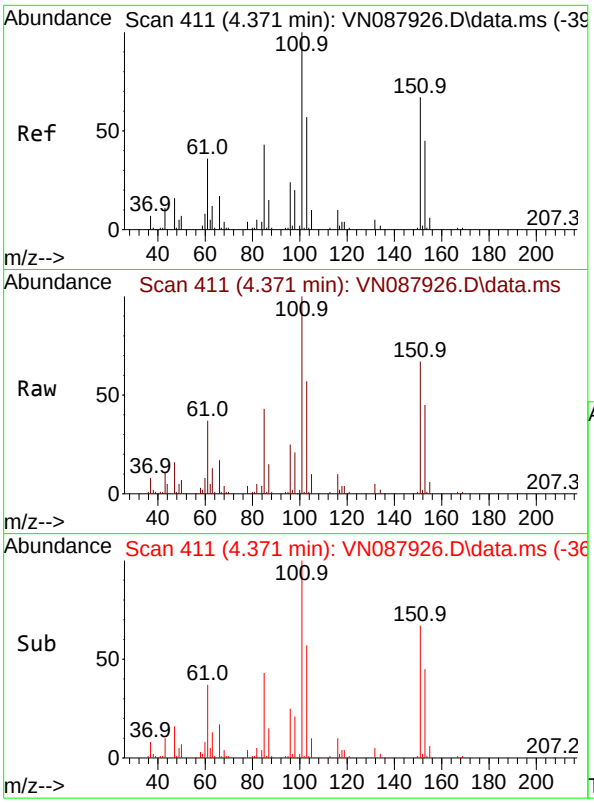


#8
Diethyl Ether
Concen: 45.512 ug/l
RT: 3.965 min Scan# 342
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 74 Resp: 86217

Ion	Ratio	Lower	Upper
74	100		
45	90.7	45.4	136.1

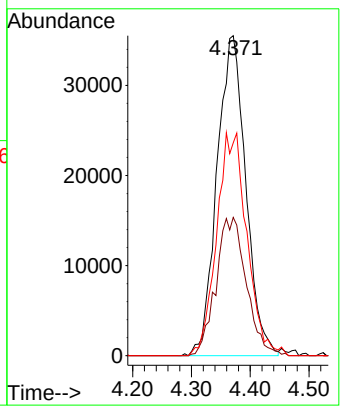




#9
1,1,2-Trichlorotrifluoroethane
Concen: 45.623 ug/l
RT: 4.371 min Scan# 41
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion:101 Resp: 12091

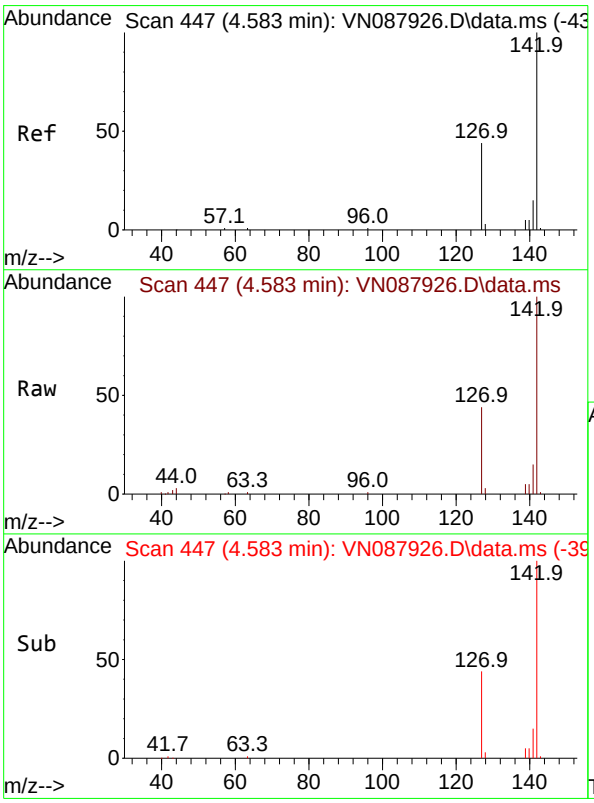
Ion	Ratio	Lower	Upper
101	100		
85	45.6	36.5	54.7
151	73.2	58.6	87.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

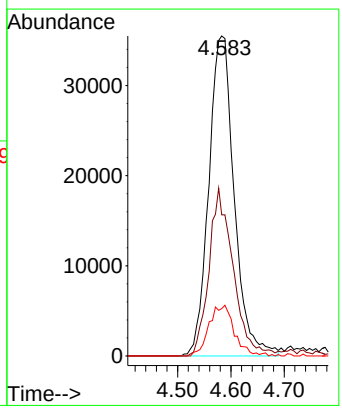
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

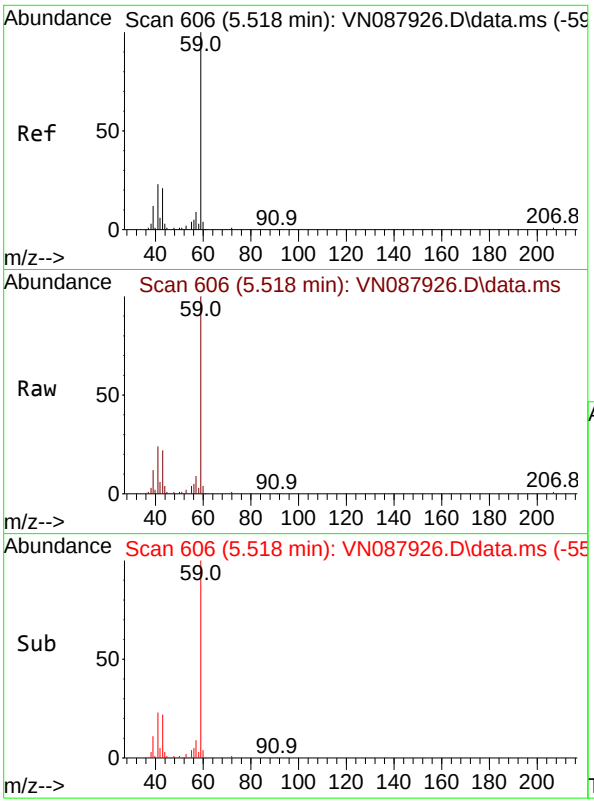


#10
Methyl Iodide
Concen: 49.360 ug/l
RT: 4.583 min Scan# 447
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion:142 Resp: 117736

Ion	Ratio	Lower	Upper
142	100		
127	44.1	35.3	52.9
141	14.8	11.8	17.8

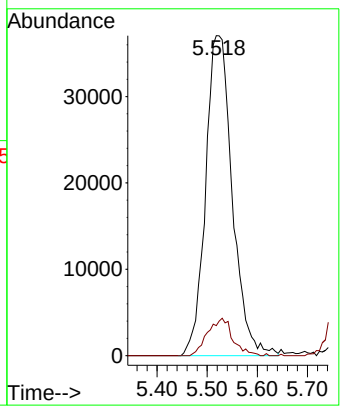




#11
Tert butyl alcohol
Concen: 222.139 ug/l
RT: 5.518 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 59 Resp: 13708

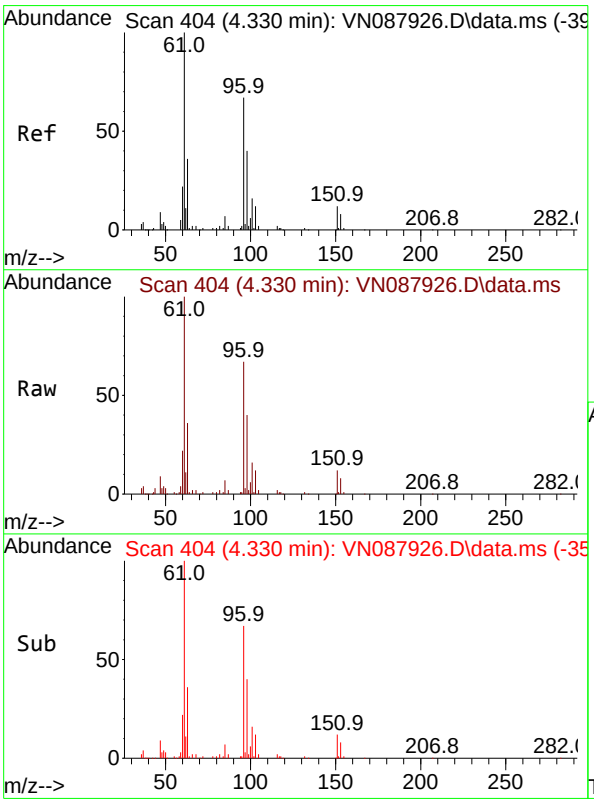
Ion	Ratio	Lower	Upper
59	100		
57	11.0	8.8	13.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

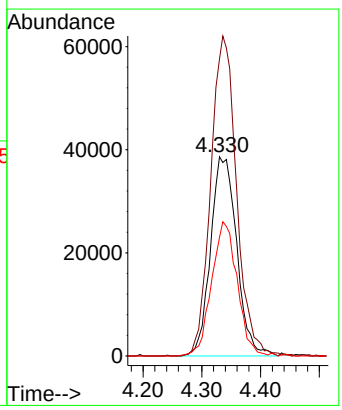
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

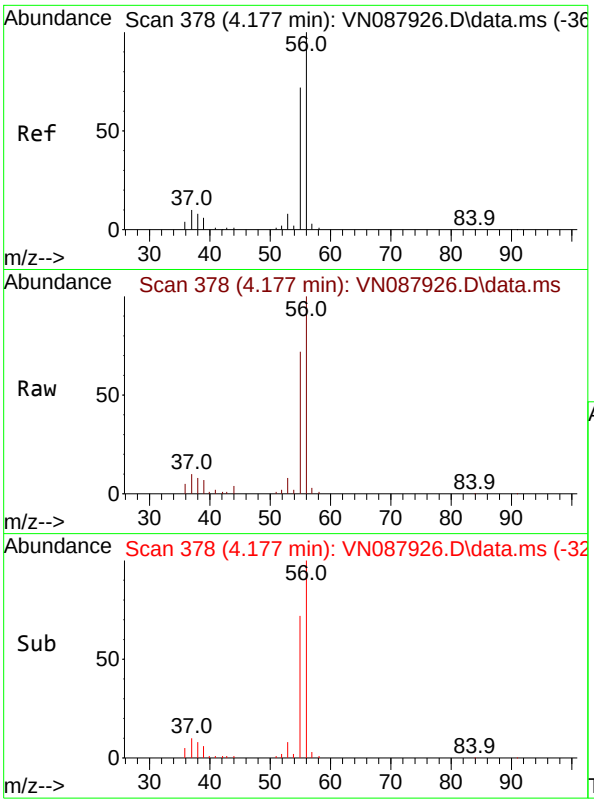


#12
1,1-Dichloroethene
Concen: 44.733 ug/l
RT: 4.330 min Scan# 404
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 96 Resp: 119621

Ion	Ratio	Lower	Upper
96	100		
61	149.0	119.2	178.8
98	59.4	47.5	71.3

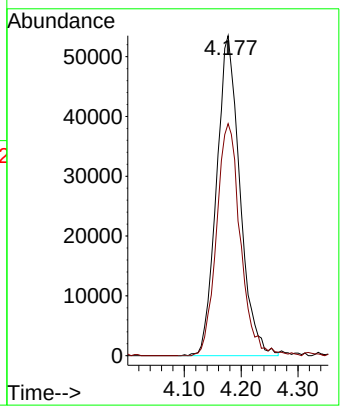




#13
Acrolein
Concen: 192.981 ug/l
RT: 4.177 min Scan# 3
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 56 Resp: 15280

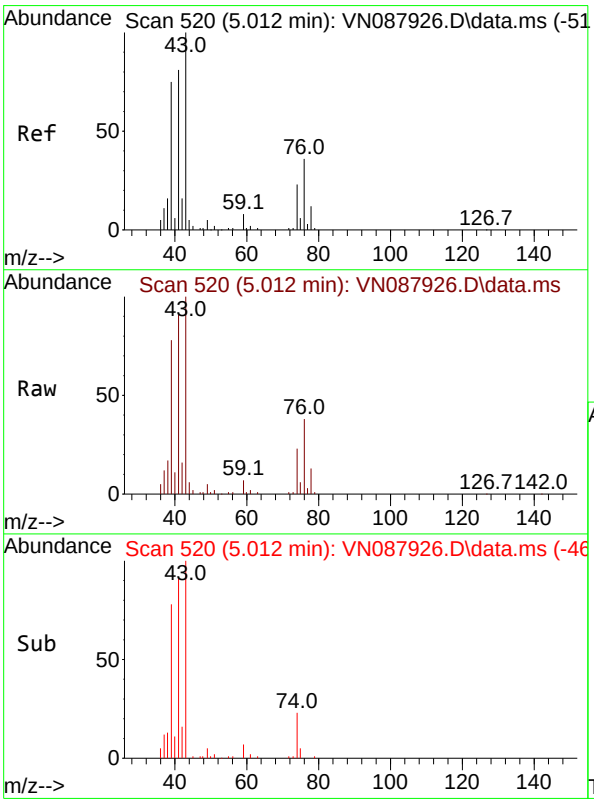
Ion	Ratio	Lower	Upper
56	100		
55	74.1	59.3	88.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

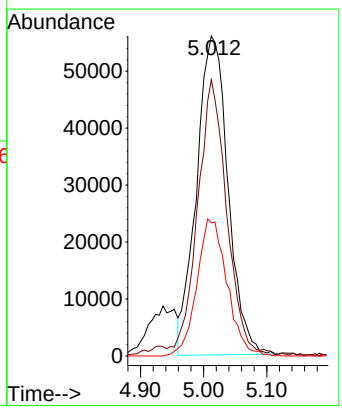
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

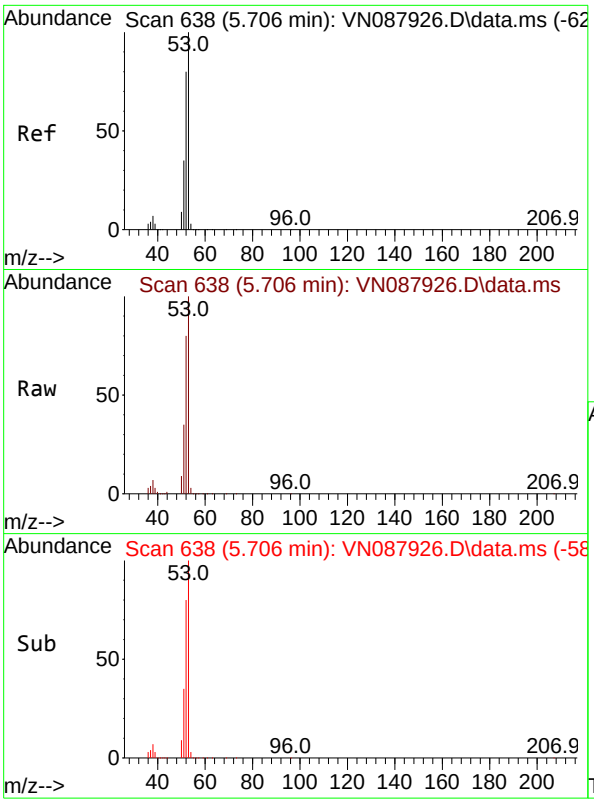


#14
Allyl chloride
Concen: 44.461 ug/l
RT: 5.012 min Scan# 520
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 41 Resp: 193562

Ion	Ratio	Lower	Upper
41	100		
39	79.8	63.8	95.8
76	41.3	33.0	49.6

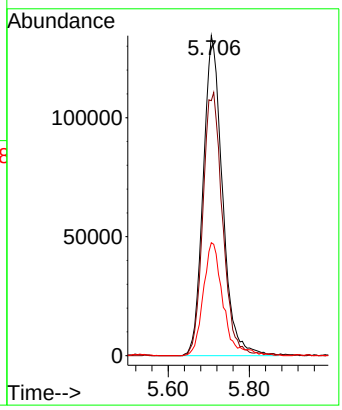




#15
Acrylonitrile
Concen: 228.967 ug/l
RT: 5.706 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 53 Resp: 44320

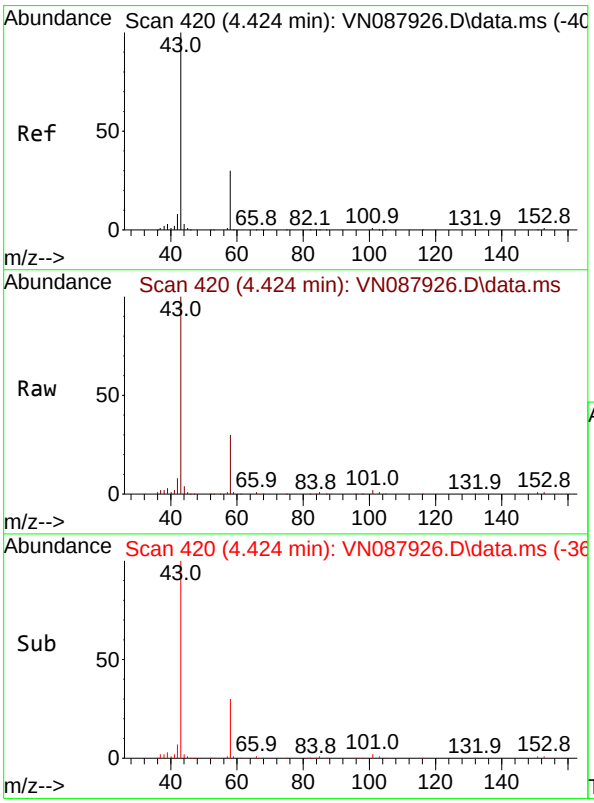
Ion	Ratio	Lower	Upper
53	100		
52	83.2	66.6	99.8
51	36.2	29.0	43.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

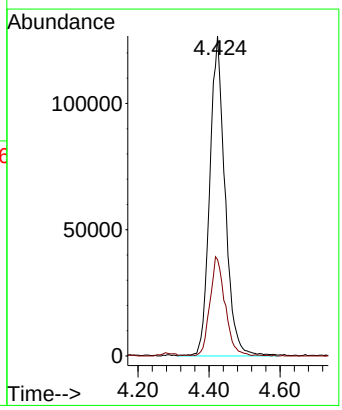
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

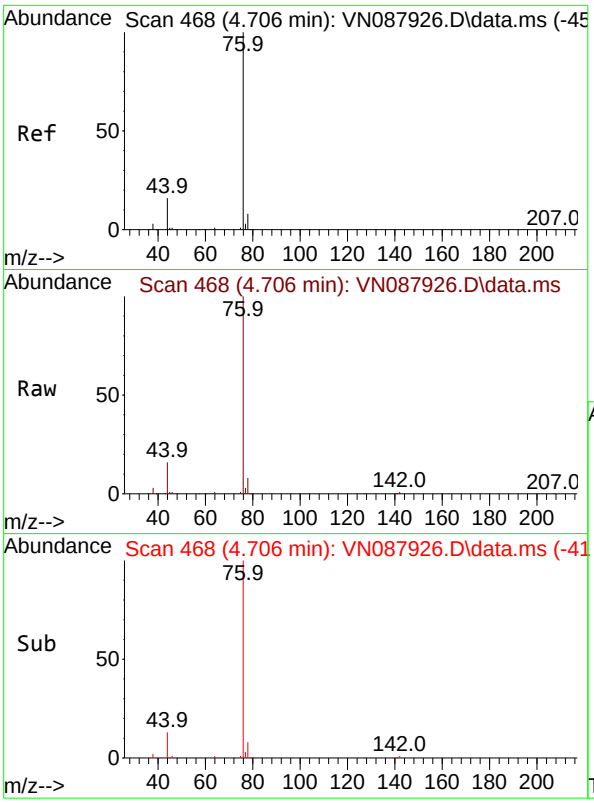


#16
Acetone
Concen: 213.856 ug/l
RT: 4.424 min Scan# 420
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 43 Resp: 379293

Ion	Ratio	Lower	Upper
43	100		
58	30.1	24.1	36.1





#17
Carbon Disulfide
Concen: 45.253 ug/l
RT: 4.706 min Scan# 4
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

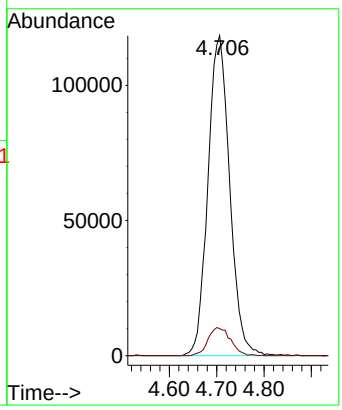
Tgt Ion: 76 Resp: 37809

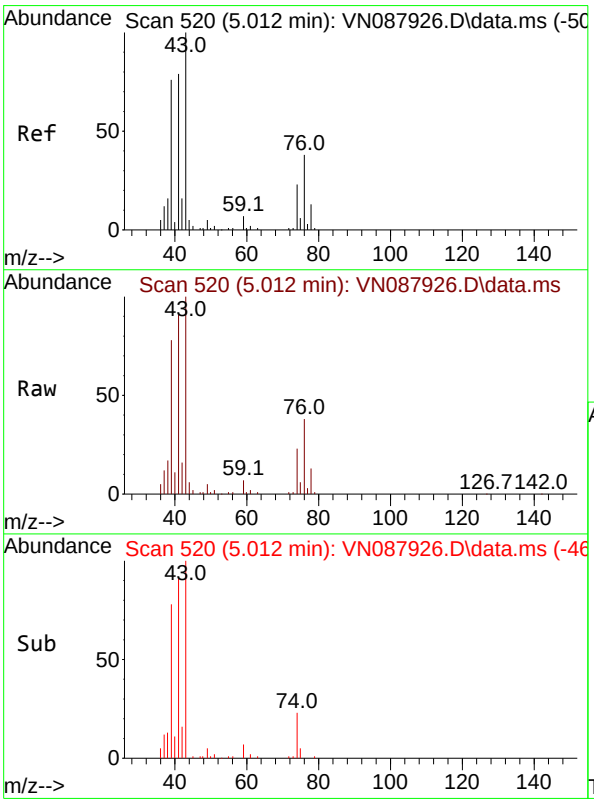
Ion	Ratio	Lower	Upper
76	100		
78	8.4	6.7	10.1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

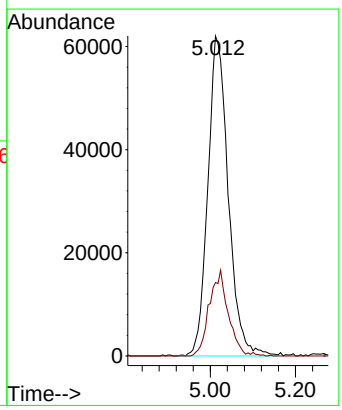


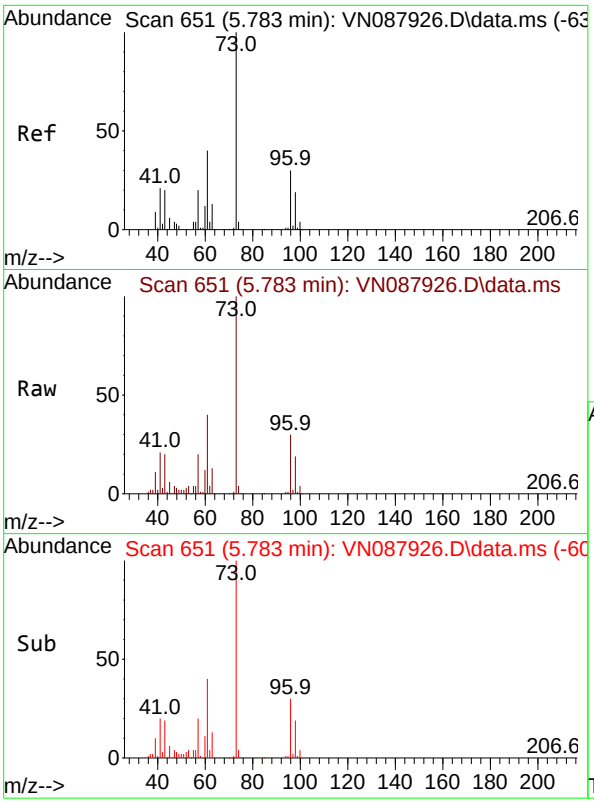


#18
Methyl Acetate
Concen: 46.922 ug/l
RT: 5.012 min Scan# 520
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 43 Resp: 206999

Ion	Ratio	Lower	Upper
43	100		
74	24.6	19.7	29.5

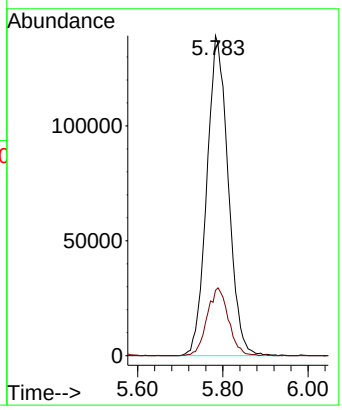




#19
Methyl tert-butyl Ether
Concen: 46.482 ug/l
RT: 5.783 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 73 Resp: 48556

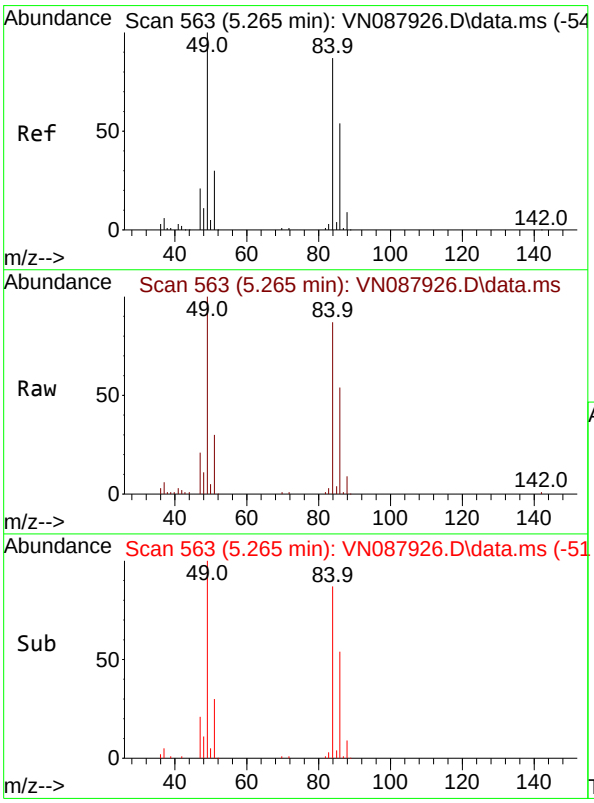
Ion	Ratio	Lower	Upper
73	100		
57	20.4	16.3	24.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

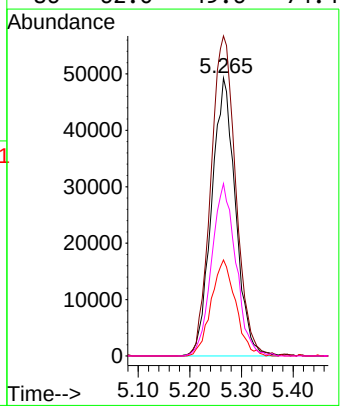
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

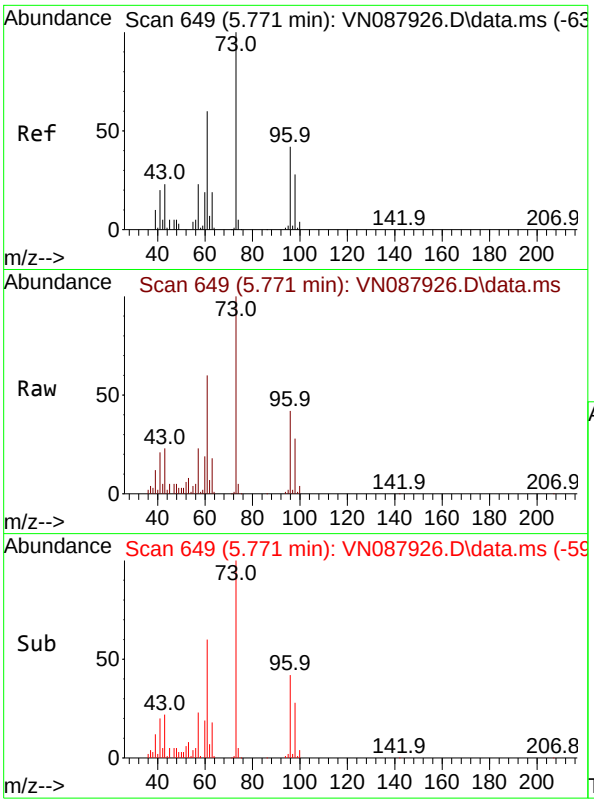


#20
Methylene Chloride
Concen: 44.311 ug/l
RT: 5.265 min Scan# 563
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 84 Resp: 158103

Ion	Ratio	Lower	Upper
84	100		
49	115.1	92.1	138.1
51	34.6	27.7	41.5
86	62.0	49.6	74.4

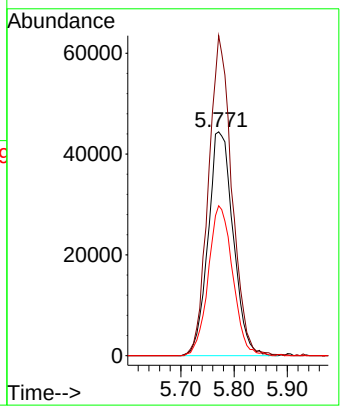




#21
trans-1,2-Dichloroethene
Concen: 44.244 ug/l
RT: 5.771 min Scan# 64
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 96 Resp: 14504

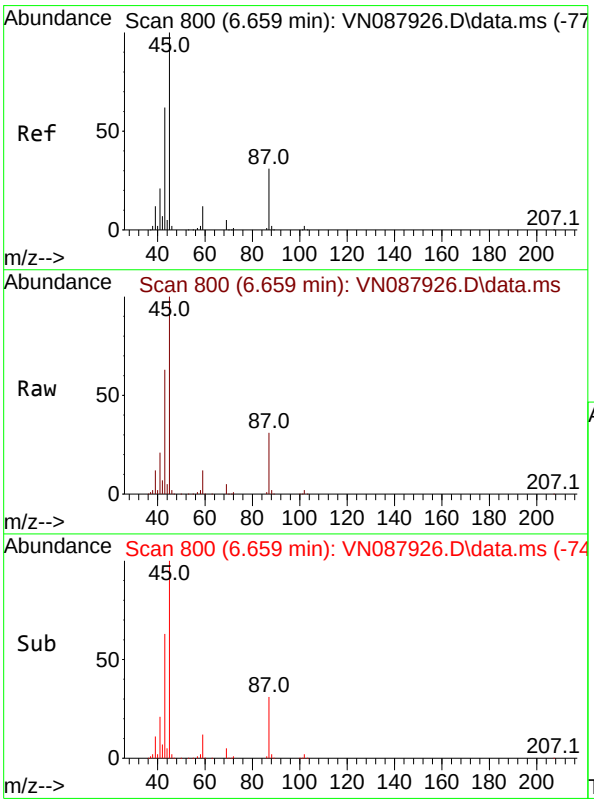
Ion	Ratio	Lower	Upper
96	100		
61	143.0	114.4	171.6
98	67.0	53.6	80.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

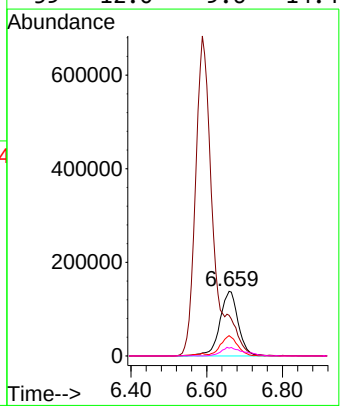
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

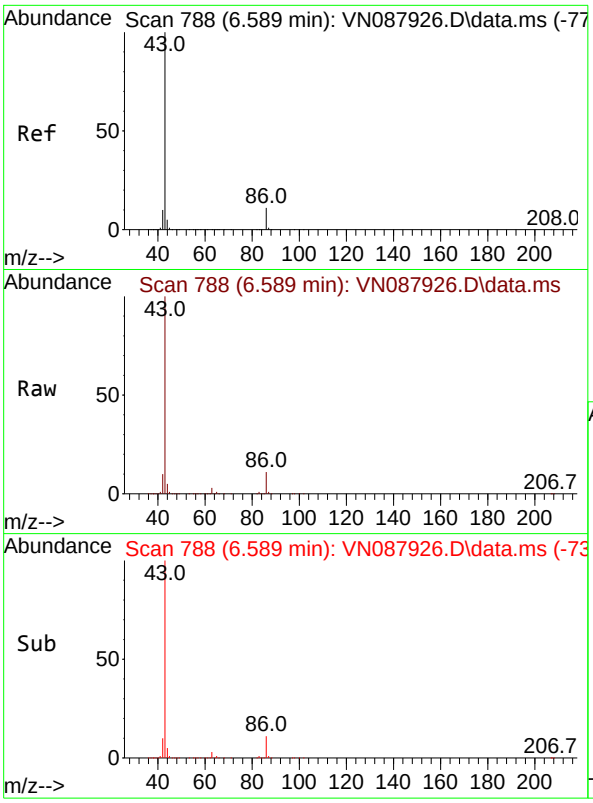


#22
Diisopropyl ether
Concen: 45.733 ug/l
RT: 6.659 min Scan# 800
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 45 Resp: 464786

Ion	Ratio	Lower	Upper
45	100		
43	62.4	49.9	74.9
87	31.5	25.2	37.8
59	12.0	9.6	14.4





#23
Vinyl Acetate
Concen: 232.968 ug/l m
RT: 6.589 min Scan# 7
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

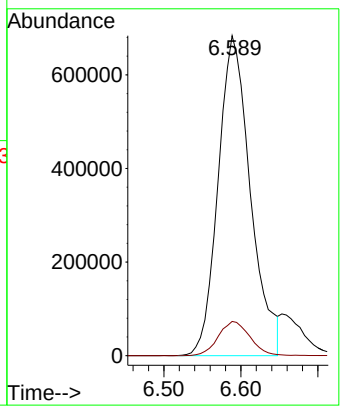
Tgt Ion: 43 Resp: 199351

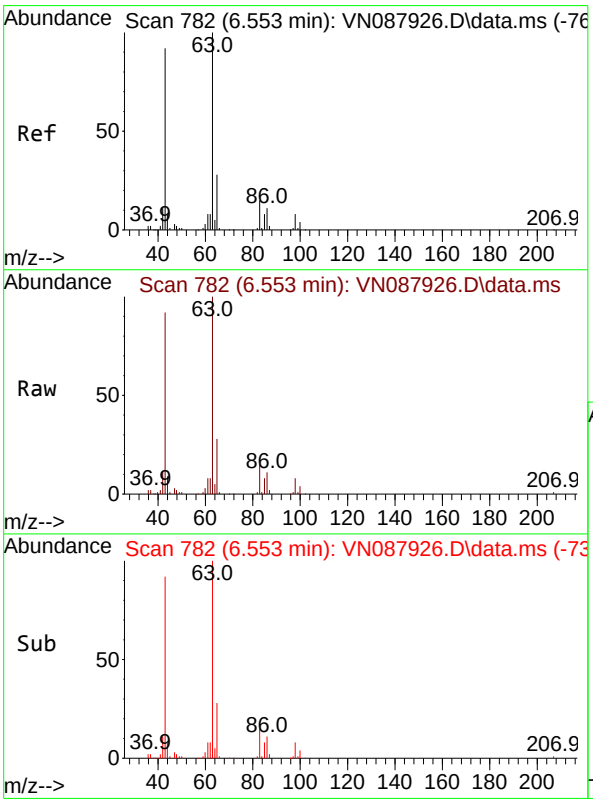
Ion	Ratio	Lower	Upper
43	100		
86	10.7	8.6	12.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

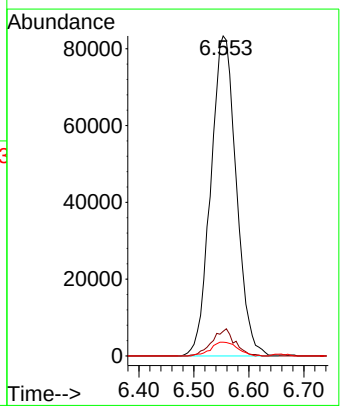


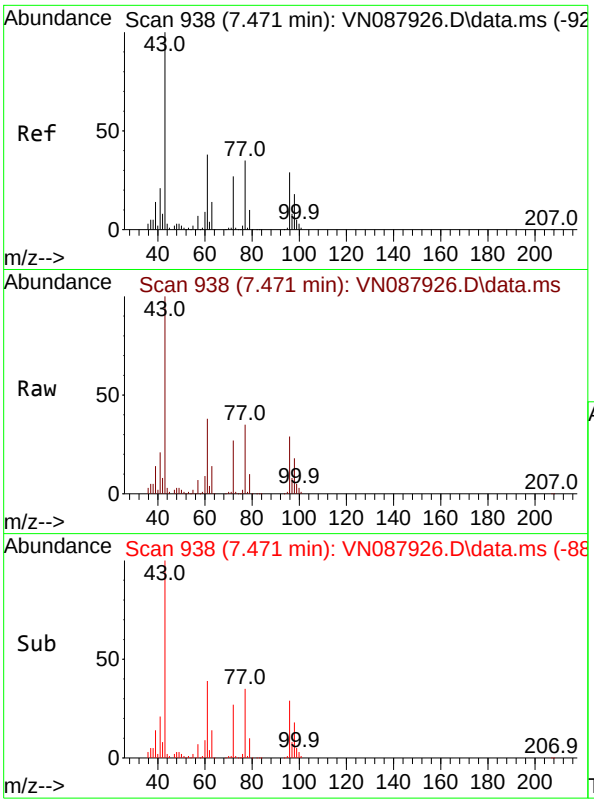


#24
1,1-Dichloroethane
Concen: 45.314 ug/l
RT: 6.553 min Scan# 782
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 63 Resp: 269051

Ion	Ratio	Lower	Upper
63	100		
98	7.7	3.9	11.5
100	4.3	2.1	6.5

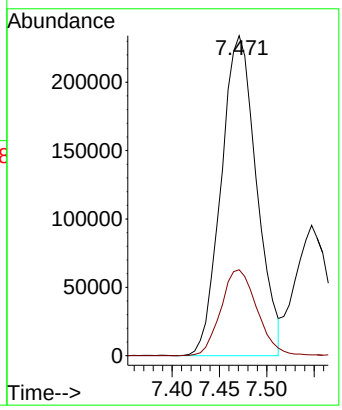




#25
2-Butanone
Concen: 226.338 ug/l
RT: 7.471 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 43 Resp: 60982

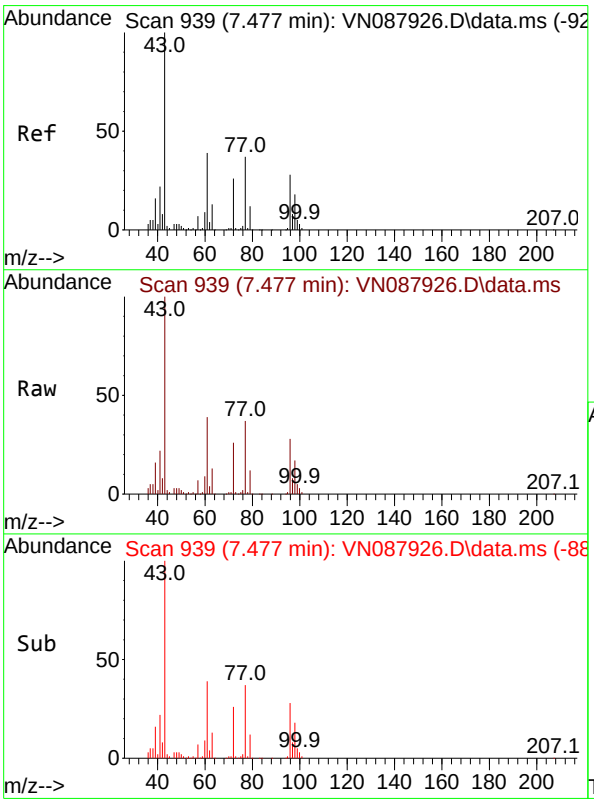
Ion	Ratio	Lower	Upper
43	100		
72	26.9	21.5	32.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

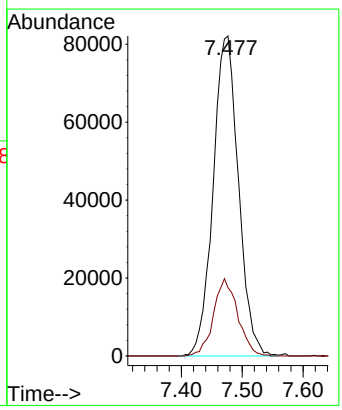
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

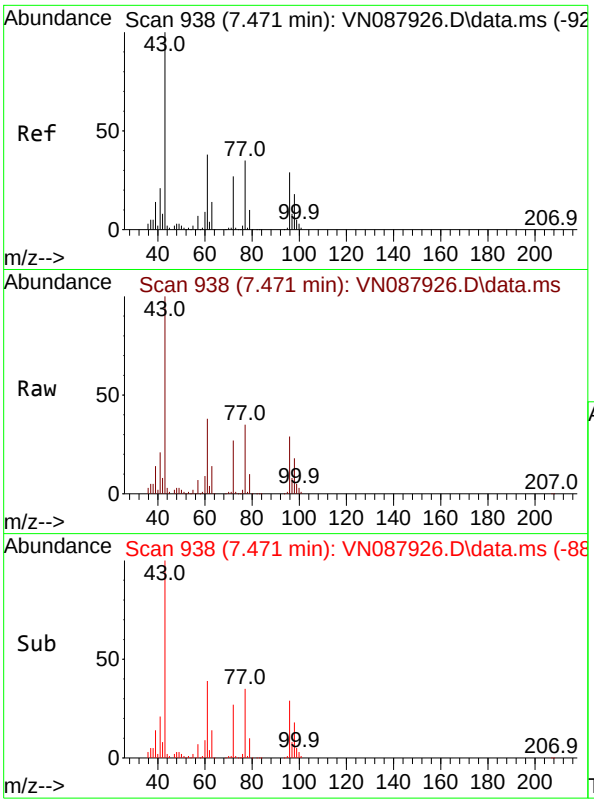


#26
2,2-Dichloropropane
Concen: 44.982 ug/l
RT: 7.477 min Scan# 939
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 77 Resp: 237294

Ion	Ratio	Lower	Upper
77	100		
97	23.0	11.5	34.5





#27
cis-1,2-Dichloroethene
Concen: 45.028 ug/l
RT: 7.471 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

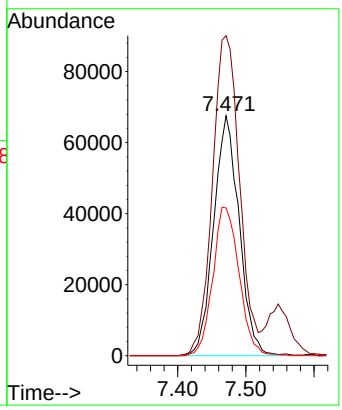
Tgt Ion: 96 Resp: 17563

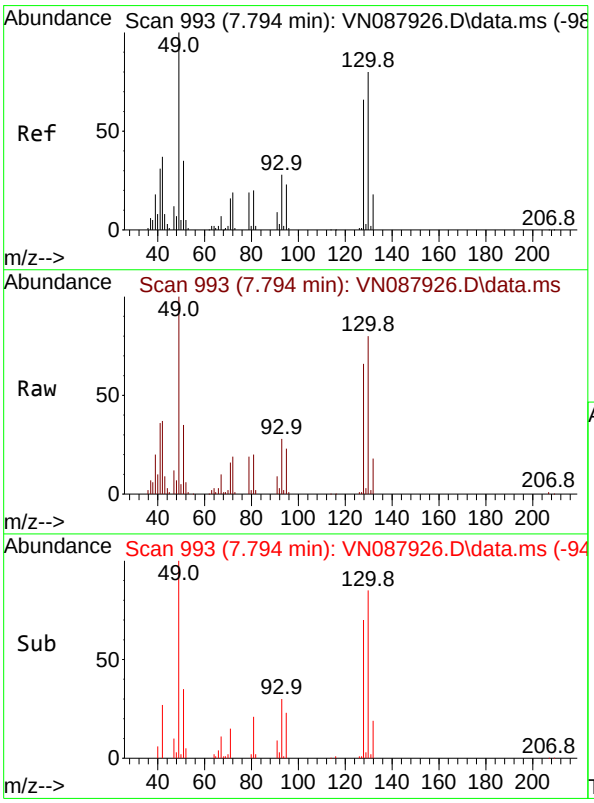
Ion	Ratio	Lower	Upper
96	100		
61	141.5	0.0	283.0
98	63.8	0.0	127.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

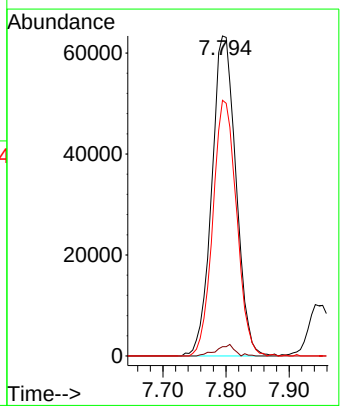


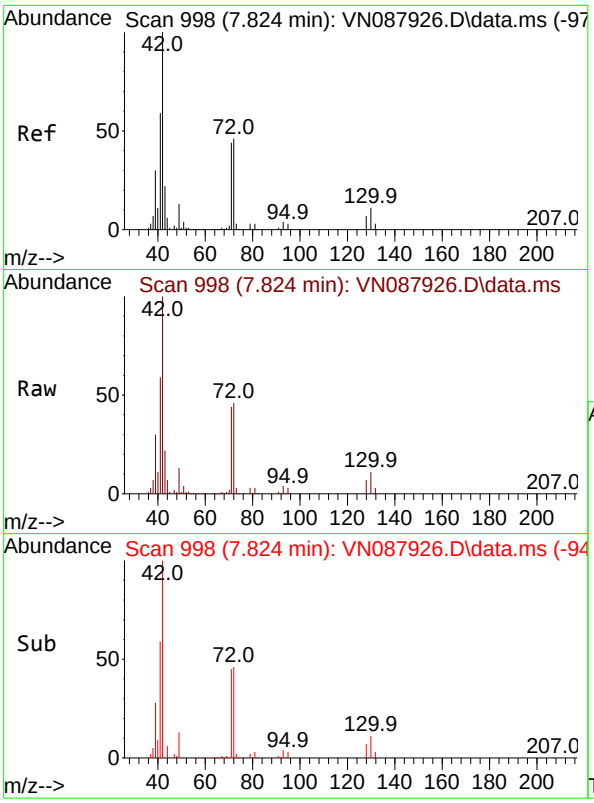


#28
Bromochloromethane
Concen: 52.246 ug/l
RT: 7.794 min Scan# 993
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 49 Resp: 168545

Ion	Ratio	Lower	Upper
49	100		
129	2.7	0.0	5.4
130	78.3	62.6	94.0

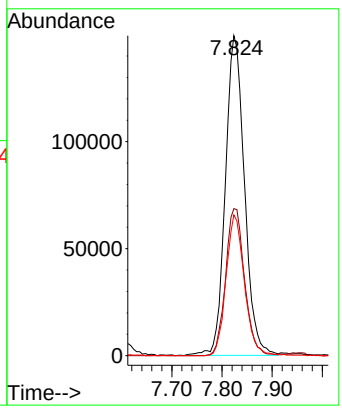




#29
Tetrahydrofuran
Concen: 229.492 ug/l
RT: 7.824 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 42 Resp: 39592

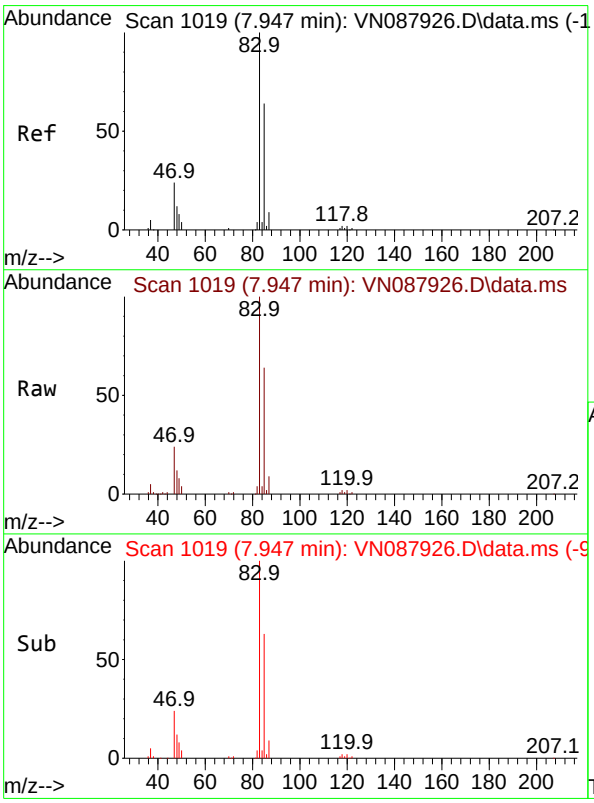
Ion	Ratio	Lower	Upper
42	100		
72	45.6	36.5	54.7
71	42.3	33.8	50.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

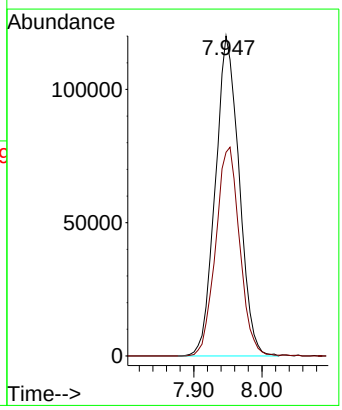
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

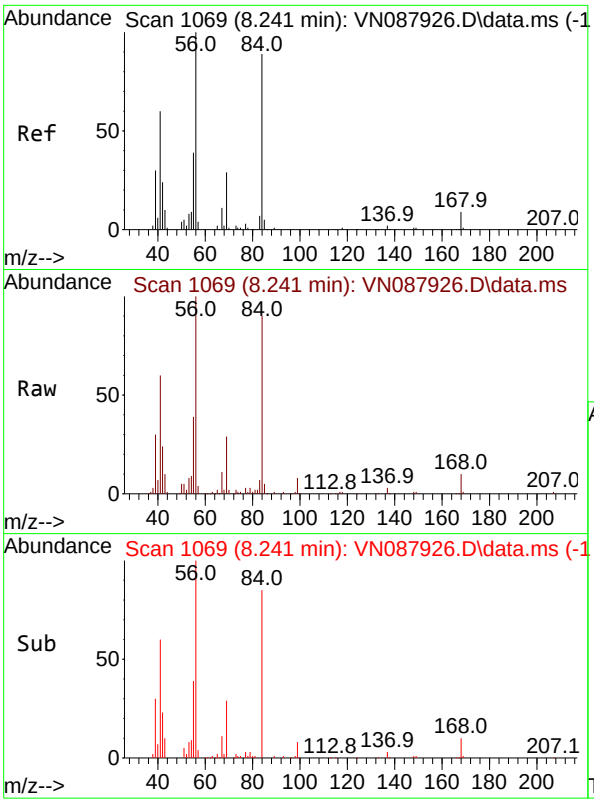


#30
Chloroform
Concen: 44.884 ug/l
RT: 7.947 min Scan# 1019
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 83 Resp: 291394

Ion	Ratio	Lower	Upper
83	100		
85	63.6	50.9	76.3

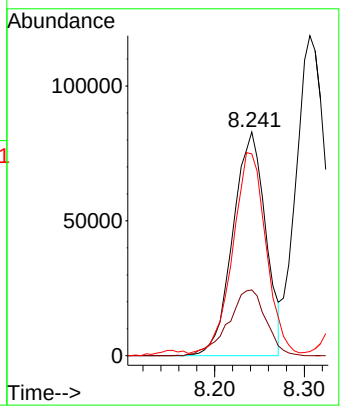




#31
Cyclohexane
Concen: 43.814 ug/l
RT: 8.241 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 56 Resp: 21049

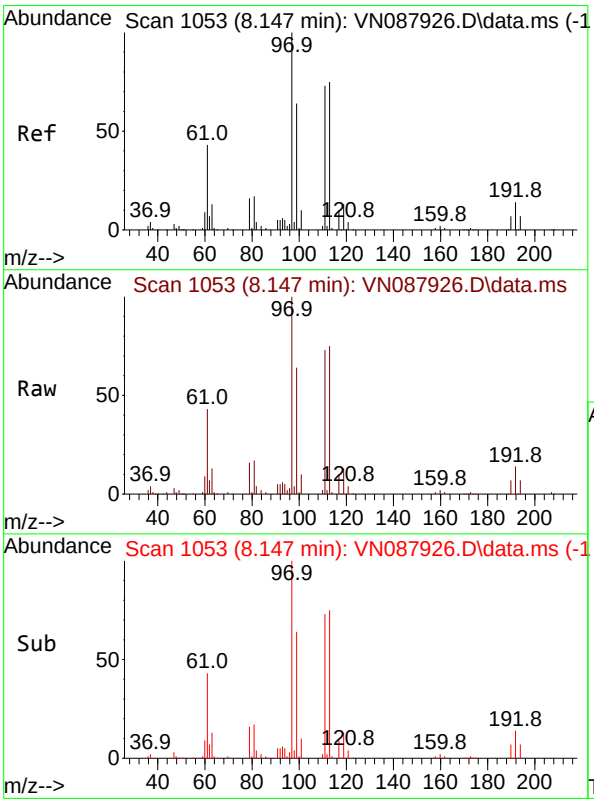
Ion	Ratio	Lower	Upper
56	100		
69	29.2	23.4	35.0
84	88.5	70.8	106.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

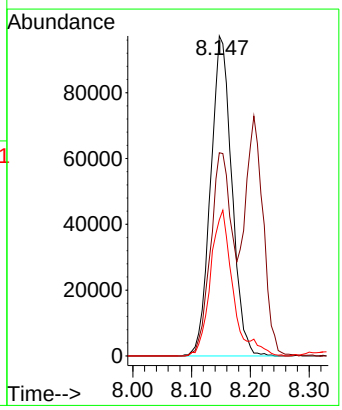
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

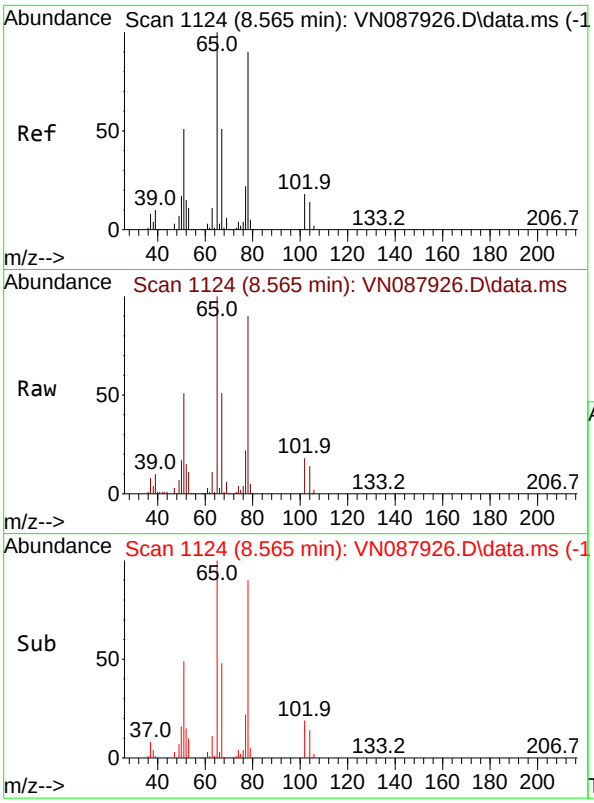


#32
1,1,1-Trichloroethane
Concen: 44.463 ug/l
RT: 8.147 min Scan# 1053
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 97 Resp: 243908

Ion	Ratio	Lower	Upper
97	100		
99	63.9	51.1	76.7
61	48.3	38.6	58.0

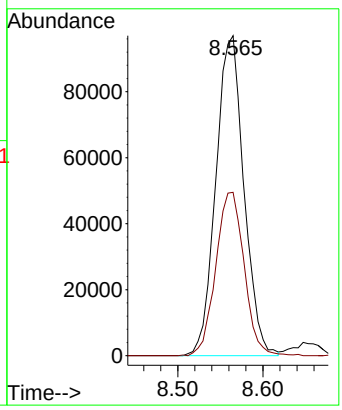




#33
1,2-Dichloroethane-d4
Concen: 51.825 ug/l
RT: 8.565 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 65 Resp: 22203

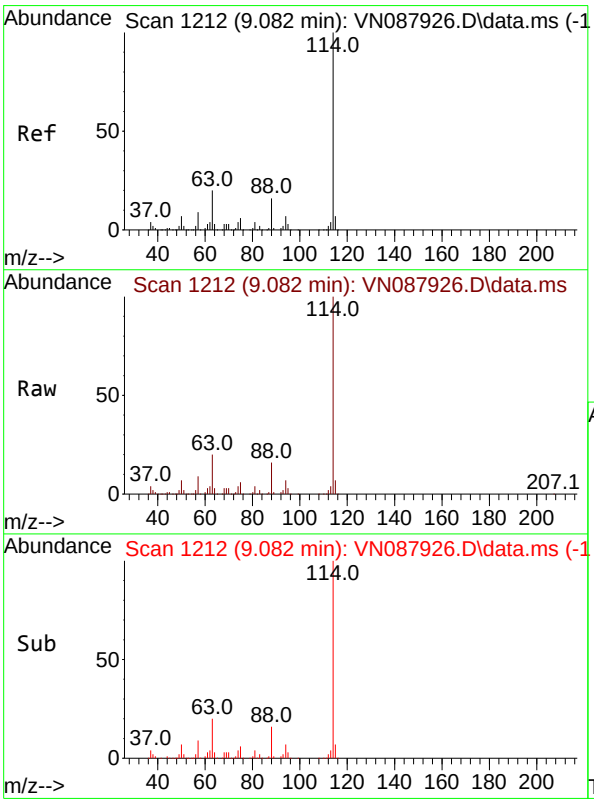
Ion	Ratio	Lower	Upper
65	100		
67	51.7	0.0	103.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

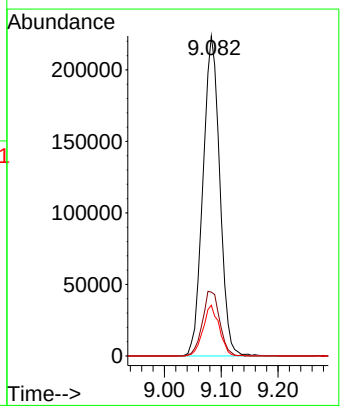
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

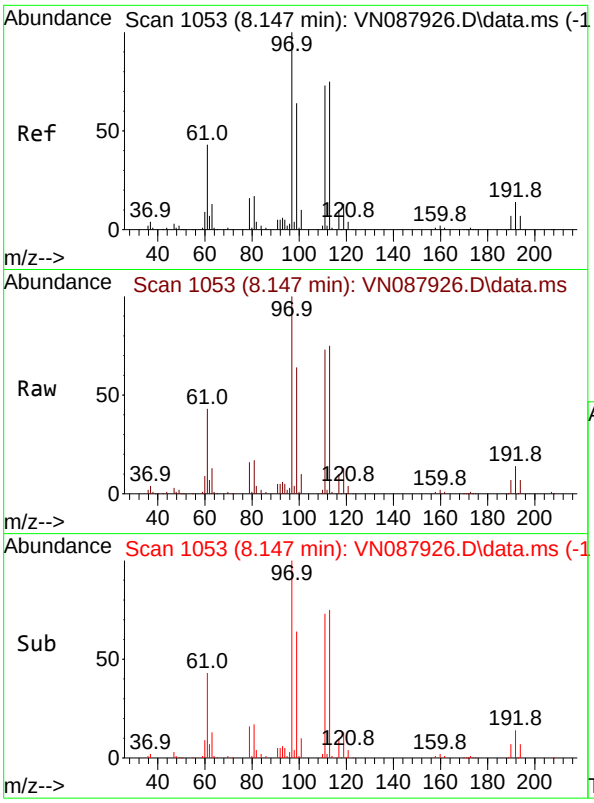


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.082 min Scan# 1212
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion:114 Resp: 459281

Ion	Ratio	Lower	Upper
114	100		
63	20.0	0.0	40.0
88	15.9	0.0	31.8

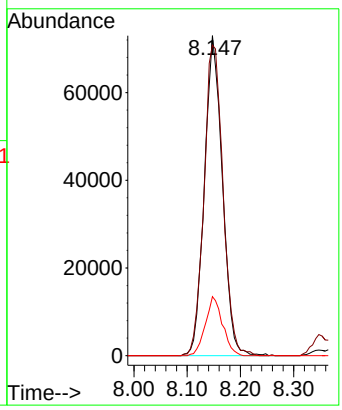




#35
Dibromofluoromethane
Concen: 51.270 ug/l
RT: 8.147 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion:113 Resp: 17096

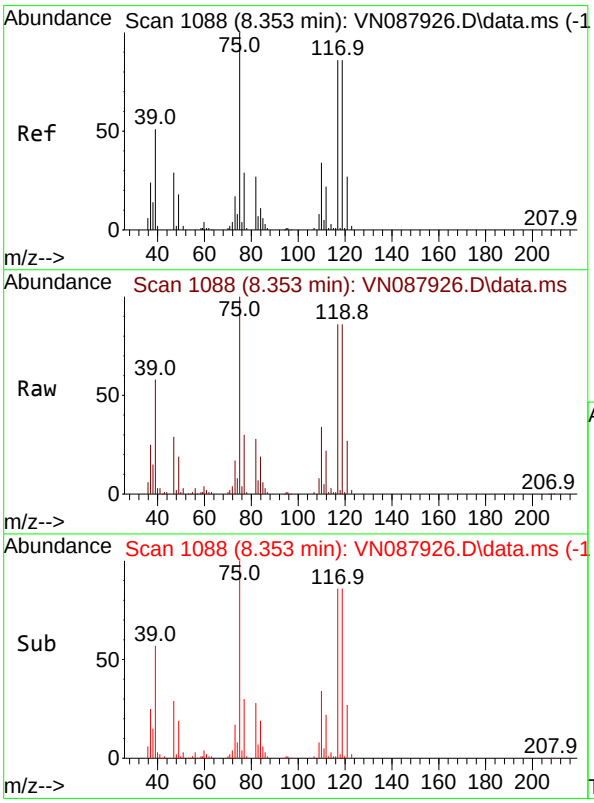
Ion	Ratio	Lower	Upper
113	100		
111	102.7	82.2	123.2
192	17.7	14.2	21.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

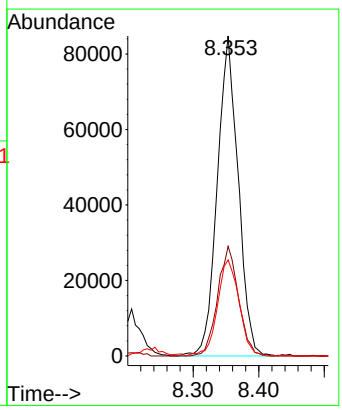
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

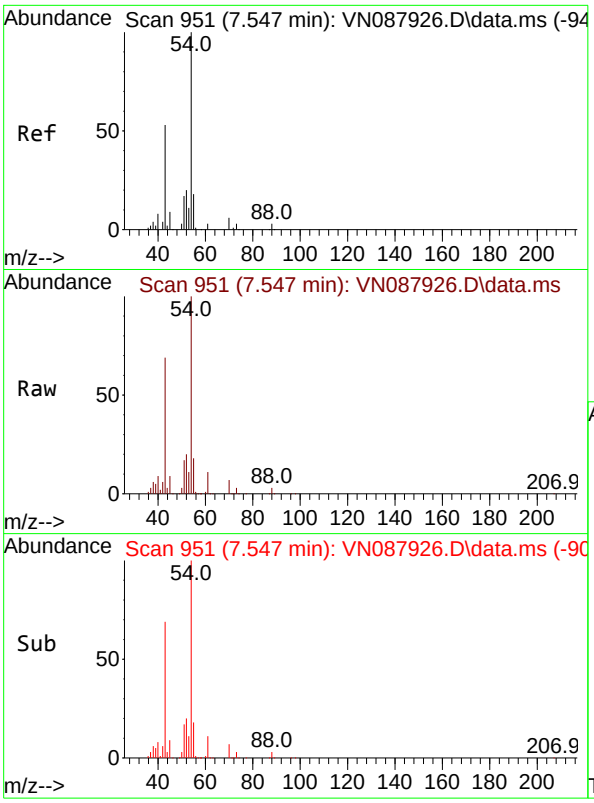


#36
1,1-Dichloropropene
Concen: 46.732 ug/l
RT: 8.353 min Scan# 1088
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 75 Resp: 187383

Ion	Ratio	Lower	Upper
75	100		
110	34.2	17.1	51.3
77	31.0	24.8	37.2





#37
Ethyl Acetate
Concen: 46.716 ug/l
RT: 7.547 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

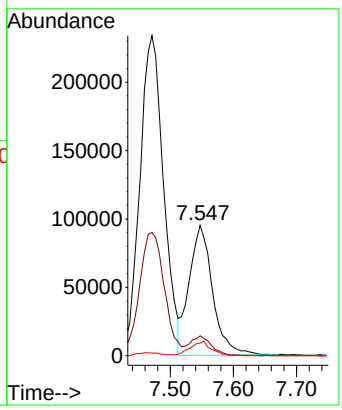
Tgt Ion: 43 Resp: 24598

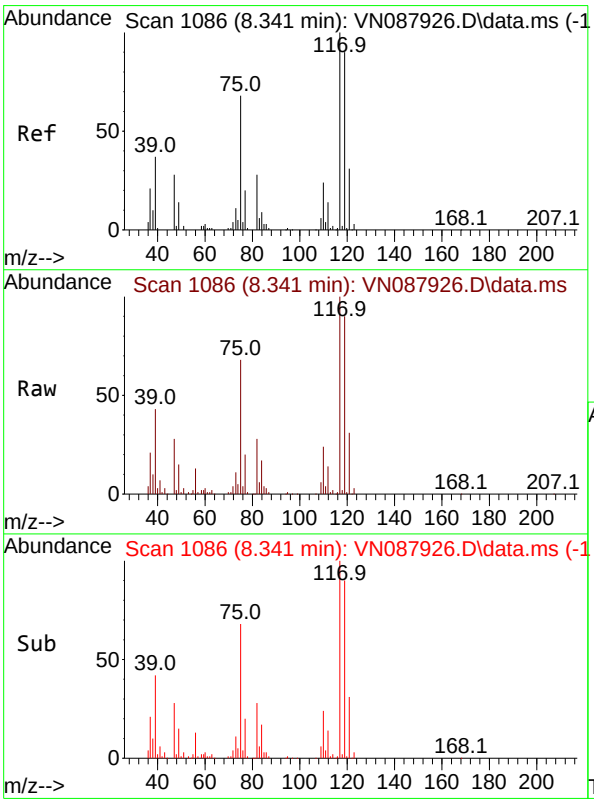
Ion	Ratio	Lower	Upper
43	100		
61	13.4	10.7	16.1
70	9.8	7.8	11.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

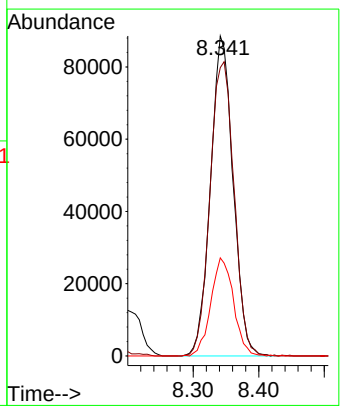


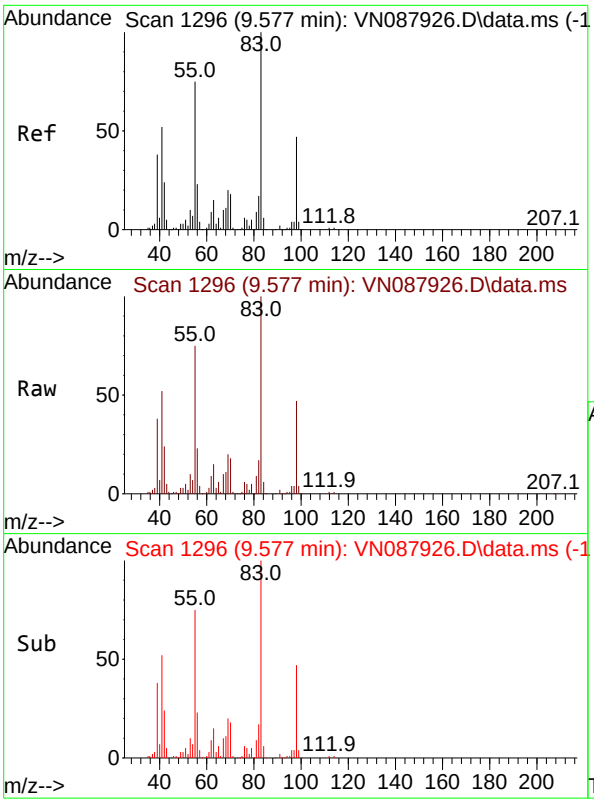


#38
Carbon Tetrachloride
Concen: 46.026 ug/l
RT: 8.341 min Scan# 1086
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion:117 Resp: 211771

Ion	Ratio	Lower	Upper
117	100		
119	90.1	72.1	108.1
121	30.7	24.6	36.8

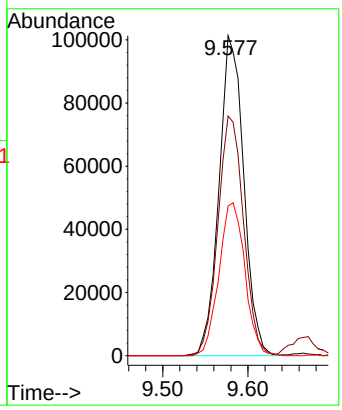




#39
Methylcyclohexane
Concen: 46.146 ug/l
RT: 9.577 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 83 Resp: 20412

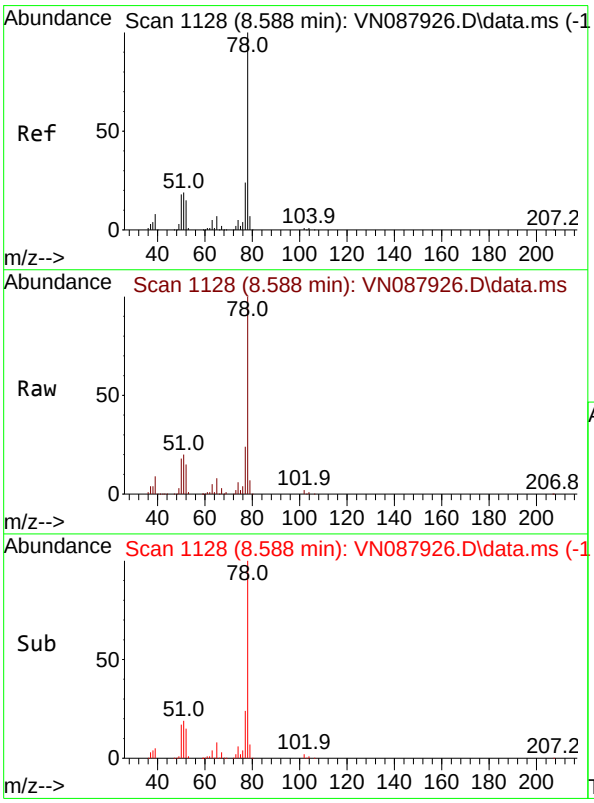
Ion	Ratio	Lower	Upper
83	100		
55	74.9	59.9	89.9
98	46.8	37.4	56.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

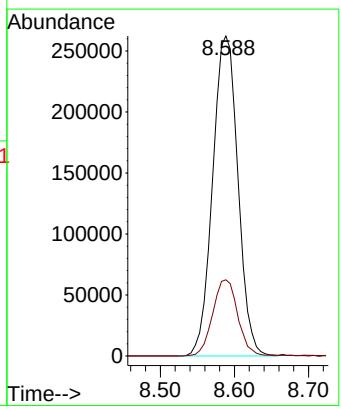
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

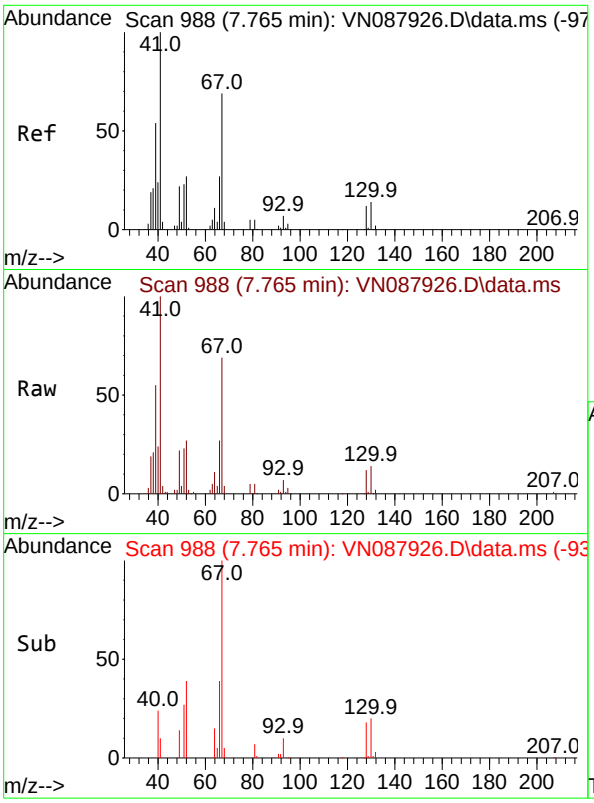


#40
Benzene
Concen: 46.804 ug/l
RT: 8.588 min Scan# 1128
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 78 Resp: 621393

Ion	Ratio	Lower	Upper
78	100		
77	23.8	19.0	28.6

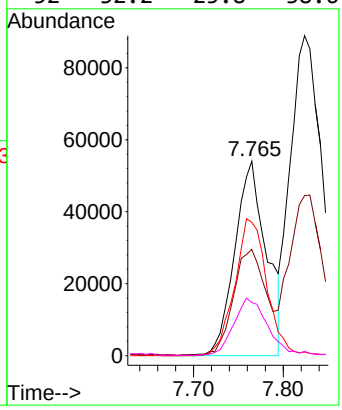




#41
Methacrylonitrile
Concen: 48.599 ug/l
RT: 7.765 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 41 Resp: 13224

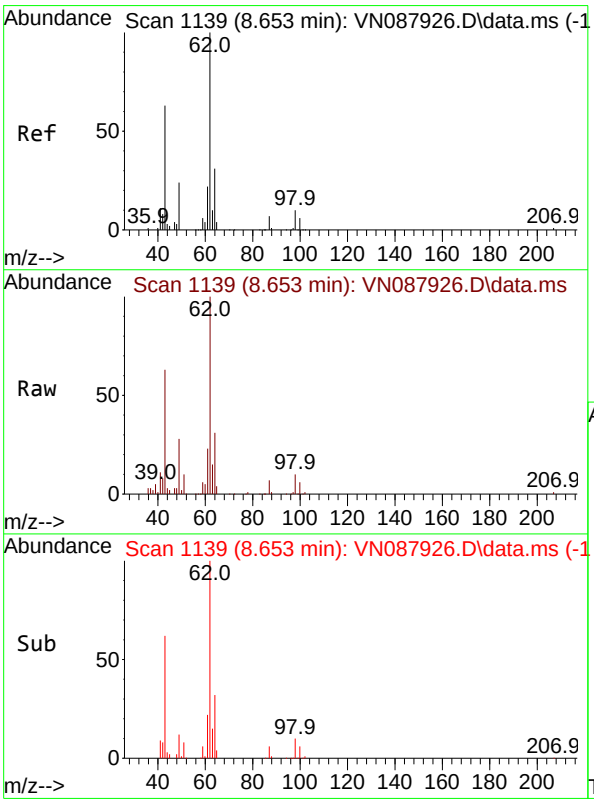
Ion	Ratio	Lower	Upper
41	100		
39	54.4	43.5	65.3
67	72.0	57.6	86.4
52	32.2	25.8	38.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

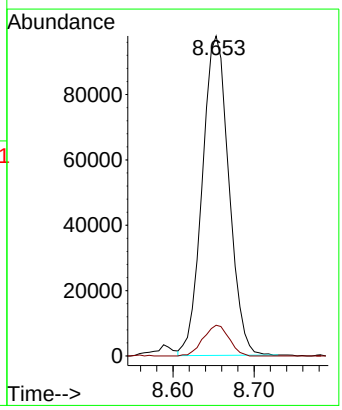
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

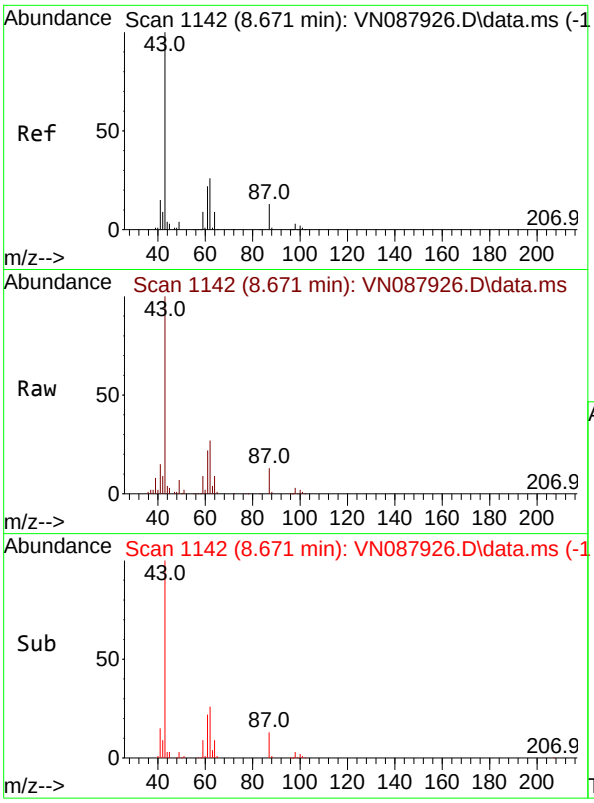


#42
1,2-Dichloroethane
Concen: 44.838 ug/l
RT: 8.653 min Scan# 1139
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 62 Resp: 222149

Ion	Ratio	Lower	Upper
62	100		
98	9.3	0.0	18.6

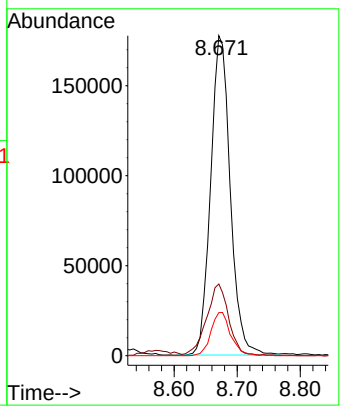




#43
Isopropyl Acetate
Concen: 46.221 ug/l
RT: 8.671 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 43 Resp: 38308

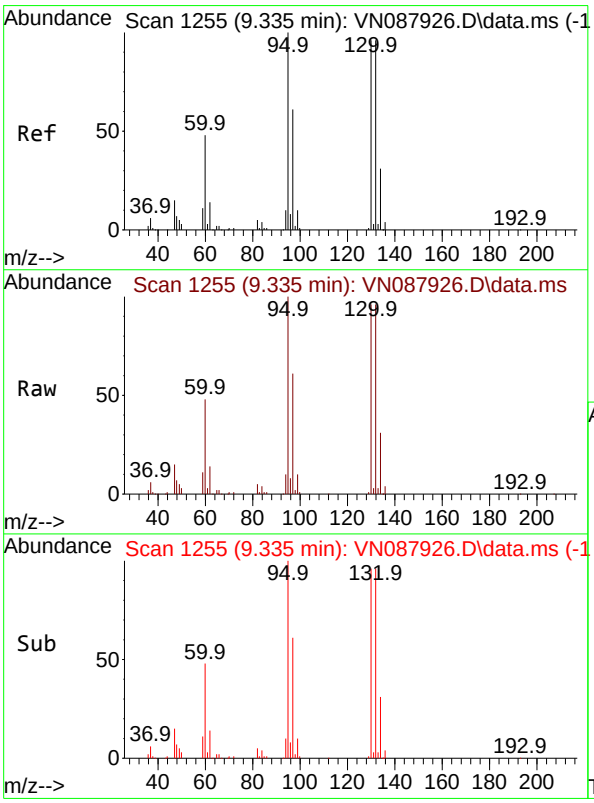
Ion	Ratio	Lower	Upper
43	100		
61	25.2	20.2	30.2
87	13.6	10.9	16.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

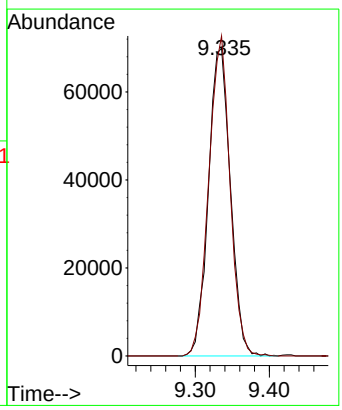
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

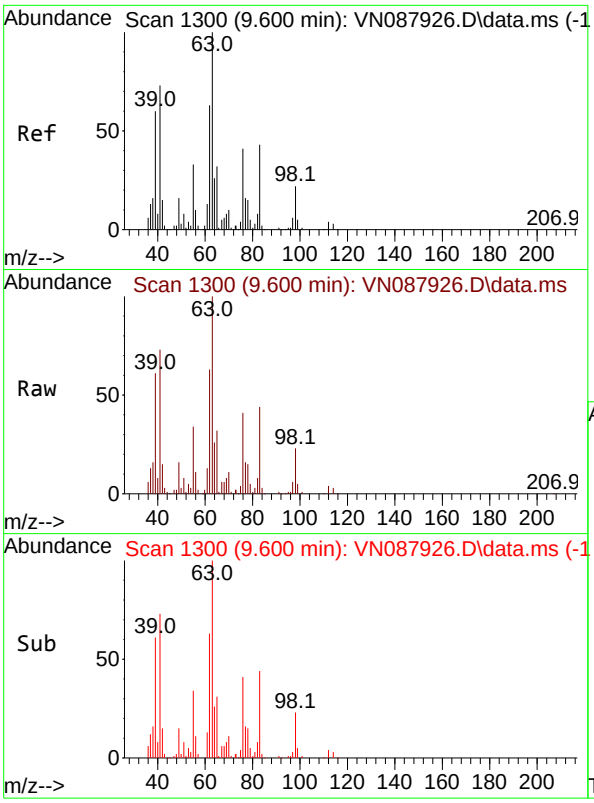


#44
Trichloroethene
Concen: 45.554 ug/l
RT: 9.335 min Scan# 1255
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion:130 Resp: 144464

Ion	Ratio	Lower	Upper
130	100		
95	104.0	0.0	208.0

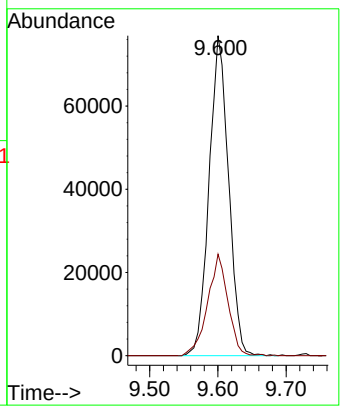




#45
1,2-Dichloropropane
Concen: 45.892 ug/l
RT: 9.600 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 63 Resp: 15277

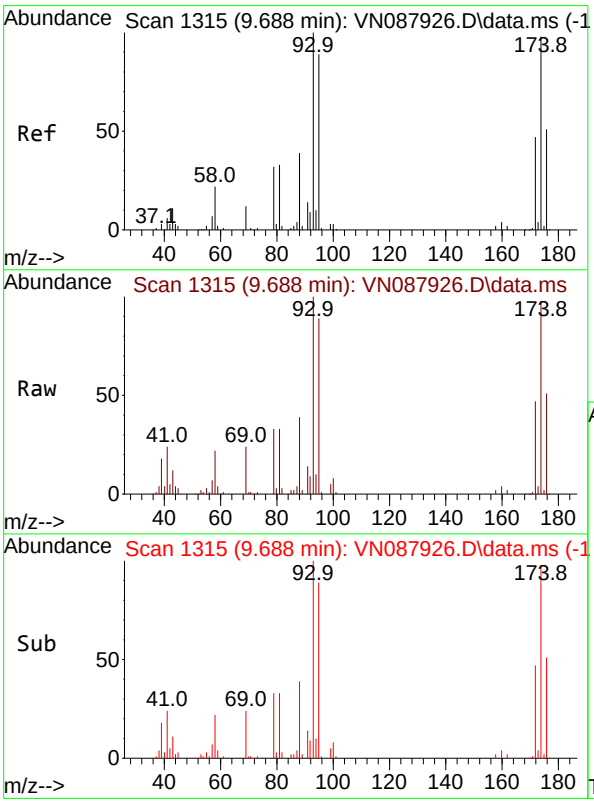
Ion	Ratio	Lower	Upper
63	100		
65	31.7	25.4	38.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

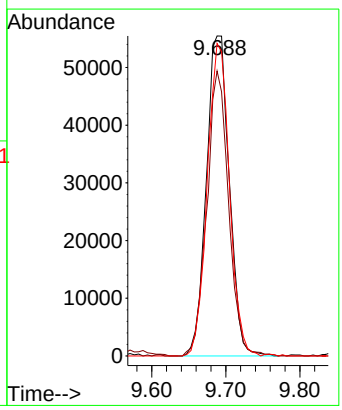
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

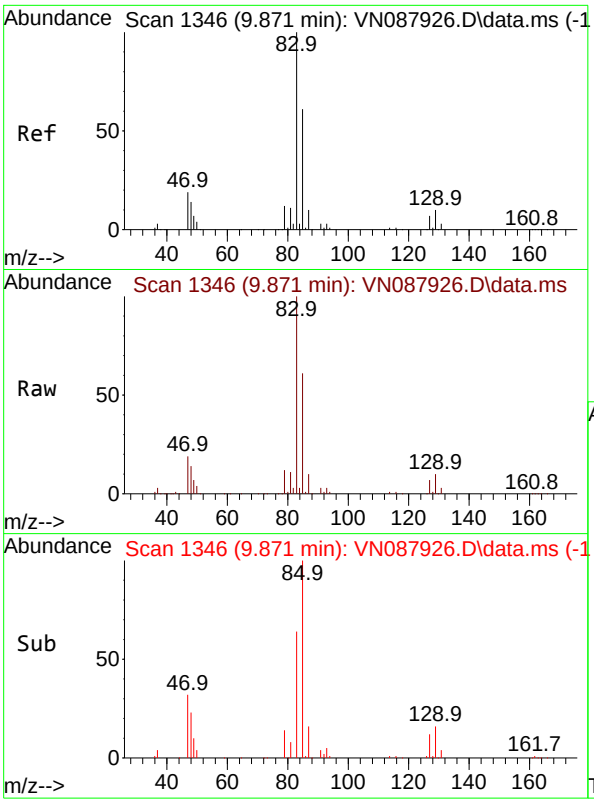


#46
Dibromomethane
Concen: 45.445 ug/l
RT: 9.688 min Scan# 1315
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 93 Resp: 119379

Ion	Ratio	Lower	Upper
93	100		
95	84.5	67.6	101.4
174	94.2	75.4	113.0

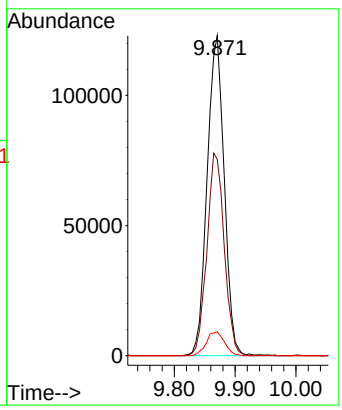




#47
Bromodichloromethane
Concen: 46.428 ug/l
RT: 9.871 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 83 Resp: 23921

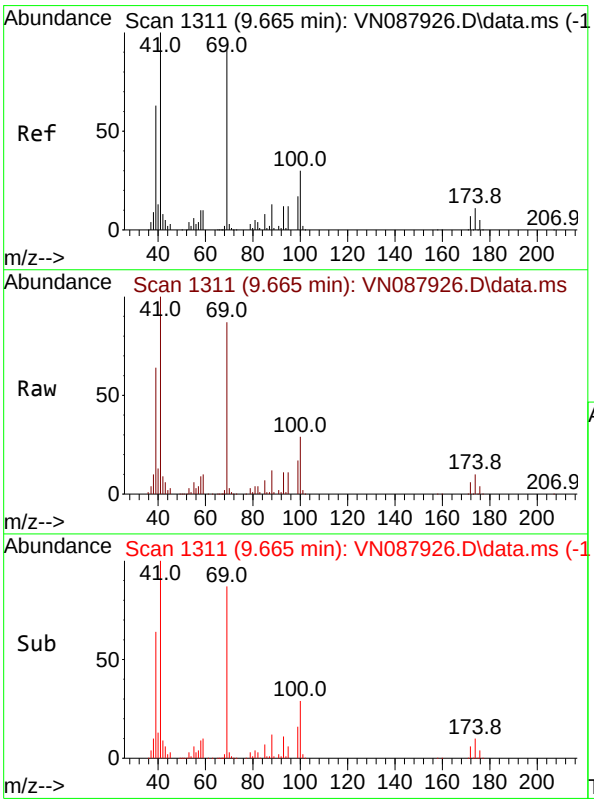
Ion	Ratio	Lower	Upper
83	100		
85	61.4	49.1	73.7
127	7.4	5.9	8.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

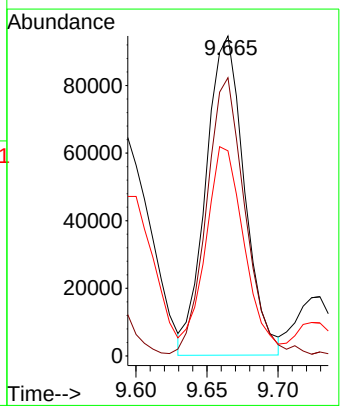
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

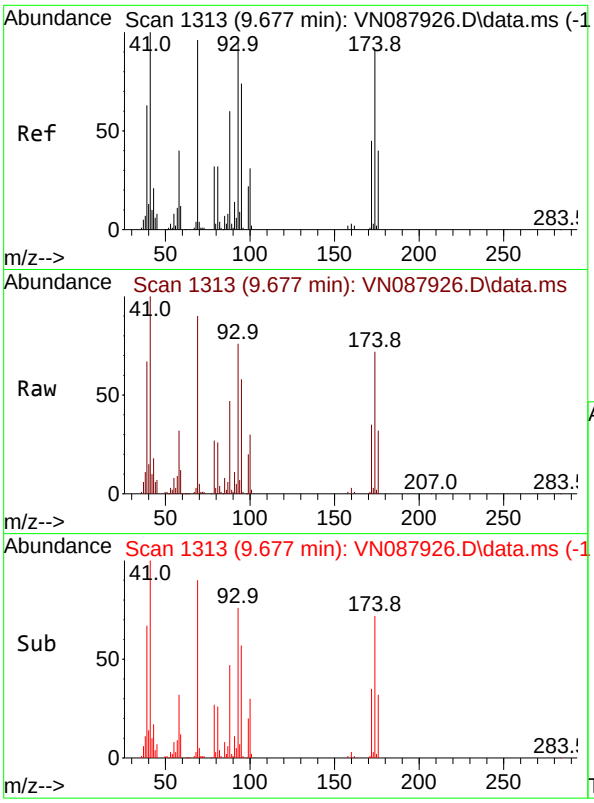


#48
Methyl methacrylate
Concen: 46.496 ug/l
RT: 9.665 min Scan# 1311
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 41 Resp: 178460

Ion	Ratio	Lower	Upper
41	100		
69	88.6	70.9	106.3
39	66.1	52.9	79.3

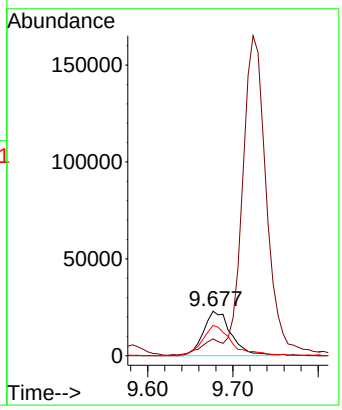




#49
1,4-Dioxane
Concen: 912.802 ug/l
RT: 9.677 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 88 Resp: 5175

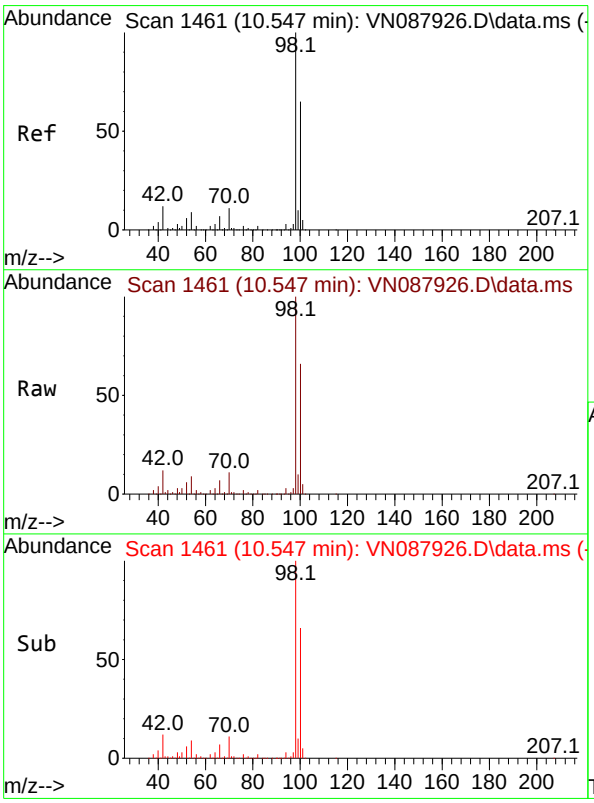
Ion	Ratio	Lower	Upper
88	100		
43	28.2	22.6	33.8
58	71.8	57.4	86.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

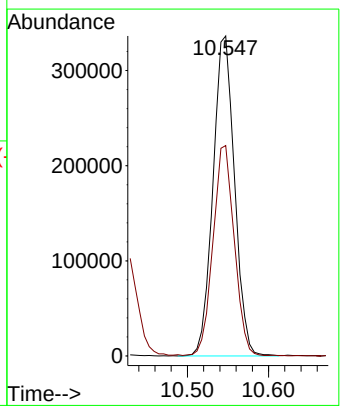
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

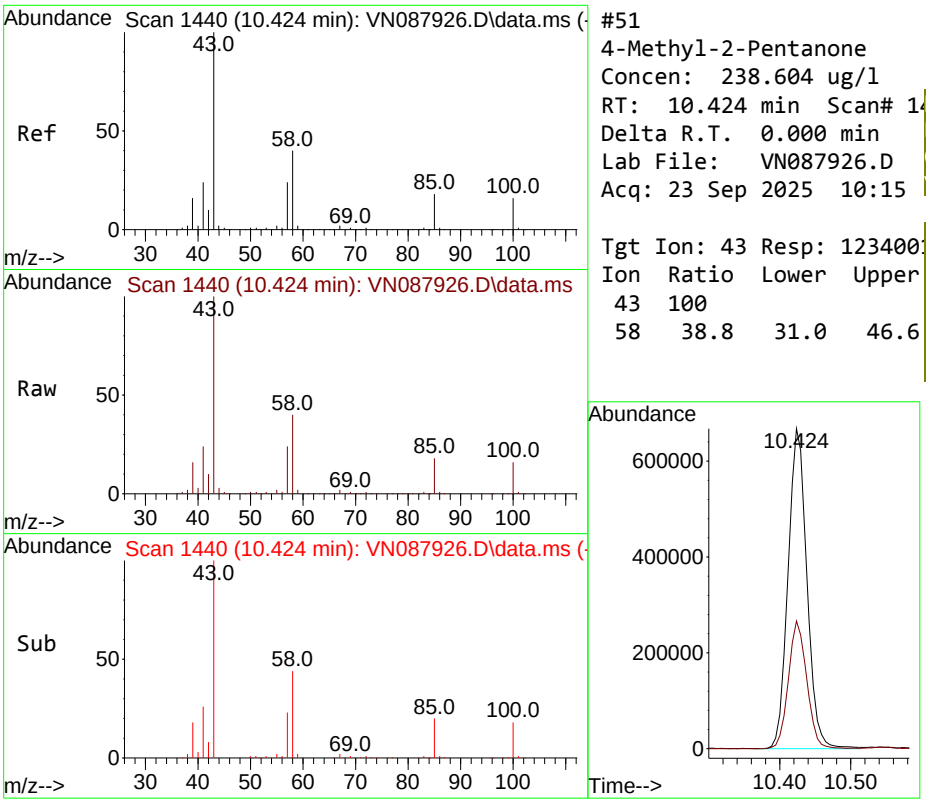


#50
Toluene-d8
Concen: 52.961 ug/l
RT: 10.547 min Scan# 1461
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 98 Resp: 621058

Ion	Ratio	Lower	Upper
98	100		
100	64.6	51.7	77.5





#51
4-Methyl-2-Pentanone
Concen: 238.604 ug/l
RT: 10.424 min Scan# 14
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

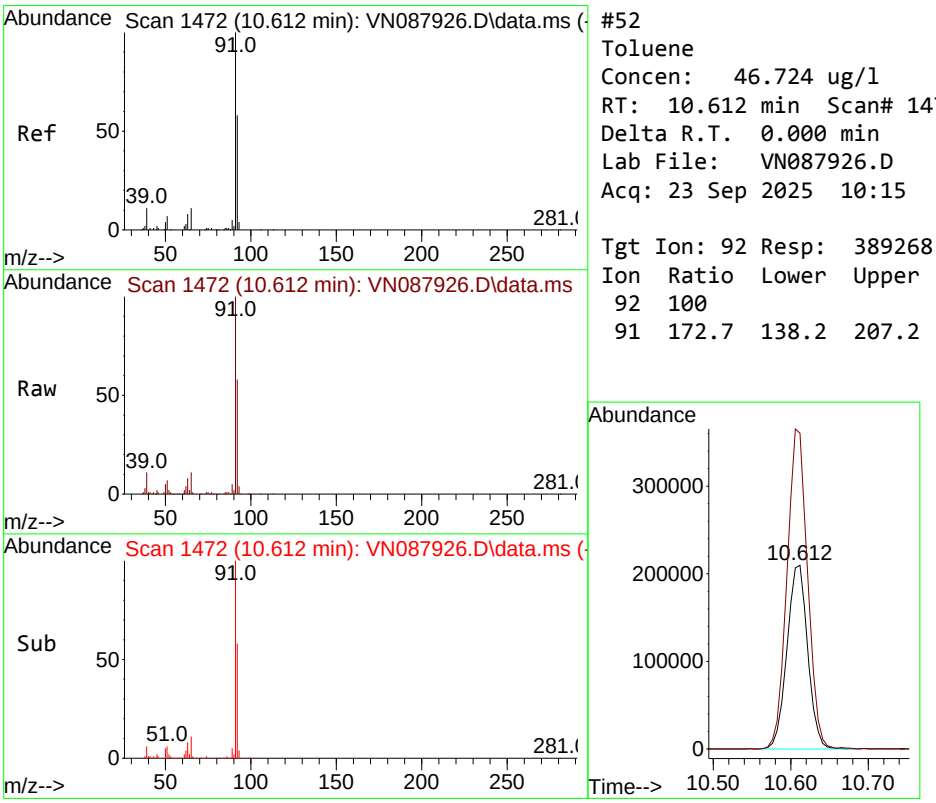
Tgt Ion: 43 Resp: 123400

Ion	Ratio	Lower	Upper
43	100		
58	38.8	31.0	46.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

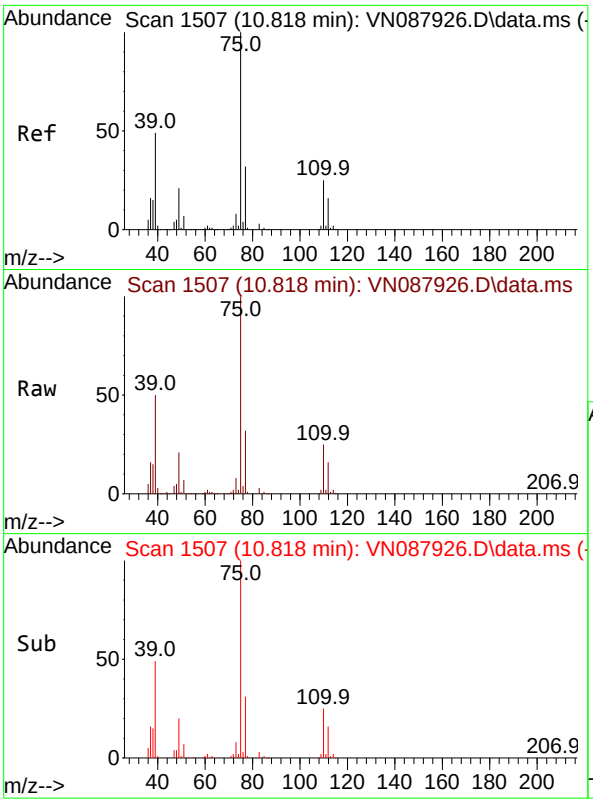
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025



#52
Toluene
Concen: 46.724 ug/l
RT: 10.612 min Scan# 1472
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 92 Resp: 389268

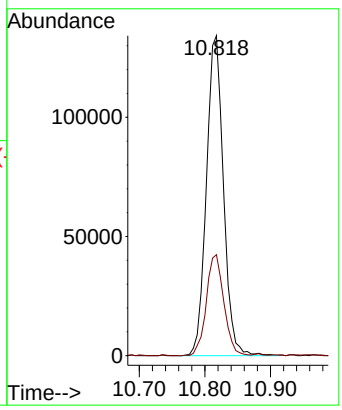
Ion	Ratio	Lower	Upper
92	100		
91	172.7	138.2	207.2



#53
t-1,3-Dichloropropene
Concen: 46.026 ug/l
RT: 10.818 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 75 Resp: 24270

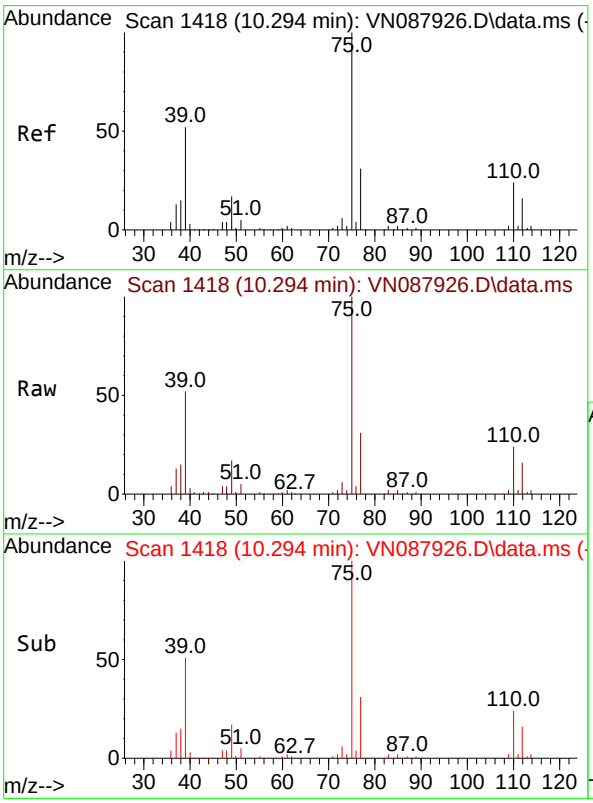
Ion	Ratio	Lower	Upper
75	100		
77	31.6	25.3	37.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

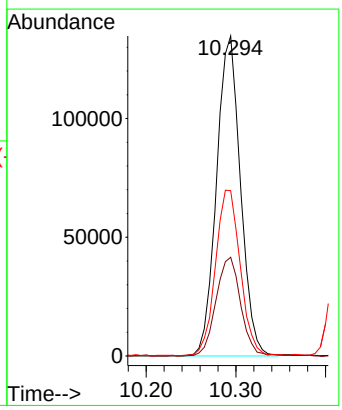
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

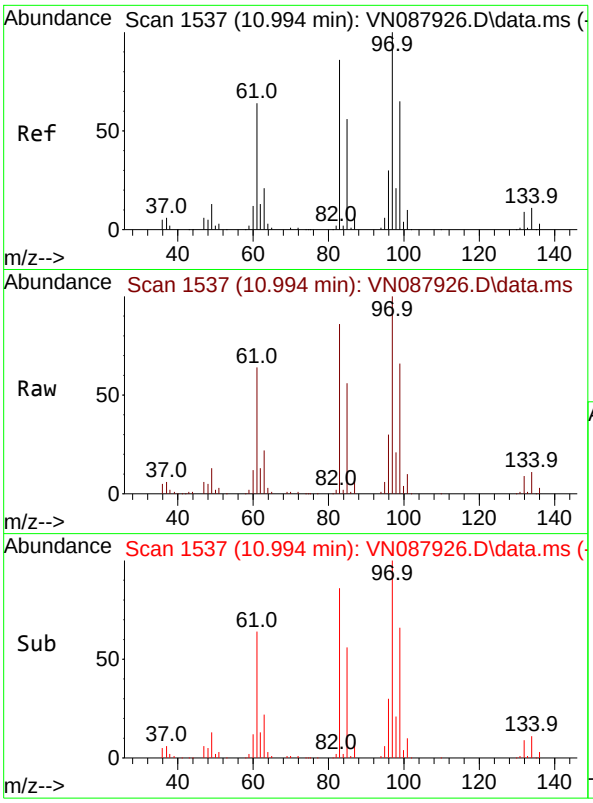


#54
cis-1,3-Dichloropropene
Concen: 45.616 ug/l
RT: 10.294 min Scan# 1418
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 75 Resp: 249831

Ion	Ratio	Lower	Upper
75	100		
77	30.9	24.7	37.1
39	51.7	41.4	62.0

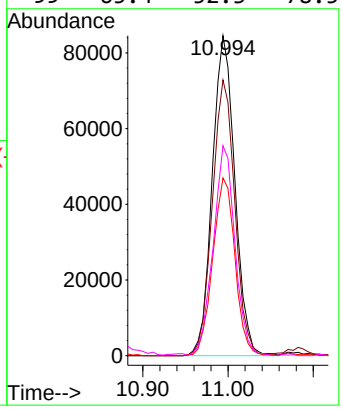




#55
1,1,2-Trichloroethane
Concen: 45.952 ug/l
RT: 10.994 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 97 Resp: 15566

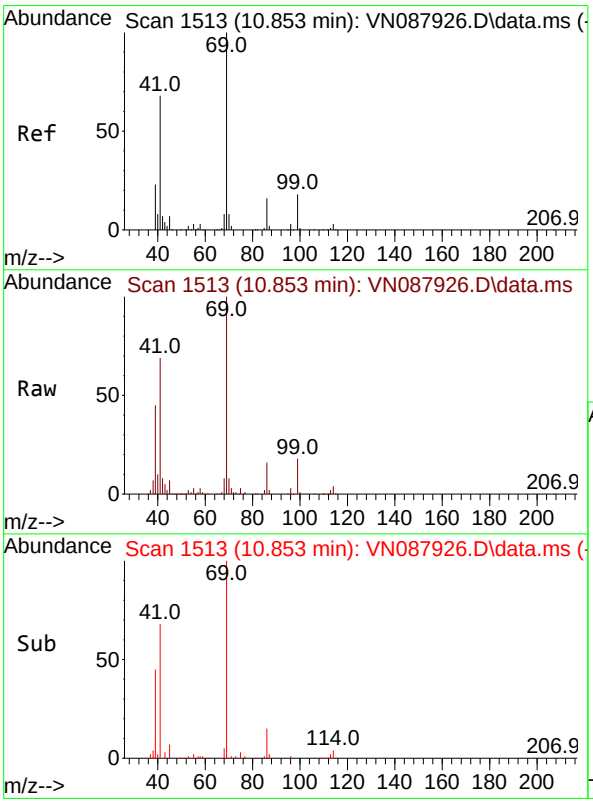
Ion	Ratio	Lower	Upper
97	100		
83	86.2	69.0	103.4
85	55.5	44.4	66.6
99	65.4	52.3	78.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

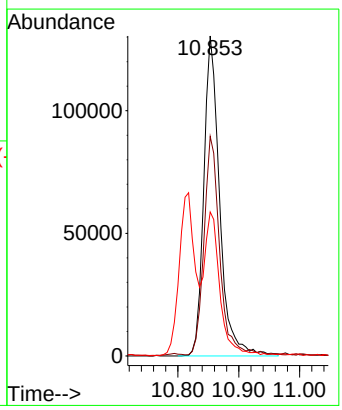
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

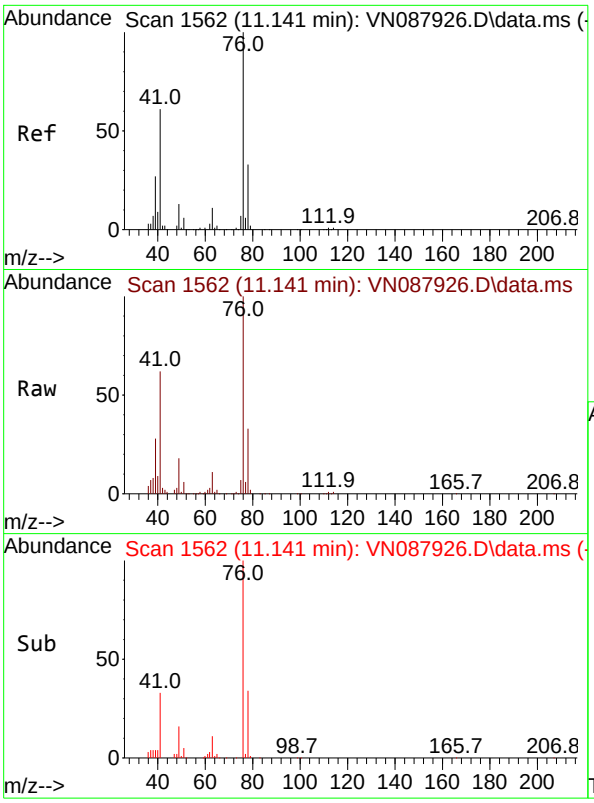


#56
Ethyl methacrylate
Concen: 48.290 ug/l
RT: 10.853 min Scan# 1513
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 69 Resp: 236371

Ion	Ratio	Lower	Upper
69	100		
41	67.2	53.8	80.6
39	43.4	34.7	52.1

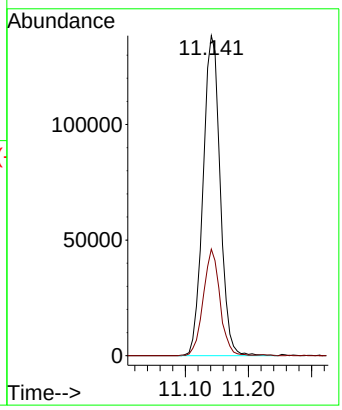




#57
1,3-Dichloropropane
Concen: 46.703 ug/l
RT: 11.141 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 76 Resp: 26021

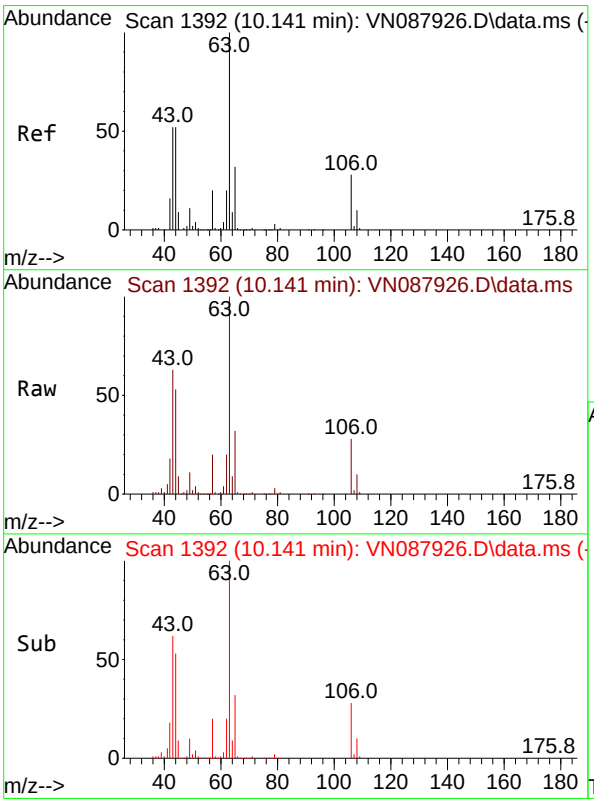
Ion	Ratio	Lower	Upper
76	100		
78	32.5	26.0	39.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

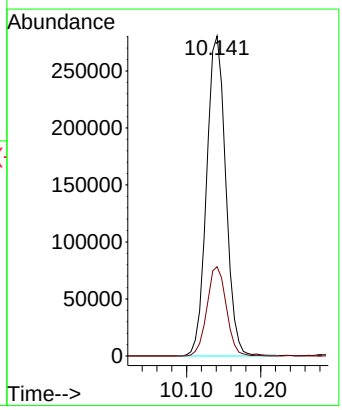
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

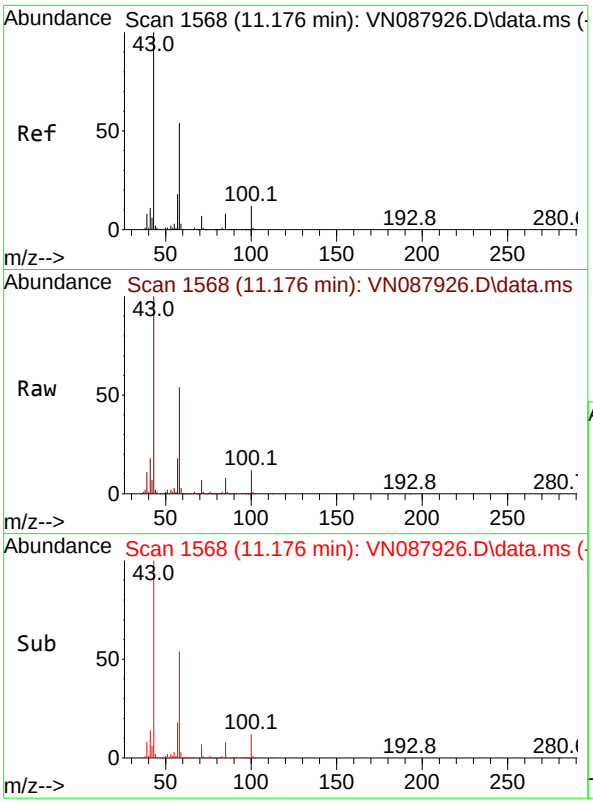


#58
2-Chloroethyl Vinyl ether
Concen: 218.716 ug/l
RT: 10.141 min Scan# 1392
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 63 Resp: 503361

Ion	Ratio	Lower	Upper
63	100		
106	28.2	22.6	33.8





#59
2-Hexanone
Concen: 247.530 ug/l
RT: 11.176 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

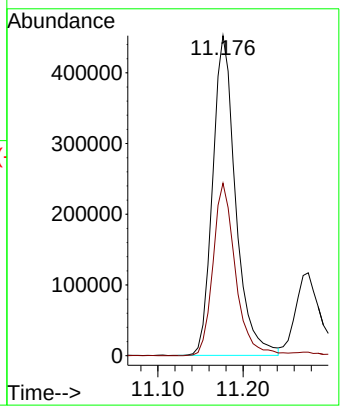
Tgt Ion: 43 Resp: 84647

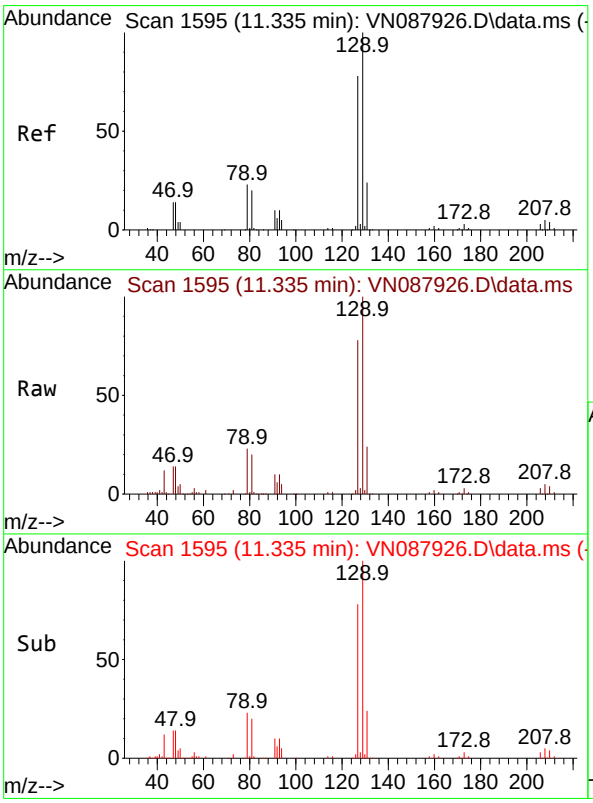
Ion	Ratio	Lower	Upper
43	100		
58	52.8	26.4	79.2

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

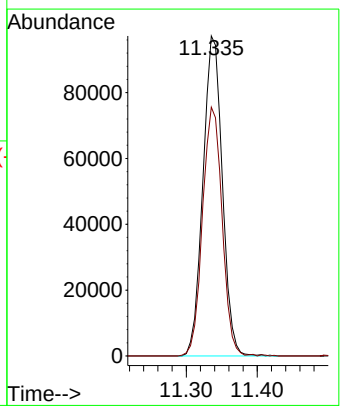


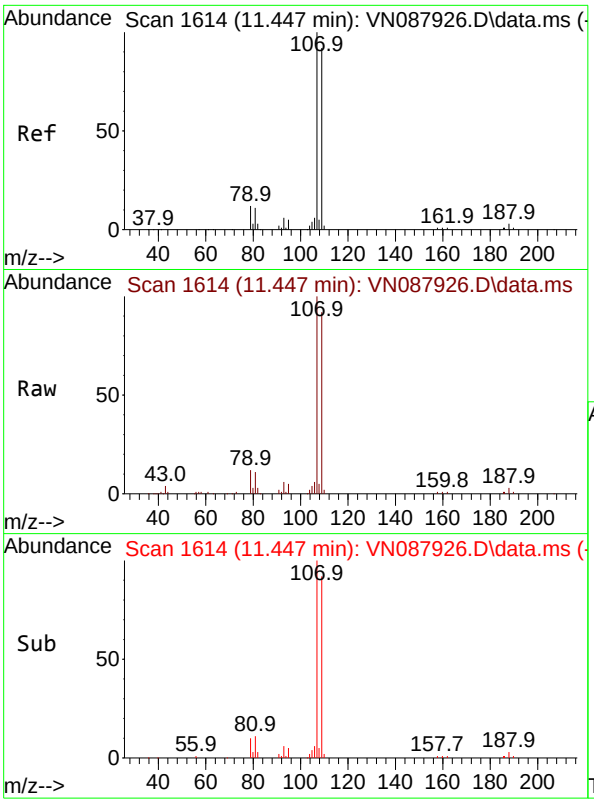


#60
Dibromochloromethane
Concen: 46.357 ug/l
RT: 11.335 min Scan# 1595
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion:129 Resp: 184637

Ion	Ratio	Lower	Upper
129	100		
127	78.6	39.3	117.9

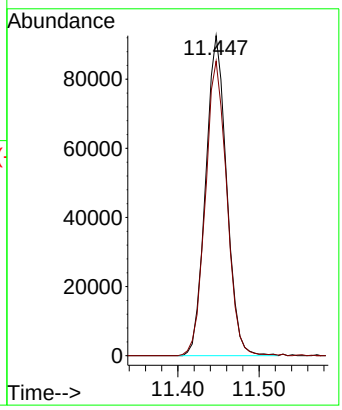




#61
1,2-Dibromoethane
Concen: 46.302 ug/l
RT: 11.447 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion:107 Resp: 16604

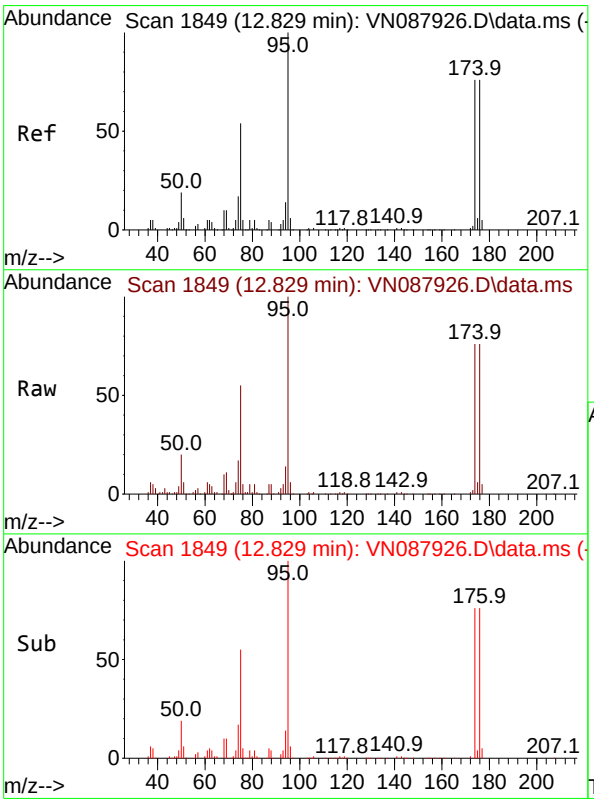
Ion	Ratio	Lower	Upper
107	100		
109	94.1	75.3	112.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

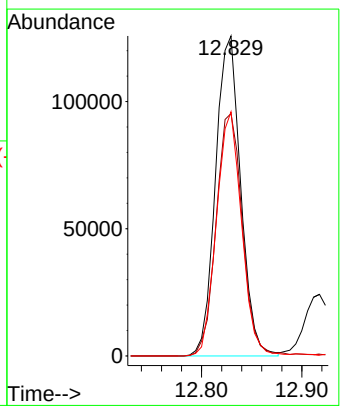
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

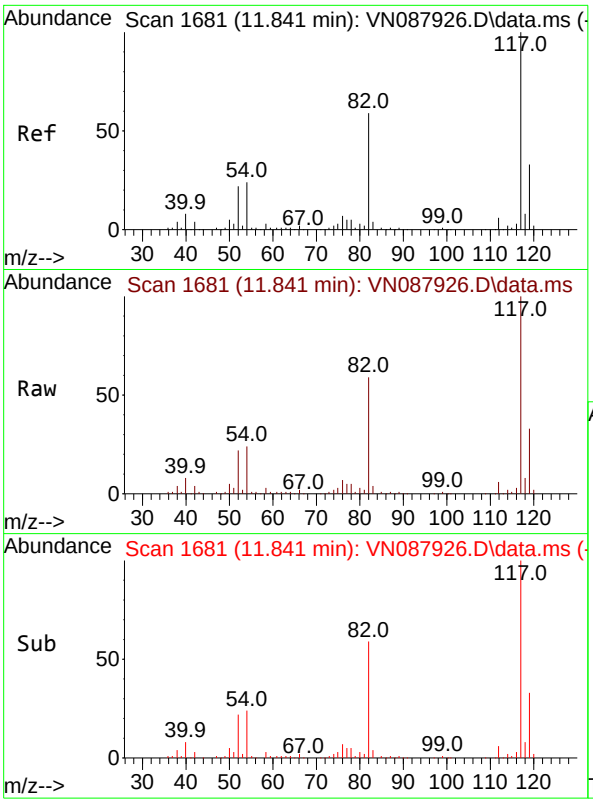


#62
4-Bromofluorobenzene
Concen: 52.158 ug/l
RT: 12.829 min Scan# 1849
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 95 Resp: 218627

Ion	Ratio	Lower	Upper
95	100		
174	79.6	0.0	159.2
176	76.3	0.0	152.6





#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.841 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

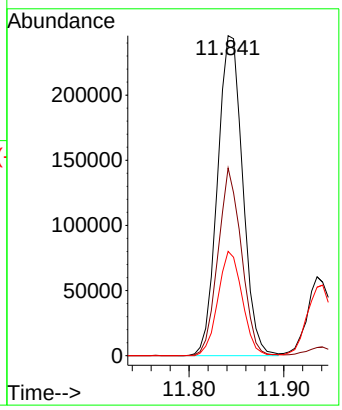
Tgt Ion:117 Resp: 45445

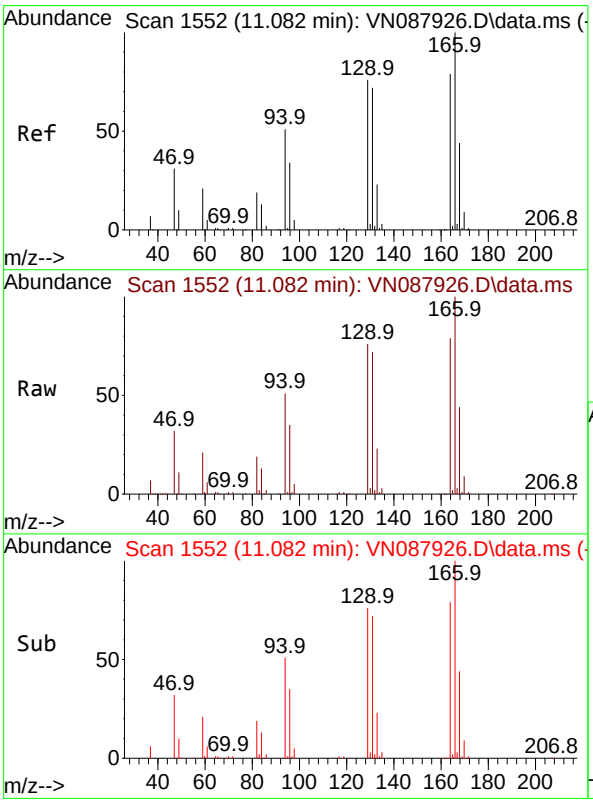
Ion	Ratio	Lower	Upper
117	100		
82	58.7	47.0	70.4
119	32.6	26.1	39.1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

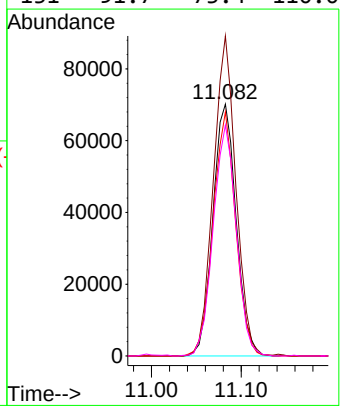


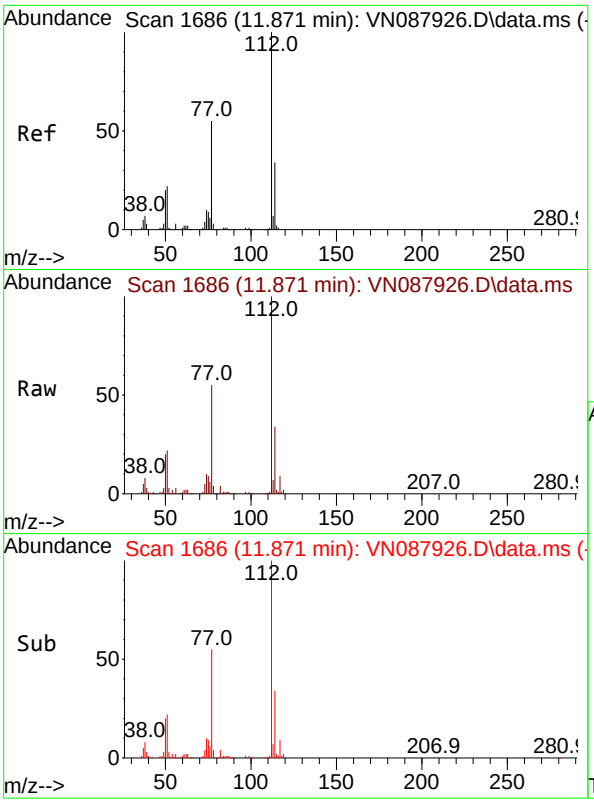


#64
Tetrachloroethene
Concen: 45.728 ug/l
RT: 11.082 min Scan# 1552
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion:164 Resp: 126588

Ion	Ratio	Lower	Upper
164	100		
166	127.0	101.6	152.4
129	96.9	77.5	116.3
131	91.7	73.4	110.0

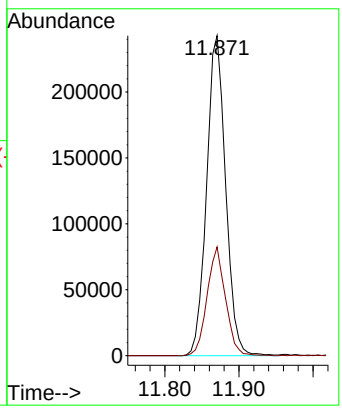




#65
Chlorobenzene
Concen: 44.702 ug/l
RT: 11.871 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion:112 Resp: 43232

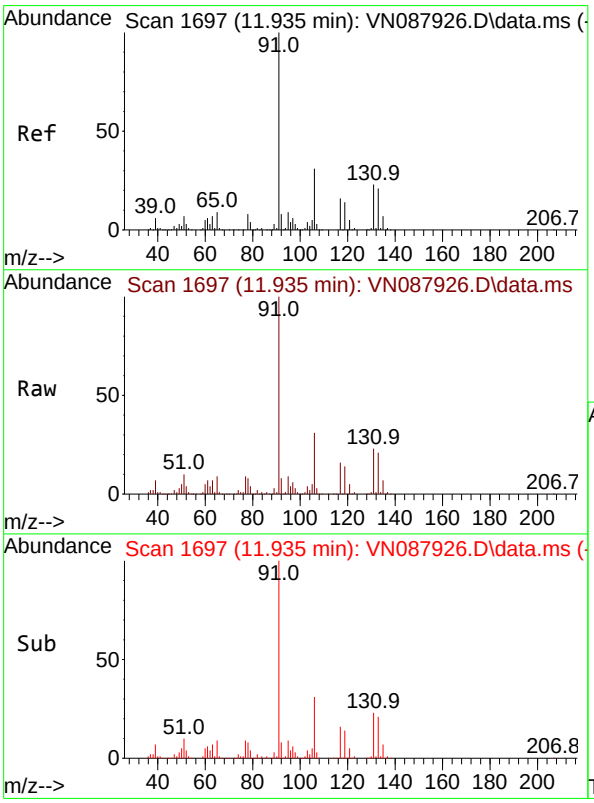
Ion	Ratio	Lower	Upper
112	100		
114	34.0	27.2	40.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

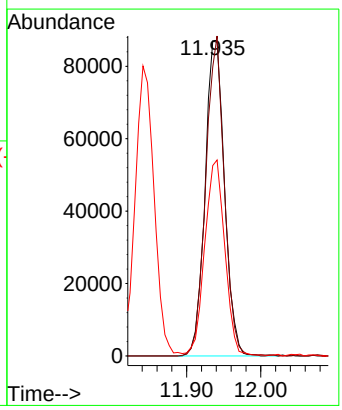
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

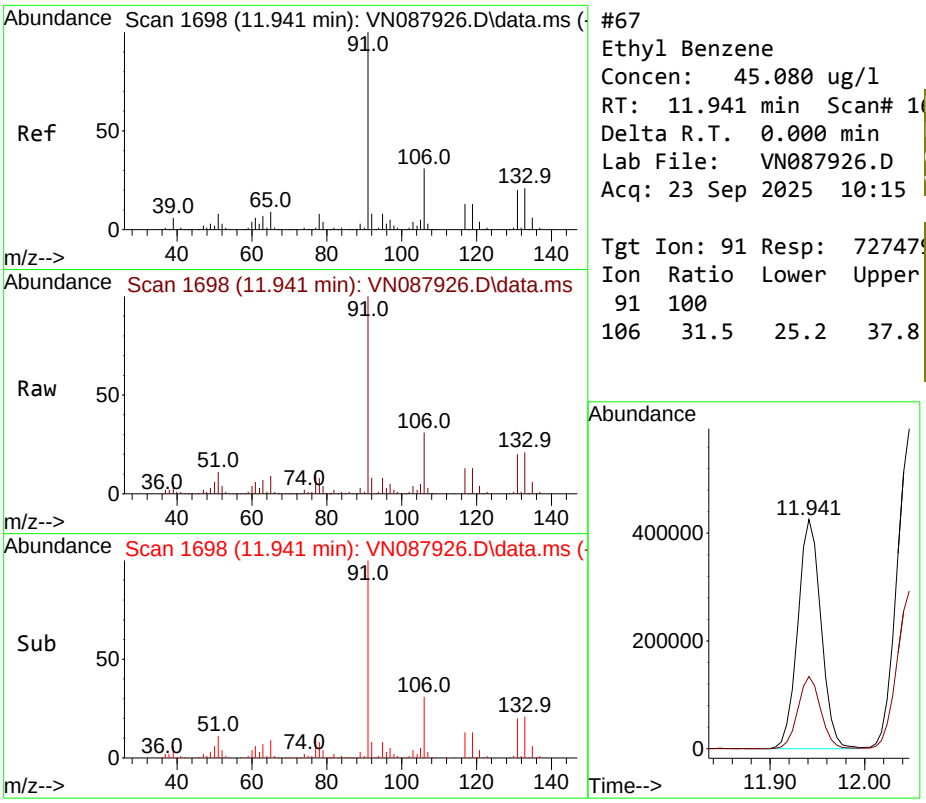


#66
1,1,1,2-Tetrachloroethane
Concen: 45.525 ug/l
RT: 11.935 min Scan# 1697
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion:131 Resp: 158774

Ion	Ratio	Lower	Upper
131	100		
133	96.7	48.4	145.0
119	63.7	31.9	95.5





#67
Ethyl Benzene
Concen: 45.080 ug/l
RT: 11.941 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

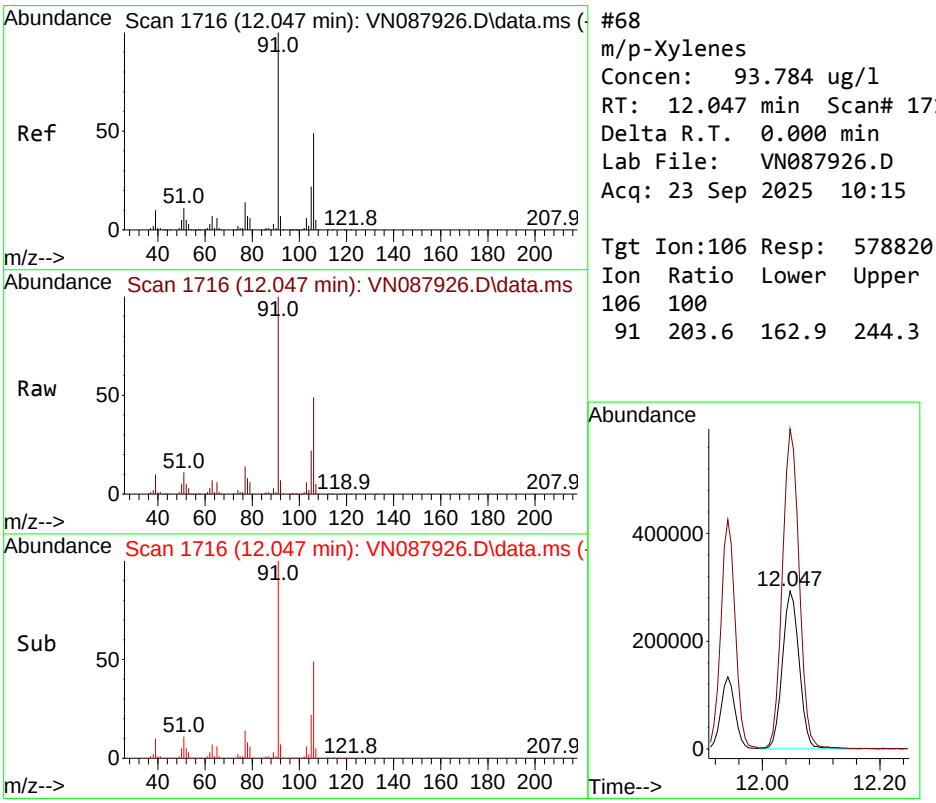
Tgt Ion: 91 Resp: 72747

Ion	Ratio	Lower	Upper
91	100		
106	31.5	25.2	37.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

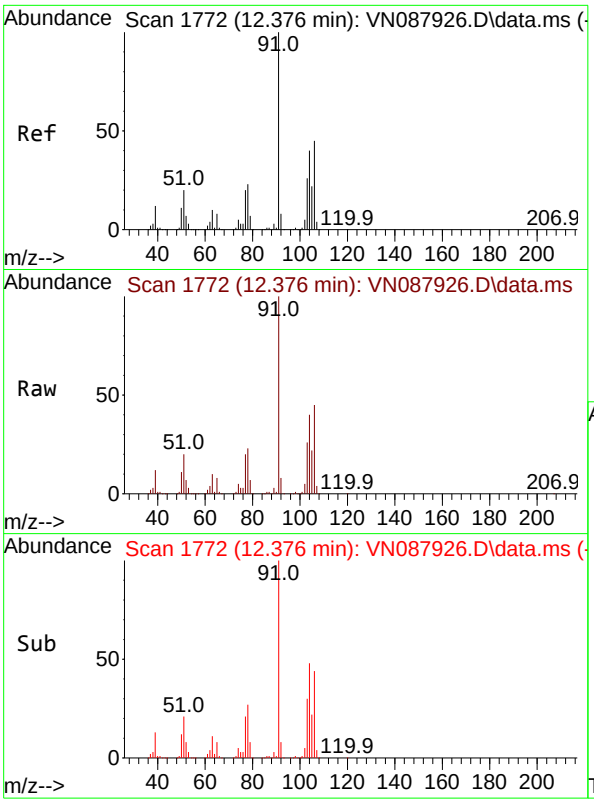
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025



#68
m/p-Xylenes
Concen: 93.784 ug/l
RT: 12.047 min Scan# 1716
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion:106 Resp: 578820

Ion	Ratio	Lower	Upper
106	100		
91	203.6	162.9	244.3



#69
o-Xylene
Concen: 45.817 ug/l
RT: 12.376 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

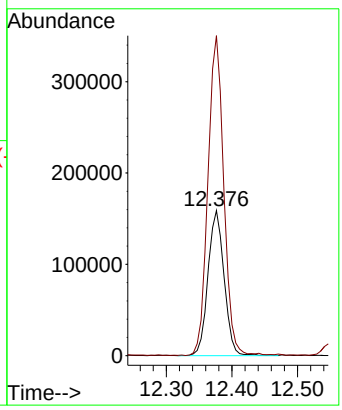
Tgt Ion:106 Resp: 27167

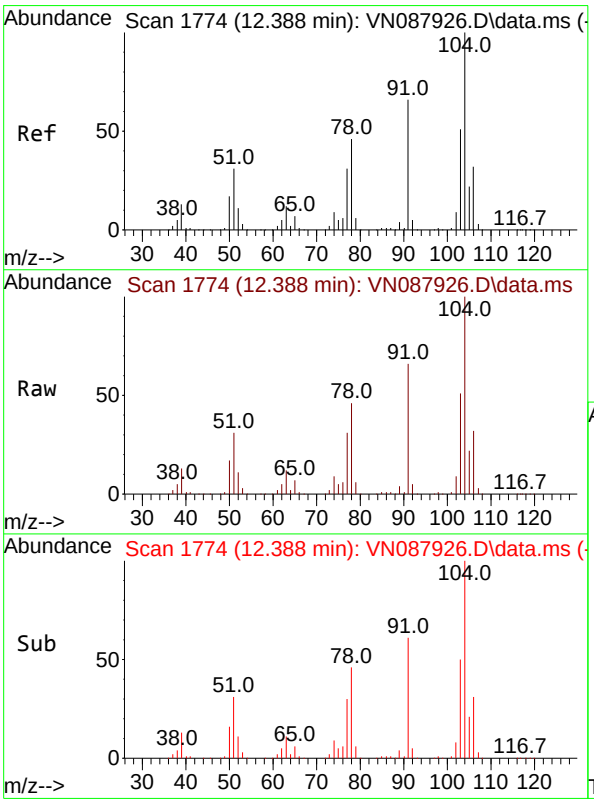
Ion	Ratio	Lower	Upper
106	100		
91	216.4	108.2	324.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

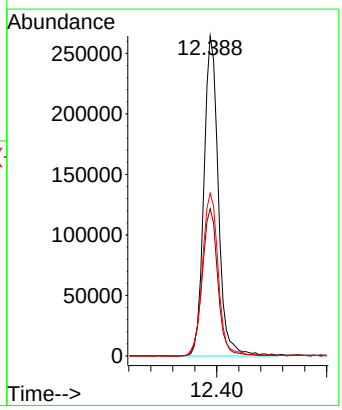


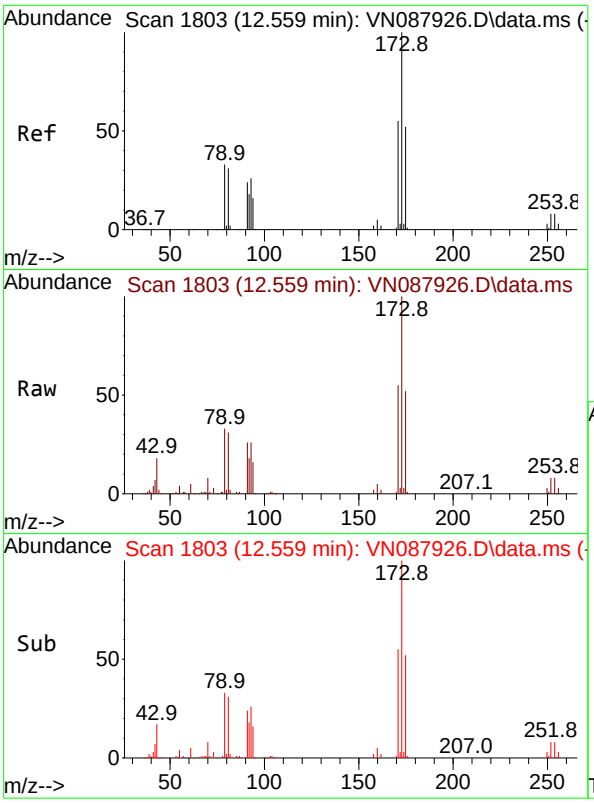


#70
Styrene
Concen: 47.446 ug/l
RT: 12.388 min Scan# 1774
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion:104 Resp: 483179

Ion	Ratio	Lower	Upper
104	100		
78	49.6	39.7	59.5
103	55.8	44.6	67.0

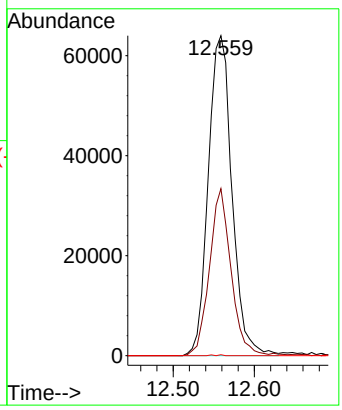




#71
Bromoform
Concen: 45.833 ug/l
RT: 12.559 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion:173 Resp: 12968

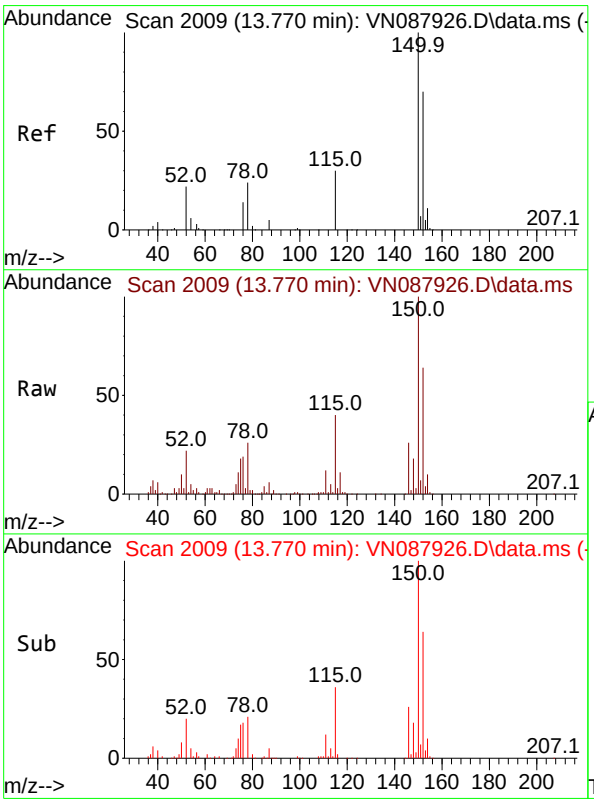
Ion	Ratio	Lower	Upper
173	100		
175	47.4	23.7	71.1
254	0.1	0.1	0.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

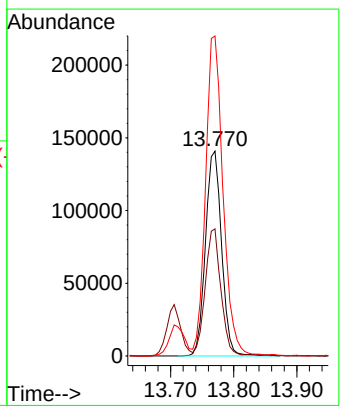
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

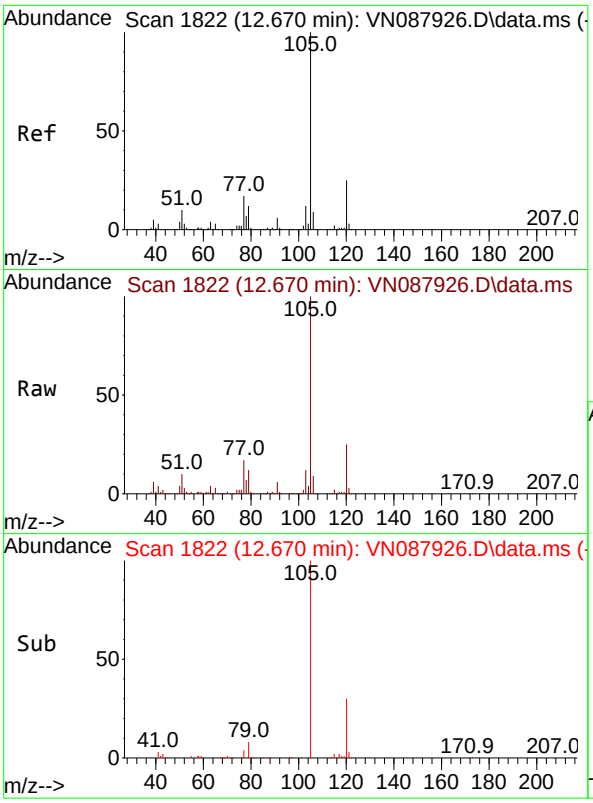


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.770 min Scan# 2009
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion:152 Resp: 250450

Ion	Ratio	Lower	Upper
152	100		
115	59.8	29.9	89.7
150	167.5	0.0	335.0

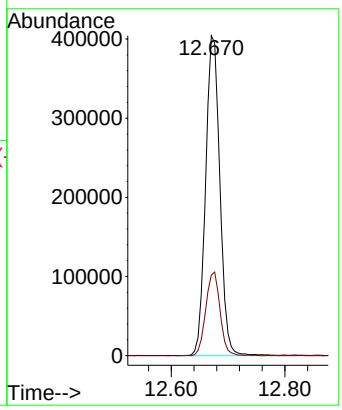




#73
Isopropylbenzene
Concen: 45.248 ug/l
RT: 12.670 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion:105 Resp: 70235

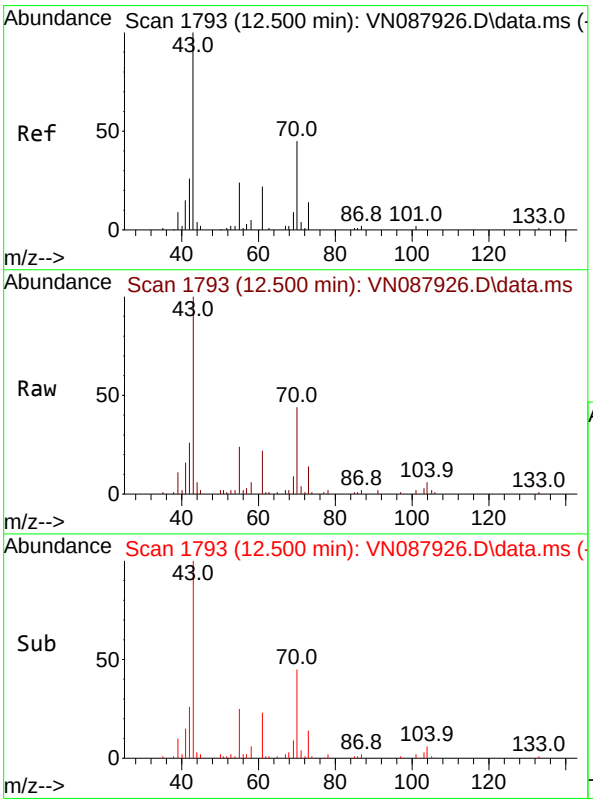
Ion	Ratio	Lower	Upper
105	100		
120	26.1	13.1	39.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

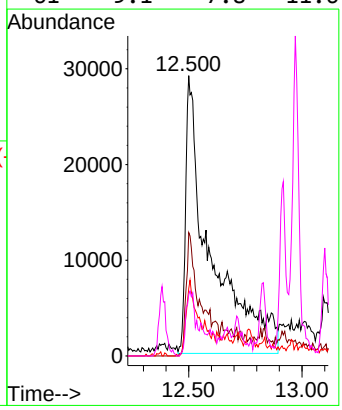
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

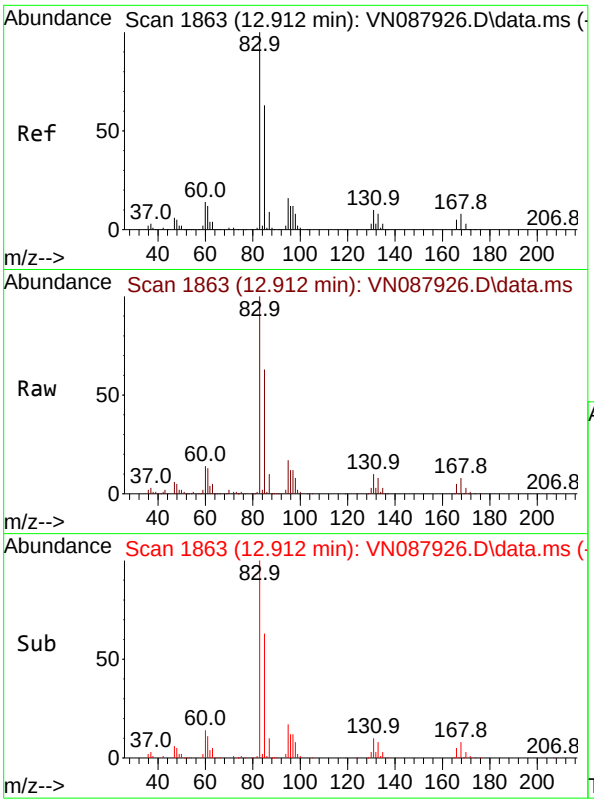


#74
N-amyl acetate
Concen: 47.870 ug/l m
RT: 12.500 min Scan# 1793
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 43 Resp: 221335

Ion	Ratio	Lower	Upper
43	100		
70	23.5	19.8	29.8
55	11.4	9.6	14.4
61	9.1	7.8	11.6

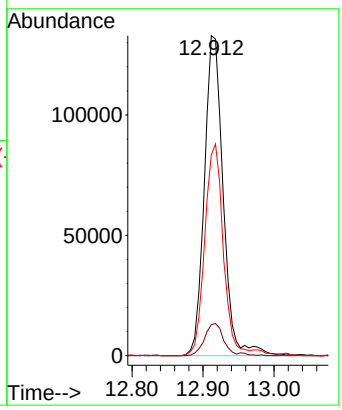




#75
1,1,2,2-Tetrachloroethane
Concen: 43.853 ug/l
RT: 12.912 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 83 Resp: 24526

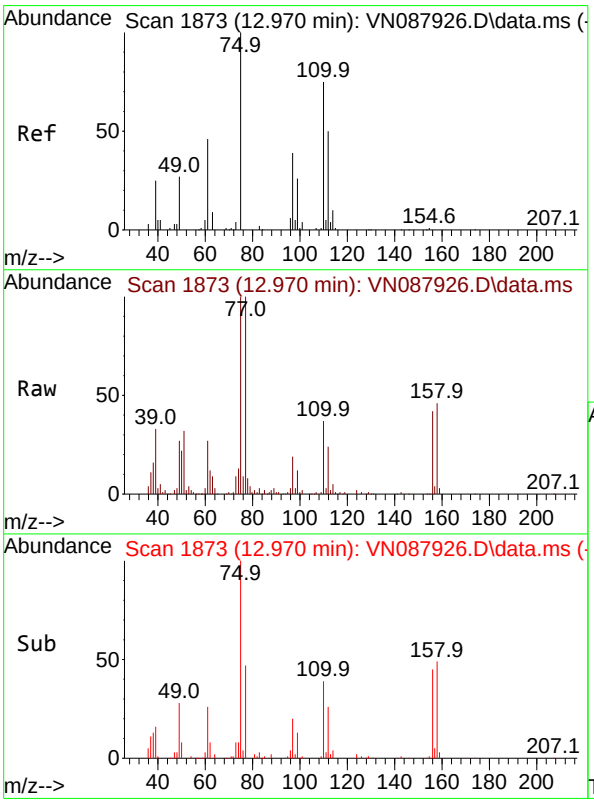
Ion	Ratio	Lower	Upper
83	100		
131	10.4	5.2	15.6
85	64.7	32.4	97.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

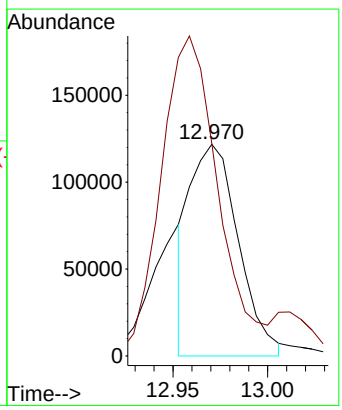
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

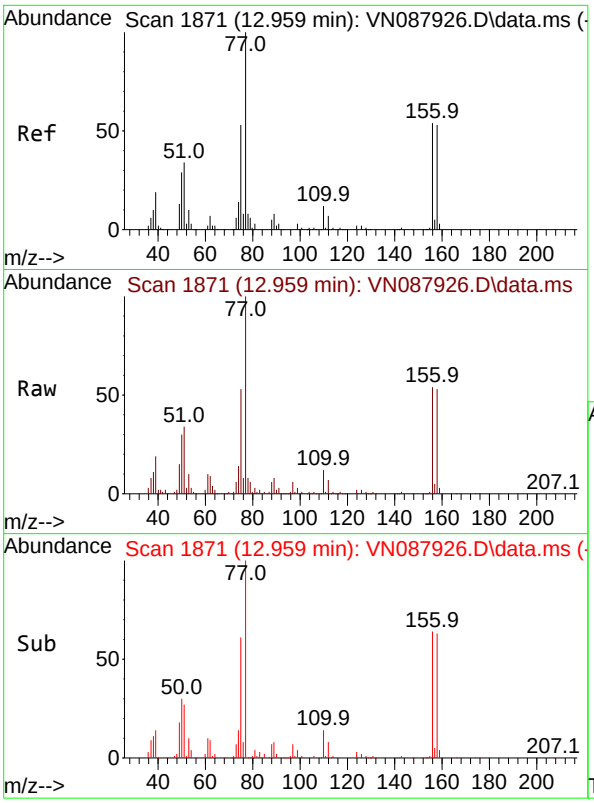


#76
1,2,3-Trichloropropane
Concen: 43.667 ug/l m
RT: 12.970 min Scan# 1873
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 75 Resp: 216939

Ion	Ratio	Lower	Upper
75	100		
77	179.0	89.5	268.5

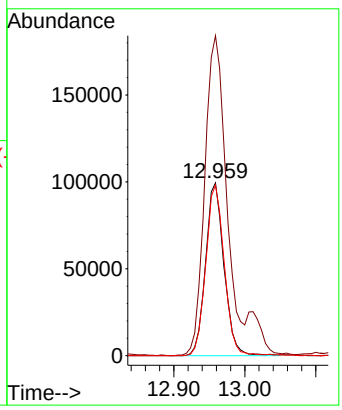




#77
Bromobenzene
Concen: 43.443 ug/l
RT: 12.959 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion:156 Resp: 17941

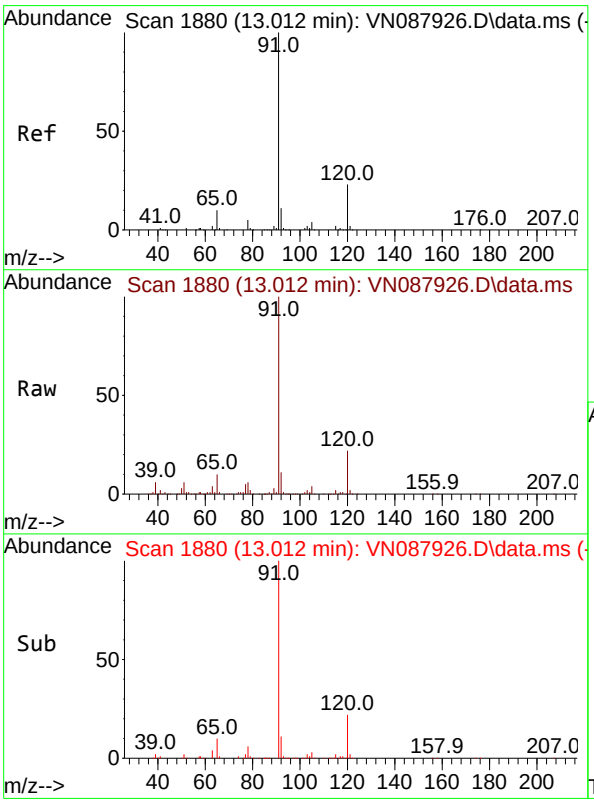
Ion	Ratio	Lower	Upper
156	100		
77	216.4	108.2	324.6
158	99.3	49.6	149.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations
APPROVED

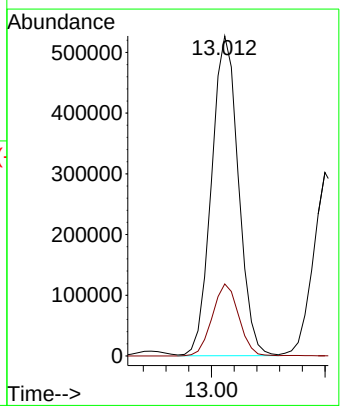
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

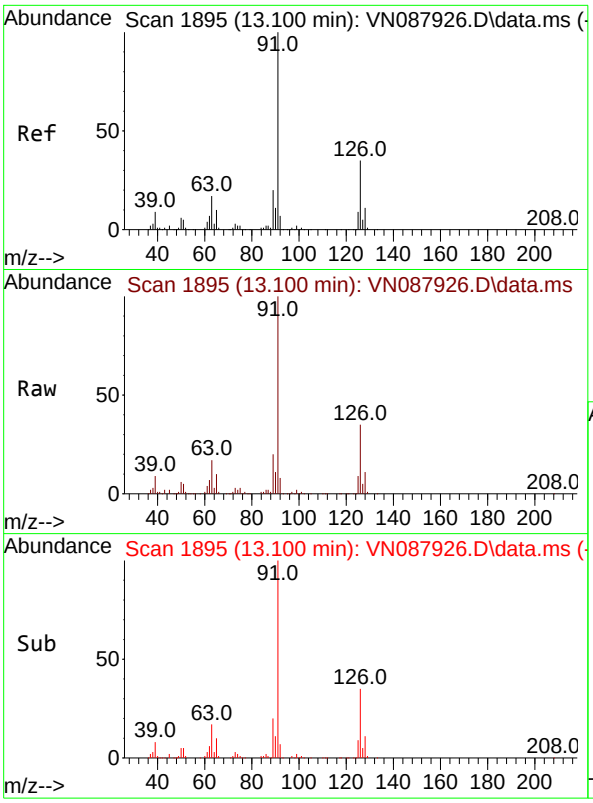


#78
n-propylbenzene
Concen: 44.749 ug/l
RT: 13.012 min Scan# 1880
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 91 Resp: 868436

Ion	Ratio	Lower	Upper
91	100		
120	22.1	11.1	33.1

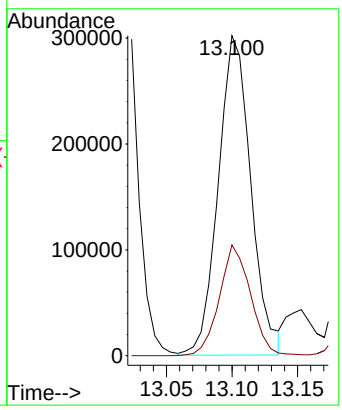




#79
2-Chlorotoluene
Concen: 44.174 ug/l
RT: 13.100 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 91 Resp: 52199

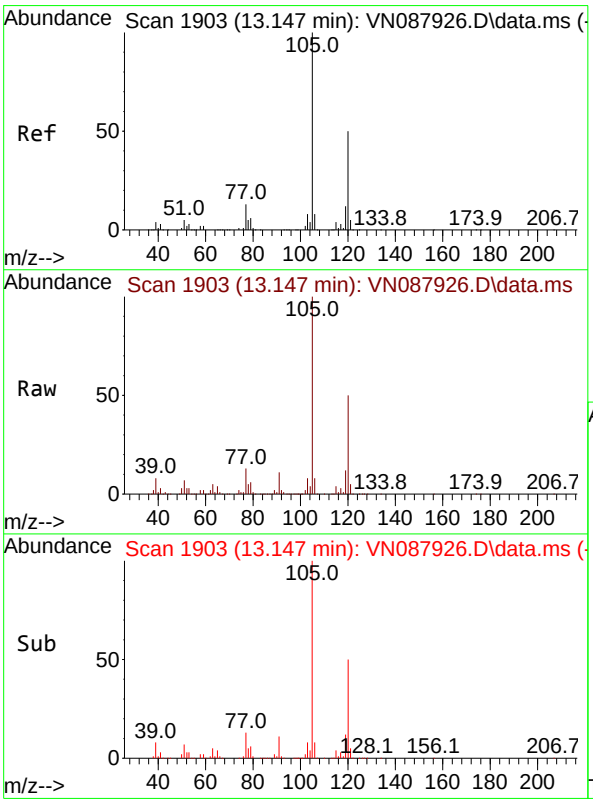
Ion	Ratio	Lower	Upper
91	100		
126	33.2	16.6	49.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

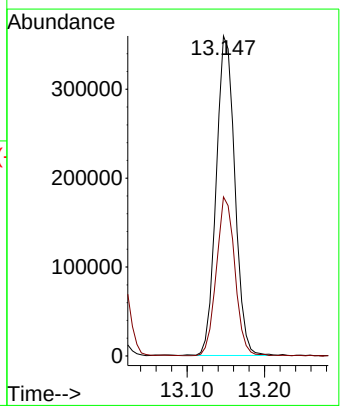
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

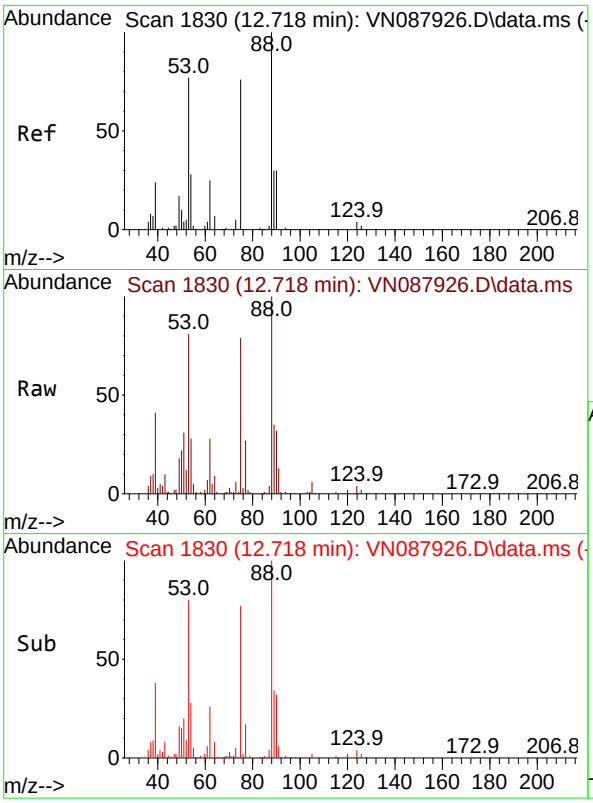


#80
1,3,5-Trimethylbenzene
Concen: 44.765 ug/l
RT: 13.147 min Scan# 1903
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion:105 Resp: 601032

Ion	Ratio	Lower	Upper
105	100		
120	49.4	24.7	74.1

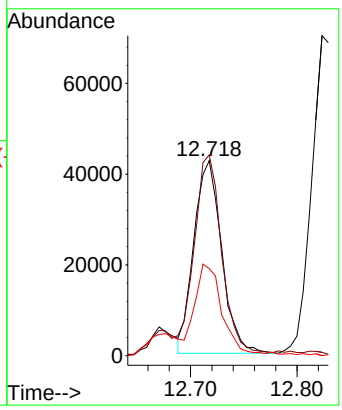




#81
trans-1,4-Dichloro-2-butene
Concen: 43.422 ug/l
RT: 12.718 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 75 Resp: 7719

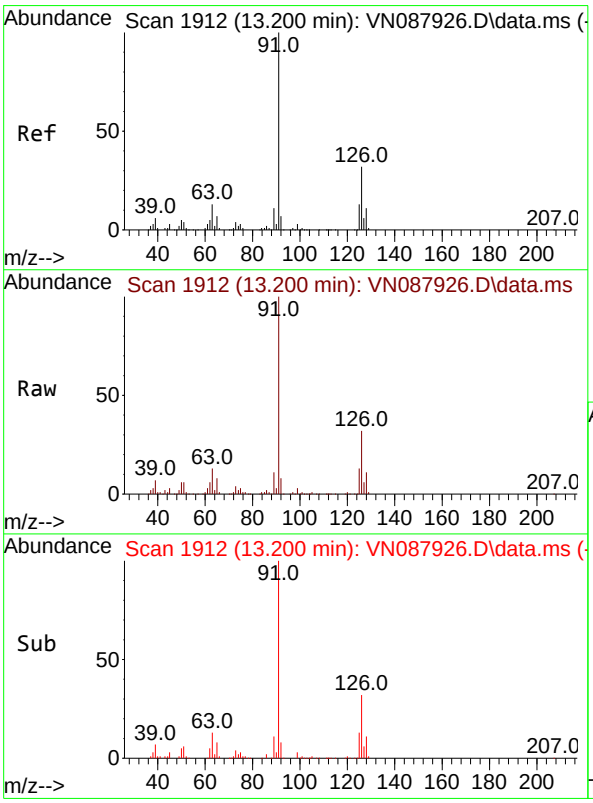
Ion	Ratio	Lower	Upper
75	100		
53	102.5	82.0	123.0
89	45.1	36.1	54.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

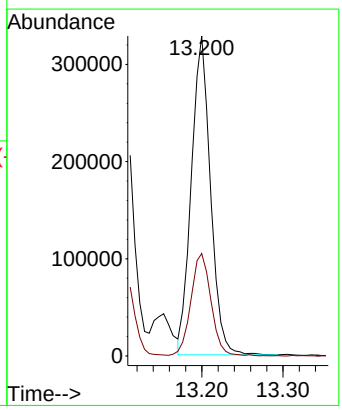
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

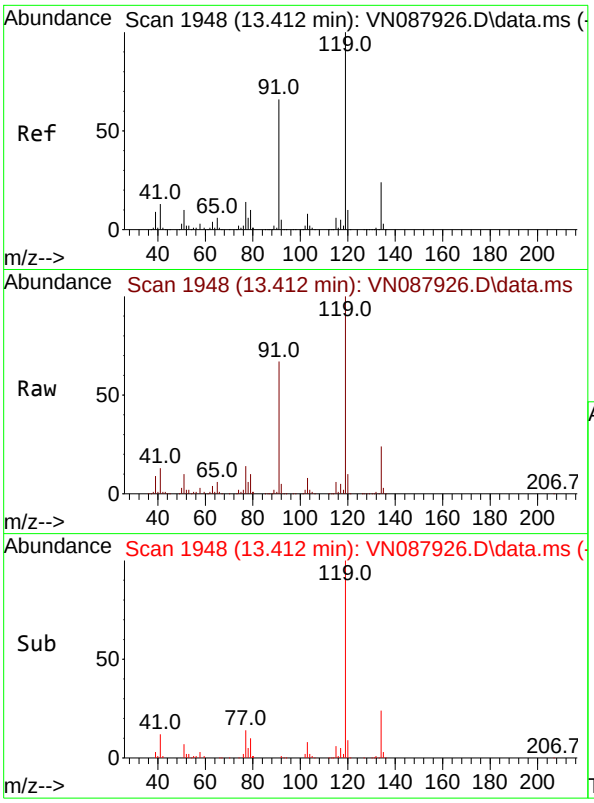


#82
4-Chlorotoluene
Concen: 45.143 ug/l
RT: 13.200 min Scan# 1912
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 91 Resp: 537514

Ion	Ratio	Lower	Upper
91	100		
126	33.7	16.9	50.6

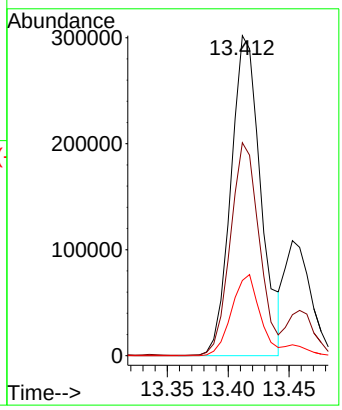




#83
tert-Butylbenzene
Concen: 45.383 ug/l
RT: 13.412 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion:119 Resp: 51574

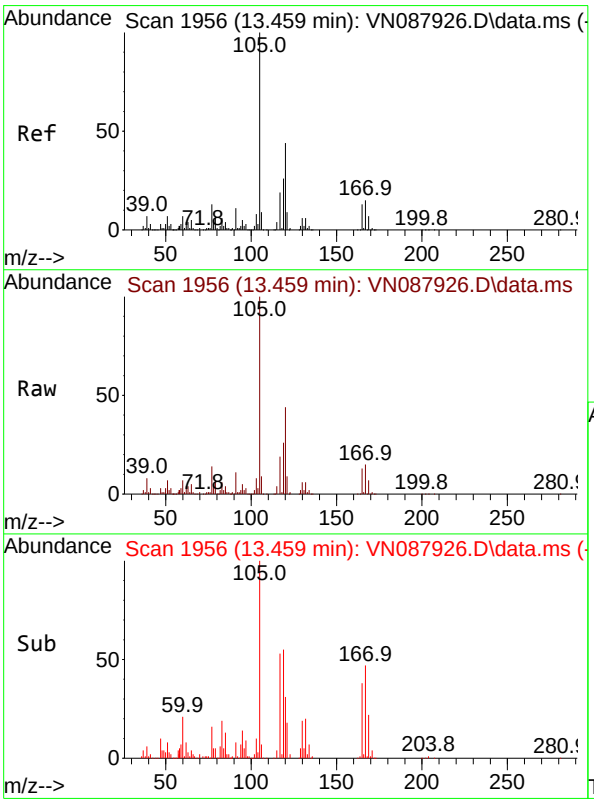
Ion	Ratio	Lower	Upper
119	100		
91	64.2	32.1	96.3
134	24.5	12.3	36.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

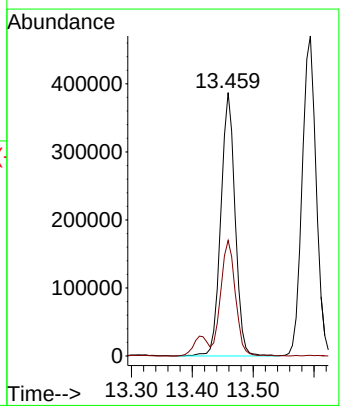
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

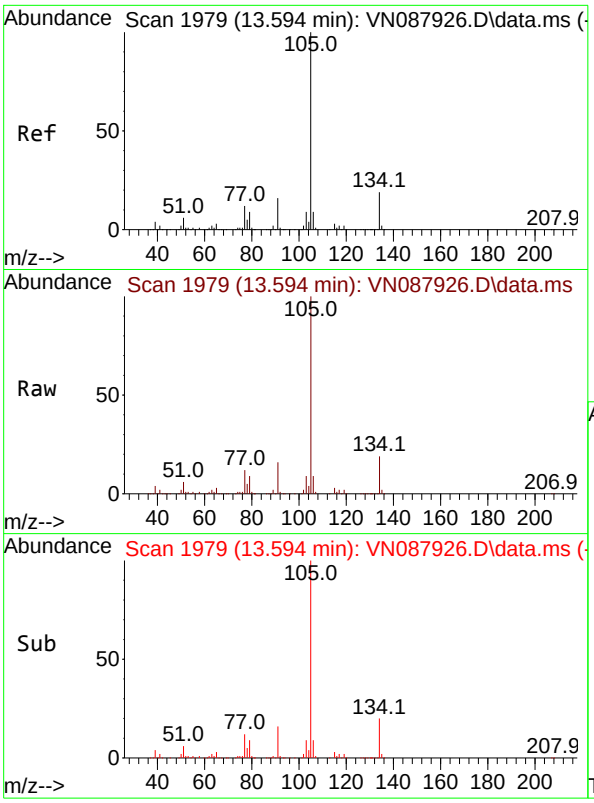


#84
1,2,4-Trimethylbenzene
Concen: 45.724 ug/l
RT: 13.459 min Scan# 1956
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion:105 Resp: 629687

Ion	Ratio	Lower	Upper
105	100		
120	44.9	22.4	67.3

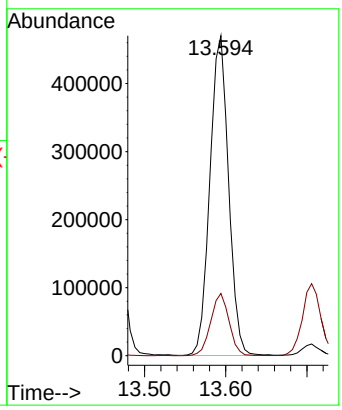




#85
sec-Butylbenzene
Concen: 45.162 ug/l
RT: 13.594 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion:105 Resp: 75246

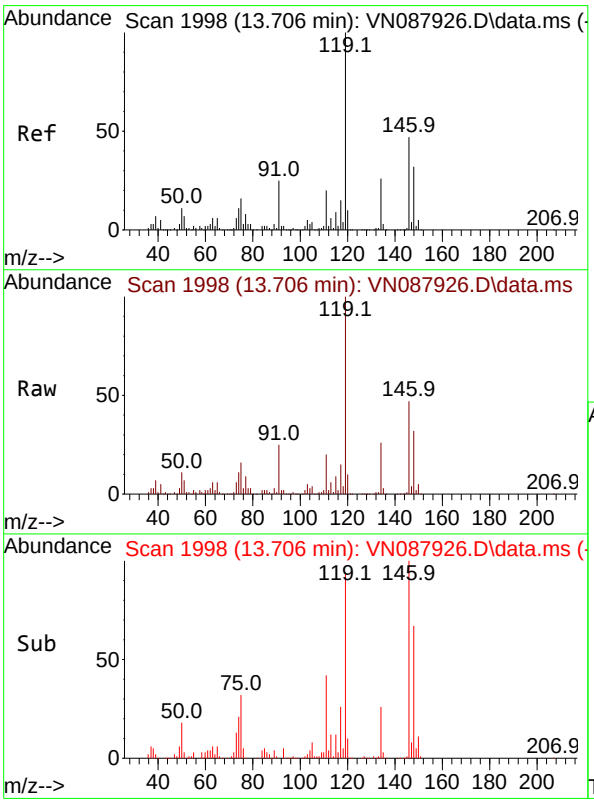
Ion	Ratio	Lower	Upper
105	100		
134	19.2	9.6	28.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

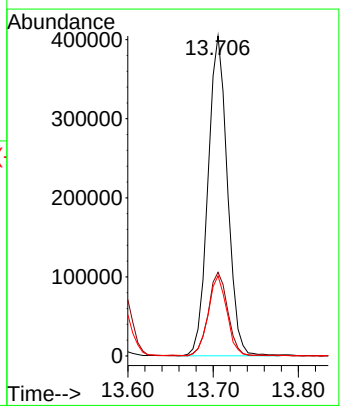
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

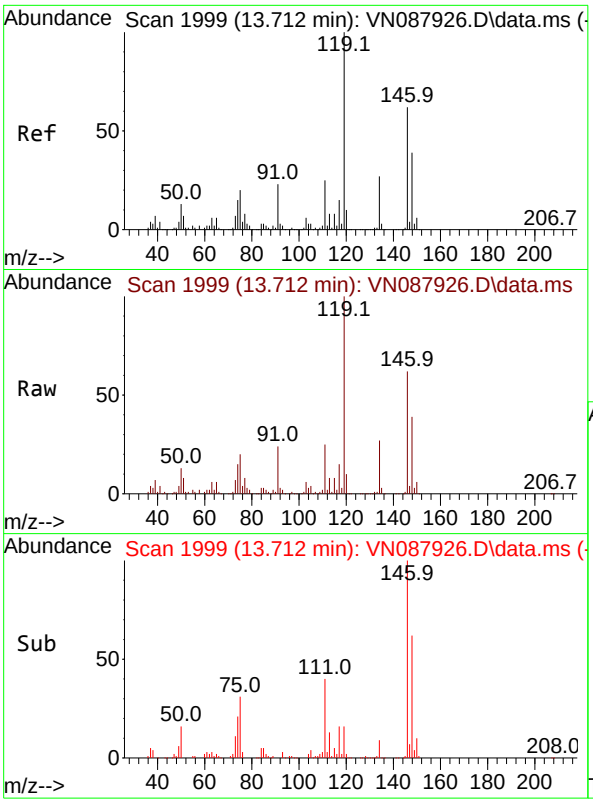


#86
p-Isopropyltoluene
Concen: 45.400 ug/l
RT: 13.706 min Scan# 1998
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion:119 Resp: 640667

Ion	Ratio	Lower	Upper
119	100		
134	26.2	13.1	39.3
91	23.7	11.9	35.5

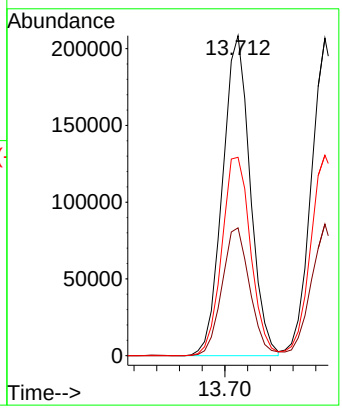




#87
1,3-Dichlorobenzene
Concen: 43.608 ug/l
RT: 13.712 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion:146 Resp: 35145

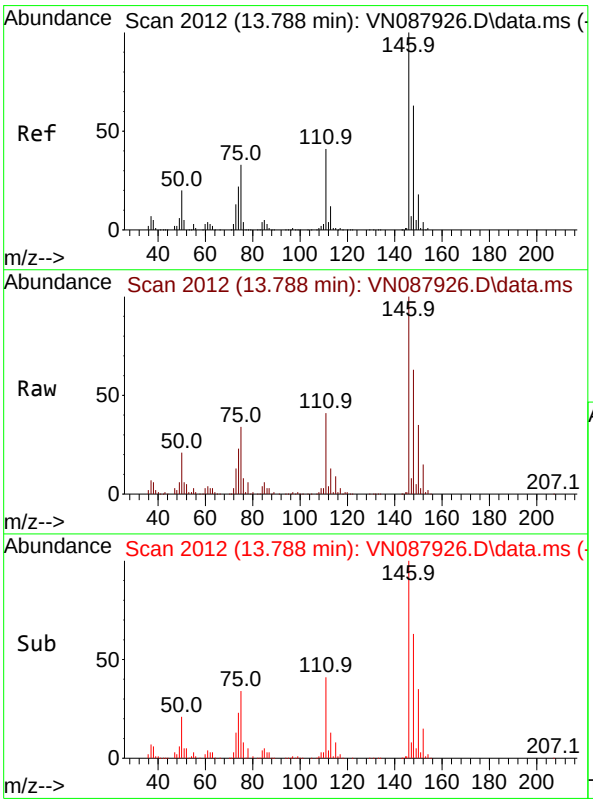
Ion	Ratio	Lower	Upper
146	100		
111	40.5	20.3	60.8
148	64.8	32.4	97.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

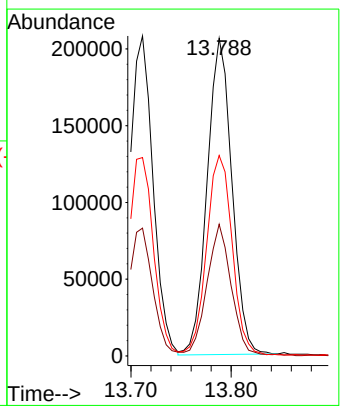
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

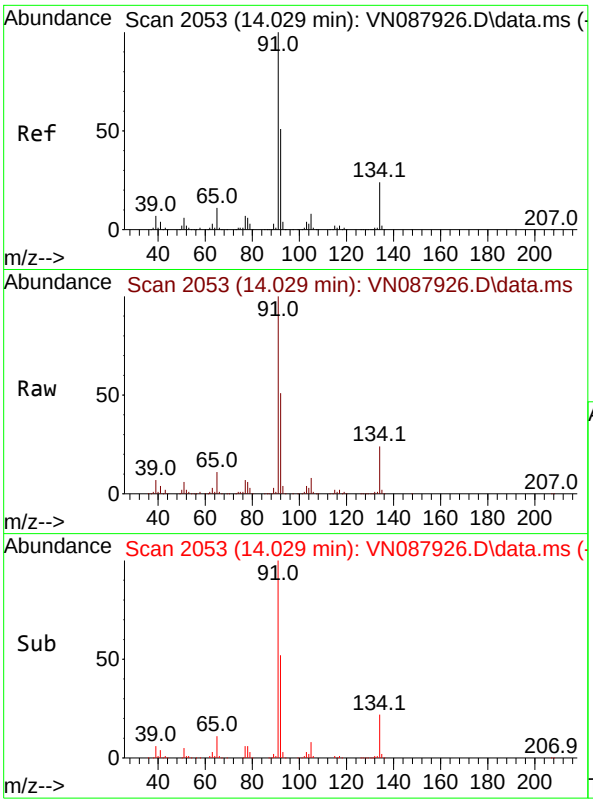


#88
1,4-Dichlorobenzene
Concen: 42.717 ug/l
RT: 13.788 min Scan# 2012
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion:146 Resp: 353807

Ion	Ratio	Lower	Upper
146	100		
111	41.0	20.5	61.5
148	65.6	32.8	98.4

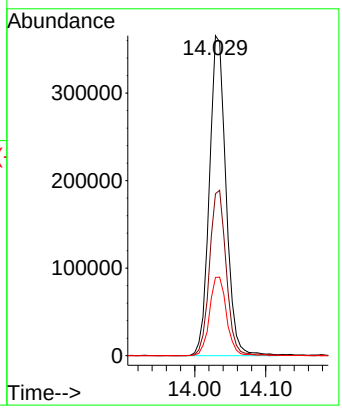




#89
n-Butylbenzene
Concen: 44.552 ug/l
RT: 14.029 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 91 Resp: 59415

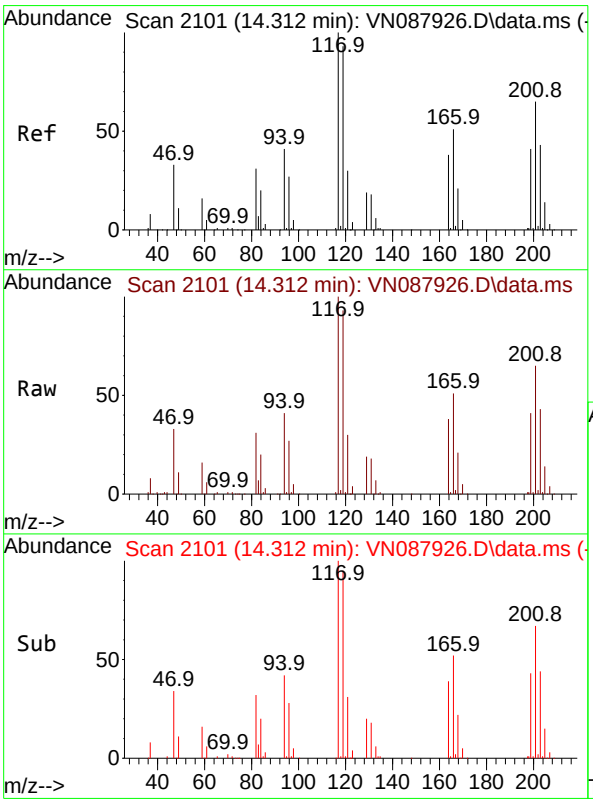
Ion	Ratio	Lower	Upper
91	100		
92	51.9	25.9	77.8
134	25.2	12.6	37.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

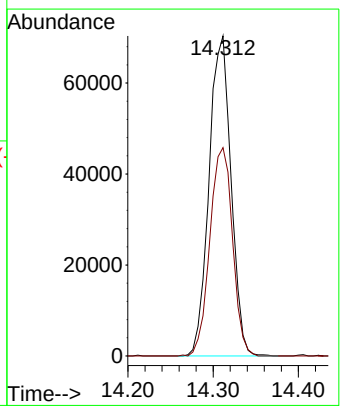
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

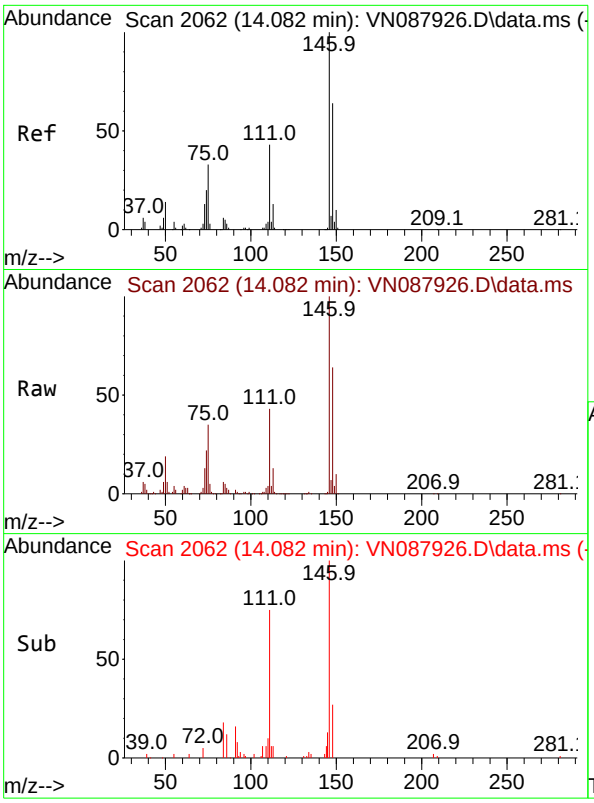


#90
Hexachloroethane
Concen: 42.879 ug/l
RT: 14.312 min Scan# 2101
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion:117 Resp: 126396

Ion	Ratio	Lower	Upper
117	100		
201	67.1	33.6	100.6

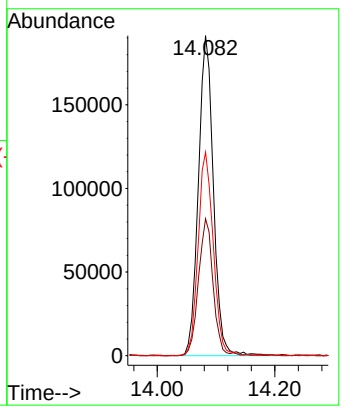




#91
1,2-Dichlorobenzene
Concen: 43.744 ug/l
RT: 14.082 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion:146 Resp: 33982

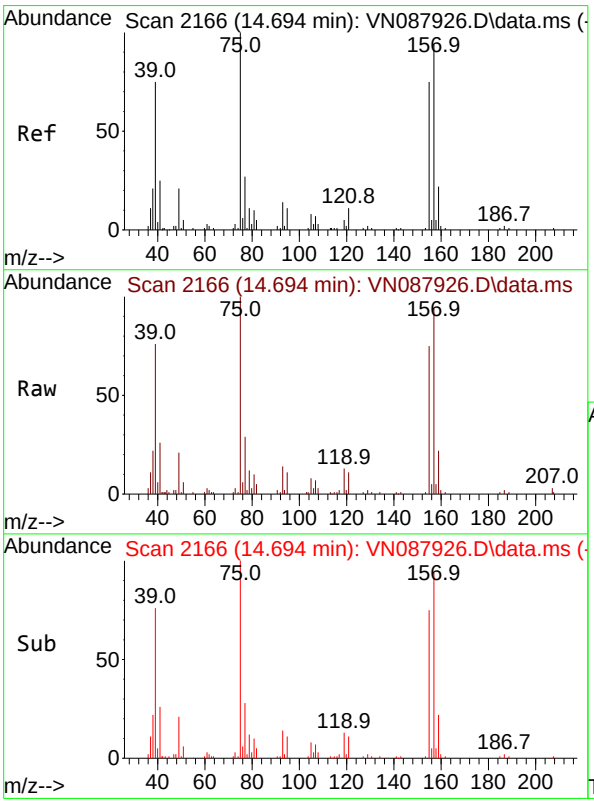
Ion	Ratio	Lower	Upper
146	100		
111	41.8	20.9	62.7
148	63.9	31.9	95.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

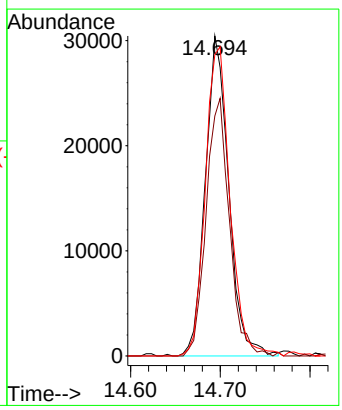
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

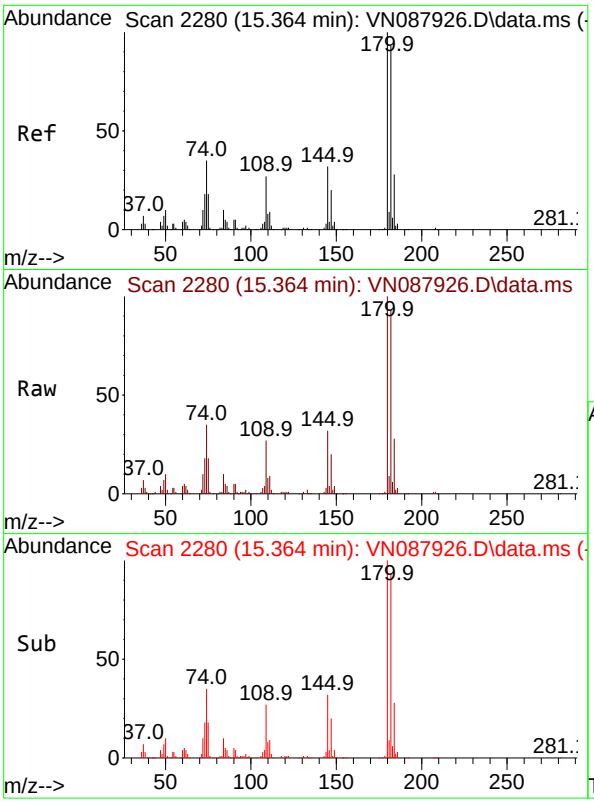


#92
1,2-Dibromo-3-Chloropropane
Concen: 42.468 ug/l
RT: 14.694 min Scan# 2166
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion: 75 Resp: 55187

Ion	Ratio	Lower	Upper
75	100		
155	80.4	40.2	120.6
157	101.8	50.9	152.7

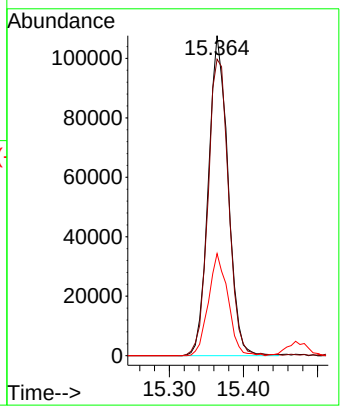




#93
1,2,4-Trichlorobenzene
Concen: 43.192 ug/l
RT: 15.364 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion:180 Resp: 19811

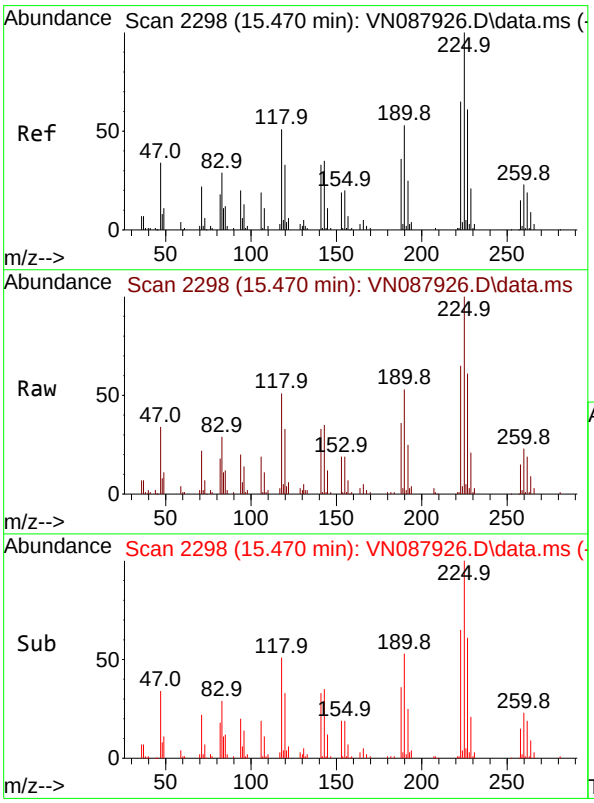
Ion	Ratio	Lower	Upper
180	100		
182	97.0	48.5	145.5
145	31.7	15.9	47.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

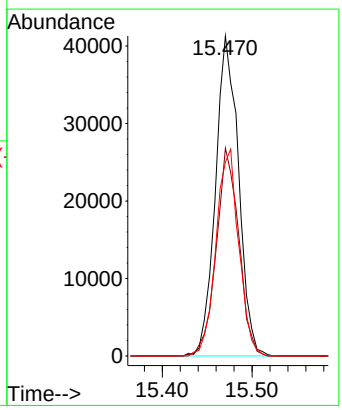
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

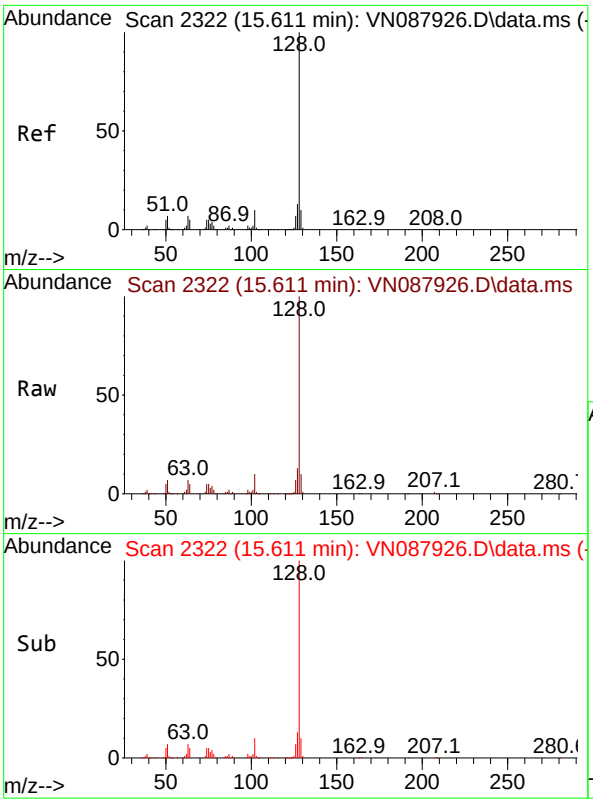


#94
Hexachlorobutadiene
Concen: 43.512 ug/l
RT: 15.470 min Scan# 2298
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion:225 Resp: 73457

Ion	Ratio	Lower	Upper
225	100		
223	63.6	31.8	95.4
227	63.9	31.9	95.9

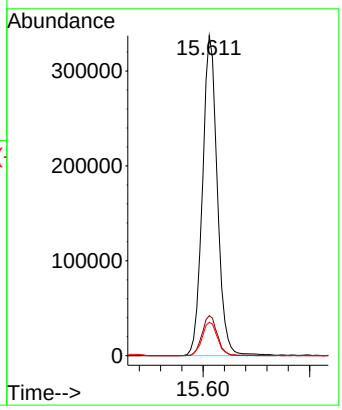




#95
Naphthalene
Concen: 44.238 ug/l
RT: 15.611 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion:128 Resp: 65133

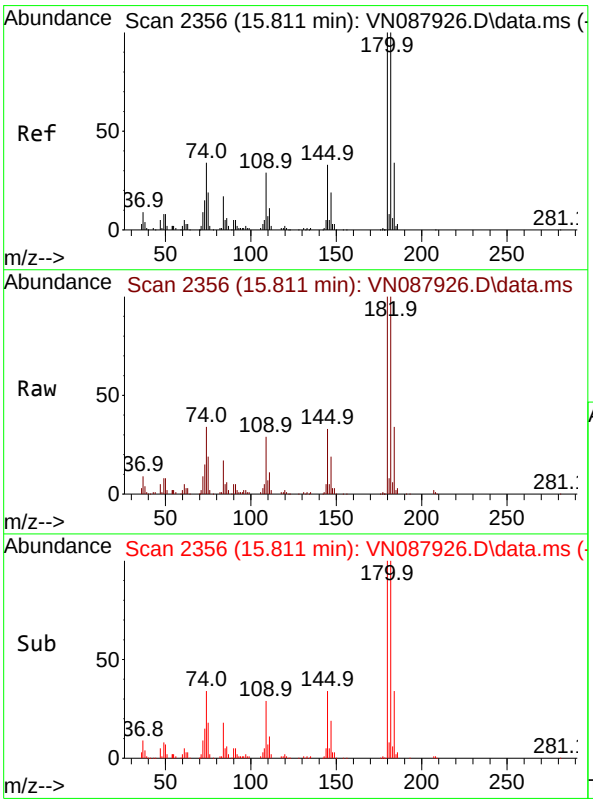
Ion	Ratio	Lower	Upper
128	100		
127	12.8	10.2	15.4
129	10.8	8.6	13.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED

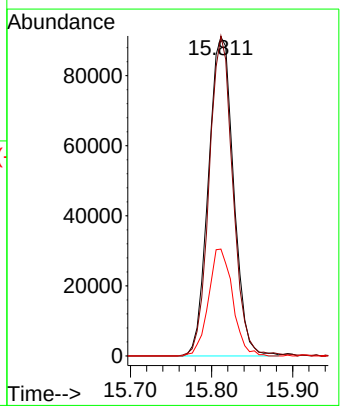
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025



#96
1,2,3-Trichlorobenzene
Concen: 43.995 ug/l
RT: 15.811 min Scan# 2356
Delta R.T. 0.000 min
Lab File: VN087926.D
Acq: 23 Sep 2025 10:15

Tgt Ion:180 Resp: 196179

Ion	Ratio	Lower	Upper
180	100		
182	94.7	47.3	142.0
145	32.2	16.1	48.3



Quantitation Report (QT Reviewed)

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092325\
Data File : VN087927.D
Acq On : 23 Sep 2025 10:36
Operator : JC\MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 24 04:48:54 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 04:45:42 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.206	168	250140	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.082	114	448432	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.841	117	431445	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.770	152	232835	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.559	65	450719	107.068	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 214.140%#			
35) Dibromofluoromethane	8.147	113	345448	106.100	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 212.200%#			
50) Toluene-d8	10.547	98	1281272	111.905	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 223.820%#			
62) 4-Bromofluorobenzene	12.829	95	458572	112.049	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 224.100%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.142	85	252462	87.151	ug/l	97
3) Chloromethane	2.383	50	248449	83.763	ug/l	100
4) Vinyl Chloride	2.536	62	258079	85.285	ug/l	100
5) Bromomethane	2.959	94	165493	88.215	ug/l	98
6) Chloroethane	3.130	64	168581	85.680	ug/l	92
7) Trichlorofluoromethane	3.506	101	408423	82.895	ug/l	96
8) Diethyl Ether	3.959	74	157544	84.639	ug/l	100
9) 1,1,2-Trichlorotrifluo...	4.365	101	219815	84.412	ug/l	98
10) Methyl Iodide	4.577	142	238972	101.965	ug/l	96
11) Tert butyl alcohol	5.524	59	261539	431.343	ug/l	98
12) 1,1-Dichloroethene	4.336	96	224049	85.270	ug/l	95
13) Acrolein	4.177	56	413952	532.076	ug/l	97
14) Allyl chloride	5.012	41	375296	87.735	ug/l	99
15) Acrylonitrile	5.712	53	820847	431.586	ug/l	99
16) Acetone	4.418	43	684989	393.064	ug/l	98
17) Carbon Disulfide	4.700	76	699756	85.238	ug/l	97
18) Methyl Acetate	5.018	43	383631	88.503	ug/l	99
19) Methyl tert-butyl Ether	5.789	73	905869	88.256	ug/l	100
20) Methylene Chloride	5.259	84	285438	81.418	ug/l	95
21) trans-1,2-Dichloroethene	5.771	96	271323	84.233	ug/l	92
22) Diisopropyl ether	6.659	45	881761	88.301	ug/l	95
23) Vinyl Acetate	6.589	43	3755895m	446.709	ug/l	
24) 1,1-Dichloroethane	6.553	63	492345	84.392	ug/l	99
25) 2-Butanone	7.471	43	1133783	428.271	ug/l	99
26) 2,2-Dichloropropane	7.477	77	434345	83.795	ug/l	100
27) cis-1,2-Dichloroethene	7.471	96	327964	85.571	ug/l	99
28) Bromochloromethane	7.800	49	299346	94.438	ug/l	100
29) Tetrahydrofuran	7.824	42	745260	439.646	ug/l	99
30) Chloroform	7.947	83	537746	84.299	ug/l	97
31) Cyclohexane	8.241	56	379372	80.366	ug/l	100
32) 1,1,1-Trichloroethane	8.153	97	454412	84.305	ug/l	97
36) 1,1-Dichloropropene	8.353	75	350081	89.421	ug/l	98
37) Ethyl Acetate	7.547	43	451409	87.805	ug/l	99
38) Carbon Tetrachloride	8.341	117	387306	86.213	ug/l	96
39) Methylcyclohexane	9.582	83	390119	90.330	ug/l	99
40) Benzene	8.588	78	1128183	87.033	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092325\
Data File : VN087927.D
Acq On : 23 Sep 2025 10:36
Operator : JC\MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 24 04:48:54 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 04:45:42 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.765	41	235709	88.718	ug/l		95
42) 1,2-Dichloroethane	8.653	62	419019	86.620	ug/l		99
43) Isopropyl Acetate	8.671	43	725147	89.609	ug/l		99
44) Trichloroethene	9.335	130	272727	88.080	ug/l		90
45) 1,2-Dichloropropane	9.600	63	277676	85.427	ug/l		100
46) Dibromomethane	9.688	93	224518	87.537	ug/l		97
47) Bromodichloromethane	9.865	83	438840	87.234	ug/l		98
48) Methyl methacrylate	9.659	41	343963	91.785	ug/l		96
49) 1,4-Dioxane	9.677	88	94746	1711.395	ug/l	#	85
51) 4-Methyl-2-Pentanone	10.424	43	2280534	451.629	ug/l		99
52) Toluene	10.606	92	727172	89.394	ug/l		99
53) t-1,3-Dichloropropene	10.818	75	464641	90.246	ug/l		99
54) cis-1,3-Dichloropropene	10.294	75	479067	89.589	ug/l		99
55) 1,1,2-Trichloroethane	10.994	97	285624	86.356	ug/l		99
56) Ethyl methacrylate	10.853	69	459730	96.195	ug/l		99
57) 1,3-Dichloropropane	11.141	76	483097	88.803	ug/l		99
58) 2-Chloroethyl Vinyl ether	10.141	63	1121816	499.234	ug/l		98
59) 2-Hexanone	11.176	43	1603636	480.290	ug/l		98
60) Dibromochloromethane	11.335	129	350657	90.171	ug/l		99
61) 1,2-Dibromoethane	11.447	107	306002	87.393	ug/l		100
64) Tetrachloroethene	11.082	164	227824	86.687	ug/l		97
65) Chlorobenzene	11.871	112	811449	88.379	ug/l		94
66) 1,1,1,2-Tetrachloroethane	11.941	131	289426	87.414	ug/l		99
67) Ethyl Benzene	11.941	91	1412236	92.180	ug/l		98
68) m/p-Xylenes	12.047	106	1061087	181.095	ug/l		97
69) o-Xylene	12.376	106	518806	92.161	ug/l		97
70) Styrene	12.388	104	915672	94.710	ug/l		98
71) Bromoform	12.559	173	249268	92.794	ug/l	#	99
73) Isopropylbenzene	12.670	105	1331440	92.265	ug/l		100
74) N-amyl acetate	12.494	43	438667m	102.053	ug/l		
75) 1,1,2,2-Tetrachloroethane	12.918	83	444065	85.408	ug/l		99
76) 1,2,3-Trichloropropane	12.970	75	398893m	86.367	ug/l		
77) Bromobenzene	12.959	156	335228	87.310	ug/l		99
78) n-propylbenzene	13.012	91	1626563	90.155	ug/l		99
79) 2-Chlorotoluene	13.100	91	977059	88.941	ug/l		99
80) 1,3,5-Trimethylbenzene	13.153	105	1151230	92.232	ug/l		98
81) trans-1,4-Dichloro-2-b...	12.718	75	156770	94.849	ug/l		98
82) 4-Chlorotoluene	13.200	91	1006766	90.951	ug/l		100
83) tert-Butylbenzene	13.412	119	986126	93.339	ug/l		99
84) 1,2,4-Trimethylbenzene	13.459	105	1182488	92.362	ug/l		100
85) sec-Butylbenzene	13.594	105	1407683	90.879	ug/l		98
86) p-Isopropyltoluene	13.706	119	1206696	91.980	ug/l		100
87) 1,3-Dichlorobenzene	13.712	146	656218	87.583	ug/l		99
88) 1,4-Dichlorobenzene	13.788	146	662481	86.037	ug/l		98
89) n-Butylbenzene	14.035	91	1126206	90.837	ug/l		100
90) Hexachloroethane	14.306	117	236932	86.459	ug/l		99
91) 1,2-Dichlorobenzene	14.082	146	632359	87.559	ug/l		99
92) 1,2-Dibromo-3-Chloropr...	14.694	75	102736	85.039	ug/l		97
93) 1,2,4-Trichlorobenzene	15.364	180	386396	90.615	ug/l		96
94) Hexachlorobutadiene	15.470	225	134018	85.390	ug/l		99
95) Naphthalene	15.611	128	1285628	93.924	ug/l		98
96) 1,2,3-Trichlorobenzene	15.811	180	372476	89.850	ug/l		100

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092325\
Data File : VN087927.D
Acq On : 23 Sep 2025 10:36
Operator : JC\MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

Quant Time: Sep 24 04:48:54 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 04:45:42 2025
Response via : Initial Calibration

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

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

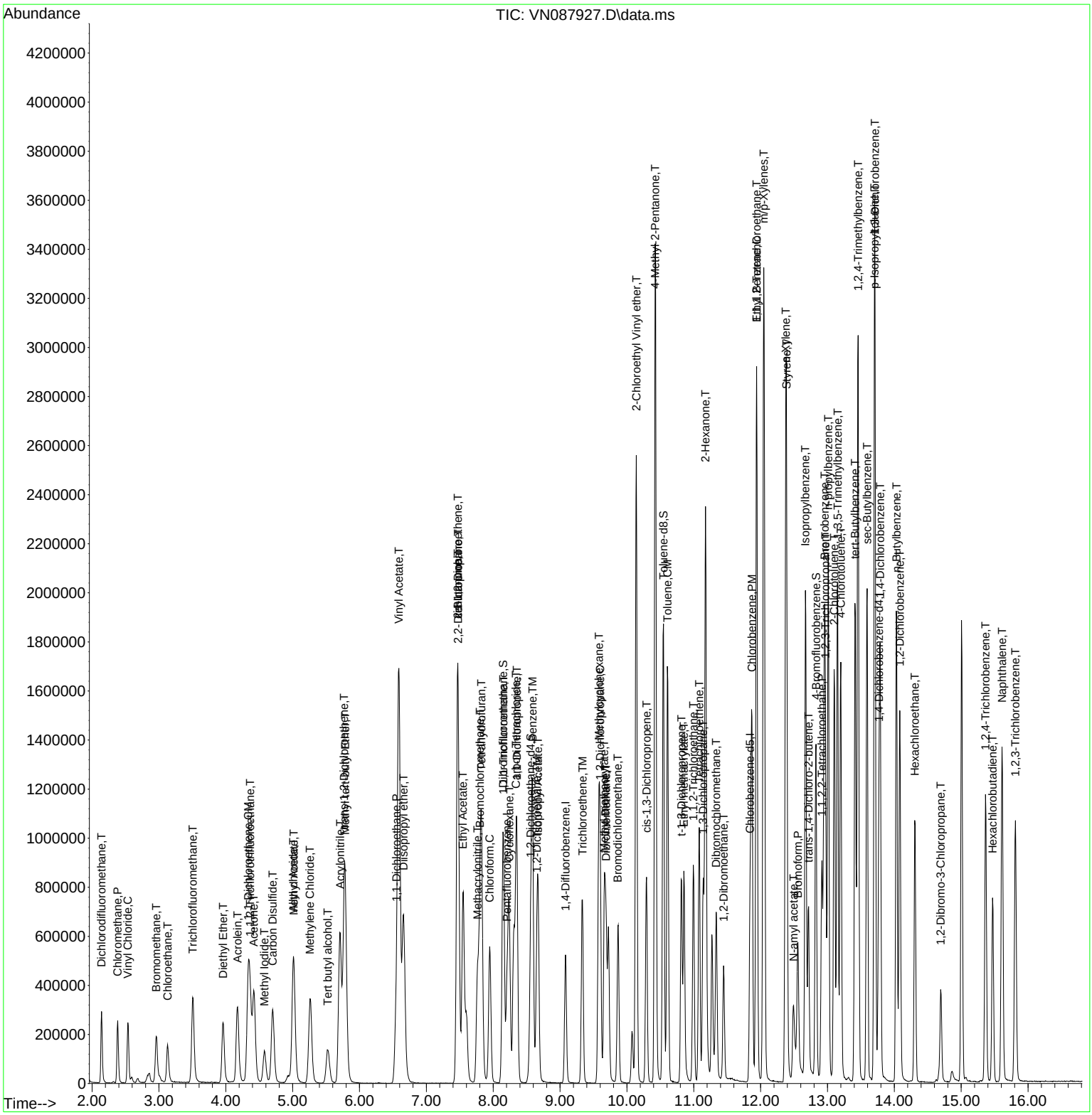
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092325\
Data File : VN087927.D
Acq On : 23 Sep 2025 10:36
Operator : JC\MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 8 Sample Multiplier: 1

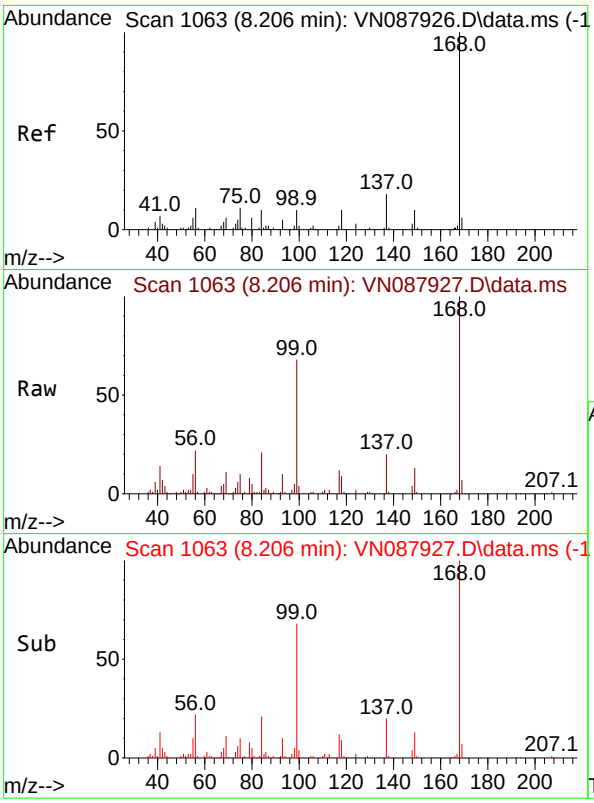
Quant Time: Sep 24 04:48:54 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 04:45:42 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

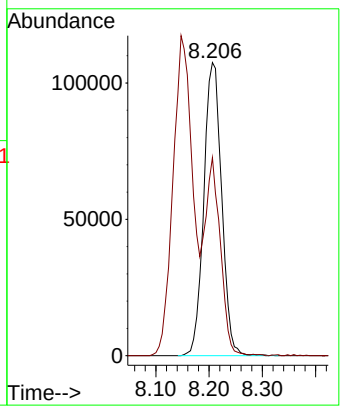




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.206 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion:168 Resp: 25014

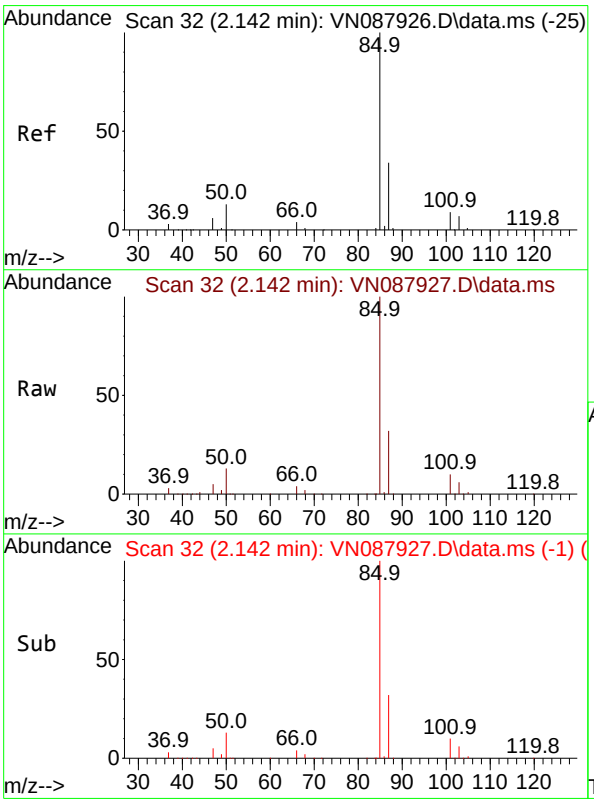
Ion	Ratio	Lower	Upper
168	100		
99	67.3	52.2	78.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

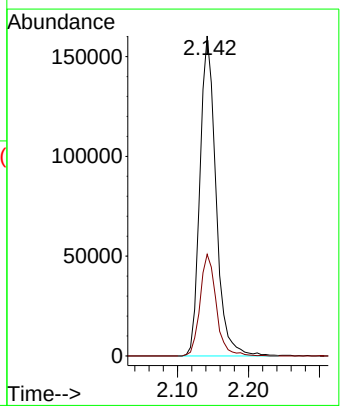
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

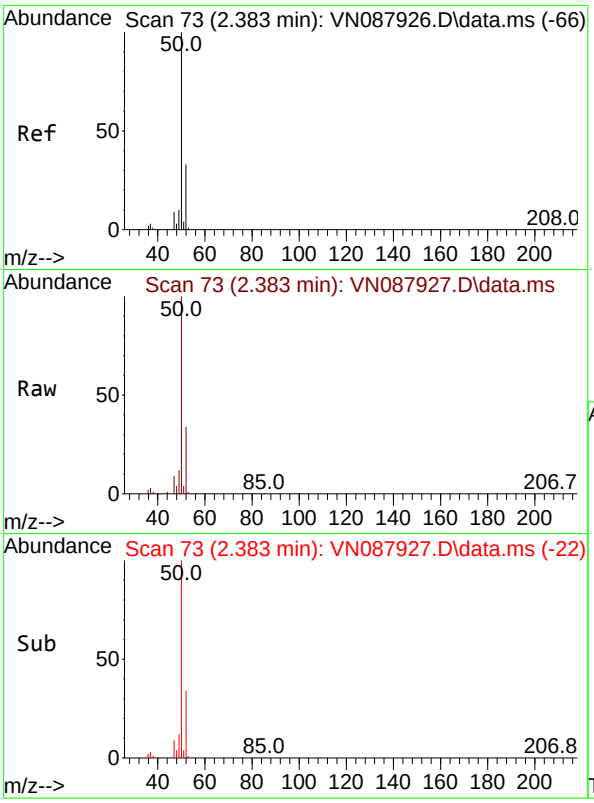


#2
Dichlorodifluoromethane
Concen: 87.151 ug/l
RT: 2.142 min Scan# 32
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 85 Resp: 252462

Ion	Ratio	Lower	Upper
85	100		
87	31.7	16.9	50.6

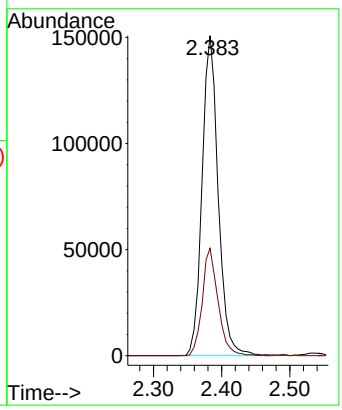




#3
Chloromethane
Concen: 83.763 ug/l
RT: 2.383 min Scan# 7
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 50 Resp: 24844

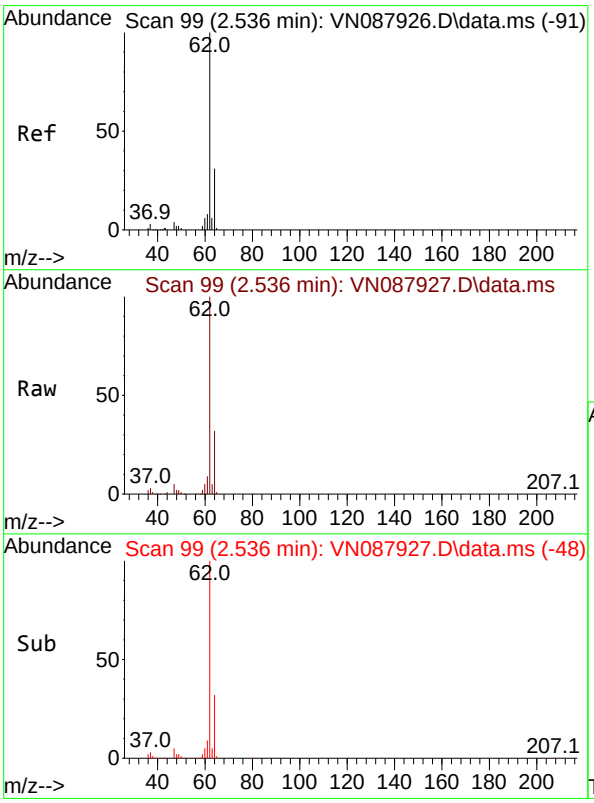
Ion	Ratio	Lower	Upper
50	100		
52	33.5	26.6	40.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

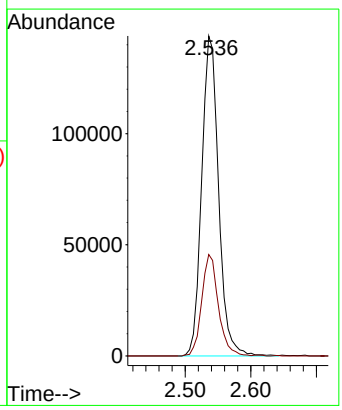
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

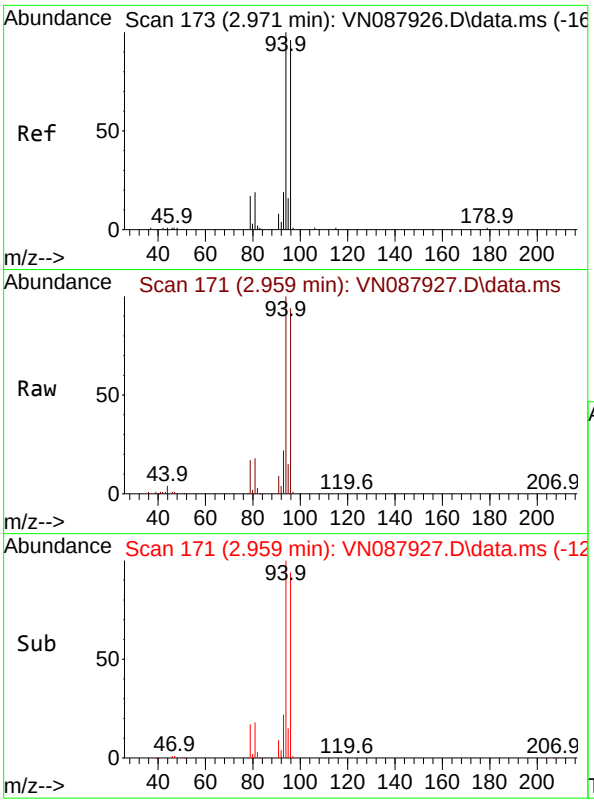


#4
Vinyl Chloride
Concen: 85.285 ug/l
RT: 2.536 min Scan# 99
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 62 Resp: 258079

Ion	Ratio	Lower	Upper
62	100		
64	31.7	25.2	37.8

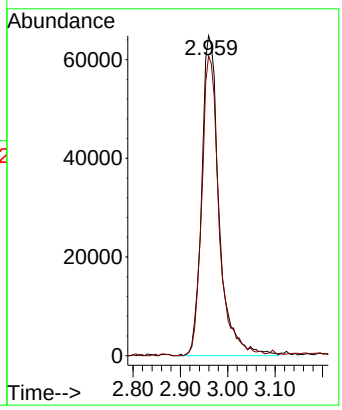




#5
Bromomethane
Concen: 88.215 ug/l
RT: 2.959 min Scan# 1
Delta R.T. -0.012 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 94 Resp: 16549

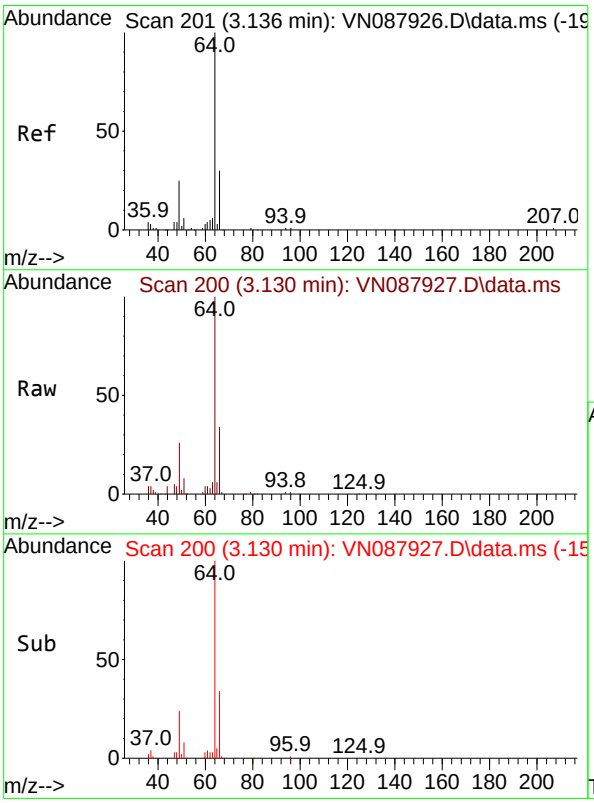
Ion	Ratio	Lower	Upper
94	100		
96	93.7	76.8	115.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

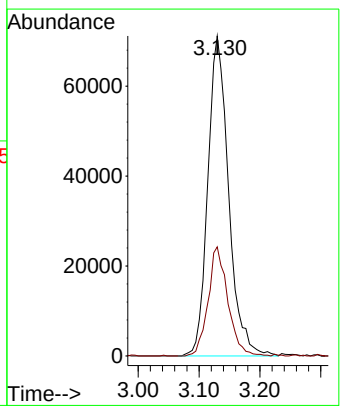
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

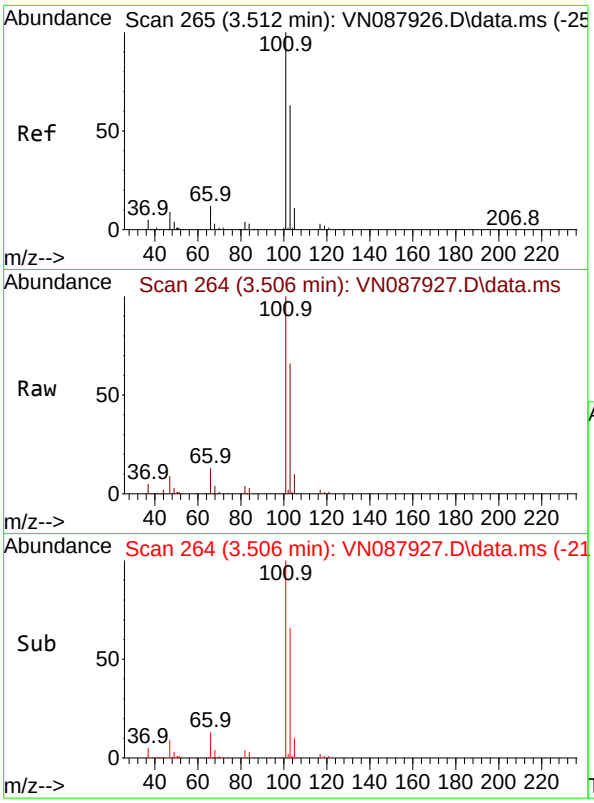


#6
Chloroethane
Concen: 85.680 ug/l
RT: 3.130 min Scan# 200
Delta R.T. -0.006 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 64 Resp: 168581

Ion	Ratio	Lower	Upper
64	100		
66	34.1	23.8	35.8

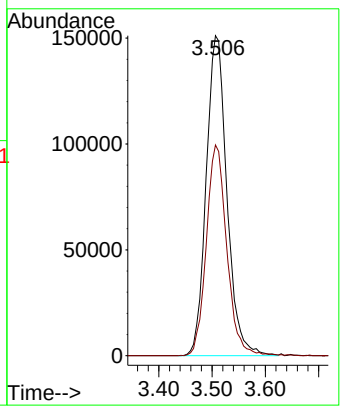




#7
Trichlorofluoromethane
Concen: 82.895 ug/l
RT: 3.506 min Scan# 2
Delta R.T. -0.006 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion:101 Resp: 40842

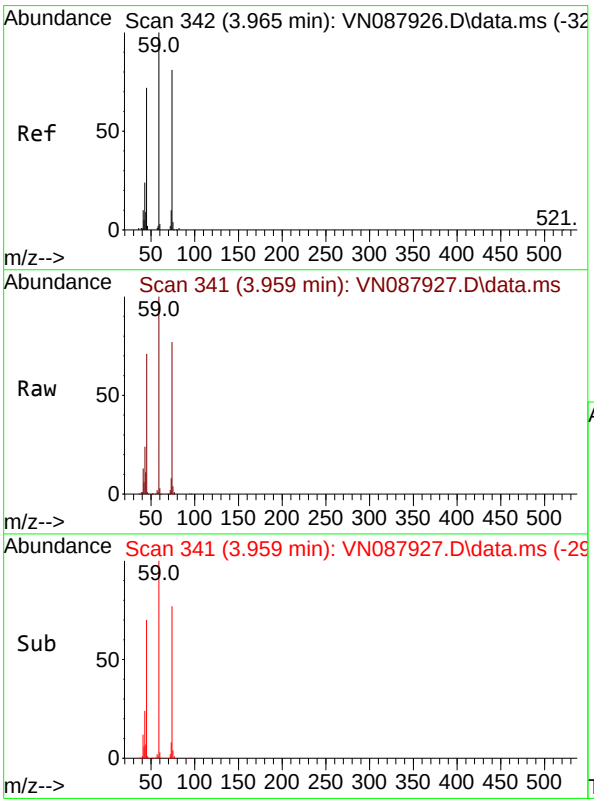
Ion	Ratio	Lower	Upper
101	100		
103	65.9	50.2	75.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

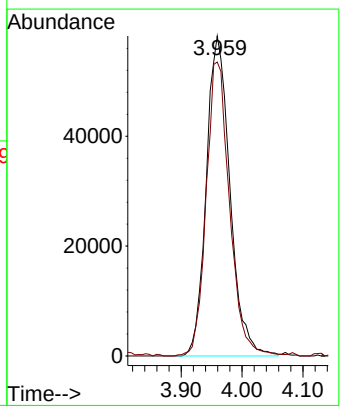
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

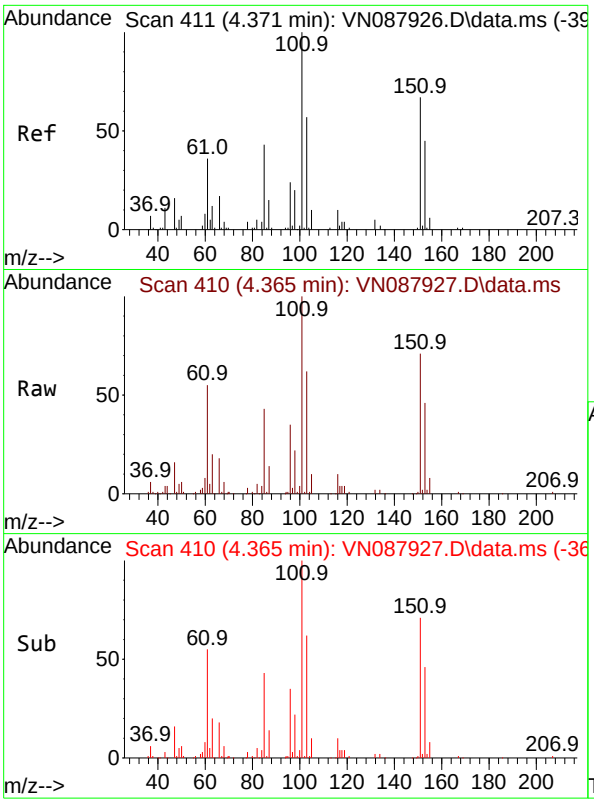


#8
Diethyl Ether
Concen: 84.639 ug/l
RT: 3.959 min Scan# 341
Delta R.T. -0.006 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 74 Resp: 157544

Ion	Ratio	Lower	Upper
74	100		
45	90.6	45.4	136.1





#9
1,1,2-Trichlorotrifluoroethane
Concen: 84.412 ug/l
RT: 4.365 min Scan# 41
Delta R.T. -0.006 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

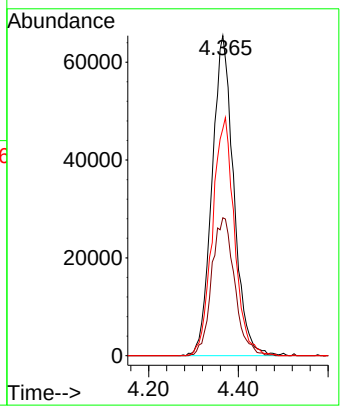
Tgt Ion:101 Resp: 21981

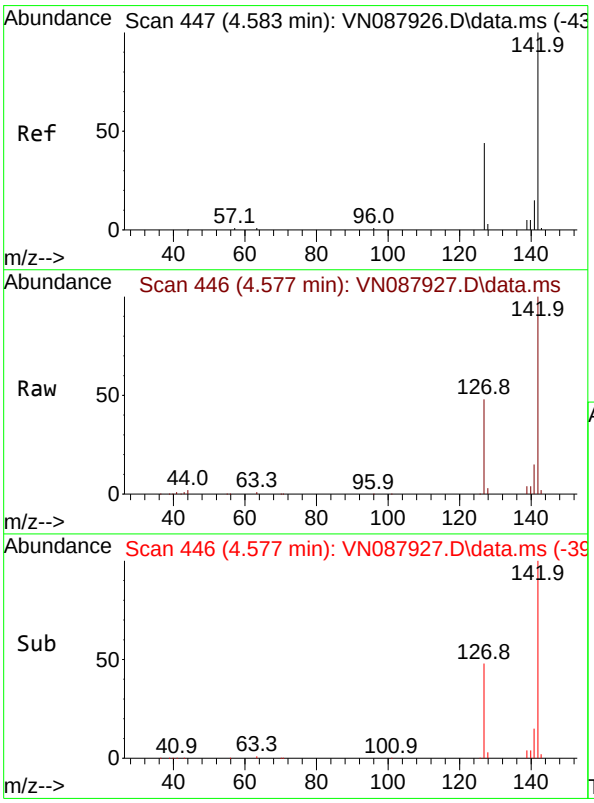
Ion	Ratio	Lower	Upper
101	100		
85	45.5	36.5	54.7
151	75.3	58.6	87.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

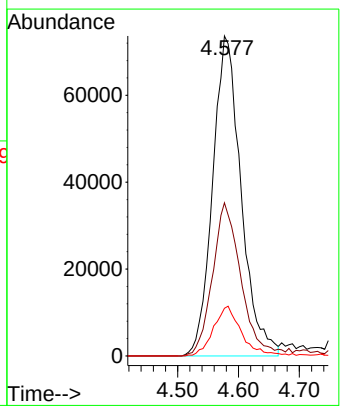


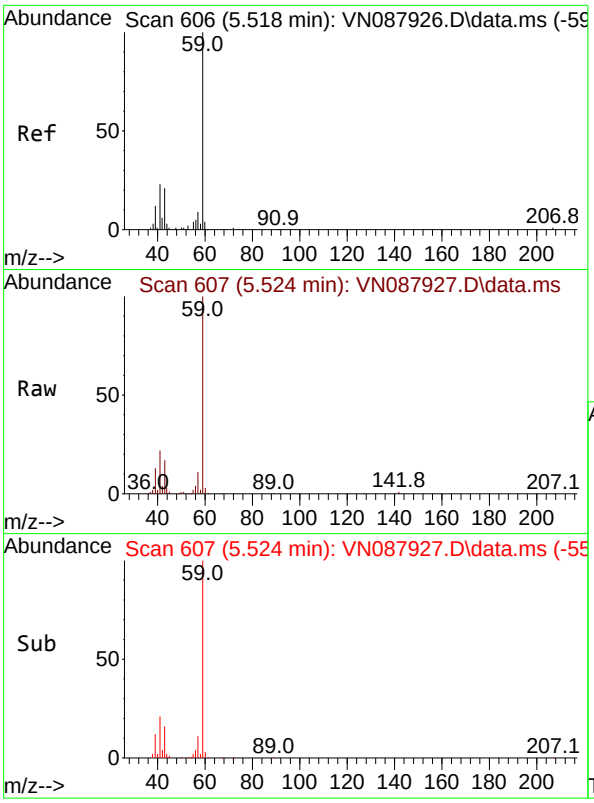


#10
Methyl Iodide
Concen: 101.965 ug/l
RT: 4.577 min Scan# 446
Delta R.T. -0.006 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion:142 Resp: 238972

Ion	Ratio	Lower	Upper
142	100		
127	47.8	35.3	52.9
141	14.9	11.8	17.8

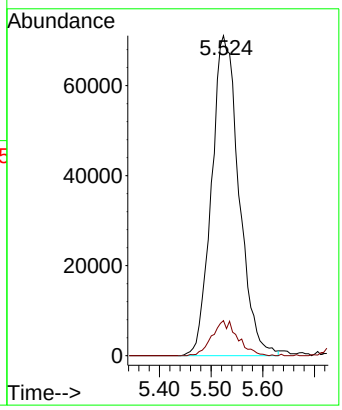




#11
Tert butyl alcohol
Concen: 431.343 ug/l
RT: 5.524 min Scan# 6
Delta R.T. 0.006 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 59 Resp: 26153

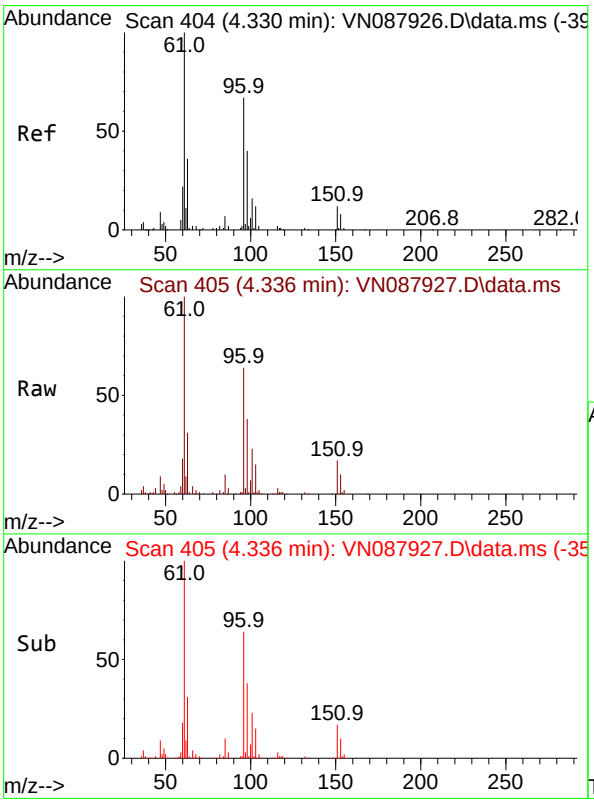
Ion	Ratio	Lower	Upper
59	100		
57	10.3	8.8	13.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

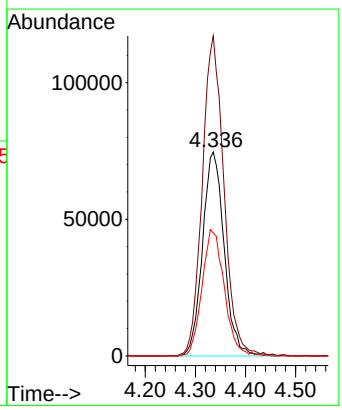
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

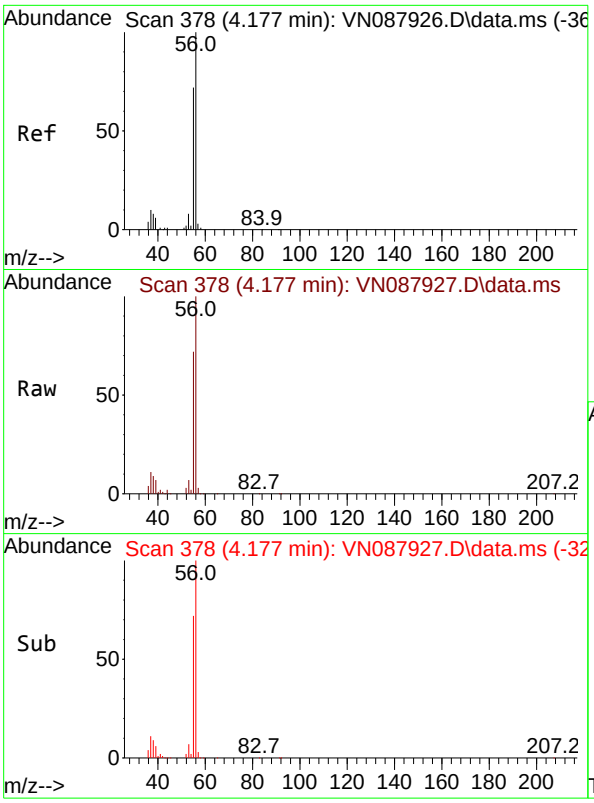


#12
1,1-Dichloroethene
Concen: 85.270 ug/l
RT: 4.336 min Scan# 405
Delta R.T. 0.006 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 96 Resp: 224049

Ion	Ratio	Lower	Upper
96	100		
61	156.6	119.2	178.8
98	60.3	47.5	71.3

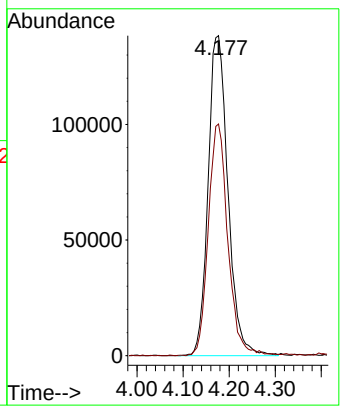




#13
Acrolein
Concen: 532.076 ug/l
RT: 4.177 min Scan# 3
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 56 Resp: 41395

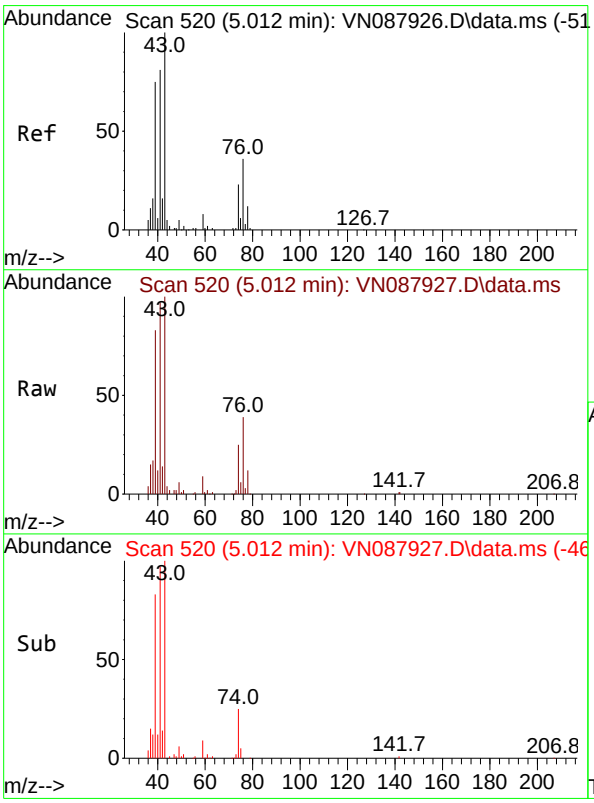
Ion	Ratio	Lower	Upper
56	100		
55	71.5	59.3	88.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

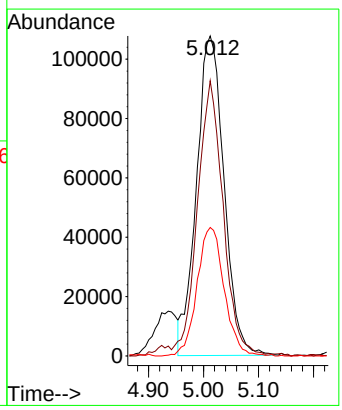
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

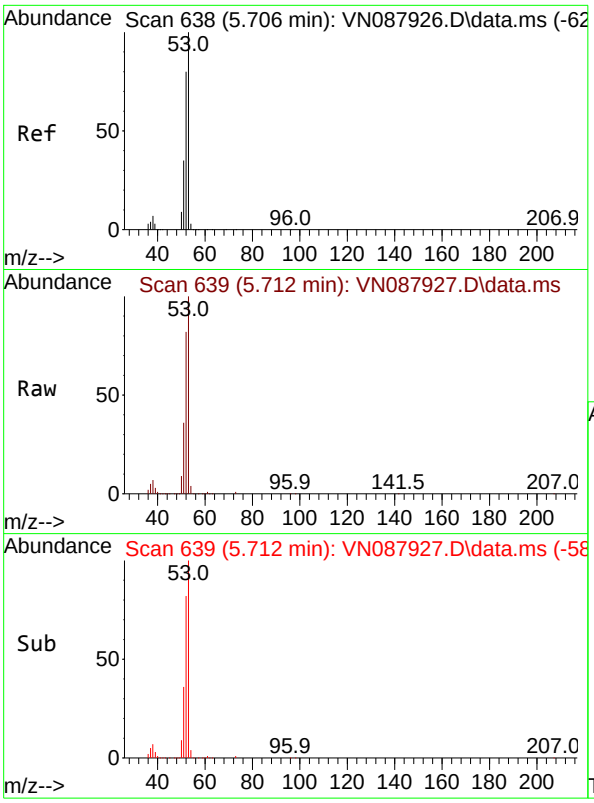


#14
Allyl chloride
Concen: 87.735 ug/l
RT: 5.012 min Scan# 520
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 41 Resp: 375296

Ion	Ratio	Lower	Upper
41	100		
39	79.3	63.8	95.8
76	39.6	33.0	49.6

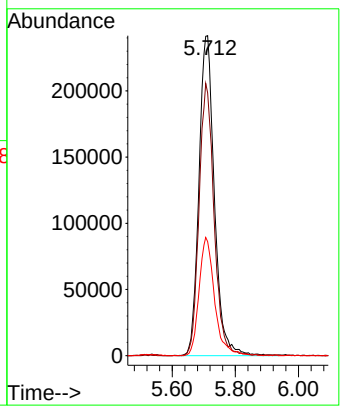




#15
Acrylonitrile
Concen: 431.586 ug/l
RT: 5.712 min Scan# 6
Delta R.T. 0.006 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 53 Resp: 82084

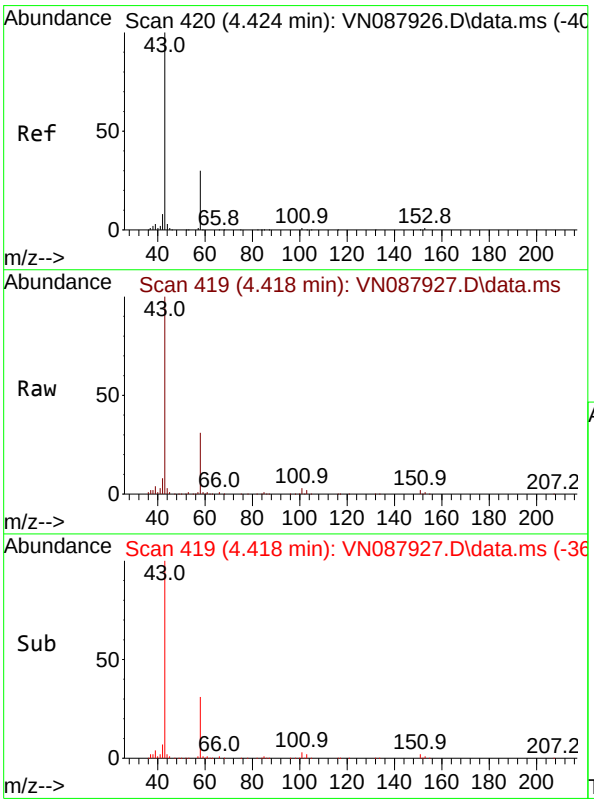
Ion	Ratio	Lower	Upper
53	100		
52	82.5	66.6	99.8
51	37.2	29.0	43.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

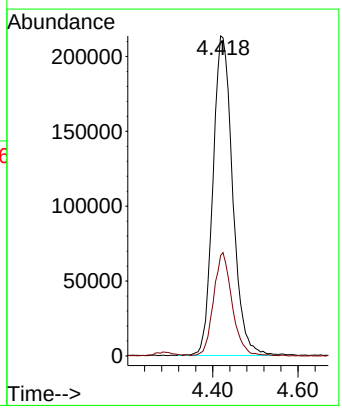
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

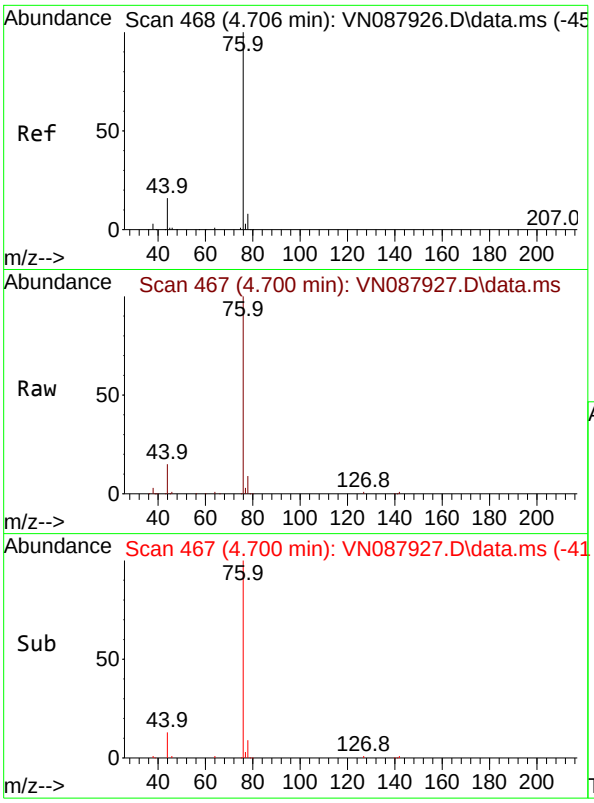


#16
Acetone
Concen: 393.064 ug/l
RT: 4.418 min Scan# 419
Delta R.T. -0.006 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 43 Resp: 684989

Ion	Ratio	Lower	Upper
43	100		
58	31.3	24.1	36.1

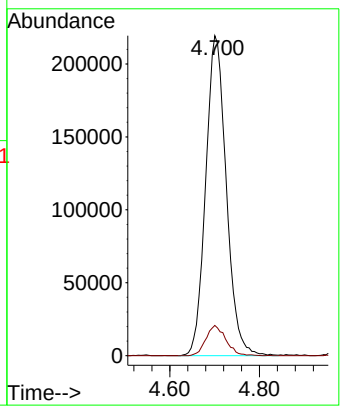




#17
Carbon Disulfide
Concen: 85.238 ug/l
RT: 4.700 min Scan# 4(
Delta R.T. -0.006 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 76 Resp: 69975(

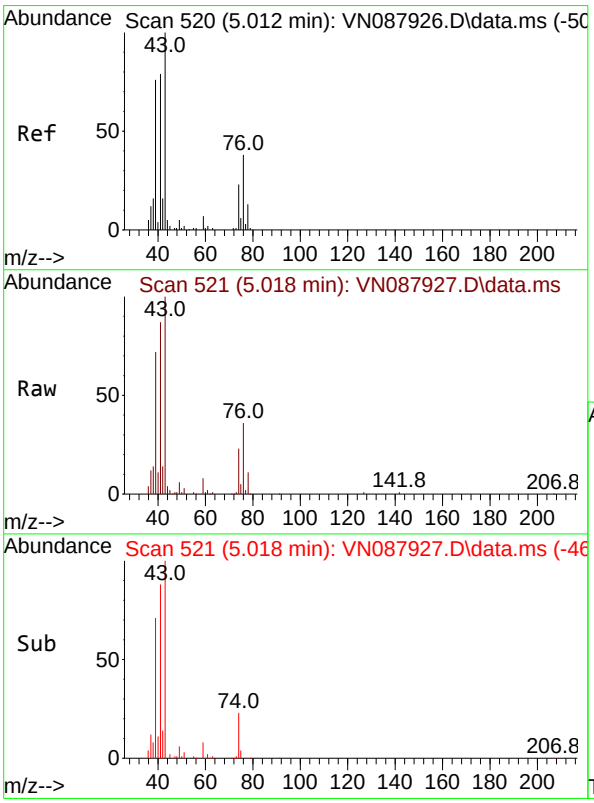
Ion	Ratio	Lower	Upper
76	100		
78	9.5	6.7	10.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

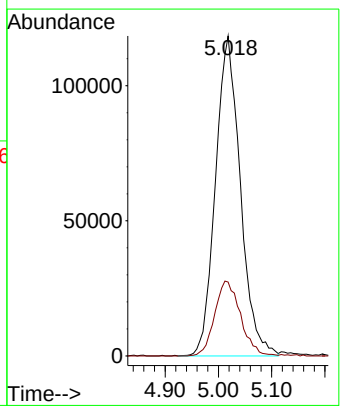
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

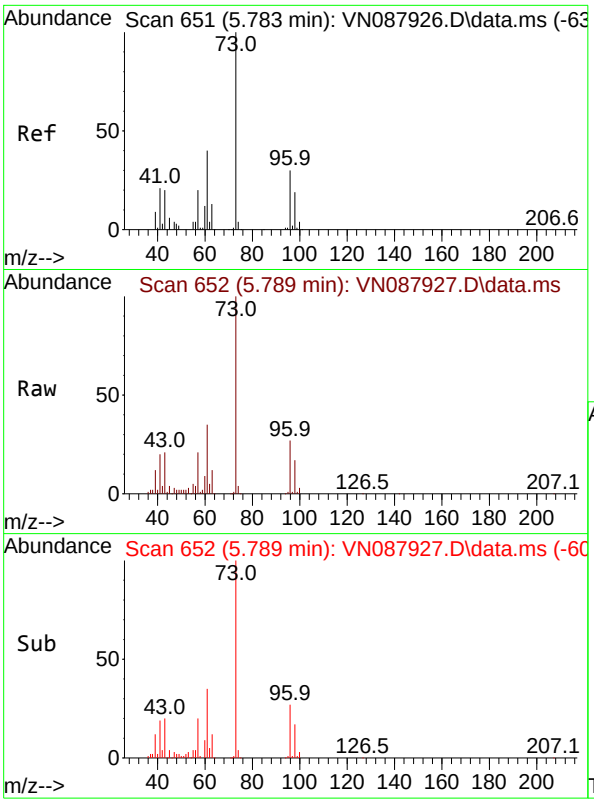


#18
Methyl Acetate
Concen: 88.503 ug/l
RT: 5.018 min Scan# 521
Delta R.T. 0.006 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 43 Resp: 383631

Ion	Ratio	Lower	Upper
43	100		
74	24.3	19.7	29.5

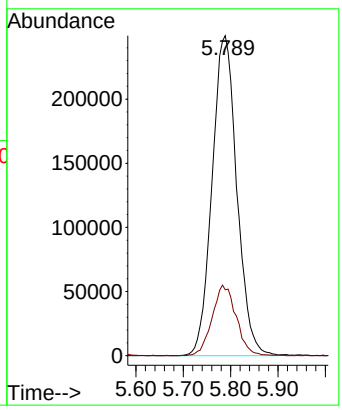




#19
Methyl tert-butyl Ether
Concen: 88.256 ug/l
RT: 5.789 min Scan# 6
Delta R.T. 0.006 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 73 Resp: 90586

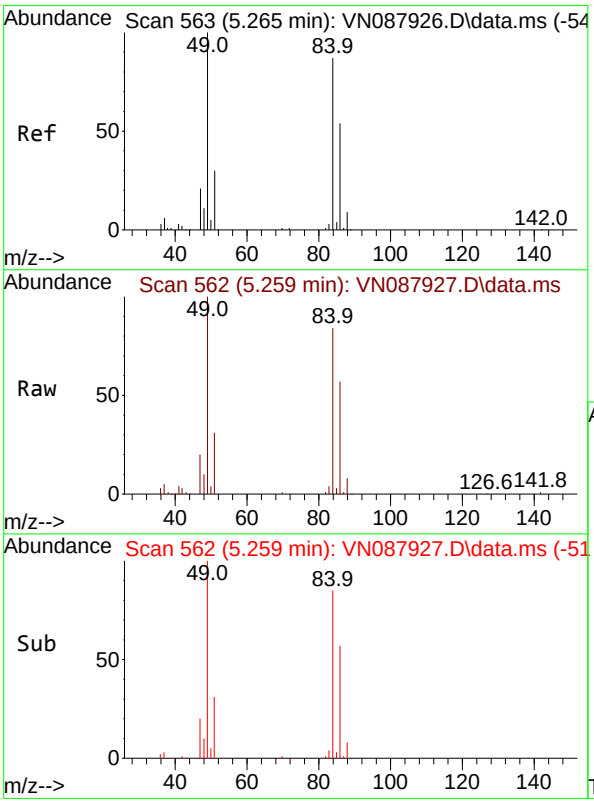
Ion	Ratio	Lower	Upper
73	100		
57	20.6	16.3	24.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

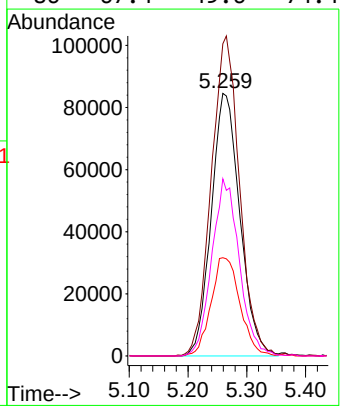
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

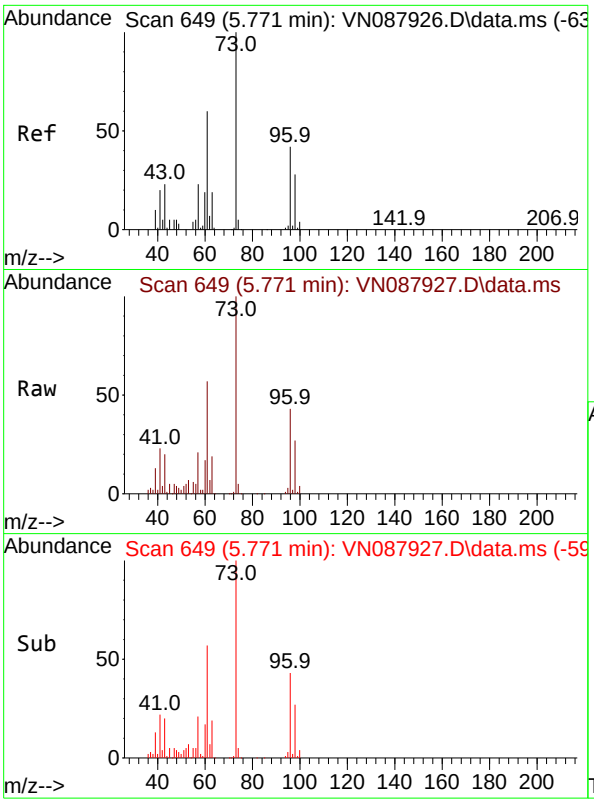


#20
Methylene Chloride
Concen: 81.418 ug/l
RT: 5.259 min Scan# 562
Delta R.T. -0.006 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 84 Resp: 285438

Ion	Ratio	Lower	Upper
84	100		
49	118.5	92.1	138.1
51	37.4	27.7	41.5
86	67.4	49.6	74.4

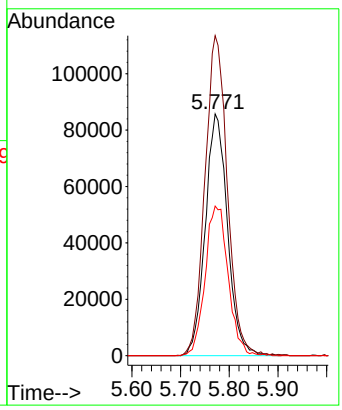




#21
trans-1,2-Dichloroethene
Concen: 84.233 ug/l
RT: 5.771 min Scan# 64
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 96 Resp: 27132

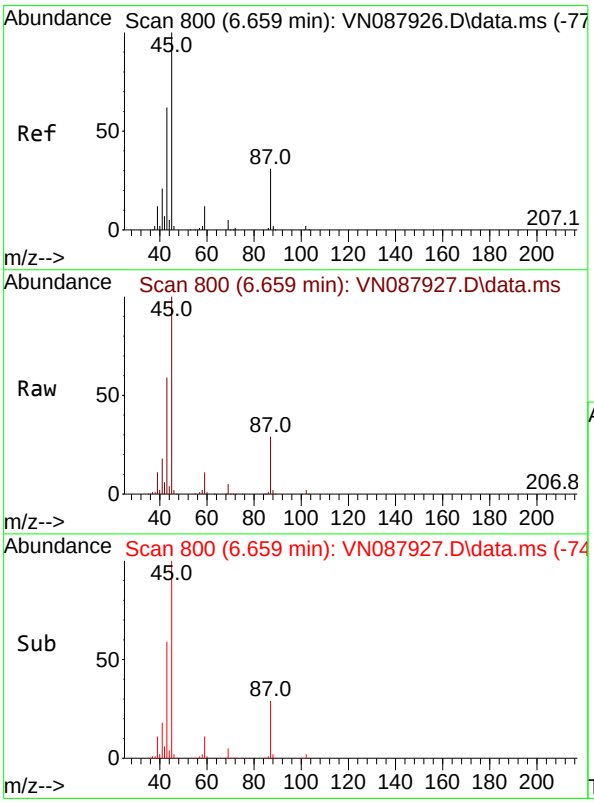
Ion	Ratio	Lower	Upper
96	100		
61	132.2	114.4	171.6
98	61.9	53.6	80.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

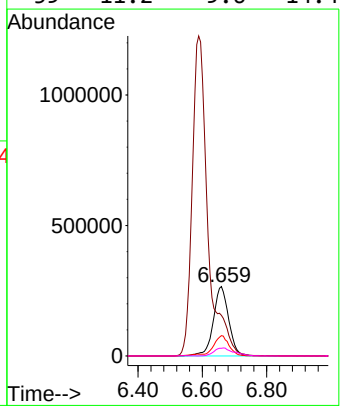
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

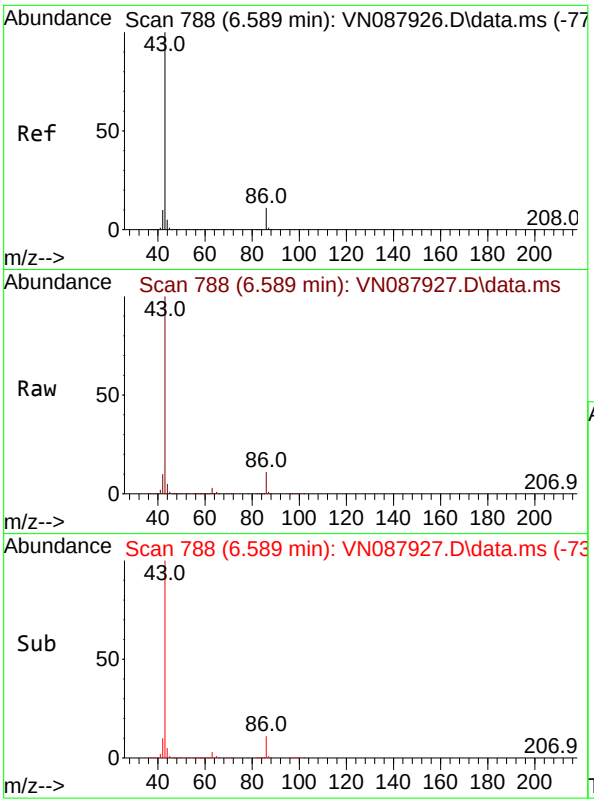


#22
Diisopropyl ether
Concen: 88.301 ug/l
RT: 6.659 min Scan# 800
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 45 Resp: 881761

Ion	Ratio	Lower	Upper
45	100		
43	58.2	49.9	74.9
87	29.2	25.2	37.8
59	11.2	9.6	14.4

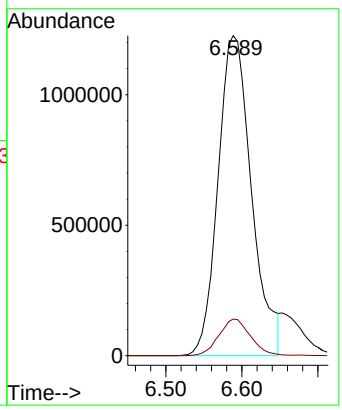




#23
Vinyl Acetate
Concen: 446.709 ug/l m
RT: 6.589 min Scan# 7
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 43 Resp: 375589

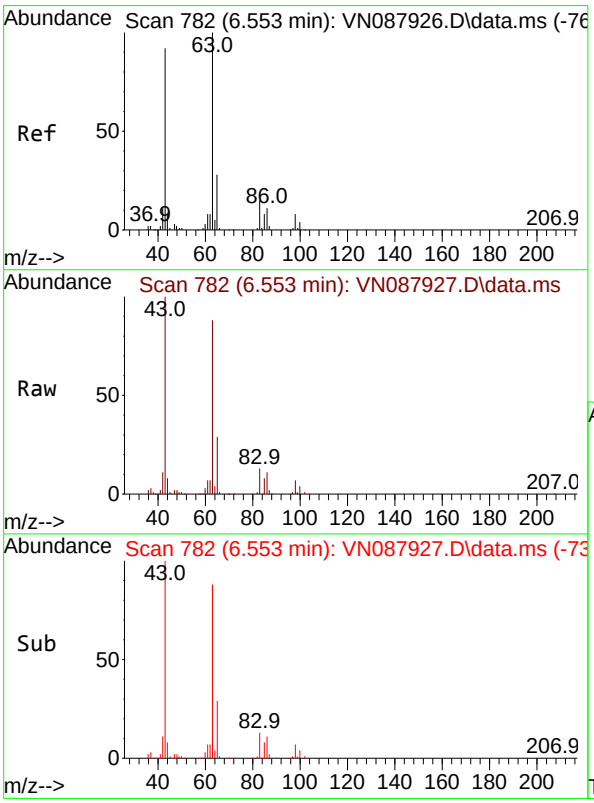
Ion	Ratio	Lower	Upper
43	100		
86	11.4	8.6	12.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

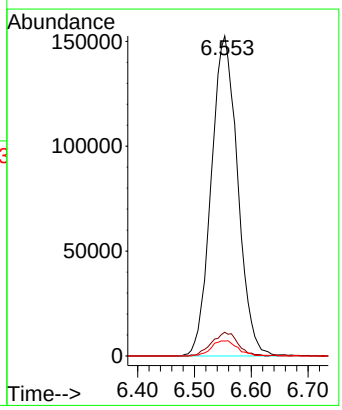
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

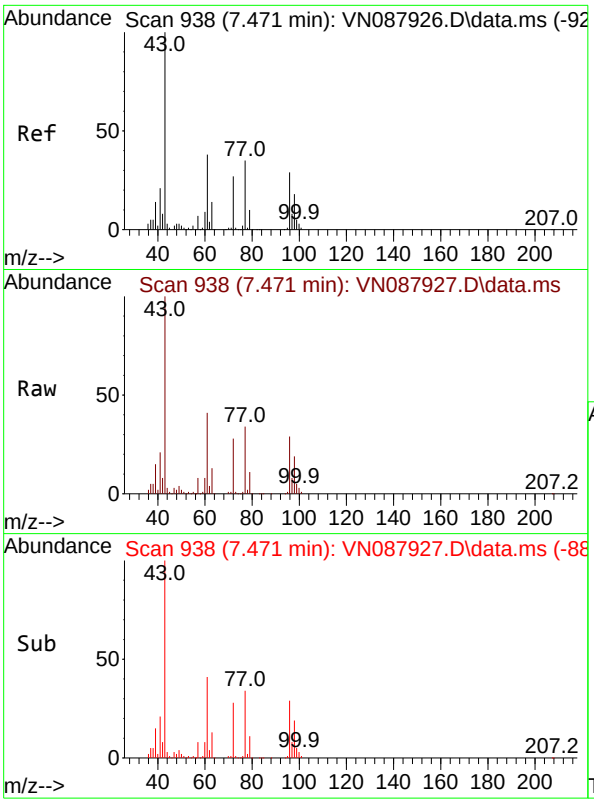


#24
1,1-Dichloroethane
Concen: 84.392 ug/l
RT: 6.553 min Scan# 782
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 63 Resp: 492345

Ion	Ratio	Lower	Upper
63	100		
98	7.4	3.9	11.5
100	4.7	2.1	6.5





#25
2-Butanone
Concen: 428.271 ug/l
RT: 7.471 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

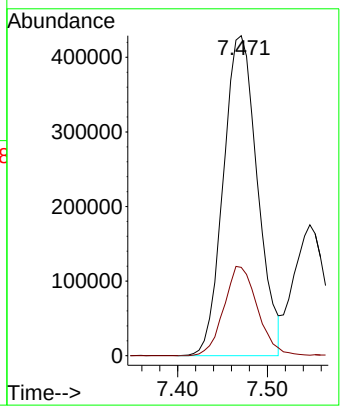
Tgt Ion: 43 Resp: 113378

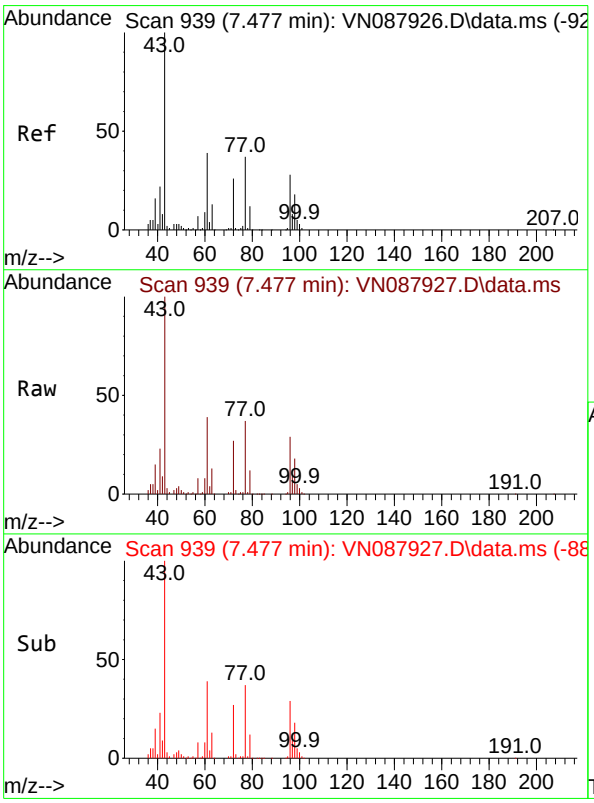
Ion	Ratio	Lower	Upper
43	100		
72	27.6	21.5	32.3

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

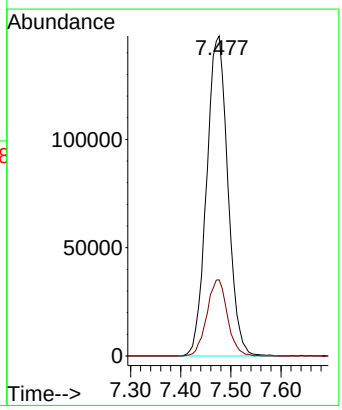


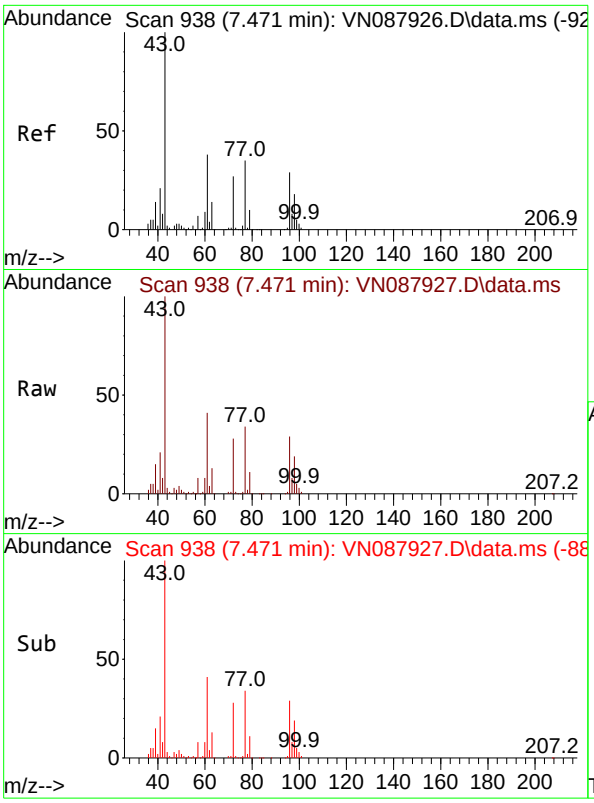


#26
2,2-Dichloropropane
Concen: 83.795 ug/l
RT: 7.477 min Scan# 939
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 77 Resp: 434345

Ion	Ratio	Lower	Upper
77	100		
97	23.1	11.5	34.5

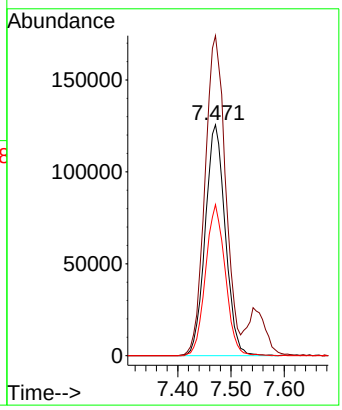




#27
cis-1,2-Dichloroethene
Concen: 85.571 ug/l
RT: 7.471 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 96 Resp: 32796

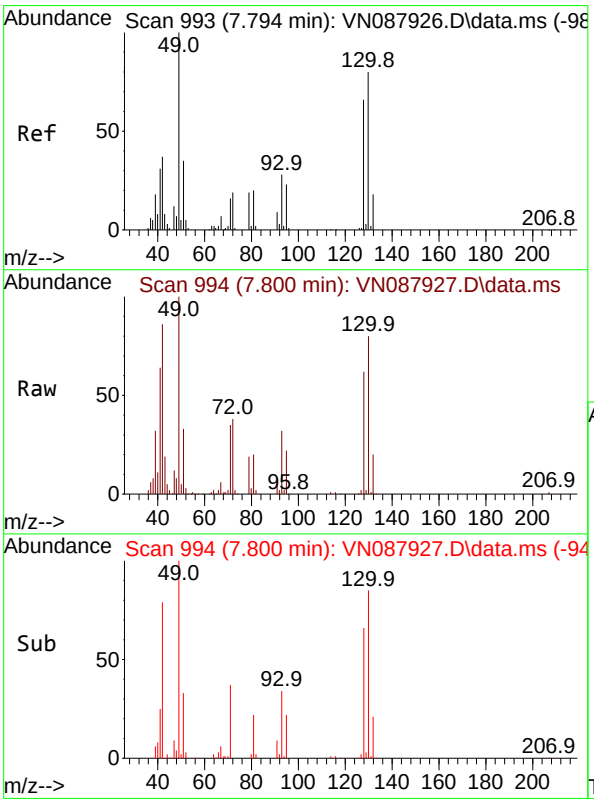
Ion	Ratio	Lower	Upper
96	100		
61	142.2	0.0	283.0
98	64.4	0.0	127.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

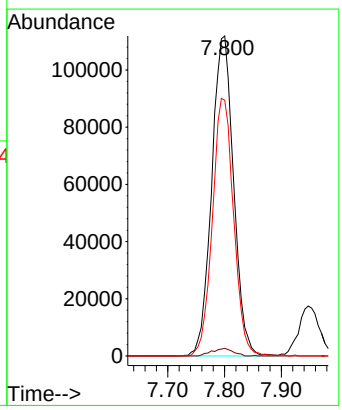
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

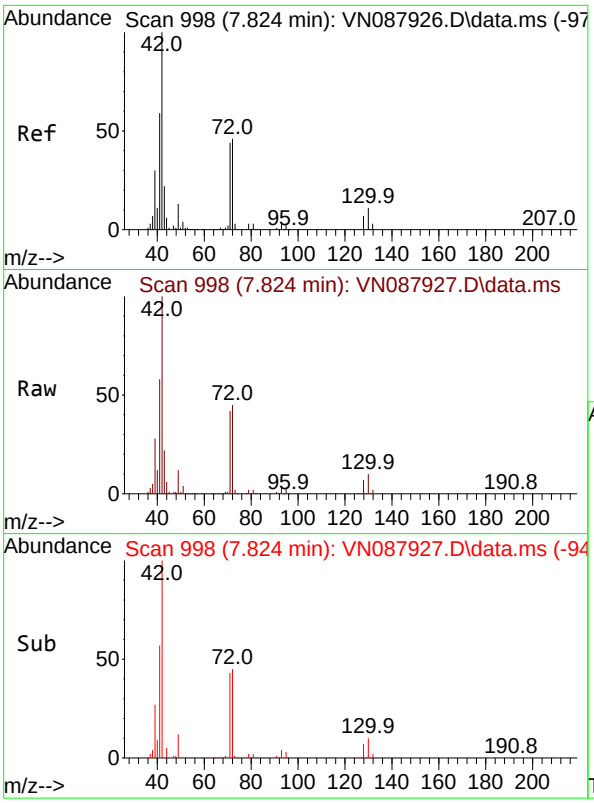


#28
Bromochloromethane
Concen: 94.438 ug/l
RT: 7.800 min Scan# 994
Delta R.T. 0.006 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 49 Resp: 299346

Ion	Ratio	Lower	Upper
49	100		
129	2.3	0.0	5.4
130	78.1	62.6	94.0

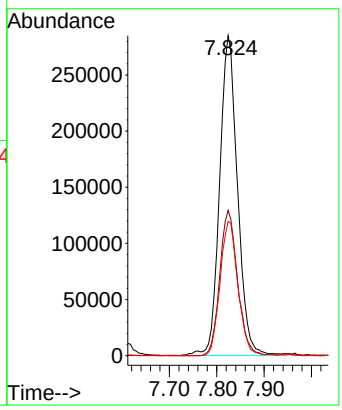




#29
Tetrahydrofuran
Concen: 439.646 ug/l
RT: 7.824 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 42 Resp: 74526

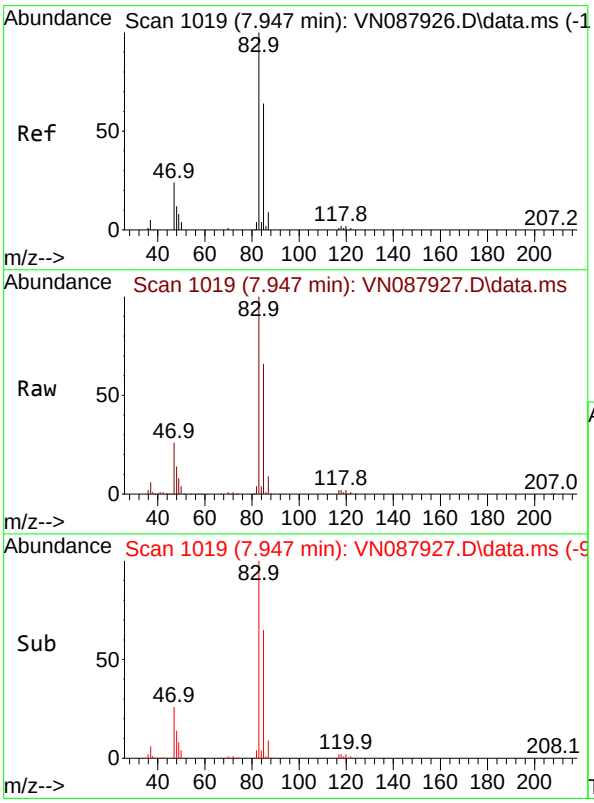
Ion	Ratio	Lower	Upper
42	100		
72	45.1	36.5	54.7
71	42.0	33.8	50.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

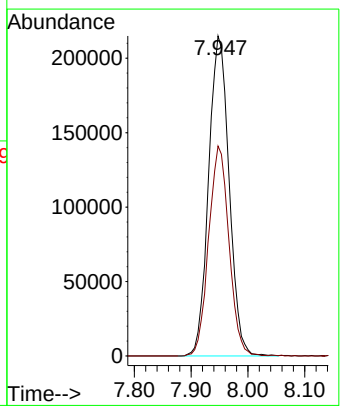
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

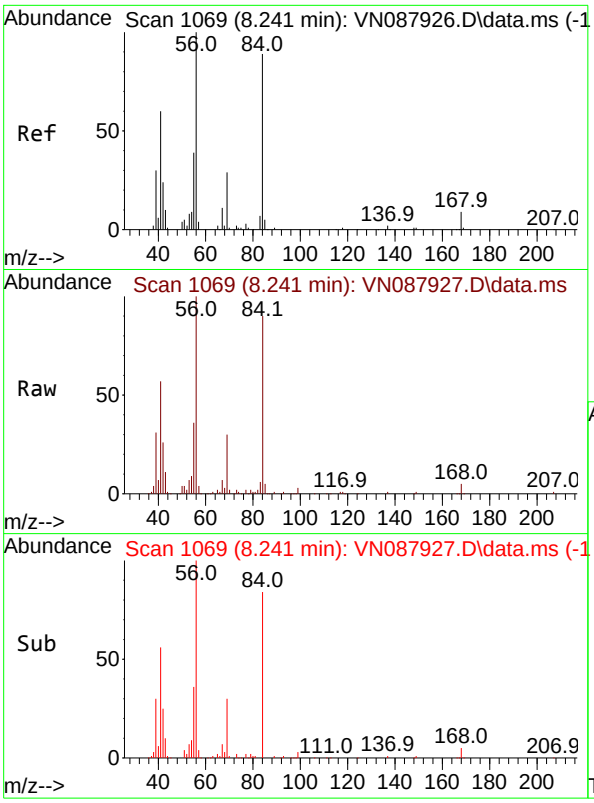


#30
Chloroform
Concen: 84.299 ug/l
RT: 7.947 min Scan# 1019
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 83 Resp: 537746

Ion	Ratio	Lower	Upper
83	100		
85	65.6	50.9	76.3

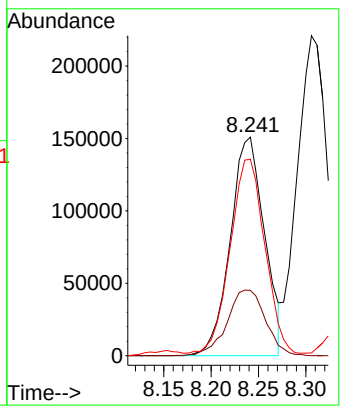




#31
Cyclohexane
Concen: 80.366 ug/l
RT: 8.241 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 56 Resp: 37937

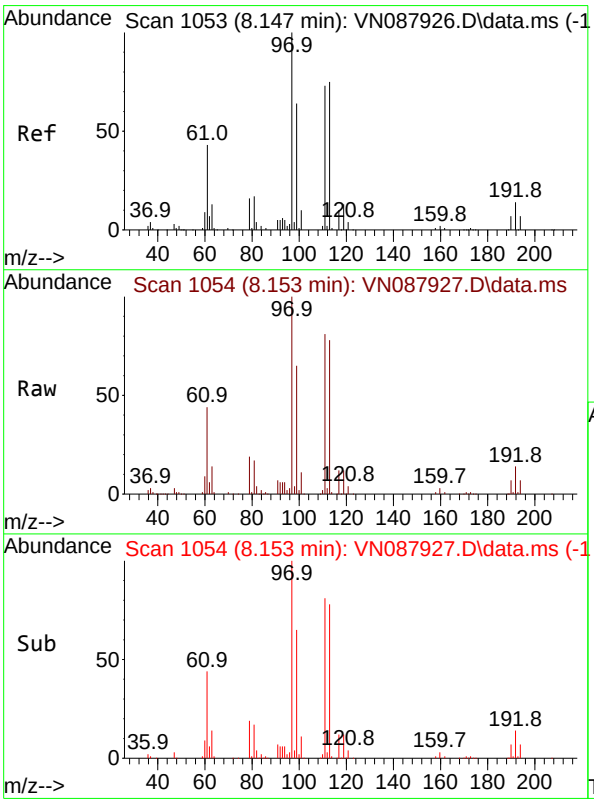
Ion	Ratio	Lower	Upper
56	100		
69	29.7	23.4	35.0
84	88.2	70.8	106.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

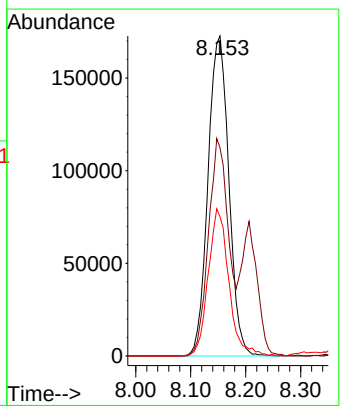
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

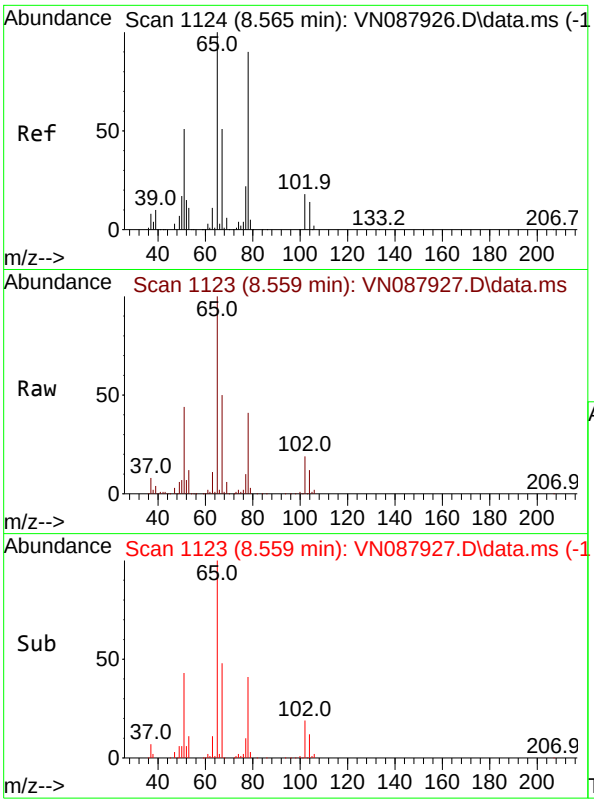


#32
1,1,1-Trichloroethane
Concen: 84.305 ug/l
RT: 8.153 min Scan# 1054
Delta R.T. 0.006 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 97 Resp: 454412

Ion	Ratio	Lower	Upper
97	100		
99	65.9	51.1	76.7
61	45.6	38.6	58.0





#33
1,2-Dichloroethane-d4
Concen: 107.068 ug/l
RT: 8.559 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

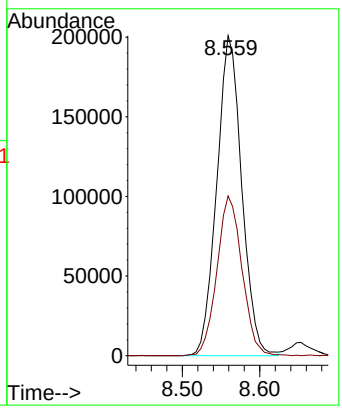
Tgt Ion: 65 Resp: 45071

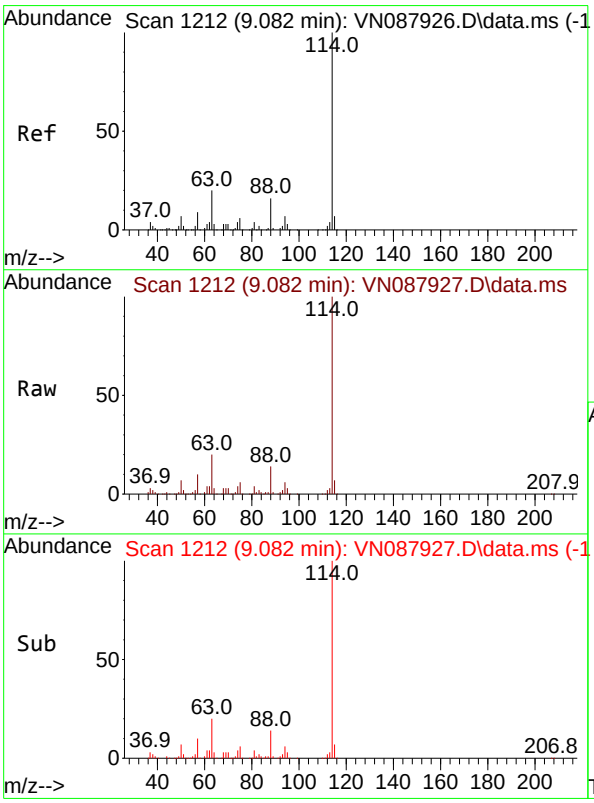
Ion	Ratio	Lower	Upper
65	100		
67	50.1	0.0	103.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

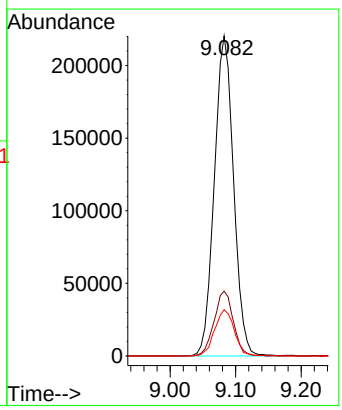


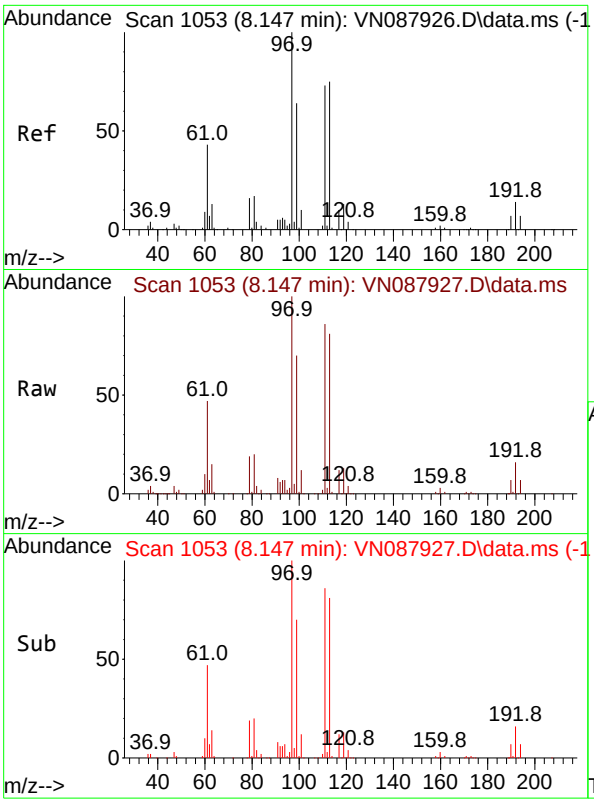


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.082 min Scan# 1212
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion:114 Resp: 448432

Ion	Ratio	Lower	Upper
114	100		
63	20.2	0.0	40.0
88	14.4	0.0	31.8

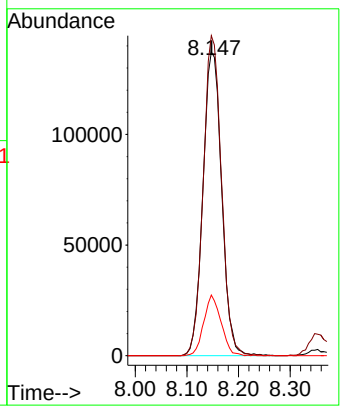




#35
Dibromofluoromethane
Concen: 106.100 ug/l
RT: 8.147 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion:113 Resp: 34544

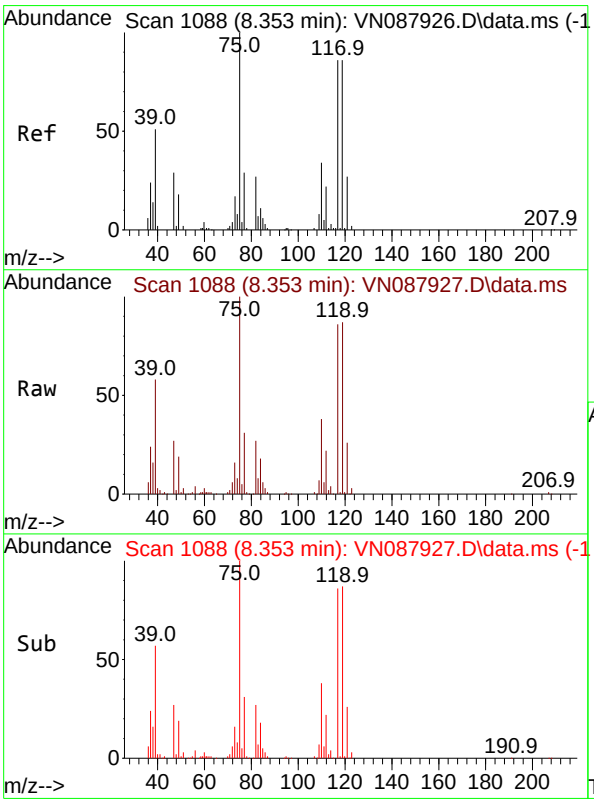
Ion	Ratio	Lower	Upper
113	100		
111	102.4	82.2	123.2
192	18.5	14.2	21.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

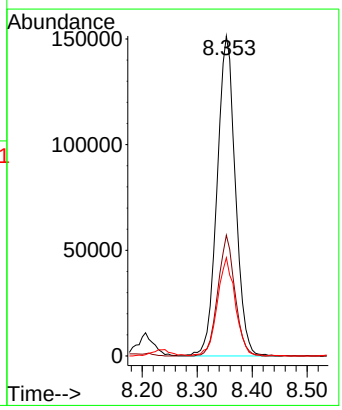
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

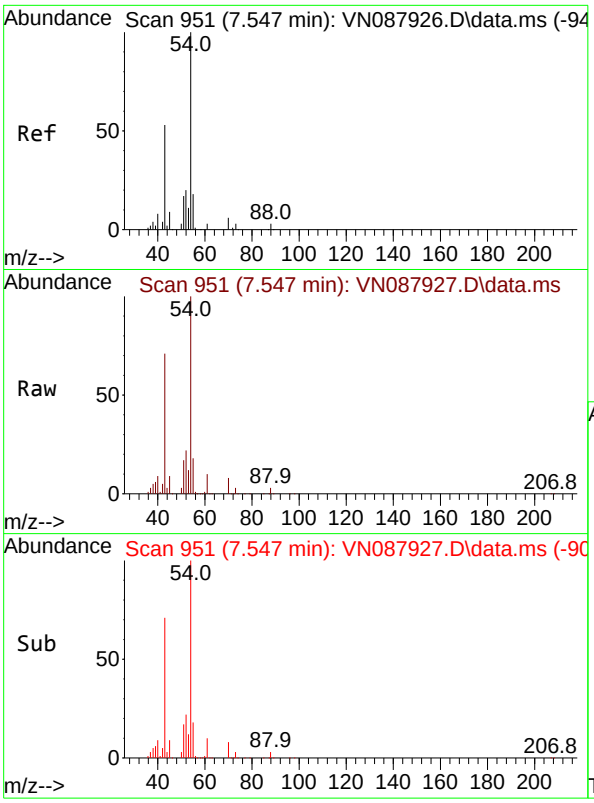


#36
1,1-Dichloropropene
Concen: 89.421 ug/l
RT: 8.353 min Scan# 1088
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 75 Resp: 350081

Ion	Ratio	Lower	Upper
75	100		
110	35.3	17.1	51.3
77	30.3	24.8	37.2





#37
Ethyl Acetate
Concen: 87.805 ug/l
RT: 7.547 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

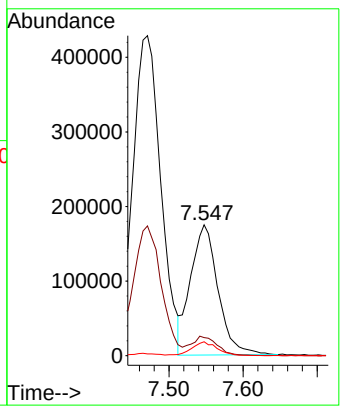
Tgt Ion: 43 Resp: 45140

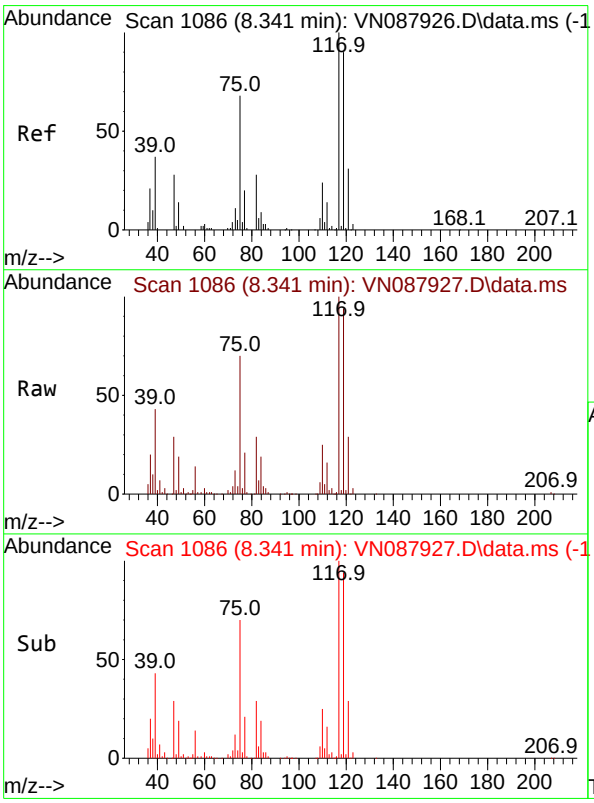
Ion	Ratio	Lower	Upper
43	100		
61	13.9	10.7	16.1
70	9.8	7.8	11.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

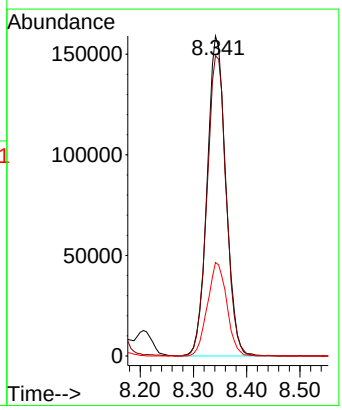


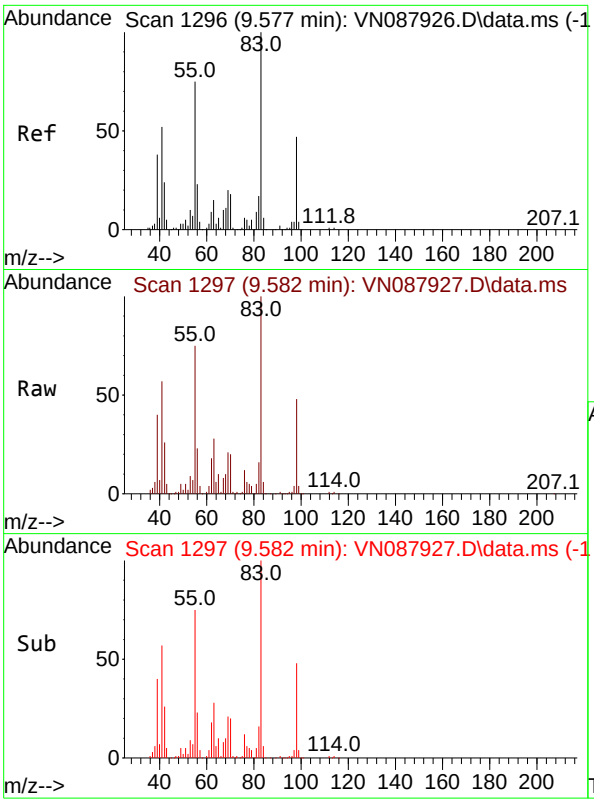


#38
Carbon Tetrachloride
Concen: 86.213 ug/l
RT: 8.341 min Scan# 1086
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion:117 Resp: 387306

Ion	Ratio	Lower	Upper
117	100		
119	93.8	72.1	108.1
121	29.2	24.6	36.8





#39
Methylcyclohexane
Concen: 90.330 ug/l
RT: 9.582 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

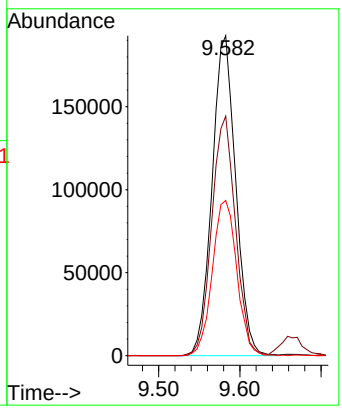
Tgt Ion: 83 Resp: 39011

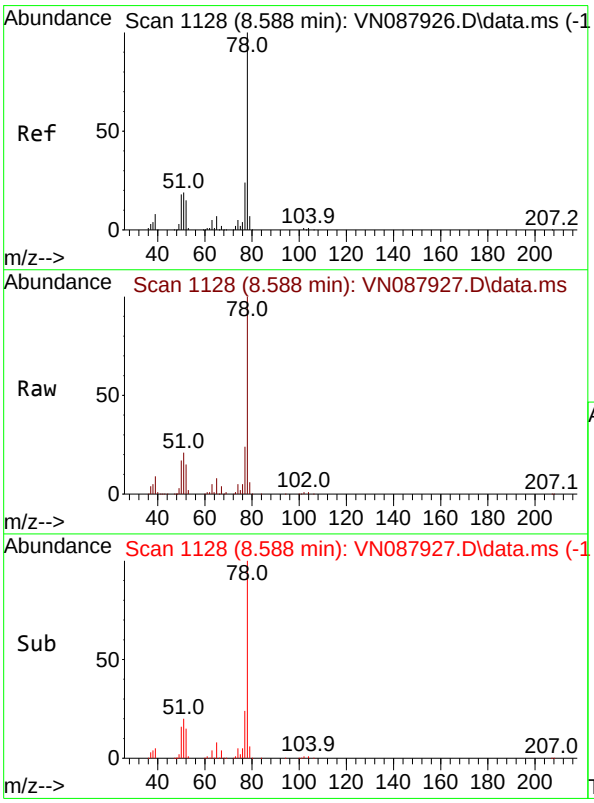
Ion	Ratio	Lower	Upper
83	100		
55	74.9	59.9	89.9
98	48.5	37.4	56.2

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

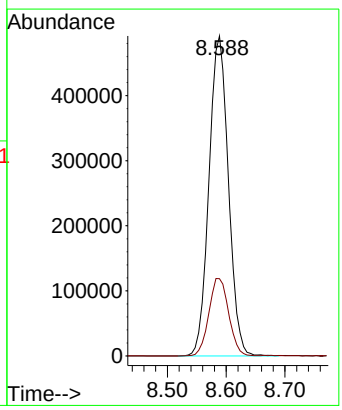


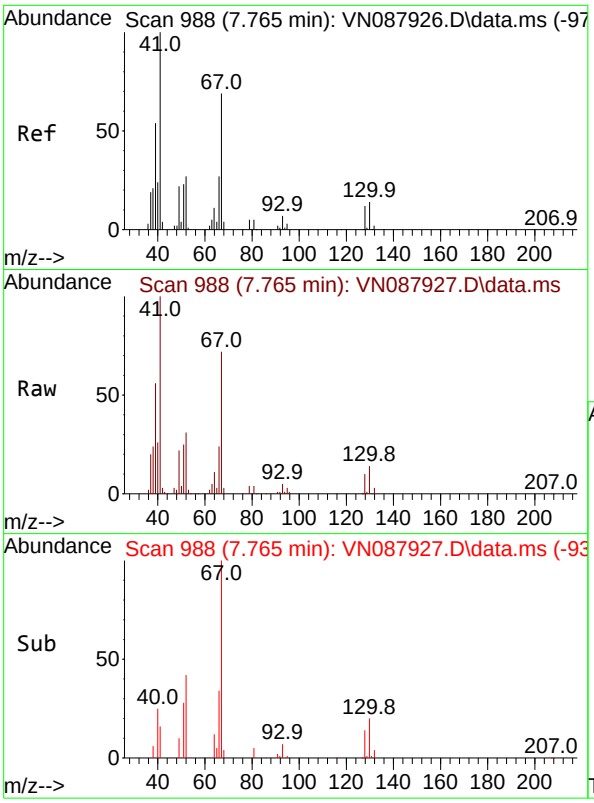


#40
Benzene
Concen: 87.033 ug/l
RT: 8.588 min Scan# 1128
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 78 Resp: 1128183

Ion	Ratio	Lower	Upper
78	100		
77	24.1	19.0	28.6

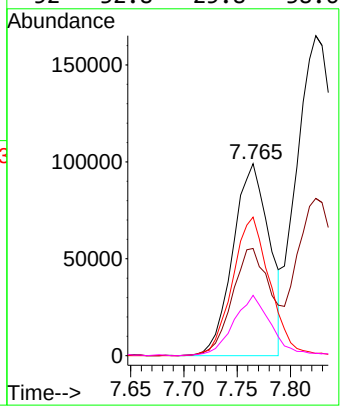




#41
Methacrylonitrile
Concen: 88.718 ug/l
RT: 7.765 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 41 Resp: 23570

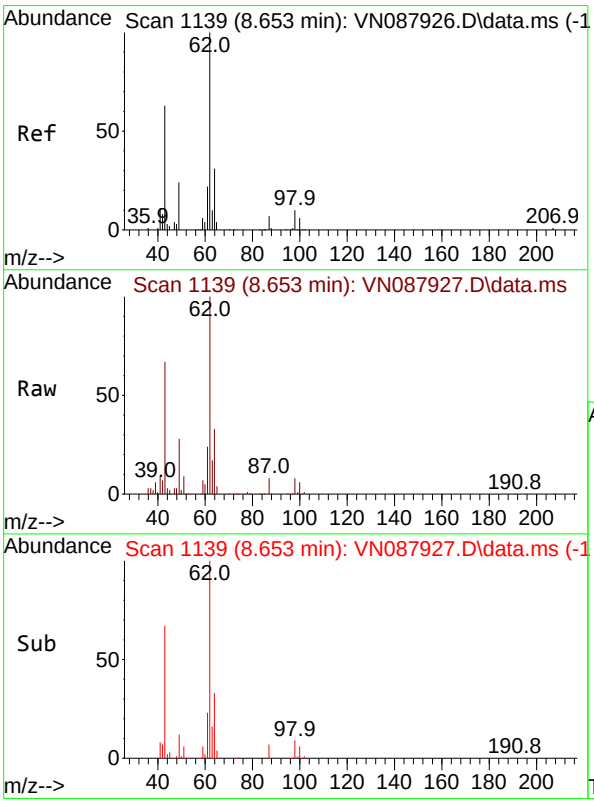
Ion	Ratio	Lower	Upper
41	100		
39	61.3	43.5	65.3
67	74.4	57.6	86.4
52	32.8	25.8	38.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

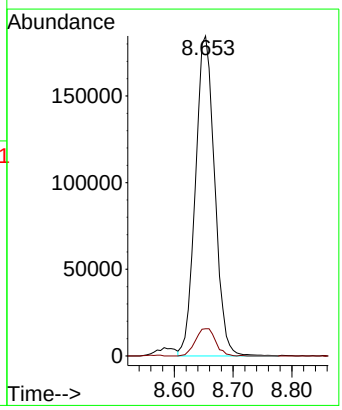
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

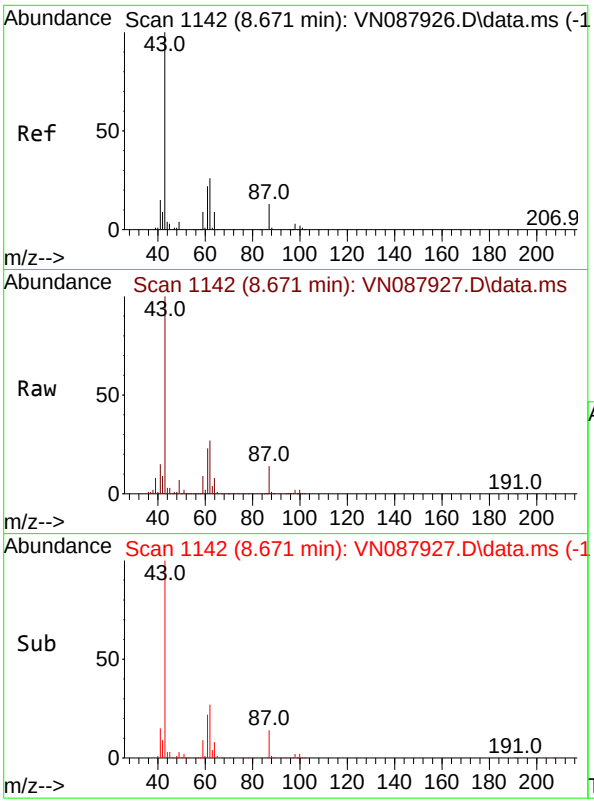


#42
1,2-Dichloroethane
Concen: 86.620 ug/l
RT: 8.653 min Scan# 1139
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 62 Resp: 419019

Ion	Ratio	Lower	Upper
62	100		
98	8.9	0.0	18.6

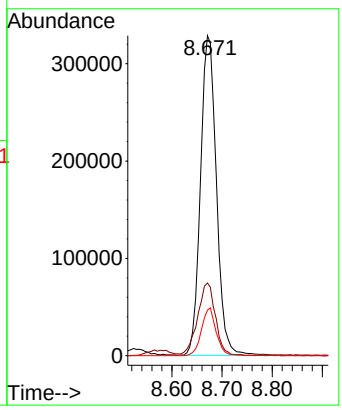




#43
Isopropyl Acetate
Concen: 89.609 ug/l
RT: 8.671 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 43 Resp: 72514

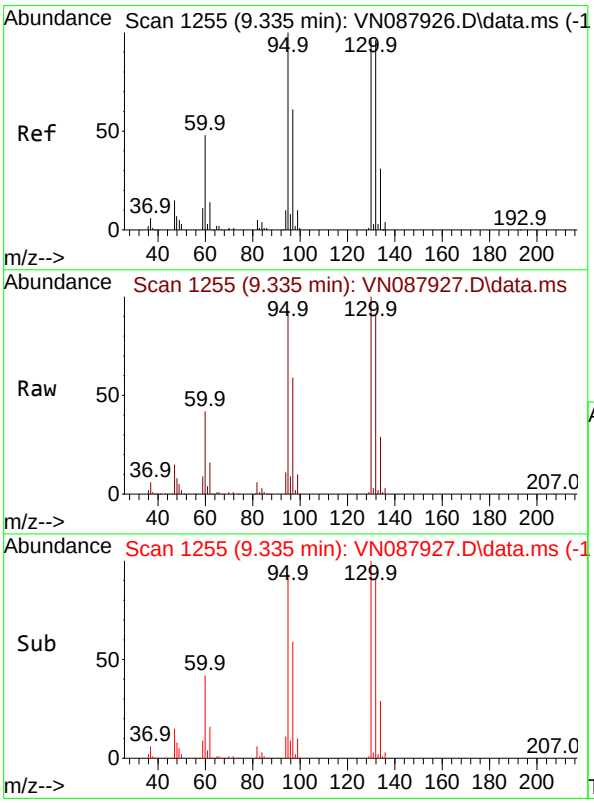
Ion	Ratio	Lower	Upper
43	100		
61	25.6	20.2	30.2
87	13.8	10.9	16.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

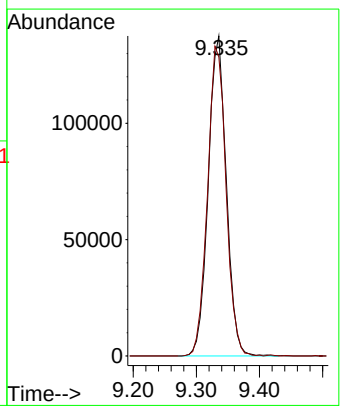
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

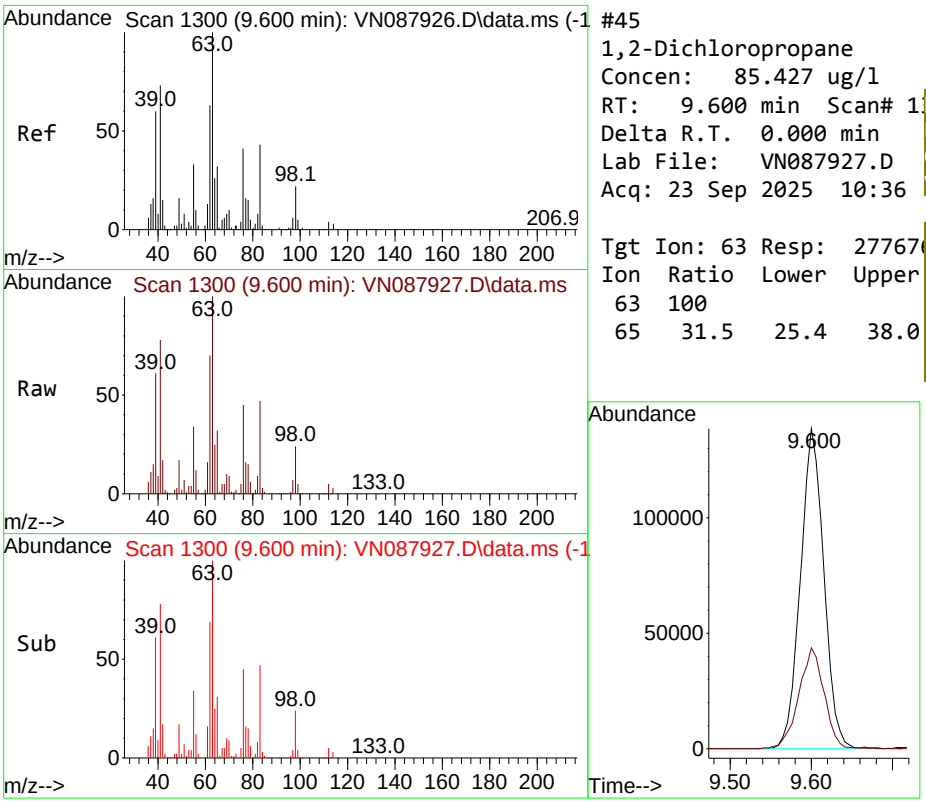


#44
Trichloroethene
Concen: 88.080 ug/l
RT: 9.335 min Scan# 1255
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion:130 Resp: 272727

Ion	Ratio	Lower	Upper
130	100		
95	93.4	0.0	208.0





#45
1,2-Dichloropropane
Concen: 85.427 ug/l
RT: 9.600 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

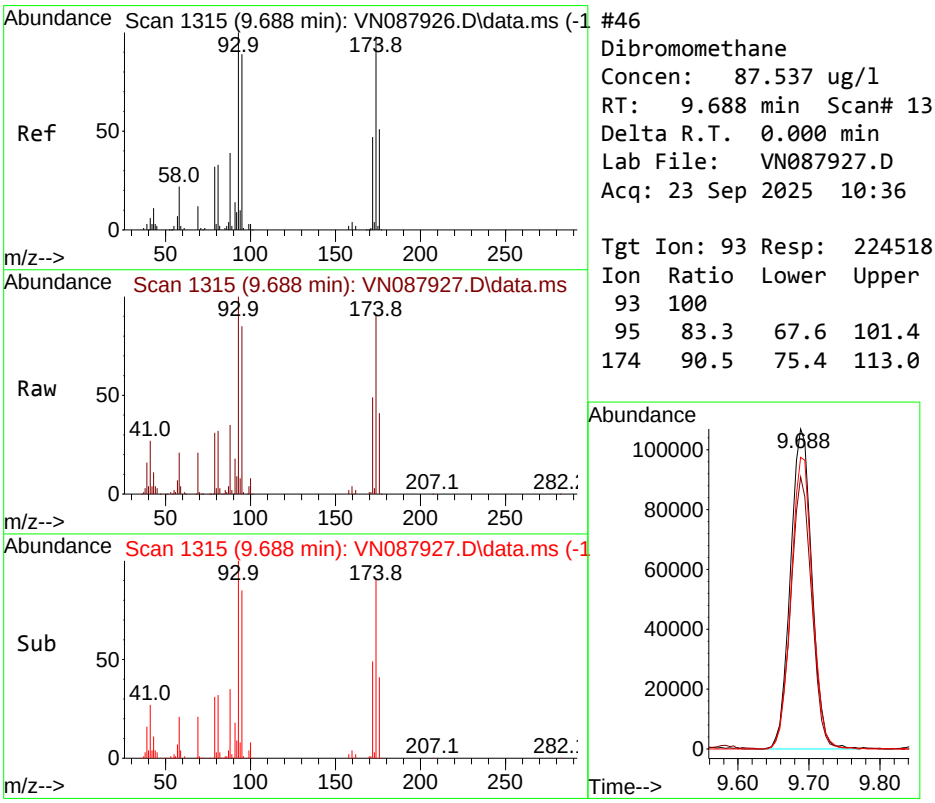
Tgt Ion: 63 Resp: 27767

Ion	Ratio	Lower	Upper
63	100		
65	31.5	25.4	38.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

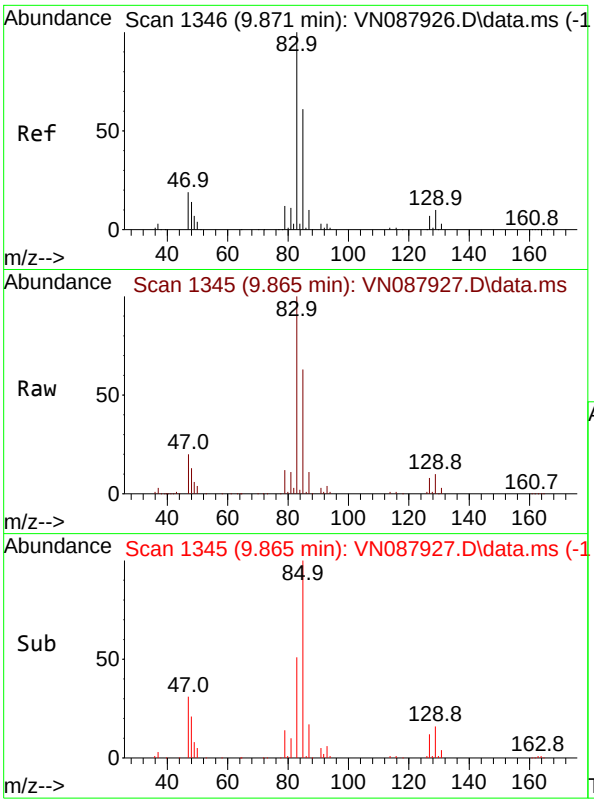
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025



#46
Dibromomethane
Concen: 87.537 ug/l
RT: 9.688 min Scan# 1315
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 93 Resp: 224518

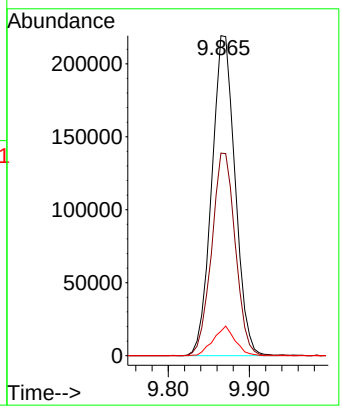
Ion	Ratio	Lower	Upper
93	100		
95	83.3	67.6	101.4
174	90.5	75.4	113.0



#47
Bromodichloromethane
Concen: 87.234 ug/l
RT: 9.865 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 83 Resp: 43884

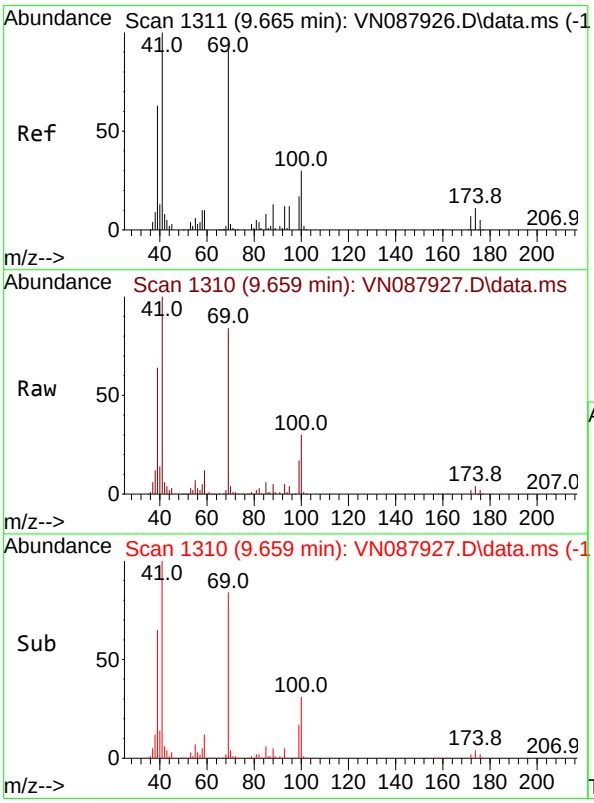
Ion	Ratio	Lower	Upper
83	100		
85	63.3	49.1	73.7
127	7.7	5.9	8.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

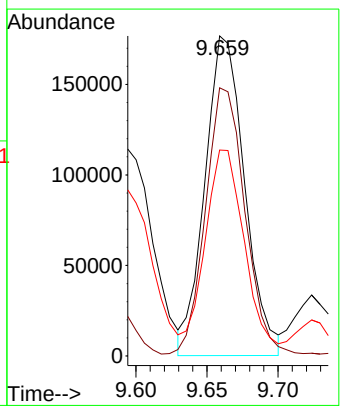
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

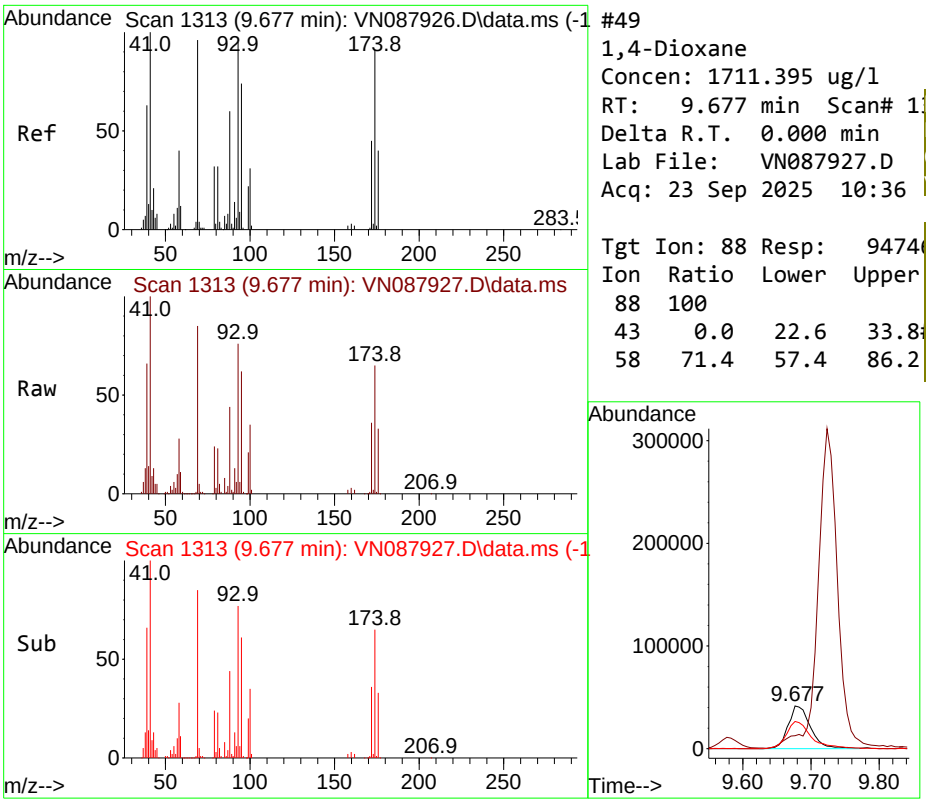


#48
Methyl methacrylate
Concen: 91.785 ug/l
RT: 9.659 min Scan# 1310
Delta R.T. -0.006 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 41 Resp: 343963

Ion	Ratio	Lower	Upper
41	100		
69	84.0	70.9	106.3
39	64.4	52.9	79.3





#49
1,4-Dioxane
Concen: 1711.395 ug/l
RT: 9.677 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

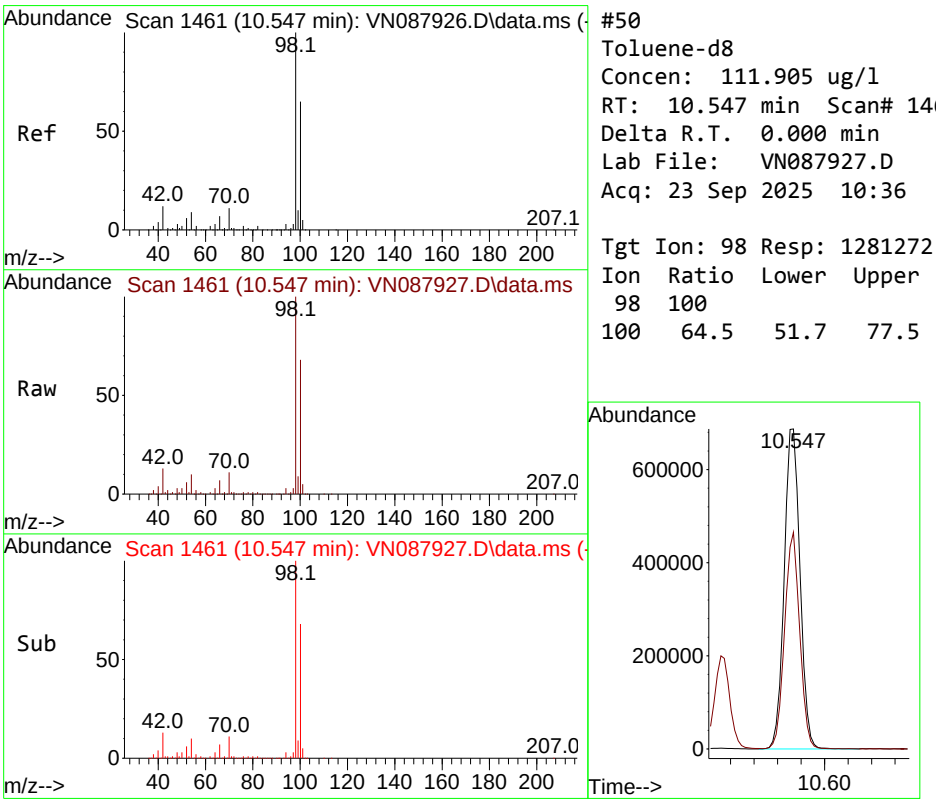
Tgt Ion: 88 Resp: 9474

Ion	Ratio	Lower	Upper
88	100		
43	0.0	22.6	33.8
58	71.4	57.4	86.2

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

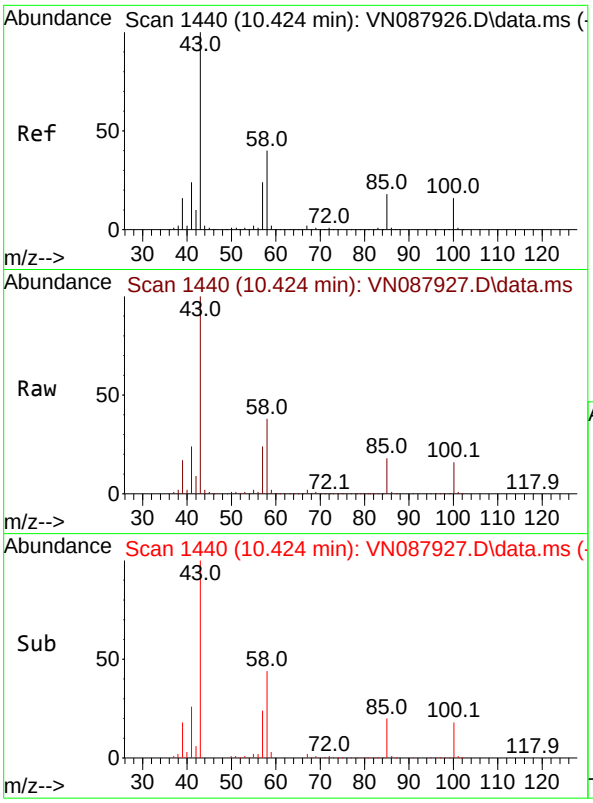
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025



#50
Toluene-d8
Concen: 111.905 ug/l
RT: 10.547 min Scan# 1461
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 98 Resp: 1281272

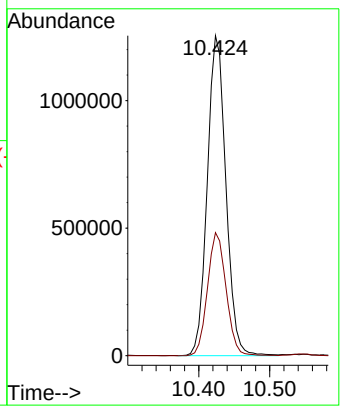
Ion	Ratio	Lower	Upper
98	100		
100	64.5	51.7	77.5



#51
4-Methyl-2-Pentanone
Concen: 451.629 ug/l
RT: 10.424 min Scan# 14
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 43 Resp: 228053

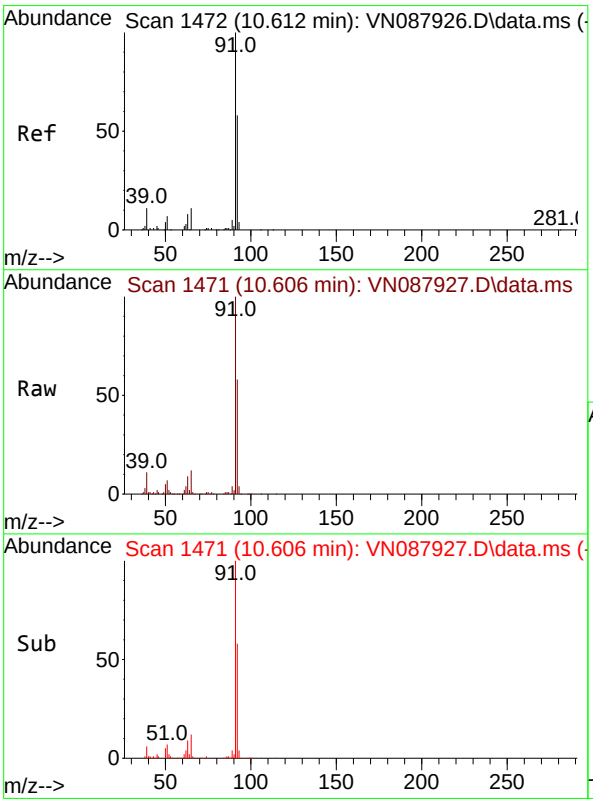
Ion	Ratio	Lower	Upper
43	100		
58	38.5	31.0	46.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

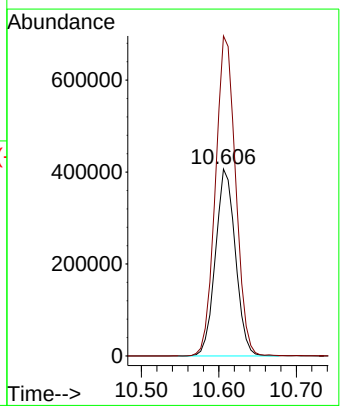
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

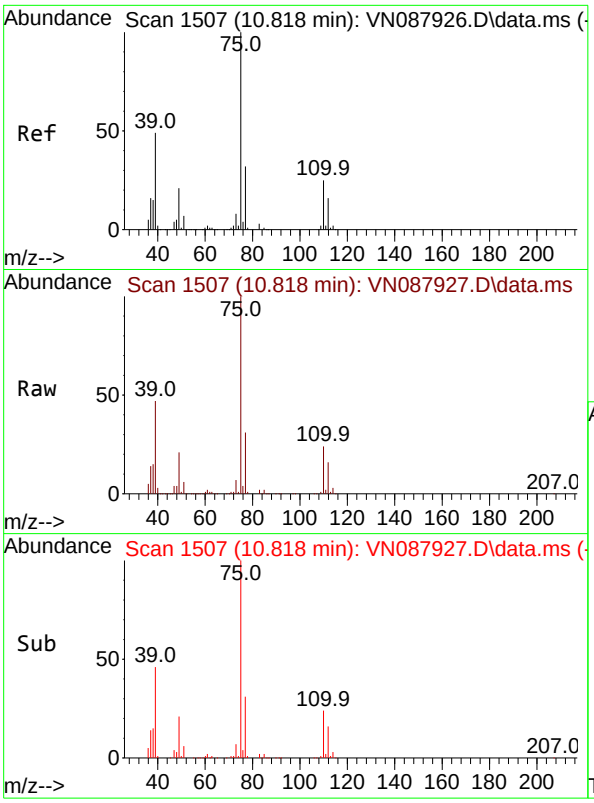


#52
Toluene
Concen: 89.394 ug/l
RT: 10.606 min Scan# 1471
Delta R.T. -0.006 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 92 Resp: 727172

Ion	Ratio	Lower	Upper
92	100		
91	173.7	138.2	207.2

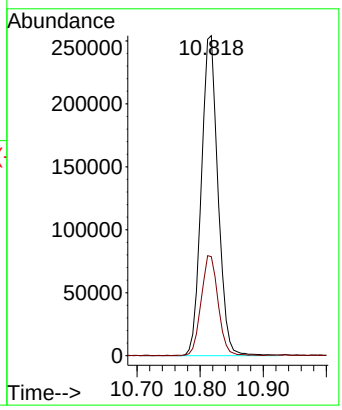




#53
t-1,3-Dichloropropene
Concen: 90.246 ug/l
RT: 10.818 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 75 Resp: 46464

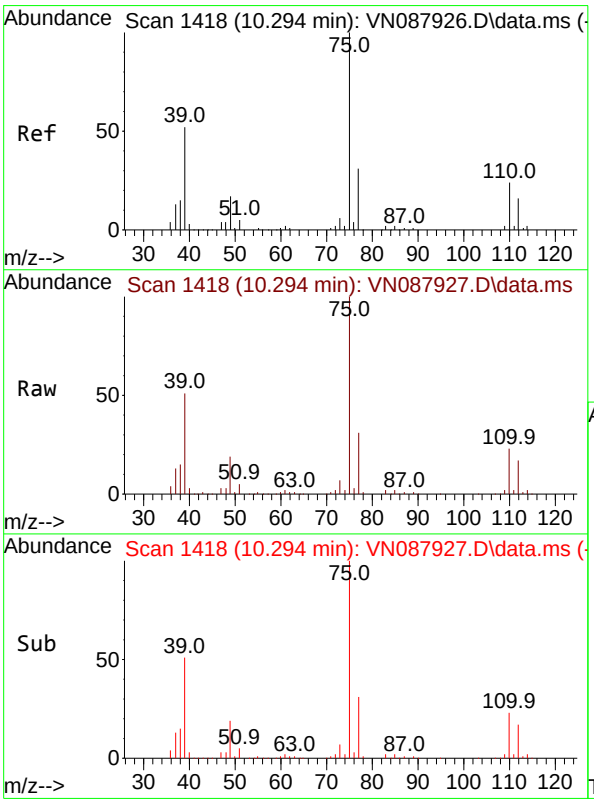
Ion	Ratio	Lower	Upper
75	100		
77	30.8	25.3	37.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

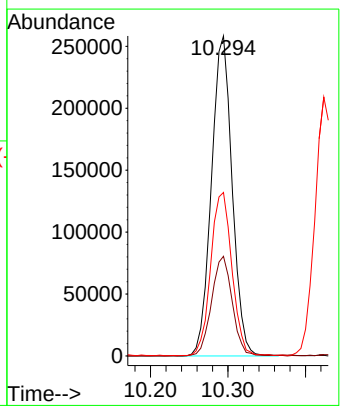
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

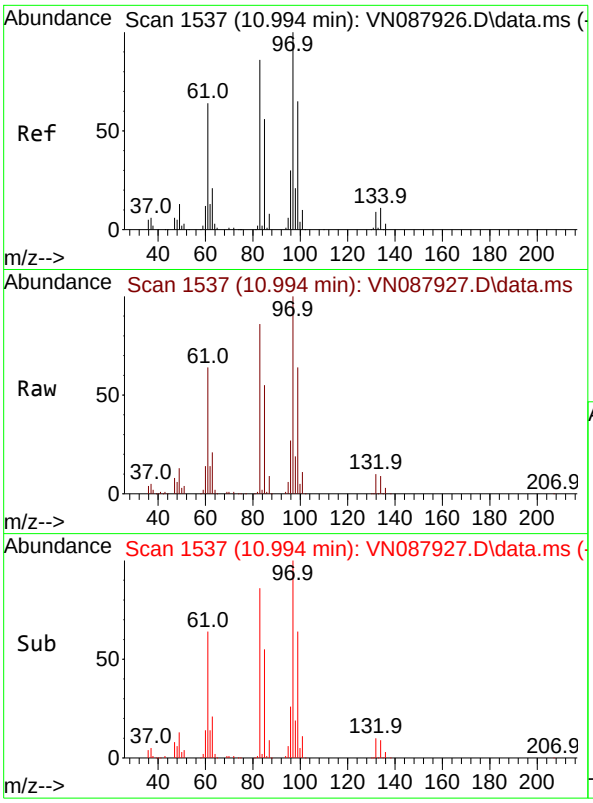


#54
cis-1,3-Dichloropropene
Concen: 89.589 ug/l
RT: 10.294 min Scan# 1418
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 75 Resp: 479067

Ion	Ratio	Lower	Upper
75	100		
77	31.1	24.7	37.1
39	51.0	41.4	62.0

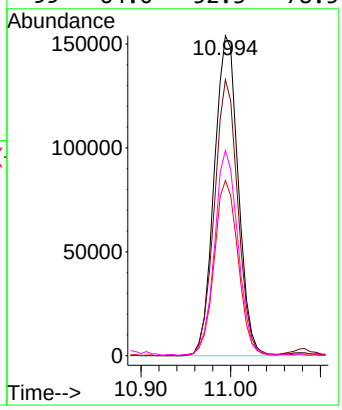




#55
1,1,2-Trichloroethane
Concen: 86.356 ug/l
RT: 10.994 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 97 Resp: 28562

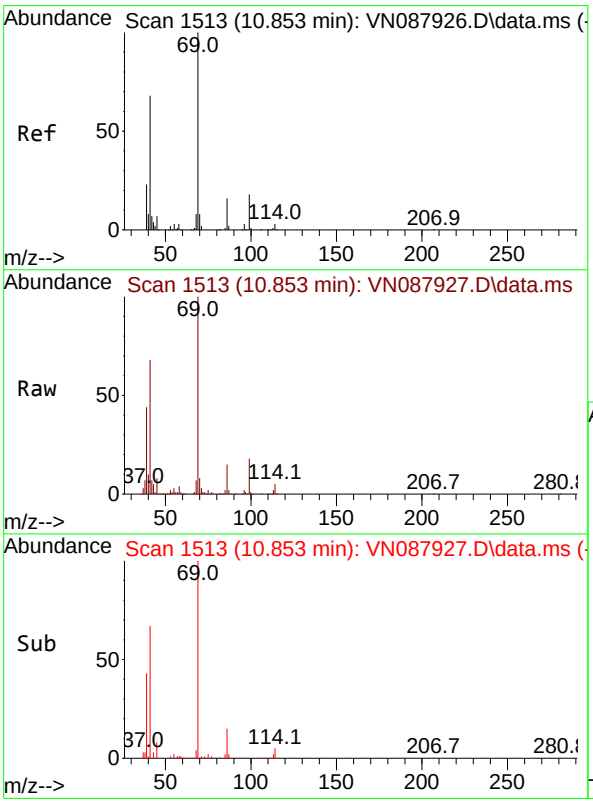
Ion	Ratio	Lower	Upper
97	100		
83	86.2	69.0	103.4
85	54.8	44.4	66.6
99	64.0	52.3	78.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

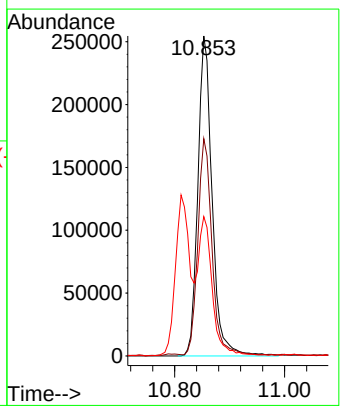
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

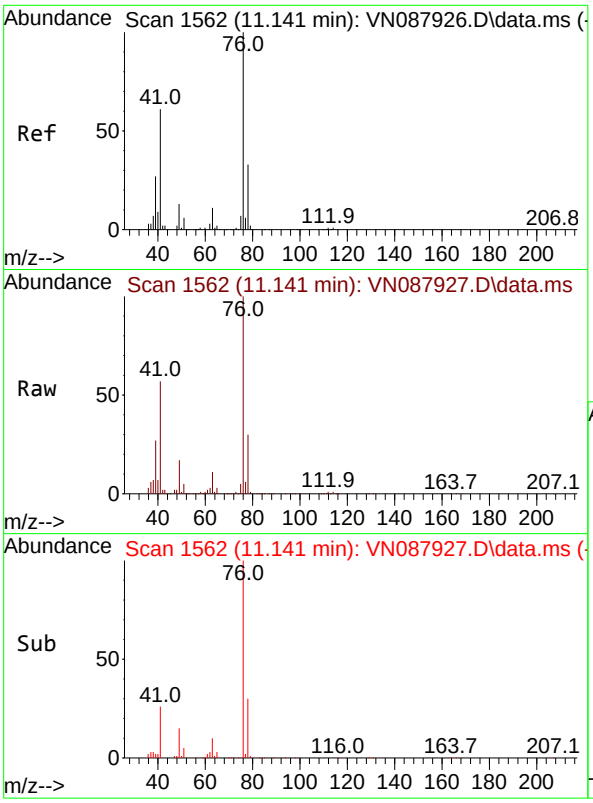


#56
Ethyl methacrylate
Concen: 96.195 ug/l
RT: 10.853 min Scan# 1513
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 69 Resp: 459730

Ion	Ratio	Lower	Upper
69	100		
41	66.6	53.8	80.6
39	42.5	34.7	52.1

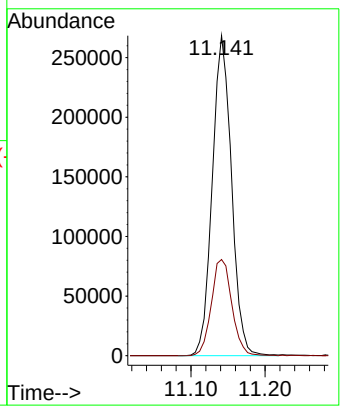




#57
1,3-Dichloropropane
Concen: 88.803 ug/l
RT: 11.141 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 76 Resp: 48309

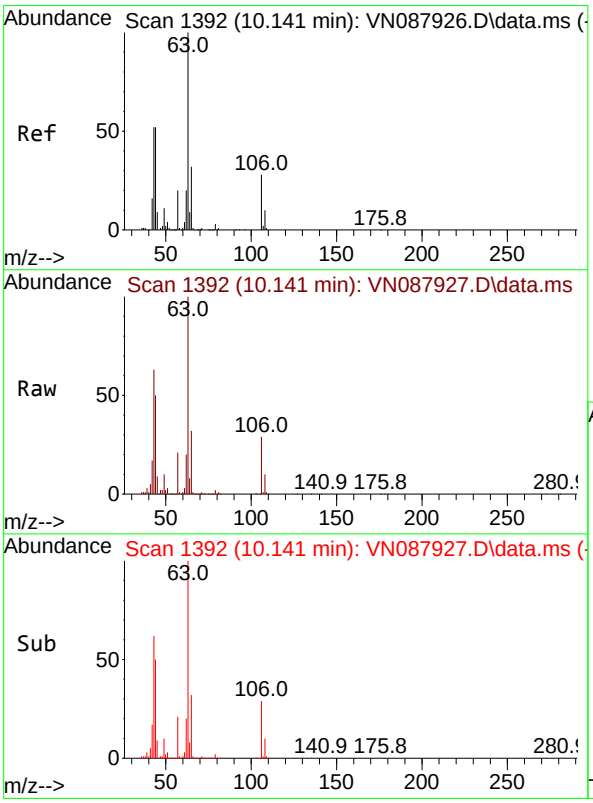
Ion	Ratio	Lower	Upper
76	100		
78	32.1	26.0	39.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

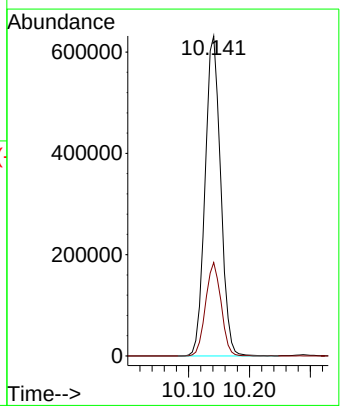
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

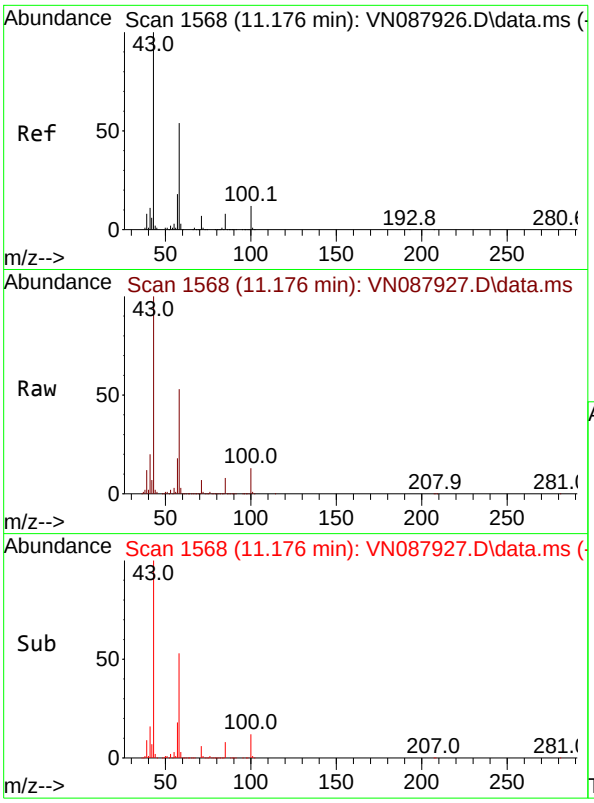


#58
2-Chloroethyl Vinyl ether
Concen: 499.234 ug/l
RT: 10.141 min Scan# 1392
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 63 Resp: 1121816

Ion	Ratio	Lower	Upper
63	100		
106	29.0	22.6	33.8





#59
2-Hexanone
Concen: 480.290 ug/l
RT: 11.176 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

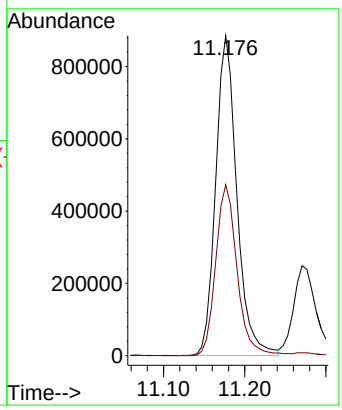
Tgt Ion: 43 Resp: 160363

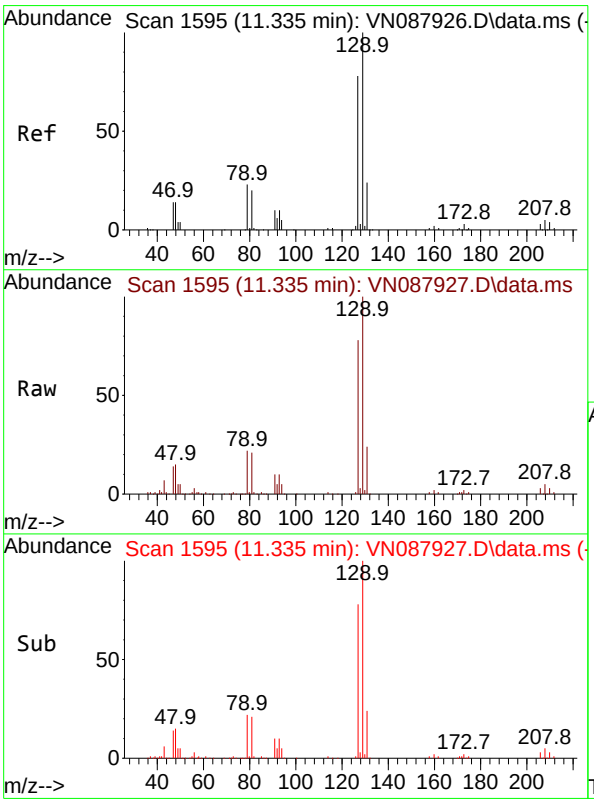
Ion	Ratio	Lower	Upper
43	100		
58	54.1	26.4	79.2

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

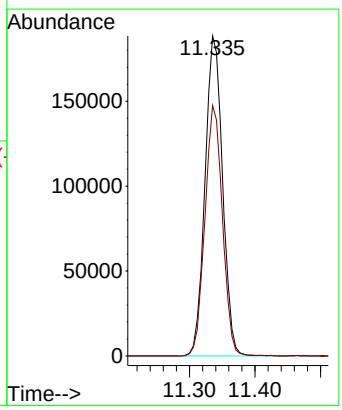


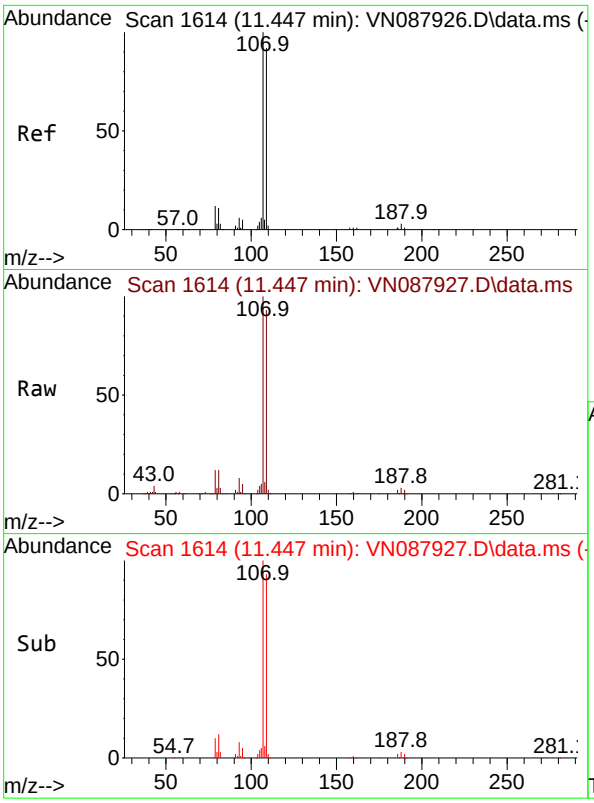


#60
Dibromochloromethane
Concen: 90.171 ug/l
RT: 11.335 min Scan# 1595
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion:129 Resp: 350657

Ion	Ratio	Lower	Upper
129	100		
127	78.2	39.3	117.9





#61
1,2-Dibromoethane
Concen: 87.393 ug/l
RT: 11.447 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

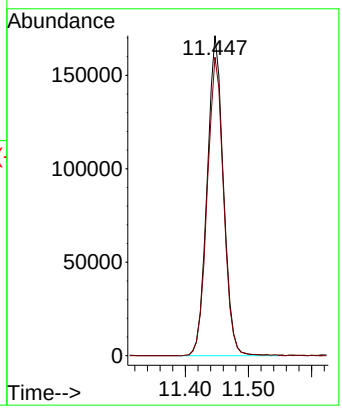
Tgt Ion:107 Resp: 30600

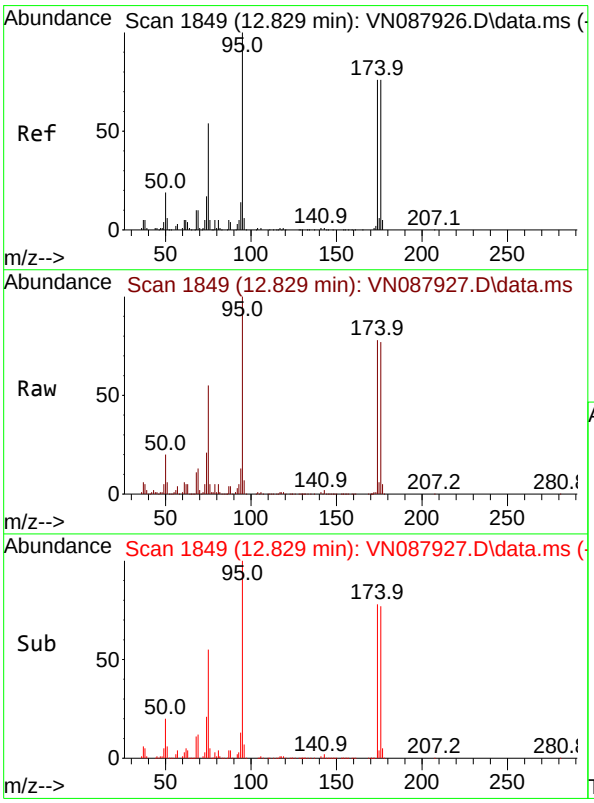
Ion	Ratio	Lower	Upper
107	100		
109	93.9	75.3	112.9

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

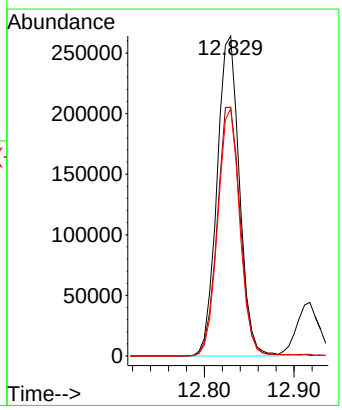


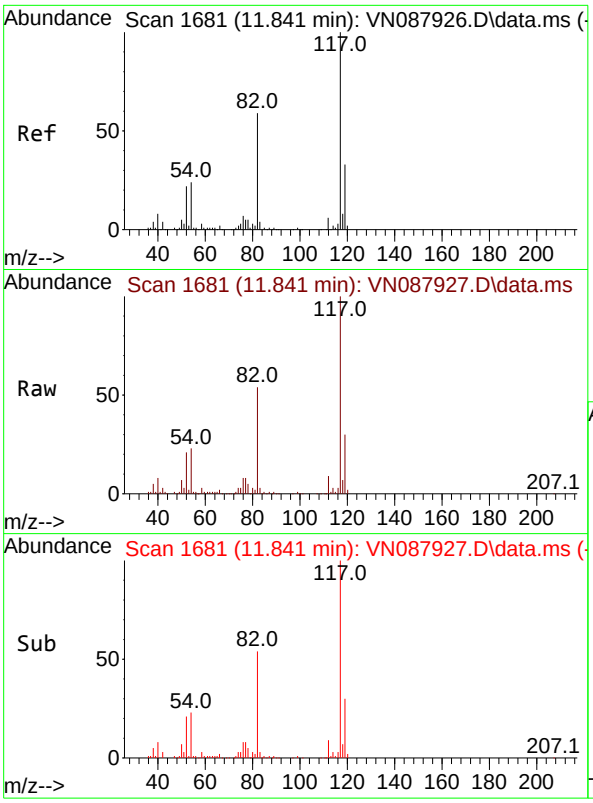


#62
4-Bromofluorobenzene
Concen: 112.049 ug/l
RT: 12.829 min Scan# 1849
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 95 Resp: 458572

Ion	Ratio	Lower	Upper
95	100		
174	79.7	0.0	159.2
176	75.7	0.0	152.6

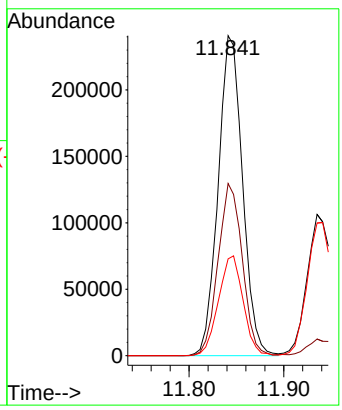




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.841 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion:117 Resp: 43144

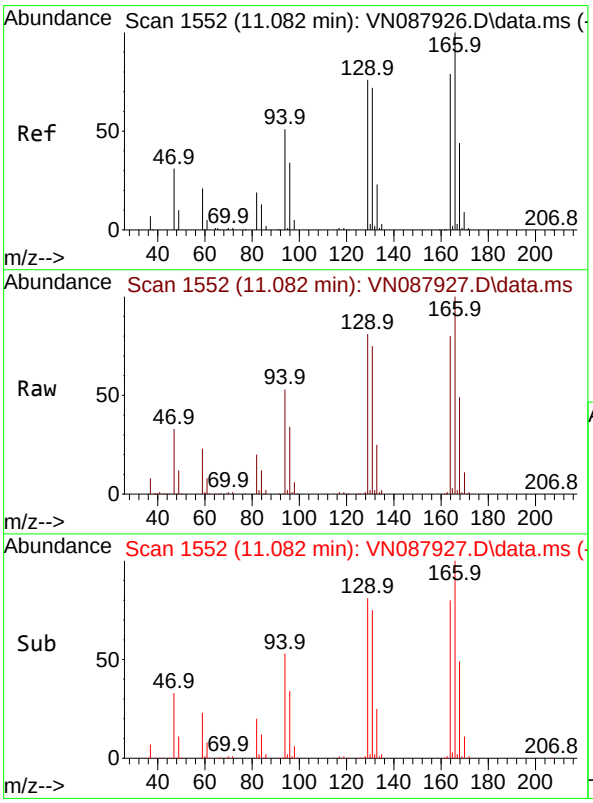
Ion	Ratio	Lower	Upper
117	100		
82	53.8	47.0	70.4
119	30.3	26.1	39.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

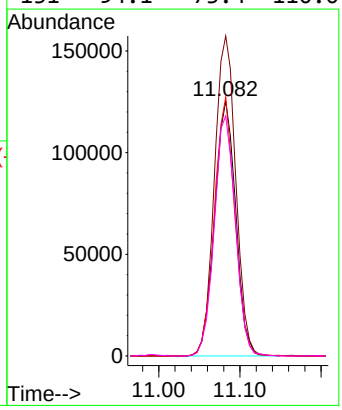
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

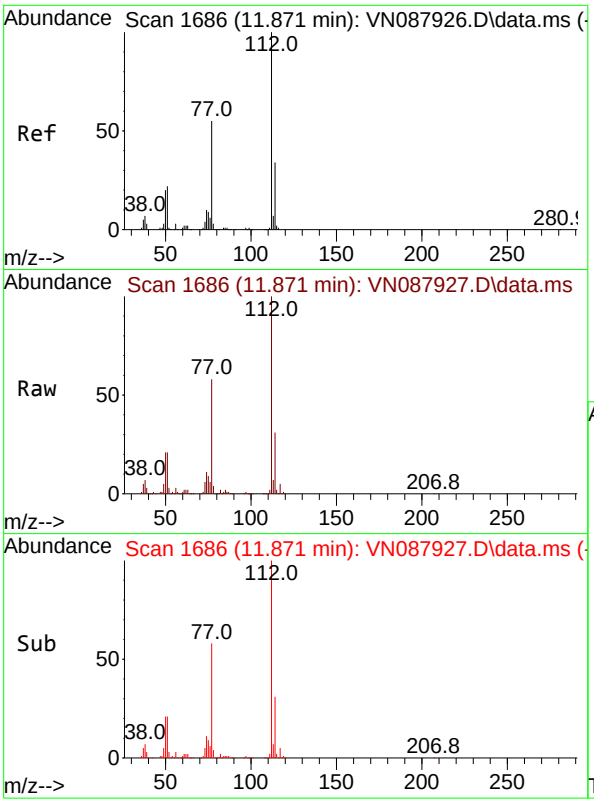


#64
Tetrachloroethene
Concen: 86.687 ug/l
RT: 11.082 min Scan# 1552
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion:164 Resp: 227824

Ion	Ratio	Lower	Upper
164	100		
166	125.5	101.6	152.4
129	101.6	77.5	116.3
131	94.1	73.4	110.0

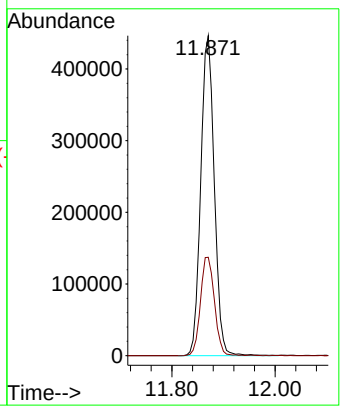




#65
Chlorobenzene
Concen: 88.379 ug/l
RT: 11.871 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion:112 Resp: 81144

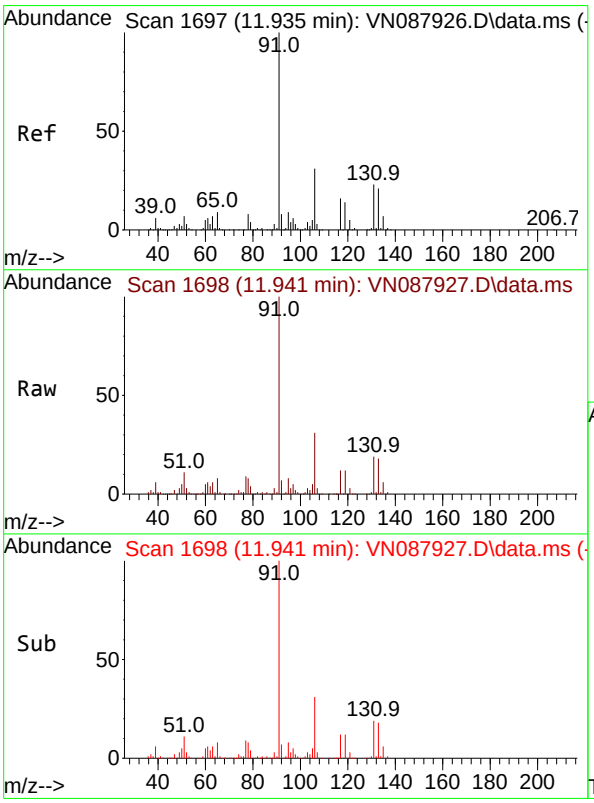
Ion	Ratio	Lower	Upper
112	100		
114	30.8	27.2	40.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

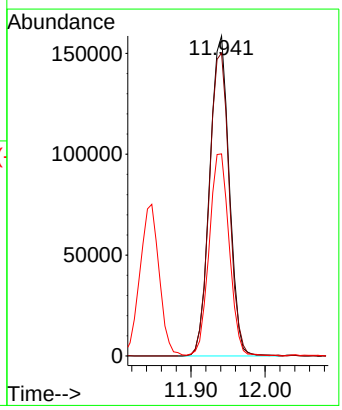
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

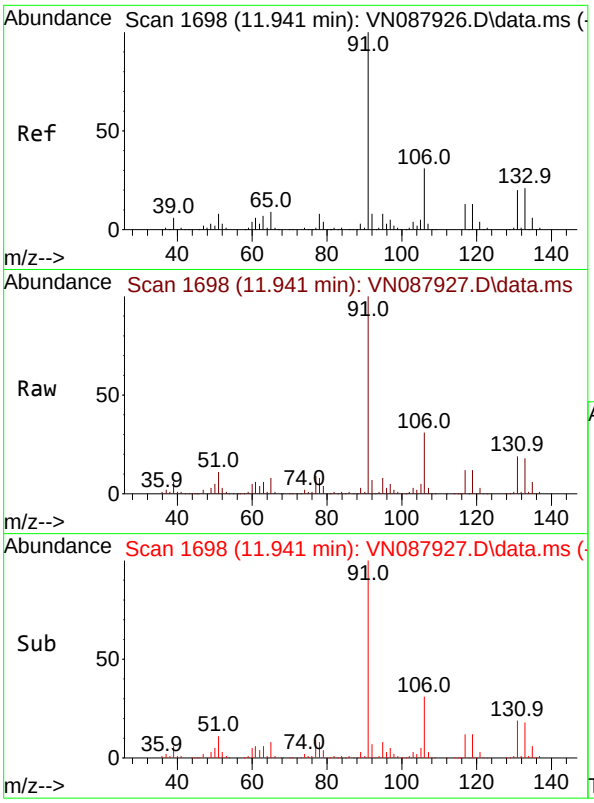


#66
1,1,1,2-Tetrachloroethane
Concen: 87.414 ug/l
RT: 11.941 min Scan# 1698
Delta R.T. 0.006 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion:131 Resp: 289426

Ion	Ratio	Lower	Upper
131	100		
133	97.0	48.4	145.0
119	64.7	31.9	95.5

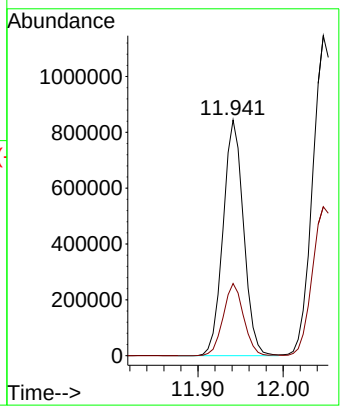




#67
Ethyl Benzene
Concen: 92.180 ug/l
RT: 11.941 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 91 Resp: 141223

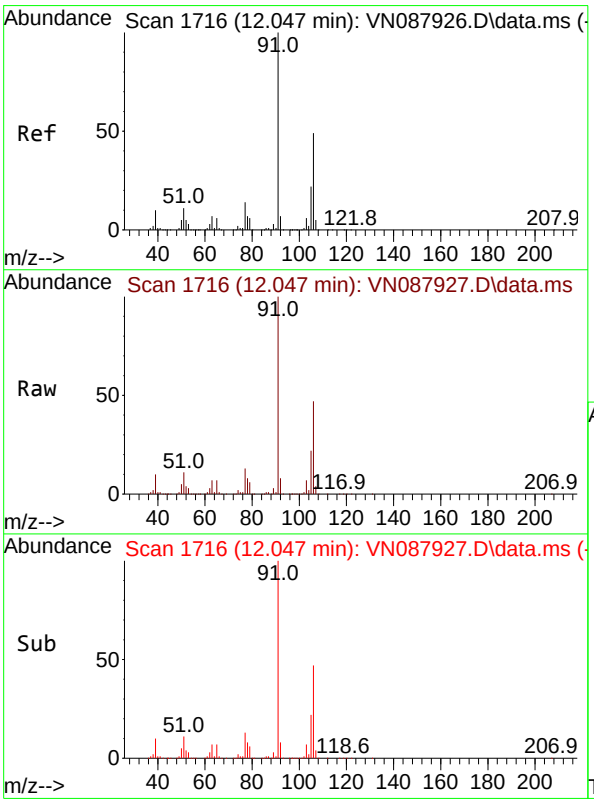
Ion	Ratio	Lower	Upper
91	100		
106	30.6	25.2	37.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

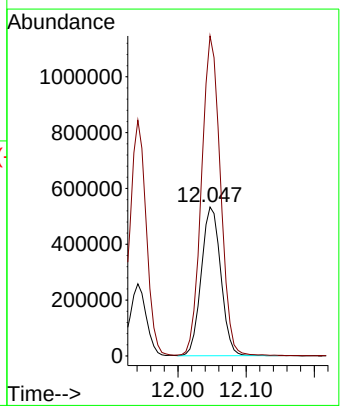
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

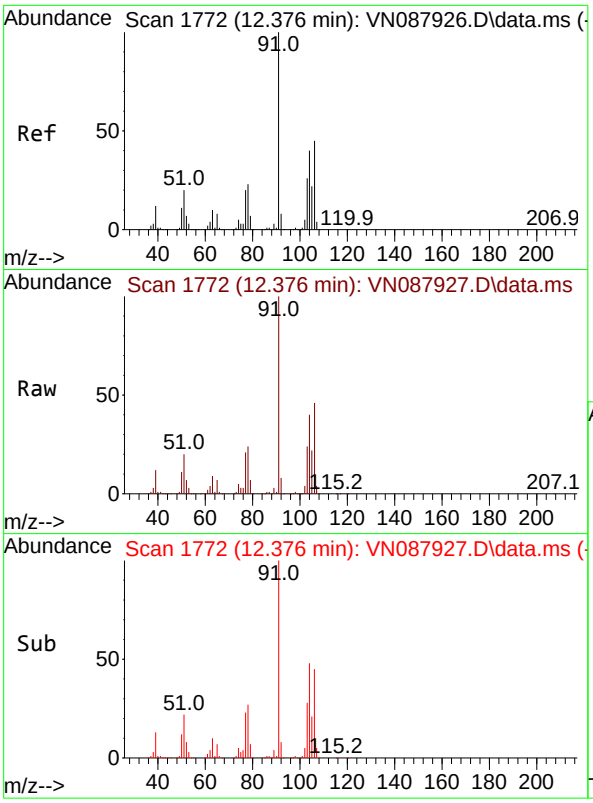


#68
m/p-Xylenes
Concen: 181.095 ug/l
RT: 12.047 min Scan# 1716
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion:106 Resp: 1061087

Ion	Ratio	Lower	Upper
106	100		
91	208.6	162.9	244.3

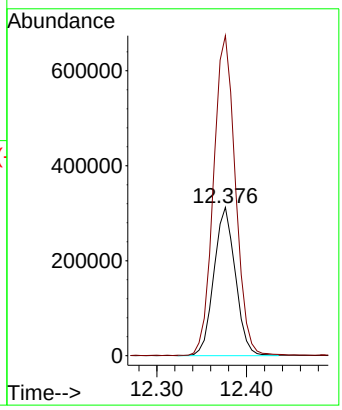




#69
o-Xylene
Concen: 92.161 ug/l
RT: 12.376 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion:106 Resp: 51880

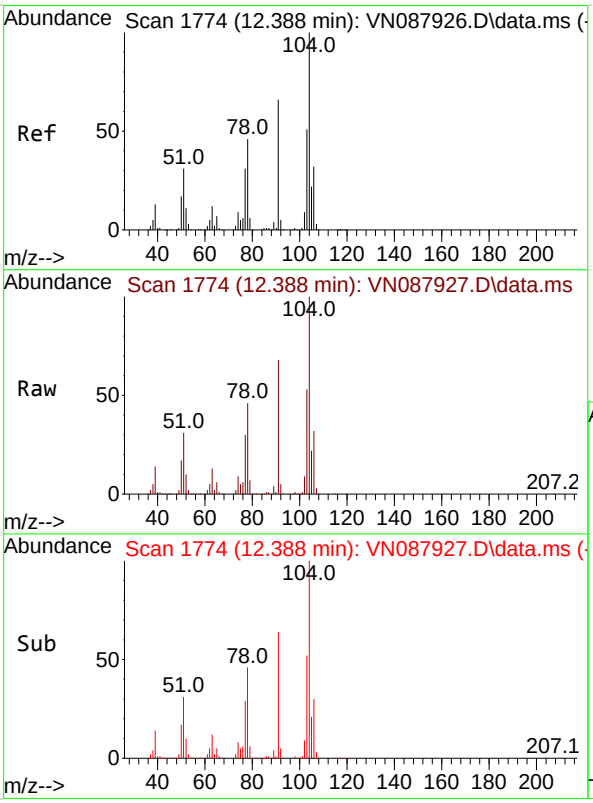
Ion	Ratio	Lower	Upper
106	100		
91	220.6	108.2	324.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

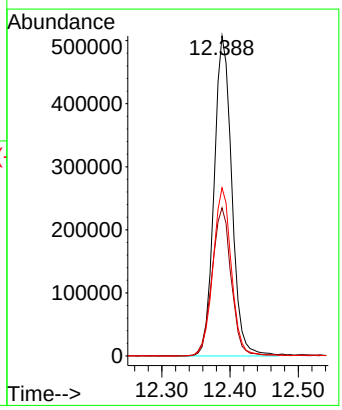
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

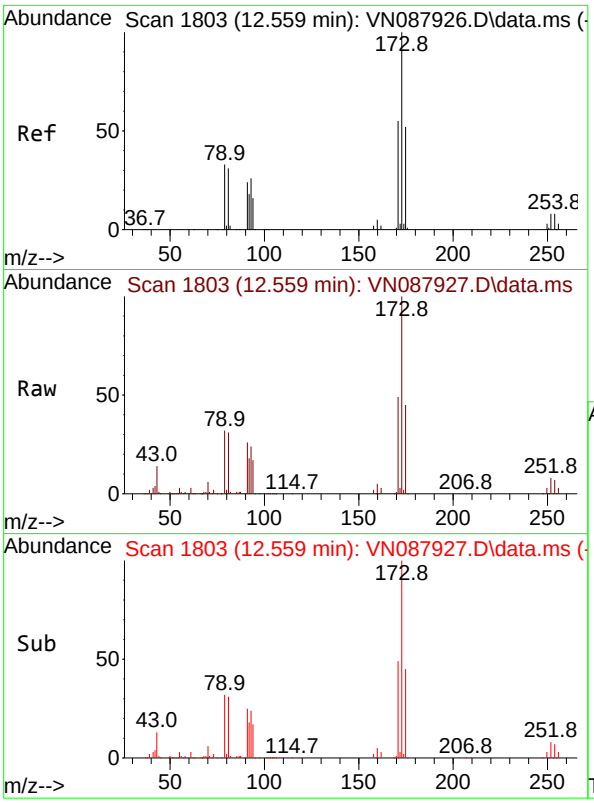


#70
Styrene
Concen: 94.710 ug/l
RT: 12.388 min Scan# 1774
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion:104 Resp: 915672

Ion	Ratio	Lower	Upper
104	100		
78	50.7	39.7	59.5
103	54.7	44.6	67.0

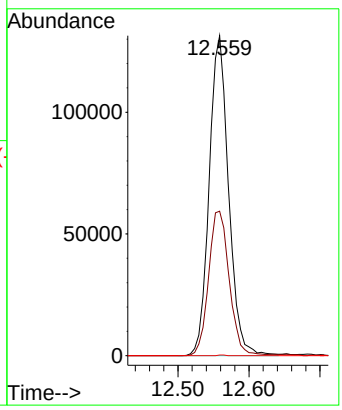




#71
Bromoform
Concen: 92.794 ug/l
RT: 12.559 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion:173 Resp: 24926

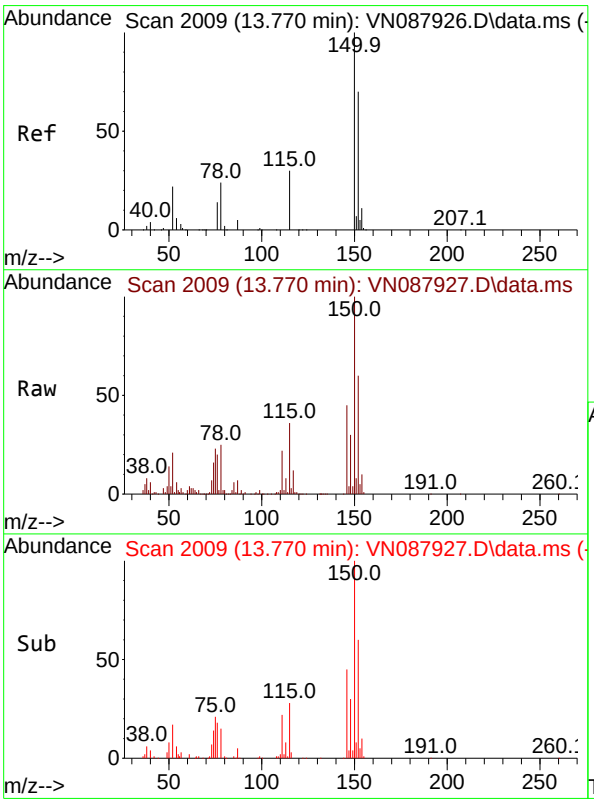
Ion	Ratio	Lower	Upper
173	100		
175	48.0	23.7	71.1
254	0.1	0.1	0.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

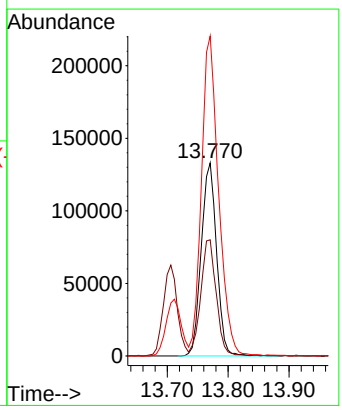
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

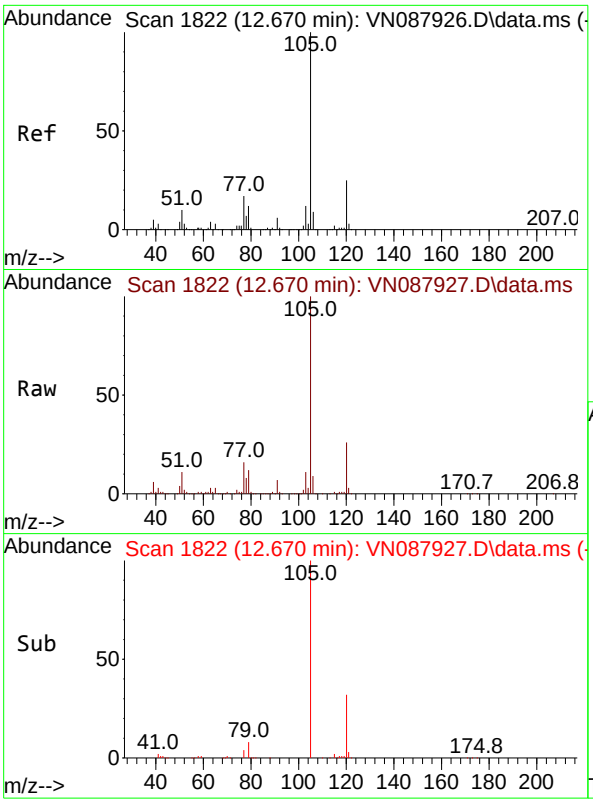


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.770 min Scan# 2009
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion:152 Resp: 232835

Ion	Ratio	Lower	Upper
152	100		
115	60.0	29.9	89.7
150	184.2	0.0	335.0





#73
Isopropylbenzene
Concen: 92.265 ug/l
RT: 12.670 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

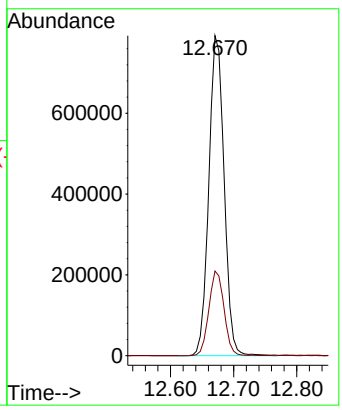
Tgt Ion:105 Resp: 133144

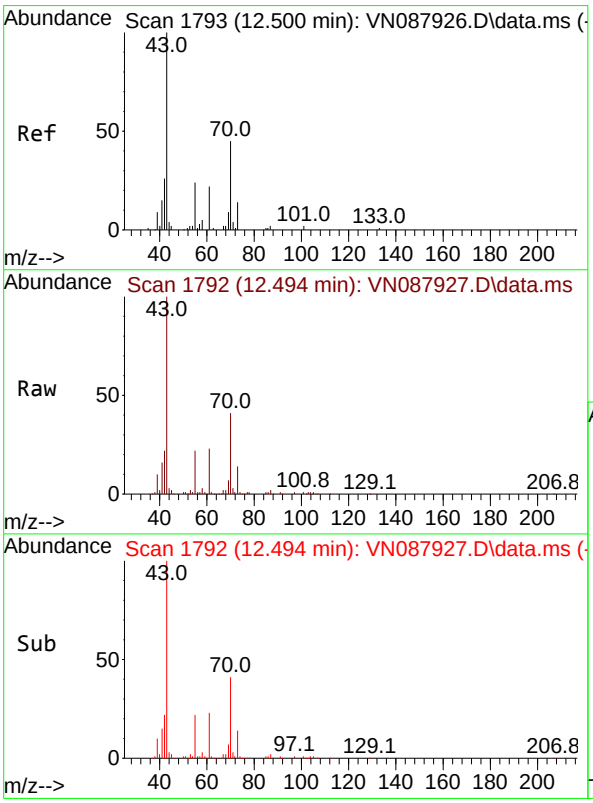
Ion	Ratio	Lower	Upper
105	100		
120	26.3	13.1	39.1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

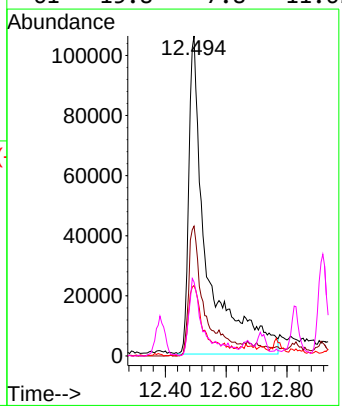


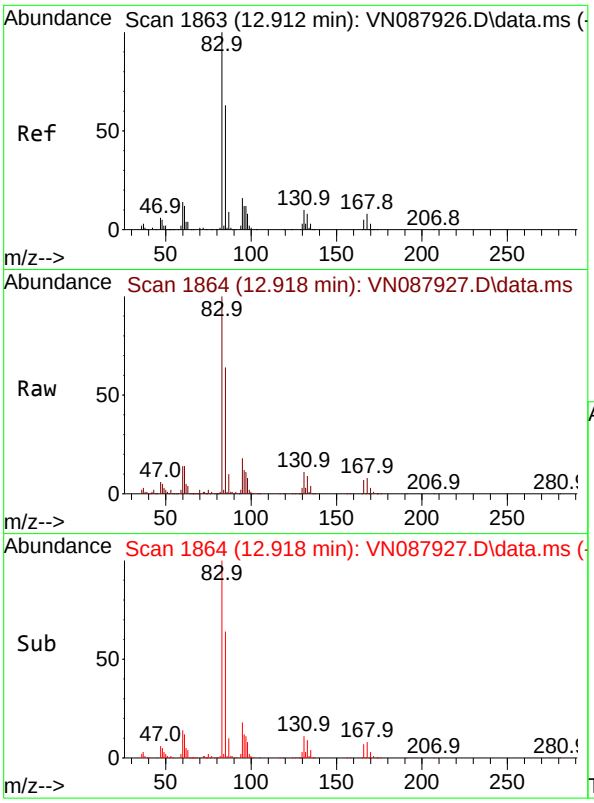


#74
N-amyl acetate
Concen: 102.053 ug/l m
RT: 12.494 min Scan# 1792
Delta R.T. -0.006 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 43 Resp: 438667

Ion	Ratio	Lower	Upper
43	100		
70	30.0	19.8	29.8#
55	16.5	9.6	14.4#
61	15.8	7.8	11.6#

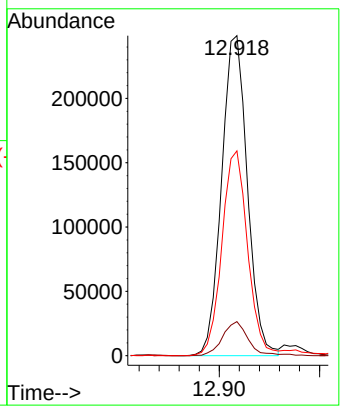




#75
1,1,2,2-Tetrachloroethane
Concen: 85.408 ug/l
RT: 12.918 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 83 Resp: 44406

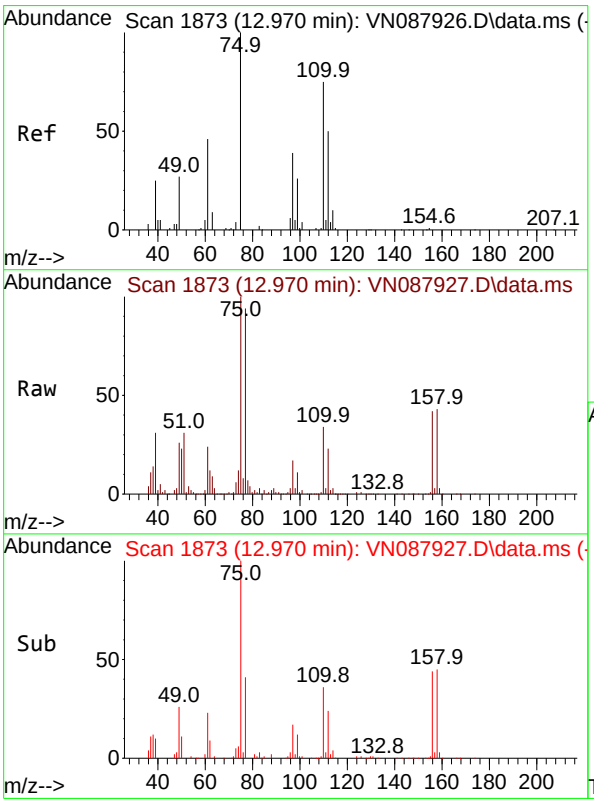
Ion	Ratio	Lower	Upper
83	100		
131	10.7	5.2	15.6
85	63.6	32.4	97.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

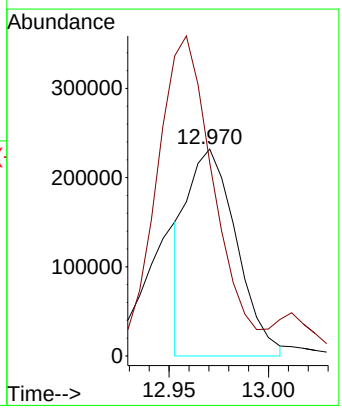
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

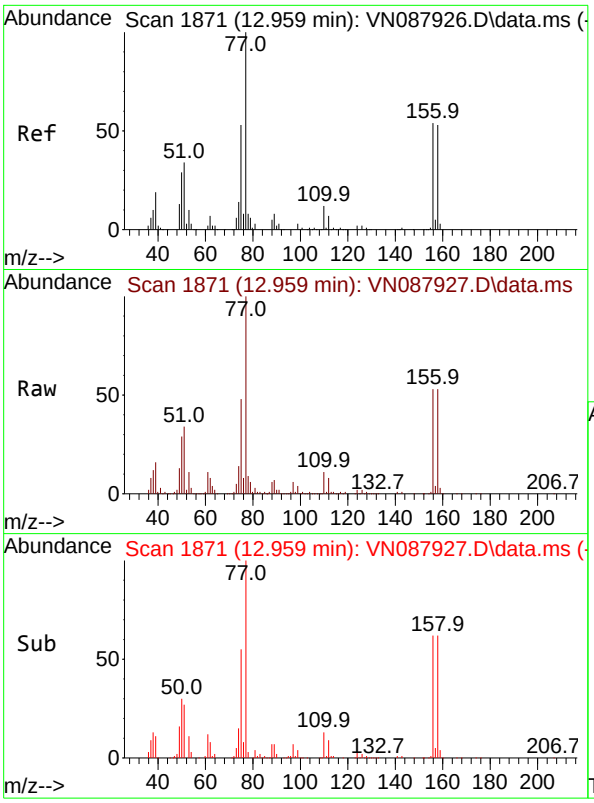


#76
1,2,3-Trichloropropane
Concen: 86.367 ug/l m
RT: 12.970 min Scan# 1873
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 75 Resp: 398893

Ion	Ratio	Lower	Upper
75	100		
77	180.6	89.5	268.5

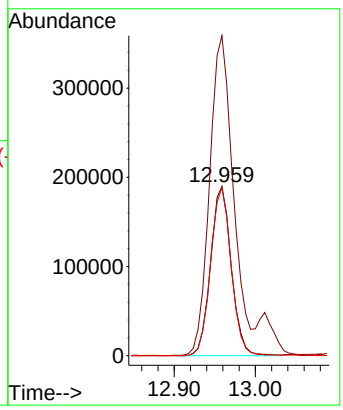




#77
Bromobenzene
Concen: 87.310 ug/l
RT: 12.959 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion:156 Resp: 33522

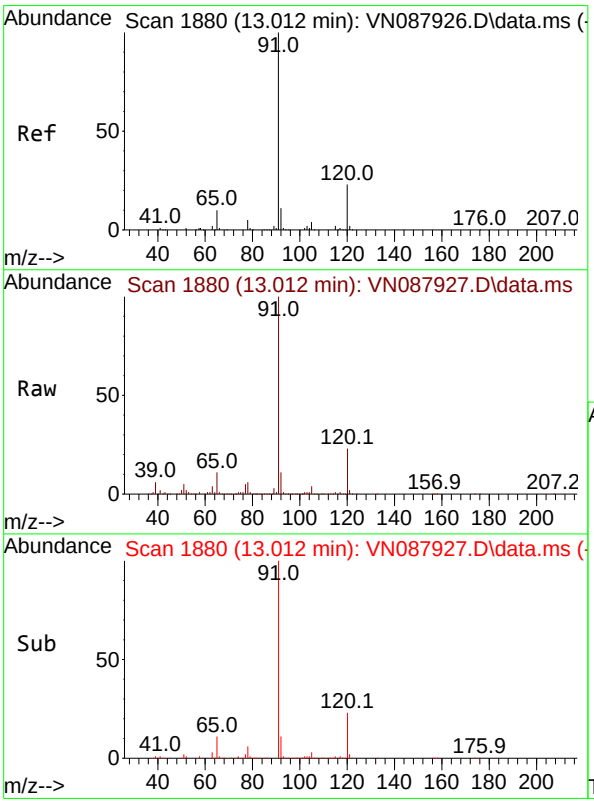
Ion	Ratio	Lower	Upper
156	100		
77	215.0	108.2	324.6
158	99.1	49.6	149.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

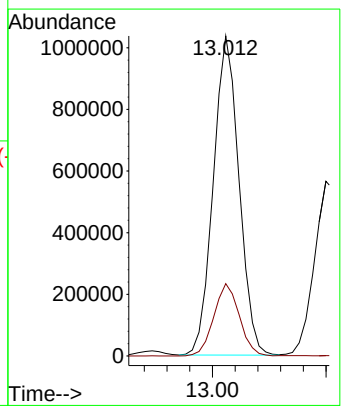
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

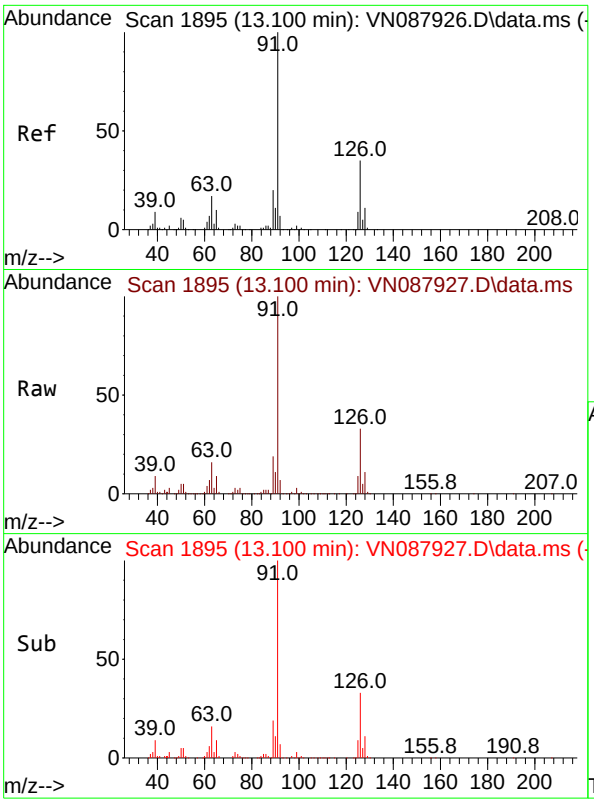


#78
n-propylbenzene
Concen: 90.155 ug/l
RT: 13.012 min Scan# 1880
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 91 Resp: 1626563

Ion	Ratio	Lower	Upper
91	100		
120	22.5	11.1	33.1

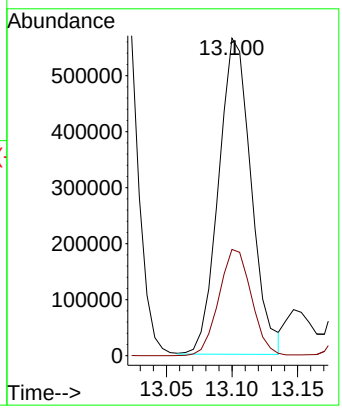




#79
2-Chlorotoluene
Concen: 88.941 ug/l
RT: 13.100 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 91 Resp: 97705

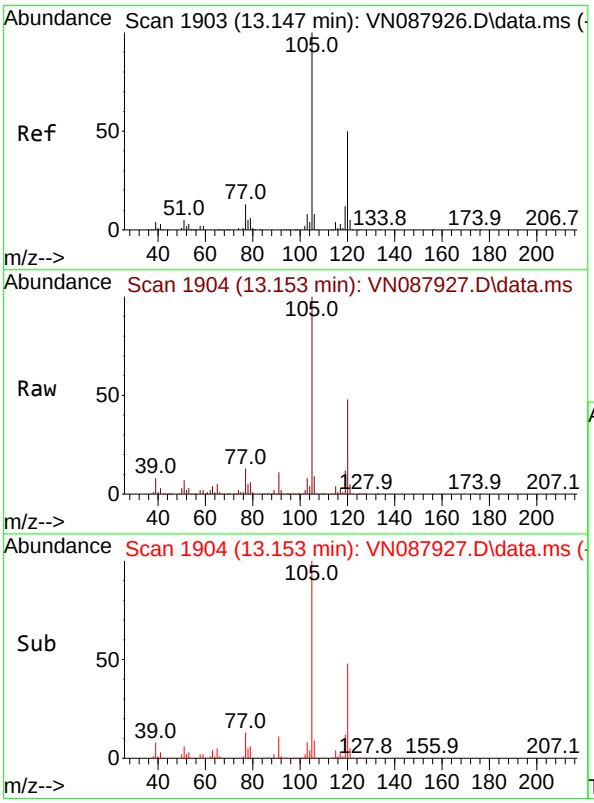
Ion	Ratio	Lower	Upper
91	100		
126	33.6	16.6	49.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

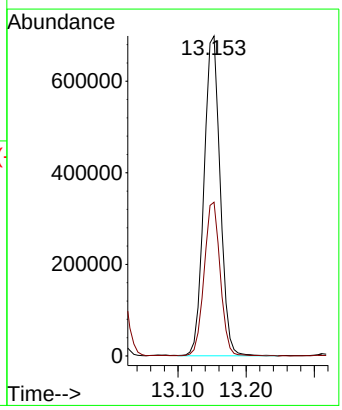
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

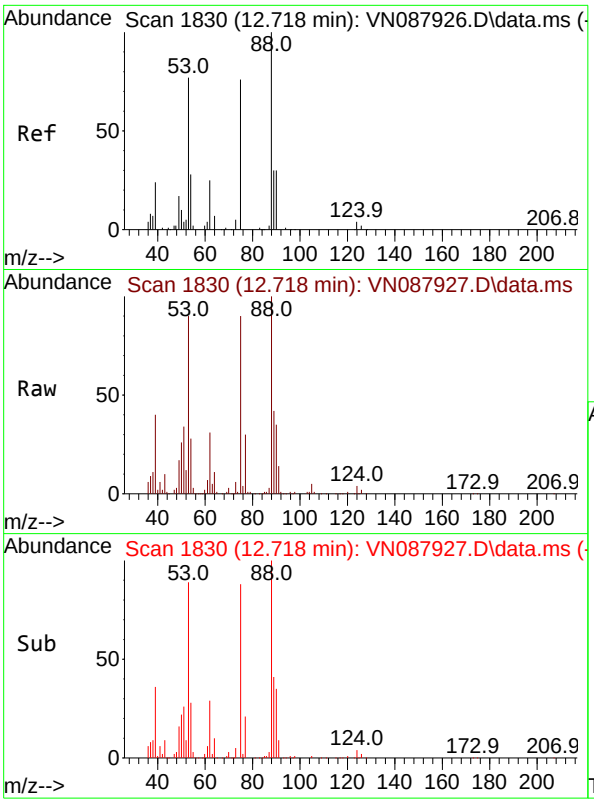


#80
1,3,5-Trimethylbenzene
Concen: 92.232 ug/l
RT: 13.153 min Scan# 1904
Delta R.T. 0.006 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion:105 Resp: 1151230

Ion	Ratio	Lower	Upper
105	100		
120	48.1	24.7	74.1





#81
trans-1,4-Dichloro-2-butene
Concen: 94.849 ug/l
RT: 12.718 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

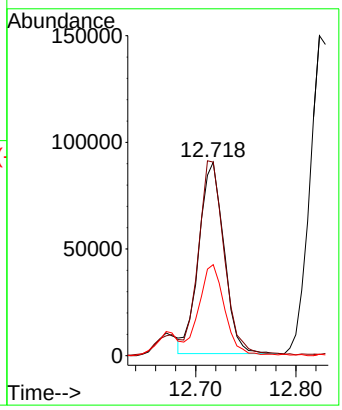
Tgt Ion: 75 Resp: 15677

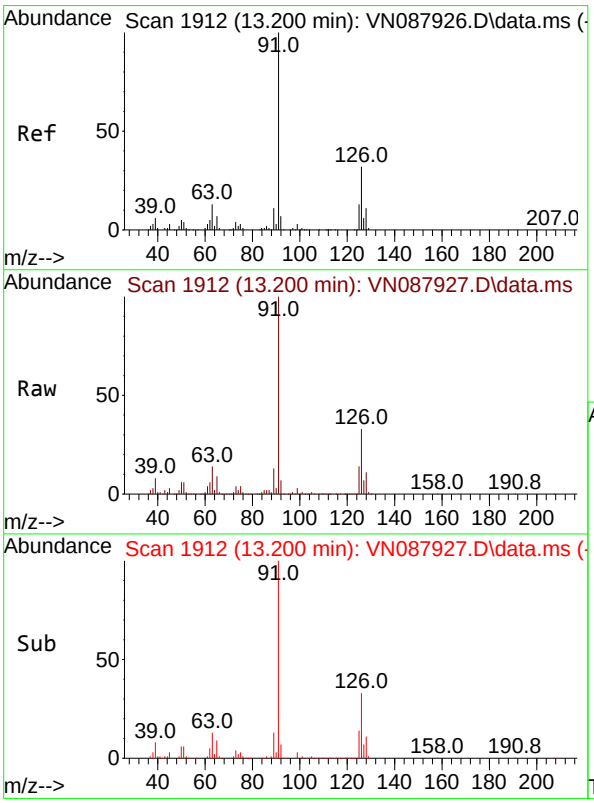
Ion	Ratio	Lower	Upper
75	100		
53	103.1	82.0	123.0
89	48.9	36.1	54.1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

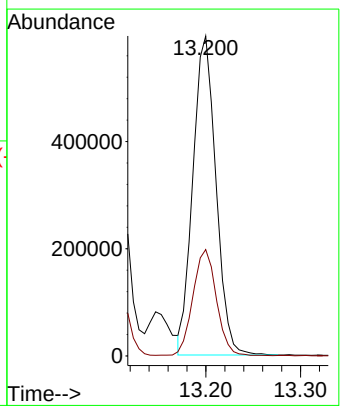


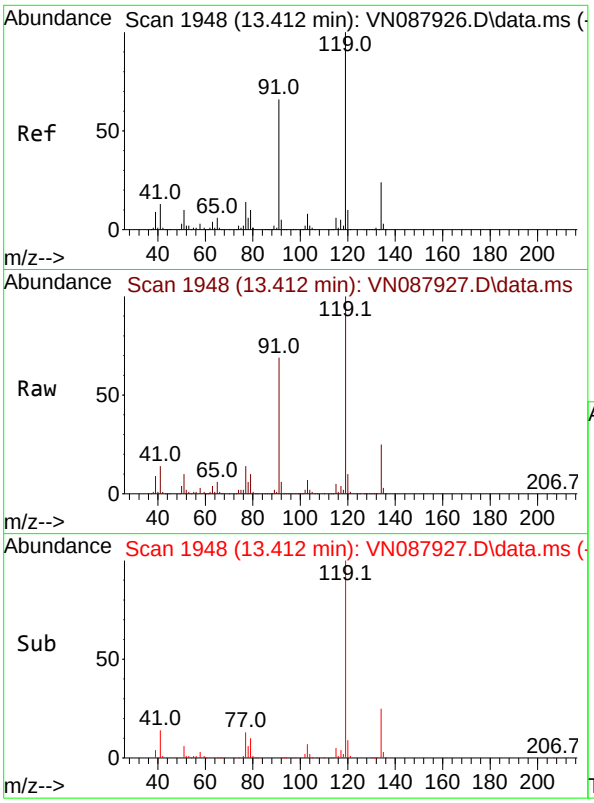


#82
4-Chlorotoluene
Concen: 90.951 ug/l
RT: 13.200 min Scan# 1912
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 91 Resp: 1006766

Ion	Ratio	Lower	Upper
91	100		
126	34.0	16.9	50.6

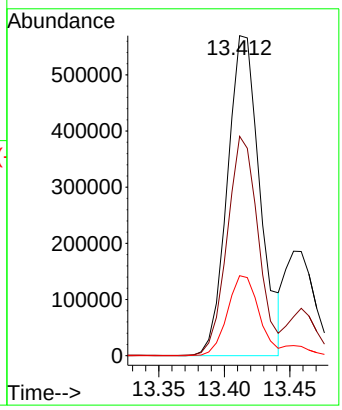




#83
tert-Butylbenzene
Concen: 93.339 ug/l
RT: 13.412 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion:119 Resp: 98612

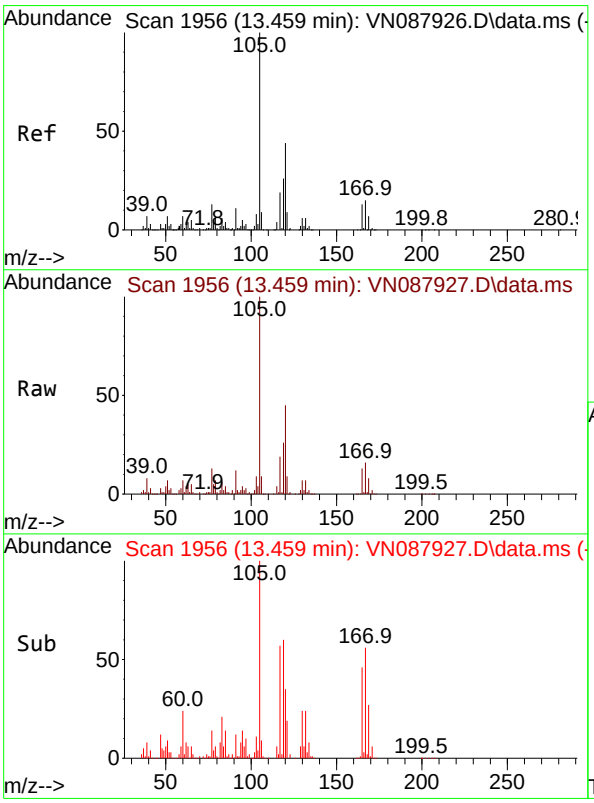
Ion	Ratio	Lower	Upper
119	100		
91	65.3	32.1	96.3
134	24.7	12.3	36.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

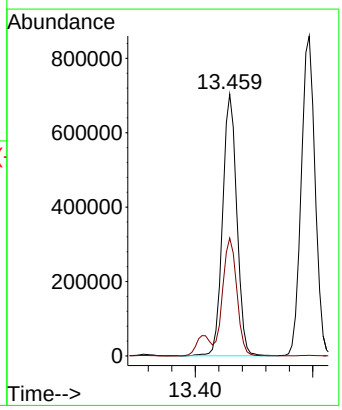
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

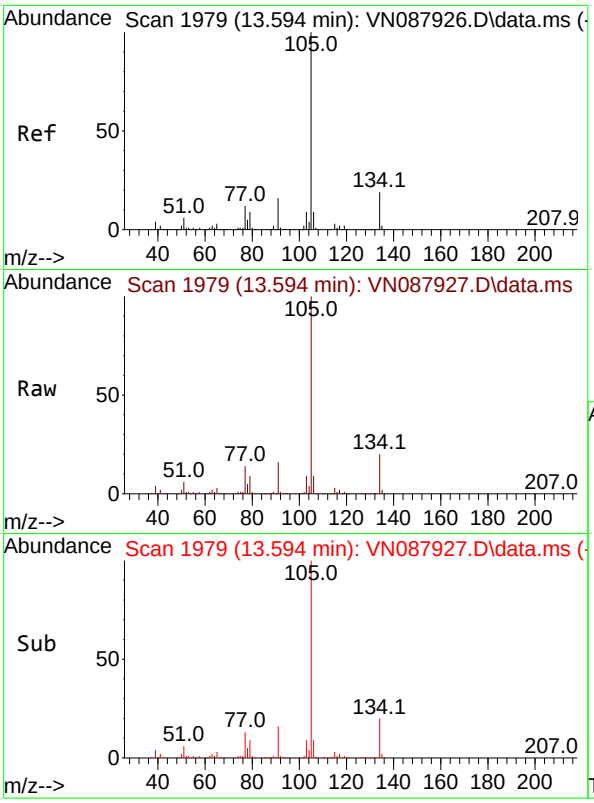


#84
1,2,4-Trimethylbenzene
Concen: 92.362 ug/l
RT: 13.459 min Scan# 1956
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion:105 Resp: 1182488

Ion	Ratio	Lower	Upper
105	100		
120	44.6	22.4	67.3

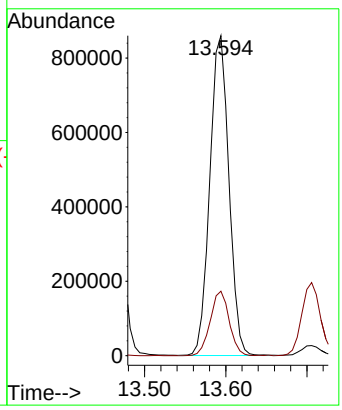




#85
sec-Butylbenzene
Concen: 90.879 ug/l
RT: 13.594 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion:105 Resp: 140768

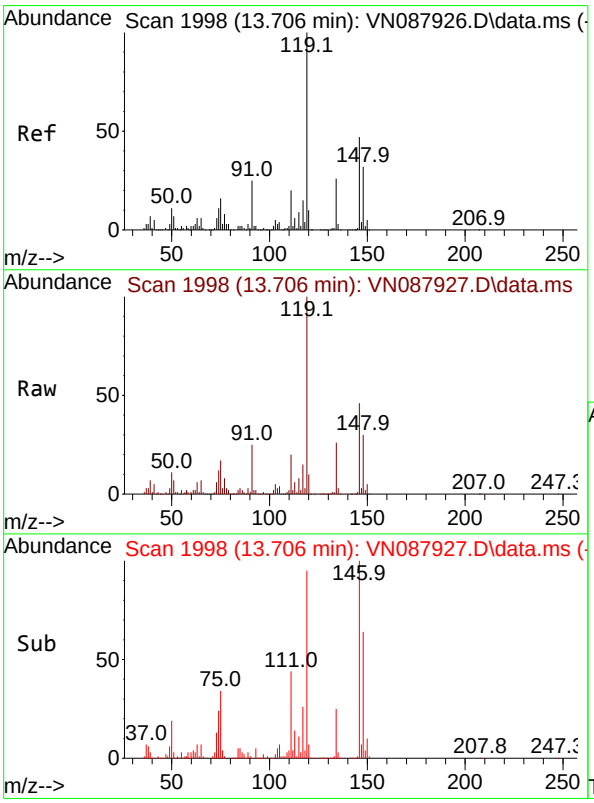
Ion	Ratio	Lower	Upper
105	100		
134	20.0	9.6	28.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations
APPROVED

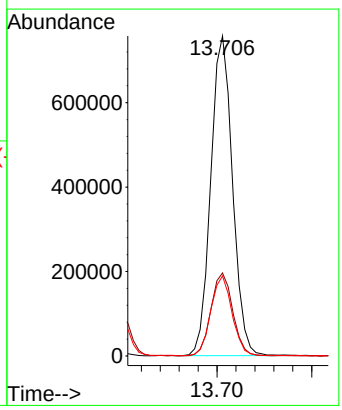
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

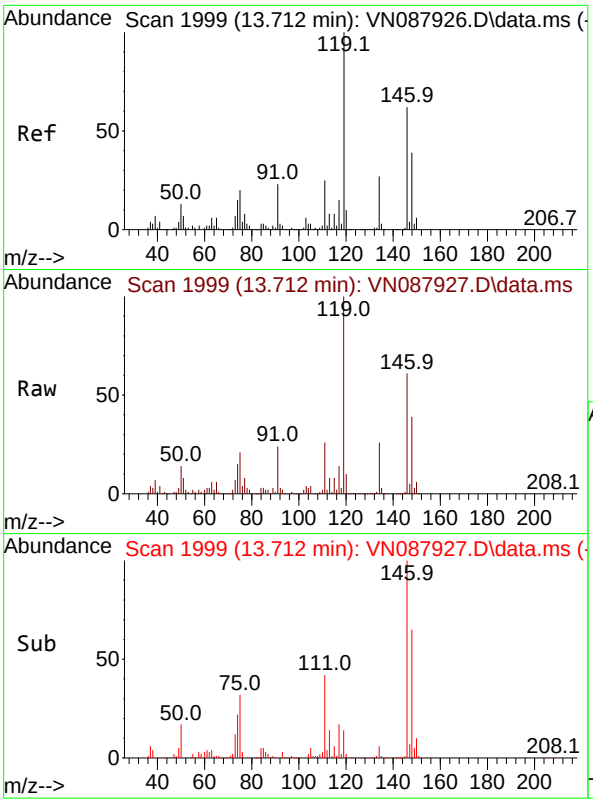


#86
p-Isopropyltoluene
Concen: 91.980 ug/l
RT: 13.706 min Scan# 1998
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion:119 Resp: 1206696

Ion	Ratio	Lower	Upper
119	100		
134	26.2	13.1	39.3
91	24.2	11.9	35.5

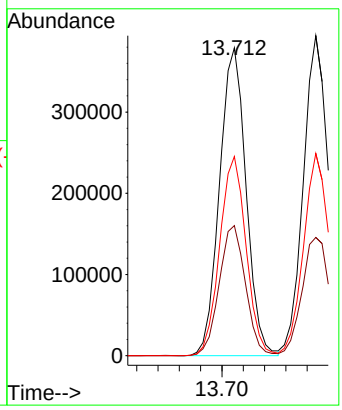




#87
1,3-Dichlorobenzene
Concen: 87.583 ug/l
RT: 13.712 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion:146 Resp: 65621

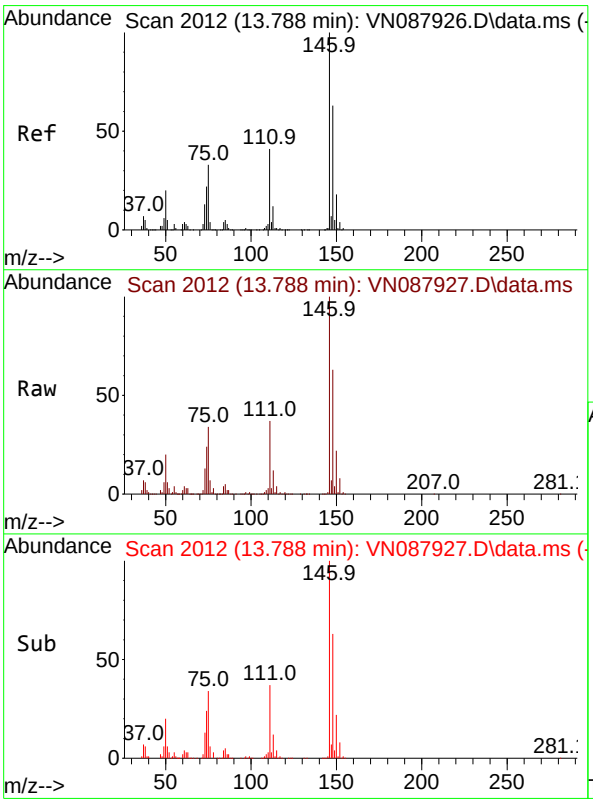
Ion	Ratio	Lower	Upper
146	100		
111	41.9	20.3	60.8
148	64.3	32.4	97.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

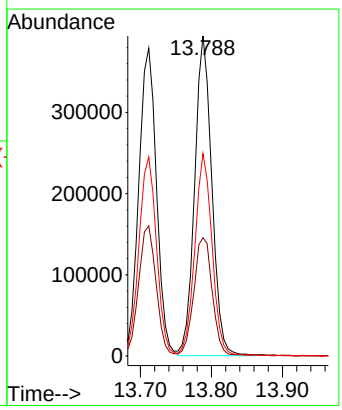
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

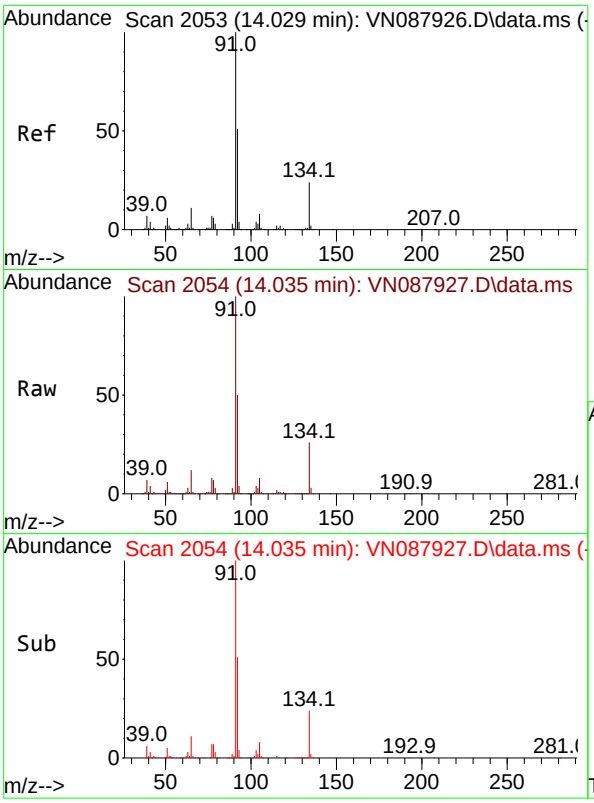


#88
1,4-Dichlorobenzene
Concen: 86.037 ug/l
RT: 13.788 min Scan# 2012
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion:146 Resp: 662481

Ion	Ratio	Lower	Upper
146	100		
111	40.2	20.5	61.5
148	63.5	32.8	98.4

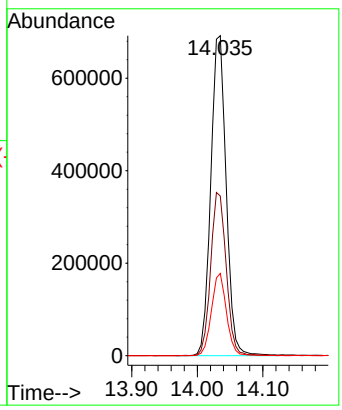




#89
n-Butylbenzene
Concen: 90.837 ug/l
RT: 14.035 min Scan# 2(
Delta R.T. 0.006 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 91 Resp: 112620(

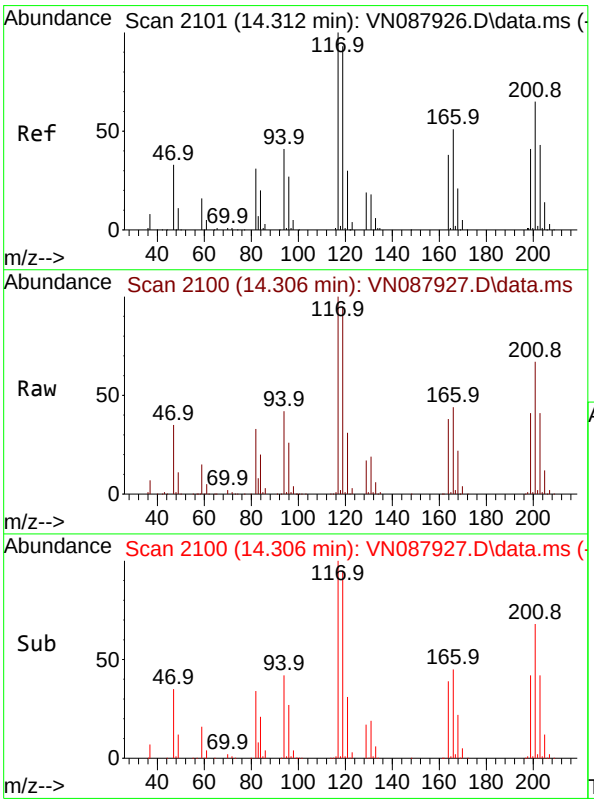
Ion	Ratio	Lower	Upper
91	100		
92	51.6	25.9	77.8
134	25.2	12.6	37.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

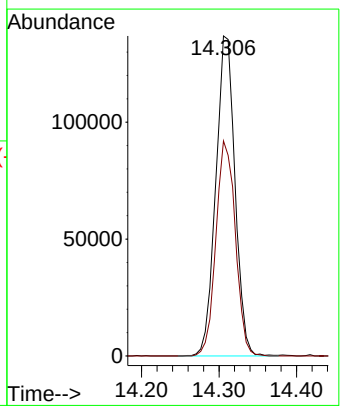
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

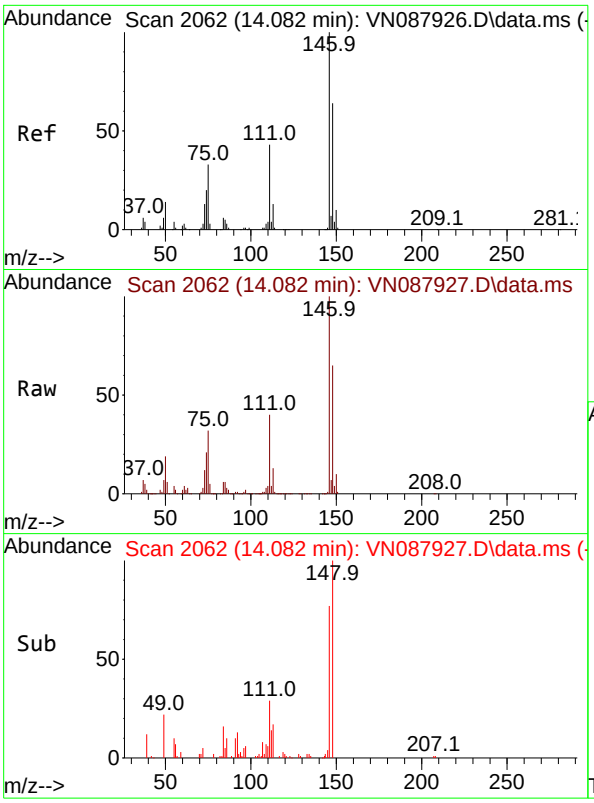


#90
Hexachloroethane
Concen: 86.459 ug/l
RT: 14.306 min Scan# 2100
Delta R.T. -0.006 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion:117 Resp: 236932

Ion	Ratio	Lower	Upper
117	100		
201	67.8	33.6	100.6

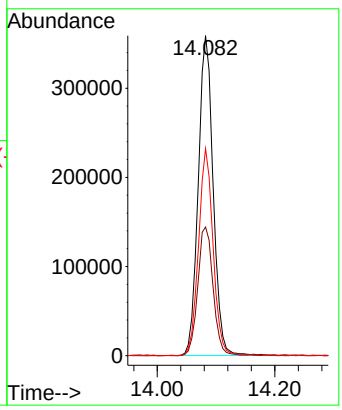




#91
1,2-Dichlorobenzene
Concen: 87.559 ug/l
RT: 14.082 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion:146 Resp: 63235

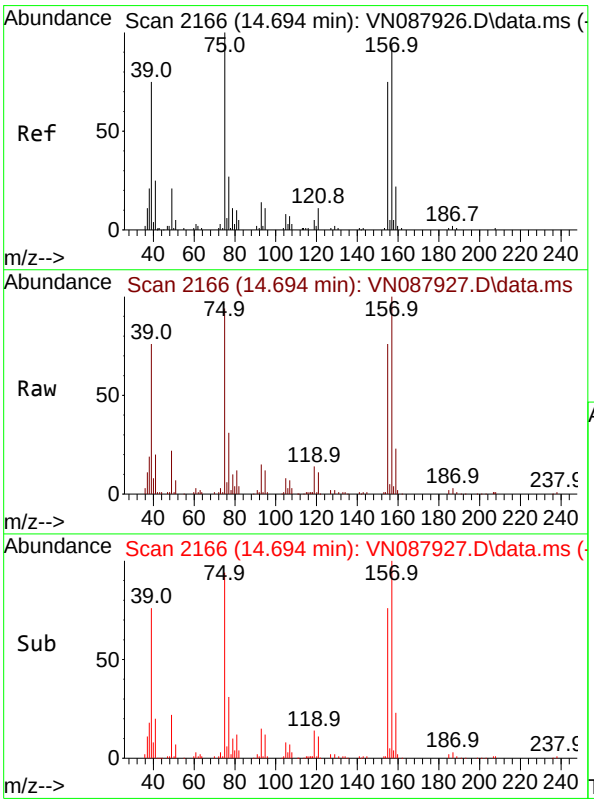
Ion	Ratio	Lower	Upper
146	100		
111	41.3	20.9	62.7
148	63.4	31.9	95.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

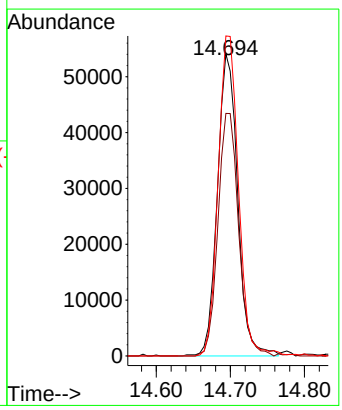
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

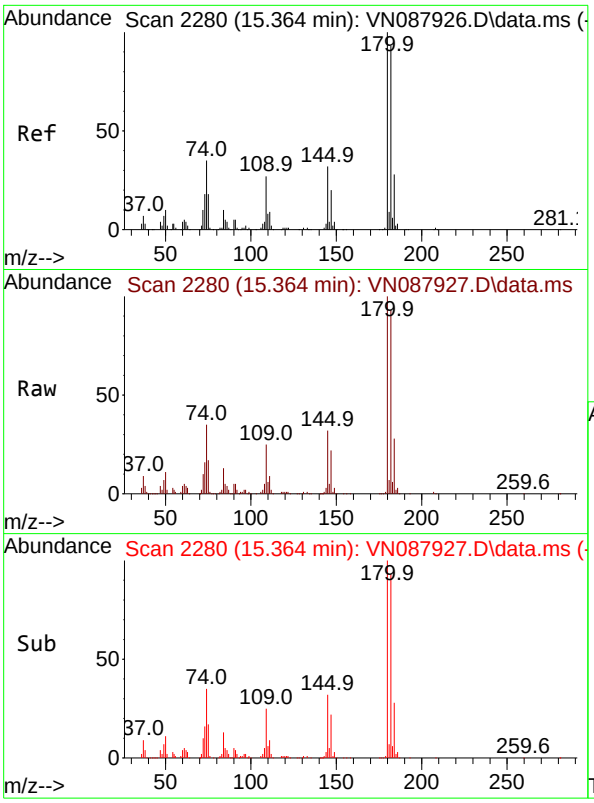


#92
1,2-Dibromo-3-Chloropropane
Concen: 85.039 ug/l
RT: 14.694 min Scan# 2166
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion: 75 Resp: 102736

Ion	Ratio	Lower	Upper
75	100		
155	81.8	40.2	120.6
157	106.5	50.9	152.7

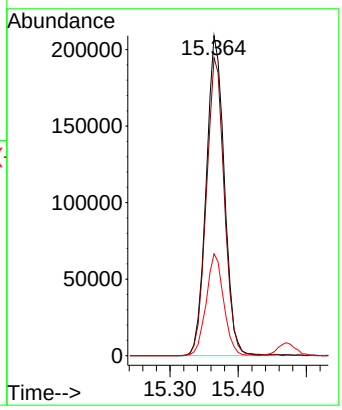




#93
1,2,4-Trichlorobenzene
Concen: 90.615 ug/l
RT: 15.364 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion:180 Resp: 38639

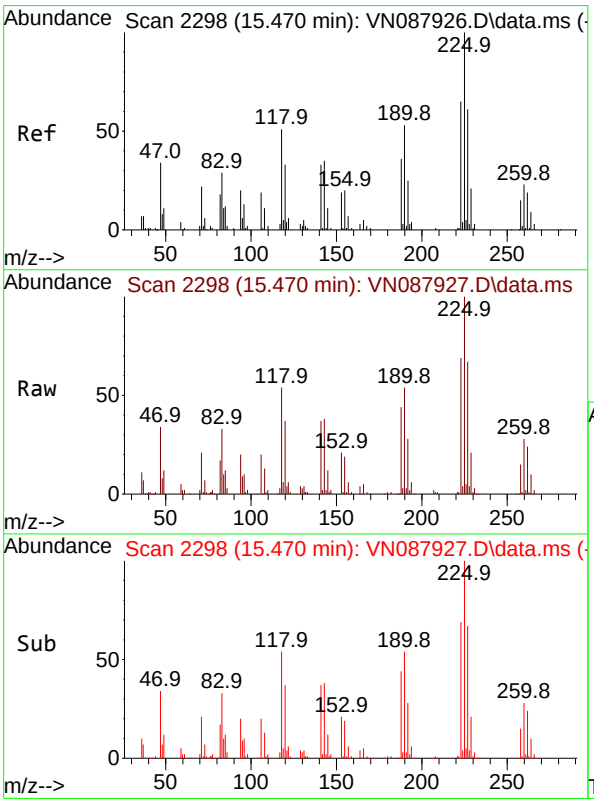
Ion	Ratio	Lower	Upper
180	100		
182	92.0	48.5	145.5
145	30.9	15.9	47.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

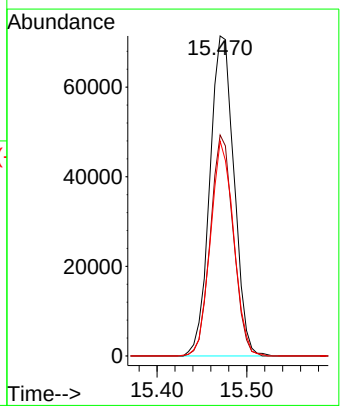
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

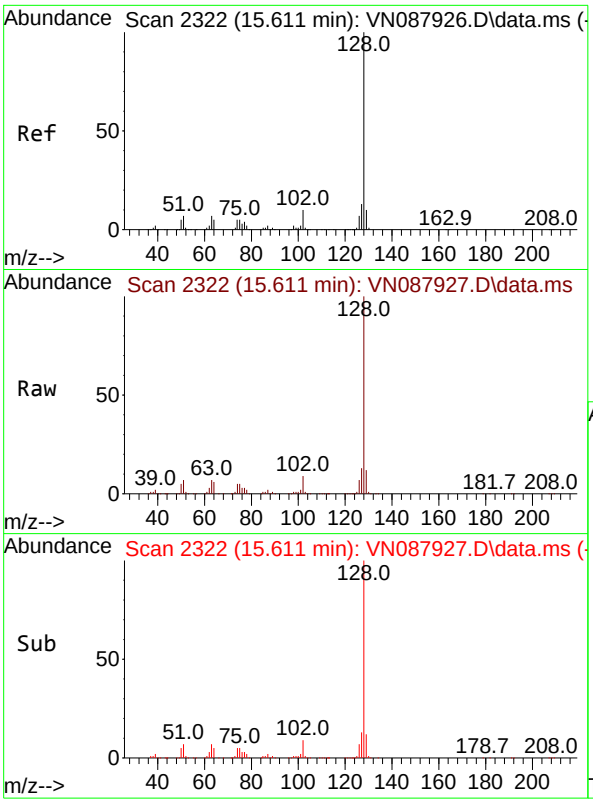


#94
Hexachlorobutadiene
Concen: 85.390 ug/l
RT: 15.470 min Scan# 2298
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion:225 Resp: 134018

Ion	Ratio	Lower	Upper
225	100		
223	65.3	31.8	95.4
227	64.3	31.9	95.9

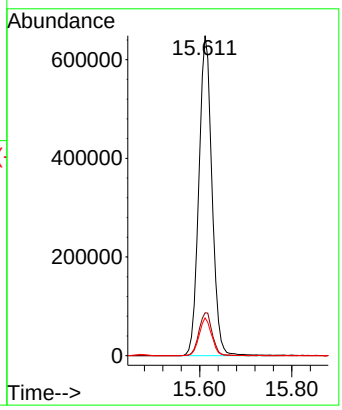




#95
Naphthalene
Concen: 93.924 ug/l
RT: 15.611 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion:128 Resp: 128562

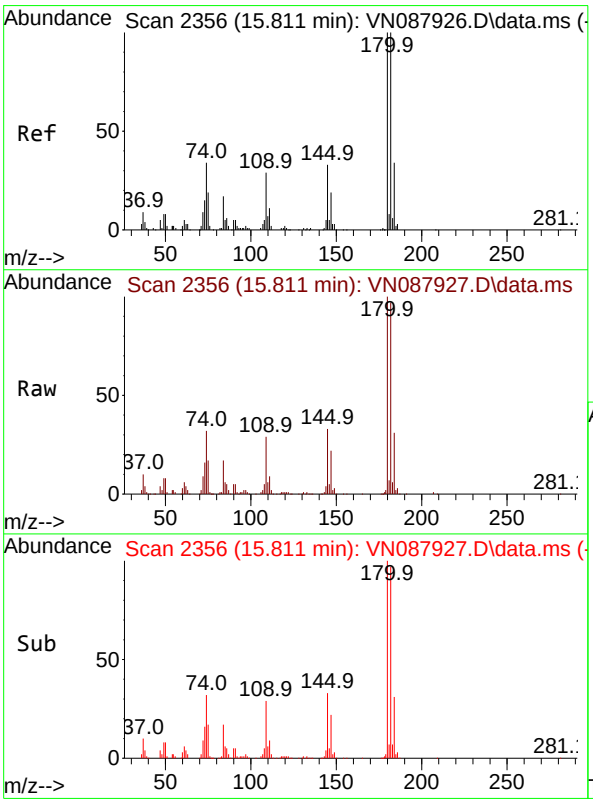
Ion	Ratio	Lower	Upper
128	100		
127	13.6	10.2	15.4
129	11.3	8.6	13.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED

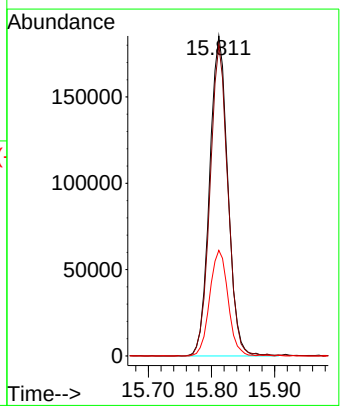
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025



#96
1,2,3-Trichlorobenzene
Concen: 89.850 ug/l
RT: 15.811 min Scan# 2356
Delta R.T. 0.000 min
Lab File: VN087927.D
Acq: 23 Sep 2025 10:36

Tgt Ion:180 Resp: 372476

Ion	Ratio	Lower	Upper
180	100		
182	94.8	47.3	142.0
145	33.1	16.1	48.3



Quantitation Report (QT Reviewed)

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092325\
Data File : VN087928.D
Acq On : 23 Sep 2025 10:56
Operator : JC\MD
Sample : VSTDICC150
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 24 04:49:44 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 04:45:42 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.206	168	261684	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.082	114	469572	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.841	117	448321	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.770	152	234506	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.559	65	688147	156.257	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 312.520%#			
35) Dibromofluoromethane	8.147	113	529816	155.401	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 310.800%#			
50) Toluene-d8	10.547	98	1953189	162.910	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 325.820%#			
62) 4-Bromofluorobenzene	12.829	95	698306	162.944	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 325.880%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.142	85	480645	158.601	ug/l	97
3) Chloromethane	2.383	50	472896	152.400	ug/l	99
4) Vinyl Chloride	2.536	62	481283	152.029	ug/l	99
5) Bromomethane	2.942	94	325624	165.915	ug/l	97
6) Chloroethane	3.118	64	319724	155.328	ug/l	96
7) Trichlorofluoromethane	3.500	101	775109	150.380	ug/l	98
8) Diethyl Ether	3.959	74	304158	156.198	ug/l	97
9) 1,1,2-Trichlorotrifluo...	4.359	101	414564	152.176	ug/l	97
10) Methyl Iodide	4.577	142	465699	189.939	ug/l	97
11) Tert butyl alcohol	5.530	59	507633	800.280	ug/l	99
12) 1,1-Dichloroethene	4.336	96	423177	153.951	ug/l	91
13) Acrolein	4.177	56	683544	839.839	ug/l	95
14) Allyl chloride	5.012	41	726966	162.449	ug/l	96
15) Acrylonitrile	5.706	53	1569579	788.849	ug/l	99
16) Acetone	4.418	43	1277870	700.927	ug/l	98
17) Carbon Disulfide	4.700	76	1312297	152.800	ug/l	98
18) Methyl Acetate	5.012	43	732961	161.634	ug/l	100
19) Methyl tert-butyl Ether	5.789	73	1771056	164.937	ug/l	98
20) Methylene Chloride	5.259	84	534218	145.657	ug/l	97
21) trans-1,2-Dichloroethene	5.771	96	513466	152.375	ug/l	96
22) Diisopropyl ether	6.659	45	1726637	165.280	ug/l	97
23) Vinyl Acetate	6.588	43	7327627m	833.068	ug/l	
24) 1,1-Dichloroethane	6.553	63	947100	155.178	ug/l	99
25) 2-Butanone	7.471	43	2176088	785.726	ug/l	98
26) 2,2-Dichloropropane	7.471	77	839353	154.787	ug/l	98
27) cis-1,2-Dichloroethene	7.471	96	631177	157.420	ug/l	99
28) Bromochloromethane	7.794	49	447101	134.830	ug/l	100
29) Tetrahydrofuran	7.824	42	1456588	821.368	ug/l	99
30) Chloroform	7.947	83	1030586	154.431	ug/l	100
31) Cyclohexane	8.235	56	746273	151.116	ug/l	97
32) 1,1,1-Trichloroethane	8.147	97	889373	157.722	ug/l	97
36) 1,1-Dichloropropene	8.353	75	673022	164.170	ug/l	98
37) Ethyl Acetate	7.547	43	874349	162.416	ug/l	98
38) Carbon Tetrachloride	8.341	117	763232	162.245	ug/l	93
39) Methylcyclohexane	9.576	83	791897	175.104	ug/l	98
40) Benzene	8.588	78	2169328	159.817	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092325\
Data File : VN087928.D
Acq On : 23 Sep 2025 10:56
Operator : JC\MD
Sample : VSTDICC150
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 9 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

Quant Time: Sep 24 04:49:44 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 04:45:42 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
41) Methacrylonitrile	7.765	41	460218	165.421 ug/l		97
42) 1,2-Dichloroethane	8.653	62	796063	157.154 ug/l		99
43) Isopropyl Acetate	8.671	43	1418775	167.431 ug/l		99
44) Trichloroethene	9.329	130	517259	159.533 ug/l		96
45) 1,2-Dichloropropane	9.600	63	530435	155.841 ug/l		98
46) Dibromomethane	9.688	93	432679	161.101 ug/l		96
47) Bromodichloromethane	9.865	83	840816	159.615 ug/l		97
48) Methyl methacrylate	9.665	41	674610	171.912 ug/l		96
49) 1,4-Dioxane	9.682	88	190965	3294.105 ug/l	#	82
51) 4-Methyl-2-Pentanone	10.424	43	4326882	818.303 ug/l		100
52) Toluene	10.606	92	1406217	165.088 ug/l		100
53) t-1,3-Dichloropropene	10.818	75	916112	169.924 ug/l		99
54) cis-1,3-Dichloropropene	10.294	75	928185	165.762 ug/l		99
55) 1,1,2-Trichloroethane	10.994	97	540596	156.087 ug/l		98
56) Ethyl methacrylate	10.853	69	907047	181.247 ug/l		98
57) 1,3-Dichloropropane	11.141	76	916449	160.877 ug/l		100
58) 2-Chloroethyl Vinyl ether	10.141	63	2200367	935.130 ug/l		98
59) 2-Hexanone	11.176	43	3073538	879.085 ug/l		98
60) Dibromochloromethane	11.335	129	674217	165.568 ug/l		99
61) 1,2-Dibromoethane	11.447	107	590968	161.179 ug/l		100
64) Tetrachloroethene	11.082	164	440710	161.378 ug/l		95
65) Chlorobenzene	11.870	112	1551249	162.594 ug/l		96
66) 1,1,1,2-Tetrachloroethane	11.935	131	550130	159.899 ug/l		98
67) Ethyl Benzene	11.941	91	2719603	170.833 ug/l		98
68) m/p-Xylenes	12.047	106	2063388	338.900 ug/l		98
69) o-Xylene	12.376	106	1010983	172.832 ug/l		99
70) Styrene	12.388	104	1764226	175.610 ug/l		99
71) Bromoform	12.559	173	473708	169.708 ug/l	#	99
73) Isopropylbenzene	12.670	105	2569941	176.821 ug/l		100
74) N-amyl acetate	12.482	43	869458	200.832 ug/l	#	71
75) 1,1,2,2-Tetrachloroethane	12.917	83	821974	156.965 ug/l		99
76) 1,2,3-Trichloropropane	12.970	75	748421m	160.891 ug/l		
77) Bromobenzene	12.959	156	644570	166.683 ug/l		97
78) n-propylbenzene	13.012	91	3116141	171.486 ug/l		99
79) 2-Chlorotoluene	13.100	91	1861996	168.288 ug/l		100
80) 1,3,5-Trimethylbenzene	13.153	105	2165785	172.277 ug/l		99
81) trans-1,4-Dichloro-2-b...	12.717	75	314140	188.706 ug/l		97
82) 4-Chlorotoluene	13.200	91	1903146	170.704 ug/l		99
83) tert-Butylbenzene	13.417	119	1845254	173.412 ug/l		96
84) 1,2,4-Trimethylbenzene	13.459	105	2233067	173.177 ug/l		100
85) sec-Butylbenzene	13.594	105	2666471	170.918 ug/l		99
86) p-Isopropyltoluene	13.706	119	2296563	173.808 ug/l		99
87) 1,3-Dichlorobenzene	13.712	146	1227647	162.683 ug/l		99
88) 1,4-Dichlorobenzene	13.788	146	1227019	158.218 ug/l		98
89) n-Butylbenzene	14.035	91	2137754	171.197 ug/l		99
90) Hexachloroethane	14.306	117	445654	161.465 ug/l		98
91) 1,2-Dichlorobenzene	14.082	146	1177111	161.827 ug/l		99
92) 1,2-Dibromo-3-Chloropr...	14.700	75	201299	165.436 ug/l		96
93) 1,2,4-Trichlorobenzene	15.364	180	773312	180.060 ug/l		97
94) Hexachlorobutadiene	15.470	225	263904	166.949 ug/l		100
95) Naphthalene	15.611	128	2600638	188.641 ug/l		99
96) 1,2,3-Trichlorobenzene	15.811	180	751222	179.922 ug/l		99

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092325\
Data File : VN087928.D
Acq On : 23 Sep 2025 10:56
Operator : JC\MD
Sample : VSTDICC150
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 24 04:49:44 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 04:45:42 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

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

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

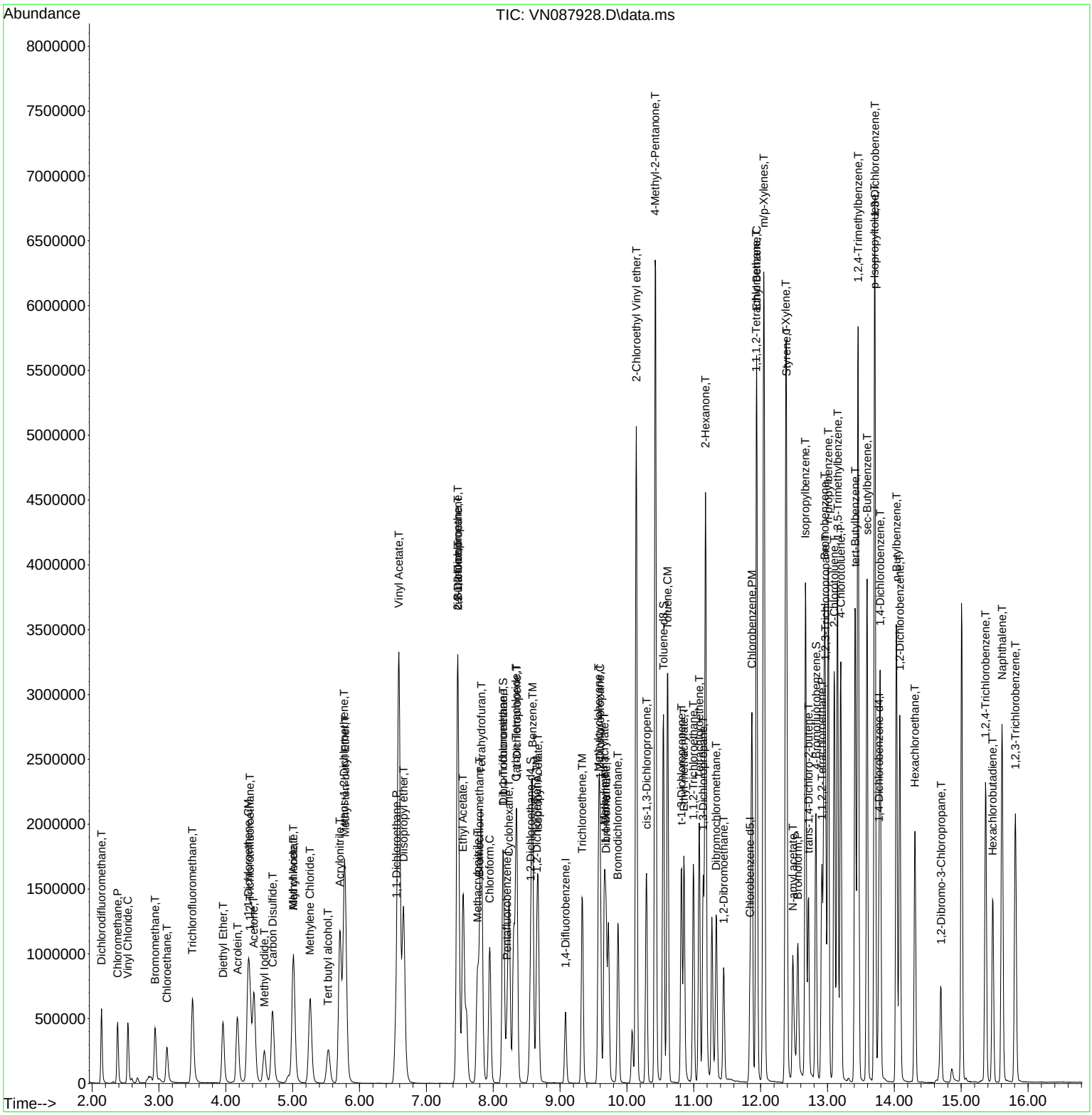
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092325\
Data File : VN087928.D
Acq On : 23 Sep 2025 10:56
Operator : JC\MD
Sample : VSTDICC150
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 9 Sample Multiplier: 1

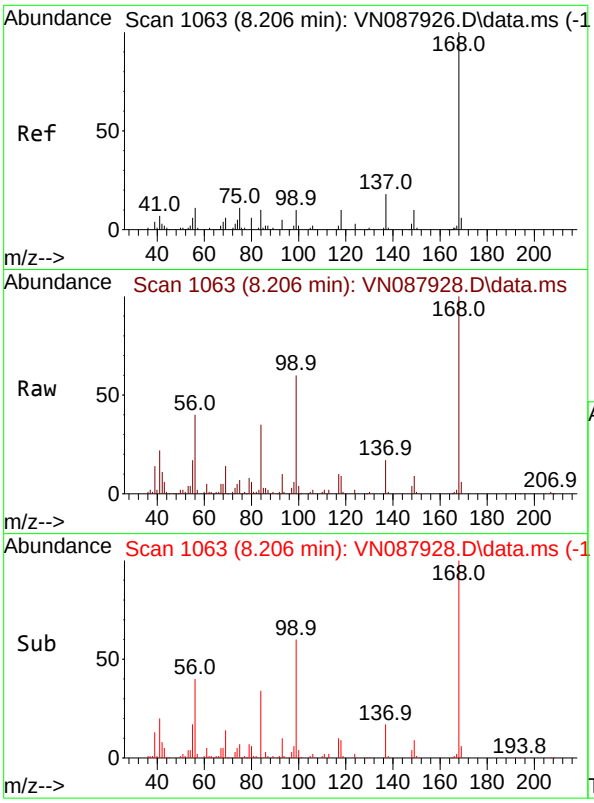
Quant Time: Sep 24 04:49:44 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 04:45:42 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

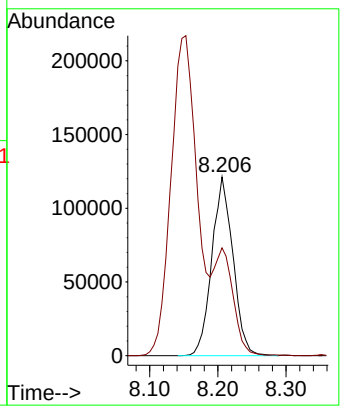




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.206 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion:168 Resp: 26168

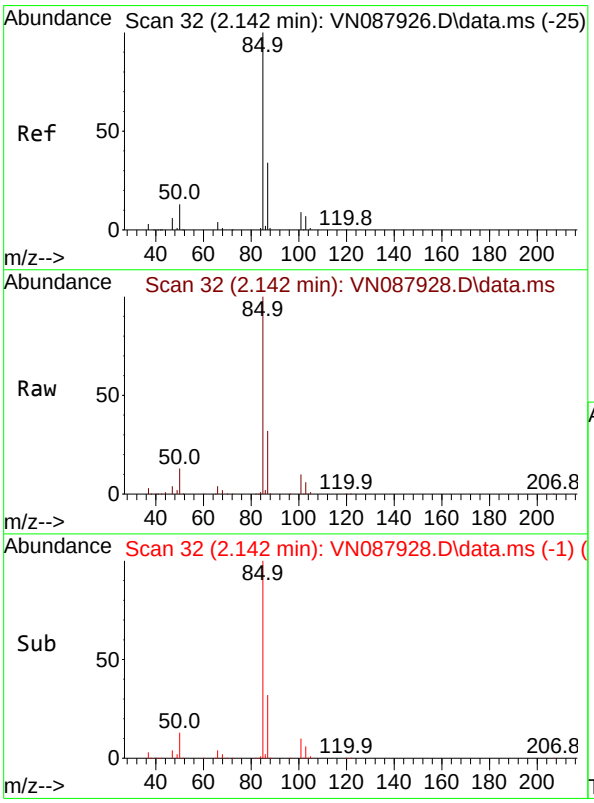
Ion	Ratio	Lower	Upper
168	100		
99	60.0	52.2	78.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

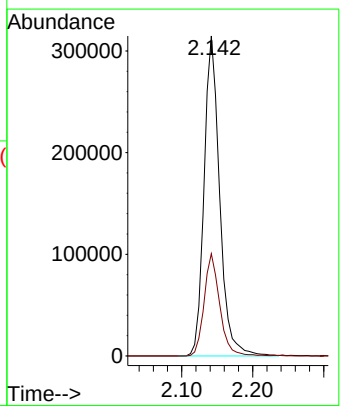
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

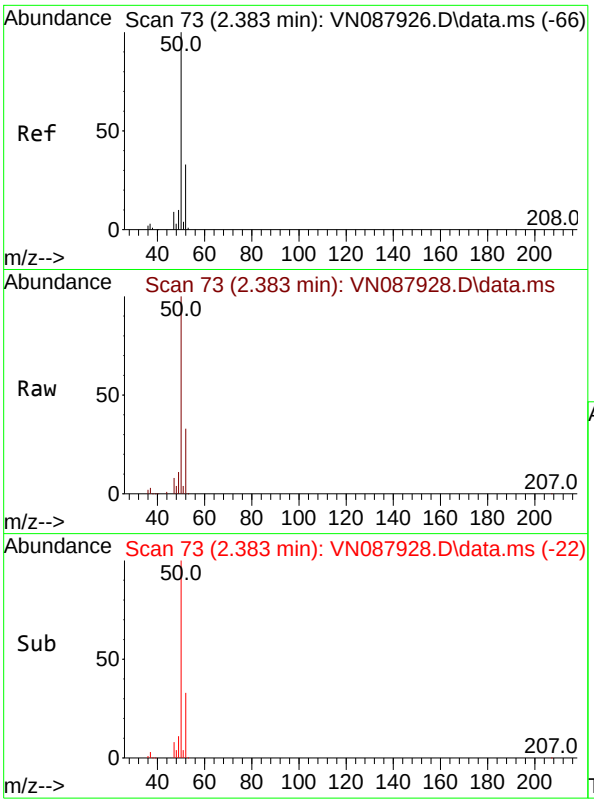


#2
Dichlorodifluoromethane
Concen: 158.601 ug/l
RT: 2.142 min Scan# 32
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 85 Resp: 480645

Ion	Ratio	Lower	Upper
85	100		
87	31.9	16.9	50.6

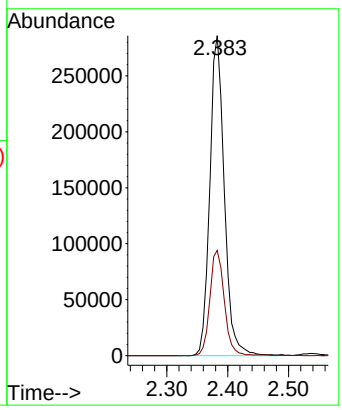




#3
Chloromethane
Concen: 152.400 ug/l
RT: 2.383 min Scan# 7
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 50 Resp: 47289

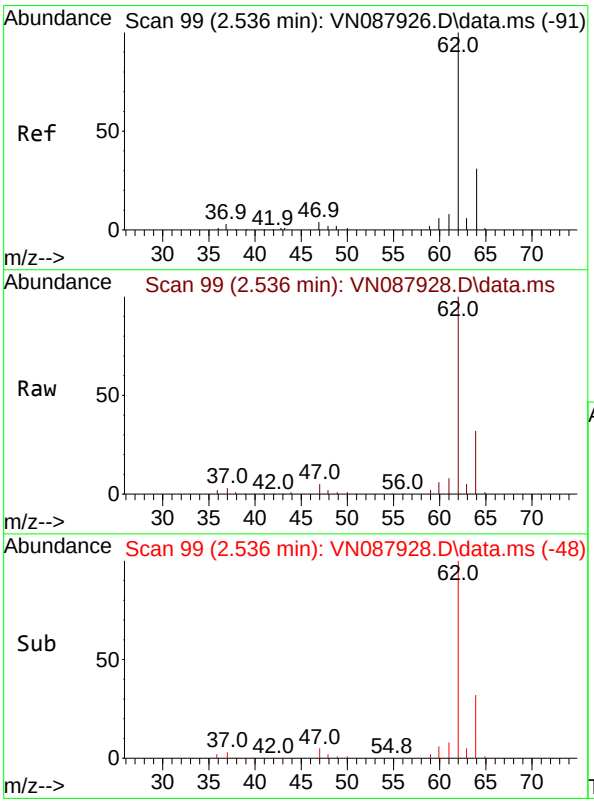
Ion	Ratio	Lower	Upper
50	100		
52	32.9	26.6	40.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

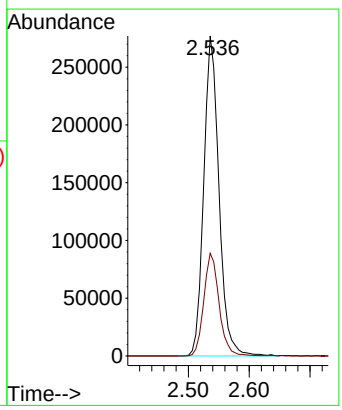
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

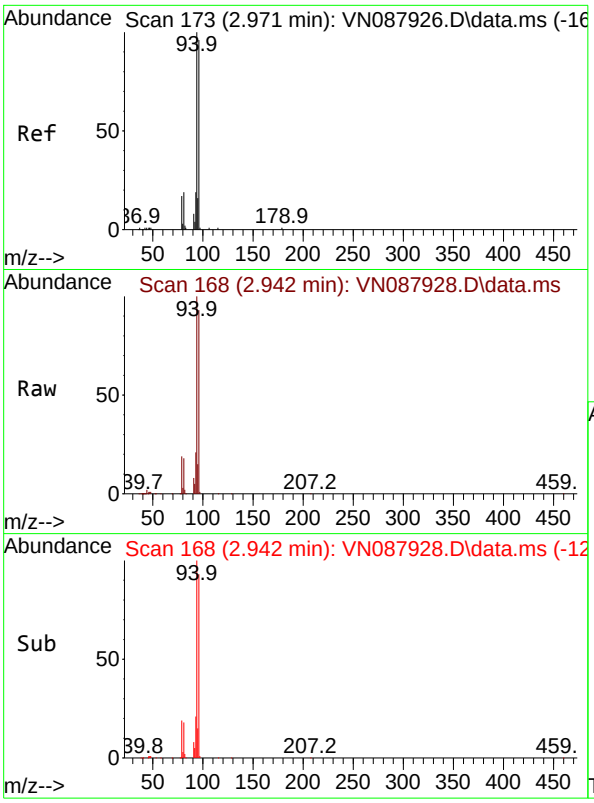


#4
Vinyl Chloride
Concen: 152.029 ug/l
RT: 2.536 min Scan# 99
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 62 Resp: 481283

Ion	Ratio	Lower	Upper
62	100		
64	32.1	25.2	37.8

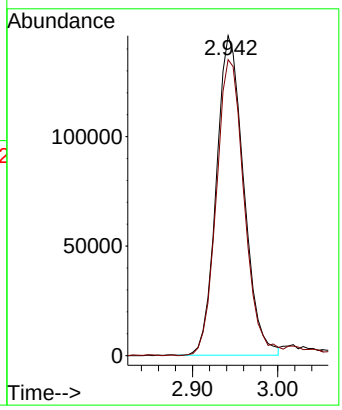




#5
Bromomethane
Concen: 165.915 ug/l
RT: 2.942 min Scan# 1
Delta R.T. -0.029 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 94 Resp: 32562

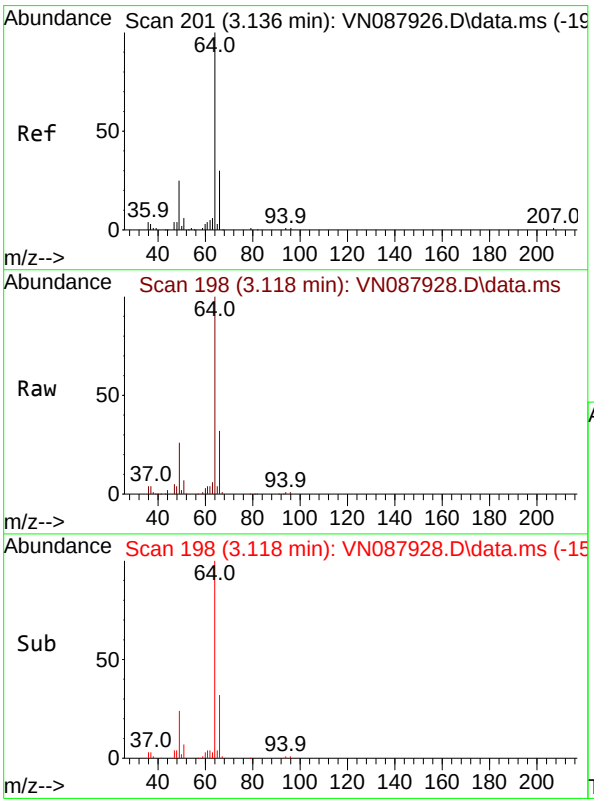
Ion	Ratio	Lower	Upper
94	100		
96	92.6	76.8	115.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

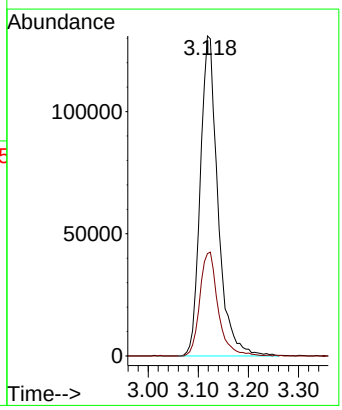
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

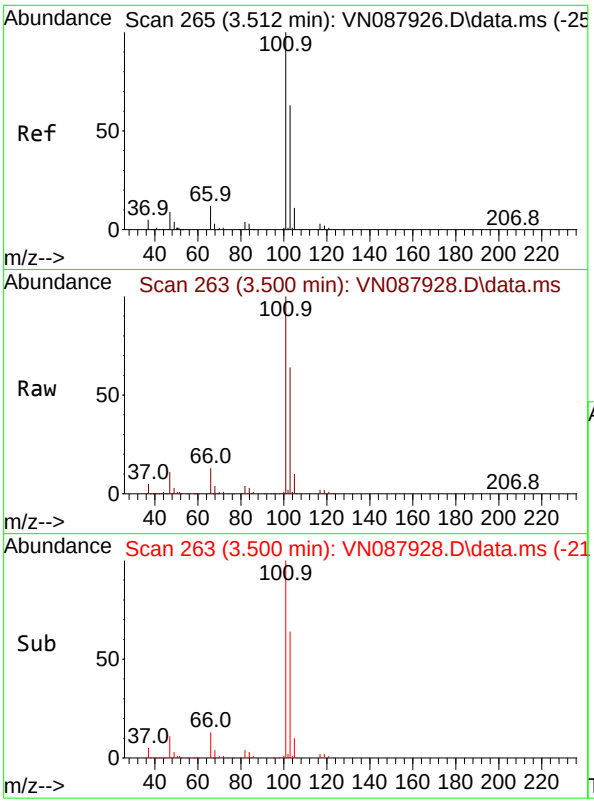


#6
Chloroethane
Concen: 155.328 ug/l
RT: 3.118 min Scan# 198
Delta R.T. -0.018 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 64 Resp: 319724

Ion	Ratio	Lower	Upper
64	100		
66	32.0	23.8	35.8

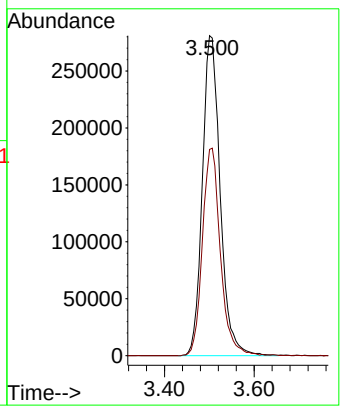




#7
Trichlorofluoromethane
Concen: 150.380 ug/l
RT: 3.500 min Scan# 2
Delta R.T. -0.012 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion:101 Resp: 77510

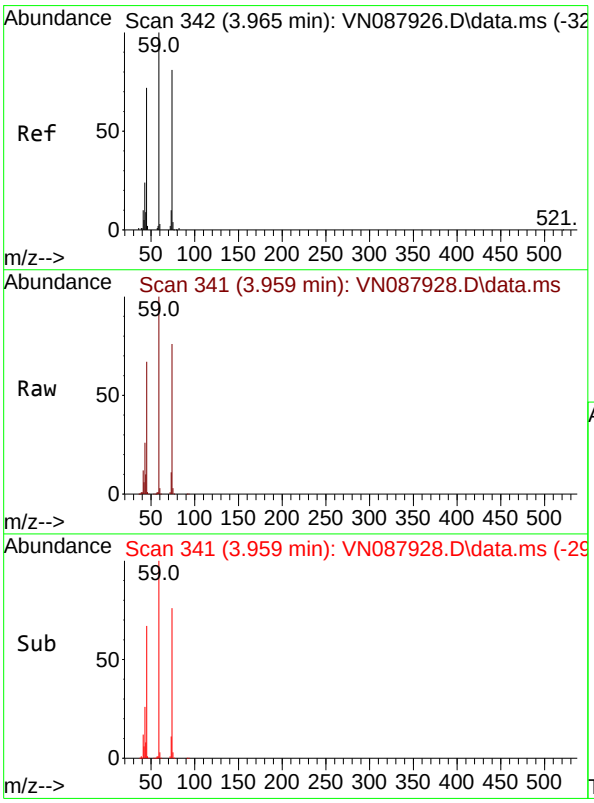
Ion	Ratio	Lower	Upper
101	100		
103	64.5	50.2	75.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

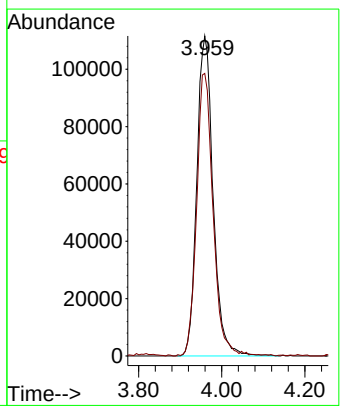
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

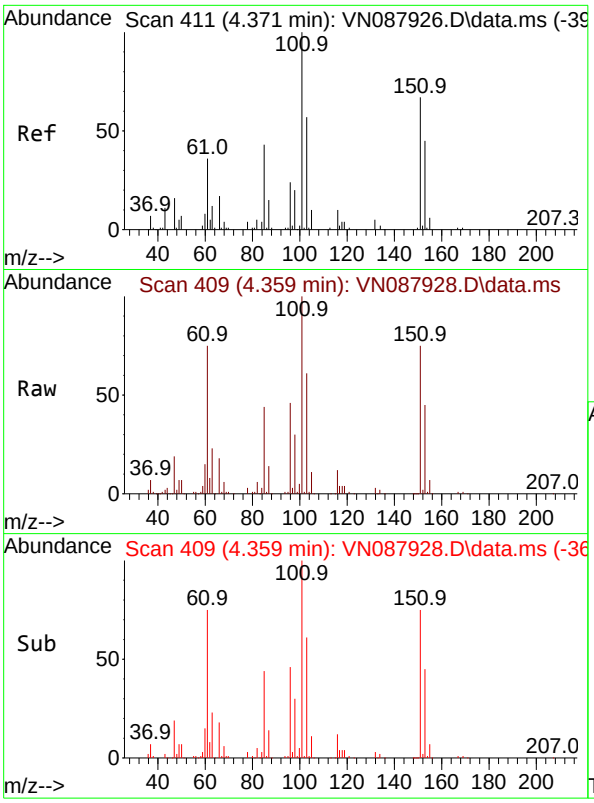


#8
Diethyl Ether
Concen: 156.198 ug/l
RT: 3.959 min Scan# 341
Delta R.T. -0.006 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 74 Resp: 304158

Ion	Ratio	Lower	Upper
74	100		
45	88.3	45.4	136.1

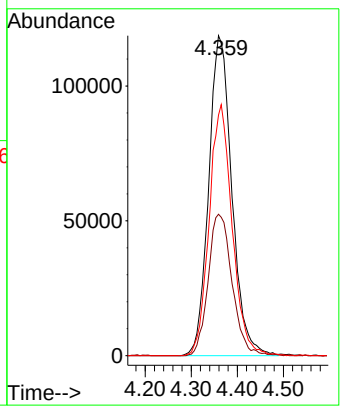




#9
1,1,2-Trichlorotrifluoroethane
Concen: 152.176 ug/l
RT: 4.359 min Scan# 4(
Delta R.T. -0.012 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion:101 Resp: 41456

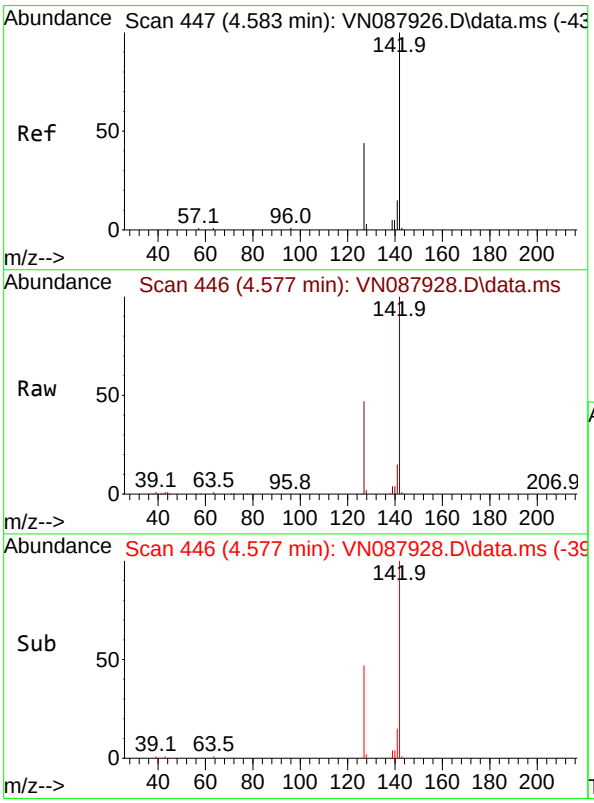
Ion	Ratio	Lower	Upper
101	100		
85	45.6	36.5	54.7
151	77.9	58.6	87.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

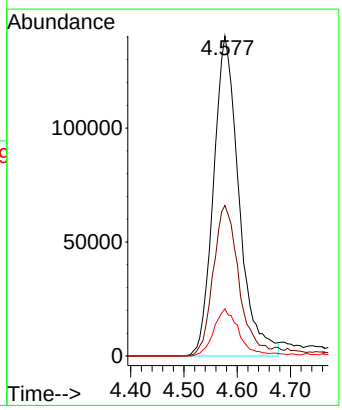
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

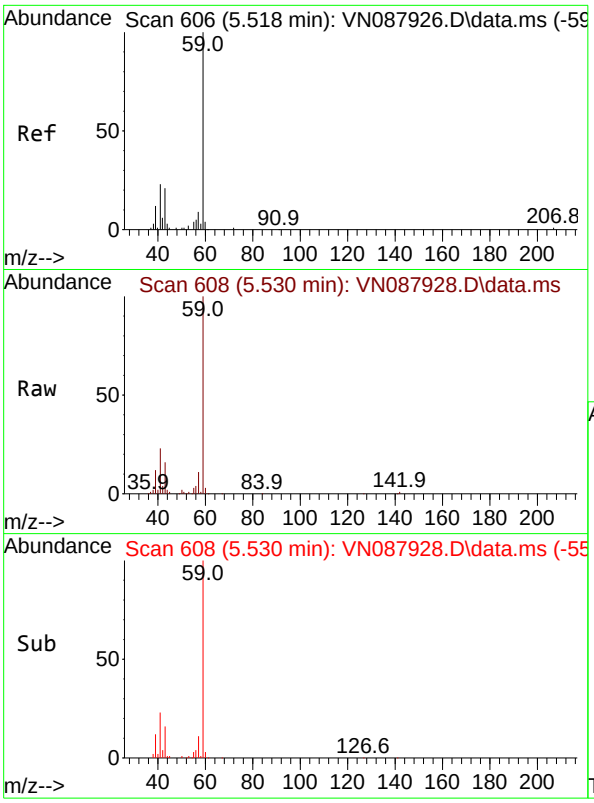


#10
Methyl Iodide
Concen: 189.939 ug/l
RT: 4.577 min Scan# 446
Delta R.T. -0.006 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion:142 Resp: 465699

Ion	Ratio	Lower	Upper
142	100		
127	47.1	35.3	52.9
141	14.8	11.8	17.8

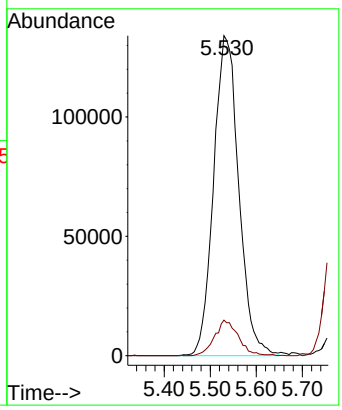




#11
Tert butyl alcohol
Concen: 800.280 ug/l
RT: 5.530 min Scan# 6
Delta R.T. 0.012 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 59 Resp: 50763

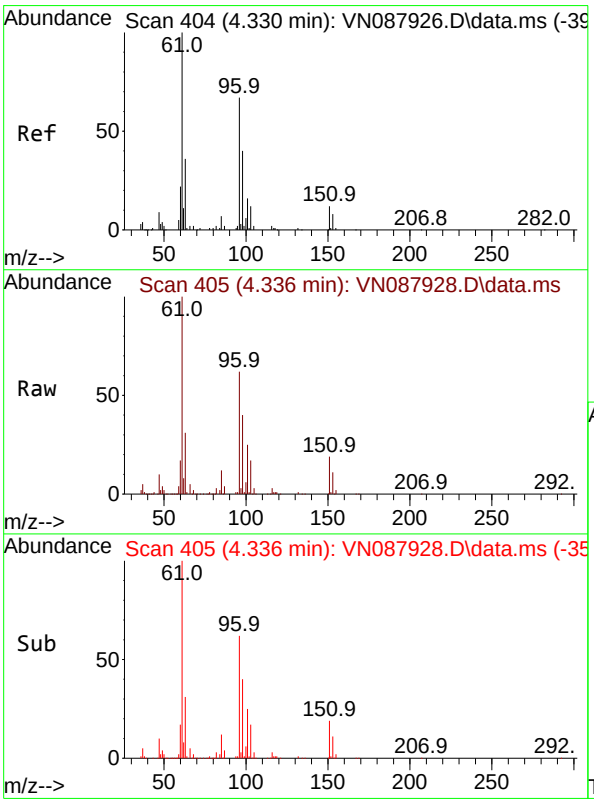
Ion	Ratio	Lower	Upper
59	100		
57	10.5	8.8	13.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

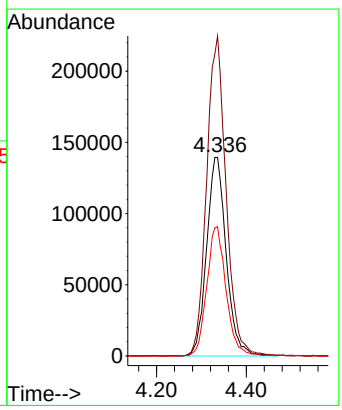
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

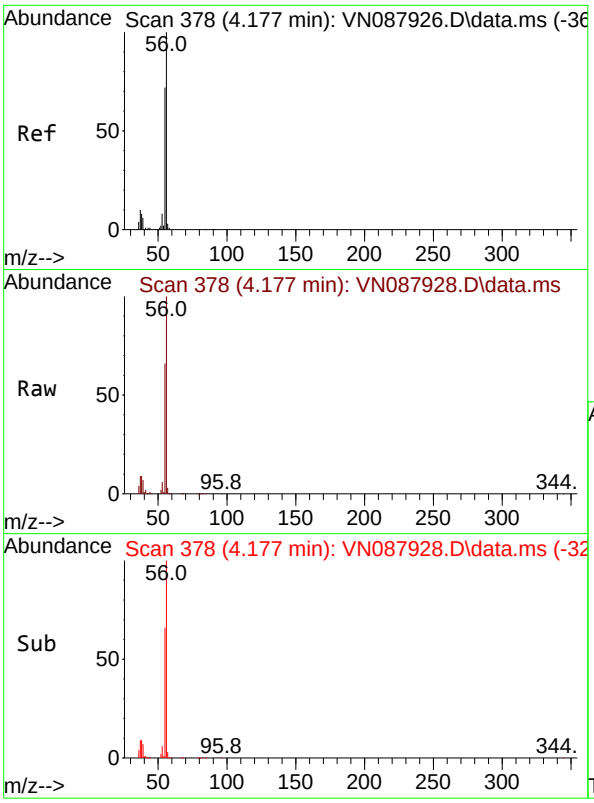


#12
1,1-Dichloroethene
Concen: 153.951 ug/l
RT: 4.336 min Scan# 405
Delta R.T. 0.006 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 96 Resp: 423177

Ion	Ratio	Lower	Upper
96	100		
61	161.1	119.2	178.8
98	65.1	47.5	71.3

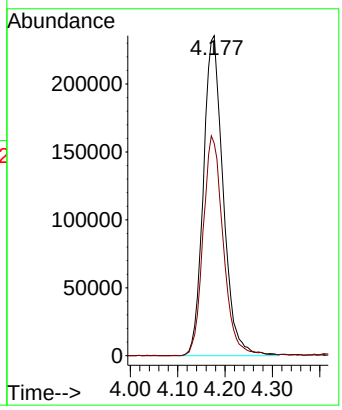




#13
Acrolein
Concen: 839.839 ug/l
RT: 4.177 min Scan# 3
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 56 Resp: 68354

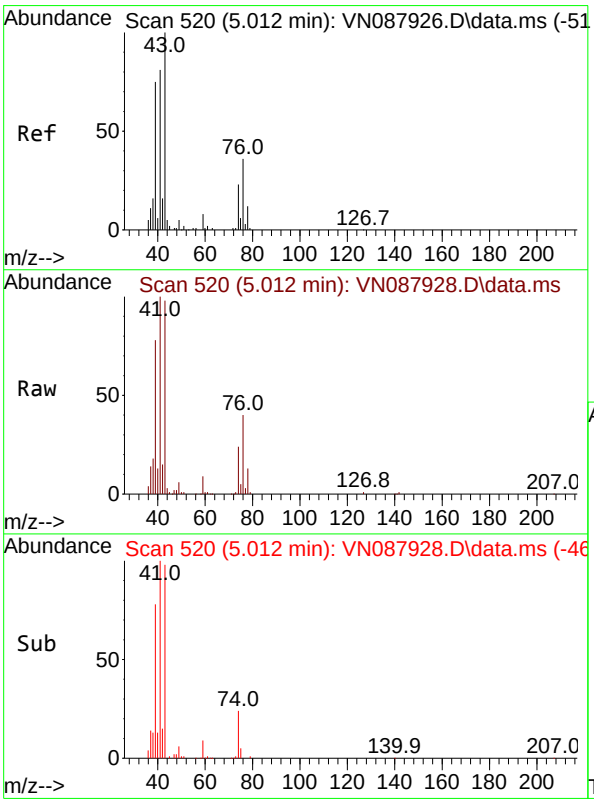
Ion	Ratio	Lower	Upper
56	100		
55	69.8	59.3	88.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

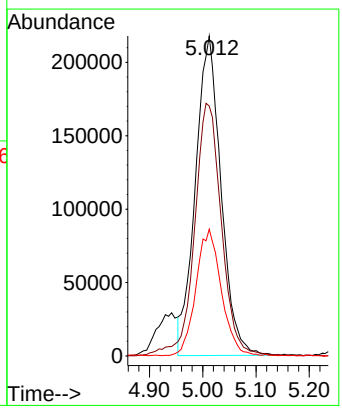
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

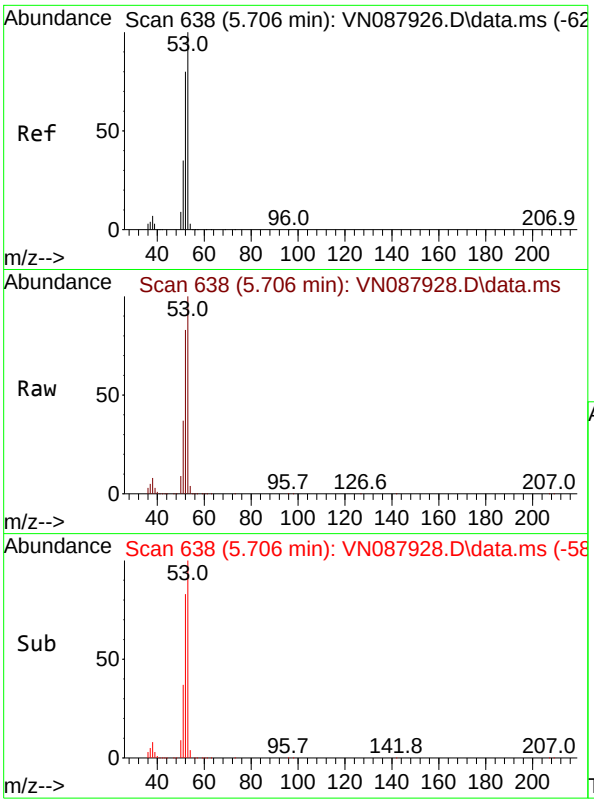


#14
Allyl chloride
Concen: 162.449 ug/l
RT: 5.012 min Scan# 520
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 41 Resp: 726966

Ion	Ratio	Lower	Upper
41	100		
39	83.3	63.8	95.8
76	39.0	33.0	49.6

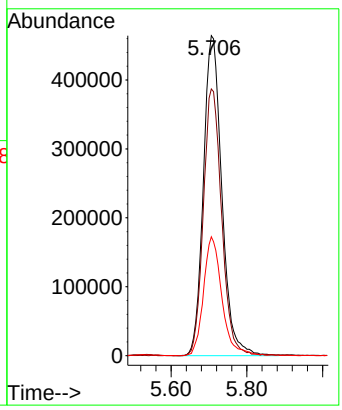




#15
Acrylonitrile
Concen: 788.849 ug/l
RT: 5.706 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 53 Resp: 156957

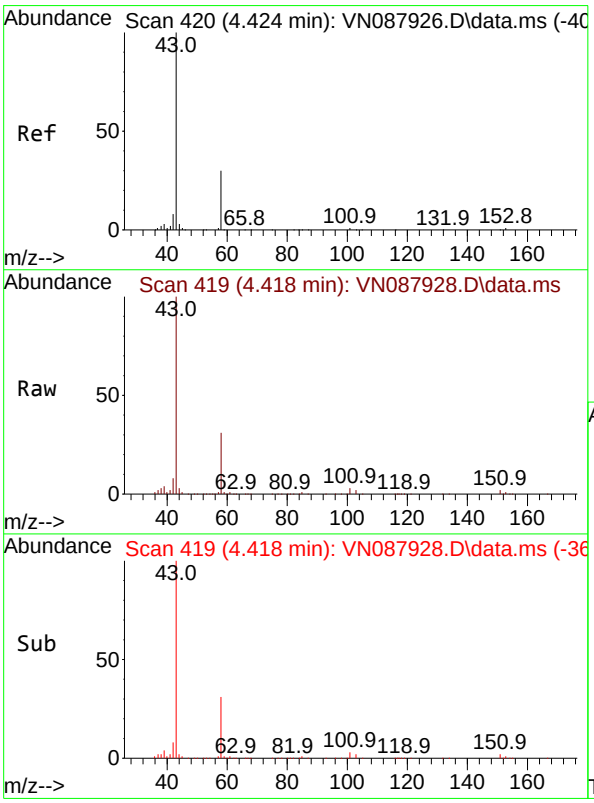
Ion	Ratio	Lower	Upper
53	100		
52	82.5	66.6	99.8
51	37.0	29.0	43.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

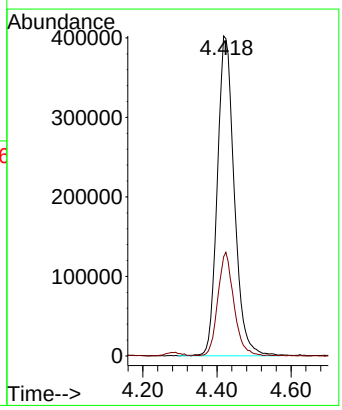
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

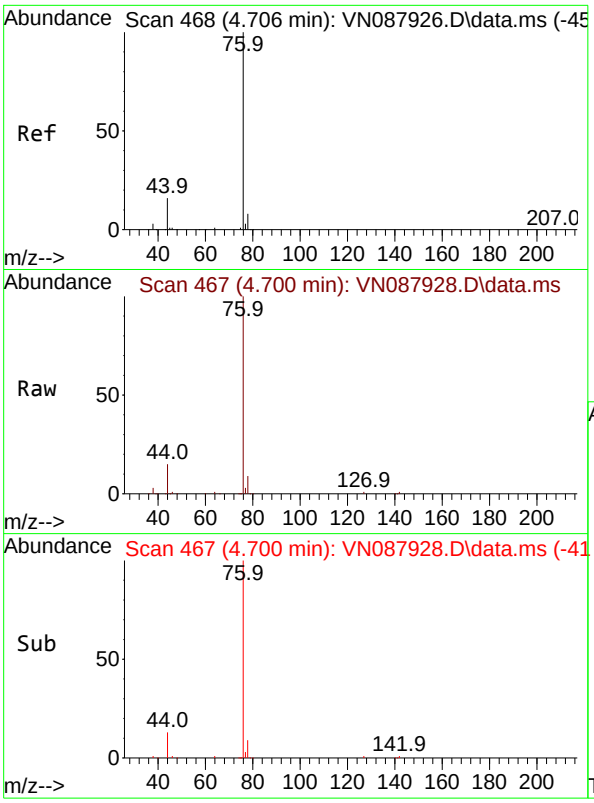


#16
Acetone
Concen: 700.927 ug/l
RT: 4.418 min Scan# 419
Delta R.T. -0.006 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 43 Resp: 1277870

Ion	Ratio	Lower	Upper
43	100		
58	30.9	24.1	36.1

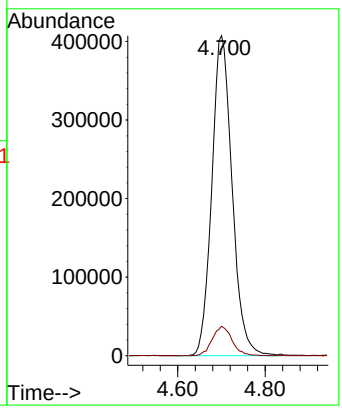




#17
Carbon Disulfide
Concen: 152.800 ug/l
RT: 4.700 min Scan# 4
Delta R.T. -0.006 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 76 Resp: 131229

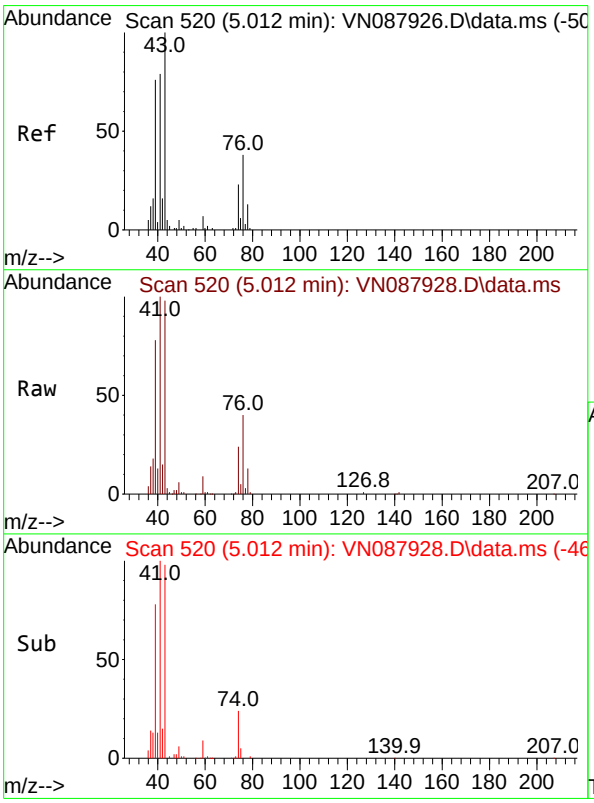
Ion	Ratio	Lower	Upper
76	100		
78	9.2	6.7	10.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

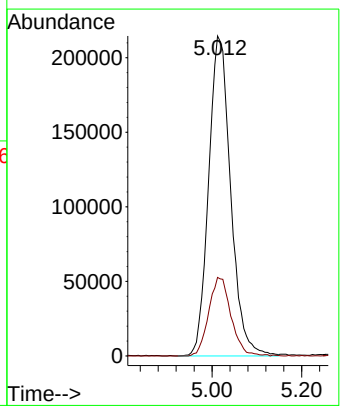
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

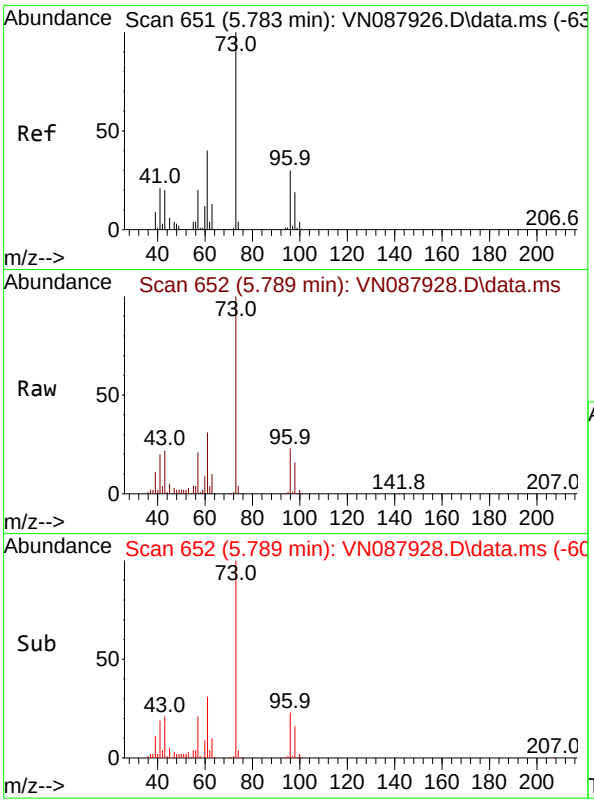


#18
Methyl Acetate
Concen: 161.634 ug/l
RT: 5.012 min Scan# 520
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 43 Resp: 732961

Ion	Ratio	Lower	Upper
43	100		
74	24.8	19.7	29.5

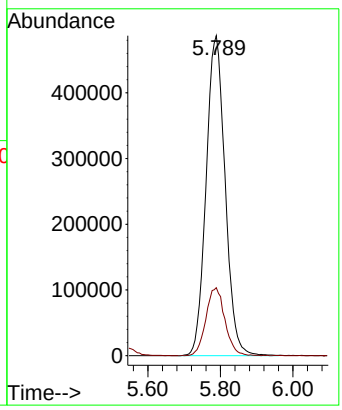




#19
Methyl tert-butyl Ether
Concen: 164.937 ug/l
RT: 5.789 min Scan# 6
Delta R.T. 0.006 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 73 Resp: 177105

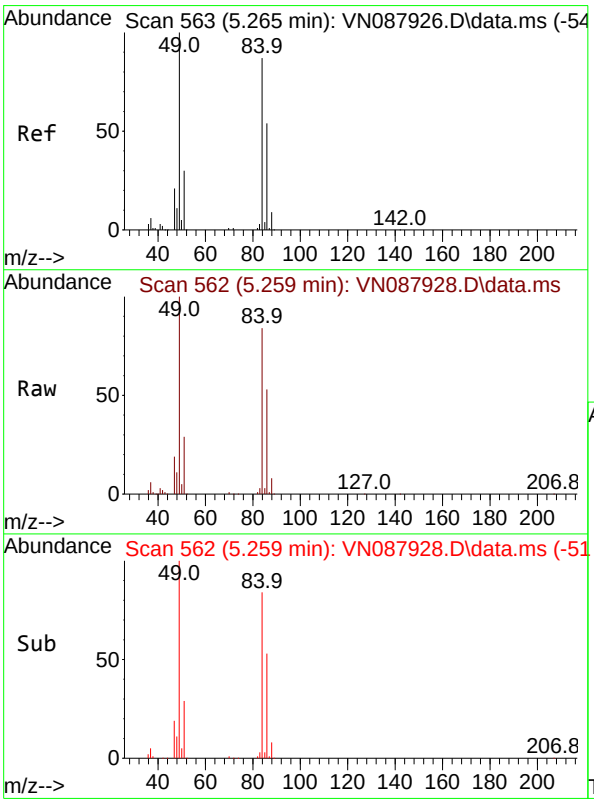
Ion	Ratio	Lower	Upper
73	100		
57	21.3	16.3	24.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

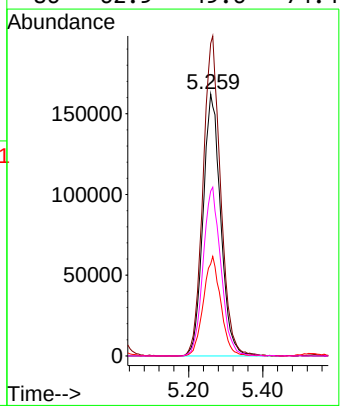
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

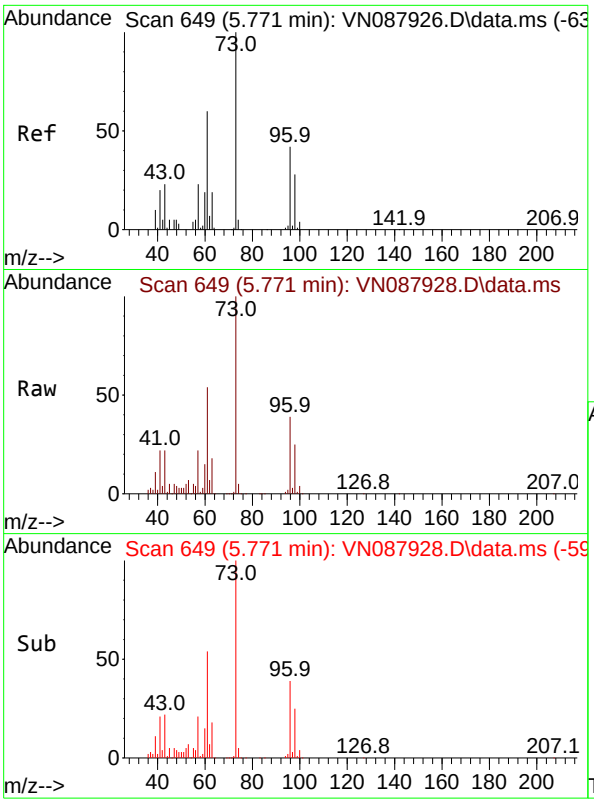


#20
Methylene Chloride
Concen: 145.657 ug/l
RT: 5.259 min Scan# 562
Delta R.T. -0.006 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 84 Resp: 534218

Ion	Ratio	Lower	Upper
84	100		
49	119.3	92.1	138.1
51	35.1	27.7	41.5
86	62.9	49.6	74.4

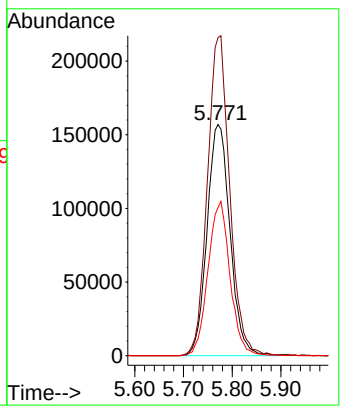




#21
trans-1,2-Dichloroethene
Concen: 152.375 ug/l
RT: 5.771 min Scan# 64
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 96 Resp: 51346

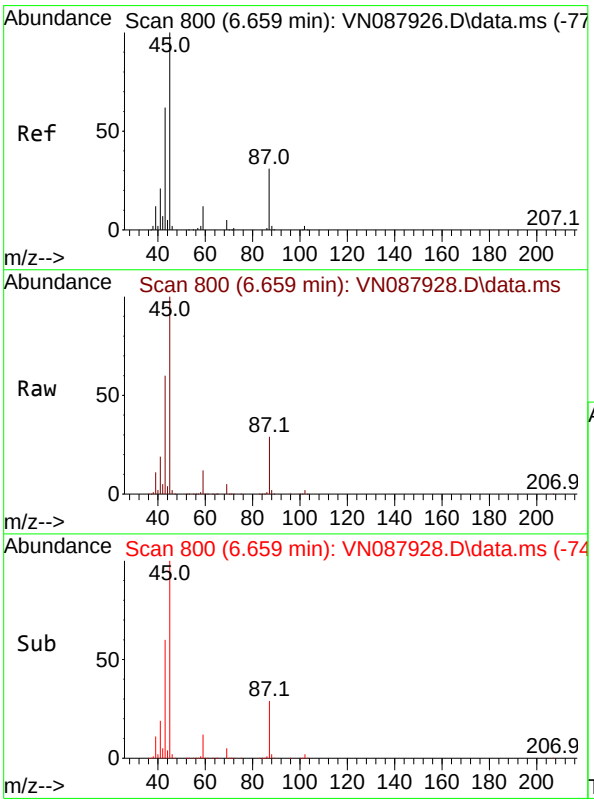
Ion	Ratio	Lower	Upper
96	100		
61	137.6	114.4	171.6
98	64.1	53.6	80.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

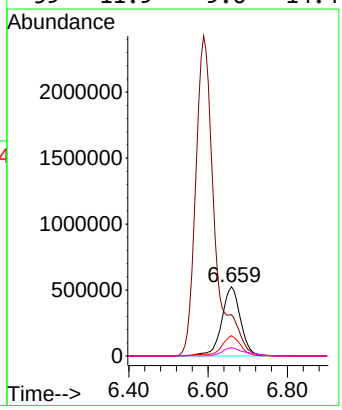
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

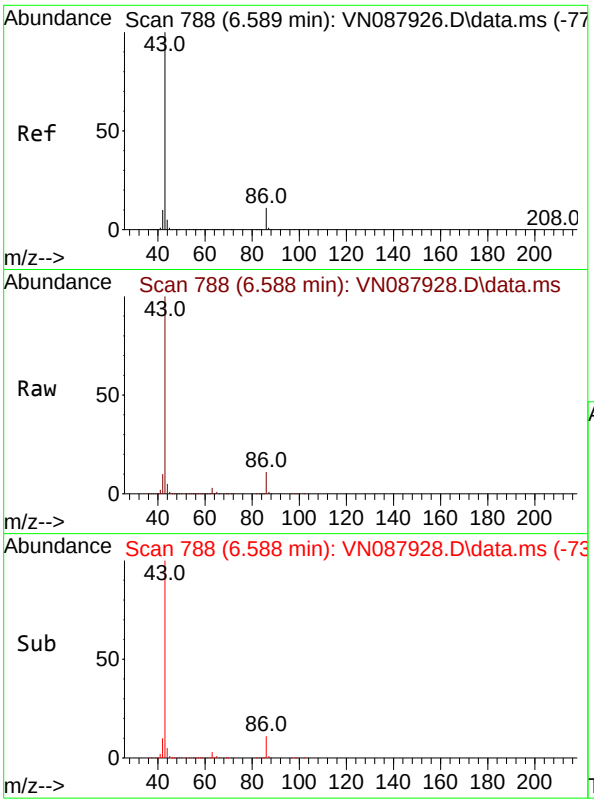


#22
Diisopropyl ether
Concen: 165.280 ug/l
RT: 6.659 min Scan# 800
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 45 Resp: 1726637

Ion	Ratio	Lower	Upper
45	100		
43	59.4	49.9	74.9
87	29.4	25.2	37.8
59	11.9	9.6	14.4

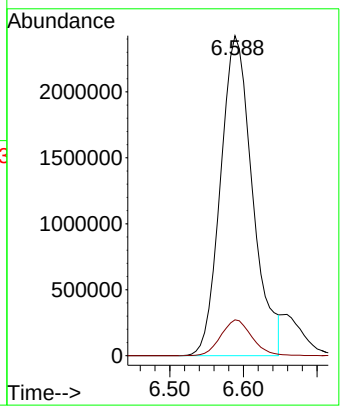




#23
Vinyl Acetate
Concen: 833.068 ug/l m
RT: 6.588 min Scan# 7
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 43 Resp: 732762

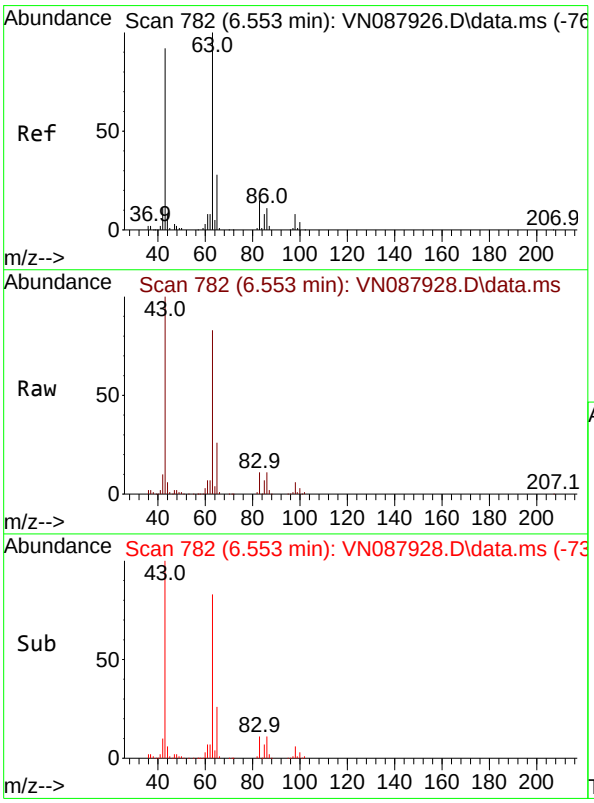
Ion	Ratio	Lower	Upper
43	100		
86	11.2	8.6	12.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

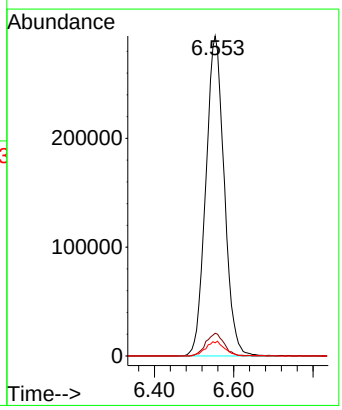
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

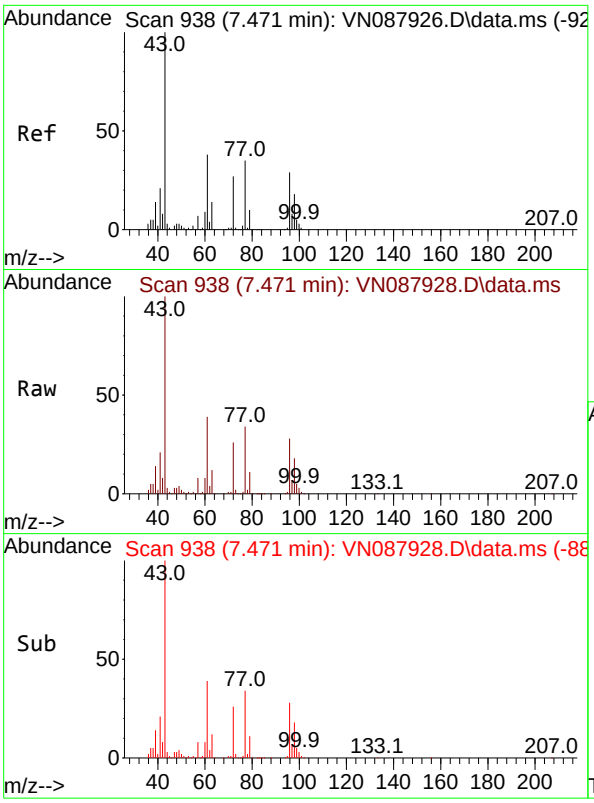


#24
1,1-Dichloroethane
Concen: 155.178 ug/l
RT: 6.553 min Scan# 782
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 63 Resp: 947100

Ion	Ratio	Lower	Upper
63	100		
98	7.1	3.9	11.5
100	4.1	2.1	6.5

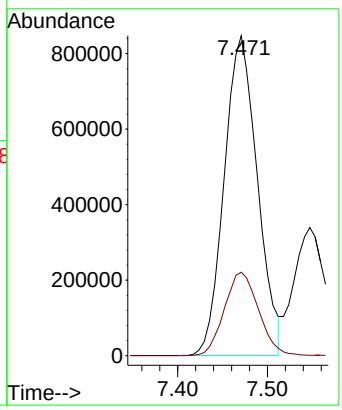




#25
2-Butanone
Concen: 785.726 ug/l
RT: 7.471 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 43 Resp: 217608

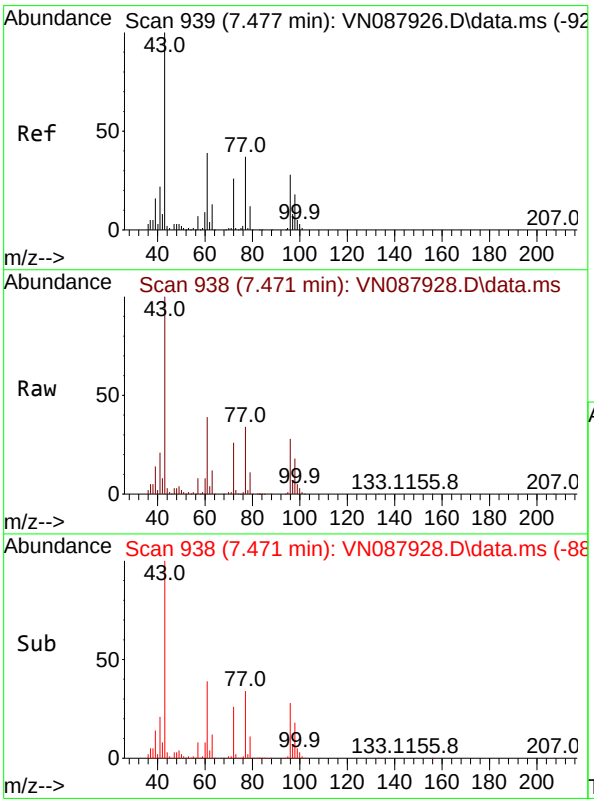
Ion	Ratio	Lower	Upper
43	100		
72	26.1	21.5	32.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

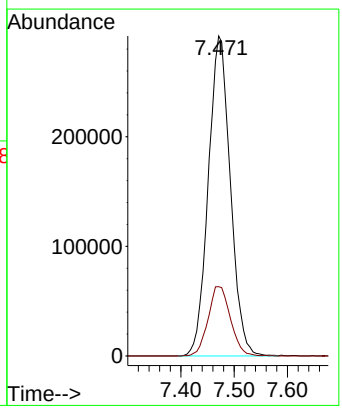
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

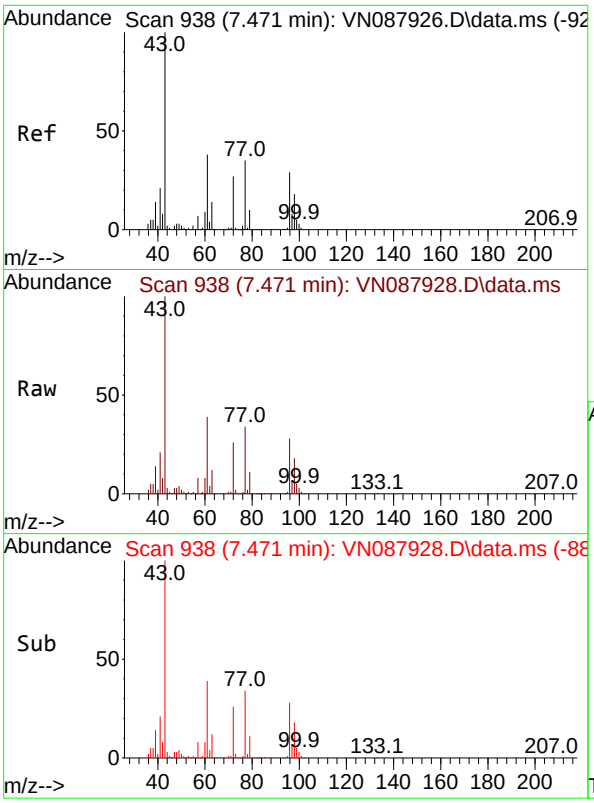


#26
2,2-Dichloropropane
Concen: 154.787 ug/l
RT: 7.471 min Scan# 938
Delta R.T. -0.006 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 77 Resp: 839353

Ion	Ratio	Lower	Upper
77	100		
97	22.0	11.5	34.5

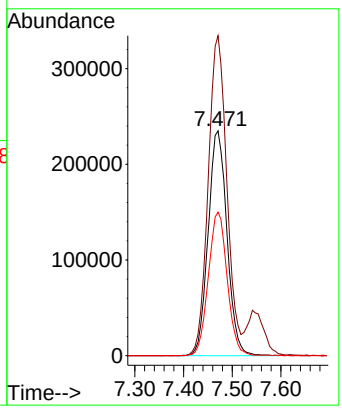




#27
cis-1,2-Dichloroethene
Concen: 157.420 ug/l
RT: 7.471 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 96 Resp: 63117

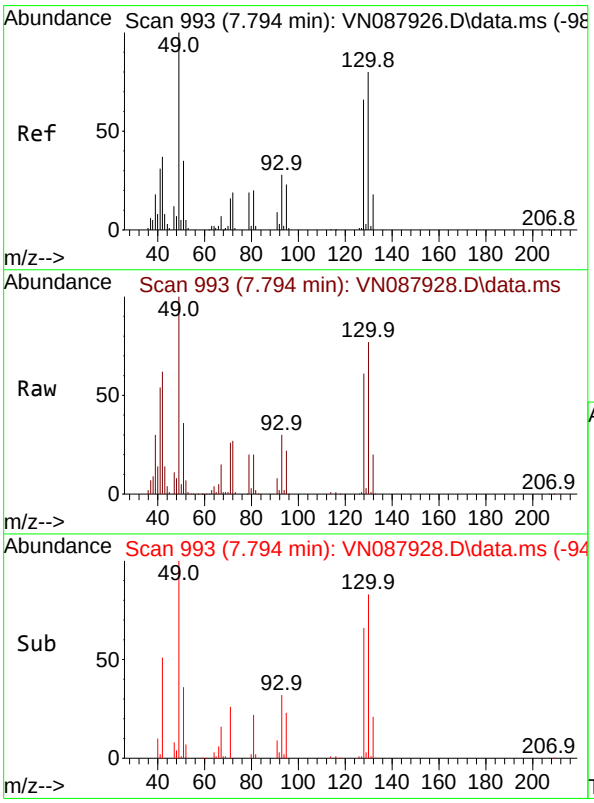
Ion	Ratio	Lower	Upper
96	100		
61	140.5	0.0	283.0
98	63.9	0.0	127.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

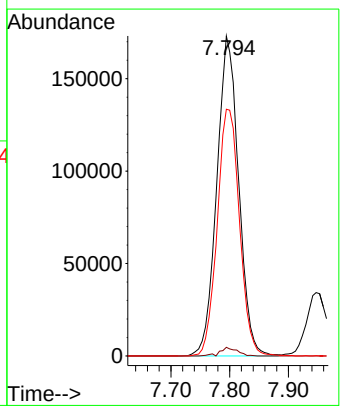
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

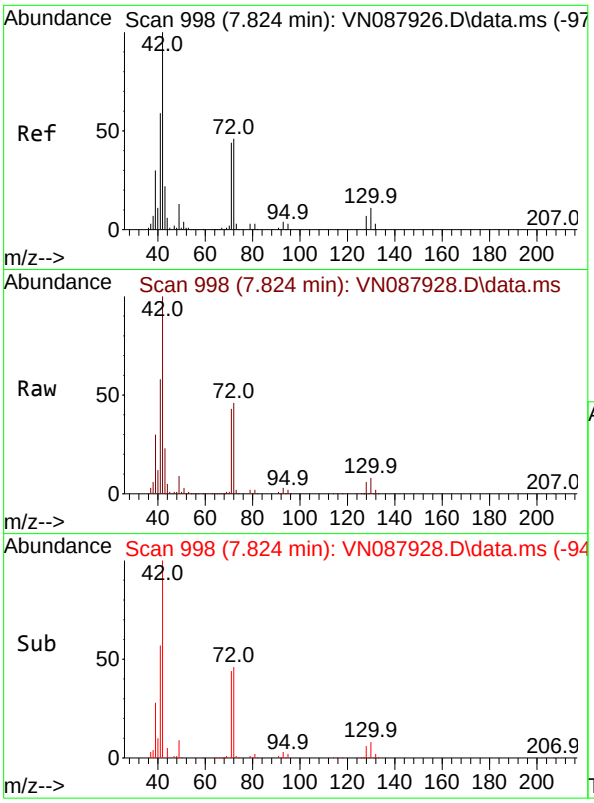


#28
Bromochloromethane
Concen: 134.830 ug/l
RT: 7.794 min Scan# 993
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 49 Resp: 447101

Ion	Ratio	Lower	Upper
49	100		
129	2.1	0.0	5.4
130	78.7	62.6	94.0

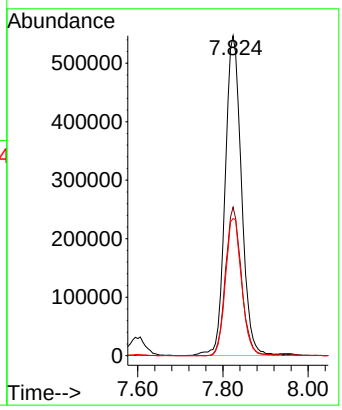




#29
Tetrahydrofuran
Concen: 821.368 ug/l
RT: 7.824 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 42 Resp: 145658

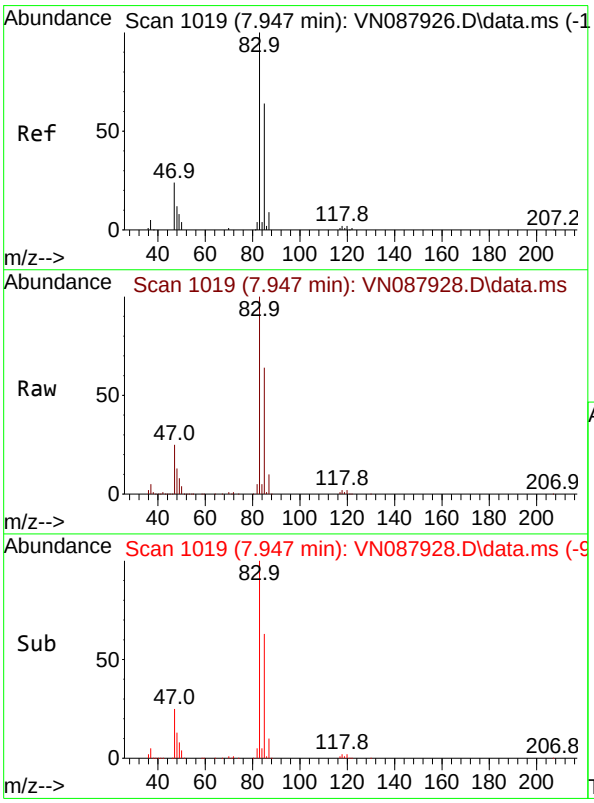
Ion	Ratio	Lower	Upper
42	100		
72	45.0	36.5	54.7
71	42.6	33.8	50.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

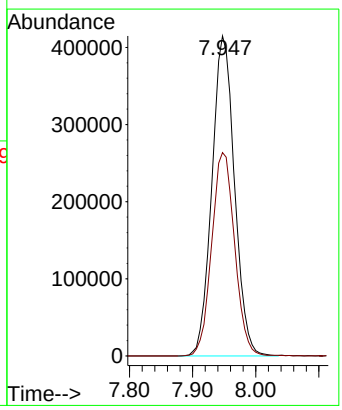
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

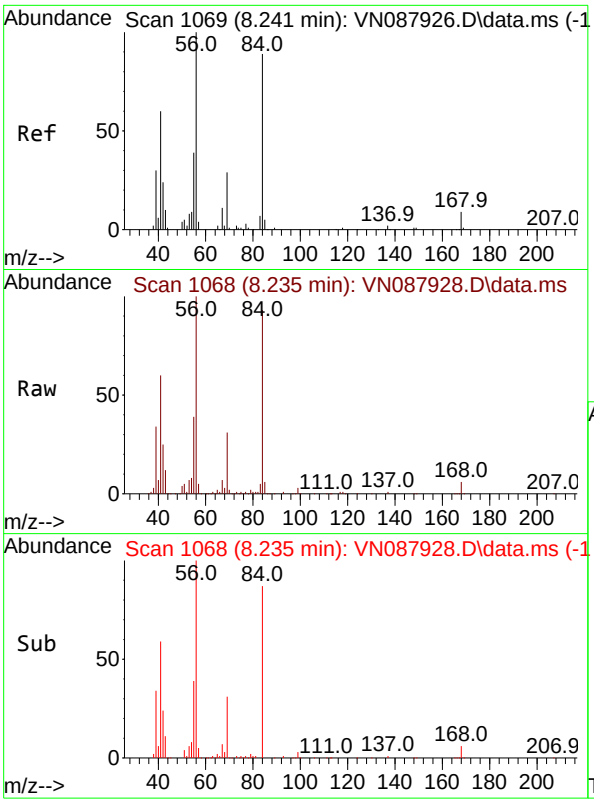


#30
Chloroform
Concen: 154.431 ug/l
RT: 7.947 min Scan# 1019
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 83 Resp: 1030586

Ion	Ratio	Lower	Upper
83	100		
85	63.6	50.9	76.3

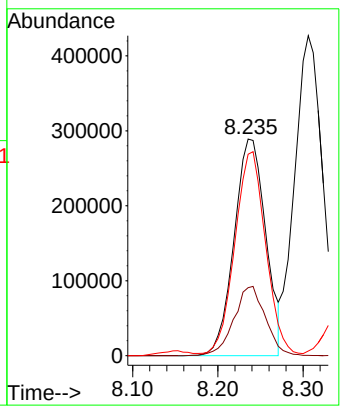




#31
Cyclohexane
Concen: 151.116 ug/l
RT: 8.235 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 56 Resp: 74627

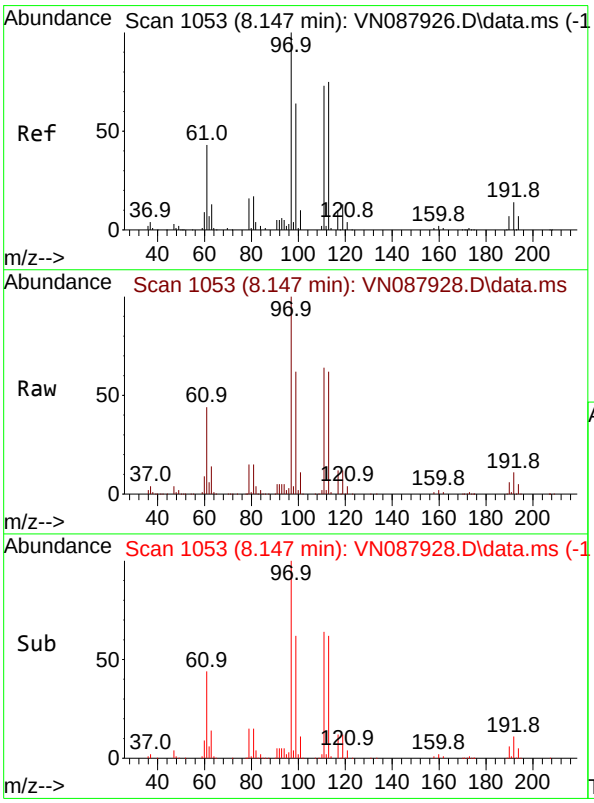
Ion	Ratio	Lower	Upper
56	100		
69	31.4	23.4	35.0
84	90.7	70.8	106.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

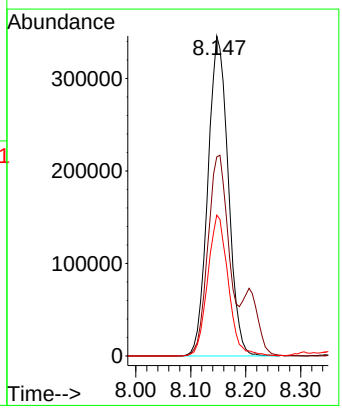
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

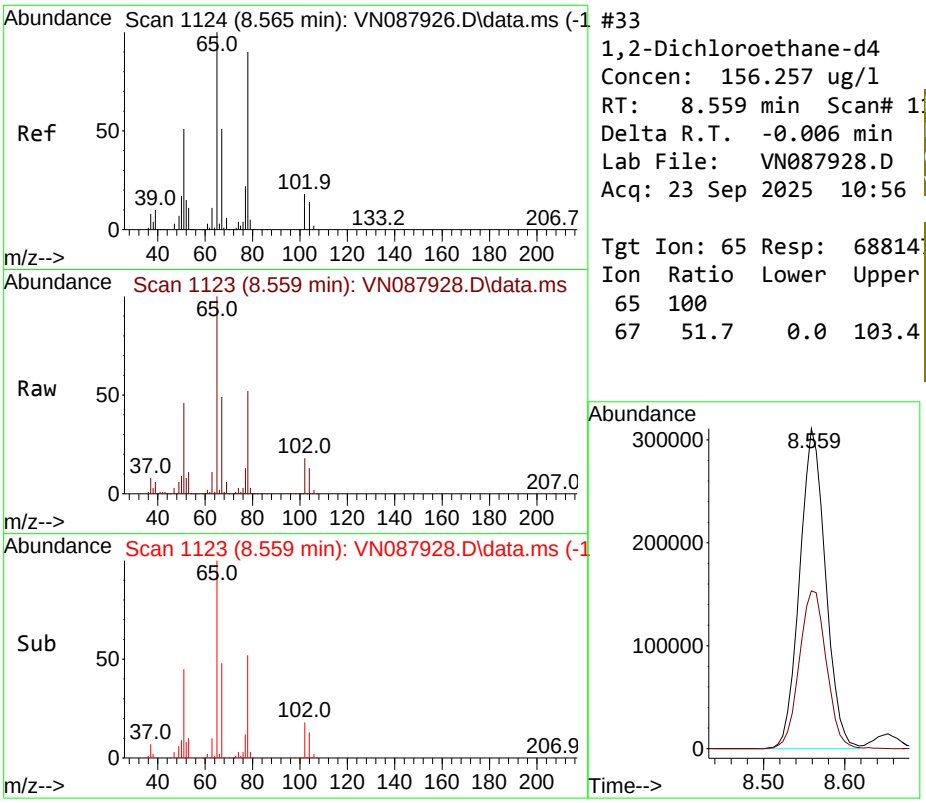


#32
1,1,1-Trichloroethane
Concen: 157.722 ug/l
RT: 8.147 min Scan# 1053
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 97 Resp: 889373

Ion	Ratio	Lower	Upper
97	100		
99	65.2	51.1	76.7
61	44.6	38.6	58.0





#33
1,2-Dichloroethane-d4
Concen: 156.257 ug/l
RT: 8.559 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

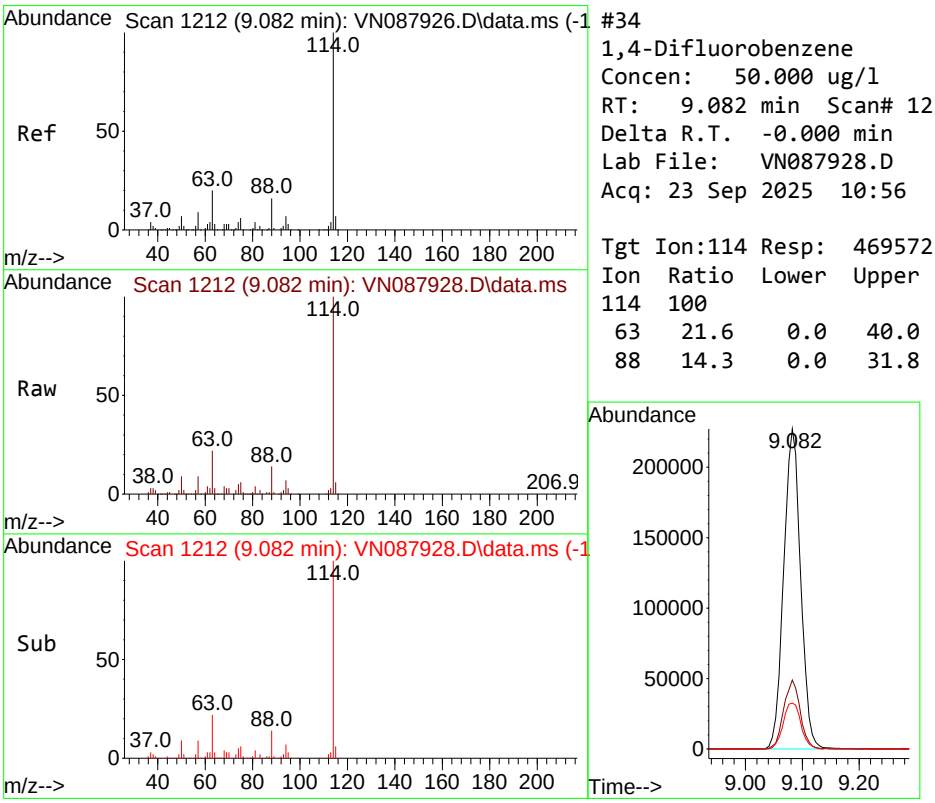
Tgt Ion: 65 Resp: 68814

Ion	Ratio	Lower	Upper
65	100		
67	51.7	0.0	103.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

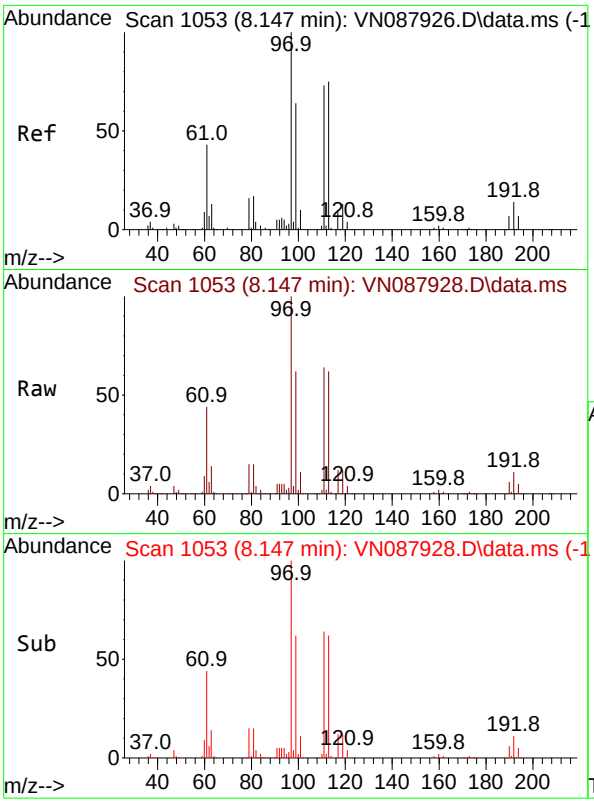
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025



#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.082 min Scan# 1212
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion:114 Resp: 469572

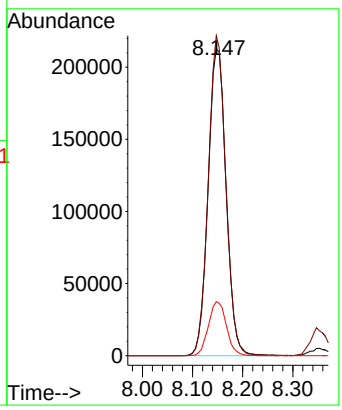
Ion	Ratio	Lower	Upper
114	100		
63	21.6	0.0	40.0
88	14.3	0.0	31.8



#35
Dibromofluoromethane
Concen: 155.401 ug/l
RT: 8.147 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion:113 Resp: 52981

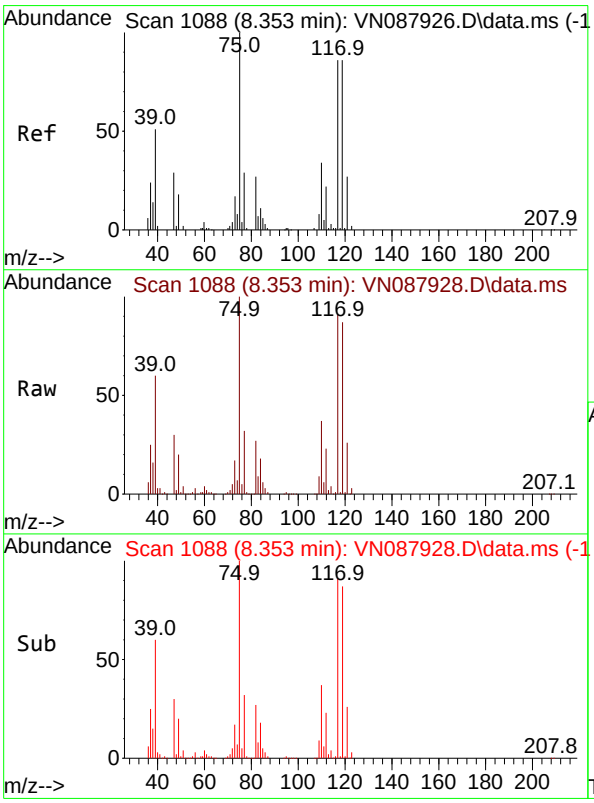
Ion	Ratio	Lower	Upper
113	100		
111	101.9	82.2	123.2
192	17.6	14.2	21.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

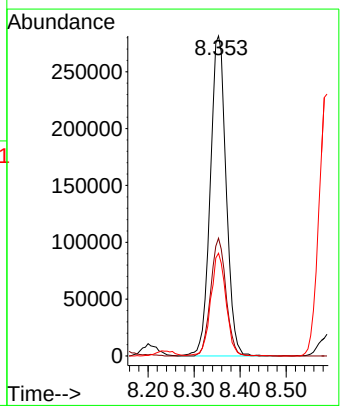
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

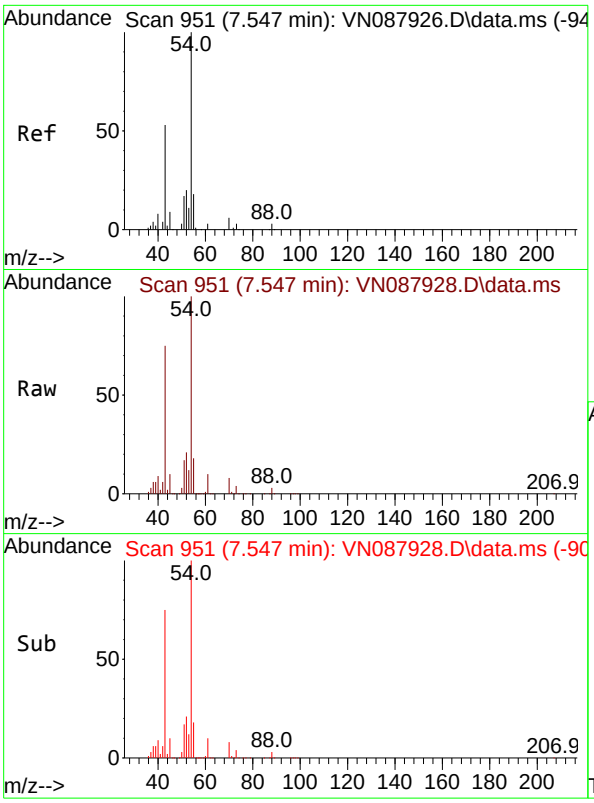


#36
1,1-Dichloropropene
Concen: 164.170 ug/l
RT: 8.353 min Scan# 1088
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 75 Resp: 673022

Ion	Ratio	Lower	Upper
75	100		
110	35.7	17.1	51.3
77	30.7	24.8	37.2





#37
Ethyl Acetate
Concen: 162.416 ug/l
RT: 7.547 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

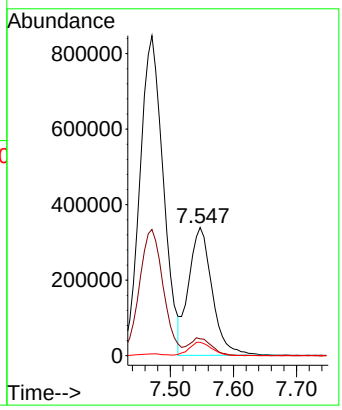
Tgt Ion: 43 Resp: 87434

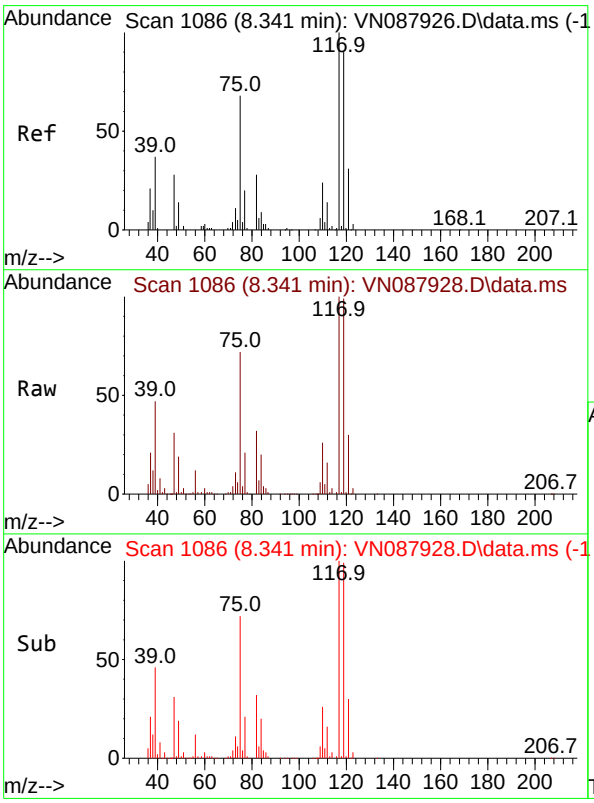
Ion	Ratio	Lower	Upper
43	100		
61	12.2	10.7	16.1
70	10.0	7.8	11.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

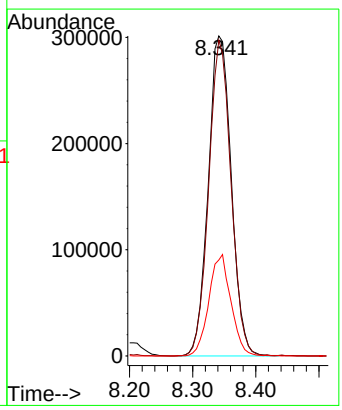


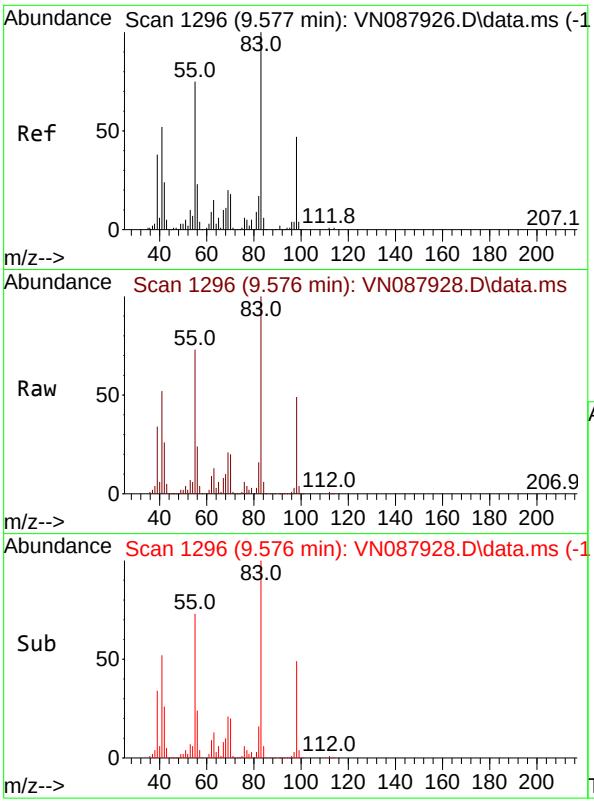


#38
Carbon Tetrachloride
Concen: 162.245 ug/l
RT: 8.341 min Scan# 1086
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion:117 Resp: 763232

Ion	Ratio	Lower	Upper
117	100		
119	98.6	72.1	108.1
121	30.0	24.6	36.8

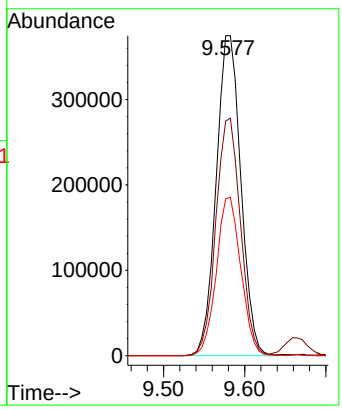




#39
Methylcyclohexane
Concen: 175.104 ug/l
RT: 9.576 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 83 Resp: 79189

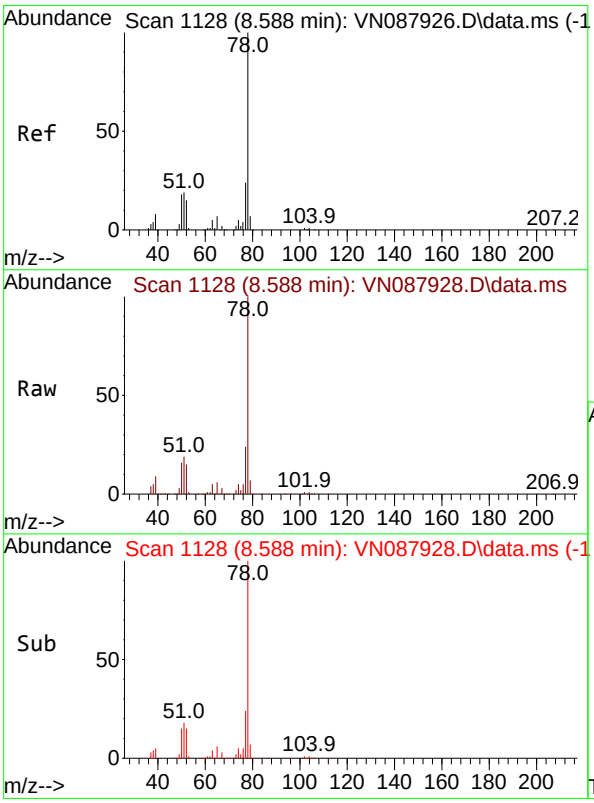
Ion	Ratio	Lower	Upper
83	100		
55	73.3	59.9	89.9
98	49.0	37.4	56.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

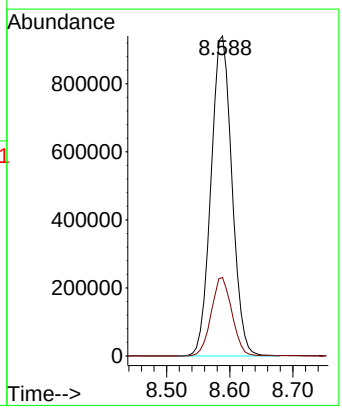
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

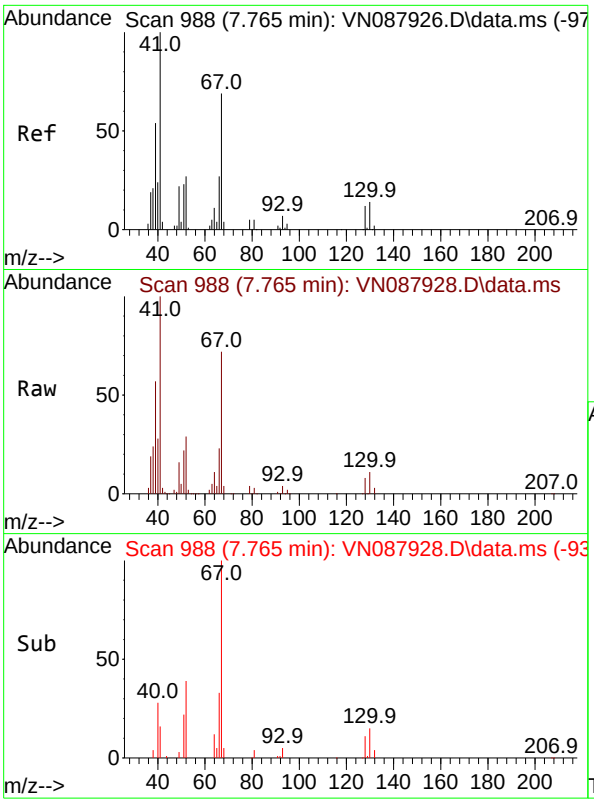


#40
Benzene
Concen: 159.817 ug/l
RT: 8.588 min Scan# 1128
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 78 Resp: 2169328

Ion	Ratio	Lower	Upper
78	100		
77	24.5	19.0	28.6

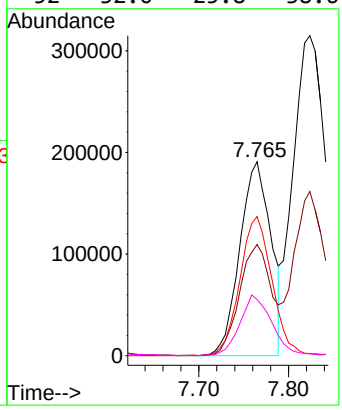




#41
Methacrylonitrile
Concen: 165.421 ug/l
RT: 7.765 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 41 Resp: 46021

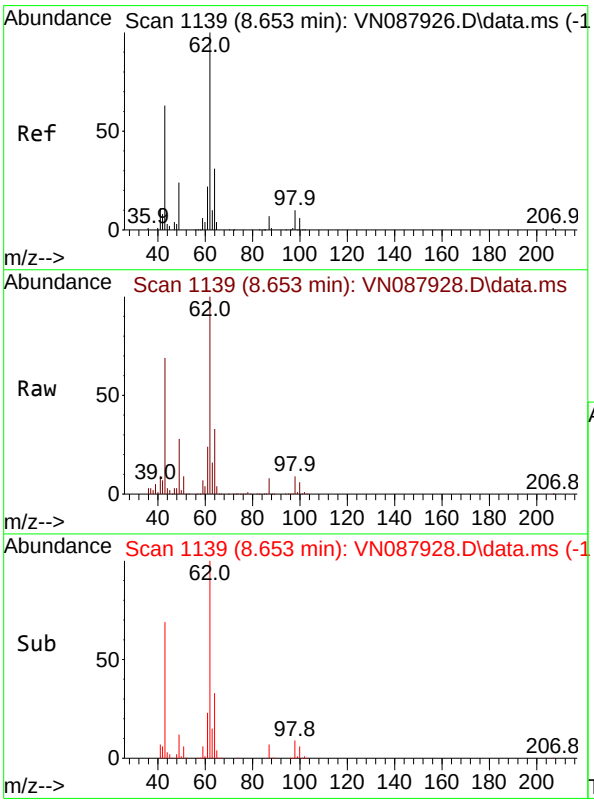
Ion	Ratio	Lower	Upper
41	100		
39	58.0	43.5	65.3
67	74.5	57.6	86.4
52	32.0	25.8	38.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

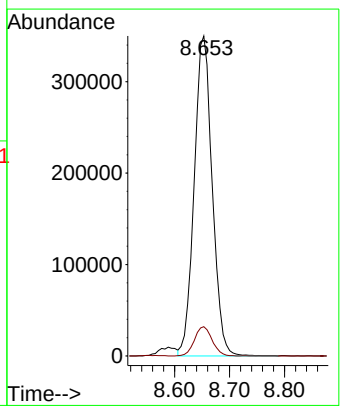
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

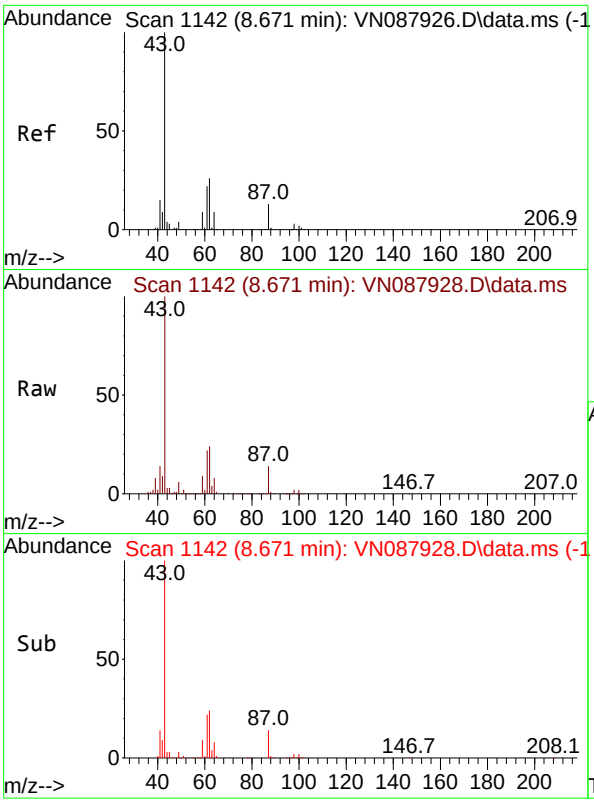


#42
1,2-Dichloroethane
Concen: 157.154 ug/l
RT: 8.653 min Scan# 1139
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 62 Resp: 796063

Ion	Ratio	Lower	Upper
62	100		
98	9.0	0.0	18.6

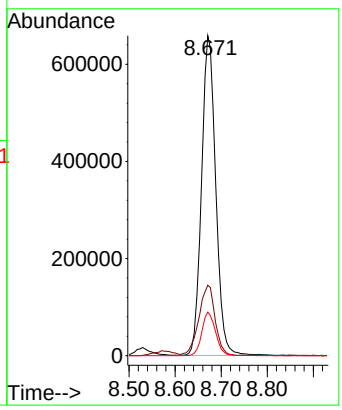




#43
Isopropyl Acetate
Concen: 167.431 ug/l
RT: 8.671 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 43 Resp: 141877

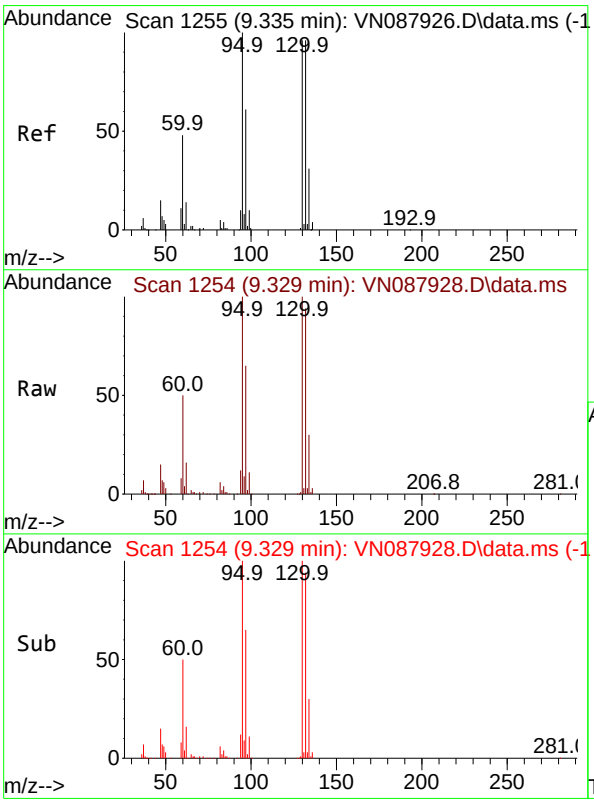
Ion	Ratio	Lower	Upper
43	100		
61	25.0	20.2	30.2
87	13.1	10.9	16.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

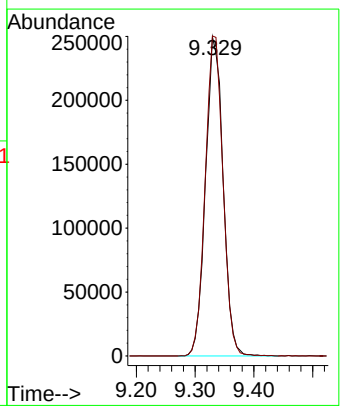
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

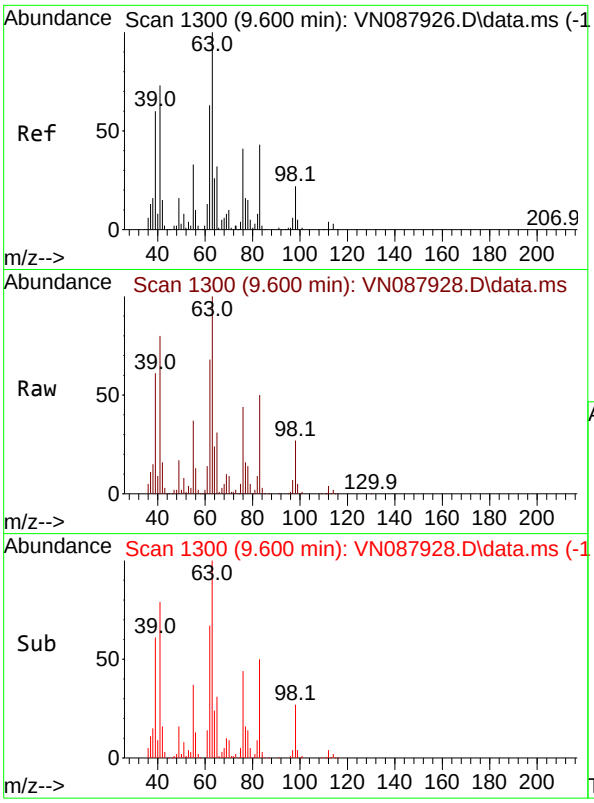


#44
Trichloroethene
Concen: 159.533 ug/l
RT: 9.329 min Scan# 1254
Delta R.T. -0.006 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion:130 Resp: 517259

Ion	Ratio	Lower	Upper
130	100		
95	100.3	0.0	208.0





#45
1,2-Dichloropropane
Concen: 155.841 ug/l
RT: 9.600 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

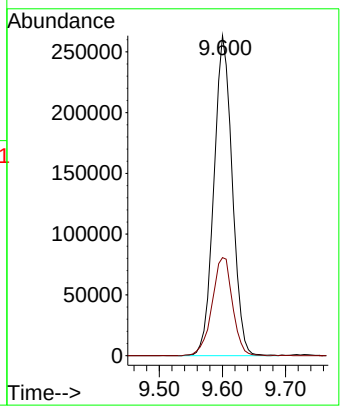
Tgt Ion: 63 Resp: 53043

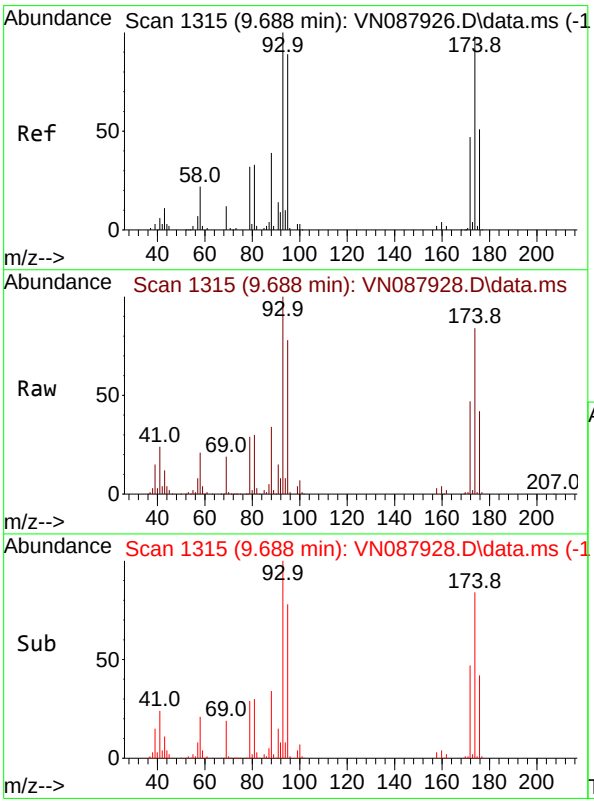
Ion	Ratio	Lower	Upper
63	100		
65	30.7	25.4	38.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

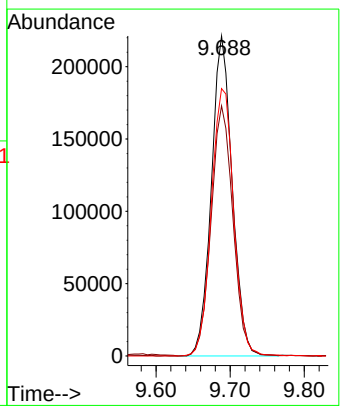


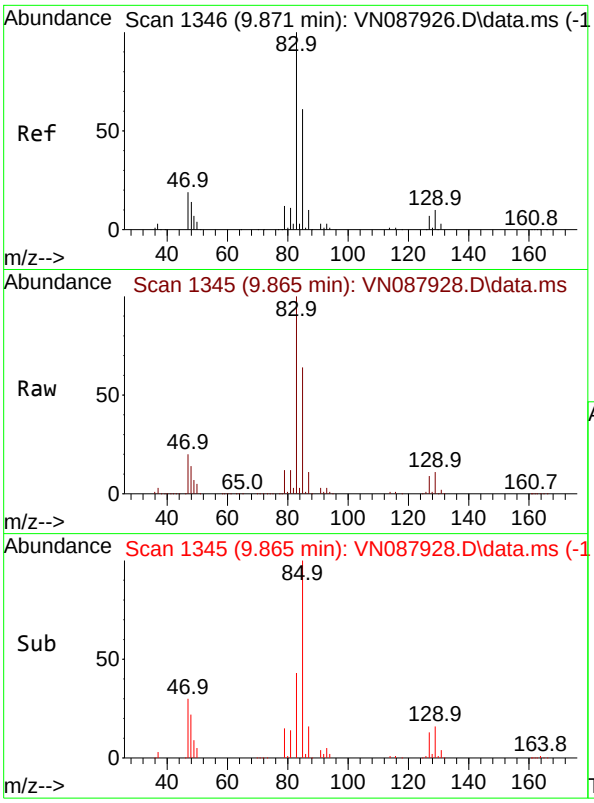


#46
Dibromomethane
Concen: 161.101 ug/l
RT: 9.688 min Scan# 1315
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 93 Resp: 432679

Ion	Ratio	Lower	Upper
93	100		
95	81.6	67.6	101.4
174	89.8	75.4	113.0

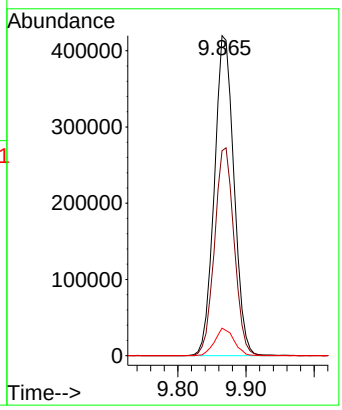




#47
Bromodichloromethane
Concen: 159.615 ug/l
RT: 9.865 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 83 Resp: 84081

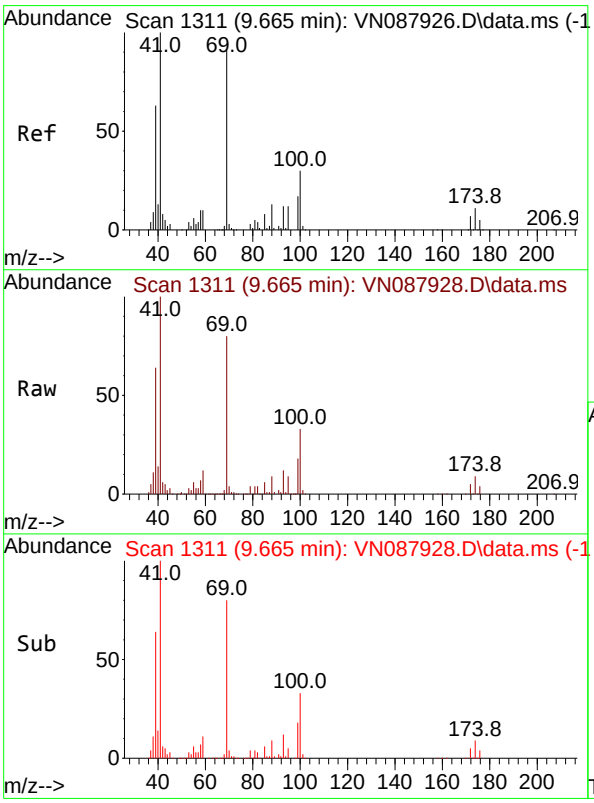
Ion	Ratio	Lower	Upper
83	100		
85	64.1	49.1	73.7
127	8.6	5.9	8.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

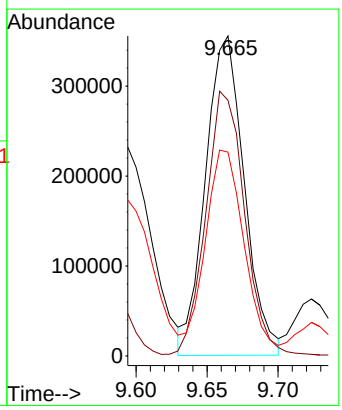
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

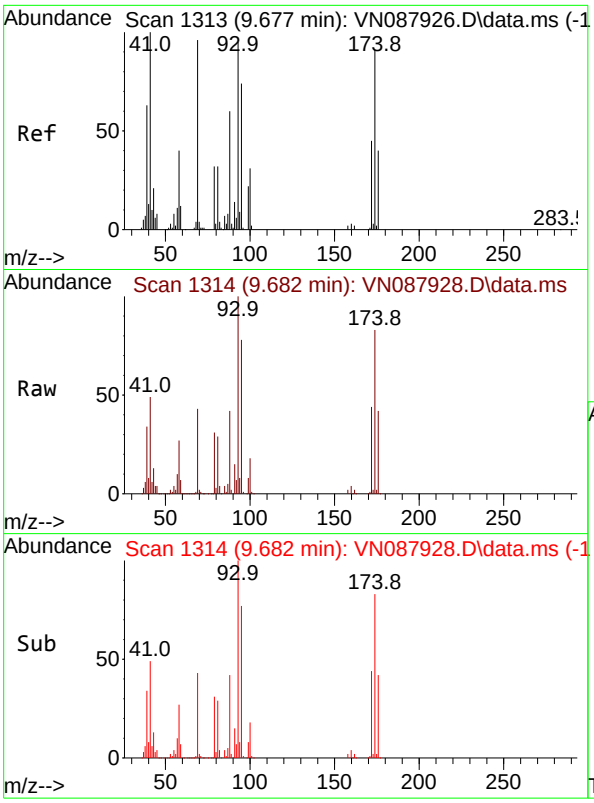


#48
Methyl methacrylate
Concen: 171.912 ug/l
RT: 9.665 min Scan# 1311
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 41 Resp: 674610

Ion	Ratio	Lower	Upper
41	100		
69	83.3	70.9	106.3
39	65.4	52.9	79.3





#49
1,4-Dioxane
Concen: 3294.105 ug/l
RT: 9.682 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

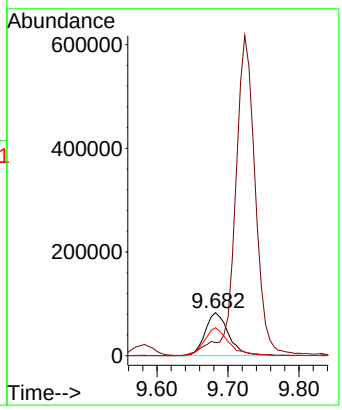
Tgt Ion: 88 Resp: 19096

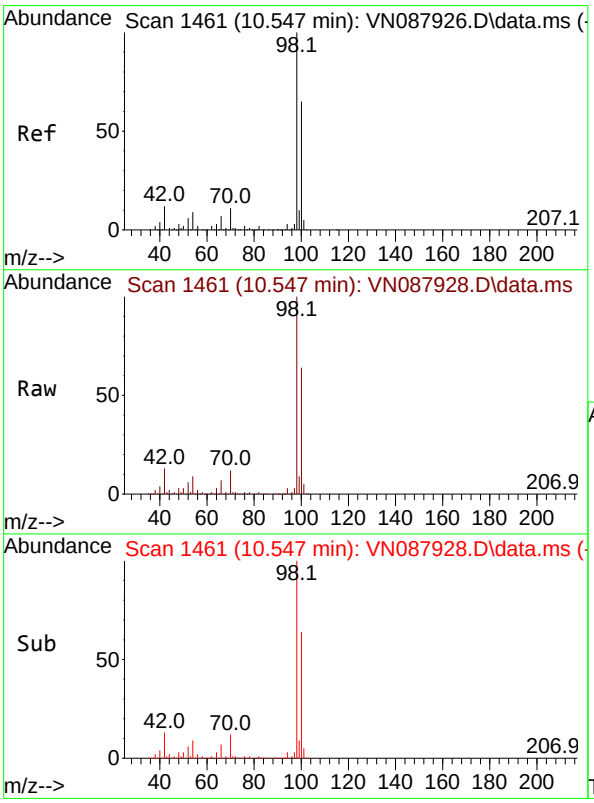
Ion	Ratio	Lower	Upper
88	100		
43	0.0	22.6	33.8
58	67.8	57.4	86.2

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

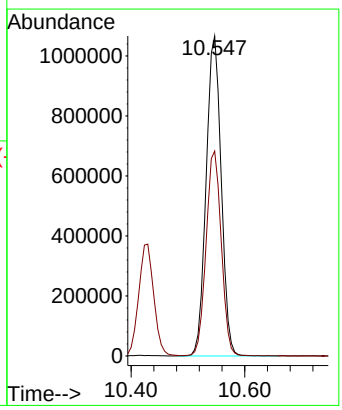


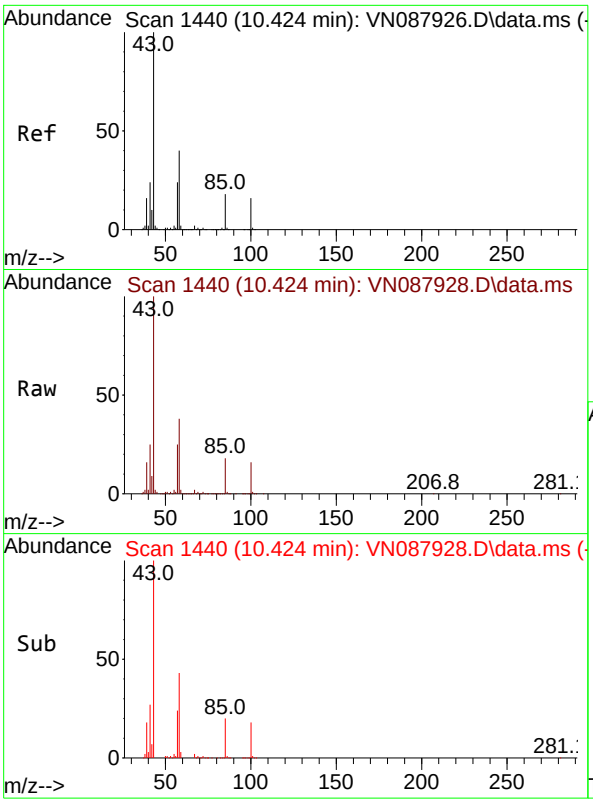


#50
Toluene-d8
Concen: 162.910 ug/l
RT: 10.547 min Scan# 1461
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 98 Resp: 1953189

Ion	Ratio	Lower	Upper
98	100		
100	64.5	51.7	77.5





#51
4-Methyl-2-Pentanone
Concen: 818.303 ug/l
RT: 10.424 min Scan# 14
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

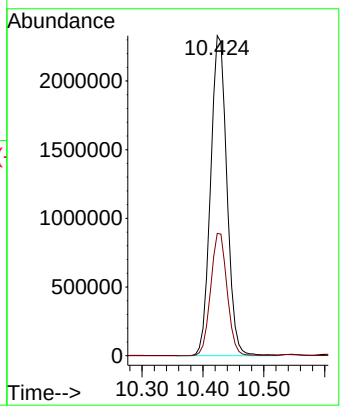
Tgt Ion: 43 Resp: 432688

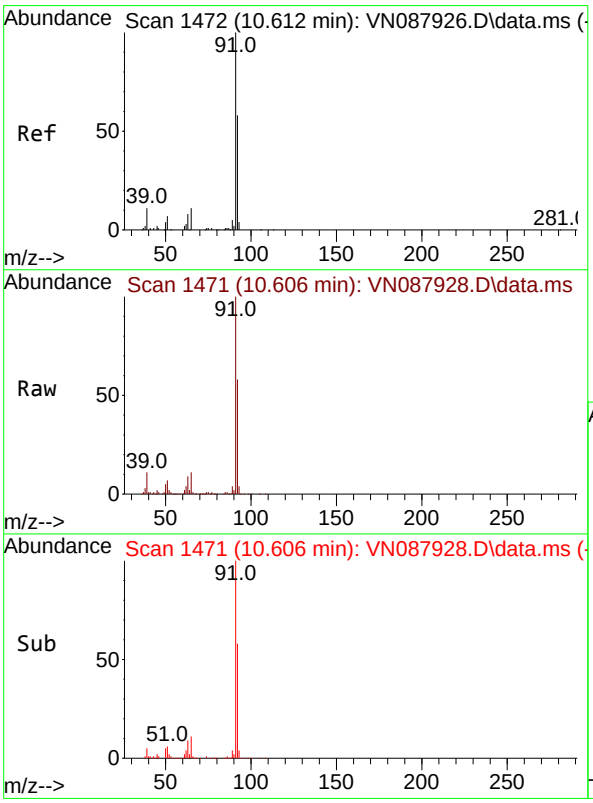
Ion	Ratio	Lower	Upper
43	100		
58	38.6	31.0	46.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

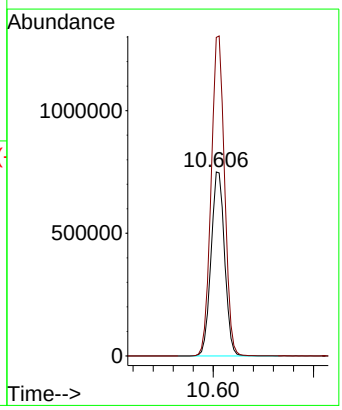


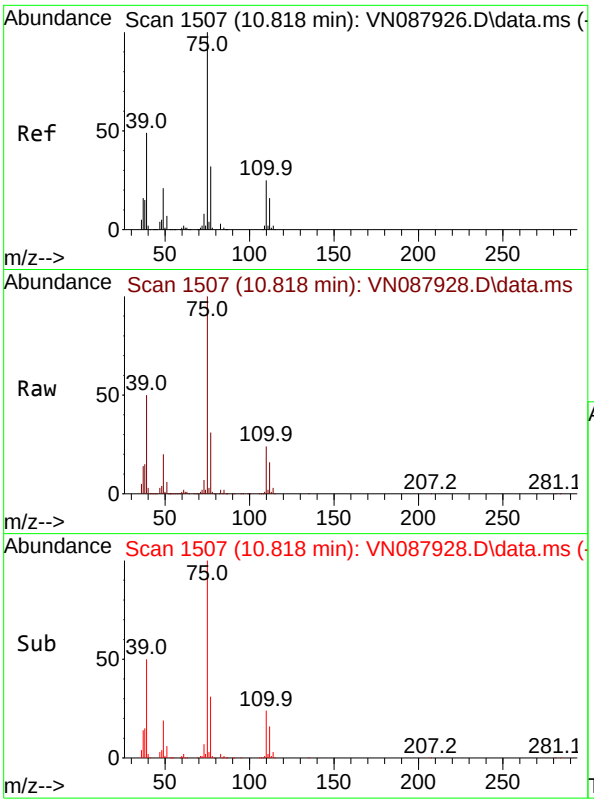


#52
Toluene
Concen: 165.088 ug/l
RT: 10.606 min Scan# 1471
Delta R.T. -0.006 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 92 Resp: 1406217

Ion	Ratio	Lower	Upper
92	100		
91	172.1	138.2	207.2

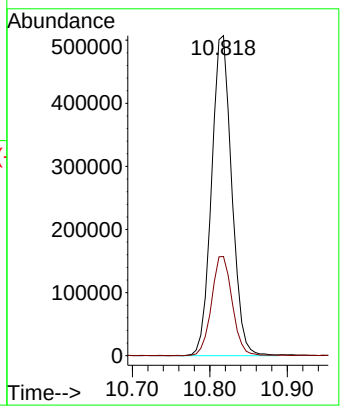




#53
t-1,3-Dichloropropene
Concen: 169.924 ug/l
RT: 10.818 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 75 Resp: 91611

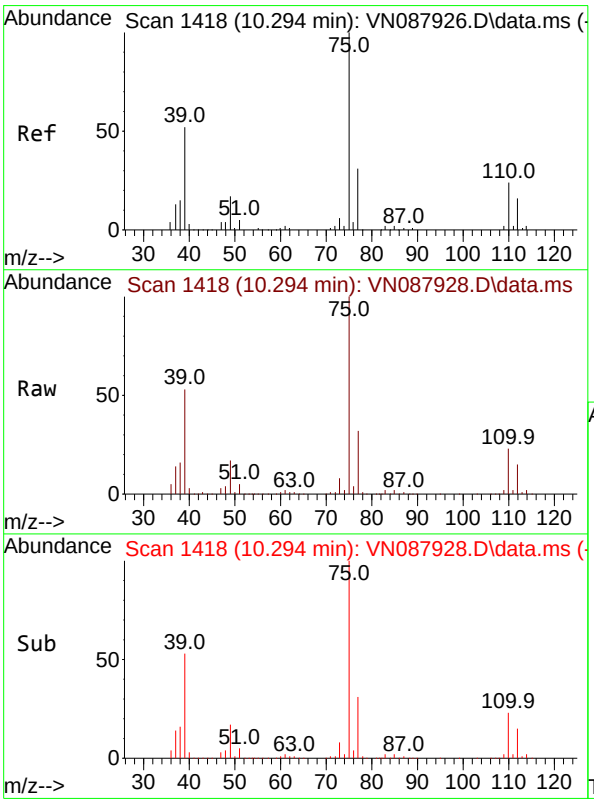
Ion	Ratio	Lower	Upper
75	100		
77	30.9	25.3	37.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

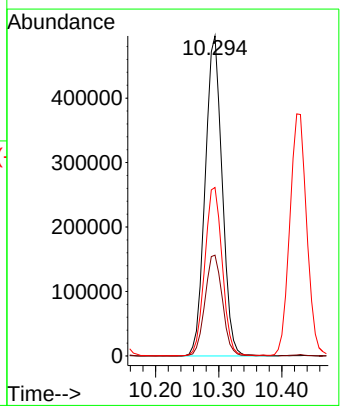
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

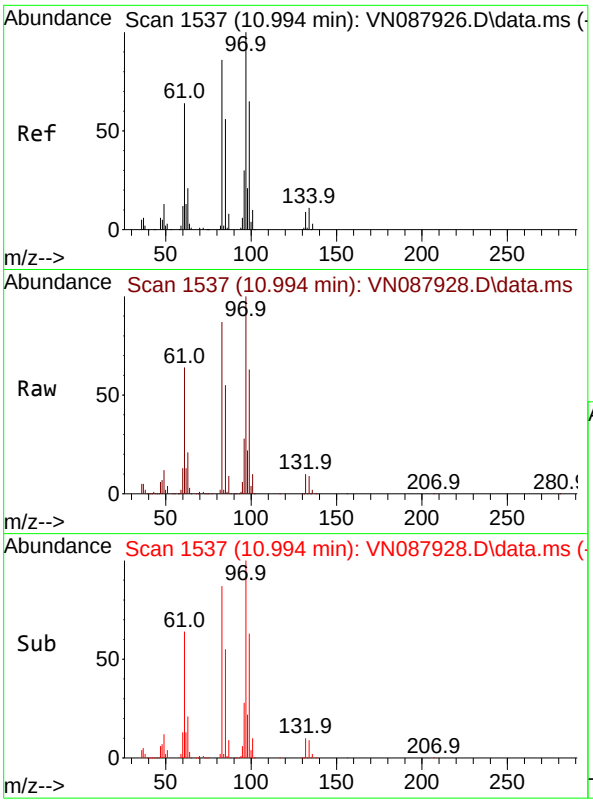


#54
cis-1,3-Dichloropropene
Concen: 165.762 ug/l
RT: 10.294 min Scan# 1418
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 75 Resp: 928185

Ion	Ratio	Lower	Upper
75	100		
77	31.5	24.7	37.1
39	52.5	41.4	62.0

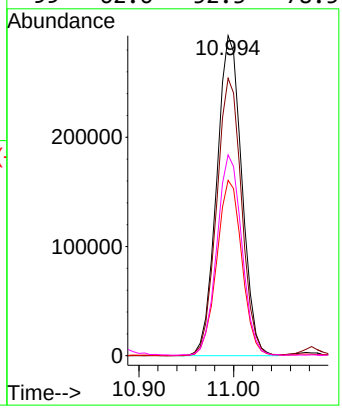




#55
1,1,2-Trichloroethane
Concen: 156.087 ug/l
RT: 10.994 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 97 Resp: 54059

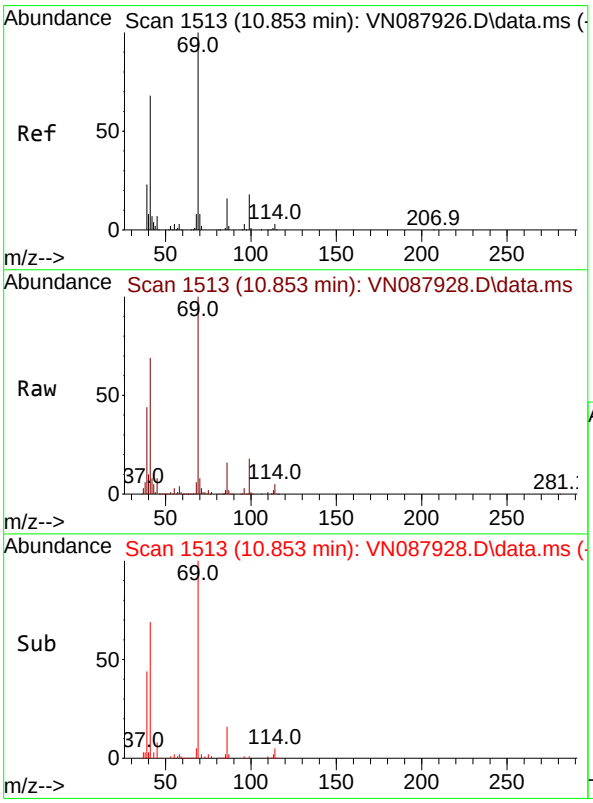
Ion	Ratio	Lower	Upper
97	100		
83	86.6	69.0	103.4
85	54.8	44.4	66.6
99	62.6	52.3	78.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

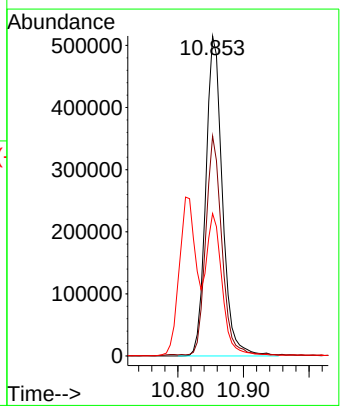
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

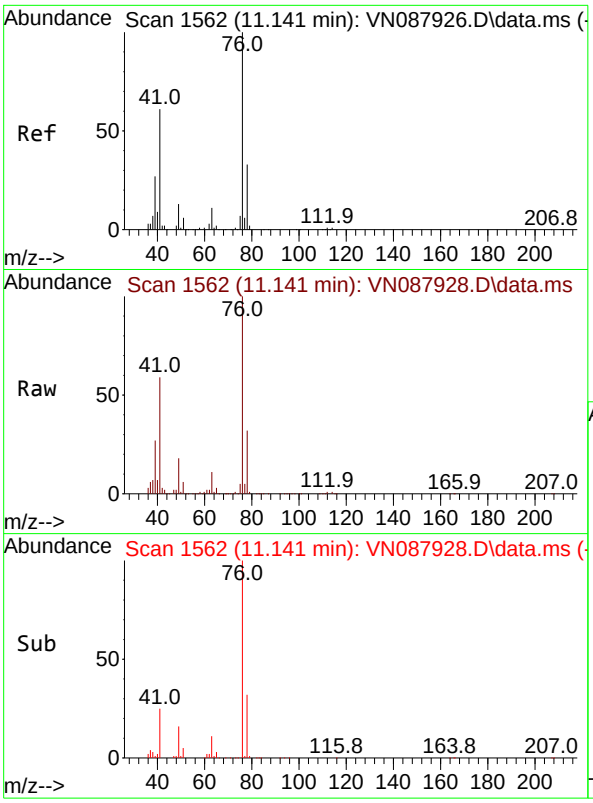


#56
Ethyl methacrylate
Concen: 181.247 ug/l
RT: 10.853 min Scan# 1513
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 69 Resp: 907047

Ion	Ratio	Lower	Upper
69	100		
41	66.0	53.8	80.6
39	42.4	34.7	52.1

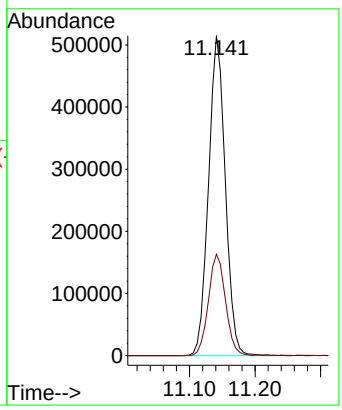




#57
1,3-Dichloropropane
Concen: 160.877 ug/l
RT: 11.141 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 76 Resp: 91644

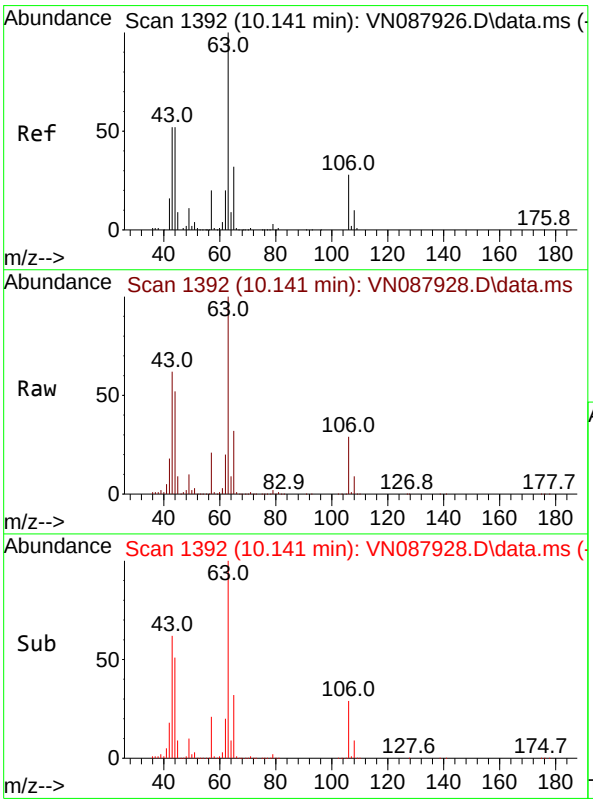
Ion	Ratio	Lower	Upper
76	100		
78	32.3	26.0	39.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

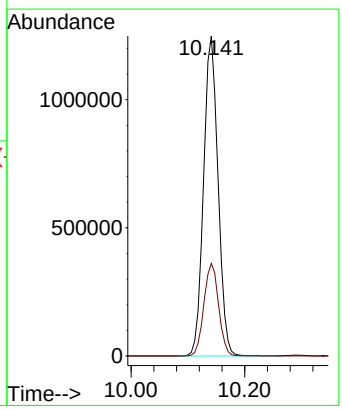
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

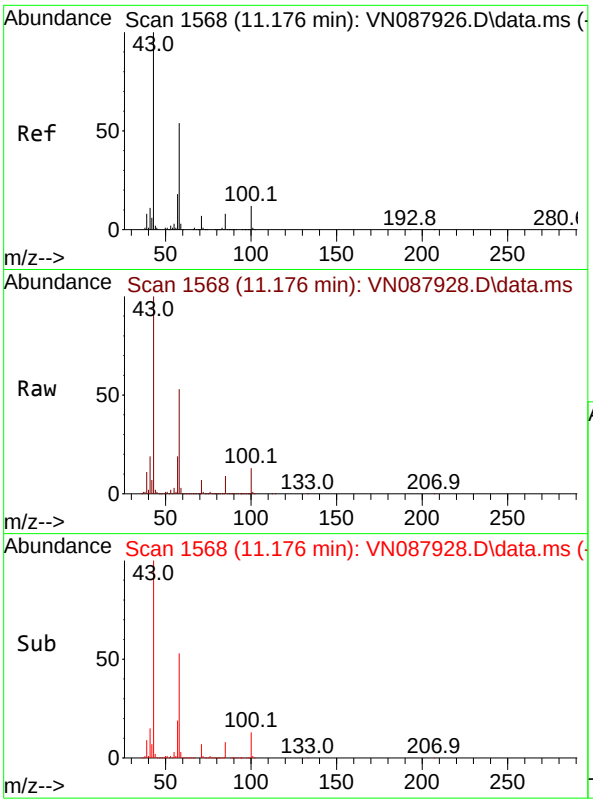


#58
2-Chloroethyl Vinyl ether
Concen: 935.130 ug/l
RT: 10.141 min Scan# 1392
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 63 Resp: 2200367

Ion	Ratio	Lower	Upper
63	100		
106	29.3	22.6	33.8





#59
2-Hexanone
Concen: 879.085 ug/l
RT: 11.176 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

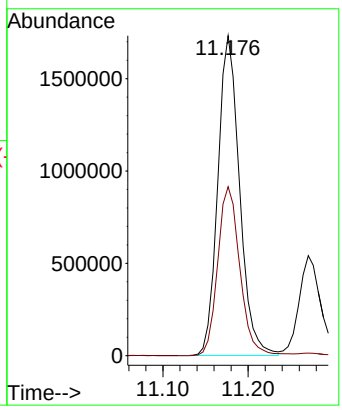
Tgt Ion: 43 Resp: 307353

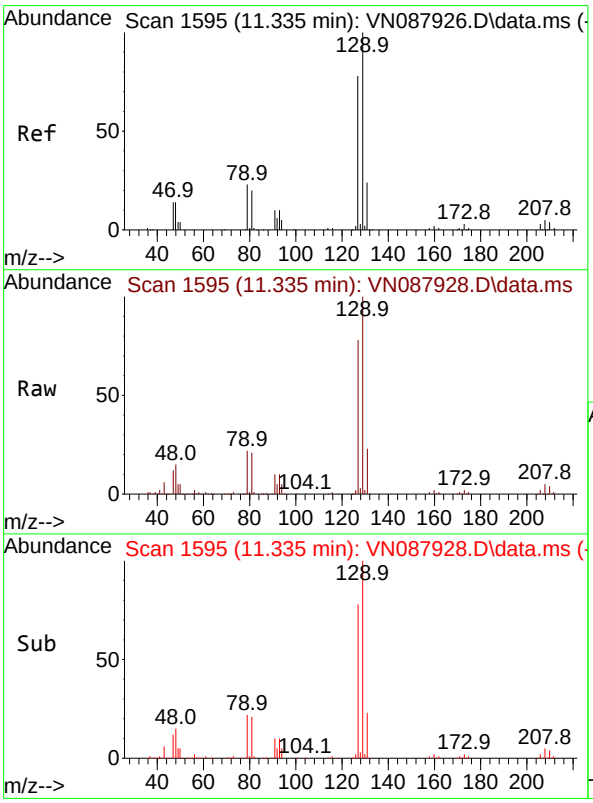
Ion	Ratio	Lower	Upper
43	100		
58	53.9	26.4	79.2

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

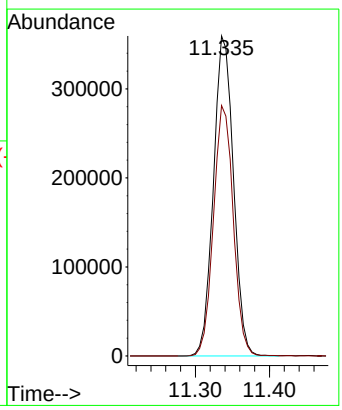


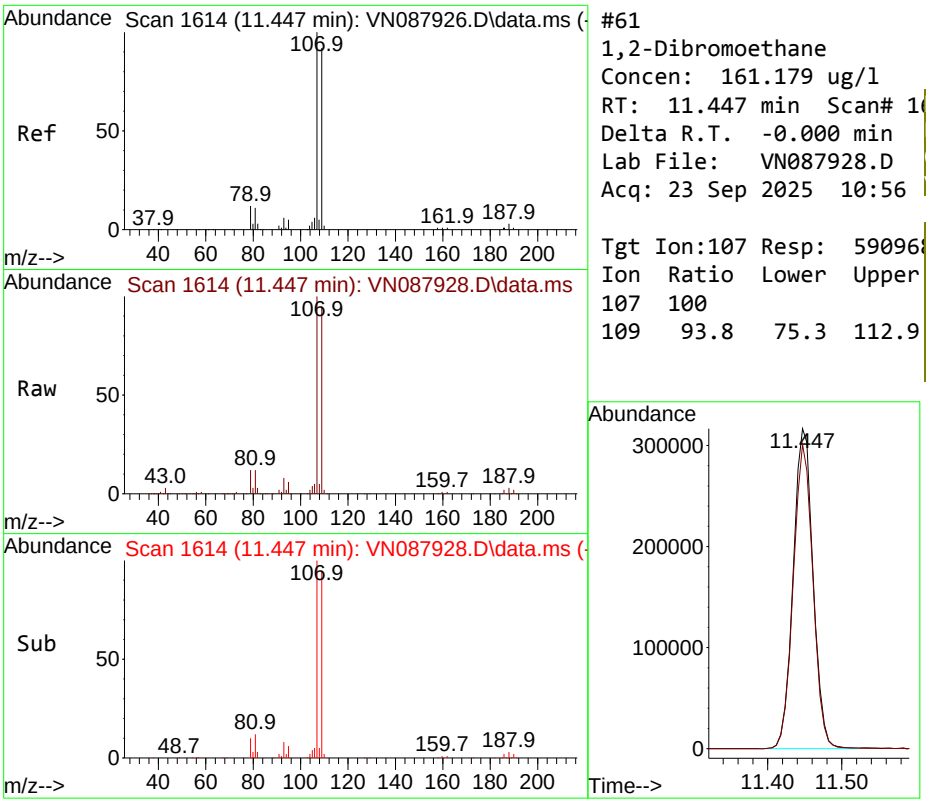


#60
Dibromochloromethane
Concen: 165.568 ug/l
RT: 11.335 min Scan# 1595
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion:129 Resp: 674217

Ion	Ratio	Lower	Upper
129	100		
127	77.3	39.3	117.9





#61
1,2-Dibromoethane
Concen: 161.179 ug/l
RT: 11.447 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

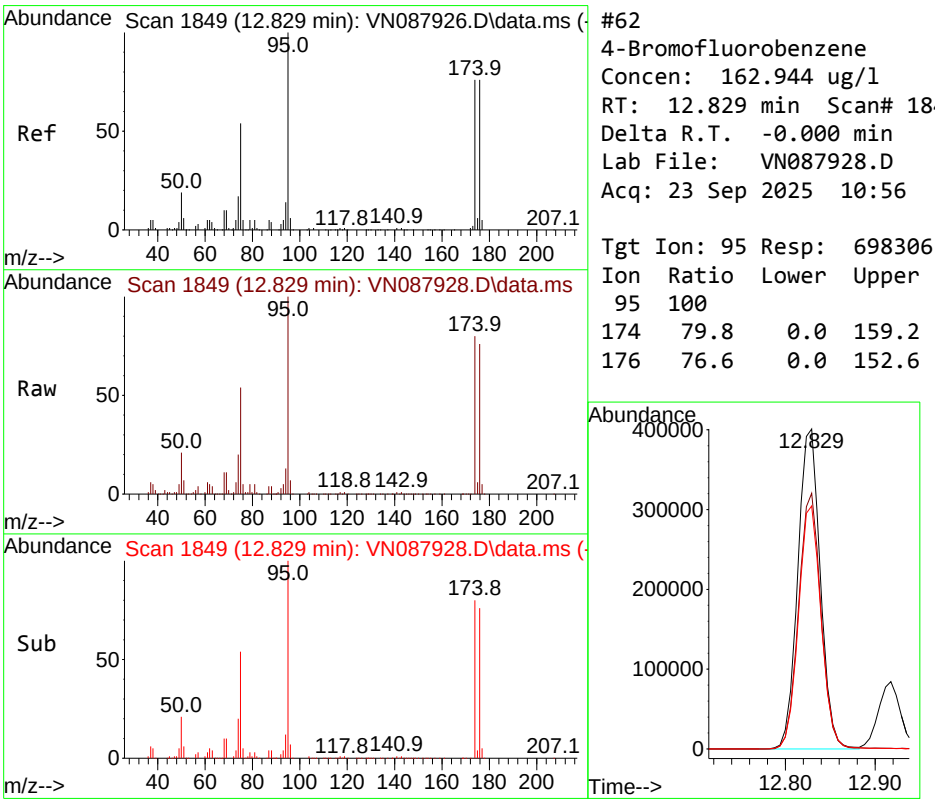
Tgt Ion:107 Resp: 59096

Ion	Ratio	Lower	Upper
107	100		
109	93.8	75.3	112.9

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

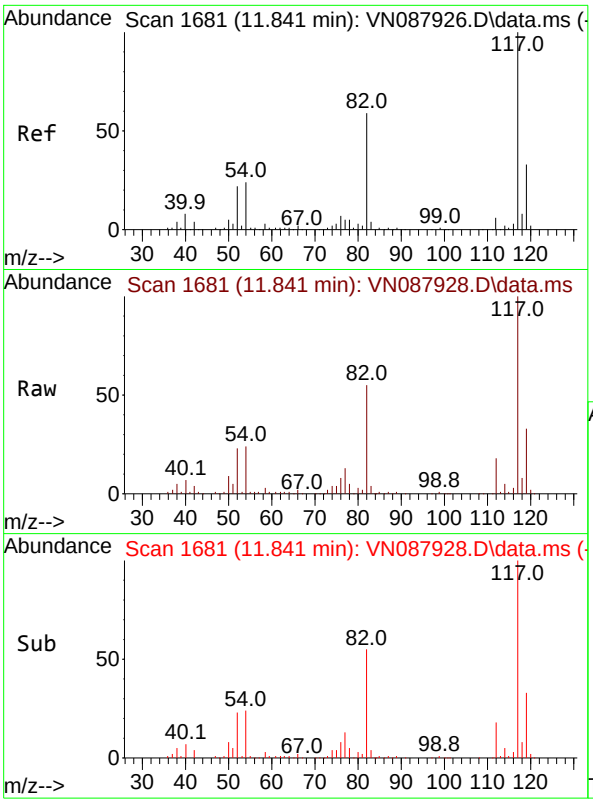
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025



#62
4-Bromofluorobenzene
Concen: 162.944 ug/l
RT: 12.829 min Scan# 1849
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 95 Resp: 698306

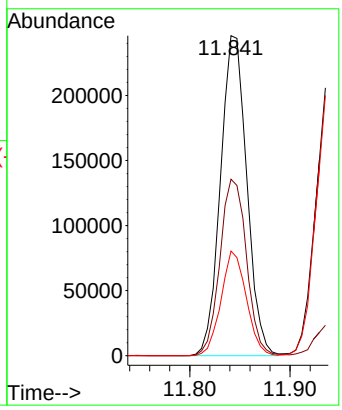
Ion	Ratio	Lower	Upper
95	100		
174	79.8	0.0	159.2
176	76.6	0.0	152.6



#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.841 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion:117 Resp: 44832

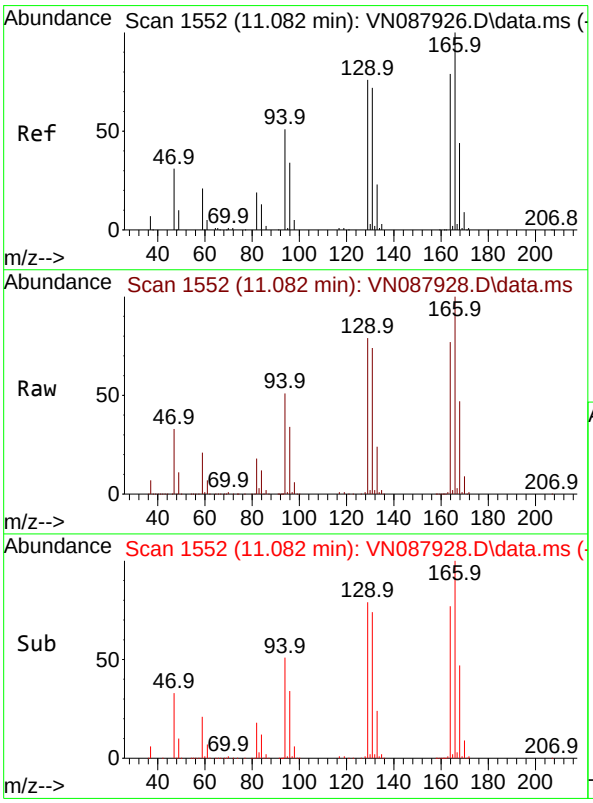
Ion	Ratio	Lower	Upper
117	100		
82	55.2	47.0	70.4
119	32.7	26.1	39.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

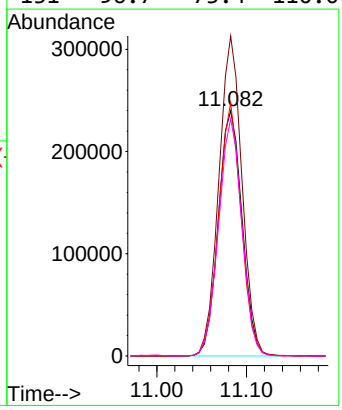
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

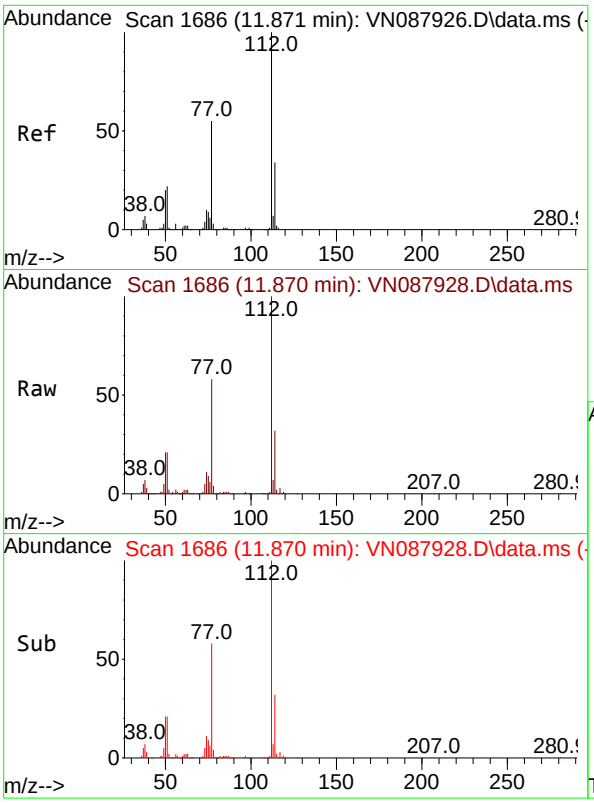


#64
Tetrachloroethene
Concen: 161.378 ug/l
RT: 11.082 min Scan# 1552
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion:164 Resp: 440710

Ion	Ratio	Lower	Upper
164	100		
166	130.5	101.6	152.4
129	103.2	77.5	116.3
131	96.7	73.4	110.0

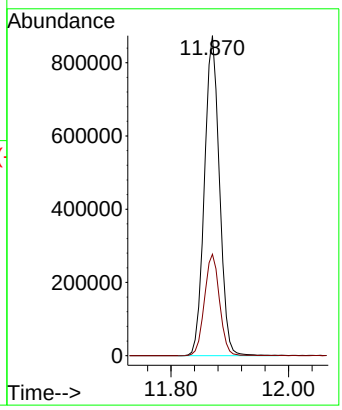




#65
Chlorobenzene
Concen: 162.594 ug/l
RT: 11.870 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion:112 Resp: 155124

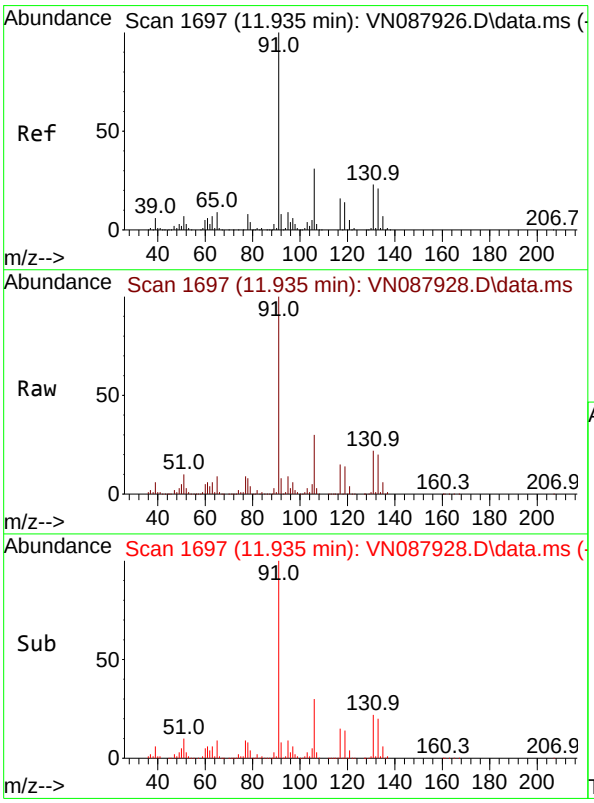
Ion	Ratio	Lower	Upper
112	100		
114	31.7	27.2	40.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

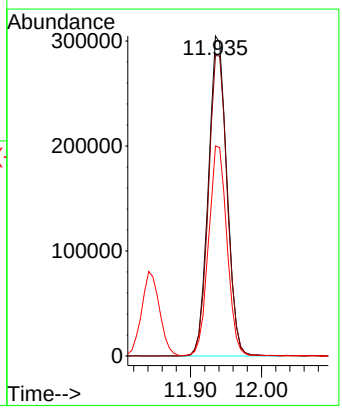
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

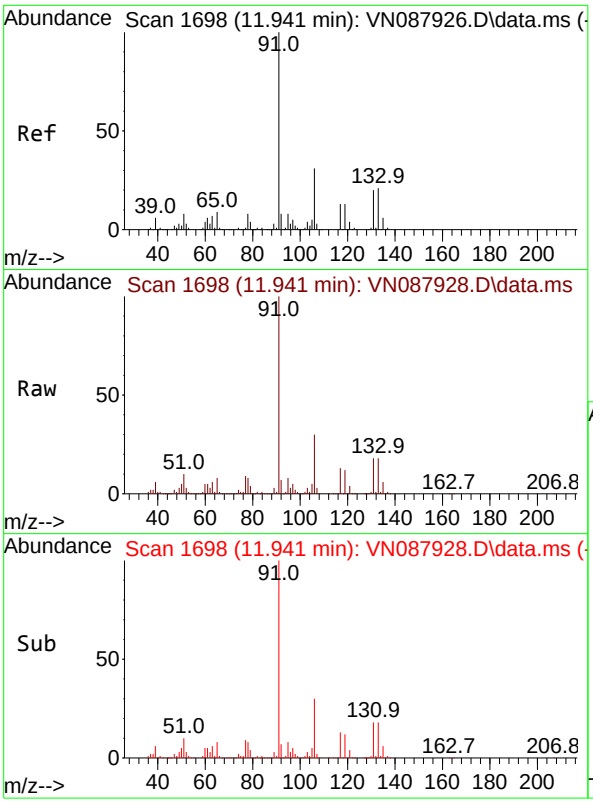


#66
1,1,1,2-Tetrachloroethane
Concen: 159.899 ug/l
RT: 11.935 min Scan# 1697
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion:131 Resp: 550130

Ion	Ratio	Lower	Upper
131	100		
133	95.5	48.4	145.0
119	65.3	31.9	95.5

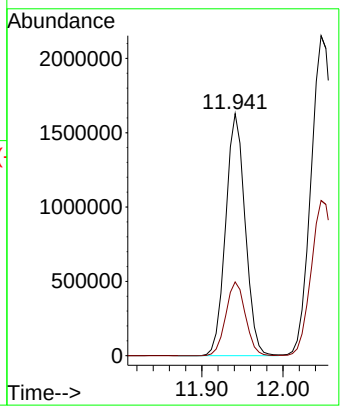




#67
Ethyl Benzene
Concen: 170.833 ug/l
RT: 11.941 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 91 Resp: 271960

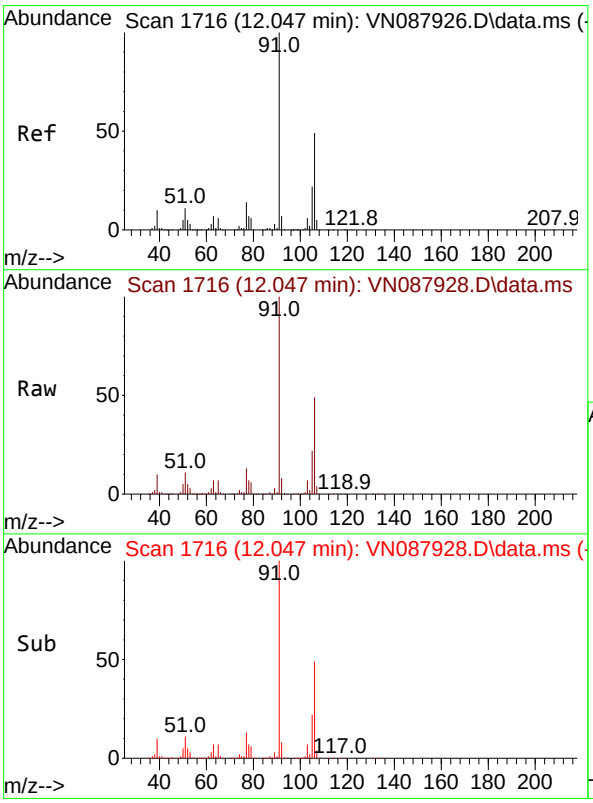
Ion	Ratio	Lower	Upper
91	100		
106	30.5	25.2	37.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

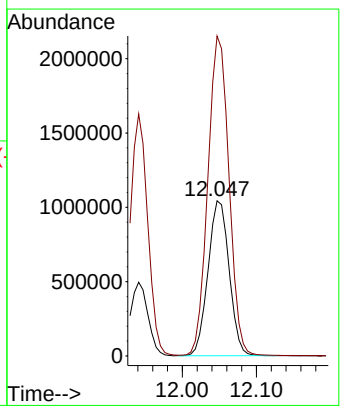
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

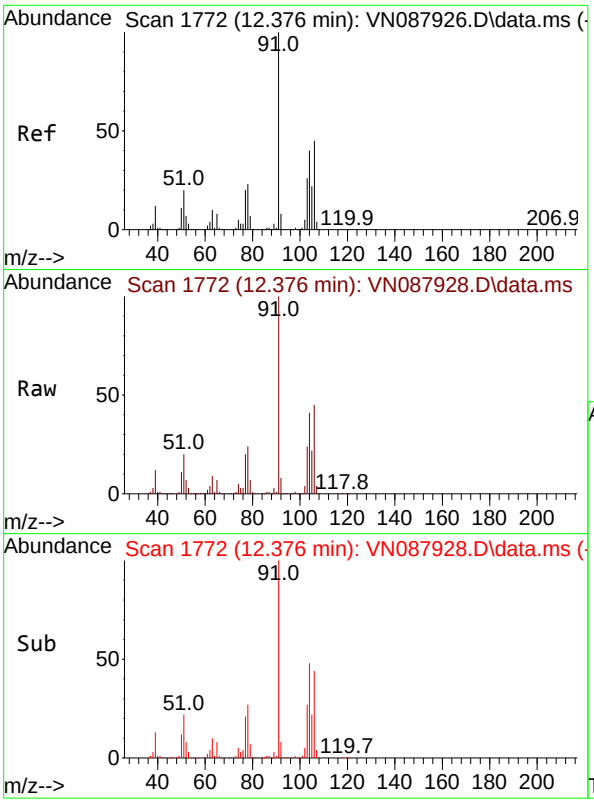


#68
m/p-Xylenes
Concen: 338.900 ug/l
RT: 12.047 min Scan# 1716
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion:106 Resp: 2063388

Ion	Ratio	Lower	Upper
106	100		
91	206.5	162.9	244.3

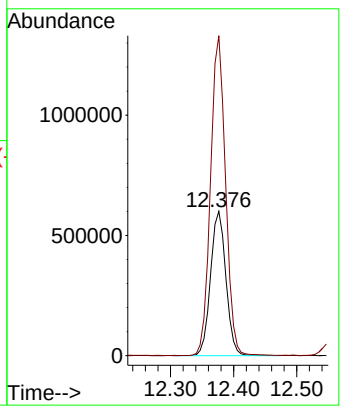




#69
o-Xylene
Concen: 172.832 ug/l
RT: 12.376 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion:106 Resp: 101098

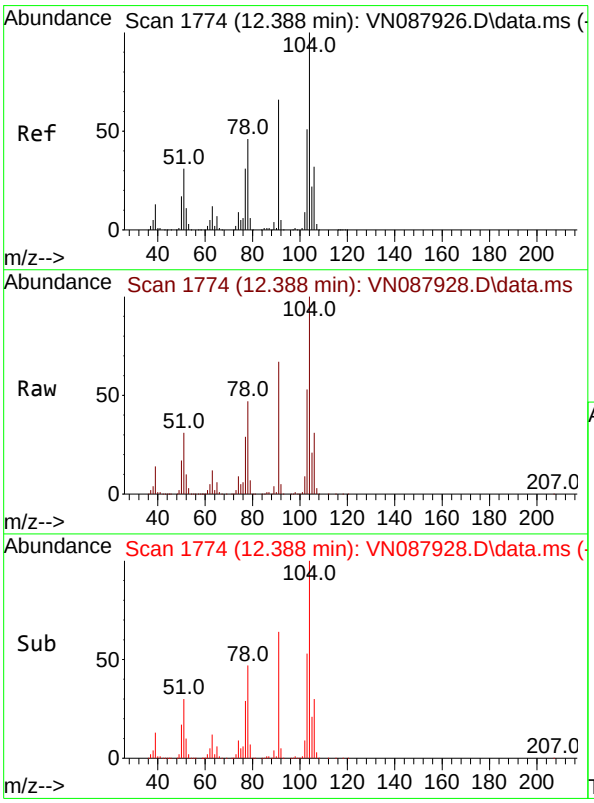
Ion	Ratio	Lower	Upper
106	100		
91	217.3	108.2	324.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

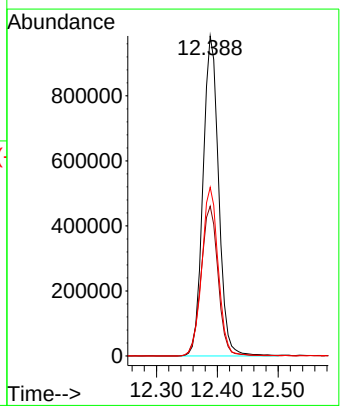
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

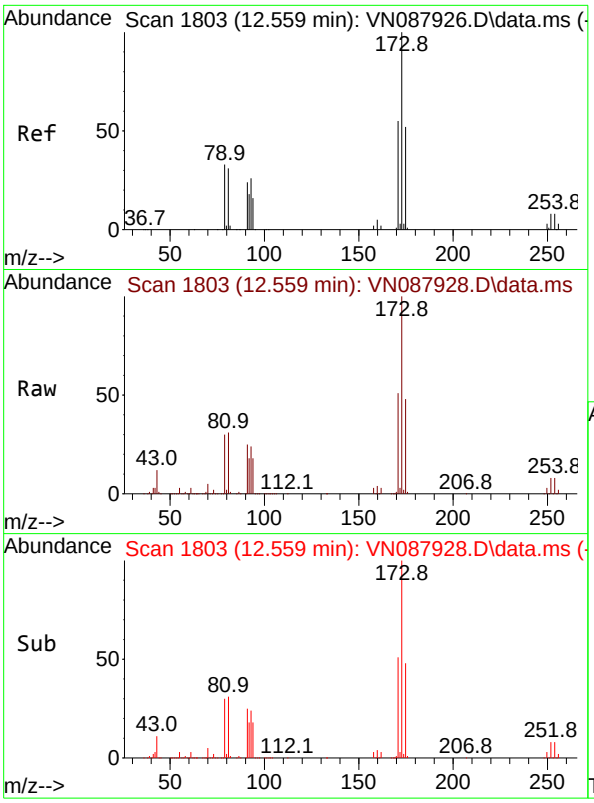


#70
Styrene
Concen: 175.610 ug/l
RT: 12.388 min Scan# 1774
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion:104 Resp: 1764226

Ion	Ratio	Lower	Upper
104	100		
78	50.5	39.7	59.5
103	55.2	44.6	67.0

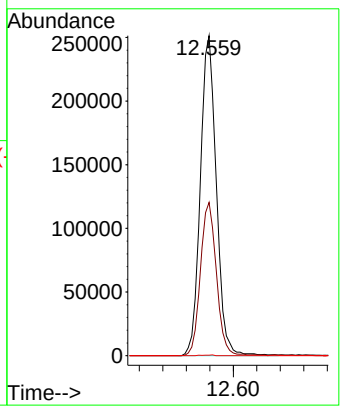




#71
Bromoform
Concen: 169.708 ug/l
RT: 12.559 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion:173 Resp: 47370

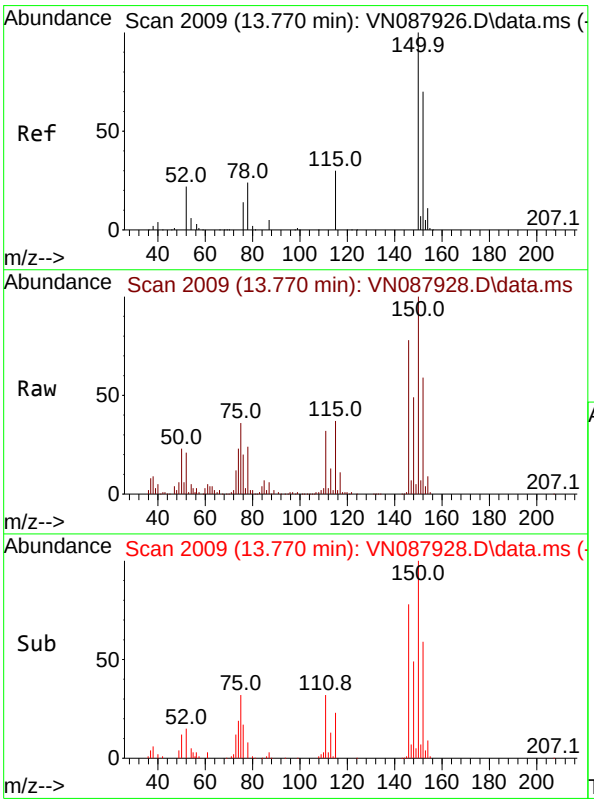
Ion	Ratio	Lower	Upper
173	100		
175	47.9	23.7	71.1
254	0.1	0.1	0.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

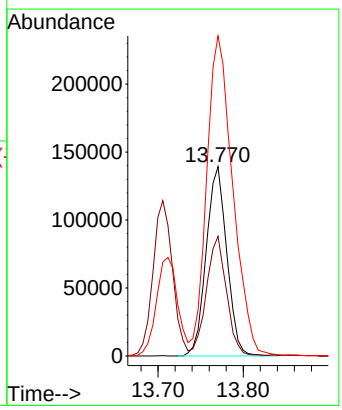
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

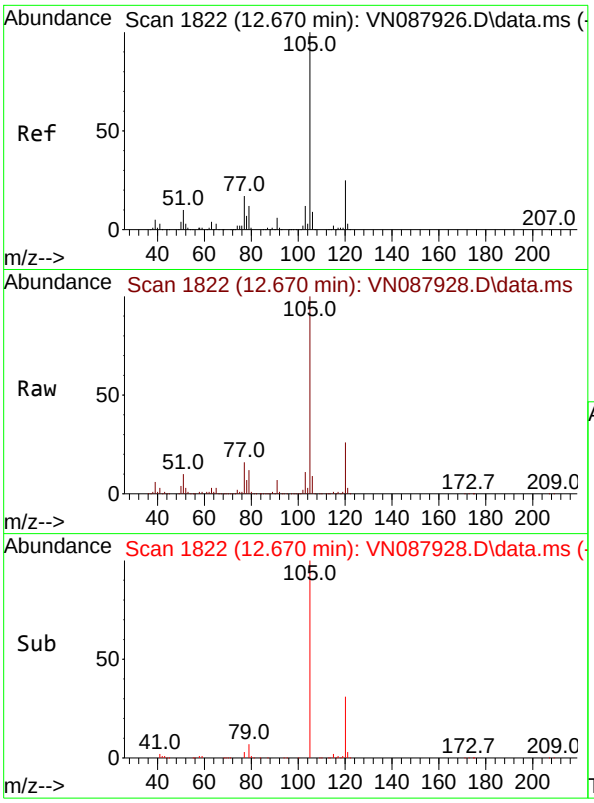


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.770 min Scan# 2009
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion:152 Resp: 234506

Ion	Ratio	Lower	Upper
152	100		
115	61.0	29.9	89.7
150	212.4	0.0	335.0

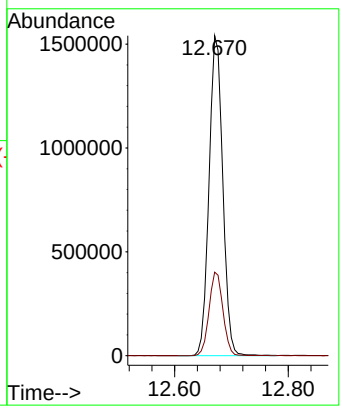




#73
Isopropylbenzene
Concen: 176.821 ug/l
RT: 12.670 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion:105 Resp: 256994

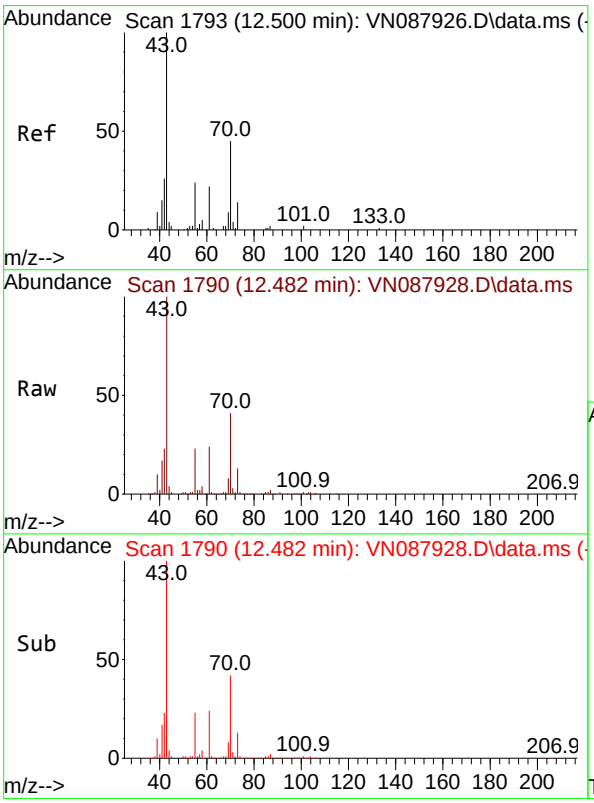
Ion	Ratio	Lower	Upper
105	100		
120	26.3	13.1	39.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

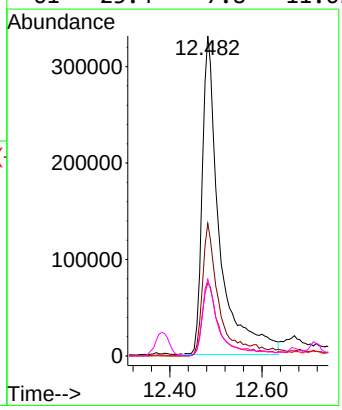
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

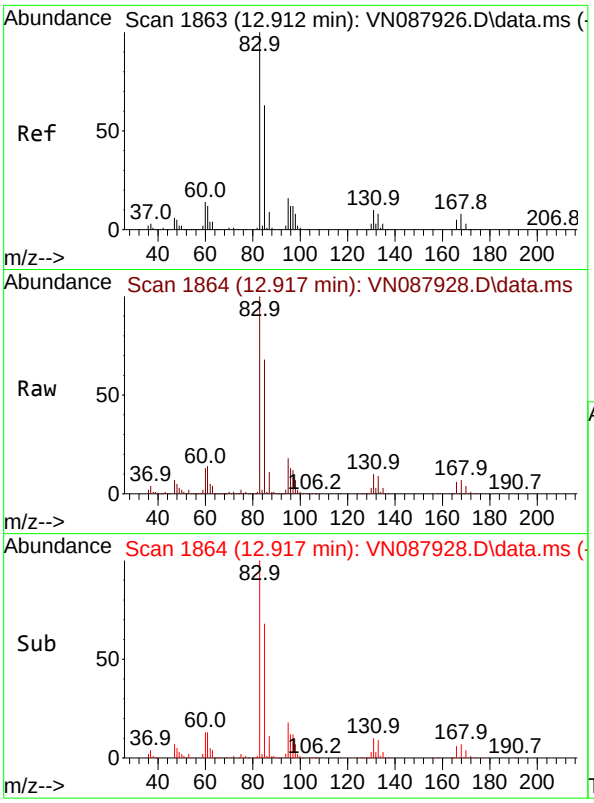


#74
N-amyl acetate
Concen: 200.832 ug/l
RT: 12.482 min Scan# 1790
Delta R.T. -0.018 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 43 Resp: 869458

Ion	Ratio	Lower	Upper
43	100		
70	38.2	19.8	29.8#
55	21.8	9.6	14.4#
61	23.4	7.8	11.6#

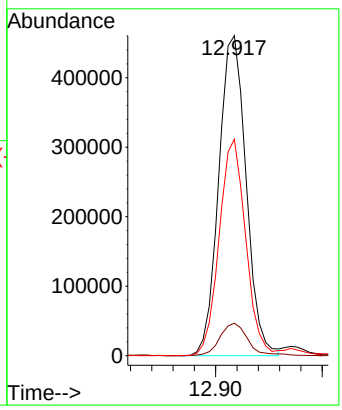




#75
1,1,2,2-Tetrachloroethane
Concen: 156.965 ug/l
RT: 12.917 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 83 Resp: 82197

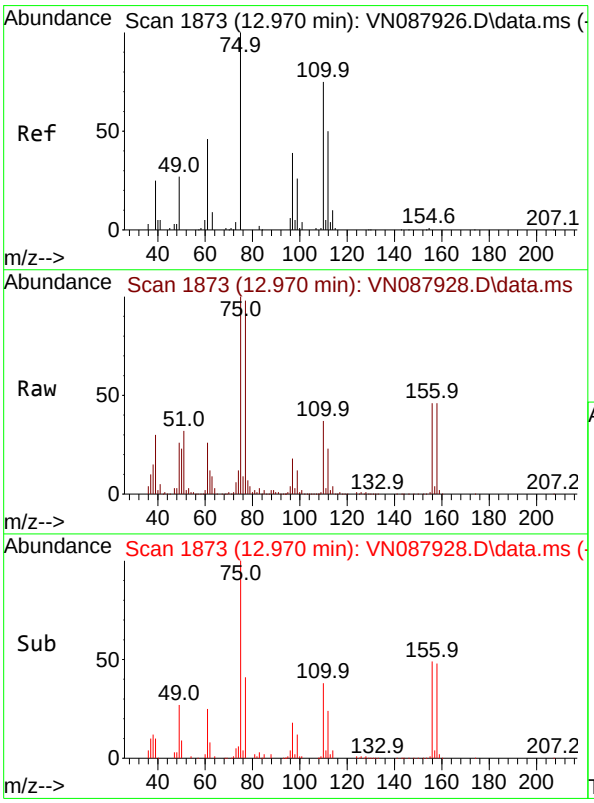
Ion	Ratio	Lower	Upper
83	100		
131	10.4	5.2	15.6
85	65.6	32.4	97.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

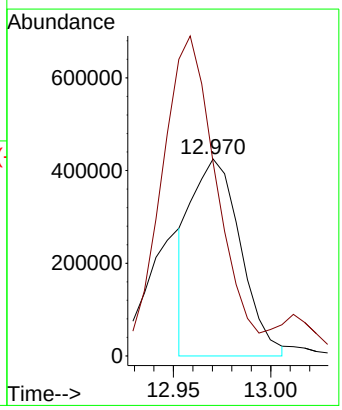
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

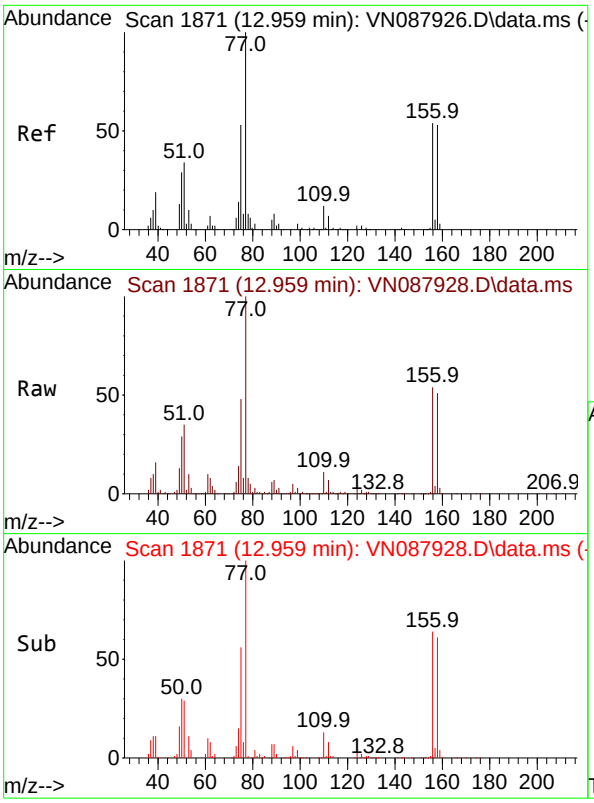


#76
1,2,3-Trichloropropane
Concen: 160.891 ug/l m
RT: 12.970 min Scan# 1873
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 75 Resp: 748421

Ion	Ratio	Lower	Upper
75	100		
77	182.8	89.5	268.5

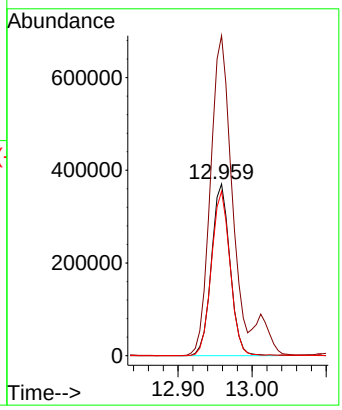




#77
Bromobenzene
Concen: 166.683 ug/l
RT: 12.959 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion:156 Resp: 64457

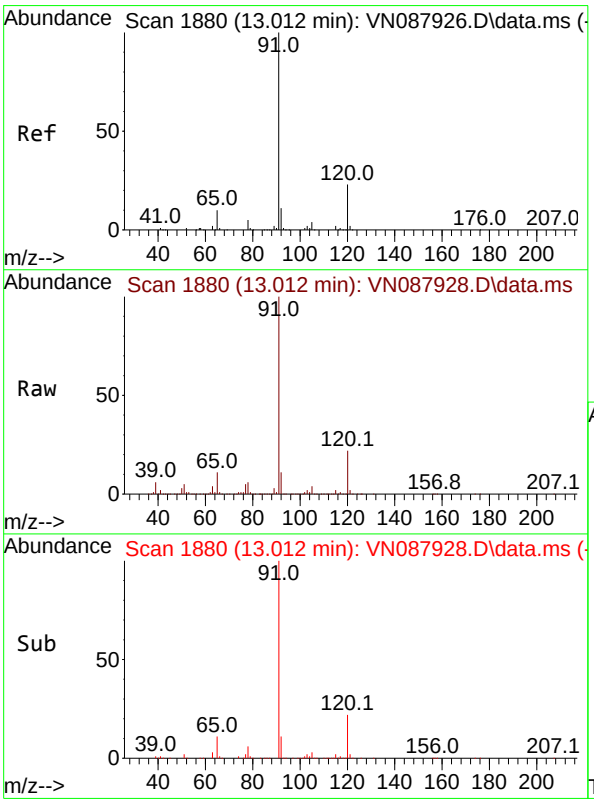
Ion	Ratio	Lower	Upper
156	100		
77	212.3	108.2	324.6
158	96.1	49.6	149.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

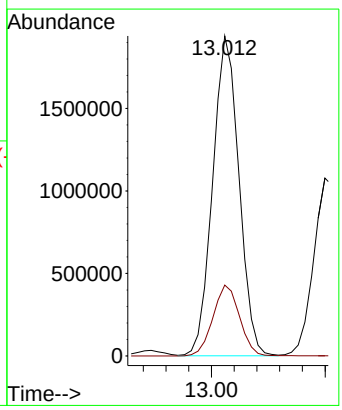
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

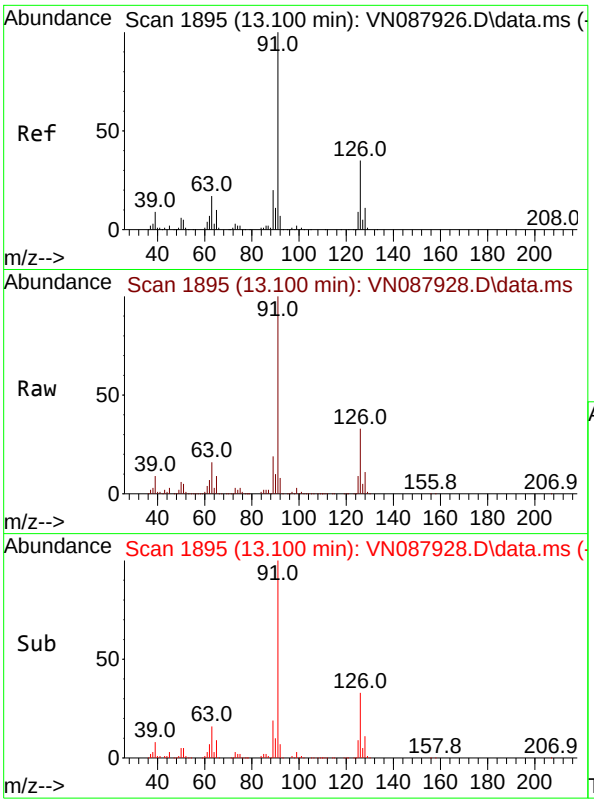


#78
n-propylbenzene
Concen: 171.486 ug/l
RT: 13.012 min Scan# 1880
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 91 Resp: 3116141

Ion	Ratio	Lower	Upper
91	100		
120	22.5	11.1	33.1

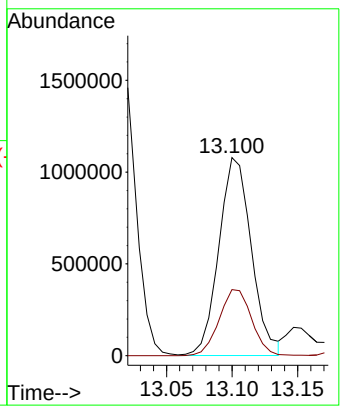




#79
2-Chlorotoluene
Concen: 168.288 ug/l
RT: 13.100 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 91 Resp: 186199

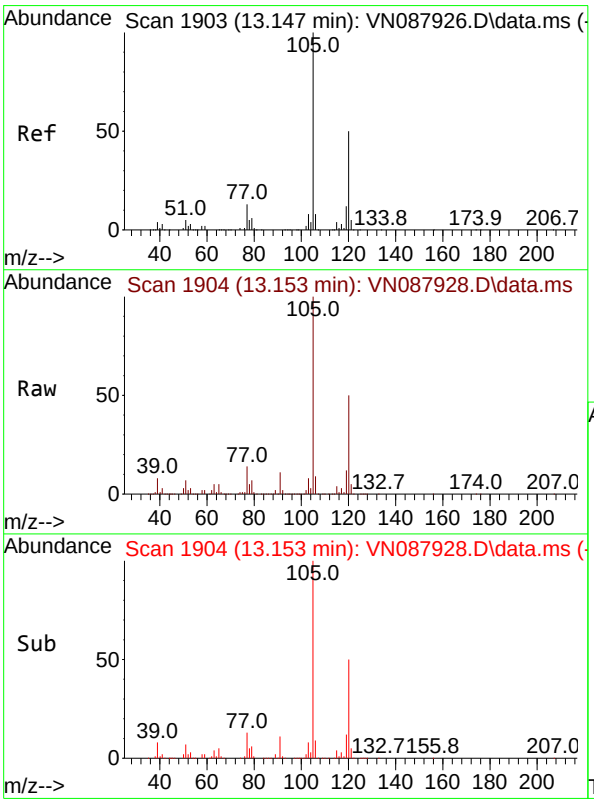
Ion	Ratio	Lower	Upper
91	100		
126	33.4	16.6	49.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

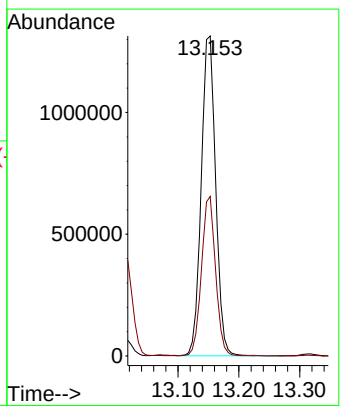
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

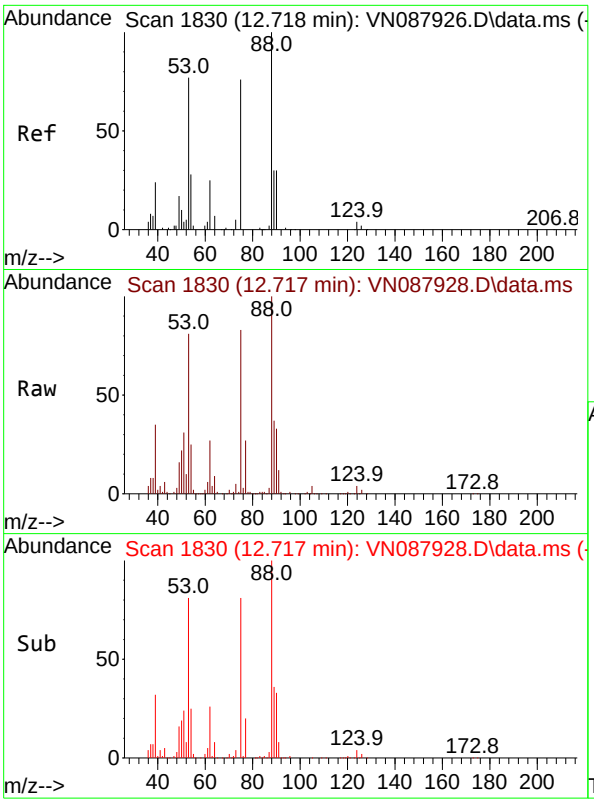


#80
1,3,5-Trimethylbenzene
Concen: 172.277 ug/l
RT: 13.153 min Scan# 1904
Delta R.T. 0.006 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion:105 Resp: 2165785

Ion	Ratio	Lower	Upper
105	100		
120	48.9	24.7	74.1





#81
trans-1,4-Dichloro-2-butene
Concen: 188.706 ug/l
RT: 12.717 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

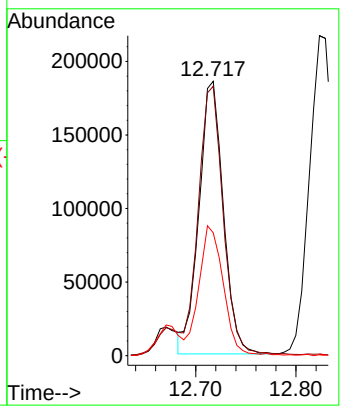
Tgt Ion: 75 Resp: 31414

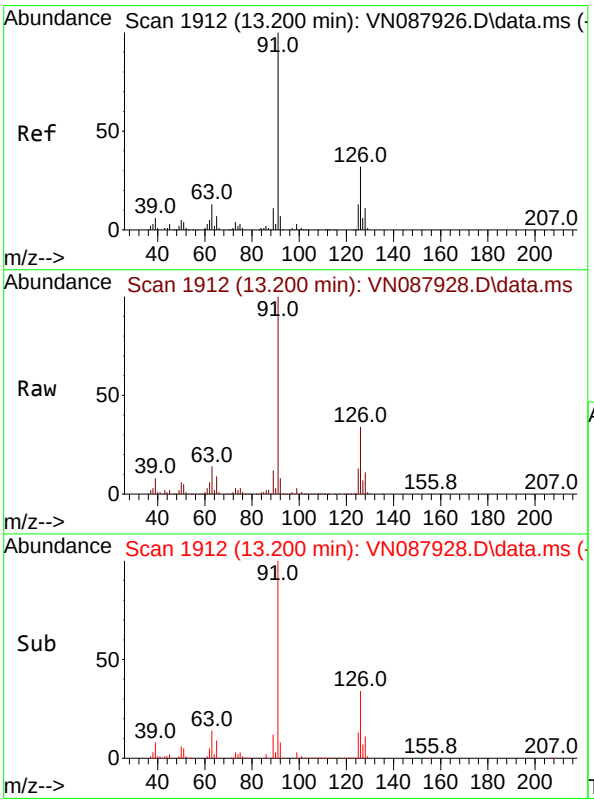
Ion	Ratio	Lower	Upper
75	100		
53	99.6	82.0	123.0
89	47.4	36.1	54.1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

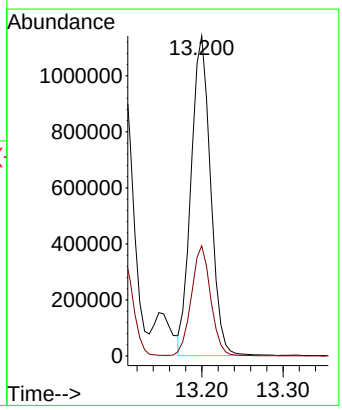


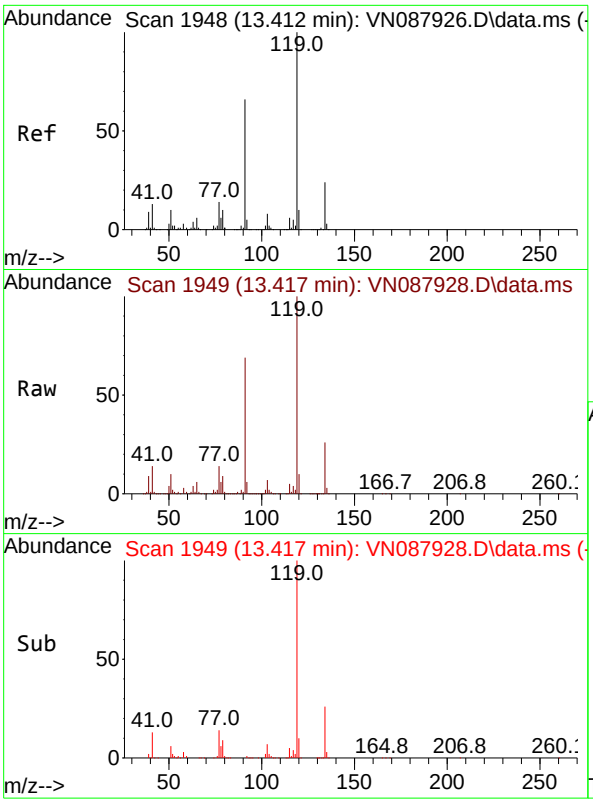


#82
4-Chlorotoluene
Concen: 170.704 ug/l
RT: 13.200 min Scan# 1912
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 91 Resp: 1903146

Ion	Ratio	Lower	Upper
91	100		
126	34.1	16.9	50.6

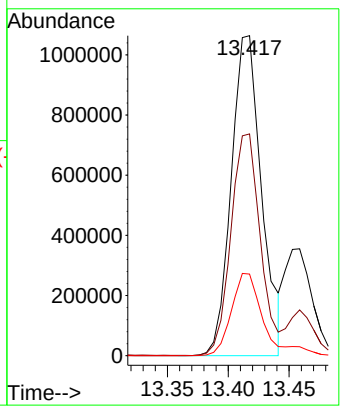




#83
tert-Butylbenzene
Concen: 173.412 ug/l
RT: 13.417 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion:119 Resp: 184525

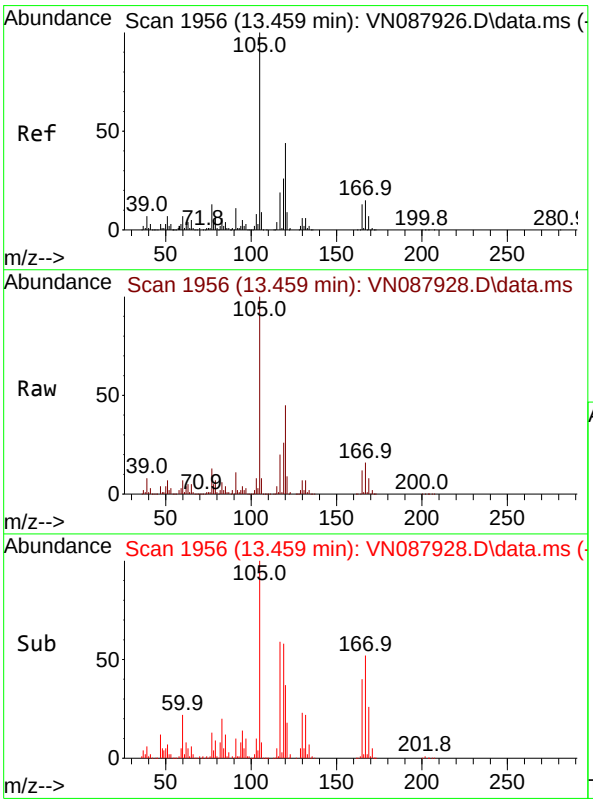
Ion	Ratio	Lower	Upper
119	100		
91	66.9	32.1	96.3
134	27.2	12.3	36.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

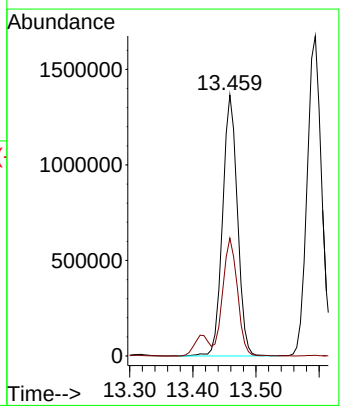
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

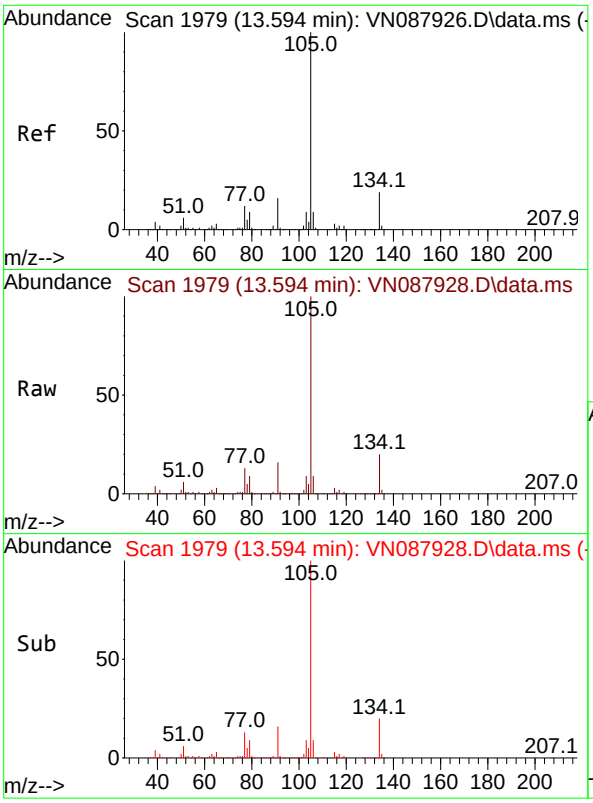


#84
1,2,4-Trimethylbenzene
Concen: 173.177 ug/l
RT: 13.459 min Scan# 1956
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion:105 Resp: 2233067

Ion	Ratio	Lower	Upper
105	100		
120	44.7	22.4	67.3

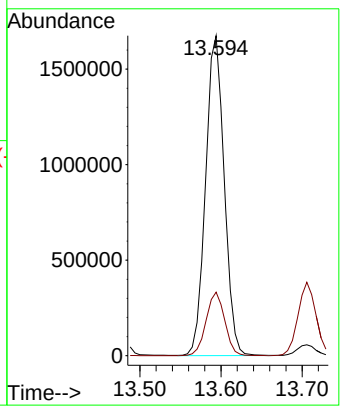




#85
sec-Butylbenzene
Concen: 170.918 ug/l
RT: 13.594 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion:105 Resp: 266647

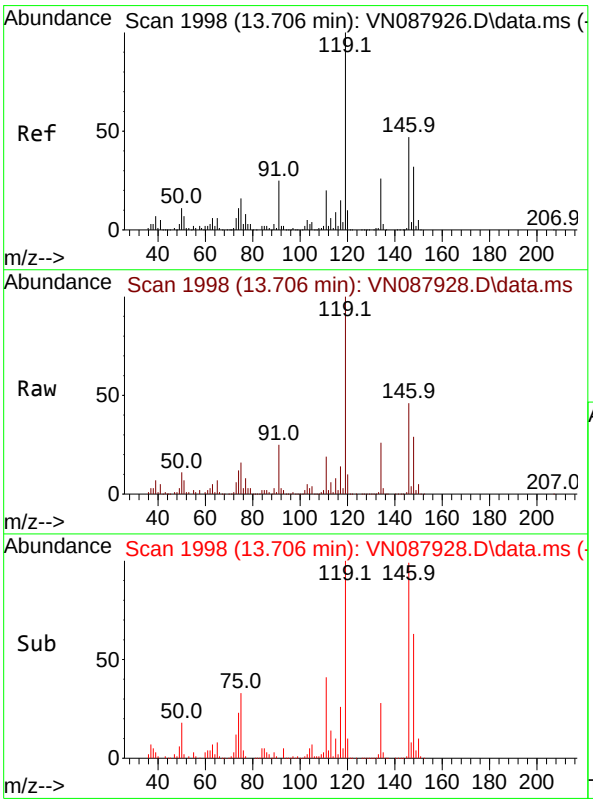
Ion	Ratio	Lower	Upper
105	100		
134	19.9	9.6	28.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

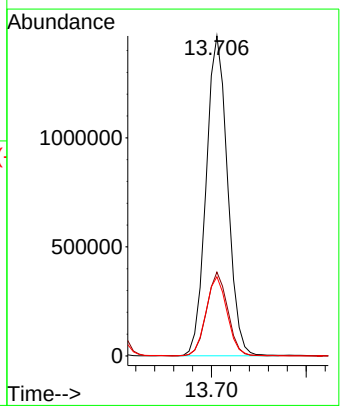
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

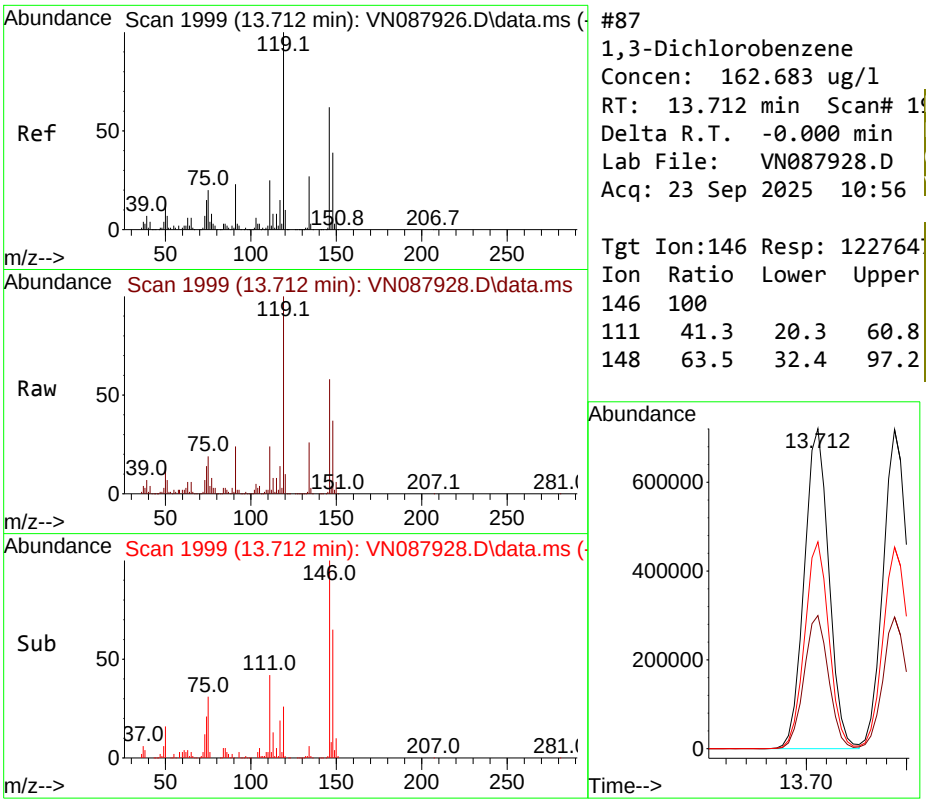


#86
p-Isopropyltoluene
Concen: 173.808 ug/l
RT: 13.706 min Scan# 1998
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion:119 Resp: 2296563

Ion	Ratio	Lower	Upper
119	100		
134	25.9	13.1	39.3
91	24.6	11.9	35.5





#87
1,3-Dichlorobenzene
Concen: 162.683 ug/l
RT: 13.712 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

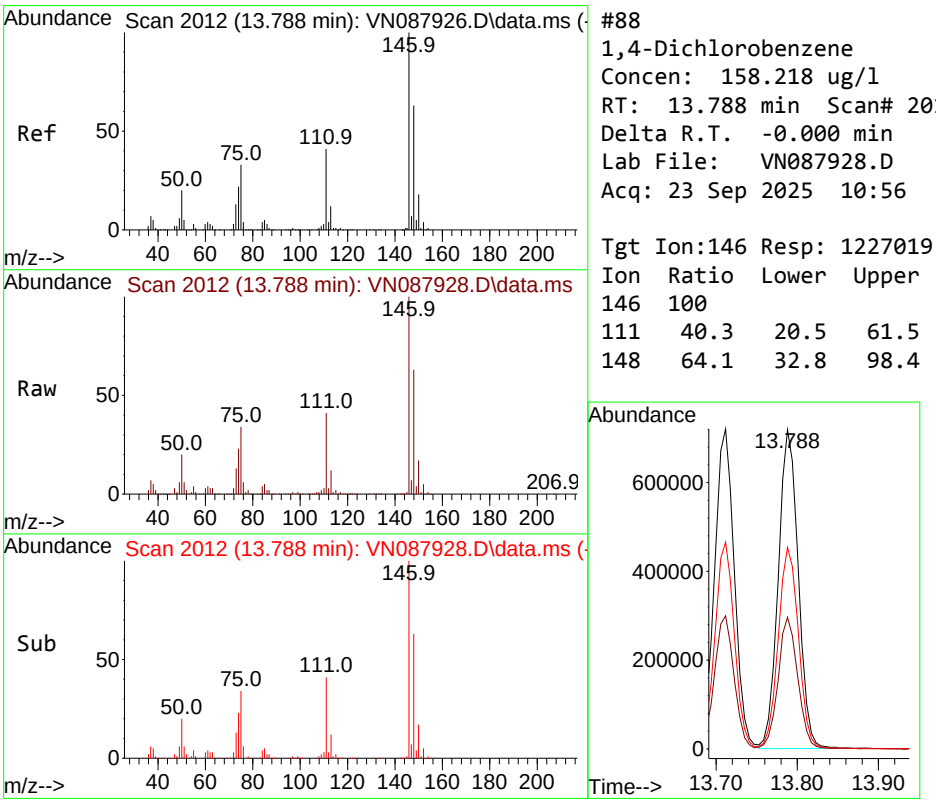
Tgt Ion:146 Resp: 122764

Ion	Ratio	Lower	Upper
146	100		
111	41.3	20.3	60.8
148	63.5	32.4	97.2

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

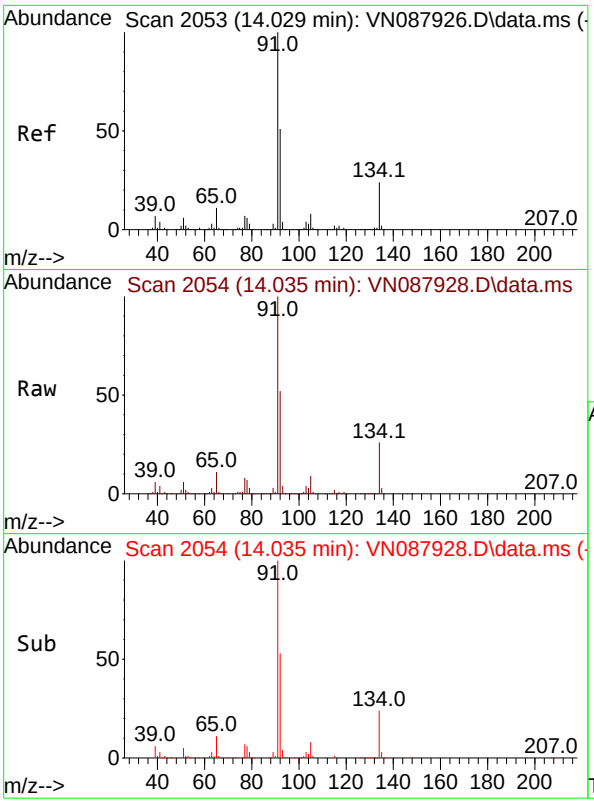
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025



#88
1,4-Dichlorobenzene
Concen: 158.218 ug/l
RT: 13.788 min Scan# 2012
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion:146 Resp: 1227019

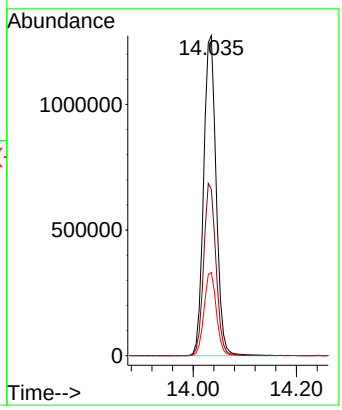
Ion	Ratio	Lower	Upper
146	100		
111	40.3	20.5	61.5
148	64.1	32.8	98.4



#89
n-Butylbenzene
Concen: 171.197 ug/l
RT: 14.035 min Scan# 2
Delta R.T. 0.006 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 91 Resp: 213775

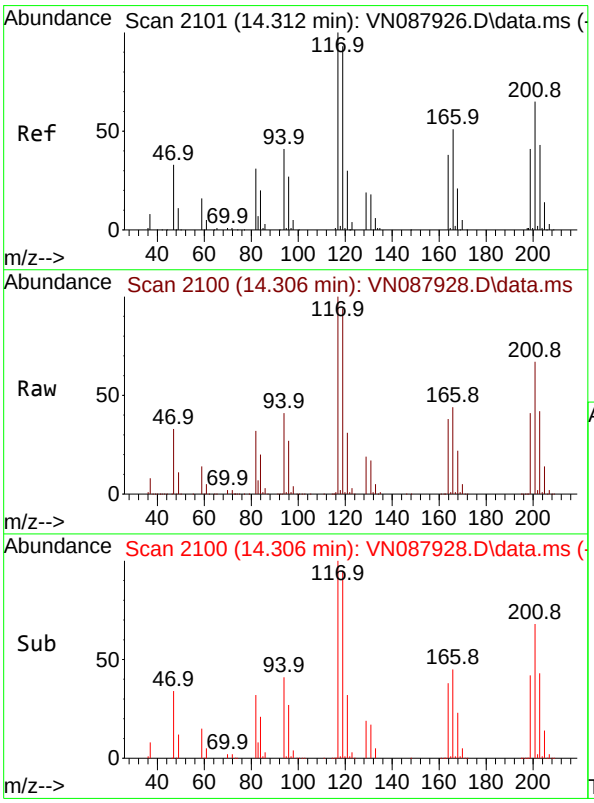
Ion	Ratio	Lower	Upper
91	100		
92	53.1	25.9	77.8
134	25.7	12.6	37.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations
APPROVED

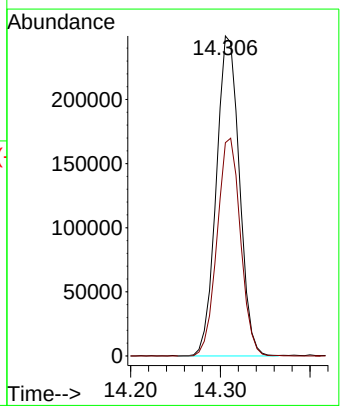
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

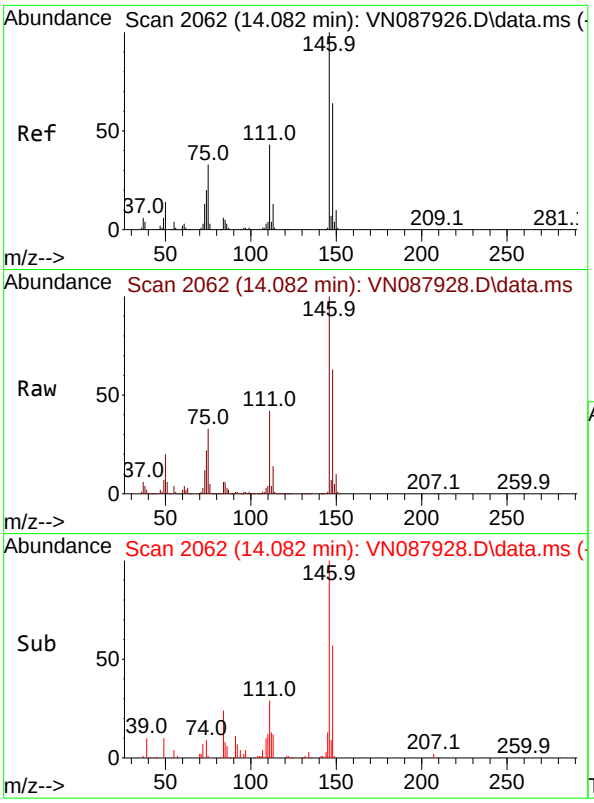


#90
Hexachloroethane
Concen: 161.465 ug/l
RT: 14.306 min Scan# 2100
Delta R.T. -0.006 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion:117 Resp: 445654

Ion	Ratio	Lower	Upper
117	100		
201	68.9	33.6	100.6

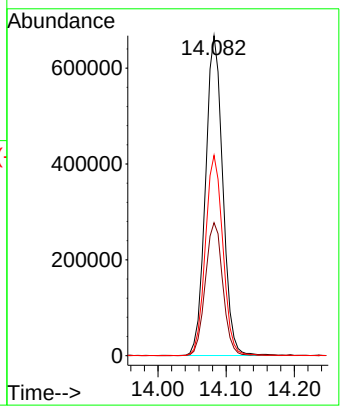




#91
1,2-Dichlorobenzene
Concen: 161.827 ug/l
RT: 14.082 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion:146 Resp: 117711

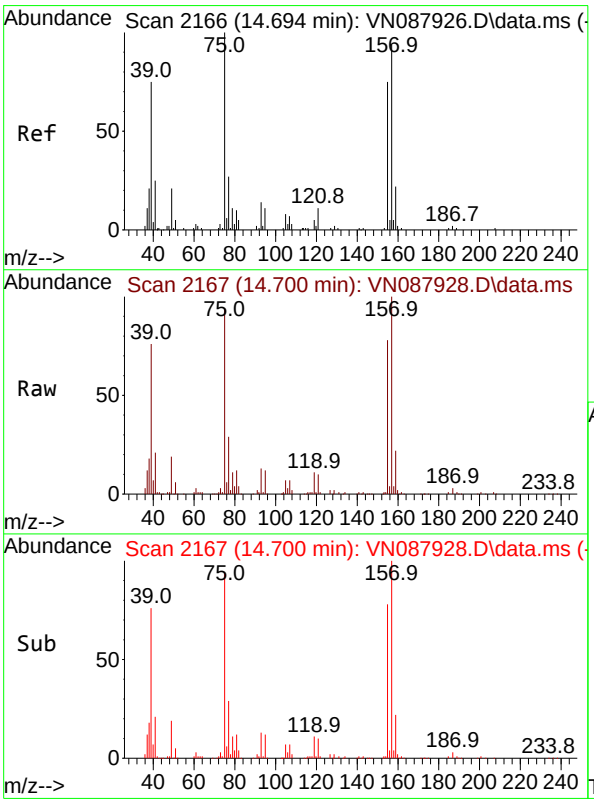
Ion	Ratio	Lower	Upper
146	100		
111	42.3	20.9	62.7
148	63.4	31.9	95.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

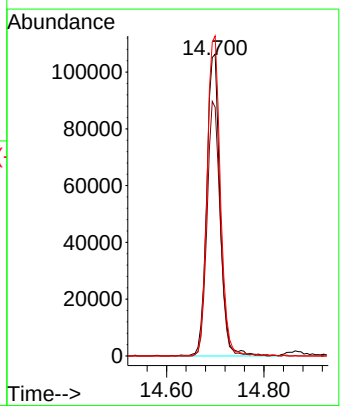
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

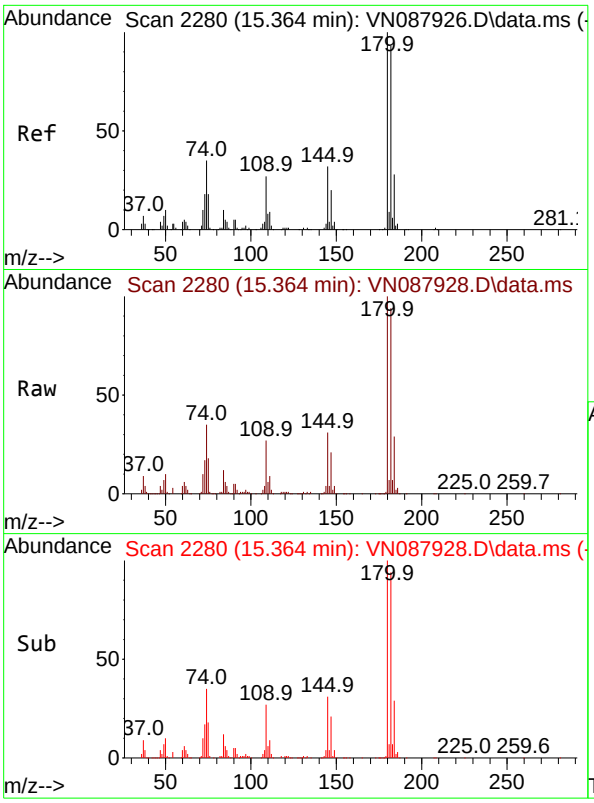


#92
1,2-Dibromo-3-Chloropropane
Concen: 165.436 ug/l
RT: 14.700 min Scan# 2167
Delta R.T. 0.006 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion: 75 Resp: 201299

Ion	Ratio	Lower	Upper
75	100		
155	83.3	40.2	120.6
157	105.7	50.9	152.7

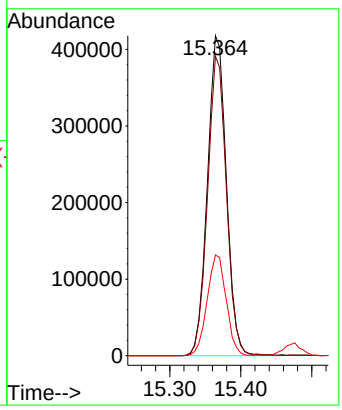




#93
1,2,4-Trichlorobenzene
Concen: 180.060 ug/l
RT: 15.364 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion:180 Resp: 77331

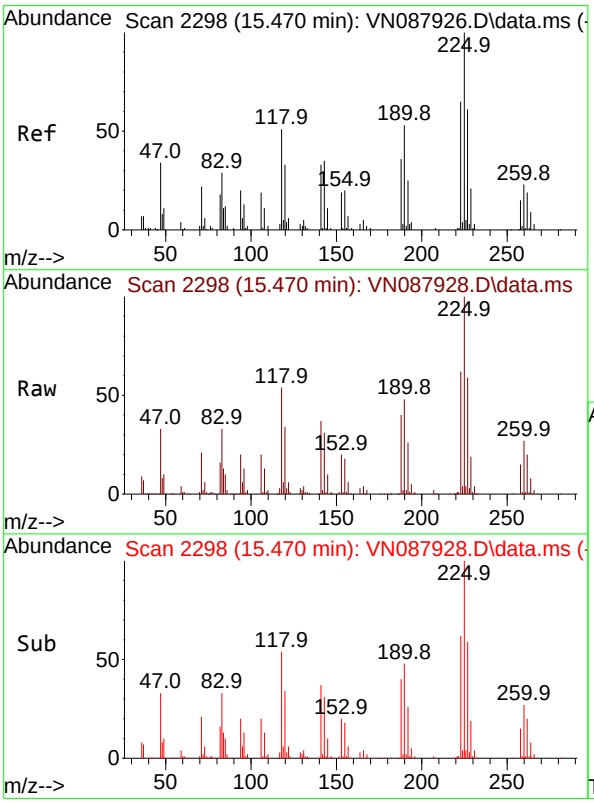
Ion	Ratio	Lower	Upper
180	100		
182	93.3	48.5	145.5
145	31.8	15.9	47.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

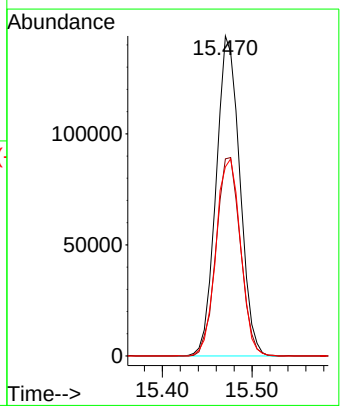
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

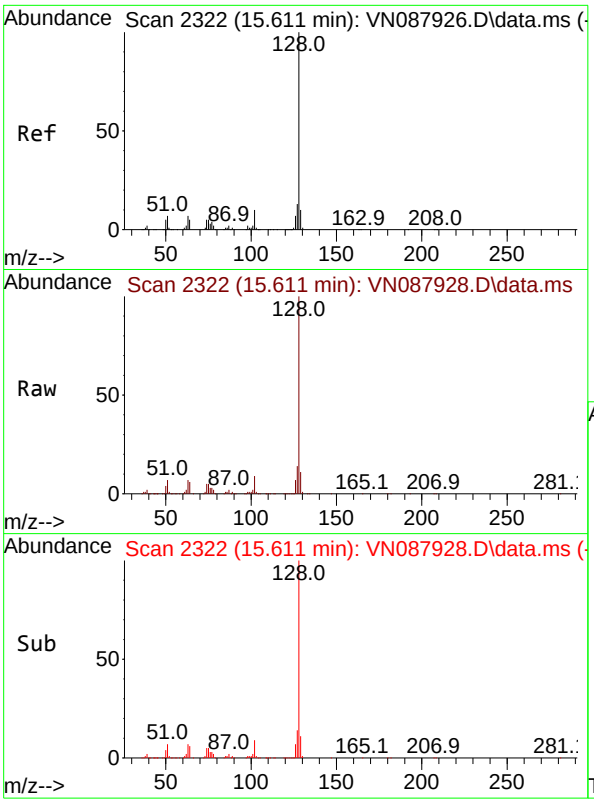


#94
Hexachlorobutadiene
Concen: 166.949 ug/l
RT: 15.470 min Scan# 2298
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion:225 Resp: 263904

Ion	Ratio	Lower	Upper
225	100		
223	63.8	31.8	95.4
227	63.9	31.9	95.9

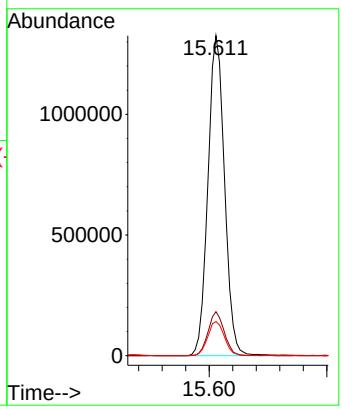




#95
Naphthalene
Concen: 188.641 ug/l
RT: 15.611 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion:128 Resp: 260063

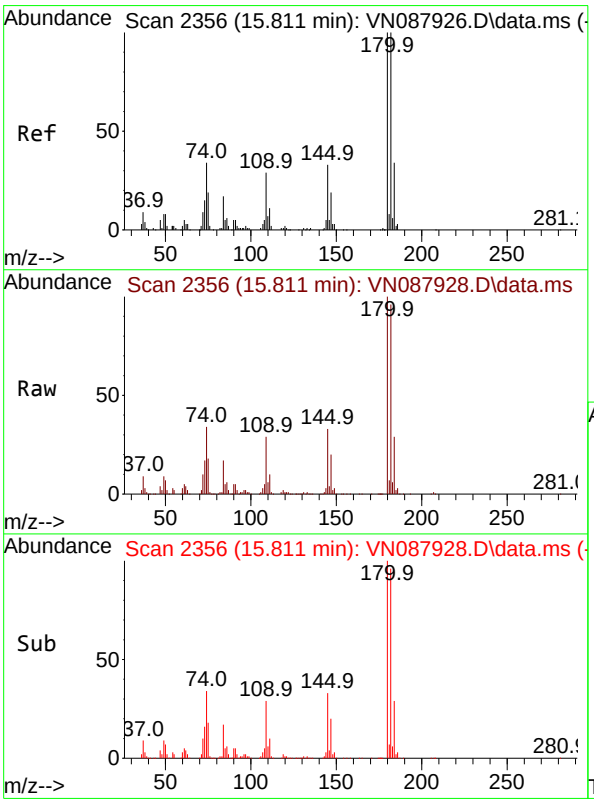
Ion	Ratio	Lower	Upper
128	100		
127	13.3	10.2	15.4
129	10.8	8.6	13.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED

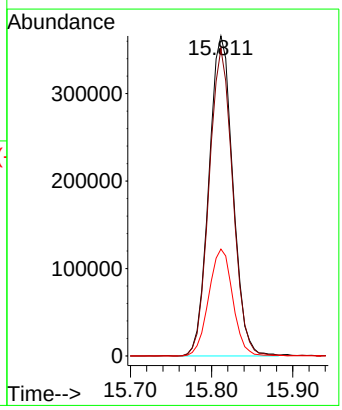
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025



#96
1,2,3-Trichlorobenzene
Concen: 179.922 ug/l
RT: 15.811 min Scan# 2356
Delta R.T. -0.000 min
Lab File: VN087928.D
Acq: 23 Sep 2025 10:56

Tgt Ion:180 Resp: 751222

Ion	Ratio	Lower	Upper
180	100		
182	94.7	47.3	142.0
145	33.5	16.1	48.3



Quantitation Report (QT Reviewed)

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092325\
Data File : VN087930.D
Acq On : 23 Sep 2025 11:47
Operator : JC\MD
Sample : VSTDICC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 24 04:50:35 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 04:45:42 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.212	168	245129	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.082	114	451275	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.841	117	417832	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.770	152	219754	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.559	65	69157	16.764	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery =	33.520%#		
35) Dibromofluoromethane	8.147	113	55145	16.830	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery =	33.660%#		
50) Toluene-d8	10.547	98	185268	16.079	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery =	32.160%#		
62) 4-Bromofluorobenzene	12.829	95	66245	16.084	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery =	32.160%#		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.142	85	64880	22.855	ug/l	100
3) Chloromethane	2.383	50	65904	22.673	ug/l	95
4) Vinyl Chloride	2.542	62	67280	22.688	ug/l	97
5) Bromomethane	2.977	94	41366	22.501	ug/l	98
6) Chloroethane	3.136	64	41658	21.605	ug/l	90
7) Trichlorofluoromethane	3.512	101	104725	21.690	ug/l	99
8) Diethyl Ether	3.953	74	41074	22.518	ug/l	98
9) 1,1,2-Trichlorotrifluo...	4.365	101	55225	21.641	ug/l	97
10) Methyl Iodide	4.583	142	46507	20.249	ug/l	99
11) Tert butyl alcohol	5.524	59	68350	115.030	ug/l #	87
12) 1,1-Dichloroethene	4.336	96	56732	22.033	ug/l	83
13) Acrolein	4.177	56	72676	95.324	ug/l	98
14) Allyl chloride	5.018	41	92277	22.013	ug/l	95
15) Acrylonitrile	5.718	53	210865	113.135	ug/l	98
16) Acetone	4.424	43	204534	119.766	ug/l	99
17) Carbon Disulfide	4.706	76	182548	22.691	ug/l	100
18) Methyl Acetate	5.018	43	97764	23.015	ug/l	100
19) Methyl tert-butyl Ether	5.789	73	219348	21.807	ug/l	97
20) Methylene Chloride	5.265	84	74638	21.725	ug/l	92
21) trans-1,2-Dichloroethene	5.777	96	68186	21.601	ug/l	89
22) Diisopropyl ether	6.659	45	211107	21.573	ug/l	97
23) Vinyl Acetate	6.588	43	923787m	112.117	ug/l	
24) 1,1-Dichloroethane	6.553	63	124326	21.746	ug/l	98
25) 2-Butanone	7.471	43	295055	113.731	ug/l	97
26) 2,2-Dichloropropane	7.477	77	115250	22.689	ug/l	99
27) cis-1,2-Dichloroethene	7.471	96	81272	21.639	ug/l	98
28) Bromochloromethane	7.794	49	65753	21.168	ug/l	100
29) Tetrahydrofuran	7.830	42	185940	111.932	ug/l	99
30) Chloroform	7.953	83	139611	22.333	ug/l	100
31) Cyclohexane	8.241	56	99972	21.611	ug/l	96
32) 1,1,1-Trichloroethane	8.153	97	117408	22.227	ug/l	97
36) 1,1-Dichloropropene	8.353	75	85120	21.605	ug/l	97
37) Ethyl Acetate	7.553	43	109187	21.105	ug/l	97
38) Carbon Tetrachloride	8.341	117	98457	21.778	ug/l	94
39) Methylcyclohexane	9.582	83	94068	21.644	ug/l	98
40) Benzene	8.588	78	283203	21.710	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092325\
Data File : VN087930.D
Acq On : 23 Sep 2025 11:47
Operator : JC\MD
Sample : VSTDICC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 24 04:50:35 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 04:45:42 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.765	41	56639	21.184	ug/l		94
42) 1,2-Dichloroethane	8.653	62	109893	22.574	ug/l		100
43) Isopropyl Acetate	8.677	43	176251	21.643	ug/l		99
44) Trichloroethene	9.335	130	67433	21.641	ug/l		99
45) 1,2-Dichloropropane	9.600	63	72572	22.186	ug/l		93
46) Dibromomethane	9.688	93	59412	23.018	ug/l		93
47) Bromodichloromethane	9.871	83	111245	21.974	ug/l		95
48) Methyl methacrylate	9.665	41	80574	21.365	ug/l		97
49) 1,4-Dioxane	9.682	88	24869	446.378	ug/l	#	83
51) 4-Methyl-2-Pentanone	10.424	43	561876	110.571	ug/l		99
52) Toluene	10.606	92	177153	21.641	ug/l		99
53) t-1,3-Dichloropropene	10.818	75	111386	21.498	ug/l		97
54) cis-1,3-Dichloropropene	10.294	75	117557	21.845	ug/l		97
55) 1,1,2-Trichloroethane	10.994	97	74595	22.411	ug/l		88
56) Ethyl methacrylate	10.853	69	101192	21.040	ug/l		99
57) 1,3-Dichloropropane	11.141	76	120334	21.980	ug/l		100
58) 2-Chloroethyl Vinyl ether	10.141	63	250611	110.825	ug/l		99
59) 2-Hexanone	11.176	43	363080	108.058	ug/l		99
60) Dibromochloromethane	11.341	129	85111	21.748	ug/l		97
61) 1,2-Dibromoethane	11.447	107	78541	22.290	ug/l		97
64) Tetrachloroethene	11.082	164	57619	22.638	ug/l		93
65) Chlorobenzene	11.871	112	203570	22.894	ug/l		93
66) 1,1,1,2-Tetrachloroethane	11.941	131	70713	22.053	ug/l		97
67) Ethyl Benzene	11.941	91	328980	22.173	ug/l		96
68) m/p-Xylenes	12.047	106	255651	45.053	ug/l		98
69) o-Xylene	12.376	106	120068	22.024	ug/l		98
70) Styrene	12.388	104	210587	22.491	ug/l		98
71) Bromoform	12.559	173	57576	22.132	ug/l	#	100
73) Isopropylbenzene	12.676	105	309264	22.707	ug/l		98
74) N-amyl acetate	12.547	43	89886m	22.156	ug/l		
75) 1,1,2,2-Tetrachloroethane	12.918	83	111546	22.731	ug/l		100
76) 1,2,3-Trichloropropane	12.970	75	103062m	23.643	ug/l		
77) Bromobenzene	12.959	156	80748	22.283	ug/l		97
78) n-propylbenzene	13.012	91	381954	22.431	ug/l		100
79) 2-Chlorotoluene	13.100	91	231705	22.347	ug/l		97
80) 1,3,5-Trimethylbenzene	13.153	105	269309	22.860	ug/l		99
81) trans-1,4-Dichloro-2-b...	12.718	75	33450	21.443	ug/l		97
82) 4-Chlorotoluene	13.200	91	241534	23.119	ug/l		100
83) tert-Butylbenzene	13.417	119	226878	22.753	ug/l		96
84) 1,2,4-Trimethylbenzene	13.459	105	272614	22.561	ug/l		99
85) sec-Butylbenzene	13.594	105	328389	22.462	ug/l		97
86) p-Isopropyltoluene	13.706	119	279181	22.547	ug/l		97
87) 1,3-Dichlorobenzene	13.712	146	158040	22.349	ug/l		99
88) 1,4-Dichlorobenzene	13.788	146	165954	22.835	ug/l		99
89) n-Butylbenzene	14.035	91	263875	22.550	ug/l		98
90) Hexachloroethane	14.312	117	58428	22.590	ug/l		96
91) 1,2-Dichlorobenzene	14.082	146	156108	22.902	ug/l		99
92) 1,2-Dibromo-3-Chloropr...	14.700	75	25095	22.009	ug/l		98
93) 1,2,4-Trichlorobenzene	15.364	180	87148	21.654	ug/l		96
94) Hexachlorobutadiene	15.476	225	33457	22.586	ug/l		99
95) Naphthalene	15.611	128	284895	22.053	ug/l		99
96) 1,2,3-Trichlorobenzene	15.811	180	89684	22.922	ug/l		99

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092325\
Data File : VN087930.D
Acq On : 23 Sep 2025 11:47
Operator : JC\MD
Sample : VSTDICC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 24 04:50:35 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 04:45:42 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

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

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

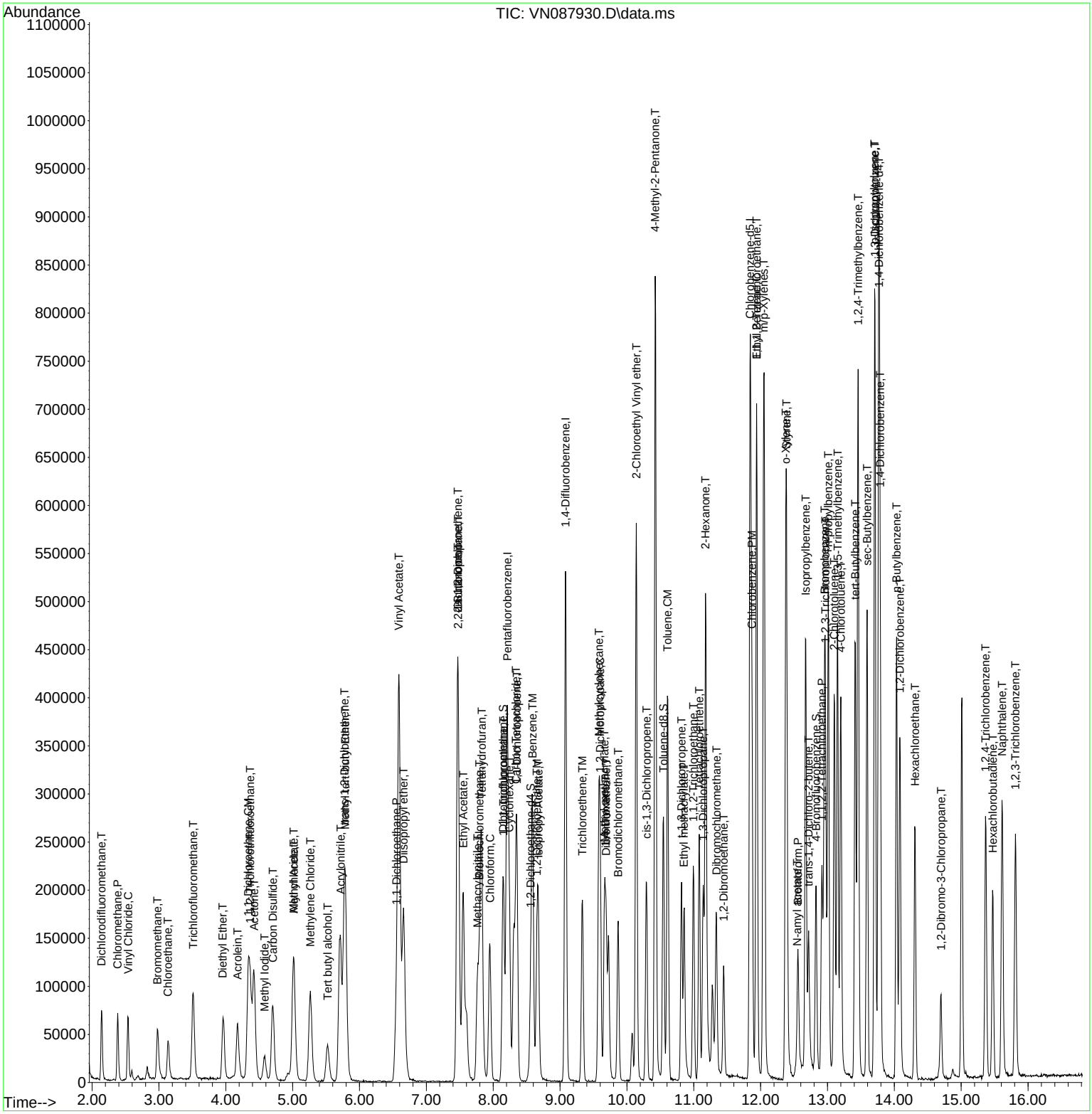
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092325\
Data File : VN087930.D
Acq On : 23 Sep 2025 11:47
Operator : JC\MD
Sample : VSTDICC020
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 11 Sample Multiplier: 1

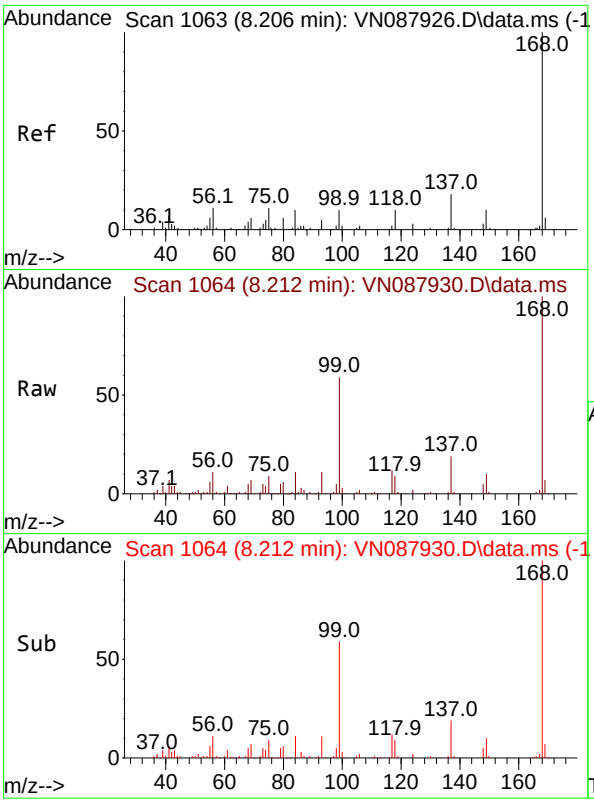
Quant Time: Sep 24 04:50:35 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 04:45:42 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

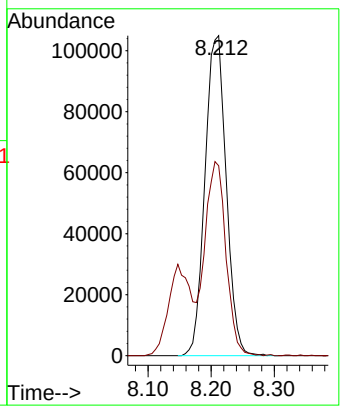




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.212 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion:168 Resp: 24512

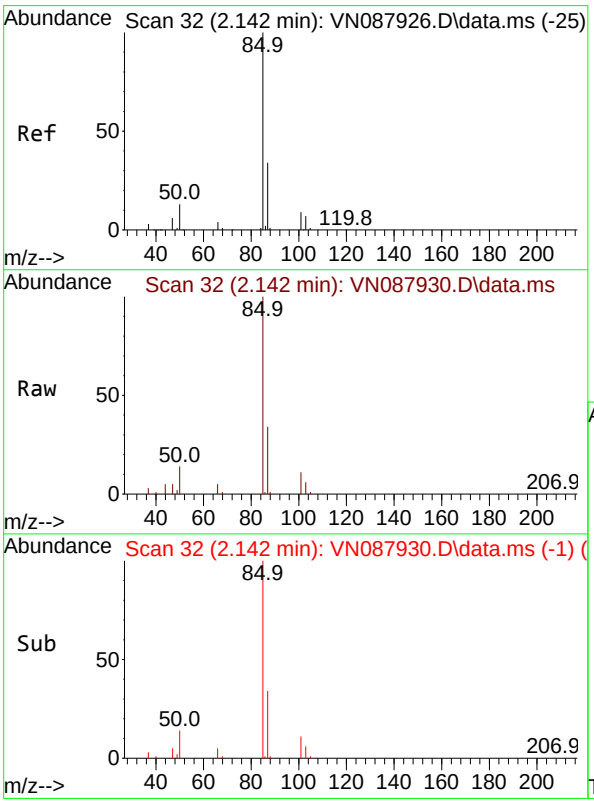
Ion	Ratio	Lower	Upper
168	100		
99	59.3	52.2	78.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

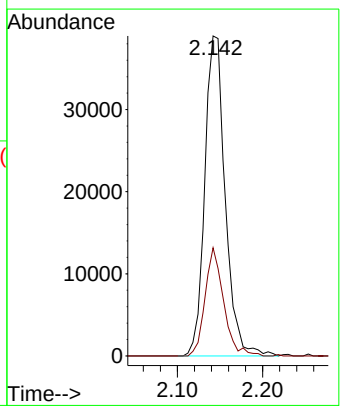
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

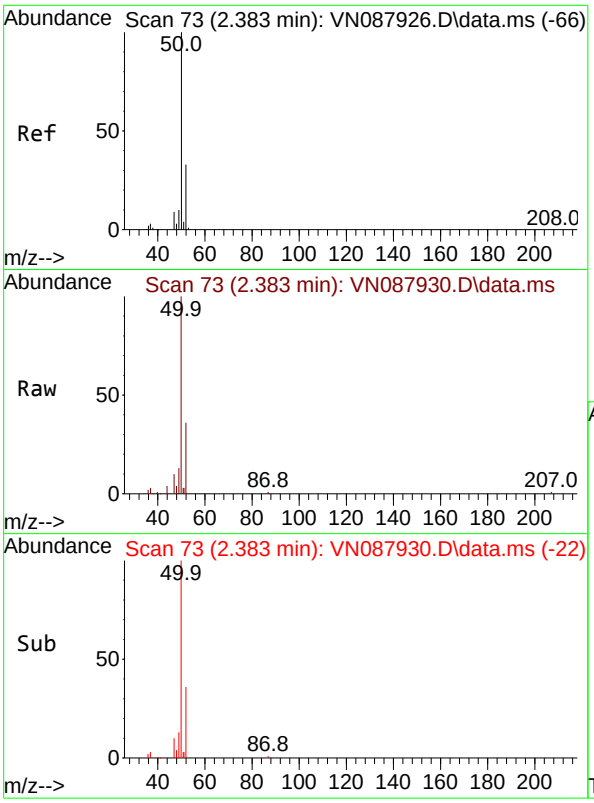


#2
Dichlorodifluoromethane
Concen: 22.855 ug/l
RT: 2.142 min Scan# 32
Delta R.T. -0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 85 Resp: 64880

Ion	Ratio	Lower	Upper
85	100		
87	33.8	16.9	50.6

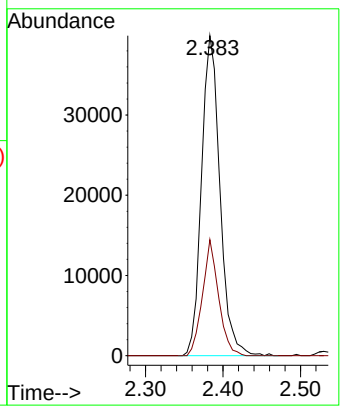




#3
Chloromethane
Concen: 22.673 ug/l
RT: 2.383 min Scan# 7
Delta R.T. 0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 50 Resp: 6590

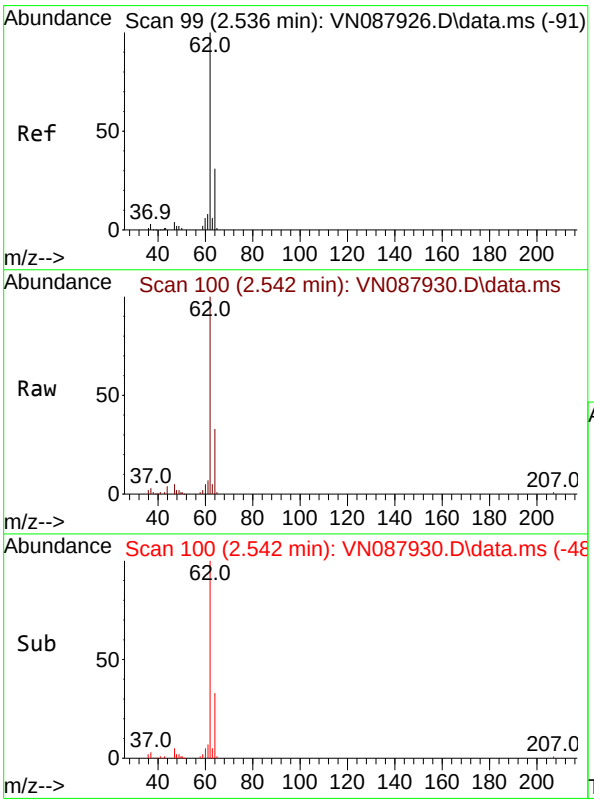
Ion	Ratio	Lower	Upper
50	100		
52	36.2	26.6	40.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

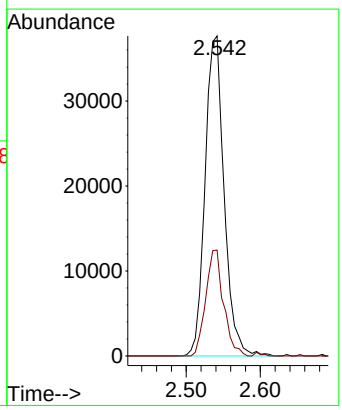
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

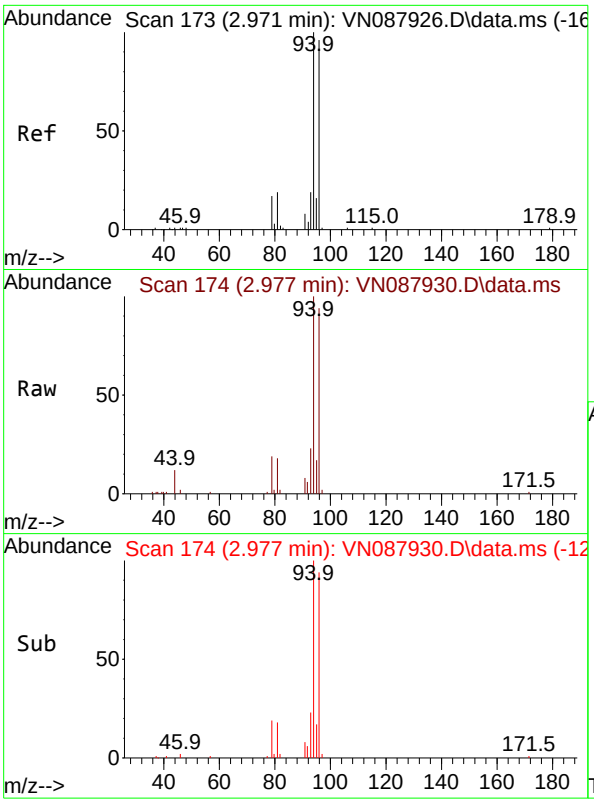


#4
Vinyl Chloride
Concen: 22.688 ug/l
RT: 2.542 min Scan# 100
Delta R.T. 0.006 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 62 Resp: 67280

Ion	Ratio	Lower	Upper
62	100		
64	33.1	25.2	37.8

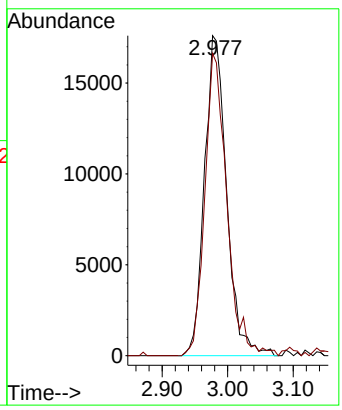




#5
Bromomethane
Concen: 22.501 ug/l
RT: 2.977 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 94 Resp: 4136

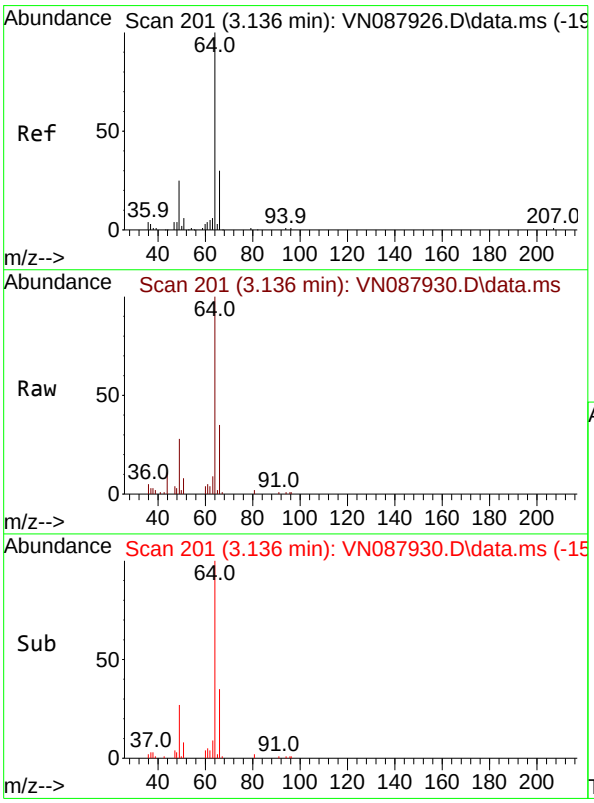
Ion	Ratio	Lower	Upper
94	100		
96	94.5	76.8	115.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

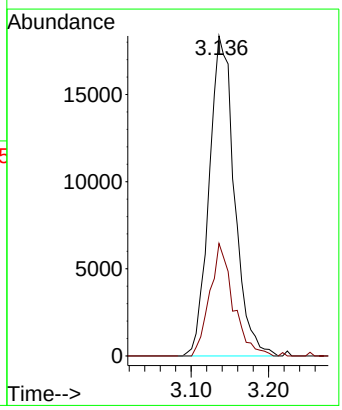
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

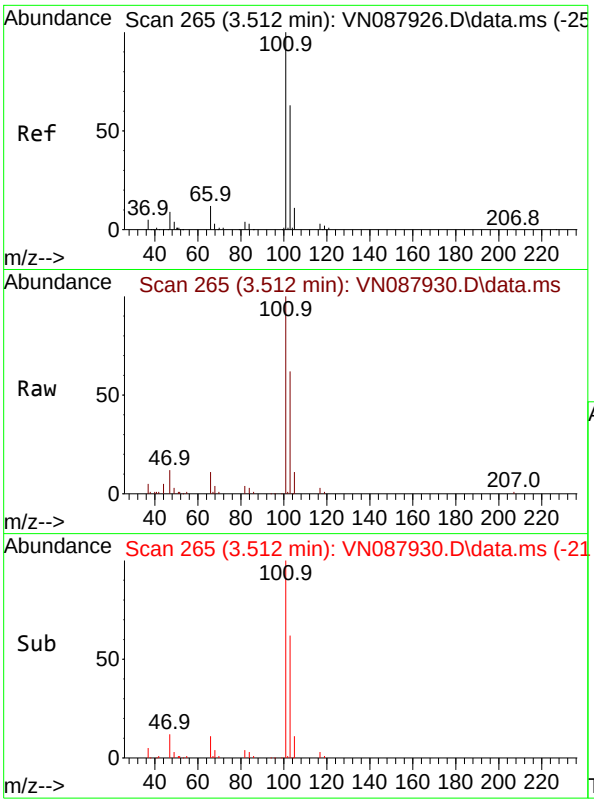


#6
Chloroethane
Concen: 21.605 ug/l
RT: 3.136 min Scan# 201
Delta R.T. -0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 64 Resp: 41658

Ion	Ratio	Lower	Upper
64	100		
66	35.2	23.8	35.8

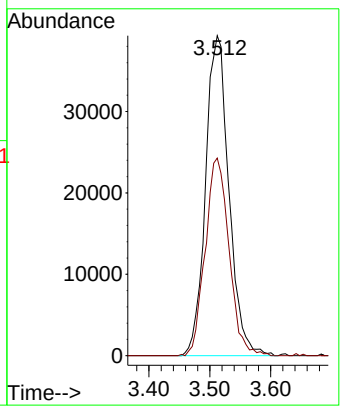




#7
Trichlorofluoromethane
Concen: 21.690 ug/l
RT: 3.512 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion:101 Resp: 10472

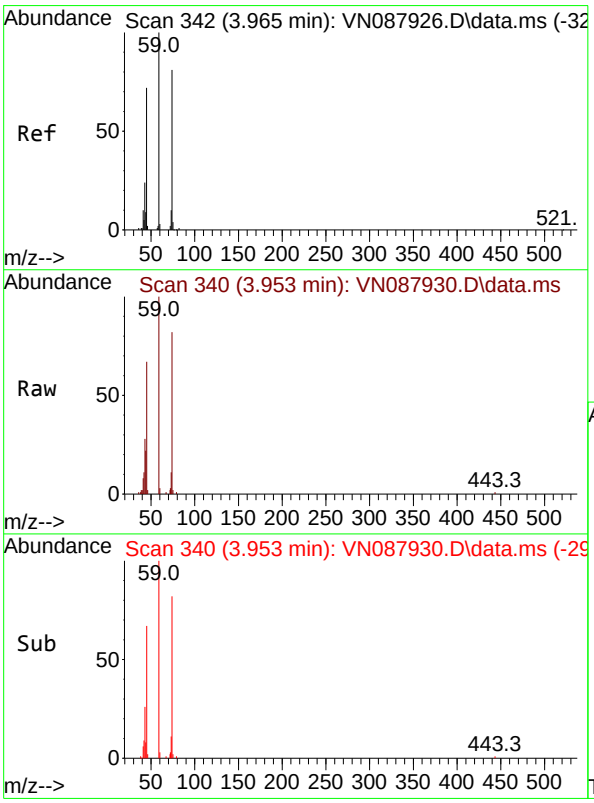
Ion	Ratio	Lower	Upper
101	100		
103	61.7	50.2	75.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

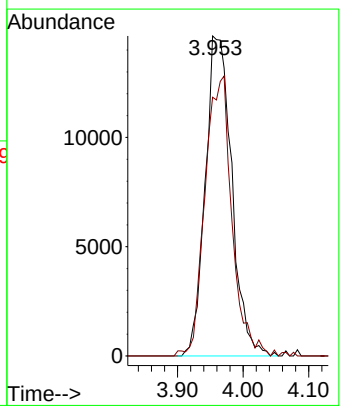
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

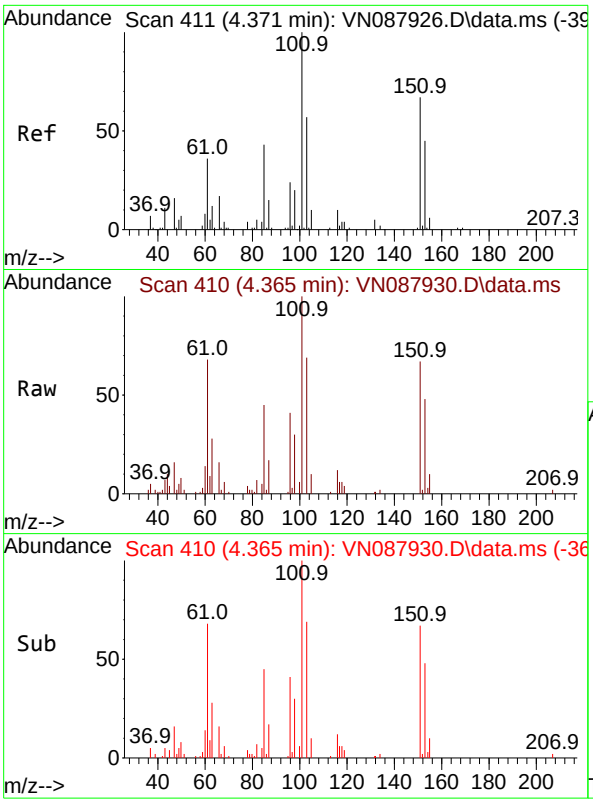


#8
Diethyl Ether
Concen: 22.518 ug/l
RT: 3.953 min Scan# 340
Delta R.T. -0.012 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 74 Resp: 41074

Ion	Ratio	Lower	Upper
74	100		
45	88.7	45.4	136.1

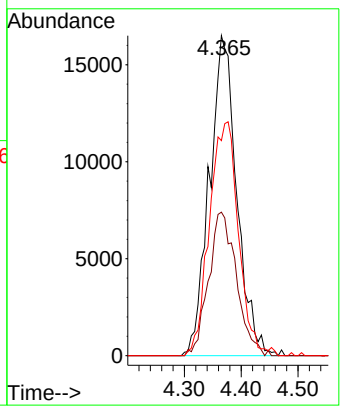




#9
1,1,2-Trichlorotrifluoroethane
Concen: 21.641 ug/l
RT: 4.365 min Scan# 4
Delta R.T. -0.006 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion:101 Resp: 5522

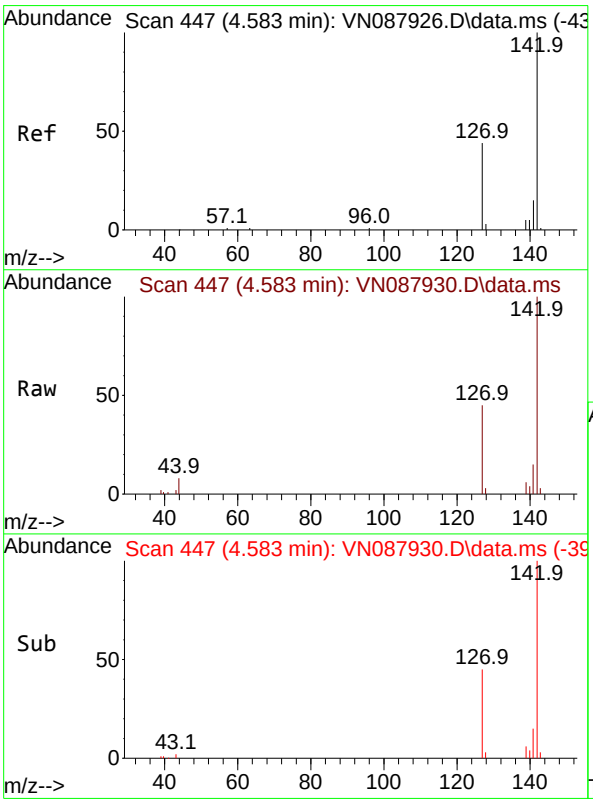
Ion	Ratio	Lower	Upper
101	100		
85	45.7	36.5	54.7
151	77.6	58.6	87.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

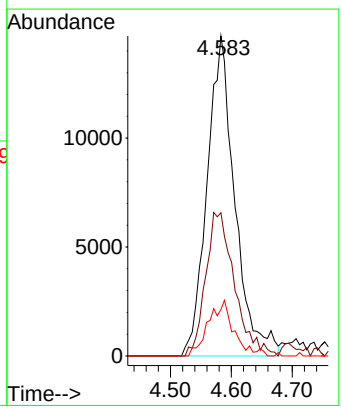
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

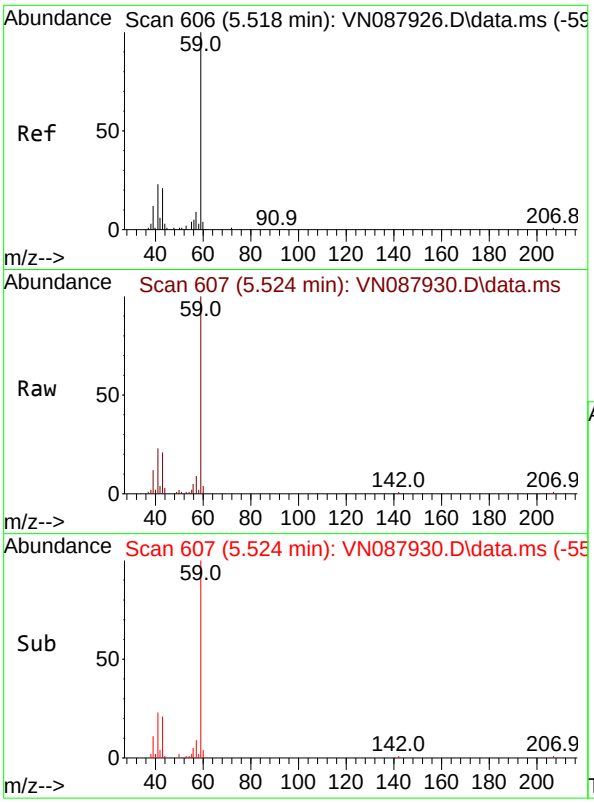


#10
Methyl Iodide
Concen: 20.249 ug/l
RT: 4.583 min Scan# 447
Delta R.T. -0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion:142 Resp: 46507

Ion	Ratio	Lower	Upper
142	100		
127	44.8	35.3	52.9
141	14.5	11.8	17.8

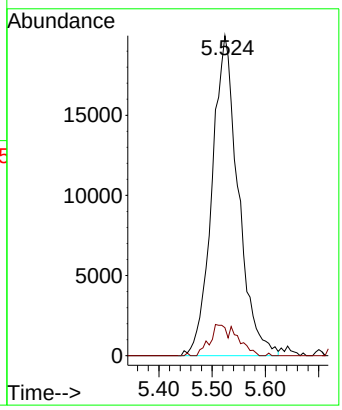




#11
Tert butyl alcohol
Concen: 115.030 ug/l
RT: 5.524 min Scan# 6
Delta R.T. 0.006 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 59 Resp: 6835

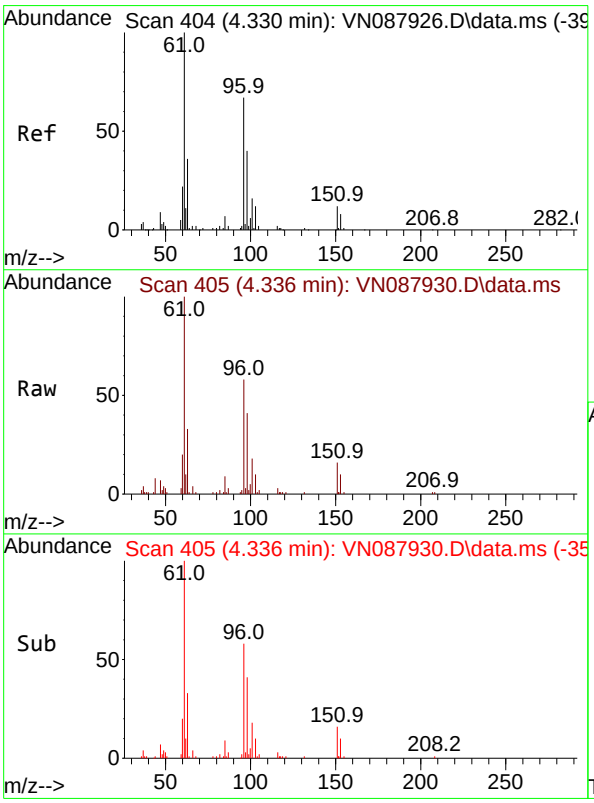
Ion	Ratio	Lower	Upper
59	100		
57	6.2	8.8	13.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

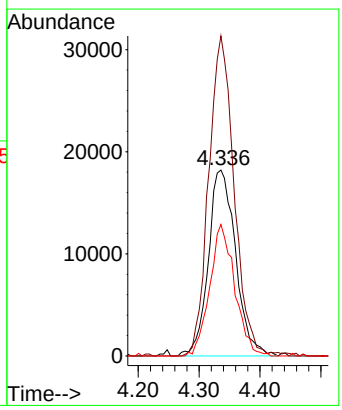
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

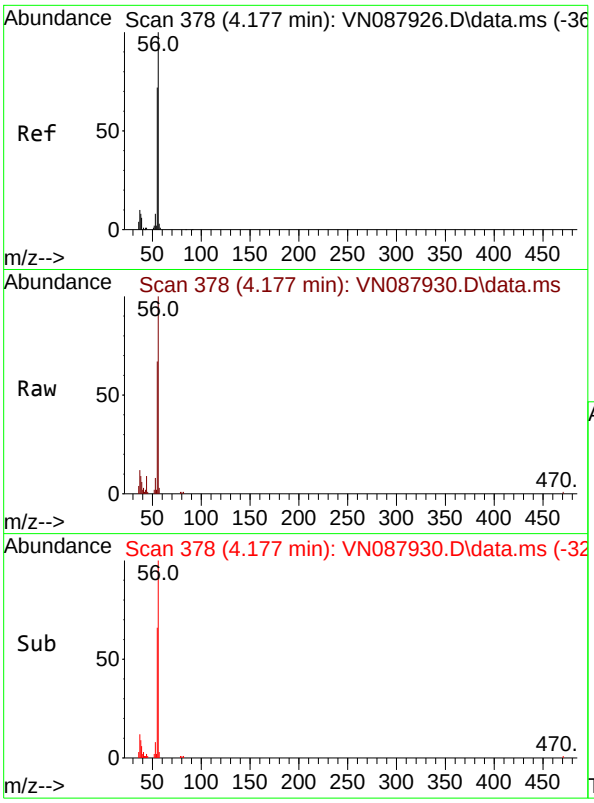


#12
1,1-Dichloroethene
Concen: 22.033 ug/l
RT: 4.336 min Scan# 405
Delta R.T. 0.006 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 96 Resp: 56732

Ion	Ratio	Lower	Upper
96	100		
61	172.1	119.2	178.8
98	70.8	47.5	71.3

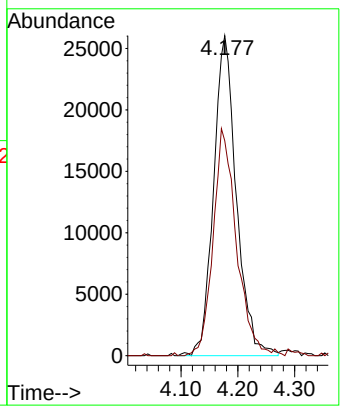




#13
Acrolein
Concen: 95.324 ug/l
RT: 4.177 min Scan# 3
Delta R.T. 0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 56 Resp: 7267

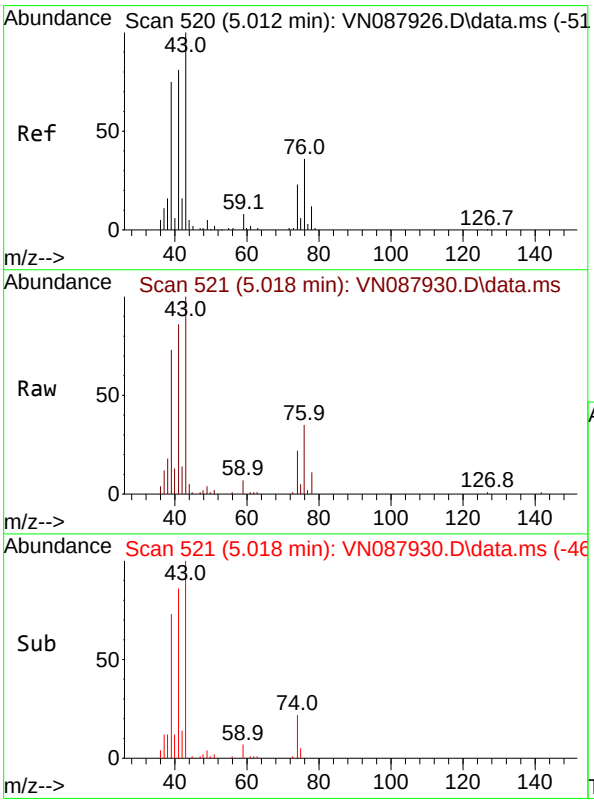
Ion	Ratio	Lower	Upper
56	100		
55	72.3	59.3	88.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

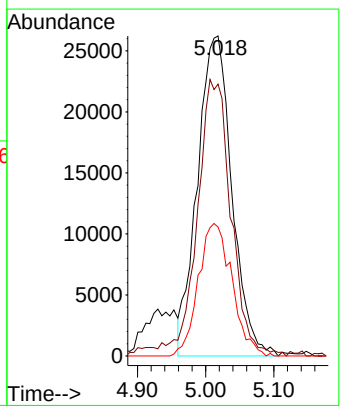
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

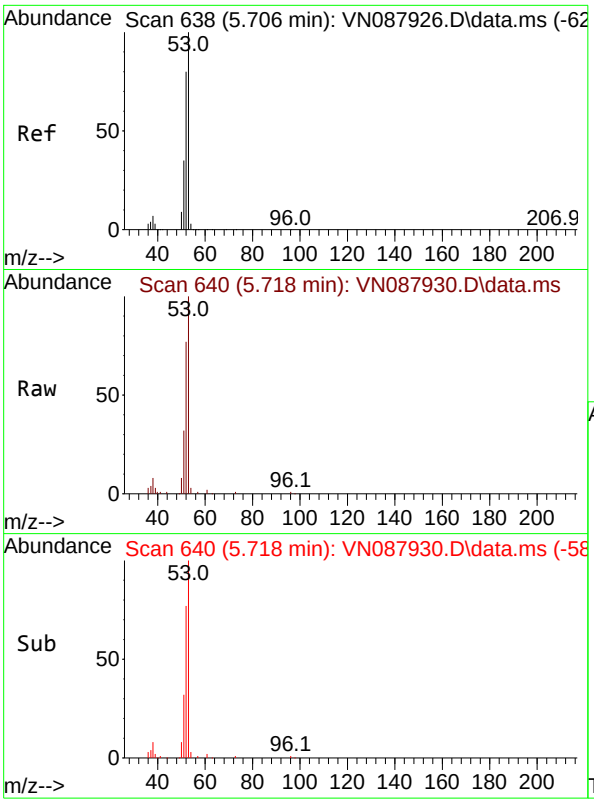


#14
Allyl chloride
Concen: 22.013 ug/l
RT: 5.018 min Scan# 521
Delta R.T. 0.006 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 41 Resp: 92277

Ion	Ratio	Lower	Upper
41	100		
39	85.8	63.8	95.8
76	40.4	33.0	49.6

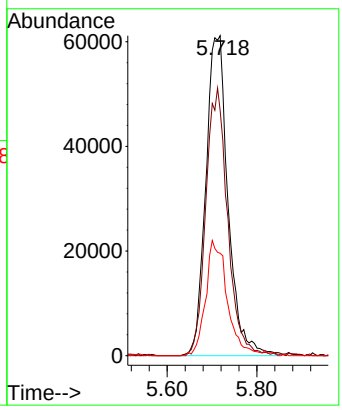




#15
Acrylonitrile
Concen: 113.135 ug/l
RT: 5.718 min Scan# 64
Delta R.T. 0.012 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 53 Resp: 21086

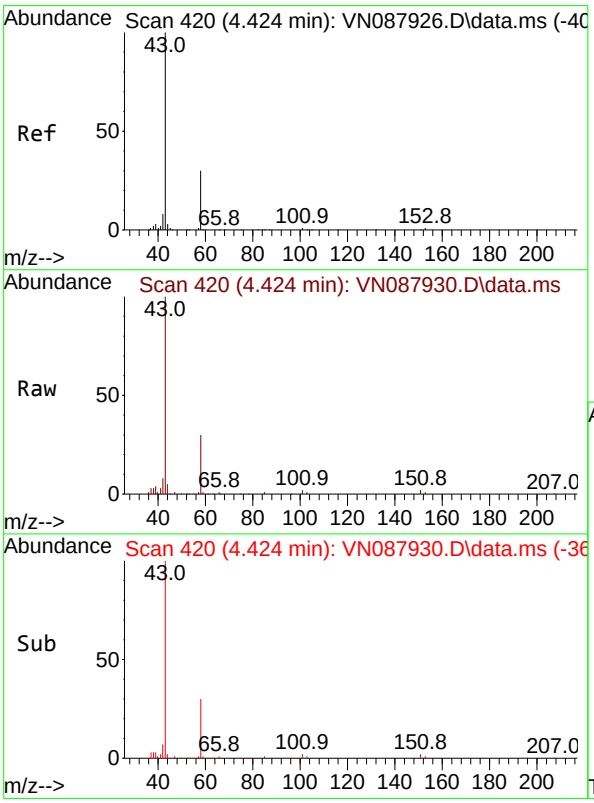
Ion	Ratio	Lower	Upper
53	100		
52	81.7	66.6	99.8
51	34.8	29.0	43.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

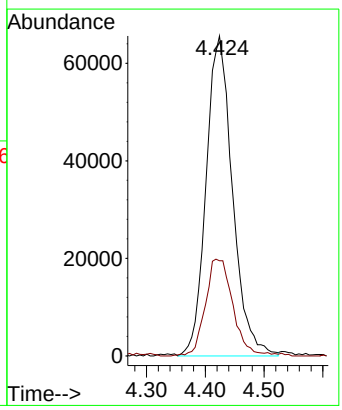
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

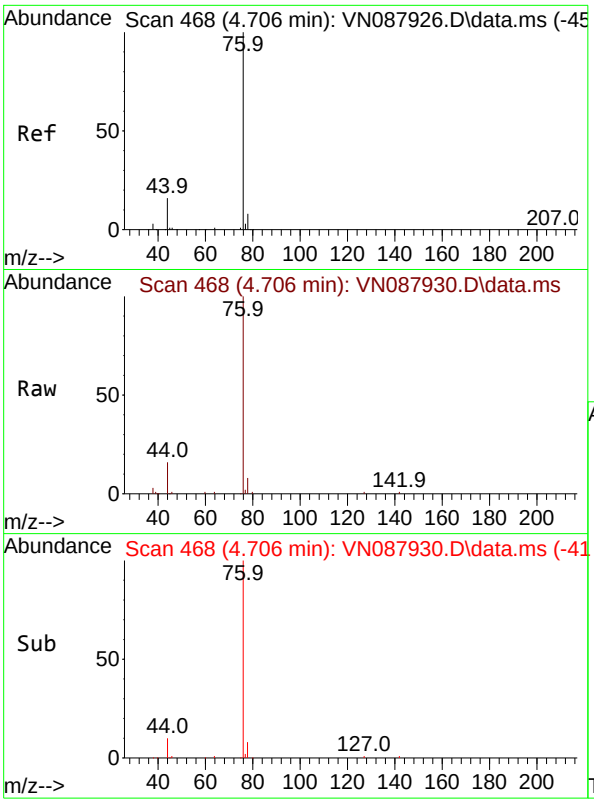


#16
Acetone
Concen: 119.766 ug/l
RT: 4.424 min Scan# 420
Delta R.T. 0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 43 Resp: 204534

Ion	Ratio	Lower	Upper
43	100		
58	29.4	24.1	36.1

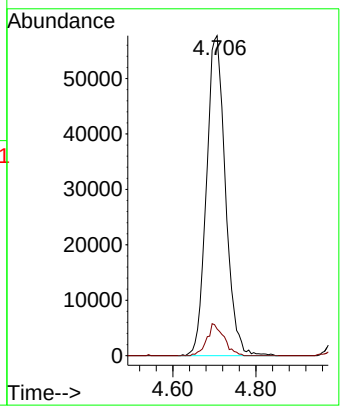




#17
Carbon Disulfide
Concen: 22.691 ug/l
RT: 4.706 min Scan# 4
Delta R.T. 0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 76 Resp: 18254

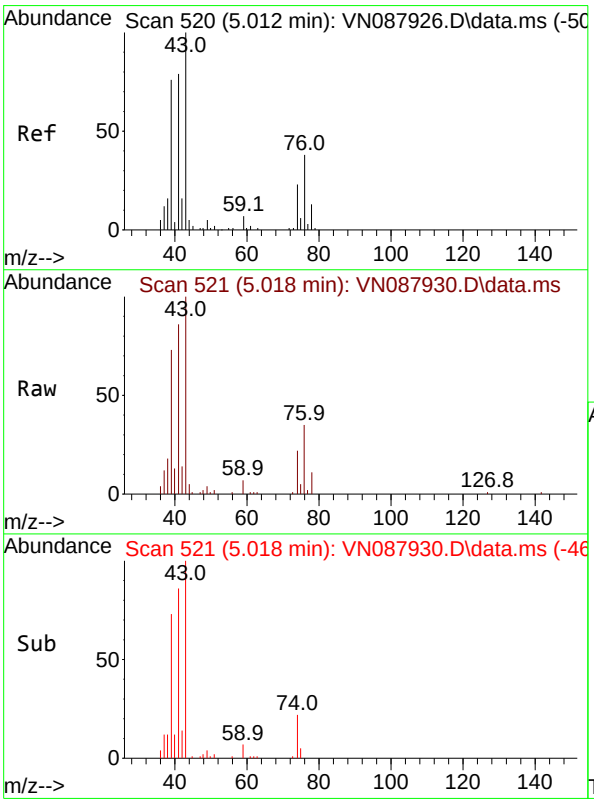
Ion	Ratio	Lower	Upper
76	100		
78	8.3	6.7	10.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

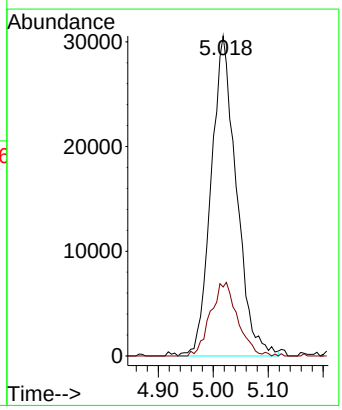
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

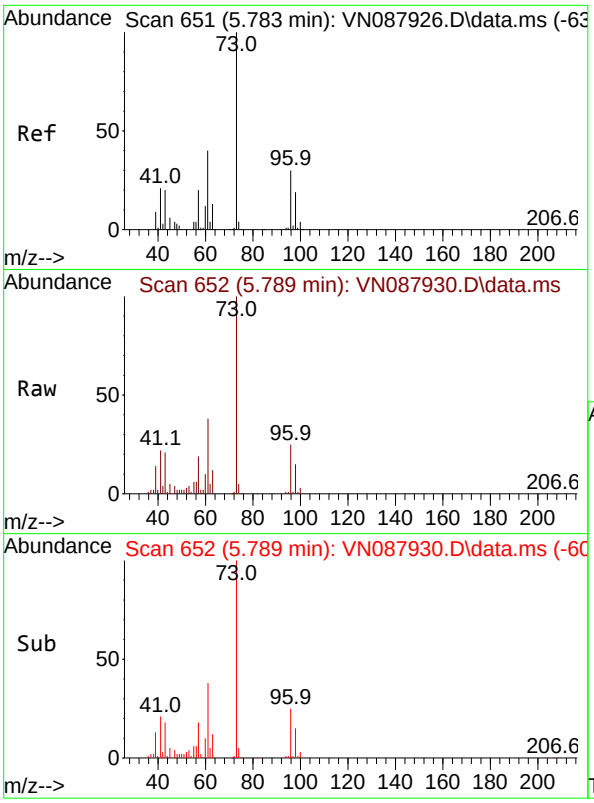


#18
Methyl Acetate
Concen: 23.015 ug/l
RT: 5.018 min Scan# 521
Delta R.T. 0.006 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 43 Resp: 97764

Ion	Ratio	Lower	Upper
43	100		
74	24.4	19.7	29.5

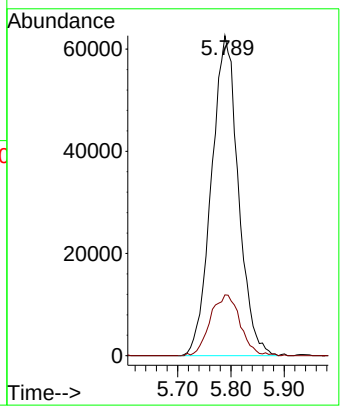




#19
Methyl tert-butyl Ether
Concen: 21.807 ug/l
RT: 5.789 min Scan# 6
Delta R.T. 0.006 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 73 Resp: 21934

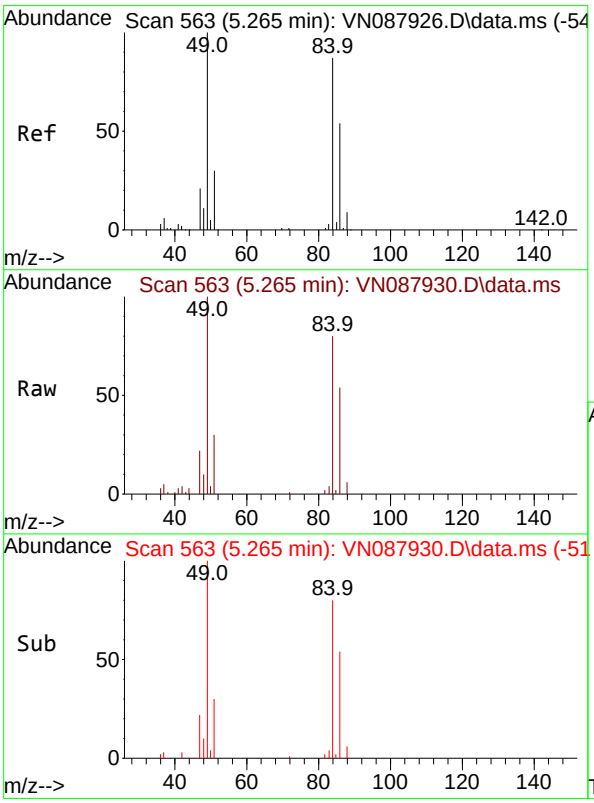
Ion	Ratio	Lower	Upper
73	100		
57	19.0	16.3	24.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

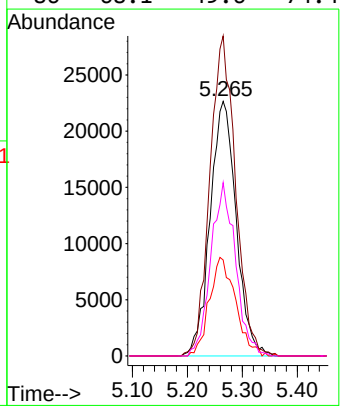
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

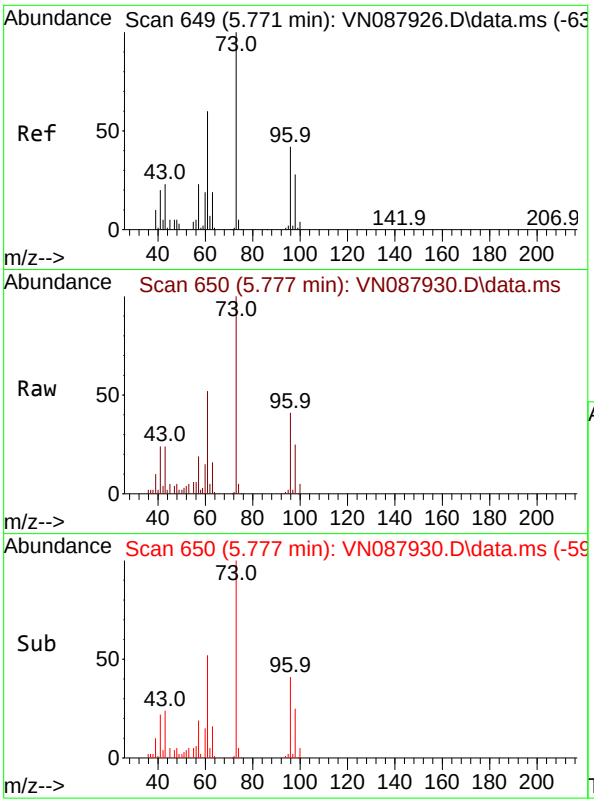


#20
Methylene Chloride
Concen: 21.725 ug/l
RT: 5.265 min Scan# 563
Delta R.T. 0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 84 Resp: 74638

Ion	Ratio	Lower	Upper
84	100		
49	125.7	92.1	138.1
51	37.7	27.7	41.5
86	68.1	49.6	74.4

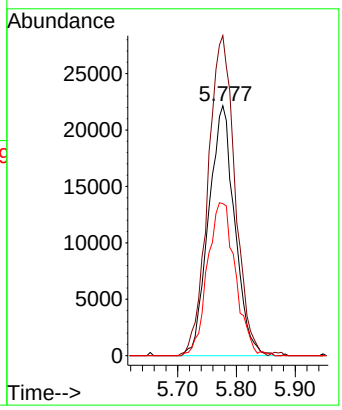




#21
trans-1,2-Dichloroethene
Concen: 21.601 ug/l
RT: 5.777 min Scan# 6
Delta R.T. 0.006 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 96 Resp: 6818

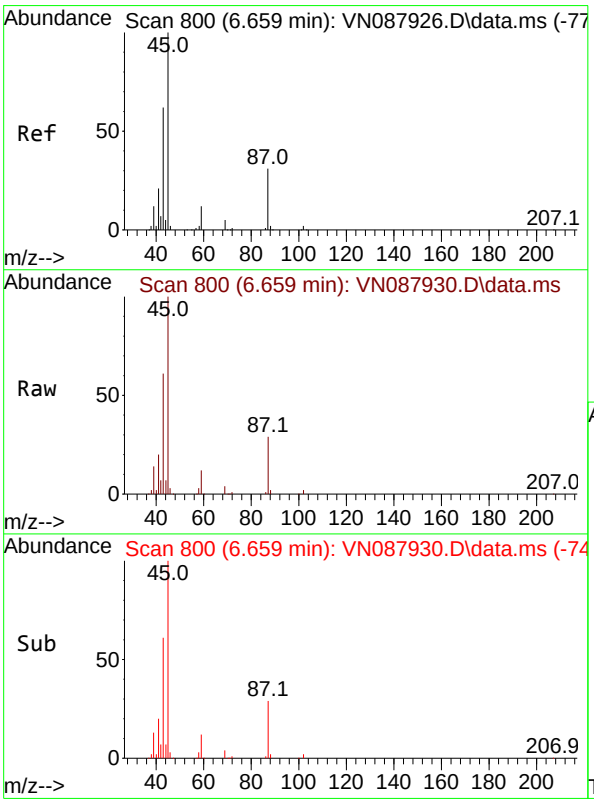
Ion	Ratio	Lower	Upper
96	100		
61	128.1	114.4	171.6
98	60.8	53.6	80.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

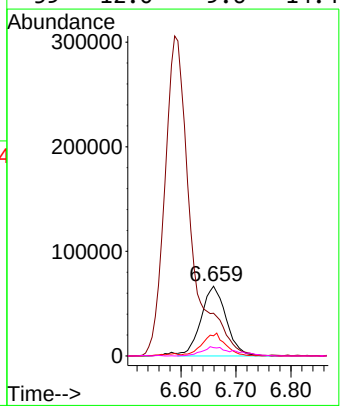
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

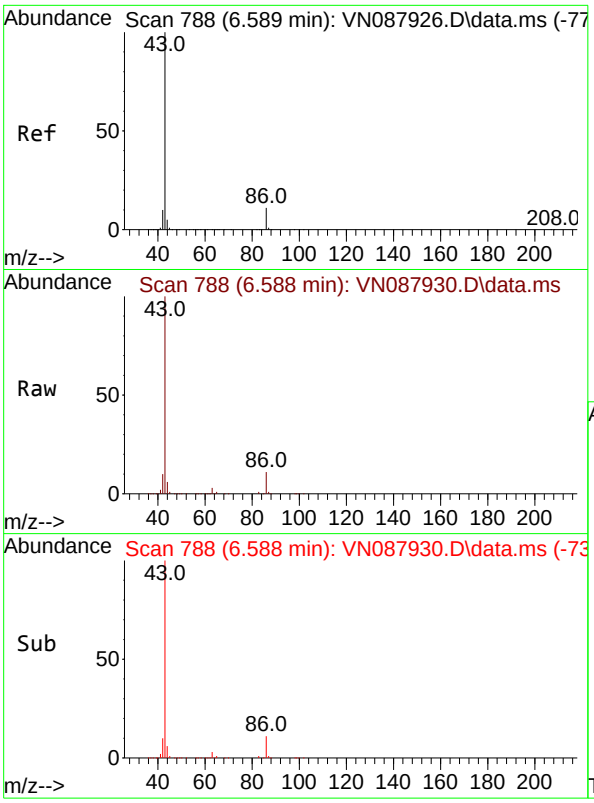


#22
Diisopropyl ether
Concen: 21.573 ug/l
RT: 6.659 min Scan# 800
Delta R.T. 0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 45 Resp: 211107

Ion	Ratio	Lower	Upper
45	100		
43	60.2	49.9	74.9
87	28.9	25.2	37.8
59	12.0	9.6	14.4

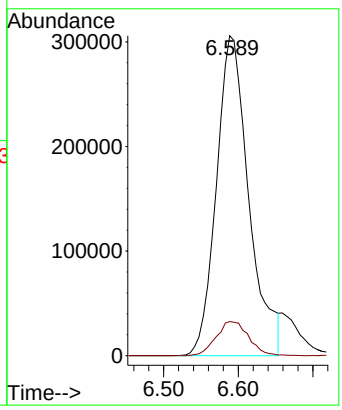




#23
Vinyl Acetate
Concen: 112.117 ug/l m
RT: 6.588 min Scan# 7
Delta R.T. -0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 43 Resp: 92378

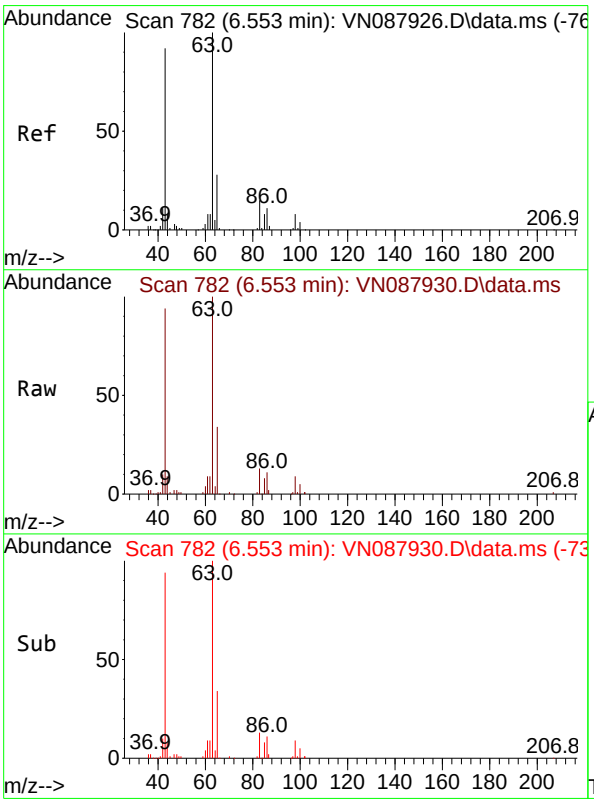
Ion	Ratio	Lower	Upper
43	100		
86	10.7	8.6	12.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

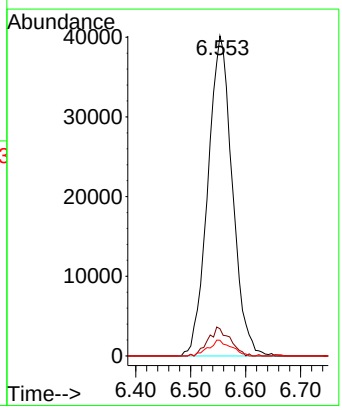
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

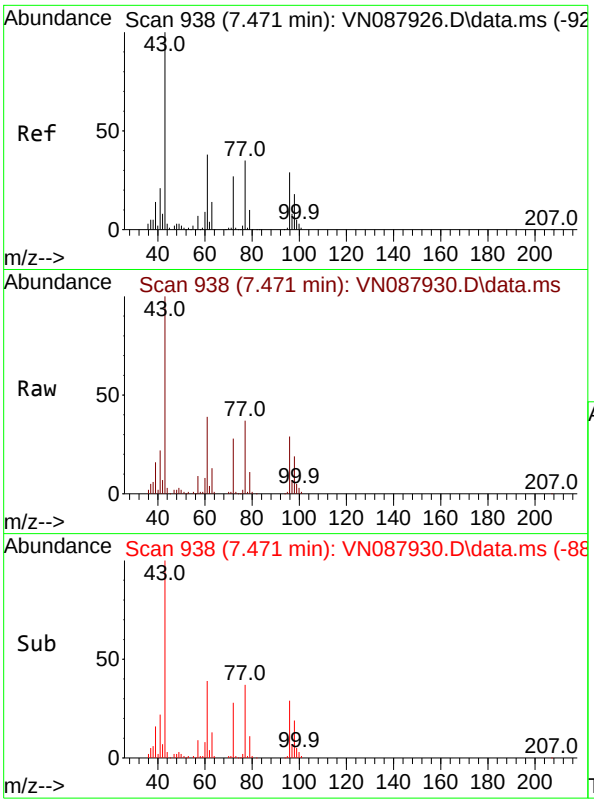


#24
1,1-Dichloroethane
Concen: 21.746 ug/l
RT: 6.553 min Scan# 782
Delta R.T. 0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 63 Resp: 124326

Ion	Ratio	Lower	Upper
63	100		
98	8.5	3.9	11.5
100	4.9	2.1	6.5

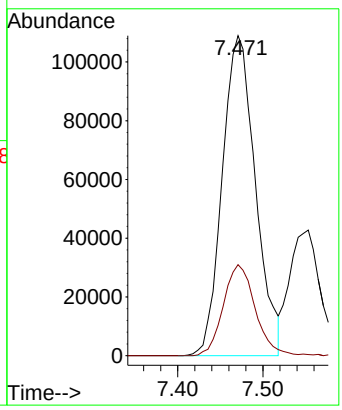




#25
2-Butanone
Concen: 113.731 ug/l
RT: 7.471 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 43 Resp: 29505

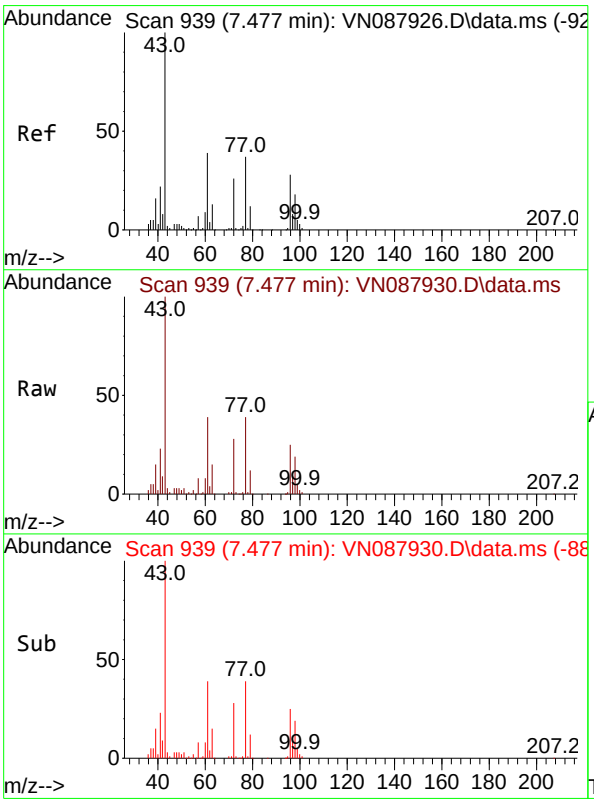
Ion	Ratio	Lower	Upper
43	100		
72	28.5	21.5	32.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

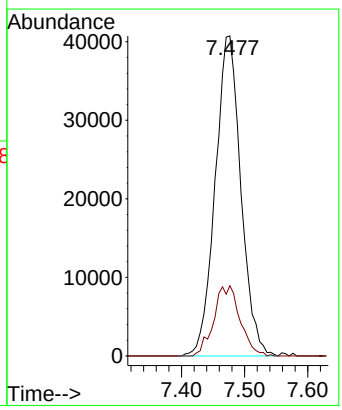
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

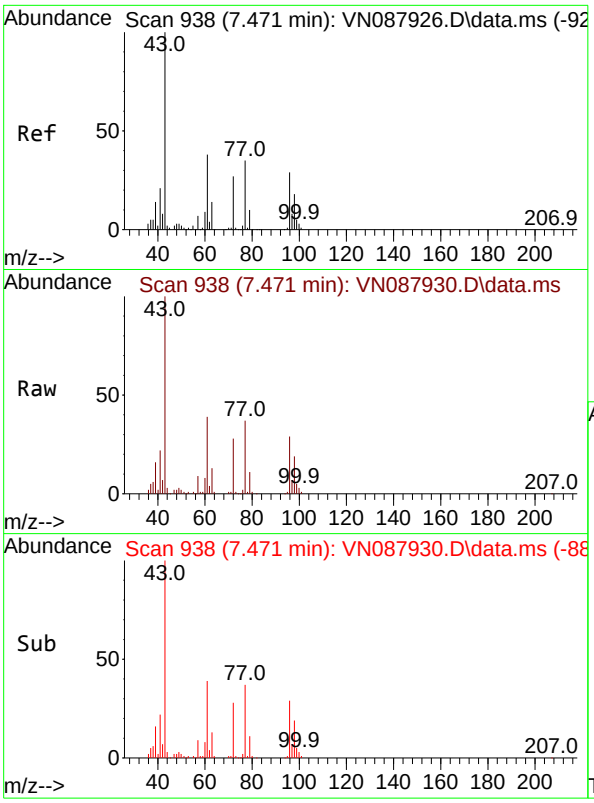


#26
2,2-Dichloropropane
Concen: 22.689 ug/l
RT: 7.477 min Scan# 939
Delta R.T. 0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 77 Resp: 115250

Ion	Ratio	Lower	Upper
77	100		
97	22.4	11.5	34.5

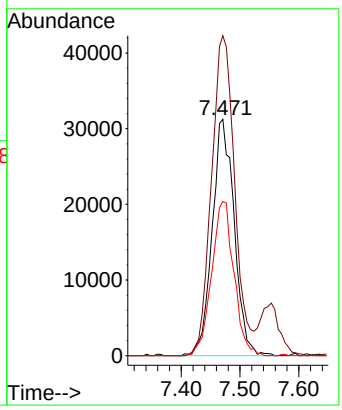




#27
cis-1,2-Dichloroethene
Concen: 21.639 ug/l
RT: 7.471 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 96 Resp: 8127

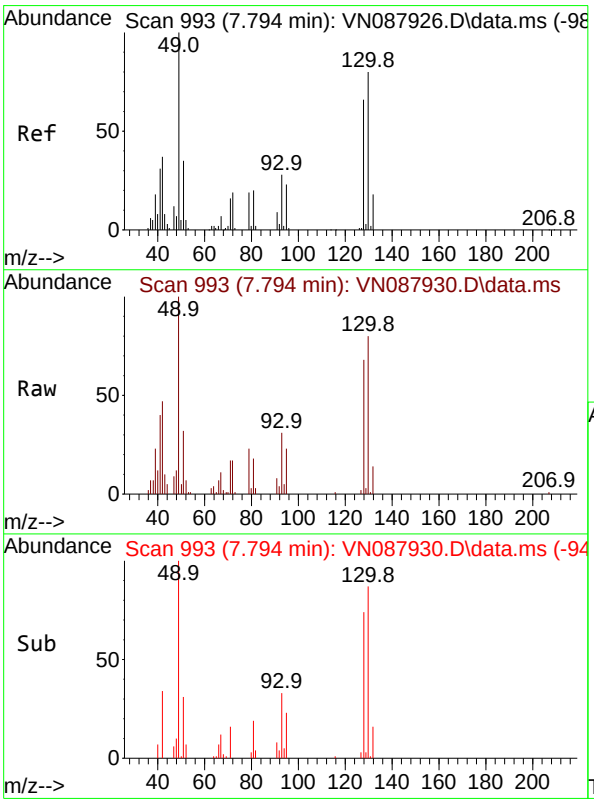
Ion	Ratio	Lower	Upper
96	100		
61	142.7	0.0	283.0
98	66.1	0.0	127.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

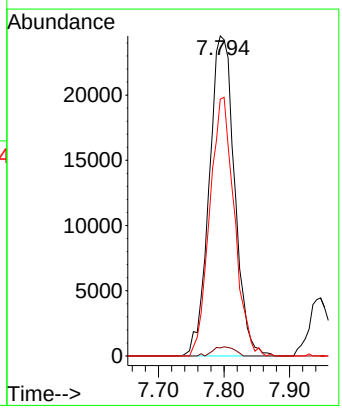
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

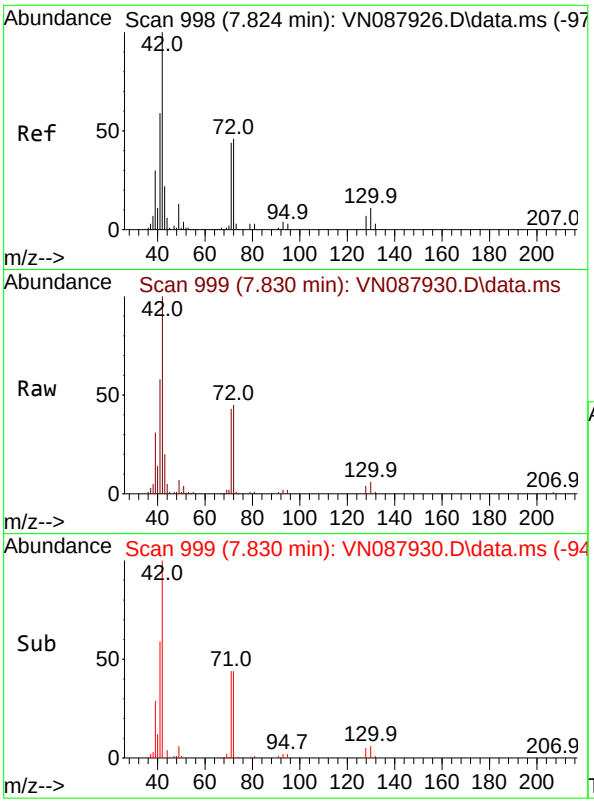


#28
Bromochloromethane
Concen: 21.168 ug/l
RT: 7.794 min Scan# 993
Delta R.T. 0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 49 Resp: 65753

Ion	Ratio	Lower	Upper
49	100		
129	2.5	0.0	5.4
130	78.2	62.6	94.0

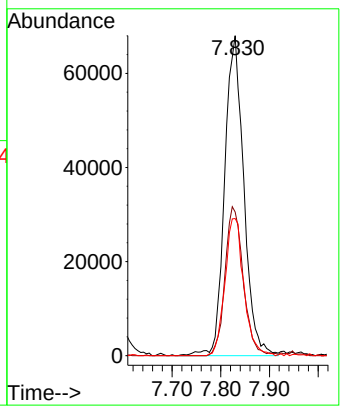




#29
Tetrahydrofuran
Concen: 111.932 ug/l
RT: 7.830 min Scan# 9
Delta R.T. 0.006 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 42 Resp: 18594

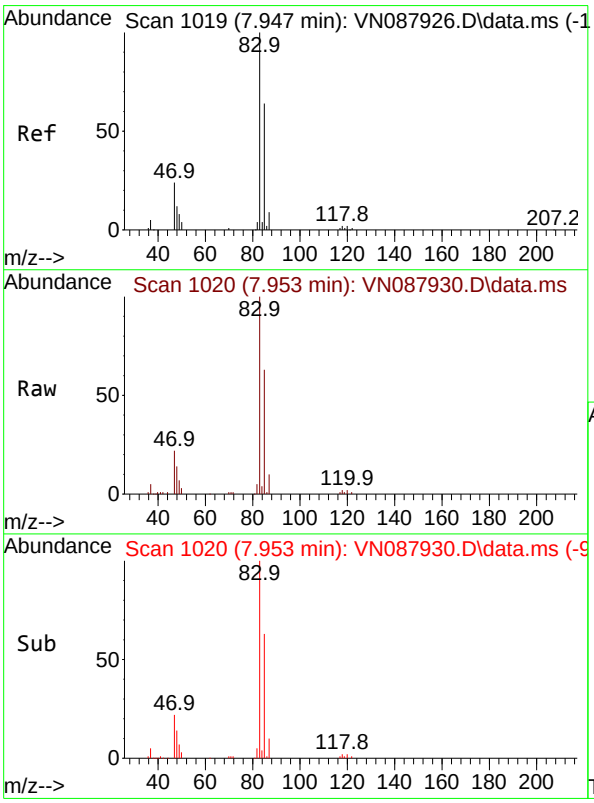
Ion	Ratio	Lower	Upper
42	100		
72	44.4	36.5	54.7
71	42.2	33.8	50.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

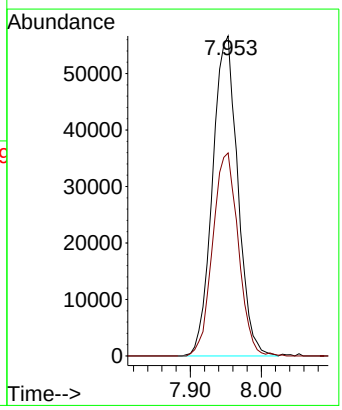
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

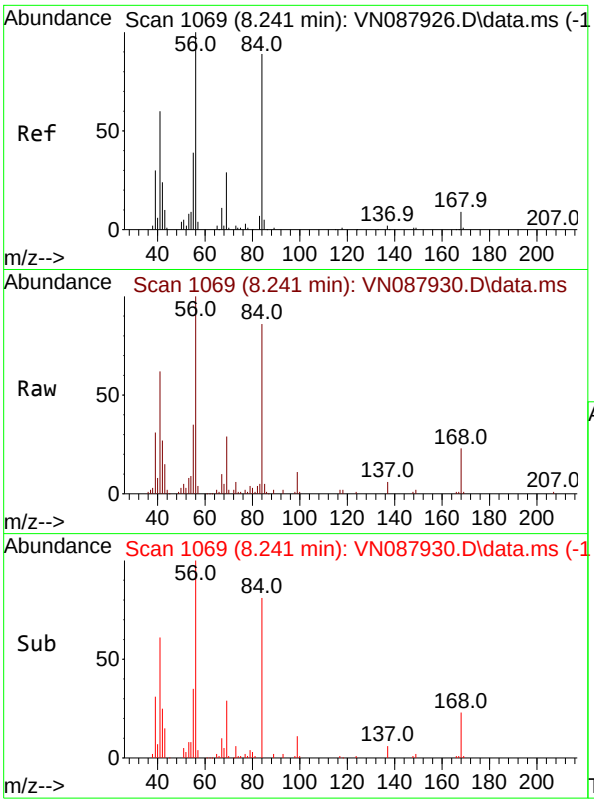


#30
Chloroform
Concen: 22.333 ug/l
RT: 7.953 min Scan# 1020
Delta R.T. 0.006 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 83 Resp: 139611

Ion	Ratio	Lower	Upper
83	100		
85	63.5	50.9	76.3

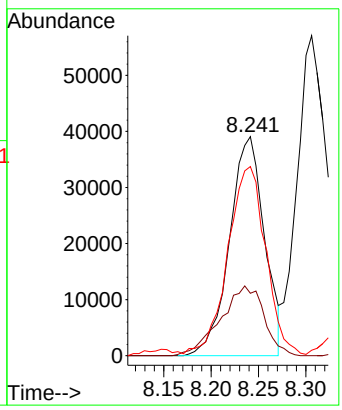




#31
Cyclohexane
Concen: 21.611 ug/l
RT: 8.241 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 56 Resp: 9997

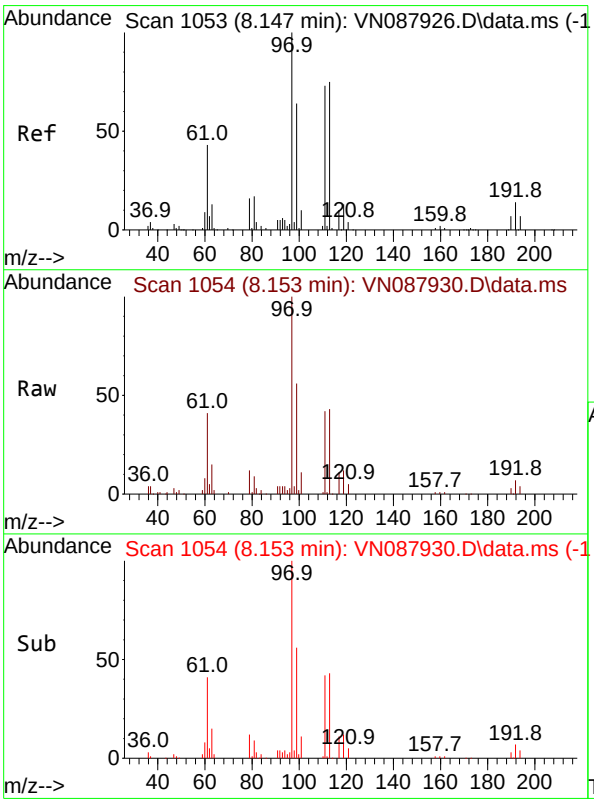
Ion	Ratio	Lower	Upper
56	100		
69	27.9	23.4	35.0
84	84.5	70.8	106.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

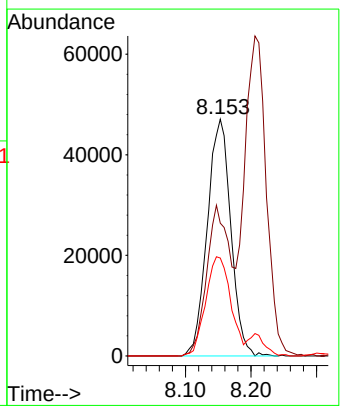
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

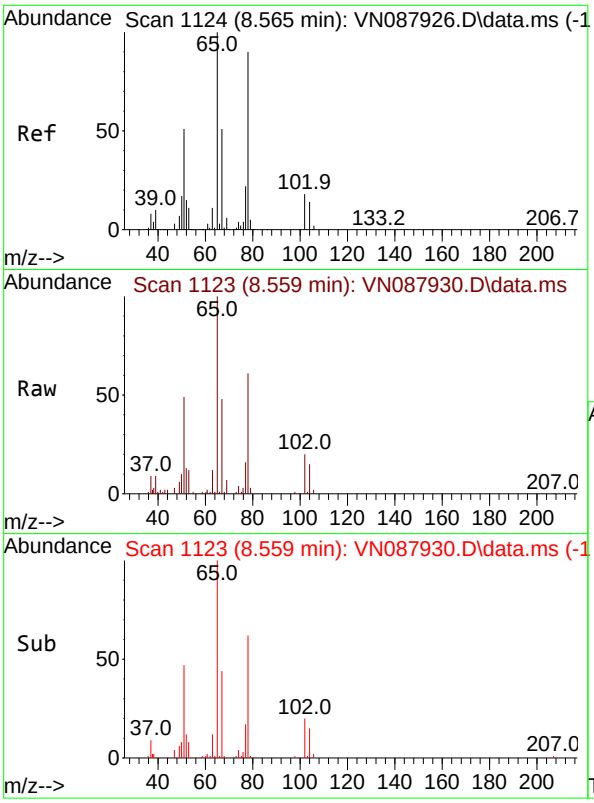


#32
1,1,1-Trichloroethane
Concen: 22.227 ug/l
RT: 8.153 min Scan# 1054
Delta R.T. 0.006 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 97 Resp: 117408

Ion	Ratio	Lower	Upper
97	100		
99	64.6	51.1	76.7
61	44.6	38.6	58.0

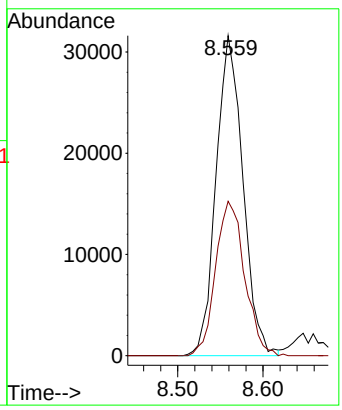




#33
1,2-Dichloroethane-d4
Concen: 16.764 ug/l
RT: 8.559 min Scan# 11
Delta R.T. -0.006 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 65 Resp: 6915

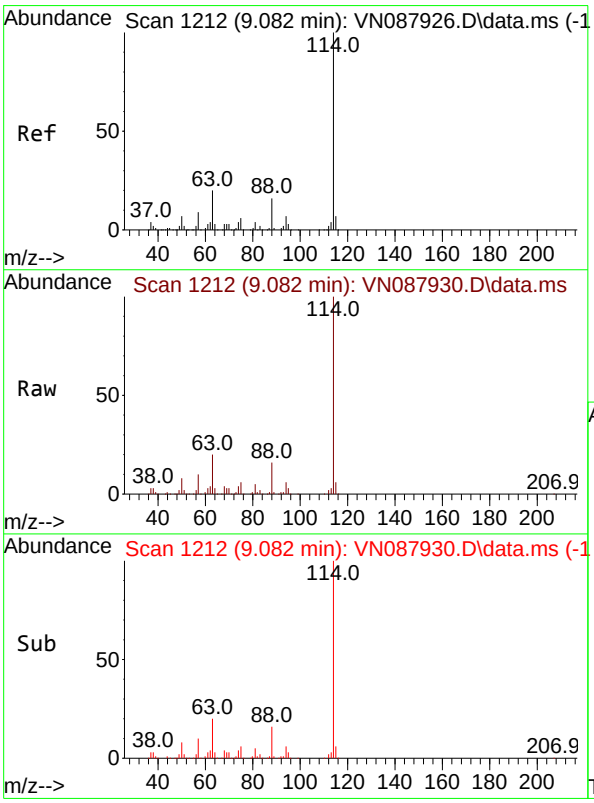
Ion	Ratio	Lower	Upper
65	100		
67	52.3	0.0	103.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

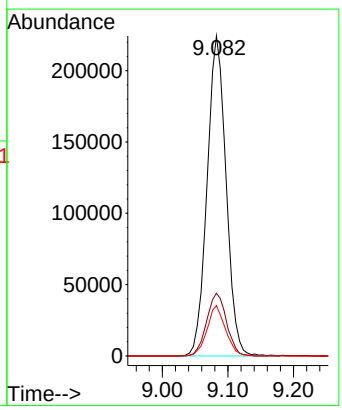
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

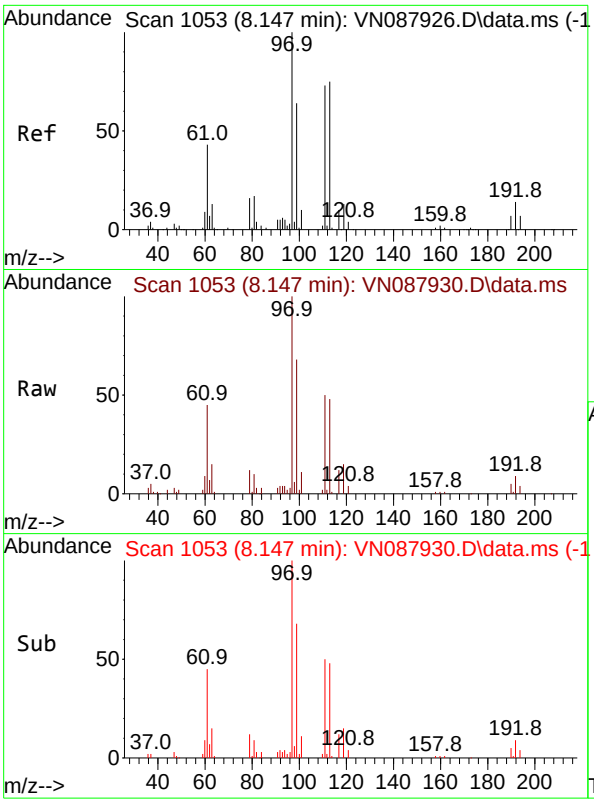


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.082 min Scan# 1212
Delta R.T. 0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion:114 Resp: 451275

Ion	Ratio	Lower	Upper
114	100		
63	19.6	0.0	40.0
88	15.8	0.0	31.8

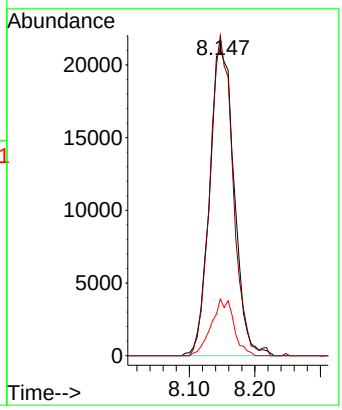




#35
Dibromofluoromethane
Concen: 16.830 ug/l
RT: 8.147 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion:113 Resp: 5514

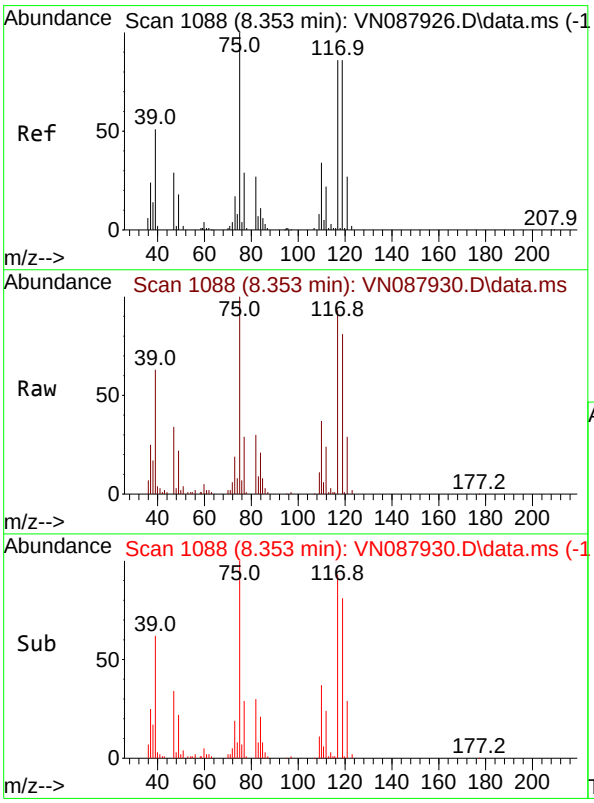
Ion	Ratio	Lower	Upper
113	100		
111	98.0	82.2	123.2
192	16.9	14.2	21.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

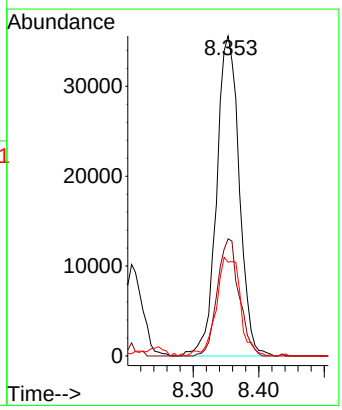
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

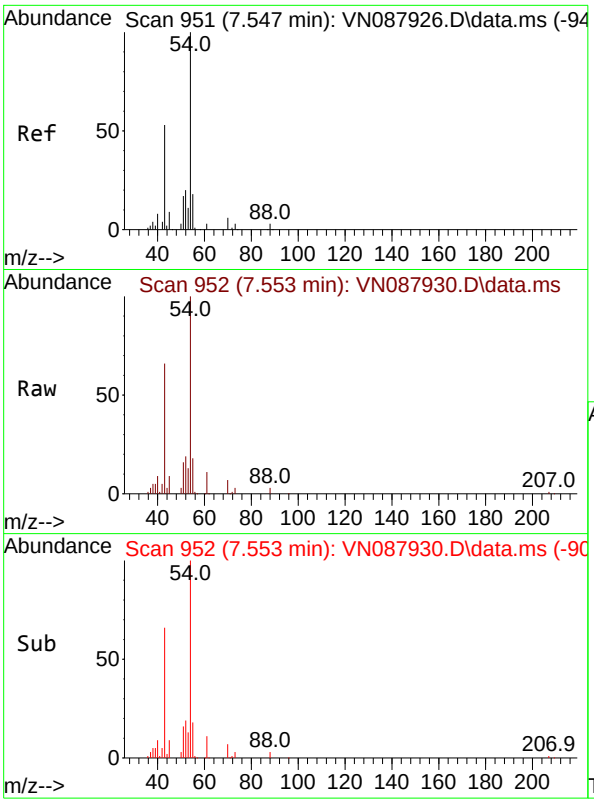


#36
1,1-Dichloropropene
Concen: 21.605 ug/l
RT: 8.353 min Scan# 1088
Delta R.T. 0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 75 Resp: 85120

Ion	Ratio	Lower	Upper
75	100		
110	35.3	17.1	51.3
77	32.8	24.8	37.2





#37
Ethyl Acetate
Concen: 21.105 ug/l
RT: 7.553 min Scan# 9
Delta R.T. 0.006 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

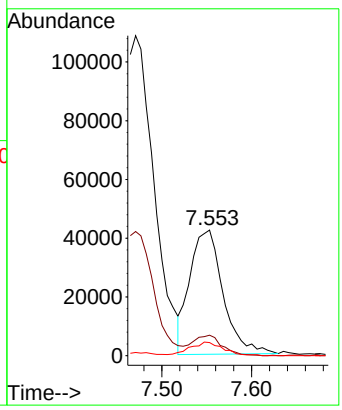
Tgt Ion: 43 Resp: 10918

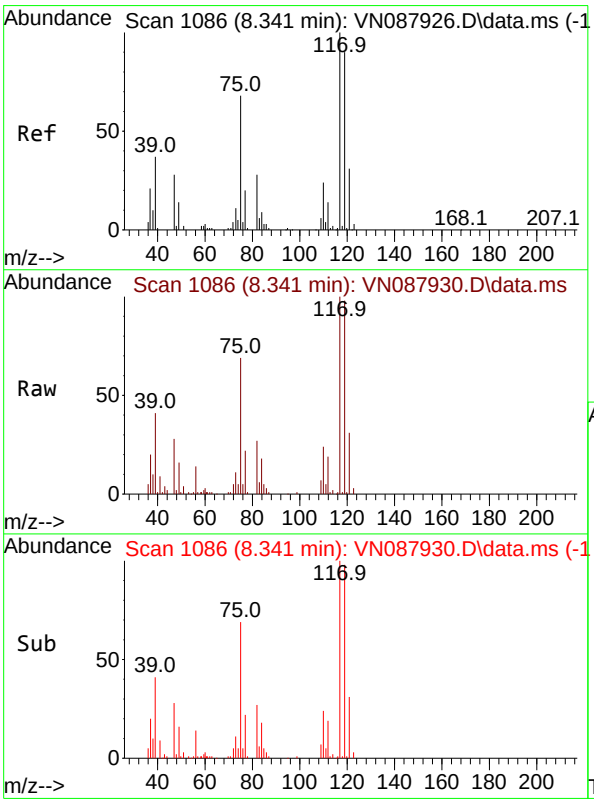
Ion	Ratio	Lower	Upper
43	100		
61	14.5	10.7	16.1
70	10.9	7.8	11.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

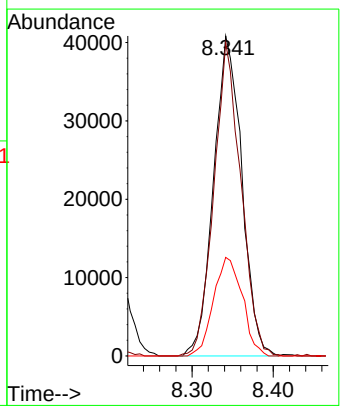


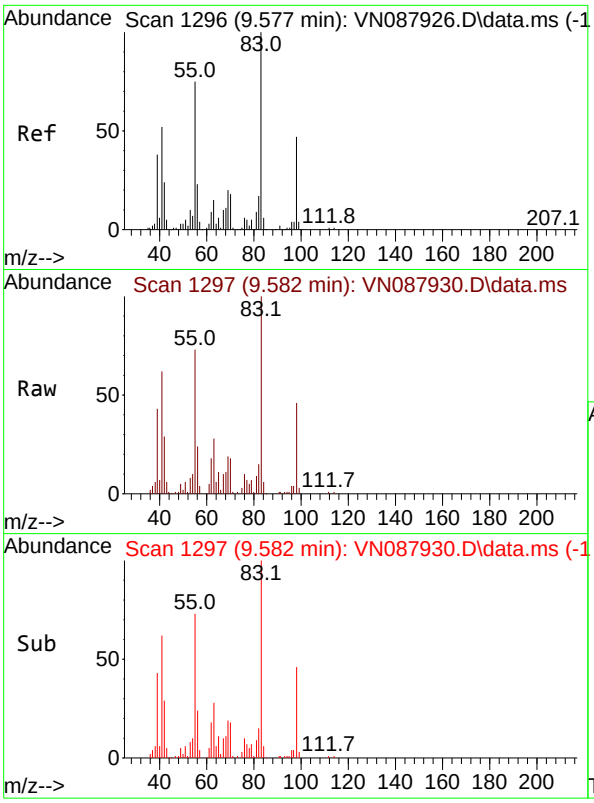


#38
Carbon Tetrachloride
Concen: 21.778 ug/l
RT: 8.341 min Scan# 1086
Delta R.T. 0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion:117 Resp: 98457

Ion	Ratio	Lower	Upper
117	100		
119	97.9	72.1	108.1
121	30.8	24.6	36.8





#39
Methylcyclohexane
Concen: 21.644 ug/l
RT: 9.582 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

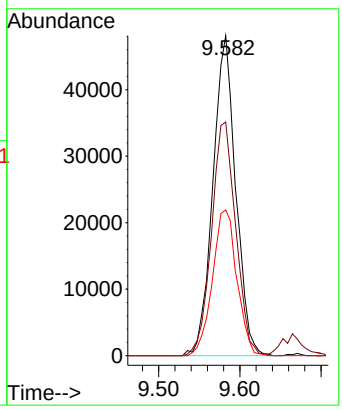
Tgt Ion: 83 Resp: 9406

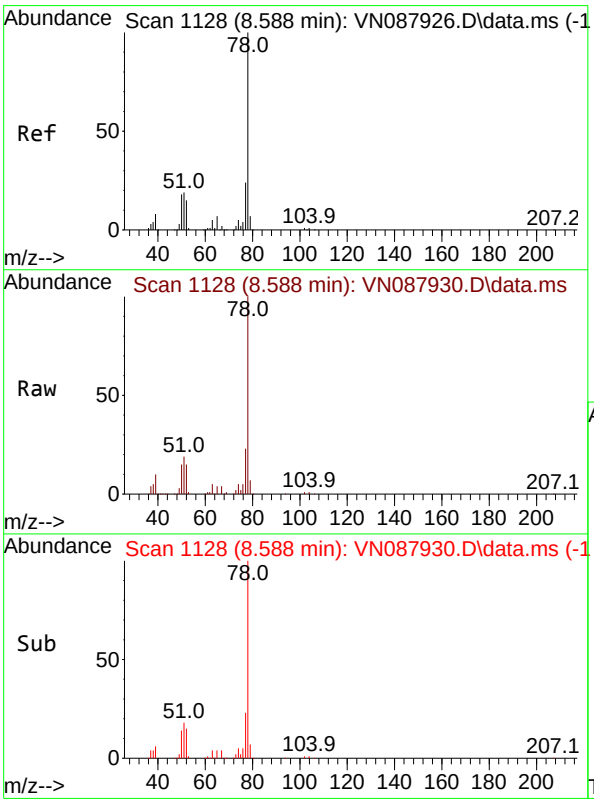
Ion	Ratio	Lower	Upper
83	100		
55	73.1	59.9	89.9
98	45.6	37.4	56.2

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

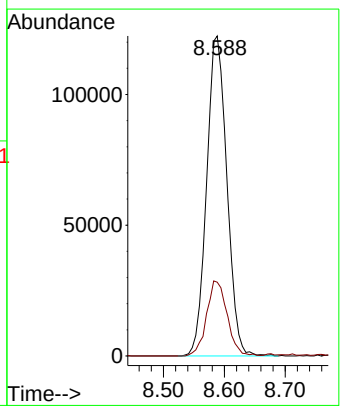


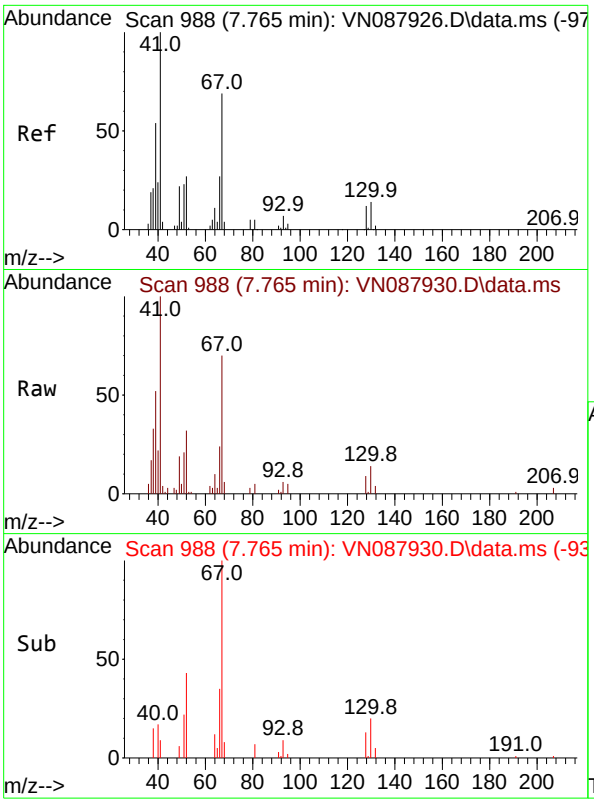


#40
Benzene
Concen: 21.710 ug/l
RT: 8.588 min Scan# 1128
Delta R.T. 0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 78 Resp: 283203

Ion	Ratio	Lower	Upper
78	100		
77	23.1	19.0	28.6

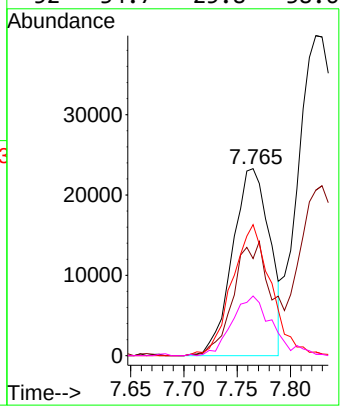




#41
Methacrylonitrile
Concen: 21.184 ug/l
RT: 7.765 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 41 Resp: 5663

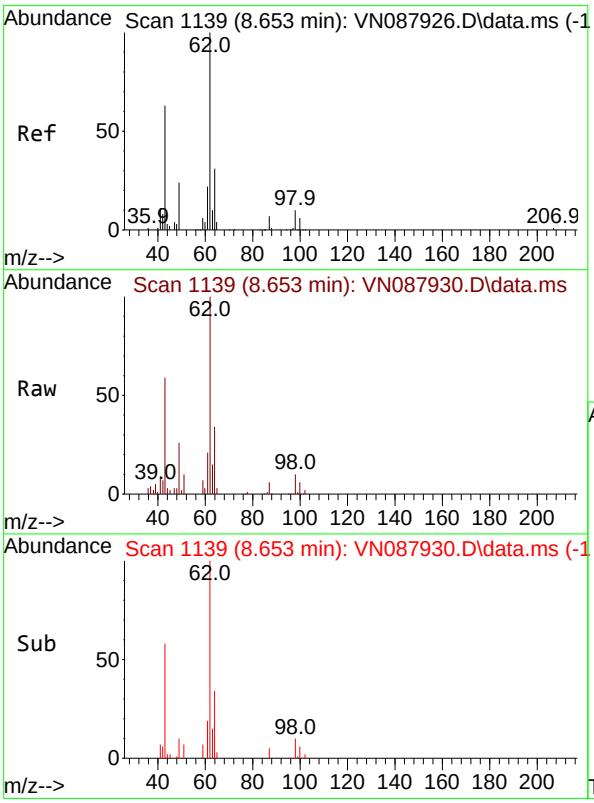
Ion	Ratio	Lower	Upper
41	100		
39	62.7	43.5	65.3
67	73.6	57.6	86.4
52	34.7	25.8	38.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

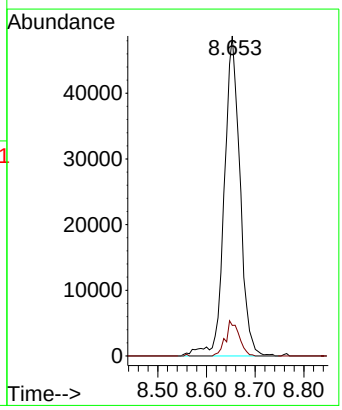
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

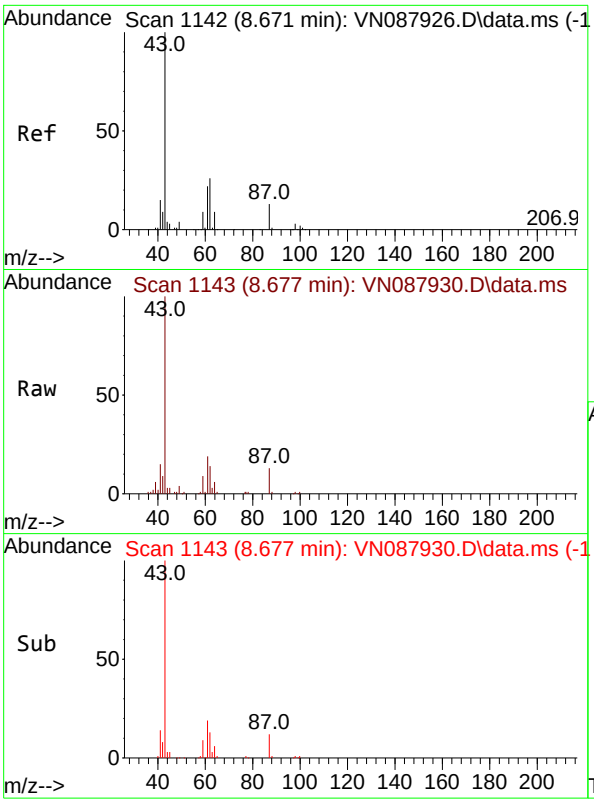


#42
1,2-Dichloroethane
Concen: 22.574 ug/l
RT: 8.653 min Scan# 1139
Delta R.T. 0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 62 Resp: 109893

Ion	Ratio	Lower	Upper
62	100		
98	9.5	0.0	18.6

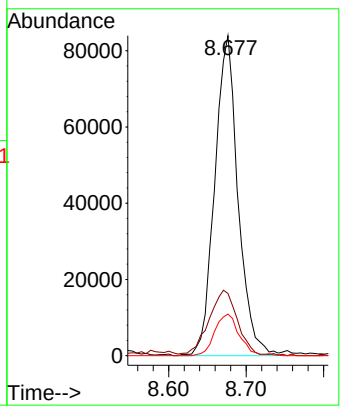




#43
Isopropyl Acetate
Concen: 21.643 ug/l
RT: 8.677 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 43 Resp: 17625

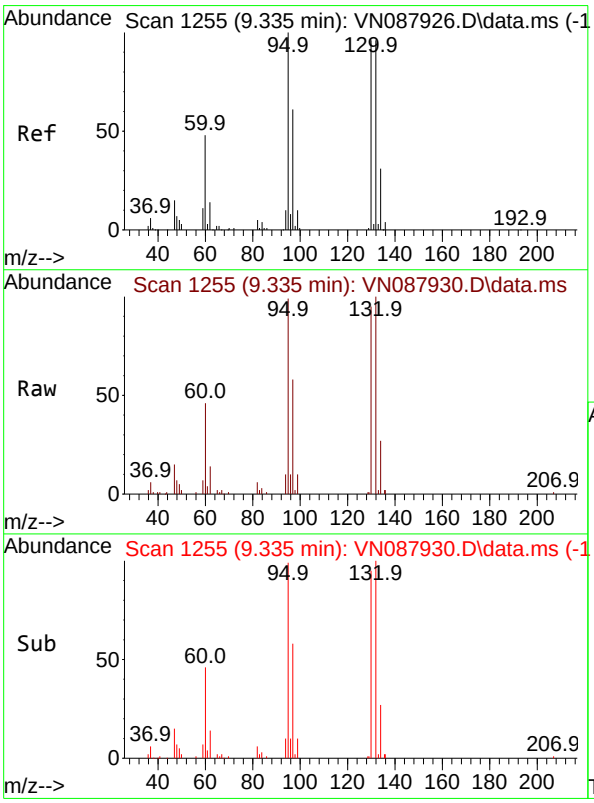
Ion	Ratio	Lower	Upper
43	100		
61	24.3	20.2	30.2
87	13.7	10.9	16.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

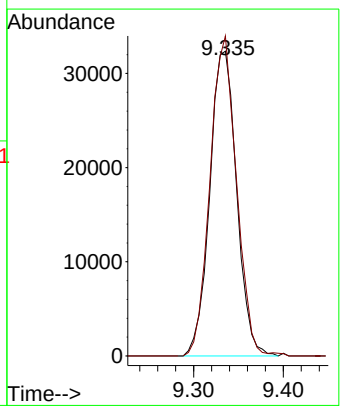
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

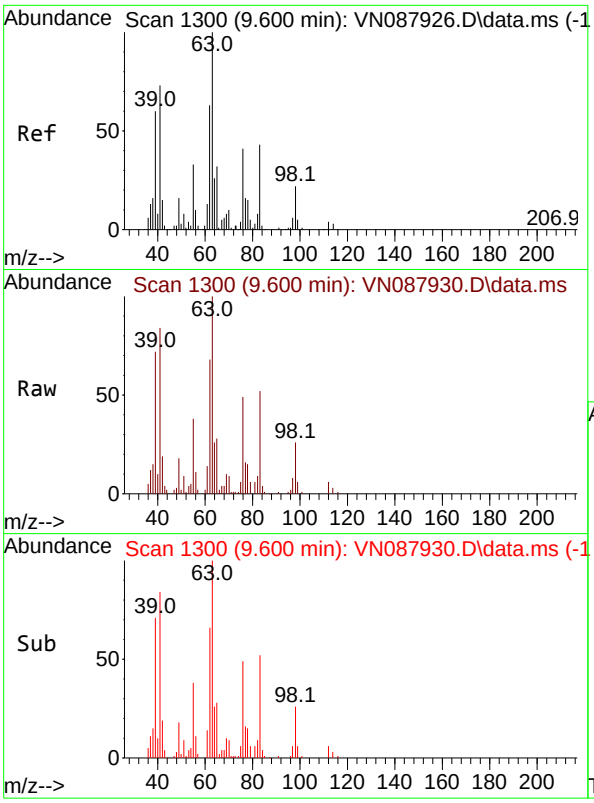


#44
Trichloroethene
Concen: 21.641 ug/l
RT: 9.335 min Scan# 1255
Delta R.T. -0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion:130 Resp: 67433

Ion	Ratio	Lower	Upper
130	100		
95	105.0	0.0	208.0

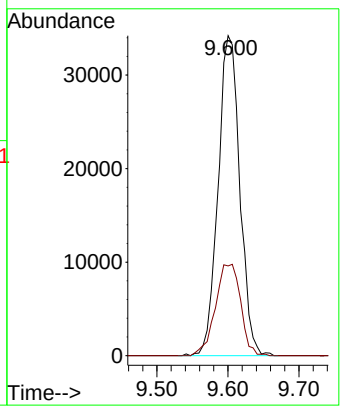




#45
1,2-Dichloropropane
Concen: 22.186 ug/l
RT: 9.600 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 63 Resp: 7257

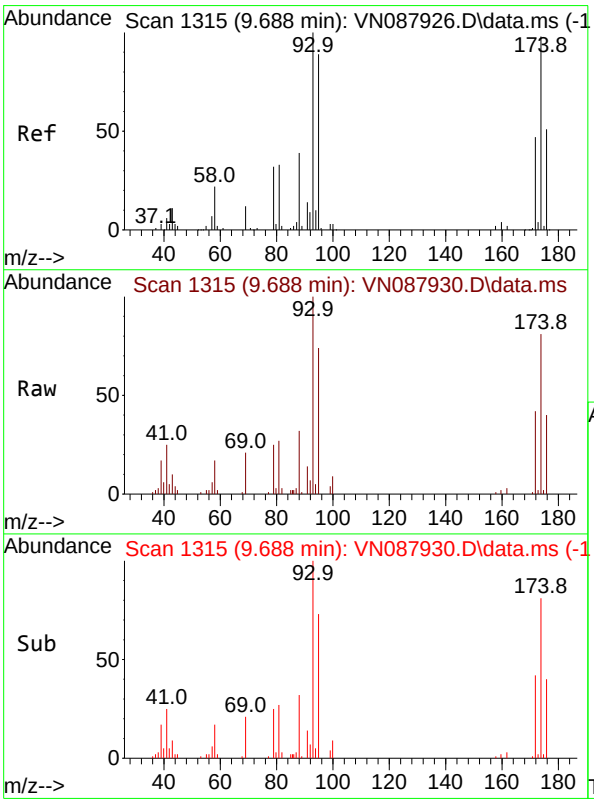
Ion	Ratio	Lower	Upper
63	100		
65	28.0	25.4	38.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

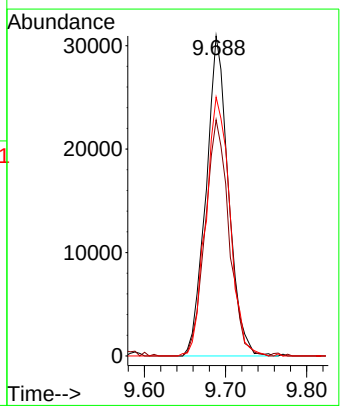
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

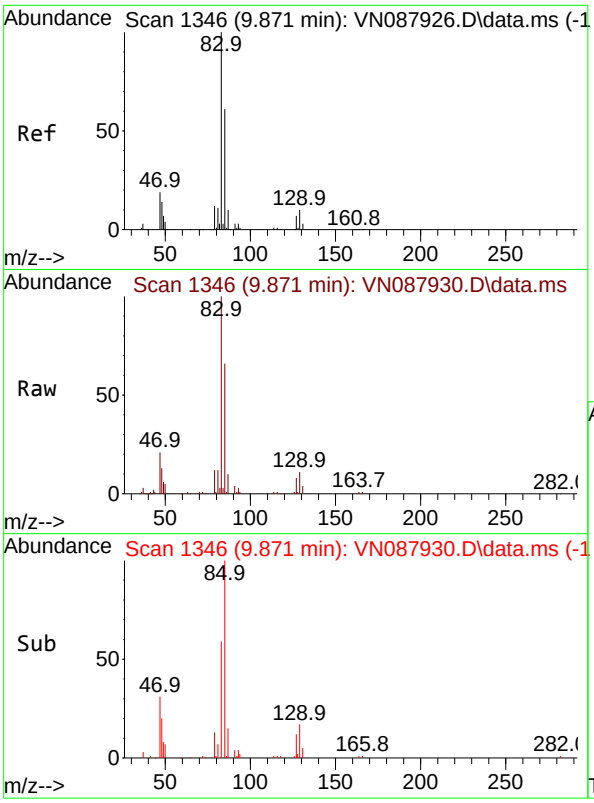


#46
Dibromomethane
Concen: 23.018 ug/l
RT: 9.688 min Scan# 1315
Delta R.T. -0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 93 Resp: 59412

Ion	Ratio	Lower	Upper
93	100		
95	78.2	67.6	101.4
174	86.7	75.4	113.0

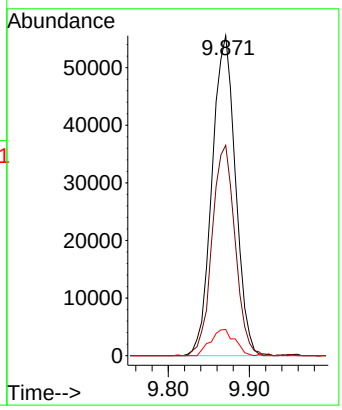




#47
Bromodichloromethane
Concen: 21.974 ug/l
RT: 9.871 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 83 Resp: 11124

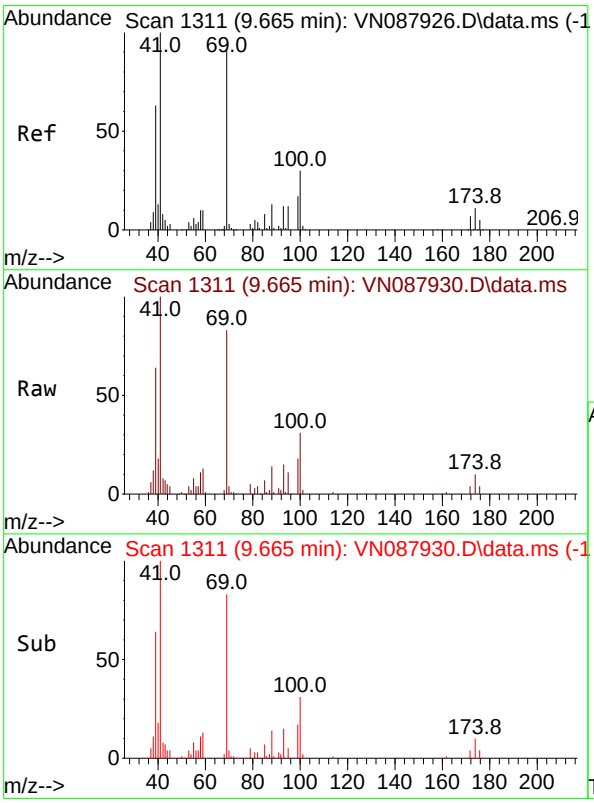
Ion	Ratio	Lower	Upper
83	100		
85	65.8	49.1	73.7
127	8.2	5.9	8.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

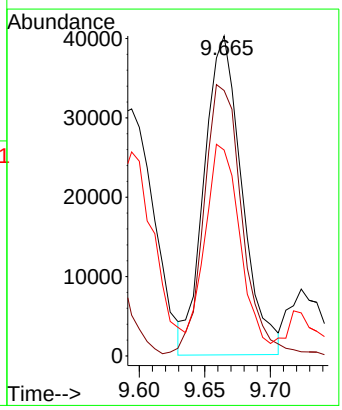
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

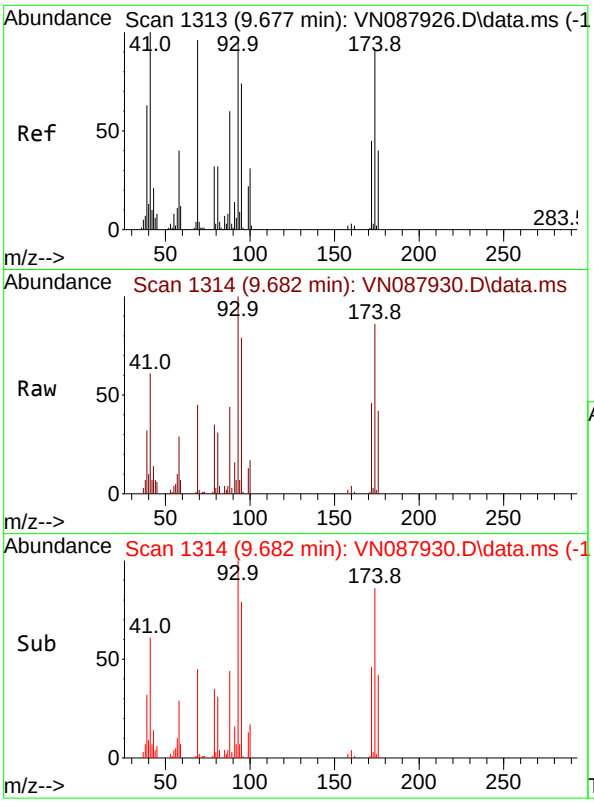


#48
Methyl methacrylate
Concen: 21.365 ug/l
RT: 9.665 min Scan# 1311
Delta R.T. 0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 41 Resp: 80574

Ion	Ratio	Lower	Upper
41	100		
69	85.8	70.9	106.3
39	62.8	52.9	79.3

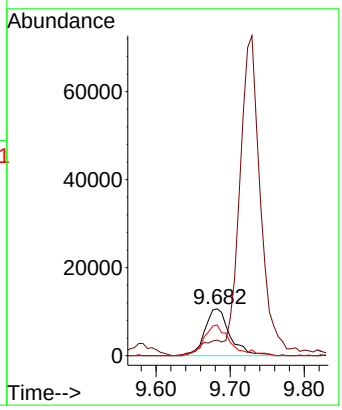




#49
1,4-Dioxane
Concen: 446.378 ug/l
RT: 9.682 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 88 Resp: 2486

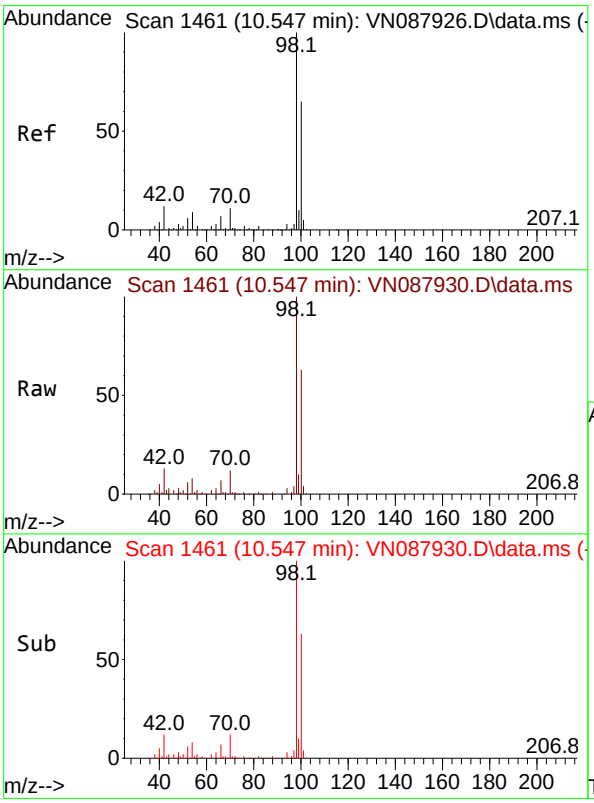
Ion	Ratio	Lower	Upper
88	100		
43	0.0	22.6	33.8
58	69.7	57.4	86.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

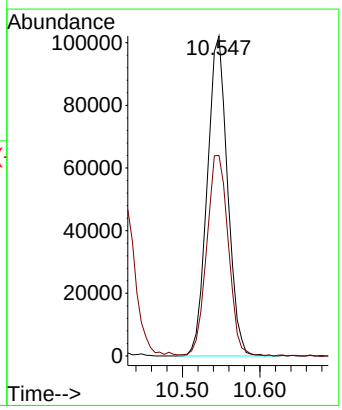
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

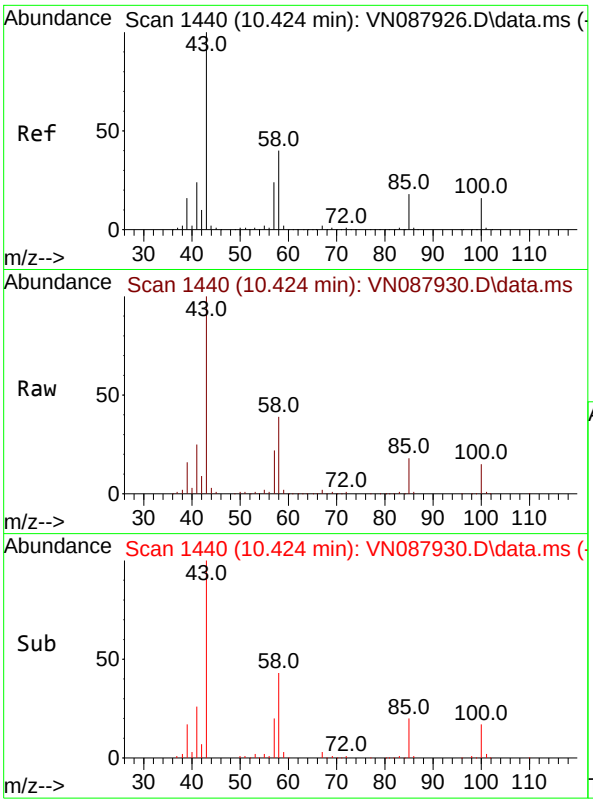


#50
Toluene-d8
Concen: 16.079 ug/l
RT: 10.547 min Scan# 1461
Delta R.T. -0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 98 Resp: 185268

Ion	Ratio	Lower	Upper
98	100		
100	67.0	51.7	77.5





#51
4-Methyl-2-Pentanone
Concen: 110.571 ug/l
RT: 10.424 min Scan# 14
Delta R.T. 0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

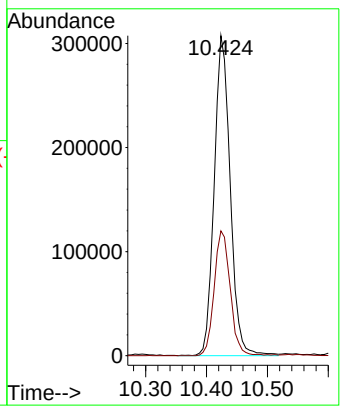
Tgt Ion: 43 Resp: 56187(

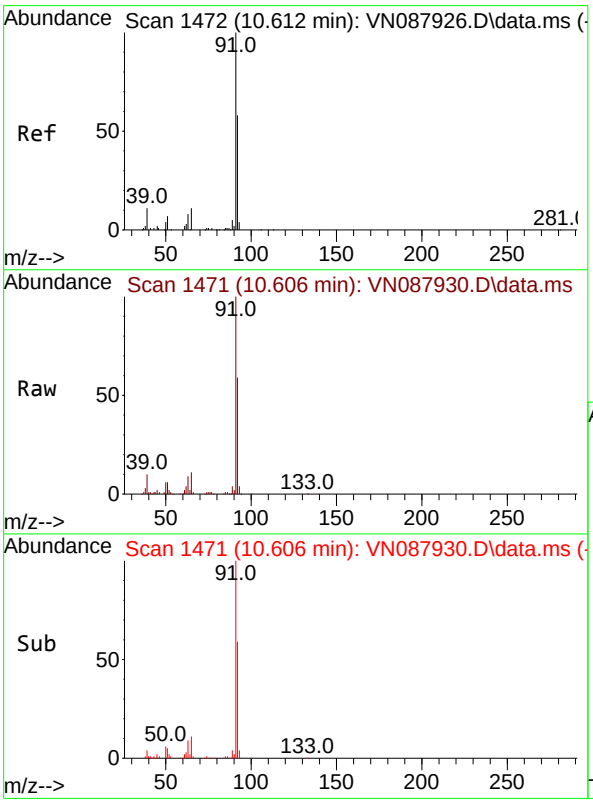
Ion	Ratio	Lower	Upper
43	100		
58	39.1	31.0	46.6

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

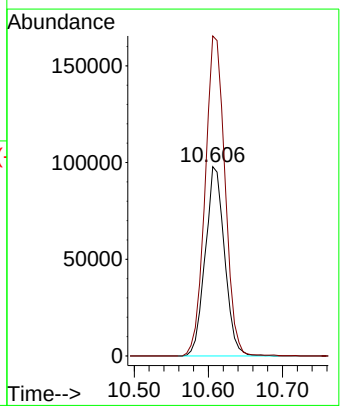


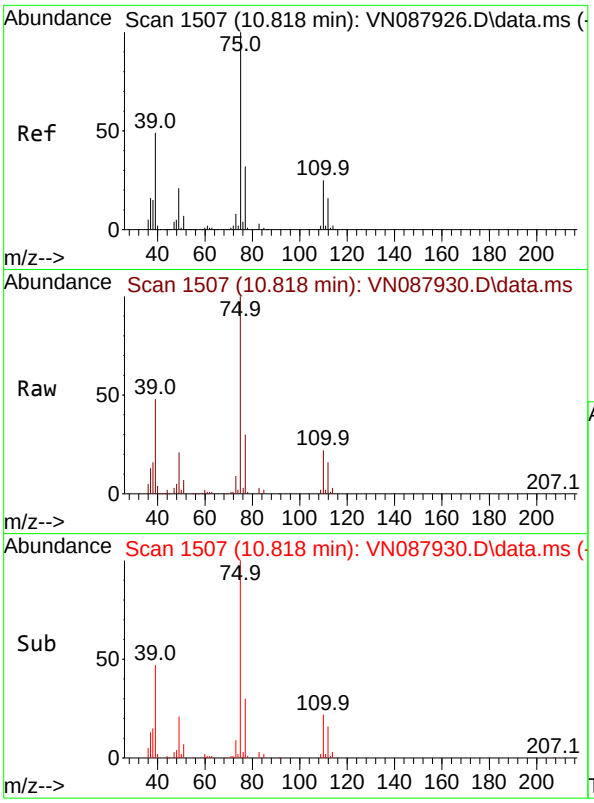


#52
Toluene
Concen: 21.641 ug/l
RT: 10.606 min Scan# 1471
Delta R.T. -0.006 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 92 Resp: 177153

Ion	Ratio	Lower	Upper
92	100		
91	173.9	138.2	207.2

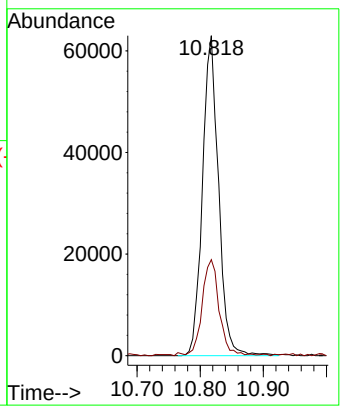




#53
t-1,3-Dichloropropene
Concen: 21.498 ug/l
RT: 10.818 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 75 Resp: 11138

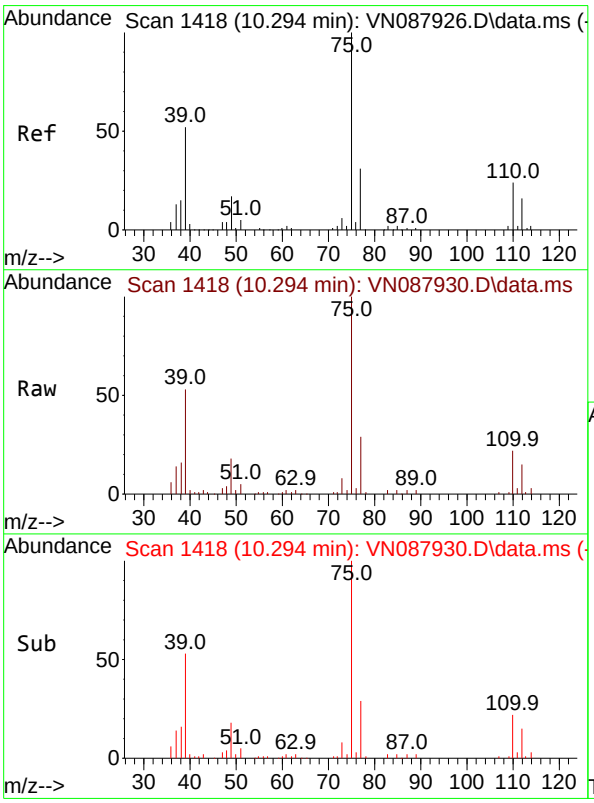
Ion	Ratio	Lower	Upper
75	100		
77	29.7	25.3	37.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

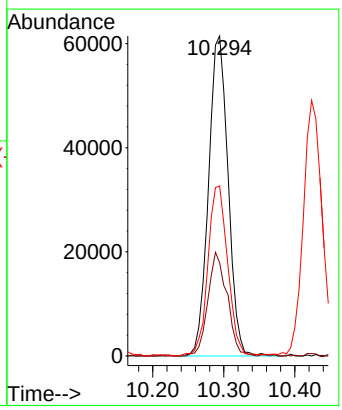
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

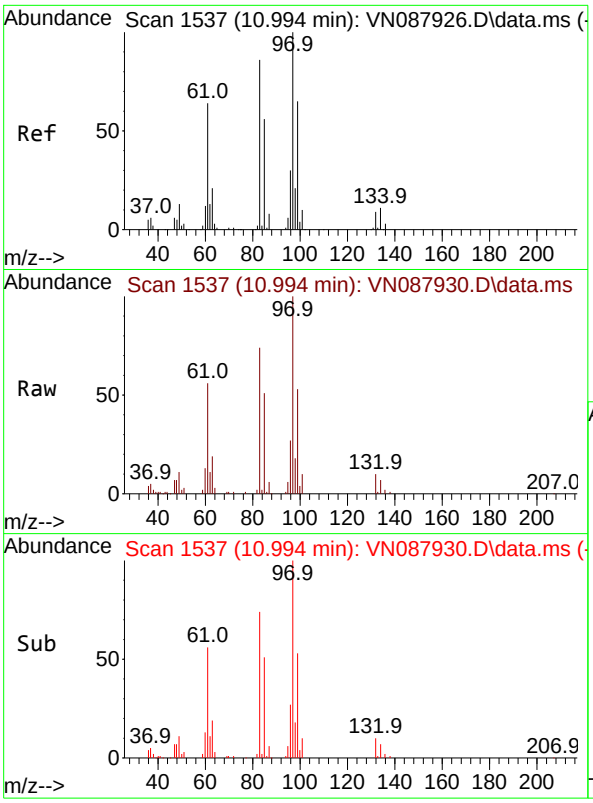


#54
cis-1,3-Dichloropropene
Concen: 21.845 ug/l
RT: 10.294 min Scan# 1418
Delta R.T. 0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 75 Resp: 117557

Ion	Ratio	Lower	Upper
75	100		
77	29.1	24.7	37.1
39	53.1	41.4	62.0

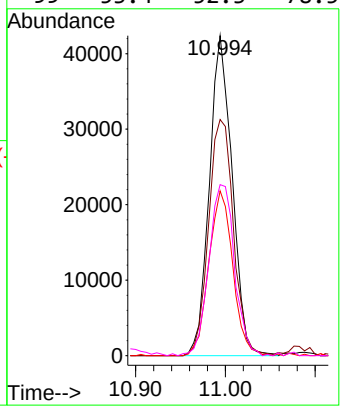




#55
1,1,2-Trichloroethane
Concen: 22.411 ug/l
RT: 10.994 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 97 Resp: 7459

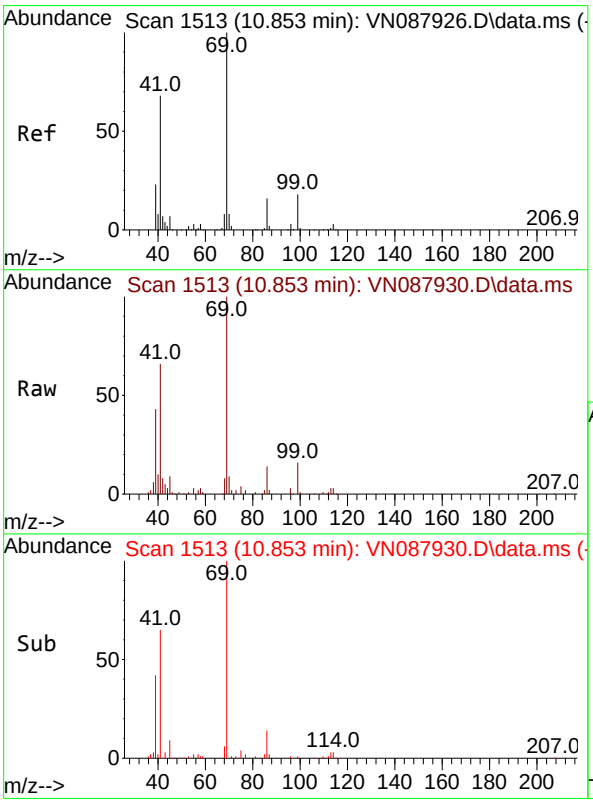
Ion	Ratio	Lower	Upper
97	100		
83	73.8	69.0	103.4
85	51.5	44.4	66.6
99	53.4	52.3	78.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

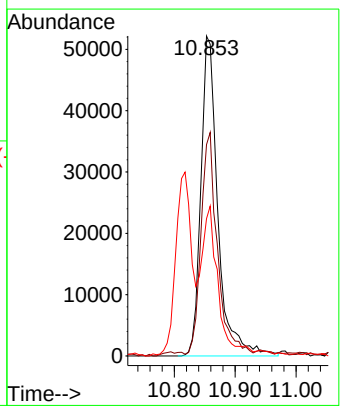
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

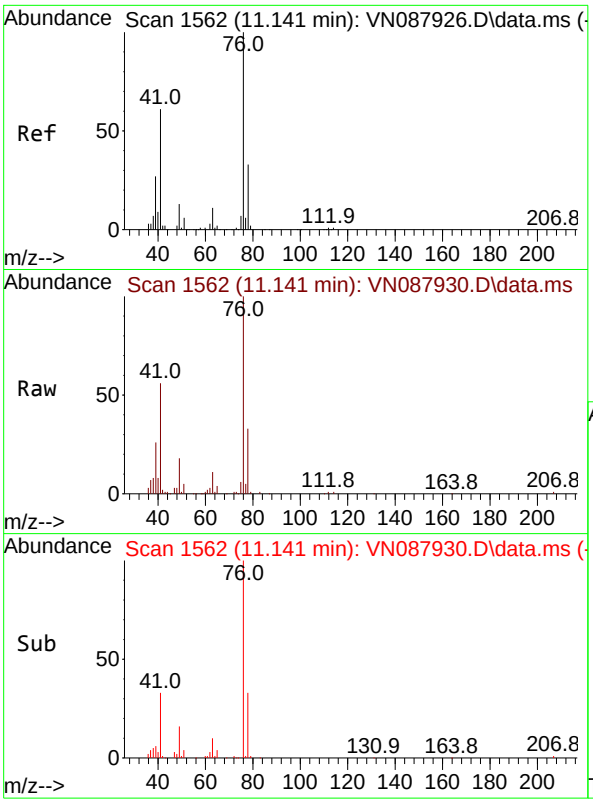


#56
Ethyl methacrylate
Concen: 21.040 ug/l
RT: 10.853 min Scan# 1513
Delta R.T. -0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 69 Resp: 101192

Ion	Ratio	Lower	Upper
69	100		
41	66.9	53.8	80.6
39	42.6	34.7	52.1

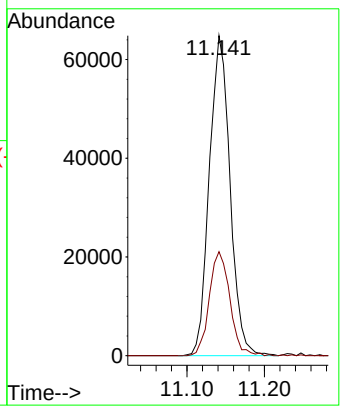




#57
1,3-Dichloropropane
Concen: 21.980 ug/l
RT: 11.141 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 76 Resp: 12033

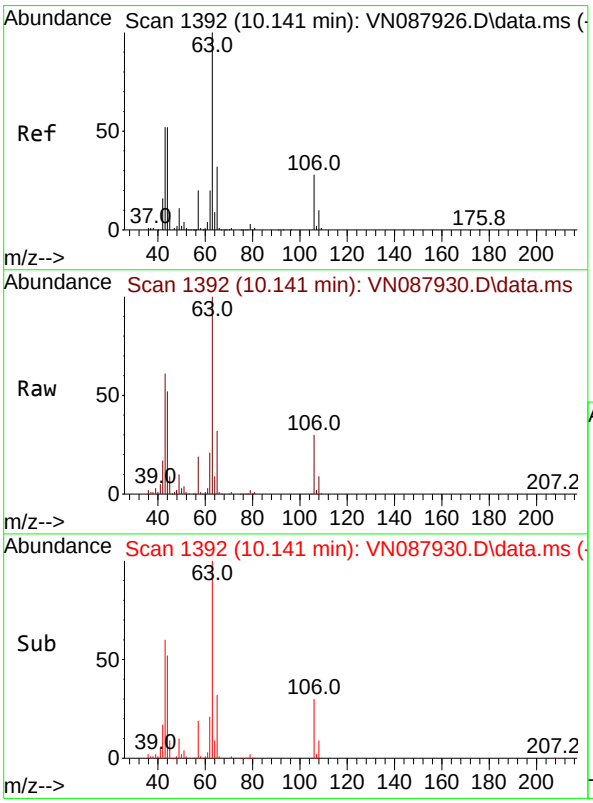
Ion	Ratio	Lower	Upper
76	100		
78	32.3	26.0	39.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

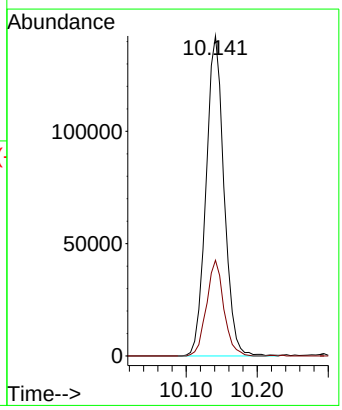
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

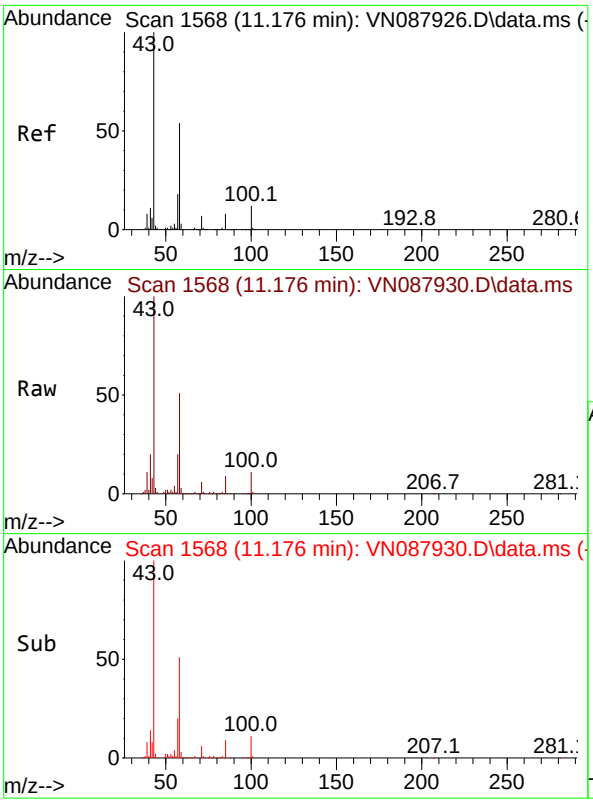


#58
2-Chloroethyl Vinyl ether
Concen: 110.825 ug/l
RT: 10.141 min Scan# 1392
Delta R.T. 0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 63 Resp: 250611

Ion	Ratio	Lower	Upper
63	100		
106	28.8	22.6	33.8





#59
2-Hexanone
Concen: 108.058 ug/l
RT: 11.176 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

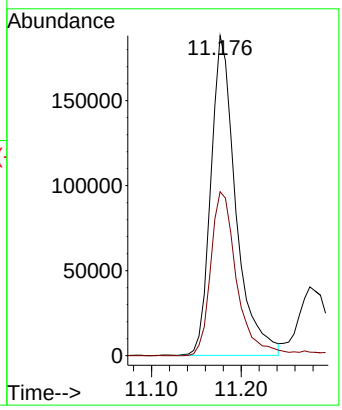
Tgt Ion: 43 Resp: 36308

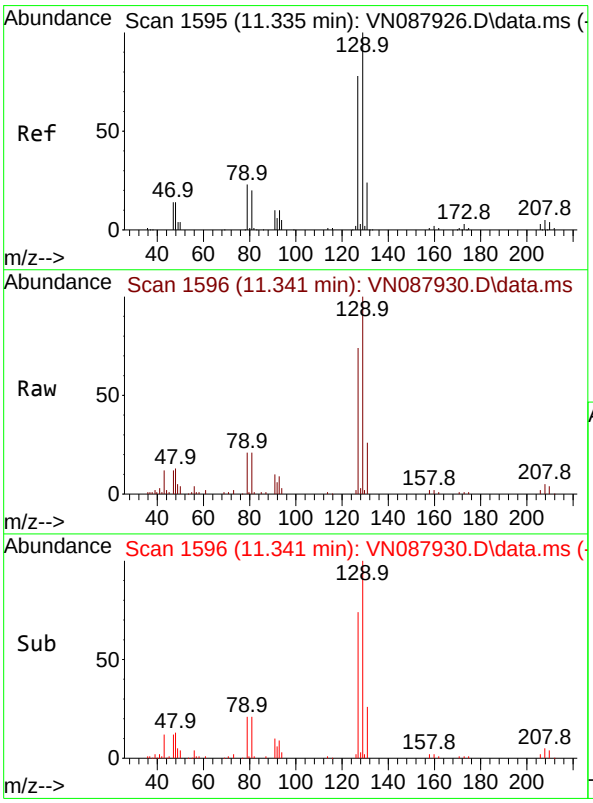
Ion	Ratio	Lower	Upper
43	100		
58	53.3	26.4	79.2

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

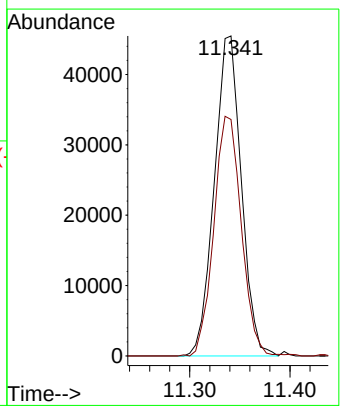


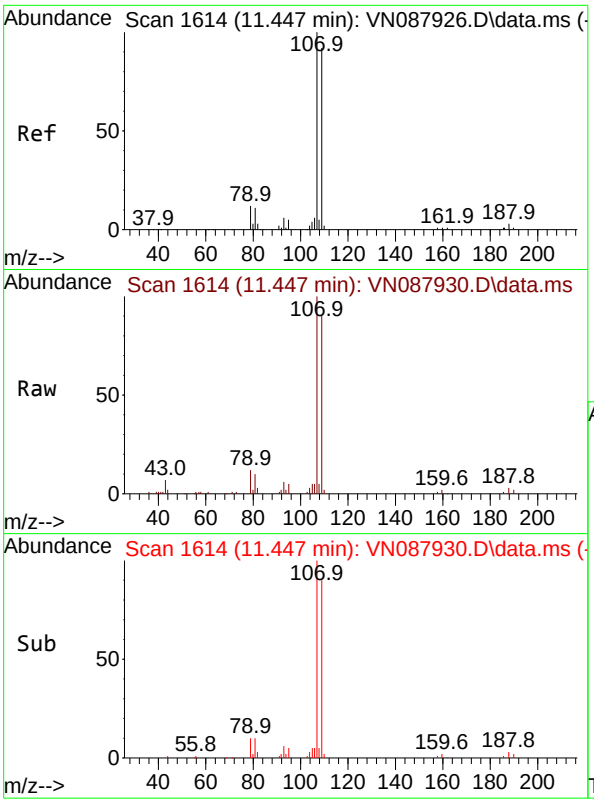


#60
Dibromochloromethane
Concen: 21.748 ug/l
RT: 11.341 min Scan# 1596
Delta R.T. 0.006 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion:129 Resp: 85111

Ion	Ratio	Lower	Upper
129	100		
127	76.3	39.3	117.9

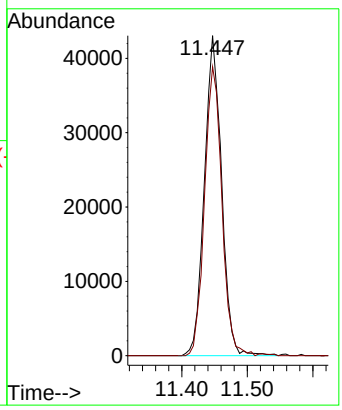




#61
1,2-Dibromoethane
Concen: 22.290 ug/l
RT: 11.447 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion:107 Resp: 7854

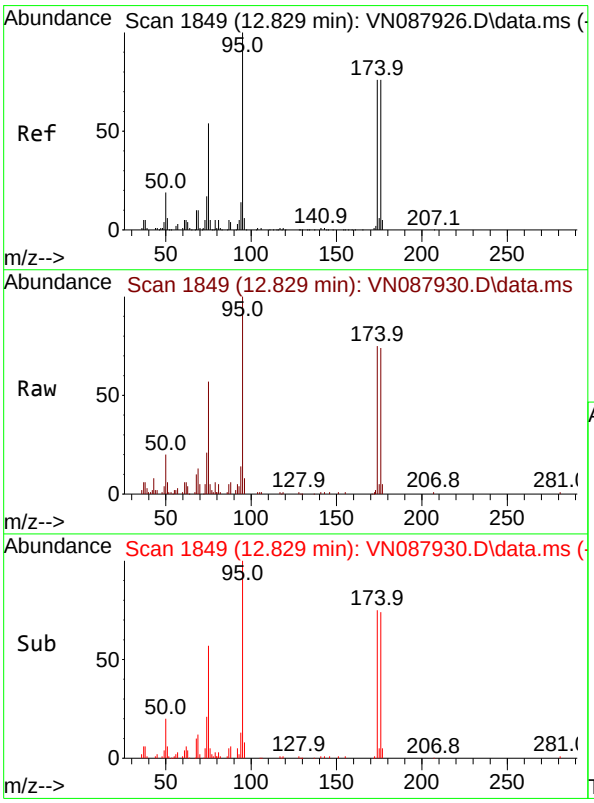
Ion	Ratio	Lower	Upper
107	100		
109	91.0	75.3	112.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

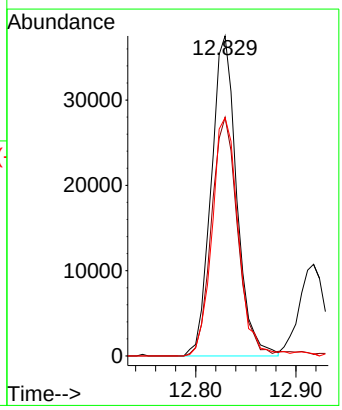
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

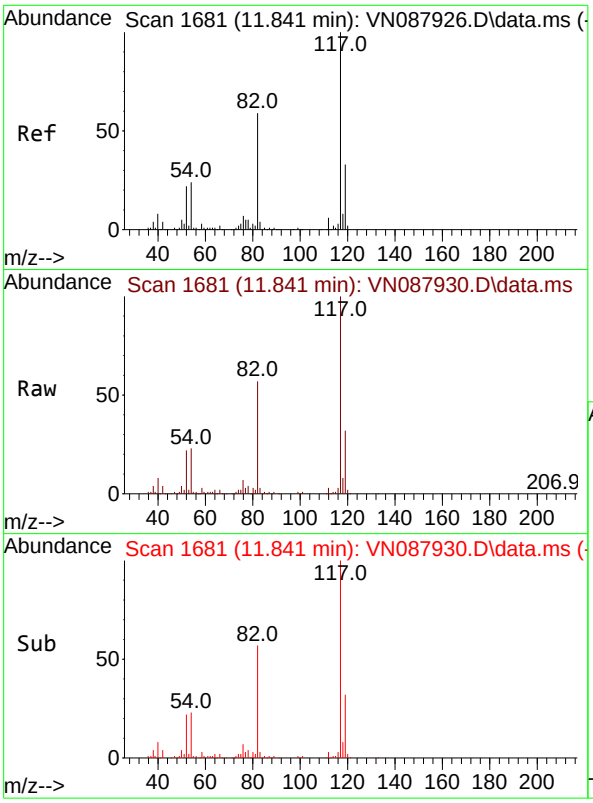


#62
4-Bromofluorobenzene
Concen: 16.084 ug/l
RT: 12.829 min Scan# 1849
Delta R.T. 0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 95 Resp: 66245

Ion	Ratio	Lower	Upper
95	100		
174	76.3	0.0	159.2
176	76.6	0.0	152.6

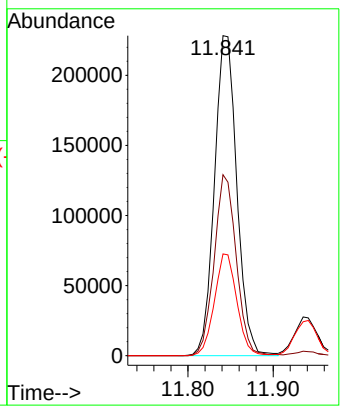




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.841 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion:117 Resp: 41783

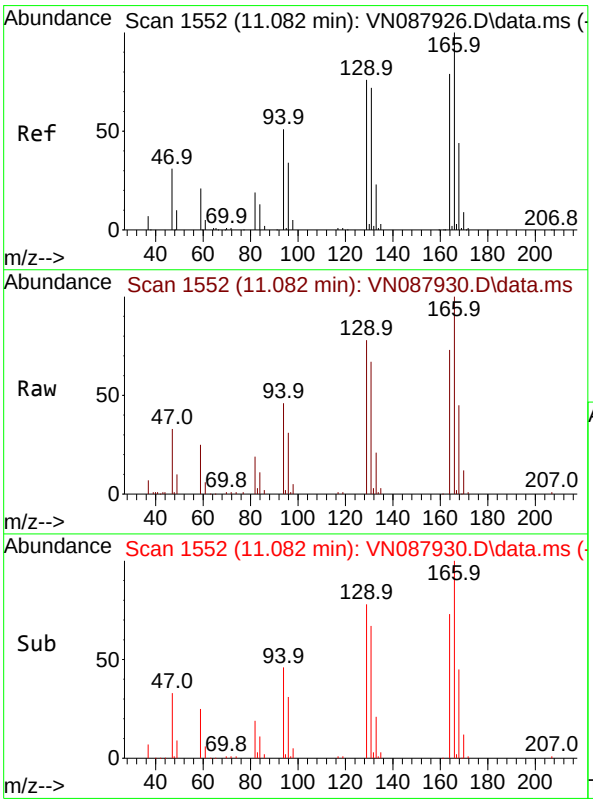
Ion	Ratio	Lower	Upper
117	100		
82	56.5	47.0	70.4
119	31.8	26.1	39.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

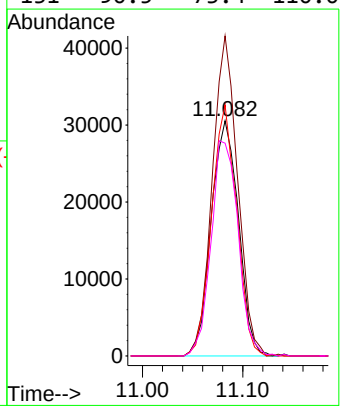
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

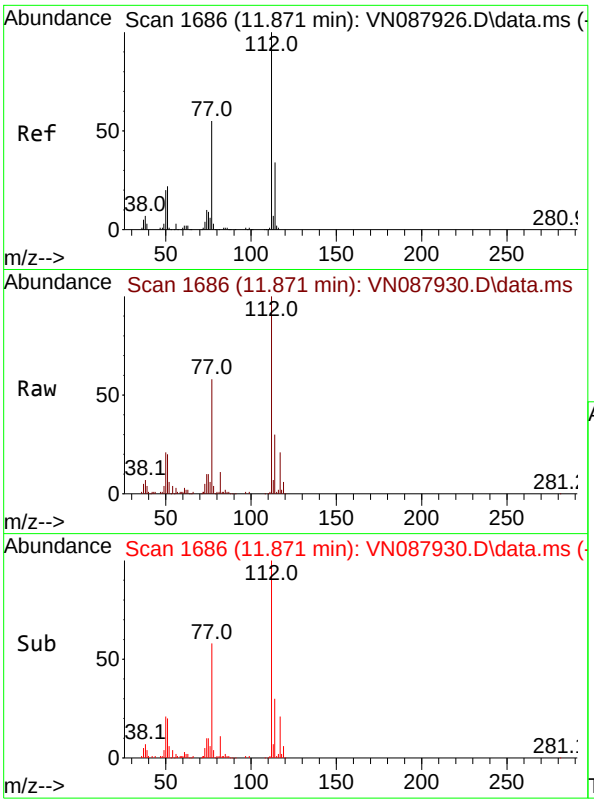


#64
Tetrachloroethene
Concen: 22.638 ug/l
RT: 11.082 min Scan# 1552
Delta R.T. 0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion:164 Resp: 57619

Ion	Ratio	Lower	Upper
164	100		
166	136.1	101.6	152.4
129	106.8	77.5	116.3
131	90.5	73.4	110.0

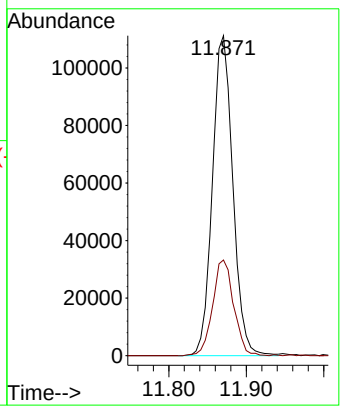




#65
Chlorobenzene
Concen: 22.894 ug/l
RT: 11.871 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion:112 Resp: 20357

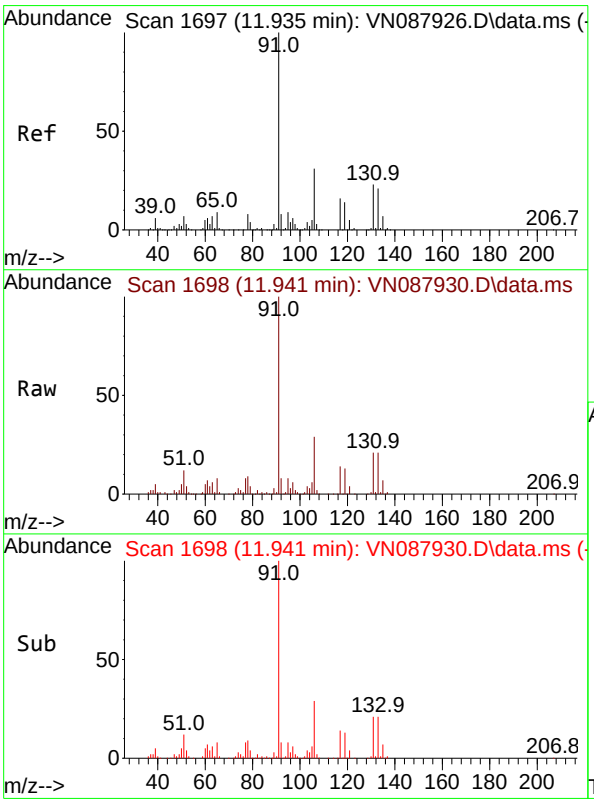
Ion	Ratio	Lower	Upper
112	100		
114	29.9	27.2	40.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

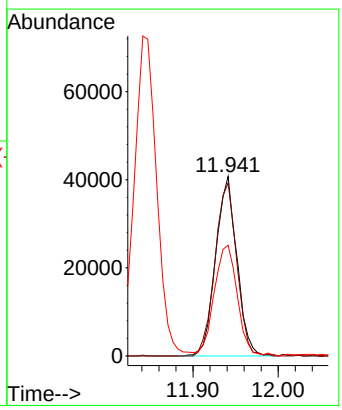
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

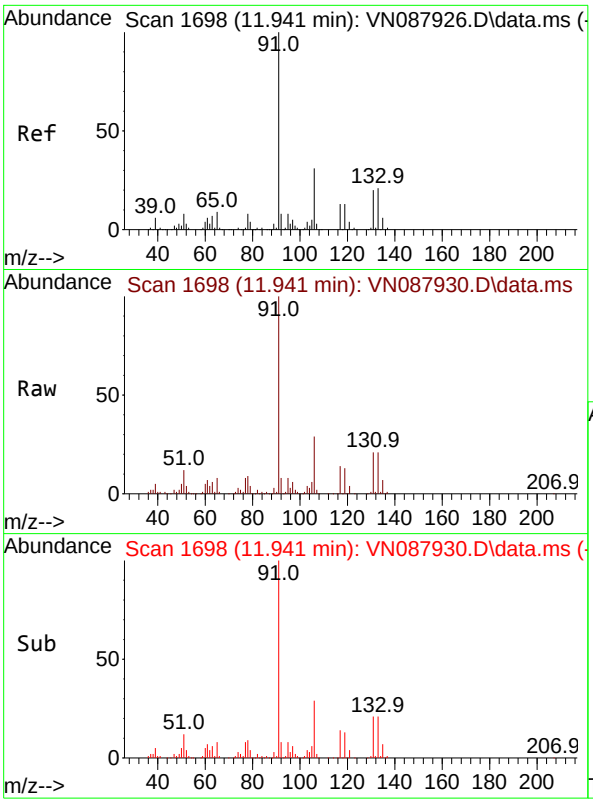


#66
1,1,1,2-Tetrachloroethane
Concen: 22.053 ug/l
RT: 11.941 min Scan# 1698
Delta R.T. 0.006 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion:131 Resp: 70713

Ion	Ratio	Lower	Upper
131	100		
133	98.4	48.4	145.0
119	67.1	31.9	95.5

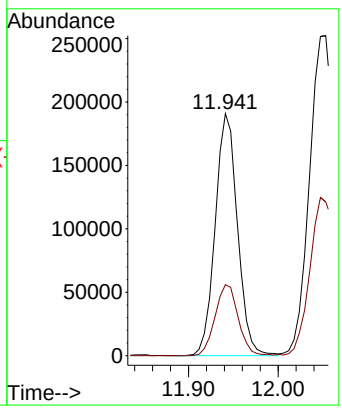




#67
Ethyl Benzene
Concen: 22.173 ug/l
RT: 11.941 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 91 Resp: 32898

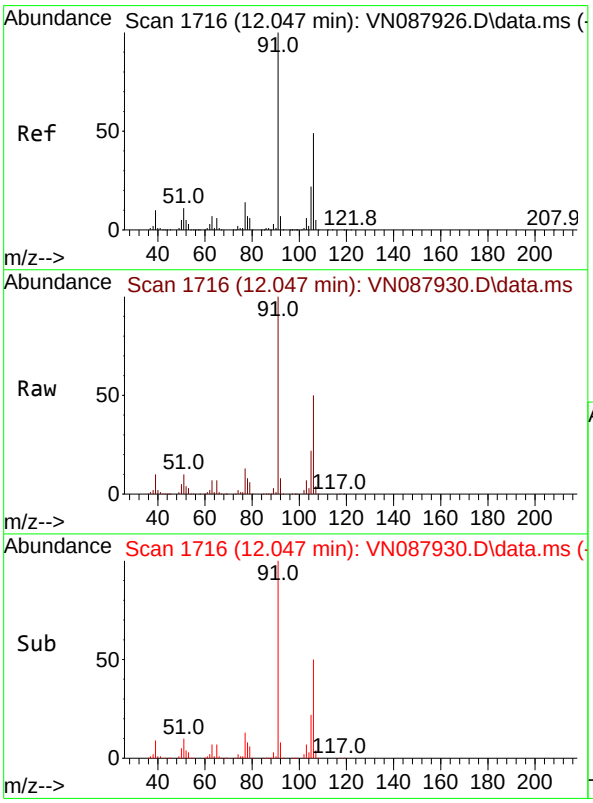
Ion	Ratio	Lower	Upper
91	100		
106	29.3	25.2	37.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

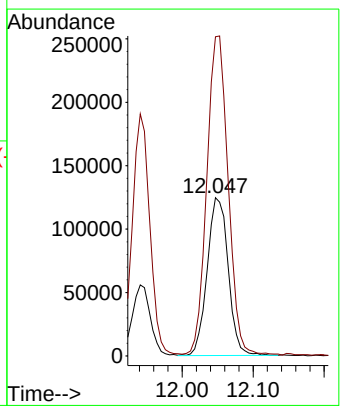
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

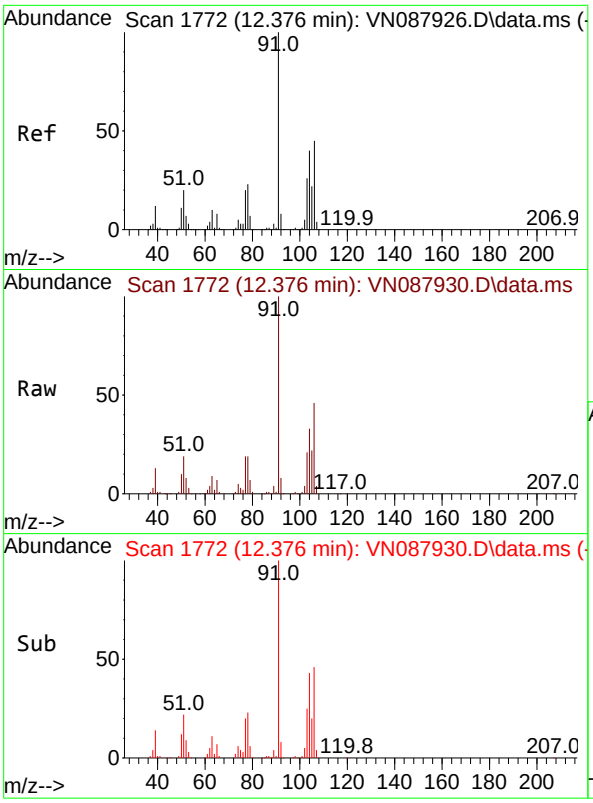


#68
m/p-Xylenes
Concen: 45.053 ug/l
RT: 12.047 min Scan# 1716
Delta R.T. 0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion:106 Resp: 255651

Ion	Ratio	Lower	Upper
106	100		
91	206.0	162.9	244.3

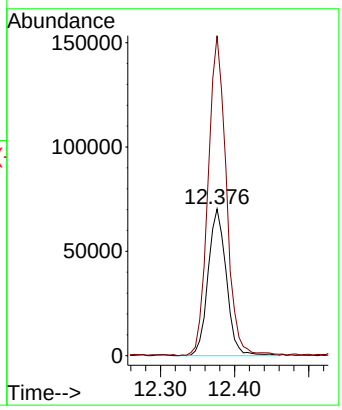




#69
o-Xylene
Concen: 22.024 ug/l
RT: 12.376 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion:106 Resp: 12006

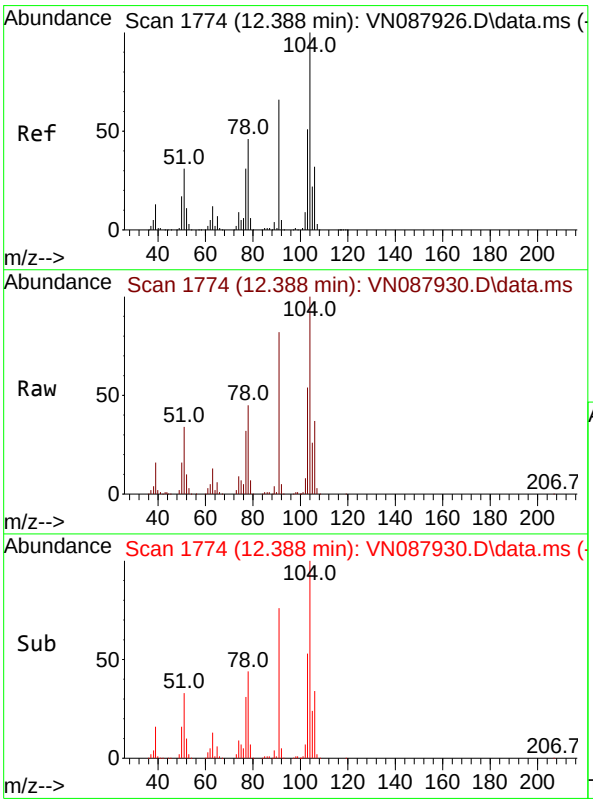
Ion	Ratio	Lower	Upper
106	100		
91	218.9	108.2	324.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

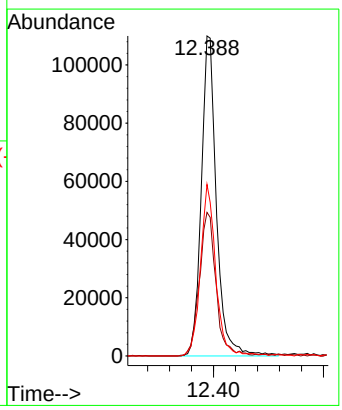
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

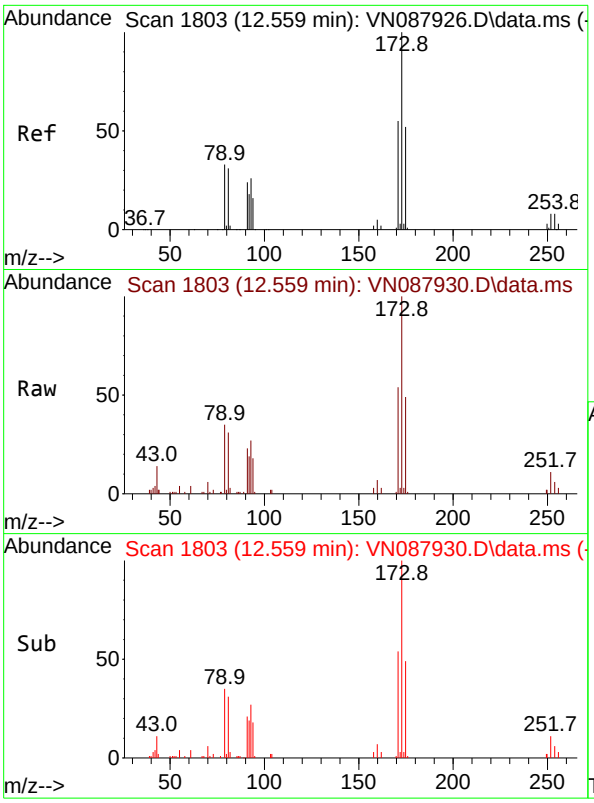


#70
Styrene
Concen: 22.491 ug/l
RT: 12.388 min Scan# 1774
Delta R.T. 0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion:104 Resp: 210587

Ion	Ratio	Lower	Upper
104	100		
78	49.0	39.7	59.5
103	53.6	44.6	67.0

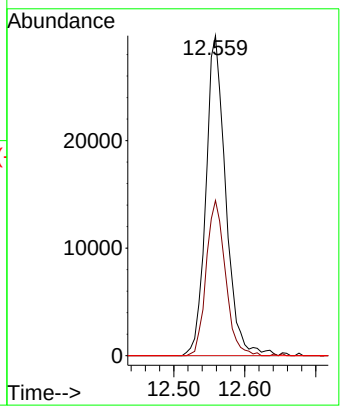




#71
Bromoform
Concen: 22.132 ug/l
RT: 12.559 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion:173 Resp: 5757

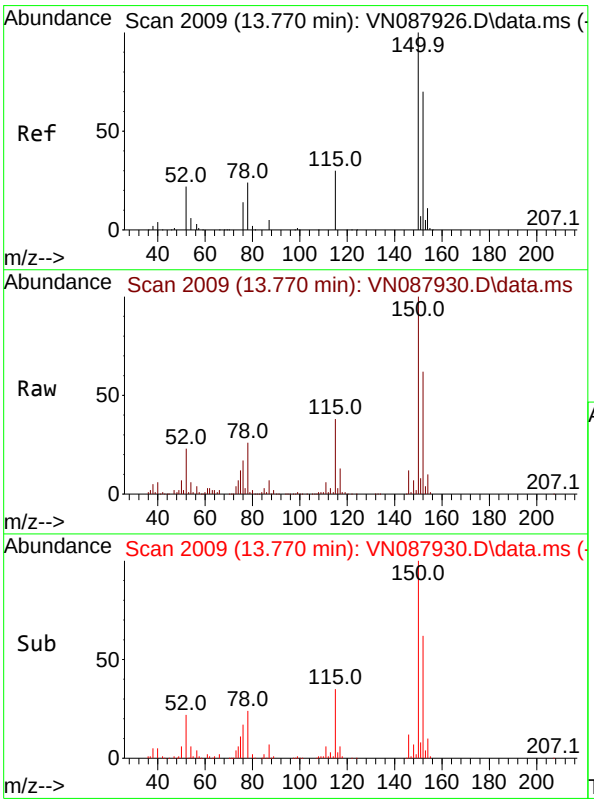
Ion	Ratio	Lower	Upper
173	100		
175	47.1	23.7	71.1
254	0.0	0.1	0.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

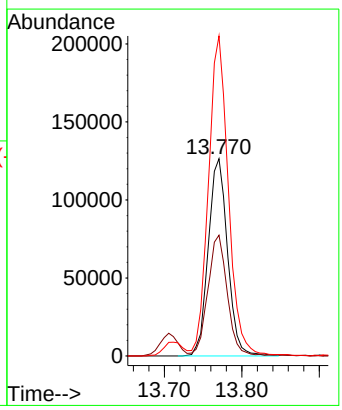
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

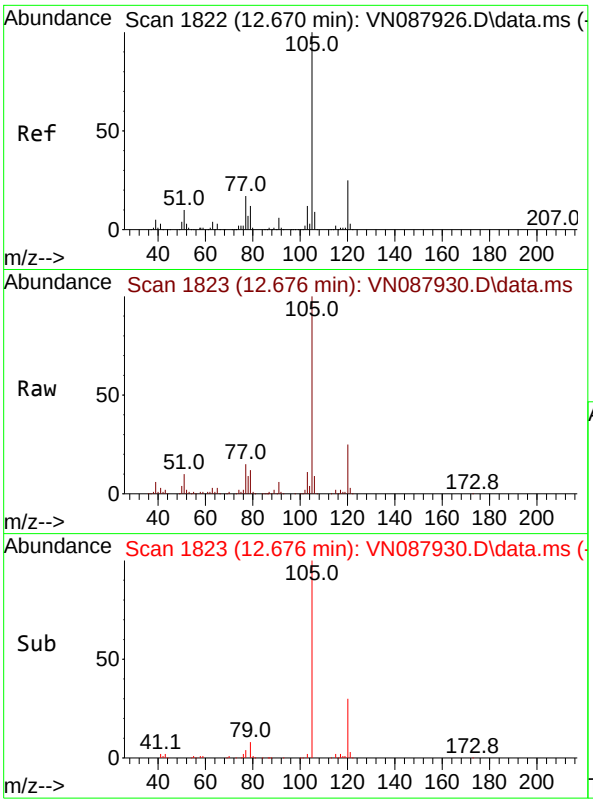


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.770 min Scan# 2009
Delta R.T. 0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion:152 Resp: 219754

Ion	Ratio	Lower	Upper
152	100		
115	60.4	29.9	89.7
150	167.9	0.0	335.0

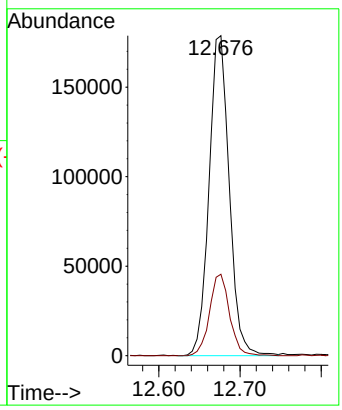




#73
Isopropylbenzene
Concen: 22.707 ug/l
RT: 12.676 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion:105 Resp: 30926

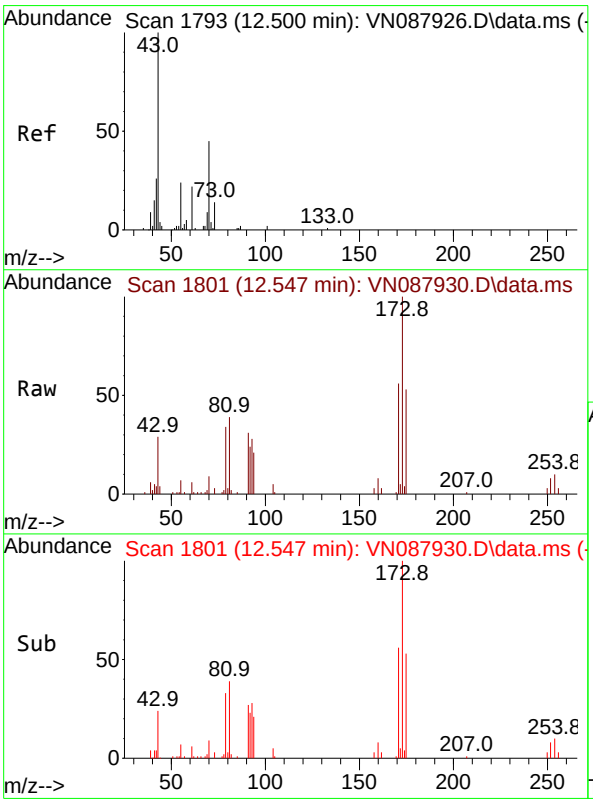
Ion	Ratio	Lower	Upper
105	100		
120	25.2	13.1	39.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

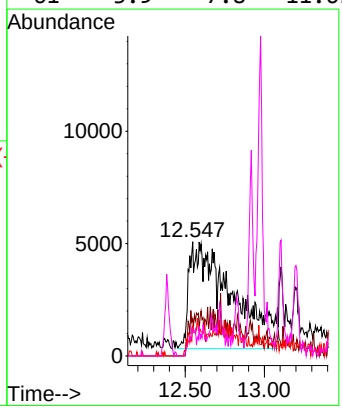
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

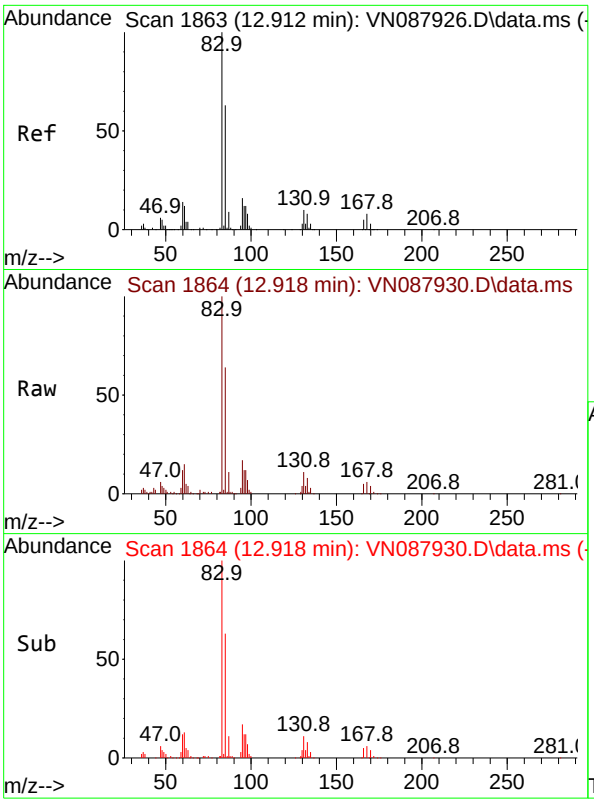


#74
N-amyl acetate
Concen: 22.156 ug/l m
RT: 12.547 min Scan# 1801
Delta R.T. 0.047 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 43 Resp: 89886

Ion	Ratio	Lower	Upper
43	100		
70	4.6	19.8	29.8#
55	0.9	9.6	14.4#
61	3.9	7.8	11.6#

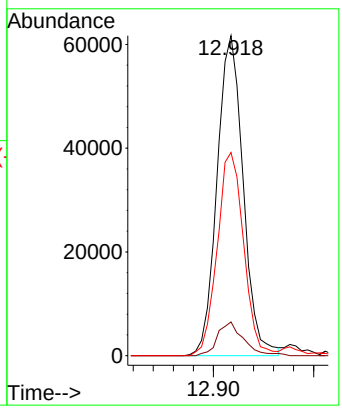




#75
1,1,2,2-Tetrachloroethane
Concen: 22.731 ug/l
RT: 12.918 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 83 Resp: 11154

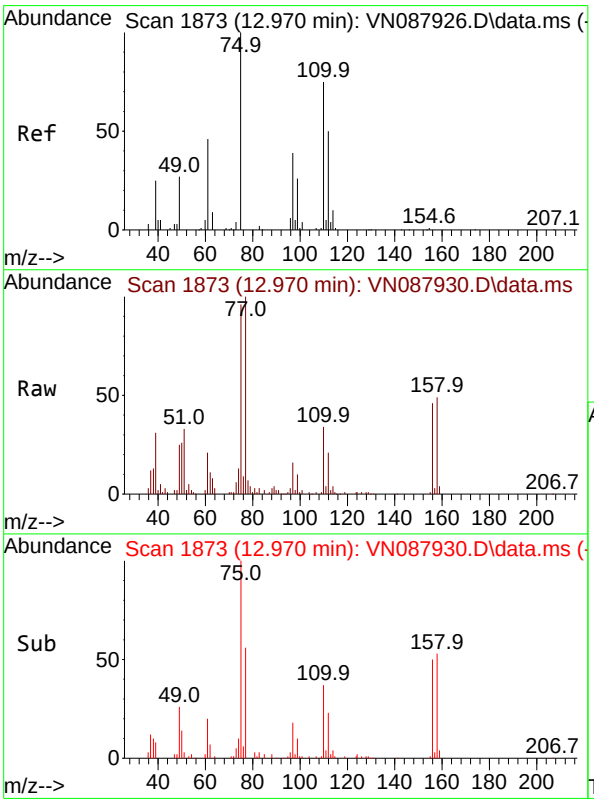
Ion	Ratio	Lower	Upper
83	100		
131	10.5	5.2	15.6
85	64.3	32.4	97.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

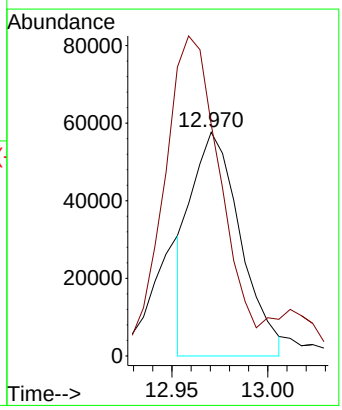
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

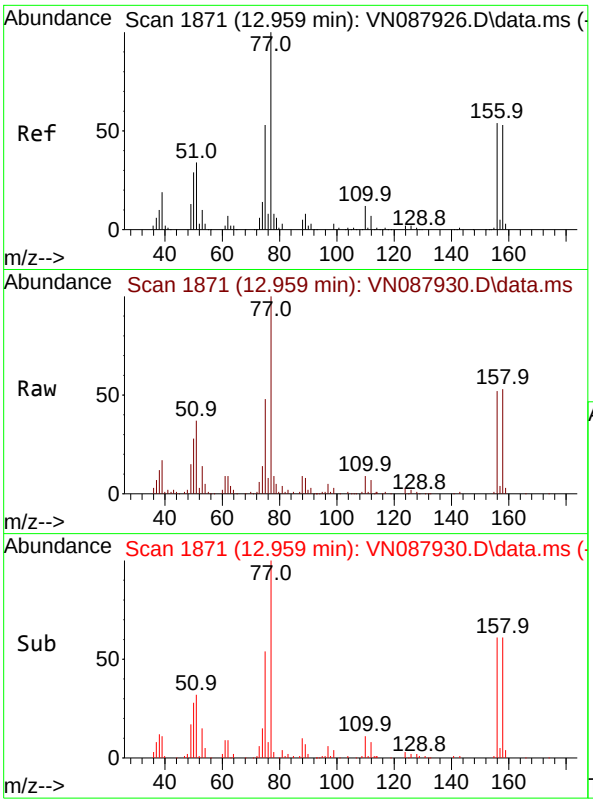


#76
1,2,3-Trichloropropane
Concen: 23.643 ug/l m
RT: 12.970 min Scan# 1873
Delta R.T. 0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 75 Resp: 103062

Ion	Ratio	Lower	Upper
75	100		
77	164.1	89.5	268.5

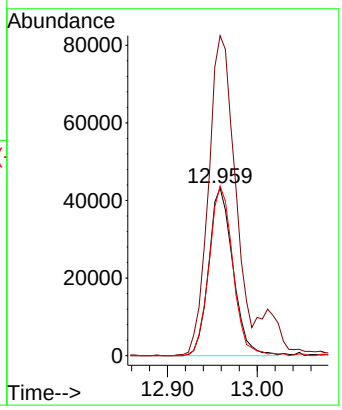




#77
Bromobenzene
Concen: 22.283 ug/l
RT: 12.959 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion:156 Resp: 8074

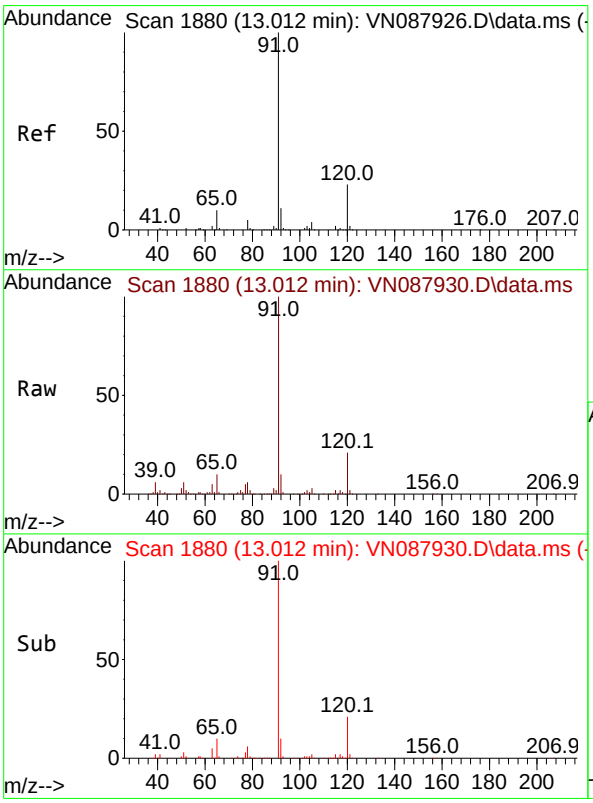
Ion	Ratio	Lower	Upper
156	100		
77	209.5	108.2	324.6
158	100.0	49.6	149.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

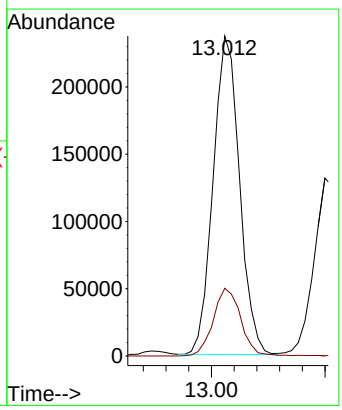
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

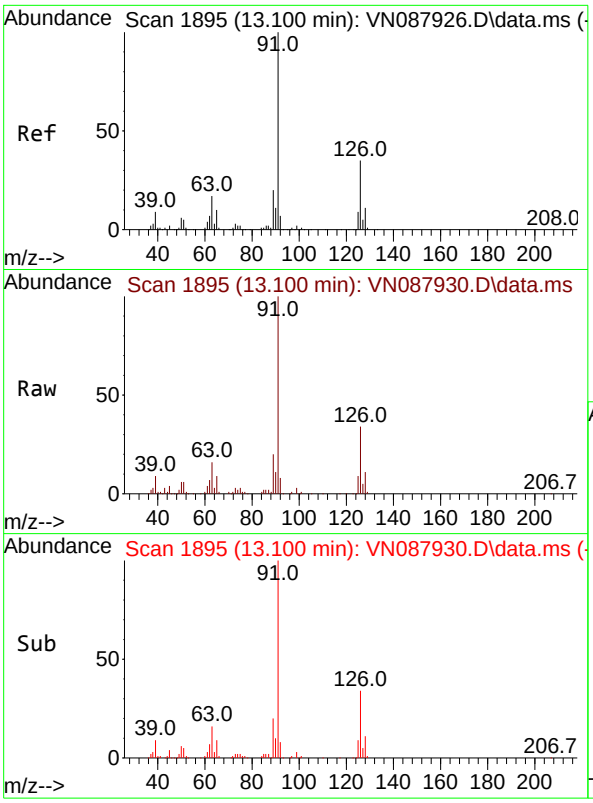


#78
n-propylbenzene
Concen: 22.431 ug/l
RT: 13.012 min Scan# 1880
Delta R.T. -0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 91 Resp: 381954

Ion	Ratio	Lower	Upper
91	100		
120	22.1	11.1	33.1

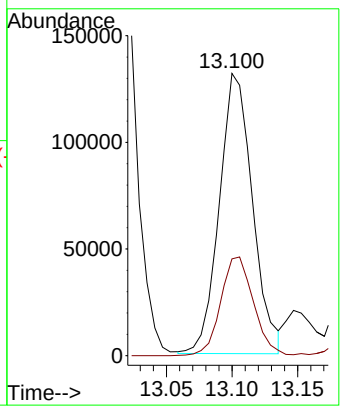




#79
2-Chlorotoluene
Concen: 22.347 ug/l
RT: 13.100 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 91 Resp: 23170

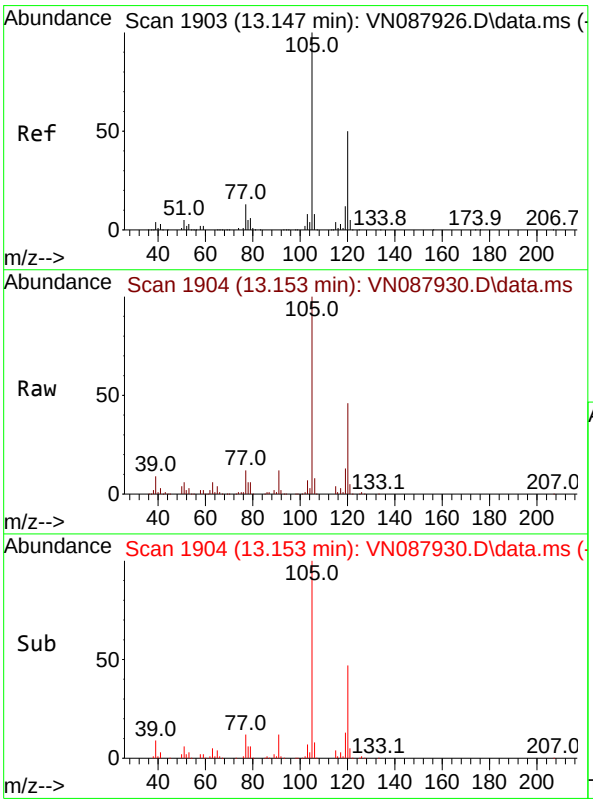
Ion	Ratio	Lower	Upper
91	100		
126	34.8	16.6	49.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

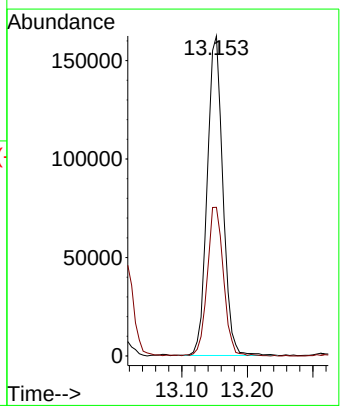
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

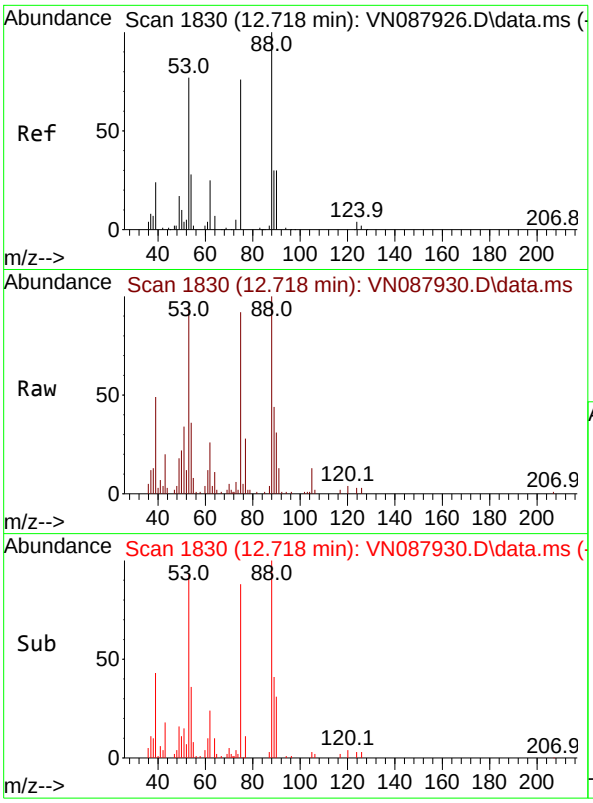


#80
1,3,5-Trimethylbenzene
Concen: 22.860 ug/l
RT: 13.153 min Scan# 1904
Delta R.T. 0.006 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion:105 Resp: 269309

Ion	Ratio	Lower	Upper
105	100		
120	48.5	24.7	74.1





#81
trans-1,4-Dichloro-2-butene
Concen: 21.443 ug/l
RT: 12.718 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

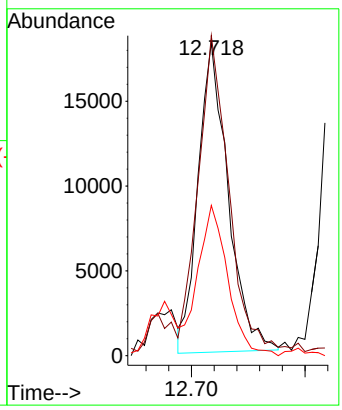
Tgt Ion: 75 Resp: 3345

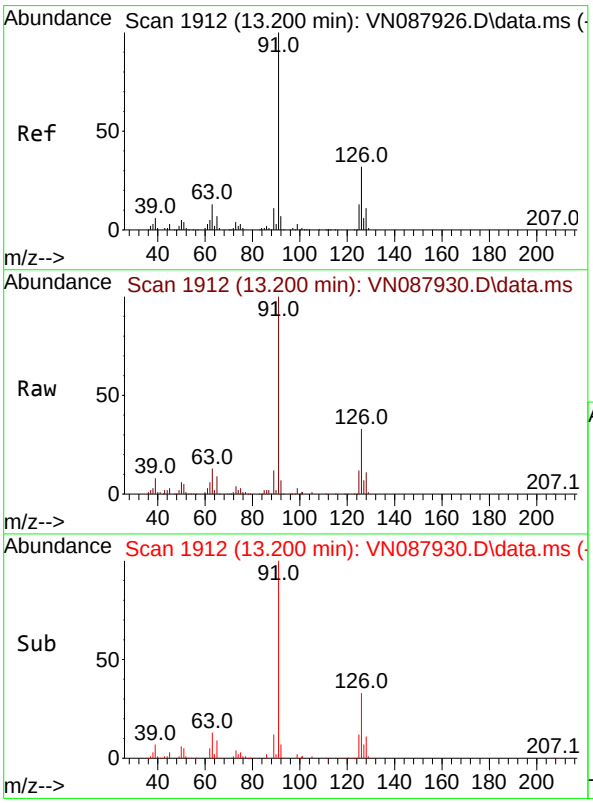
Ion	Ratio	Lower	Upper
75	100		
53	104.6	82.0	123.0
89	49.0	36.1	54.1

Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

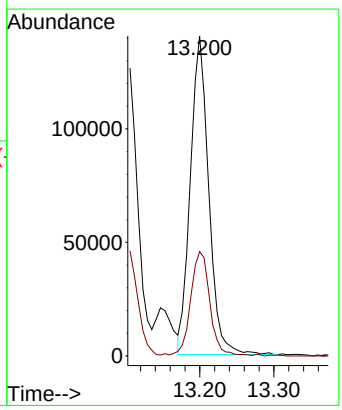


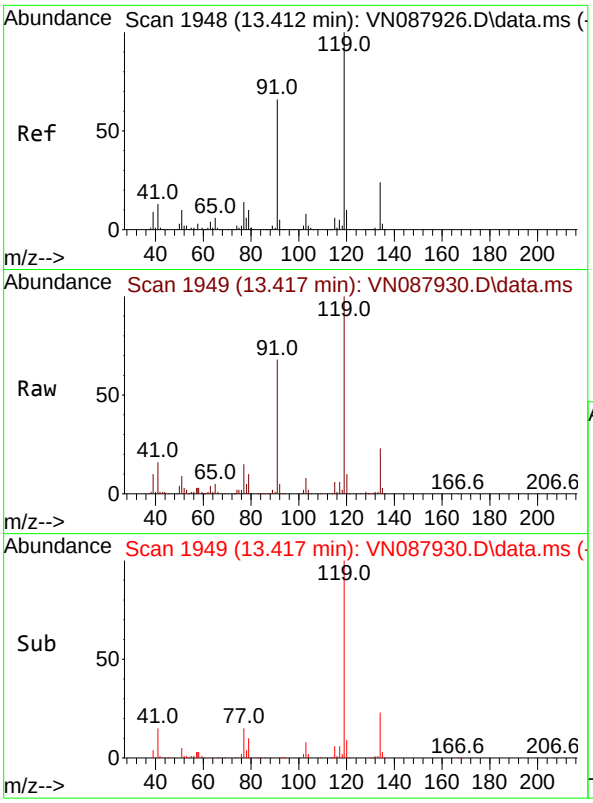


#82
4-Chlorotoluene
Concen: 23.119 ug/l
RT: 13.200 min Scan# 1912
Delta R.T. 0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 91 Resp: 241534

Ion	Ratio	Lower	Upper
91	100		
126	33.8	16.9	50.6

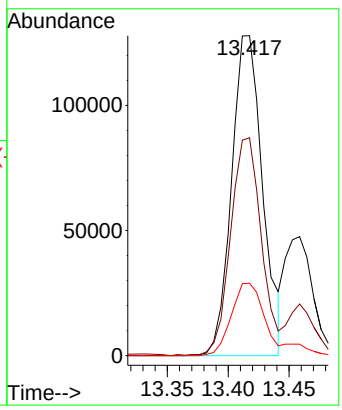




#83
tert-Butylbenzene
Concen: 22.753 ug/l
RT: 13.417 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion:119 Resp: 22687

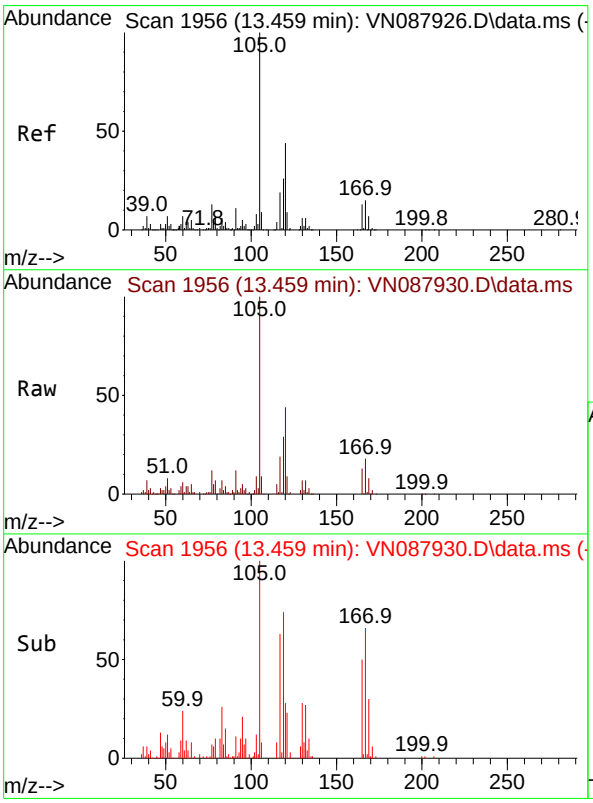
Ion	Ratio	Lower	Upper
119	100		
91	67.6	32.1	96.3
134	26.6	12.3	36.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

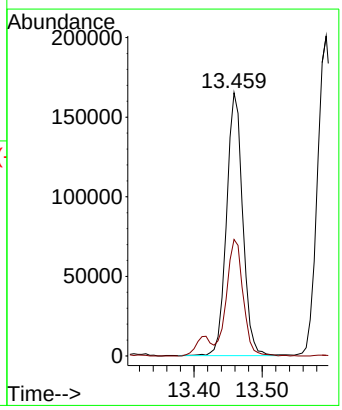
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

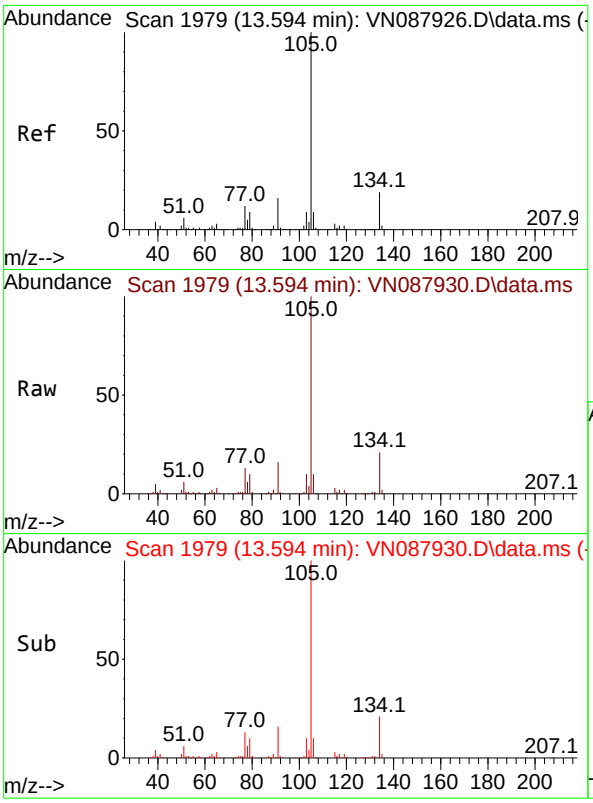


#84
1,2,4-Trimethylbenzene
Concen: 22.561 ug/l
RT: 13.459 min Scan# 1956
Delta R.T. 0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion:105 Resp: 272614

Ion	Ratio	Lower	Upper
105	100		
120	45.5	22.4	67.3

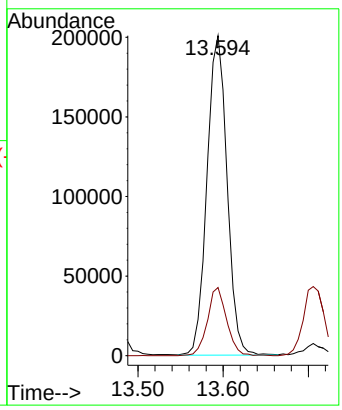




#85
sec-Butylbenzene
Concen: 22.462 ug/l
RT: 13.594 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion:105 Resp: 32838

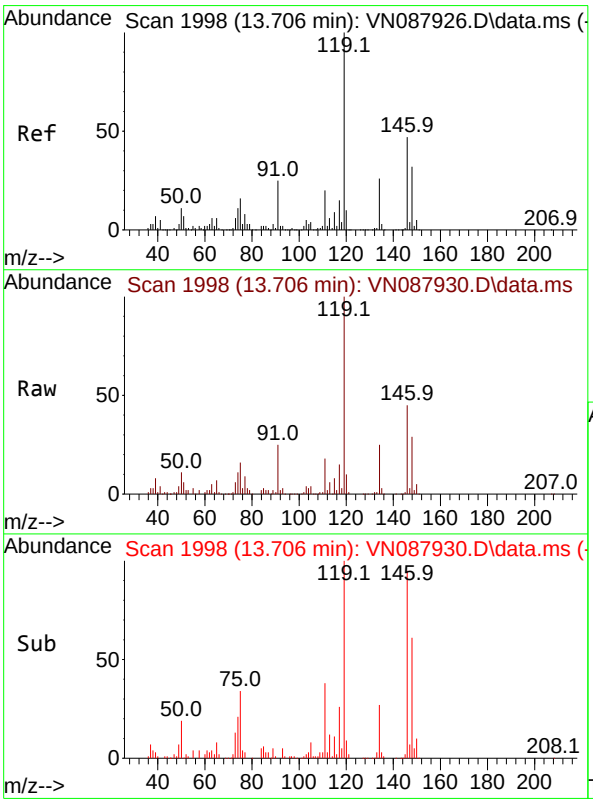
Ion	Ratio	Lower	Upper
105	100		
134	20.5	9.6	28.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

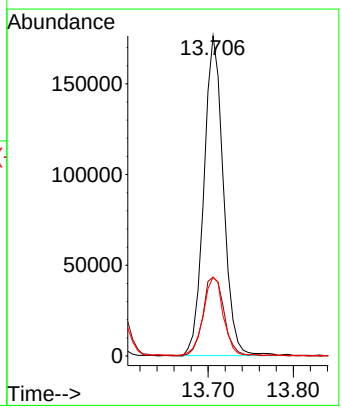
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

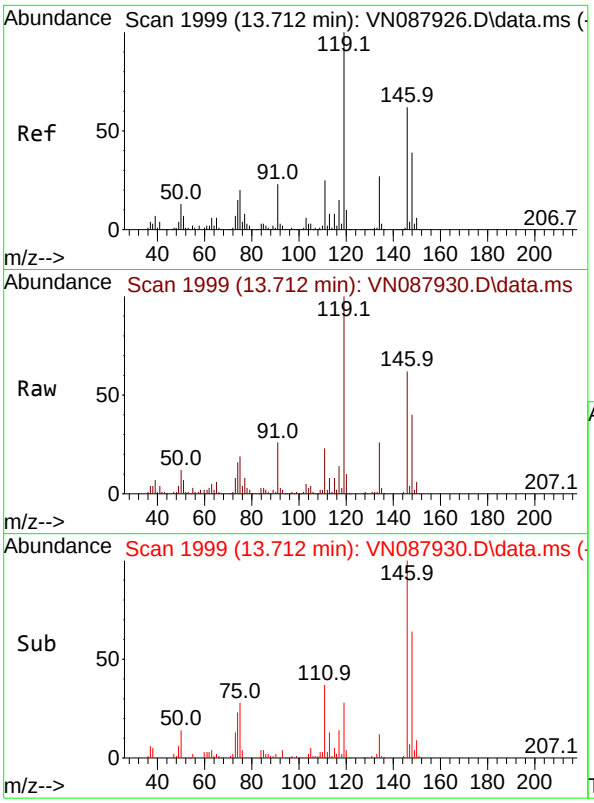


#86
p-Isopropyltoluene
Concen: 22.547 ug/l
RT: 13.706 min Scan# 1998
Delta R.T. 0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion:119 Resp: 279181

Ion	Ratio	Lower	Upper
119	100		
134	27.0	13.1	39.3
91	26.2	11.9	35.5

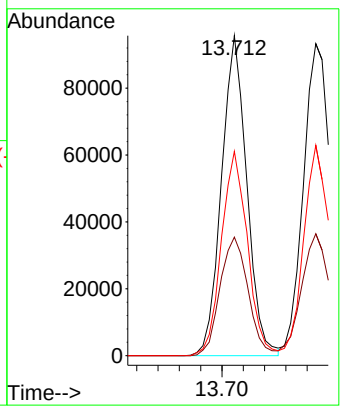




#87
1,3-Dichlorobenzene
Concen: 22.349 ug/l
RT: 13.712 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion:146 Resp: 15804

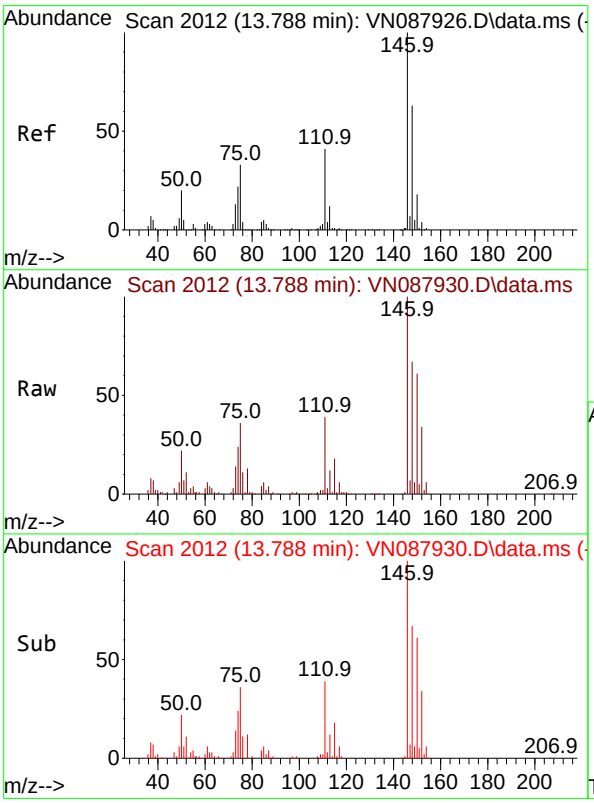
Ion	Ratio	Lower	Upper
146	100		
111	41.2	20.3	60.8
148	65.7	32.4	97.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

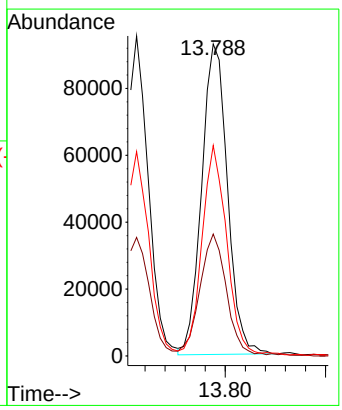
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

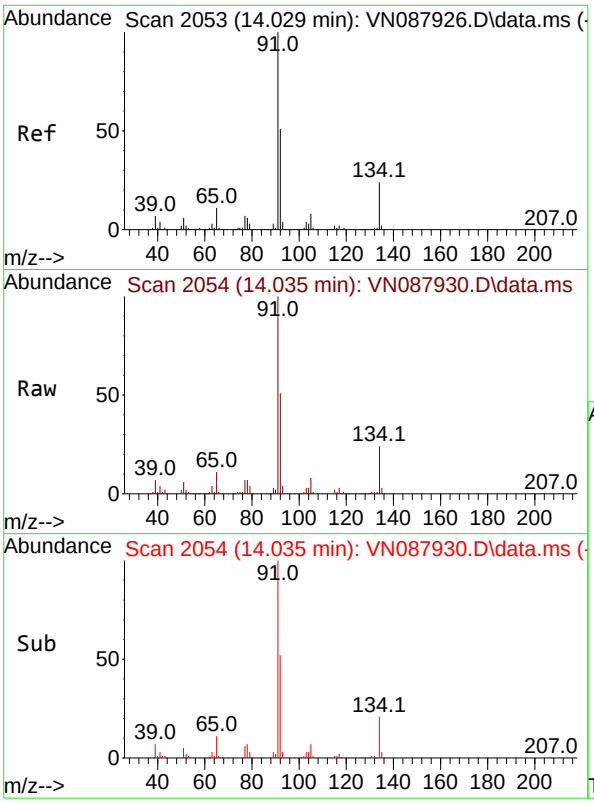


#88
1,4-Dichlorobenzene
Concen: 22.835 ug/l
RT: 13.788 min Scan# 2012
Delta R.T. -0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion:146 Resp: 165954

Ion	Ratio	Lower	Upper
146	100		
111	41.2	20.5	61.5
148	64.7	32.8	98.4

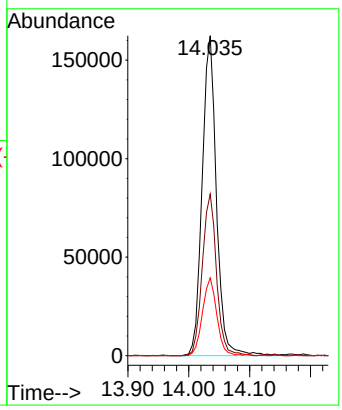




#89
n-Butylbenzene
Concen: 22.550 ug/l
RT: 14.035 min Scan# 2
Delta R.T. 0.006 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 91 Resp: 26387

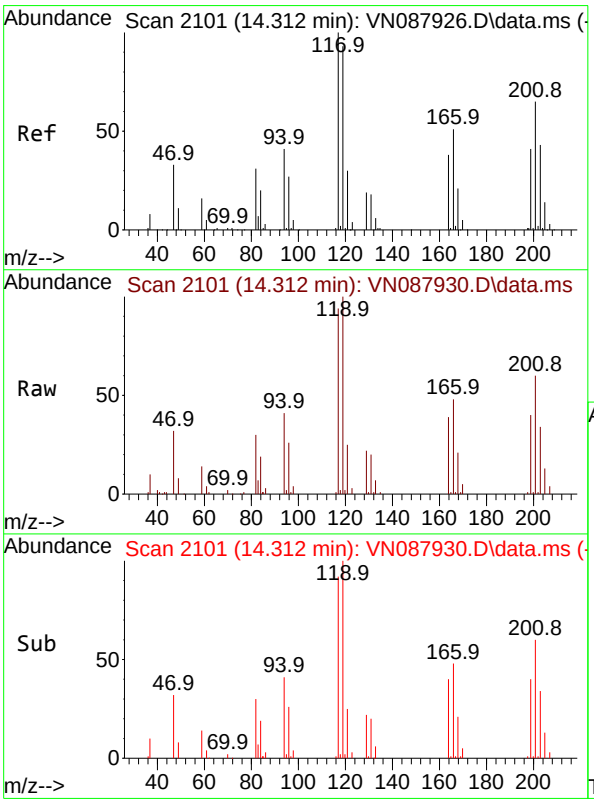
Ion	Ratio	Lower	Upper
91	100		
92	50.6	25.9	77.8
134	24.6	12.6	37.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

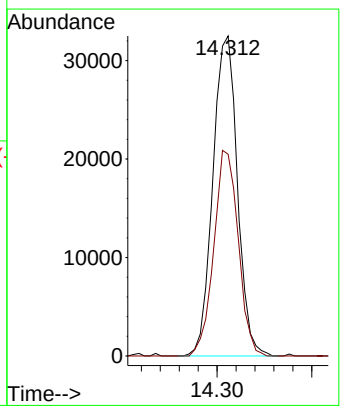
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

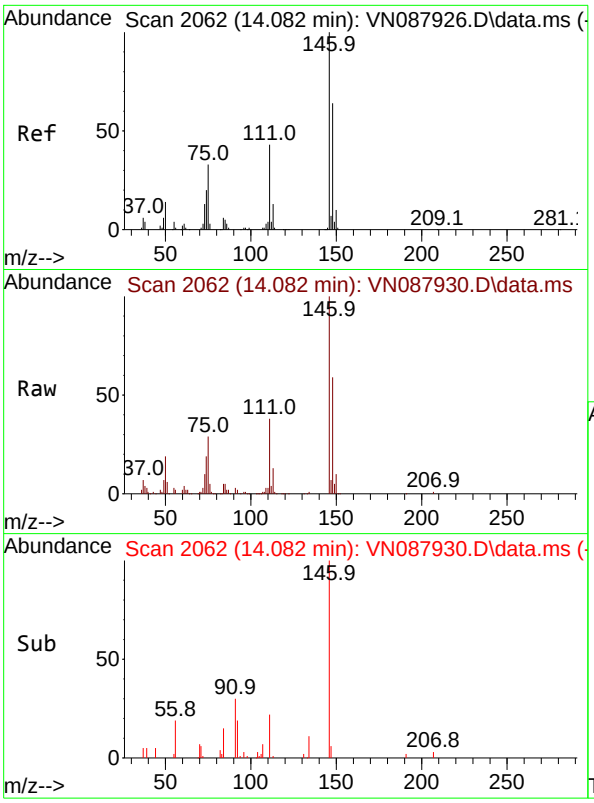


#90
Hexachloroethane
Concen: 22.590 ug/l
RT: 14.312 min Scan# 2101
Delta R.T. 0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion:117 Resp: 58428

Ion	Ratio	Lower	Upper
117	100		
201	64.1	33.6	100.6

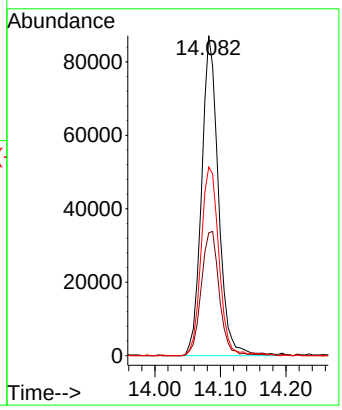




#91
1,2-Dichlorobenzene
Concen: 22.902 ug/l
RT: 14.082 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion:146 Resp: 15610

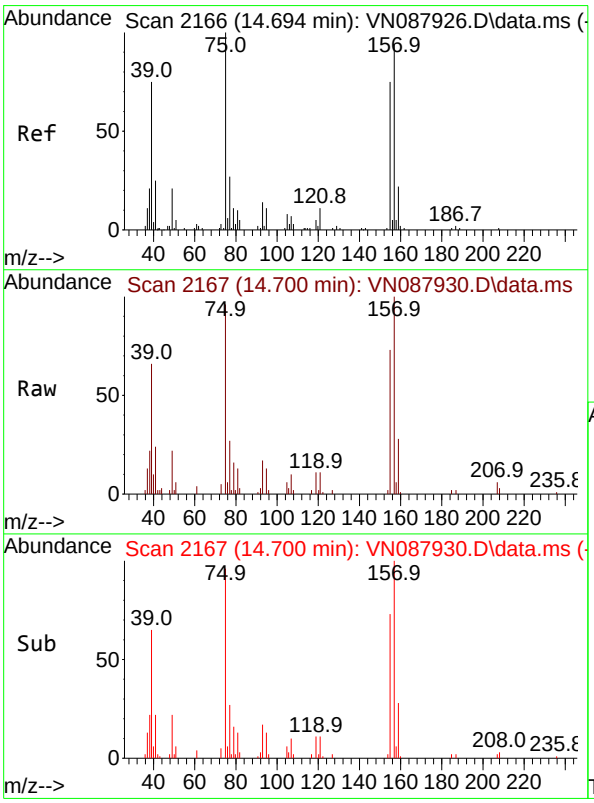
Ion	Ratio	Lower	Upper
146	100		
111	41.7	20.9	62.7
148	62.8	31.9	95.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

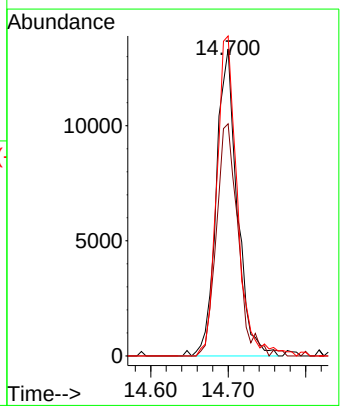
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

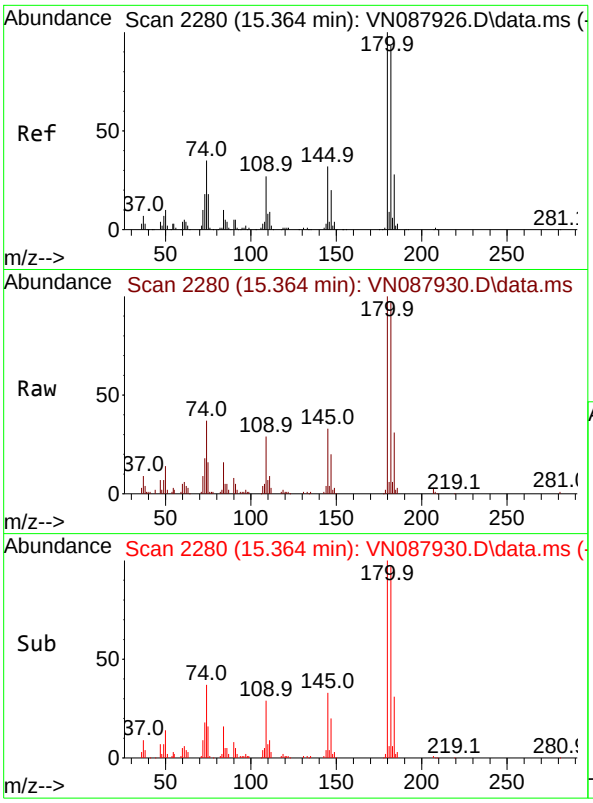


#92
1,2-Dibromo-3-Chloropropane
Concen: 22.009 ug/l
RT: 14.700 min Scan# 2167
Delta R.T. 0.006 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion: 75 Resp: 25095

Ion	Ratio	Lower	Upper
75	100		
155	77.5	40.2	120.6
157	102.1	50.9	152.7

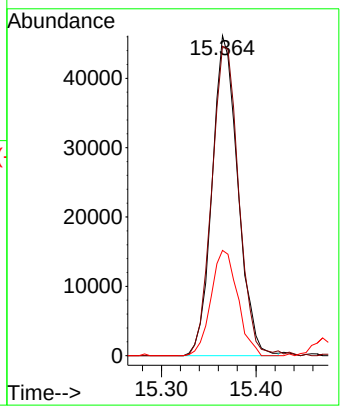




#93
1,2,4-Trichlorobenzene
Concen: 21.654 ug/l
RT: 15.364 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion:180 Resp: 8714

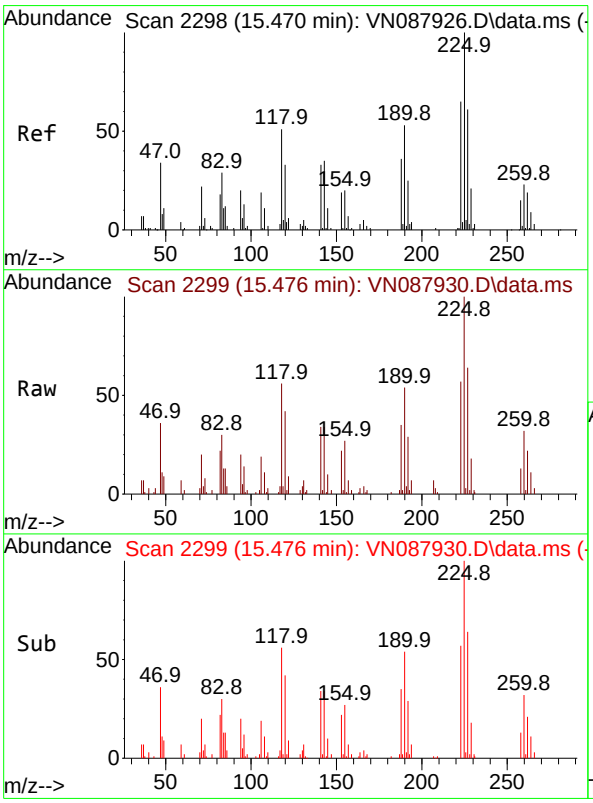
Ion	Ratio	Lower	Upper
180	100		
182	101.1	48.5	145.5
145	34.0	15.9	47.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

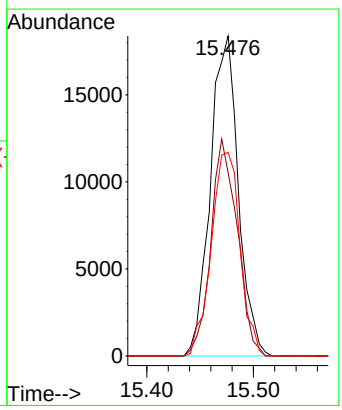
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

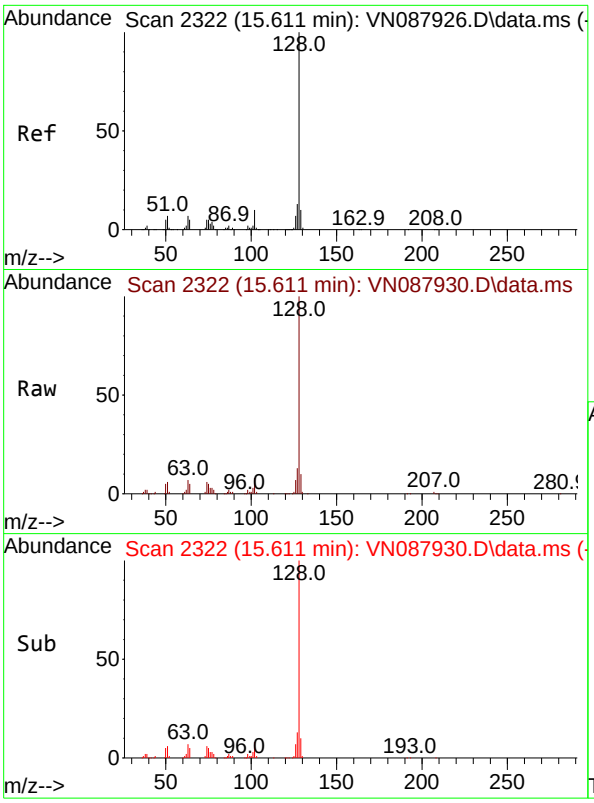


#94
Hexachlorobutadiene
Concen: 22.586 ug/l
RT: 15.476 min Scan# 2299
Delta R.T. 0.006 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion:225 Resp: 33457

Ion	Ratio	Lower	Upper
225	100		
223	64.1	31.8	95.4
227	65.5	31.9	95.9

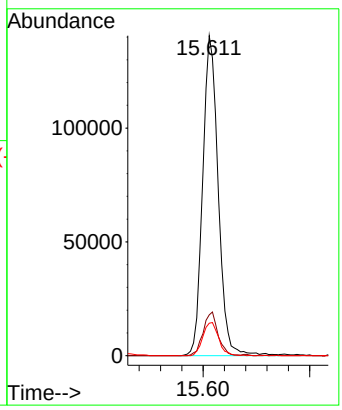




#95
Naphthalene
Concen: 22.053 ug/l
RT: 15.611 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion:128 Resp: 28489

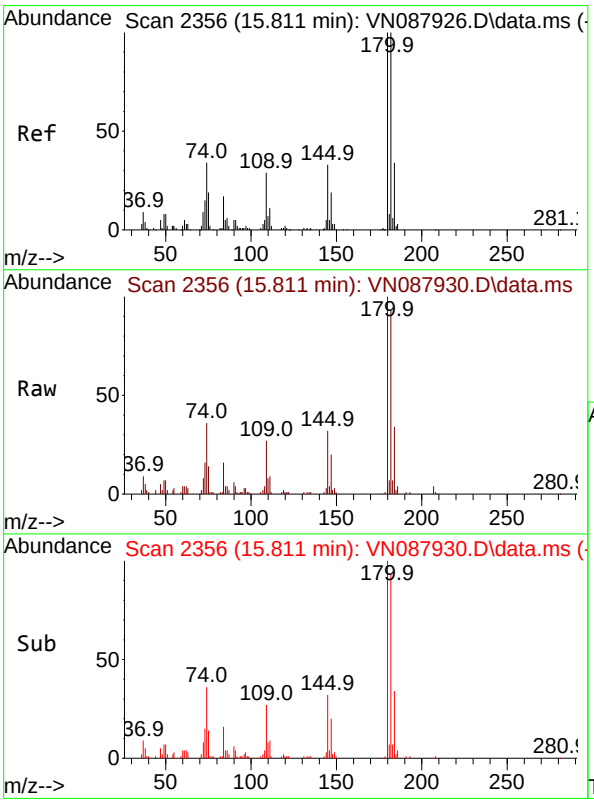
Ion	Ratio	Lower	Upper
128	100		
127	13.1	10.2	15.4
129	10.5	8.6	13.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED

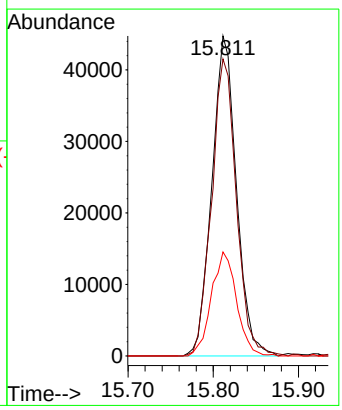
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025



#96
1,2,3-Trichlorobenzene
Concen: 22.922 ug/l
RT: 15.811 min Scan# 2356
Delta R.T. -0.000 min
Lab File: VN087930.D
Acq: 23 Sep 2025 11:47

Tgt Ion:180 Resp: 89684

Ion	Ratio	Lower	Upper
180	100		
182	93.5	47.3	142.0
145	33.3	16.1	48.3



Quantitation Report (QT Reviewed)

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092325\
Data File : VN087931.D
Acq On : 23 Sep 2025 15:08
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 24 05:21:09 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 05:05:30 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations APPROVED
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.206	168	277018	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.083	114	496020	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.841	117	466772	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.771	152	243738	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.559	65	203626	43.678	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 87.360%			
35) Dibromofluoromethane	8.153	113	156190	43.369	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 86.740%			
50) Toluene-d8	10.547	98	567044	44.774	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 89.540%			
62) 4-Bromofluorobenzene	12.829	95	200630	44.319	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 88.640%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.142	85	161997	50.496	ug/l	96
3) Chloromethane	2.383	50	160833	48.962	ug/l	100
4) Vinyl Chloride	2.536	62	165059	49.253	ug/l	97
5) Bromomethane	2.971	94	113238	54.504	ug/l	97
6) Chloroethane	3.136	64	108186	49.650	ug/l	100
7) Trichlorofluoromethane	3.506	101	265455	48.650	ug/l	98
8) Diethyl Ether	3.959	74	101038	49.015	ug/l	97
9) 1,1,2-Trichlorotrifluo...	4.365	101	137085	47.535	ug/l	96
10) Methyl Iodide	4.577	142	150647	58.041	ug/l	98
11) Tert butyl alcohol	5.524	59	181682	270.566	ug/l	100
12) 1,1-Dichloroethene	4.336	96	147146	50.568	ug/l	99
13) Acrolein	4.177	56	213590	247.902	ug/l	98
14) Allyl chloride	5.012	41	238489	50.343	ug/l	96
15) Acrylonitrile	5.712	53	527698	250.533	ug/l	99
16) Acetone	4.418	43	476656	248.497	ug/l	93
17) Carbon Disulfide	4.701	76	441131	48.521	ug/l	99
18) Methyl Acetate	5.018	43	252027	52.501	ug/l	99
19) Methyl tert-butyl Ether	5.789	73	593372	52.201	ug/l	98
20) Methylene Chloride	5.271	84	185323	47.732	ug/l	94
21) trans-1,2-Dichloroethene	5.777	96	176202	49.395	ug/l	88
22) Diisopropyl ether	6.659	45	572737	51.790	ug/l	96
23) Vinyl Acetate	6.589	43	2420654m	259.965	ug/l	
24) 1,1-Dichloroethane	6.553	63	319051	49.382	ug/l	98
25) 2-Butanone	7.471	43	765845	261.219	ug/l	99
26) 2,2-Dichloropropane	7.471	77	288518	50.261	ug/l	99
27) cis-1,2-Dichloroethene	7.471	96	212644	50.099	ug/l	98
28) Bromochloromethane	7.794	49	158210	45.070	ug/l	100
29) Tetrahydrofuran	7.824	42	481488	256.481	ug/l	99
30) Chloroform	7.947	83	347740	49.224	ug/l	94
31) Cyclohexane	8.236	56	249322	47.692	ug/l	97
32) 1,1,1-Trichloroethane	8.147	97	298473	50.001	ug/l	99
36) 1,1-Dichloropropene	8.353	75	223572	51.628	ug/l	98
37) Ethyl Acetate	7.547	43	281650	49.529	ug/l	98
38) Carbon Tetrachloride	8.341	117	254169	51.149	ug/l	96
39) Methylcyclohexane	9.577	83	254097	53.190	ug/l	98
40) Benzene	8.589	78	733552	51.160	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092325\
Data File : VN087931.D
Acq On : 23 Sep 2025 15:08
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 24 05:21:09 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 05:05:30 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.765	41	151881	51.681	ug/l		98
42) 1,2-Dichloroethane	8.653	62	266146	49.739	ug/l		100
43) Isopropyl Acetate	8.671	43	465007	51.950	ug/l		99
44) Trichloroethene	9.330	130	174047	50.817	ug/l		90
45) 1,2-Dichloropropane	9.600	63	181803	50.566	ug/l		98
46) Dibromomethane	9.688	93	144476	50.925	ug/l		98
47) Bromodichloromethane	9.871	83	282997	50.858	ug/l	#	96
48) Methyl methacrylate	9.659	41	220518	53.199	ug/l		95
49) 1,4-Dioxane	9.683	88	71480	1167.270	ug/l	#	84
51) 4-Methyl-2-Pentanone	10.424	43	1464843	262.261	ug/l		100
52) Toluene	10.606	92	456380	50.722	ug/l		98
53) t-1,3-Dichloropropene	10.812	75	297827	52.296	ug/l		100
54) cis-1,3-Dichloropropene	10.294	75	303245	51.268	ug/l		98
55) 1,1,2-Trichloroethane	10.994	97	184666	50.476	ug/l		96
56) Ethyl methacrylate	10.853	69	287401	54.367	ug/l		99
57) 1,3-Dichloropropane	11.141	76	314225	52.219	ug/l		100
58) 2-Chloroethyl Vinyl ether	10.141	63	735137	295.766	ug/l		98
59) 2-Hexanone	11.177	43	1027998	278.348	ug/l		98
60) Dibromochloromethane	11.335	129	224473	52.185	ug/l		98
61) 1,2-Dibromoethane	11.447	107	199841	51.598	ug/l		97
64) Tetrachloroethene	11.082	164	145781	51.272	ug/l		96
65) Chlorobenzene	11.871	112	518200	52.168	ug/l		96
66) 1,1,1,2-Tetrachloroethane	11.941	131	188263	52.557	ug/l		98
67) Ethyl Benzene	11.941	91	881499	53.183	ug/l		97
68) m/p-Xylenes	12.047	106	687129	108.396	ug/l		100
69) o-Xylene	12.377	106	330957	54.342	ug/l		100
70) Styrene	12.388	104	579999	55.451	ug/l		98
71) Bromoform	12.559	173	155551	53.524	ug/l	#	97
73) Isopropylbenzene	12.671	105	848011	56.136	ug/l		99
74) N-amyl acetate	12.500	43	276693m	55.590	ug/l		
75) 1,1,2,2-Tetrachloroethane	12.918	83	277645	51.011	ug/l		99
76) 1,2,3-Trichloropropane	12.971	75	261896m	54.509	ug/l		
77) Bromobenzene	12.959	156	215215	53.546	ug/l		99
78) n-propylbenzene	13.012	91	1041885	55.165	ug/l		99
79) 2-Chlorotoluene	13.100	91	622023	54.089	ug/l		99
80) 1,3,5-Trimethylbenzene	13.147	105	739196	56.572	ug/l		98
81) trans-1,4-Dichloro-2-b...	12.718	75	97122	56.132	ug/l		95
82) 4-Chlorotoluene	13.200	91	643471	55.531	ug/l		99
83) tert-Butylbenzene	13.418	119	620261	56.083	ug/l		96
84) 1,2,4-Trimethylbenzene	13.459	105	750139	55.971	ug/l		99
85) sec-Butylbenzene	13.594	105	900122	55.512	ug/l		97
86) p-Isopropyltoluene	13.706	119	774380	56.387	ug/l		99
87) 1,3-Dichlorobenzene	13.712	146	414732	52.877	ug/l		99
88) 1,4-Dichlorobenzene	13.788	146	430578	53.418	ug/l		97
89) n-Butylbenzene	14.035	91	718201	55.337	ug/l		99
90) Hexachloroethane	14.312	117	148145	51.641	ug/l		99
91) 1,2-Dichlorobenzene	14.082	146	408389	54.018	ug/l		98
92) 1,2-Dibromo-3-Chloropr...	14.694	75	64838	51.268	ug/l		96
93) 1,2,4-Trichlorobenzene	15.365	180	243365	54.519	ug/l		98
94) Hexachlorobutadiene	15.476	225	87738	53.402	ug/l		100
95) Naphthalene	15.612	128	802609	56.013	ug/l		99
96) 1,2,3-Trichlorobenzene	15.812	180	236254	54.441	ug/l		99

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092325\
Data File : VN087931.D
Acq On : 23 Sep 2025 15:08
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 13 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

Quant Time: Sep 24 05:21:09 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 05:05:30 2025
Response via : Initial Calibration

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

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

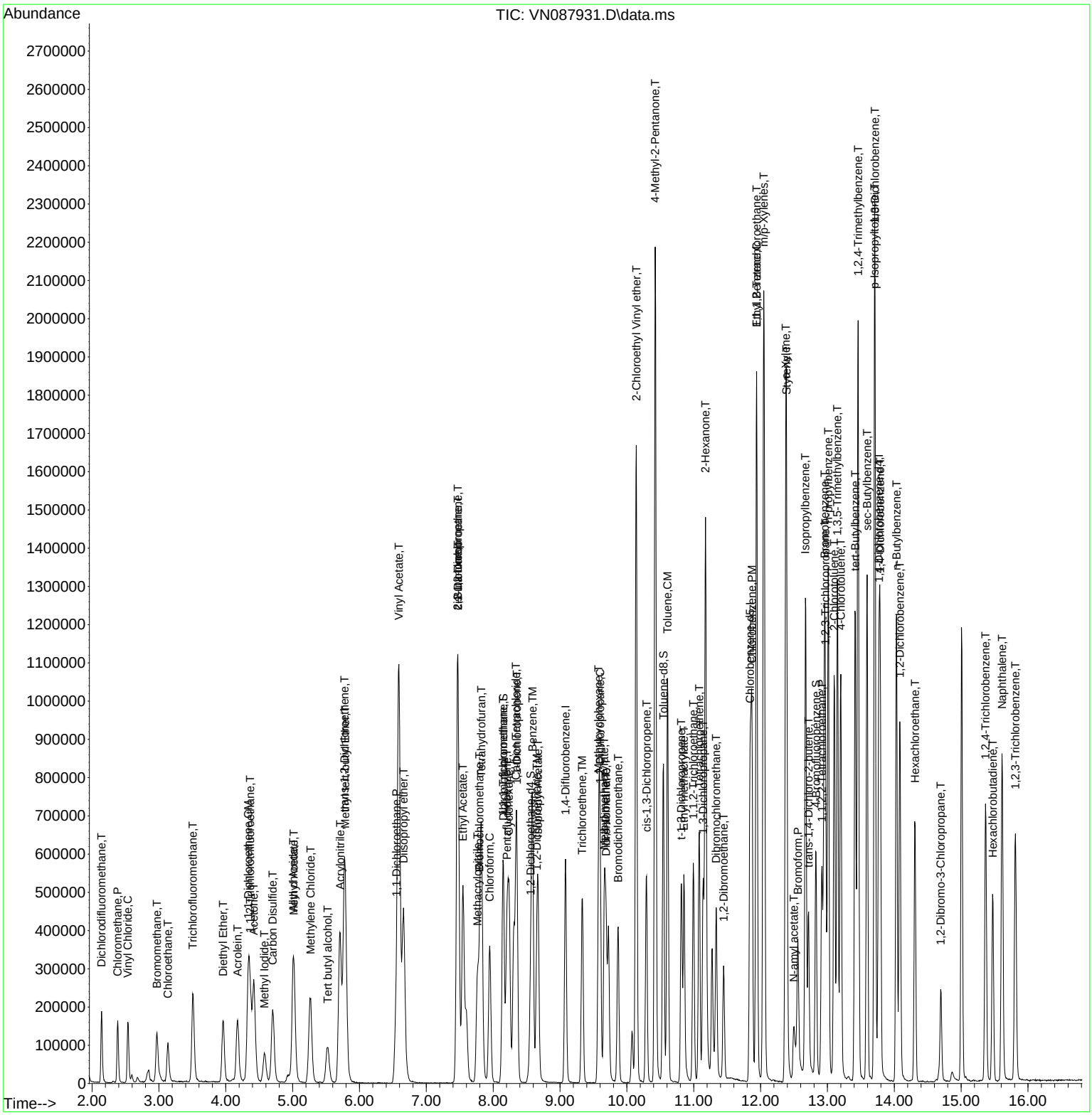
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092325\
Data File : VN087931.D
Acq On : 23 Sep 2025 15:08
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 13 Sample Multiplier: 1

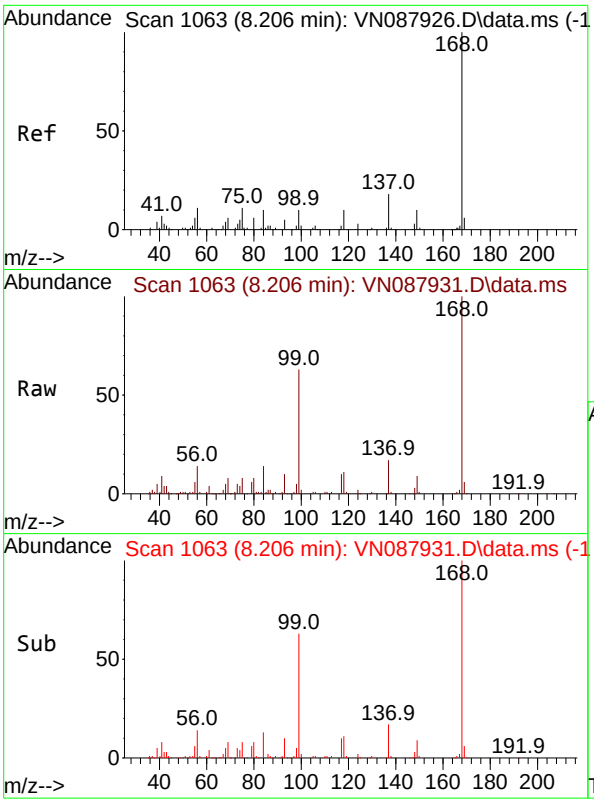
Quant Time: Sep 24 05:21:09 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 05:05:30 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

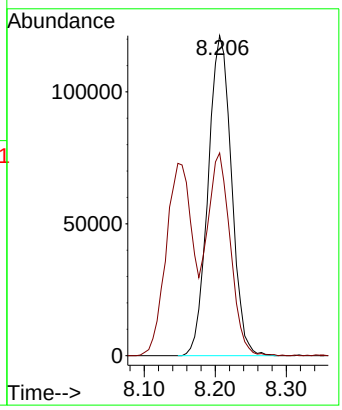




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.206 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion:168 Resp: 27701

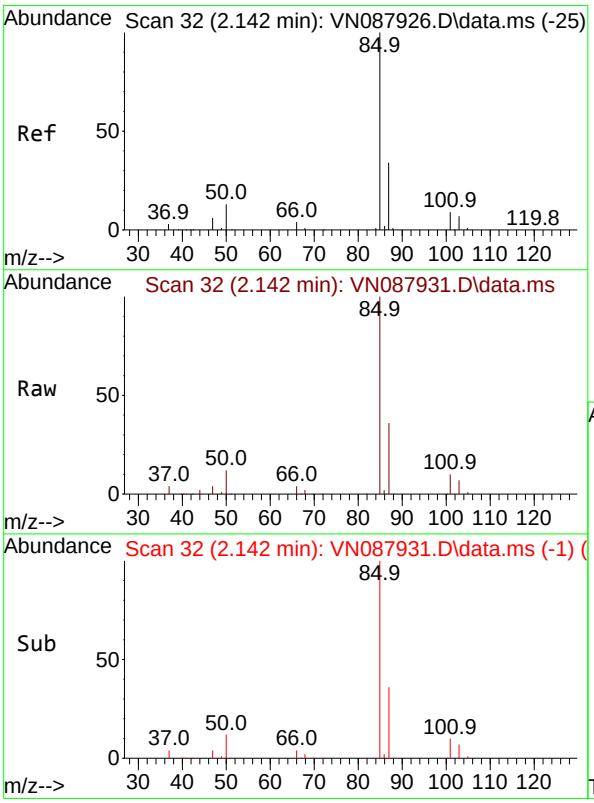
Ion	Ratio	Lower	Upper
168	100		
99	63.3	52.2	78.2



Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations APPROVED

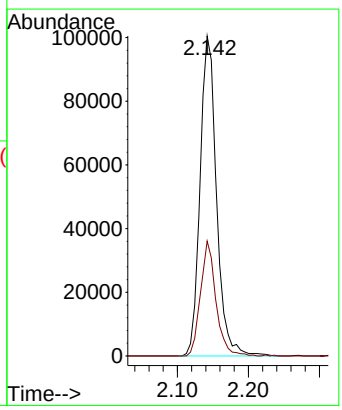
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

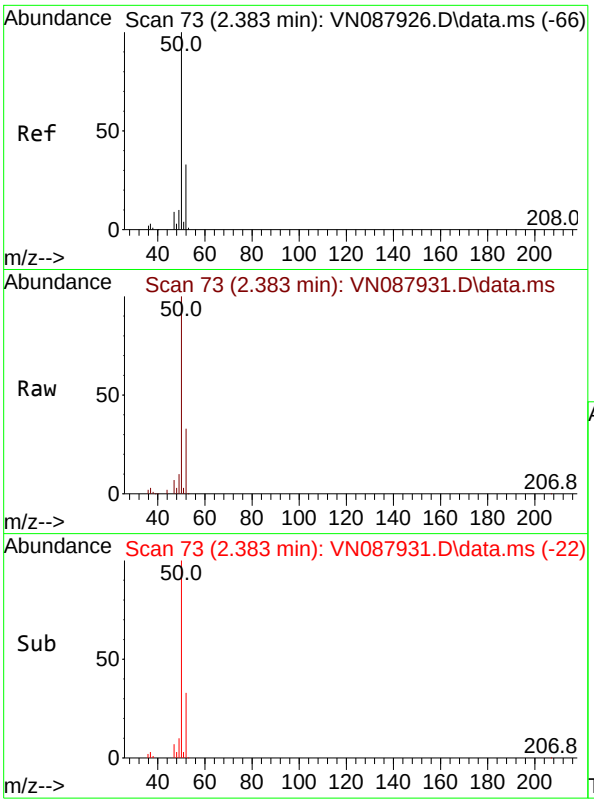


#2
Dichlorodifluoromethane
Concen: 50.496 ug/l
RT: 2.142 min Scan# 32
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 85 Resp: 161997

Ion	Ratio	Lower	Upper
85	100		
87	35.9	16.9	50.6

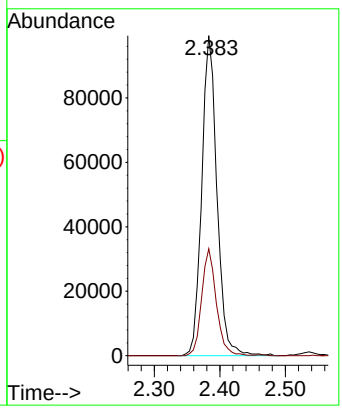




#3
Chloromethane
Concen: 48.962 ug/l
RT: 2.383 min Scan# 7
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 50 Resp: 16083

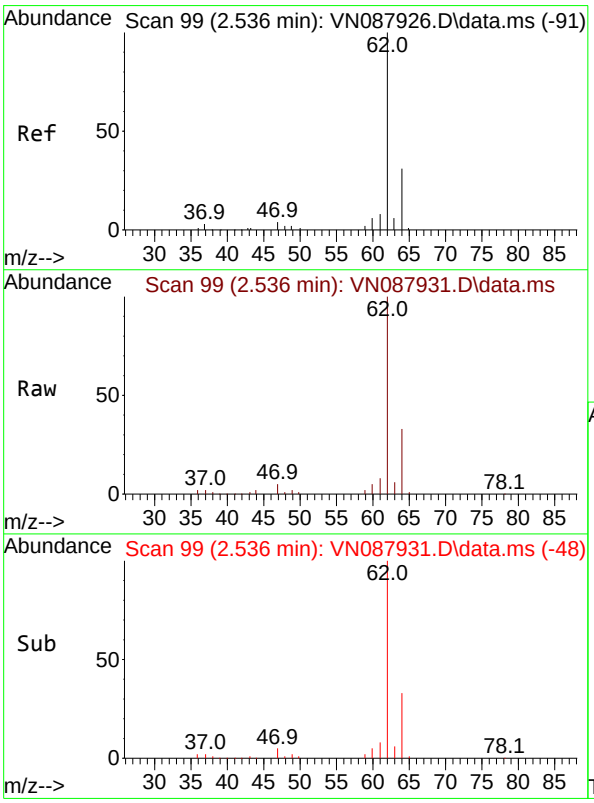
Ion	Ratio	Lower	Upper
50	100		
52	33.4	26.6	40.0



Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations
APPROVED

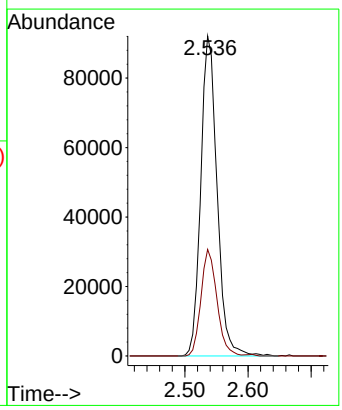
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

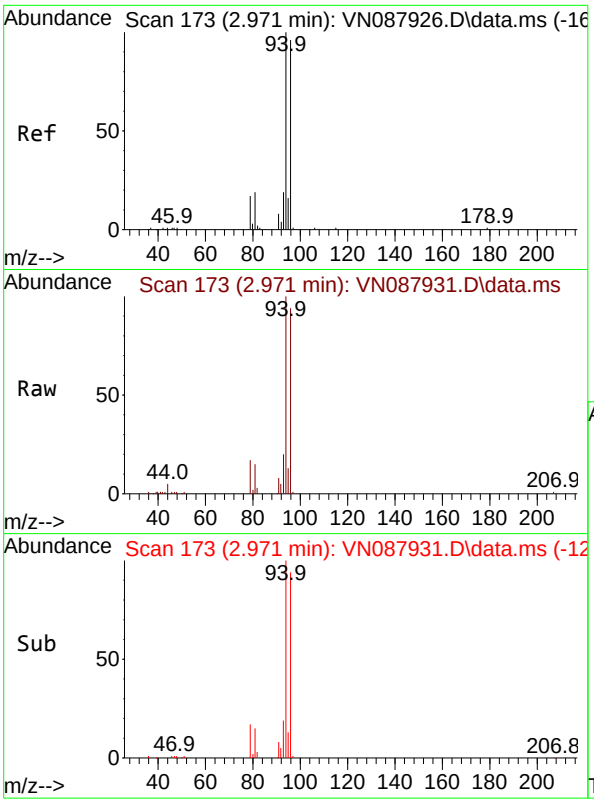


#4
Vinyl Chloride
Concen: 49.253 ug/l
RT: 2.536 min Scan# 99
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 62 Resp: 165059

Ion	Ratio	Lower	Upper
62	100		
64	33.3	25.2	37.8

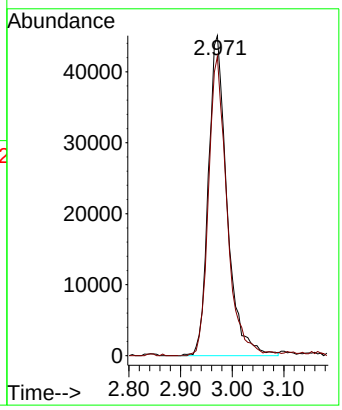




#5
Bromomethane
Concen: 54.504 ug/l
RT: 2.971 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 94 Resp: 11323

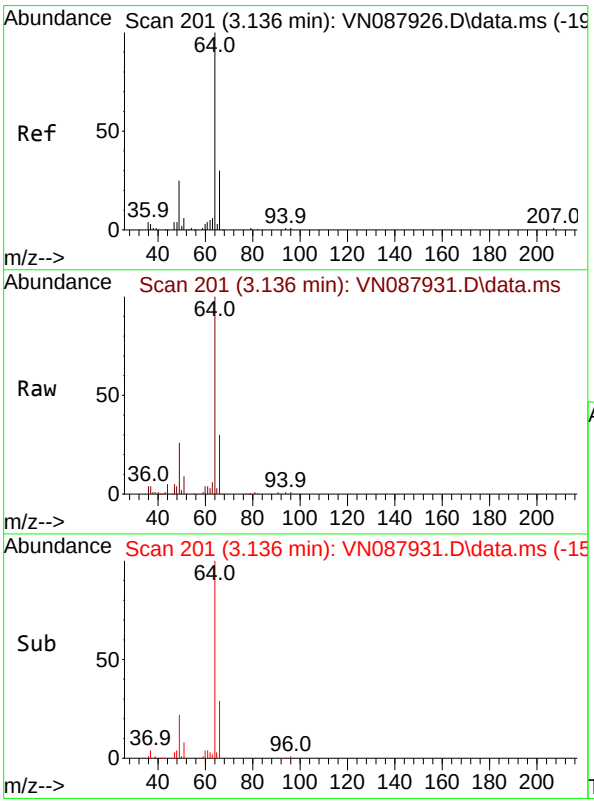
Ion	Ratio	Lower	Upper
94	100		
96	93.5	76.8	115.2



Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations APPROVED

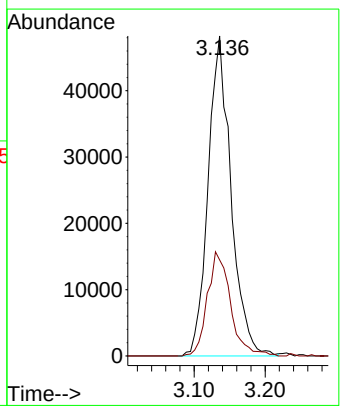
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

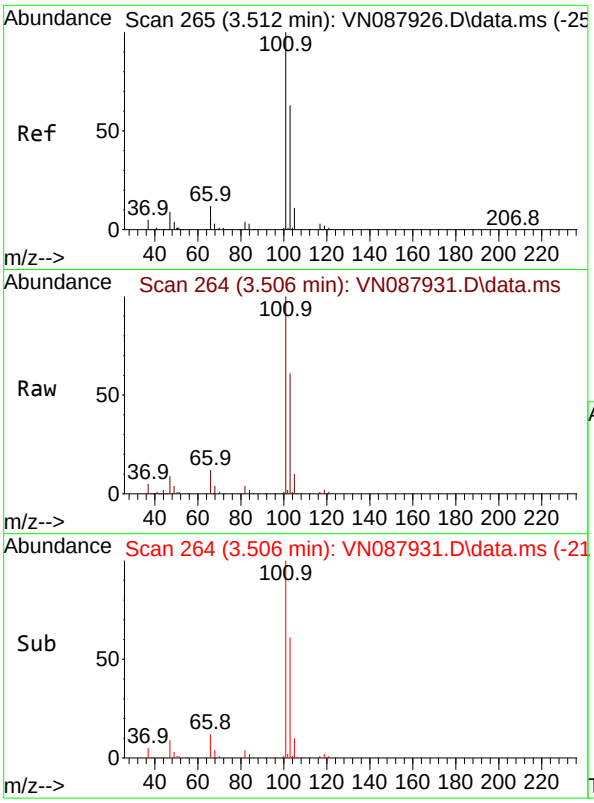


#6
Chloroethane
Concen: 49.650 ug/l
RT: 3.136 min Scan# 201
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 64 Resp: 108186

Ion	Ratio	Lower	Upper
64	100		
66	30.0	23.8	35.8

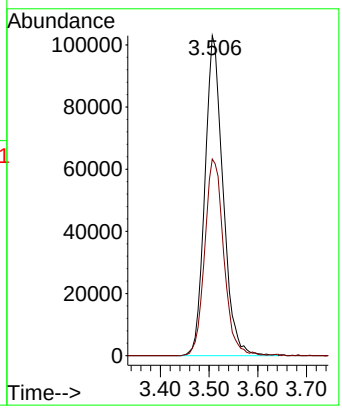




#7
Trichlorofluoromethane
Concen: 48.650 ug/l
RT: 3.506 min Scan# 2
Delta R.T. -0.006 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion:101 Resp: 26545

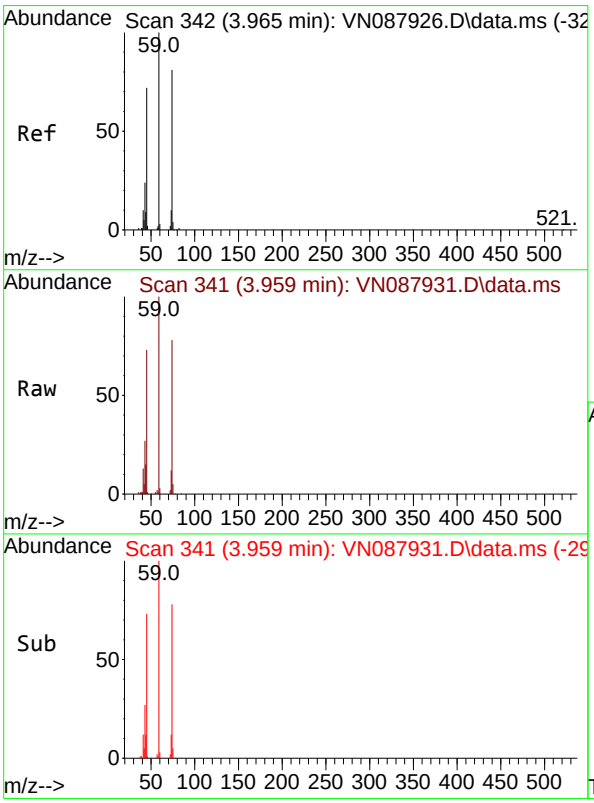
Ion	Ratio	Lower	Upper
101	100		
103	61.4	50.2	75.4



Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations APPROVED

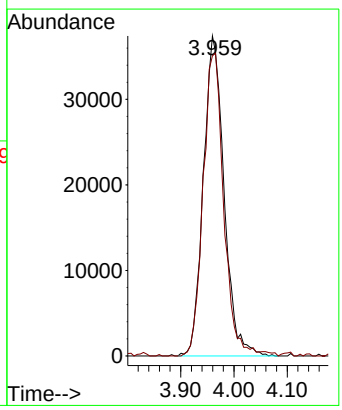
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

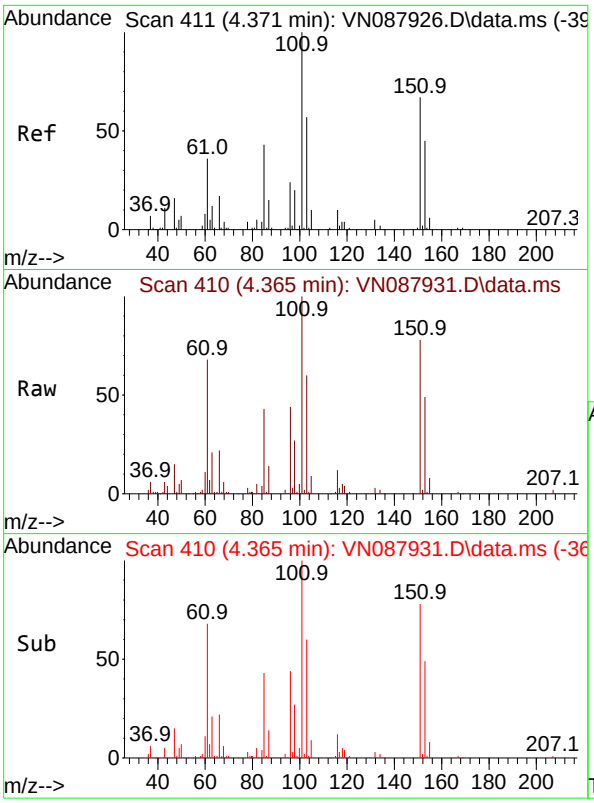


#8
Diethyl Ether
Concen: 49.015 ug/l
RT: 3.959 min Scan# 341
Delta R.T. -0.006 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 74 Resp: 101038

Ion	Ratio	Lower	Upper
74	100		
45	93.9	45.4	136.1





#9
1,1,2-Trichlorotrifluoroethane
Concen: 47.535 ug/l
RT: 4.365 min Scan# 41
Delta R.T. -0.006 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

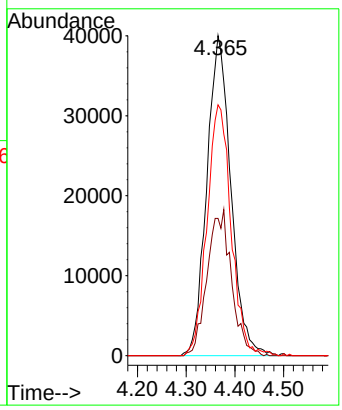
Tgt Ion:101 Resp: 13708

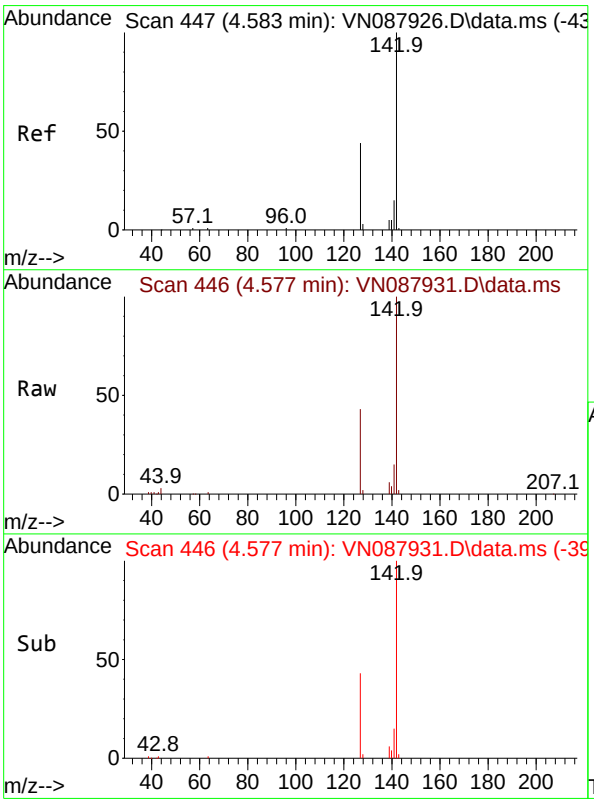
Ion	Ratio	Lower	Upper
101	100		
85	46.0	36.5	54.7
151	78.6	58.6	87.8

Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

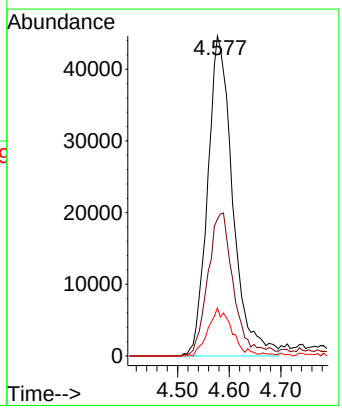


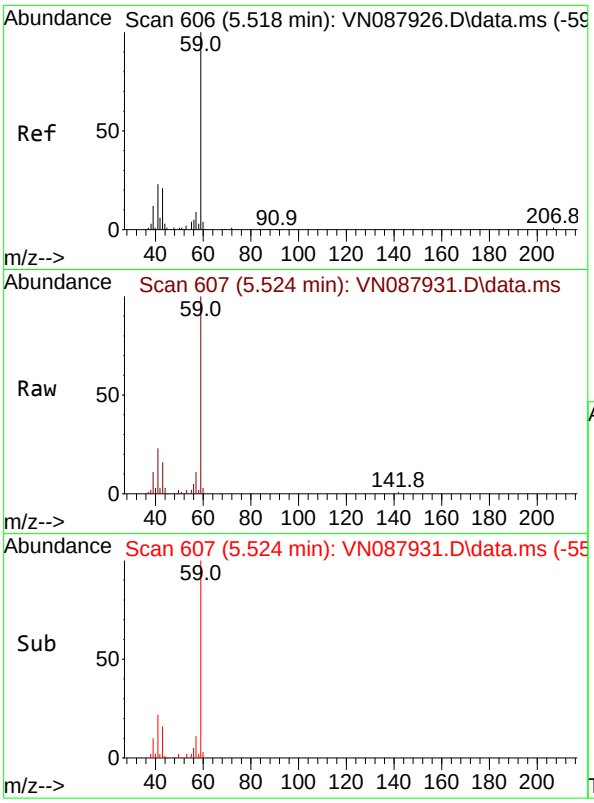


#10
Methyl Iodide
Concen: 58.041 ug/l
RT: 4.577 min Scan# 446
Delta R.T. -0.006 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion:142 Resp: 150647

Ion	Ratio	Lower	Upper
142	100		
127	42.8	35.3	52.9
141	15.0	11.8	17.8

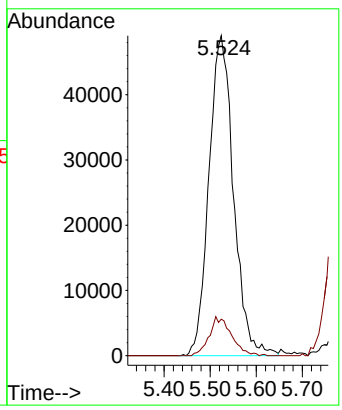




#11
Tert butyl alcohol
Concen: 270.566 ug/l
RT: 5.524 min Scan# 6
Delta R.T. 0.006 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 59 Resp: 18168

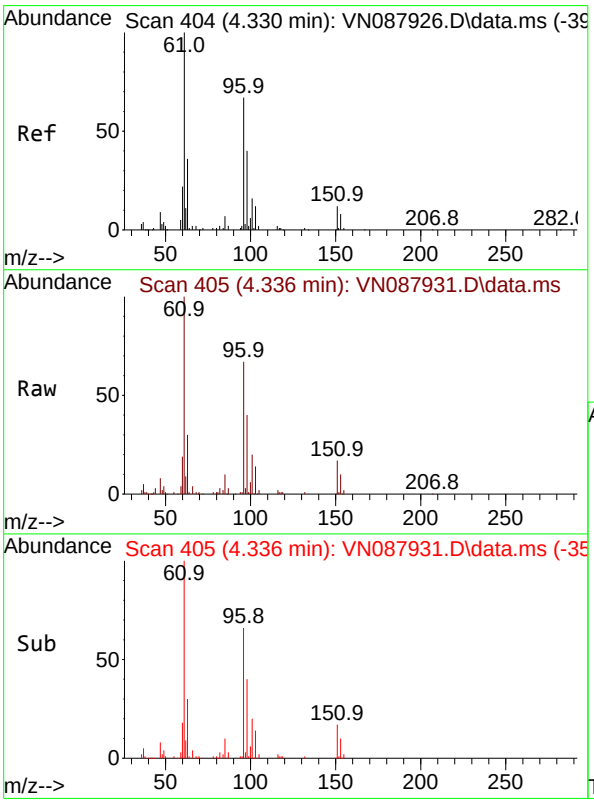
Ion	Ratio	Lower	Upper
59	100		
57	11.0	8.8	13.2



Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations APPROVED

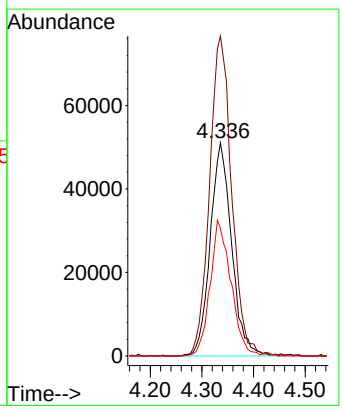
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

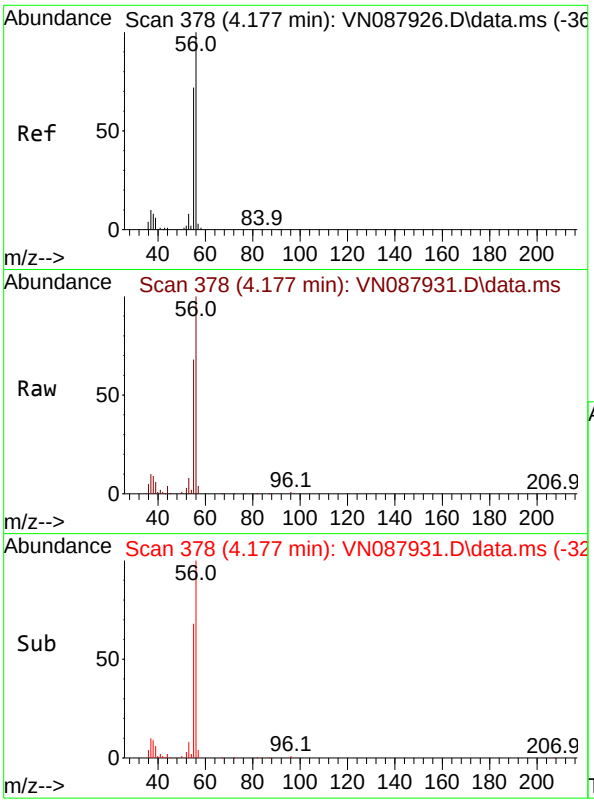


#12
1,1-Dichloroethene
Concen: 50.568 ug/l
RT: 4.336 min Scan# 405
Delta R.T. 0.006 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 96 Resp: 147146

Ion	Ratio	Lower	Upper
96	100		
61	150.2	119.2	178.8
98	59.8	47.5	71.3

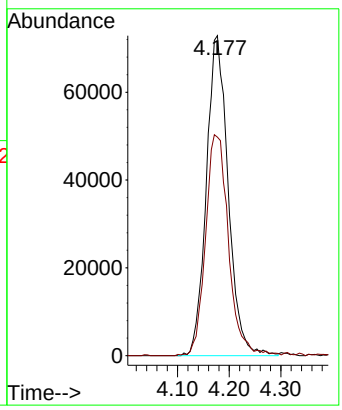




#13
Acrolein
Concen: 247.902 ug/l
RT: 4.177 min Scan# 3
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 56 Resp: 21359

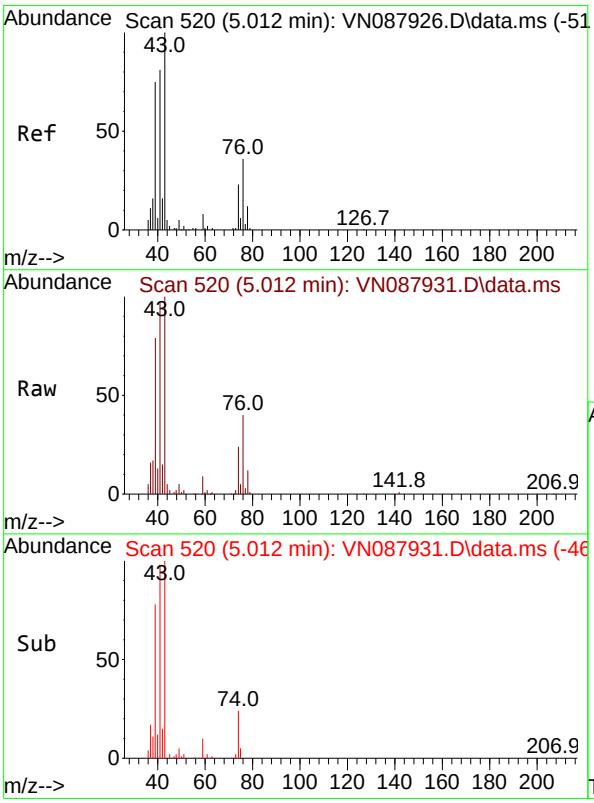
Ion	Ratio	Lower	Upper
56	100		
55	72.8	59.3	88.9



Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations APPROVED

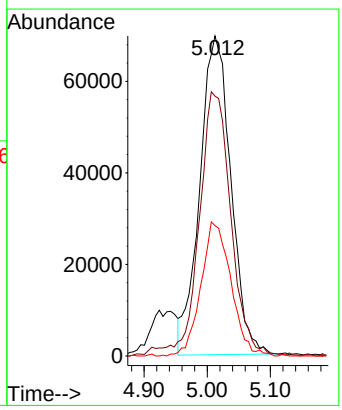
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

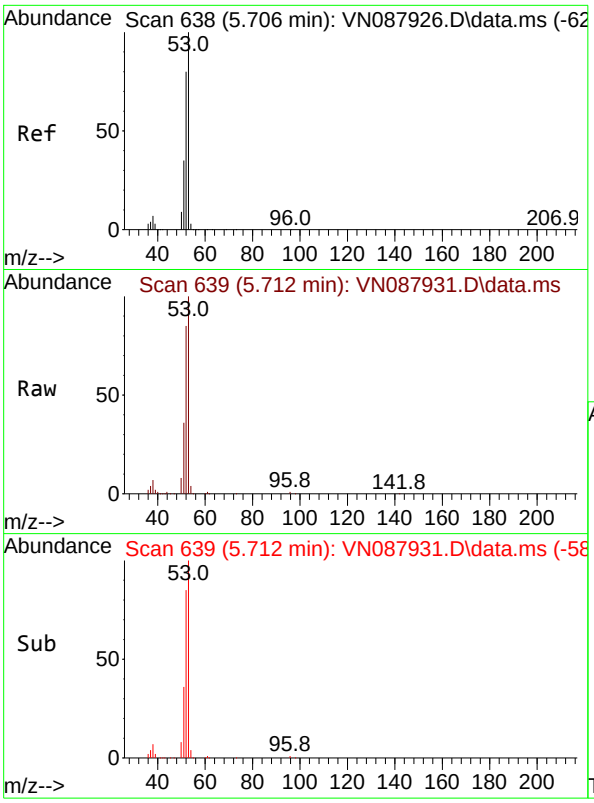


#14
Allyl chloride
Concen: 50.343 ug/l
RT: 5.012 min Scan# 520
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 41 Resp: 238489

Ion	Ratio	Lower	Upper
41	100		
39	84.8	63.8	95.8
76	40.5	33.0	49.6

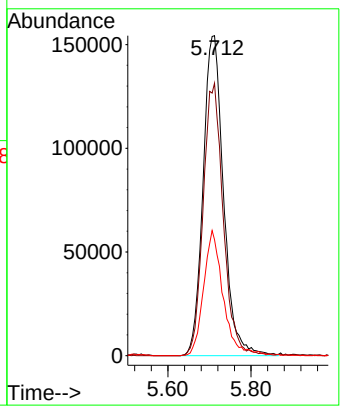




#15
Acrylonitrile
Concen: 250.533 ug/l
RT: 5.712 min Scan# 6
Delta R.T. 0.006 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 53 Resp: 52769

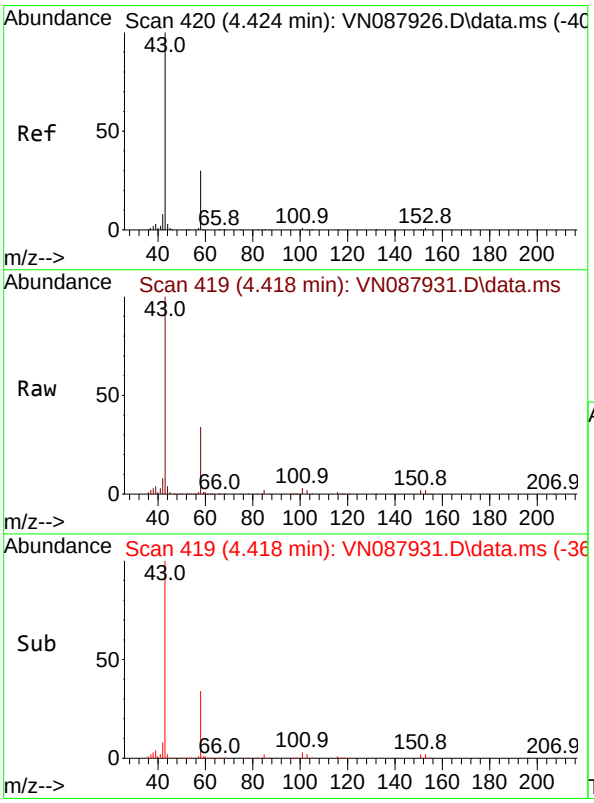
Ion	Ratio	Lower	Upper
53	100		
52	83.5	66.6	99.8
51	37.5	29.0	43.4



Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations APPROVED

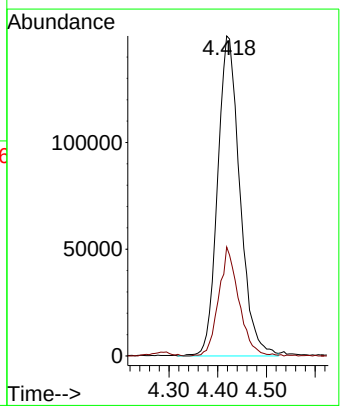
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

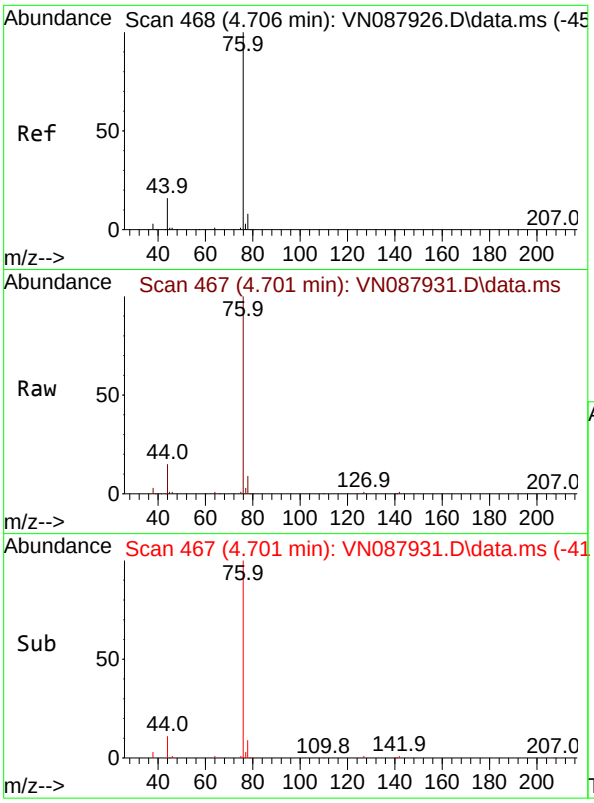


#16
Acetone
Concen: 248.497 ug/l
RT: 4.418 min Scan# 419
Delta R.T. -0.006 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 43 Resp: 476656

Ion	Ratio	Lower	Upper
43	100		
58	33.8	24.1	36.1

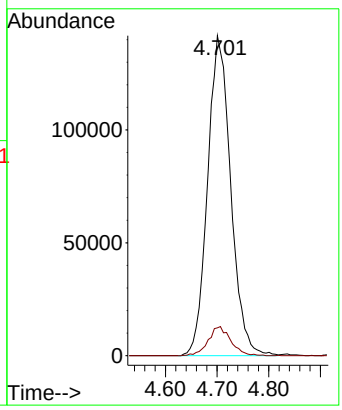




#17
Carbon Disulfide
Concen: 48.521 ug/l
RT: 4.701 min Scan# 4
Delta R.T. -0.006 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 76 Resp: 44113

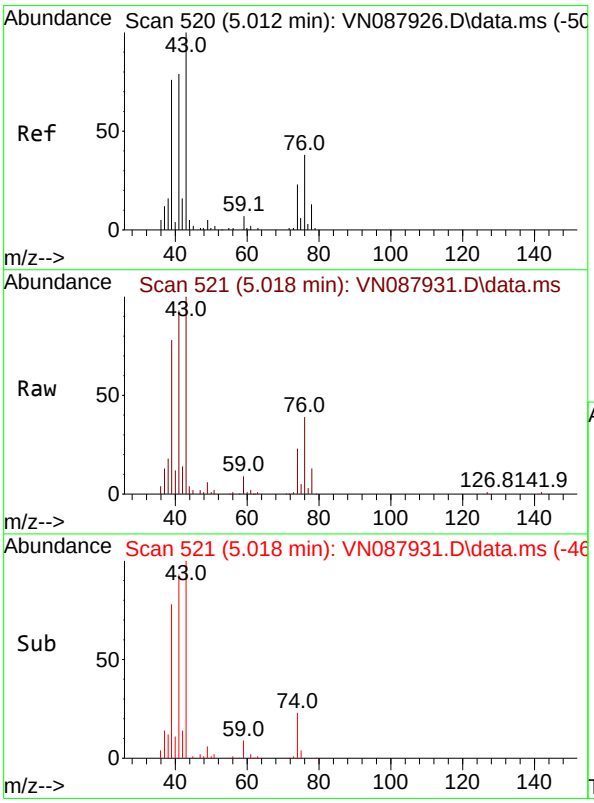
Ion	Ratio	Lower	Upper
76	100		
78	8.7	6.7	10.1



Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations APPROVED

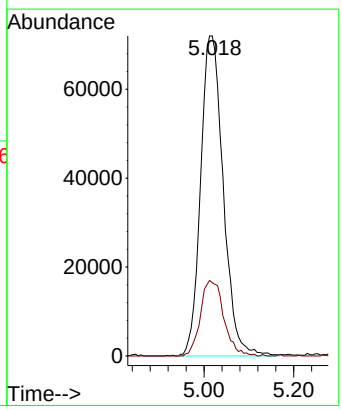
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

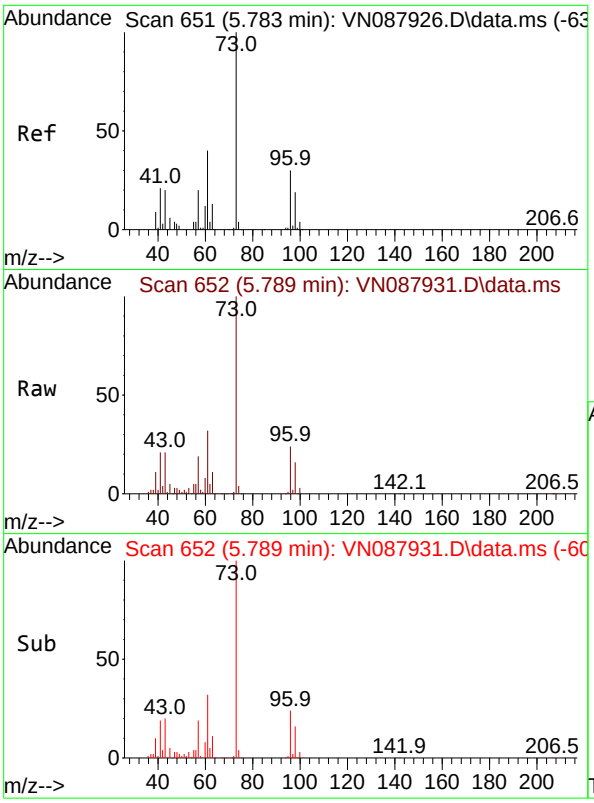


#18
Methyl Acetate
Concen: 52.501 ug/l
RT: 5.018 min Scan# 521
Delta R.T. 0.006 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 43 Resp: 252027

Ion	Ratio	Lower	Upper
43	100		
74	24.3	19.7	29.5

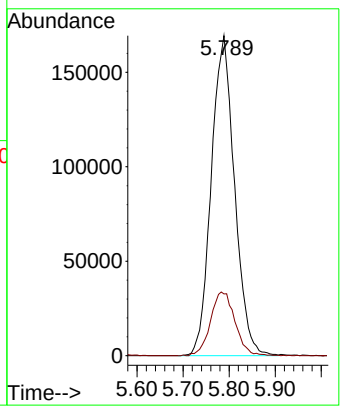




#19
Methyl tert-butyl Ether
Concen: 52.201 ug/l
RT: 5.789 min Scan# 6
Delta R.T. 0.006 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 73 Resp: 59337

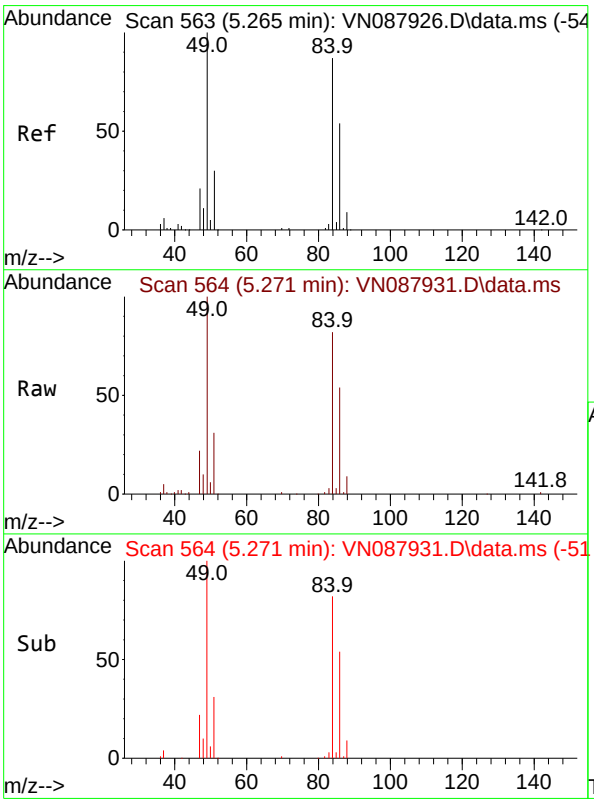
Ion	Ratio	Lower	Upper
73	100		
57	19.3	16.3	24.5



Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations APPROVED

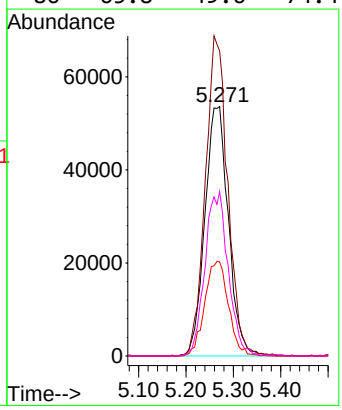
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

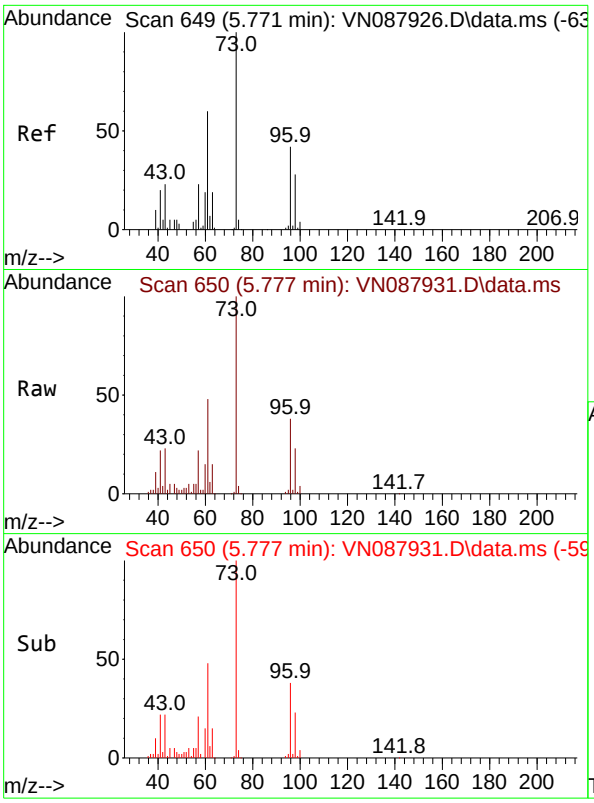


#20
Methylene Chloride
Concen: 47.732 ug/l
RT: 5.271 min Scan# 564
Delta R.T. 0.006 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 84 Resp: 185323

Ion	Ratio	Lower	Upper
84	100		
49	122.2	92.1	138.1
51	37.7	27.7	41.5
86	65.8	49.6	74.4

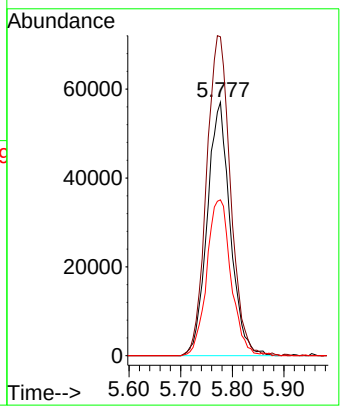




#21
trans-1,2-Dichloroethene
Concen: 49.395 ug/l
RT: 5.777 min Scan# 6
Delta R.T. 0.006 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 96 Resp: 17620

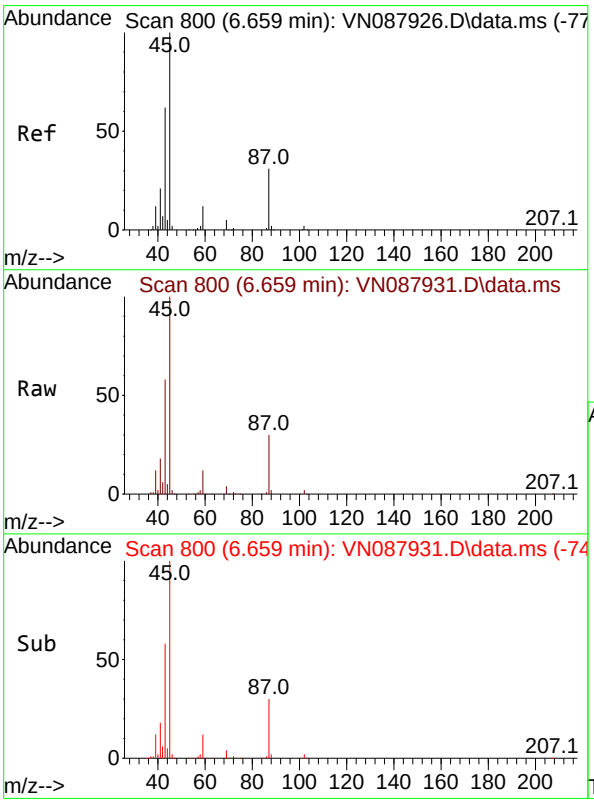
Ion	Ratio	Lower	Upper
96	100		
61	125.8	114.4	171.6
98	61.5	53.6	80.4



Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations APPROVED

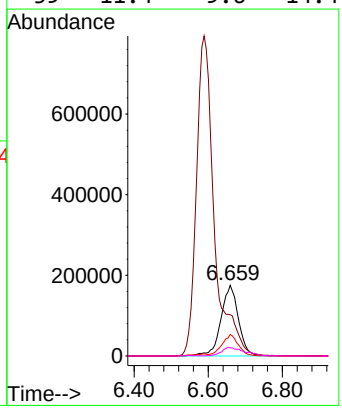
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

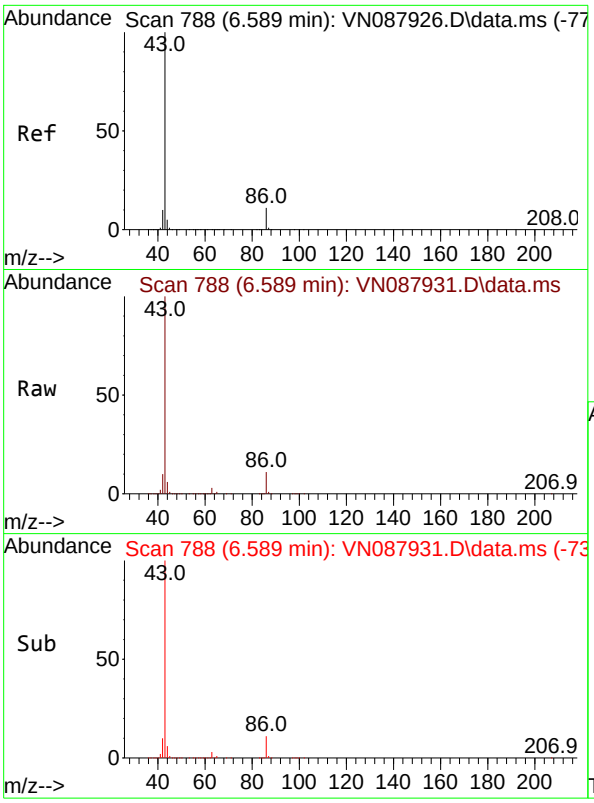


#22
Diisopropyl ether
Concen: 51.790 ug/l
RT: 6.659 min Scan# 800
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 45 Resp: 572737

Ion	Ratio	Lower	Upper
45	100		
43	58.1	49.9	74.9
87	30.4	25.2	37.8
59	11.4	9.6	14.4

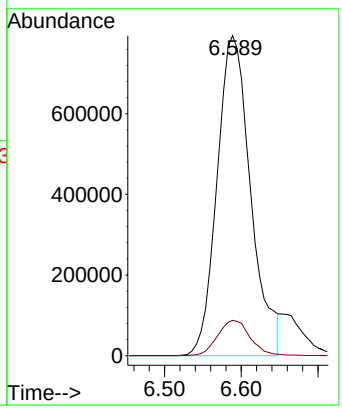




#23
Vinyl Acetate
Concen: 259.965 ug/l m
RT: 6.589 min Scan# 7
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 43 Resp: 242065

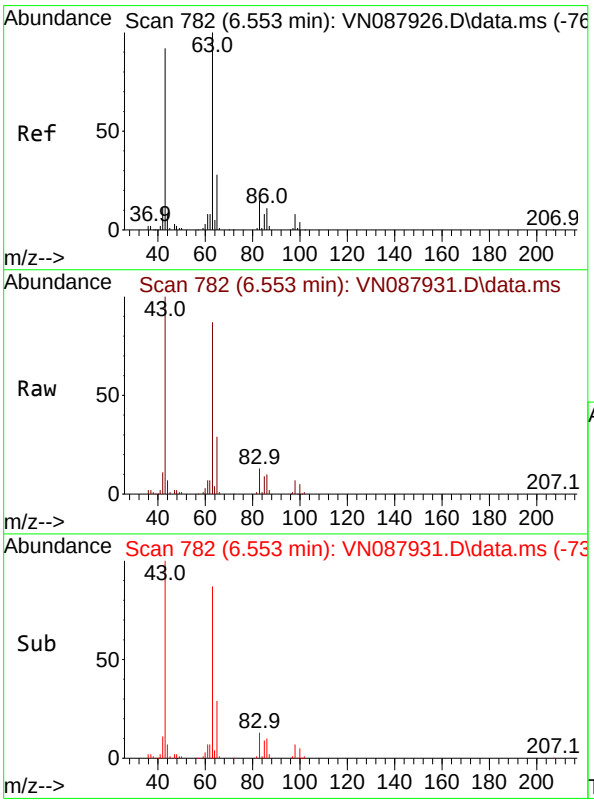
Ion	Ratio	Lower	Upper
43	100		
86	11.1	8.6	12.8



Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations APPROVED

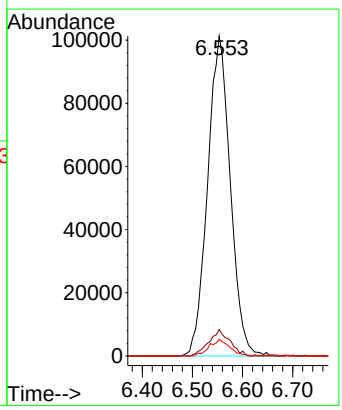
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

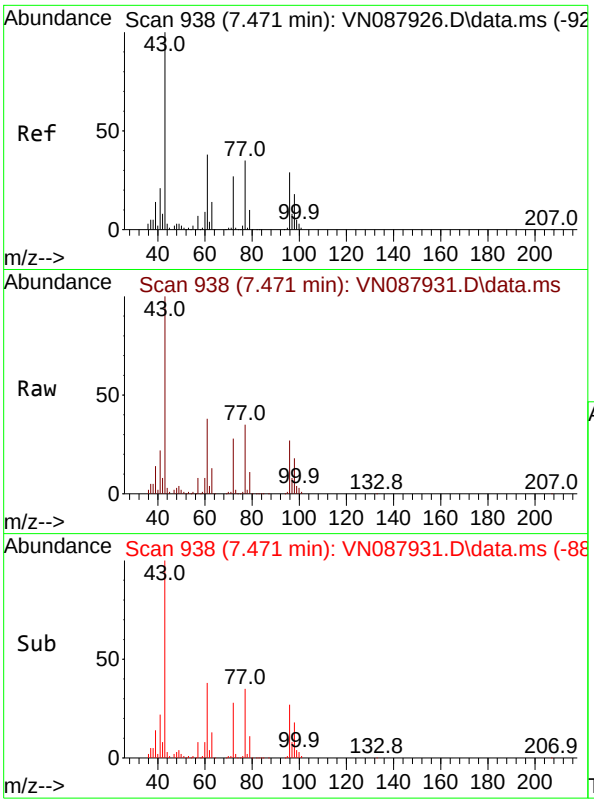


#24
1,1-Dichloroethane
Concen: 49.382 ug/l
RT: 6.553 min Scan# 782
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 63 Resp: 319051

Ion	Ratio	Lower	Upper
63	100		
98	8.3	3.9	11.5
100	5.2	2.1	6.5





#25
2-Butanone
Concen: 261.219 ug/l
RT: 7.471 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

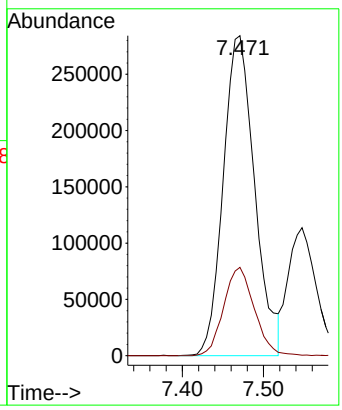
Tgt Ion: 43 Resp: 76584

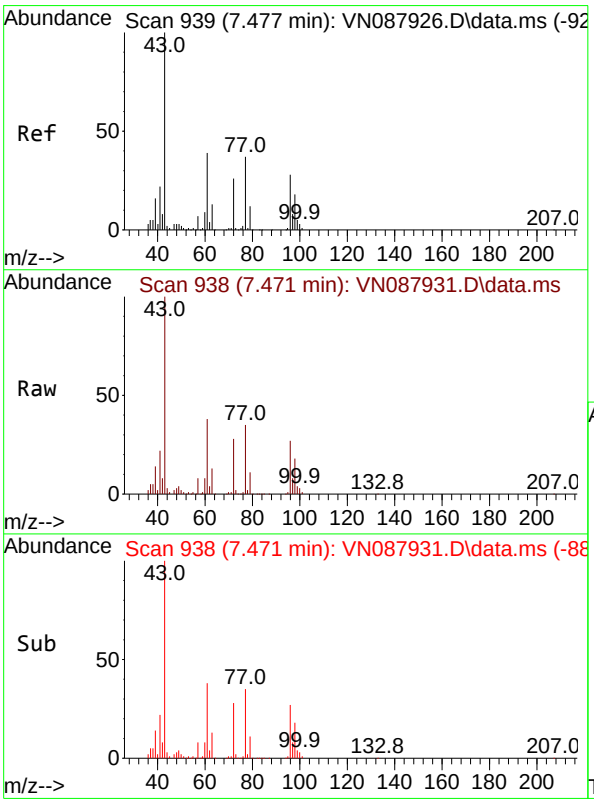
Ion	Ratio	Lower	Upper
43	100		
72	27.6	21.5	32.3

Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

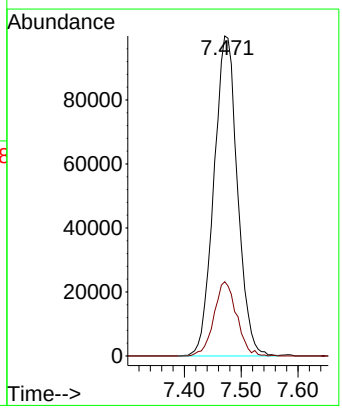


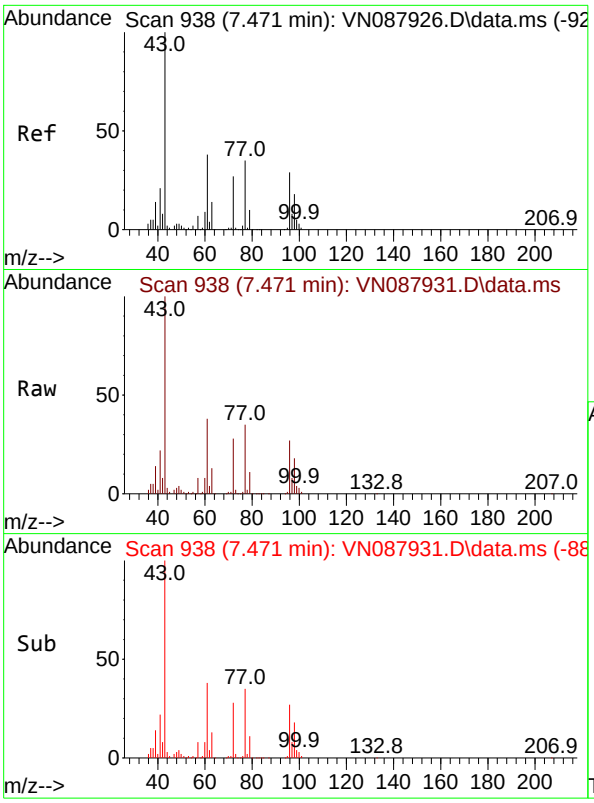


#26
2,2-Dichloropropane
Concen: 50.261 ug/l
RT: 7.471 min Scan# 938
Delta R.T. -0.006 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 77 Resp: 288518

Ion	Ratio	Lower	Upper
77	100		
97	22.4	11.5	34.5

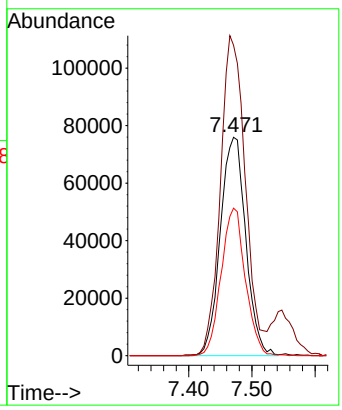




#27
cis-1,2-Dichloroethene
Concen: 50.099 ug/l
RT: 7.471 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 96 Resp: 21264

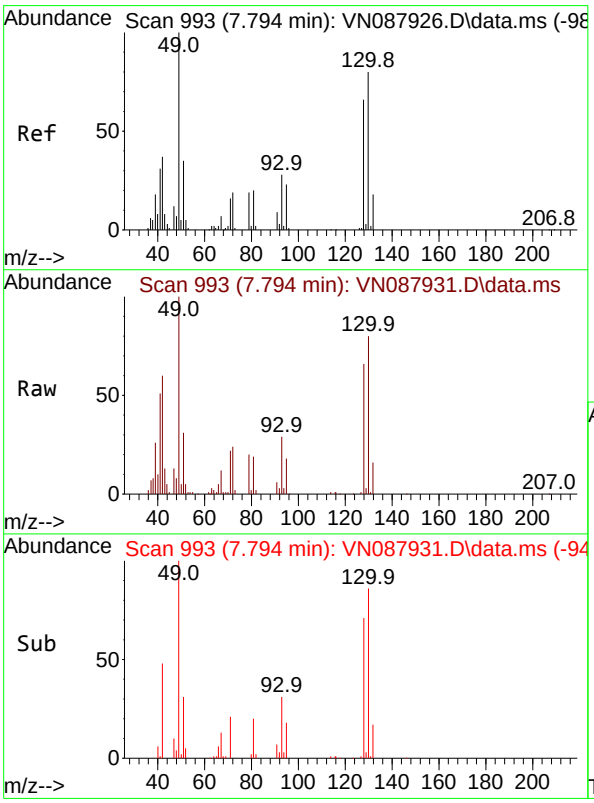
Ion	Ratio	Lower	Upper
96	100		
61	144.2	0.0	283.0
98	64.3	0.0	127.6



Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations APPROVED

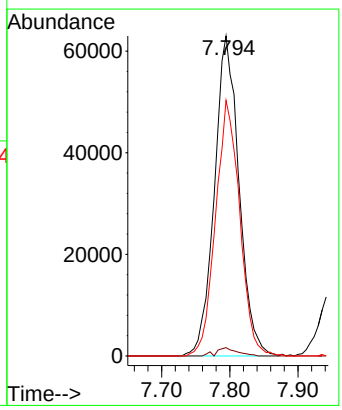
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

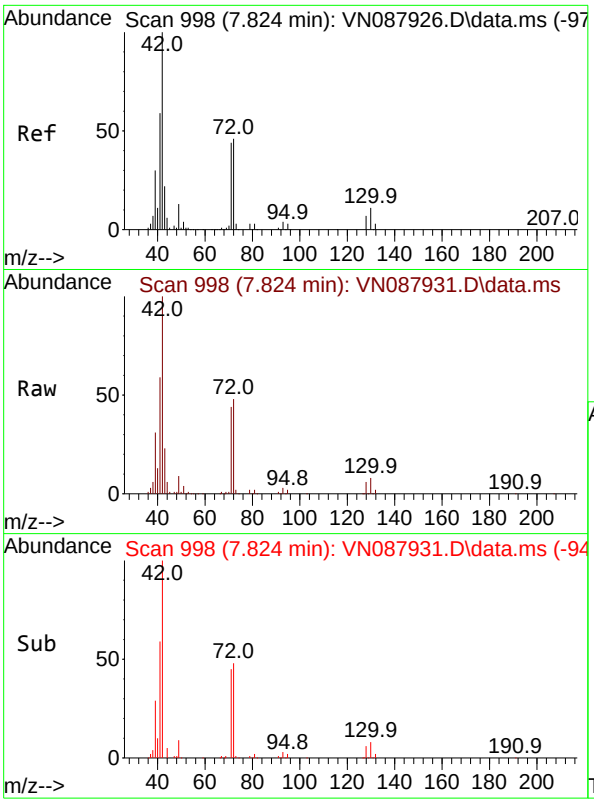


#28
Bromochloromethane
Concen: 45.070 ug/l
RT: 7.794 min Scan# 993
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 49 Resp: 158210

Ion	Ratio	Lower	Upper
49	100		
129	2.2	0.0	5.4
130	78.4	62.6	94.0

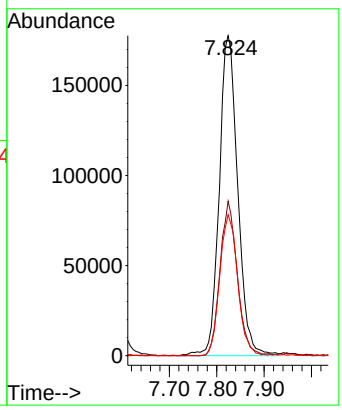




#29
Tetrahydrofuran
Concen: 256.481 ug/l
RT: 7.824 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 42 Resp: 48148

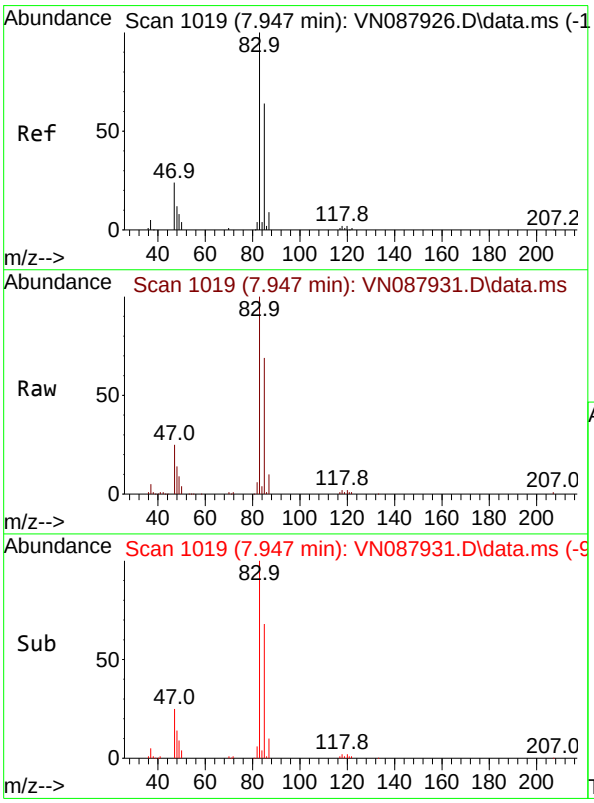
Ion	Ratio	Lower	Upper
42	100		
72	44.9	36.5	54.7
71	42.8	33.8	50.8



Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations APPROVED

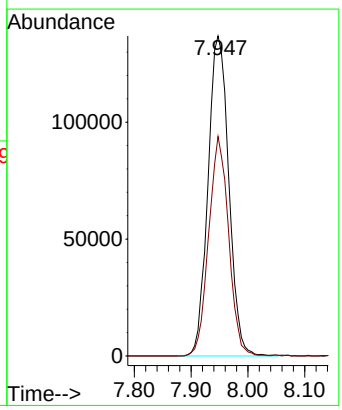
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

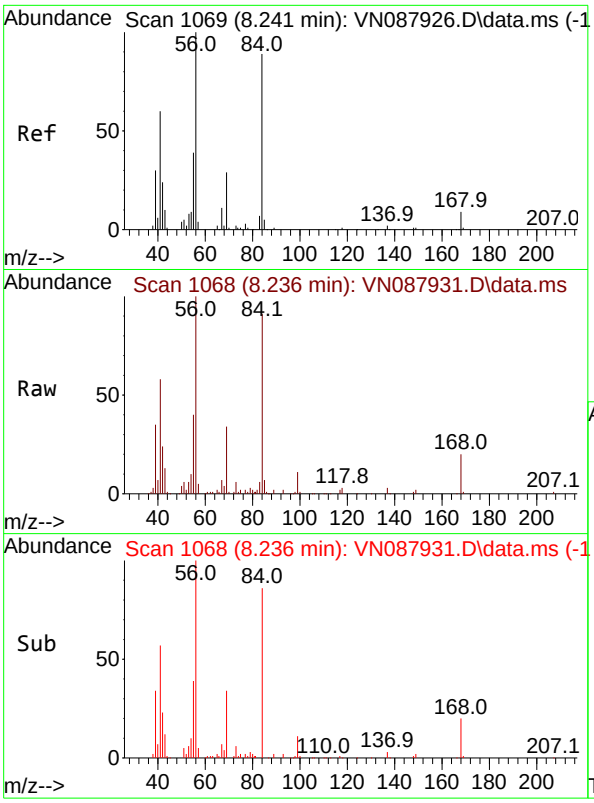


#30
Chloroform
Concen: 49.224 ug/l
RT: 7.947 min Scan# 1019
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 83 Resp: 347740

Ion	Ratio	Lower	Upper
83	100		
85	68.6	50.9	76.3

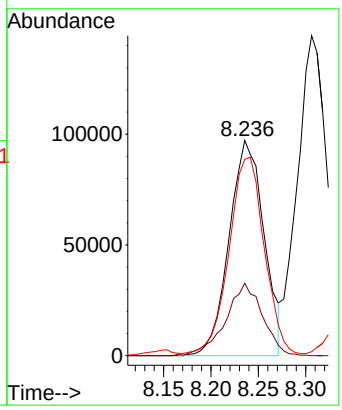




#31
Cyclohexane
Concen: 47.692 ug/l
RT: 8.236 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 56 Resp: 24932

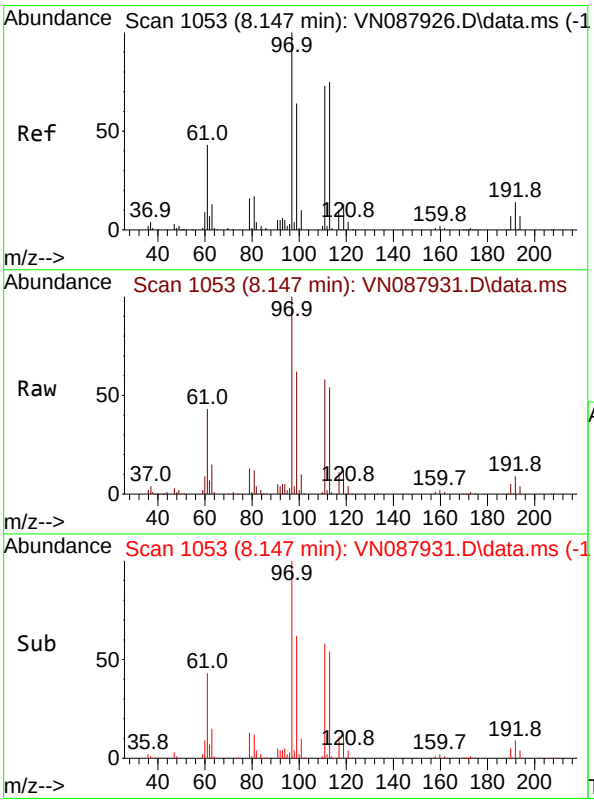
Ion	Ratio	Lower	Upper
56	100		
69	33.0	23.4	35.0
84	90.1	70.8	106.2



Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations APPROVED

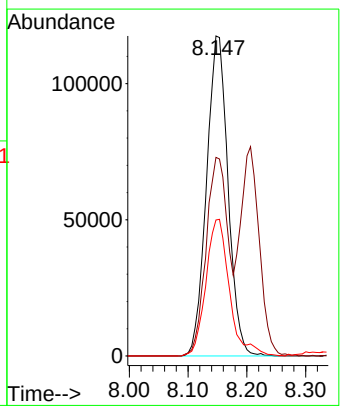
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

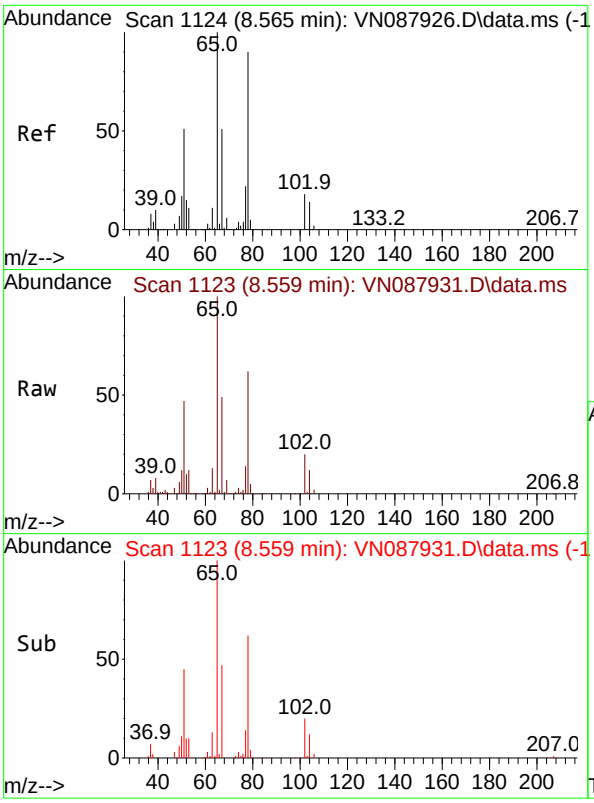


#32
1,1,1-Trichloroethane
Concen: 50.001 ug/l
RT: 8.147 min Scan# 1053
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 97 Resp: 298473

Ion	Ratio	Lower	Upper
97	100		
99	63.2	51.1	76.7
61	46.7	38.6	58.0

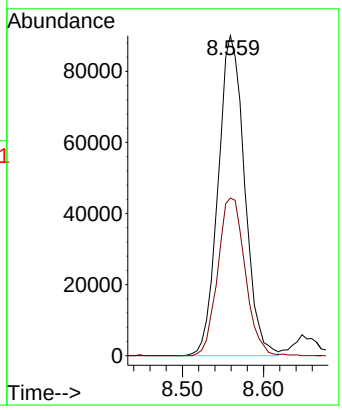




#33
1,2-Dichloroethane-d4
Concen: 43.678 ug/l
RT: 8.559 min Scan# 11
Delta R.T. -0.006 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 65 Resp: 20362

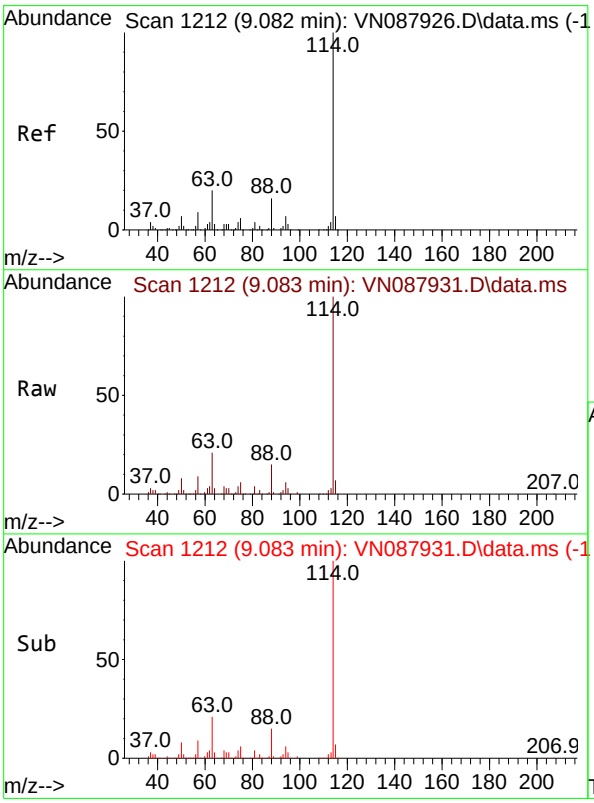
Ion	Ratio	Lower	Upper
65	100		
67	51.1	0.0	103.4



Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations APPROVED

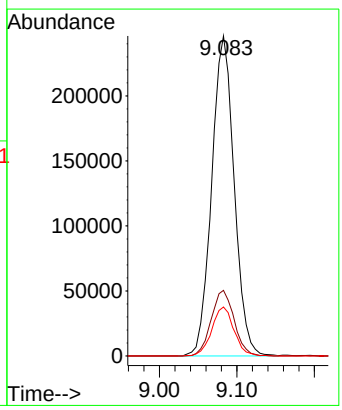
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

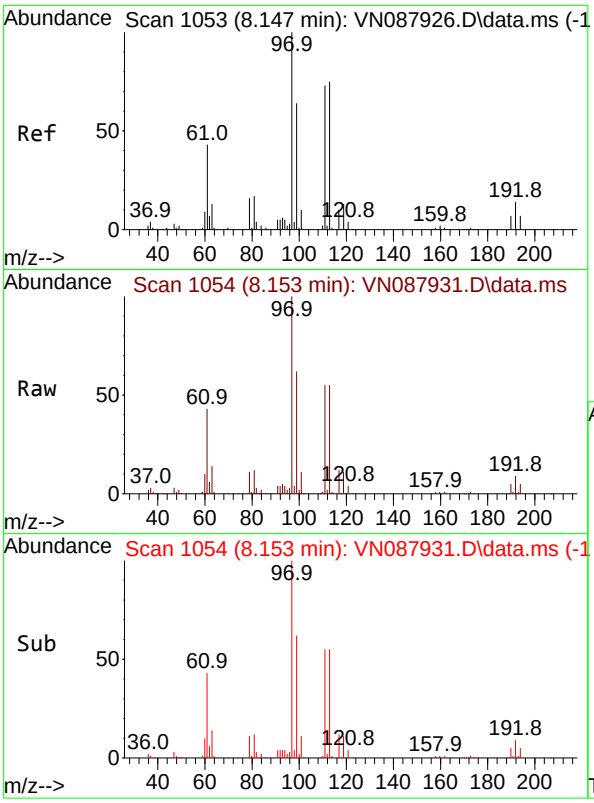


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.083 min Scan# 1212
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion:114 Resp: 496020

Ion	Ratio	Lower	Upper
114	100		
63	20.5	0.0	40.0
88	15.3	0.0	31.8

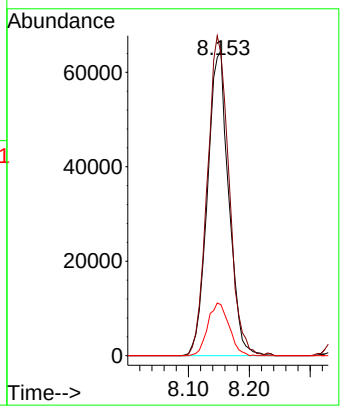




#35
Dibromofluoromethane
Concen: 43.369 ug/l
RT: 8.153 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion:113 Resp: 15619

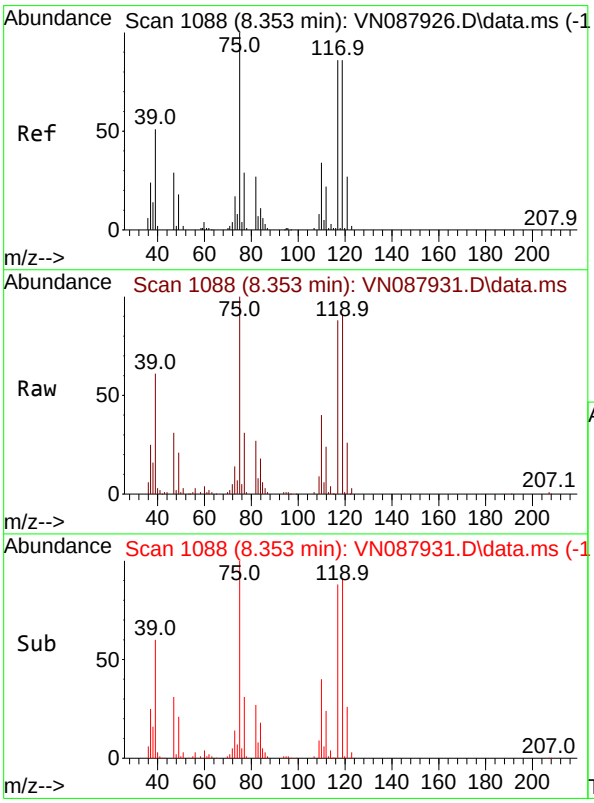
Ion	Ratio	Lower	Upper
113	100		
111	106.9	82.2	123.2
192	17.3	14.2	21.2



Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations APPROVED

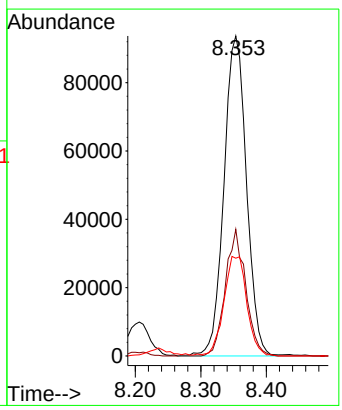
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

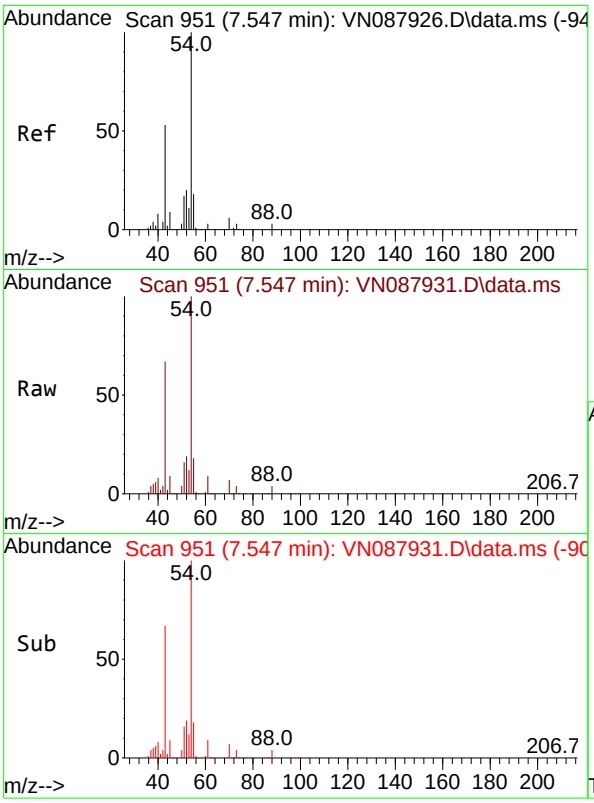


#36
1,1-Dichloropropene
Concen: 51.628 ug/l
RT: 8.353 min Scan# 1088
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 75 Resp: 223572

Ion	Ratio	Lower	Upper
75	100		
110	35.8	17.1	51.3
77	31.8	24.8	37.2





#37
Ethyl Acetate
Concen: 49.529 ug/l
RT: 7.547 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

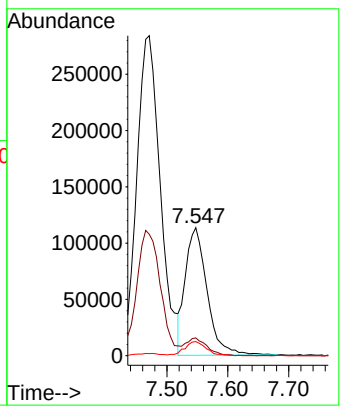
Tgt Ion: 43 Resp: 28165

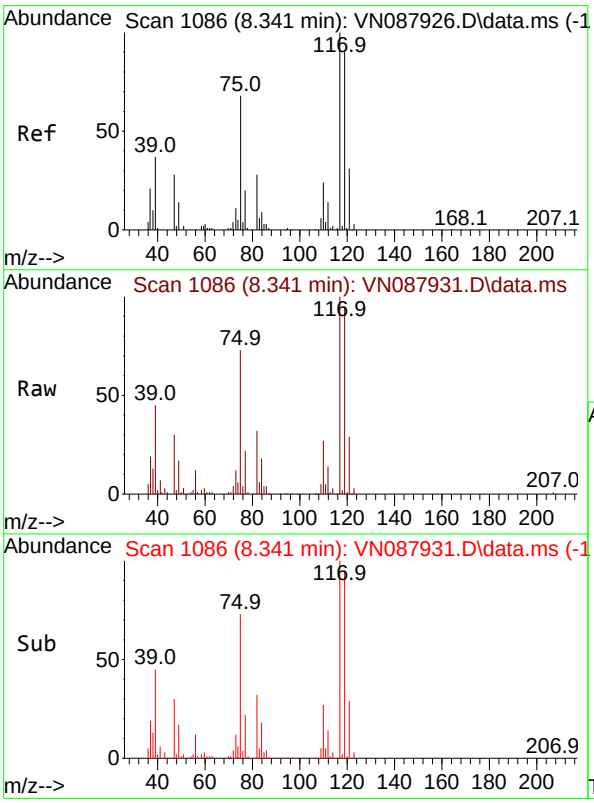
Ion	Ratio	Lower	Upper
43	100		
61	13.1	10.7	16.1
70	11.0	7.8	11.8

Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

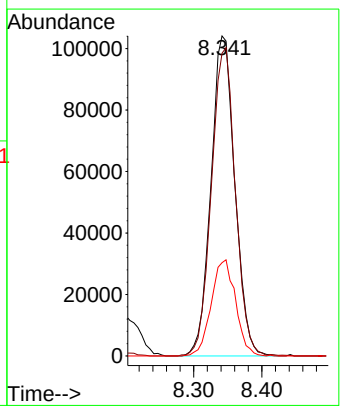


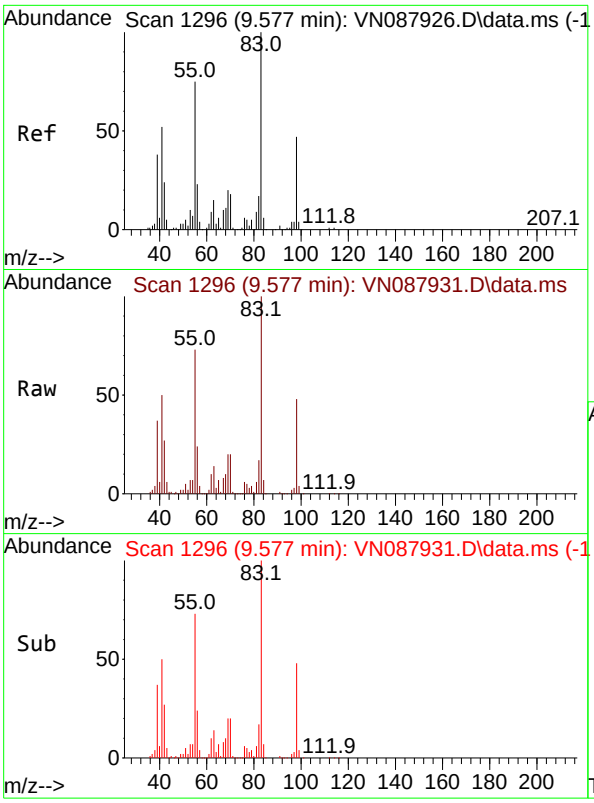


#38
Carbon Tetrachloride
Concen: 51.149 ug/l
RT: 8.341 min Scan# 1086
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion:117 Resp: 254169

Ion	Ratio	Lower	Upper
117	100		
119	94.6	72.1	108.1
121	29.2	24.6	36.8





#39
Methylcyclohexane
Concen: 53.190 ug/l
RT: 9.577 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

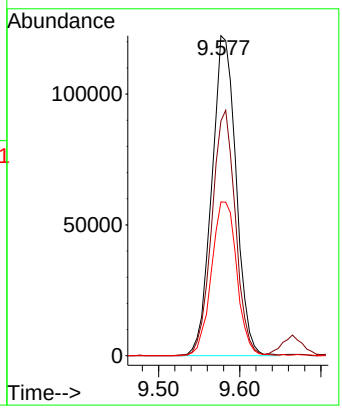
Tgt Ion: 83 Resp: 25409

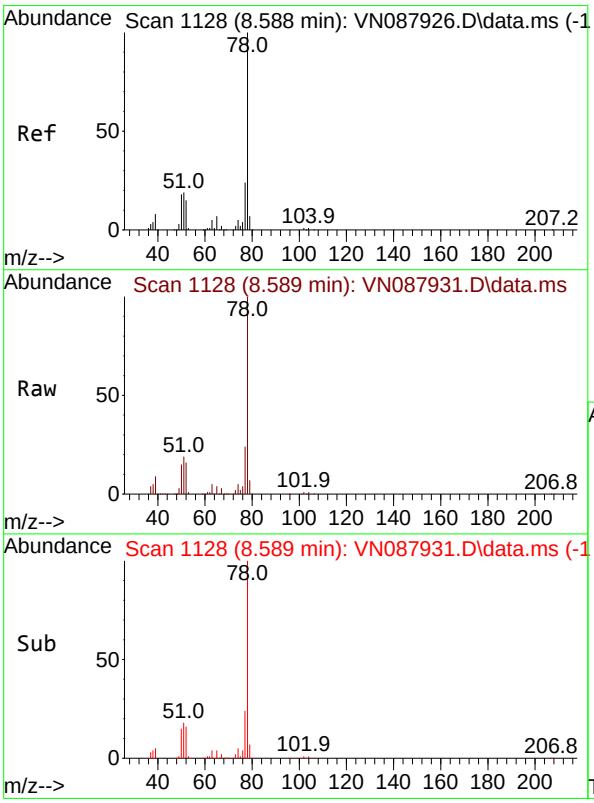
Ion	Ratio	Lower	Upper
83	100		
55	73.2	59.9	89.9
98	48.0	37.4	56.2

Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

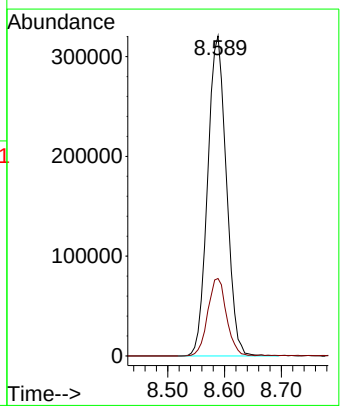


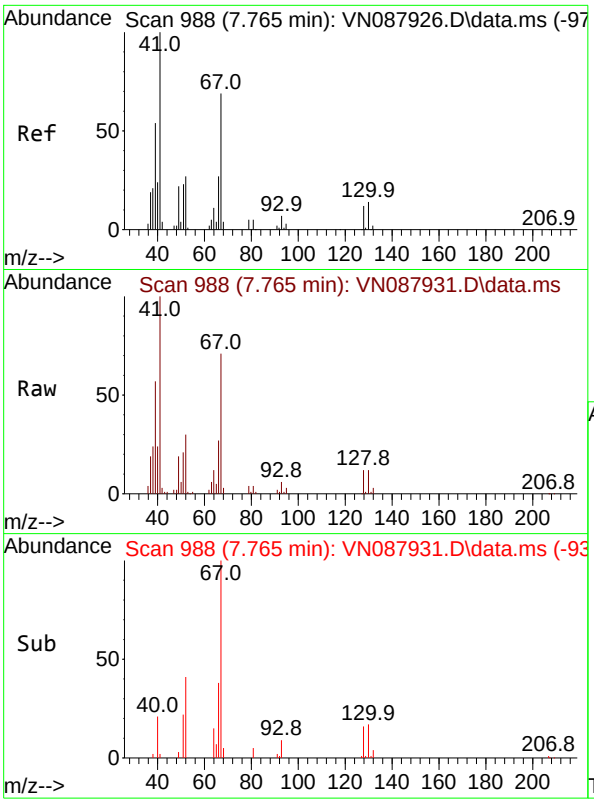


#40
Benzene
Concen: 51.160 ug/l
RT: 8.589 min Scan# 1128
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 78 Resp: 733552

Ion	Ratio	Lower	Upper
78	100		
77	24.2	19.0	28.6

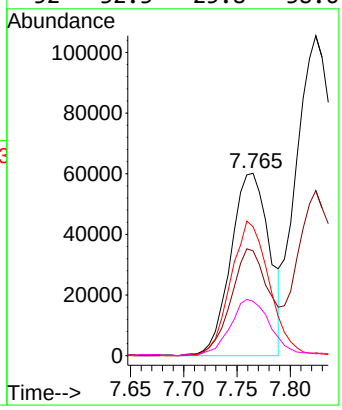




#41
Methacrylonitrile
Concen: 51.681 ug/l
RT: 7.765 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 41 Resp: 15188

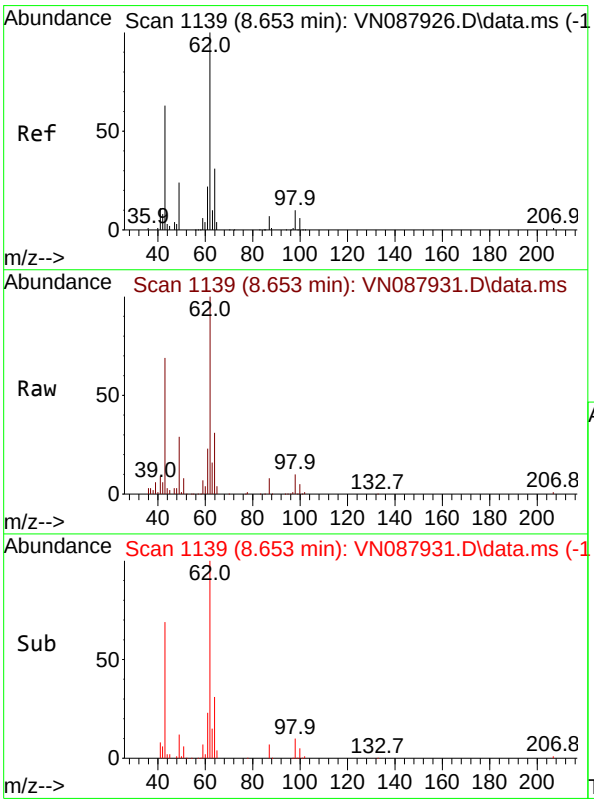
Ion	Ratio	Lower	Upper
41	100		
39	57.4	43.5	65.3
67	73.8	57.6	86.4
52	32.3	25.8	38.6



Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations APPROVED

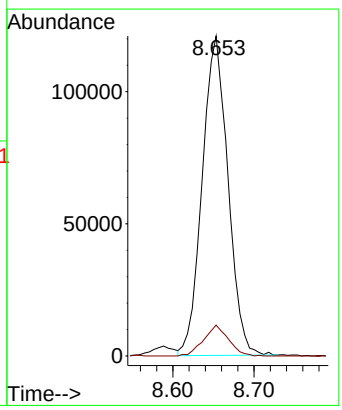
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

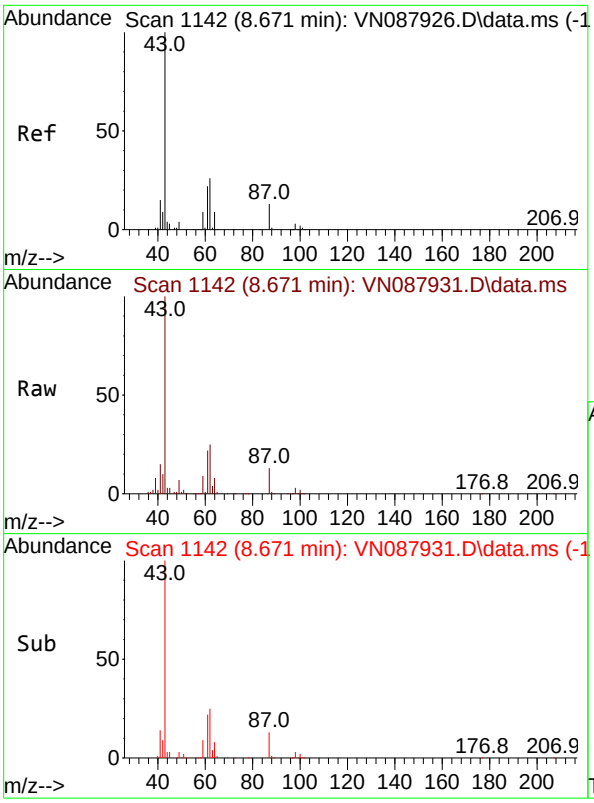


#42
1,2-Dichloroethane
Concen: 49.739 ug/l
RT: 8.653 min Scan# 1139
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 62 Resp: 266146

Ion	Ratio	Lower	Upper
62	100		
98	9.3	0.0	18.6

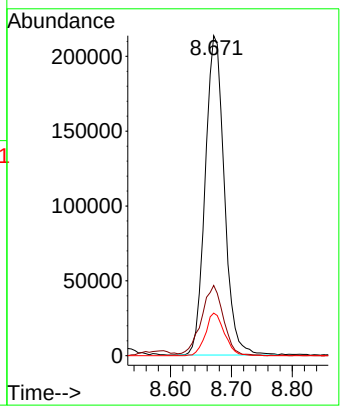




#43
Isopropyl Acetate
Concen: 51.950 ug/l
RT: 8.671 min Scan# 11
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 43 Resp: 46500

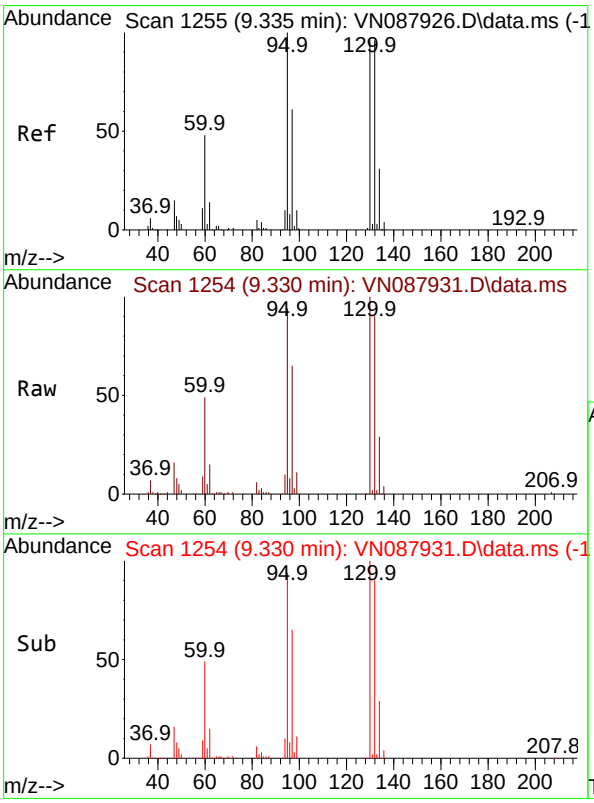
Ion	Ratio	Lower	Upper
43	100		
61	25.5	20.2	30.2
87	13.3	10.9	16.3



Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations APPROVED

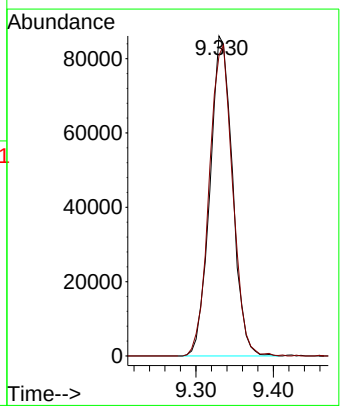
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

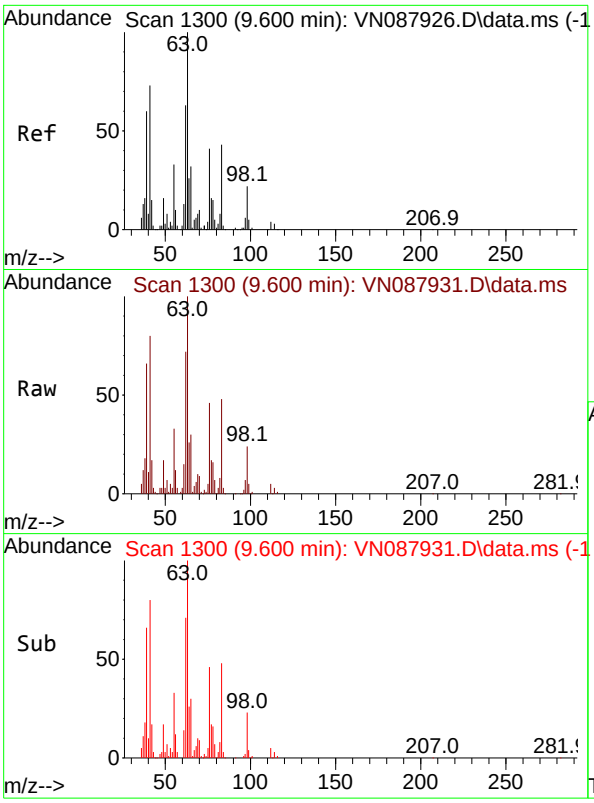


#44
Trichloroethene
Concen: 50.817 ug/l
RT: 9.330 min Scan# 1254
Delta R.T. -0.006 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion:130 Resp: 174047

Ion	Ratio	Lower	Upper
130	100		
95	93.9	0.0	208.0

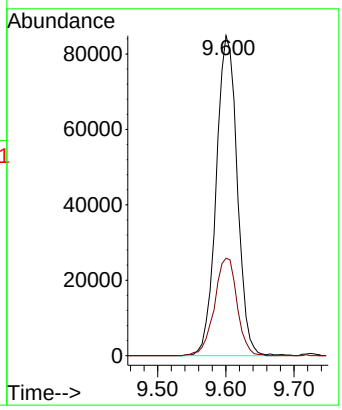




#45
1,2-Dichloropropane
Concen: 50.566 ug/l
RT: 9.600 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 63 Resp: 18180

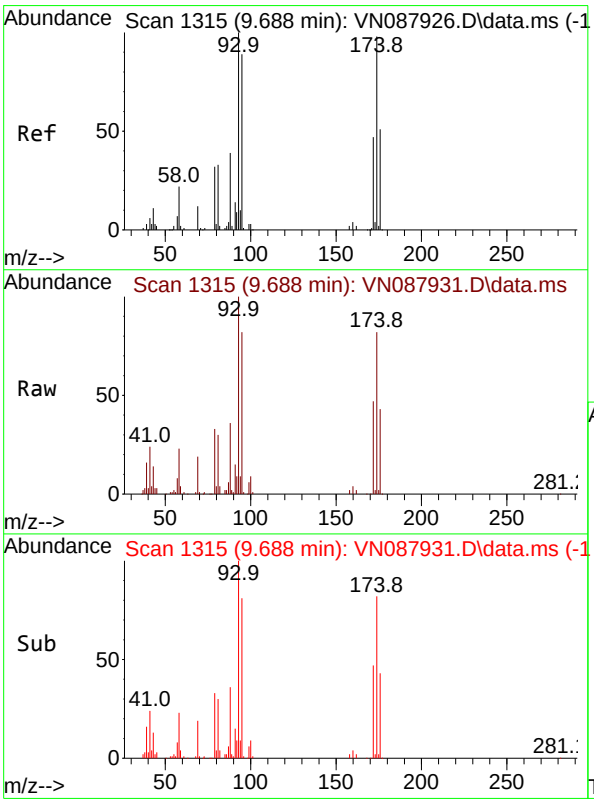
Ion	Ratio	Lower	Upper
63	100		
65	30.4	25.4	38.0



Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations APPROVED

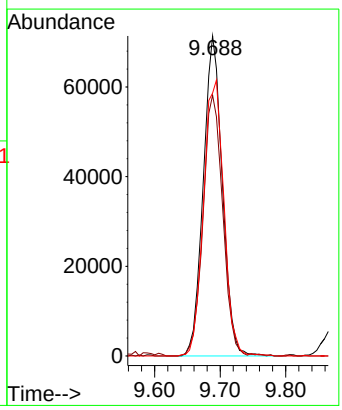
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

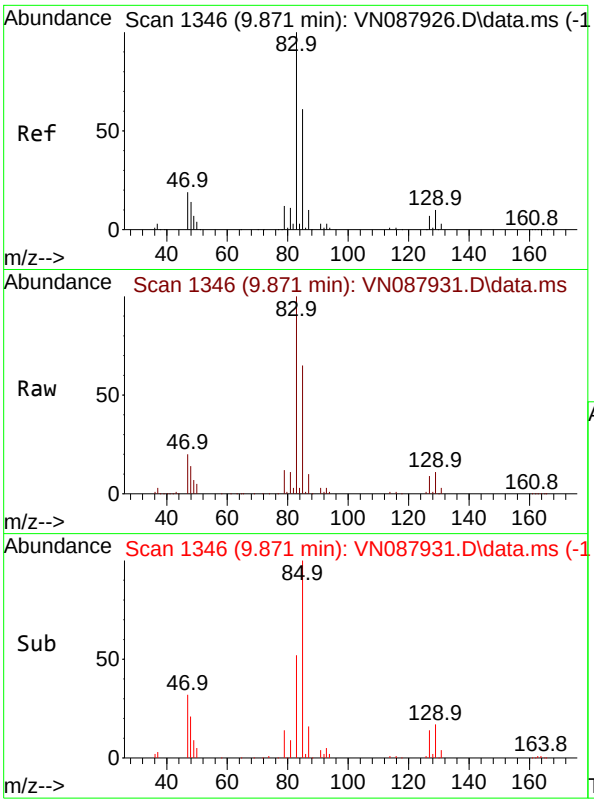


#46
Dibromomethane
Concen: 50.925 ug/l
RT: 9.688 min Scan# 1315
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 93 Resp: 144476

Ion	Ratio	Lower	Upper
93	100		
95	83.6	67.6	101.4
174	91.8	75.4	113.0

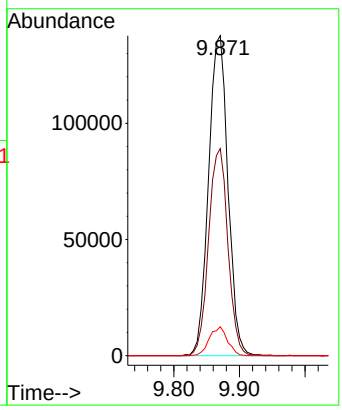




#47
Bromodichloromethane
Concen: 50.858 ug/l
RT: 9.871 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 83 Resp: 28299

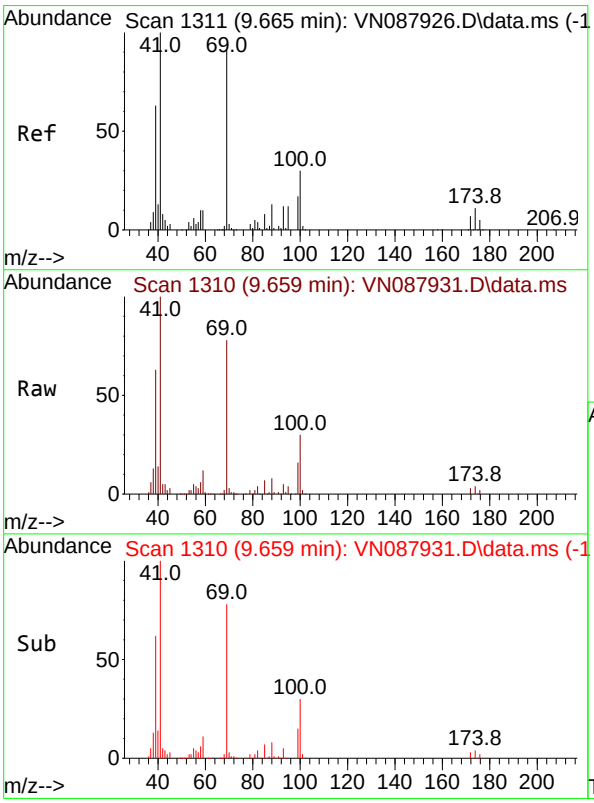
Ion	Ratio	Lower	Upper
83	100		
85	64.7	49.1	73.7
127	9.0	5.9	8.9



Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations APPROVED

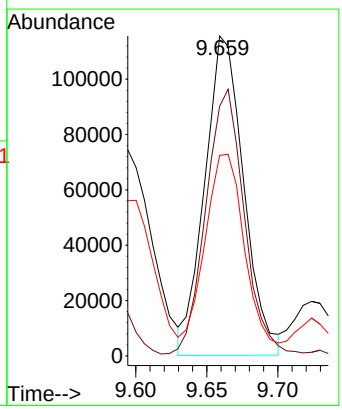
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

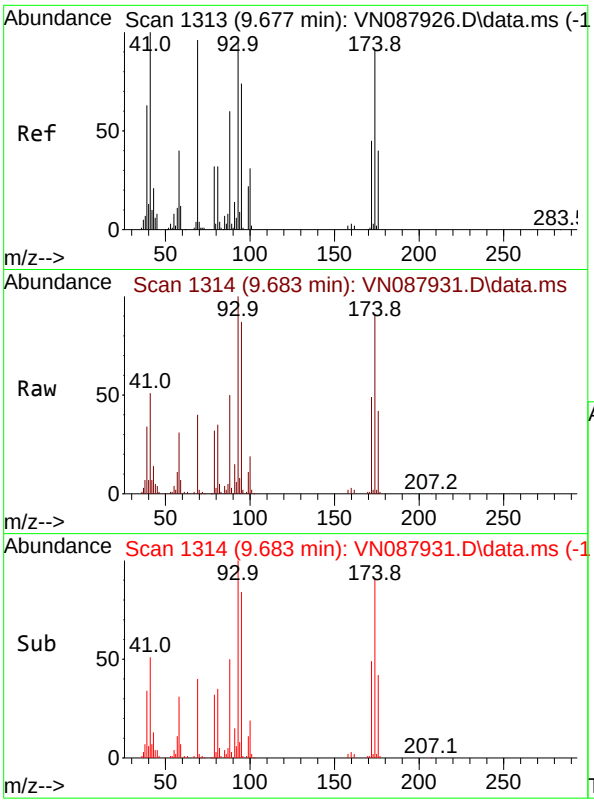


#48
Methyl methacrylate
Concen: 53.199 ug/l
RT: 9.659 min Scan# 1310
Delta R.T. -0.006 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 41 Resp: 220518

Ion	Ratio	Lower	Upper
41	100		
69	81.1	70.9	106.3
39	65.4	52.9	79.3





#49
1,4-Dioxane
Concen: 1167.270 ug/l
RT: 9.683 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

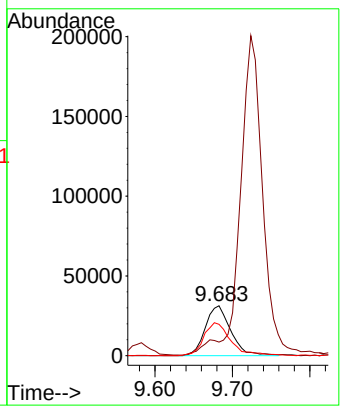
Tgt Ion: 88 Resp: 7148

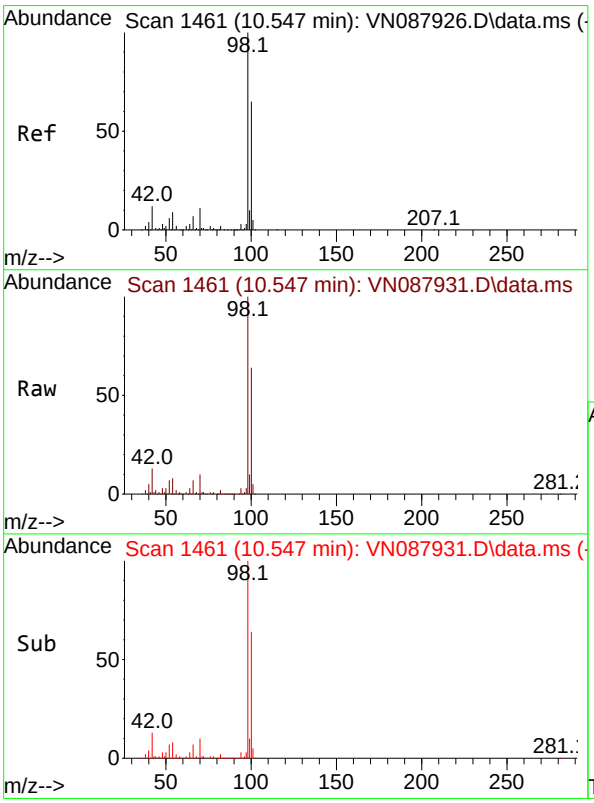
Ion	Ratio	Lower	Upper
88	100		
43	0.0	22.6	33.8
58	70.4	57.4	86.2

Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

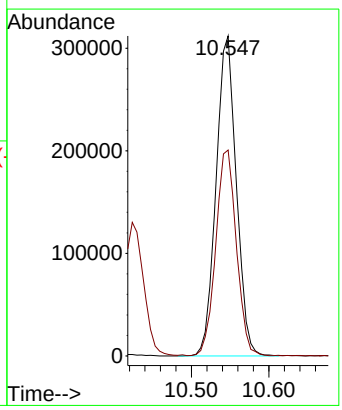


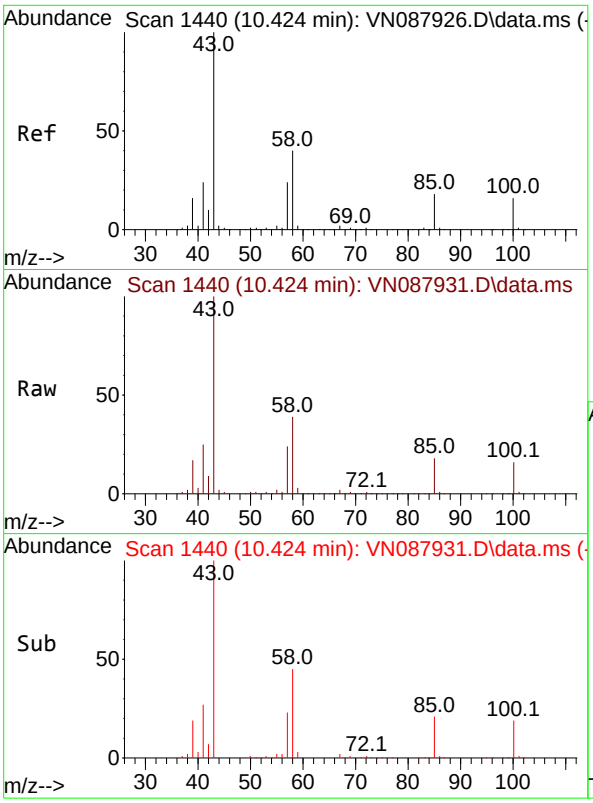


#50
Toluene-d8
Concen: 44.774 ug/l
RT: 10.547 min Scan# 1461
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 98 Resp: 567044

Ion	Ratio	Lower	Upper
98	100		
100	65.4	51.7	77.5

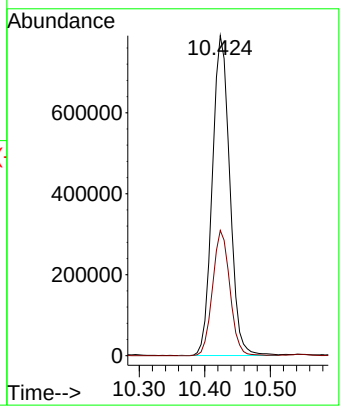




#51
4-Methyl-2-Pentanone
Concen: 262.261 ug/l
RT: 10.424 min Scan# 14
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 43 Resp: 146484

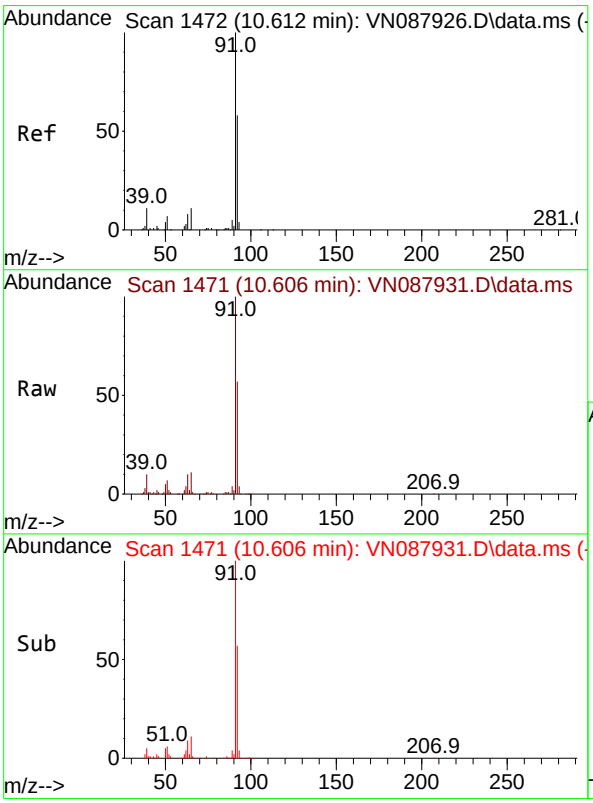
Ion	Ratio	Lower	Upper
43	100		
58	38.6	31.0	46.6



Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations APPROVED

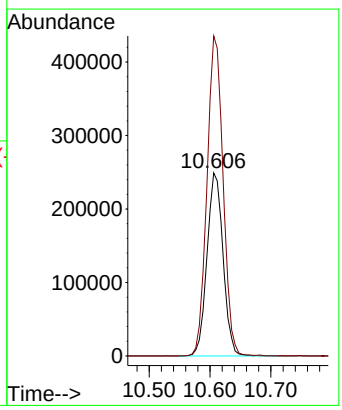
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

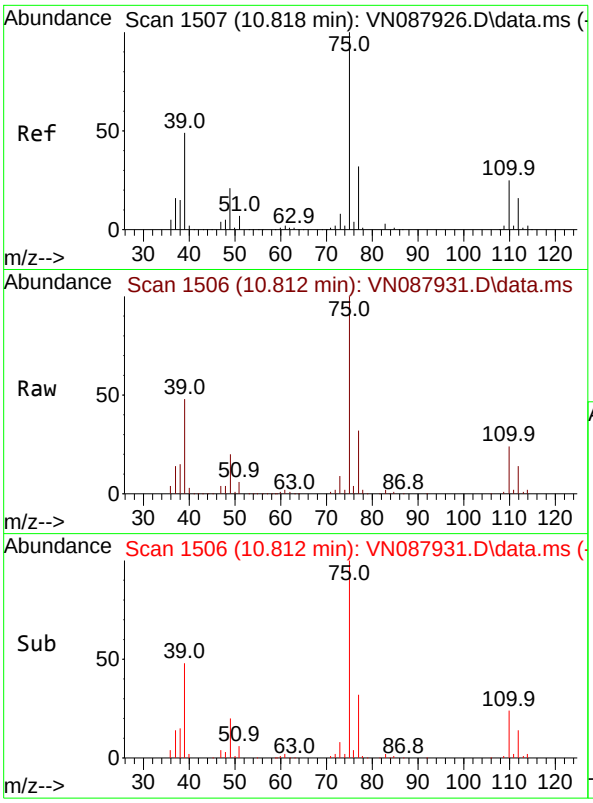


#52
Toluene
Concen: 50.722 ug/l
RT: 10.606 min Scan# 1471
Delta R.T. -0.006 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 92 Resp: 456380

Ion	Ratio	Lower	Upper
92	100		
91	175.6	138.2	207.2

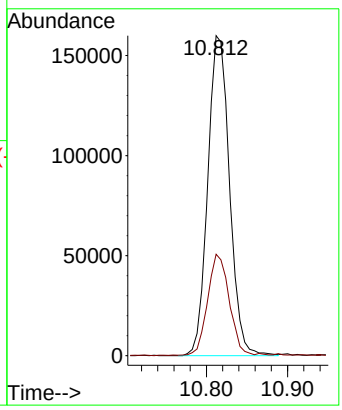




#53
t-1,3-Dichloropropene
Concen: 52.296 ug/l
RT: 10.812 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 75 Resp: 29782

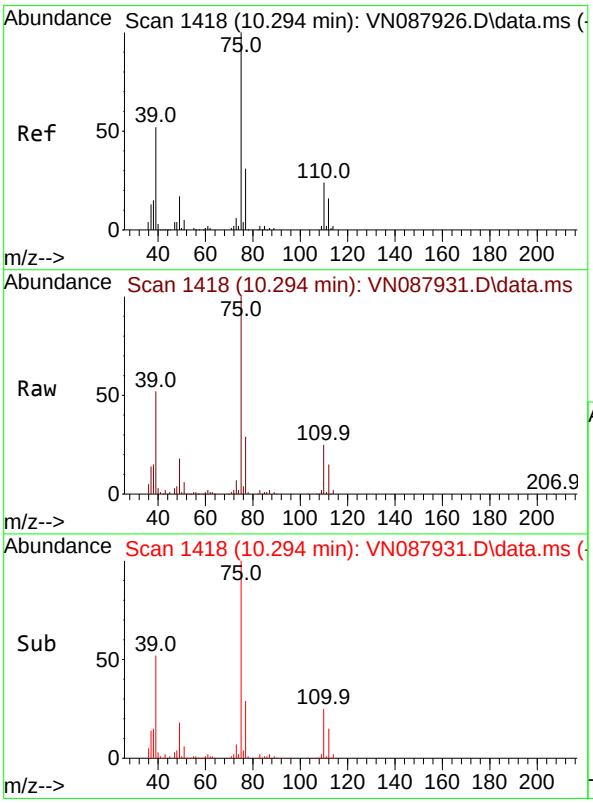
Ion	Ratio	Lower	Upper
75	100		
77	31.6	25.3	37.9



Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations
APPROVED

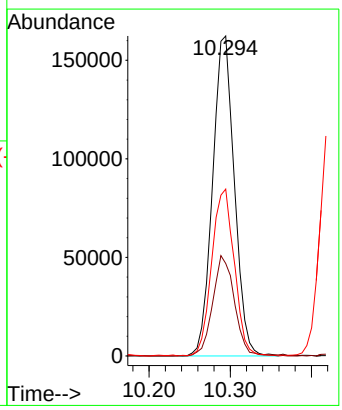
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

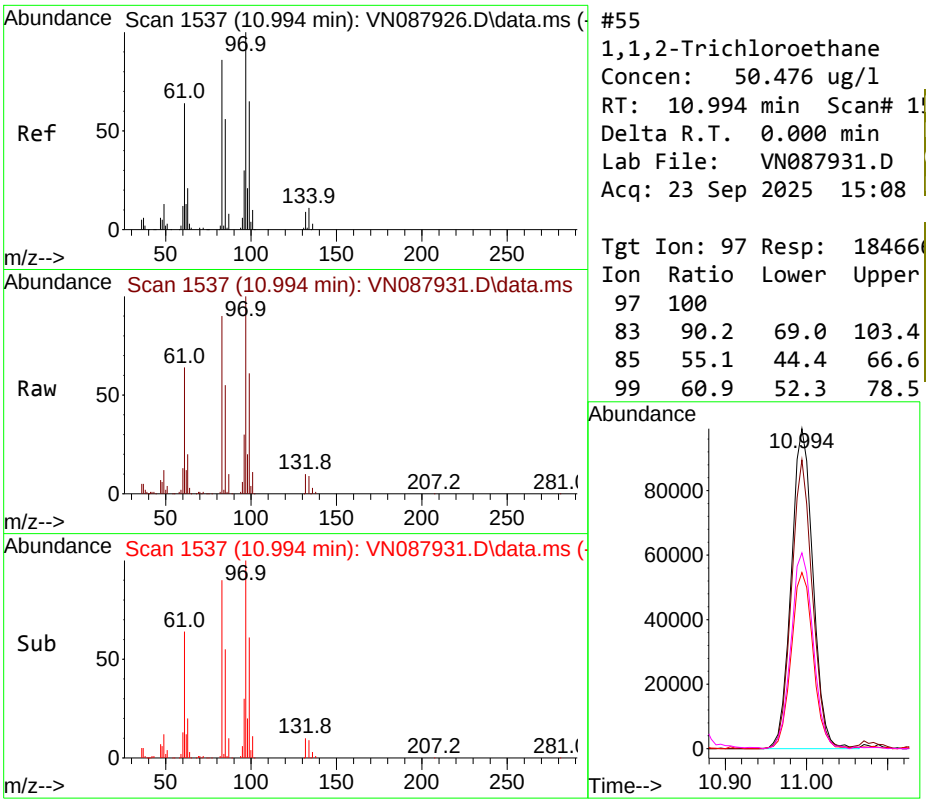


#54
cis-1,3-Dichloropropene
Concen: 51.268 ug/l
RT: 10.294 min Scan# 1418
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 75 Resp: 303245

Ion	Ratio	Lower	Upper
75	100		
77	28.9	24.7	37.1
39	52.2	41.4	62.0





#55
1,1,2-Trichloroethane
Concen: 50.476 ug/l
RT: 10.994 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

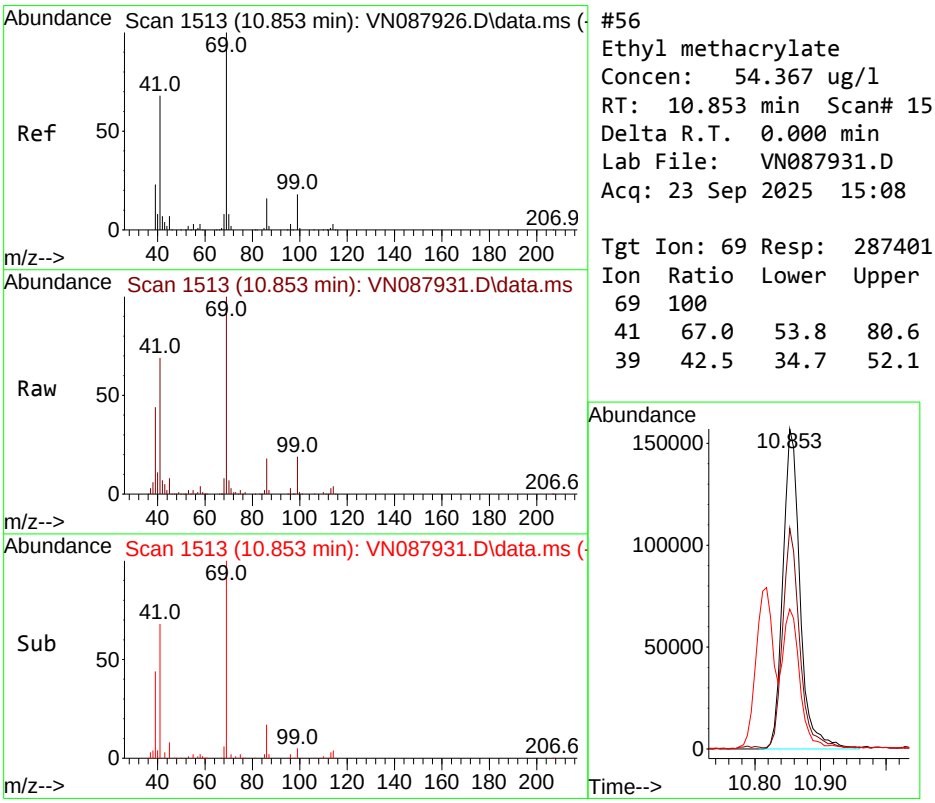
Tgt Ion: 97 Resp: 18466

Ion	Ratio	Lower	Upper
97	100		
83	90.2	69.0	103.4
85	55.1	44.4	66.6
99	60.9	52.3	78.5

Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations
APPROVED

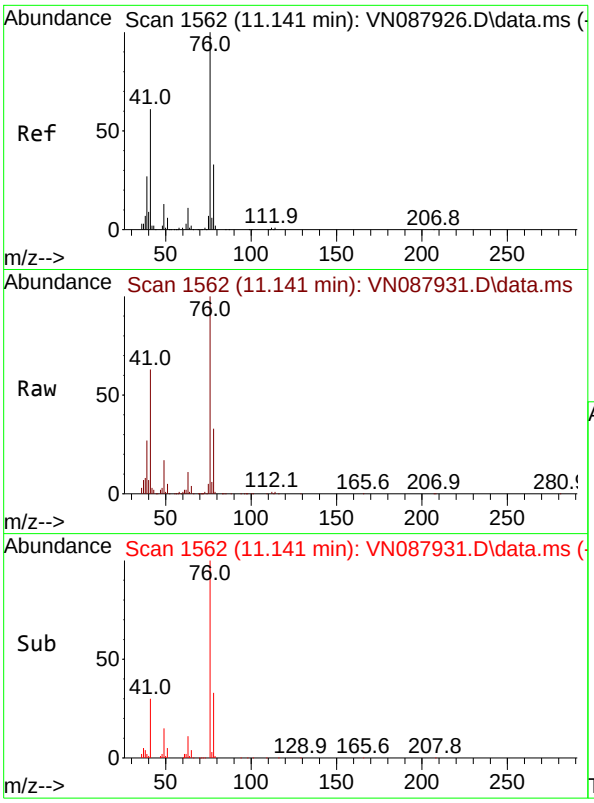
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025



#56
Ethyl methacrylate
Concen: 54.367 ug/l
RT: 10.853 min Scan# 1513
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 69 Resp: 287401

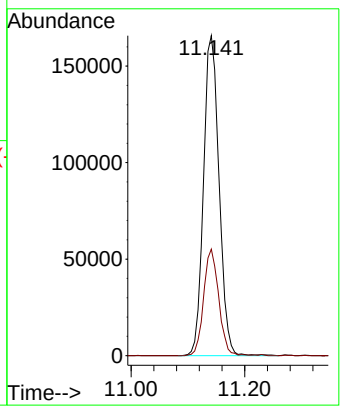
Ion	Ratio	Lower	Upper
69	100		
41	67.0	53.8	80.6
39	42.5	34.7	52.1



#57
1,3-Dichloropropane
Concen: 52.219 ug/l
RT: 11.141 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 76 Resp: 31422

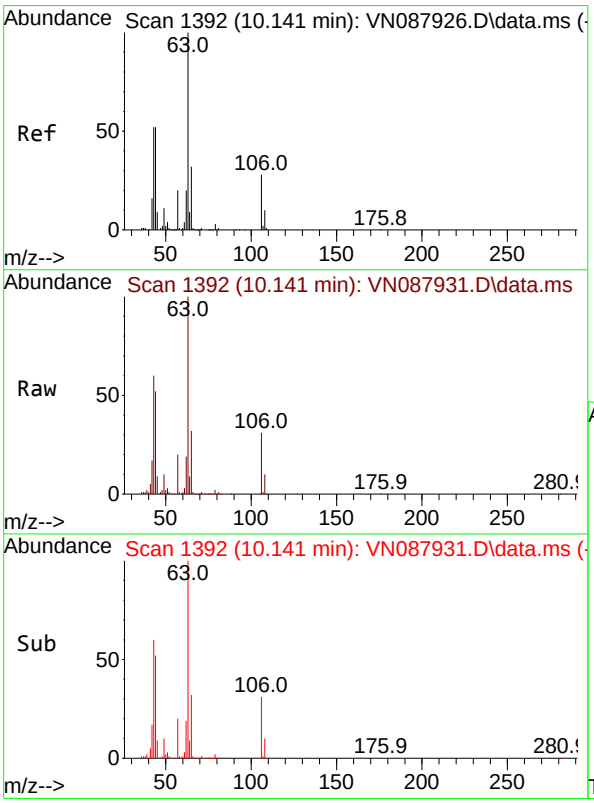
Ion	Ratio	Lower	Upper
76	100		
78	32.2	26.0	39.0



Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations
APPROVED

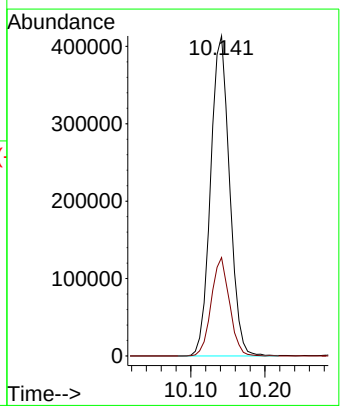
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

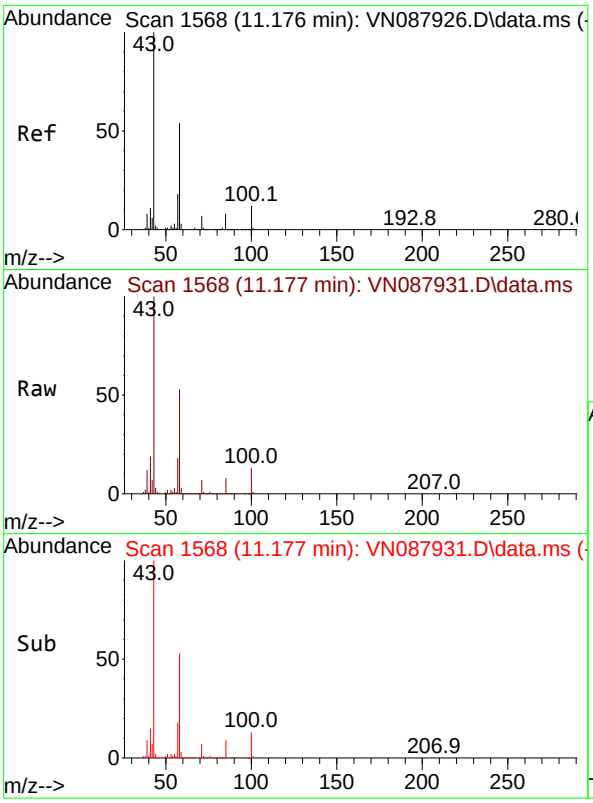


#58
2-Chloroethyl Vinyl ether
Concen: 295.766 ug/l
RT: 10.141 min Scan# 1392
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 63 Resp: 735137

Ion	Ratio	Lower	Upper
63	100		
106	29.4	22.6	33.8





#59
2-Hexanone
Concen: 278.348 ug/l
RT: 11.177 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

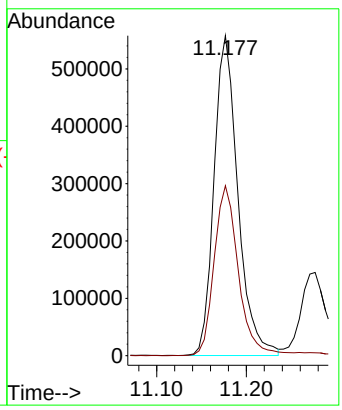
Tgt Ion: 43 Resp: 102799

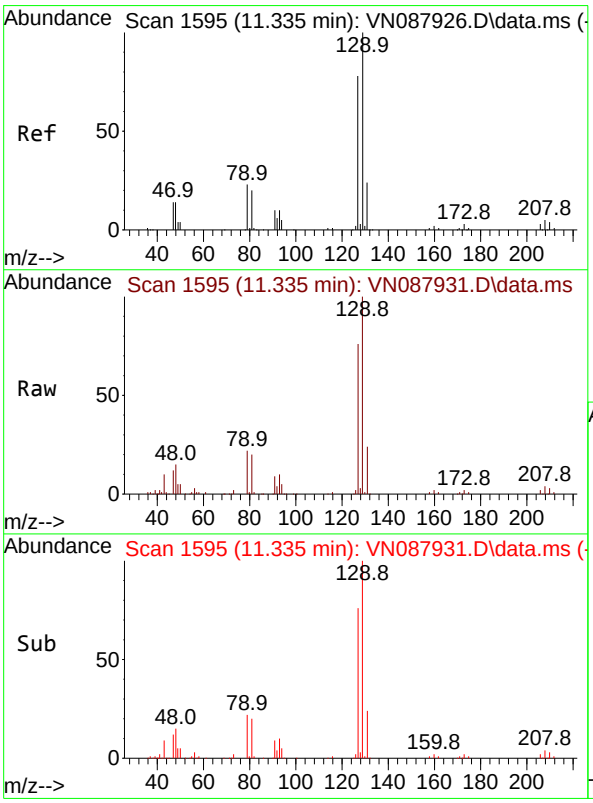
Ion	Ratio	Lower	Upper
43	100		
58	54.2	26.4	79.2

Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations APPROVED

Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

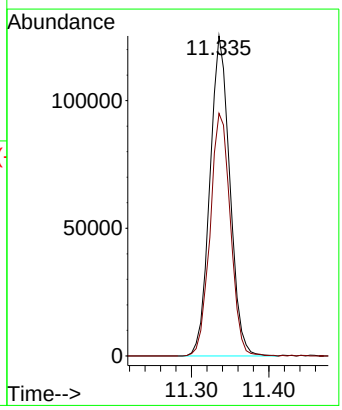


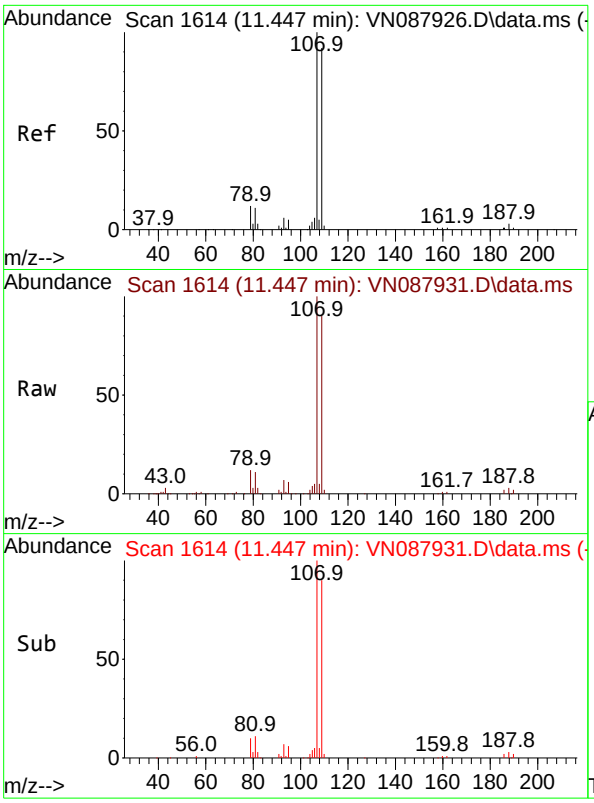


#60
Dibromochloromethane
Concen: 52.185 ug/l
RT: 11.335 min Scan# 1595
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion:129 Resp: 224473

Ion	Ratio	Lower	Upper
129	100		
127	77.0	39.3	117.9

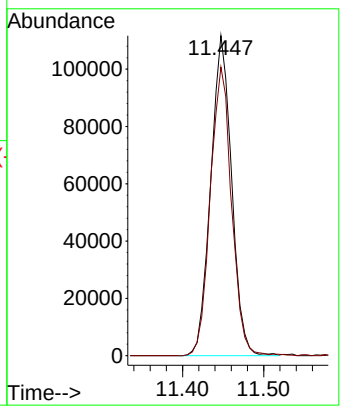




#61
1,2-Dibromoethane
Concen: 51.598 ug/l
RT: 11.447 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion:107 Resp: 19984

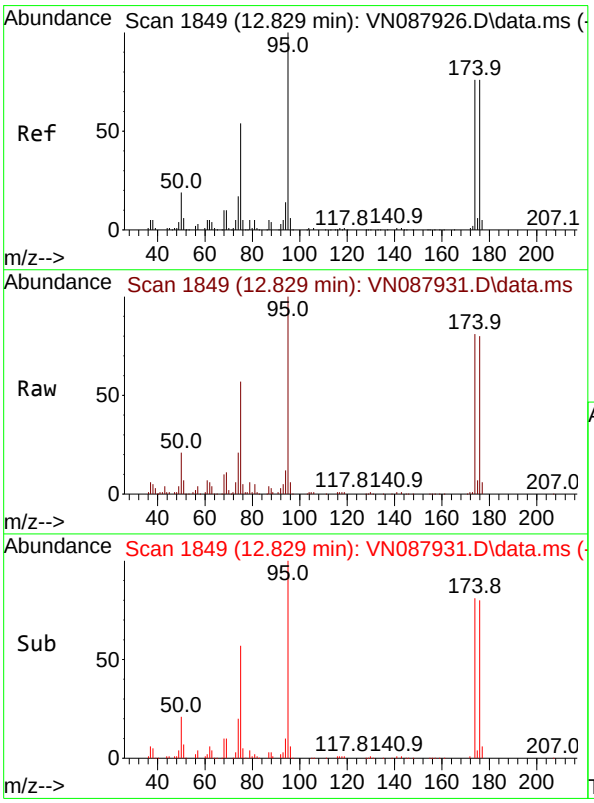
Ion	Ratio	Lower	Upper
107	100		
109	91.6	75.3	112.9



Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations APPROVED

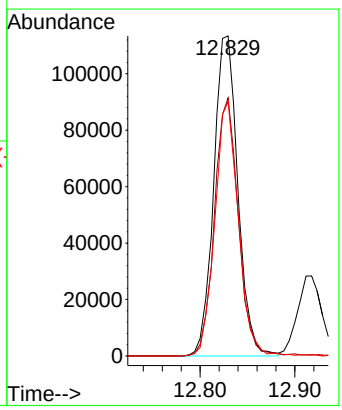
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

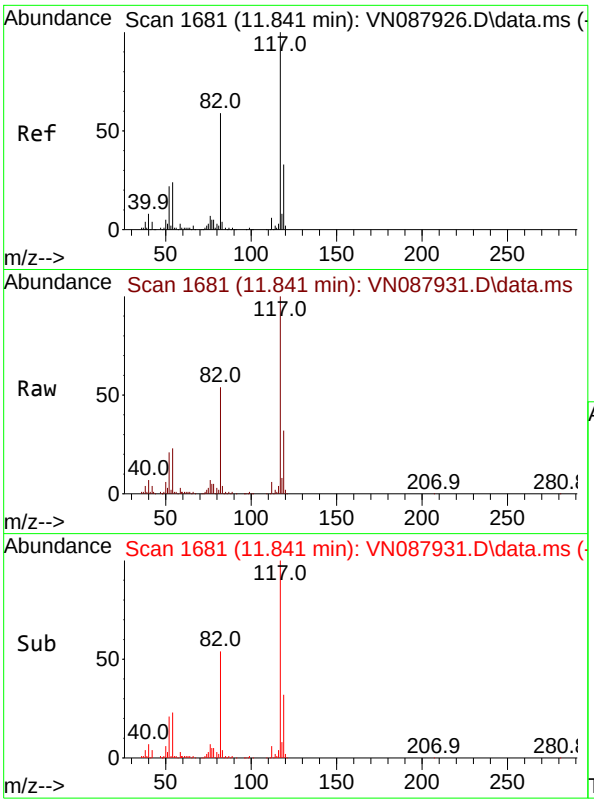


#62
4-Bromofluorobenzene
Concen: 44.319 ug/l
RT: 12.829 min Scan# 1849
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 95 Resp: 200630

Ion	Ratio	Lower	Upper
95	100		
174	79.6	0.0	159.2
176	77.5	0.0	152.6

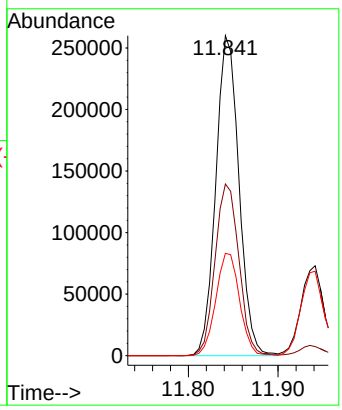




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.841 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion:117 Resp: 46677

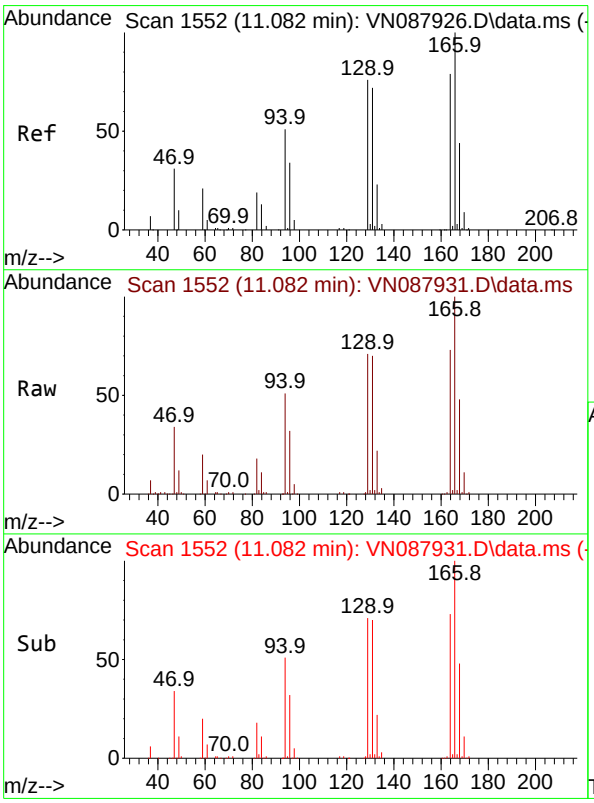
Ion	Ratio	Lower	Upper
117	100		
82	53.7	47.0	70.4
119	32.0	26.1	39.1



Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations APPROVED

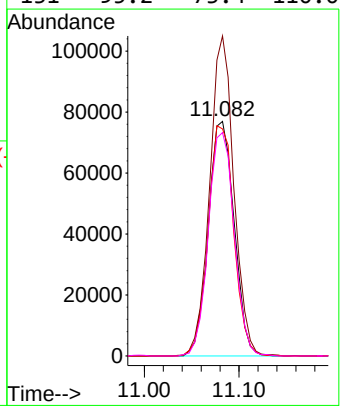
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

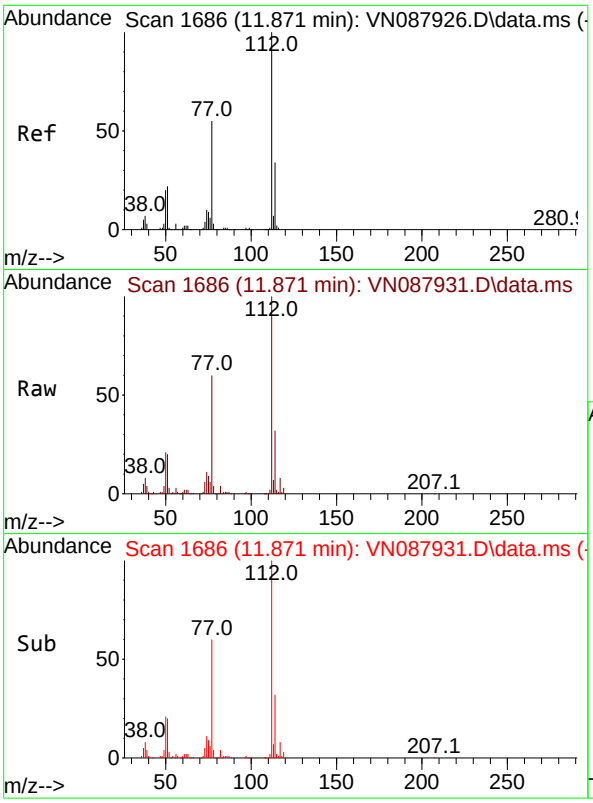


#64
Tetrachloroethene
Concen: 51.272 ug/l
RT: 11.082 min Scan# 1552
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion:164 Resp: 145781

Ion	Ratio	Lower	Upper
164	100		
166	136.1	101.6	152.4
129	96.8	77.5	116.3
131	95.2	73.4	110.0

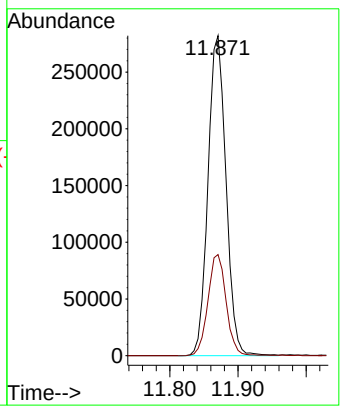




#65
Chlorobenzene
Concen: 52.168 ug/l
RT: 11.871 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion:112 Resp: 51820

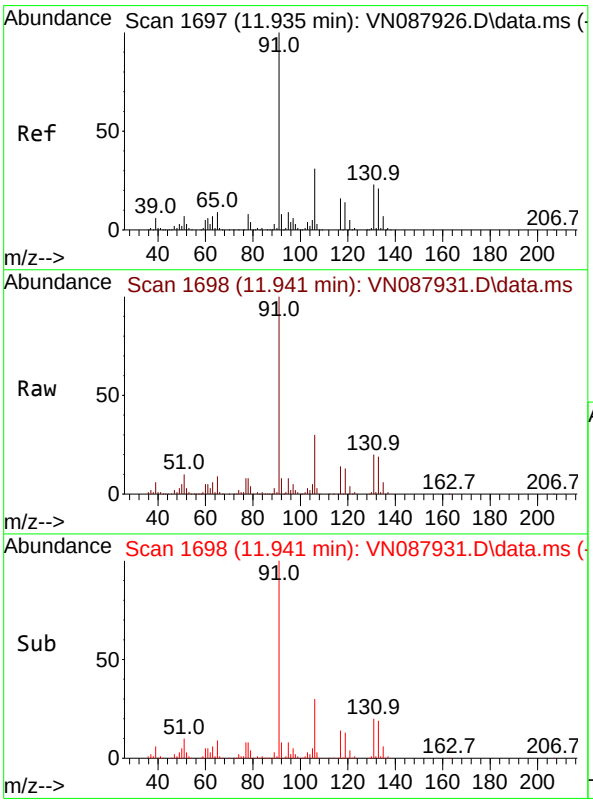
Ion	Ratio	Lower	Upper
112	100		
114	31.6	27.2	40.8



Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations APPROVED

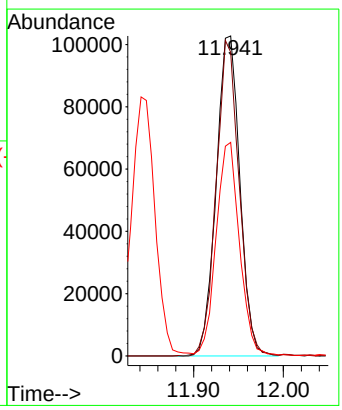
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

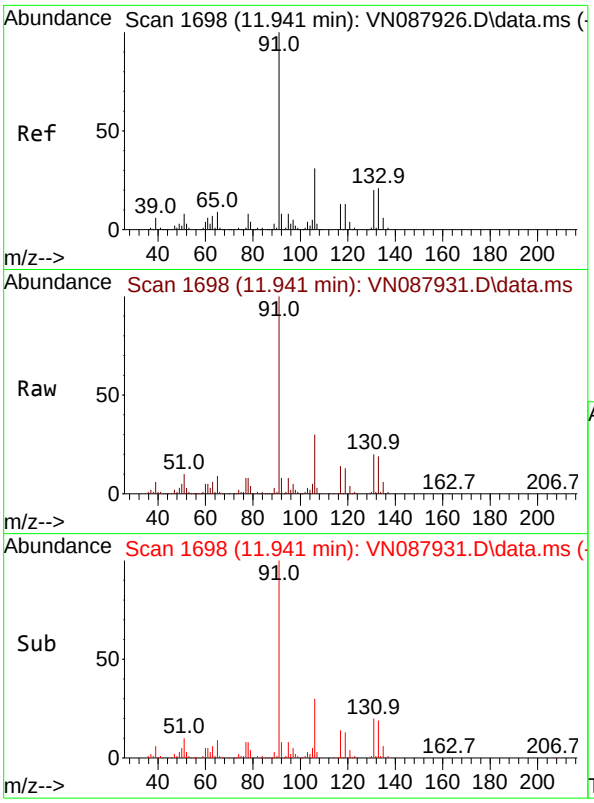


#66
1,1,1,2-Tetrachloroethane
Concen: 52.557 ug/l
RT: 11.941 min Scan# 1698
Delta R.T. 0.006 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion:131 Resp: 188263

Ion	Ratio	Lower	Upper
131	100		
133	95.5	48.4	145.0
119	65.7	31.9	95.5

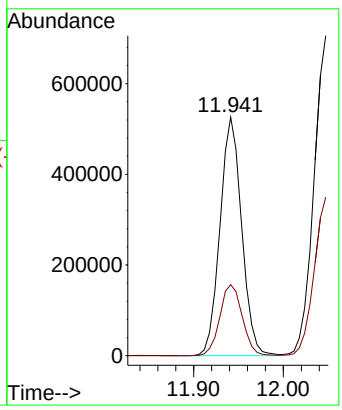




#67
Ethyl Benzene
Concen: 53.183 ug/l
RT: 11.941 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 91 Resp: 88149

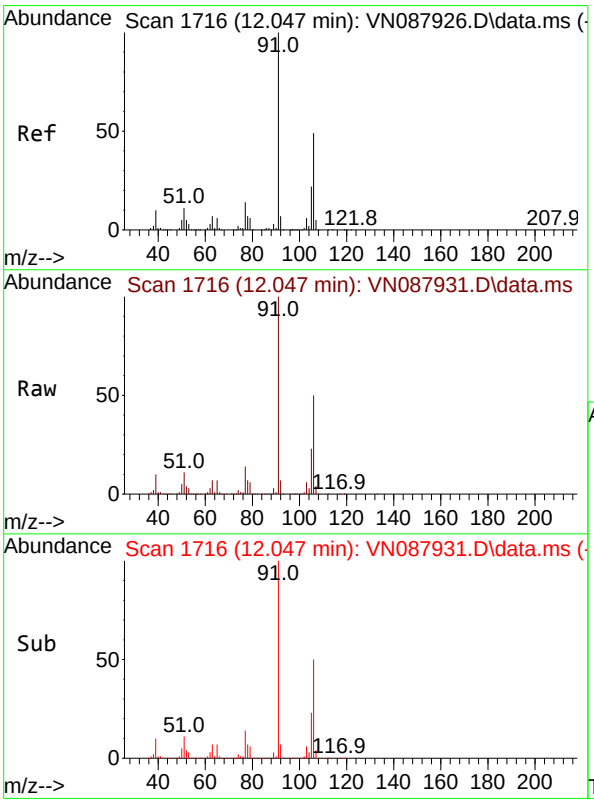
Ion	Ratio	Lower	Upper
91	100		
106	29.8	25.2	37.8



Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations APPROVED

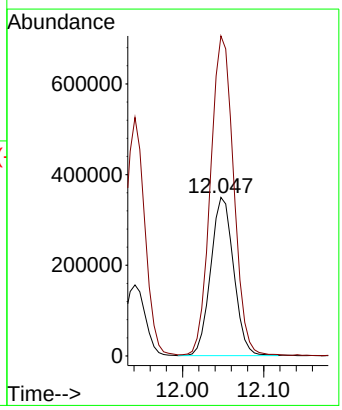
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

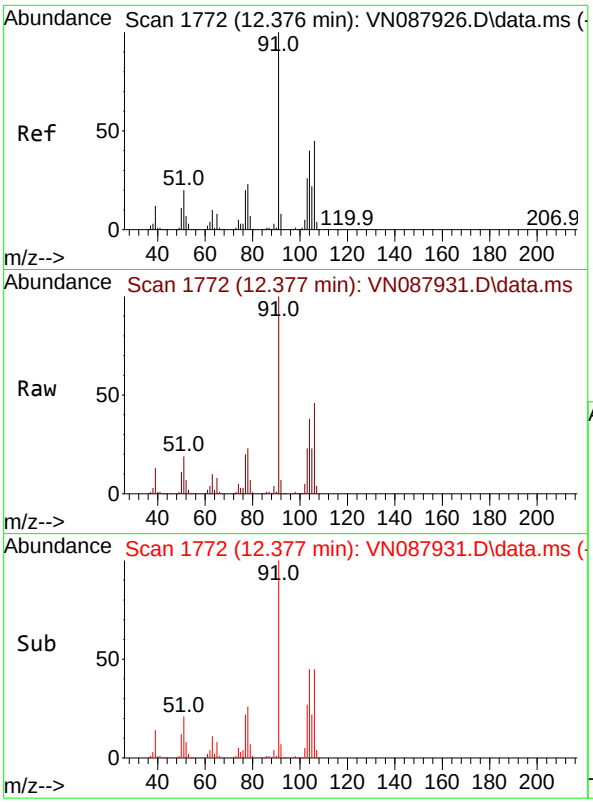


#68
m/p-Xylenes
Concen: 108.396 ug/l
RT: 12.047 min Scan# 1716
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion:106 Resp: 687129

Ion	Ratio	Lower	Upper
106	100		
91	203.9	162.9	244.3

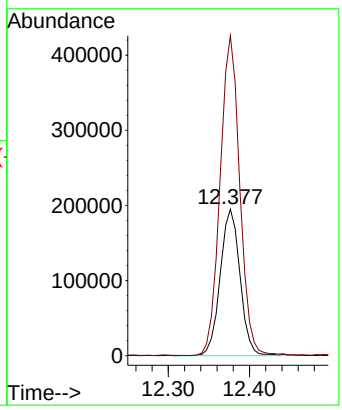




#69
o-Xylene
Concen: 54.342 ug/l
RT: 12.377 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion:106 Resp: 33095

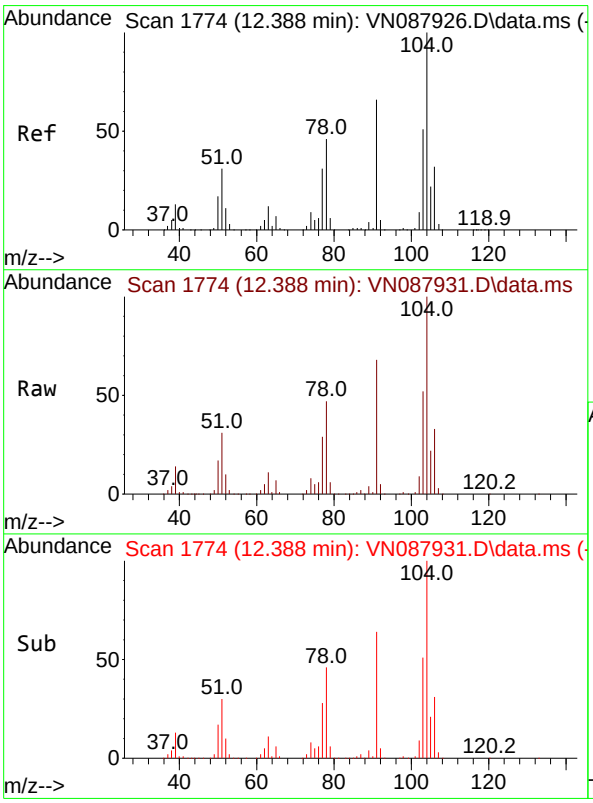
Ion	Ratio	Lower	Upper
106	100		
91	217.1	108.2	324.6



Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations APPROVED

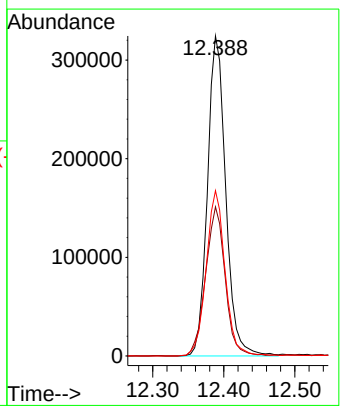
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

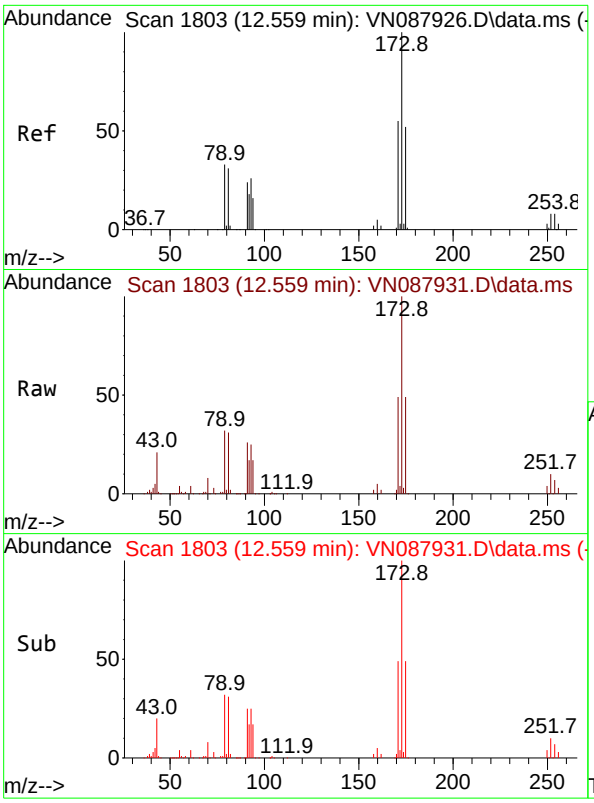


#70
Styrene
Concen: 55.451 ug/l
RT: 12.388 min Scan# 1774
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion:104 Resp: 579999

Ion	Ratio	Lower	Upper
104	100		
78	49.8	39.7	59.5
103	53.6	44.6	67.0

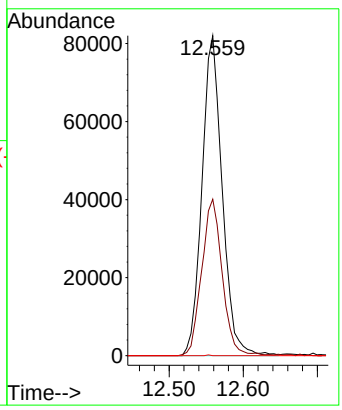




#71
Bromoform
Concen: 53.524 ug/l
RT: 12.559 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion:173 Resp: 15555

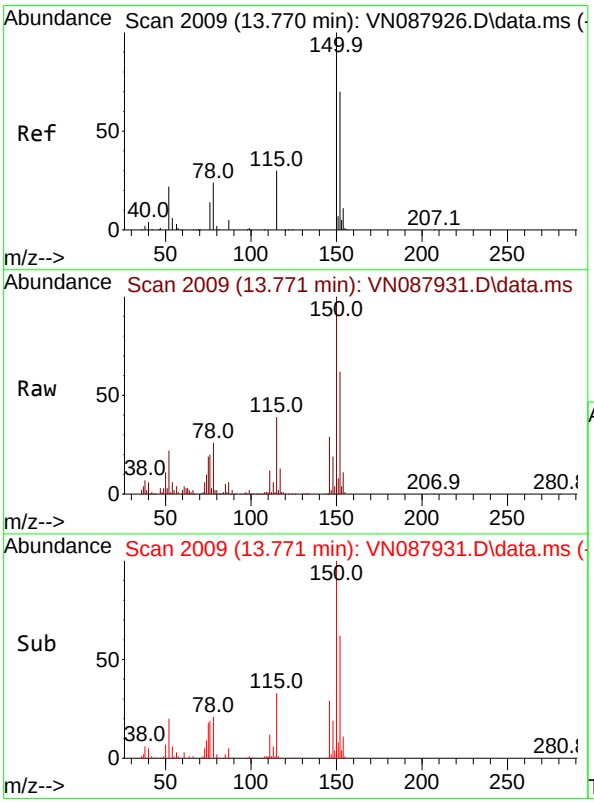
Ion	Ratio	Lower	Upper
173	100		
175	49.7	23.7	71.1
254	0.0	0.1	0.1



Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations APPROVED

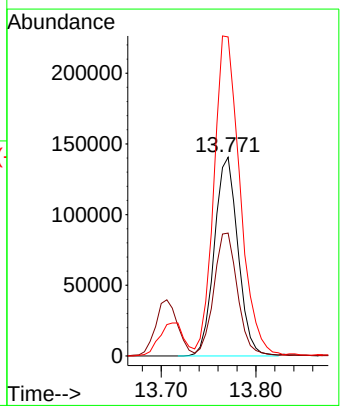
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

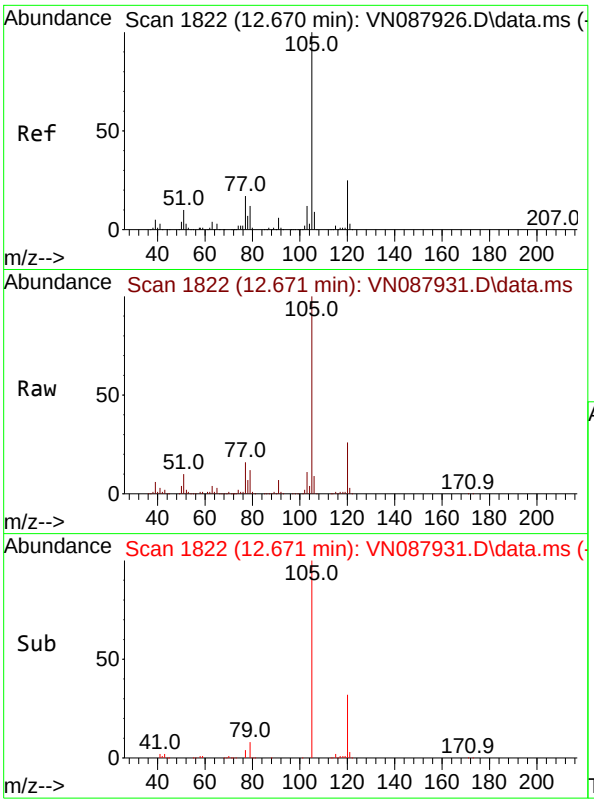


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.771 min Scan# 2009
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion:152 Resp: 243738

Ion	Ratio	Lower	Upper
152	100		
115	62.8	29.9	89.7
150	177.3	0.0	335.0

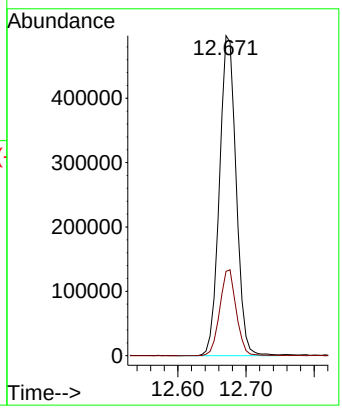




#73
Isopropylbenzene
Concen: 56.136 ug/l
RT: 12.671 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion:105 Resp: 84801

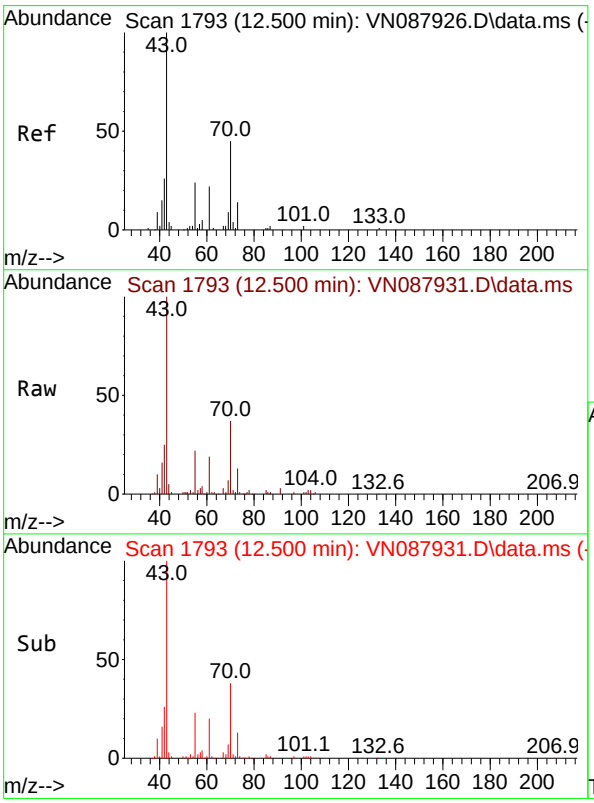
Ion	Ratio	Lower	Upper
105	100		
120	26.6	13.1	39.1



Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations APPROVED

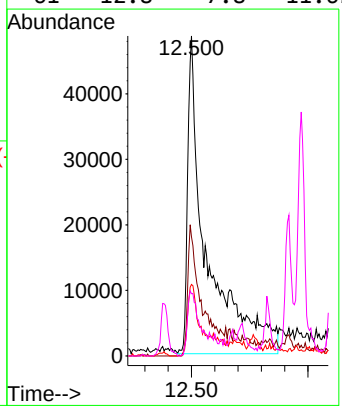
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

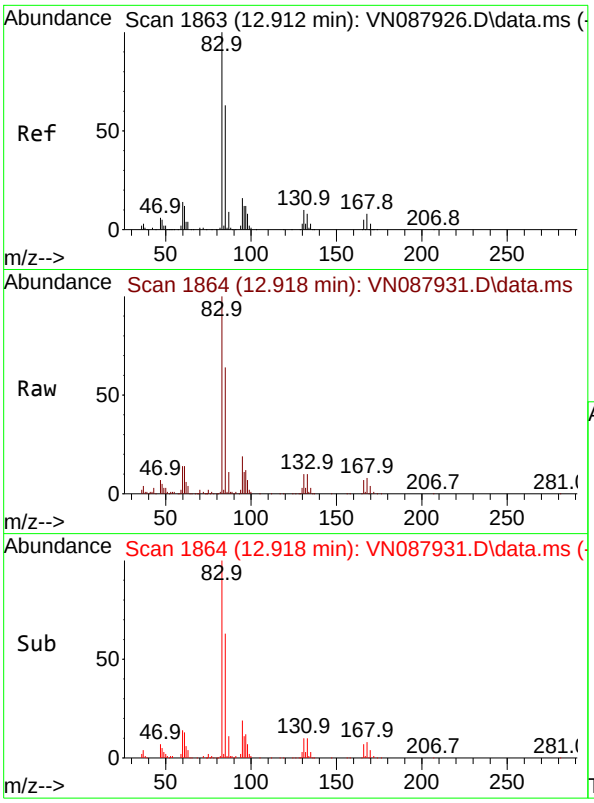


#74
N-amyl acetate
Concen: 55.590 ug/l m
RT: 12.500 min Scan# 1793
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 43 Resp: 276693

Ion	Ratio	Lower	Upper
43	100		
70	20.9	19.8	29.8
55	13.6	9.6	14.4
61	12.8	7.8	11.6#

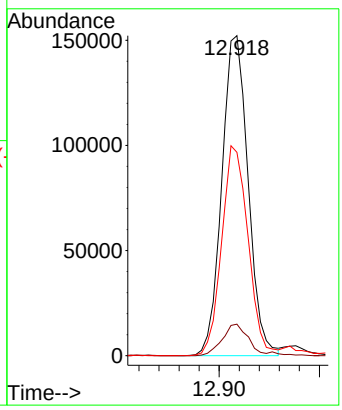




#75
1,1,2,2-Tetrachloroethane
Concen: 51.011 ug/l
RT: 12.918 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 83 Resp: 27764

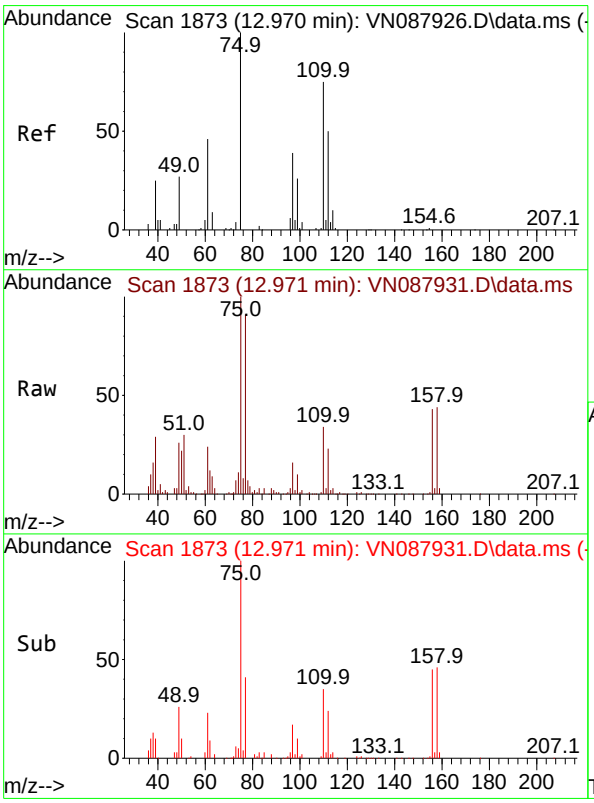
Ion	Ratio	Lower	Upper
83	100		
131	10.2	5.2	15.6
85	65.7	32.4	97.0



Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations APPROVED

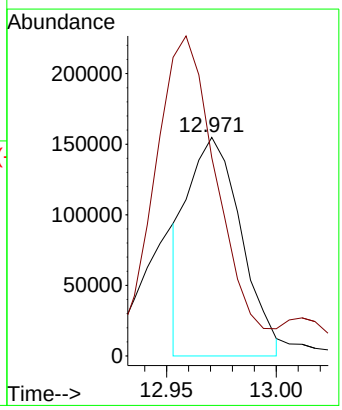
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

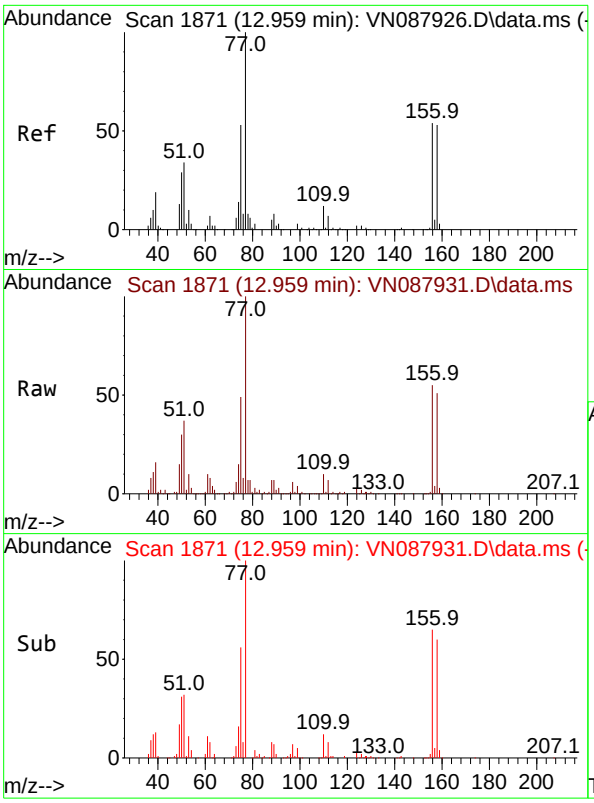


#76
1,2,3-Trichloropropane
Concen: 54.509 ug/l m
RT: 12.971 min Scan# 1873
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 75 Resp: 261896

Ion	Ratio	Lower	Upper
75	100		
77	177.5	89.5	268.5

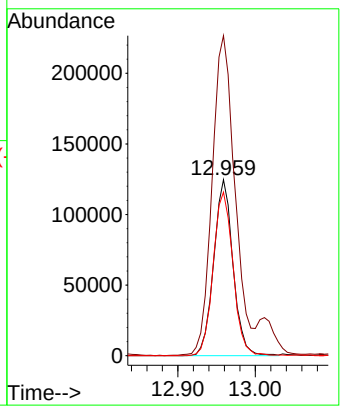




#77
Bromobenzene
Concen: 53.546 ug/l
RT: 12.959 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion:156 Resp: 21521

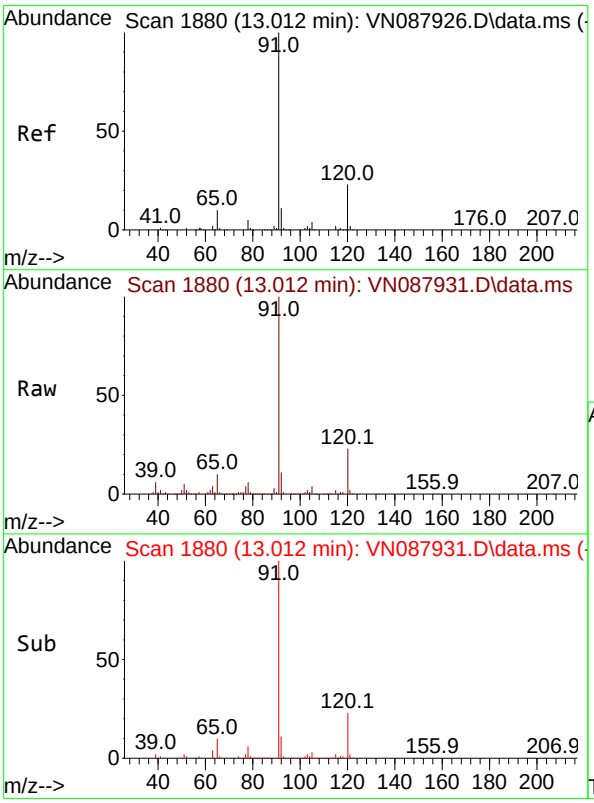
Ion	Ratio	Lower	Upper
156	100		
77	216.0	108.2	324.6
158	96.0	49.6	149.0



Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations APPROVED

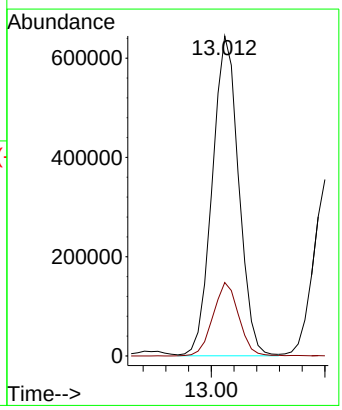
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

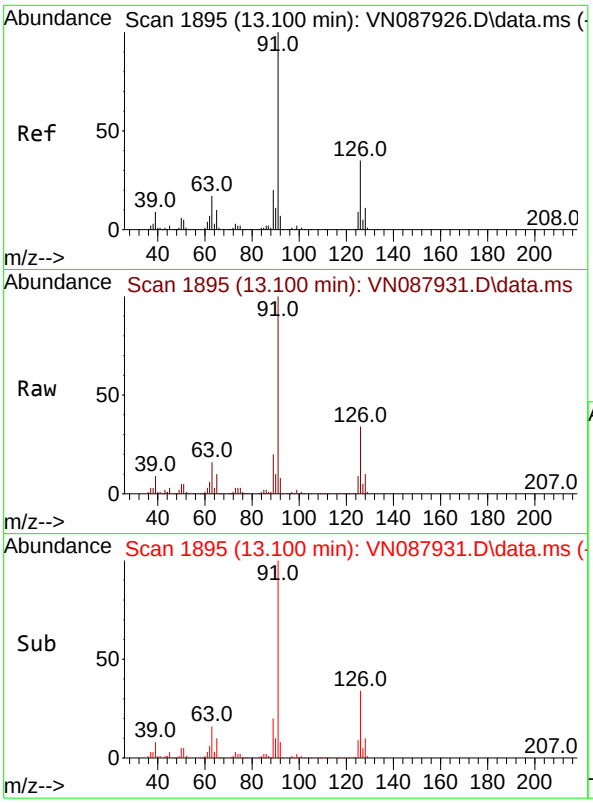


#78
n-propylbenzene
Concen: 55.165 ug/l
RT: 13.012 min Scan# 1880
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 91 Resp: 1041885

Ion	Ratio	Lower	Upper
91	100		
120	22.5	11.1	33.1

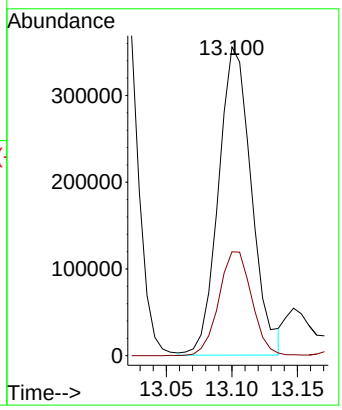




#79
2-Chlorotoluene
Concen: 54.089 ug/l
RT: 13.100 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 91 Resp: 62202

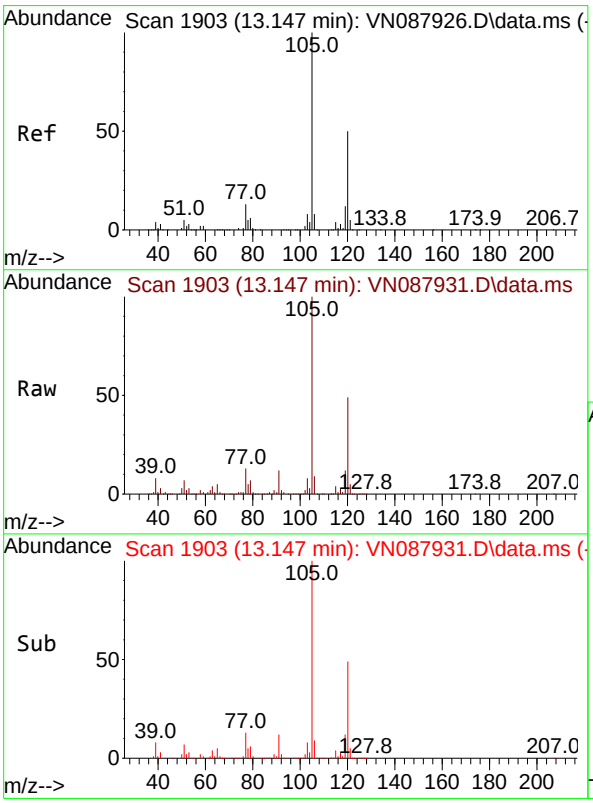
Ion	Ratio	Lower	Upper
91	100		
126	33.8	16.6	49.8



Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations APPROVED

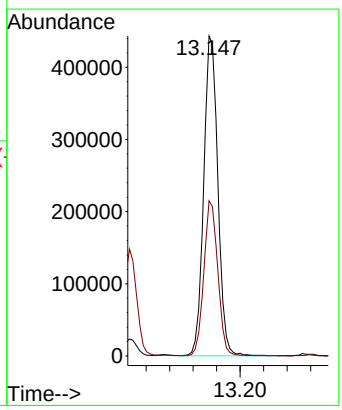
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

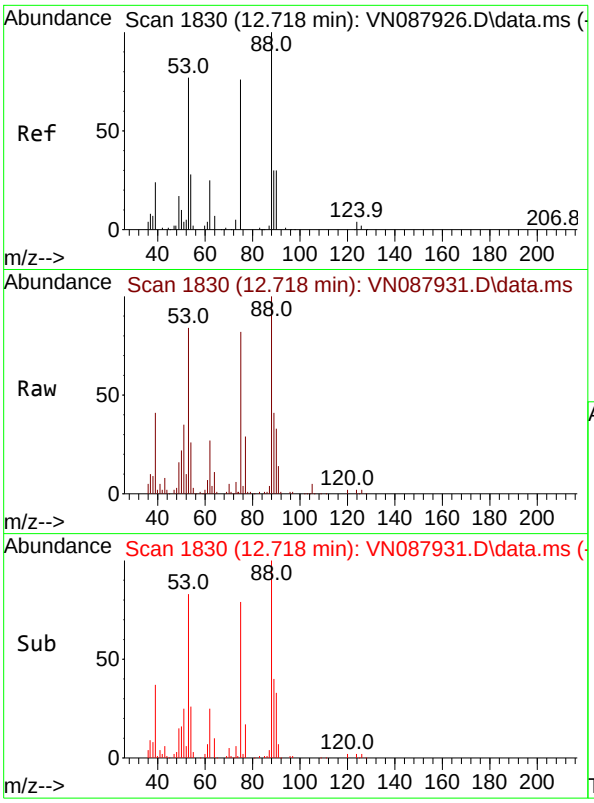


#80
1,3,5-Trimethylbenzene
Concen: 56.572 ug/l
RT: 13.147 min Scan# 1903
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion:105 Resp: 739196

Ion	Ratio	Lower	Upper
105	100		
120	47.9	24.7	74.1

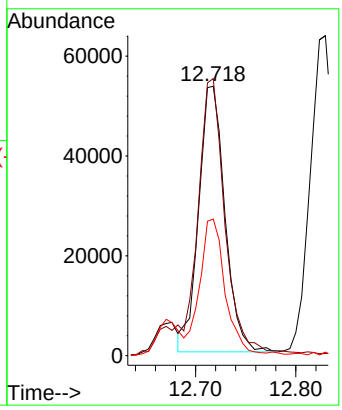




#81
trans-1,4-Dichloro-2-butene
Concen: 56.132 ug/l
RT: 12.718 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 75 Resp: 9712

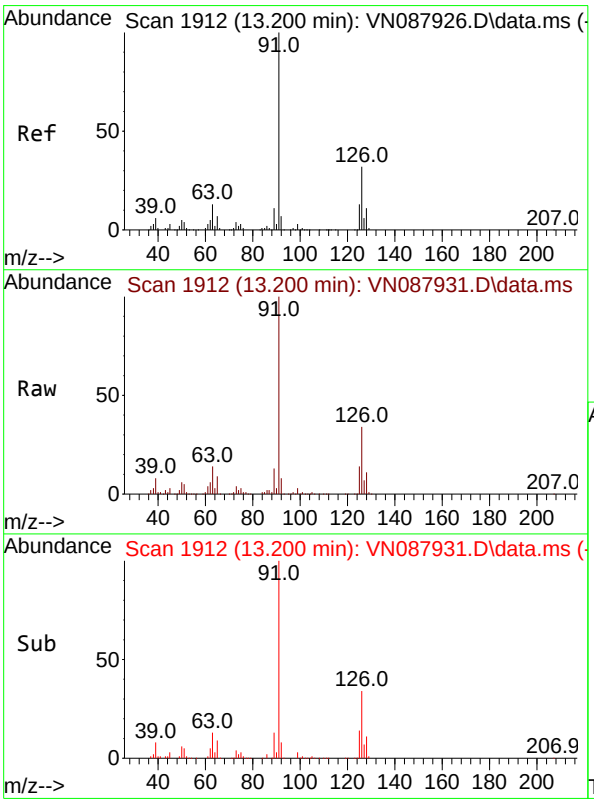
Ion	Ratio	Lower	Upper
75	100		
53	107.2	82.0	123.0
89	48.3	36.1	54.1



Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations APPROVED

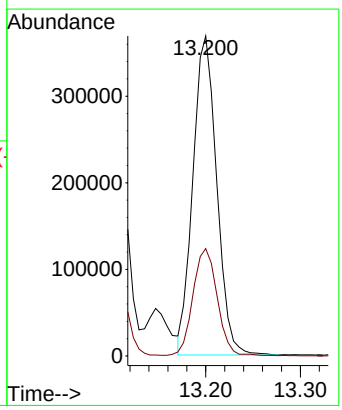
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

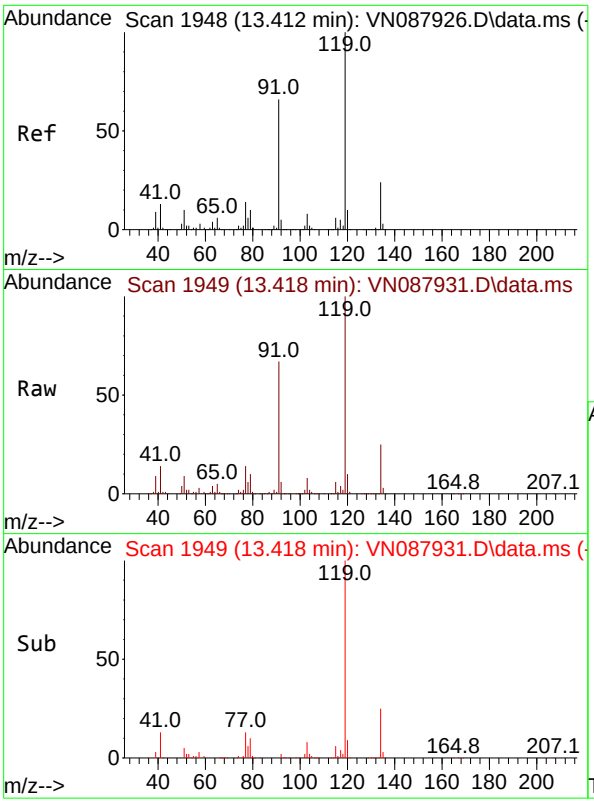


#82
4-Chlorotoluene
Concen: 55.531 ug/l
RT: 13.200 min Scan# 1912
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 91 Resp: 643471

Ion	Ratio	Lower	Upper
91	100		
126	34.3	16.9	50.6

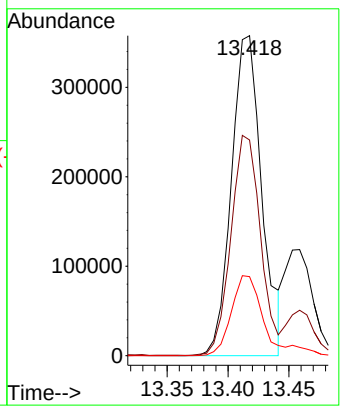




#83
tert-Butylbenzene
Concen: 56.083 ug/l
RT: 13.418 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion:119 Resp: 62026

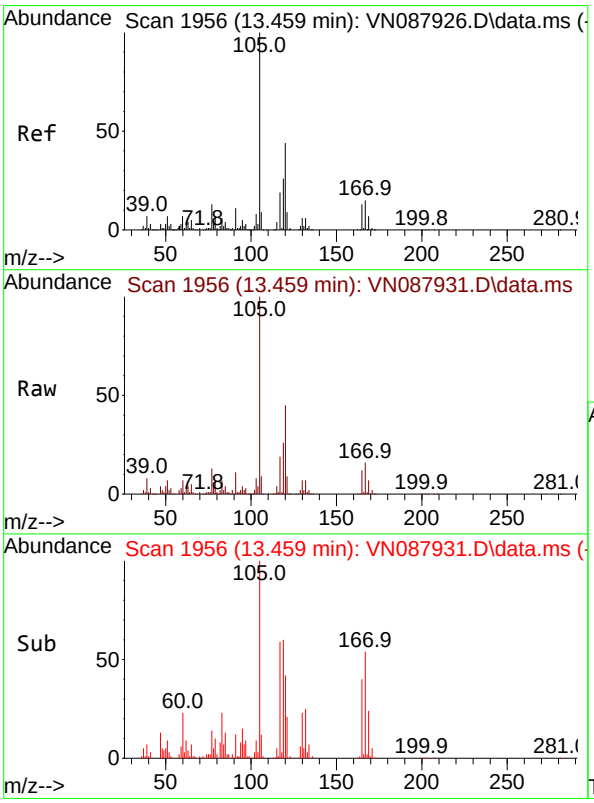
Ion	Ratio	Lower	Upper
119	100		
91	66.9	32.1	96.3
134	27.1	12.3	36.8



Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations APPROVED

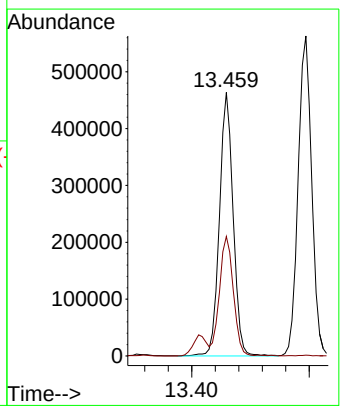
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

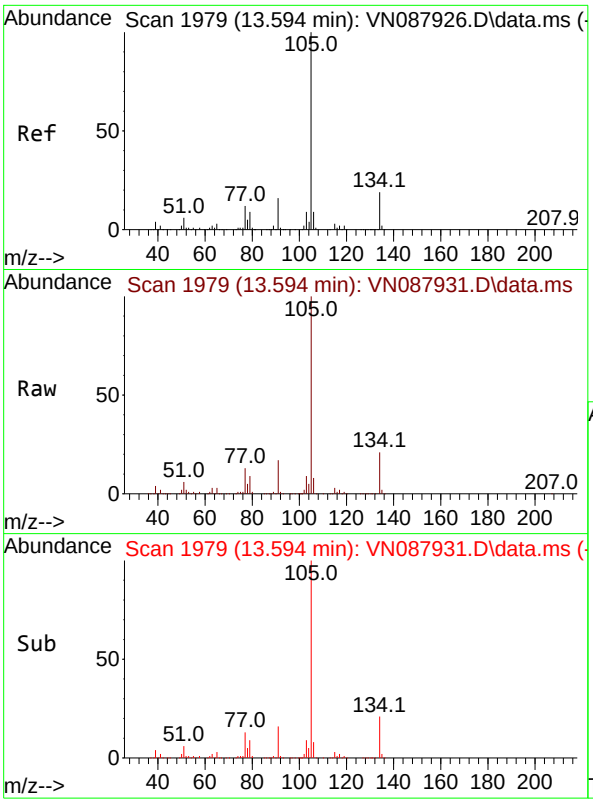


#84
1,2,4-Trimethylbenzene
Concen: 55.971 ug/l
RT: 13.459 min Scan# 1956
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion:105 Resp: 750139

Ion	Ratio	Lower	Upper
105	100		
120	45.6	22.4	67.3

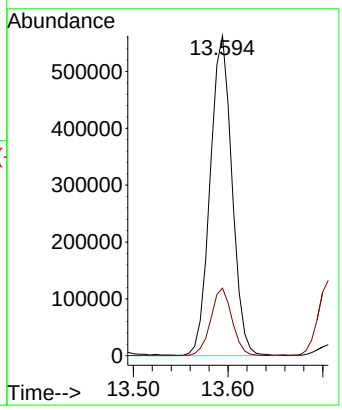




#85
sec-Butylbenzene
Concen: 55.512 ug/l
RT: 13.594 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion:105 Resp: 90012

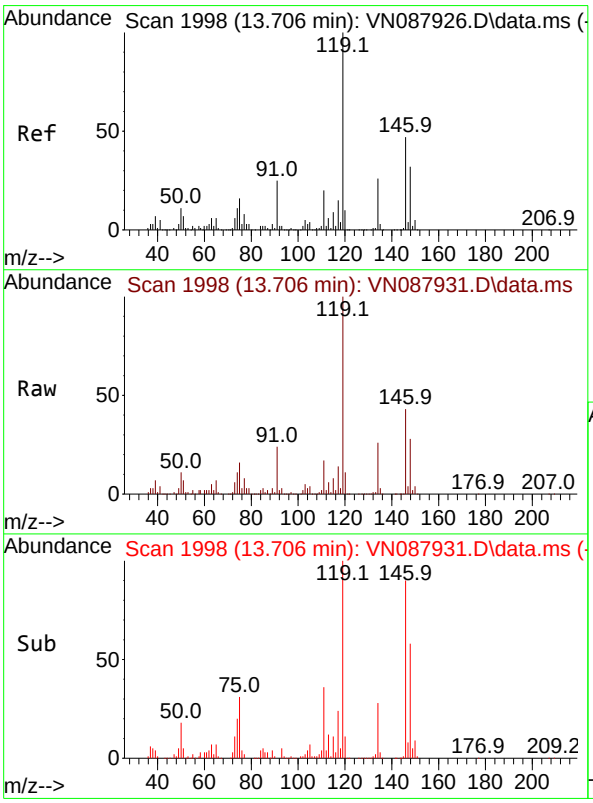
Ion	Ratio	Lower	Upper
105	100		
134	20.7	9.6	28.8



Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations APPROVED

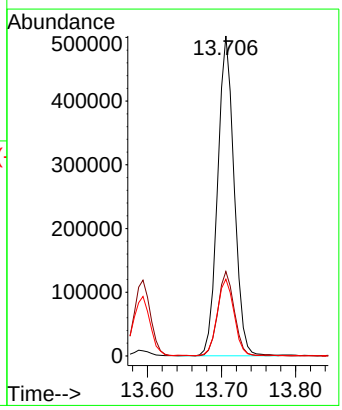
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

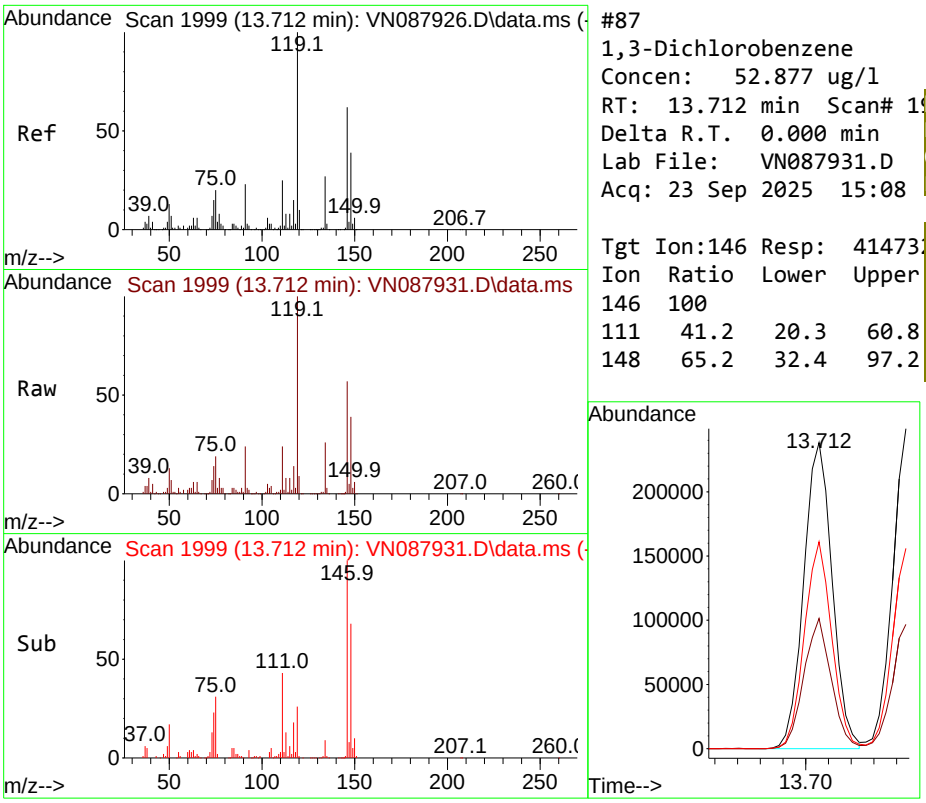


#86
p-Isopropyltoluene
Concen: 56.387 ug/l
RT: 13.706 min Scan# 1998
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion:119 Resp: 774380

Ion	Ratio	Lower	Upper
119	100		
134	26.3	13.1	39.3
91	24.4	11.9	35.5





#87
1,3-Dichlorobenzene
Concen: 52.877 ug/l
RT: 13.712 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

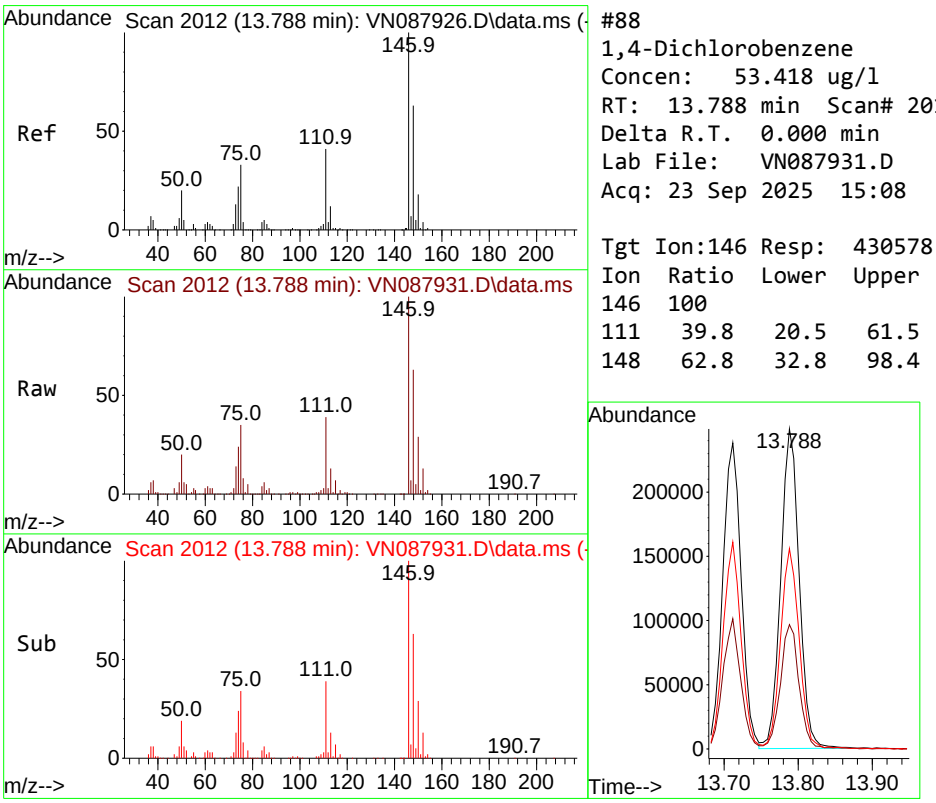
Tgt Ion:146 Resp: 41473

Ion	Ratio	Lower	Upper
146	100		
111	41.2	20.3	60.8
148	65.2	32.4	97.2

Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations APPROVED

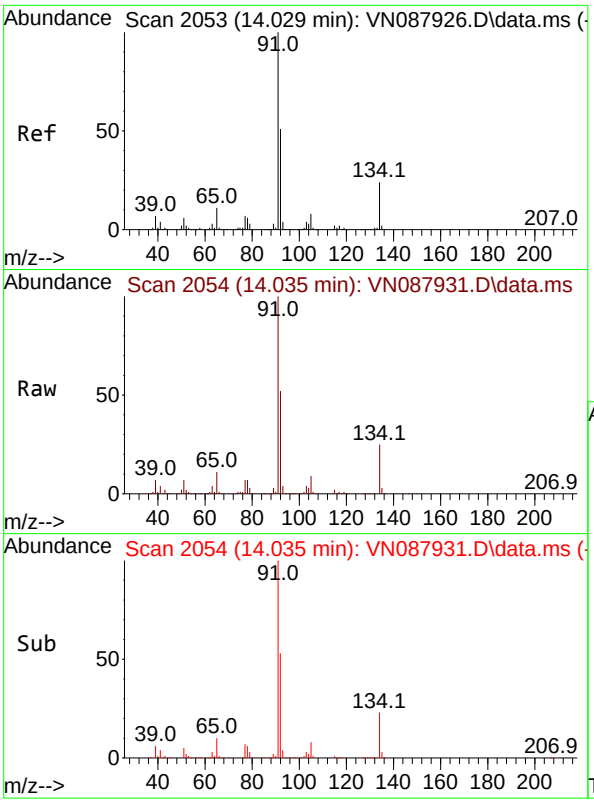
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025



#88
1,4-Dichlorobenzene
Concen: 53.418 ug/l
RT: 13.788 min Scan# 2012
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion:146 Resp: 430578

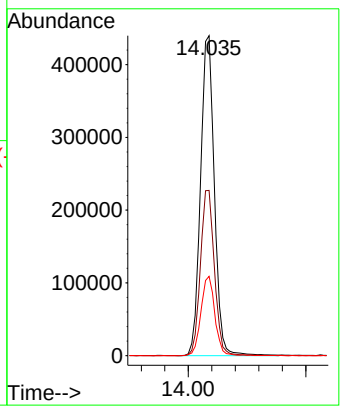
Ion	Ratio	Lower	Upper
146	100		
111	39.8	20.5	61.5
148	62.8	32.8	98.4



#89
n-Butylbenzene
Concen: 55.337 ug/l
RT: 14.035 min Scan# 2
Delta R.T. 0.006 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 91 Resp: 71820

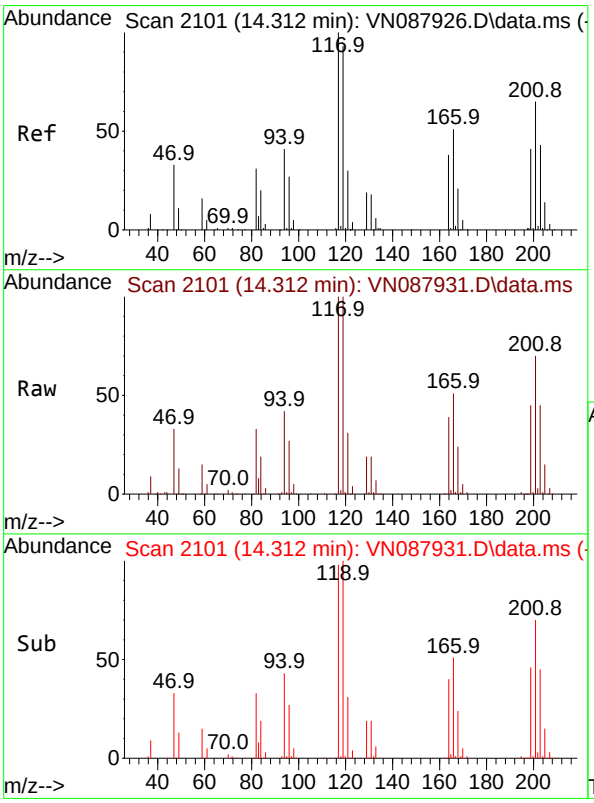
Ion	Ratio	Lower	Upper
91	100		
92	52.3	25.9	77.8
134	24.8	12.6	37.8



Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations APPROVED

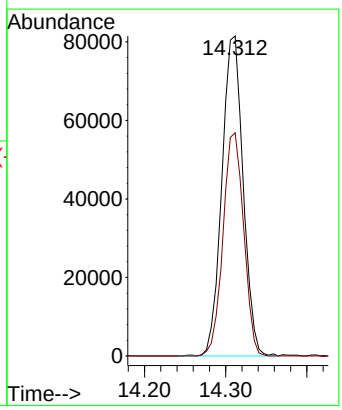
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

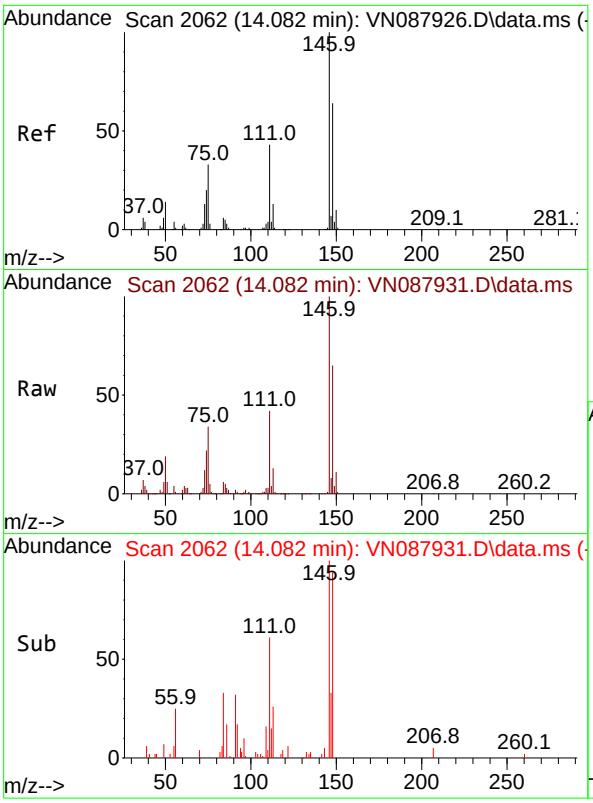


#90
Hexachloroethane
Concen: 51.641 ug/l
RT: 14.312 min Scan# 2101
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion:117 Resp: 148145

Ion	Ratio	Lower	Upper
117	100		
201	67.8	33.6	100.6

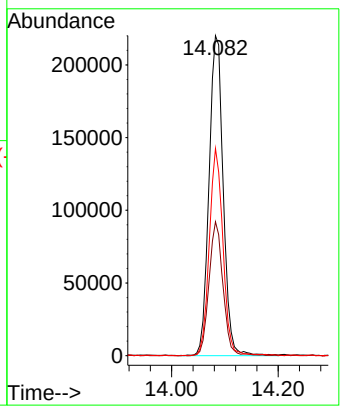




#91
1,2-Dichlorobenzene
Concen: 54.018 ug/l
RT: 14.082 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion:146 Resp: 40838

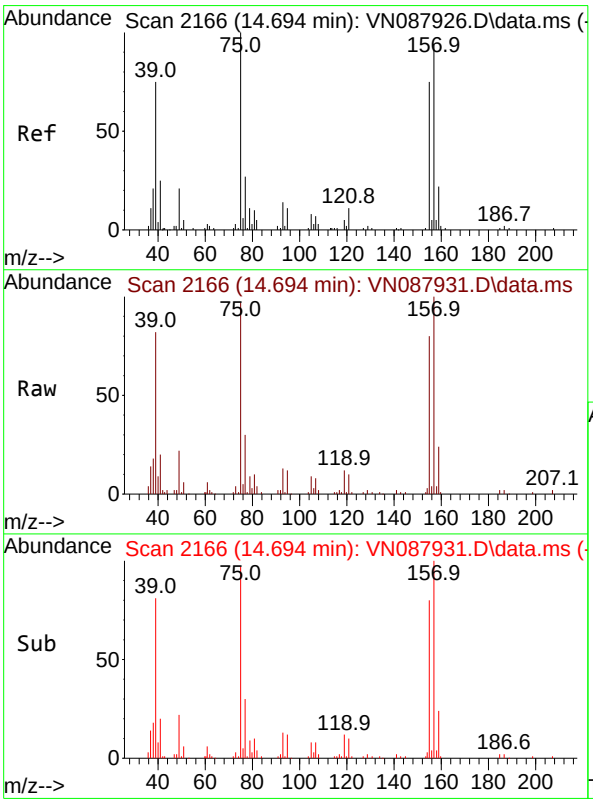
Ion	Ratio	Lower	Upper
146	100		
111	41.1	20.9	62.7
148	62.4	31.9	95.9



Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations APPROVED

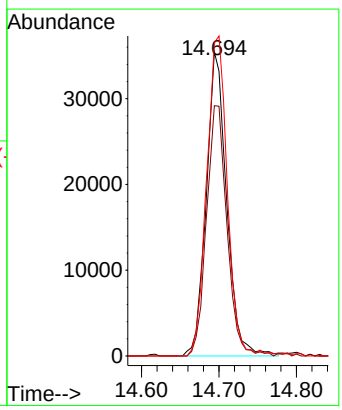
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

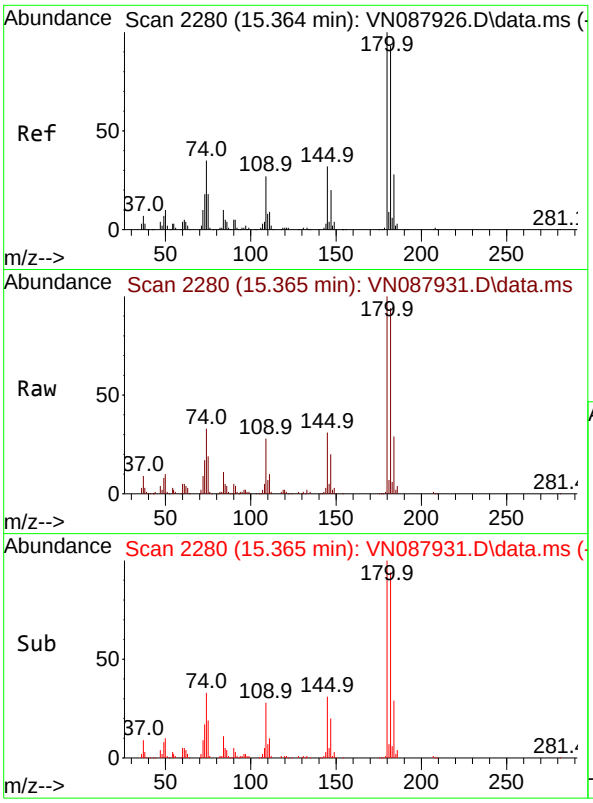


#92
1,2-Dibromo-3-Chloropropane
Concen: 51.268 ug/l
RT: 14.694 min Scan# 2166
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion: 75 Resp: 64838

Ion	Ratio	Lower	Upper
75	100		
155	82.6	40.2	120.6
157	107.5	50.9	152.7

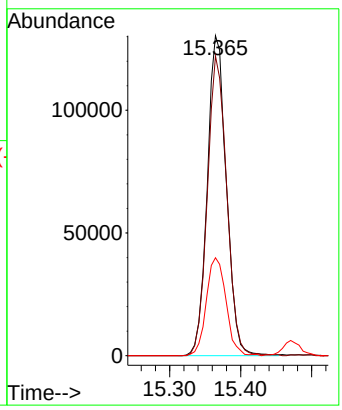




#93
1,2,4-Trichlorobenzene
Concen: 54.519 ug/l
RT: 15.365 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion:180 Resp: 24336

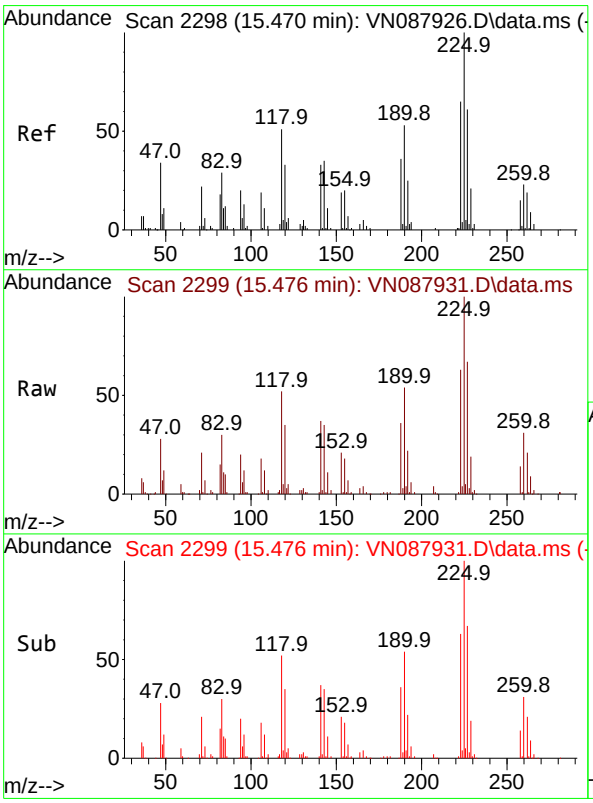
Ion	Ratio	Lower	Upper
180	100		
182	95.0	48.5	145.5
145	31.6	15.9	47.6



Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations APPROVED

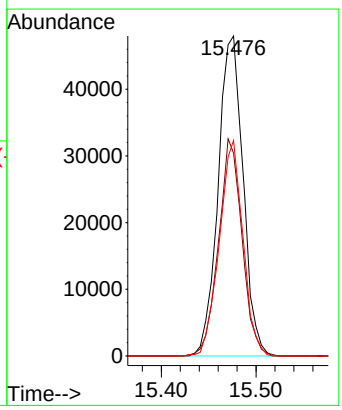
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025

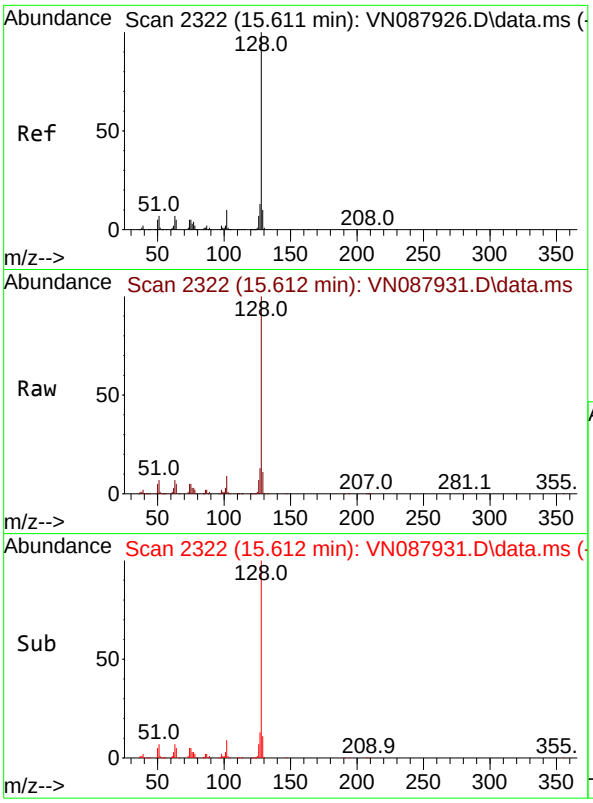


#94
Hexachlorobutadiene
Concen: 53.402 ug/l
RT: 15.476 min Scan# 2299
Delta R.T. 0.006 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion:225 Resp: 87738

Ion	Ratio	Lower	Upper
225	100		
223	64.0	31.8	95.4
227	63.9	31.9	95.9

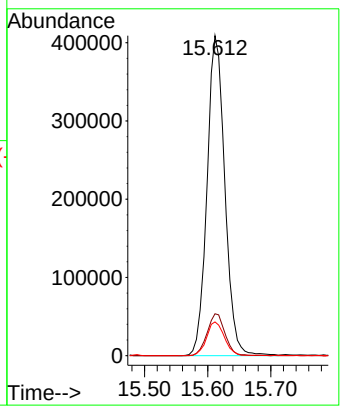




#95
Naphthalene
Concen: 56.013 ug/l
RT: 15.612 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion:128 Resp: 80260

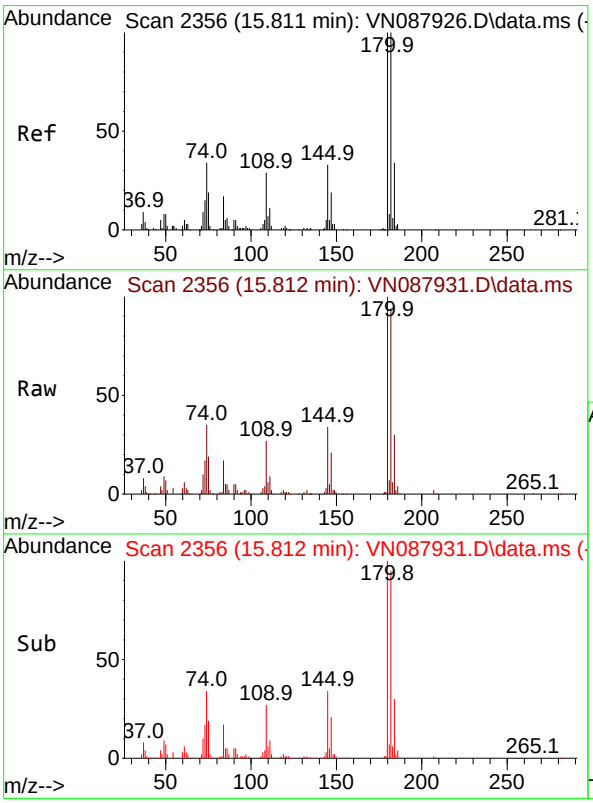
Ion	Ratio	Lower	Upper
128	100		
127	13.2	10.2	15.4
129	10.7	8.6	13.0



Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Manual Integrations APPROVED

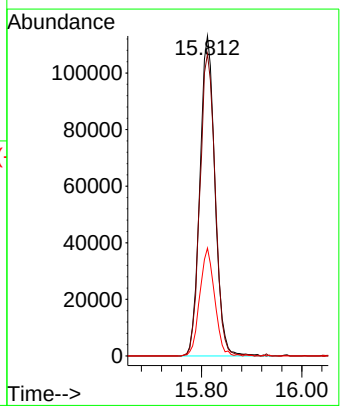
Reviewed By :John Carlone 09/24/2025
Supervised By :Mahesh Dadoda 09/26/2025



#96
1,2,3-Trichlorobenzene
Concen: 54.441 ug/l
RT: 15.812 min Scan# 2356
Delta R.T. 0.000 min
Lab File: VN087931.D
Acq: 23 Sep 2025 15:08

Tgt Ion:180 Resp: 236254

Ion	Ratio	Lower	Upper
180	100		
182	95.6	47.3	142.0
145	33.3	16.1	48.3



Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092325\
Data File : VN087931.D
Acq On : 23 Sep 2025 15:08
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 13 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Quant Time: Sep 24 05:21:09 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 05:05:30 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	109	0.00
2	T	Dichlorodifluoromethane	0.579	0.585	-1.0	121	0.00
3	P	Chloromethane	0.593	0.581	2.0	119	0.00
4	C	Vinyl Chloride	0.605	0.596	1.5#	117	0.00
5	T	Bromomethane	0.375	0.409	-9.1	139	0.00
6	T	Chloroethane	0.393	0.391	0.5	120	0.00
7	T	Trichlorofluoromethane	0.985	0.958	2.7	118	0.00
8	T	Diethyl Ether	0.372	0.365	1.9	117	0.00
9	T	1,1,2-Trichlorotrifluoroeth	0.521	0.495	5.0	113	0.00
10	T	Methyl Iodide	0.468	0.544	-16.2	128	0.00
11	T	Tert butyl alcohol	0.121	0.131	-8.3	133	0.00
12	CM	1,1-Dichloroethene	0.525	0.531	-1.1#	123	0.00
13	T	Acrolein	0.156	0.154	1.3	140	0.00
14	T	Allyl chloride	0.855	0.861	-0.7	123	0.00
15	T	Acrylonitrile	0.380	0.381	-0.3	119	0.00
16	T	Acetone	0.346	0.344	0.6	126	0.00
17	T	Carbon Disulfide	1.641	1.592	3.0	117	0.00
18	T	Methyl Acetate	0.866	0.910	-5.1	122	0.00
19	T	Methyl tert-butyl Ether	2.052	2.142	-4.4	122	0.00
20	T	Methylene Chloride	0.701	0.669	4.6	117	0.00
21	T	trans-1,2-Dichloroethene	0.644	0.636	1.2	121	0.00
22	T	Diisopropyl ether	1.996	2.068	-3.6	123	0.00
23	T	Vinyl Acetate	1.681	1.748	-4.0	121	0.00
24	P	1,1-Dichloroethane	1.166	1.152	1.2	119	0.00
25	T	2-Butanone	0.529	0.553	-4.5	126	0.00
26	T	2,2-Dichloropropane	1.036	1.042	-0.6	122	0.00
27	T	cis-1,2-Dichloroethene	0.766	0.768	-0.3	121	0.00
28	T	Bromochloromethane	0.634	0.571	9.9	94	0.00
29	T	Tetrahydrofuran	0.339	0.348	-2.7	122	0.00
30	C	Chloroform	1.275	1.255	1.6#	119	0.00
31	T	Cyclohexane	0.944	0.900	4.7	118	0.00
32	T	1,1,1-Trichloroethane	1.077	1.077	0.0	122	0.00
33	S	1,2-Dichloroethane-d4	0.841	0.735	12.6	92	0.00
34	I	1,4-Difluorobenzene	1.000	1.000	0.0	108	0.00
35	S	Dibromofluoromethane	0.363	0.315	13.2	91	0.00
36	T	1,1-Dichloropropene	0.437	0.451	-3.2	119	0.00
37	T	Ethyl Acetate	0.573	0.568	0.9	115	0.00
38	T	Carbon Tetrachloride	0.501	0.512	-2.2	120	0.00
39	T	Methylcyclohexane	0.482	0.512	-6.2	124	0.00
40	TM	Benzene	1.445	1.479	-2.4	118	0.00
41	T	Methacrylonitrile	0.296	0.306	-3.4	115	0.00
42	TM	1,2-Dichloroethane	0.539	0.537	0.4	120	0.00
43	T	Isopropyl Acetate	0.902	0.937	-3.9	121	0.00
44	TM	Trichloroethene	0.345	0.351	-1.7	120	0.00
45	C	1,2-Dichloropropane	0.362	0.367	-1.4#	119	0.00
46	T	Dibromomethane	0.286	0.291	-1.7	121	0.00
47	T	Bromodichloromethane	0.561	0.571	-1.8	118	0.00
48	T	Methyl methacrylate	0.418	0.445	-6.5	124	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092325\
Data File : VN087931.D
Acq On : 23 Sep 2025 15:08
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 13 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Quant Time: Sep 24 05:21:09 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 05:05:30 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	0.006	0.007	-16.7	138	0.00
50	S	Toluene-d8	1.277	1.143	10.5	91	0.00
51	T	4-Methyl-2-Pentanone	0.563	0.591	-5.0	119	0.00
52	CM	Toluene	0.907	0.920	-1.4#	117	0.00
53	T	t-1,3-Dichloropropene	0.574	0.600	-4.5	123	0.00
54	T	cis-1,3-Dichloropropene	0.596	0.611	-2.5	121	0.00
55	T	1,1,2-Trichloroethane	0.369	0.372	-0.8	119	0.00
56	T	Ethyl methacrylate	0.533	0.579	-8.6	122	0.00
57	T	1,3-Dichloropropane	0.607	0.633	-4.3	121	0.00
58	T	2-Chloroethyl Vinyl ether	0.251	0.296	-17.9	146	0.00
59	T	2-Hexanone	0.372	0.414	-11.3	121	0.00
60	T	Dibromochloromethane	0.434	0.453	-4.4	122	0.00
61	T	1,2-Dibromoethane	0.390	0.403	-3.3	120	0.00
62	S	4-Bromofluorobenzene	0.456	0.404	11.4	92	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	103	0.00
64	T	Tetrachloroethene	0.305	0.312	-2.3	115	0.00
65	PM	Chlorobenzene	1.064	1.110	-4.3	120	0.00
66	T	1,1,1,2-Tetrachloroethane	0.384	0.403	-4.9	119	0.00
67	C	Ethyl Benzene	1.775	1.889	-6.4#	121	0.00
68	T	m/p-Xylenes	0.679	0.736	-8.4	119	0.00
69	T	o-Xylene	0.652	0.709	-8.7	122	0.00
70	T	Styrene	1.120	1.243	-11.0	120	0.00
71	P	Bromoform	0.311	0.333	-7.1	120	0.00
72	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	97	0.00
73	T	Isopropylbenzene	3.099	3.479	-12.3	121	0.00
74	T	N-amyl acetate	1.021	1.135	-11.2	125	0.00
75	P	1,1,2,2-Tetrachloroethane	1.117	1.139	-2.0	113	0.00
76	T	1,2,3-Trichloropropane	0.986	1.074	-8.9	121	0.00
77	T	Bromobenzene	0.825	0.883	-7.0	120	0.00
78	T	n-propylbenzene	3.874	4.275	-10.4	120	0.00
79	T	2-Chlorotoluene	2.359	2.552	-8.2	119	0.00
80	T	1,3,5-Trimethylbenzene	2.680	3.033	-13.2	123	0.00
81	T	trans-1,4-Dichloro-2-butene	0.355	0.398	-12.1	126	0.00
82	T	4-Chlorotoluene	2.377	2.640	-11.1	120	0.00
83	T	tert-Butylbenzene	2.269	2.545	-12.2	120	0.00
84	T	1,2,4-Trimethylbenzene	2.749	3.078	-12.0	119	0.00
85	T	sec-Butylbenzene	3.326	3.693	-11.0	120	0.00
86	T	p-Isopropyltoluene	2.817	3.177	-12.8	121	0.00
87	T	1,3-Dichlorobenzene	1.609	1.702	-5.8	118	0.00
88	T	1,4-Dichlorobenzene	1.654	1.767	-6.8	122	0.00
89	T	n-Butylbenzene	2.662	2.947	-10.7	121	0.00
90	T	Hexachloroethane	0.588	0.608	-3.4	117	0.00
91	T	1,2-Dichlorobenzene	1.551	1.676	-8.1	120	0.00
92	T	1,2-Dibromo-3-Chloropropane	0.259	0.266	-2.7	117	0.00
93	T	1,2,4-Trichlorobenzene	0.916	0.998	-9.0	123	0.00
94	T	Hexachlorobutadiene	0.337	0.360	-6.8	119	0.00
95	T	Naphthalene	2.939	3.293	-12.0	123	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092325\
Data File : VN087931.D
Acq On : 23 Sep 2025 15:08
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 13 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Quant Time: Sep 24 05:21:09 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 05:05:30 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	0.890	0.969	-8.9	120	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092325\
Data File : VN087931.D
Acq On : 23 Sep 2025 15:08
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 13 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Quant Time: Sep 24 05:21:09 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 05:05:30 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	109	0.00
2	T	Dichlorodifluoromethane	50.000	50.496	-1.0	121	0.00
3	P	Chloromethane	50.000	48.962	2.1	119	0.00
4	C	Vinyl Chloride	50.000	49.253	1.5#	117	0.00
5	T	Bromomethane	50.000	54.504	-9.0	139	0.00
6	T	Chloroethane	50.000	49.650	0.7	120	0.00
7	T	Trichlorofluoromethane	50.000	48.650	2.7	118	0.00
8	T	Diethyl Ether	50.000	49.015	2.0	117	0.00
9	T	1,1,2-Trichlorotrifluoroeth	50.000	47.535	4.9	113	0.00
10	T	Methyl Iodide	50.000	58.041	-16.1	128	0.00
11	T	Tert butyl alcohol	250.000	270.566	-8.2	133	0.00
12	CM	1,1-Dichloroethene	50.000	50.568	-1.1#	123	0.00
13	T	Acrolein	250.000	247.902	0.8	140	0.00
14	T	Allyl chloride	50.000	50.343	-0.7	123	0.00
15	T	Acrylonitrile	250.000	250.533	-0.2	119	0.00
16	T	Acetone	250.000	248.497	0.6	126	0.00
17	T	Carbon Disulfide	50.000	48.521	3.0	117	0.00
18	T	Methyl Acetate	50.000	52.501	-5.0	122	0.00
19	T	Methyl tert-butyl Ether	50.000	52.201	-4.4	122	0.00
20	T	Methylene Chloride	50.000	47.732	4.5	117	0.00
21	T	trans-1,2-Dichloroethene	50.000	49.395	1.2	121	0.00
22	T	Diisopropyl ether	50.000	51.790	-3.6	123	0.00
23	T	Vinyl Acetate	250.000	259.965	-4.0	121	0.00
24	P	1,1-Dichloroethane	50.000	49.382	1.2	119	0.00
25	T	2-Butanone	250.000	261.219	-4.5	126	0.00
26	T	2,2-Dichloropropane	50.000	50.261	-0.5	122	0.00
27	T	cis-1,2-Dichloroethene	50.000	50.099	-0.2	121	0.00
28	T	Bromochloromethane	50.000	45.070	9.9	94	0.00
29	T	Tetrahydrofuran	250.000	256.481	-2.6	122	0.00
30	C	Chloroform	50.000	49.224	1.6#	119	0.00
31	T	Cyclohexane	50.000	47.692	4.6	118	0.00
32	T	1,1,1-Trichloroethane	50.000	50.001	-0.0	122	0.00
33	S	1,2-Dichloroethane-d4	50.000	43.678	12.6	92	0.00
34	I	1,4-Difluorobenzene	50.000	50.000	0.0	108	0.00
35	S	Dibromofluoromethane	50.000	43.369	13.3	91	0.00
36	T	1,1-Dichloropropene	50.000	51.628	-3.3	119	0.00
37	T	Ethyl Acetate	50.000	49.529	0.9	115	0.00
38	T	Carbon Tetrachloride	50.000	51.149	-2.3	120	0.00
39	T	Methylcyclohexane	50.000	53.190	-6.4	124	0.00
40	TM	Benzene	50.000	51.160	-2.3	118	0.00
41	T	Methacrylonitrile	50.000	51.681	-3.4	115	0.00
42	TM	1,2-Dichloroethane	50.000	49.739	0.5	120	0.00
43	T	Isopropyl Acetate	50.000	51.950	-3.9	121	0.00
44	TM	Trichloroethene	50.000	50.817	-1.6	120	0.00
45	C	1,2-Dichloropropane	50.000	50.566	-1.1#	119	0.00
46	T	Dibromomethane	50.000	50.925	-1.8	121	0.00
47	T	Bromodichloromethane	50.000	50.858	-1.7	118	0.00
48	T	Methyl methacrylate	50.000	53.199	-6.4	124	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092325\
Data File : VN087931.D
Acq On : 23 Sep 2025 15:08
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 13 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Quant Time: Sep 24 05:21:09 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 05:05:30 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	1167.270	-16.7	138	0.00
50	S	Toluene-d8	50.000	44.774	10.5	91	0.00
51	T	4-Methyl-2-Pentanone	250.000	262.261	-4.9	119	0.00
52	CM	Toluene	50.000	50.722	-1.4#	117	0.00
53	T	t-1,3-Dichloropropene	50.000	52.296	-4.6	123	0.00
54	T	cis-1,3-Dichloropropene	50.000	51.268	-2.5	121	0.00
55	T	1,1,2-Trichloroethane	50.000	50.476	-1.0	119	0.00
56	T	Ethyl methacrylate	50.000	54.367	-8.7	122	0.00
57	T	1,3-Dichloropropane	50.000	52.219	-4.4	121	0.00
58	T	2-Chloroethyl Vinyl ether	250.000	295.766	-18.3	146	0.00
59	T	2-Hexanone	250.000	278.348	-11.3	121	0.00
60	T	Dibromochloromethane	50.000	52.185	-4.4	122	0.00
61	T	1,2-Dibromoethane	50.000	51.598	-3.2	120	0.00
62	S	4-Bromofluorobenzene	50.000	44.319	11.4	92	0.00
63	I	Chlorobenzene-d5	50.000	50.000	0.0	103	0.00
64	T	Tetrachloroethene	50.000	51.272	-2.5	115	0.00
65	PM	Chlorobenzene	50.000	52.168	-4.3	120	0.00
66	T	1,1,1,2-Tetrachloroethane	50.000	52.557	-5.1	119	0.00
67	C	Ethyl Benzene	50.000	53.183	-6.4#	121	0.00
68	T	m/p-Xylenes	100.000	108.396	-8.4	119	0.00
69	T	o-Xylene	50.000	54.342	-8.7	122	0.00
70	T	Styrene	50.000	55.451	-10.9	120	0.00
71	P	Bromoform	50.000	53.524	-7.0	120	0.00
72	I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	97	0.00
73	T	Isopropylbenzene	50.000	56.136	-12.3	121	0.00
74	T	N-amyl acetate	50.000	55.590	-11.2	125	0.00
75	P	1,1,2,2-Tetrachloroethane	50.000	51.011	-2.0	113	0.00
76	T	1,2,3-Trichloropropane	50.000	54.509	-9.0	121	0.00
77	T	Bromobenzene	50.000	53.546	-7.1	120	0.00
78	T	n-propylbenzene	50.000	55.165	-10.3	120	0.00
79	T	2-Chlorotoluene	50.000	54.089	-8.2	119	0.00
80	T	1,3,5-Trimethylbenzene	50.000	56.572	-13.1	123	0.00
81	T	trans-1,4-Dichloro-2-butene	50.000	56.132	-12.3	126	0.00
82	T	4-Chlorotoluene	50.000	55.531	-11.1	120	0.00
83	T	tert-Butylbenzene	50.000	56.083	-12.2	120	0.00
84	T	1,2,4-Trimethylbenzene	50.000	55.971	-11.9	119	0.00
85	T	sec-Butylbenzene	50.000	55.512	-11.0	120	0.00
86	T	p-Isopropyltoluene	50.000	56.387	-12.8	121	0.00
87	T	1,3-Dichlorobenzene	50.000	52.877	-5.8	118	0.00
88	T	1,4-Dichlorobenzene	50.000	53.418	-6.8	122	0.00
89	T	n-Butylbenzene	50.000	55.337	-10.7	121	0.00
90	T	Hexachloroethane	50.000	51.641	-3.3	117	0.00
91	T	1,2-Dichlorobenzene	50.000	54.018	-8.0	120	0.00
92	T	1,2-Dibromo-3-Chloropropane	50.000	51.268	-2.5	117	0.00
93	T	1,2,4-Trichlorobenzene	50.000	54.519	-9.0	123	0.00
94	T	Hexachlorobutadiene	50.000	53.402	-6.8	119	0.00
95	T	Naphthalene	50.000	56.013	-12.0	123	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092325\
Data File : VN087931.D
Acq On : 23 Sep 2025 15:08
Operator : JC\MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 13 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
ICVVN092325

Quant Time: Sep 24 05:21:09 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 05:05:30 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	54.441	-8.9	120	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

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

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Alliance
Contract: ROYF02
Lab Code: ACE
SDG No.: Q3179
Instrument ID: MSVOA_N
Calibration Date/Time: 09/25/2025 12:04
Lab File ID: VN087948.D
Init. Calib. Date(s): 09/23/2025 09/23/2025
Heated Purge: (Y/N) N
Init. Calib. Time(s): 09:33 11:47
GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.579	0.552		-4.66	20
Chloromethane	0.593	0.580	0.1	-2.19	20
Vinyl Chloride	0.605	0.599		-0.99	20
Ethyl Acetate	0.573	0.582		1.57	20
Bromomethane	0.375	0.398		6.13	20
Chloroethane	0.393	0.393		0	20
Trichlorofluoromethane	0.985	0.954		-3.15	20
1,1,2-Trichlorotrifluoroethane	0.521	0.496		-4.8	20
1,1-Dichloroethene	0.525	0.512		-2.48	20
Acrolein	0.156	0.156		0	20
Acrylonitrile	0.380	0.399		5	20
Acetone	0.346	0.371		7.22	20
Carbon Disulfide	1.641	1.523		-7.19	20
Methyl tert-butyl Ether	2.052	2.129		3.75	20
Methyl Acetate	0.866	0.960		10.85	20
Methylene Chloride	0.701	0.688		-1.85	20
trans-1,2-Dichloroethene	0.644	0.618		-4.04	20
1,1-Dichloroethane	1.166	1.157	0.1	-0.77	20
Cyclohexane	0.944	0.906		-4.03	20
2-Butanone	0.529	0.558		5.48	20
Carbon Tetrachloride	0.501	0.480		-4.19	20
2,2-Dichloropropane	1.036	1.027		-0.87	20
cis-1,2-Dichloroethene	0.766	0.757		-1.17	20
Bromochloromethane	0.634	0.583		-8.04	20
Chloroform	1.275	1.260		-1.18	20
1,1,1-Trichloroethane	1.077	1.057		-1.86	20
Methylcyclohexane	0.482	0.461		-4.36	20
1,1-Dichloropropene	0.437	0.430		-1.6	20
Benzene	1.445	1.427		-1.25	20
1,2-Dichloroethane	0.539	0.525		-2.6	20
Trichloroethene	0.345	0.331		-4.06	20
1,2-Dichloropropane	0.362	0.354		-2.21	20
Dibromomethane	0.286	0.279		-2.45	20
Bromodichloromethane	0.561	0.562		0.18	20
4-Methyl-2-Pentanone	0.563	0.601		6.75	20
Toluene	0.907	0.893		-1.54	20
t-1,3-Dichloropropene	0.574	0.577		0.52	20
cis-1,3-Dichloropropene	0.596	0.590		-1.01	20

All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

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

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Alliance
Contract: ROYF02
Lab Code: ACE
SDG No.: Q3179
Instrument ID: MSVOA_N
Calibration Date/Time: 09/25/2025 12:04
Lab File ID: VN087948.D
Init. Calib. Date(s): 09/23/2025 09/23/2025
Heated Purge: (Y/N) N
Init. Calib. Time(s): 09:33 11:47
GC Column: RXI-624 ID: 0.25 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
1,1,2-Trichloroethane	0.369	0.368		-0.27	20
1,3-Dichloropropane	0.607	0.610		0.49	20
2-Chloroethyl Vinyl ether	0.251	0.330		31.47	20
2-Hexanone	0.372	0.420		12.9	20
Dibromochloromethane	0.434	0.434		0	20
1,2-Dibromoethane	0.390	0.388		-0.51	20
Tetrachloroethene	0.305	0.292		-4.26	20
Chlorobenzene	1.064	1.052	0.3	-1.13	20
1,1,1,2-Tetrachloroethane	0.384	0.378		-1.56	20
Ethyl Benzene	1.775	1.776		0.06	20
m/p-Xylenes	0.679	0.699		2.95	20
o-Xylene	0.652	0.649		-0.46	20
Styrene	1.120	1.160		3.57	20
Bromoform	0.311	0.319	0.1	2.57	20
Isopropylbenzene	3.099	3.167		2.19	20
1,1,2,2-Tetrachloroethane	1.117	1.107	0.3	-0.89	20
1,2,3-Trichloropropane	0.986	0.895		-9.23	20
Bromobenzene	0.825	0.808		-2.06	20
2-Chlorotoluene	2.359	2.329		-1.27	20
1,3,5-Trimethylbenzene	2.680	2.765		3.17	20
4-Chlorotoluene	2.377	2.441		2.69	20
1,2,4-Trimethylbenzene	2.749	2.849		3.64	20
1,3-Dichlorobenzene	1.609	1.628		1.18	20
1,4-Dichlorobenzene	1.654	1.615		-2.36	20
1,2-Dichlorobenzene	1.551	1.562		0.71	20
1,2-Dibromo-3-Chloropropane	0.259	0.256		-1.16	20
1,2,4-Trichlorobenzene	0.916	0.912		-0.44	20
1,2,3-Trichlorobenzene	0.890	0.885		-0.56	20
1,2-Dichloroethane-d4	0.841	0.784		-6.78	20
Dibromofluoromethane	0.363	0.324		-10.74	20
Toluene-d8	1.277	1.142		-10.57	20
4-Bromofluorobenzene	0.456	0.406		-10.97	20
Methyl Iodide	0.468	0.536		14.53	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\VN092525\
Data File : VN087948.D
Acq On : 25 Sep 2025 12:04
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 26 07:27:56 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 05:05:30 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.206	168	252288	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.083	114	466714	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.847	117	446080	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.770	152	240530	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.559	65	197777	46.582	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery =	93.160%		
35) Dibromofluoromethane	8.153	113	151123	44.597	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery =	89.200%		
50) Toluene-d8	10.547	98	533078	44.735	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery =	89.460%		
62) 4-Bromofluorobenzene	12.829	95	189525	44.495	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery =	88.980%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.142	85	139364	47.699	ug/l	94
3) Chloromethane	2.383	50	146395	48.936	ug/l	100
4) Vinyl Chloride	2.536	62	151034	49.486	ug/l	99
5) Bromomethane	2.965	94	100344	53.032	ug/l	98
6) Chloroethane	3.130	64	99120	49.948	ug/l	92
7) Trichlorofluoromethane	3.506	101	240668	48.431	ug/l	97
8) Diethyl Ether	3.965	74	94025	50.084	ug/l	100
9) 1,1,2-Trichlorotrifluo...	4.365	101	125130	47.643	ug/l	96
10) Methyl Iodide	4.583	142	135349	57.259	ug/l	99
11) Tert butyl alcohol	5.530	59	165748	271.032	ug/l	100
12) 1,1-Dichloroethene	4.330	96	129291	48.788	ug/l	98
13) Acrolein	4.177	56	197153	251.254	ug/l	95
14) Allyl chloride	5.018	41	213241	49.426	ug/l	96
15) Acrylonitrile	5.706	53	503222	262.332	ug/l	99
16) Acetone	4.424	43	468375	268.115	ug/l	99
17) Carbon Disulfide	4.706	76	384315	46.415	ug/l	98
18) Methyl Acetate	5.018	43	242249	55.411	ug/l	99
19) Methyl tert-butyl Ether	5.789	73	537240	51.896	ug/l	99
20) Methylene Chloride	5.265	84	173671	49.116	ug/l	96
21) trans-1,2-Dichloroethene	5.777	96	155843	47.970	ug/l	91
22) Diisopropyl ether	6.659	45	518759	51.507	ug/l	96
23) Vinyl Acetate	6.589	43	2369316	279.393	ug/l	99
24) 1,1-Dichloroethane	6.553	63	291853	49.600	ug/l	99
25) 2-Butanone	7.471	43	704136	263.713	ug/l	99
26) 2,2-Dichloropropane	7.471	77	259162	49.573	ug/l	98
27) cis-1,2-Dichloroethene	7.471	96	190867	49.376	ug/l	97
28) Bromochloromethane	7.794	49	147175	46.036	ug/l	99
29) Tetrahydrofuran	7.824	42	457315	267.483	ug/l	100
30) Chloroform	7.947	83	317816	49.398	ug/l	94
31) Cyclohexane	8.236	56	228674	48.030	ug/l	93
32) 1,1,1-Trichloroethane	8.147	97	266706	49.059	ug/l	97
36) 1,1-Dichloropropene	8.353	75	200491	49.205	ug/l	99
37) Ethyl Acetate	7.547	43	271630	50.766	ug/l	99
38) Carbon Tetrachloride	8.341	117	223861	47.879	ug/l	96
39) Methylcyclohexane	9.583	83	214941	47.819	ug/l	92
40) Benzene	8.588	78	666089	49.372	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092525\
Data File : VN087948.D
Acq On : 25 Sep 2025 12:04
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 26 07:27:56 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 05:05:30 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.765	41	138556	50.108	ug/l		95
42) 1,2-Dichloroethane	8.653	62	244954	48.653	ug/l		100
43) Isopropyl Acetate	8.677	43	430144	51.072	ug/l		100
44) Trichloroethene	9.335	130	154701	48.005	ug/l		90
45) 1,2-Dichloropropane	9.606	63	165068	48.794	ug/l		100
46) Dibromomethane	9.688	93	130372	48.839	ug/l		98
47) Bromodichloromethane	9.871	83	262338	50.106	ug/l	#	95
48) Methyl methacrylate	9.665	41	199338	51.109	ug/l		100
49) 1,4-Dioxane	9.683	88	64630	1121.681	ug/l	#	80
51) 4-Methyl-2-Pentanone	10.424	43	1401468	266.670	ug/l		99
52) Toluene	10.612	92	416920	49.246	ug/l		98
53) t-1,3-Dichloropropene	10.818	75	269484	50.291	ug/l		99
54) cis-1,3-Dichloropropene	10.294	75	275428	49.489	ug/l		98
55) 1,1,2-Trichloroethane	10.994	97	171693	49.877	ug/l		94
56) Ethyl methacrylate	10.859	69	261831	52.640	ug/l		98
57) 1,3-Dichloropropane	11.141	76	284575	50.261	ug/l		99
58) 2-Chloroethyl Vinyl ether	10.141	63	770678	329.535	ug/l		98
59) 2-Hexanone	11.177	43	979848	281.970	ug/l		99
60) Dibromochloromethane	11.341	129	202551	50.045	ug/l		99
61) 1,2-Dibromoethane	11.447	107	181192	49.721	ug/l		100
64) Tetrachloroethene	11.082	164	130193	47.913	ug/l		99
65) Chlorobenzene	11.871	112	469450	49.453	ug/l		95
66) 1,1,1,2-Tetrachloroethane	11.941	131	168546	49.235	ug/l		97
67) Ethyl Benzene	11.941	91	792036	50.002	ug/l		96
68) m/p-Xylenes	12.053	106	623352	102.897	ug/l		100
69) o-Xylene	12.376	106	289389	49.721	ug/l		96
70) Styrene	12.388	104	517296	51.750	ug/l		99
71) Bromoform	12.559	173	142241	51.214	ug/l	#	97
73) Isopropylbenzene	12.676	105	761718	51.096	ug/l		100
74) N-amyl acetate	12.506	43	220487m	44.889	ug/l		
75) 1,1,2,2-Tetrachloroethane	12.918	83	266185	49.558	ug/l		100
76) 1,2,3-Trichloropropane	12.971	75	215302m	45.409	ug/l		
77) Bromobenzene	12.959	156	194458	49.027	ug/l		98
78) n-propylbenzene	13.012	91	941142	50.495	ug/l		100
79) 2-Chlorotoluene	13.106	91	560153	49.359	ug/l		99
80) 1,3,5-Trimethylbenzene	13.153	105	665058	51.577	ug/l		98
81) trans-1,4-Dichloro-2-b...	12.718	75	86617	50.728	ug/l		96
82) 4-Chlorotoluene	13.200	91	587172	51.348	ug/l		99
83) tert-Butylbenzene	13.418	119	551238	50.507	ug/l		95
84) 1,2,4-Trimethylbenzene	13.459	105	685359	51.819	ug/l		98
85) sec-Butylbenzene	13.594	105	812735	50.791	ug/l		98
86) p-Isopropyltoluene	13.706	119	693261	51.153	ug/l		99
87) 1,3-Dichlorobenzene	13.712	146	391597	50.593	ug/l		98
88) 1,4-Dichlorobenzene	13.788	146	388440	48.833	ug/l		97
89) n-Butylbenzene	14.035	91	646997	50.515	ug/l		99
90) Hexachloroethane	14.312	117	138063	48.769	ug/l		99
91) 1,2-Dichlorobenzene	14.082	146	375646	50.350	ug/l		99
92) 1,2-Dibromo-3-Chloropr...	14.700	75	61668	49.412	ug/l		99
93) 1,2,4-Trichlorobenzene	15.370	180	219388	49.803	ug/l		97
94) Hexachlorobutadiene	15.476	225	78163	48.209	ug/l		97
95) Naphthalene	15.617	128	735834	52.038	ug/l		100
96) 1,2,3-Trichlorobenzene	15.812	180	212763	49.682	ug/l		99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092525\
Data File : VN087948.D
Acq On : 25 Sep 2025 12:04
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 26 07:27:56 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 05:05:30 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

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

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

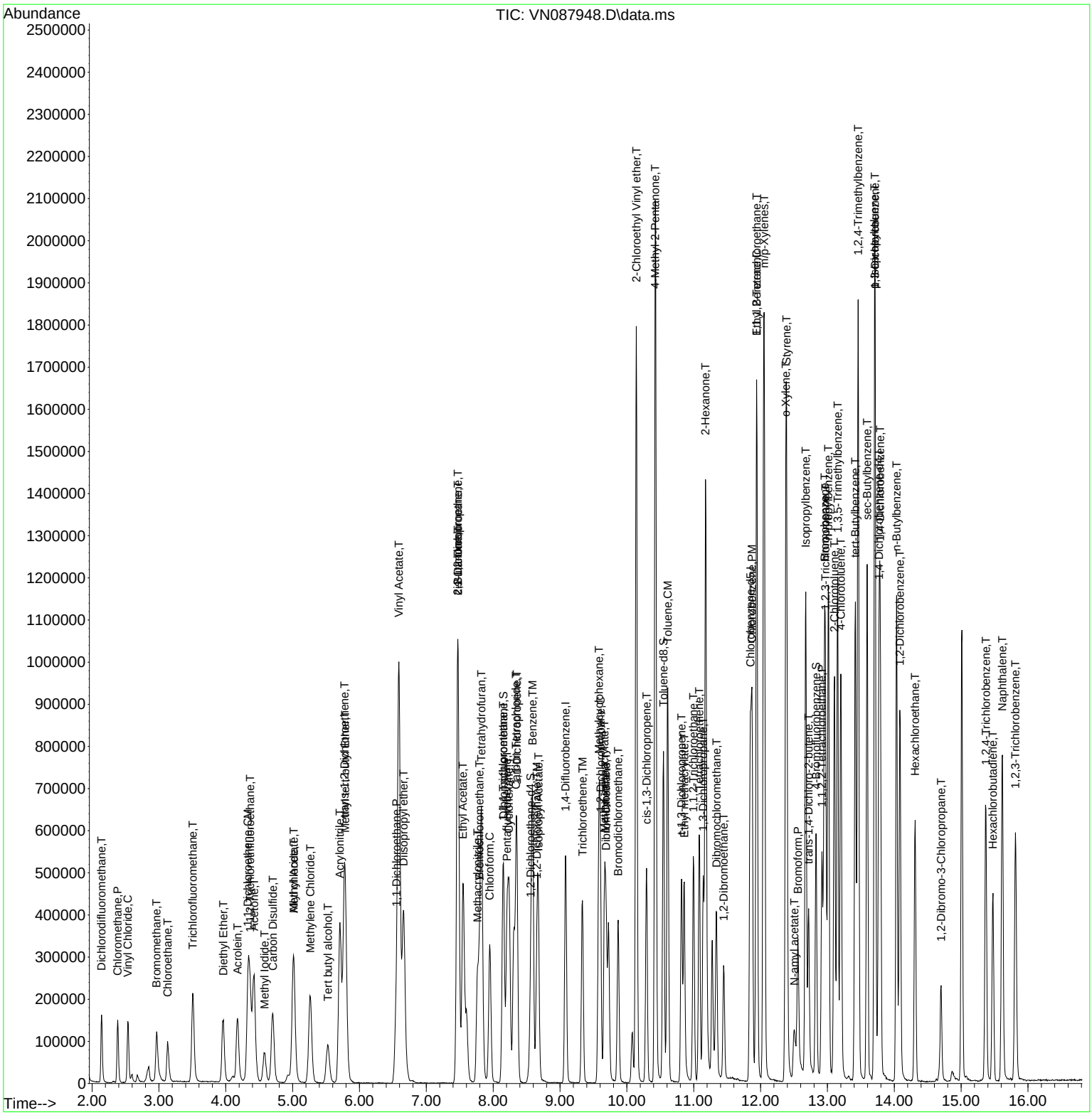
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092525\
Data File : VN087948.D
Acq On : 25 Sep 2025 12:04
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 3 Sample Multiplier: 1

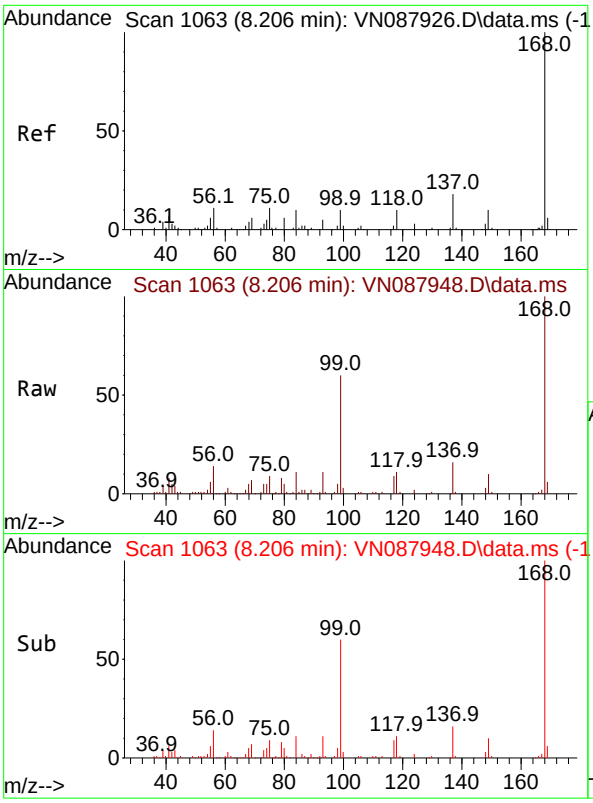
Quant Time: Sep 26 07:27:56 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 05:05:30 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

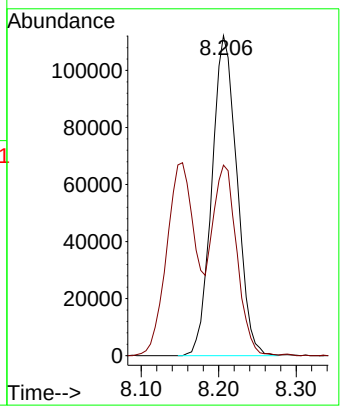




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.206 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion:168 Resp: 25228

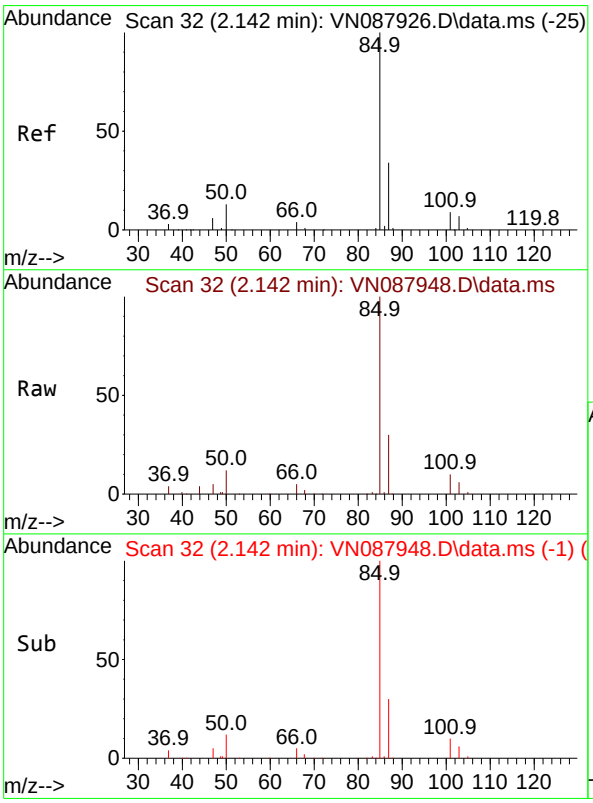
Ion	Ratio	Lower	Upper
168	100		
99	59.4	52.2	78.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

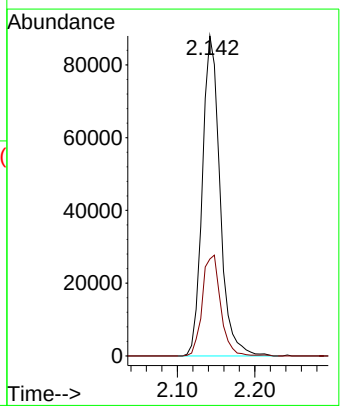
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

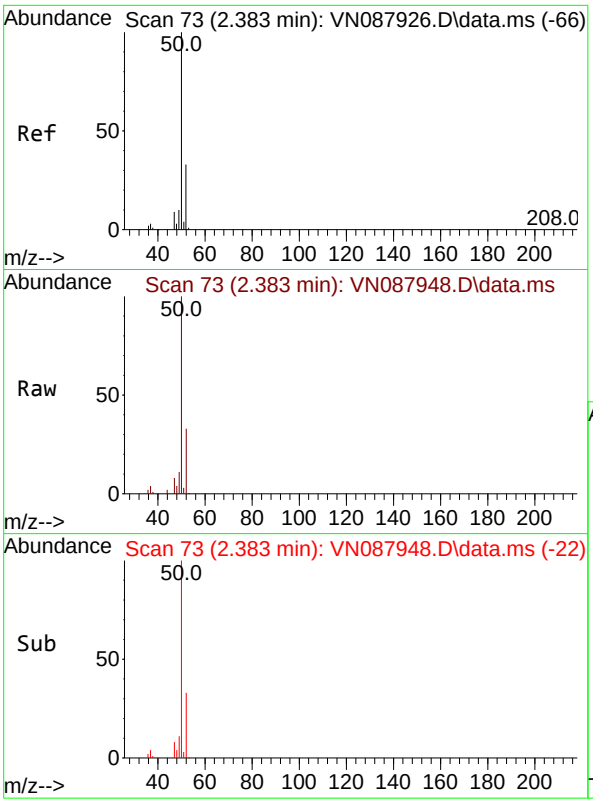


#2
Dichlorodifluoromethane
Concen: 47.699 ug/l
RT: 2.142 min Scan# 32
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 85 Resp: 139364

Ion	Ratio	Lower	Upper
85	100		
87	30.3	16.9	50.6

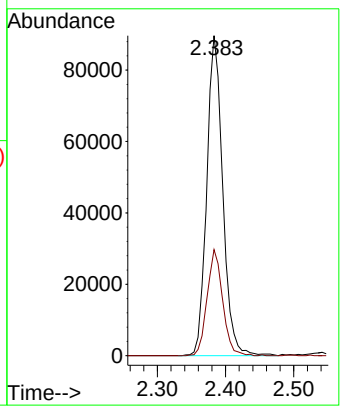




#3
Chloromethane
Concen: 48.936 ug/l
RT: 2.383 min Scan# 7
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 50 Resp: 14639

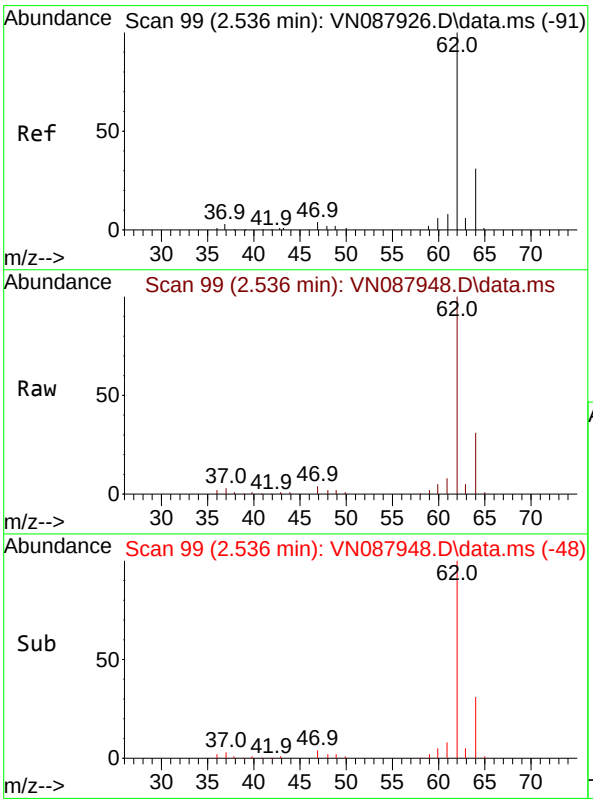
Ion	Ratio	Lower	Upper
50	100		
52	33.2	26.6	40.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

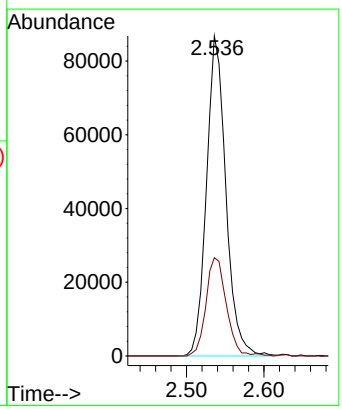
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

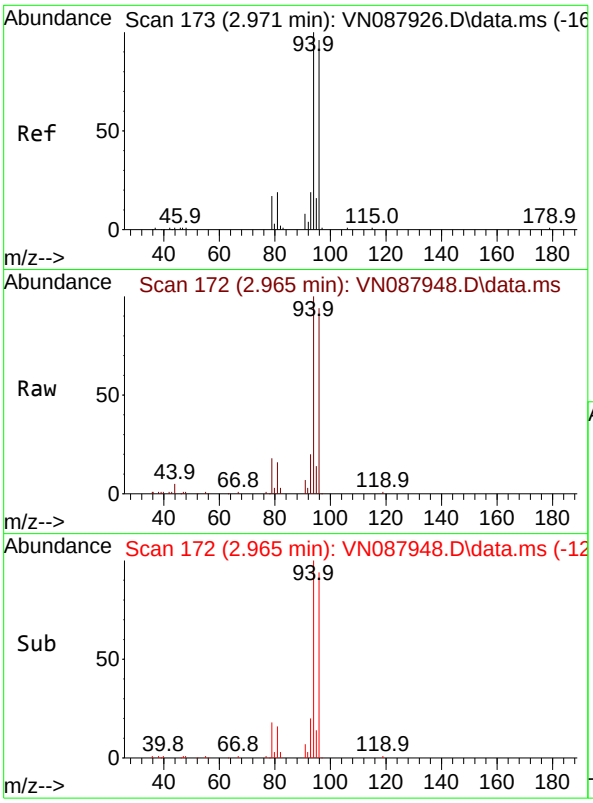


#4
Vinyl Chloride
Concen: 49.486 ug/l
RT: 2.536 min Scan# 99
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 62 Resp: 151034

Ion	Ratio	Lower	Upper
62	100		
64	30.7	25.2	37.8

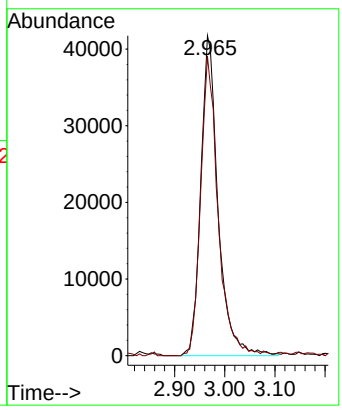




#5
Bromomethane
Concen: 53.032 ug/l
RT: 2.965 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 94 Resp: 10034

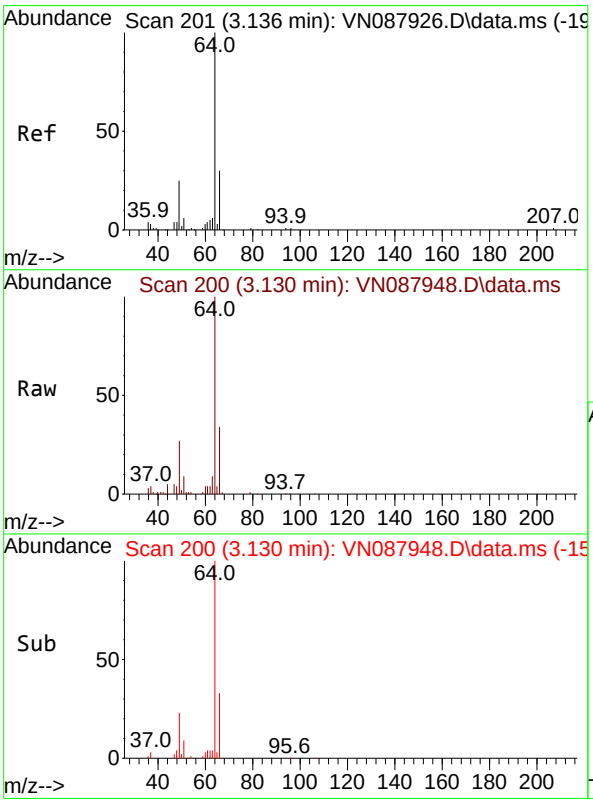
Ion	Ratio	Lower	Upper
94	100		
96	93.6	76.8	115.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

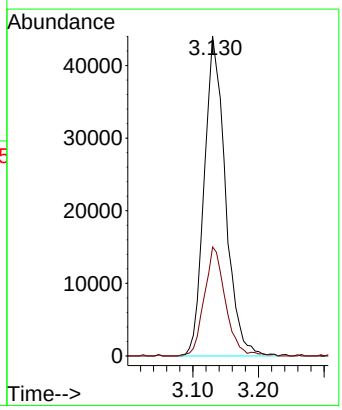
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

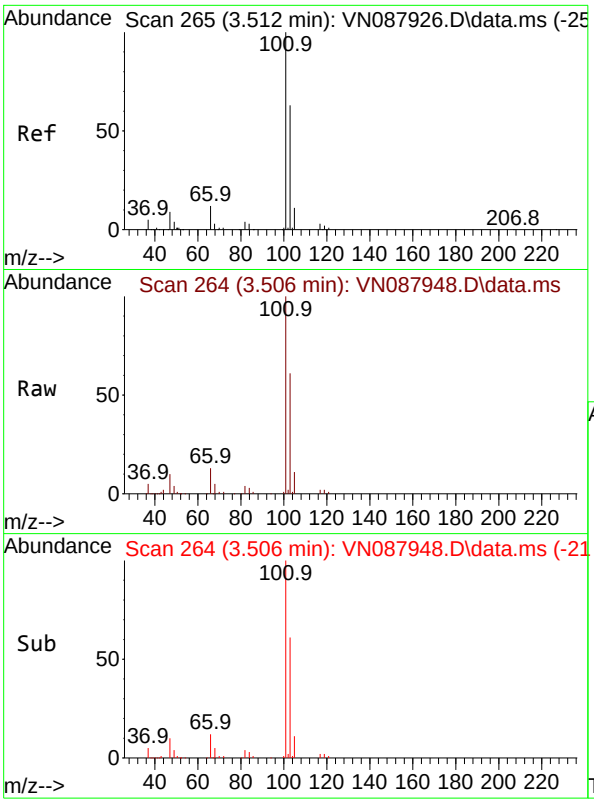


#6
Chloroethane
Concen: 49.948 ug/l
RT: 3.130 min Scan# 200
Delta R.T. -0.006 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 64 Resp: 99120

Ion	Ratio	Lower	Upper
64	100		
66	34.1	23.8	35.8





#7
Trichlorofluoromethane
Concen: 48.431 ug/l
RT: 3.506 min Scan# 2
Delta R.T. -0.006 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

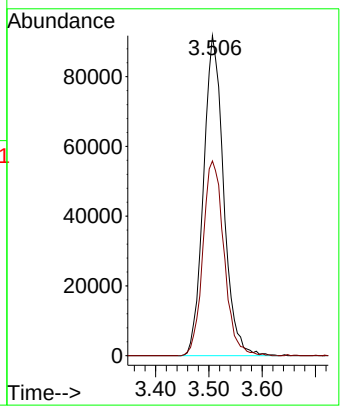
Tgt Ion:101 Resp: 24066

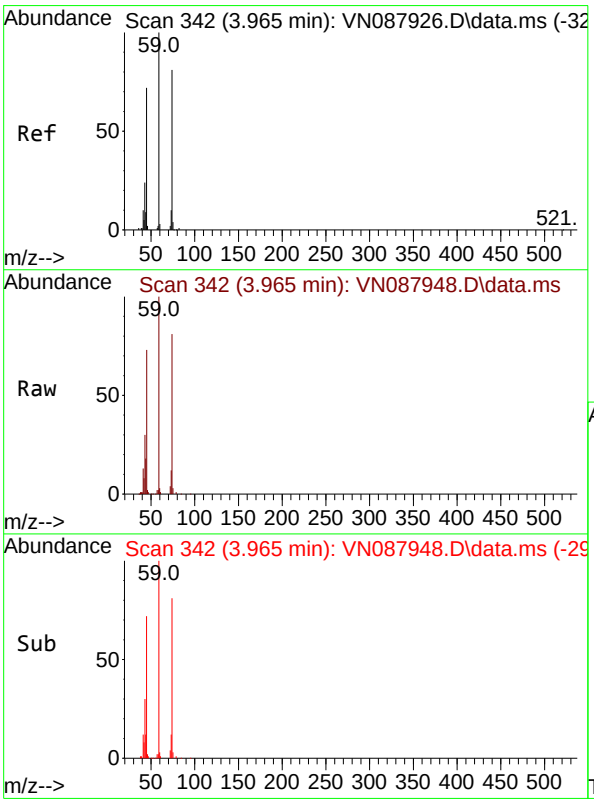
Ion	Ratio	Lower	Upper
101	100		
103	60.9	50.2	75.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

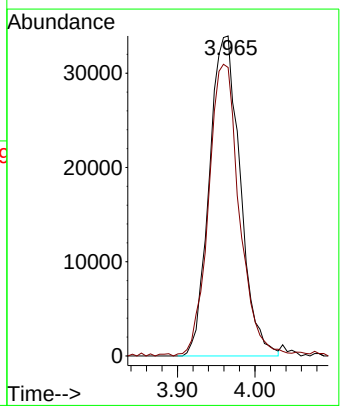


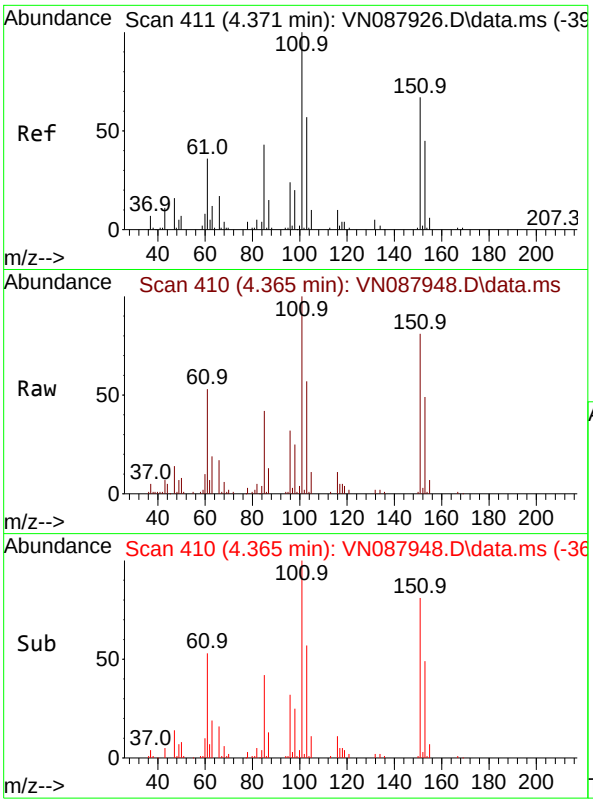


#8
Diethyl Ether
Concen: 50.084 ug/l
RT: 3.965 min Scan# 342
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 74 Resp: 94025

Ion	Ratio	Lower	Upper
74	100		
45	91.1	45.4	136.1





#9
1,1,2-Trichlorotrifluoroethane
Concen: 47.643 ug/l
RT: 4.365 min Scan# 41
Delta R.T. -0.006 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

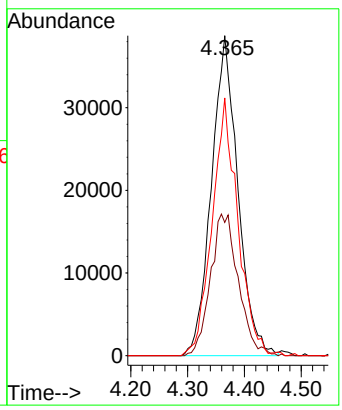
Tgt Ion:101 Resp: 12513

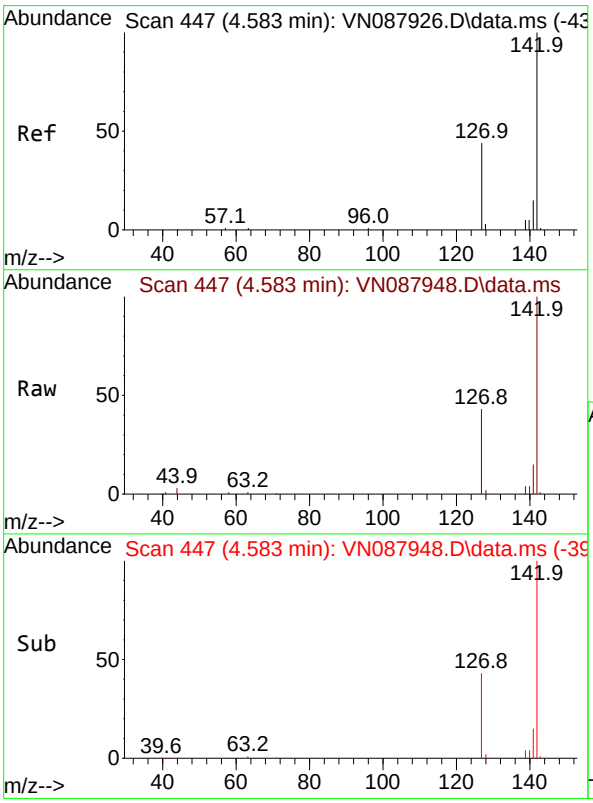
Ion	Ratio	Lower	Upper
101	100		
85	46.8	36.5	54.7
151	78.0	58.6	87.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

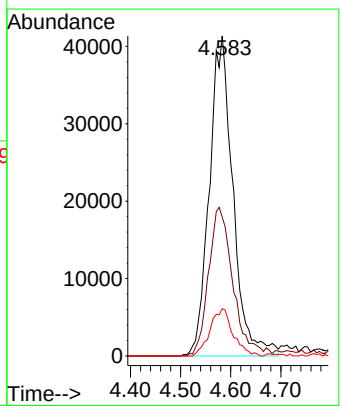


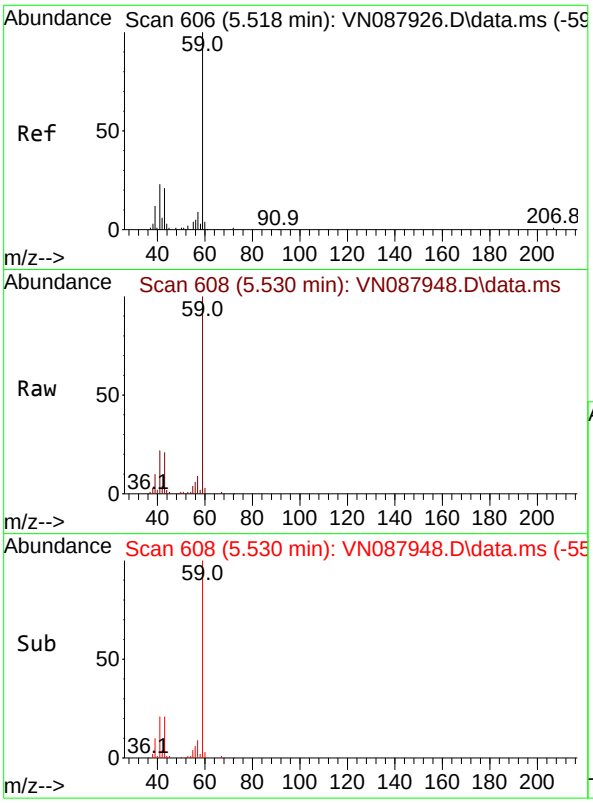


#10
Methyl Iodide
Concen: 57.259 ug/l
RT: 4.583 min Scan# 447
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion:142 Resp: 135349

Ion	Ratio	Lower	Upper
142	100		
127	43.4	35.3	52.9
141	14.7	11.8	17.8





#11
Tert butyl alcohol
Concen: 271.032 ug/l
RT: 5.530 min Scan# 6
Delta R.T. 0.012 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

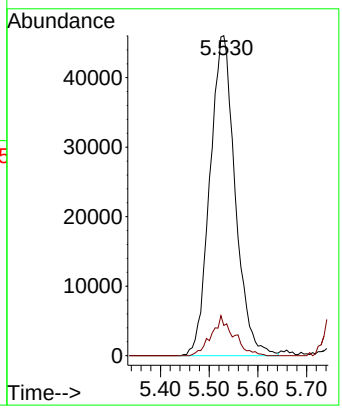
Tgt Ion: 59 Resp: 16574

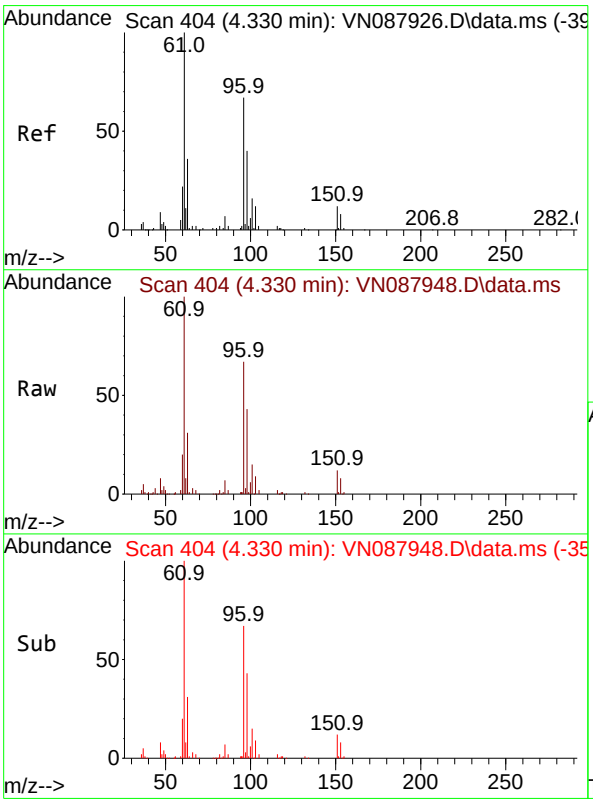
Ion	Ratio	Lower	Upper
59	100		
57	11.1	8.8	13.2

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

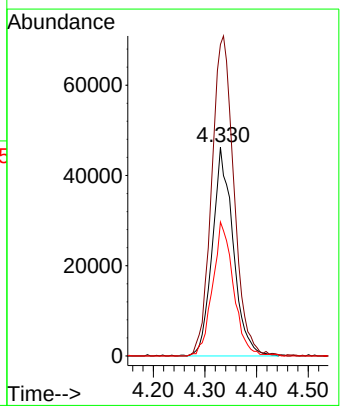


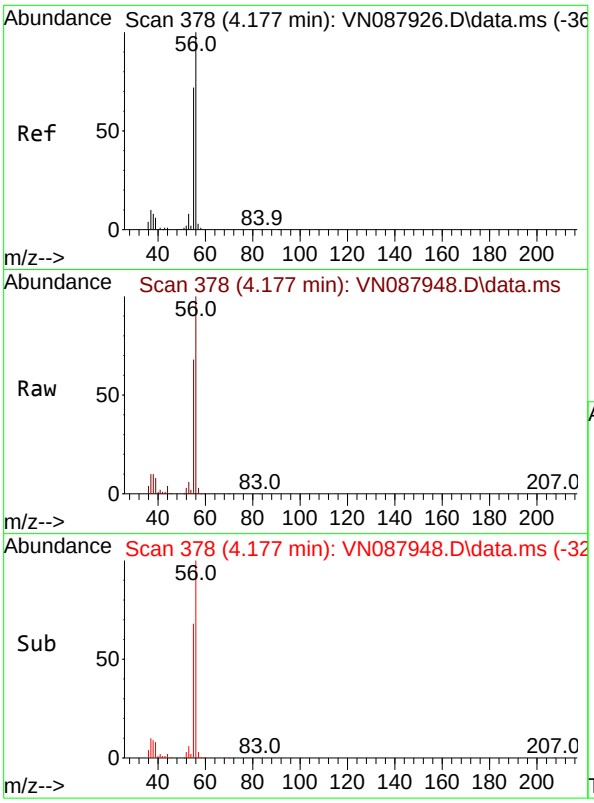


#12
1,1-Dichloroethene
Concen: 48.788 ug/l
RT: 4.330 min Scan# 404
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 96 Resp: 129291

Ion	Ratio	Lower	Upper
96	100		
61	149.3	119.2	178.8
98	64.2	47.5	71.3

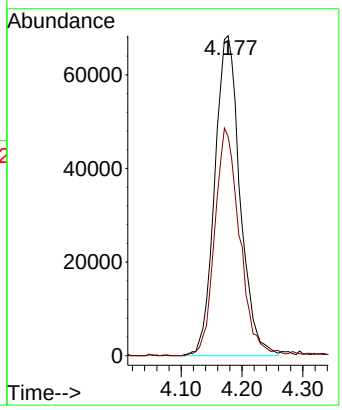




#13
Acrolein
Concen: 251.254 ug/l
RT: 4.177 min Scan# 3
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 56 Resp: 19715

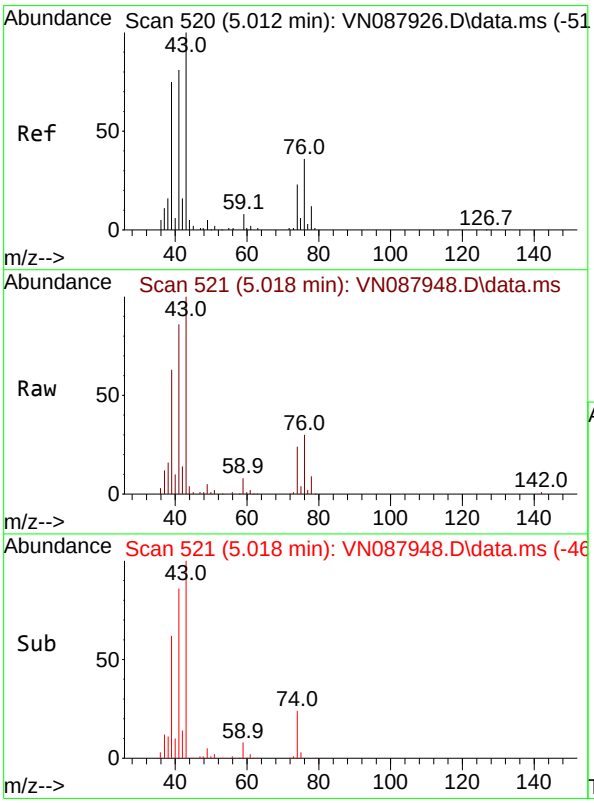
Ion	Ratio	Lower	Upper
56	100		
55	70.2	59.3	88.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

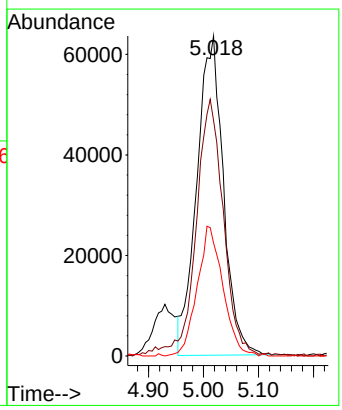
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

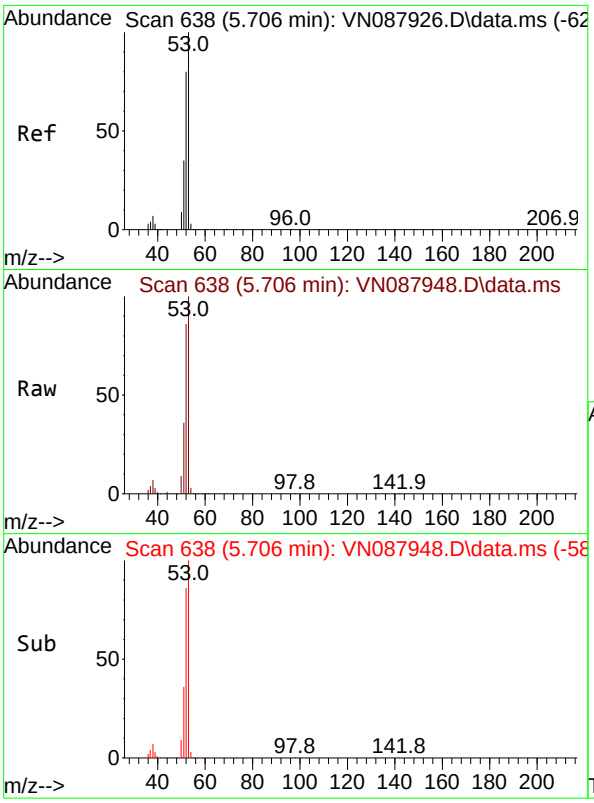


#14
Allyl chloride
Concen: 49.426 ug/l
RT: 5.018 min Scan# 521
Delta R.T. 0.006 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 41 Resp: 213241

Ion	Ratio	Lower	Upper
41	100		
39	83.2	63.8	95.8
76	39.3	33.0	49.6





#15
Acrylonitrile
Concen: 262.332 ug/l
RT: 5.706 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

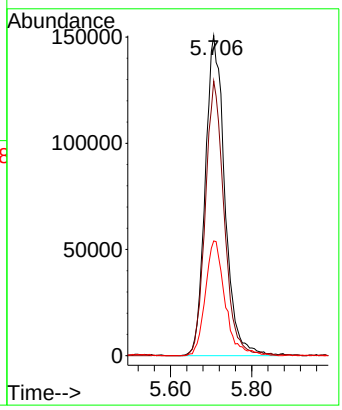
Tgt Ion: 53 Resp: 50322

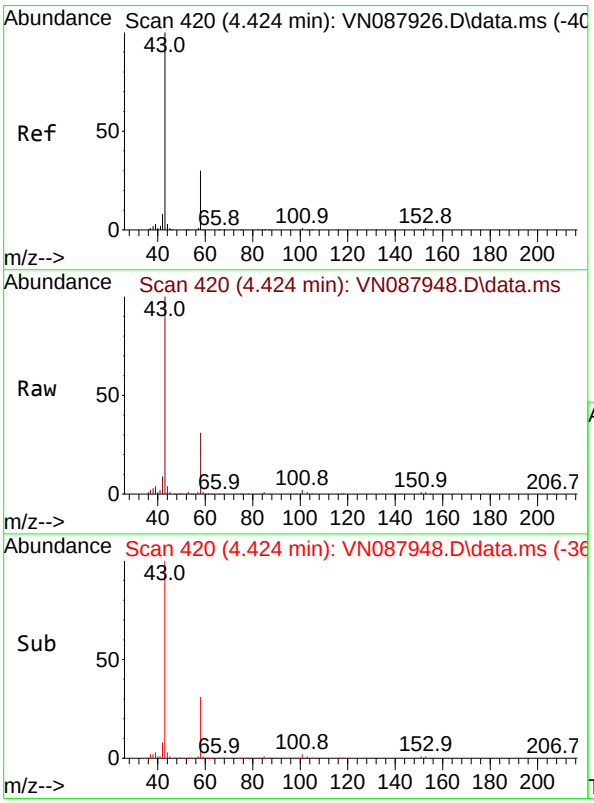
Ion	Ratio	Lower	Upper
53	100		
52	82.5	66.6	99.8
51	36.4	29.0	43.4

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

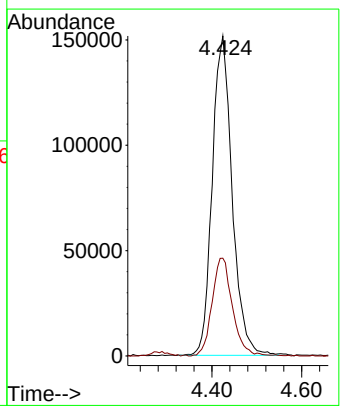


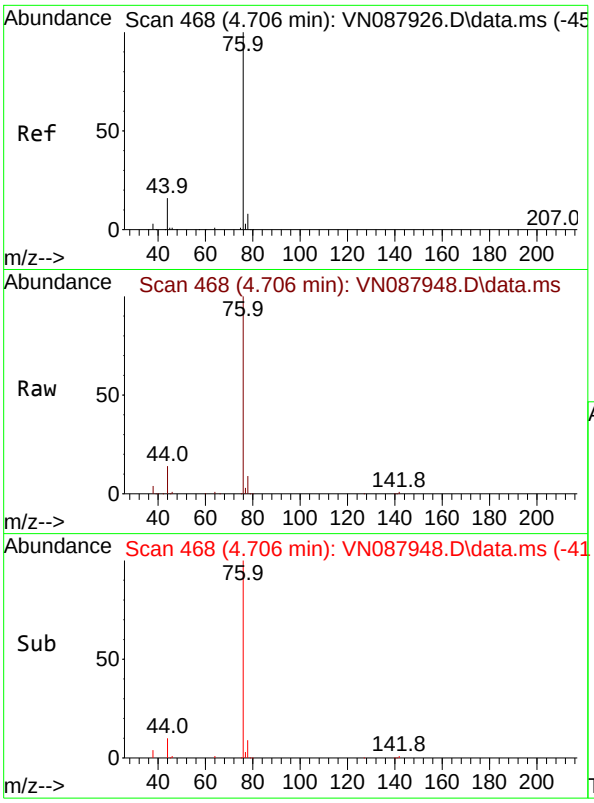


#16
Acetone
Concen: 268.115 ug/l
RT: 4.424 min Scan# 420
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 43 Resp: 468375

Ion	Ratio	Lower	Upper
43	100		
58	30.4	24.1	36.1

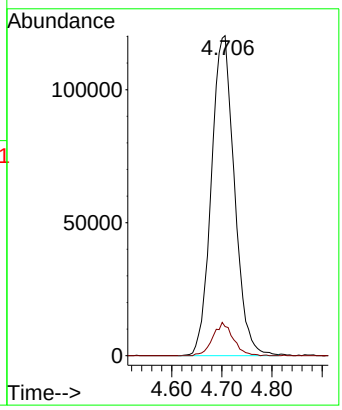




#17
Carbon Disulfide
Concen: 46.415 ug/l
RT: 4.706 min Scan# 4
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 76 Resp: 38431

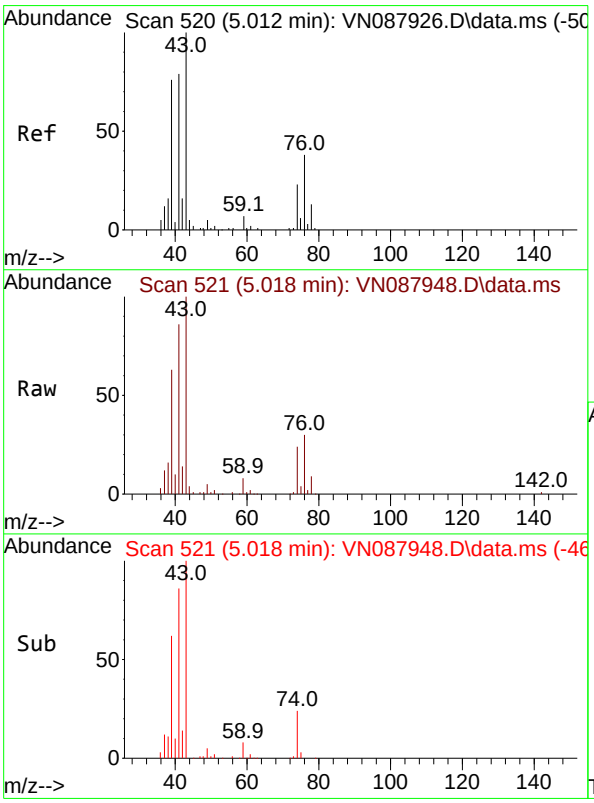
Ion	Ratio	Lower	Upper
76	100		
78	9.1	6.7	10.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

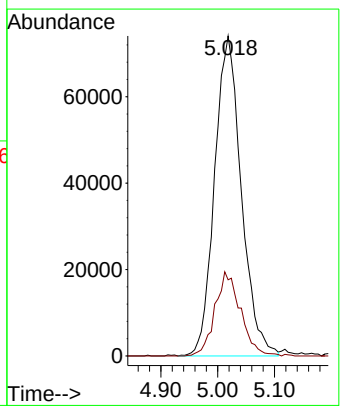
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

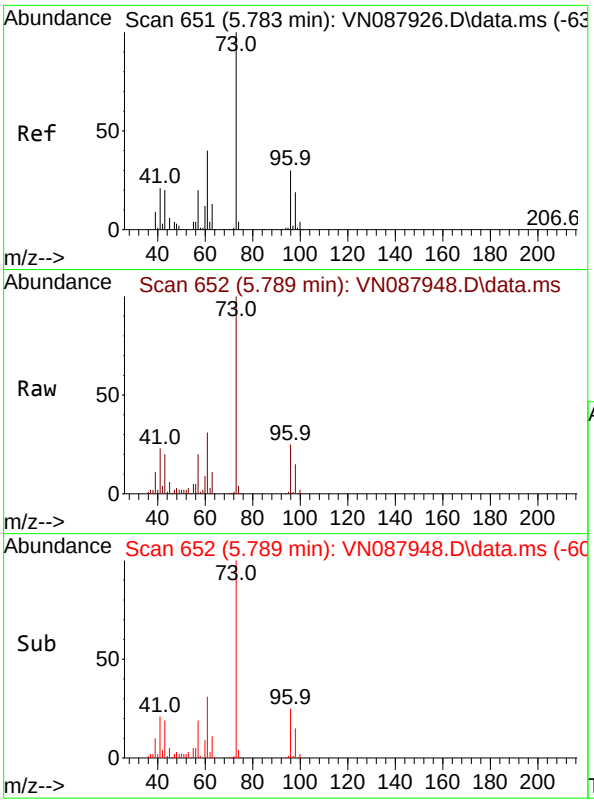


#18
Methyl Acetate
Concen: 55.411 ug/l
RT: 5.018 min Scan# 521
Delta R.T. 0.006 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 43 Resp: 242249

Ion	Ratio	Lower	Upper
43	100		
74	25.1	19.7	29.5

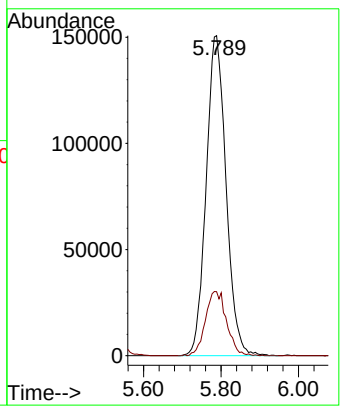




#19
Methyl tert-butyl Ether
Concen: 51.896 ug/l
RT: 5.789 min Scan# 6
Delta R.T. 0.006 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 73 Resp: 53724

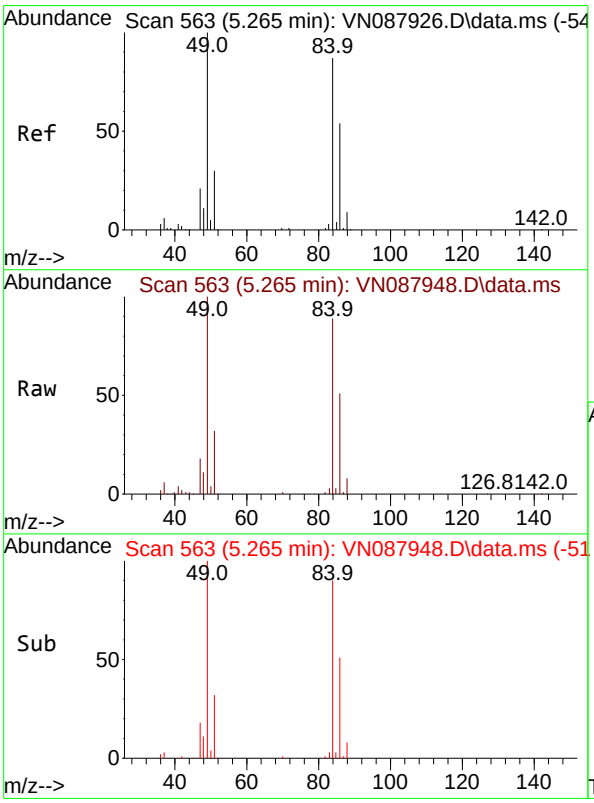
Ion	Ratio	Lower	Upper
73	100		
57	20.0	16.3	24.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

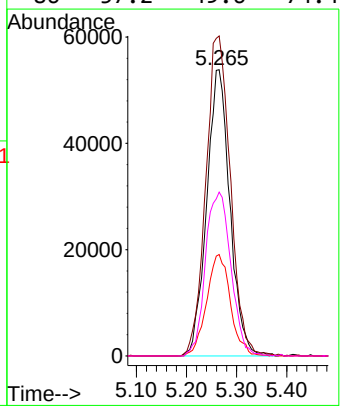
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

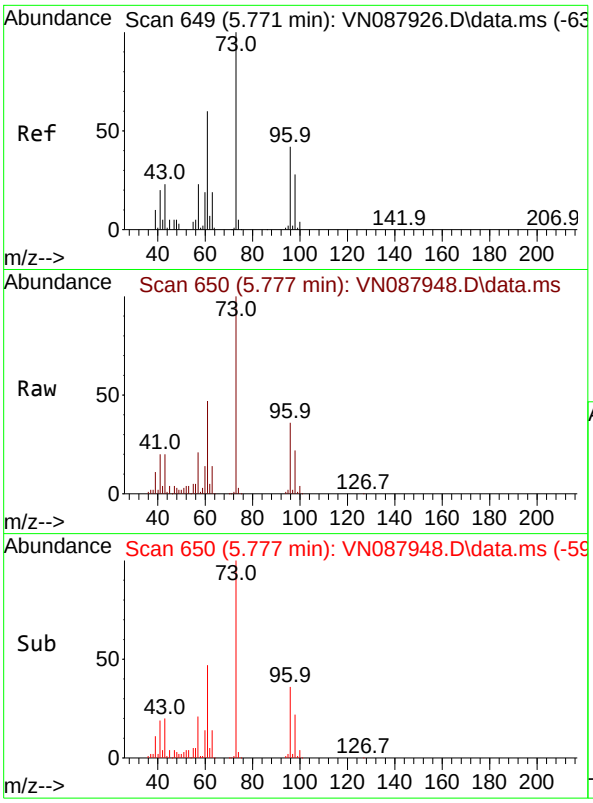


#20
Methylene Chloride
Concen: 49.116 ug/l
RT: 5.265 min Scan# 563
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 84 Resp: 173671

Ion	Ratio	Lower	Upper
84	100		
49	111.8	92.1	138.1
51	35.4	27.7	41.5
86	57.2	49.6	74.4

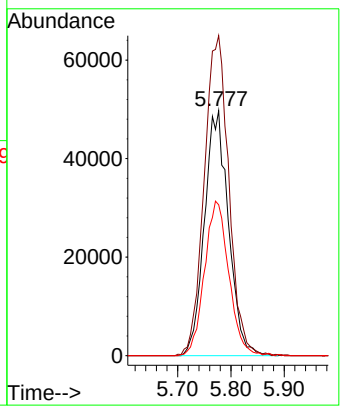




#21
trans-1,2-Dichloroethene
Concen: 47.970 ug/l
RT: 5.777 min Scan# 6
Delta R.T. 0.006 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 96 Resp: 15584

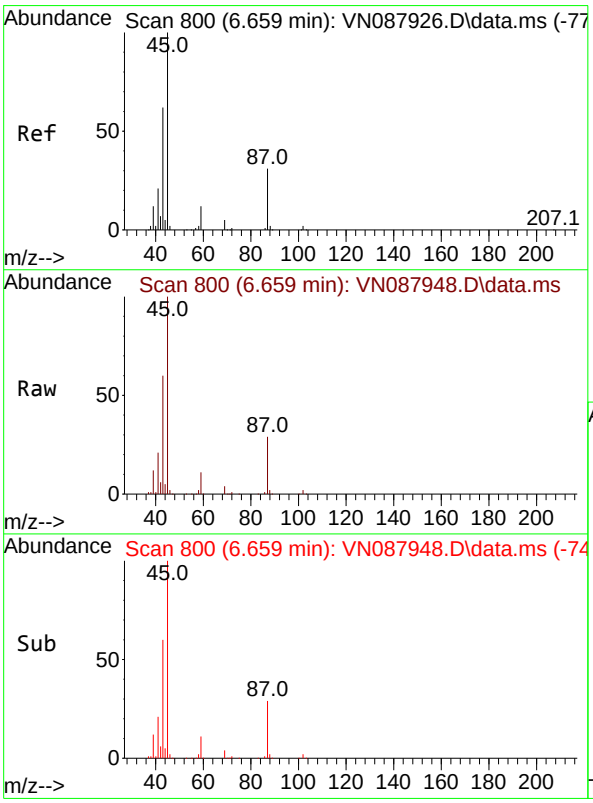
Ion	Ratio	Lower	Upper
96	100		
61	130.1	114.4	171.6
98	61.6	53.6	80.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

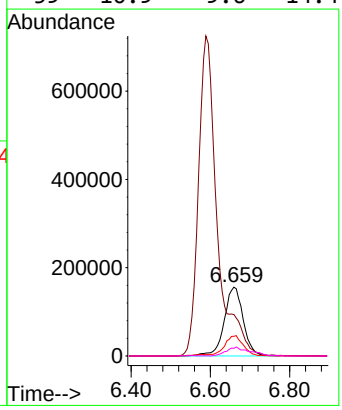
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

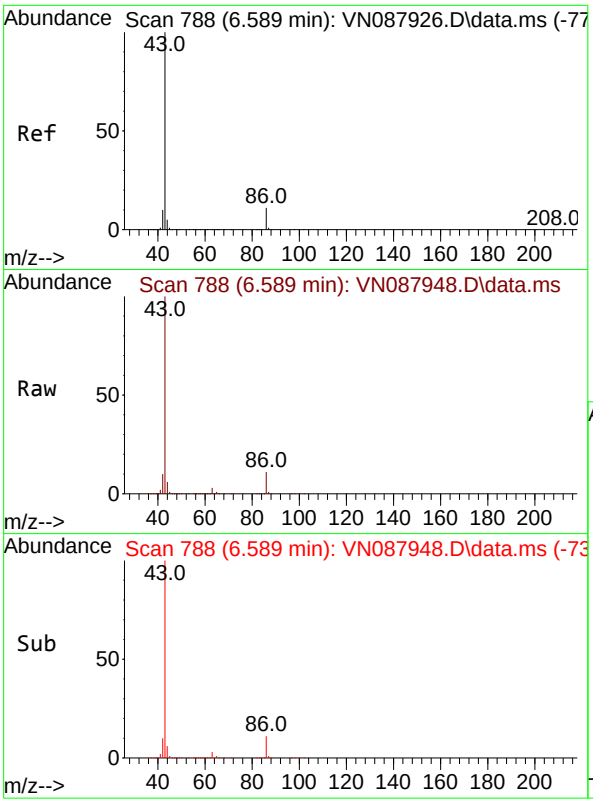


#22
Diisopropyl ether
Concen: 51.507 ug/l
RT: 6.659 min Scan# 800
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 45 Resp: 518759

Ion	Ratio	Lower	Upper
45	100		
43	60.2	49.9	74.9
87	28.7	25.2	37.8
59	10.9	9.6	14.4





#23
Vinyl Acetate
Concen: 279.393 ug/l
RT: 6.589 min Scan# 7
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

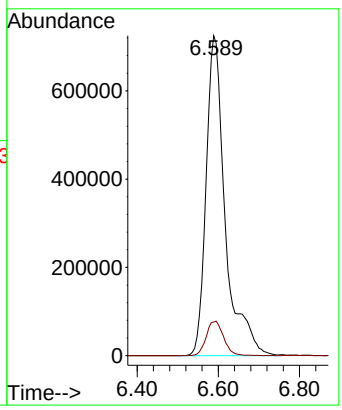
Tgt Ion: 43 Resp: 236931

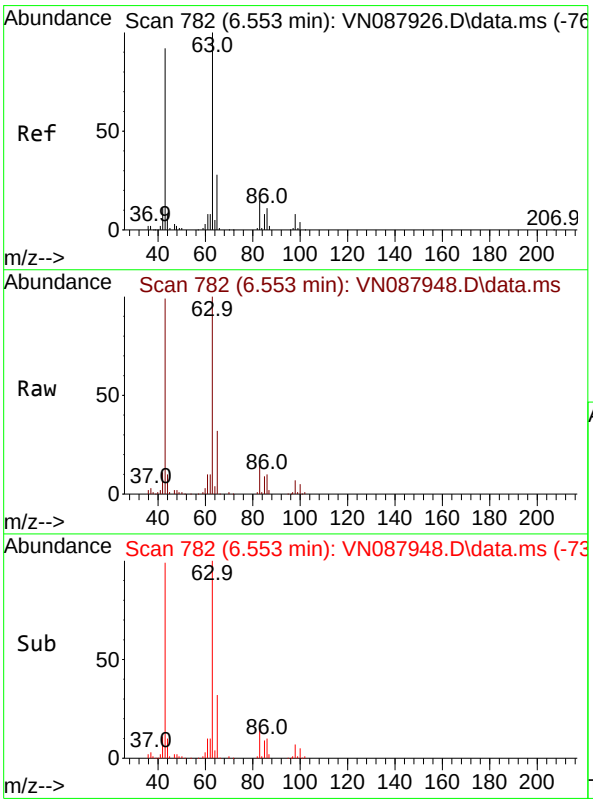
Ion	Ratio	Lower	Upper
43	100		
86	10.5	8.6	12.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

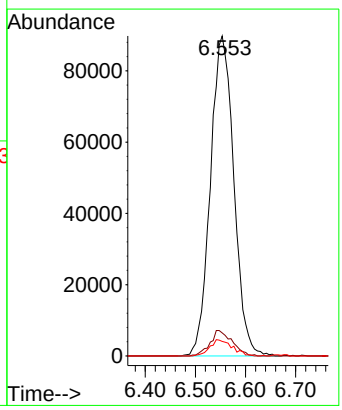


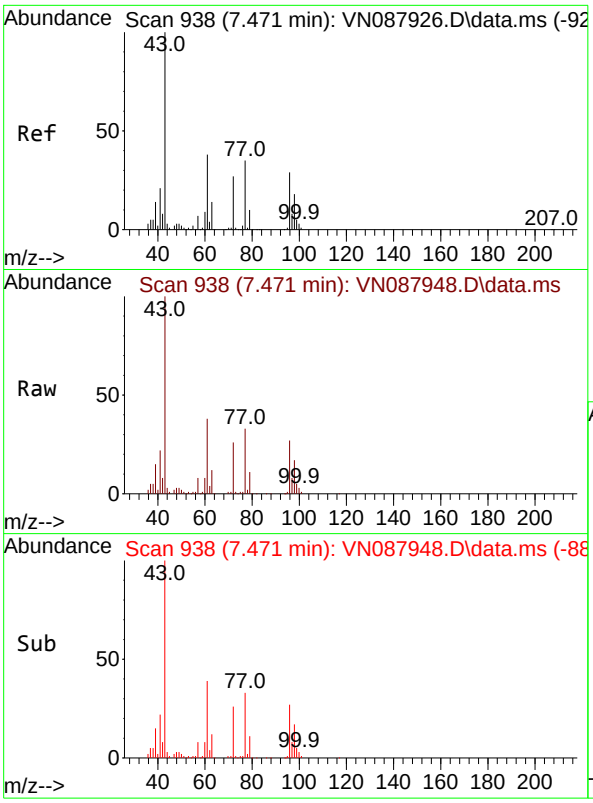


#24
1,1-Dichloroethane
Concen: 49.600 ug/l
RT: 6.553 min Scan# 782
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 63 Resp: 291853

Ion	Ratio	Lower	Upper
63	100		
98	7.2	3.9	11.5
100	4.6	2.1	6.5

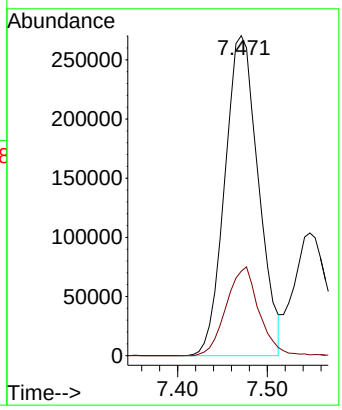




#25
2-Butanone
Concen: 263.713 ug/l
RT: 7.471 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 43 Resp: 70413

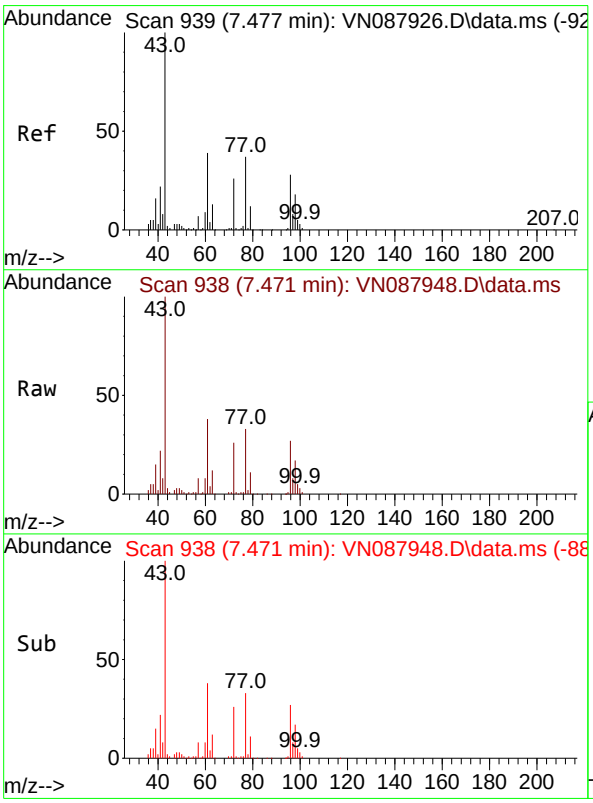
Ion	Ratio	Lower	Upper
43	100		
72	26.4	21.5	32.3



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

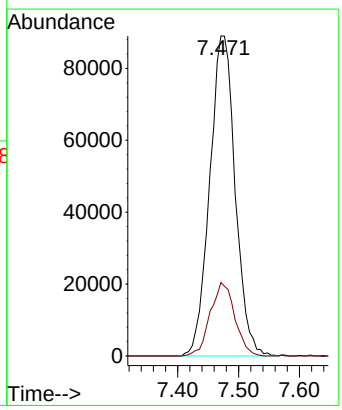
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

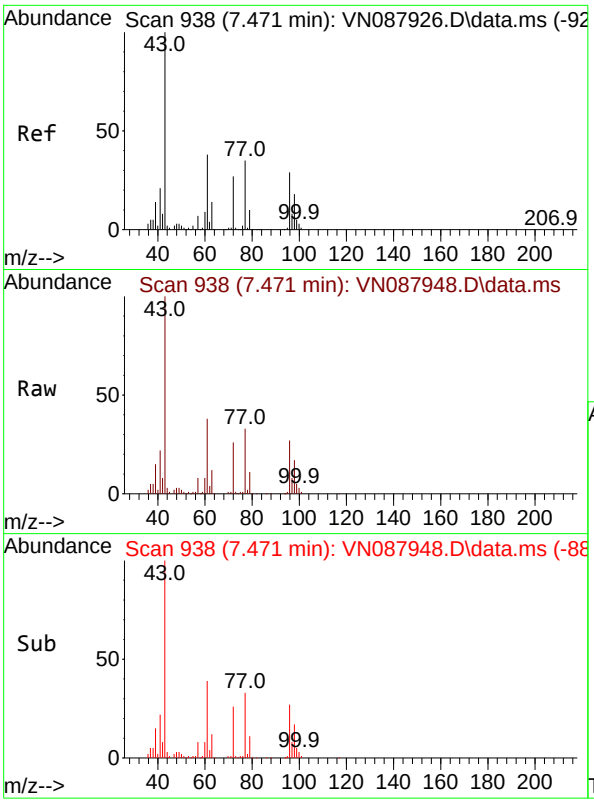


#26
2,2-Dichloropropane
Concen: 49.573 ug/l
RT: 7.471 min Scan# 938
Delta R.T. -0.006 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 77 Resp: 259162

Ion	Ratio	Lower	Upper
77	100		
97	22.1	11.5	34.5

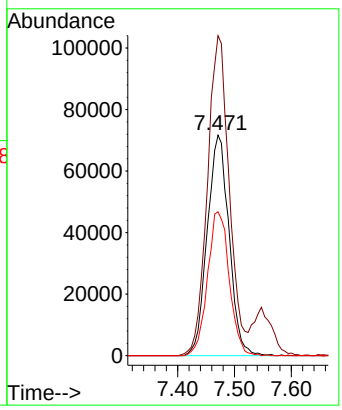




#27
cis-1,2-Dichloroethene
Concen: 49.376 ug/l
RT: 7.471 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 96 Resp: 19086

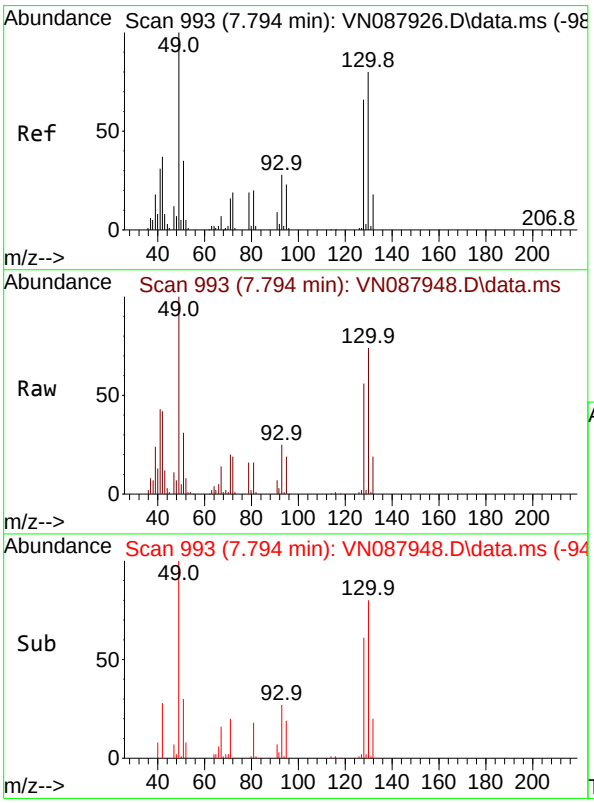
Ion	Ratio	Lower	Upper
96	100		
61	145.7	0.0	283.0
98	65.1	0.0	127.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

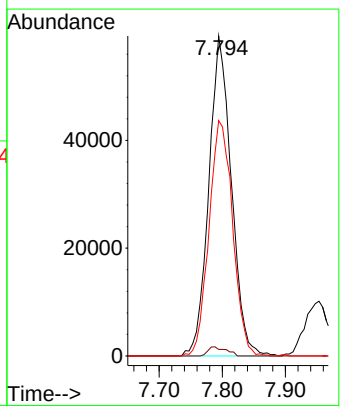
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

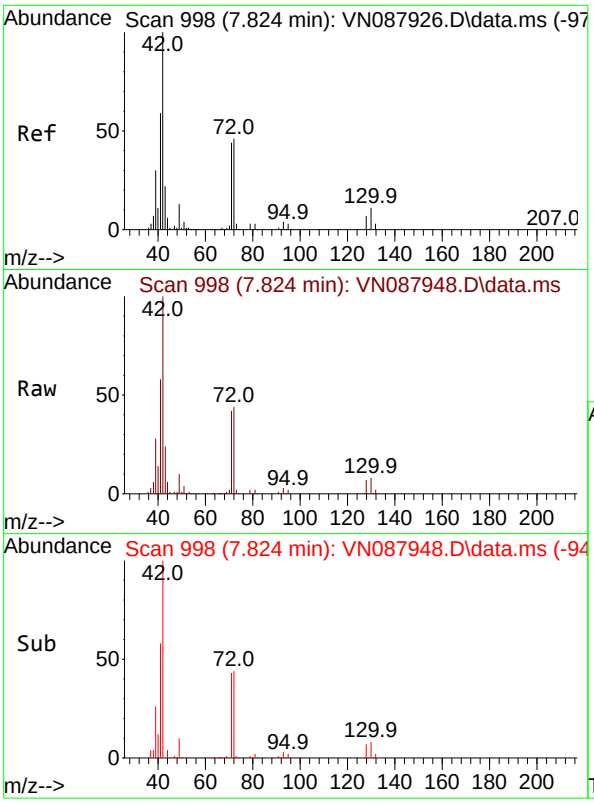


#28
Bromochloromethane
Concen: 46.036 ug/l
RT: 7.794 min Scan# 993
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 49 Resp: 147175

Ion	Ratio	Lower	Upper
49	100		
129	2.3	0.0	5.4
130	77.0	62.6	94.0





#29
Tetrahydrofuran
Concen: 267.483 ug/l
RT: 7.824 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

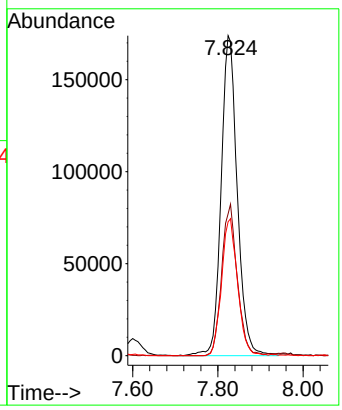
Tgt Ion: 42 Resp: 45731

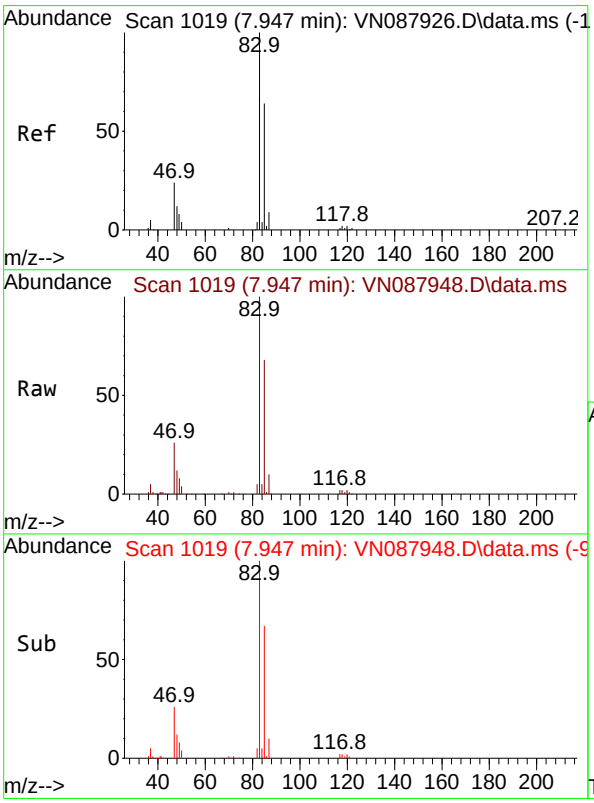
Ion	Ratio	Lower	Upper
42	100		
72	45.5	36.5	54.7
71	42.4	33.8	50.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

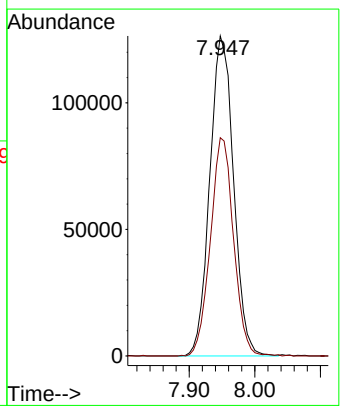


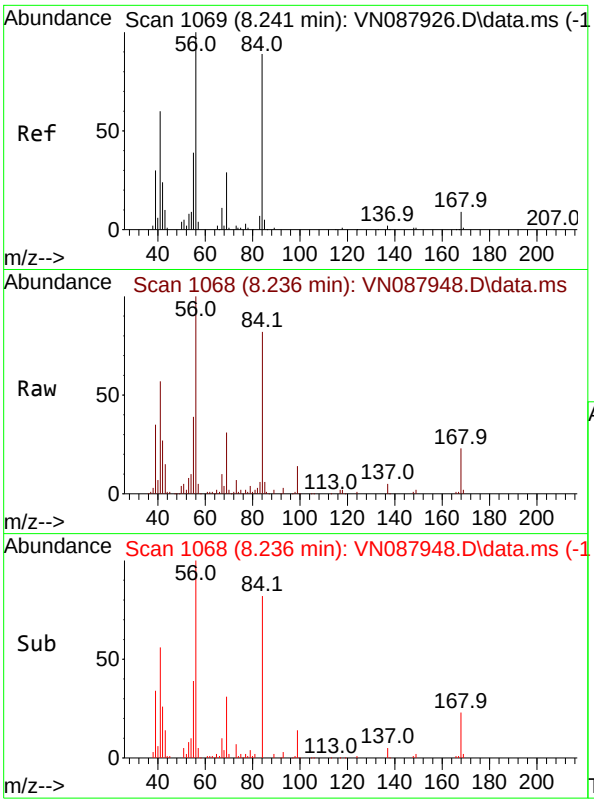


#30
Chloroform
Concen: 49.398 ug/l
RT: 7.947 min Scan# 1019
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 83 Resp: 317816

Ion	Ratio	Lower	Upper
83	100		
85	68.2	50.9	76.3

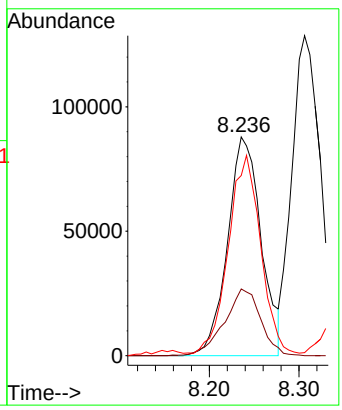




#31
Cyclohexane
Concen: 48.030 ug/l
RT: 8.236 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 56 Resp: 22867

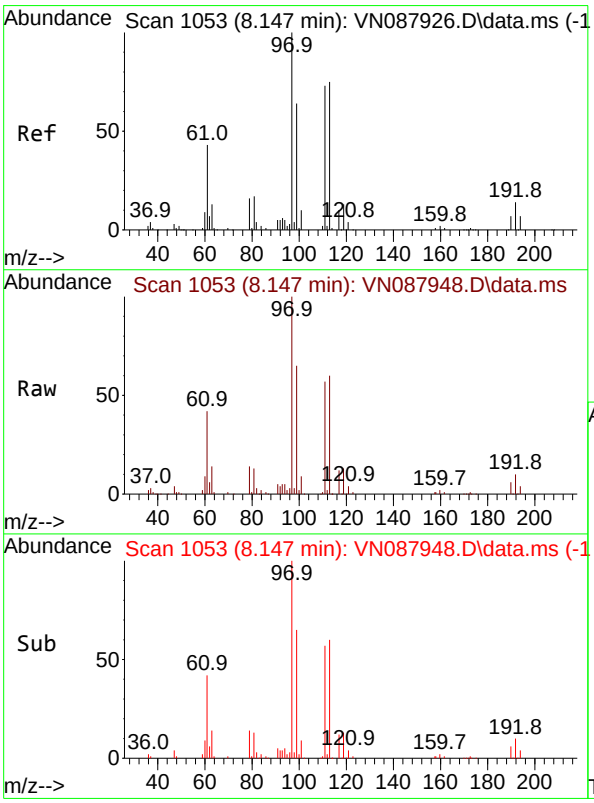
Ion	Ratio	Lower	Upper
56	100		
69	30.3	23.4	35.0
84	80.7	70.8	106.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

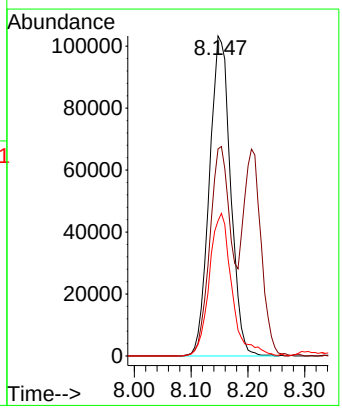
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

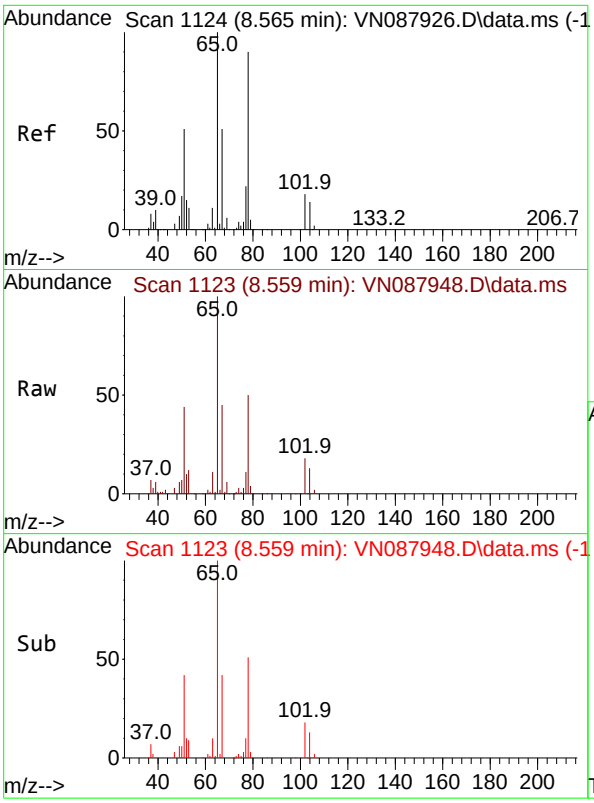


#32
1,1,1-Trichloroethane
Concen: 49.059 ug/l
RT: 8.147 min Scan# 1053
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 97 Resp: 266706

Ion	Ratio	Lower	Upper
97	100		
99	66.8	51.1	76.7
61	47.5	38.6	58.0

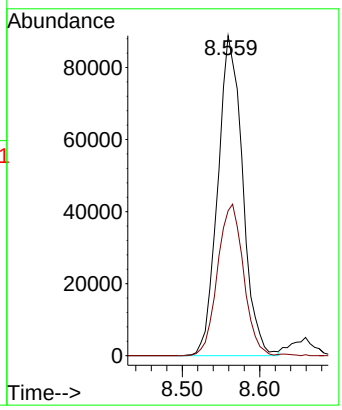




#33
1,2-Dichloroethane-d4
Concen: 46.582 ug/l
RT: 8.559 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 65 Resp: 19777

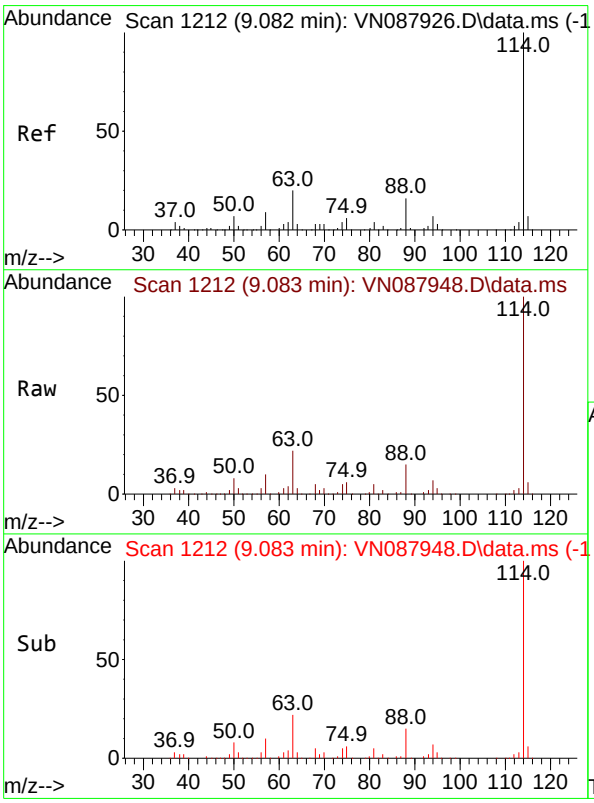
Ion	Ratio	Lower	Upper
65	100		
67	49.5	0.0	103.4



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

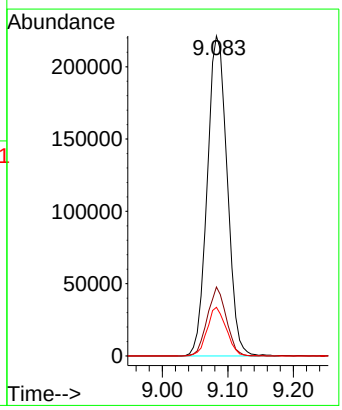
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

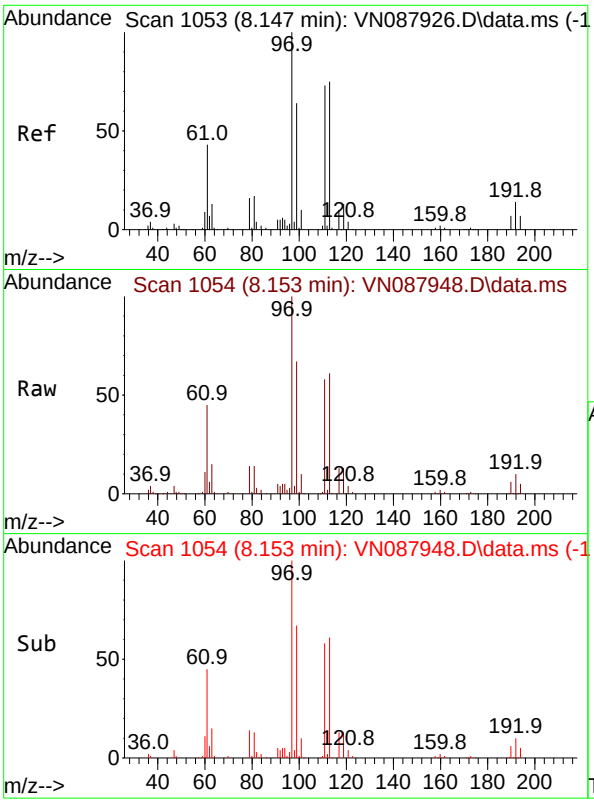


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.083 min Scan# 1212
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion:114 Resp: 466714

Ion	Ratio	Lower	Upper
114	100		
63	21.6	0.0	40.0
88	15.2	0.0	31.8

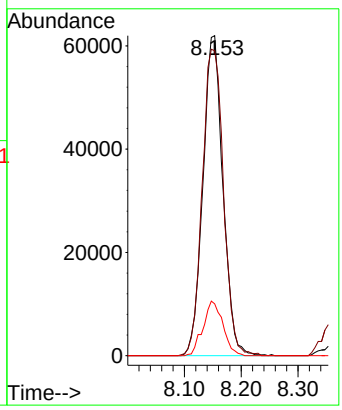




#35
Dibromofluoromethane
Concen: 44.597 ug/l
RT: 8.153 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion:113 Resp: 15112

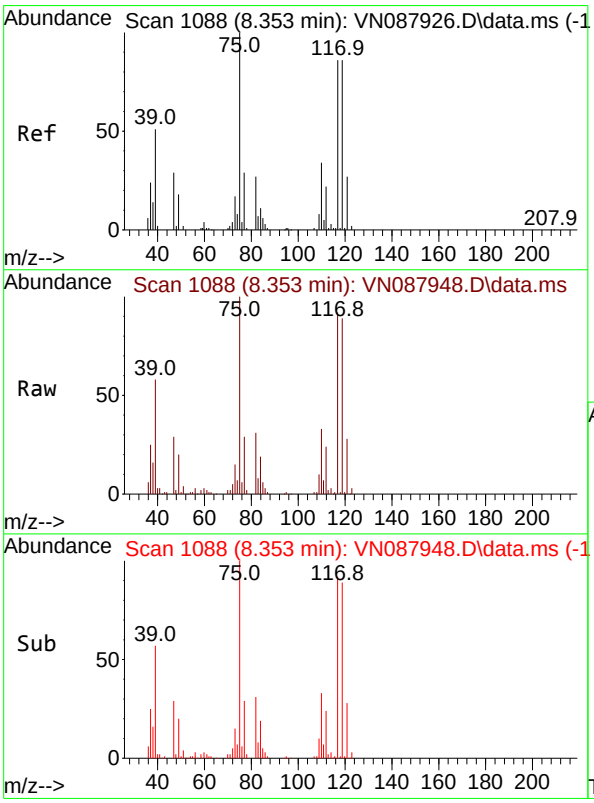
Ion	Ratio	Lower	Upper
113	100		
111	101.6	82.2	123.2
192	16.9	14.2	21.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

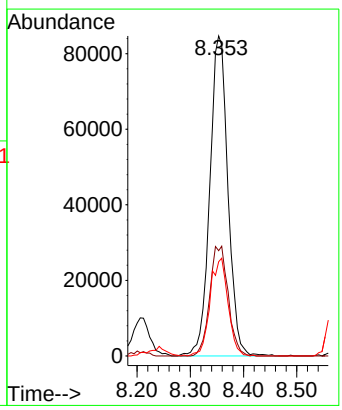
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

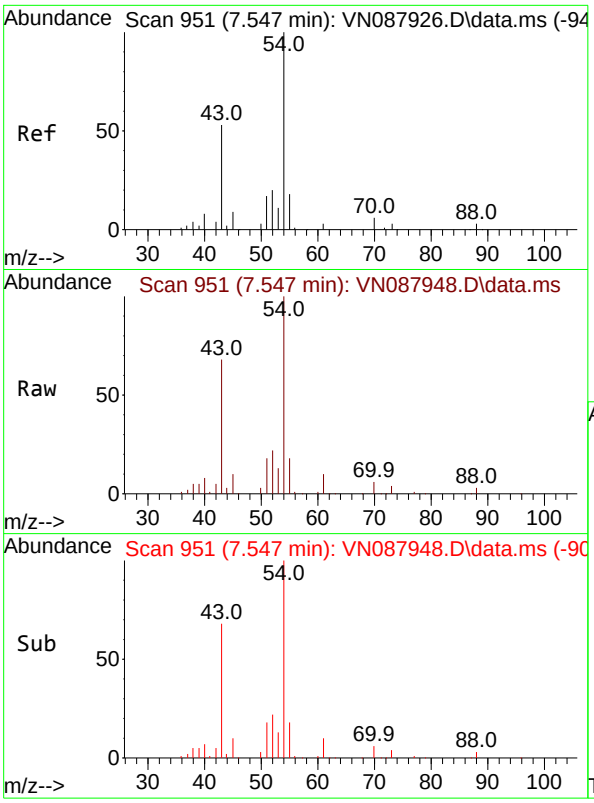


#36
1,1-Dichloropropene
Concen: 49.205 ug/l
RT: 8.353 min Scan# 1088
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 75 Resp: 200491

Ion	Ratio	Lower	Upper
75	100		
110	35.0	17.1	51.3
77	30.3	24.8	37.2





#37
Ethyl Acetate
Concen: 50.766 ug/l
RT: 7.547 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

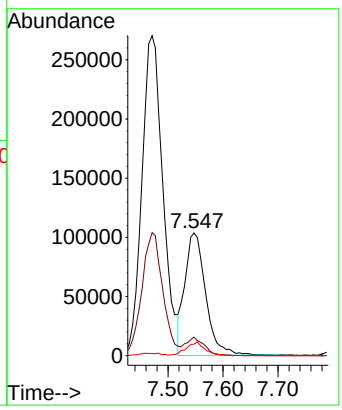
Tgt Ion: 43 Resp: 27163

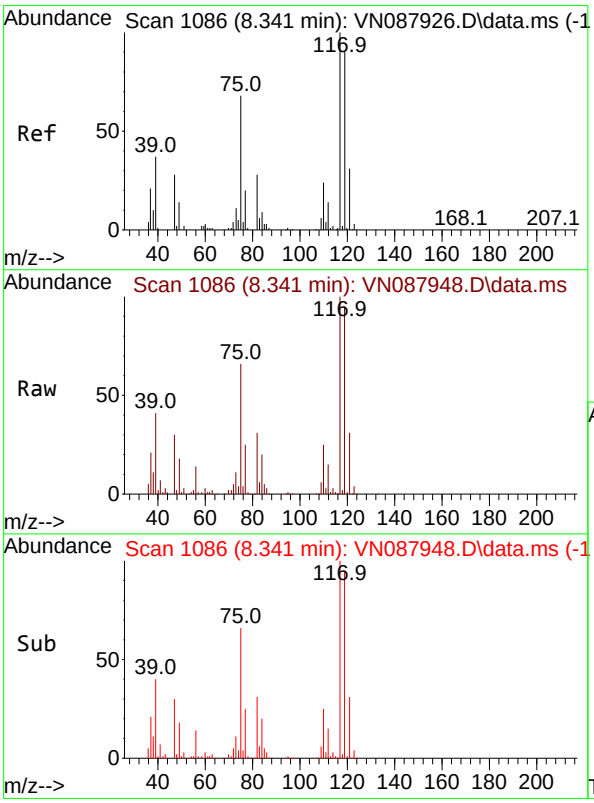
Ion	Ratio	Lower	Upper
43	100		
61	13.1	10.7	16.1
70	10.2	7.8	11.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

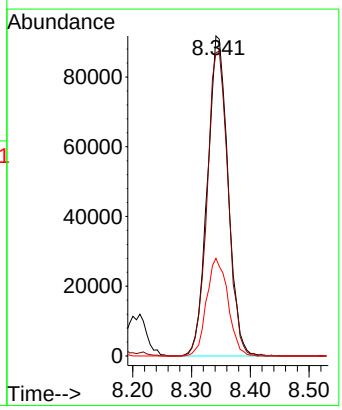


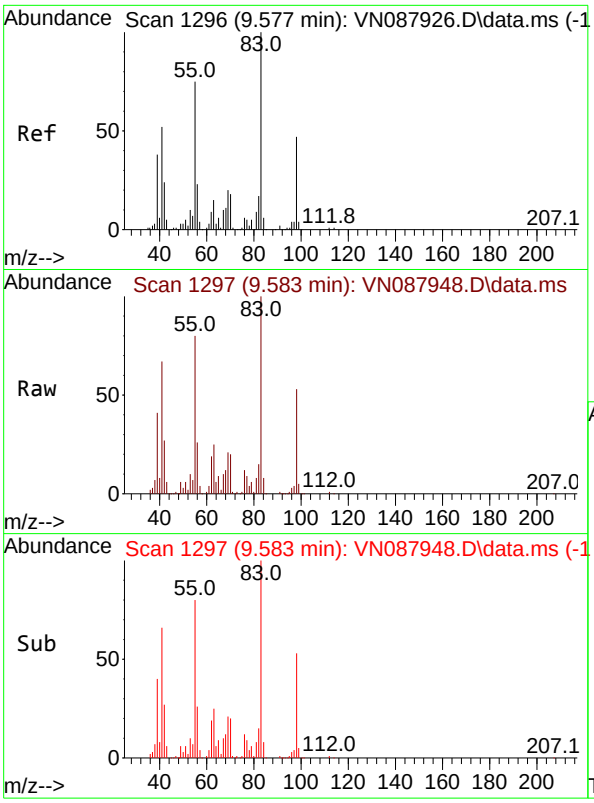


#38
Carbon Tetrachloride
Concen: 47.879 ug/l
RT: 8.341 min Scan# 1086
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion:117 Resp: 223861

Ion	Ratio	Lower	Upper
117	100		
119	94.8	72.1	108.1
121	30.5	24.6	36.8





#39
Methylcyclohexane
Concen: 47.819 ug/l
RT: 9.583 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

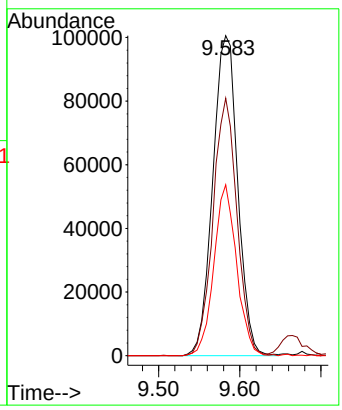
Tgt Ion: 83 Resp: 21494

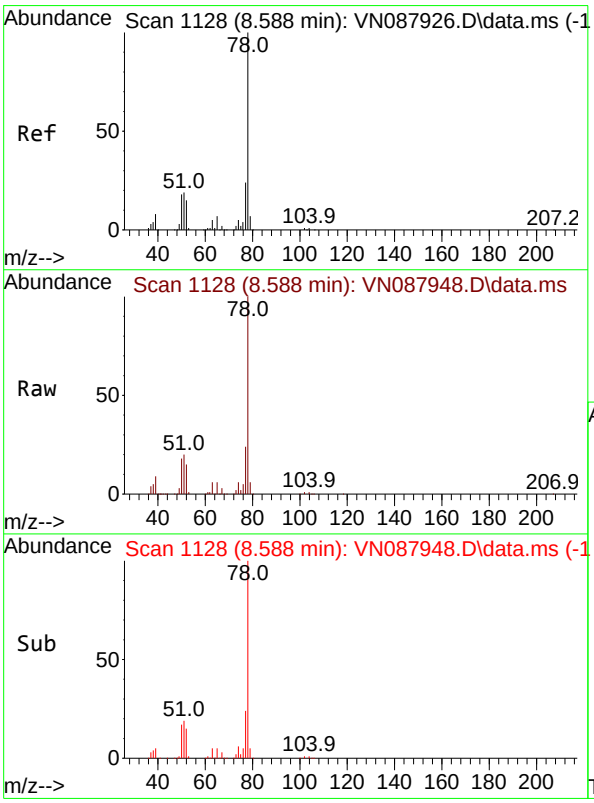
Ion	Ratio	Lower	Upper
83	100		
55	80.5	59.9	89.9
98	53.4	37.4	56.2

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

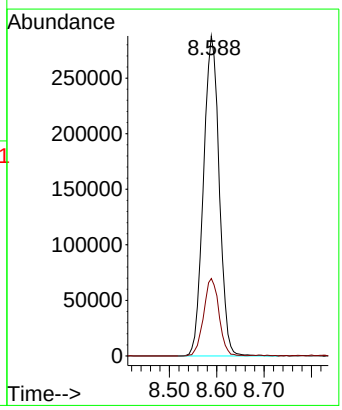


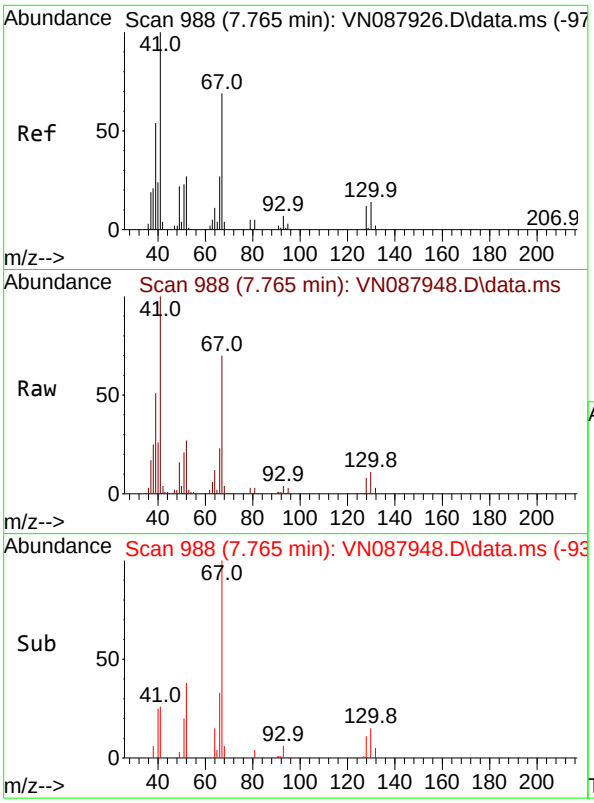


#40
Benzene
Concen: 49.372 ug/l
RT: 8.588 min Scan# 1128
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 78 Resp: 666089

Ion	Ratio	Lower	Upper
78	100		
77	24.2	19.0	28.6

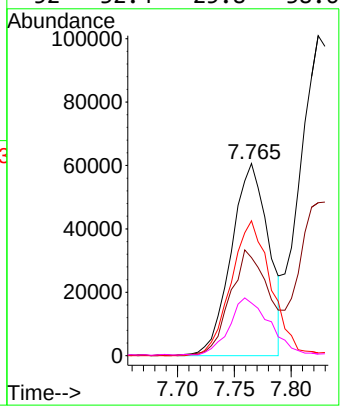




#41
Methacrylonitrile
Concen: 50.108 ug/l
RT: 7.765 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 41 Resp: 13855

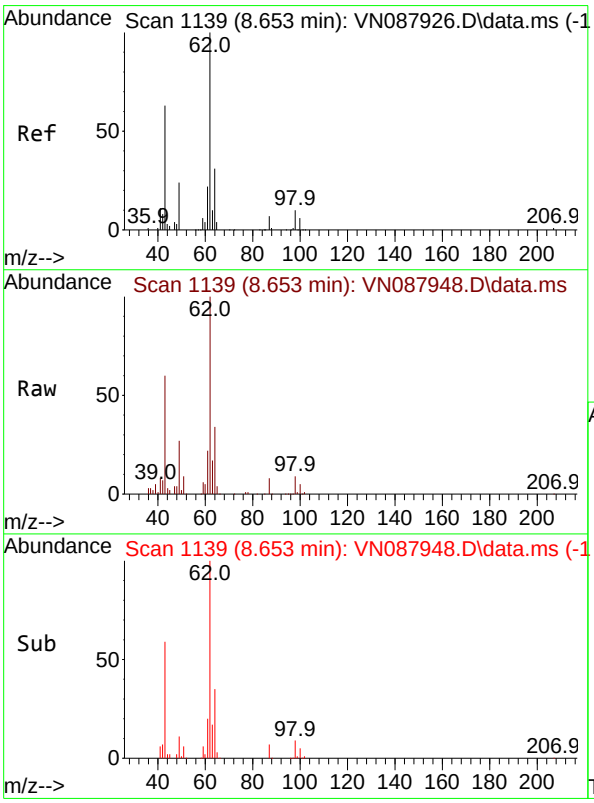
Ion	Ratio	Lower	Upper
41	100		
39	59.6	43.5	65.3
67	76.2	57.6	86.4
52	32.4	25.8	38.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

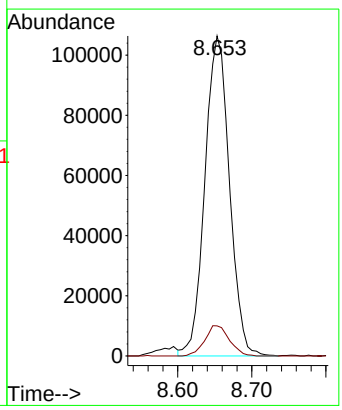
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

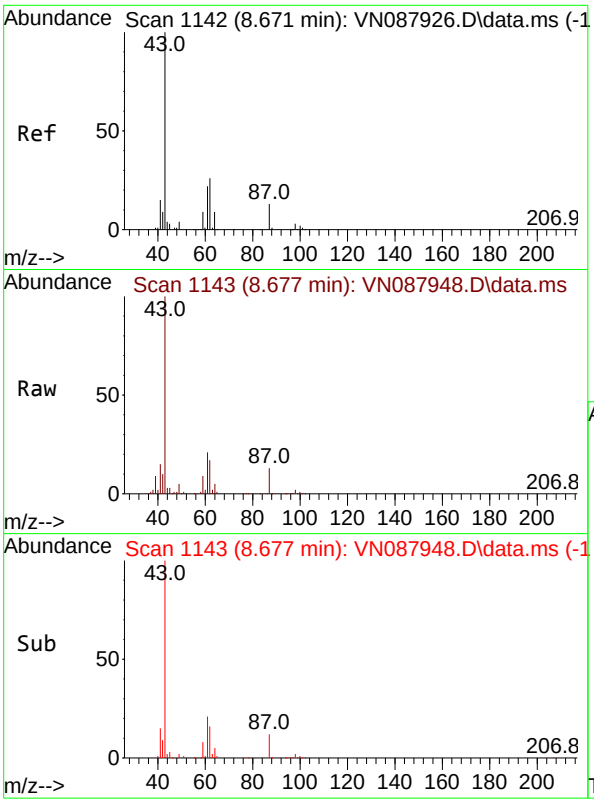


#42
1,2-Dichloroethane
Concen: 48.653 ug/l
RT: 8.653 min Scan# 1139
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 62 Resp: 244954

Ion	Ratio	Lower	Upper
62	100		
98	9.5	0.0	18.6





#43
Isopropyl Acetate
Concen: 51.072 ug/l
RT: 8.677 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

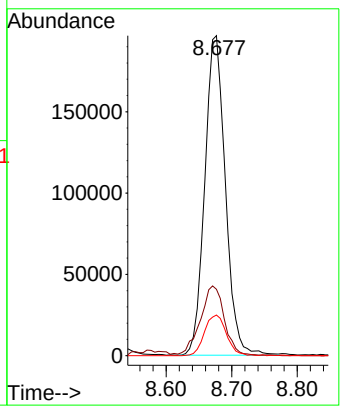
Tgt Ion: 43 Resp: 43014

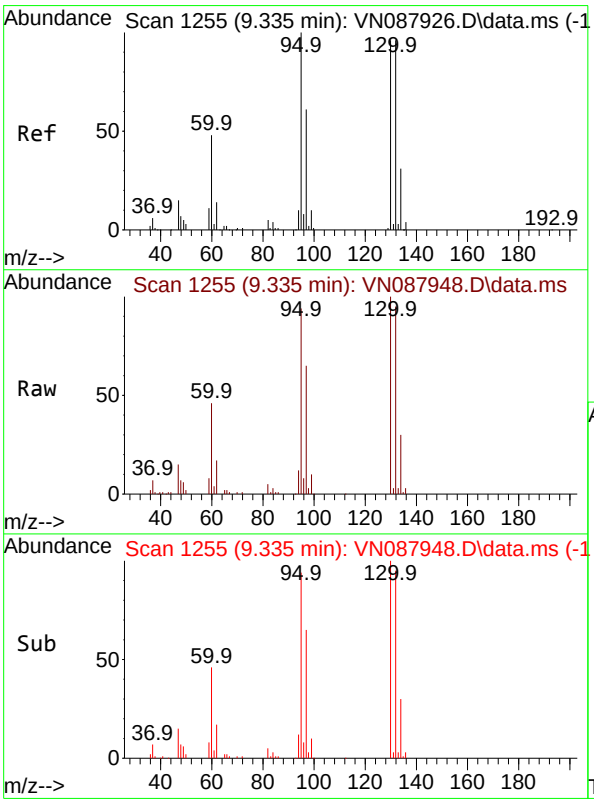
Ion	Ratio	Lower	Upper
43	100		
61	25.1	20.2	30.2
87	13.5	10.9	16.3

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

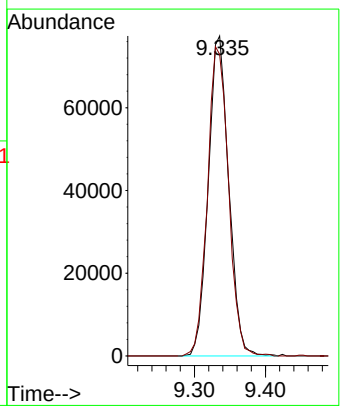


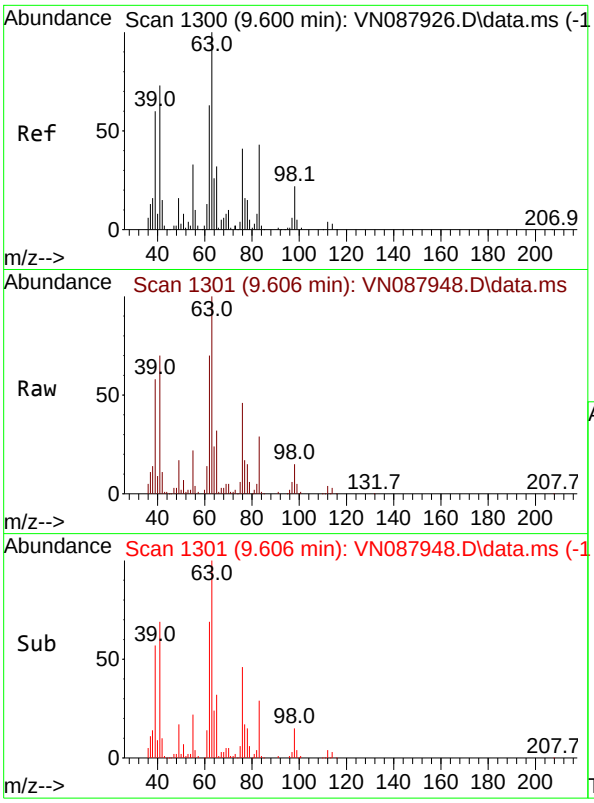


#44
Trichloroethene
Concen: 48.005 ug/l
RT: 9.335 min Scan# 1255
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion:130 Resp: 154701

Ion	Ratio	Lower	Upper
130	100		
95	94.2	0.0	208.0

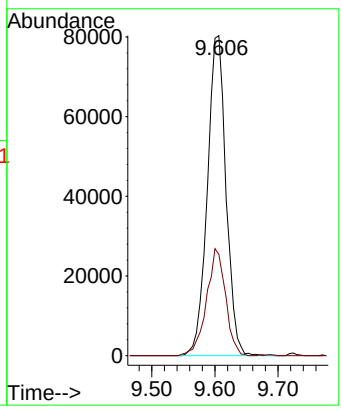




#45
1,2-Dichloropropane
Concen: 48.794 ug/l
RT: 9.606 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 63 Resp: 16506

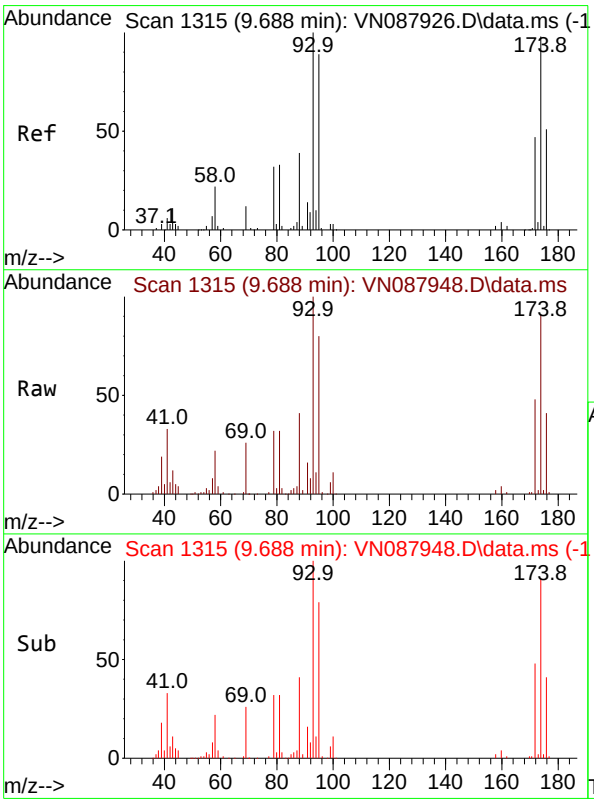
Ion	Ratio	Lower	Upper
63	100		
65	31.7	25.4	38.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

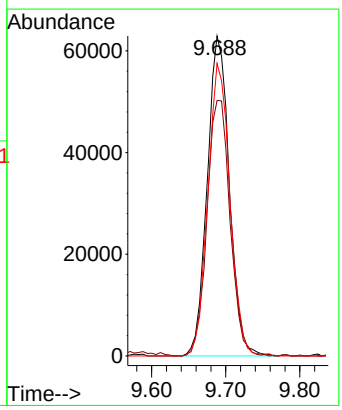
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

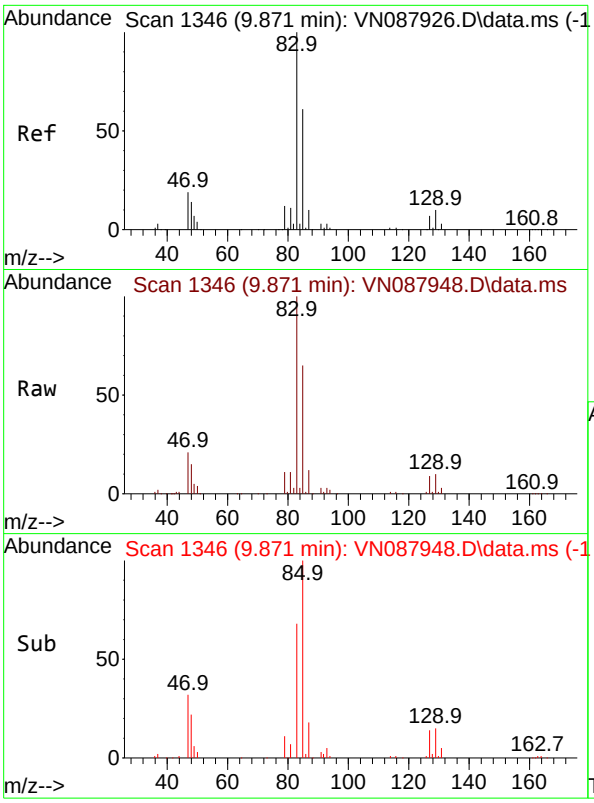


#46
Dibromomethane
Concen: 48.839 ug/l
RT: 9.688 min Scan# 1315
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 93 Resp: 130372

Ion	Ratio	Lower	Upper
93	100		
95	83.3	67.6	101.4
174	91.4	75.4	113.0

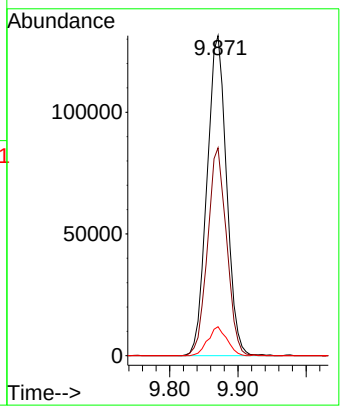




#47
Bromodichloromethane
Concen: 50.106 ug/l
RT: 9.871 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 83 Resp: 26233

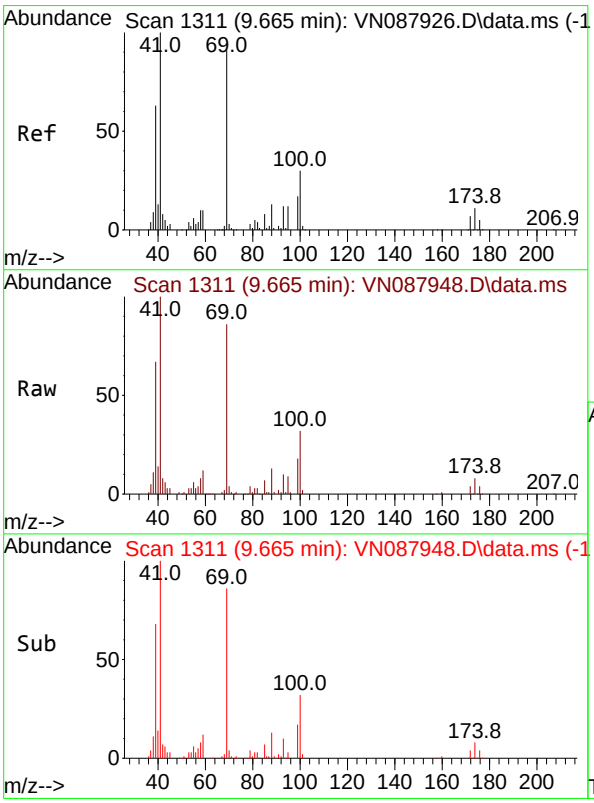
Ion	Ratio	Lower	Upper
83	100		
85	64.9	49.1	73.7
127	9.1	5.9	8.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

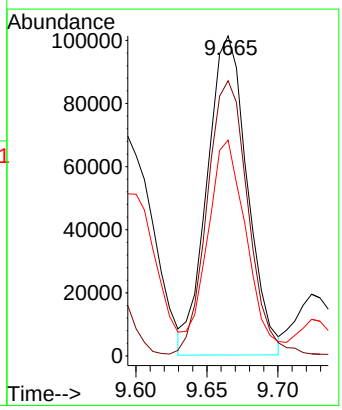
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

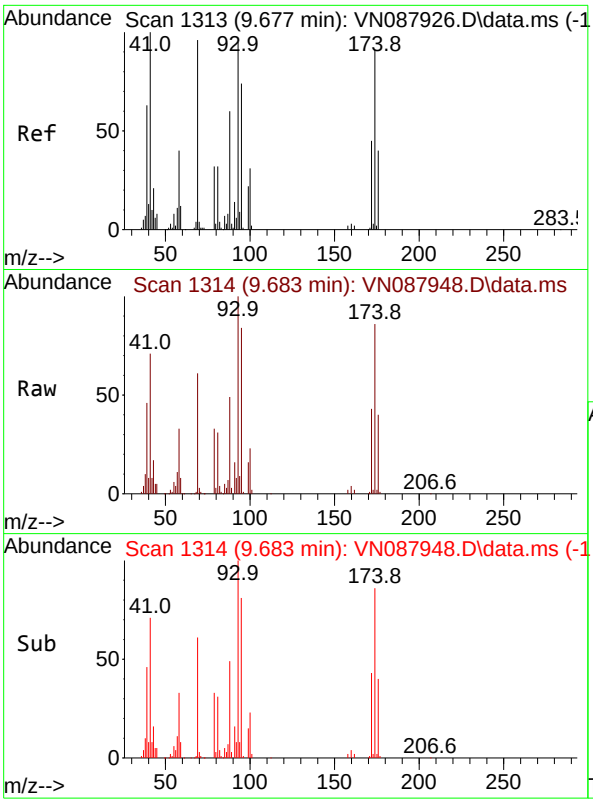


#48
Methyl methacrylate
Concen: 51.109 ug/l
RT: 9.665 min Scan# 1311
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 41 Resp: 199338

Ion	Ratio	Lower	Upper
41	100		
69	88.5	70.9	106.3
39	66.6	52.9	79.3

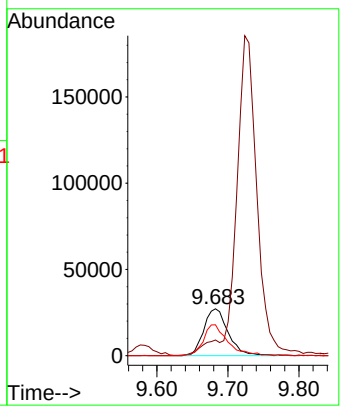




#49
1,4-Dioxane
Concen: 1121.681 ug/l
RT: 9.683 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 88 Resp: 6463

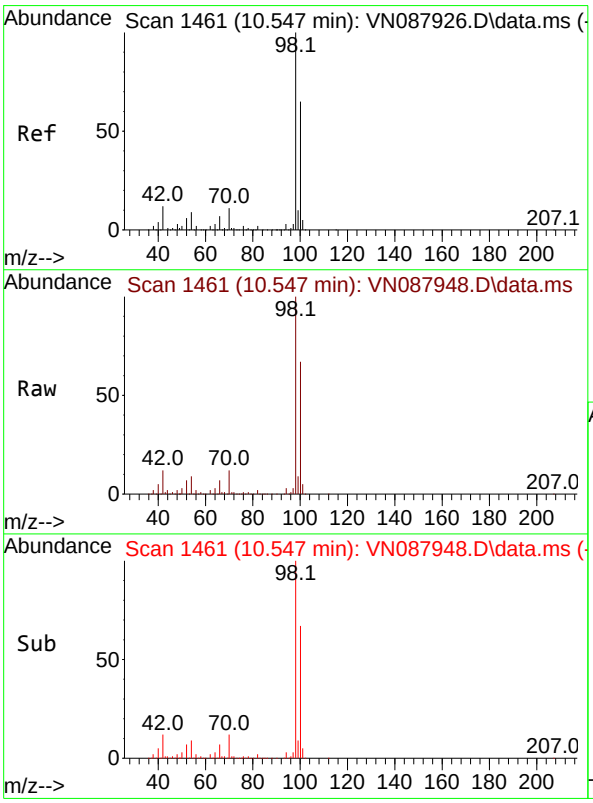
Ion	Ratio	Lower	Upper
88	100		
43	0.0	22.6	33.8
58	65.6	57.4	86.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

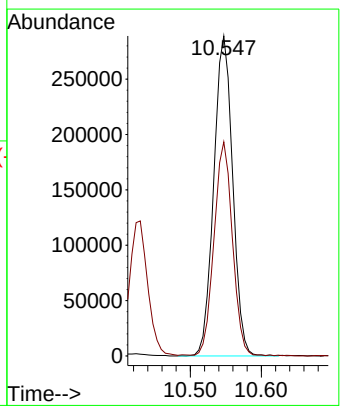
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

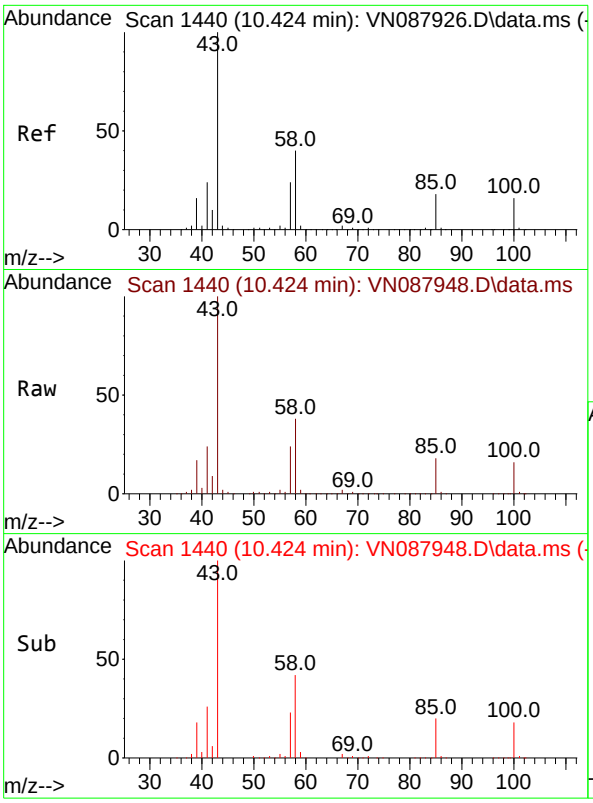


#50
Toluene-d8
Concen: 44.735 ug/l
RT: 10.547 min Scan# 1461
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 98 Resp: 533078

Ion	Ratio	Lower	Upper
98	100		
100	64.9	51.7	77.5

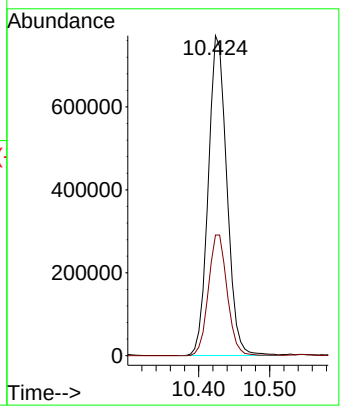




#51
4-Methyl-2-Pentanone
Concen: 266.670 ug/l
RT: 10.424 min Scan# 14
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 43 Resp: 140146

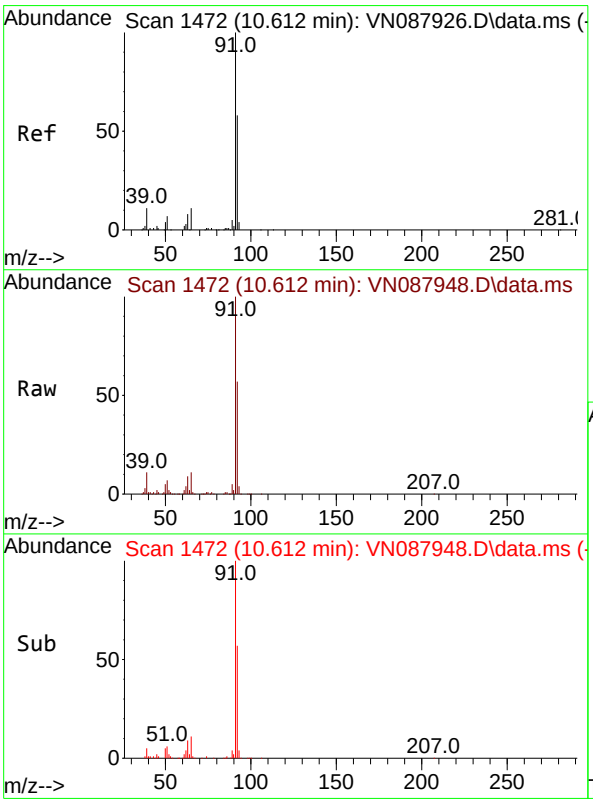
Ion	Ratio	Lower	Upper
43	100		
58	38.4	31.0	46.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

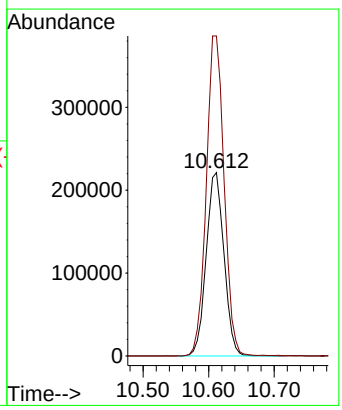
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

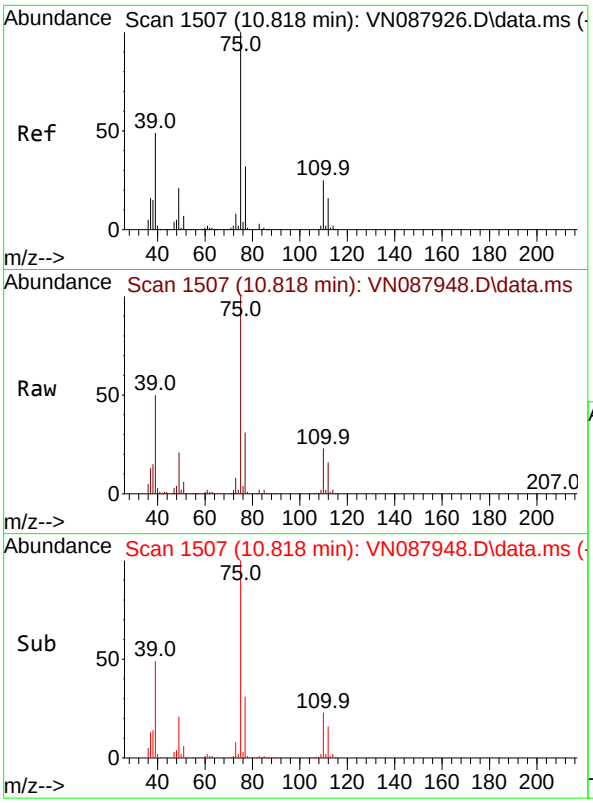


#52
Toluene
Concen: 49.246 ug/l
RT: 10.612 min Scan# 1472
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 92 Resp: 416920

Ion	Ratio	Lower	Upper
92	100		
91	174.8	138.2	207.2

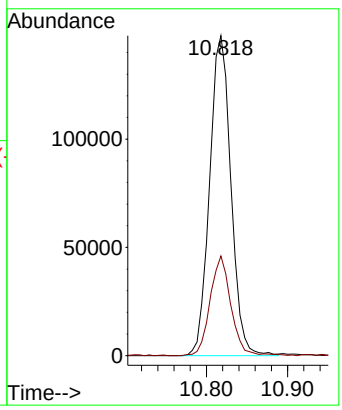




#53
t-1,3-Dichloropropene
Concen: 50.291 ug/l
RT: 10.818 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 75 Resp: 26948

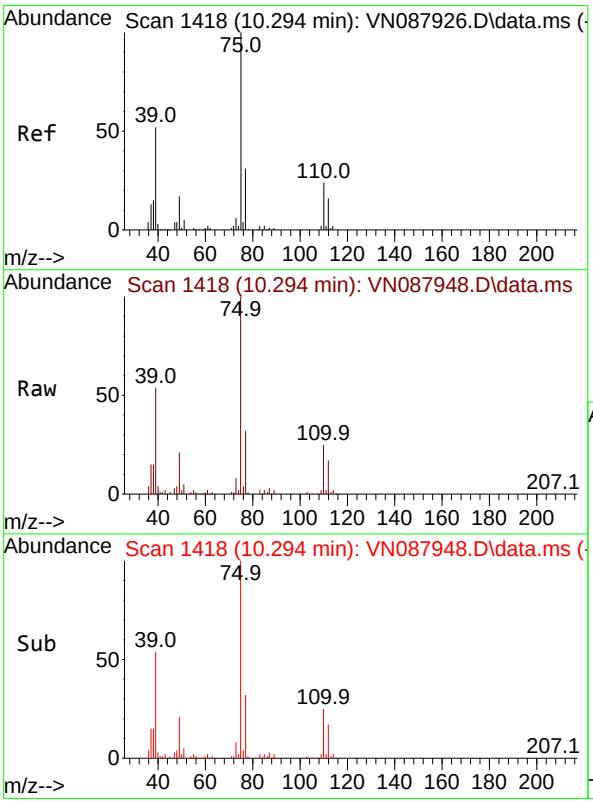
Ion	Ratio	Lower	Upper
75	100		
77	31.1	25.3	37.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

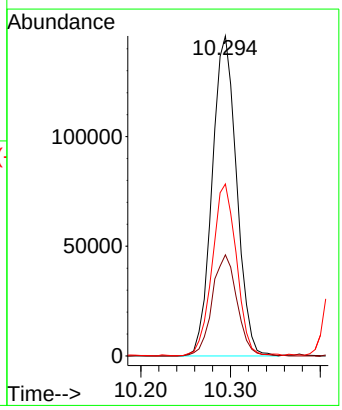
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

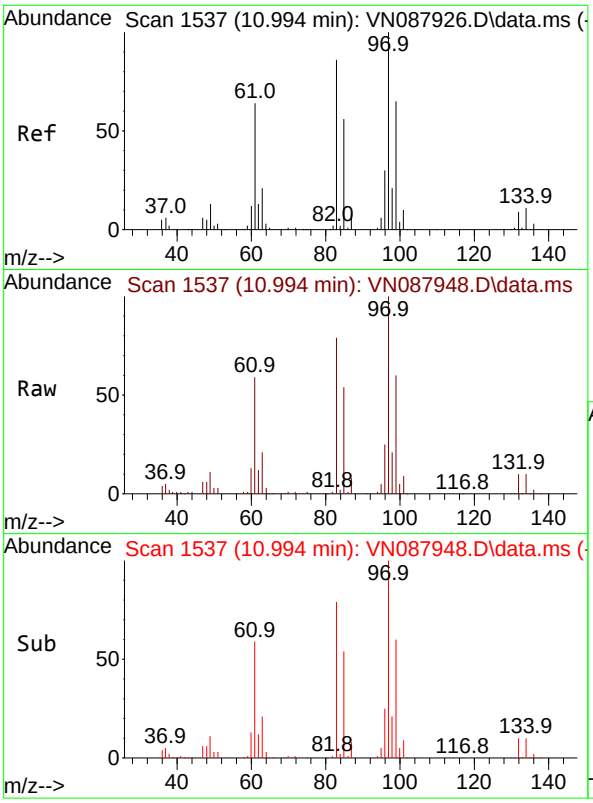


#54
cis-1,3-Dichloropropene
Concen: 49.489 ug/l
RT: 10.294 min Scan# 1418
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 75 Resp: 275428

Ion	Ratio	Lower	Upper
75	100		
77	31.6	24.7	37.1
39	53.5	41.4	62.0

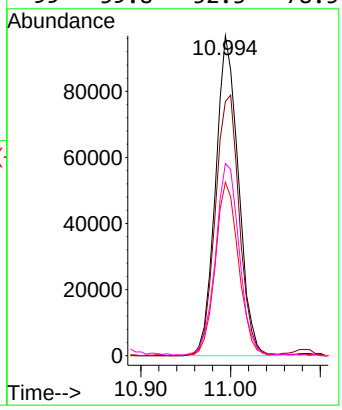




#55
1,1,2-Trichloroethane
Concen: 49.877 ug/l
RT: 10.994 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 97 Resp: 17169

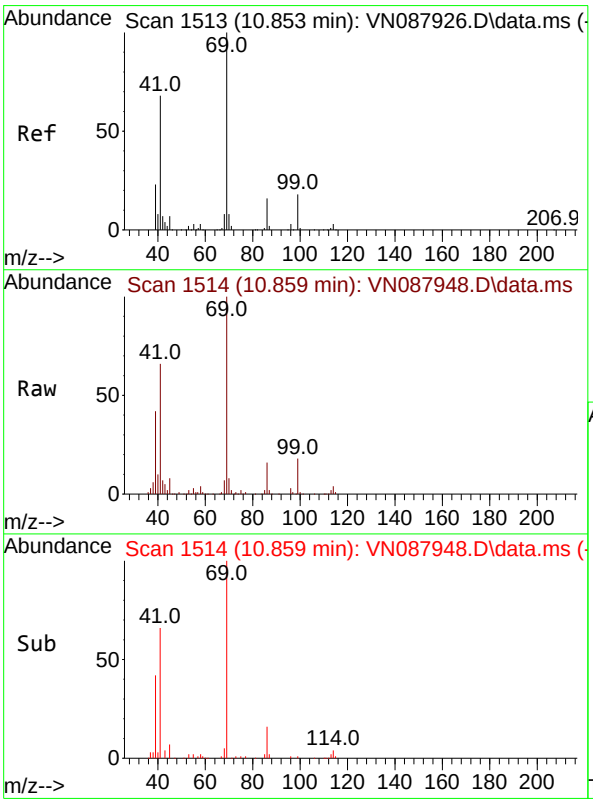
Ion	Ratio	Lower	Upper
97	100		
83	79.4	69.0	103.4
85	54.2	44.4	66.6
99	59.8	52.3	78.5



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

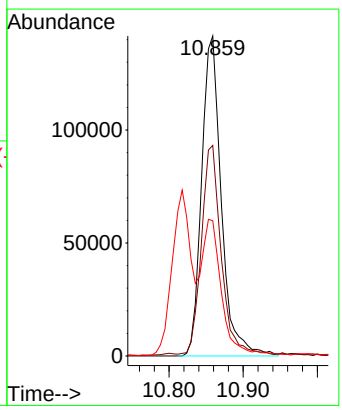
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

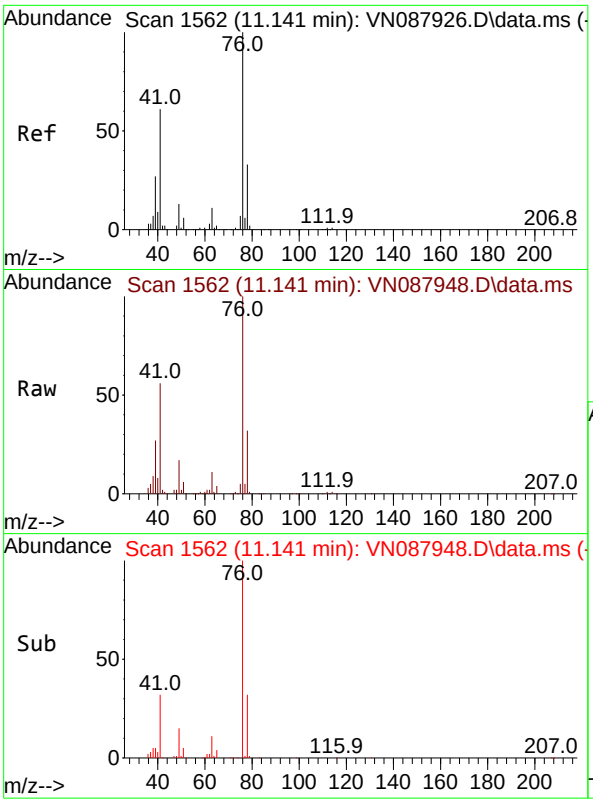


#56
Ethyl methacrylate
Concen: 52.640 ug/l
RT: 10.859 min Scan# 1514
Delta R.T. 0.006 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 69 Resp: 261831

Ion	Ratio	Lower	Upper
69	100		
41	65.1	53.8	80.6
39	43.1	34.7	52.1

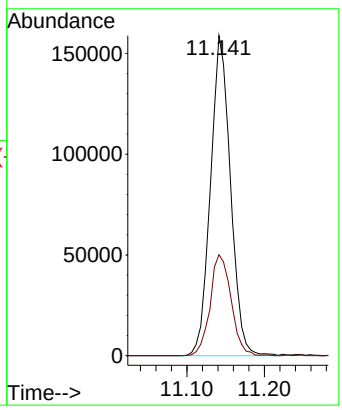




#57
1,3-Dichloropropane
Concen: 50.261 ug/l
RT: 11.141 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 76 Resp: 28457

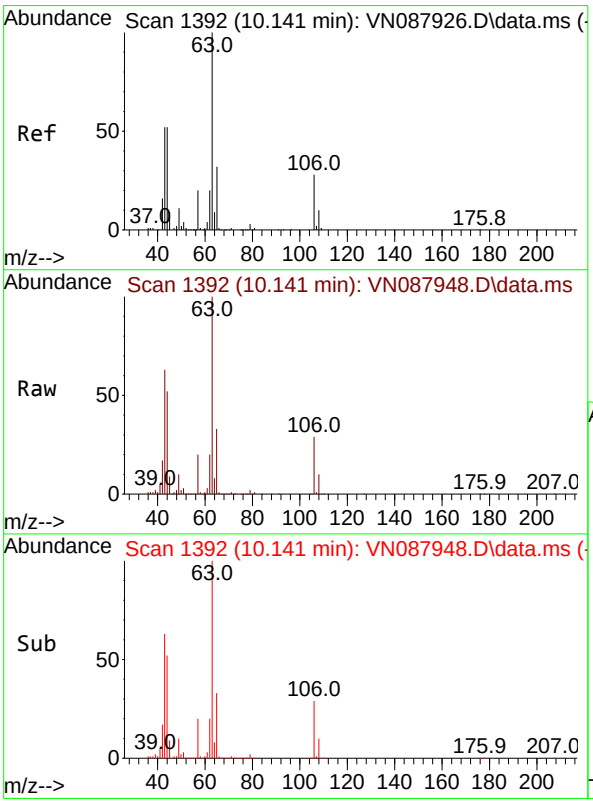
Ion	Ratio	Lower	Upper
76	100		
78	33.2	26.0	39.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

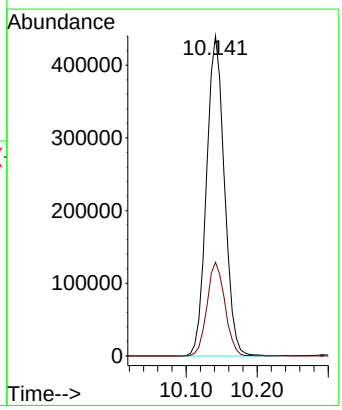
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

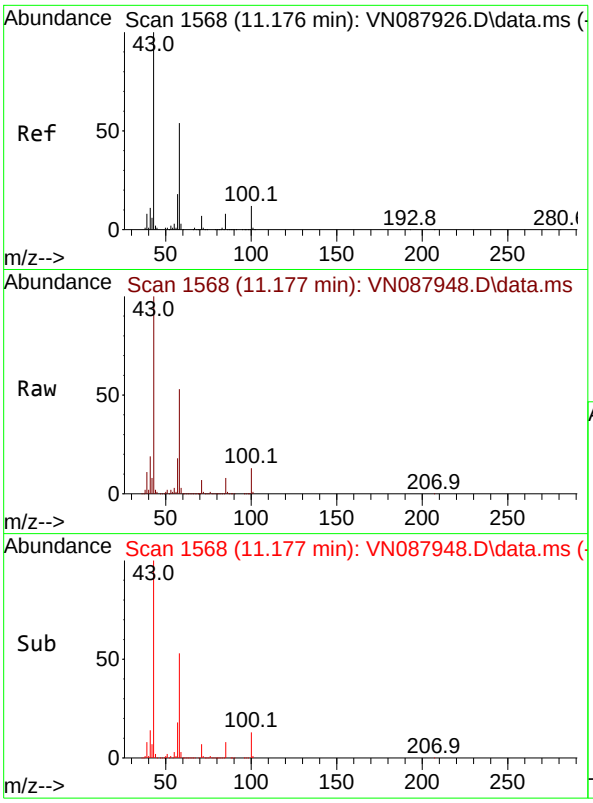


#58
2-Chloroethyl Vinyl ether
Concen: 329.535 ug/l
RT: 10.141 min Scan# 1392
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 63 Resp: 770678

Ion	Ratio	Lower	Upper
63	100		
106	29.3	22.6	33.8

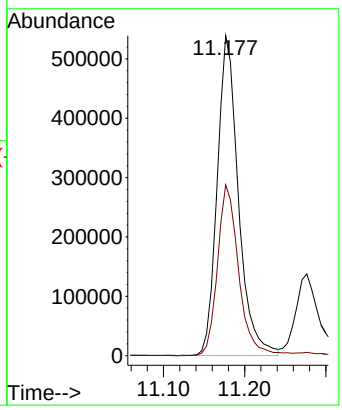




#59
2-Hexanone
Concen: 281.970 ug/l
RT: 11.177 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 43 Resp: 97984

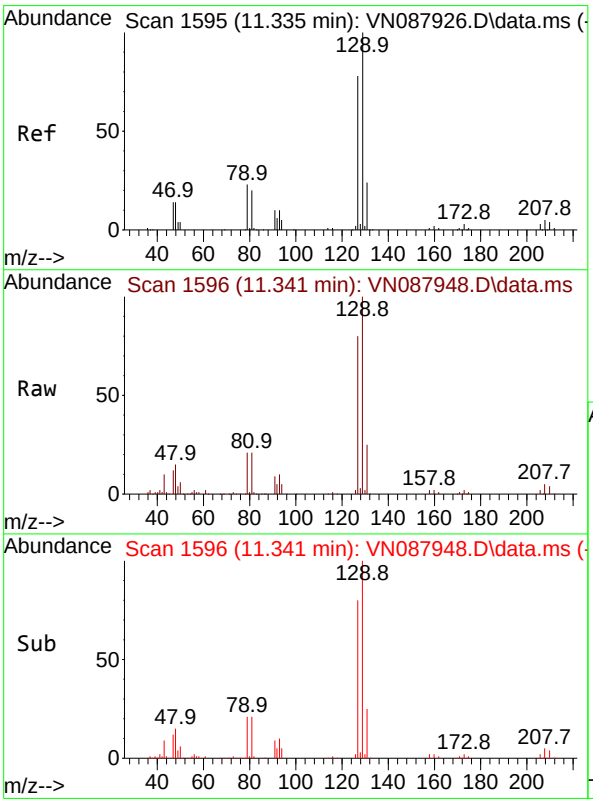
Ion	Ratio	Lower	Upper
43	100		
58	53.5	26.4	79.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

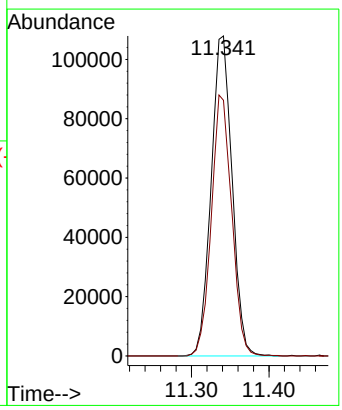
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

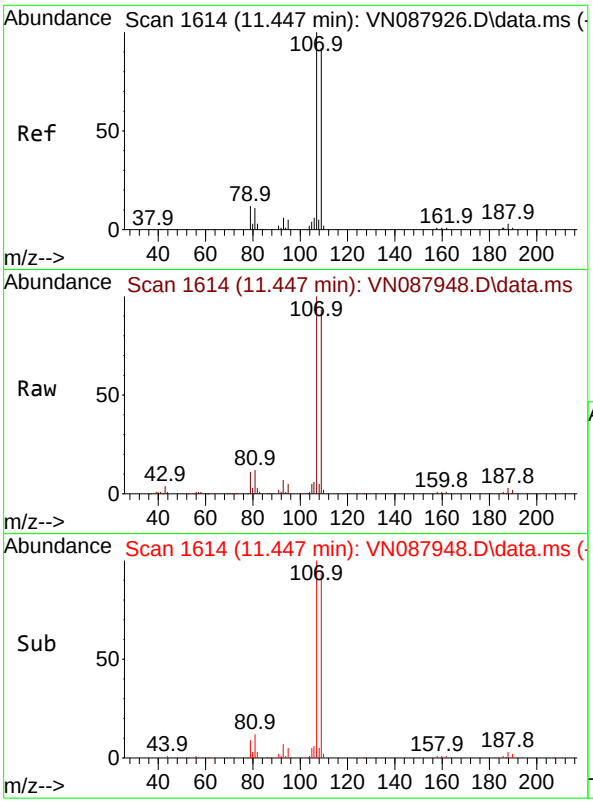


#60
Dibromochloromethane
Concen: 50.045 ug/l
RT: 11.341 min Scan# 1596
Delta R.T. 0.006 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion:129 Resp: 202551

Ion	Ratio	Lower	Upper
129	100		
127	79.4	39.3	117.9

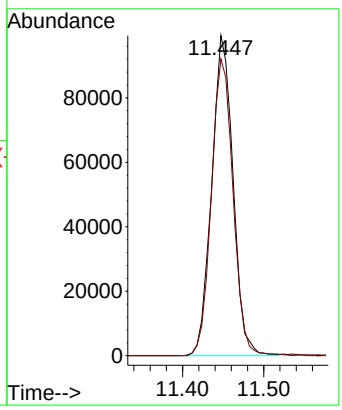




#61
1,2-Dibromoethane
Concen: 49.721 ug/l
RT: 11.447 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion:107 Resp: 18119

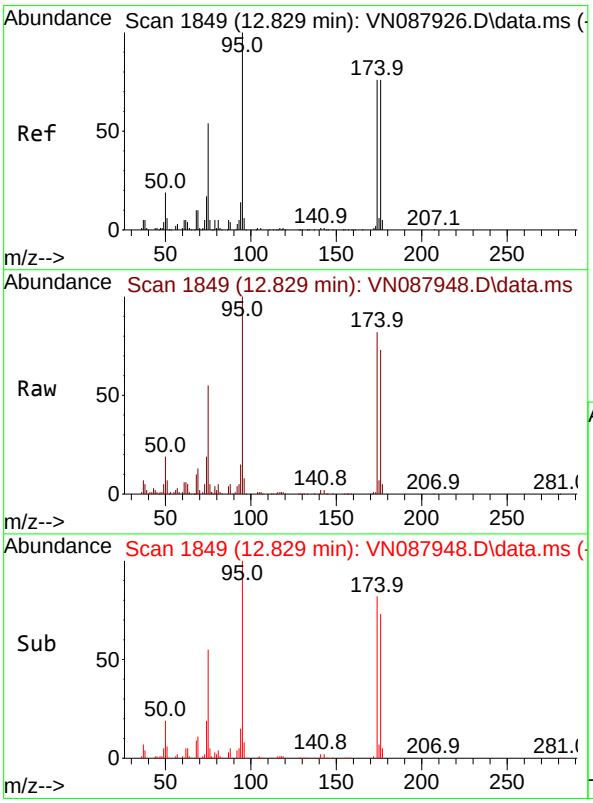
Ion	Ratio	Lower	Upper
107	100		
109	94.3	75.3	112.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

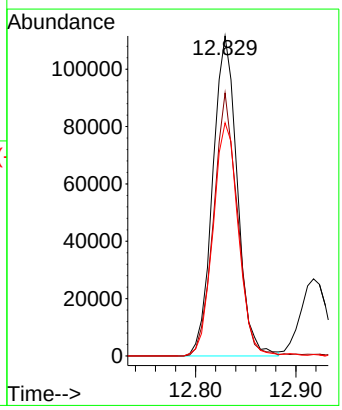
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

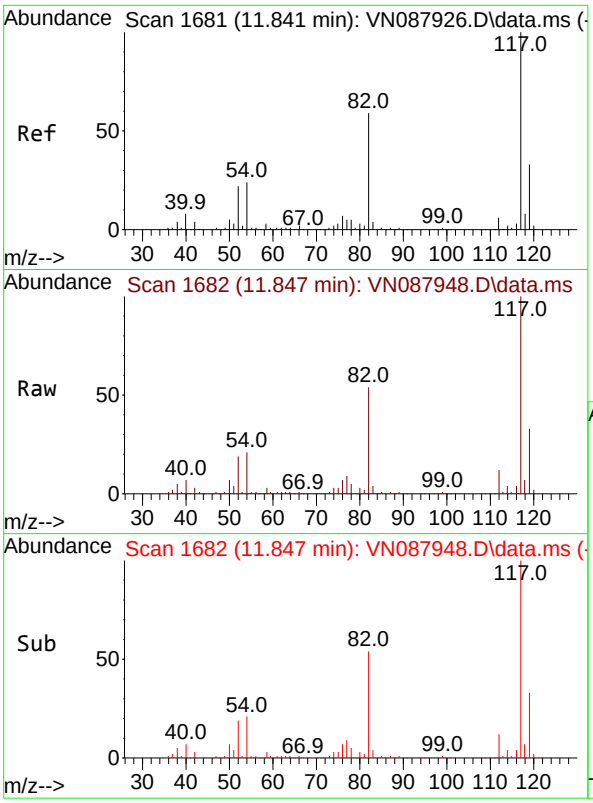


#62
4-Bromofluorobenzene
Concen: 44.495 ug/l
RT: 12.829 min Scan# 1849
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 95 Resp: 189525

Ion	Ratio	Lower	Upper
95	100		
174	80.1	0.0	159.2
176	75.4	0.0	152.6

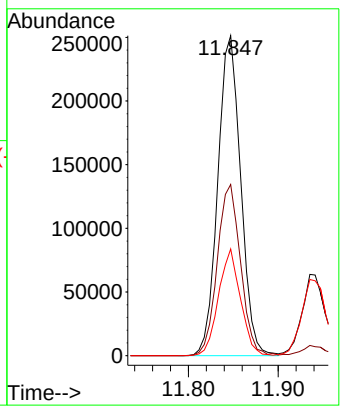




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.847 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion:117 Resp: 44608

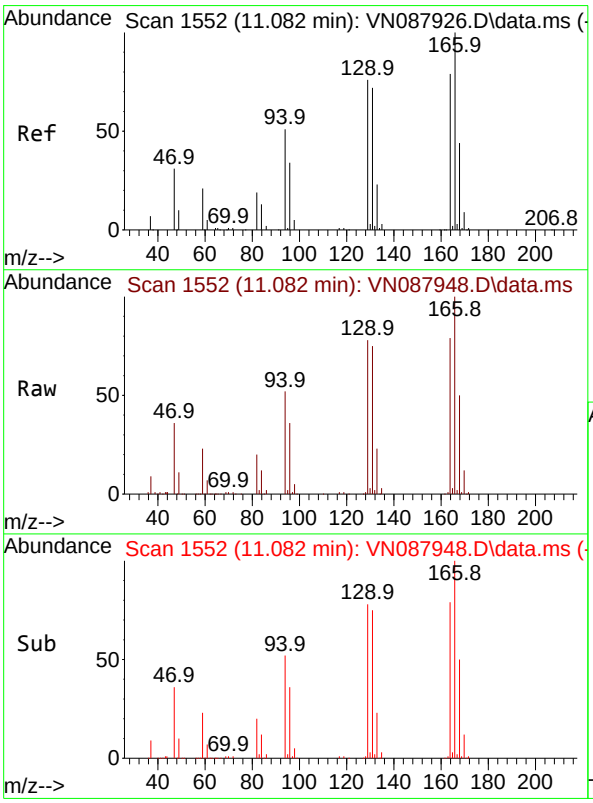
Ion	Ratio	Lower	Upper
117	100		
82	53.5	47.0	70.4
119	33.3	26.1	39.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

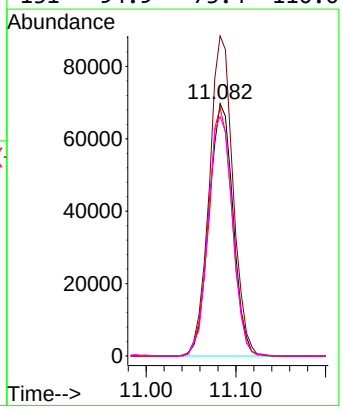
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

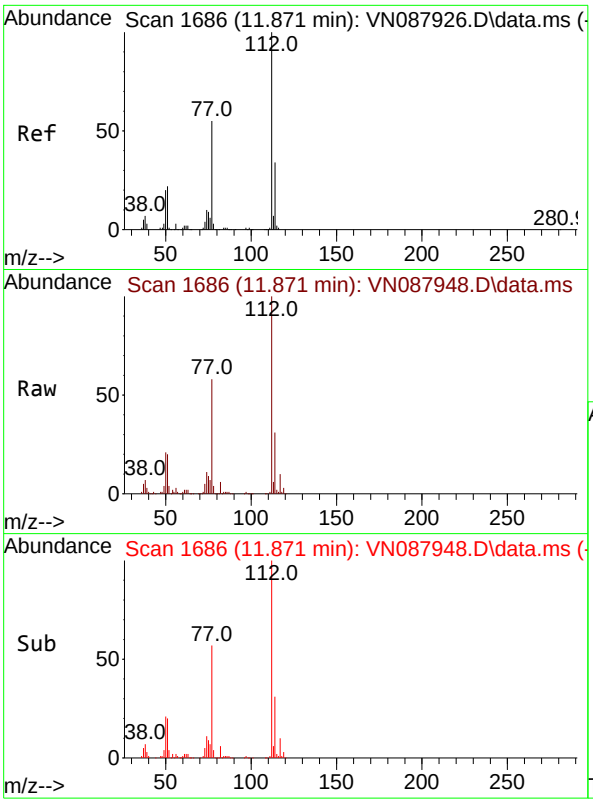


#64
Tetrachloroethene
Concen: 47.913 ug/l
RT: 11.082 min Scan# 1552
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion:164 Resp: 130193

Ion	Ratio	Lower	Upper
164	100		
166	126.8	101.6	152.4
129	98.4	77.5	116.3
131	94.9	73.4	110.0

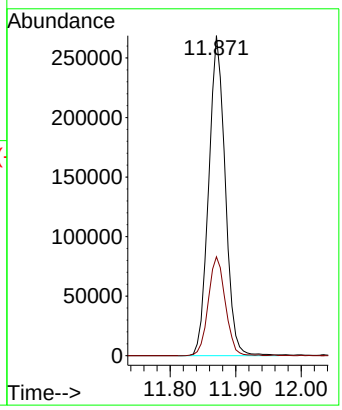




#65
Chlorobenzene
Concen: 49.453 ug/l
RT: 11.871 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion:112 Resp: 46945

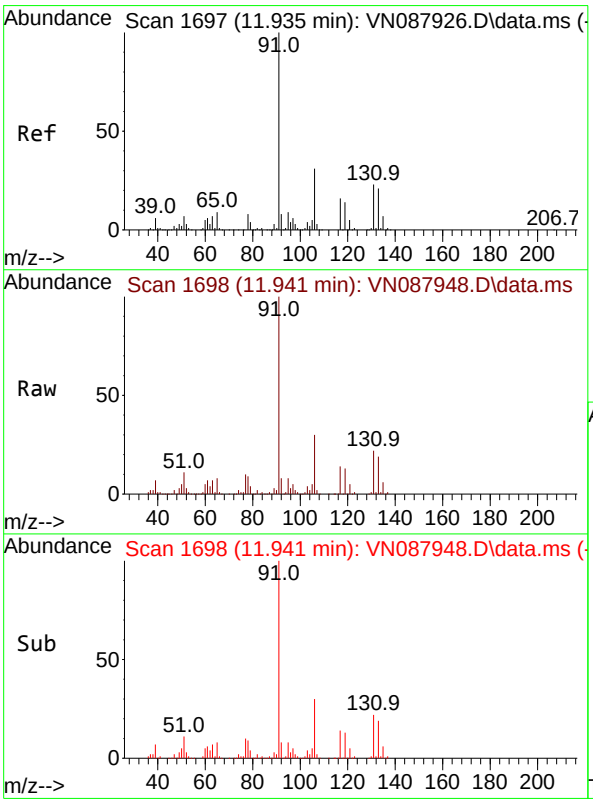
Ion	Ratio	Lower	Upper
112	100		
114	30.9	27.2	40.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

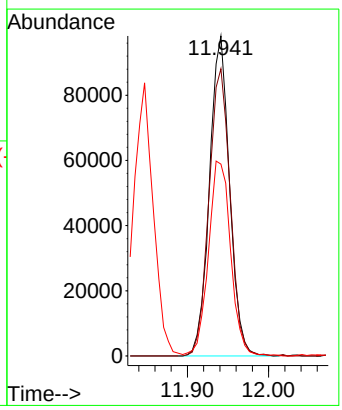
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

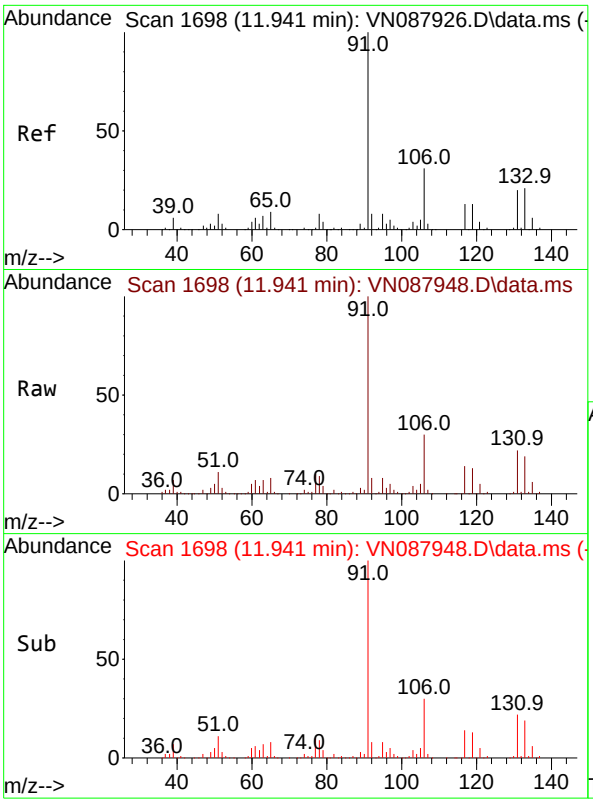


#66
1,1,1,2-Tetrachloroethane
Concen: 49.235 ug/l
RT: 11.941 min Scan# 1698
Delta R.T. 0.006 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion:131 Resp: 168546

Ion	Ratio	Lower	Upper
131	100		
133	95.2	48.4	145.0
119	67.4	31.9	95.5

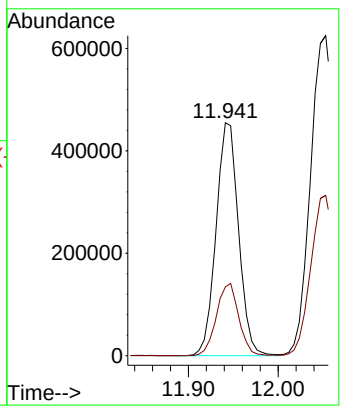




#67
Ethyl Benzene
Concen: 50.002 ug/l
RT: 11.941 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 91 Resp: 79203

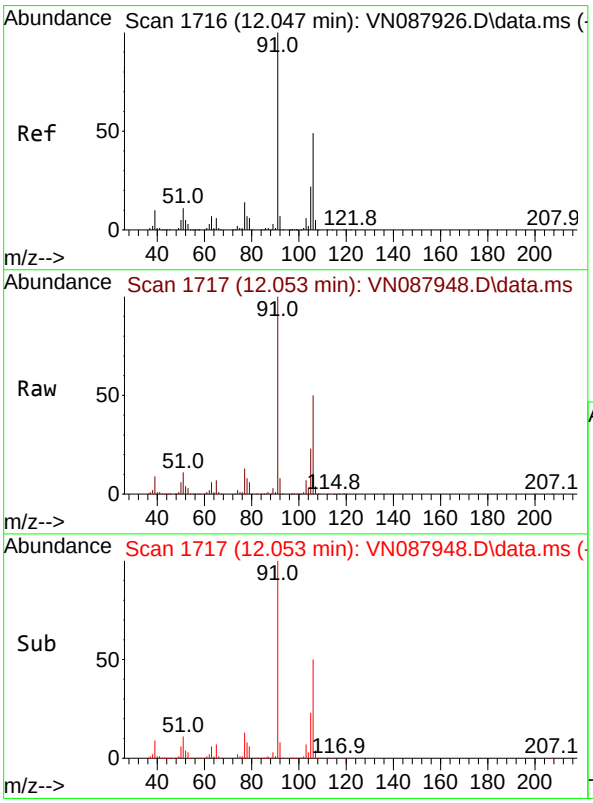
Ion	Ratio	Lower	Upper
91	100		
106	29.5	25.2	37.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

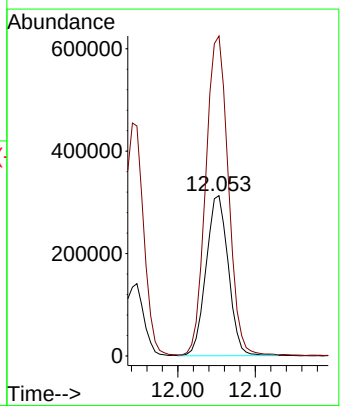
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

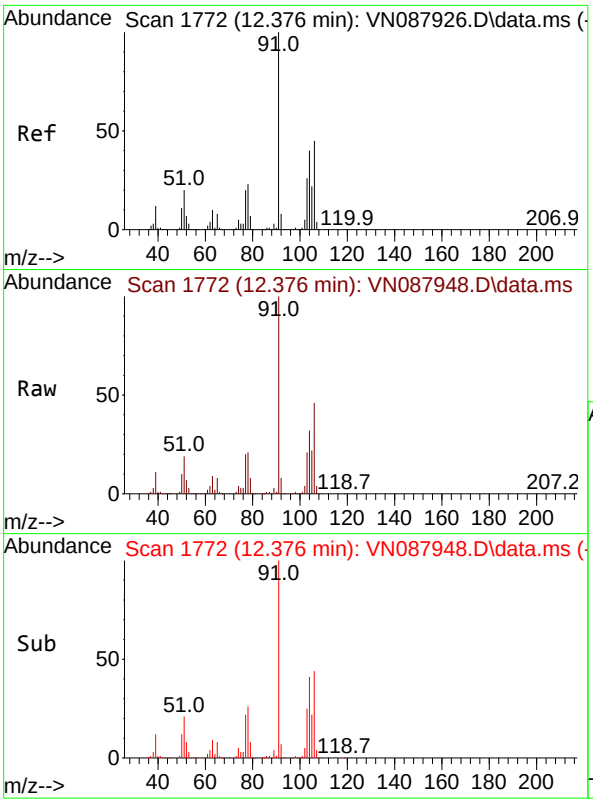


#68
m/p-Xylenes
Concen: 102.897 ug/l
RT: 12.053 min Scan# 1717
Delta R.T. 0.006 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion:106 Resp: 623352

Ion	Ratio	Lower	Upper
106	100		
91	203.4	162.9	244.3

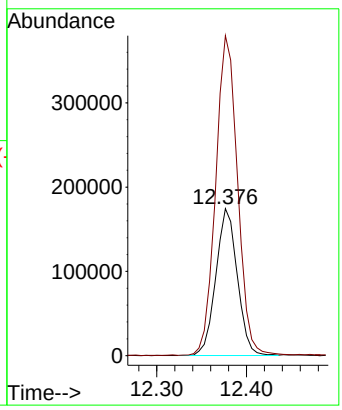




#69
o-Xylene
Concen: 49.721 ug/l
RT: 12.376 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion:106 Resp: 28938

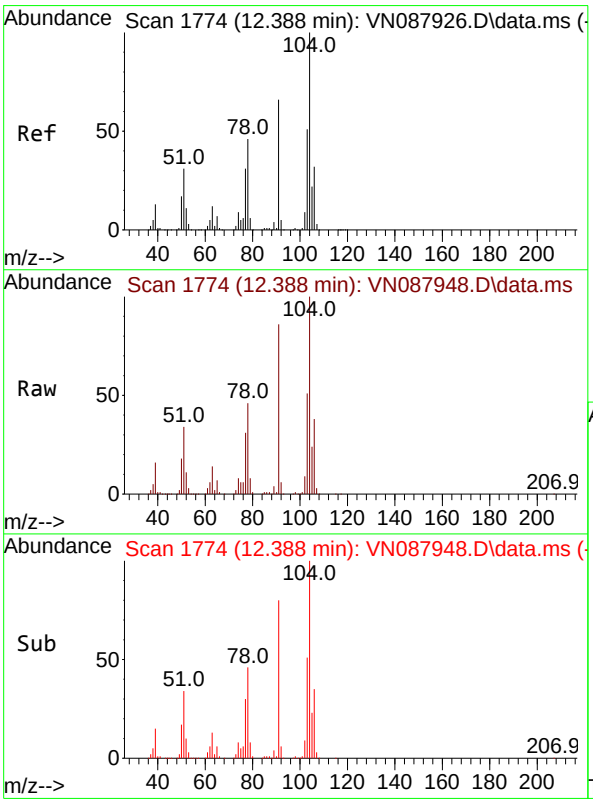
Ion	Ratio	Lower	Upper
106	100		
91	222.1	108.2	324.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

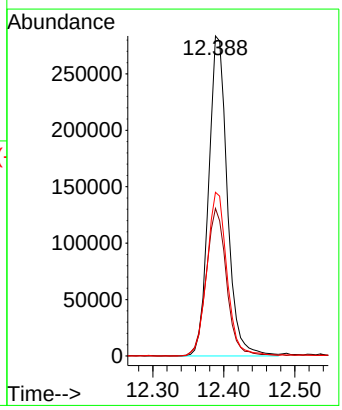
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

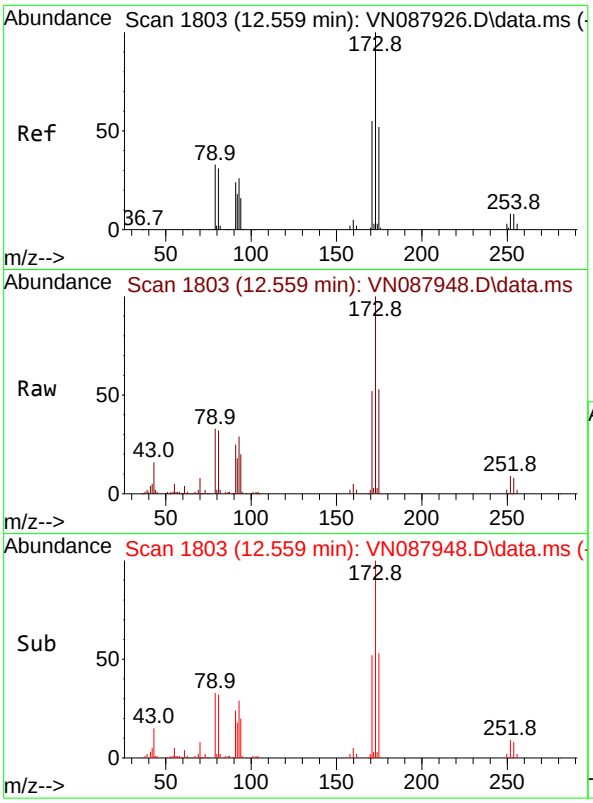


#70
Styrene
Concen: 51.750 ug/l
RT: 12.388 min Scan# 1774
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion:104 Resp: 517296

Ion	Ratio	Lower	Upper
104	100		
78	50.2	39.7	59.5
103	55.2	44.6	67.0

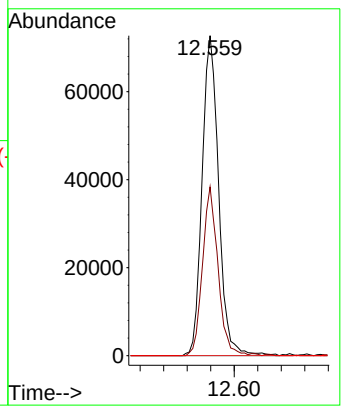




#71
Bromoform
Concen: 51.214 ug/l
RT: 12.559 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion:173 Resp: 14224

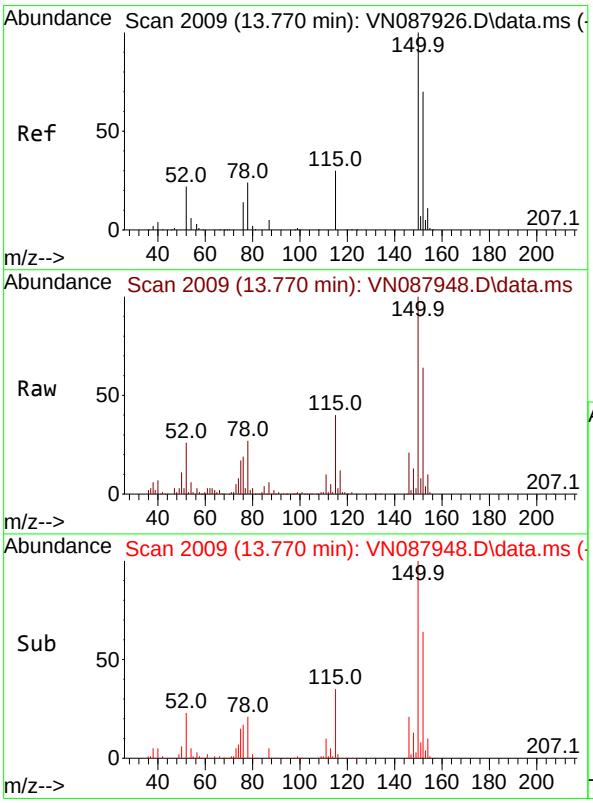
Ion	Ratio	Lower	Upper
173	100		
175	49.3	23.7	71.1
254	0.0	0.1	0.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

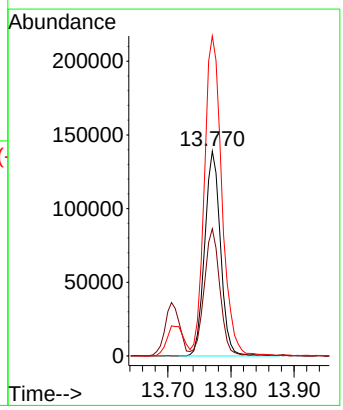
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

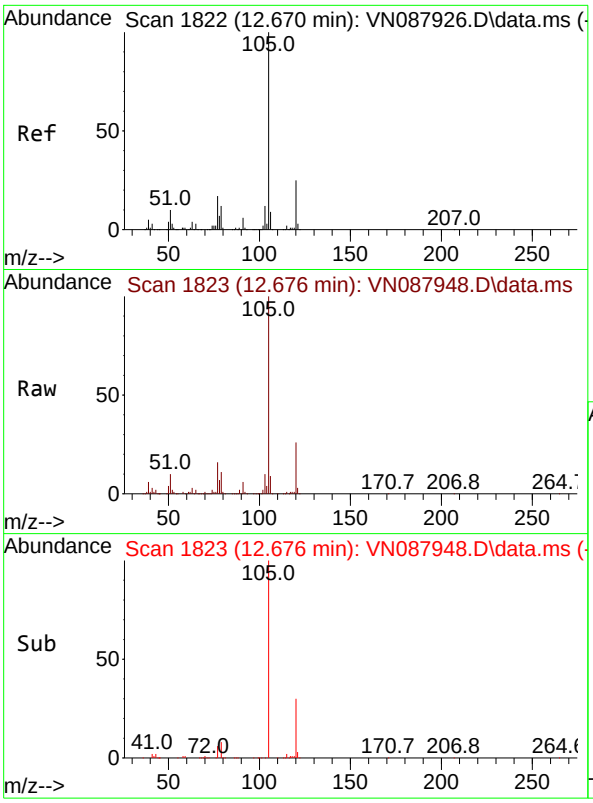


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.770 min Scan# 2009
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion:152 Resp: 240530

Ion	Ratio	Lower	Upper
152	100		
115	60.8	29.9	89.7
150	172.9	0.0	335.0

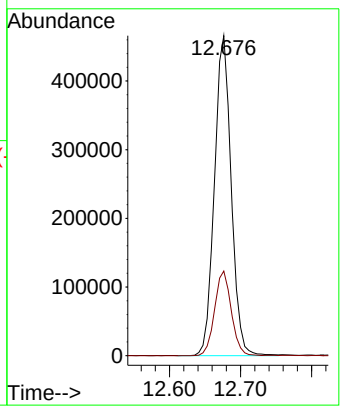




#73
Isopropylbenzene
Concen: 51.096 ug/l
RT: 12.676 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion:105 Resp: 76171

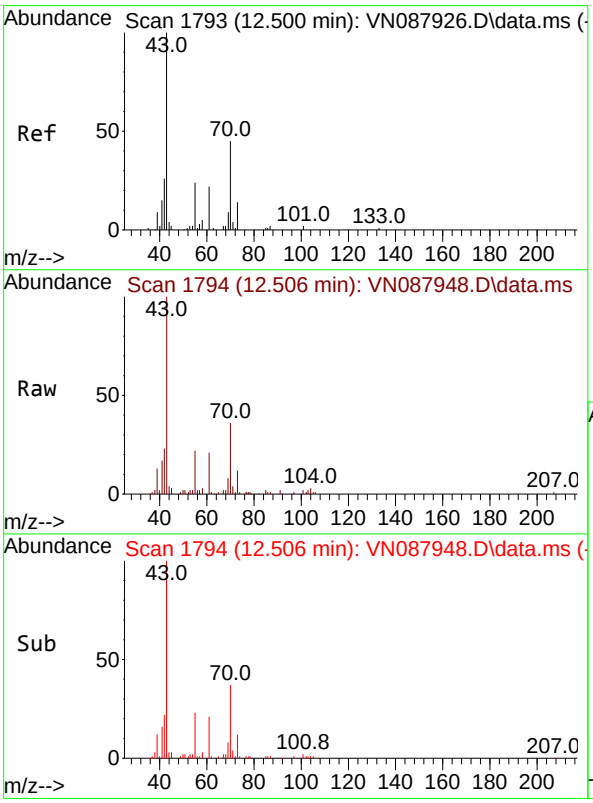
Ion	Ratio	Lower	Upper
105	100		
120	26.3	13.1	39.1



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

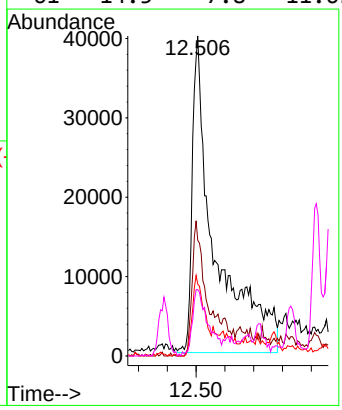
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

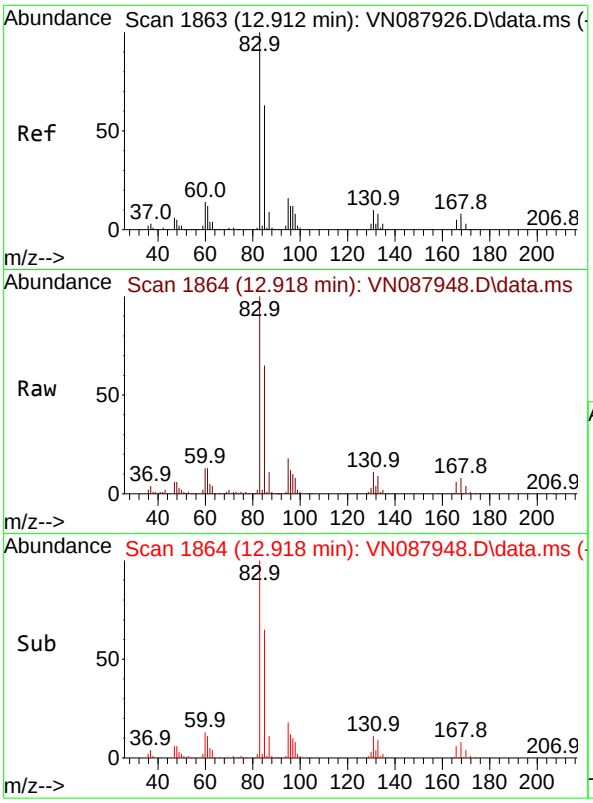


#74
N-amyl acetate
Concen: 44.889 ug/l m
RT: 12.506 min Scan# 1794
Delta R.T. 0.006 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 43 Resp: 220487

Ion	Ratio	Lower	Upper
43	100		
70	26.7	19.8	29.8
55	13.3	9.6	14.4
61	14.5	7.8	11.6#





#75
1,1,2,2-Tetrachloroethane
Concen: 49.558 ug/l
RT: 12.918 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

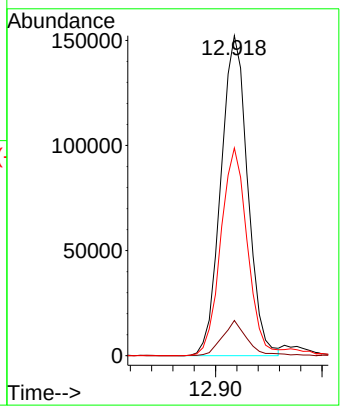
Tgt Ion: 83 Resp: 26618

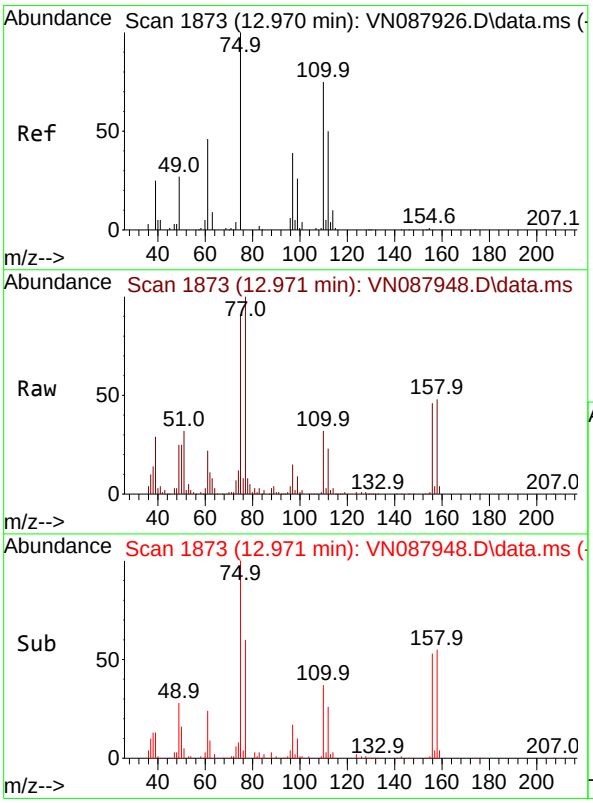
Ion	Ratio	Lower	Upper
83	100		
131	10.3	5.2	15.6
85	64.5	32.4	97.0

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

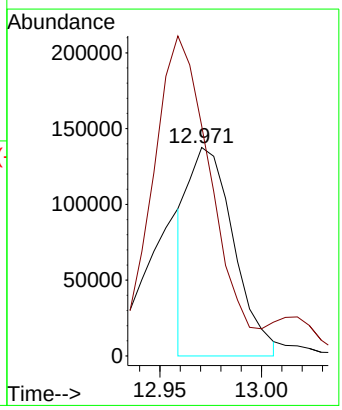


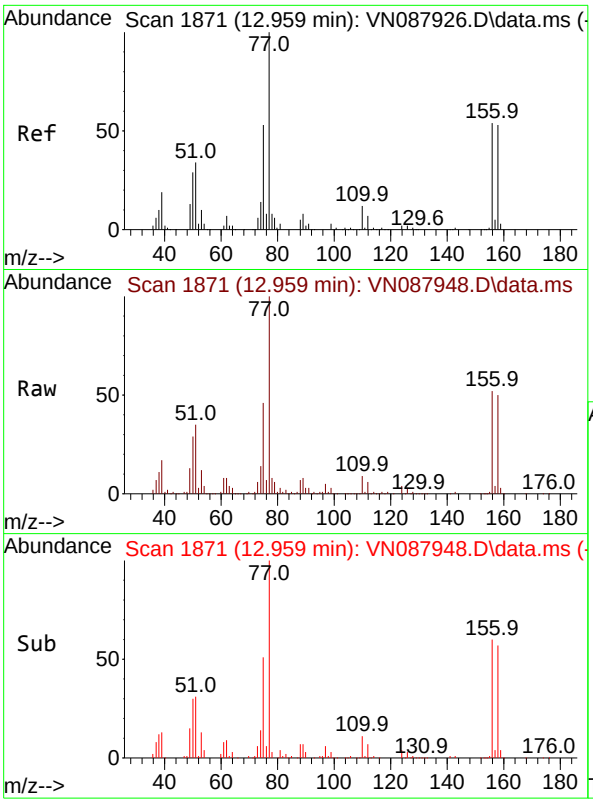


#76
1,2,3-Trichloropropane
Concen: 45.409 ug/l m
RT: 12.971 min Scan# 1873
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 75 Resp: 215302

Ion	Ratio	Lower	Upper
75	100		
77	198.8	89.5	268.5

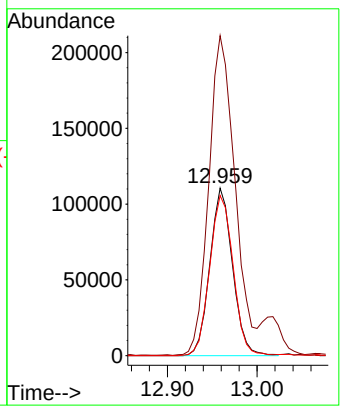




#77
Bromobenzene
Concen: 49.027 ug/l
RT: 12.959 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion:156 Resp: 19445

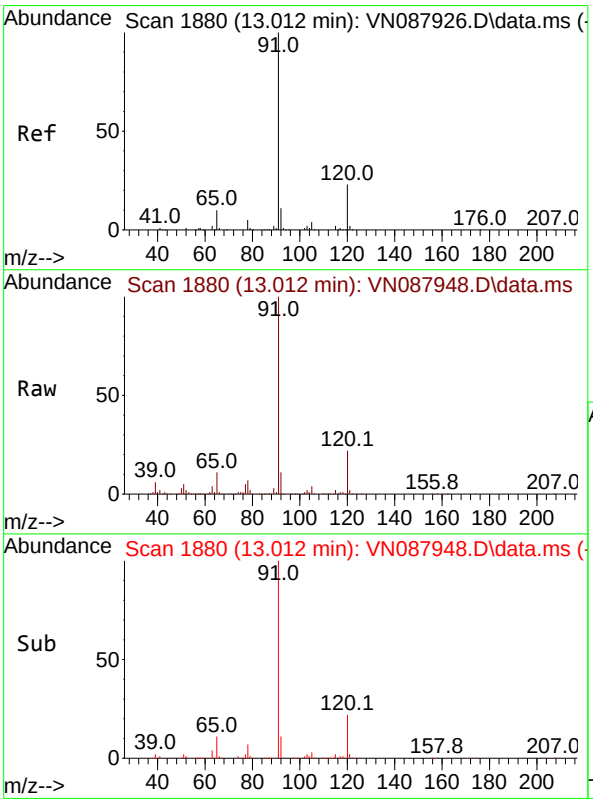
Ion	Ratio	Lower	Upper
156	100		
77	220.1	108.2	324.6
158	98.8	49.6	149.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

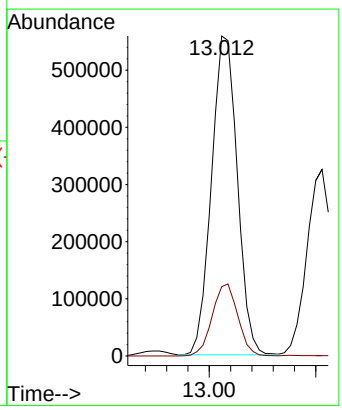
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

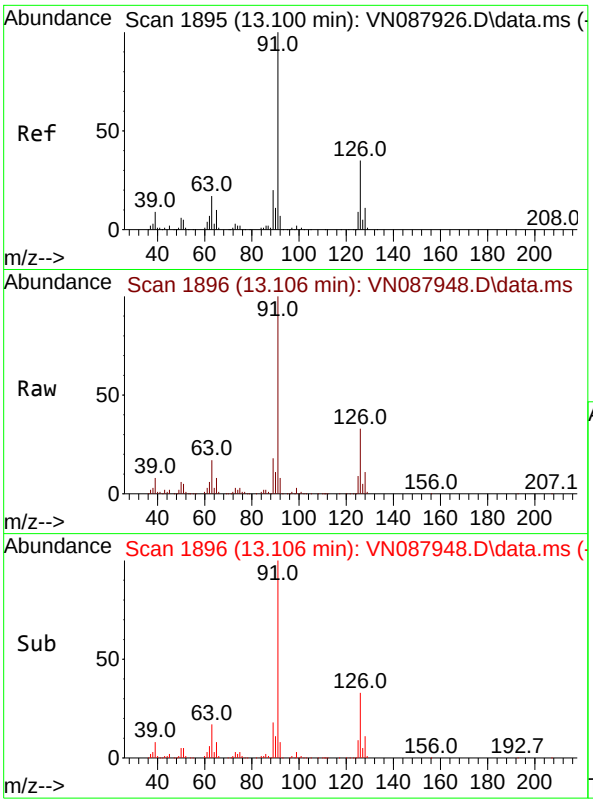


#78
n-propylbenzene
Concen: 50.495 ug/l
RT: 13.012 min Scan# 1880
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 91 Resp: 941142

Ion	Ratio	Lower	Upper
91	100		
120	22.3	11.1	33.1





#79
2-Chlorotoluene
Concen: 49.359 ug/l
RT: 13.106 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

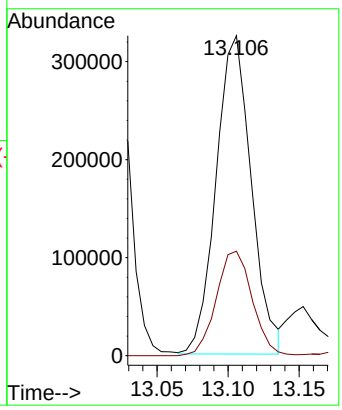
Tgt Ion: 91 Resp: 56015

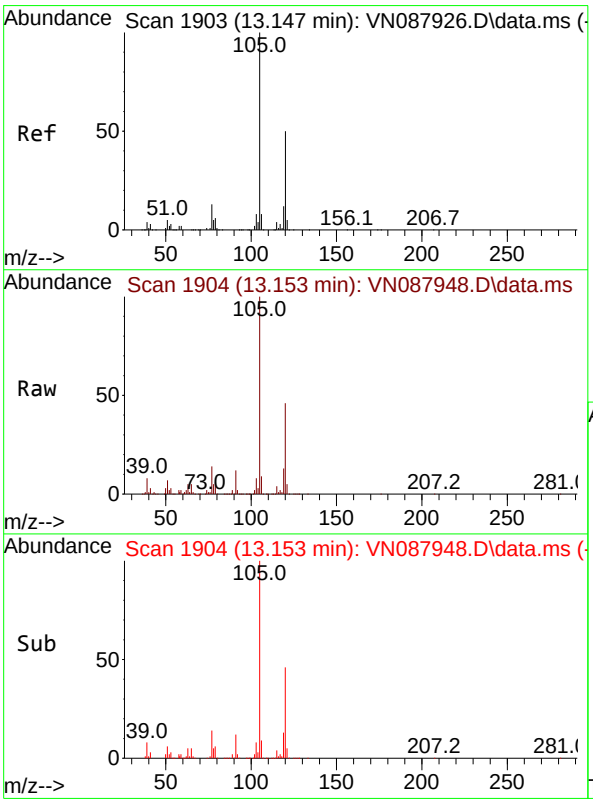
Ion	Ratio	Lower	Upper
91	100		
126	33.5	16.6	49.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

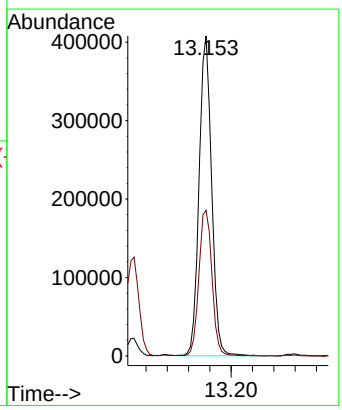


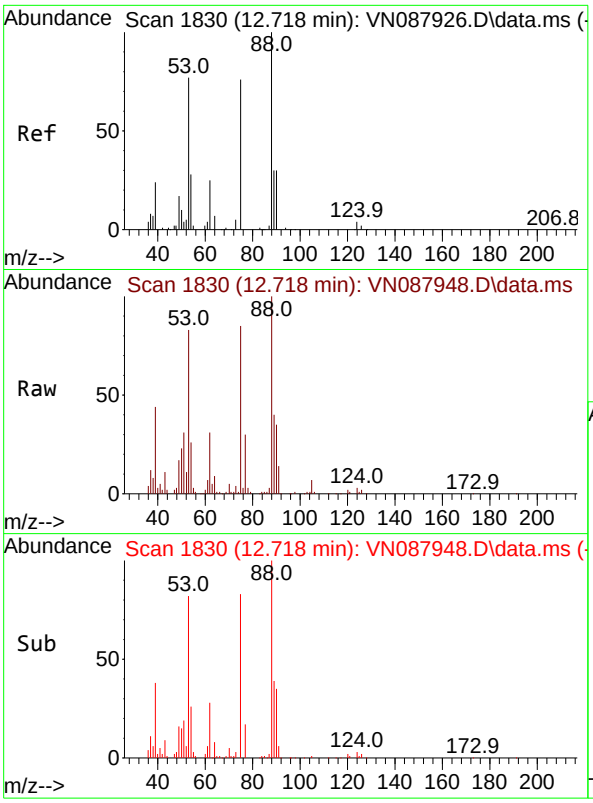


#80
1,3,5-Trimethylbenzene
Concen: 51.577 ug/l
RT: 13.153 min Scan# 1904
Delta R.T. 0.006 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion:105 Resp: 665058

Ion	Ratio	Lower	Upper
105	100		
120	47.7	24.7	74.1





#81
trans-1,4-Dichloro-2-butene
Concen: 50.728 ug/l
RT: 12.718 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

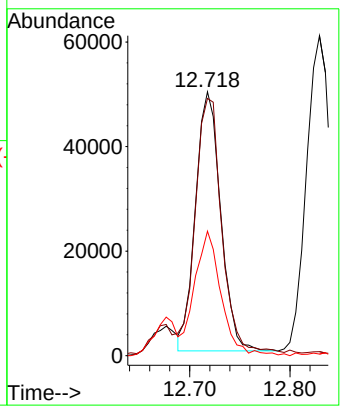
Tgt Ion: 75 Resp: 8661

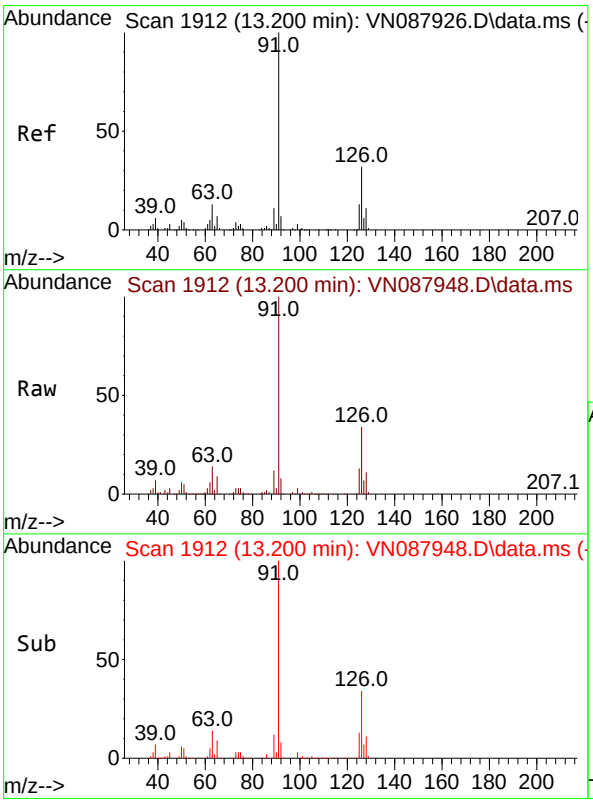
Ion	Ratio	Lower	Upper
75	100		
53	104.4	82.0	123.0
89	50.9	36.1	54.1

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

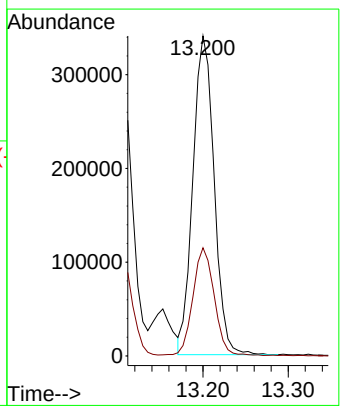


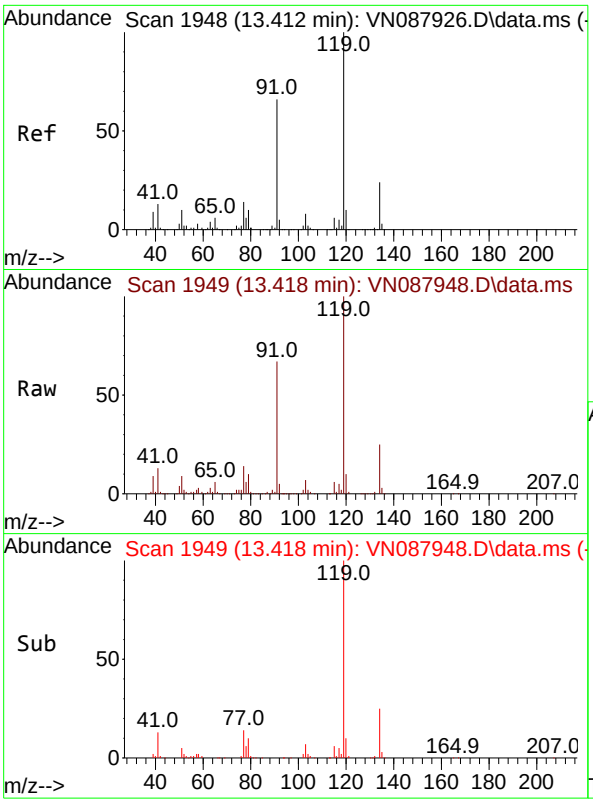


#82
4-Chlorotoluene
Concen: 51.348 ug/l
RT: 13.200 min Scan# 1912
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 91 Resp: 587172

Ion	Ratio	Lower	Upper
91	100		
126	34.0	16.9	50.6

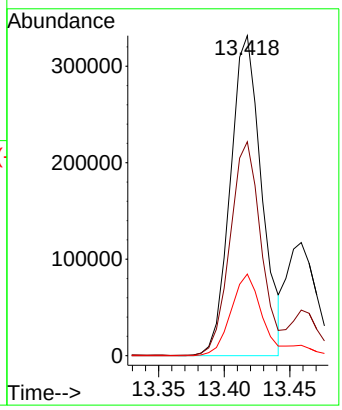




#83
tert-Butylbenzene
Concen: 50.507 ug/l
RT: 13.418 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion:119 Resp: 55123

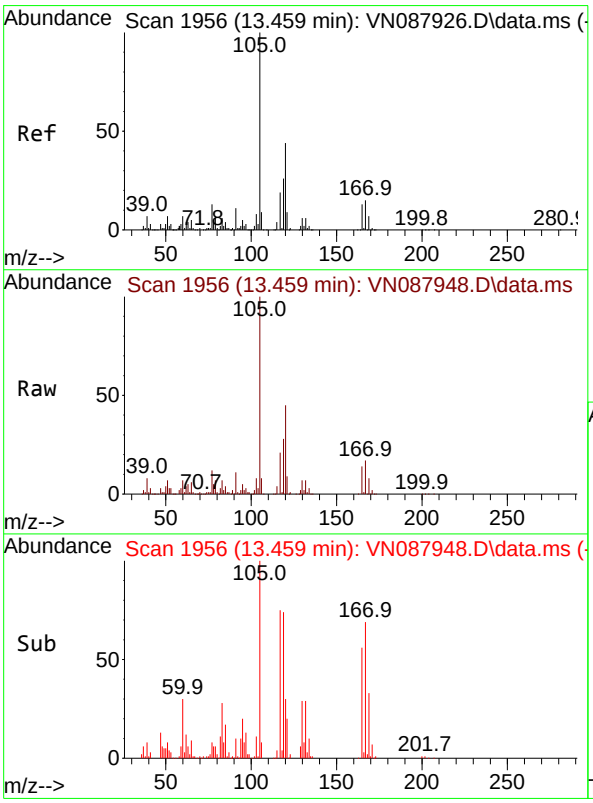
Ion	Ratio	Lower	Upper
119	100		
91	67.3	32.1	96.3
134	27.4	12.3	36.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

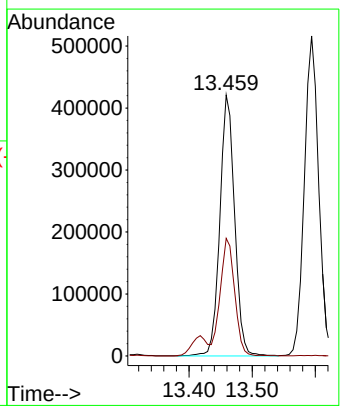
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

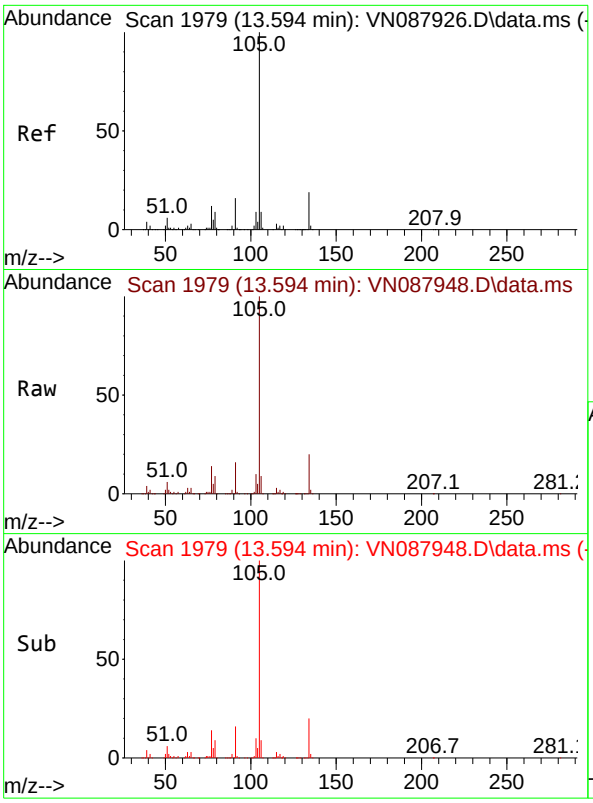


#84
1,2,4-Trimethylbenzene
Concen: 51.819 ug/l
RT: 13.459 min Scan# 1956
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion:105 Resp: 685359

Ion	Ratio	Lower	Upper
105	100		
120	43.8	22.4	67.3

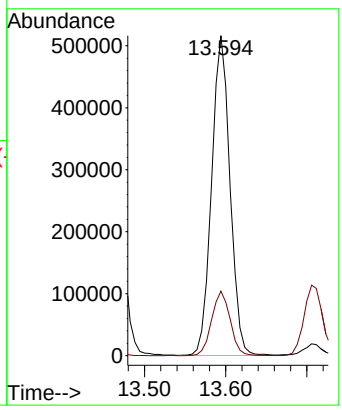




#85
sec-Butylbenzene
Concen: 50.791 ug/l
RT: 13.594 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion:105 Resp: 81273

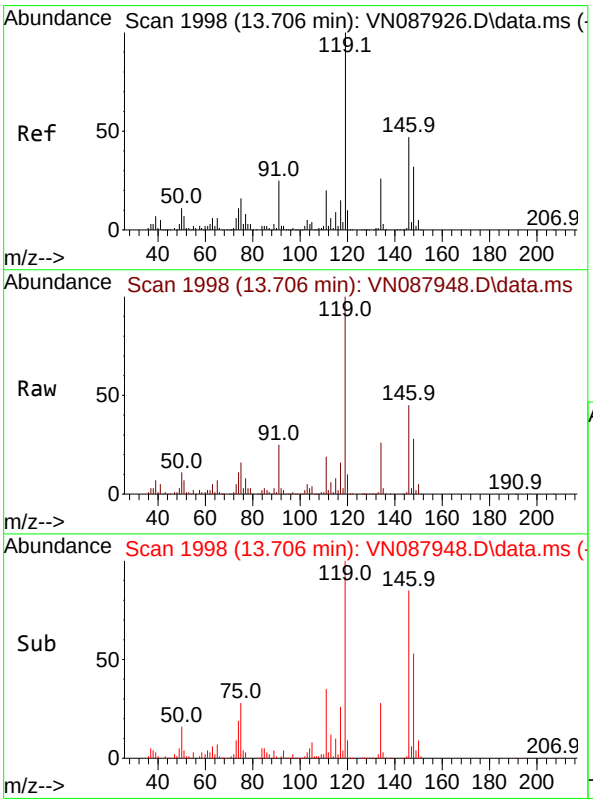
Ion	Ratio	Lower	Upper
105	100		
134	20.3	9.6	28.8



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

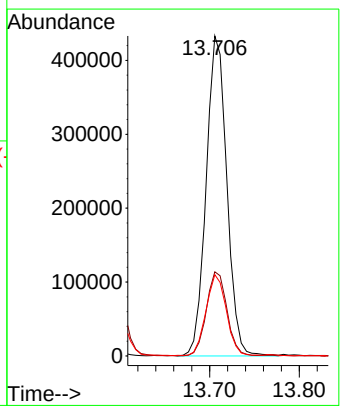
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

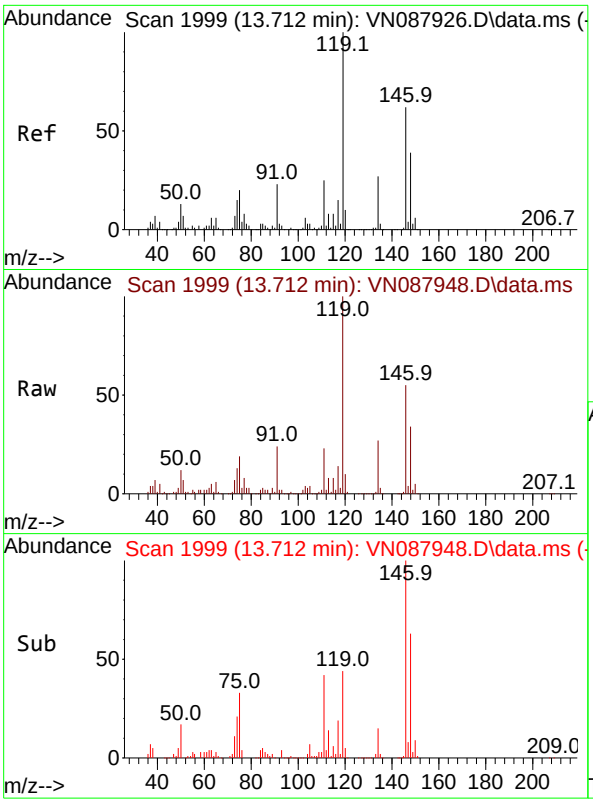


#86
p-Isopropyltoluene
Concen: 51.153 ug/l
RT: 13.706 min Scan# 1998
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion:119 Resp: 693261

Ion	Ratio	Lower	Upper
119	100		
134	26.0	13.1	39.3
91	24.8	11.9	35.5

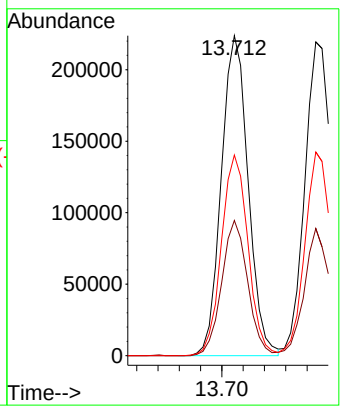




#87
1,3-Dichlorobenzene
Concen: 50.593 ug/l
RT: 13.712 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion:146 Resp: 39159

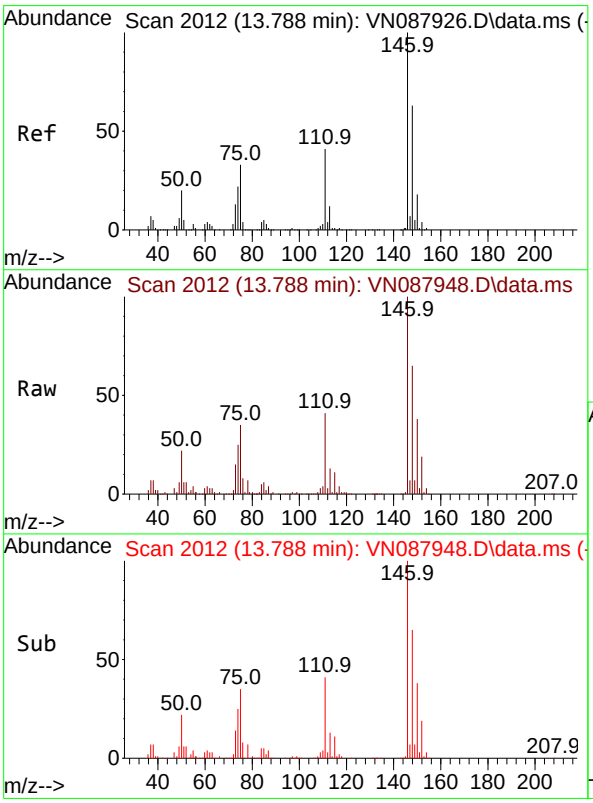
Ion	Ratio	Lower	Upper
146	100		
111	41.0	20.3	60.8
148	62.2	32.4	97.2



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

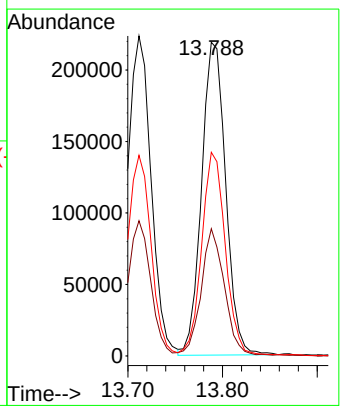
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

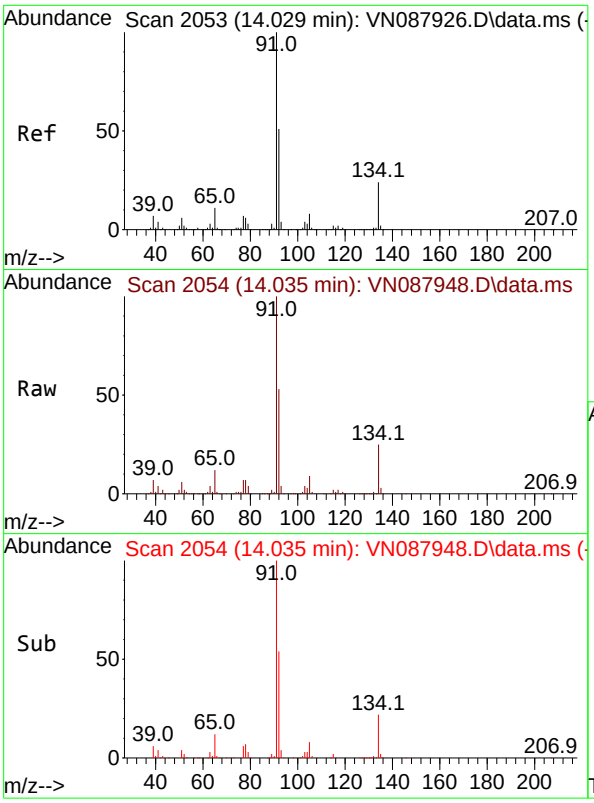


#88
1,4-Dichlorobenzene
Concen: 48.833 ug/l
RT: 13.788 min Scan# 2012
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion:146 Resp: 388440

Ion	Ratio	Lower	Upper
146	100		
111	39.0	20.5	61.5
148	63.3	32.8	98.4





#89
n-Butylbenzene
Concen: 50.515 ug/l
RT: 14.035 min Scan# 2
Delta R.T. 0.006 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

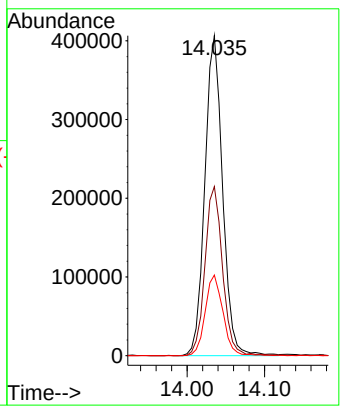
Tgt Ion: 91 Resp: 64699

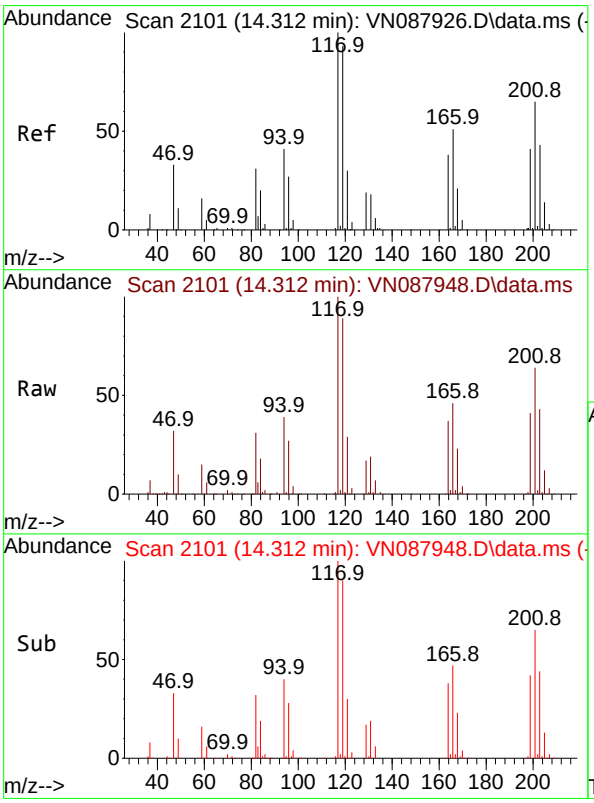
Ion	Ratio	Lower	Upper
91	100		
92	52.6	25.9	77.8
134	25.3	12.6	37.8

Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

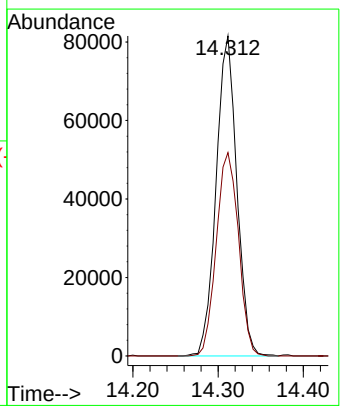


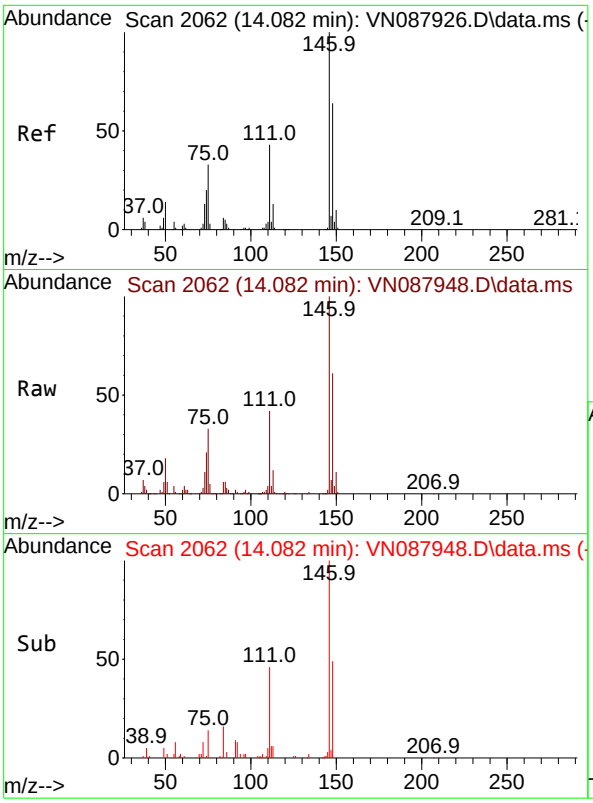


#90
Hexachloroethane
Concen: 48.769 ug/l
RT: 14.312 min Scan# 2101
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion:117 Resp: 138063

Ion	Ratio	Lower	Upper
117	100		
201	68.0	33.6	100.6

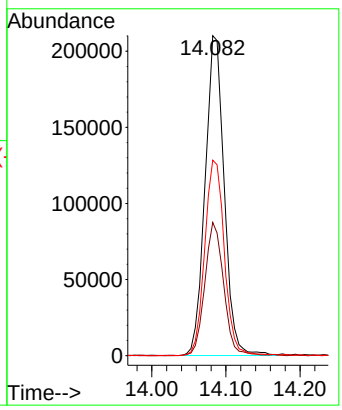




#91
1,2-Dichlorobenzene
Concen: 50.350 ug/l
RT: 14.082 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion:146 Resp: 37564

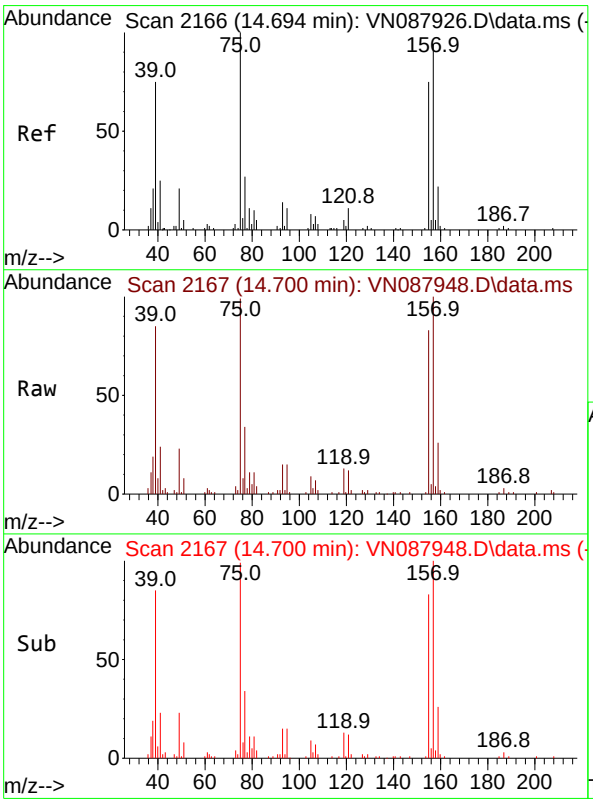
Ion	Ratio	Lower	Upper
146	100		
111	41.1	20.9	62.7
148	63.4	31.9	95.9



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED

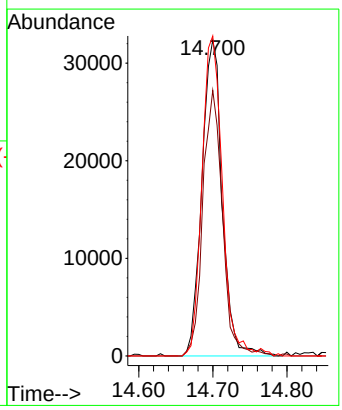
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

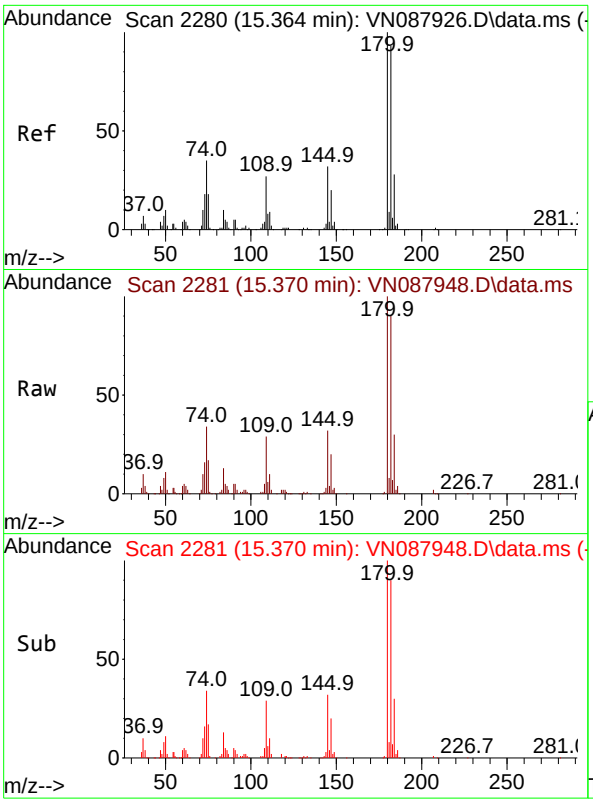


#92
1,2-Dibromo-3-Chloropropane
Concen: 49.412 ug/l
RT: 14.700 min Scan# 2167
Delta R.T. 0.006 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion: 75 Resp: 61668

Ion	Ratio	Lower	Upper
75	100		
155	81.0	40.2	120.6
157	100.8	50.9	152.7

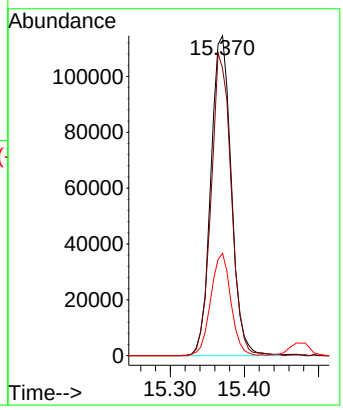




#93
1,2,4-Trichlorobenzene
Concen: 49.803 ug/l
RT: 15.370 min Scan# 2
Delta R.T. 0.006 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion:180 Resp: 21938

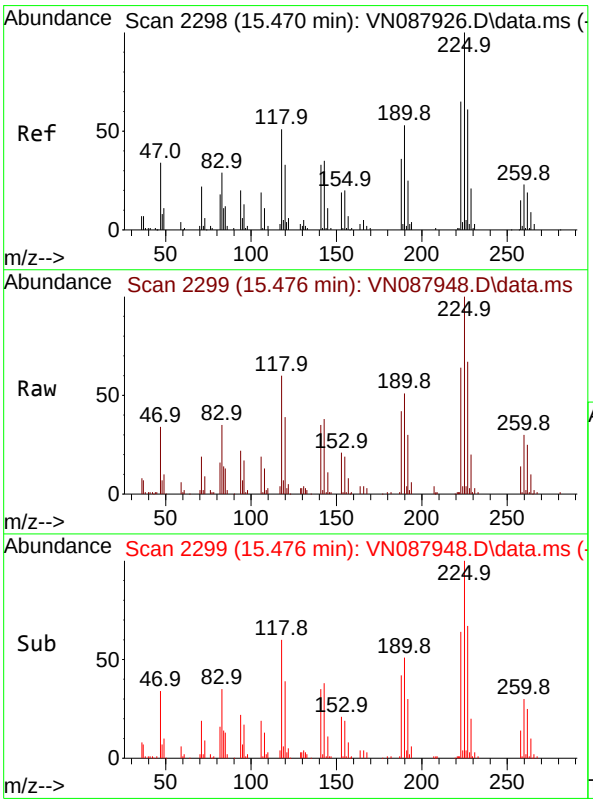
Ion	Ratio	Lower	Upper
180	100		
182	93.1	48.5	145.5
145	31.6	15.9	47.6



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

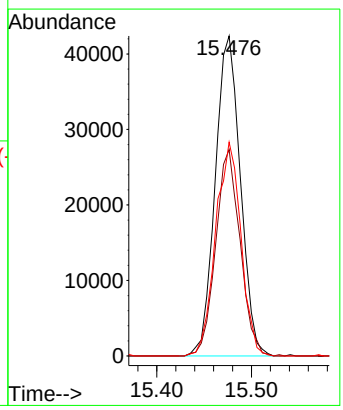
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

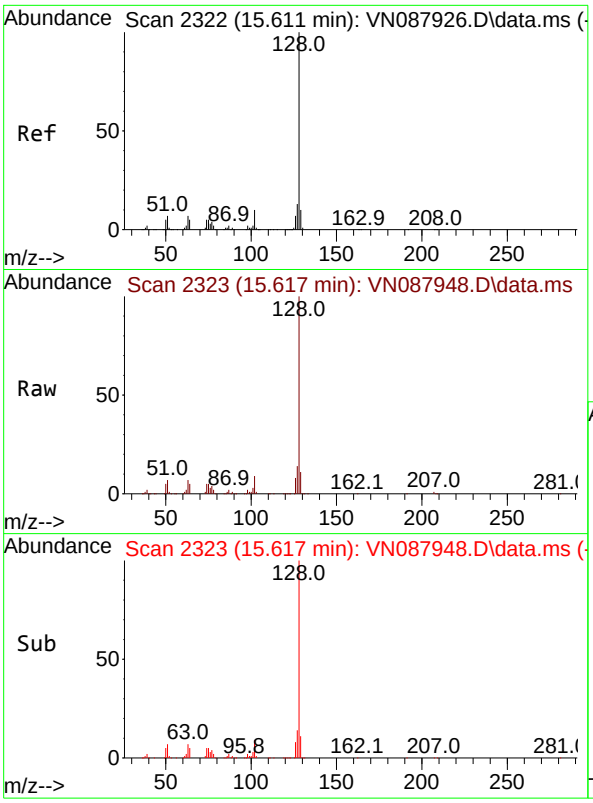


#94
Hexachlorobutadiene
Concen: 48.209 ug/l
RT: 15.476 min Scan# 2299
Delta R.T. 0.006 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion:225 Resp: 78163

Ion	Ratio	Lower	Upper
225	100		
223	62.8	31.8	95.4
227	67.2	31.9	95.9

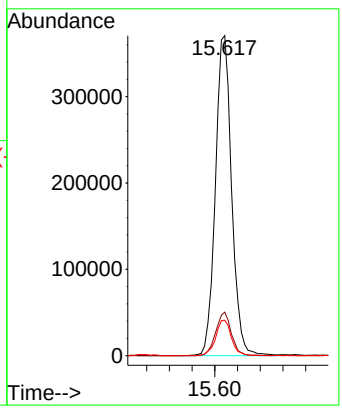




#95
Naphthalene
Concen: 52.038 ug/l
RT: 15.617 min Scan# 2
Delta R.T. 0.006 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion:128 Resp: 73583

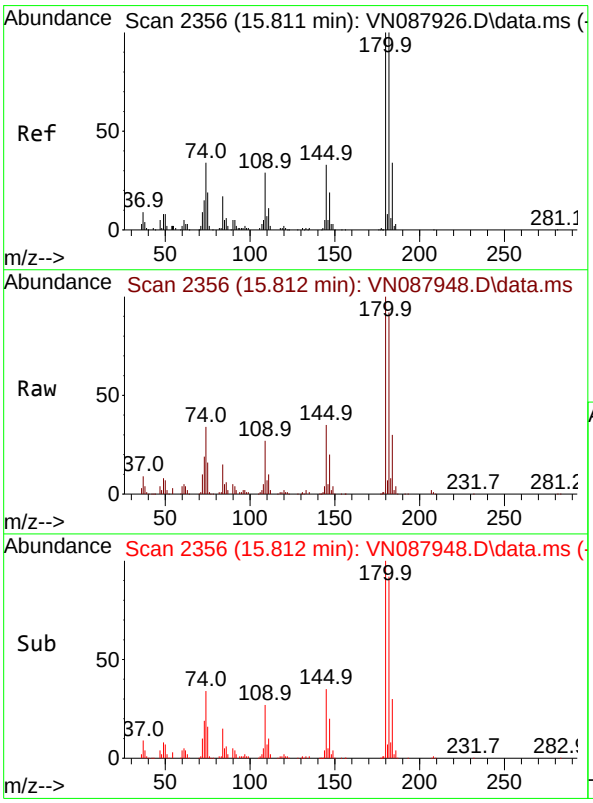
Ion	Ratio	Lower	Upper
128	100		
127	13.0	10.2	15.4
129	10.8	8.6	13.0



Instrument :
MSVOA_N
ClientSampleId :
VSTDCCC050

Manual Integrations
APPROVED

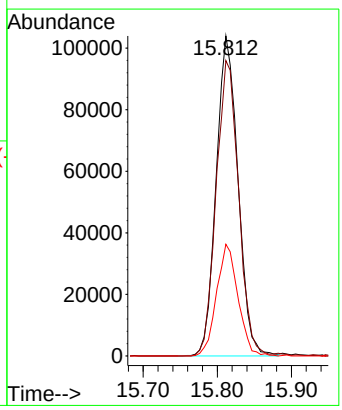
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025



#96
1,2,3-Trichlorobenzene
Concen: 49.682 ug/l
RT: 15.812 min Scan# 2356
Delta R.T. 0.000 min
Lab File: VN087948.D
Acq: 25 Sep 2025 12:04

Tgt Ion:180 Resp: 212763

Ion	Ratio	Lower	Upper
180	100		
182	94.8	47.3	142.0
145	34.3	16.1	48.3



Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092525\
Data File : VN087948.D
Acq On : 25 Sep 2025 12:04
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_N
LabSampleId :
VSTDCCC050

Quant Time: Sep 26 07:27:56 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 05:05:30 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	99	0.00
2	T	Dichlorodifluoromethane	0.579	0.552	4.7	104	0.00
3	P	Chloromethane	0.593	0.580	2.2	108	0.00
4	C	Vinyl Chloride	0.605	0.599	1.0#	107	0.00
5	T	Bromomethane	0.375	0.398	-6.1	123	0.00
6	T	Chloroethane	0.393	0.393	0.0	110	0.00
7	T	Trichlorofluoromethane	0.985	0.954	3.1	107	0.00
8	T	Diethyl Ether	0.372	0.373	-0.3	109	0.00
9	T	1,1,2-Trichlorotrifluoroeth	0.521	0.496	4.8	103	0.00
10	T	Methyl Iodide	0.468	0.536	-14.5	115	0.00
11	T	Tert butyl alcohol	0.121	0.131	-8.3	121	0.01
12	CM	1,1-Dichloroethene	0.525	0.512	2.5#	108	0.00
13	T	Acrolein	0.156	0.156	0.0	129	0.00
14	T	Allyl chloride	0.855	0.845	1.2	110	0.00
15	T	Acrylonitrile	0.380	0.399	-5.0	114	0.00
16	T	Acetone	0.346	0.371	-7.2	123	0.00
17	T	Carbon Disulfide	1.641	1.523	7.2	102	0.00
18	T	Methyl Acetate	0.866	0.960	-10.9	117	0.00
19	T	Methyl tert-butyl Ether	2.052	2.129	-3.8	111	0.00
20	T	Methylene Chloride	0.701	0.688	1.9	110	0.00
21	T	trans-1,2-Dichloroethene	0.644	0.618	4.0	107	0.00
22	T	Diisopropyl ether	1.996	2.056	-3.0	112	0.00
23	T	Vinyl Acetate	1.681	1.878	-11.7	119	0.00
24	P	1,1-Dichloroethane	1.166	1.157	0.8	108	0.00
25	T	2-Butanone	0.529	0.558	-5.5	115	0.00
26	T	2,2-Dichloropropane	1.036	1.027	0.9	109	0.00
27	T	cis-1,2-Dichloroethene	0.766	0.757	1.2	109	0.00
28	T	Bromochloromethane	0.634	0.583	8.0	87	0.00
29	T	Tetrahydrofuran	0.339	0.363	-7.1	116	0.00
30	C	Chloroform	1.275	1.260	1.2#	109	0.00
31	T	Cyclohexane	0.944	0.906	4.0	109	0.00
32	T	1,1,1-Trichloroethane	1.077	1.057	1.9	109	0.00
33	S	1,2-Dichloroethane-d4	0.841	0.784	6.8	89	0.00
34	I	1,4-Difluorobenzene	1.000	1.000	0.0	102	0.00
35	S	Dibromofluoromethane	0.363	0.324	10.7	88	0.00
36	T	1,1-Dichloropropene	0.437	0.430	1.6	107	0.00
37	T	Ethyl Acetate	0.573	0.582	-1.6	110	0.00
38	T	Carbon Tetrachloride	0.501	0.480	4.2	106	0.00
39	T	Methylcyclohexane	0.482	0.461	4.4	105	0.00
40	TM	Benzene	1.445	1.427	1.2	107	0.00
41	T	Methacrylonitrile	0.296	0.297	-0.3	105	0.00
42	TM	1,2-Dichloroethane	0.539	0.525	2.6	110	0.00
43	T	Isopropyl Acetate	0.902	0.922	-2.2	112	0.00
44	TM	Trichloroethene	0.345	0.331	4.1	107	0.00
45	C	1,2-Dichloropropane	0.362	0.354	2.2#	108	0.00
46	T	Dibromomethane	0.286	0.279	2.4	109	0.00
47	T	Bromodichloromethane	0.561	0.562	-0.2	110	0.00
48	T	Methyl methacrylate	0.418	0.427	-2.2	112	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092525\
Data File : VN087948.D
Acq On : 25 Sep 2025 12:04
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_N
LabSampleId :
VSTDCCC050

Quant Time: Sep 26 07:27:56 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 05:05:30 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	0.006	0.007	-16.7	125	0.00
50	S	Toluene-d8	1.277	1.142	10.6	86	0.00
51	T	4-Methyl-2-Pentanone	0.563	0.601	-6.7	114	0.00
52	CM	Toluene	0.907	0.893	1.5#	107	0.00
53	T	t-1,3-Dichloropropene	0.574	0.577	-0.5	111	0.00
54	T	cis-1,3-Dichloropropene	0.596	0.590	1.0	110	0.00
55	T	1,1,2-Trichloroethane	0.369	0.368	0.3	110	0.00
56	T	Ethyl methacrylate	0.533	0.561	-5.3	111	0.00
57	T	1,3-Dichloropropane	0.607	0.610	-0.5	109	0.00
58	T	2-Chloroethyl Vinyl ether	0.251	0.330	-31.5#	153#	0.00
59	T	2-Hexanone	0.372	0.420	-12.9	116	0.00
60	T	Dibromochloromethane	0.434	0.434	0.0	110	0.00
61	T	1,2-Dibromoethane	0.390	0.388	0.5	109	0.00
62	S	4-Bromofluorobenzene	0.456	0.406	11.0	87	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	98	0.00
64	T	Tetrachloroethene	0.305	0.292	4.3	103	0.00
65	PM	Chlorobenzene	1.064	1.052	1.1	109	0.00
66	T	1,1,1,2-Tetrachloroethane	0.384	0.378	1.6	106	0.00
67	C	Ethyl Benzene	1.775	1.776	-0.1#	109	0.00
68	T	m/p-Xylenes	0.679	0.699	-2.9	108	0.00
69	T	o-Xylene	0.652	0.649	0.5	107	0.00
70	T	Styrene	1.120	1.160	-3.6	107	0.00
71	P	Bromoform	0.311	0.319	-2.6	110	0.00
72	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	96	0.00
73	T	Isopropylbenzene	3.099	3.167	-2.2	108	0.00
74	T	N-amyl acetate	1.021	0.917	10.2	100	0.00
75	P	1,1,2,2-Tetrachloroethane	1.117	1.107	0.9	109	0.00
76	T	1,2,3-Trichloropropane	0.986	0.895	9.2	99	0.00
77	T	Bromobenzene	0.825	0.808	2.1	108	0.00
78	T	n-propylbenzene	3.874	3.913	-1.0	108	0.00
79	T	2-Chlorotoluene	2.359	2.329	1.3	107	0.00
80	T	1,3,5-Trimethylbenzene	2.680	2.765	-3.2	111	0.00
81	T	trans-1,4-Dichloro-2-butene	0.355	0.360	-1.4	112	0.00
82	T	4-Chlorotoluene	2.377	2.441	-2.7	109	0.00
83	T	tert-Butylbenzene	2.269	2.292	-1.0	107	0.00
84	T	1,2,4-Trimethylbenzene	2.749	2.849	-3.6	109	0.00
85	T	sec-Butylbenzene	3.326	3.379	-1.6	108	0.00
86	T	p-Isopropyltoluene	2.817	2.882	-2.3	108	0.00
87	T	1,3-Dichlorobenzene	1.609	1.628	-1.2	111	0.00
88	T	1,4-Dichlorobenzene	1.654	1.615	2.4	110	0.00
89	T	n-Butylbenzene	2.662	2.690	-1.1	109	0.00
90	T	Hexachloroethane	0.588	0.574	2.4	109	0.00
91	T	1,2-Dichlorobenzene	1.551	1.562	-0.7	111	0.00
92	T	1,2-Dibromo-3-Chloropropane	0.259	0.256	1.2	112	0.00
93	T	1,2,4-Trichlorobenzene	0.916	0.912	0.4	111	0.00
94	T	Hexachlorobutadiene	0.337	0.325	3.6	106	0.00
95	T	Naphthalene	2.939	3.059	-4.1	113	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092525\
Data File : VN087948.D
Acq On : 25 Sep 2025 12:04
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_N
LabSampleId :
VSTDCCC050

Quant Time: Sep 26 07:27:56 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 05:05:30 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	0.890	0.885	0.6	108	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092525\
Data File : VN087948.D
Acq On : 25 Sep 2025 12:04
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_N
LabSampleId :
VSTDCCC050

Quant Time: Sep 26 07:27:56 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 05:05:30 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	99	0.00
2	T	Dichlorodifluoromethane	50.000	47.699	4.6	104	0.00
3	P	Chloromethane	50.000	48.936	2.1	108	0.00
4	C	Vinyl Chloride	50.000	49.486	1.0#	107	0.00
5	T	Bromomethane	50.000	53.032	-6.1	123	0.00
6	T	Chloroethane	50.000	49.948	0.1	110	0.00
7	T	Trichlorofluoromethane	50.000	48.431	3.1	107	0.00
8	T	Diethyl Ether	50.000	50.084	-0.2	109	0.00
9	T	1,1,2-Trichlorotrifluoroeth	50.000	47.643	4.7	103	0.00
10	T	Methyl Iodide	50.000	57.259	-14.5	115	0.00
11	T	Tert butyl alcohol	250.000	271.032	-8.4	121	0.01
12	CM	1,1-Dichloroethene	50.000	48.788	2.4#	108	0.00
13	T	Acrolein	250.000	251.254	-0.5	129	0.00
14	T	Allyl chloride	50.000	49.426	1.1	110	0.00
15	T	Acrylonitrile	250.000	262.332	-4.9	114	0.00
16	T	Acetone	250.000	268.115	-7.2	123	0.00
17	T	Carbon Disulfide	50.000	46.415	7.2	102	0.00
18	T	Methyl Acetate	50.000	55.411	-10.8	117	0.00
19	T	Methyl tert-butyl Ether	50.000	51.896	-3.8	111	0.00
20	T	Methylene Chloride	50.000	49.116	1.8	110	0.00
21	T	trans-1,2-Dichloroethene	50.000	47.970	4.1	107	0.00
22	T	Diisopropyl ether	50.000	51.507	-3.0	112	0.00
23	T	Vinyl Acetate	250.000	279.393	-11.8	119	0.00
24	P	1,1-Dichloroethane	50.000	49.600	0.8	108	0.00
25	T	2-Butanone	250.000	263.713	-5.5	115	0.00
26	T	2,2-Dichloropropane	50.000	49.573	0.9	109	0.00
27	T	cis-1,2-Dichloroethene	50.000	49.376	1.2	109	0.00
28	T	Bromochloromethane	50.000	46.036	7.9	87	0.00
29	T	Tetrahydrofuran	250.000	267.483	-7.0	116	0.00
30	C	Chloroform	50.000	49.398	1.2#	109	0.00
31	T	Cyclohexane	50.000	48.030	3.9	109	0.00
32	T	1,1,1-Trichloroethane	50.000	49.059	1.9	109	0.00
33	S	1,2-Dichloroethane-d4	50.000	46.582	6.8	89	0.00
34	I	1,4-Difluorobenzene	50.000	50.000	0.0	102	0.00
35	S	Dibromofluoromethane	50.000	44.597	10.8	88	0.00
36	T	1,1-Dichloropropene	50.000	49.205	1.6	107	0.00
37	T	Ethyl Acetate	50.000	50.766	-1.5	110	0.00
38	T	Carbon Tetrachloride	50.000	47.879	4.2	106	0.00
39	T	Methylcyclohexane	50.000	47.819	4.4	105	0.00
40	TM	Benzene	50.000	49.372	1.3	107	0.00
41	T	Methacrylonitrile	50.000	50.108	-0.2	105	0.00
42	TM	1,2-Dichloroethane	50.000	48.653	2.7	110	0.00
43	T	Isopropyl Acetate	50.000	51.072	-2.1	112	0.00
44	TM	Trichloroethene	50.000	48.005	4.0	107	0.00
45	C	1,2-Dichloropropane	50.000	48.794	2.4#	108	0.00
46	T	Dibromomethane	50.000	48.839	2.3	109	0.00
47	T	Bromodichloromethane	50.000	50.106	-0.2	110	0.00
48	T	Methyl methacrylate	50.000	51.109	-2.2	112	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092525\
Data File : VN087948.D
Acq On : 25 Sep 2025 12:04
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_N
LabSampleId :
VSTDCCC050

Quant Time: Sep 26 07:27:56 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 05:05:30 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	1121.681	-12.2	125	0.00
50	S	Toluene-d8	50.000	44.735	10.5	86	0.00
51	T	4-Methyl-2-Pentanone	250.000	266.670	-6.7	114	0.00
52	CM	Toluene	50.000	49.246	1.5#	107	0.00
53	T	t-1,3-Dichloropropene	50.000	50.291	-0.6	111	0.00
54	T	cis-1,3-Dichloropropene	50.000	49.489	1.0	110	0.00
55	T	1,1,2-Trichloroethane	50.000	49.877	0.2	110	0.00
56	T	Ethyl methacrylate	50.000	52.640	-5.3	111	0.00
57	T	1,3-Dichloropropane	50.000	50.261	-0.5	109	0.00
58	T	2-Chloroethyl Vinyl ether	250.000	329.535	-31.8#	153	0.00
59	T	2-Hexanone	250.000	281.970	-12.8	116	0.00
60	T	Dibromochloromethane	50.000	50.045	-0.1	110	0.00
61	T	1,2-Dibromoethane	50.000	49.721	0.6	109	0.00
62	S	4-Bromofluorobenzene	50.000	44.495	11.0	87	0.00
63	I	Chlorobenzene-d5	50.000	50.000	0.0	98	0.00
64	T	Tetrachloroethene	50.000	47.913	4.2	103	0.00
65	PM	Chlorobenzene	50.000	49.453	1.1	109	0.00
66	T	1,1,1,2-Tetrachloroethane	50.000	49.235	1.5	106	0.00
67	C	Ethyl Benzene	50.000	50.002	-0.0#	109	0.00
68	T	m/p-Xylenes	100.000	102.897	-2.9	108	0.00
69	T	o-Xylene	50.000	49.721	0.6	107	0.00
70	T	Styrene	50.000	51.750	-3.5	107	0.00
71	P	Bromoform	50.000	51.214	-2.4	110	0.00
72	I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	96	0.00
73	T	Isopropylbenzene	50.000	51.096	-2.2	108	0.00
74	T	N-amyl acetate	50.000	44.889	10.2	100	0.00
75	P	1,1,2,2-Tetrachloroethane	50.000	49.558	0.9	109	0.00
76	T	1,2,3-Trichloropropane	50.000	45.409	9.2	99	0.00
77	T	Bromobenzene	50.000	49.027	1.9	108	0.00
78	T	n-propylbenzene	50.000	50.495	-1.0	108	0.00
79	T	2-Chlorotoluene	50.000	49.359	1.3	107	0.00
80	T	1,3,5-Trimethylbenzene	50.000	51.577	-3.2	111	0.00
81	T	trans-1,4-Dichloro-2-butene	50.000	50.728	-1.5	112	0.00
82	T	4-Chlorotoluene	50.000	51.348	-2.7	109	0.00
83	T	tert-Butylbenzene	50.000	50.507	-1.0	107	0.00
84	T	1,2,4-Trimethylbenzene	50.000	51.819	-3.6	109	0.00
85	T	sec-Butylbenzene	50.000	50.791	-1.6	108	0.00
86	T	p-Isopropyltoluene	50.000	51.153	-2.3	108	0.00
87	T	1,3-Dichlorobenzene	50.000	50.593	-1.2	111	0.00
88	T	1,4-Dichlorobenzene	50.000	48.833	2.3	110	0.00
89	T	n-Butylbenzene	50.000	50.515	-1.0	109	0.00
90	T	Hexachloroethane	50.000	48.769	2.5	109	0.00
91	T	1,2-Dichlorobenzene	50.000	50.350	-0.7	111	0.00
92	T	1,2-Dibromo-3-Chloropropane	50.000	49.412	1.2	112	0.00
93	T	1,2,4-Trichlorobenzene	50.000	49.803	0.4	111	0.00
94	T	Hexachlorobutadiene	50.000	48.209	3.6	106	0.00
95	T	Naphthalene	50.000	52.038	-4.1	113	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092525\
Data File : VN087948.D
Acq On : 25 Sep 2025 12:04
Operator : JC\MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_N
LabSampleId :
VSTDCCC050

Quant Time: Sep 26 07:27:56 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 05:05:30 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	49.682	0.6	108	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

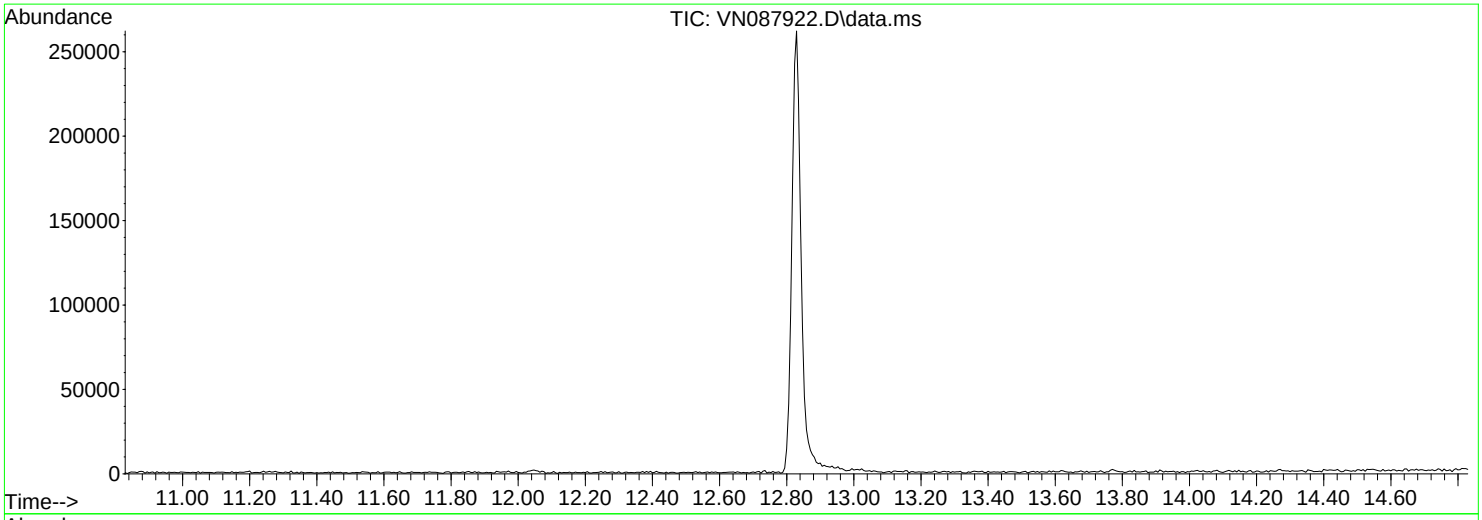
QC SAMPLE DATA

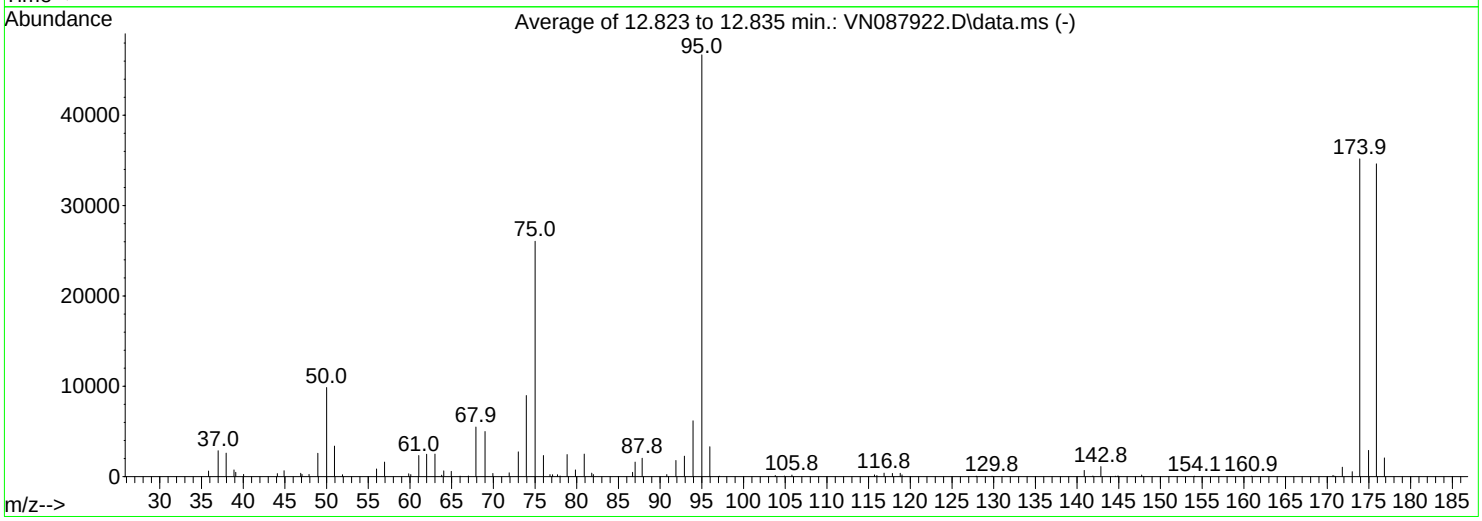
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092325\
Data File : VN087922.D
Acq On : 23 Sep 2025 08:31
Operator : JC\MD
Sample : BFB
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Title : SW846 8260
Last Update : Wed Sep 24 05:05:30 2025





AutoFind: Scans 1848, 1849, 1850; Background Corrected with Scan 1840

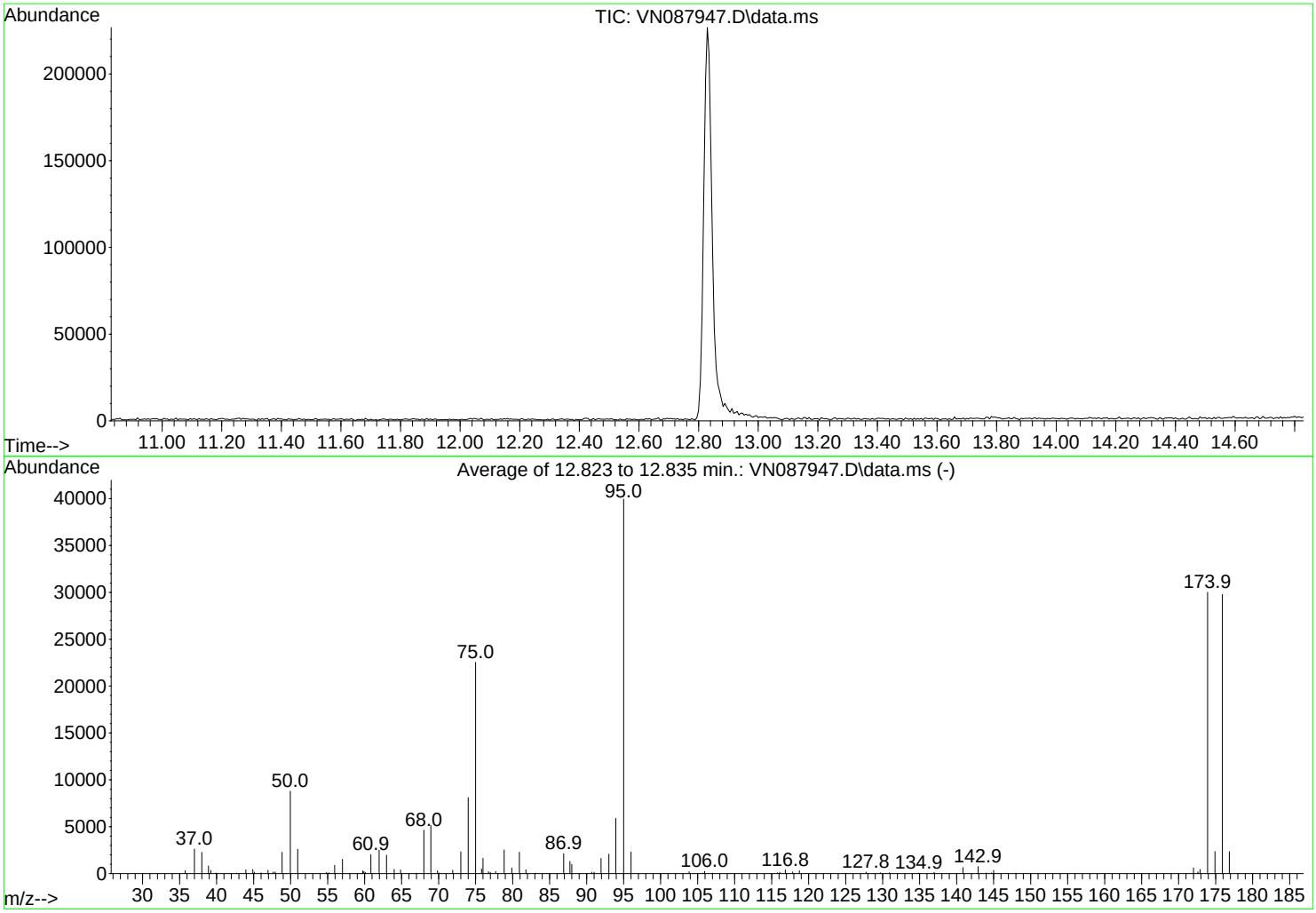
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.1	9874	PASS
75	95	30	60	55.8	26056	PASS
95	95	100	100	100.0	46688	PASS
96	95	5	9	7.1	3306	PASS
173	174	0.00	2	1.6	554	PASS
174	95	50	100	75.3	35176	PASS
175	174	5	9	8.3	2908	PASS
176	174	95	101	98.4	34627	PASS
177	176	5	9	6.0	2077	PASS

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092525\
Data File : VN087947.D
Acq On : 25 Sep 2025 10:47
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\82N092325W.M
Title : SW846 8260
Last Update : Wed Sep 24 05:05:30 2025



AutoFind: Scans 1848, 1849, 1850; Background Corrected with Scan 1840

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	22.0	8793	PASS
75	95	30	60	56.4	22541	PASS
95	95	100	100	100.0	39955	PASS
96	95	5	9	5.8	2310	PASS
173	174	0.00	2	1.5	450	PASS
174	95	50	100	75.1	30013	PASS
175	174	5	9	7.8	2352	PASS
176	174	95	101	99.2	29768	PASS
177	176	5	9	7.9	2353	PASS

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

Report of Analysis

Client:	Weston Solutions, Inc.	Date Collected:	
Project:	RFP 916	Date Received:	
Client Sample ID:	VN0925WBL01	SDG No.:	Q3179
Lab Sample ID:	VN0925WBL01	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	SPLP VOA
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VN087950.D	1	09/25/25 12:59	VN092525

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	0.22	U	0.22	5.00	ug/L
74-87-3	Chloromethane	0.32	U	0.32	5.00	ug/L
75-01-4	Vinyl Chloride	0.26	U	0.26	5.00	ug/L
141-78-6	Ethyl Acetate	0.31	U	0.31	5.00	ug/L
74-83-9	Bromomethane	1.40	U	1.40	5.00	ug/L
75-00-3	Chloroethane	0.47	U	0.47	5.00	ug/L
75-69-4	Trichlorofluoromethane	0.33	U	0.33	5.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	0.25	U	0.25	5.00	ug/L
75-35-4	1,1-Dichloroethene	0.23	U	0.23	5.00	ug/L
107-02-8	Acrolein	7.10	U	7.10	25.0	ug/L
107-13-1	Acrylonitrile	0.83	U	0.83	25.0	ug/L
67-64-1	Acetone	1.50	U	1.50	25.0	ug/L
75-15-0	Carbon Disulfide	0.21	U	0.21	5.00	ug/L
1634-04-4	Methyl tert-butyl Ether	0.16	U	0.16	5.00	ug/L
79-20-9	Methyl Acetate	0.27	U	0.27	5.00	ug/L
75-09-2	Methylene Chloride	0.28	U	0.28	5.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.23	U	0.23	5.00	ug/L
75-34-3	1,1-Dichloroethane	0.23	U	0.23	5.00	ug/L
110-82-7	Cyclohexane	1.50	U	1.50	5.00	ug/L
78-93-3	2-Butanone	0.98	U	0.98	25.0	ug/L
56-23-5	Carbon Tetrachloride	0.25	U	0.25	5.00	ug/L
594-20-7	2,2-Dichloropropane	0.21	U	0.21	5.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.19	U	0.19	5.00	ug/L
74-97-5	Bromochloromethane	0.22	U	0.22	5.00	ug/L
67-66-3	Chloroform	0.25	U	0.25	5.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.20	U	0.20	5.00	ug/L
108-87-2	Methylcyclohexane	0.16	U	0.16	5.00	ug/L
563-58-6	1,1-Dichloropropene	0.15	U	0.15	5.00	ug/L
71-43-2	Benzene	0.15	U	0.15	5.00	ug/L
107-06-2	1,2-Dichloroethane	0.22	U	0.22	5.00	ug/L

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

Report of Analysis

Client:	Weston Solutions, Inc.	Date Collected:	
Project:	RFP 916	Date Received:	
Client Sample ID:	VN0925WBL01	SDG No.:	Q3179
Lab Sample ID:	VN0925WBL01	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	SPLP VOA
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VN087950.D	1	09/25/25 12:59	VN092525

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-01-6	Trichloroethene	0.090	U	0.090	5.00	ug/L
78-87-5	1,2-Dichloropropane	0.20	U	0.20	5.00	ug/L
74-95-3	Dibromomethane	0.25	U	0.25	5.00	ug/L
75-27-4	Bromodichloromethane	0.22	U	0.22	5.00	ug/L
108-10-1	4-Methyl-2-Pentanone	0.68	U	0.68	25.0	ug/L
108-88-3	Toluene	0.14	U	0.14	5.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.17	U	0.17	5.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.16	U	0.16	5.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.21	U	0.21	5.00	ug/L
142-28-9	1,3-Dichloropropane	0.19	U	0.19	5.00	ug/L
110-75-8	2-Chloroethyl Vinyl ether	0.30	U	0.30	25.0	ug/L
591-78-6	2-Hexanone	0.89	U	0.89	25.0	ug/L
124-48-1	Dibromochloromethane	0.18	U	0.18	5.00	ug/L
106-93-4	1,2-Dibromoethane	0.15	U	0.15	5.00	ug/L
127-18-4	Tetrachloroethene	0.23	U	0.23	5.00	ug/L
108-90-7	Chlorobenzene	0.12	U	0.12	5.00	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	0.19	U	0.19	5.00	ug/L
100-41-4	Ethyl Benzene	0.13	U	0.13	5.00	ug/L
179601-23-1	m/p-Xylenes	0.24	U	0.24	10.0	ug/L
95-47-6	o-Xylene	0.12	U	0.12	5.00	ug/L
100-42-5	Styrene	0.15	U	0.15	5.00	ug/L
75-25-2	Bromoform	0.19	U	0.19	5.00	ug/L
98-82-8	Isopropylbenzene	0.12	U	0.12	5.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.26	U	0.26	5.00	ug/L
96-18-4	1,2,3-Trichloropropane	0.35	U	0.35	5.00	ug/L
108-86-1	Bromobenzene	0.24	U	0.24	5.00	ug/L
95-49-8	2-Chlorotoluene	0.14	U	0.14	5.00	ug/L
108-67-8	1,3,5-Trimethylbenzene	0.15	U	0.15	5.00	ug/L
106-43-4	4-Chlorotoluene	0.13	U	0.13	5.00	ug/L
95-63-6	1,2,4-Trimethylbenzene	0.14	U	0.14	5.00	ug/L
541-73-1	1,3-Dichlorobenzene	0.16	U	0.16	5.00	ug/L

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

Report of Analysis

Client:	Weston Solutions, Inc.		Date Collected:		
Project:	RFP 916		Date Received:		
Client Sample ID:	VN0925WBL01		SDG No.:	Q3179	
Lab Sample ID:	VN0925WBL01		Matrix:	Water	
Analytical Method:	8260D		% Solid:	0	
Sample Wt/Vol:	5 Units:	mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	SPLP VOA	
GC Column:	RXI-624 ID :	0.25	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VN087950.D	1	09/25/25 12:59	VN092525

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
106-46-7	1,4-Dichlorobenzene	0.19	U	0.19	5.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.16	U	0.16	5.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	0.53	U	0.53	5.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	0.20	U	0.20	5.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	0.20	U	0.20	5.00	ug/L
74-88-4	Methyl Iodide	0.83	U	0.83	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	58.4		74 - 125	117%	SPK: 50
1868-53-7	Dibromofluoromethane	53.4		75 - 124	107%	SPK: 50
2037-26-5	Toluene-d8	50.1		86 - 113	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.7		77 - 121	91%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	169000	8.206			
540-36-3	1,4-Difluorobenzene	367000	9.082			
3114-55-4	Chlorobenzene-d5	362000	11.847			
3855-82-1	1,4-Dichlorobenzene-d4	172000	13.77			

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\VN092525\
Data File : VN087950.D
Acq On : 25 Sep 2025 12:59
Operator : JC\MD
Sample : VN0925WBL01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN0925WBL01

Quant Time: Sep 26 07:29:41 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 05:05:30 2025
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.206	168	168763	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.082	114	367239	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.847	117	361992	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.770	152	171513	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.559	65	165738	58.355	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 116.720%			
35) Dibromofluoromethane	8.153	113	142300	53.369	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 106.740%			
50) Toluene-d8	10.547	98	470183	50.145	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 100.280%			
62) 4-Bromofluorobenzene	12.829	95	153124	45.687	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 91.380%			

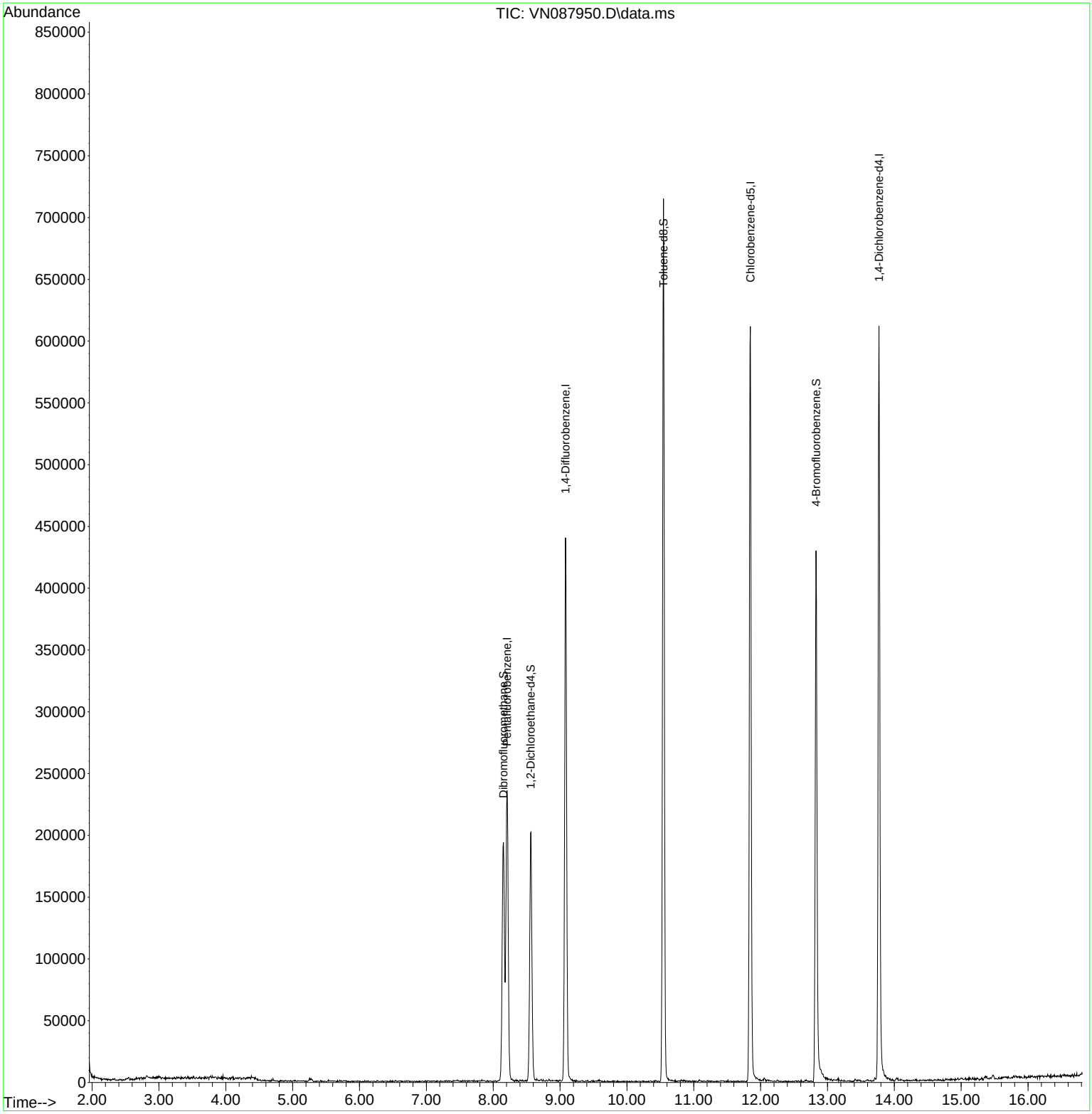
Target Compounds Qvalue

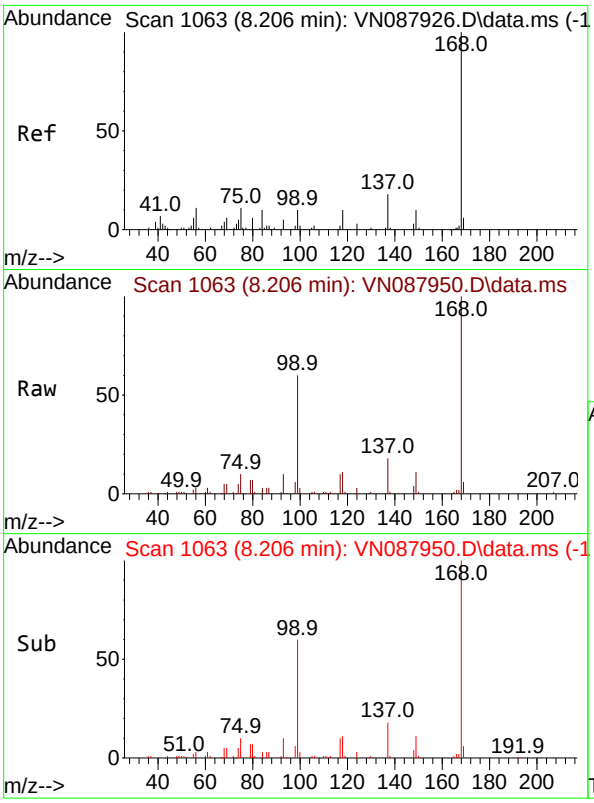
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092525\
Data File : VN087950.D
Acq On : 25 Sep 2025 12:59
Operator : JC\MD
Sample : VN0925WBL01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
VN0925WBL01

Quant Time: Sep 26 07:29:41 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 05:05:30 2025
Response via : Initial Calibration



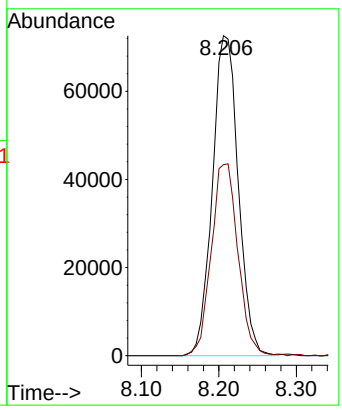


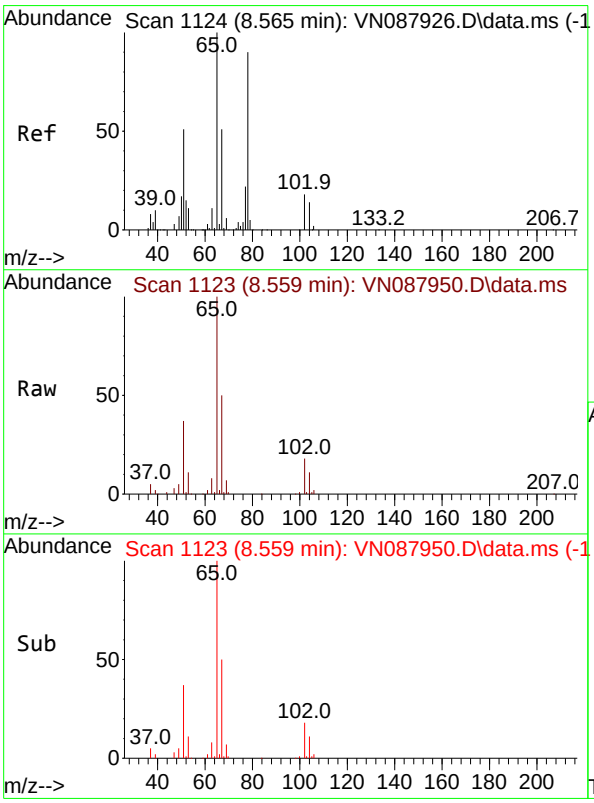
#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.206 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087950.D
Acq: 25 Sep 2025 12:59

Instrument :
MSVOA_N
ClientSampleId :
VN0925WBL01

Tgt Ion:168 Resp: 168763

Ion	Ratio	Lower	Upper
168	100		
99	59.7	52.2	78.2

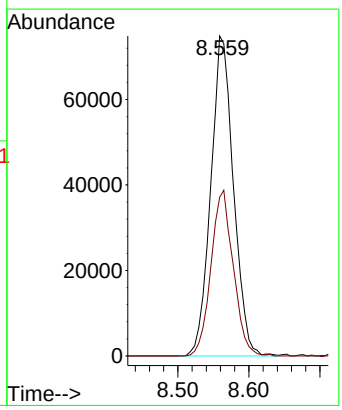


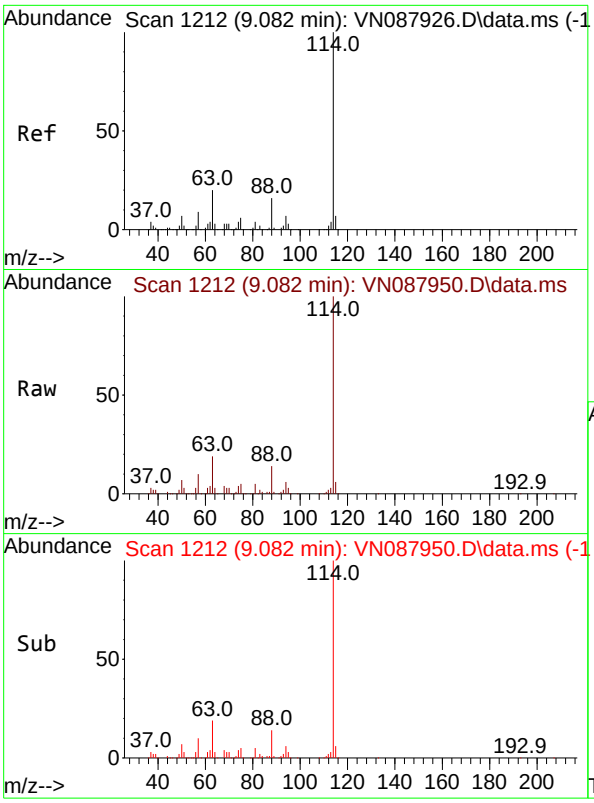


#33
1,2-Dichloroethane-d4
Concen: 58.355 ug/l
RT: 8.559 min Scan# 1123
Delta R.T. -0.006 min
Lab File: VN087950.D
Acq: 25 Sep 2025 12:59

Tgt Ion: 65 Resp: 165738

Ion	Ratio	Lower	Upper
65	100		
67	50.9	0.0	103.4



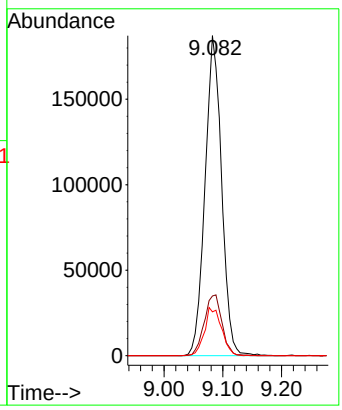


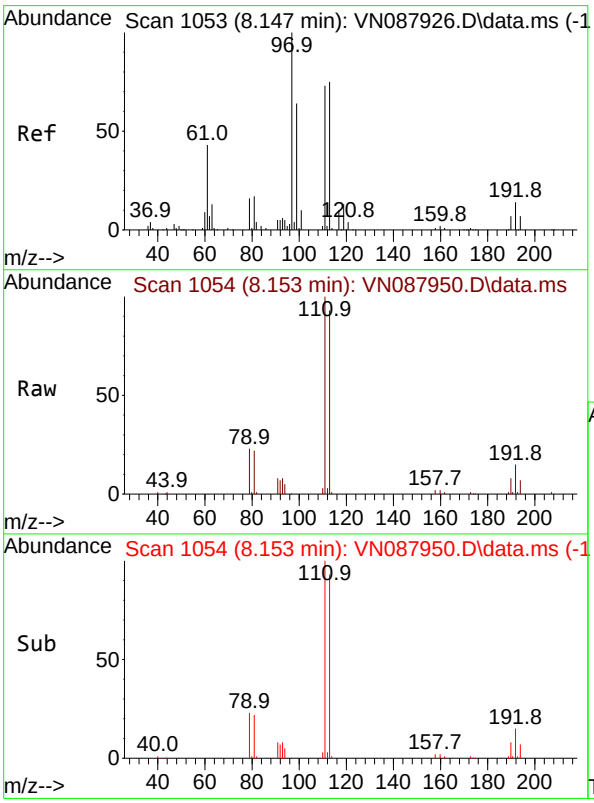
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.082 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087950.D
Acq: 25 Sep 2025 12:59

Instrument :
MSVOA_N
ClientSampleId :
VN0925WBL01

Tgt Ion:114 Resp: 367239

Ion	Ratio	Lower	Upper
114	100		
63	18.6	0.0	40.0
88	13.7	0.0	31.8

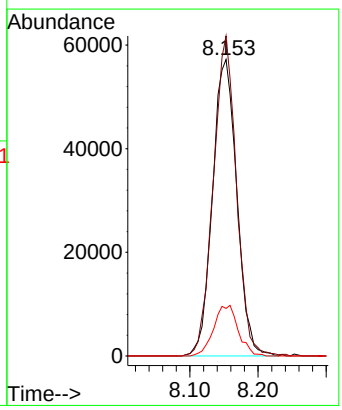


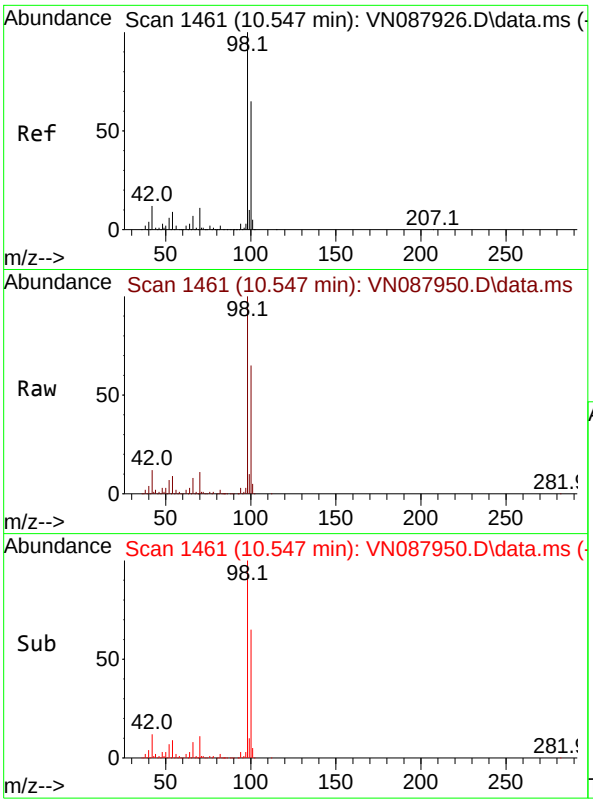


#35
Dibromofluoromethane
Concen: 53.369 ug/l
RT: 8.153 min Scan# 1054
Delta R.T. 0.006 min
Lab File: VN087950.D
Acq: 25 Sep 2025 12:59

Tgt Ion:113 Resp: 142300

Ion	Ratio	Lower	Upper
113	100		
111	102.6	82.2	123.2
192	17.2	14.2	21.2



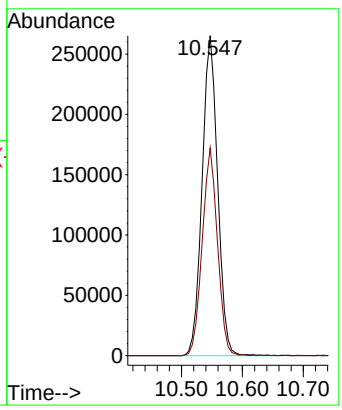


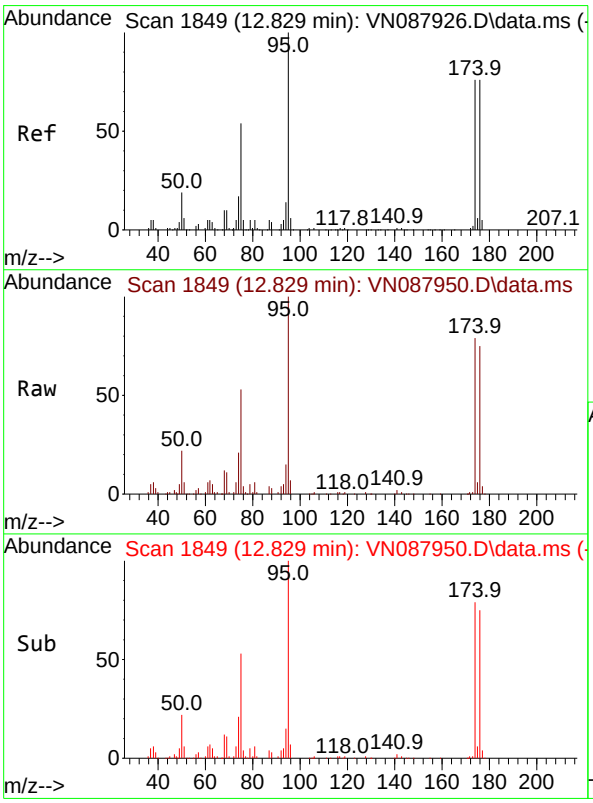
#50
Toluene-d8
Concen: 50.145 ug/l
RT: 10.547 min Scan# 14
Delta R.T. -0.000 min
Lab File: VN087950.D
Acq: 25 Sep 2025 12:59

Instrument :
MSVOA_N
ClientSampleId :
VN0925WBL01

Tgt Ion: 98 Resp: 470183

Ion	Ratio	Lower	Upper
98	100		
100	63.8	51.7	77.5

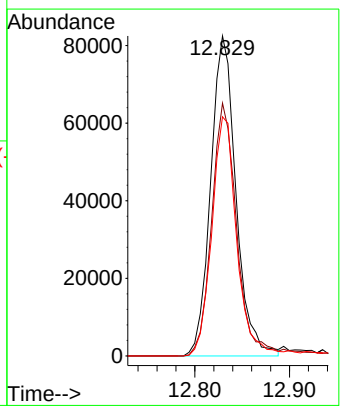


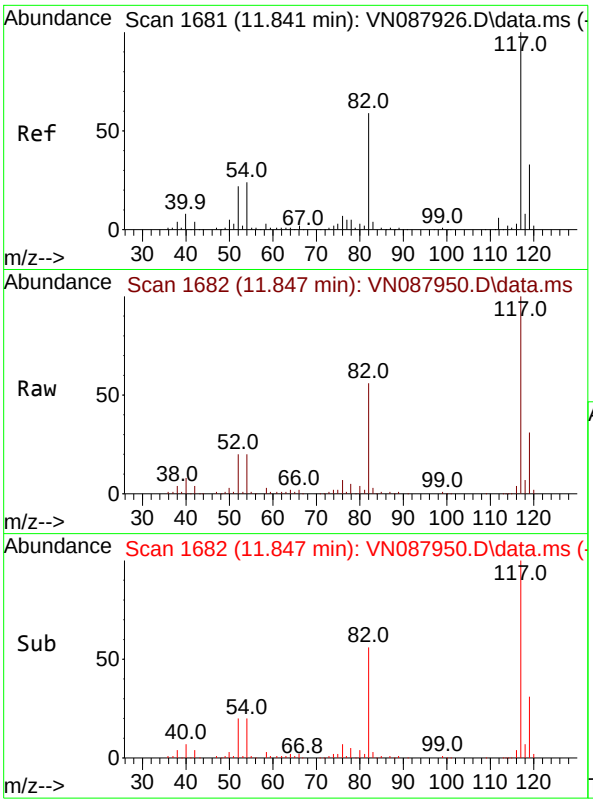


#62
4-Bromofluorobenzene
Concen: 45.687 ug/l
RT: 12.829 min Scan# 1849
Delta R.T. -0.000 min
Lab File: VN087950.D
Acq: 25 Sep 2025 12:59

Tgt Ion: 95 Resp: 153124

Ion	Ratio	Lower	Upper
95	100		
174	80.3	0.0	159.2
176	74.3	0.0	152.6



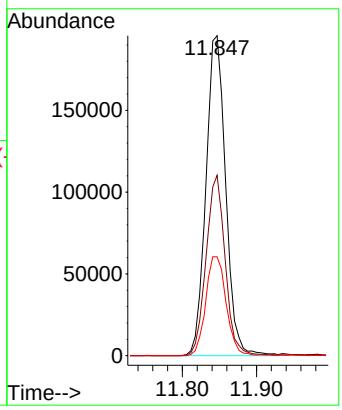


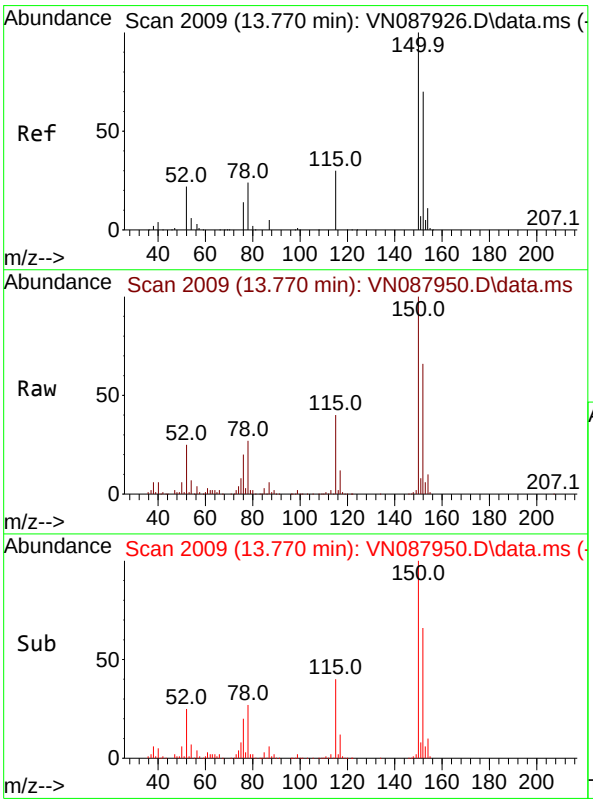
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.847 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087950.D
Acq: 25 Sep 2025 12:59

Instrument :
MSVOA_N
ClientSampleId :
VN0925WBL01

Tgt Ion:117 Resp: 361992

Ion	Ratio	Lower	Upper
117	100		
82	56.4	47.0	70.4
119	30.9	26.1	39.1

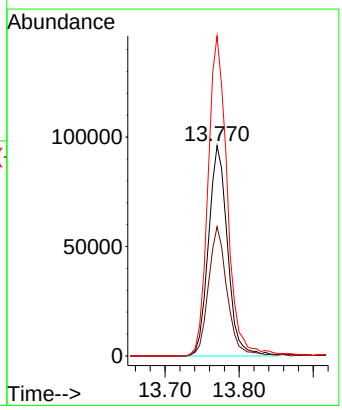




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.770 min Scan# 2009
Delta R.T. -0.000 min
Lab File: VN087950.D
Acq: 25 Sep 2025 12:59

Tgt Ion:152 Resp: 171513

Ion	Ratio	Lower	Upper
152	100		
115	60.5	29.9	89.7
150	154.5	0.0	335.0



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

Report of Analysis

Client:	Weston Solutions, Inc.	Date Collected:	
Project:	RFP 916	Date Received:	
Client Sample ID:	VN0925WBS01	SDG No.:	Q3179
Lab Sample ID:	VN0925WBS01	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	SPLP VOA
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VN087951.D	1	09/25/25 13:56	VN092525

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	22.0		0.22	5.00	ug/L
74-87-3	Chloromethane	19.2		0.32	5.00	ug/L
75-01-4	Vinyl Chloride	20.5		0.26	5.00	ug/L
141-78-6	Ethyl Acetate	18.8		0.31	5.00	ug/L
74-83-9	Bromomethane	20.1		1.40	5.00	ug/L
75-00-3	Chloroethane	19.8		0.47	5.00	ug/L
75-69-4	Trichlorofluoromethane	21.1		0.33	5.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	21.4		0.25	5.00	ug/L
75-35-4	1,1-Dichloroethene	20.7		0.23	5.00	ug/L
107-02-8	Acrolein	73.6		7.10	25.0	ug/L
107-13-1	Acrylonitrile	94.6		0.83	25.0	ug/L
67-64-1	Acetone	98.5		1.50	25.0	ug/L
75-15-0	Carbon Disulfide	18.9		0.21	5.00	ug/L
1634-04-4	Methyl tert-butyl Ether	18.3		0.16	5.00	ug/L
79-20-9	Methyl Acetate	20.3		0.27	5.00	ug/L
75-09-2	Methylene Chloride	18.1		0.28	5.00	ug/L
156-60-5	trans-1,2-Dichloroethene	18.5		0.23	5.00	ug/L
75-34-3	1,1-Dichloroethane	18.7		0.23	5.00	ug/L
110-82-7	Cyclohexane	20.3		1.50	5.00	ug/L
78-93-3	2-Butanone	94.9		0.98	25.0	ug/L
56-23-5	Carbon Tetrachloride	20.4		0.25	5.00	ug/L
594-20-7	2,2-Dichloropropane	20.0		0.21	5.00	ug/L
156-59-2	cis-1,2-Dichloroethene	18.5		0.19	5.00	ug/L
74-97-5	Bromochloromethane	17.4		0.22	5.00	ug/L
67-66-3	Chloroform	18.8		0.25	5.00	ug/L
71-55-6	1,1,1-Trichloroethane	19.9		0.20	5.00	ug/L
108-87-2	Methylcyclohexane	21.4		0.16	5.00	ug/L
563-58-6	1,1-Dichloropropene	20.2		0.15	5.00	ug/L
71-43-2	Benzene	19.3		0.15	5.00	ug/L
107-06-2	1,2-Dichloroethane	19.0		0.22	5.00	ug/L

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

Report of Analysis

Client:	Weston Solutions, Inc.	Date Collected:	
Project:	RFP 916	Date Received:	
Client Sample ID:	VN0925WBS01	SDG No.:	Q3179
Lab Sample ID:	VN0925WBS01	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	SPLP VOA
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VN087951.D	1	09/25/25 13:56	VN092525

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-01-6	Trichloroethene	19.4		0.090	5.00	ug/L
78-87-5	1,2-Dichloropropane	19.4		0.20	5.00	ug/L
74-95-3	Dibromomethane	18.7		0.25	5.00	ug/L
75-27-4	Bromodichloromethane	19.3		0.22	5.00	ug/L
108-10-1	4-Methyl-2-Pentanone	98.4		0.68	25.0	ug/L
108-88-3	Toluene	19.7		0.14	5.00	ug/L
10061-02-6	t-1,3-Dichloropropene	18.9		0.17	5.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	18.8		0.16	5.00	ug/L
79-00-5	1,1,2-Trichloroethane	19.3		0.21	5.00	ug/L
142-28-9	1,3-Dichloropropane	18.9		0.19	5.00	ug/L
110-75-8	2-Chloroethyl Vinyl ether	110		0.30	25.0	ug/L
591-78-6	2-Hexanone	97.4		0.89	25.0	ug/L
124-48-1	Dibromochloromethane	18.9		0.18	5.00	ug/L
106-93-4	1,2-Dibromoethane	18.9		0.15	5.00	ug/L
127-18-4	Tetrachloroethene	20.5		0.23	5.00	ug/L
108-90-7	Chlorobenzene	20.4		0.12	5.00	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	19.5		0.19	5.00	ug/L
100-41-4	Ethyl Benzene	20.2		0.13	5.00	ug/L
179601-23-1	m/p-Xylenes	41.2		0.24	10.0	ug/L
95-47-6	o-Xylene	20.1		0.12	5.00	ug/L
100-42-5	Styrene	19.9		0.15	5.00	ug/L
75-25-2	Bromoform	19.3		0.19	5.00	ug/L
98-82-8	Isopropylbenzene	20.5		0.12	5.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	20.1		0.26	5.00	ug/L
96-18-4	1,2,3-Trichloropropane	21.6		0.35	5.00	ug/L
108-86-1	Bromobenzene	20.1		0.24	5.00	ug/L
95-49-8	2-Chlorotoluene	19.9		0.14	5.00	ug/L
108-67-8	1,3,5-Trimethylbenzene	20.6		0.15	5.00	ug/L
106-43-4	4-Chlorotoluene	20.7		0.13	5.00	ug/L
95-63-6	1,2,4-Trimethylbenzene	20.5		0.14	5.00	ug/L
541-73-1	1,3-Dichlorobenzene	19.7		0.16	5.00	ug/L

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

Report of Analysis

Client:	Weston Solutions, Inc.		Date Collected:		
Project:	RFP 916		Date Received:		
Client Sample ID:	VN0925WBS01		SDG No.:	Q3179	
Lab Sample ID:	VN0925WBS01		Matrix:	Water	
Analytical Method:	8260D		% Solid:	0	
Sample Wt/Vol:	5 Units:	mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	SPLP VOA	
GC Column:	RXI-624 ID :	0.25	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VN087951.D	1	09/25/25 13:56	VN092525

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
106-46-7	1,4-Dichlorobenzene	20.8		0.19	5.00	ug/L
95-50-1	1,2-Dichlorobenzene	19.9		0.16	5.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	18.6		0.53	5.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	20.1		0.20	5.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	19.8		0.20	5.00	ug/L
74-88-4	Methyl Iodide	18.4		0.83	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.1		74 - 125	98%	SPK: 50
1868-53-7	Dibromofluoromethane	48.4		75 - 124	97%	SPK: 50
2037-26-5	Toluene-d8	51.8		86 - 113	104%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.8		77 - 121	100%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	279000	8.206			
540-36-3	1,4-Difluorobenzene	498000	9.082			
3114-55-4	Chlorobenzene-d5	457000	11.847			
3855-82-1	1,4-Dichlorobenzene-d4	244000	13.77			

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\VN092525\
Data File : VN087951.D
Acq On : 25 Sep 2025 13:56
Operator : JC\MD
Sample : VN0925WBS01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 26 07:30:07 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 05:05:30 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Pentafluorobenzene	8.206	168	279067	50.000	ug/l		0.00
34) 1,4-Difluorobenzene	9.082	114	498231	50.000	ug/l		0.00
63) Chlorobenzene-d5	11.847	117	456591	50.000	ug/l		0.00
72) 1,4-Dichlorobenzene-d4	13.770	152	244468	50.000	ug/l		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	8.559	65	230752	49.133	ug/l		0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 98.260%				
35) Dibromofluoromethane	8.153	113	175082	48.399	ug/l		0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 96.800%				
50) Toluene-d8	10.547	98	659020	51.805	ug/l		0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 103.620%				
62) 4-Bromofluorobenzene	12.829	95	226467	49.805	ug/l		0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 99.600%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	2.142	85	71066	21.989	ug/l		95
3) Chloromethane	2.383	50	63566	19.209	ug/l		94
4) Vinyl Chloride	2.542	62	69167	20.488	ug/l		94
5) Bromomethane	2.977	94	42086	20.108	ug/l		92
6) Chloroethane	3.136	64	43512	19.822	ug/l	#	88
7) Trichlorofluoromethane	3.512	101	115712	21.051	ug/l		97
8) Diethyl Ether	3.959	74	36695	17.671	ug/l		94
9) 1,1,2-Trichlorotrifluo...	4.371	101	62085	21.370	ug/l		98
10) Methyl Iodide	4.583	142	48022	18.366	ug/l		99
11) Tert butyl alcohol	5.524	59	67722	100.113	ug/l		95
12) 1,1-Dichloroethene	4.336	96	60652	20.691	ug/l		90
13) Acrolein	4.171	56	63872	73.588	ug/l		100
14) Allyl chloride	5.012	41	88122	18.465	ug/l		94
15) Acrylonitrile	5.706	53	200716	94.594	ug/l		100
16) Acetone	4.418	43	190382	98.524	ug/l		100
17) Carbon Disulfide	4.712	76	173088	18.898	ug/l	#	95
18) Methyl Acetate	5.024	43	98283	20.324	ug/l		99
19) Methyl tert-butyl Ether	5.794	73	210018	18.340	ug/l		99
20) Methylene Chloride	5.265	84	70928	18.134	ug/l		95
21) trans-1,2-Dichloroethene	5.771	96	66390	18.475	ug/l		93
22) Diisopropyl ether	6.659	45	209820	18.834	ug/l		99
23) Vinyl Acetate	6.594	43	845750	90.162	ug/l		98
24) 1,1-Dichloroethane	6.559	63	121761	18.707	ug/l		98
25) 2-Butanone	7.471	43	280252	94.888	ug/l		100
26) 2,2-Dichloropropane	7.477	77	115892	20.041	ug/l		99
27) cis-1,2-Dichloroethene	7.471	96	79298	18.546	ug/l		99
28) Bromochloromethane	7.800	49	61419	17.368	ug/l		96
29) Tetrahydrofuran	7.824	42	179605	94.970	ug/l		99
30) Chloroform	7.947	83	133437	18.750	ug/l		95
31) Cyclohexane	8.241	56	106718	20.264	ug/l		92
32) 1,1,1-Trichloroethane	8.153	97	119368	19.850	ug/l		96
36) 1,1-Dichloropropene	8.353	75	87855	20.198	ug/l		99
37) Ethyl Acetate	7.547	43	107394	18.802	ug/l		99
38) Carbon Tetrachloride	8.347	117	101777	20.391	ug/l		94
39) Methylcyclohexane	9.582	83	102599	21.382	ug/l		98
40) Benzene	8.588	78	278350	19.327	ug/l		96

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092525\
Data File : VN087951.D
Acq On : 25 Sep 2025 13:56
Operator : JC\MD
Sample : VN0925WBS01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 26 07:30:07 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 05:05:30 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.765	41	54019	18.300	ug/l		96
42) 1,2-Dichloroethane	8.653	62	102137	19.003	ug/l		100
43) Isopropyl Acetate	8.677	43	165566	18.415	ug/l		99
44) Trichloroethene	9.329	130	66720	19.394	ug/l		93
45) 1,2-Dichloropropane	9.600	63	70002	19.384	ug/l		97
46) Dibromomethane	9.688	93	53291	18.701	ug/l		97
47) Bromodichloromethane	9.871	83	107625	19.256	ug/l		100
48) Methyl methacrylate	9.665	41	76141	18.287	ug/l		98
49) 1,4-Dioxane	9.682	88	24816	403.447	ug/l	#	78
51) 4-Methyl-2-Pentanone	10.429	43	552041	98.397	ug/l		98
52) Toluene	10.612	92	177745	19.667	ug/l		100
53) t-1,3-Dichloropropene	10.818	75	108063	18.891	ug/l		99
54) cis-1,3-Dichloropropene	10.294	75	111802	18.818	ug/l		98
55) 1,1,2-Trichloroethane	11.000	97	71033	19.330	ug/l		91
56) Ethyl methacrylate	10.859	69	96298	18.136	ug/l		98
57) 1,3-Dichloropropane	11.141	76	114022	18.865	ug/l		99
58) 2-Chloroethyl Vinyl ether	10.141	63	275893	110.507	ug/l		99
59) 2-Hexanone	11.176	43	361420	97.426	ug/l		99
60) Dibromochloromethane	11.335	129	81654	18.898	ug/l		98
61) 1,2-Dibromoethane	11.453	107	73497	18.892	ug/l		99
64) Tetrachloroethene	11.082	164	57071	20.520	ug/l		95
65) Chlorobenzene	11.870	112	198566	20.436	ug/l		100
66) 1,1,1,2-Tetrachloroethane	11.941	131	68324	19.499	ug/l		93
67) Ethyl Benzene	11.941	91	327291	20.187	ug/l		99
68) m/p-Xylenes	12.053	106	255409	41.190	ug/l		100
69) o-Xylene	12.376	106	119494	20.058	ug/l		97
70) Styrene	12.394	104	203668	19.906	ug/l		100
71) Bromoform	12.559	173	54805	19.279	ug/l		99
73) Isopropylbenzene	12.676	105	310861	20.517	ug/l		99
74) N-amyl acetate	12.582	43	103135m	20.659	ug/l		
75) 1,1,2,2-Tetrachloroethane	12.917	83	109864	20.125	ug/l		97
76) 1,2,3-Trichloropropane	12.970	75	104158m	21.614	ug/l		
77) Bromobenzene	12.959	156	80923	20.074	ug/l		96
78) n-propylbenzene	13.012	91	395299	20.867	ug/l		99
79) 2-Chlorotoluene	13.106	91	230022	19.942	ug/l		99
80) 1,3,5-Trimethylbenzene	13.153	105	269516	20.565	ug/l		99
81) trans-1,4-Dichloro-2-b...	12.717	75	30754	17.721	ug/l	#	82
82) 4-Chlorotoluene	13.200	91	240663	20.707	ug/l		99
83) tert-Butylbenzene	13.417	119	226733	20.439	ug/l		95
84) 1,2,4-Trimethylbenzene	13.459	105	275724	20.511	ug/l		99
85) sec-Butylbenzene	13.594	105	350966	21.580	ug/l		98
86) p-Isopropyltoluene	13.706	119	290733	21.107	ug/l		99
87) 1,3-Dichlorobenzene	13.711	146	155268	19.737	ug/l		99
88) 1,4-Dichlorobenzene	13.788	146	168077	20.790	ug/l		95
89) n-Butylbenzene	14.035	91	276168	21.215	ug/l		98
90) Hexachloroethane	14.311	117	59046	20.521	ug/l		100
91) 1,2-Dichlorobenzene	14.082	146	151135	19.931	ug/l		100
92) 1,2-Dibromo-3-Chloropr...	14.700	75	23587	18.595	ug/l		98
93) 1,2,4-Trichlorobenzene	15.370	180	89925	20.085	ug/l		99
94) Hexachlorobutadiene	15.476	225	38187	23.173	ug/l		93
95) Naphthalene	15.617	128	272225	18.942	ug/l		99
96) 1,2,3-Trichlorobenzene	15.811	180	86168	19.797	ug/l		98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092525\
Data File : VN087951.D
Acq On : 25 Sep 2025 13:56
Operator : JC\MD
Sample : VN0925WBS01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 26 07:30:07 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 05:05:30 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

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

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

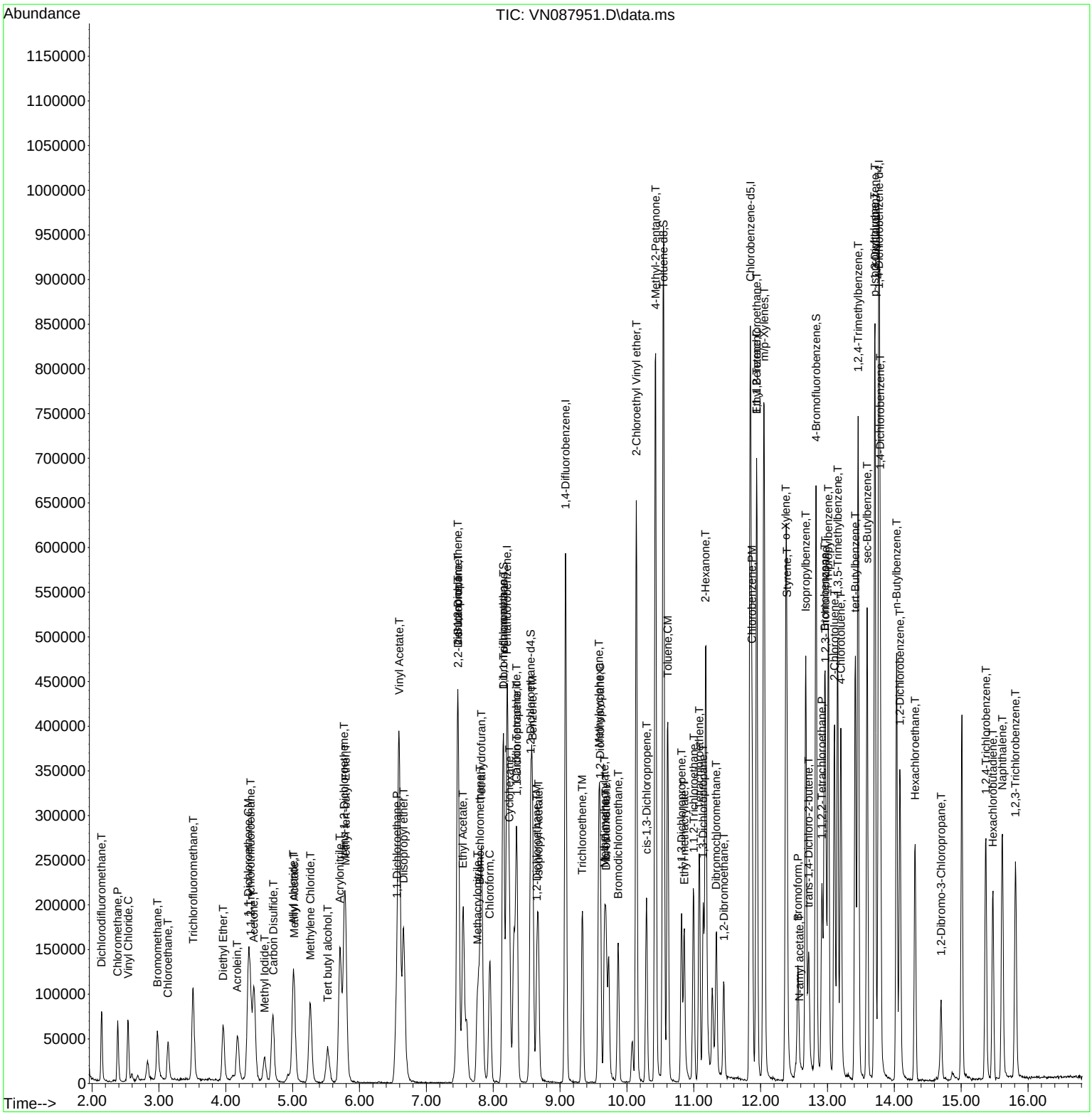
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092525\
Data File : VN087951.D
Acq On : 25 Sep 2025 13:56
Operator : JC\MD
Sample : VN0925WBS01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 6 Sample Multiplier: 1

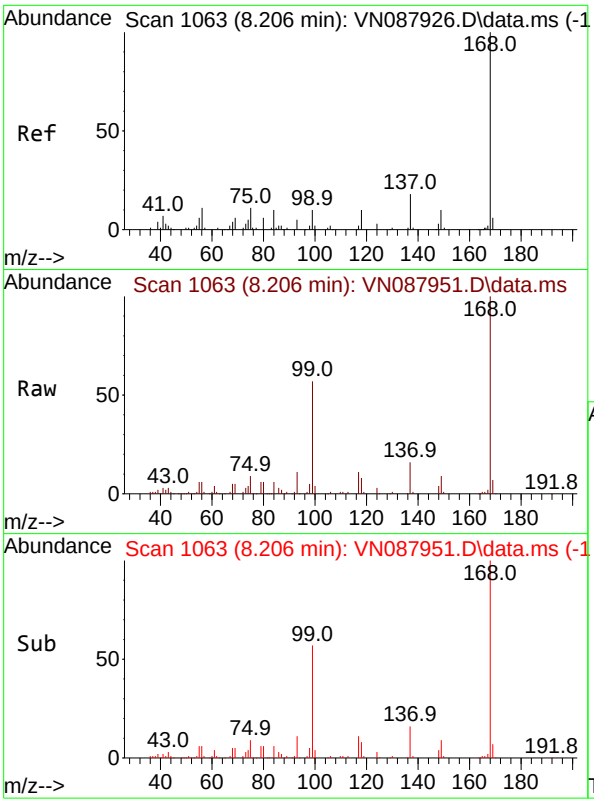
Quant Time: Sep 26 07:30:07 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 05:05:30 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

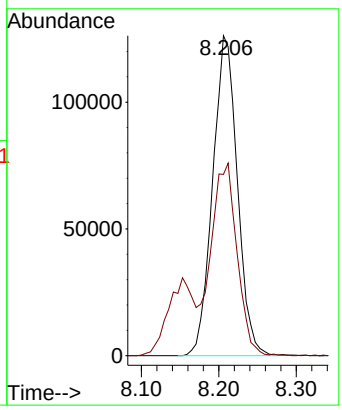




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.206 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion:168 Resp: 27906

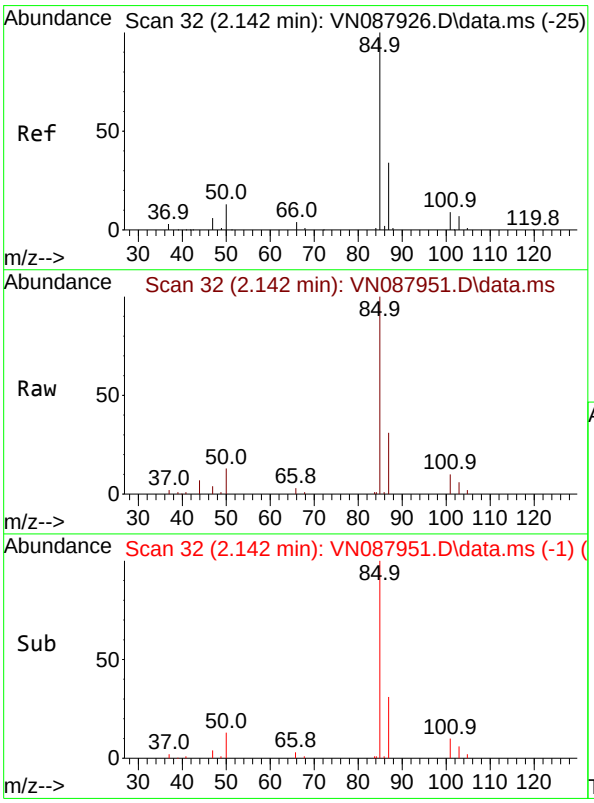
Ion	Ratio	Lower	Upper
168	100		
99	56.5	52.2	78.2



Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations
APPROVED

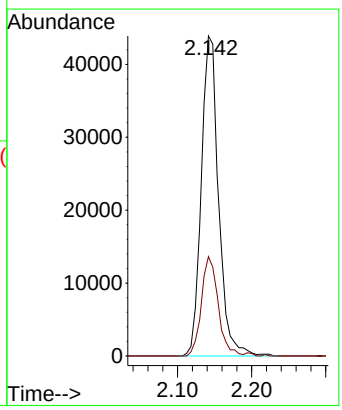
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

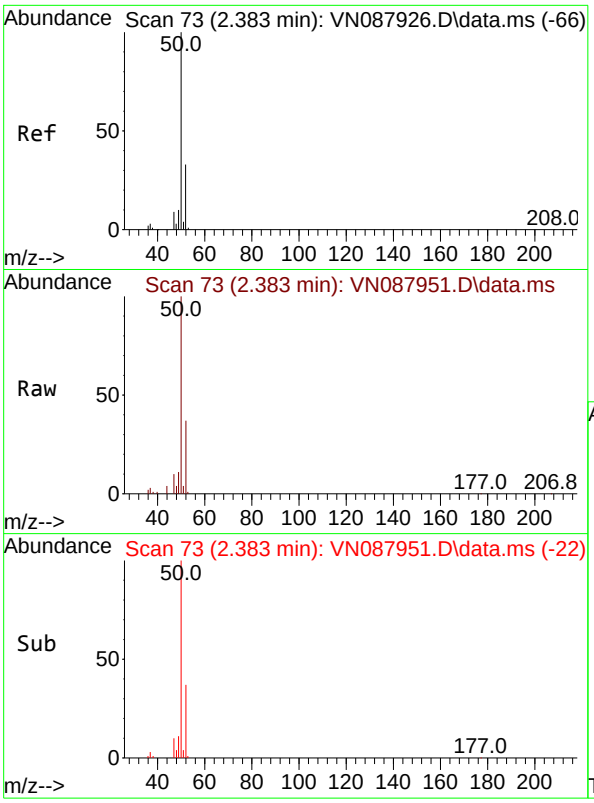


#2
Dichlorodifluoromethane
Concen: 21.989 ug/l
RT: 2.142 min Scan# 32
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 85 Resp: 71066

Ion	Ratio	Lower	Upper
85	100		
87	31.1	16.9	50.6

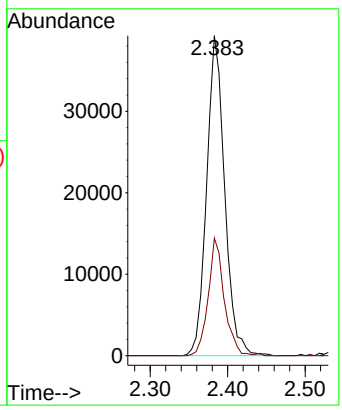




#3
Chloromethane
Concen: 19.209 ug/l
RT: 2.383 min Scan# 7
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 50 Resp: 6356

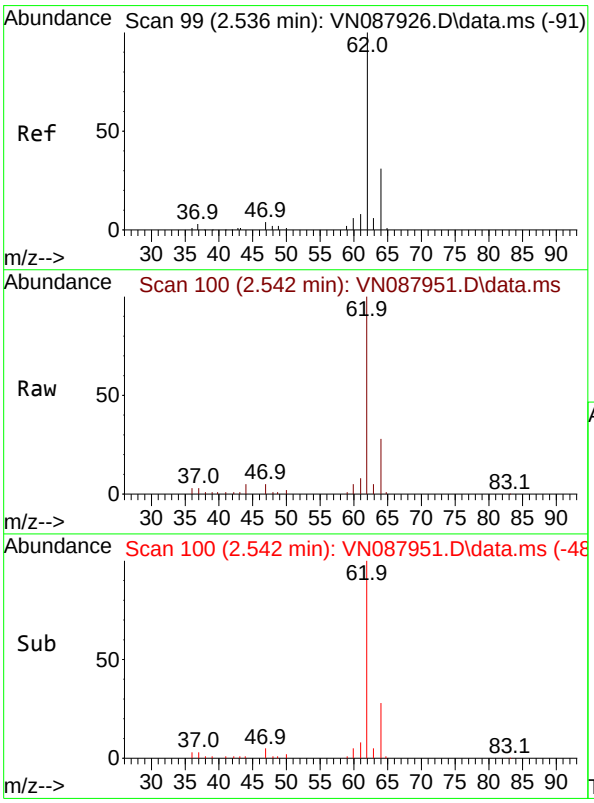
Ion	Ratio	Lower	Upper
50	100		
52	36.8	26.6	40.0



Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations
APPROVED

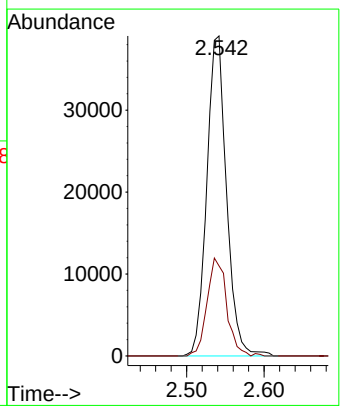
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

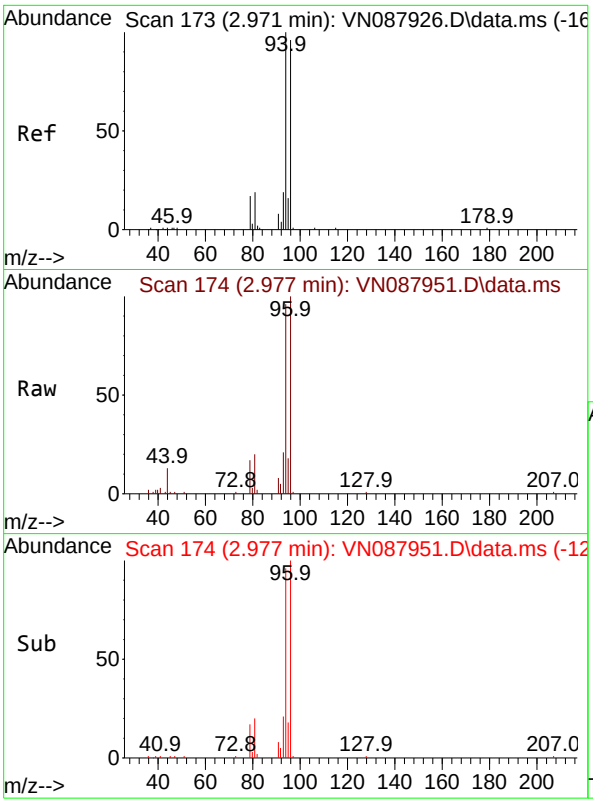


#4
Vinyl Chloride
Concen: 20.488 ug/l
RT: 2.542 min Scan# 100
Delta R.T. 0.006 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 62 Resp: 69167

Ion	Ratio	Lower	Upper
62	100		
64	28.2	25.2	37.8

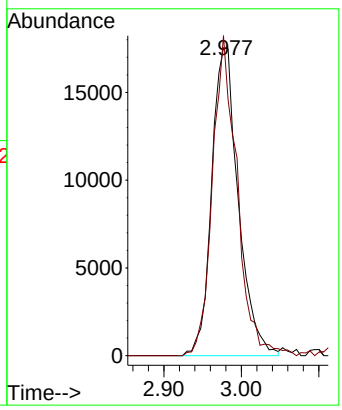




#5
Bromomethane
Concen: 20.108 ug/l
RT: 2.977 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 94 Resp: 4208

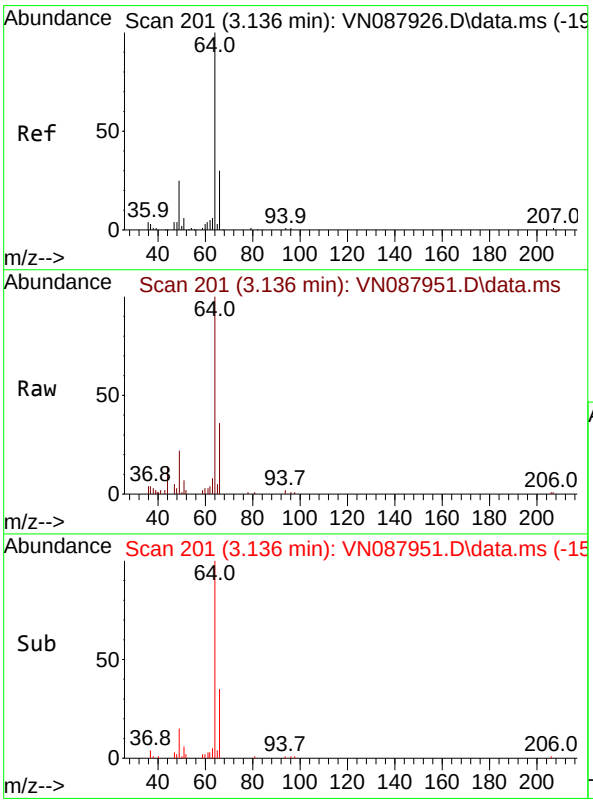
Ion	Ratio	Lower	Upper
94	100		
96	104.0	76.8	115.2



Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations
APPROVED

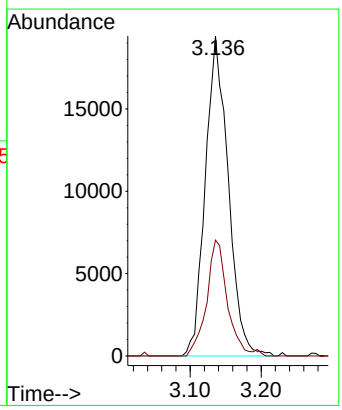
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

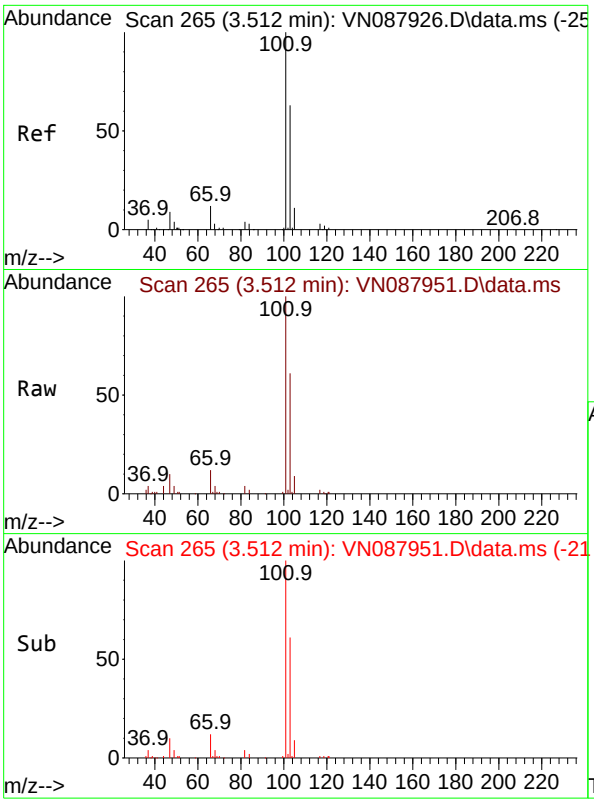


#6
Chloroethane
Concen: 19.822 ug/l
RT: 3.136 min Scan# 201
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 64 Resp: 43512

Ion	Ratio	Lower	Upper
64	100		
66	36.2	23.8	35.8#





#7
Trichlorofluoromethane
Concen: 21.051 ug/l
RT: 3.512 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

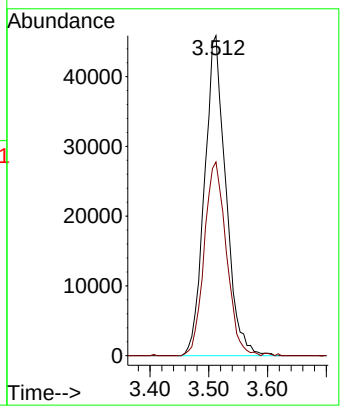
Tgt Ion:101 Resp: 11571

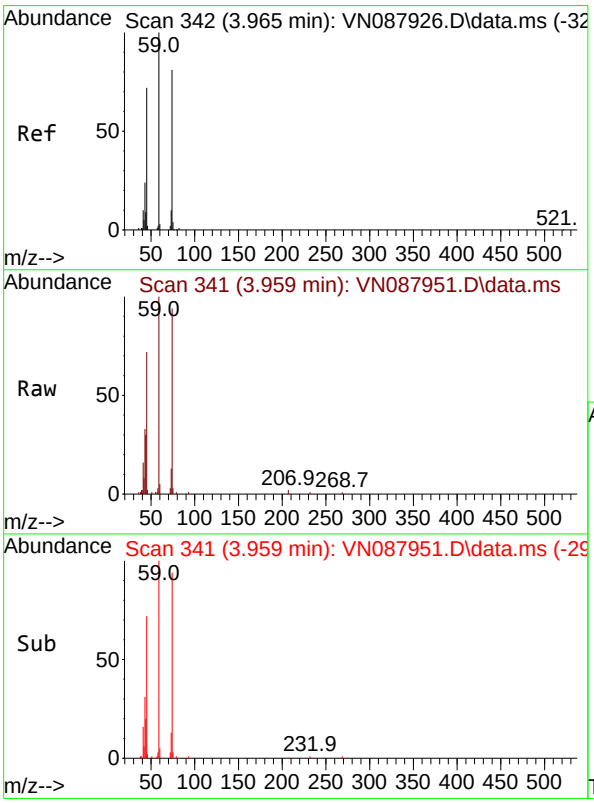
Ion	Ratio	Lower	Upper
101	100		
103	60.6	50.2	75.4

Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

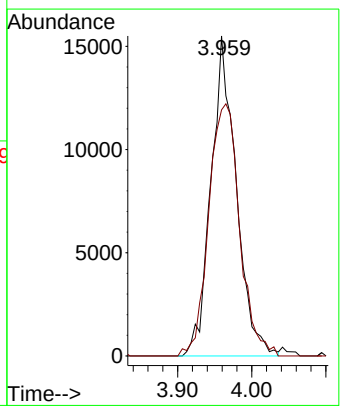


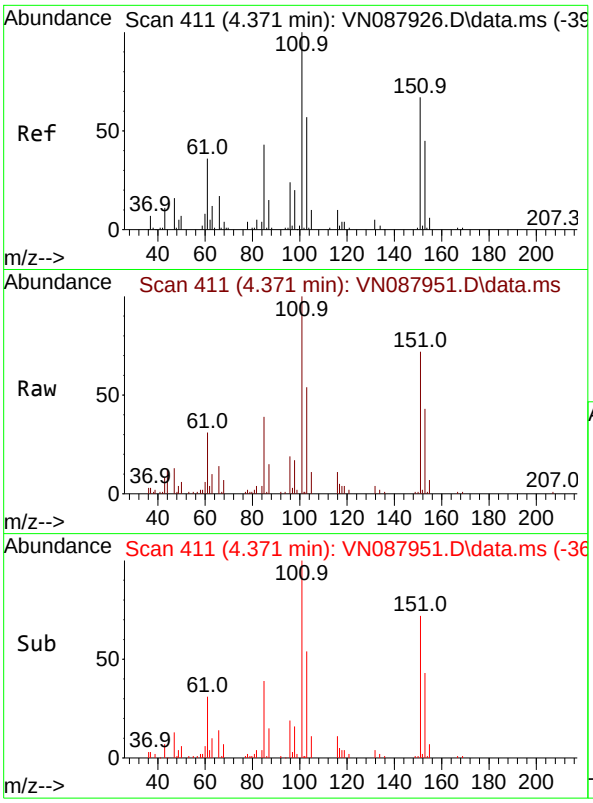


#8
Diethyl Ether
Concen: 17.671 ug/l
RT: 3.959 min Scan# 341
Delta R.T. -0.006 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 74 Resp: 36695

Ion	Ratio	Lower	Upper
74	100		
45	96.2	45.4	136.1





#9
1,1,2-Trichlorotrifluoroethane
Concen: 21.370 ug/l
RT: 4.371 min Scan# 4
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

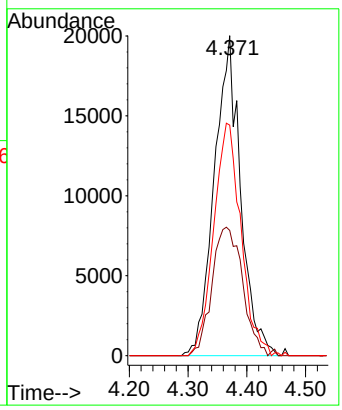
Tgt Ion:101 Resp: 6208

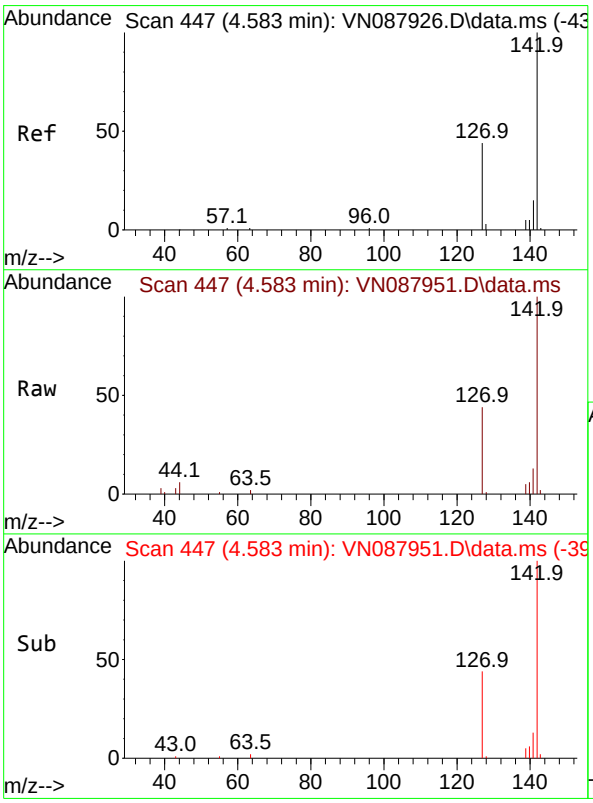
Ion	Ratio	Lower	Upper
101	100		
85	46.8	36.5	54.7
151	75.4	58.6	87.8

Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

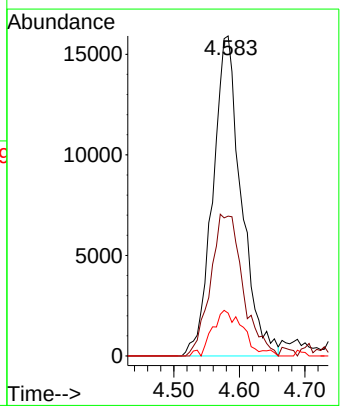


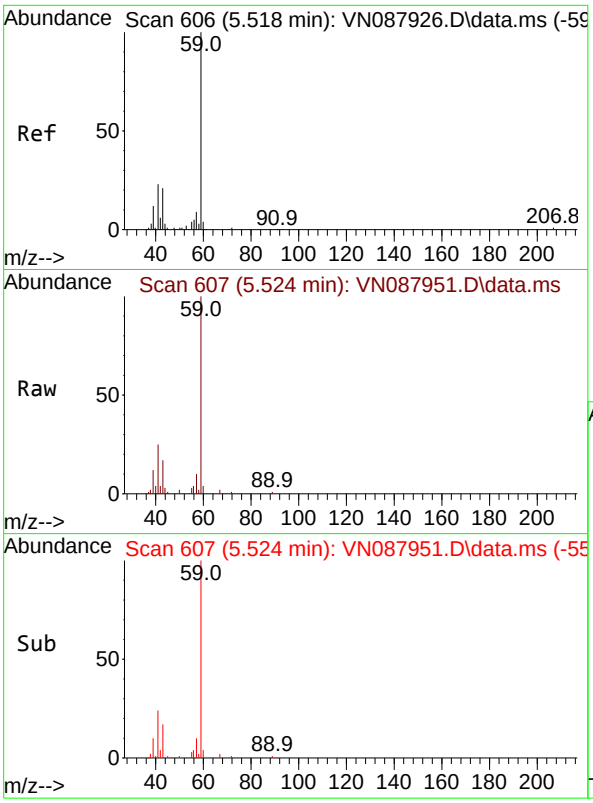


#10
Methyl Iodide
Concen: 18.366 ug/l
RT: 4.583 min Scan# 447
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion:142 Resp: 48022

Ion	Ratio	Lower	Upper
142	100		
127	43.7	35.3	52.9
141	13.4	11.8	17.8

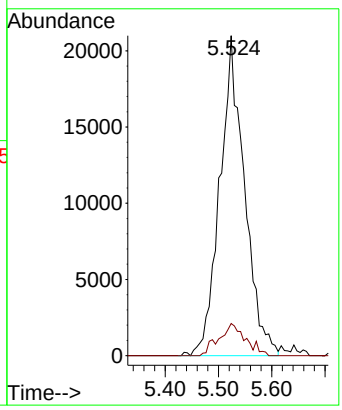




#11
Tert butyl alcohol
Concen: 100.113 ug/l
RT: 5.524 min Scan# 6
Delta R.T. 0.006 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 59 Resp: 6772

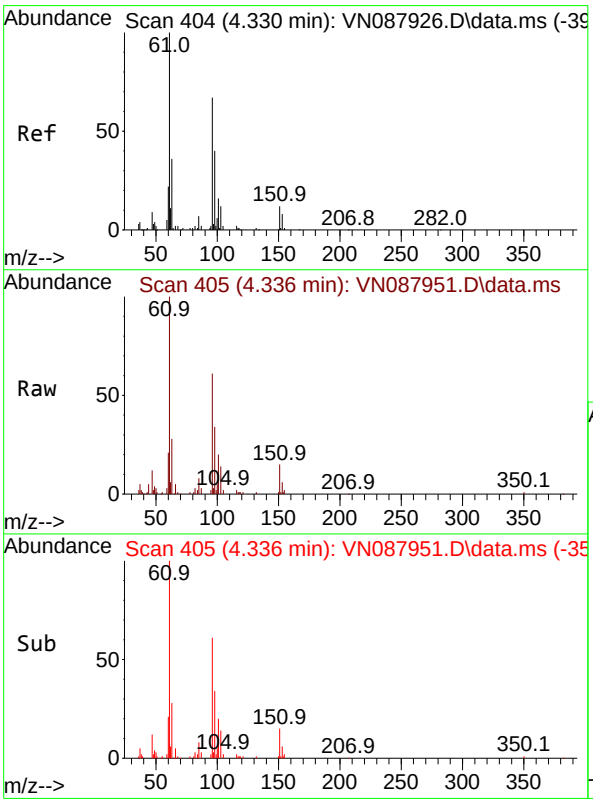
Ion	Ratio	Lower	Upper
59	100		
57	9.2	8.8	13.2



Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations
APPROVED

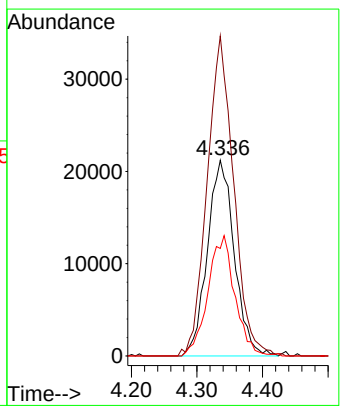
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

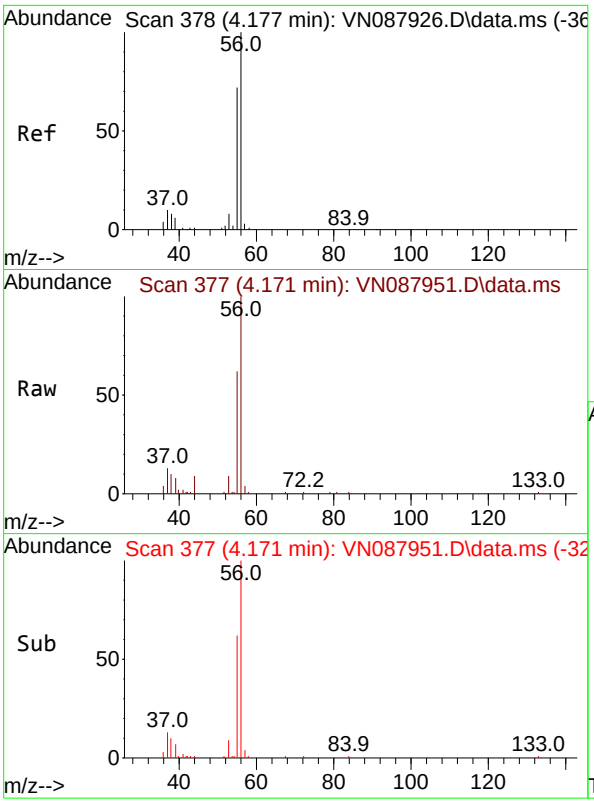


#12
1,1-Dichloroethene
Concen: 20.691 ug/l
RT: 4.336 min Scan# 405
Delta R.T. 0.006 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 96 Resp: 60652

Ion	Ratio	Lower	Upper
96	100		
61	163.6	119.2	178.8
98	54.9	47.5	71.3

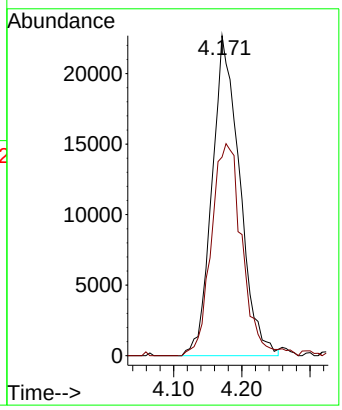




#13
Acrolein
Concen: 73.588 ug/l
RT: 4.171 min Scan# 3
Delta R.T. -0.006 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 56 Resp: 6387

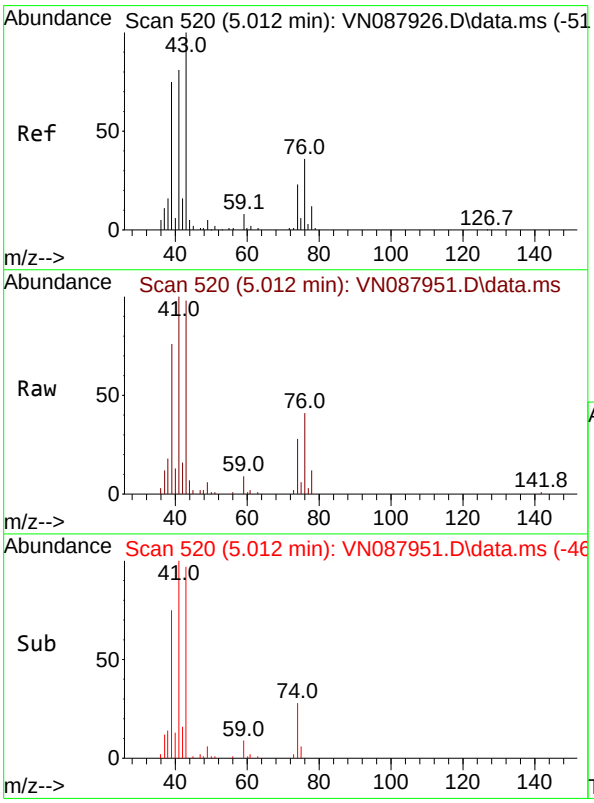
Ion	Ratio	Lower	Upper
56	100		
55	73.9	59.3	88.9



Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations
APPROVED

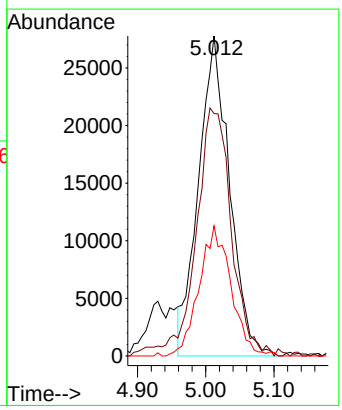
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

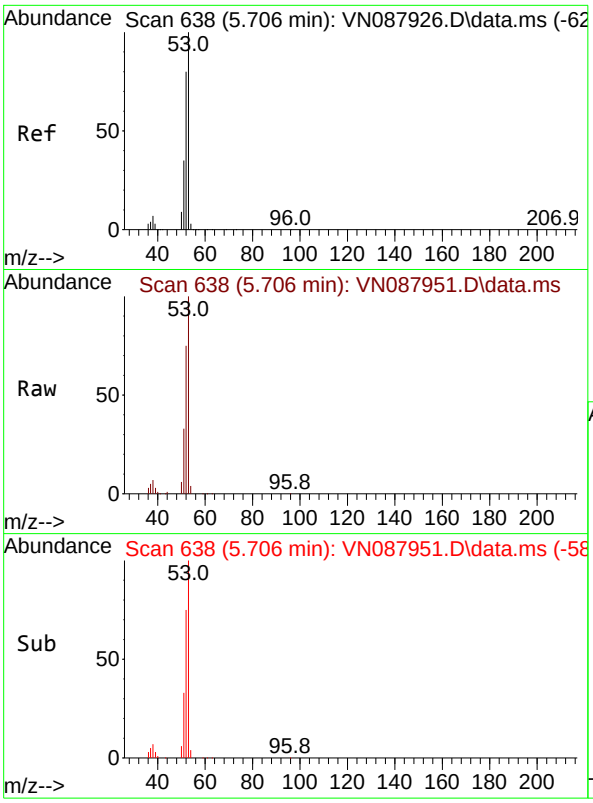


#14
Allyl chloride
Concen: 18.465 ug/l
RT: 5.012 min Scan# 520
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 41 Resp: 88122

Ion	Ratio	Lower	Upper
41	100		
39	87.7	63.8	95.8
76	41.7	33.0	49.6

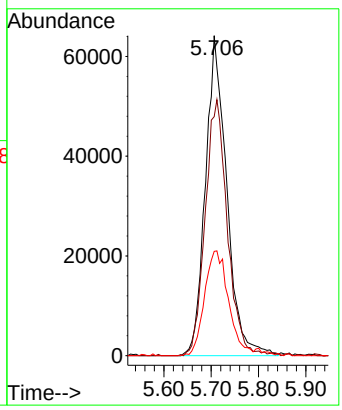




#15
Acrylonitrile
Concen: 94.594 ug/l
RT: 5.706 min Scan# 6
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 53 Resp: 20071

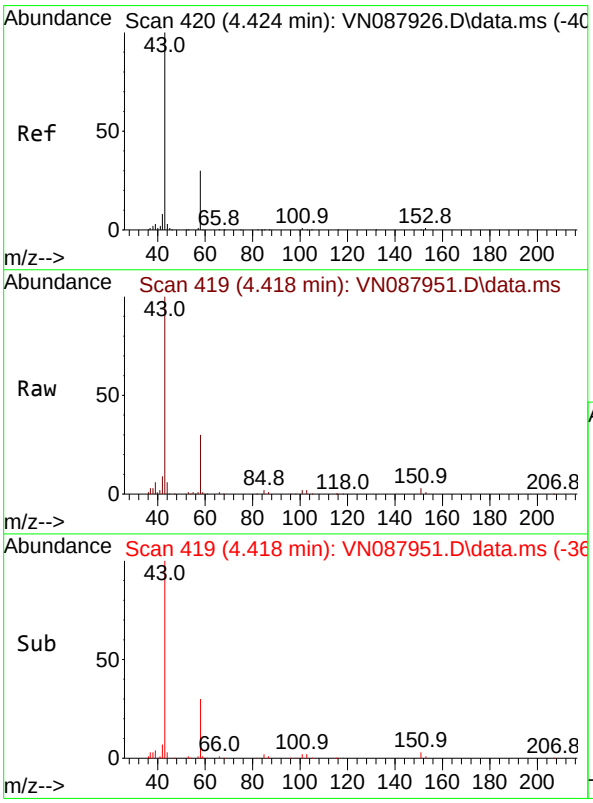
Ion	Ratio	Lower	Upper
53	100		
52	83.0	66.6	99.8
51	36.8	29.0	43.4



Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations
APPROVED

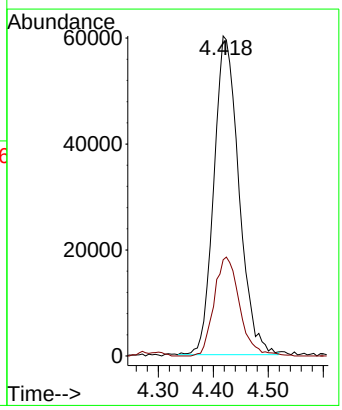
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

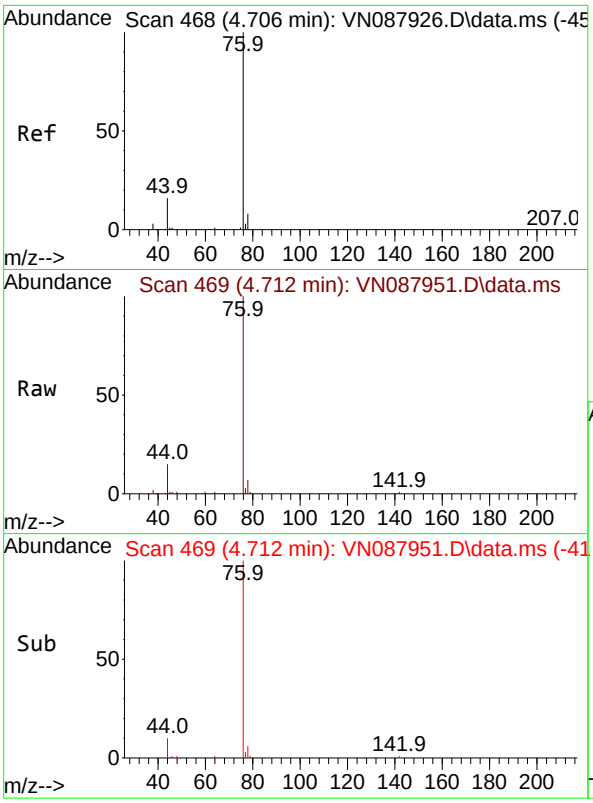


#16
Acetone
Concen: 98.524 ug/l
RT: 4.418 min Scan# 419
Delta R.T. -0.006 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 43 Resp: 190382

Ion	Ratio	Lower	Upper
43	100		
58	30.2	24.1	36.1





#17
Carbon Disulfide
Concen: 18.898 ug/l
RT: 4.712 min Scan# 4
Delta R.T. 0.006 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

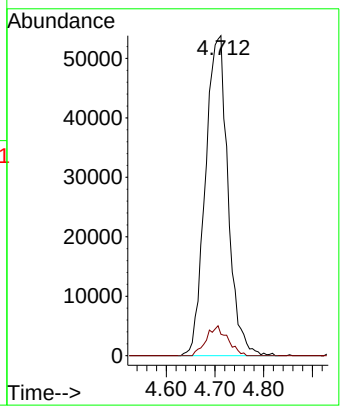
Tgt Ion: 76 Resp: 17308

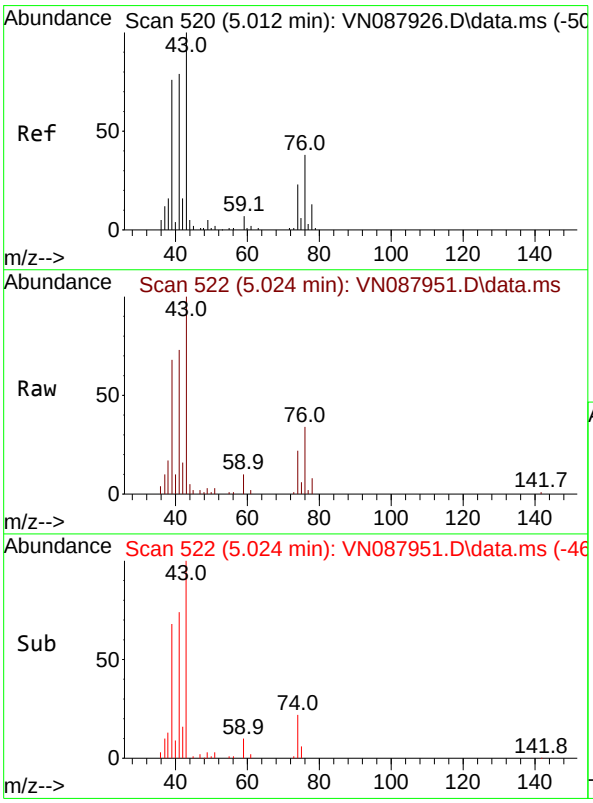
Ion	Ratio	Lower	Upper
76	100		
78	6.7	6.7	10.1

Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

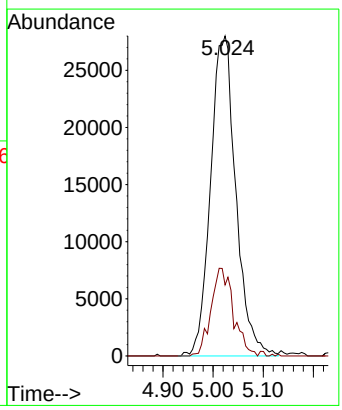


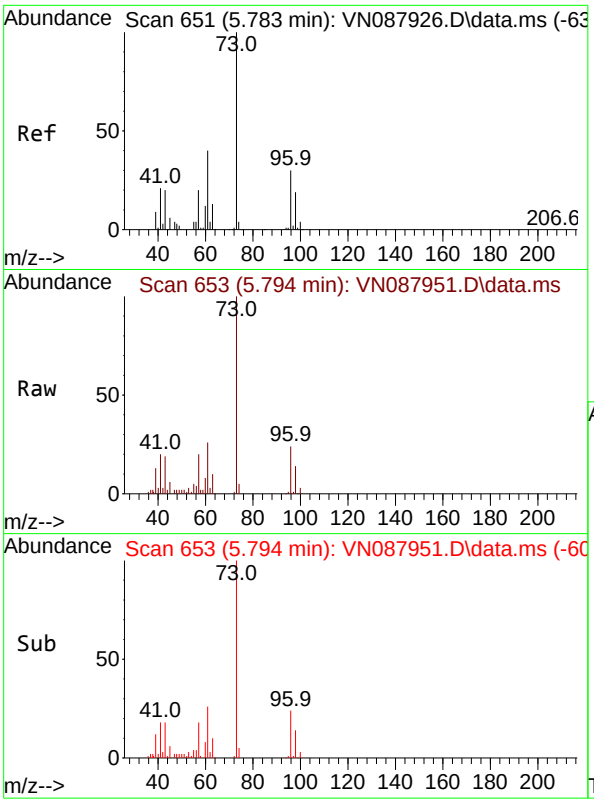


#18
Methyl Acetate
Concen: 20.324 ug/l
RT: 5.024 min Scan# 522
Delta R.T. 0.012 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 43 Resp: 98283

Ion	Ratio	Lower	Upper
43	100		
74	24.2	19.7	29.5

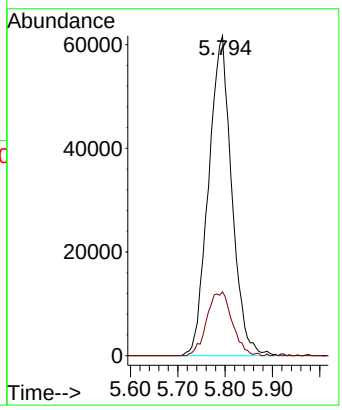




#19
Methyl tert-butyl Ether
Concen: 18.340 ug/l
RT: 5.794 min Scan# 6
Delta R.T. 0.012 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 73 Resp: 21001

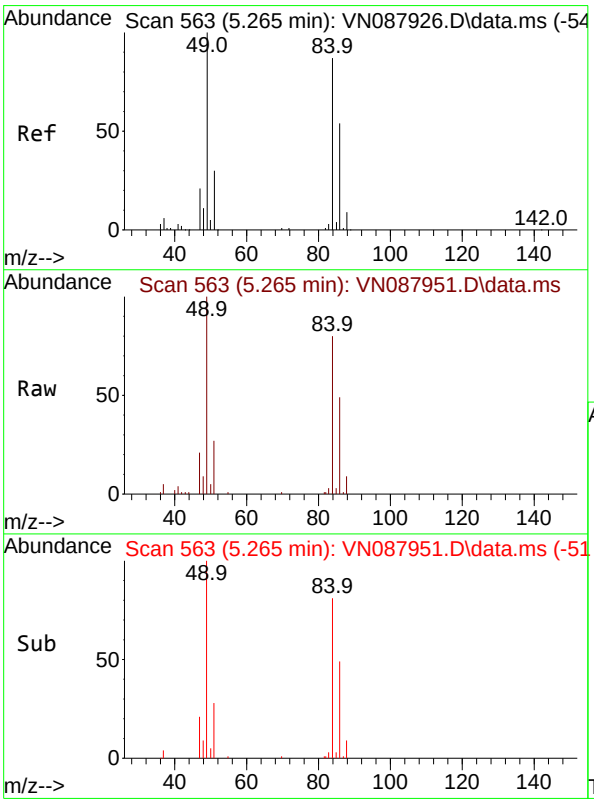
Ion	Ratio	Lower	Upper
73	100		
57	19.9	16.3	24.5



Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations
APPROVED

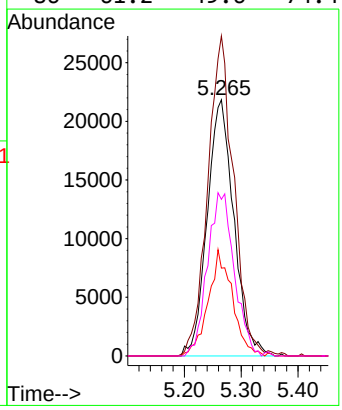
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

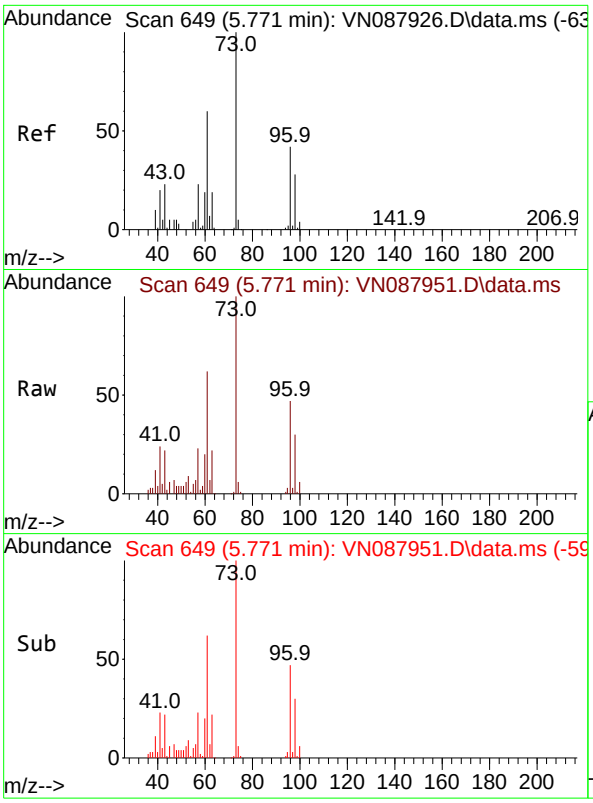


#20
Methylene Chloride
Concen: 18.134 ug/l
RT: 5.265 min Scan# 563
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 84 Resp: 70928

Ion	Ratio	Lower	Upper
84	100		
49	125.0	92.1	138.1
51	34.3	27.7	41.5
86	61.2	49.6	74.4

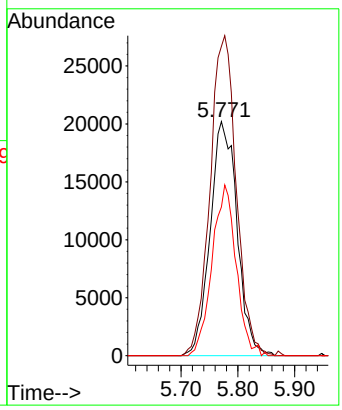




#21
trans-1,2-Dichloroethene
Concen: 18.475 ug/l
RT: 5.771 min Scan# 64
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 96 Resp: 6639

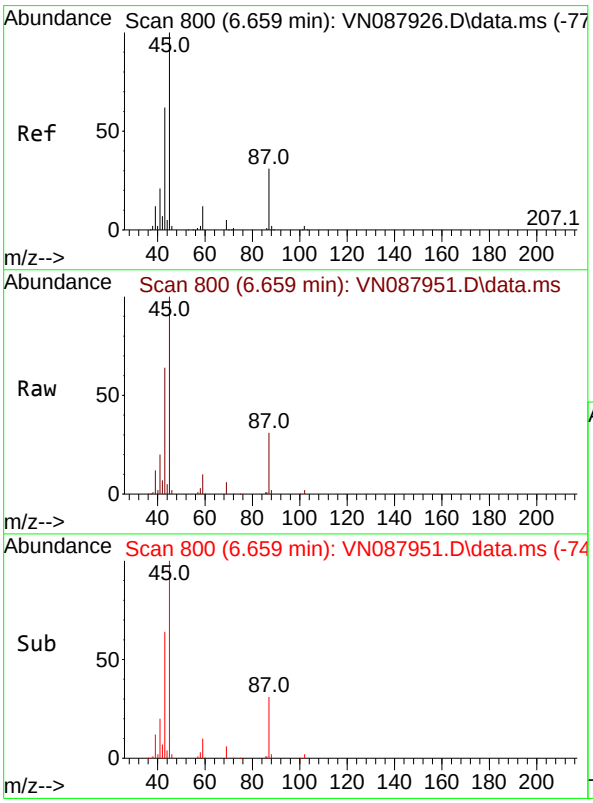
Ion	Ratio	Lower	Upper
96	100		
61	132.1	114.4	171.6
98	63.5	53.6	80.4



Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations
APPROVED

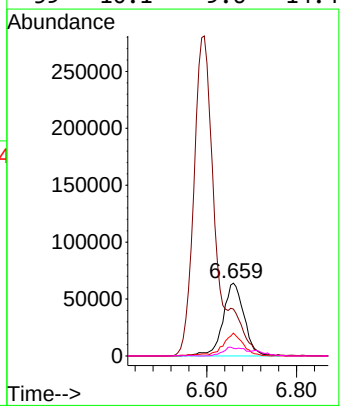
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

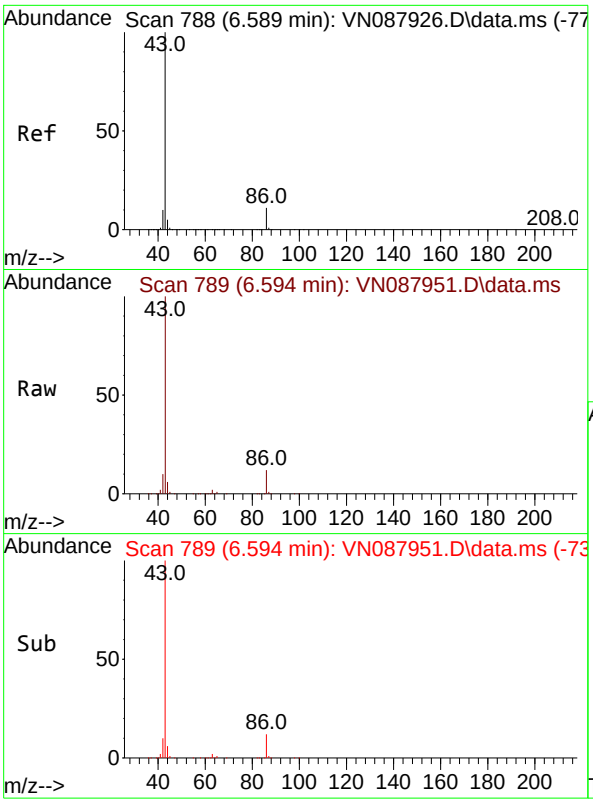


#22
Diisopropyl ether
Concen: 18.834 ug/l
RT: 6.659 min Scan# 800
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 45 Resp: 209820

Ion	Ratio	Lower	Upper
45	100		
43	62.4	49.9	74.9
87	30.9	25.2	37.8
59	10.1	9.6	14.4

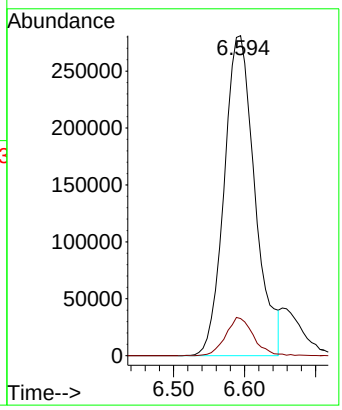




#23
Vinyl Acetate
Concen: 90.162 ug/l
RT: 6.594 min Scan# 7
Delta R.T. 0.006 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 43 Resp: 84575

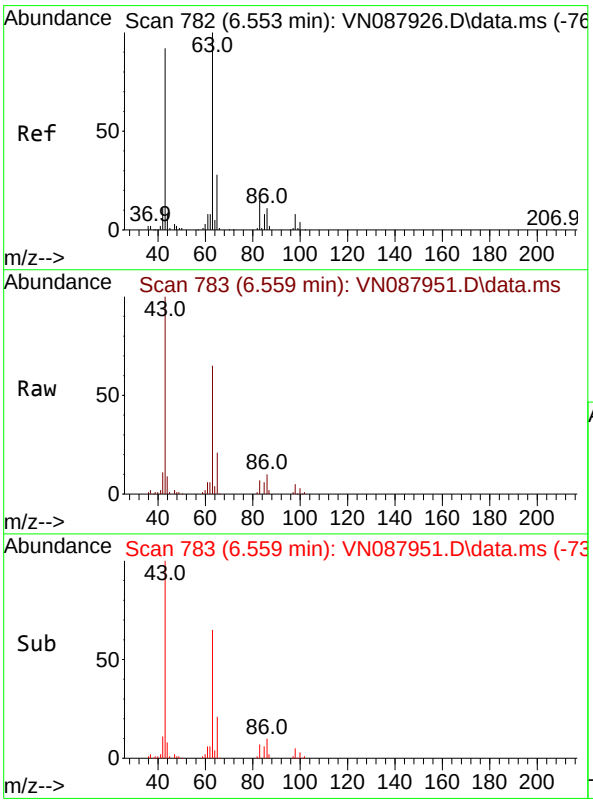
Ion	Ratio	Lower	Upper
43	100		
86	11.6	8.6	12.8



Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations
APPROVED

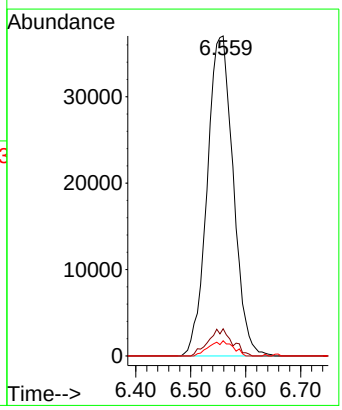
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

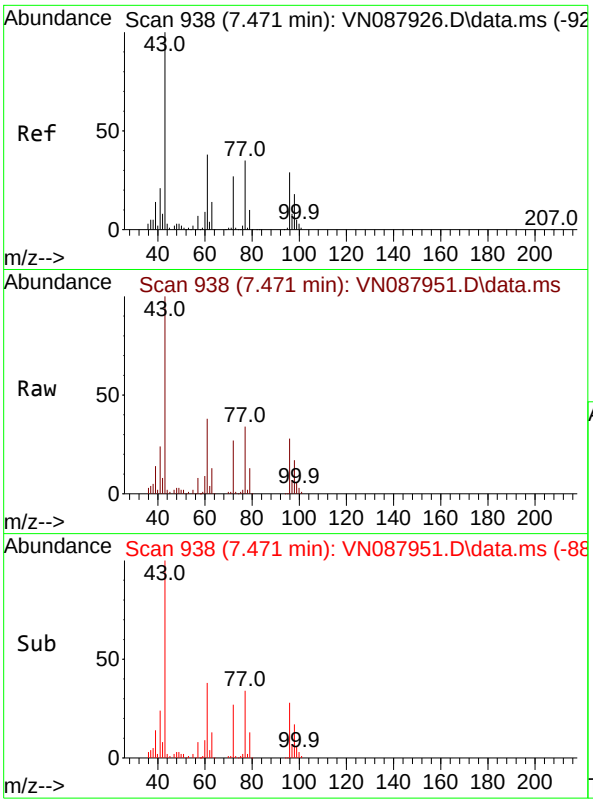


#24
1,1-Dichloroethane
Concen: 18.707 ug/l
RT: 6.559 min Scan# 783
Delta R.T. 0.006 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 63 Resp: 121761

Ion	Ratio	Lower	Upper
63	100		
98	8.5	3.9	11.5
100	4.8	2.1	6.5

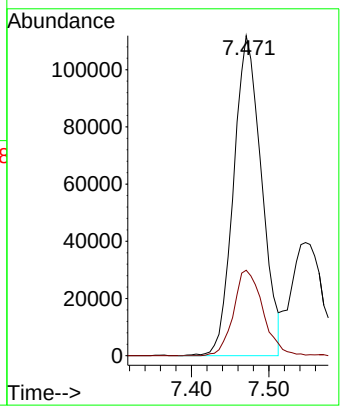




#25
2-Butanone
Concen: 94.888 ug/l
RT: 7.471 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 43 Resp: 28025

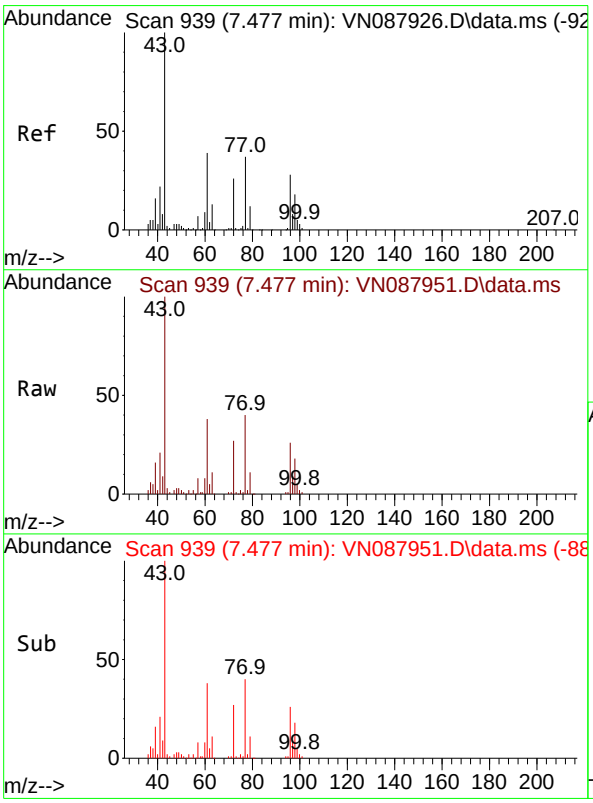
Ion	Ratio	Lower	Upper
43	100		
72	26.7	21.5	32.3



Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations APPROVED

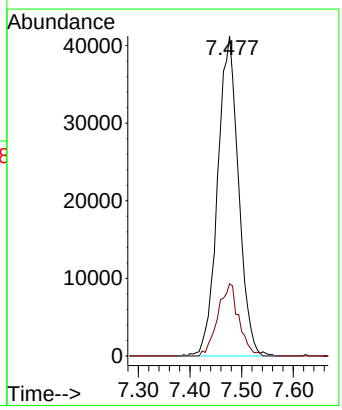
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

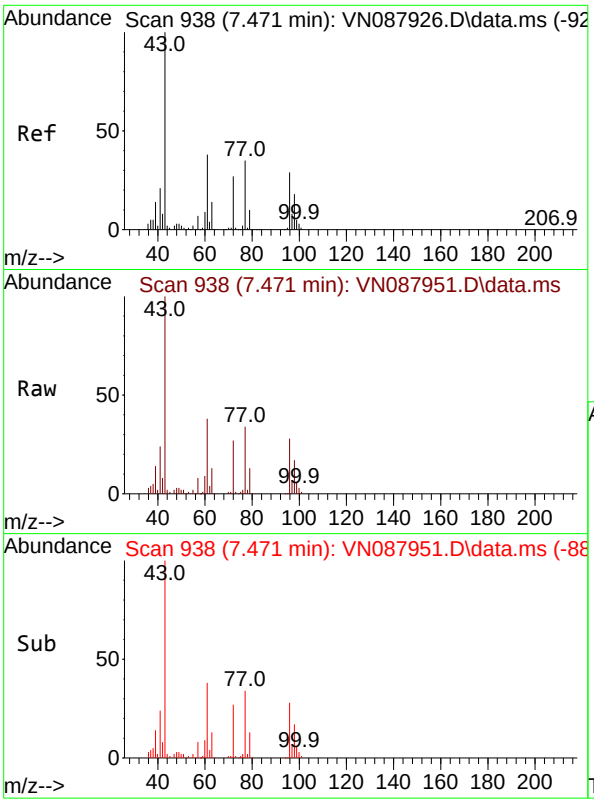


#26
2,2-Dichloropropane
Concen: 20.041 ug/l
RT: 7.477 min Scan# 939
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 77 Resp: 115892

Ion	Ratio	Lower	Upper
77	100		
97	22.7	11.5	34.5

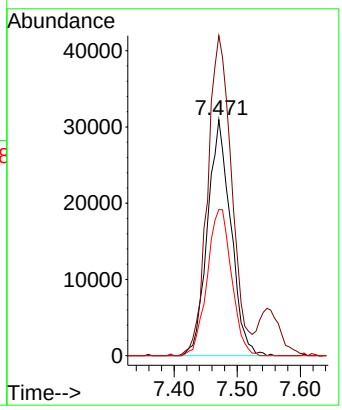




#27
cis-1,2-Dichloroethene
Concen: 18.546 ug/l
RT: 7.471 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 96 Resp: 7929

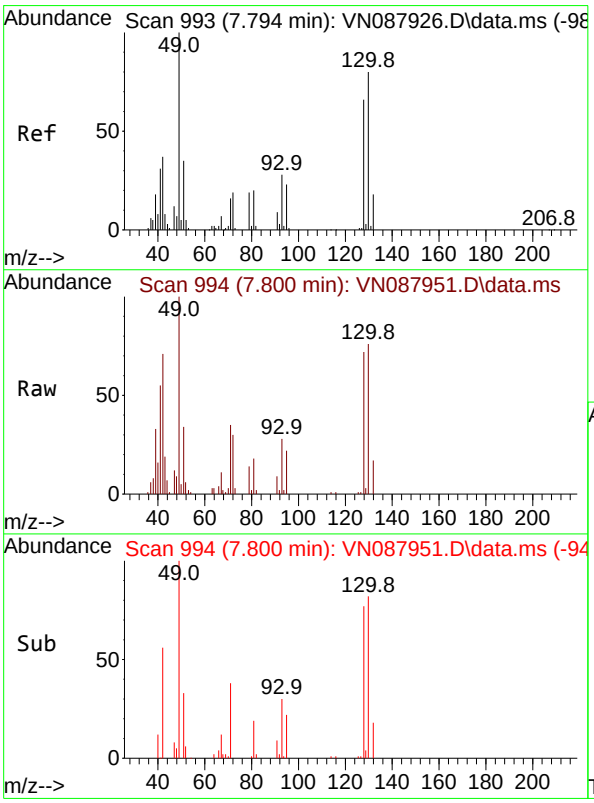
Ion	Ratio	Lower	Upper
96	100		
61	140.3	0.0	283.0
98	64.9	0.0	127.6



Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations
APPROVED

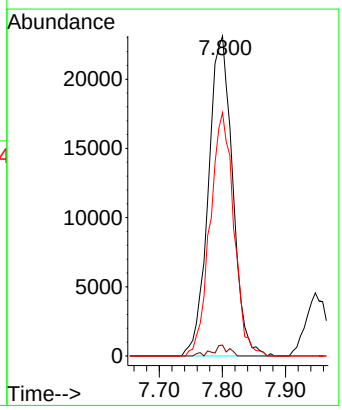
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

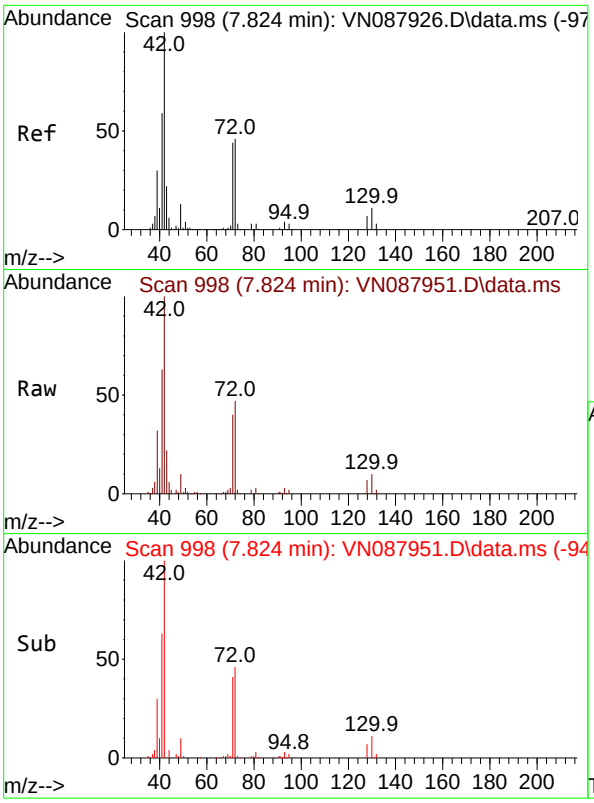


#28
Bromochloromethane
Concen: 17.368 ug/l
RT: 7.800 min Scan# 994
Delta R.T. 0.006 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 49 Resp: 61419

Ion	Ratio	Lower	Upper
49	100		
129	2.0	0.0	5.4
130	74.7	62.6	94.0

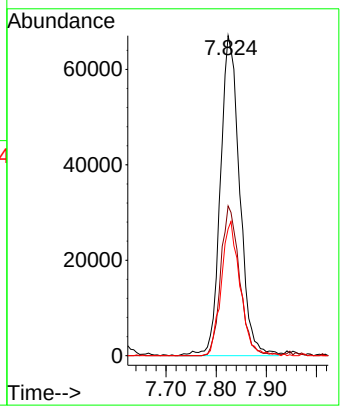




#29
Tetrahydrofuran
Concen: 94.970 ug/l
RT: 7.824 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 42 Resp: 17960

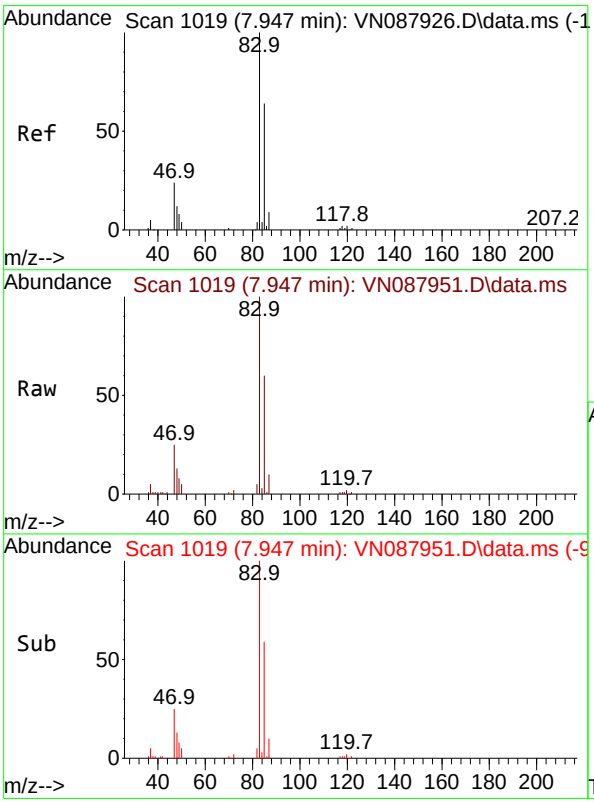
Ion	Ratio	Lower	Upper
42	100		
72	45.4	36.5	54.7
71	41.1	33.8	50.8



Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations APPROVED

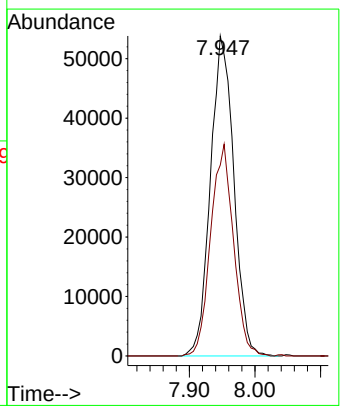
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

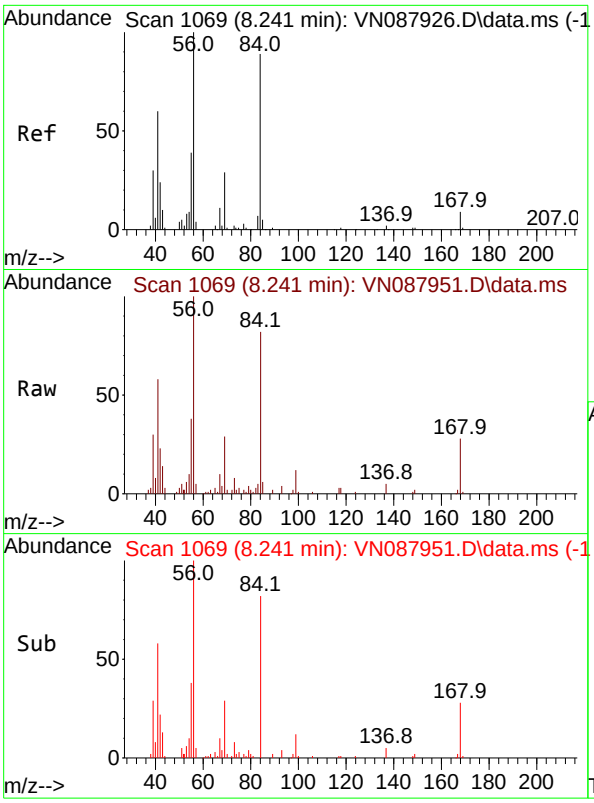


#30
Chloroform
Concen: 18.750 ug/l
RT: 7.947 min Scan# 1019
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 83 Resp: 133437

Ion	Ratio	Lower	Upper
83	100		
85	59.6	50.9	76.3





#31
Cyclohexane
Concen: 20.264 ug/l
RT: 8.241 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

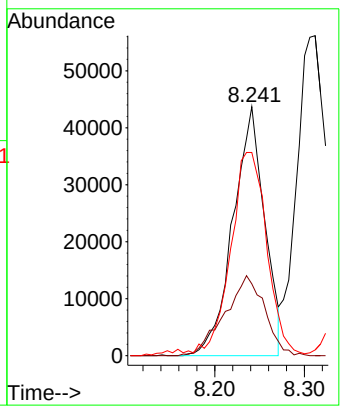
Tgt Ion: 56 Resp: 10671

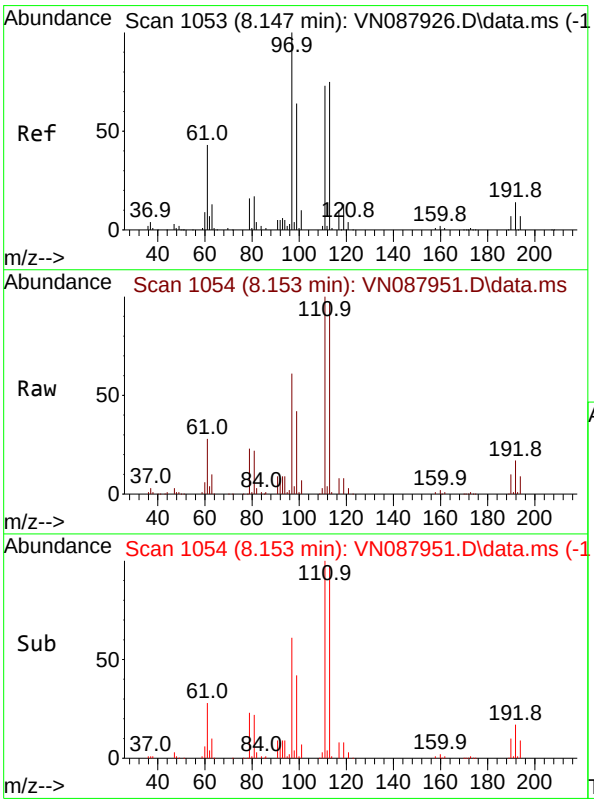
Ion	Ratio	Lower	Upper
56	100		
69	28.9	23.4	35.0
84	79.0	70.8	106.2

Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

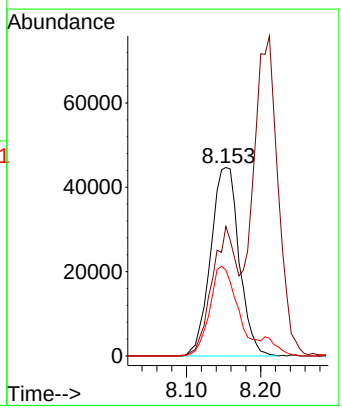


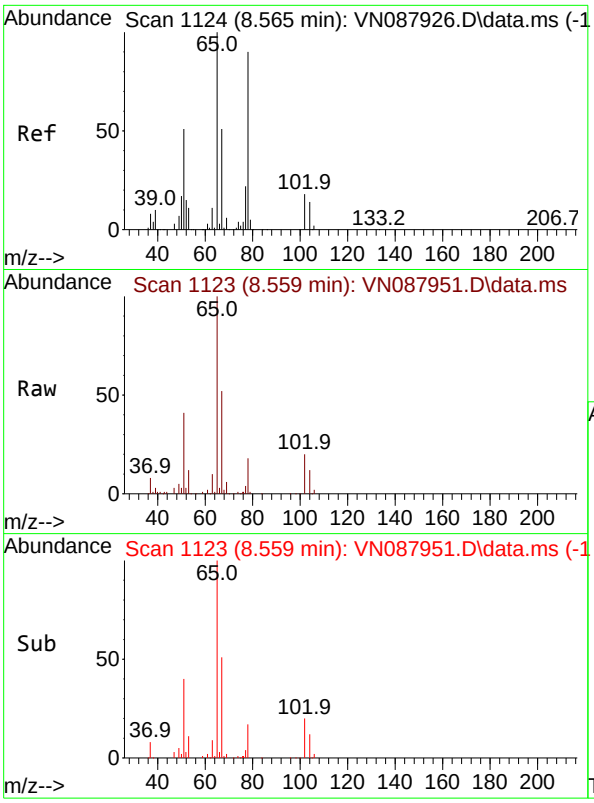


#32
1,1,1-Trichloroethane
Concen: 19.850 ug/l
RT: 8.153 min Scan# 1054
Delta R.T. 0.006 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 97 Resp: 119368

Ion	Ratio	Lower	Upper
97	100		
99	58.2	51.1	76.7
61	48.0	38.6	58.0

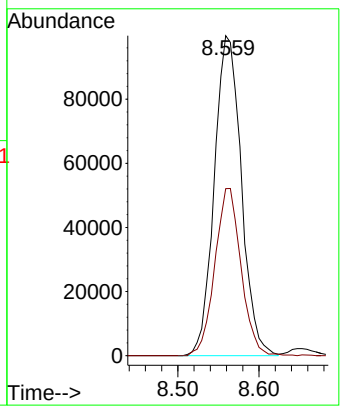




#33
1,2-Dichloroethane-d4
Concen: 49.133 ug/l
RT: 8.559 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 65 Resp: 23075

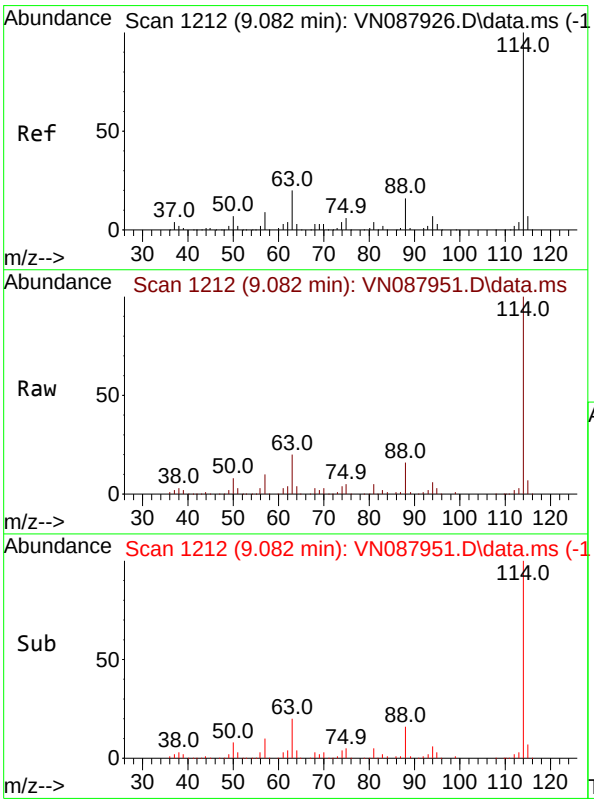
Ion	Ratio	Lower	Upper
65	100		
67	50.7	0.0	103.4



Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations APPROVED

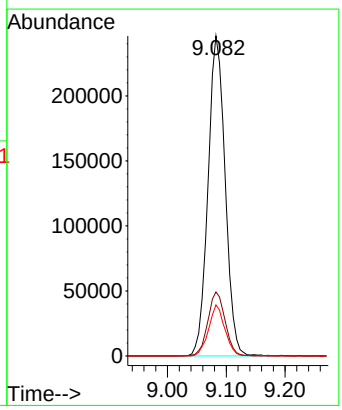
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

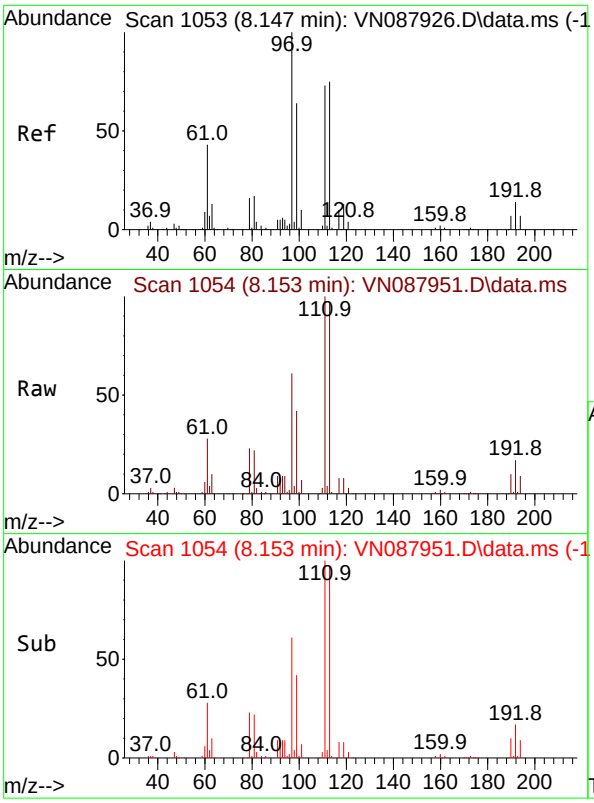


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.082 min Scan# 1212
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion:114 Resp: 498231

Ion	Ratio	Lower	Upper
114	100		
63	20.0	0.0	40.0
88	15.9	0.0	31.8

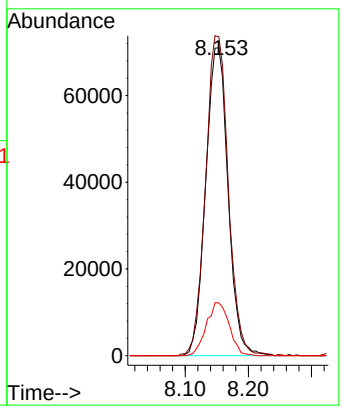




#35
Dibromofluoromethane
Concen: 48.399 ug/l
RT: 8.153 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion:113 Resp: 17508

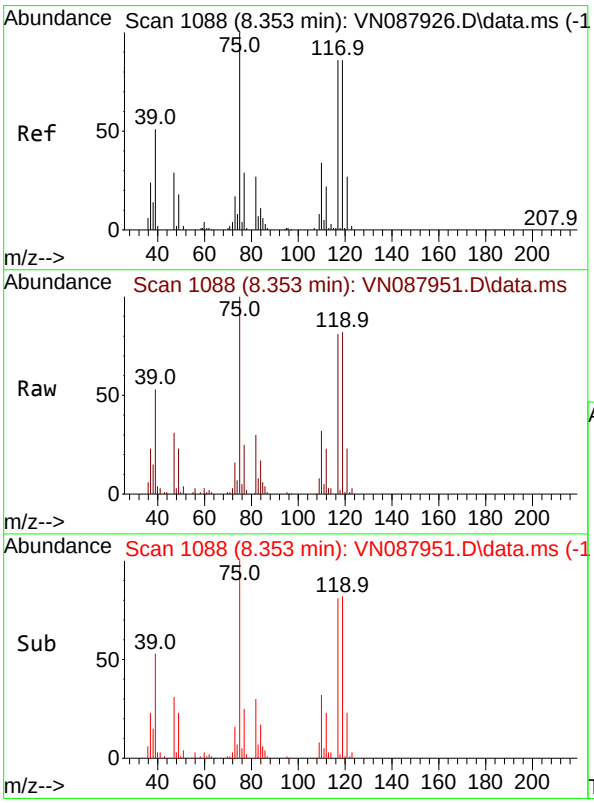
Ion	Ratio	Lower	Upper
113	100		
111	105.2	82.2	123.2
192	17.6	14.2	21.2



Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations APPROVED

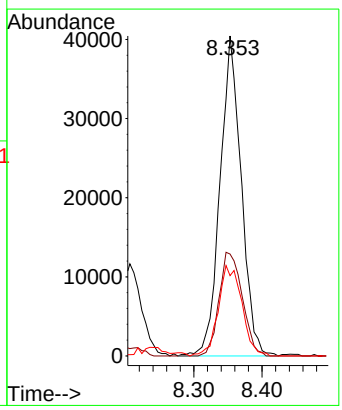
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

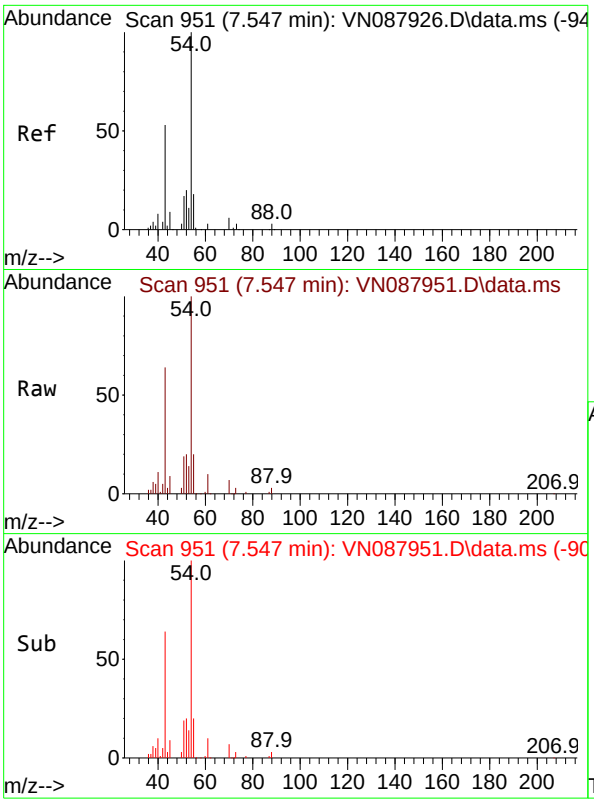


#36
1,1-Dichloropropene
Concen: 20.198 ug/l
RT: 8.353 min Scan# 1088
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 75 Resp: 87855

Ion	Ratio	Lower	Upper
75	100		
110	35.3	17.1	51.3
77	31.2	24.8	37.2

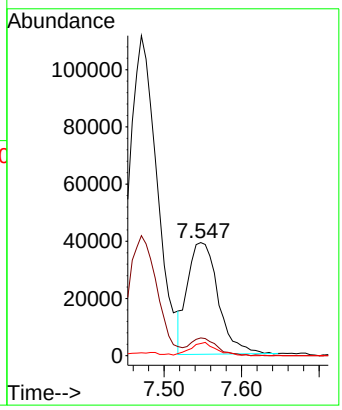




#37
Ethyl Acetate
Concen: 18.802 ug/l
RT: 7.547 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 43 Resp: 10739

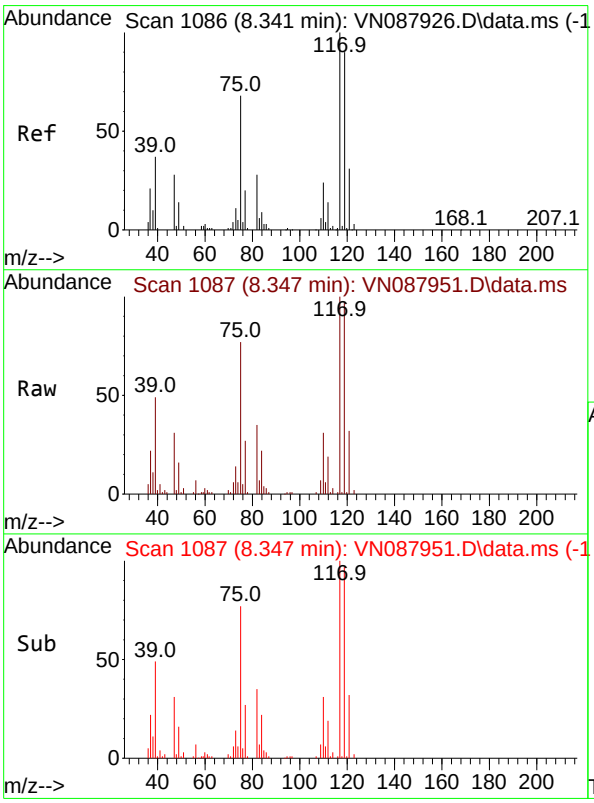
Ion	Ratio	Lower	Upper
43	100		
61	13.9	10.7	16.1
70	10.1	7.8	11.8



Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations
APPROVED

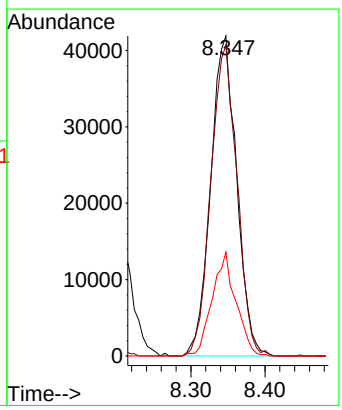
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

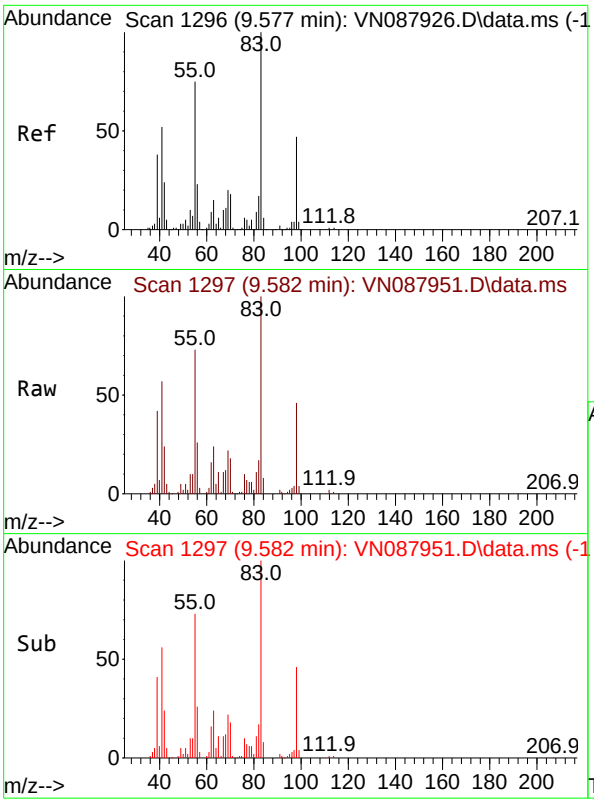


#38
Carbon Tetrachloride
Concen: 20.391 ug/l
RT: 8.347 min Scan# 1087
Delta R.T. 0.006 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion:117 Resp: 101777

Ion	Ratio	Lower	Upper
117	100		
119	97.1	72.1	108.1
121	32.5	24.6	36.8





#39
Methylcyclohexane
Concen: 21.382 ug/l
RT: 9.582 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

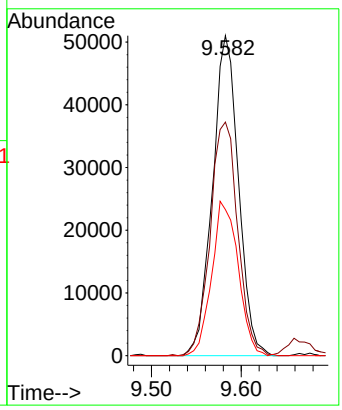
Tgt Ion: 83 Resp: 10259

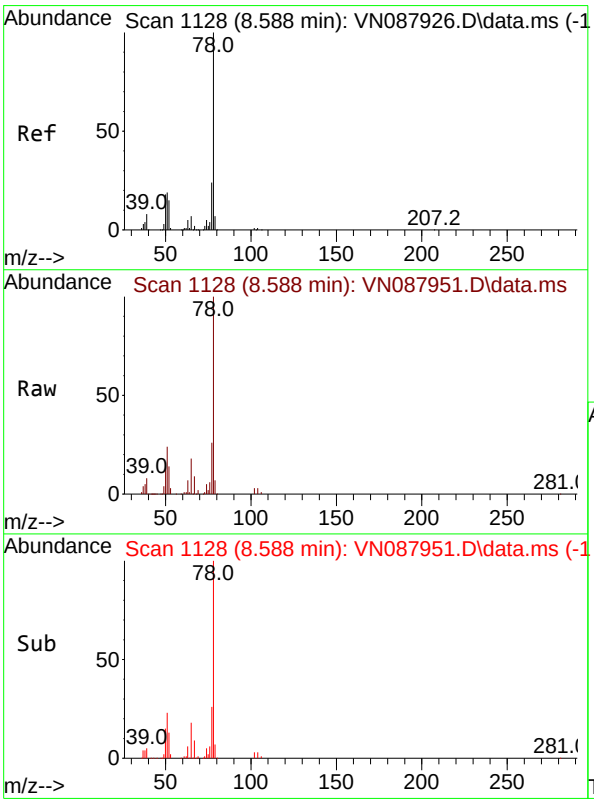
Ion	Ratio	Lower	Upper
83	100		
55	73.0	59.9	89.9
98	45.7	37.4	56.2

Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

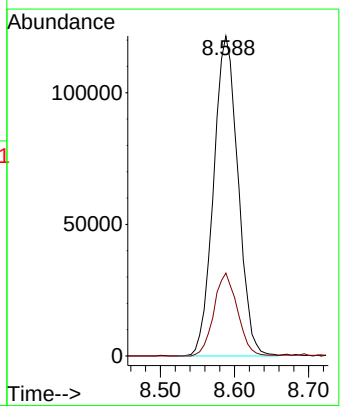


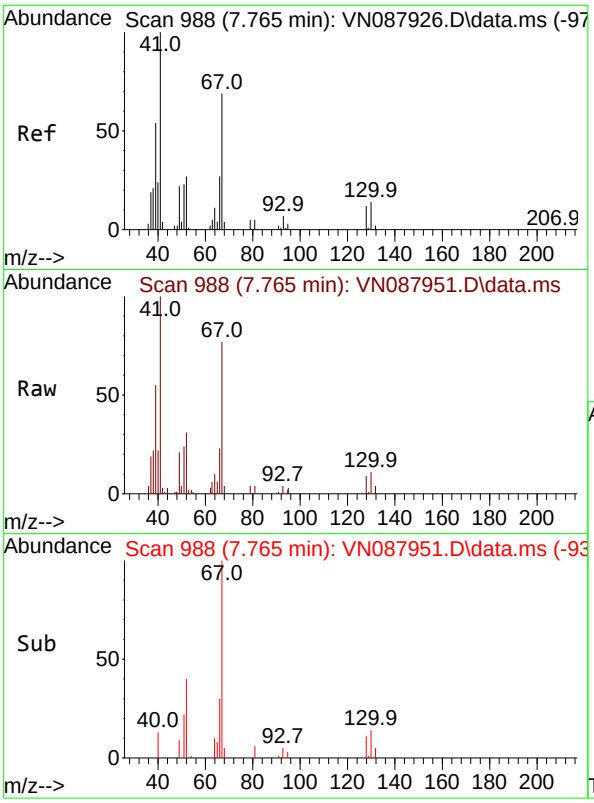


#40
Benzene
Concen: 19.327 ug/l
RT: 8.588 min Scan# 1128
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 78 Resp: 278350

Ion	Ratio	Lower	Upper
78	100		
77	25.9	19.0	28.6

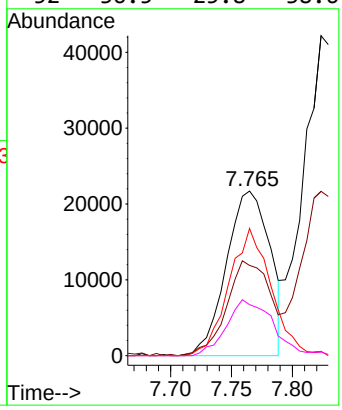




#41
Methacrylonitrile
Concen: 18.300 ug/l
RT: 7.765 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 41 Resp: 5401

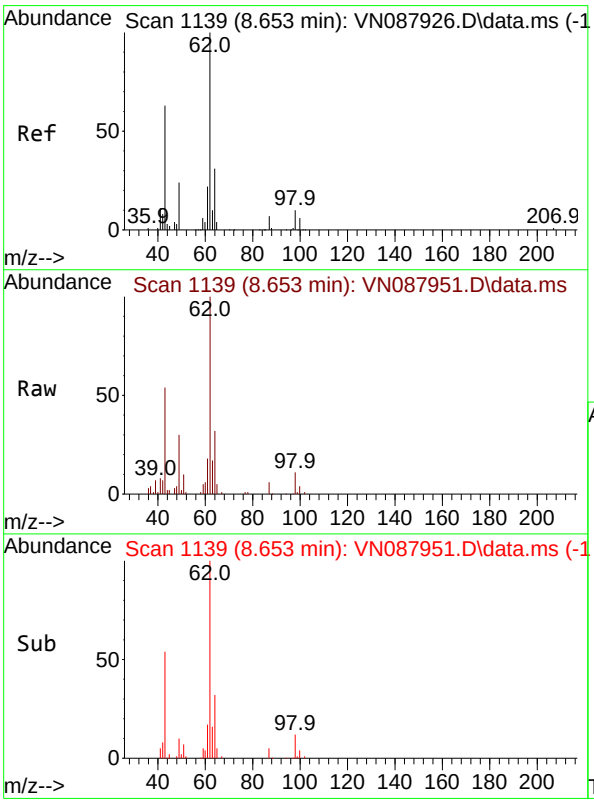
Ion	Ratio	Lower	Upper
41	100		
39	56.8	43.5	65.3
67	75.1	57.6	86.4
52	36.5	25.8	38.6



Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations APPROVED

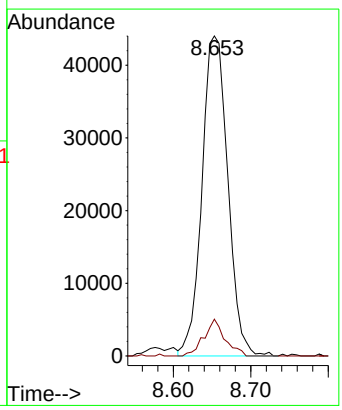
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

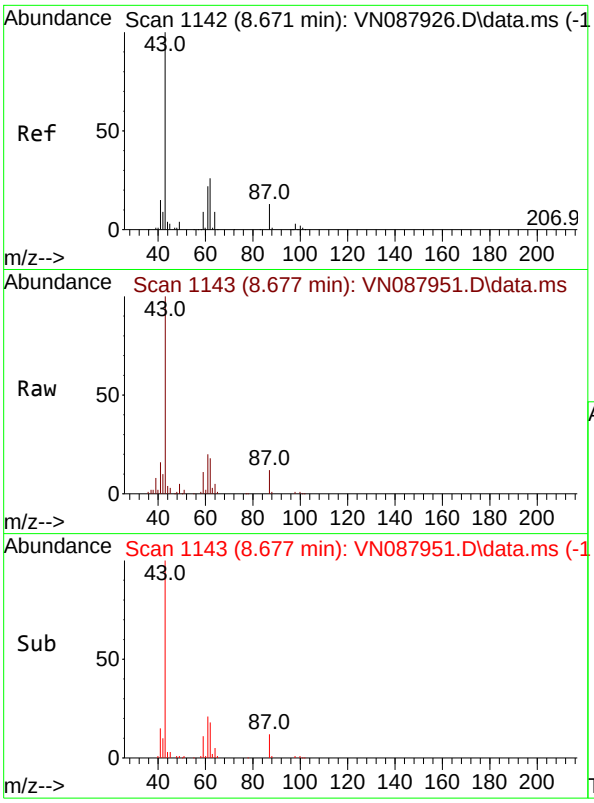


#42
1,2-Dichloroethane
Concen: 19.003 ug/l
RT: 8.653 min Scan# 1139
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 62 Resp: 102137

Ion	Ratio	Lower	Upper
62	100		
98	9.3	0.0	18.6

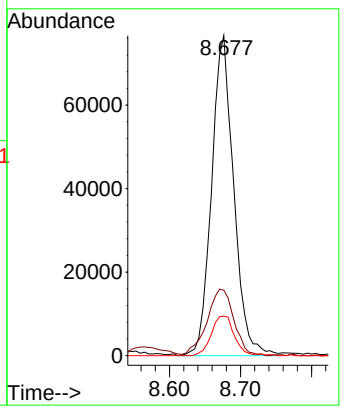




#43
Isopropyl Acetate
Concen: 18.415 ug/l
RT: 8.677 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 43 Resp: 16556

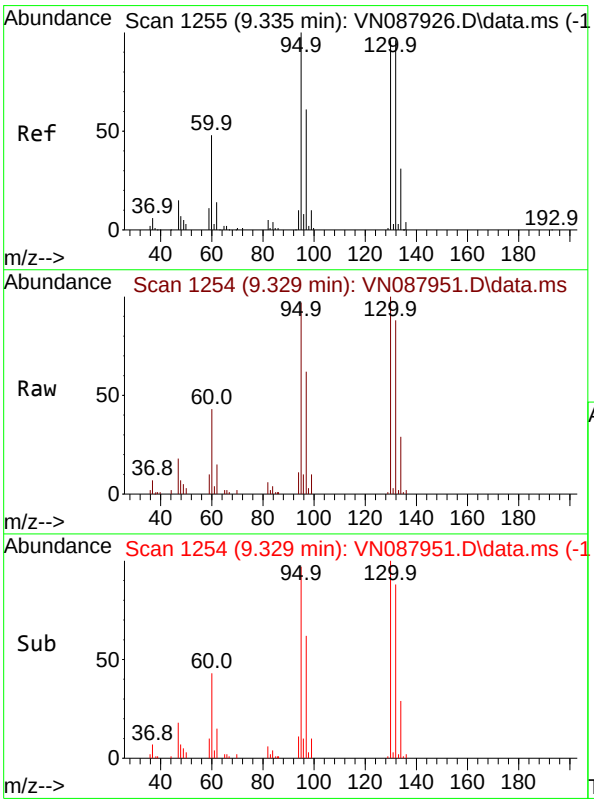
Ion	Ratio	Lower	Upper
43	100		
61	25.4	20.2	30.2
87	13.0	10.9	16.3



Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations
APPROVED

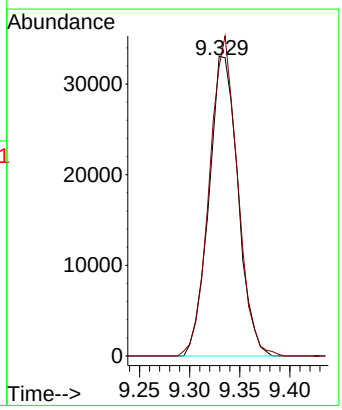
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

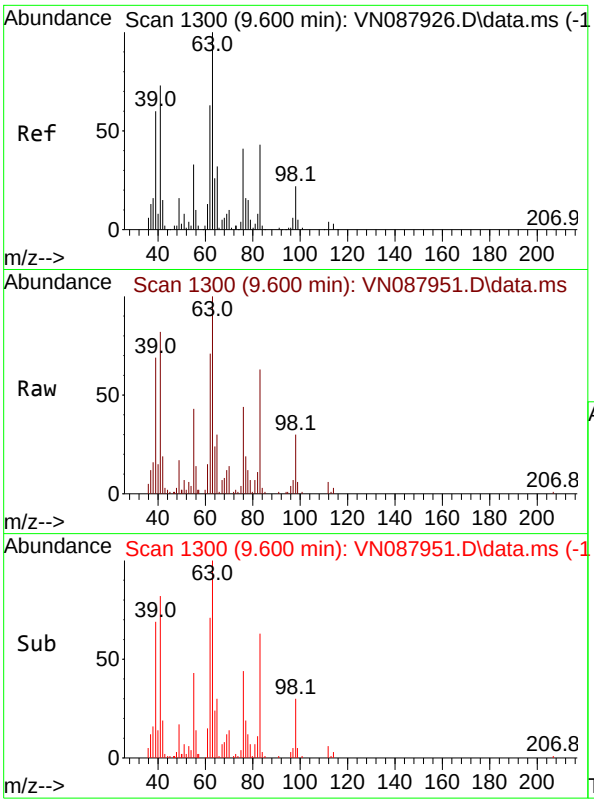


#44
Trichloroethene
Concen: 19.394 ug/l
RT: 9.329 min Scan# 1254
Delta R.T. -0.006 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion:130 Resp: 66720

Ion	Ratio	Lower	Upper
130	100		
95	96.7	0.0	208.0





#45
1,2-Dichloropropane
Concen: 19.384 ug/l
RT: 9.600 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

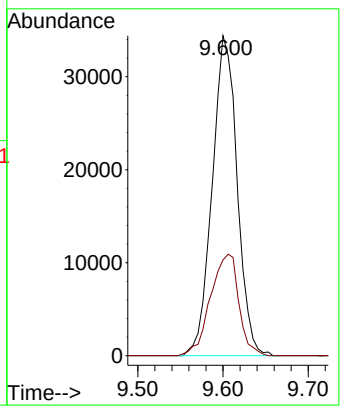
Tgt Ion: 63 Resp: 7000

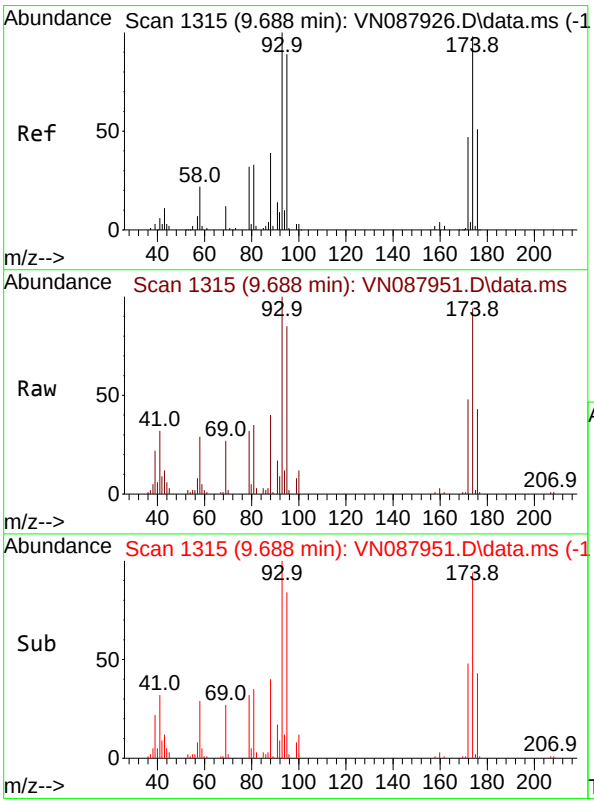
Ion	Ratio	Lower	Upper
63	100		
65	29.9	25.4	38.0

Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

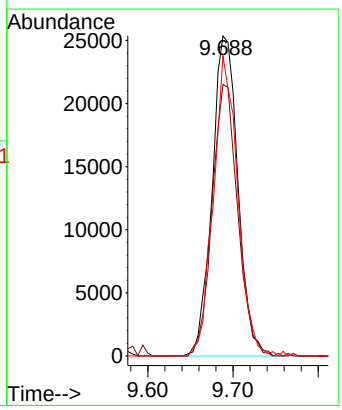


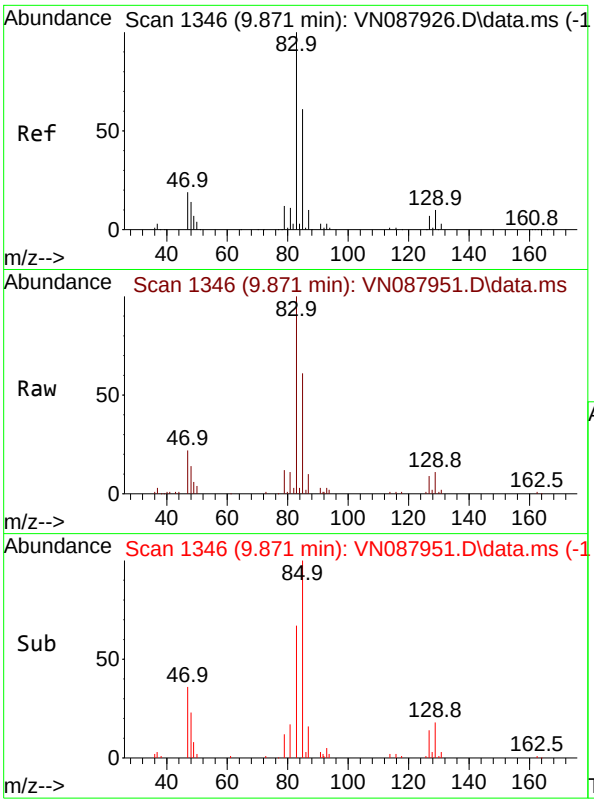


#46
Dibromomethane
Concen: 18.701 ug/l
RT: 9.688 min Scan# 1315
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 93 Resp: 53291

Ion	Ratio	Lower	Upper
93	100		
95	84.3	67.6	101.4
174	89.0	75.4	113.0

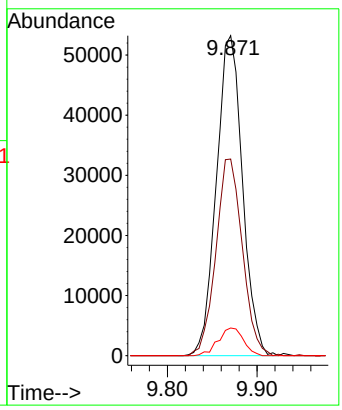




#47
Bromodichloromethane
Concen: 19.256 ug/l
RT: 9.871 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 83 Resp: 10762

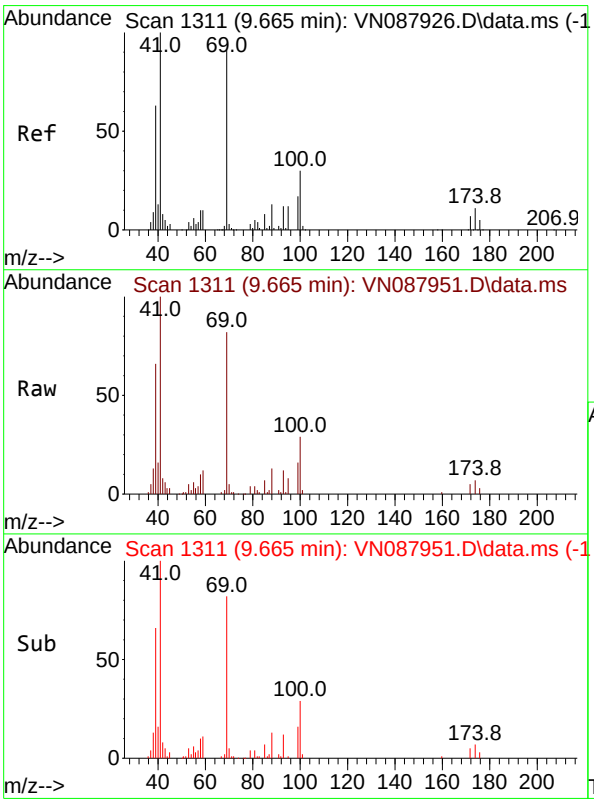
Ion	Ratio	Lower	Upper
83	100		
85	61.5	49.1	73.7
127	8.6	5.9	8.9



Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations APPROVED

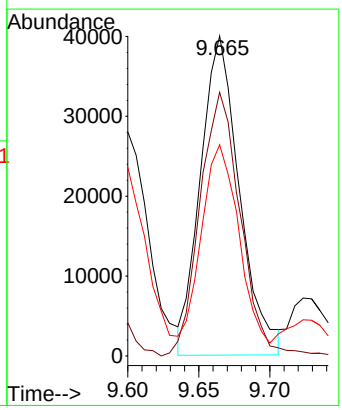
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

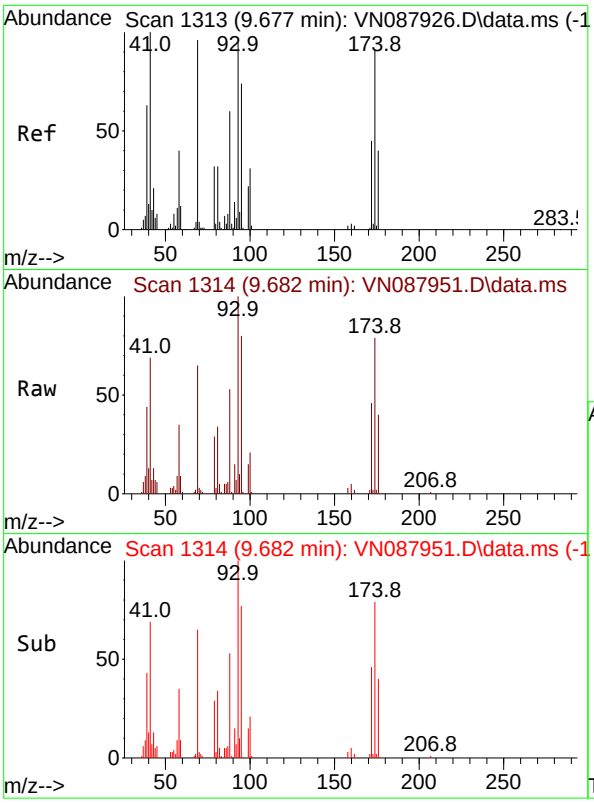


#48
Methyl methacrylate
Concen: 18.287 ug/l
RT: 9.665 min Scan# 1311
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 41 Resp: 76141

Ion	Ratio	Lower	Upper
41	100		
69	85.7	70.9	106.3
39	66.0	52.9	79.3

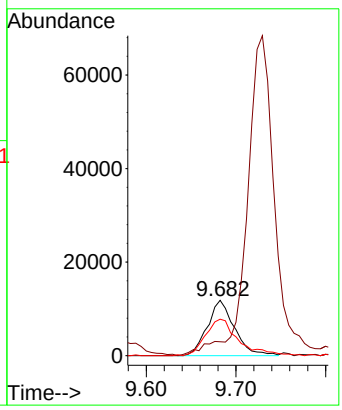




#49
1,4-Dioxane
Concen: 403.447 ug/l
RT: 9.682 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 88 Resp: 2481

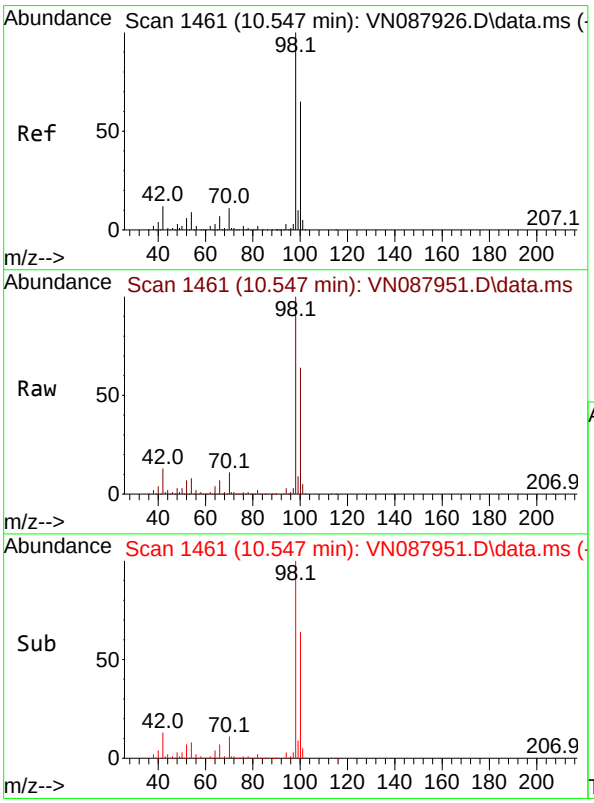
Ion	Ratio	Lower	Upper
88	100		
43	0.0	22.6	33.8
58	80.3	57.4	86.2



Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations
APPROVED

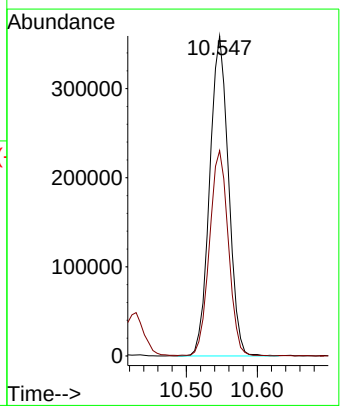
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

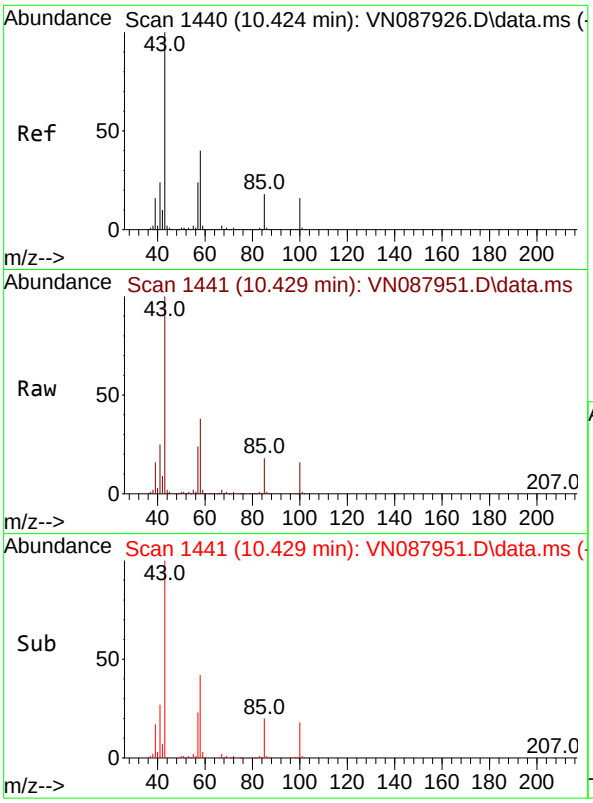


#50
Toluene-d8
Concen: 51.805 ug/l
RT: 10.547 min Scan# 1461
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 98 Resp: 659020

Ion	Ratio	Lower	Upper
98	100		
100	64.3	51.7	77.5





#51
4-Methyl-2-Pentanone
Concen: 98.397 ug/l
RT: 10.429 min Scan# 14
Delta R.T. 0.006 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

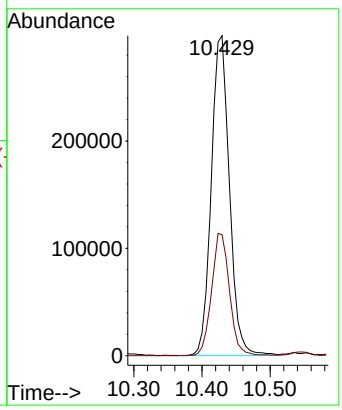
Tgt Ion: 43 Resp: 55204

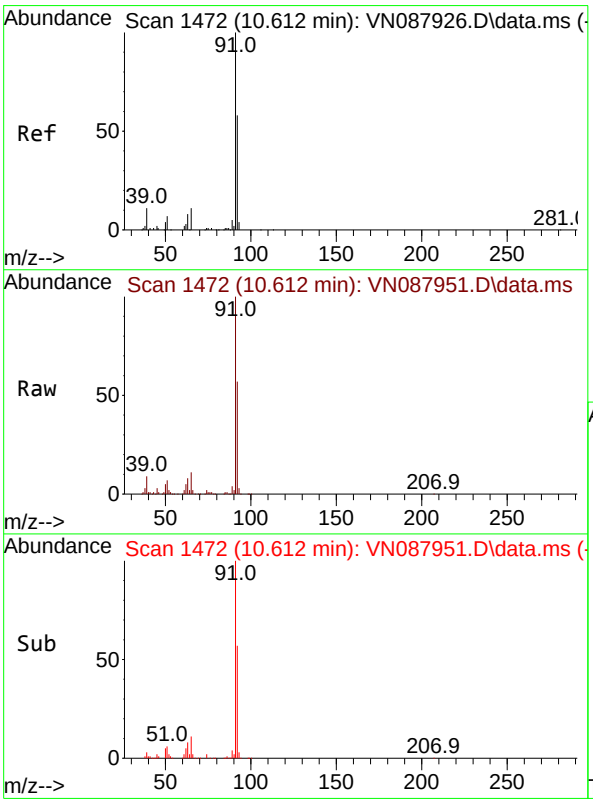
Ion	Ratio	Lower	Upper
43	100		
58	37.9	31.0	46.6

Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

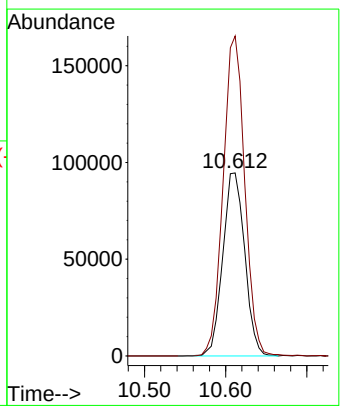


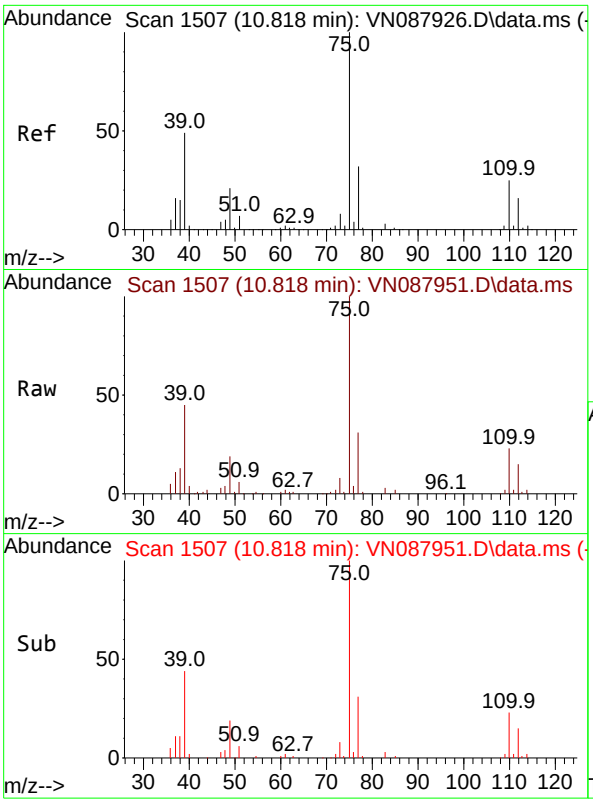


#52
Toluene
Concen: 19.667 ug/l
RT: 10.612 min Scan# 1472
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 92 Resp: 177745

Ion	Ratio	Lower	Upper
92	100		
91	172.0	138.2	207.2

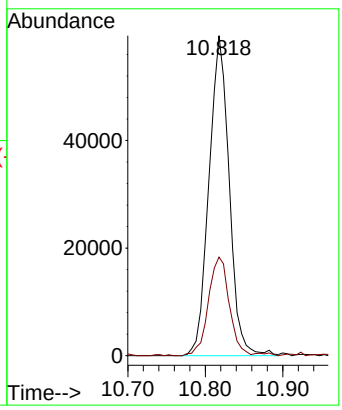




#53
t-1,3-Dichloropropene
Concen: 18.891 ug/l
RT: 10.818 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 75 Resp: 10806

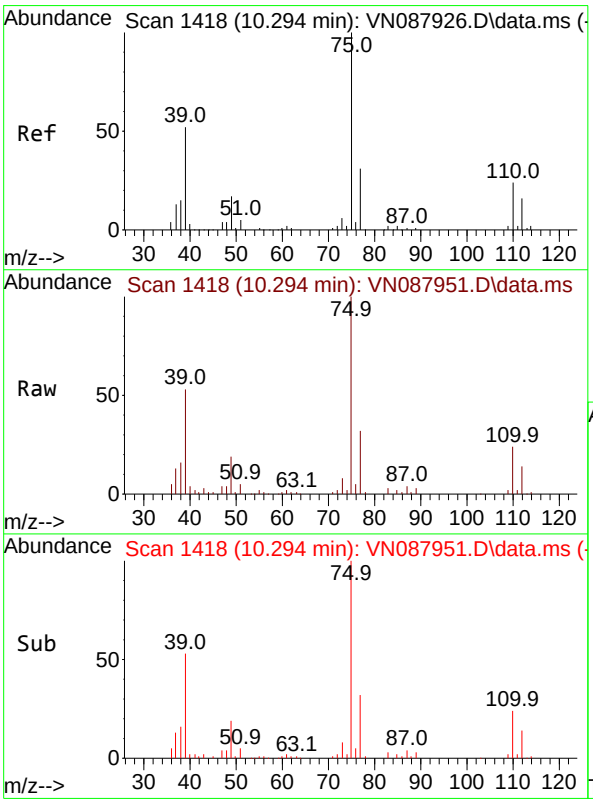
Ion	Ratio	Lower	Upper
75	100		
77	30.8	25.3	37.9



Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations APPROVED

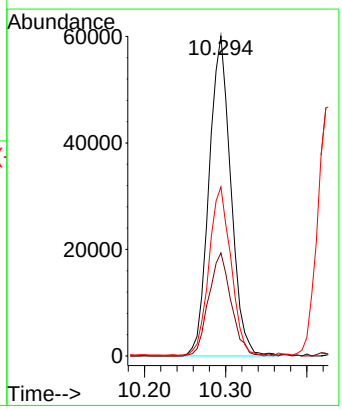
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

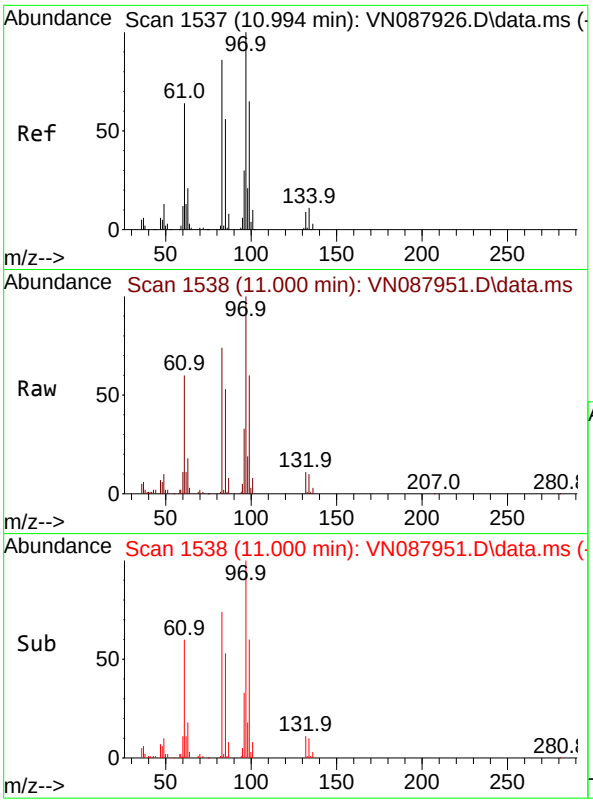


#54
cis-1,3-Dichloropropene
Concen: 18.818 ug/l
RT: 10.294 min Scan# 1418
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 75 Resp: 111802

Ion	Ratio	Lower	Upper
75	100		
77	32.2	24.7	37.1
39	52.6	41.4	62.0

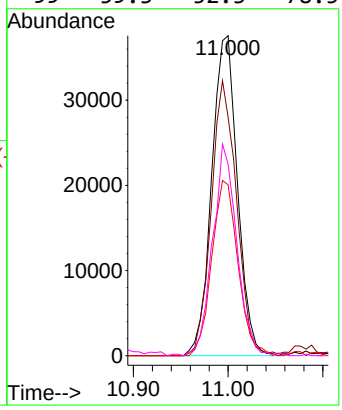




#55
1,1,2-Trichloroethane
Concen: 19.330 ug/l
RT: 11.000 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 97 Resp: 7103

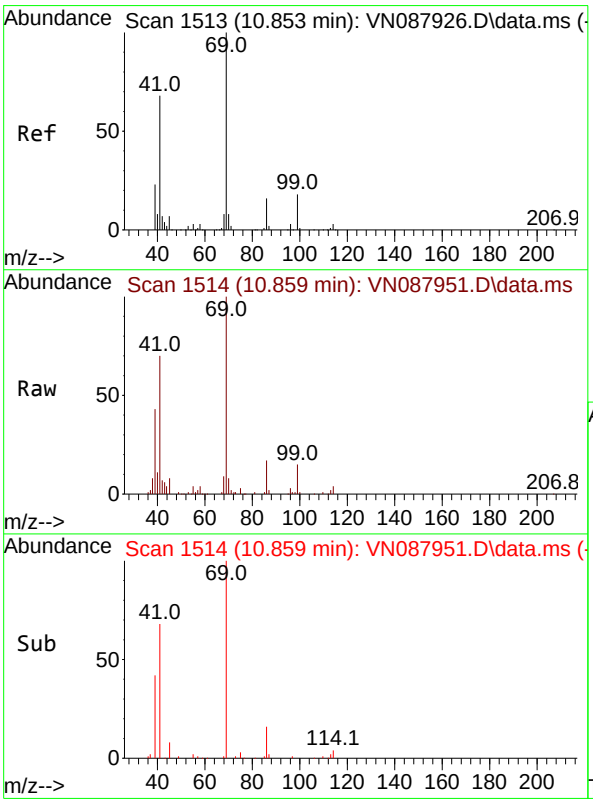
Ion	Ratio	Lower	Upper
97	100		
83	74.5	69.0	103.4
85	53.4	44.4	66.6
99	59.3	52.3	78.5



Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations
APPROVED

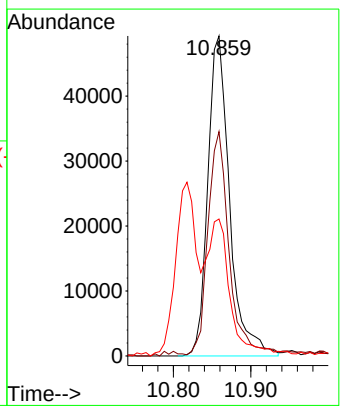
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

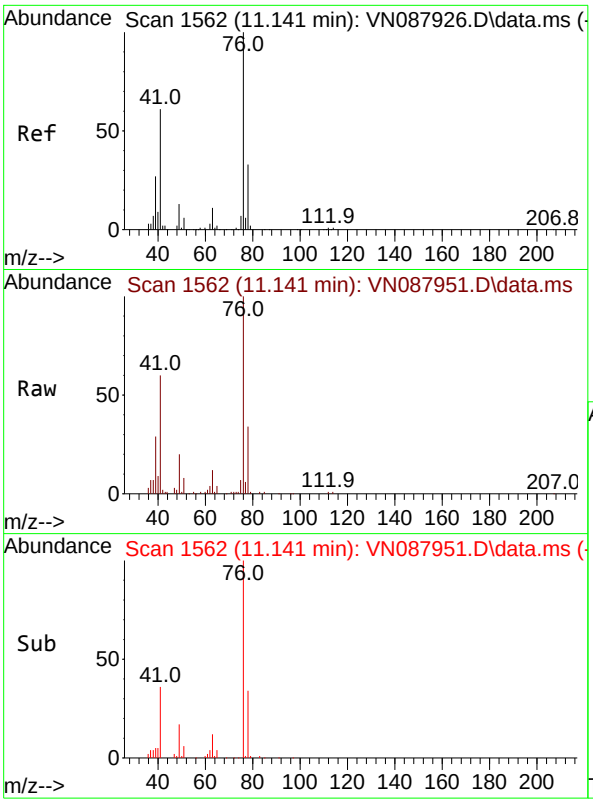


#56
Ethyl methacrylate
Concen: 18.136 ug/l
RT: 10.859 min Scan# 1514
Delta R.T. 0.006 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 69 Resp: 96298

Ion	Ratio	Lower	Upper
69	100		
41	68.2	53.8	80.6
39	44.7	34.7	52.1

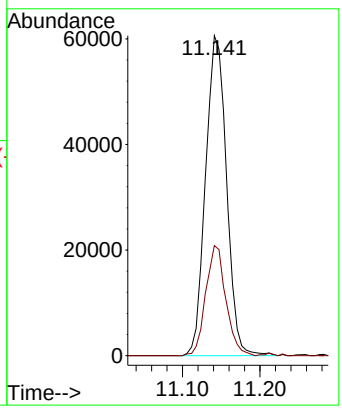




#57
1,3-Dichloropropane
Concen: 18.865 ug/l
RT: 11.141 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 76 Resp: 11402

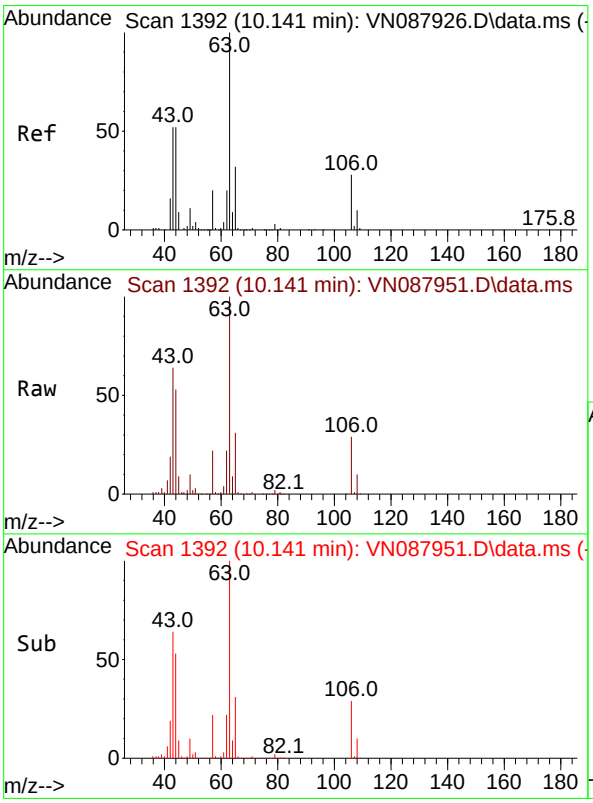
Ion	Ratio	Lower	Upper
76	100		
78	33.0	26.0	39.0



Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations
APPROVED

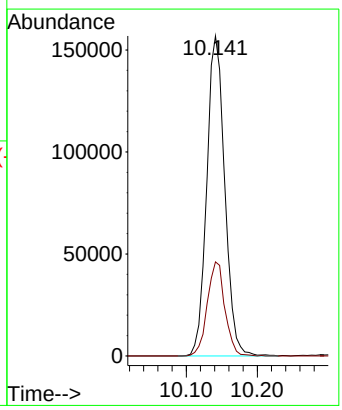
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

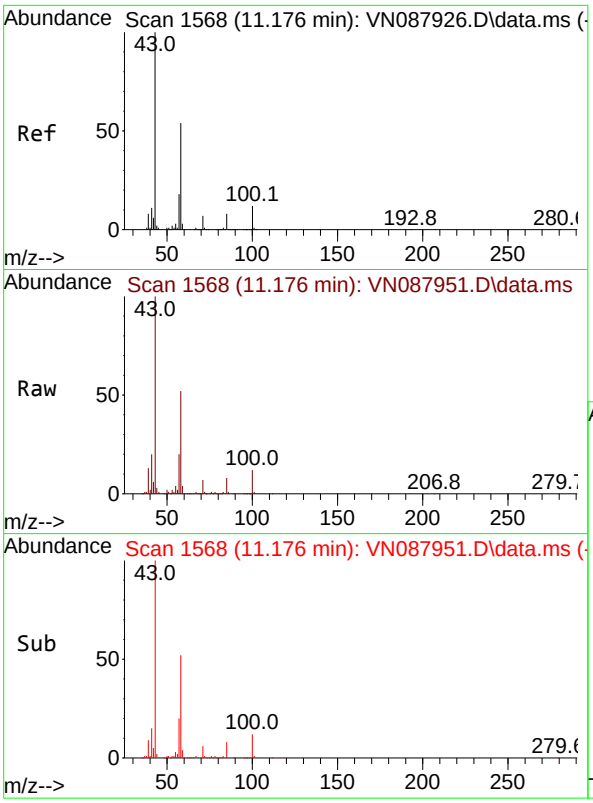


#58
2-Chloroethyl Vinyl ether
Concen: 110.507 ug/l
RT: 10.141 min Scan# 1392
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 63 Resp: 275893

Ion	Ratio	Lower	Upper
63	100		
106	28.7	22.6	33.8





#59
2-Hexanone
Concen: 97.426 ug/l
RT: 11.176 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

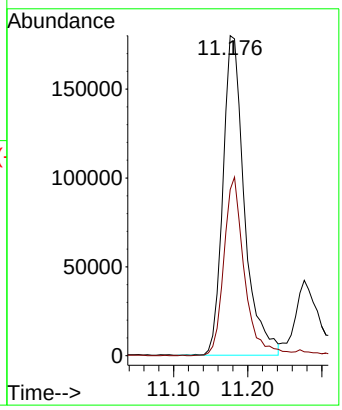
Tgt Ion: 43 Resp: 36142

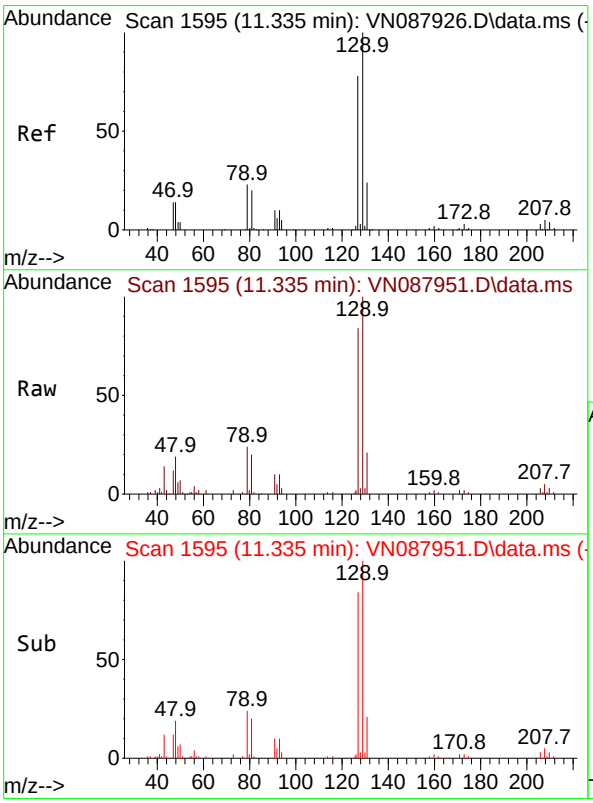
Ion	Ratio	Lower	Upper
43	100		
58	53.5	26.4	79.2

Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

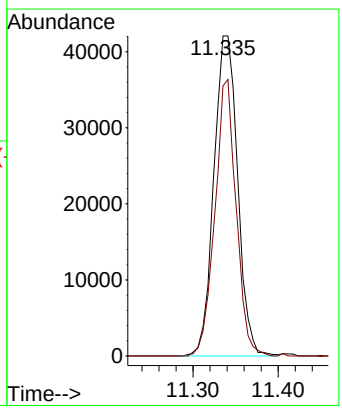


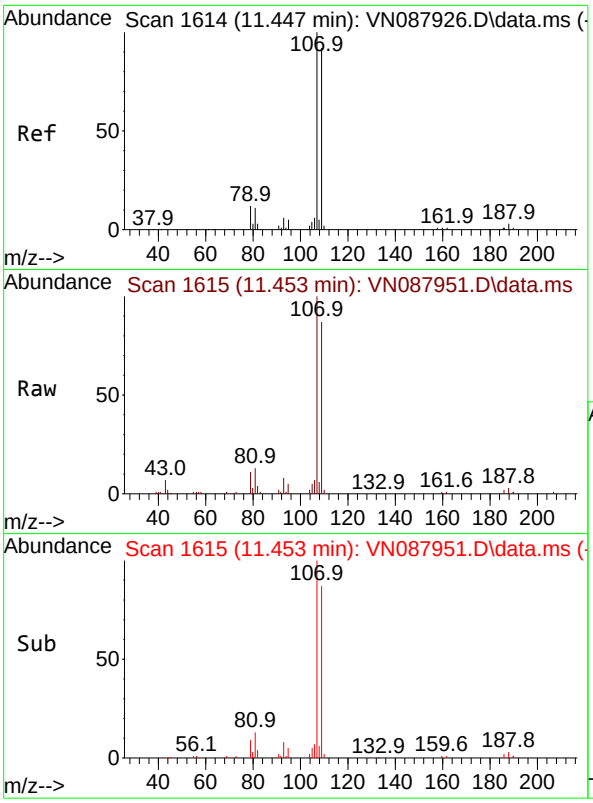


#60
Dibromochloromethane
Concen: 18.898 ug/l
RT: 11.335 min Scan# 1595
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion:129 Resp: 81654

Ion	Ratio	Lower	Upper
129	100		
127	77.2	39.3	117.9

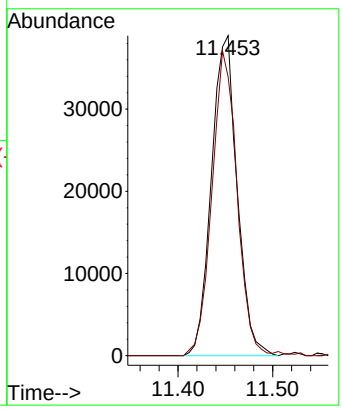




#61
1,2-Dibromoethane
Concen: 18.892 ug/l
RT: 11.453 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion:107 Resp: 7349

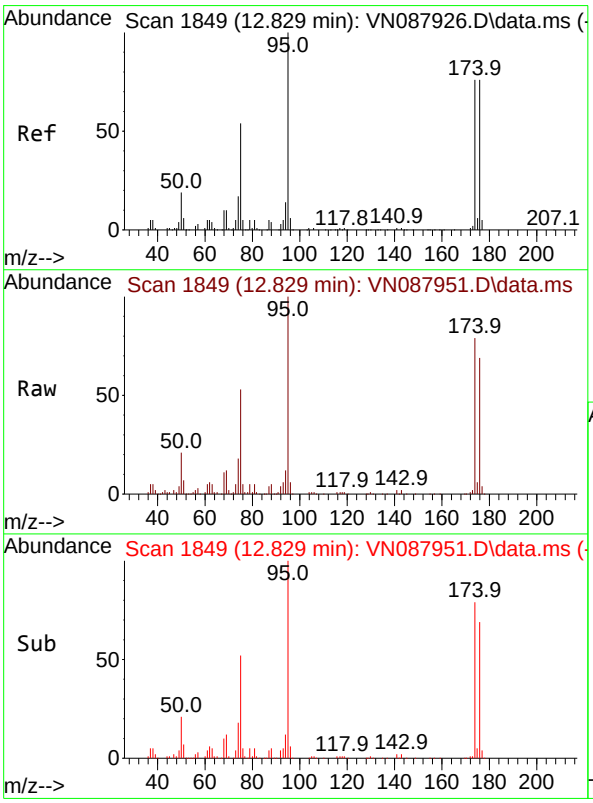
Ion	Ratio	Lower	Upper
107	100		
109	92.8	75.3	112.9



Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations
APPROVED

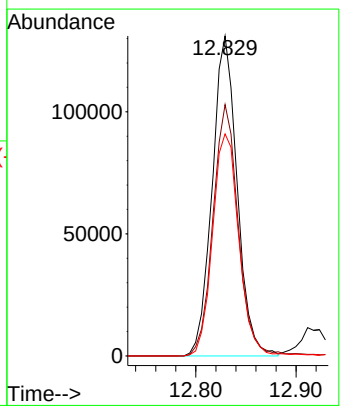
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

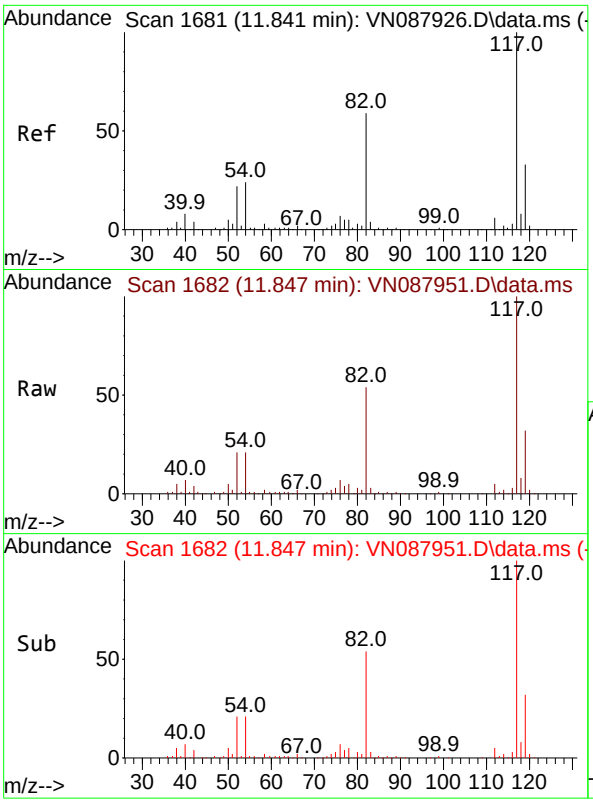


#62
4-Bromofluorobenzene
Concen: 49.805 ug/l
RT: 12.829 min Scan# 1849
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 95 Resp: 226467

Ion	Ratio	Lower	Upper
95	100		
174	79.7	0.0	159.2
176	73.5	0.0	152.6

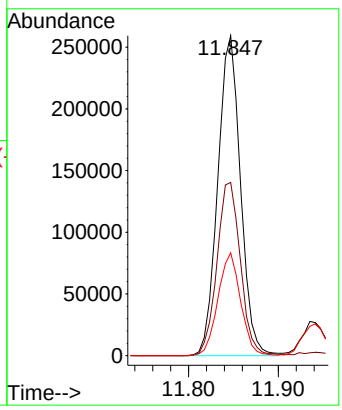




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.847 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion:117 Resp: 45659

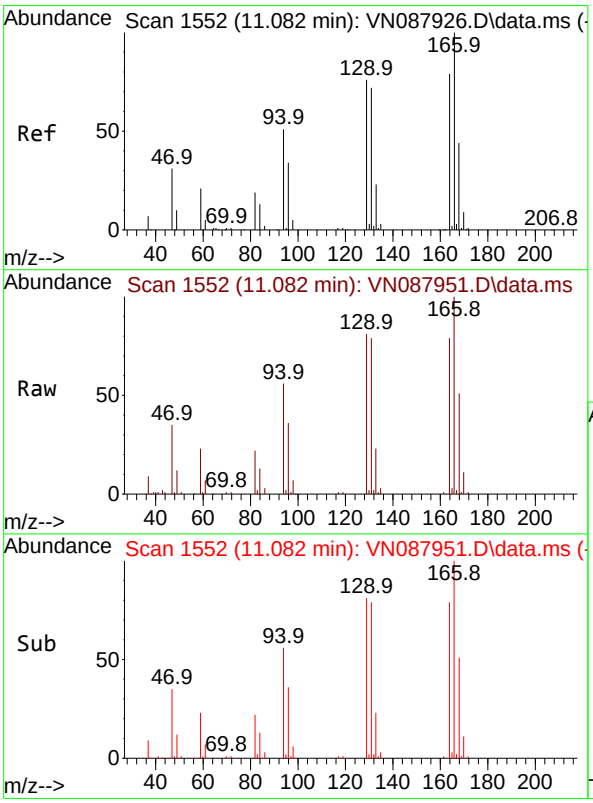
Ion	Ratio	Lower	Upper
117	100		
82	54.1	47.0	70.4
119	32.1	26.1	39.1



Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations
APPROVED

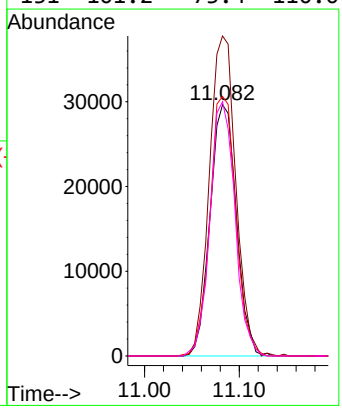
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

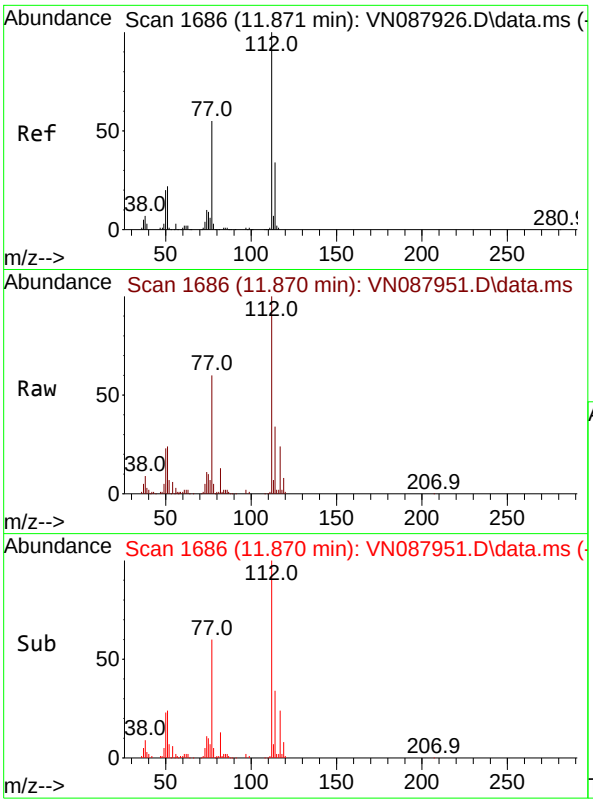


#64
Tetrachloroethene
Concen: 20.520 ug/l
RT: 11.082 min Scan# 1552
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion:164 Resp: 57071

Ion	Ratio	Lower	Upper
164	100		
166	127.4	101.6	152.4
129	103.3	77.5	116.3
131	101.2	73.4	110.0

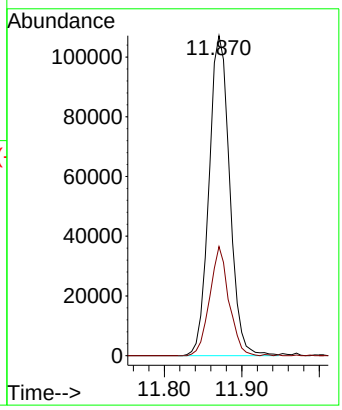




#65
Chlorobenzene
Concen: 20.436 ug/l
RT: 11.870 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion:112 Resp: 19856

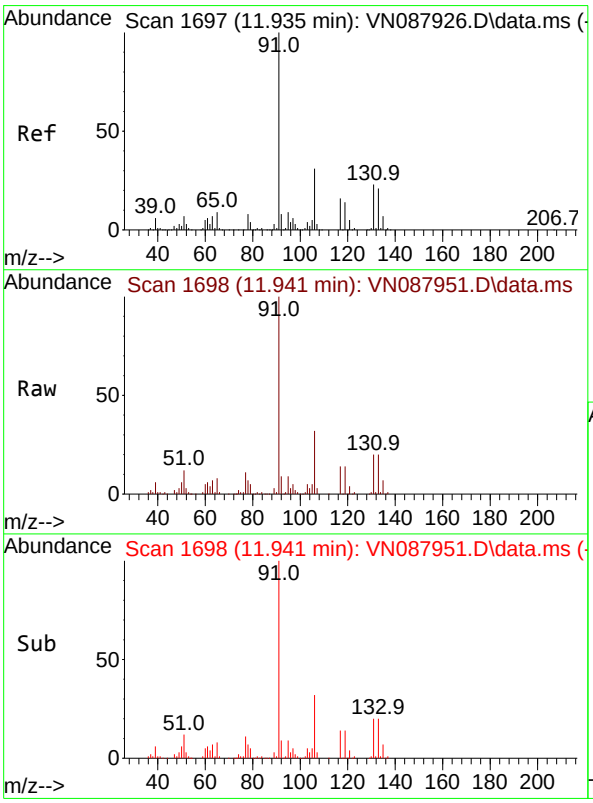
Ion	Ratio	Lower	Upper
112	100		
114	34.1	27.2	40.8



Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations
APPROVED

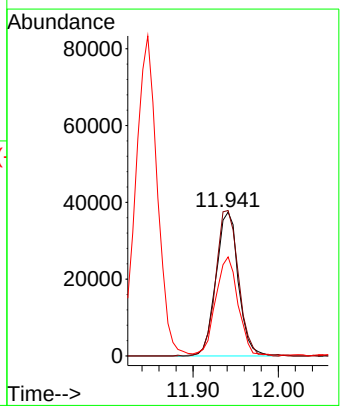
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

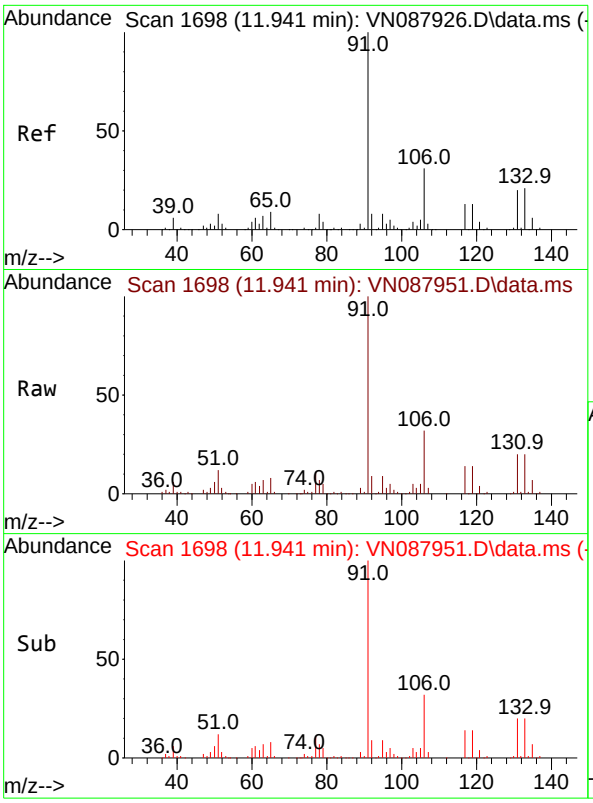


#66
1,1,1,2-Tetrachloroethane
Concen: 19.499 ug/l
RT: 11.941 min Scan# 1698
Delta R.T. 0.006 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion:131 Resp: 68324

Ion	Ratio	Lower	Upper
131	100		
133	102.8	48.4	145.0
119	69.5	31.9	95.5





#67
Ethyl Benzene
Concen: 20.187 ug/l
RT: 11.941 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

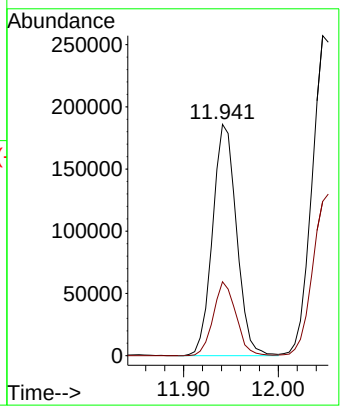
Tgt Ion: 91 Resp: 32729

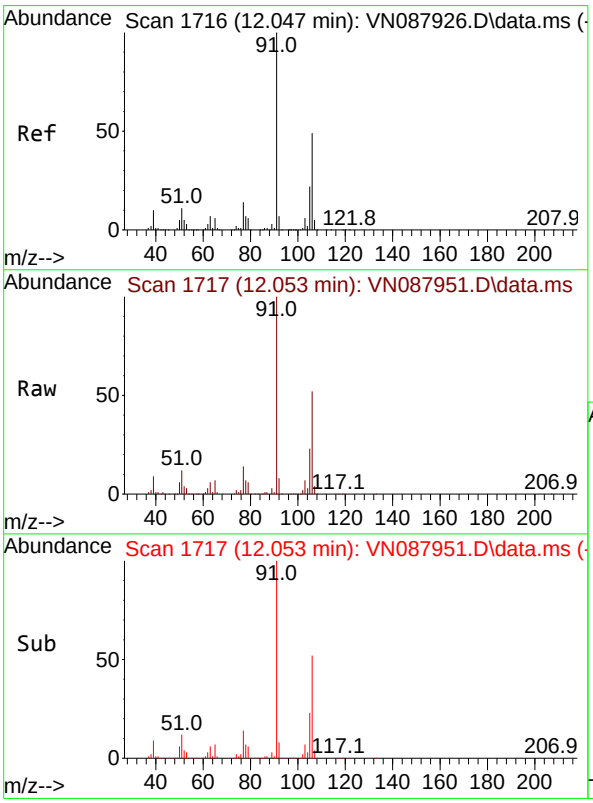
Ion	Ratio	Lower	Upper
91	100		
106	31.9	25.2	37.8

Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

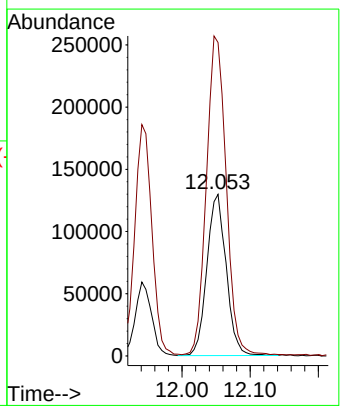


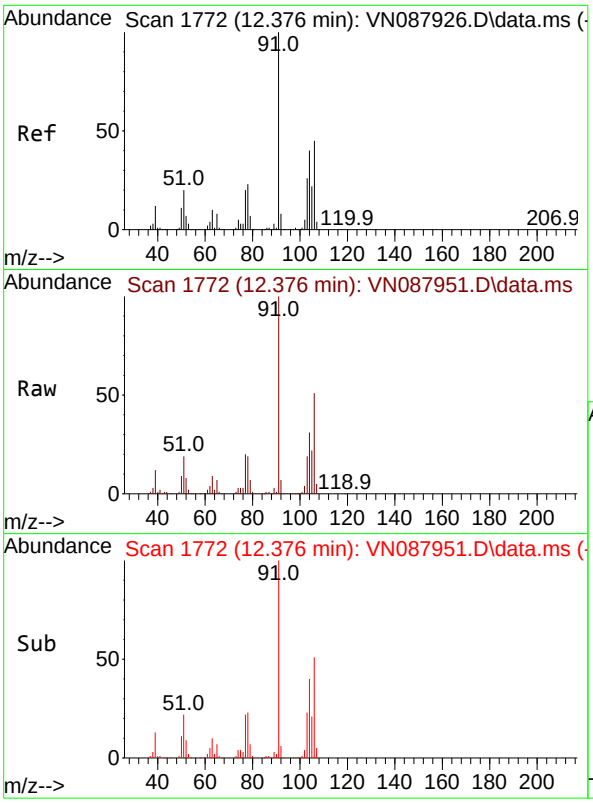


#68
m/p-Xylenes
Concen: 41.190 ug/l
RT: 12.053 min Scan# 1717
Delta R.T. 0.006 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion:106 Resp: 255409

Ion	Ratio	Lower	Upper
106	100		
91	202.9	162.9	244.3

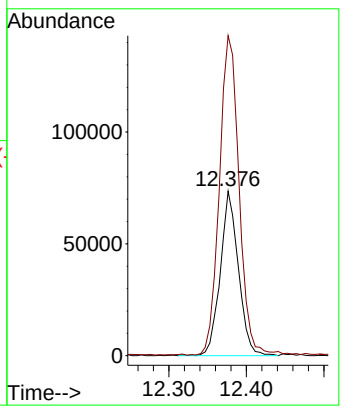




#69
o-Xylene
Concen: 20.058 ug/l
RT: 12.376 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion:106 Resp: 11949

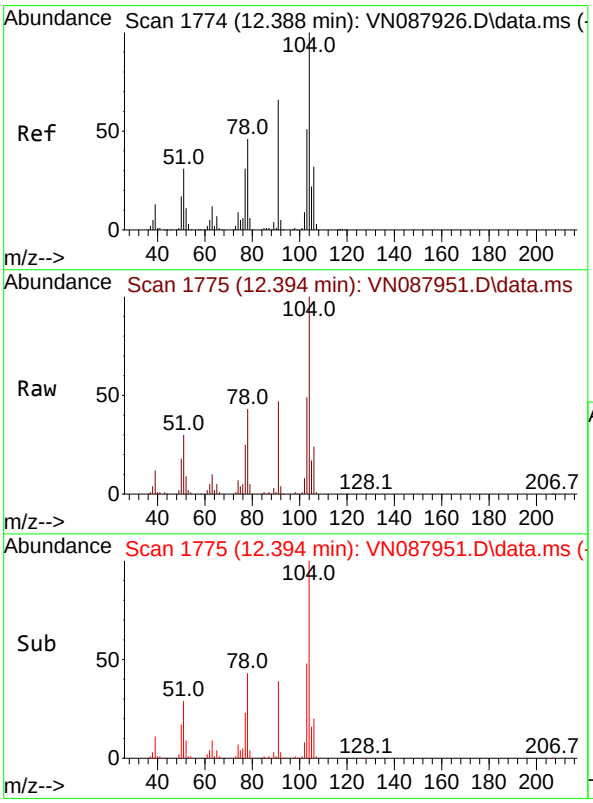
Ion	Ratio	Lower	Upper
106	100		
91	211.6	108.2	324.6



Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations
APPROVED

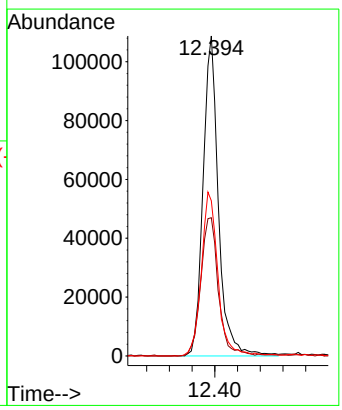
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

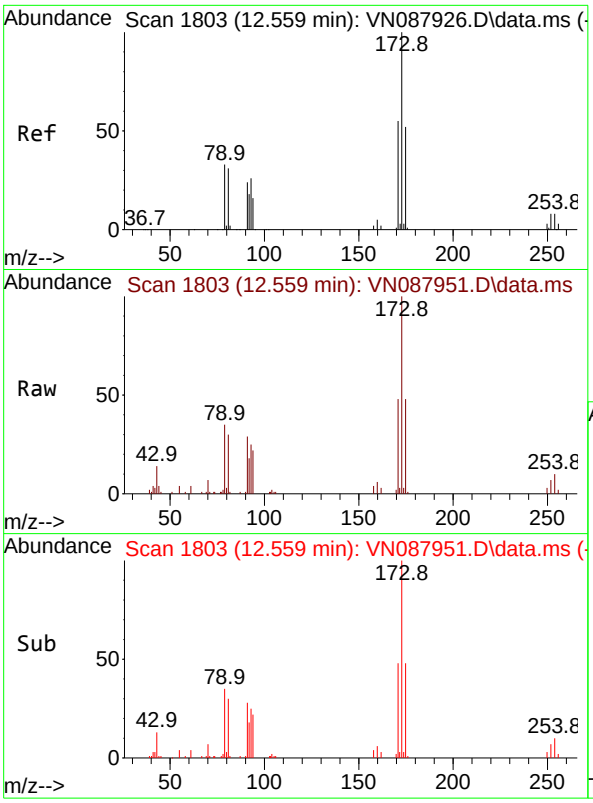


#70
Styrene
Concen: 19.906 ug/l
RT: 12.394 min Scan# 1775
Delta R.T. 0.006 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion:104 Resp: 203668

Ion	Ratio	Lower	Upper
104	100		
78	49.3	39.7	59.5
103	55.7	44.6	67.0

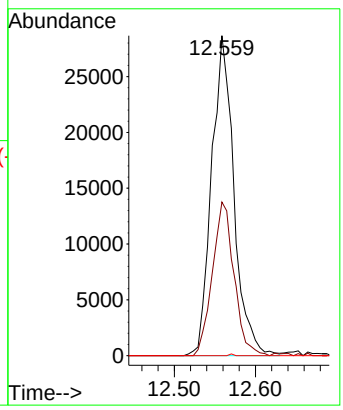




#71
Bromoform
Concen: 19.279 ug/l
RT: 12.559 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion:173 Resp: 5480

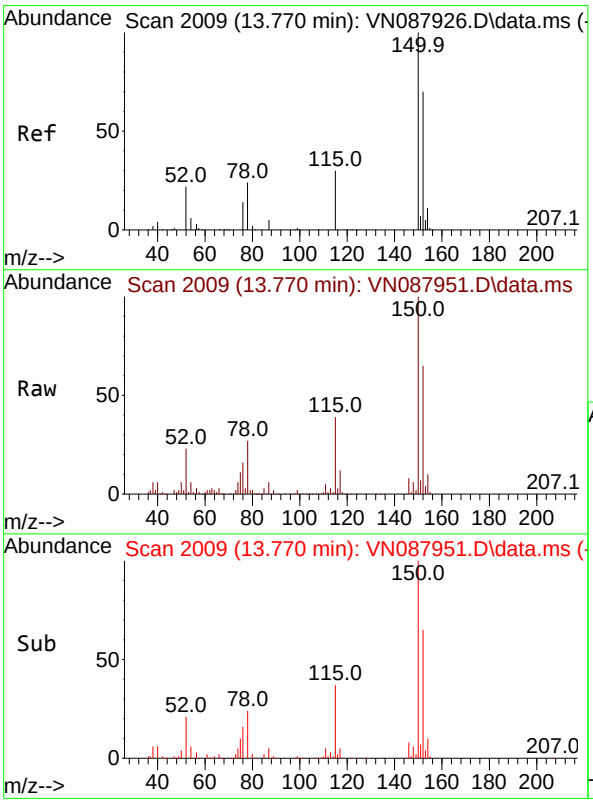
Ion	Ratio	Lower	Upper
173	100		
175	46.6	23.7	71.1
254	0.1	0.1	0.1



Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations APPROVED

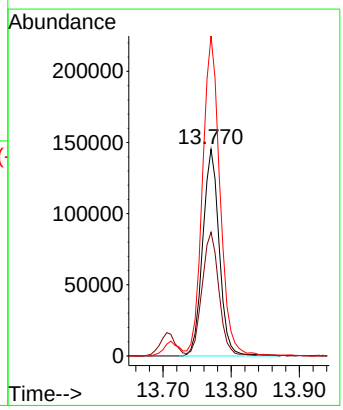
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

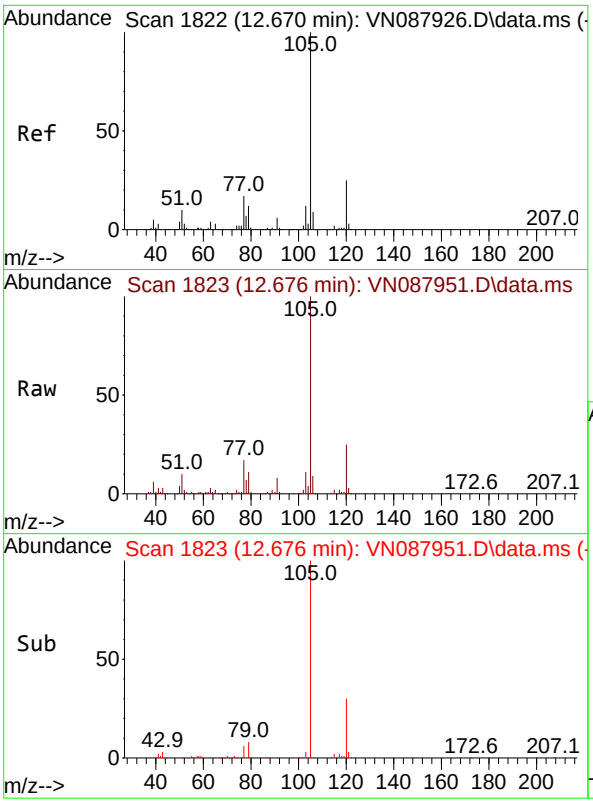


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.770 min Scan# 2009
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion:152 Resp: 244468

Ion	Ratio	Lower	Upper
152	100		
115	60.5	29.9	89.7
150	162.6	0.0	335.0

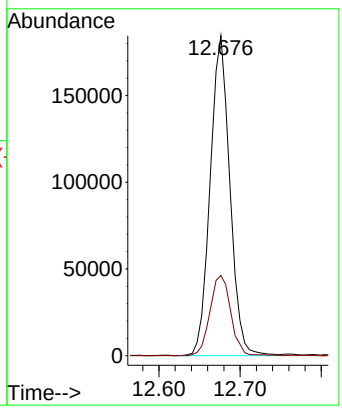




#73
Isopropylbenzene
Concen: 20.517 ug/l
RT: 12.676 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion:105 Resp: 31086

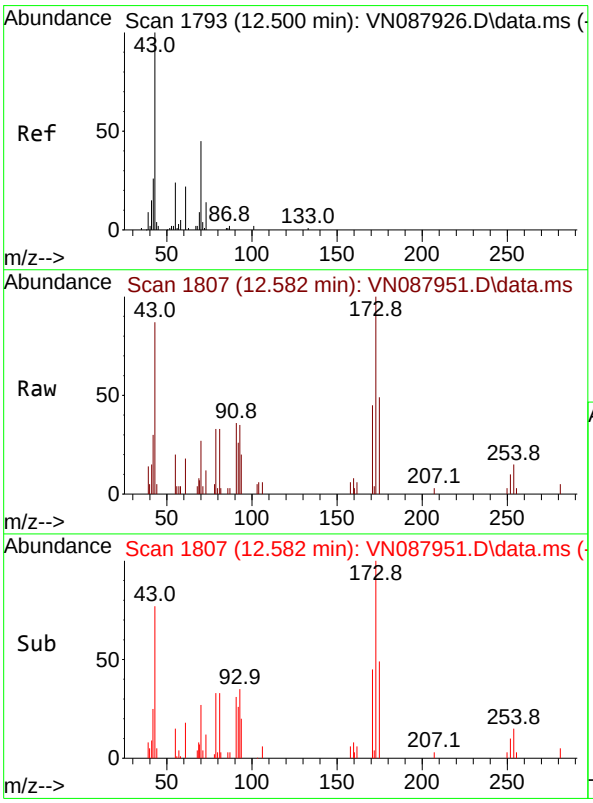
Ion	Ratio	Lower	Upper
105	100		
120	26.5	13.1	39.1



Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations APPROVED

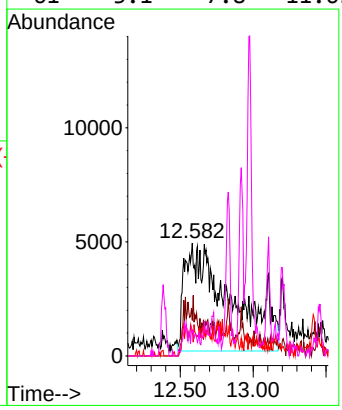
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

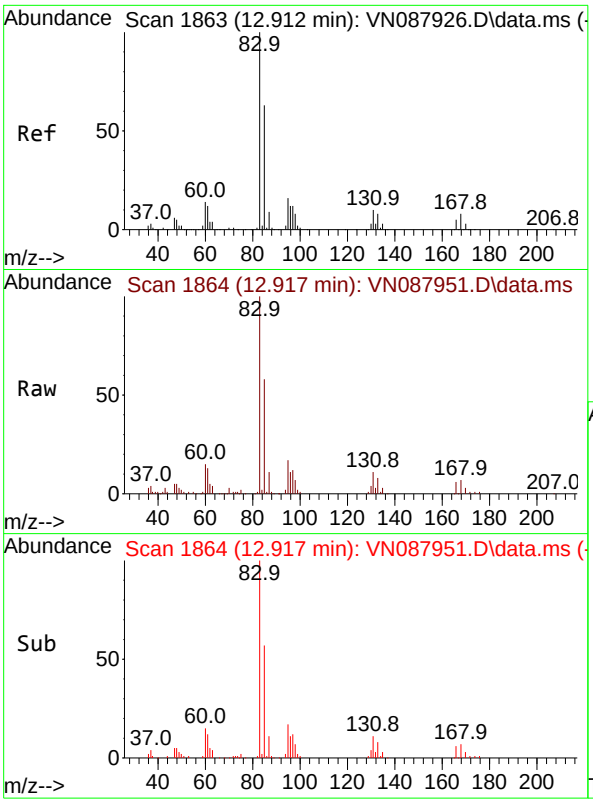


#74
N-amyl acetate
Concen: 20.659 ug/l m
RT: 12.582 min Scan# 1807
Delta R.T. 0.082 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 43 Resp: 103135

Ion	Ratio	Lower	Upper
43	100		
70	2.6	19.8	29.8#
55	1.6	9.6	14.4#
61	3.1	7.8	11.6#

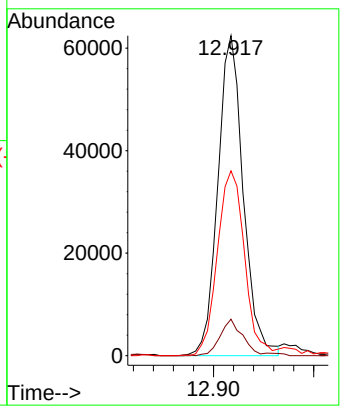




#75
1,1,2,2-Tetrachloroethane
Concen: 20.125 ug/l
RT: 12.917 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 83 Resp: 10986

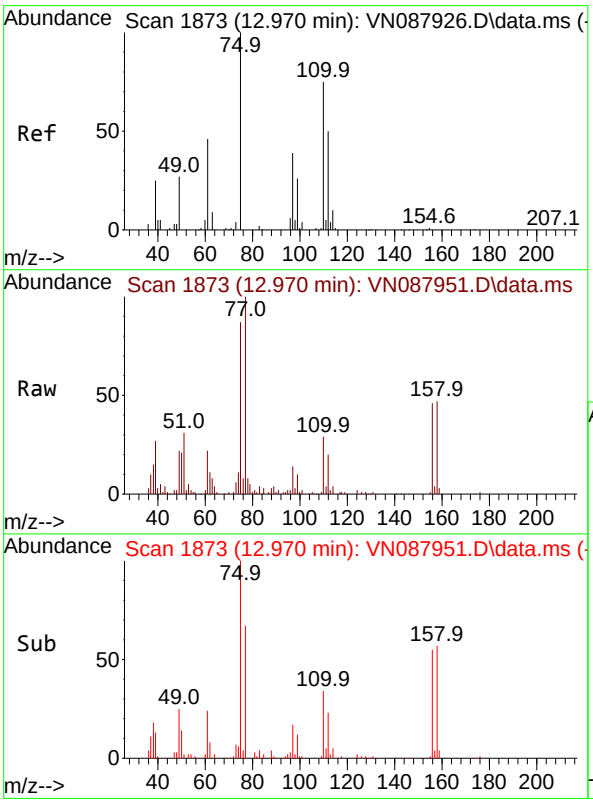
Ion	Ratio	Lower	Upper
83	100		
131	10.6	5.2	15.6
85	61.9	32.4	97.0



Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations APPROVED

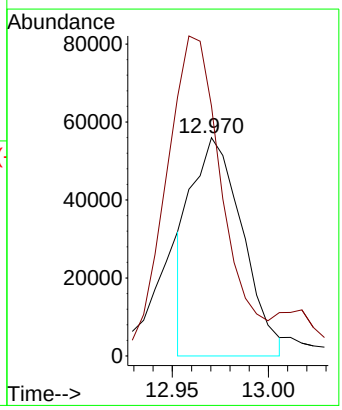
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

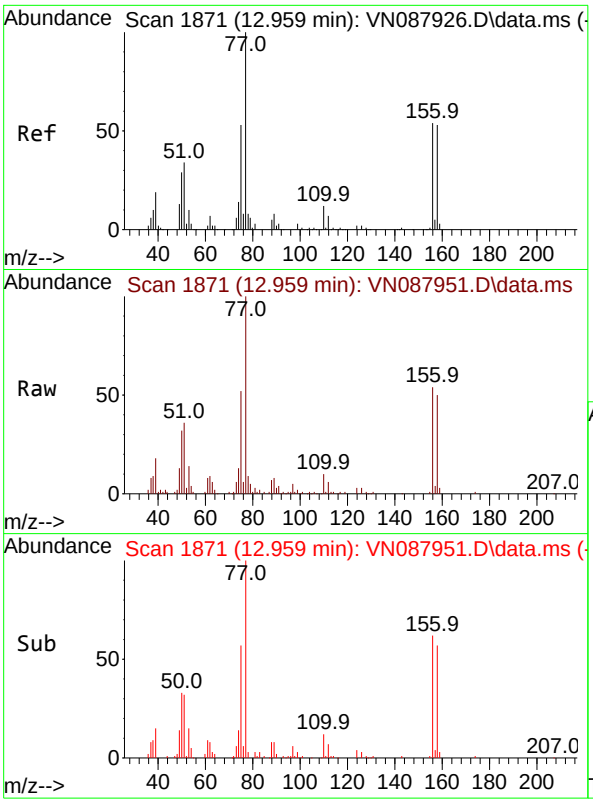


#76
1,2,3-Trichloropropane
Concen: 21.614 ug/l m
RT: 12.970 min Scan# 1873
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 75 Resp: 104158

Ion	Ratio	Lower	Upper
75	100		
77	163.1	89.5	268.5

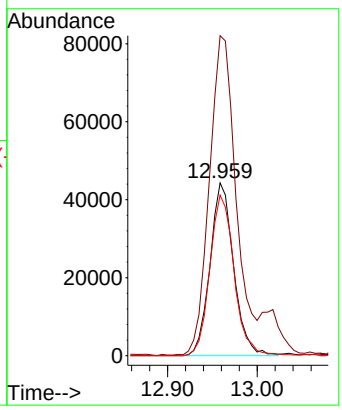




#77
Bromobenzene
Concen: 20.074 ug/l
RT: 12.959 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion:156 Resp: 8092

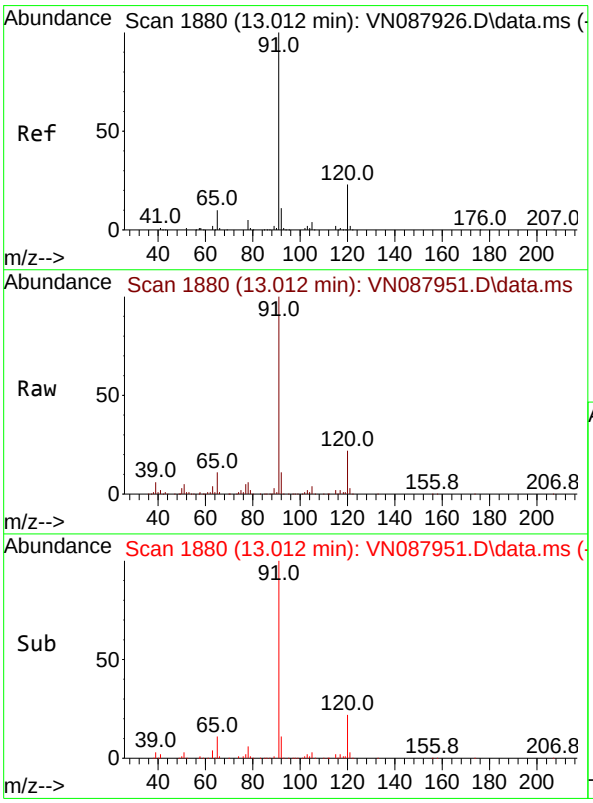
Ion	Ratio	Lower	Upper
156	100		
77	209.9	108.2	324.6
158	95.4	49.6	149.0



Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations APPROVED

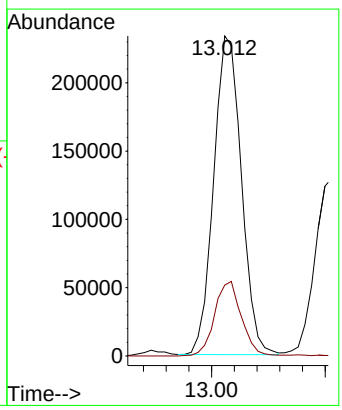
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

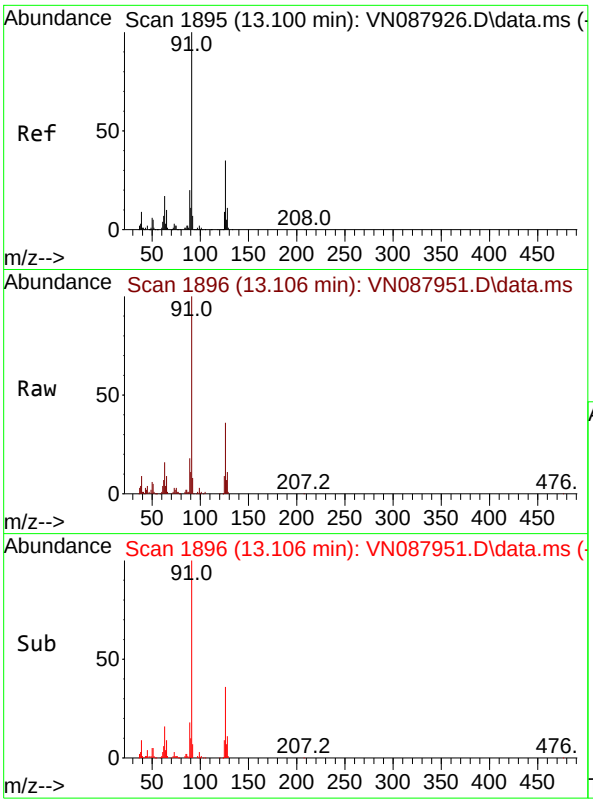


#78
n-propylbenzene
Concen: 20.867 ug/l
RT: 13.012 min Scan# 1880
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 91 Resp: 395299

Ion	Ratio	Lower	Upper
91	100		
120	22.7	11.1	33.1

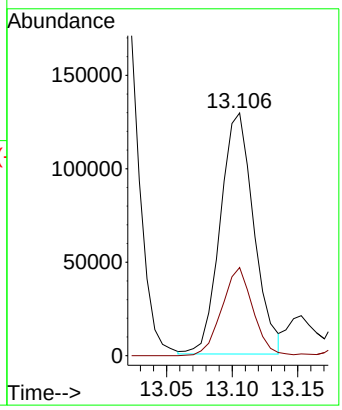




#79
2-Chlorotoluene
Concen: 19.942 ug/l
RT: 13.106 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 91 Resp: 23002

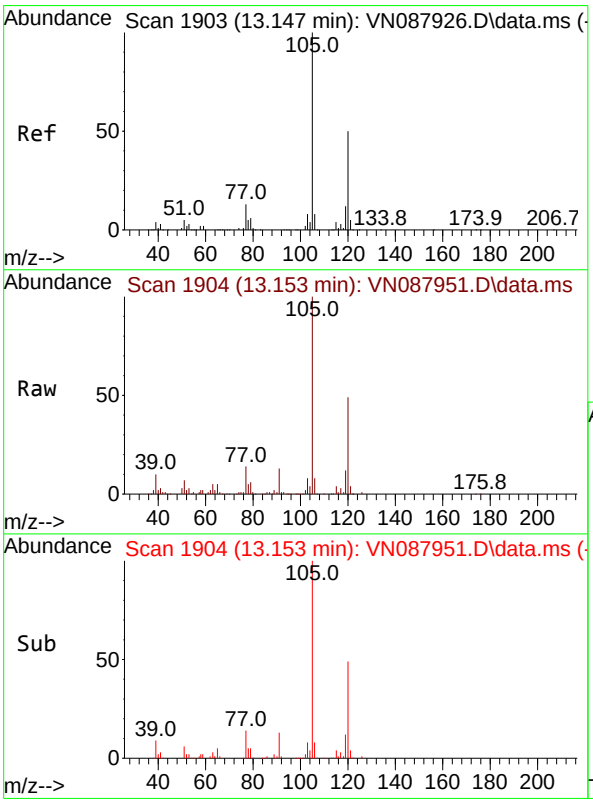
Ion	Ratio	Lower	Upper
91	100		
126	33.7	16.6	49.8



Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations
APPROVED

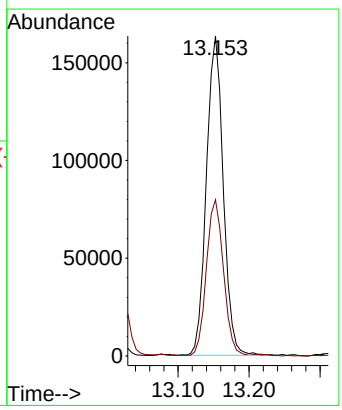
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

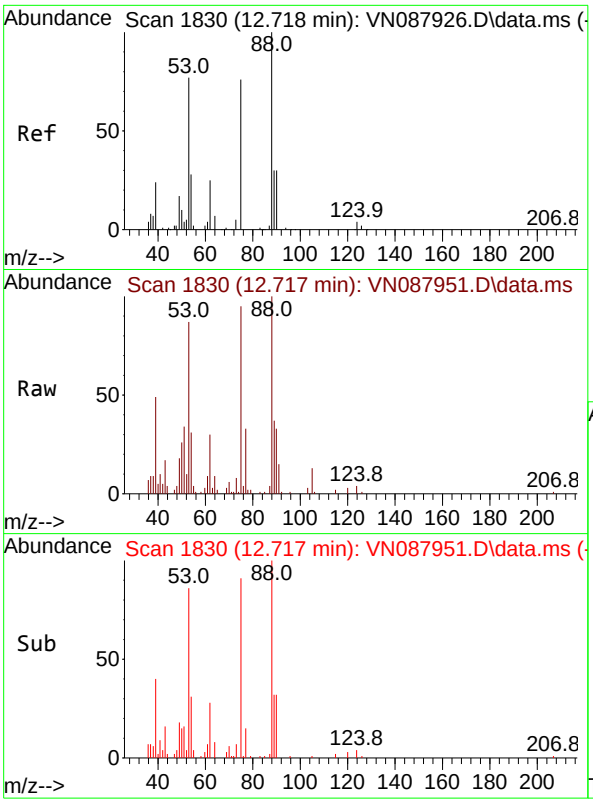


#80
1,3,5-Trimethylbenzene
Concen: 20.565 ug/l
RT: 13.153 min Scan# 1904
Delta R.T. 0.006 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion:105 Resp: 269516

Ion	Ratio	Lower	Upper
105	100		
120	50.4	24.7	74.1

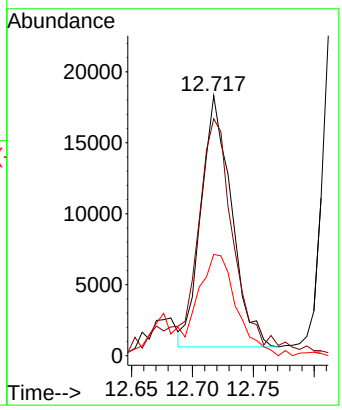




#81
trans-1,4-Dichloro-2-butene
Concen: 17.721 ug/l
RT: 12.717 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 75 Resp: 3075

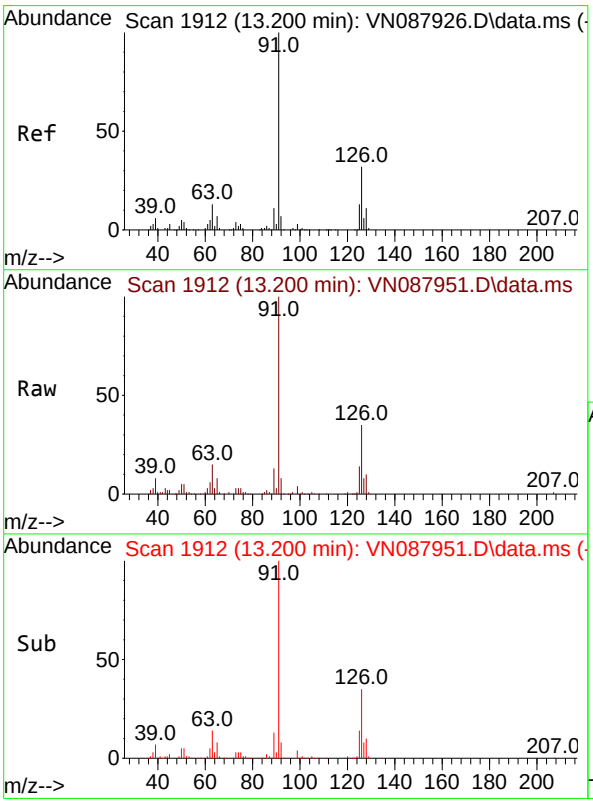
Ion	Ratio	Lower	Upper
75	100		
53	125.3	82.0	123.0
89	49.3	36.1	54.1



Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations
APPROVED

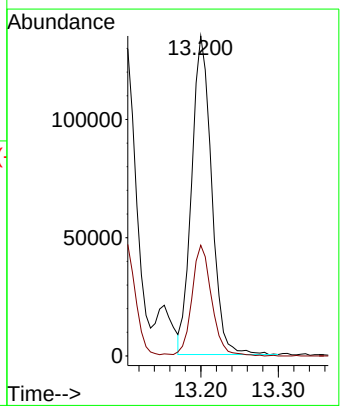
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

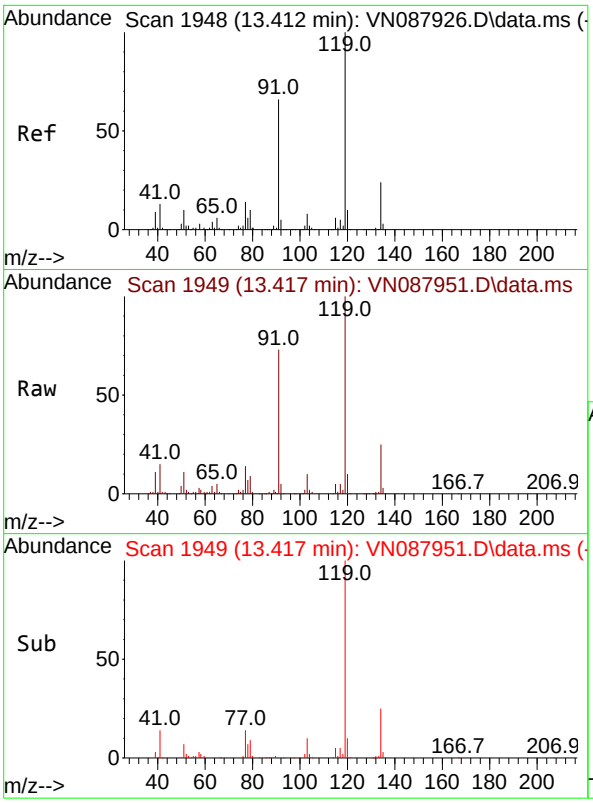


#82
4-Chlorotoluene
Concen: 20.707 ug/l
RT: 13.200 min Scan# 1912
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 91 Resp: 240663

Ion	Ratio	Lower	Upper
91	100		
126	34.6	16.9	50.6

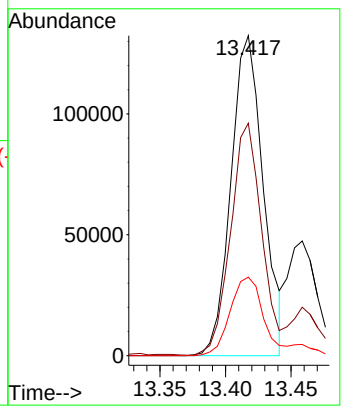




#83
tert-Butylbenzene
Concen: 20.439 ug/l
RT: 13.417 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion:119 Resp: 22673

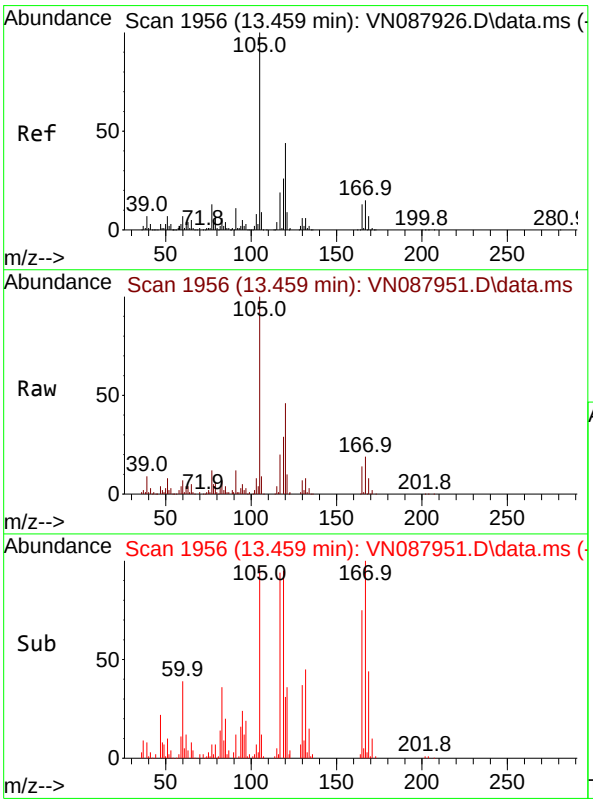
Ion	Ratio	Lower	Upper
119	100		
91	69.5	32.1	96.3
134	25.2	12.3	36.8



Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations APPROVED

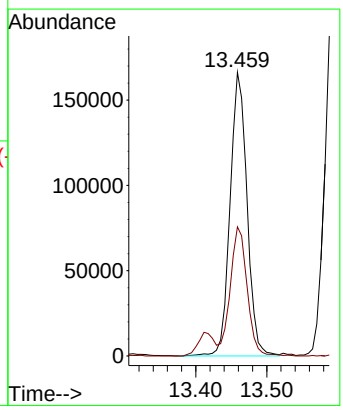
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

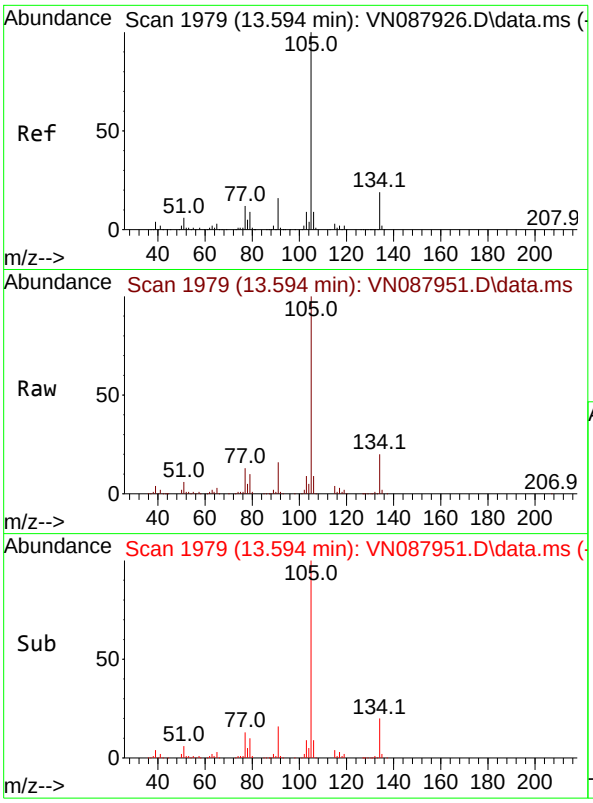


#84
1,2,4-Trimethylbenzene
Concen: 20.511 ug/l
RT: 13.459 min Scan# 1956
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion:105 Resp: 275724

Ion	Ratio	Lower	Upper
105	100		
120	45.7	22.4	67.3

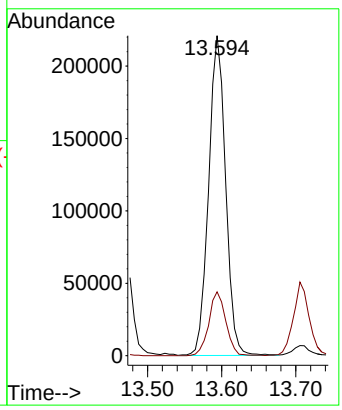




#85
sec-Butylbenzene
Concen: 21.580 ug/l
RT: 13.594 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion:105 Resp: 35096

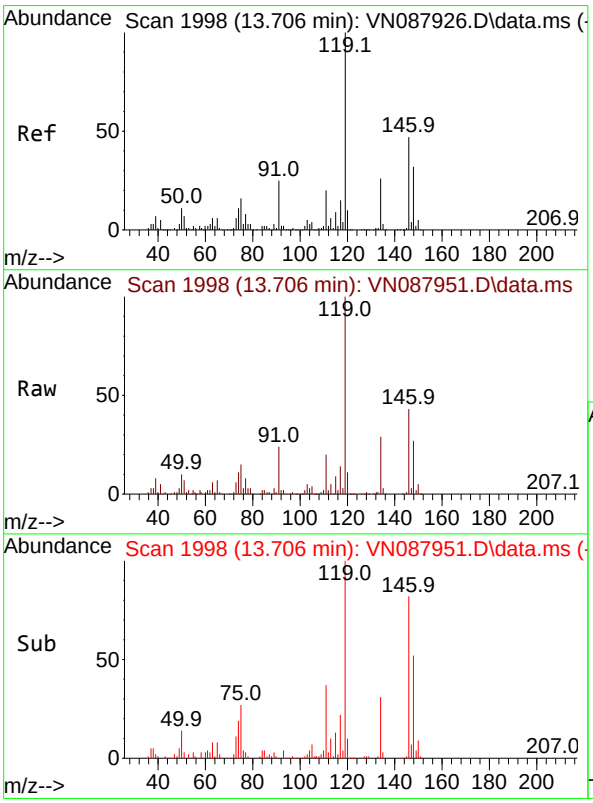
Ion	Ratio	Lower	Upper
105	100		
134	20.1	9.6	28.8



Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations
APPROVED

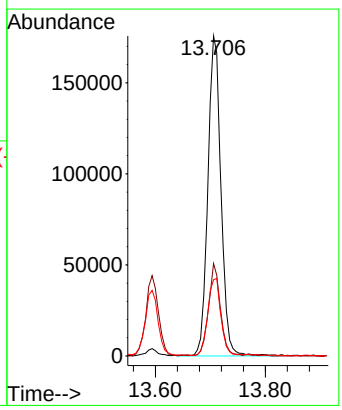
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

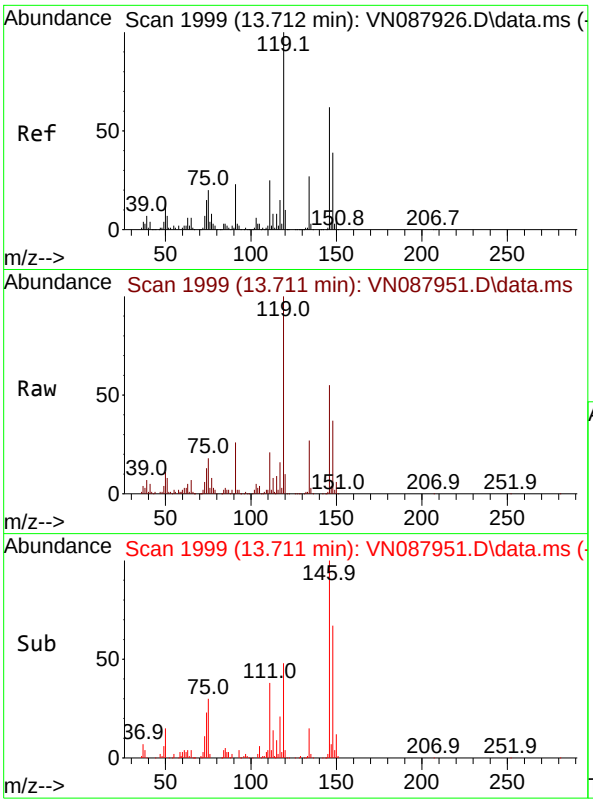


#86
p-Isopropyltoluene
Concen: 21.107 ug/l
RT: 13.706 min Scan# 1998
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion:119 Resp: 290733

Ion	Ratio	Lower	Upper
119	100		
134	25.9	13.1	39.3
91	24.0	11.9	35.5

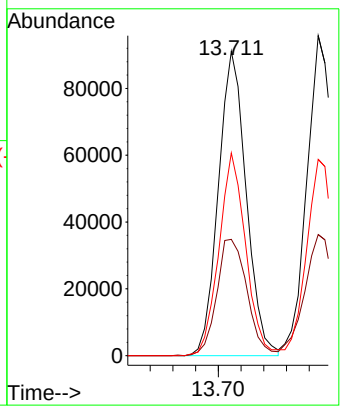




#87
1,3-Dichlorobenzene
Concen: 19.737 ug/l
RT: 13.711 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion:146 Resp: 15526

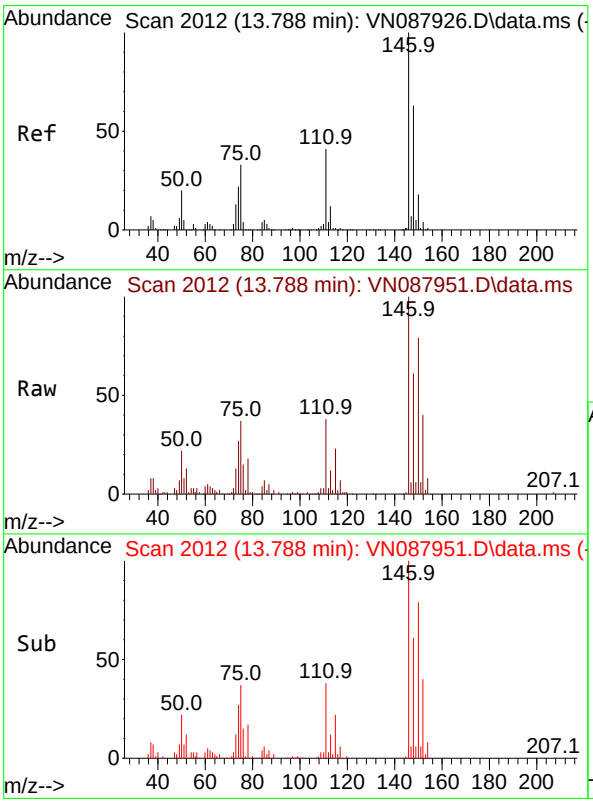
Ion	Ratio	Lower	Upper
146	100		
111	41.6	20.3	60.8
148	64.0	32.4	97.2



Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations
APPROVED

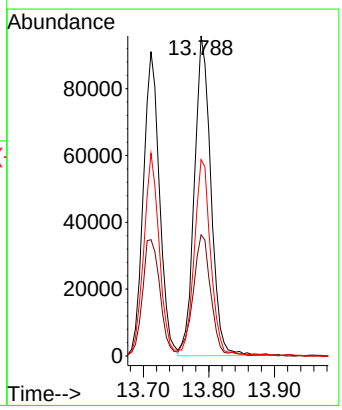
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

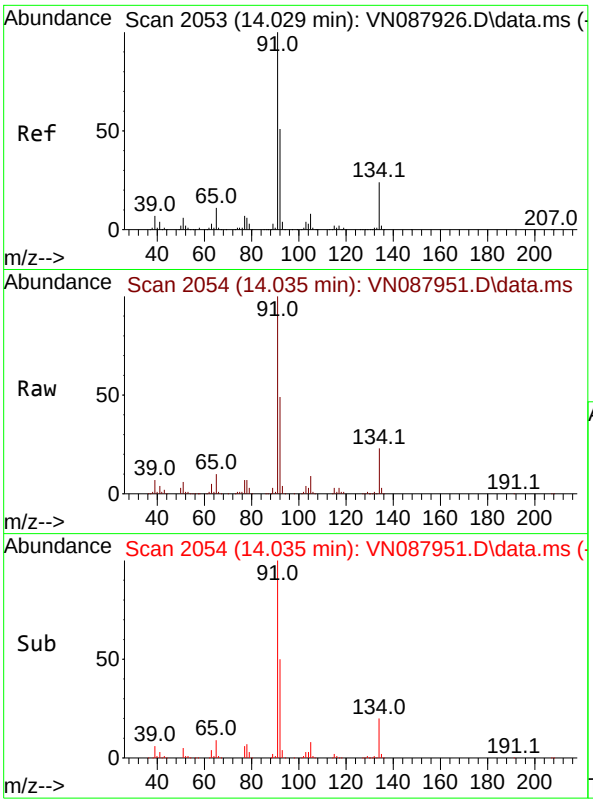


#88
1,4-Dichlorobenzene
Concen: 20.790 ug/l
RT: 13.788 min Scan# 2012
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion:146 Resp: 168077

Ion	Ratio	Lower	Upper
146	100		
111	40.1	20.5	61.5
148	60.1	32.8	98.4

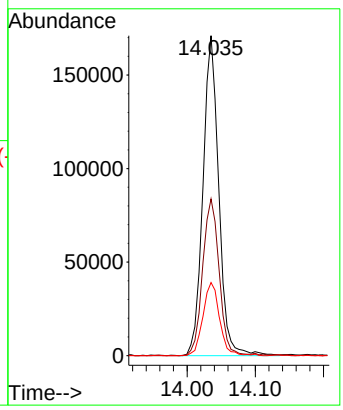




#89
n-Butylbenzene
Concen: 21.215 ug/l
RT: 14.035 min Scan# 2
Delta R.T. 0.006 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 91 Resp: 27616

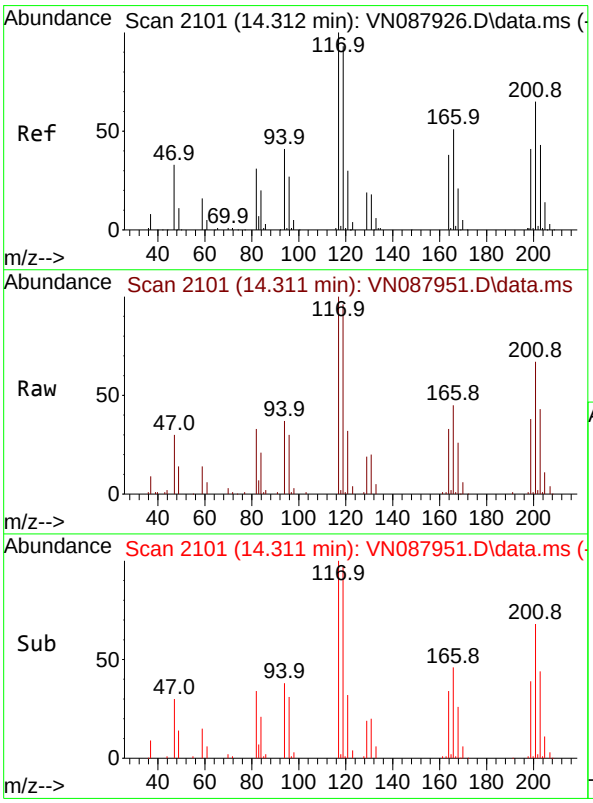
Ion	Ratio	Lower	Upper
91	100		
92	50.8	25.9	77.8
134	24.0	12.6	37.8



Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations
APPROVED

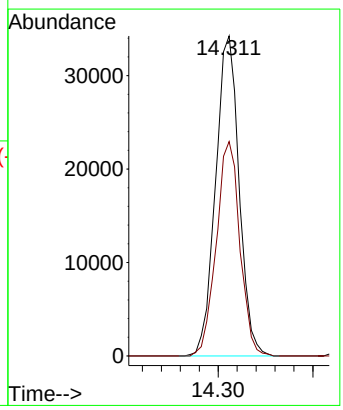
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

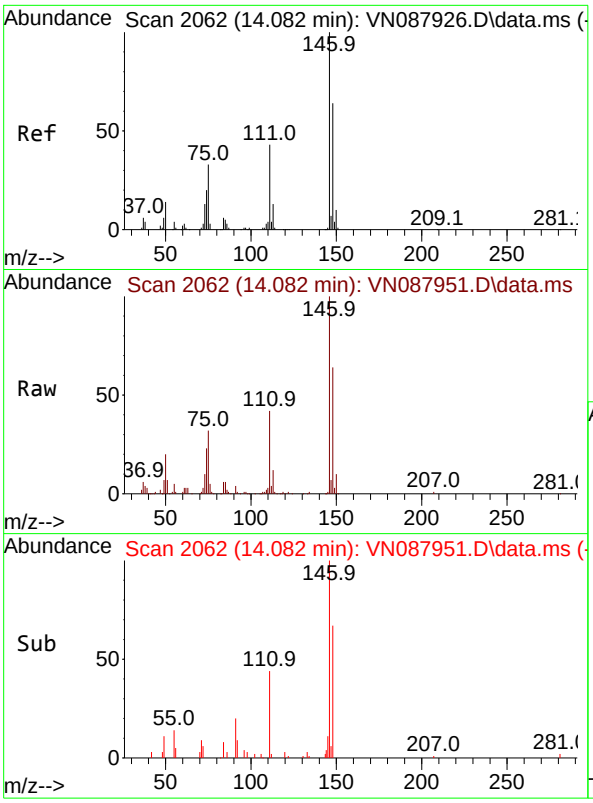


#90
Hexachloroethane
Concen: 20.521 ug/l
RT: 14.311 min Scan# 2101
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion:117 Resp: 59046

Ion	Ratio	Lower	Upper
117	100		
201	67.1	33.6	100.6

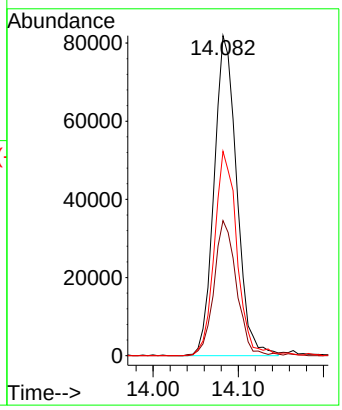




#91
1,2-Dichlorobenzene
Concen: 19.931 ug/l
RT: 14.082 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion:146 Resp: 15113

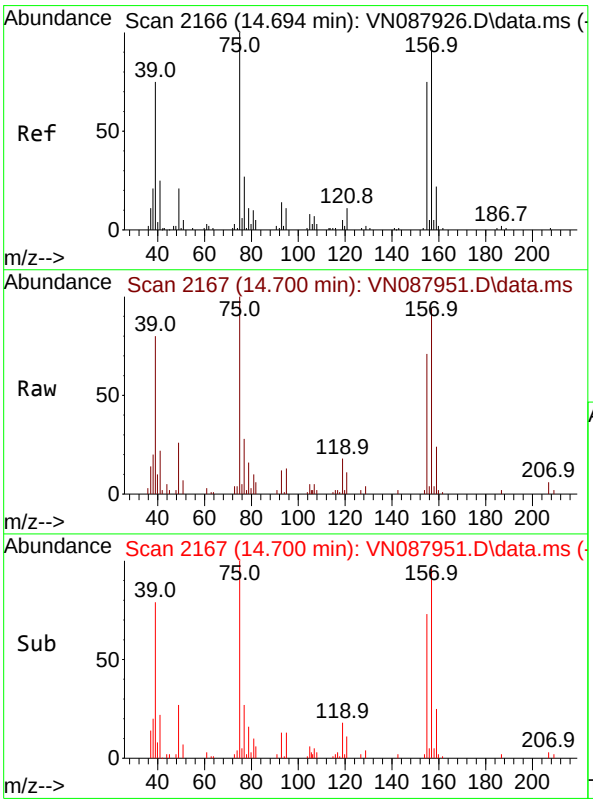
Ion	Ratio	Lower	Upper
146	100		
111	41.9	20.9	62.7
148	64.0	31.9	95.9



Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations APPROVED

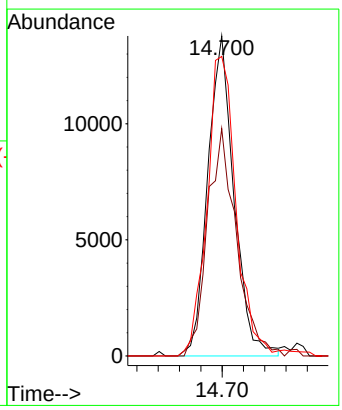
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

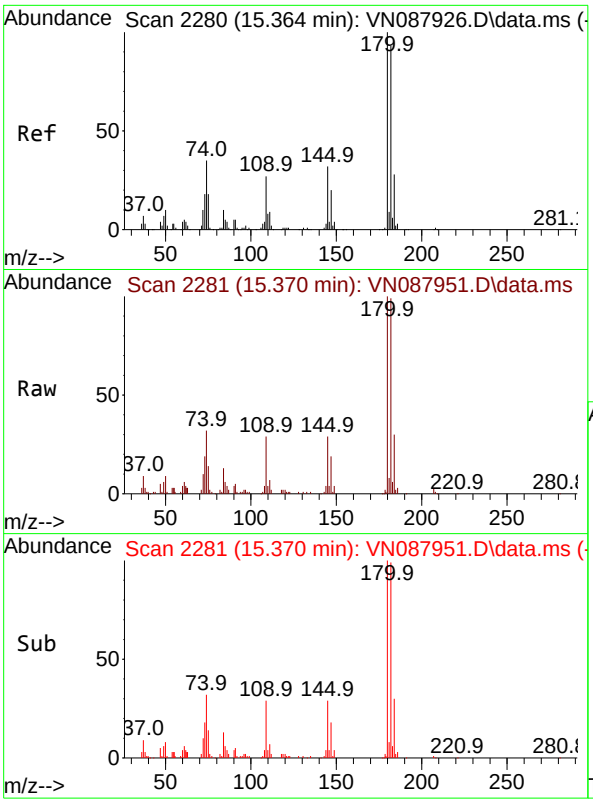


#92
1,2-Dibromo-3-Chloropropane
Concen: 18.595 ug/l
RT: 14.700 min Scan# 2167
Delta R.T. 0.006 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion: 75 Resp: 23587

Ion	Ratio	Lower	Upper
75	100		
155	78.3	40.2	120.6
157	103.5	50.9	152.7

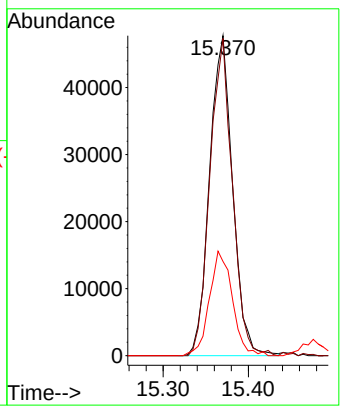




#93
1,2,4-Trichlorobenzene
Concen: 20.085 ug/l
RT: 15.370 min Scan# 2
Delta R.T. 0.006 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion:180 Resp: 8992

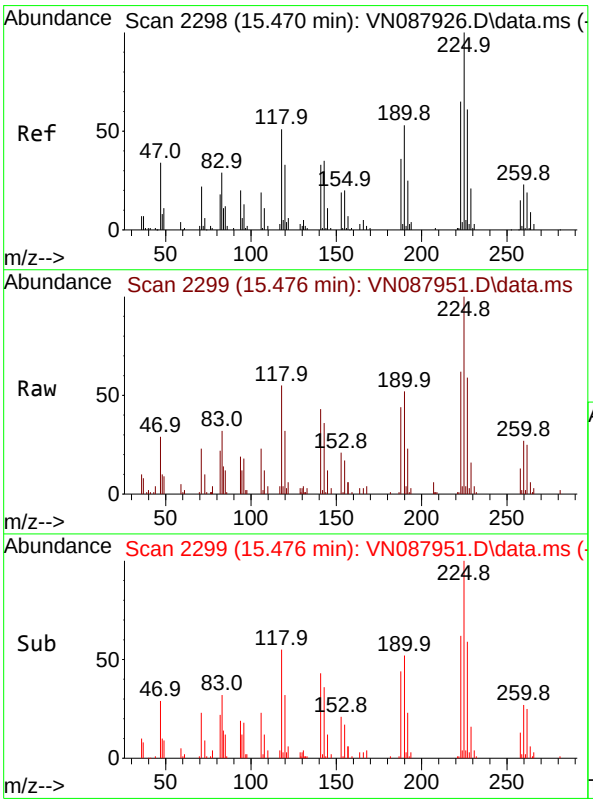
Ion	Ratio	Lower	Upper
180	100		
182	96.5	48.5	145.5
145	32.5	15.9	47.6



Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations
APPROVED

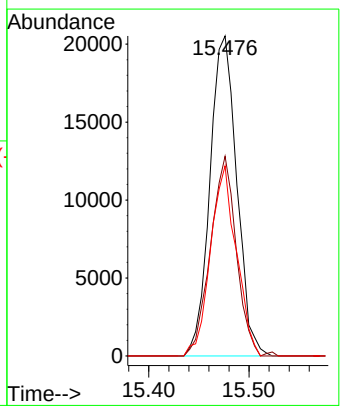
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

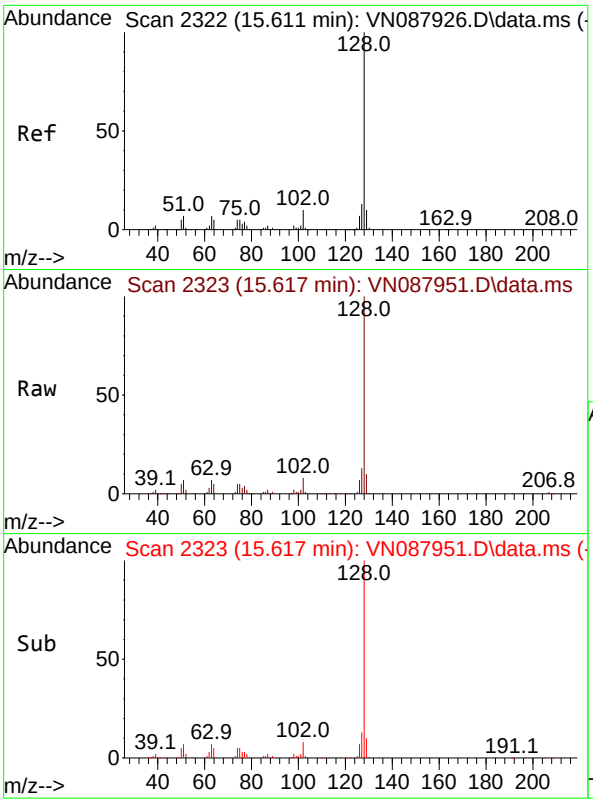


#94
Hexachlorobutadiene
Concen: 23.173 ug/l
RT: 15.476 min Scan# 2299
Delta R.T. 0.006 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion:225 Resp: 38187

Ion	Ratio	Lower	Upper
225	100		
223	59.9	31.8	95.4
227	57.2	31.9	95.9

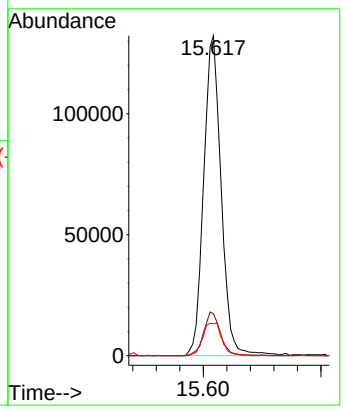




#95
Naphthalene
Concen: 18.942 ug/l
RT: 15.617 min Scan# 2
Delta R.T. 0.006 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion:128 Resp: 27222

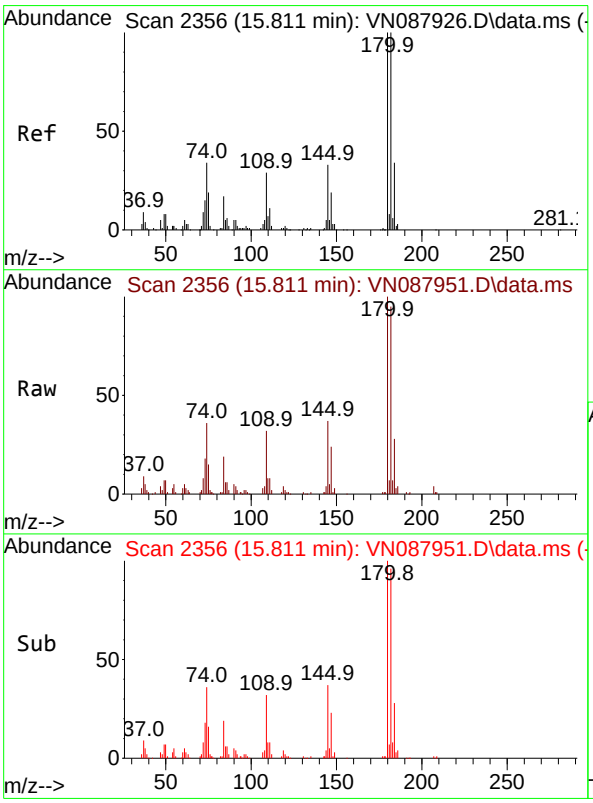
Ion	Ratio	Lower	Upper
128	100		
127	13.1	10.2	15.4
129	11.2	8.6	13.0



Instrument :
MSVOA_N
ClientSampleId :
VN0925WBS01

Manual Integrations
APPROVED

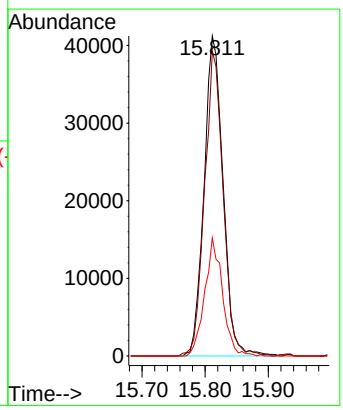
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025



#96
1,2,3-Trichlorobenzene
Concen: 19.797 ug/l
RT: 15.811 min Scan# 2356
Delta R.T. -0.000 min
Lab File: VN087951.D
Acq: 25 Sep 2025 13:56

Tgt Ion:180 Resp: 86168

Ion	Ratio	Lower	Upper
180	100		
182	93.3	47.3	142.0
145	34.7	16.1	48.3



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

Report of Analysis

Client:	Weston Solutions, Inc.	Date Collected:	09/23/25
Project:	RFP 916	Date Received:	09/23/25
Client Sample ID:	EME-TS14-01MS	SDG No.:	Q3179
Lab Sample ID:	Q3179-02MS	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	SPLP VOA
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VN087957.D	1	09/25/25 16:07	VN092525

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	53.5		0.22	5.00	ug/L
74-87-3	Chloromethane	54.9		0.32	5.00	ug/L
75-01-4	Vinyl Chloride	55.4		0.26	5.00	ug/L
141-78-6	Ethyl Acetate	56.8		0.31	5.00	ug/L
74-83-9	Bromomethane	55.2		1.40	5.00	ug/L
75-00-3	Chloroethane	55.6		0.47	5.00	ug/L
75-69-4	Trichlorofluoromethane	55.4		0.33	5.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	55.2		0.25	5.00	ug/L
75-35-4	1,1-Dichloroethene	55.8		0.23	5.00	ug/L
107-02-8	Acrolein	250		7.10	25.0	ug/L
107-13-1	Acrylonitrile	300		0.83	25.0	ug/L
67-64-1	Acetone	300		1.50	25.0	ug/L
75-15-0	Carbon Disulfide	52.5		0.21	5.00	ug/L
1634-04-4	Methyl tert-butyl Ether	59.0		0.16	5.00	ug/L
79-20-9	Methyl Acetate	68.9		0.27	5.00	ug/L
75-09-2	Methylene Chloride	65.4		0.28	5.00	ug/L
156-60-5	trans-1,2-Dichloroethene	53.1		0.23	5.00	ug/L
75-34-3	1,1-Dichloroethane	57.7		0.23	5.00	ug/L
110-82-7	Cyclohexane	54.5		1.50	5.00	ug/L
78-93-3	2-Butanone	310		0.98	25.0	ug/L
56-23-5	Carbon Tetrachloride	56.2		0.25	5.00	ug/L
594-20-7	2,2-Dichloropropane	53.3		0.21	5.00	ug/L
156-59-2	cis-1,2-Dichloroethene	57.6		0.19	5.00	ug/L
74-97-5	Bromochloromethane	48.4		0.22	5.00	ug/L
67-66-3	Chloroform	58.2		0.25	5.00	ug/L
71-55-6	1,1,1-Trichloroethane	57.8		0.20	5.00	ug/L
108-87-2	Methylcyclohexane	57.0		0.16	5.00	ug/L
563-58-6	1,1-Dichloropropene	56.2		0.15	5.00	ug/L
71-43-2	Benzene	56.7		0.15	5.00	ug/L
107-06-2	1,2-Dichloroethane	56.4		0.22	5.00	ug/L

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

Report of Analysis

Client:	Weston Solutions, Inc.	Date Collected:	09/23/25
Project:	RFP 916	Date Received:	09/23/25
Client Sample ID:	EME-TS14-01MS	SDG No.:	Q3179
Lab Sample ID:	Q3179-02MS	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	SPLP VOA
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VN087957.D	1	09/25/25 16:07	VN092525

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-01-6	Trichloroethene	54.7		0.090	5.00	ug/L
78-87-5	1,2-Dichloropropane	57.1		0.20	5.00	ug/L
74-95-3	Dibromomethane	58.2		0.25	5.00	ug/L
75-27-4	Bromodichloromethane	57.7		0.22	5.00	ug/L
108-10-1	4-Methyl-2-Pentanone	310		0.68	25.0	ug/L
108-88-3	Toluene	57.0		0.14	5.00	ug/L
10061-02-6	t-1,3-Dichloropropene	57.7		0.17	5.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	56.6		0.16	5.00	ug/L
79-00-5	1,1,2-Trichloroethane	58.1		0.21	5.00	ug/L
142-28-9	1,3-Dichloropropane	58.7		0.19	5.00	ug/L
110-75-8	2-Chloroethyl Vinyl ether	300		0.30	25.0	ug/L
591-78-6	2-Hexanone	330		0.89	25.0	ug/L
124-48-1	Dibromochloromethane	58.5		0.18	5.00	ug/L
106-93-4	1,2-Dibromoethane	57.3		0.15	5.00	ug/L
127-18-4	Tetrachloroethene	59.8		0.23	5.00	ug/L
108-90-7	Chlorobenzene	55.3		0.12	5.00	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	57.1		0.19	5.00	ug/L
100-41-4	Ethyl Benzene	56.9		0.13	5.00	ug/L
179601-23-1	m/p-Xylenes	120		0.24	10.0	ug/L
95-47-6	o-Xylene	57.5		0.12	5.00	ug/L
100-42-5	Styrene	59.9		0.15	5.00	ug/L
75-25-2	Bromoform	57.4		0.19	5.00	ug/L
98-82-8	Isopropylbenzene	56.1		0.12	5.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	55.0		0.26	5.00	ug/L
96-18-4	1,2,3-Trichloropropane	50.3		0.35	5.00	ug/L
108-86-1	Bromobenzene	53.5		0.24	5.00	ug/L
95-49-8	2-Chlorotoluene	54.0		0.14	5.00	ug/L
108-67-8	1,3,5-Trimethylbenzene	56.2		0.15	5.00	ug/L
106-43-4	4-Chlorotoluene	56.7		0.13	5.00	ug/L
95-63-6	1,2,4-Trimethylbenzene	56.6		0.14	5.00	ug/L
541-73-1	1,3-Dichlorobenzene	54.2		0.16	5.00	ug/L

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

Report of Analysis

Client:	Weston Solutions, Inc.	Date Collected:	09/23/25
Project:	RFP 916	Date Received:	09/23/25
Client Sample ID:	EME-TS14-01MS	SDG No.:	Q3179
Lab Sample ID:	Q3179-02MS	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	SPLP VOA
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VN087957.D	1	09/25/25 16:07	VN092525

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
106-46-7	1,4-Dichlorobenzene	54.1		0.19	5.00	ug/L
95-50-1	1,2-Dichlorobenzene	54.6		0.16	5.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	51.0		0.53	5.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	54.4		0.20	5.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	55.9		0.20	5.00	ug/L
74-88-4	Methyl Iodide	58.1		0.83	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	52.0		74 - 125	104%	SPK: 50
1868-53-7	Dibromofluoromethane	49.4		75 - 124	99%	SPK: 50
2037-26-5	Toluene-d8	50.0		86 - 113	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	51.0		77 - 121	102%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	218000	8.206			
540-36-3	1,4-Difluorobenzene	406000	9.082			
3114-55-4	Chlorobenzene-d5	396000	11.841			
3855-82-1	1,4-Dichlorobenzene-d4	221000	13.77			

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\VN092525\
Data File : VN087957.D
Acq On : 25 Sep 2025 16:07
Operator : JC\MD
Sample : Q3179-02MS
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 26 07:33:23 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 05:05:30 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.206	168	218032	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.082	114	405927	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.841	117	395864	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.770	152	221292	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.559	65	190808	52.001	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 104.000%			
35) Dibromofluoromethane	8.153	113	145717	49.442	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 98.880%			
50) Toluene-d8	10.547	98	518478	50.025	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 100.060%			
62) 4-Bromofluorobenzene	12.829	95	189005	51.018	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 102.040%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.142	85	135112	53.510	ug/l	100
3) Chloromethane	2.383	50	141905	54.887	ug/l	100
4) Vinyl Chloride	2.536	62	146194	55.426	ug/l	100
5) Bromomethane	2.971	94	90218	55.172	ug/l	98
6) Chloroethane	3.136	64	95351	55.598	ug/l	90
7) Trichlorofluoromethane	3.506	101	238088	55.440	ug/l	97
8) Diethyl Ether	3.959	74	92670	57.118	ug/l	96
9) 1,1,2-Trichlorotrifluo...	4.359	101	125231	55.173	ug/l	96
10) Methyl Iodide	4.577	142	118680	58.096	ug/l	95
11) Tert butyl alcohol	5.524	59	158968	300.787	ug/l	99
12) 1,1-Dichloroethene	4.330	96	127759	55.784	ug/l	98
13) Acrolein	4.177	56	169276	249.622	ug/l	95
14) Allyl chloride	5.012	41	203713	54.636	ug/l	95
15) Acrylonitrile	5.712	53	494652	298.379	ug/l	98
16) Acetone	4.424	43	456769	302.553	ug/l	99
17) Carbon Disulfide	4.706	76	375847	52.524	ug/l #	95
18) Methyl Acetate	5.018	43	260144	68.853	ug/l	99
19) Methyl tert-butyl Ether	5.783	73	528075	59.025	ug/l	99
20) Methylene Chloride	5.265	84	199904	65.417	ug/l	98
21) trans-1,2-Dichloroethene	5.777	96	149114	53.110	ug/l	92
22) Diisopropyl ether	6.659	45	519226	59.653	ug/l	94
23) Vinyl Acetate	6.589	43	1259743	171.890	ug/l	99
24) 1,1-Dichloroethane	6.553	63	293244	57.666	ug/l	97
25) 2-Butanone	7.471	43	703968	305.073	ug/l	98
26) 2,2-Dichloropropane	7.477	77	240989	53.339	ug/l	100
27) cis-1,2-Dichloroethene	7.477	96	192285	57.559	ug/l	98
28) Bromochloromethane	7.800	49	133727	48.401	ug/l	97
29) Tetrahydrofuran	7.824	42	445191	301.303	ug/l	99
30) Chloroform	7.947	83	323877	58.249	ug/l	98
31) Cyclohexane	8.241	56	224406	54.539	ug/l	99
32) 1,1,1-Trichloroethane	8.153	97	271385	57.763	ug/l	97
36) 1,1-Dichloropropene	8.353	75	199115	56.185	ug/l	100
37) Ethyl Acetate	7.547	43	264460	56.828	ug/l	100
38) Carbon Tetrachloride	8.341	117	228618	56.218	ug/l	97
39) Methylcyclohexane	9.582	83	222889	57.012	ug/l	99
40) Benzene	8.588	78	665226	56.692	ug/l	97

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092525\
Data File : VN087957.D
Acq On : 25 Sep 2025 16:07
Operator : JC\MD
Sample : Q3179-02MS
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 26 07:33:23 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 05:05:30 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.759	41	144793	60.205	ug/l		98
42) 1,2-Dichloroethane	8.653	62	247018	56.411	ug/l		100
43) Isopropyl Acetate	8.677	43	434820	59.359	ug/l		99
44) Trichloroethene	9.335	130	153443	54.745	ug/l		94
45) 1,2-Dichloropropane	9.606	63	168128	57.141	ug/l		99
46) Dibromomethane	9.688	93	135081	58.181	ug/l		96
47) Bromodichloromethane	9.871	83	262624	57.672	ug/l		96
48) Methyl methacrylate	9.665	41	198617	58.550	ug/l		97
49) 1,4-Dioxane	9.682	88	62408	1245.312	ug/l		94
51) 4-Methyl-2-Pentanone	10.429	43	1403493	307.046	ug/l		99
52) Toluene	10.612	92	419478	56.968	ug/l		97
53) t-1,3-Dichloropropene	10.818	75	269120	57.744	ug/l		98
54) cis-1,3-Dichloropropene	10.294	75	273850	56.574	ug/l		99
55) 1,1,2-Trichloroethane	10.994	97	174056	58.135	ug/l		96
56) Ethyl methacrylate	10.853	69	259922	60.081	ug/l		98
57) 1,3-Dichloropropane	11.141	76	289283	58.744	ug/l		99
58) 2-Chloroethyl Vinyl ether	10.141	63	619221	304.423	ug/l		98
59) 2-Hexanone	11.176	43	983628	325.445	ug/l		99
60) Dibromochloromethane	11.341	129	205916	58.495	ug/l		98
61) 1,2-Dibromoethane	11.447	107	181512	57.267	ug/l		99
64) Tetrachloroethene	11.082	164	144313	59.847	ug/l		95
65) Chlorobenzene	11.871	112	465456	55.252	ug/l		99
66) 1,1,1,2-Tetrachloroethane	11.941	131	173547	57.127	ug/l		97
67) Ethyl Benzene	11.941	91	799376	56.867	ug/l		100
68) m/p-Xylenes	12.047	106	629602	117.112	ug/l		98
69) o-Xylene	12.376	106	297085	57.518	ug/l		99
70) Styrene	12.388	104	531182	59.880	ug/l		99
71) Bromoform	12.559	173	141537	57.425	ug/l	#	100
73) Isopropylbenzene	12.676	105	770089	56.149	ug/l		98
74) N-amyl acetate	12.500	43	221206m	48.950	ug/l		
75) 1,1,2,2-Tetrachloroethane	12.918	83	271942	55.031	ug/l		100
76) 1,2,3-Trichloropropane	12.970	75	219449m	50.308	ug/l		
77) Bromobenzene	12.959	156	195283	53.515	ug/l		100
78) n-propylbenzene	13.012	91	940516	54.849	ug/l		99
79) 2-Chlorotoluene	13.106	91	563789	53.998	ug/l		100
80) 1,3,5-Trimethylbenzene	13.153	105	666576	56.189	ug/l		100
81) trans-1,4-Dichloro-2-b...	12.718	75	87145	55.474	ug/l		96
82) 4-Chlorotoluene	13.200	91	596499	56.698	ug/l		100
83) tert-Butylbenzene	13.418	119	556556	55.427	ug/l		97
84) 1,2,4-Trimethylbenzene	13.459	105	688225	56.560	ug/l		100
85) sec-Butylbenzene	13.594	105	819809	55.687	ug/l		97
86) p-Isopropyltoluene	13.706	119	692512	55.540	ug/l		99
87) 1,3-Dichlorobenzene	13.712	146	385722	54.166	ug/l		99
88) 1,4-Dichlorobenzene	13.788	146	395625	54.060	ug/l		99
89) n-Butylbenzene	14.035	91	645871	54.811	ug/l		99
90) Hexachloroethane	14.312	117	139501	53.561	ug/l		99
91) 1,2-Dichlorobenzene	14.082	146	374847	54.610	ug/l		99
92) 1,2-Dibromo-3-Chloropr...	14.700	75	58587	51.025	ug/l		95
93) 1,2,4-Trichlorobenzene	15.364	180	220275	54.352	ug/l		99
94) Hexachlorobutadiene	15.476	225	81592	54.698	ug/l		99
95) Naphthalene	15.611	128	747760	57.479	ug/l		99
96) 1,2,3-Trichlorobenzene	15.811	180	220406	55.941	ug/l		99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092525\
Data File : VN087957.D
Acq On : 25 Sep 2025 16:07
Operator : JC\MD
Sample : Q3179-02MS
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 26 07:33:23 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 05:05:30 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

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

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

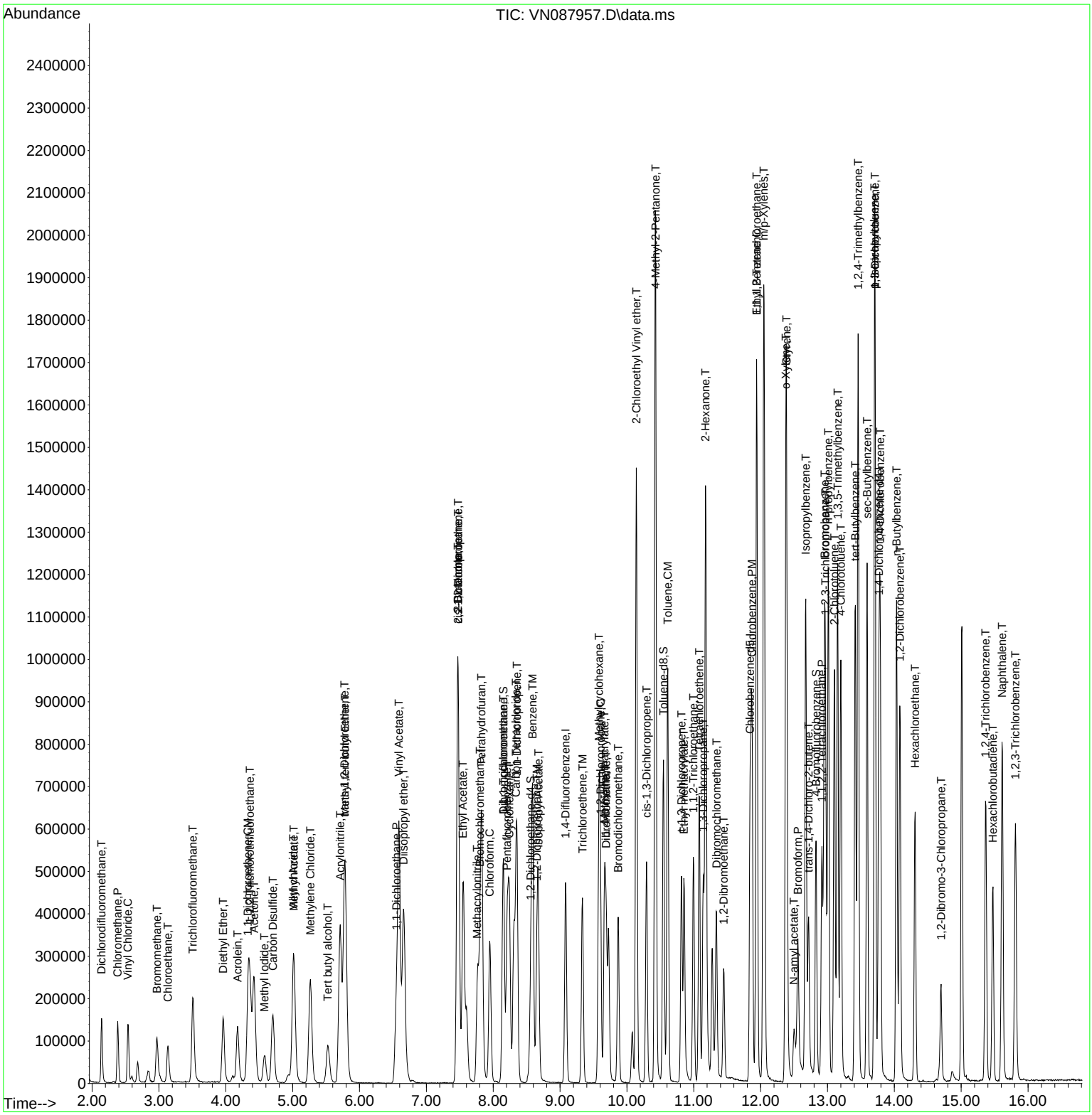
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092525\
Data File : VN087957.D
Acq On : 25 Sep 2025 16:07
Operator : JC\MD
Sample : Q3179-02MS
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 12 Sample Multiplier: 1

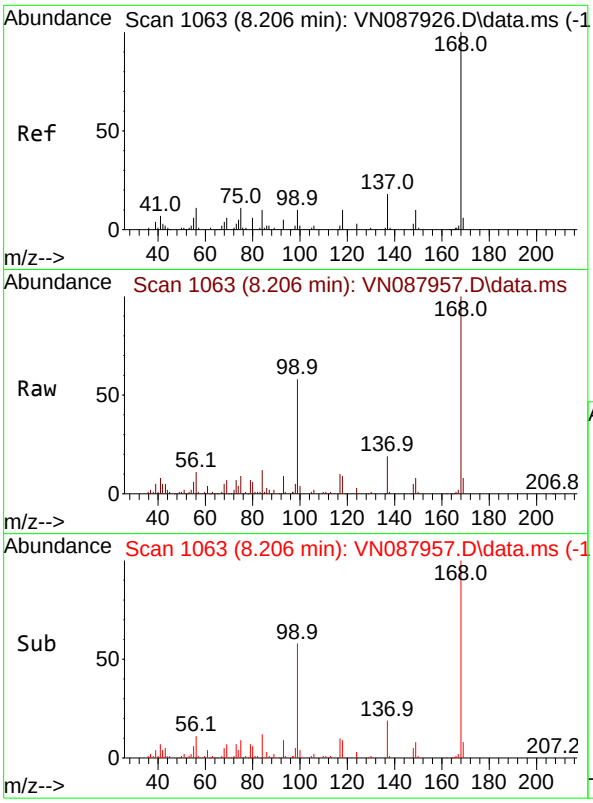
Quant Time: Sep 26 07:33:23 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 05:05:30 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

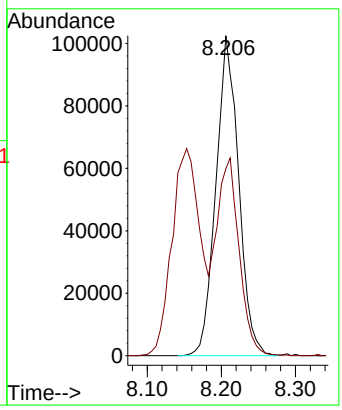




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.206 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion:168 Resp: 21803

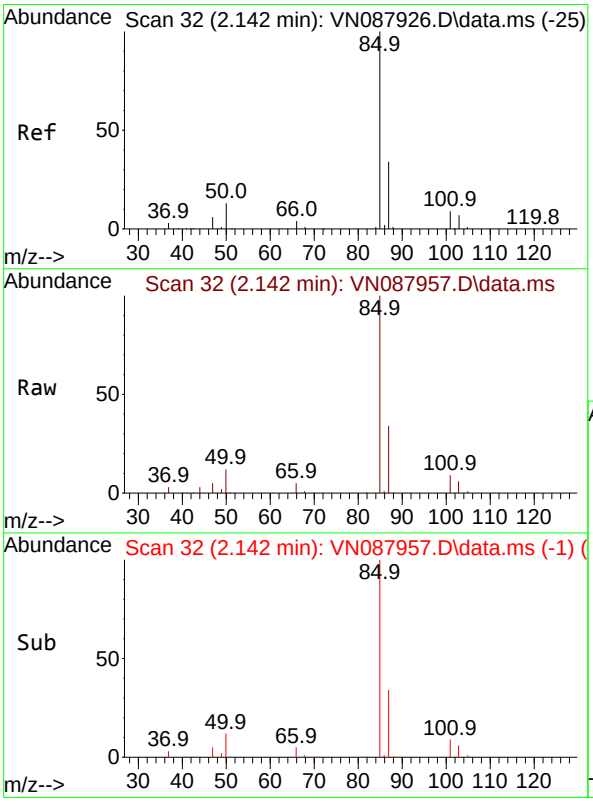
Ion	Ratio	Lower	Upper
168	100		
99	58.3	52.2	78.2



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations
APPROVED

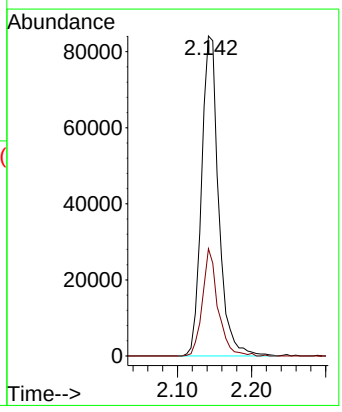
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

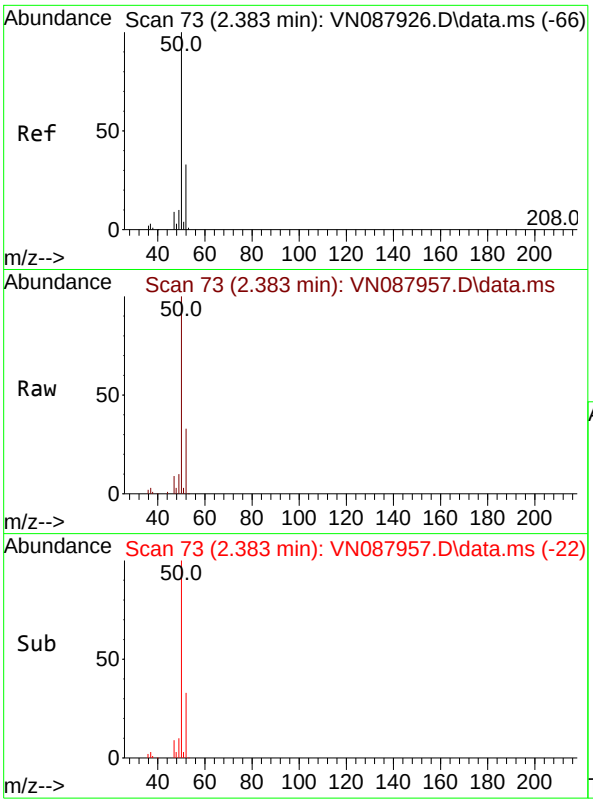


#2
Dichlorodifluoromethane
Concen: 53.510 ug/l
RT: 2.142 min Scan# 32
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 85 Resp: 135112

Ion	Ratio	Lower	Upper
85	100		
87	33.5	16.9	50.6

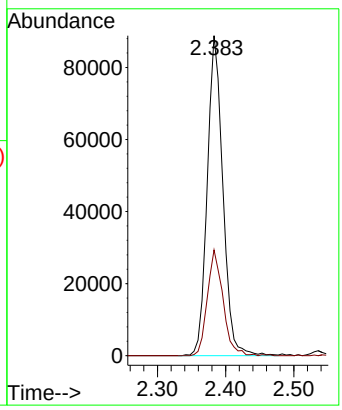




#3
Chloromethane
Concen: 54.887 ug/l
RT: 2.383 min Scan# 7
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 50 Resp: 14190

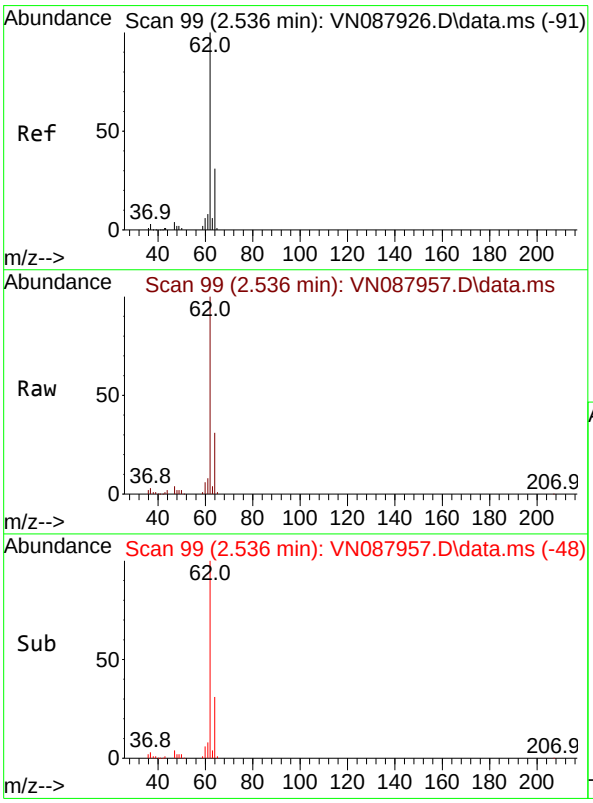
Ion	Ratio	Lower	Upper
50	100		
52	33.1	26.6	40.0



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations
APPROVED

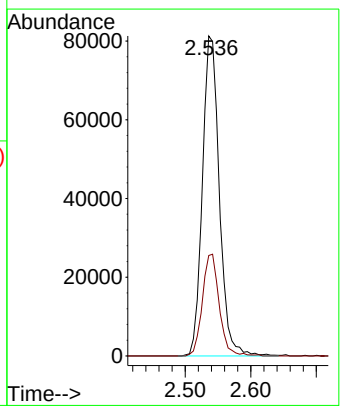
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

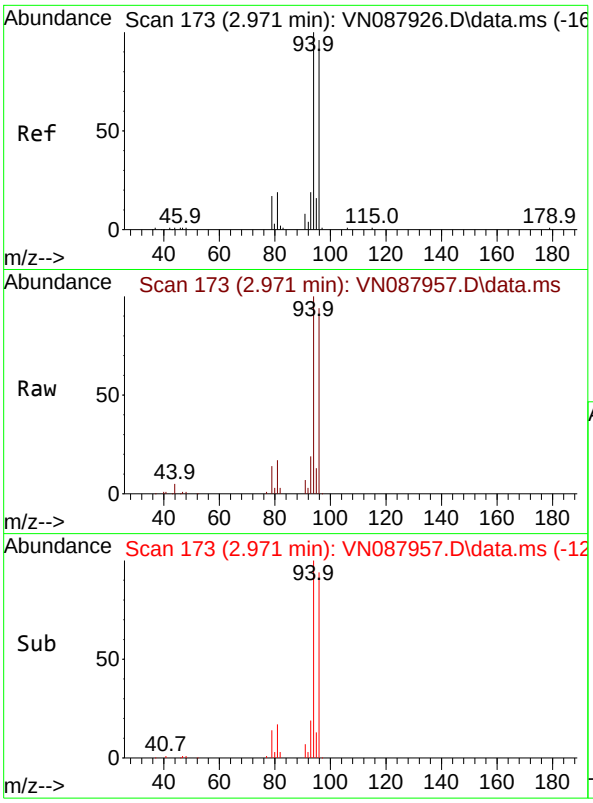


#4
Vinyl Chloride
Concen: 55.426 ug/l
RT: 2.536 min Scan# 99
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 62 Resp: 146194

Ion	Ratio	Lower	Upper
62	100		
64	31.4	25.2	37.8

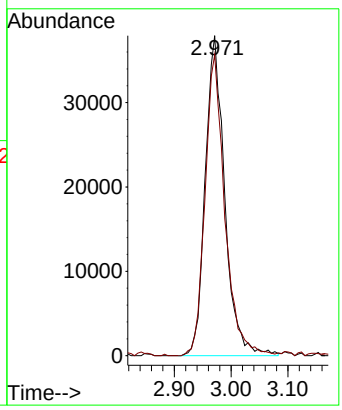




#5
Bromomethane
Concen: 55.172 ug/l
RT: 2.971 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 94 Resp: 9021

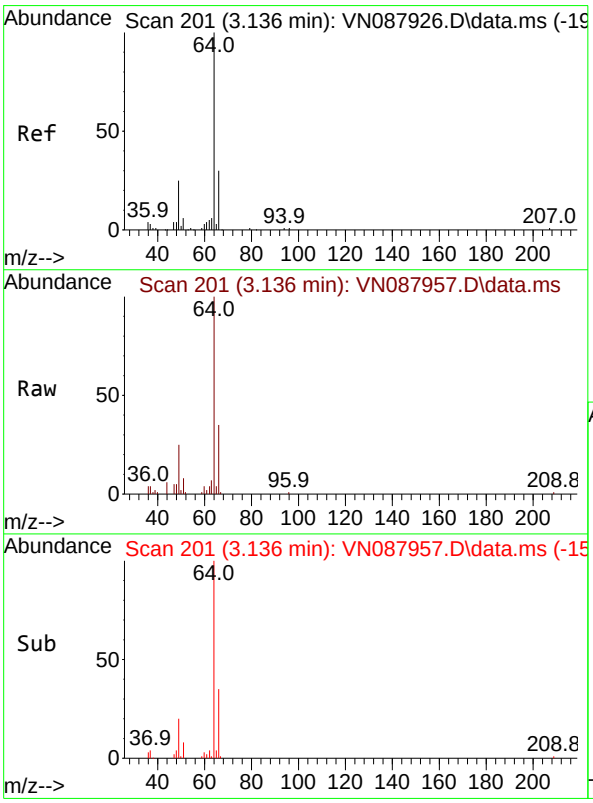
Ion	Ratio	Lower	Upper
94	100		
96	94.0	76.8	115.2



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations
APPROVED

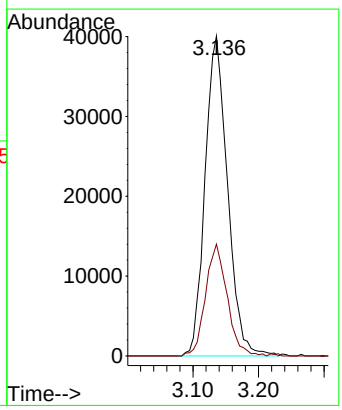
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

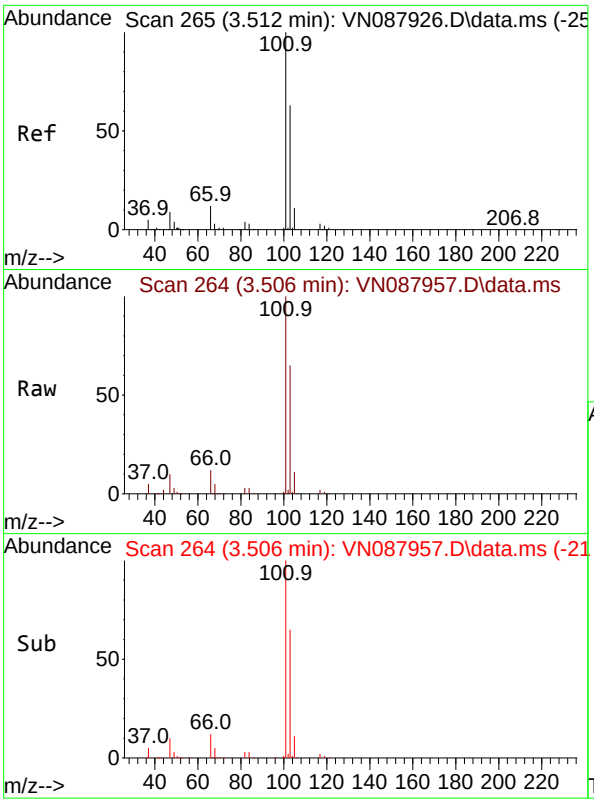


#6
Chloroethane
Concen: 55.598 ug/l
RT: 3.136 min Scan# 201
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 64 Resp: 95351

Ion	Ratio	Lower	Upper
64	100		
66	35.0	23.8	35.8

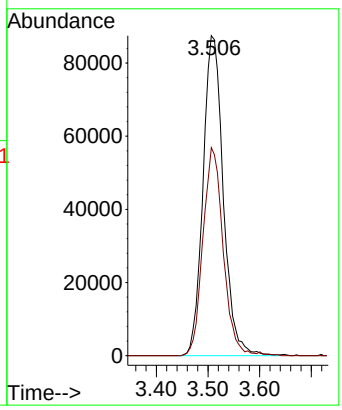




#7
Trichlorofluoromethane
Concen: 55.440 ug/l
RT: 3.506 min Scan# 2
Delta R.T. -0.006 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion:101 Resp: 23808

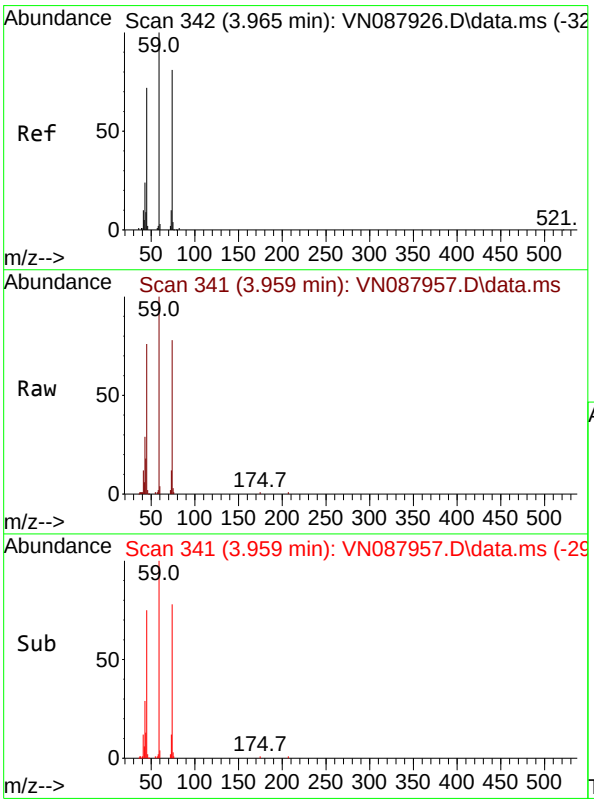
Ion	Ratio	Lower	Upper
101	100		
103	65.0	50.2	75.4



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations APPROVED

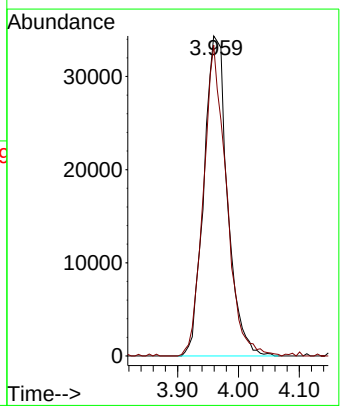
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

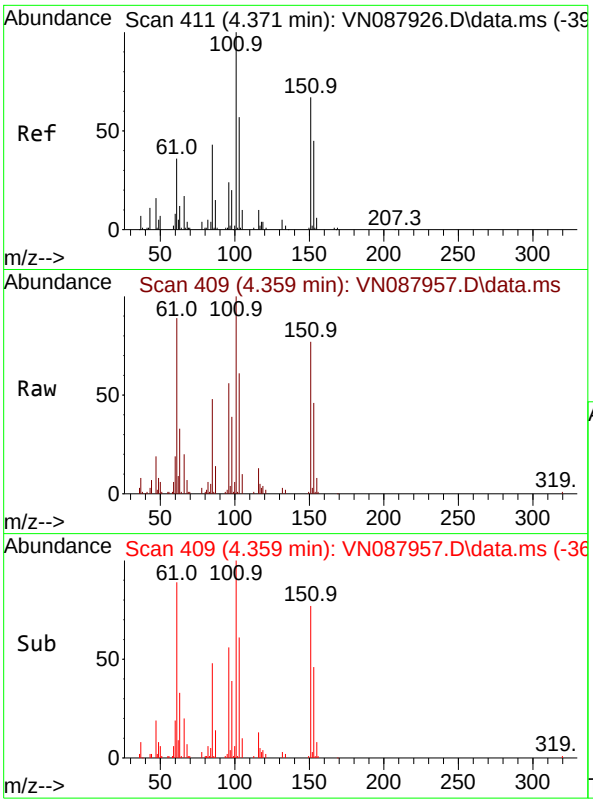


#8
Diethyl Ether
Concen: 57.118 ug/l
RT: 3.959 min Scan# 341
Delta R.T. -0.006 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 74 Resp: 92670

Ion	Ratio	Lower	Upper
74	100		
45	94.8	45.4	136.1

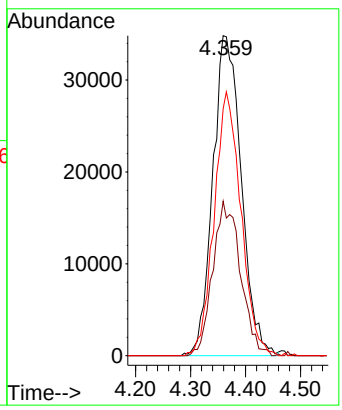




#9
1,1,2-Trichlorotrifluoroethane
Concen: 55.173 ug/l
RT: 4.359 min Scan# 4(
Delta R.T. -0.012 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion:101 Resp: 12523

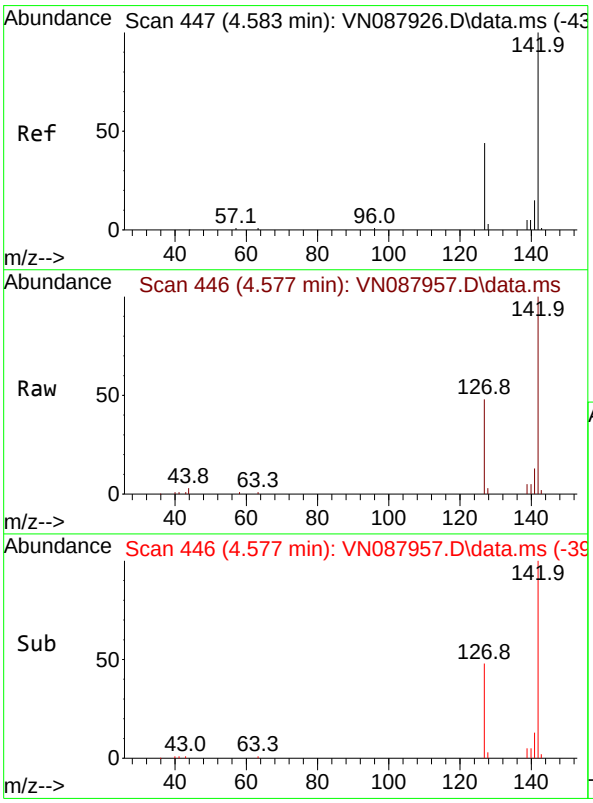
Ion	Ratio	Lower	Upper
101	100		
85	47.0	36.5	54.7
151	77.5	58.6	87.8



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations
APPROVED

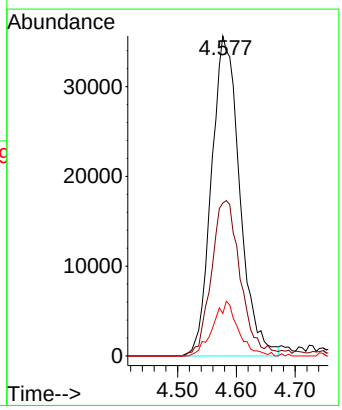
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

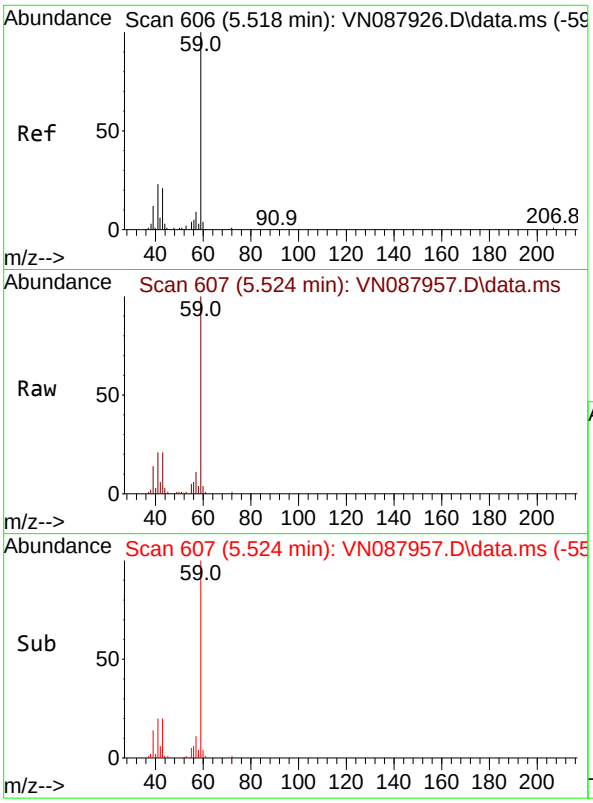


#10
Methyl Iodide
Concen: 58.096 ug/l
RT: 4.577 min Scan# 446
Delta R.T. -0.006 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion:142 Resp: 118680

Ion	Ratio	Lower	Upper
142	100		
127	47.8	35.3	52.9
141	13.3	11.8	17.8

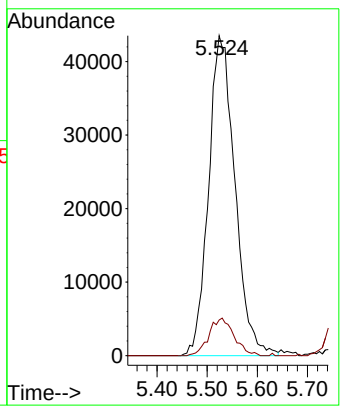




#11
Tert butyl alcohol
Concen: 300.787 ug/l
RT: 5.524 min Scan# 6
Delta R.T. 0.006 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 59 Resp: 15896

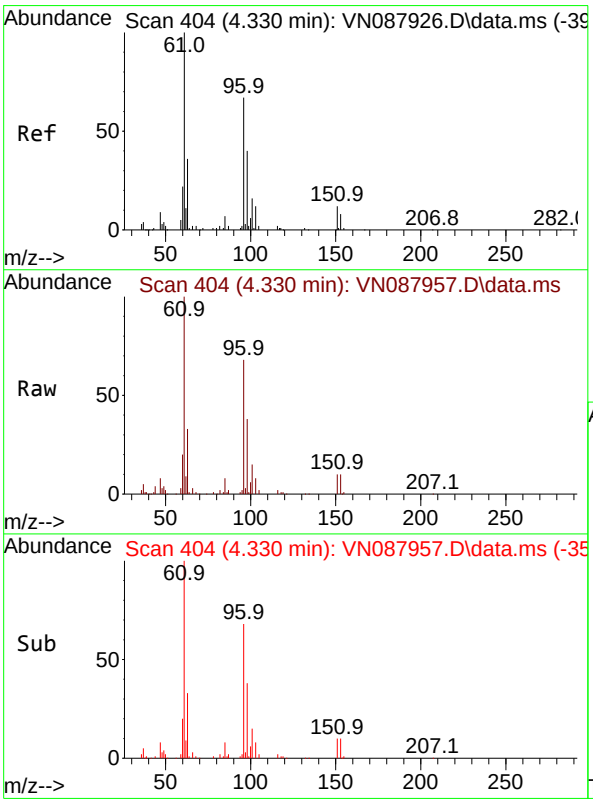
Ion	Ratio	Lower	Upper
59	100		
57	11.2	8.8	13.2



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations
APPROVED

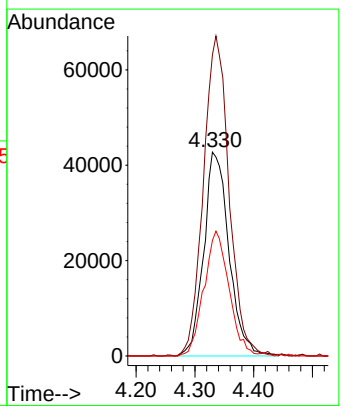
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

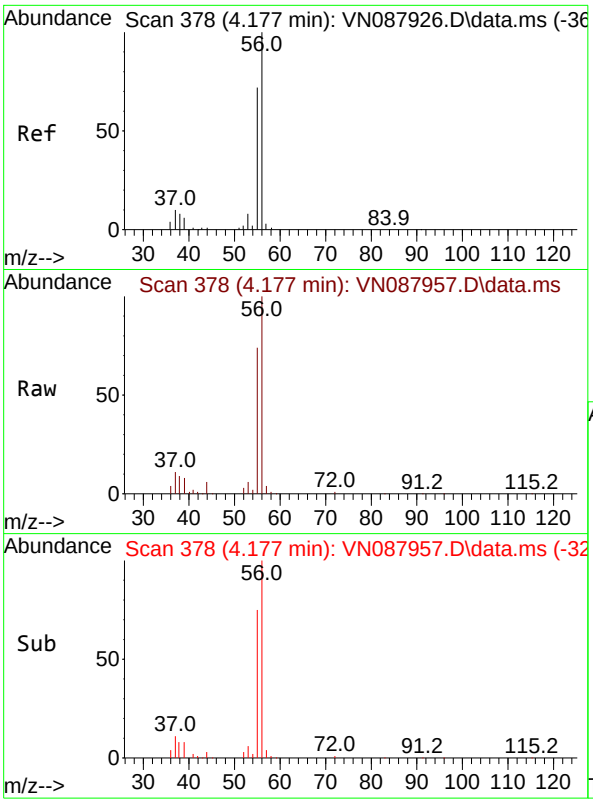


#12
1,1-Dichloroethene
Concen: 55.784 ug/l
RT: 4.330 min Scan# 404
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 96 Resp: 127759

Ion	Ratio	Lower	Upper
96	100		
61	147.3	119.2	178.8
98	56.7	47.5	71.3

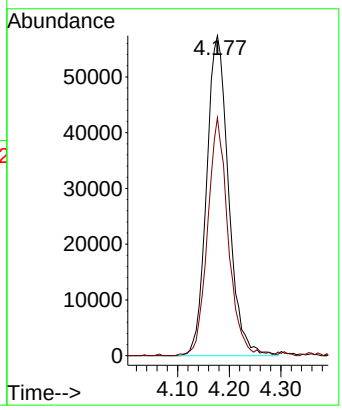




#13
Acrolein
Concen: 249.622 ug/l
RT: 4.177 min Scan# 3
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 56 Resp: 16927

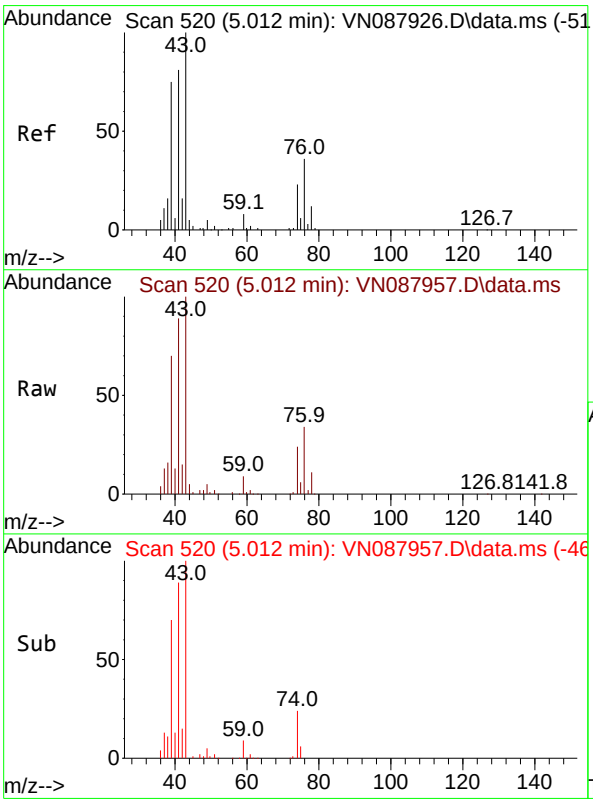
Ion	Ratio	Lower	Upper
56	100		
55	69.9	59.3	88.9



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations
APPROVED

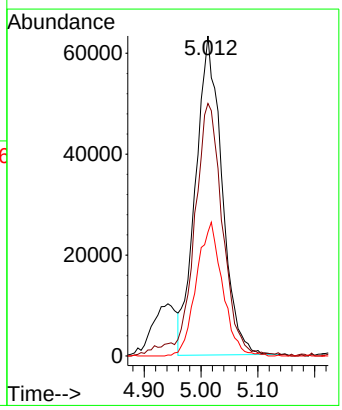
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

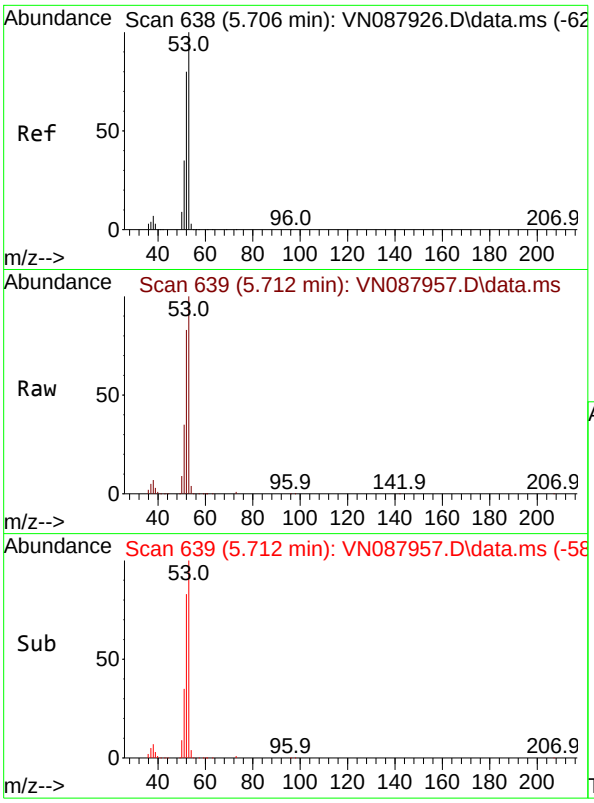


#14
Allyl chloride
Concen: 54.636 ug/l
RT: 5.012 min Scan# 520
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 41 Resp: 203713

Ion	Ratio	Lower	Upper
41	100		
39	85.6	63.8	95.8
76	41.7	33.0	49.6

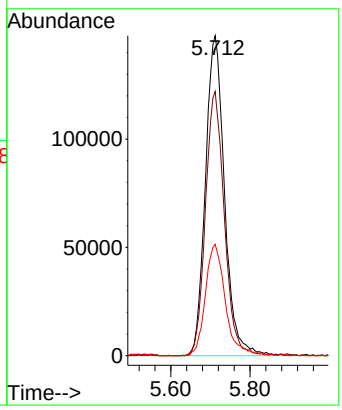




#15
Acrylonitrile
Concen: 298.379 ug/l
RT: 5.712 min Scan# 6
Delta R.T. 0.006 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 53 Resp: 49465

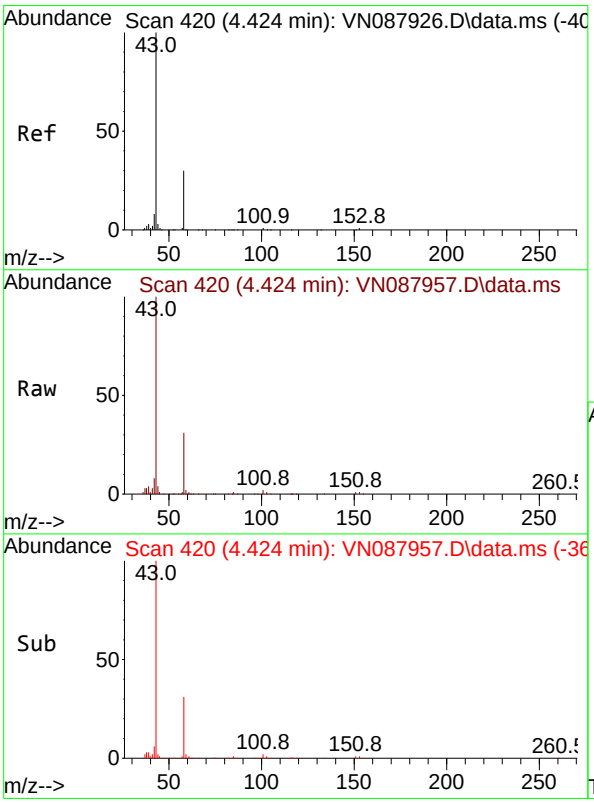
Ion	Ratio	Lower	Upper
53	100		
52	81.2	66.6	99.8
51	36.3	29.0	43.4



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations
APPROVED

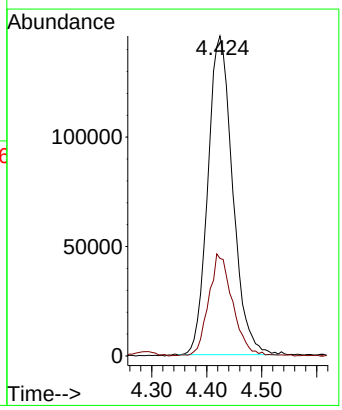
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

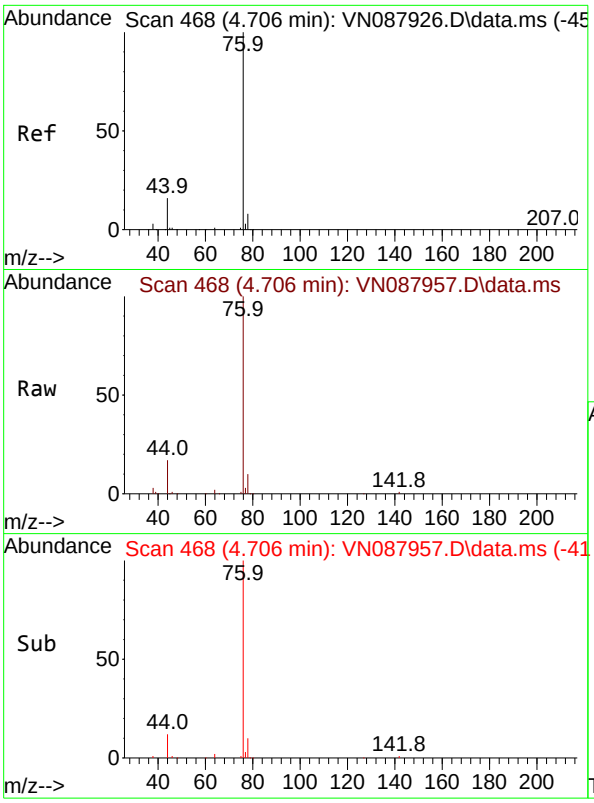


#16
Acetone
Concen: 302.553 ug/l
RT: 4.424 min Scan# 420
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 43 Resp: 456769

Ion	Ratio	Lower	Upper
43	100		
58	30.5	24.1	36.1





#17
Carbon Disulfide
Concen: 52.524 ug/l
RT: 4.706 min Scan# 4
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

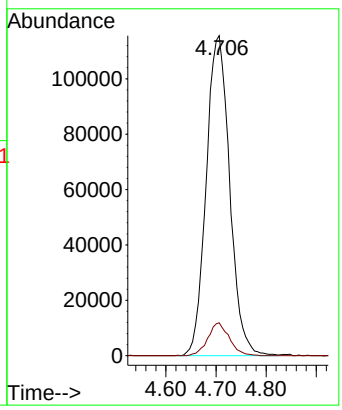
Tgt Ion: 76 Resp: 37584

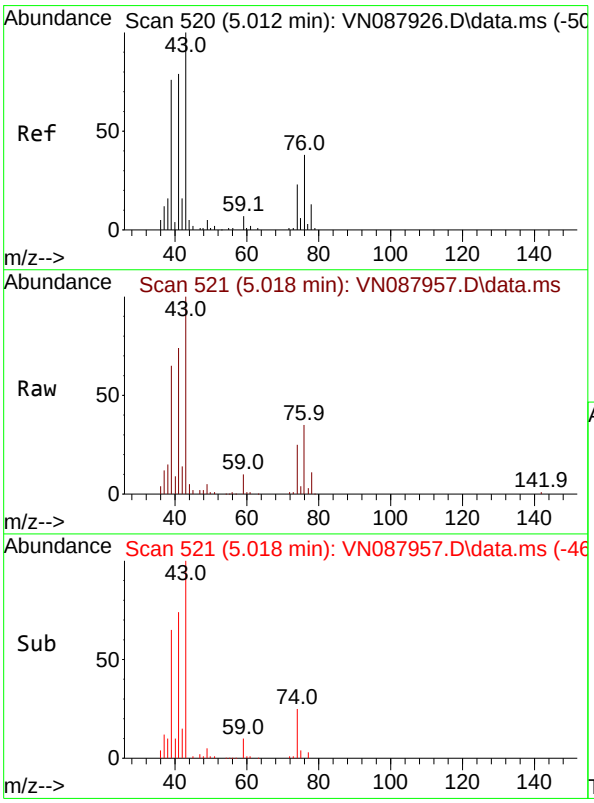
Ion	Ratio	Lower	Upper
76	100		
78	10.3	6.7	10.1

Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

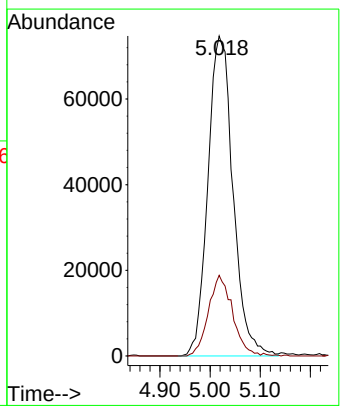


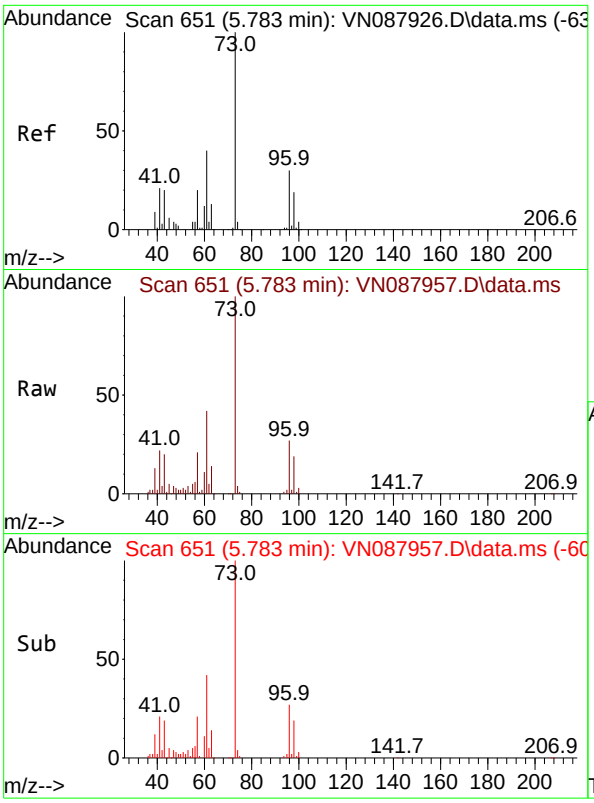


#18
Methyl Acetate
Concen: 68.853 ug/l
RT: 5.018 min Scan# 521
Delta R.T. 0.006 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 43 Resp: 260144

Ion	Ratio	Lower	Upper
43	100		
74	24.0	19.7	29.5

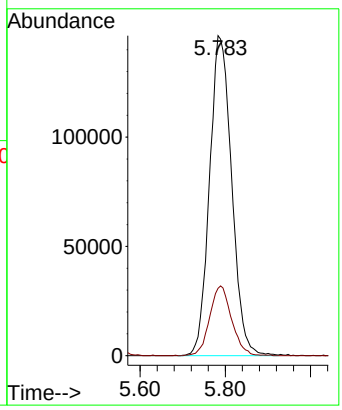




#19
Methyl tert-butyl Ether
Concen: 59.025 ug/l
RT: 5.783 min Scan# 6
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 73 Resp: 52807

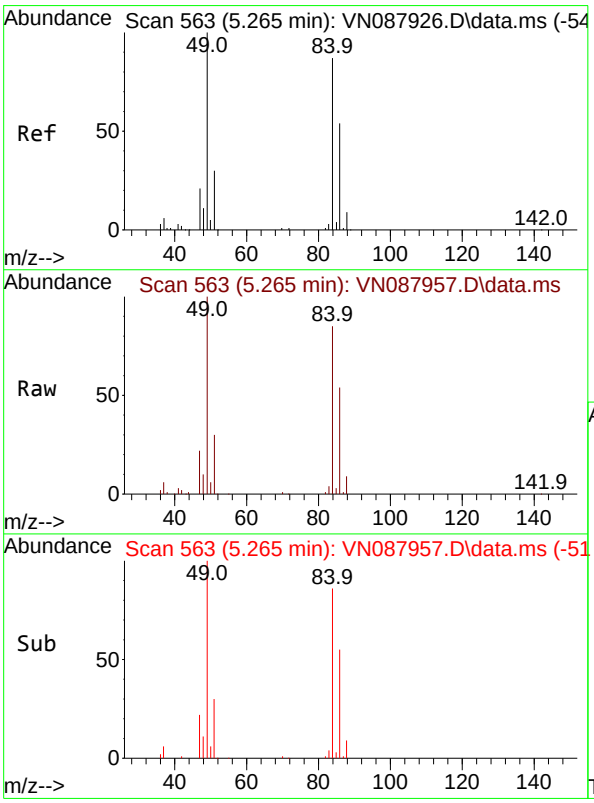
Ion	Ratio	Lower	Upper
73	100		
57	21.1	16.3	24.5



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations
APPROVED

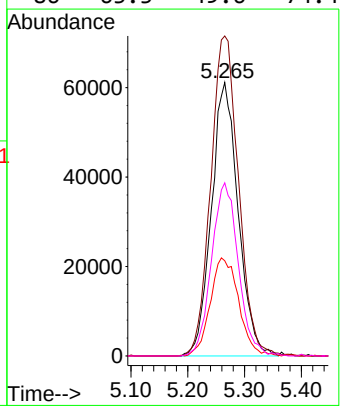
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

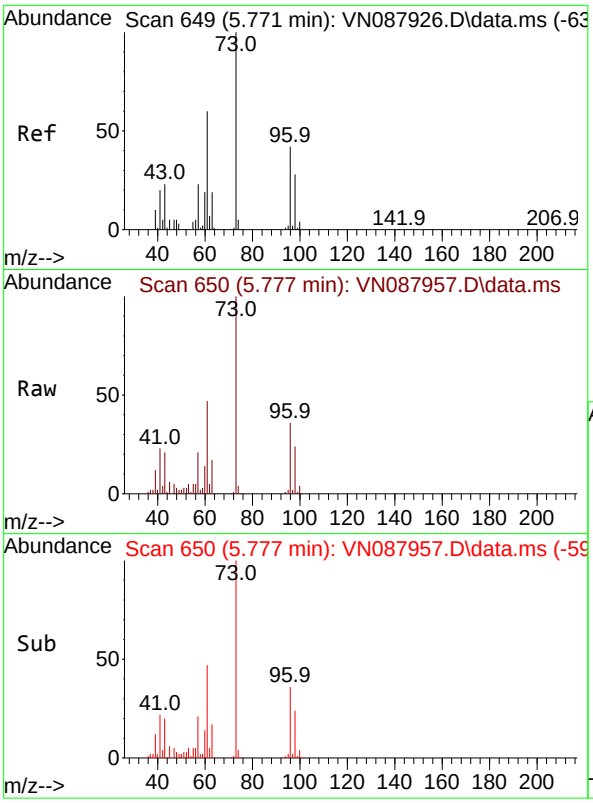


#20
Methylene Chloride
Concen: 65.417 ug/l
RT: 5.265 min Scan# 563
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 84 Resp: 199904

Ion	Ratio	Lower	Upper
84	100		
49	117.0	92.1	138.1
51	34.8	27.7	41.5
86	63.3	49.6	74.4

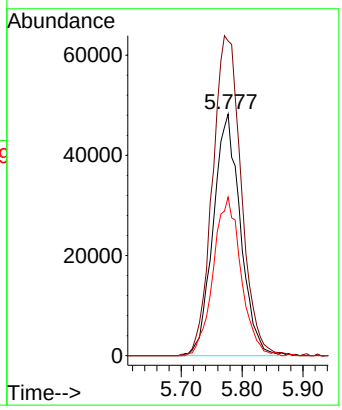




#21
trans-1,2-Dichloroethene
Concen: 53.110 ug/l
RT: 5.777 min Scan# 6
Delta R.T. 0.006 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 96 Resp: 14911

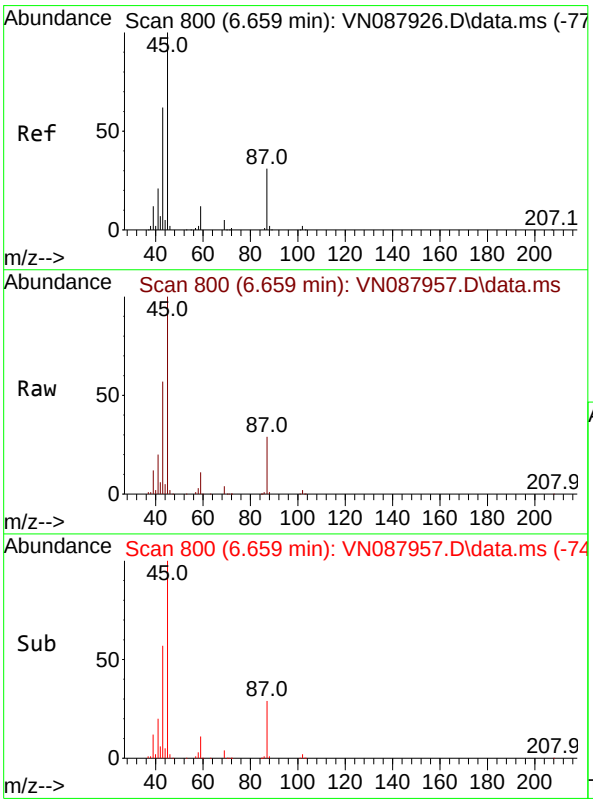
Ion	Ratio	Lower	Upper
96	100		
61	130.2	114.4	171.6
98	65.6	53.6	80.4



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations
APPROVED

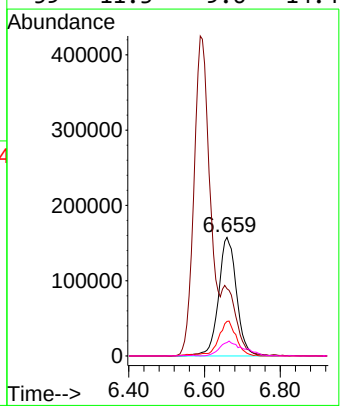
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

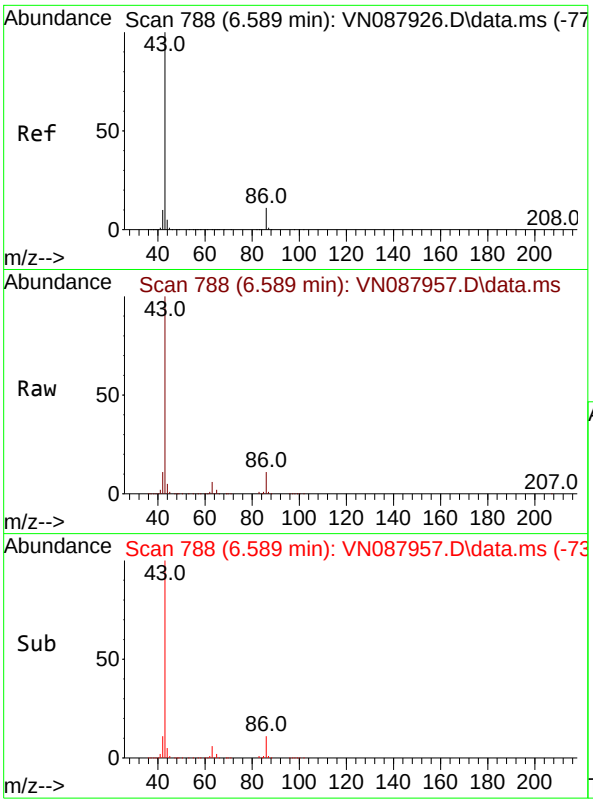


#22
Diisopropyl ether
Concen: 59.653 ug/l
RT: 6.659 min Scan# 800
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 45 Resp: 519226

Ion	Ratio	Lower	Upper
45	100		
43	56.1	49.9	74.9
87	29.1	25.2	37.8
59	11.3	9.6	14.4

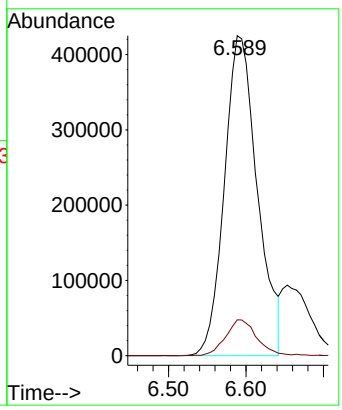




#23
Vinyl Acetate
Concen: 171.890 ug/l
RT: 6.589 min Scan# 7
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 43 Resp: 125974

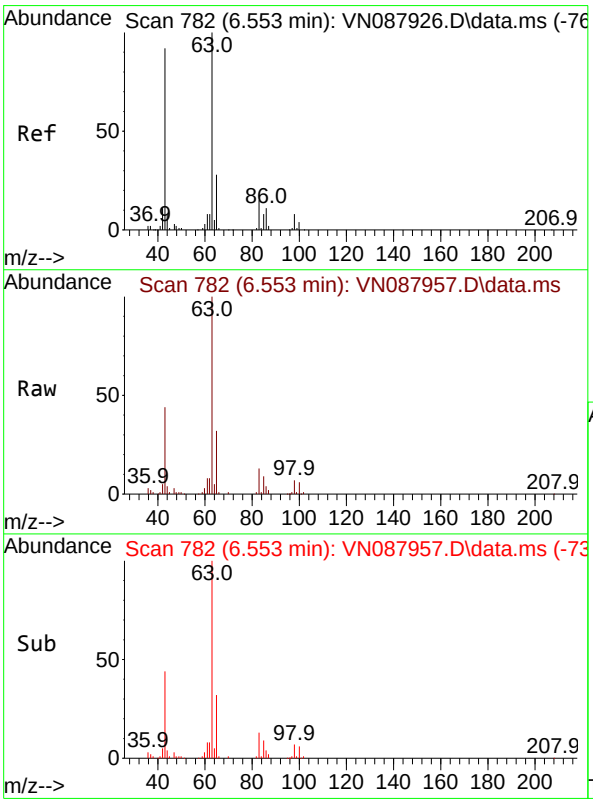
Ion	Ratio	Lower	Upper
43	100		
86	11.2	8.6	12.8



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations
APPROVED

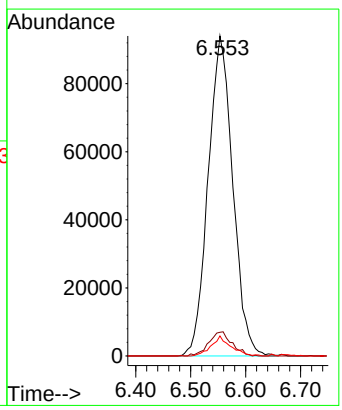
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

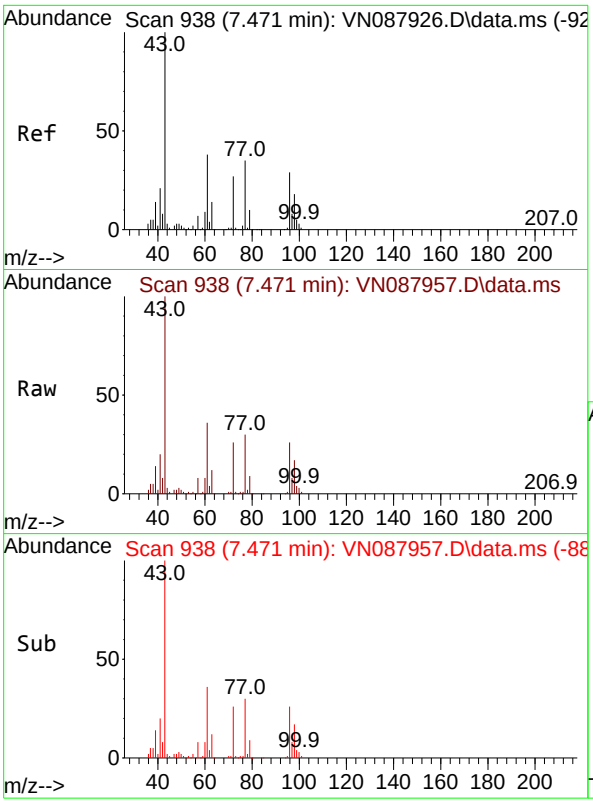


#24
1,1-Dichloroethane
Concen: 57.666 ug/l
RT: 6.553 min Scan# 782
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 63 Resp: 293244

Ion	Ratio	Lower	Upper
63	100		
98	7.4	3.9	11.5
100	6.3	2.1	6.5





#25
2-Butanone
Concen: 305.073 ug/l
RT: 7.471 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

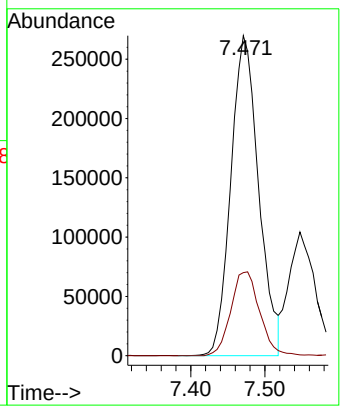
Tgt Ion: 43 Resp: 70396

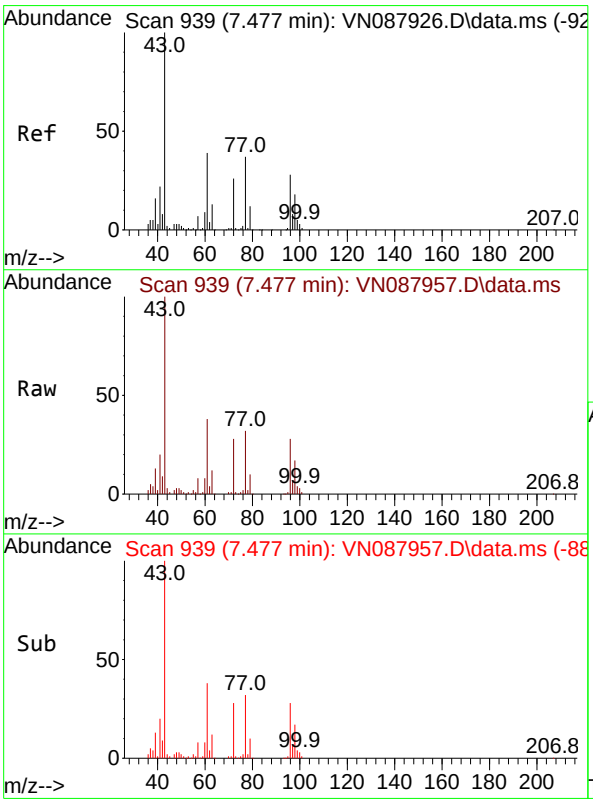
Ion	Ratio	Lower	Upper
43	100		
72	25.9	21.5	32.3

Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

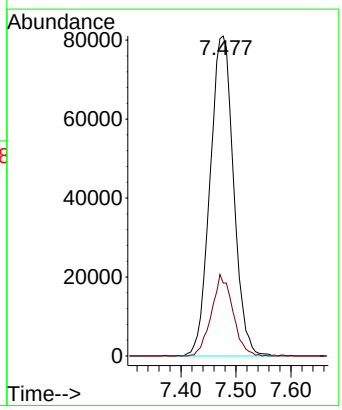


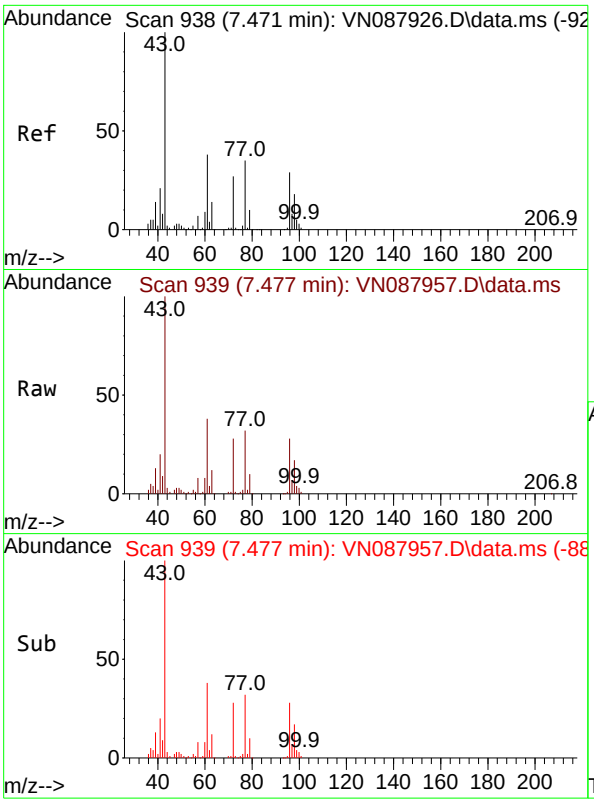


#26
2,2-Dichloropropane
Concen: 53.339 ug/l
RT: 7.477 min Scan# 939
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 77 Resp: 240989

Ion	Ratio	Lower	Upper
77	100		
97	23.2	11.5	34.5

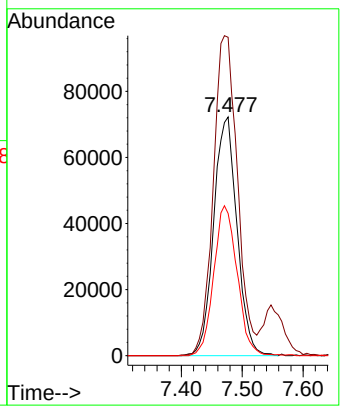




#27
cis-1,2-Dichloroethene
Concen: 57.559 ug/l
RT: 7.477 min Scan# 9
Delta R.T. 0.006 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 96 Resp: 19228

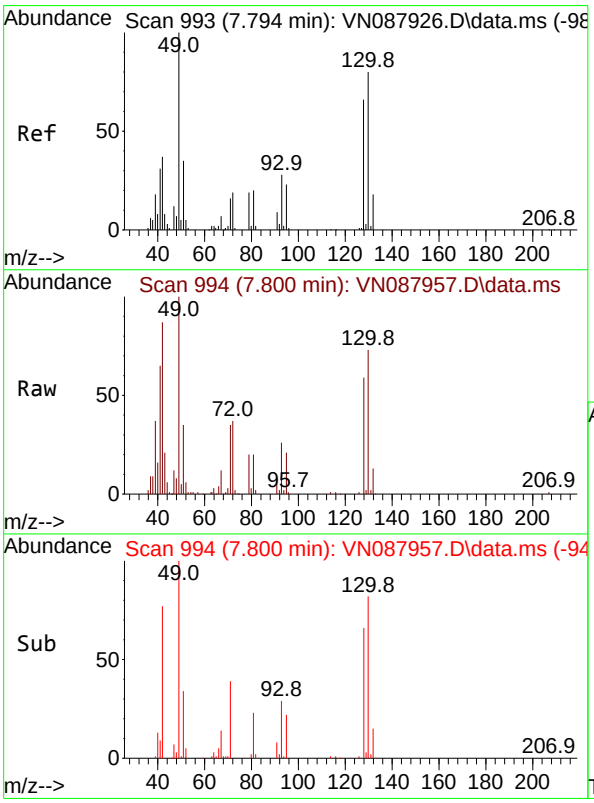
Ion	Ratio	Lower	Upper
96	100		
61	139.0	0.0	283.0
98	63.0	0.0	127.6



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations
APPROVED

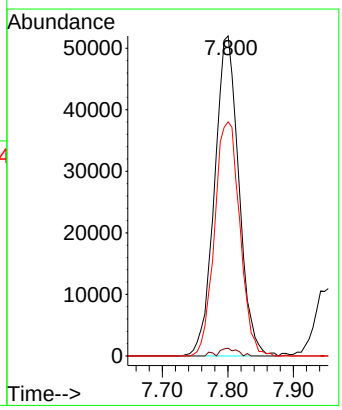
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

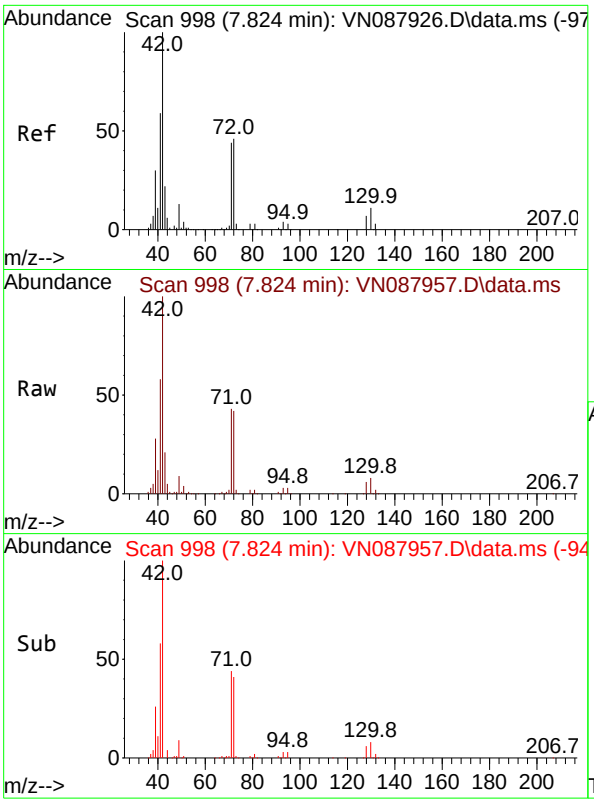


#28
Bromochloromethane
Concen: 48.401 ug/l
RT: 7.800 min Scan# 994
Delta R.T. 0.006 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 49 Resp: 133727

Ion	Ratio	Lower	Upper
49	100		
129	1.9	0.0	5.4
130	75.9	62.6	94.0





#29
Tetrahydrofuran
Concen: 301.303 ug/l
RT: 7.824 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

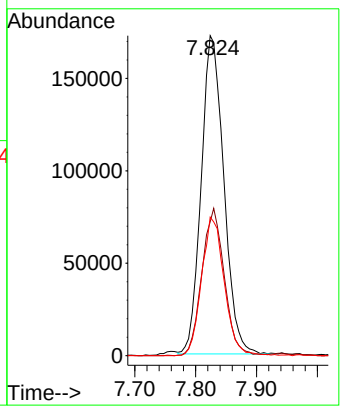
Tgt Ion: 42 Resp: 44519

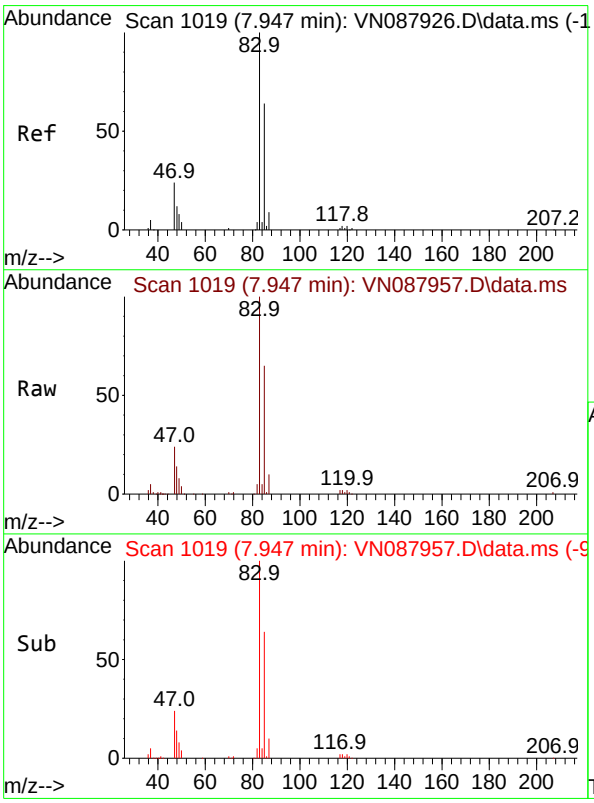
Ion	Ratio	Lower	Upper
42	100		
72	45.9	36.5	54.7
71	43.7	33.8	50.8

Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

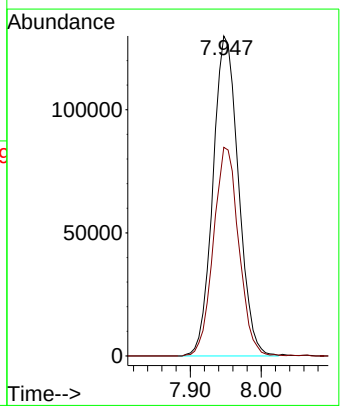


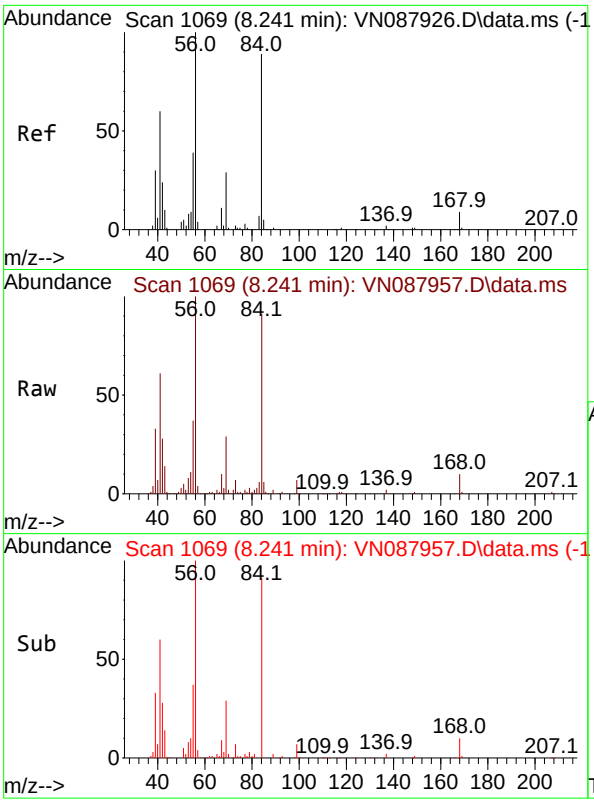


#30
Chloroform
Concen: 58.249 ug/l
RT: 7.947 min Scan# 1019
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 83 Resp: 323877

Ion	Ratio	Lower	Upper
83	100		
85	65.2	50.9	76.3

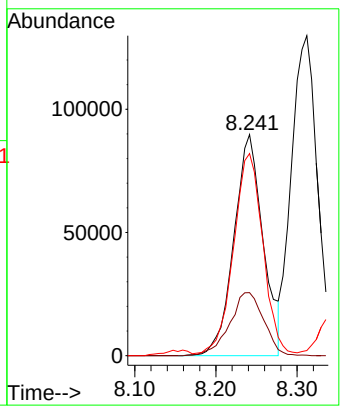




#31
Cyclohexane
Concen: 54.539 ug/l
RT: 8.241 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 56 Resp: 22440

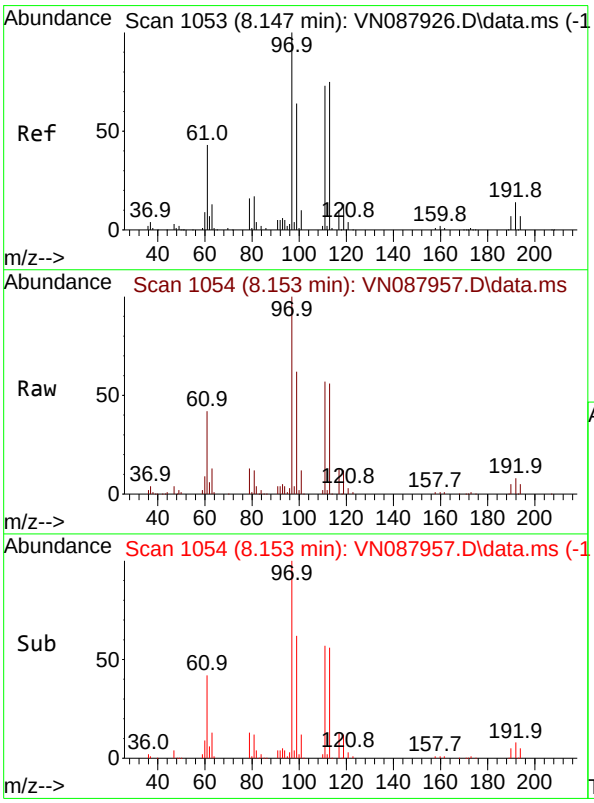
Ion	Ratio	Lower	Upper
56	100		
69	28.5	23.4	35.0
84	89.5	70.8	106.2



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations
APPROVED

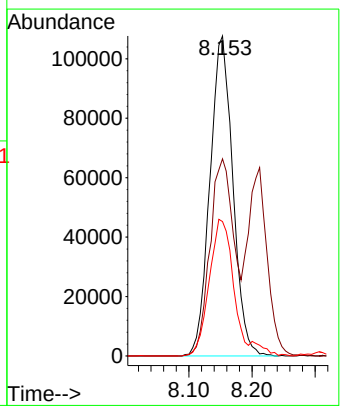
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

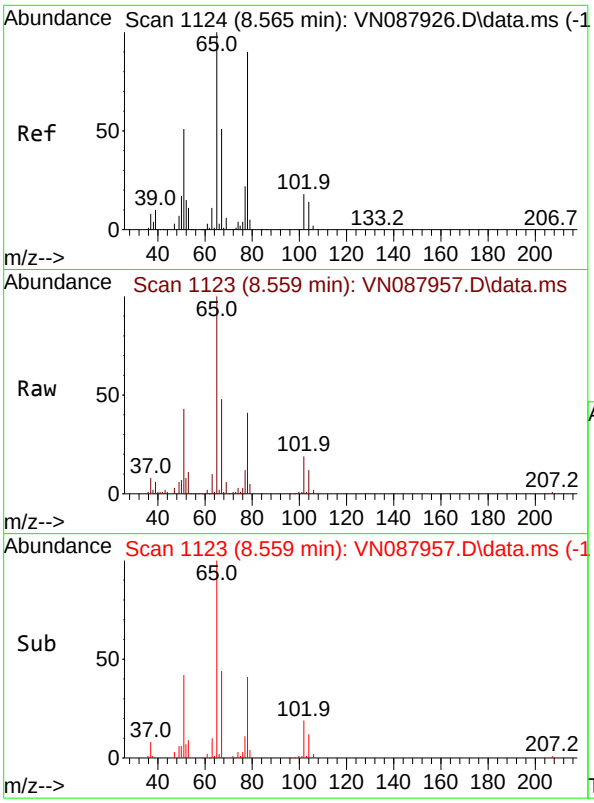


#32
1,1,1-Trichloroethane
Concen: 57.763 ug/l
RT: 8.153 min Scan# 1054
Delta R.T. 0.006 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 97 Resp: 271385

Ion	Ratio	Lower	Upper
97	100		
99	65.0	51.1	76.7
61	44.2	38.6	58.0

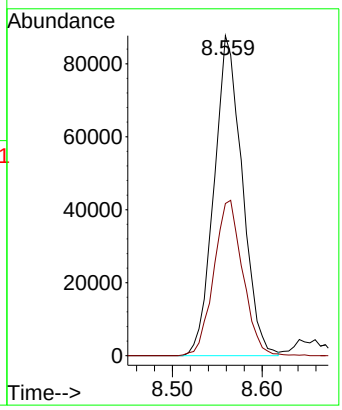




#33
1,2-Dichloroethane-d4
Concen: 52.001 ug/l
RT: 8.559 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 65 Resp: 19080

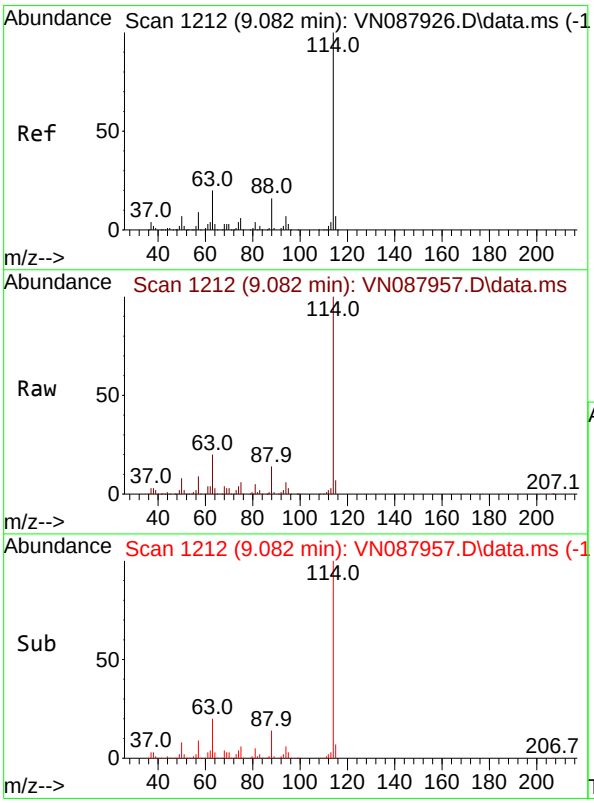
Ion	Ratio	Lower	Upper
65	100		
67	50.0	0.0	103.4



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations APPROVED

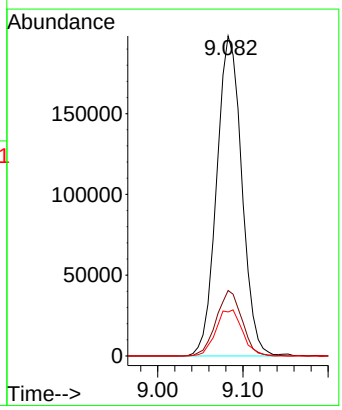
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

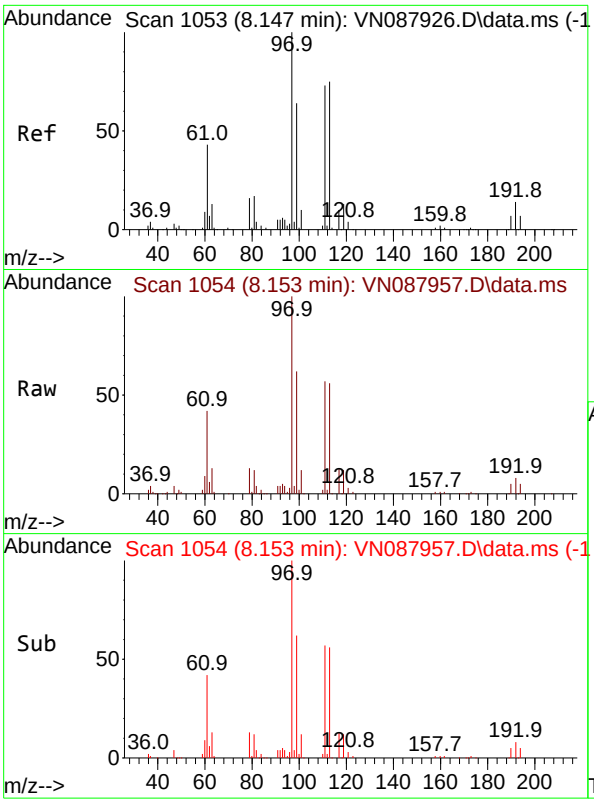


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.082 min Scan# 1212
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion:114 Resp: 405927

Ion	Ratio	Lower	Upper
114	100		
63	20.5	0.0	40.0
88	13.7	0.0	31.8

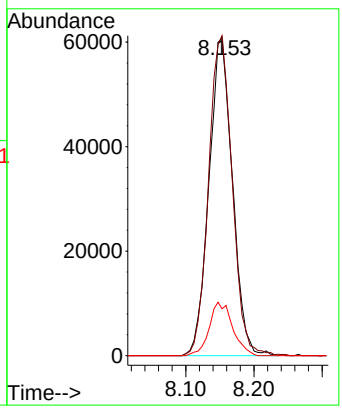




#35
Dibromofluoromethane
Concen: 49.442 ug/l
RT: 8.153 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion:113 Resp: 14571

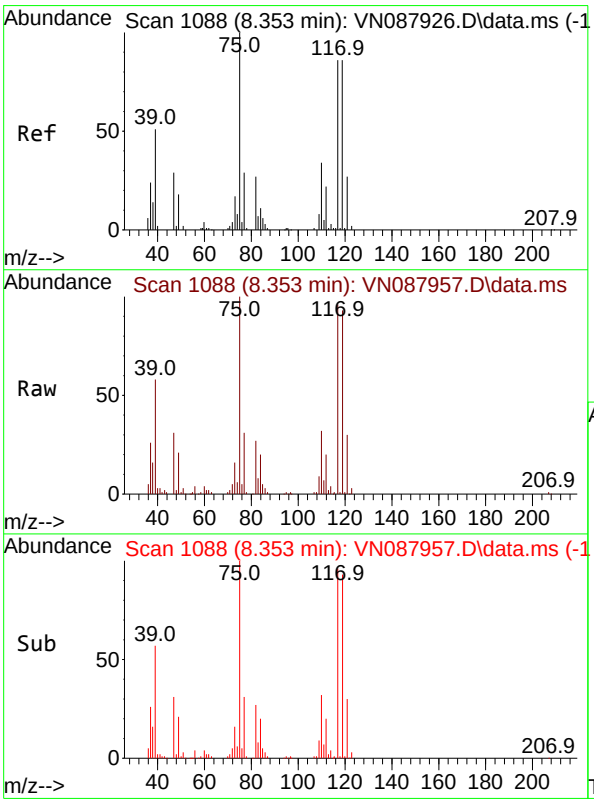
Ion	Ratio	Lower	Upper
113	100		
111	101.3	82.2	123.2
192	16.8	14.2	21.2



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations
APPROVED

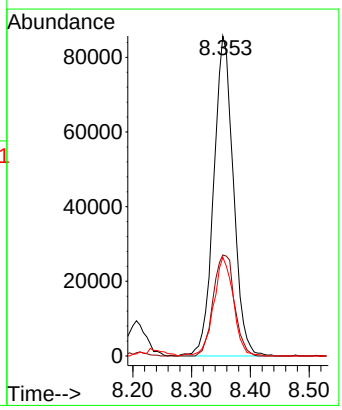
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

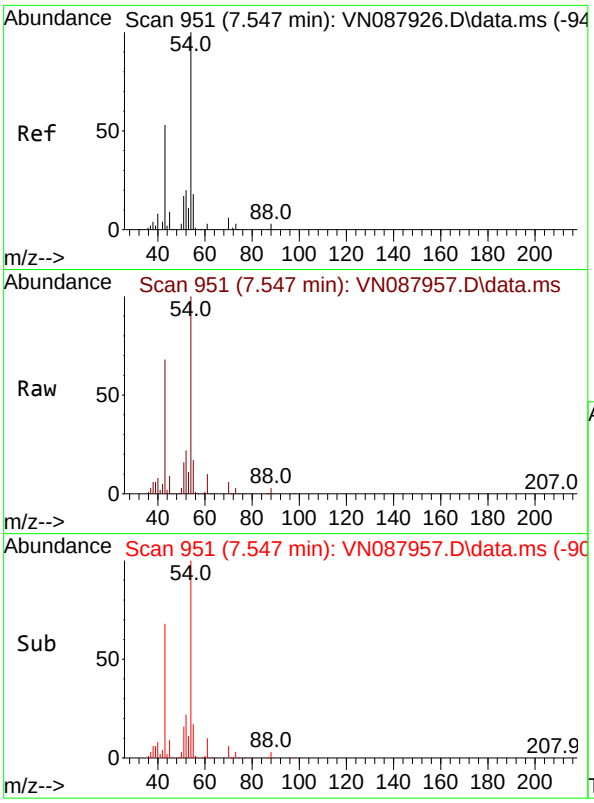


#36
1,1-Dichloropropene
Concen: 56.185 ug/l
RT: 8.353 min Scan# 1088
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 75 Resp: 199115

Ion	Ratio	Lower	Upper
75	100		
110	34.1	17.1	51.3
77	30.9	24.8	37.2

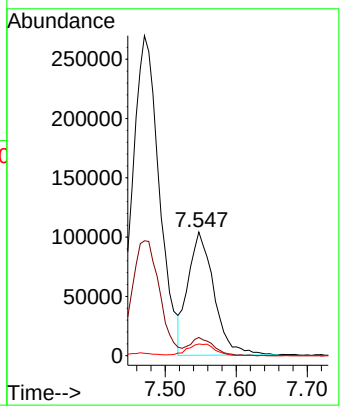




#37
Ethyl Acetate
Concen: 56.828 ug/l
RT: 7.547 min Scan# 9
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 43 Resp: 26446

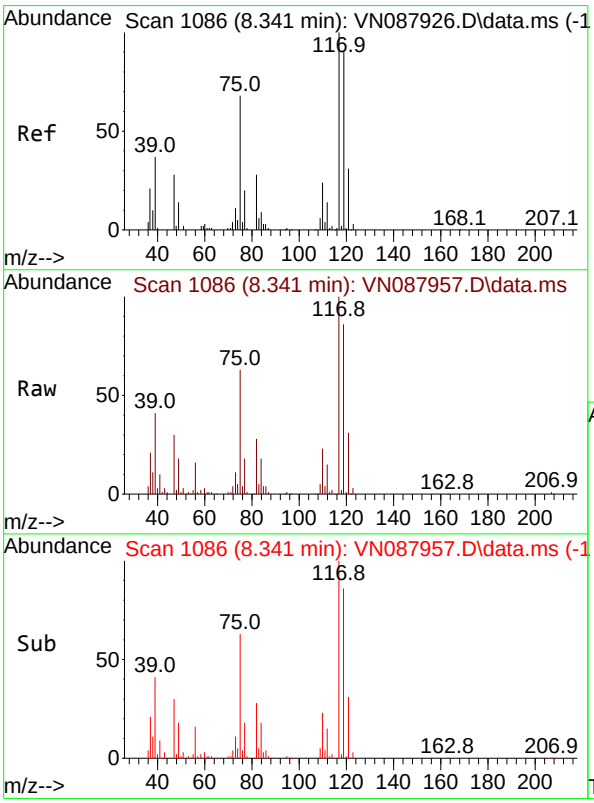
Ion	Ratio	Lower	Upper
43	100		
61	13.5	10.7	16.1
70	9.6	7.8	11.8



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations
APPROVED

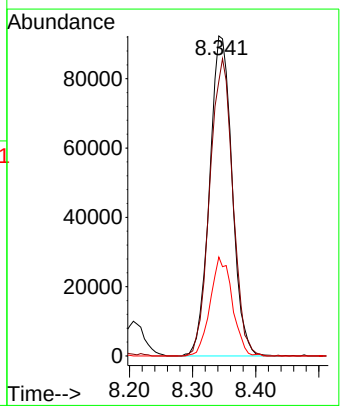
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

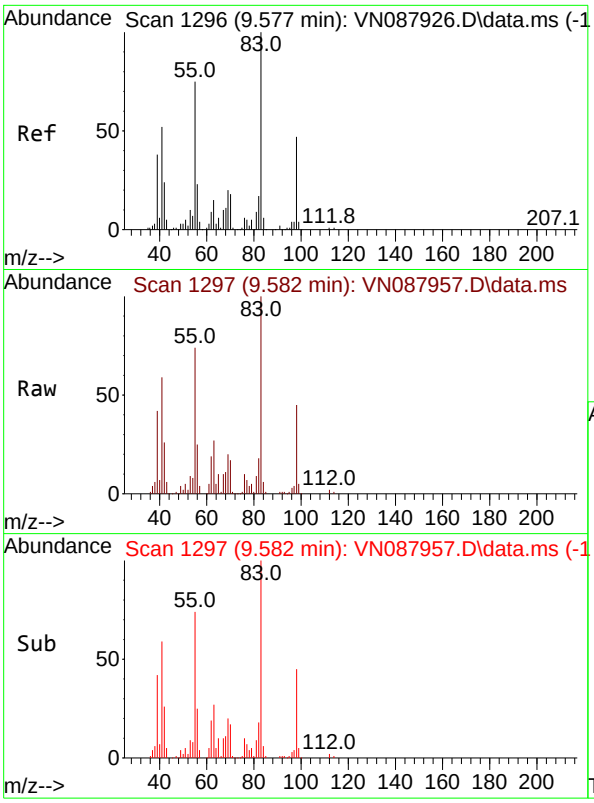


#38
Carbon Tetrachloride
Concen: 56.218 ug/l
RT: 8.341 min Scan# 1086
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion:117 Resp: 228618

Ion	Ratio	Lower	Upper
117	100		
119	85.9	72.1	108.1
121	30.9	24.6	36.8





#39
Methylcyclohexane
Concen: 57.012 ug/l
RT: 9.582 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

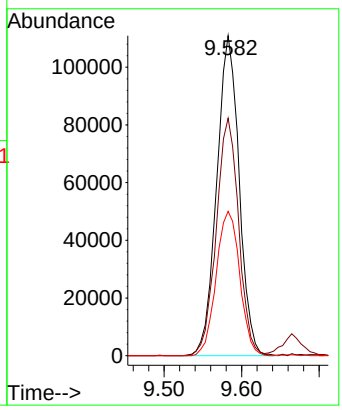
Tgt Ion: 83 Resp: 22288

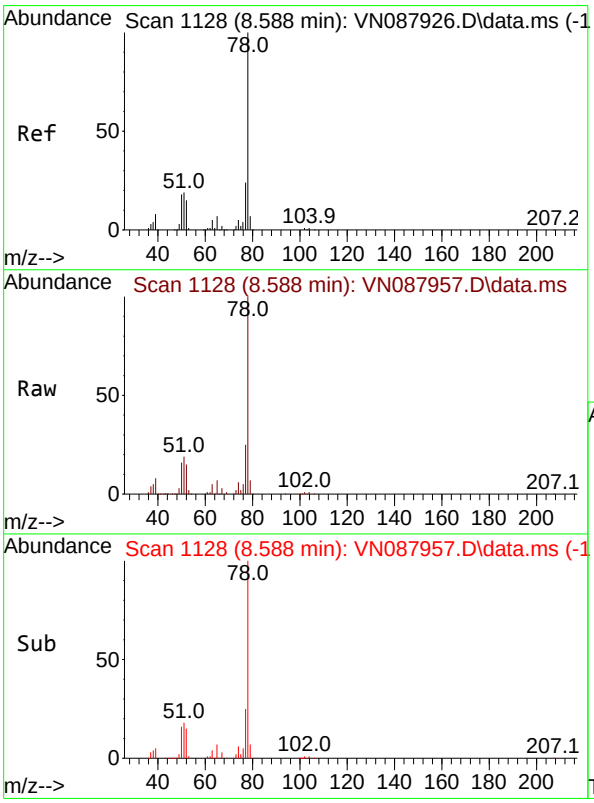
Ion	Ratio	Lower	Upper
83	100		
55	74.2	59.9	89.9
98	45.1	37.4	56.2

Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

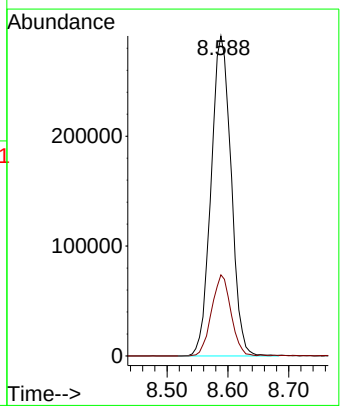


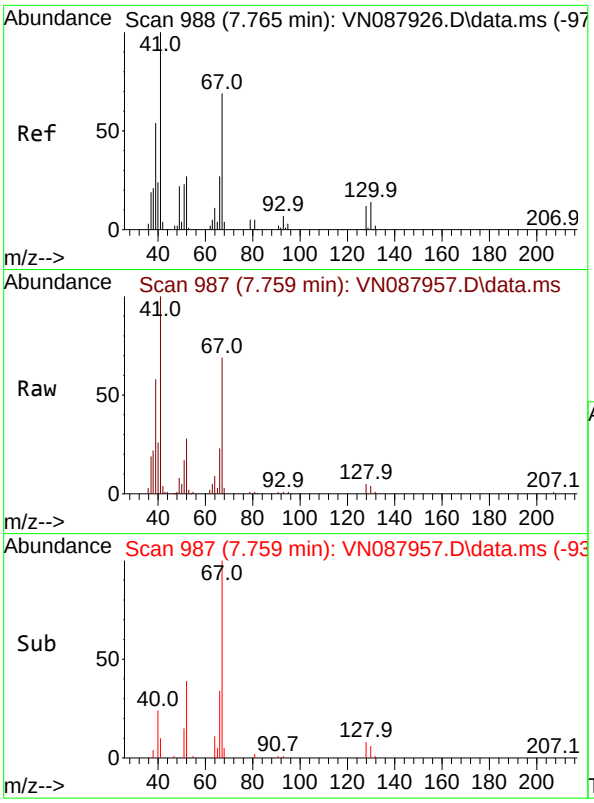


#40
Benzene
Concen: 56.692 ug/l
RT: 8.588 min Scan# 1128
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 78 Resp: 665226

Ion	Ratio	Lower	Upper
78	100		
77	25.3	19.0	28.6

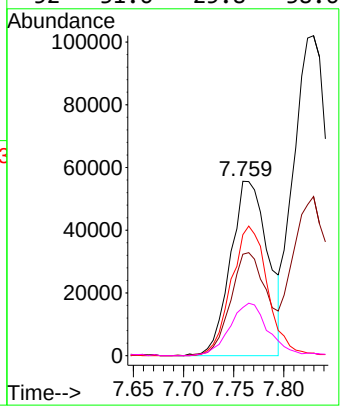




#41
Methacrylonitrile
Concen: 60.205 ug/l
RT: 7.759 min Scan# 9
Delta R.T. -0.006 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 41 Resp: 14479

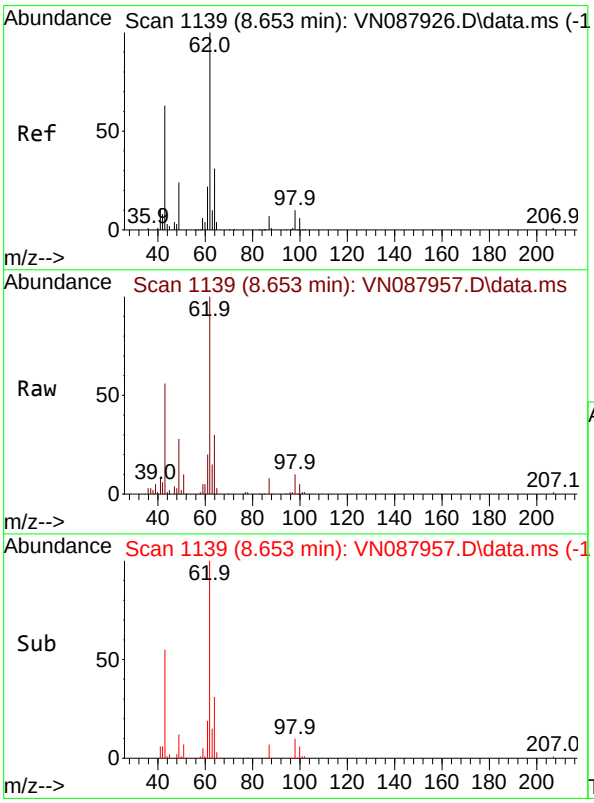
Ion	Ratio	Lower	Upper
41	100		
39	58.0	43.5	65.3
67	72.3	57.6	86.4
52	31.6	25.8	38.6



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations
APPROVED

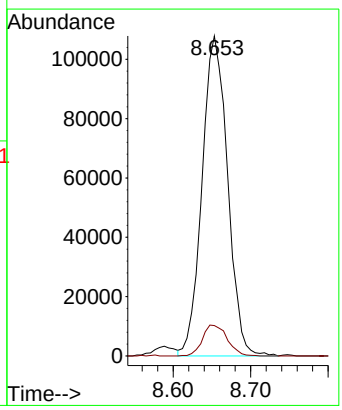
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

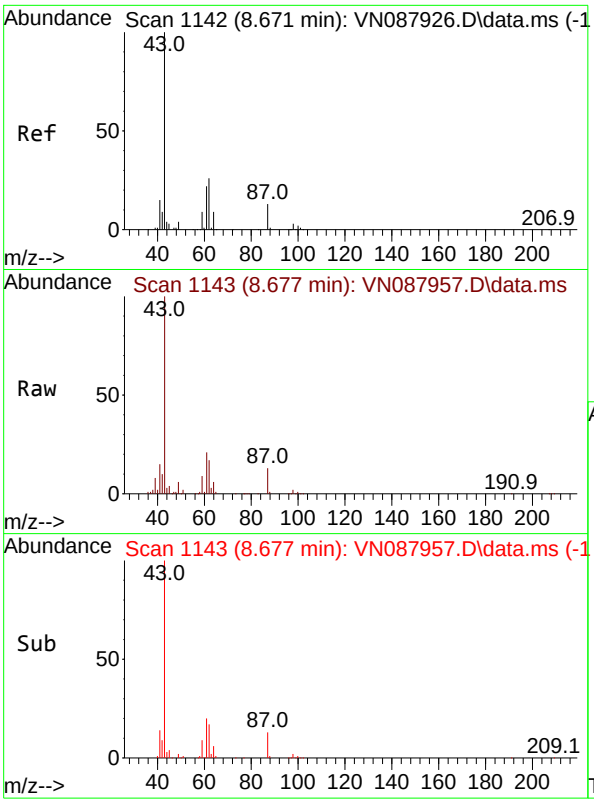


#42
1,2-Dichloroethane
Concen: 56.411 ug/l
RT: 8.653 min Scan# 1139
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 62 Resp: 247018

Ion	Ratio	Lower	Upper
62	100		
98	9.4	0.0	18.6

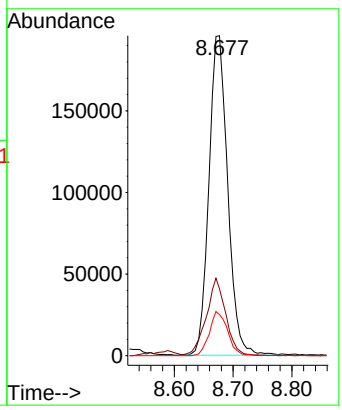




#43
Isopropyl Acetate
Concen: 59.359 ug/l
RT: 8.677 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 43 Resp: 43482

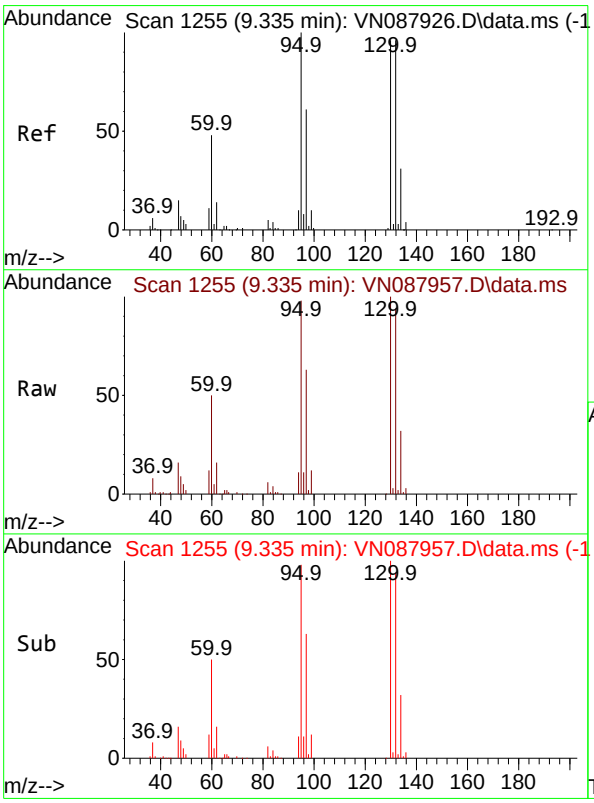
Ion	Ratio	Lower	Upper
43	100		
61	24.9	20.2	30.2
87	13.4	10.9	16.3



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations
APPROVED

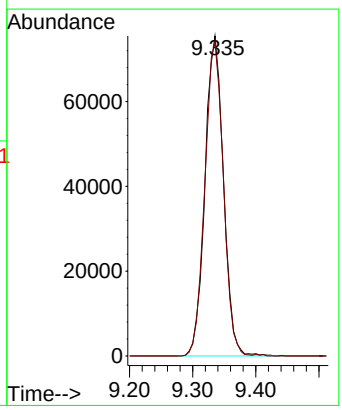
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

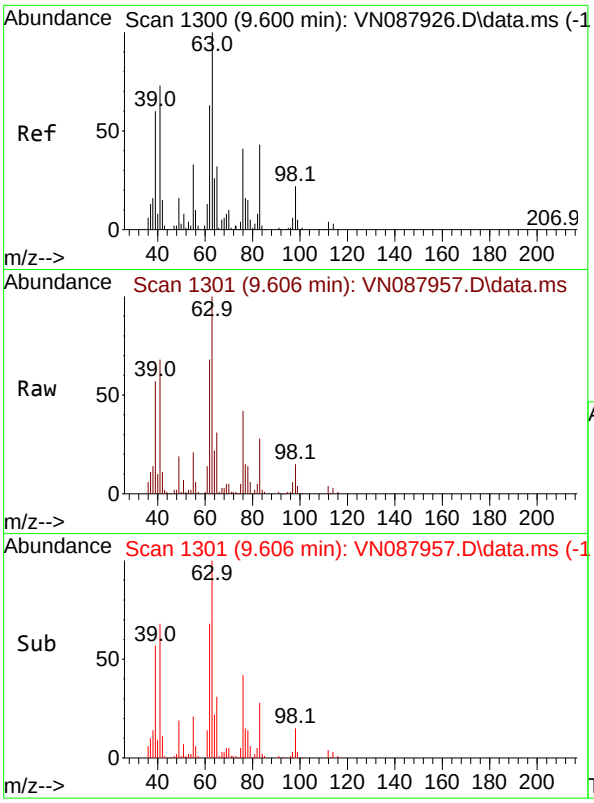


#44
Trichloroethene
Concen: 54.745 ug/l
RT: 9.335 min Scan# 1255
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion:130 Resp: 153443

Ion	Ratio	Lower	Upper
130	100		
95	98.1	0.0	208.0

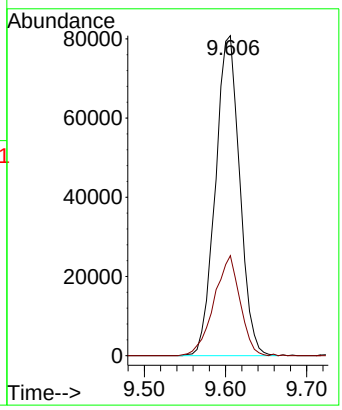




#45
1,2-Dichloropropane
Concen: 57.141 ug/l
RT: 9.606 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 63 Resp: 16812

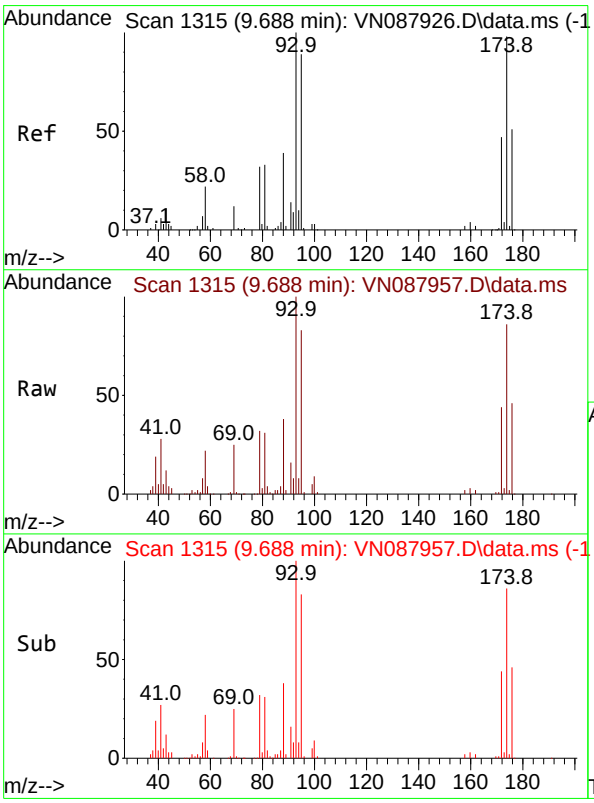
Ion	Ratio	Lower	Upper
63	100		
65	31.3	25.4	38.0



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations
APPROVED

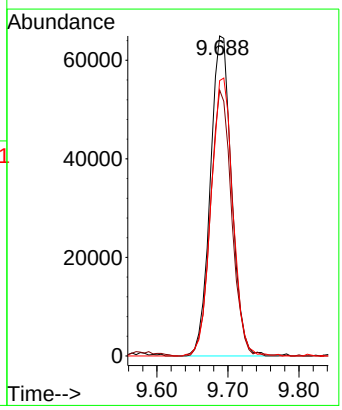
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

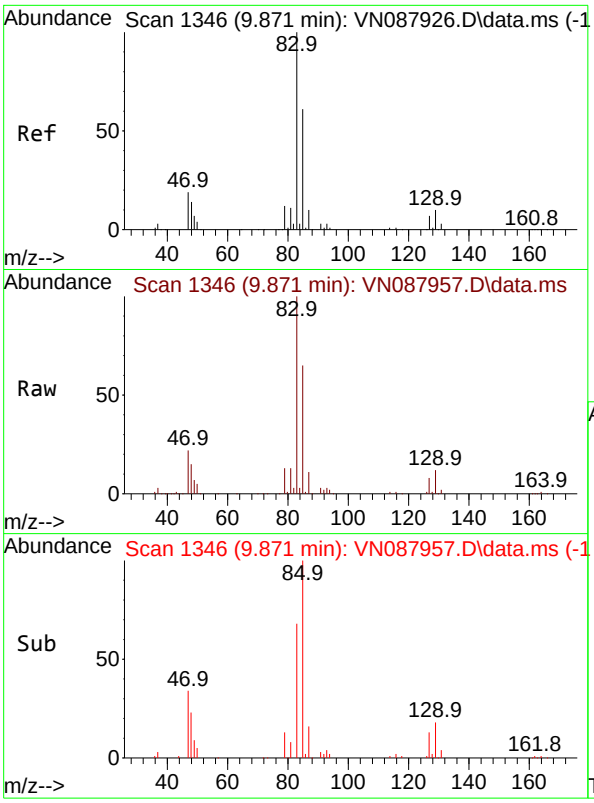


#46
Dibromomethane
Concen: 58.181 ug/l
RT: 9.688 min Scan# 1315
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 93 Resp: 135081

Ion	Ratio	Lower	Upper
93	100		
95	82.5	67.6	101.4
174	88.8	75.4	113.0

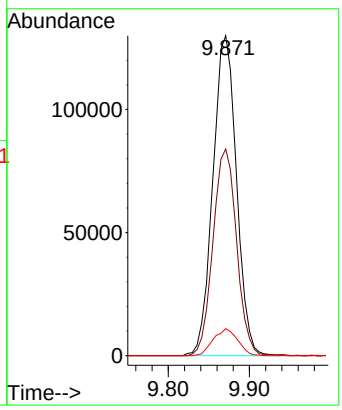




#47
Bromodichloromethane
Concen: 57.672 ug/l
RT: 9.871 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 83 Resp: 26262

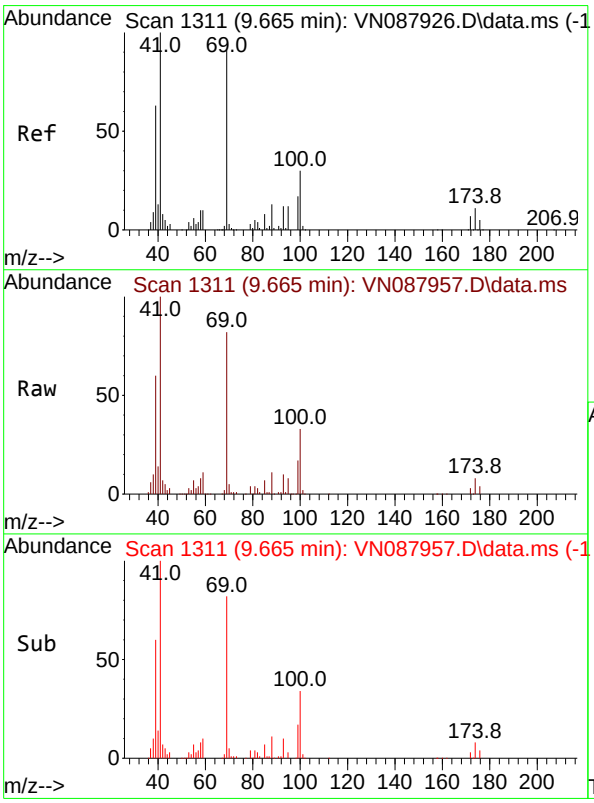
Ion	Ratio	Lower	Upper
83	100		
85	64.6	49.1	73.7
127	8.5	5.9	8.9



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations APPROVED

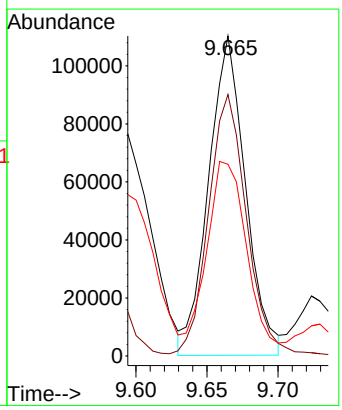
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

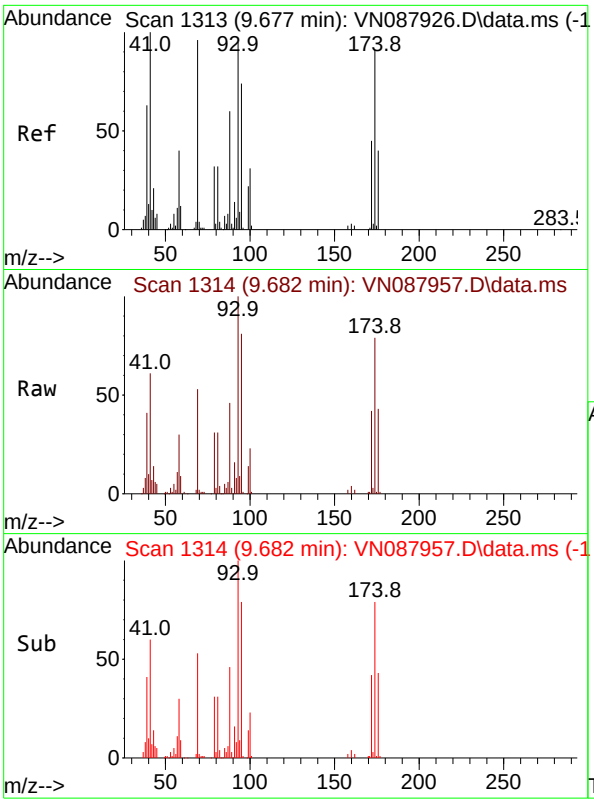


#48
Methyl methacrylate
Concen: 58.550 ug/l
RT: 9.665 min Scan# 1311
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 41 Resp: 198617

Ion	Ratio	Lower	Upper
41	100		
69	84.4	70.9	106.3
39	66.8	52.9	79.3

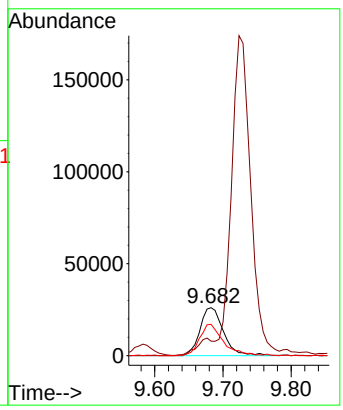




#49
1,4-Dioxane
Concen: 1245.312 ug/l
RT: 9.682 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 88 Resp: 6240

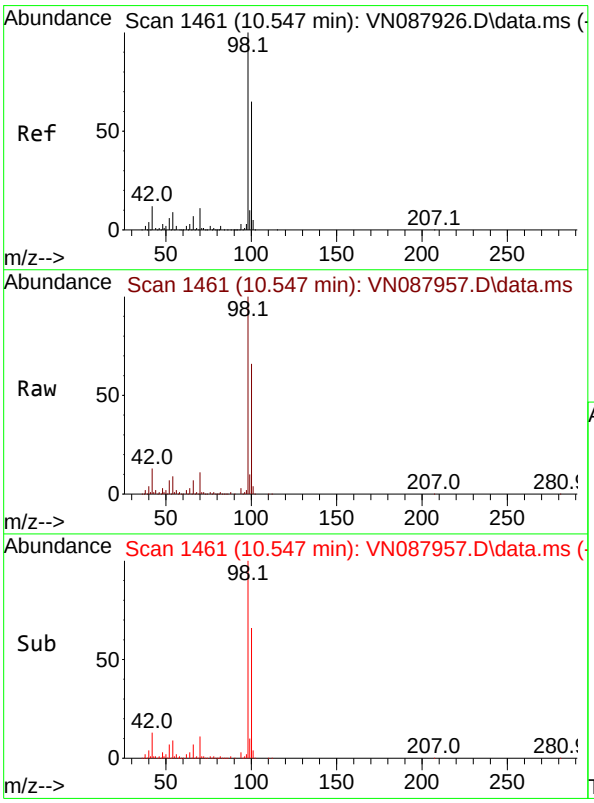
Ion	Ratio	Lower	Upper
88	100		
43	27.0	22.6	33.8
58	65.7	57.4	86.2



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations
APPROVED

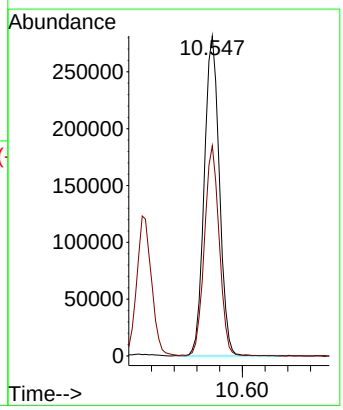
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

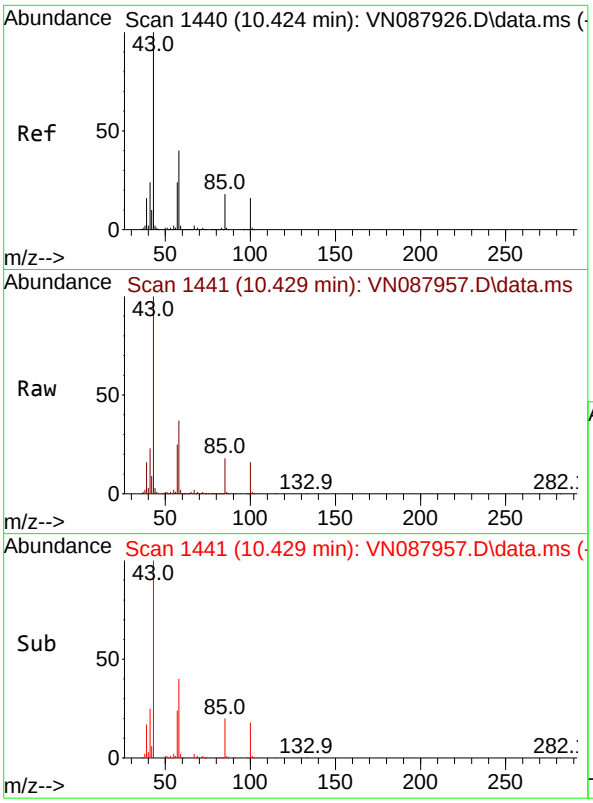


#50
Toluene-d8
Concen: 50.025 ug/l
RT: 10.547 min Scan# 1461
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 98 Resp: 518478

Ion	Ratio	Lower	Upper
98	100		
100	64.7	51.7	77.5

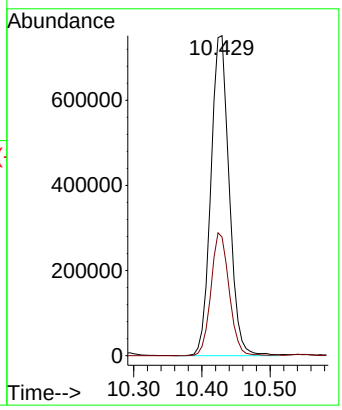




#51
4-Methyl-2-Pentanone
Concen: 307.046 ug/l
RT: 10.429 min Scan# 14
Delta R.T. 0.006 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 43 Resp: 140349

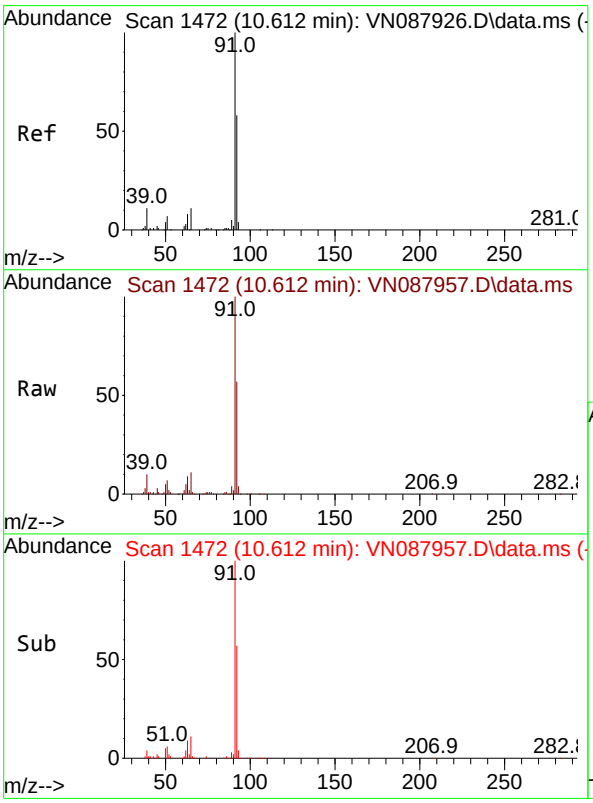
Ion	Ratio	Lower	Upper
43	100		
58	38.1	31.0	46.6



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations
APPROVED

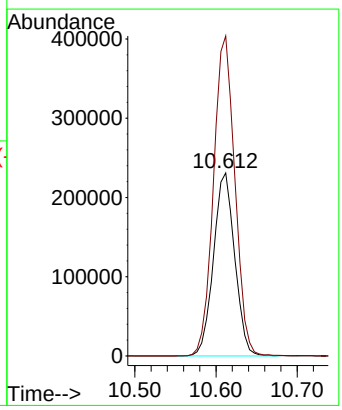
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

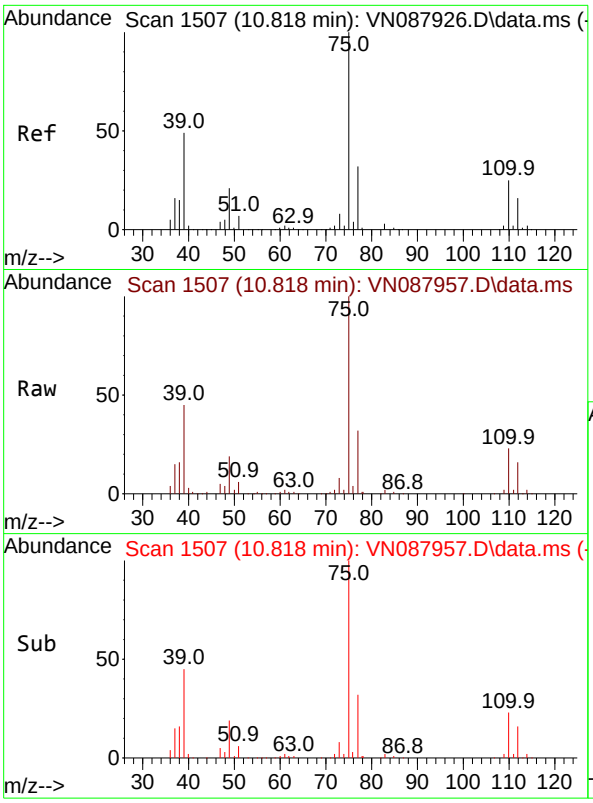


#52
Toluene
Concen: 56.968 ug/l
RT: 10.612 min Scan# 1472
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 92 Resp: 419478

Ion	Ratio	Lower	Upper
92	100		
91	176.3	138.2	207.2

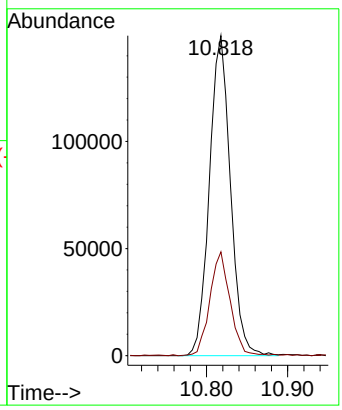




#53
t-1,3-Dichloropropene
Concen: 57.744 ug/l
RT: 10.818 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 75 Resp: 26912

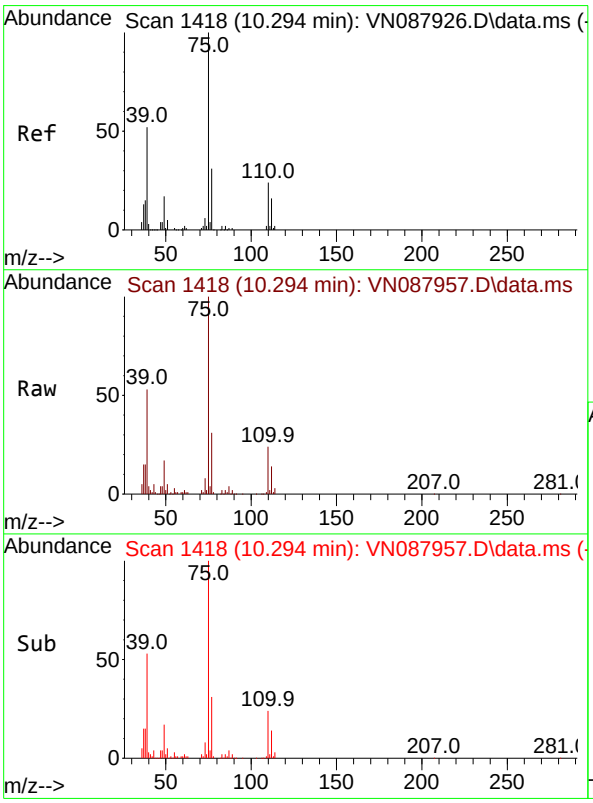
Ion	Ratio	Lower	Upper
75	100		
77	32.4	25.3	37.9



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations
APPROVED

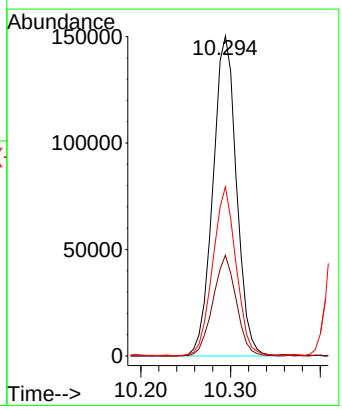
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

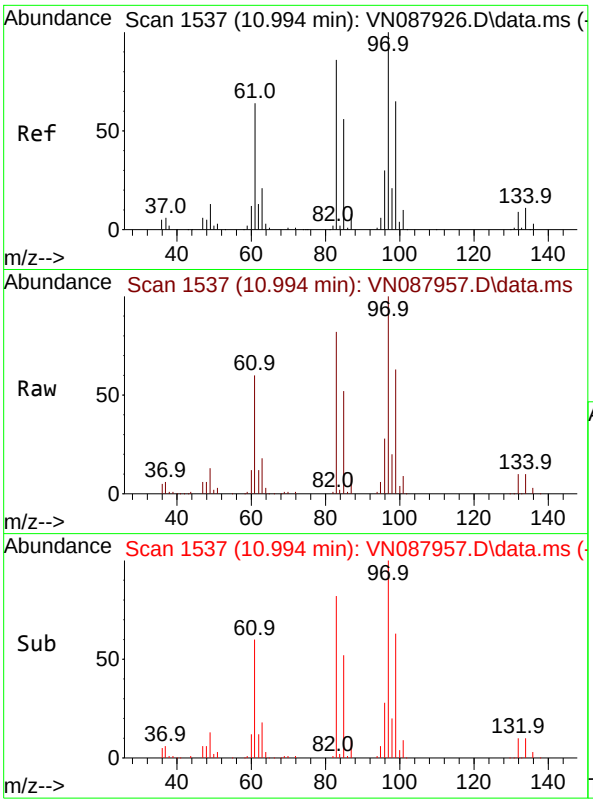


#54
cis-1,3-Dichloropropene
Concen: 56.574 ug/l
RT: 10.294 min Scan# 1418
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 75 Resp: 273850

Ion	Ratio	Lower	Upper
75	100		
77	31.5	24.7	37.1
39	52.8	41.4	62.0

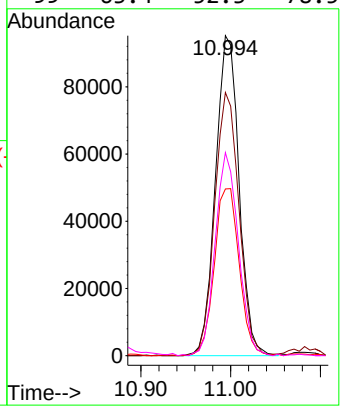




#55
1,1,2-Trichloroethane
Concen: 58.135 ug/l
RT: 10.994 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 97 Resp: 17405

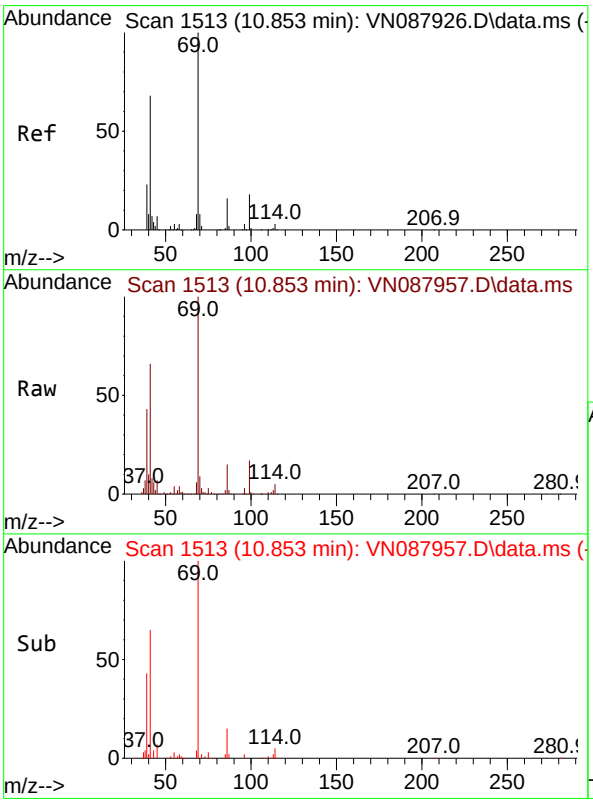
Ion	Ratio	Lower	Upper
97	100		
83	82.2	69.0	103.4
85	52.1	44.4	66.6
99	63.4	52.3	78.5



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations
APPROVED

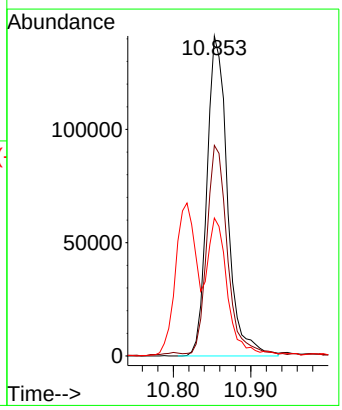
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

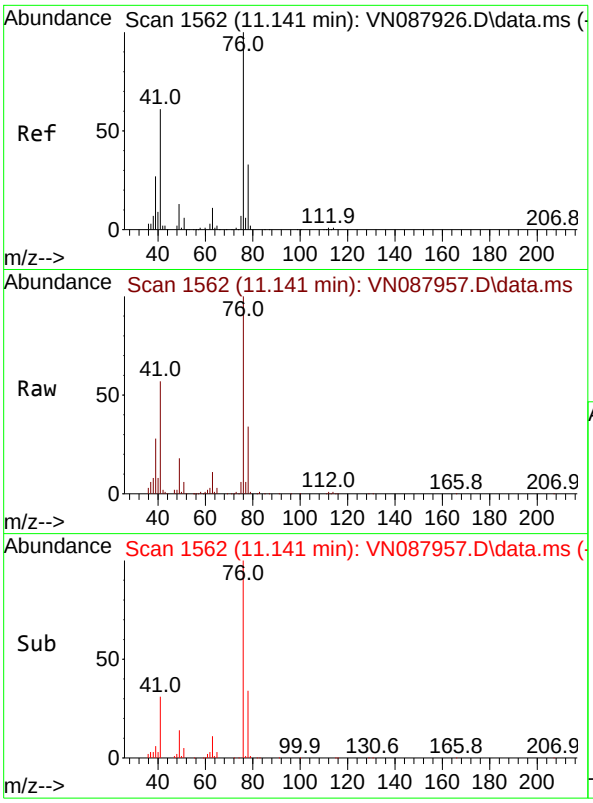


#56
Ethyl methacrylate
Concen: 60.081 ug/l
RT: 10.853 min Scan# 1513
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 69 Resp: 259922

Ion	Ratio	Lower	Upper
69	100		
41	65.9	53.8	80.6
39	41.4	34.7	52.1

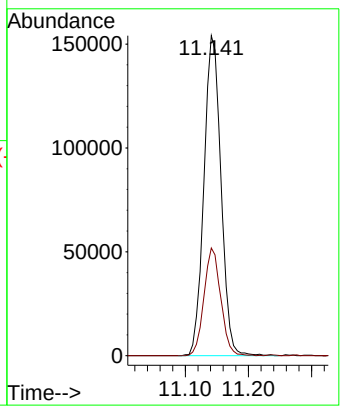




#57
1,3-Dichloropropane
Concen: 58.744 ug/l
RT: 11.141 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 76 Resp: 28928

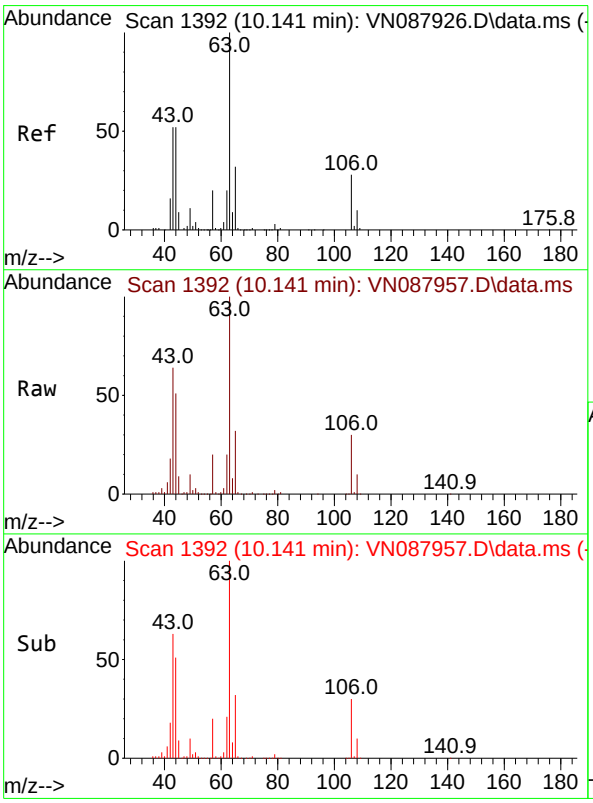
Ion	Ratio	Lower	Upper
76	100		
78	33.0	26.0	39.0



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations
APPROVED

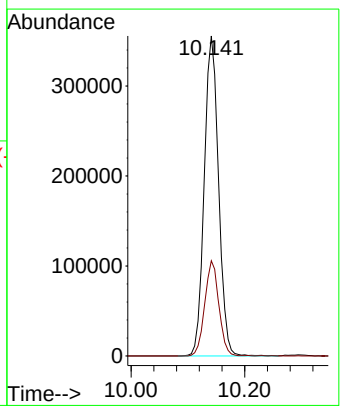
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

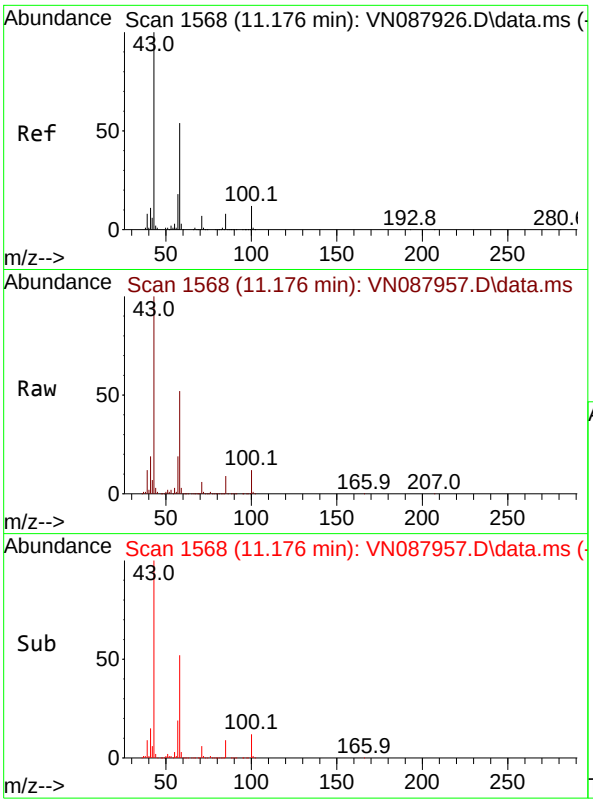


#58
2-Chloroethyl Vinyl ether
Concen: 304.423 ug/l
RT: 10.141 min Scan# 1392
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 63 Resp: 619221

Ion	Ratio	Lower	Upper
63	100		
106	29.4	22.6	33.8





#59
2-Hexanone
Concen: 325.445 ug/l
RT: 11.176 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

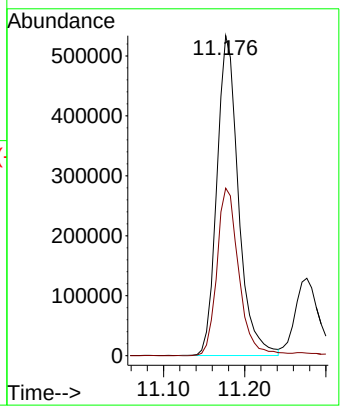
Tgt Ion: 43 Resp: 98362

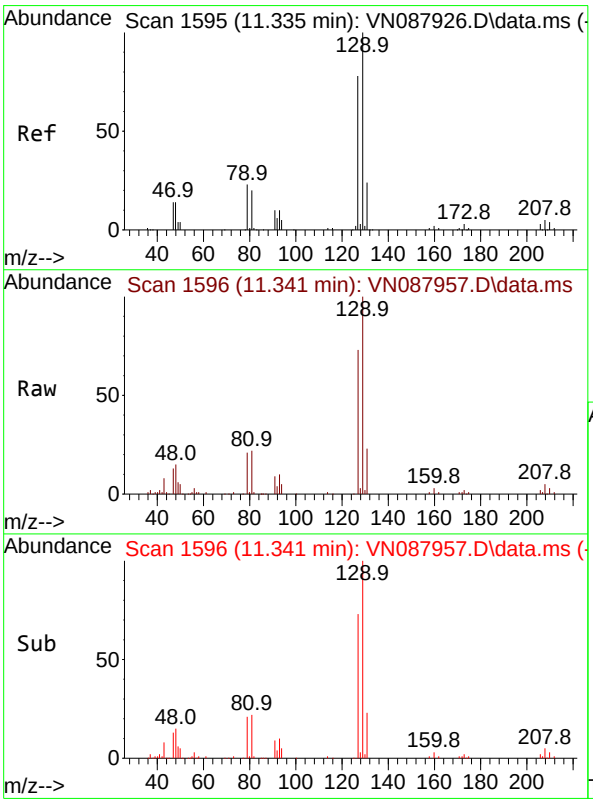
Ion	Ratio	Lower	Upper
43	100		
58	53.4	26.4	79.2

Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

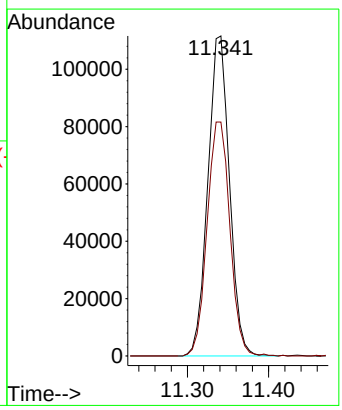


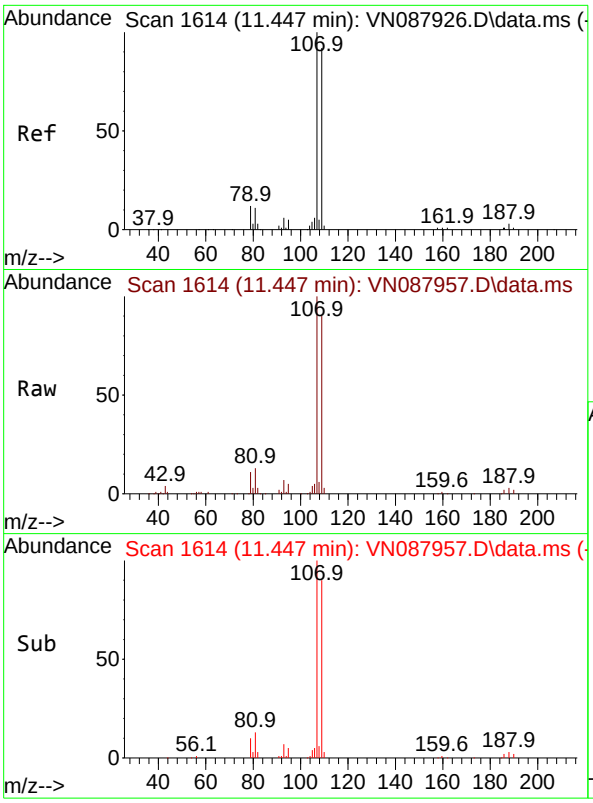


#60
Dibromochloromethane
Concen: 58.495 ug/l
RT: 11.341 min Scan# 1596
Delta R.T. 0.006 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion:129 Resp: 205916

Ion	Ratio	Lower	Upper
129	100		
127	77.2	39.3	117.9

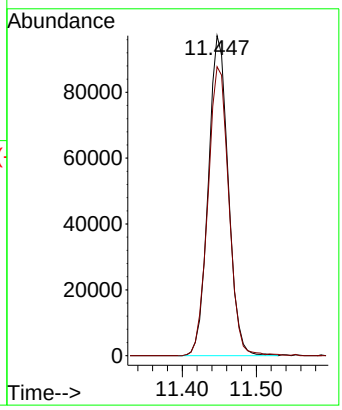




#61
1,2-Dibromoethane
Concen: 57.267 ug/l
RT: 11.447 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion:107 Resp: 18151

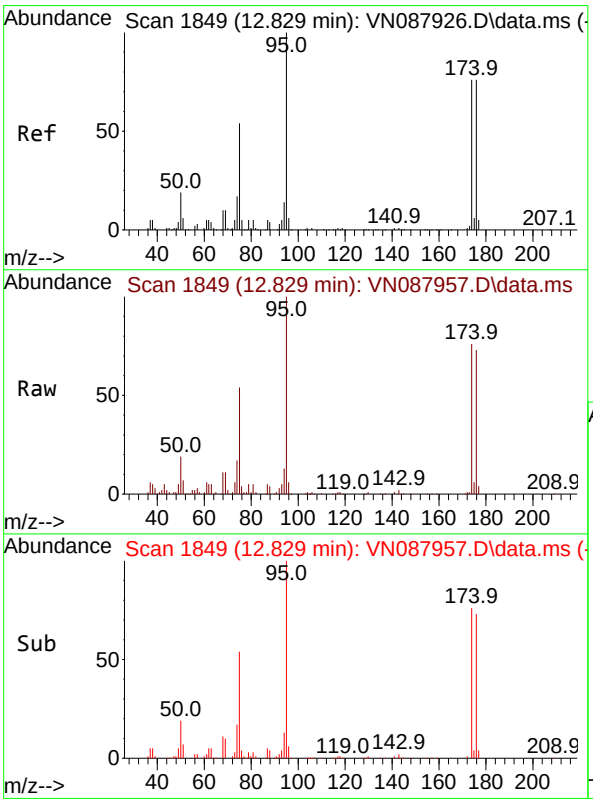
Ion	Ratio	Lower	Upper
107	100		
109	94.8	75.3	112.9



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations
APPROVED

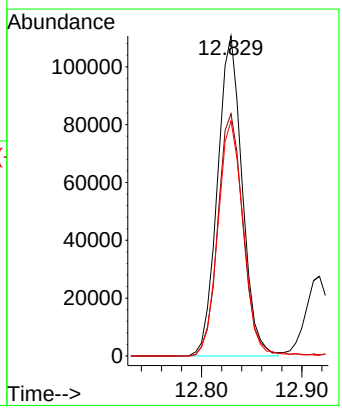
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

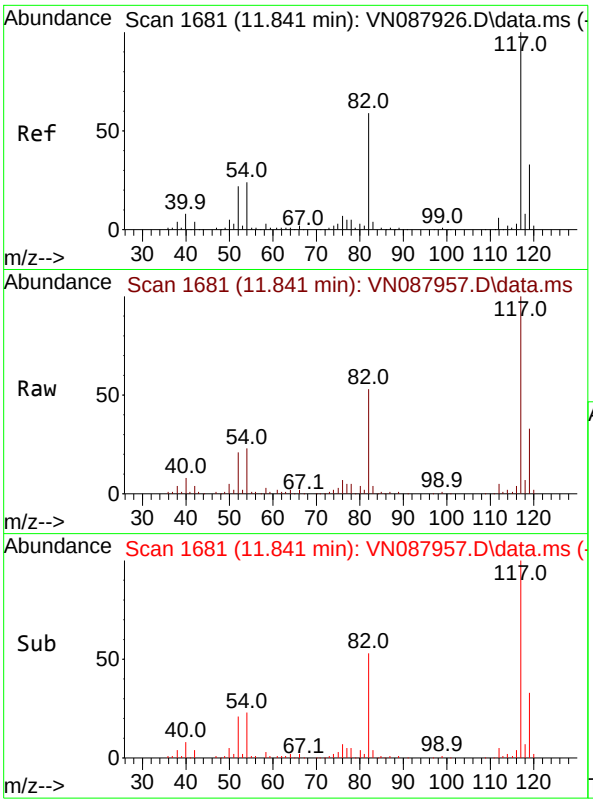


#62
4-Bromofluorobenzene
Concen: 51.018 ug/l
RT: 12.829 min Scan# 1849
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 95 Resp: 189005

Ion	Ratio	Lower	Upper
95	100		
174	77.4	0.0	159.2
176	75.7	0.0	152.6

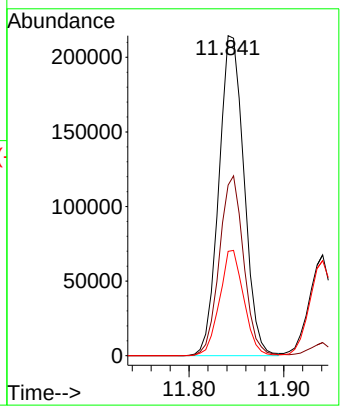




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.841 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion:117 Resp: 39586

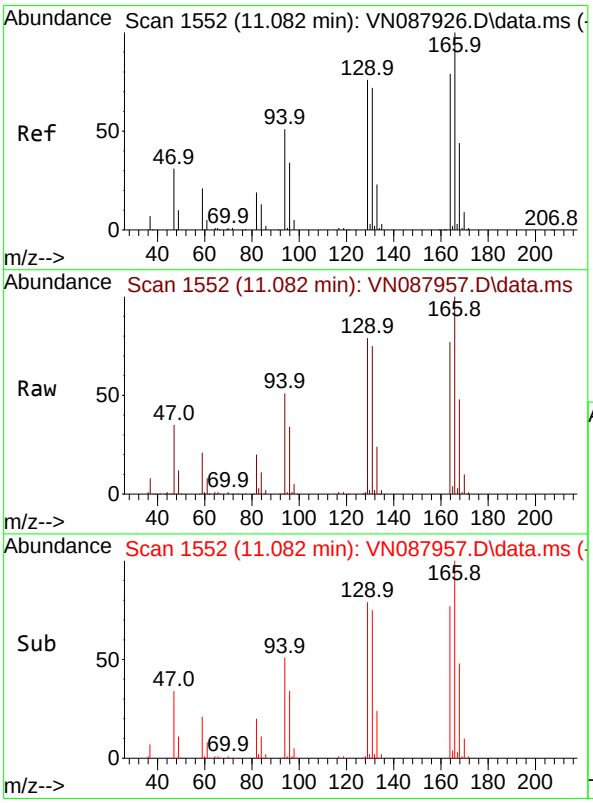
Ion	Ratio	Lower	Upper
117	100		
82	53.3	47.0	70.4
119	32.6	26.1	39.1



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations
APPROVED

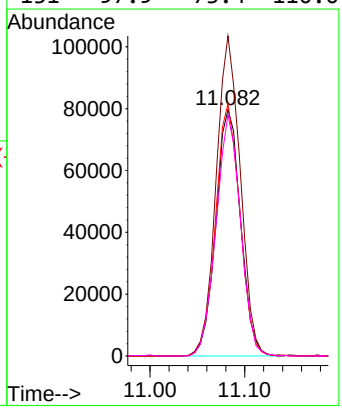
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

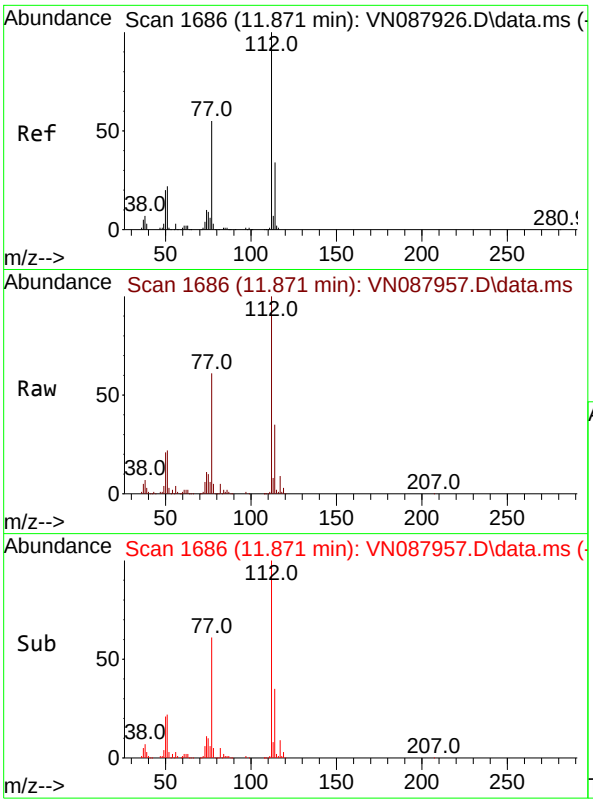


#64
Tetrachloroethene
Concen: 59.847 ug/l
RT: 11.082 min Scan# 1552
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion:164 Resp: 144313

Ion	Ratio	Lower	Upper
164	100		
166	130.0	101.6	152.4
129	102.4	77.5	116.3
131	97.9	73.4	110.0

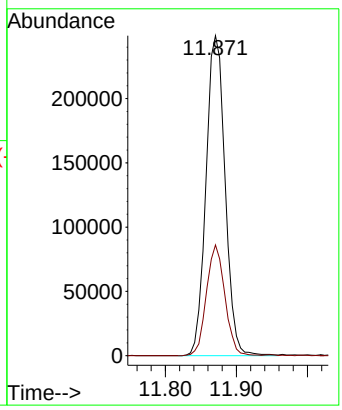




#65
Chlorobenzene
Concen: 55.252 ug/l
RT: 11.871 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion:112 Resp: 46545

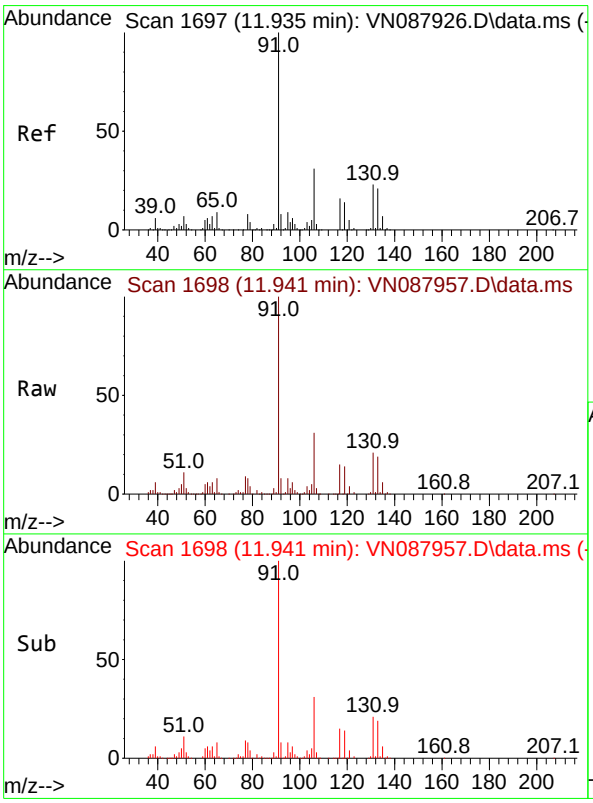
Ion	Ratio	Lower	Upper
112	100		
114	34.6	27.2	40.8



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations
APPROVED

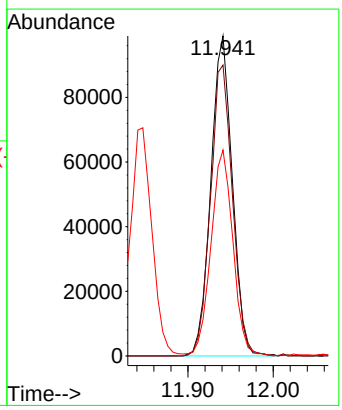
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

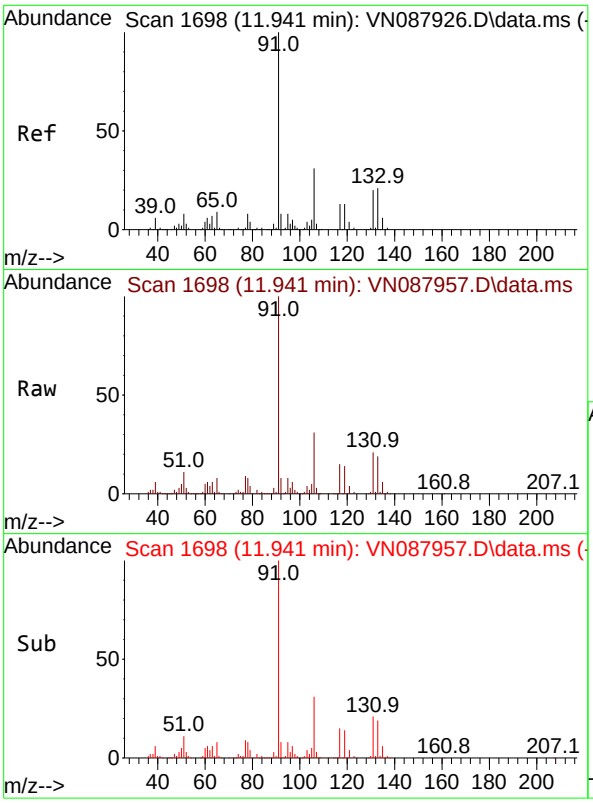


#66
1,1,1,2-Tetrachloroethane
Concen: 57.127 ug/l
RT: 11.941 min Scan# 1698
Delta R.T. 0.006 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion:131 Resp: 173547

Ion	Ratio	Lower	Upper
131	100		
133	93.7	48.4	145.0
119	65.9	31.9	95.5

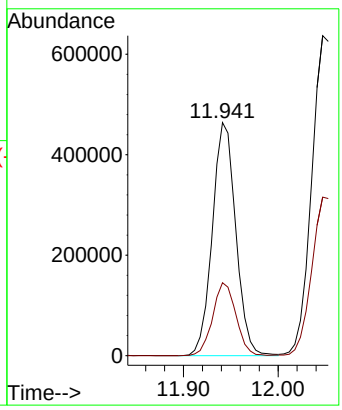




#67
Ethyl Benzene
Concen: 56.867 ug/l
RT: 11.941 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 91 Resp: 79937

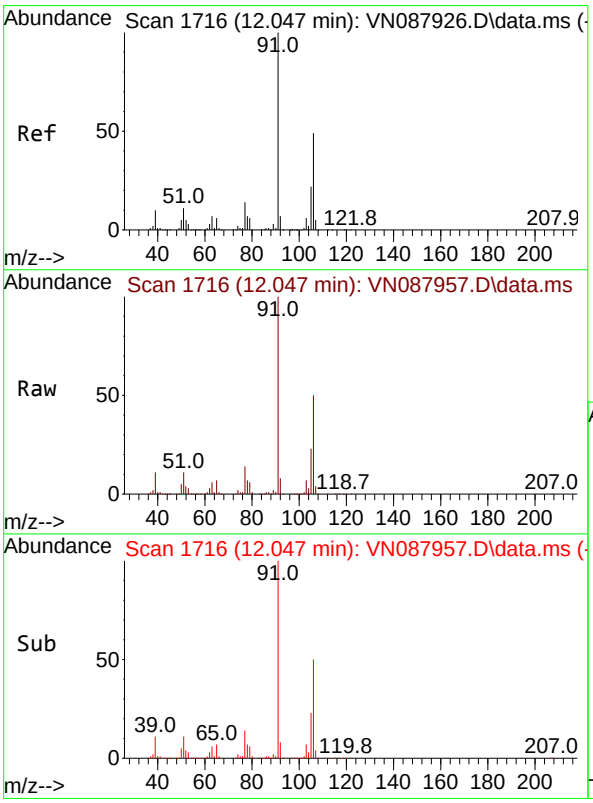
Ion	Ratio	Lower	Upper
91	100		
106	31.3	25.2	37.8



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations
APPROVED

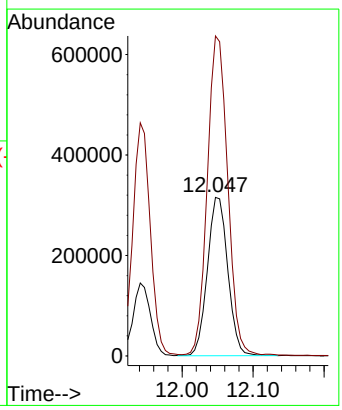
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

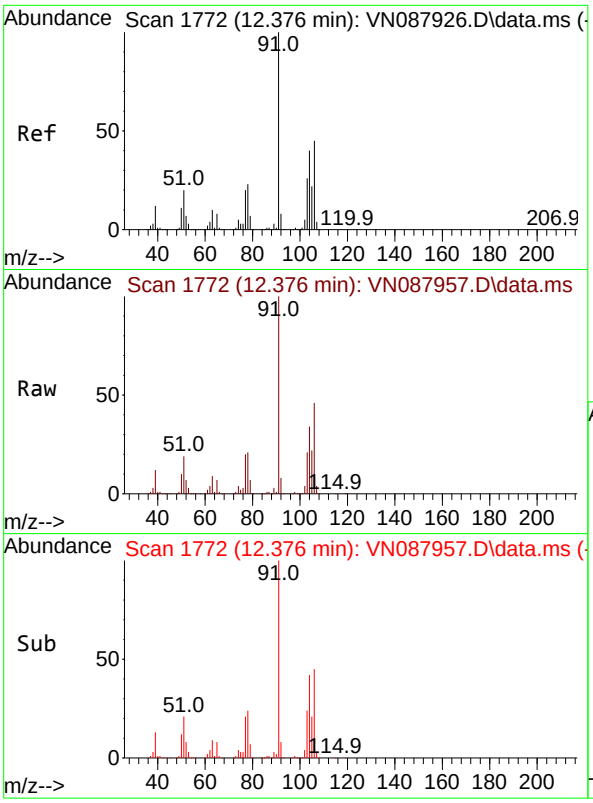


#68
m/p-Xylenes
Concen: 117.112 ug/l
RT: 12.047 min Scan# 1716
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion:106 Resp: 629602

Ion	Ratio	Lower	Upper
106	100		
91	200.0	162.9	244.3

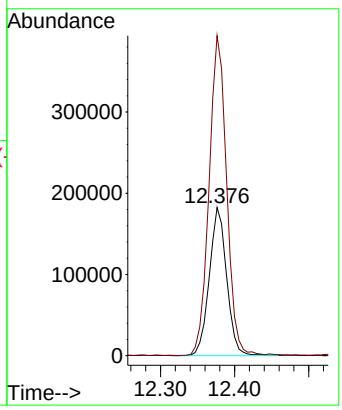




#69
o-Xylene
Concen: 57.518 ug/l
RT: 12.376 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion:106 Resp: 29708

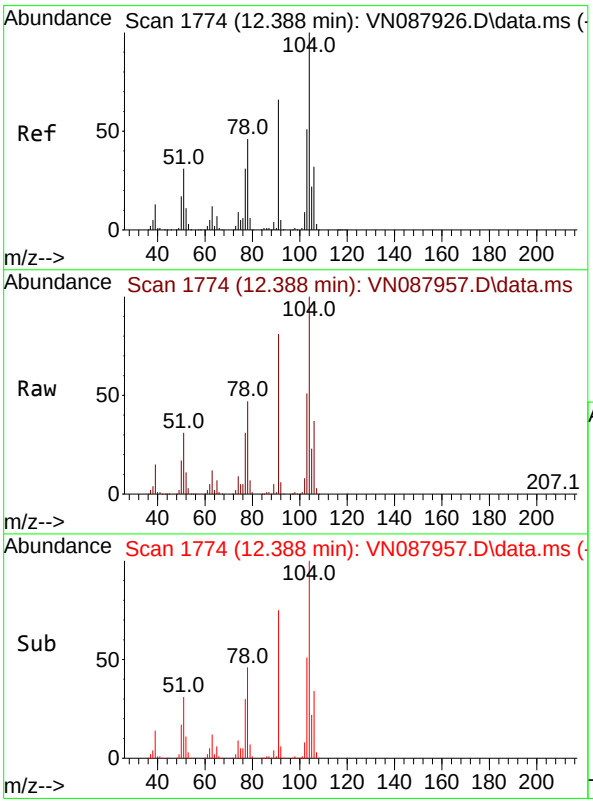
Ion	Ratio	Lower	Upper
106	100		
91	218.2	108.2	324.6



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations
APPROVED

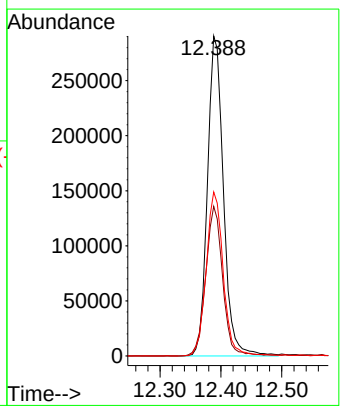
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

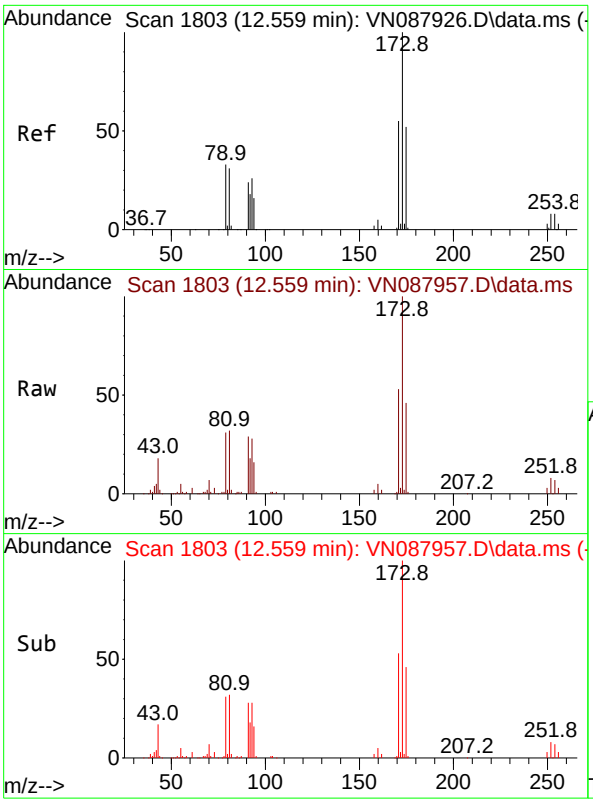


#70
Styrene
Concen: 59.880 ug/l
RT: 12.388 min Scan# 1774
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion:104 Resp: 531182

Ion	Ratio	Lower	Upper
104	100		
78	49.2	39.7	59.5
103	54.5	44.6	67.0

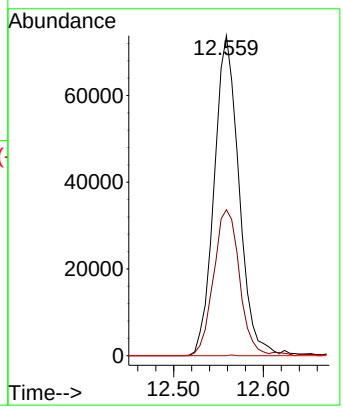




#71
Bromoform
Concen: 57.425 ug/l
RT: 12.559 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion:173 Resp: 14153

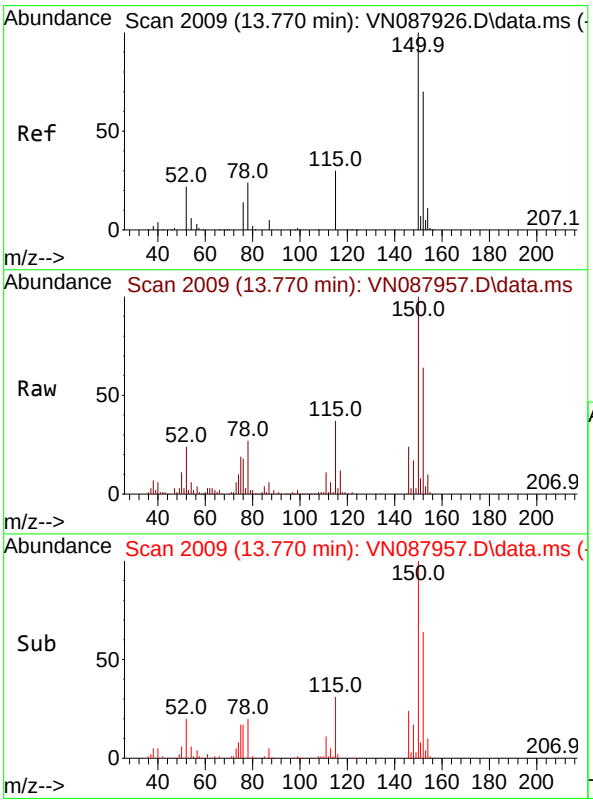
Ion	Ratio	Lower	Upper
173	100		
175	47.5	23.7	71.1
254	0.0	0.1	0.1



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations
APPROVED

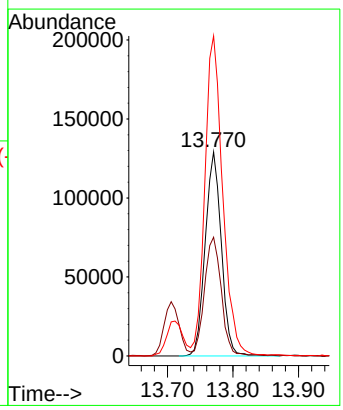
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

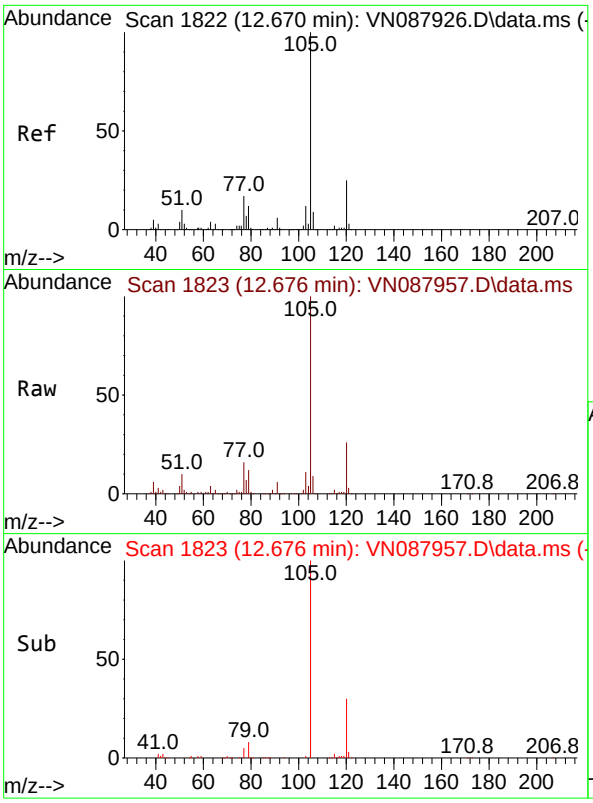


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.770 min Scan# 2009
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion:152 Resp: 221292

Ion	Ratio	Lower	Upper
152	100		
115	60.1	29.9	89.7
150	171.5	0.0	335.0

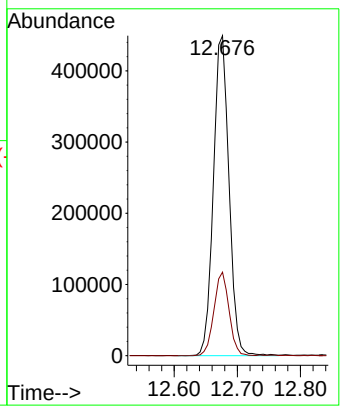




#73
Isopropylbenzene
Concen: 56.149 ug/l
RT: 12.676 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion:105 Resp: 770089

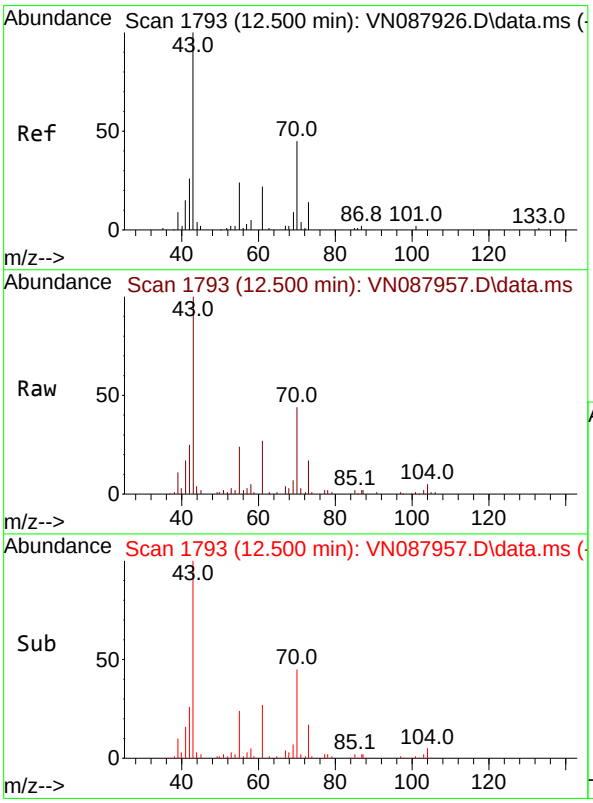
Ion	Ratio	Lower	Upper
105	100		
120	25.3	13.1	39.1



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations APPROVED

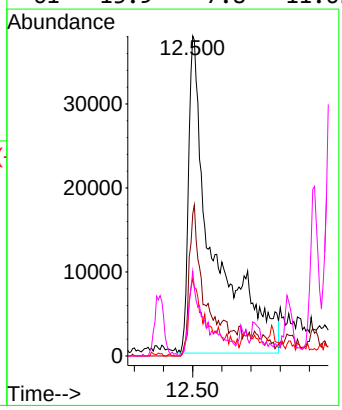
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

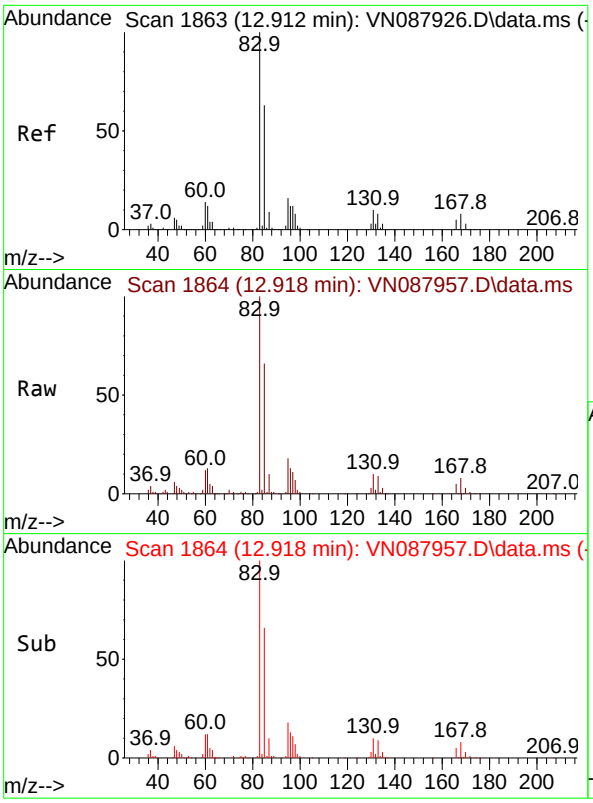


#74
N-amyl acetate
Concen: 48.950 ug/l m
RT: 12.500 min Scan# 1793
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 43 Resp: 221206

Ion	Ratio	Lower	Upper
43	100		
70	26.9	19.8	29.8
55	14.1	9.6	14.4
61	13.9	7.8	11.6#





#75
1,1,2,2-Tetrachloroethane
Concen: 55.031 ug/l
RT: 12.918 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

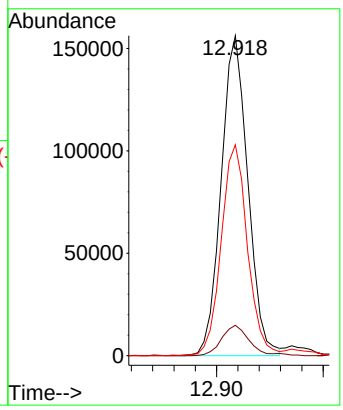
Tgt Ion: 83 Resp: 2719

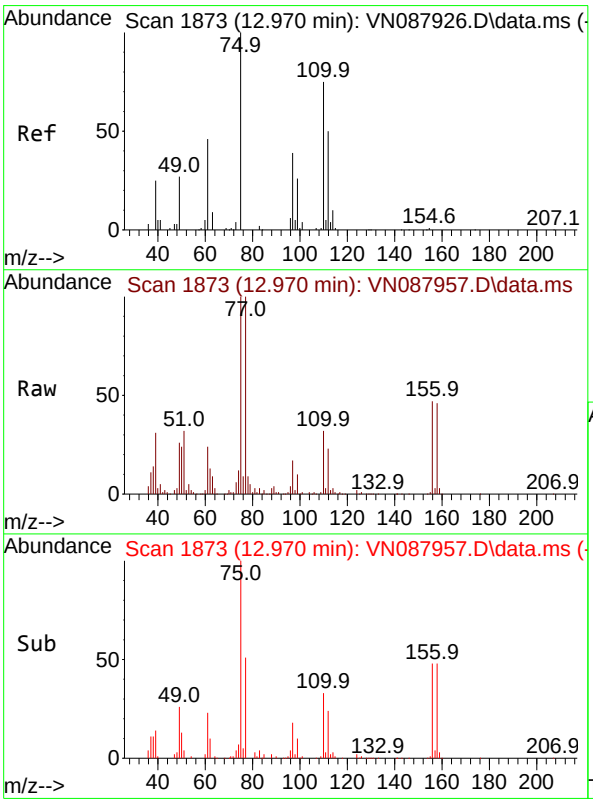
Ion	Ratio	Lower	Upper
83	100		
131	9.9	5.2	15.6
85	64.8	32.4	97.0

Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

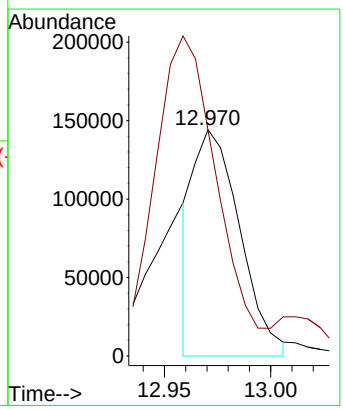


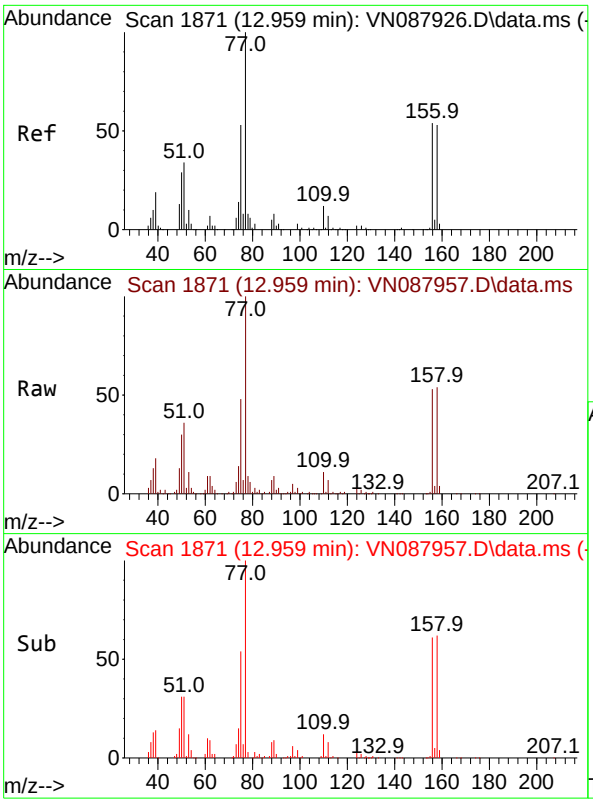


#76
1,2,3-Trichloropropane
Concen: 50.308 ug/l m
RT: 12.970 min Scan# 1873
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 75 Resp: 219449

Ion	Ratio	Lower	Upper
75	100		
77	193.1	89.5	268.5

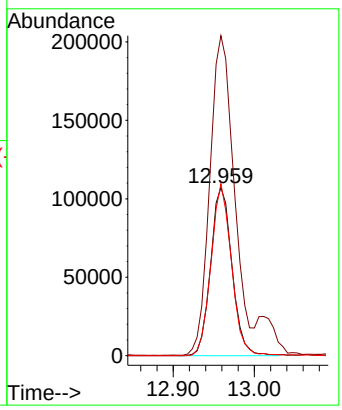




#77
Bromobenzene
Concen: 53.515 ug/l
RT: 12.959 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion:156 Resp: 19528

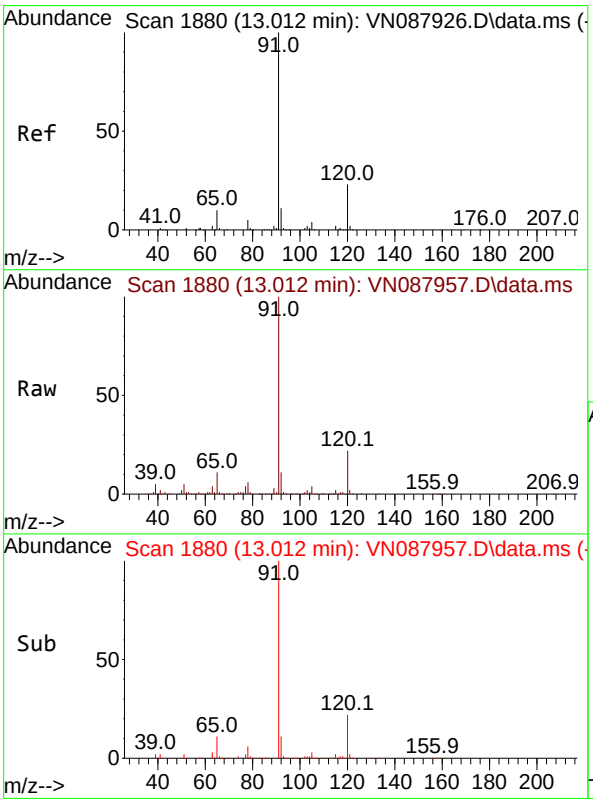
Ion	Ratio	Lower	Upper
156	100		
77	217.0	108.2	324.6
158	98.6	49.6	149.0



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations
APPROVED

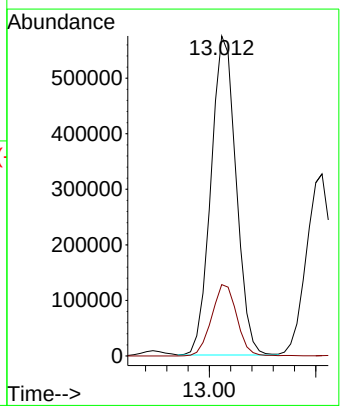
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

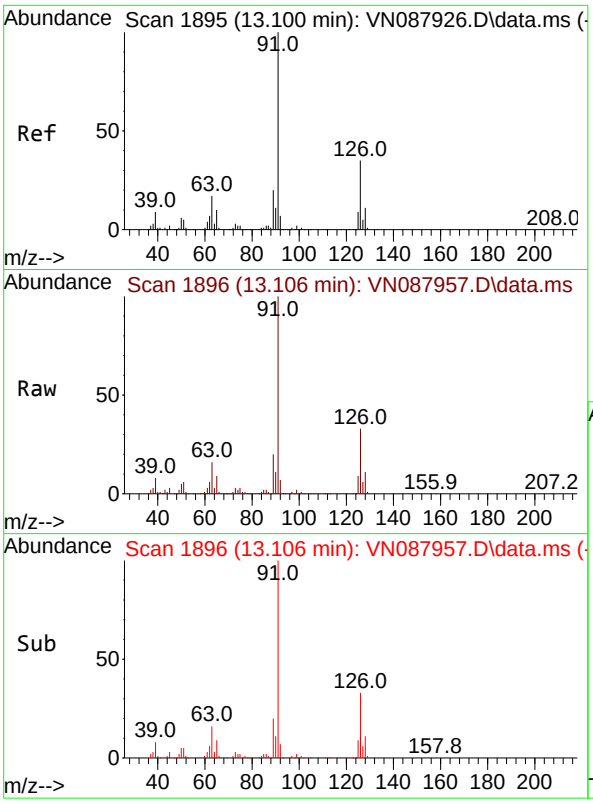


#78
n-propylbenzene
Concen: 54.849 ug/l
RT: 13.012 min Scan# 1880
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 91 Resp: 940516

Ion	Ratio	Lower	Upper
91	100		
120	22.5	11.1	33.1

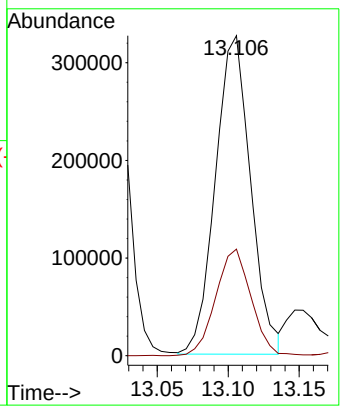




#79
2-Chlorotoluene
Concen: 53.998 ug/l
RT: 13.106 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 91 Resp: 56378

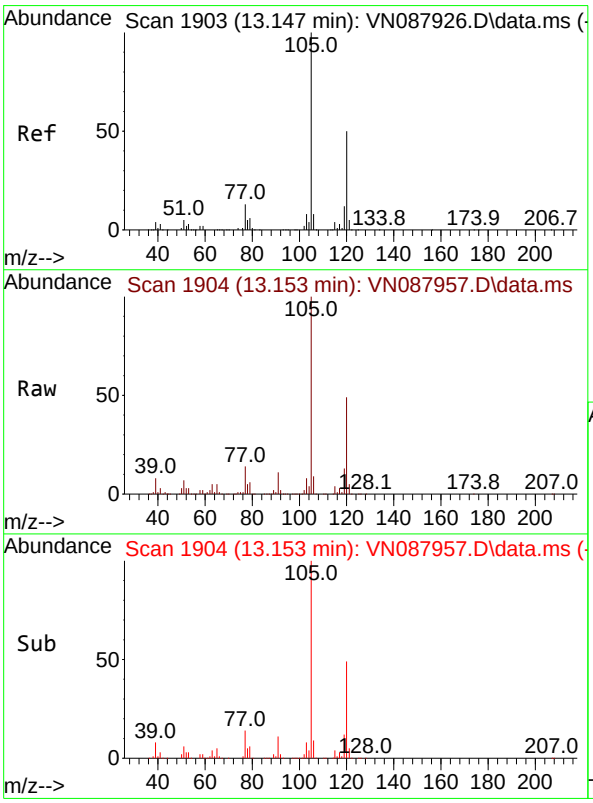
Ion	Ratio	Lower	Upper
91	100		
126	33.5	16.6	49.8



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations
APPROVED

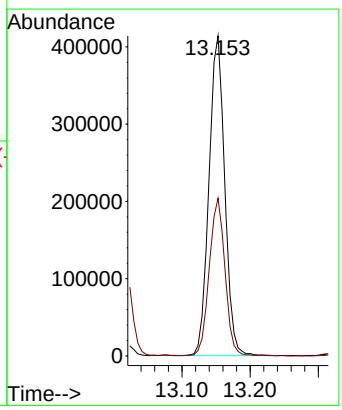
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

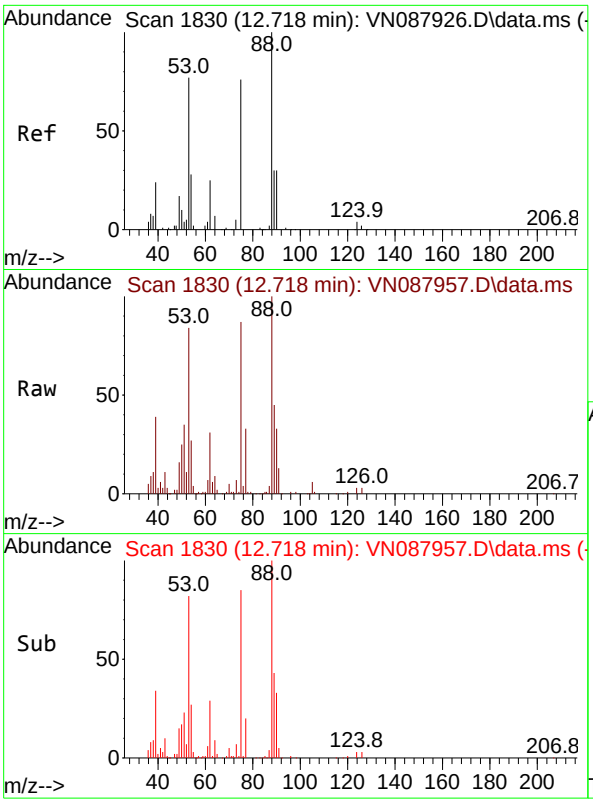


#80
1,3,5-Trimethylbenzene
Concen: 56.189 ug/l
RT: 13.153 min Scan# 1904
Delta R.T. 0.006 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion:105 Resp: 666576

Ion	Ratio	Lower	Upper
105	100		
120	49.4	24.7	74.1

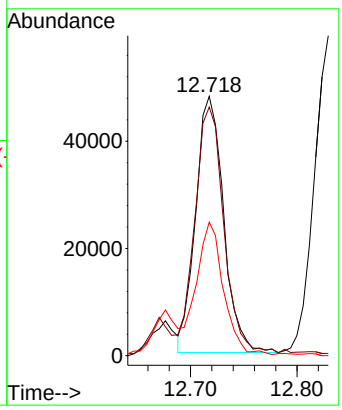




#81
trans-1,4-Dichloro-2-butene
Concen: 55.474 ug/l
RT: 12.718 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 75 Resp: 8714

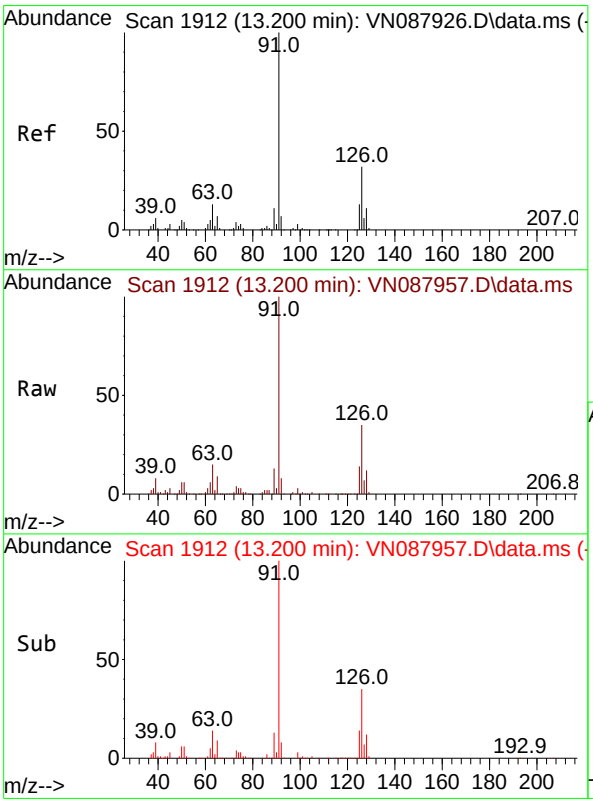
Ion	Ratio	Lower	Upper
75	100		
53	100.8	82.0	123.0
89	51.2	36.1	54.1



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations
APPROVED

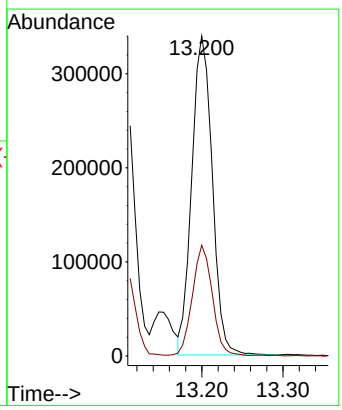
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

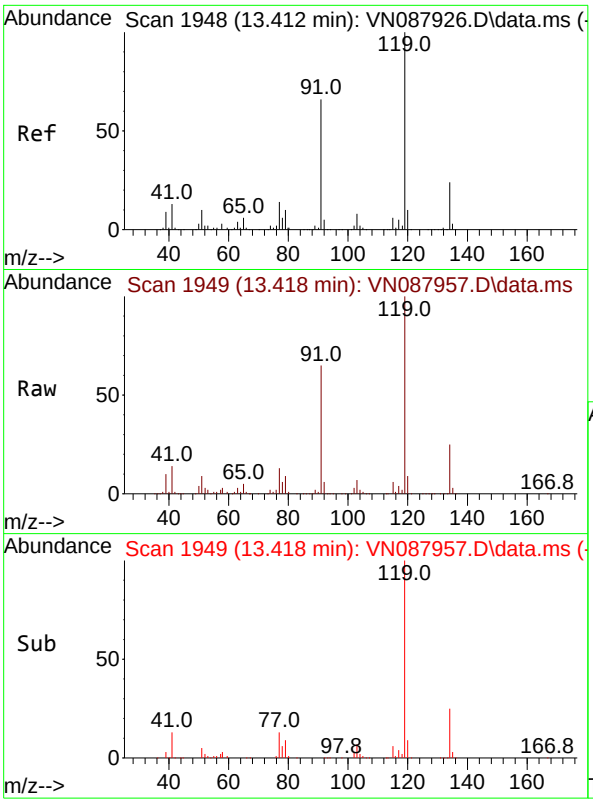


#82
4-Chlorotoluene
Concen: 56.698 ug/l
RT: 13.200 min Scan# 1912
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 91 Resp: 596499

Ion	Ratio	Lower	Upper
91	100		
126	33.5	16.9	50.6





#83
tert-Butylbenzene
Concen: 55.427 ug/l
RT: 13.418 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

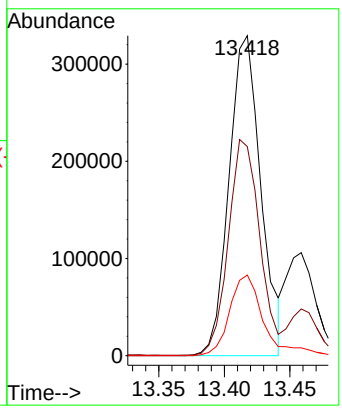
Tgt Ion:119 Resp: 55655

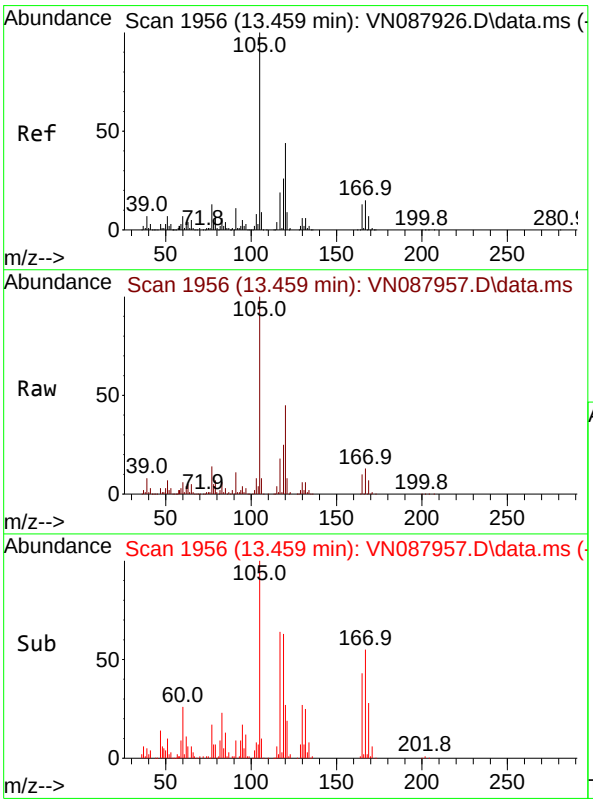
Ion	Ratio	Lower	Upper
119	100		
91	66.3	32.1	96.3
134	27.0	12.3	36.8

Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

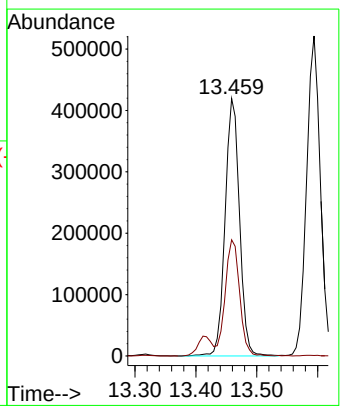


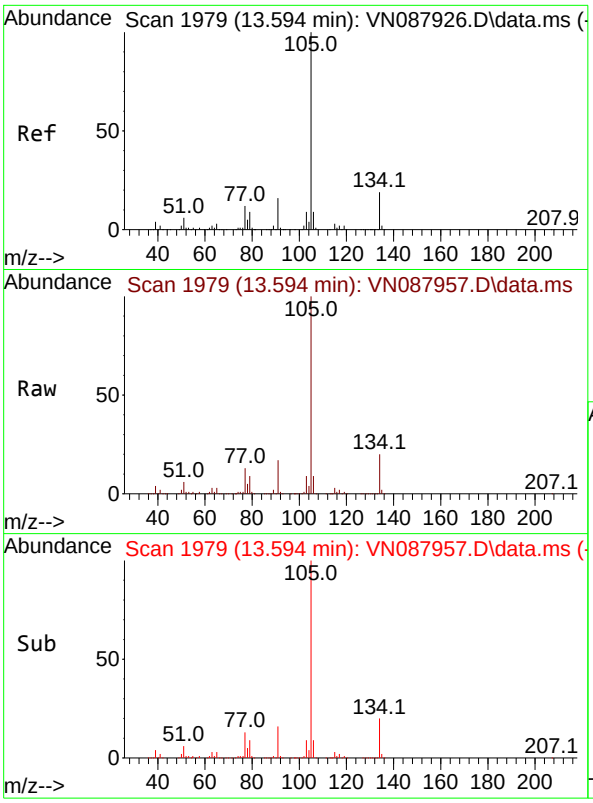


#84
1,2,4-Trimethylbenzene
Concen: 56.560 ug/l
RT: 13.459 min Scan# 1956
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion:105 Resp: 688225

Ion	Ratio	Lower	Upper
105	100		
120	45.2	22.4	67.3

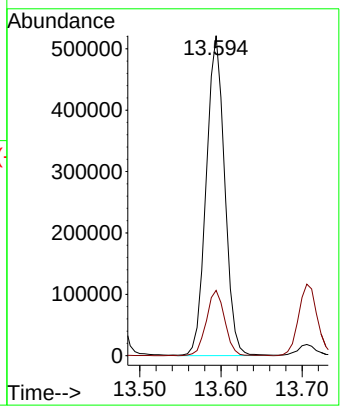




#85
sec-Butylbenzene
Concen: 55.687 ug/l
RT: 13.594 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion:105 Resp: 81980

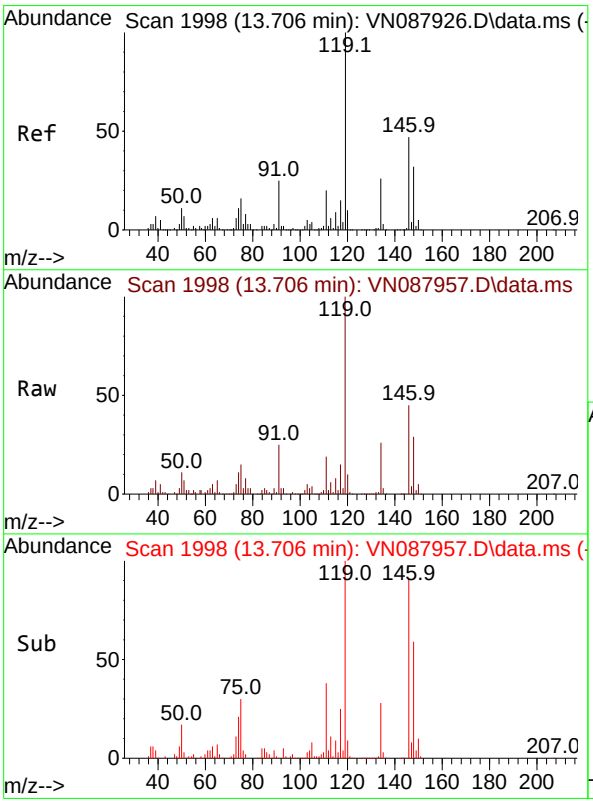
Ion	Ratio	Lower	Upper
105	100		
134	20.4	9.6	28.8



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations APPROVED

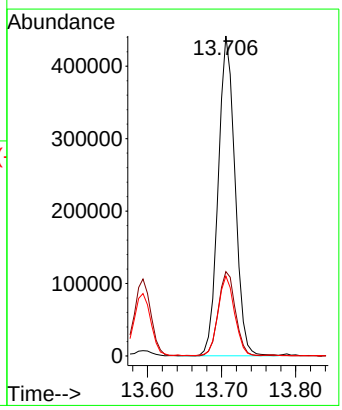
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

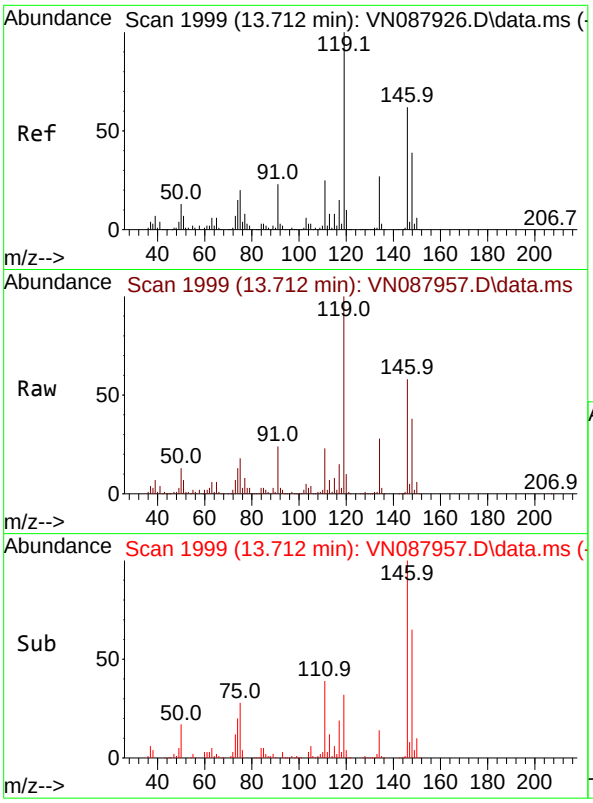


#86
p-Isopropyltoluene
Concen: 55.540 ug/l
RT: 13.706 min Scan# 1998
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion:119 Resp: 692512

Ion	Ratio	Lower	Upper
119	100		
134	26.8	13.1	39.3
91	24.4	11.9	35.5

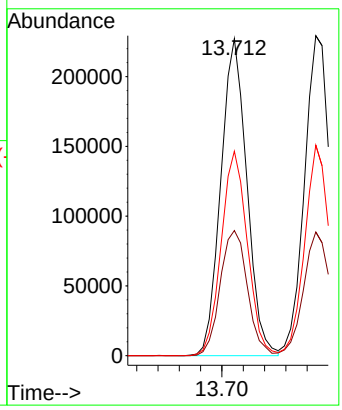




#87
1,3-Dichlorobenzene
Concen: 54.166 ug/l
RT: 13.712 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion:146 Resp: 38572

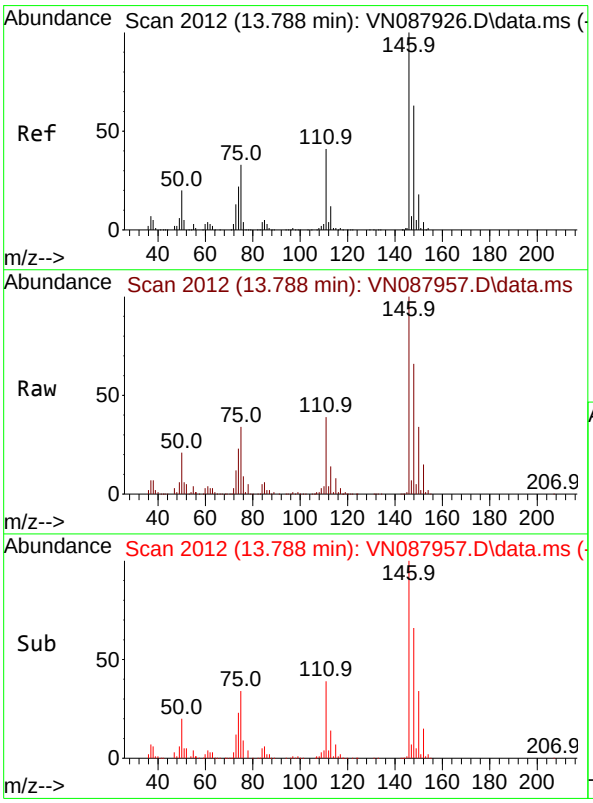
Ion	Ratio	Lower	Upper
146	100		
111	41.2	20.3	60.8
148	64.9	32.4	97.2



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations APPROVED

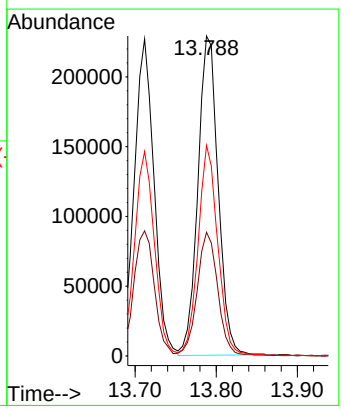
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

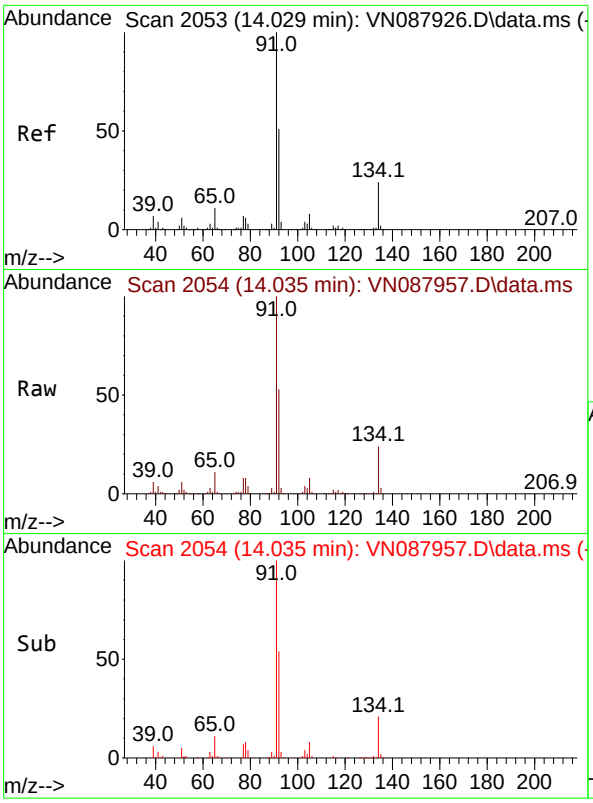


#88
1,4-Dichlorobenzene
Concen: 54.060 ug/l
RT: 13.788 min Scan# 2012
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion:146 Resp: 395625

Ion	Ratio	Lower	Upper
146	100		
111	40.0	20.5	61.5
148	64.5	32.8	98.4

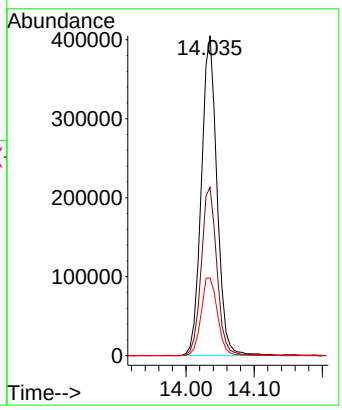




#89
n-Butylbenzene
Concen: 54.811 ug/l
RT: 14.035 min Scan# 2
Delta R.T. 0.006 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 91 Resp: 64587

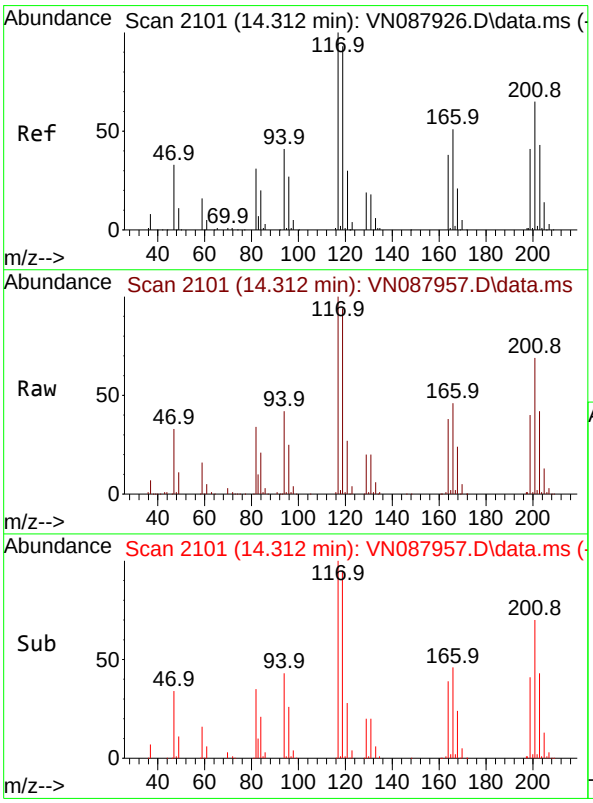
Ion	Ratio	Lower	Upper
91	100		
92	53.0	25.9	77.8
134	25.6	12.6	37.8



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations
APPROVED

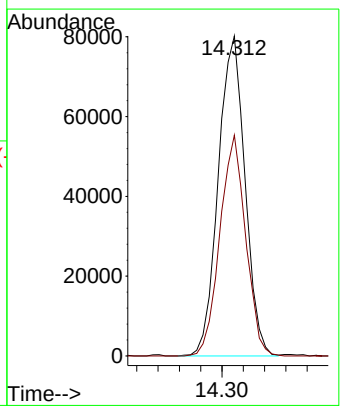
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

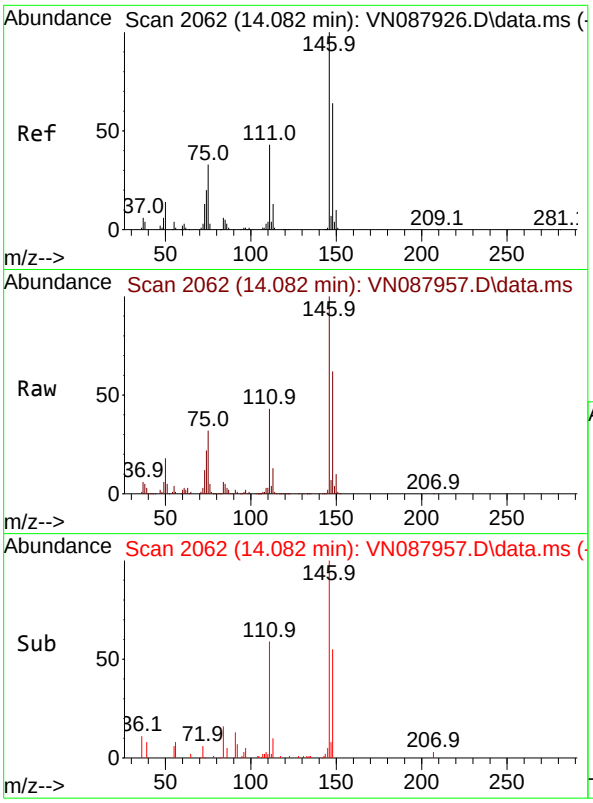


#90
Hexachloroethane
Concen: 53.561 ug/l
RT: 14.312 min Scan# 2101
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion:117 Resp: 139501

Ion	Ratio	Lower	Upper
117	100		
201	66.7	33.6	100.6

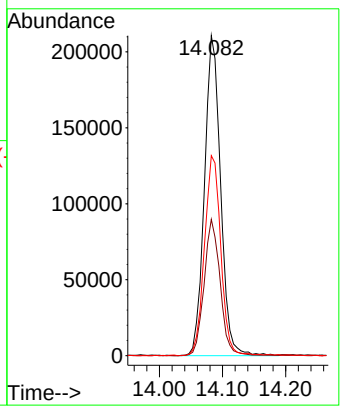




#91
1,2-Dichlorobenzene
Concen: 54.610 ug/l
RT: 14.082 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion:146 Resp: 37484

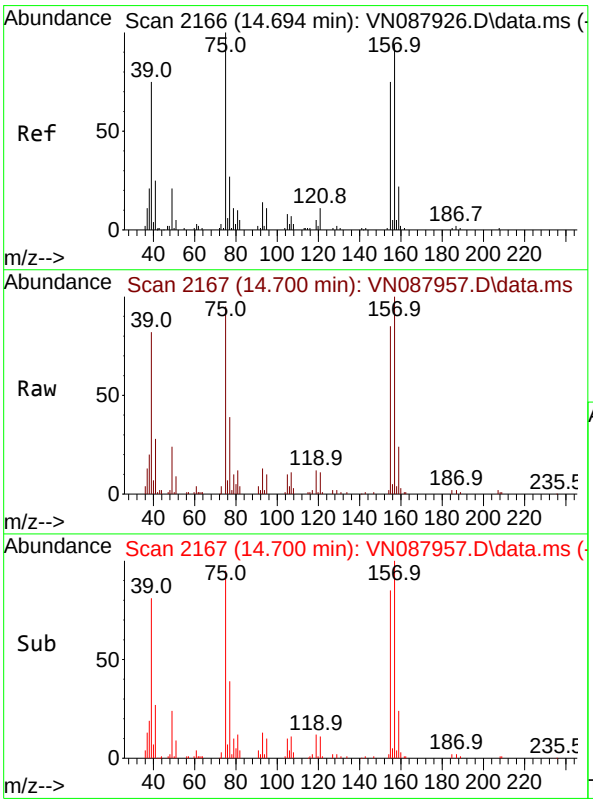
Ion	Ratio	Lower	Upper
146	100		
111	42.1	20.9	62.7
148	63.1	31.9	95.9



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations
APPROVED

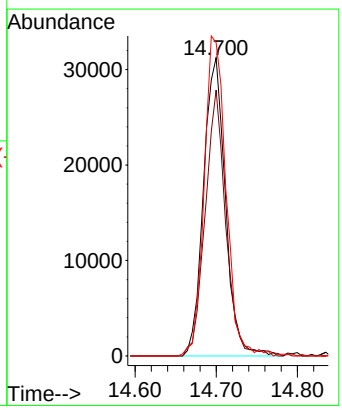
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

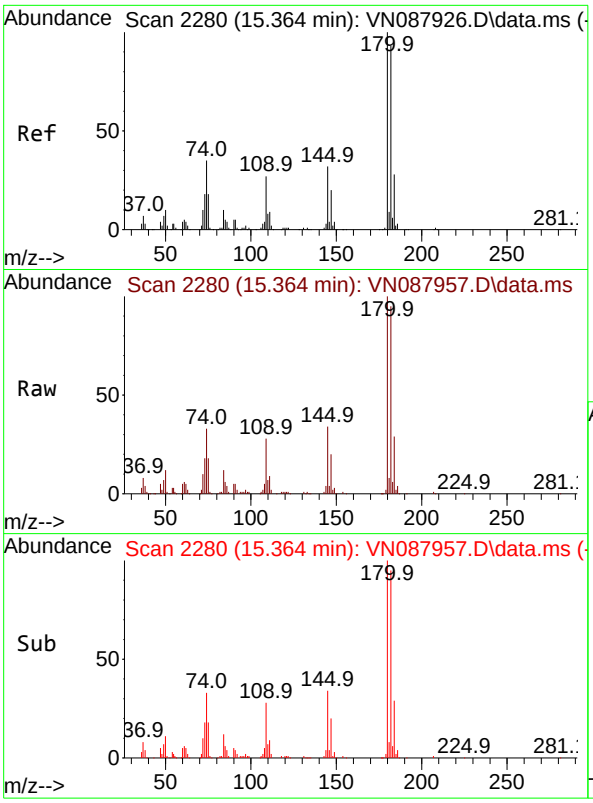


#92
1,2-Dibromo-3-Chloropropane
Concen: 51.025 ug/l
RT: 14.700 min Scan# 2167
Delta R.T. 0.006 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion: 75 Resp: 58587

Ion	Ratio	Lower	Upper
75	100		
155	84.1	40.2	120.6
157	106.7	50.9	152.7

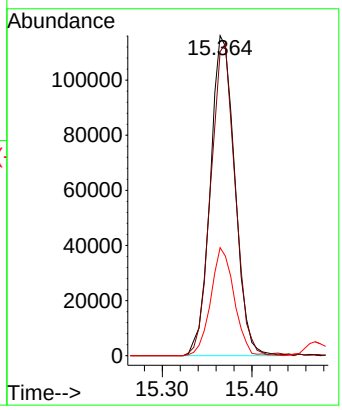




#93
1,2,4-Trichlorobenzene
Concen: 54.352 ug/l
RT: 15.364 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion:180 Resp: 22027

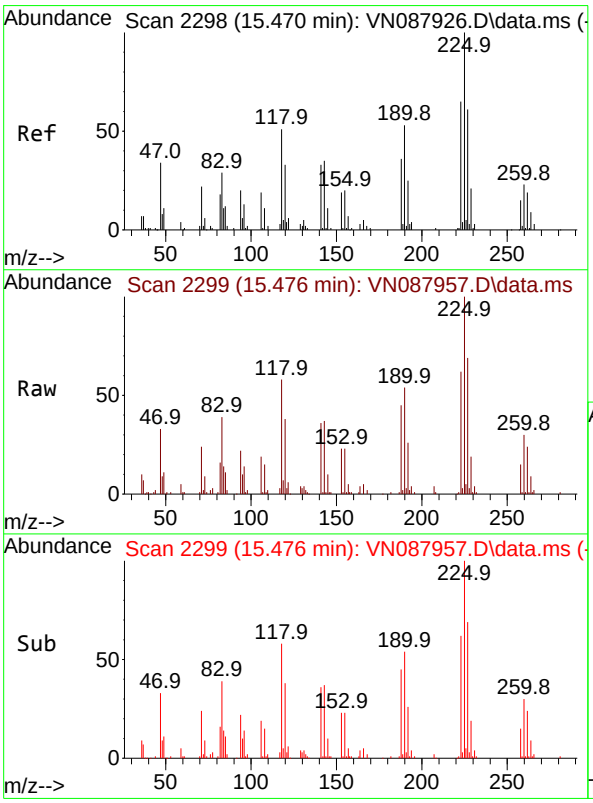
Ion	Ratio	Lower	Upper
180	100		
182	96.2	48.5	145.5
145	32.2	15.9	47.6



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations
APPROVED

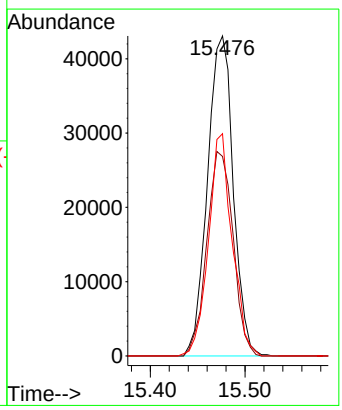
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

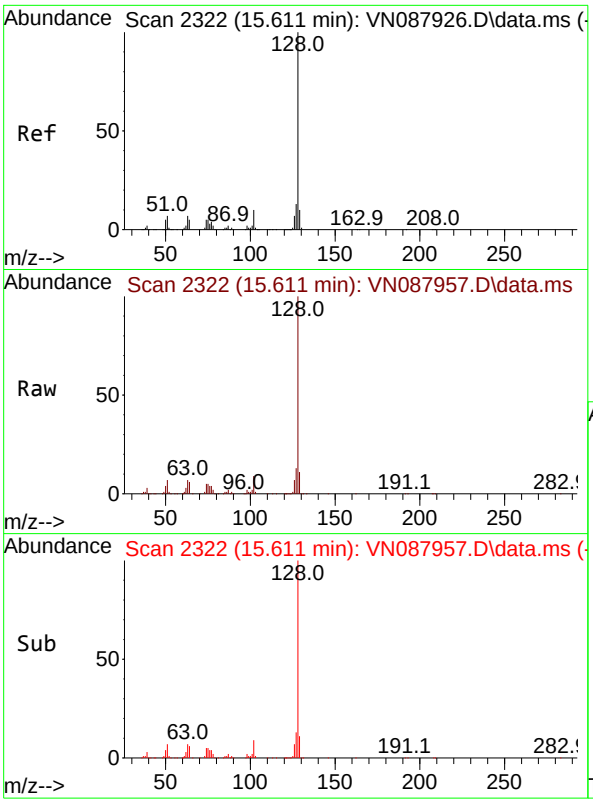


#94
Hexachlorobutadiene
Concen: 54.698 ug/l
RT: 15.476 min Scan# 2299
Delta R.T. 0.006 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion:225 Resp: 81592

Ion	Ratio	Lower	Upper
225	100		
223	64.9	31.8	95.4
227	63.8	31.9	95.9

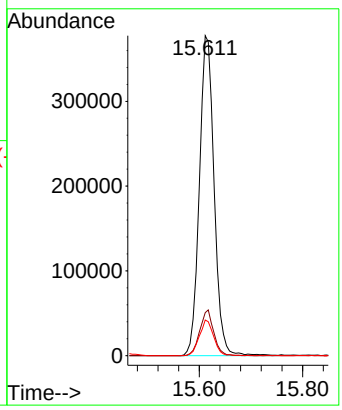




#95
Naphthalene
Concen: 57.479 ug/l
RT: 15.611 min Scan# 2
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion:128 Resp: 74776

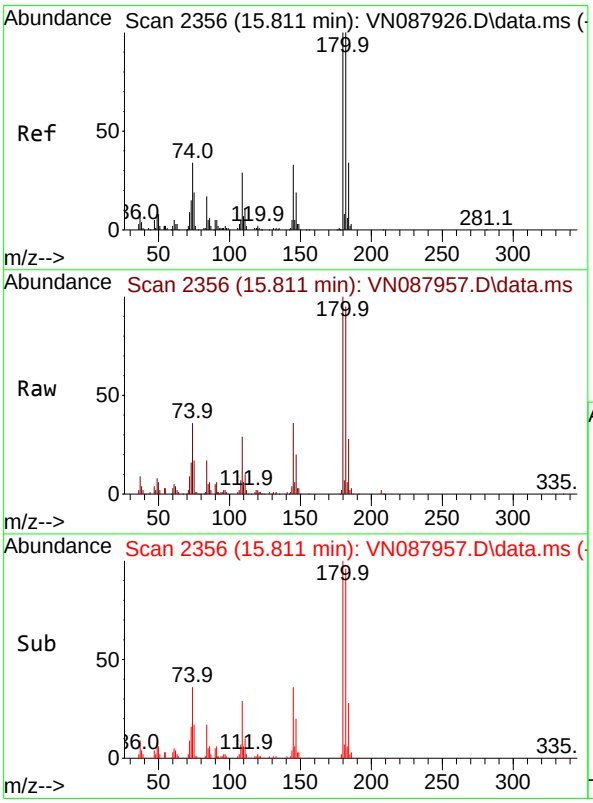
Ion	Ratio	Lower	Upper
128	100		
127	13.5	10.2	15.4
129	10.9	8.6	13.0



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MS

Manual Integrations
APPROVED

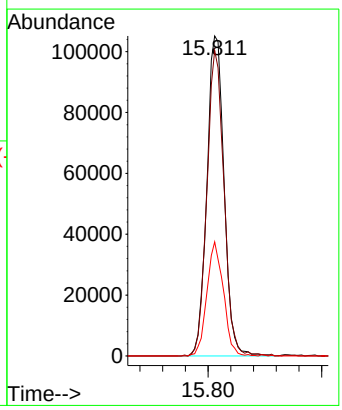
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025



#96
1,2,3-Trichlorobenzene
Concen: 55.941 ug/l
RT: 15.811 min Scan# 2356
Delta R.T. 0.000 min
Lab File: VN087957.D
Acq: 25 Sep 2025 16:07

Tgt Ion:180 Resp: 220406

Ion	Ratio	Lower	Upper
180	100		
182	94.7	47.3	142.0
145	34.3	16.1	48.3



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

Report of Analysis

Client:	Weston Solutions, Inc.	Date Collected:	09/23/25
Project:	RFP 916	Date Received:	09/23/25
Client Sample ID:	EME-TS14-01MSD	SDG No.:	Q3179
Lab Sample ID:	Q3179-03MSD	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	SPLP VOA
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VN087958.D	1	09/25/25 16:28	VN092525

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	52.8		0.22	5.00	ug/L
74-87-3	Chloromethane	52.0		0.32	5.00	ug/L
75-01-4	Vinyl Chloride	52.4		0.26	5.00	ug/L
141-78-6	Ethyl Acetate	50.6		0.31	5.00	ug/L
74-83-9	Bromomethane	58.1		1.40	5.00	ug/L
75-00-3	Chloroethane	54.7		0.47	5.00	ug/L
75-69-4	Trichlorofluoromethane	52.8		0.33	5.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	53.4		0.25	5.00	ug/L
75-35-4	1,1-Dichloroethene	52.6		0.23	5.00	ug/L
107-02-8	Acrolein	250		7.10	25.0	ug/L
107-13-1	Acrylonitrile	280		0.83	25.0	ug/L
67-64-1	Acetone	280		1.50	25.0	ug/L
75-15-0	Carbon Disulfide	49.7		0.21	5.00	ug/L
1634-04-4	Methyl tert-butyl Ether	55.9		0.16	5.00	ug/L
79-20-9	Methyl Acetate	66.8		0.27	5.00	ug/L
75-09-2	Methylene Chloride	61.8		0.28	5.00	ug/L
156-60-5	trans-1,2-Dichloroethene	51.4		0.23	5.00	ug/L
75-34-3	1,1-Dichloroethane	53.8		0.23	5.00	ug/L
110-82-7	Cyclohexane	49.8		1.50	5.00	ug/L
78-93-3	2-Butanone	280		0.98	25.0	ug/L
56-23-5	Carbon Tetrachloride	51.1		0.25	5.00	ug/L
594-20-7	2,2-Dichloropropane	48.1		0.21	5.00	ug/L
156-59-2	cis-1,2-Dichloroethene	54.1		0.19	5.00	ug/L
74-97-5	Bromochloromethane	44.1		0.22	5.00	ug/L
67-66-3	Chloroform	54.2		0.25	5.00	ug/L
71-55-6	1,1,1-Trichloroethane	53.5		0.20	5.00	ug/L
108-87-2	Methylcyclohexane	49.7		0.16	5.00	ug/L
563-58-6	1,1-Dichloropropene	50.8		0.15	5.00	ug/L
71-43-2	Benzene	51.7		0.15	5.00	ug/L
107-06-2	1,2-Dichloroethane	51.0		0.22	5.00	ug/L

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

Report of Analysis

Client:	Weston Solutions, Inc.	Date Collected:	09/23/25
Project:	RFP 916	Date Received:	09/23/25
Client Sample ID:	EME-TS14-01MSD	SDG No.:	Q3179
Lab Sample ID:	Q3179-03MSD	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	SPLP VOA
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VN087958.D	1	09/25/25 16:28	VN092525

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-01-6	Trichloroethene	50.3		0.090	5.00	ug/L
78-87-5	1,2-Dichloropropane	51.3		0.20	5.00	ug/L
74-95-3	Dibromomethane	51.3		0.25	5.00	ug/L
75-27-4	Bromodichloromethane	52.2		0.22	5.00	ug/L
108-10-1	4-Methyl-2-Pentanone	280		0.68	25.0	ug/L
108-88-3	Toluene	51.5		0.14	5.00	ug/L
10061-02-6	t-1,3-Dichloropropene	51.4		0.17	5.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	52.2		0.16	5.00	ug/L
79-00-5	1,1,2-Trichloroethane	52.3		0.21	5.00	ug/L
142-28-9	1,3-Dichloropropane	52.6		0.19	5.00	ug/L
110-75-8	2-Chloroethyl Vinyl ether	330		0.30	25.0	ug/L
591-78-6	2-Hexanone	290		0.89	25.0	ug/L
124-48-1	Dibromochloromethane	53.8		0.18	5.00	ug/L
106-93-4	1,2-Dibromoethane	51.7		0.15	5.00	ug/L
127-18-4	Tetrachloroethene	57.8		0.23	5.00	ug/L
108-90-7	Chlorobenzene	53.0		0.12	5.00	ug/L
630-20-6	1,1,1,2-Tetrachloroethane	53.6		0.19	5.00	ug/L
100-41-4	Ethyl Benzene	54.3		0.13	5.00	ug/L
179601-23-1	m/p-Xylenes	110		0.24	10.0	ug/L
95-47-6	o-Xylene	55.6		0.12	5.00	ug/L
100-42-5	Styrene	57.0		0.15	5.00	ug/L
75-25-2	Bromoform	55.8		0.19	5.00	ug/L
98-82-8	Isopropylbenzene	54.0		0.12	5.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	53.8		0.26	5.00	ug/L
96-18-4	1,2,3-Trichloropropane	47.8		0.35	5.00	ug/L
108-86-1	Bromobenzene	52.5		0.24	5.00	ug/L
95-49-8	2-Chlorotoluene	52.1		0.14	5.00	ug/L
108-67-8	1,3,5-Trimethylbenzene	54.3		0.15	5.00	ug/L
106-43-4	4-Chlorotoluene	53.8		0.13	5.00	ug/L
95-63-6	1,2,4-Trimethylbenzene	54.2		0.14	5.00	ug/L
541-73-1	1,3-Dichlorobenzene	53.1		0.16	5.00	ug/L

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

Report of Analysis

Client:	Weston Solutions, Inc.	Date Collected:	09/23/25
Project:	RFP 916	Date Received:	09/23/25
Client Sample ID:	EME-TS14-01MSD	SDG No.:	Q3179
Lab Sample ID:	Q3179-03MSD	Matrix:	Water
Analytical Method:	8260D	% Solid:	0
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	SPLP VOA
GC Column:	RXI-624 ID : 0.25	Level :	LOW
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
VN087958.D	1	09/25/25 16:28	VN092525

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
106-46-7	1,4-Dichlorobenzene	51.6		0.19	5.00	ug/L
95-50-1	1,2-Dichlorobenzene	53.0		0.16	5.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	50.0		0.53	5.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	51.7		0.20	5.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	53.0		0.20	5.00	ug/L
74-88-4	Methyl Iodide	61.3		0.83	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	48.9		74 - 125	98%	SPK: 50
1868-53-7	Dibromofluoromethane	45.3		75 - 124	91%	SPK: 50
2037-26-5	Toluene-d8	44.5		86 - 113	89%	SPK: 50
460-00-4	4-Bromofluorobenzene	44.8		77 - 121	90%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	240000	8.206			
540-36-3	1,4-Difluorobenzene	461000	9.082			
3114-55-4	Chlorobenzene-d5	428000	11.847			
3855-82-1	1,4-Dichlorobenzene-d4	237000	13.77			

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\VN092525\
Data File : VN087958.D
Acq On : 25 Sep 2025 16:28
Operator : JC\MD
Sample : Q3179-03MSD
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 26 07:34:27 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 05:05:30 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Pentafluorobenzene	8.206	168	240403	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.082	114	461373	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.847	117	428179	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.770	152	236701	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.565	65	197860	48.905	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 97.820%			
35) Dibromofluoromethane	8.147	113	151624	45.263	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 90.520%			
50) Toluene-d8	10.547	98	524034	44.485	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 88.960%			
62) 4-Bromofluorobenzene	12.829	95	188664	44.806	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 89.620%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.142	85	147132	52.848	ug/l	96
3) Chloromethane	2.383	50	148155	51.972	ug/l	100
4) Vinyl Chloride	2.536	62	152514	52.441	ug/l	93
5) Bromomethane	2.965	94	104816	58.135	ug/l	91
6) Chloroethane	3.136	64	103494	54.730	ug/l	95
7) Trichlorofluoromethane	3.506	101	250193	52.837	ug/l	98
8) Diethyl Ether	3.965	74	98569	55.100	ug/l	100
9) 1,1,2-Trichlorotrifluo...	4.359	101	133660	53.406	ug/l	99
10) Methyl Iodide	4.577	142	138126	61.323	ug/l	98
11) Tert butyl alcohol	5.536	59	168784	289.641	ug/l	100
12) 1,1-Dichloroethene	4.336	96	132845	52.607	ug/l	91
13) Acrolein	4.177	56	190324	254.543	ug/l	97
14) Allyl chloride	5.012	41	220837	53.717	ug/l	98
15) Acrylonitrile	5.712	53	508346	278.104	ug/l	99
16) Acetone	4.424	43	466699	280.364	ug/l	98
17) Carbon Disulfide	4.706	76	392344	49.727	ug/l	97
18) Methyl Acetate	5.018	43	278165	66.772	ug/l	99
19) Methyl tert-butyl Ether	5.789	73	551742	55.932	ug/l	100
20) Methylene Chloride	5.265	84	208332	61.831	ug/l	92
21) trans-1,2-Dichloroethene	5.771	96	159031	51.371	ug/l	87
22) Diisopropyl ether	6.665	45	528750	55.094	ug/l	94
23) Vinyl Acetate	6.594	43	1227973	151.963	ug/l	99
24) 1,1-Dichloroethane	6.553	63	301533	53.778	ug/l	98
25) 2-Butanone	7.471	43	722647	284.026	ug/l	99
26) 2,2-Dichloropropane	7.477	77	239501	48.077	ug/l	98
27) cis-1,2-Dichloroethene	7.477	96	199310	54.110	ug/l	99
28) Bromochloromethane	7.794	49	134231	44.063	ug/l	99
29) Tetrahydrofuran	7.824	42	473167	290.437	ug/l	99
30) Chloroform	7.947	83	332102	54.170	ug/l	98
31) Cyclohexane	8.241	56	226084	49.833	ug/l	97
32) 1,1,1-Trichloroethane	8.147	97	277241	53.518	ug/l	98
36) 1,1-Dichloropropene	8.353	75	204718	50.824	ug/l	99
37) Ethyl Acetate	7.547	43	267644	50.600	ug/l	99
38) Carbon Tetrachloride	8.341	117	236293	51.123	ug/l	98
39) Methylcyclohexane	9.582	83	221056	49.748	ug/l	93
40) Benzene	8.588	78	689039	51.664	ug/l	98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092525\
Data File : VN087958.D
Acq On : 25 Sep 2025 16:28
Operator : JC\MD
Sample : Q3179-03MSD
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 26 07:34:27 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 05:05:30 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) Methacrylonitrile	7.765	41	149440	54.670	ug/l		99
42) 1,2-Dichloroethane	8.653	62	253749	50.984	ug/l		99
43) Isopropyl Acetate	8.677	43	438524	52.670	ug/l		99
44) Trichloroethene	9.335	130	160105	50.257	ug/l		99
45) 1,2-Dichloropropane	9.600	63	171474	51.274	ug/l		96
46) Dibromomethane	9.688	93	135472	51.337	ug/l		97
47) Bromodichloromethane	9.871	83	269991	52.164	ug/l		95
48) Methyl methacrylate	9.665	41	209285	54.280	ug/l		98
49) 1,4-Dioxane	9.682	88	64397	1130.575	ug/l	#	85
51) 4-Methyl-2-Pentanone	10.424	43	1435007	276.213	ug/l		100
52) Toluene	10.606	92	430816	51.476	ug/l		97
53) t-1,3-Dichloropropene	10.818	75	272080	51.363	ug/l		100
54) cis-1,3-Dichloropropene	10.294	75	287341	52.227	ug/l		95
55) 1,1,2-Trichloroethane	10.994	97	177981	52.302	ug/l		95
56) Ethyl methacrylate	10.859	69	268097	54.524	ug/l		99
57) 1,3-Dichloropropane	11.141	76	294501	52.617	ug/l		100
58) 2-Chloroethyl Vinyl ether	10.141	63	759725	328.612	ug/l		99
59) 2-Hexanone	11.176	43	999743	291.025	ug/l		99
60) Dibromochloromethane	11.335	129	215266	53.803	ug/l		98
61) 1,2-Dibromoethane	11.447	107	186230	51.695	ug/l		98
64) Tetrachloroethene	11.082	164	150814	57.822	ug/l		98
65) Chlorobenzene	11.870	112	482657	52.970	ug/l		97
66) 1,1,1,2-Tetrachloroethane	11.941	131	176109	53.595	ug/l		100
67) Ethyl Benzene	11.941	91	824870	54.252	ug/l		100
68) m/p-Xylenes	12.047	106	649282	111.658	ug/l		99
69) o-Xylene	12.376	106	310537	55.585	ug/l		99
70) Styrene	12.388	104	546817	56.990	ug/l		99
71) Bromoform	12.559	173	148815	55.822	ug/l	#	97
73) Isopropylbenzene	12.676	105	792388	54.014	ug/l		100
74) N-amyl acetate	12.500	43	237322m	49.098	ug/l		
75) 1,1,2,2-Tetrachloroethane	12.917	83	284539	53.832	ug/l		98
76) 1,2,3-Trichloropropane	12.970	75	222912m	47.775	ug/l		
77) Bromobenzene	12.959	156	205015	52.524	ug/l		99
78) n-propylbenzene	13.012	91	977906	53.317	ug/l		100
79) 2-Chlorotoluene	13.100	91	582052	52.118	ug/l		100
80) 1,3,5-Trimethylbenzene	13.153	105	689521	54.339	ug/l		99
81) trans-1,4-Dichloro-2-b...	12.717	75	91536	54.476	ug/l		95
82) 4-Chlorotoluene	13.200	91	605342	53.793	ug/l		98
83) tert-Butylbenzene	13.417	119	577889	53.805	ug/l		96
84) 1,2,4-Trimethylbenzene	13.459	105	705179	54.180	ug/l		99
85) sec-Butylbenzene	13.594	105	845071	53.666	ug/l		99
86) p-Isopropyltoluene	13.706	119	721619	54.107	ug/l		99
87) 1,3-Dichlorobenzene	13.712	146	404134	53.058	ug/l		99
88) 1,4-Dichlorobenzene	13.788	146	403857	51.593	ug/l		99
89) n-Butylbenzene	14.035	91	663428	52.636	ug/l		100
90) Hexachloroethane	14.311	117	146900	52.730	ug/l		95
91) 1,2-Dichlorobenzene	14.082	146	389369	53.033	ug/l		99
92) 1,2-Dibromo-3-Chloropr...	14.700	75	61435	50.022	ug/l		98
93) 1,2,4-Trichlorobenzene	15.370	180	224324	51.748	ug/l		100
94) Hexachlorobutadiene	15.470	225	84215	52.782	ug/l		99
95) Naphthalene	15.611	128	776581	55.808	ug/l		100
96) 1,2,3-Trichlorobenzene	15.811	180	223486	53.030	ug/l		98

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092525\
Data File : VN087958.D
Acq On : 25 Sep 2025 16:28
Operator : JC\MD
Sample : Q3179-03MSD
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 26 07:34:27 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 05:05:30 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

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

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

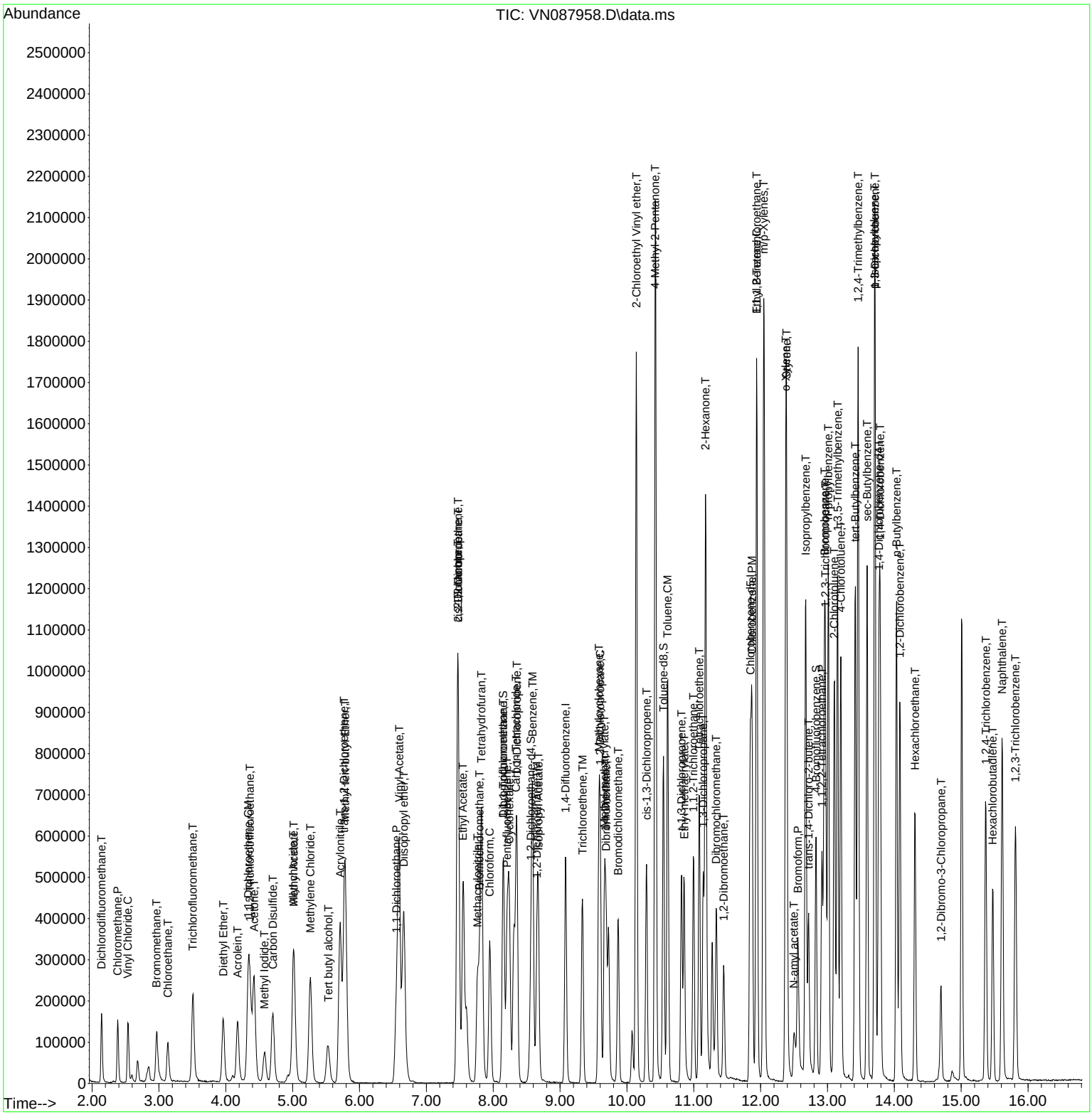
Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN092525\
Data File : VN087958.D
Acq On : 25 Sep 2025 16:28
Operator : JC\MD
Sample : Q3179-03MSD
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 13 Sample Multiplier: 1

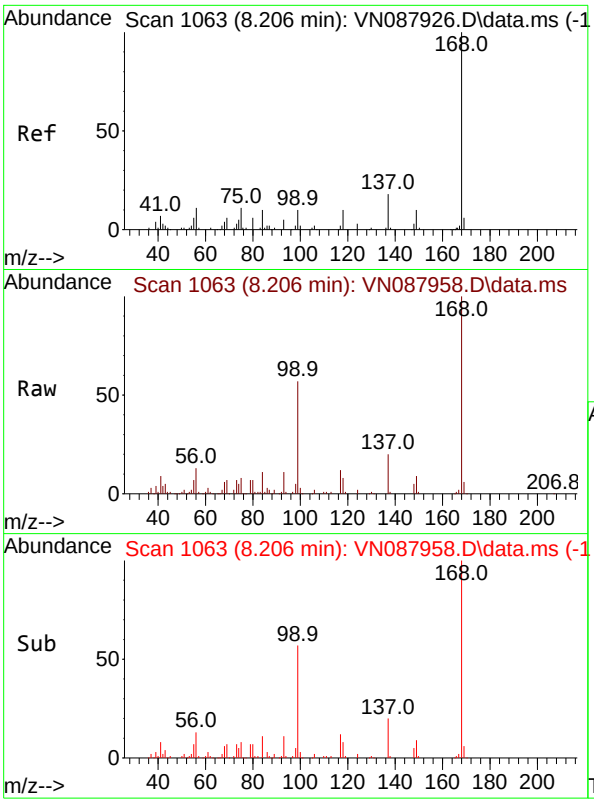
Quant Time: Sep 26 07:34:27 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N092325W.M
Quant Title : SW846 8260
QLast Update : Wed Sep 24 05:05:30 2025
Response via : Initial Calibration

Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

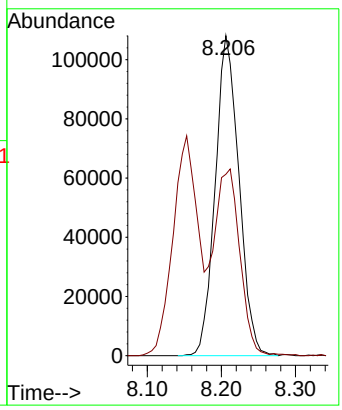




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.206 min Scan# 1
Delta R.T. 0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion:168 Resp: 24040

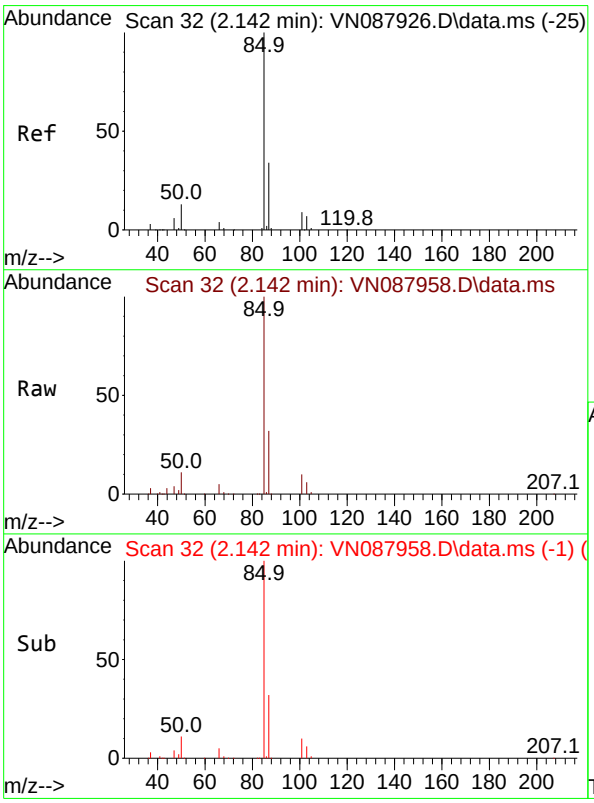
Ion	Ratio	Lower	Upper
168	100		
99	56.2	52.2	78.2



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations
APPROVED

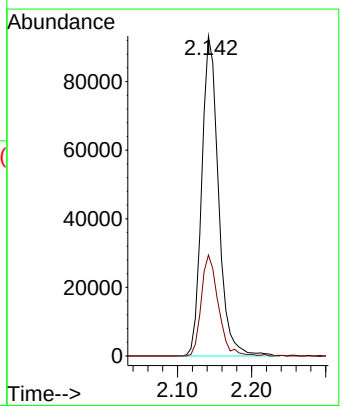
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

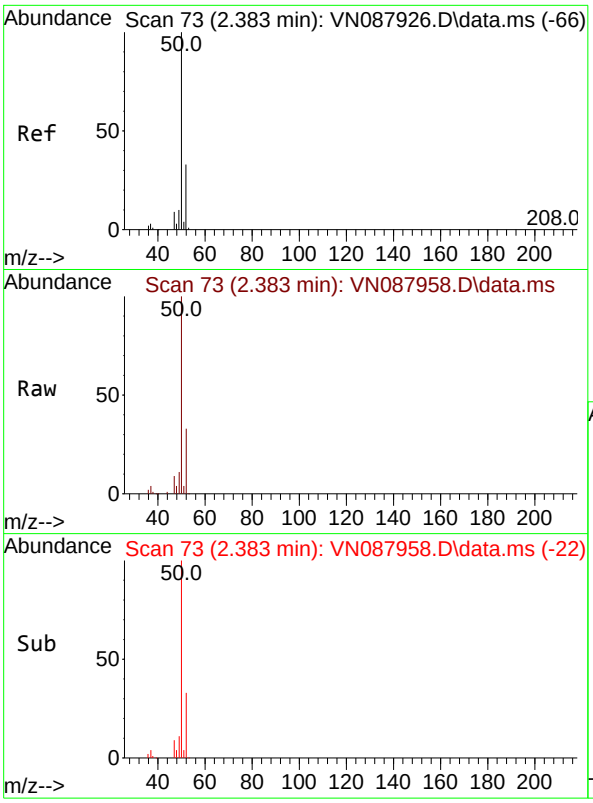


#2
Dichlorodifluoromethane
Concen: 52.848 ug/l
RT: 2.142 min Scan# 32
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 85 Resp: 147132

Ion	Ratio	Lower	Upper
85	100		
87	31.5	16.9	50.6

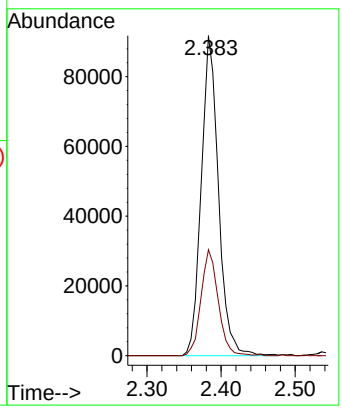




#3
Chloromethane
Concen: 51.972 ug/l
RT: 2.383 min Scan# 7
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 50 Resp: 14815

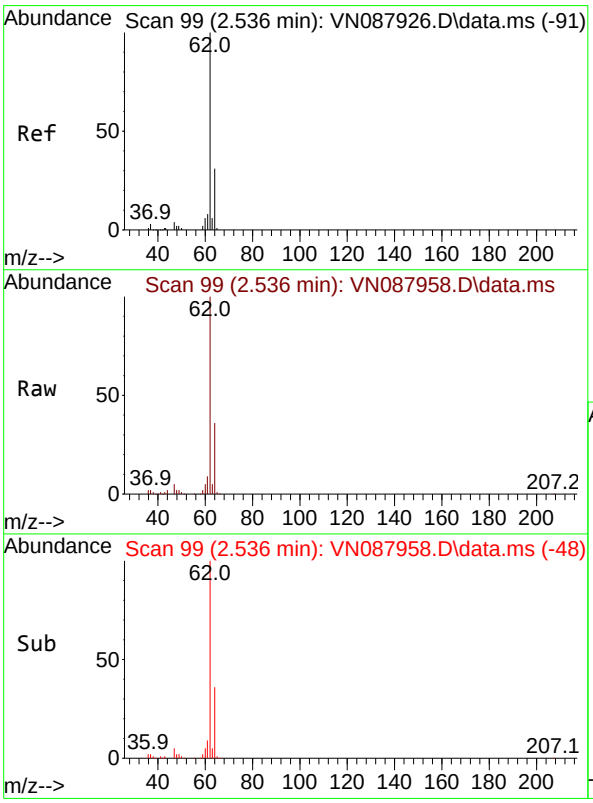
Ion	Ratio	Lower	Upper
50	100		
52	33.1	26.6	40.0



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations
APPROVED

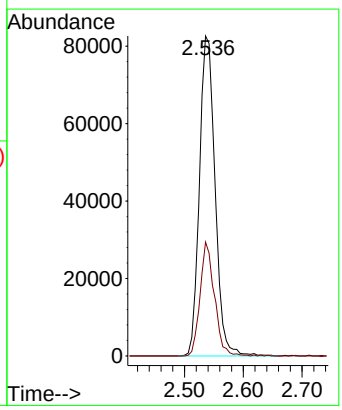
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

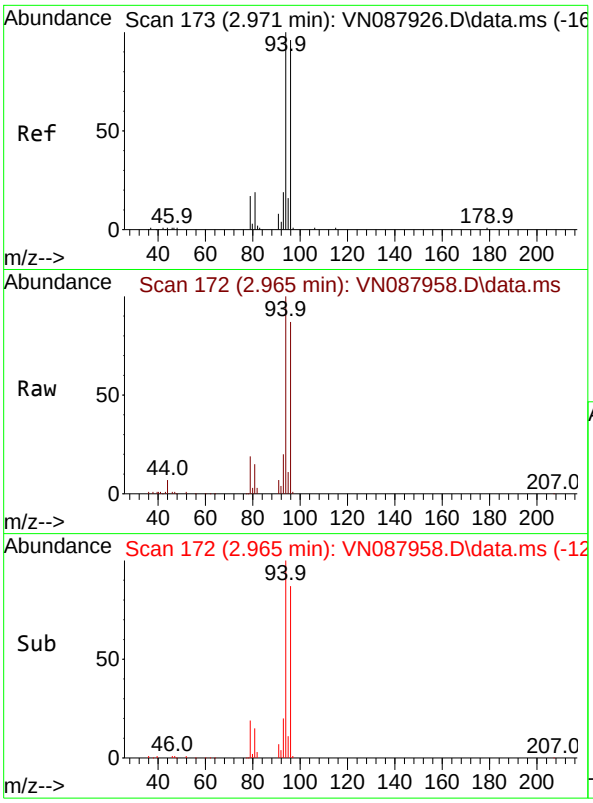


#4
Vinyl Chloride
Concen: 52.441 ug/l
RT: 2.536 min Scan# 99
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 62 Resp: 152514

Ion	Ratio	Lower	Upper
62	100		
64	35.6	25.2	37.8

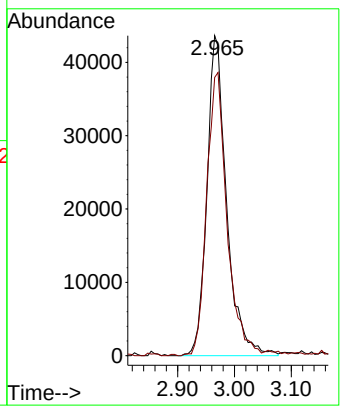




#5
Bromomethane
Concen: 58.135 ug/l
RT: 2.965 min Scan# 1
Delta R.T. -0.006 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 94 Resp: 10481

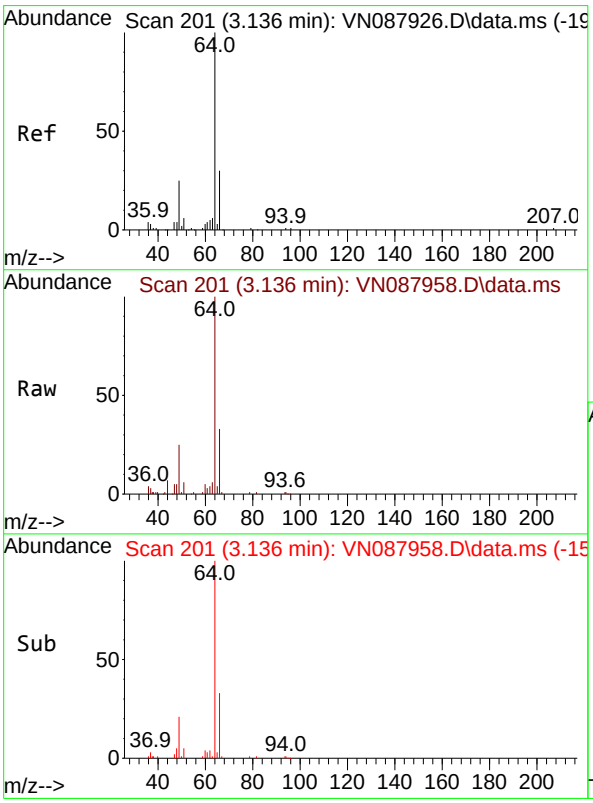
Ion	Ratio	Lower	Upper
94	100		
96	86.9	76.8	115.2



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations
APPROVED

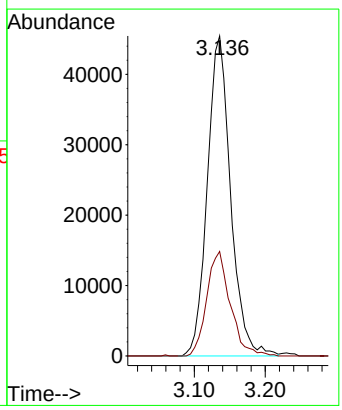
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

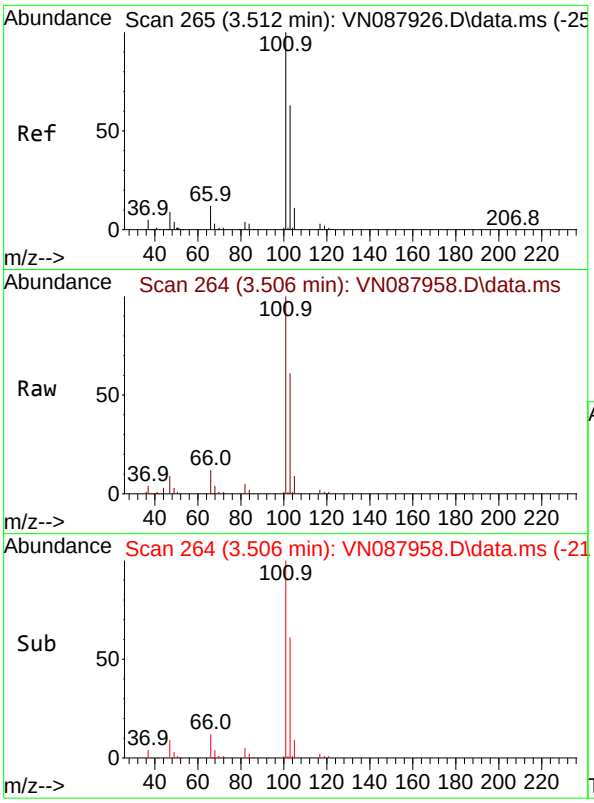


#6
Chloroethane
Concen: 54.730 ug/l
RT: 3.136 min Scan# 201
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 64 Resp: 103494

Ion	Ratio	Lower	Upper
64	100		
66	32.7	23.8	35.8





#7
Trichlorofluoromethane
Concen: 52.837 ug/l
RT: 3.506 min Scan# 2
Delta R.T. -0.006 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

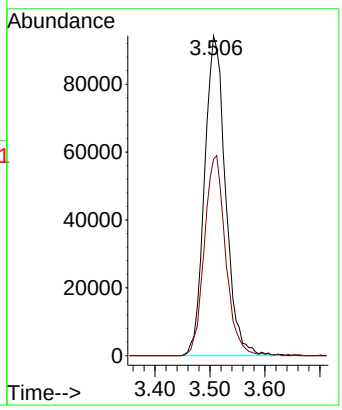
Tgt Ion:101 Resp: 25019

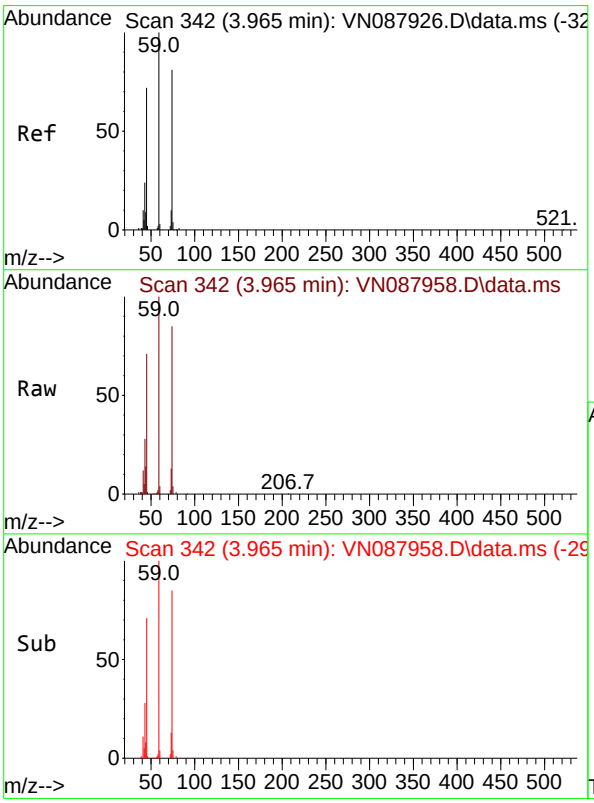
Ion	Ratio	Lower	Upper
101	100		
103	61.4	50.2	75.4

Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

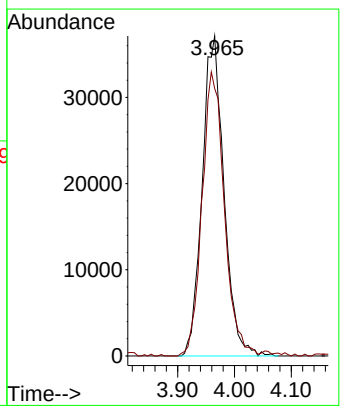


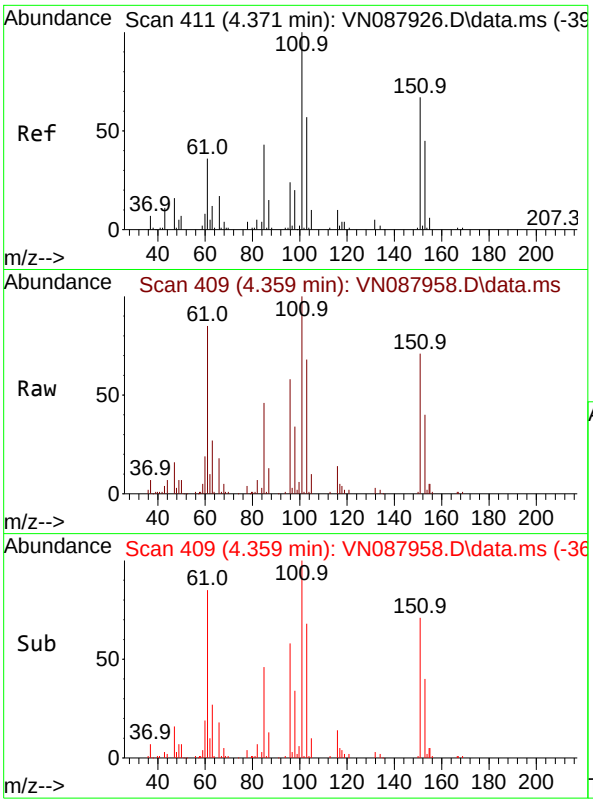


#8
Diethyl Ether
Concen: 55.100 ug/l
RT: 3.965 min Scan# 342
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 74 Resp: 98569

Ion	Ratio	Lower	Upper
74	100		
45	90.9	45.4	136.1

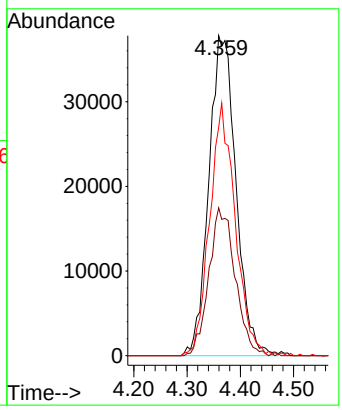




#9
1,1,2-Trichlorotrifluoroethane
Concen: 53.406 ug/l
RT: 4.359 min Scan# 4(
Delta R.T. -0.012 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion:101 Resp: 13366(

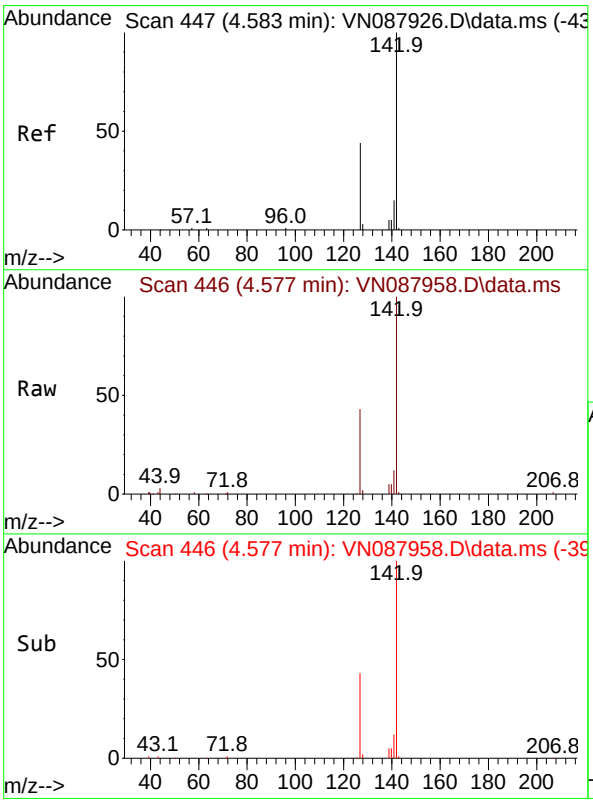
Ion	Ratio	Lower	Upper
101	100		
85	44.8	36.5	54.7
151	74.4	58.6	87.8



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations
APPROVED

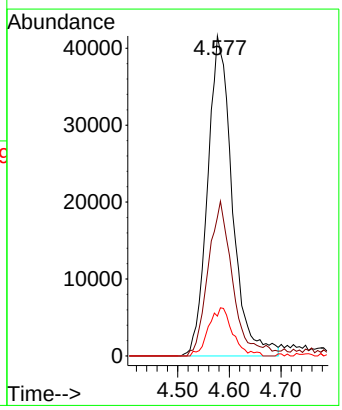
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

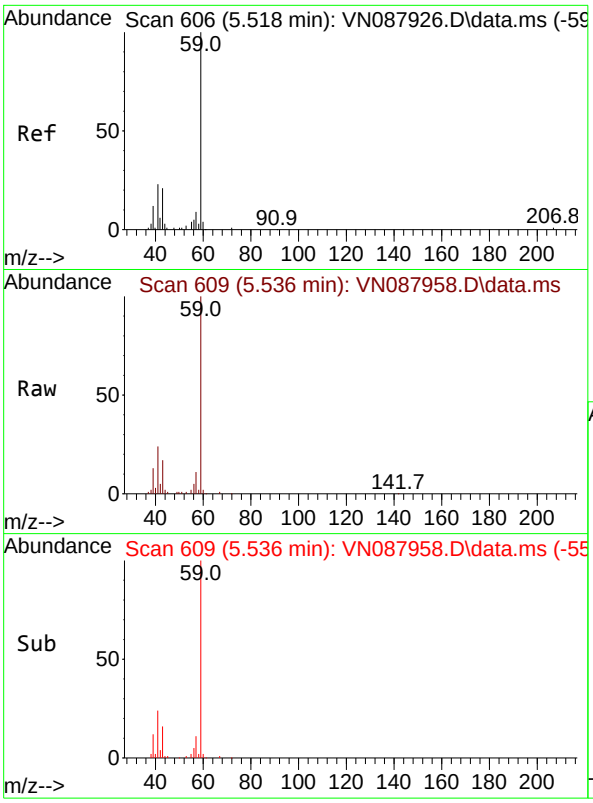


#10
Methyl Iodide
Concen: 61.323 ug/l
RT: 4.577 min Scan# 446
Delta R.T. -0.006 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion:142 Resp: 138126

Ion	Ratio	Lower	Upper
142	100		
127	43.3	35.3	52.9
141	12.4	11.8	17.8

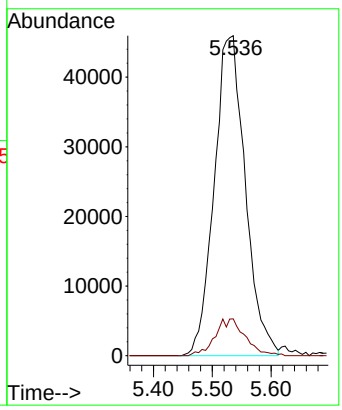




#11
Tert butyl alcohol
Concen: 289.641 ug/l
RT: 5.536 min Scan# 6
Delta R.T. 0.018 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 59 Resp: 16878

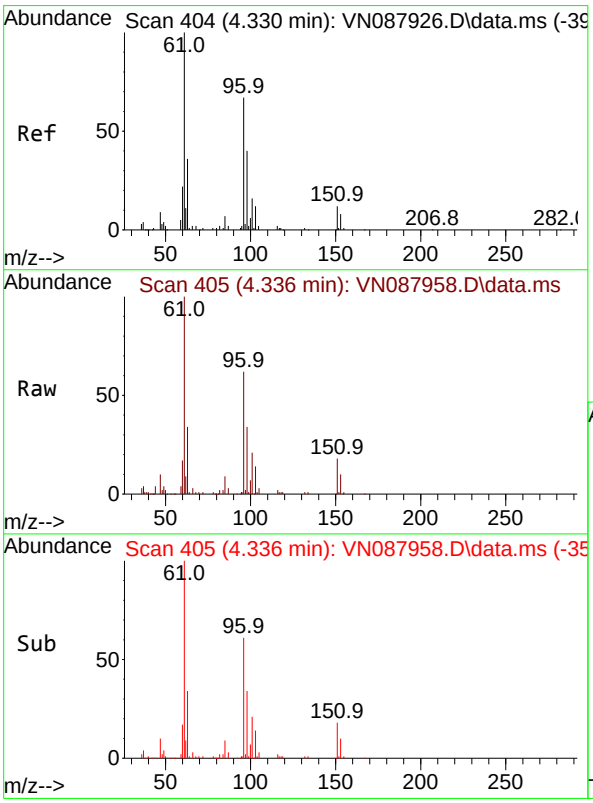
Ion	Ratio	Lower	Upper
59	100		
57	11.2	8.8	13.2



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations APPROVED

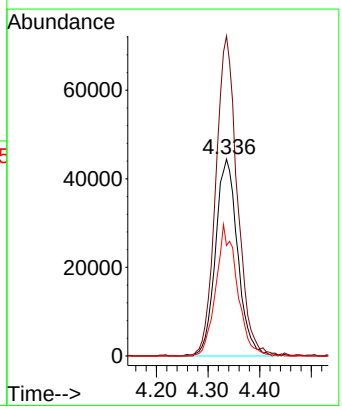
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

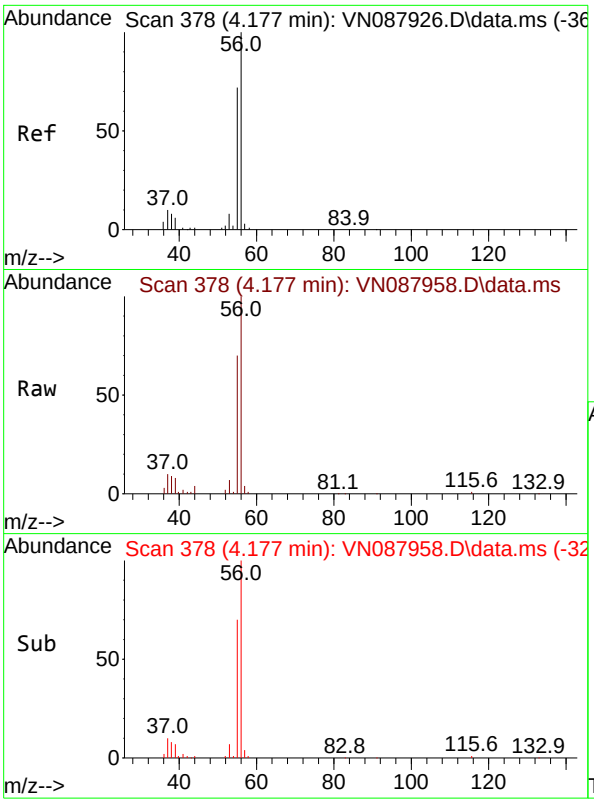


#12
1,1-Dichloroethene
Concen: 52.607 ug/l
RT: 4.336 min Scan# 405
Delta R.T. 0.006 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 96 Resp: 132845

Ion	Ratio	Lower	Upper
96	100		
61	162.6	119.2	178.8
98	56.1	47.5	71.3

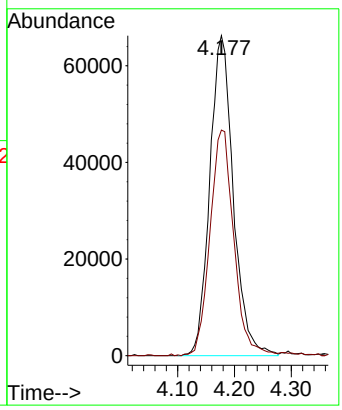




#13
Acrolein
Concen: 254.543 ug/l
RT: 4.177 min Scan# 3
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 56 Resp: 19032

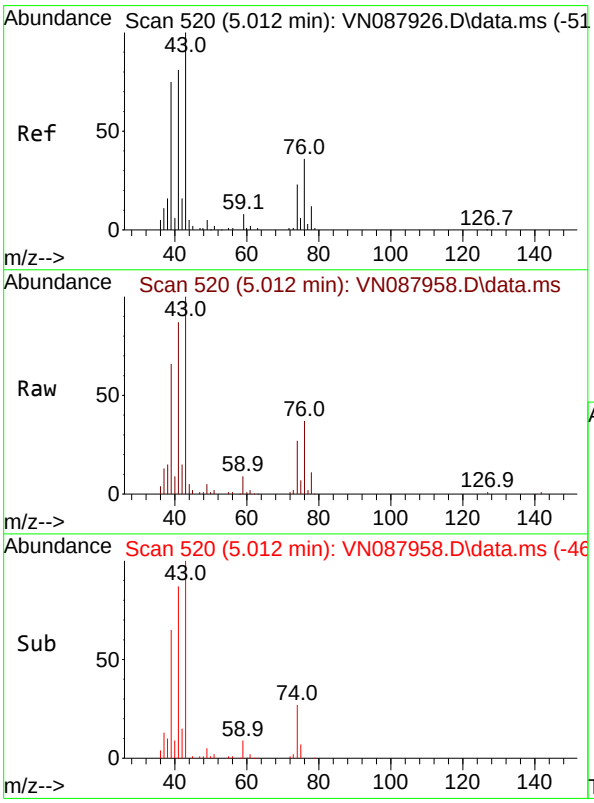
Ion	Ratio	Lower	Upper
56	100		
55	71.4	59.3	88.9



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations
APPROVED

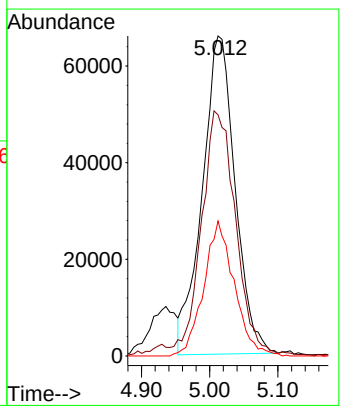
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

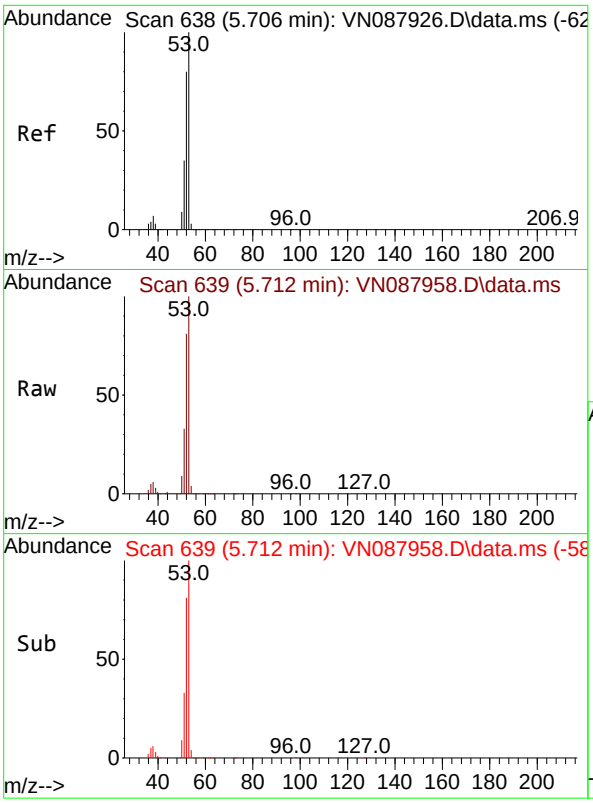


#14
Allyl chloride
Concen: 53.717 ug/l
RT: 5.012 min Scan# 520
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 41 Resp: 220837

Ion	Ratio	Lower	Upper
41	100		
39	78.5	63.8	95.8
76	39.4	33.0	49.6

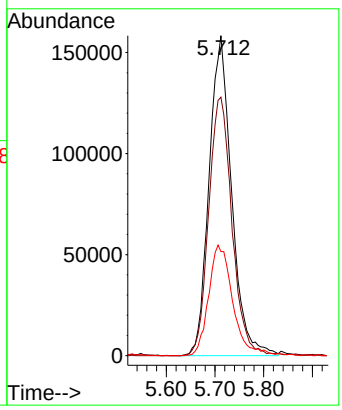




#15
Acrylonitrile
Concen: 278.104 ug/l
RT: 5.712 min Scan# 6
Delta R.T. 0.006 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 53 Resp: 50834

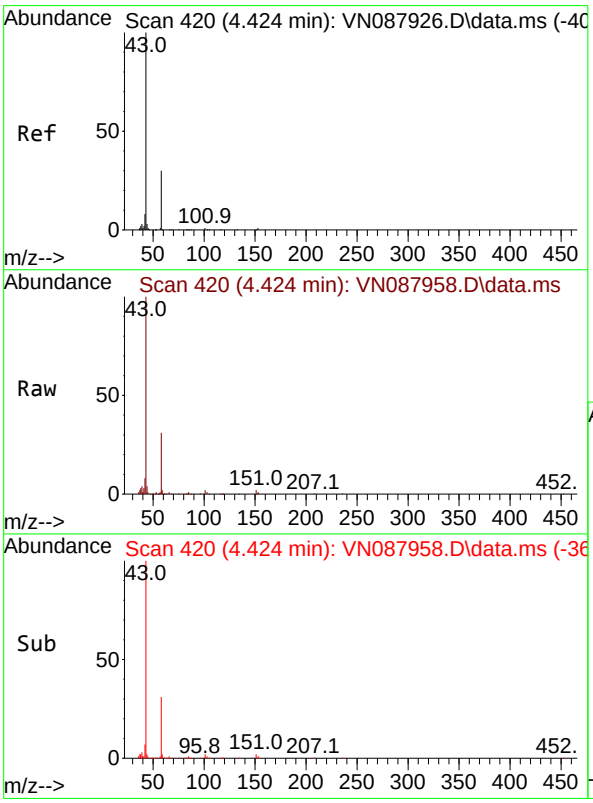
Ion	Ratio	Lower	Upper
53	100		
52	83.6	66.6	99.8
51	36.8	29.0	43.4



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations
APPROVED

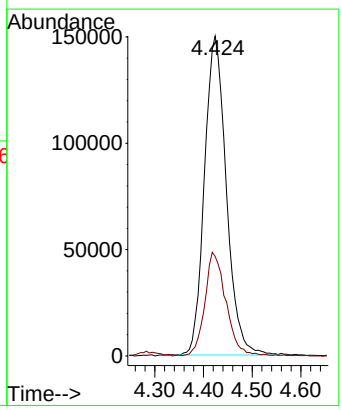
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

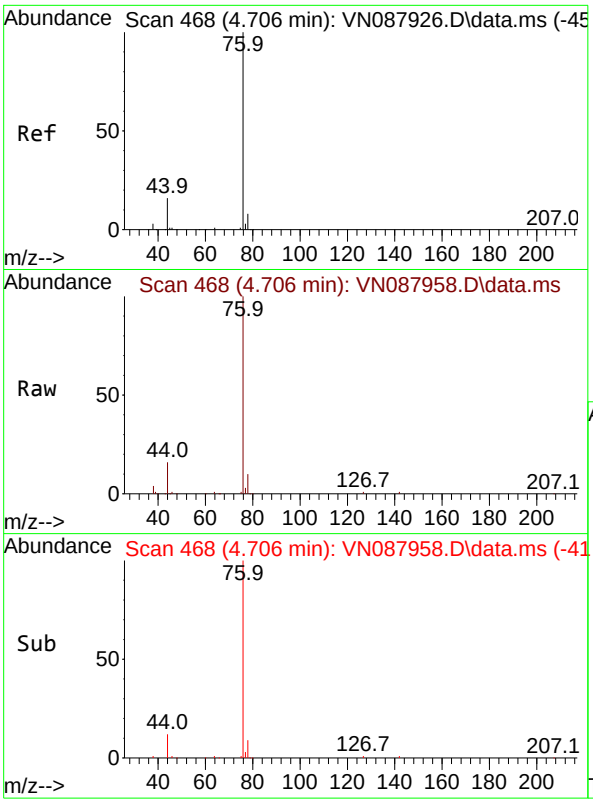


#16
Acetone
Concen: 280.364 ug/l
RT: 4.424 min Scan# 420
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 43 Resp: 466699

Ion	Ratio	Lower	Upper
43	100		
58	31.0	24.1	36.1

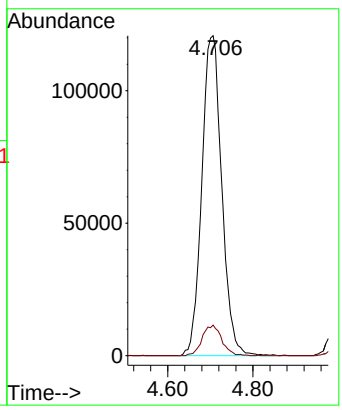




#17
Carbon Disulfide
Concen: 49.727 ug/l
RT: 4.706 min Scan# 4
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 76 Resp: 39234

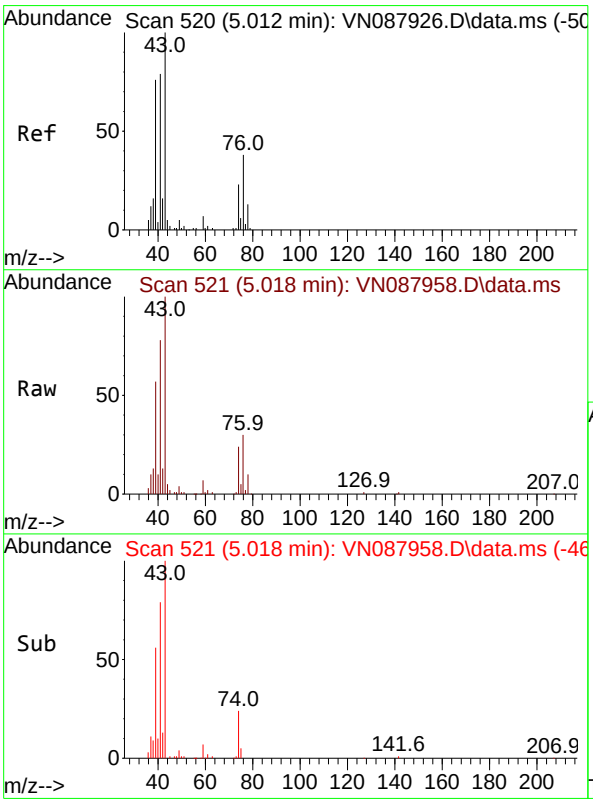
Ion	Ratio	Lower	Upper
76	100		
78	9.6	6.7	10.1



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations
APPROVED

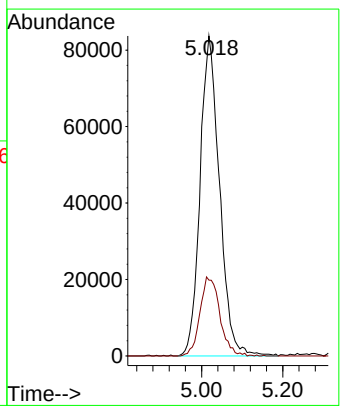
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

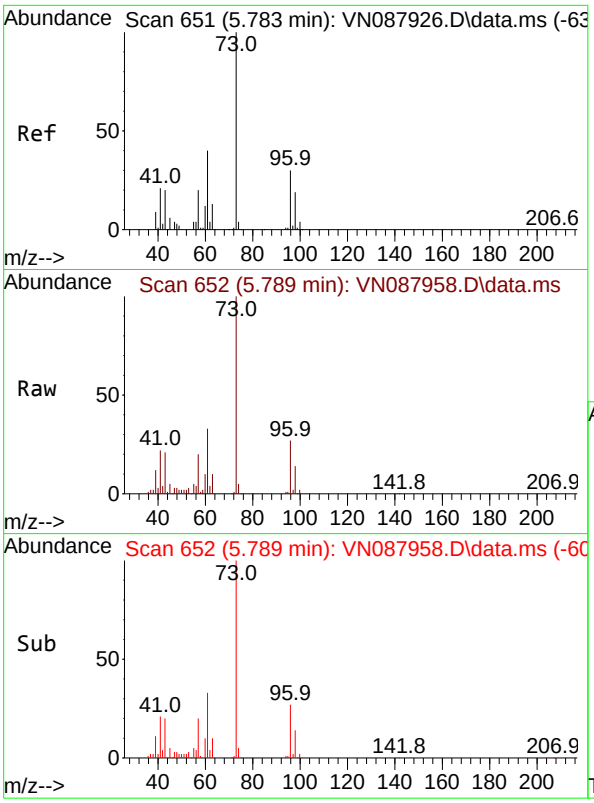


#18
Methyl Acetate
Concen: 66.772 ug/l
RT: 5.018 min Scan# 521
Delta R.T. 0.006 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 43 Resp: 278165

Ion	Ratio	Lower	Upper
43	100		
74	25.2	19.7	29.5

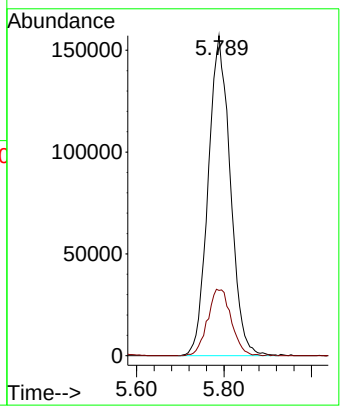




#19
Methyl tert-butyl Ether
Concen: 55.932 ug/l
RT: 5.789 min Scan# 6
Delta R.T. 0.006 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 73 Resp: 55174

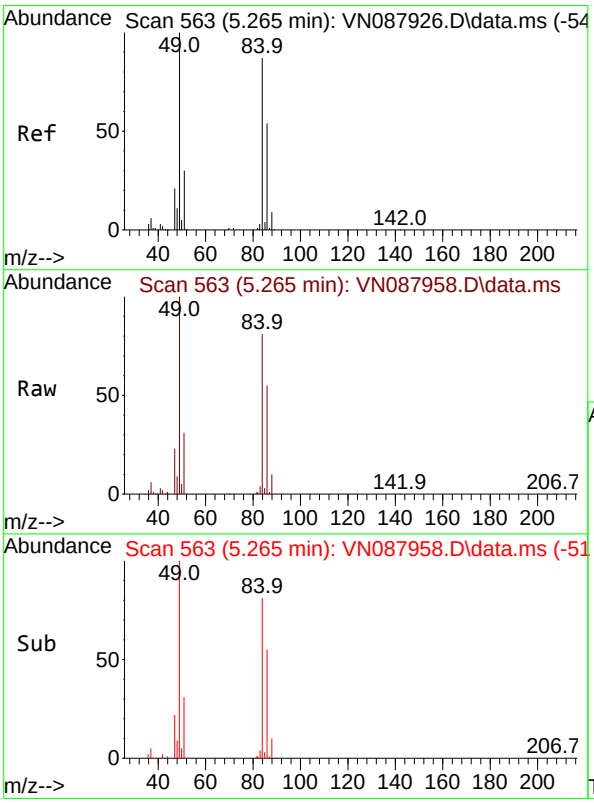
Ion	Ratio	Lower	Upper
73	100		
57	20.4	16.3	24.5



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations
APPROVED

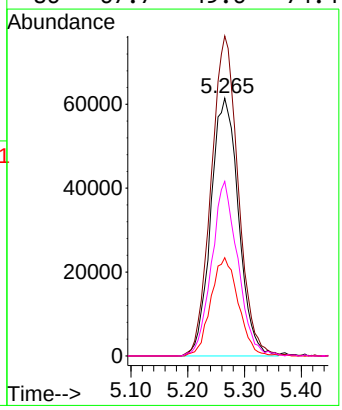
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

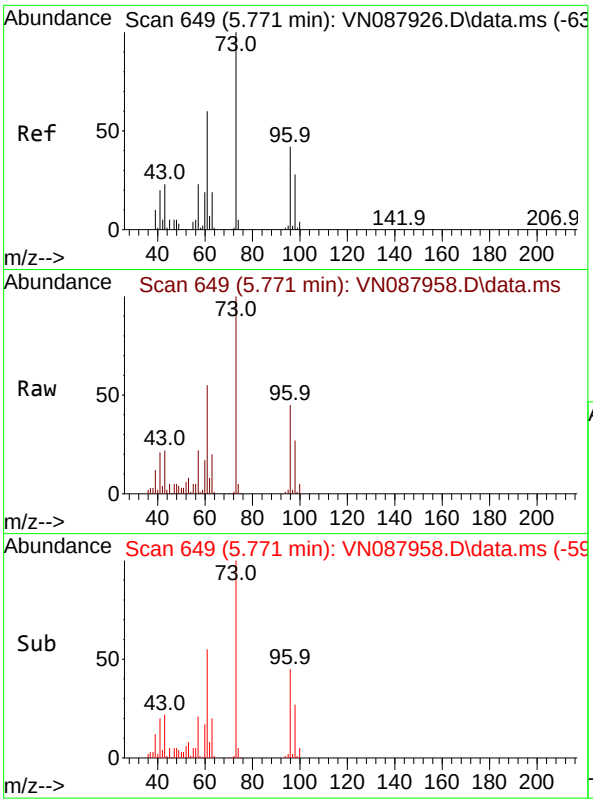


#20
Methylene Chloride
Concen: 61.831 ug/l
RT: 5.265 min Scan# 563
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 84 Resp: 208332

Ion	Ratio	Lower	Upper
84	100		
49	124.1	92.1	138.1
51	38.1	27.7	41.5
86	67.7	49.6	74.4

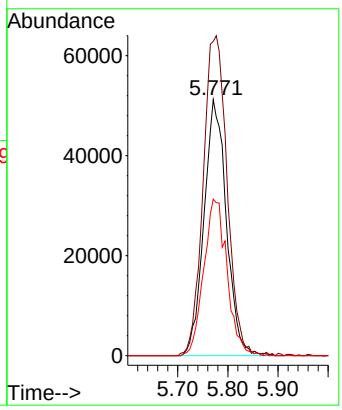




#21
trans-1,2-Dichloroethene
Concen: 51.371 ug/l
RT: 5.771 min Scan# 64
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 96 Resp: 15903

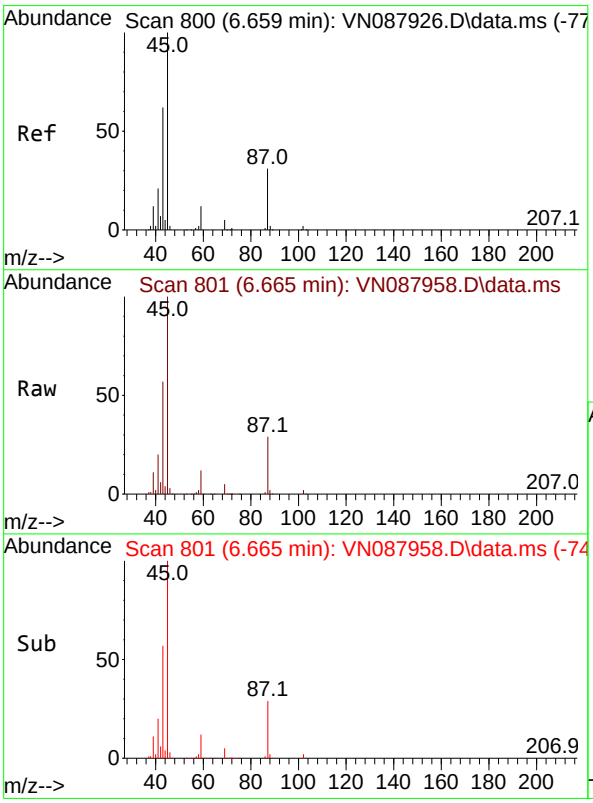
Ion	Ratio	Lower	Upper
96	100		
61	122.8	114.4	171.6
98	61.1	53.6	80.4



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations
APPROVED

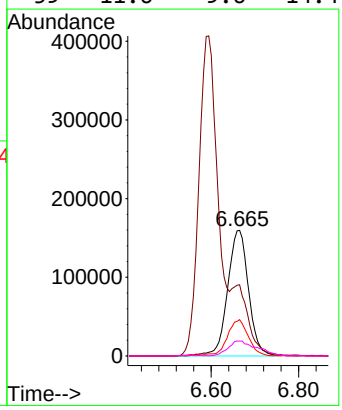
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

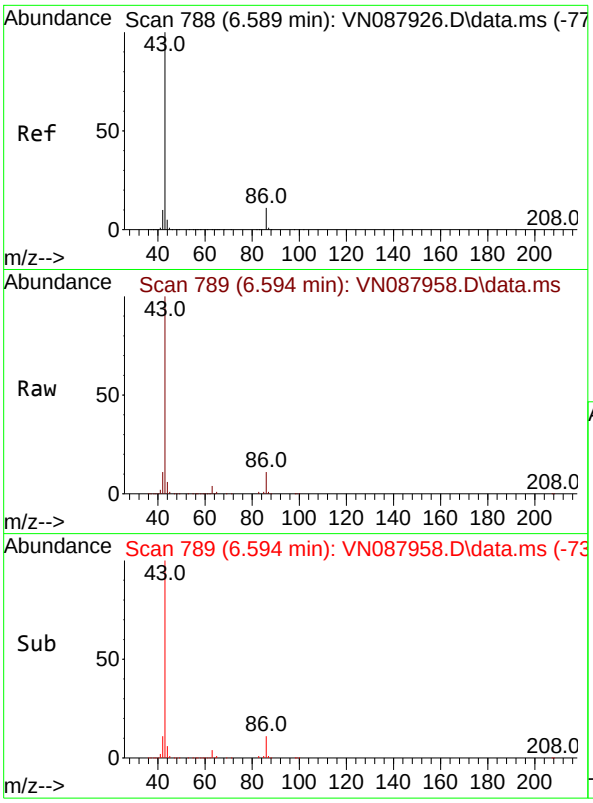


#22
Diisopropyl ether
Concen: 55.094 ug/l
RT: 6.665 min Scan# 801
Delta R.T. 0.006 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 45 Resp: 528750

Ion	Ratio	Lower	Upper
45	100		
43	56.6	49.9	74.9
87	28.8	25.2	37.8
59	11.6	9.6	14.4

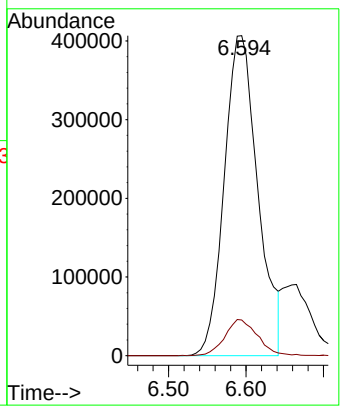




#23
Vinyl Acetate
Concen: 151.963 ug/l
RT: 6.594 min Scan# 7
Delta R.T. 0.006 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 43 Resp: 122797

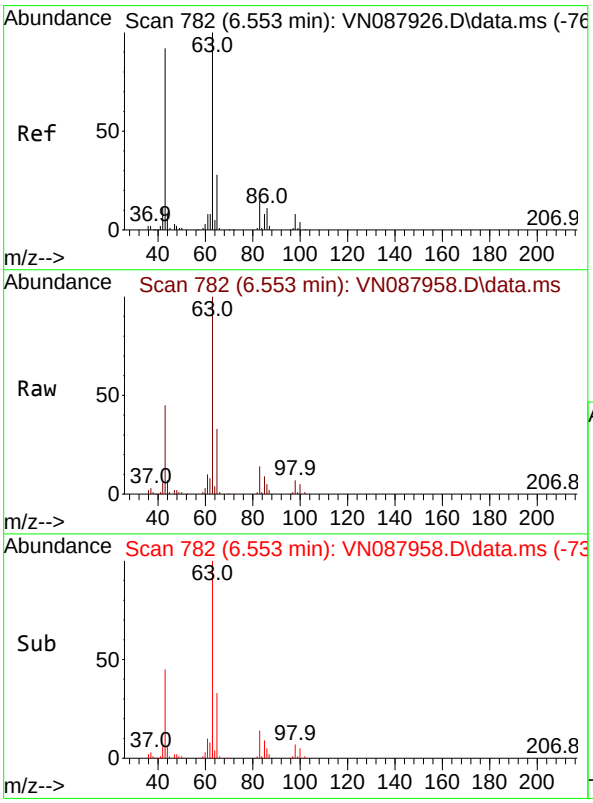
Ion	Ratio	Lower	Upper
43	100		
86	11.1	8.6	12.8



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations
APPROVED

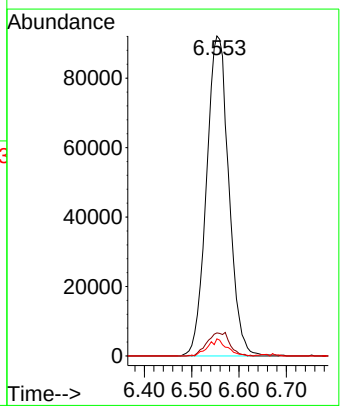
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

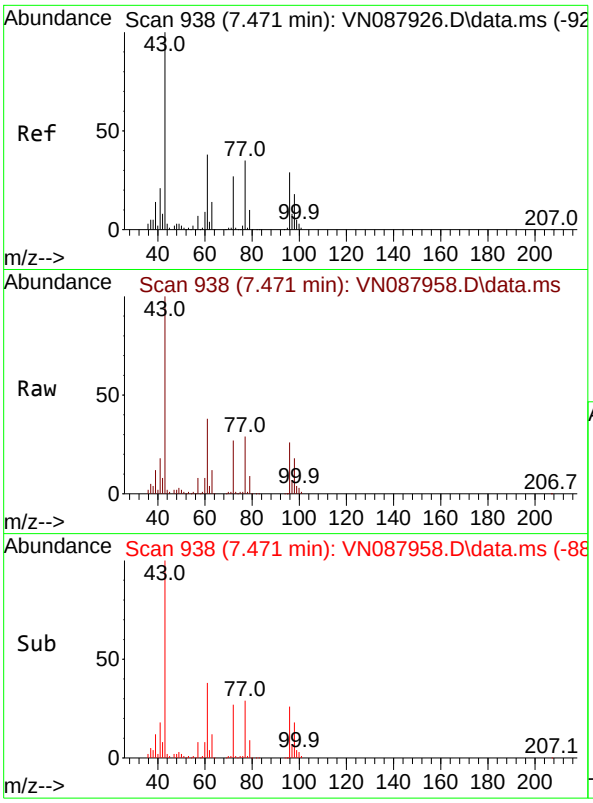


#24
1,1-Dichloroethane
Concen: 53.778 ug/l
RT: 6.553 min Scan# 782
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 63 Resp: 301533

Ion	Ratio	Lower	Upper
63	100		
98	7.2	3.9	11.5
100	5.3	2.1	6.5





#25
2-Butanone
Concen: 284.026 ug/l
RT: 7.471 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

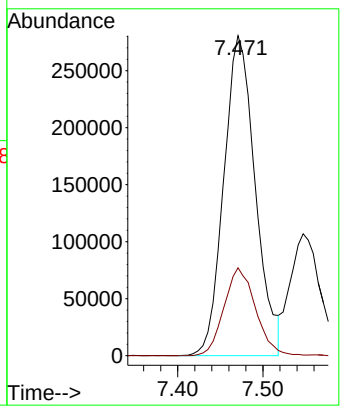
Tgt Ion: 43 Resp: 72264

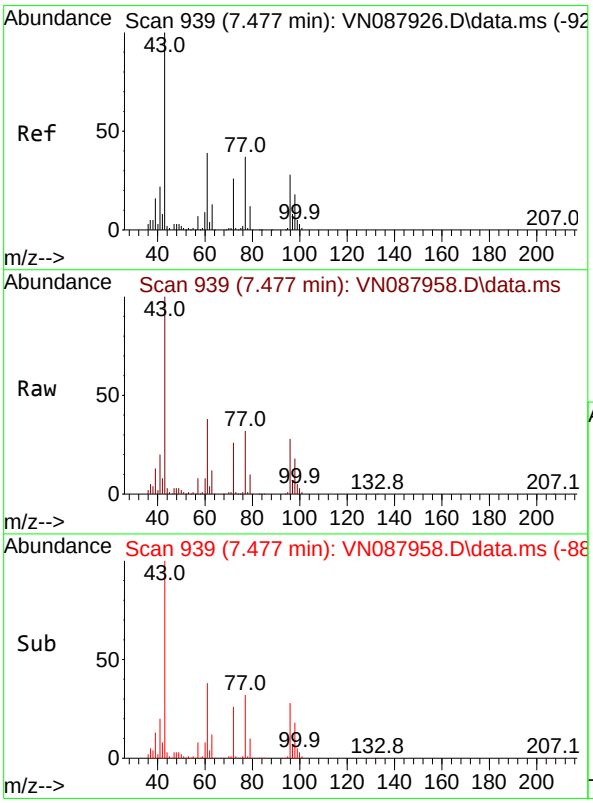
Ion	Ratio	Lower	Upper
43	100		
72	27.4	21.5	32.3

Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

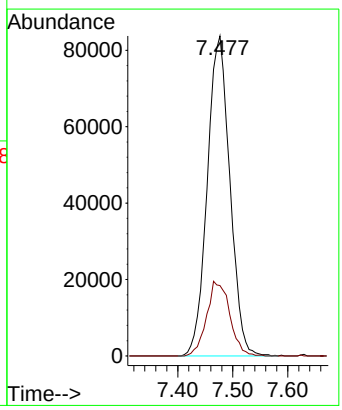


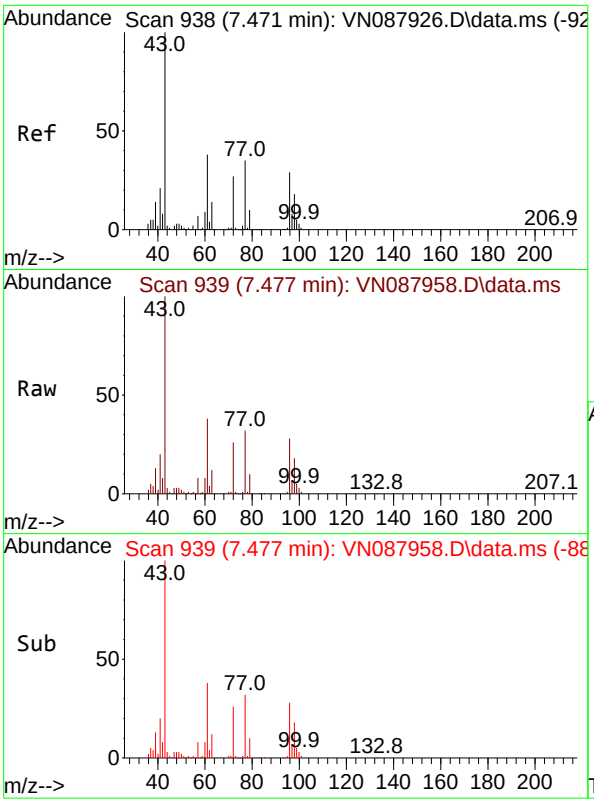


#26
2,2-Dichloropropane
Concen: 48.077 ug/l
RT: 7.477 min Scan# 939
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 77 Resp: 239501

Ion	Ratio	Lower	Upper
77	100		
97	23.8	11.5	34.5





#27
cis-1,2-Dichloroethene
Concen: 54.110 ug/l
RT: 7.477 min Scan# 9
Delta R.T. 0.006 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

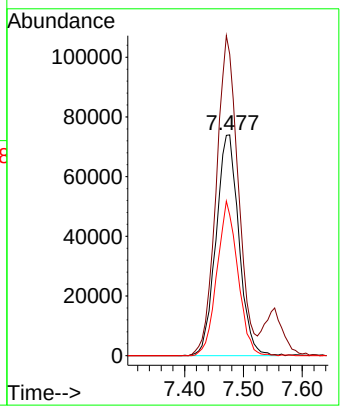
Tgt Ion: 96 Resp: 19931

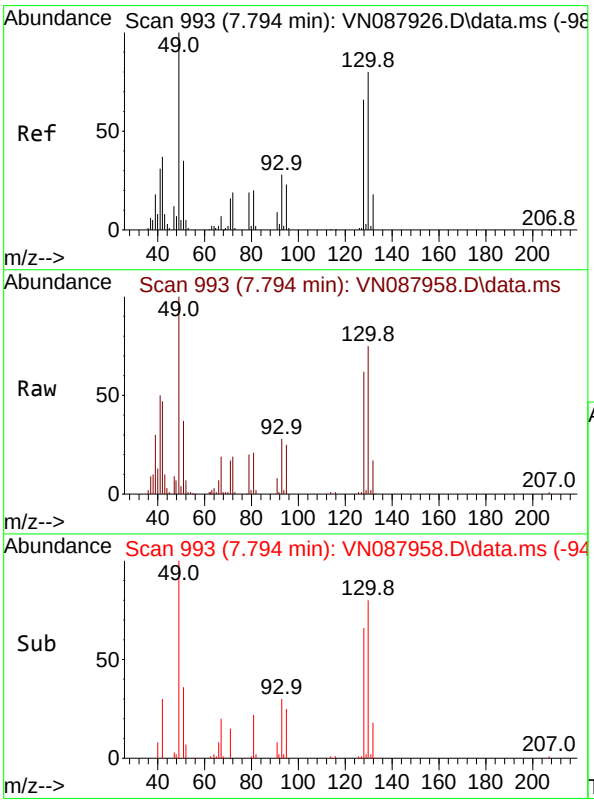
Ion	Ratio	Lower	Upper
96	100		
61	139.8	0.0	283.0
98	64.2	0.0	127.6

Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

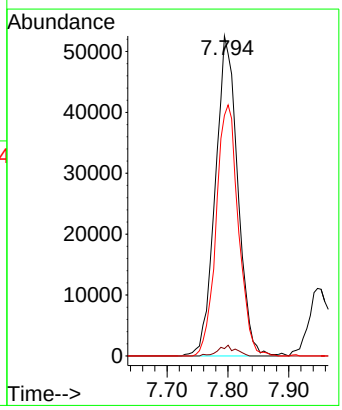


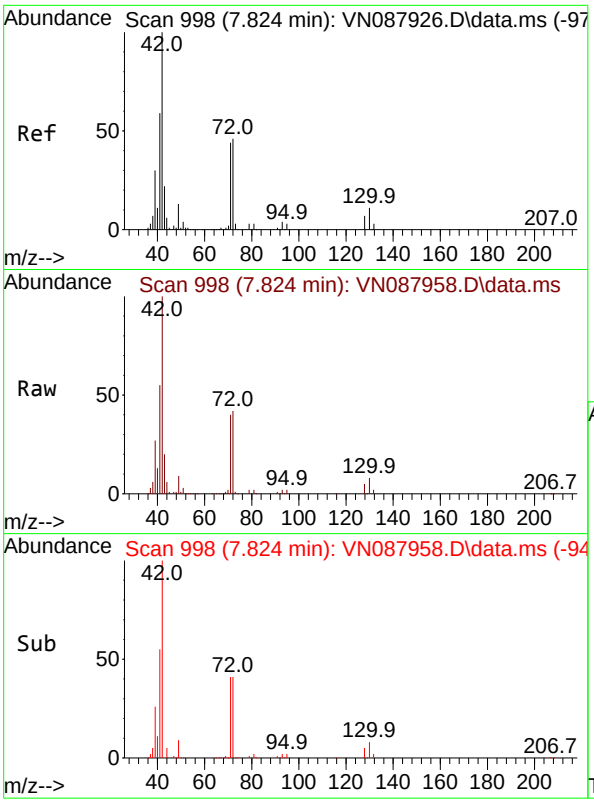


#28
Bromochloromethane
Concen: 44.063 ug/l
RT: 7.794 min Scan# 993
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 49 Resp: 134231

Ion	Ratio	Lower	Upper
49	100		
129	2.6	0.0	5.4
130	77.8	62.6	94.0

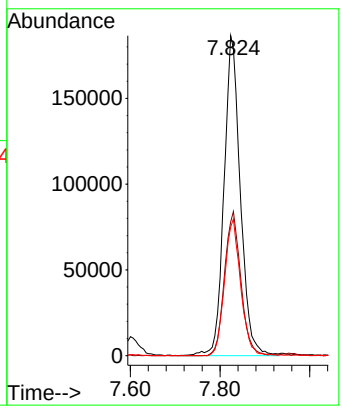




#29
Tetrahydrofuran
Concen: 290.437 ug/l
RT: 7.824 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 42 Resp: 47316

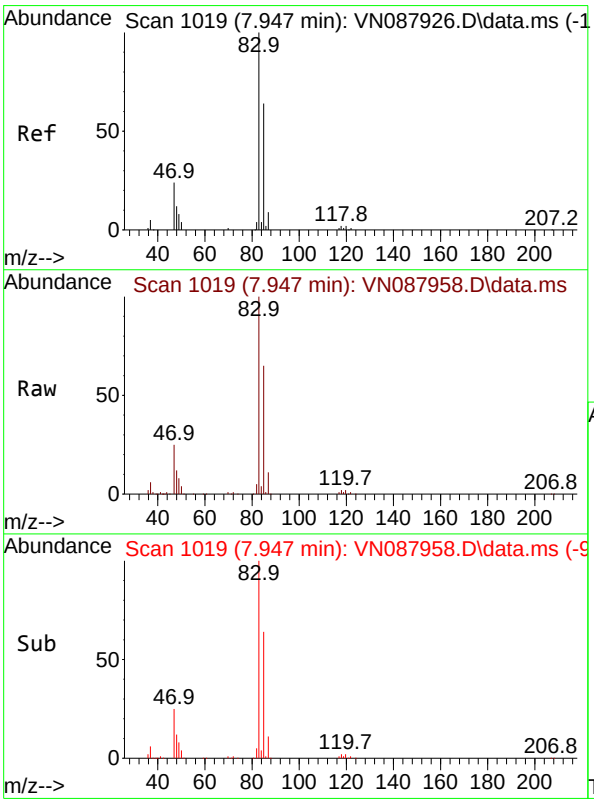
Ion	Ratio	Lower	Upper
42	100		
72	45.1	36.5	54.7
71	42.1	33.8	50.8



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations
APPROVED

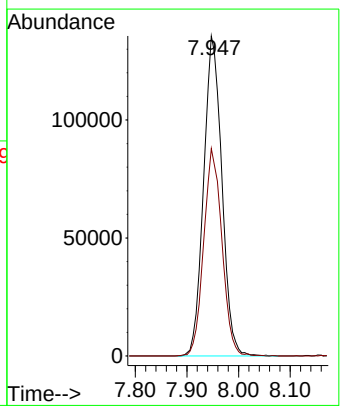
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

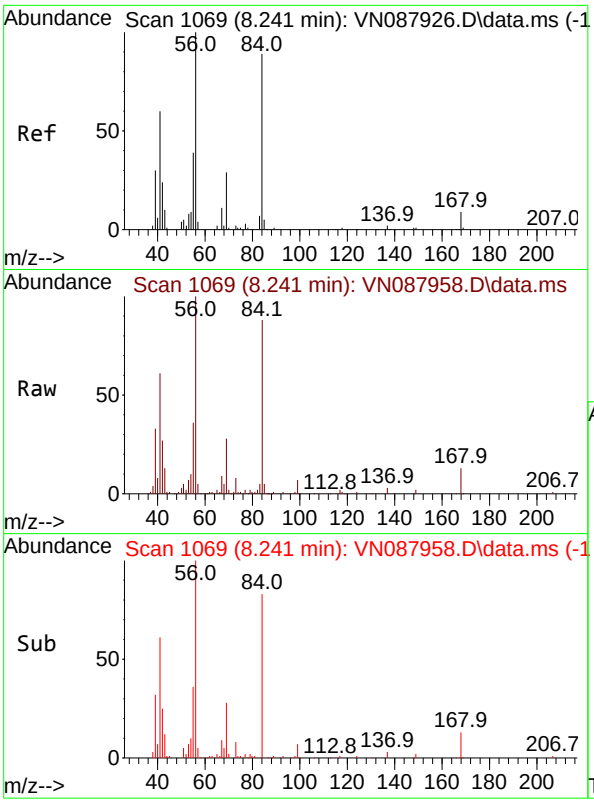


#30
Chloroform
Concen: 54.170 ug/l
RT: 7.947 min Scan# 1019
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 83 Resp: 332102

Ion	Ratio	Lower	Upper
83	100		
85	64.8	50.9	76.3

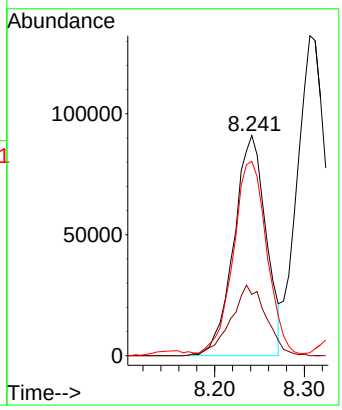




#31
Cyclohexane
Concen: 49.833 ug/l
RT: 8.241 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 56 Resp: 22608

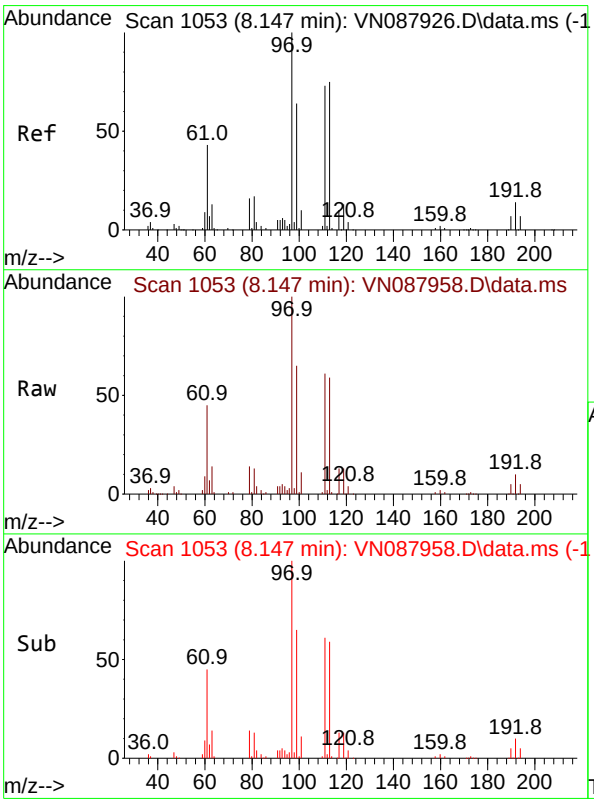
Ion	Ratio	Lower	Upper
56	100		
69	27.4	23.4	35.0
84	85.9	70.8	106.2



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations
APPROVED

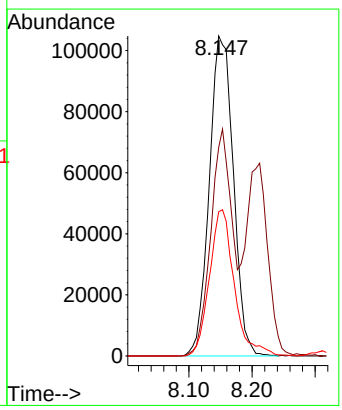
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

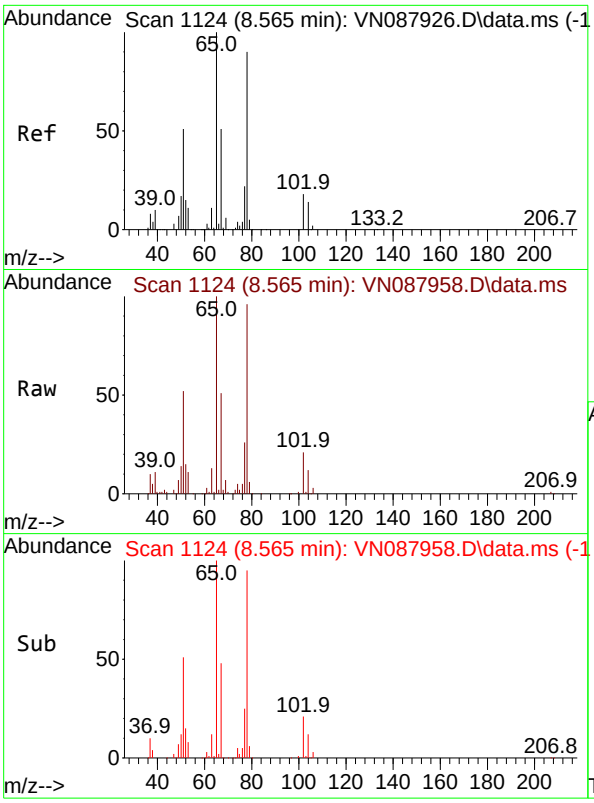


#32
1,1,1-Trichloroethane
Concen: 53.518 ug/l
RT: 8.147 min Scan# 1053
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 97 Resp: 277241

Ion	Ratio	Lower	Upper
97	100		
99	62.2	51.1	76.7
61	47.2	38.6	58.0

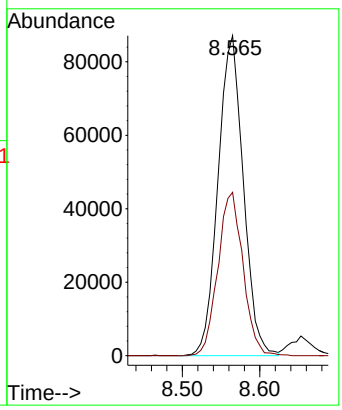




#33
1,2-Dichloroethane-d4
Concen: 48.905 ug/l
RT: 8.565 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 65 Resp: 19786

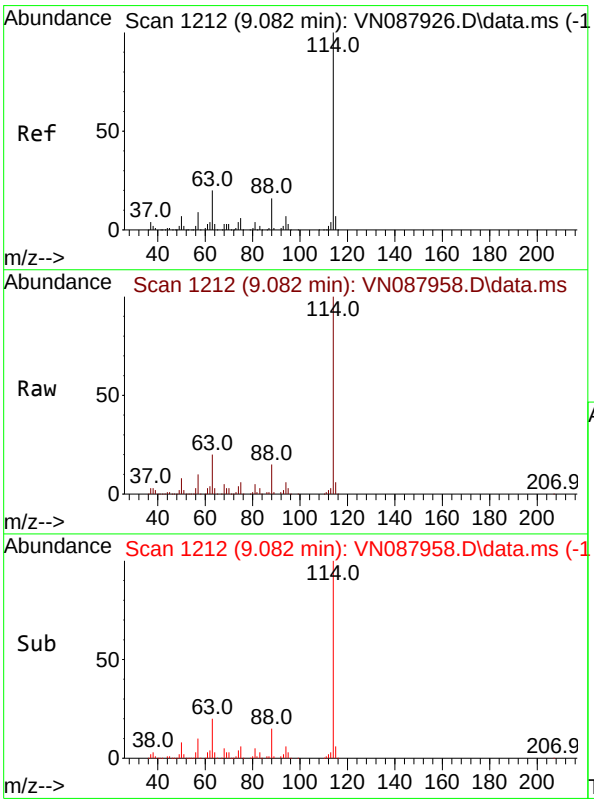
Ion	Ratio	Lower	Upper
65	100		
67	50.8	0.0	103.4



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations APPROVED

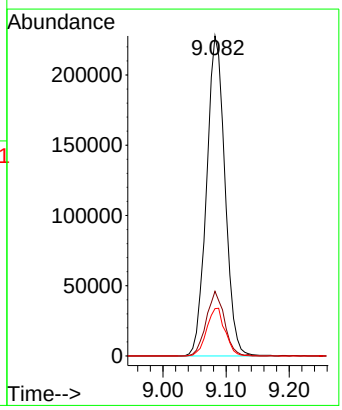
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

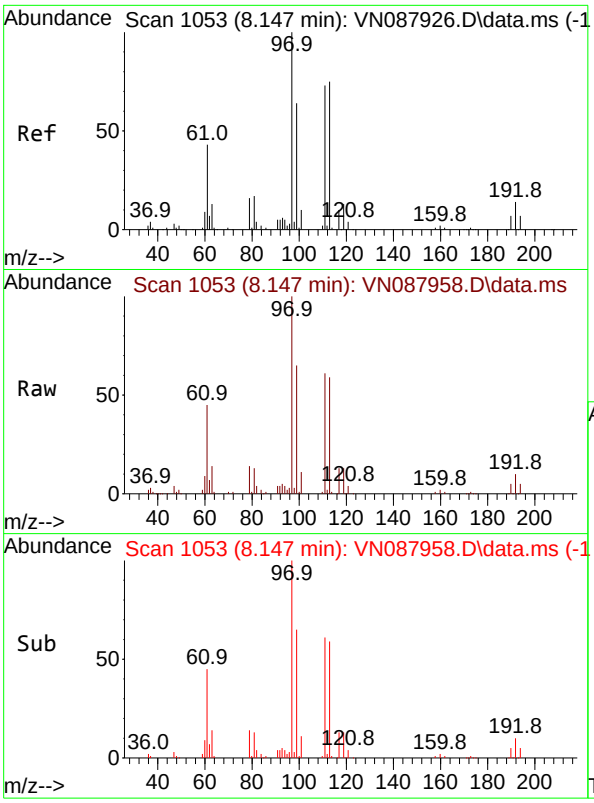


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 9.082 min Scan# 1212
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion:114 Resp: 461373

Ion	Ratio	Lower	Upper
114	100		
63	20.2	0.0	40.0
88	14.8	0.0	31.8

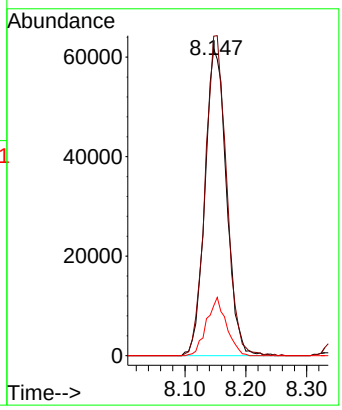




#35
Dibromofluoromethane
Concen: 45.263 ug/l
RT: 8.147 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion:113 Resp: 15162

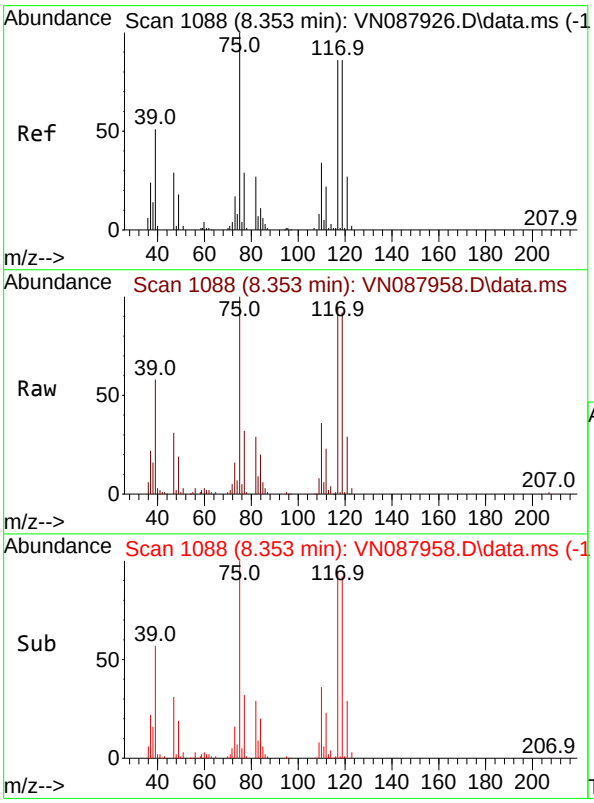
Ion	Ratio	Lower	Upper
113	100		
111	103.1	82.2	123.2
192	17.4	14.2	21.2



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations
APPROVED

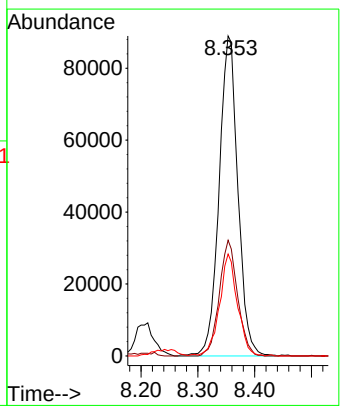
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

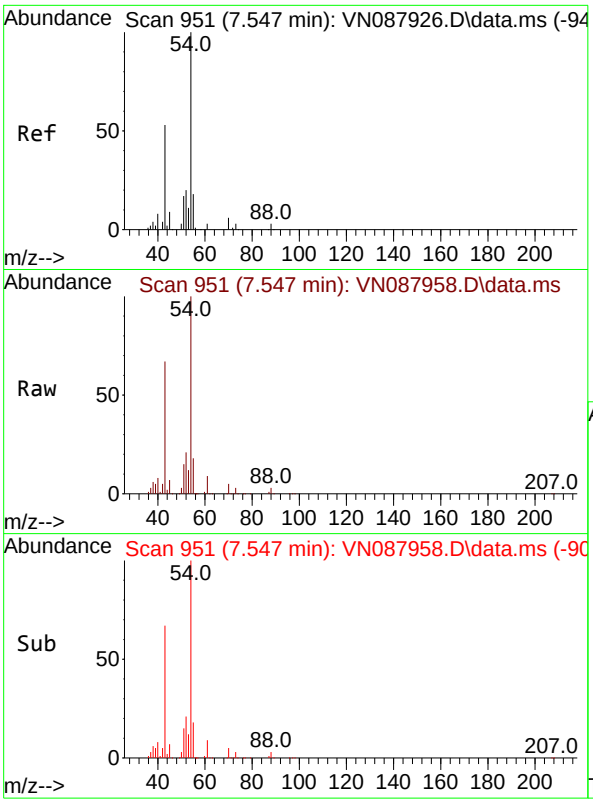


#36
1,1-Dichloropropene
Concen: 50.824 ug/l
RT: 8.353 min Scan# 1088
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 75 Resp: 204718

Ion	Ratio	Lower	Upper
75	100		
110	35.1	17.1	51.3
77	30.5	24.8	37.2

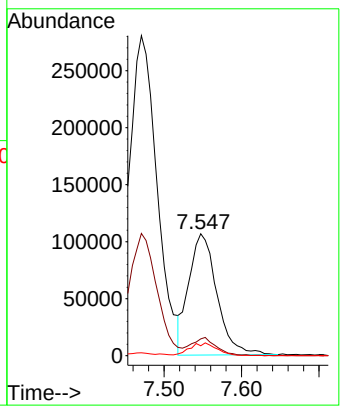




#37
Ethyl Acetate
Concen: 50.600 ug/l
RT: 7.547 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 43 Resp: 26764

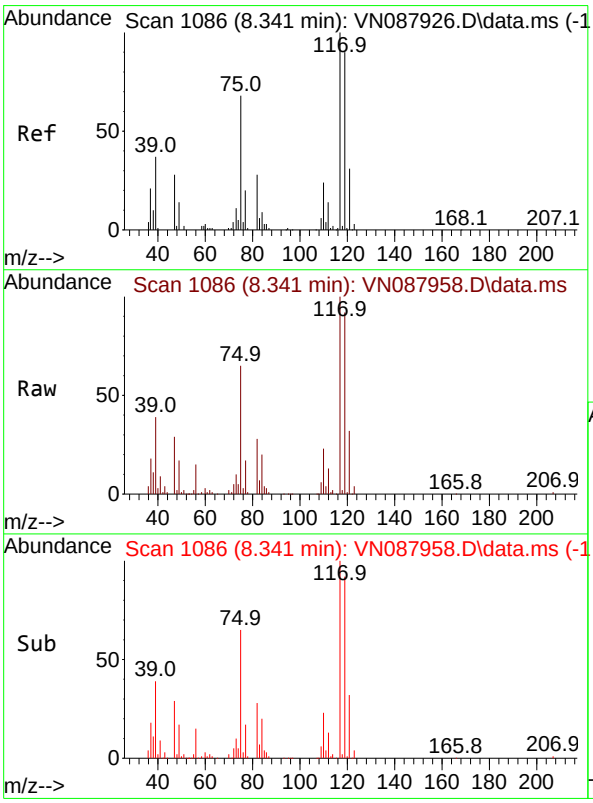
Ion	Ratio	Lower	Upper
43	100		
61	13.3	10.7	16.1
70	10.2	7.8	11.8



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations
APPROVED

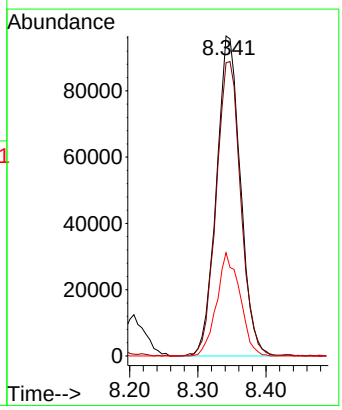
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

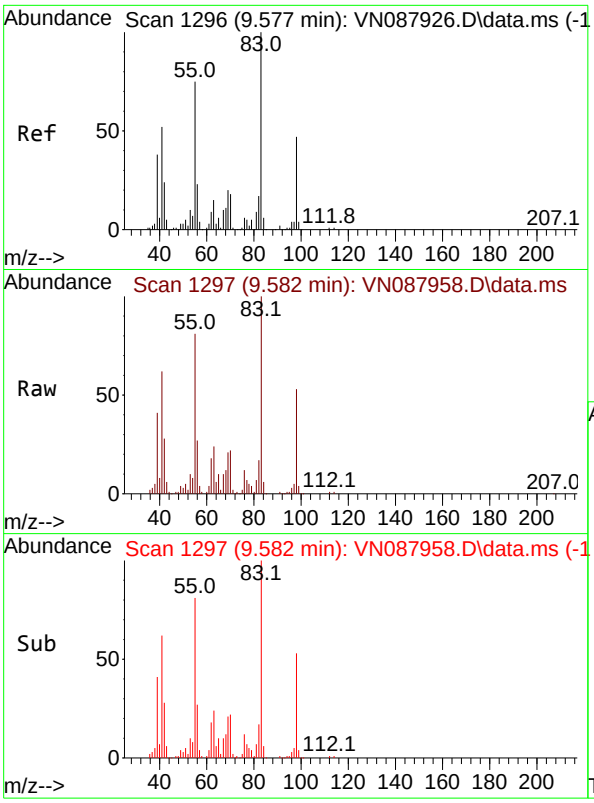


#38
Carbon Tetrachloride
Concen: 51.123 ug/l
RT: 8.341 min Scan# 1086
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion:117 Resp: 236293

Ion	Ratio	Lower	Upper
117	100		
119	91.6	72.1	108.1
121	32.3	24.6	36.8





#39
Methylcyclohexane
Concen: 49.748 ug/l
RT: 9.582 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

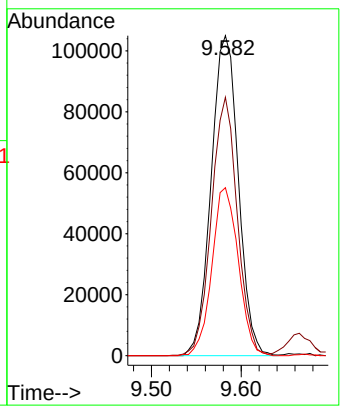
Tgt Ion: 83 Resp: 22105

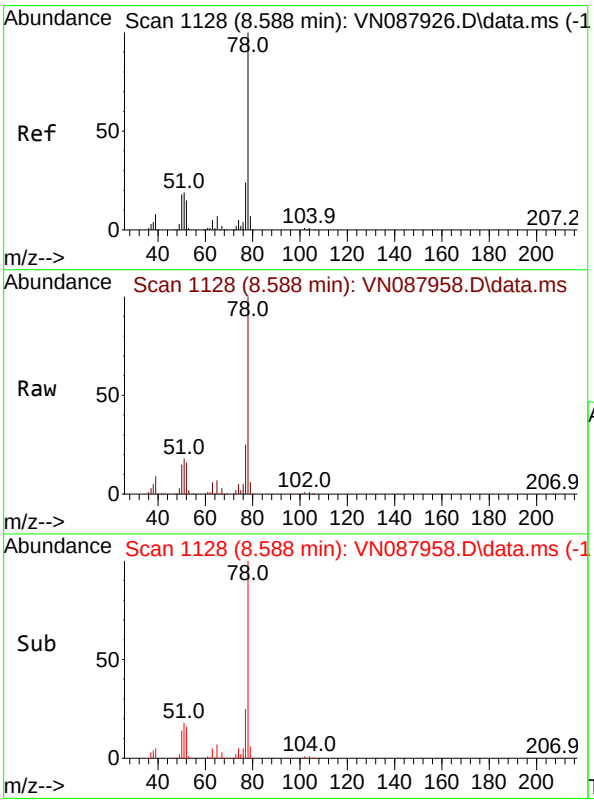
Ion	Ratio	Lower	Upper
83	100		
55	80.6	59.9	89.9
98	52.5	37.4	56.2

Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

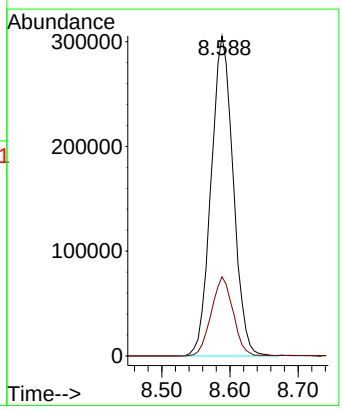


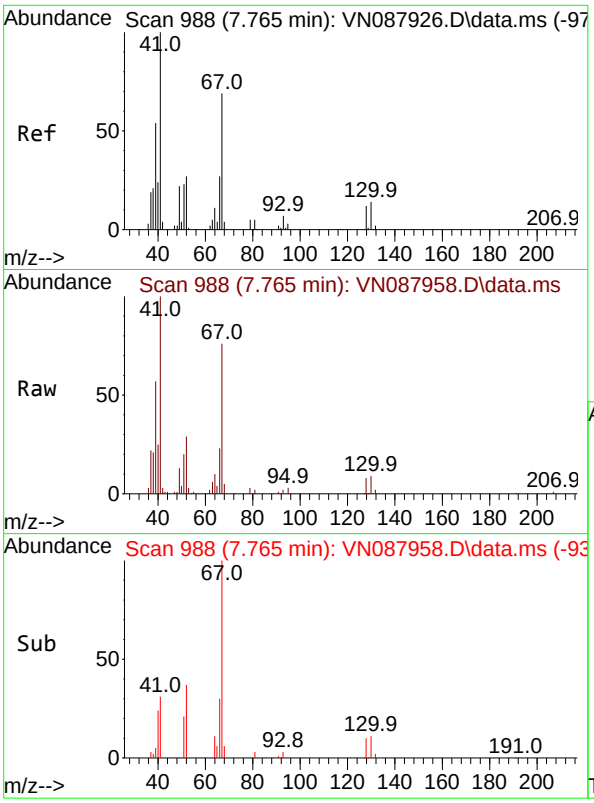


#40
Benzene
Concen: 51.664 ug/l
RT: 8.588 min Scan# 1128
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 78 Resp: 689039

Ion	Ratio	Lower	Upper
78	100		
77	24.8	19.0	28.6

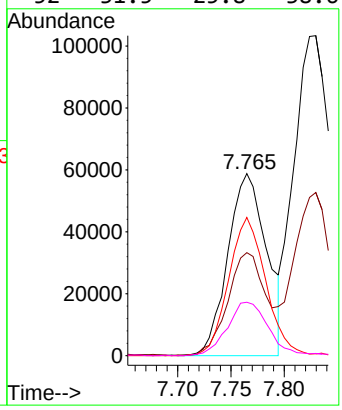




#41
Methacrylonitrile
Concen: 54.670 ug/l
RT: 7.765 min Scan# 9
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 41 Resp: 14944

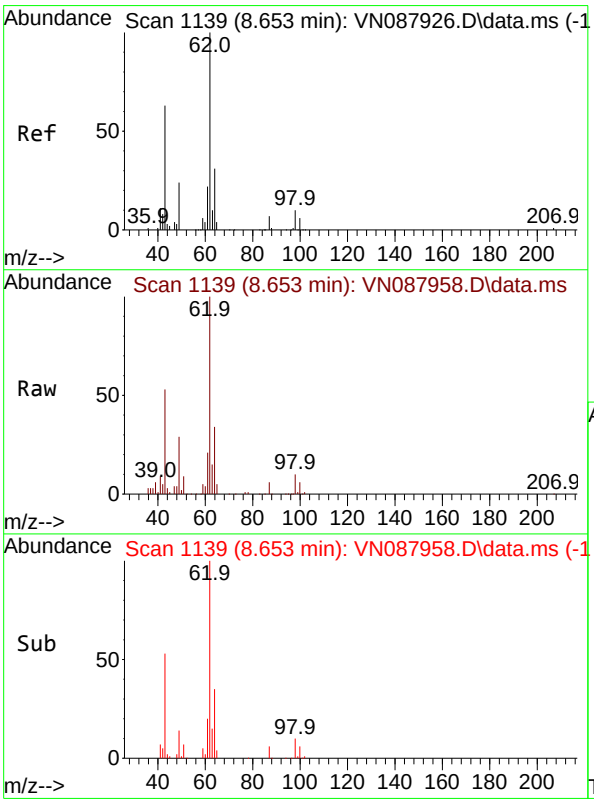
Ion	Ratio	Lower	Upper
41	100		
39	53.4	43.5	65.3
67	73.0	57.6	86.4
52	31.5	25.8	38.6



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations
APPROVED

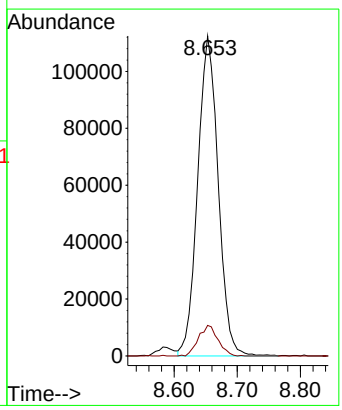
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

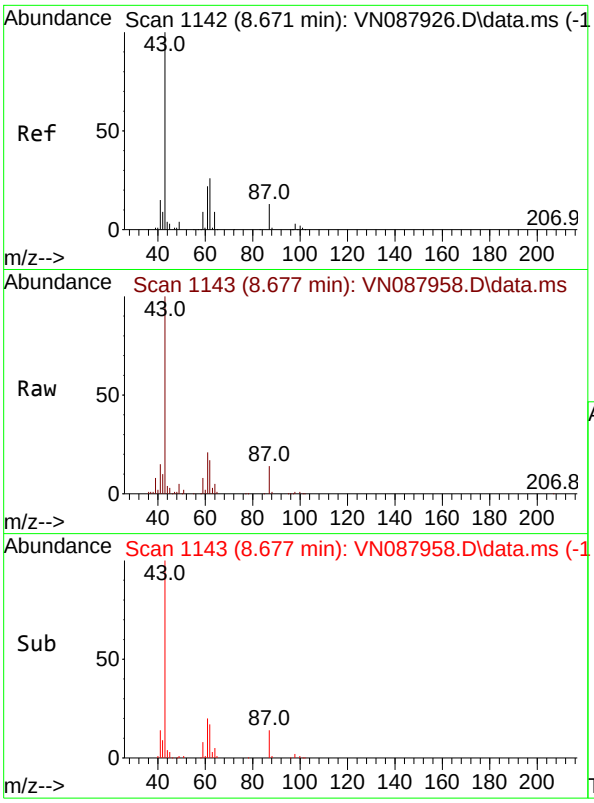


#42
1,2-Dichloroethane
Concen: 50.984 ug/l
RT: 8.653 min Scan# 1139
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 62 Resp: 253749

Ion	Ratio	Lower	Upper
62	100		
98	9.1	0.0	18.6





#43
Isopropyl Acetate
Concen: 52.670 ug/l
RT: 8.677 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

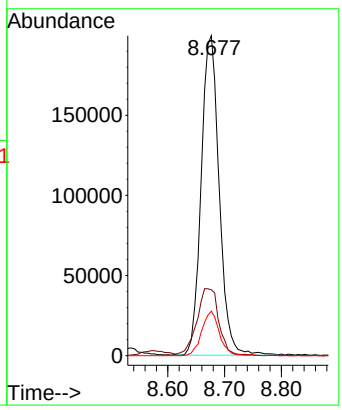
Tgt Ion: 43 Resp: 43852

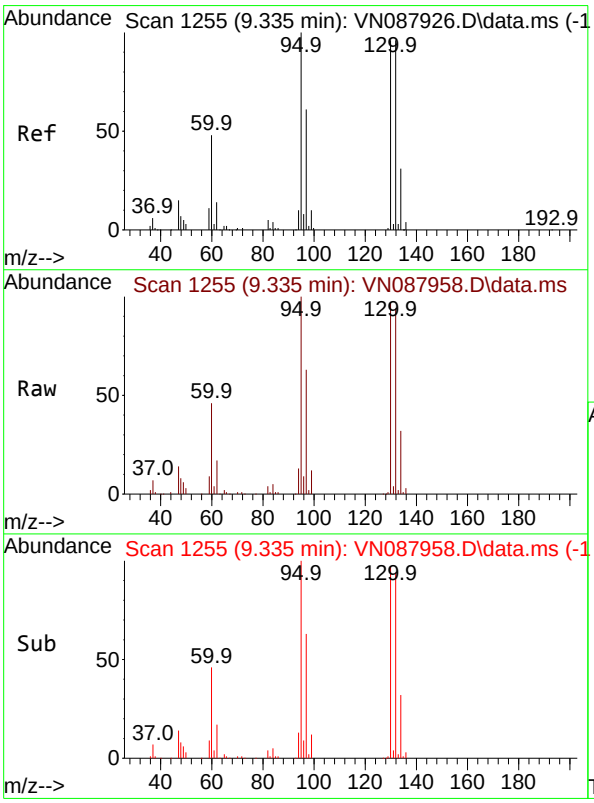
Ion	Ratio	Lower	Upper
43	100		
61	25.8	20.2	30.2
87	13.6	10.9	16.3

Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

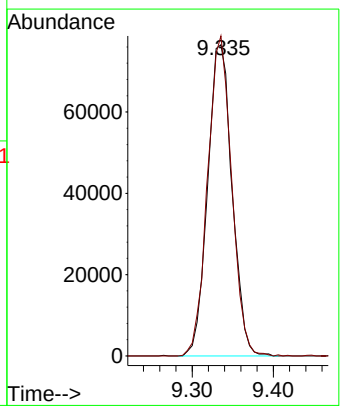


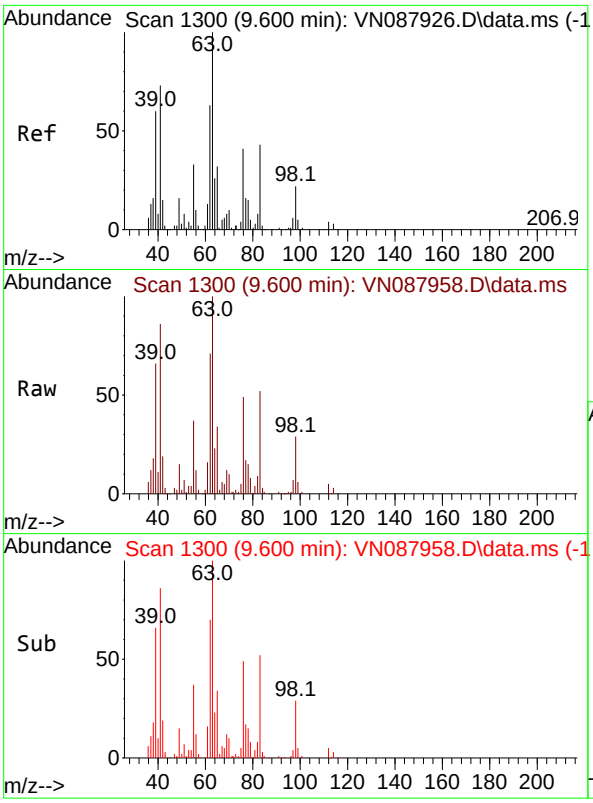


#44
Trichloroethene
Concen: 50.257 ug/l
RT: 9.335 min Scan# 1255
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion:130 Resp: 160105

Ion	Ratio	Lower	Upper
130	100		
95	102.8	0.0	208.0

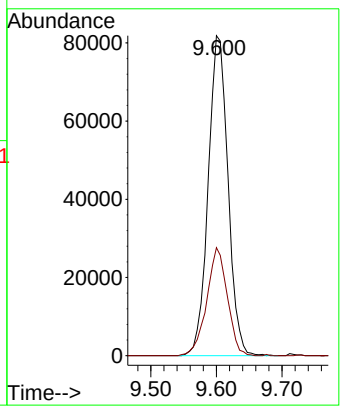




#45
1,2-Dichloropropane
Concen: 51.274 ug/l
RT: 9.600 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 63 Resp: 17147

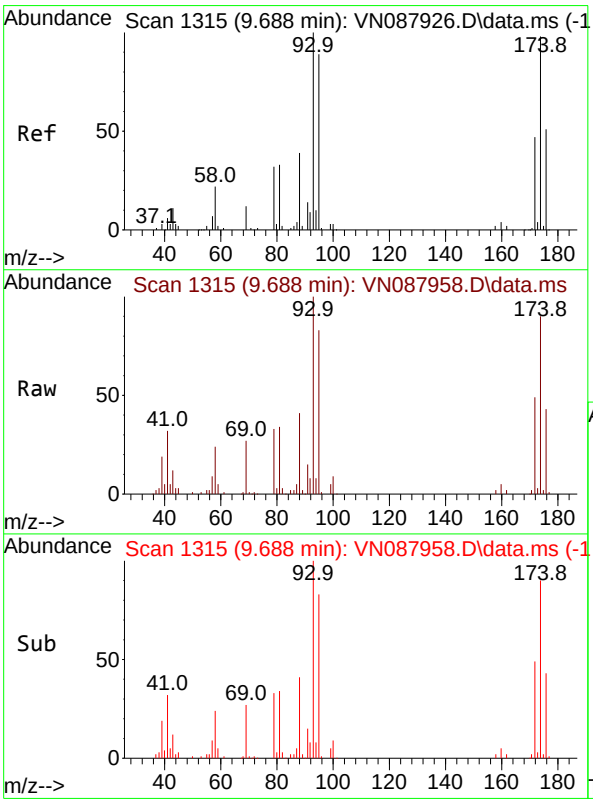
Ion	Ratio	Lower	Upper
63	100		
65	33.8	25.4	38.0



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations
APPROVED

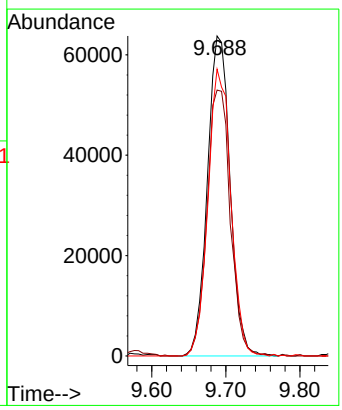
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

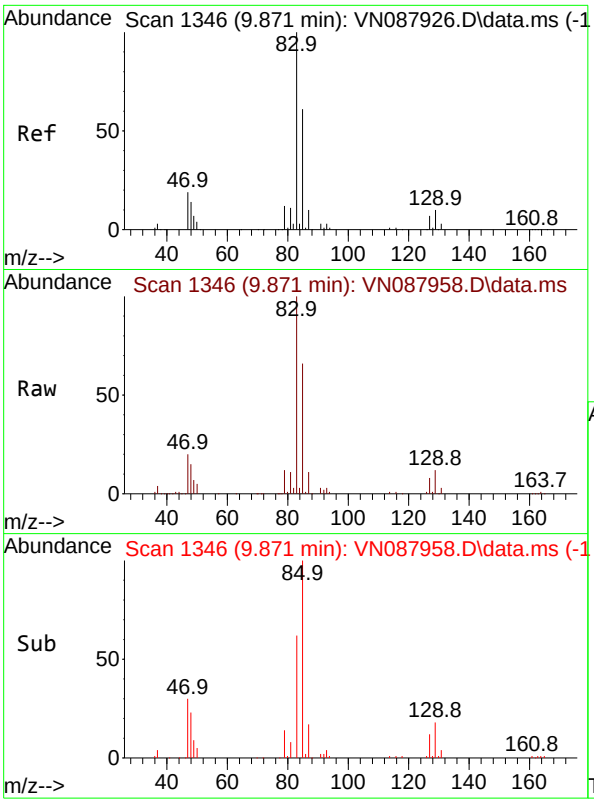


#46
Dibromomethane
Concen: 51.337 ug/l
RT: 9.688 min Scan# 1315
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 93 Resp: 135472

Ion	Ratio	Lower	Upper
93	100		
95	85.6	67.6	101.4
174	90.4	75.4	113.0

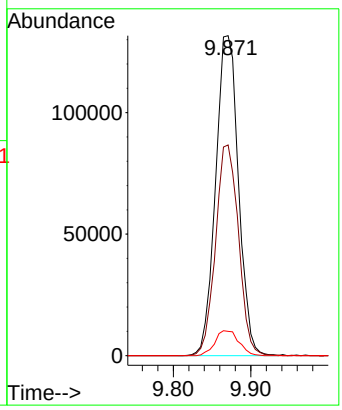




#47
Bromodichloromethane
Concen: 52.164 ug/l
RT: 9.871 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 83 Resp: 26999

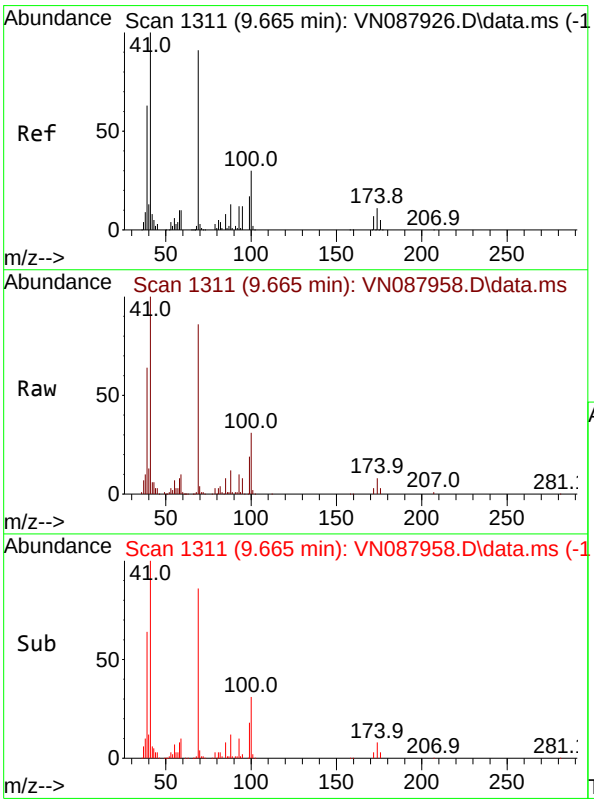
Ion	Ratio	Lower	Upper
83	100		
85	65.8	49.1	73.7
127	7.6	5.9	8.9



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations APPROVED

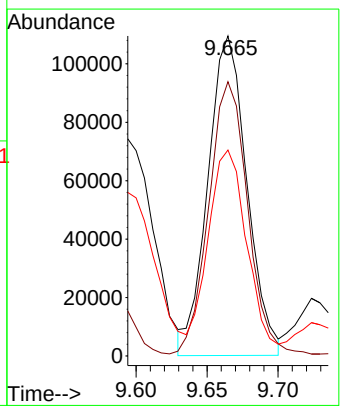
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

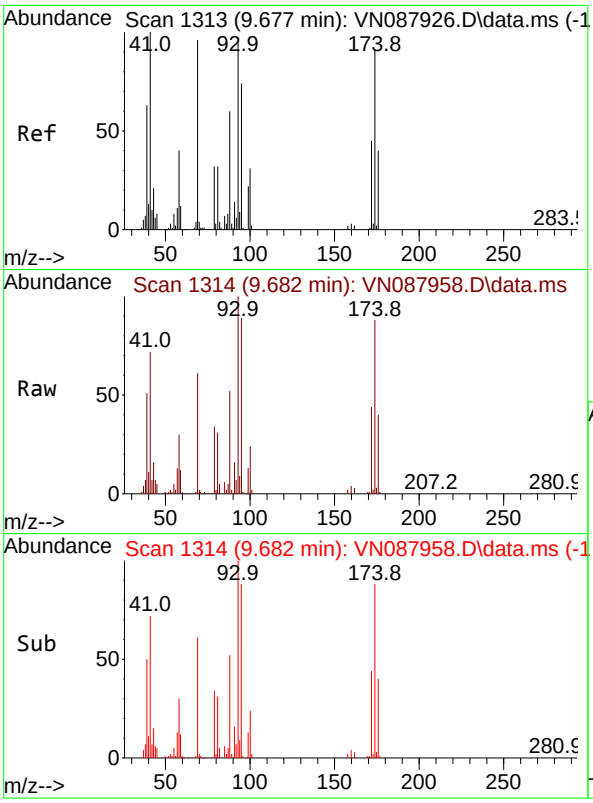


#48
Methyl methacrylate
Concen: 54.280 ug/l
RT: 9.665 min Scan# 1311
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 41 Resp: 209285

Ion	Ratio	Lower	Upper
41	100		
69	86.9	70.9	106.3
39	64.4	52.9	79.3

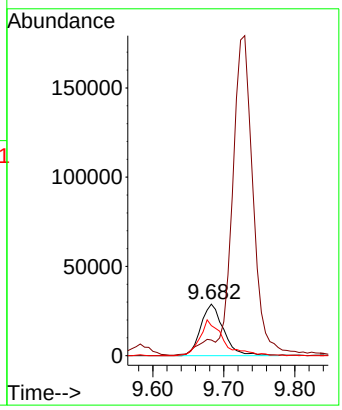




#49
1,4-Dioxane
Concen: 1130.575 ug/l
RT: 9.682 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 88 Resp: 6439

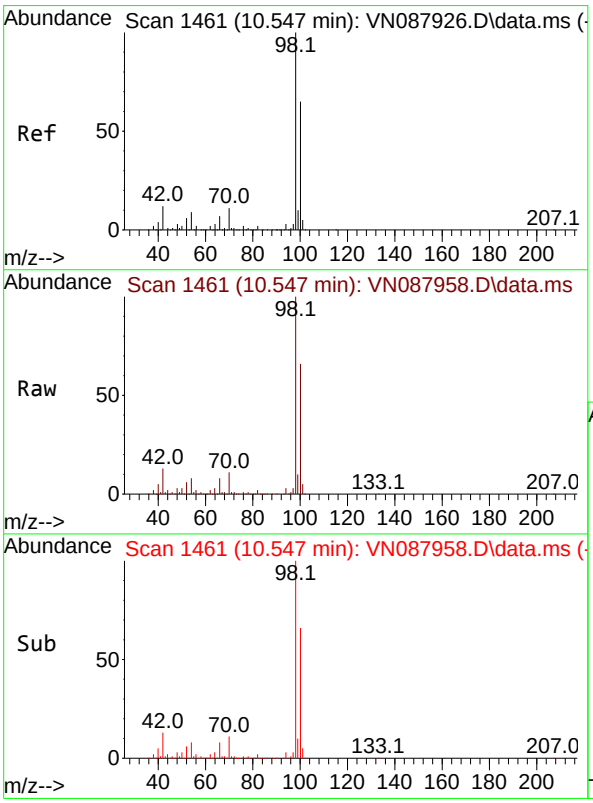
Ion	Ratio	Lower	Upper
88	100		
43	0.0	22.6	33.8
58	71.6	57.4	86.2



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations
APPROVED

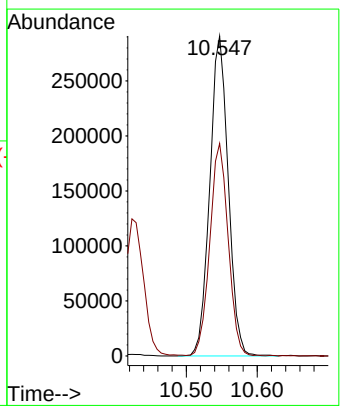
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

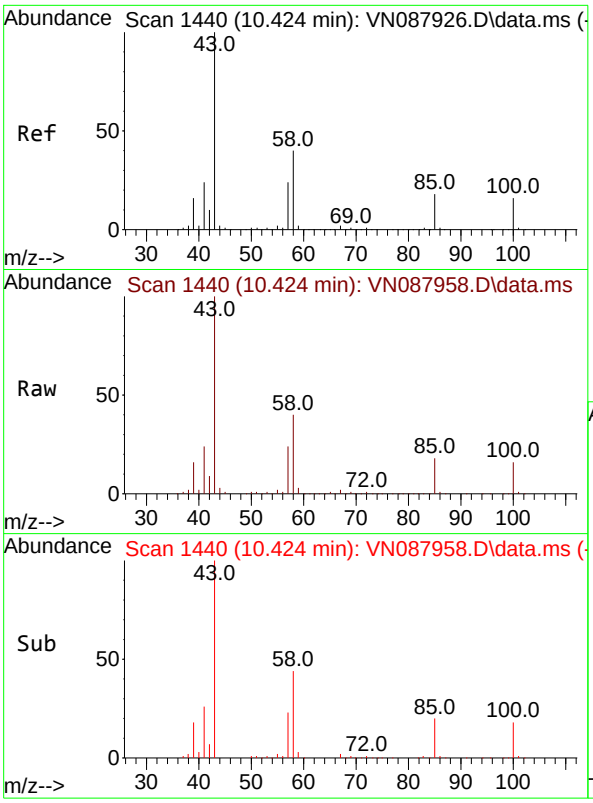


#50
Toluene-d8
Concen: 44.485 ug/l
RT: 10.547 min Scan# 1461
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 98 Resp: 524034

Ion	Ratio	Lower	Upper
98	100		
100	65.9	51.7	77.5





#51
4-Methyl-2-Pentanone
Concen: 276.213 ug/l
RT: 10.424 min Scan# 14
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

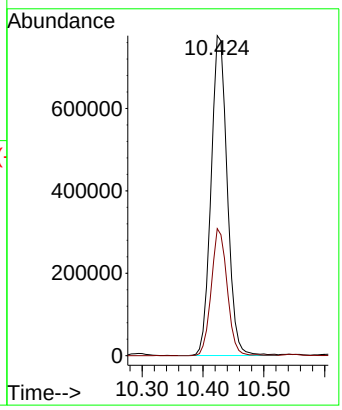
Tgt Ion: 43 Resp: 143500

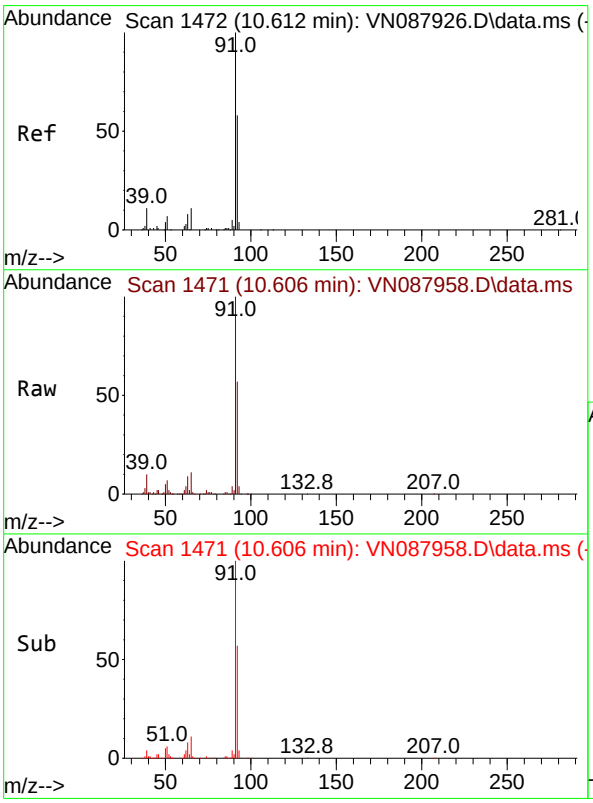
Ion	Ratio	Lower	Upper
43	100		
58	38.9	31.0	46.6

Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

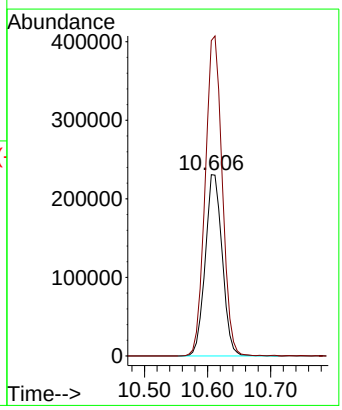


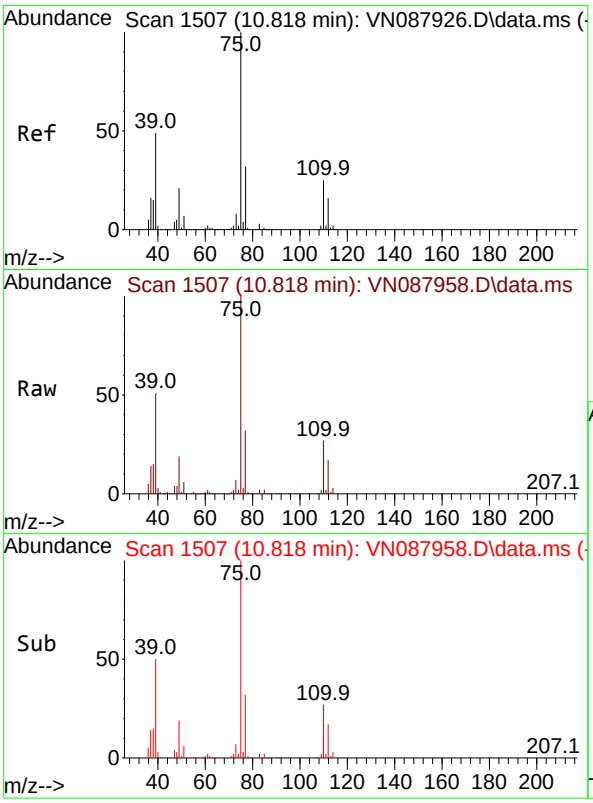


#52
Toluene
Concen: 51.476 ug/l
RT: 10.606 min Scan# 1471
Delta R.T. -0.006 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 92 Resp: 430816

Ion	Ratio	Lower	Upper
92	100		
91	177.3	138.2	207.2

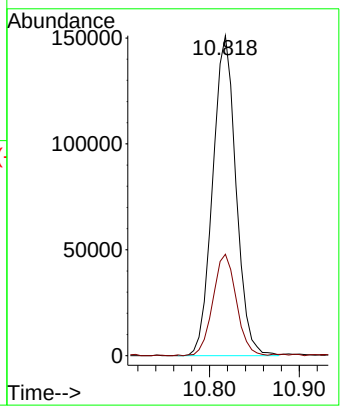




#53
t-1,3-Dichloropropene
Concen: 51.363 ug/l
RT: 10.818 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 75 Resp: 27208

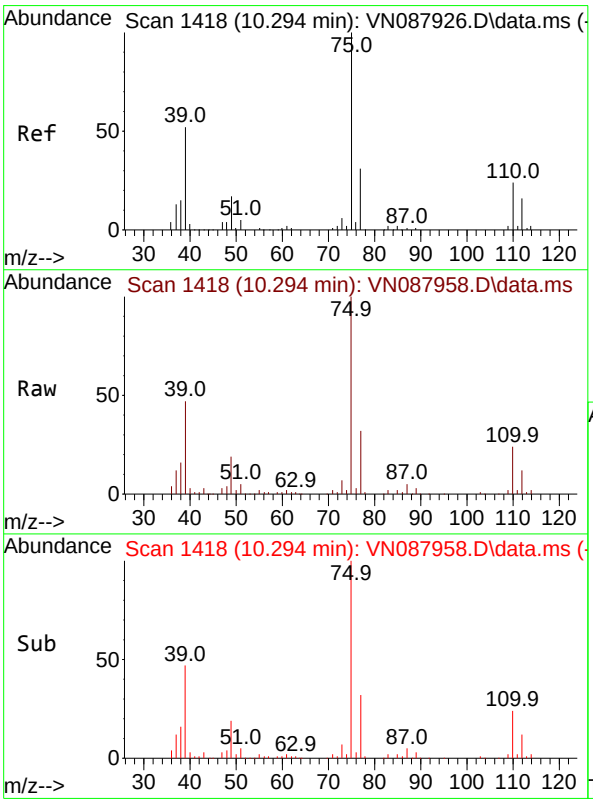
Ion	Ratio	Lower	Upper
75	100		
77	31.5	25.3	37.9



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations
APPROVED

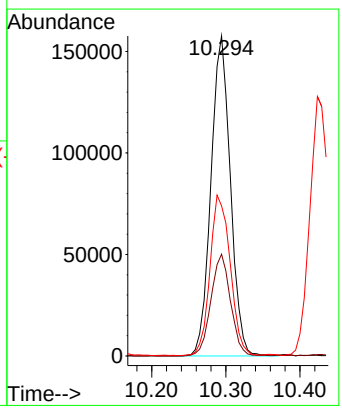
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

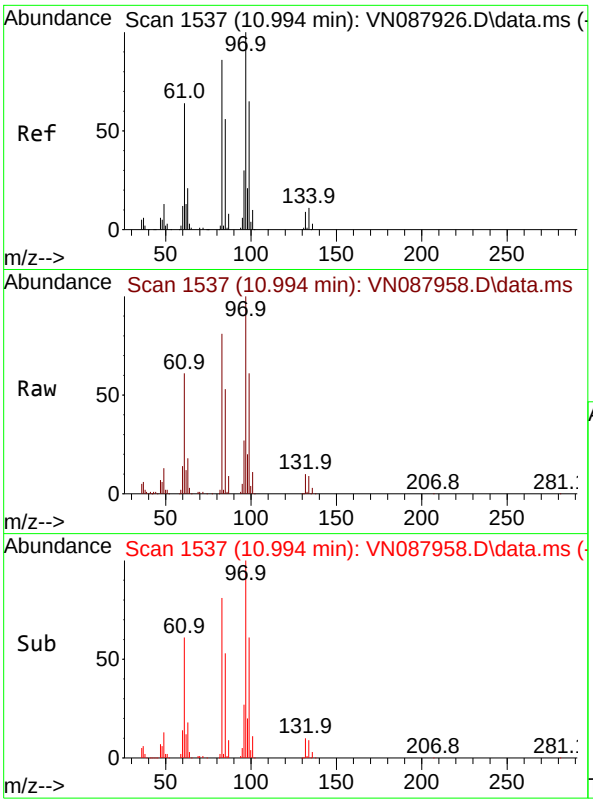


#54
cis-1,3-Dichloropropene
Concen: 52.227 ug/l
RT: 10.294 min Scan# 1418
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 75 Resp: 287341

Ion	Ratio	Lower	Upper
75	100		
77	31.8	24.7	37.1
39	46.8	41.4	62.0

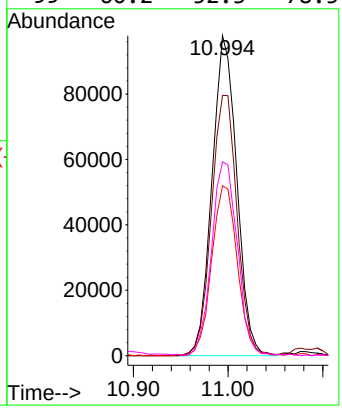




#55
1,1,2-Trichloroethane
Concen: 52.302 ug/l
RT: 10.994 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 97 Resp: 17798

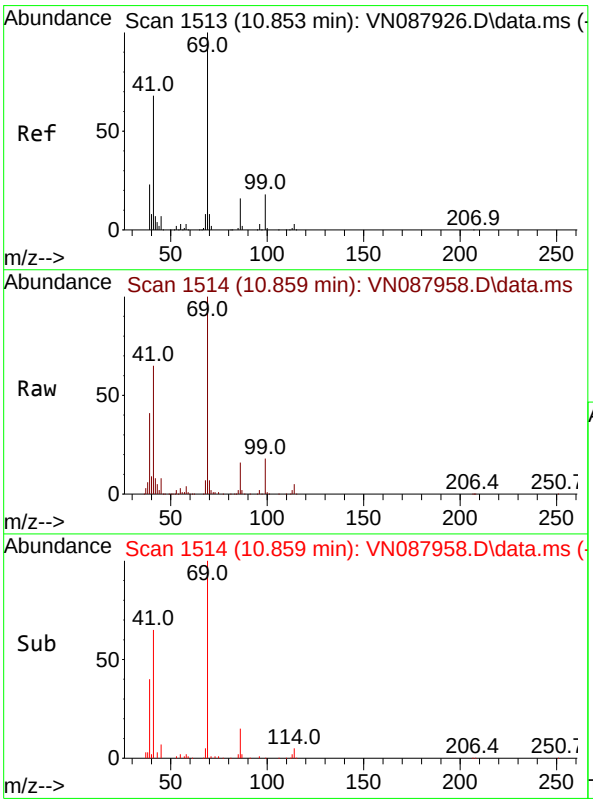
Ion	Ratio	Lower	Upper
97	100		
83	81.4	69.0	103.4
85	52.7	44.4	66.6
99	60.2	52.3	78.5



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations
APPROVED

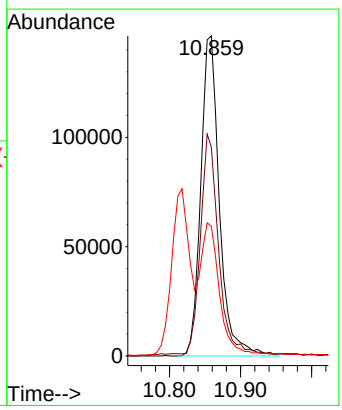
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

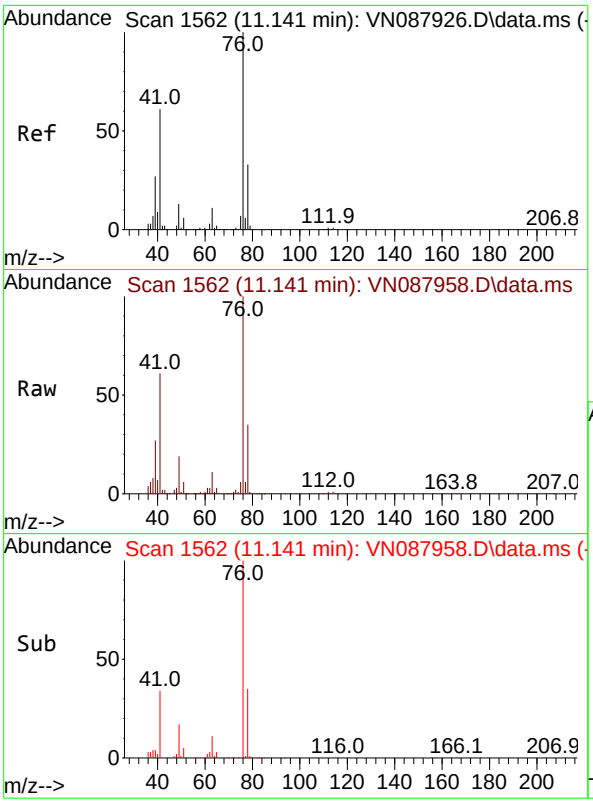


#56
Ethyl methacrylate
Concen: 54.524 ug/l
RT: 10.859 min Scan# 1514
Delta R.T. 0.006 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 69 Resp: 268097

Ion	Ratio	Lower	Upper
69	100		
41	66.9	53.8	80.6
39	41.5	34.7	52.1

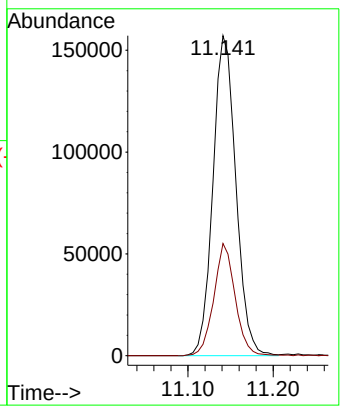




#57
1,3-Dichloropropane
Concen: 52.617 ug/l
RT: 11.141 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 76 Resp: 29450

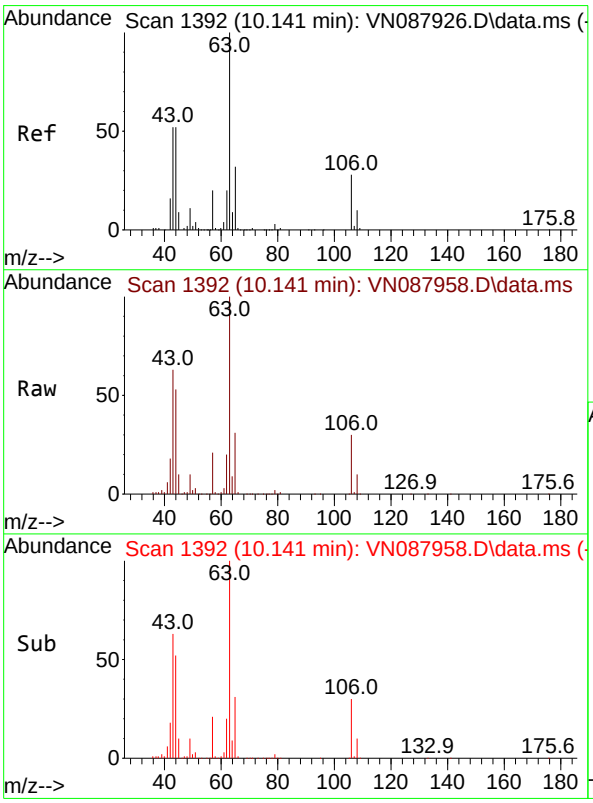
Ion	Ratio	Lower	Upper
76	100		
78	32.6	26.0	39.0



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations
APPROVED

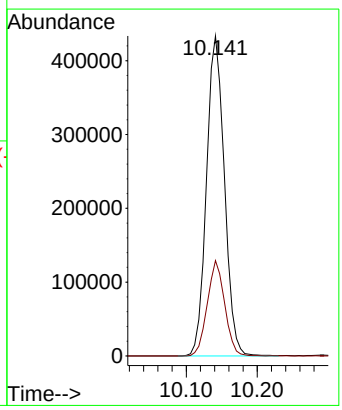
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

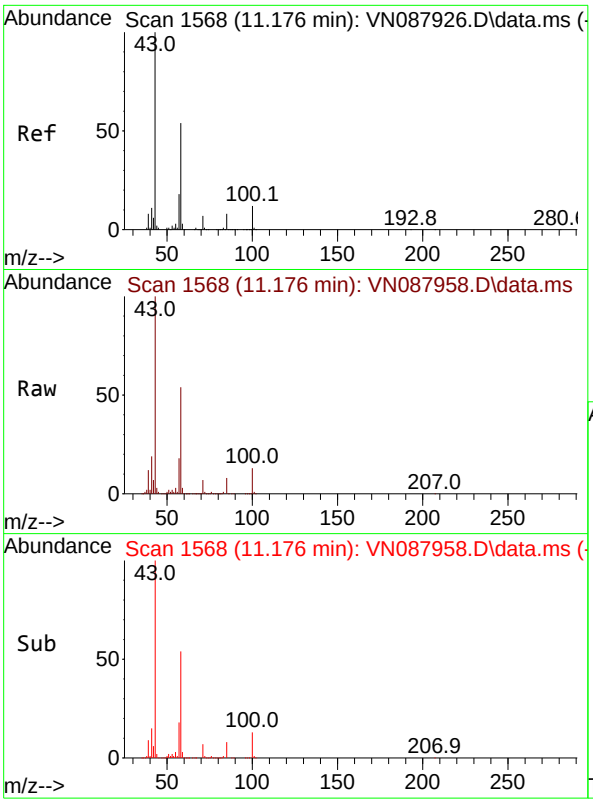


#58
2-Chloroethyl Vinyl ether
Concen: 328.612 ug/l
RT: 10.141 min Scan# 1392
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 63 Resp: 759725

Ion	Ratio	Lower	Upper
63	100		
106	28.9	22.6	33.8





#59
2-Hexanone
Concen: 291.025 ug/l
RT: 11.176 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

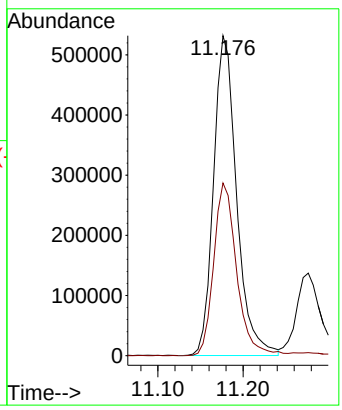
Tgt Ion: 43 Resp: 99974

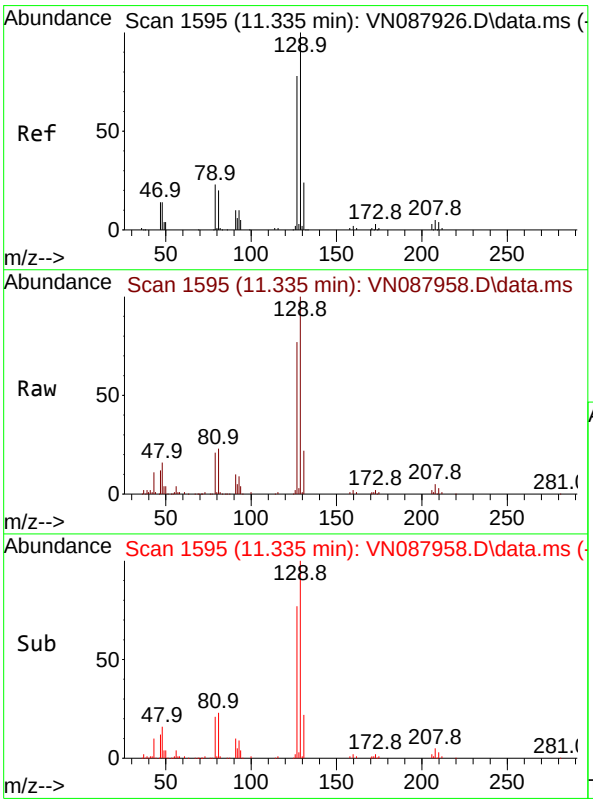
Ion	Ratio	Lower	Upper
43	100		
58	53.8	26.4	79.2

Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

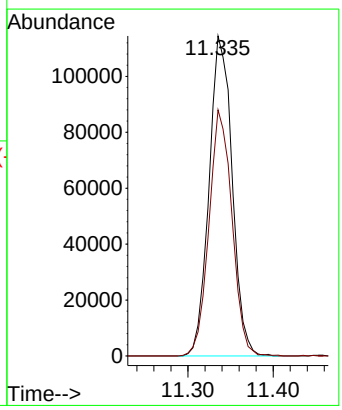


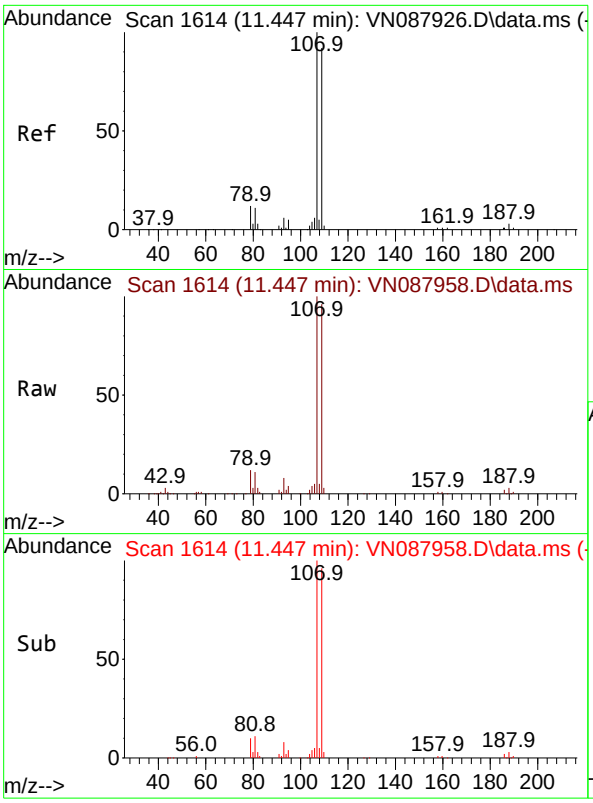


#60
Dibromochloromethane
Concen: 53.803 ug/l
RT: 11.335 min Scan# 1595
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion:129 Resp: 215266

Ion	Ratio	Lower	Upper
129	100		
127	76.6	39.3	117.9





#61
1,2-Dibromoethane
Concen: 51.695 ug/l
RT: 11.447 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

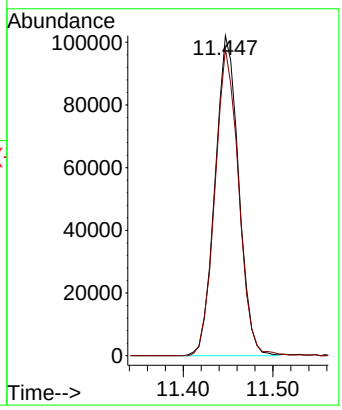
Tgt Ion:107 Resp: 18623

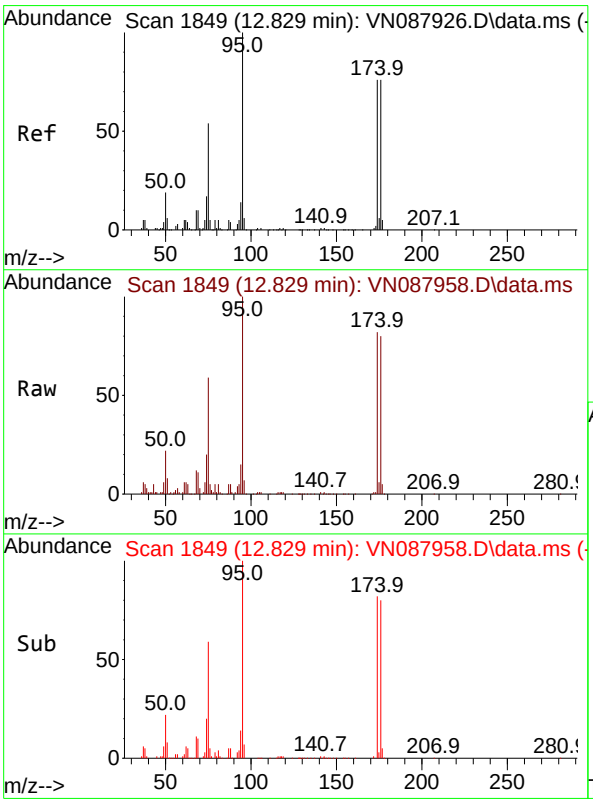
Ion	Ratio	Lower	Upper
107	100		
109	96.2	75.3	112.9

Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

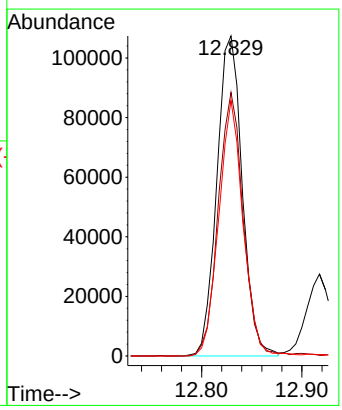


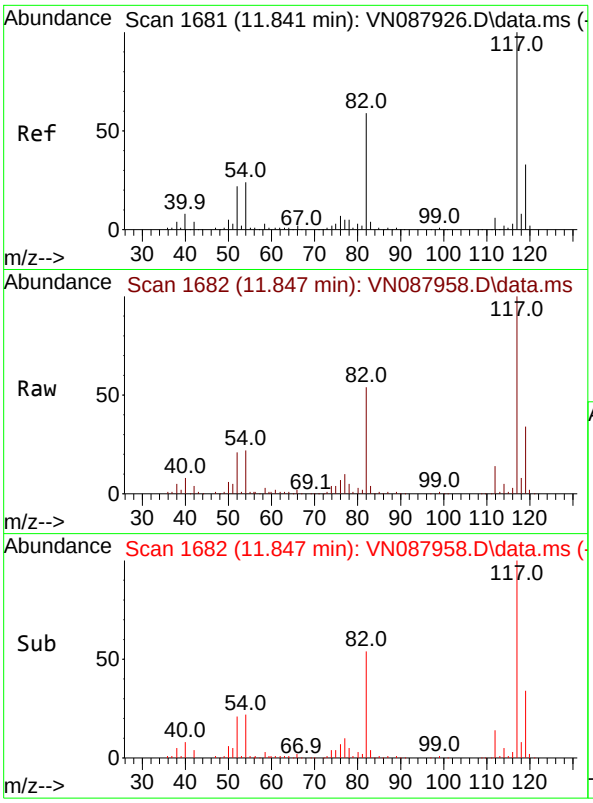


#62
4-Bromofluorobenzene
Concen: 44.806 ug/l
RT: 12.829 min Scan# 1849
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 95 Resp: 188664

Ion	Ratio	Lower	Upper
95	100		
174	80.5	0.0	159.2
176	76.6	0.0	152.6

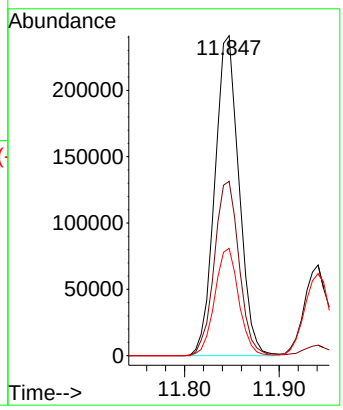




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.847 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion:117 Resp: 42817

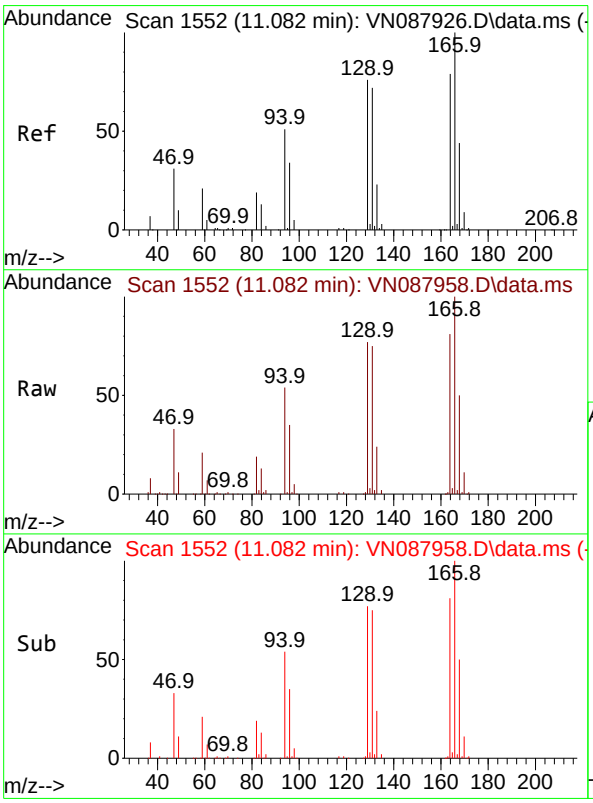
Ion	Ratio	Lower	Upper
117	100		
82	54.5	47.0	70.4
119	33.6	26.1	39.1



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations
APPROVED

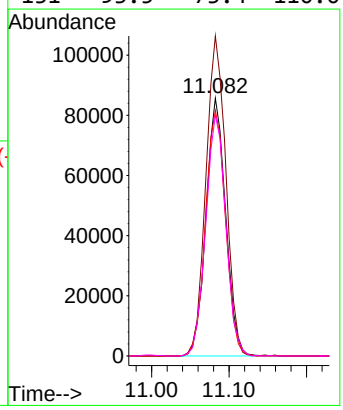
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

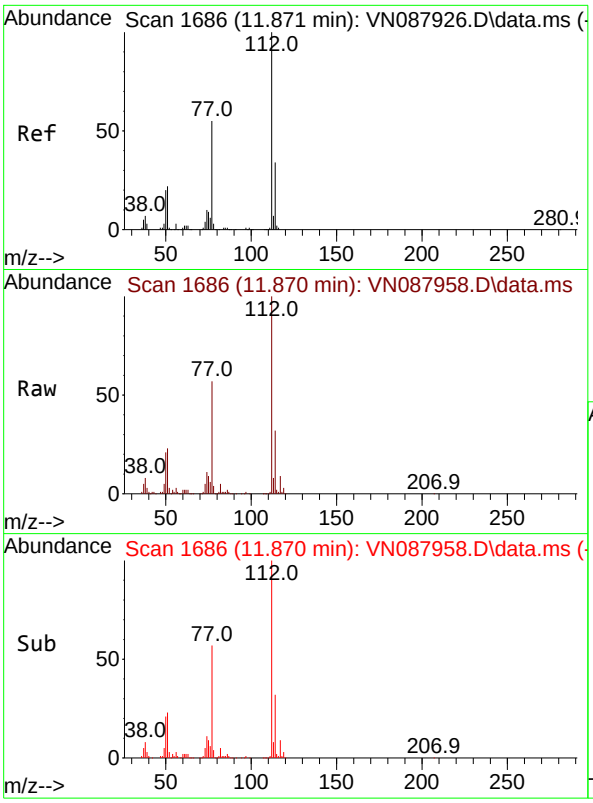


#64
Tetrachloroethene
Concen: 57.822 ug/l
RT: 11.082 min Scan# 1552
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion:164 Resp: 150814

Ion	Ratio	Lower	Upper
164	100		
166	124.2	101.6	152.4
129	95.2	77.5	116.3
131	93.5	73.4	110.0

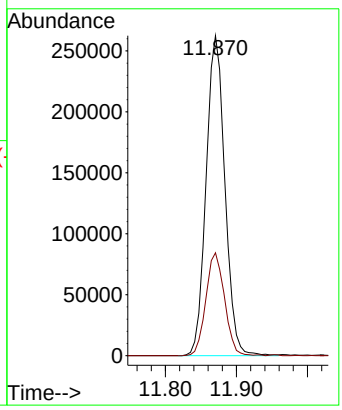




#65
Chlorobenzene
Concen: 52.970 ug/l
RT: 11.870 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion:112 Resp: 48265

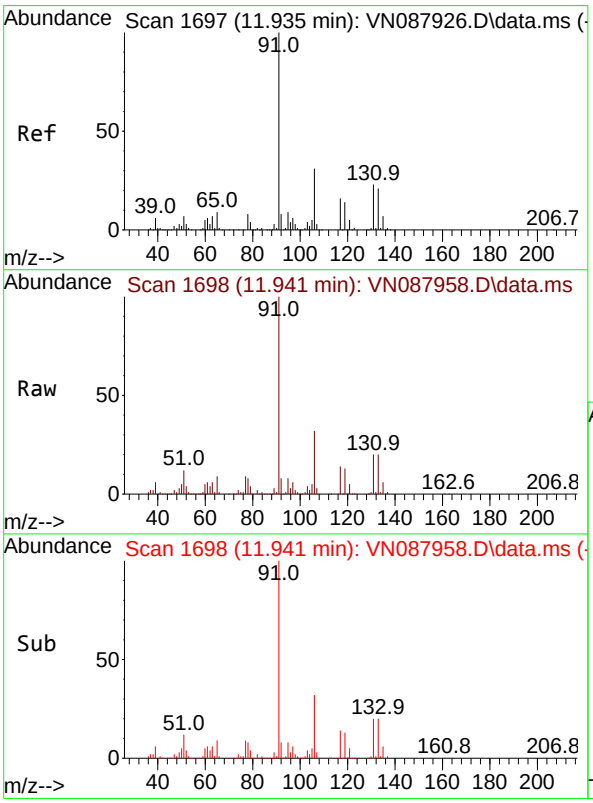
Ion	Ratio	Lower	Upper
112	100		
114	32.1	27.2	40.8



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations
APPROVED

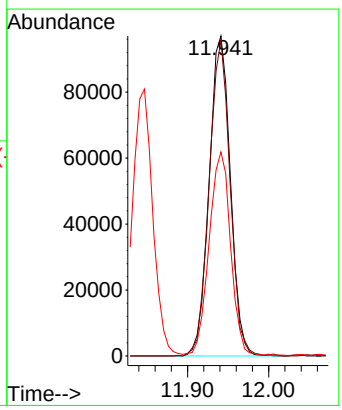
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

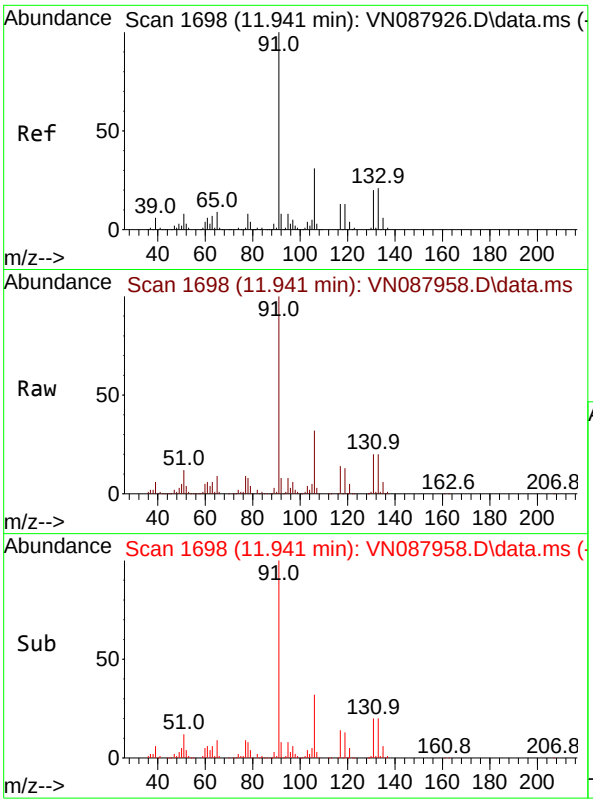


#66
1,1,1,2-Tetrachloroethane
Concen: 53.595 ug/l
RT: 11.941 min Scan# 1698
Delta R.T. 0.006 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion:131 Resp: 176109

Ion	Ratio	Lower	Upper
131	100		
133	96.8	48.4	145.0
119	64.5	31.9	95.5

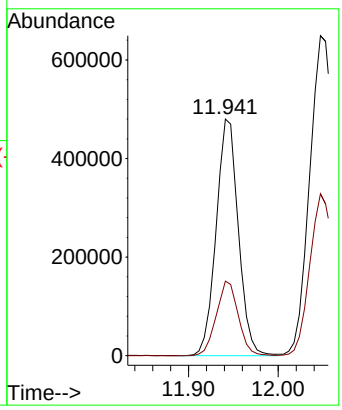




#67
Ethyl Benzene
Concen: 54.252 ug/l
RT: 11.941 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 91 Resp: 82487

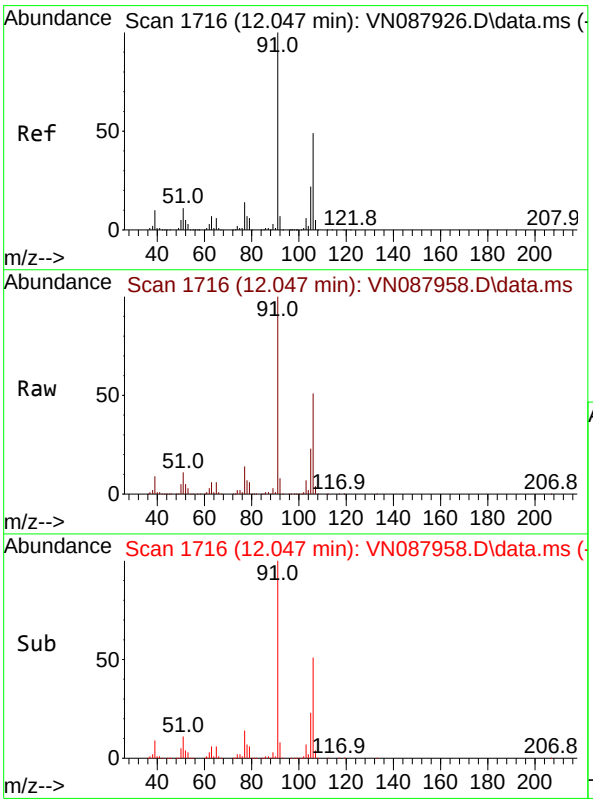
Ion	Ratio	Lower	Upper
91	100		
106	31.5	25.2	37.8



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations
APPROVED

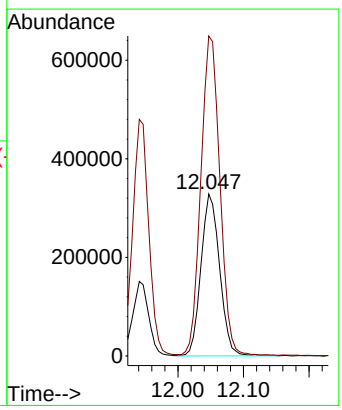
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

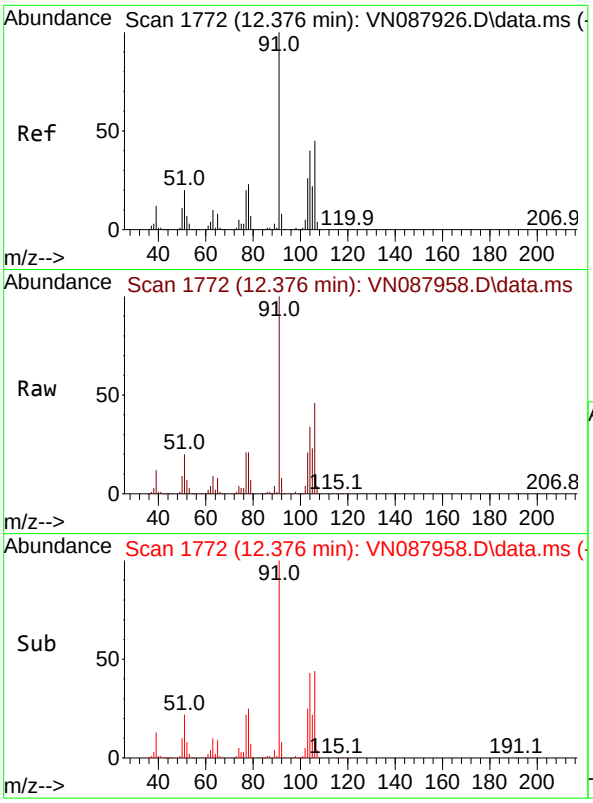


#68
m/p-Xylenes
Concen: 111.658 ug/l
RT: 12.047 min Scan# 1716
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion:106 Resp: 649282

Ion	Ratio	Lower	Upper
106	100		
91	201.8	162.9	244.3

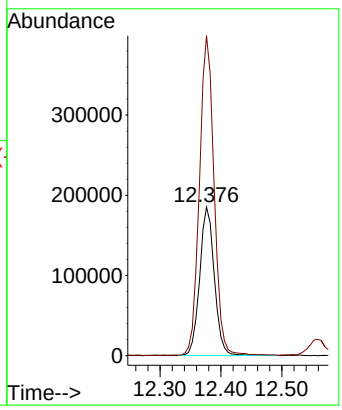




#69
o-Xylene
Concen: 55.585 ug/l
RT: 12.376 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion:106 Resp: 31053

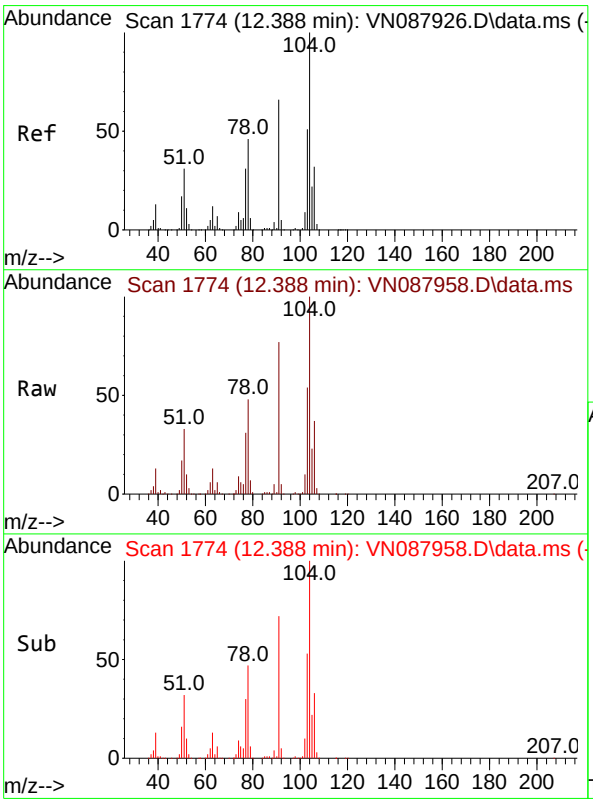
Ion	Ratio	Lower	Upper
106	100		
91	214.9	108.2	324.6



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations
APPROVED

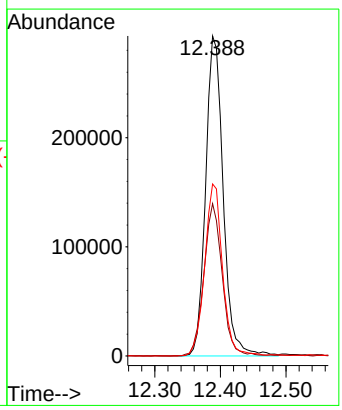
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

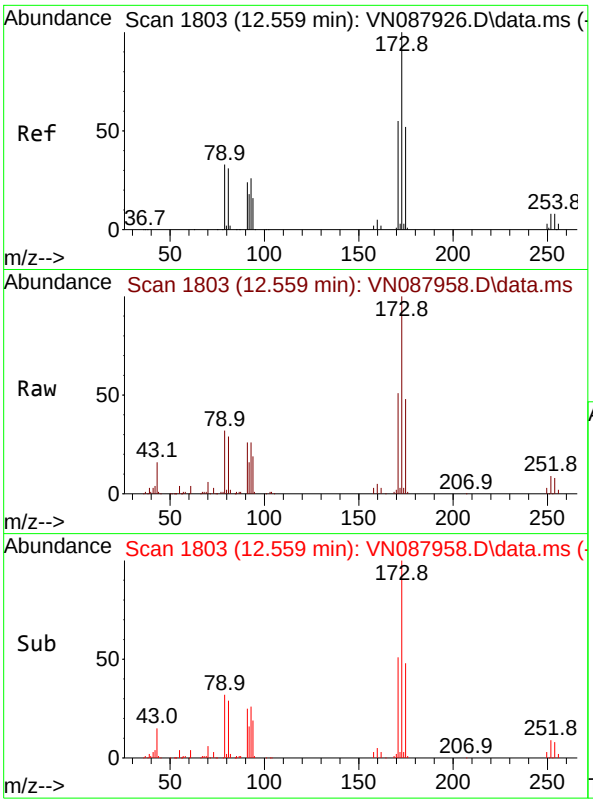


#70
Styrene
Concen: 56.990 ug/l
RT: 12.388 min Scan# 1774
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion:104 Resp: 546817

Ion	Ratio	Lower	Upper
104	100		
78	49.8	39.7	59.5
103	54.7	44.6	67.0

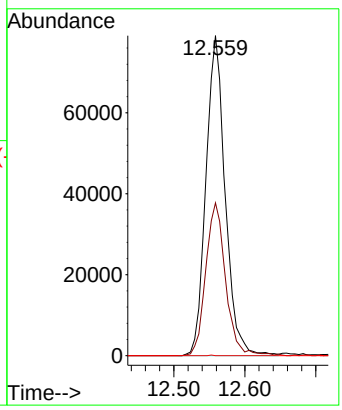




#71
Bromoform
Concen: 55.822 ug/l
RT: 12.559 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion:173 Resp: 14881

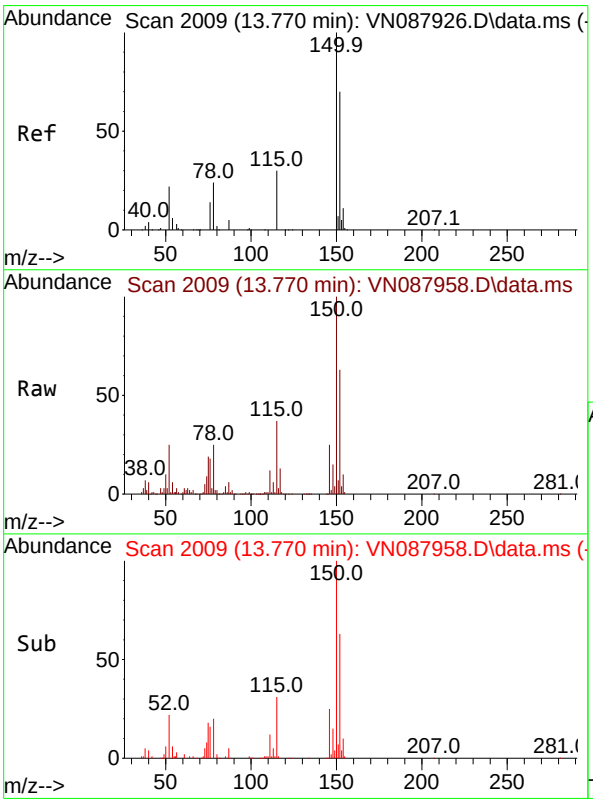
Ion	Ratio	Lower	Upper
173	100		
175	49.2	23.7	71.1
254	0.0	0.1	0.1



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations
APPROVED

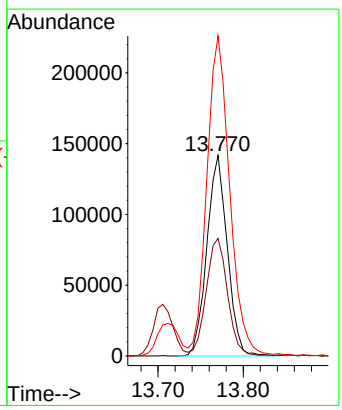
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

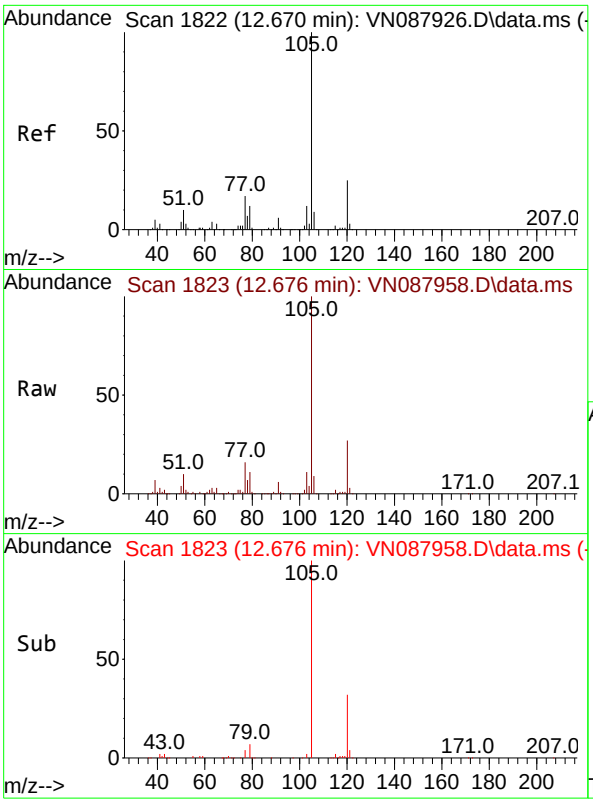


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.770 min Scan# 2009
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion:152 Resp: 236701

Ion	Ratio	Lower	Upper
152	100		
115	60.5	29.9	89.7
150	177.2	0.0	335.0

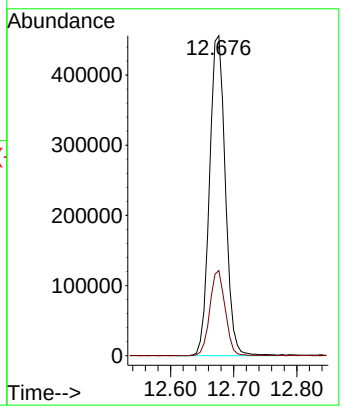




#73
Isopropylbenzene
Concen: 54.014 ug/l
RT: 12.676 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion:105 Resp: 79238

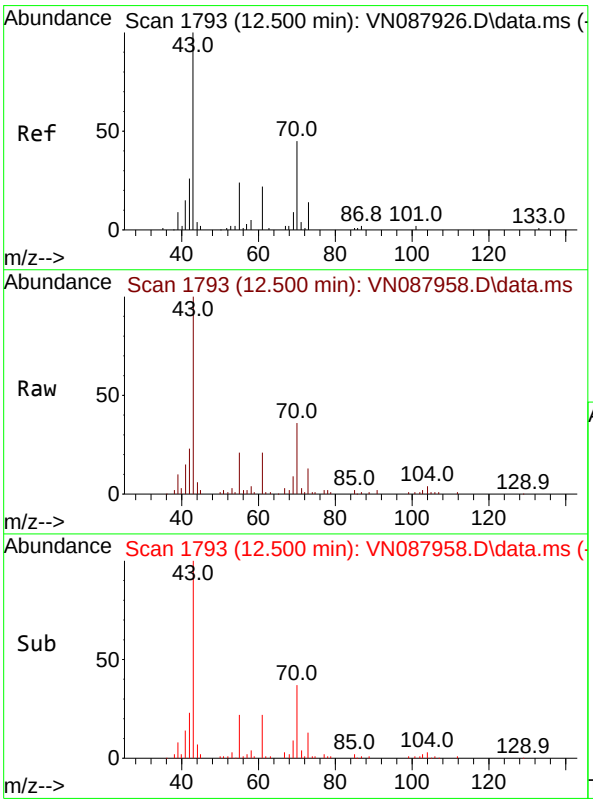
Ion	Ratio	Lower	Upper
105	100		
120	25.9	13.1	39.1



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations
APPROVED

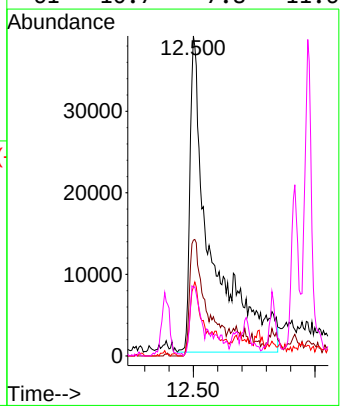
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

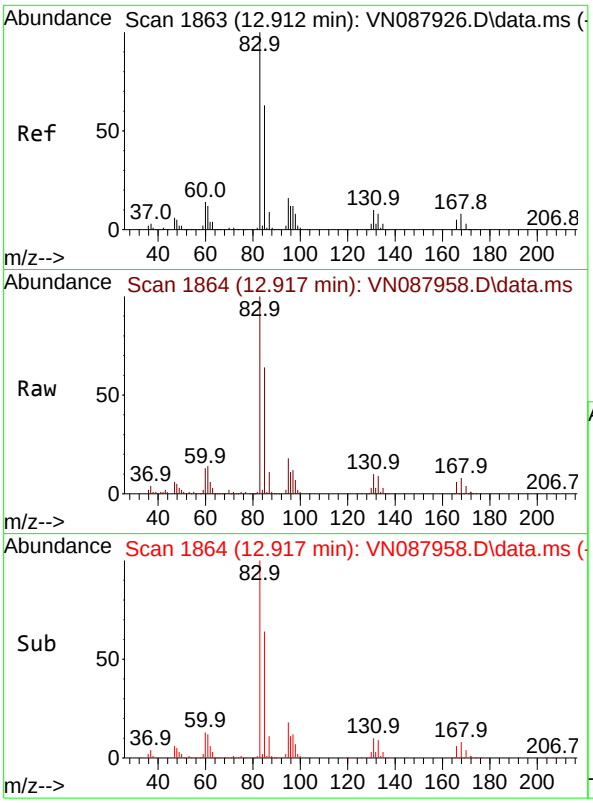


#74
N-amyl acetate
Concen: 49.098 ug/l m
RT: 12.500 min Scan# 1793
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 43 Resp: 237322

Ion	Ratio	Lower	Upper
43	100		
70	21.6	19.8	29.8
55	13.0	9.6	14.4
61	10.7	7.8	11.6

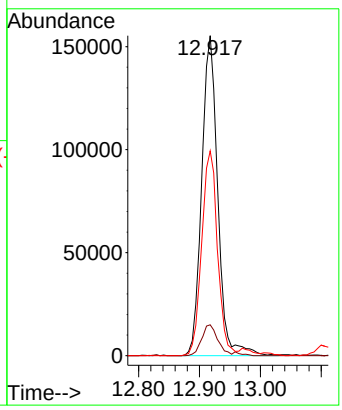




#75
1,1,2,2-Tetrachloroethane
Concen: 53.832 ug/l
RT: 12.917 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 83 Resp: 28453

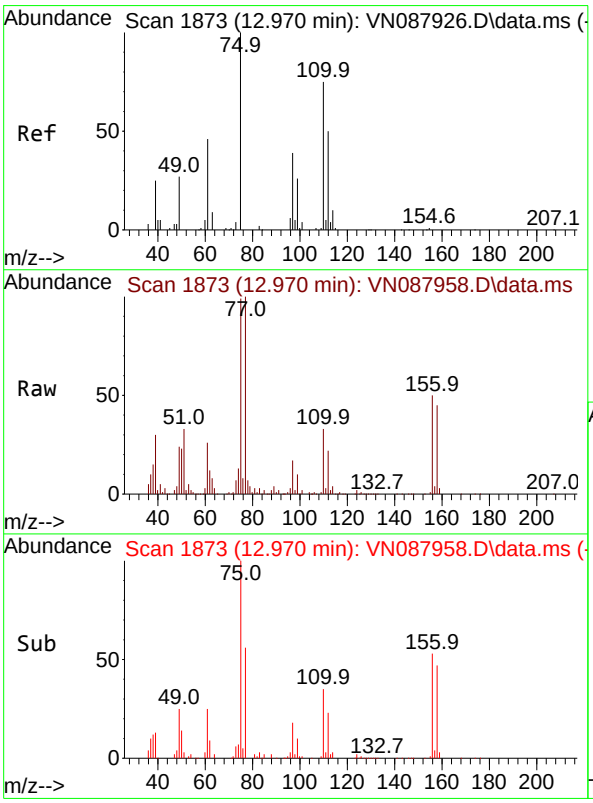
Ion	Ratio	Lower	Upper
83	100		
131	9.7	5.2	15.6
85	62.9	32.4	97.0



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations
APPROVED

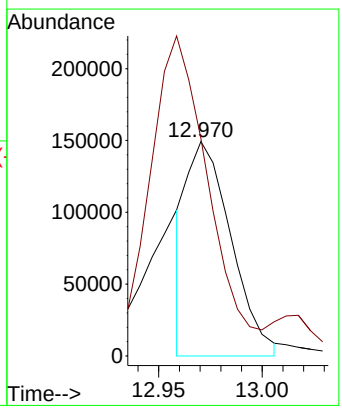
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

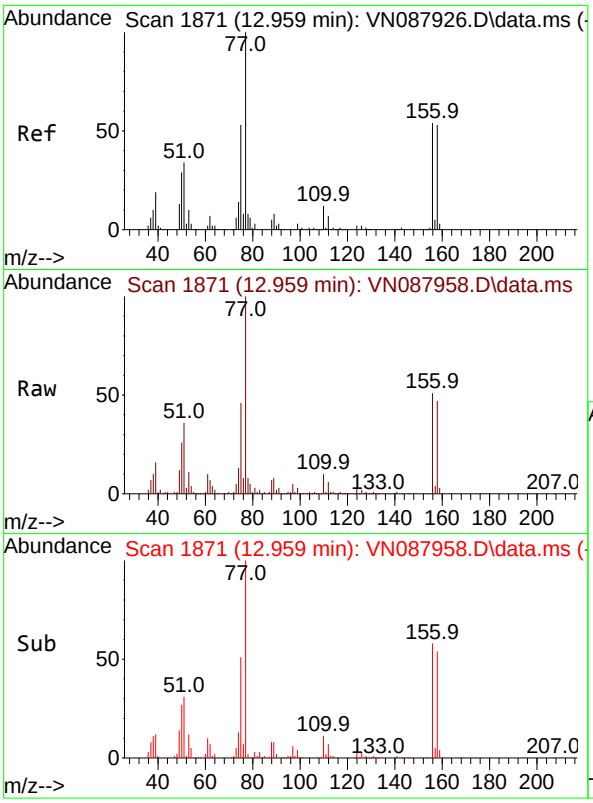


#76
1,2,3-Trichloropropane
Concen: 47.775 ug/l m
RT: 12.970 min Scan# 1873
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 75 Resp: 222912

Ion	Ratio	Lower	Upper
75	100		
77	198.9	89.5	268.5

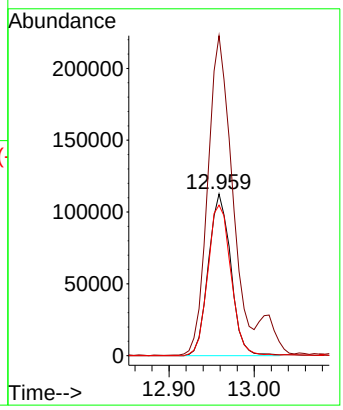




#77
Bromobenzene
Concen: 52.524 ug/l
RT: 12.959 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion:156 Resp: 20501

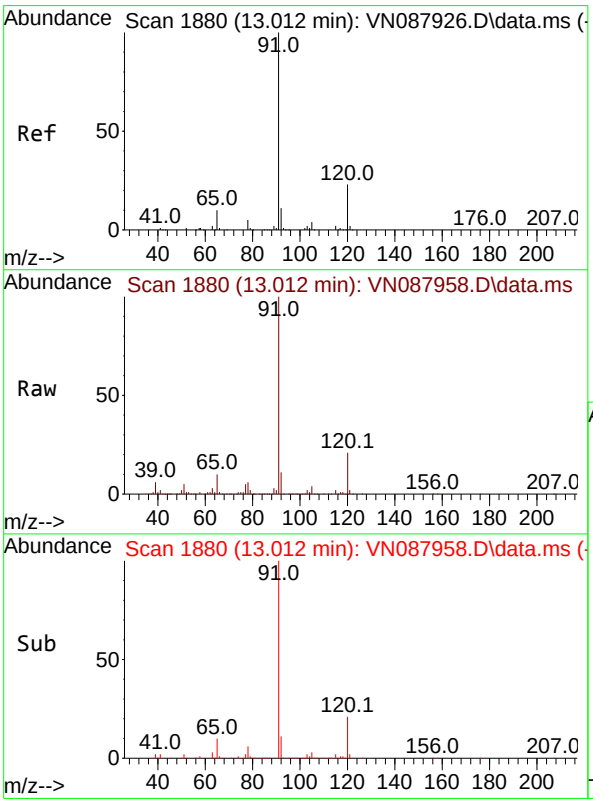
Ion	Ratio	Lower	Upper
156	100		
77	216.2	108.2	324.6
158	96.7	49.6	149.0



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations
APPROVED

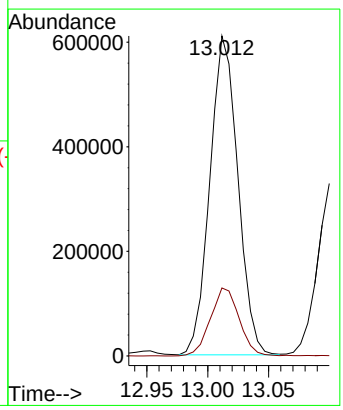
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

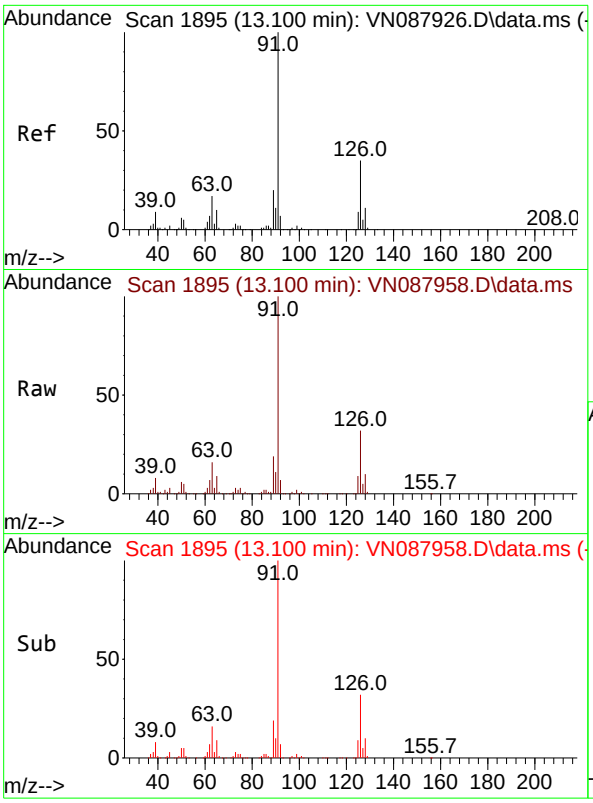


#78
n-propylbenzene
Concen: 53.317 ug/l
RT: 13.012 min Scan# 1880
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 91 Resp: 977906

Ion	Ratio	Lower	Upper
91	100		
120	22.0	11.1	33.1

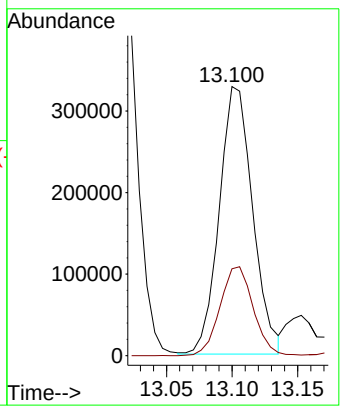




#79
2-Chlorotoluene
Concen: 52.118 ug/l
RT: 13.100 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 91 Resp: 58205

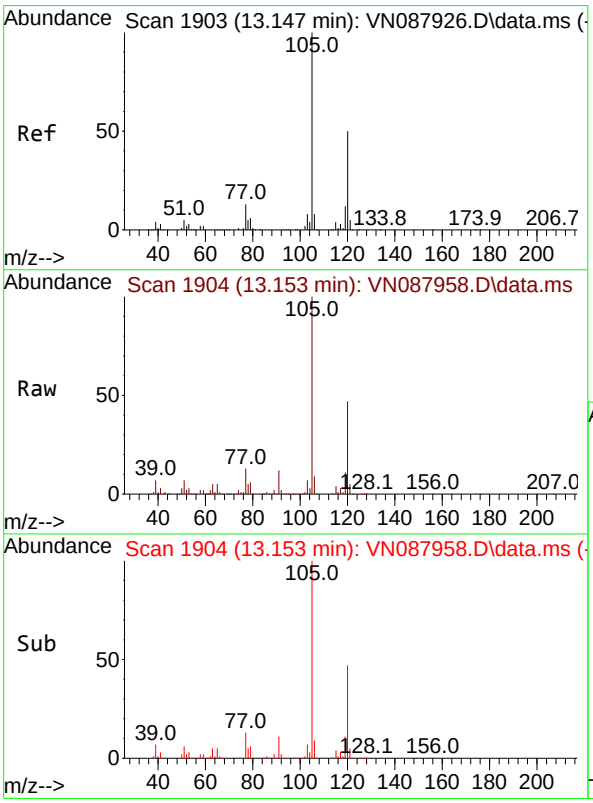
Ion	Ratio	Lower	Upper
91	100		
126	33.1	16.6	49.8



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations
APPROVED

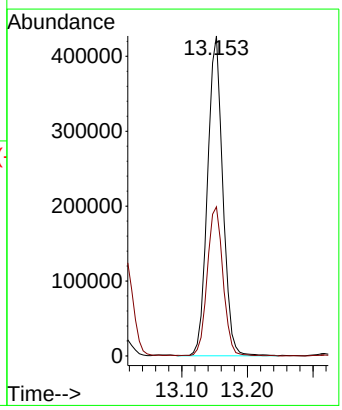
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

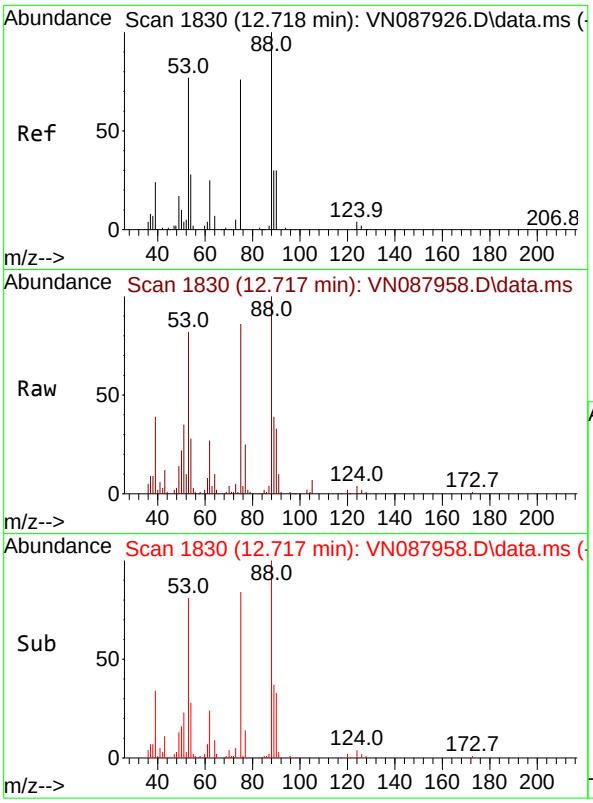


#80
1,3,5-Trimethylbenzene
Concen: 54.339 ug/l
RT: 13.153 min Scan# 1904
Delta R.T. 0.006 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion:105 Resp: 689521

Ion	Ratio	Lower	Upper
105	100		
120	48.4	24.7	74.1

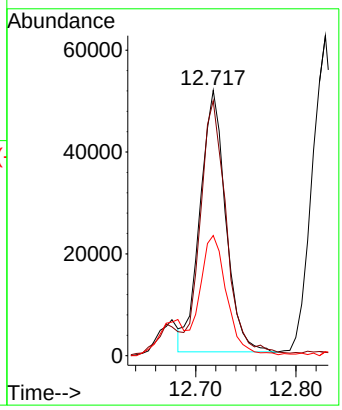




#81
trans-1,4-Dichloro-2-butene
Concen: 54.476 ug/l
RT: 12.717 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 75 Resp: 9153

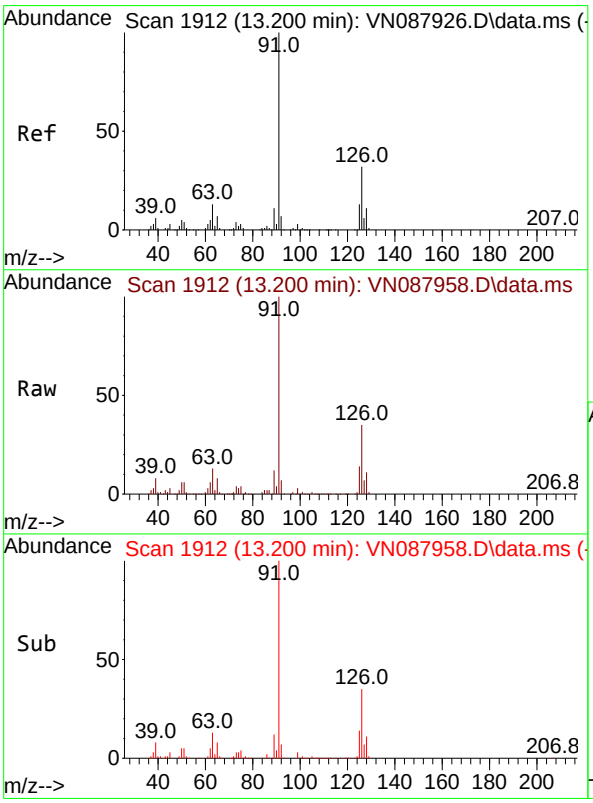
Ion	Ratio	Lower	Upper
75	100		
53	96.4	82.0	123.0
89	47.8	36.1	54.1



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations
APPROVED

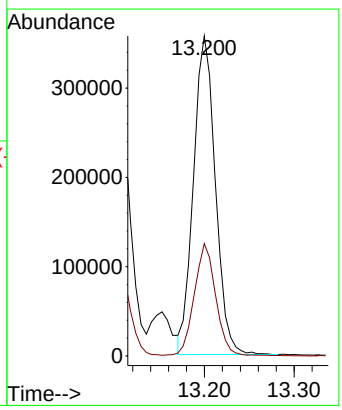
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

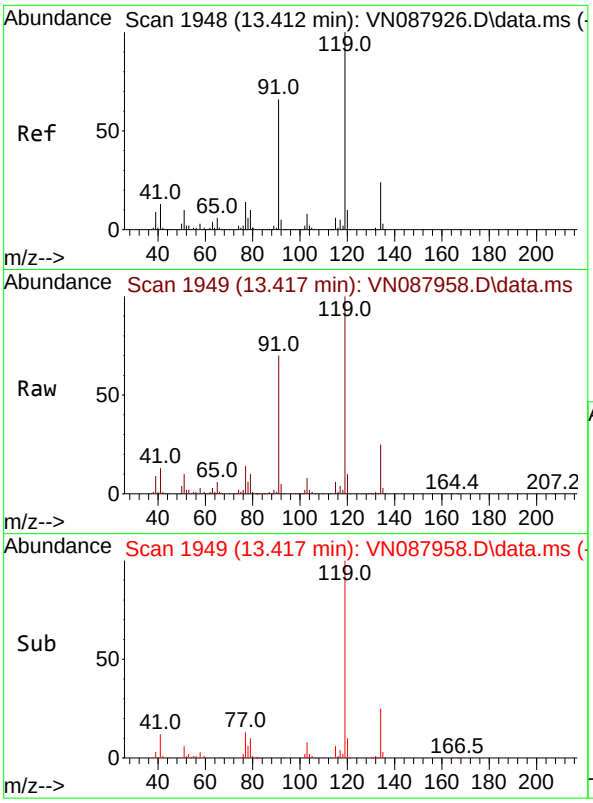


#82
4-Chlorotoluene
Concen: 53.793 ug/l
RT: 13.200 min Scan# 1912
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 91 Resp: 605342

Ion	Ratio	Lower	Upper
91	100		
126	34.9	16.9	50.6





#83
tert-Butylbenzene
Concen: 53.805 ug/l
RT: 13.417 min Scan# 1
Delta R.T. 0.006 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

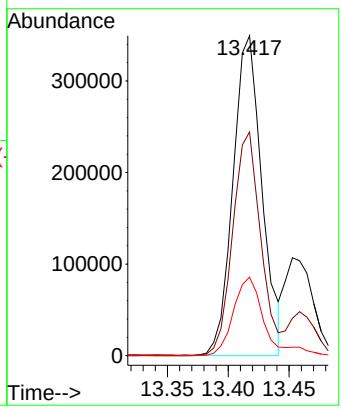
Tgt Ion:119 Resp: 57788

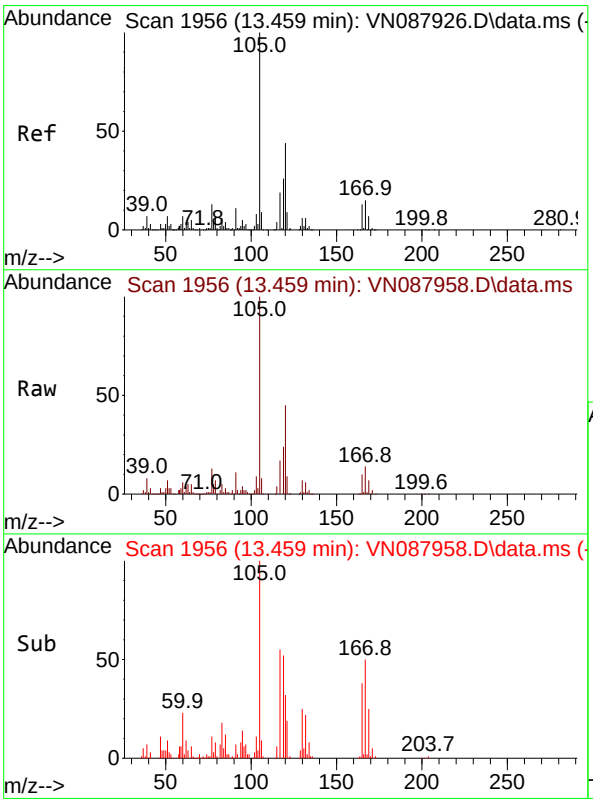
Ion	Ratio	Lower	Upper
119	100		
91	67.0	32.1	96.3
134	26.3	12.3	36.8

Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations
APPROVED

Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

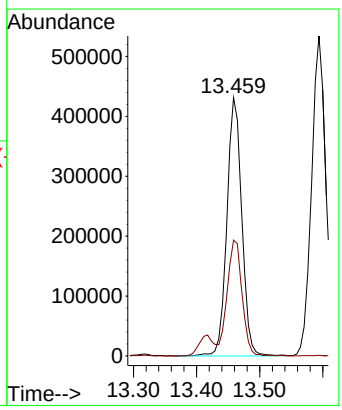


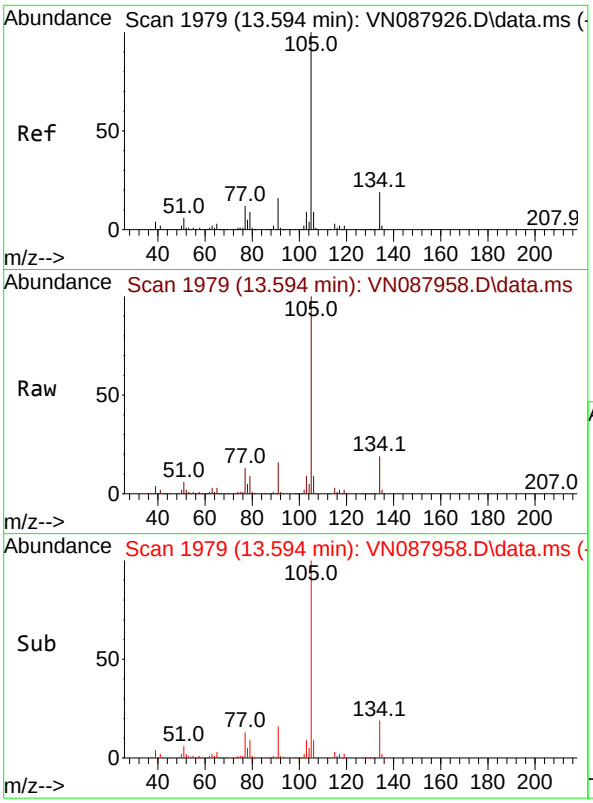


#84
1,2,4-Trimethylbenzene
Concen: 54.180 ug/l
RT: 13.459 min Scan# 1956
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion:105 Resp: 705179

Ion	Ratio	Lower	Upper
105	100		
120	44.5	22.4	67.3

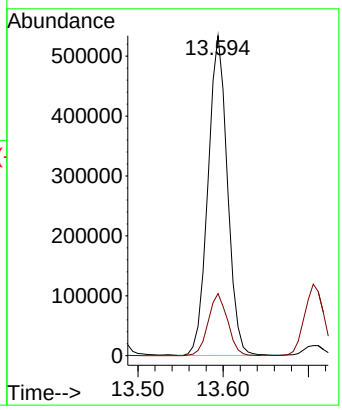




#85
sec-Butylbenzene
Concen: 53.666 ug/l
RT: 13.594 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion:105 Resp: 84507

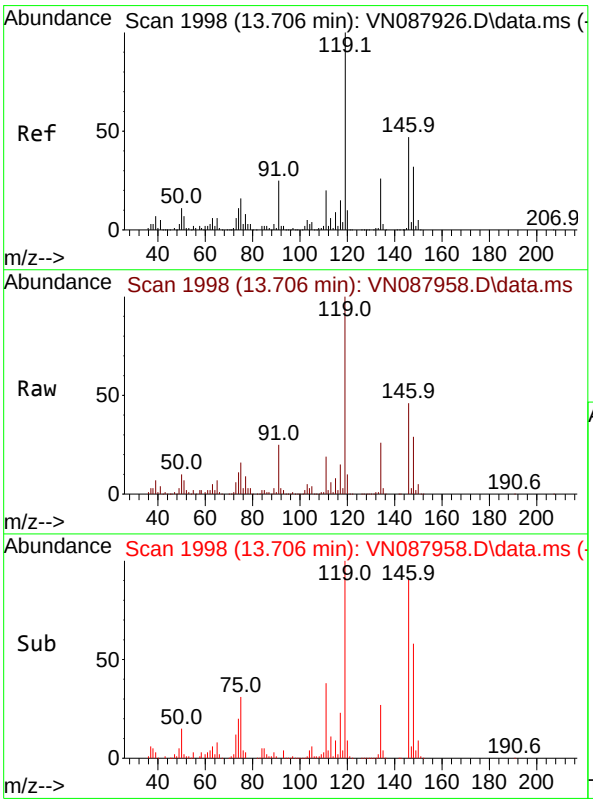
Ion	Ratio	Lower	Upper
105	100		
134	19.4	9.6	28.8



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations
APPROVED

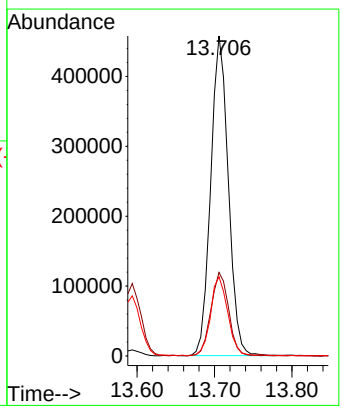
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

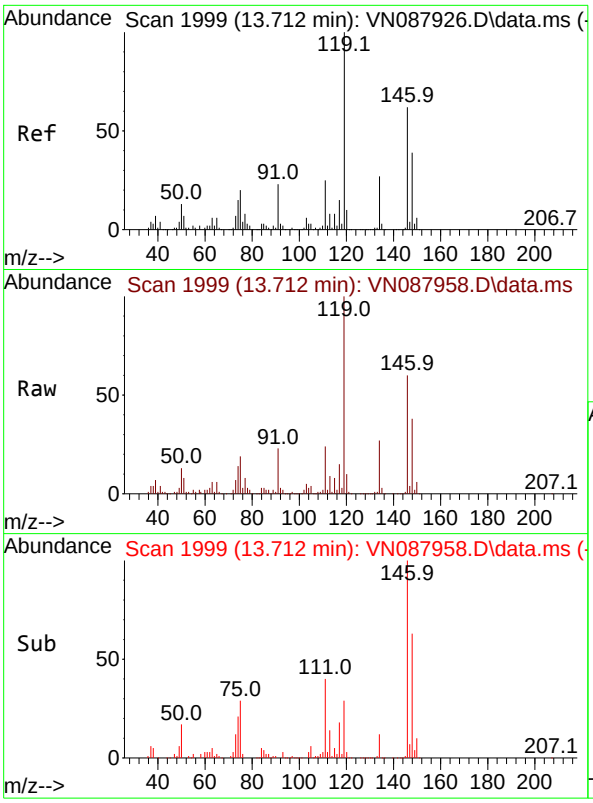


#86
p-Isopropyltoluene
Concen: 54.107 ug/l
RT: 13.706 min Scan# 1998
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion:119 Resp: 721619

Ion	Ratio	Lower	Upper
119	100		
134	26.3	13.1	39.3
91	24.3	11.9	35.5

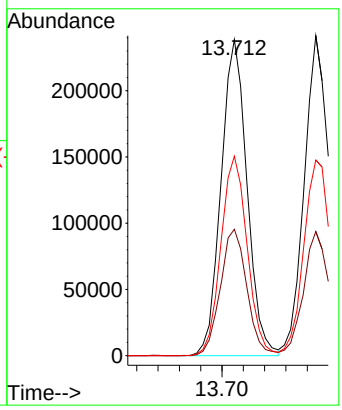




#87
1,3-Dichlorobenzene
Concen: 53.058 ug/l
RT: 13.712 min Scan# 1
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion:146 Resp: 40413

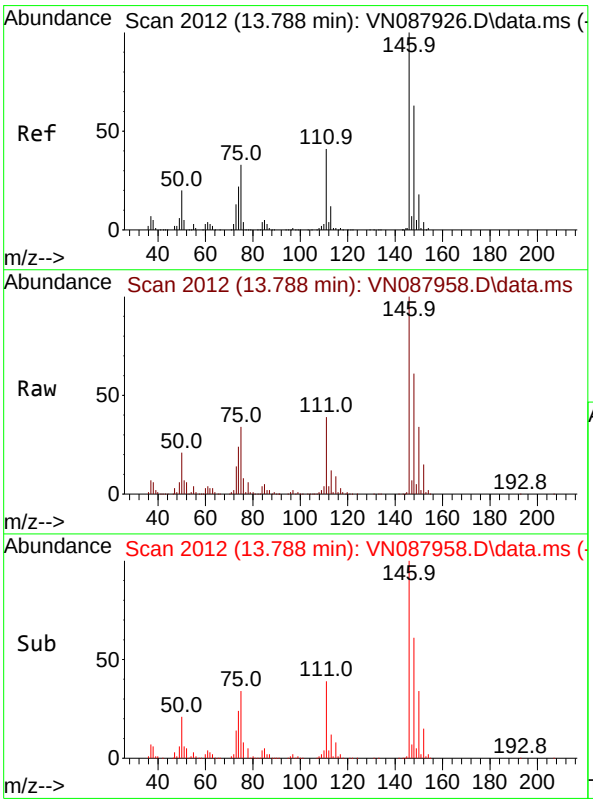
Ion	Ratio	Lower	Upper
146	100		
111	40.8	20.3	60.8
148	63.9	32.4	97.2



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations APPROVED

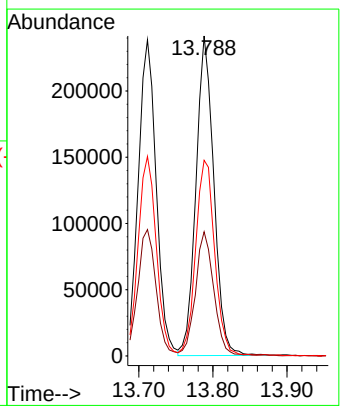
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

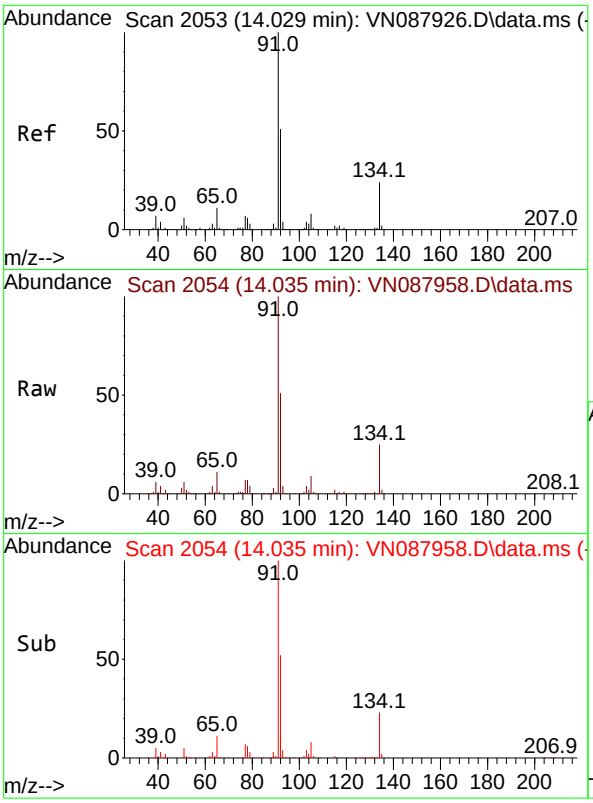


#88
1,4-Dichlorobenzene
Concen: 51.593 ug/l
RT: 13.788 min Scan# 2012
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion:146 Resp: 403857

Ion	Ratio	Lower	Upper
146	100		
111	39.4	20.5	61.5
148	65.0	32.8	98.4

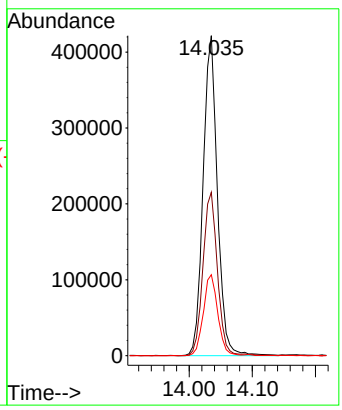




#89
n-Butylbenzene
Concen: 52.636 ug/l
RT: 14.035 min Scan# 2
Delta R.T. 0.006 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 91 Resp: 66342

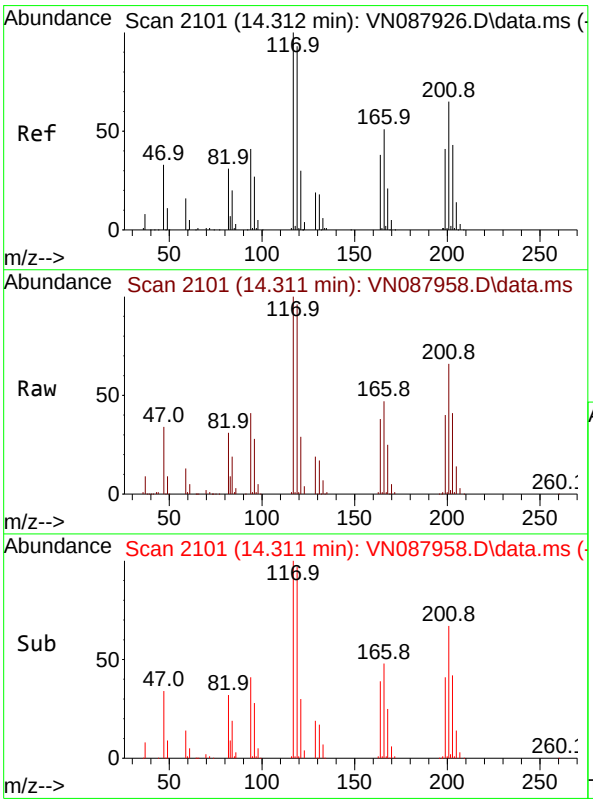
Ion	Ratio	Lower	Upper
91	100		
92	52.1	25.9	77.8
134	25.6	12.6	37.8



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations
APPROVED

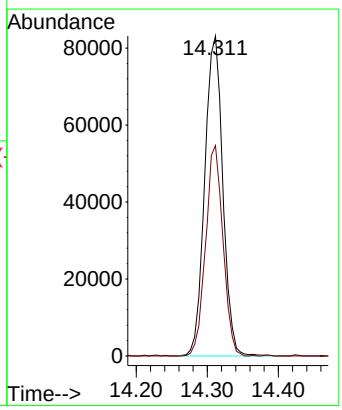
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

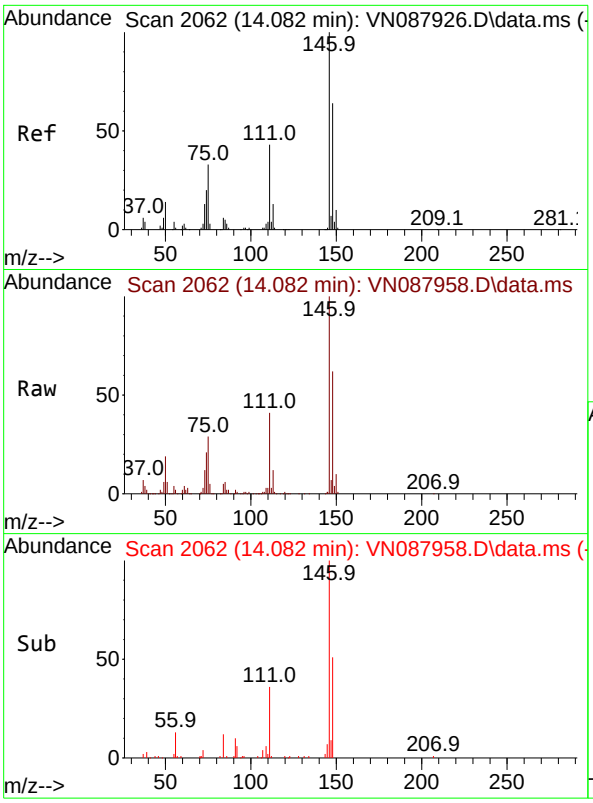


#90
Hexachloroethane
Concen: 52.730 ug/l
RT: 14.311 min Scan# 2101
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion:117 Resp: 146900

Ion	Ratio	Lower	Upper
117	100		
201	63.2	33.6	100.6

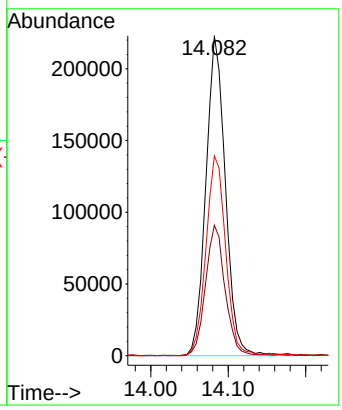




#91
1,2-Dichlorobenzene
Concen: 53.033 ug/l
RT: 14.082 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion:146 Resp: 38936

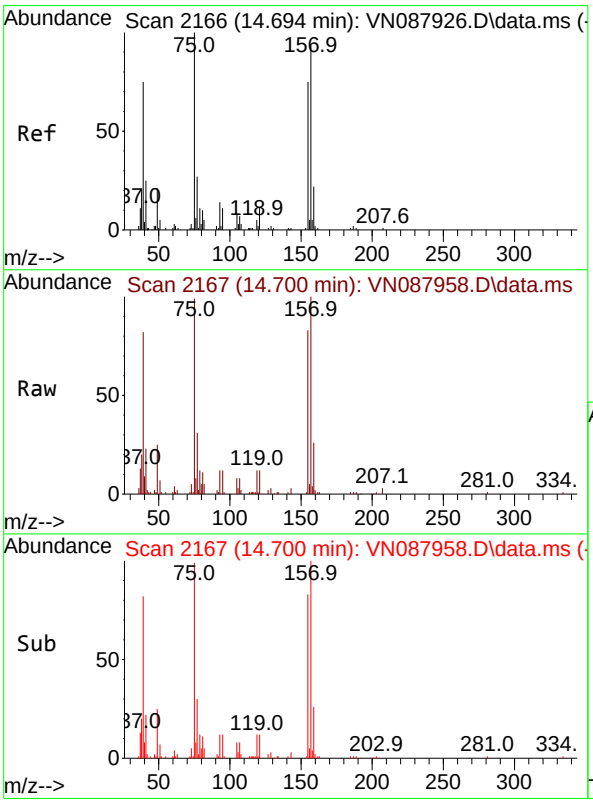
Ion	Ratio	Lower	Upper
146	100		
111	40.8	20.9	62.7
148	63.3	31.9	95.9



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations
APPROVED

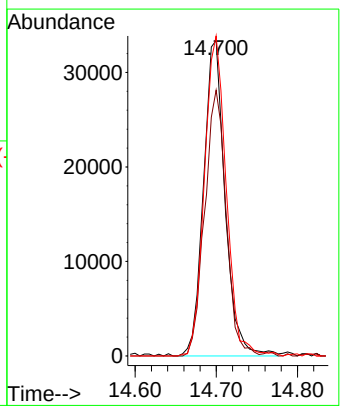
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

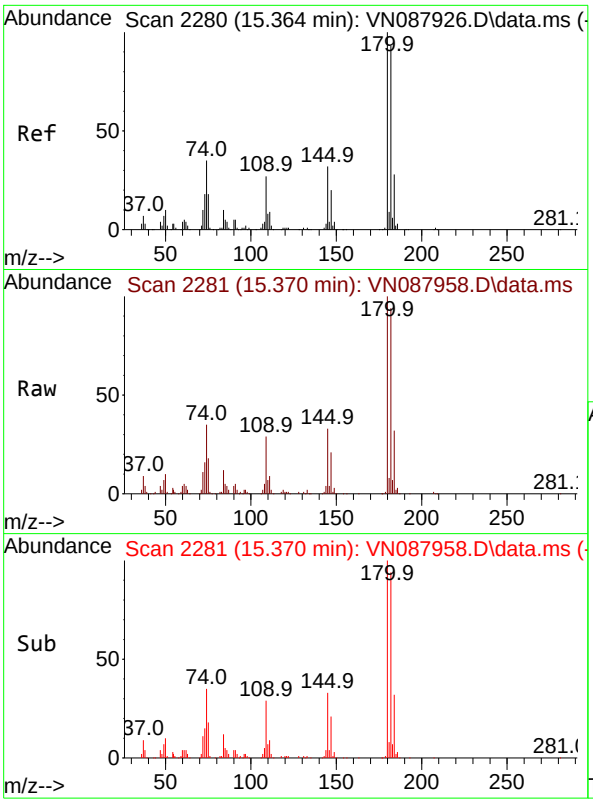


#92
1,2-Dibromo-3-Chloropropane
Concen: 50.022 ug/l
RT: 14.700 min Scan# 2167
Delta R.T. 0.006 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion: 75 Resp: 61435

Ion	Ratio	Lower	Upper
75	100		
155	84.0	40.2	120.6
157	102.9	50.9	152.7

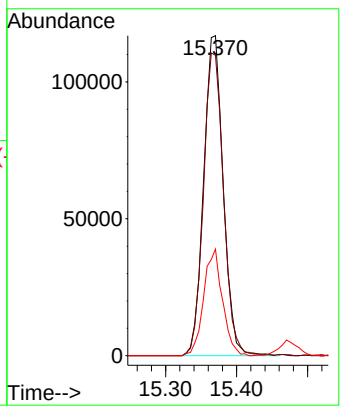




#93
1,2,4-Trichlorobenzene
Concen: 51.748 ug/l
RT: 15.370 min Scan# 2
Delta R.T. 0.006 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion:180 Resp: 22432

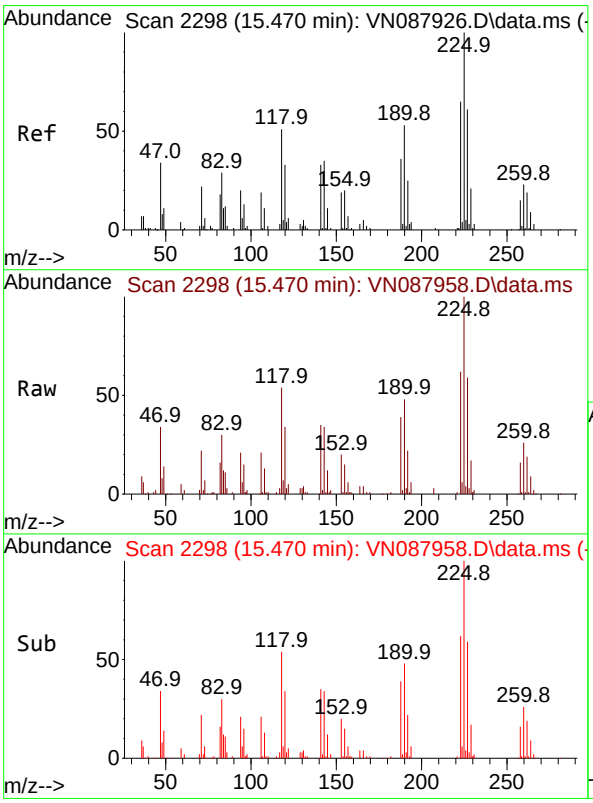
Ion	Ratio	Lower	Upper
180	100		
182	96.6	48.5	145.5
145	32.0	15.9	47.6



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations
APPROVED

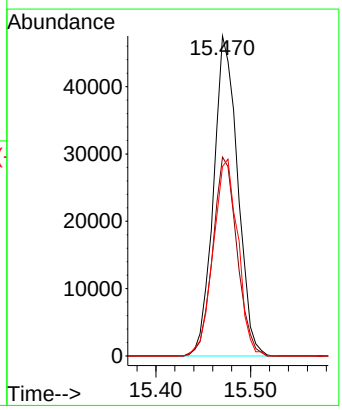
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025

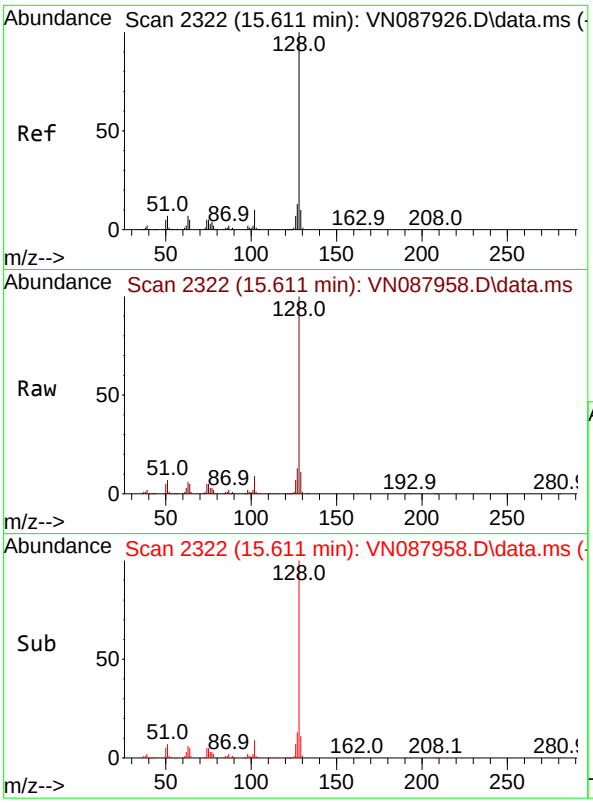


#94
Hexachlorobutadiene
Concen: 52.782 ug/l
RT: 15.470 min Scan# 2298
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion:225 Resp: 84215

Ion	Ratio	Lower	Upper
225	100		
223	62.6	31.8	95.4
227	62.9	31.9	95.9

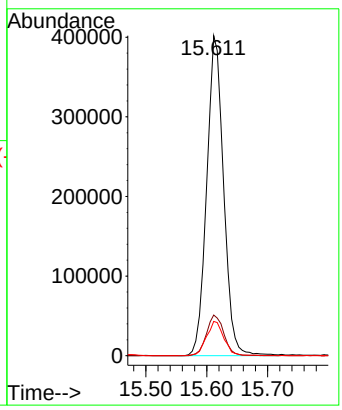




#95
Naphthalene
Concen: 55.808 ug/l
RT: 15.611 min Scan# 2
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion:128 Resp: 77658

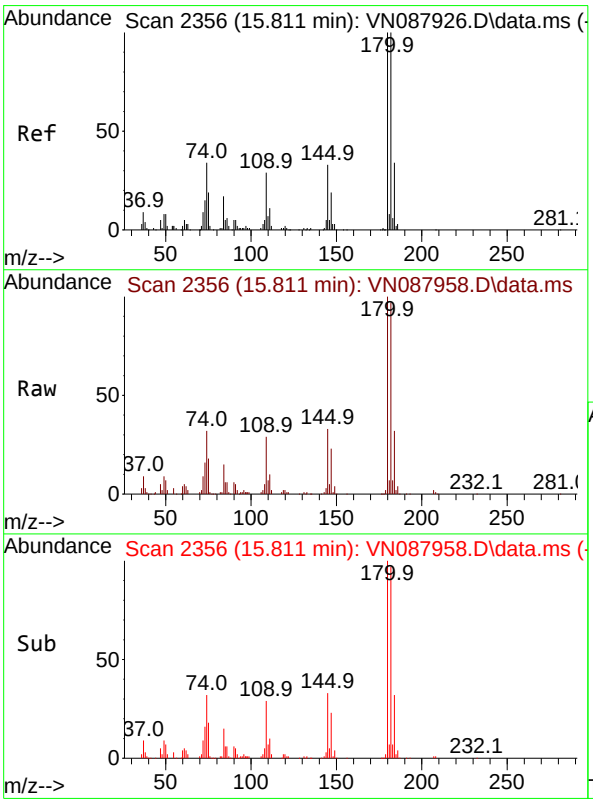
Ion	Ratio	Lower	Upper
128	100		
127	13.0	10.2	15.4
129	10.9	8.6	13.0



Instrument :
MSVOA_N
ClientSampleId :
EME-TS14-01MSD

Manual Integrations
APPROVED

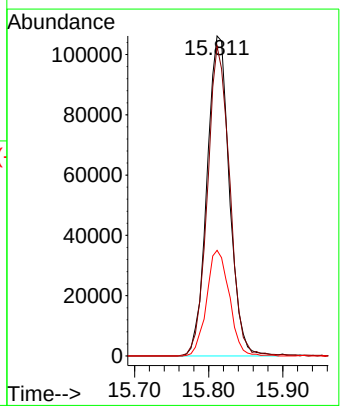
Reviewed By :John Carlone 09/26/2025
Supervised By :Mahesh Dadoda 09/29/2025



#96
1,2,3-Trichlorobenzene
Concen: 53.030 ug/l
RT: 15.811 min Scan# 2356
Delta R.T. -0.000 min
Lab File: VN087958.D
Acq: 25 Sep 2025 16:28

Tgt Ion:180 Resp: 223486

Ion	Ratio	Lower	Upper
180	100		
182	96.2	47.3	142.0
145	33.4	16.1	48.3



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

Manual Integration Report

Sequence:	VN092325	Instrument	MSVOA_n

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICC005	VN087924.D	1,2,3-Trichloropropane	JOHN	9/24/2025 8:09:59 AM	MMDadoda	9/26/2025 1:41:24 AM	Peak Integrated by Software
VSTDICC005	VN087924.D	Acetone	JOHN	9/24/2025 8:09:59 AM	MMDadoda	9/26/2025 1:41:24 AM	Peak Integrated by Software
VSTDICCC050	VN087926.D	1,2,3-Trichloropropane	JOHN	9/24/2025 8:10:07 AM	MMDadoda	9/26/2025 1:41:26 AM	Peak Integrated by Software
VSTDICCC050	VN087926.D	N-amyl acetate	JOHN	9/24/2025 8:10:07 AM	MMDadoda	9/26/2025 1:41:26 AM	Peak Integrated by Software
VSTDICCC050	VN087926.D	Vinyl Acetate	JOHN	9/24/2025 8:10:07 AM	MMDadoda	9/26/2025 1:41:26 AM	Peak Integrated by Software
VSTDICC100	VN087927.D	1,2,3-Trichloropropane	JOHN	9/24/2025 8:10:11 AM	MMDadoda	9/26/2025 1:41:28 AM	Peak Integrated by Software
VSTDICC100	VN087927.D	N-amyl acetate	JOHN	9/24/2025 8:10:11 AM	MMDadoda	9/26/2025 1:41:28 AM	Peak Integrated by Software
VSTDICC100	VN087927.D	Vinyl Acetate	JOHN	9/24/2025 8:10:11 AM	MMDadoda	9/26/2025 1:41:28 AM	Peak Integrated by Software
VSTDICC150	VN087928.D	1,2,3-Trichloropropane	JOHN	9/24/2025 8:10:15 AM	MMDadoda	9/26/2025 1:41:29 AM	Peak Integrated by Software
VSTDICC150	VN087928.D	Vinyl Acetate	JOHN	9/24/2025 8:10:15 AM	MMDadoda	9/26/2025 1:41:29 AM	Peak Integrated by Software
VSTDICC020	VN087930.D	1,2,3-Trichloropropane	JOHN	9/24/2025 8:10:20 AM	MMDadoda	9/26/2025 1:41:30 AM	Peak Integrated by Software
VSTDICC020	VN087930.D	N-amyl acetate	JOHN	9/24/2025 8:10:20 AM	MMDadoda	9/26/2025 1:41:30 AM	Peak Integrated by Software
VSTDICC020	VN087930.D	Vinyl Acetate	JOHN	9/24/2025 8:10:20 AM	MMDadoda	9/26/2025 1:41:30 AM	Peak Integrated by Software

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

Manual Integration Report

Sequence:	VN092325	Instrument	MSVOA_n

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICV050	VN087931.D	1,2,3-Trichloropropane	JOHN	9/24/2025 8:10:24 AM	MMDadoda	9/26/2025 1:41:32 AM	Peak Integrated by Software
VSTDICV050	VN087931.D	N-amyl acetate	JOHN	9/24/2025 8:10:24 AM	MMDadoda	9/26/2025 1:41:32 AM	Peak Integrated by Software
VSTDICV050	VN087931.D	Vinyl Acetate	JOHN	9/24/2025 8:10:24 AM	MMDadoda	9/26/2025 1:41:32 AM	Peak Integrated by Software

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

Manual Integration Report

Sequence:	VN092525	Instrument	MSVOA_n

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDCCC050	VN087948.D	1,2,3-Trichloropropane	JOHN	9/26/2025 9:23:30 AM	MMdadoda	9/29/2025 12:58:47 AM	Peak Integrated by Software
VSTDCCC050	VN087948.D	N-amyl acetate	JOHN	9/26/2025 9:23:30 AM	MMdadoda	9/29/2025 12:58:47 AM	Peak Integrated by Software
VN0925WBS01	VN087951.D	1,2,3-Trichloropropane	JOHN	9/26/2025 9:23:35 AM	MMdadoda	9/29/2025 12:58:52 AM	Peak Integrated by Software
VN0925WBS01	VN087951.D	N-amyl acetate	JOHN	9/26/2025 9:23:35 AM	MMdadoda	9/29/2025 12:58:52 AM	Peak Integrated by Software
Q3179-02MS	VN087957.D	1,2,3-Trichloropropane	JOHN	9/26/2025 9:23:44 AM	MMdadoda	9/29/2025 12:59:01 AM	Peak Integrated by Software
Q3179-02MS	VN087957.D	N-amyl acetate	JOHN	9/26/2025 9:23:44 AM	MMdadoda	9/29/2025 12:59:01 AM	Peak Integrated by Software
Q3179-03MSD	VN087958.D	1,2,3-Trichloropropane	JOHN	9/26/2025 9:23:48 AM	MMdadoda	9/29/2025 12:59:05 AM	Peak Integrated by Software
Q3179-03MSD	VN087958.D	N-amyl acetate	JOHN	9/26/2025 9:23:48 AM	MMdadoda	9/29/2025 12:59:05 AM	Peak Integrated by Software
VSTDCCC050	VN087959.D	1,2,3-Trichloropropane	JOHN	9/26/2025 9:23:53 AM	MMdadoda	9/29/2025 12:59:10 AM	Peak Integrated by Software
VSTDCCC050	VN087959.D	N-amyl acetate	JOHN	9/26/2025 9:23:53 AM	MMdadoda	9/29/2025 12:59:10 AM	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 # VN092325

Review By	John Carlone	Review On	9/24/2025 8:10:38 AM		
Supervise By	Mahesh Dadoda	Supervise On	9/26/2025 1:41:42 AM		
SubDirectory	VN092325	HP Acquire Method		HP Processing Method	82N092325W.M

STD. NAME	STD REF.#
Tune/Reschk	VP135592
Initial Calibration Stds	VP135674,VP135675,VP135676,VP135677,VP135678
CCC	
Internal Standard/PEM	
ICV/I.BLK	VP135679
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VN087922.D	23 Sep 2025 08:31	JC\MD	Ok
2	VSTDICC001	VN087923.D	23 Sep 2025 08:51	JC\MD	Not Ok
3	VSTDICC005	VN087924.D	23 Sep 2025 09:33	JC\MD	Ok,M
4	VSTDICC020	VN087925.D	23 Sep 2025 09:54	JC\MD	Not Ok
5	VSTDICCC050	VN087926.D	23 Sep 2025 10:15	JC\MD	Ok,M
6	VSTDICC100	VN087927.D	23 Sep 2025 10:36	JC\MD	Ok,M
7	VSTDICC150	VN087928.D	23 Sep 2025 10:56	JC\MD	Ok,M
8	IBLK	VN087929.D	23 Sep 2025 11:17	JC\MD	Ok
9	VSTDICC020	VN087930.D	23 Sep 2025 11:47	JC\MD	Ok,M
10	VSTDICV050	VN087931.D	23 Sep 2025 15:08	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 # VN092525

Review By	John Carlone	Review On	9/26/2025 9:26:01 AM		
Supervise By	Mahesh Dadoda	Supervise On	9/29/2025 12:59:19 AM		
SubDirectory	VN092525	HP Acquire Method		HP Processing Method	82N092325W.M

STD. NAME	STD REF.#
Tune/Reschk	VP135631
Initial Calibration Stds	
CCC	VP135632,VP135633
Internal Standard/PEM	
ICV/I.BLK	
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VN087947.D	25 Sep 2025 10:47	JC\MD	Ok
2	VSTDCCC050	VN087948.D	25 Sep 2025 12:04	JC\MD	Ok,M
3	VN0925MBL01	VN087949.D	25 Sep 2025 12:37	JC\MD	Ok
4	VN0925WBL01	VN087950.D	25 Sep 2025 12:59	JC\MD	Ok
5	VN0925WBS01	VN087951.D	25 Sep 2025 13:56	JC\MD	Ok,M
6	PB169819TB	VN087952.D	25 Sep 2025 14:17	JC\MD	Ok
7	Q3177-01	VN087953.D	25 Sep 2025 14:41	JC\MD	Ok,M
8	Q3177-02	VN087954.D	25 Sep 2025 15:03	JC\MD	Ok
9	Q3177-03	VN087955.D	25 Sep 2025 15:24	JC\MD	Ok
10	Q3179-01	VN087956.D	25 Sep 2025 15:45	JC\MD	Ok
11	Q3179-02MS	VN087957.D	25 Sep 2025 16:07	JC\MD	Ok,M
12	Q3179-03MSD	VN087958.D	25 Sep 2025 16:28	JC\MD	Ok,M
13	VSTDCCC050	VN087959.D	25 Sep 2025 16:50	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 # VN092325

Review By	John Carlone	Review On	9/24/2025 8:10:38 AM		
Supervise By	Mahesh Dadoda	Supervise On	9/26/2025 1:41:42 AM		
SubDirectory	VN092325	HP Acquire Method		HP Processing Method	82N092325W.M

STD. NAME	STD REF.#
Tune/Reschk	VP135592
Initial Calibration Stds	VP135674,VP135675,VP135676,VP135677,VP135678
CCC	
Internal Standard/PEM	
ICV/I.BLK	VP135679
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VN087922.D	23 Sep 2025 08:31		JC\MD	Ok
2	VSTDICC001	VSTDICC001	VN087923.D	23 Sep 2025 08:51	Not used	JC\MD	Not Ok
3	VSTDICC005	VSTDICC005	VN087924.D	23 Sep 2025 09:33		JC\MD	Ok,M
4	VSTDICC020	VSTDICC020	VN087925.D	23 Sep 2025 09:54	Spiked Low	JC\MD	Not Ok
5	VSTDICCC050	VSTDICCC050	VN087926.D	23 Sep 2025 10:15		JC\MD	Ok,M
6	VSTDICC100	VSTDICC100	VN087927.D	23 Sep 2025 10:36		JC\MD	Ok,M
7	VSTDICC150	VSTDICC150	VN087928.D	23 Sep 2025 10:56		JC\MD	Ok,M
8	IBLK	IBLK	VN087929.D	23 Sep 2025 11:17		JC\MD	Ok
9	VSTDICC020	VSTDICC020	VN087930.D	23 Sep 2025 11:47		JC\MD	Ok,M
10	VSTDICV050	ICVVN092325	VN087931.D	23 Sep 2025 15:08		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 # VN092525

Review By	John Carlone	Review On	9/26/2025 9:26:01 AM		
Supervise By	Mahesh Dadoda	Supervise On	9/29/2025 12:59:19 AM		
SubDirectory	VN092525	HP Acquire Method		HP Processing Method	82N092325W.M

STD. NAME	STD REF.#
Tune/Reschk	VP135631
Initial Calibration Stds	
CCC	VP135632,VP135633
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	VN087947.D	25 Sep 2025 10:47		JC\MD	Ok
2	VSTDCCC050	VSTDCCC050	VN087948.D	25 Sep 2025 12:04	pH#Lot#V12668	JC\MD	Ok,M
3	VN0925MBL01	VN0925MBL01	VN087949.D	25 Sep 2025 12:37		JC\MD	Ok
4	VN0925WBL01	VN0925WBL01	VN087950.D	25 Sep 2025 12:59		JC\MD	Ok
5	VN0925WBS01	VN0925WBS01	VN087951.D	25 Sep 2025 13:56		JC\MD	Ok,M
6	PB169819TB	PB169819TB	VN087952.D	25 Sep 2025 14:17		JC\MD	Ok
7	Q3177-01	EME-TS12-01	VN087953.D	25 Sep 2025 14:41	vial A pH#6.0	JC\MD	Ok,M
8	Q3177-02	EME-TS13-01	VN087954.D	25 Sep 2025 15:03	vial A pH#6.0	JC\MD	Ok
9	Q3177-03	EME-TS14-02	VN087955.D	25 Sep 2025 15:24	vial A pH#6.0	JC\MD	Ok
10	Q3179-01	EME-TS14-01	VN087956.D	25 Sep 2025 15:45	vial A pH#6.0	JC\MD	Ok
11	Q3179-02MS	EME-TS14-01MS	VN087957.D	25 Sep 2025 16:07	vial A pH#6.0	JC\MD	Ok,M
12	Q3179-03MSD	EME-TS14-01MSD	VN087958.D	25 Sep 2025 16:28	vial A pH#6.0	JC\MD	Ok,M
13	VSTDCCC050	VSTDCCC050EC	VN087959.D	25 Sep 2025 16:50		JC\MD	Ok,M

M : Manual Integration

Alliance TECHNICAL GROUP

SPLP EXTRACTION LOGPAGE

PB169819

SOP ID :	M1312-SPLP-10		
SDG No :	N/A	**Start Prep Date :** 09/24/2025	**Time :** 14:30
Weigh By :	JP	**End Prep Date :** 09/25/2025	**Time :** 08:10
Balance ID :	WC SC-7	**Combination Ratio :**	20
pH Meter ID :	WC PH METER-1	**ZHE Cleaning Batch :**	~~N/A~~ JP
Extraction By :	JP	**Initial Room Temperature:**	24 °C
Filter By :	JP	**Final Room Temperature:**	22 °C
Pippete ID :	WC	**TCLP Technician Signature :**	JP
Tumbler ID :	ZHE-2	**Supervisor By :**	12
TCLP Filter ID :	60828725		

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
DI WATER	N/A	W3112
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	4127	N/A

Extraction Conformance/Non-Conformance Comments:

ALL ZHE SAMPLES are extracted and given as vial A & B. Leck checked after 10 minutes of tumbling. TUMBLER ZHE-2 checked,30 rpm.

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
09/25/25 10:00	JP / ep Room	S.Y / Ing Dig.
	Preparation Group	Analysis Group

1VOC Dep.

Alliance TECHNICAL GROUP

SPLP EXTRACTION LOGPAGE

PB169819

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
PB169819TB	LEB819	15	N/A	500	N/A	N/A	N/A	5.09	N/A	ZHE-2
Q3177-01	EME-TS12-01	11	25.02	500	N/A	N/A	N/A	N/A	N/A	ZHE-2
Q3177-02	EME-TS13-01	12	25.03	500	N/A	N/A	N/A	N/A	N/A	ZHE-2
Q3177-03	EME-TS14-02	13	25.02	500	N/A	N/A	N/A	N/A	N/A	ZHE-2
Q3179-01	EME-TS14-01	14	25.03	500	N/A	N/A	N/A	N/A	N/A	ZHE-2
Q3179-02	EME-TS14-01MS	14	25.03	500	N/A	N/A	N/A	N/A	N/A	ZHE-2
Q3179-03	EME-TS14-01MSD	14	25.03	500	N/A	N/A	N/A	N/A	N/A	ZHE-2

SampleID	ClientID	Sample Weight (g)	Filter Weight (g)	Filtrate (mL)	Filter + Solid (After 100°C)	% solids	% Dry Solids
PB169819TB	LEB819	N/A	N/A	N/A	N/A	N/A	N/A
Q3177-01	EME-TS12-01	N/A	N/A	N/A	N/A	100	N/A
Q3177-02	EME-TS13-01	N/A	N/A	N/A	N/A	100	N/A
Q3177-03	EME-TS14-02	N/A	N/A	N/A	N/A	100	N/A
Q3179-01	EME-TS14-01	N/A	N/A	N/A	N/A	100	N/A
Q3179-02	EME-TS14-01MS	N/A	N/A	N/A	N/A	100	N/A
Q3179-03	EME-TS14-01MSD	N/A	N/A	N/A	N/A	100	N/A

WORKLIST(Hardcopy Internal Chain)

WorkList Name : splp zhe q3177 **WorkList ID :** 192052 **Department :** TCLP Extraction **Date :** 09-24-2025 13:41:35

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3177-01	EME-TS12-01	Solid	SPLP ZHE Ext	Cool 4 deg C	ROYF02	J23	09/23/2025	1312
Q3177-02	EME-TS13-01	Solid	SPLP ZHE Ext	Cool 4 deg C	ROYF02	J23	09/23/2025	1312
Q3177-03	EME-TS14-02	Solid	SPLP ZHE Ext	Cool 4 deg C	ROYF02	J23	09/23/2025	1312
Q3179-01	EME-TS14-01	Solid	SPLP ZHE Ext	Cool 4 deg C	ROYF02	J23	09/23/2025	1312
Q3179-02	EME-TS14-01MS	Solid	SPLP ZHE Ext	Cool 4 deg C	ROYF02	J42	09/23/2025	1312
Q3179-03	EME-TS14-01MSD	Solid	SPLP ZHE Ext	Cool 4 deg C	ROYF02	J42	09/23/2025	1312

Date/Time 09/24/25 13:45
Raw Sample Received by: JB (WC)
Raw Sample Relinquished by: IT (SM)

Date/Time 09/24/25 16:00
Raw Sample Received by: IT (SM)
Raw Sample Relinquished by: JB (WC)

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

Prep Standard - Chemical Standard Summary

Order ID : Q3179

Test : SPLP VOA

Prepbatch ID :

Sequence ID/Qc Batch ID: VN092525,

Standard ID :
VP134142,VP134149,VP134933,VP134956,VP134957,VP135480,VP135552,VP135631,VP135632,VP135633,

Chemical ID :
V13391,V14200,V14204,V14205,V14290,V14509,V14510,V14531,V14532,V14625,V14626,V14636,V14637,V14638,V14639,V14668,V14671,V14673,V14675,V14727,V14728,V14803,V14815,V14844,V14906,V14928,V14929,V14951,V14952,V15066,V15067,V15068,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
719	8260 Working STD (BCM)-First source, 400PPM	VP134142	06/06/2025	12/06/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 06/10/2025

FROM 1.00000ml of V14668 + 1.00000ml of V14671 + 1.00000ml of V14673 + 1.00000ml of V14675 + 16.00000ml of V14929 = Final Quantity: 20.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1810	8260 Working Std(2-CVE)-800ppm	VP134149	06/06/2025	12/06/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 06/10/2025

FROM 1.00000ml of V14636 + 1.00000ml of V14637 + 1.00000ml of V14638 + 1.00000ml of V14639 + 46.00000ml of V14929 = 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
617	8260 Surrogate, 400PPM	VP134933	07/29/2025	01/29/2026	Semsettin Yesilyurt	None	None	Mahesh Dadoda 08/19/2025

FROM 0.40000ml of V14906 + 24.60000ml of V14625 = Final Quantity: 25.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
247	8260 Internal Standard, 250PPM	VP134956	08/01/2025	11/09/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 08/06/2025

FROM 0.25000ml of V14290 + 24.75000ml of V14626 = 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
218	BFB, 25PPM	VP134957	08/01/2025	11/22/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 08/06/2025

FROM 0.50000ml of V13391 + 49.50000ml of V14625 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
51	8260 Working STD (Acrolein) -first source, 800PPM	VP135480	09/16/2025	10/15/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 09/19/2025

FROM 1.00000ml of V15066 + 1.50000ml of V15067 + 1.50000ml of V15068 + 21.00000ml of V14625 = 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	VP135552	09/22/2025	11/03/2025	Semsettin Yesilyurt	None	None	Mahesh Dadoda 09/26/2025

FROM 0.40000ml of V14844 + 1.00000ml of V14200 + 1.00000ml of V14509 + 1.00000ml of V14510 + 1.00000ml of V14531 + 1.00000ml of V14532 + 1.00000ml of V14727 + 1.00000ml of V14728 + 1.00000ml of V14803 + 1.00000ml of V14815 + 1.00000ml of V14951 + 1.00000ml of V14952 + 1.50000ml of V14204 + 1.50000ml of V14205 + 10.60000ml of V14928 = Final Quantity: 25.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
589	BFB TUNE CHECK	VP135631	09/25/2025	09/26/2025	John Carlone	None	None	Mahesh Dadoda 09/29/2025

FROM 39.98400ml of W3112 + 0.01600ml of VP134957 = 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	VP135632	09/25/2025	09/26/2025	John Carlone	None	None	Mahesh Dadoda 09/29/2025

FROM 39.94450ml of W3112 + 0.00500ml of VP134142 + 0.00500ml of VP134933 + 0.00800ml of VP134956 + 0.01250ml of VP134149 + 0.01250ml of VP135480 + 0.01250ml of VP135552 = 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	VP135633	09/25/2025	09/26/2025	John Carlone	None	None	Mahesh Dadoda 09/29/2025

FROM 39.94450ml of W3112 + 0.00500ml of VP134142 + 0.00500ml of VP134933 + 0.00800ml of VP134956 + 0.01250ml of VP134149 + 0.01250ml of VP135480 + 0.01250ml of VP135552 = 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	30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml	A0200785	03/22/2026	09/22/2025 / sam	02/28/2024 / SAM	V14200

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	A0200785	03/22/2026	09/22/2025 / sam	02/28/2024 / SAM	V14204

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	A0200785	03/22/2026	09/22/2025 / sam	02/28/2024 / SAM	V14205

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	12/12/2025	12/12/2024 / SAM	04/15/2024 / SAM	V14290

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	03/22/2026	09/22/2025 / sam	09/17/2024 / SAM	V14509

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.	95317 / Universal VOA Mega Mix (Min order = 5)	021624	03/22/2026	09/22/2025 / sam	09/17/2024 / SAM	V14510

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	03/22/2026	09/22/2025 / sam	09/18/2024 / SAM	V14531

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	03/22/2026	09/22/2025 / sam	09/18/2024 / SAM	V14532

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	01/29/2026	07/29/2025 / SAM	11/26/2024 / SAM	V14625

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	11/09/2025	05/09/2025 / SAM	11/26/2024 / SAM	V14626

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ 2-Chloroethyl vinyl ether	120524	12/06/2025	06/06/2025 / SAM	12/06/2024 / SAM	V14636

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	12/06/2025	06/06/2025 / SAM	12/06/2024 / SAM	V14637

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ 2-Chloroethyl vinyl ether	120524	12/06/2025	06/06/2025 / SAM	12/06/2024 / SAM	V14638

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ 2-Chloroethyl vinyl ether	120524	12/06/2025	06/06/2025 / SAM	12/06/2024 / SAM	V14639

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	A0214960	12/06/2025	06/06/2025 / SAM	12/09/2024 / SAM	V14668

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	A0214960	12/06/2025	06/06/2025 / SAM	12/09/2024 / SAM	V14671

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	A0214960	12/06/2025	06/06/2025 / SAM	12/09/2024 / SAM	V14673

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	30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul	A0214960	12/06/2025	06/06/2025 / SAM	12/09/2024 / SAM	V14675

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	03/22/2026	09/22/2025 / sam	12/17/2024 / SAM	V14727

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	03/22/2026	09/22/2025 / sam	12/17/2024 / SAM	V14728

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	03/22/2026	09/22/2025 / sam	01/08/2025 / SAM	V14803

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	03/22/2026	09/22/2025 / sam	01/08/2025 / SAM	V14815

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	03/22/2026	09/22/2025 / sam	01/21/2025 / SAM	V14844

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	555582 / Custom Mixture, 8260 A/B Surrogate Mix [CS 5179-2]	A0223904	07/29/2026	07/29/2025 / SAM	03/24/2025 / SAM	V14906

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)	24G0262002	03/22/2026	09/22/2025 / sam	05/09/2025 / SAM	V14928

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)	24G0262002	12/06/2025	06/06/2025 / SAM	05/09/2025 / SAM	V14929

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	A0222076	03/22/2026	09/22/2025 / sam	05/19/2025 / SAM	V14951

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	A0222076	03/22/2026	09/22/2025 / sam	05/19/2025 / SAM	V14952

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	091525	10/15/2025	09/16/2025 / sam	09/16/2025 / sam	V15066

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)	091525	10/15/2025	09/16/2025 / sam	09/16/2025 / sam	V15067

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	091525	10/15/2025	09/16/2025 / sam	09/16/2025 / sam	V15068

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

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

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

Rec 09/17/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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

5E-05 Balance Uncertainty

Weight(s) shown below were combined and diluted to (mL): 100.0 0.021 Flask Uncertainty

Formulated By: Prashant Chauhan 021624 DATE

Reviewed By: Pedro L. Rentas 021624 DATE

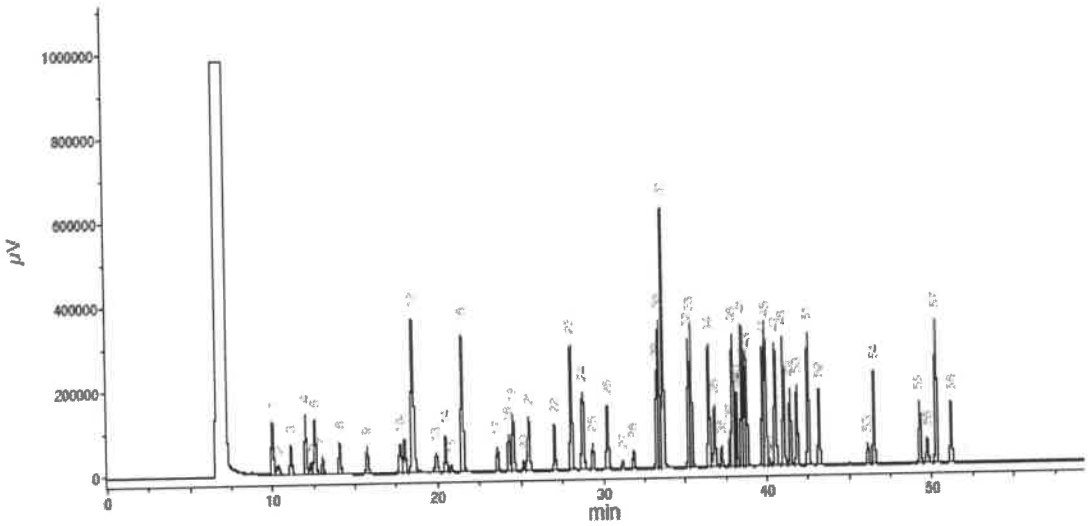
Compound	(RM#) Part Number	Lot Number	Dil. Factor	Initial Vol. (mL)	Initial Conc.(ug/mL)	Nominal Conc (µg/mL)	Purity (%)	Purity Uncertainty	Uncertainty Pipette (mL)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached 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	(0466)	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)	IK18CAS0000	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	(0381)	06128PX	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 846mg/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	20.8	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	40017.6	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 (45mg/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	1999.8	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	1999.8	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 8040mg/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	40000.8	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 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).

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-1,2,3-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	18.49
13	Isobutanol/1,1,1-Trichloroethane	18.91
14	1,1-Dichloropropene	20.46
15	Carbon tetrachloride	20.79
16	Benzene/1,2-Dichloroethane	21.48
17	Trichloroethene	23.86
18	1,2-Dichloropropane	24.26
19	Methyl methacrylate	24.62
20	Bromodichloromethane	25.13
21	Dibromomethane/2-Nitropropane	25.46
22	cis-1,3-Dichloropropene	27.02
23	Toluene	28.09
24	Ethyl methacrylate/trans-1,3-Dichloropropene	28.73
25	1,1,2-Trichloroethane	29.34
26	Tetrachloroethene/1,3-Dichloropropane	30.34
27	Dibromochloromethane	31.16
28	1,2-Dibromoethane	31.84
29	Chlorobenzene	33.26
30	Ethylbenzene/1,1,1,2-Tetrachloroethane	33.40
31	m-Xylene/p-Xylene	33.85
32	o-Xylene	35.33
33	Styrene	35.50
34	Isopropylbenzene/Bromoform	35.48
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	37.92
39	trans-1,4-Dichloro-2-butene	38.05
40	Bromobenzene	38.14
41	1,3,5-Trimethylbenzene	38.50
42	2-Chlorotoluene	38.62
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	41.63
51	n-Butylbenzene	42.52
52	1,2-Dichlorobenzene	42.18
53	1,2-Dibromo-3-chloropropane	46.12
54	Nitrobenzene	46.58
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.	Emergency Telephone International	**1-352-323-3500**
	Hamden CT, 06514	Date Prepared/Revised	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))			
Methanol	METHYL ALCOHOL	CAS#: 67-56-1	% (optional) > 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.
Storage Conditions	Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge. 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 09/17/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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

Weight(s) shown below were combined and diluted to (mL): 100.0 0.021 Flask Uncertainty

5E-05 Balance Uncertainty

Formulated By: Prashant Chauhan 021624 DATE

Reviewed By: Pedro L. Rentas 021624 DATE

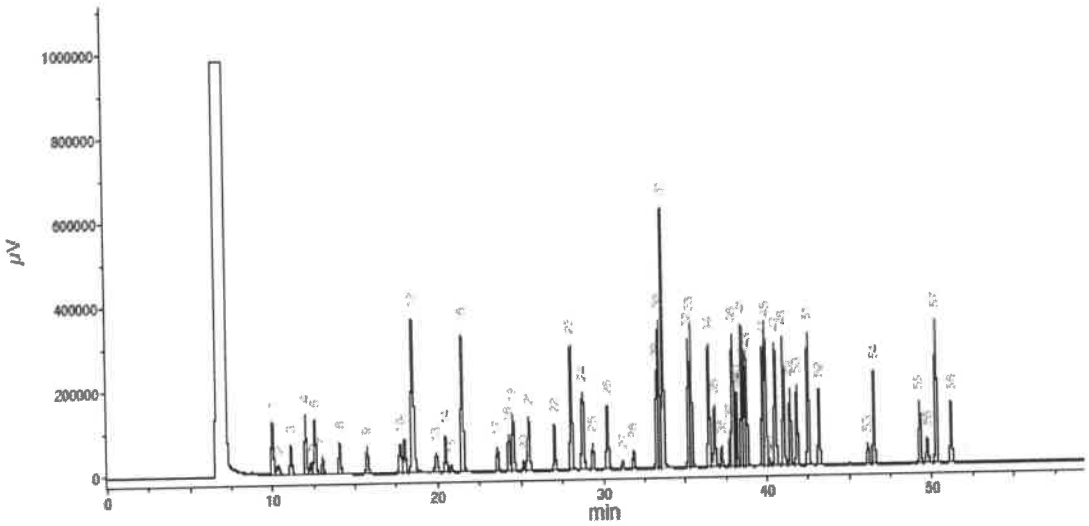
	Compound	(RM#) Part Number	Lot Number	Dil. Factor	Initial Vol. (mL)	Initial Conc.(ug/mL)	Nominal Conc (µg/mL)	Purity (%)	Purity Uncertainty	Uncertainty Pipette (mL)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached 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	(0466)	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)	IK18CAS0000	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	(0381)	06128PX	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	20.8	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	40017.6	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 (45mg/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	1999.8	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	1999.8	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 8040mg/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	40000.8	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 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).

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-1,2,3-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	18.49
13	Isobutanol/1,1,1-Trichloroethane	18.91
14	1,1-Dichloropropene	20.46
15	Carbon tetrachloride	20.79
16	Benzene/1,2-Dichloroethane	21.48
17	Trichloroethene	23.86
18	1,2-Dichloropropane	24.26
19	Methyl methacrylate	24.62
20	Bromodichloromethane	25.13
21	Dibromomethane/2-Nitropropane	25.46
22	cis-1,3-Dichloropropene	27.02
23	Toluene	28.09
24	Ethyl methacrylate/trans-1,3-Dichloropropene	28.73
25	1,1,2-Trichloroethane	29.34
26	Tetrachloroethene/1,3-Dichloropropane	30.34
27	Dibromochloromethane	31.16
28	1,2-Dibromoethane	31.84
29	Chlorobenzene	33.26
30	Ethylbenzene/1,1,1,2-Tetrachloroethane	33.40
31	m-Xylene/p-Xylene	33.85
32	o-Xylene	35.23
33	Styrene	35.30
34	Isopropylbenzene/Bromoform	35.48
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	37.92
39	trans-1,4-Dichloro-2-butene	38.05
40	Bromobenzene	38.14
41	1,3,5-Trimethylbenzene	38.50
42	2-Chlorotoluene	38.62
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	41.63
51	n-Butylbenzene	42.02
52	1,2-Dichlorobenzene	42.18
53	1,2-Dibromo-3-chloropropane	46.12
54	Nitrobenzene	46.58
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.	Emergency Telephone International	**1-352-323-3500**
	Hamden CT, 06514	Date Prepared/Revised	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))			
Methanol	METHYL ALCOHOL	CAS#: 67-56-1	% (optional) > 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.
Storage Conditions	Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge. 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 Numb
https://Absolutestandards.co...

CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 091424
Description: Acrolein

Solvent(s): Water **Lot#** 072324Q

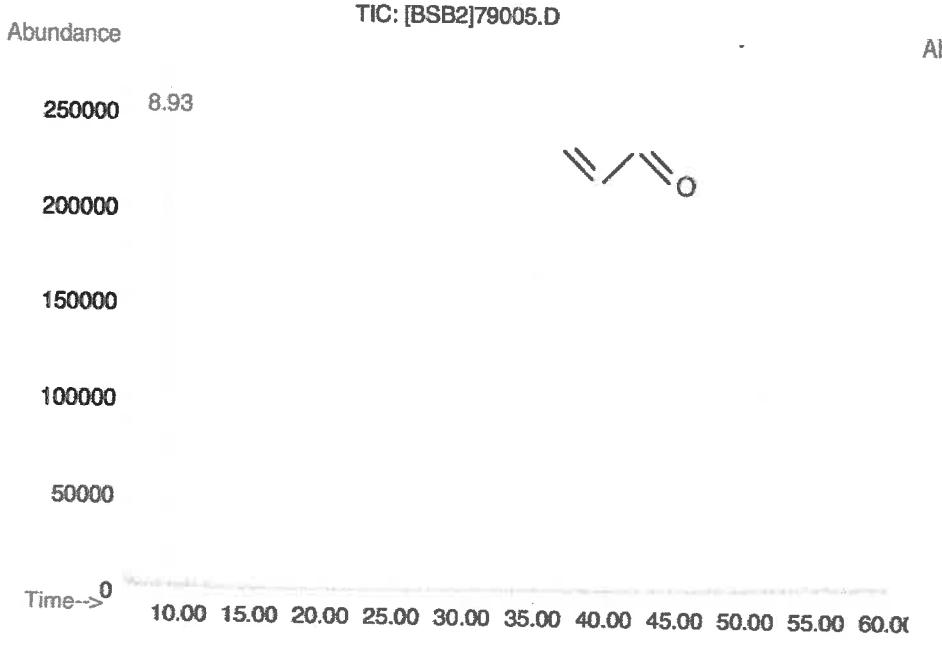
Expiration Date: 101424
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB

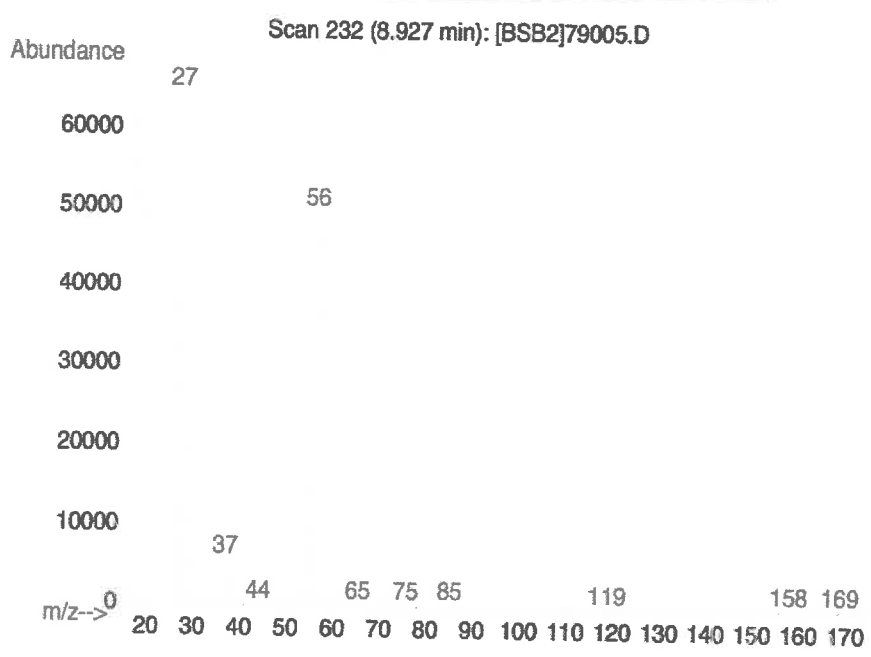
Weight(s) shown below were combined and diluted to (mL): 10.0 | 5E-05 Balance Uncertainty | 0.001 Flask Uncertainty

Justin Dippold	091424
Formulated By: Justin Dippold	DATE
Pedro Rentas	091424
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. 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 Numb
https://Absolutestandards.co...

CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 091424
Description: Acrolein

Solvent(s): Water **Lot#** 072324Q

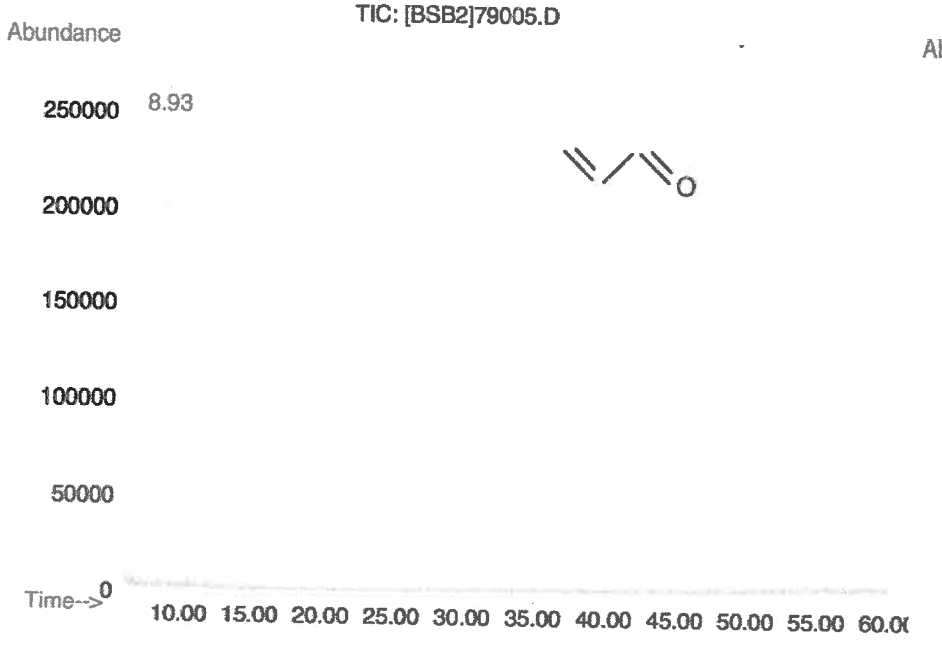
Expiration Date: 101424
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB

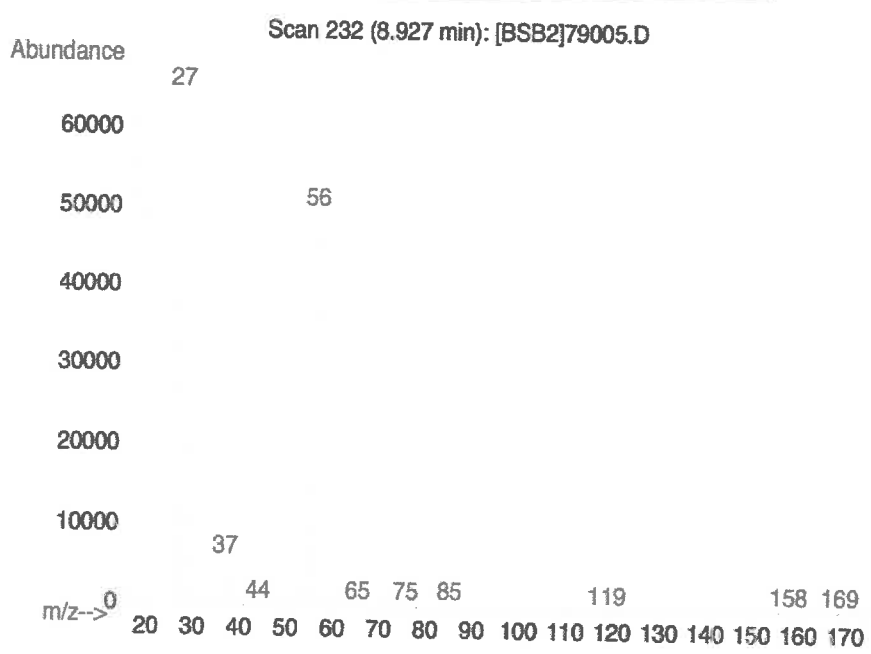
Weight(s) shown below were combined and diluted to (mL): 10.0 | 5E-05 Balance Uncertainty | 0.001 Flask Uncertainty

Justin Dippold	091424
Formulated By: Justin Dippold	DATE
Pedro Rentas	091424
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. 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
V14630 to
V14649

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

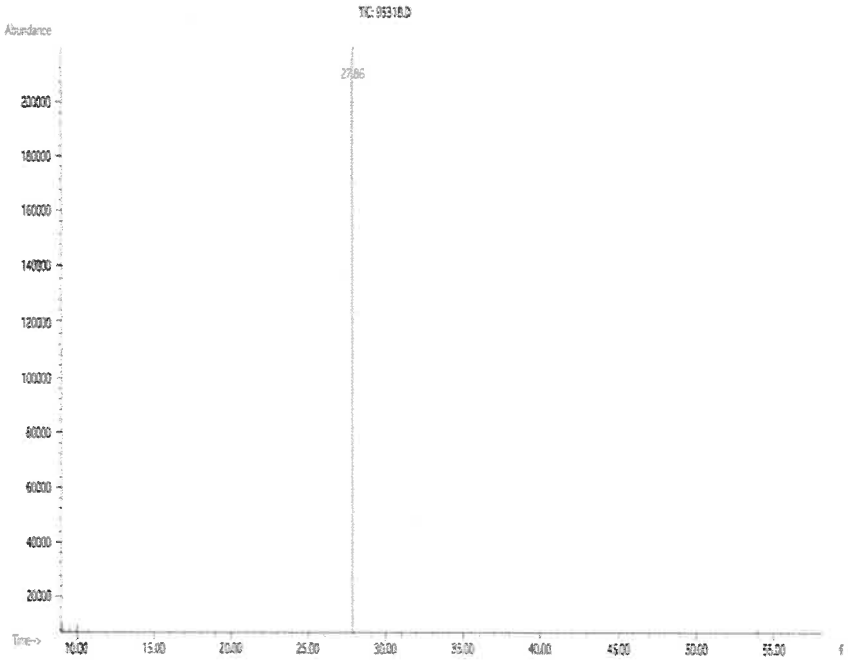
Solvent(s): Methanol **Lot#** EJ143-US

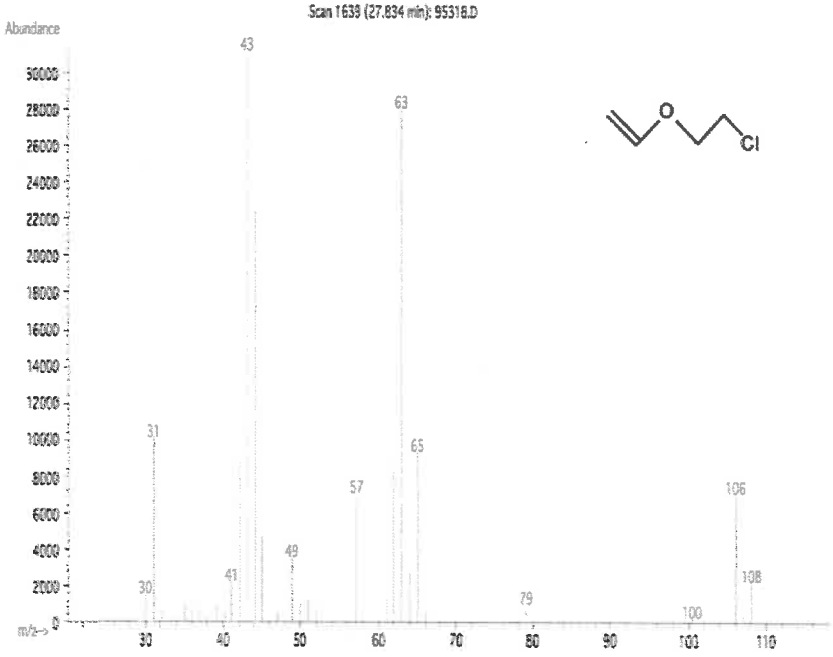
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 50.0 0.001 Flask Uncertainty

Prashant Chauhan	120524
Formulated By: Prashant Chauhan	DATE
Pedro 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
V14630 to
V14649

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

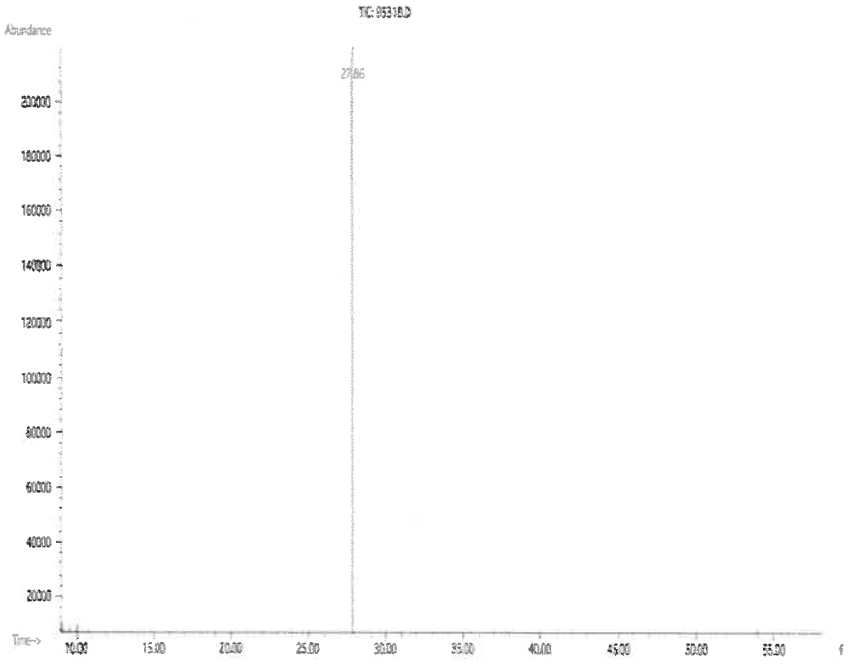
Solvent(s): Methanol **Lot#** EJ143-US

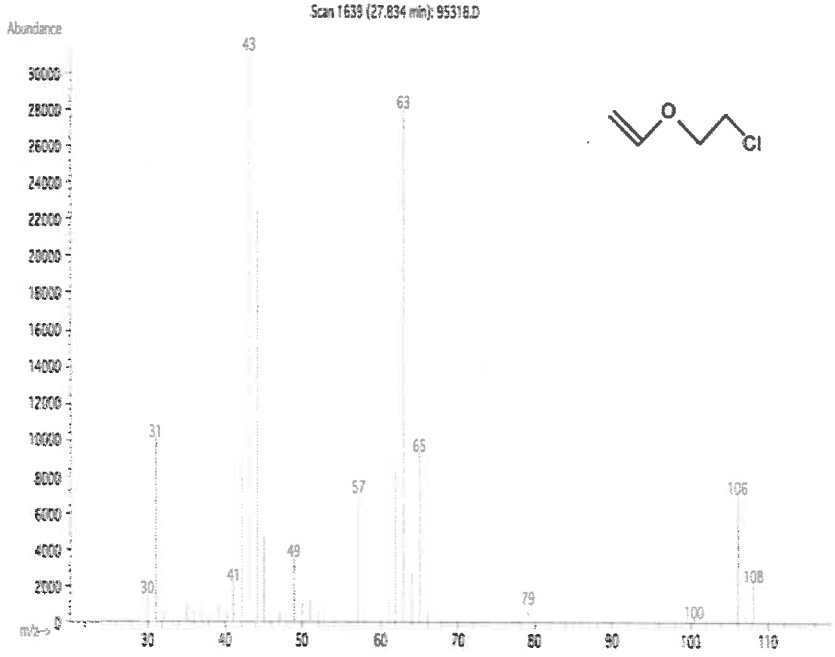
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 50.0 0.001 Flask Uncertainty

Prashant Chauhan		120524
Formulated By:	Prashant Chauhan	DATE
Pedro 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

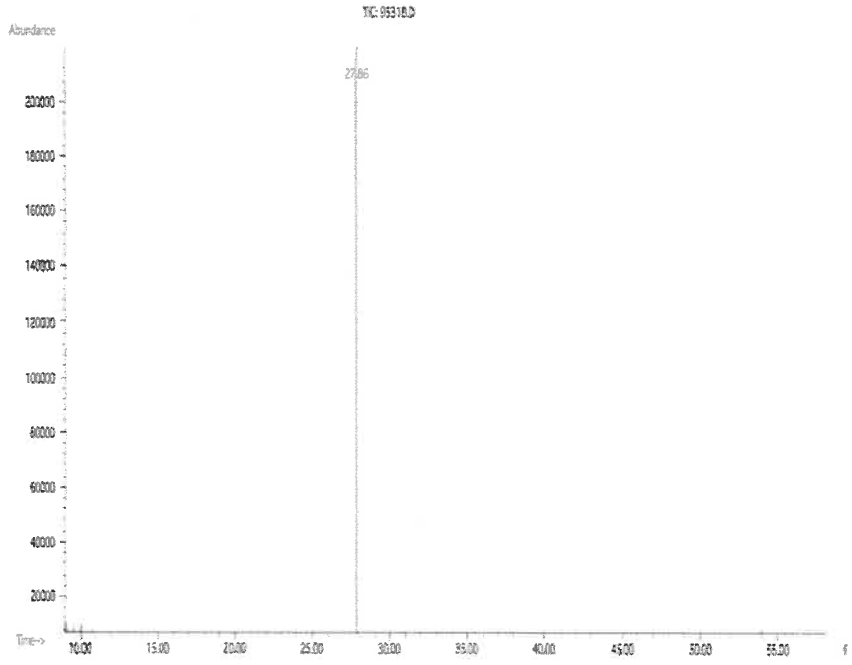
V14630 to V14649

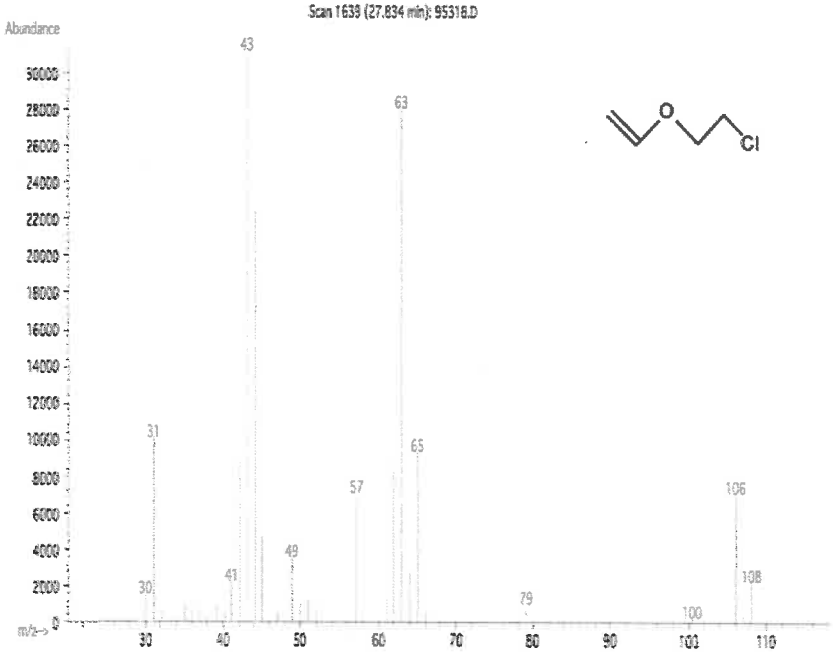
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 50.0 0.001 Flask Uncertainty

Formulated By:	Prashant Chauhan	120524 DATE
Reviewed By:	Pedro L. Rentas	120524 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
V14630 to
V14649

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

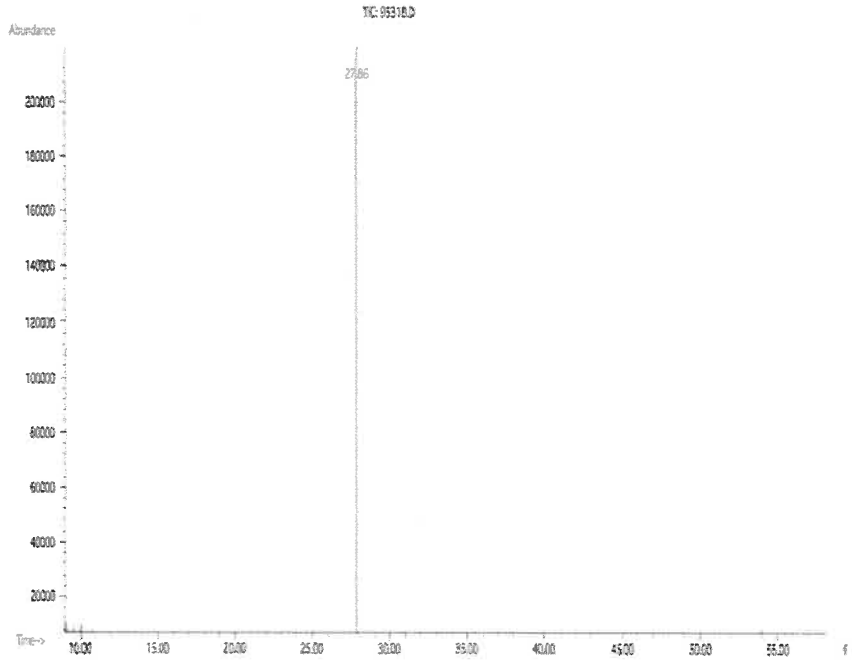
Solvent(s): Methanol **Lot#** EJ143-US

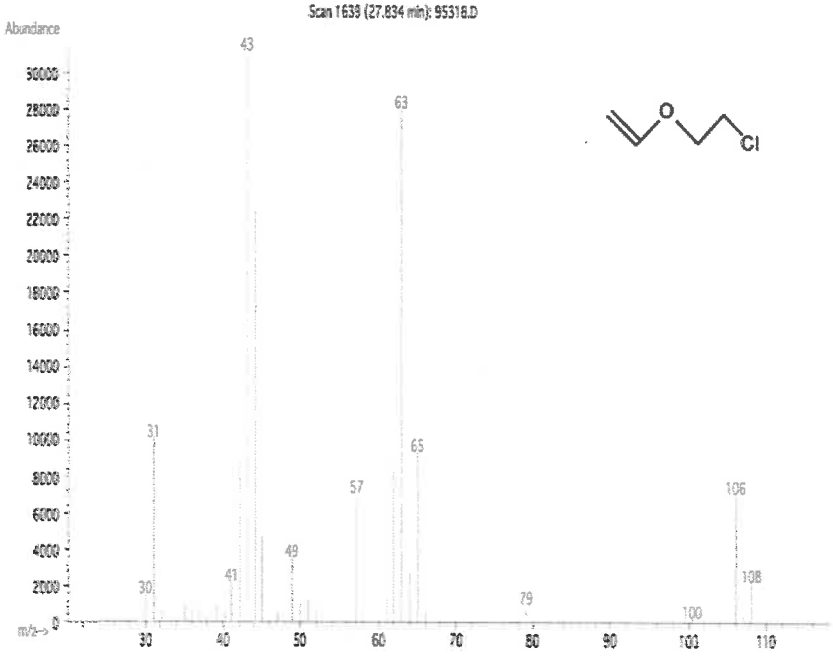
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 50.0 0.001 Flask Uncertainty

Prashant Chauhan		120524
Formulated By:	Prashant Chauhan	DATE
Pedro 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.)

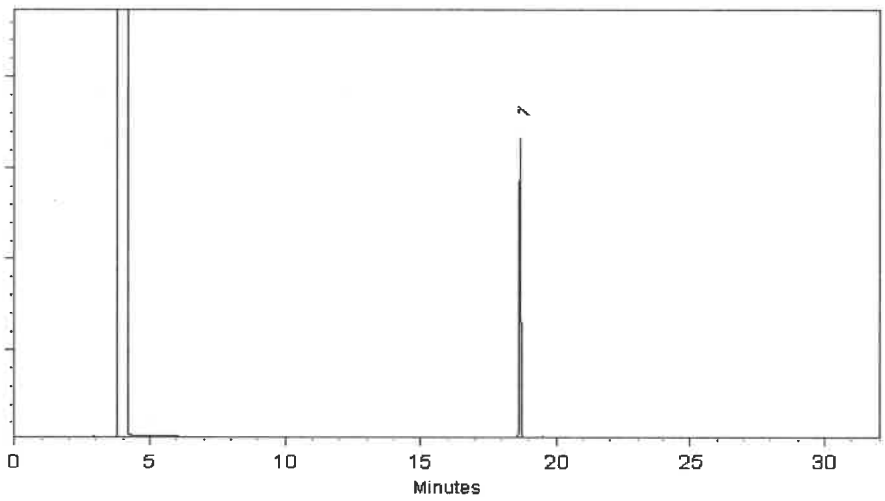
Inj. Temp:
200°C

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. : 30006 **Lot No.:** A0200785

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 : November 30, 2026 **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	SHBP8774	99%	5,018.5 µg/mL	+/- 173.4162
2	2-Butanone (MEK)	78-93-3	SHBL5543	99%	5,016.0 µg/mL	+/- 173.3298
3	4-Methyl-2-pentanone (MIBK)	108-10-1	SHBP4724	99%	5,010.7 µg/mL	+/- 173.1455
4	2-Hexanone	591-78-6	MKCQ6663	99%	5,015.0 µg/mL	+/- 173.2952

* 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.)

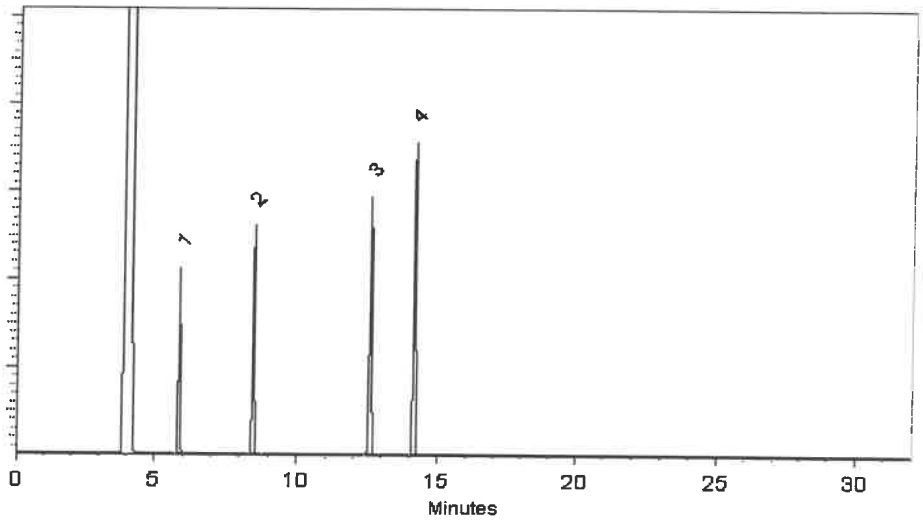
Inj. Temp:
200°C

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.

Laith Clemente - Operations Technician I

Date Mixed: 09-Aug-2023 **Balance Serial #** B707717271

Marlina Cowan – Operations Tech II ARM QC

Date Passed: 16-Aug-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. : 30006 **Lot No.:** A0200785

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 : November 30, 2026 **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	SHBP8774	99%	5,018.5 µg/mL	+/- 173.4162
2	2-Butanone (MEK)	78-93-3	SHBL5543	99%	5,016.0 µg/mL	+/- 173.3298
3	4-Methyl-2-pentanone (MIBK)	108-10-1	SHBP4724	99%	5,010.7 µg/mL	+/- 173.1455
4	2-Hexanone	591-78-6	MKCQ6663	99%	5,015.0 µg/mL	+/- 173.2952

* 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.)

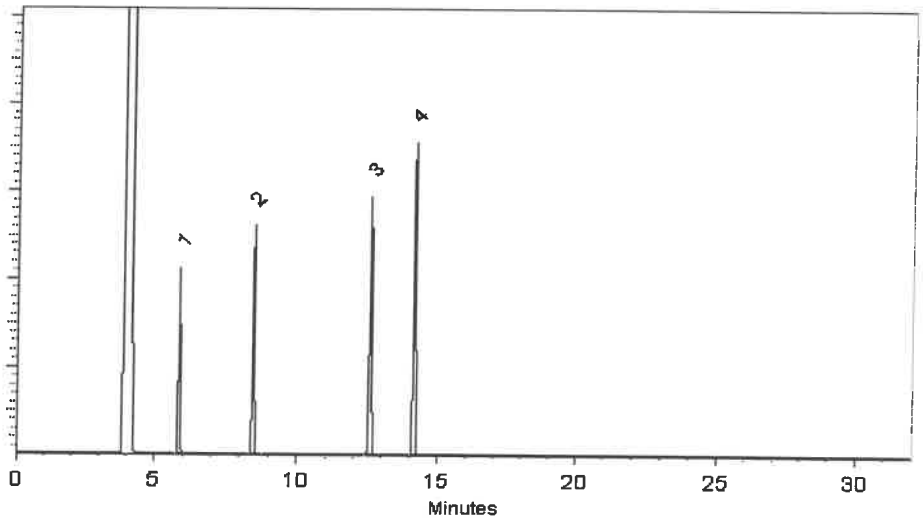
Inj. Temp:
200°C

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.

Laith Clemente - Operations Technician I

Date Mixed: 09-Aug-2023 **Balance Serial #** B707717271

Marlina Cowan – Operations Tech II ARM QC

Date Passed: 16-Aug-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. : 30006 **Lot No.:** A0200785

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 : November 30, 2026 **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	SHBP8774	99%	5,018.5 µg/mL	+/- 173.4162
2	2-Butanone (MEK)	78-93-3	SHBL5543	99%	5,016.0 µg/mL	+/- 173.3298
3	4-Methyl-2-pentanone (MIBK)	108-10-1	SHBP4724	99%	5,010.7 µg/mL	+/- 173.1455
4	2-Hexanone	591-78-6	MKCQ6663	99%	5,015.0 µg/mL	+/- 173.2952

* 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.)

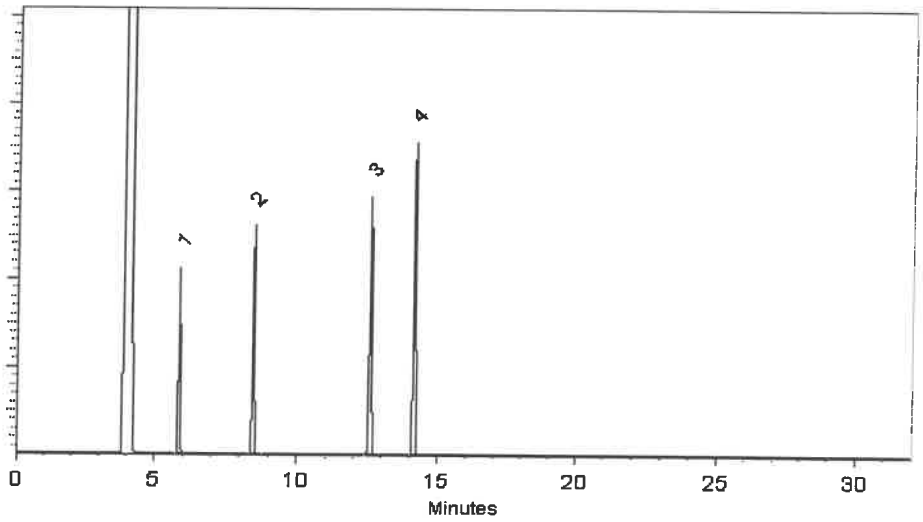
Inj. Temp:
200°C

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.

Laith Clemente - Operations Technician I

Date Mixed: 09-Aug-2023 **Balance Serial #** B707717271

Marlina Cowan – Operations Tech II ARM QC

Date Passed: 16-Aug-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

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA A2LA 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. : 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

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.

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

10 vial.

CERTIFIED REFERENCE MATERIAL

Rec: 12/09/24

Certificate of Analysis

chromatographic plus

V14667 to
V14676

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.:** A0214960

Description : Bromochloromethane Standard

Bromochloromethane 2000µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : August 31, 2029 **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	SYN240416CTH	99%	2,012.0 µg/mL	+/- 113.0519

* 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.)

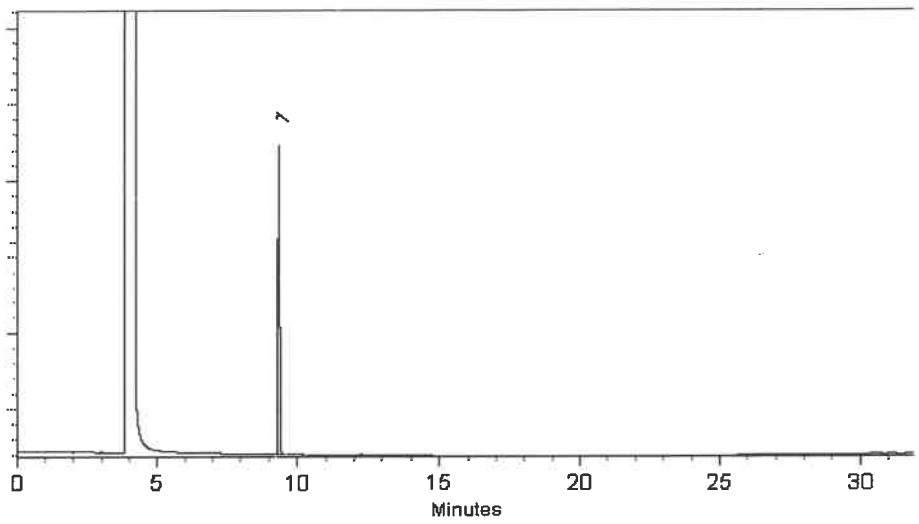
Inj. Temp:
200°C

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.

Stacey Wanner - Operations Technician I

Date Mixed: 08-Aug-2024 **Balance Serial #** 1127510105

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 14-Aug-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

10 vial.

CERTIFIED REFERENCE MATERIAL

Rec: 12/09/24

Certificate of Analysis

chromatographic plus

V14667 to
V14676

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.:** A0214960

Description : Bromochloromethane Standard

Bromochloromethane 2000µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : August 31, 2029 **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	SYN240416CTH	99%	2,012.0 µg/mL	+/- 113.0519

* 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.)

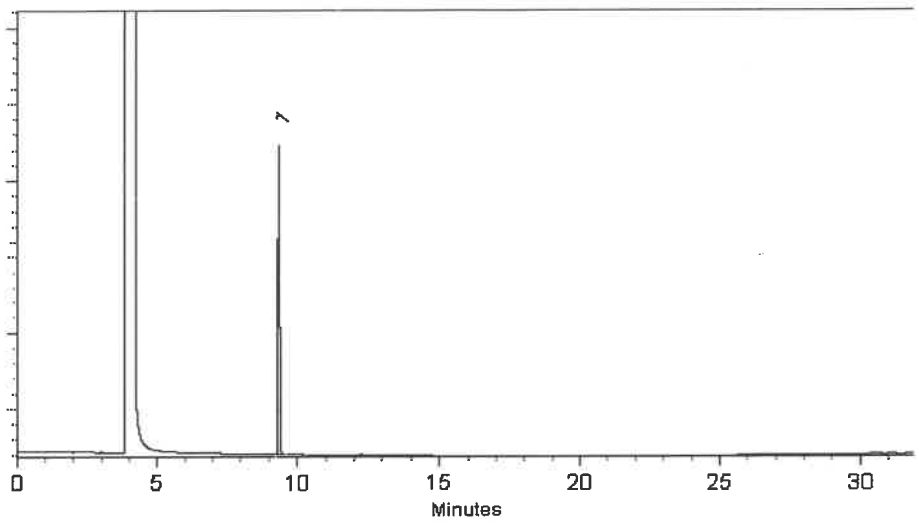
Inj. Temp:
200°C

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.

Stacey Wanner - Operations Technician I

Date Mixed: 08-Aug-2024 **Balance Serial #** 1127510105

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 14-Aug-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

10 vial.

CERTIFIED REFERENCE MATERIAL

Exp: 12/09/24

Certificate of Analysis

chromatographic plus

V14667 to
V14676

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.:** A0214960

Description : Bromochloromethane Standard

Bromochloromethane 2000µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : August 31, 2029 **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	SYN240416CTH	99%	2,012.0 µg/mL	+/- 113.0519

* 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.)

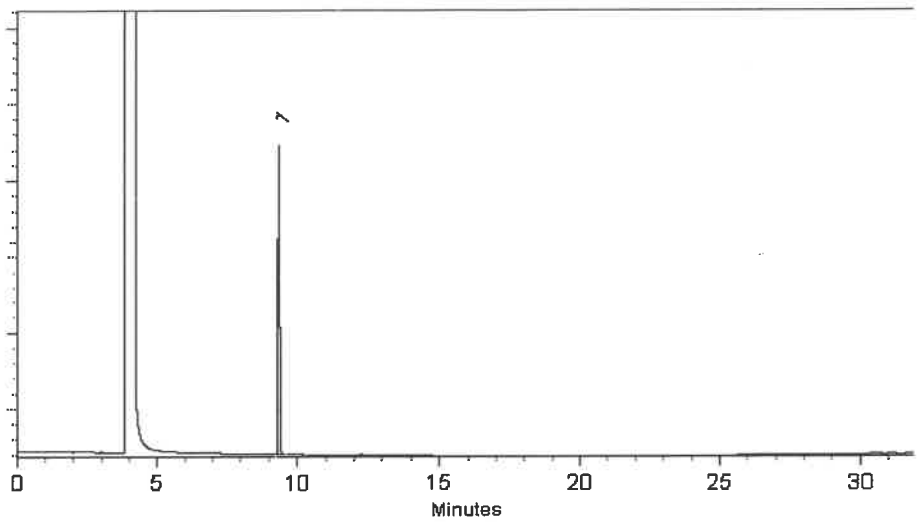
Inj. Temp:
200°C

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.

Stacey Wanner - Operations Technician I **Date Mixed:** 08-Aug-2024 **Balance Serial #** 1127510105

Jennifer Pollino - Operations Tech III - ARM QC **Date Passed:** 14-Aug-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

10 vial.

CERTIFIED REFERENCE MATERIAL

Rec: 12/09/24

Certificate of Analysis

chromatographic plus

V14667 to
V14676

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.:** A0214960

Description : Bromochloromethane Standard

Bromochloromethane 2000µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : August 31, 2029 **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	SYN240416CTH	99%	2,012.0 µg/mL	+/- 113.0519

* 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.)

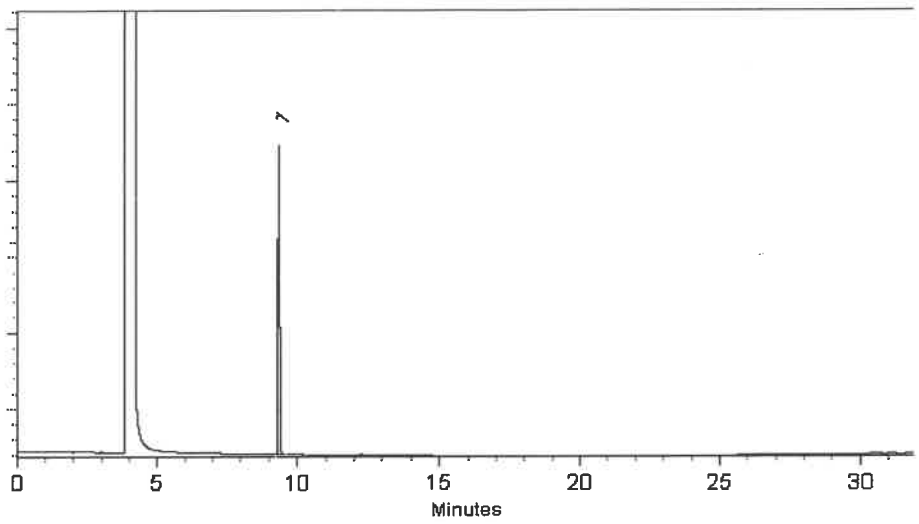
Inj. Temp:
200°C

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.

Stacey Wanner - Operations Technician I **Date Mixed:** 08-Aug-2024 **Balance Serial #** 1127510105

Jennifer Pollino - Operations Tech III - ARM QC **Date Passed:** 14-Aug-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.

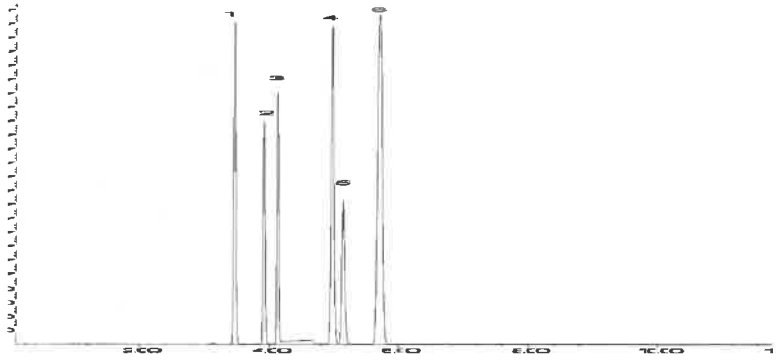
Inj. Temp:
200°C

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.

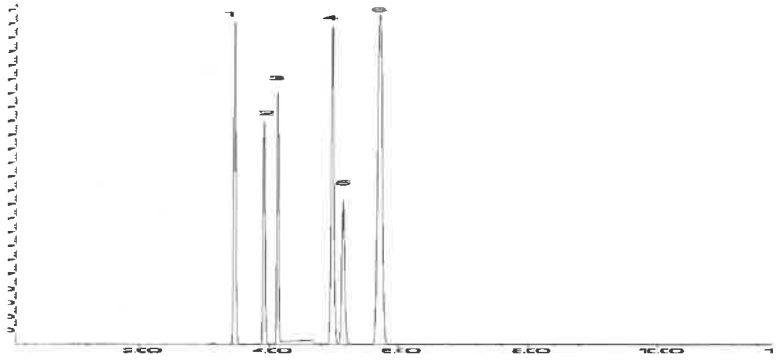
Inj. Temp:
200°C

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

ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

Certificate of Analysis

chromatographic plus

J14842 to 14846

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.)

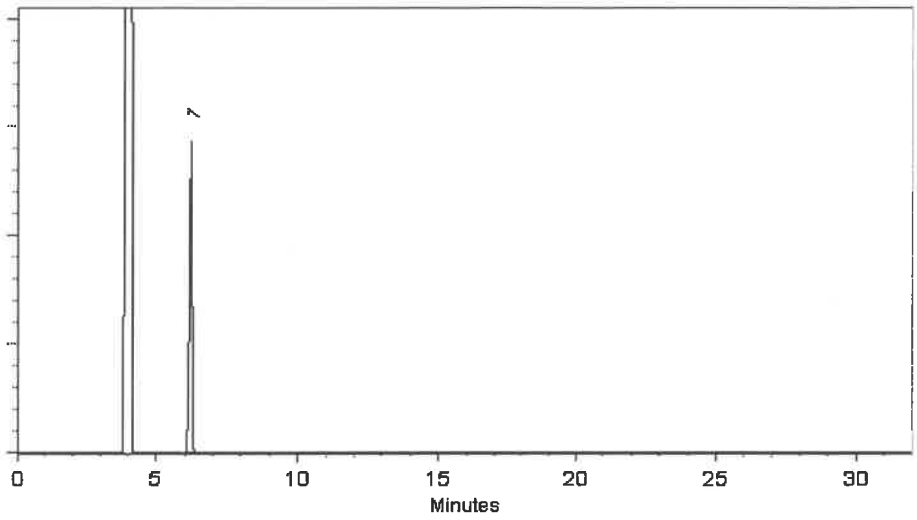
Inj. Temp:
200°C

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.

Zoey 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

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

Certificate of Analysis

chromatographic

V14803 - V14822

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.)

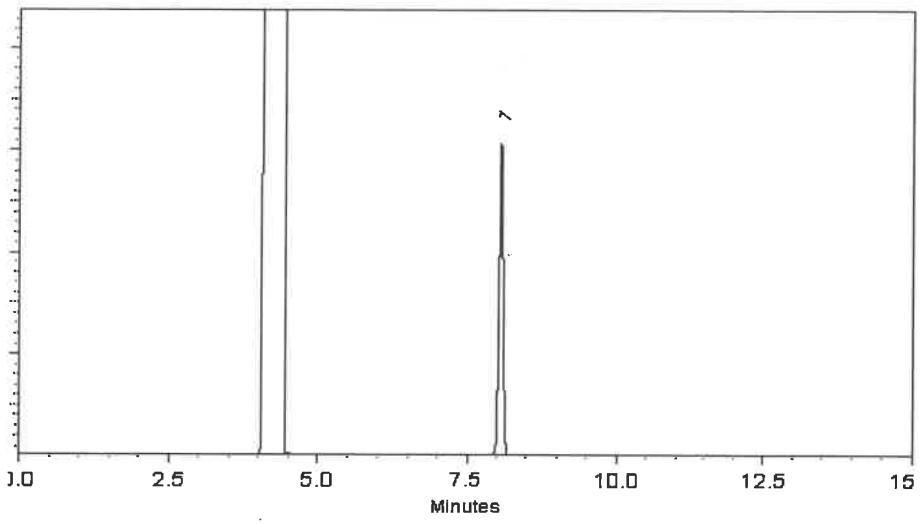
Inj. Temp:
200°C

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.

Zo Vinyl Rec 01/08/25

RESTEK

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

ilac-MRA

A2LA ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

A2LA ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

chromatographic

V14803 - V14822

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.)

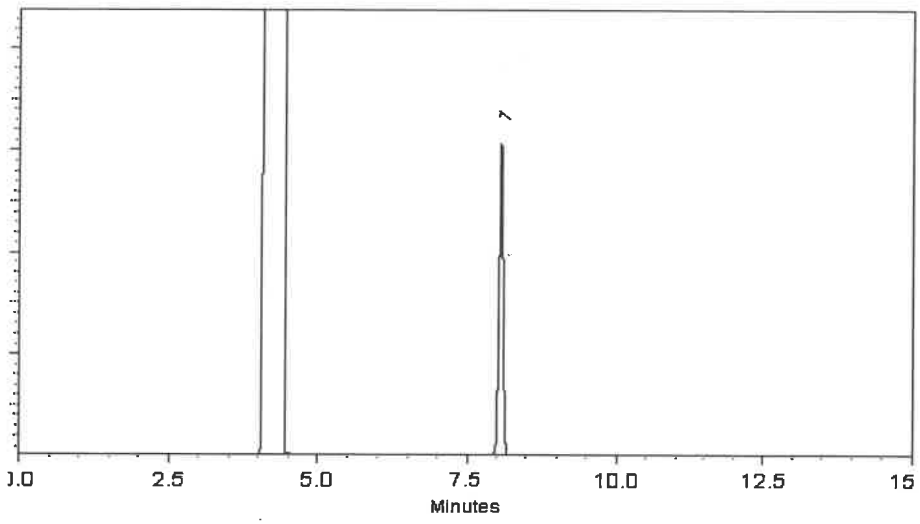
Inj. Temp:
200°C

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.

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

10 vial

CERTIFIED REFERENCE MATERIAL

Lee 03/31/25

Certificate of Analysis

gravimetric

V14904 to V14913

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.:** A0223904

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 : March 31, 2028 **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-33313	99%	25,108.0 µg/mL	+/- 1,421.9957
2	1-Bromo-4-fluorobenzene (BFB)	460-00-4	0000268853	99%	25,108.0 µg/mL	+/- 1,421.9957
3	Dibromofluoromethane	1868-53-7	VENKAT02	99%	25,232.0 µg/mL	+/- 1,429.0184
4	Toluene-d8	2037-26-5	PR-34141	99%	25,156.0 µg/mL	+/- 1,424.7141

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

Brittany Federinko - Operations Tech I

Date Mixed: 27-Mar-2025 **Balance:** B251644995

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

Rec 05/09/25

avantor™ | J.T.Baker®

V 14921 to
V 14938

Material No.: 9077-02
Batch No.: 24G0262002
Manufactured Date: 2024-05-14
Expiration Date: 2027-05-14
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	0.3 ppm
Titrable Acid (µeq/g)	≤ 0.3	0.3
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

JCroak

Jamie Croak
Director Quality Operations, Bioscience Production

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

Rec 05/09/25

avantor™ | J.T.Baker®

V 14921 to
V 14938

Material No.: 9077-02
Batch No.: 24G0262002
Manufactured Date: 2024-05-14
Expiration Date: 2027-05-14
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	0.3 ppm
Titrable Acid (µeq/g)	≤ 0.3	0.3
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

JCroak

Jamie Croak
Director Quality Operations, Bioscience Production

Lee 05119125

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL
20 Vial

Certificate of Analysis

chromatographic plus

VJ14951 to VJ14970

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA A2LA 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.:** A0222076

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 : August 31, 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	Methyl acetate	79-20-9	SHBR1889	99%	2,004.0 µg/mL	+/- 69.2674
2	Vinyl acetate	108-05-4	RD240423RSR	99%	2,010.0 µg/mL	+/- 69.4748
3	Ethyl acetate	141-78-6	SHBS3323	99%	2,019.3 µg/mL	+/- 69.7974
4	Isopropyl acetate	108-21-4	BCCG7069	99%	2,008.0 µg/mL	+/- 69.4057
5	Propyl acetate	109-60-4	P8XLN	99%	2,008.0 µg/mL	+/- 69.4057
6	Butyl acetate	123-86-4	SHBR2024	99%	2,008.0 µg/mL	+/- 69.4057
7	Amyl acetate	628-63-7	BCBT7442	99%	2,006.7 µg/mL	+/- 69.3596

* 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

Lee 05119125

RESTEK

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

2 x Vial

Certificate of Analysis

chromatographic plus

VJ14951 to VJ14970

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.:** A0222076

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 : August 31, 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	Methyl acetate	79-20-9	SHBR1889	99%	2,004.0 µg/mL	+/- 69.2674
2	Vinyl acetate	108-05-4	RD240423RSR	99%	2,010.0 µg/mL	+/- 69.4748
3	Ethyl acetate	141-78-6	SHBS3323	99%	2,019.3 µg/mL	+/- 69.7974
4	Isopropyl acetate	108-21-4	BCCG7069	99%	2,008.0 µg/mL	+/- 69.4057
5	Propyl acetate	109-60-4	P8XLN	99%	2,008.0 µg/mL	+/- 69.4057
6	Butyl acetate	123-86-4	SHBR2024	99%	2,008.0 µg/mL	+/- 69.4057
7	Amyl acetate	628-63-7	BCBT7442	99%	2,006.7 µg/mL	+/- 69.3596

* 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

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

Rec 09/16/25 5 vial

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number:	91980
Lot Number:	091525
Description:	Acrolein
Expiration Date:	101525
Recommended Storage:	Refrigerate (2°C to 8°C)
Nominal Concentration (µg/mL):	5000
NIST Test ID#:	6UTB

Solvent(s): Water **Lot#** 041725Q

V15064 to V15068

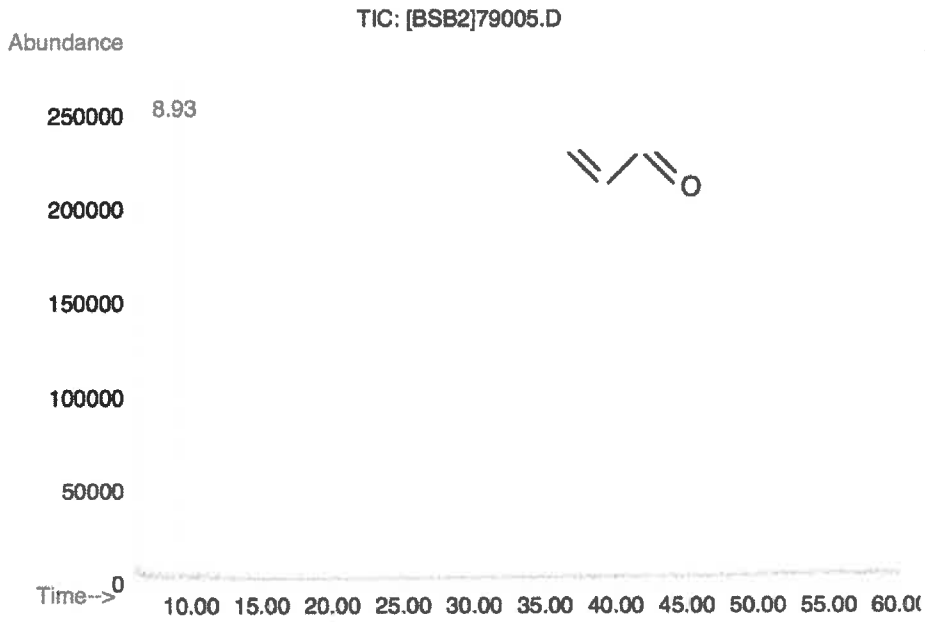
5E-05 Balance Uncertainty

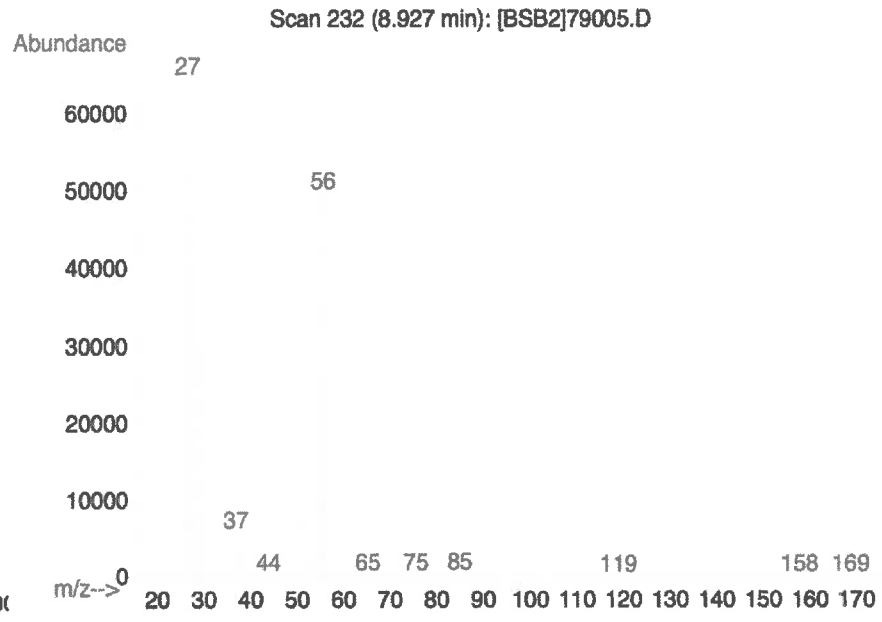
Weight(s) shown below were combined and diluted to (mL): 10.0 0.001 Flask Uncertainty

	091525
Formulated By: Anthony Mahoney	DATE
	091525
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. Acrolein	5	103755V10F	5000	97	0.5	0.05166	0.05176	5009.9	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 by an ISO 17025 certified organization with weights traceable through NIST to the SI kilogram (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).**

Rev 1.0, 2/25/2025

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

Rec 09/16/25 5 vial

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number:	91980
Lot Number:	091525
Description:	Acrolein
Expiration Date:	101525
Recommended Storage:	Refrigerate (2°C to 8°C)
Nominal Concentration (µg/mL):	5000
NIST Test ID#:	6UTB

Solvent(s): Water **Lot#** 041725Q

V15064 to V15068

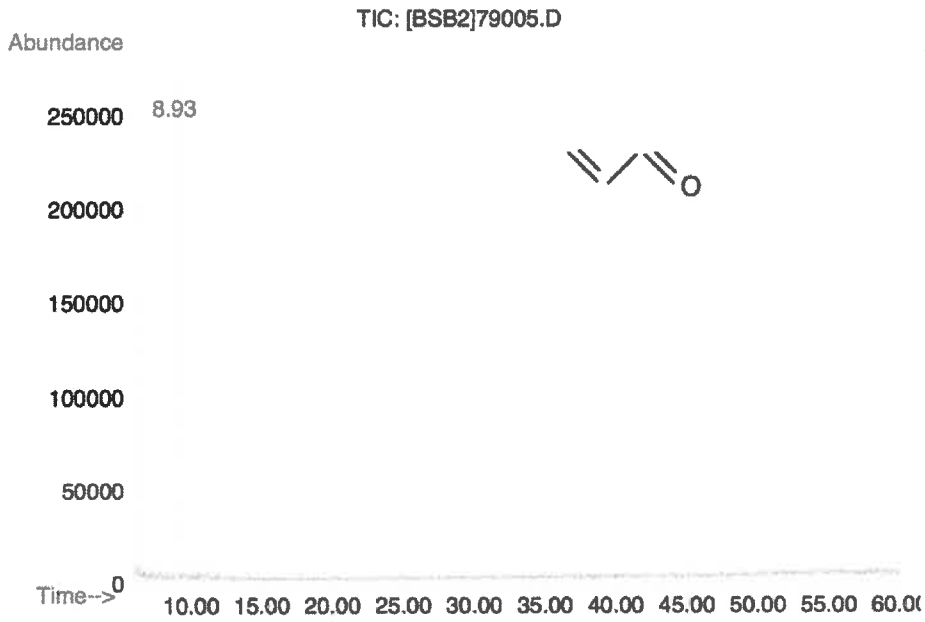
5E-05 Balance Uncertainty

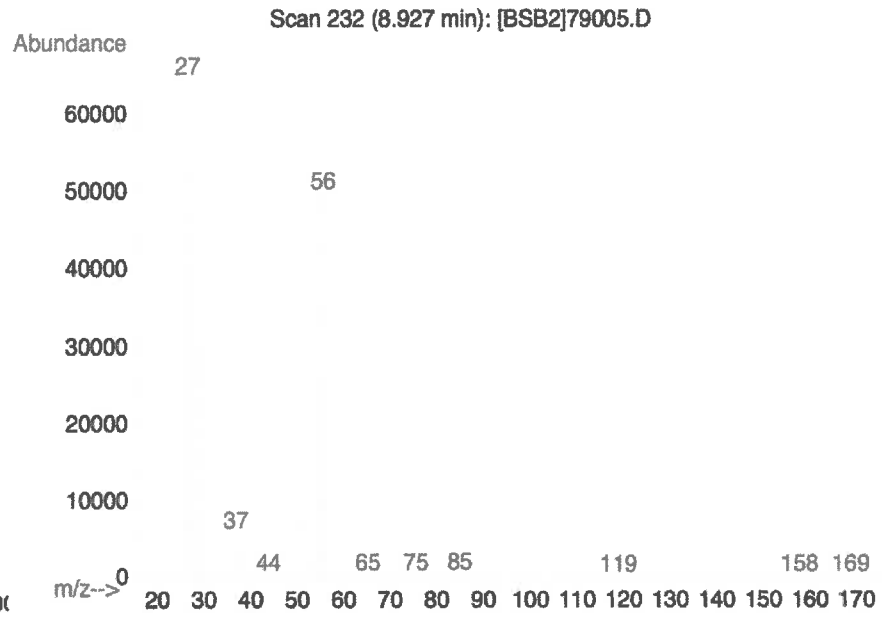
Weight(s) shown below were combined and diluted to (mL): 10.0 0.001 Flask Uncertainty

	091525
Formulated By: Anthony Mahoney	DATE
	091525
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. Acrolein	5	103755V10F	5000	97	0.5	0.05166	0.05176	5009.9	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 by an ISO 17025 certified organization with weights traceable through NIST to the SI kilogram (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).

Rev 1.0, 2/25/2025

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

Rec 09/16/25 5 vial

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 091525
Description: Acrolein

Solvent(s): Water **Lot#** 041725Q

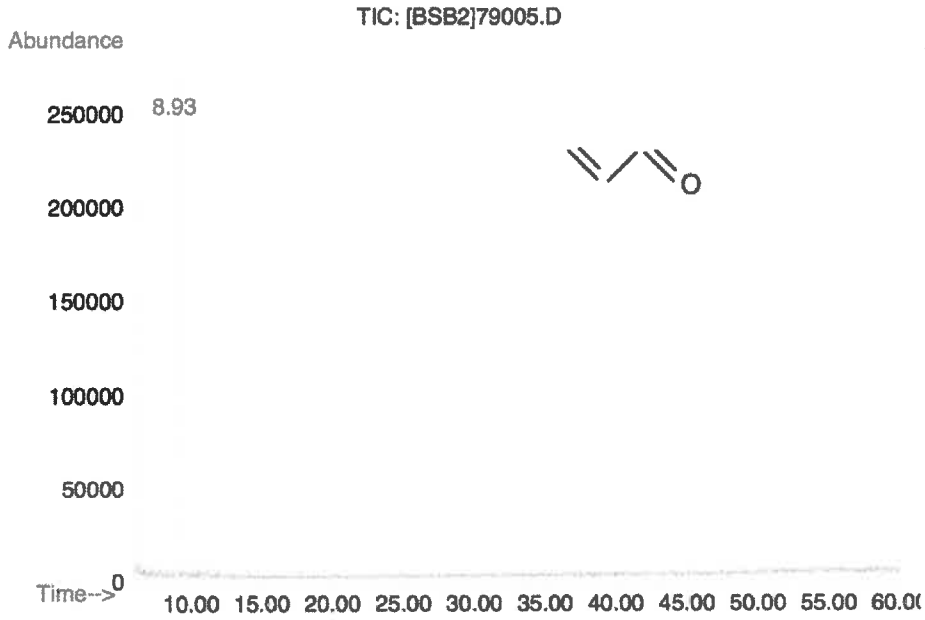
V15064 to V15068

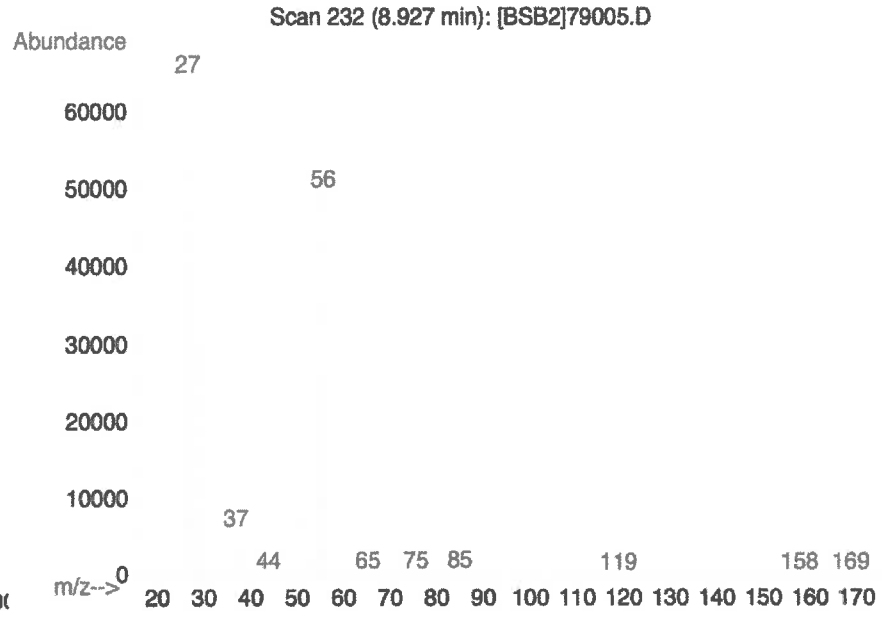
Expiration Date: 101525
Recommended Storage: Refrigerate (2°C to 8°C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB 5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 10.0 0.001 Flask Uncertainty

	091525
Formulated By: Anthony Mahoney	DATE
	091525
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. Acrolein	5	103755V10F	5000	97	0.5	0.05166	0.05176	5009.9	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 by an ISO 17025 certified organization with weights traceable through NIST to the SI kilogram (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).

Rev 1.0, 2/25/2025

SHIPPING DOCUMENTS

Q3179
Q ~~3176~~ 3178

USEPA

DateShipped: 9/23/2025

CarrierName: Hand-Delivered

AirbillNo:

CHAIN OF CUSTODY RECORD

Case #:

Contact Name: Leticia Campiglia

Contact Phone: 732-570-4993

No: 2-092325-0004-0049-02

Cooler #: 2 of 2

Lab: Alliance Technical Group LLC (non-CLP)

Lab Phone: 908-789-8900

Lab #	Sample #	Analyses	Matrix	Sample Date	Sample Time	Numb Cont	Container	Preservative	Lab QC
7	EME-TS14-01	TAL VOCs,	Soil	9/23/2025	12:45	9	5 g Encore sampler	4 C	Y
2	EME-TS14-01	EPH	Soil	9/23/2025	12:45	2	4 oz glass jar	4 C	Y
6	EME-TS14-01	SPLP VOCs	Soil	9/23/2025	12:45	9	5 g Encore sampler	4 C	Y
4	EME-TS14-01	SPLP SVOCs, Pesticides, PCBs	Soil	9/23/2025	12:45	4	8 oz amber glass jar	4 C	Y
5	EME-TS14-01	SPLP EPH	Soil	9/23/2025	12:45	2	4 oz glass jar	4 C	Y
1	EME-TS14-01	TAL Metals + Hg and Cn	Soil	9/23/2025	12:45	2	8 oz clear glass jar	4 C	Y
	EME-TS14-01	SPLP Metals + Hg and Cn	Soil	9/23/2025	12:45	2	8 oz clear glass jar	4 C	Y
	EME-TS14-01	Percent Moisture	Soil	9/23/2025	12:45	2	4 oz jar w/ septum	4 C	Y
	EME-TS14-01	TAL SVOCs, PCBs, Pesticides	Soil	9/23/2025	12:45	4	8 oz amber glass jar	4 C	Y

9/23/25

Special Instructions: RFP # 916. Please email results to leticia.campiglia@westonsolutions.com, smita.sumbaly@westonsolutions.com, ronan.clynch@westonsolutions.com and michael.lang@westonsolutions.com.
7 day preliminary TAT.

SAMPLES TRANSFERRED FROM CHAIN OF CUSTODY #

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
All samples	START V1 Weston	9/23/25 1700		9-23-25 1700	1.3°C IR Gun #1 Custody seals intact Temp. Blk present

Alliance TECHNICAL GROUP
284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Laboratory Certification

Certified By	License No.
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255425
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	TX-C25-00189
Virginia	460312