



SHIPPING DOCUMENTS

Client Contact Information				Bottle Order ID : B2511037				Courier : FGALDUN				L of S COCs					
Client ID : GFEL01 Project ID : All Projects				Sampler Name(s) FRANK GALDUN				Analysis				Matrix					
Customer Name : GFE LLC Address : 58 Nokomis Ave				Project Manager : Frank galdun				AIR ANALYSIS CHAIN-OF-CUSTODY Batch Certified				Indoor/Ambient Air Soil Gas					
				Phone Number : 646-542-3465													
				Fax Number : 973-334-1692													
City : Lake Hiawatha				Site Details: 406 E. 175th St. Bronx, NY													
State : NJ				Analysis Turnaround Time 5 DAY													
Zip Code : 07034				Standard : 10 business days OR				Data Package Type : Results ONLY									
Country :				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				
SU1	11/24/12	8:52	10:52	30	55	52	54	-30	-5.1	10185	10311	6 L	50	VL043134.D	1	1	
Temperature (Fahrenheit)										GC/MS Analyst Signature (TO-15) [Signature]							
		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																	
Sampling site (State):																	
Quick Connector required : NO																	
Canisters Shipped by: 390A				Date/Time: 11/20/12				Canisters Received by:				Date/Time:					
Samples Relinquished by: FRANK				Date/Time: 11/23/12				Received by: [Signature]				Date/Time: 11/23/12 1235					
Relinquished by:				Date/Time:				Received by:				Date/Time:					

Client Contact Information				Bottle Order ID : B2511037				Courier : FGALDUN				2 of 3 COCs															
Client ID : GFEL01 Project ID : All Projects				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 Batch Certified				Indoor Ambient Air Soil Gas															
				Phone Number : 646-542-3465																							
				Fax Number : 973-334-1692																							
				Site Details: 406 E. 175TH ST BRONX, NY																							
Analysis Turnaround Time 5 DAY				Standard : 10 business days OR				Data Package Type : RESULTS ONLY																			
Rush (Specify): S 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														
IA1	11/24/25	8:25	10:25	30	S	52	54	-29.5	-3.5	10707	10285	6 L	50	VL043134.D													
Temperature (Fahrenheit) <table border="1"> <tr> <td></td> <td>Ambient</td> <td>Maximum</td> <td>Minimum</td> </tr> <tr> <td>Start</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Stop</td> <td></td> <td></td> <td></td> </tr> </table>											Ambient	Maximum	Minimum	Start				Stop				GC/MS Analyst Signature (TO-15) 					
	Ambient	Maximum	Minimum																								
Start																											
Stop																											
Pressure (Inches of Hg) <table border="1"> <tr> <td></td> <td>Ambient</td> <td>Maximum</td> <td>Minimum</td> </tr> <tr> <td>Start</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Stop</td> <td></td> <td></td> <td></td> </tr> </table>											Ambient	Maximum	Minimum	Start				Stop				** 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																											
Sampling site (State):																											
Quick Connector required : NO																											
Canisters Shipped by: Sam				Date/Time: 11/20/25				Canisters Received by:				Date/Time:															
Samples Relinquished by: FGALDUN				Date/Time: 11/25/25				Received by:				Date/Time: 11/26/25 1235															
Relinquished by:				Date/Time:				Received by:				Date/Time:															

Client Contact Information						Bottle Order ID : B2511037				Courier : FGALDUN				3 of 5 COCs					
Client ID : GFEL01 Project ID : All Projects						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: 406 E. 175TH ST Bronx NY													
						Analysis Turnaround Time 5 DAY				Data Package Type : RESULTS ONLY				Indoor/Ambient Air Soil Gas					
						Standard : 10 business days OR				EDD Type : PDF									
Country :						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				
SVZ	11/24/25	8:41	10:41	OVER 30	6	52	54	-30	-4.7	10550	10604	6 L	50	VL043134.D	1				
Temperature (Fahrenheit)										GC/MS Analyst Signature (TO-15) [Signature]									
		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																			
Sampling site (State):																			
Quick Connector required : NO																			
Canisters Shipped by: [Signature]				Date/Time: 11/25/25				Canisters Received by: [Signature]				Date/Time: 11/25/25 1235				B2511037 - 5			
Samples Relinquished by: [Signature]				Date/Time: 11/25/25				Received by: [Signature]				Date/Time: 11/25/25 1235							
Relinquished by:				Date/Time:				Received by:				Date/Time:							

Client Contact Information				Bottle Order ID : B2511037				Courier : F. Galdun				4 of 5 COCs					
Client ID : GFEL01				Project ID : All Projects				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 Batch Certified									
				Phone Number : 646-542-3465													
				Fax Number : 973-334-1692													
				Site Details: 406 E. 175th St. Bronx, NY													
				Analysis Turnaround Time 5 DAY				Data Package Type : RESULTS ONLY									
				Standard : 10 business days OR				EDD Type : PDF									
Country :				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
IAZ	11/24/25	8:24	10:24	30	5	52	54	-29.5	-4.3	10511	10601	6 L	50	VL043134.D	1	1	
Temperature (Fahrenheit)										GC/MS Analyst Signature (TO-15) [Signature]							
		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																	
Sampling site (State):																	
Quick Connector required : NO																	
Canisters Shipped by: [Signature]				Date/Time: 11/20/25				Canisters Received by: [Signature]				Date/Time: 11/26/25 12:35				B2511037 - 4	
Samples Relinquished by: [Signature]				Date/Time: 11/25/25				Received by: [Signature]				Date/Time: 11/26/25 12:35					
Relinquished by:				Date/Time:				Received by:				Date/Time:					

Client Contact Information				Bottle Order ID : B2511037				Courier : FGALDUN				4 of 5 COCs			
Client ID : GFEL01				Project ID : All Projects				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: 406 E. 175th ST Bronx, NY											
				Analysis Turnaround Time 5 DAY				Data Package Type : RESULTS ONLY				Indoor/Ambient Air Soil Gas			
				Standard : 16 Business days OR				EDD Type : PDF							
Country :				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
OAI	11/24/25	8:27	10:27	OVER 30	4.5	/	/	-30	-2-7	10648	10443	6 L	50	VL043134.D	1		1	

Temperature (Fahrenheit)				
	Ambient	Maximum	Minimum	
Start	46	51		
Stop	51			

Pressure (Inches of Hg)				
	Ambient	Maximum	Minimum	
Start				
Stop				

GC/MS Analyst Signature (TO-15) SUT

** 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.

Special Instructions/QC Requirements & Comments :

Suspected Contamination: High Medium Low PID Readings: 0.0

Sampling site (State):

Quick Connector required : **NO**

Canisters Shipped by: Sam	Date/Time: 11/20/25	Canisters Received by:	Date/Time:
Samples Relinquished by: Frank	Date/Time: 11/25/25	Received by: SA	Date/Time: 11/26/25 1235
Relinquished by:	Date/Time:	Received by:	Date/Time:

B2511037 - 3

REQUESTED ANALYTE LIST:

PCE
TCE
cis-1,2-DCE
1,1,1-TCA
1,1-DCE
Vinyl chloride
Benzene
Toluene
Ethylbenzene
Naphthalene
Cyclohexane
2,2,4-Trimethylpentane
1,2,4-Trimethylbenzene
1,3,5-Trimethylbenzene
o-xylene
m,p-xylene
Heptane
Hexane

Laboratory Certification

Certified By	License No.
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255425
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	TX-C25-00189
Virginia	460312

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>	
<u>QA/QC:</u>		Title: <u>Sample Custodian</u>	
Field Sample Seal No. <u>Q3744</u>		Date Broken: <u>11/26/2025</u>	Military Time Seal Broken: <u>12:35:00</u>
Case No.: <u>All Projects</u>		Analytical Parameter/Fraction: <u>OCMS Group2</u>	

Sample No.	Aliquot/Extract No.	Sample No.	Aliquot/Extract No.
Q3744-01	SV1		
Q3744-02	IA1		
Q3744-03	SV2		
Q3744-04	IA2		
Q3744-05	OA1		

Date	Time	Relinquished By	Received By	Purpose of Change of Custody
11/25	12:25	Signature 	Signature 	
		Printed Name <u>Cassanova Perin</u>	Printed Name <u>Sample Custodian</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

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

LAB CHRONICLE

OrderID: Q3744	OrderDate: 12/1/2025 11:09:00 AM
Client: GFE LLC	Project: All Projects
Contact: Frank Galdun	Location: Air Lab, VOA Lab

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q3744-01	SV1	Air	VOCMS Group2	TO-15	12/24/25		12/02/25	11/26/25
Q3744-02	IA1	Air	VOCMS Group2	TO-15	12/24/25		12/02/25	11/26/25
Q3744-03	SV2	Air	VOCMS Group2	TO-15	12/24/25		12/02/25	11/26/25
Q3744-04	IA2	Air	VOCMS Group2	TO-15	12/24/25		12/02/25	11/26/25
Q3744-05	OA1	Air	VOCMS Group2	TO-15	12/24/25		12/02/25	11/26/25

Hit Summary Sheet
SW-846

SDG No.: Q3744
Client: GFE LLC

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID:	SV1							
Q3744-01	SV1	Air	1,1,1-Trichloroethane	3.71		0.33	0.65	ug/m3
Q3744-01	SV1	Air	Benzene	8.31		1.02	6.39	ug/m3
Q3744-01	SV1	Air	Toluene	4.15	J	2.41	7.54	ug/m3
Q3744-01	SV1	Air	Tetrachloroethene	18.3		0.41	0.81	ug/m3
			Total Voc :	34.5				
			Total Concentration:	34.5				
Client ID:	IA1							
Q3744-02	IA1	Air	2,2,4-Trimethylpentane	0.65	J	0.65	2.34	ug/m3
Q3744-02	IA1	Air	Benzene	0.89	J	0.26	1.60	ug/m3
Q3744-02	IA1	Air	Toluene	3.05		0.60	1.88	ug/m3
Q3744-02	IA1	Air	Hexane	1.94		0.56	1.76	ug/m3
			Total Voc :	6.53				
			Total Concentration:	6.53				
Client ID:	SV2							
Q3744-03	SV2	Air	Benzene	1.60	J	1.02	6.39	ug/m3
Q3744-03	SV2	Air	Toluene	9.42		2.41	7.54	ug/m3
Q3744-03	SV2	Air	Tetrachloroethene	10.8		0.41	0.81	ug/m3
Q3744-03	SV2	Air	m/p-Xylene	8.25	J	6.95	17.4	ug/m3
Q3744-03	SV2	Air	o-Xylene	4.34	J	3.65	8.69	ug/m3
Q3744-03	SV2	Air	Hexane	11.6		2.26	7.05	ug/m3
			Total Voc :	46.1				
			Total Concentration:	46.1				
Client ID:	IA2							
Q3744-04	IA2	Air	2,2,4-Trimethylpentane	0.84	J	0.65	2.34	ug/m3
Q3744-04	IA2	Air	Benzene	0.96	J	0.26	1.60	ug/m3
Q3744-04	IA2	Air	Toluene	4.15		0.60	1.88	ug/m3
Q3744-04	IA2	Air	Hexane	2.75		0.56	1.76	ug/m3
			Total Voc :	8.70				
			Total Concentration:	8.70				
Client ID:	OA1							
Q3744-05	OA1	Air	Benzene	0.61	J	0.26	1.60	ug/m3
Q3744-05	OA1	Air	Toluene	0.79	J	0.60	1.88	ug/m3
Q3744-05	OA1	Air	Hexane	0.78	J	0.56	1.76	ug/m3
			Total Voc :	2.18				
			Total Concentration:	2.18				



QC SUMMARY

Surrogate Summary

SDG No.: Q3744

Client: GFE LLC

Analytical Method: SWTO-15

Lab Sample ID	Client ID	Parameter	Spike	Result	Recovery (%)	Qual	Limits (%)	
							Low	High
Q3744-01	SV1	1-Bromo-4-Fluorobenzene	10	9.45	95		65	135
Q3744-02	IA1	1-Bromo-4-Fluorobenzene	10	9.52	95		65	135
Q3744-02DUP	IA1DUP	1-Bromo-4-Fluorobenzene	10	9.66	97		65	135
Q3744-03	SV2	1-Bromo-4-Fluorobenzene	10	10.5	105		65	135
Q3744-04	IA2	1-Bromo-4-Fluorobenzene	10	9.82	98		65	135
Q3744-05	OA1	1-Bromo-4-Fluorobenzene	10	9.32	93		65	135
VL1202ABL01	VL1202ABL01	1-Bromo-4-Fluorobenzene	10	9.41	94		65	135
VL1202ABS01	VL1202ABS01	1-Bromo-4-Fluorobenzene	10	10.1	101		65	135

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.:	<u>Q3744</u>	Analytical Method:	<u>SWTO-15</u>
Client:	<u>GFE LLC</u>	Datafile :	<u>VL043294.D</u>

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VL1202ABS01	Vinyl Chloride	10	9.50	ppbv	95			70	130	
	Heptane	10	9.50	ppbv	95			70	130	
	1,1-Dichloroethane	10	10.9	ppbv	109			70	130	
	Cyclohexane	10	10.2	ppbv	102			70	130	
	cis-1,2-Dichloroethene	10	10.3	ppbv	103			70	130	
	1,1,1-Trichloroethane	10	11.1	ppbv	111			70	130	
	2,2,4-Trimethylpentane	10	10.2	ppbv	102			70	130	
	Benzene	10	10.7	ppbv	107			70	130	
	Trichloroethene	10	11.0	ppbv	110			70	130	
	Toluene	10	10.0	ppbv	100			70	130	
	Tetrachloroethene	10	10.6	ppbv	106			70	130	
	Ethyl Benzene	10	10.8	ppbv	108			70	130	
	m/p-Xylene	20	22.1	ppbv	111			70	130	
	o-Xylene	10	11.1	ppbv	111			70	130	
	1,3,5-Trimethylbenzene	10	10.9	ppbv	109			70	130	
	1,2,4-Trimethylbenzene	10	11.0	ppbv	110			70	130	
	Naphthalene	10	10.1	ppbv	101			70	130	
	Hexane	10	9.90	ppbv	99			70	130	

VOLATILE METHOD BLANK SUMMARY

Client ID

IA1DUP

Lab Name: Alliance

Contract: GFEL01

Lab Code: ACE

SDG NO.: Q3744

Lab File ID: VL043297.D

Lab Sample ID: Q3744-02DUP

Date Analyzed: 12/02/2025

Time Analyzed: 14:13

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
IA1DUP	Q3744-02DUP	VL043297.D	12/02/2025

COMMENTS: _____

VOLATILE METHOD BLANK SUMMARY

Client ID

VL1202ABL01

Lab Name: Alliance

Contract: GFEL01

Lab Code: ACE

SDG NO.: Q3744

Lab File ID: VL043293.D

Lab Sample ID: VL1202ABL01

Date Analyzed: 12/02/2025

Time Analyzed: 10:19

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
VL1202ABS01	VL1202ABS01	VL043294.D	12/02/2025
IA1	Q3744-02	VL043296.D	12/02/2025
IA2	Q3744-04	VL043298.D	12/02/2025
OA1	Q3744-05	VL043299.D	12/02/2025
SV1	Q3744-01	VL043300.D	12/02/2025
SV2	Q3744-03	VL043301.D	12/02/2025

COMMENTS: _____

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alliance

Contract: GFEL01

Lab Code: ACE

SDG NO.: Q3744

Lab File ID: VL043202.D

BFB Injection Date: 11/18/2025

Instrument ID: MSVOA_L

BFB Injection Time: 08:46

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	22.1
75	30.0 - 66.0% of mass 95	55.6
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.0 (0.0) 1
174	50.0 - 120.0% of mass 95	63.6
175	4.0 - 9.0% of mass 174	5 (7.8) 1
176	93.0 - 101.0% of mass 174	60.7 (95.5) 1
177	5.0 - 9.0% of mass 176	4 (6.6) 2

1-Value is % mass 174

2-Value is % mass 176

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

CLIENT ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDIC0.5	VSTDIC0.5	VL043203.D	11/18/2025	09:29
VSTDIC0.10	VSTDIC0.10	VL043204.D	11/18/2025	10:02
VSTDIC0.02	VSTDIC0.02	VL043205.D	11/18/2025	10:37
VSTDIC0.01	VSTDIC0.01	VL043206.D	11/18/2025	11:10
VSTDIC0.1	VSTDIC0.1	VL043208.D	11/18/2025	12:16
VSTDIC0.03	VSTDIC0.03	VL043209.D	11/18/2025	12:49
VSTDIC0.15	VSTDIC0.15	VL043210.D	11/18/2025	13:24

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alliance
Lab Code: ACE
Lab File ID: VL043291.D
Instrument ID: MSVOA_L
GC Column: RTX-1 ID: 0.32 (mm)

Contract: GFEL01
SDG NO.: Q3744
BFB Injection Date: 12/02/2025
BFB Injection Time: 08:38
Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	23.8
75	30.0 - 66.0% of mass 95	57.1
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	0.6 (0.9) 1
174	50.0 - 120.0% of mass 95	64.3
175	4.0 - 9.0% of mass 174	5 (7.8) 1
176	93.0 - 101.0% of mass 174	60.6 (94.1) 1
177	5.0 - 9.0% of mass 176	3.7 (6.2) 2

1-Value is % mass 174

2-Value is % mass 176

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

CLIENT ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC010	VSTDCCC010	VL043292.D	12/02/2025	09:31
VL1202ABL01	VL1202ABL01	VL043293.D	12/02/2025	10:19
VL1202ABS01	VL1202ABS01	VL043294.D	12/02/2025	11:06
IA1	Q3744-02	VL043296.D	12/02/2025	13:38
IA1DUP	Q3744-02DUP	VL043297.D	12/02/2025	14:13
IA2	Q3744-04	VL043298.D	12/02/2025	14:49
OA1	Q3744-05	VL043299.D	12/02/2025	15:24
SV1	Q3744-01	VL043300.D	12/02/2025	15:57
SV2	Q3744-03	VL043301.D	12/02/2025	16:30

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alliance Contract: GFEL01
 Lab Code: ACE SDG NO.: Q3744
 Lab File ID: VL043292.D Date Analyzed: 12/02/2025
 Instrument ID: MSVOA_L Time Analyzed: 09:31
 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	126127	2.79	330397	3.97	260796	8.89
UPPER LIMIT	176578	3.12	462556	4.30	365114	9.22
LOWER LIMIT	75676.2	2.46	198238	3.64	156478	8.56
EPA SAMPLE NO.						
SV1	128412	2.80	316515	3.98	246017	8.90
SV1	128412	2.80	316515	3.98	246017	8.90
IA1	126789	2.80	324565	3.97	247329	8.89
IA1	126789	2.80	324565	3.97	247329	8.89
IA1DUP	126695	2.80	324631	3.98	245976	8.90
IA1DUP	126695	2.80	324631	3.98	245976	8.90
SV2	131676	2.80	327278	3.98	263808	8.90
SV2	131676	2.80	327278	3.98	263808	8.90
IA2	127150	2.80	321760	3.98	243149	8.89
IA2	127150	2.80	321760	3.98	243149	8.89
OA1	129385	2.80	319493	3.98	240844	8.89
OA1	129385	2.80	319493	3.98	240844	8.89
VL1202ABL01	125081	2.79	325973	3.96	249315	8.89
VL1202ABL01	125081	2.79	325973	3.96	249315	8.89
VL1202ABS01	123802	2.79	324780	3.97	255124	8.89
VL1202ABS01	123802	2.79	324780	3.97	255124	8.89

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alliance Contract: GFEL01
 Lab Code: ACE SDG NO.: Q3744
 Lab File ID: VL043292.D Date Analyzed: 12/02/2025
 Instrument ID: MSVOA_L Time Analyzed: 09:31
 GC Column: RTX-1 ID: 0.32 (mm) Heated Purge: (Y/N) Y

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	126127	2.79	330397	3.97	260796	8.89
UPPER LIMIT	176578	3.12	462556	4.30	365114	9.22
LOWER LIMIT	75676.2	2.46	198238	3.64	156478	8.56
EPA SAMPLE NO.						

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.



SAMPLE DATA

Report of Analysis

Client: GFE LLC
Project: All Projects
Client Sample ID: SV1
Lab Sample ID: Q3744-01
Analytical Method: TO-15
Sample Wt/Vol: 400 mL

Date Collected: 12/24/25
Date Received: 11/26/25
SDG No.: Q3744
Matrix: Air
Test: VOCMS Group2

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qua.	DF	MDL ug/m3	LOQ / CRQL ug/m3	Date Ana.	BatchID
TARGETS									
75-01-4	Vinyl Chloride	0.10	0.26	U	4	0.26	0.31	12/02/25 15:57	VL120225
142-82-5	Heptane	0.68	2.79	U	4	2.79	8.20	12/02/25 15:57	VL120225
75-34-3	1,1-Dichloroethane	0.52	2.10	U	4	2.10	8.09	12/02/25 15:57	VL120225
110-82-7	Cyclohexane	0.88	3.03	U	4	3.03	6.88	12/02/25 15:57	VL120225
156-59-2	cis-1,2-Dichloroethene	0.40	1.59	U	4	1.59	7.93	12/02/25 15:57	VL120225
71-55-6	1,1,1-Trichloroethane	0.68	3.71	U	4	0.33	0.65	12/02/25 15:57	VL120225
540-84-1	2,2,4-Trimethylpentane	0.56	2.62	U	4	2.62	9.34	12/02/25 15:57	VL120225
71-43-2	Benzene	2.60	8.31	U	4	1.02	6.39	12/02/25 15:57	VL120225
79-01-6	Trichloroethene	0.10	0.54	U	4	0.54	0.64	12/02/25 15:57	VL120225
108-88-3	Toluene	1.10	4.15	J	4	2.41	7.54	12/02/25 15:57	VL120225
127-18-4	Tetrachloroethene	2.70	18.3	U	4	0.41	0.81	12/02/25 15:57	VL120225
100-41-4	Ethyl Benzene	0.76	3.30	U	4	3.30	8.69	12/02/25 15:57	VL120225
179601-23-1	m/p-Xylene	1.60	6.95	U	4	6.95	17.4	12/02/25 15:57	VL120225
95-47-6	o-Xylene	0.84	3.65	U	4	3.65	8.69	12/02/25 15:57	VL120225
108-67-8	1,3,5-Trimethylbenzene	0.72	3.54	U	4	3.54	9.83	12/02/25 15:57	VL120225
95-63-6	1,2,4-Trimethylbenzene	0.72	3.54	U	4	3.54	9.83	12/02/25 15:57	VL120225
91-20-3	Naphthalene	0.050	0.26	U	4	0.26	2.10	12/02/25 15:57	VL120225
110-54-3	Hexane	0.64	2.26	U	4	2.26	7.05	12/02/25 15:57	VL120225
SURROGATES									
460-00-4	1-Bromo-4-Fluorobenzene	9.50				65 - 135	95% SPK: 10		
INTERNAL STANDARDS									
		Area Count							
74-97-5	Bromochloromethane	128000							
540-36-3	1,4-Difluorobenzene	317000							
3114-55-4	Chlorobenzene-d5	246000							

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\VL120225\
 Data File : VL043300.D
 Acq On : 02 Dec 2025 15:57
 Operator : SY/MD
 Sample : Q3744-01 4X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV1

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 12/03/2025
 Supervised By :Mahesh Dadoda 12/03/2025

Quant Time: Dec 03 00:07:57 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M

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

QLast Update : Wed Nov 19 01:11:25 2025

Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	2.803	49	128412	10.000	ppbv	0.02
33) 1,4-Difluorobenzene	3.981	114	316515	10.000	ppbv	0.03
55) Chlorobenzene-d5	8.901	117	246017	10.000	ppbv	0.03
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.393	95	170475	9.453	ppbv	0.03
Spiked Amount	10.000	Range	65 - 135	Recovery	=	94.500%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.505	85	2940	0.162	ppbv	89
3) Chlorodifluoromethane	1.482	51	2070	0.116	ppbv	96
9) Propene	1.495	41	9594	1.268	ppbv #	1
11) Trichlorofluoromethane	1.890	101	3784	0.216	ppbv #	81
13) Ethanol	1.732	45	1691m	0.636	ppbv	
15) Acetone	1.845	43	61815	3.465	ppbv	97
26) Hexane	2.842	57	2281	0.135	ppbv #	49
29) Chloroform	2.861	83	8903	0.371	ppbv	93
32) 1,1,1-Trichloroethane	3.389	97	4343	0.170	ppbv	97
34) 2-Butanone	2.576	43	5464	0.245	ppbv	96
36) Benzene	3.680	78	19414	0.640	ppbv #	88
52) Tetrachloroethene	8.244	164	7694	0.682	ppbv	89
53) Toluene	6.965	91	9648m	0.269	ppbv	
59) m/p-Xylene	9.548	91	7598m	0.200	ppbv	
74) 1,2,4-Trimethylbenzene	11.548	105	4965m	0.117	ppbv	

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

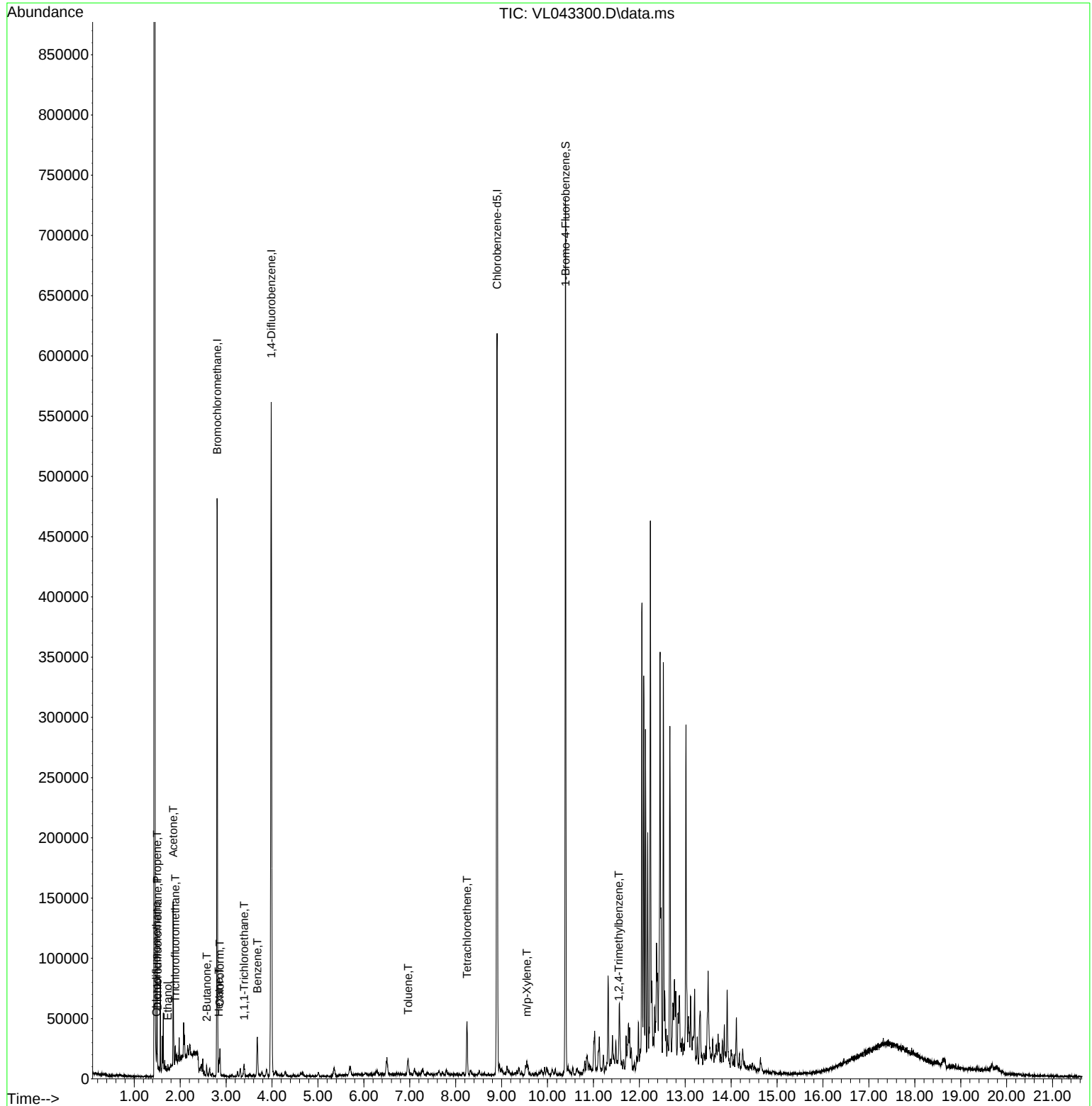
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Data File : VL043300.D
Acq On : 02 Dec 2025 15:57
Operator : SY/MD
Sample : Q3744-01 4X
Misc : 400mL/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

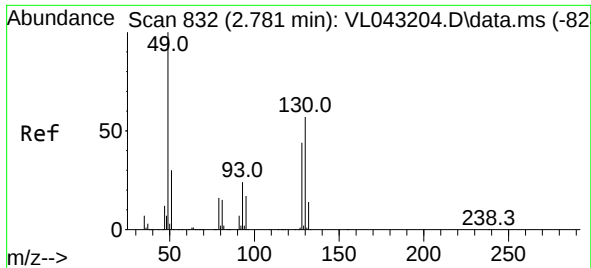
Instrument :
MSVOA_L
ClientSampleId :
SV1

Quant Time: Dec 03 00:07:57 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL11825AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug
QLast Update : Wed Nov 19 01:11:25 2025
Response via : Initial Calibration

Manual Integrations
APPROVED

Reviewed By : Semsettin Yesilyurt 12/03/2025
Supervised By : Mahesh Dadoda 12/03/2025





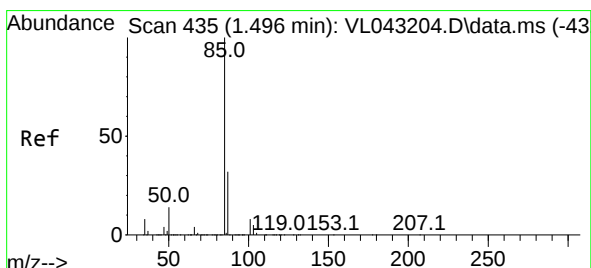
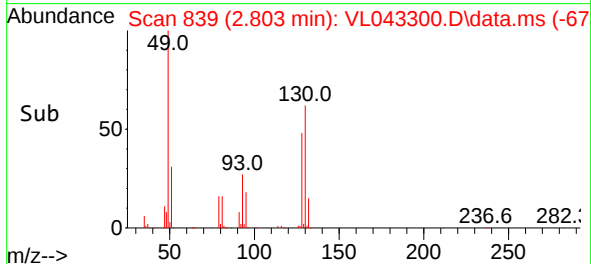
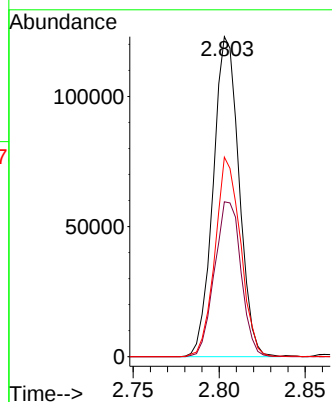
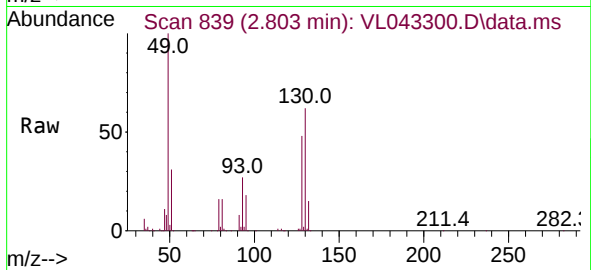
#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.803 min Scan# 832
Delta R.T. 0.022 min
Lab File: VL043300.D
Acq: 02 Dec 2025 15:57

Instrument :
MSVOA_L
ClientSampleId :
SV1

Tgt Ion: 49 Resp: 128412
Ion Ratio Lower Upper
49 100
128 49.5 23.0 69.0
130 61.5 29.9 89.7

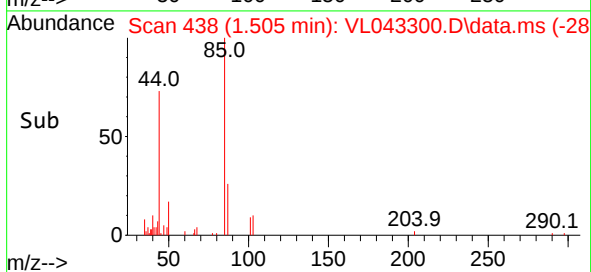
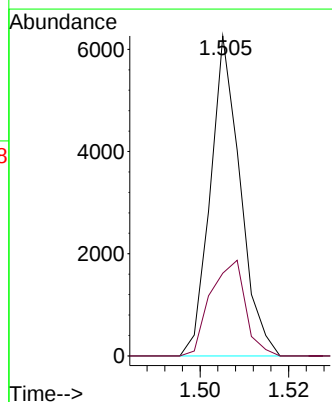
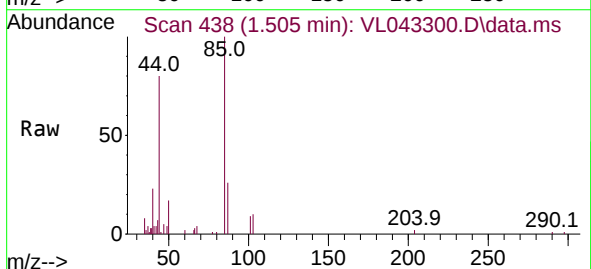
Manual Integrations
APPROVED

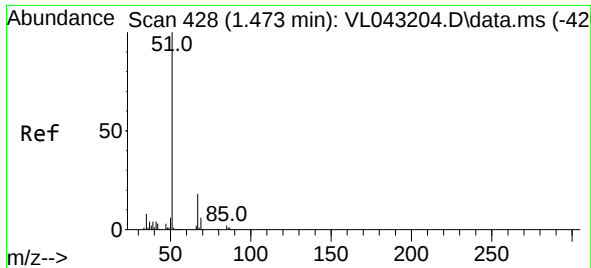
Reviewed By :Semsettin Yesilyurt 12/03/2025
Supervised By :Mahesh Dadoda 12/03/2025



#2
Dichlorodifluoromethane
Concen: 0.162 ppbv
RT: 1.505 min Scan# 438
Delta R.T. 0.009 min
Lab File: VL043300.D
Acq: 02 Dec 2025 15:57

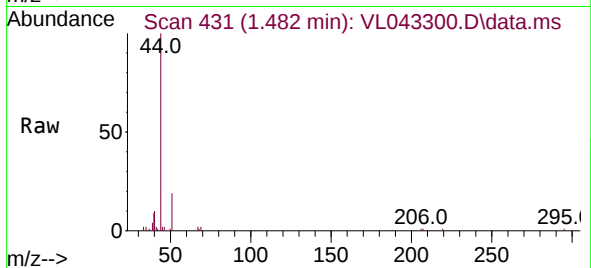
Tgt Ion: 85 Resp: 2940
Ion Ratio Lower Upper
85 100
87 25.8 25.4 38.2





#3
Chlorodifluoromethane
Concen: 0.116 ppbv
RT: 1.482 min Scan# 431
Delta R.T. 0.009 min
Lab File: VL043300.D
Acq: 02 Dec 2025 15:57

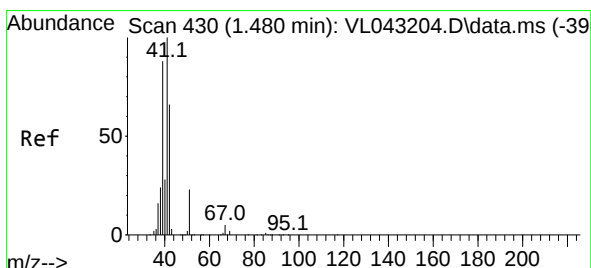
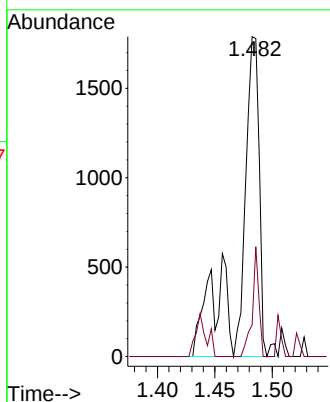
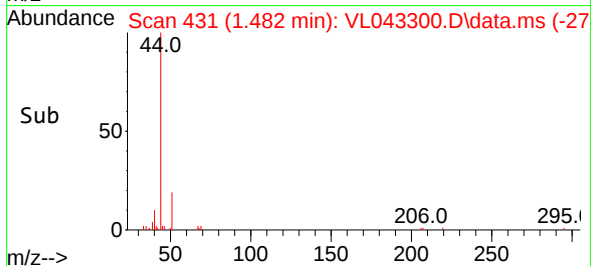
Instrument :
MSVOA_L
ClientSampleId :
SV1



Tgt Ion: 51 Resp: 2076
Ion Ratio Lower Upper
51 100
67 16.7 14.9 22.3

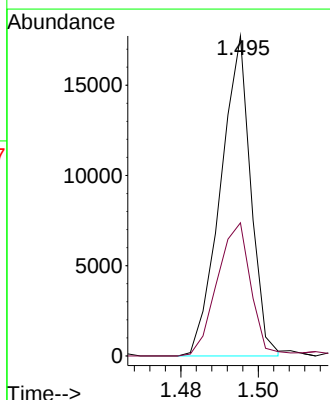
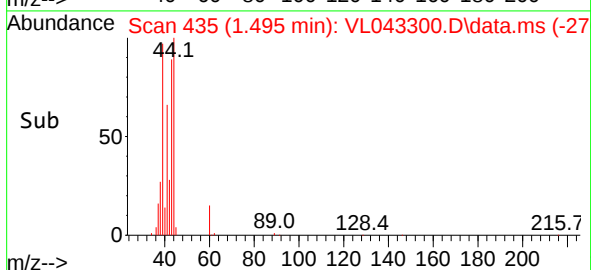
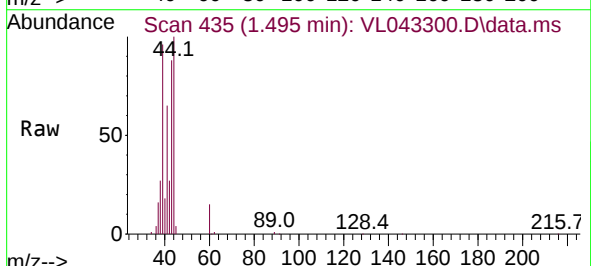
Manual Integrations
APPROVED

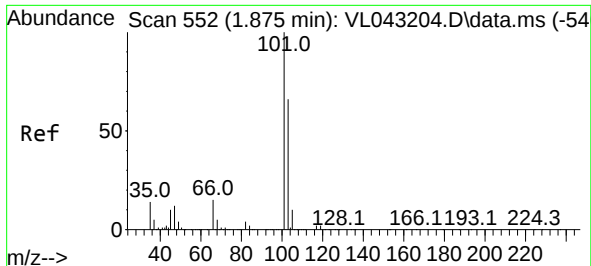
Reviewed By :Semsettin Yesilyurt 12/03/2025
Supervised By :Mahesh Dadoda 12/03/2025



#9
Propene
Concen: 1.268 ppbv
RT: 1.495 min Scan# 435
Delta R.T. 0.016 min
Lab File: VL043300.D
Acq: 02 Dec 2025 15:57

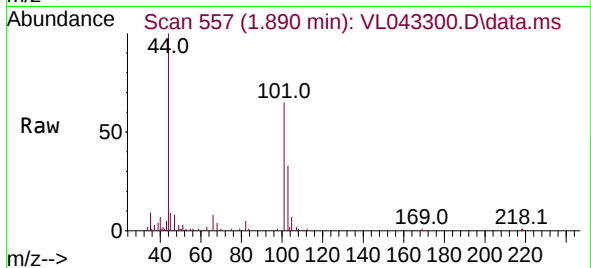
Tgt Ion: 41 Resp: 9594
Ion Ratio Lower Upper
41 100
42 48.9 3.7 5.5#





#11
Trichlorofluoromethane
Concen: 0.216 ppbv
RT: 1.890 min Scan# 51
Delta R.T. 0.016 min
Lab File: VL043300.D
Acq: 02 Dec 2025 15:57

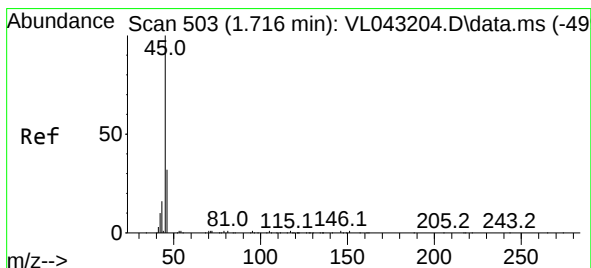
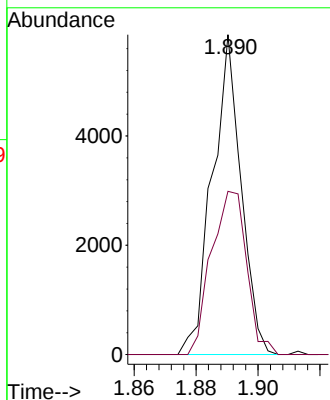
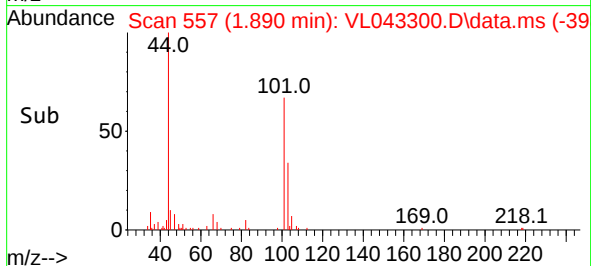
Instrument :
MSVOA_L
ClientSampleId :
SV1



Tgt Ion:101 Resp: 3784
Ion Ratio Lower Upper
101 100
103 51.0 52.6 79.0

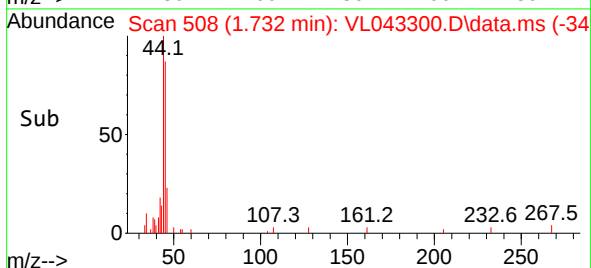
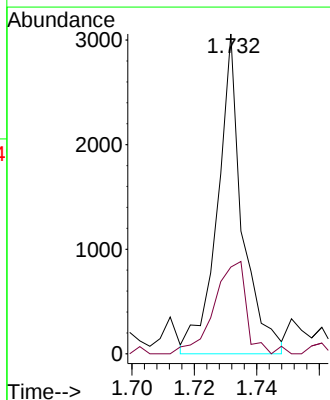
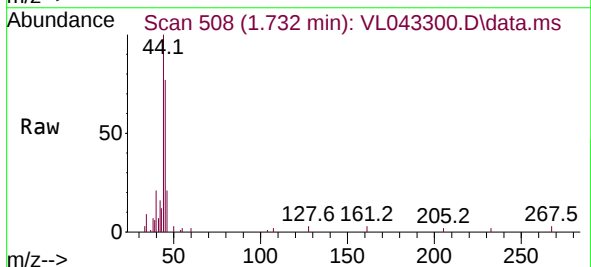
Manual Integrations
APPROVED

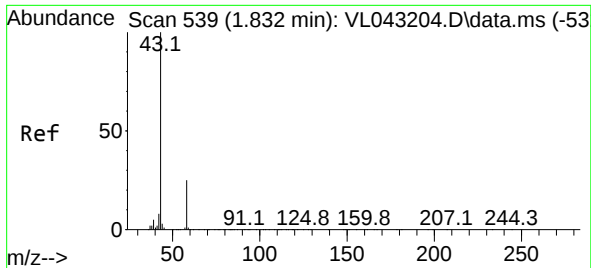
Reviewed By :Semsettin Yesilyurt 12/03/2025
Supervised By :Mahesh Dadoda 12/03/2025



#13
Ethanol
Concen: 0.636 ppbv m
RT: 1.732 min Scan# 508
Delta R.T. 0.016 min
Lab File: VL043300.D
Acq: 02 Dec 2025 15:57

Tgt Ion: 45 Resp: 1691
Ion Ratio Lower Upper
45 100
46 0.0 15.0 59.8





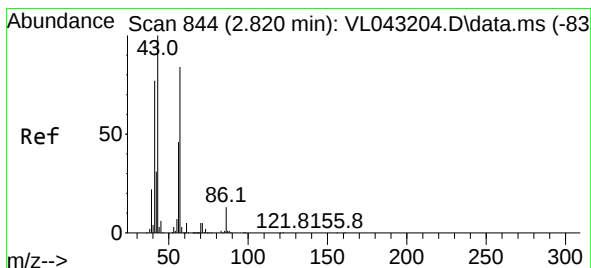
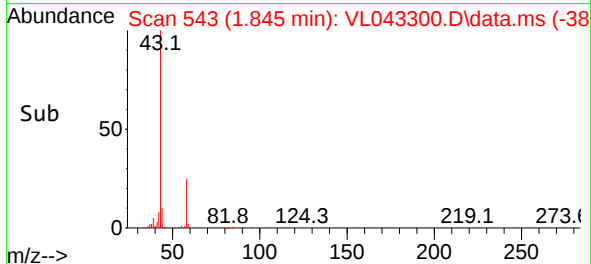
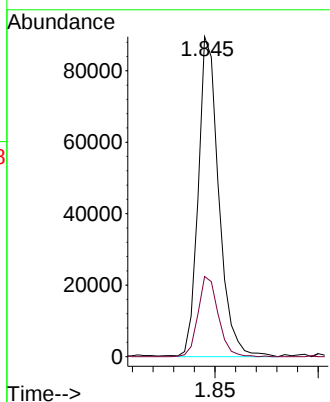
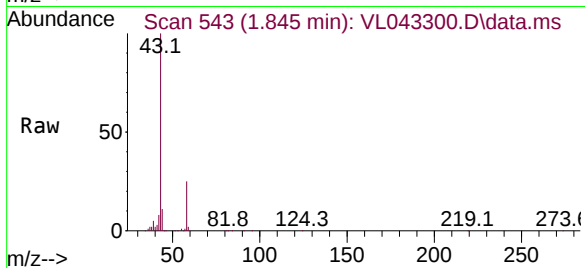
#15
Acetone
Concen: 3.465 ppbv
RT: 1.845 min Scan# 541
Delta R.T. 0.013 min
Lab File: VL043300.D
Acq: 02 Dec 2025 15:57

Instrument :
MSVOA_L
ClientSampleId :
SV1

Tgt Ion: 43 Resp: 61815
Ion Ratio Lower Upper
43 100
58 24.6 20.7 31.1

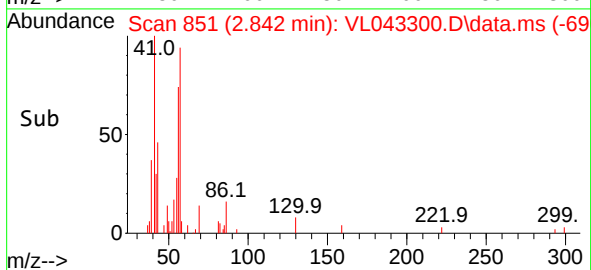
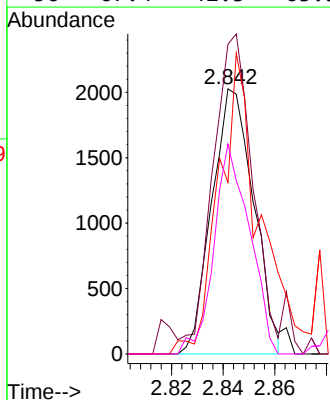
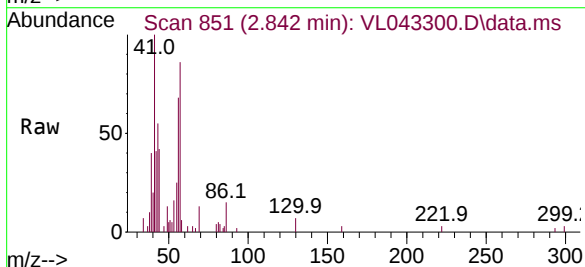
Manual Integrations
APPROVED

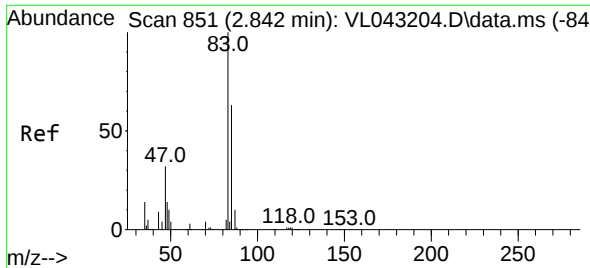
Reviewed By :Semsettin Yesilyurt 12/03/2025
Supervised By :Mahesh Dadoda 12/03/2025



#26
Hexane
Concen: 0.135 ppbv
RT: 2.842 min Scan# 851
Delta R.T. 0.022 min
Lab File: VL043300.D
Acq: 02 Dec 2025 15:57

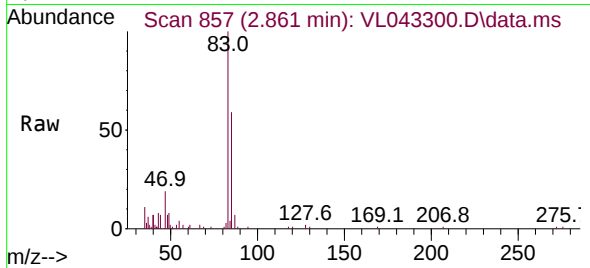
Tgt Ion: 57 Resp: 2281
Ion Ratio Lower Upper
57 100
41 125.7 74.6 111.8#
43 118.5 179.0 268.4#
56 67.4 42.3 63.5#





#29
Chloroform
Concen: 0.371 ppbv
RT: 2.861 min Scan# 81
Delta R.T. 0.019 min
Lab File: VL043300.D
Acq: 02 Dec 2025 15:57

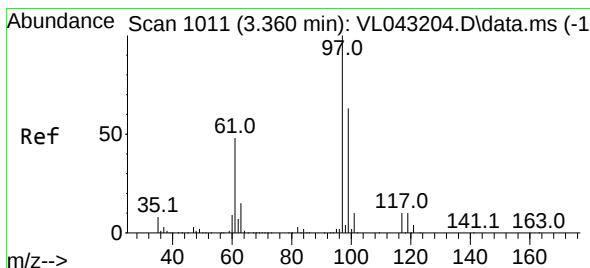
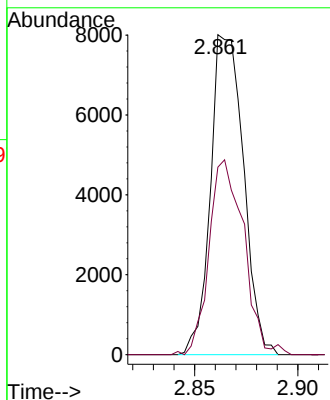
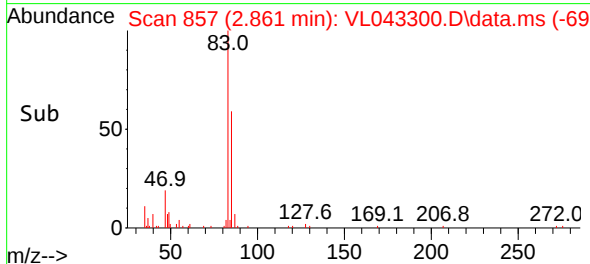
Instrument :
MSVOA_L
ClientSampleId :
SV1



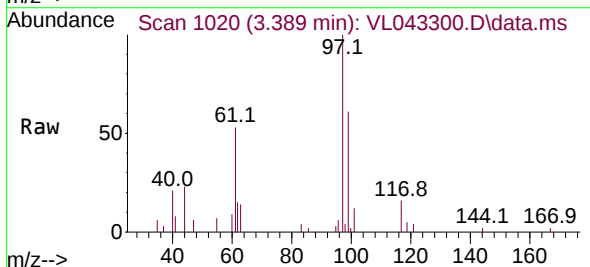
Tgt Ion: 83 Resp: 8903
Ion Ratio Lower Upper
83 100
85 57.6 50.5 75.7

Manual Integrations
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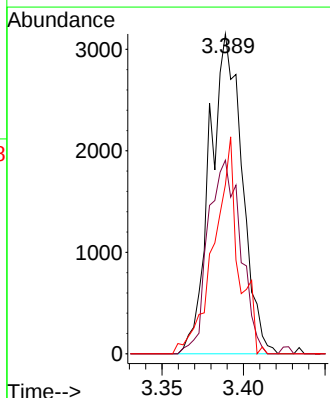
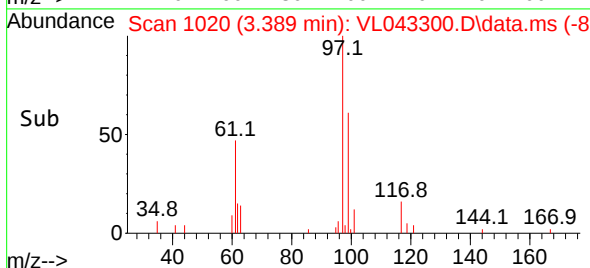
Reviewed By :Semsettin Yesilyurt 12/03/2025
Supervised By :Mahesh Dadoda 12/03/2025

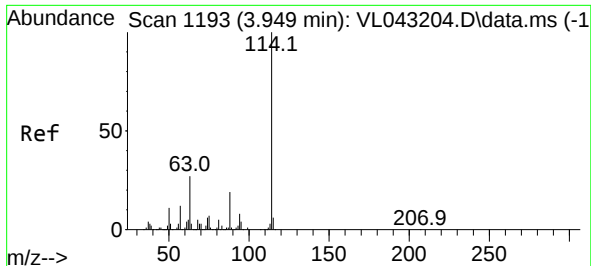


#32
1,1,1-Trichloroethane
Concen: 0.170 ppbv
RT: 3.389 min Scan# 1020
Delta R.T. 0.029 min
Lab File: VL043300.D
Acq: 02 Dec 2025 15:57



Tgt Ion: 97 Resp: 4343
Ion Ratio Lower Upper
97 100
99 61.8 50.3 75.5
61 51.9 38.9 58.3





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.981 min Scan# 1193

Delta R.T. 0.032 min

Lab File: VL043300.D

Acq: 02 Dec 2025 15:57

Instrument :

MSVOA_L

ClientSampleId :

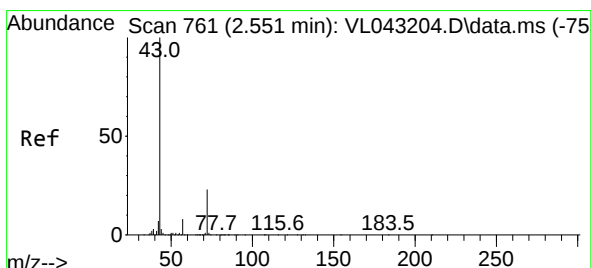
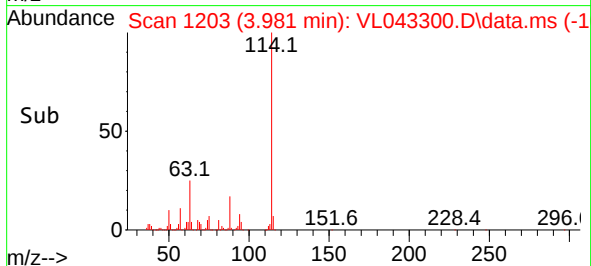
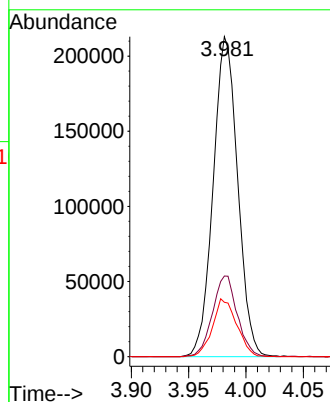
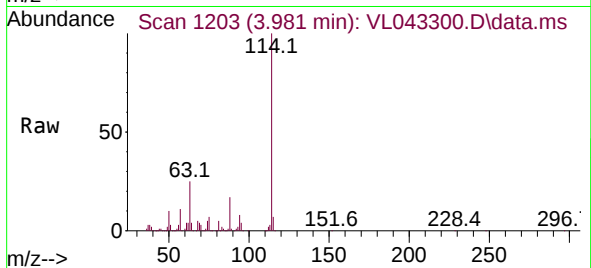
SV1

Tgt Ion:	114	Resp:	31651
Ion Ratio	Lower	Upper	
114	100		
63	25.5	21.0	31.6
88	17.8	14.9	22.3

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 12/03/2025
Supervised By :Mahesh Dadoda 12/03/2025



#34

2-Butanone

Concen: 0.245 ppbv

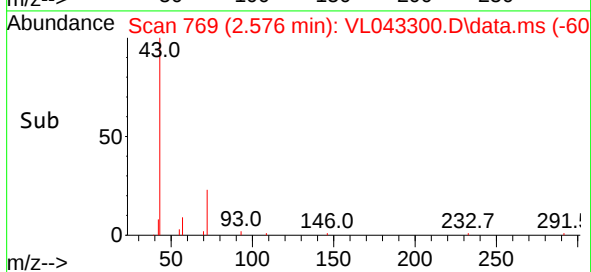
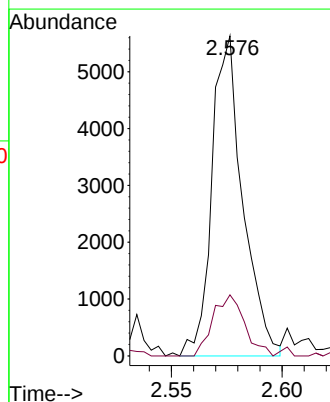
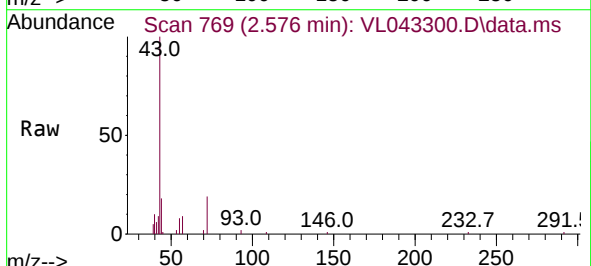
RT: 2.576 min Scan# 769

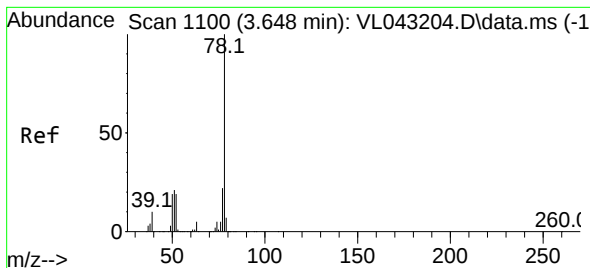
Delta R.T. 0.025 min

Lab File: VL043300.D

Acq: 02 Dec 2025 15:57

Tgt Ion:	43	Resp:	5464
Ion Ratio	Lower	Upper	
43	100		
72	20.7	18.1	27.1





#36

Benzene

Concen: 0.640 ppbv

RT: 3.680 min Scan# 1110

Delta R.T. 0.032 min

Lab File: VL043300.D

Acq: 02 Dec 2025 15:57

Instrument :

MSVOA_L

ClientSampleId :

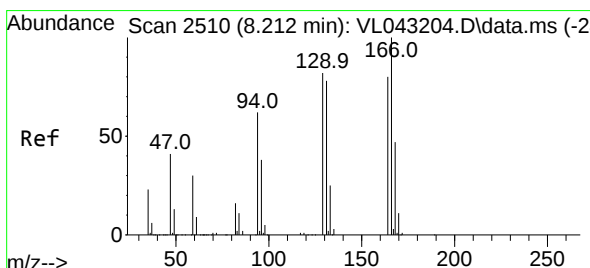
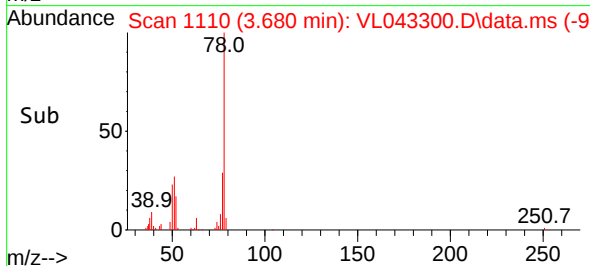
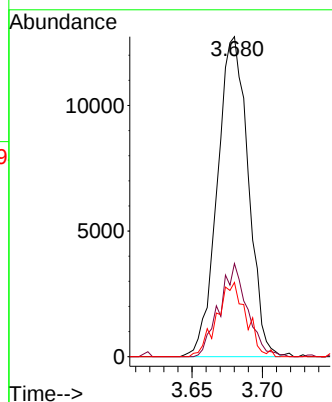
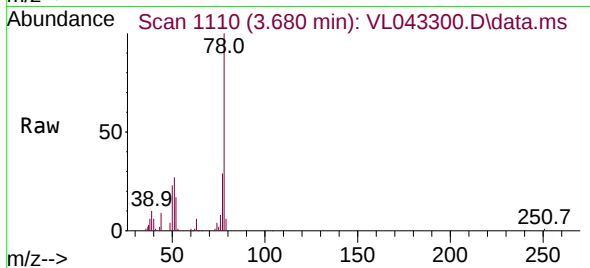
SV1

Tgt Ion: 78	Resp: 19414
Ion Ratio	Lower Upper
78 100	
77 29.1	17.5 26.3
50 23.2	15.5 23.3

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 12/03/2025
Supervised By :Mahesh Dadoda 12/03/2025



#52

Tetrachloroethene

Concen: 0.682 ppbv

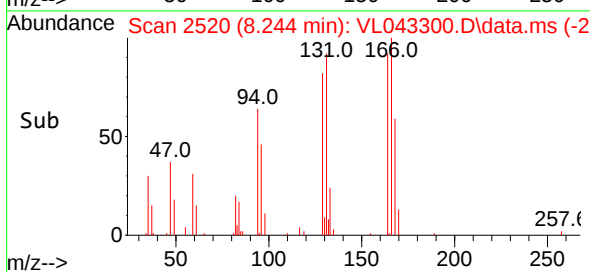
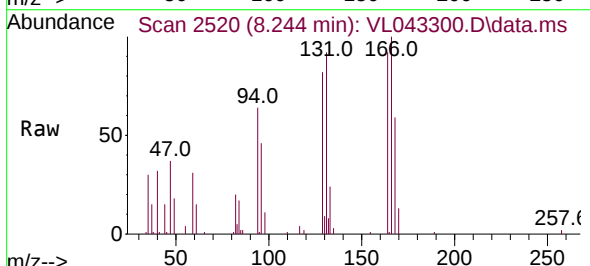
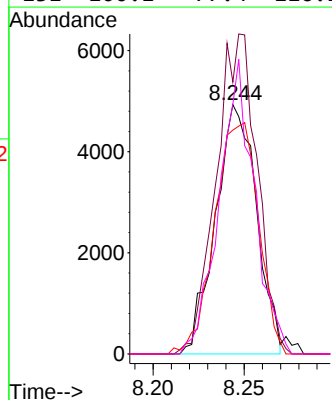
RT: 8.244 min Scan# 2520

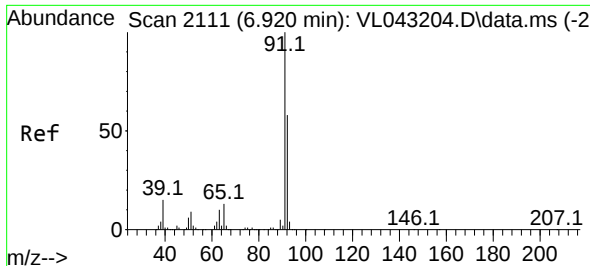
Delta R.T. 0.032 min

Lab File: VL043300.D

Acq: 02 Dec 2025 15:57

Tgt Ion: 164	Resp: 7694
Ion Ratio	Lower Upper
164 100	
166 107.4	99.4 149.2
129 88.3	81.8 122.8
131 100.1	77.4 116.2





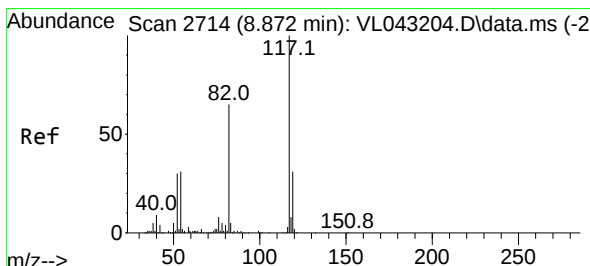
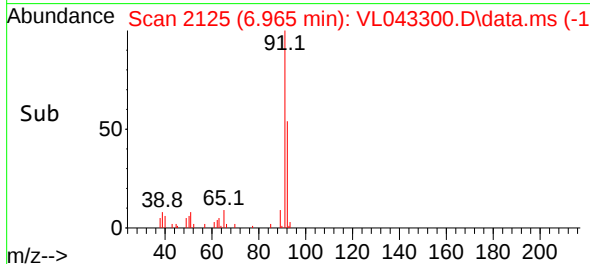
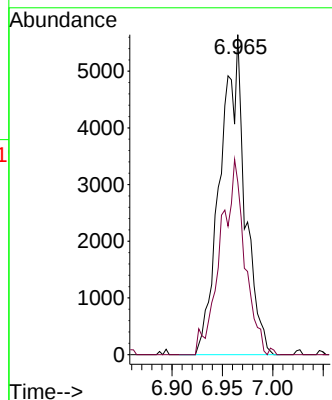
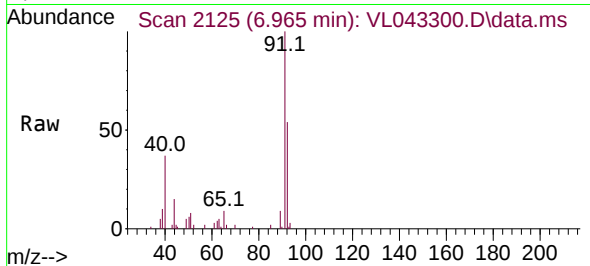
#53
Toluene
Concen: 0.269 ppbv m
RT: 6.965 min Scan# 2111
Delta R.T. 0.045 min
Lab File: VL043300.D
Acq: 02 Dec 2025 15:57

Instrument :
MSVOA_L
ClientSampleId :
SV1

Tgt Ion: 91 Resp: 9648
Ion Ratio Lower Upper
91 100
92 0.0 47.4 71.0

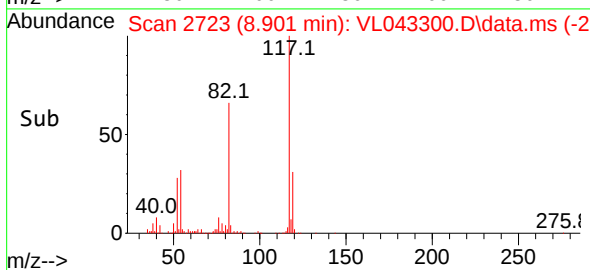
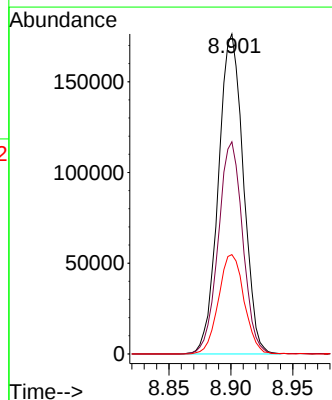
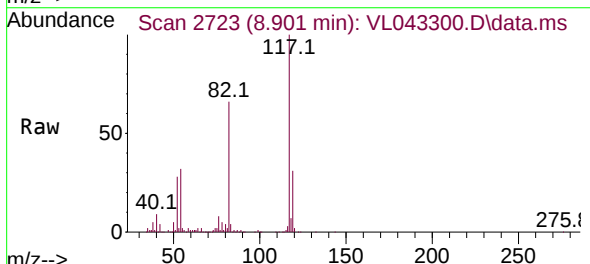
Manual Integrations
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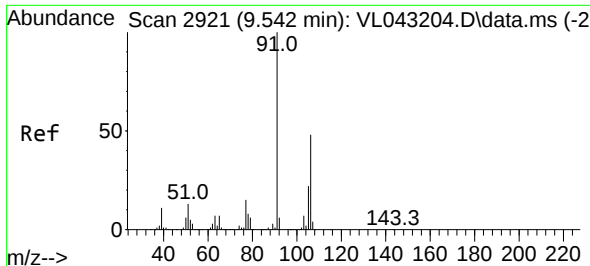
Reviewed By :Semsettin Yesilyurt 12/03/2025
Supervised By :Mahesh Dadoda 12/03/2025



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.901 min Scan# 2723
Delta R.T. 0.029 min
Lab File: VL043300.D
Acq: 02 Dec 2025 15:57

Tgt Ion:117 Resp: 246017
Ion Ratio Lower Upper
117 100
82 65.1 56.1 84.1
119 31.9 25.0 37.6





#59

m/p-Xylene

Concen: 0.200 ppbv m

RT: 9.548 min Scan# 29

Delta R.T. 0.006 min

Lab File: VL043300.D

Acq: 02 Dec 2025 15:57

Instrument :

MSVOA_L

ClientSampleId :

SV1

Tgt Ion: 91 Resp: 7598

Ion Ratio Lower Upper

91 100

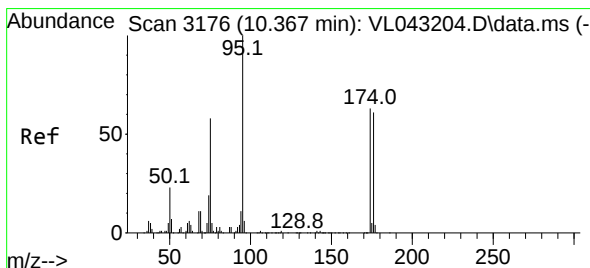
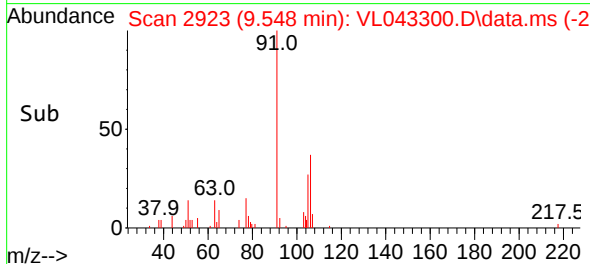
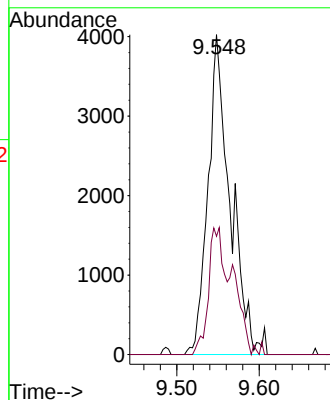
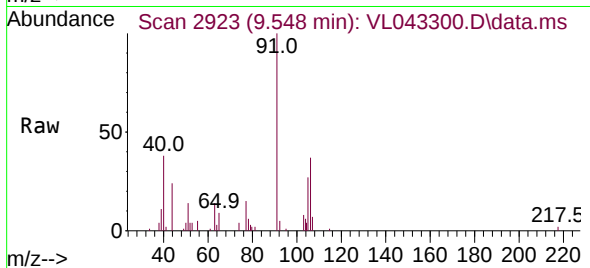
106 0.0 36.1 54.1

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 12/03/2025

Supervised By :Mahesh Dadoda 12/03/2025



#68

1-Bromo-4-Fluorobenzene

Concen: 9.453 ppbv

RT: 10.393 min Scan# 3184

Delta R.T. 0.025 min

Lab File: VL043300.D

Acq: 02 Dec 2025 15:57

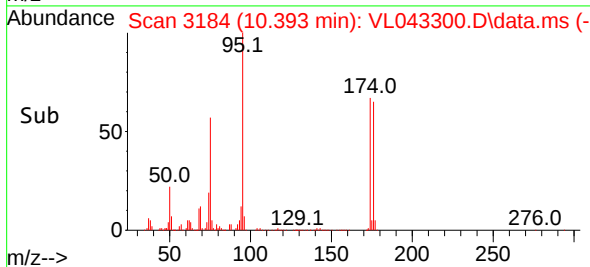
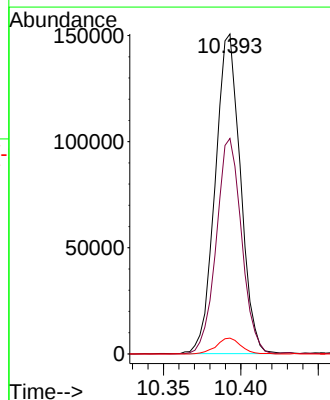
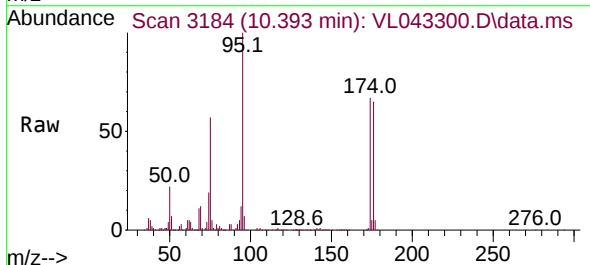
Tgt Ion: 95 Resp: 170475

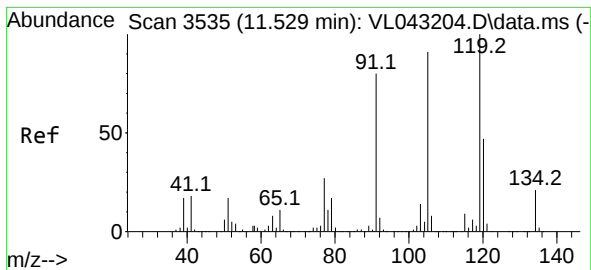
Ion Ratio Lower Upper

95 100

174 68.0 50.2 75.2

175 4.8 4.1 6.1





#74

1,2,4-Trimethylbenzene

Concen: 0.117 ppbv m

RT: 11.548 min Scan# 3541

Delta R.T. 0.019 min

Lab File: VL043300.D

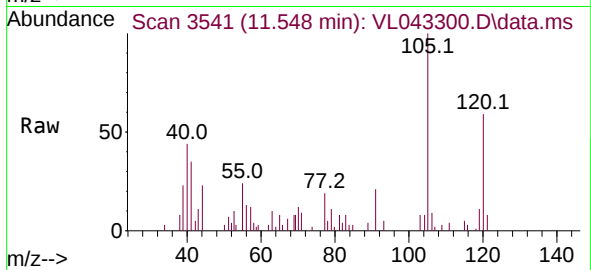
Acq: 02 Dec 2025 15:57

Instrument :

MSVOA_L

ClientSampleId :

SV1



Tgt Ion:105 Resp: 4965

Ion Ratio Lower Upper

105 100

120 58.6 41.7 62.5

91 20.5 70.0 105.0

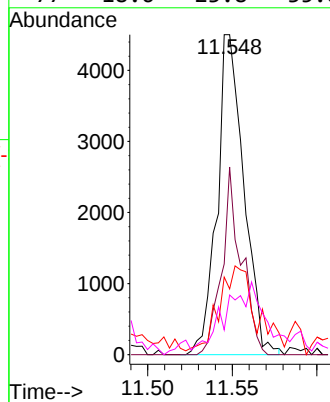
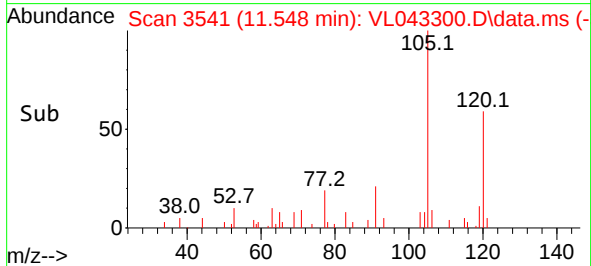
77 18.6 23.8 35.8

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 12/03/2025

Supervised By :Mahesh Dadoda 12/03/2025



Report of Analysis

Client: GFE LLC
Project: All Projects
Client Sample ID: IA1
Lab Sample ID: Q3744-02
Analytical Method: TO-15
Sample Wt/Vol: 400 mL

Date Collected: 12/24/25
Date Received: 11/26/25
SDG No.: Q3744
Matrix: Air
Test: VOCMS Group2

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qua.	DF	MDL ug/m3	LOQ / CRQL ug/m3	Date Ana.	BatchID
TARGETS									
75-01-4	Vinyl Chloride	0.030	0.080	U	1	0.080	0.080	12/02/25 13:38	VL120225
142-82-5	Heptane	0.17	0.70	U	1	0.70	2.05	12/02/25 13:38	VL120225
75-34-3	1,1-Dichloroethane	0.13	0.53	U	1	0.53	2.02	12/02/25 13:38	VL120225
110-82-7	Cyclohexane	0.22	0.76	U	1	0.76	1.72	12/02/25 13:38	VL120225
156-59-2	cis-1,2-Dichloroethene	0.10	0.40	U	1	0.40	1.98	12/02/25 13:38	VL120225
71-55-6	1,1,1-Trichloroethane	0.020	0.11	U	1	0.11	0.16	12/02/25 13:38	VL120225
540-84-1	2,2,4-Trimethylpentane	0.14	0.65	J	1	0.65	2.34	12/02/25 13:38	VL120225
71-43-2	Benzene	0.28	0.89	J	1	0.26	1.60	12/02/25 13:38	VL120225
79-01-6	Trichloroethene	0.020	0.11	U	1	0.11	0.16	12/02/25 13:38	VL120225
108-88-3	Toluene	0.81	3.05		1	0.60	1.88	12/02/25 13:38	VL120225
127-18-4	Tetrachloroethene	0.020	0.14	U	1	0.14	0.20	12/02/25 13:38	VL120225
100-41-4	Ethyl Benzene	0.19	0.83	U	1	0.83	2.17	12/02/25 13:38	VL120225
179601-23-1	m/p-Xylene	0.41	1.78	U	1	1.78	4.34	12/02/25 13:38	VL120225
95-47-6	o-Xylene	0.21	0.91	U	1	0.91	2.17	12/02/25 13:38	VL120225
108-67-8	1,3,5-Trimethylbenzene	0.18	0.88	U	1	0.88	2.46	12/02/25 13:38	VL120225
95-63-6	1,2,4-Trimethylbenzene	0.18	0.88	U	1	0.88	2.46	12/02/25 13:38	VL120225
91-20-3	Naphthalene	0.010	0.050	U	1	0.050	0.52	12/02/25 13:38	VL120225
110-54-3	Hexane	0.55	1.94		1	0.56	1.76	12/02/25 13:38	VL120225
SURROGATES									
460-00-4	1-Bromo-4-Fluorobenzene	9.50				65 - 135	95% SPK: 10		
INTERNAL STANDARDS									
		Area Count							
74-97-5	Bromochloromethane	127000							
540-36-3	1,4-Difluorobenzene	325000							
3114-55-4	Chlorobenzene-d5	247000							

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\VL120225\
 Data File : VL043296.D
 Acq On : 02 Dec 2025 13:38
 Operator : SY/MD
 Sample : Q3744-02
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA1

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 12/03/2025
 Supervised By :Mahesh Dadoda 12/03/2025

Quant Time: Dec 03 00:06:15 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M

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

QLast Update : Wed Nov 19 01:11:25 2025

Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	2.797	49	126789	10.000	ppbv	0.02
33) 1,4-Difluorobenzene	3.971	114	324565	10.000	ppbv	0.02
55) Chlorobenzene-d5	8.891	117	247329	10.000	ppbv	0.02
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.387	95	172635	9.522	ppbv	0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	95.200%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.505	85	8865	0.496	ppbv	98
3) Chlorodifluoromethane	1.479	51	4504m	0.256	ppbv	
4) Chloromethane	1.538	50	3024	0.452	ppbv #	81
9) Propene	1.492	41	11744	1.573	ppbv #	1
11) Trichlorofluoromethane	1.887	101	4741	0.274	ppbv	97
13) Ethanol	1.729	45	22036	8.391	ppbv	96
15) Acetone	1.842	43	47521	2.698	ppbv	93
19) Isopropyl Alcohol	1.894	45	10741	1.079	ppbv #	3
20) Methylene Chloride	2.068	84	5935	0.389	ppbv	95
26) Hexane	2.839	57	9224	0.554	ppbv #	45
34) 2-Butanone	2.570	43	3785	0.165	ppbv	93
35) Carbon Tetrachloride	3.774	117	2126m	0.086	ppbv	
36) Benzene	3.671	78	8750	0.282	ppbv	94
44) 2,2,4-Trimethylpentane	4.651	57	7744m	0.145	ppbv	
53) Toluene	6.949	91	29906	0.813	ppbv	98
59) m/p-Xylene	9.542	91	7777m	0.204	ppbv	

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

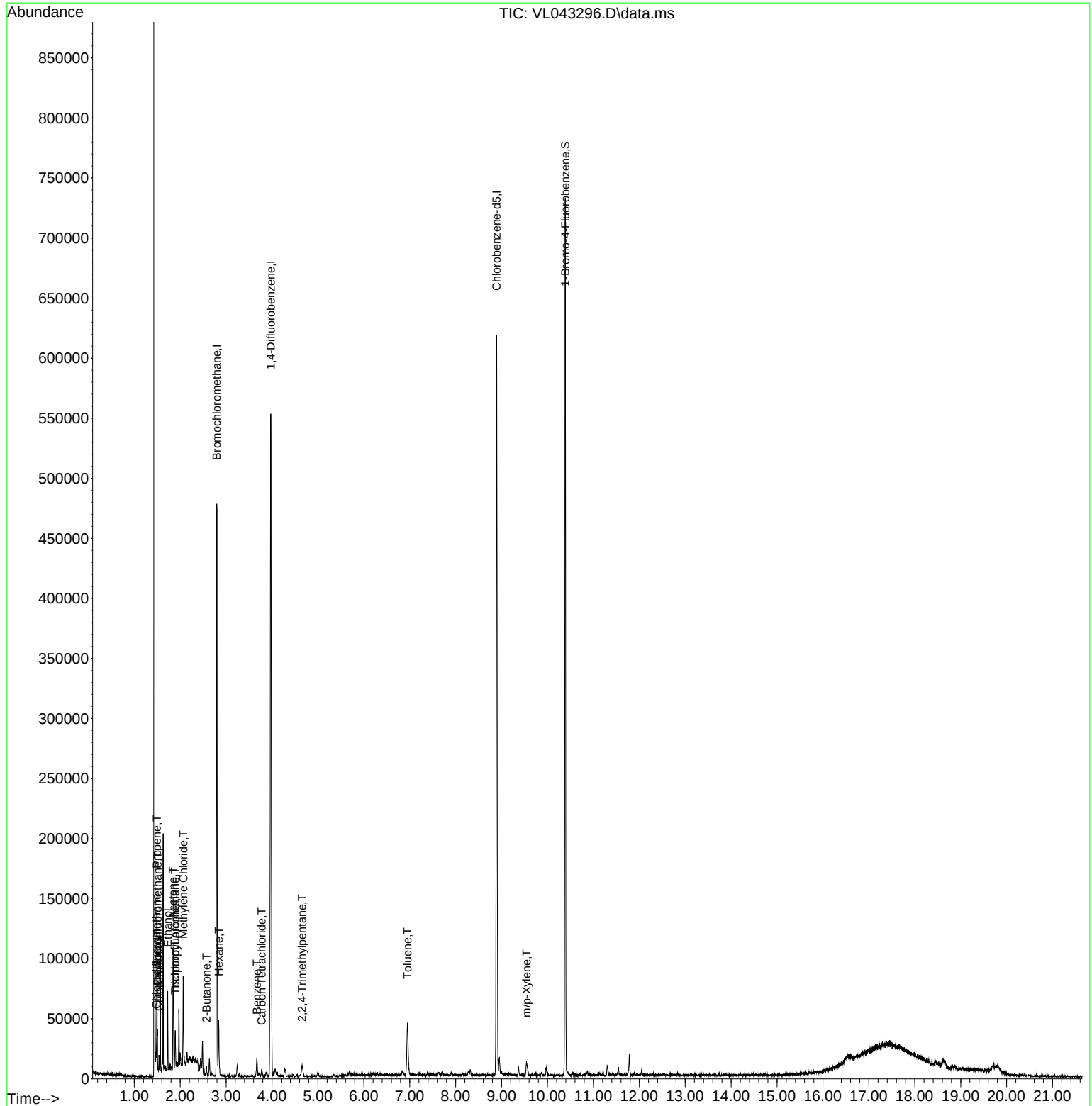
Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL120225\
Data File : VL043296.D
Acq On : 02 Dec 2025 13:38
Operator : SY/MD
Sample : Q3744-02
Misc : 400mL/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

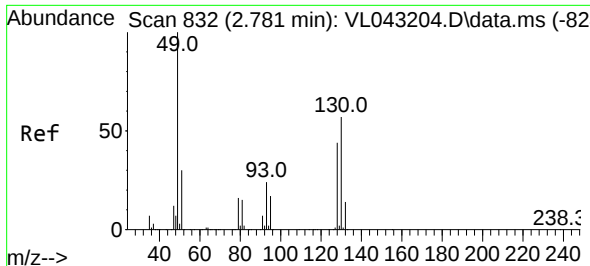
Instrument :
MSVOA_L
ClientSampleId :
IA1

Quant Time: Dec 03 00:06:15 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL11825AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug
QLast Update : Wed Nov 19 01:11:25 2025
Response via : Initial Calibration

Manual Integrations
APPROVED

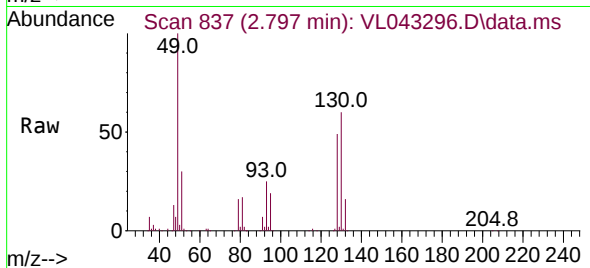
Reviewed By : Semsettin Yesilyurt 12/03/2025
Supervised By : Mahesh Dadoda 12/03/2025





#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.797 min Scan# 832
Delta R.T. 0.016 min
Lab File: VL043296.D
Acq: 02 Dec 2025 13:38

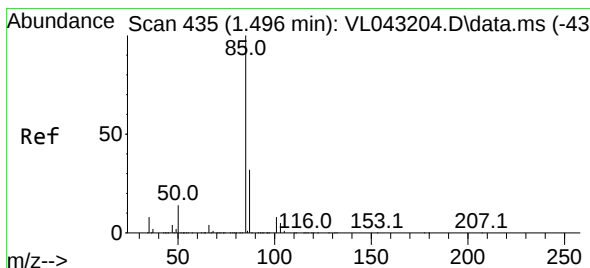
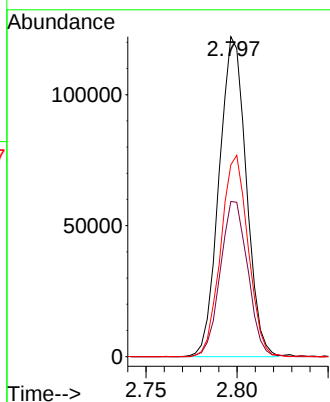
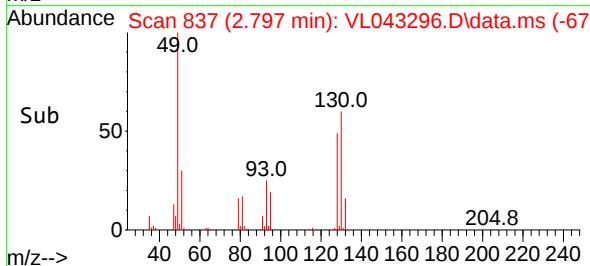
Instrument :
MSVOA_L
ClientSampleId :
IA1



Tgt Ion: 49 Resp: 126789
Ion Ratio Lower Upper
49 100
128 49.0 23.0 69.0
130 63.2 29.9 89.7

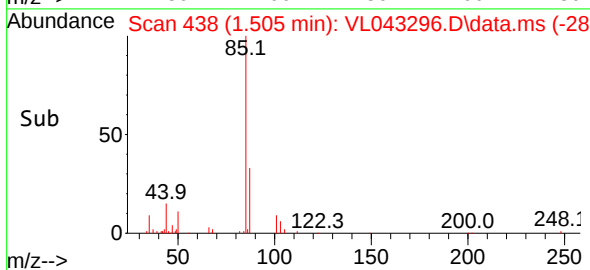
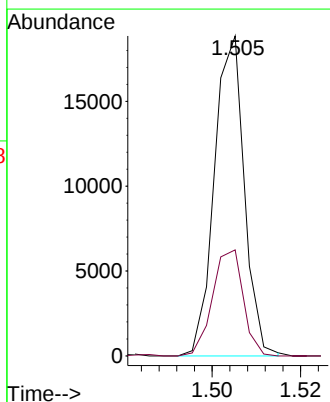
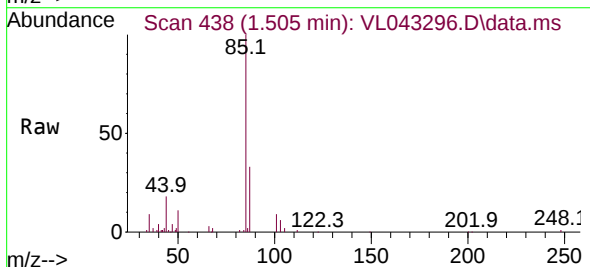
Manual Integrations
APPROVED

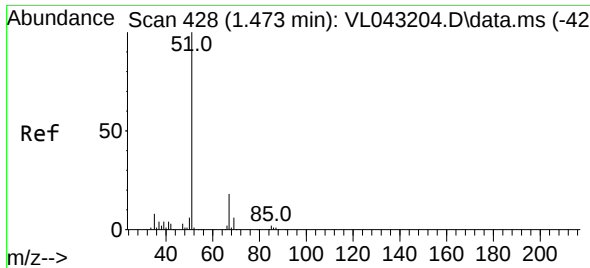
Reviewed By :Semsettin Yesilyurt 12/03/2025
Supervised By :Mahesh Dadoda 12/03/2025



#2
Dichlorodifluoromethane
Concen: 0.496 ppbv
RT: 1.505 min Scan# 438
Delta R.T. 0.009 min
Lab File: VL043296.D
Acq: 02 Dec 2025 13:38

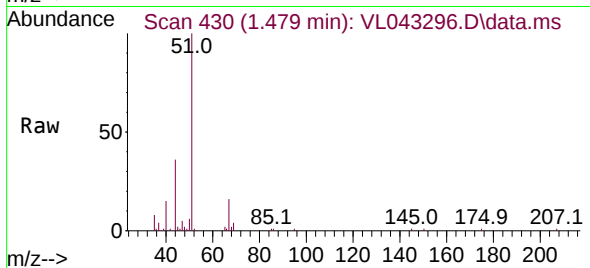
Tgt Ion: 85 Resp: 8865
Ion Ratio Lower Upper
85 100
87 33.1 25.4 38.2





#3
Chlorodifluoromethane
Concen: 0.256 ppbv m
RT: 1.479 min Scan# 431
Delta R.T. 0.006 min
Lab File: VL043296.D
Acq: 02 Dec 2025 13:38

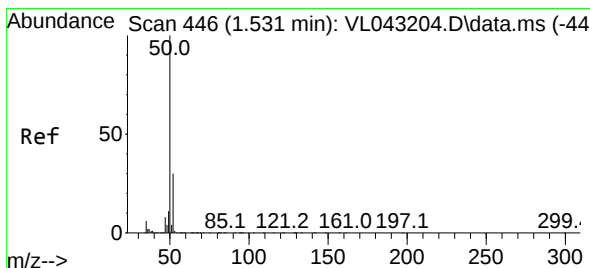
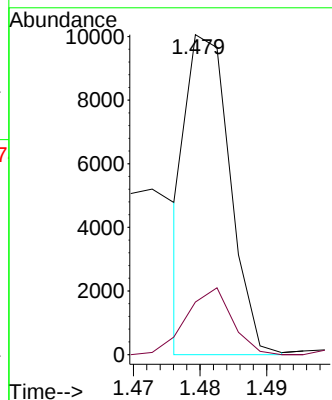
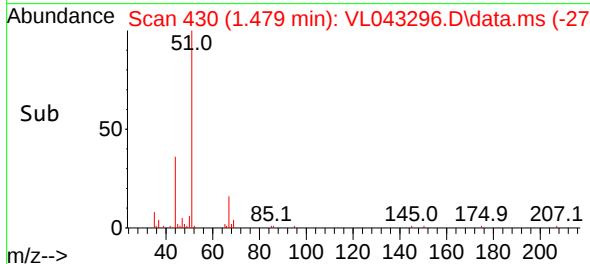
Instrument :
MSVOA_L
ClientSampleId :
IA1



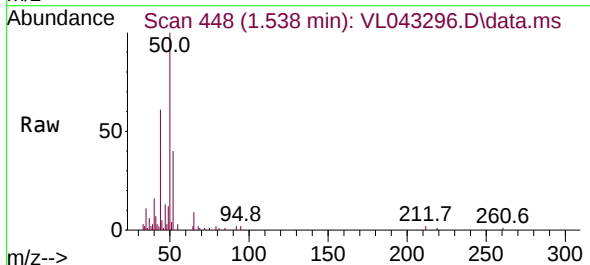
Tgt Ion: 51 Resp: 4504
Ion Ratio Lower Upper
51 100
67 23.2 14.9 22.3#

Manual Integrations
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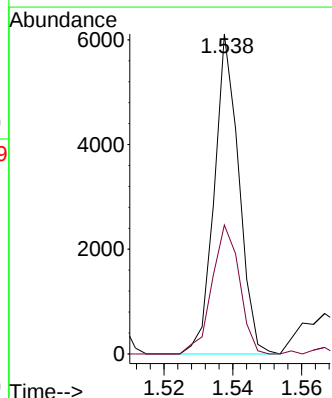
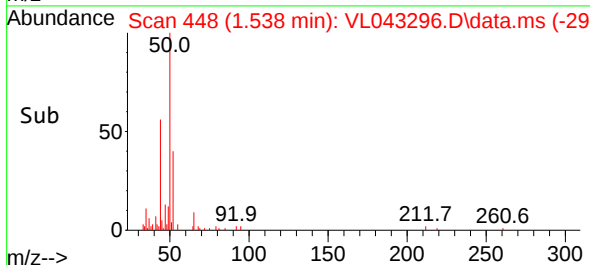
Reviewed By :Semsettin Yesilyurt 12/03/2025
Supervised By :Mahesh Dadoda 12/03/2025

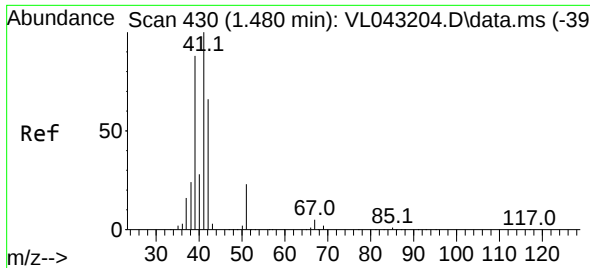


#4
Chloromethane
Concen: 0.452 ppbv
RT: 1.538 min Scan# 448
Delta R.T. 0.006 min
Lab File: VL043296.D
Acq: 02 Dec 2025 13:38



Tgt Ion: 50 Resp: 3024
Ion Ratio Lower Upper
50 100
52 40.3 24.1 36.1#





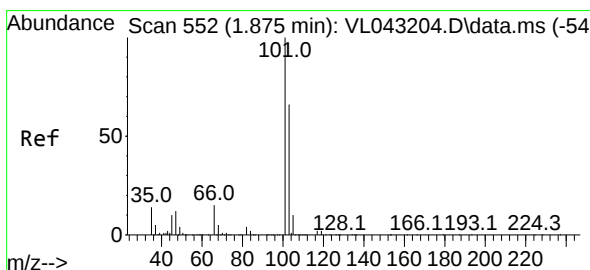
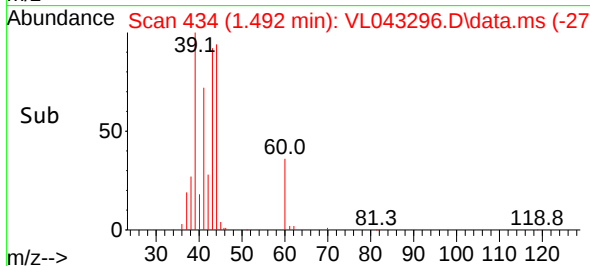
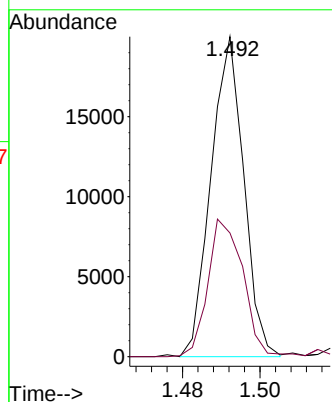
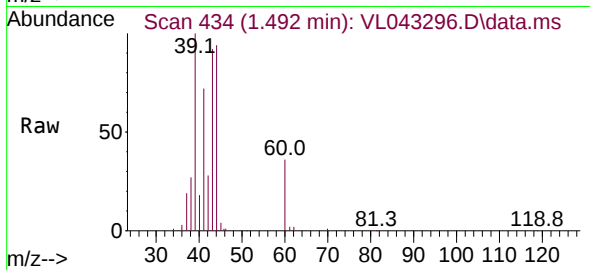
#9
Propene
Concen: 1.573 ppbv
RT: 1.492 min Scan# 431
Delta R.T. 0.013 min
Lab File: VL043296.D
Acq: 02 Dec 2025 13:38

Instrument :
MSVOA_L
ClientSampleId :
IA1

Tgt Ion: 41 Resp: 11744
Ion Ratio Lower Upper
41 100
42 47.0 3.7 5.5

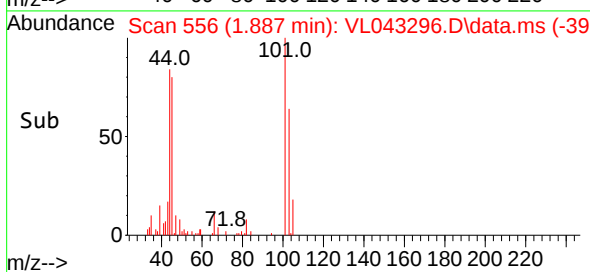
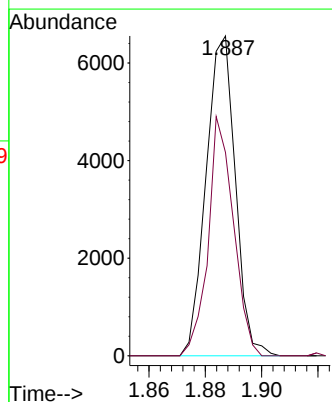
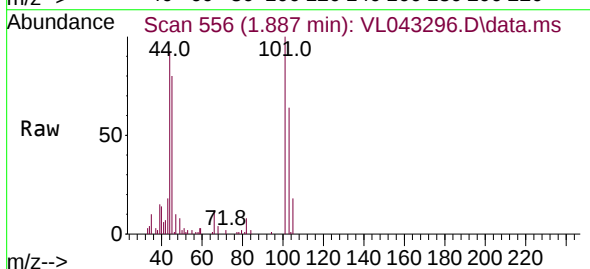
Manual Integrations
APPROVED

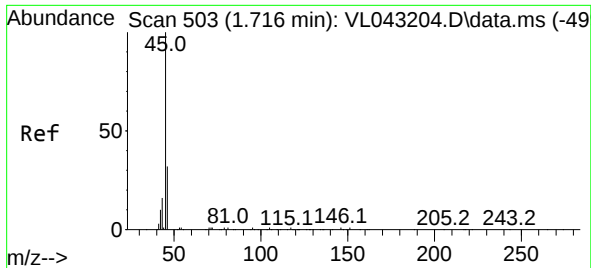
Reviewed By :Semsettin Yesilyurt 12/03/2025
Supervised By :Mahesh Dadoda 12/03/2025



#11
Trichlorofluoromethane
Concen: 0.274 ppbv
RT: 1.887 min Scan# 556
Delta R.T. 0.013 min
Lab File: VL043296.D
Acq: 02 Dec 2025 13:38

Tgt Ion:101 Resp: 4741
Ion Ratio Lower Upper
101 100
103 63.6 52.6 79.0





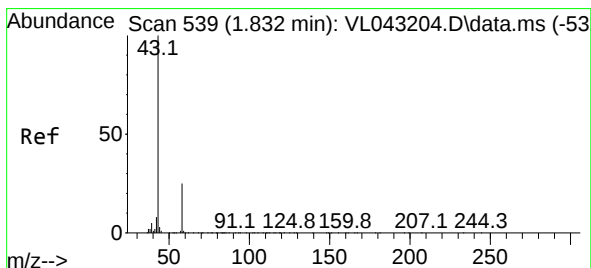
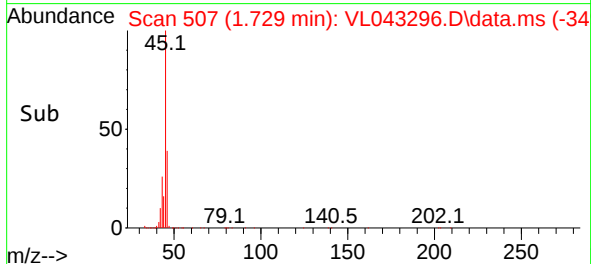
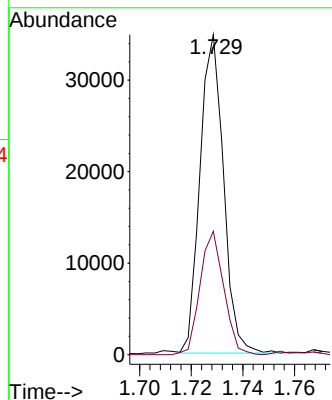
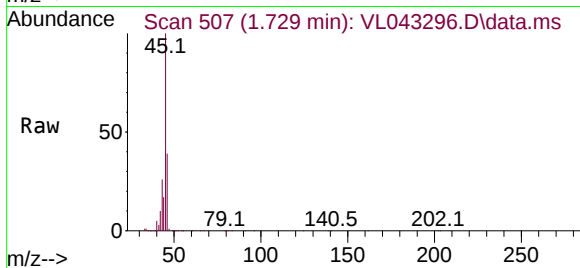
#13
Ethanol
Concen: 8.391 ppbv
RT: 1.729 min Scan# 503
Delta R.T. 0.013 min
Lab File: VL043296.D
Acq: 02 Dec 2025 13:38

Instrument :
MSVOA_L
ClientSampleId :
IA1

Tgt Ion: 45 Resp: 22036
Ion Ratio Lower Upper
45 100
46 39.5 15.0 59.8

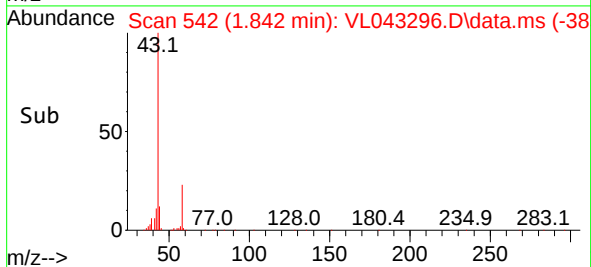
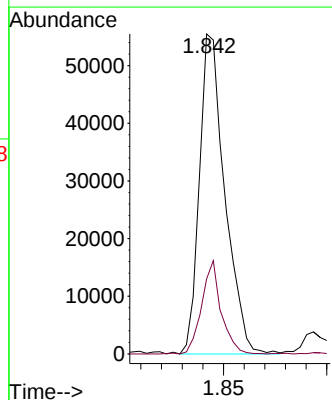
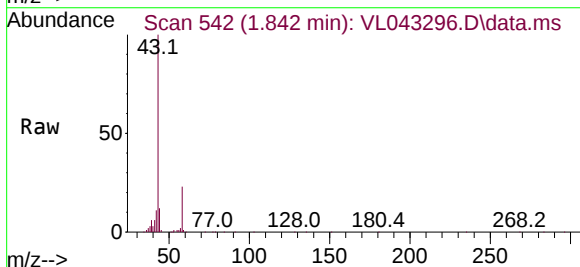
Manual Integrations
APPROVED

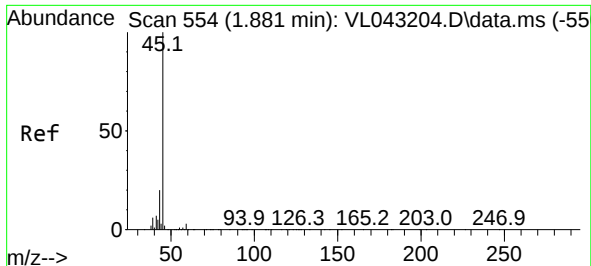
Reviewed By :Semsettin Yesilyurt 12/03/2025
Supervised By :Mahesh Dadoda 12/03/2025



#15
Acetone
Concen: 2.698 ppbv
RT: 1.842 min Scan# 542
Delta R.T. 0.009 min
Lab File: VL043296.D
Acq: 02 Dec 2025 13:38

Tgt Ion: 43 Resp: 47521
Ion Ratio Lower Upper
43 100
58 22.3 20.7 31.1





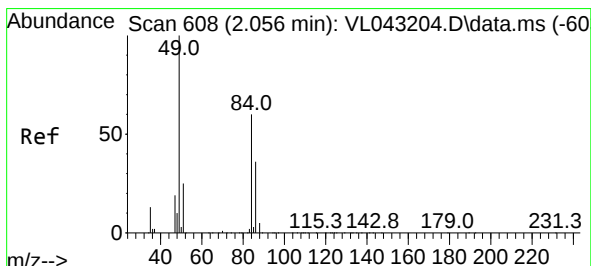
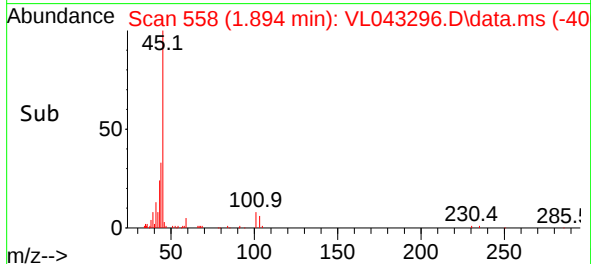
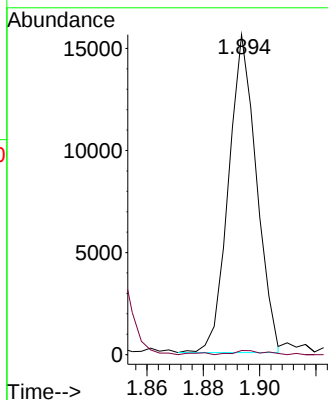
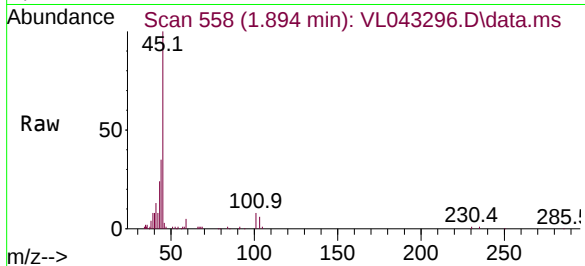
#19
Isopropyl Alcohol
Concen: 1.079 ppbv
RT: 1.894 min Scan# 511
Delta R.T. 0.013 min
Lab File: VL043296.D
Acq: 02 Dec 2025 13:38

Instrument :
MSVOA_L
ClientSampleId :
IA1

Tgt Ion: 45 Resp: 1074
Ion Ratio Lower Upper
45 100
58 98.6 31.3 46.9

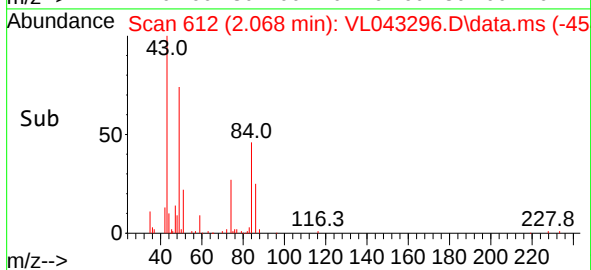
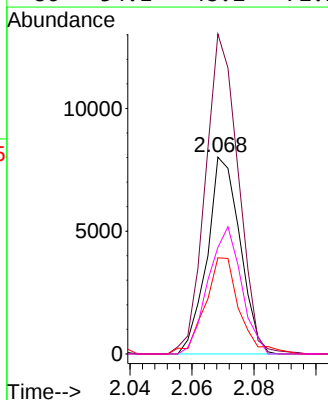
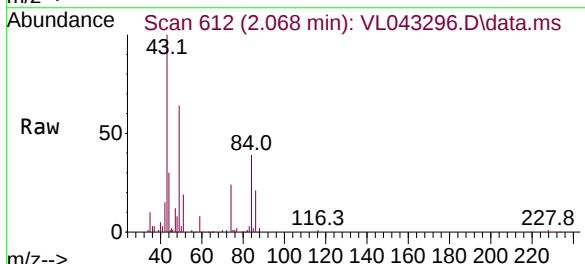
Manual Integrations
APPROVED

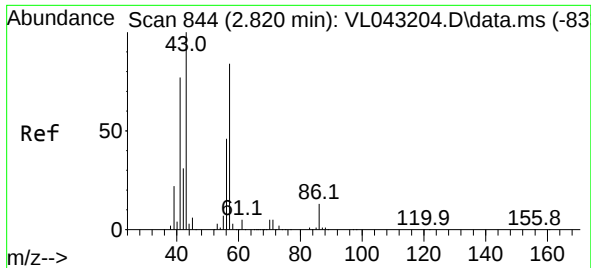
Reviewed By :Semsettin Yesilyurt 12/03/2025
Supervised By :Mahesh Dadoda 12/03/2025



#20
Methylene Chloride
Concen: 0.389 ppbv
RT: 2.068 min Scan# 612
Delta R.T. 0.012 min
Lab File: VL043296.D
Acq: 02 Dec 2025 13:38

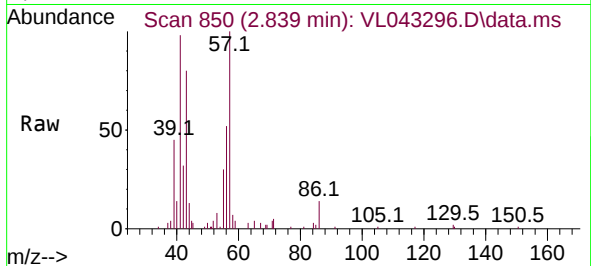
Tgt Ion: 84 Resp: 5935
Ion Ratio Lower Upper
84 100
49 161.2 132.9 199.3
51 46.0 34.8 52.2
86 54.1 48.2 72.2





#26
Hexane
Concen: 0.554 ppbv
RT: 2.839 min Scan# 844
Delta R.T. 0.019 min
Lab File: VL043296.D
Acq: 02 Dec 2025 13:38

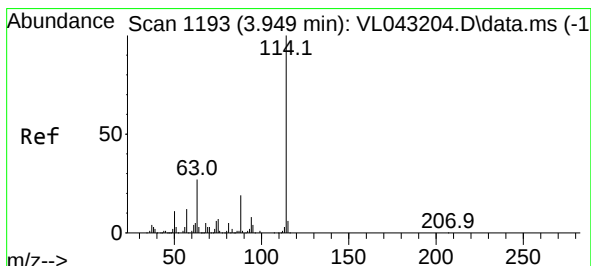
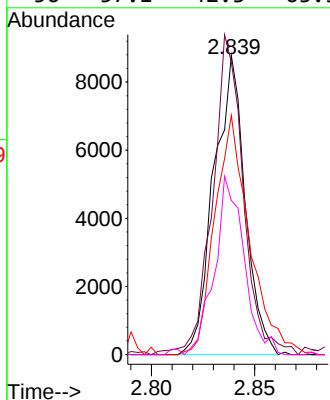
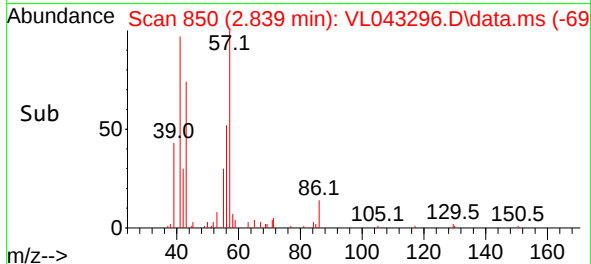
Instrument :
MSVOA_L
ClientSampleId :
IA1



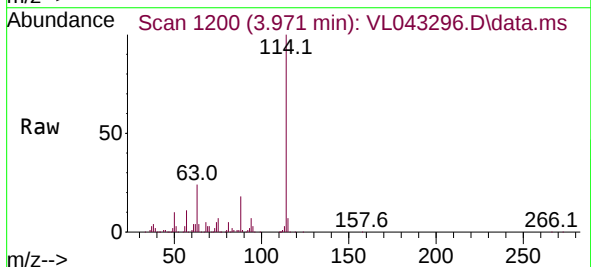
Tgt Ion: 57 Resp: 9224
Ion Ratio Lower Upper
57 100
41 108.4 74.6 111.8
43 89.0 179.0 268.4
56 57.1 42.3 63.5

Manual Integrations
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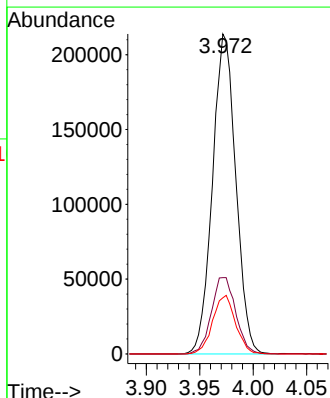
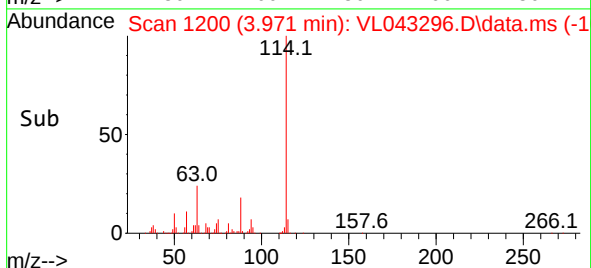
Reviewed By :Semsettin Yesilyurt 12/03/2025
Supervised By :Mahesh Dadoda 12/03/2025

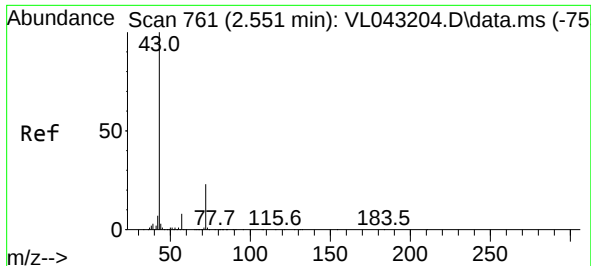


#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 3.971 min Scan# 1200
Delta R.T. 0.022 min
Lab File: VL043296.D
Acq: 02 Dec 2025 13:38



Tgt Ion:114 Resp: 324565
Ion Ratio Lower Upper
114 100
63 24.9 21.0 31.6
88 17.9 14.9 22.3





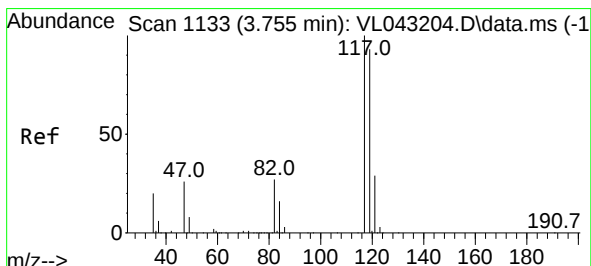
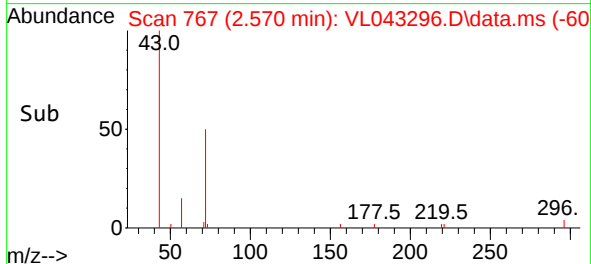
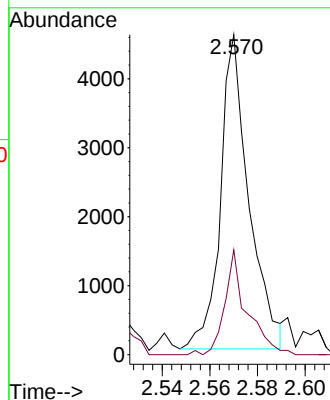
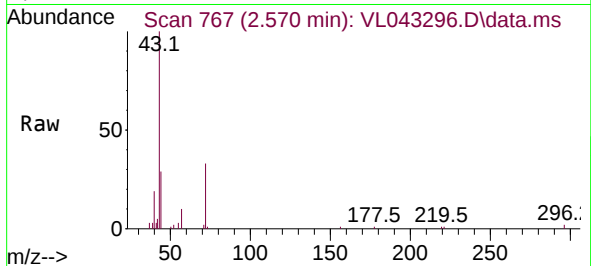
#34
2-Butanone
Concen: 0.165 ppbv
RT: 2.570 min Scan# 761
Delta R.T. 0.019 min
Lab File: VL043296.D
Acq: 02 Dec 2025 13:38

Instrument :
MSVOA_L
ClientSampleId :
IA1

Tgt Ion: 43 Resp: 3785
Ion Ratio Lower Upper
43 100
72 25.8 18.1 27.1

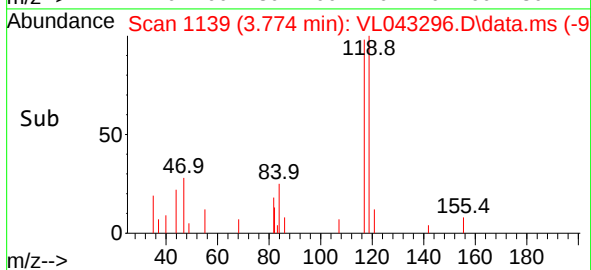
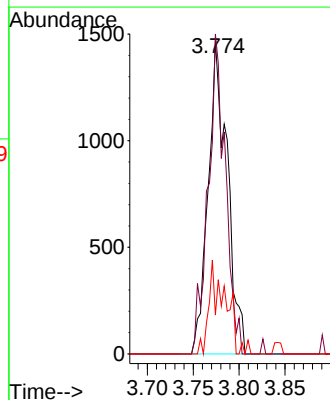
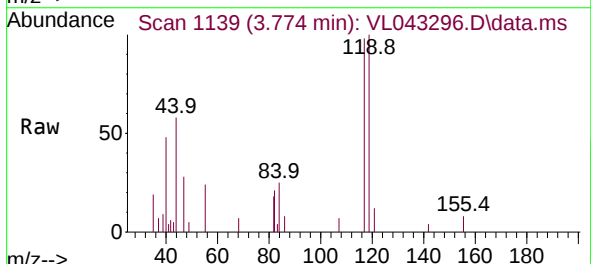
Manual Integrations
APPROVED

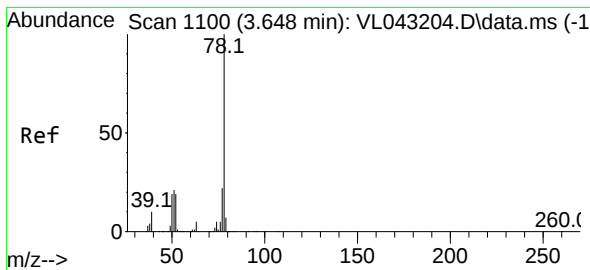
Reviewed By :Semsettin Yesilyurt 12/03/2025
Supervised By :Mahesh Dadoda 12/03/2025



#35
Carbon Tetrachloride
Concen: 0.086 ppbv m
RT: 3.774 min Scan# 1139
Delta R.T. 0.019 min
Lab File: VL043296.D
Acq: 02 Dec 2025 13:38

Tgt Ion:117 Resp: 2126
Ion Ratio Lower Upper
117 100
119 102.2 74.6 112.0
121 12.4 23.2 34.8#





#36

Benzene

Concen: 0.282 ppbv

RT: 3.671 min Scan# 1100

Delta R.T. 0.022 min

Lab File: VL043296.D

Acq: 02 Dec 2025 13:38

Instrument :

MSVOA_L

ClientSampleId :

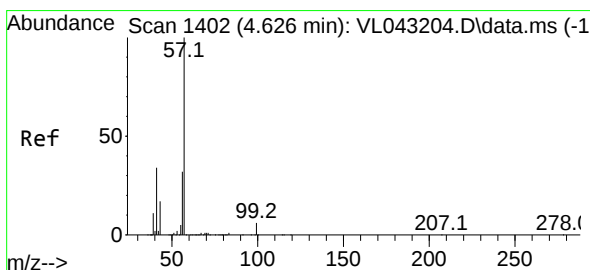
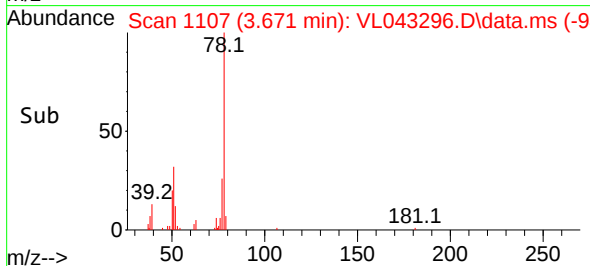
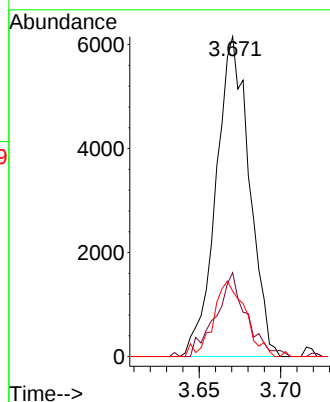
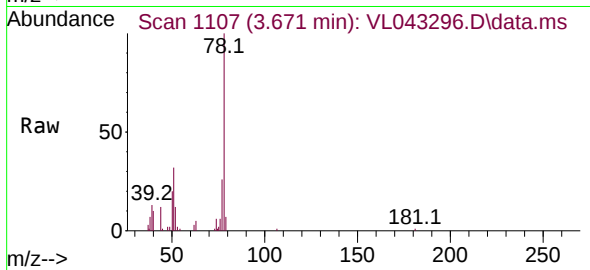
IA1

Tgt Ion: 78	Resp: 8750
Ion Ratio	Lower Upper
78 100	
77 26.2	17.5 26.3
50 20.4	15.5 23.3

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 12/03/2025
Supervised By :Mahesh Dadoda 12/03/2025



#44

2,2,4-Trimethylpentane

Concen: 0.145 ppbv m

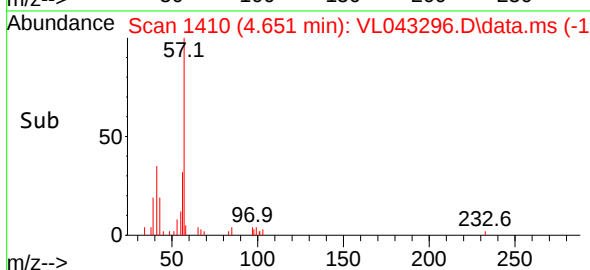
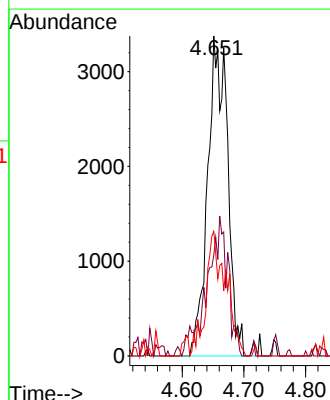
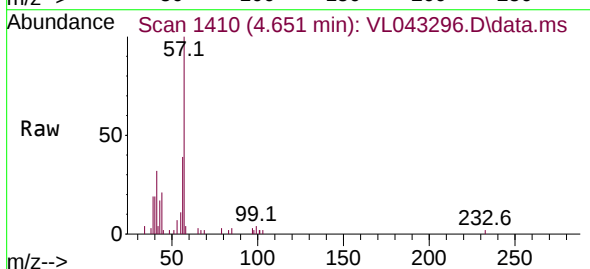
RT: 4.651 min Scan# 1410

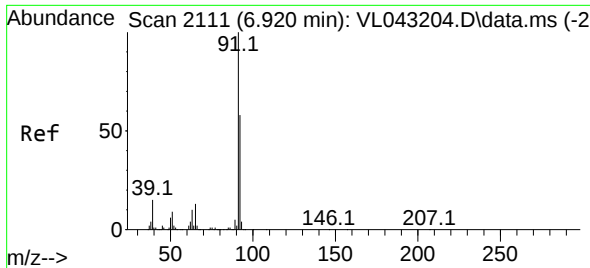
Delta R.T. 0.026 min

Lab File: VL043296.D

Acq: 02 Dec 2025 13:38

Tgt Ion: 57	Resp: 7744
Ion Ratio	Lower Upper
57 100	
41 0.0	28.0 42.0#
56 39.6	25.6 38.4#





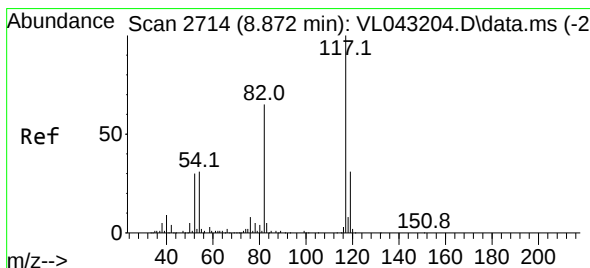
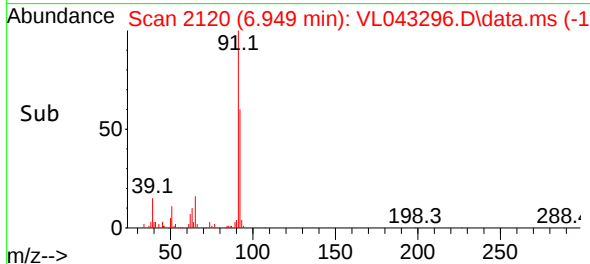
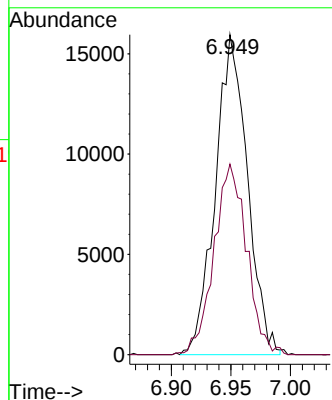
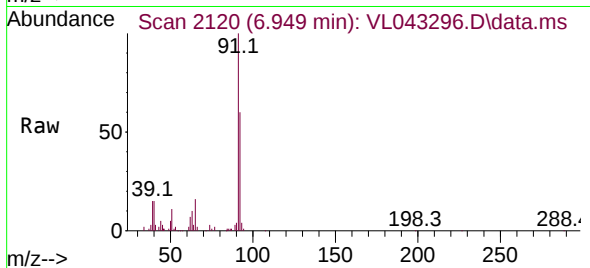
#53
Toluene
Concen: 0.813 ppbv
RT: 6.949 min Scan# 2111
Delta R.T. 0.029 min
Lab File: VL043296.D
Acq: 02 Dec 2025 13:38

Instrument :
MSVOA_L
ClientSampleId :
IA1

Tgt Ion: 91 Resp: 29906
Ion Ratio Lower Upper
91 100
92 60.7 47.4 71.0

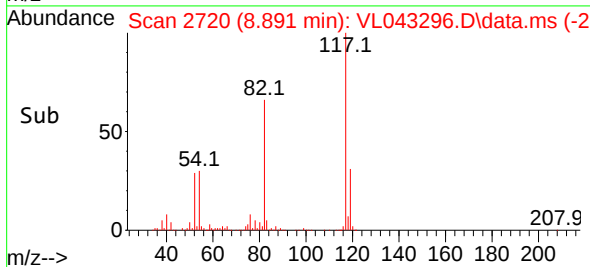
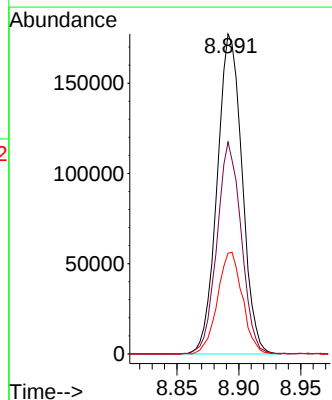
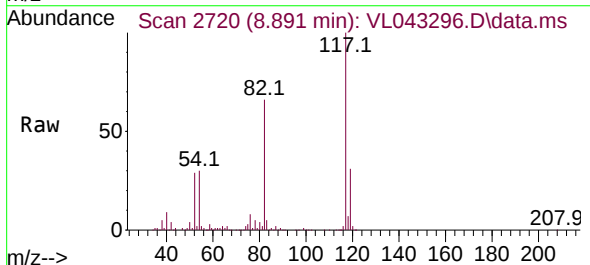
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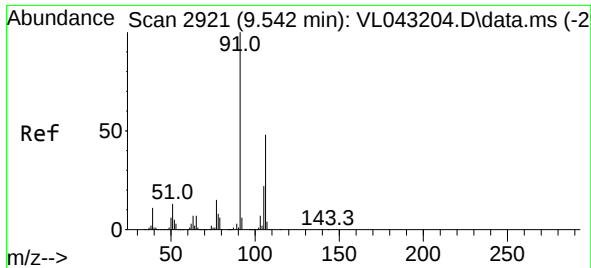
Reviewed By :Semsettin Yesilyurt 12/03/2025
Supervised By :Mahesh Dadoda 12/03/2025



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.891 min Scan# 2720
Delta R.T. 0.019 min
Lab File: VL043296.D
Acq: 02 Dec 2025 13:38

Tgt Ion:117 Resp: 247329
Ion Ratio Lower Upper
117 100
82 64.5 56.1 84.1
119 32.0 25.0 37.6





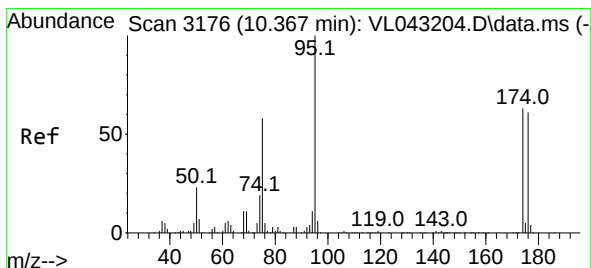
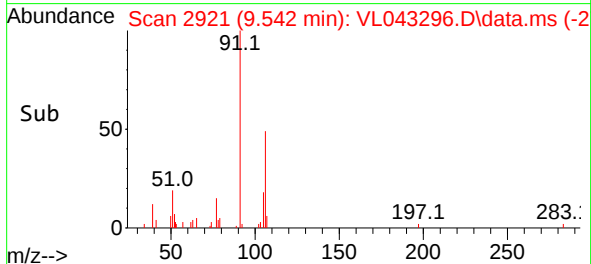
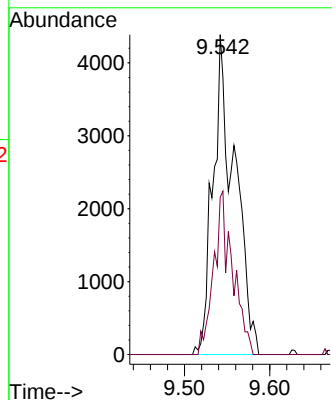
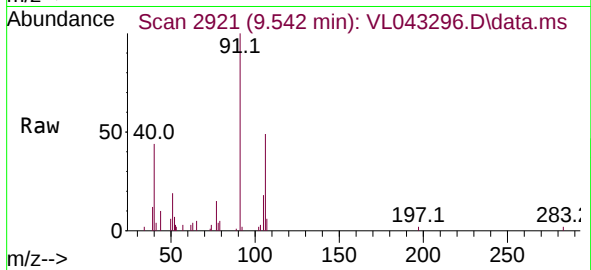
#59
m/p-Xylene
Concen: 0.204 ppbv m
RT: 9.542 min Scan# 2921
Delta R.T. -0.000 min
Lab File: VL043296.D
Acq: 02 Dec 2025 13:38

Instrument :
MSVOA_L
ClientSampleId :
IA1

Tgt Ion: 91 Resp: 777
Ion Ratio Lower Upper
91 100
106 0.0 36.1 54.1

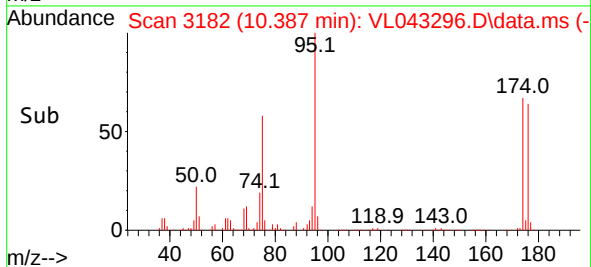
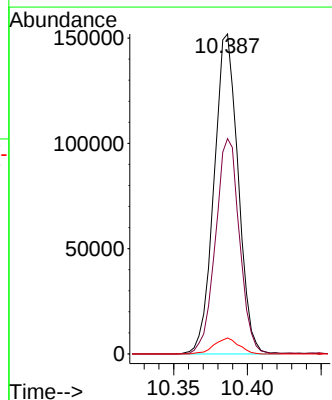
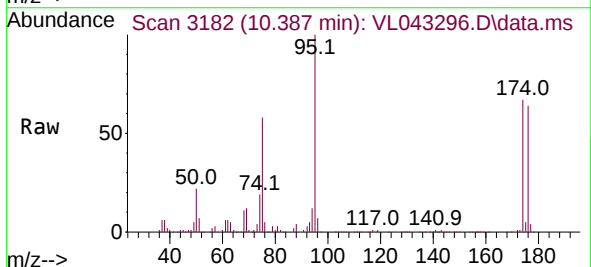
Manual Integrations
APPROVED

Reviewed By :Semsettin Yesilyurt 12/03/2025
Supervised By :Mahesh Dadoda 12/03/2025



#68
1-Bromo-4-Fluorobenzene
Concen: 9.522 ppbv
RT: 10.387 min Scan# 3182
Delta R.T. 0.019 min
Lab File: VL043296.D
Acq: 02 Dec 2025 13:38

Tgt Ion: 95 Resp: 172635
Ion Ratio Lower Upper
95 100
174 67.6 50.2 75.2
175 5.0 4.1 6.1



Report of Analysis

Client: GFE LLC
Project: All Projects
Client Sample ID: SV2
Lab Sample ID: Q3744-03
Analytical Method: TO-15
Sample Wt/Vol: 400 mL

Date Collected: 12/24/25
Date Received: 11/26/25
SDG No.: Q3744
Matrix: Air
Test: VOCMS Group2

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qua.	DF	MDL ug/m3	LOQ / CRQL ug/m3	Date Ana.	BatchID
TARGETS									
75-01-4	Vinyl Chloride	0.10	0.26	U	4	0.26	0.31	12/02/25 16:30	VL120225
142-82-5	Heptane	0.68	2.79	U	4	2.79	8.20	12/02/25 16:30	VL120225
75-34-3	1,1-Dichloroethane	0.52	2.10	U	4	2.10	8.09	12/02/25 16:30	VL120225
110-82-7	Cyclohexane	0.88	3.03	U	4	3.03	6.88	12/02/25 16:30	VL120225
156-59-2	cis-1,2-Dichloroethene	0.40	1.59	U	4	1.59	7.93	12/02/25 16:30	VL120225
71-55-6	1,1,1-Trichloroethane	0.060	0.33	U	4	0.33	0.65	12/02/25 16:30	VL120225
540-84-1	2,2,4-Trimethylpentane	0.56	2.62	U	4	2.62	9.34	12/02/25 16:30	VL120225
71-43-2	Benzene	0.50	1.60	J	4	1.02	6.39	12/02/25 16:30	VL120225
79-01-6	Trichloroethene	0.10	0.54	U	4	0.54	0.64	12/02/25 16:30	VL120225
108-88-3	Toluene	2.50	9.42		4	2.41	7.54	12/02/25 16:30	VL120225
127-18-4	Tetrachloroethene	1.60	10.8		4	0.41	0.81	12/02/25 16:30	VL120225
100-41-4	Ethyl Benzene	0.76	3.30	U	4	3.30	8.69	12/02/25 16:30	VL120225
179601-23-1	m/p-Xylene	1.90	8.25	J	4	6.95	17.4	12/02/25 16:30	VL120225
95-47-6	o-Xylene	1.00	4.34	J	4	3.65	8.69	12/02/25 16:30	VL120225
108-67-8	1,3,5-Trimethylbenzene	0.72	3.54	U	4	3.54	9.83	12/02/25 16:30	VL120225
95-63-6	1,2,4-Trimethylbenzene	0.72	3.54	U	4	3.54	9.83	12/02/25 16:30	VL120225
91-20-3	Naphthalene	0.050	0.26	U	4	0.26	2.10	12/02/25 16:30	VL120225
110-54-3	Hexane	3.30	11.6		4	2.26	7.05	12/02/25 16:30	VL120225
SURROGATES									
460-00-4	1-Bromo-4-Fluorobenzene	10.5				65 - 135	105% SPK: 10		
INTERNAL STANDARDS									
		Area Count							
74-97-5	Bromochloromethane	132000							
540-36-3	1,4-Difluorobenzene	327000							
3114-55-4	Chlorobenzene-d5	264000							

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\VL120225\
 Data File : VL043301.D
 Acq On : 02 Dec 2025 16:30
 Operator : SY/MD
 Sample : Q3744-03 4X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV2

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 12/03/2025
 Supervised By :Mahesh Dadoda 12/03/2025

Quant Time: Dec 03 00:08:23 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M

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

QLast Update : Wed Nov 19 01:11:25 2025

Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	2.800	49	131676	10.000	ppbv	0.02
33) 1,4-Difluorobenzene	3.975	114	327278	10.000	ppbv	0.03
55) Chlorobenzene-d5	8.895	117	263808	10.000	ppbv	0.02
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.387	95	203235	10.510	ppbv	0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	105.100%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.506	85	2782	0.150	ppbv #	77
9) Propene	1.493	41	4151	0.535	ppbv #	1
13) Ethanol	1.729	45	4454	1.633	ppbv #	38
15) Acetone	1.842	43	47857	2.616	ppbv	97
26) Hexane	2.839	57	14297	0.826	ppbv #	40
29) Chloroform	2.862	83	10974	0.446	ppbv	89
34) 2-Butanone	2.574	43	6227	0.270	ppbv	94
36) Benzene	3.677	78	3904m	0.125	ppbv	
52) Tetrachloroethene	8.241	164	4675m	0.401	ppbv	
53) Toluene	6.956	91	23155	0.624	ppbv	100
58) Ethyl Benzene	9.371	91	7201m	0.142	ppbv	
59) m/p-Xylene	9.545	91	19429m	0.477	ppbv	
60) o-Xylene	9.976	91	10322m	0.254	ppbv	

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

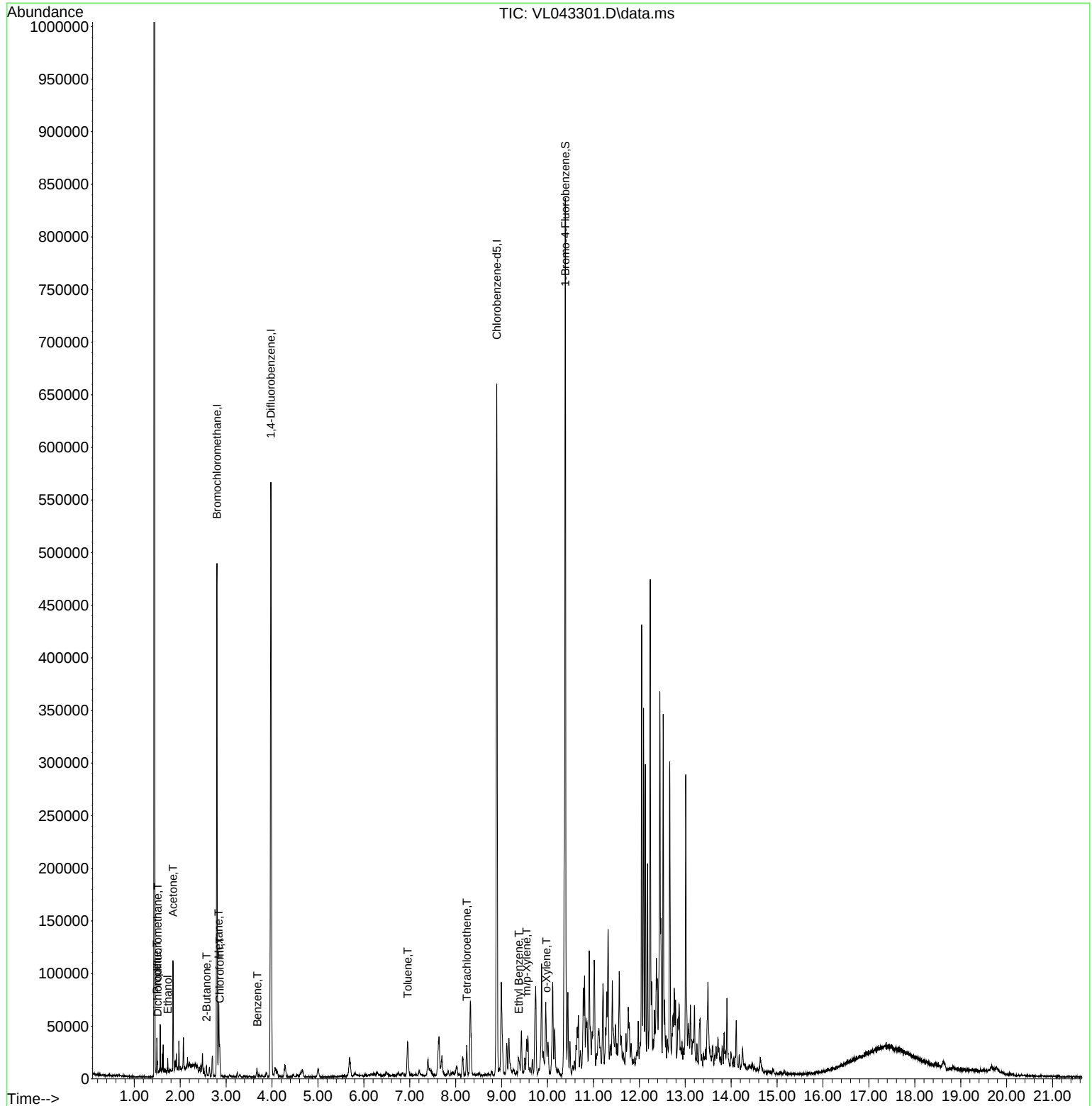
Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL120225\
Data File : VL043301.D
Acq On : 02 Dec 2025 16:30
Operator : SY/MD
Sample : Q3744-03 4X
Misc : 400mL/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

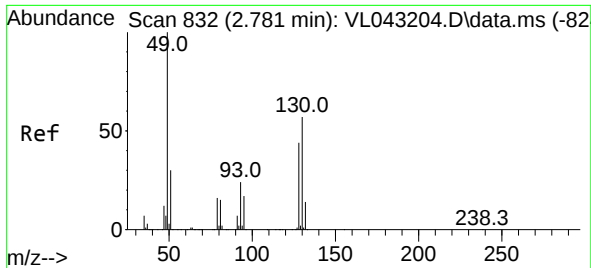
Instrument :
MSVOA_L
ClientSampleId :
SV2

Quant Time: Dec 03 00:08:23 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL11825AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug
QLast Update : Wed Nov 19 01:11:25 2025
Response via : Initial Calibration

Manual Integrations
APPROVED

Reviewed By : Semsettin Yesilyurt 12/03/2025
Supervised By : Mahesh Dadoda 12/03/2025





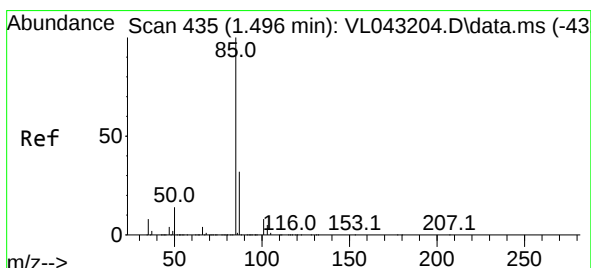
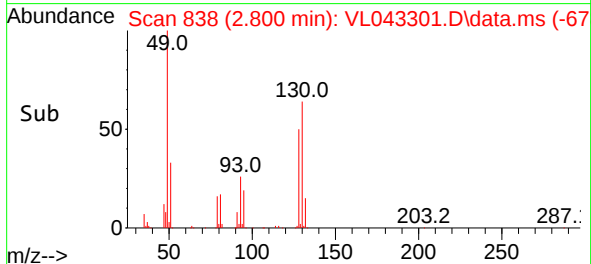
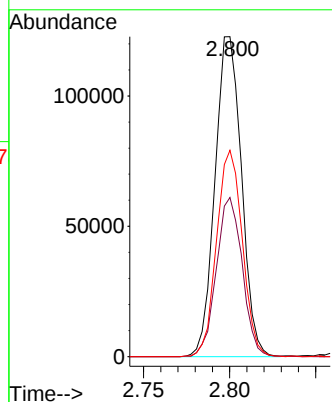
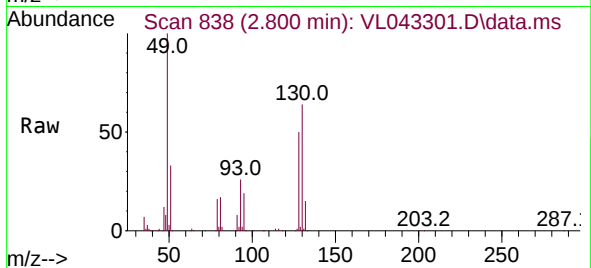
#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.800 min Scan# 832
Delta R.T. 0.019 min
Lab File: VL043301.D
Acq: 02 Dec 2025 16:30

Instrument :
MSVOA_L
ClientSampleId :
SV2

Tgt Ion: 49 Resp: 131676
Ion Ratio Lower Upper
49 100
128 48.6 23.0 69.0
130 62.6 29.9 89.7

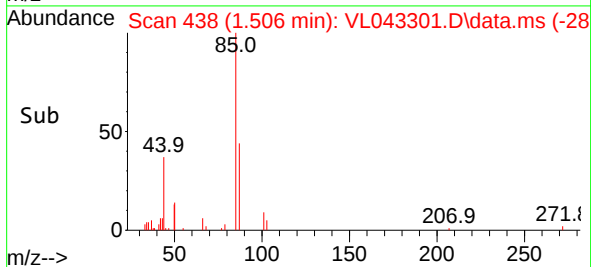
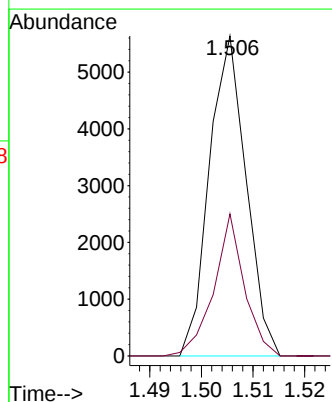
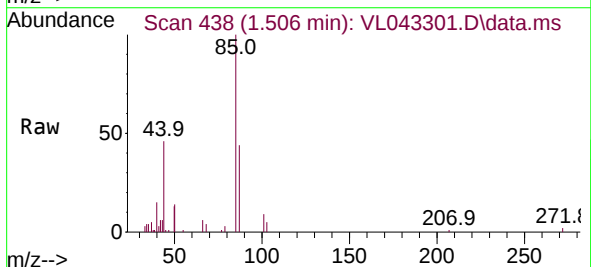
Manual Integrations
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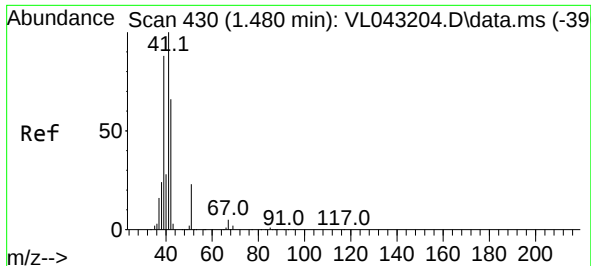
Reviewed By :Semsettin Yesilyurt 12/03/2025
Supervised By :Mahesh Dadoda 12/03/2025



#2
Dichlorodifluoromethane
Concen: 0.150 ppbv
RT: 1.506 min Scan# 438
Delta R.T. 0.010 min
Lab File: VL043301.D
Acq: 02 Dec 2025 16:30

Tgt Ion: 85 Resp: 2782
Ion Ratio Lower Upper
85 100
87 44.4 25.4 38.2#





#9

Propene

Concen: 0.535 ppbv

RT: 1.493 min Scan# 431

Delta R.T. 0.013 min

Lab File: VL043301.D

Acq: 02 Dec 2025 16:30

Instrument :

MSVOA_L

ClientSampleId :

SV2

Tgt Ion: 41 Resp: 415

Ion Ratio Lower Upper

41 100

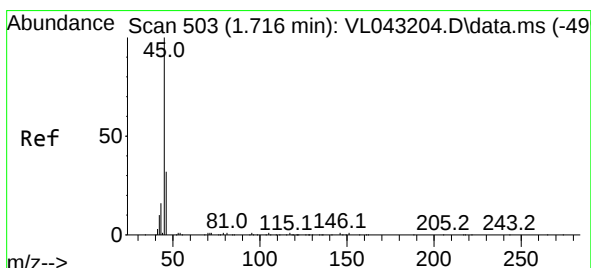
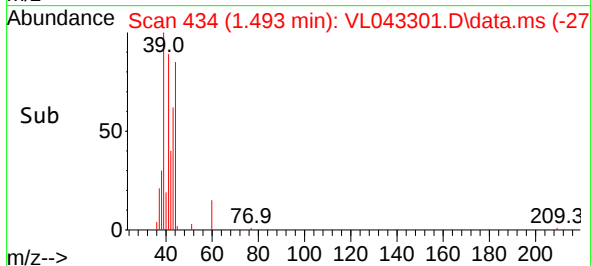
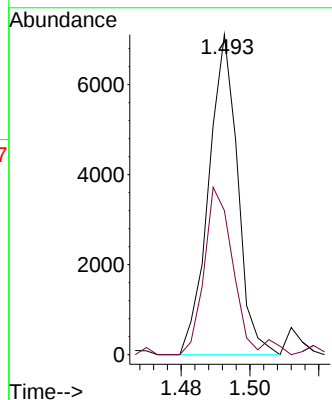
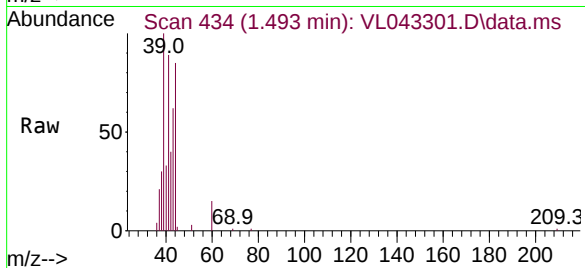
42 53.9 3.7 5.5

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 12/03/2025

Supervised By :Mahesh Dadoda 12/03/2025



#13

Ethanol

Concen: 1.633 ppbv

RT: 1.729 min Scan# 507

Delta R.T. 0.013 min

Lab File: VL043301.D

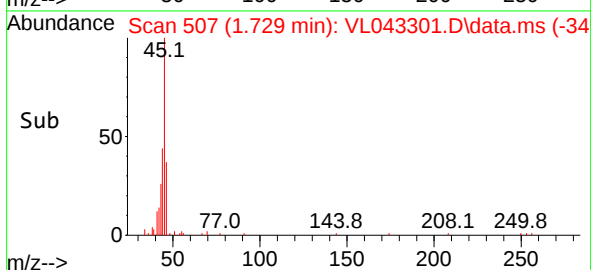
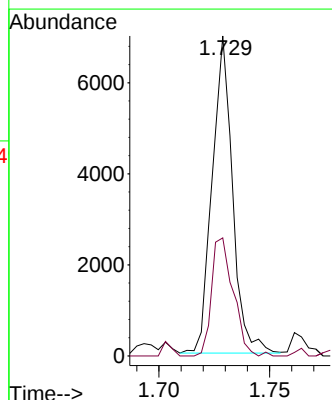
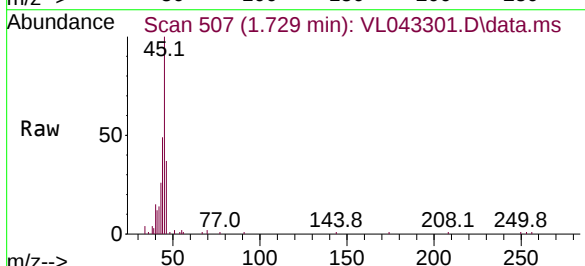
Acq: 02 Dec 2025 16:30

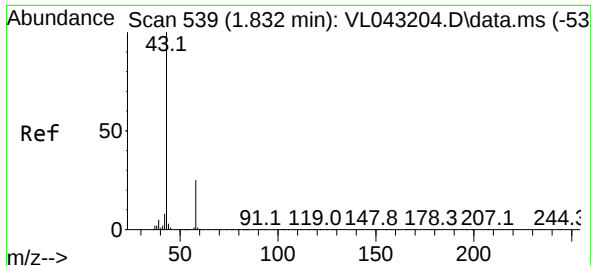
Tgt Ion: 45 Resp: 4454

Ion Ratio Lower Upper

45 100

46 0.0 15.0 59.8





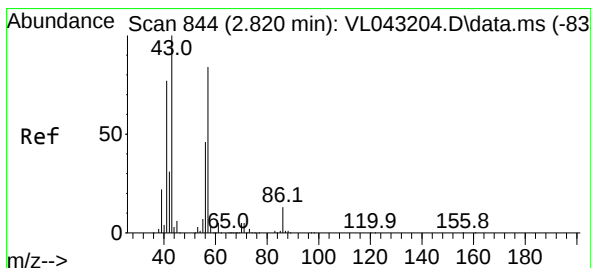
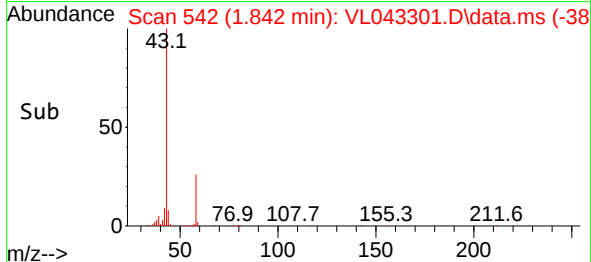
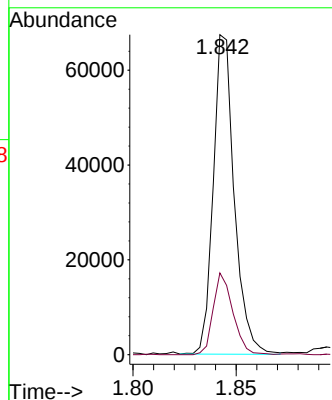
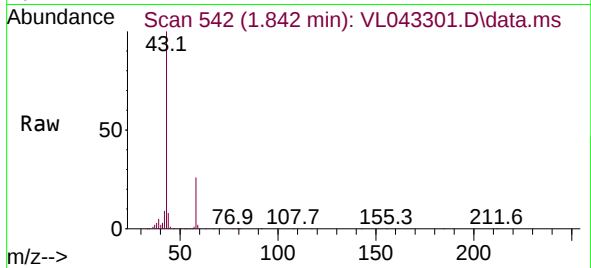
#15
Acetone
Concen: 2.616 ppbv
RT: 1.842 min Scan# 54
Delta R.T. 0.010 min
Lab File: VL043301.D
Acq: 02 Dec 2025 16:30

Instrument :
MSVOA_L
ClientSampleId :
SV2

Tgt Ion: 43 Resp: 4785
Ion Ratio Lower Upper
43 100
58 24.2 20.7 31.1

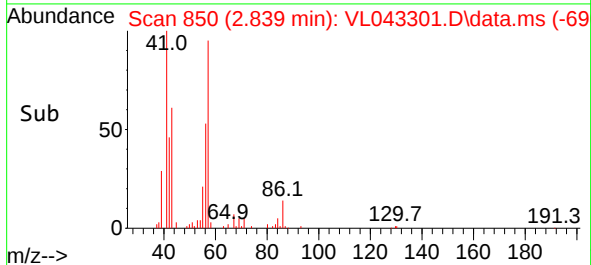
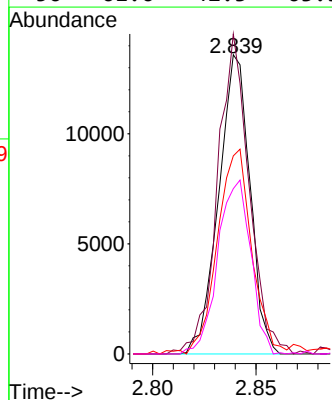
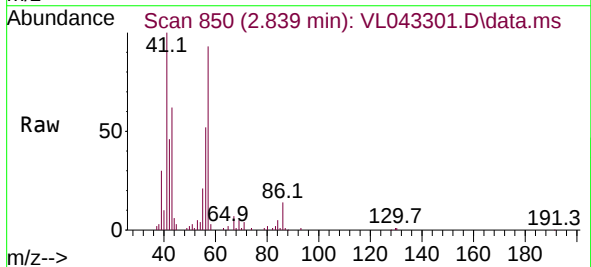
Manual Integrations
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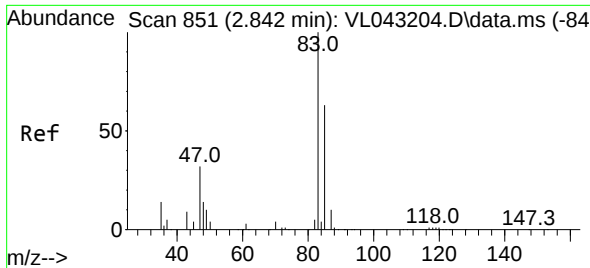
Reviewed By :Semsettin Yesilyurt 12/03/2025
Supervised By :Mahesh Dadoda 12/03/2025



#26
Hexane
Concen: 0.826 ppbv
RT: 2.839 min Scan# 850
Delta R.T. 0.019 min
Lab File: VL043301.D
Acq: 02 Dec 2025 16:30

Tgt Ion: 57 Resp: 14297
Ion Ratio Lower Upper
57 100
41 108.3 74.6 111.8
43 78.6 179.0 268.4#
56 61.6 42.3 63.5





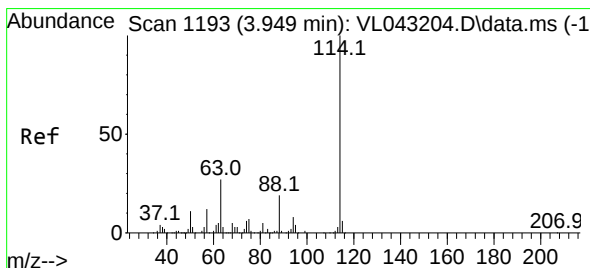
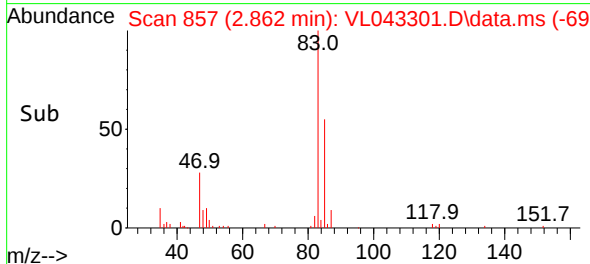
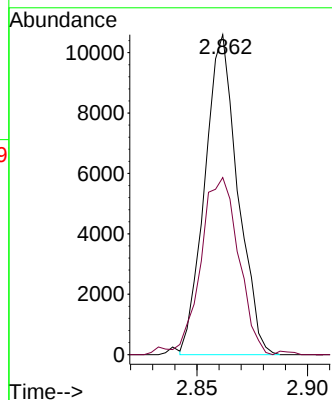
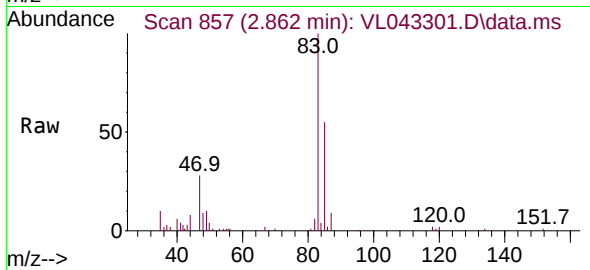
#29
Chloroform
Concen: 0.446 ppbv
RT: 2.862 min Scan# 81
Delta R.T. 0.019 min
Lab File: VL043301.D
Acq: 02 Dec 2025 16:30

Instrument :
MSVOA_L
ClientSampleId :
SV2

Tgt Ion: 83 Resp: 10974
Ion Ratio Lower Upper
83 100
85 54.2 50.5 75.7

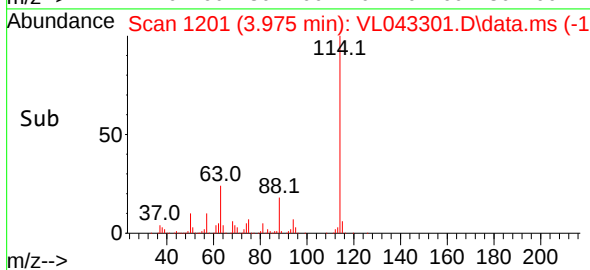
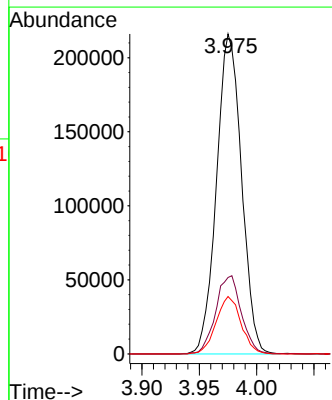
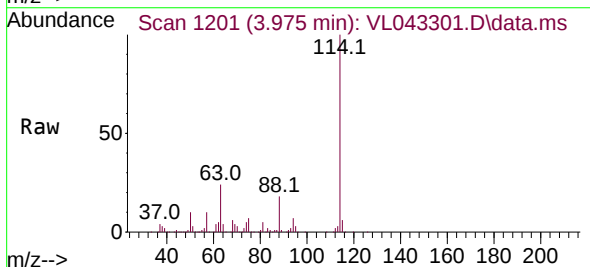
Manual Integrations
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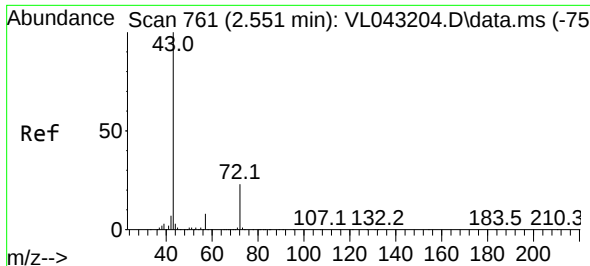
Reviewed By :Semsettin Yesilyurt 12/03/2025
Supervised By :Mahesh Dadoda 12/03/2025



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 3.975 min Scan# 1201
Delta R.T. 0.026 min
Lab File: VL043301.D
Acq: 02 Dec 2025 16:30

Tgt Ion:114 Resp: 327278
Ion Ratio Lower Upper
114 100
63 25.1 21.0 31.6
88 17.8 14.9 22.3





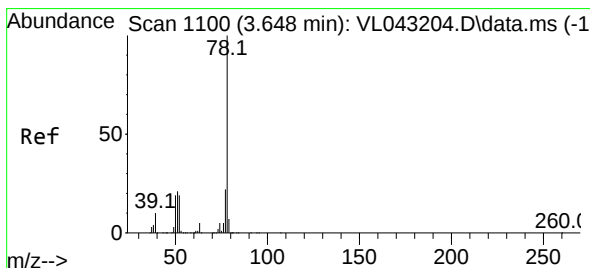
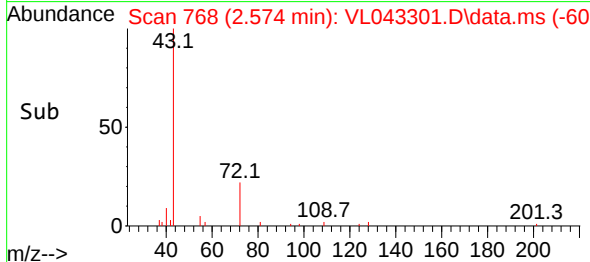
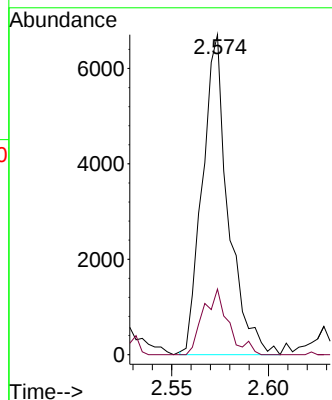
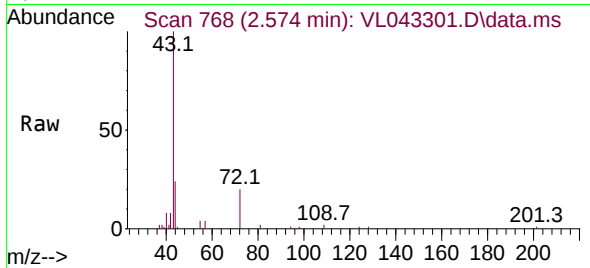
#34
2-Butanone
Concen: 0.270 ppbv
RT: 2.574 min Scan# 761
Delta R.T. 0.023 min
Lab File: VL043301.D
Acq: 02 Dec 2025 16:30

Instrument :
MSVOA_L
ClientSampleId :
SV2

Tgt Ion: 43 Resp: 622
Ion Ratio Lower Upper
43 100
72 19.9 18.1 27.1

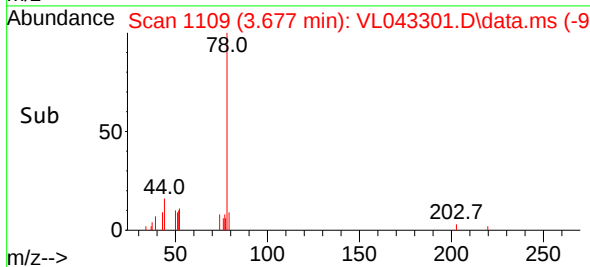
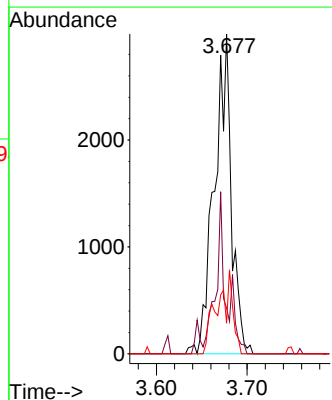
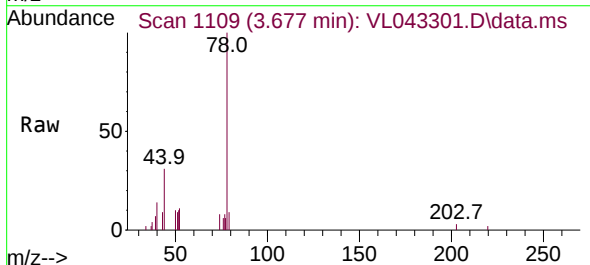
Manual Integrations
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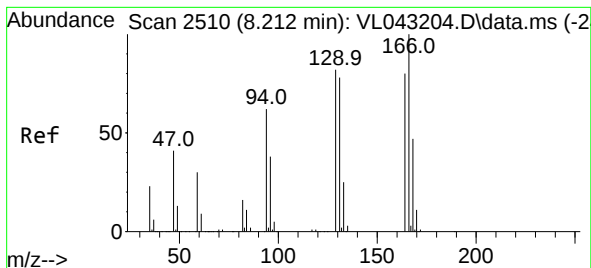
Reviewed By :Semsettin Yesilyurt 12/03/2025
Supervised By :Mahesh Dadoda 12/03/2025



#36
Benzene
Concen: 0.125 ppbv m
RT: 3.677 min Scan# 1109
Delta R.T. 0.029 min
Lab File: VL043301.D
Acq: 02 Dec 2025 16:30

Tgt Ion: 78 Resp: 3904
Ion Ratio Lower Upper
78 100
77 7.9 17.5 26.3#
50 9.6 15.5 23.3#





#52

Tetrachloroethene

Concen: 0.401 ppbv m

RT: 8.241 min Scan# 2119

Delta R.T. 0.029 min

Lab File: VL043301.D

Acq: 02 Dec 2025 16:30

Instrument :

MSVOA_L

ClientSampleId :

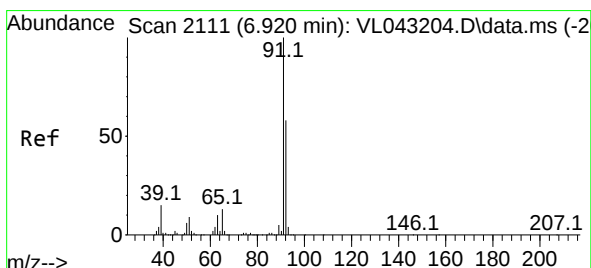
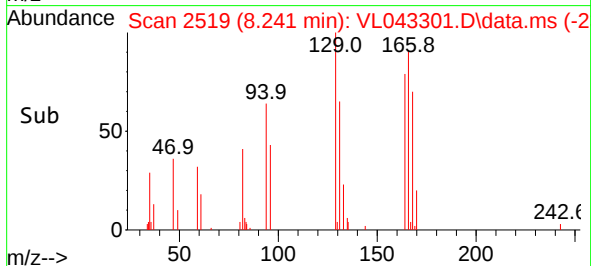
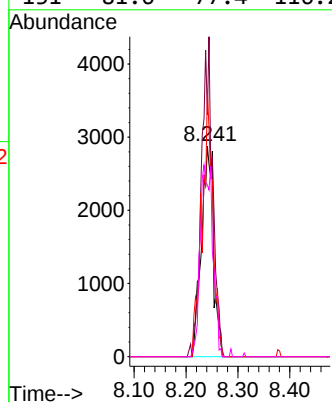
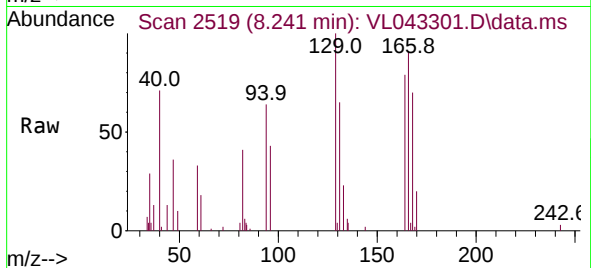
SV2

Tgt Ion:	164	Resp:	4675
Ion	Ratio	Lower	Upper
164	100		
166	114.9	99.4	149.2
129	126.3	81.8	122.8
131	81.6	77.4	116.2

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 12/03/2025
Supervised By :Mahesh Dadoda 12/03/2025



#53

Toluene

Concen: 0.624 ppbv

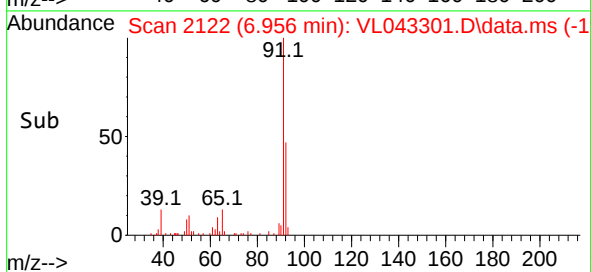
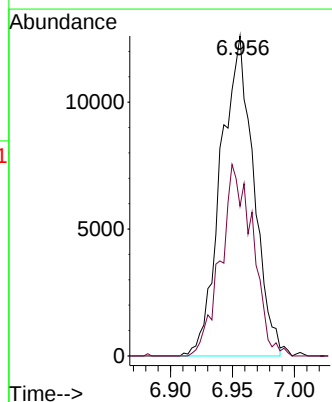
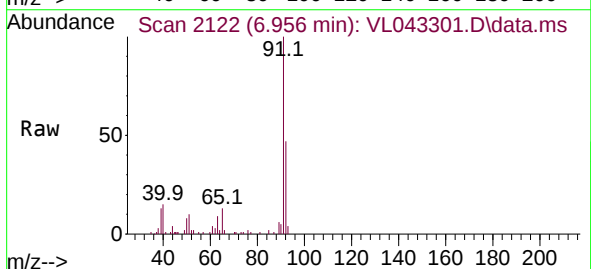
RT: 6.956 min Scan# 2122

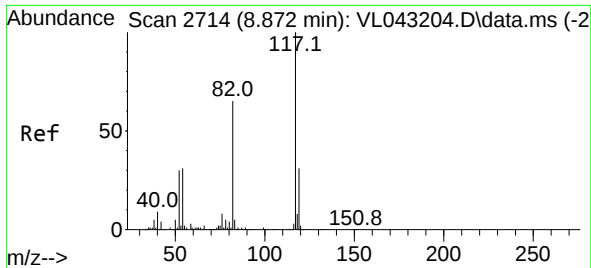
Delta R.T. 0.036 min

Lab File: VL043301.D

Acq: 02 Dec 2025 16:30

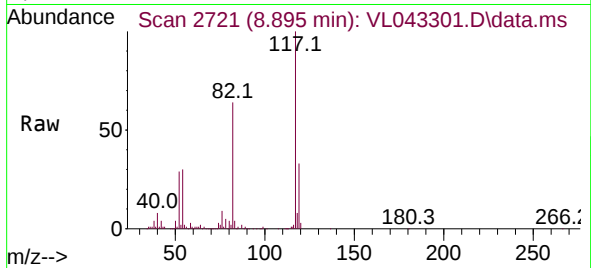
Tgt Ion:	91	Resp:	23155
Ion	Ratio	Lower	Upper
91	100		
92	58.9	47.4	71.0





#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.895 min Scan# 2714
Delta R.T. 0.023 min
Lab File: VL043301.D
Acq: 02 Dec 2025 16:30

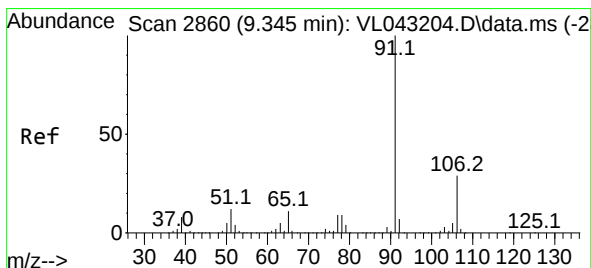
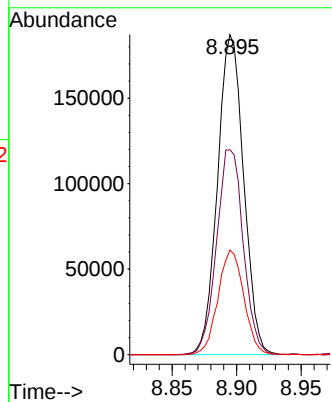
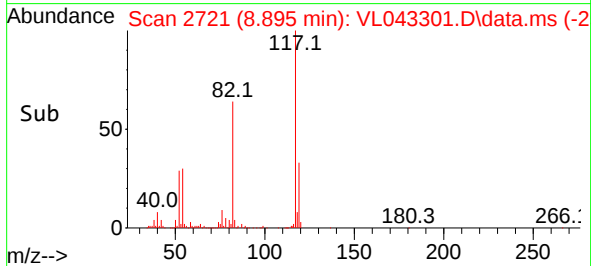
Instrument :
MSVOA_L
ClientSampleId :
SV2



Tgt Ion: 117 Resp: 263808
Ion Ratio Lower Upper
117 100
82 65.6 56.1 84.1
119 32.3 25.0 37.6

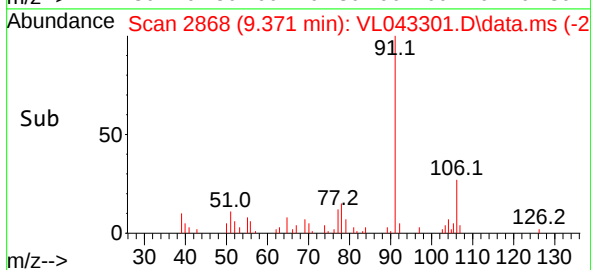
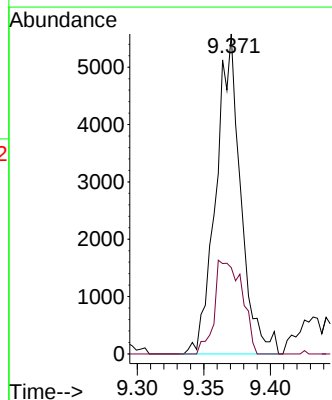
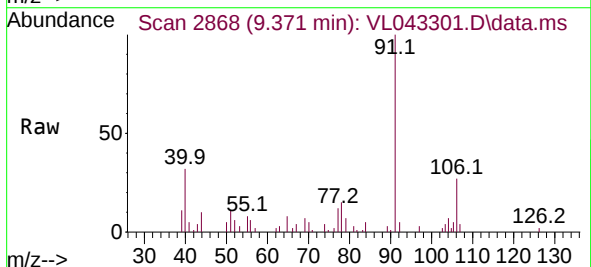
Manual Integrations
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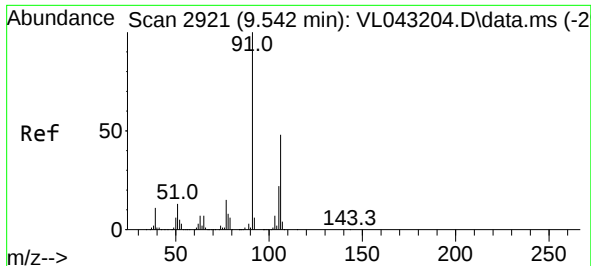
Reviewed By :Semsettin Yesilyurt 12/03/2025
Supervised By :Mahesh Dadoda 12/03/2025



#58
Ethyl Benzene
Concen: 0.142 ppbv m
RT: 9.371 min Scan# 2868
Delta R.T. 0.026 min
Lab File: VL043301.D
Acq: 02 Dec 2025 16:30

Tgt Ion: 91 Resp: 7201
Ion Ratio Lower Upper
91 100
106 27.0 22.8 34.2





#59

m/p-Xylene

Concen: 0.477 ppbv m

RT: 9.545 min Scan# 29

Delta R.T. 0.003 min

Lab File: VL043301.D

Acq: 02 Dec 2025 16:30

Instrument :

MSVOA_L

ClientSampleId :

SV2

Tgt Ion: 91 Resp: 19429

Ion Ratio Lower Upper

91 100

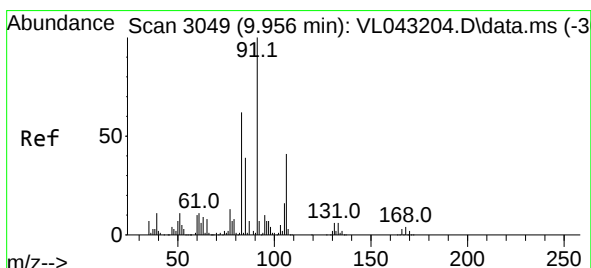
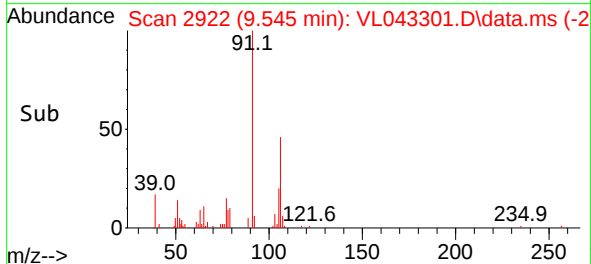
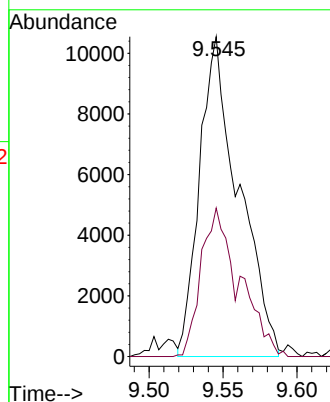
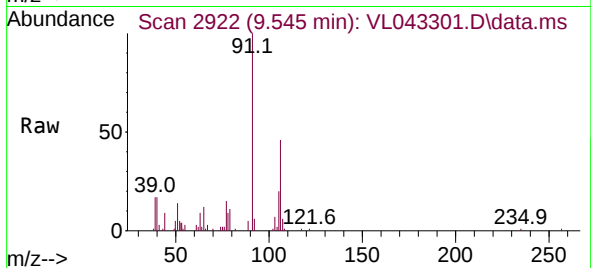
106 0.0 36.1 54.1

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 12/03/2025

Supervised By :Mahesh Dadoda 12/03/2025



#60

o-Xylene

Concen: 0.254 ppbv m

RT: 9.976 min Scan# 3055

Delta R.T. 0.019 min

Lab File: VL043301.D

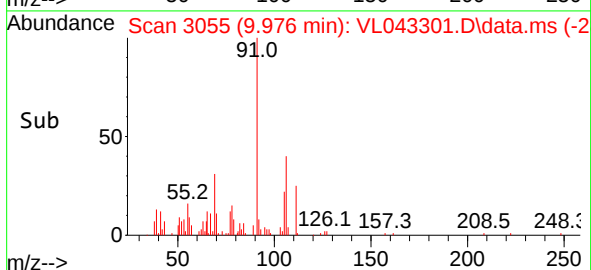
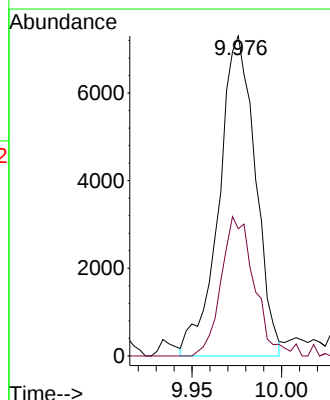
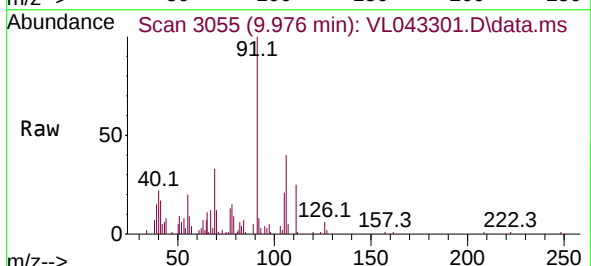
Acq: 02 Dec 2025 16:30

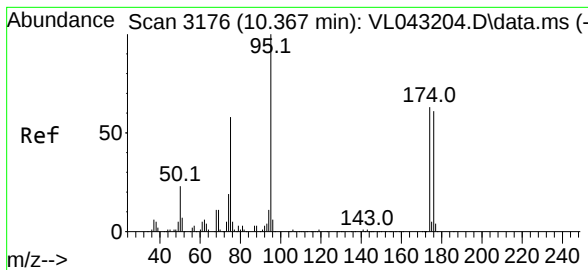
Tgt Ion: 91 Resp: 10322

Ion Ratio Lower Upper

91 100

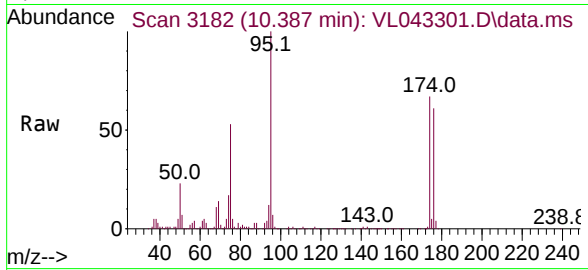
106 40.4 20.9 62.8





#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.510 ppbv
 RT: 10.387 min Scan# 3176
 Delta R.T. 0.019 min
 Lab File: VL043301.D
 Acq: 02 Dec 2025 16:30

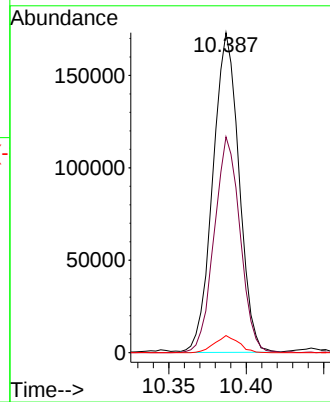
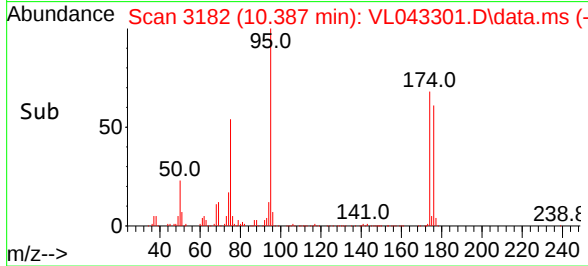
Instrument :
 MSVOA_L
 ClientSampleId :
 SV2



Tgt Ion: 95 Resp: 203235
 Ion Ratio Lower Upper
 95 100
 174 66.9 50.2 75.2
 175 4.9 4.1 6.1

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 12/03/2025
 Supervised By :Mahesh Dadoda 12/03/2025



Report of Analysis

Client: GFE LLC
Project: All Projects
Client Sample ID: IA2
Lab Sample ID: Q3744-04
Analytical Method: TO-15
Sample Wt/Vol: 400 mL

Date Collected: 12/24/25
Date Received: 11/26/25
SDG No.: Q3744
Matrix: Air
Test: VOCMS Group2

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qua.	DF	MDL ug/m3	LOQ / CRQL ug/m3	Date Ana.	BatchID
TARGETS									
75-01-4	Vinyl Chloride	0.030	0.080	U	1	0.080	0.080	12/02/25 14:49	VL120225
142-82-5	Heptane	0.17	0.70	U	1	0.70	2.05	12/02/25 14:49	VL120225
75-34-3	1,1-Dichloroethane	0.13	0.53	U	1	0.53	2.02	12/02/25 14:49	VL120225
110-82-7	Cyclohexane	0.22	0.76	U	1	0.76	1.72	12/02/25 14:49	VL120225
156-59-2	cis-1,2-Dichloroethene	0.10	0.40	U	1	0.40	1.98	12/02/25 14:49	VL120225
71-55-6	1,1,1-Trichloroethane	0.020	0.11	U	1	0.11	0.16	12/02/25 14:49	VL120225
540-84-1	2,2,4-Trimethylpentane	0.18	0.84	J	1	0.65	2.34	12/02/25 14:49	VL120225
71-43-2	Benzene	0.30	0.96	J	1	0.26	1.60	12/02/25 14:49	VL120225
79-01-6	Trichloroethene	0.020	0.11	U	1	0.11	0.16	12/02/25 14:49	VL120225
108-88-3	Toluene	1.10	4.15		1	0.60	1.88	12/02/25 14:49	VL120225
127-18-4	Tetrachloroethene	0.020	0.14	U	1	0.14	0.20	12/02/25 14:49	VL120225
100-41-4	Ethyl Benzene	0.19	0.83	U	1	0.83	2.17	12/02/25 14:49	VL120225
179601-23-1	m/p-Xylene	0.41	1.78	U	1	1.78	4.34	12/02/25 14:49	VL120225
95-47-6	o-Xylene	0.21	0.91	U	1	0.91	2.17	12/02/25 14:49	VL120225
108-67-8	1,3,5-Trimethylbenzene	0.18	0.88	U	1	0.88	2.46	12/02/25 14:49	VL120225
95-63-6	1,2,4-Trimethylbenzene	0.18	0.88	U	1	0.88	2.46	12/02/25 14:49	VL120225
91-20-3	Naphthalene	0.010	0.050	U	1	0.050	0.52	12/02/25 14:49	VL120225
110-54-3	Hexane	0.78	2.75		1	0.56	1.76	12/02/25 14:49	VL120225
SURROGATES									
460-00-4	1-Bromo-4-Fluorobenzene	9.80				65 - 135	98% SPK: 10		
INTERNAL STANDARDS									
		Area Count							
74-97-5	Bromochloromethane	127000							
540-36-3	1,4-Difluorobenzene	322000							
3114-55-4	Chlorobenzene-d5	243000							

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\VL120225\
 Data File : VL043298.D
 Acq On : 02 Dec 2025 14:49
 Operator : SY/MD
 Sample : Q3744-04
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA2

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 12/03/2025
 Supervised By :Mahesh Dadoda 12/03/2025

Quant Time: Dec 03 00:07:07 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M

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

QLast Update : Wed Nov 19 01:11:25 2025

Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	2.800	49	127150	10.000	ppbv	0.02
33) 1,4-Difluorobenzene	3.978	114	321760	10.000	ppbv	0.03
55) Chlorobenzene-d5	8.894	117	243149	10.000	ppbv	0.02
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.387	95	174969	9.817	ppbv	0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	98.200%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.505	85	10178	0.568	ppbv	98
3) Chlorodifluoromethane	1.483	51	5116m	0.290	ppbv	
4) Chloromethane	1.538	50	3455	0.515	ppbv	93
9) Propene	1.496	41	13356	1.783	ppbv #	1
10) Heptane	5.007	43	2368m	0.106	ppbv	
11) Trichlorofluoromethane	1.887	101	5474	0.315	ppbv	91
13) Ethanol	1.729	45	43530	16.529	ppbv	95
15) Acetone	1.845	43	51387	2.909	ppbv	93
19) Isopropyl Alcohol	1.894	45	21548	2.159	ppbv #	76
20) Methylene Chloride	2.072	84	10813	1.402	ppbv	89
26) Hexane	2.839	57	13007	0.779	ppbv #	50
34) 2-Butanone	2.570	43	5805m	0.256	ppbv	
35) Carbon Tetrachloride	3.784	117	2022m	0.083	ppbv	
36) Benzene	3.674	78	9284	0.301	ppbv #	87
44) 2,2,4-Trimethylpentane	4.664	57	9551m	0.180	ppbv	
53) Toluene	6.959	91	40037	1.097	ppbv	97
59) m/p-Xylene	9.552	91	9374m	0.250	ppbv	

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

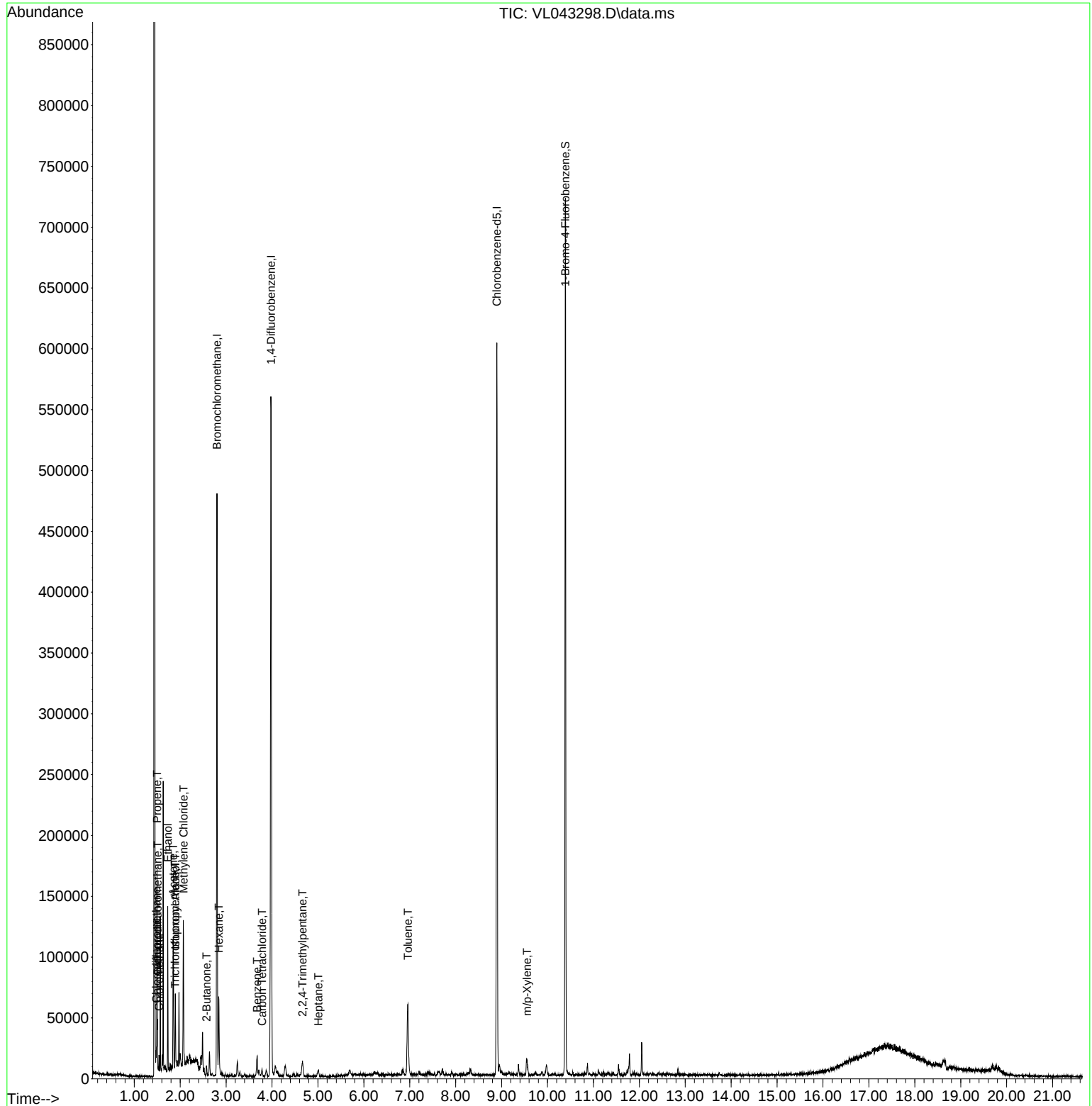
Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL120225\
Data File : VL043298.D
Acq On : 02 Dec 2025 14:49
Operator : SY/MD
Sample : Q3744-04
Misc : 400mL/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

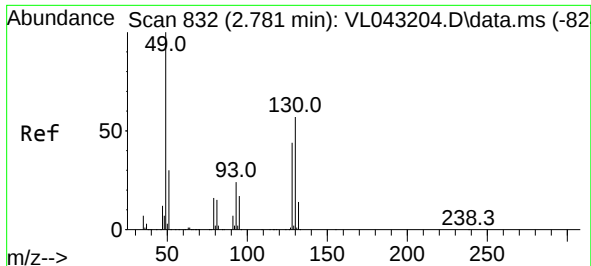
Instrument :
MSVOA_L
ClientSampleId :
IA2

Quant Time: Dec 03 00:07:07 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL11825AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug
QLast Update : Wed Nov 19 01:11:25 2025
Response via : Initial Calibration

Manual Integrations
APPROVED

Reviewed By : Semsettin Yesilyurt 12/03/2025
Supervised By : Mahesh Dadoda 12/03/2025





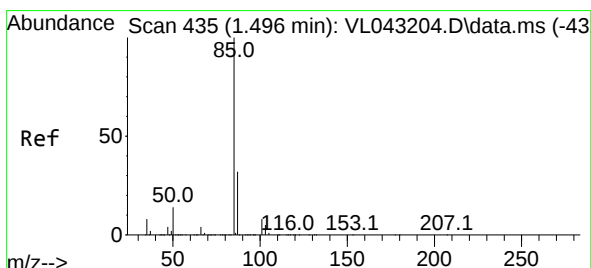
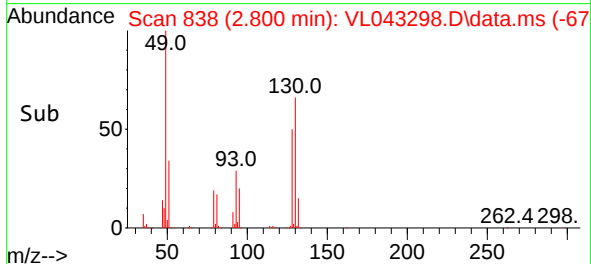
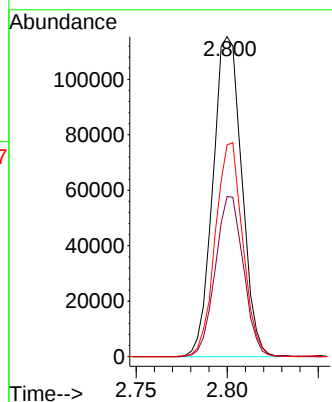
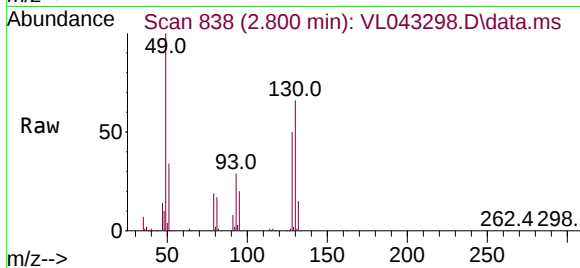
#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.800 min Scan# 832
Delta R.T. 0.019 min
Lab File: VL043298.D
Acq: 02 Dec 2025 14:49

Instrument :
MSVOA_L
ClientSampleId :
IA2

Tgt Ion: 49 Resp: 127150
Ion Ratio Lower Upper
49 100
128 48.8 23.0 69.0
130 63.7 29.9 89.7

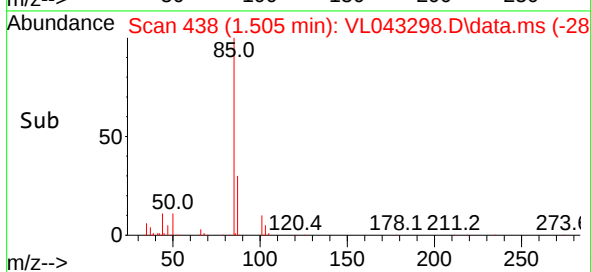
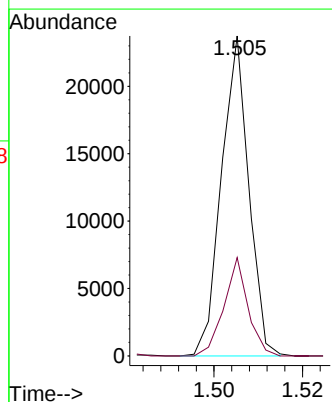
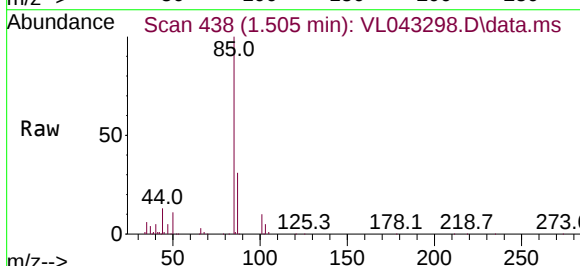
Manual Integrations
APPROVED

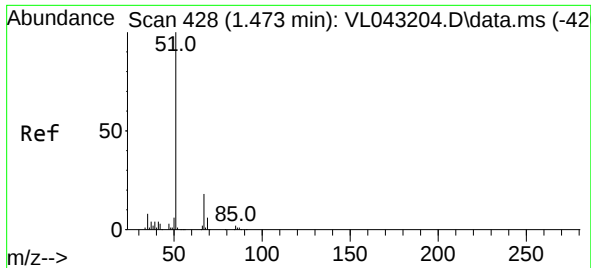
Reviewed By :Semsettin Yesilyurt 12/03/2025
Supervised By :Mahesh Dadoda 12/03/2025



#2
Dichlorodifluoromethane
Concen: 0.568 ppbv
RT: 1.505 min Scan# 438
Delta R.T. 0.009 min
Lab File: VL043298.D
Acq: 02 Dec 2025 14:49

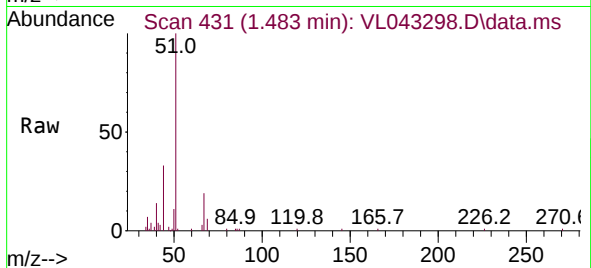
Tgt Ion: 85 Resp: 10178
Ion Ratio Lower Upper
85 100
87 30.7 25.4 38.2





#3
Chlorodifluoromethane
Concen: 0.290 ppbv m
RT: 1.483 min Scan# 431
Delta R.T. 0.009 min
Lab File: VL043298.D
Acq: 02 Dec 2025 14:49

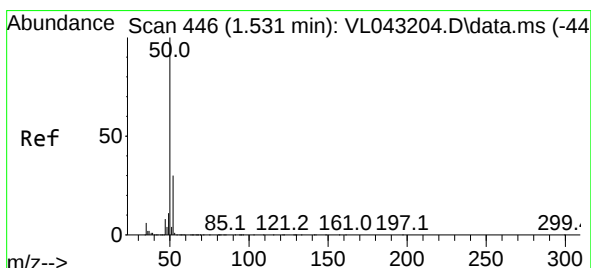
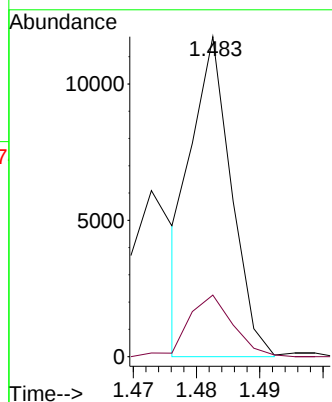
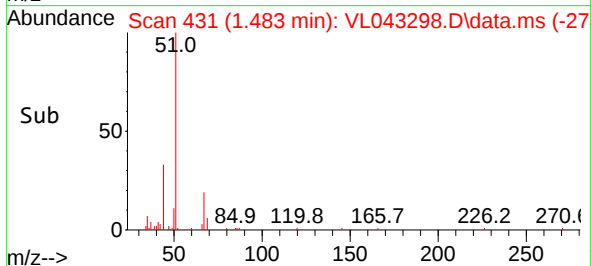
Instrument :
MSVOA_L
ClientSampleId :
IA2



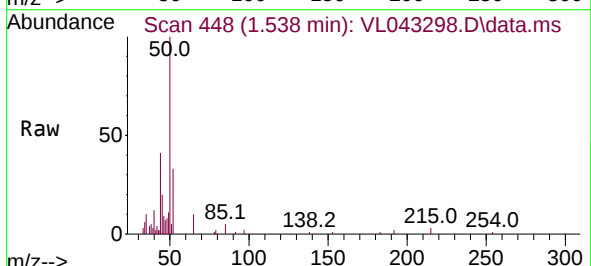
Tgt Ion: 51 Resp: 5116
Ion Ratio Lower Upper
51 100
67 21.6 14.9 22.3

Manual Integrations
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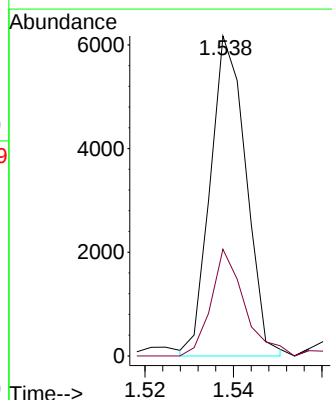
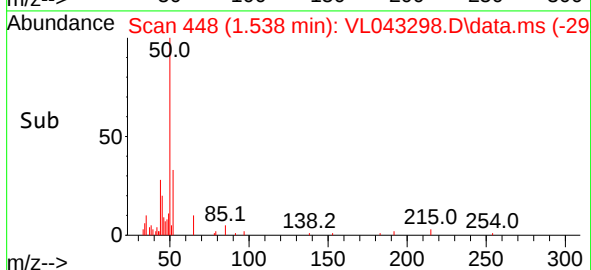
Reviewed By :Semsettin Yesilyurt 12/03/2025
Supervised By :Mahesh Dadoda 12/03/2025

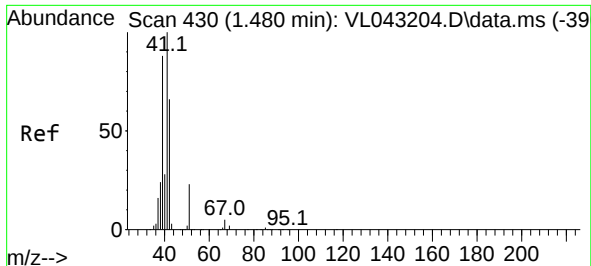


#4
Chloromethane
Concen: 0.515 ppbv
RT: 1.538 min Scan# 448
Delta R.T. 0.006 min
Lab File: VL043298.D
Acq: 02 Dec 2025 14:49



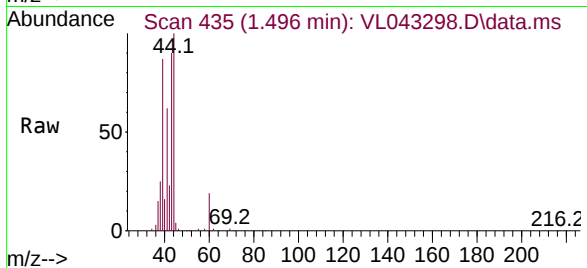
Tgt Ion: 50 Resp: 3455
Ion Ratio Lower Upper
50 100
52 33.9 24.1 36.1





#9
 Propene
 Concen: 1.783 ppbv
 RT: 1.496 min Scan# 431
 Delta R.T. 0.016 min
 Lab File: VL043298.D
 Acq: 02 Dec 2025 14:49

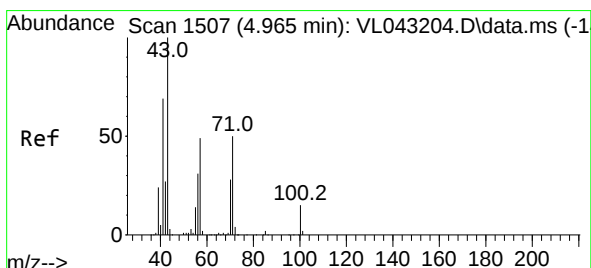
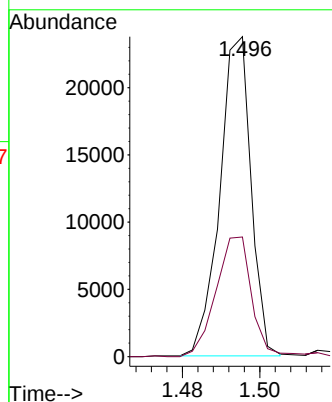
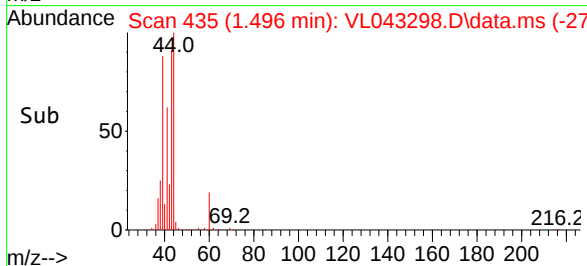
Instrument :
 MSVOA_L
 ClientSampleId :
 IA2



Tgt Ion: 41 Resp: 13356
 Ion Ratio Lower Upper
 41 100
 42 43.9 3.7 5.5

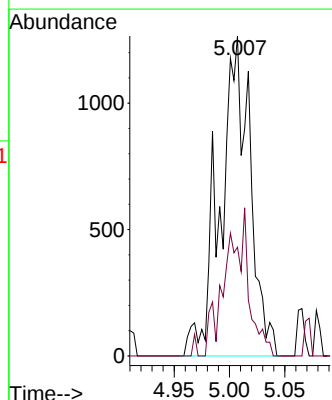
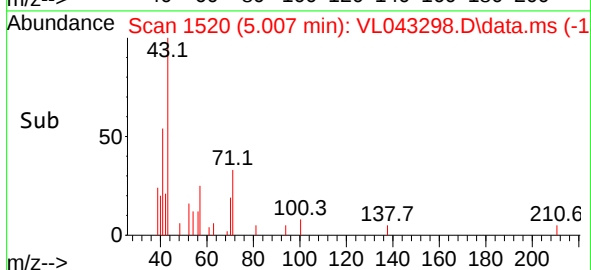
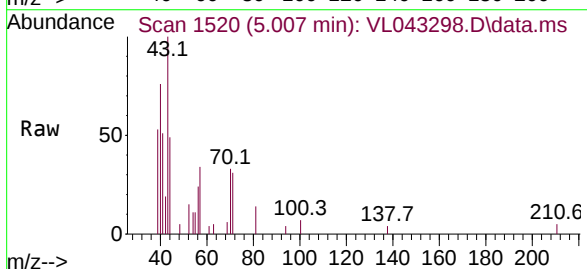
Manual Integrations
 APPROVED

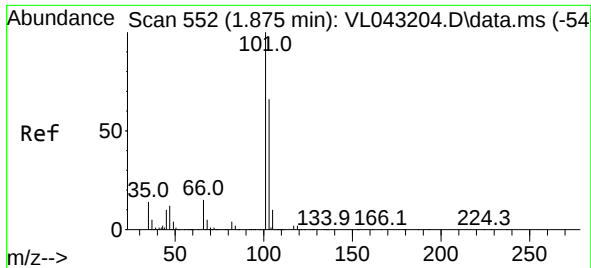
Reviewed By :Semsettin Yesilyurt 12/03/2025
 Supervised By :Mahesh Dadoda 12/03/2025



#10
 Heptane
 Concen: 0.106 ppbv m
 RT: 5.007 min Scan# 1520
 Delta R.T. 0.042 min
 Lab File: VL043298.D
 Acq: 02 Dec 2025 14:49

Tgt Ion: 43 Resp: 2368
 Ion Ratio Lower Upper
 43 100
 57 0.0 39.7 59.5





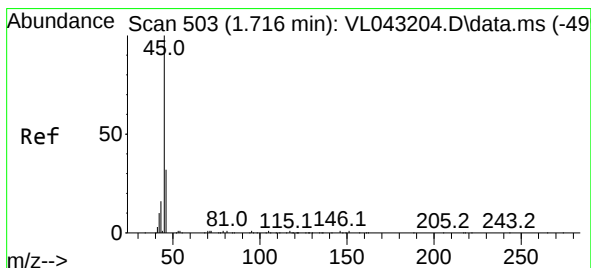
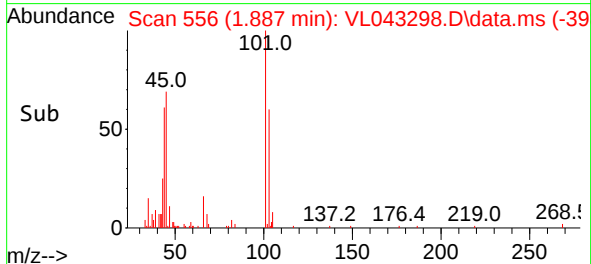
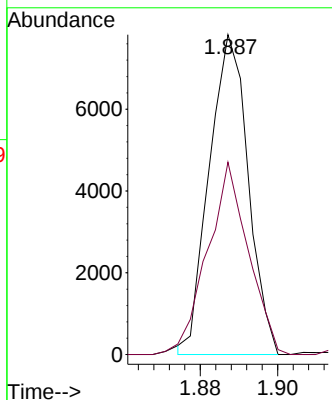
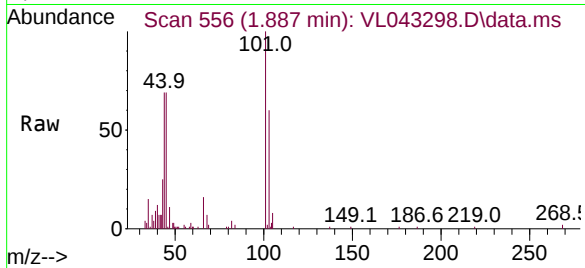
#11
Trichlorofluoromethane
Concen: 0.315 ppbv
RT: 1.887 min Scan# 51
Delta R.T. 0.013 min
Lab File: VL043298.D
Acq: 02 Dec 2025 14:49

Instrument :
MSVOA_L
ClientSampleId :
IA2

Tgt Ion:101 Resp: 5474
Ion Ratio Lower Upper
101 100
103 58.5 52.6 79.0

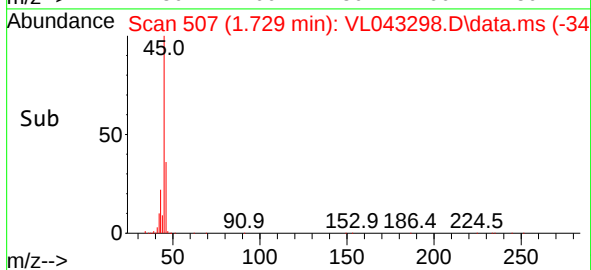
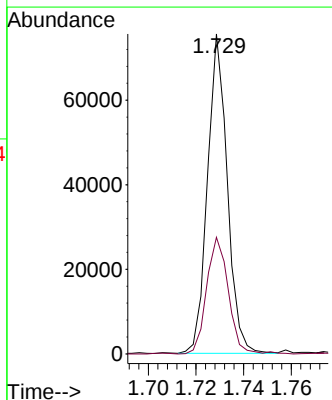
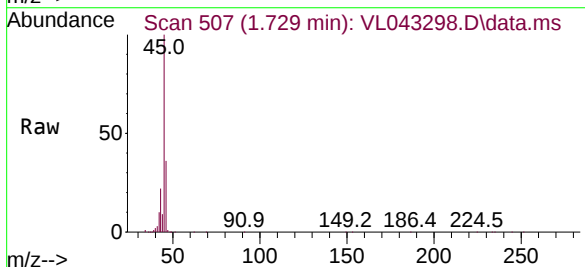
Manual Integrations
APPROVED

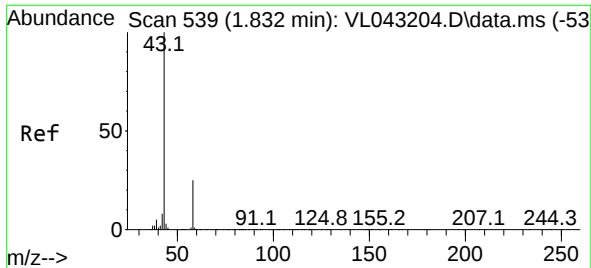
Reviewed By :Semsettin Yesilyurt 12/03/2025
Supervised By :Mahesh Dadoda 12/03/2025



#13
Ethanol
Concen: 16.529 ppbv
RT: 1.729 min Scan# 507
Delta R.T. 0.013 min
Lab File: VL043298.D
Acq: 02 Dec 2025 14:49

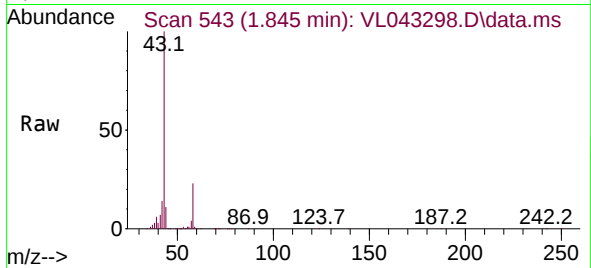
Tgt Ion: 45 Resp: 43530
Ion Ratio Lower Upper
45 100
46 40.5 15.0 59.8





#15
Acetone
Concen: 2.909 ppbv
RT: 1.845 min Scan# 541
Delta R.T. 0.013 min
Lab File: VL043298.D
Acq: 02 Dec 2025 14:49

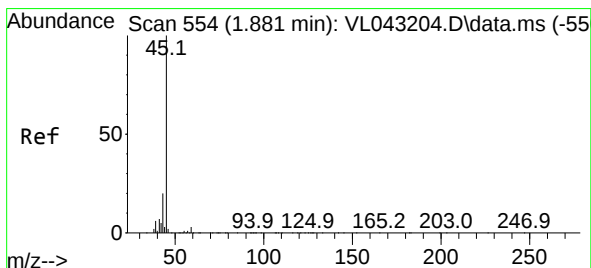
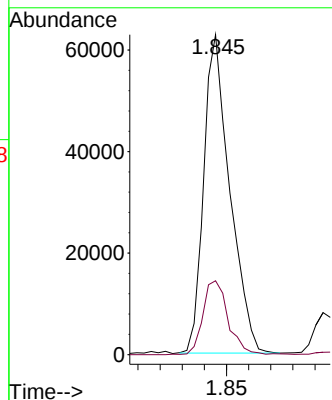
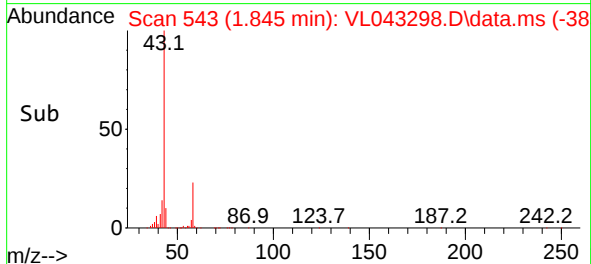
Instrument :
MSVOA_L
ClientSampleId :
IA2



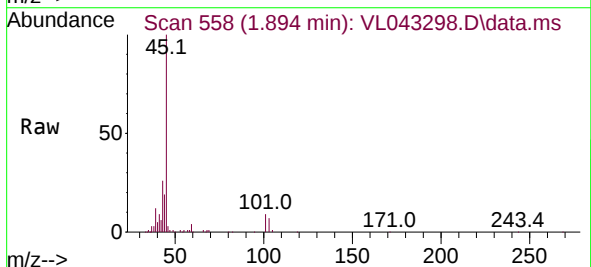
Tgt Ion: 43 Resp: 5138
Ion Ratio Lower Upper
43 100
58 22.5 20.7 31.1

Manual Integrations
APPROVED

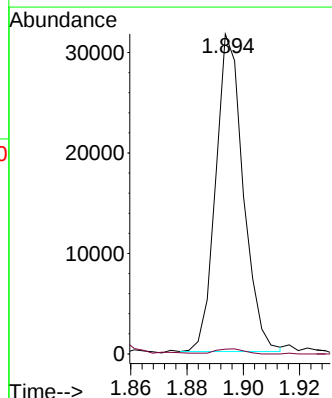
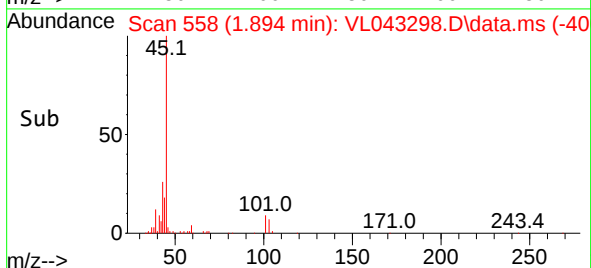
Reviewed By :Semsettin Yesilyurt 12/03/2025
Supervised By :Mahesh Dadoda 12/03/2025

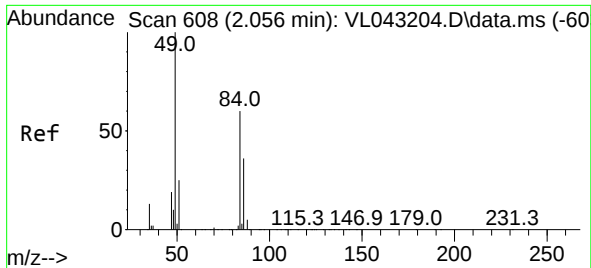


#19
Isopropyl Alcohol
Concen: 2.159 ppbv
RT: 1.894 min Scan# 558
Delta R.T. 0.013 min
Lab File: VL043298.D
Acq: 02 Dec 2025 14:49



Tgt Ion: 45 Resp: 21548
Ion Ratio Lower Upper
45 100
58 53.8 31.3 46.9#





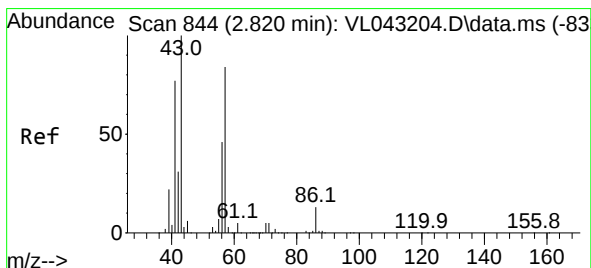
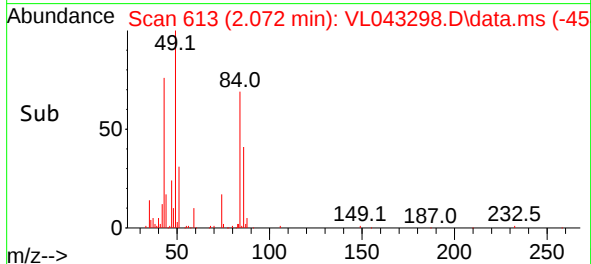
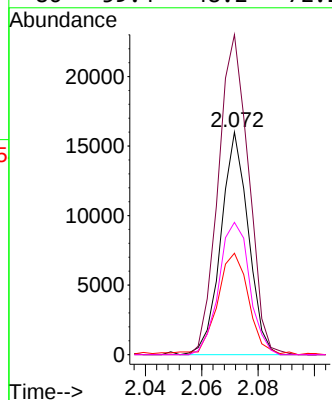
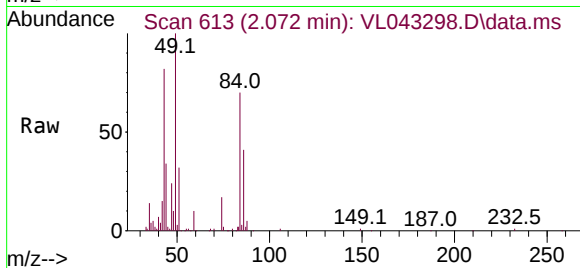
#20
Methylene Chloride
Concen: 1.402 ppbv
RT: 2.072 min Scan# 61
Delta R.T. 0.016 min
Lab File: VL043298.D
Acq: 02 Dec 2025 14:49

Instrument :
MSVOA_L
ClientSampleId :
IA2

Tgt Ion: 84	Resp: 10813
Ion Ratio	Lower Upper
84 100	
49 143.8	132.9 199.3
51 45.1	34.8 52.2
86 59.4	48.2 72.2

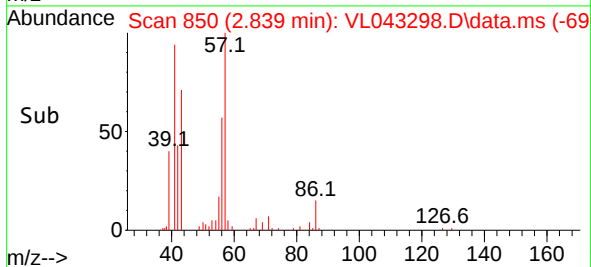
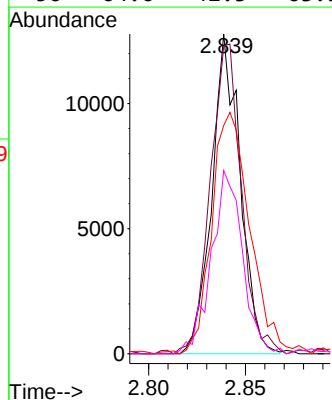
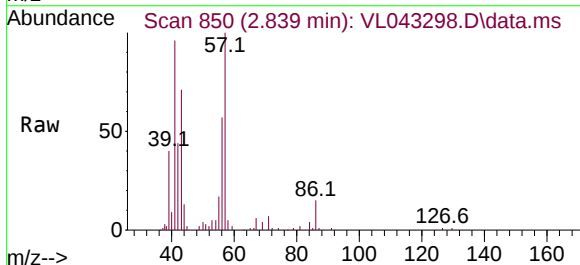
Manual Integrations
APPROVED

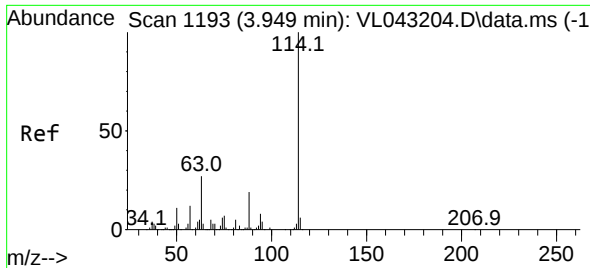
Reviewed By :Semsettin Yesilyurt 12/03/2025
Supervised By :Mahesh Dadoda 12/03/2025



#26
Hexane
Concen: 0.779 ppbv
RT: 2.839 min Scan# 850
Delta R.T. 0.019 min
Lab File: VL043298.D
Acq: 02 Dec 2025 14:49

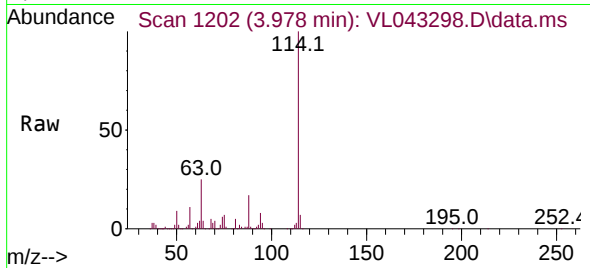
Tgt Ion: 57	Resp: 13007
Ion Ratio	Lower Upper
57 100	
41 107.0	74.6 111.8
43 105.4	179.0 268.4#
56 64.6	42.3 63.5#





#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 3.978 min Scan# 1193
Delta R.T. 0.029 min
Lab File: VL043298.D
Acq: 02 Dec 2025 14:49

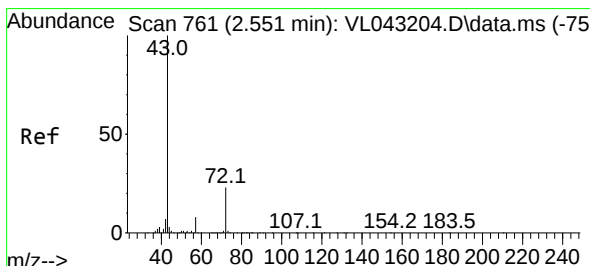
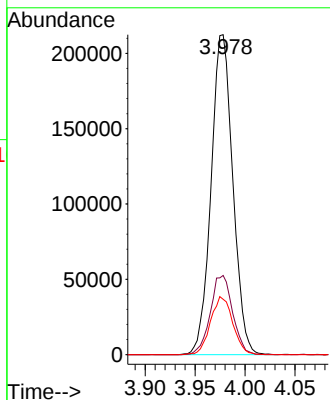
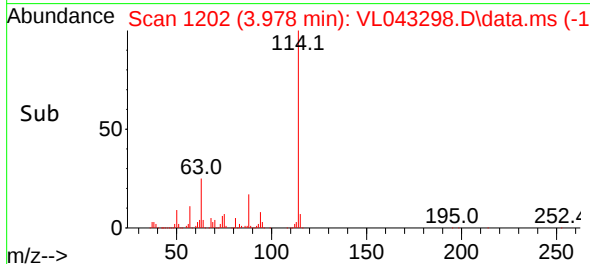
Instrument :
MSVOA_L
ClientSampleId :
IA2



Tgt Ion:114 Resp: 321760
Ion Ratio Lower Upper
114 100
63 25.4 21.0 31.6
88 18.5 14.9 22.3

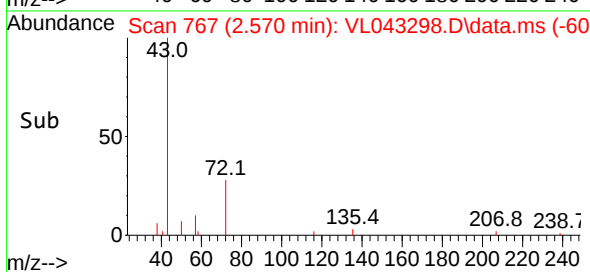
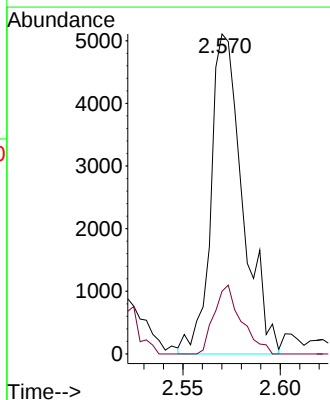
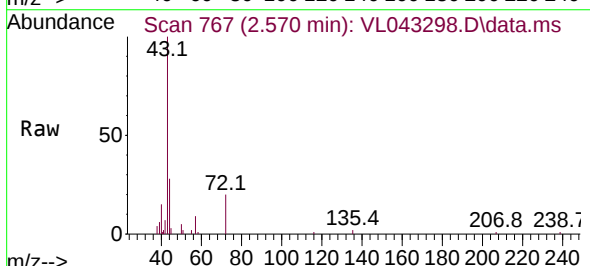
Manual Integrations
APPROVED

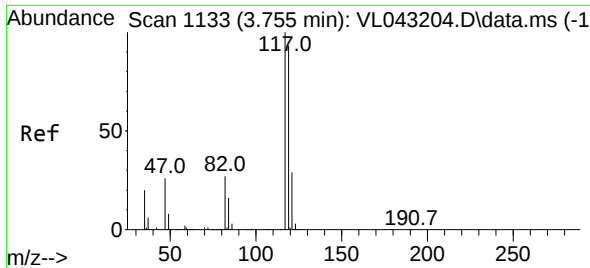
Reviewed By :Semsettin Yesilyurt 12/03/2025
Supervised By :Mahesh Dadoda 12/03/2025



#34
2-Butanone
Concen: 0.256 ppbv m
RT: 2.570 min Scan# 767
Delta R.T. 0.019 min
Lab File: VL043298.D
Acq: 02 Dec 2025 14:49

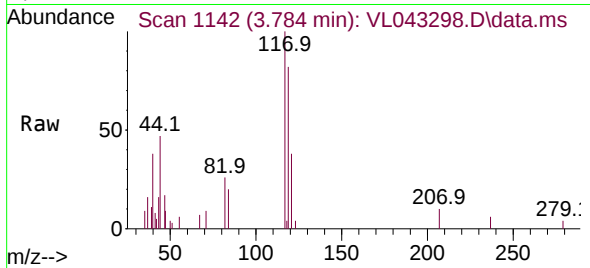
Tgt Ion: 43 Resp: 5805
Ion Ratio Lower Upper
43 100
72 18.4 18.1 27.1





#35
Carbon Tetrachloride
Concen: 0.083 ppbv m
RT: 3.784 min Scan# 1133
Delta R.T. 0.029 min
Lab File: VL043298.D
Acq: 02 Dec 2025 14:49

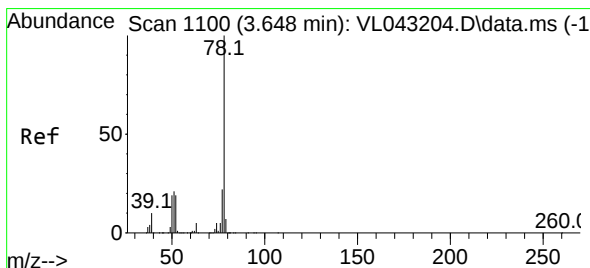
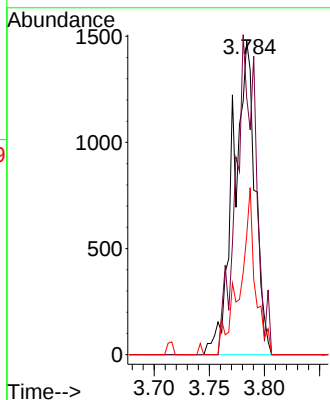
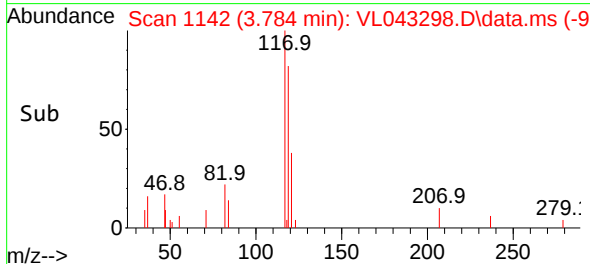
Instrument :
MSVOA_L
ClientSampleId :
IA2



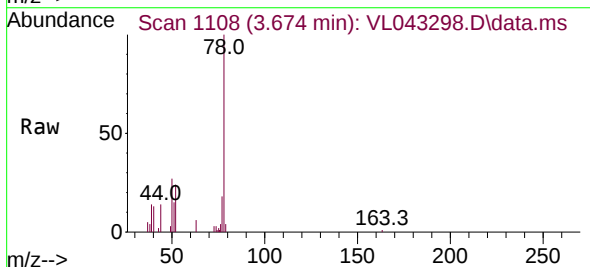
Tgt Ion: 117 Resp: 2022
Ion Ratio Lower Upper
117 100
119 82.1 74.6 112.0
121 37.9 23.2 34.8

Manual Integrations
APPROVED

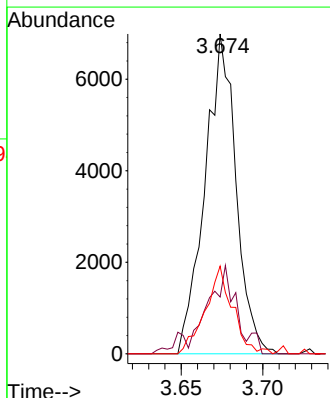
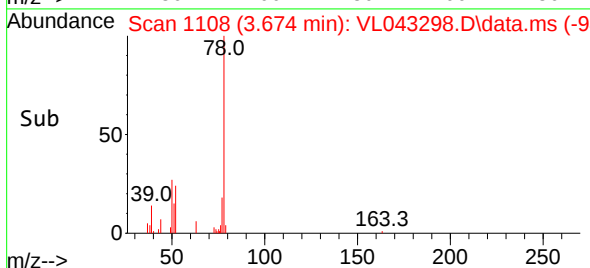
Reviewed By :Semsettin Yesilyurt 12/03/2025
Supervised By :Mahesh Dadoda 12/03/2025

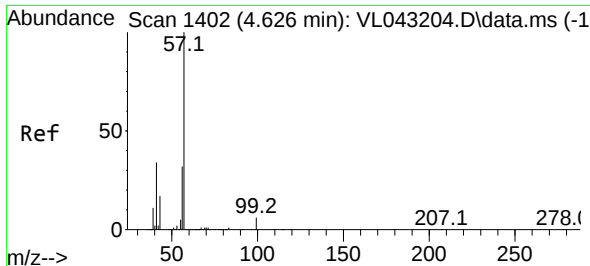


#36
Benzene
Concen: 0.301 ppbv
RT: 3.674 min Scan# 1108
Delta R.T. 0.026 min
Lab File: VL043298.D
Acq: 02 Dec 2025 14:49



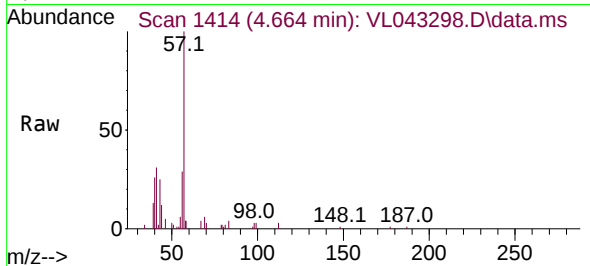
Tgt Ion: 78 Resp: 9284
Ion Ratio Lower Upper
78 100
77 17.8 17.5 26.3
50 27.4 15.5 23.3





#44
2,2,4-Trimethylpentane
Concen: 0.180 ppbv m
RT: 4.664 min Scan# 1402
Delta R.T. 0.039 min
Lab File: VL043298.D
Acq: 02 Dec 2025 14:49

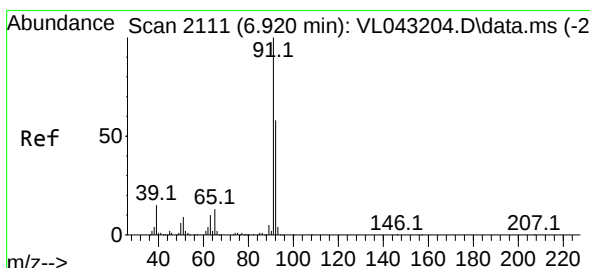
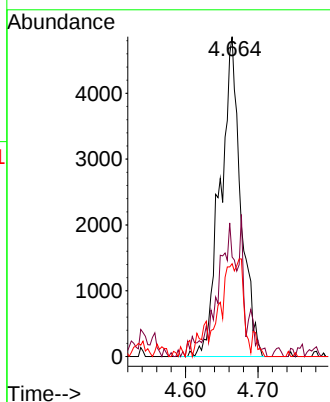
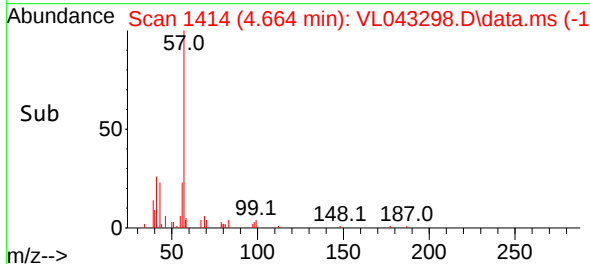
Instrument :
MSVOA_L
ClientSampleId :
IA2



Tgt Ion: 57 Resp: 955
Ion Ratio Lower Upper
57 100
41 51.6 28.0 42.0
56 42.4 25.6 38.4

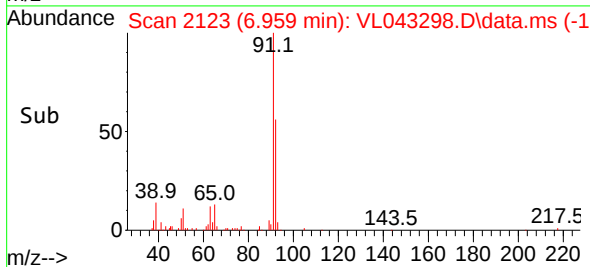
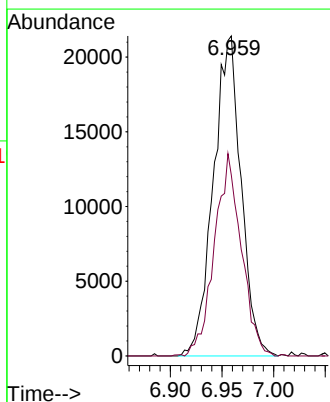
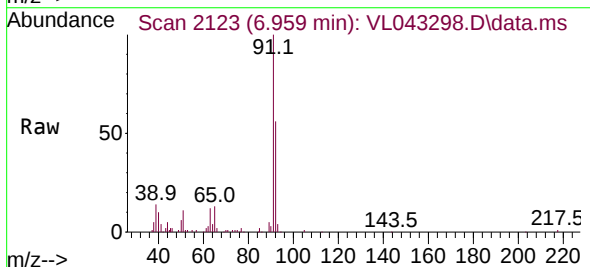
Manual Integrations
APPROVED

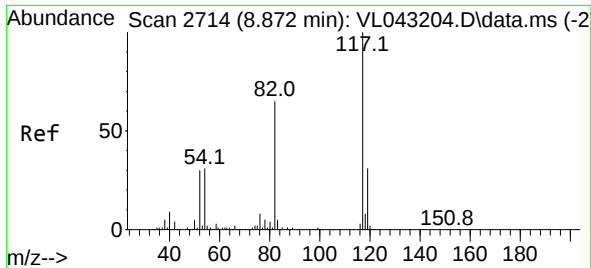
Reviewed By :Semsettin Yesilyurt 12/03/2025
Supervised By :Mahesh Dadoda 12/03/2025



#53
Toluene
Concen: 1.097 ppbv
RT: 6.959 min Scan# 2123
Delta R.T. 0.039 min
Lab File: VL043298.D
Acq: 02 Dec 2025 14:49

Tgt Ion: 91 Resp: 40037
Ion Ratio Lower Upper
91 100
92 61.1 47.4 71.0





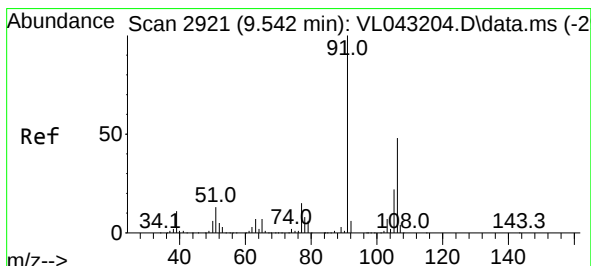
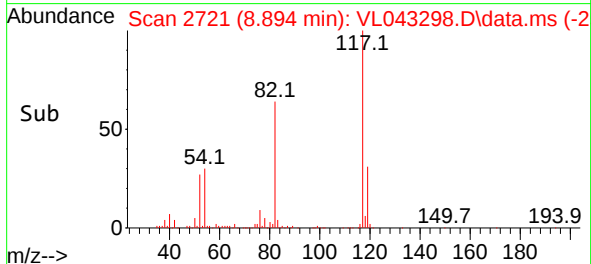
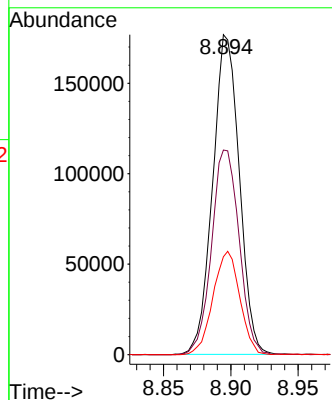
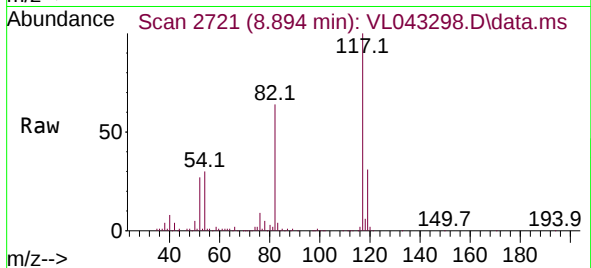
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.894 min Scan# 2714
Delta R.T. 0.022 min
Lab File: VL043298.D
Acq: 02 Dec 2025 14:49

Instrument :
MSVOA_L
ClientSampleId :
IA2

Tgt Ion: 117 Resp: 243149
Ion Ratio Lower Upper
117 100
82 66.3 56.1 84.1
119 32.6 25.0 37.6

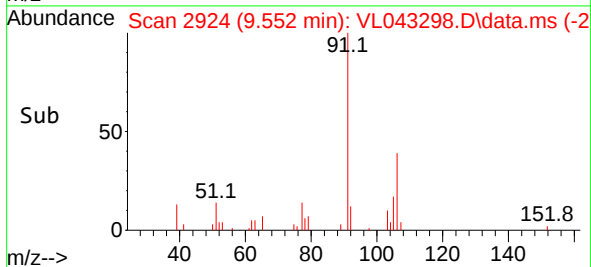
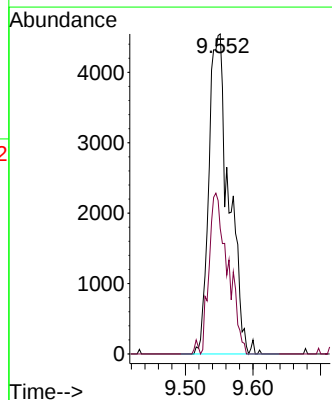
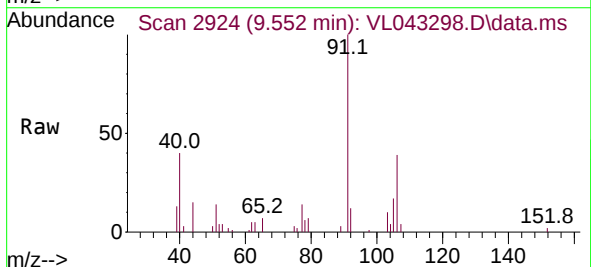
Manual Integrations
APPROVED

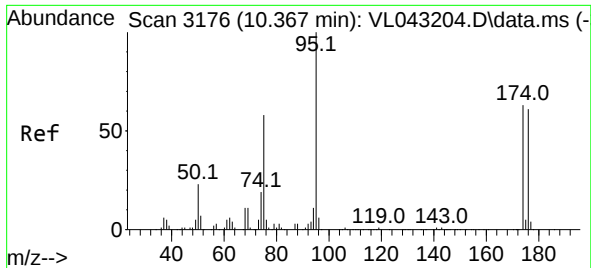
Reviewed By :Semsettin Yesilyurt 12/03/2025
Supervised By :Mahesh Dadoda 12/03/2025



#59
m/p-Xylene
Concen: 0.250 ppbv m
RT: 9.552 min Scan# 2924
Delta R.T. 0.009 min
Lab File: VL043298.D
Acq: 02 Dec 2025 14:49

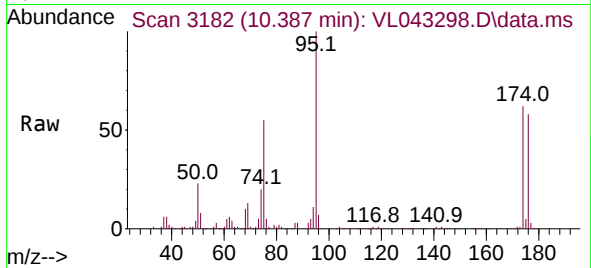
Tgt Ion: 91 Resp: 9374
Ion Ratio Lower Upper
91 100
106 0.0 36.1 54.1#





#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.817 ppbv
 RT: 10.387 min Scan# 3176
 Delta R.T. 0.019 min
 Lab File: VL043298.D
 Acq: 02 Dec 2025 14:49

Instrument : MSVOA_L
 ClientSampleId : 1A2

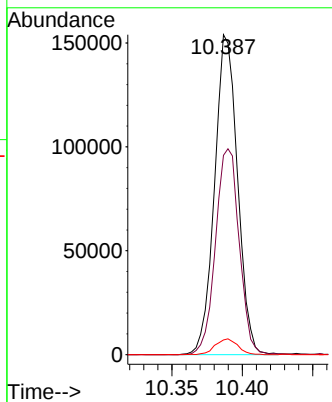
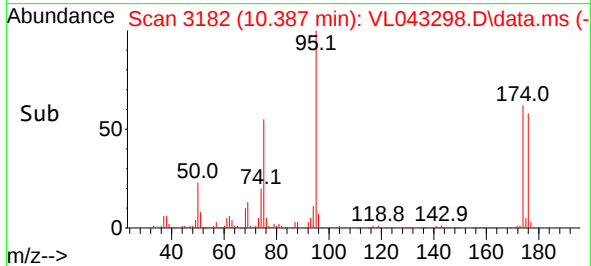


Tgt Ion: 95 Resp: 174969

Ion	Ratio	Lower	Upper
95	100		
174	66.3	50.2	75.2
175	4.9	4.1	6.1

Manual Integrations
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Reviewed By :Semsettin Yesilyurt 12/03/2025
 Supervised By :Mahesh Dadoda 12/03/2025



Report of Analysis

Client: GFE LLC
Project: All Projects
Client Sample ID: OA1
Lab Sample ID: Q3744-05
Analytical Method: TO-15
Sample Wt/Vol: 400 mL

Date Collected: 12/24/25
Date Received: 11/26/25
SDG No.: Q3744
Matrix: Air
Test: VOCMS Group2

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qua.	DF	MDL ug/m3	LOQ / CRQL ug/m3	Date Ana.	BatchID
TARGETS									
75-01-4	Vinyl Chloride	0.030	0.080	U	1	0.080	0.080	12/02/25 15:24	VL120225
142-82-5	Heptane	0.17	0.70	U	1	0.70	2.05	12/02/25 15:24	VL120225
75-34-3	1,1-Dichloroethane	0.13	0.53	U	1	0.53	2.02	12/02/25 15:24	VL120225
110-82-7	Cyclohexane	0.22	0.76	U	1	0.76	1.72	12/02/25 15:24	VL120225
156-59-2	cis-1,2-Dichloroethene	0.10	0.40	U	1	0.40	1.98	12/02/25 15:24	VL120225
71-55-6	1,1,1-Trichloroethane	0.020	0.11	U	1	0.11	0.16	12/02/25 15:24	VL120225
540-84-1	2,2,4-Trimethylpentane	0.14	0.65	U	1	0.65	2.34	12/02/25 15:24	VL120225
71-43-2	Benzene	0.19	0.61	J	1	0.26	1.60	12/02/25 15:24	VL120225
79-01-6	Trichloroethene	0.020	0.11	U	1	0.11	0.16	12/02/25 15:24	VL120225
108-88-3	Toluene	0.21	0.79	J	1	0.60	1.88	12/02/25 15:24	VL120225
127-18-4	Tetrachloroethene	0.020	0.14	U	1	0.14	0.20	12/02/25 15:24	VL120225
100-41-4	Ethyl Benzene	0.19	0.83	U	1	0.83	2.17	12/02/25 15:24	VL120225
179601-23-1	m/p-Xylene	0.41	1.78	U	1	1.78	4.34	12/02/25 15:24	VL120225
95-47-6	o-Xylene	0.21	0.91	U	1	0.91	2.17	12/02/25 15:24	VL120225
108-67-8	1,3,5-Trimethylbenzene	0.18	0.88	U	1	0.88	2.46	12/02/25 15:24	VL120225
95-63-6	1,2,4-Trimethylbenzene	0.18	0.88	U	1	0.88	2.46	12/02/25 15:24	VL120225
91-20-3	Naphthalene	0.010	0.050	U	1	0.050	0.52	12/02/25 15:24	VL120225
110-54-3	Hexane	0.22	0.78	J	1	0.56	1.76	12/02/25 15:24	VL120225

SURROGATES

460-00-4	1-Bromo-4-Fluorobenzene	9.30		65 - 135	93% SPK: 10
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INTERNAL STANDARDS

	Area Count	
74-97-5	Bromochloromethane	129000
540-36-3	1,4-Difluorobenzene	319000
3114-55-4	Chlorobenzene-d5	241000

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\VL120225\
 Data File : VL043299.D
 Acq On : 02 Dec 2025 15:24
 Operator : SY/MD
 Sample : Q3744-05
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 OA1

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 12/03/2025
 Supervised By :Mahesh Dadoda 12/03/2025

Quant Time: Dec 03 00:07:32 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M

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

QLast Update : Wed Nov 19 01:11:25 2025

Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	2.800	49	129385	10.000	ppbv	0.02
33) 1,4-Difluorobenzene	3.975	114	319493	10.000	ppbv	0.03
55) Chlorobenzene-d5	8.894	117	240844	10.000	ppbv	0.02
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.387	95	164486	9.317	ppbv	0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	93.200%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.505	85	8737	0.479	ppbv	92
3) Chlorodifluoromethane	1.483	51	4941m	0.275	ppbv	
4) Chloromethane	1.538	50	3568	0.523	ppbv	100
9) Propene	1.492	41	5856	0.768	ppbv #	1
11) Trichlorofluoromethane	1.887	101	4663m	0.264	ppbv	
13) Ethanol	1.729	45	17353	6.475	ppbv	91
15) Acetone	1.845	43	52693	2.931	ppbv	96
19) Isopropyl Alcohol	1.894	45	9219	0.908	ppbv #	1
20) Methylene Chloride	2.072	84	6113	0.401	ppbv	93
26) Hexane	2.842	57	3737m	0.220	ppbv	
34) 2-Butanone	2.567	43	3982	0.177	ppbv #	89
35) Carbon Tetrachloride	3.781	117	2023m	0.083	ppbv	
36) Benzene	3.671	78	5666	0.185	ppbv #	84
44) 2,2,4-Trimethylpentane	4.661	57	6449m	0.123	ppbv	
53) Toluene	6.952	91	7648m	0.211	ppbv	

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

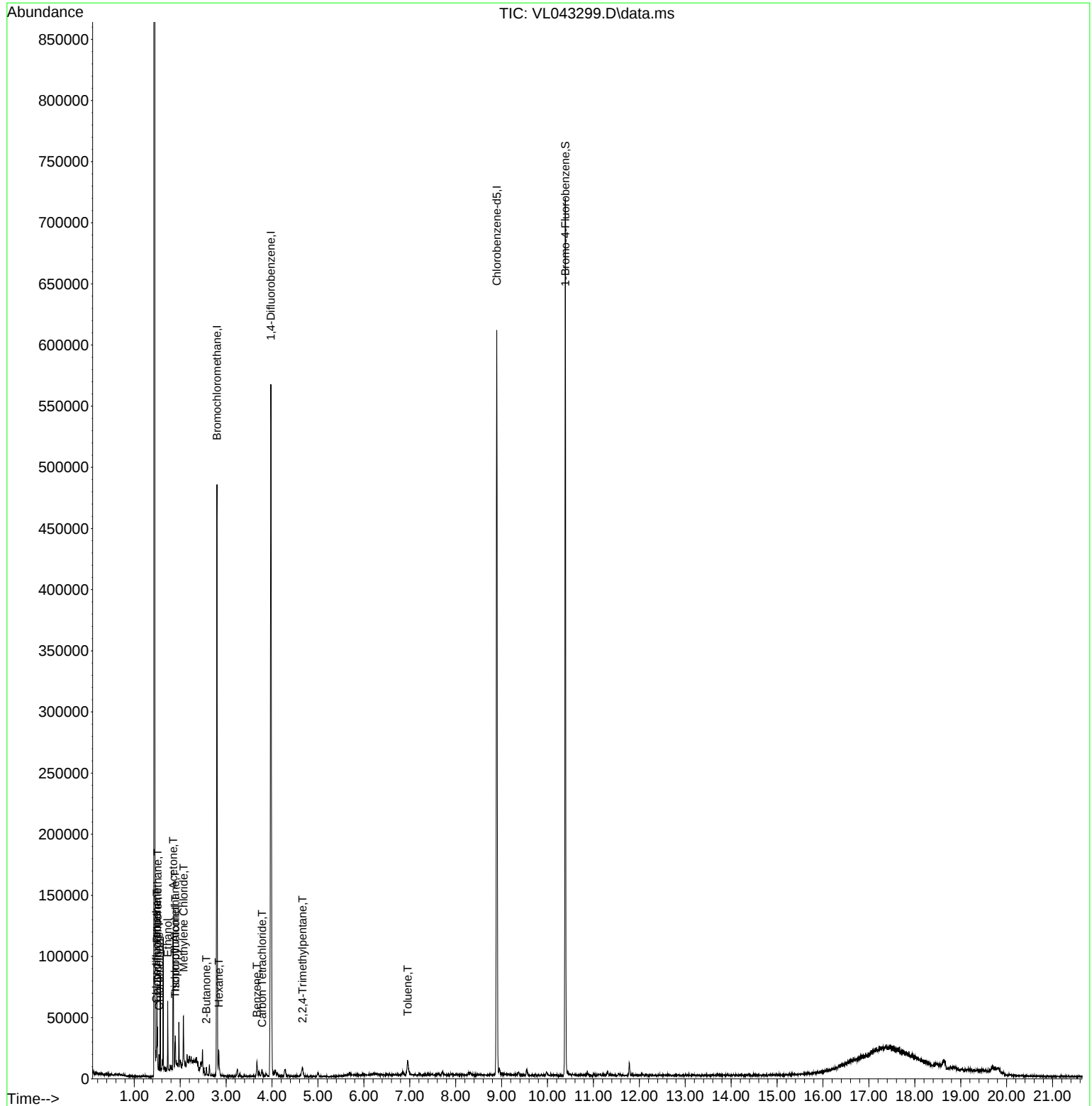
Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL120225\
Data File : VL043299.D
Acq On : 02 Dec 2025 15:24
Operator : SY/MD
Sample : Q3744-05
Misc : 400mL/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

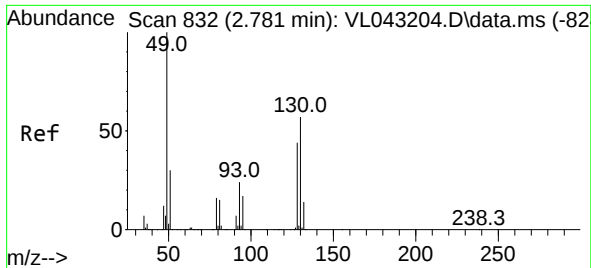
Instrument :
MSVOA_L
ClientSampleId :
OA1

Quant Time: Dec 03 00:07:32 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL11825AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug
QLast Update : Wed Nov 19 01:11:25 2025
Response via : Initial Calibration

Manual Integrations
APPROVED

Reviewed By :Semsettin Yesilyurt 12/03/2025
Supervised By :Mahesh Dadoda 12/03/2025





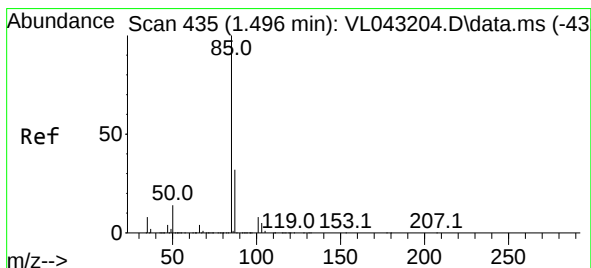
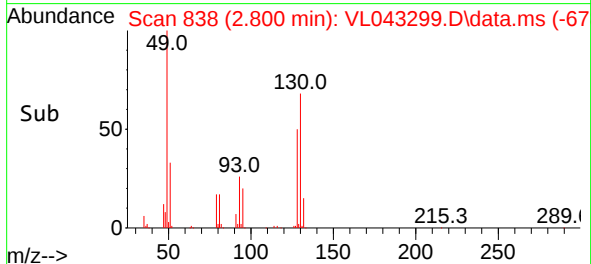
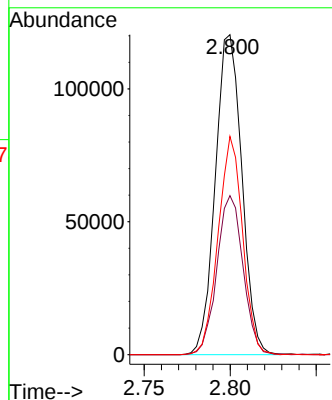
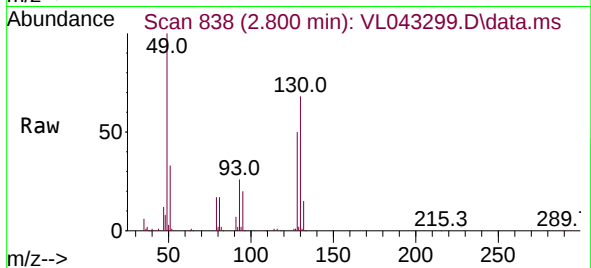
#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.800 min Scan# 832
Delta R.T. 0.019 min
Lab File: VL043299.D
Acq: 02 Dec 2025 15:24

Instrument :
MSVOA_L
ClientSampleId :
OA1

Tgt Ion: 49 Resp: 129385
Ion Ratio Lower Upper
49 100
128 48.9 23.0 69.0
130 62.8 29.9 89.7

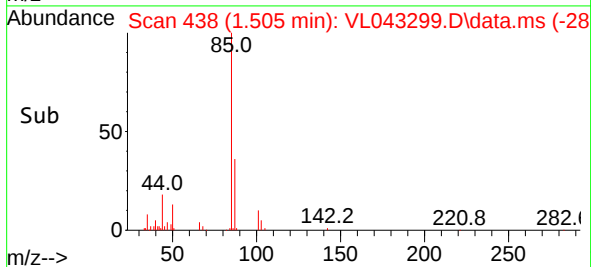
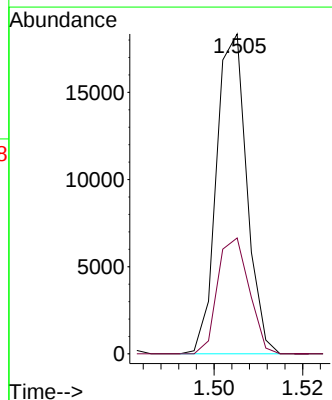
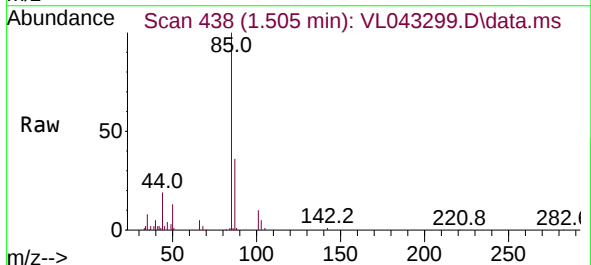
Manual Integrations
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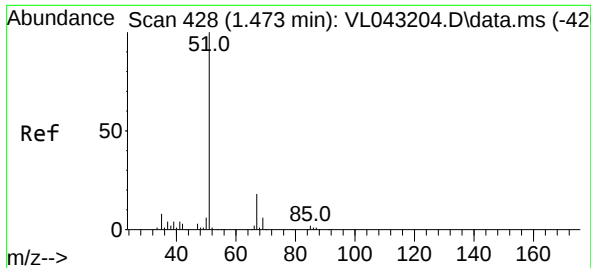
Reviewed By :Semsettin Yesilyurt 12/03/2025
Supervised By :Mahesh Dadoda 12/03/2025



#2
Dichlorodifluoromethane
Concen: 0.479 ppbv
RT: 1.505 min Scan# 438
Delta R.T. 0.009 min
Lab File: VL043299.D
Acq: 02 Dec 2025 15:24

Tgt Ion: 85 Resp: 8737
Ion Ratio Lower Upper
85 100
87 36.2 25.4 38.2





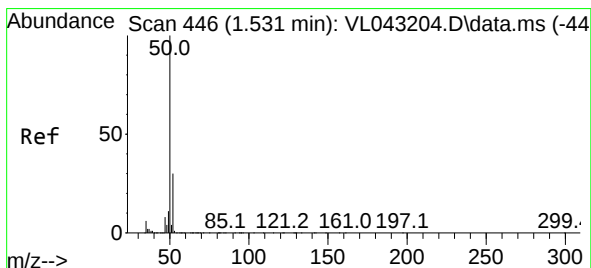
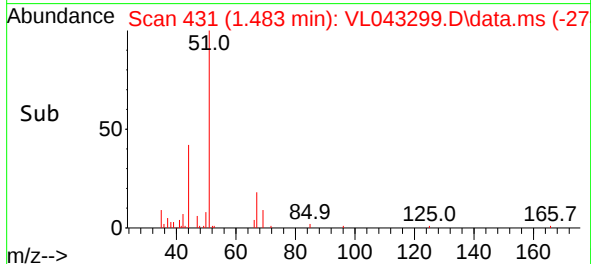
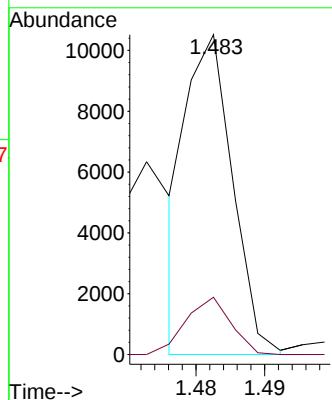
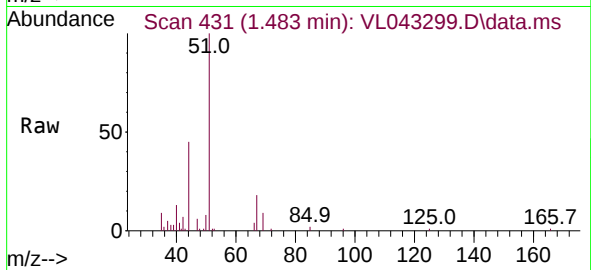
#3
Chlorodifluoromethane
Concen: 0.275 ppbv m
RT: 1.483 min Scan# 431
Delta R.T. 0.009 min
Lab File: VL043299.D
Acq: 02 Dec 2025 15:24

Instrument :
MSVOA_L
ClientSampleId :
OA1

Tgt Ion: 51 Resp: 494
Ion Ratio Lower Upper
51 100
67 1.2 14.9 22.3

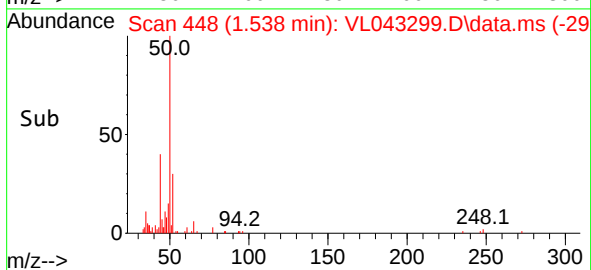
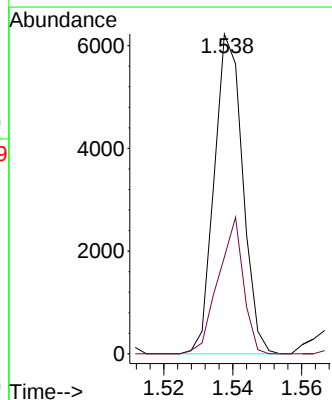
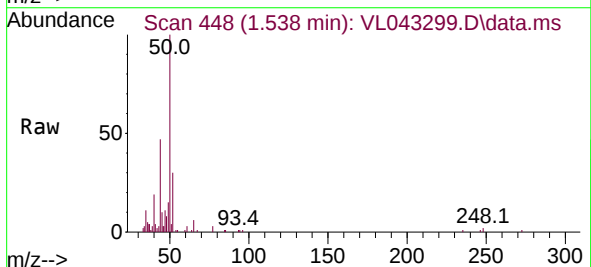
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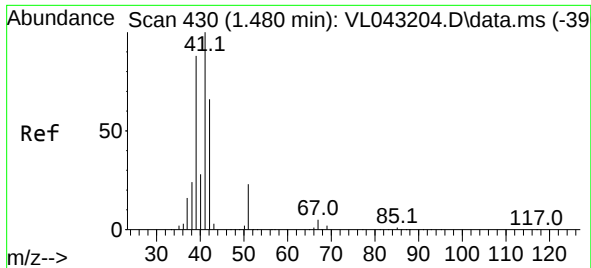
Reviewed By :Semsettin Yesilyurt 12/03/2025
Supervised By :Mahesh Dadoda 12/03/2025



#4
Chloromethane
Concen: 0.523 ppbv
RT: 1.538 min Scan# 448
Delta R.T. 0.006 min
Lab File: VL043299.D
Acq: 02 Dec 2025 15:24

Tgt Ion: 50 Resp: 3568
Ion Ratio Lower Upper
50 100
52 30.2 24.1 36.1





#9

Propene

Concen: 0.768 ppbv

RT: 1.492 min Scan# 430

Delta R.T. 0.013 min

Lab File: VL043299.D

Acq: 02 Dec 2025 15:24

Instrument :

MSVOA_L

ClientSampleId :

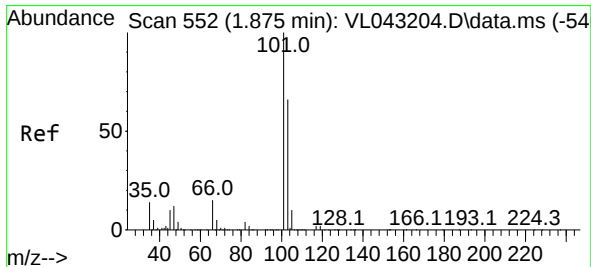
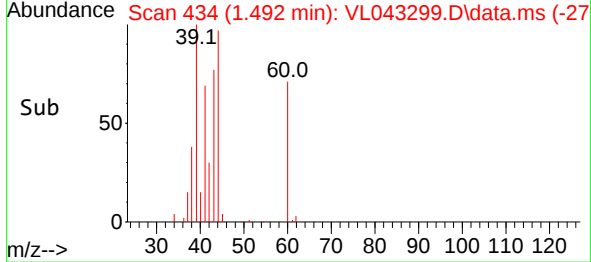
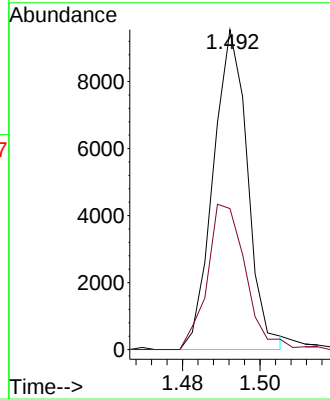
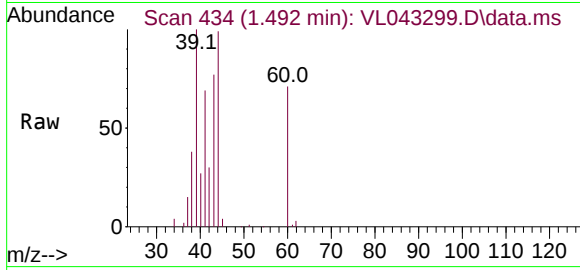
OA1

Tgt Ion: 41 Resp: 5856
 Ion Ratio Lower Upper
 41 100
 42 51.0 3.7 5.5

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 12/03/2025
 Supervised By :Mahesh Dadoda 12/03/2025



#11

Trichlorofluoromethane

Concen: 0.264 ppbv m

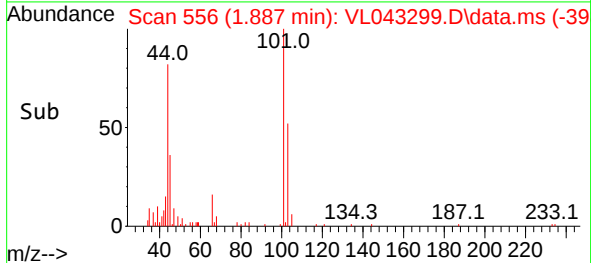
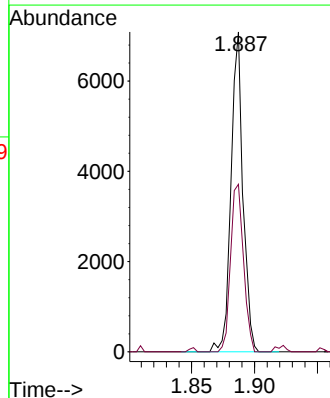
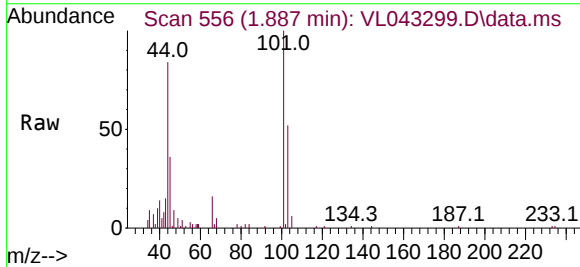
RT: 1.887 min Scan# 556

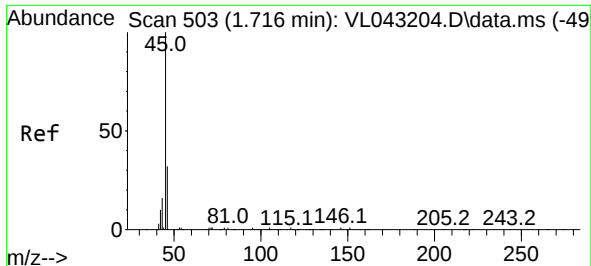
Delta R.T. 0.013 min

Lab File: VL043299.D

Acq: 02 Dec 2025 15:24

Tgt Ion:101 Resp: 4663
 Ion Ratio Lower Upper
 101 100
 103 52.4 52.6 79.0#





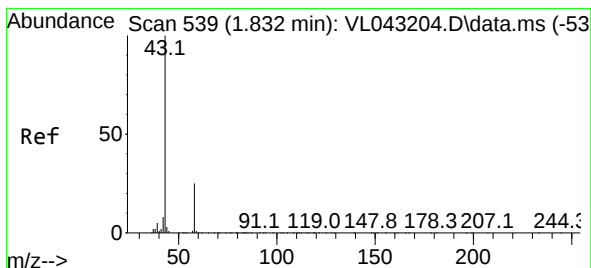
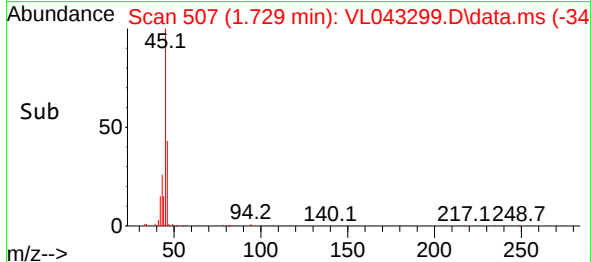
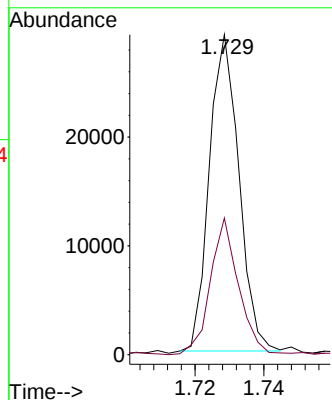
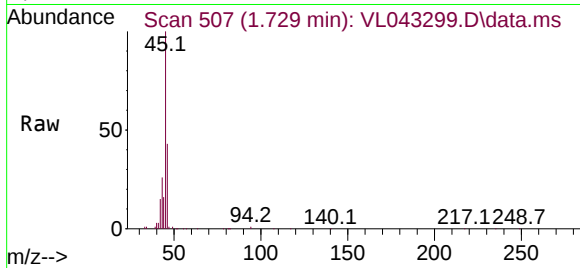
#13
Ethanol
Concen: 6.475 ppbv
RT: 1.729 min Scan# 503
Delta R.T. 0.013 min
Lab File: VL043299.D
Acq: 02 Dec 2025 15:24

Instrument :
MSVOA_L
ClientSampleId :
OA1

Tgt Ion: 45 Resp: 17353
Ion Ratio Lower Upper
45 100
46 42.8 15.0 59.8

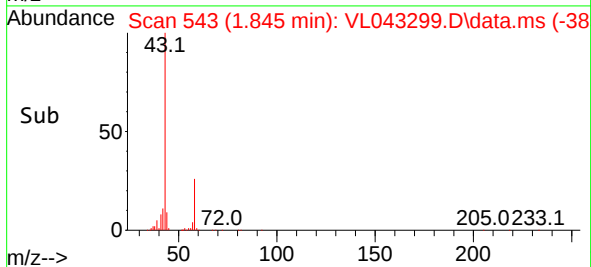
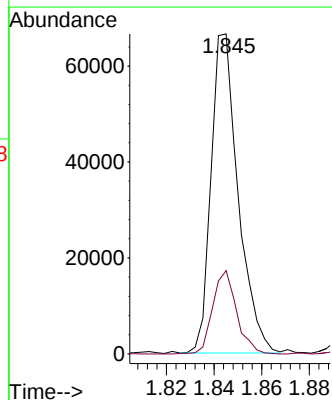
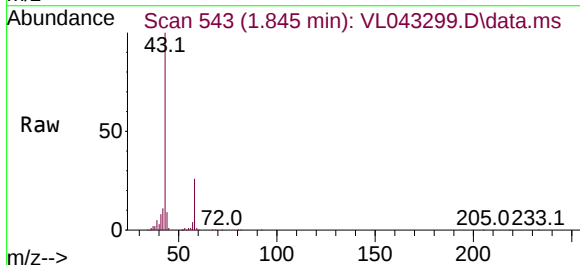
Manual Integrations
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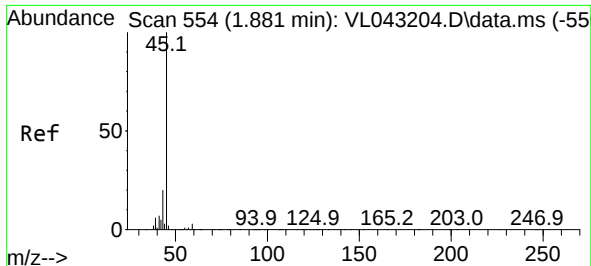
Reviewed By :Semsettin Yesilyurt 12/03/2025
Supervised By :Mahesh Dadoda 12/03/2025



#15
Acetone
Concen: 2.931 ppbv
RT: 1.845 min Scan# 543
Delta R.T. 0.013 min
Lab File: VL043299.D
Acq: 02 Dec 2025 15:24

Tgt Ion: 43 Resp: 52693
Ion Ratio Lower Upper
43 100
58 23.7 20.7 31.1





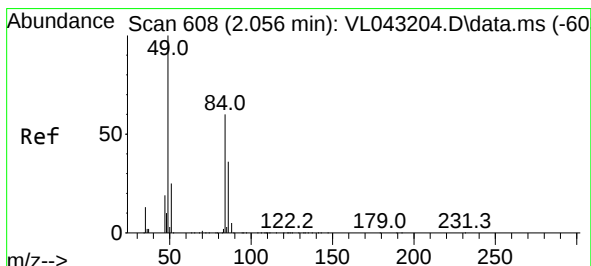
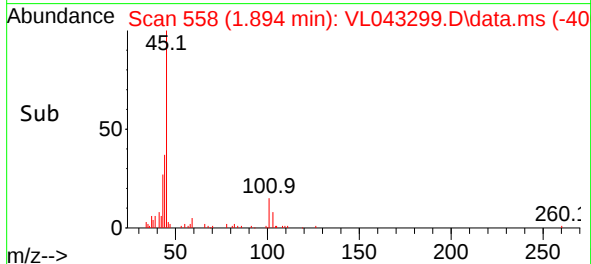
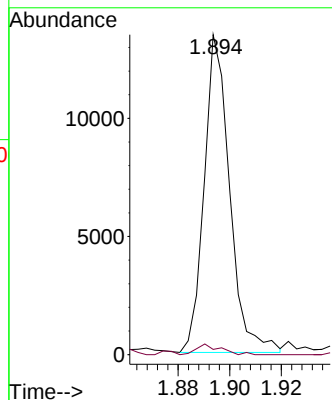
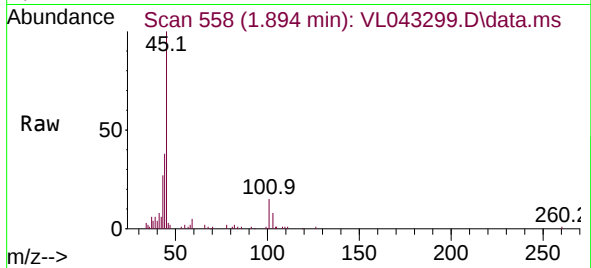
#19
Isopropyl Alcohol
Concen: 0.908 ppbv
RT: 1.894 min Scan# 511
Delta R.T. 0.013 min
Lab File: VL043299.D
Acq: 02 Dec 2025 15:24

Instrument :
MSVOA_L
ClientSampleId :
OA1

Tgt Ion: 45 Resp: 9219
Ion Ratio Lower Upper
45 100
58 131.8 31.3 46.9

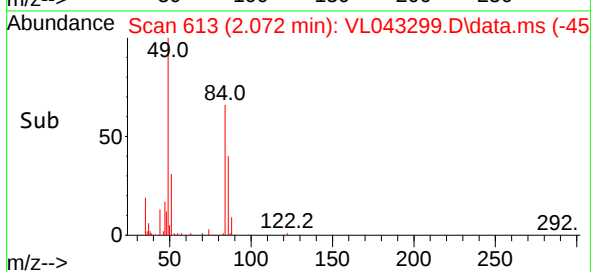
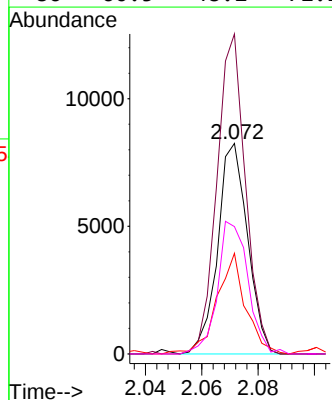
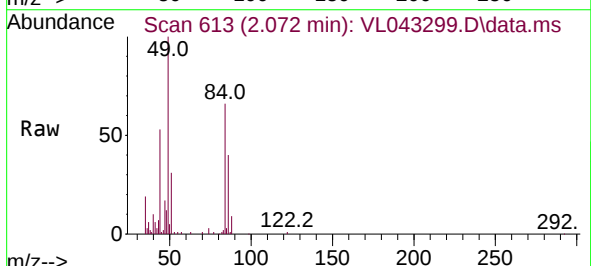
Manual Integrations
APPROVED

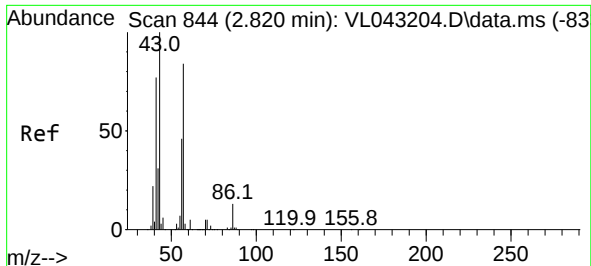
Reviewed By :Semsettin Yesilyurt 12/03/2025
Supervised By :Mahesh Dadoda 12/03/2025



#20
Methylene Chloride
Concen: 0.401 ppbv
RT: 2.072 min Scan# 613
Delta R.T. 0.016 min
Lab File: VL043299.D
Acq: 02 Dec 2025 15:24

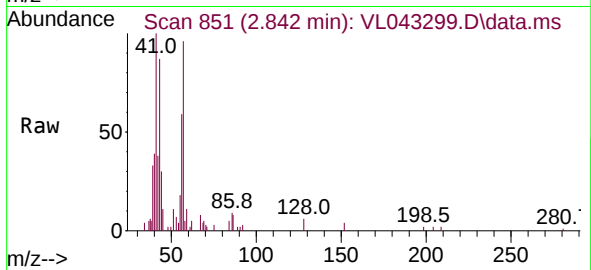
Tgt Ion: 84 Resp: 6113
Ion Ratio Lower Upper
84 100
49 152.1 132.9 199.3
51 47.0 34.8 52.2
86 60.5 48.2 72.2





#26
Hexane
Concen: 0.220 ppbv m
RT: 2.842 min Scan# 844
Delta R.T. 0.022 min
Lab File: VL043299.D
Acq: 02 Dec 2025 15:24

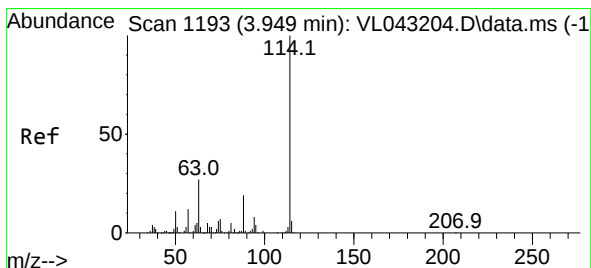
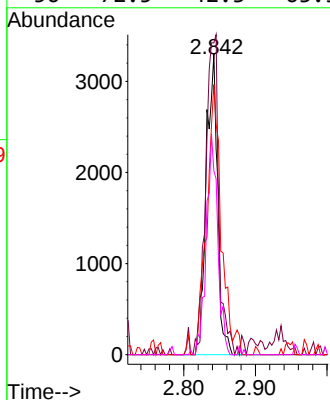
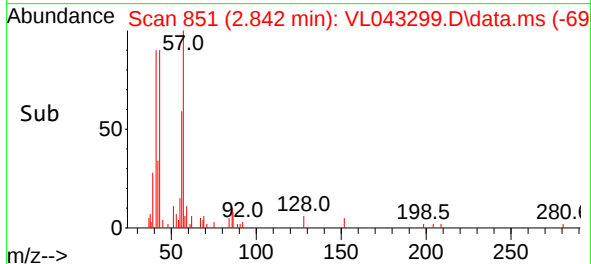
Instrument :
MSVOA_L
ClientSampleId :
OA1



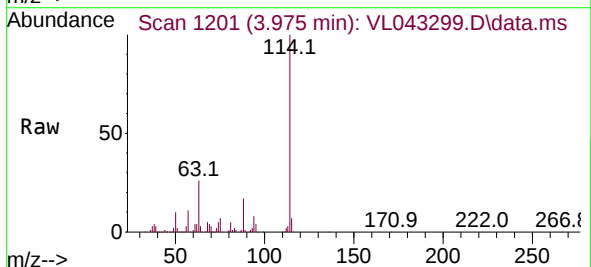
Tgt Ion: 57 Resp: 373
Ion Ratio Lower Upper
57 100
41 117.1 74.6 111.8
43 113.8 179.0 268.4
56 72.5 42.3 63.5

Manual Integrations
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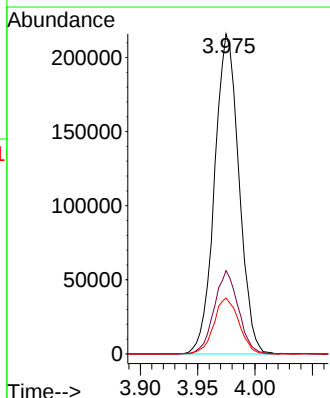
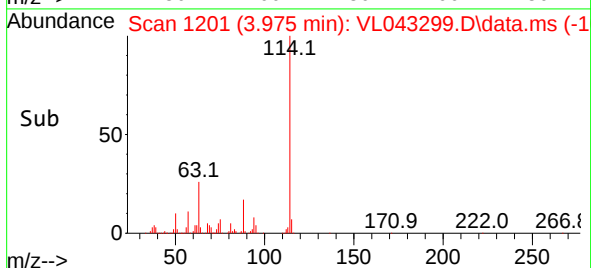
Reviewed By :Semsettin Yesilyurt 12/03/2025
Supervised By :Mahesh Dadoda 12/03/2025

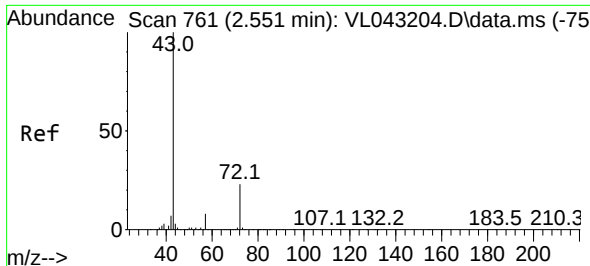


#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 3.975 min Scan# 1201
Delta R.T. 0.026 min
Lab File: VL043299.D
Acq: 02 Dec 2025 15:24



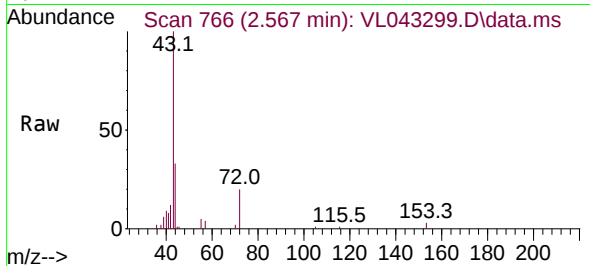
Tgt Ion:114 Resp: 319493
Ion Ratio Lower Upper
114 100
63 25.8 21.0 31.6
88 17.9 14.9 22.3





#34
2-Butanone
Concen: 0.177 ppbv
RT: 2.567 min Scan# 761
Delta R.T. 0.016 min
Lab File: VL043299.D
Acq: 02 Dec 2025 15:24

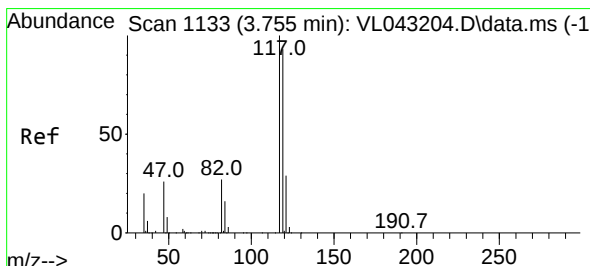
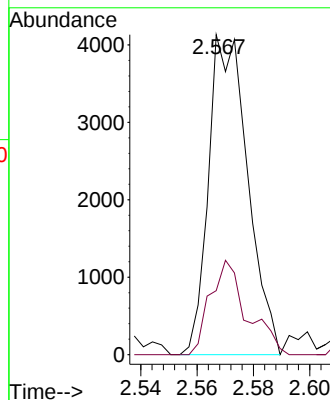
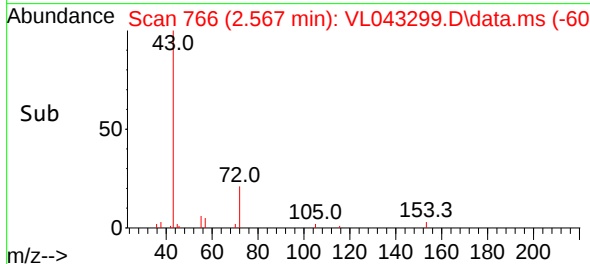
Instrument :
MSVOA_L
ClientSampleId :
OA1



Tgt Ion: 43 Resp: 3982
Ion Ratio Lower Upper
43 100
72 27.7 18.1 27.1

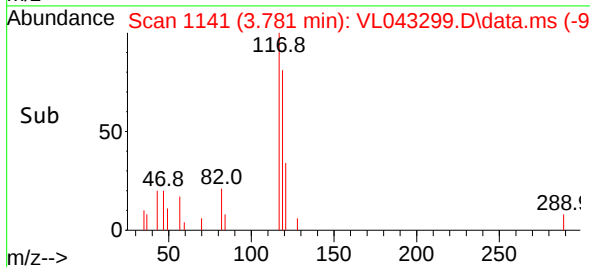
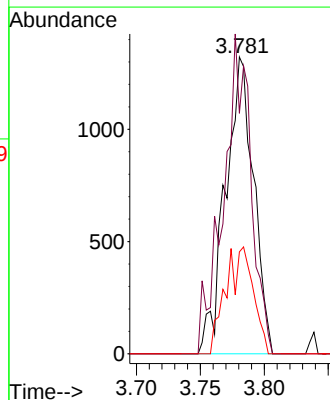
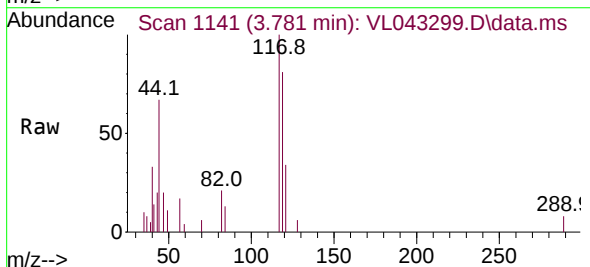
Manual Integrations
APPROVED

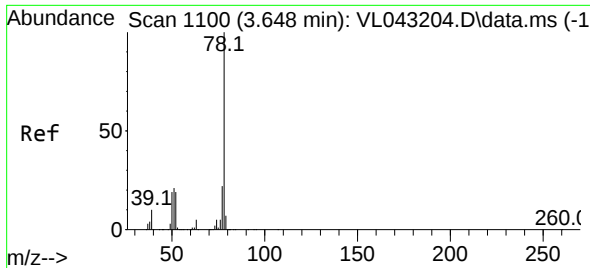
Reviewed By :Semsettin Yesilyurt 12/03/2025
Supervised By :Mahesh Dadoda 12/03/2025



#35
Carbon Tetrachloride
Concen: 0.083 ppbv m
RT: 3.781 min Scan# 1141
Delta R.T. 0.026 min
Lab File: VL043299.D
Acq: 02 Dec 2025 15:24

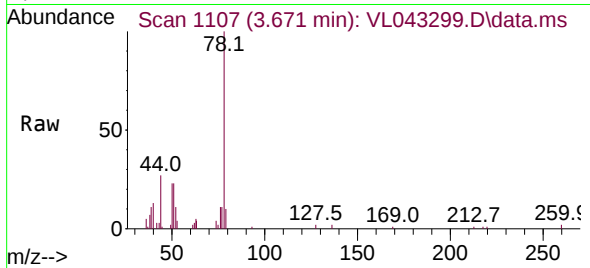
Tgt Ion:117 Resp: 2023
Ion Ratio Lower Upper
117 100
119 81.0 74.6 112.0
121 34.3 23.2 34.8





#36
Benzene
Concen: 0.185 ppbv
RT: 3.671 min Scan# 1100
Delta R.T. 0.022 min
Lab File: VL043299.D
Acq: 02 Dec 2025 15:24

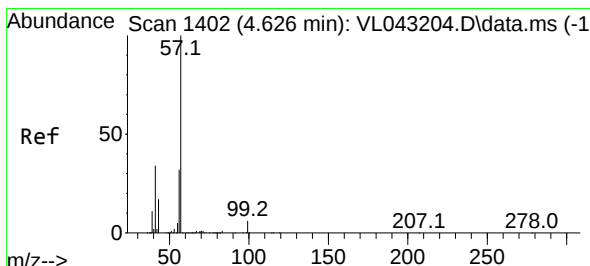
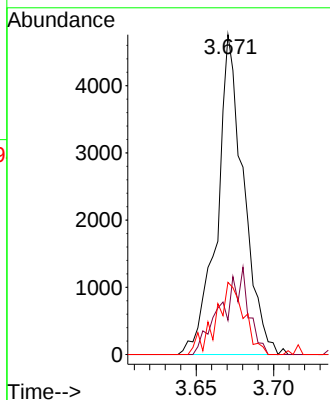
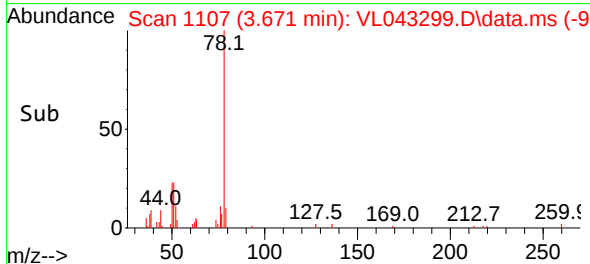
Instrument :
MSVOA_L
ClientSampleId :
OA1



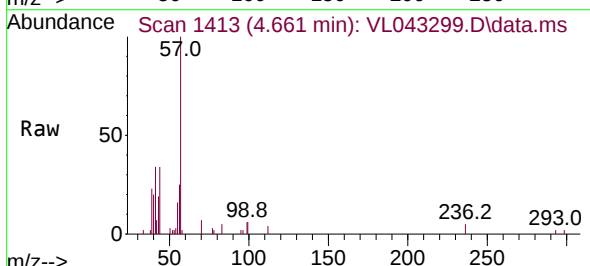
Tgt Ion: 78 Resp: 5660
Ion Ratio Lower Upper
78 100
77 10.7 17.5 26.3
50 22.6 15.5 23.3

Manual Integrations
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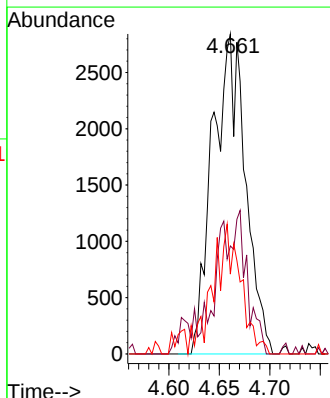
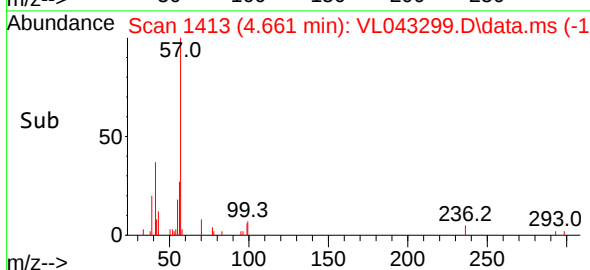
Reviewed By :Semsettin Yesilyurt 12/03/2025
Supervised By :Mahesh Dadoda 12/03/2025

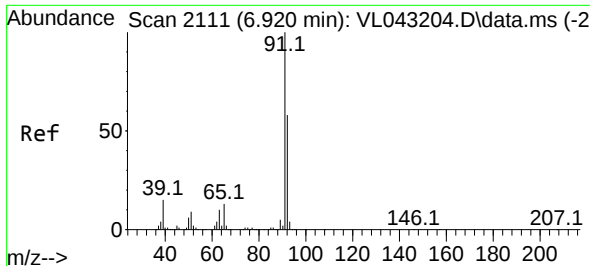


#44
2,2,4-Trimethylpentane
Concen: 0.123 ppbv m
RT: 4.661 min Scan# 1413
Delta R.T. 0.035 min
Lab File: VL043299.D
Acq: 02 Dec 2025 15:24



Tgt Ion: 57 Resp: 6449
Ion Ratio Lower Upper
57 100
41 0.0 28.0 42.0
56 37.2 25.6 38.4





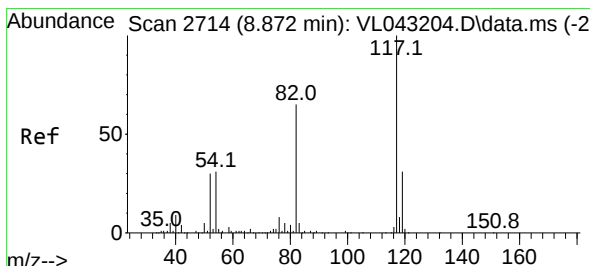
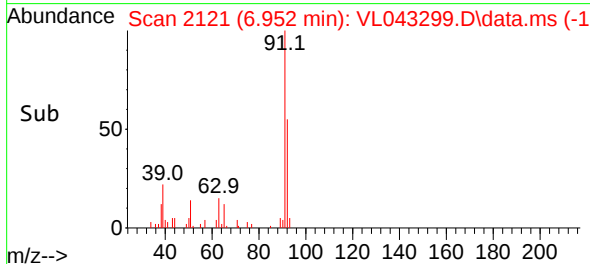
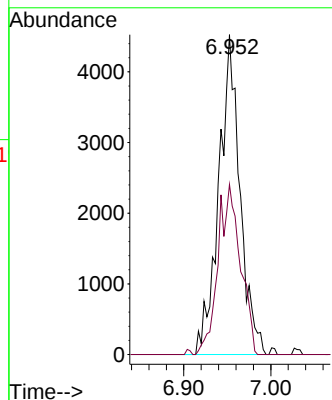
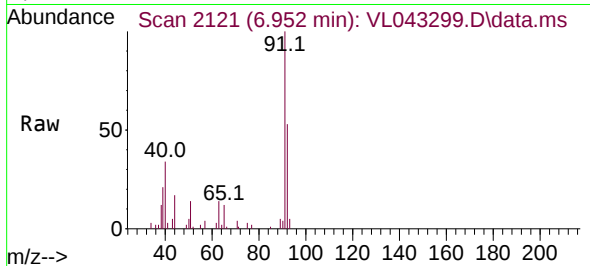
#53
Toluene
Concen: 0.211 ppbv m
RT: 6.952 min Scan# 2111
Delta R.T. 0.032 min
Lab File: VL043299.D
Acq: 02 Dec 2025 15:24

Instrument :
MSVOA_L
ClientSampleId :
OA1

Tgt Ion: 91 Resp: 7648
Ion Ratio Lower Upper
91 100
92 56.6 47.4 71.0

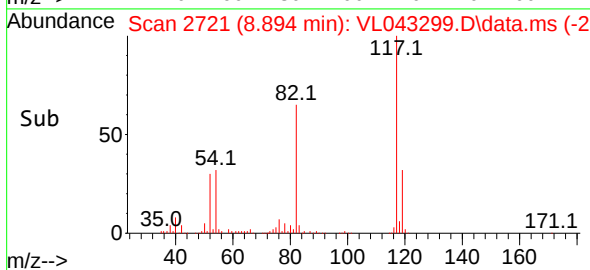
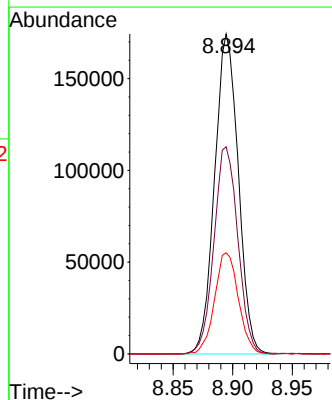
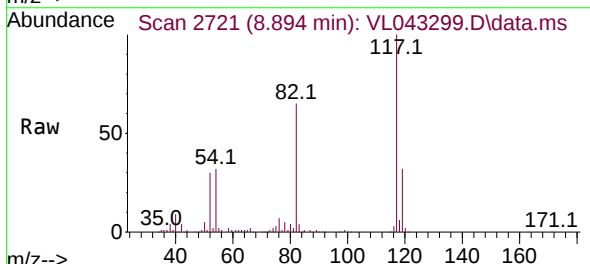
Manual Integrations
APPROVED

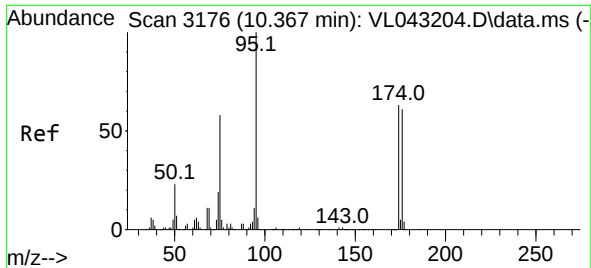
Reviewed By :Semsettin Yesilyurt 12/03/2025
Supervised By :Mahesh Dadoda 12/03/2025



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.894 min Scan# 2721
Delta R.T. 0.022 min
Lab File: VL043299.D
Acq: 02 Dec 2025 15:24

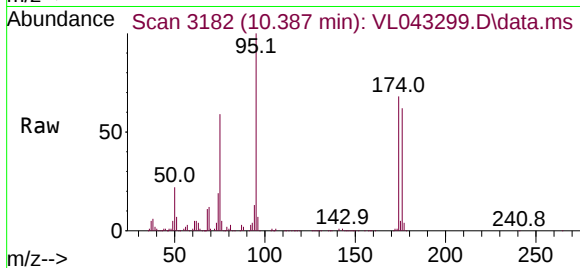
Tgt Ion:117 Resp: 240844
Ion Ratio Lower Upper
117 100
82 65.6 56.1 84.1
119 32.0 25.0 37.6





#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.317 ppbv
 RT: 10.387 min Scan# 31
 Delta R.T. 0.019 min
 Lab File: VL043299.D
 Acq: 02 Dec 2025 15:24

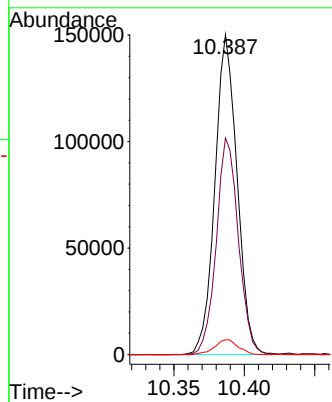
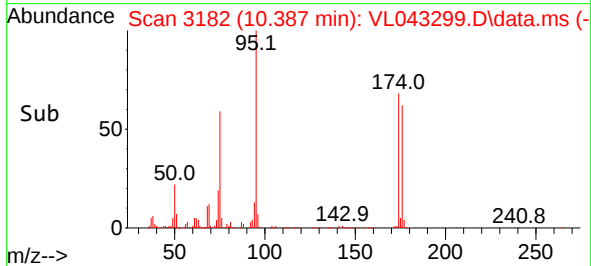
Instrument :
 MSVOA_L
 ClientSampleId :
 OA1



Tgt Ion: 95 Resp: 164486
 Ion Ratio Lower Upper
 95 100
 174 67.9 50.2 75.2
 175 5.0 4.1 6.1

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 12/03/2025
 Supervised By :Mahesh Dadoda 12/03/2025





CALIBRATION SUMMARY

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name:	<u>Alliance</u>	Contract:	<u>GFEL01</u>
Lab Code:	<u>ACE</u>	SDG No.:	<u>Q3744</u>
Instrument ID:	<u>MSVOA_L</u>	Calibration Date(s):	<u>11/18/2025</u> <u>11/18/2025</u>
Heated Purge: (Y/N)	<u>N</u>	Calibration Time(s):	<u>09:29</u> <u>13:24</u>
GC Column:	<u>RTX-1</u>	ID:	<u>0.32</u> (mm)

LAB FILE ID:		RRF0.5 = VL043203.D		RRF010 = VL043204.D		RRF002 = VL043205.D		
		RRF001 = VL043206.D		RRF0.1 = VL043208.D		RRF.03 = VL043209.D		
COMPOUND	RRF0.5	RRF010	RRF002	RRF001	RRF0.1	RRF.03	RRF	% RSD
Vinyl Chloride	0.533	0.486	0.575	0.580	0.655	0.724	0.577	15.3
Heptane	2.106	1.604	1.728	1.804			1.753	12.9
1,1-Dichloroethane	1.050	1.018	1.194	1.173			1.096	7.4
Cyclohexane	1.135	1.024	1.130	1.194			1.101	6.8
cis-1,2-Dichloroethene	1.399	1.240	1.322	1.351			1.306	5.8
1,1,1-Trichloroethane	1.971	1.884	2.033	2.018	2.046	2.116	1.990	4.5
2,2,4-Trimethylpentane	1.746	1.555	1.621	1.765			1.645	6.5
Benzene	0.996	0.905	0.986	1.001			0.958	5.3
Trichloroethene	0.390	0.353	0.371	0.388	0.475	0.293	0.375	14.6
Toluene	1.198	1.075	1.146	1.182			1.134	5.3
Tetrachloroethene	0.344	0.329	0.349	0.362	0.424	0.363	0.356	9.4
Ethyl Benzene	1.927	1.821	2.008	2.038			1.925	5.2
m/p-Xylene	1.618	1.434	1.607	1.611			1.543	6.1
o-Xylene	1.584	1.419	1.659	1.625			1.542	7.4
1,3,5-Trimethylbenzene	1.623	1.456	1.662	1.682			1.575	7.1
1,2,4-Trimethylbenzene	1.796	1.548	1.871	1.844			1.719	9.5
Naphthalene	1.483	1.496	1.860	1.599	1.230		1.527	13.4
1-Bromo-4-Fluorobenzene	0.729	0.735	0.741	0.733	0.725	0.712	0.733	1.9
Hexane	1.374	1.235	1.375	1.424			1.314	8.4

* 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 : VL111825AIR.M

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

Last Update : Wed Nov 19 01:11:25 2025

Response Via : Initial Calibration

Calibration Files

0.03=VL043209.D 0.1 =VL043208.D 0.5 =VL043203.D 1 =VL043206.D 2 =VL043205.D 10 =VL043204.D 15 =VL043210.D

Compound	0.03	0.1	0.5	1	2	10	15	Avg	%RSD

1) I Bromochloromethane	-----ISTD-----								
2) T Dichlorodifluo...			1.398	1.505	1.476	1.340	1.334	1.410	5.53
3) Chlorodifluoro...			1.545	1.404	1.437	1.317	1.231	1.387	8.60
4) Chloromethane			0.521	0.559	0.568	0.498	0.489	0.527	6.72
5) T Vinyl Chloride	0.724	0.655	0.533	0.580	0.575	0.486	0.483	0.577	15.33
6) T Bromomethane			0.300	0.302	0.286	0.253	0.258	0.280	8.30
7) Chloroethane			0.246	0.248	0.236	0.194	0.199	0.225	11.59
8) T Dichlorotetra...			1.156	1.241	1.262	1.091	1.116	1.173	6.43
9) T Propene			0.677	0.598	0.621	0.501	0.548	0.589	11.44
10) T Heptane			2.106	1.804	1.728	1.604	1.522	1.753	12.87
11) T Trichlorofluor...			1.238	1.515	1.487	1.240	1.352	1.367	9.62
12) T 1,1,2-Trichlor...			1.061	1.142	1.115	0.987	1.029	1.067	5.92
13) Ethanol			0.215	0.231	0.252	0.166	0.172	0.207	17.99
14) T Bromoethene			0.448	0.423	0.436	0.362	0.376	0.409	9.29
15) T Acetone			1.721	1.591	1.519	1.032	1.085	1.389	22.41
16) T 1,3-Butadiene			0.745	0.629	0.626	0.551	0.546	0.619	13.01
17) tert-Butyl alc...			1.784	2.014	1.880	1.705	1.735	1.824	6.87
18) T 1,1-Dichloroet...			0.555	0.530	0.515	0.441	0.443	0.497	10.52
19) T Isopropyl Alcohol			0.848	0.861	0.823	0.684	0.709	0.785	10.51
20) T Methylene Chlo...			0.906	0.710	0.585	0.398	0.403	0.600	35.87
21) T Allyl Chloride			1.139	0.895	0.936	0.849	0.855	0.935	12.75
22) T trans-1,2-Dich...			0.605	0.614	0.599	0.499	0.521	0.568	9.39
23) T Vinyl Acetate			1.885	1.632	1.682	1.622	1.565	1.677	7.36
24) T 1,1-Dichloroet...			1.050	1.173	1.194	1.018	1.044	1.096	7.42
25) T Ethyl Acetate			3.371	3.123	3.074	2.759	2.655	2.996	9.68
26) T Hexane			1.374	1.424	1.375	1.235	1.161	1.314	8.44
27) T Carbon Disulfide			1.303	1.424	1.432	1.257	1.291	1.341	6.03
28) T Methyl tert-Bu...			0.642	0.704	0.674	0.591	0.614	0.645	7.02
29) T Chloroform			1.955	1.898	1.928	1.785	1.770	1.867	4.52
30) T Cyclohexane			1.135	1.194	1.130	1.024	1.024	1.101	6.80
31) T cis-1,2-Dichlo...			1.399	1.351	1.322	1.240	1.217	1.306	5.83
32) T 1,1,1-Trichlor...	2.116	2.046	1.970	2.018	2.033	1.884	1.865	1.990	4.52

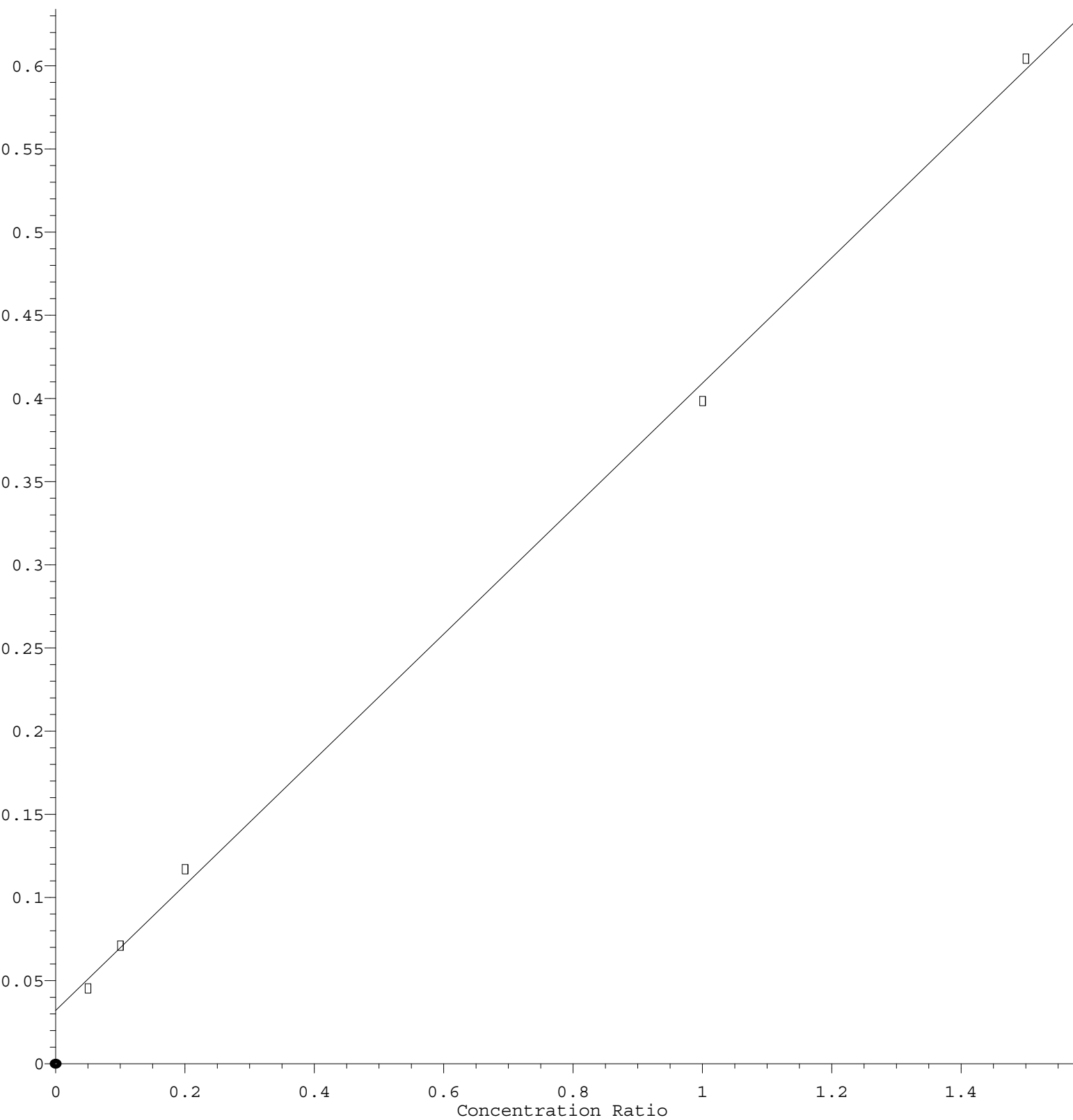
33) I 1,4-Difluorobenzene	-----ISTD-----								
34) T 2-Butanone			0.744	0.751	0.736	0.644	0.655	0.706	7.38
35) T Carbon Tetrach...	0.832	0.765	0.779	0.771	0.737	0.708	0.721	0.759	5.51
36) T Benzene			0.996	1.001	0.986	0.905	0.900	0.958	5.28
37) T 1,2-Dichloroet...			0.572	0.580	0.565	0.531	0.553	0.560	3.39
38) T Trichloroethene	0.293	0.475	0.390	0.388	0.371	0.353	0.353	0.375	14.65
39) T 1,2-Dichloropr...			0.372	0.364	0.350	0.335	0.332	0.351	4.97

Method Path : Z:\voasrv\HPCHEM1\MSVOA_L\methods\											
Method File : VL111825AIR.M											
40)	T	1,4-Dioxane			0.180	0.166	0.155	0.142	0.144	0.158	10.04
41)	T	Tetrahydrofuran			0.418	0.401	0.402	0.367	0.360	0.390	6.32
42)	T	Bromodichlorom...			0.782	0.795	0.783	0.745	0.758	0.773	2.63
43)		Methyl Methacr...			0.576	0.532	0.511	0.462	0.462	0.508	9.55
44)	T	2,2,4-Trimethy...			1.746	1.765	1.621	1.555	1.537	1.645	6.47
45)	T	t-1,3-Dichloro...			0.495	0.472	0.489	0.455	0.458	0.474	3.79
46)	T	cis-1,3-Dichlo...			0.599	0.557	0.562	0.534	0.529	0.556	5.00
47)	T	1,1,2-Trichlor...			0.424	0.372	0.378	0.344	0.342	0.372	8.91
48)	T	Dibromochlorom...			0.629	0.666	0.663	0.618	0.621	0.640	3.63
49)	T	Bromoform			0.583	0.569	0.581	0.555	0.545	0.566	2.86
50)	T	4-Methyl-2-Pen...			1.025	1.061	1.027	0.946	0.914	0.994	6.19
51)	T	2-Hexanone			0.782	0.805	0.816	0.734	0.724	0.772	5.37
52)	T	Tetrachloroethene	0.363	0.424	0.344	0.362	0.349	0.329	0.323	0.356	9.37
53)	T	Toluene			1.198	1.182	1.146	1.075	1.069	1.134	5.26
54)	T	1,2-Dibromoethane		0.528	0.587	0.569	0.549	0.525	0.526	0.547	4.79
-----ISTD-----											
55)	I	Chlorobenzene-d5									
56)		1,1,1,2-Tetrac...			0.791	0.769	0.761	0.677	0.677	0.735	7.34
57)	T	Chlorobenzene			1.035	1.088	1.089	0.969	0.953	1.027	6.24
58)	T	Ethyl Benzene			1.927	2.038	2.008	1.821	1.830	1.925	5.16
59)	T	m/p-Xylene			1.618	1.611	1.607	1.434	1.446	1.543	6.12
60)	T	o-Xylene			1.584	1.625	1.659	1.419	1.421	1.542	7.42
61)	T	Styrene			0.669	0.690	0.719	0.648	0.647	0.675	4.54
62)		Isopropylbenzene			2.807	2.946	2.945	2.556	2.536	2.758	7.31
63)	T	1,1,2,2-Tetrac...	0.999	1.034	1.016	1.012	1.028	0.891	0.884	0.981	6.58
64)		n-propylbenzene			0.722	0.758	0.757	0.657	0.649	0.709	7.47
65)		tert-Butylbenzene			2.583	2.687	2.646	2.224	2.176	2.463	9.90
66)	T	Benzyl Chloride			0.275	0.251	0.257	0.241	0.225	0.250	7.36
67)		sec-Butylbenzene			3.588	3.728	3.697	3.108	3.070	3.438	9.40
68)	S	1-Bromo-4-Fluo...	0.712	0.725	0.729	0.733	0.741	0.735	0.757	0.733	1.90
69)		p-Isopropyltol...			2.994	3.070	3.197	2.660	2.641	2.912	8.58
70)		n-Butylbenzene			2.676	3.041	3.125	2.639	2.647	2.825	8.39
71)		2-Chlorotoluene			2.198	2.257	2.210	1.960	1.975	2.120	6.65
72)	T	4-Ethyltoluene			1.934	1.948	2.009	1.749	1.747	1.877	6.46
73)	T	1,3,5-Trimethy...			1.623	1.682	1.662	1.456	1.454	1.575	7.09
74)	T	1,2,4-Trimethy...			1.796	1.844	1.871	1.548	1.537	1.719	9.51
75)	T	1,3-Dichlorobe...			1.043	1.053	1.061	0.937	0.922	1.003	6.78
76)	T	1,4-Dichlorobe...			1.056	1.033	1.060	0.940	0.930	1.003	6.34
77)	T	1,2-Dichlorobe...			0.974	1.064	1.050	0.872	0.863	0.965	9.83
78)	T	Hexachloro-1,3...			0.854	0.899	0.920	0.686	0.666	0.805	14.94
79)	T	Naphthalene		1.230	1.483	1.599	1.860	1.496	1.493	1.527	13.35
80)	T	Naphthalene,2-...			0.397	0.323	0.448	0.397	0.439	0.401	12.30
81)	T	1,2,4-Trichlor...			0.549	0.692	0.813	0.678	0.682	0.683	13.72

(#) = Out of Range

Methylene Chloride

Response Ratio



$$\text{Response} = 3.773\text{e-}001 * \text{Amt} + 3.213\text{e-}002$$

Coef of Det (r^2) = 0.998825 Curve Fit: Linear

Method Name: Z:\voasrv\HPCHEM1\MSVOA L\methods\VL11825AIR.M

Calibration Table Last Updated: Wed Nov 19 01:11:25 2025

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL111825\
 Data File : VL043203.D
 Acq On : 18 Nov 2025 09:29
 Operator : SY/MD
 Sample : VSTDICC0.5
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDICC0.5

Quant Time: Nov 19 00:48:47 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M

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

QLast Update : Wed Nov 19 00:48:15 2025

Response via : Initial Calibration

Manual Integrations APPROVED

Reviewed By : Semsettin Yesilyurt 11/19/2025
 Supervised By : Mahesh Dadoda 11/19/2025

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

Internal Standards						
1) Bromochloromethane	2.784	49	110490	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.956	114	296493	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.875	117	247761	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.371	95	180529	9.941	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.400%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.496	85	7723	0.496	ppbv	99
3) Chlorodifluoromethane	1.473	51	8538	0.557	ppbv #	82
4) Chloromethane	1.531	50	2881	0.494	ppbv	94
5) Vinyl Chloride	1.580	62	2947	0.462	ppbv #	87
6) Bromomethane	1.667	94	1656	0.536	ppbv	97
7) Chloroethane	1.703	64	1357	0.547	ppbv	100
8) Dichlorotetrafluoroethane	1.554	85	6386	0.493	ppbv	100
9) Propene	1.483	41	3739	0.526	ppbv #	1
10) Heptane	4.972	43	11637m	0.597	ppbv	
11) Trichlorofluoromethane	1.878	101	6841	0.453	ppbv	92
12) 1,1,2-Trichlorotrifluo...	2.140	101	5863	0.497	ppbv	99
13) Ethanol	1.719	45	1190	0.520	ppbv	64
14) Bromoethene	1.781	108	2476	0.548	ppbv #	75
15) Acetone	1.836	43	9506	0.619	ppbv #	88
16) 1,3-Butadiene	1.606	39	4115	0.601	ppbv	95
17) tert-Butyl alcohol	2.043	59	9854	0.489	ppbv #	68
18) 1,1-Dichloroethene	2.033	96	3068	0.559	ppbv	96
19) Isopropyl Alcohol	1.887	45	4687	0.540	ppbv #	51
20) Methylene Chloride	2.059	84	5006	0.349	ppbv	92
21) Allyl Chloride	2.095	41	6291	0.609	ppbv	95
22) trans-1,2-Dichloroethene	2.337	96	3343	0.533	ppbv	80
23) Vinyl Acetate	2.464	43	10414	0.562	ppbv #	92
24) 1,1-Dichloroethane	2.409	63	5803	0.479	ppbv #	96
25) Ethyl Acetate	2.839	43	18625m	0.562	ppbv	
26) Hexane	2.823	57	7589	0.523	ppbv #	91
27) Carbon Disulfide	2.150	76	7198	0.486	ppbv #	1
28) Methyl tert-Butyl Ether	2.441	73	3545	0.498	ppbv #	15
29) Chloroform	2.849	83	10800	0.523	ppbv	95
30) Cyclohexane	3.849	84	6271	0.515	ppbv	85
31) cis-1,2-Dichloroethene	2.719	61	7728	0.536	ppbv	87
32) 1,1,1-Trichloroethane	3.363	97	10886	0.490	ppbv	98
34) 2-Butanone	2.557	43	11026	0.527	ppbv	95
35) Carbon Tetrachloride	3.761	117	11551	0.513	ppbv	94
36) Benzene	3.655	78	14759	0.520	ppbv #	91
37) 1,2-Dichloroethane	3.218	62	8477	0.510	ppbv #	93
38) Trichloroethene	4.542	130	5775	0.519	ppbv #	87
39) 1,2-Dichloropropane	4.312	63	5510	0.530	ppbv #	80
40) 1,4-Dioxane	4.597	88	2675m	0.573	ppbv	
41) Tetrahydrofuran	3.059	42	6193	0.536	ppbv	95
42) Bromodichloromethane	4.490	83	11597	0.506	ppbv #	84
43) Methyl Methacrylate	4.881	69	8534m	0.566	ppbv	
44) 2,2,4-Trimethylpentane	4.642	57	25890	0.531	ppbv	95
45) t-1,3-Dichloropropene	6.412	75	7343	0.523	ppbv	94

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL111825\
 Data File : VL043203.D
 Acq On : 18 Nov 2025 09:29
 Operator : SY/MD
 Sample : VSTDICC0.5
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDICC0.5

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 11/19/2025
 Supervised By :Mahesh Dadoda 11/19/2025

Quant Time: Nov 19 00:48:47 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M

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

QLast Update : Wed Nov 19 00:48:15 2025

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
46) cis-1,3-Dichloropropene	5.593	75	8886m	0.539	ppbv	
47) 1,1,2-Trichloroethane	6.581	97	6280m	0.567	ppbv	
48) Dibromochloromethane	7.380	129	9327	0.492	ppbv	97
49) Bromoform	9.481	173	8636	0.514	ppbv	100
50) 4-Methyl-2-Pentanone	5.755	43	15190	0.515	ppbv	92
51) 2-Hexanone	7.442	43	11594	0.506	ppbv #	93
52) Tetrachloroethene	8.218	164	5097	0.483	ppbv #	82
53) Toluene	6.924	91	17755m	0.525	ppbv	
54) 1,2-Dibromoethane	7.649	107	8708	0.537	ppbv	90
56) 1,1,1,2-Tetrachloroethane	8.917	131	9793m	0.538	ppbv	
57) Chlorobenzene	8.917	112	12818	0.504	ppbv	98
58) Ethyl Benzene	9.351	91	23866	0.500	ppbv	96
59) m/p-Xylene	9.526	91	40076m	1.044	ppbv	
60) o-Xylene	9.956	91	19621	0.514	ppbv	100
61) Styrene	9.869	104	8287	0.496	ppbv	96
62) Isopropylbenzene	10.536	105	34773	0.509	ppbv	98
63) 1,1,2,2-Tetrachloroethane	9.960	83	12591	0.519	ppbv	100
64) n-propylbenzene	10.986	120	8945	0.509	ppbv	100
65) tert-Butylbenzene	11.526	119	31998	0.524	ppbv	99
66) Benzyl Chloride	11.610	91	3403	0.550	ppbv	98
67) sec-Butylbenzene	11.766	105	44448	0.522	ppbv	97
69) p-Isopropyltoluene	11.921	119	37087	0.514	ppbv	100
70) n-Butylbenzene	12.277	91	33153	0.474	ppbv	94
71) 2-Chlorotoluene	10.895	91	27224	0.518	ppbv	99
72) 4-Ethyltoluene	11.122	105	23963	0.515	ppbv	97
73) 1,3,5-Trimethylbenzene	11.199	105	20104	0.515	ppbv	99
74) 1,2,4-Trimethylbenzene	11.533	105	22254	0.522	ppbv	91
75) 1,3-Dichlorobenzene	11.604	146	12926	0.520	ppbv	98
76) 1,4-Dichlorobenzene	11.672	146	13076	0.526	ppbv	98
77) 1,2-Dichlorobenzene	11.947	146	12069	0.505	ppbv	97
78) Hexachloro-1,3-Butadiene	13.879	225	10578	0.530	ppbv	98
79) Naphthalene	13.513	128	18377	0.486	ppbv	97
80) Naphthalene,2-methyl-	14.462	142	4917	0.495	ppbv	91
81) 1,2,4-Trichlorobenzene	13.439	180	6798	0.402	ppbv	97

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL111825\
 Data File : VL043204.D
 Acq On : 18 Nov 2025 10:02
 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 11/19/2025
 Supervised By :Mahesh Dadoda 11/19/2025

Quant Time: Nov 19 00:49:32 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M

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

QLast Update : Wed Nov 19 00:48:15 2025

Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	2.781	49	105095	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.949	114	283830	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.872	117	234772	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.367	95	172524	10.025	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.300%
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	1.496	85	140789	9.498	ppbv	100
3) Chlorodifluoromethane	1.473	51	138443	9.497	ppbv	100
4) Chloromethane	1.531	50	52372	9.450	ppbv	100
5) Vinyl Chloride	1.577	62	51045	8.422	ppbv	100
6) Bromomethane	1.664	94	26542	9.034	ppbv	100
7) Chloroethane	1.700	64	20375	8.632	ppbv	100
8) Dichlorotetrafluoroethane	1.551	85	114670	9.300	ppbv	100
9) Propene	1.480	41	52671	7.789	ppbv #	1
10) Heptane	4.965	43	168611	9.090	ppbv	100
11) Trichlorofluoromethane	1.875	101	130362	9.077	ppbv	100
12) 1,1,2-Trichlorotrifluo...	2.137	101	103679	9.247	ppbv	100
13) Ethanol	1.716	45	17464	8.023	ppbv	100
14) Bromoethene	1.777	108	38037	8.849	ppbv	100
15) Acetone	1.832	43	108422	7.426	ppbv	100
16) 1,3-Butadiene	1.606	39	57871	8.890	ppbv	100
17) tert-Butyl alcohol	2.036	59	179201	9.350	ppbv	100
18) 1,1-Dichloroethene	2.030	96	46313	8.871	ppbv	100
19) Isopropyl Alcohol	1.881	45	71862	8.710	ppbv	100
20) Methylene Chloride	2.056	84	41868	9.708	ppbv	100
21) Allyl Chloride	2.091	41	89266	9.087	ppbv	100
22) trans-1,2-Dichloroethene	2.334	96	52470	8.793	ppbv	100
23) Vinyl Acetate	2.457	43	170459	9.670	ppbv	100
24) 1,1-Dichloroethane	2.405	63	106970	9.287	ppbv	100
25) Ethyl Acetate	2.829	43	289921	9.190	ppbv	100
26) Hexane	2.820	57	129809	9.402	ppbv	100
27) Carbon Disulfide	2.146	76	132086	9.371	ppbv	100
28) Methyl tert-Butyl Ether	2.434	73	62115	9.165	ppbv	100
29) Chloroform	2.842	83	187620	9.561	ppbv	100
30) Cyclohexane	3.846	84	107621	9.297	ppbv	100
31) cis-1,2-Dichloroethene	2.716	61	130357	9.499	ppbv	100
32) 1,1,1-Trichloroethane	3.360	97	198036	9.381	ppbv	100
34) 2-Butanone	2.551	43	182749	9.121	ppbv	100
35) Carbon Tetrachloride	3.755	117	200831	9.322	ppbv	100
36) Benzene	3.648	78	256954	9.453	ppbv	100
37) 1,2-Dichloroethane	3.211	62	150769	9.483	ppbv	100
38) Trichloroethene	4.535	130	100136	9.398	ppbv	100
39) 1,2-Dichloropropane	4.302	63	95097	9.559	ppbv	100
40) 1,4-Dioxane	4.567	88	40441	9.043	ppbv #	100
41) Tetrahydrofuran	3.046	42	104294	9.426	ppbv	100
42) Bromodichloromethane	4.477	83	211504	9.643	ppbv	100
43) Methyl Methacrylate	4.865	69	131003	9.080	ppbv	100
44) 2,2,4-Trimethylpentane	4.626	57	441234	9.451	ppbv	100
45) t-1,3-Dichloropropene	6.399	75	129122	9.601	ppbv	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL111825\
 Data File : VL043204.D
 Acq On : 18 Nov 2025 10:02
 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 11/19/2025
 Supervised By :Mahesh Dadoda 11/19/2025

Quant Time: Nov 19 00:49:32 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M

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

QLast Update : Wed Nov 19 00:48:15 2025

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
46) cis-1,3-Dichloropropene	5.584	75	151655	9.603	ppbv	100
47) 1,1,2-Trichloroethane	6.564	97	97512	9.193	ppbv	100
48) Dibromochloromethane	7.377	129	175529	9.670	ppbv	100
49) Bromoform	9.474	173	157563	9.800	ppbv	100
50) 4-Methyl-2-Pentanone	5.733	43	268369	9.509	ppbv	100
51) 2-Hexanone	7.419	43	208268	9.503	ppbv #	100
52) Tetrachloroethene	8.212	164	93518	9.249	ppbv	100
53) Toluene	6.920	91	305169	9.422	ppbv	100
54) 1,2-Dibromoethane	7.639	107	148973	9.588	ppbv	100
56) 1,1,1,2-Tetrachloroethane	8.914	131	158856	9.207	ppbv	100
57) Chlorobenzene	8.911	112	227490	9.438	ppbv	100
58) Ethyl Benzene	9.345	91	427530	9.461	ppbv	100
59) m/p-Xylene	9.542	91	673371m	18.519	ppbv	
60) o-Xylene	9.956	91	333044	9.202	ppbv	100
61) Styrene	9.863	104	152172	9.607	ppbv	100
62) Isopropylbenzene	10.533	105	600155	9.269	ppbv	100
63) 1,1,2,2-Tetrachloroethane	9.953	83	209272	9.109	ppbv	100
64) n-propylbenzene	10.982	120	154239	9.271	ppbv	100
65) tert-Butylbenzene	11.523	119	522106	9.029	ppbv	100
66) Benzyl Chloride	11.607	91	56620	9.649	ppbv	100
67) sec-Butylbenzene	11.762	105	729573	9.039	ppbv	100
69) p-Isopropyltoluene	11.918	119	624586	9.135	ppbv	100
70) n-Butylbenzene	12.274	91	619610	9.341	ppbv	100
71) 2-Chlorotoluene	10.895	91	460118	9.245	ppbv	100
72) 4-Ethyltoluene	11.118	105	410587	9.316	ppbv	100
73) 1,3,5-Trimethylbenzene	11.196	105	341900	9.244	ppbv	100
74) 1,2,4-Trimethylbenzene	11.529	105	363476	9.005	ppbv	100
75) 1,3-Dichlorobenzene	11.601	146	219894	9.335	ppbv	100
76) 1,4-Dichlorobenzene	11.665	146	220576	9.363	ppbv	100
77) 1,2-Dichlorobenzene	11.940	146	204826	9.044	ppbv	100
78) Hexachloro-1,3-Butadiene	13.876	225	161034	8.520	ppbv	100
79) Naphthalene	13.507	128	351148	9.795	ppbv	100
80) Naphthalene,2-methyl-	14.452	142	93113	9.895	ppbv	100
81) 1,2,4-Trichlorobenzene	13.436	180	159091	9.923	ppbv	100

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL111825\
 Data File : VL043205.D
 Acq On : 18 Nov 2025 10:37
 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 11/19/2025
 Supervised By :Mahesh Dadoda 11/19/2025

Quant Time: Nov 19 00:50:19 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M

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

QLast Update : Wed Nov 19 00:48:15 2025

Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	2.787	49	104644	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.955	114	284629	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.878	117	230646	10.000	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene 10.374 95 171009 10.115 ppbv 0.00
 Spiked Amount 10.000 Range 65 - 135 Recovery = 101.200%

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.499	85	30881	2.092	ppbv	98
3) Chlorodifluoromethane	1.476	51	30069	2.072	ppbv	98
4) Chloromethane	1.534	50	11890	2.155	ppbv	96
5) Vinyl Chloride	1.580	62	12040	1.995	ppbv	96
6) Bromomethane	1.670	94	5981	2.044	ppbv	99
7) Chloroethane	1.706	64	4943	2.103	ppbv	95
8) Dichlorotetrafluoroethane	1.554	85	26409	2.151	ppbv	98
9) Propene	1.486	41	12993	1.930	ppbv #	1
10) Heptane	4.972	43	36171m	1.958	ppbv	
11) Trichlorofluoromethane	1.878	101	31124	2.177	ppbv	97
12) 1,1,2-Trichlorotrifluo...	2.140	101	23336	2.090	ppbv	100
13) Ethanol	1.722	45	5266	2.430	ppbv	86
14) Bromoethene	1.784	108	9129	2.133	ppbv	95
15) Acetone	1.835	43	31785	2.186	ppbv	91
16) 1,3-Butadiene	1.609	39	13101	2.021	ppbv	89
17) tert-Butyl alcohol	2.039	59	39348	2.062	ppbv	95
18) 1,1-Dichloroethene	2.036	96	10780	2.074	ppbv	94
19) Isopropyl Alcohol	1.887	45	17229	2.097	ppbv #	71
20) Methylene Chloride	2.062	84	12238	2.248	ppbv	96
21) Allyl Chloride	2.098	41	19580	2.002	ppbv	95
22) trans-1,2-Dichloroethene	2.340	96	12537	2.110	ppbv	94
23) Vinyl Acetate	2.460	43	35205	2.006	ppbv #	97
24) 1,1-Dichloroethane	2.408	63	24987	2.179	ppbv	99
25) Ethyl Acetate	2.832	43	64343	2.048	ppbv	99
26) Hexane	2.826	57	28776	2.093	ppbv	97
27) Carbon Disulfide	2.149	76	29964	2.135	ppbv #	91
28) Methyl tert-Butyl Ether	2.438	73	14101	2.090	ppbv #	85
29) Chloroform	2.849	83	40355	2.065	ppbv	98
30) Cyclohexane	3.855	84	23659	2.053	ppbv	98
31) cis-1,2-Dichloroethene	2.722	61	27663	2.024	ppbv	98
32) 1,1,1-Trichloroethane	3.366	97	42547	2.024	ppbv	99
34) 2-Butanone	2.557	43	41884	2.085	ppbv	99
35) Carbon Tetrachloride	3.765	117	41949	1.942	ppbv	96
36) Benzene	3.654	78	56141m	2.060	ppbv	
37) 1,2-Dichloroethane	3.218	62	32188	2.019	ppbv	100
38) Trichloroethene	4.548	130	21105m	1.975	ppbv	
39) 1,2-Dichloropropane	4.312	63	19913	1.996	ppbv	93
40) 1,4-Dioxane	4.580	88	8829m	1.969	ppbv	
41) Tetrahydrofuran	3.056	42	22912	2.065	ppbv	99
42) Bromodichloromethane	4.490	83	44584	2.027	ppbv	98
43) Methyl Methacrylate	4.875	69	29071	2.009	ppbv	99
44) 2,2,4-Trimethylpentane	4.635	57	92261	1.971	ppbv	96
45) t-1,3-Dichloropropene	6.406	75	27833m	2.064	ppbv	

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL111825\
 Data File : VL043205.D
 Acq On : 18 Nov 2025 10:37
 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 11/19/2025
 Supervised By :Mahesh Dadoda 11/19/2025

Quant Time: Nov 19 00:50:19 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M

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

QLast Update : Wed Nov 19 00:48:15 2025

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
46) cis-1,3-Dichloropropene	5.593	75	31986	2.020	ppbv	91
47) 1,1,2-Trichloroethane	6.577	97	21542m	2.025	ppbv	
48) Dibromochloromethane	7.386	129	37758m	2.074	ppbv	
49) Bromoform	9.480	173	33057	2.050	ppbv	98
50) 4-Methyl-2-Pentanone	5.745	43	58461	2.066	ppbv	98
51) 2-Hexanone	7.432	43	46444	2.113	ppbv #	99
52) Tetrachloroethene	8.218	164	19856	1.958	ppbv	96
53) Toluene	6.927	91	65238	2.008	ppbv	97
54) 1,2-Dibromoethane	7.648	107	31266	2.007	ppbv	98
56) 1,1,1,2-Tetrachloroethane	8.920	131	35099	2.071	ppbv	99
57) Chlorobenzene	8.917	112	50228	2.121	ppbv	97
58) Ethyl Benzene	9.351	91	92649	2.087	ppbv	98
59) m/p-Xylene	9.529	91	148300m	4.151	ppbv	
60) o-Xylene	9.959	91	76540	2.153	ppbv	100
61) Styrene	9.866	104	33188	2.133	ppbv	98
62) Isopropylbenzene	10.536	105	135853	2.136	ppbv	98
63) 1,1,2,2-Tetrachloroethane	9.963	83	47439	2.102	ppbv	99
64) n-propylbenzene	10.985	120	34915	2.136	ppbv	99
65) tert-Butylbenzene	11.529	119	122064	2.149	ppbv	99
66) Benzyl Chloride	11.610	91	11870	2.059	ppbv	99
67) sec-Butylbenzene	11.765	105	170529	2.151	ppbv	100
69) p-Isopropyltoluene	11.921	119	147482	2.195	ppbv	98
70) n-Butylbenzene	12.280	91	144148	2.212	ppbv	99
71) 2-Chlorotoluene	10.898	91	101951	2.085	ppbv	100
72) 4-Ethyltoluene	11.121	105	92654	2.140	ppbv	99
73) 1,3,5-Trimethylbenzene	11.202	105	76655	2.110	ppbv	96
74) 1,2,4-Trimethylbenzene	11.532	105	86286	2.176	ppbv	98
75) 1,3-Dichlorobenzene	11.604	146	48961	2.116	ppbv	98
76) 1,4-Dichlorobenzene	11.668	146	48881	2.112	ppbv	98
77) 1,2-Dichlorobenzene	11.944	146	48431	2.177	ppbv	99
78) Hexachloro-1,3-Butadiene	13.879	225	42456	2.287	ppbv	99
79) Naphthalene	13.510	128	85788	2.436	ppbv	97
80) Naphthalene,2-methyl-	14.458	142	20685	2.237	ppbv	98
81) 1,2,4-Trichlorobenzene	13.439	180	37521	2.382	ppbv	99

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL111825\
 Data File : VL043206.D
 Acq On : 18 Nov 2025 11:10
 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 11/19/2025
 Supervised By :Mahesh Dadoda 11/19/2025

Quant Time: Nov 19 00:51:06 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M

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

QLast Update : Wed Nov 19 00:48:15 2025

Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	2.784	49	102795	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.952	114	278732	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.872	117	227998	10.000	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene 10.370 95 167061 9.996 ppbv 0.00
 Spiked Amount 10.000 Range 65 - 135 Recovery = 100.000%

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.499	85	15474	1.067	ppbv	100
3) Chlorodifluoromethane	1.476	51	14437	1.013	ppbv #	92
4) Chloromethane	1.531	50	5751	1.061	ppbv	92
5) Vinyl Chloride	1.580	62	5967	1.007	ppbv	95
6) Bromomethane	1.667	94	3104	1.080	ppbv	94
7) Chloroethane	1.706	64	2550	1.104	ppbv	97
8) Dichlorotetrafluoroethane	1.554	85	12759	1.058	ppbv	98
9) Propene	1.483	41	6147	0.929	ppbv #	1
10) Heptane	4.972	43	18544	1.022	ppbv	100
11) Trichlorofluoromethane	1.877	101	15571	1.108	ppbv	99
12) 1,1,2-Trichlorotrifluo...	2.140	101	11743	1.071	ppbv	99
13) Ethanol	1.719	45	2373	1.115	ppbv	67
14) Bromoethene	1.780	108	4345	1.033	ppbv #	91
15) Acetone	1.835	43	16353	1.145	ppbv	90
16) 1,3-Butadiene	1.609	39	6469	1.016	ppbv	96
17) tert-Butyl alcohol	2.039	59	20703	1.104	ppbv #	92
18) 1,1-Dichloroethene	2.033	96	5447	1.067	ppbv	97
19) Isopropyl Alcohol	1.884	45	8849	1.097	ppbv #	43
20) Methylene Chloride	2.059	84	7297	1.030	ppbv	85
21) Allyl Chloride	2.094	41	9198	0.957	ppbv #	84
22) trans-1,2-Dichloroethene	2.340	96	6313	1.082	ppbv	94
23) Vinyl Acetate	2.460	43	16779	0.973	ppbv	98
24) 1,1-Dichloroethane	2.405	63	12062	1.071	ppbv	94
25) Ethyl Acetate	2.832	43	32108	1.041	ppbv	98
26) Hexane	2.819	57	14639	1.084	ppbv	99
27) Carbon Disulfide	2.149	76	14637	1.062	ppbv #	30
28) Methyl tert-Butyl Ether	2.441	73	7236	1.092	ppbv #	83
29) Chloroform	2.845	83	19509	1.016	ppbv	91
30) Cyclohexane	3.852	84	12269	1.084	ppbv	96
31) cis-1,2-Dichloroethene	2.716	61	13889	1.035	ppbv	97
32) 1,1,1-Trichloroethane	3.363	97	20745	1.005	ppbv	99
34) 2-Butanone	2.554	43	20940	1.064	ppbv	96
35) Carbon Tetrachloride	3.758	117	21497	1.016	ppbv	96
36) Benzene	3.648	78	27911	1.046	ppbv	99
37) 1,2-Dichloroethane	3.214	62	16159	1.035	ppbv	99
38) Trichloroethene	4.538	130	10809m	1.033	ppbv	
39) 1,2-Dichloropropane	4.311	63	10147	1.039	ppbv	91
40) 1,4-Dioxane	4.577	88	4616m	1.051	ppbv	
41) Tetrahydrofuran	3.052	42	11176	1.029	ppbv	96
42) Bromodichloromethane	4.480	83	22150	1.028	ppbv #	98
43) Methyl Methacrylate	4.871	69	14821	1.046	ppbv	94
44) 2,2,4-Trimethylpentane	4.632	57	49203m	1.073	ppbv	
45) t-1,3-Dichloropropene	6.402	75	13149m	0.996	ppbv	

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL111825\
 Data File : VL043206.D
 Acq On : 18 Nov 2025 11:10
 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 11/19/2025
 Supervised By :Mahesh Dadoda 11/19/2025

Quant Time: Nov 19 00:51:06 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M

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

QLast Update : Wed Nov 19 00:48:15 2025

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
46) cis-1,3-Dichloropropene	5.590	75	15527	1.001	ppbv #	95
47) 1,1,2-Trichloroethane	6.577	97	10369	0.995	ppbv #	85
48) Dibromochloromethane	7.377	129	18560	1.041	ppbv	93
49) Bromoform	9.477	173	15858	1.004	ppbv	98
50) 4-Methyl-2-Pentanone	5.745	43	29560	1.067	ppbv	99
51) 2-Hexanone	7.428	43	22438	1.043	ppbv #	98
52) Tetrachloroethene	8.215	164	10080	1.015	ppbv	90
53) Toluene	6.923	91	32951	1.036	ppbv	100
54) 1,2-Dibromoethane	7.645	107	15865	1.040	ppbv	97
56) 1,1,1,2-Tetrachloroethane	8.917	131	17535	1.046	ppbv	99
57) Chlorobenzene	8.914	112	24806	1.060	ppbv	98
58) Ethyl Benzene	9.344	91	46455	1.059	ppbv	96
59) m/p-Xylene	9.545	91	73461m	2.080	ppbv	
60) o-Xylene	9.956	91	37054	1.054	ppbv	97
61) Styrene	9.866	104	15730	1.023	ppbv	95
62) Isopropylbenzene	10.532	105	67163	1.068	ppbv	99
63) 1,1,2,2-Tetrachloroethane	9.956	83	23083	1.035	ppbv	97
64) n-propylbenzene	10.985	120	17289	1.070	ppbv	100
65) tert-Butylbenzene	11.526	119	61258	1.091	ppbv	99
66) Benzyl Chloride	11.610	91	5729	1.005	ppbv	96
67) sec-Butylbenzene	11.762	105	84989	1.084	ppbv	99
69) p-Isopropyltoluene	11.921	119	69993	1.054	ppbv	99
70) n-Butylbenzene	12.277	91	69323	1.076	ppbv	99
71) 2-Chlorotoluene	10.895	91	51452	1.065	ppbv	100
72) 4-Ethyltoluene	11.118	105	44403	1.037	ppbv	99
73) 1,3,5-Trimethylbenzene	11.199	105	38350	1.068	ppbv	91
74) 1,2,4-Trimethylbenzene	11.532	105	42051	1.073	ppbv #	81
75) 1,3-Dichlorobenzene	11.600	146	24011	1.050	ppbv	98
76) 1,4-Dichlorobenzene	11.665	146	23543	1.029	ppbv	97
77) 1,2-Dichlorobenzene	11.940	146	24248	1.103	ppbv	98
78) Hexachloro-1,3-Butadiene	13.879	225	20489	1.116	ppbv	99
79) Naphthalene	13.507	128	36462	1.047	ppbv	95
80) Naphthalene,2-methyl-	14.455	142	7375	0.807	ppbv	95
81) 1,2,4-Trichlorobenzene	13.436	180	15785	1.014	ppbv	98

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

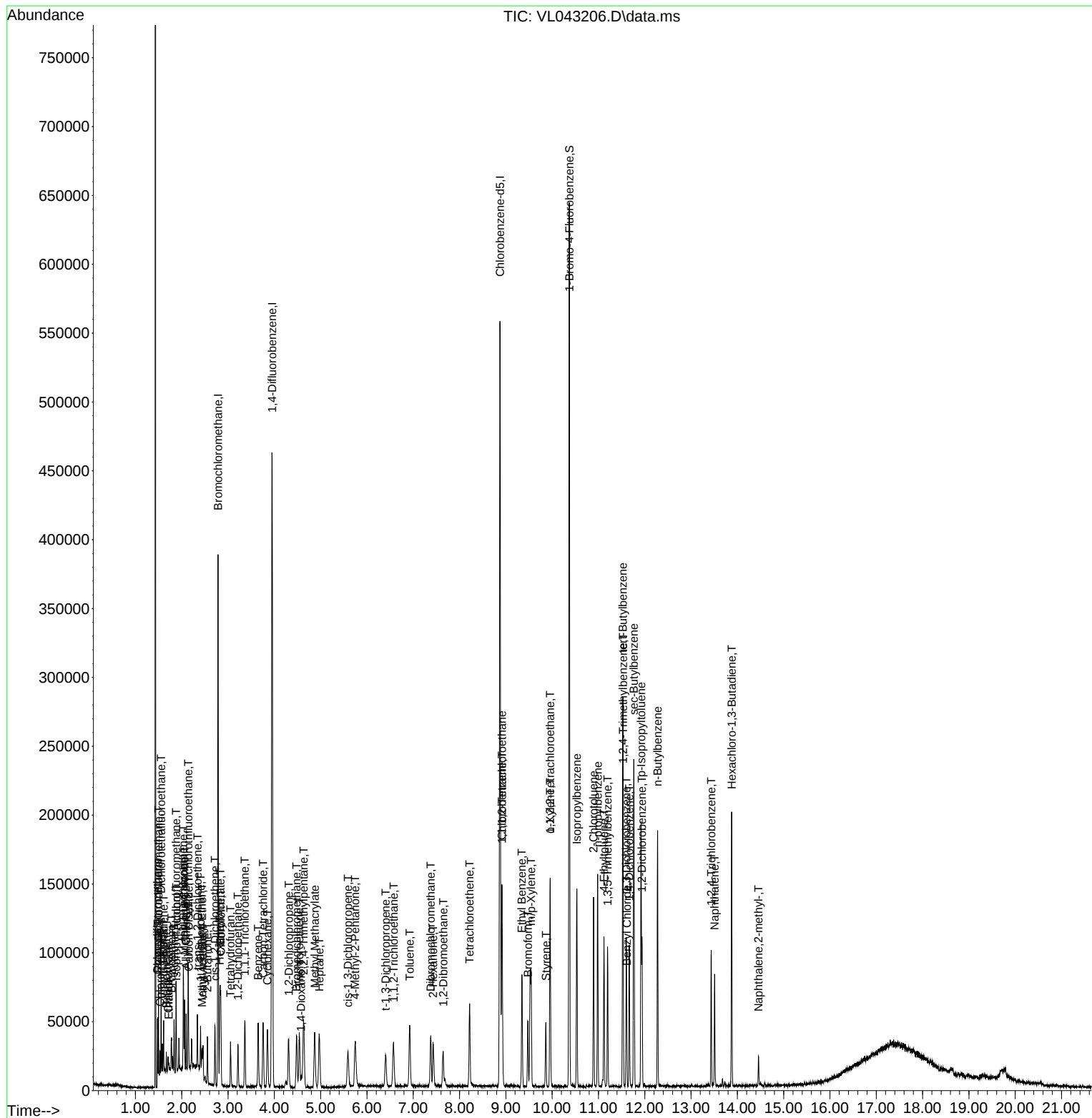
Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL111825\
 Data File : VL043206.D
 Acq On : 18 Nov 2025 11:10
 Operator : SY/MD
 Sample : VSTDIC001
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDIC001

Quant Time: Nov 19 00:51:06 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug
 QLast Update : Wed Nov 19 00:48:15 2025
 Response via : Initial Calibration

Manual Integrations APPROVED

Reviewed By : Semsettin Yesilyurt 11/19/2025
 Supervised By : Mahesh Dadoda 11/19/2025



Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL111825\
 Data File : VL043208.D
 Acq On : 18 Nov 2025 12:16
 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 11/19/2025
 Supervised By :Mahesh Dadoda 11/19/2025

Quant Time: Nov 19 00:51:52 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M

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

QLast Update : Wed Nov 19 00:48:15 2025

Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	2.784	49	101366	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.952	114	273996	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.875	117	222034	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.370	95	160968	9.890	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	98.900%
Target Compounds						
						Qvalue
5) Vinyl Chloride	1.580	62	664	0.114	ppbv	97
32) 1,1,1-Trichloroethane	3.360	97	2074m	0.102	ppbv	
35) Carbon Tetrachloride	3.761	117	2097m	0.101	ppbv	
38) Trichloroethene	4.541	130	1302m	0.127	ppbv	
52) Tetrachloroethene	8.218	164	1161m	0.119	ppbv	
54) 1,2-Dibromoethane	7.648	107	1446m	0.096	ppbv	
63) 1,1,2,2-Tetrachloroethane	9.953	83	2296m	0.106	ppbv	
79) Naphthalene	13.510	128	2732m	0.081	ppbv	

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

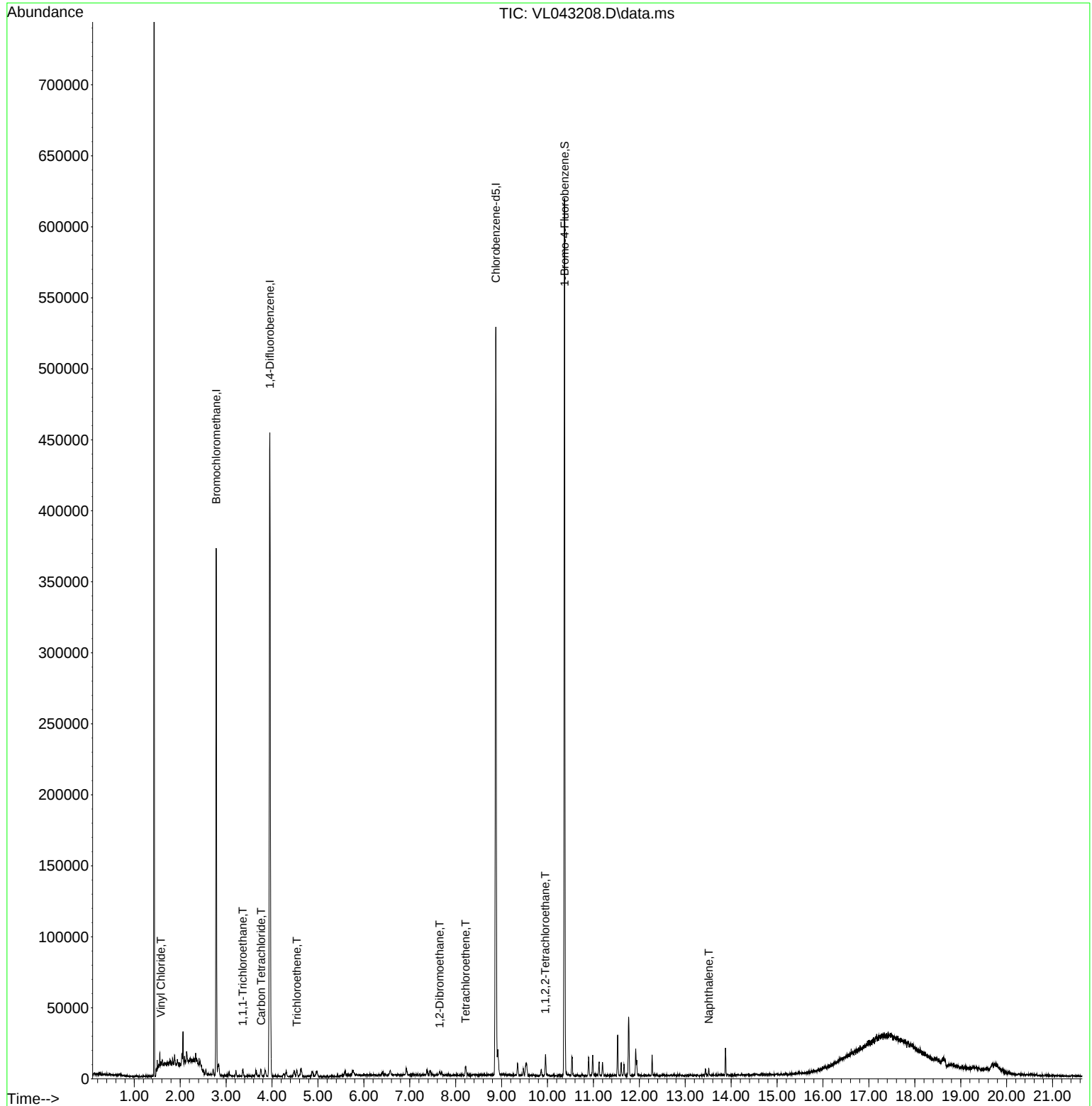
Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL111825\
Data File : VL043208.D
Acq On : 18 Nov 2025 12:16
Operator : SY/MD
Sample : VSTDIC0.1
Misc : 400mL/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
VSTDIC0.1

Quant Time: Nov 19 00:51:52 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug
QLast Update : Wed Nov 19 00:48:15 2025
Response via : Initial Calibration

Manual Integrations
APPROVED

Reviewed By :Semsettin Yesilyurt 11/19/2025
Supervised By :Mahesh Dadoda 11/19/2025



Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL111825\
 Data File : VL043209.D
 Acq On : 18 Nov 2025 12:49
 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 11/19/2025
 Supervised By :Mahesh Dadoda 11/19/2025

Quant Time: Nov 19 00:52:39 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 2
 QLast Update : Wed Nov 19 00:48:15 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	2.784	49	98952	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.952	114	266012	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.875	117	213547	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.371	95	152015	9.712	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	97.100%
Target Compounds						
					Qvalue	
5) Vinyl Chloride	1.580	62	215m	0.038	ppbv	
32) 1,1,1-Trichloroethane	3.357	97	628m	0.032	ppbv	
35) Carbon Tetrachloride	3.758	117	664m	0.033	ppbv	
38) Trichloroethene	4.542	130	234m	0.023	ppbv	
52) Tetrachloroethene	8.222	164	290m	0.031	ppbv	
63) 1,1,2,2-Tetrachloroethane	9.963	83	640m	0.031	ppbv	

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

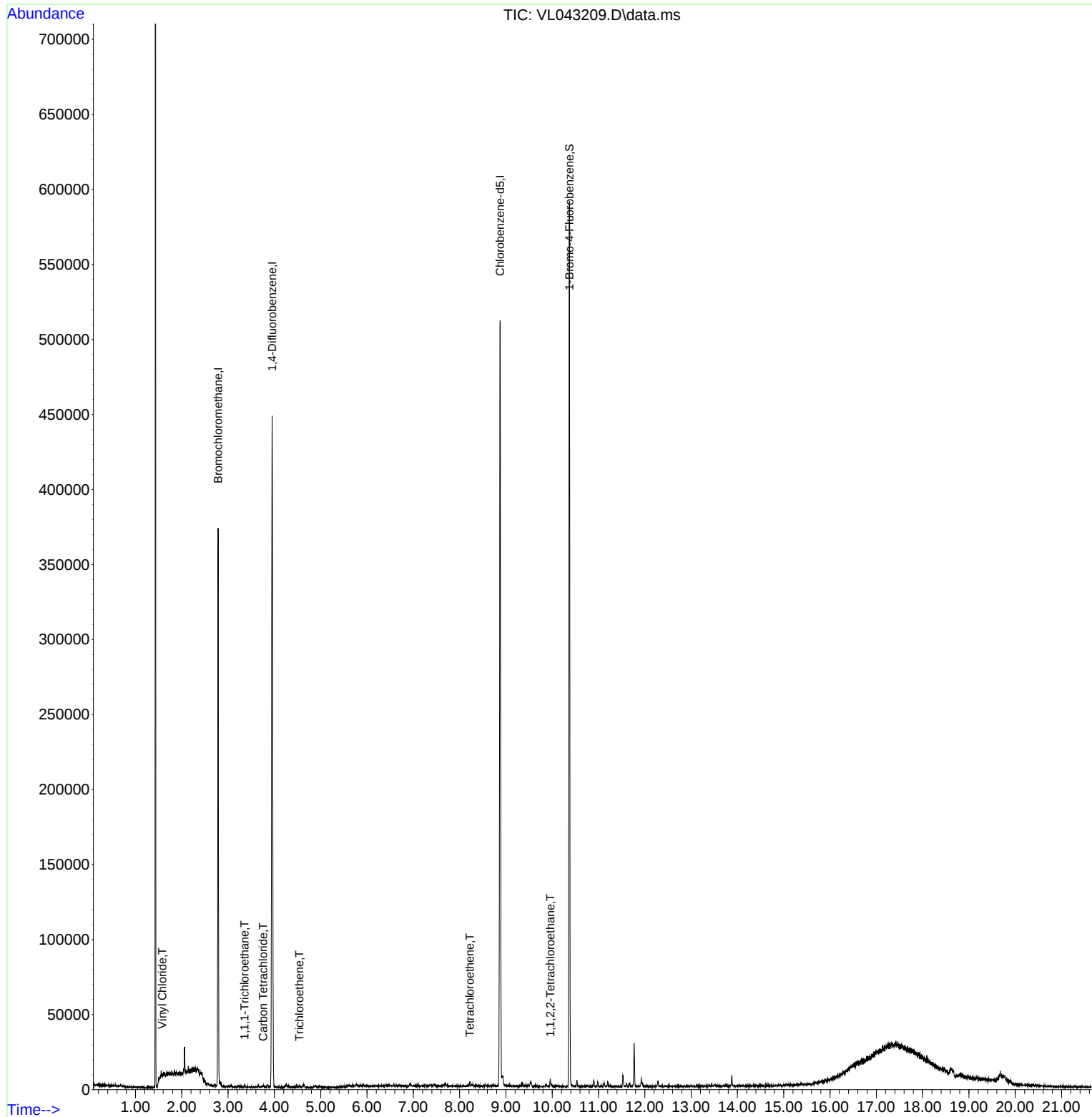
Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL111825\
Data File : VL043209.D
Acq On : 18 Nov 2025 12:49
Operator : SY/MD
Sample : VSTDICC0.03
Misc : 400mL/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
VSTDICC0.03

Quant Time: Nov 19 00:52:39 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug
QLast Update : Wed Nov 19 00:48:15 2025
Response via : Initial Calibration

Manual Integrations
APPROVED

Reviewed By : Semsettin Yesilyurt 11/19/2025
Supervised By : Mahesh Dadoda 11/19/2025



Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL111825\
 Data File : VL043210.D
 Acq On : 18 Nov 2025 13:24
 Operator : SY/MD
 Sample : VSTDICC015
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDICC015

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 11/19/2025
 Supervised By :Mahesh Dadoda 11/19/2025

Quant Time: Nov 19 00:53:26 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M

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

QLast Update : Wed Nov 19 00:48:15 2025

Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	2.784	49	98968	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.952	114	258461	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.872	117	211247	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.367	95	159814	10.321	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	= 103.200%	
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.499	85	197987	14.184	ppbv	99
3) Chlorodifluoromethane	1.476	51	182813	13.317	ppbv	98
4) Chloromethane	1.531	50	72636	13.918	ppbv	97
5) Vinyl Chloride	1.580	62	71671	12.557	ppbv	96
6) Bromomethane	1.667	94	38265	13.830	ppbv	98
7) Chloroethane	1.703	64	29584	13.309	ppbv	98
8) Dichlorotetrafluoroethane	1.554	85	165709	14.271	ppbv	97
9) Propene	1.483	41	81393m	12.782	ppbv	
10) Heptane	4.972	43	225935	12.934	ppbv	100
11) Trichlorofluoromethane	1.874	101	200703	14.840	ppbv	96
12) 1,1,2-Trichlorotrifluo...	2.137	101	152772	14.469	ppbv	98
13) Ethanol	1.719	45	25468	12.425	ppbv	99
14) Bromoethene	1.781	108	55813	13.789	ppbv	96
15) Acetone	1.832	43	161036	11.712	ppbv	99
16) 1,3-Butadiene	1.609	39	81077	13.226	ppbv	99
17) tert-Butyl alcohol	2.036	59	257617	14.274	ppbv	99
18) 1,1-Dichloroethene	2.033	96	65731	13.370	ppbv	96
19) Isopropyl Alcohol	1.881	45	105271	13.549	ppbv	99
20) Methylene Chloride	2.059	84	59798	15.164	ppbv	93
21) Allyl Chloride	2.094	41	126959	13.724	ppbv	96
22) trans-1,2-Dichloroethene	2.337	96	77386	13.772	ppbv	94
23) Vinyl Acetate	2.457	43	232315	13.995	ppbv	99
24) 1,1-Dichloroethane	2.405	63	155017	14.292	ppbv	98
25) Ethyl Acetate	2.829	43	394074	13.265	ppbv	99
26) Hexane	2.823	57	172303	13.252	ppbv	97
27) Carbon Disulfide	2.150	76	191612	14.435	ppbv	97
28) Methyl tert-Butyl Ether	2.434	73	91132	14.279	ppbv	97
29) Chloroform	2.845	83	262803	14.221	ppbv	100
30) Cyclohexane	3.852	84	152015	13.946	ppbv	94
31) cis-1,2-Dichloroethene	2.716	61	180647	13.978	ppbv	98
32) 1,1,1-Trichloroethane	3.363	97	276915	13.930	ppbv	98
34) 2-Butanone	2.551	43	253855	13.914	ppbv	100
35) Carbon Tetrachloride	3.755	117	279560	14.250	ppbv	96
36) Benzene	3.651	78	348892	14.096	ppbv	99
37) 1,2-Dichloroethane	3.214	62	214248	14.798	ppbv	98
38) Trichloroethene	4.541	130	137027	14.123	ppbv	93
39) 1,2-Dichloropropane	4.302	63	128700	14.206	ppbv	98
40) 1,4-Dioxane	4.571	88	55905	13.728	ppbv #	95
41) Tetrahydrofuran	3.043	42	139722	13.868	ppbv	99
42) Bromodichloromethane	4.480	83	294008	14.721	ppbv	97
43) Methyl Methacrylate	4.872	69	179110	13.633	ppbv	100
44) 2,2,4-Trimethylpentane	4.632	57	595778	14.014	ppbv	99
45) t-1,3-Dichloropropene	6.406	75	177678	14.508	ppbv	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL111825\
 Data File : VL043210.D
 Acq On : 18 Nov 2025 13:24
 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 11/19/2025
 Supervised By :Mahesh Dadoda 11/19/2025

Quant Time: Nov 19 00:53:26 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M

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

QLast Update : Wed Nov 19 00:48:15 2025

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
46) cis-1,3-Dichloropropene	5.587	75	205226	14.270	ppbv	100
47) 1,1,2-Trichloroethane	6.571	97	132701	13.738	ppbv	92
48) Dibromochloromethane	7.377	129	240736	14.564	ppbv	99
49) Bromoform	9.477	173	211325	14.434	ppbv	99
50) 4-Methyl-2-Pentanone	5.732	43	354421	13.790	ppbv	99
51) 2-Hexanone	7.422	43	280742	14.067	ppbv #	100
52) Tetrachloroethene	8.218	164	125132	13.591	ppbv	93
53) Toluene	6.924	91	414411	14.050	ppbv	99
54) 1,2-Dibromoethane	7.642	107	203913	14.413	ppbv	99
56) 1,1,1,2-Tetrachloroethane	8.917	131	214673	13.827	ppbv	99
57) Chlorobenzene	8.914	112	301986	13.923	ppbv	98
58) Ethyl Benzene	9.348	91	579890	14.262	ppbv	99
59) m/p-Xylene	9.545	91	916113m	28.000	ppbv	
60) o-Xylene	9.956	91	450260	13.826	ppbv	99
61) Styrene	9.862	104	204972	14.382	ppbv	99
62) Isopropylbenzene	10.532	105	803487	13.791	ppbv	99
63) 1,1,2,2-Tetrachloroethane	9.956	83	280254	13.557	ppbv	99
64) n-propylbenzene	10.986	120	205637	13.737	ppbv	100
65) tert-Butylbenzene	11.526	119	689352	13.249	ppbv	98
66) Benzyl Chloride	11.610	91	71386	13.520	ppbv	100
67) sec-Butylbenzene	11.762	105	972780	13.394	ppbv	100
69) p-Isopropyltoluene	11.921	119	836888	13.602	ppbv	99
70) n-Butylbenzene	12.277	91	838598	14.050	ppbv	99
71) 2-Chlorotoluene	10.895	91	625884	13.976	ppbv	100
72) 4-Ethyltoluene	11.121	105	553654	13.961	ppbv	99
73) 1,3,5-Trimethylbenzene	11.199	105	460783	13.846	ppbv	97
74) 1,2,4-Trimethylbenzene	11.533	105	486995	13.409	ppbv	97
75) 1,3-Dichlorobenzene	11.604	146	292143	13.784	ppbv	99
76) 1,4-Dichlorobenzene	11.668	146	294723	13.903	ppbv	99
77) 1,2-Dichlorobenzene	11.944	146	273467	13.420	ppbv	98
78) Hexachloro-1,3-Butadiene	13.876	225	211153	12.416	ppbv	99
79) Naphthalene	13.510	128	473229	14.670	ppbv	99
80) Naphthalene,2-methyl-	14.452	142	139019	16.418	ppbv	99
81) 1,2,4-Trichlorobenzene	13.436	180	216260	14.990	ppbv	99

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL111825\
 Data File : VL043211.D
 Acq On : 18 Nov 2025 13:56
 Operator : SY/MD
 Sample : VSTDICV010
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 ICVVL111825

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 11/19/2025
 Supervised By :Mahesh Dadoda 11/19/2025

Quant Time: Nov 19 01:34:00 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M

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

QLast Update : Wed Nov 19 01:11:25 2025

Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	2.784	49	97854	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.956	114	261914	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.879	117	216212	10.000	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene 10.374 95 159242 10.048 ppbv 0.00
 Spiked Amount 10.000 Range 65 - 135 Recovery = 100.500%

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.499	85	133374	9.664	ppbv	98
3) Chlorodifluoromethane	1.476	51	124858	9.199	ppbv	98
4) Chloromethane	1.535	50	46906	9.090	ppbv	95
5) Vinyl Chloride	1.580	62	47932	8.493	ppbv	95
6) Bromomethane	1.667	94	22230	8.126	ppbv	99
7) Chloroethane	1.703	64	19854	9.033	ppbv	98
8) Dichlorotetrafluoroethane	1.554	85	110587	9.632	ppbv	97
9) Propene	1.483	41	54006m	9.370	ppbv	
10) Heptane	4.975	43	149202	8.698	ppbv	99
11) Trichlorofluoromethane	1.878	101	134746	10.077	ppbv	97
12) 1,1,2-Trichlorotrifluo...	2.140	101	100984	9.673	ppbv	99
13) Ethanol	1.719	45	15371	7.584	ppbv	92
14) Bromoethene	1.781	108	36979	9.240	ppbv	98
15) Acetone	1.832	43	104830	7.711	ppbv	99
16) 1,3-Butadiene	1.609	39	54795	9.041	ppbv	96
17) tert-Butyl alcohol	2.036	59	164987	9.245	ppbv	99
18) 1,1-Dichloroethene	2.033	96	43833	9.017	ppbv	99
19) Isopropyl Alcohol	1.884	45	64772	8.431	ppbv	97
20) Methylene Chloride	2.062	84	41254	10.323	ppbv	95
21) Allyl Chloride	2.095	41	75516	8.256	ppbv	97
22) trans-1,2-Dichloroethene	2.341	96	50228	9.041	ppbv	92
23) Vinyl Acetate	2.460	43	140156	8.539	ppbv	98
24) 1,1-Dichloroethane	2.409	63	103187	9.622	ppbv	97
25) Ethyl Acetate	2.829	43	258609	8.820	ppbv	99
26) Hexane	2.826	57	114312	8.892	ppbv	98
27) Carbon Disulfide	2.150	76	125048	9.528	ppbv	97
28) Methyl tert-Butyl Ether	2.438	73	64183	10.171	ppbv	98
29) Chloroform	2.846	83	173977	9.521	ppbv	99
30) Cyclohexane	3.852	84	98598	9.148	ppbv	97
31) cis-1,2-Dichloroethene	2.719	61	119843	9.379	ppbv	98
32) 1,1,1-Trichloroethane	3.363	97	182262	9.358	ppbv	98
34) 2-Butanone	2.551	43	160977	8.707	ppbv	98
35) Carbon Tetrachloride	3.761	117	182902	9.200	ppbv	98
36) Benzene	3.655	78	233094	9.293	ppbv	99
37) 1,2-Dichloroethane	3.214	62	143363	9.772	ppbv	98
38) Trichloroethene	4.542	130	90993	9.272	ppbv	95
39) 1,2-Dichloropropane	4.305	63	83416	9.086	ppbv	95
40) 1,4-Dioxane	4.571	88	32109	7.780	ppbv #	95
41) Tetrahydrofuran	3.046	42	90769	8.891	ppbv	98
42) Bromodichloromethane	4.486	83	195442	9.657	ppbv	96
43) Methyl Methacrylate	4.872	69	116325	8.737	ppbv	98
44) 2,2,4-Trimethylpentane	4.635	57	393438	9.133	ppbv	99
45) t-1,3-Dichloropropene	6.409	75	97587	7.863	ppbv	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL111825\
 Data File : VL043211.D
 Acq On : 18 Nov 2025 13:56
 Operator : SY/MD
 Sample : VSTDICV010
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 ICVVL111825

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 11/19/2025
 Supervised By :Mahesh Dadoda 11/19/2025

Quant Time: Nov 19 01:34:00 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M

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

QLast Update : Wed Nov 19 01:11:25 2025

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
46) cis-1,3-Dichloropropene	5.593	75	115476	7.924	ppbv	97
47) 1,1,2-Trichloroethane	6.577	97	88525	9.086	ppbv	95
48) Dibromochloromethane	7.380	129	159365	9.514	ppbv	99
49) Bromoform	9.477	173	134790	9.085	ppbv	99
50) 4-Methyl-2-Pentanone	5.742	43	224791	8.631	ppbv	99
51) 2-Hexanone	7.429	43	166506	8.233	ppbv #	100
52) Tetrachloroethene	8.222	164	82890	8.884	ppbv	98
53) Toluene	6.924	91	273172	9.197	ppbv	99
54) 1,2-Dibromoethane	7.645	107	124804	8.705	ppbv	99
56) 1,1,1,2-Tetrachloroethane	8.921	131	142512	8.969	ppbv	98
57) Chlorobenzene	8.917	112	199373	8.981	ppbv	96
58) Ethyl Benzene	9.351	91	381474	9.167	ppbv	97
59) m/p-Xylene	9.549	91	604165m	18.108	ppbv	
60) o-Xylene	9.960	91	295836	8.876	ppbv	99
61) Styrene	9.866	104	127117	8.714	ppbv	97
62) Isopropylbenzene	10.536	105	525717	8.816	ppbv	99
63) 1,1,2,2-Tetrachloroethane	9.960	83	178591	8.421	ppbv	100
64) n-propylbenzene	10.986	120	131634	8.591	ppbv	96
65) tert-Butylbenzene	11.529	119	450819	8.465	ppbv	99
66) Benzyl Chloride	11.614	91	27878	5.159	ppbv	99
67) sec-Butylbenzene	11.766	105	623520	8.388	ppbv	100
69) p-Isopropyltoluene	11.924	119	520880	8.272	ppbv	99
70) n-Butylbenzene	12.280	91	513027	8.398	ppbv	99
71) 2-Chlorotoluene	10.898	91	396434	8.649	ppbv	99
72) 4-Ethyltoluene	11.122	105	356325	8.779	ppbv	99
73) 1,3,5-Trimethylbenzene	11.199	105	294977	8.660	ppbv	95
74) 1,2,4-Trimethylbenzene	11.533	105	314606	8.463	ppbv	94
75) 1,3-Dichlorobenzene	11.604	146	180491	8.320	ppbv	99
76) 1,4-Dichlorobenzene	11.669	146	179491	8.273	ppbv	99
77) 1,2-Dichlorobenzene	11.944	146	166137	7.966	ppbv	99
78) Hexachloro-1,3-Butadiene	13.879	225	125707	7.222	ppbv	100
79) Naphthalene	13.510	128	273029	8.270	ppbv	99
80) Naphthalene,2-methyl-	14.455	142	74802	8.631	ppbv	97
81) 1,2,4-Trichlorobenzene	13.436	180	125470	8.497	ppbv	99

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL111825\
 Data File : VL043211.D
 Acq On : 18 Nov 2025 13:56
 Operator : SY/MD
 Sample : VSTDICV010
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 ICVVL111825

Quant Time: Nov 19 01:34:00 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Wed Nov 19 01:11:25 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	93	0.00
2 T	Dichlorodifluoromethane	1.410	1.363	3.3	95	0.00
3	Chlorodifluoromethane	1.387	1.276	8.0	90	0.00
4	Chloromethane	0.527	0.479	9.1	90	0.00
5 T	Vinyl Chloride	0.577	0.490	15.1	94	0.00
6 T	Bromomethane	0.280	0.227	18.9	84	0.00
7	Chloroethane	0.225	0.203	9.8	97	0.00
8 T	Dichlorotetrafluoroethane	1.173	1.130	3.7	96	0.00
9 T	Propene	0.589	0.552	6.3	103	0.00
10 T	Heptane	1.753	1.525	13.0	88	0.00
11 T	Trichlorofluoromethane	1.367	1.377	-0.7	103	0.00
12 T	1,1,2-Trichlorotrifluoroeth	1.067	1.032	3.3	97	0.00
13	Ethanol	0.207	0.157	24.2	88	0.00
14 T	Bromoethene	0.409	0.378	7.6	97	0.00
15 T	Acetone	1.389	1.071	22.9	97	0.00
16 T	1,3-Butadiene	0.619	0.560	9.5	95	0.00
17	tert-Butyl alcohol	1.824	1.686	7.6	92	0.00
18 T	1,1-Dichloroethene	0.497	0.448	9.9	95	0.00
19 T	Isopropyl Alcohol	0.785	0.662	15.7	90	0.00
20 T	Methylene Chloride	0.600	0.422	29.7	99	0.00
21 T	Allyl Chloride	0.935	0.772	17.4	85	0.00
22 T	trans-1,2-Dichloroethene	0.568	0.513	9.7	96	0.00
23 T	Vinyl Acetate	1.677	1.432	14.6	82	0.00
24 T	1,1-Dichloroethane	1.096	1.054	3.8	96	0.00
25 T	Ethyl Acetate	2.996	2.643	11.8	89	0.00
26 T	Hexane	1.314	1.168	11.1	88	0.00
27 T	Carbon Disulfide	1.341	1.278	4.7	95	0.00
28 T	Methyl tert-Butyl Ether	0.645	0.656	-1.7	103	0.00
29 T	Chloroform	1.867	1.778	4.8	93	0.00
30 T	Cyclohexane	1.101	1.008	8.4	92	0.00
31 T	cis-1,2-Dichloroethene	1.306	1.225	6.2	92	0.00
32 T	1,1,1-Trichloroethane	1.990	1.863	6.4	92	0.00
33 I	1,4-Difluorobenzene	1.000	1.000	0.0	92	0.00
34 T	2-Butanone	0.706	0.615	12.9	88	0.00
35 T	Carbon Tetrachloride	0.759	0.698	8.0	91	0.00
36 T	Benzene	0.958	0.890	7.1	91	0.00
37 T	1,2-Dichloroethane	0.560	0.547	2.3	95	0.00
38 T	Trichloroethene	0.375	0.347	7.5	91	0.00
39 T	1,2-Dichloropropane	0.351	0.318	9.4	88	0.00
40 T	1,4-Dioxane	0.158	0.123	22.2	79	0.00
41 T	Tetrahydrofuran	0.390	0.347	11.0	87	0.00
42 T	Bromodichloromethane	0.773	0.746	3.5	92	0.00
43	Methyl Methacrylate	0.508	0.444	12.6	89	0.00
44 T	2,2,4-Trimethylpentane	1.645	1.502	8.7	89	0.00
45 T	t-1,3-Dichloropropene	0.474	0.373	21.3	76	0.00
46 T	cis-1,3-Dichloropropene	0.556	0.441	20.7	76	0.00
47 T	1,1,2-Trichloroethane	0.372	0.338	9.1	91	0.01
48 T	Dibromochloromethane	0.640	0.608	5.0	91	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL111825\
 Data File : VL043211.D
 Acq On : 18 Nov 2025 13:56
 Operator : SY/MD
 Sample : VSTDICV010
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 ICVVL111825

Quant Time: Nov 19 01:34:00 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Wed Nov 19 01:11:25 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	0.566	0.515	9.0	86	0.00
50 T	4-Methyl-2-Pentanone	0.994	0.858	13.7	84	0.00
51 T	2-Hexanone	0.772	0.636	17.6	80	0.00
52 T	Tetrachloroethene	0.356	0.316	11.2	89	0.00
53 T	Toluene	1.134	1.043	8.0	90	0.00
54 T	1,2-Dibromoethane	0.547	0.477	12.8	84	0.00
55 I	Chlorobenzene-d5	1.000	1.000	0.0	92	0.00
56	1,1,1,2-Tetrachloroethane	0.735	0.659	10.3	90	0.00
57 T	Chlorobenzene	1.027	0.922	10.2	88	0.00
58 T	Ethyl Benzene	1.925	1.764	8.4	89	0.00
59 T	m/p-Xylene	1.543	1.397	9.5	90	0.00
60 T	o-Xylene	1.542	1.368	11.3	89	0.00
61 T	Styrene	0.675	0.588	12.9	84	0.00
62	Isopropylbenzene	2.758	2.431	11.9	88	0.00
63 T	1,1,2,2-Tetrachloroethane	0.981	0.826	15.8	85	0.00
64	n-propylbenzene	0.709	0.609	14.1	85	0.00
65	tert-Butylbenzene	2.463	2.085	15.3	86	0.00
66 T	Benzyl Chloride	0.250	0.129	48.4#	49	0.00
67	sec-Butylbenzene	3.438	2.884	16.1	85	0.00
68 S	1-Bromo-4-Fluorobenzene	0.733	0.737	-0.5	92	0.00
69	p-Isopropyltoluene	2.912	2.409	17.3	83	0.00
70	n-Butylbenzene	2.825	2.373	16.0	83	0.00
71	2-Chlorotoluene	2.120	1.834	13.5	86	0.00
72 T	4-Ethyltoluene	1.877	1.648	12.2	87	0.00
73 T	1,3,5-Trimethylbenzene	1.575	1.364	13.4	86	0.00
74 T	1,2,4-Trimethylbenzene	1.719	1.455	15.4	87	0.00
75 T	1,3-Dichlorobenzene	1.003	0.835	16.7	82	0.00
76 T	1,4-Dichlorobenzene	1.003	0.830	17.2	81	0.00
77 T	1,2-Dichlorobenzene	0.965	0.768	20.4	81	0.00
78 T	Hexachloro-1,3-Butadiene	0.805	0.581	27.8	78	0.00
79 T	Naphthalene	1.527	1.263	17.3	78	0.00
80 T	Naphthalene,2-methyl-	0.401	0.346	13.7	80	0.00
81 T	1,2,4-Trichlorobenzene	0.683	0.580	15.1	79	0.00

(#) = Out of Range

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL111825\
 Data File : VL043211.D
 Acq On : 18 Nov 2025 13:56
 Operator : SY/MD
 Sample : VSTDICV010
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 ICVVL111825

Quant Time: Nov 19 01:34:00 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Wed Nov 19 01:11:25 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	93	0.00
2 T	Dichlorodifluoromethane	10.000	9.664	3.4	95	0.00
3	Chlorodifluoromethane	10.000	9.199	8.0	90	0.00
4	Chloromethane	10.000	9.090	9.1	90	0.00
5 T	Vinyl Chloride	10.000	8.493	15.1	94	0.00
6 T	Bromomethane	10.000	8.126	18.7	84	0.00
7	Chloroethane	10.000	9.033	9.7	97	0.00
8 T	Dichlorotetrafluoroethane	10.000	9.632	3.7	96	0.00
9 T	Propene	10.000	9.370	6.3	103	0.00
10 T	Heptane	10.000	8.698	13.0	88	0.00
11 T	Trichlorofluoromethane	10.000	10.077	-0.8	103	0.00
12 T	1,1,2-Trichlorotrifluoroeth	10.000	9.673	3.3	97	0.00
13	Ethanol	10.000	7.584	24.2	88	0.00
14 T	Bromoethene	10.000	9.240	7.6	97	0.00
15 T	Acetone	10.000	7.711	22.9	97	0.00
16 T	1,3-Butadiene	10.000	9.041	9.6	95	0.00
17	tert-Butyl alcohol	10.000	9.245	7.6	92	0.00
18 T	1,1-Dichloroethene	10.000	9.017	9.8	95	0.00
19 T	Isopropyl Alcohol	10.000	8.431	15.7	90	0.00
20 T	Methylene Chloride	10.000	10.323	-3.2	99	0.00
21 T	Allyl Chloride	10.000	8.256	17.4	85	0.00
22 T	trans-1,2-Dichloroethene	10.000	9.041	9.6	96	0.00
23 T	Vinyl Acetate	10.000	8.539	14.6	82	0.00
24 T	1,1-Dichloroethane	10.000	9.622	3.8	96	0.00
25 T	Ethyl Acetate	10.000	8.820	11.8	89	0.00
26 T	Hexane	10.000	8.892	11.1	88	0.00
27 T	Carbon Disulfide	10.000	9.528	4.7	95	0.00
28 T	Methyl tert-Butyl Ether	10.000	10.171	-1.7	103	0.00
29 T	Chloroform	10.000	9.521	4.8	93	0.00
30 T	Cyclohexane	10.000	9.148	8.5	92	0.00
31 T	cis-1,2-Dichloroethene	10.000	9.379	6.2	92	0.00
32 T	1,1,1-Trichloroethane	10.000	9.358	6.4	92	0.00
33 I	1,4-Difluorobenzene	10.000	10.000	0.0	92	0.00
34 T	2-Butanone	10.000	8.707	12.9	88	0.00
35 T	Carbon Tetrachloride	10.000	9.200	8.0	91	0.00
36 T	Benzene	10.000	9.293	7.1	91	0.00
37 T	1,2-Dichloroethane	10.000	9.772	2.3	95	0.00
38 T	Trichloroethene	10.000	9.272	7.3	91	0.00
39 T	1,2-Dichloropropane	10.000	9.086	9.1	88	0.00
40 T	1,4-Dioxane	10.000	7.780	22.2	79	0.00
41 T	Tetrahydrofuran	10.000	8.891	11.1	87	0.00
42 T	Bromodichloromethane	10.000	9.657	3.4	92	0.00
43	Methyl Methacrylate	10.000	8.737	12.6	89	0.00
44 T	2,2,4-Trimethylpentane	10.000	9.133	8.7	89	0.00
45 T	t-1,3-Dichloropropene	10.000	7.863	21.4	76	0.00
46 T	cis-1,3-Dichloropropene	10.000	7.924	20.8	76	0.00
47 T	1,1,2-Trichloroethane	10.000	9.086	9.1	91	0.01
48 T	Dibromochloromethane	10.000	9.514	4.9	91	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL111825\
 Data File : VL043211.D
 Acq On : 18 Nov 2025 13:56
 Operator : SY/MD
 Sample : VSTDICV010
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 ICVVL111825

Quant Time: Nov 19 01:34:00 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Wed Nov 19 01:11:25 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	9.085	9.1	86	0.00
50 T	4-Methyl-2-Pentanone	10.000	8.631	13.7	84	0.00
51 T	2-Hexanone	10.000	8.233	17.7	80	0.00
52 T	Tetrachloroethene	10.000	8.884	11.2	89	0.00
53 T	Toluene	10.000	9.197	8.0	90	0.00
54 T	1,2-Dibromoethane	10.000	8.705	13.0	84	0.00
55 I	Chlorobenzene-d5	10.000	10.000	0.0	92	0.00
56	1,1,1,2-Tetrachloroethane	10.000	8.969	10.3	90	0.00
57 T	Chlorobenzene	10.000	8.981	10.2	88	0.00
58 T	Ethyl Benzene	10.000	9.167	8.3	89	0.00
59 T	m/p-Xylene	20.000	18.108	9.5	90	0.00
60 T	o-Xylene	10.000	8.876	11.2	89	0.00
61 T	Styrene	10.000	8.714	12.9	84	0.00
62	Isopropylbenzene	10.000	8.816	11.8	88	0.00
63 T	1,1,2,2-Tetrachloroethane	10.000	8.421	15.8	85	0.00
64	n-propylbenzene	10.000	8.591	14.1	85	0.00
65	tert-Butylbenzene	10.000	8.465	15.4	86	0.00
66 T	Benzyl Chloride	10.000	5.159	48.4#	49	0.00
67	sec-Butylbenzene	10.000	8.388	16.1	85	0.00
68 S	1-Bromo-4-Fluorobenzene	10.000	10.048	-0.5	92	0.00
69	p-Isopropyltoluene	10.000	8.272	17.3	83	0.00
70	n-Butylbenzene	10.000	8.398	16.0	83	0.00
71	2-Chlorotoluene	10.000	8.649	13.5	86	0.00
72 T	4-Ethyltoluene	10.000	8.779	12.2	87	0.00
73 T	1,3,5-Trimethylbenzene	10.000	8.660	13.4	86	0.00
74 T	1,2,4-Trimethylbenzene	10.000	8.463	15.4	87	0.00
75 T	1,3-Dichlorobenzene	10.000	8.320	16.8	82	0.00
76 T	1,4-Dichlorobenzene	10.000	8.273	17.3	81	0.00
77 T	1,2-Dichlorobenzene	10.000	7.966	20.3	81	0.00
78 T	Hexachloro-1,3-Butadiene	10.000	7.222	27.8	78	0.00
79 T	Naphthalene	10.000	8.270	17.3	78	0.00
80 T	Naphthalene,2-methyl-	10.000	8.631	13.7	80	0.00
81 T	1,2,4-Trichlorobenzene	10.000	8.497	15.0	79	0.00

(#) = Out of Range

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

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name:	<u>Alliance</u>	Contract:	<u>GFEL01</u>
Lab Code:	<u>ACE</u>	SDG No.:	<u>Q3744</u>
Instrument ID:	<u>MSVOA_L</u>	Calibration Date/Time:	<u>12/02/2025 09:31</u>
Lab File ID:	<u>VL043292.D</u>	Init. Calib. Date(s):	<u>11/18/2025 11/18/2025</u>
Heated Purge: (Y/N)	<u>N</u>	Init. Calib. Time(s):	<u>09:29 13:24</u>
GC Column:	<u>RTX-1</u>	ID:	<u>0.32</u> (mm)

COMPOUND	RRF	RRF010	MIN RRF	%D	MAX%D
Vinyl Chloride	0.577	0.554		-3.99	30
Heptane	1.753	1.639		-6.5	30
1,1-Dichloroethane	1.096	1.198		9.31	30
Cyclohexane	1.101	1.109		0.73	30
cis-1,2-Dichloroethene	1.306	1.346		3.06	30
1,1,1-Trichloroethane	1.990	2.234		12.26	30
2,2,4-Trimethylpentane	1.645	1.698		3.22	30
Benzene	0.958	1.020		6.47	30
Trichloroethene	0.375	0.412		9.87	30
Toluene	1.134	1.143		0.79	30
Tetrachloroethene	0.356	0.380		6.74	30
Ethyl Benzene	1.925	2.040		5.97	30
m/p-Xylene	1.543	1.707		10.63	30
o-Xylene	1.542	1.664		7.91	30
1,3,5-Trimethylbenzene	1.575	1.679		6.6	30
1,2,4-Trimethylbenzene	1.719	1.855		7.91	30
Naphthalene	1.527	1.506		-1.38	30
1-Bromo-4-Fluorobenzene	0.733	0.731		-0.27	30
Hexane	1.314	1.309		-0.38	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\VL120225\
 Data File : VL043292.D
 Acq On : 02 Dec 2025 09:31
 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 12/03/2025
 Supervised By :Mahesh Dadoda 12/03/2025

Quant Time: Dec 03 00:03:43 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M

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

QLast Update : Wed Nov 19 01:11:25 2025

Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	2.793	49	126127	10.000	ppbv	0.01
33) 1,4-Difluorobenzene	3.965	114	330397	10.000	ppbv	0.02
55) Chlorobenzene-d5	8.888	117	260796	10.000	ppbv	0.02
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.380	95	190761	9.979	ppbv	0.01
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.800%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.502	85	197164	11.083	ppbv	96
3) Chlorodifluoromethane	1.479	51	183025	10.462	ppbv	98
4) Chloromethane	1.538	50	67250	10.111	ppbv	96
5) Vinyl Chloride	1.583	62	69859	9.604	ppbv	92
6) Bromomethane	1.673	94	33274	9.437	ppbv	94
7) Chloroethane	1.709	64	28524	10.069	ppbv	96
8) Dichlorotetrafluoroethane	1.560	85	161706	10.927	ppbv	98
9) Propene	1.489	41	70360	9.471	ppbv #	1
10) Heptane	4.991	43	206666	9.347	ppbv	99
11) Trichlorofluoromethane	1.884	101	208347	12.088	ppbv	96
12) 1,1,2-Trichlorotrifluo...	2.146	101	159759	11.873	ppbv	99
13) Ethanol	1.725	45	20945	8.018	ppbv	97
14) Bromoethene	1.787	108	56599	10.972	ppbv	96
15) Acetone	1.839	43	155242	8.859	ppbv	99
16) 1,3-Butadiene	1.615	39	76961	9.851	ppbv	96
17) tert-Butyl alcohol	2.042	59	218371	9.494	ppbv	98
18) 1,1-Dichloroethene	2.039	96	68084	10.867	ppbv	97
19) Isopropyl Alcohol	1.890	45	85843	8.669	ppbv #	86
20) Methylene Chloride	2.068	84	62130	12.206	ppbv	94
21) Allyl Chloride	2.101	41	105808	8.975	ppbv	94
22) trans-1,2-Dichloroethene	2.347	96	76709	10.712	ppbv	91
23) Vinyl Acetate	2.466	43	206003	9.738	ppbv #	99
24) 1,1-Dichloroethane	2.415	63	151136	10.934	ppbv	97
25) Ethyl Acetate	2.839	43	366636	9.701	ppbv	99
26) Hexane	2.832	57	165056	9.961	ppbv	99
27) Carbon Disulfide	2.156	76	192516	11.380	ppbv	98
28) Methyl tert-Butyl Ether	2.444	73	86340	10.615	ppbv	97
29) Chloroform	2.855	83	275636	11.703	ppbv	98
30) Cyclohexane	3.865	84	139919	10.072	ppbv	94
31) cis-1,2-Dichloroethene	2.725	61	169792	10.309	ppbv	97
32) 1,1,1-Trichloroethane	3.376	97	281780	11.224	ppbv	99
34) 2-Butanone	2.560	43	230835	9.898	ppbv	100
35) Carbon Tetrachloride	3.771	117	296279	11.814	ppbv	96
36) Benzene	3.664	78	336842	10.646	ppbv	98
37) 1,2-Dichloroethane	3.224	62	211067	11.404	ppbv	98
38) Trichloroethene	4.557	130	136063	10.991	ppbv	98
39) 1,2-Dichloropropane	4.321	63	121342	10.478	ppbv	94
40) 1,4-Dioxane	4.586	88	44549	8.557	ppbv #	92
41) Tetrahydrofuran	3.059	42	123505	9.590	ppbv	98
42) Bromodichloromethane	4.496	83	296882	11.628	ppbv	97
43) Methyl Methacrylate	4.884	69	157030	9.350	ppbv	97
44) 2,2,4-Trimethylpentane	4.651	57	560933	10.322	ppbv	100
45) t-1,3-Dichloropropene	6.422	75	124214	7.934	ppbv	97

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL120225\
 Data File : VL043292.D
 Acq On : 02 Dec 2025 09:31
 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 12/03/2025
 Supervised By :Mahesh Dadoda 12/03/2025

Quant Time: Dec 03 00:03:43 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M

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

QLast Update : Wed Nov 19 01:11:25 2025

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
46) cis-1,3-Dichloropropene	5.609	75	150697	8.197	ppbv	97
47) 1,1,2-Trichloroethane	6.590	97	132966	10.819	ppbv	89
48) Dibromochloromethane	7.393	129	245129	11.601	ppbv	99
49) Bromoform	9.490	173	210532	11.249	ppbv	98
50) 4-Methyl-2-Pentanone	5.758	43	306398	9.326	ppbv	99
51) 2-Hexanone	7.438	43	217535	8.527	ppbv #	100
52) Tetrachloroethene	8.231	164	125569	10.669	ppbv	98
53) Toluene	6.943	91	377598	10.078	ppbv	99
54) 1,2-Dibromoethane	7.658	107	184265	10.188	ppbv	95
56) 1,1,1,2-Tetrachloroethane	8.930	131	226254	11.805	ppbv	98
57) Chlorobenzene	8.927	112	299248	11.176	ppbv	96
58) Ethyl Benzene	9.361	91	532113	10.601	ppbv	100
59) m/p-Xylene	9.558	91	890244m	22.121	ppbv	
60) o-Xylene	9.969	91	433850	10.791	ppbv	97
61) Styrene	9.875	104	170523	9.691	ppbv	99
62) Isopropylbenzene	10.545	105	782083	10.873	ppbv	100
63) 1,1,2,2-Tetrachloroethane	9.966	83	270755	10.584	ppbv	99
64) n-propylbenzene	10.995	120	198097	10.719	ppbv	98
65) tert-Butylbenzene	11.536	119	679288	10.575	ppbv	99
66) Benzyl Chloride	11.620	91	33251	5.101	ppbv	99
67) sec-Butylbenzene	11.772	105	950539	10.601	ppbv	99
69) p-Isopropyltoluene	11.930	119	794465	10.460	ppbv	99
70) n-Butylbenzene	12.286	91	766060	10.396	ppbv	100
71) 2-Chlorotoluene	10.904	91	581216	10.513	ppbv	100
72) 4-Ethyltoluene	11.131	105	522973	10.682	ppbv	99
73) 1,3,5-Trimethylbenzene	11.209	105	437835	10.656	ppbv	99
74) 1,2,4-Trimethylbenzene	11.542	105	483676	10.787	ppbv	92
75) 1,3-Dichlorobenzene	11.613	146	289929	11.080	ppbv	99
76) 1,4-Dichlorobenzene	11.675	146	288002	11.005	ppbv	99
77) 1,2-Dichlorobenzene	11.953	146	274351	10.906	ppbv	99
78) Hexachloro-1,3-Butadiene	13.885	225	210733	10.037	ppbv	99
79) Naphthalene	13.516	128	392809	9.864	ppbv	98
80) Naphthalene,2-methyl-	14.465	142	90880	8.694	ppbv	98
81) 1,2,4-Trichlorobenzene	13.445	180	199764	11.216	ppbv	96

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL120225\
 Data File : VL043292.D
 Acq On : 02 Dec 2025 09:31
 Operator : SY/MD
 Sample : VSTDCCC010
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 LabSampleId :
 VSTDCCC010

Quant Time: Dec 03 00:03:43 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Wed Nov 19 01:11:25 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	120	0.01
2 T	Dichlorodifluoromethane	1.410	1.563	-10.9	140	0.00
3	Chlorodifluoromethane	1.387	1.451	-4.6	132	0.00
4	Chloromethane	0.527	0.533	-1.1	128	0.00
5 T	Vinyl Chloride	0.577	0.554	4.0	137	0.00
6 T	Bromomethane	0.280	0.264	5.7	125	0.00
7	Chloroethane	0.225	0.226	-0.4	140	0.00
8 T	Dichlorotetrafluoroethane	1.173	1.282	-9.3	141	0.00
9 T	Propene	0.589	0.558	5.3	134	0.00
10 T	Heptane	1.753	1.639	6.5	123	0.03
11 T	Trichlorofluoromethane	1.367	1.652	-20.8	160#	0.00
12 T	1,1,2-Trichlorotrifluoroeth	1.067	1.267	-18.7	154#	0.00
13	Ethanol	0.207	0.166	19.8	120	0.00
14 T	Bromoethene	0.409	0.449	-9.8	149	0.00
15 T	Acetone	1.389	1.231	11.4	143	0.00
16 T	1,3-Butadiene	0.619	0.610	1.5	133	0.00
17	tert-Butyl alcohol	1.824	1.731	5.1	122	0.00
18 T	1,1-Dichloroethene	0.497	0.540	-8.7	147	0.00
19 T	Isopropyl Alcohol	0.785	0.681	13.2	119	0.00
20 T	Methylene Chloride	0.600	0.493	17.8	148	0.01
21 T	Allyl Chloride	0.935	0.839	10.3	119	0.00
22 T	trans-1,2-Dichloroethene	0.568	0.608	-7.0	146	0.01
23 T	Vinyl Acetate	1.677	1.633	2.6	121	0.00
24 T	1,1-Dichloroethane	1.096	1.198	-9.3	141	0.00
25 T	Ethyl Acetate	2.996	2.907	3.0	126	0.00
26 T	Hexane	1.314	1.309	0.4	127	0.01
27 T	Carbon Disulfide	1.341	1.526	-13.8	146	0.00
28 T	Methyl tert-Butyl Ether	0.645	0.685	-6.2	139	0.00
29 T	Chloroform	1.867	2.185	-17.0	147	0.01
30 T	Cyclohexane	1.101	1.109	-0.7	130	0.02
31 T	cis-1,2-Dichloroethene	1.306	1.346	-3.1	130	0.00
32 T	1,1,1-Trichloroethane	1.990	2.234	-12.3	142	0.02
33 I	1,4-Difluorobenzene	1.000	1.000	0.0	116	0.02
34 T	2-Butanone	0.706	0.699	1.0	126	0.00
35 T	Carbon Tetrachloride	0.759	0.897	-18.2	148	0.02
36 T	Benzene	0.958	1.020	-6.5	131	0.02
37 T	1,2-Dichloroethane	0.560	0.639	-14.1	140	0.01
38 T	Trichloroethene	0.375	0.412	-9.9	136	0.02
39 T	1,2-Dichloropropane	0.351	0.367	-4.6	128	0.02
40 T	1,4-Dioxane	0.158	0.135	14.6	110	0.02
41 T	Tetrahydrofuran	0.390	0.374	4.1	118	0.01
42 T	Bromodichloromethane	0.773	0.899	-16.3	140	0.02
43	Methyl Methacrylate	0.508	0.475	6.5	120	0.02
44 T	2,2,4-Trimethylpentane	1.645	1.698	-3.2	127	0.03
45 T	t-1,3-Dichloropropene	0.474	0.376	20.7	96	0.02
46 T	cis-1,3-Dichloropropene	0.556	0.456	18.0	99	0.03
47 T	1,1,2-Trichloroethane	0.372	0.402	-8.1	136	0.03
48 T	Dibromochloromethane	0.640	0.742	-15.9	140	0.02

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL120225\
 Data File : VL043292.D
 Acq On : 02 Dec 2025 09:31
 Operator : SY/MD
 Sample : VSTDCCC010
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 LabSampleId :
 VSTDCCC010

Quant Time: Dec 03 00:03:43 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Wed Nov 19 01:11:25 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	0.566	0.637	-12.5	134	0.02
50 T	4-Methyl-2-Pentanone	0.994	0.927	6.7	114	0.03
51 T	2-Hexanone	0.772	0.658	14.8	104	0.02
52 T	Tetrachloroethene	0.356	0.380	-6.7	134	0.02
53 T	Toluene	1.134	1.143	-0.8	124	0.02
54 T	1,2-Dibromoethane	0.547	0.558	-2.0	124	0.02
55 I	Chlorobenzene-d5	1.000	1.000	0.0	111	0.02
56	1,1,1,2-Tetrachloroethane	0.735	0.868	-18.1	142	0.02
57 T	Chlorobenzene	1.027	1.147	-11.7	132	0.02
58 T	Ethyl Benzene	1.925	2.040	-6.0	124	0.02
59 T	m/p-Xylene	1.543	1.707	-10.6	132	0.02
60 T	o-Xylene	1.542	1.664	-7.9	130	0.01
61 T	Styrene	0.675	0.654	3.1	112	0.01
62	Isopropylbenzene	2.758	2.999	-8.7	130	0.01
63 T	1,1,2,2-Tetrachloroethane	0.981	1.038	-5.8	129	0.01
64	n-propylbenzene	0.709	0.760	-7.2	128	0.01
65	tert-Butylbenzene	2.463	2.605	-5.8	130	0.01
66 T	Benzyl Chloride	0.250	0.127	49.2#	59	0.01
67	sec-Butylbenzene	3.438	3.645	-6.0	130	0.00
68 S	1-Bromo-4-Fluorobenzene	0.733	0.731	0.3	111	0.01
69	p-Isopropyltoluene	2.912	3.046	-4.6	127	0.01
70	n-Butylbenzene	2.825	2.937	-4.0	124	0.01
71	2-Chlorotoluene	2.120	2.229	-5.1	126	0.00
72 T	4-Ethyltoluene	1.877	2.005	-6.8	127	0.01
73 T	1,3,5-Trimethylbenzene	1.575	1.679	-6.6	128	0.01
74 T	1,2,4-Trimethylbenzene	1.719	1.855	-7.9	133	0.01
75 T	1,3-Dichlorobenzene	1.003	1.112	-10.9	132	0.01
76 T	1,4-Dichlorobenzene	1.003	1.104	-10.1	131	0.00
77 T	1,2-Dichlorobenzene	0.965	1.052	-9.0	134	0.01
78 T	Hexachloro-1,3-Butadiene	0.805	0.808	-0.4	131	0.00
79 T	Naphthalene	1.527	1.506	1.4	112	0.00
80 T	Naphthalene,2-methyl-	0.401	0.348	13.2	98	0.01
81 T	1,2,4-Trichlorobenzene	0.683	0.766	-12.2	126	0.00

(#) = Out of Range

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL120225\
 Data File : VL043292.D
 Acq On : 02 Dec 2025 09:31
 Operator : SY/MD
 Sample : VSTDCCC010
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 LabSampleId :
 VSTDCCC010

Quant Time: Dec 03 00:03:43 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Wed Nov 19 01:11:25 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	120	0.01
2 T	Dichlorodifluoromethane	10.000	11.083	-10.8	140	0.00
3	Chlorodifluoromethane	10.000	10.462	-4.6	132	0.00
4	Chloromethane	10.000	10.111	-1.1	128	0.00
5 T	Vinyl Chloride	10.000	9.604	4.0	137	0.00
6 T	Bromomethane	10.000	9.437	5.6	125	0.00
7	Chloroethane	10.000	10.069	-0.7	140	0.00
8 T	Dichlorotetrafluoroethane	10.000	10.927	-9.3	141	0.00
9 T	Propene	10.000	9.471	5.3	134	0.00
10 T	Heptane	10.000	9.347	6.5	123	0.03
11 T	Trichlorofluoromethane	10.000	12.088	-20.9	160	0.00
12 T	1,1,2-Trichlorotrifluoroeth	10.000	11.873	-18.7	154	0.00
13	Ethanol	10.000	8.018	19.8	120	0.00
14 T	Bromoethene	10.000	10.972	-9.7	149	0.00
15 T	Acetone	10.000	8.859	11.4	143	0.00
16 T	1,3-Butadiene	10.000	9.851	1.5	133	0.00
17	tert-Butyl alcohol	10.000	9.494	5.1	122	0.00
18 T	1,1-Dichloroethene	10.000	10.867	-8.7	147	0.00
19 T	Isopropyl Alcohol	10.000	8.669	13.3	119	0.00
20 T	Methylene Chloride	10.000	12.206	-22.1	148	0.01
21 T	Allyl Chloride	10.000	8.975	10.3	119	0.00
22 T	trans-1,2-Dichloroethene	10.000	10.712	-7.1	146	0.01
23 T	Vinyl Acetate	10.000	9.738	2.6	121	0.00
24 T	1,1-Dichloroethane	10.000	10.934	-9.3	141	0.00
25 T	Ethyl Acetate	10.000	9.701	3.0	126	0.00
26 T	Hexane	10.000	9.961	0.4	127	0.01
27 T	Carbon Disulfide	10.000	11.380	-13.8	146	0.00
28 T	Methyl tert-Butyl Ether	10.000	10.615	-6.2	139	0.00
29 T	Chloroform	10.000	11.703	-17.0	147	0.01
30 T	Cyclohexane	10.000	10.072	-0.7	130	0.02
31 T	cis-1,2-Dichloroethene	10.000	10.309	-3.1	130	0.00
32 T	1,1,1-Trichloroethane	10.000	11.224	-12.2	142	0.02
33 I	1,4-Difluorobenzene	10.000	10.000	0.0	116	0.02
34 T	2-Butanone	10.000	9.898	1.0	126	0.00
35 T	Carbon Tetrachloride	10.000	11.814	-18.1	148	0.02
36 T	Benzene	10.000	10.646	-6.5	131	0.02
37 T	1,2-Dichloroethane	10.000	11.404	-14.0	140	0.01
38 T	Trichloroethene	10.000	10.991	-9.9	136	0.02
39 T	1,2-Dichloropropane	10.000	10.478	-4.8	128	0.02
40 T	1,4-Dioxane	10.000	8.557	14.4	110	0.02
41 T	Tetrahydrofuran	10.000	9.590	4.1	118	0.01
42 T	Bromodichloromethane	10.000	11.628	-16.3	140	0.02
43	Methyl Methacrylate	10.000	9.350	6.5	120	0.02
44 T	2,2,4-Trimethylpentane	10.000	10.322	-3.2	127	0.03
45 T	t-1,3-Dichloropropene	10.000	7.934	20.7	96	0.02
46 T	cis-1,3-Dichloropropene	10.000	8.197	18.0	99	0.03
47 T	1,1,2-Trichloroethane	10.000	10.819	-8.2	136	0.03
48 T	Dibromochloromethane	10.000	11.601	-16.0	140	0.02

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL120225\
 Data File : VL043292.D
 Acq On : 02 Dec 2025 09:31
 Operator : SY/MD
 Sample : VSTDCCC010
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 LabSampleId :
 VSTDCCC010

Quant Time: Dec 03 00:03:43 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Wed Nov 19 01:11:25 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	11.249	-12.5	134	0.02
50 T	4-Methyl-2-Pentanone	10.000	9.326	6.7	114	0.03
51 T	2-Hexanone	10.000	8.527	14.7	104	0.02
52 T	Tetrachloroethene	10.000	10.669	-6.7	134	0.02
53 T	Toluene	10.000	10.078	-0.8	124	0.02
54 T	1,2-Dibromoethane	10.000	10.188	-1.9	124	0.02
55 I	Chlorobenzene-d5	10.000	10.000	0.0	111	0.02
56	1,1,1,2-Tetrachloroethane	10.000	11.805	-18.0	142	0.02
57 T	Chlorobenzene	10.000	11.176	-11.8	132	0.02
58 T	Ethyl Benzene	10.000	10.601	-6.0	124	0.02
59 T	m/p-Xylene	20.000	22.121	-10.6	132	0.02
60 T	o-Xylene	10.000	10.791	-7.9	130	0.01
61 T	Styrene	10.000	9.691	3.1	112	0.01
62	Isopropylbenzene	10.000	10.873	-8.7	130	0.01
63 T	1,1,2,2-Tetrachloroethane	10.000	10.584	-5.8	129	0.01
64	n-propylbenzene	10.000	10.719	-7.2	128	0.01
65	tert-Butylbenzene	10.000	10.575	-5.7	130	0.01
66 T	Benzyl Chloride	10.000	5.101	49.0#	59	0.01
67	sec-Butylbenzene	10.000	10.601	-6.0	130	0.00
68 S	1-Bromo-4-Fluorobenzene	10.000	9.979	0.2	111	0.01
69	p-Isopropyltoluene	10.000	10.460	-4.6	127	0.01
70	n-Butylbenzene	10.000	10.396	-4.0	124	0.01
71	2-Chlorotoluene	10.000	10.513	-5.1	126	0.00
72 T	4-Ethyltoluene	10.000	10.682	-6.8	127	0.01
73 T	1,3,5-Trimethylbenzene	10.000	10.656	-6.6	128	0.01
74 T	1,2,4-Trimethylbenzene	10.000	10.787	-7.9	133	0.01
75 T	1,3-Dichlorobenzene	10.000	11.080	-10.8	132	0.01
76 T	1,4-Dichlorobenzene	10.000	11.005	-10.1	131	0.00
77 T	1,2-Dichlorobenzene	10.000	10.906	-9.1	134	0.01
78 T	Hexachloro-1,3-Butadiene	10.000	10.037	-0.4	131	0.00
79 T	Naphthalene	10.000	9.864	1.4	112	0.00
80 T	Naphthalene,2-methyl-	10.000	8.694	13.1	98	0.01
81 T	1,2,4-Trichlorobenzene	10.000	11.216	-12.2	126	0.00

(#) = Out of Range

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



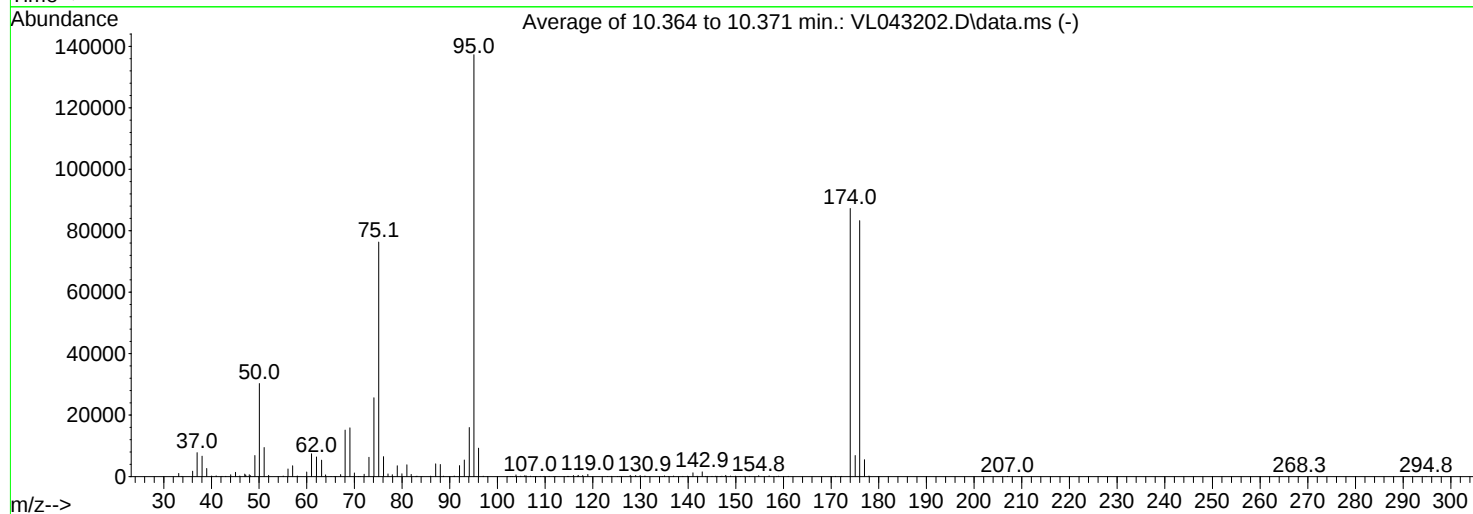
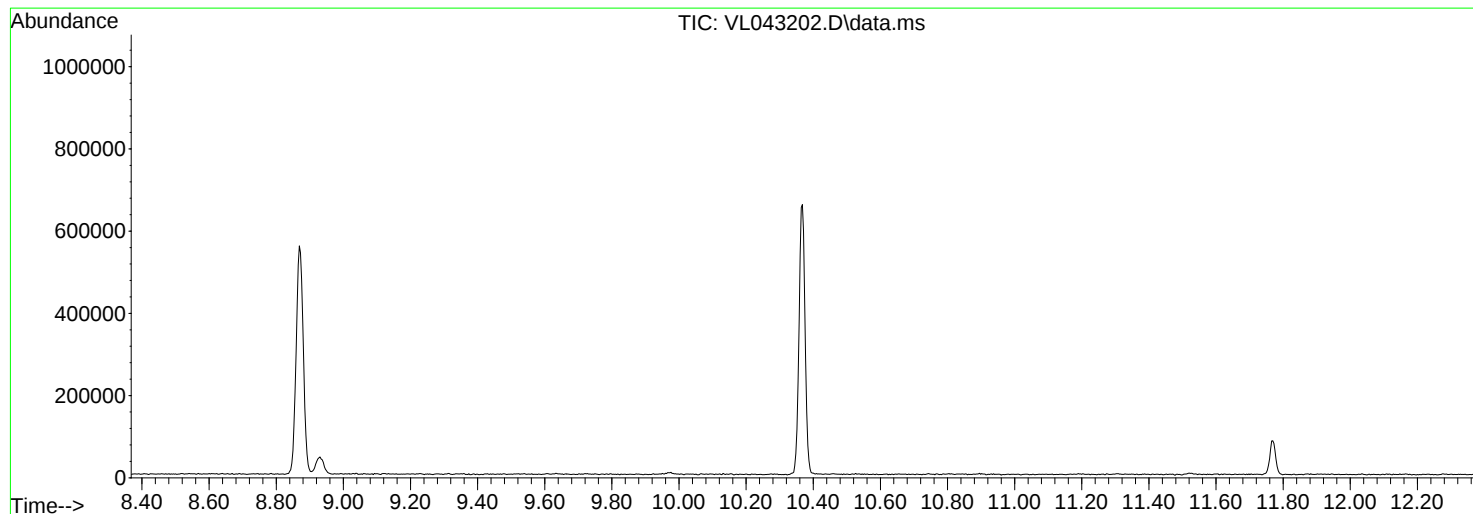
QC SAMPLE DATA

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL111825\
Data File : VL043202.D
Acq On : 18 Nov 2025 08:46
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\VL111825AIR.M
Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
Last Update : Wed Nov 19 01:11:25 2025



AutoFind: Scans 3175, 3176, 3177; Background Corrected with Scan 3156

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	22.1	30285	PASS
75	95	30	66	55.6	76296	PASS
95	95	100	100	100.0	137266	PASS
96	95	5	9	6.7	9227	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	63.6	87269	PASS
175	174	4	9	7.8	6847	PASS
176	174	93	101	95.5	83301	PASS
177	176	5	9	6.6	5509	PASS

Average of 10.364 to 10.371 min.: VL043202.D\data.ms

BFB

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
33.15	1017	45.05	1373	56.05	2485	67.10	650
33.80	90	45.95	190	57.05	3511	68.05	1515
36.05	1728	47.00	799	58.00	209	69.05	1587
37.00	7775	47.20	474	60.00	1493	70.00	1182
38.05	6647	47.95	600	61.00	7430	70.90	18
39.00	2637	48.20	316	62.05	6404	71.20	48
40.05	176	49.10	6876	63.10	5348	72.05	772
41.00	228	50.05	30285	63.95	548	73.05	6279
42.20	99	51.05	9432	65.10	18	74.10	25637
43.00	63	52.00	422	65.75	54	75.10	76296
44.05	598	55.05	162	66.10	23	76.10	6470

Average of 10.364 to 10.371 min.: VL043202.D\data.ms

BFB

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
77.05	853	88.00	3931	102.80	24	109.85	96
77.95	601	88.70	128	103.10	20	110.85	101
79.00	3536	90.95	202	103.90	564	111.80	44
79.95	911	92.05	3581	104.90	156	112.20	28
81.00	3819	93.05	5411	105.75	294	114.70	70
81.90	690	94.10	15989	106.00	240	114.95	67
82.90	77	95.05	137266	106.95	132	115.95	360
83.10	136	96.05	9227	107.65	48	116.80	153
84.15	40	97.00	116	108.10	27	116.95	414
86.00	131	97.90	24	109.00	61	117.90	356
87.05	4162	102.10	22	109.70	38	118.95	710

Average of 10.364 to 10.371 min.: VL043202.D\data.ms

BFB

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
123.10	19	135.05	222	145.80	142	157.00	250
123.90	99	135.90	30	146.10	100	158.60	28
125.20	19	136.95	182	146.80	34	159.00	120
125.70	56	138.90	65	147.10	127	161.00	78
126.10	58	139.90	157	147.90	406	170.90	87
127.85	394	141.00	1242	148.90	165	172.20	73
128.10	59	141.90	141	149.95	156	174.00	87269
129.00	325	142.95	1524	151.00	22	175.05	6847
129.95	344	143.70	75	151.80	76	176.00	83301
130.95	175	144.00	78	152.90	62	177.00	5509
134.60	21	145.00	87	154.80	296	177.95	166

Average of 10.364 to 10.371 min.: VL043202.D\data.ms

BFB

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
207.00	28						
268.30	20						
294.80	17						

Instrument :

MSVOA_L

ClientSampleId :

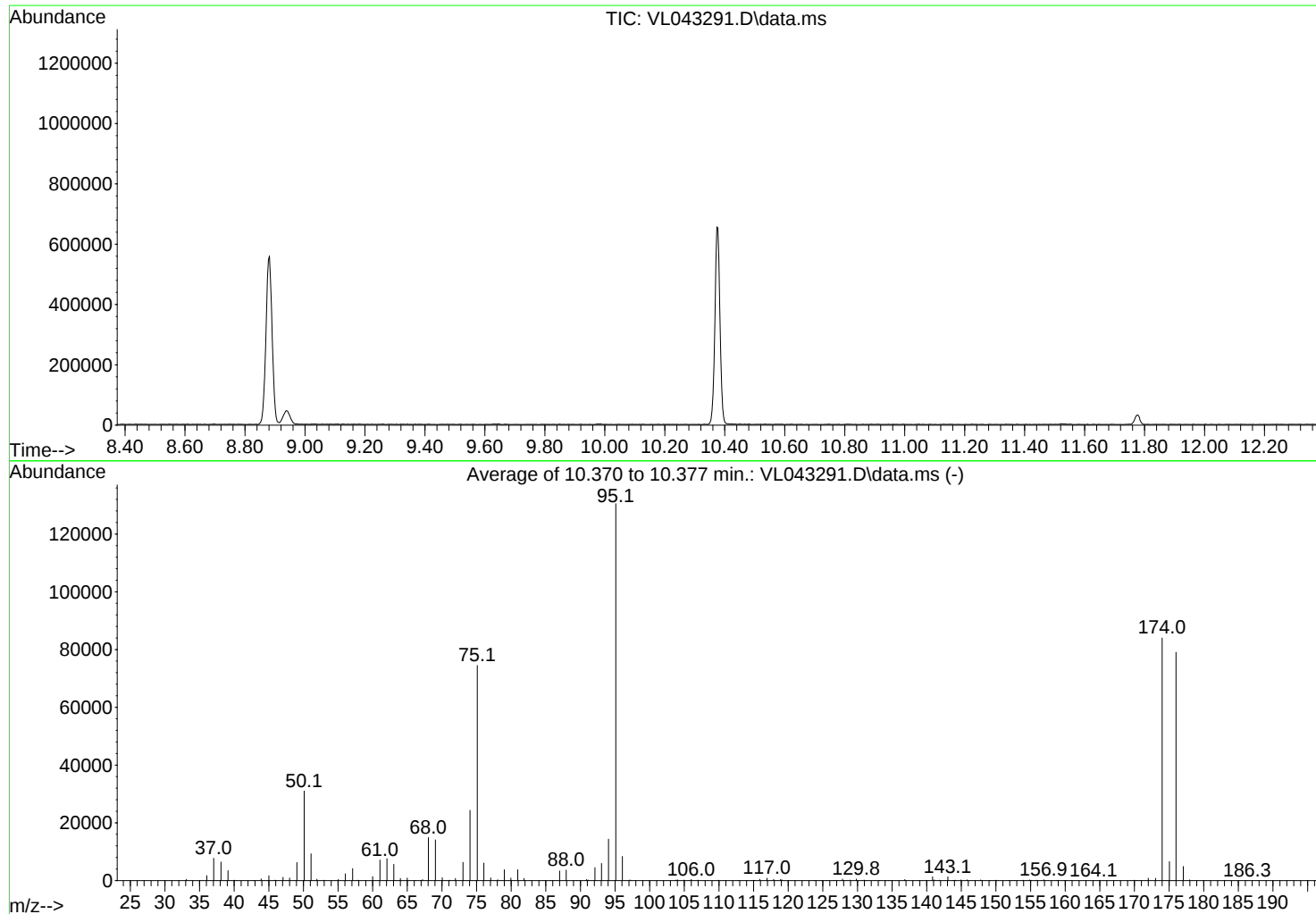
BFB

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL120225\
Data File : VL043291.D
Acq On : 02 Dec 2025 08:38
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\VL111825AIR.M
Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
Last Update : Wed Nov 19 01:11:25 2025



AutoFind: Scans 3177, 3178, 3179; Background Corrected with Scan 3162

Target	Rel. to	Lower	Upper	Rel.	Raw	Result
Mass	Mass	Limit%	Limit%	Abn%	Abn	Pass/Fail
50	95	8	40	23.8	31024	PASS
75	95	30	66	57.1	74475	PASS
95	95	100	100	100.0	130520	PASS
96	95	5	9	6.4	8369	PASS
173	174	0.00	2	0.9	796	PASS
174	95	50	120	64.3	83984	PASS
175	174	4	9	7.8	6548	PASS
176	174	93	101	94.1	79069	PASS
177	176	5	9	6.2	4882	PASS

Average of 10.370 to 10.377 min.: VL043291.D\data.ms

BFB

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
33.10	424	47.05	1140	60.00	1351	70.05	951
36.05	1694	48.00	882	61.05	7092	71.10	111
37.05	7695	49.05	6286	62.05	7621	71.95	701
38.10	6427	50.10	31024	63.05	5631	73.05	630
39.10	3429	51.10	9311	64.00	698	74.05	24312
40.00	107	51.95	471	65.00	889	75.10	74475
42.80	48	52.90	108	66.20	46	76.05	6095
43.90	588	55.05	354	66.90	26	77.05	906
45.00	1676	56.05	2346	67.20	317	78.05	302
45.90	127	57.10	4136	68.05	14867	79.00	3750
46.05	60	57.90	136	69.05	14105	79.95	876

Average of 10.370 to 10.377 min.: VL043291.D\data.ms

BFB

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
80.95	3756	93.05	5935	109.90	143	124.90	92
81.85	744	94.05	14353	110.95	87	125.60	19
82.70	61	95.10	130520	112.80	28	126.60	18
85.70	26	96.05	8369	114.80	72	127.85	526
86.00	53	97.15	219	115.10	82	128.95	186
87.00	3354	103.80	113	115.90	484	129.85	530
87.95	3639	104.00	276	116.95	804	130.95	157
89.50	22	104.95	167	117.90	413	131.20	34
90.90	363	105.75	63	118.90	421	132.50	46
91.10	192	106.00	398	119.10	242	133.20	19
92.10	4503	106.95	157	123.80	102	134.10	30

Average of 10.370 to 10.377 min.: VL043291.D\data.ms

BFB

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
134.50	26	144.10	104	154.85	209	170.40	40
134.80	52	144.95	204	155.10	63	170.80	70
135.00	94	145.85	228	155.85	127	172.00	827
136.85	380	147.80	220	156.90	271	173.05	796
138.80	21	148.00	21	158.80	55	174.00	83984
140.00	95	149.15	45	159.00	90	175.05	6548
140.85	1296	150.05	127	160.10	36	176.00	79069
141.10	236	151.90	22	160.90	100	177.05	4882
141.85	142	152.25	67	164.10	49	177.95	213
143.05	1316	152.70	19	169.50	21	186.30	21
143.85	72	153.90	112	170.00	117		

Report of Analysis

Client: GFE LLC
Project: All Projects
Client Sample ID: VL1202ABL01
Lab Sample ID: VL1202ABL01
Analytical Method: TO-15
Sample Wt/Vol: 400 mL

Date Collected:
Date Received:
SDG No.: Q3744
Matrix: Air
Test: VOCMS Group2

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qua.	DF	MDL ug/m3	LOQ / CRQL ug/m3	Date Ana.	BatchID
TARGETS									
75-01-4	Vinyl Chloride	0.030	0.080	U	1	0.080	0.080	12/02/25 10:19	VL120225
142-82-5	Heptane	0.17	0.70	U	1	0.70	2.05	12/02/25 10:19	VL120225
75-34-3	1,1-Dichloroethane	0.13	0.53	U	1	0.53	2.02	12/02/25 10:19	VL120225
110-82-7	Cyclohexane	0.22	0.76	U	1	0.76	1.72	12/02/25 10:19	VL120225
156-59-2	cis-1,2-Dichloroethene	0.10	0.40	U	1	0.40	1.98	12/02/25 10:19	VL120225
71-55-6	1,1,1-Trichloroethane	0.020	0.11	U	1	0.11	0.16	12/02/25 10:19	VL120225
540-84-1	2,2,4-Trimethylpentane	0.14	0.65	U	1	0.65	2.34	12/02/25 10:19	VL120225
71-43-2	Benzene	0.080	0.26	U	1	0.26	1.60	12/02/25 10:19	VL120225
79-01-6	Trichloroethene	0.020	0.11	U	1	0.11	0.16	12/02/25 10:19	VL120225
108-88-3	Toluene	0.16	0.60	U	1	0.60	1.88	12/02/25 10:19	VL120225
127-18-4	Tetrachloroethene	0.020	0.14	U	1	0.14	0.20	12/02/25 10:19	VL120225
100-41-4	Ethyl Benzene	0.19	0.83	U	1	0.83	2.17	12/02/25 10:19	VL120225
179601-23-1	m/p-Xylene	0.41	1.78	U	1	1.78	4.34	12/02/25 10:19	VL120225
95-47-6	o-Xylene	0.21	0.91	U	1	0.91	2.17	12/02/25 10:19	VL120225
108-67-8	1,3,5-Trimethylbenzene	0.18	0.88	U	1	0.88	2.46	12/02/25 10:19	VL120225
95-63-6	1,2,4-Trimethylbenzene	0.18	0.88	U	1	0.88	2.46	12/02/25 10:19	VL120225
91-20-3	Naphthalene	0.010	0.050	U	1	0.050	0.52	12/02/25 10:19	VL120225
110-54-3	Hexane	0.16	0.56	U	1	0.56	1.76	12/02/25 10:19	VL120225
SURROGATES									
460-00-4	1-Bromo-4-Fluorobenzene	9.40				65 - 135	94% SPK: 10		
INTERNAL STANDARDS									
		Area Count							
74-97-5	Bromochloromethane	125000							
540-36-3	1,4-Difluorobenzene	326000							
3114-55-4	Chlorobenzene-d5	249000							

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\VL120225\
 Data File : VL043293.D
 Acq On : 02 Dec 2025 10:19
 Operator : SY/MD
 Sample : VL1202ABL01
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 VL1202ABL01

Quant Time: Dec 03 00:04:47 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Wed Nov 19 01:11:25 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	2.790	49	125081	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.962	114	325973	10.000	ppbv	0.01
55) Chlorobenzene-d5	8.885	117	249315	10.000	ppbv	0.01

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.377	95	171944	9.409	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	94.100%

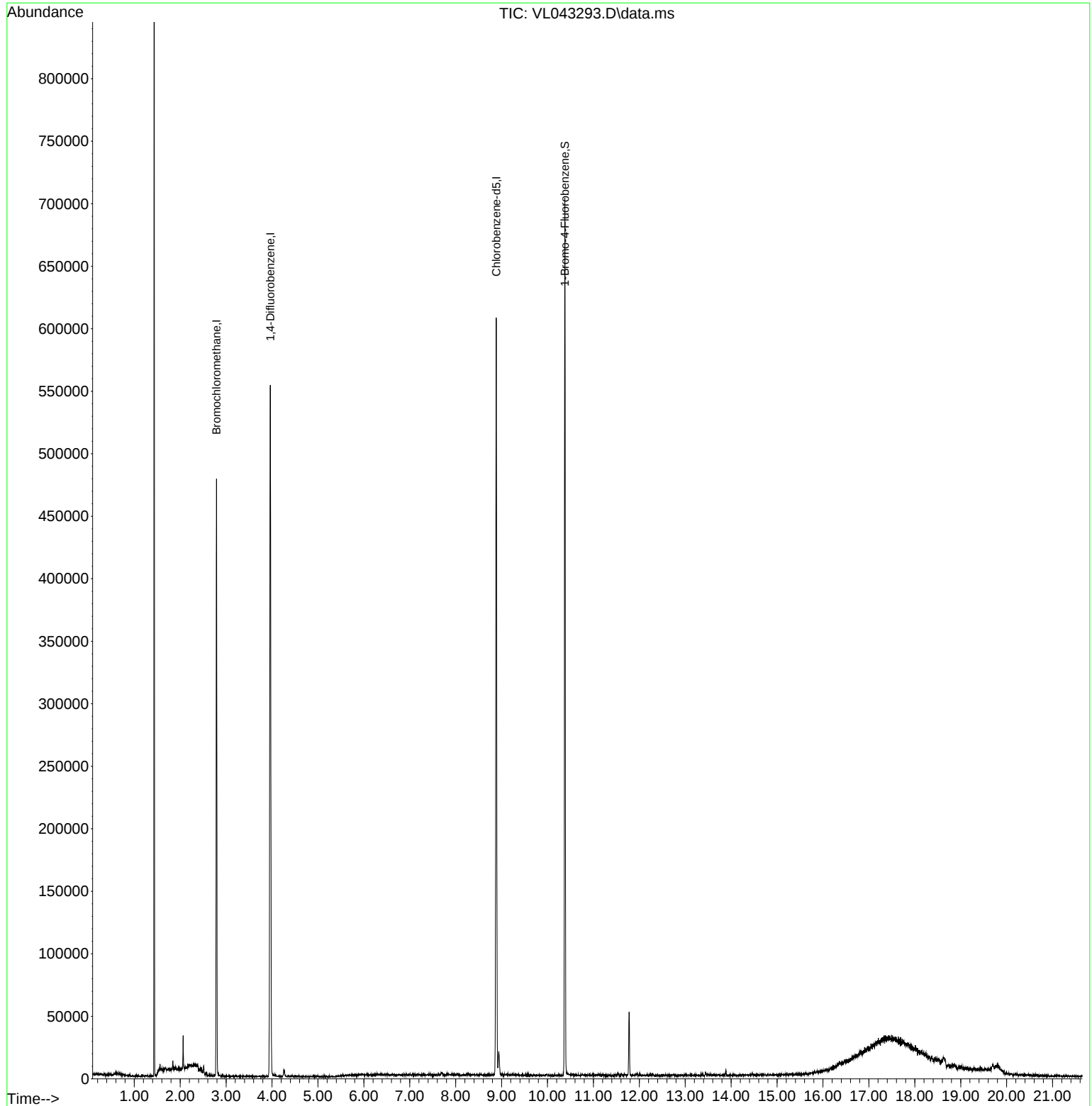
Target Compounds	Qvalue

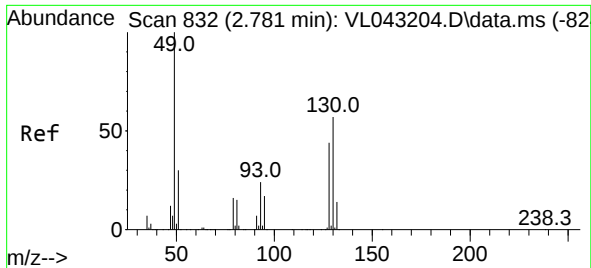
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL120225\
Data File : VL043293.D
Acq On : 02 Dec 2025 10:19
Operator : SY/MD
Sample : VL1202ABL01
Misc : 400mL/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
VL1202ABL01

Quant Time: Dec 03 00:04:47 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
QLast Update : Wed Nov 19 01:11:25 2025
Response via : Initial Calibration

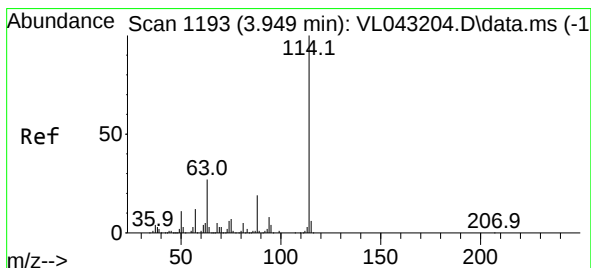
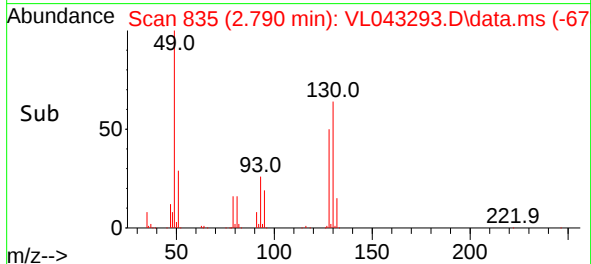
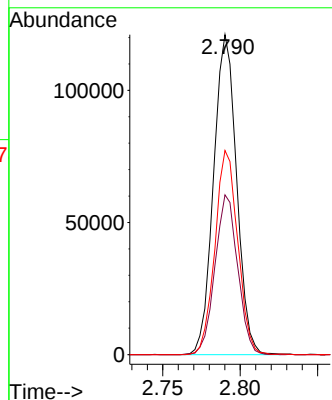
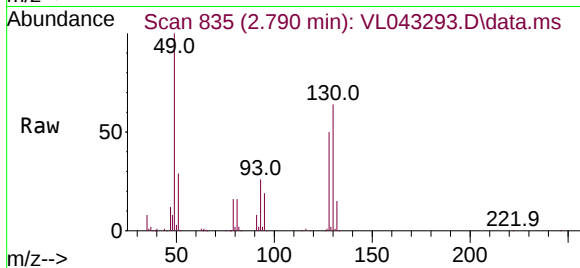




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.790 min Scan# 832
Delta R.T. 0.009 min
Lab File: VL043293.D
Acq: 02 Dec 2025 10:19

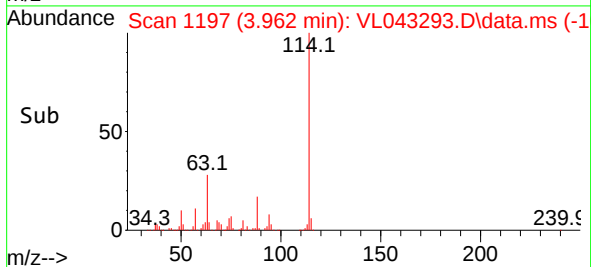
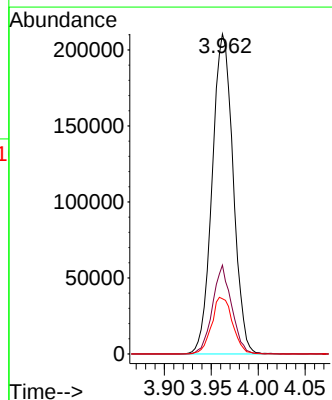
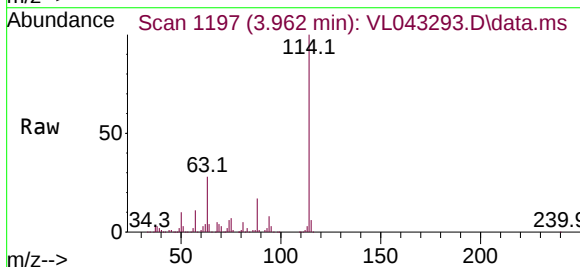
Instrument :
MSVOA_1
ClientSampleId :
VL1202ABL01

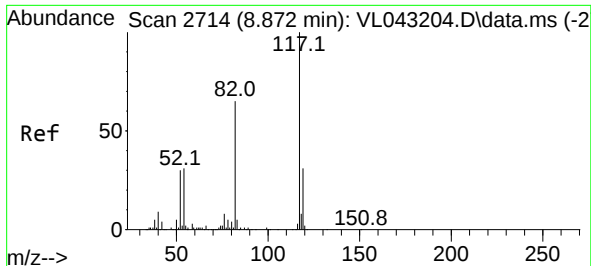
Tgt Ion: 49 Resp: 125081
Ion Ratio Lower Upper
49 100
128 49.2 23.0 69.0
130 63.3 29.9 89.7



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 3.962 min Scan# 1197
Delta R.T. 0.013 min
Lab File: VL043293.D
Acq: 02 Dec 2025 10:19

Tgt Ion: 114 Resp: 325973
Ion Ratio Lower Upper
114 100
63 25.4 21.0 31.6
88 17.7 14.9 22.3

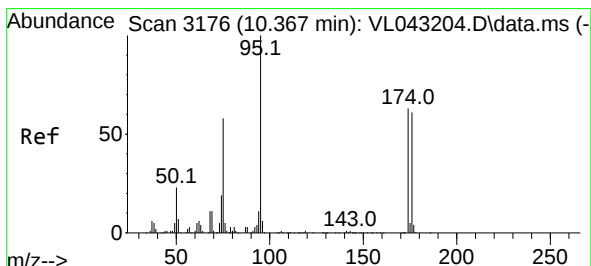
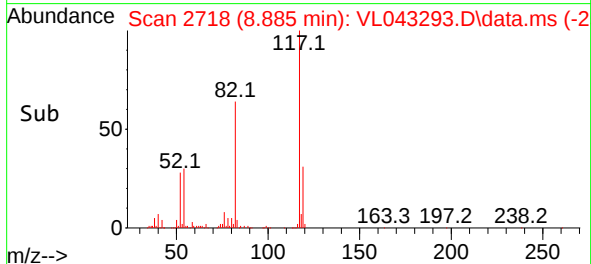
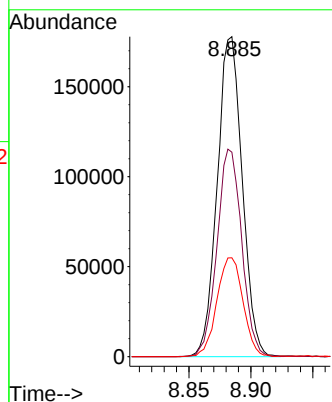
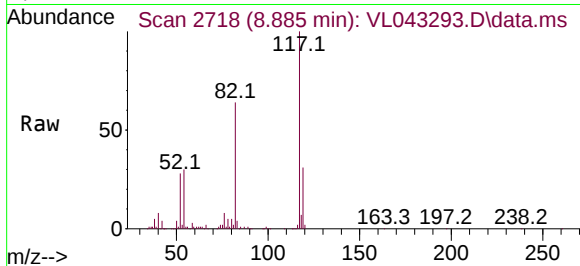




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.885 min Scan# 21
Delta R.T. 0.013 min
Lab File: VL043293.D
Acq: 02 Dec 2025 10:19

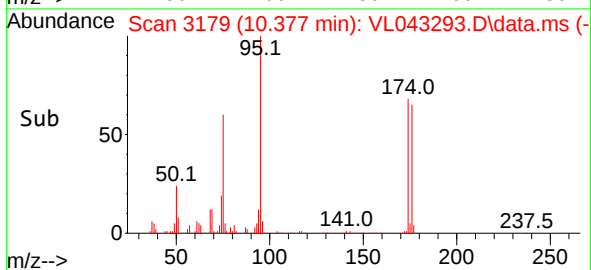
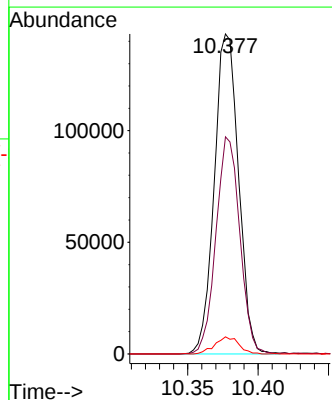
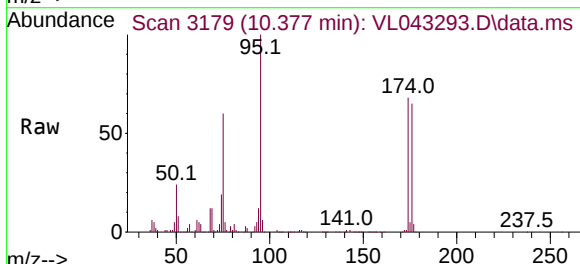
Instrument :
MSVOA_L
ClientSampleId :
VL1202ABL01

Tgt Ion:117 Resp: 249315
Ion Ratio Lower Upper
117 100
82 64.2 56.1 84.1
119 32.5 25.0 37.6



#68
1-Bromo-4-Fluorobenzene
Concen: 9.409 ppbv
RT: 10.377 min Scan# 3179
Delta R.T. 0.009 min
Lab File: VL043293.D
Acq: 02 Dec 2025 10:19

Tgt Ion: 95 Resp: 171944
Ion Ratio Lower Upper
95 100
174 66.8 50.2 75.2
175 5.2 4.1 6.1



Report of Analysis

Client: GFE LLC
Project: All Projects
Client Sample ID: VL1202ABS01
Lab Sample ID: VL1202ABS01
Analytical Method: TO-15
Sample Wt/Vol: 400 mL

Date Collected:
Date Received:
SDG No.: Q3744
Matrix: Air
Test: VOCMS Group2

CAS Number	Parameter	Conc. ppbv	Conc. ug/M3	Qua.	DF	MDL ug/m3	LOQ / CRQL ug/m3	Date Ana.	BatchID
TARGETS									
75-01-4	Vinyl Chloride	9.50	24.3		1	0.080	0.080	12/02/25 11:06	VL120225
142-82-5	Heptane	9.50	38.9		1	0.70	2.05	12/02/25 11:06	VL120225
75-34-3	1,1-Dichloroethane	10.9	44.1		1	0.53	2.02	12/02/25 11:06	VL120225
110-82-7	Cyclohexane	10.2	35.1		1	0.76	1.72	12/02/25 11:06	VL120225
156-59-2	cis-1,2-Dichloroethene	10.3	40.8		1	0.40	1.98	12/02/25 11:06	VL120225
71-55-6	1,1,1-Trichloroethane	11.1	60.6		1	0.11	0.16	12/02/25 11:06	VL120225
540-84-1	2,2,4-Trimethylpentane	10.2	47.6		1	0.65	2.34	12/02/25 11:06	VL120225
71-43-2	Benzene	10.7	34.2		1	0.26	1.60	12/02/25 11:06	VL120225
79-01-6	Trichloroethene	11.0	59.1		1	0.11	0.16	12/02/25 11:06	VL120225
108-88-3	Toluene	10.0	37.7		1	0.60	1.88	12/02/25 11:06	VL120225
127-18-4	Tetrachloroethene	10.6	71.9		1	0.14	0.20	12/02/25 11:06	VL120225
100-41-4	Ethyl Benzene	10.8	46.9		1	0.83	2.17	12/02/25 11:06	VL120225
179601-23-1	m/p-Xylene	22.1	96.0		1	1.78	4.34	12/02/25 11:06	VL120225
95-47-6	o-Xylene	11.1	48.2		1	0.91	2.17	12/02/25 11:06	VL120225
108-67-8	1,3,5-Trimethylbenzene	10.9	53.6		1	0.88	2.46	12/02/25 11:06	VL120225
95-63-6	1,2,4-Trimethylbenzene	11.0	54.1		1	0.88	2.46	12/02/25 11:06	VL120225
91-20-3	Naphthalene	10.1	53.0		1	0.050	0.52	12/02/25 11:06	VL120225
110-54-3	Hexane	9.90	34.9		1	0.56	1.76	12/02/25 11:06	VL120225

SURROGATES

460-00-4	1-Bromo-4-Fluorobenzene	10.1		65 - 135	101% SPK: 10
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INTERNAL STANDARDS

	Area Count	
74-97-5	Bromochloromethane	124000
540-36-3	1,4-Difluorobenzene	325000
3114-55-4	Chlorobenzene-d5	255000

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\VL120225\
 Data File : VL043294.D
 Acq On : 02 Dec 2025 11:06
 Operator : SY/MD
 Sample : VL1202ABS01
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 VL1202ABS01

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 12/03/2025
 Supervised By :Mahesh Dadoda 12/03/2025

Quant Time: Dec 03 00:05:06 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M

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

QLast Update : Wed Nov 19 01:11:25 2025

Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	2.794	49	123802	10.000	ppbv	0.01
33) 1,4-Difluorobenzene	3.969	114	324780	10.000	ppbv	0.02
55) Chlorobenzene-d5	8.892	117	255124	10.000	ppbv	0.02

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene 10.384 95 188447 10.077 ppbv 0.02
 Spiked Amount 10.000 Range 65 - 135 Recovery = 100.800%

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.502	85	195459	11.194	ppbv	99
3) Chlorodifluoromethane	1.480	51	179686	10.464	ppbv	97
4) Chloromethane	1.538	50	68083	10.428	ppbv	96
5) Vinyl Chloride	1.586	62	68042	9.530	ppbv	97
6) Bromomethane	1.674	94	33637	9.719	ppbv	95
7) Chloroethane	1.709	64	27571	9.915	ppbv	92
8) Dichlorotetrafluoroethane	1.561	85	161389	11.111	ppbv	98
9) Propene	1.489	41	71511m	9.807	ppbv	
10) Heptane	4.991	43	205732	9.480	ppbv	98
11) Trichlorofluoromethane	1.884	101	204847	12.108	ppbv	97
12) 1,1,2-Trichlorotrifluo...	2.146	101	154149	11.671	ppbv	95
13) Ethanol	1.726	45	19708	7.686	ppbv	93
14) Bromoethene	1.787	108	55552	10.971	ppbv	96
15) Acetone	1.839	43	150554	8.753	ppbv	99
16) 1,3-Butadiene	1.612	39	74702	9.742	ppbv	97
17) tert-Butyl alcohol	2.043	59	215553	9.547	ppbv	100
18) 1,1-Dichloroethene	2.040	96	66011	10.734	ppbv	92
19) Isopropyl Alcohol	1.891	45	86559	8.906	ppbv	92
20) Methylene Chloride	2.069	84	61135	12.238	ppbv	91
21) Allyl Chloride	2.101	41	104222	9.006	ppbv	96
22) trans-1,2-Dichloroethene	2.347	96	75412	10.729	ppbv	97
23) Vinyl Acetate	2.467	43	197779	9.525	ppbv	99
24) 1,1-Dichloroethane	2.415	63	148426	10.939	ppbv	97
25) Ethyl Acetate	2.839	43	360184	9.709	ppbv	99
26) Hexane	2.833	57	160728	9.882	ppbv	99
27) Carbon Disulfide	2.156	76	187625	11.300	ppbv	100
28) Methyl tert-Butyl Ether	2.444	73	85538	10.714	ppbv	97
29) Chloroform	2.855	83	271561	11.747	ppbv	97
30) Cyclohexane	3.868	84	139054	10.198	ppbv	92
31) cis-1,2-Dichloroethene	2.729	61	166681	10.311	ppbv	96
32) 1,1,1-Trichloroethane	3.376	97	273427	11.096	ppbv	99
34) 2-Butanone	2.561	43	229096	9.993	ppbv	100
35) Carbon Tetrachloride	3.771	117	291615	11.829	ppbv	97
36) Benzene	3.664	78	333658	10.727	ppbv	99
37) 1,2-Dichloroethane	3.227	62	206629	11.358	ppbv	99
38) Trichloroethene	4.558	130	134303	11.037	ppbv	98
39) 1,2-Dichloropropane	4.325	63	119295	10.479	ppbv	90
40) 1,4-Dioxane	4.584	88	43421	8.485	ppbv #	95
41) Tetrahydrofuran	3.059	42	118086	9.327	ppbv	99
42) Bromodichloromethane	4.503	83	289858	11.550	ppbv	98
43) Methyl Methacrylate	4.888	69	156420	9.475	ppbv	94
44) 2,2,4-Trimethylpentane	4.652	57	543210	10.169	ppbv	99
45) t-1,3-Dichloropropene	6.428	75	123199	8.005	ppbv	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL120225\
 Data File : VL043294.D
 Acq On : 02 Dec 2025 11:06
 Operator : SY/MD
 Sample : VL1202ABS01
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 VL1202ABS01

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 12/03/2025
 Supervised By :Mahesh Dadoda 12/03/2025

Quant Time: Dec 03 00:05:06 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M

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

QLast Update : Wed Nov 19 01:11:25 2025

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
46) cis-1,3-Dichloropropene	5.616	75	147890	8.184	ppbv	99
47) 1,1,2-Trichloroethane	6.594	97	130991	10.843	ppbv	95
48) Dibromochloromethane	7.396	129	239231	11.518	ppbv	100
49) Bromoform	9.490	173	213075	11.581	ppbv	99
50) 4-Methyl-2-Pentanone	5.762	43	301568	9.338	ppbv	98
51) 2-Hexanone	7.442	43	216900	8.649	ppbv #	99
52) Tetrachloroethene	8.235	164	122265	10.568	ppbv	95
53) Toluene	6.946	91	369257	10.026	ppbv	98
54) 1,2-Dibromoethane	7.662	107	177639	9.992	ppbv	92
56) 1,1,1,2-Tetrachloroethane	8.930	131	223471	11.919	ppbv	98
57) Chlorobenzene	8.930	112	299666	11.440	ppbv	98
58) Ethyl Benzene	9.361	91	528294	10.759	ppbv	98
59) m/p-Xylene	9.558	91	868801m	22.068	ppbv	
60) o-Xylene	9.973	91	434822	11.056	ppbv	99
61) Styrene	9.879	104	168689	9.800	ppbv	99
62) Isopropylbenzene	10.545	105	777896	11.056	ppbv	99
63) 1,1,2,2-Tetrachloroethane	9.969	83	270794	10.821	ppbv	100
64) n-propylbenzene	10.995	120	197680	10.934	ppbv	100
65) tert-Butylbenzene	11.536	119	674888	10.740	ppbv	100
66) Benzyl Chloride	11.623	91	32212	5.051	ppbv	100
67) sec-Butylbenzene	11.772	105	947203	10.799	ppbv	99
69) p-Isopropyltoluene	11.931	119	789416	10.624	ppbv	100
70) n-Butylbenzene	12.287	91	756793	10.499	ppbv	100
71) 2-Chlorotoluene	10.908	91	578579	10.698	ppbv	99
72) 4-Ethyltoluene	11.131	105	522854	10.917	ppbv	99
73) 1,3,5-Trimethylbenzene	11.209	105	437005	10.873	ppbv	95
74) 1,2,4-Trimethylbenzene	11.542	105	484574	11.047	ppbv	98
75) 1,3-Dichlorobenzene	11.614	146	288141	11.257	ppbv	99
76) 1,4-Dichlorobenzene	11.678	146	285722	11.160	ppbv	99
77) 1,2-Dichlorobenzene	11.953	146	274815	11.167	ppbv	99
78) Hexachloro-1,3-Butadiene	13.886	225	211454	10.296	ppbv	100
79) Naphthalene	13.517	128	392220	10.068	ppbv	99
80) Naphthalene,2-methyl-	14.465	142	91837	8.981	ppbv	98
81) 1,2,4-Trichlorobenzene	13.446	180	193291	11.094	ppbv	99

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

Manual Integration Report

Sequence:	VL11825	Instrument	MSVOA_I
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Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICC0.5	VL043203.D	1,1,1,2-Tetrachloroethane	sam	11/19/2025 8:29:16 AM	MMDadoda	11/19/2025 9:42:12 AM	Peak Integrated by Software
VSTDICC0.5	VL043203.D	1,1,2-Trichloroethane	sam	11/19/2025 8:29:16 AM	MMDadoda	11/19/2025 9:42:12 AM	Peak Integrated by Software
VSTDICC0.5	VL043203.D	1,4-Dioxane	sam	11/19/2025 8:29:16 AM	MMDadoda	11/19/2025 9:42:12 AM	Peak Integrated by Software
VSTDICC0.5	VL043203.D	cis-1,3-Dichloropropene	sam	11/19/2025 8:29:16 AM	MMDadoda	11/19/2025 9:42:12 AM	Peak Integrated by Software
VSTDICC0.5	VL043203.D	Ethyl Acetate	sam	11/19/2025 8:29:16 AM	MMDadoda	11/19/2025 9:42:12 AM	Peak Integrated by Software
VSTDICC0.5	VL043203.D	Heptane	sam	11/19/2025 8:29:16 AM	MMDadoda	11/19/2025 9:42:12 AM	Peak Integrated by Software
VSTDICC0.5	VL043203.D	m/p-Xylene	sam	11/19/2025 8:29:16 AM	MMDadoda	11/19/2025 9:42:12 AM	Peak Integrated by Software
VSTDICC0.5	VL043203.D	Methyl Methacrylate	sam	11/19/2025 8:29:16 AM	MMDadoda	11/19/2025 9:42:12 AM	Peak Integrated by Software
VSTDICC0.5	VL043203.D	Toluene	sam	11/19/2025 8:29:16 AM	MMDadoda	11/19/2025 9:42:12 AM	Peak Integrated by Software
VSTDICCC010	VL043204.D	m/p-Xylene	sam	11/19/2025 8:29:20 AM	MMDadoda	11/19/2025 9:42:15 AM	Peak Integrated by Software
VSTDICC002	VL043205.D	1,1,2-Trichloroethane	sam	11/19/2025 8:30:50 AM	MMDadoda	11/19/2025 9:42:20 AM	Peak Integrated by Software
VSTDICC002	VL043205.D	1,4-Dioxane	sam	11/19/2025 8:30:50 AM	MMDadoda	11/19/2025 9:42:20 AM	Peak Integrated by Software
VSTDICC002	VL043205.D	Benzene	sam	11/19/2025 8:30:50 AM	MMDadoda	11/19/2025 9:42:20 AM	Peak Integrated by Software

Manual Integration Report

Sequence:

VL11825

Instrument

MSVOA_I

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICC002	VL043205.D	Dibromochloromethane	sam	11/19/2025 8:30:50 AM	MMDadoda	11/19/2025 9:42:20 AM	Peak Integrated by Software
VSTDICC002	VL043205.D	Heptane	sam	11/19/2025 8:30:50 AM	MMDadoda	11/19/2025 9:42:20 AM	Peak Integrated by Software
VSTDICC002	VL043205.D	m/p-Xylene	sam	11/19/2025 8:30:50 AM	MMDadoda	11/19/2025 9:42:20 AM	Peak Integrated by Software
VSTDICC002	VL043205.D	t-1,3-Dichloropropene	sam	11/19/2025 8:30:50 AM	MMDadoda	11/19/2025 9:42:20 AM	Peak Integrated by Software
VSTDICC002	VL043205.D	Trichloroethene	sam	11/19/2025 8:30:50 AM	MMDadoda	11/19/2025 9:42:20 AM	Peak Integrated by Software
VSTDICC001	VL043206.D	1,4-Dioxane	sam	11/19/2025 8:31:27 AM	MMDadoda	11/19/2025 9:42:23 AM	Peak Integrated by Software
VSTDICC001	VL043206.D	2,2,4-Trimethylpentane	sam	11/19/2025 8:31:27 AM	MMDadoda	11/19/2025 9:42:23 AM	Peak Integrated by Software
VSTDICC001	VL043206.D	m/p-Xylene	sam	11/19/2025 8:31:27 AM	MMDadoda	11/19/2025 9:42:23 AM	Peak Integrated by Software
VSTDICC001	VL043206.D	t-1,3-Dichloropropene	sam	11/19/2025 8:31:27 AM	MMDadoda	11/19/2025 9:42:23 AM	Peak Integrated by Software
VSTDICC001	VL043206.D	Trichloroethene	sam	11/19/2025 8:31:27 AM	MMDadoda	11/19/2025 9:42:23 AM	Peak Integrated by Software
VSTDICC0.1	VL043208.D	1,1,1-Trichloroethane	sam	11/19/2025 8:31:38 AM	MMDadoda	11/19/2025 9:42:32 AM	Peak Integrated by Software
VSTDICC0.1	VL043208.D	1,1,2,2-Tetrachloroethane	sam	11/19/2025 8:31:38 AM	MMDadoda	11/19/2025 9:42:32 AM	Peak Integrated by Software
VSTDICC0.1	VL043208.D	1,2-Dibromoethane	sam	11/19/2025 8:31:38 AM	MMDadoda	11/19/2025 9:42:32 AM	Peak Integrated by Software

Manual Integration Report

Sequence:	VL11825	Instrument	MSVOA_I
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Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICC0.1	VL043208.D	Carbon Tetrachloride	sam	11/19/2025 8:31:38 AM	MMDadoda	11/19/2025 9:42:32 AM	Peak Integrated by Software
VSTDICC0.1	VL043208.D	Naphthalene	sam	11/19/2025 8:31:38 AM	MMDadoda	11/19/2025 9:42:32 AM	Peak Integrated by Software
VSTDICC0.1	VL043208.D	Tetrachloroethene	sam	11/19/2025 8:31:38 AM	MMDadoda	11/19/2025 9:42:32 AM	Peak Integrated by Software
VSTDICC0.1	VL043208.D	Trichloroethene	sam	11/19/2025 8:31:38 AM	MMDadoda	11/19/2025 9:42:32 AM	Peak Integrated by Software
VSTDICC0.03	VL043209.D	1,1,1-Trichloroethane	sam	11/19/2025 8:31:44 AM	MMDadoda	11/19/2025 9:42:35 AM	Peak Integrated by Software
VSTDICC0.03	VL043209.D	1,1,2,2-Tetrachloroethane	sam	11/19/2025 8:31:44 AM	MMDadoda	11/19/2025 9:42:35 AM	Peak Integrated by Software
VSTDICC0.03	VL043209.D	Carbon Tetrachloride	sam	11/19/2025 8:31:44 AM	MMDadoda	11/19/2025 9:42:35 AM	Peak Integrated by Software
VSTDICC0.03	VL043209.D	Tetrachloroethene	sam	11/19/2025 8:31:44 AM	MMDadoda	11/19/2025 9:42:35 AM	Peak Integrated by Software
VSTDICC0.03	VL043209.D	Trichloroethene	sam	11/19/2025 8:31:44 AM	MMDadoda	11/19/2025 9:42:35 AM	Peak Integrated by Software
VSTDICC0.03	VL043209.D	Vinyl Chloride	sam	11/19/2025 8:31:44 AM	MMDadoda	11/19/2025 9:42:35 AM	Peak Integrated by Software
VSTDICC015	VL043210.D	m/p-Xylene	sam	11/19/2025 8:32:26 AM	MMDadoda	11/19/2025 9:42:39 AM	Peak Integrated by Software
VSTDICC015	VL043210.D	Propene	sam	11/19/2025 8:32:26 AM	MMDadoda	11/19/2025 9:42:39 AM	Peak Integrated by Software
VSTDICV010	VL043211.D	m/p-Xylene	sam	11/19/2025 8:31:49 AM	MMDadoda	11/19/2025 9:43:04 AM	Peak Integrated by Software



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

Manual Integration Report

Sequence:

VL111825

Instrument

MSVOA_I

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICV010	VL043211.D	Propene	sam	11/19/2025 8:31:49 AM	MMDadoda	11/19/2025 9:43:04 AM	Peak Integrated by Software

Manual Integration Report

Sequence:	VL120225	Instrument	MSVOA_I
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Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDCCC010	VL043292.D	m/p-Xylene	sam	12/3/2025 12:30:28 PM	MMDadoda	12/3/2025 2:29:26 PM	Peak Integrated by Software
VL1202ABS01	VL043294.D	m/p-Xylene	sam	12/3/2025 12:31:03 PM	MMDadoda	12/3/2025 2:29:30 PM	Peak Integrated by Software
VL1202ABS01	VL043294.D	Propene	sam	12/3/2025 12:31:03 PM	MMDadoda	12/3/2025 2:29:30 PM	Peak Integrated by Software
Q3744-02	VL043296.D	2,2,4-Trimethylpentane	sam	12/3/2025 12:31:14 PM	MMDadoda	12/3/2025 2:29:37 PM	Peak Integrated by Software
Q3744-02	VL043296.D	Carbon Tetrachloride	sam	12/3/2025 12:31:14 PM	MMDadoda	12/3/2025 2:29:37 PM	Peak Integrated by Software
Q3744-02	VL043296.D	Chlorodifluoromethane	sam	12/3/2025 12:31:14 PM	MMDadoda	12/3/2025 2:29:37 PM	Peak Integrated by Software
Q3744-02	VL043296.D	m/p-Xylene	sam	12/3/2025 12:31:14 PM	MMDadoda	12/3/2025 2:29:37 PM	Peak Integrated by Software
Q3744-02DUP	VL043297.D	2,2,4-Trimethylpentane	sam	12/3/2025 12:30:53 PM	MMDadoda	12/3/2025 2:29:59 PM	Peak Integrated by Software
Q3744-02DUP	VL043297.D	Carbon Tetrachloride	sam	12/3/2025 12:30:53 PM	MMDadoda	12/3/2025 2:29:59 PM	Peak Integrated by Software
Q3744-02DUP	VL043297.D	Chlorodifluoromethane	sam	12/3/2025 12:30:53 PM	MMDadoda	12/3/2025 2:29:59 PM	Peak Integrated by Software
Q3744-02DUP	VL043297.D	m/p-Xylene	sam	12/3/2025 12:30:53 PM	MMDadoda	12/3/2025 2:29:59 PM	Peak Integrated by Software
Q3744-04	VL043298.D	2,2,4-Trimethylpentane	sam	12/3/2025 12:30:48 PM	MMDadoda	12/3/2025 2:29:41 PM	Peak Integrated by Software
Q3744-04	VL043298.D	2-Butanone	sam	12/3/2025 12:30:48 PM	MMDadoda	12/3/2025 2:29:41 PM	Peak Integrated by Software

Manual Integration Report

Sequence:	VL120225	Instrument	MSVOA_I
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Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
Q3744-04	VL043298.D	Carbon Tetrachloride	sam	12/3/2025 12:30:48 PM	MMDadoda	12/3/2025 2:29:41 PM	Peak Integrated by Software
Q3744-04	VL043298.D	Chlorodifluoromethane	sam	12/3/2025 12:30:48 PM	MMDadoda	12/3/2025 2:29:41 PM	Peak Integrated by Software
Q3744-04	VL043298.D	Heptane	sam	12/3/2025 12:30:48 PM	MMDadoda	12/3/2025 2:29:41 PM	Peak Integrated by Software
Q3744-04	VL043298.D	m/p-Xylene	sam	12/3/2025 12:30:48 PM	MMDadoda	12/3/2025 2:29:41 PM	Peak Integrated by Software
Q3744-05	VL043299.D	2,2,4-Trimethylpentane	sam	12/3/2025 12:31:18 PM	MMDadoda	12/3/2025 2:29:45 PM	Peak Integrated by Software
Q3744-05	VL043299.D	Carbon Tetrachloride	sam	12/3/2025 12:31:18 PM	MMDadoda	12/3/2025 2:29:45 PM	Peak Integrated by Software
Q3744-05	VL043299.D	Chlorodifluoromethane	sam	12/3/2025 12:31:18 PM	MMDadoda	12/3/2025 2:29:45 PM	Peak Integrated by Software
Q3744-05	VL043299.D	Hexane	sam	12/3/2025 12:31:18 PM	MMDadoda	12/3/2025 2:29:45 PM	Peak Integrated by Software
Q3744-05	VL043299.D	Toluene	sam	12/3/2025 12:31:18 PM	MMDadoda	12/3/2025 2:29:45 PM	Peak Integrated by Software
Q3744-05	VL043299.D	Trichlorofluoromethane	sam	12/3/2025 12:31:18 PM	MMDadoda	12/3/2025 2:29:45 PM	Peak Integrated by Software
Q3744-01	VL043300.D	1,2,4-Trimethylbenzene	sam	12/3/2025 12:30:44 PM	MMDadoda	12/3/2025 2:29:49 PM	Peak Integrated by Software
Q3744-01	VL043300.D	m/p-Xylene	sam	12/3/2025 12:30:44 PM	MMDadoda	12/3/2025 2:29:49 PM	Peak Integrated by Software
Q3744-01	VL043300.D	Toluene	sam	12/3/2025 12:30:44 PM	MMDadoda	12/3/2025 2:29:49 PM	Peak Integrated by Software

Manual Integration Report

Sequence:	VL120225	Instrument	MSVOA_I
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Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
Q3744-03	VL043301.D	Benzene	sam	12/3/2025 12:30:39 PM	MMDadoda	12/3/2025 2:29:52 PM	Peak Integrated by Software
Q3744-03	VL043301.D	Ethyl Benzene	sam	12/3/2025 12:30:39 PM	MMDadoda	12/3/2025 2:29:52 PM	Peak Integrated by Software
Q3744-03	VL043301.D	m/p-Xylene	sam	12/3/2025 12:30:39 PM	MMDadoda	12/3/2025 2:29:52 PM	Peak Integrated by Software
Q3744-03	VL043301.D	o-Xylene	sam	12/3/2025 12:30:39 PM	MMDadoda	12/3/2025 2:29:52 PM	Peak Integrated by Software
Q3744-03	VL043301.D	Tetrachloroethene	sam	12/3/2025 12:30:39 PM	MMDadoda	12/3/2025 2:29:52 PM	Peak Integrated by Software

Instrument ID: **MSVOA_L**

Daily Analysis Runlog For Sequence/QC Batch ID # VL111825

Review By	Semsettin Yesilyurt	Review On	11/19/2025 8:33:42 AM
Supervise By	Maresh Dadoda	Supervise On	11/19/2025 9:44:32 AM
SubDirectory	VL111825	HP Acquire Method	TO15AIR
		HP Processing Method	VL111825AIR.M
STD. NAME	STD REF.#		
Tune/Reschk	AP2691		
Initial Calibration Stds	AP2694,AP2695,AP2696		
CCC	AP2694		
Internal Standard/PEM	AP2691		
ICV/I.BLK	AP2697		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VL043202.D	18 Nov 2025 08:46	SY/MD	Ok
2	VSTDIC0.5	VL043203.D	18 Nov 2025 09:29	SY/MD	Ok,M
3	VSTDICCC010	VL043204.D	18 Nov 2025 10:02	SY/MD	Ok,M
4	VSTDIC002	VL043205.D	18 Nov 2025 10:37	SY/MD	Ok,M
5	VSTDIC001	VL043206.D	18 Nov 2025 11:10	SY/MD	Ok,M
6	VSTDIC0.5	VL043207.D	18 Nov 2025 11:43	SY/MD	Not Ok
7	VSTDIC0.1	VL043208.D	18 Nov 2025 12:16	SY/MD	Ok,M
8	VSTDIC0.03	VL043209.D	18 Nov 2025 12:49	SY/MD	Ok,M
9	VSTDIC015	VL043210.D	18 Nov 2025 13:24	SY/MD	Ok,M
10	VSTDICV010	VL043211.D	18 Nov 2025 13:56	SY/MD	Ok,M
11	VL1118ABL01	VL043212.D	18 Nov 2025 14:41	SY/MD	Ok
12	VL1118ABS01	VL043213.D	18 Nov 2025 15:24	SY/MD	Ok,M
13	Q3651-03	VL043214.D	18 Nov 2025 15:57	SY/MD	Dilution
14	Q3651-03DUP	VL043215.D	18 Nov 2025 16:31	SY/MD	Ok,M
15	Q3651-04	VL043216.D	18 Nov 2025 17:06	SY/MD	Dilution
16	Q3651-06	VL043217.D	18 Nov 2025 17:40	SY/MD	Dilution
17	Q3650-03	VL043218.D	18 Nov 2025 18:15	SY/MD	Ok,M
18	Q3650-04	VL043219.D	18 Nov 2025 18:49	SY/MD	Ok,M
19	Q3650-05	VL043220.D	18 Nov 2025 19:23	SY/MD	Ok,M
20	Q3650-06	VL043221.D	18 Nov 2025 19:58	SY/MD	Ok,M
21	Q3651-01	VL043222.D	18 Nov 2025 20:29	SY/MD	Ok,M

Instrument ID: **MSVOA_L**

Daily Analysis Runlog For Sequence/QC Batch ID # VL111825

Review By	Semsettin Yesilyurt	Review On	11/19/2025 8:33:42 AM		
Supervise By	Mahesh Dadoda	Supervise On	11/19/2025 9:44:32 AM		
SubDirectory	VL111825	HP Acquire Method	TO15AIR	HP Processing Method	VL111825AIR.M
STD. NAME		STD REF.#			
Tune/Reschk		AP2691			
Initial Calibration Stds		AP2694,AP2695,AP2696			
CCC		AP2694			
Internal Standard/PEM		AP2691			
ICV/I.BLK		AP2697			
Surrogate Standard					
MS/MSD Standard					
LCS Standard					

22	Q3651-02	VL043223.D	18 Nov 2025 21:01	SY/MD	Ok,M
23	Q3651-05	VL043224.D	18 Nov 2025 21:33	SY/MD	Ok,M
24	Q3650-01	VL043225.D	18 Nov 2025 22:05	SY/MD	Ok,M
25	Q3650-02	VL043226.D	18 Nov 2025 22:37	SY/MD	Ok,M
26	Q3651-03DL	VL043227.D	18 Nov 2025 23:09	SY/MD	Ok,M
27	Q3651-03DL	VL043228.D	18 Nov 2025 23:41	SY/MD	Not Ok
28	Q3651-04DL	VL043229.D	19 Nov 2025 00:13	SY/MD	Ok,M
29	Q3651-06DL	VL043230.D	19 Nov 2025 00:44	SY/MD	Ok,M

M : Manual Integration

Instrument ID: **MSVOA_L**

Daily Analysis Runlog For Sequence/QC Batch ID # VL120225

Review By	Semsettin Yesilyurt	Review On	12/3/2025 12:31:46 PM		
Supervise By	Maresh Dadoda	Supervise On	12/3/2025 2:30:09 PM		
SubDirectory	VL120225	HP Acquire Method	TO15AIR	HP Processing Method	VL111825AIR.M
STD. NAME		STD REF.#			
Tune/Reschk		AP2691			
Initial Calibration Stds		AP2694,AP2695,AP2696			
CCC		AP2694			
Internal Standard/PEM		AP2691			
ICV/I.BLK		AP2697			
Surrogate Standard					
MS/MSD Standard					
LCS Standard					

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VL043291.D	02 Dec 2025 08:38	SY/MD	Ok
2	VSTDCCC010	VL043292.D	02 Dec 2025 09:31	SY/MD	Ok,M
3	VL1202ABL01	VL043293.D	02 Dec 2025 10:19	SY/MD	Ok
4	VL1202ABS01	VL043294.D	02 Dec 2025 11:06	SY/MD	Ok,M
5	QC112525 CAN 10597	VL043295.D	02 Dec 2025 12:53	SY/MD	Not Ok
6	Q3744-02	VL043296.D	02 Dec 2025 13:38	SY/MD	Ok,M
7	Q3744-02DUP	VL043297.D	02 Dec 2025 14:13	SY/MD	Ok,M
8	Q3744-04	VL043298.D	02 Dec 2025 14:49	SY/MD	Ok,M
9	Q3744-05	VL043299.D	02 Dec 2025 15:24	SY/MD	Ok,M
10	Q3744-01	VL043300.D	02 Dec 2025 15:57	SY/MD	Ok,M
11	Q3744-03	VL043301.D	02 Dec 2025 16:30	SY/MD	Ok,M
12	QC1125 25 CAN 10269	VL043302.D	03 Dec 2025 07:41	SY/MD	Ok
13	CAN 10597	VL043303.D	03 Dec 2025 08:14	SY/MD	Ok

M : Manual Integration

Instrument ID: MSVOA_L

Daily Analysis Runlog For Sequence/QC Batch ID # VL111825

Review By	Semsettin Yesilyurt	Review On	11/19/2025 8:33:42 AM
Supervise By	Maresh Dadoda	Supervise On	11/19/2025 9:44:32 AM
SubDirectory	VL111825	HP Acquire Method	TO15AIR
		HP Processing Method	VL111825AIR.M

STD. NAME	STD REF.#
Tune/Reschk	AP2691
Initial Calibration Stds	AP2694,AP2695,AP2696
CCC	AP2694
Internal Standard/PEM	AP2691
ICV/I.BLK	AP2697
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	Sampleld	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VL043202.D	18 Nov 2025 08:46		SY/MD	Ok
2	VSTDIC0.5	VSTDIC0.5	VL043203.D	18 Nov 2025 09:29		SY/MD	Ok,M
3	VSTDICCC010	VSTDICCC010	VL043204.D	18 Nov 2025 10:02	LR-20	SY/MD	Ok,M
4	VSTDIC002	VSTDIC002	VL043205.D	18 Nov 2025 10:37		SY/MD	Ok,M
5	VSTDIC001	VSTDIC001	VL043206.D	18 Nov 2025 11:10		SY/MD	Ok,M
6	VSTDIC0.5	VSTDIC0.5	VL043207.D	18 Nov 2025 11:43	Not used	SY/MD	Not Ok
7	VSTDIC0.1	VSTDIC0.1	VL043208.D	18 Nov 2025 12:16		SY/MD	Ok,M
8	VSTDIC0.03	VSTDIC0.03	VL043209.D	18 Nov 2025 12:49		SY/MD	Ok,M
9	VSTDIC015	VSTDIC015	VL043210.D	18 Nov 2025 13:24		SY/MD	Ok,M
10	VSTDICV010	ICVVL111825	VL043211.D	18 Nov 2025 13:56	ICV failed for com.#66	SY/MD	Ok,M
11	VL1118ABL01	VL1118ABL01	VL043212.D	18 Nov 2025 14:41		SY/MD	Ok
12	VL1118ABS01	VL1118ABS01	VL043213.D	18 Nov 2025 15:24		SY/MD	Ok,M
13	Q3651-03	IA1	VL043214.D	18 Nov 2025 15:57	Need 20X	SY/MD	Dilution
14	Q3651-03DUP	IA1DUP	VL043215.D	18 Nov 2025 16:31		SY/MD	Ok,M
15	Q3651-04	IA2	VL043216.D	18 Nov 2025 17:06	Need 10X	SY/MD	Dilution
16	Q3651-06	IA3	VL043217.D	18 Nov 2025 17:40	Need 10X	SY/MD	Dilution
17	Q3650-03	IA1	VL043218.D	18 Nov 2025 18:15		SY/MD	Ok,M
18	Q3650-04	IA2	VL043219.D	18 Nov 2025 18:49		SY/MD	Ok,M

Instrument ID: MSVOA_L

Daily Analysis Runlog For Sequence/QC Batch ID # VL111825

Review By	Semsettin Yesilyurt	Review On	11/19/2025 8:33:42 AM		
Supervise By	Mahesh Dadoda	Supervise On	11/19/2025 9:44:32 AM		
SubDirectory	VL111825	HP Acquire Method	TO15AIR	HP Processing Method	VL111825AIR.M
STD. NAME		STD REF.#			
Tune/Reschk	AP2691				
Initial Calibration Stds	AP2694,AP2695,AP2696				
CCC	AP2694				
Internal Standard/PEM	AP2691				
ICV/I.BLK	AP2697				
Surrogate Standard					
MS/MSD Standard					
LCS Standard					

19	Q3650-05	IA3	VL043220.D	18 Nov 2025 19:23		SY/MD	Ok,M
20	Q3650-06	OA1	VL043221.D	18 Nov 2025 19:58		SY/MD	Ok,M
21	Q3651-01	SV1	VL043222.D	18 Nov 2025 20:29		SY/MD	Ok,M
22	Q3651-02	SV2	VL043223.D	18 Nov 2025 21:01		SY/MD	Ok,M
23	Q3651-05	SV3	VL043224.D	18 Nov 2025 21:33		SY/MD	Ok,M
24	Q3650-01	SV1	VL043225.D	18 Nov 2025 22:05		SY/MD	Ok,M
25	Q3650-02	SV2	VL043226.D	18 Nov 2025 22:37		SY/MD	Ok,M
26	Q3651-03DL	IA1DL	VL043227.D	18 Nov 2025 23:09		SY/MD	Ok,M
27	Q3651-03DL	IA1DL	VL043228.D	18 Nov 2025 23:41	Not Required	SY/MD	Not Ok
28	Q3651-04DL	IA2DL	VL043229.D	19 Nov 2025 00:13		SY/MD	Ok,M
29	Q3651-06DL	IA3DL	VL043230.D	19 Nov 2025 00:44		SY/MD	Ok,M

M : Manual Integration

Instrument ID: MSVOA_L

Daily Analysis Runlog For Sequence/QC Batch ID # VL120225

Review By	Semsettin Yesilyurt	Review On	12/3/2025 12:31:46 PM		
Supervise By	Mahesh Dadoda	Supervise On	12/3/2025 2:30:09 PM		
SubDirectory	VL120225	HP Acquire Method	TO15AIR	HP Processing Method	VL111825AIR.M
STD. NAME	STD REF.#				
Tune/Reschk	AP2691				
Initial Calibration Stds	AP2694,AP2695,AP2696				
CCC	AP2694				
Internal Standard/PEM	AP2691				
ICV/I.BLK	AP2697				
Surrogate Standard					
MS/MSD Standard					
LCS Standard					

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VL043291.D	02 Dec 2025 08:38		SY/MD	Ok
2	VSTDCCC010	VSTDCCC010	VL043292.D	02 Dec 2025 09:31		SY/MD	Ok,M
3	VL1202ABL01	VL1202ABL01	VL043293.D	02 Dec 2025 10:19		SY/MD	Ok
4	VL1202ABS01	VL1202ABS01	VL043294.D	02 Dec 2025 11:06		SY/MD	Ok,M
5	QC112525 CAN 10597	QC112525 CAN 10597	VL043295.D	02 Dec 2025 12:53	Contaminated	SY/MD	Not Ok
6	Q3744-02	IA1	VL043296.D	02 Dec 2025 13:38		SY/MD	Ok,M
7	Q3744-02DUP	IA1DUP	VL043297.D	02 Dec 2025 14:13		SY/MD	Ok,M
8	Q3744-04	IA2	VL043298.D	02 Dec 2025 14:49		SY/MD	Ok,M
9	Q3744-05	OA1	VL043299.D	02 Dec 2025 15:24		SY/MD	Ok,M
10	Q3744-01	SV1	VL043300.D	02 Dec 2025 15:57		SY/MD	Ok,M
11	Q3744-03	SV2	VL043301.D	02 Dec 2025 16:30		SY/MD	Ok,M
12	QC1125 25 CAN 10269	QC1125 25 CAN 10269	VL043302.D	03 Dec 2025 07:41		SY/MD	Ok
13	CAN 10597	CAN 10597	VL043303.D	03 Dec 2025 08:14		SY/MD	Ok

M : Manual Integration

Client Contact Information				Bottle Order ID : B2511037				Courier : FGALDUN				1 of 5 COCs																									
Client ID : GFEL01				Project ID : All Projects				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: 406 E. 175th St. 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																				
SU1	11/24/25	8:52	10:52	30	55	52	54	-30	-5.1 -5.4	10185	10311	6 L	50	VL043134.D	1	1																					
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="5">Temperature (Fahrenheit)</th> </tr> <tr> <td></td> <td>Ambient</td> <td>Maximum</td> <td>Minimum</td> <td></td> </tr> <tr> <td>Start</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Stop</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>																		Temperature (Fahrenheit)						Ambient	Maximum	Minimum		Start					Stop				
Temperature (Fahrenheit)																																					
	Ambient	Maximum	Minimum																																		
Start																																					
Stop																																					
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="5">Pressure (Inches of Hg)</th> </tr> <tr> <td></td> <td>Ambient</td> <td>Maximum</td> <td>Minimum</td> <td></td> </tr> <tr> <td>Start</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Stop</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>																		Pressure (Inches of Hg)						Ambient	Maximum	Minimum		Start					Stop				
Pressure (Inches of Hg)																																					
	Ambient	Maximum	Minimum																																		
Start																																					
Stop																																					
GC/MS Analyst Signature (TO-15) 																																					
** 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.																																					
Special Instructions/QC Requirements & Comments : Suspected Contamination: High Medium Low PID Readings: 0.0 Sampling site (State):																																					
Quick Connector required : NO																																					
Canisters Shipped by: 394A				Date/Time: 11/24/25				Canisters Received by:				Date/Time:																									
Samples Relinquished by: FG				Date/Time: 11/24/25				Received by:				Date/Time: 11/24/25 1235																									
Relinquished by:				Date/Time:				Received by:				Date/Time:																									

Client Contact Information				Bottle Order ID : 82511037				Courier : FGALDUN				2 of 3 COCs					
Client ID : GFEL01				Project ID : All Projects				Sampler Name(s) : FRANK GALDUN				Analysis		Matrix			
Customer Name : GFE LLC Address : 58 Nokomis Ave				Project Manager : Frank galdun				AIR ANALYSIS CHAIN-OF-CUSTODY Batch Certified									
				Phone Number : 646-542-3465													
				Fax Number : 973-334-1692													
				Site Details: 406 E. 175TH ST BRONX, NY													
City : Lake Hiawatha				Analysis Turnaround Time 5 DAY				Data Package Type : RESULTS ONLY									
State : NJ				Standard : 10 business days OR													
Zip Code : 07034				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
IA1		11/24/25	8:25	10:25	30	S	52	54	-29.5	-3.5	10707	10285	6 L	50			
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 Low PID Readings: 0.0																	
Sampling site (State):																	
Quick Connector required : NO																	
Canisters Shipped by:				Date/Time: 11/20/25				Canisters Received by:				Date/Time:					
Samples Relinquished by:				Date/Time: 11/25/25				Received by:				Date/Time: 11/26/25 1235					
Relinquished by:				Date/Time:				Received by:				Date/Time:					

Client Contact Information				Bottle Order ID : B2511037				Courier : FGALDUN				3 of 5 COCs			
Client ID : GFEL01				Project ID : All Projects				Sampler Name(s) : FRANK GALDUN				Analysis		Matrix	
Customer Name : GFE LLC Address : 58 Nokomis Ave				Project Manager : Frank galdun				AIR ANALYSIS CHAIN-OF-CUSTODY Individual Certified							
				Phone Number : 646-542-3465											
				Fax Number : 973-334-1692											
				Site Details: 406 E. 175TH ST Bronx, NY											
City : Lake Hiawatha				Analysis Turnaround Time 5 DAY				Data Package Type : RESULTS ONLY EDD Type : PDF							
State : NJ				Standard : 10 business days OR											
Zip Code : 07034				Rush (Specify): 5 Days											
Country :															

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
SVZ	11/24/25	8:41	10:41	over 30	6	52	54	-30	-4.7	10550	10604	6 L	50	VL043134.D		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 Low PID Readings: **0.0**

Sampling site (State):

Quick Connector required : **NO**

Canisters Shipped by: Seam	Date/Time: 11/20/25	Canisters Received by:	Date/Time:
Samples Relinquished by: FG	Date/Time: 11/25/25	Received by: AN	Date/Time: 11/25/25 1235
Relinquished by:	Date/Time:	Received by:	Date/Time:

B2511037 - 5

Client Contact Information				Bottle Order ID : B2511037				Courier : FGALDUN				4 of 5 COCs				
Client ID : GFEL01				Project ID : All Projects				Sampler Name(s) : FRANK GALDUN				Analysis		Matrix		
Customer Name : GFE LLC Address : 58 Nokomis Ave				Project Manager : Frank galdun				AIR ANALYSIS CHAIN-OF-CUSTODY Batch Certified								
				Phone Number : 646-542-3465												
				Fax Number : 973-334-1692												
				Site Details: 406 E. 175th St. Bronx, NY												
City : Lake Hiawatha				Analysis Turnaround Time SDA				Data Package Type : RESULTS ONLY								
State : NJ				Standard : 10-business days OR												
Zip Code : 07034				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
IAZ	11/24/25	8:24	10:24	5	52	54	-29.5	-4.3	10511	10601	6 L	50	VL043134.D	1	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																
Sampling site (State):																
Quick Connector required : NO																
Canisters Shipped by: Sut				Date/Time: 11/26/25				Canisters Received by: Sut				Date/Time: 11/26/25 12:35				B2511037 - 4
Samples Relinquished by: Sut				Date/Time: 11/25/25				Received by: Sut				Date/Time: 11/26/25 12:35				
Relinquished by:				Date/Time:				Received by:				Date/Time:				

Client Contact Information				Bottle Order ID : B2511037				Courier : FGALDUN				4 of 5 COCs			
Client ID : GFEL01				Project ID : All Projects				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: 406 E. 175th ST BRONX, NY											
				Analysis Turnaround Time 3 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
OA1	11/24/25	8:27	10:27	4.5	30	/	/	-30	-2.7	10648	10443	6 L	50	VL043134.D	1	1	

Temperature (Fahrenheit)				
	Ambient	Maximum	Minimum	
Start	46	5		
Stop	51			

Pressure (Inches of Hg)				
	Ambient	Maximum	Minimum	
Start				
Stop				

GC/MS Analyst Signature (TO-15) **SUT**

** 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.

Special Instructions/QC Requirements & Comments :

Suspected Contamination: High Medium Low

PID Readings: **0.0**

Sampling site (State):

Quick Connector required : NO			
Canisters Shipped by: Sam	Date/Time: 11/20/25	Canisters Received by:	Date/Time:
Samples Relinquished by: Frank	Date/Time: 11/25/25	Received by: SA	Date/Time: 11/26/25 1235
Relinquished by:	Date/Time:	Received by:	Date/Time:

B2511037 - 3

REQUESTED ANALYTE LIST:

PCE

TCE

cis-1,2-DCE

1,1,1-TCA

1,1-DCE

Vinyl chloride

Benzene

Toluene

Ethylbenzene

Naphthalene

Cyclohexane

2,2,4-Trimethylpentane

1,2,4-Trimethylbenzene

1,3,5-Trimethylbenzene

o-xylene

m,p-xylene

Heptane

Hexane

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>
<u>QA/QC</u> :	Title: <u>Sample Custodian</u>
Field Sample Seal No. <u>Q3744</u>	Date Broken <u>11/26/2025</u> Military Time Seal Broken: <u>12:35:00</u>
Case No.: <u>All Projects</u>	Analytical Parameter/Fraction/ <u>WOCMS Group 2</u>

Sample No.	Aliquot/Extract No.	Sample No.	Aliquot/Extract No.
Q3744-01	SV1		
Q3744-02	IA1		
Q3744-03	SV2		
Q3744-04	IA2		
Q3744-05	OA1		

Date	Time	Relinquished By		Received By		Purpose of Change of Custody
11/25	12:35	Signature		Signature		
		Printed Name	<u>Cassandra Denis</u>	Printed Name	<u>Sensuetha Gordon</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

Analyst Signature: [Signature]
Supervisor Signature: [Signature]
Pressure Gauge ID: A255971
METHOD: TO-15

Page 42

Process Report

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

Order ID : Q3744

Date	Bottle ID	Lab Sample Number	InComing Vacuum	Canister ID	Can Size	Reg ID	Reg Size	Batch Code	Certification ID
12/02/2025	B2511037	Q3744-03	-4.7	10604	6 L	10550		C2510005	VL043134.D Seq : VL101725 TUNE : VL043130.D ICAL : VL043110.D CCAL : VL043131.D MB : VL043132.D
12/02/2025	B2511037	Q3744-04	-4.3	10601	6 L	10511		C2510005	VL043134.D Seq : VL101725 TUNE : VL043130.D ICAL : VL043110.D CCAL : VL043131.D MB : VL043132.D
12/02/2025	B2511037	Q3744-05	-2.7	10443	6 L	10648		C2510005	VL043134.D Seq : VL101725 TUNE : VL043130.D ICAL : VL043110.D CCAL : VL043131.D MB : VL043132.D
12/02/2025	B2511037	Q3744-01	-5.1	10311	6 L	10185		C2510005	VL043134.D Seq : VL101725 TUNE : VL043130.D ICAL : VL043110.D CCAL : VL043131.D MB : VL043132.D
12/02/2025	B2511037	Q3744-02	-3.5	10285	6 L	10707		C2510005	VL043134.D Seq : VL101725 TUNE : VL043130.D ICAL : VL043110.D CCAL : VL043131.D MB : VL043132.D

10311

284 Sheffield Street, Mountainside, NJ 07092 P: (908) 789-8900 F: (908) 789-8922

CHEMTECH

Client Sample ID #: SV1
 Client Name: CEE E. 175TH
 Project Name: 11/24
 Date: 11/24
 Analysis: TO-15
 Comments: _____
 CHEMTECH'S S
 Date Received: _____
 Cust #: SV1
 Sample: Q3744-01
 Storage Location: VOA Lab

B2511037

10285

284 Sheffield Street, Mountainside, NJ 07092 P: (908) 789-8900 F: (908) 789-8922

CHEMTECH

Client Sample ID #: IA1
 Client Name: CEE E. 175TH ST
 Project Name: 11/24
 Date: 11/24
 Analysis: TO-15
 Comments: _____
 CHEMTECH'S S
 Date Received: _____
 Cust #: IA1
 Sample: Q3744-02
 Storage Location: VOA Lab

B2511037

10604

284 Sheffield Street, Mountainside, NJ 07092 P: (908) 789-8900 F: (908) 789-8922

CHEMTECH

Client Sample ID #: SV2
 Client Name: CEE E. 175TH ST
 Project Name: 11/24
 Date: 11/24
 Analysis: TO-15
 Comments: _____
 CHEMTECH'S SAMP
 Date Received: _____
 Cust #: SV2
 Sample: Q3744-03
 Storage Location: VOA Lab

B2511037

CHEMTECH

284 Sheffield Street, Mountainside, NJ 07092 P: (908) 789-8900 F: (908)789-8922

Client Sample ID #: OA1

Client Name: GFE

Project Name: E 175TH ST

Date: 11/24

Time: _____

Analysis: TO-15

Comments: _____

CHEMTECH'S SAMP

Date Received: _____

Storage Location: VOA Lab

Sample: Q3744-05

Cust #: OA1

CHEMTECH

284 Sheffield Street, Mountainside, NJ 07092 P: (908) 789-8900 F: (908)789-8922

Client Sample ID #: IA2

Client Name: GFE

Project Name: E 175TH ST

Date: 11/24

Time: _____

Analysis: TO-15

Comments: _____

CHEMTECH'S SA

Date Received: _____

Storage Location: VOA Lab

Sample: Q3744-04

Cust #: IA2