

Cover Page

Order ID : Q2369

Project ID : 1438 University Ave, Bronx NY

Client : GFE LLC

Lab Sample Number

Q2369-01
Q2369-02

Client Sample Number

SV1
IA1

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: 6/25/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012



SHIPPING DOCUMENTS

Client Contact Information				Bottle Order ID : B2506029				Courier : FGALDUN				<u>1</u> of <u>2</u> COCs					
Client ID : GFEL01 Project ID : University Ave Bronx				Sampler Name(s) : FRANK GALDUN				Analysis				Matrix					
Customer Name : GFE LLC Address : 58 Nokomis Ave City : Lake Hiawatha State : NJ Zip Code : 07034 Country :				Project Manager : Frank galdun				AIR ANALYSIS CHAIN-OF-CUSTODY Batch Certified									
				Phone Number : 646-542-3465													
				Fax Number : 973-334-1692													
				Site Details: 1438 UNIVERSITY AVE BRONX, NY													
Analysis Turnaround Time 5 DAY				Standard : 10-business days OR				Data Package Type : Results only									
Rush (Specify): 5 Days				EDD Type : PDF													
Sample Identification	Sample Date(s)	Time Start (24 hr Clock)	Time Stop (24 hr Clock)	Can Vacuum in Field ("Hg) (Start)	Can Vacuum in Field ("Hg) (Stop)**	Interior Temp. (F) (Start)	Interior Temp. (F) (Stop)	Out going Can Pressure ("Hg)(Lab)	In coming Can Pressure ("Hg)(Lab)	Flow Reg. ID	Can ID		Flow Controller Readout (ml/min)	Can Cert ID	TO-15	Indoor/Ambient Air	Soil Gas
SV1	6/18/25	9:14	11:14	30	5	75	75	-30	-4.7	10616	10153	6 L	50	VL042490.D	1		1
Temperature (Fahrenheit)										GC/MS Analyst Signature (TO-15) 							
		Ambient	Maximum	Minimum													
Start																	
Stop																	
Pressure (Inches of Hg)										** Submittal of this COC indicates approval of the analysis based on existing conditions. REPORT ONLY THOSE ANALYTES ON THE ATTACHED LIST Please follow the instructions on the back of this COC.							
		Ambient	Maximum	Minimum													
Start																	
Stop																	
Special Instructions/QC Requirements & Comments :																	
Suspected Contamination: High Medium <u>Low</u> PID Readings: <u>QZ</u>																	
Sampling site (State):																	
Quick Connector required : <u>NO</u>																	
Canisters Shipped by: <u>Sam</u>				Date/Time: <u>6/13/25</u>				Canisters Received by:				Date/Time:					
Samples Relinquished by: <u>FG</u>				Date/Time: <u>6/19/25</u>				Received by:				Date/Time:					
Relinquished by:				Date/Time:				Received by: <u>OP</u>				Date/Time: <u>6/19/25 1237</u>					

Client Contact Information				Bottle Order ID : B2506029				Courier : F Galdun				2 of 2 COCs					
Client ID : GFEL01				Project ID : University Ave Bronx				Sampler Name(s) : FRANK Galdun				Analysis		Matrix			
Customer : GFE LLC Name : Address : 58 Nokomis Ave City : Lake Hiawatha State : NJ Zip Code : 07034 Country :				Project Manager : Frank galdun				AIR ANALYSIS CHAIN-OF-CUSTODY Individual Certified									
				Phone Number : 646-542-3465													
				Fax Number : 973-334-1692													
				Site Details: 1438 UNIVERSITY Ave Bronx, NY													
				Analysis Turnaround Time 5 DAY				Data Package Type : Results only									
				Standard : 10 business days OR				EDD Type : PDF									
				Rush (Specify): 5 Days													
Sample Identification	Sample Date(s)	Time Start (24 hr Clock)	Time Stop (24 hr Clock)	Can Vacuum in Field ("Hg) (Start)	Can Vacuum in Field ("Hg) (Stop)**	Interior Temp. (F) (Start)	Interior Temp. (F) (Stop)	Out going Can Pressure ("Hg)(Lab)	In coming Can Pressure ("Hg)(Lab)	Flow Reg. ID	Can ID		Flow Controller Readout (ml/min)	Can Cert ID	TO-15	Indoor Ambient Air	Soil Gas
EIA1	6/18/24	9:15	11:15	30	5.5	75	75	-30	-5.5	10613	10590	6 L	50	VL042491.D	1		
Temperature (Fahrenheit)										GC/MS Analyst Signature (TO-15) Sut							
		Ambient	Maximum	Minimum													
Start																	
Stop																	
Pressure (Inches of Hg)										** Submittal of this COC indicates approval of the analysis based on existing conditions. REPORT ONLY THOSE ANALYTES ON THE ATTACHED LIST Please follow the instructions on the back of this COC.							
		Ambient	Maximum	Minimum													
Start																	
Stop																	
Special Instructions/QC Requirements & Comments :																	
Suspected Contamination: High Medium Low PID Readings: 0.0 0.0 0.0																	
Sampling site (State):																	
Quick Connector required : NO																	
Canisters Shipped by: FRANK				Date/Time: 6/13/25				Canisters Received by:				Date/Time:				B2506029 - 3	
Samples Relinquished by: FRANK				Date/Time: 6/19/25				Received by:				Date/Time:					
Relinquished by:				Date/Time:				Received by: CP				Date/Time: 6/19/25 1237					

Laboratory Certification

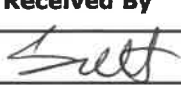
Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255424 Rev 1
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488

Internal Chain of Custody

Instructions: Use 1 form for each 20 samples of aliquot

Laboratory Person Breaking Field Seal on Sample Shuttle & Accepting Responsibility for Sample			
Laboratory: <u>Chemtech</u>		Location: <u>284 Sheffield Street, Mountainside, NJ 7092</u>	
QA/QC: <u>QA66</u>		Title: <u>Sample Custodian</u>	
Field Sample Seal No.: <u>Q2369</u>		Date Broken <u>6/19/2025</u> Military Time Seal Broken: <u>12:37:00</u>	
Case No.: <u>1438 University Ave, Bronx</u>		Analytical Parameter/Fraction: <u>OCMS Group2</u>	

Sample No.	Aliquot/Extract No.	Sample No.	Aliquot/Extract No.
Q2369-01	SV1		
Q2369-02	IA1		

Date	Time	Relinquished By	Received By	Purpose of Change of Custody
6/19/25	14:57	Signature 	Signature 	
		Printed Name <u>Cessanova</u>	Printed Name <u>Samatha Yeates</u>	
		Signature	Signature	
		Printed Name	Printed Name	
		Signature	Signature	
		Printed Name	Printed Name	
		Signature	Signature	
		Printed Name	Printed Name	
		Signature	Signature	
		Printed Name	Printed Name	
		Signature	Signature	
		Printed Name	Printed Name	
		Signature	Signature	
		Printed Name	Printed Name	
		Signature	Signature	
		Printed Name	Printed Name	

Distribution: White - Original (Sent With Report) Yellow - Contractor Archive Pink - Sample Custodian - Interim Copy



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

CASE NARRATIVE

GFE LLC

Project Name: 1438 University Ave, Bronx NY

Project # N/A

Order ID # Q2369

Test Name: VOCMS Group2

A. Number of Samples and Date of Receipt:

2 Air samples were received on 06/19/2025.

B. Parameters

According to the Chain of Custody document, the following analyses were requested: VOCMS Group2. This data package contains results for VOCMS Group2.

C. Analytical Techniques:

The analysis performed on instrument MSVOA_L were done using GC column RTX-1, which is 60 meters, 0.32 mm id, 1.0 um df, Restek Cat. #10157. The Trap was supplied by Entech, glass bead and Tenax , Entech 7100A Preconcentrator. The analysis of VOCMS Group2 was based on method TO-15.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria.

The Internal Standards Areas met the acceptable requirements.

The Retention Times were acceptable for all samples.

The RPD for {Q2368-01DUP} with File ID: VL042661.D met criteria except for Cyclohexane[200%] due to difference in results of original and DUP.

The Blank Spike met requirements for all samples.

The Blank analysis did not indicate the presence of lab contamination.

The Initial Calibration met the requirements.

The Continuous Calibration met the requirements.

The Tuning criteria met requirements.

Due to potential high concentration of target analytes, Sample SV1 was initially diluted.

Sample SV1 was diluted due to high concentration.



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

E. Additional Comments:

F. 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_____

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 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

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q2369

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 Custody

✓

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: 06/25/2025

LAB CHRONICLE

OrderID:	Q2369	OrderDate:	6/19/2025 1:19:00 PM
Client:	GFE LLC	Project:	1438 University Ave, Bronx NY
Contact:	Frank Galdun	Location:	Air Lab,VOA Lab

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q2369-01	SV1	Air	VOCMS Group2	TO-15	06/18/25		06/19/25	06/19/25
Q2369-01DL	SV1DL	Air	VOCMS Group2	TO-15	06/18/25		06/19/25	06/19/25
Q2369-02	IA1	Air	VOCMS Group2	TO-15	06/18/25		06/19/25	06/19/25

Hit Summary Sheet
SW-846

SDG No.: Q2369

Client: GFE LLC

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID:	SV1							
Q2369-01	SV1	Air	Heptane	18.9	J	6.97	20.5	ug/m3
Q2369-01	SV1	Air	Cyclohexane	9.29	J	7.57	17.2	ug/m3
Q2369-01	SV1	Air	2,2,4-Trimethylpentane	20.6	J	6.54	23.4	ug/m3
Q2369-01	SV1	Air	Benzene	19.2		2.52	16.0	ug/m3
Q2369-01	SV1	Air	Toluene	90.1		6.03	18.8	ug/m3
Q2369-01	SV1	Air	Tetrachloroethene	1970	E	1.02	2.03	ug/m3
Q2369-01	SV1	Air	Ethyl Benzene	21.7		8.25	21.7	ug/m3
Q2369-01	SV1	Air	m/p-Xylene	88.6		17.8	43.4	ug/m3
Q2369-01	SV1	Air	o-Xylene	33.5		9.12	21.7	ug/m3
Q2369-01	SV1	Air	1,2,4-Trimethylbenzene	19.7	J	8.85	24.6	ug/m3
Q2369-01	SV1	Air	Hexane	61.7		5.64	17.6	ug/m3
Total Voc :				2350				
Total Concentration:				2350				
Client ID:	SV1DL							
Q2369-01DL	SV1DL	Air	Benzene	19.2	JD	10.2	63.9	ug/m3
Q2369-01DL	SV1DL	Air	Toluene	77.6	D	24.1	75.4	ug/m3
Q2369-01DL	SV1DL	Air	Tetrachloroethene	1970	D	4.07	8.14	ug/m3
Q2369-01DL	SV1DL	Air	Hexane	54.3	JD	22.6	70.5	ug/m3
Total Voc :				2120				
Total Concentration:				2120				
Client ID:	IA1							
Q2369-02	IA1	Air	Heptane	5.74		0.70	2.05	ug/m3
Q2369-02	IA1	Air	Cyclohexane	4.13		0.76	1.72	ug/m3
Q2369-02	IA1	Air	2,2,4-Trimethylpentane	22.4		0.65	2.34	ug/m3
Q2369-02	IA1	Air	Benzene	6.07		0.26	1.60	ug/m3
Q2369-02	IA1	Air	Toluene	27.5		0.60	1.88	ug/m3
Q2369-02	IA1	Air	Tetrachloroethene	2.51		0.14	0.20	ug/m3
Q2369-02	IA1	Air	Ethyl Benzene	3.39		0.83	2.17	ug/m3
Q2369-02	IA1	Air	m/p-Xylene	13.0		1.78	4.34	ug/m3
Q2369-02	IA1	Air	o-Xylene	4.78		0.91	2.17	ug/m3
Q2369-02	IA1	Air	1,3,5-Trimethylbenzene	2.02	J	0.88	2.46	ug/m3
Q2369-02	IA1	Air	1,2,4-Trimethylbenzene	6.39		0.88	2.46	ug/m3
Q2369-02	IA1	Air	Naphthalene	1.83		0.050	0.52	ug/m3
Q2369-02	IA1	Air	Hexane	16.6		0.56	1.76	ug/m3
Total Voc :				116				
Total Concentration:				116				

Hit Summary Sheet
SW-846

SDG No.: Q2369

Client: GFE LLC

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
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QC SUMMARY

Surrogate Summary

SDG No.: Q2369

Client: GFE LLC

Analytical Method: SWTO-15

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits	
						Low	High
Q2368-01DUP	SV1DUP	1-Bromo-4-Fluorobenzene	10	10.5	105	65	135
Q2369-01	SV1	1-Bromo-4-Fluorobenzene	10	10.4	104	65	135
Q2369-01DL	SV1DL	1-Bromo-4-Fluorobenzene	10	10.1	101	65	135
Q2369-02	IA1	1-Bromo-4-Fluorobenzene	10	10.3	103	65	135
VL0619ABL01	VL0619ABL01	1-Bromo-4-Fluorobenzene	10	10.2	102	65	135
VL0619ABS01	VL0619ABS01	1-Bromo-4-Fluorobenzene	10	10.6	106	65	135

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q2369

Client: GFE LLC

Analytical Method: SWTO-15

Datafile : VL042649.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VL0619ABS01	Vinyl Chloride	10	9.30	ppbv	93			70	130	
	Heptane	10	9.50	ppbv	95			70	130	
	1,1-Dichloroethene	10	10.9	ppbv	109			70	130	
	Cyclohexane	10	9.10	ppbv	91			70	130	
	cis-1,2-Dichloroethene	10	9.70	ppbv	97			70	130	
	1,1,1-Trichloroethane	10	10.0	ppbv	100			70	130	
	2,2,4-Trimethylpentane	10	11.1	ppbv	111			70	130	
	Benzene	10	10.8	ppbv	108			70	130	
	Trichloroethene	10	10.2	ppbv	102			70	130	
	Toluene	10	10.5	ppbv	105			70	130	
	Tetrachloroethene	10	9.80	ppbv	98			70	130	
	Ethyl Benzene	10	11.1	ppbv	111			70	130	
	m/p-Xylene	20	23.2	ppbv	116			70	130	
	o-Xylene	10	11.7	ppbv	117			70	130	
	1,3,5-Trimethylbenzene	10	11.5	ppbv	115			70	130	
	1,2,4-Trimethylbenzene	10	11.6	ppbv	116			70	130	
	Naphthalene	10	11.8	ppbv	118			70	130	
	Hexane	10	9.40	ppbv	94			70	130	

Duplicate Sample Summary

Lab Sample Id :	Q2368-01DUP	Q2368-01
Client Id :	SV1DUP	SV1
DF :	10	10
Datafile :	VL042661.D	VL042655.D
Anal Date & Time :	06/20/2025 07:50	06/19/2025 15:09

Parameter	Result	Result	RPD
1,1,1-Trichloroethane	0	0	0
1,1-Dichloroethene	0	0	0
1,2,4-Trimethylbenzene	6.8	7.3	7.1
1,3,5-Trimethylbenzene	0	0	0
2,2,4-Trimethylpentane	0	0	0
Benzene	2	2	0
cis-1,2-Dichloroethene	0	0	0
Cyclohexane	1.6	0	200 *
Ethyl Benzene	5.1	5.8	12.8
Heptane	17.1	19.7	14.1
Hexane	65.3	67.9	3.9
m/p-Xylene	40.7	42.5	4.3
Naphthalene	0	0	0
o-Xylene	16.5	16.8	1.8
Tetrachloroethene	1.3	1.4	7.4
Toluene	25.4	27.6	8.3
Trichloroethene	0	0	0
Vinyl Chloride	0	0	0

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SV1DUP

Lab Name: CHEMTECH

Contract: GFEL01

Lab Code: CHEM Case No.: Q2369

SAS No.: Q2369 SDG NO.: Q2369

Lab File ID: VL042661.D

Lab Sample ID: Q2368-01DUP

Date Analyzed: 06/20/2025

Time Analyzed: 07:50

GC Column: RTX-1 ID: 0.32 (mm)

Heated Purge: (Y/N) N

Instrument ID: MSVOA_L

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
SV1DUP	Q2368-01DUP	VL042661.D	06/20/2025

COMMENTS: _____

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VL0619ABL01

Lab Name: CHEMTECH

Contract: GFEL01

Lab Code: CHEM Case No.: Q2369

SAS No.: Q2369 SDG NO.: Q2369

Lab File ID: VL042648.D

Lab Sample ID: VL0619ABL01

Date Analyzed: 06/19/2025

Time Analyzed: 09:42

GC Column: RTX-1 ID: 0.32 (mm)

Heated Purge: (Y/N) N

Instrument ID: MSVOA_L

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VL0619ABS01	VL0619ABS01	VL042649.D	06/19/2025
IA1	Q2369-02	VL042653.D	06/19/2025
SV1	Q2369-01	VL042657.D	06/19/2025
SV1DL	Q2369-01DL	VL042658.D	06/19/2025

COMMENTS: _____

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: GFEL01
Lab Code: CHEM Case No.: Q2369 SAS No.: Q2369 SDG NO.: Q2369
Lab File ID: VL042578.D BFB Injection Date: 05/29/2025
Instrument ID: MSVOA_L BFB Injection Time: 08:05
GC Column: RTX-1 ID: 0.32 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	22.4
75	30.0 - 66.0% of mass 95	53.5
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.0 (0.0) 1
174	50.0 - 120.0% of mass 95	67.2
175	4.0 - 9.0% of mass 174	5.2 (7.7) 1
176	93.0 - 101.0% of mass 174	63.6 (94.6) 1
177	5.0 - 9.0% of mass 176	4 (6.3) 2

1-Value is % mass 174

2-Value is % mass 176

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDICCC010	VSTDICCC010	VL042579.D	05/29/2025	11:09
VSTDICC002	VSTDICC002	VL042580.D	05/29/2025	11:43
VSTDICC001	VSTDICC001	VL042581.D	05/29/2025	12:15
VSTDICC0.5	VSTDICC0.5	VL042582.D	05/29/2025	12:47
VSTDICC0.1	VSTDICC0.1	VL042583.D	05/29/2025	13:19
VSTDICC0.03	VSTDICC0.03	VL042584.D	05/29/2025	13:51
VSTDICC015	VSTDICC015	VL042585.D	05/29/2025	14:24

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: GFEL01
Lab Code: CHEM Case No.: Q2369 SAS No.: Q2369 SDG NO.: Q2369
Lab File ID: VL042646.D BFB Injection Date: 06/19/2025
Instrument ID: MSVOA_L BFB Injection Time: 08:10
GC Column: RTX-1 ID: 0.32 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	22.8
75	30.0 - 66.0% of mass 95	55.3
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0.8 (1.3) 1
174	50.0 - 120.0% of mass 95	59.4
175	4.0 - 9.0% of mass 174	4 (6.7) 1
176	93.0 - 101.0% of mass 174	57.6 (97) 1
177	5.0 - 9.0% of mass 176	3.7 (6.3) 2

1-Value is % mass 174

2-Value is % mass 176

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC010	VSTDCCC010	VL042647.D	06/19/2025	08:56
VL0619ABL01	VL0619ABL01	VL042648.D	06/19/2025	09:42
VL0619ABS01	VL0619ABS01	VL042649.D	06/19/2025	10:26
IA1	Q2369-02	VL042653.D	06/19/2025	13:37
SV1	Q2369-01	VL042657.D	06/19/2025	16:17
SV1DL	Q2369-01DL	VL042658.D	06/19/2025	16:52
SV1DUP	Q2368-01DUP	VL042661.D	06/20/2025	07:50

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: GFEL01
 Lab Code: CHEM Case No.: Q2369 SAS No.: Q2369 SDG NO.: Q2369
 Lab File ID: VL042647.D Date Analyzed: 06/19/2025
 Instrument ID: MSVOA_L Time Analyzed: 08:56
 GC Column: RTX-1 ID: 0.32 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	105774	2.80	271342	3.98	241435	8.90
UPPER LIMIT	148084	3.13	379879	4.31	338009	9.23
LOWER LIMIT	63464.4	2.47	162805	3.65	144861	8.57
EPA SAMPLE NO.						
SV1DUP	107720	2.79	272851	3.97	266896	8.89
SV1	113122	2.80	304237	3.98	268498	8.91
SV1DL	110592	2.80	292501	3.98	257428	8.90
IA1	112561	2.80	304867	3.98	266456	8.90
VL0619ABL01	105000	2.80	273905	3.98	233634	8.90
VL0619ABS01	107593	2.80	277113	3.98	244062	8.90

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

AREA UPPER LIMIT = +40% of internal standard area
 AREA LOWER LIMIT = -40% of internal standard area
 RT UPPER LIMIT = +0.33 minutes of internal standard RT
 RT LOWER LIMIT = -0.33 minutes of internal standard RT

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

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: GFEL01
 Lab Code: CHEM Case No.: Q2369 SAS No.: Q2369 SDG NO.: Q2369
 Lab File ID: VL042647.D Date Analyzed: 06/19/2025
 Instrument ID: MSVOA_L Time Analyzed: 08:56
 GC Column: RTX-1 ID: 0.32 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	0	0				
UPPER LIMIT	0					
LOWER LIMIT	0					
EPA SAMPLE NO.						
SV1DUP	0	0.00				
SV1	0	0.00				
SV1DL	0	0.00				
IA1	0	0.00				
VL0619ABL01	0	0.00				
VL0619ABS01	0	0.00				

IS4 =

AREA UPPER LIMIT = +40% of internal standard area

AREA LOWER LIMIT = -40% of internal standard area

RT UPPER LIMIT = +0.33 minutes of internal standard RT

RT LOWER LIMIT = -0.33 minutes of internal standard RT

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

* Values outside of QC limits.



SAMPLE DATA

Report of Analysis

Client:	GFE LLC	Date Collected:	06/18/25
Project:	1438 University Ave, Bronx NY	Date Received:	06/19/25
Client Sample ID:	SV1	SDG No.:	Q2369
Lab Sample ID:	Q2369-01	Matrix:	Air
Analytical Method:	TO-15	Test:	VOCMS Group2
Sample Wt/Vol:	400	Units:	mL

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL042657.D	10		06/19/25 16:17	VL061925

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOQ / CRQL	Units
TARGETS							
75-01-4	Vinyl Chloride	0.25	0.64	U	0.64	0.77	ug/m3
142-82-5	Heptane	4.60	18.9	J	6.97	20.5	ug/m3
75-35-4	1,1-Dichloroethene	1.50	5.95	U	5.95	19.8	ug/m3
110-82-7	Cyclohexane	2.70	9.29	J	7.57	17.2	ug/m3
156-59-2	cis-1,2-Dichloroethene	0.99	3.93	U	3.93	19.8	ug/m3
71-55-6	1,1,1-Trichloroethane	0.16	0.87	U	0.87	1.64	ug/m3
540-84-1	2,2,4-Trimethylpentane	4.40	20.6	J	6.54	23.4	ug/m3
71-43-2	Benzene	6.00	19.2		2.52	16.0	ug/m3
79-01-6	Trichloroethene	0.24	1.29	U	1.29	1.61	ug/m3
108-88-3	Toluene	23.9	90.1		6.03	18.8	ug/m3
127-18-4	Tetrachloroethene	290	1970	E	1.02	2.03	ug/m3
100-41-4	Ethyl Benzene	5.00	21.7		8.25	21.7	ug/m3
179601-23-1	m/p-Xylene	20.4	88.6		17.8	43.4	ug/m3
95-47-6	o-Xylene	7.70	33.5		9.12	21.7	ug/m3
108-67-8	1,3,5-Trimethylbenzene	1.80	8.85	U	8.85	24.6	ug/m3
95-63-6	1,2,4-Trimethylbenzene	4.00	19.7	J	8.85	24.6	ug/m3
91-20-3	Naphthalene	0.13	0.68	U	0.68	5.24	ug/m3
110-54-3	Hexane	17.5	61.7		5.64	17.6	ug/m3
SURROGATES							
460-00-4	1-Bromo-4-Fluorobenzene	10.4			65 - 135	104%	SPK: 10
INTERNAL STANDARDS							
74-97-5	Bromochloromethane	113000		2.8			
540-36-3	1,4-Difluorobenzene	304000		3.982			
3114-55-4	Chlorobenzene-d5	268000		8.905			

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

D = Dilution

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

Q = indicates LCS control criteria did not meet requirements

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL061925\
 Data File : VL042657.D
 Acq On : 19 Jun 2025 16:17
 Operator : SY/MD
 Sample : Q2369-01 10X
 Misc : 400mL/MSVOA_L
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV1

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 06/23/2025
 Supervised By :Mahesh Dadoda 06/23/2025

Quant Time: Jun 20 04:54:25 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL052925AIR.M

Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA_L Fri Aug 2

QLast Update : Fri May 30 02:01:56 2025

Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	2.800	49	113122	10.000	ppbv	0.01
33) 1,4-Difluorobenzene	3.982	114	304237	10.000	ppbv	0.02
55) Chlorobenzene-d5	8.905	117	268498	10.000	ppbv	0.02
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.393	95	209871	10.427	ppbv	0.01
Spiked Amount	10.000	Range	65 - 135	Recovery	=	104.300%
Target Compounds						
					Qvalue	
9) Propene	1.483	41	10815m	1.403	ppbv	
10) Heptane	5.011	43	10069m	0.463	ppbv	
13) Ethanol	1.729	45	539915	587.522	ppbv	97
15) Acetone	1.842	43	31979m	2.347	ppbv	
19) Isopropyl Alcohol	1.894	45	9070	1.113	ppbv #	1
20) Methylene Chloride	2.069	84	1056	0.235	ppbv #	78
26) Hexane	2.839	57	29663	1.751	ppbv #	70
29) Chloroform	2.862	83	3301	0.150	ppbv	97
30) Cyclohexane	3.875	84	3783m	0.269	ppbv	
34) 2-Butanone	2.574	43	19294	0.889	ppbv	96
36) Benzene	3.674	78	17994	0.601	ppbv #	88
44) 2,2,4-Trimethylpentane	4.668	57	22501m	0.439	ppbv	
51) 2-Hexanone	7.467	43	10406m	0.436	ppbv	
52) Tetrachloroethene	8.251	164	319531	28.542	ppbv	97
53) Toluene	6.966	91	82757	2.390	ppbv	99
58) Ethyl Benzene	9.377	91	22932	0.504	ppbv	96
59) m/p-Xylene	9.552	91	72946	2.035	ppbv	95
60) o-Xylene	9.982	91	27460	0.768	ppbv	98
73) 1,3,5-Trimethylbenzene	11.222	105	4347	0.118	ppbv	99
74) 1,2,4-Trimethylbenzene	11.549	105	16198	0.396	ppbv #	65
76) 1,4-Dichlorobenzene	11.688	146	8370	0.326	ppbv	88

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

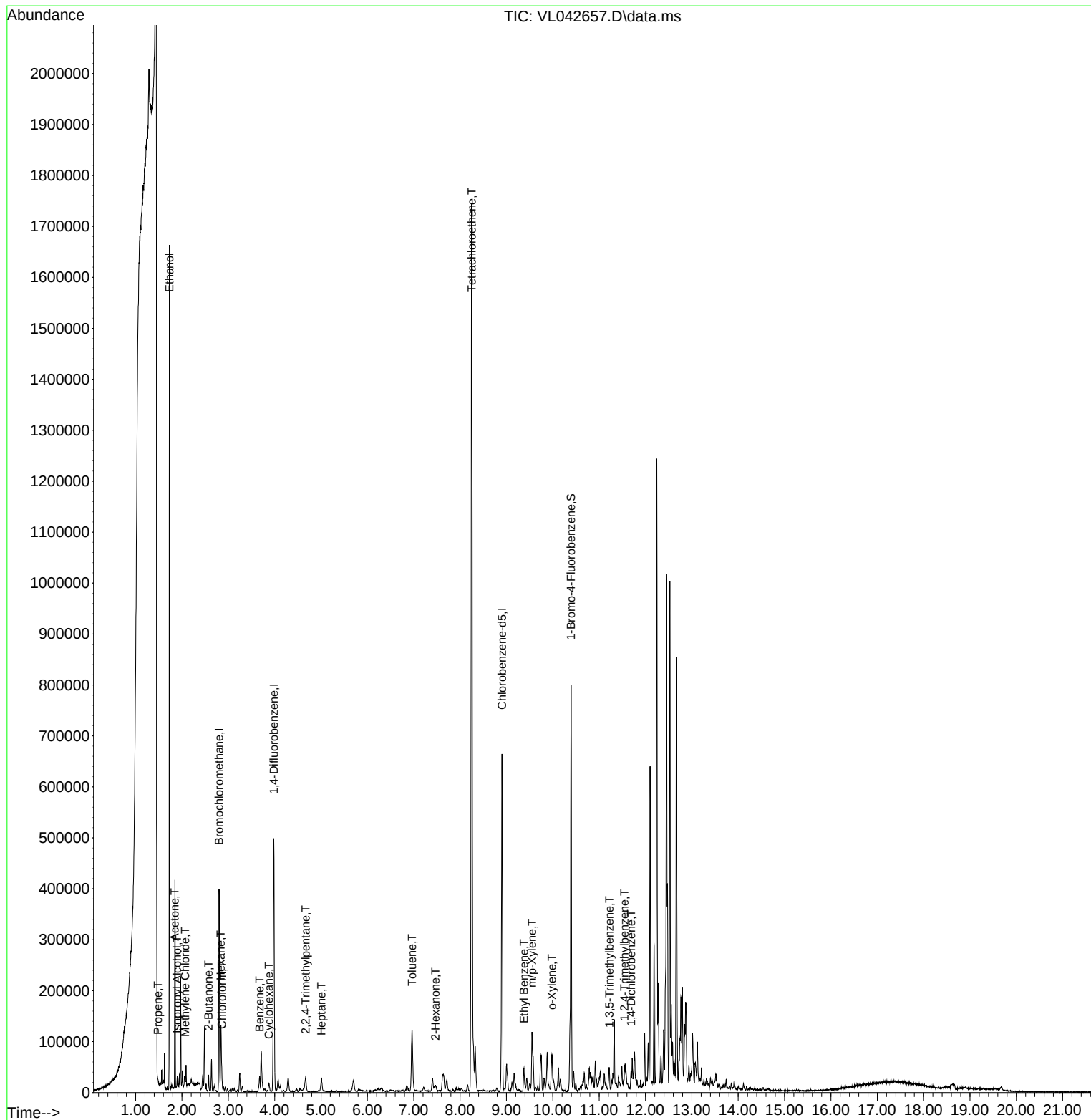
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Data File : VL042657.D
Acq On : 19 Jun 2025 16:17
Operator : SY/MD
Sample : Q2369-01 10X
Misc : 400mL/MSVOA_L
ALS Vial : 10 Sample Multiplier: 1

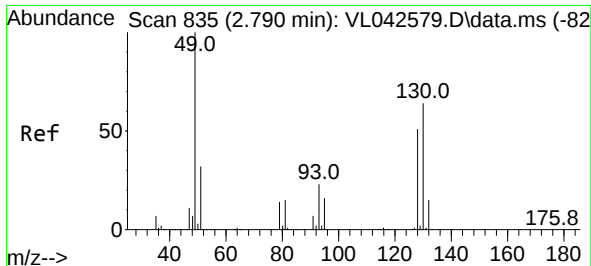
Instrument :
MSVOA_L
ClientSampleId :
SV1

Quant Time: Jun 20 04:54:25 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL052925AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug
QLast Update : Fri May 30 02:01:56 2025
Response via : Initial Calibration

Manual Integrations
APPROVED

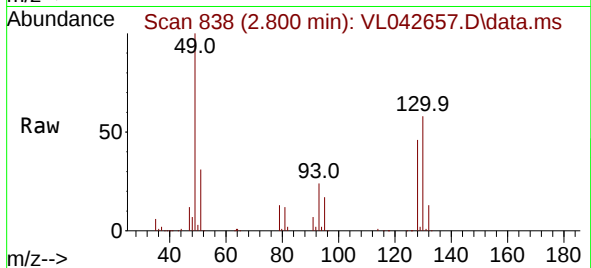
Reviewed By : Semsettin Yesilyurt 06/23/2025
Supervised By : Mahesh Dadoda 06/23/2025





#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.800 min Scan# 811
Delta R.T. 0.010 min
Lab File: VL042657.D
Acq: 19 Jun 2025 16:17

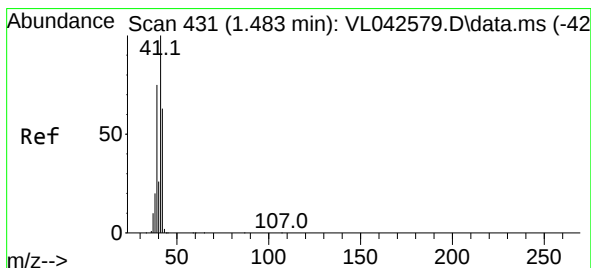
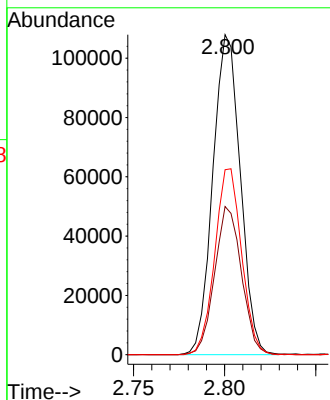
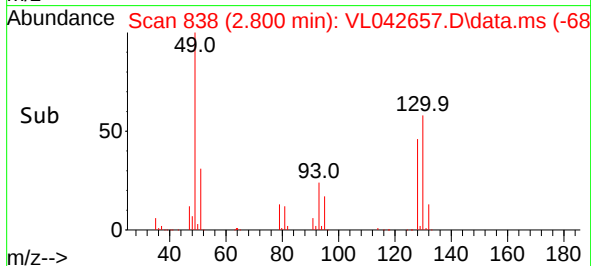
Instrument :
MSVOA_L
ClientSampleId :
SV1



Tgt Ion: 49 Resp: 11312
Ion Ratio Lower Upper
49 100
128 45.2 24.2 72.6
130 56.6 30.4 91.2

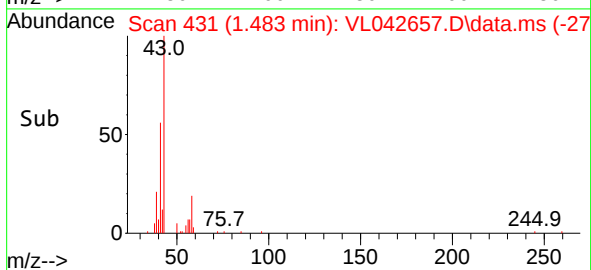
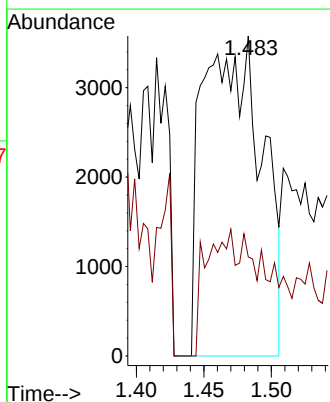
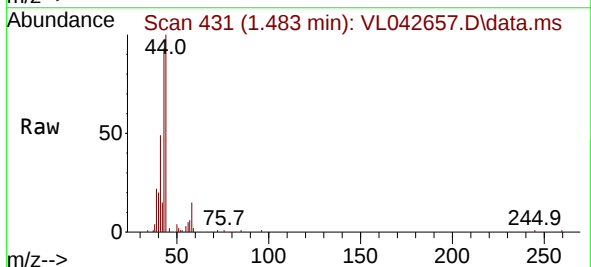
Manual Integrations
APPROVED

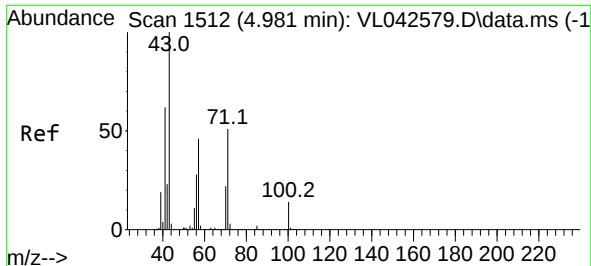
Reviewed By :Semsettin Yesilyurt 06/23/2025
Supervised By :Mahesh Dadoda 06/23/2025



#9
Propene
Concen: 1.403 ppbv m
RT: 1.483 min Scan# 431
Delta R.T. 0.000 min
Lab File: VL042657.D
Acq: 19 Jun 2025 16:17

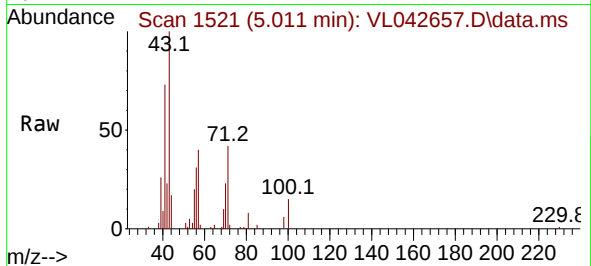
Tgt Ion: 41 Resp: 10815
Ion Ratio Lower Upper
41 100
42 36.6 53.3 79.9#





#10
Heptane
Concen: 0.463 ppbv m
RT: 5.011 min Scan# 1
Delta R.T. 0.029 min
Lab File: VL042657.D
Acq: 19 Jun 2025 16:17

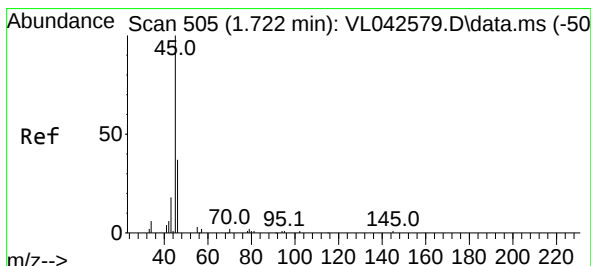
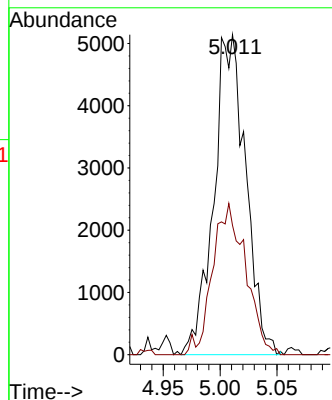
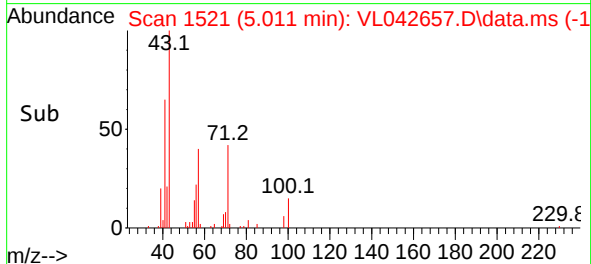
Instrument :
MSVOA_L
ClientSampleId :
SV1



Tgt Ion: 43 Resp: 10069
Ion Ratio Lower Upper
43 100
57 0.0 38.9 58.3

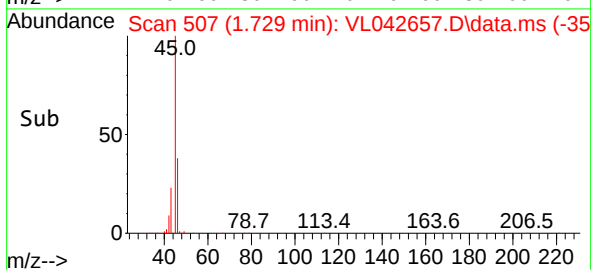
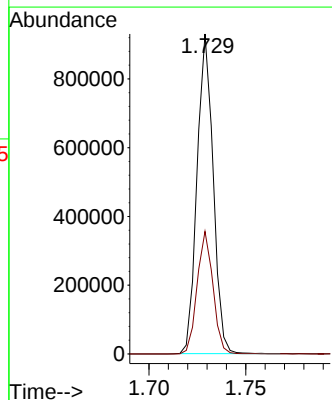
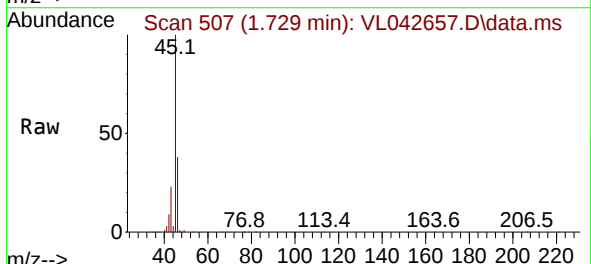
Manual Integrations
APPROVED

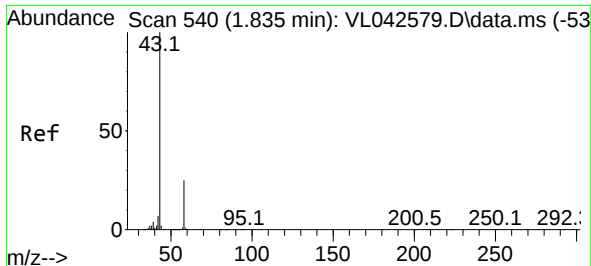
Reviewed By :Semsettin Yesilyurt 06/23/2025
Supervised By :Mahesh Dadoda 06/23/2025



#13
Ethanol
Concen: 587.522 ppbv
RT: 1.729 min Scan# 507
Delta R.T. 0.007 min
Lab File: VL042657.D
Acq: 19 Jun 2025 16:17

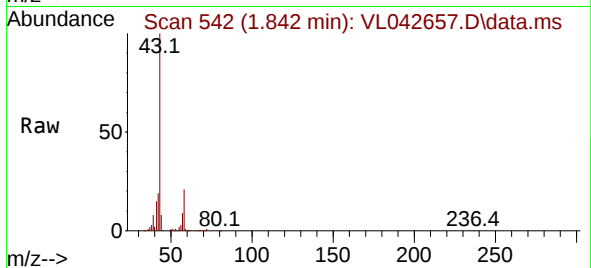
Tgt Ion: 45 Resp: 539915
Ion Ratio Lower Upper
45 100
46 37.9 14.5 58.1





#15
Acetone
Concen: 2.347 ppbv m
RT: 1.842 min Scan# 540
Delta R.T. 0.007 min
Lab File: VL042657.D
Acq: 19 Jun 2025 16:17

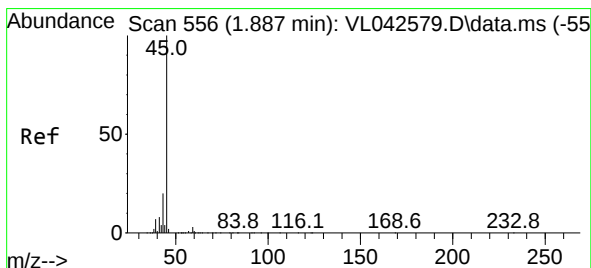
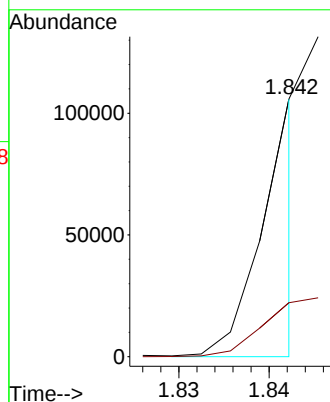
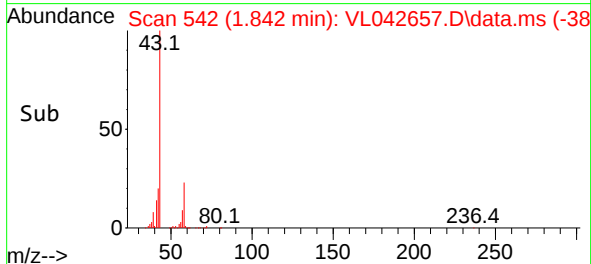
Instrument :
MSVOA_L
ClientSampleId :
SV1



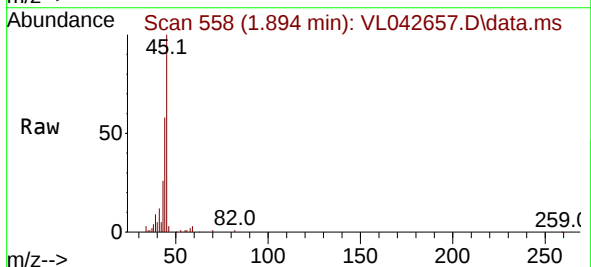
Tgt Ion: 43 Resp: 31979
Ion Ratio Lower Upper
43 100
58 53.7 21.0 31.4

Manual Integrations
APPROVED

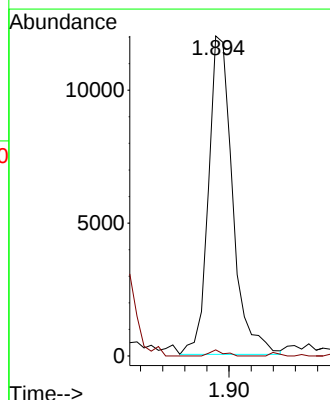
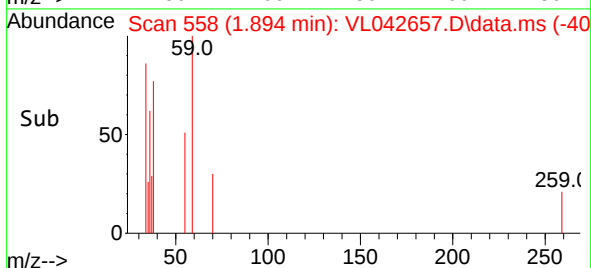
Reviewed By :Semsettin Yesilyurt 06/23/2025
Supervised By :Mahesh Dadoda 06/23/2025

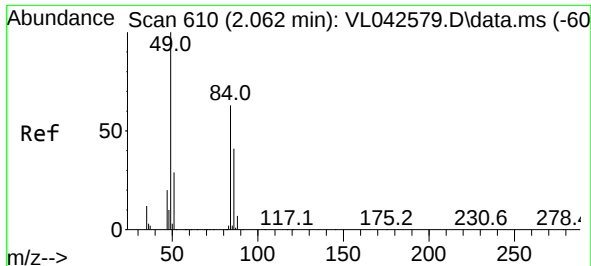


#19
Isopropyl Alcohol
Concen: 1.113 ppbv
RT: 1.894 min Scan# 558
Delta R.T. 0.007 min
Lab File: VL042657.D
Acq: 19 Jun 2025 16:17



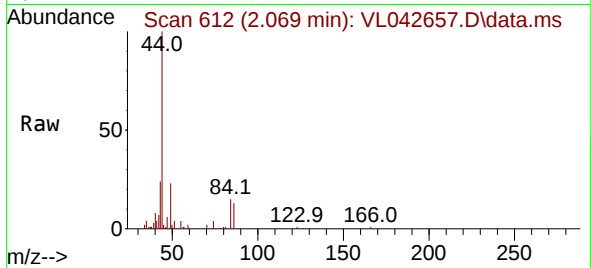
Tgt Ion: 45 Resp: 9070
Ion Ratio Lower Upper
45 100
58 189.2 29.4 44.2





#20
Methylene Chloride
Concen: 0.235 ppbv
RT: 2.069 min Scan# 610
Delta R.T. 0.007 min
Lab File: VL042657.D
Acq: 19 Jun 2025 16:17

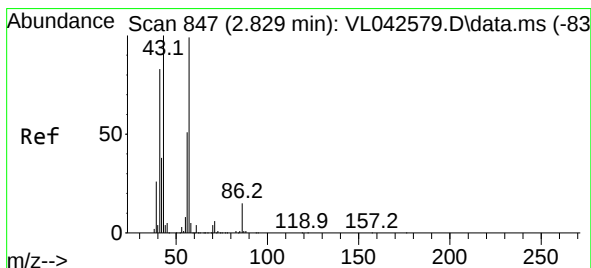
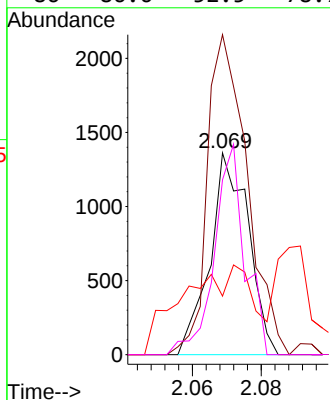
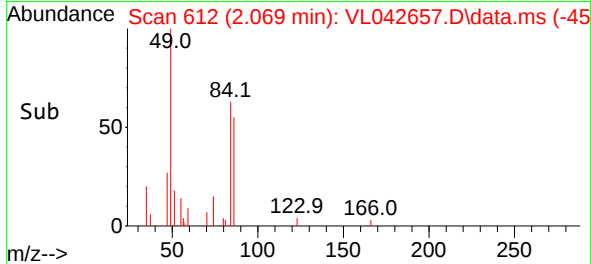
Instrument :
MSVOA_L
ClientSampleId :
SV1



Tgt Ion: 84 Resp: 1050
Ion Ratio Lower Upper
84 100
49 170.8 128.8 193.2
51 3.7 38.6 57.8
86 86.6 52.5 78.7#

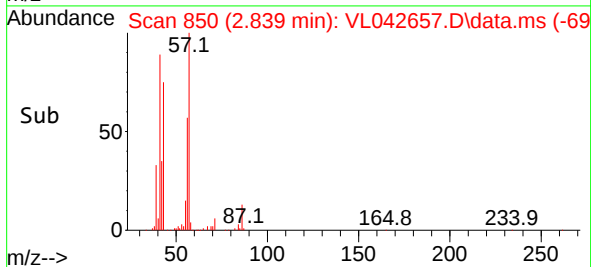
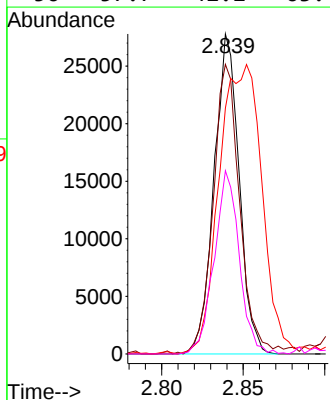
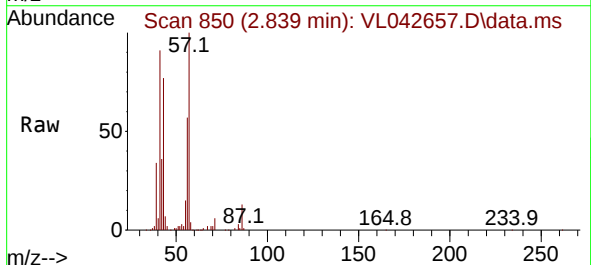
Manual Integrations
APPROVED

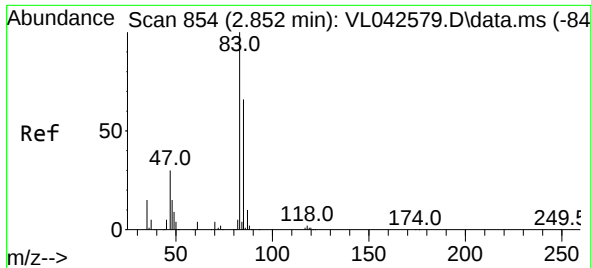
Reviewed By :Semsettin Yesilyurt 06/23/2025
Supervised By :Mahesh Dadoda 06/23/2025



#26
Hexane
Concen: 1.751 ppbv
RT: 2.839 min Scan# 850
Delta R.T. 0.010 min
Lab File: VL042657.D
Acq: 19 Jun 2025 16:17

Tgt Ion: 57 Resp: 29663
Ion Ratio Lower Upper
57 100
41 97.2 70.6 106.0
43 156.5 181.1 271.7#
56 57.7 42.2 63.4





#29

Chloroform

Concen: 0.150 ppbv

RT: 2.862 min Scan# 81

Delta R.T. 0.010 min

Lab File: VL042657.D

Acq: 19 Jun 2025 16:17

Instrument :

MSVOA_L

ClientSampleId :

SV1

Tgt Ion: 83 Resp: 330

Ion Ratio Lower Upper

83 100

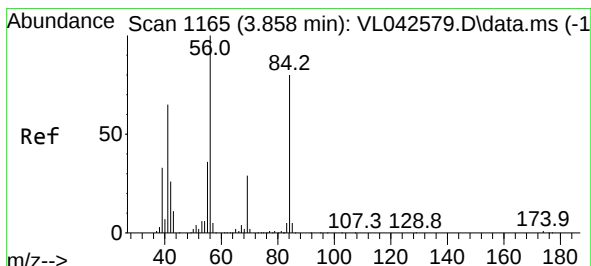
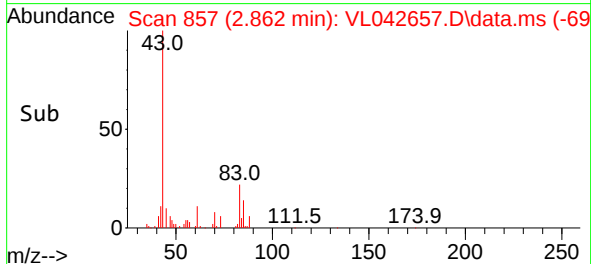
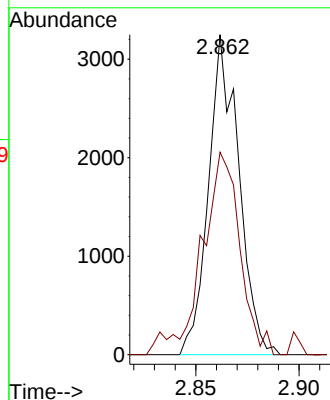
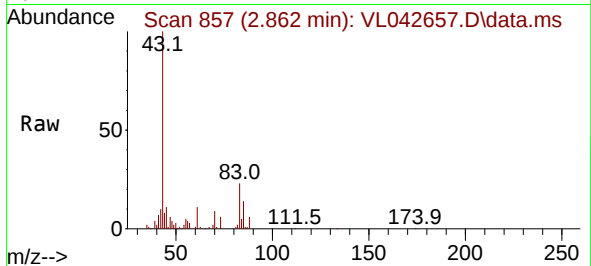
85 63.3 52.8 79.2

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 06/23/2025

Supervised By :Mahesh Dadoda 06/23/2025



#30

Cyclohexane

Concen: 0.269 ppbv m

RT: 3.875 min Scan# 1170

Delta R.T. 0.016 min

Lab File: VL042657.D

Acq: 19 Jun 2025 16:17

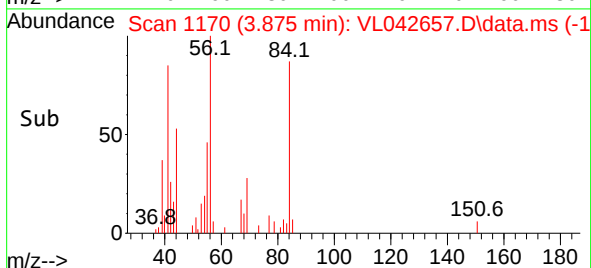
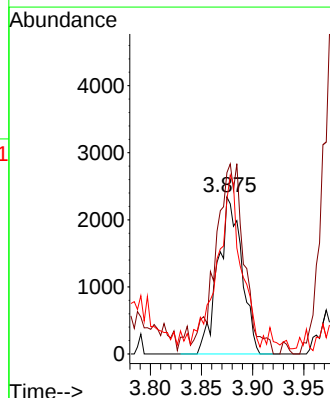
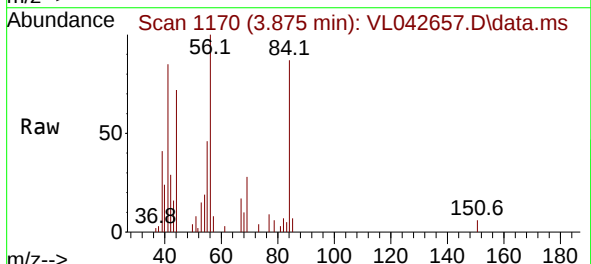
Tgt Ion: 84 Resp: 3783

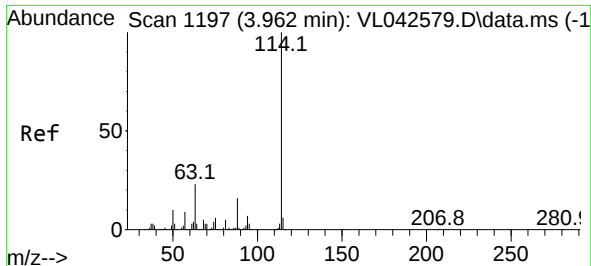
Ion Ratio Lower Upper

84 100

56 0.0 103.7 155.5#

41 0.0 65.1 97.7#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.982 min Scan# 1197

Delta R.T. 0.020 min

Lab File: VL042657.D

Acq: 19 Jun 2025 16:17

Instrument :

MSVOA_L

ClientSampleId :

SV1

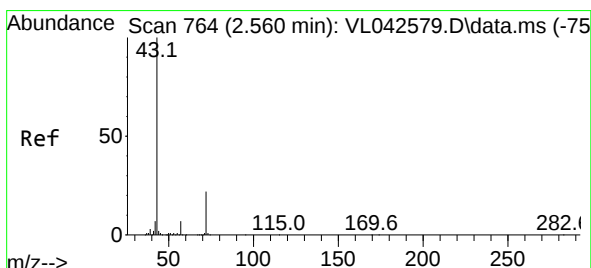
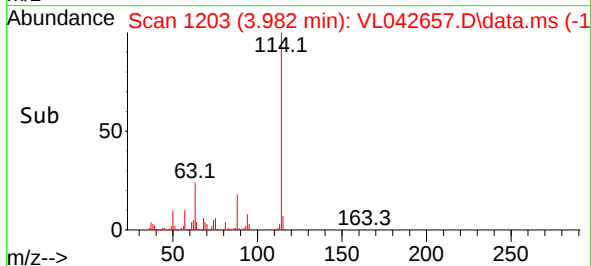
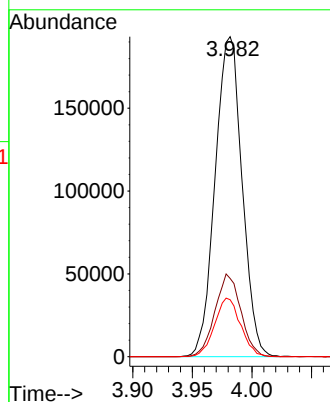
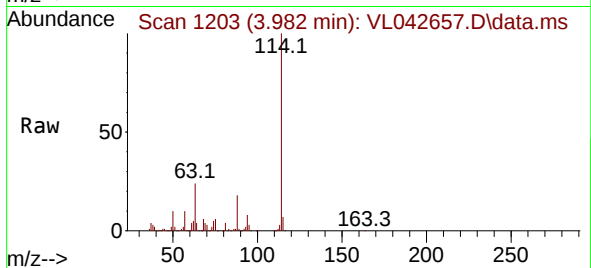
Tgt Ion:114 Resp: 30423

Ion	Ratio	Lower	Upper
114	100		
63	24.8	19.0	28.6
88	17.6	13.6	20.4

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 06/23/2025
Supervised By :Mahesh Dadoda 06/23/2025



#34

2-Butanone

Concen: 0.889 ppbv

RT: 2.574 min Scan# 768

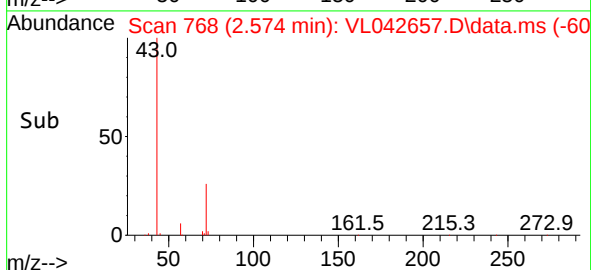
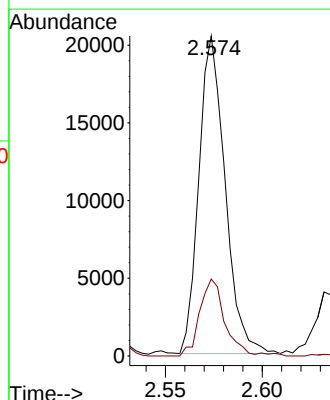
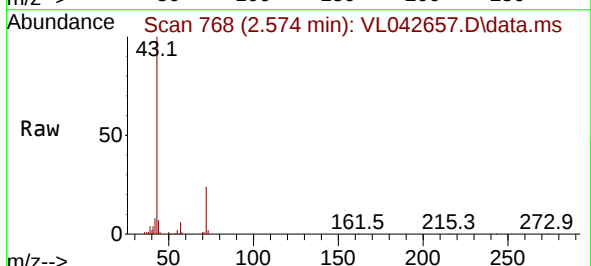
Delta R.T. 0.013 min

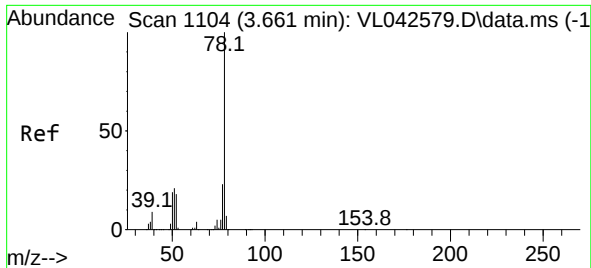
Lab File: VL042657.D

Acq: 19 Jun 2025 16:17

Tgt Ion: 43 Resp: 19294

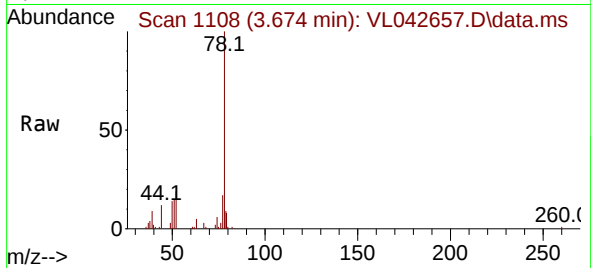
Ion	Ratio	Lower	Upper
43	100		
72	23.9	17.7	26.5





#36
Benzene
Concen: 0.601 ppbv
RT: 3.674 min Scan# 1108
Delta R.T. 0.013 min
Lab File: VL042657.D
Acq: 19 Jun 2025 16:17

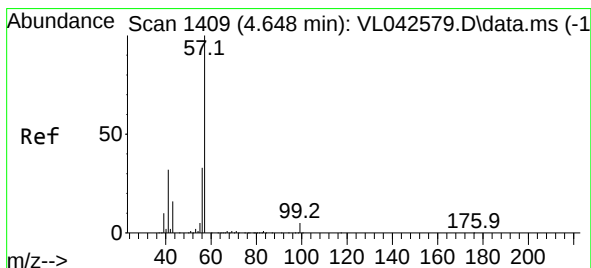
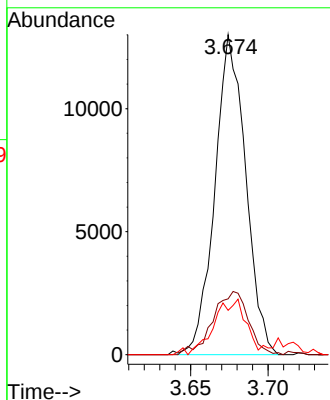
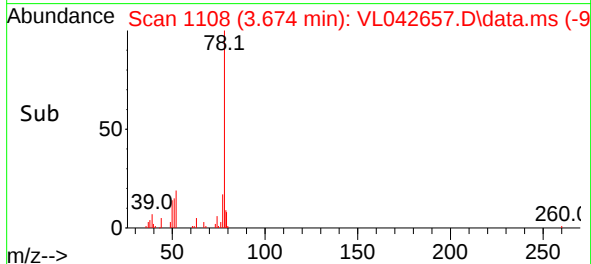
Instrument :
MSVOA_L
ClientSampleId :
SV1



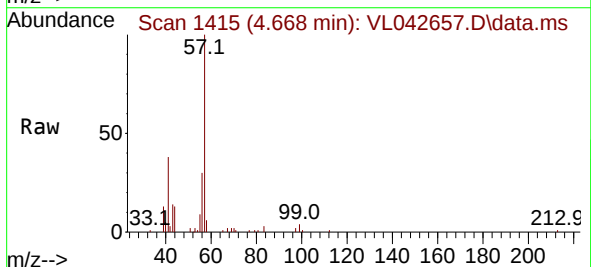
Tgt Ion: 78 Resp: 17994
Ion Ratio Lower Upper
78 100
77 17.5 18.2 27.25
50 13.0 15.2 22.85

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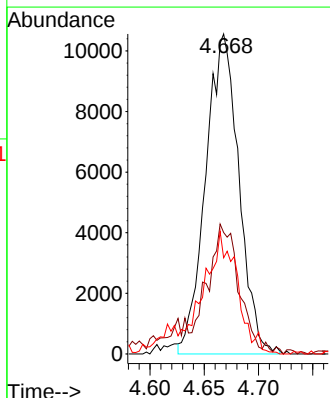
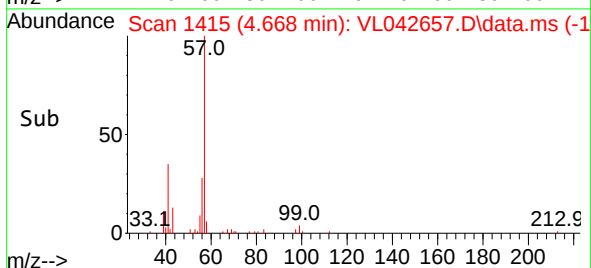
Reviewed By :Semsettin Yesilyurt 06/23/2025
Supervised By :Mahesh Dadoda 06/23/2025

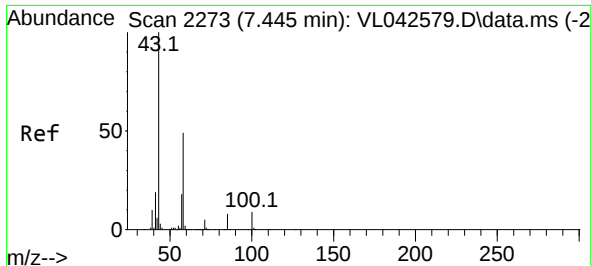


#44
2,2,4-Trimethylpentane
Concen: 0.439 ppbv m
RT: 4.668 min Scan# 1415
Delta R.T. 0.020 min
Lab File: VL042657.D
Acq: 19 Jun 2025 16:17



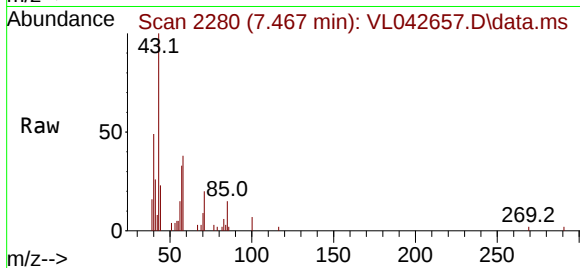
Tgt Ion: 57 Resp: 22501
Ion Ratio Lower Upper
57 100
41 46.4 26.1 39.1#
56 44.1 25.9 38.9#





#51
2-Hexanone
Concen: 0.436 ppbv m
RT: 7.467 min Scan# 21
Delta R.T. 0.023 min
Lab File: VL042657.D
Acq: 19 Jun 2025 16:17

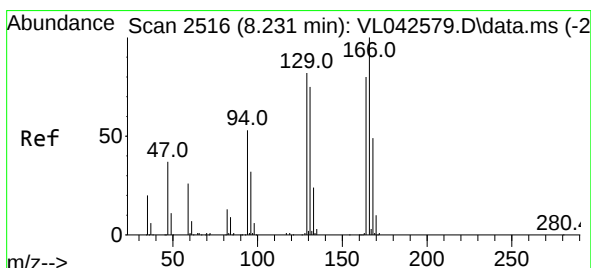
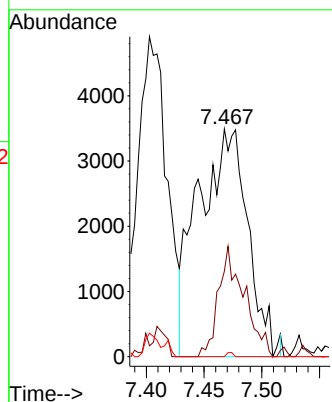
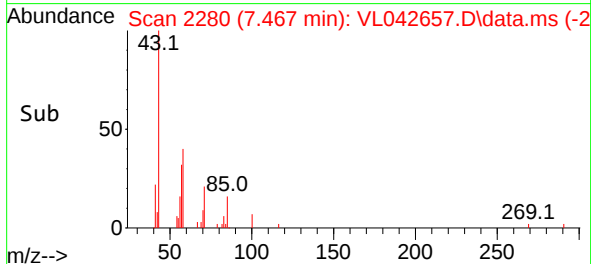
Instrument :
MSVOA_L
ClientSampleId :
SV1



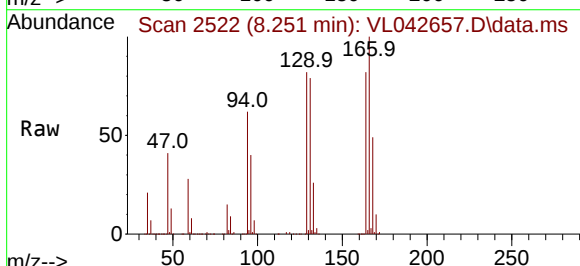
Tgt Ion: 43 Resp: 10400
Ion Ratio Lower Upper
43 100
58 0.0 39.9 59.9
98 0.0 0.1 0.1

Manual Integrations
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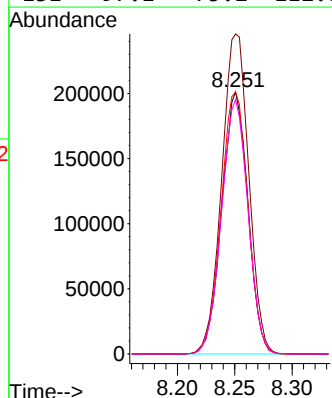
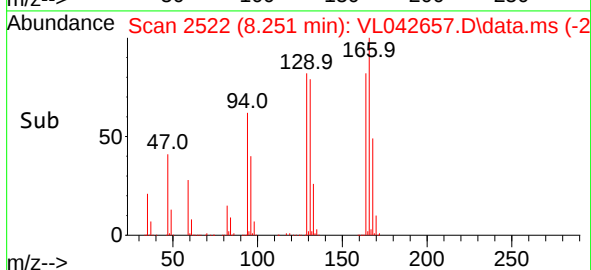
Reviewed By :Semsettin Yesilyurt 06/23/2025
Supervised By :Mahesh Dadoda 06/23/2025

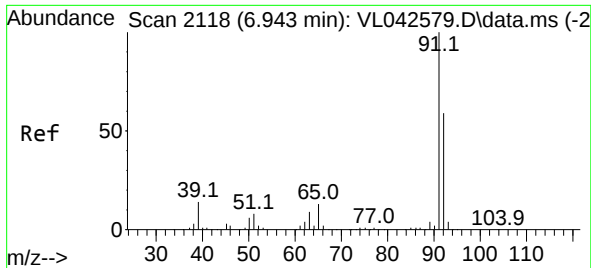


#52
Tetrachloroethene
Concen: 28.542 ppbv
RT: 8.251 min Scan# 2522
Delta R.T. 0.020 min
Lab File: VL042657.D
Acq: 19 Jun 2025 16:17



Tgt Ion:164 Resp: 319531
Ion Ratio Lower Upper
164 100
166 122.2 100.0 150.0
129 100.1 82.2 123.4
131 97.1 75.2 112.8





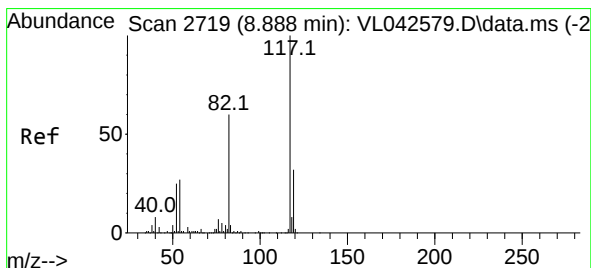
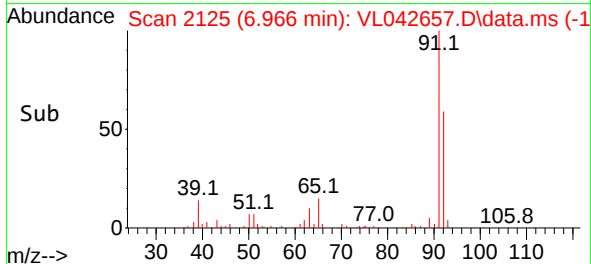
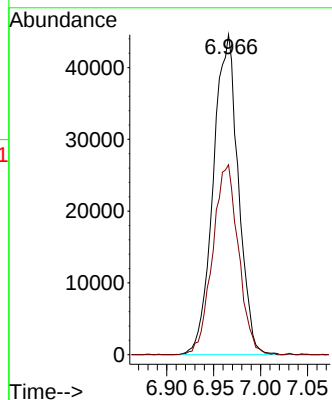
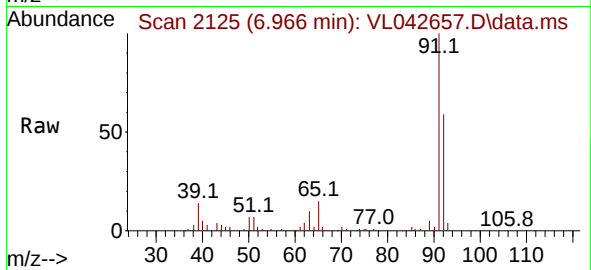
#53
Toluene
Concen: 2.390 ppbv
RT: 6.966 min Scan# 2118
Delta R.T. 0.023 min
Lab File: VL042657.D
Acq: 19 Jun 2025 16:17

Instrument :
MSVOA_L
ClientSampleId :
SV1

Tgt Ion: 91 Resp: 8275
Ion Ratio Lower Upper
91 100
92 61.2 48.2 72.4

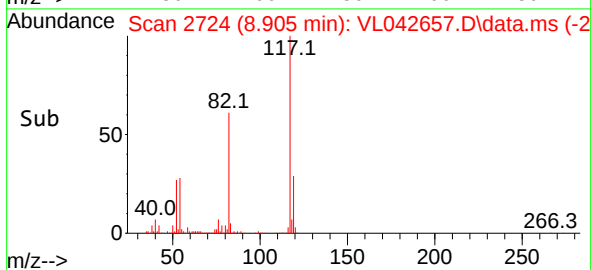
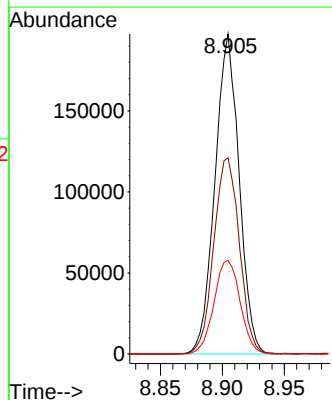
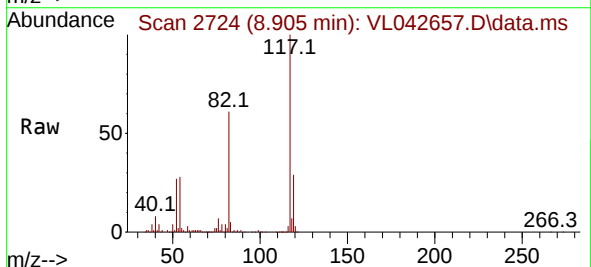
Manual Integrations
APPROVED

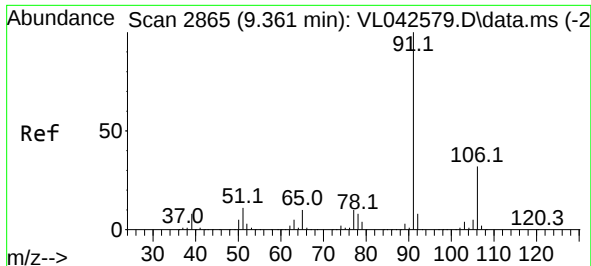
Reviewed By :Semsettin Yesilyurt 06/23/2025
Supervised By :Mahesh Dadoda 06/23/2025



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.905 min Scan# 2724
Delta R.T. 0.016 min
Lab File: VL042657.D
Acq: 19 Jun 2025 16:17

Tgt Ion:117 Resp: 268498
Ion Ratio Lower Upper
117 100
82 64.8 51.2 76.8
119 31.7 26.3 39.5





#58

Ethyl Benzene

Concen: 0.504 ppbv

RT: 9.377 min Scan# 21

Delta R.T. 0.016 min

Lab File: VL042657.D

Acq: 19 Jun 2025 16:17

Instrument :

MSVOA_L

ClientSampleId :

SV1

Tgt Ion: 91 Resp: 2293

Ion Ratio Lower Upper

91 100

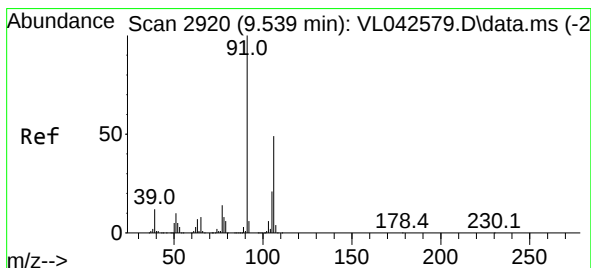
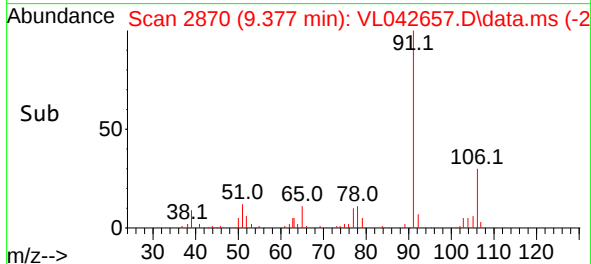
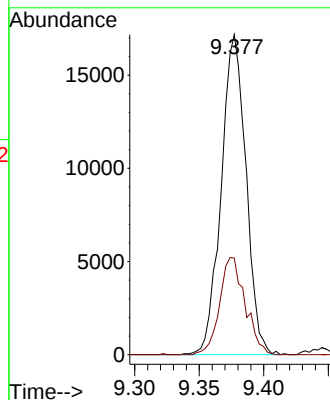
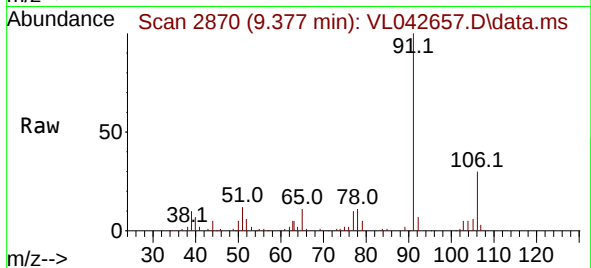
106 30.2 25.9 38.9

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 06/23/2025

Supervised By :Mahesh Dadoda 06/23/2025



#59

m/p-Xylene

Concen: 2.035 ppbv

RT: 9.552 min Scan# 2924

Delta R.T. 0.013 min

Lab File: VL042657.D

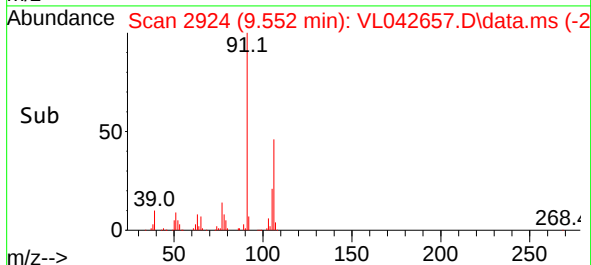
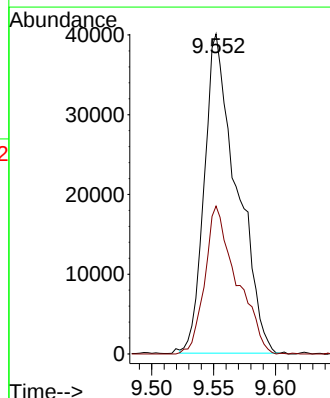
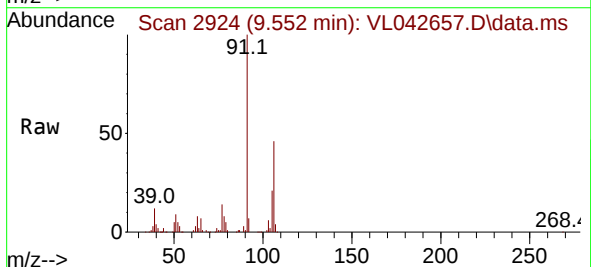
Acq: 19 Jun 2025 16:17

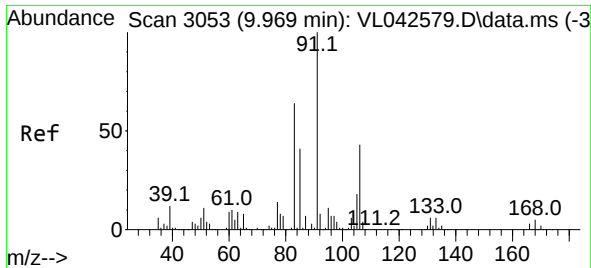
Tgt Ion: 91 Resp: 72946

Ion Ratio Lower Upper

91 100

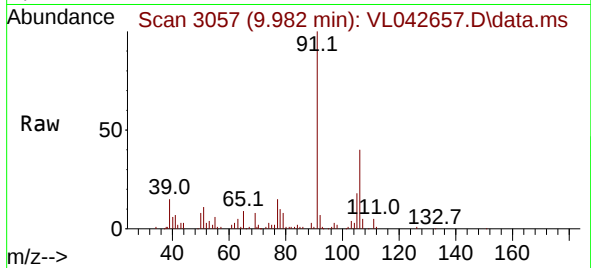
106 45.4 38.8 58.2





#60
o-Xylene
Concen: 0.768 ppbv
RT: 9.982 min Scan# 3053
Delta R.T. 0.013 min
Lab File: VL042657.D
Acq: 19 Jun 2025 16:17

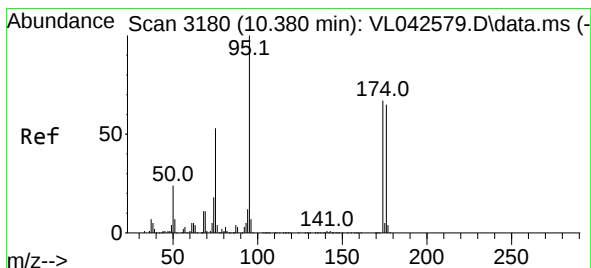
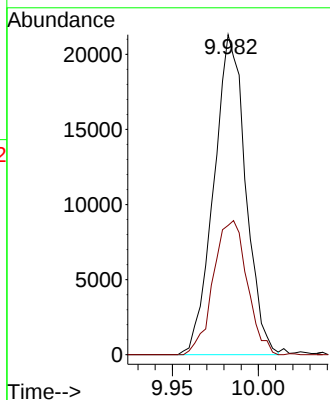
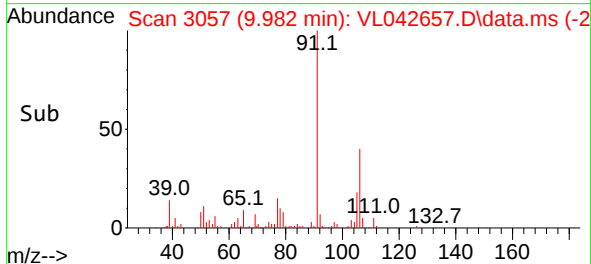
Instrument :
MSVOA_L
ClientSampleId :
SV1



Tgt Ion: 91 Resp: 27460
Ion Ratio Lower Upper
91 100
106 44.4 22.9 68.5

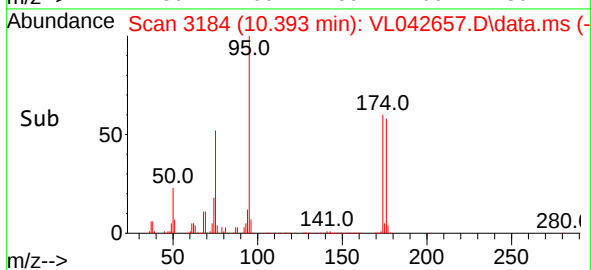
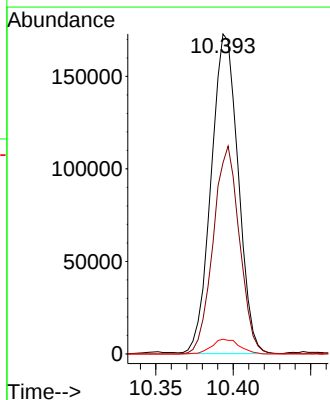
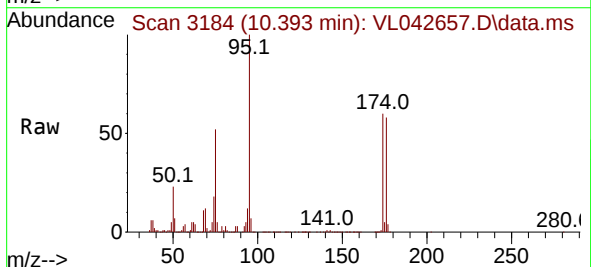
Manual Integrations
APPROVED

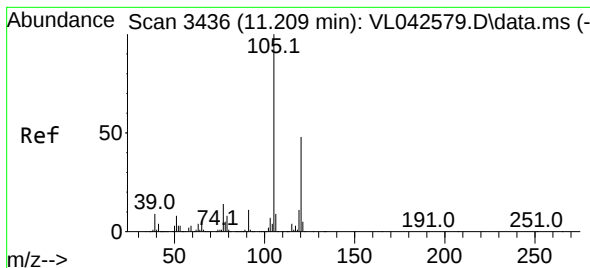
Reviewed By :Semsettin Yesilyurt 06/23/2025
Supervised By :Mahesh Dadoda 06/23/2025



#68
1-Bromo-4-Fluorobenzene
Concen: 10.427 ppbv
RT: 10.393 min Scan# 3184
Delta R.T. 0.013 min
Lab File: VL042657.D
Acq: 19 Jun 2025 16:17

Tgt Ion: 95 Resp: 209871
Ion Ratio Lower Upper
95 100
174 63.5 53.1 79.7
175 4.7 4.2 6.2





#73

1,3,5-Trimethylbenzene

Concen: 0.118 ppbv

RT: 11.222 min Scan# 3436

Delta R.T. 0.013 min

Lab File: VL042657.D

Acq: 19 Jun 2025 16:17

Instrument :

MSVOA_L

ClientSampleId :

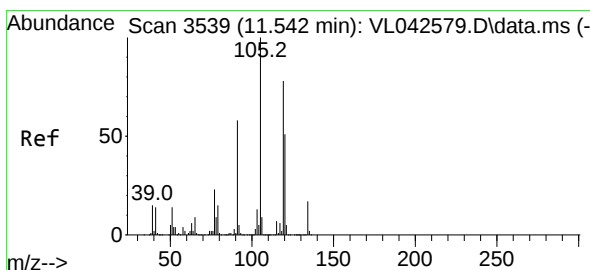
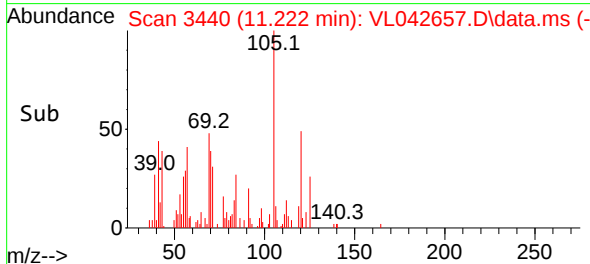
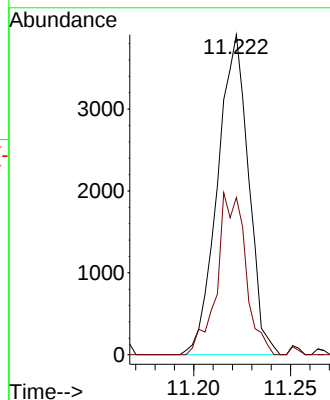
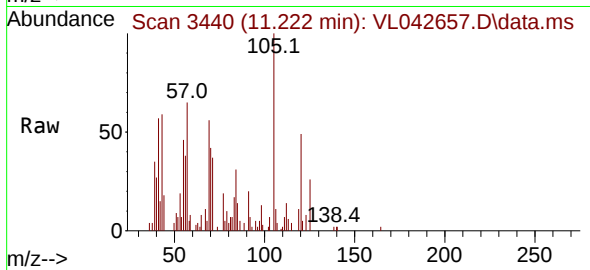
SV1

Tgt Ion:105 Resp: 434
 Ion Ratio Lower Upper
 105 100
 120 49.1 38.8 58.2

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 06/23/2025
 Supervised By :Mahesh Dadoda 06/23/2025



#74

1,2,4-Trimethylbenzene

Concen: 0.396 ppbv

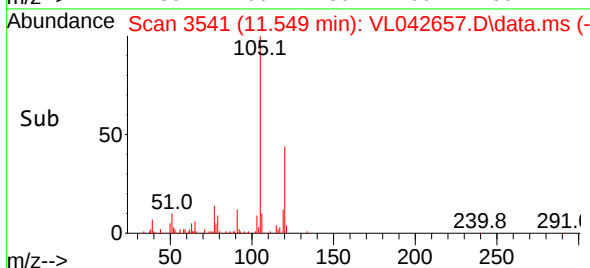
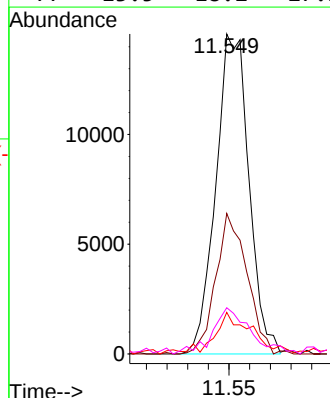
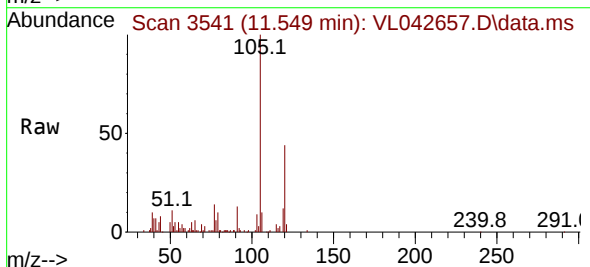
RT: 11.549 min Scan# 3541

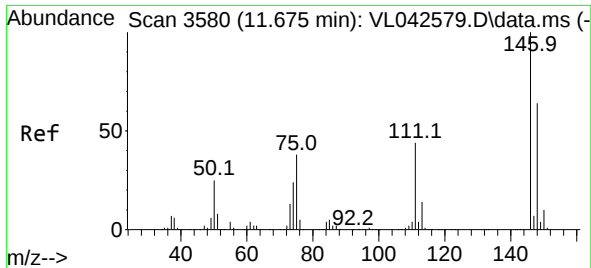
Delta R.T. 0.007 min

Lab File: VL042657.D

Acq: 19 Jun 2025 16:17

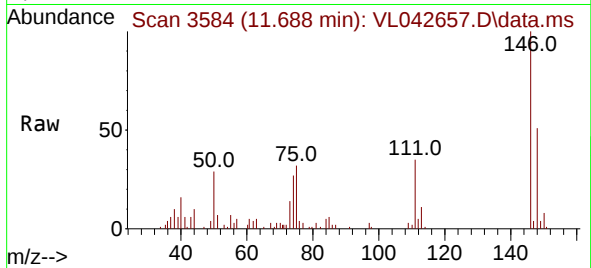
Tgt Ion:105 Resp: 16198
 Ion Ratio Lower Upper
 105 100
 120 43.9 40.8 61.2
 91 12.2 46.8 70.2#
 77 13.5 18.2 27.2#





#76
 1,4-Dichlorobenzene
 Concen: 0.326 ppbv
 RT: 11.688 min Scan# 3584
 Delta R.T. 0.013 min
 Lab File: VL042657.D
 Acq: 19 Jun 2025 16:17

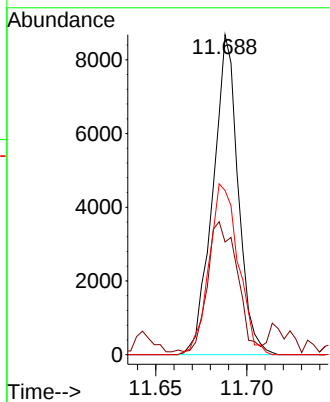
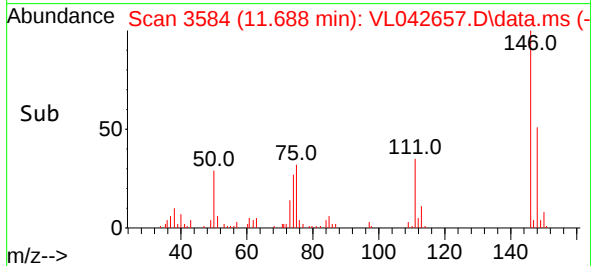
Instrument :
 MSVOA_L
 ClientSampleId :
 SV1



Tgt Ion:146 Resp: 8370
 Ion Ratio Lower Upper
 146 100
 111 59.5 21.6 64.8
 148 62.0 32.1 96.5

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 06/23/2025
 Supervised By :Mahesh Dadoda 06/23/2025



Report of Analysis

Client:	GFE LLC	Date Collected:	06/18/25
Project:	1438 University Ave, Bronx NY	Date Received:	06/19/25
Client Sample ID:	SV1DL	SDG No.:	Q2369
Lab Sample ID:	Q2369-01DL	Matrix:	Air
Analytical Method:	TO-15	Test:	VOCMS Group2
Sample Wt/Vol:	400	Units:	mL

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL042658.D	40		06/19/25 16:52	VL061925

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOQ / CRQL	Units
TARGETS							
75-01-4	Vinyl Chloride	1.00	2.56	UD	2.56	3.07	ug/m3
142-82-5	Heptane	6.80	27.9	UD	27.9	82.0	ug/m3
75-35-4	1,1-Dichloroethene	6.00	23.8	UD	23.8	79.3	ug/m3
110-82-7	Cyclohexane	8.80	30.3	UD	30.3	68.8	ug/m3
156-59-2	cis-1,2-Dichloroethene	4.00	15.9	UD	15.9	79.3	ug/m3
71-55-6	1,1,1-Trichloroethane	0.64	3.49	UD	3.49	6.55	ug/m3
540-84-1	2,2,4-Trimethylpentane	5.60	26.2	UD	26.2	93.4	ug/m3
71-43-2	Benzene	6.00	19.2	JD	10.2	63.9	ug/m3
79-01-6	Trichloroethene	0.96	5.16	UD	5.16	6.45	ug/m3
108-88-3	Toluene	20.6	77.6	D	24.1	75.4	ug/m3
127-18-4	Tetrachloroethene	290	1970	D	4.07	8.14	ug/m3
100-41-4	Ethyl Benzene	7.60	33.0	UD	33.0	86.9	ug/m3
179601-23-1	m/p-Xylene	16.4	71.2	UD	71.2	174	ug/m3
95-47-6	o-Xylene	8.40	36.5	UD	36.5	86.9	ug/m3
108-67-8	1,3,5-Trimethylbenzene	7.20	35.4	UD	35.4	98.3	ug/m3
95-63-6	1,2,4-Trimethylbenzene	7.20	35.4	UD	35.4	98.3	ug/m3
91-20-3	Naphthalene	0.52	2.73	UD	2.73	21.0	ug/m3
110-54-3	Hexane	15.4	54.3	JD	22.6	70.5	ug/m3
SURROGATES							
460-00-4	1-Bromo-4-Fluorobenzene	10.1			65 - 135	101%	SPK: 10
INTERNAL STANDARDS							
74-97-5	Bromochloromethane	111000		2.8			
540-36-3	1,4-Difluorobenzene	293000		3.981			
3114-55-4	Chlorobenzene-d5	257000		8.904			

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

D = Dilution

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

Q = indicates LCS control criteria did not meet requirements

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL061925\
 Data File : VL042658.D
 Acq On : 19 Jun 2025 16:52
 Operator : SY/MD
 Sample : Q2369-01DL 40X
 Misc : 400mL/MSVOA_L
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV1DL

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 06/23/2025
 Supervised By :Mahesh Dadoda 06/23/2025

Quant Time: Jun 20 01:40:30 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL052925AIR.M

Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug 2

QLast Update : Fri May 30 02:01:56 2025

Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	2.800	49	110592	10.000	ppbv	0.01
33) 1,4-Difluorobenzene	3.981	114	292501	10.000	ppbv	0.02
55) Chlorobenzene-d5	8.904	117	257428	10.000	ppbv	0.02
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.396	95	194558	10.082	ppbv	0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	= 100.800%	
Target Compounds						Qvalue
9) Propene	1.489	41	1797	0.238	ppbv	94
10) Heptane	5.004	43	2502m	0.118	ppbv	
13) Ethanol	1.729	45	139621	155.408	ppbv	97
15) Acetone	1.845	43	11497m	0.863	ppbv	
20) Methylene Chloride	2.075	84	919	0.209	ppbv	93
26) Hexane	2.845	57	6366	0.384	ppbv #	72
34) 2-Butanone	2.577	43	4698m	0.225	ppbv	
36) Benzene	3.677	78	4284	0.149	ppbv	97
44) 2,2,4-Trimethylpentane	4.674	57	5185m	0.105	ppbv	
52) Tetrachloroethene	8.251	164	77355	7.187	ppbv	91
53) Toluene	6.962	91	17184	0.516	ppbv	96
58) Ethyl Benzene	9.370	91	4875m	0.112	ppbv	
59) m/p-Xylene	9.555	91	13051m	0.380	ppbv	
60) o-Xylene	9.985	91	5343	0.156	ppbv	96

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

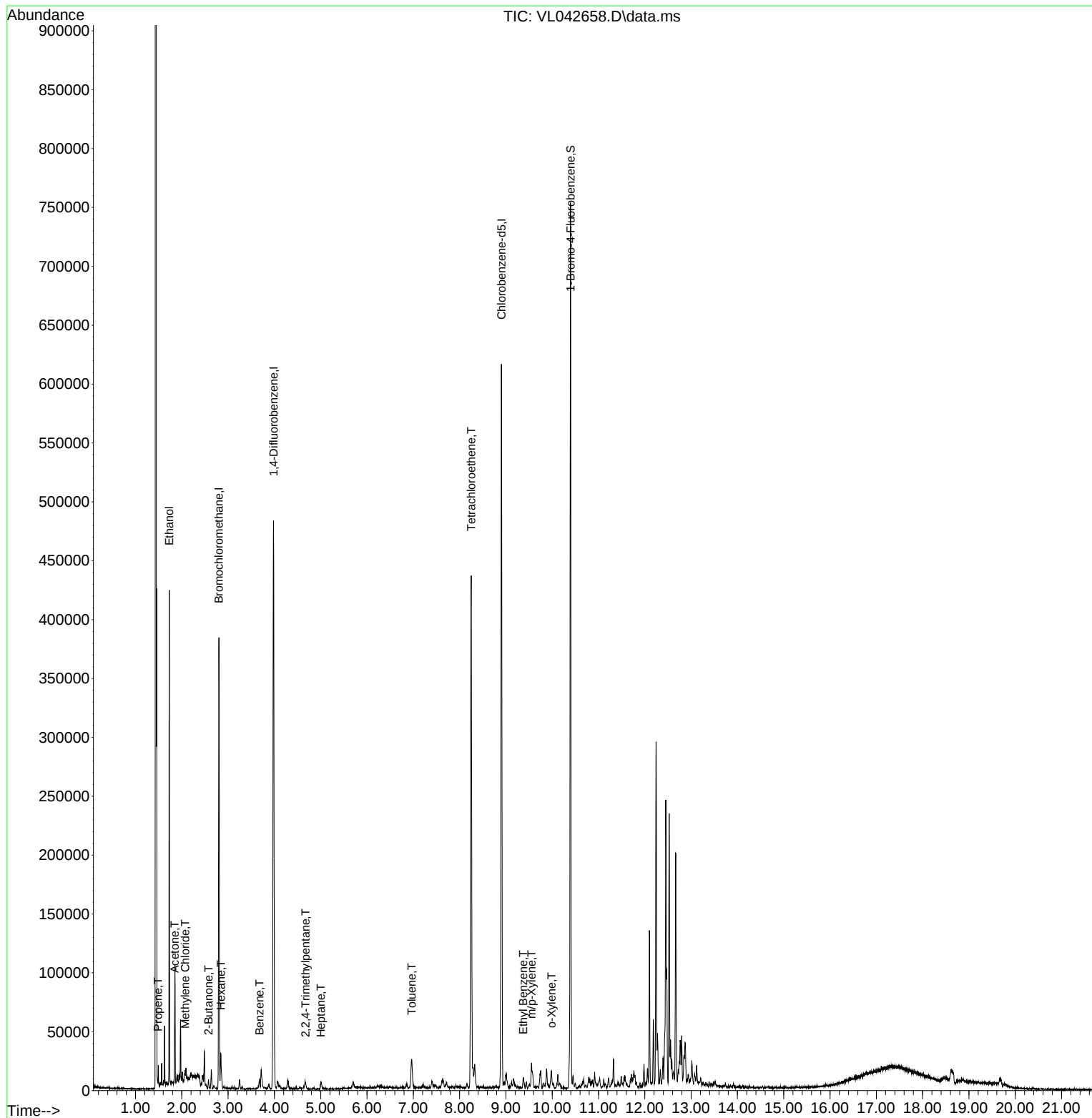
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Data File : VL042658.D
Acq On : 19 Jun 2025 16:52
Operator : SY/MD
Sample : Q2369-01DL 40X
Misc : 400mL/MSVOA_L
ALS Vial : 10 Sample Multiplier: 1

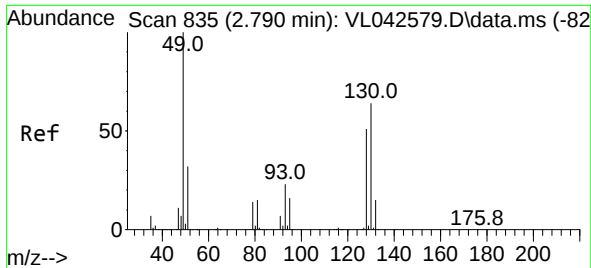
Instrument :
MSVOA_L
ClientSampleId :
SV1DL

Quant Time: Jun 20 01:40:30 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL052925AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug
QLast Update : Fri May 30 02:01:56 2025
Response via : Initial Calibration

Manual Integrations
APPROVED

Reviewed By : Semsettin Yesilyurt 06/23/2025
Supervised By : Mahesh Dadoda 06/23/2025





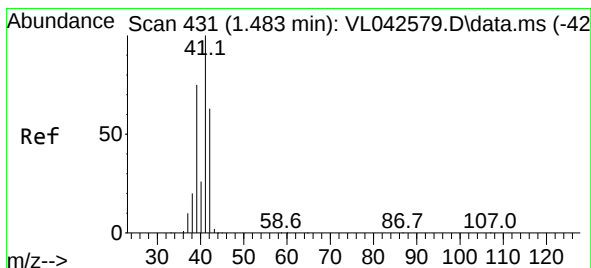
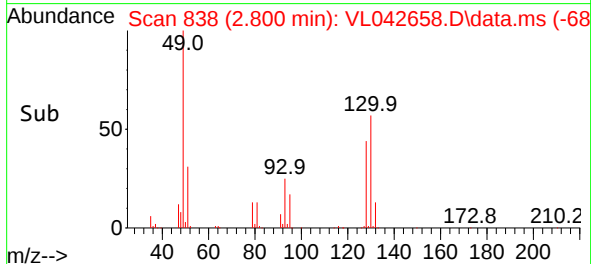
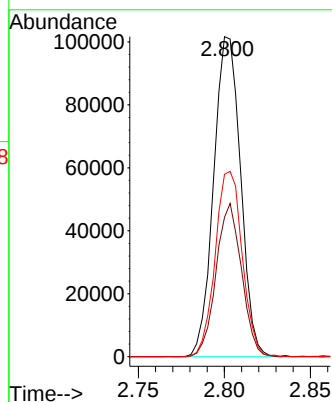
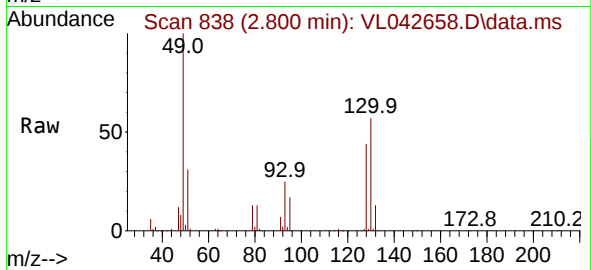
#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.800 min Scan# 81
Delta R.T. 0.010 min
Lab File: VL042658.D
Acq: 19 Jun 2025 16:52

Instrument :
MSVOA_L
ClientSampleId :
SV1DL

Tgt Ion: 49 Resp: 110592
Ion Ratio Lower Upper
49 100
128 45.3 24.2 72.6
130 58.2 30.4 91.2

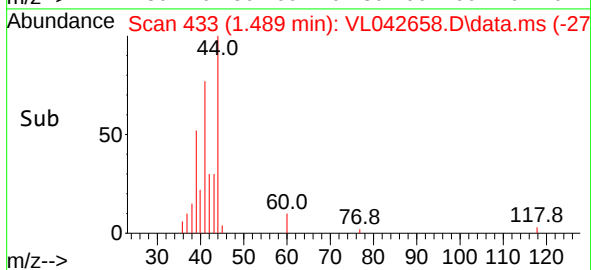
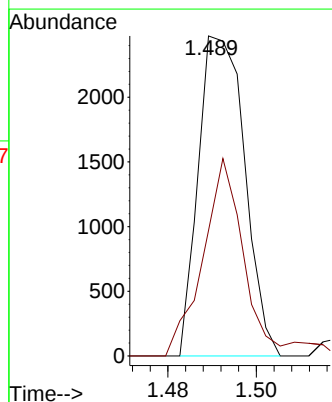
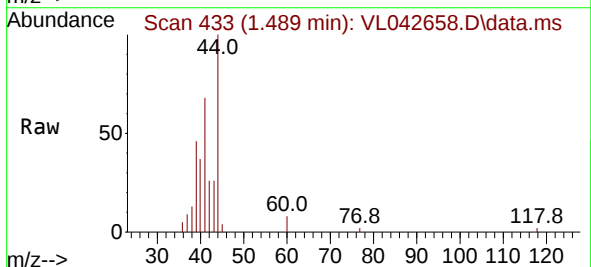
Manual Integrations
APPROVED

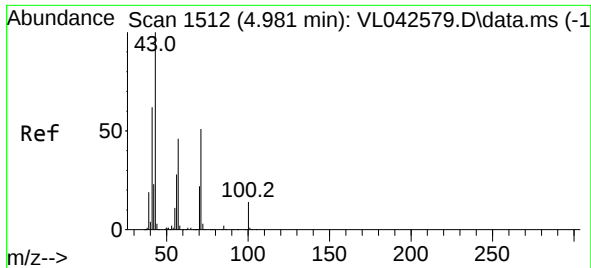
Reviewed By :Semsettin Yesilyurt 06/23/2025
Supervised By :Mahesh Dadoda 06/23/2025



#9
Propene
Concen: 0.238 ppbv
RT: 1.489 min Scan# 433
Delta R.T. 0.007 min
Lab File: VL042658.D
Acq: 19 Jun 2025 16:52

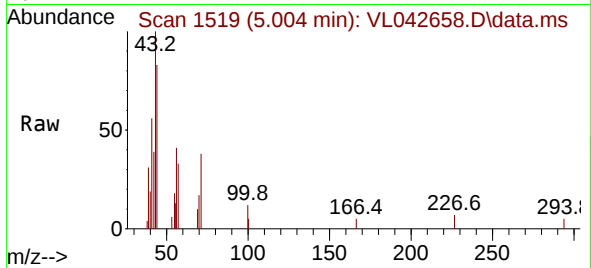
Tgt Ion: 41 Resp: 1797
Ion Ratio Lower Upper
41 100
42 61.5 53.3 79.9





#10
Heptane
Concen: 0.118 ppbv m
RT: 5.004 min Scan# 11
Delta R.T. 0.023 min
Lab File: VL042658.D
Acq: 19 Jun 2025 16:52

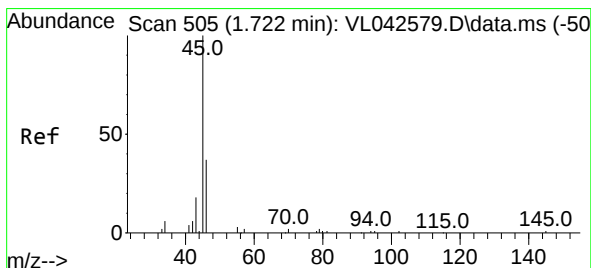
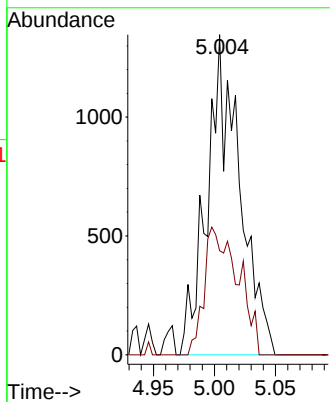
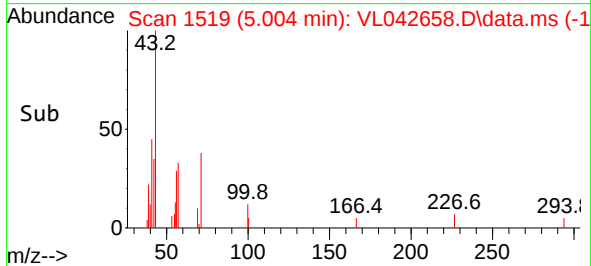
Instrument :
MSVOA_L
ClientSampleId :
SV1DL



Tgt Ion: 43 Resp: 250
Ion Ratio Lower Upper
43 100
57 41.2 38.9 58.3

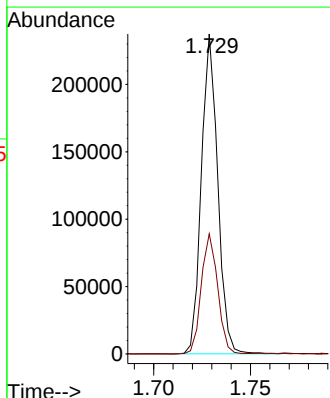
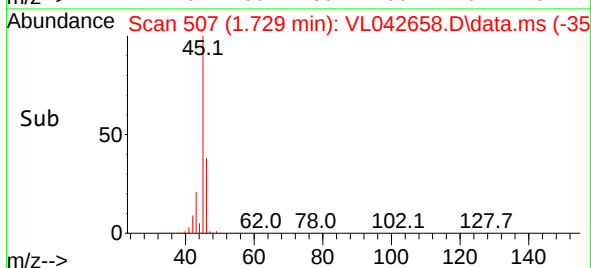
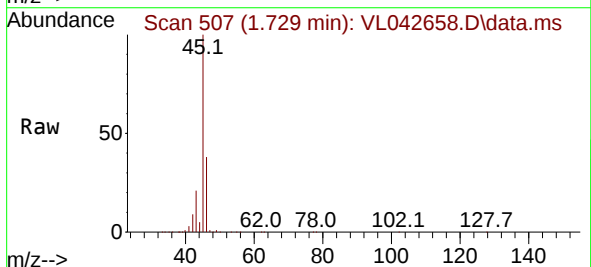
Manual Integrations
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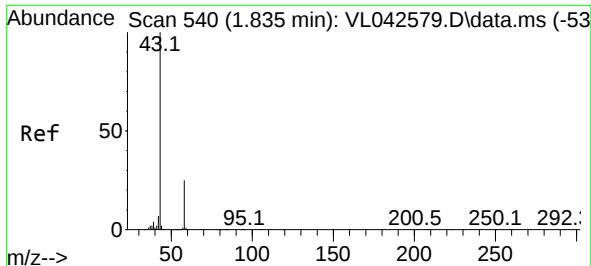
Reviewed By :Semsettin Yesilyurt 06/23/2025
Supervised By :Mahesh Dadoda 06/23/2025



#13
Ethanol
Concen: 155.408 ppbv
RT: 1.729 min Scan# 507
Delta R.T. 0.007 min
Lab File: VL042658.D
Acq: 19 Jun 2025 16:52

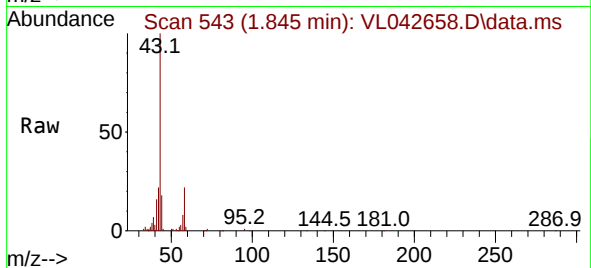
Tgt Ion: 45 Resp: 139621
Ion Ratio Lower Upper
45 100
46 38.2 14.5 58.1





#15
Acetone
Concen: 0.863 ppbv m
RT: 1.845 min Scan# 54
Delta R.T. 0.010 min
Lab File: VL042658.D
Acq: 19 Jun 2025 16:52

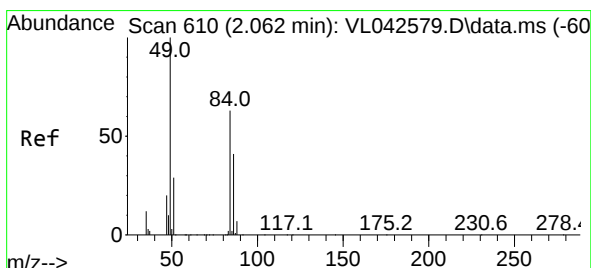
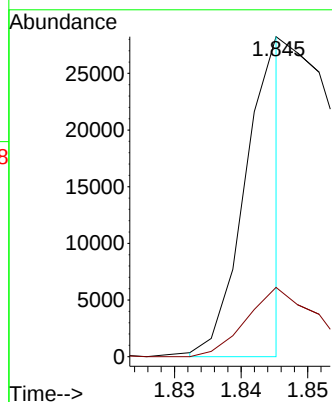
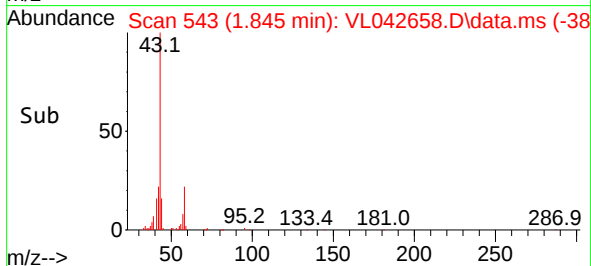
Instrument :
MSVOA_L
ClientSampleId :
SV1DL



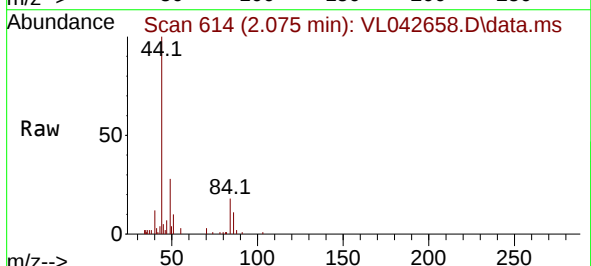
Tgt Ion: 43 Resp: 1149
Ion Ratio Lower Upper
43 100
58 39.3 21.0 31.4

Manual Integrations
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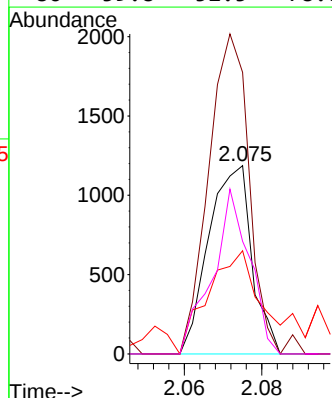
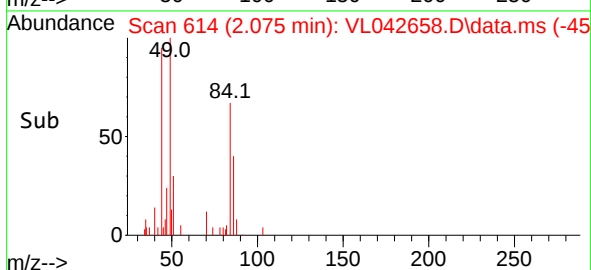
Reviewed By :Semsettin Yesilyurt 06/23/2025
Supervised By :Mahesh Dadoda 06/23/2025

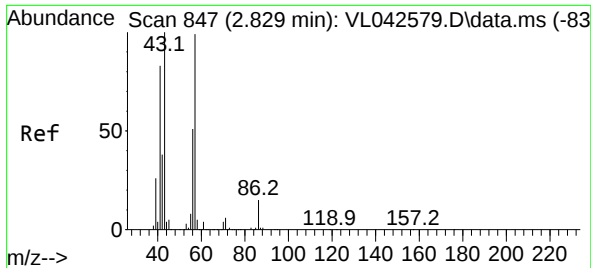


#20
Methylene Chloride
Concen: 0.209 ppbv
RT: 2.075 min Scan# 614
Delta R.T. 0.013 min
Lab File: VL042658.D
Acq: 19 Jun 2025 16:52



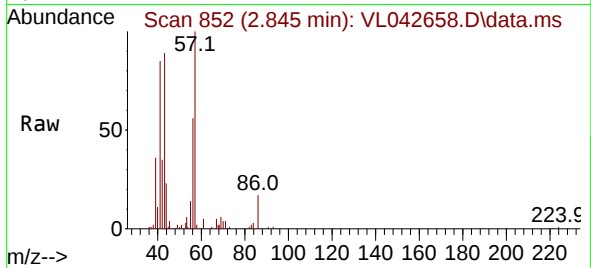
Tgt Ion: 84 Resp: 919
Ion Ratio Lower Upper
84 100
49 169.2 128.8 193.2
51 54.8 38.6 57.8
86 59.8 52.5 78.7





#26
Hexane
Concen: 0.384 ppbv
RT: 2.845 min Scan# 81
Delta R.T. 0.016 min
Lab File: VL042658.D
Acq: 19 Jun 2025 16:52

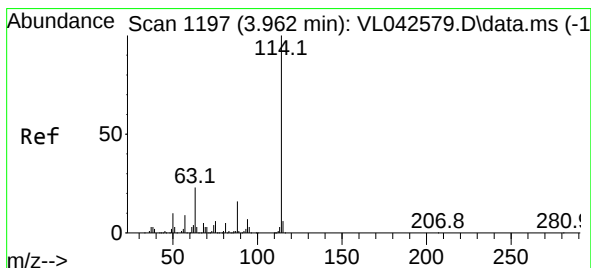
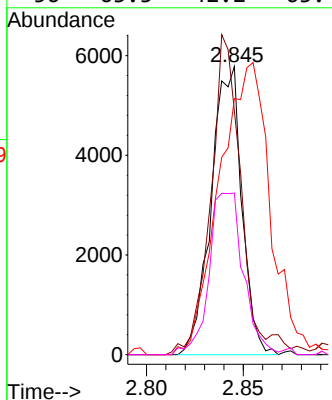
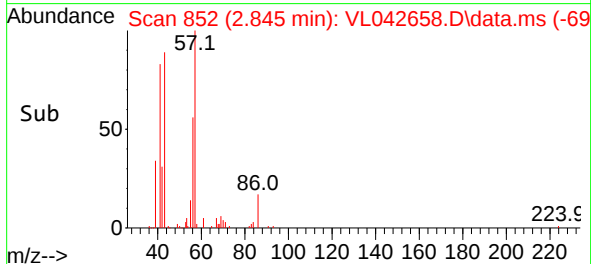
Instrument :
MSVOA_L
ClientSampleId :
SV1DL



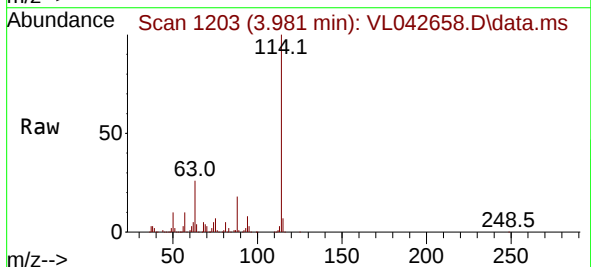
Tgt Ion: 57 Resp: 6360
Ion Ratio Lower Upper
57 100
41 110.4 70.6 106.0
43 171.7 181.1 271.7
56 63.3 42.2 63.4

Manual Integrations
APPROVED

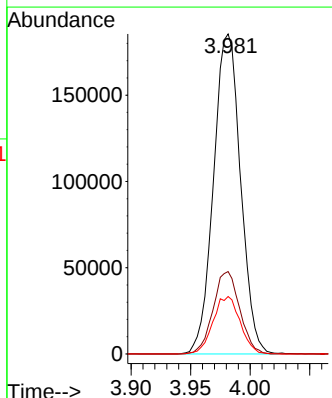
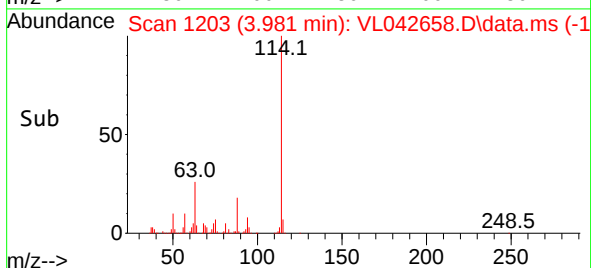
Reviewed By :Semsettin Yesilyurt 06/23/2025
Supervised By :Mahesh Dadoda 06/23/2025

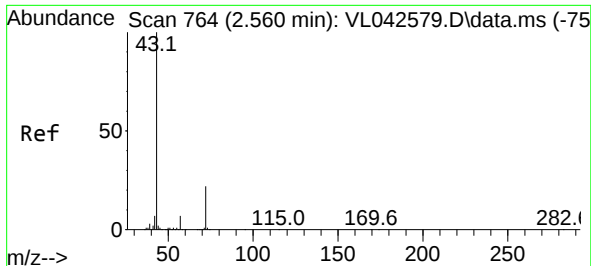


#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 3.981 min Scan# 1203
Delta R.T. 0.019 min
Lab File: VL042658.D
Acq: 19 Jun 2025 16:52



Tgt Ion:114 Resp: 292501
Ion Ratio Lower Upper
114 100
63 25.4 19.0 28.6
88 18.0 13.6 20.4





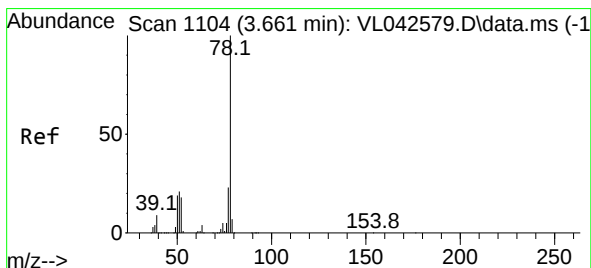
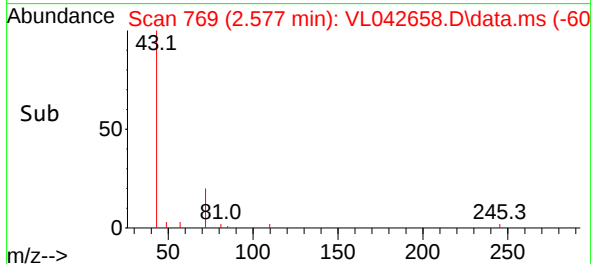
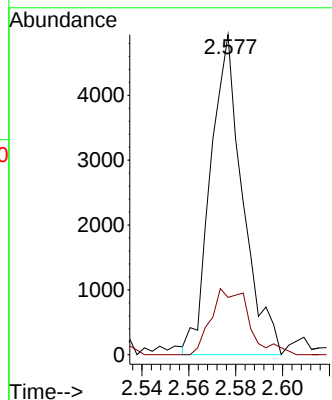
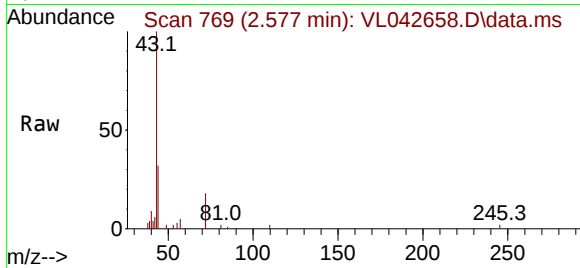
#34
2-Butanone
Concen: 0.225 ppbv m
RT: 2.577 min Scan# 769
Delta R.T. 0.016 min
Lab File: VL042658.D
Acq: 19 Jun 2025 16:52

Instrument :
MSVOA_L
ClientSampleId :
SV1DL

Tgt Ion: 43 Resp: 4698
Ion Ratio Lower Upper
43 100
72 24.3 17.7 26.5

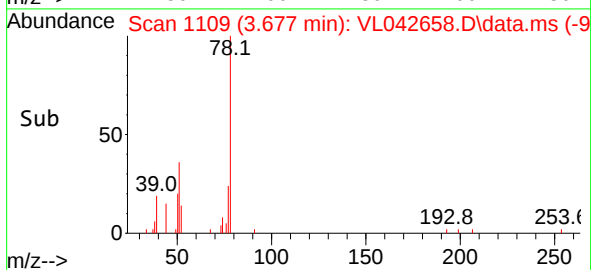
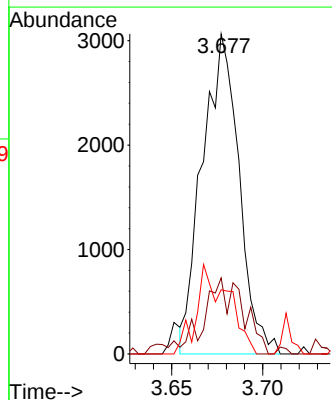
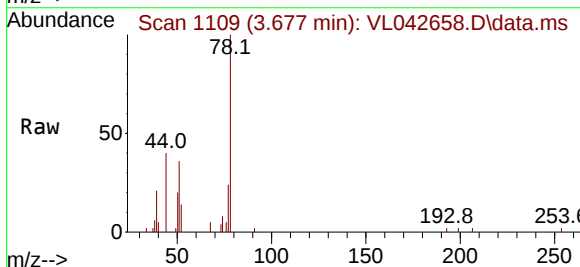
Manual Integrations
APPROVED

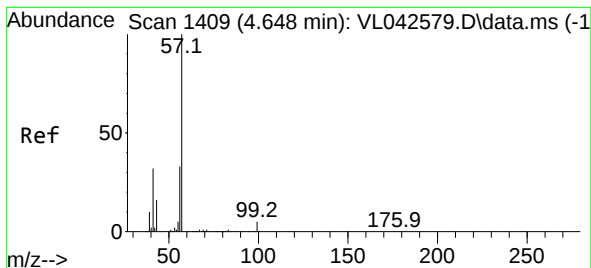
Reviewed By :Semsettin Yesilyurt 06/23/2025
Supervised By :Mahesh Dadoda 06/23/2025



#36
Benzene
Concen: 0.149 ppbv
RT: 3.677 min Scan# 1109
Delta R.T. 0.016 min
Lab File: VL042658.D
Acq: 19 Jun 2025 16:52

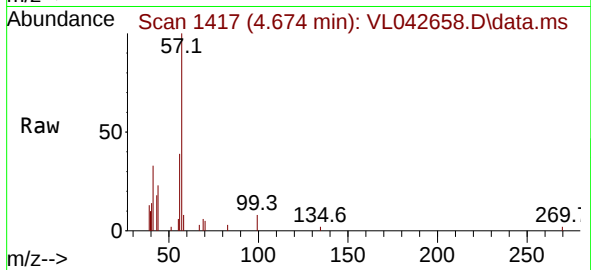
Tgt Ion: 78 Resp: 4284
Ion Ratio Lower Upper
78 100
77 21.7 18.2 27.2
50 17.0 15.2 22.8





#44
2,2,4-Trimethylpentane
Concen: 0.105 ppbv m
RT: 4.674 min Scan# 1409
Delta R.T. 0.026 min
Lab File: VL042658.D
Acq: 19 Jun 2025 16:52

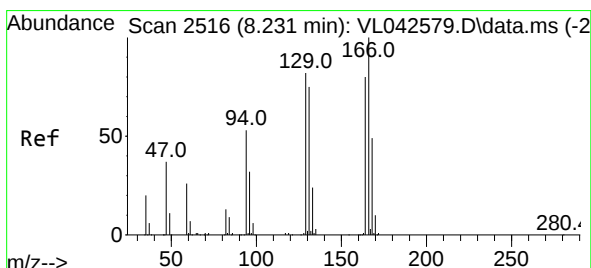
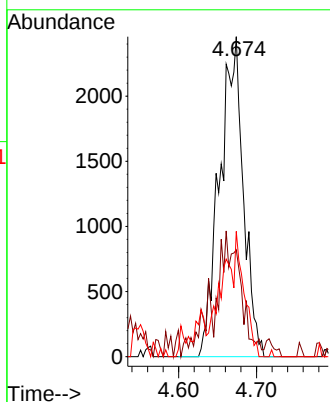
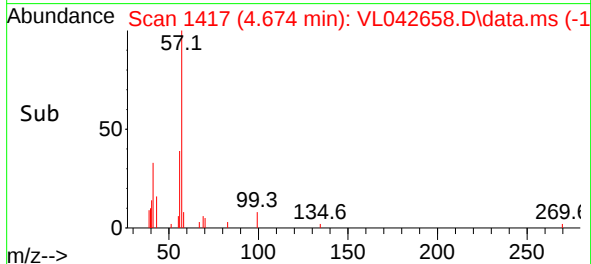
Instrument :
MSVOA_L
ClientSampleId :
SV1DL



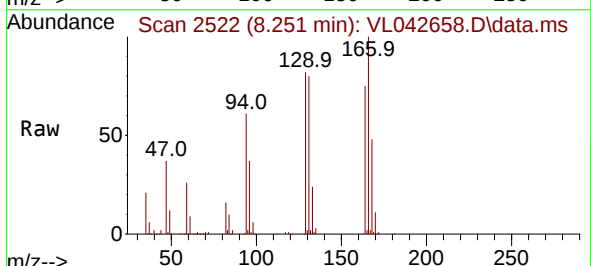
Tgt Ion: 57 Resp: 518
Ion Ratio Lower Upper
57 100
41 49.1 26.1 39.1
56 0.0 25.9 38.9

Manual Integrations
APPROVED

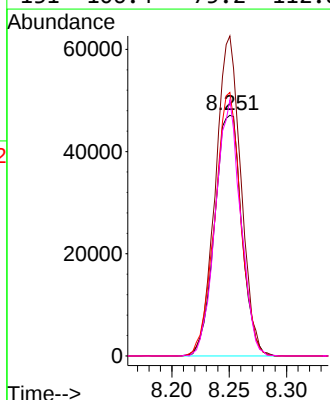
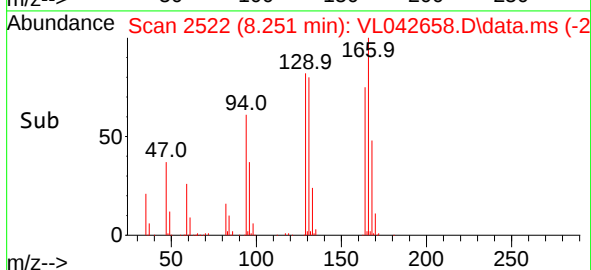
Reviewed By :Semsettin Yesilyurt 06/23/2025
Supervised By :Mahesh Dadoda 06/23/2025

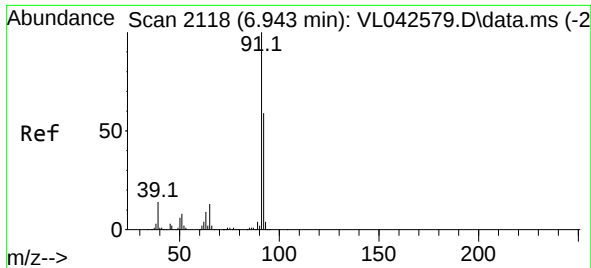


#52
Tetrachloroethene
Concen: 7.187 ppbv
RT: 8.251 min Scan# 2522
Delta R.T. 0.020 min
Lab File: VL042658.D
Acq: 19 Jun 2025 16:52



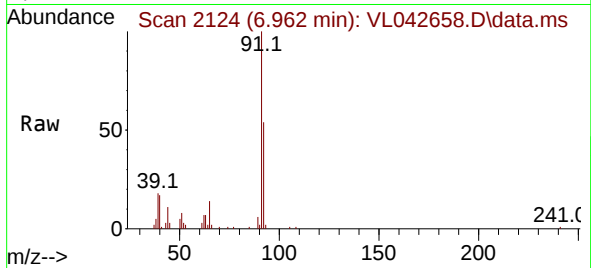
Tgt Ion:164 Resp: 77355
Ion Ratio Lower Upper
164 100
166 132.9 100.0 150.0
129 109.5 82.2 123.4
131 106.4 75.2 112.8





#53
Toluene
Concen: 0.516 ppbv
RT: 6.962 min Scan# 2118
Delta R.T. 0.020 min
Lab File: VL042658.D
Acq: 19 Jun 2025 16:52

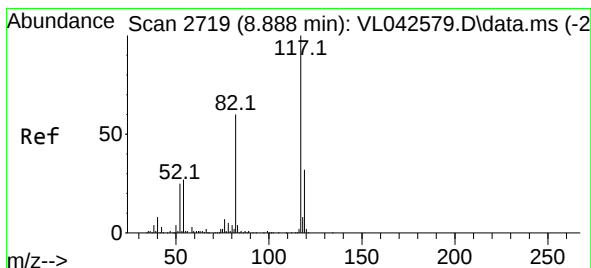
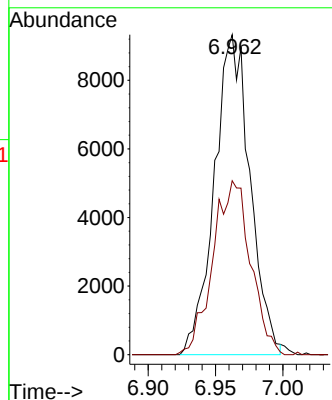
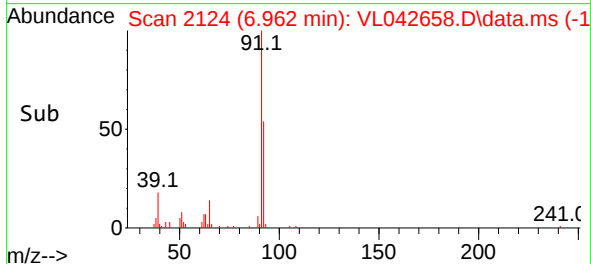
Instrument :
MSVOA_L
ClientSampleId :
SV1DL



Tgt Ion: 91 Resp: 17184
Ion Ratio Lower Upper
91 100
92 57.5 48.2 72.4

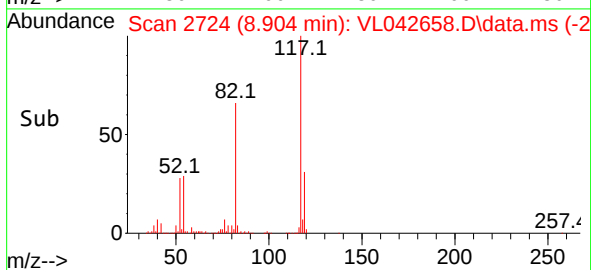
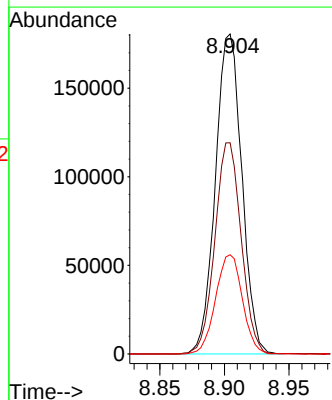
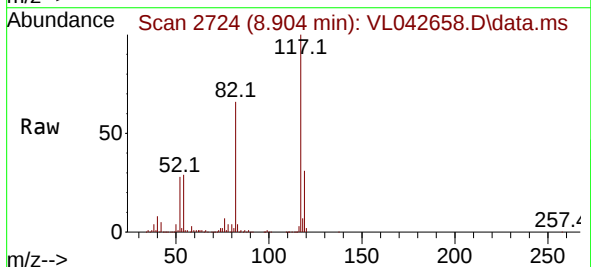
Manual Integrations
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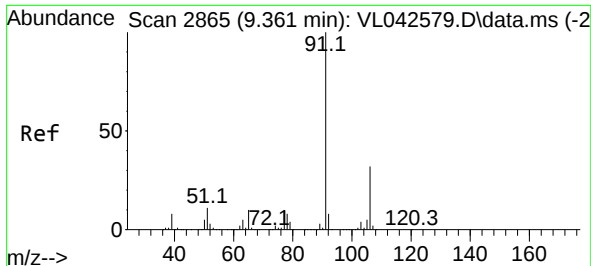
Reviewed By :Semsettin Yesilyurt 06/23/2025
Supervised By :Mahesh Dadoda 06/23/2025



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.904 min Scan# 2724
Delta R.T. 0.016 min
Lab File: VL042658.D
Acq: 19 Jun 2025 16:52

Tgt Ion:117 Resp: 257428
Ion Ratio Lower Upper
117 100
82 65.6 51.2 76.8
119 31.4 26.3 39.5





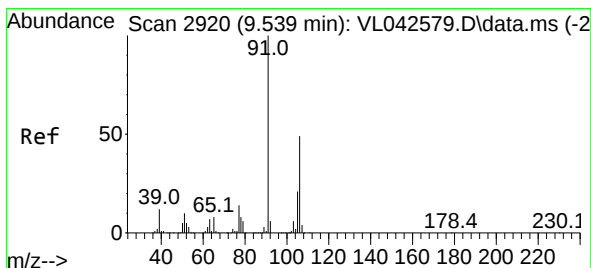
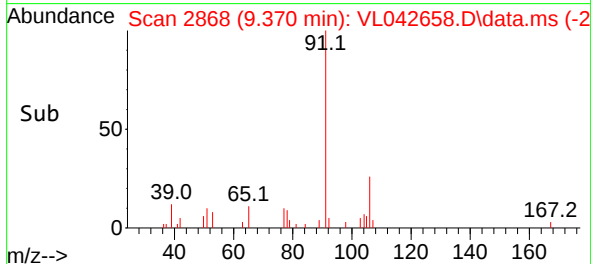
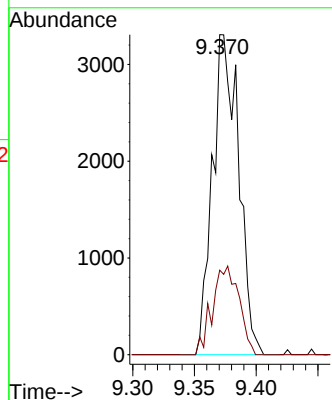
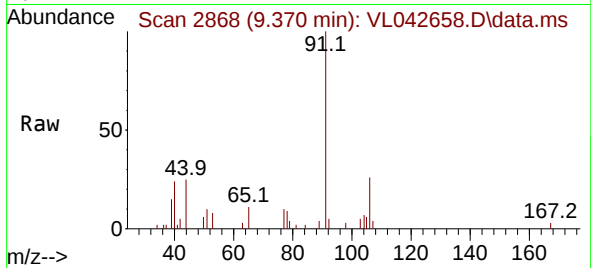
#58
Ethyl Benzene
Concen: 0.112 ppbv m
RT: 9.370 min Scan# 21
Delta R.T. 0.010 min
Lab File: VL042658.D
Acq: 19 Jun 2025 16:52

Instrument :
MSVOA_L
ClientSampleId :
SV1DL

Tgt Ion: 91 Resp: 4875
Ion Ratio Lower Upper
91 100
106 26.4 25.9 38.9

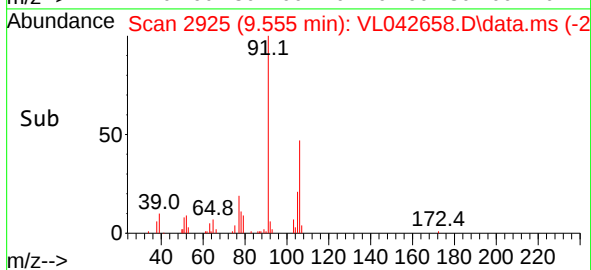
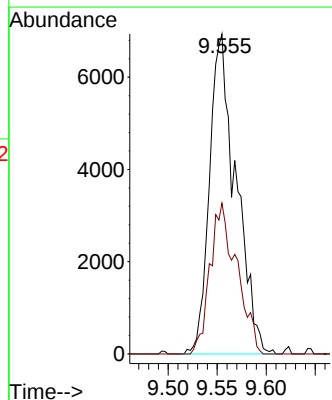
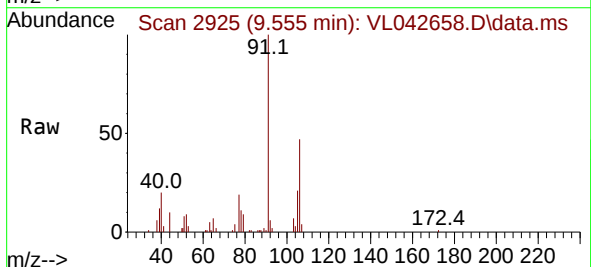
Manual Integrations
APPROVED

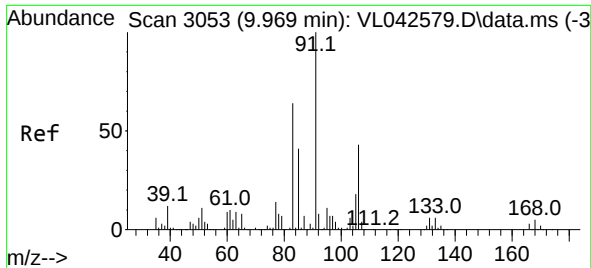
Reviewed By :Semsettin Yesilyurt 06/23/2025
Supervised By :Mahesh Dadoda 06/23/2025



#59
m/p-Xylene
Concen: 0.380 ppbv m
RT: 9.555 min Scan# 2925
Delta R.T. 0.016 min
Lab File: VL042658.D
Acq: 19 Jun 2025 16:52

Tgt Ion: 91 Resp: 13051
Ion Ratio Lower Upper
91 100
106 47.5 38.8 58.2





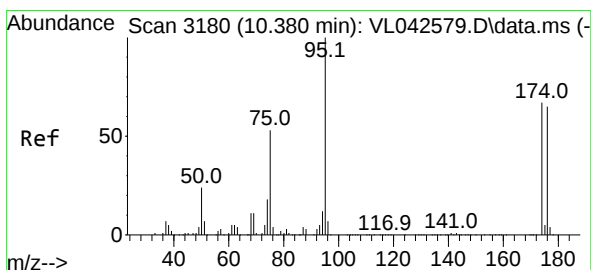
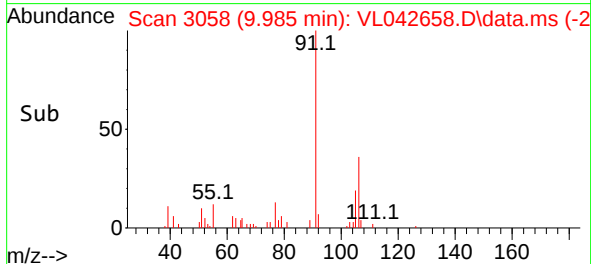
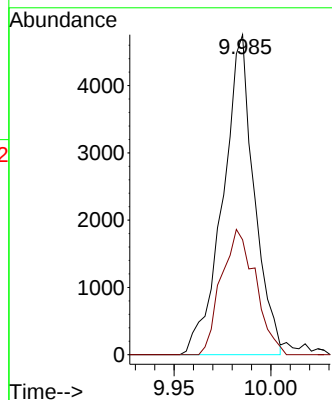
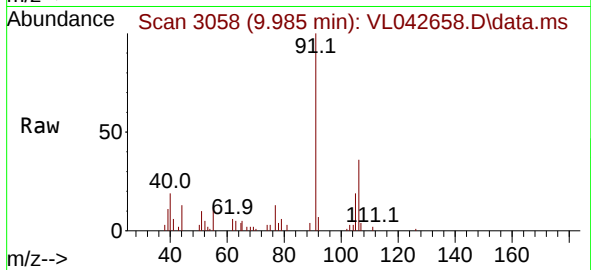
#60
o-Xylene
Concen: 0.156 ppbv
RT: 9.985 min Scan# 3053
Delta R.T. 0.016 min
Lab File: VL042658.D
Acq: 19 Jun 2025 16:52

Instrument :
MSVOA_L
ClientSampleId :
SV1DL

Tgt Ion: 91 Resp: 534
Ion Ratio Lower Upper
91 100
106 42.9 22.9 68.5

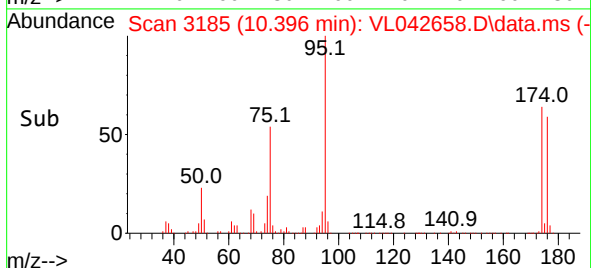
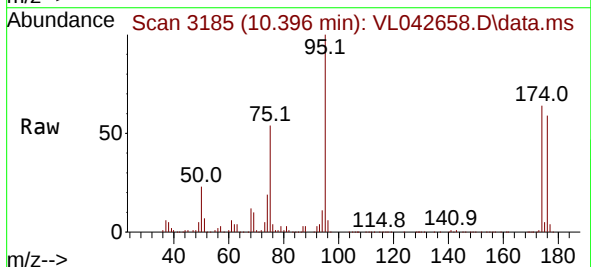
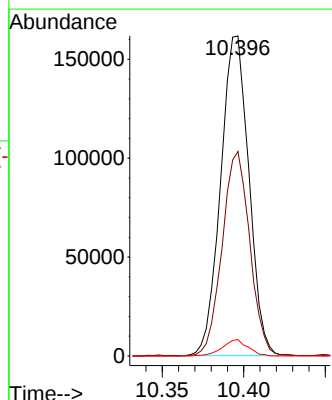
Manual Integrations
APPROVED

Reviewed By :Semsettin Yesilyurt 06/23/2025
Supervised By :Mahesh Dadoda 06/23/2025



#68
1-Bromo-4-Fluorobenzene
Concen: 10.082 ppbv
RT: 10.396 min Scan# 3185
Delta R.T. 0.016 min
Lab File: VL042658.D
Acq: 19 Jun 2025 16:52

Tgt Ion: 95 Resp: 194558
Ion Ratio Lower Upper
95 100
174 62.9 53.1 79.7
175 4.6 4.2 6.2



Report of Analysis

Client:	GFE LLC	Date Collected:	06/18/25
Project:	1438 University Ave, Bronx NY	Date Received:	06/19/25
Client Sample ID:	IA1	SDG No.:	Q2369
Lab Sample ID:	Q2369-02	Matrix:	Air
Analytical Method:	TO-15	Test:	VOCMS Group2
Sample Wt/Vol:	400	Units:	mL

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL042653.D	1		06/19/25 13:37	VL061925

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOQ / CRQL	Units
TARGETS							
75-01-4	Vinyl Chloride	0.030	0.080	U	0.080	0.080	ug/m3
142-82-5	Heptane	1.40	5.74		0.70	2.05	ug/m3
75-35-4	1,1-Dichloroethene	0.15	0.59	U	0.59	1.98	ug/m3
110-82-7	Cyclohexane	1.20	4.13		0.76	1.72	ug/m3
156-59-2	cis-1,2-Dichloroethene	0.10	0.40	U	0.40	1.98	ug/m3
71-55-6	1,1,1-Trichloroethane	0.020	0.11	U	0.11	0.16	ug/m3
540-84-1	2,2,4-Trimethylpentane	4.80	22.4		0.65	2.34	ug/m3
71-43-2	Benzene	1.90	6.07		0.26	1.60	ug/m3
79-01-6	Trichloroethene	0.020	0.11	U	0.11	0.16	ug/m3
108-88-3	Toluene	7.30	27.5		0.60	1.88	ug/m3
127-18-4	Tetrachloroethene	0.37	2.51		0.14	0.20	ug/m3
100-41-4	Ethyl Benzene	0.78	3.39		0.83	2.17	ug/m3
179601-23-1	m/p-Xylene	3.00	13.0		1.78	4.34	ug/m3
95-47-6	o-Xylene	1.10	4.78		0.91	2.17	ug/m3
108-67-8	1,3,5-Trimethylbenzene	0.41	2.02	J	0.88	2.46	ug/m3
95-63-6	1,2,4-Trimethylbenzene	1.30	6.39		0.88	2.46	ug/m3
91-20-3	Naphthalene	0.35	1.83		0.050	0.52	ug/m3
110-54-3	Hexane	4.70	16.6		0.56	1.76	ug/m3
SURROGATES							
460-00-4	1-Bromo-4-Fluorobenzene	10.3			65 - 135	103%	SPK: 10
INTERNAL STANDARDS							
74-97-5	Bromochloromethane	113000		2.8			
540-36-3	1,4-Difluorobenzene	305000		3.978			
3114-55-4	Chlorobenzene-d5	266000		8.901			

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

D = Dilution

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

Q = indicates LCS control criteria did not meet requirements

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL061925\
 Data File : VL042653.D
 Acq On : 19 Jun 2025 13:37
 Operator : SY/MD
 Sample : Q2369-02
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA1

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 06/23/2025
 Supervised By :Mahesh Dadoda 06/23/2025

Quant Time: Jun 20 01:37:27 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL052925AIR.M

Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 2

QLast Update : Fri May 30 02:01:56 2025

Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	2.800	49	112561	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.978	114	304867	10.000	ppbv	0.02
55) Chlorobenzene-d5	8.901	117	266456	10.000	ppbv	0.01

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene 10.393 95 204937 10.260 ppbv 0.01
 Spiked Amount 10.000 Range 65 - 135 Recovery = 102.600%

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.505	85	6518	0.471	ppbv	89
3) Chlorodifluoromethane	1.483	51	7563m	0.397	ppbv	
4) Chloromethane	1.538	50	5074	0.926	ppbv	92
9) Propene	1.489	41	23733	3.093	ppbv	97
10) Heptane	5.007	43	30080	1.391	ppbv	98
11) Trichlorofluoromethane	1.887	101	3078	0.239	ppbv	84
13) Ethanol	1.729	45	306726	335.435	ppbv	97
15) Acetone	1.845	43	210135m	15.499	ppbv	
19) Isopropyl Alcohol	1.894	45	69876	8.621	ppbv #	35
20) Methylene Chloride	2.072	84	3034	0.678	ppbv #	92
26) Hexane	2.839	57	78921	4.681	ppbv #	45
29) Chloroform	2.865	83	51116	2.331	ppbv	99
30) Cyclohexane	3.878	84	16792	1.201	ppbv	93
34) 2-Butanone	2.570	43	35781	1.646	ppbv	98
35) Carbon Tetrachloride	3.777	117	1727m	0.086	ppbv	
36) Benzene	3.674	78	56572	1.884	ppbv	97
41) Tetrahydrofuran	3.078	42	3888	0.306	ppbv	94
44) 2,2,4-Trimethylpentane	4.664	57	244291	4.757	ppbv	95
52) Tetrachloroethene	8.247	164	4175m	0.372	ppbv	
53) Toluene	6.962	91	252517	7.278	ppbv	99
58) Ethyl Benzene	9.373	91	35314	0.781	ppbv	91
59) m/p-Xylene	9.552	91	105708m	2.972	ppbv	
60) o-Xylene	9.982	91	38319	1.080	ppbv	98
61) Styrene	9.885	104	4995	0.298	ppbv	96
64) n-propylbenzene	11.008	120	2550	0.182	ppbv	85
72) 4-Ethyltoluene	11.137	105	15265	0.345	ppbv #	55
73) 1,3,5-Trimethylbenzene	11.218	105	14817	0.405	ppbv	91
74) 1,2,4-Trimethylbenzene	11.552	105	53598	1.319	ppbv #	64
76) 1,4-Dichlorobenzene	11.688	146	14469	0.569	ppbv	94
79) Naphthalene	13.526	128	13368	0.349	ppbv	95
80) Naphthalene,2-methyl-	14.468	142	2172	0.126	ppbv #	85

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

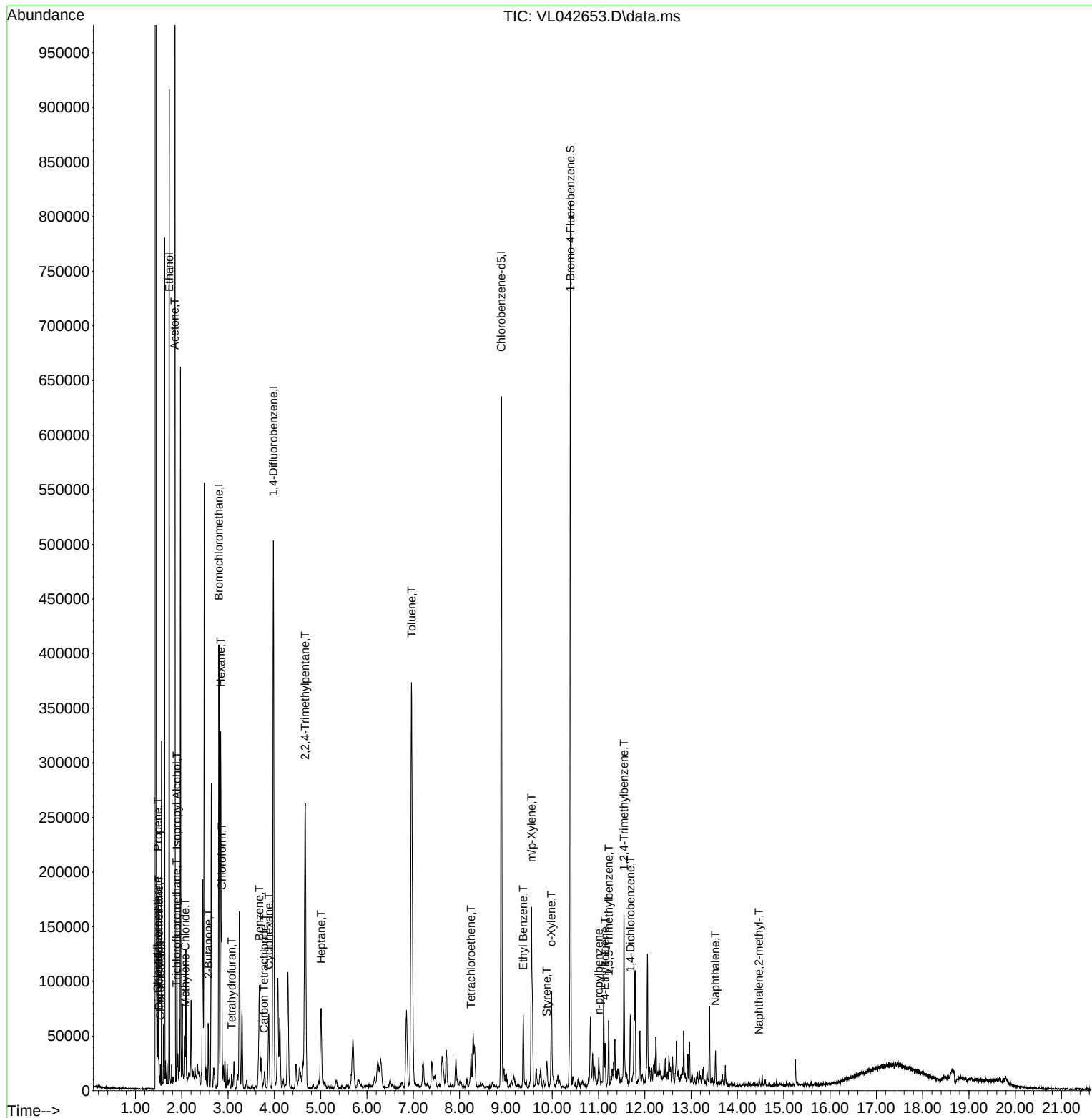
Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL061925\
Data File : VL042653.D
Acq On : 19 Jun 2025 13:37
Operator : SY/MD
Sample : Q2369-02
Misc : 400mL/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

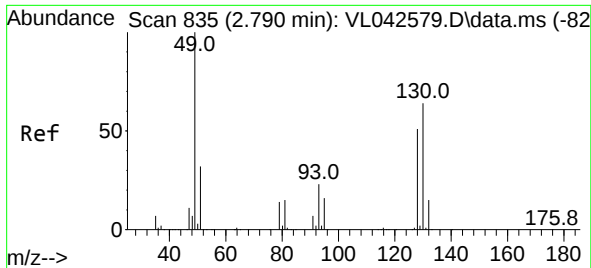
Instrument :
MSVOA_L
ClientSampleId :
IA1

Quant Time: Jun 20 01:37:27 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL052925AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug
QLast Update : Fri May 30 02:01:56 2025
Response via : Initial Calibration

Manual Integrations
APPROVED

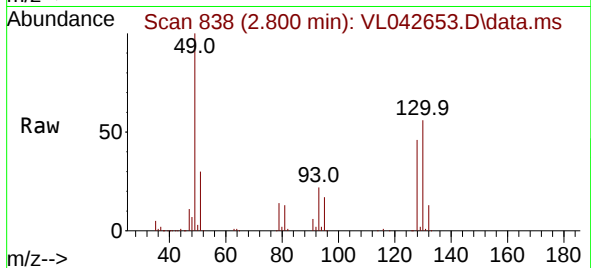
Reviewed By : Semsettin Yesilyurt 06/23/2025
Supervised By : Mahesh Dadoda 06/23/2025





#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.800 min Scan# 835
Delta R.T. 0.010 min
Lab File: VL042653.D
Acq: 19 Jun 2025 13:37

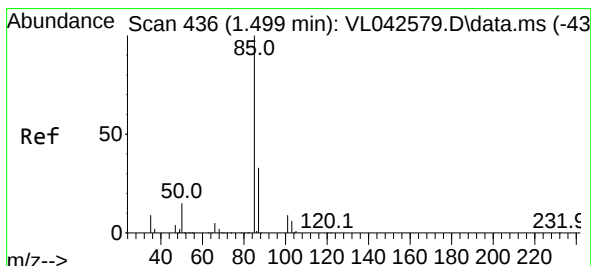
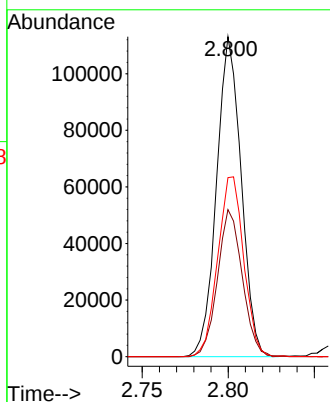
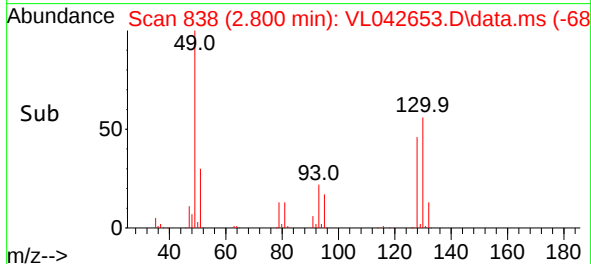
Instrument :
MSVOA_L
ClientSampleId :
IA1



Tgt Ion: 49 Resp: 11256
Ion Ratio Lower Upper
49 100
128 46.2 24.2 72.6
130 59.5 30.4 91.2

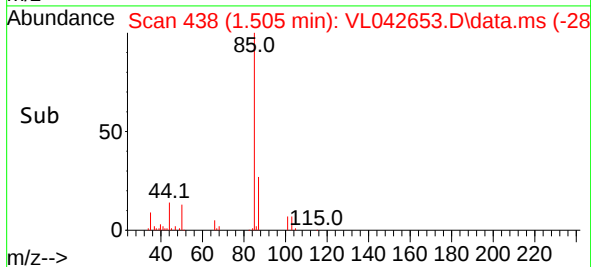
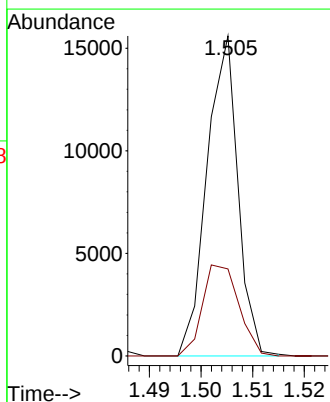
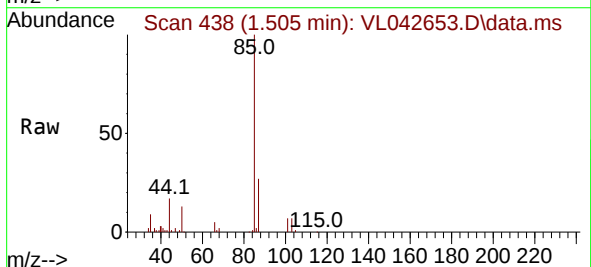
Manual Integrations
APPROVED

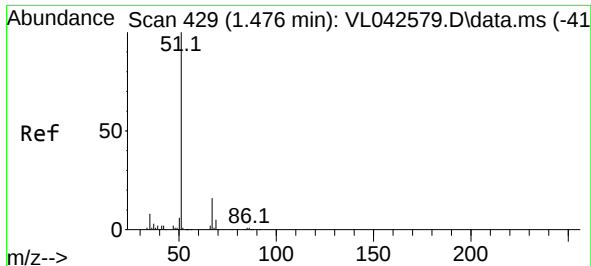
Reviewed By :Semsettin Yesilyurt 06/23/2025
Supervised By :Mahesh Dadoda 06/23/2025



#2
Dichlorodifluoromethane
Concen: 0.471 ppbv
RT: 1.505 min Scan# 438
Delta R.T. 0.006 min
Lab File: VL042653.D
Acq: 19 Jun 2025 13:37

Tgt Ion: 85 Resp: 6518
Ion Ratio Lower Upper
85 100
87 27.2 26.6 39.8





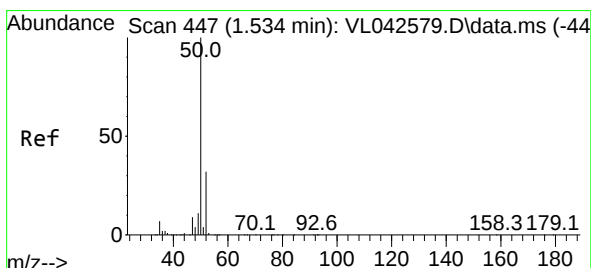
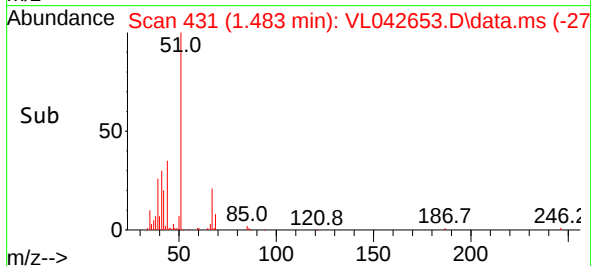
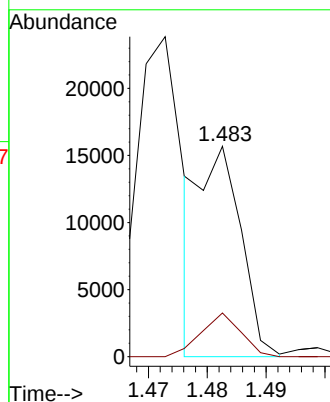
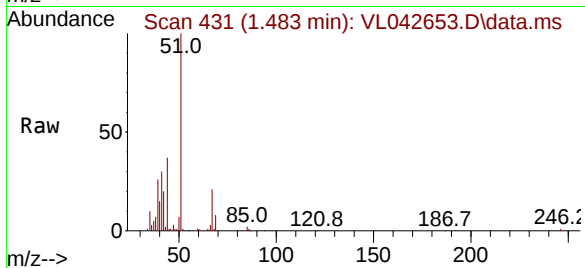
#3
Chlorodifluoromethane
Concen: 0.397 ppbv m
RT: 1.483 min Scan# 41
Delta R.T. 0.006 min
Lab File: VL042653.D
Acq: 19 Jun 2025 13:37

Instrument :
MSVOA_L
ClientSampleId :
IA1

Tgt Ion: 51 Resp: 756
Ion Ratio Lower Upper
51 100
67 20.9 13.4 20.2

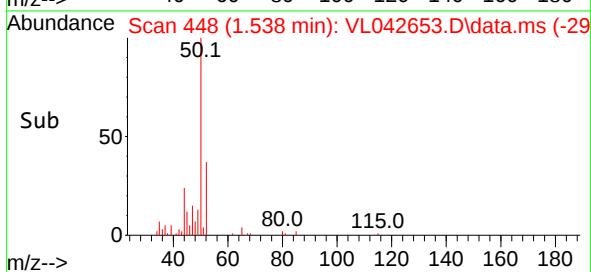
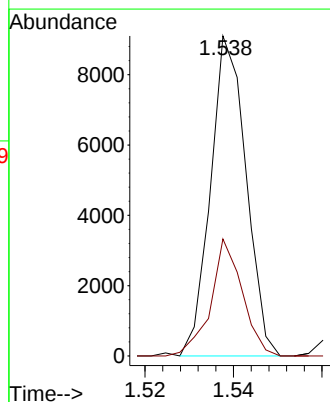
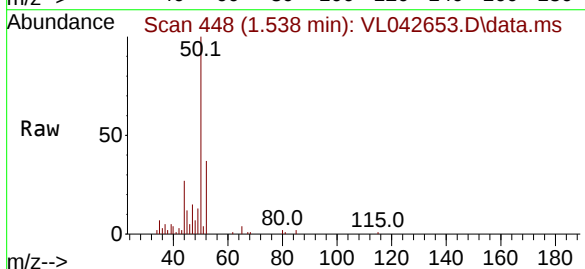
Manual Integrations
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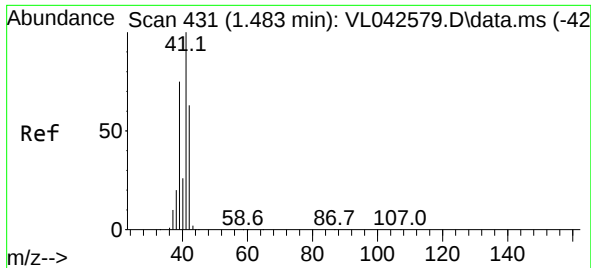
Reviewed By :Semsettin Yesilyurt 06/23/2025
Supervised By :Mahesh Dadoda 06/23/2025



#4
Chloromethane
Concen: 0.926 ppbv
RT: 1.538 min Scan# 448
Delta R.T. 0.003 min
Lab File: VL042653.D
Acq: 19 Jun 2025 13:37

Tgt Ion: 50 Resp: 5074
Ion Ratio Lower Upper
50 100
52 36.5 25.8 38.6





#9

Propene

Concen: 3.093 ppbv

RT: 1.489 min Scan# 41

Delta R.T. 0.006 min

Lab File: VL042653.D

Acq: 19 Jun 2025 13:37

Instrument :

MSVOA_L

ClientSampleId :

IA1

Tgt Ion: 41 Resp: 2373

Ion Ratio Lower Upper

41 100

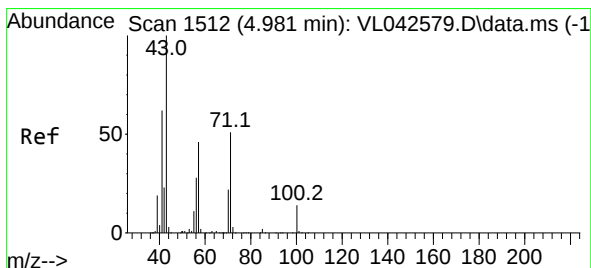
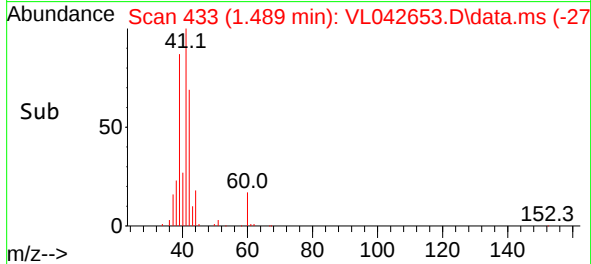
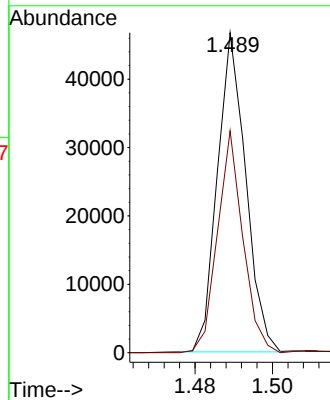
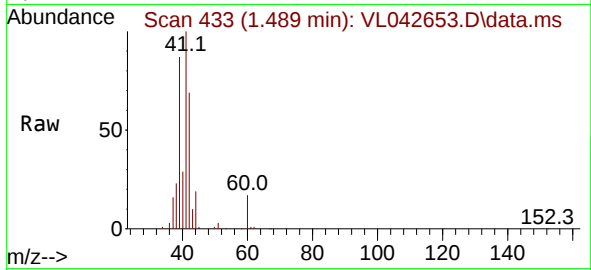
42 63.9 53.3 79.9

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 06/23/2025

Supervised By :Mahesh Dadoda 06/23/2025



#10

Heptane

Concen: 1.391 ppbv

RT: 5.007 min Scan# 1520

Delta R.T. 0.026 min

Lab File: VL042653.D

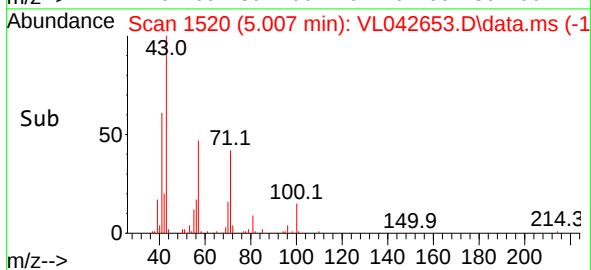
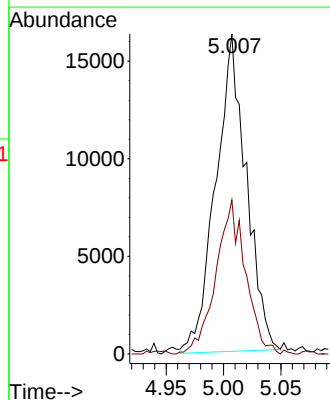
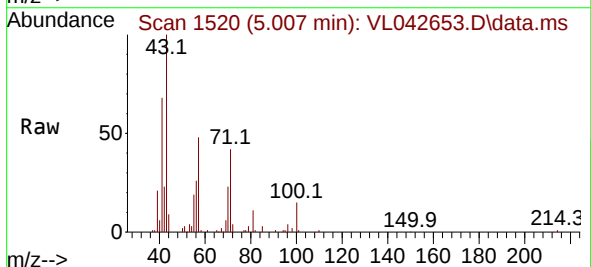
Acq: 19 Jun 2025 13:37

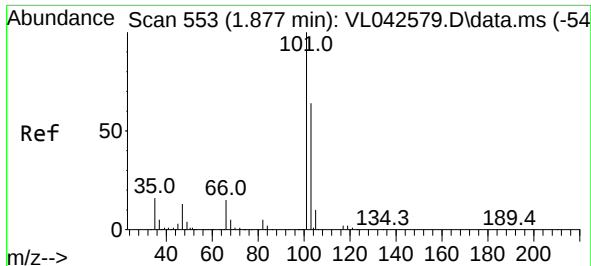
Tgt Ion: 43 Resp: 30080

Ion Ratio Lower Upper

43 100

57 47.6 38.9 58.3





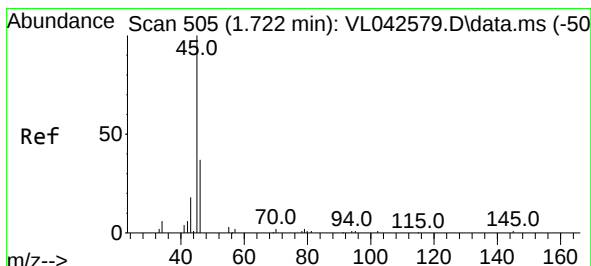
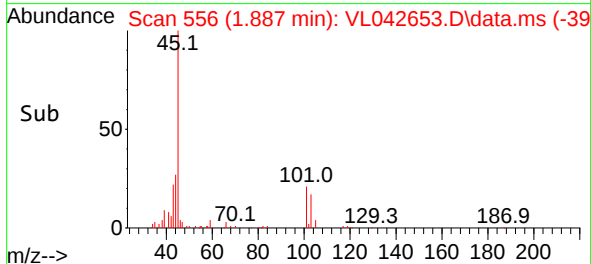
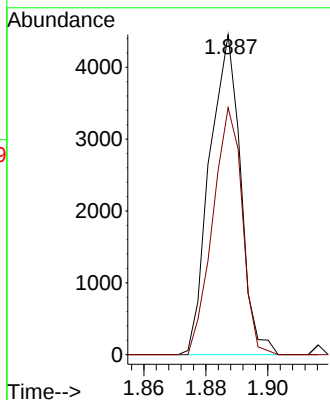
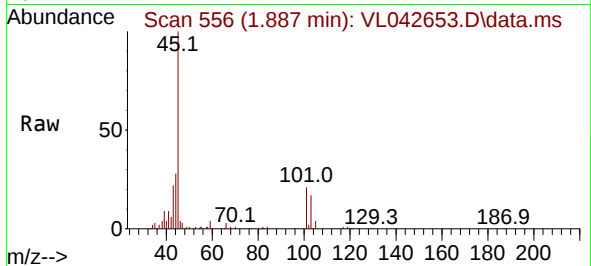
#11
Trichlorofluoromethane
Concen: 0.239 ppbv
RT: 1.887 min Scan# 507
Delta R.T. 0.010 min
Lab File: VL042653.D
Acq: 19 Jun 2025 13:37

Instrument :
MSVOA_L
ClientSampleId :
IA1

Tgt Ion:101 Resp: 3078
Ion Ratio Lower Upper
101 100
103 77.2 51.5 77.3

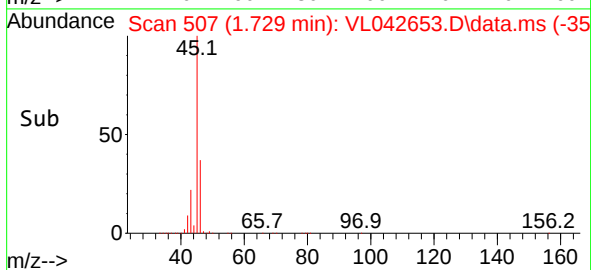
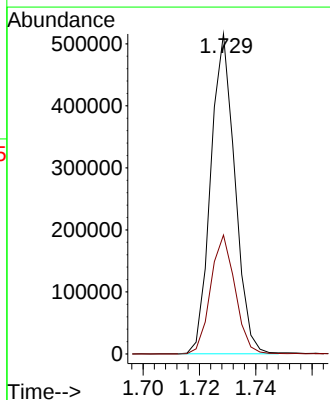
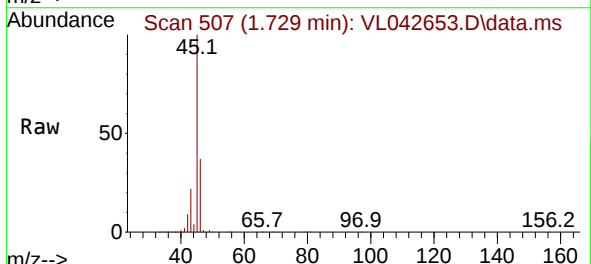
Manual Integrations
APPROVED

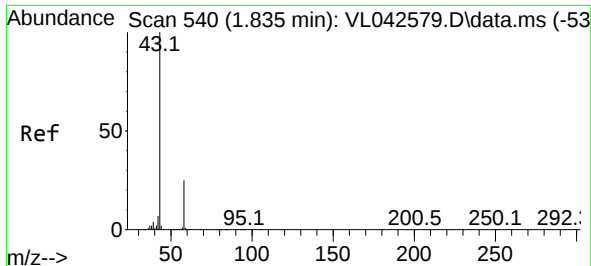
Reviewed By :Semsettin Yesilyurt 06/23/2025
Supervised By :Mahesh Dadoda 06/23/2025



#13
Ethanol
Concen: 335.435 ppbv
RT: 1.729 min Scan# 507
Delta R.T. 0.006 min
Lab File: VL042653.D
Acq: 19 Jun 2025 13:37

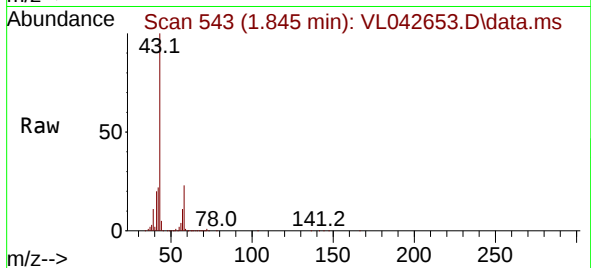
Tgt Ion: 45 Resp: 306726
Ion Ratio Lower Upper
45 100
46 38.0 14.5 58.1





#15
Acetone
Concen: 15.499 ppbv m
RT: 1.845 min Scan# 541
Delta R.T. 0.010 min
Lab File: VL042653.D
Acq: 19 Jun 2025 13:37

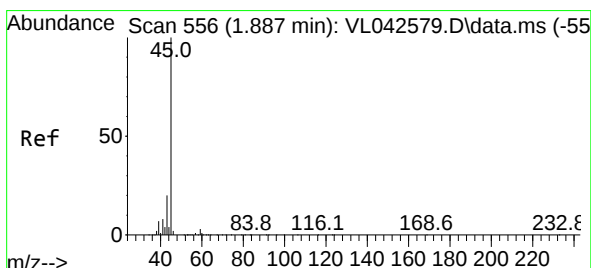
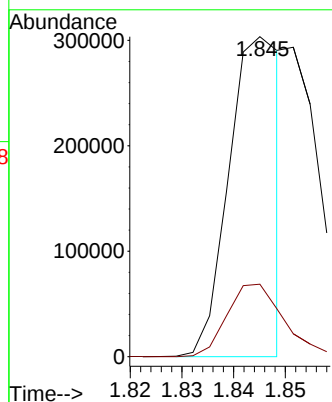
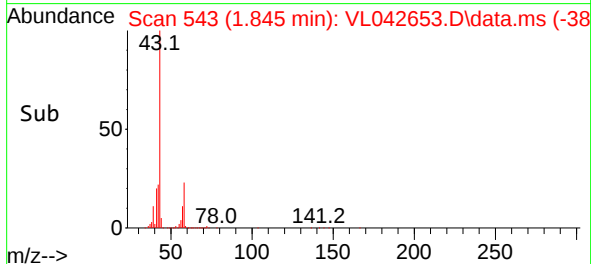
Instrument :
MSVOA_L
ClientSampleId :
IA1



Tgt Ion: 43 Resp: 210135
Ion Ratio Lower Upper
43 100
58 25.1 21.0 31.4

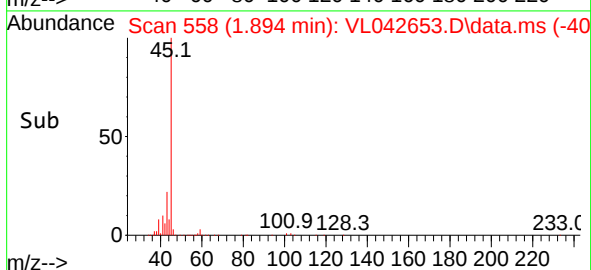
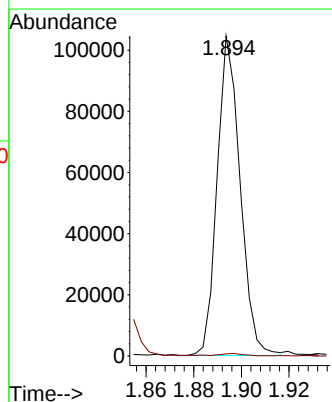
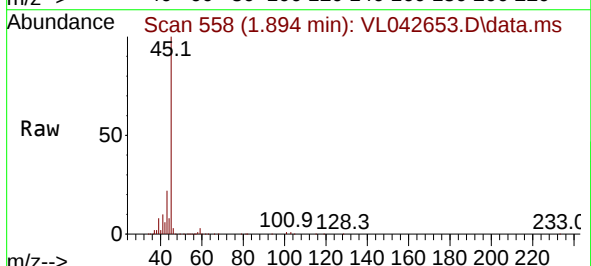
Manual Integrations
APPROVED

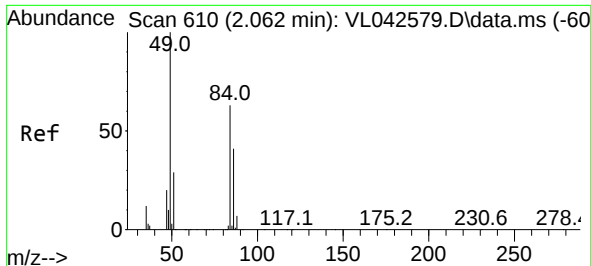
Reviewed By :Semsettin Yesilyurt 06/23/2025
Supervised By :Mahesh Dadoda 06/23/2025



#19
Isopropyl Alcohol
Concen: 8.621 ppbv
RT: 1.894 min Scan# 558
Delta R.T. 0.006 min
Lab File: VL042653.D
Acq: 19 Jun 2025 13:37

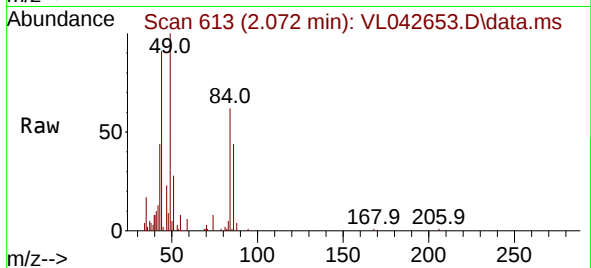
Tgt Ion: 45 Resp: 69876
Ion Ratio Lower Upper
45 100
58 75.6 29.4 44.2#





#20
Methylene Chloride
Concen: 0.678 ppbv
RT: 2.072 min Scan# 610
Delta R.T. 0.010 min
Lab File: VL042653.D
Acq: 19 Jun 2025 13:37

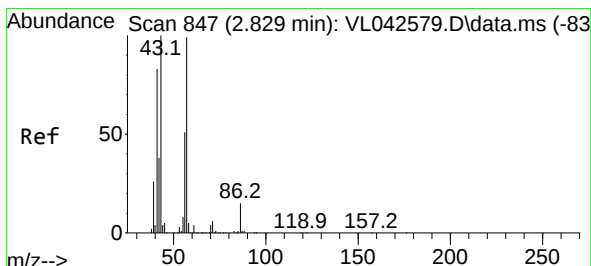
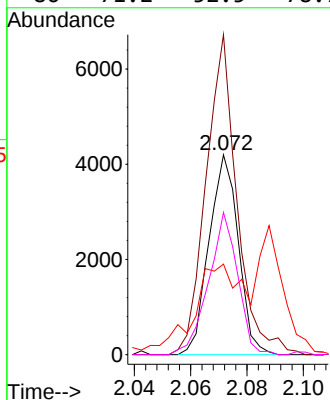
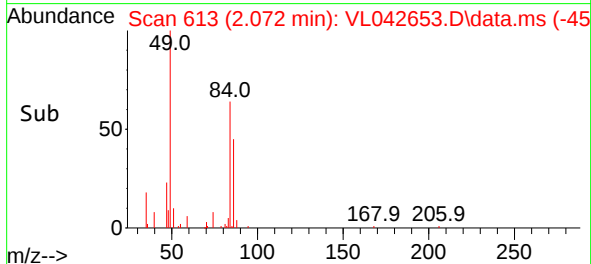
Instrument :
MSVOA_L
ClientSampleId :
IA1



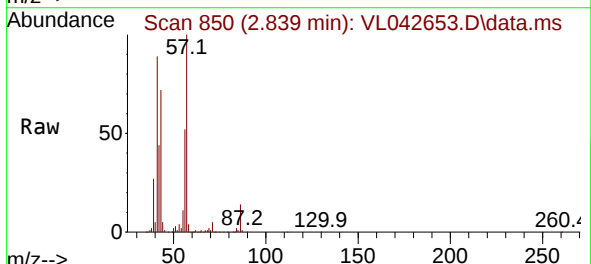
Tgt Ion: 84 Resp: 3034
Ion Ratio Lower Upper
84 100
49 157.7 128.8 193.2
51 30.3 38.6 57.8
86 71.2 52.5 78.7

Manual Integrations
APPROVED

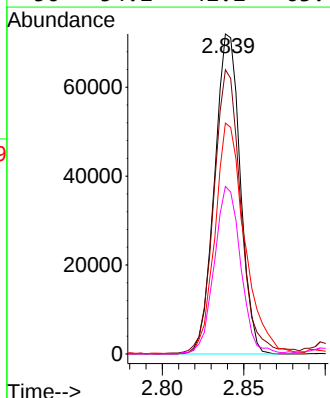
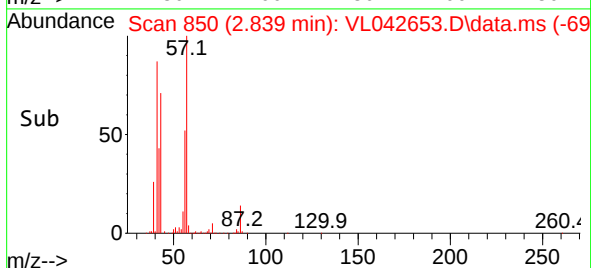
Reviewed By :Semsettin Yesilyurt 06/23/2025
Supervised By :Mahesh Dadoda 06/23/2025

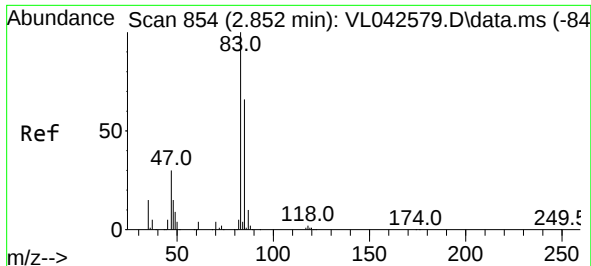


#26
Hexane
Concen: 4.681 ppbv
RT: 2.839 min Scan# 850
Delta R.T. 0.010 min
Lab File: VL042653.D
Acq: 19 Jun 2025 13:37



Tgt Ion: 57 Resp: 78921
Ion Ratio Lower Upper
57 100
41 93.5 70.6 106.0
43 85.8 181.1 271.7#
56 54.2 42.2 63.4





#29

Chloroform

Concen: 2.331 ppbv

RT: 2.865 min Scan# 81

Delta R.T. 0.013 min

Lab File: VL042653.D

Acq: 19 Jun 2025 13:37

Instrument :

MSVOA_L

ClientSampleId :

IA1

Tgt Ion: 83 Resp: 51110

Ion Ratio Lower Upper

83 100

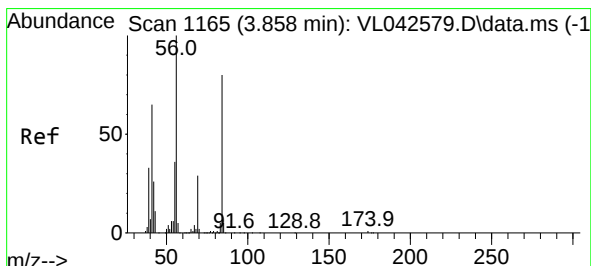
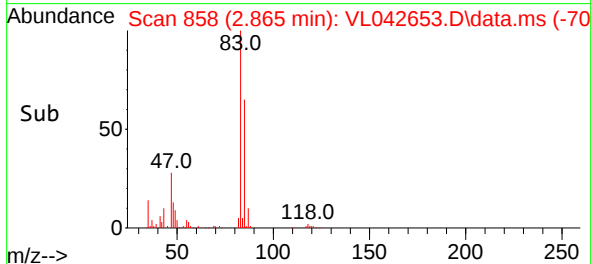
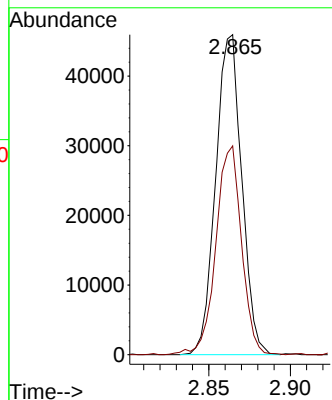
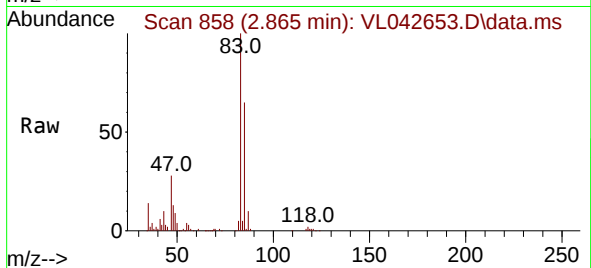
85 65.0 52.8 79.2

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 06/23/2025

Supervised By :Mahesh Dadoda 06/23/2025



#30

Cyclohexane

Concen: 1.201 ppbv

RT: 3.878 min Scan# 1171

Delta R.T. 0.019 min

Lab File: VL042653.D

Acq: 19 Jun 2025 13:37

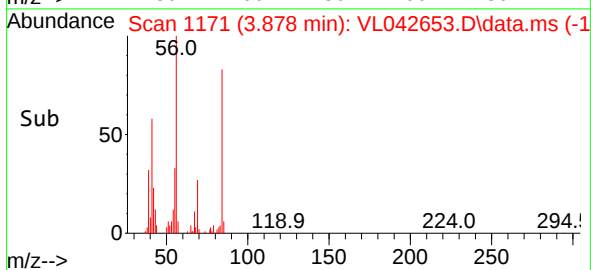
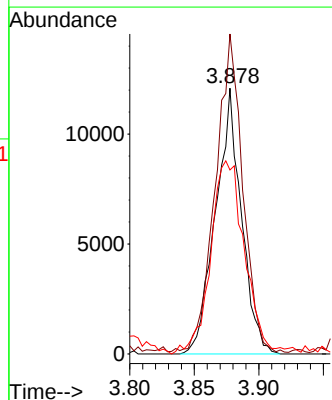
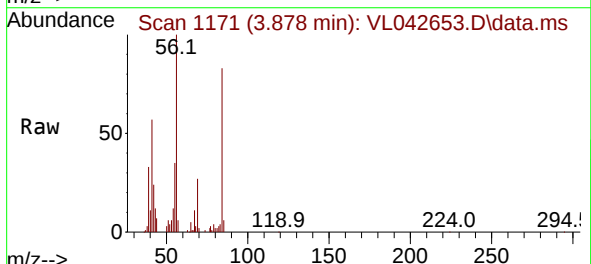
Tgt Ion: 84 Resp: 16792

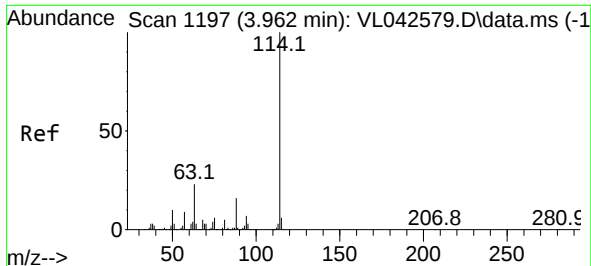
Ion Ratio Lower Upper

84 100

56 127.4 103.7 155.5

41 93.9 65.1 97.7





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.978 min Scan# 1197

Delta R.T. 0.016 min

Lab File: VL042653.D

Acq: 19 Jun 2025 13:37

Instrument :

MSVOA_L

ClientSampleId :

IA1

Tgt Ion:114 Resp: 30486

Ion Ratio Lower Upper

114 100

63 24.9 19.0 28.6

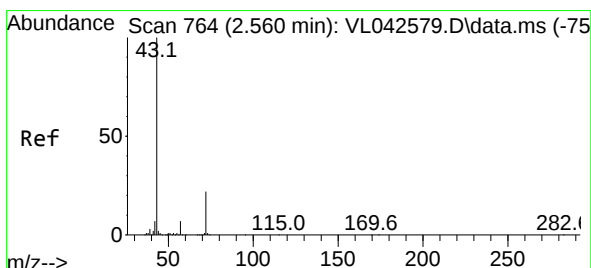
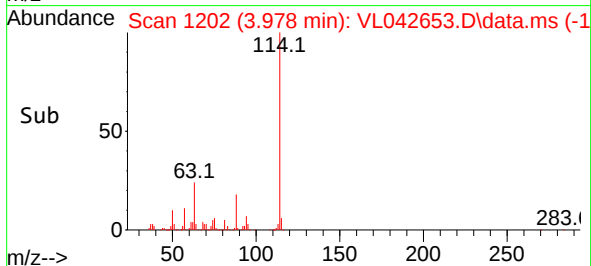
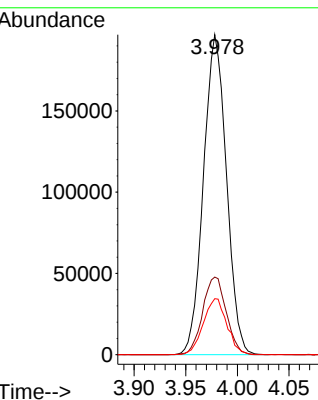
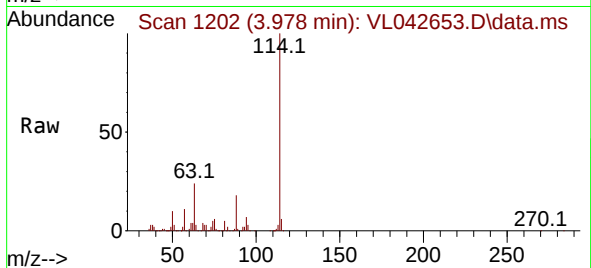
88 17.9 13.6 20.4

Manual Integrations

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Reviewed By :Semsettin Yesilyurt 06/23/2025

Supervised By :Mahesh Dadoda 06/23/2025



#34

2-Butanone

Concen: 1.646 ppbv

RT: 2.570 min Scan# 767

Delta R.T. 0.010 min

Lab File: VL042653.D

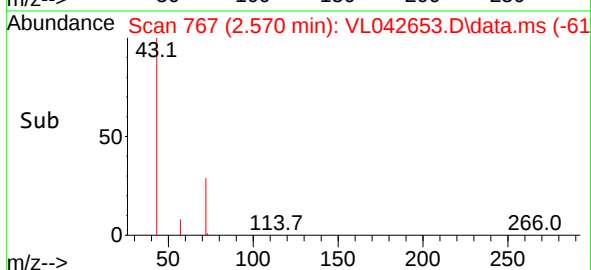
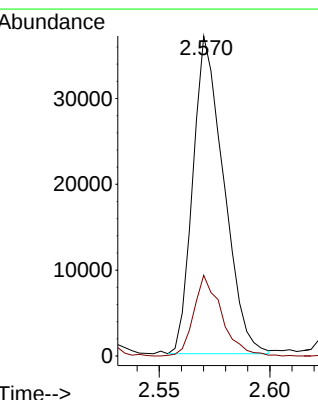
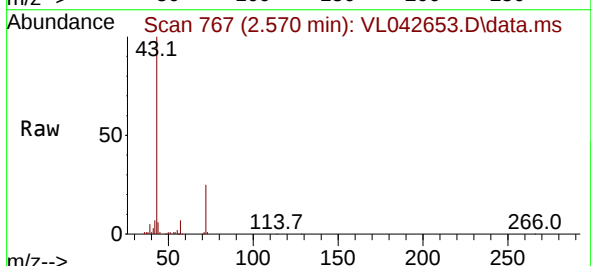
Acq: 19 Jun 2025 13:37

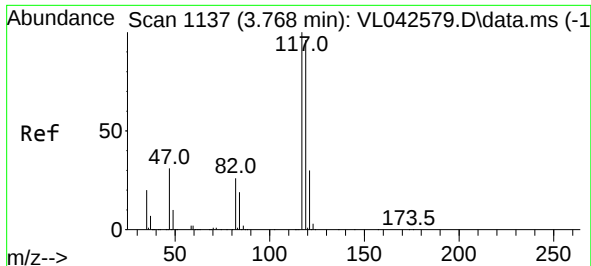
Tgt Ion: 43 Resp: 35781

Ion Ratio Lower Upper

43 100

72 22.9 17.7 26.5





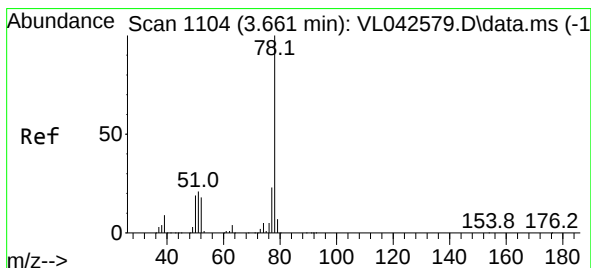
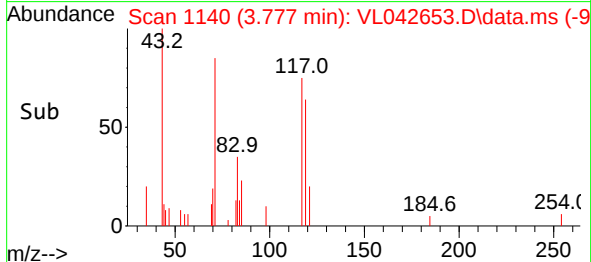
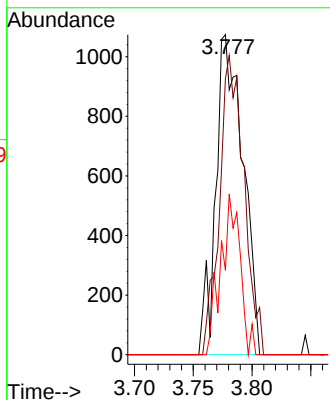
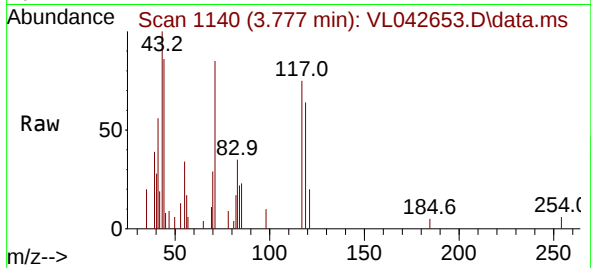
#35
Carbon Tetrachloride
Concen: 0.086 ppbv m
RT: 3.777 min Scan# 1137
Delta R.T. 0.010 min
Lab File: VL042653.D
Acq: 19 Jun 2025 13:37

Instrument :
MSVOA_L
ClientSampleId :
IA1

Tgt Ion:117 Resp: 172
Ion Ratio Lower Upper
117 100
119 86.2 76.8 115.2
121 26.4 24.3 36.5

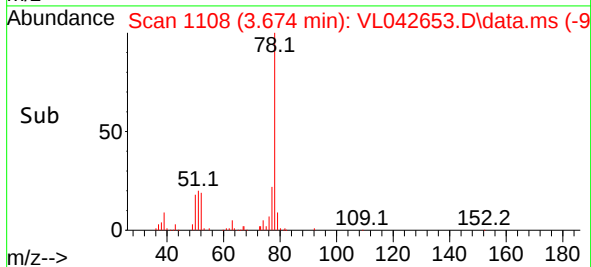
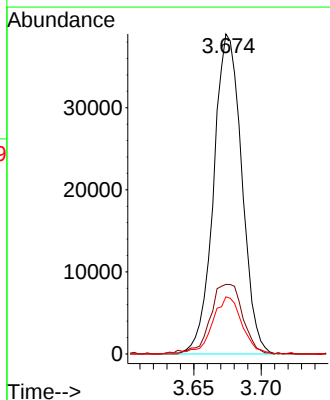
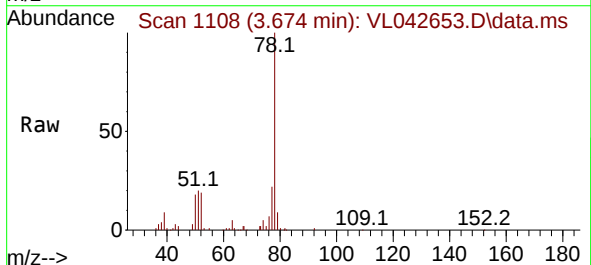
Manual Integrations
APPROVED

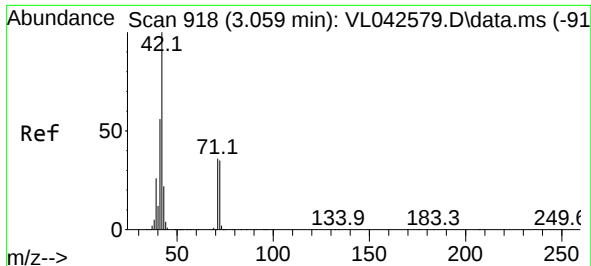
Reviewed By :Semsettin Yesilyurt 06/23/2025
Supervised By :Mahesh Dadoda 06/23/2025



#36
Benzene
Concen: 1.884 ppbv
RT: 3.674 min Scan# 1108
Delta R.T. 0.013 min
Lab File: VL042653.D
Acq: 19 Jun 2025 13:37

Tgt Ion: 78 Resp: 56572
Ion Ratio Lower Upper
78 100
77 21.4 18.2 27.2
50 17.5 15.2 22.8





#41

Tetrahydrofuran

Concen: 0.306 ppbv

RT: 3.078 min Scan# 918

Delta R.T. 0.019 min

Lab File: VL042653.D

Acq: 19 Jun 2025 13:37

Instrument :

MSVOA_L

ClientSampleId :

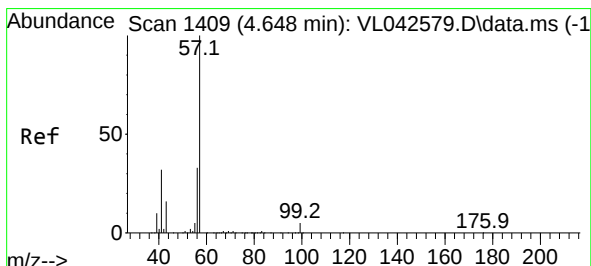
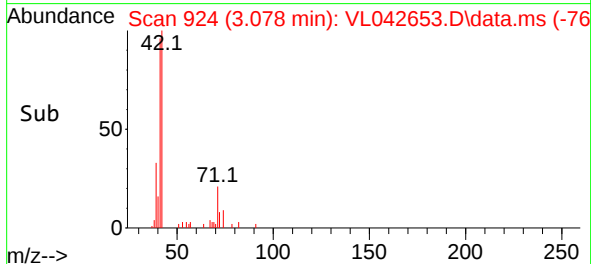
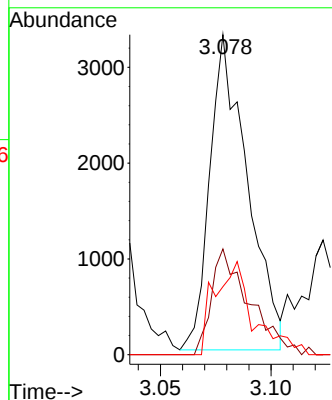
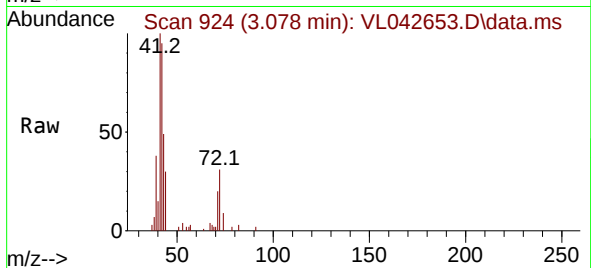
IA1

Tgt Ion:	42	Resp:	388
Ion	Ratio	Lower	Upper
42	100		
72	34.3	28.9	43.3
71	30.6	28.5	42.7

Manual Integrations

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Reviewed By :Semsettin Yesilyurt 06/23/2025
Supervised By :Mahesh Dadoda 06/23/2025



#44

2,2,4-Trimethylpentane

Concen: 4.757 ppbv

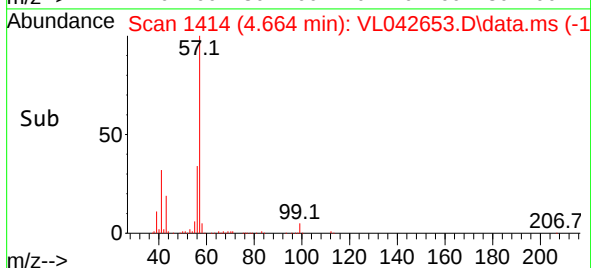
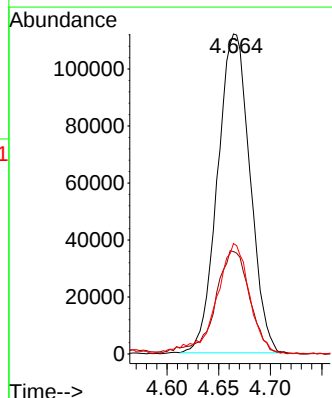
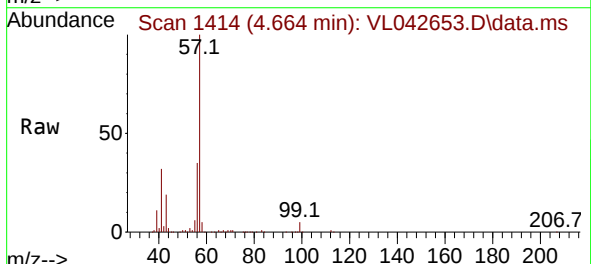
RT: 4.664 min Scan# 1414

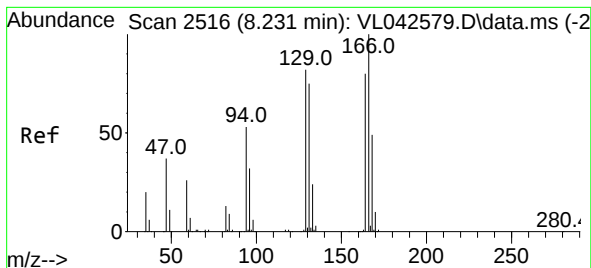
Delta R.T. 0.016 min

Lab File: VL042653.D

Acq: 19 Jun 2025 13:37

Tgt Ion:	57	Resp:	244291
Ion	Ratio	Lower	Upper
57	100		
41	34.4	26.1	39.1
56	35.7	25.9	38.9





#52

Tetrachloroethene

Concen: 0.372 ppbv m

RT: 8.247 min Scan# 2124

Delta R.T. 0.016 min

Lab File: VL042653.D

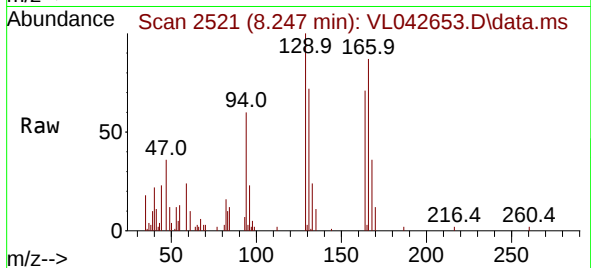
Acq: 19 Jun 2025 13:37

Instrument :

MSVOA_L

ClientSampleId :

IA1



Tgt Ion:164 Resp: 4179

Ion Ratio Lower Upper

164 100

166 122.4 100.0 150.0

129 141.3 82.2 123.4

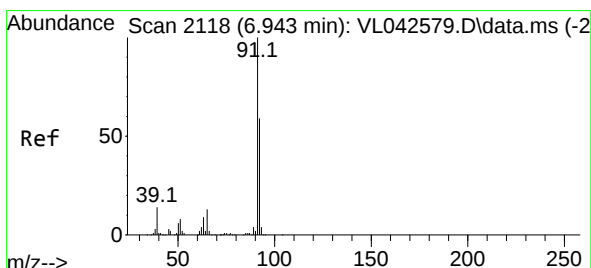
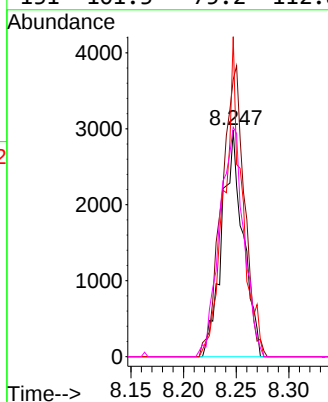
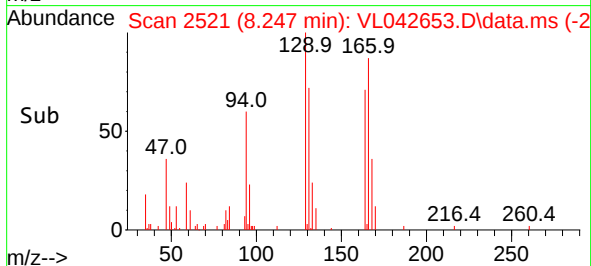
131 101.3 75.2 112.8

Manual Integrations

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Reviewed By :Semsettin Yesilyurt 06/23/2025

Supervised By :Mahesh Dadoda 06/23/2025



#53

Toluene

Concen: 7.278 ppbv

RT: 6.962 min Scan# 2124

Delta R.T. 0.019 min

Lab File: VL042653.D

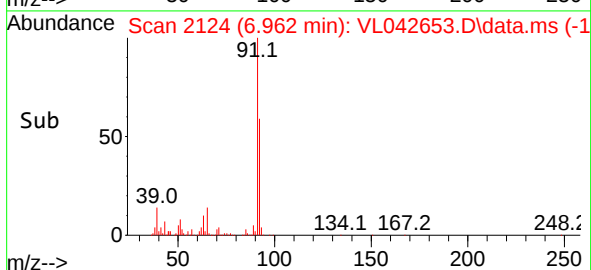
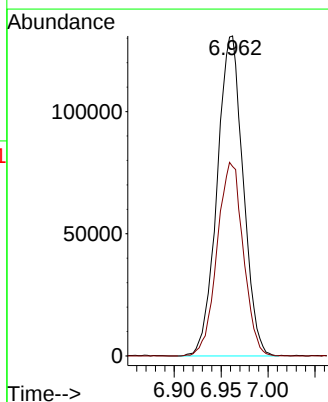
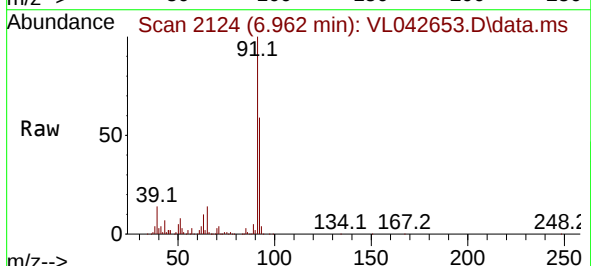
Acq: 19 Jun 2025 13:37

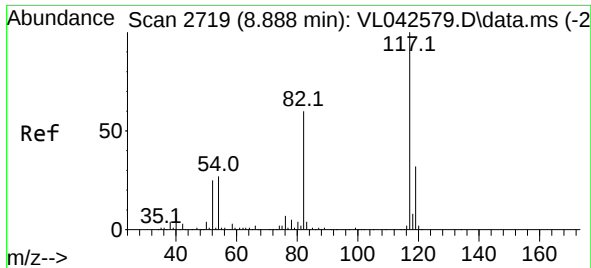
Tgt Ion: 91 Resp: 252517

Ion Ratio Lower Upper

91 100

92 60.8 48.2 72.4





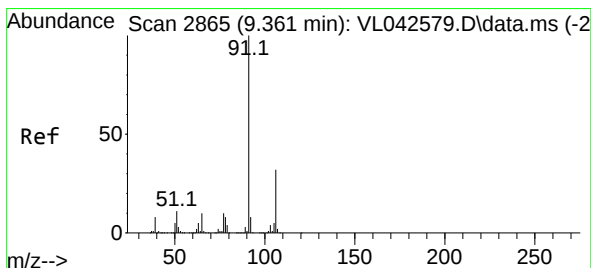
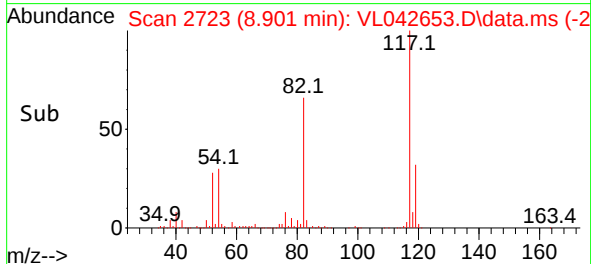
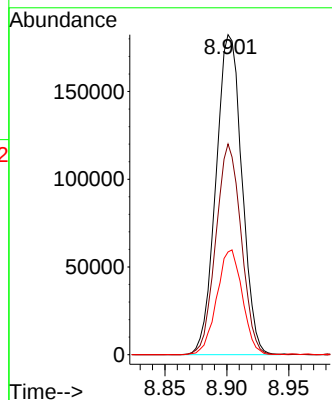
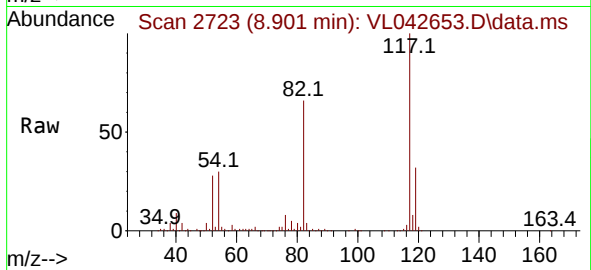
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.901 min Scan# 2719
Delta R.T. 0.013 min
Lab File: VL042653.D
Acq: 19 Jun 2025 13:37

Instrument :
MSVOA_L
ClientSampleId :
IA1

Tgt Ion:117 Resp: 266450
Ion Ratio Lower Upper
117 100
82 64.3 51.2 76.8
119 32.3 26.3 39.5

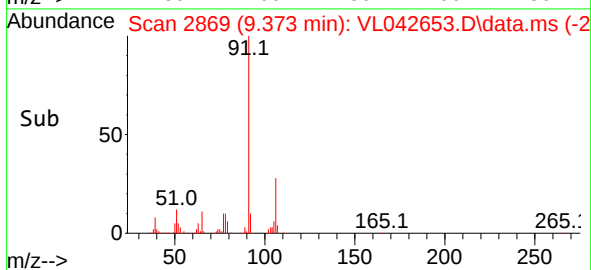
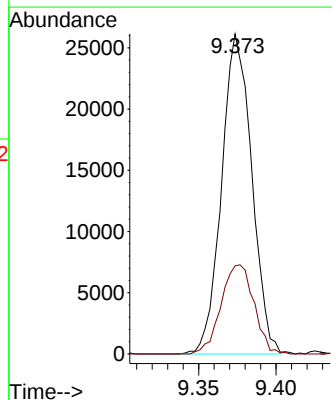
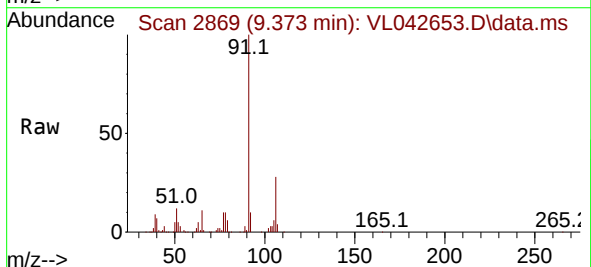
Manual Integrations
APPROVED

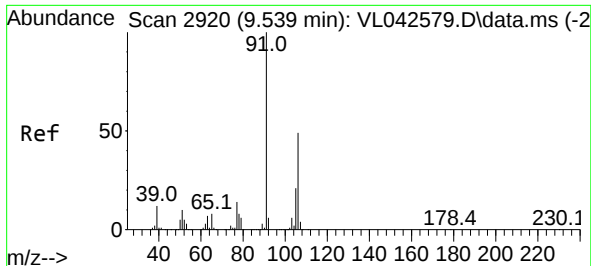
Reviewed By :Semsettin Yesilyurt 06/23/2025
Supervised By :Mahesh Dadoda 06/23/2025



#58
Ethyl Benzene
Concen: 0.781 ppbv
RT: 9.373 min Scan# 2869
Delta R.T. 0.013 min
Lab File: VL042653.D
Acq: 19 Jun 2025 13:37

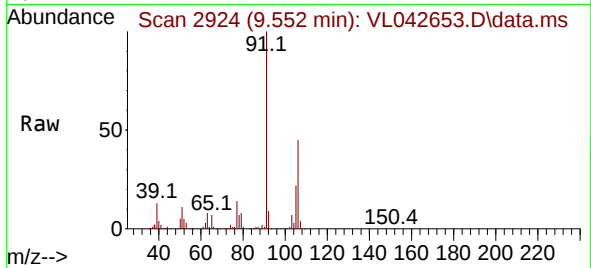
Tgt Ion: 91 Resp: 35314
Ion Ratio Lower Upper
91 100
106 27.5 25.9 38.9





#59
m/p-Xylene
Concen: 2.972 ppbv m
RT: 9.552 min Scan# 2924
Delta R.T. 0.013 min
Lab File: VL042653.D
Acq: 19 Jun 2025 13:37

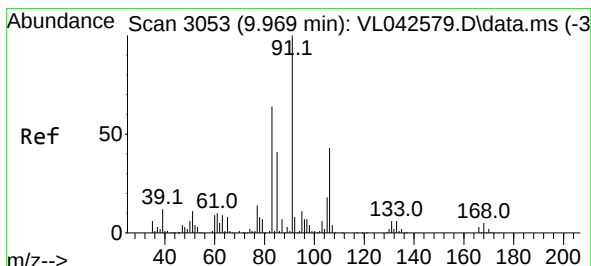
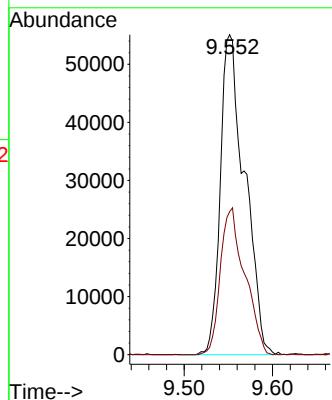
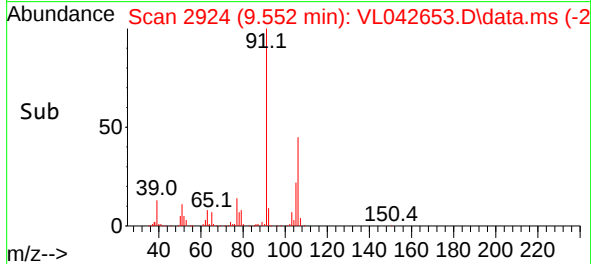
Instrument :
MSVOA_L
ClientSampleId :
IA1



Tgt Ion: 91 Resp: 105708
Ion Ratio Lower Upper
91 100
106 46.0 38.8 58.2

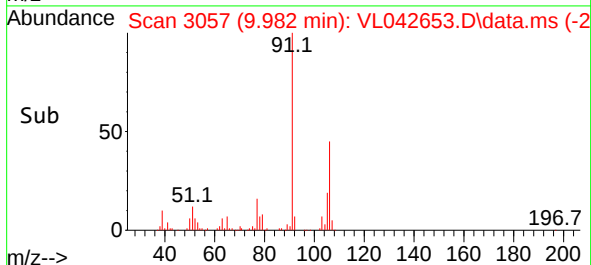
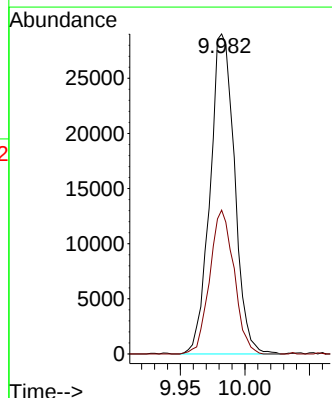
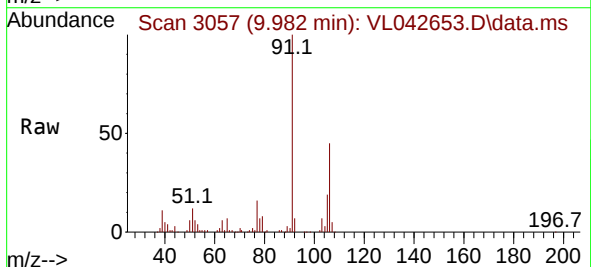
Manual Integrations
APPROVED

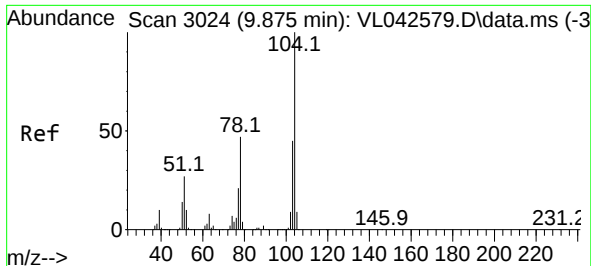
Reviewed By :Semsettin Yesilyurt 06/23/2025
Supervised By :Mahesh Dadoda 06/23/2025



#60
o-Xylene
Concen: 1.080 ppbv
RT: 9.982 min Scan# 3057
Delta R.T. 0.013 min
Lab File: VL042653.D
Acq: 19 Jun 2025 13:37

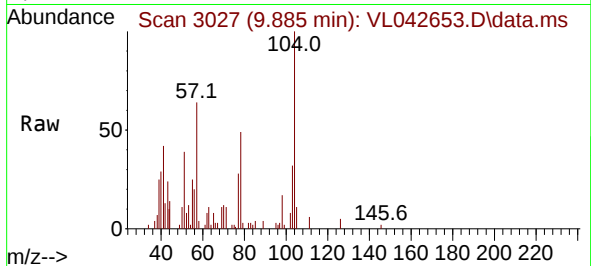
Tgt Ion: 91 Resp: 38319
Ion Ratio Lower Upper
91 100
106 44.5 22.9 68.5





#61
Styrene
Concen: 0.298 ppbv
RT: 9.885 min Scan# 3024
Delta R.T. 0.010 min
Lab File: VL042653.D
Acq: 19 Jun 2025 13:37

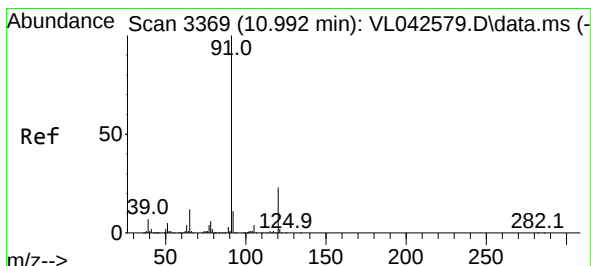
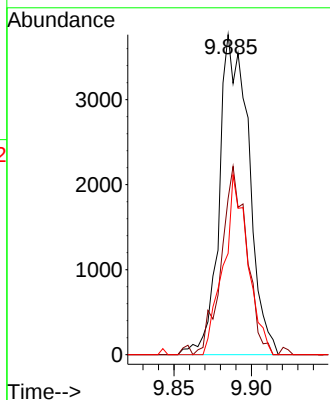
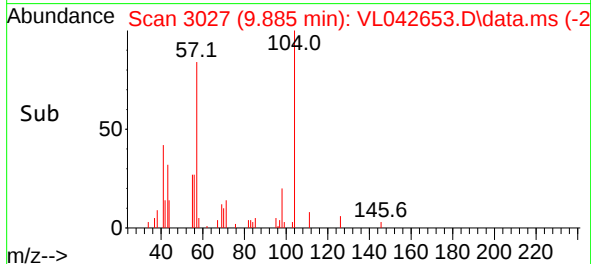
Instrument :
MSVOA_L
ClientSampleId :
IA1



Tgt Ion:104 Resp: 499
Ion Ratio Lower Upper
104 100
78 52.1 38.2 57.4
103 46.5 36.7 55.1

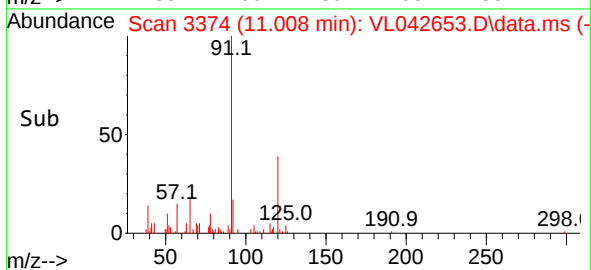
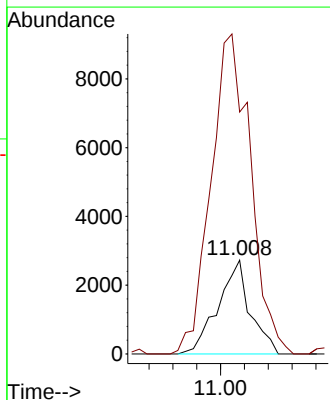
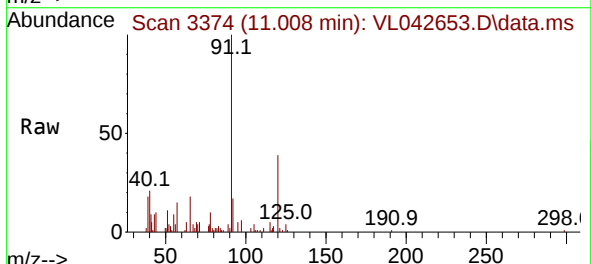
Manual Integrations
APPROVED

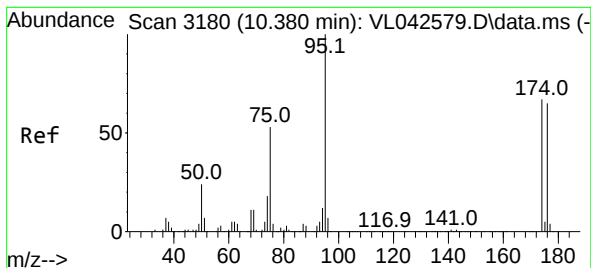
Reviewed By :Semsettin Yesilyurt 06/23/2025
Supervised By :Mahesh Dadoda 06/23/2025



#64
n-propylbenzene
Concen: 0.182 ppbv
RT: 11.008 min Scan# 3374
Delta R.T. 0.016 min
Lab File: VL042653.D
Acq: 19 Jun 2025 13:37

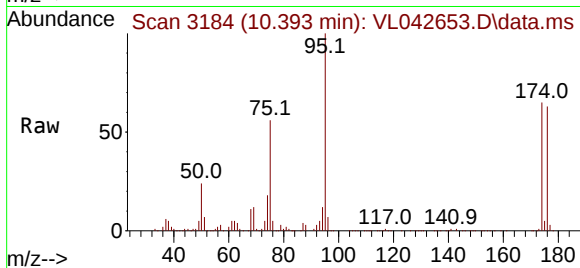
Tgt Ion:120 Resp: 2550
Ion Ratio Lower Upper
120 100
91 414.2 363.0 544.6





#68
1-Bromo-4-Fluorobenzene
Concen: 10.260 ppbv
RT: 10.393 min Scan# 3180
Delta R.T. 0.013 min
Lab File: VL042653.D
Acq: 19 Jun 2025 13:37

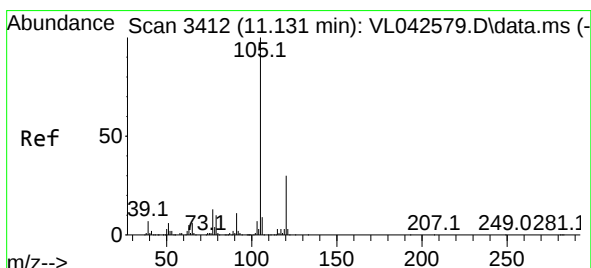
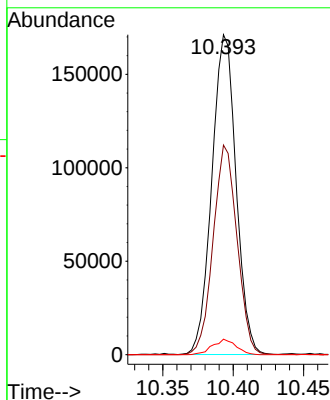
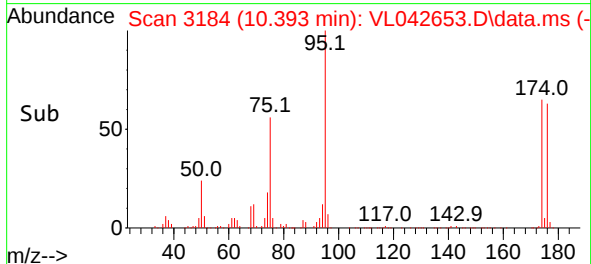
Instrument :
MSVOA_L
ClientSampleId :
IA1



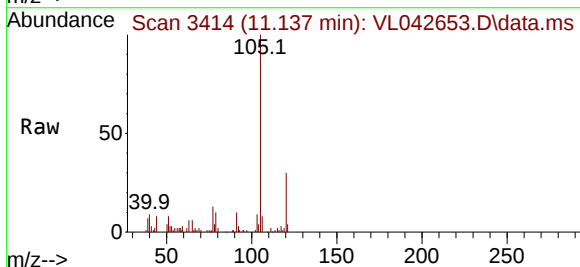
Tgt Ion: 95 Resp: 20493
Ion Ratio Lower Upper
95 100
174 64.7 53.1 79.7
175 4.7 4.2 6.2

Manual Integrations
APPROVED

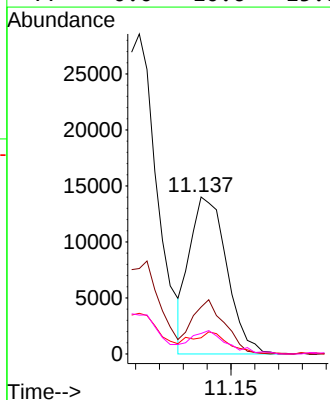
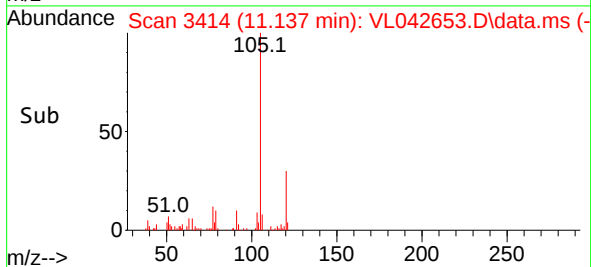
Reviewed By :Semsettin Yesilyurt 06/23/2025
Supervised By :Mahesh Dadoda 06/23/2025

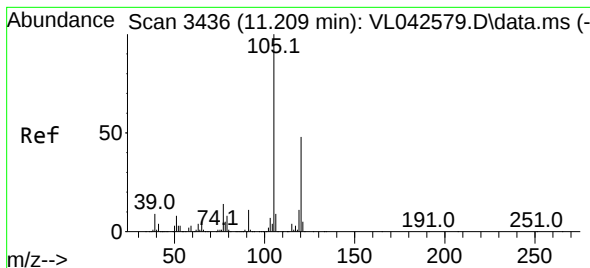


#72
4-Ethyltoluene
Concen: 0.345 ppbv
RT: 11.137 min Scan# 3414
Delta R.T. 0.006 min
Lab File: VL042653.D
Acq: 19 Jun 2025 13:37



Tgt Ion:105 Resp: 15265
Ion Ratio Lower Upper
105 100
120 0.0 24.6 36.8#
91 0.0 9.6 14.4#
77 0.0 10.6 15.8#





#73

1,3,5-Trimethylbenzene

Concen: 0.405 ppbv

RT: 11.218 min Scan# 3436

Delta R.T. 0.010 min

Lab File: VL042653.D

Acq: 19 Jun 2025 13:37

Instrument :

MSVOA_L

ClientSampleId :

IA1

Tgt Ion:105 Resp: 1481

Ion Ratio Lower Upper

105 100

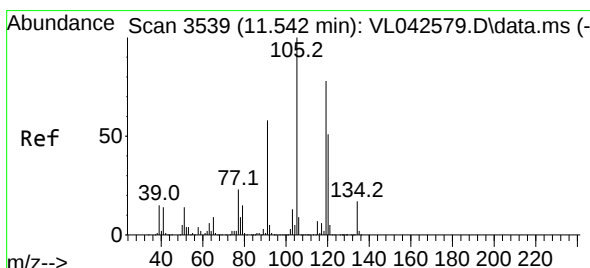
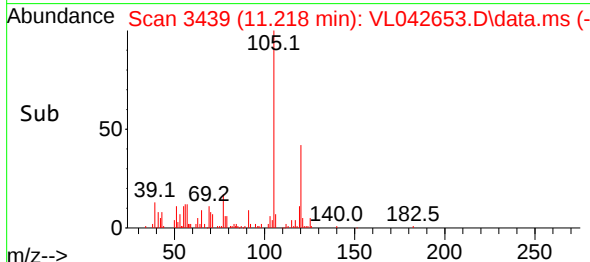
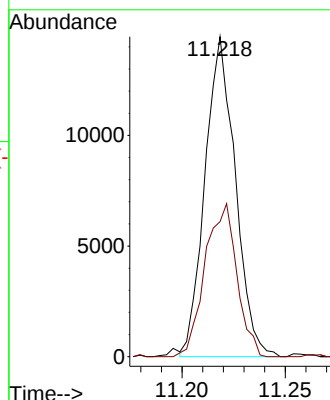
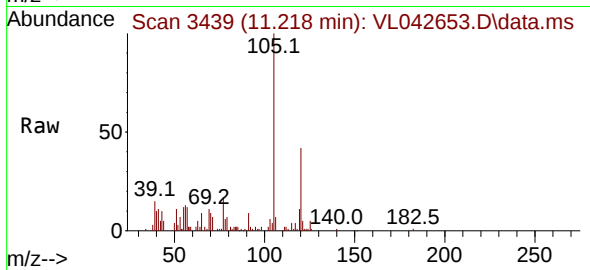
120 42.2 38.8 58.2

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 06/23/2025

Supervised By :Mahesh Dadoda 06/23/2025



#74

1,2,4-Trimethylbenzene

Concen: 1.319 ppbv

RT: 11.552 min Scan# 3542

Delta R.T. 0.010 min

Lab File: VL042653.D

Acq: 19 Jun 2025 13:37

Tgt Ion:105 Resp: 53598

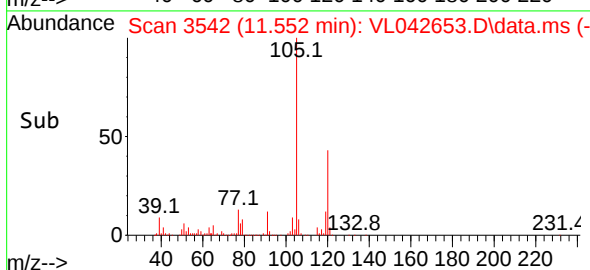
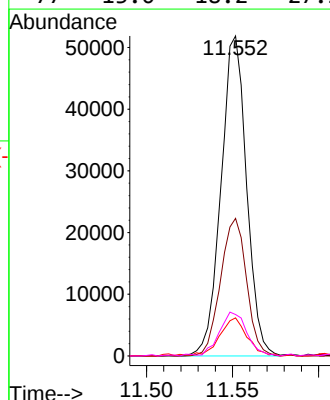
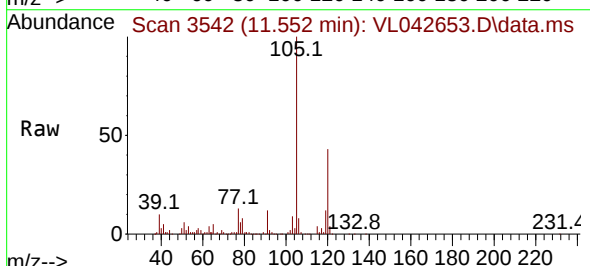
Ion Ratio Lower Upper

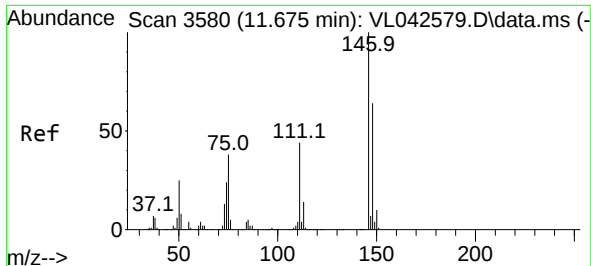
105 100

120 43.0 40.8 61.2

91 11.9 46.8 70.2#

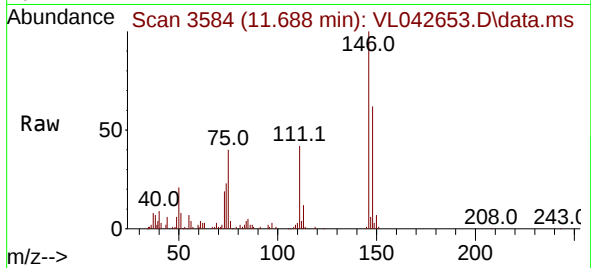
77 13.0 18.2 27.2#





#76
1,4-Dichlorobenzene
Concen: 0.569 ppbv
RT: 11.688 min Scan# 3584
Delta R.T. 0.013 min
Lab File: VL042653.D
Acq: 19 Jun 2025 13:37

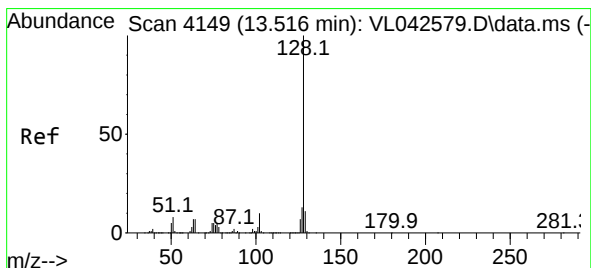
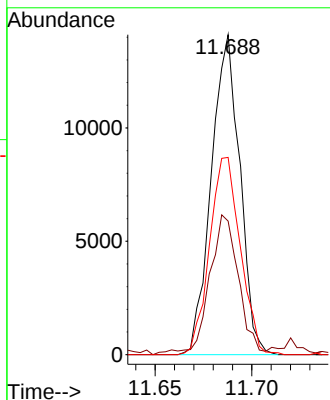
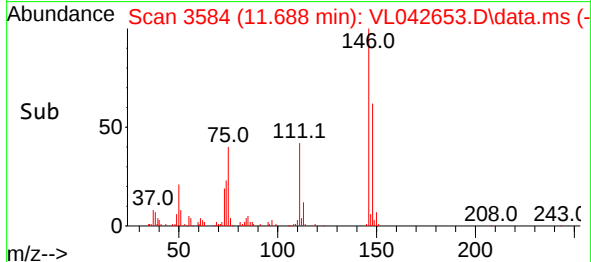
Instrument :
MSVOA_L
ClientSampleId :
IA1



Tgt Ion:146 Resp: 14469
Ion Ratio Lower Upper
146 100
111 49.5 21.6 64.8
148 66.7 32.1 96.5

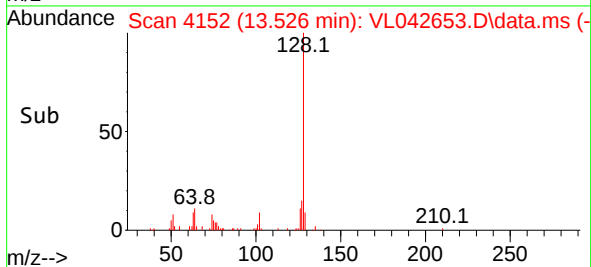
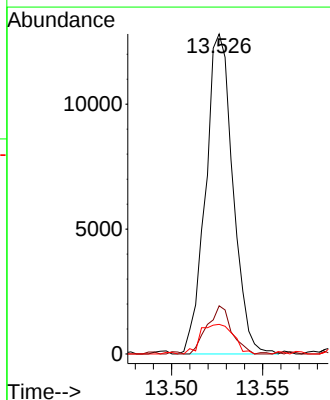
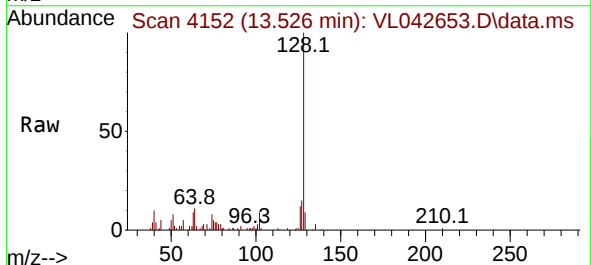
Manual Integrations
APPROVED

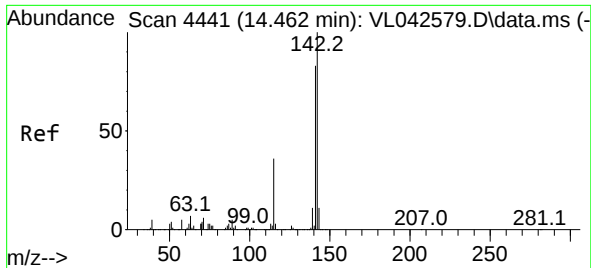
Reviewed By :Semsettin Yesilyurt 06/23/2025
Supervised By :Mahesh Dadoda 06/23/2025



#79
Naphthalene
Concen: 0.349 ppbv
RT: 13.526 min Scan# 4152
Delta R.T. 0.010 min
Lab File: VL042653.D
Acq: 19 Jun 2025 13:37

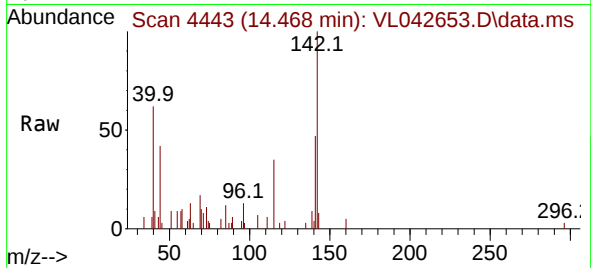
Tgt Ion:128 Resp: 13368
Ion Ratio Lower Upper
128 100
127 14.6 10.2 15.4
129 9.3 8.8 13.2





#80
Naphthalene, 2-methyl-
Concen: 0.126 ppbv
RT: 14.468 min Scan# 44
Delta R.T. 0.006 min
Lab File: VL042653.D
Acq: 19 Jun 2025 13:37

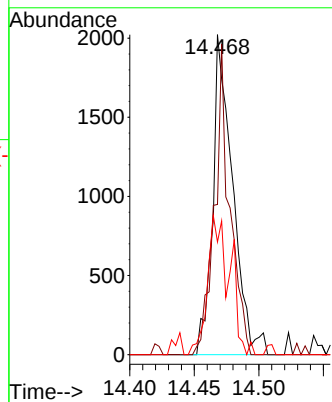
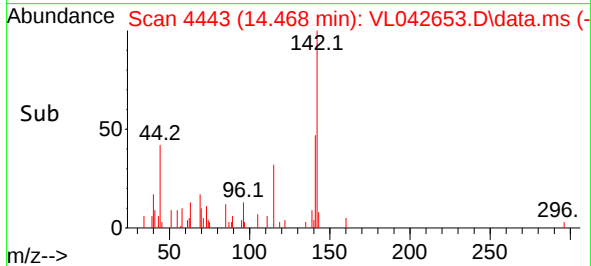
Instrument :
MSVOA_L
ClientSampleId :
IA1



Tgt Ion:	142	Resp:	217
Ion Ratio	Lower	Upper	
142	100		
141	74.0	66.2	99.4
115	52.2	28.3	42.5

Manual Integrations
APPROVED

Reviewed By :Semsettin Yesilyurt 06/23/2025
Supervised By :Mahesh Dadoda 06/23/2025





CALIBRATION SUMMARY

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: GFEL01

Lab Code: CHEM Case No.: Q2369 SAS No.: Q2369 SDG No.: Q2369

Instrument ID: MSVOA_L Calibration Date(s): 05/29/2025 05/29/2025

Heated Purge: (Y/N) N Calibration Time(s): 11:09 14:24

GC Column: RTX-1 ID: 0.32 (mm)

LAB FILE ID:		RRF010 = VL042579.D		RRF002 = VL042580.D		RRF001 = VL042581.D		
		RRF0.5 = VL042582.D		RRF0.1 = VL042583.D		RRF.03 = VL042584.D		
COMPOUND	RRF010	RRF002	RRF001	RRF0.5	RRF0.1	RRF.03	RRF	% RSD
Vinyl Chloride	0.437	0.468	0.487	0.529	0.465	0.675	0.496	17.7
Heptane	1.777	1.981	2.082	2.079			1.921	9.4
1,1-Dichloroethene	0.377	0.437	0.451	0.451			0.416	10.1
Cyclohexane	1.146	1.288	1.363	1.318			1.242	9.4
cis-1,2-Dichloroethene	1.271	1.465	1.461	1.419			1.370	8
1,1,1-Trichloroethane	1.794	2.029	2.043	2.004	2.083	2.207	1.990	7.9
2,2,4-Trimethylpentane	1.522	1.765	1.830	1.811			1.684	9.7
Benzene	0.900	1.027	1.052	1.051			0.985	8.2
Trichloroethene	0.376	0.438	0.455	0.468	0.432	0.389	0.419	9.3
Toluene	1.054	1.197	1.190	1.210			1.138	7.4
Tetrachloroethene	0.333	0.390	0.383	0.391	0.407	0.351	0.368	8.9
Ethyl Benzene	1.547	1.833	1.786	1.770			1.696	8.2
m/p-Xylene	1.212	1.431	1.412	1.411			1.335	8.5
o-Xylene	1.187	1.441	1.410	1.430			1.331	9.9
1,3,5-Trimethylbenzene	1.235	1.475	1.482	1.441			1.374	9.3
1,2,4-Trimethylbenzene	1.335	1.666	1.675	1.640			1.524	12.3
Naphthalene	1.384	1.785	1.634	1.366	1.088		1.437	16.9
1-Bromo-4-Fluorobenzene	0.744	0.741	0.751	0.755	0.751	0.752	0.750	0.7
Hexane	1.350	1.526	1.638	1.690			1.498	11.8

* 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.

Method Path : Z:\voasrv\HPCHEM1\MSVOA_L\methods\

Method File : VL052925AIR.M

Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022

Last Update : Fri May 30 02:01:56 2025

Response Via : Initial Calibration

Calibration Files

0.03=VL042584.D 0.1 =VL042583.D 0.5 =VL042582.D 1 =VL042581.D 2 =VL042580.D 10 =VL042579.D 15 =VL042585.D

Compound	0.03	0.1	0.5	1	2	10	15	Avg	%RSD

1) I Bromochloromethane	-----ISTD-----								
2) T Dichlorodifluo...			1.257	1.353	1.300	1.135	1.101	1.229	8.78
3) Chlorodifluoro...			1.881	1.861	1.826	1.475	1.420	1.693	13.32
4) Chloromethane			0.502	0.529	0.507	0.461	0.434	0.487	7.85
5) T Vinyl Chloride	0.675	0.465	0.529	0.487	0.468	0.437	0.409	0.496	17.69
6) T Bromomethane			0.310	0.251	0.230	0.216	0.200	0.241	17.69
7) Chloroethane			0.214	0.212	0.198	0.175	0.164	0.193	11.60
8) T Dichlorotetra...			1.099	1.098	1.075	0.948	0.900	1.024	9.11
9) T Propene			0.710	0.728	0.722	0.650	0.599	0.682	8.18
10) T Heptane			2.079	2.082	1.981	1.777	1.688	1.921	9.37
11) T Trichlorofluor...			1.193	1.209	1.202	1.071	1.043	1.144	6.98
12) T 1,1,2-Trichlor...			0.903	0.980	0.951	0.838	0.818	0.898	7.79
13) Ethanol			0.114	0.095	0.092	0.058	0.047	0.081	33.96
14) T Bromoethene			0.359	0.346	0.362	0.317	0.304	0.338	7.71
15) T Acetone			1.404	1.484	1.299	0.928	0.908	1.205	22.39
16) T 1,3-Butadiene			0.649	0.636	0.597	0.491	0.480	0.571	14.07
17) tert-Butyl alc...			1.337	1.334	1.279	1.237	1.088	1.255	8.14
18) T 1,1-Dichloroet...			0.451	0.451	0.437	0.377	0.364	0.416	10.11
19) T Isopropyl Alcohol			0.825	0.782	0.742	0.659	0.593	0.720	13.03
20) T Methylene Chlo...			0.473	0.457	0.418	0.326	0.314	0.398	18.57
21) T Allyl Chloride			0.924	0.921	0.866	0.789	0.749	0.850	9.22
22) T trans-1,2-Dich...			0.496	0.517	0.466	0.427	0.418	0.465	9.21
23) T Vinyl Acetate			1.750	1.663	1.686	1.458	1.584	1.628	6.89
24) T 1,1-Dichloroet...			0.996	1.046	1.004	0.903	0.833	0.957	9.03
25) T Ethyl Acetate			3.496	3.585	3.412	3.054	2.934	3.296	8.67
26) T Hexane			1.690	1.638	1.526	1.350	1.286	1.498	11.76
27) T Carbon Disulfide			1.174	1.267	1.198	1.069	1.040	1.150	8.16
28) T Methyl tert-Bu...			0.664	0.693	0.621	0.550	0.511	0.608	12.59
29) T Chloroform			2.099	2.120	2.034	1.755	1.731	1.948	9.74
30) T Cyclohexane			1.318	1.363	1.288	1.146	1.092	1.242	9.38
31) T cis-1,2-Dichlo...			1.419	1.461	1.465	1.271	1.235	1.370	7.96
32) T 1,1,1-Trichlor...	2.207	2.083	2.004	2.043	2.029	1.794	1.771	1.990	7.86

33) I 1,4-Difluorobenzene	-----ISTD-----								
34) T 2-Butanone			0.760	0.754	0.746	0.655	0.651	0.713	7.71
35) T Carbon Tetrach...	0.681	0.706	0.665	0.684	0.670	0.603	0.612	0.660	5.82
36) T Benzene			1.051	1.052	1.027	0.900	0.894	0.985	8.20
37) T 1,2-Dichloroet...			0.518	0.509	0.513	0.448	0.460	0.489	6.72
38) T Trichloroethene	0.389	0.432	0.468	0.455	0.438	0.376	0.373	0.419	9.28
39) T 1,2-Dichloropr...			0.415	0.374	0.373	0.329	0.330	0.364	9.85

Method Path : Z:\voasrv\HPCHEM1\MSVOA_L\methods\ Method File : VL052925AIR.M										
40)	T	1,4-Dioxane		0.172	0.178	0.168	0.152	0.145	0.163	8.70
41)	T	Tetrahydrofuran		0.445	0.446	0.426	0.388	0.382	0.417	7.33
42)	T	Bromodichlorom...		0.702	0.737	0.721	0.656	0.660	0.695	5.17
43)		Methyl Methacr...		0.398	0.384	0.406	0.366	0.357	0.382	5.36
44)	T	2,2,4-Trimethy...		1.811	1.830	1.765	1.522	1.495	1.684	9.67
45)	T	t-1,3-Dichloro...		0.433	0.455	0.456	0.424	0.418	0.437	4.01
46)	T	cis-1,3-Dichlo...		0.567	0.568	0.555	0.527	0.523	0.548	3.99
47)	T	1,1,2-Trichlor...		0.406	0.401	0.394	0.343	0.340	0.377	8.69
48)	T	Dibromochlorom...		0.600	0.642	0.635	0.570	0.571	0.603	5.64
49)	T	Bromoform		0.524	0.519	0.553	0.508	0.501	0.521	3.83
50)	T	4-Methyl-2-Pen...		1.036	1.030	1.002	0.958	0.919	0.989	5.05
51)	T	2-Hexanone		0.752	0.818	0.824	0.779	0.749	0.784	4.49
52)	T	Tetrachloroethene	0.351 0.407	0.391	0.383	0.390	0.333	0.321	0.368	8.93
53)	T	Toluene		1.210	1.190	1.197	1.054	1.040	1.138	7.35
54)	T	1,2-Dibromoethane	0.575	0.578	0.590	0.576	0.516	0.513	0.558	6.15
-----ISTD-----										
55)	I	Chlorobenzene-d5								
56)		1,1,1,2-Tetrac...		0.520	0.536	0.528	0.467	0.464	0.503	6.95
57)	T	Chlorobenzene		1.081	1.028	1.014	0.868	0.865	0.971	10.17
58)	T	Ethyl Benzene		1.770	1.786	1.833	1.547	1.545	1.696	8.19
59)	T	m/p-Xylene		1.411	1.412	1.431	1.212	1.208	1.335	8.55
60)	T	o-Xylene		1.430	1.410	1.441	1.187	1.188	1.331	9.87
61)	T	Styrene		0.626	0.658	0.678	0.590	0.596	0.629	6.07
62)		Isopropylbenzene		2.060	2.129	2.121	1.772	1.751	1.967	9.62
63)	T	1,1,2,2-Tetrac...	1.054 0.828	0.879	0.861	0.855	0.723	0.727	0.847	13.16
64)		n-propylbenzene		0.579	0.541	0.570	0.471	0.475	0.527	9.74
65)		tert-Butylbenzene		1.945	1.923	1.942	1.577	1.538	1.785	11.68
66)	T	Benzyl Chloride		0.199	0.237	0.252	0.241	0.220	0.230	8.94
67)		sec-Butylbenzene		2.745	2.743	2.699	2.195	2.165	2.509	12.01
68)	S	1-Bromo-4-Fluo...	0.752 0.751	0.755	0.751	0.741	0.744	0.754	0.750	0.68
69)		p-Isopropyltol...		2.241	2.249	2.299	1.868	1.851	2.101	10.57
70)		n-Butylbenzene		2.110	2.267	2.299	1.842	1.853	2.074	10.56
71)		2-Chlorotoluene		1.603	1.620	1.596	1.343	1.339	1.500	9.70
72)	T	4-Ethyltoluene		1.704	1.797	1.823	1.481	1.494	1.660	9.86
73)	T	1,3,5-Trimethy...		1.441	1.482	1.475	1.235	1.236	1.374	9.25
74)	T	1,2,4-Trimethy...		1.640	1.675	1.666	1.335	1.306	1.524	12.26
75)	T	1,3-Dichlorobe...		1.031	1.034	1.040	0.839	0.843	0.957	11.13
76)	T	1,4-Dichlorobe...		0.998	1.040	1.037	0.849	0.851	0.955	10.18
77)	T	1,2-Dichlorobe...		1.019	1.008	1.027	0.798	0.793	0.929	13.14
78)	T	Hexachloro-1,3...		0.872	0.893	0.880	0.607	0.593	0.769	20.11
79)	T	Naphthalene	1.088	1.366	1.634	1.785	1.383	1.366	1.437	16.89
80)	T	Naphthalene,2-...		0.444	0.562	0.781	0.716	0.743	0.649	21.85
81)	T	1,2,4-Trichlor...		0.716	0.889	0.944	0.735	0.727	0.802	13.26

(#) = Out of Range

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL052925\
 Data File : VL042579.D
 Acq On : 29 May 2025 11:09
 Operator : SY/MD
 Sample : VSTDICCC010
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDICCC010

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 05/30/2025
 Supervised By :Mahesh Dadoda 05/30/2025

Quant Time: May 30 01:16:30 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL052925AIR.M

Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 2

QLast Update : Fri May 30 01:15:52 2025

Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	2.790	49	102792	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.962	114	307854	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.888	117	285844	10.000	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene 10.380 95 212758 9.929 ppbv 0.00
 Spiked Amount 10.000 Range 65 - 135 Recovery = 99.300%

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.499	85	116625	9.232	ppbv	100
3) Chlorodifluoromethane	1.476	51	151637	8.715	ppbv	100
4) Chloromethane	1.534	50	47416	9.478	ppbv	100
5) Vinyl Chloride	1.580	62	44895	8.809	ppbv	100
6) Bromomethane	1.667	94	22207	8.953	ppbv	100
7) Chloroethane	1.706	64	17953	9.066	ppbv	100
8) Dichlorotetrafluoroethane	1.554	85	97419	9.255	ppbv	100
9) Propene	1.483	41	66767	9.529	ppbv	100
10) Heptane	4.981	43	182619	9.236	ppbv	100
11) Trichlorofluoromethane	1.877	101	110055	9.363	ppbv	100
12) 1,1,2-Trichlorotrifluo...	2.140	101	86117	9.330	ppbv	100
13) Ethanol	1.722	45	5975m	7.639	ppbv	
14) Bromoethene	1.784	108	32588	9.386	ppbv	100
15) Acetone	1.835	43	95441	7.708	ppbv	100
16) 1,3-Butadiene	1.609	39	50485	8.607	ppbv	100
17) tert-Butyl alcohol	2.043	59	127162	9.858	ppbv	100
18) 1,1-Dichloroethene	2.036	96	38765	9.026	ppbv	100
19) Isopropyl Alcohol	1.887	45	67731	9.151	ppbv	100
20) Methylene Chloride	2.062	84	33544	8.209	ppbv	100
21) Allyl Chloride	2.098	41	81153	9.289	ppbv	100
22) trans-1,2-Dichloroethene	2.344	96	43936	9.165	ppbv	100
23) Vinyl Acetate	2.467	43	149858	8.954	ppbv	100
24) 1,1-Dichloroethane	2.412	63	92836	9.442	ppbv	100
25) Ethyl Acetate	2.839	43	313915	9.264	ppbv	100
26) Hexane	2.829	57	138771	9.013	ppbv	100
27) Carbon Disulfide	2.153	76	109904	9.298	ppbv	100
28) Methyl tert-Butyl Ether	2.444	73	56510	9.045	ppbv	100
29) Chloroform	2.852	83	180449	9.013	ppbv	100
30) Cyclohexane	3.858	84	117833	9.232	ppbv	100
31) cis-1,2-Dichloroethene	2.722	61	130618	9.274	ppbv	100
32) 1,1,1-Trichloroethane	3.370	97	184372	9.177	ppbv	100
34) 2-Butanone	2.560	43	201796	9.192	ppbv	100
35) Carbon Tetrachloride	3.768	117	185629	9.132	ppbv	100
36) Benzene	3.661	78	277132	9.142	ppbv	100
37) 1,2-Dichloroethane	3.221	62	137914	9.153	ppbv	100
38) Trichloroethene	4.551	130	115772	8.916	ppbv	100
39) 1,2-Dichloropropane	4.318	63	101185	9.029	ppbv	100
40) 1,4-Dioxane	4.590	88	46671	9.797	ppbv #	100
41) Tetrahydrofuran	3.059	42	119530	9.301	ppbv	100
42) Bromodichloromethane	4.496	83	202026	9.441	ppbv	100
43) Methyl Methacrylate	4.884	69	112746	9.595	ppbv	100
44) 2,2,4-Trimethylpentane	4.648	57	468572	9.043	ppbv	100
45) t-1,3-Dichloropropene	6.422	75	130611	9.700	ppbv	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL052925\
 Data File : VL042579.D
 Acq On : 29 May 2025 11:09
 Operator : SY/MD
 Sample : VSTDICCC010
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDICCC010

Manual Integrations
 APPROVED

Reviewed By : Semsettin Yesilyurt 05/30/2025
 Supervised By : Mahesh Dadoda 05/30/2025

Quant Time: May 30 01:16:30 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL052925AIR.M

Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 2

QLast Update : Fri May 30 01:15:52 2025

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
46) cis-1,3-Dichloropropene	5.609	75	162155	9.614	ppbv	100
47) 1,1,2-Trichloroethane	6.587	97	105576	9.097	ppbv	100
48) Dibromochloromethane	7.396	129	175572	9.450	ppbv	100
49) Bromoform	9.490	173	156317	9.751	ppbv	100
50) 4-Methyl-2-Pentanone	5.758	43	294836	9.643	ppbv	100
51) 2-Hexanone	7.445	43	239826	9.930	ppbv	100
52) Tetrachloroethene	8.231	164	102403	9.038	ppbv	100
53) Toluene	6.943	91	324605	9.264	ppbv	100
54) 1,2-Dibromoethane	7.658	107	158813	9.231	ppbv	100
56) 1,1,1,2-Tetrachloroethane	8.930	131	133368	9.279	ppbv	100
57) Chlorobenzene	8.927	112	248085	8.938	ppbv	100
58) Ethyl Benzene	9.361	91	442268	9.121	ppbv	100
59) m/p-Xylene	9.539	91	692934m	18.156	ppbv	
60) o-Xylene	9.969	91	339403	8.919	ppbv	100
61) Styrene	9.875	104	168674	9.374	ppbv	100
62) Isopropylbenzene	10.545	105	506586	9.010	ppbv	100
63) 1,1,2,2-Tetrachloroethane	9.969	83	206564	8.536	ppbv	100
64) n-propylbenzene	10.992	120	134675	8.936	ppbv	99
65) tert-Butylbenzene	11.536	119	450639	8.833	ppbv	100
66) Benzyl Chloride	11.620	91	68801	10.457	ppbv	100
67) sec-Butylbenzene	11.772	105	627565	8.749	ppbv	100
69) p-Isopropyltoluene	11.931	119	533961	8.889	ppbv	100
70) n-Butylbenzene	12.287	91	526566	8.881	ppbv	100
71) 2-Chlorotoluene	10.904	91	383881	8.952	ppbv	100
72) 4-Ethyltoluene	11.131	105	423227	8.920	ppbv	100
73) 1,3,5-Trimethylbenzene	11.209	105	352978	8.989	ppbv	100
74) 1,2,4-Trimethylbenzene	11.542	105	381512	8.755	ppbv	100
75) 1,3-Dichlorobenzene	11.613	146	239782	8.762	ppbv	100
76) 1,4-Dichlorobenzene	11.675	146	242731	8.894	ppbv	100
77) 1,2-Dichlorobenzene	11.950	146	228222	8.593	ppbv	100
78) Hexachloro-1,3-Butadiene	13.885	225	173447	7.893	ppbv	100
79) Naphthalene	13.516	128	395465	9.666	ppbv	100
80) Naphthalene,2-methyl-	14.462	142	204746	11.045	ppbv	100
81) 1,2,4-Trichlorobenzene	13.445	180	210120	9.163	ppbv	100

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL052925\
 Data File : VL042580.D
 Acq On : 29 May 2025 11:43
 Operator : SY/MD
 Sample : VSTDICC002
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDICC002

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 05/30/2025
 Supervised By :Mahesh Dadoda 05/30/2025

Quant Time: May 30 01:17:26 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL052925AIR.M

Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 2

QLast Update : Fri May 30 01:15:52 2025

Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	2.790	49	104930	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.965	114	310090	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.888	117	284199	10.000	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene 10.380 95 210508 9.881 ppbv 0.00
 Spiked Amount 10.000 Range 65 - 135 Recovery = 98.800%

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.499	85	27278	2.115	ppbv	99
3) Chlorodifluoromethane	1.476	51	38320	2.157	ppbv	98
4) Chloromethane	1.534	50	10641	2.084	ppbv	98
5) Vinyl Chloride	1.580	62	9819	1.887	ppbv	98
6) Bromomethane	1.670	94	4819	1.903	ppbv	83
7) Chloroethane	1.706	64	4162	2.059	ppbv #	85
8) Dichlorotetrafluoroethane	1.554	85	22568	2.100	ppbv	98
9) Propene	1.483	41	15155	2.119	ppbv	96
10) Heptane	4.988	43	41577	2.060	ppbv	97
11) Trichlorofluoromethane	1.878	101	25215	2.101	ppbv	94
12) 1,1,2-Trichlorotrifluo...	2.143	101	19963	2.119	ppbv	99
13) Ethanol	1.722	45	1925m	2.411	ppbv	
14) Bromoethene	1.784	108	7607	2.146	ppbv #	94
15) Acetone	1.839	43	27254	2.156	ppbv	100
16) 1,3-Butadiene	1.609	39	12523	2.092	ppbv	95
17) tert-Butyl alcohol	2.046	59	26842	2.039	ppbv	96
18) 1,1-Dichloroethene	2.036	96	9179	2.094	ppbv	95
19) Isopropyl Alcohol	1.887	45	15567	2.060	ppbv #	43
20) Methylene Chloride	2.062	84	8763	2.101	ppbv	95
21) Allyl Chloride	2.098	41	18178	2.038	ppbv	91
22) trans-1,2-Dichloroethene	2.344	96	9775	1.998	ppbv	97
23) Vinyl Acetate	2.467	43	35373	2.070	ppbv #	96
24) 1,1-Dichloroethane	2.412	63	21077	2.100	ppbv	98
25) Ethyl Acetate	2.842	43	71613	2.070	ppbv	99
26) Hexane	2.829	57	32018	2.037	ppbv	97
27) Carbon Disulfide	2.153	76	25143	2.084	ppbv #	62
28) Methyl tert-Butyl Ether	2.444	73	13034	2.044	ppbv #	90
29) Chloroform	2.852	83	42693	2.089	ppbv	93
30) Cyclohexane	3.858	84	27030	2.075	ppbv	96
31) cis-1,2-Dichloroethene	2.726	61	30737	2.138	ppbv	93
32) 1,1,1-Trichloroethane	3.373	97	42588	2.077	ppbv	99
34) 2-Butanone	2.564	43	46279	2.093	ppbv	100
35) Carbon Tetrachloride	3.768	117	41545	2.029	ppbv	95
36) Benzene	3.661	78	63709	2.086	ppbv	96
37) 1,2-Dichloroethane	3.221	62	31831	2.097	ppbv	97
38) Trichloroethene	4.554	130	27139	2.075	ppbv	95
39) 1,2-Dichloropropane	4.321	63	23145	2.050	ppbv	98
40) 1,4-Dioxane	4.603	88	10426m	2.173	ppbv	
41) Tetrahydrofuran	3.062	42	26391	2.039	ppbv	96
42) Bromodichloromethane	4.496	83	44705	2.074	ppbv	90
43) Methyl Methacrylate	4.894	69	25156m	2.126	ppbv	
44) 2,2,4-Trimethylpentane	4.648	57	109446	2.097	ppbv	100
45) t-1,3-Dichloropropene	6.432	75	28273m	2.085	ppbv	

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL052925\
 Data File : VL042580.D
 Acq On : 29 May 2025 11:43
 Operator : SY/MD
 Sample : VSTDICC002
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDICC002

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 05/30/2025
 Supervised By :Mahesh Dadoda 05/30/2025

Quant Time: May 30 01:17:26 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL052925AIR.M

Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 2

QLast Update : Fri May 30 01:15:52 2025

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
46) cis-1,3-Dichloropropene	5.613	75	34445	2.027	ppbv	98
47) 1,1,2-Trichloroethane	6.590	97	24455	2.092	ppbv	94
48) Dibromochloromethane	7.396	129	39361	2.103	ppbv	99
49) Bromoform	9.487	173	34270	2.122	ppbv	98
50) 4-Methyl-2-Pentanone	5.771	43	62167	2.018	ppbv	99
51) 2-Hexanone	7.451	43	51074	2.100	ppbv #	97
52) Tetrachloroethene	8.234	164	24205	2.121	ppbv	95
53) Toluene	6.940	91	74240	2.104	ppbv	99
54) 1,2-Dibromoethane	7.661	107	35750	2.063	ppbv	94
56) 1,1,1,2-Tetrachloroethane	8.933	131	30026	2.101	ppbv	97
57) Chlorobenzene	8.930	112	57617	2.088	ppbv	95
58) Ethyl Benzene	9.361	91	104171	2.161	ppbv	96
59) m/p-Xylene	9.558	91	162694m	4.288	ppbv	
60) o-Xylene	9.969	91	81886	2.164	ppbv	97
61) Styrene	9.879	104	38542	2.154	ppbv	99
62) Isopropylbenzene	10.545	105	120576	2.157	ppbv	98
63) 1,1,2,2-Tetrachloroethane	9.969	83	48590	2.020	ppbv	99
64) n-propylbenzene	10.995	120	32406	2.163	ppbv	100
65) tert-Butylbenzene	11.536	119	110380	2.176	ppbv	99
66) Benzyl Chloride	11.620	91	14327	2.190	ppbv	98
67) sec-Butylbenzene	11.772	105	153401	2.151	ppbv	99
69) p-Isopropyltoluene	11.931	119	130647	2.188	ppbv	99
70) n-Butylbenzene	12.287	91	130662	2.216	ppbv	100
71) 2-Chlorotoluene	10.908	91	90725	2.128	ppbv	99
72) 4-Ethyltoluene	11.128	105	103640	2.197	ppbv	98
73) 1,3,5-Trimethylbenzene	11.209	105	83829	2.147	ppbv	100
74) 1,2,4-Trimethylbenzene	11.542	105	94716	2.186	ppbv	98
75) 1,3-Dichlorobenzene	11.610	146	59138	2.174	ppbv	98
76) 1,4-Dichlorobenzene	11.675	146	58920	2.171	ppbv	99
77) 1,2-Dichlorobenzene	11.953	146	58400	2.212	ppbv	96
78) Hexachloro-1,3-Butadiene	13.885	225	49999	2.288	ppbv	98
79) Naphthalene	13.517	128	101451	2.494	ppbv	98
80) Naphthalene,2-methyl-	14.462	142	44376	2.408	ppbv	99
81) 1,2,4-Trichlorobenzene	13.445	180	53653	2.353	ppbv	97

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL052925\
 Data File : VL042581.D
 Acq On : 29 May 2025 12:15
 Operator : SY/MD
 Sample : VSTDICC001
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDICC001

Manual Integrations
 APPROVED

Reviewed By : Semsettin Yesilyurt 05/30/2025
 Supervised By : Mahesh Dadoda 05/30/2025

Quant Time: May 30 01:18:23 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL052925AIR.M

Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 2

QLast Update : Fri May 30 01:15:52 2025

Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	2.787	49	101864	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.959	114	307159	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.885	117	279402	10.000	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene 10.377 95 209886 10.021 ppbv 0.00
 Spiked Amount 10.000 Range 65 - 135 Recovery = 100.200%

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.499	85	13779	1.101	ppbv	95
3) Chlorodifluoromethane	1.476	51	18960	1.100	ppbv	99
4) Chloromethane	1.531	50	5387	1.087	ppbv	89
5) Vinyl Chloride	1.580	62	4964	0.983	ppbv	99
6) Bromomethane	1.667	94	2560	1.041	ppbv	99
7) Chloroethane	1.703	64	2164	1.103	ppbv #	84
8) Dichlorotetrafluoroethane	1.554	85	11182	1.072	ppbv	98
9) Propene	1.483	41	7413	1.068	ppbv	97
10) Heptane	4.981	43	21213m	1.083	ppbv	
11) Trichlorofluoromethane	1.878	101	12319	1.058	ppbv	95
12) 1,1,2-Trichlorotrifluo...	2.136	101	9979	1.091	ppbv	98
13) Ethanol	1.722	45	968	1.249	ppbv #	61
14) Bromoethene	1.780	108	3524	1.024	ppbv #	97
15) Acetone	1.835	43	15114	1.232	ppbv	98
16) 1,3-Butadiene	1.609	39	6483	1.115	ppbv	92
17) tert-Butyl alcohol	2.043	59	13587	1.063	ppbv #	83
18) 1,1-Dichloroethene	2.036	96	4598	1.080	ppbv	85
19) Isopropyl Alcohol	1.887	45	7964	1.086	ppbv #	38
20) Methylene Chloride	2.062	84	4654	1.149	ppbv	98
21) Allyl Chloride	2.094	41	9378	1.083	ppbv #	83
22) trans-1,2-Dichloroethene	2.340	96	5269	1.109	ppbv	98
23) Vinyl Acetate	2.463	43	16945	1.022	ppbv #	96
24) 1,1-Dichloroethane	2.408	63	10651	1.093	ppbv #	98
25) Ethyl Acetate	2.839	43	36518	1.088	ppbv	99
26) Hexane	2.826	57	16686	1.094	ppbv	99
27) Carbon Disulfide	2.149	76	12910	1.102	ppbv #	22
28) Methyl tert-Butyl Ether	2.441	73	7064	1.141	ppbv	93
29) Chloroform	2.849	83	21594	1.088	ppbv	100
30) Cyclohexane	3.858	84	13889	1.098	ppbv	96
31) cis-1,2-Dichloroethene	2.722	61	14880	1.066	ppbv	89
32) 1,1,1-Trichloroethane	3.370	97	20811	1.045	ppbv	97
34) 2-Butanone	2.560	43	23148	1.057	ppbv	99
35) Carbon Tetrachloride	3.765	117	21013	1.036	ppbv	89
36) Benzene	3.658	78	32310	1.068	ppbv	99
37) 1,2-Dichloroethane	3.218	62	15623	1.039	ppbv	97
38) Trichloroethene	4.551	130	13969	1.078	ppbv	98
39) 1,2-Dichloropropane	4.321	63	11488	1.027	ppbv	87
40) 1,4-Dioxane	4.600	88	5479m	1.153	ppbv	
41) Tetrahydrofuran	3.062	42	13711	1.069	ppbv	99
42) Bromodichloromethane	4.490	83	22628	1.060	ppbv #	96
43) Methyl Methacrylate	4.884	69	11810	1.007	ppbv	97
44) 2,2,4-Trimethylpentane	4.645	57	56202m	1.087	ppbv	
45) t-1,3-Dichloropropene	6.415	75	13988m	1.041	ppbv	

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL052925\
 Data File : VL042581.D
 Acq On : 29 May 2025 12:15
 Operator : SY/MD
 Sample : VSTDICC001
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDICC001

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 05/30/2025
 Supervised By :Mahesh Dadoda 05/30/2025

Quant Time: May 30 01:18:23 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL052925AIR.M

Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA_LFri Aug 2

QLast Update : Fri May 30 01:15:52 2025

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
46) cis-1,3-Dichloropropene	5.600	75	17453m	1.037	ppbv	
47) 1,1,2-Trichloroethane	6.587	97	12328m	1.065	ppbv	
48) Dibromochloromethane	7.393	129	19719	1.064	ppbv	99
49) Bromoform	9.484	173	15937	0.996	ppbv	96
50) 4-Methyl-2-Pentanone	5.765	43	31646	1.037	ppbv	99
51) 2-Hexanone	7.445	43	25135	1.043	ppbv #	96
52) Tetrachloroethene	8.228	164	11770	1.041	ppbv	97
53) Toluene	6.936	91	36540	1.045	ppbv	97
54) 1,2-Dibromoethane	7.658	107	18114	1.055	ppbv	96
56) 1,1,1,2-Tetrachloroethane	8.927	131	14971	1.066	ppbv	95
57) Chlorobenzene	8.927	112	28714	1.058	ppbv	100
58) Ethyl Benzene	9.357	91	49899	1.053	ppbv	96
59) m/p-Xylene	9.535	91	78893m	2.115	ppbv	
60) o-Xylene	9.966	91	39398	1.059	ppbv	99
61) Styrene	9.875	104	18371	1.045	ppbv	100
62) Isopropylbenzene	10.542	105	59492	1.083	ppbv	99
63) 1,1,2,2-Tetrachloroethane	9.966	83	24057	1.017	ppbv	99
64) n-propylbenzene	10.992	120	15107	1.026	ppbv	90
65) tert-Butylbenzene	11.532	119	53720	1.077	ppbv	99
66) Benzyl Chloride	11.617	91	6617	1.029	ppbv	98
67) sec-Butylbenzene	11.769	105	76631	1.093	ppbv	100
69) p-Isopropyltoluene	11.927	119	62849	1.070	ppbv	100
70) n-Butylbenzene	12.283	91	63350	1.093	ppbv	99
71) 2-Chlorotoluene	10.901	91	45250	1.080	ppbv	99
72) 4-Ethyltoluene	11.128	105	50214	1.083	ppbv	99
73) 1,3,5-Trimethylbenzene	11.206	105	41412	1.079	ppbv	100
74) 1,2,4-Trimethylbenzene	11.536	105	46810	1.099	ppbv #	90
75) 1,3-Dichlorobenzene	11.610	146	28889	1.080	ppbv	99
76) 1,4-Dichlorobenzene	11.675	146	29060	1.089	ppbv	98
77) 1,2-Dichlorobenzene	11.950	146	28176	1.085	ppbv	97
78) Hexachloro-1,3-Butadiene	13.882	225	24950	1.162	ppbv	98
79) Naphthalene	13.517	128	45649	1.141	ppbv #	94
80) Naphthalene,2-methyl-	14.458	142	15700	0.866	ppbv	96
81) 1,2,4-Trichlorobenzene	13.442	180	24843	1.108	ppbv	97

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL052925\
 Data File : VL042582.D
 Acq On : 29 May 2025 12:47
 Operator : SY/MD
 Sample : VSTDICC0.5
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDICC0.5

Quant Time: May 30 01:19:18 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL052925AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 2
 QLast Update : Fri May 30 01:15:52 2025
 Response via : Initial Calibration

Manual Integrations APPROVED

Reviewed By : Semsettin Yesilyurt 05/30/2025
 Supervised By : Mahesh Dadoda 05/30/2025

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

Internal Standards						
1) Bromochloromethane	2.790	49	102909	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.962	114	304613	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.885	117	276104	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.380	95	208325	10.065	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	= 100.700%	
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.499	85	6470	0.512	ppbv	98
3) Chlorodifluoromethane	1.476	51	9678	0.556	ppbv	96
4) Chloromethane	1.531	50	2584	0.516	ppbv	97
5) Vinyl Chloride	1.580	62	2721	0.533	ppbv	96
6) Bromomethane	1.667	94	1594	0.642	ppbv #	74
7) Chloroethane	1.706	64	1099	0.554	ppbv	90
8) Dichlorotetrafluoroethane	1.554	85	5655	0.537	ppbv	97
9) Propene	1.483	41	3653	0.521	ppbv	87
10) Heptane	4.988	43	10697	0.540	ppbv	98
11) Trichlorofluoromethane	1.878	101	6138	0.522	ppbv	91
12) 1,1,2-Trichlorotrifluo...	2.140	101	4647	0.503	ppbv	89
13) Ethanol	1.722	45	586m	0.748	ppbv	
14) Bromoethene	1.781	108	1849	0.532	ppbv #	84
15) Acetone	1.836	43	7225	0.583	ppbv	95
16) 1,3-Butadiene	1.609	39	3340	0.569	ppbv	89
17) tert-Butyl alcohol	2.046	59	6877	0.533	ppbv #	92
18) 1,1-Dichloroethene	2.036	96	2319	0.539	ppbv #	73
19) Isopropyl Alcohol	1.887	45	4245	0.573	ppbv #	44
20) Methylene Chloride	2.062	84	2435	0.595	ppbv	93
21) Allyl Chloride	2.098	41	4754	0.544	ppbv	96
22) trans-1,2-Dichloroethene	2.341	96	2553	0.532	ppbv	93
23) Vinyl Acetate	2.464	43	9005	0.537	ppbv #	86
24) 1,1-Dichloroethane	2.409	63	5127	0.521	ppbv #	89
25) Ethyl Acetate	2.842	43	17990	0.530	ppbv	98
26) Hexane	2.826	57	8694	0.564	ppbv	96
27) Carbon Disulfide	2.153	76	6043	0.511	ppbv #	1
28) Methyl tert-Butyl Ether	2.441	73	3416	0.546	ppbv #	81
29) Chloroform	2.849	83	10798	0.539	ppbv	98
30) Cyclohexane	3.855	84	6784m	0.531	ppbv	
31) cis-1,2-Dichloroethene	2.722	61	7302	0.518	ppbv	97
32) 1,1,1-Trichloroethane	3.367	97	10309	0.513	ppbv	98
34) 2-Butanone	2.564	43	11569	0.533	ppbv	99
35) Carbon Tetrachloride	3.761	117	10126	0.503	ppbv	92
36) Benzene	3.661	78	16000	0.533	ppbv	95
37) 1,2-Dichloroethane	3.224	62	7883	0.529	ppbv	98
38) Trichloroethene	4.554	130	7126	0.555	ppbv	92
39) 1,2-Dichloropropane	4.318	63	6317m	0.570	ppbv	
40) 1,4-Dioxane	4.609	88	2618m	0.555	ppbv	
41) Tetrahydrofuran	3.066	42	6775	0.533	ppbv	96
42) Bromodichloromethane	4.490	83	10688	0.505	ppbv	94
43) Methyl Methacrylate	4.888	69	6056	0.521	ppbv	96
44) 2,2,4-Trimethylpentane	4.645	57	27584	0.538	ppbv	96
45) t-1,3-Dichloropropene	6.422	75	6598	0.495	ppbv	92

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL052925\
 Data File : VL042582.D
 Acq On : 29 May 2025 12:47
 Operator : SY/MD
 Sample : VSTDIC0.5
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDIC0.5

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 05/30/2025
 Supervised By :Mahesh Dadoda 05/30/2025

Quant Time: May 30 01:19:18 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL052925AIR.M

Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 2

QLast Update : Fri May 30 01:15:52 2025

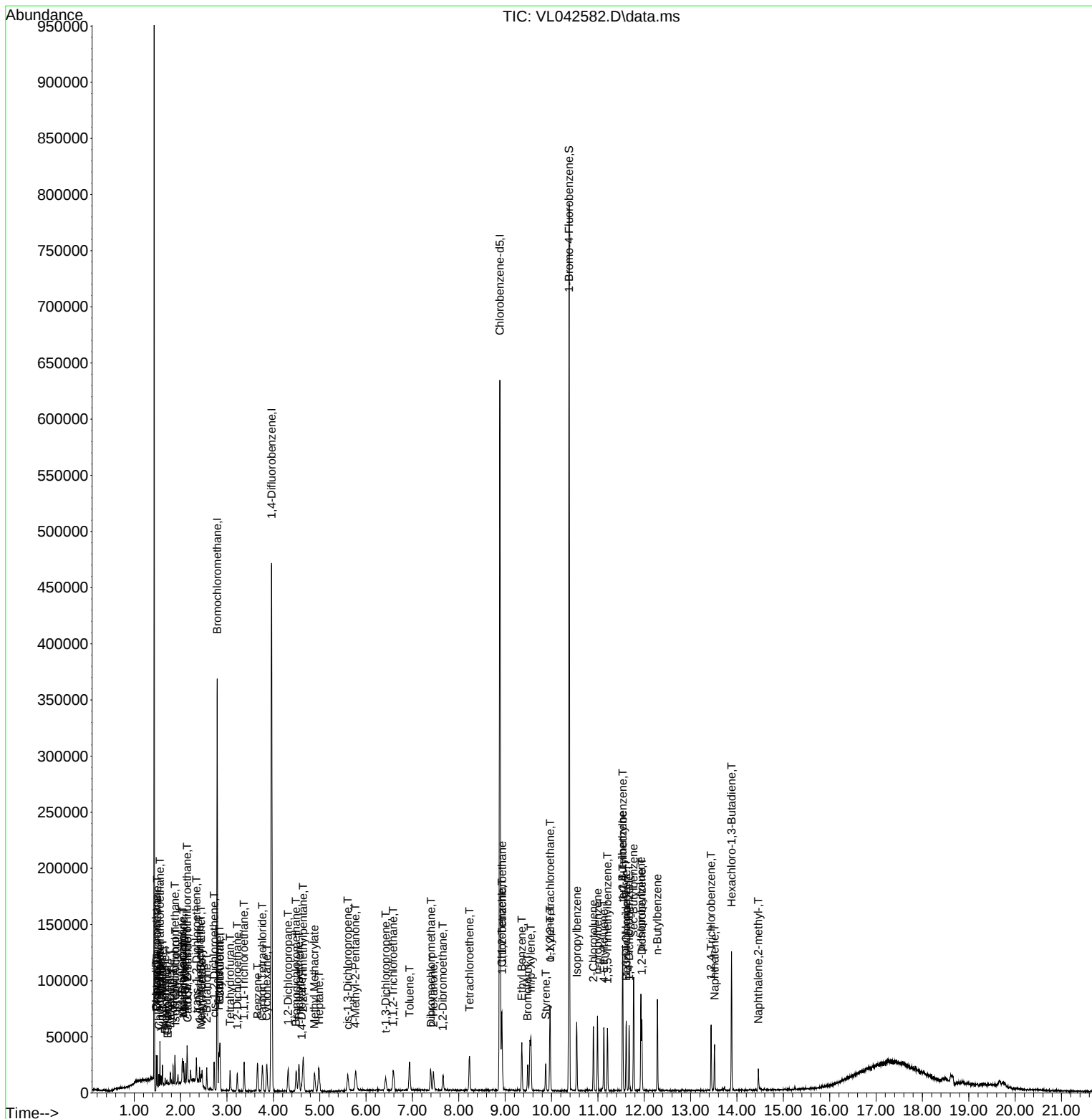
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
46) cis-1,3-Dichloropropene	5.603	75	8637m	0.518	ppbv	
47) 1,1,2-Trichloroethane	6.584	97	6189m	0.539	ppbv	
48) Dibromochloromethane	7.399	129	9133m	0.497	ppbv	
49) Bromoform	9.484	173	7974	0.503	ppbv	98
50) 4-Methyl-2-Pentanone	5.771	43	15782m	0.522	ppbv	
51) 2-Hexanone	7.451	43	11458	0.479	ppbv #	98
52) Tetrachloroethene	8.231	164	5950	0.531	ppbv	87
53) Toluene	6.940	91	18429	0.532	ppbv	100
54) 1,2-Dibromoethane	7.655	107	8810	0.518	ppbv	82
56) 1,1,1,2-Tetrachloroethane	8.934	131	7178	0.517	ppbv	89
57) Chlorobenzene	8.930	112	14920	0.557	ppbv	89
58) Ethyl Benzene	9.358	91	24442	0.522	ppbv	88
59) m/p-Xylene	9.555	91	38955m	1.057	ppbv	
60) o-Xylene	9.966	91	19745	0.537	ppbv	99
61) Styrene	9.875	104	8639	0.497	ppbv	99
62) Isopropylbenzene	10.545	105	28442	0.524	ppbv	99
63) 1,1,2,2-Tetrachloroethane	9.969	83	12137	0.519	ppbv	97
64) n-propylbenzene	10.995	120	7993	0.549	ppbv	97
65) tert-Butylbenzene	11.533	119	26856	0.545	ppbv	99
66) Benzyl Chloride	11.614	91	2753m	0.433	ppbv	
67) sec-Butylbenzene	11.769	105	37899	0.547	ppbv	98
69) p-Isopropyltoluene	11.931	119	30931	0.533	ppbv	99
70) n-Butylbenzene	12.284	91	29130	0.509	ppbv	98
71) 2-Chlorotoluene	10.905	91	22135	0.534	ppbv	100
72) 4-Ethyltoluene	11.128	105	23521	0.513	ppbv	97
73) 1,3,5-Trimethylbenzene	11.206	105	19891	0.524	ppbv	86
74) 1,2,4-Trimethylbenzene	11.536	105	22635	0.538	ppbv #	83
75) 1,3-Dichlorobenzene	11.610	146	14232	0.538	ppbv	98
76) 1,4-Dichlorobenzene	11.675	146	13773	0.522	ppbv	98
77) 1,2-Dichlorobenzene	11.950	146	14062	0.548	ppbv	99
78) Hexachloro-1,3-Butadiene	13.882	225	12036	0.567	ppbv	97
79) Naphthalene	13.517	128	18853	0.477	ppbv	96
80) Naphthalene,2-methyl-	14.462	142	6126	0.342	ppbv	98
81) 1,2,4-Trichlorobenzene	13.442	180	9879	0.446	ppbv	99

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

Manual Integrations APPROVED

Quant Time: May 30 01:19:18 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL052925AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug
QLast Update : Fri May 30 01:15:52 2025
Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL052925\
 Data File : VL042583.D
 Acq On : 29 May 2025 13:19
 Operator : SY/MD
 Sample : VSTDICC0.1
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDICC0.1

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 05/30/2025
 Supervised By :Mahesh Dadoda 05/30/2025

Quant Time: May 30 01:35:41 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL052925AIR.M
 Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA_L Fri Aug 2025
 QLast Update : Fri May 30 01:15:52 2025
 Response via : Initial Calibration

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

Internal Standards							
1) Bromochloromethane		2.790	49	103370	10.000	ppbv	0.00
33) 1,4-Difluorobenzene		3.962	114	302218	10.000	ppbv	0.00
55) Chlorobenzene-d5		8.888	117	273881	10.000	ppbv	0.00
System Monitoring Compounds							
68) 1-Bromo-4-Fluorobenzene		10.380	95	205672	10.018	ppbv	0.00
Spiked Amount		10.000	Range 65 - 135		Recovery	= 100.200%	
Target Compounds							
							Qvalue
5) Vinyl Chloride		1.580	62	481	0.094	ppbv #	31
32) 1,1,1-Trichloroethane		3.373	97	2153	0.107	ppbv	90
35) Carbon Tetrachloride		3.768	117	2135	0.107	ppbv #	76
38) Trichloroethene		4.548	130	1305m	0.102	ppbv	
52) Tetrachloroethene		8.238	164	1230m	0.111	ppbv	
54) 1,2-Dibromoethane		7.658	107	1737m	0.103	ppbv	
63) 1,1,2,2-Tetrachloroethane		9.969	83	2267	0.098	ppbv	96
79) Naphthalene		13.523	128	2980m	0.076	ppbv	

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

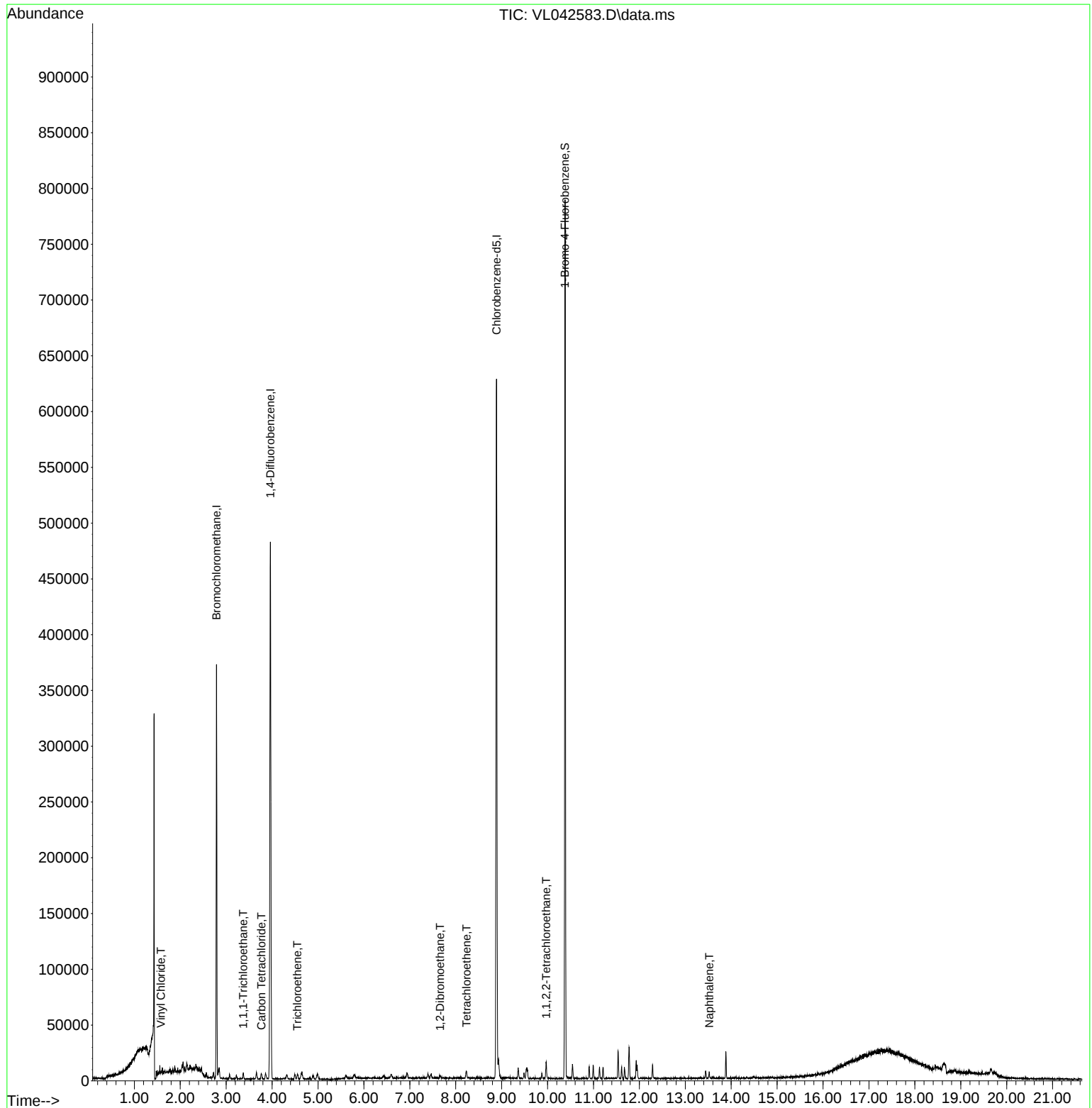
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Data File : VL042583.D
Acq On : 29 May 2025 13:19
Operator : SY/MD
Sample : VSTDICC0.1
Misc : 400mL/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
VSTDICC0.1

Manual Integrations
APPROVED

Reviewed By :Semsettin Yesilyurt 05/30/2025
Supervised By :Mahesh Dadoda 05/30/2025

Quant Time: May 30 01:35:41 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL052925AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug
QLast Update : Fri May 30 01:15:52 2025
Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL052925\
 Data File : VL042584.D
 Acq On : 29 May 2025 13:51
 Operator : SY/MD
 Sample : VSTDICC0.03
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDICC0.03

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 05/30/2025
 Supervised By :Mahesh Dadoda 05/30/2025

Quant Time: May 30 01:36:36 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL052925AIR.M
 Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA_L Fri Aug 2
 QLast Update : Fri May 30 01:15:52 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	2.790	49	103144	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.962	114	305114	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.885	117	273881	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.383	95	205981	10.033	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.300%
Target Compounds						
					Qvalue	
5) Vinyl Chloride	1.577	62	209	0.041	ppbv #	77
32) 1,1,1-Trichloroethane	3.373	97	683m	0.034	ppbv	
35) Carbon Tetrachloride	3.764	117	623m	0.031	ppbv	
38) Trichloroethene	4.541	130	356m	0.028	ppbv	
52) Tetrachloroethene	8.228	164	321m	0.029	ppbv	
63) 1,1,2,2-Tetrachloroethane	9.969	83	866	0.037	ppbv #	82

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

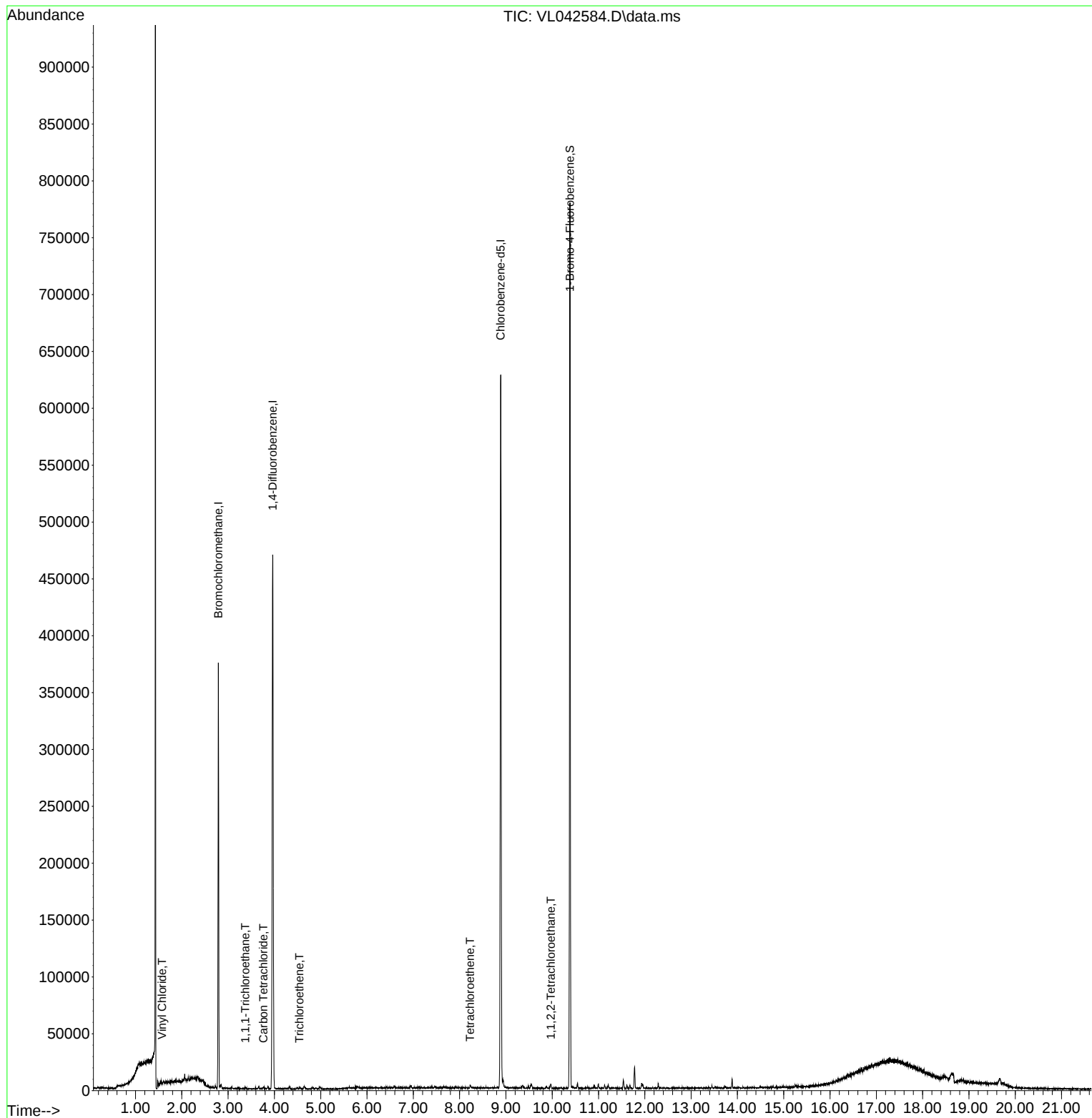
Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL052925\
Data File : VL042584.D
Acq On : 29 May 2025 13:51
Operator : SY/MD
Sample : VSTDICC0.03
Misc : 400mL/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
VSTDICC0.03

Quant Time: May 30 01:36:36 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL052925AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug
QLast Update : Fri May 30 01:15:52 2025
Response via : Initial Calibration

Manual Integrations
APPROVED

Reviewed By : Semsettin Yesilyurt 05/30/2025
Supervised By : Mahesh Dadoda 05/30/2025



Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL052925\
 Data File : VL042585.D
 Acq On : 29 May 2025 14:24
 Operator : SY/MD
 Sample : VSTDIC015
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDIC015

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 05/30/2025
 Supervised By :Mahesh Dadoda 05/30/2025

Quant Time: May 30 01:21:33 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL052925AIR.M

Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 2

QLast Update : Fri May 30 01:15:52 2025

Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	2.790	49	103906	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.962	114	301797	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.888	117	274912	10.000	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene 10.380 95 207170 10.053 ppbv 0.00
 Spiked Amount 10.000 Range 65 - 135 Recovery = 100.500%

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.499	85	171529	13.432	ppbv	98
3) Chlorodifluoromethane	1.476	51	221334	12.584	ppbv	99
4) Chloromethane	1.534	50	67662	13.380	ppbv	99
5) Vinyl Chloride	1.580	62	63738	12.373	ppbv	98
6) Bromomethane	1.667	94	31141	12.420	ppbv	100
7) Chloroethane	1.706	64	25591	12.785	ppbv	100
8) Dichlorotetrafluoroethane	1.554	85	140345	13.189	ppbv	99
9) Propene	1.483	41	93357	13.181	ppbv	97
10) Heptane	4.988	43	263111	13.165	ppbv	100
11) Trichlorofluoromethane	1.877	101	162591	13.684	ppbv	99
12) 1,1,2-Trichlorotrifluo...	2.140	101	127489	13.664	ppbv	99
13) Ethanol	1.722	45	7390m	9.346	ppbv	
14) Bromoethene	1.784	108	47382	13.501	ppbv	99
15) Acetone	1.835	43	141460	11.302	ppbv	98
16) 1,3-Butadiene	1.609	39	74743	12.607	ppbv	100
17) tert-Butyl alcohol	2.042	59	169533	13.002	ppbv	100
18) 1,1-Dichloroethene	2.036	96	56808	13.085	ppbv	99
19) Isopropyl Alcohol	1.887	45	92408	12.351	ppbv	98
20) Methylene Chloride	2.062	84	48862	11.830	ppbv	97
21) Allyl Chloride	2.097	41	116771	13.223	ppbv	100
22) trans-1,2-Dichloroethene	2.343	96	65132	13.441	ppbv	97
23) Vinyl Acetate	2.466	43	246907	14.594	ppbv	99
24) 1,1-Dichloroethane	2.411	63	129870	13.067	ppbv	99
25) Ethyl Acetate	2.839	43	457327	13.352	ppbv	99
26) Hexane	2.829	57	200386	12.876	ppbv	99
27) Carbon Disulfide	2.152	76	162143	13.571	ppbv	96
28) Methyl tert-Butyl Ether	2.441	73	79625	12.608	ppbv	100
29) Chloroform	2.852	83	269752	13.328	ppbv	98
30) Cyclohexane	3.861	84	170261	13.196	ppbv	99
31) cis-1,2-Dichloroethene	2.722	61	192562	13.526	ppbv	98
32) 1,1,1-Trichloroethane	3.373	97	276026	13.591	ppbv	99
34) 2-Butanone	2.560	43	294628	13.689	ppbv	99
35) Carbon Tetrachloride	3.768	117	277042	13.903	ppbv	98
36) Benzene	3.661	78	404641	13.615	ppbv	99
37) 1,2-Dichloroethane	3.221	62	208081	14.088	ppbv	100
38) Trichloroethene	4.551	130	168824	13.263	ppbv	91
39) 1,2-Dichloropropane	4.318	63	149476	13.606	ppbv	98
40) 1,4-Dioxane	4.590	88	65543	14.035	ppbv #	98
41) Tetrahydrofuran	3.056	42	173023	13.734	ppbv	99
42) Bromodichloromethane	4.493	83	298835	14.245	ppbv	96
43) Methyl Methacrylate	4.887	69	161641	14.033	ppbv	99
44) 2,2,4-Trimethylpentane	4.645	57	676574	13.319	ppbv	99
45) t-1,3-Dichloropropene	6.422	75	189257	14.338	ppbv	95

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL052925\
 Data File : VL042585.D
 Acq On : 29 May 2025 14:24
 Operator : SY/MD
 Sample : VSTDIC015
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDIC015

Manual Integrations
 APPROVED

Reviewed By : Semsettin Yesilyurt 05/30/2025
 Supervised By : Mahesh Dadoda 05/30/2025

Quant Time: May 30 01:21:33 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL052925AIR.M

Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 2

QLast Update : Fri May 30 01:15:52 2025

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
46) cis-1,3-Dichloropropene	5.606	75	236653	14.313	ppbv	94
47) 1,1,2-Trichloroethane	6.590	97	153862	13.524	ppbv	93
48) Dibromochloromethane	7.393	129	258374	14.187	ppbv	100
49) Bromoform	9.490	173	226719	14.427	ppbv	100
50) 4-Methyl-2-Pentanone	5.758	43	416119	13.882	ppbv	100
51) 2-Hexanone	7.441	43	339220	14.328	ppbv	98
52) Tetrachloroethene	8.231	164	145485	13.098	ppbv	99
53) Toluene	6.939	91	470632	13.702	ppbv	100
54) 1,2-Dibromoethane	7.661	107	232051	13.758	ppbv	97
56) 1,1,1,2-Tetrachloroethane	8.930	131	191145	13.828	ppbv	99
57) Chlorobenzene	8.930	112	356655	13.361	ppbv	98
58) Ethyl Benzene	9.361	91	637083	13.662	ppbv	99
59) m/p-Xylene	9.561	91	996602m	27.151	ppbv	
60) o-Xylene	9.969	91	490036	13.389	ppbv	98
61) Styrene	9.875	104	245714	14.199	ppbv	100
62) Isopropylbenzene	10.545	105	722166	13.356	ppbv	100
63) 1,1,2,2-Tetrachloroethane	9.969	83	299633	12.875	ppbv	99
64) n-propylbenzene	10.995	120	195952	13.519	ppbv	97
65) tert-Butylbenzene	11.536	119	634159	12.924	ppbv	99
66) Benzyl Chloride	11.620	91	90617	14.320	ppbv	99
67) sec-Butylbenzene	11.772	105	892638	12.939	ppbv	100
69) p-Isopropyltoluene	11.930	119	763150	13.210	ppbv	100
70) n-Butylbenzene	12.286	91	764173	13.401	ppbv	99
71) 2-Chlorotoluene	10.908	91	552265	13.390	ppbv	100
72) 4-Ethyltoluene	11.131	105	616187	13.504	ppbv	100
73) 1,3,5-Trimethylbenzene	11.209	105	509801	13.498	ppbv	99
74) 1,2,4-Trimethylbenzene	11.542	105	538704	12.854	ppbv	97
75) 1,3-Dichlorobenzene	11.613	146	347478	13.203	ppbv	100
76) 1,4-Dichlorobenzene	11.675	146	350757	13.363	ppbv	99
77) 1,2-Dichlorobenzene	11.953	146	326960	12.800	ppbv	100
78) Hexachloro-1,3-Butadiene	13.885	225	244375	11.563	ppbv	98
79) Naphthalene	13.516	128	563437	14.318	ppbv	98
80) Naphthalene,2-methyl-	14.458	142	306586	17.196	ppbv	99
81) 1,2,4-Trichlorobenzene	13.445	180	299869	13.598	ppbv	99

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL052925\
 Data File : VL042586.D
 Acq On : 29 May 2025 14:56
 Operator : SY/MD
 Sample : VSTDICV010
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 ICVVL052925

Manual Integrations
 APPROVED

Reviewed By : Semsettin Yesilyurt 05/30/2025
 Supervised By : Mahesh Dadoda 05/30/2025

Quant Time: May 30 02:03:46 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL052925AIR.M

Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 2

QLast Update : Fri May 30 02:01:56 2025

Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	2.790	49	102428	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.965	114	301054	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.888	117	275875	10.000	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene 10.383 95 203743 9.852 ppbv 0.00
 Spiked Amount 10.000 Range 65 - 135 Recovery = 98.500%

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.502	85	115266	9.156	ppbv	97
3) Chlorodifluoromethane	1.476	51	150107	8.658	ppbv	99
4) Chloromethane	1.534	50	45964	9.220	ppbv	99
5) Vinyl Chloride	1.583	62	43925	8.650	ppbv	98
6) Bromomethane	1.670	94	20899	8.455	ppbv	96
7) Chloroethane	1.706	64	16853	8.541	ppbv	93
8) Dichlorotetrafluoroethane	1.557	85	97812	9.325	ppbv	98
9) Propene	1.486	41	60663	8.688	ppbv	98
10) Heptane	4.991	43	179146	9.102	ppbv	99
11) Trichlorofluoromethane	1.881	101	111088	9.484	ppbv	97
12) 1,1,2-Trichlorotrifluo...	2.143	101	90493	9.839	ppbv	98
13) Ethanol	1.722	45	5315m	6.387	ppbv	
14) Bromoethene	1.783	108	31882	9.215	ppbv	97
15) Acetone	1.838	43	93713	7.596	ppbv	99
16) 1,3-Butadiene	1.612	39	51473	8.807	ppbv	98
17) tert-Butyl alcohol	2.042	59	123536	9.611	ppbv	99
18) 1,1-Dichloroethene	2.036	96	40171	9.423	ppbv	94
19) Isopropyl Alcohol	1.887	45	65635	8.899	ppbv	99
20) Methylene Chloride	2.065	84	34380	8.444	ppbv	98
21) Allyl Chloride	2.097	41	80936	9.297	ppbv	98
22) trans-1,2-Dichloroethene	2.343	96	46389	9.742	ppbv	99
23) Vinyl Acetate	2.466	43	168496	10.103	ppbv	99
24) 1,1-Dichloroethane	2.411	63	92180	9.408	ppbv	99
25) Ethyl Acetate	2.839	43	309666	9.171	ppbv	99
26) Hexane	2.829	57	136378	8.889	ppbv	99
27) Carbon Disulfide	2.152	76	114756	9.743	ppbv #	92
28) Methyl tert-Butyl Ether	2.444	73	57913	9.302	ppbv	100
29) Chloroform	2.852	83	180696	9.057	ppbv	96
30) Cyclohexane	3.861	84	116986	9.198	ppbv	97
31) cis-1,2-Dichloroethene	2.725	61	130619	9.307	ppbv	97
32) 1,1,1-Trichloroethane	3.373	97	185017	9.077	ppbv	100
34) 2-Butanone	2.560	43	198226	9.233	ppbv	100
35) Carbon Tetrachloride	3.771	117	186286	9.374	ppbv	100
36) Benzene	3.664	78	274314	9.253	ppbv	99
37) 1,2-Dichloroethane	3.224	62	140785	9.555	ppbv	99
38) Trichloroethene	4.557	130	115086	9.133	ppbv	96
39) 1,2-Dichloropropane	4.324	63	98542	8.988	ppbv	99
40) 1,4-Dioxane	4.590	88	45655	9.306	ppbv #	99
41) Tetrahydrofuran	3.059	42	116984	9.309	ppbv	98
42) Bromodichloromethane	4.496	83	202489	9.676	ppbv	92
43) Methyl Methacrylate	4.891	69	108397	9.421	ppbv	99
44) 2,2,4-Trimethylpentane	4.648	57	461095	9.093	ppbv	100
45) t-1,3-Dichloropropene	6.425	75	125588m	9.538	ppbv	

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL052925\
 Data File : VL042586.D
 Acq On : 29 May 2025 14:56
 Operator : SY/MD
 Sample : VSTDICV010
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 ICVVL052925

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 05/30/2025
 Supervised By :Mahesh Dadoda 05/30/2025

Quant Time: May 30 02:03:46 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL052925AIR.M

Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 2025

QLast Update : Fri May 30 02:01:56 2025

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
46) cis-1,3-Dichloropropene	5.609	75	156828	9.505	ppbv	98
47) 1,1,2-Trichloroethane	6.590	97	103138	9.088	ppbv	92
48) Dibromochloromethane	7.399	129	170606	9.391	ppbv	99
49) Bromoform	9.493	173	152725	9.742	ppbv	99
50) 4-Methyl-2-Pentanone	5.758	43	278990	9.369	ppbv	100
51) 2-Hexanone	7.444	43	228036	9.655	ppbv	98
52) Tetrachloroethene	8.231	164	98872	8.925	ppbv	99
53) Toluene	6.943	91	319640	9.329	ppbv	99
54) 1,2-Dibromoethane	7.661	107	157298	9.364	ppbv	99
56) 1,1,1,2-Tetrachloroethane	8.933	131	127601	9.199	ppbv	97
57) Chlorobenzene	8.930	112	242533	9.054	ppbv	97
58) Ethyl Benzene	9.364	91	432250	9.237	ppbv	97
59) m/p-Xylene	9.558	91	676743m	18.377	ppbv	
60) o-Xylene	9.972	91	333107	9.069	ppbv	100
61) Styrene	9.878	104	163167	9.396	ppbv	100
62) Isopropylbenzene	10.545	105	491107	9.051	ppbv	100
63) 1,1,2,2-Tetrachloroethane	9.969	83	204322	8.749	ppbv	100
64) n-propylbenzene	10.995	120	131695	9.054	ppbv	100
65) tert-Butylbenzene	11.539	119	431251	8.758	ppbv	98
66) Benzyl Chloride	11.620	91	59801	9.435	ppbv	100
67) sec-Butylbenzene	11.772	105	607905	8.781	ppbv	99
69) p-Isopropyltoluene	11.930	119	512739	8.844	ppbv	100
70) n-Butylbenzene	12.286	91	514931	8.998	ppbv	100
71) 2-Chlorotoluene	10.908	91	377413	9.119	ppbv	99
72) 4-Ethyltoluene	11.131	105	412686	9.012	ppbv	99
73) 1,3,5-Trimethylbenzene	11.209	105	346043	9.131	ppbv	98
74) 1,2,4-Trimethylbenzene	11.542	105	371879	8.842	ppbv	94
75) 1,3-Dichlorobenzene	11.613	146	234703	8.886	ppbv	99
76) 1,4-Dichlorobenzene	11.678	146	237978	9.034	ppbv	99
77) 1,2-Dichlorobenzene	11.953	146	224400	8.754	ppbv	99
78) Hexachloro-1,3-Butadiene	13.885	225	169185	7.977	ppbv	99
79) Naphthalene	13.516	128	383192	9.666	ppbv	99
80) Naphthalene,2-methyl-	14.461	142	194375	10.853	ppbv	99
81) 1,2,4-Trichlorobenzene	13.445	180	198696	8.978	ppbv	98

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

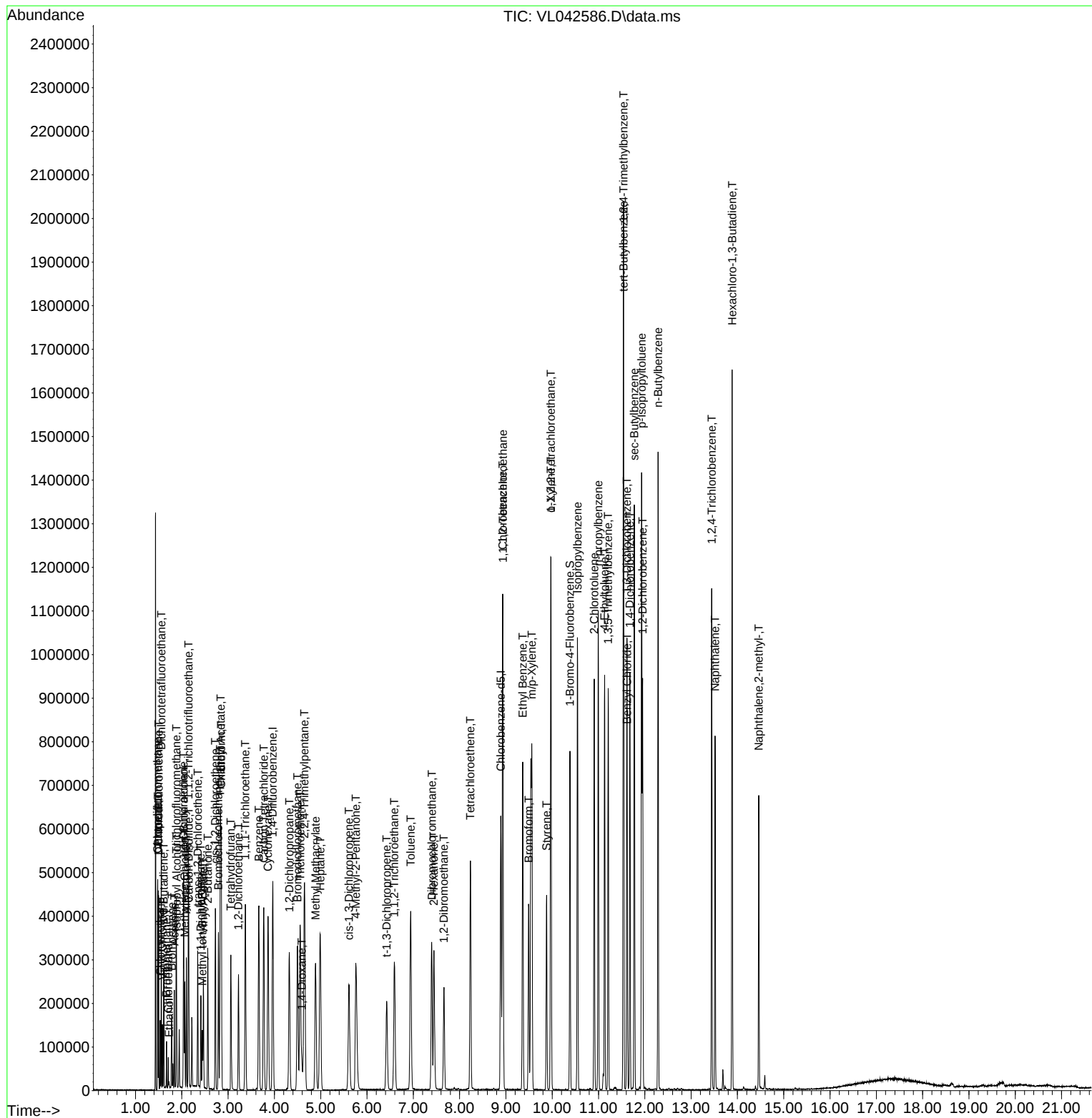
Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL052925\
Data File : VL042586.D
Acq On : 29 May 2025 14:56
Operator : SY/MD
Sample : VSTDICV010
Misc : 400mL/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
ICVVL052925

Manual Integrations
APPROVED

Reviewed By :Semsettin Yesilyurt 05/30/2025
Supervised By :Mahesh Dadoda 05/30/2025

Quant Time: May 30 02:03:46 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL052925AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug
QLast Update : Fri May 30 02:01:56 2025
Response via : Initial Calibration



Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL052925\
 Data File : VL042586.D
 Acq On : 29 May 2025 14:56
 Operator : SY/MD
 Sample : VSTDICV010
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 ICVVL052925

Quant Time: May 30 02:03:46 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL052925AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Fri May 30 02:01:56 2025
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 20% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	Bromochloromethane	1.000	1.000	0.0	100	0.00
2 T	Dichlorodifluoromethane	1.229	1.125	8.5	99	0.00
3	Chlorodifluoromethane	1.693	1.465	13.5	99	0.00
4	Chloromethane	0.487	0.449	7.8	97	0.00
5 T	Vinyl Chloride	0.496	0.429	13.5	98	0.00
6 T	Bromomethane	0.241	0.204	15.4	94	0.00
7	Chloroethane	0.193	0.165	14.5	94	0.00
8 T	Dichlorotetrafluoroethane	1.024	0.955	6.7	100	0.00
9 T	Propene	0.682	0.592	13.2	91	0.00
10 T	Heptane	1.921	1.749	9.0	98	0.00
11 T	Trichlorofluoromethane	1.144	1.085	5.2	101	0.00
12 T	1,1,2-Trichlorotrifluoroeth	0.898	0.883	1.7	105	0.00
13	Ethanol	0.081	0.052	35.8#	89	0.00
14 T	Bromoethene	0.338	0.311	8.0	98	0.00
15 T	Acetone	1.205	0.915	24.1	98	0.00
16 T	1,3-Butadiene	0.571	0.503	11.9	102	0.00
17	tert-Butyl alcohol	1.255	1.206	3.9	97	0.00
18 T	1,1-Dichloroethene	0.416	0.392	5.8	104	0.00
19 T	Isopropyl Alcohol	0.720	0.641	11.0	97	0.00
20 T	Methylene Chloride	0.398	0.336	15.6	102	0.00
21 T	Allyl Chloride	0.850	0.790	7.1	100	0.00
22 T	trans-1,2-Dichloroethene	0.465	0.453	2.6	106	0.00
23 T	Vinyl Acetate	1.628	1.645	-1.0	112	0.00
24 T	1,1-Dichloroethane	0.957	0.900	6.0	99	0.00
25 T	Ethyl Acetate	3.296	3.023	8.3	99	0.00
26 T	Hexane	1.498	1.331	11.1	98	0.00
27 T	Carbon Disulfide	1.150	1.120	2.6	104	0.00
28 T	Methyl tert-Butyl Ether	0.608	0.565	7.1	102	0.00
29 T	Chloroform	1.948	1.764	9.4	100	0.00
30 T	Cyclohexane	1.242	1.142	8.1	99	0.00
31 T	cis-1,2-Dichloroethene	1.370	1.275	6.9	100	0.00
32 T	1,1,1-Trichloroethane	1.990	1.806	9.2	100	0.00
33 I	1,4-Difluorobenzene	1.000	1.000	0.0	98	0.00
34 T	2-Butanone	0.713	0.658	7.7	98	0.00
35 T	Carbon Tetrachloride	0.660	0.619	6.2	100	0.00
36 T	Benzene	0.985	0.911	7.5	99	0.00
37 T	1,2-Dichloroethane	0.489	0.468	4.3	102	0.00
38 T	Trichloroethene	0.419	0.382	8.8	99	0.00
39 T	1,2-Dichloropropane	0.364	0.327	10.2	97	0.00
40 T	1,4-Dioxane	0.163	0.152	6.7	98	0.00
41 T	Tetrahydrofuran	0.417	0.389	6.7	98	0.00
42 T	Bromodichloromethane	0.695	0.673	3.2	100	0.00
43	Methyl Methacrylate	0.382	0.360	5.8	96	0.00
44 T	2,2,4-Trimethylpentane	1.684	1.532	9.0	98	0.00
45 T	t-1,3-Dichloropropene	0.437	0.417	4.6	96	0.00
46 T	cis-1,3-Dichloropropene	0.548	0.521	4.9	97	0.00
47 T	1,1,2-Trichloroethane	0.377	0.343	9.0	98	0.00
48 T	Dibromochloromethane	0.603	0.567	6.0	97	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL052925\
 Data File : VL042586.D
 Acq On : 29 May 2025 14:56
 Operator : SY/MD
 Sample : VSTDICV010
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 ICVVL052925

Quant Time: May 30 02:03:46 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL052925AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Fri May 30 02:01:56 2025
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 20% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49 T	Bromoform	0.521	0.507	2.7	98	0.00
50 T	4-Methyl-2-Pentanone	0.989	0.927	6.3	95	0.00
51 T	2-Hexanone	0.784	0.757	3.4	95	0.00
52 T	Tetrachloroethene	0.368	0.328	10.9	97	0.00
53 T	Toluene	1.138	1.062	6.7	98	0.00
54 T	1,2-Dibromoethane	0.558	0.522	6.5	99	0.00
55 I	Chlorobenzene-d5	1.000	1.000	0.0	97	0.00
56	1,1,1,2-Tetrachloroethane	0.503	0.463	8.0	96	0.00
57 T	Chlorobenzene	0.971	0.879	9.5	98	0.00
58 T	Ethyl Benzene	1.696	1.567	7.6	98	0.00
59 T	m/p-Xylene	1.335	1.227	8.1	98	0.02
60 T	o-Xylene	1.331	1.207	9.3	98	0.00
61 T	Styrene	0.629	0.591	6.0	97	0.00
62	Isopropylbenzene	1.967	1.780	9.5	97	0.00
63 T	1,1,2,2-Tetrachloroethane	0.847	0.741	12.5	99	0.00
64	n-propylbenzene	0.527	0.477	9.5	98	0.00
65	tert-Butylbenzene	1.785	1.563	12.4	96	0.00
66 T	Benzyl Chloride	0.230	0.217	5.7	87	0.00
67	sec-Butylbenzene	2.509	2.204	12.2	97	0.00
68 S	1-Bromo-4-Fluorobenzene	0.750	0.739	1.5	96	0.00
69	p-Isopropyltoluene	2.101	1.859	11.5	96	0.00
70	n-Butylbenzene	2.074	1.867	10.0	98	0.00
71	2-Chlorotoluene	1.500	1.368	8.8	98	0.00
72 T	4-Ethyltoluene	1.660	1.496	9.9	98	0.00
73 T	1,3,5-Trimethylbenzene	1.374	1.254	8.7	98	0.00
74 T	1,2,4-Trimethylbenzene	1.524	1.348	11.5	97	0.00
75 T	1,3-Dichlorobenzene	0.957	0.851	11.1	98	0.00
76 T	1,4-Dichlorobenzene	0.955	0.863	9.6	98	0.00
77 T	1,2-Dichlorobenzene	0.929	0.813	12.5	98	0.00
78 T	Hexachloro-1,3-Butadiene	0.769	0.613	20.3	98	0.00
79 T	Naphthalene	1.437	1.389	3.3	97	0.00
80 T	Naphthalene,2-methyl-	0.649	0.705	-8.6	95	0.00
81 T	1,2,4-Trichlorobenzene	0.802	0.720	10.2	95	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL052925\
 Data File : VL042586.D
 Acq On : 29 May 2025 14:56
 Operator : SY/MD
 Sample : VSTDICV010
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 ICSVVL052925

Quant Time: May 30 02:03:46 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL052925AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Fri May 30 02:01:56 2025
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 20% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Bromochloromethane	10.000	10.000	0.0	100	0.00
2 T	Dichlorodifluoromethane	10.000	9.156	8.4	99	0.00
3	Chlorodifluoromethane	10.000	8.658	13.4	99	0.00
4	Chloromethane	10.000	9.220	7.8	97	0.00
5 T	Vinyl Chloride	10.000	8.650	13.5	98	0.00
6 T	Bromomethane	10.000	8.455	15.4	94	0.00
7	Chloroethane	10.000	8.541	14.6	94	0.00
8 T	Dichlorotetrafluoroethane	10.000	9.325	6.8	100	0.00
9 T	Propene	10.000	8.688	13.1	91	0.00
10 T	Heptane	10.000	9.102	9.0	98	0.00
11 T	Trichlorofluoromethane	10.000	9.484	5.2	101	0.00
12 T	1,1,2-Trichlorotrifluoroeth	10.000	9.839	1.6	105	0.00
13	Ethanol	10.000	6.387	36.1#	89	0.00
14 T	Bromoethene	10.000	9.215	7.9	98	0.00
15 T	Acetone	10.000	7.596	24.0	98	0.00
16 T	1,3-Butadiene	10.000	8.807	11.9	102	0.00
17	tert-Butyl alcohol	10.000	9.611	3.9	97	0.00
18 T	1,1-Dichloroethene	10.000	9.423	5.8	104	0.00
19 T	Isopropyl Alcohol	10.000	8.899	11.0	97	0.00
20 T	Methylene Chloride	10.000	8.444	15.6	102	0.00
21 T	Allyl Chloride	10.000	9.297	7.0	100	0.00
22 T	trans-1,2-Dichloroethene	10.000	9.742	2.6	106	0.00
23 T	Vinyl Acetate	10.000	10.103	-1.0	112	0.00
24 T	1,1-Dichloroethane	10.000	9.408	5.9	99	0.00
25 T	Ethyl Acetate	10.000	9.171	8.3	99	0.00
26 T	Hexane	10.000	8.889	11.1	98	0.00
27 T	Carbon Disulfide	10.000	9.743	2.6	104	0.00
28 T	Methyl tert-Butyl Ether	10.000	9.302	7.0	102	0.00
29 T	Chloroform	10.000	9.057	9.4	100	0.00
30 T	Cyclohexane	10.000	9.198	8.0	99	0.00
31 T	cis-1,2-Dichloroethene	10.000	9.307	6.9	100	0.00
32 T	1,1,1-Trichloroethane	10.000	9.077	9.2	100	0.00
33 I	1,4-Difluorobenzene	10.000	10.000	0.0	98	0.00
34 T	2-Butanone	10.000	9.233	7.7	98	0.00
35 T	Carbon Tetrachloride	10.000	9.374	6.3	100	0.00
36 T	Benzene	10.000	9.253	7.5	99	0.00
37 T	1,2-Dichloroethane	10.000	9.555	4.5	102	0.00
38 T	Trichloroethene	10.000	9.133	8.7	99	0.00
39 T	1,2-Dichloropropane	10.000	8.988	10.1	97	0.00
40 T	1,4-Dioxane	10.000	9.306	6.9	98	0.00
41 T	Tetrahydrofuran	10.000	9.309	6.9	98	0.00
42 T	Bromodichloromethane	10.000	9.676	3.2	100	0.00
43	Methyl Methacrylate	10.000	9.421	5.8	96	0.00
44 T	2,2,4-Trimethylpentane	10.000	9.093	9.1	98	0.00
45 T	t-1,3-Dichloropropene	10.000	9.538	4.6	96	0.00
46 T	cis-1,3-Dichloropropene	10.000	9.505	4.9	97	0.00
47 T	1,1,2-Trichloroethane	10.000	9.088	9.1	98	0.00
48 T	Dibromochloromethane	10.000	9.391	6.1	97	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL052925\
 Data File : VL042586.D
 Acq On : 29 May 2025 14:56
 Operator : SY/MD
 Sample : VSTDICV010
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 ICVVL052925

Quant Time: May 30 02:03:46 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL052925AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Fri May 30 02:01:56 2025
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 20% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)

49 T	Bromoform	10.000	9.742	2.6	98	0.00
50 T	4-Methyl-2-Pentanone	10.000	9.369	6.3	95	0.00
51 T	2-Hexanone	10.000	9.655	3.5	95	0.00
52 T	Tetrachloroethene	10.000	8.925	10.7	97	0.00
53 T	Toluene	10.000	9.329	6.7	98	0.00
54 T	1,2-Dibromoethane	10.000	9.364	6.4	99	0.00

55 I	Chlorobenzene-d5	10.000	10.000	0.0	97	0.00
56	1,1,1,2-Tetrachloroethane	10.000	9.199	8.0	96	0.00
57 T	Chlorobenzene	10.000	9.054	9.5	98	0.00
58 T	Ethyl Benzene	10.000	9.237	7.6	98	0.00
59 T	m/p-Xylene	20.000	18.377	8.1	98	0.02
60 T	o-Xylene	10.000	9.069	9.3	98	0.00
61 T	Styrene	10.000	9.396	6.0	97	0.00
62	Isopropylbenzene	10.000	9.051	9.5	97	0.00
63 T	1,1,2,2-Tetrachloroethane	10.000	8.749	12.5	99	0.00
64	n-propylbenzene	10.000	9.054	9.5	98	0.00
65	tert-Butylbenzene	10.000	8.758	12.4	96	0.00
66 T	Benzyl Chloride	10.000	9.435	5.6	87	0.00
67	sec-Butylbenzene	10.000	8.781	12.2	97	0.00
68 S	1-Bromo-4-Fluorobenzene	10.000	9.852	1.5	96	0.00
69	p-Isopropyltoluene	10.000	8.844	11.6	96	0.00
70	n-Butylbenzene	10.000	8.998	10.0	98	0.00
71	2-Chlorotoluene	10.000	9.119	8.8	98	0.00
72 T	4-Ethyltoluene	10.000	9.012	9.9	98	0.00
73 T	1,3,5-Trimethylbenzene	10.000	9.131	8.7	98	0.00
74 T	1,2,4-Trimethylbenzene	10.000	8.842	11.6	97	0.00
75 T	1,3-Dichlorobenzene	10.000	8.886	11.1	98	0.00
76 T	1,4-Dichlorobenzene	10.000	9.034	9.7	98	0.00
77 T	1,2-Dichlorobenzene	10.000	8.754	12.5	98	0.00
78 T	Hexachloro-1,3-Butadiene	10.000	7.977	20.2	98	0.00
79 T	Naphthalene	10.000	9.666	3.3	97	0.00
80 T	Naphthalene,2-methyl-	10.000	10.853	-8.5	95	0.00
81 T	1,2,4-Trichlorobenzene	10.000	8.978	10.2	95	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: GFEL01

Lab Code: CHEM Case No.: Q2369 SAS No.: Q2369 SDG No.: Q2369

Instrument ID: MSVOA_L Calibration Date/Time: 06/19/2025 08:56

Lab File ID: VL042647.D Init. Calib. Date(s): 05/29/2025 05/29/2025

Heated Purge: (Y/N) N Init. Calib. Time(s): 11:09 14:24

GC Column: RTX-1 ID: 0.32 (mm)

COMPOUND	RRF	RRF010	MIN RRF	%D	MAX%D
Vinyl Chloride	0.496	0.448		-9.68	30
Heptane	1.921	1.822		-5.15	30
1,1-Dichloroethene	0.416	0.435		4.57	30
Cyclohexane	1.242	1.116		-10.15	30
cis-1,2-Dichloroethene	1.370	1.350		-1.46	30
1,1,1-Trichloroethane	1.990	2.027		1.86	30
2,2,4-Trimethylpentane	1.684	1.861		10.51	30
Benzene	0.985	1.082		9.85	30
Trichloroethene	0.419	0.422		0.72	30
Toluene	1.138	1.178		3.52	30
Tetrachloroethene	0.368	0.367		-0.27	30
Ethyl Benzene	1.696	1.878		10.73	30
m/p-Xylene	1.335	1.580		18.35	30
o-Xylene	1.331	1.565		17.58	30
1,3,5-Trimethylbenzene	1.374	1.596		16.16	30
1,2,4-Trimethylbenzene	1.524	1.789		17.39	30
Naphthalene	1.437	1.673		16.42	30
1-Bromo-4-Fluorobenzene	0.750	0.814		8.53	30
Hexane	1.498	1.411		-5.81	30

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_L\Data\VL061925\
 Data File : VL042647.D
 Acq On : 19 Jun 2025 08:56
 Operator : SY/MD
 Sample : VSTDCCC010
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDCCC010

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 06/23/2025
 Supervised By :Mahesh Dadoda 06/23/2025

Quant Time: Jun 20 01:33:58 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL052925AIR.M

Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 2025

QLast Update : Fri May 30 02:01:56 2025

Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	2.797	49	105774	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.975	114	271342	10.000	ppbv	0.01
55) Chlorobenzene-d5	8.898	117	241435	10.000	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene 10.390 95 196559 10.861 ppbv 0.00
 Spiked Amount 10.000 Range 65 - 135 Recovery = 108.600%

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.502	85	136240	10.480	ppbv	97
3) Chlorodifluoromethane	1.479	51	173781	9.706	ppbv	97
4) Chloromethane	1.538	50	51600	10.023	ppbv	98
5) Vinyl Chloride	1.586	62	47359	9.031	ppbv	98
6) Bromomethane	1.674	94	23626	9.256	ppbv	92
7) Chloroethane	1.709	64	19363	9.503	ppbv	94
8) Dichlorotetrafluoroethane	1.560	85	110759	10.225	ppbv	99
9) Propene	1.489	41	61227	8.492	ppbv	93
10) Heptane	4.998	43	192684	9.481	ppbv	100
11) Trichlorofluoromethane	1.884	101	138922	11.485	ppbv	100
12) 1,1,2-Trichlorotrifluoro...	2.146	101	107085	11.274	ppbv	97
13) Ethanol	1.729	45	5756	6.699	ppbv	94
14) Bromoethene	1.787	108	36607	10.246	ppbv	98
15) Acetone	1.842	43	111893	8.782	ppbv	97
16) 1,3-Butadiene	1.615	39	55514	9.198	ppbv	95
17) tert-Butyl alcohol	2.046	59	127048	9.572	ppbv	99
18) 1,1-Dichloroethene	2.043	96	46032	10.456	ppbv	88
19) Isopropyl Alcohol	1.894	45	71320	9.364	ppbv	97
20) Methylene Chloride	2.068	84	40012	9.516	ppbv	97
21) Allyl Chloride	2.104	41	88888	9.888	ppbv	96
22) trans-1,2-Dichloroethene	2.350	96	51990	10.572	ppbv	97
23) Vinyl Acetate	2.470	43	216348	12.562	ppbv #	97
24) 1,1-Dichloroethane	2.418	63	104587	10.337	ppbv	98
25) Ethyl Acetate	2.845	43	344364	9.877	ppbv	100
26) Hexane	2.836	57	149241	9.420	ppbv	97
27) Carbon Disulfide	2.159	76	130069	10.694	ppbv	93
28) Methyl tert-Butyl Ether	2.450	73	67907	10.562	ppbv	97
29) Chloroform	2.858	83	224802	10.911	ppbv	94
30) Cyclohexane	3.871	84	118051	8.988	ppbv	97
31) cis-1,2-Dichloroethene	2.732	61	142746	9.850	ppbv	98
32) 1,1,1-Trichloroethane	3.383	97	214355	10.183	ppbv	98
34) 2-Butanone	2.567	43	223326	11.541	ppbv	99
35) Carbon Tetrachloride	3.777	117	215300	12.020	ppbv	99
36) Benzene	3.671	78	293622	10.989	ppbv	99
37) 1,2-Dichloroethane	3.230	62	166507	12.538	ppbv	98
38) Trichloroethene	4.567	130	114475	10.079	ppbv	87
39) 1,2-Dichloropropane	4.334	63	109999	11.132	ppbv	97
40) 1,4-Dioxane	4.600	88	46358	10.484	ppbv #	87
41) Tetrahydrofuran	3.065	42	119620	10.561	ppbv	98
42) Bromodichloromethane	4.509	83	233466	12.378	ppbv	100
43) Methyl Methacrylate	4.901	69	110041	10.611	ppbv	98
44) 2,2,4-Trimethylpentane	4.661	57	504893	11.047	ppbv	98
45) t-1,3-Dichloropropene	6.438	75	125932	10.611	ppbv	97

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL061925\
 Data File : VL042647.D
 Acq On : 19 Jun 2025 08:56
 Operator : SY/MD
 Sample : VSTDCCC010
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDCCC010

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 06/23/2025
 Supervised By :Mahesh Dadoda 06/23/2025

Quant Time: Jun 20 01:33:58 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL052925AIR.M

Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA_L Fri Aug 2

QLast Update : Fri May 30 02:01:56 2025

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
46) cis-1,3-Dichloropropene	5.626	75	160436	10.789	ppbv	98
47) 1,1,2-Trichloroethane	6.603	97	115320	11.274	ppbv	95
48) Dibromochloromethane	7.409	129	187063	11.424	ppbv	100
49) Bromoform	9.500	173	168088	11.897	ppbv	99
50) 4-Methyl-2-Pentanone	5.774	43	298895	11.136	ppbv	98
51) 2-Hexanone	7.454	43	237889	11.175	ppbv #	97
52) Tetrachloroethene	8.244	164	99591	9.974	ppbv	95
53) Toluene	6.956	91	319753	10.354	ppbv	99
54) 1,2-Dibromoethane	7.671	107	170816	11.282	ppbv	97
56) 1,1,1,2-Tetrachloroethane	8.943	131	145178	11.959	ppbv	97
57) Chlorobenzene	8.940	112	258681	11.034	ppbv	99
58) Ethyl Benzene	9.370	91	453357	11.070	ppbv	95
59) m/p-Xylene	9.568	91	763052m	23.676	ppbv	
60) o-Xylene	9.979	91	377860	11.756	ppbv	97
61) Styrene	9.888	104	158381	10.422	ppbv	97
62) Isopropylbenzene	10.552	105	548530	11.551	ppbv	99
63) 1,1,2,2-Tetrachloroethane	9.979	83	247429	12.106	ppbv	99
64) n-propylbenzene	11.002	120	145207	11.407	ppbv	94
65) tert-Butylbenzene	11.542	119	482745	11.202	ppbv	97
66) Benzyl Chloride	11.630	91	53662	9.674	ppbv	97
67) sec-Butylbenzene	11.778	105	690565	11.398	ppbv	98
69) p-Isopropyltoluene	11.937	119	569182	11.219	ppbv	98
70) n-Butylbenzene	12.293	91	589246	11.766	ppbv	98
71) 2-Chlorotoluene	10.914	91	419351	11.577	ppbv	96
72) 4-Ethyltoluene	11.138	105	465148	11.607	ppbv	98
73) 1,3,5-Trimethylbenzene	11.215	105	385257	11.615	ppbv	96
74) 1,2,4-Trimethylbenzene	11.549	105	431897	11.734	ppbv	91
75) 1,3-Dichlorobenzene	11.620	146	266086	11.512	ppbv	99
76) 1,4-Dichlorobenzene	11.685	146	266486	11.560	ppbv	98
77) 1,2-Dichlorobenzene	11.960	146	256200	11.421	ppbv	99
78) Hexachloro-1,3-Butadiene	13.892	225	183922	9.909	ppbv	99
79) Naphthalene	13.523	128	403844	11.640	ppbv	99
80) Naphthalene,2-methyl-	14.468	142	190371	12.145	ppbv	99
81) 1,2,4-Trichlorobenzene	13.452	180	208409	10.761	ppbv	99

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL061925\
 Data File : VL042647.D
 Acq On : 19 Jun 2025 08:56
 Operator : SY/MD
 Sample : VSTDCCC010
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 LabSampleId :
 VSTDCCC010

Quant Time: Jun 20 01:33:58 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL052925AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Fri May 30 02:01:56 2025
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 20% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	Bromochloromethane	1.000	1.000	0.0	103	0.00
2 T	Dichlorodifluoromethane	1.229	1.288	-4.8	117	0.00
3	Chlorodifluoromethane	1.693	1.643	3.0	115	0.00
4	Chloromethane	0.487	0.488	-0.2	109	0.00
5 T	Vinyl Chloride	0.496	0.448	9.7	105	0.00
6 T	Bromomethane	0.241	0.223	7.5	106	0.00
7	Chloroethane	0.193	0.183	5.2	108	0.00
8 T	Dichlorotetrafluoroethane	1.024	1.047	-2.2	114	0.00
9 T	Propene	0.682	0.579	15.1	92	0.00
10 T	Heptane	1.921	1.822	5.2	106	0.02
11 T	Trichlorofluoromethane	1.144	1.313	-14.8	126	0.00
12 T	1,1,2-Trichlorotrifluoroeth	0.898	1.012	-12.7	124	0.00
13	Ethanol	0.081	0.054	33.3#	96	0.00
14 T	Bromoethene	0.338	0.346	-2.4	112	0.00
15 T	Acetone	1.205	1.058	12.2	117	0.00
16 T	1,3-Butadiene	0.571	0.525	8.1	110	0.00
17	tert-Butyl alcohol	1.255	1.201	4.3	100	0.00
18 T	1,1-Dichloroethene	0.416	0.435	-4.6	119	0.00
19 T	Isopropyl Alcohol	0.720	0.674	6.4	105	0.00
20 T	Methylene Chloride	0.398	0.378	5.0	119	0.00
21 T	Allyl Chloride	0.850	0.840	1.2	110	0.00
22 T	trans-1,2-Dichloroethene	0.465	0.492	-5.8	118	0.00
23 T	Vinyl Acetate	1.628	2.045	-25.6	144	0.00
24 T	1,1-Dichloroethane	0.957	0.989	-3.3	113	0.00
25 T	Ethyl Acetate	3.296	3.256	1.2	110	0.00
26 T	Hexane	1.498	1.411	5.8	108	0.00
27 T	Carbon Disulfide	1.150	1.230	-7.0	118	0.00
28 T	Methyl tert-Butyl Ether	0.608	0.642	-5.6	120	0.00
29 T	Chloroform	1.948	2.125	-9.1	125	0.00
30 T	Cyclohexane	1.242	1.116	10.1	100	0.01
31 T	cis-1,2-Dichloroethene	1.370	1.350	1.5	109	0.00
32 T	1,1,1-Trichloroethane	1.990	2.027	-1.9	116	0.01
33 I	1,4-Difluorobenzene	1.000	1.000	0.0	88	0.01
34 T	2-Butanone	0.713	0.823	-15.4	111	0.00
35 T	Carbon Tetrachloride	0.660	0.793	-20.2	116	0.00
36 T	Benzene	0.985	1.082	-9.8	106	0.00
37 T	1,2-Dichloroethane	0.489	0.614	-25.6	121	0.00
38 T	Trichloroethene	0.419	0.422	-0.7	99	0.02
39 T	1,2-Dichloropropane	0.364	0.405	-11.3	109	0.02
40 T	1,4-Dioxane	0.163	0.171	-4.9	99	0.00
41 T	Tetrahydrofuran	0.417	0.441	-5.8	100	0.00
42 T	Bromodichloromethane	0.695	0.860	-23.7	116	0.01
43	Methyl Methacrylate	0.382	0.406	-6.3	98	0.02
44 T	2,2,4-Trimethylpentane	1.684	1.861	-10.5	108	0.01
45 T	t-1,3-Dichloropropene	0.437	0.464	-6.2	96	0.02
46 T	cis-1,3-Dichloropropene	0.548	0.591	-7.8	99	0.02
47 T	1,1,2-Trichloroethane	0.377	0.425	-12.7	109	0.02
48 T	Dibromochloromethane	0.603	0.689	-14.3	107	0.01

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL061925\
 Data File : VL042647.D
 Acq On : 19 Jun 2025 08:56
 Operator : SY/MD
 Sample : VSTDCCC010
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 LabSampleId :
 VSTDCCC010

Quant Time: Jun 20 01:33:58 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL052925AIR.M
 Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Fri May 30 02:01:56 2025
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 20% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49 T	Bromoform	0.521	0.619	-18.8	108	0.00
50 T	4-Methyl-2-Pentanone	0.989	1.102	-11.4	101	0.02
51 T	2-Hexanone	0.784	0.877	-11.9	99	0.00
52 T	Tetrachloroethene	0.368	0.367	0.3	97	0.01
53 T	Toluene	1.138	1.178	-3.5	99	0.01
54 T	1,2-Dibromoethane	0.558	0.630	-12.9	108	0.01
55 I	Chlorobenzene-d5	1.000	1.000	0.0	84	0.00
56	1,1,1,2-Tetrachloroethane	0.503	0.601	-19.5	109	0.01
57 T	Chlorobenzene	0.971	1.071	-10.3	104	0.01
58 T	Ethyl Benzene	1.696	1.878	-10.7	103	0.00
59 T	m/p-Xylene	1.335	1.580	-18.4	110	0.03
60 T	o-Xylene	1.331	1.565	-17.6	111	0.00
61 T	Styrene	0.629	0.656	-4.3	94	0.01
62	Isopropylbenzene	1.967	2.272	-15.5	108	0.00
63 T	1,1,2,2-Tetrachloroethane	0.847	1.025	-21.0	120	0.00
64	n-propylbenzene	0.527	0.601	-14.0	108	0.00
65	tert-Butylbenzene	1.785	1.999	-12.0	107	0.00
66 T	Benzyl Chloride	0.230	0.222	3.5	78	0.00
67	sec-Butylbenzene	2.509	2.860	-14.0	110	0.00
68 S	1-Bromo-4-Fluorobenzene	0.750	0.814	-8.5	92	0.00
69	p-Isopropyltoluene	2.101	2.357	-12.2	107	0.00
70	n-Butylbenzene	2.074	2.441	-17.7	112	0.00
71	2-Chlorotoluene	1.500	1.737	-15.8	109	0.00
72 T	4-Ethyltoluene	1.660	1.927	-16.1	110	0.00
73 T	1,3,5-Trimethylbenzene	1.374	1.596	-16.2	109	0.00
74 T	1,2,4-Trimethylbenzene	1.524	1.789	-17.4	113	0.00
75 T	1,3-Dichlorobenzene	0.957	1.102	-15.2	111	0.00
76 T	1,4-Dichlorobenzene	0.955	1.104	-15.6	110	0.00
77 T	1,2-Dichlorobenzene	0.929	1.061	-14.2	112	0.00
78 T	Hexachloro-1,3-Butadiene	0.769	0.762	0.9	106	0.00
79 T	Naphthalene	1.437	1.673	-16.4	102	0.00
80 T	Naphthalene,2-methyl-	0.649	0.788	-21.4	93	0.00
81 T	1,2,4-Trichlorobenzene	0.802	0.863	-7.6	99	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL061925\
 Data File : VL042647.D
 Acq On : 19 Jun 2025 08:56
 Operator : SY/MD
 Sample : VSTDCCC010
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 LabSampleId :
 VSTDCCC010

Quant Time: Jun 20 01:33:58 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL052925AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Fri May 30 02:01:56 2025
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 20% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Bromochloromethane	10.000	10.000	0.0	103	0.00
2 T	Dichlorodifluoromethane	10.000	10.480	-4.8	117	0.00
3	Chlorodifluoromethane	10.000	9.706	2.9	115	0.00
4	Chloromethane	10.000	10.023	-0.2	109	0.00
5 T	Vinyl Chloride	10.000	9.031	9.7	105	0.00
6 T	Bromomethane	10.000	9.256	7.4	106	0.00
7	Chloroethane	10.000	9.503	5.0	108	0.00
8 T	Dichlorotetrafluoroethane	10.000	10.225	-2.2	114	0.00
9 T	Propene	10.000	8.492	15.1	92	0.00
10 T	Heptane	10.000	9.481	5.2	106	0.02
11 T	Trichlorofluoromethane	10.000	11.485	-14.8	126	0.00
12 T	1,1,2-Trichlorotrifluoroeth	10.000	11.274	-12.7	124	0.00
13	Ethanol	10.000	6.699	33.0#	96	0.00
14 T	Bromoethene	10.000	10.246	-2.5	112	0.00
15 T	Acetone	10.000	8.782	12.2	117	0.00
16 T	1,3-Butadiene	10.000	9.198	8.0	110	0.00
17	tert-Butyl alcohol	10.000	9.572	4.3	100	0.00
18 T	1,1-Dichloroethene	10.000	10.456	-4.6	119	0.00
19 T	Isopropyl Alcohol	10.000	9.364	6.4	105	0.00
20 T	Methylene Chloride	10.000	9.516	4.8	119	0.00
21 T	Allyl Chloride	10.000	9.888	1.1	110	0.00
22 T	trans-1,2-Dichloroethene	10.000	10.572	-5.7	118	0.00
23 T	Vinyl Acetate	10.000	12.562	-25.6	144	0.00
24 T	1,1-Dichloroethane	10.000	10.337	-3.4	113	0.00
25 T	Ethyl Acetate	10.000	9.877	1.2	110	0.00
26 T	Hexane	10.000	9.420	5.8	108	0.00
27 T	Carbon Disulfide	10.000	10.694	-6.9	118	0.00
28 T	Methyl tert-Butyl Ether	10.000	10.562	-5.6	120	0.00
29 T	Chloroform	10.000	10.911	-9.1	125	0.00
30 T	Cyclohexane	10.000	8.988	10.1	100	0.01
31 T	cis-1,2-Dichloroethene	10.000	9.850	1.5	109	0.00
32 T	1,1,1-Trichloroethane	10.000	10.183	-1.8	116	0.01
33 I	1,4-Difluorobenzene	10.000	10.000	0.0	88	0.01
34 T	2-Butanone	10.000	11.541	-15.4	111	0.00
35 T	Carbon Tetrachloride	10.000	12.020	-20.2	116	0.00
36 T	Benzene	10.000	10.989	-9.9	106	0.00
37 T	1,2-Dichloroethane	10.000	12.538	-25.4	121	0.00
38 T	Trichloroethene	10.000	10.079	-0.8	99	0.02
39 T	1,2-Dichloropropane	10.000	11.132	-11.3	109	0.02
40 T	1,4-Dioxane	10.000	10.484	-4.8	99	0.00
41 T	Tetrahydrofuran	10.000	10.561	-5.6	100	0.00
42 T	Bromodichloromethane	10.000	12.378	-23.8	116	0.01
43	Methyl Methacrylate	10.000	10.611	-6.1	98	0.02
44 T	2,2,4-Trimethylpentane	10.000	11.047	-10.5	108	0.01
45 T	t-1,3-Dichloropropene	10.000	10.611	-6.1	96	0.02
46 T	cis-1,3-Dichloropropene	10.000	10.789	-7.9	99	0.02
47 T	1,1,2-Trichloroethane	10.000	11.274	-12.7	109	0.02
48 T	Dibromochloromethane	10.000	11.424	-14.2	107	0.01

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL061925\
 Data File : VL042647.D
 Acq On : 19 Jun 2025 08:56
 Operator : SY/MD
 Sample : VSTDCCC010
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 LabSampleId :
 VSTDCCC010

Quant Time: Jun 20 01:33:58 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL052925AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Fri May 30 02:01:56 2025
 Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 20% Max. R.T. Dev 0.50min
 Max. RRF Dev : 30% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49 T	Bromoform	10.000	11.897	-19.0	108	0.00
50 T	4-Methyl-2-Pentanone	10.000	11.136	-11.4	101	0.02
51 T	2-Hexanone	10.000	11.175	-11.8	99	0.00
52 T	Tetrachloroethene	10.000	9.974	0.3	97	0.01
53 T	Toluene	10.000	10.354	-3.5	99	0.01
54 T	1,2-Dibromoethane	10.000	11.282	-12.8	108	0.01
55 I	Chlorobenzene-d5	10.000	10.000	0.0	84	0.00
56	1,1,1,2-Tetrachloroethane	10.000	11.959	-19.6	109	0.01
57 T	Chlorobenzene	10.000	11.034	-10.3	104	0.01
58 T	Ethyl Benzene	10.000	11.070	-10.7	103	0.00
59 T	m/p-Xylene	20.000	23.676	-18.4	110	0.03
60 T	o-Xylene	10.000	11.756	-17.6	111	0.00
61 T	Styrene	10.000	10.422	-4.2	94	0.01
62	Isopropylbenzene	10.000	11.551	-15.5	108	0.00
63 T	1,1,2,2-Tetrachloroethane	10.000	12.106	-21.1	120	0.00
64	n-propylbenzene	10.000	11.407	-14.1	108	0.00
65	tert-Butylbenzene	10.000	11.202	-12.0	107	0.00
66 T	Benzyl Chloride	10.000	9.674	3.3	78	0.00
67	sec-Butylbenzene	10.000	11.398	-14.0	110	0.00
68 S	1-Bromo-4-Fluorobenzene	10.000	10.861	-8.6	92	0.00
69	p-Isopropyltoluene	10.000	11.219	-12.2	107	0.00
70	n-Butylbenzene	10.000	11.766	-17.7	112	0.00
71	2-Chlorotoluene	10.000	11.577	-15.8	109	0.00
72 T	4-Ethyltoluene	10.000	11.607	-16.1	110	0.00
73 T	1,3,5-Trimethylbenzene	10.000	11.615	-16.2	109	0.00
74 T	1,2,4-Trimethylbenzene	10.000	11.734	-17.3	113	0.00
75 T	1,3-Dichlorobenzene	10.000	11.512	-15.1	111	0.00
76 T	1,4-Dichlorobenzene	10.000	11.560	-15.6	110	0.00
77 T	1,2-Dichlorobenzene	10.000	11.421	-14.2	112	0.00
78 T	Hexachloro-1,3-Butadiene	10.000	9.909	0.9	106	0.00
79 T	Naphthalene	10.000	11.640	-16.4	102	0.00
80 T	Naphthalene,2-methyl-	10.000	12.145	-21.4	93	0.00
81 T	1,2,4-Trichlorobenzene	10.000	10.761	-7.6	99	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0



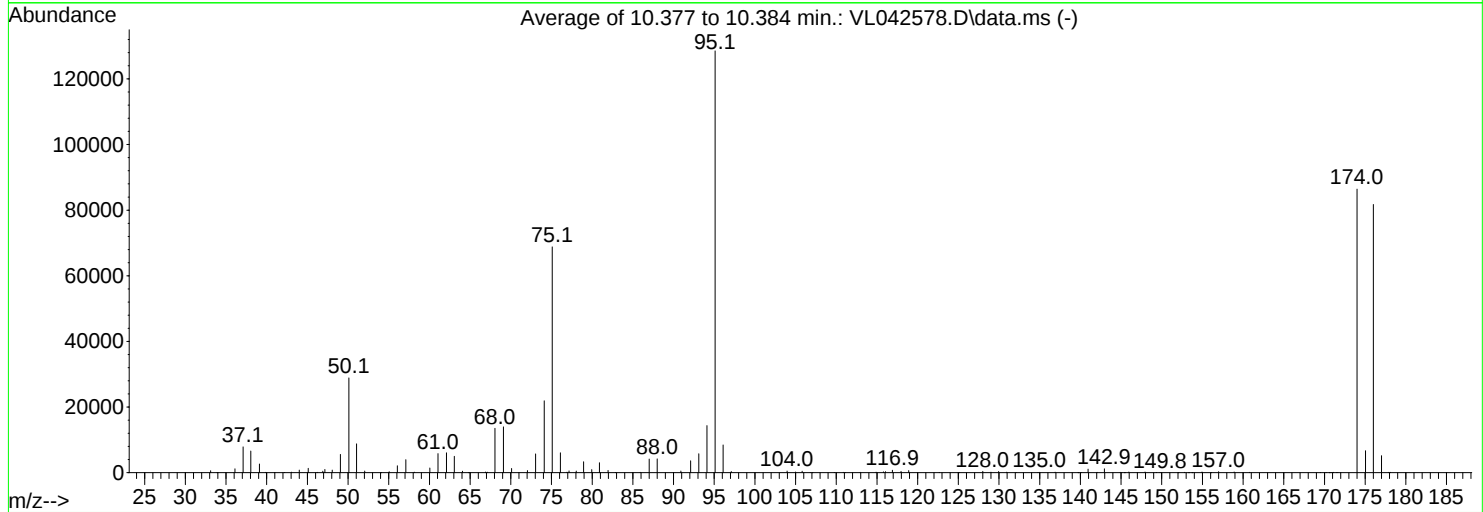
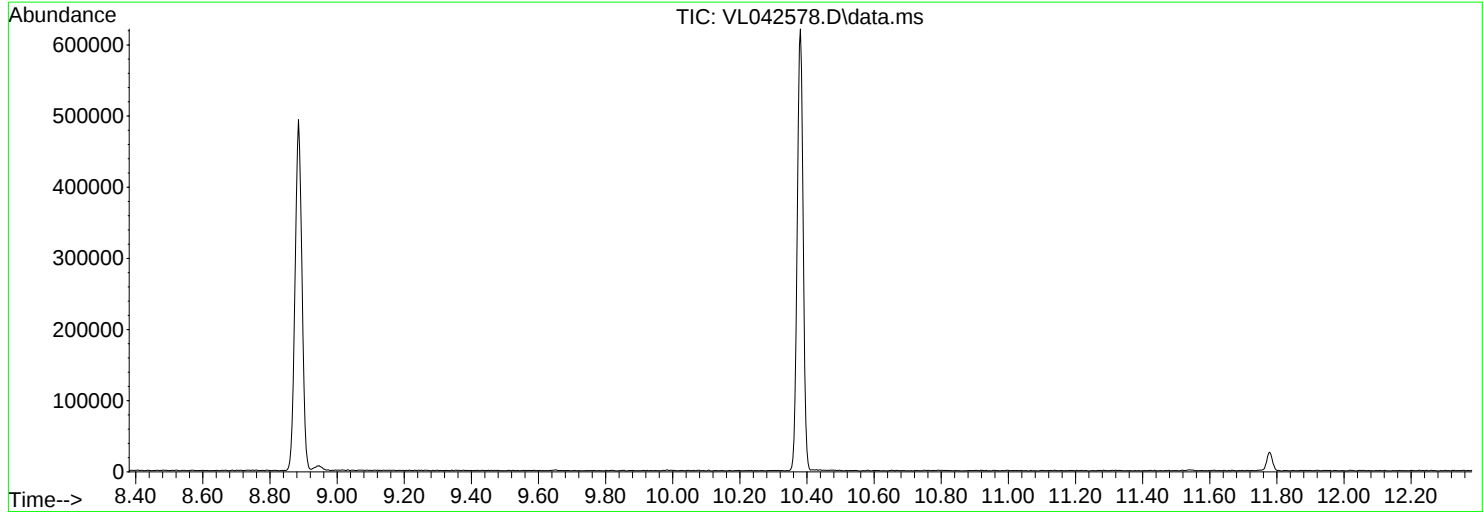
QC SAMPLE DATA

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL052925\
Data File : VL042578.D
Acq On : 29 May 2025 08:05
Operator : SY/MD
Sample : BFB
Misc : 400mL/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL052025AIR.M
Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
Last Update : Wed May 21 00:21:29 2025



AutoFind: Scans 3179, 3180, 3181; Background Corrected with Scan 3165

Target	Rel. to	Lower	Upper	Rel.	Raw	Result
Mass	Mass	Limit%	Limit%	Abn%	Abn	Pass/Fail
50	95	8	40	22.4	28861	PASS
75	95	30	66	53.5	68792	PASS
95	95	100	100	100.0	128557	PASS
96	95	5	9	6.6	8426	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	67.2	86397	PASS
175	174	4	9	7.7	6664	PASS
176	174	93	101	94.6	81744	PASS
177	176	5	9	6.3	5154	PASS

BFB

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
33.10	604	45.10	1310	56.05	2107	68.05	1349
33.90	20	46.20	82	57.10	3938	69.10	1396
36.10	1179	46.90	454	58.15	159	70.10	125
37.10	7865	47.15	999	60.05	1394	71.00	7
38.05	6599	48.05	784	61.05	5793	72.05	616
39.10	2657	49.05	5570	62.10	6048	73.05	5702
39.90	81	50.10	28861	63.05	4979	74.10	21883
41.00	66	51.05	8796	64.05	430	75.10	68792
42.20	45	52.05	485	64.80	28	76.10	6072
43.05	164	54.00	17	66.90	188	76.90	143
44.00	762	55.05	314	67.10	147	77.15	541

Average of 10.377 to 10.384 min.: VL042578.D\data.ms

BFB

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
78.05	512	93.10	5769	110.85	127	128.00	371
78.95	3322	94.10	14351	111.10	39	129.00	147
79.95	936	95.10	128557	112.95	118	129.95	325
80.90	3038	96.10	8426	114.90	160	130.95	149
81.95	666	97.10	324	115.80	234	132.10	57
82.85	69	103.95	507	116.05	275	134.80	45
85.90	102	105.00	185	116.90	719	135.00	127
87.00	4138	105.80	434	117.95	400	136.90	144
88.00	4195	106.80	76	118.90	638	139.70	25
90.90	504	107.00	24	122.65	40	140.10	50
92.10	3594	109.75	56	125.00	20	140.95	1056

Average of 10.377 to 10.384 min.: VL042578.D\data.ms

BFB

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
142.05	103	152.80	86	170.90	53		
142.95	1152	153.30	25	171.10	116		
144.90	93	153.70	29	171.50	43		
145.10	33	154.95	214	171.65	64		
145.40	18	156.00	20	172.00	56		
145.95	182	157.00	303	174.00	86397		
147.00	65	158.90	220	175.05	6664		
147.95	210	160.80	92	176.00	81744		
149.35	45	169.50	60	177.00	5154		
149.80	42	170.20	51	177.90	98		
152.00	19	170.60	17	178.10	81		

Instrument :

MSVOA_L

ClientSampleId :

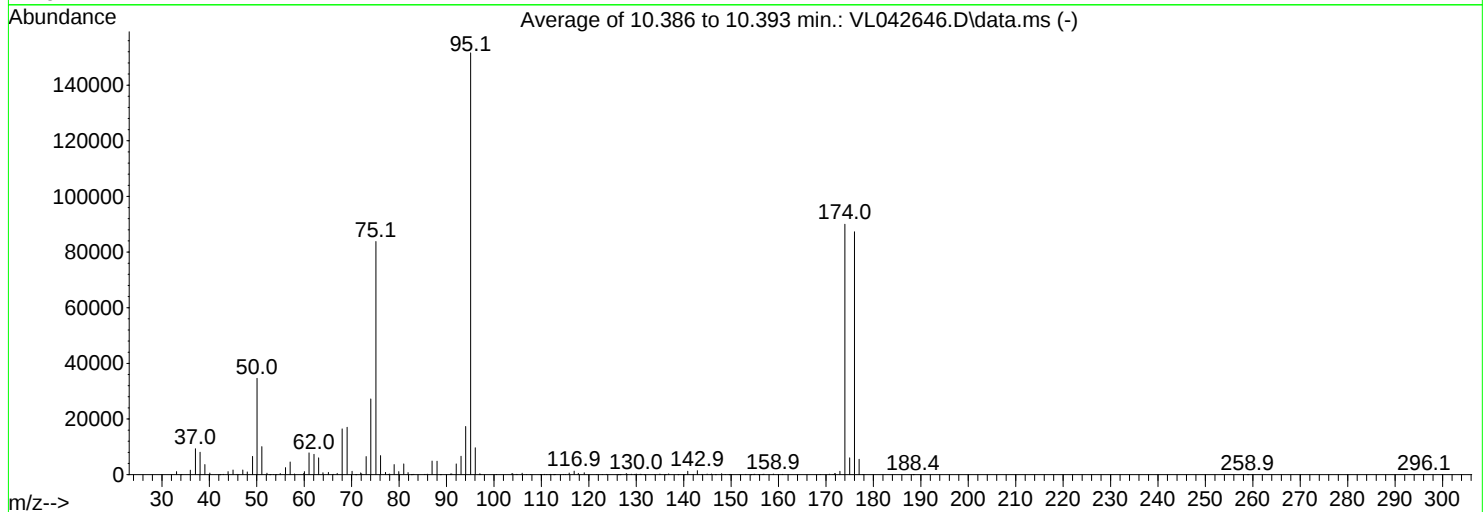
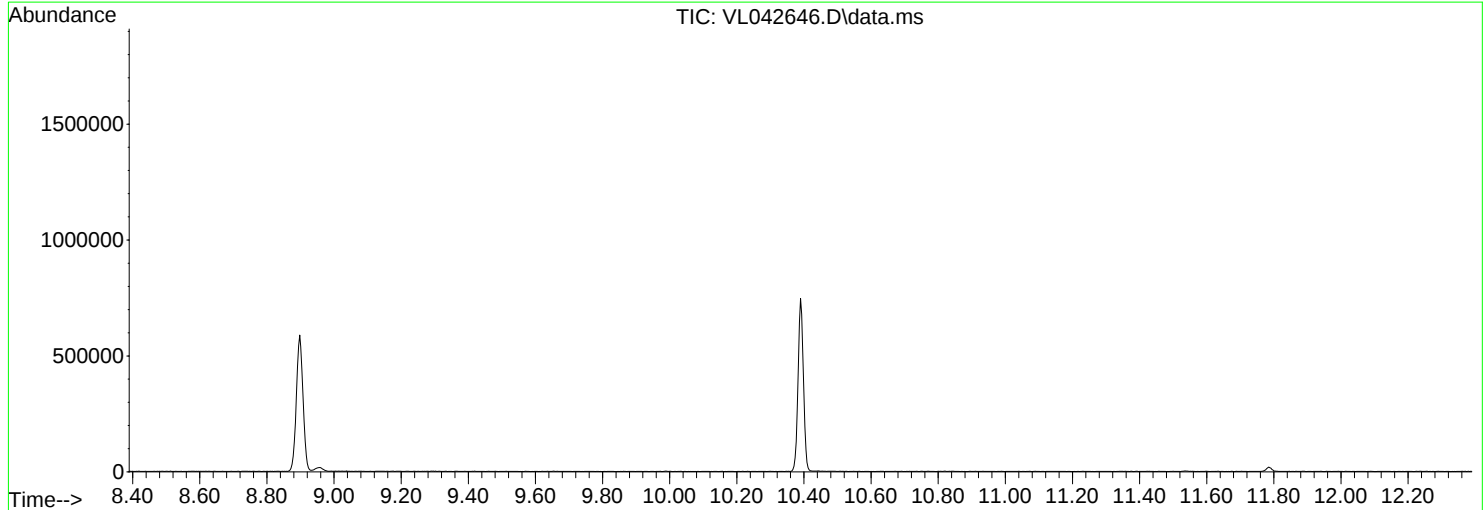
BFB

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL061925\
Data File : VL042646.D
Acq On : 19 Jun 2025 08:10
Operator : SY/MD
Sample : BFB
Misc : 400mL/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL052925AIR.M
Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
Last Update : Fri May 30 02:01:56 2025



AutoFind: Scans 3182, 3183, 3184; Background Corrected with Scan 3159

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	22.8	34621	PASS
75	95	30	66	55.3	83795	PASS
95	95	100	100	100.0	151616	PASS
96	95	5	9	6.4	9668	PASS
173	174	0.00	2	1.3	1201	PASS
174	95	50	120	59.4	90011	PASS
175	174	4	9	6.7	6045	PASS
176	174	93	101	97.0	87299	PASS
177	176	5	9	6.3	5534	PASS

Average of 10.386 to 10.393 min.: VL042646.D\data.ms

BFB

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
33.10	1122	45.85	98	54.00	17	65.10	80
34.00	29	46.20	72	54.95	378	66.10	11
36.00	1599	47.05	1666	56.05	2524	66.95	48
37.05	9321	48.00	962	57.05	4546	68.00	1645
38.05	8036	49.10	6571	57.95	233	69.05	17042
39.05	3601	50.05	34621	59.90	418	70.10	1196
40.10	553	51.05	10079	60.05	1094	70.85	25
42.20	30	52.15	530	61.00	7816	71.90	611
42.95	104	52.70	25	62.05	7313	72.10	311
43.95	1103	53.00	82	63.05	6070	73.05	6496
45.00	1671	53.55	46	63.95	709	74.05	27232

Average of 10.386 to 10.393 min.: VL042646.D\data.ms

BFB

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
75.10	83795	85.45	121	96.05	9668	109.80	18
76.10	6864	85.95	199	97.00	279	110.65	137
77.15	818	86.95	4911	97.20	155	111.15	70
77.70	112	88.00	4830	100.50	52	111.80	56
78.00	243	88.70	31	103.80	345	111.95	106
78.95	3634	90.85	249	103.95	335	112.60	28
79.95	1101	91.10	297	104.70	119	112.95	80
81.00	3837	92.05	3843	104.90	81	114.65	60
81.90	769	93.05	6644	105.95	517	115.05	81
82.60	22	94.05	17330	106.90	66	115.85	598
83.10	102	95.10	151616	107.70	63	116.90	1262

Average of 10.386 to 10.393 min.: VL042646.D\data.ms

BFB

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
117.80	448	130.00	228	142.00	117	150.10	41
119.05	699	130.85	175	142.90	1460	151.90	82
121.70	49	131.05	128	143.85	122	153.10	112
122.85	57	131.70	17	144.95	213	154.20	18
123.80	127	133.90	58	145.60	67	154.80	136
126.20	30	135.00	249	145.90	259	155.00	195
126.60	22	136.10	21	146.70	23	155.80	17
127.90	416	136.85	280	148.00	327	156.70	106
128.10	102	138.80	18	148.75	94	156.90	178
128.95	198	140.10	28	149.60	25	158.90	229
129.70	148	140.85	1236	149.80	134	160.85	120

Average of 10.386 to 10.393 min.: VL042646.D\data.ms

BFB

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
168.80	63	177.95	80				
170.70	185	188.40	19				
171.50	58	258.90	18				
171.80	321	296.15	48				
172.00	366						
172.95	1201						
174.00	90011						
175.00	6045						
176.00	87299						
177.00	5534						
177.80	79						

Report of Analysis

Client:	GFE LLC	Date Collected:	
Project:	1438 University Ave, Bronx NY	Date Received:	
Client Sample ID:	VL0619ABL01	SDG No.:	Q2369
Lab Sample ID:	VL0619ABL01	Matrix:	Air
Analytical Method:	TO-15	Test:	VOCMS Group2
Sample Wt/Vol:	400	Units:	mL

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL042648.D	1		06/19/25 09:42	VL061925

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOQ / CRQL	Units
TARGETS							
75-01-4	Vinyl Chloride	0.030	0.080	U	0.080	0.080	ug/m3
142-82-5	Heptane	0.17	0.70	U	0.70	2.05	ug/m3
75-35-4	1,1-Dichloroethene	0.15	0.59	U	0.59	1.98	ug/m3
110-82-7	Cyclohexane	0.22	0.76	U	0.76	1.72	ug/m3
156-59-2	cis-1,2-Dichloroethene	0.10	0.40	U	0.40	1.98	ug/m3
71-55-6	1,1,1-Trichloroethane	0.020	0.11	U	0.11	0.16	ug/m3
540-84-1	2,2,4-Trimethylpentane	0.14	0.65	U	0.65	2.34	ug/m3
71-43-2	Benzene	0.080	0.26	U	0.26	1.60	ug/m3
79-01-6	Trichloroethene	0.020	0.11	U	0.11	0.16	ug/m3
108-88-3	Toluene	0.16	0.60	U	0.60	1.88	ug/m3
127-18-4	Tetrachloroethene	0.020	0.14	U	0.14	0.20	ug/m3
100-41-4	Ethyl Benzene	0.19	0.83	U	0.83	2.17	ug/m3
179601-23-1	m/p-Xylene	0.41	1.78	U	1.78	4.34	ug/m3
95-47-6	o-Xylene	0.21	0.91	U	0.91	2.17	ug/m3
108-67-8	1,3,5-Trimethylbenzene	0.18	0.88	U	0.88	2.46	ug/m3
95-63-6	1,2,4-Trimethylbenzene	0.18	0.88	U	0.88	2.46	ug/m3
91-20-3	Naphthalene	0.010	0.050	U	0.050	0.52	ug/m3
110-54-3	Hexane	0.16	0.56	U	0.56	1.76	ug/m3
SURROGATES							
460-00-4	1-Bromo-4-Fluorobenzene	10.2			65 - 135	102%	SPK: 10
INTERNAL STANDARDS							
74-97-5	Bromochloromethane	105000		2.8			
540-36-3	1,4-Difluorobenzene	274000		3.978			
3114-55-4	Chlorobenzene-d5	234000		8.901			

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

D = Dilution

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

Q = indicates LCS control criteria did not meet requirements

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL061925\
 Data File : VL042648.D
 Acq On : 19 Jun 2025 09:42
 Operator : SY/MD
 Sample : VL0619ABL01
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 VL0619ABL01

Quant Time: Jun 20 01:34:46 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL052925AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Fri May 30 02:01:56 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	2.800	49	105000	10.000	ppbv	0.01
33) 1,4-Difluorobenzene	3.978	114	273905	10.000	ppbv	0.02
55) Chlorobenzene-d5	8.901	117	233634	10.000	ppbv	0.01

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.393	95	178374	10.185	ppbv	0.01
Spiked Amount	10.000	Range	65 - 135	Recovery	=	101.800%

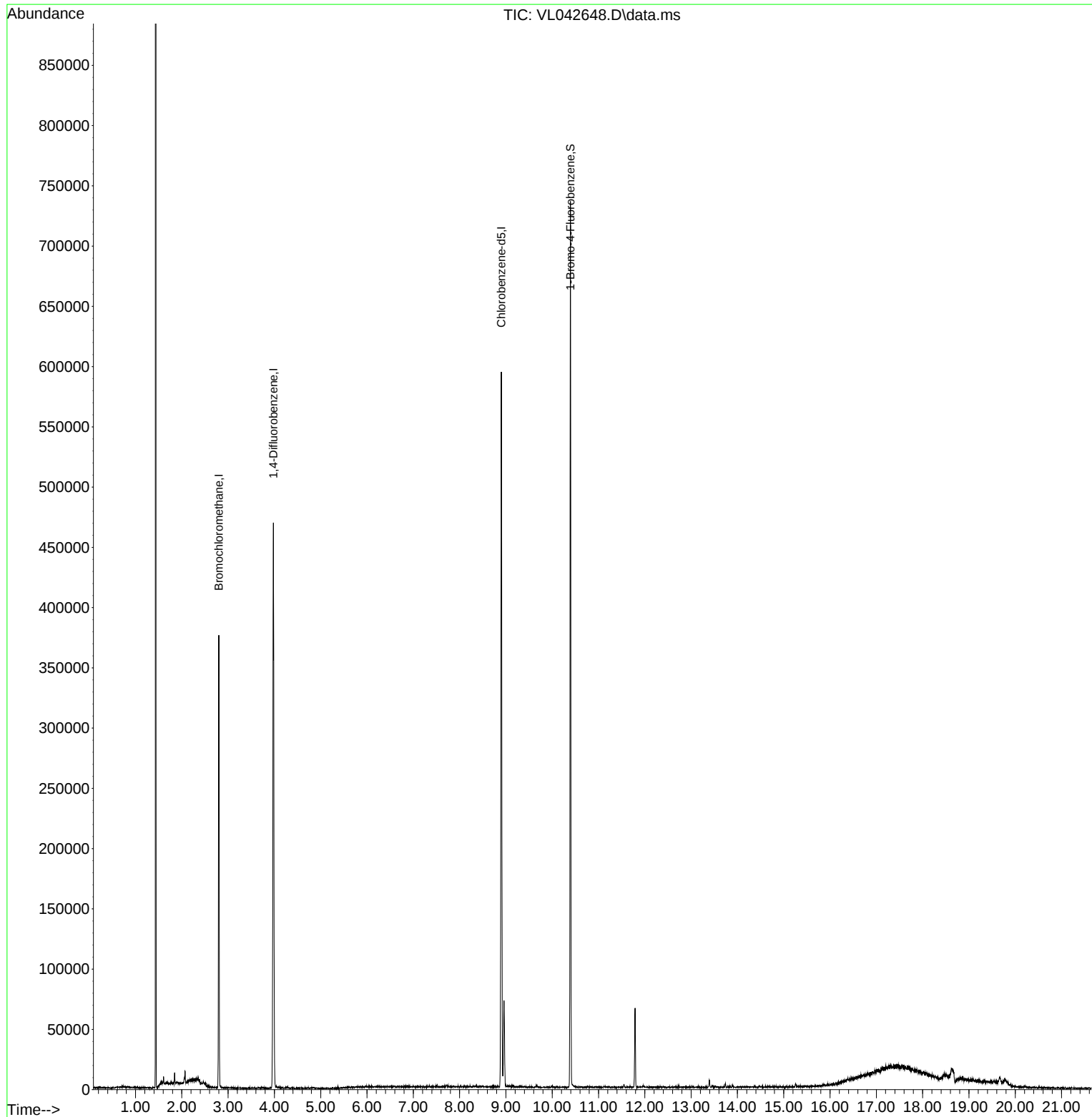
Target Compounds	Qvalue

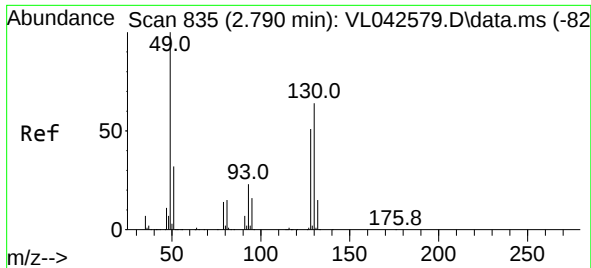
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL061925\
Data File : VL042648.D
Acq On : 19 Jun 2025 09:42
Operator : SY/MD
Sample : VL0619ABL01
Misc : 400mL/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
VL0619ABL01

Quant Time: Jun 20 01:34:46 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL052925AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
QLast Update : Fri May 30 02:01:56 2025
Response via : Initial Calibration

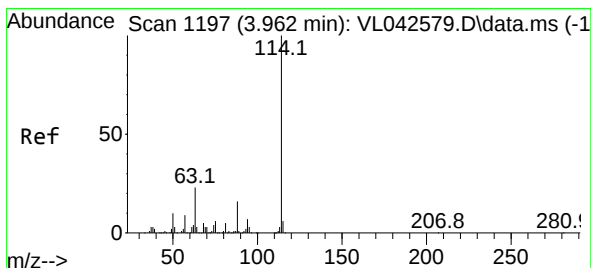
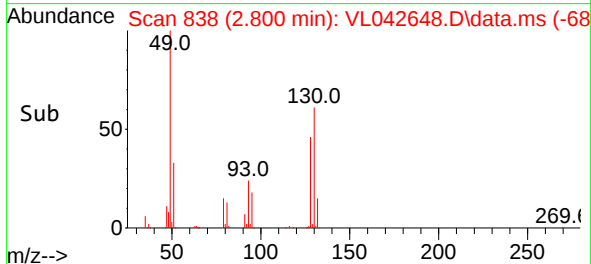
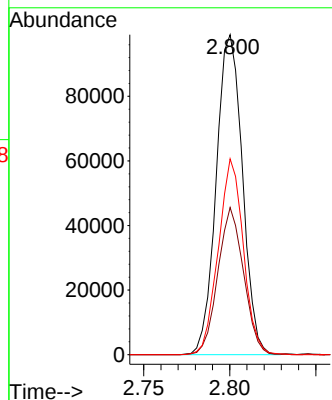
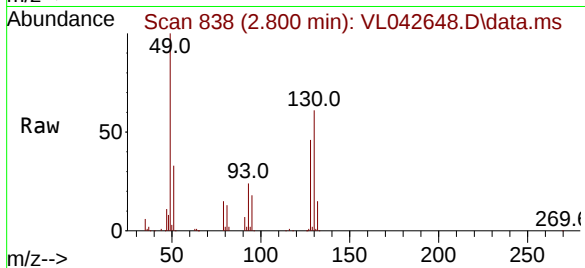




#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 2.800 min Scan# 81
 Delta R.T. 0.010 min
 Lab File: VL042648.D
 Acq: 19 Jun 2025 09:42

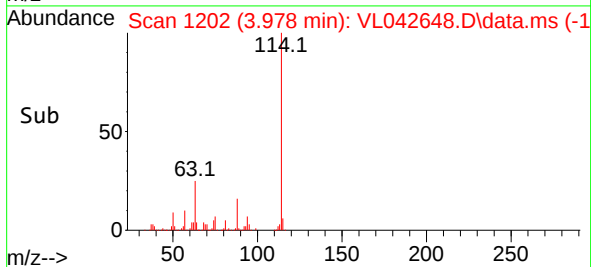
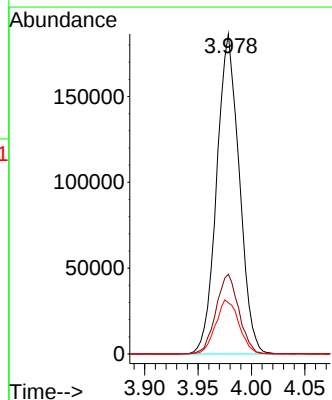
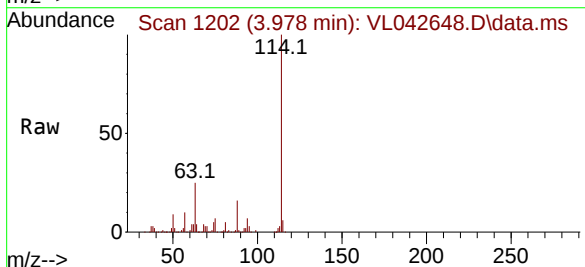
Instrument :
 MSVOA_L
 ClientSampleId :
 VL0619ABL01

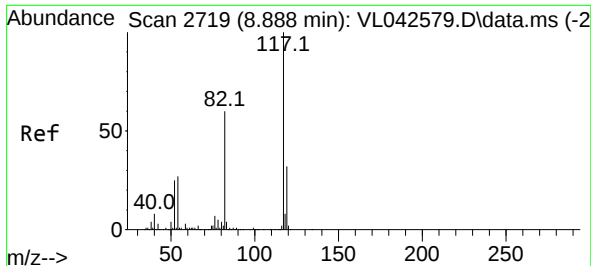
Tgt Ion: 49 Resp: 105000
 Ion Ratio Lower Upper
 49 100
 128 45.2 24.2 72.6
 130 58.6 30.4 91.2



#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 3.978 min Scan# 1202
 Delta R.T. 0.016 min
 Lab File: VL042648.D
 Acq: 19 Jun 2025 09:42

Tgt Ion: 114 Resp: 273905
 Ion Ratio Lower Upper
 114 100
 63 25.4 19.0 28.6
 88 17.4 13.6 20.4

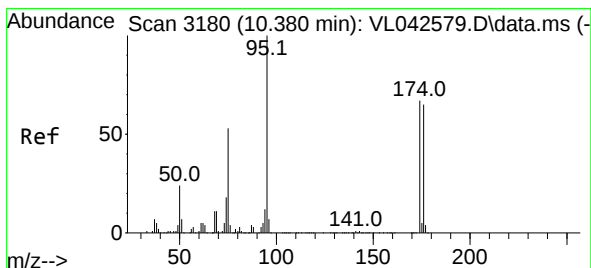
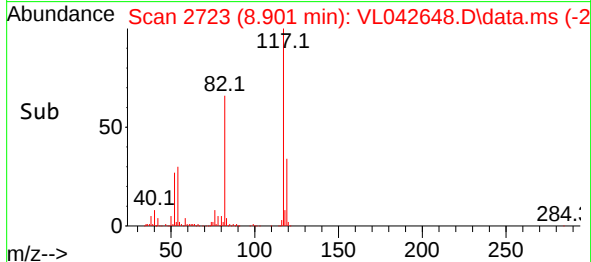
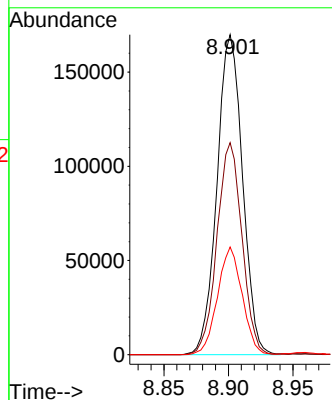
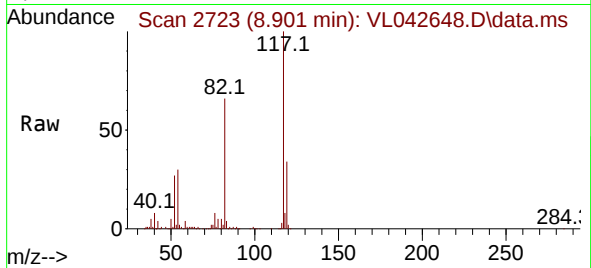




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.901 min Scan# 21
Delta R.T. 0.013 min
Lab File: VL042648.D
Acq: 19 Jun 2025 09:42

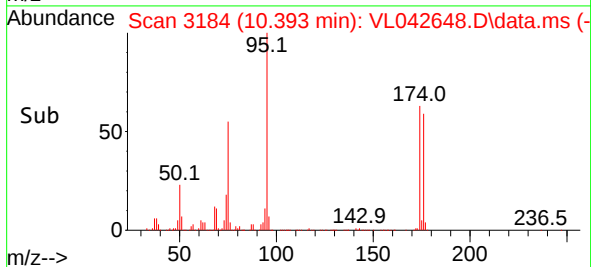
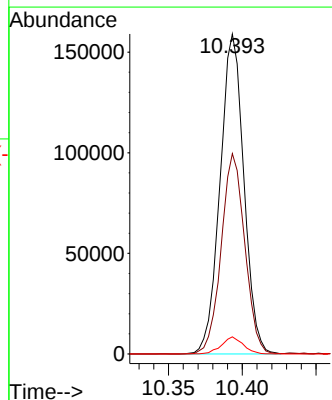
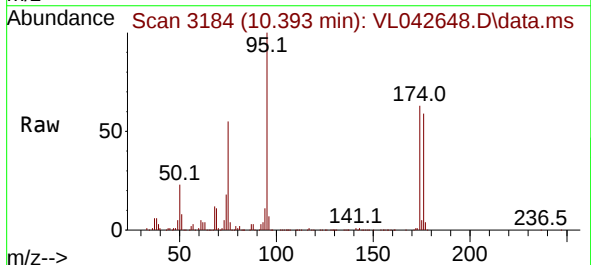
Instrument :
MSVOA_L
ClientSampleId :
VL0619ABL01

Tgt Ion:117 Resp: 233634
Ion Ratio Lower Upper
117 100
82 64.8 51.2 76.8
119 32.5 26.3 39.5



#68
1-Bromo-4-Fluorobenzene
Concen: 10.185 ppbv
RT: 10.393 min Scan# 3184
Delta R.T. 0.013 min
Lab File: VL042648.D
Acq: 19 Jun 2025 09:42

Tgt Ion: 95 Resp: 178374
Ion Ratio Lower Upper
95 100
174 62.1 53.1 79.7
175 4.9 4.2 6.2



Report of Analysis

Client:	GFE LLC	Date Collected:	
Project:	1438 University Ave, Bronx NY	Date Received:	
Client Sample ID:	VL0619ABS01	SDG No.:	Q2369
Lab Sample ID:	VL0619ABS01	Matrix:	Air
Analytical Method:	TO-15	Test:	VOCMS Group2
Sample Wt/Vol:	400	Units:	mL

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VL042649.D	1		06/19/25 10:26	VL061925

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qualifier	MDL	LOQ / CRQL	Units
TARGETS							
75-01-4	Vinyl Chloride	9.30	23.8		0.080	0.080	ug/m3
142-82-5	Heptane	9.50	38.9		0.70	2.05	ug/m3
75-35-4	1,1-Dichloroethene	10.9	43.2		0.59	1.98	ug/m3
110-82-7	Cyclohexane	9.10	31.3		0.76	1.72	ug/m3
156-59-2	cis-1,2-Dichloroethene	9.70	38.5		0.40	1.98	ug/m3
71-55-6	1,1,1-Trichloroethane	10.0	54.6		0.11	0.16	ug/m3
540-84-1	2,2,4-Trimethylpentane	11.1	51.9		0.65	2.34	ug/m3
71-43-2	Benzene	10.8	34.5		0.26	1.60	ug/m3
79-01-6	Trichloroethene	10.2	54.8		0.11	0.16	ug/m3
108-88-3	Toluene	10.5	39.6		0.60	1.88	ug/m3
127-18-4	Tetrachloroethene	9.80	66.5		0.14	0.20	ug/m3
100-41-4	Ethyl Benzene	11.1	48.2		0.83	2.17	ug/m3
179601-23-1	m/p-Xylene	23.2	101		1.78	4.34	ug/m3
95-47-6	o-Xylene	11.7	50.8		0.91	2.17	ug/m3
108-67-8	1,3,5-Trimethylbenzene	11.5	56.5		0.88	2.46	ug/m3
95-63-6	1,2,4-Trimethylbenzene	11.6	57.0		0.88	2.46	ug/m3
91-20-3	Naphthalene	11.8	61.9		0.050	0.52	ug/m3
110-54-3	Hexane	9.40	33.1		0.56	1.76	ug/m3
SURROGATES							
460-00-4	1-Bromo-4-Fluorobenzene	10.6			65 - 135	106%	SPK: 10
INTERNAL STANDARDS							
74-97-5	Bromochloromethane	108000		2.8			
540-36-3	1,4-Difluorobenzene	277000		3.975			
3114-55-4	Chlorobenzene-d5	244000		8.901			

U = Not Detected

RL = Reporting Limit

MDL = Method Detection Limit

E = Value Exceeds Calibration Range

D = Dilution

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

Q = indicates LCS control criteria did not meet requirements

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL061925\
 Data File : VL042649.D
 Acq On : 19 Jun 2025 10:26
 Operator : SY/MD
 Sample : VL0619ABS01
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 VL0619ABS01

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 06/23/2025
 Supervised By :Mahesh Dadoda 06/23/2025

Quant Time: Jun 20 01:35:03 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL052925AIR.M

Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 2025

QLast Update : Fri May 30 02:01:56 2025

Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	2.800	49	107593	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.975	114	277113	10.000	ppbv	0.01
55) Chlorobenzene-d5	8.901	117	244062	10.000	ppbv	0.01

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene 10.393 95 194374 10.624 ppbv 0.01
 Spiked Amount 10.000 Range 65 - 135 Recovery = 106.200%

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.505	85	142090	10.745	ppbv	99
3) Chlorodifluoromethane	1.479	51	178086	9.778	ppbv	95
4) Chloromethane	1.538	50	52647	10.054	ppbv	97
5) Vinyl Chloride	1.586	62	49813	9.338	ppbv	93
6) Bromomethane	1.674	94	24497	9.435	ppbv	93
7) Chloroethane	1.712	64	20025	9.661	ppbv	97
8) Dichlorotetrafluoroethane	1.560	85	115548	10.487	ppbv	98
9) Propene	1.489	41	67588	9.215	ppbv	99
10) Heptane	5.004	43	196137	9.487	ppbv	99
11) Trichlorofluoromethane	1.884	101	148395	12.061	ppbv	98
12) 1,1,2-Trichlorotrifluo...	2.149	101	114662	11.868	ppbv	96
13) Ethanol	1.729	45	5283	6.044	ppbv	87
14) Bromoethene	1.790	108	40199	11.062	ppbv	96
15) Acetone	1.842	43	118513	9.145	ppbv	97
16) 1,3-Butadiene	1.615	39	56246	9.162	ppbv	97
17) tert-Butyl alcohol	2.046	59	133965	9.922	ppbv	99
18) 1,1-Dichloroethene	2.043	96	48846	10.908	ppbv	95
19) Isopropyl Alcohol	1.894	45	75712	9.772	ppbv	96
20) Methylene Chloride	2.068	84	41003	9.587	ppbv	97
21) Allyl Chloride	2.104	41	91875	10.047	ppbv	95
22) trans-1,2-Dichloroethene	2.350	96	54912	10.978	ppbv	93
23) Vinyl Acetate	2.473	43	216370	12.351	ppbv #	98
24) 1,1-Dichloroethane	2.418	63	110695	10.756	ppbv	100
25) Ethyl Acetate	2.845	43	348113	9.815	ppbv	99
26) Hexane	2.839	57	150708	9.352	ppbv	96
27) Carbon Disulfide	2.159	76	133837	10.818	ppbv #	93
28) Methyl tert-Butyl Ether	2.450	73	73405	11.225	ppbv	99
29) Chloroform	2.858	83	224279	10.702	ppbv	97
30) Cyclohexane	3.871	84	121943	9.127	ppbv	97
31) cis-1,2-Dichloroethene	2.732	61	143034	9.703	ppbv	98
32) 1,1,1-Trichloroethane	3.383	97	214588	10.022	ppbv	99
34) 2-Butanone	2.567	43	230485	11.663	ppbv	99
35) Carbon Tetrachloride	3.781	117	219519	12.000	ppbv	97
36) Benzene	3.671	78	295149	10.816	ppbv	100
37) 1,2-Dichloroethane	3.230	62	171230	12.625	ppbv	97
38) Trichloroethene	4.570	130	117728	10.150	ppbv	91
39) 1,2-Dichloropropane	4.331	63	110494	10.949	ppbv	97
40) 1,4-Dioxane	4.596	88	46497	10.297	ppbv #	89
41) Tetrahydrofuran	3.065	42	122612	10.599	ppbv	98
42) Bromodichloromethane	4.509	83	237205	12.314	ppbv	95
43) Methyl Methacrylate	4.901	69	110610	10.443	ppbv	99
44) 2,2,4-Trimethylpentane	4.658	57	516730	11.070	ppbv	99
45) t-1,3-Dichloropropene	6.438	75	126703	10.454	ppbv	95

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL061925\
 Data File : VL042649.D
 Acq On : 19 Jun 2025 10:26
 Operator : SY/MD
 Sample : VL0619ABS01
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 VL0619ABS01

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 06/23/2025
 Supervised By :Mahesh Dadoda 06/23/2025

Quant Time: Jun 20 01:35:03 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL052925AIR.M

Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug 2

QLast Update : Fri May 30 02:01:56 2025

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
46) cis-1,3-Dichloropropene	5.629	75	160871	10.593	ppbv	97
47) 1,1,2-Trichloroethane	6.603	97	120343	11.520	ppbv	97
48) Dibromochloromethane	7.409	129	188153	11.251	ppbv	100
49) Bromoform	9.503	173	162341	11.251	ppbv	99
50) 4-Methyl-2-Pentanone	5.778	43	300801	10.974	ppbv	98
51) 2-Hexanone	7.454	43	237712	10.935	ppbv #	97
52) Tetrachloroethene	8.244	164	100098	9.816	ppbv	99
53) Toluene	6.959	91	330131	10.467	ppbv	100
54) 1,2-Dibromoethane	7.674	107	172654	11.166	ppbv	99
56) 1,1,1,2-Tetrachloroethane	8.943	131	144799	11.799	ppbv	98
57) Chlorobenzene	8.940	112	263529	11.120	ppbv	95
58) Ethyl Benzene	9.374	91	458900	11.085	ppbv	95
59) m/p-Xylene	9.568	91	756459m	23.219	ppbv	
60) o-Xylene	9.982	91	380653	11.715	ppbv	96
61) Styrene	9.888	104	157508	10.253	ppbv	96
62) Isopropylbenzene	10.555	105	547590	11.407	ppbv	98
63) 1,1,2,2-Tetrachloroethane	9.979	83	242285	11.726	ppbv	99
64) n-propylbenzene	11.002	120	145308	11.293	ppbv	94
65) tert-Butylbenzene	11.545	119	480384	11.028	ppbv	96
66) Benzyl Chloride	11.626	91	51799	9.238	ppbv	100
67) sec-Butylbenzene	11.782	105	694122	11.334	ppbv	98
69) p-Isopropyltoluene	11.937	119	576427	11.239	ppbv	98
70) n-Butylbenzene	12.293	91	593718	11.728	ppbv	98
71) 2-Chlorotoluene	10.914	91	414838	11.330	ppbv	97
72) 4-Ethyltoluene	11.138	105	468085	11.555	ppbv	98
73) 1,3,5-Trimethylbenzene	11.218	105	385574	11.500	ppbv	97
74) 1,2,4-Trimethylbenzene	11.552	105	431688	11.602	ppbv	94
75) 1,3-Dichlorobenzene	11.620	146	267433	11.446	ppbv	99
76) 1,4-Dichlorobenzene	11.685	146	266891	11.453	ppbv	99
77) 1,2-Dichlorobenzene	11.960	146	256891	11.328	ppbv	99
78) Hexachloro-1,3-Butadiene	13.892	225	184233	9.819	ppbv	99
79) Naphthalene	13.523	128	414690	11.824	ppbv	98
80) Naphthalene,2-methyl-	14.468	142	191696	12.098	ppbv	99
81) 1,2,4-Trichlorobenzene	13.452	180	208526	10.651	ppbv	99

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

Manual Integration Report

Sequence:	VL052925	Instrument	MSVOA_I
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Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICCC010	VL042579.D	Ethanol	SAM	5/30/2025 7:46:58 AM	MMDadoda	5/30/2025 12:25:20 PM	Peak Integrated by Software
VSTDICCC010	VL042579.D	m/p-Xylene	SAM	5/30/2025 7:46:58 AM	MMDadoda	5/30/2025 12:25:20 PM	Peak Integrated by Software
VSTDICC002	VL042580.D	1,4-Dioxane	SAM	5/30/2025 7:47:04 AM	MMDadoda	5/30/2025 12:25:22 PM	Peak Integrated by Software
VSTDICC002	VL042580.D	Ethanol	SAM	5/30/2025 7:47:04 AM	MMDadoda	5/30/2025 12:25:22 PM	Peak Integrated by Software
VSTDICC002	VL042580.D	m/p-Xylene	SAM	5/30/2025 7:47:04 AM	MMDadoda	5/30/2025 12:25:22 PM	Peak Integrated by Software
VSTDICC002	VL042580.D	Methyl Methacrylate	SAM	5/30/2025 7:47:04 AM	MMDadoda	5/30/2025 12:25:22 PM	Peak Integrated by Software
VSTDICC002	VL042580.D	t-1,3-Dichloropropene	SAM	5/30/2025 7:47:04 AM	MMDadoda	5/30/2025 12:25:22 PM	Peak Integrated by Software
VSTDICC001	VL042581.D	1,1,2-Trichloroethane	SAM	5/30/2025 7:47:55 AM	MMDadoda	5/30/2025 12:25:24 PM	Peak Integrated by Software
VSTDICC001	VL042581.D	1,4-Dioxane	SAM	5/30/2025 7:47:55 AM	MMDadoda	5/30/2025 12:25:24 PM	Peak Integrated by Software
VSTDICC001	VL042581.D	2,2,4-Trimethylpentane	SAM	5/30/2025 7:47:55 AM	MMDadoda	5/30/2025 12:25:24 PM	Peak Integrated by Software
VSTDICC001	VL042581.D	cis-1,3-Dichloropropene	SAM	5/30/2025 7:47:55 AM	MMDadoda	5/30/2025 12:25:24 PM	Peak Integrated by Software
VSTDICC001	VL042581.D	Heptane	SAM	5/30/2025 7:47:55 AM	MMDadoda	5/30/2025 12:25:24 PM	Peak Integrated by Software
VSTDICC001	VL042581.D	m/p-Xylene	SAM	5/30/2025 7:47:55 AM	MMDadoda	5/30/2025 12:25:24 PM	Peak Integrated by Software

Manual Integration Report

Sequence:	VL052925	Instrument	MSVOA_I
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Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDIC001	VL042581.D	t-1,3-Dichloropropene	SAM	5/30/2025 7:47:55 AM	MMDadoda	5/30/2025 12:25:24 PM	Peak Integrated by Software
VSTDIC0.5	VL042582.D	1,1,2-Trichloroethane	SAM	5/30/2025 7:48:07 AM	MMDadoda	5/30/2025 12:25:26 PM	Peak Integrated by Software
VSTDIC0.5	VL042582.D	1,2-Dichloropropane	SAM	5/30/2025 7:48:07 AM	MMDadoda	5/30/2025 12:25:26 PM	Peak Integrated by Software
VSTDIC0.5	VL042582.D	1,4-Dioxane	SAM	5/30/2025 7:48:07 AM	MMDadoda	5/30/2025 12:25:26 PM	Peak Integrated by Software
VSTDIC0.5	VL042582.D	4-Methyl-2-Pentanone	SAM	5/30/2025 7:48:07 AM	MMDadoda	5/30/2025 12:25:26 PM	Peak Integrated by Software
VSTDIC0.5	VL042582.D	Benzyl Chloride	SAM	5/30/2025 7:48:07 AM	MMDadoda	5/30/2025 12:25:26 PM	Peak Integrated by Software
VSTDIC0.5	VL042582.D	cis-1,3-Dichloropropene	SAM	5/30/2025 7:48:07 AM	MMDadoda	5/30/2025 12:25:26 PM	Peak Integrated by Software
VSTDIC0.5	VL042582.D	Cyclohexane	SAM	5/30/2025 7:48:07 AM	MMDadoda	5/30/2025 12:25:26 PM	Peak Integrated by Software
VSTDIC0.5	VL042582.D	Dibromochloromethane	SAM	5/30/2025 7:48:07 AM	MMDadoda	5/30/2025 12:25:26 PM	Peak Integrated by Software
VSTDIC0.5	VL042582.D	Ethanol	SAM	5/30/2025 7:48:07 AM	MMDadoda	5/30/2025 12:25:26 PM	Peak Integrated by Software
VSTDIC0.5	VL042582.D	m/p-Xylene	SAM	5/30/2025 7:48:07 AM	MMDadoda	5/30/2025 12:25:26 PM	Peak Integrated by Software
VSTDIC0.1	VL042583.D	1,2-Dibromoethane	SAM	5/30/2025 7:48:14 AM	MMDadoda	5/30/2025 12:25:28 PM	Peak Integrated by Software
VSTDIC0.1	VL042583.D	Naphthalene	SAM	5/30/2025 7:48:14 AM	MMDadoda	5/30/2025 12:25:28 PM	Peak Integrated by Software

Manual Integration Report

Sequence:	vl052925	Instrument	MSVOA_I
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Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDIC0.1	VL042583.D	Tetrachloroethene	SAM	5/30/2025 7:48:14 AM	MMDadoda	5/30/2025 12:25:28 PM	Peak Integrated by Software
VSTDIC0.1	VL042583.D	Trichloroethene	SAM	5/30/2025 7:48:14 AM	MMDadoda	5/30/2025 12:25:28 PM	Peak Integrated by Software
VSTDIC0.03	VL042584.D	1,1,1-Trichloroethane	SAM	5/30/2025 7:47:15 AM	MMDadoda	5/30/2025 12:25:30 PM	Peak Integrated by Software
VSTDIC0.03	VL042584.D	Carbon Tetrachloride	SAM	5/30/2025 7:47:15 AM	MMDadoda	5/30/2025 12:25:30 PM	Peak Integrated by Software
VSTDIC0.03	VL042584.D	Tetrachloroethene	SAM	5/30/2025 7:47:15 AM	MMDadoda	5/30/2025 12:25:30 PM	Peak Integrated by Software
VSTDIC0.03	VL042584.D	Trichloroethene	SAM	5/30/2025 7:47:15 AM	MMDadoda	5/30/2025 12:25:30 PM	Peak Integrated by Software
VSTDIC015	VL042585.D	Ethanol	SAM	5/30/2025 7:48:19 AM	MMDadoda	5/30/2025 12:25:32 PM	Peak Integrated by Software
VSTDIC015	VL042585.D	m/p-Xylene	SAM	5/30/2025 7:48:19 AM	MMDadoda	5/30/2025 12:25:32 PM	Peak Integrated by Software
VSTDICV010	VL042586.D	Ethanol	SAM	5/30/2025 7:48:25 AM	MMDadoda	5/30/2025 12:25:34 PM	Peak Integrated by Software
VSTDICV010	VL042586.D	m/p-Xylene	SAM	5/30/2025 7:48:25 AM	MMDadoda	5/30/2025 12:25:34 PM	Peak Integrated by Software
VSTDICV010	VL042586.D	t-1,3-Dichloropropene	SAM	5/30/2025 7:48:25 AM	MMDadoda	5/30/2025 12:25:34 PM	Peak Integrated by Software

Manual Integration Report

Sequence:	VL061925	Instrument	MSVOA_I
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Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDCCC010	VL042647.D	m/p-Xylene	SAM	6/23/2025 7:55:57 AM	MMDadoda	6/23/2025 1:16:41 PM	Peak Integrated by Software
VL0619ABS01	VL042649.D	m/p-Xylene	SAM	6/23/2025 7:56:11 AM	MMDadoda	6/23/2025 1:16:45 PM	Peak Integrated by Software
Q2369-02	VL042653.D	Acetone	SAM	6/23/2025 7:57:05 AM	MMDadoda	6/23/2025 1:16:56 PM	Peak Integrated by Software
Q2369-02	VL042653.D	Carbon Tetrachloride	SAM	6/23/2025 7:57:05 AM	MMDadoda	6/23/2025 1:16:56 PM	Peak Integrated by Software
Q2369-02	VL042653.D	Chlorodifluoromethane	SAM	6/23/2025 7:57:05 AM	MMDadoda	6/23/2025 1:16:56 PM	Peak Integrated by Software
Q2369-02	VL042653.D	m/p-Xylene	SAM	6/23/2025 7:57:05 AM	MMDadoda	6/23/2025 1:16:56 PM	Peak Integrated by Software
Q2369-02	VL042653.D	Tetrachloroethene	SAM	6/23/2025 7:57:05 AM	MMDadoda	6/23/2025 1:16:56 PM	Peak Integrated by Software
Q2369-01	VL042657.D	2,2,4-Trimethylpentane	SAM	6/23/2025 7:56:31 AM	MMDadoda	6/23/2025 1:17:06 PM	Peak Integrated by Software
Q2369-01	VL042657.D	2-Hexanone	SAM	6/23/2025 7:56:31 AM	MMDadoda	6/23/2025 1:17:06 PM	Peak Integrated by Software
Q2369-01	VL042657.D	Acetone	SAM	6/23/2025 7:56:31 AM	MMDadoda	6/23/2025 1:17:06 PM	Peak Integrated by Software
Q2369-01	VL042657.D	Cyclohexane	SAM	6/23/2025 7:56:31 AM	MMDadoda	6/23/2025 1:17:06 PM	Peak Integrated by Software
Q2369-01	VL042657.D	Heptane	SAM	6/23/2025 7:56:31 AM	MMDadoda	6/23/2025 1:17:06 PM	Peak Integrated by Software
Q2369-01	VL042657.D	Propene	SAM	6/23/2025 7:56:31 AM	MMDadoda	6/23/2025 1:17:06 PM	Peak Integrated by Software

Manual Integration Report

Sequence:

VL061925

Instrument

MSVOA_I

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
Q2369-01DL	VL042658.D	2,2,4-Trimethylpentane	SAM	6/23/2025 7:56:35 AM	MMDadoda	6/23/2025 1:17:12 PM	Peak Integrated by Software
Q2369-01DL	VL042658.D	2-Butanone	SAM	6/23/2025 7:56:35 AM	MMDadoda	6/23/2025 1:17:12 PM	Peak Integrated by Software
Q2369-01DL	VL042658.D	Acetone	SAM	6/23/2025 7:56:35 AM	MMDadoda	6/23/2025 1:17:12 PM	Peak Integrated by Software
Q2369-01DL	VL042658.D	Ethyl Benzene	SAM	6/23/2025 7:56:35 AM	MMDadoda	6/23/2025 1:17:12 PM	Peak Integrated by Software
Q2369-01DL	VL042658.D	Heptane	SAM	6/23/2025 7:56:35 AM	MMDadoda	6/23/2025 1:17:12 PM	Peak Integrated by Software
Q2369-01DL	VL042658.D	m/p-Xylene	SAM	6/23/2025 7:56:35 AM	MMDadoda	6/23/2025 1:17:12 PM	Peak Integrated by Software
Q2368-01DUP	VL042661.D	2-Hexanone	SAM	6/23/2025 7:56:06 AM	MMDadoda	6/23/2025 1:17:10 PM	Peak Integrated by Software
Q2368-01DUP	VL042661.D	Cyclohexane	SAM	6/23/2025 7:56:06 AM	MMDadoda	6/23/2025 1:17:10 PM	Peak Integrated by Software
Q2368-01DUP	VL042661.D	Heptane	SAM	6/23/2025 7:56:06 AM	MMDadoda	6/23/2025 1:17:10 PM	Peak Integrated by Software
Q2368-01DUP	VL042661.D	Tetrachloroethene	SAM	6/23/2025 7:56:06 AM	MMDadoda	6/23/2025 1:17:10 PM	Peak Integrated by Software
Q2368-01DUP	VL042661.D	Tetrahydrofuran	SAM	6/23/2025 7:56:06 AM	MMDadoda	6/23/2025 1:17:10 PM	Peak Integrated by Software

Instrument ID: **MSVOA_L**

Daily Analysis Runlog For Sequence/QC Batch ID # VL052925

Review By	Semsettin Yesilyurt	Review On	5/30/2025 7:50:21 AM		
Supervise By	Maresh Dadoda	Supervise On	5/30/2025 12:26:19 PM		
SubDirectory	VL052925	HP Acquire Method	TO15AIR.M	HP Processing Method	VL052925AIR.M
STD. NAME		STD REF.#			
Tune/Reschk	AP2629				
Initial Calibration Stds	AP2623,AP2625,AP2626				
CCC	AP2623				
Internal Standard/PEM	AP2629				
ICV/I.BLK	AP2627				
Surrogate Standard					
MS/MSD Standard					
LCS Standard					

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VL042578.D	29 May 2025 08:05	SY/MD	Ok
2	VSTDICCC010	VL042579.D	29 May 2025 11:09	SY/MD	Ok,M
3	VSTDICCC002	VL042580.D	29 May 2025 11:43	SY/MD	Ok,M
4	VSTDICCC001	VL042581.D	29 May 2025 12:15	SY/MD	Ok,M
5	VSTDICCC0.5	VL042582.D	29 May 2025 12:47	SY/MD	Ok,M
6	VSTDICCC0.1	VL042583.D	29 May 2025 13:19	SY/MD	Ok,M
7	VSTDICCC0.03	VL042584.D	29 May 2025 13:51	SY/MD	Ok,M
8	VSTDICCC015	VL042585.D	29 May 2025 14:24	SY/MD	Ok,M
9	VSTDICV010	VL042586.D	29 May 2025 14:56	SY/MD	Ok,M
10	VL0529ABL01	VL042587.D	29 May 2025 15:44	SY/MD	Not Ok
11	VL0529ABL02	VL042588.D	29 May 2025 16:50	SY/MD	Ok
12	Q2124-01	VL042589.D	29 May 2025 17:22	SY/MD	Dilution
13	Q2124-01DL	VL042590.D	29 May 2025 17:55	SY/MD	Ok,M
14	VL0529ABS01	VL042591.D	29 May 2025 18:27	SY/MD	Ok,M
15	Q2124-02	VL042592.D	29 May 2025 19:00	SY/MD	Ok,M
16	Q2124-02DL	VL042593.D	29 May 2025 19:32	SY/MD	Not Ok
17	Q2124-03	VL042594.D	29 May 2025 20:05	SY/MD	Ok,M
18	Q2124-03DL	VL042595.D	29 May 2025 20:37	SY/MD	Not Ok
19	Q2124-01DUP	VL042596.D	29 May 2025 21:10	SY/MD	Not Ok
20	QC052725 CAN 10609	VL042597.D	29 May 2025 21:44	SY/MD	Not Ok
21	QC052725 CAN 10609	VL042598.D	29 May 2025 22:18	SY/MD	Ok

Instrument ID: MSVOA_L

Daily Analysis Runlog For Sequence/QC Batch ID # VL052925

Review By	Semsettin Yesilyurt	Review On	5/30/2025 7:50:21 AM		
Supervise By	Mahesh Dadoda	Supervise On	5/30/2025 12:26:19 PM		
SubDirectory	VL052925	HP Acquire Method	TO15AIR.M	HP Processing Method	VL052925AIR.M
STD. NAME		STD REF.#			
Tune/Reschk	AP2629				
Initial Calibration Stds	AP2623,AP2625,AP2626				
CCC	AP2623				
Internal Standard/PEM	AP2629				
ICV/I.BLK	AP2627				
Surrogate Standard					
MS/MSD Standard					
LCS Standard					

22	CAN10053	VL042599.D	29 May 2025 22:52	SY/MD	Ok
23	QC05225 CAN 10154	VL042600.D	29 May 2025 23:26	SY/MD	Ok
24	Q2124-01DUP	VL042601.D	29 May 2025 23:58	SY/MD	Ok,M

M : Manual Integration

Instrument ID: **MSVOA_L**

Daily Analysis Runlog For Sequence/QC Batch ID # VL061925

Review By	Semsettin Yesilyurt	Review On	6/23/2025 8:05:26 AM		
Supervise By	Maresh Dadoda	Supervise On	6/23/2025 1:17:37 PM		
SubDirectory	VL061925	HP Acquire Method	TO15AIR.M	HP Processing Method	VL052925AIR.M
STD. NAME		STD REF.#			
Tune/Reschk	AP2629				
Initial Calibration Stds	AP2623,AP2625,AP2626				
CCC	AP2623				
Internal Standard/PEM	AP2629				
ICV/I.BLK	AP2627				
Surrogate Standard					
MS/MSD Standard					
LCS Standard					

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VL042646.D	19 Jun 2025 08:10	SY/MD	Ok
2	VSTDCCC010	VL042647.D	19 Jun 2025 08:56	SY/MD	Ok,M
3	VL0619ABL01	VL042648.D	19 Jun 2025 09:42	SY/MD	Ok
4	VL0619ABS01	VL042649.D	19 Jun 2025 10:26	SY/MD	Ok,M
5	Q2359-01DL	VL042650.D	19 Jun 2025 11:09	SY/MD	Ok,M
6	Q2359-01	VL042651.D	19 Jun 2025 11:58	SY/MD	Dilution
7	Q2359-01DUP	VL042652.D	19 Jun 2025 12:34	SY/MD	Ok,M
8	Q2369-02	VL042653.D	19 Jun 2025 13:37	SY/MD	Ok,M
9	Q2368-02	VL042654.D	19 Jun 2025 14:36	SY/MD	Dilution
10	Q2368-01	VL042655.D	19 Jun 2025 15:09	SY/MD	Ok,M
11	Q2368-01DL	VL042656.D	19 Jun 2025 15:43	SY/MD	Not Ok
12	Q2369-01	VL042657.D	19 Jun 2025 16:17	SY/MD	Dilution
13	Q2369-01DL	VL042658.D	19 Jun 2025 16:52	SY/MD	Ok,M
14	VIBLK	VL042659.D	19 Jun 2025 17:26	SY/MD	Ok
15	Q2368-02DL	VL042660.D	19 Jun 2025 18:00	SY/MD	Ok,M
16	Q2368-01DUP	VL042661.D	20 Jun 2025 07:50	SY/MD	Ok,M

M : Manual Integration

Instrument ID: MSVOA_L

Daily Analysis Runlog For Sequence/QC Batch ID # VL052925

Review By	Semsettin Yesilyurt	Review On	5/30/2025 7:50:21 AM
Supervise By	Maresh Dadoda	Supervise On	5/30/2025 12:26:19 PM
SubDirectory	VL052925	HP Acquire Method	TO15AIR.M
		HP Processing Method	VL052925AIR.M
STD. NAME	STD REF.#		
Tune/Reschk	AP2629		
Initial Calibration Stds	AP2623,AP2625,AP2626		
CCC	AP2623		
Internal Standard/PEM	AP2629		
ICV/I.BLK	AP2627		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VL042578.D	29 May 2025 08:05		SY/MD	Ok
2	VSTDICCC010	VSTDICCC010	VL042579.D	29 May 2025 11:09		SY/MD	Ok,M
3	VSTDICC002	VSTDICC002	VL042580.D	29 May 2025 11:43		SY/MD	Ok,M
4	VSTDICC001	VSTDICC001	VL042581.D	29 May 2025 12:15		SY/MD	Ok,M
5	VSTDICC0.5	VSTDICC0.5	VL042582.D	29 May 2025 12:47		SY/MD	Ok,M
6	VSTDICC0.1	VSTDICC0.1	VL042583.D	29 May 2025 13:19		SY/MD	Ok,M
7	VSTDICC0.03	VSTDICC0.03	VL042584.D	29 May 2025 13:51		SY/MD	Ok,M
8	VSTDICC015	VSTDICC015	VL042585.D	29 May 2025 14:24		SY/MD	Ok,M
9	VSTDICV010	ICVVL052925	VL042586.D	29 May 2025 14:56	comp#13 fail	SY/MD	Ok,M
10	VL0529ABL01	VL0529ABL01	VL042587.D	29 May 2025 15:44	carryover	SY/MD	Not Ok
11	VL0529ABL02	VL0529ABL02	VL042588.D	29 May 2025 16:50		SY/MD	Ok
12	Q2124-01	SV1	VL042589.D	29 May 2025 17:22	Need 20X	SY/MD	Dilution
13	Q2124-01DL	SV1DL	VL042590.D	29 May 2025 17:55		SY/MD	Ok,M
14	VL0529ABS01	VL0529ABS01	VL042591.D	29 May 2025 18:27		SY/MD	Ok,M
15	Q2124-02	SV2	VL042592.D	29 May 2025 19:00		SY/MD	Ok,M
16	Q2124-02DL	SV2DL	VL042593.D	29 May 2025 19:32	Not Required	SY/MD	Not Ok
17	Q2124-03	SV3	VL042594.D	29 May 2025 20:05		SY/MD	Ok,M
18	Q2124-03DL	SV3DL	VL042595.D	29 May 2025 20:37	Not Required	SY/MD	Not Ok

Instrument ID: MSVOA_L

Daily Analysis Runlog For Sequence/QC Batch ID # VL052925

Review By	Semsettin Yesilyurt	Review On	5/30/2025 7:50:21 AM		
Supervise By	Mahesh Dadoda	Supervise On	5/30/2025 12:26:19 PM		
SubDirectory	VL052925	HP Acquire Method	TO15AIR.M	HP Processing Method	VL052925AIR.M
STD. NAME	STD REF.#				
Tune/Reschk	AP2629				
Initial Calibration Stds	AP2623,AP2625,AP2626				
CCC	AP2623				
Internal Standard/PEM	AP2629				
ICV/I.BLK	AP2627				
Surrogate Standard					
MS/MSD Standard					
LCS Standard					

19	Q2124-01DUP	SV1DUP	VL042596.D	29 May 2025 21:10	wrong purge	SY/MD	Not Ok
20	QC052725 CAN 10609	QC052725 CAN 10609	VL042597.D	29 May 2025 21:44	Contaminated	SY/MD	Not Ok
21	QC052725 CAN 10609	QC052725 CAN 10609	VL042598.D	29 May 2025 22:18		SY/MD	Ok
22	CAN10053	CAN10053	VL042599.D	29 May 2025 22:52		SY/MD	Ok
23	QC05225 CAN 10154	QC05225 CAN 10154	VL042600.D	29 May 2025 23:26		SY/MD	Ok
24	Q2124-01DUP	SV1DUP	VL042601.D	29 May 2025 23:58		SY/MD	Ok,M

M : Manual Integration

Instrument ID: MSVOA_L

Daily Analysis Runlog For Sequence/QC Batch ID # VL061925

Review By	Semsettin Yesilyurt	Review On	6/23/2025 8:05:26 AM
Supervise By	Maresh Dadoda	Supervise On	6/23/2025 1:17:37 PM
SubDirectory	VL061925	HP Acquire Method	TO15AIR.M
		HP Processing Method	VL052925AIR.M

STD. NAME	STD REF.#
Tune/Reschk	AP2629
Initial Calibration Stds	AP2623,AP2625,AP2626
CCC	AP2623
Internal Standard/PEM	AP2629
ICV/I.BLK	AP2627
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VL042646.D	19 Jun 2025 08:10		SY/MD	Ok
2	VSTDCCC010	VSTDCCC010	VL042647.D	19 Jun 2025 08:56		SY/MD	Ok,M
3	VL0619ABL01	VL0619ABL01	VL042648.D	19 Jun 2025 09:42		SY/MD	Ok
4	VL0619ABS01	VL0619ABS01	VL042649.D	19 Jun 2025 10:26		SY/MD	Ok,M
5	Q2359-01DL	SS-1DL	VL042650.D	19 Jun 2025 11:09		SY/MD	Ok,M
6	Q2359-01	SS-1	VL042651.D	19 Jun 2025 11:58	Need 10X	SY/MD	Dilution
7	Q2359-01DUP	SS-1DUP	VL042652.D	19 Jun 2025 12:34		SY/MD	Ok,M
8	Q2369-02	IA1	VL042653.D	19 Jun 2025 13:37		SY/MD	Ok,M
9	Q2368-02	IA1	VL042654.D	19 Jun 2025 14:36	Need 40X	SY/MD	Dilution
10	Q2368-01	SV1	VL042655.D	19 Jun 2025 15:09		SY/MD	Ok,M
11	Q2368-01DL	SV1DL	VL042656.D	19 Jun 2025 15:43	Not required	SY/MD	Not Ok
12	Q2369-01	SV1	VL042657.D	19 Jun 2025 16:17	Need 40X	SY/MD	Dilution
13	Q2369-01DL	SV1DL	VL042658.D	19 Jun 2025 16:52		SY/MD	Ok,M
14	VIBLK	VIBLK	VL042659.D	19 Jun 2025 17:26		SY/MD	Ok
15	Q2368-02DL	IA1DL	VL042660.D	19 Jun 2025 18:00		SY/MD	Ok,M
16	Q2368-01DUP	SV1DUP	VL042661.D	20 Jun 2025 07:50		SY/MD	Ok,M

M : Manual Integration