

Cover Page

Order ID : Q1456

Project ID : PVSC Monthly 2025

Client : Ardmore Chemical

Lab Sample Number

Q1456-01

Q1456-02

Client Sample Number

EFF-WASTE WATER

EFF-WASTE WATER

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

Signature : _____

Date: 3/5/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

DATA REPORTING QUALIFIERS- ORGANIC

For reporting results, the following “ Results Qualifiers” are used:

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

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q1456

Completed

For thorough review, the report must have the following:

GENERAL:

Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)

✓

Check chain-of-custody for proper relinquish/return of samples

✓

Is the chain of custody signed and complete

✓

Check internal chain-of-custody for proper relinquish/return of samples /sample extracts

✓

Collect information for each project id from server. Were all requirements followed

✓

COVER PAGE:

Do numbers of samples correspond to the number of samples in the Chain of Custody on login page

✓

Do lab numbers and client Ids on cover page agree with the Chain of Custody

✓

CHAIN OF CUSTODY:

Do requested analyses on Chain of Custody agree with form I results

✓

Do requested analyses on Chain of Custody agree with the log-in page

✓

Were the correct method log-in for analysis according to the Analytical Request and Chain of Custody

✓

Were the samples received within hold time

✓

Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle

✓

ANALYTICAL:

Was method requirement followed?

✓

Was client requirement followed?

✓

Does the case narrative summarize all QC failure?

✓

All runlogs and manual integration are reviewed for requirements

✓

All manual calculations and /or hand notations verified

✓

QA Review Signature: KORI AMARNATH

Date: 03/05/2025

LAB CHRONICLE

OrderID:	Q1456	OrderDate:	2/27/2025 12:51:00 PM
Client:	Ardmore Chemical	Project:	PVSC Monthly 2025
Contact:	Michael Sharphouse	Location:	H11,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1456-01	EFF-WASTE WATER	Water	VOC-PP	624.1	02/27/25		03/04/25	02/27/25



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

Hit Summary Sheet
SW-846

SDG No.: Q1456

Client: Ardmore Chemical

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID: Q1456-01	EFF-WASTE WATER EFF-WASTE WATER Water		Chloroform	11.6	J	3.60	25.0	ug/L
			Total Voc :	11.6				
			Total Concentration:	11.6				



QC SUMMARY

Surrogate Summary

SDG No.: Q1456

Client: Ardmore Chemical

Analytical Method: SW624.1

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits	
						Low	High
Q1456-01	EFF-WASTE WATER	1,2-Dichloroethane-d4	30	30.8	103	91	110
		Toluene-d8	30	29.1	97	91	112
		4-Bromofluorobenzene	30	28.2	94	63	112
VX0304WBL01	VX0304WBL01	1,2-Dichloroethane-d4	30	29.9	100	91	110
		Toluene-d8	30	30.2	101	91	112
		4-Bromofluorobenzene	30	27.5	92	63	112
VX0304WBS01	VX0304WBS01	1,2-Dichloroethane-d4	30	28.7	96	91	110
		Toluene-d8	30	29.6	99	91	112
		4-Bromofluorobenzene	30	30.1	100	63	112
VX0304WBSD0	VX0304WBSD01	1,2-Dichloroethane-d4	30	31.5	105	91	110
		Toluene-d8	30	30.3	101	91	112
		4-Bromofluorobenzene	30	30.4	101	63	112

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1456

Client: Ardmore Chemical

Analytical Method: SW624.1

Datafile : VX045120.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VX0304WBS01	Chloromethane	20	19.3	ug/L	97			1	205	
	Vinyl Chloride	20	19.1	ug/L	96			5	195	
	Bromomethane	20	22.2	ug/L	111			15	185	
	Chloroethane	20	18.2	ug/L	91			40	160	
	Trichlorofluoromethane	20	19.9	ug/L	100			50	150	
	1,1-Dichloroethene	20	19.9	ug/L	100			50	150	
	Acrolein	100	96.2	ug/L	96			60	140	
	Acrylonitrile	100	98.7	ug/L	99			60	140	
	Methylene Chloride	20	20.0	ug/L	100			60	140	
	trans-1,2-Dichloroethene	20	19.6	ug/L	98			70	130	
	1,1-Dichloroethane	20	19.5	ug/L	98			70	130	
	Carbon Tetrachloride	20	21.1	ug/L	106			70	130	
	Chloroform	20	20.4	ug/L	102			70	135	
	1,1,1-Trichloroethane	20	21.3	ug/L	106			70	130	
	Benzene	20	21.7	ug/L	109			65	135	
	1,2-Dichloroethane	20	22.1	ug/L	111			70	130	
	Trichloroethene	20	21.9	ug/L	110			65	135	
	1,2-Dichloropropane	20	20.5	ug/L	103			35	165	
	Bromodichloromethane	20	21.9	ug/L	110			65	135	
	Toluene	20	21.2	ug/L	106			70	130	
	t-1,3-Dichloropropene	20	19.9	ug/L	100			50	150	
	cis-1,3-Dichloropropene	20	20.4	ug/L	102			25	175	
	1,1,2-Trichloroethane	20	22.1	ug/L	111			70	130	
	2-Chloroethyl vinyl ether	100	100	ug/L	100			1	225	
	Dibromochloromethane	20	21.7	ug/L	109			70	135	
	Tetrachloroethene	20	22.1	ug/L	111			70	130	
	Chlorobenzene	20	21.2	ug/L	106			65	135	
	Ethyl Benzene	20	21.4	ug/L	107			60	140	
	m/p-Xylenes	40	43.0	ug/L	108			87	111	
	o-Xylene	20	21.6	ug/L	108			87	111	
	Bromoform	20	21.8	ug/L	109			70	130	
	1,1,2,2-Tetrachloroethane	20	22.3	ug/L	112			60	140	
	1,3-Dichlorobenzene	20	21.9	ug/L	110			70	130	
	1,4-Dichlorobenzene	20	22.2	ug/L	111			65	135	
	1,2-Dichlorobenzene	20	22.6	ug/L	113			65	135	

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: Q1456

Client: Ardmore Chemical

Analytical Method: SW624.1

Datafile : VX045121.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Low	Limits High	RPD
VX0304WBSD01	Chloromethane	20	18.3	ug/L	92	5		1	205	20
	Vinyl Chloride	20	18.1	ug/L	91	5		5	195	20
	Bromomethane	20	20.3	ug/L	102	8		15	185	20
	Chloroethane	20	14.9	ug/L	75	19		40	160	20
	Trichlorofluoromethane	20	19.1	ug/L	96	4		50	150	20
	1,1-Dichloroethene	20	18.6	ug/L	93	7		50	150	20
	Acrolein	100	110	ug/L	110	14		60	140	20
	Acrylonitrile	100	100	ug/L	100	1		60	140	20
	Methylene Chloride	20	19.2	ug/L	96	4		60	140	20
	trans-1,2-Dichloroethene	20	19.3	ug/L	97	1		70	130	20
	1,1-Dichloroethane	20	19.2	ug/L	96	2		70	130	20
	Carbon Tetrachloride	20	19.4	ug/L	97	9		70	130	20
	Chloroform	20	20.2	ug/L	101	1		70	135	20
	1,1,1-Trichloroethane	20	19.3	ug/L	97	9		70	130	20
	Benzene	20	19.6	ug/L	98	11		65	135	20
	1,2-Dichloroethane	20	20.3	ug/L	102	8		70	130	20
	Trichloroethene	20	19.2	ug/L	96	14		65	135	20
	1,2-Dichloropropane	20	19.6	ug/L	98	5		35	165	20
	Bromodichloromethane	20	19.9	ug/L	100	10		65	135	20
	Toluene	20	19.6	ug/L	98	8		70	130	20
	t-1,3-Dichloropropene	20	17.4	ug/L	87	14		50	150	20
	cis-1,3-Dichloropropene	20	18.9	ug/L	95	7		25	175	20
	1,1,2-Trichloroethane	20	20.9	ug/L	104	7		70	130	20
	2-Chloroethyl vinyl ether	100	99.1	ug/L	99	1		1	225	20
	Dibromochloromethane	20	20.0	ug/L	100	9		70	135	20
	Tetrachloroethene	20	20.4	ug/L	102	8		70	130	20
	Chlorobenzene	20	20.1	ug/L	101	5		65	135	20
	Ethyl Benzene	20	20.0	ug/L	100	7		60	140	20
	m/p-Xylenes	40	40.2	ug/L	101	7		87	111	20
	o-Xylene	20	19.7	ug/L	99	9		87	111	20
	Bromoform	20	19.7	ug/L	99	10		70	130	20
	1,1,2,2-Tetrachloroethane	20	20.7	ug/L	104	7		60	140	20
	1,3-Dichlorobenzene	20	20.0	ug/L	100	10		70	130	20
	1,4-Dichlorobenzene	20	19.9	ug/L	100	10		65	135	20
	1,2-Dichlorobenzene	20	20.4	ug/L	102	10		65	135	20

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VX0304WBL01

Lab Name: CHEMTECH

Contract: ARDM01

Lab Code: CHEM Case No.: Q1456

SAS No.: Q1456 SDG NO.: Q1456

Lab File ID: VX045122.D

Lab Sample ID: VX0304WBL01

Date Analyzed: 03/04/2025

Time Analyzed: 10:04

GC Column: DB-624UI ID: 0.18 (mm)

Heated Purge: (Y/N) N

Instrument ID: MSVOA_X

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VX0304WBS01	VX0304WBS01	VX045120.D	03/04/2025
VX0304WBSD01	VX0304WBSD01	VX045121.D	03/04/2025
EFF-WASTE WATER	Q1456-01	VX045123.D	03/04/2025

COMMENTS: _____

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: ARDM01
Lab Code: CHEM Case No.: Q1456 SAS No.: Q1456 SDG NO.: Q1456
Lab File ID: _____ BFB Injection Date: _____
Instrument ID: MSVOA_X BFB Injection Time: _____
GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	
75	30.0 - 60.0% of mass 95	
95	Base Peak, 100% relative abundance	
96	5.0 - 9.0% of mass 95	
173	Less than 2.0% of mass 174	() 1
174	50.0 - 100.0% of mass 95	
175	5.0 - 9.0% of mass 174	() 1
176	95.0 - 101.0% of mass 174	() 1
177	5.0 - 9.0% of mass 176	() 2

1-Value is % mass 174

2-Value is % mass 176

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VX0304WBS01	VX0304WBS01	VX045120.D	03/04/2025	09:15
VX0304WBSD01	VX0304WBSD01	VX045121.D	03/04/2025	09:41
VX0304WBL01	VX0304WBL01	VX045122.D	03/04/2025	10:04
EFF-WASTE WATER	Q1456-01	VX045123.D	03/04/2025	10:31

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: ARDM01
Lab Code: CHEM Case No.: Q1456 SAS No.: Q1456 SDG NO.: Q1456
Lab File ID: VX045007.D BFB Injection Date: 02/21/2025
Instrument ID: MSVOA_X BFB Injection Time: 09:31
GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	21.2
75	30.0 - 60.0% of mass 95	52.5
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 (0.8) 1
174	50.0 - 100.0% of mass 95	74.5
175	5.0 - 9.0% of mass 174	5.5 (7.4) 1
176	95.0 - 101.0% of mass 174	71.6 (96.2) 1
177	5.0 - 9.0% of mass 176	4.6 (6.5) 2

1-Value is % mass 174

2-Value is % mass 176

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDIC005	VSTDIC005	VX045008.D	02/21/2025	09:58
VSTDIC020	VSTDIC020	VX045009.D	02/21/2025	10:21
VSTDIC050	VSTDIC050	VX045010.D	02/21/2025	10:44
VSTDIC100	VSTDIC100	VX045011.D	02/21/2025	11:07
VSTDIC150	VSTDIC150	VX045012.D	02/21/2025	11:29

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: ARDM01
Lab Code: CHEM Case No.: Q1456 SAS No.: Q1456 SDG NO.: Q1456
Lab File ID: VX045118.D BFB Injection Date: 03/04/2025
Instrument ID: MSVOA_X BFB Injection Time: 08:18
GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.3
75	30.0 - 60.0% of mass 95	53.5
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7
173	Less than 2.0% of mass 174	0.8 (1) 1
174	50.0 - 100.0% of mass 95	76.5
175	5.0 - 9.0% of mass 174	5.4 (7.1) 1
176	95.0 - 101.0% of mass 174	73.8 (96.5) 1
177	5.0 - 9.0% of mass 176	4.7 (6.4) 2

1-Value is % mass 174

2-Value is % mass 176

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC020	VSTDCCC020	VX045119.D	03/04/2025	08:46
VX0304WBS01	VX0304WBS01	VX045120.D	03/04/2025	09:15
VX0304WBSD01	VX0304WBSD01	VX045121.D	03/04/2025	09:41
VX0304WBL01	VX0304WBL01	VX045122.D	03/04/2025	10:04
EFF-WASTE WATER	Q1456-01	VX045123.D	03/04/2025	10:31

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: ARDM01
 Lab Code: CHEM Case No.: Q1456 SAS No.: Q1456 SDG NO.: Q1456
 Lab File ID: VX045119.D Date Analyzed: 03/04/2025
 Instrument ID: MSVOA_X Time Analyzed: 08:46
 GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	17184	4.89	86920	6.75	82480	10.05
UPPER LIMIT	34368	5.391	173840	7.251	164960	10.549
LOWER LIMIT	8592	4.391	43460	6.251	41240	9.549
EPA SAMPLE NO.						
EFF-WASTE WATER	15247	4.89	81841	6.76	77072	10.05
VX0304WBL01	14872	4.90	78579	6.76	69103	10.05
VX0304WBS01	16840	4.89	87021	6.76	81719	10.05
VX0304WBSD01	14793	4.89	81282	6.75	75372	10.05

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

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

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

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: ARDM01
 Lab Code: CHEM Case No.: Q1456 SAS No.: Q1456 SDG NO.: Q1456
 Lab File ID: VX045119.D Date Analyzed: 03/04/2025
 Instrument ID: MSVOA_X Time Analyzed: 08:46
 GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	0	0				
UPPER LIMIT	0					
LOWER LIMIT	0					
EPA SAMPLE NO.						
EFF-WASTE WATER	0	0.00				
VX0304WBL01	0	0.00				
VX0304WBS01	0	0.00				
VX0304WBSD01	0	0.00				

IS4 =

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

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



SAMPLE DATA

Report of Analysis

Client:	Ardmore Chemical		Date Collected:	02/27/25	
Project:	PVSC Monthly 2025		Date Received:	02/27/25	
Client Sample ID:	EFF-WASTE WATER		SDG No.:	Q1456	
Lab Sample ID:	Q1456-01		Matrix:	Water	
Analytical Method:	E624.1		% Solid:	0	
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOC-PP	
GC Column:	DB-624UI	ID : 0.18	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045123.D	5		03/04/25 10:31	VX030425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
74-87-3	Chloromethane	5.90	U	5.90	25.0	ug/L
75-01-4	Vinyl Chloride	6.10	U	6.10	25.0	ug/L
74-83-9	Bromomethane	6.90	U	6.90	25.0	ug/L
75-00-3	Chloroethane	14.6	U	14.6	25.0	ug/L
75-69-4	Trichlorofluoromethane	5.10	U	5.10	25.0	ug/L
75-35-4	1,1-Dichloroethene	5.30	U	5.30	25.0	ug/L
107-02-8	Acrolein	46.5	U	46.5	130	ug/L
107-13-1	Acrylonitrile	18.4	U	18.4	130	ug/L
75-09-2	Methylene Chloride	6.10	U	6.10	25.0	ug/L
156-60-5	trans-1,2-Dichloroethene	4.80	U	4.80	25.0	ug/L
75-34-3	1,1-Dichloroethane	4.10	U	4.10	25.0	ug/L
56-23-5	Carbon Tetrachloride	4.60	U	4.60	25.0	ug/L
67-66-3	Chloroform	11.6	J	3.60	25.0	ug/L
71-55-6	1,1,1-Trichloroethane	4.00	U	4.00	25.0	ug/L
71-43-2	Benzene	3.50	U	3.50	25.0	ug/L
107-06-2	1,2-Dichloroethane	3.80	U	3.80	25.0	ug/L
79-01-6	Trichloroethene	3.90	U	3.90	25.0	ug/L
78-87-5	1,2-Dichloropropane	3.30	U	3.30	25.0	ug/L
75-27-4	Bromodichloromethane	4.10	U	4.10	25.0	ug/L
108-88-3	Toluene	3.60	U	3.60	25.0	ug/L
10061-02-6	t-1,3-Dichloropropene	4.00	U	4.00	25.0	ug/L
10061-01-5	cis-1,3-Dichloropropene	4.20	U	4.20	25.0	ug/L
79-00-5	1,1,2-Trichloroethane	3.40	U	3.40	25.0	ug/L
110-75-8	2-Chloroethyl vinyl ether	28.2	U	28.2	130	ug/L
124-48-1	Dibromochloromethane	3.60	U	3.60	25.0	ug/L
127-18-4	Tetrachloroethene	4.70	U	4.70	25.0	ug/L
108-90-7	Chlorobenzene	3.40	U	3.40	25.0	ug/L
100-41-4	Ethyl Benzene	3.70	U	3.70	25.0	ug/L
179601-23-1	m/p-Xylenes	8.60	U	8.60	50.0	ug/L
95-47-6	o-Xylene	4.10	U	4.10	25.0	ug/L

Report of Analysis

Client:	Ardmore Chemical		Date Collected:	02/27/25	
Project:	PVSC Monthly 2025		Date Received:	02/27/25	
Client Sample ID:	EFF-WASTE WATER		SDG No.:	Q1456	
Lab Sample ID:	Q1456-01		Matrix:	Water	
Analytical Method:	E624.1		% Solid:	0	
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOC-PP	
GC Column:	DB-624UI	ID : 0.18	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045123.D	5		03/04/25 10:31	VX030425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
75-25-2	Bromoform	5.00	U	5.00	25.0	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	3.00	U	3.00	25.0	ug/L
541-73-1	1,3-Dichlorobenzene	4.40	U	4.40	25.0	ug/L
106-46-7	1,4-Dichlorobenzene	4.80	U	4.80	25.0	ug/L
95-50-1	1,2-Dichlorobenzene	4.40	U	4.40	25.0	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	30.8		91 - 110	103%	SPK: 30
2037-26-5	Toluene-d8	29.1		91 - 112	97%	SPK: 30
460-00-4	4-Bromofluorobenzene	28.2		63 - 112	94%	SPK: 30
INTERNAL STANDARDS						
74-97-5	Bromochloromethane	15200	4.885			
540-36-3	1,4-Difluorobenzene	81800	6.757			
3114-55-4	Chlorobenzene-d5	77100	10.049			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX030425\
 Data File : VX045123.D
 Acq On : 04 Mar 2025 10:31
 Operator : JC/MD
 Sample : Q1456-01 5X
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 6 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 EFF-WASTE WATER

Quant Time: Mar 05 00:46:54 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\624X022125W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Sat Feb 22 01:06:36 2025
 Response via : Initial Calibration

Manual Integrations
 APPROVED

Reviewed By : John Carlone 03/05/2025
 Supervised By : Mahesh Dadoda 03/05/2025

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

Internal Standards						
1) Bromochloromethane	4.885	128	15247	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	6.757	114	81841	30.000	ug/l	0.00
57) Chlorobenzene-d5	10.049	117	77072	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	5.946	65	45644	30.822	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 102.733%			
60) 4-Bromofluorobenzene	11.079	95	40640	28.211	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 94.033%			
63) Toluene-d8	8.647	98	123881	29.054	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 96.833%			
Target Compounds						
15) Acetone	2.380	58	140175	777.979	ug/l #	59
20) Diisopropyl ether	3.757	45	2523m	0.606	ug/l	
25) Chloroform	5.087	83	5206	2.328	ug/l	98
30) 2-Butanone	4.562	43	23973	27.569	ug/l #	96
41) Bromodichloromethane	7.818	83	700	0.418	ug/l #	96

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

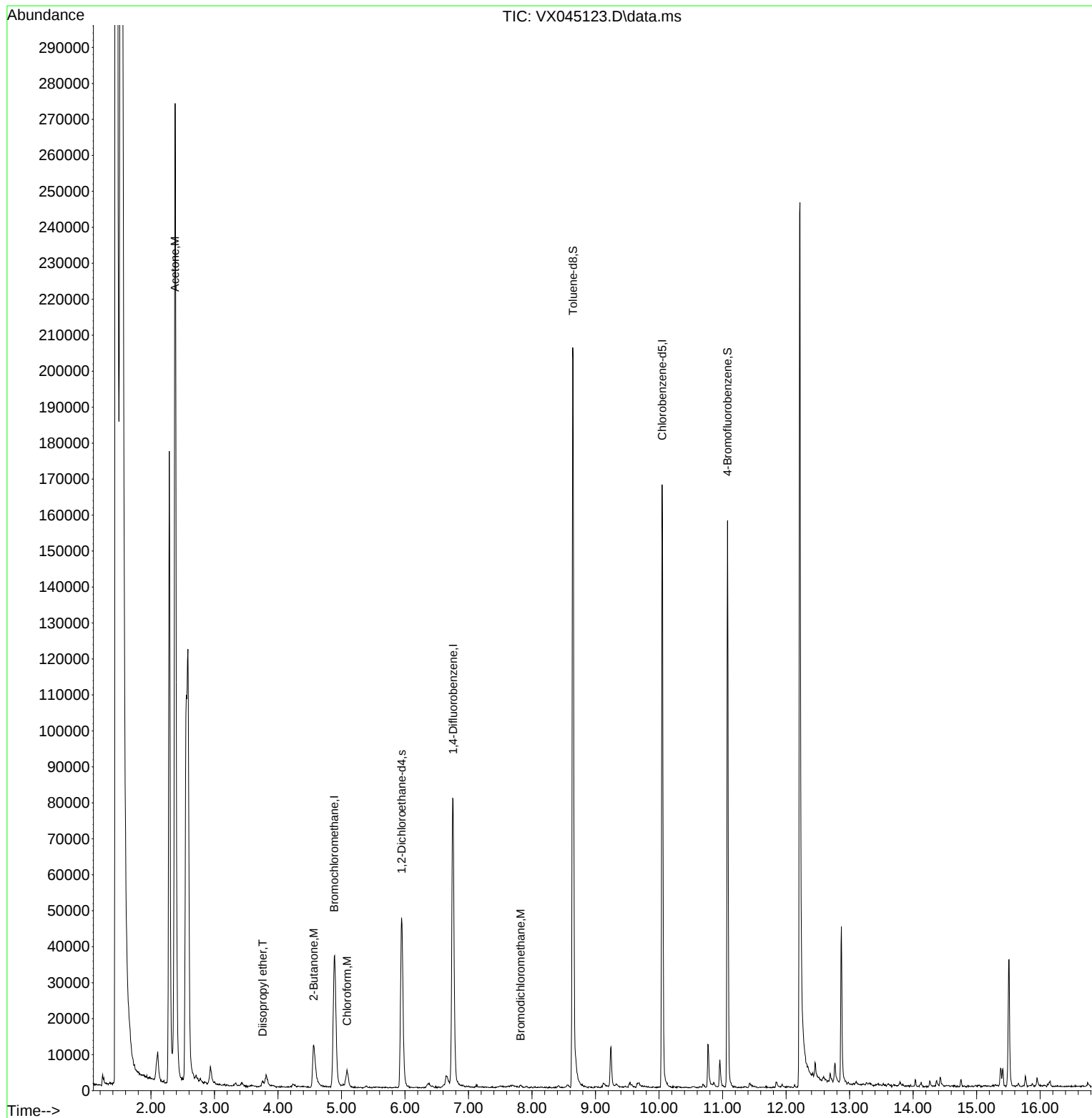
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Data File : VX045123.D
Acq On : 04 Mar 2025 10:31
Operator : JC/MD
Sample : Q1456-01 5X
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 6 Sample Multiplier: 1

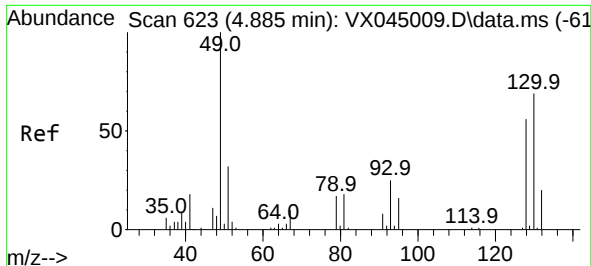
Instrument :
MSVOA_X
ClientSampleId :
EFF-WASTE WATER

Quant Time: Mar 05 00:46:54 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\624X022125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Feb 22 01:06:36 2025
Response via : Initial Calibration

Manual Integrations
APPROVED

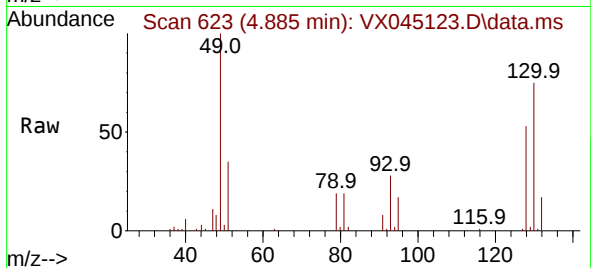
Reviewed By : John Carlone 03/05/2025
Supervised By : Mahesh Dadoda 03/05/2025





#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 4.885 min Scan# 61
Delta R.T. 0.000 min
Lab File: VX045123.D
Acq: 04 Mar 2025 10:31

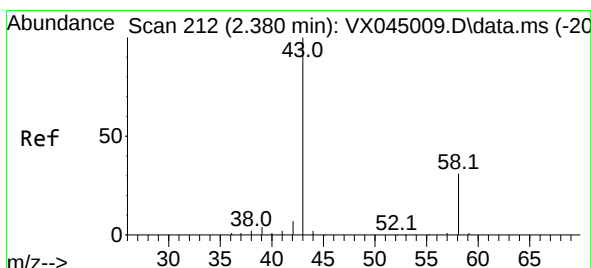
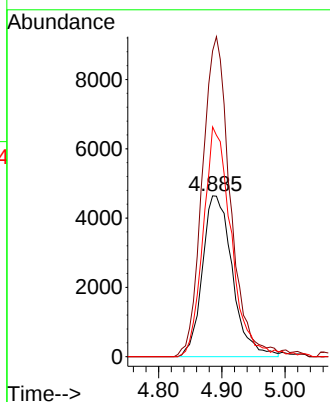
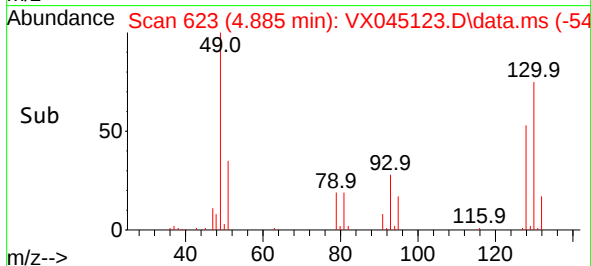
Instrument :
MSVOA_X
ClientSampleId :
EFF-WASTE WATER



Tgt Ion:128 Resp: 1524
Ion Ratio Lower Upper
128 100
49 184.1 0.0 449.7
130 132.6 0.0 312.7

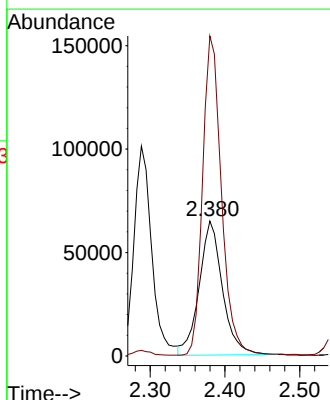
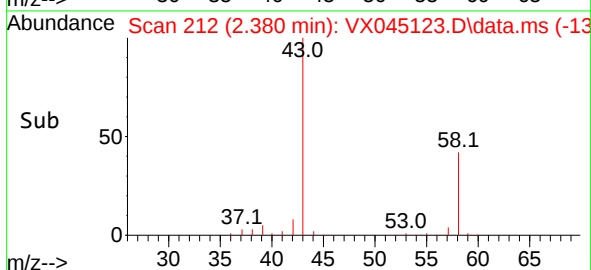
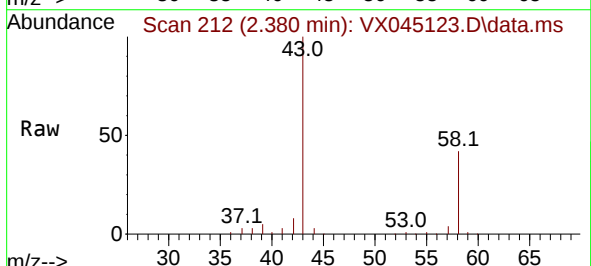
Manual Integrations
APPROVED

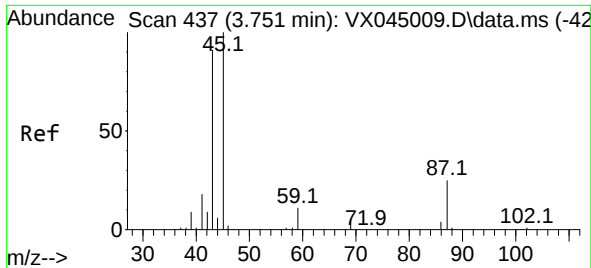
Reviewed By :John Carlone 03/05/2025
Supervised By :Mahesh Dadoda 03/05/2025



#15
Acetone
Concen: 777.979 ug/l
RT: 2.380 min Scan# 212
Delta R.T. -0.000 min
Lab File: VX045123.D
Acq: 04 Mar 2025 10:31

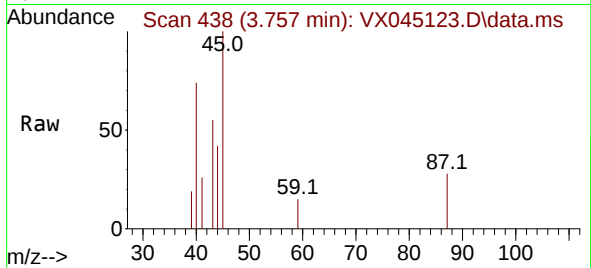
Tgt Ion: 58 Resp: 140175
Ion Ratio Lower Upper
58 100
43 239.0 258.6 388.0#





#20
Diisopropyl ether
Concen: 0.606 ug/l m
RT: 3.757 min Scan# 437
Delta R.T. 0.006 min
Lab File: VX045123.D
Acq: 04 Mar 2025 10:31

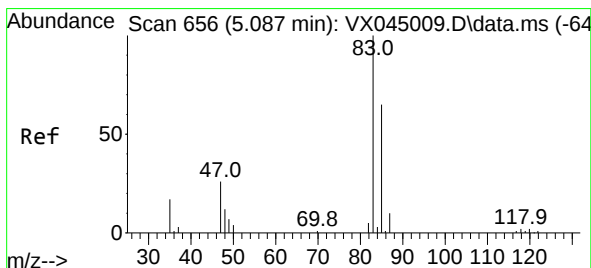
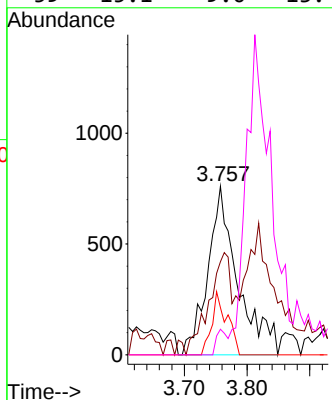
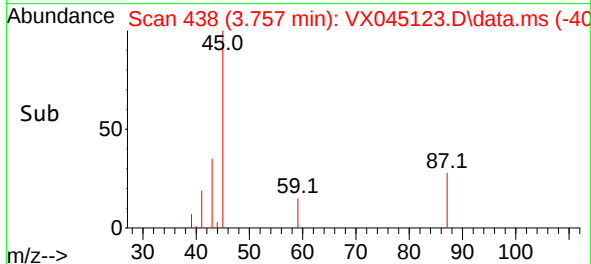
Instrument :
MSVOA_X
ClientSampleId :
EFF-WASTE WATER



Tgt Ion: 45 Resp: 252
Ion Ratio Lower Upper
45 100
43 55.2 74.4 111.6
87 28.0 19.8 29.8
59 15.1 9.0 13.4#

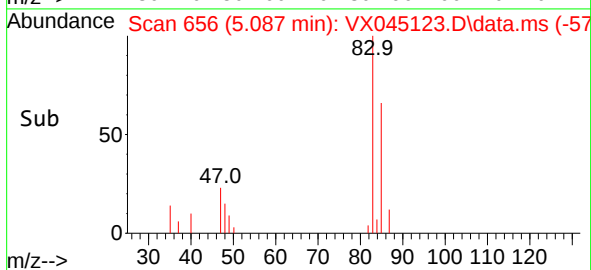
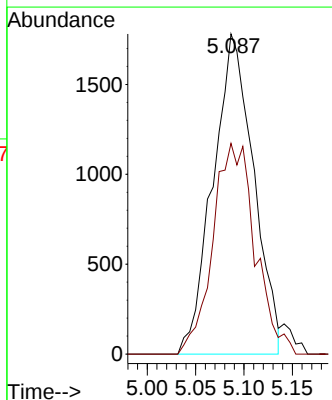
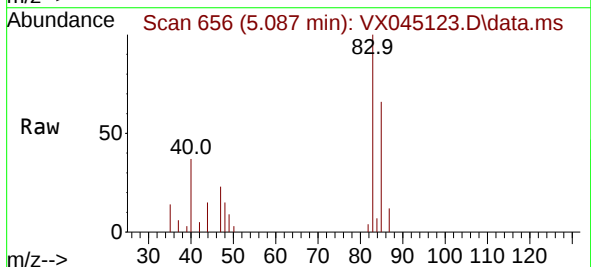
Manual Integrations
APPROVED

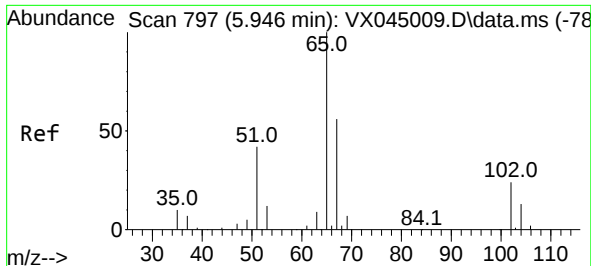
Reviewed By :John Carlone 03/05/2025
Supervised By :Mahesh Dadoda 03/05/2025



#25
Chloroform
Concen: 2.328 ug/l
RT: 5.087 min Scan# 656
Delta R.T. -0.000 min
Lab File: VX045123.D
Acq: 04 Mar 2025 10:31

Tgt Ion: 83 Resp: 5206
Ion Ratio Lower Upper
83 100
85 65.8 51.7 77.5





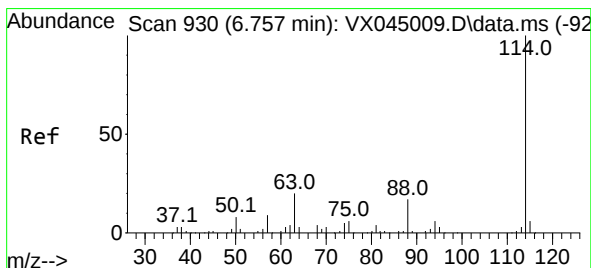
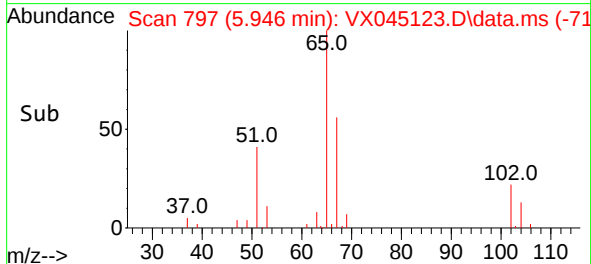
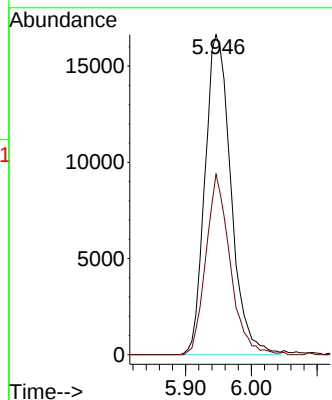
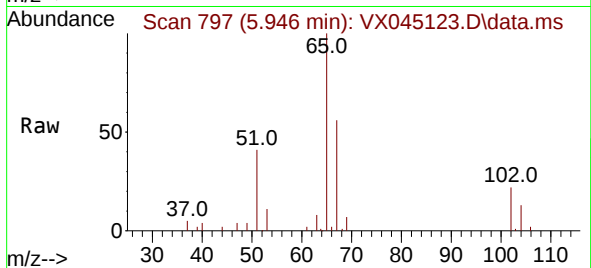
#27
1,2-Dichloroethane-d4
Concen: 30.822 ug/l
RT: 5.946 min Scan# 797
Delta R.T. -0.000 min
Lab File: VX045123.D
Acq: 04 Mar 2025 10:31

Instrument :
MSVOA_X
ClientSampleId :
EFF-WASTE WATER

Tgt Ion: 65 Resp: 45644
Ion Ratio Lower Upper
65 100
67 52.0 42.6 64.0

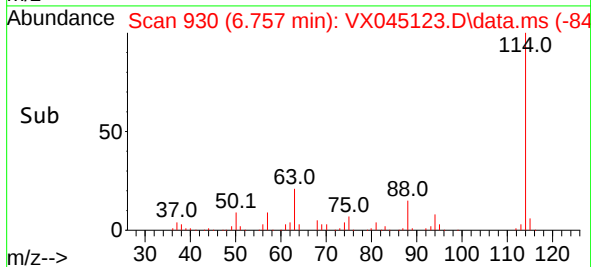
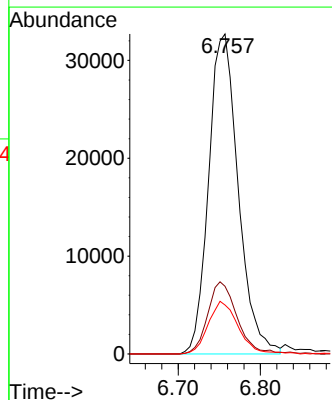
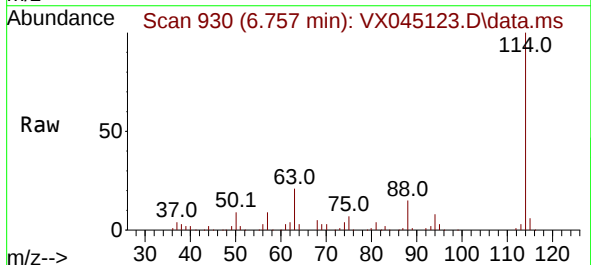
Manual Integrations
APPROVED

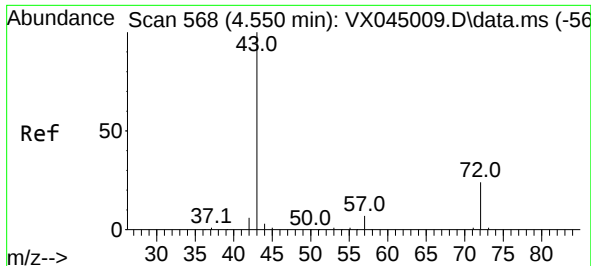
Reviewed By :John Carlone 03/05/2025
Supervised By :Mahesh Dadoda 03/05/2025



#28
1,4-Difluorobenzene
Concen: 30.000 ug/l
RT: 6.757 min Scan# 930
Delta R.T. -0.000 min
Lab File: VX045123.D
Acq: 04 Mar 2025 10:31

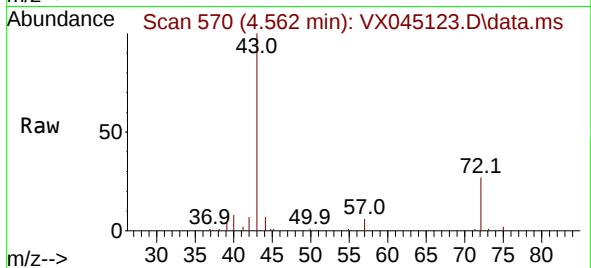
Tgt Ion:114 Resp: 81841
Ion Ratio Lower Upper
114 100
63 21.9 16.8 25.2
88 16.5 12.7 19.1





#30
2-Butanone
Concen: 27.569 ug/l
RT: 4.562 min Scan# 51
Delta R.T. 0.012 min
Lab File: VX045123.D
Acq: 04 Mar 2025 10:31

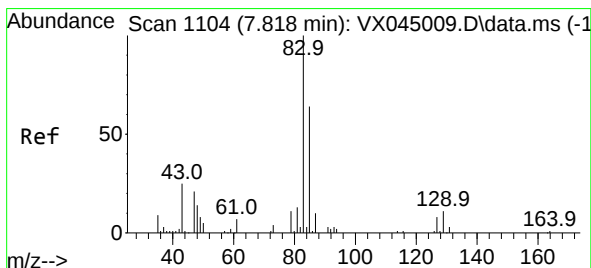
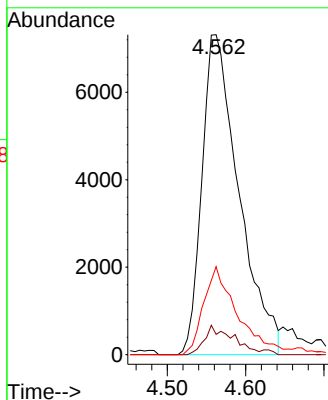
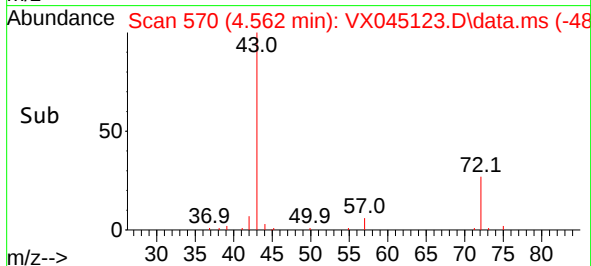
Instrument :
MSVOA_X
ClientSampleId :
EFF-WASTE WATER



Tgt Ion: 43 Resp: 2397
Ion Ratio Lower Upper
43 100
57 3.0 6.2 9.2
72 24.3 20.2 30.2

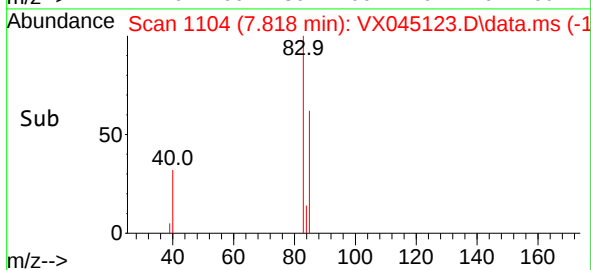
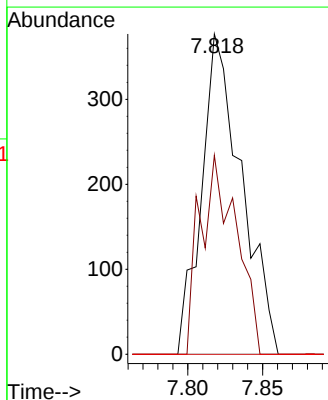
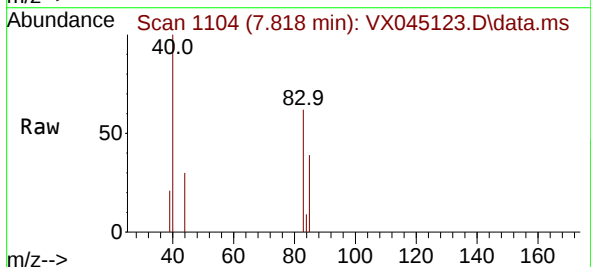
Manual Integrations
APPROVED

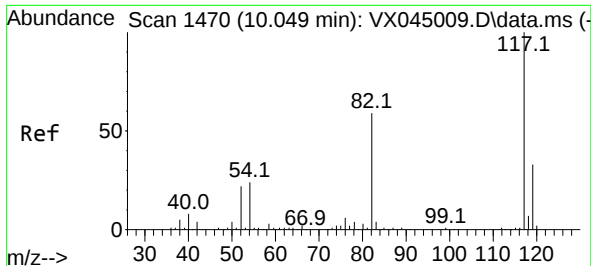
Reviewed By :John Carlone 03/05/2025
Supervised By :Mahesh Dadoda 03/05/2025



#41
Bromodichloromethane
Concen: 0.418 ug/l
RT: 7.818 min Scan# 1104
Delta R.T. -0.000 min
Lab File: VX045123.D
Acq: 04 Mar 2025 10:31

Tgt Ion: 83 Resp: 700
Ion Ratio Lower Upper
83 100
85 62.1 51.0 76.6
127 0.0 6.1 9.1





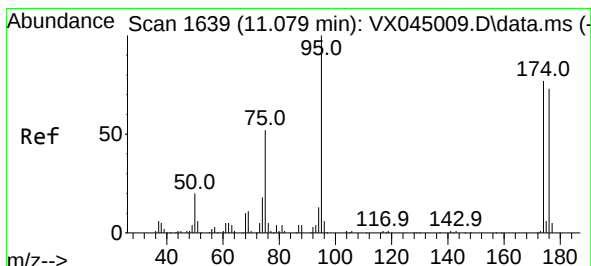
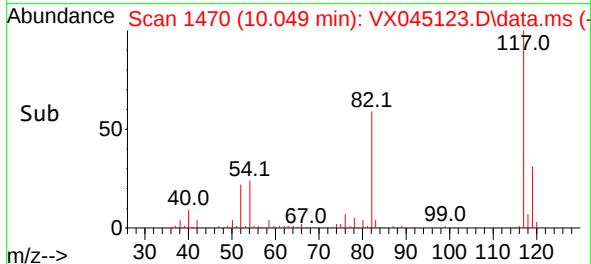
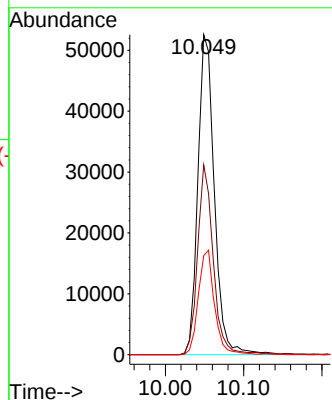
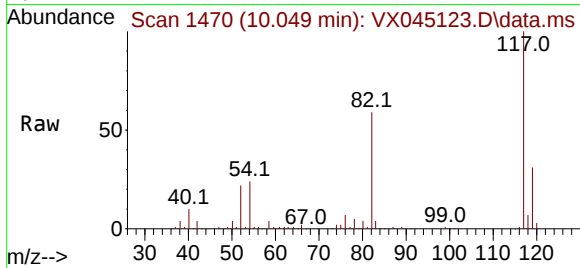
#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 10.049 min Scan# 1470
Delta R.T. -0.000 min
Lab File: VX045123.D
Acq: 04 Mar 2025 10:31

Instrument :
MSVOA_X
ClientSampleId :
EFF-WASTE WATER

Tgt Ion:117 Resp: 77072
Ion Ratio Lower Upper
117 100
82 56.0 45.8 68.8
119 31.9 25.5 38.3

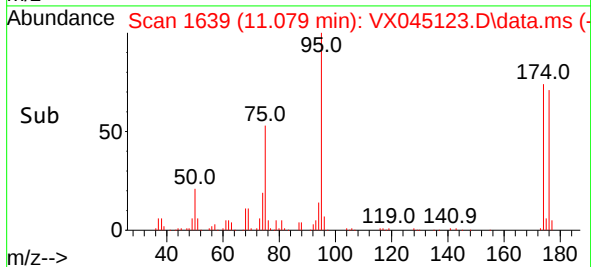
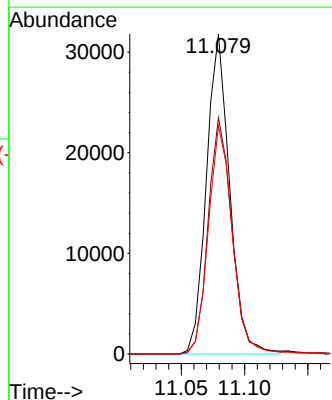
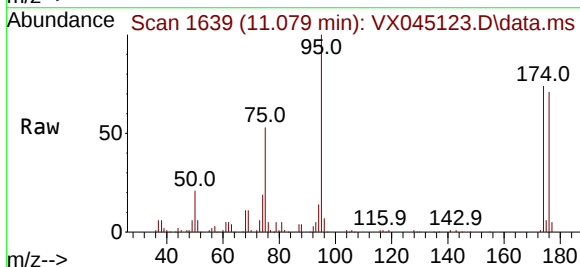
Manual Integrations
APPROVED

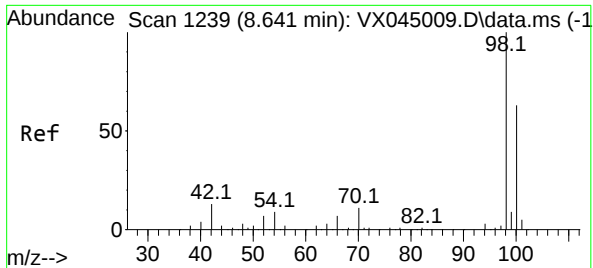
Reviewed By :John Carlone 03/05/2025
Supervised By :Mahesh Dadoda 03/05/2025



#60
4-Bromofluorobenzene
Concen: 28.211 ug/l
RT: 11.079 min Scan# 1639
Delta R.T. -0.000 min
Lab File: VX045123.D
Acq: 04 Mar 2025 10:31

Tgt Ion: 95 Resp: 40640
Ion Ratio Lower Upper
95 100
174 76.2 59.5 89.3
176 73.4 55.5 83.3





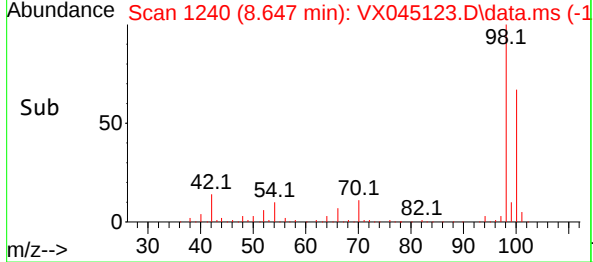
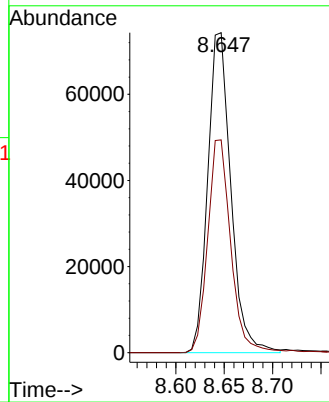
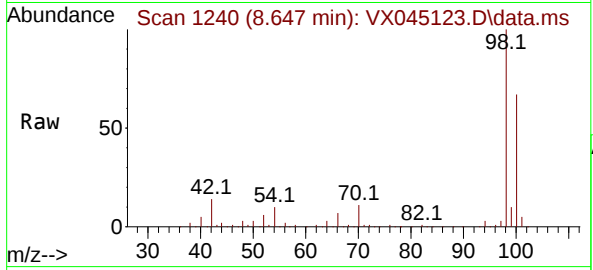
#63
Toluene-d8
Concen: 29.054 ug/l
RT: 8.647 min Scan# 11
Delta R.T. 0.006 min
Lab File: VX045123.D
Acq: 04 Mar 2025 10:31

Instrument :
MSVOA_X
ClientSampleId :
EFF-WASTE WATER

Tgt Ion: 98 Resp: 12388
Ion Ratio Lower Upper
98 100
100 66.0 51.7 77.5

Manual Integrations
APPROVED

Reviewed By :John Carlone 03/05/2025
Supervised By :Mahesh Dadoda 03/05/2025





CALIBRATION SUMMARY

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: ARDM01

Lab Code: CHEM Case No.: Q1456 SAS No.: Q1456 SDG No.: Q1456

Instrument ID: MSVOA_X Calibration Date(s): 02/21/2025 02/21/2025

Heated Purge: (Y/N) N Calibration Time(s): 09:58 11:29

GC Column: DB-624UI ID: 0.18 (mm)

LAB FILE ID:		RRF005 = VX045008.D		RRF020 = VX045009.D		RRF050 = VX045010.D			
		RRF100 = VX045011.D		RRF150 = VX045012.D		RRF =			
COMPOUND		RRF005	RRF020	RRF050	RRF100	RRF150	RRF	RRF	% RSD
Chloromethane		3.021	2.986	3.118	2.875	3.145		3.029	3.6
Vinyl Chloride		2.916	2.831	2.918	2.825	3.124		2.923	4.1
Bromomethane		1.116	0.976	0.995	0.944	1.056		1.017	6.7
Chloroethane		1.821	1.663	1.752	1.466	1.212		1.583	15.6
Trichlorofluoromethane		3.982	3.712	3.968	3.809	4.170		3.928	4.5
1,1-Dichloroethene		2.200	2.142	2.300	2.262	2.491		2.279	5.8
Acrolein		0.504	0.473	0.527	0.540	0.608		0.530	9.5
Acrylonitrile		1.204	1.244	1.348	1.284	1.384		1.293	5.7
Methylene Chloride		2.462	2.482	2.619	2.509	2.745		2.563	4.6
trans-1,2-Dichloroethene		2.232	2.191	2.345	2.260	2.501		2.306	5.3
1,1-Dichloroethane		4.525	4.343	4.508	4.473	4.929		4.555	4.8
Carbon Tetrachloride		0.572	0.548	0.576	0.544	0.581		0.564	3
Chloroform		4.272	4.258	4.406	4.293	4.771		4.400	4.9
1,1,1-Trichloroethane		0.674	0.644	0.686	0.644	0.695		0.669	3.5
Benzene		1.746	1.697	1.785	1.670	1.756		1.731	2.7
1,2-Dichloroethane		0.598	0.581	0.600	0.577	0.607		0.592	2.2
Trichloroethene		0.407	0.400	0.412	0.390	0.415		0.405	2.5
1,2-Dichloropropane		0.430	0.425	0.427	0.427	0.444		0.430	1.8
Bromodichloromethane		0.610	0.593	0.625	0.601	0.639		0.614	3
Toluene		2.015	1.952	1.995	1.956	2.019		1.987	1.6
t-1,3-Dichloropropene		0.527	0.530	0.616	0.618	0.666		0.591	10.3
cis-1,3-Dichloropropene		0.614	0.635	0.691	0.682	0.726		0.670	6.7
1,1,2-Trichloroethane		0.405	0.404	0.414	0.389	0.402		0.403	2.2
2-Chloroethyl vinyl ether		0.301	0.314	0.339	0.326	0.346		0.325	5.6
Dibromochloromethane		0.427	0.436	0.457	0.440	0.468		0.445	3.8
Tetrachloroethene		0.389	0.368	0.367	0.356	0.367		0.369	3.3
Chlorobenzene		1.223	1.214	1.244	1.220	1.257		1.231	1.5
Ethyl Benzene		2.094	2.100	2.220	2.178	2.286		2.176	3.7
m/p-Xylenes		0.785	0.816	0.823	0.799	0.831		0.811	2.3
o-Xylene		0.767	0.798	0.813	0.783	0.816		0.795	2.6

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

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: ARDM01
 Lab Code: CHEM Case No.: Q1456 SAS No.: Q1456 SDG No.: Q1456
 Instrument ID: MSVOA_X Calibration Date(s): 02/21/2025 02/21/2025
 Heated Purge: (Y/N) N Calibration Time(s): 09:58 11:29
 GC Column: DB-624UI ID: 0.18 (mm)

LAB FILE ID:		RRF005 = VX045008.D		RRF020 = VX045009.D		RRF050 = VX045010.D	
		RRF100 = VX045011.D		RRF150 = VX045012.D		RRF =	
COMPOUND	RRF005	RRF020	RRF050	RRF100	RRF150	RRF	% RSD
Bromoform	0.251	0.258	0.298	0.281	0.308	0.279	8.9
1,1,2,2-Tetrachloroethane	0.665	0.664	0.703	0.647	0.695	0.675	3.4
1,3-Dichlorobenzene	0.855	0.874	0.905	0.852	0.910	0.879	3.1
1,4-Dichlorobenzene	0.824	0.854	0.910	0.848	0.897	0.867	4.1
1,2-Dichlorobenzene	0.863	0.868	0.894	0.815	0.872	0.863	3.4
1,2-Dichloroethane-d4	2.881	2.881	2.843	2.920	3.044	2.914	2.7
Toluene-d8	1.652	1.669	1.650	1.677	1.651	1.660	0.7
4-Bromofluorobenzene	0.539	0.560	0.565	0.563	0.578	0.561	2.5

* 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_X\Method\
 Method File : 624X022125W.M
 Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 Last Update : Sat Feb 22 01:06:36 2025
 Response Via : Initial Calibration

Calibration Files

5 =VX045008.D 20 =VX045009.D 50 =VX045010.D 100 =VX045011.D 150 =VX045012.D

Compound		5	20	50	100	150	Avg	%RSD

1) I	Bromochloromethane	-----ISTD-----						
2) M	Dichlorodifluoro...	2.499	2.478	2.571	2.428	2.669	2.529	3.70
3) M	Chloromethane	3.021	2.986	3.118	2.875	3.145	3.029	3.58
4) M	Vinyl Chloride	2.916	2.831	2.918	2.825	3.124	2.923	4.14
5) M	Bromomethane	1.116	0.976	0.995	0.944	1.056	1.017	6.74
6) M	Chloroethane	1.821	1.663	1.752	1.466	1.212	1.583	15.57
7) M	Trichlorofluorom...	3.982	3.712	3.968	3.809	4.170	3.928	4.48
8) T	Diethyl Ether	1.506	1.429	1.478	1.436	1.582	1.486	4.17
9)	1,1,2-Trichlorot...	2.377	2.192	2.362	2.241	2.493	2.333	5.11
10) M	1,1-Dichloroethene	2.200	2.142	2.300	2.262	2.491	2.279	5.83
11)	Methyl Iodide	1.920	2.177	2.788	2.801	3.210	2.579	20.21
12)	Methyl Acetate	2.518	2.471	2.689	2.611	2.942	2.646	7.02
13) M	Acrolein	0.504	0.473	0.527	0.540	0.608	0.530	9.46
14) M	Acrylonitrile	1.204	1.243	1.348	1.284	1.384	1.293	5.70
15) M	Acetone	0.371	0.352	0.354	0.338	0.358	0.355	3.40
16) M	Carbon Disulfide	6.269	5.990	6.491	6.437	7.134	6.464	6.53
17)	Allyl chloride	4.066	3.950	4.321	4.259	4.716	4.262	6.89
18) M	Methylene Chloride	2.462	2.482	2.619	2.509	2.745	2.563	4.61
19) M	trans-1,2-Dichlo...	2.232	2.191	2.345	2.260	2.501	2.306	5.33
20) T	Diisopropyl ether	7.764	7.784	8.372	8.138	8.897	8.191	5.73
21) M	1,1-Dichloroethane	4.525	4.343	4.508	4.473	4.929	4.555	4.84
22) M	cis-1,2-Dichloro...	2.740	2.632	2.729	2.716	2.997	2.763	4.98
23) M	tert-Butyl Alcohol	0.440	0.425	0.475	0.435	0.481	0.451	5.63
24) M	Methyl tert-Buty...	7.103	7.021	7.516	7.382	8.169	7.438	6.13
25) M	Chloroform	4.272	4.258	4.406	4.293	4.771	4.400	4.90
26)	Cyclohexane	4.050	4.037	4.272	4.100	4.564	4.205	5.28
27) s	1,2-Dichloroetha...	2.881	2.881	2.843	2.920	3.044	2.914	2.67
28) I	1,4-Difluorobenzene	-----ISTD-----						
29)	1,1-Dichloropropene	0.555	0.537	0.563	0.532	0.572	0.552	3.11
30) M	2-Butanone	0.320	0.310	0.333	0.308	0.323	0.319	3.25
31)	2,2-Dichloropropane	0.614	0.588	0.635	0.616	0.667	0.624	4.73
32) M	1,1,1-Trichloroe...	0.674	0.644	0.686	0.644	0.695	0.669	3.51
33) M	Carbon Tetrachlo...	0.572	0.548	0.576	0.544	0.581	0.564	3.01
34) M	Benzene	1.746	1.697	1.785	1.670	1.756	1.731	2.69
35)	Methacrylonitrile	0.307	0.333	0.367	0.341	0.357	0.341	6.80
36) M	1,2-Dichloroethane	0.598	0.581	0.600	0.577	0.607	0.592	2.20
37) M	Trichloroethene	0.407	0.400	0.412	0.390	0.415	0.405	2.47
38)	Methylcyclohexane	0.747	0.700	0.763	0.724	0.770	0.741	3.89
39) M	1,2-Dichloropropane	0.430	0.425	0.427	0.427	0.444	0.430	1.77
40)	Dibromomethane	0.318	0.301	0.311	0.298	0.315	0.309	2.87
41) M	Bromodichloromet...	0.610	0.593	0.625	0.601	0.639	0.614	2.99
42) M	Vinyl Acetate	1.136	1.190	1.304	1.244	1.311	1.237	6.06
43)	Ethyl Acetate	0.552	0.578	0.610	0.606	0.642	0.598	5.72
44)	Isopropyl Acetate	0.889	0.917	1.033	1.005	1.075	0.984	7.97
45) T	1,4-Dioxane	0.010	0.010	0.011	0.010	0.010	0.010	6.57
46)	Methyl methacrylate	0.421	0.456	0.510	0.495	0.530	0.482	9.09
47)	n-amyl Acetate	0.721	0.803	0.922	0.862	0.962	0.854	11.20
48) M	t-1,3-Dichloropr...	0.527	0.530	0.616	0.618	0.666	0.591	10.28
49) T	cis-1,3-Dichloro...	0.614	0.635	0.691	0.682	0.726	0.670	6.72
50) M	1,1,2-Trichloroe...	0.405	0.404	0.414	0.389	0.402	0.403	2.21
51)	Ethyl methacrylate	0.543	0.586	0.676	0.653	0.709	0.633	10.70
52)	1,3-Dichloropropane	0.703	0.704	0.724	0.678	0.719	0.706	2.53
53) M	Dibromochloromet...	0.427	0.436	0.457	0.440	0.468	0.445	3.76
54) M	1,2-Dibromoethane	0.397	0.401	0.423	0.397	0.427	0.409	3.59
55) M	2-Chloroethyl vi...	0.301	0.314	0.339	0.326	0.346	0.325	5.64
56) M	Bromoform	0.251	0.258	0.298	0.281	0.308	0.279	8.85

Method Path : Z:\voasrv\HPCHEM1\MSVOA_X\Method\
 Method File : 624X022125W.M

		-----ISTD-----						
57) I	Chlorobenzene-d5							
58) M	4-Methyl-2-Penta...	0.633	0.680	0.731	0.668	0.701	0.682	5.37
59) M	2-Hexanone	0.446	0.488	0.535	0.482	0.516	0.493	6.96
60) S	4-Bromofluoroben...	0.539	0.560	0.565	0.563	0.578	0.561	2.47
61) M	Tetrachloroethene	0.389	0.368	0.367	0.356	0.367	0.369	3.28
62) M	Toluene	2.015	1.952	1.995	1.956	2.019	1.987	1.61
63) S	Toluene-d8	1.652	1.669	1.650	1.677	1.651	1.660	0.75
64) M	Chlorobenzene	1.223	1.214	1.244	1.220	1.257	1.231	1.49
65)	1,1,1,2-Tetrachl...	0.401	0.394	0.408	0.399	0.429	0.406	3.32
66) M	Ethyl Benzene	2.094	2.100	2.220	2.178	2.286	2.176	3.74
67) M	m/p-Xylenes	0.785	0.816	0.823	0.799	0.831	0.811	2.32
68) M	o-Xylene	0.767	0.798	0.813	0.783	0.816	0.795	2.58
69) M	Styrene	1.259	1.318	1.363	1.316	1.386	1.328	3.67
70)	Isopropylbenzene	1.981	2.041	2.089	2.026	2.126	2.053	2.74
71) M	1,1,2,2-Tetrachl...	0.665	0.664	0.703	0.647	0.695	0.675	3.44
72)	1,2,3-Trichlorop...	0.539	0.540	0.583	0.540	0.574	0.555	3.90
73)	Bromobenzene	0.462	0.467	0.485	0.463	0.486	0.473	2.52
74)	n-propylbenzene	2.281	2.387	2.539	2.437	2.569	2.443	4.78
75)	2-Chlorotoluene	1.465	1.468	1.503	1.431	1.516	1.477	2.27
76)	1,3,5-Trimethylb...	1.638	1.691	1.750	1.654	1.733	1.693	2.85
77)	t-1,4-Dichloro-2...	0.133	0.160	0.199	0.203	0.239	0.187	22.02
78)	4-Chlorotoluene	1.580	1.618	1.686	1.623	1.723	1.646	3.50
79)	tert-butylbenzene	1.628	1.703	1.779	1.667	1.753	1.706	3.61
80)	1,2,4-Trimethylb...	1.616	1.705	1.768	1.653	1.739	1.696	3.65
81)	sec-Butylbenzene	2.056	2.118	2.210	2.094	2.228	2.141	3.49
82)	p-Isopropyltoluene	1.614	1.709	1.811	1.733	1.808	1.735	4.67
83) M	1,3-Dichlorobenzene	0.855	0.874	0.905	0.852	0.910	0.879	3.12
84) M	1,4-Dichlorobenzene	0.824	0.854	0.910	0.848	0.897	0.867	4.12
85)	n-Butylbenzene	1.376	1.512	1.675	1.618	1.740	1.584	9.04
86) T	Hexachloroethane	0.264	0.282	0.322	0.314	0.349	0.306	10.94
87) M	1,2-Dichlorobenzene	0.863	0.868	0.894	0.815	0.872	0.863	3.36
88)	1,2-Dibromo-3-Ch...	0.126	0.121	0.133	0.129	0.145	0.131	7.06
89)	1,2,4-Trichlorob...	0.461	0.490	0.541	0.539	0.583	0.523	9.08
90)	Hexachlorobutadiene	0.217	0.209	0.213	0.206	0.221	0.213	2.76
91) M	Naphthalene	1.606	1.778	1.941	1.861	2.031	1.843	8.81
92)	1,2,3-Trichlorob...	0.501	0.523	0.549	0.540	0.578	0.538	5.35

(#) = Out of Range

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX022125\
 Data File : VX045008.D
 Acq On : 21 Feb 2025 09:58
 Operator : JC/MD
 Sample : VSTDICC005
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VSTDICC005

Manual Integrations
 APPROVED

Reviewed By :John
 Carlone

02/24/2025
 Supervised By :Mahesh
 Dadoda

Quant Time: Feb 22 00:46:22 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\624X022125W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Sat Feb 22 00:21:26 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	4.885	128	19850	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	6.751	114	107647	30.000	ug/l	0.00
57) Chlorobenzene-d5	10.049	117	98661	30.000	ug/l	0.00

System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	5.946	65	57190	29.664	ug/l	0.00
Spiked Amount	30.000	Range	91 - 110	Recovery	=	98.867%
60) 4-Bromofluorobenzene	11.079	95	53212	28.855	ug/l	0.00
Spiked Amount	30.000	Range	63 - 112	Recovery	=	96.200%
63) Toluene-d8	8.641	98	163004	29.865	ug/l	0.00
Spiked Amount	30.000	Range	91 - 112	Recovery	=	99.533%

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.167	85	8269	4.942	ug/l	90
3) Chloromethane	1.295	50	9993	4.986	ug/l	99
4) Vinyl Chloride	1.374	62	9648	4.989	ug/l	97
5) Bromomethane	1.593	94	3693	5.486	ug/l	95
6) Chloroethane	1.666	64	6026	5.753	ug/l #	88
7) Trichlorofluoromethane	1.874	101	13174	5.068	ug/l	95
8) Diethyl Ether	2.130	74	4984	5.068	ug/l	100
9) 1,1,2-Trichlorotrifluo...	2.319	101	7865	5.095	ug/l	99
10) 1,1-Dichloroethene	2.313	96	7277	4.826	ug/l	90
11) Methyl Iodide	2.447	142	6353	3.722	ug/l	92
12) Methyl Acetate	2.697	43	8331	4.758	ug/l	99
13) Acrolein	2.233	56	8331	23.736	ug/l	98
14) Acrylonitrile	3.063	53	19916	23.285	ug/l	98
15) Acetone	2.380	58	6140	26.175	ug/l	89
16) Carbon Disulfide	2.502	76	20739	4.849	ug/l	98
17) Allyl chloride	2.654	41	13453	4.770	ug/l	99
18) Methylene Chloride	2.782	84	8146	4.803	ug/l	96
19) trans-1,2-Dichloroethene	3.081	96	7385	4.841	ug/l	90
20) Diisopropyl ether	3.751	45	25687	4.740	ug/l #	87
21) 1,1-Dichloroethane	3.599	63	14970	4.967	ug/l	99
22) cis-1,2-Dichloroethene	4.477	96	9065	4.959	ug/l	95
23) tert-Butyl Alcohol	2.971	59	7280m	24.352	ug/l	
24) Methyl tert-Butyl Ether	3.105	73	23498	4.775	ug/l	96
25) Chloroform	5.087	83	14134	4.855	ug/l	99
26) Cyclohexane	5.452	56	13400	4.816	ug/l #	98
29) 1,1-Dichloropropene	5.690	75	9965	5.032	ug/l	97
30) 2-Butanone	4.562	43	28712	25.103	ug/l	97
31) 2,2-Dichloropropane	4.459	77	11020	4.922	ug/l #	69
32) 1,1,1-Trichloroethane	5.373	97	12088	5.038	ug/l	99
33) Carbon Tetrachloride	5.666	117	10269	5.071	ug/l	91
34) Benzene	6.031	78	31321	5.044	ug/l	97
35) Methacrylonitrile	4.916	41	5515m	4.506	ug/l	
36) 1,2-Dichloroethane	6.074	62	10725	5.045	ug/l #	82
37) Trichloroethene	7.123	130	7309	5.031	ug/l	95
38) Methylcyclohexane	7.373	83	13407	5.042	ug/l	95
39) 1,2-Dichloropropane	7.428	63	7710	4.994	ug/l	96
40) Dibromomethane	7.574	93	5709	5.153	ug/l	97
41) Bromodichloromethane	7.818	83	10949	4.973	ug/l	97
42) Vinyl Acetate	3.715	43	101864	22.951	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX022125\
 Data File : VX045008.D
 Acq On : 21 Feb 2025 09:58
 Operator : JC/MD
 Sample : VSTDICC005
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VSTDICC005

Manual Integrations
 APPROVED

Reviewed By :John
 Carlone

02/24/2025
 Supervised By :Mahesh
 Dadoda

Quant Time: Feb 22 00:46:22 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\624X022125W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Sat Feb 22 00:21:26 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
43) Ethyl Acetate	4.709	43	9903	4.617	ug/l	#	78
44) Isopropyl Acetate	6.336	43	15951	4.518	ug/l		95
45) 1,4-Dioxane	7.665	88	3476	94.718	ug/l	#	94
46) Methyl methacrylate	7.696	41	7550	4.362	ug/l		95
47) n-amyl Acetate	10.842	43	12931	4.221	ug/l		99
48) t-1,3-Dichloropropene	8.976	75	9461	4.458	ug/l		95
49) cis-1,3-Dichloropropene	8.366	75	11016	4.585	ug/l		98
50) 1,1,2-Trichloroethane	9.147	97	7268	5.030	ug/l		96
51) Ethyl methacrylate	9.116	69	9742	4.287	ug/l		97
52) 1,3-Dichloropropane	9.305	76	12611	4.981	ug/l		99
53) Dibromochloromethane	9.519	129	7657	4.791	ug/l		97
54) 1,2-Dibromoethane	9.610	107	7119	4.851	ug/l		95
55) 2-Chloroethyl vinyl ether	8.238	63	26987	23.123	ug/l		97
56) Bromoform	10.799	173	4498	4.491	ug/l		97
58) 4-Methyl-2-Pentanone	8.568	43	52017	23.177	ug/l		99
59) 2-Hexanone	9.427	43	36637	22.584	ug/l		99
61) Tetrachloroethene	9.269	164	6401	5.269	ug/l		99
62) Toluene	8.714	91	33141	5.071	ug/l		95
64) Chlorobenzene	10.073	112	20106	4.965	ug/l		99
65) 1,1,1,2-Tetrachloroethane	10.159	131	6593	4.934	ug/l		98
66) Ethyl Benzene	10.189	91	34439	4.813	ug/l		97
67) m/p-Xylenes	10.299	106	25804	9.679	ug/l		98
68) o-Xylene	10.640	106	12618	4.824	ug/l		97
69) Styrene	10.653	104	20710	4.741	ug/l		97
70) Isopropylbenzene	10.957	105	32576	4.826	ug/l		99
71) 1,1,2,2-Tetrachloroethane	11.207	83	10940	4.929	ug/l		99
72) 1,2,3-Trichloropropane	11.238	75	8856m	4.851	ug/l		
73) Bromobenzene	11.195	156	7592	4.886	ug/l		99
74) n-propylbenzene	11.299	91	37507	4.669	ug/l		99
75) 2-Chlorotoluene	11.360	91	24091	4.961	ug/l		97
76) 1,3,5-Trimethylbenzene	11.445	105	26935	4.837	ug/l		97
77) t-1,4-Dichloro-2-butene	11.018	75	2182	3.552	ug/l		82
78) 4-Chlorotoluene	11.451	91	25983	4.800	ug/l		99
79) tert-butylbenzene	11.713	119	26773	4.772	ug/l		99
80) 1,2,4-Trimethylbenzene	11.750	105	26568	4.763	ug/l		97
81) sec-Butylbenzene	11.884	105	33807	4.801	ug/l		99
82) p-Isopropyltoluene	12.006	119	26547	4.653	ug/l		99
83) 1,3-Dichlorobenzene	11.969	146	14060	4.863	ug/l		99
84) 1,4-Dichlorobenzene	12.043	146	13556	4.755	ug/l		95
85) n-Butylbenzene	12.329	91	22634	4.344	ug/l		99
86) Hexachloroethane	12.536	117	4340	4.313	ug/l		98
87) 1,2-Dichlorobenzene	12.335	146	14188	5.001	ug/l		98
88) 1,2-Dibromo-3-Chloropr...	12.939	75	2067	4.810	ug/l		86
89) 1,2,4-Trichlorobenzene	13.585	180	7586	4.412	ug/l		98
90) Hexachlorobutadiene	13.725	225	3570	5.091	ug/l		96
91) Naphthalene	13.774	128	26410	4.356	ug/l		99
92) 1,2,3-Trichlorobenzene	13.957	180	8240	4.655	ug/l		99

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX022125\
 Data File : VX045009.D
 Acq On : 21 Feb 2025 10:21
 Operator : JC/MD
 Sample : VSTDICCC020
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VSTDICCC020

Manual Integrations
 APPROVED

Reviewed By : John Carlone 02/24/2025
 Supervised By : Mahesh Dadoda 02/24/2025

Quant Time: Feb 22 00:47:11 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\624X022125W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Sat Feb 22 00:21:26 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	4.885	128	18456	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	6.757	114	100876	30.000	ug/l	0.00
57) Chlorobenzene-d5	10.049	117	91818	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	5.946	65	53173	29.663	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery =	98.867%		
60) 4-Bromofluorobenzene	11.079	95	51382	29.939	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery =	99.800%		
63) Toluene-d8	8.641	98	153274	30.175	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery =	100.567%		
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	1.167	85	30488	19.596	ug/l	100
3) Chloromethane	1.295	50	36739	19.715	ug/l	100
4) Vinyl Chloride	1.374	62	34827	19.369	ug/l	100
5) Bromomethane	1.593	94	12009	19.186	ug/l	100
6) Chloroethane	1.666	64	20465	21.014	ug/l	100
7) Trichlorofluoromethane	1.874	101	45678	18.901	ug/l	100
8) Diethyl Ether	2.130	74	17586	19.233	ug/l	100
9) 1,1,2-Trichlorotrifluo...	2.325	101	26971	18.790	ug/l	100
10) 1,1-Dichloroethene	2.313	96	26361	18.802	ug/l	100
11) Methyl Iodide	2.447	142	26786	16.880	ug/l	100
12) Methyl Acetate	2.697	43	30401	18.673	ug/l	100
13) Acrolein	2.233	56	29114	89.216	ug/l	100
14) Acrylonitrile	3.056	53	76500	96.198	ug/l	100
15) Acetone	2.380	58	21647	99.253	ug/l	100
16) Carbon Disulfide	2.502	76	73699	18.532	ug/l	100
17) Allyl chloride	2.660	41	48603	18.535	ug/l	100
18) Methylene Chloride	2.782	84	30537	19.365	ug/l	100
19) trans-1,2-Dichloroethene	3.081	96	26955	19.003	ug/l	100
20) Diisopropyl ether	3.751	45	95769	19.005	ug/l	100
21) 1,1-Dichloroethane	3.605	63	53432	19.066	ug/l	100
22) cis-1,2-Dichloroethene	4.483	96	32387	19.054	ug/l	100
23) tert-Butyl Alcohol	2.983	59	26136	94.028	ug/l #	100
24) Methyl tert-Butyl Ether	3.105	73	86386	18.878	ug/l	100
25) Chloroform	5.087	83	52389	19.354	ug/l	100
26) Cyclohexane	5.465	56	49670	19.201	ug/l #	100
29) 1,1-Dichloropropene	5.690	75	36104	19.456	ug/l	100
30) 2-Butanone	4.550	43	104263	97.278	ug/l	100
31) 2,2-Dichloropropane	4.465	77	39511	18.830	ug/l	100
32) 1,1,1-Trichloroethane	5.373	97	43317	19.266	ug/l	100
33) Carbon Tetrachloride	5.666	117	36851	19.421	ug/l	100
34) Benzene	6.032	78	114107	19.609	ug/l	100
35) Methacrylonitrile	4.910	41	22376	19.509	ug/l	100
36) 1,2-Dichloroethane	6.080	62	39058	19.604	ug/l	100
37) Trichloroethene	7.117	130	26892	19.753	ug/l	100
38) Methylcyclohexane	7.373	83	47088	18.899	ug/l	100
39) 1,2-Dichloropropane	7.428	63	28555	19.738	ug/l	100
40) Dibromomethane	7.580	93	20254	19.509	ug/l	100
41) Bromodichloromethane	7.818	83	39895	19.335	ug/l	100
42) Vinyl Acetate	3.715	43	400180	96.216	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX022125\
 Data File : VX045009.D
 Acq On : 21 Feb 2025 10:21
 Operator : JC/MD
 Sample : VSTDICCC020
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VSTDICCC020

Manual Integrations
 APPROVED

Reviewed By : John Carlone 02/24/2025
 Supervised By : Mahesh Dadoda 02/24/2025

Quant Time: Feb 22 00:47:11 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\624X022125W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Sat Feb 22 00:21:26 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	4.709	43	38893	19.350	ug/l	100
44) Isopropyl Acetate	6.336	43	61693	18.649	ug/l	100
45) 1,4-Dioxane	7.659	88	14028	407.910	ug/l	100
46) Methyl methacrylate	7.690	41	30666	18.904	ug/l	100
47) n-amyl Acetate	10.842	43	54008	18.814	ug/l	100
48) t-1,3-Dichloropropene	8.976	75	35645	17.922	ug/l	100
49) cis-1,3-Dichloropropene	8.360	75	42718	18.974	ug/l	100
50) 1,1,2-Trichloroethane	9.147	97	27147	20.047	ug/l	100
51) Ethyl methacrylate	9.110	69	39389	18.495	ug/l	100
52) 1,3-Dichloropropane	9.305	76	47373	19.965	ug/l	100
53) Dibromochloromethane	9.519	129	29289	19.556	ug/l	100
54) 1,2-Dibromoethane	9.604	107	26948	19.597	ug/l	100
55) 2-Chloroethyl vinyl ether	8.238	63	105624	96.576	ug/l	100
56) Bromoform	10.799	173	17331	18.467	ug/l	100
58) 4-Methyl-2-Pentanone	8.568	43	208023	99.596	ug/l	100
59) 2-Hexanone	9.427	43	149308	98.899	ug/l	100
61) Tetrachloroethene	9.269	164	22529	19.926	ug/l	100
62) Toluene	8.714	91	119473	19.642	ug/l	100
64) Chlorobenzene	10.073	112	74287	19.710	ug/l	100
65) 1,1,1,2-Tetrachloroethane	10.159	131	24135	19.406	ug/l	100
66) Ethyl Benzene	10.189	91	128535	19.302	ug/l	100
67) m/p-Xylenes	10.299	106	99887	40.260	ug/l	100
68) o-Xylene	10.640	106	48859	20.071	ug/l	100
69) Styrene	10.653	104	80660	19.839	ug/l	100
70) Isopropylbenzene	10.957	105	124935	19.888	ug/l	100
71) 1,1,2,2-Tetrachloroethane	11.207	83	40659	19.683	ug/l	100
72) 1,2,3-Trichloropropane	11.238	75	33046m	19.450	ug/l	
73) Bromobenzene	11.195	156	28601	19.777	ug/l	100
74) n-propylbenzene	11.299	91	146105	19.544	ug/l	100
75) 2-Chlorotoluene	11.360	91	89859	19.883	ug/l	100
76) 1,3,5-Trimethylbenzene	11.451	105	103532	19.977	ug/l	100
77) t-1,4-Dichloro-2-butene	11.018	75	9794	17.133	ug/l	100
78) 4-Chlorotoluene	11.451	91	99015	19.654	ug/l	100
79) tert-butylbenzene	11.713	119	104250	19.965	ug/l	100
80) 1,2,4-Trimethylbenzene	11.750	105	104388	20.108	ug/l	100
81) sec-Butylbenzene	11.884	105	129645	19.783	ug/l	100
82) p-Isopropyltoluene	12.006	119	104594	19.698	ug/l	100
83) 1,3-Dichlorobenzene	11.969	146	53471	19.873	ug/l	100
84) 1,4-Dichlorobenzene	12.037	146	52302	19.714	ug/l	100
85) n-Butylbenzene	12.329	91	92551	19.087	ug/l	100
86) Hexachloroethane	12.536	117	17240	18.410	ug/l	100
87) 1,2-Dichlorobenzene	12.335	146	53134	20.126	ug/l	100
88) 1,2-Dibromo-3-Chloropr...	12.939	75	7393	18.485	ug/l	100
89) 1,2,4-Trichlorobenzene	13.585	180	30018	18.760	ug/l	100
90) Hexachlorobutadiene	13.725	225	12822	19.649	ug/l	100
91) Naphthalene	13.774	128	108844	19.291	ug/l	100
92) 1,2,3-Trichlorobenzene	13.957	180	32019	19.437	ug/l	100

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX022125\
 Data File : VX045010.D
 Acq On : 21 Feb 2025 10:44
 Operator : JC/MD
 Sample : VSTDICC050
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 4 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VSTDICC050

Manual Integrations
 APPROVED

Reviewed By : John Carlone 02/24/2025
 Supervised By : Mahesh Dadoda 02/24/2025

Quant Time: Feb 22 00:48:00 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\624X022125W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Sat Feb 22 00:21:26 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	4.891	128	17467	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	6.757	114	96411	30.000	ug/l	0.00
57) Chlorobenzene-d5	10.049	117	89300	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	5.946	65	49656	29.270	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery =	97.567%		
60) 4-Bromofluorobenzene	11.079	95	50413	30.203	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery =	100.667%		
63) Toluene-d8	8.647	98	147315	29.819	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery =	99.400%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.166	85	74849	50.833	ug/l	98
3) Chloromethane	1.294	50	90776	51.472	ug/l	98
4) Vinyl Chloride	1.374	62	84944	49.915	ug/l	100
5) Bromomethane	1.593	94	28963	48.894	ug/l	97
6) Chloroethane	1.672	64	51012	55.346	ug/l	92
7) Trichlorofluoromethane	1.880	101	115517	50.505	ug/l	95
8) Diethyl Ether	2.130	74	43032	49.726	ug/l	97
9) 1,1,2-Trichlorotrifluo...	2.325	101	68750	50.609	ug/l	97
10) 1,1-Dichloroethene	2.312	96	66962	50.466	ug/l	92
11) Methyl Iodide	2.447	142	81166	54.046	ug/l	97
12) Methyl Acetate	2.697	43	78286	50.808	ug/l	100
13) Acrolein	2.233	56	76736	248.462	ug/l	98
14) Acrylonitrile	3.056	53	196184	260.667	ug/l	99
15) Acetone	2.373	58	51483	249.418	ug/l	95
16) Carbon Disulfide	2.508	76	188973	50.210	ug/l	100
17) Allyl chloride	2.660	41	125778	50.682	ug/l	98
18) Methylene Chloride	2.782	84	76235	51.081	ug/l	98
19) trans-1,2-Dichloroethene	3.087	96	68253	50.843	ug/l	94
20) Diisopropyl ether	3.751	45	243734	51.107	ug/l	96
21) 1,1-Dichloroethane	3.599	63	131223	49.475	ug/l	100
22) cis-1,2-Dichloroethene	4.477	96	79440	49.382	ug/l	97
23) tert-Butyl Alcohol	2.959	59	69182	262.986	ug/l #	100
24) Methyl tert-Butyl Ether	3.111	73	218792	50.521	ug/l	99
25) Chloroform	5.086	83	128252	50.062	ug/l	99
26) Cyclohexane	5.458	56	124373	50.802	ug/l #	98
29) 1,1-Dichloropropene	5.684	75	90516	51.038	ug/l	99
30) 2-Butanone	4.544	43	267770	261.401	ug/l	99
31) 2,2-Dichloropropane	4.465	77	101966	50.846	ug/l	100
32) 1,1,1-Trichloroethane	5.373	97	110282	51.322	ug/l	99
33) Carbon Tetrachloride	5.672	117	92530	51.023	ug/l	99
34) Benzene	6.031	78	286826	51.573	ug/l	98
35) Methacrylonitrile	4.910	41	59021	53.843	ug/l	98
36) 1,2-Dichloroethane	6.080	62	96405	50.630	ug/l	98
37) Trichloroethene	7.116	130	66131	50.826	ug/l	95
38) Methylcyclohexane	7.373	83	122650	51.506	ug/l	98
39) 1,2-Dichloropropane	7.421	63	68553	49.579	ug/l	97
40) Dibromomethane	7.574	93	50034	50.426	ug/l	99
41) Bromodichloromethane	7.818	83	100442	50.932	ug/l	99
42) Vinyl Acetate	3.715	43	1047506	263.518	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX022125\
 Data File : VX045010.D
 Acq On : 21 Feb 2025 10:44
 Operator : JC/MD
 Sample : VSTDICC050
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 4 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VSTDICC050

Manual Integrations
 APPROVED

Reviewed By : John Carlone 02/24/2025
 Supervised By : Mahesh Dadoda 02/24/2025

Quant Time: Feb 22 00:48:00 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\624X022125W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Sat Feb 22 00:21:26 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	4.708	43	97995	51.012	ug/l	98
44) Isopropyl Acetate	6.330	43	165983	52.497	ug/l	99
45) 1,4-Dioxane	7.653	88	36320	1105.035	ug/l	98
46) Methyl methacrylate	7.690	41	82008	52.896	ug/l	99
47) n-amyl Acetate	10.841	43	148104	53.981	ug/l	99
48) t-1,3-Dichloropropene	8.976	75	98986	52.075	ug/l	100
49) cis-1,3-Dichloropropene	8.360	75	110953	51.564	ug/l	99
50) 1,1,2-Trichloroethane	9.147	97	66444	51.339	ug/l	97
51) Ethyl methacrylate	9.110	69	108669	53.387	ug/l	97
52) 1,3-Dichloropropane	9.305	76	116358	51.310	ug/l	99
53) Dibromochloromethane	9.518	129	73437	51.304	ug/l	96
54) 1,2-Dibromoethane	9.604	107	67926	51.685	ug/l	99
55) 2-Chloroethyl vinyl ether	8.238	63	272372	260.575	ug/l	100
56) Bromoform	10.799	173	47891	53.392	ug/l	99
58) 4-Methyl-2-Pentanone	8.567	43	543908	267.752	ug/l	100
59) 2-Hexanone	9.427	43	398198	271.195	ug/l	99
61) Tetrachloroethene	9.269	164	54607	49.659	ug/l	94
62) Toluene	8.714	91	296930	50.195	ug/l	100
64) Chlorobenzene	10.073	112	185159	50.511	ug/l	99
65) 1,1,1,2-Tetrachloroethane	10.159	131	60773	50.244	ug/l	99
66) Ethyl Benzene	10.189	91	330414	51.018	ug/l	98
67) m/p-Xylenes	10.299	106	244916	101.498	ug/l	97
68) o-Xylene	10.640	106	120934	51.080	ug/l	100
69) Styrene	10.652	104	202875	51.306	ug/l	99
70) Isopropylbenzene	10.957	105	310911	50.888	ug/l	100
71) 1,1,2,2-Tetrachloroethane	11.207	83	104665	52.096	ug/l	100
72) 1,2,3-Trichloropropane	11.238	75	86752m	52.499	ug/l	
73) Bromobenzene	11.195	156	72207	51.338	ug/l	99
74) n-propylbenzene	11.299	91	377855	51.970	ug/l	99
75) 2-Chlorotoluene	11.360	91	223666	50.885	ug/l	100
76) 1,3,5-Trimethylbenzene	11.445	105	260432	51.669	ug/l	99
77) t-1,4-Dichloro-2-butene	11.012	75	29634	53.302	ug/l	95
78) 4-Chlorotoluene	11.451	91	250953	51.217	ug/l	99
79) tert-butylbenzene	11.713	119	264815	52.144	ug/l	98
80) 1,2,4-Trimethylbenzene	11.750	105	263122	52.114	ug/l	100
81) sec-Butylbenzene	11.884	105	328940	51.608	ug/l	100
82) p-Isopropyltoluene	12.006	119	269490	52.183	ug/l	98
83) 1,3-Dichlorobenzene	11.963	146	134685	51.467	ug/l	98
84) 1,4-Dichlorobenzene	12.036	146	135436	52.490	ug/l	99
85) n-Butylbenzene	12.329	91	249242	52.851	ug/l	98
86) Hexachloroethane	12.536	117	47866	52.555	ug/l	98
87) 1,2-Dichlorobenzene	12.329	146	133123	51.846	ug/l	99
88) 1,2-Dibromo-3-Chloropr...	12.939	75	19763	50.807	ug/l	97
89) 1,2,4-Trichlorobenzene	13.585	180	80472	51.710	ug/l	99
90) Hexachlorobutadiene	13.725	225	31734	50.003	ug/l	99
91) Naphthalene	13.774	128	288823	52.634	ug/l	99
92) 1,2,3-Trichlorobenzene	13.957	180	81734	51.015	ug/l	99

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX022125\
 Data File : VX045011.D
 Acq On : 21 Feb 2025 11:07
 Operator : JC/MD
 Sample : VSTDICC100
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VSTDICC100

Quant Time: Feb 22 00:48:54 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\624X022125W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Sat Feb 22 00:21:26 2025
 Response via : Initial Calibration

Manual Integrations APPROVED

Reviewed By : John Carlone 02/24/2025
 Supervised By : Mahesh Dadoda 02/24/2025

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

Internal Standards						
1) Bromochloromethane	4.891	128	17332	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	6.751	114	98516	30.000	ug/l	0.00
57) Chlorobenzene-d5	10.049	117	88321	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	5.946	65	50601	30.059	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 100.200%			
60) 4-Bromofluorobenzene	11.079	95	49683	30.096	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 100.333%			
63) Toluene-d8	8.647	98	148078	30.306	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 101.033%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.166	85	140259	95.997	ug/l	97
3) Chloromethane	1.294	50	166114	94.924	ug/l	99
4) Vinyl Chloride	1.374	62	163236	96.669	ug/l	99
5) Bromomethane	1.593	94	54558	92.819	ug/l	95
6) Chloroethane	1.666	64	84688	92.599	ug/l	97
7) Trichlorofluoromethane	1.874	101	220045	96.956	ug/l	96
8) Diethyl Ether	2.130	74	82964	96.616	ug/l	97
9) 1,1,2-Trichlorotrifluo...	2.319	101	129494	96.068	ug/l	98
10) 1,1-Dichloroethene	2.313	96	130666	99.244	ug/l	94
11) Methyl Iodide	2.447	142	161844	108.607	ug/l	98
12) Methyl Acetate	2.703	43	150865	98.675	ug/l	99
13) Acrolein	2.233	56	156104	509.382	ug/l	97
14) Acrylonitrile	3.062	53	370914	496.667	ug/l	99
15) Acetone	2.380	58	97560	476.326	ug/l	98
16) Carbon Disulfide	2.502	76	371874	99.576	ug/l	100
17) Allyl chloride	2.654	41	246065	99.923	ug/l	98
18) Methylene Chloride	2.782	84	144938	97.871	ug/l	96
19) trans-1,2-Dichloroethene	3.087	96	130562	98.015	ug/l	97
20) Diisopropyl ether	3.757	45	470167	99.355	ug/l #	82
21) 1,1-Dichloroethane	3.605	63	258430	98.196	ug/l	98
22) cis-1,2-Dichloroethene	4.477	96	156933	98.314	ug/l	99
23) tert-Butyl Alcohol	2.989	59	125570	481.055	ug/l #	100
24) Methyl tert-Butyl Ether	3.111	73	426471	99.244	ug/l	99
25) Chloroform	5.080	83	248045	97.577	ug/l	99
26) Cyclohexane	5.458	56	236876	97.509	ug/l #	98
29) 1,1-Dichloropropene	5.684	75	174620	96.357	ug/l	100
30) 2-Butanone	4.550	43	505036	482.489	ug/l	99
31) 2,2-Dichloropropane	4.465	77	202370	98.758	ug/l	100
32) 1,1,1-Trichloroethane	5.373	97	211623	96.379	ug/l	99
33) Carbon Tetrachloride	5.666	117	178685	96.425	ug/l	99
34) Benzene	6.031	78	548369	96.492	ug/l	99
35) Methacrylonitrile	4.910	41	111962	99.957	ug/l	97
36) 1,2-Dichloroethane	6.080	62	189437	97.362	ug/l	98
37) Trichloroethene	7.117	130	128134	96.375	ug/l	97
38) Methylcyclohexane	7.373	83	237839	97.744	ug/l	97
39) 1,2-Dichloropropane	7.421	63	140148	99.193	ug/l	98
40) Dibromomethane	7.574	93	97805	96.465	ug/l	99
41) Bromodichloromethane	7.818	83	197339	97.929	ug/l	99
42) Vinyl Acetate	3.715	43	2042535	502.855	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX022125\
 Data File : VX045011.D
 Acq On : 21 Feb 2025 11:07
 Operator : JC/MD
 Sample : VSTDICC100
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VSTDICC100

Quant Time: Feb 22 00:48:54 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\624X022125W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Sat Feb 22 00:21:26 2025
 Response via : Initial Calibration

Manual Integrations
 APPROVED

Reviewed By : John Carlone 02/24/2025
 Supervised By : Mahesh Dadoda 02/24/2025

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	4.708	43	199092	101.424	ug/l	97
44) Isopropyl Acetate	6.336	43	329903	102.113	ug/l	99
45) 1,4-Dioxane	7.659	88	63728	1897.493	ug/l	98
46) Methyl methacrylate	7.690	41	162523	102.589	ug/l	100
47) n-amyl Acetate	10.842	43	282922	100.917	ug/l	98
48) t-1,3-Dichloropropene	8.976	75	202810	104.416	ug/l	98
49) cis-1,3-Dichloropropene	8.360	75	223833	101.800	ug/l	100
50) 1,1,2-Trichloroethane	9.147	97	127690	96.553	ug/l	95
51) Ethyl methacrylate	9.110	69	214475	103.117	ug/l	97
52) 1,3-Dichloropropane	9.305	76	222694	96.102	ug/l	99
53) Dibromochloromethane	9.519	129	144384	98.713	ug/l	97
54) 1,2-Dibromoethane	9.604	107	130524	97.194	ug/l	100
55) 2-Chloroethyl vinyl ether	8.238	63	535473	501.334	ug/l	99
56) Bromoform	10.799	173	92416	100.830	ug/l	98
58) 4-Methyl-2-Pentanone	8.574	43	983713	489.624	ug/l	99
59) 2-Hexanone	9.427	43	708849	488.118	ug/l	98
61) Tetrachloroethene	9.269	164	104854	96.410	ug/l	97
62) Toluene	8.714	91	575772	98.410	ug/l	99
64) Chlorobenzene	10.073	112	359123	99.055	ug/l	99
65) 1,1,1,2-Tetrachloroethane	10.159	131	117602	98.304	ug/l	98
66) Ethyl Benzene	10.189	91	641324	100.122	ug/l	97
67) m/p-Xylenes	10.299	106	470322	197.072	ug/l	98
68) o-Xylene	10.640	106	230392	98.392	ug/l	100
69) Styrene	10.653	104	387436	99.067	ug/l	98
70) Isopropylbenzene	10.957	105	596402	98.698	ug/l	100
71) 1,1,2,2-Tetrachloroethane	11.207	83	190591	95.916	ug/l	100
72) 1,2,3-Trichloropropane	11.238	75	158994m	97.283	ug/l	
73) Bromobenzene	11.195	156	136270	97.960	ug/l	98
74) n-propylbenzene	11.299	91	717361	99.759	ug/l	99
75) 2-Chlorotoluene	11.360	91	421424	96.938	ug/l	98
76) 1,3,5-Trimethylbenzene	11.451	105	487050	97.701	ug/l	99
77) t-1,4-Dichloro-2-butene	11.018	75	59873	108.886	ug/l	98
78) 4-Chlorotoluene	11.451	91	477861	98.607	ug/l	98
79) tert-butylbenzene	11.713	119	490816	97.716	ug/l	99
80) 1,2,4-Trimethylbenzene	11.750	105	486770	97.478	ug/l	100
81) sec-Butylbenzene	11.890	105	616448	97.788	ug/l	100
82) p-Isopropyltoluene	12.006	119	510223	99.893	ug/l	99
83) 1,3-Dichlorobenzene	11.963	146	250755	96.883	ug/l	98
84) 1,4-Dichlorobenzene	12.036	146	249668	97.834	ug/l	99
85) n-Butylbenzene	12.329	91	476457	102.150	ug/l	98
86) Hexachloroethane	12.536	117	92493	102.679	ug/l	100
87) 1,2-Dichlorobenzene	12.335	146	240056	94.528	ug/l	99
88) 1,2-Dibromo-3-Chloropr...	12.939	75	37960	98.669	ug/l	98
89) 1,2,4-Trichlorobenzene	13.585	180	158594	103.039	ug/l	98
90) Hexachlorobutadiene	13.719	225	60565	96.489	ug/l	98
91) Naphthalene	13.774	128	548026	100.977	ug/l	100
92) 1,2,3-Trichlorobenzene	13.957	180	158881	100.267	ug/l	100

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX022125\
 Data File : VX045012.D
 Acq On : 21 Feb 2025 11:29
 Operator : JC/MD
 Sample : VSTDICC150
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 6 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VSTDICC150

Quant Time: Feb 22 00:49:47 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\624X022125W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Sat Feb 22 00:21:26 2025
 Response via : Initial Calibration

Manual Integrations APPROVED

Reviewed By : John Carlone 02/24/2025
 Supervised By : Mahesh Dadoda 02/24/2025

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

Internal Standards						
1) Bromochloromethane	4.891	128	15390	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	6.757	114	91158	30.000	ug/l	0.00
57) Chlorobenzene-d5	10.049	117	81702	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	5.952	65	46852	31.344	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 104.467%			
60) 4-Bromofluorobenzene	11.079	95	47199	30.907	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 103.033%			
63) Toluene-d8	8.647	98	134852	29.835	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 99.467%			
Target Compounds					Qvalue	
2) Dichlorodifluoromethane	1.166	85	205354	158.286	ug/l	96
3) Chloromethane	1.295	50	242022	155.752	ug/l	100
4) Vinyl Chloride	1.374	62	240390	160.323	ug/l	100
5) Bromomethane	1.593	94	81221	155.617	ug/l	97
6) Chloroethane	1.660	64	93284	114.868	ug/l	97
7) Trichlorofluoromethane	1.868	101	320914	159.243	ug/l	97
8) Diethyl Ether	2.130	74	121707	159.619	ug/l	97
9) 1,1,2-Trichlorotrifluo...	2.319	101	191867	160.302	ug/l	98
10) 1,1-Dichloroethene	2.307	96	191658	163.938	ug/l	90
11) Methyl Iodide	2.447	142	247014	186.677	ug/l	97
12) Methyl Acetate	2.703	43	226419	166.780	ug/l	99
13) Acrolein	2.233	56	233841	859.331	ug/l	99
14) Acrylonitrile	3.062	53	532462	802.955	ug/l	99
15) Acetone	2.386	58	137785	757.609	ug/l	98
16) Carbon Disulfide	2.502	76	548971	165.547	ug/l	99
17) Allyl chloride	2.654	41	362889	165.958	ug/l	100
18) Methylene Chloride	2.782	84	211221	160.628	ug/l	97
19) trans-1,2-Dichloroethene	3.087	96	192443	162.701	ug/l	97
20) Diisopropyl ether	3.757	45	684590	162.921	ug/l #	84
21) 1,1-Dichloroethane	3.599	63	379249	162.287	ug/l	99
22) cis-1,2-Dichloroethene	4.483	96	230636	162.719	ug/l	98
23) tert-Butyl Alcohol	3.014	59	185225m	799.131	ug/l	
24) Methyl tert-Butyl Ether	3.111	73	628626	164.746	ug/l	100
25) Chloroform	5.087	83	367141	162.652	ug/l	100
26) Cyclohexane	5.464	56	351233	162.829	ug/l #	99
29) 1,1-Dichloropropene	5.684	75	260684	155.458	ug/l	99
30) 2-Butanone	4.550	43	735492	759.373	ug/l	100
31) 2,2-Dichloropropane	4.465	77	304225	160.447	ug/l	100
32) 1,1,1-Trichloroethane	5.373	97	316595	155.824	ug/l	99
33) Carbon Tetrachloride	5.672	117	264905	154.492	ug/l	98
34) Benzene	6.031	78	800159	152.163	ug/l	99
35) Methacrylonitrile	4.916	41	162761	157.037	ug/l	96
36) 1,2-Dichloroethane	6.080	62	276707	153.695	ug/l	97
37) Trichloroethene	7.117	130	189307	153.878	ug/l	96
38) Methylcyclohexane	7.373	83	350907	155.851	ug/l	98
39) 1,2-Dichloropropane	7.421	63	202146	154.621	ug/l	98
40) Dibromomethane	7.574	93	143641	153.109	ug/l	99
41) Bromodichloromethane	7.818	83	291108	156.122	ug/l	99
42) Vinyl Acetate	3.715	43	2988086	795.020	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX022125\
 Data File : VX045012.D
 Acq On : 21 Feb 2025 11:29
 Operator : JC/MD
 Sample : VSTDICC150
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 6 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VSTDICC150

Manual Integrations
 APPROVED

Reviewed By : John Carlone 02/24/2025
 Supervised By : Mahesh Dadoda 02/24/2025

Quant Time: Feb 22 00:49:47 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\624X022125W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Sat Feb 22 00:21:26 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	4.709	43	292788	161.195	ug/l	97
44) Isopropyl Acetate	6.336	43	490033	163.920	ug/l	99
45) 1,4-Dioxane	7.665	88	91297	2937.775	ug/l	98
46) Methyl methacrylate	7.690	41	241575	164.798	ug/l	97
47) n-amyl Acetate	10.842	43	438261	168.943	ug/l	98
48) t-1,3-Dichloropropene	8.976	75	303740	169.001	ug/l	100
49) cis-1,3-Dichloropropene	8.360	75	331118	162.750	ug/l	98
50) 1,1,2-Trichloroethane	9.147	97	183455	149.917	ug/l	95
51) Ethyl methacrylate	9.116	69	323054	167.857	ug/l	100
52) 1,3-Dichloropropane	9.305	76	327551	152.762	ug/l	99
53) Dibromochloromethane	9.519	129	213326	157.620	ug/l	97
54) 1,2-Dibromoethane	9.604	107	194634	156.632	ug/l	99
55) 2-Chloroethyl vinyl ether	8.238	63	788934	798.256	ug/l	99
56) Bromoform	10.799	173	140224	165.340	ug/l	98
58) 4-Methyl-2-Pentanone	8.574	43	1431130	770.025	ug/l	99
59) 2-Hexanone	9.433	43	1054503	784.964	ug/l	99
61) Tetrachloroethene	9.269	164	149808	148.903	ug/l	95
62) Toluene	8.714	91	824606	152.359	ug/l	100
64) Chlorobenzene	10.073	112	513552	153.126	ug/l	99
65) 1,1,1,2-Tetrachloroethane	10.159	131	175139	158.260	ug/l	98
66) Ethyl Benzene	10.189	91	933862	157.604	ug/l	97
67) m/p-Xylenes	10.299	106	679028	307.573	ug/l	97
68) o-Xylene	10.640	106	333410	153.922	ug/l	98
69) Styrene	10.653	104	566072	156.470	ug/l	97
70) Isopropylbenzene	10.957	105	868382	155.350	ug/l	100
71) 1,1,2,2-Tetrachloroethane	11.207	83	283733	154.359	ug/l	100
72) 1,2,3-Trichloropropane	11.238	75	234613m	155.182	ug/l	
73) Bromobenzene	11.195	156	198360	154.147	ug/l	96
74) n-propylbenzene	11.299	91	1049645	157.793	ug/l	98
75) 2-Chlorotoluene	11.360	91	619308	153.997	ug/l	98
76) 1,3,5-Trimethylbenzene	11.451	105	707908	153.508	ug/l	100
77) t-1,4-Dichloro-2-butene	11.018	75	97507	191.694	ug/l	99
78) 4-Chlorotoluene	11.451	91	704032	157.047	ug/l	98
79) tert-butylbenzene	11.713	119	716064	154.110	ug/l	99
80) 1,2,4-Trimethylbenzene	11.750	105	710215	153.746	ug/l	100
81) sec-Butylbenzene	11.890	105	910294	156.100	ug/l	100
82) p-Isopropyltoluene	12.006	119	738494	156.297	ug/l	99
83) 1,3-Dichlorobenzene	11.969	146	371922	155.340	ug/l	98
84) 1,4-Dichlorobenzene	12.036	146	366532	155.264	ug/l	99
85) n-Butylbenzene	12.329	91	710846	164.749	ug/l	98
86) Hexachloroethane	12.536	117	142372	170.855	ug/l	98
87) 1,2-Dichlorobenzene	12.335	146	356347	151.688	ug/l	99
88) 1,2-Dibromo-3-Chloropr...	12.939	75	59310	166.653	ug/l	98
89) 1,2,4-Trichlorobenzene	13.585	180	238129	167.248	ug/l	98
90) Hexachlorobutadiene	13.725	225	90085	155.145	ug/l	98
91) Naphthalene	13.774	128	829698	165.262	ug/l	100
92) 1,2,3-Trichlorobenzene	13.957	180	236181	161.124	ug/l	99

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX022125\
 Data File : VX045014.D
 Acq On : 21 Feb 2025 13:09
 Operator : JC/MD
 Sample : VSTDICV020
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 8 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 ICVVX022125

Manual Integrations
 APPROVED

Reviewed By : John Carlone 02/24/2025
 Supervised By : Mahesh Dadoda 02/24/2025

Quant Time: Feb 22 01:12:33 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\624X022125W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Sat Feb 22 01:06:36 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	4.885	128	17826	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	6.751	114	98652	30.000	ug/l	0.00
57) Chlorobenzene-d5	10.049	117	90634	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	5.946	65	51483	29.736	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery =	99.133%		
60) 4-Bromofluorobenzene	11.079	95	50982	30.094	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery =	100.300%		
63) Toluene-d8	8.641	98	148516	29.620	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery =	98.733%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.166	85	27388	18.226	ug/l	95
3) Chloromethane	1.294	50	32169	17.873	ug/l	99
4) Vinyl Chloride	1.374	62	30221	17.401	ug/l	99
5) Bromomethane	1.593	94	11792	19.506	ug/l	97
6) Chloroethane	1.666	64	19435	20.662	ug/l	96
7) Trichlorofluoromethane	1.874	101	41534	17.793	ug/l	96
8) Diethyl Ether	2.130	74	15203	17.214	ug/l	97
9) 1,1,2-Trichlorotrifluo...	2.319	101	25031	18.055	ug/l	97
10) 1,1-Dichloroethene	2.313	96	24494	18.088	ug/l	95
11) Methyl Iodide	2.441	142	24257	15.827	ug/l	95
12) Methyl Acetate	2.697	43	28582	18.176	ug/l	99
13) Acrolein	2.233	56	30003	95.190	ug/l	100
14) Acrylonitrile	3.056	53	68921	89.730	ug/l	99
15) Acetone	2.374	58	22947	108.932	ug/l	97
16) Carbon Disulfide	2.502	76	68739	17.896	ug/l	100
17) Allyl chloride	2.654	41	45112	17.812	ug/l	99
18) Methylene Chloride	2.782	84	26839	17.621	ug/l	92
19) trans-1,2-Dichloroethene	3.081	96	24421	17.825	ug/l	92
20) Diisopropyl ether	3.751	45	86878	17.850	ug/l	90
21) 1,1-Dichloroethane	3.599	63	47892	17.693	ug/l	99
22) cis-1,2-Dichloroethene	4.471	96	29051	17.695	ug/l	99
23) tert-Butyl Alcohol	2.965	59	24746	92.286	ug/l #	100
24) Methyl tert-Butyl Ether	3.105	73	78186	17.690	ug/l	100
25) Chloroform	5.074	83	46912	17.943	ug/l	98
26) Cyclohexane	5.458	56	44699	17.890	ug/l #	98
29) 1,1-Dichloropropene	5.678	75	32608	17.969	ug/l	99
30) 2-Butanone	4.544	43	100841	96.206	ug/l	99
31) 2,2-Dichloropropane	4.465	77	37149	18.104	ug/l	99
32) 1,1,1-Trichloroethane	5.373	97	39458	17.945	ug/l	99
33) Carbon Tetrachloride	5.666	117	33551	18.080	ug/l	98
34) Benzene	6.025	78	102508	18.013	ug/l	98
35) Methacrylonitrile	4.910	41	20575	18.343	ug/l	97
36) 1,2-Dichloroethane	6.074	62	35686	18.316	ug/l	99
37) Trichloroethene	7.117	130	23875	17.933	ug/l	97
38) Methylcyclohexane	7.373	83	44760	18.370	ug/l	98
39) 1,2-Dichloropropane	7.421	63	24627	17.406	ug/l	98
40) Dibromomethane	7.574	93	18285	18.010	ug/l	99
41) Bromodichloromethane	7.812	83	35606	17.645	ug/l	98
42) Vinyl Acetate	3.709	43	365963	89.973	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX022125\
 Data File : VX045014.D
 Acq On : 21 Feb 2025 13:09
 Operator : JC/MD
 Sample : VSTDICV020
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 8 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 ICVVX022125

Manual Integrations
 APPROVED

Reviewed By : John Carlone 02/24/2025
 Supervised By : Mahesh Dadoda 02/24/2025

Quant Time: Feb 22 01:12:33 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\624X022125W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Sat Feb 22 01:06:36 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	4.702	43	33559	17.072	ug/l	100
44) Isopropyl Acetate	6.330	43	58216	17.994	ug/l	98
45) 1,4-Dioxane	7.659	88	12655	376.282	ug/l	99
46) Methyl methacrylate	7.684	41	29063	18.320	ug/l	98
47) n-amyl Acetate	10.842	43	50309	17.920	ug/l	99
48) t-1,3-Dichloropropene	8.976	75	33010	16.972	ug/l	98
49) cis-1,3-Dichloropropene	8.360	75	38512	17.491	ug/l	99
50) 1,1,2-Trichloroethane	9.147	97	24435	18.451	ug/l	96
51) Ethyl methacrylate	9.110	69	37245	17.882	ug/l	97
52) 1,3-Dichloropropane	9.305	76	41224	17.765	ug/l	97
53) Dibromochloromethane	9.519	129	25807	17.620	ug/l	96
54) 1,2-Dibromoethane	9.604	107	23689	17.616	ug/l	96
55) 2-Chloroethyl vinyl ether	8.232	63	91907	85.929	ug/l	100
56) Bromoform	10.799	173	15981	17.412	ug/l	99
58) 4-Methyl-2-Pentanone	8.568	43	192103	93.175	ug/l	99
59) 2-Hexanone	9.427	43	142320	95.501	ug/l	99
61) Tetrachloroethene	9.269	164	19987	17.908	ug/l	95
62) Toluene	8.714	91	107324	17.876	ug/l	98
64) Chlorobenzene	10.073	112	66754	17.942	ug/l	98
65) 1,1,1,2-Tetrachloroethane	10.159	131	21314	17.362	ug/l	98
66) Ethyl Benzene	10.189	91	119085	18.117	ug/l	95
67) m/p-Xylenes	10.299	106	88668	36.205	ug/l	98
68) o-Xylene	10.634	106	44070	18.340	ug/l	97
69) Styrene	10.653	104	71782	17.886	ug/l	98
70) Isopropylbenzene	10.957	105	112344	18.117	ug/l	100
71) 1,1,2,2-Tetrachloroethane	11.207	83	37415	18.349	ug/l	100
72) 1,2,3-Trichloropropane	11.238	75	30477m	18.172	ug/l	
73) Bromobenzene	11.195	156	26006	18.218	ug/l	99
74) n-propylbenzene	11.299	91	134814	18.269	ug/l	100
75) 2-Chlorotoluene	11.360	91	80948	18.145	ug/l	100
76) 1,3,5-Trimethylbenzene	11.445	105	95320	18.633	ug/l	99
77) t-1,4-Dichloro-2-butene	11.018	75	9008	15.964	ug/l	92
78) 4-Chlorotoluene	11.451	91	90166	18.131	ug/l	99
79) tert-butylbenzene	11.713	119	94943	18.420	ug/l	100
80) 1,2,4-Trimethylbenzene	11.750	105	94408	18.423	ug/l	99
81) sec-Butylbenzene	11.884	105	119426	18.461	ug/l	99
82) p-Isopropyltoluene	12.006	119	97575	18.616	ug/l	99
83) 1,3-Dichlorobenzene	11.969	146	48430	18.234	ug/l	99
84) 1,4-Dichlorobenzene	12.036	146	48160	18.390	ug/l	99
85) n-Butylbenzene	12.329	91	87176	18.213	ug/l	99
86) Hexachloroethane	12.536	117	16000	17.309	ug/l	100
87) 1,2-Dichlorobenzene	12.329	146	48245	18.513	ug/l	99
88) 1,2-Dibromo-3-Chloropr...	12.939	75	7064	17.893	ug/l	97
89) 1,2,4-Trichlorobenzene	13.585	180	28630	18.126	ug/l	98
90) Hexachlorobutadiene	13.719	225	12062	18.726	ug/l	99
91) Naphthalene	13.774	128	101756	18.271	ug/l	99
92) 1,2,3-Trichlorobenzene	13.957	180	28151	17.312	ug/l	97

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX022125\
 Data File : VX045014.D
 Acq On : 21 Feb 2025 13:09
 Operator : JC/MD
 Sample : VSTDICV020
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 8 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 ICVVX022125

Quant Time: Feb 22 01:12:33 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\624X022125W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Sat Feb 22 01:06:36 2025
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	Bromochloromethane	1.000	1.000	0.0	97	0.00
2 M	Dichlorodifluoromethane	2.529	2.305	8.9	90	0.00
3 M	Chloromethane	3.029	2.707	10.6	88	0.00
4 M	Vinyl Chloride	2.923	2.543	13.0	87	0.00
5 M	Bromomethane	1.017	0.992	2.5	98	0.00
6 M	Chloroethane	1.583	1.635	-3.3	95	0.00
7 M	Trichlorofluoromethane	3.928	3.495	11.0	91	0.00
8 T	Diethyl Ether	1.486	1.279	13.9	86	0.00
9	1,1,2-Trichlorotrifluoroeth	2.333	2.106	9.7	93	0.00
10 M	1,1-Dichloroethene	2.279	2.061	9.6	93	0.00
11	Methyl Iodide	2.579	2.041	20.9	91	0.00
12	Methyl Acetate	2.646	2.405	9.1	94	0.00
13 M	Acrolein	0.530	0.505	4.7	103	0.00
14 M	Acrylonitrile	1.293	1.160	10.3	90	0.00
15 M	Acetone	0.355	0.386	-8.7	106	0.00
16 M	Carbon Disulfide	6.464	5.784	10.5	93	0.00
17	Allyl chloride	4.262	3.796	10.9	93	0.00
18 M	Methylene Chloride	2.563	2.258	11.9	88	0.00
19 M	trans-1,2-Dichloroethene	2.306	2.055	10.9	91	0.00
20 T	Diisopropyl ether	8.191	7.311	10.7	91	0.00
21 M	1,1-Dichloroethane	4.555	4.030	11.5	90	0.00
22 M	cis-1,2-Dichloroethene	2.763	2.445	11.5	90	-0.01
23 M	tert-Butyl Alcohol	0.451	0.416	7.8	95	-0.02
24 M	Methyl tert-Butyl Ether	7.438	6.579	11.5	91	0.00
25 M	Chloroform	4.400	3.947	10.3	90	-0.01
26	Cyclohexane	4.205	3.761	10.6	90	0.00
27 s	1,2-Dichloroethane-d4	2.914	2.888	0.9	97	0.00
28 I	1,4-Difluorobenzene	1.000	1.000	0.0	98	0.00
29	1,1-Dichloropropene	0.552	0.496	10.1	90	-0.01
30 M	2-Butanone	0.319	0.307	3.8	97	0.00
31	2,2-Dichloropropane	0.624	0.565	9.5	94	0.00
32 M	1,1,1-Trichloroethane	0.669	0.600	10.3	91	0.00
33 M	Carbon Tetrachloride	0.564	0.510	9.6	91	0.00
34 M	Benzene	1.731	1.559	9.9	90	0.00
35	Methacrylonitrile	0.341	0.313	8.2	92	0.00
36 M	1,2-Dichloroethane	0.592	0.543	8.3	91	0.00
37 M	Trichloroethene	0.405	0.363	10.4	89	0.00
38	Methylcyclohexane	0.741	0.681	8.1	95	0.00
39 M	1,2-Dichloropropane	0.430	0.374	13.0	86	0.00
40	Dibromomethane	0.309	0.278	10.0	90	0.00
41 M	Bromodichloromethane	0.614	0.541	11.9	89	0.00
42 M	Vinyl Acetate	1.237	1.113	10.0	91	0.00
43	Ethyl Acetate	0.598	0.510	14.7	86	0.00
44	Isopropyl Acetate	0.984	0.885	10.1	94	0.00
45 T	1,4-Dioxane	0.010	0.010	0.0	90	0.00
46	Methyl methacrylate	0.482	0.442	8.3	95	0.00
47	n-amyl Acetate	0.854	0.765	10.4	93	0.00
48 M	t-1,3-Dichloropropene	0.591	0.502	15.1	93	0.00

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 ALS Vial : 8 Sample Multiplier: 1

Instrument :
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 ClientSampleId :
 ICVVX022125

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 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Sat Feb 22 01:06:36 2025
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49 T	cis-1,3-Dichloropropene	0.670	0.586	12.5	90	0.00
50 M	1,1,2-Trichloroethane	0.403	0.372	7.7	90	0.00
51	Ethyl methacrylate	0.633	0.566	10.6	95	0.00
52	1,3-Dichloropropane	0.706	0.627	11.2	87	0.00
53 M	Dibromochloromethane	0.445	0.392	11.9	88	0.00
54 M	1,2-Dibromoethane	0.409	0.360	12.0	88	0.00
55 M	2-Chloroethyl vinyl ether	0.325	0.279	14.2	87	0.00
56 M	Bromoform	0.279	0.243	12.9	92	0.00
57 I	Chlorobenzene-d5	1.000	1.000	0.0	99	0.00
58 M	4-Methyl-2-Pentanone	0.682	0.636	6.7	92	0.00
59 M	2-Hexanone	0.493	0.471	4.5	95	0.00
60 S	4-Bromofluorobenzene	0.561	0.563	-0.4	99	0.00
61 M	Tetrachloroethene	0.369	0.331	10.3	89	0.00
62 M	Toluene	1.987	1.776	10.6	90	0.00
63 S	Toluene-d8	1.660	1.639	1.3	97	0.00
64 M	Chlorobenzene	1.231	1.105	10.2	90	0.00
65	1,1,1,2-Tetrachloroethane	0.406	0.353	13.1	88	0.00
66 M	Ethyl Benzene	2.176	1.971	9.4	93	0.00
67 M	m/p-Xylenes	0.811	0.734	9.5	89	0.00
68 M	o-Xylene	0.795	0.729	8.3	90	0.00
69 M	Styrene	1.328	1.188	10.5	89	0.00
70	Isopropylbenzene	2.053	1.859	9.4	90	0.00
71 M	1,1,2,2-Tetrachloroethane	0.675	0.619	8.3	92	0.00
72	1,2,3-Trichloropropane	0.555	0.504	9.2	92	0.00
73	Bromobenzene	0.473	0.430	9.1	91	0.00
74	n-propylbenzene	2.443	2.231	8.7	92	0.00
75	2-Chlorotoluene	1.477	1.340	9.3	90	0.00
76	1,3,5-Trimethylbenzene	1.693	1.578	6.8	92	0.00
77	t-1,4-Dichloro-2-butene	0.187	0.149	20.3	92	0.00
78	4-Chlorotoluene	1.646	1.492	9.4	91	0.00
79	tert-butylbenzene	1.706	1.571	7.9	91	0.00
80	1,2,4-Trimethylbenzene	1.696	1.562	7.9	90	0.00
81	sec-Butylbenzene	2.141	1.977	7.7	92	0.00
82	p-Isopropyltoluene	1.735	1.615	6.9	93	0.00
83 M	1,3-Dichlorobenzene	0.879	0.802	8.8	91	0.00
84 M	1,4-Dichlorobenzene	0.867	0.797	8.1	92	0.00
85	n-Butylbenzene	1.584	1.443	8.9	94	0.00
86 T	Hexachloroethane	0.306	0.265	13.4	93	0.00
87 M	1,2-Dichlorobenzene	0.863	0.798	7.5	91	0.00
88	1,2-Dibromo-3-Chloropropane	0.131	0.117	10.7	96	0.00
89	1,2,4-Trichlorobenzene	0.523	0.474	9.4	95	0.00
90	Hexachlorobutadiene	0.213	0.200	6.1	94	0.00
91 M	Naphthalene	1.843	1.684	8.6	93	0.00
92	1,2,3-Trichlorobenzene	0.538	0.466	13.4	88	0.00

(#) = Out of Range

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

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 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 8 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 ICVVX022125

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 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Bromochloromethane	30.000	30.000	0.0	97	0.00
2 M	Dichlorodifluoromethane	20.000	18.226	8.9	90	0.00
3 M	Chloromethane	20.000	17.873	10.6	88	0.00
4 M	Vinyl Chloride	20.000	17.401	13.0	87	0.00
5 M	Bromomethane	20.000	19.506	2.5	98	0.00
6 M	Chloroethane	20.000	20.662	-3.3	95	0.00
7 M	Trichlorofluoromethane	20.000	17.793	11.0	91	0.00
8 T	Diethyl Ether	20.000	17.214	13.9	86	0.00
9	1,1,2-Trichlorotrifluoroeth	20.000	18.055	9.7	93	0.00
10 M	1,1-Dichloroethene	20.000	18.088	9.6	93	0.00
11	Methyl Iodide	20.000	15.827	20.9	91	0.00
12	Methyl Acetate	20.000	18.176	9.1	94	0.00
13 M	Acrolein	100.000	95.190	4.8	103	0.00
14 M	Acrylonitrile	100.000	89.730	10.3	90	0.00
15 M	Acetone	100.000	108.932	-8.9	106	0.00
16 M	Carbon Disulfide	20.000	17.896	10.5	93	0.00
17	Allyl chloride	20.000	17.812	10.9	93	0.00
18 M	Methylene Chloride	20.000	17.621	11.9	88	0.00
19 M	trans-1,2-Dichloroethene	20.000	17.825	10.9	91	0.00
20 T	Diisopropyl ether	20.000	17.850	10.7	91	0.00
21 M	1,1-Dichloroethane	20.000	17.693	11.5	90	0.00
22 M	cis-1,2-Dichloroethene	20.000	17.695	11.5	90	-0.01
23 M	tert-Butyl Alcohol	100.000	92.286	7.7	95	-0.02
24 M	Methyl tert-Butyl Ether	20.000	17.690	11.5	91	0.00
25 M	Chloroform	20.000	17.943	10.3	90	-0.01
26	Cyclohexane	20.000	17.890	10.5	90	0.00
27 s	1,2-Dichloroethane-d4	30.000	29.736	0.9	97	0.00
28 I	1,4-Difluorobenzene	30.000	30.000	0.0	98	0.00
29	1,1-Dichloropropene	20.000	17.969	10.2	90	-0.01
30 M	2-Butanone	100.000	96.206	3.8	97	0.00
31	2,2-Dichloropropane	20.000	18.104	9.5	94	0.00
32 M	1,1,1-Trichloroethane	20.000	17.945	10.3	91	0.00
33 M	Carbon Tetrachloride	20.000	18.080	9.6	91	0.00
34 M	Benzene	20.000	18.013	9.9	90	0.00
35	Methacrylonitrile	20.000	18.343	8.3	92	0.00
36 M	1,2-Dichloroethane	20.000	18.316	8.4	91	0.00
37 M	Trichloroethene	20.000	17.933	10.3	89	0.00
38	Methylcyclohexane	20.000	18.370	8.1	95	0.00
39 M	1,2-Dichloropropane	20.000	17.406	13.0	86	0.00
40	Dibromomethane	20.000	18.010	9.9	90	0.00
41 M	Bromodichloromethane	20.000	17.645	11.8	89	0.00
42 M	Vinyl Acetate	100.000	89.973	10.0	91	0.00
43	Ethyl Acetate	20.000	17.072	14.6	86	0.00
44	Isopropyl Acetate	20.000	17.994	10.0	94	0.00
45 T	1,4-Dioxane	400.000	376.282	5.9	90	0.00
46	Methyl methacrylate	20.000	18.320	8.4	95	0.00
47	n-amyl Acetate	20.000	17.920	10.4	93	0.00
48 M	t-1,3-Dichloropropene	20.000	16.972	15.1	93	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\WX022125\
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 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 8 Sample Multiplier: 1

Instrument :
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 ClientSampleId :
 ICSVX022125

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Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49 T	cis-1,3-Dichloropropene	20.000	17.491	12.5	90	0.00
50 M	1,1,2-Trichloroethane	20.000	18.451	7.7	90	0.00
51	Ethyl methacrylate	20.000	17.882	10.6	95	0.00
52	1,3-Dichloropropane	20.000	17.765	11.2	87	0.00
53 M	Dibromochloromethane	20.000	17.620	11.9	88	0.00
54 M	1,2-Dibromoethane	20.000	17.616	11.9	88	0.00
55 M	2-Chloroethyl vinyl ether	100.000	85.929	14.1	87	0.00
56 M	Bromoform	20.000	17.412	12.9	92	0.00
57 I	Chlorobenzene-d5	30.000	30.000	0.0	99	0.00
58 M	4-Methyl-2-Pentanone	100.000	93.175	6.8	92	0.00
59 M	2-Hexanone	100.000	95.501	4.5	95	0.00
60 S	4-Bromofluorobenzene	30.000	30.094	-0.3	99	0.00
61 M	Tetrachloroethene	20.000	17.908	10.5	89	0.00
62 M	Toluene	20.000	17.876	10.6	90	0.00
63 S	Toluene-d8	30.000	29.620	1.3	97	0.00
64 M	Chlorobenzene	20.000	17.942	10.3	90	0.00
65	1,1,1,2-Tetrachloroethane	20.000	17.362	13.2	88	0.00
66 M	Ethyl Benzene	20.000	18.117	9.4	93	0.00
67 M	m/p-Xylenes	40.000	36.205	9.5	89	0.00
68 M	o-Xylene	20.000	18.340	8.3	90	0.00
69 M	Styrene	20.000	17.886	10.6	89	0.00
70	Isopropylbenzene	20.000	18.117	9.4	90	0.00
71 M	1,1,2,2-Tetrachloroethane	20.000	18.349	8.3	92	0.00
72	1,2,3-Trichloropropane	20.000	18.172	9.1	92	0.00
73	Bromobenzene	20.000	18.218	8.9	91	0.00
74	n-propylbenzene	20.000	18.269	8.7	92	0.00
75	2-Chlorotoluene	20.000	18.145	9.3	90	0.00
76	1,3,5-Trimethylbenzene	20.000	18.633	6.8	92	0.00
77	t-1,4-Dichloro-2-butene	20.000	15.964	20.2	92	0.00
78	4-Chlorotoluene	20.000	18.131	9.3	91	0.00
79	tert-butylbenzene	20.000	18.420	7.9	91	0.00
80	1,2,4-Trimethylbenzene	20.000	18.423	7.9	90	0.00
81	sec-Butylbenzene	20.000	18.461	7.7	92	0.00
82	p-Isopropyltoluene	20.000	18.616	6.9	93	0.00
83 M	1,3-Dichlorobenzene	20.000	18.234	8.8	91	0.00
84 M	1,4-Dichlorobenzene	20.000	18.390	8.0	92	0.00
85	n-Butylbenzene	20.000	18.213	8.9	94	0.00
86 T	Hexachloroethane	20.000	17.309	13.5	93	0.00
87 M	1,2-Dichlorobenzene	20.000	18.513	7.4	91	0.00
88	1,2-Dibromo-3-Chloropropane	20.000	17.893	10.5	96	0.00
89	1,2,4-Trichlorobenzene	20.000	18.126	9.4	95	0.00
90	Hexachlorobutadiene	20.000	18.726	6.4	94	0.00
91 M	Naphthalene	20.000	18.271	8.6	93	0.00
92	1,2,3-Trichlorobenzene	20.000	17.312	13.4	88	0.00

(#) = Out of Range

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

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: ARDM01

Lab Code: CHEM Case No.: Q1456 SAS No.: Q1456 SDG No.: Q1456

Instrument ID: MSVOA_X Calibration Date/Time: 03/04/2025 08:46

Lab File ID: VX045119.D Init. Calib. Date(s): 02/21/2025 02/21/2025

Heated Purge: (Y/N) N Init. Calib. Time(s): 09:58 11:29

GC Column: DB-624UI ID: 0.18 (mm)

COMPOUND	RRF	RRF020	MIN RRF	%D	MAX%D
Chloromethane	3.029	2.998		-1.02	
Vinyl Chloride	2.923	2.622	0.1	-10.3	
Bromomethane	1.017	1.108	0.1	8.95	
Chloroethane	1.583	1.518		-4.11	
Trichlorofluoromethane	3.928	3.772		-3.97	
1,1-Dichloroethene	2.279	2.242	0.1	-1.62	
Acrolein	0.530	0.559		5.47	
Acrylonitrile	1.293	1.281		-0.93	
Methylene Chloride	2.563	2.540		-0.9	
trans-1,2-Dichloroethene	2.306	2.177		-5.59	
1,1-Dichloroethane	4.555	4.331	0.2	-4.92	
Carbon Tetrachloride	0.564	0.606	0.1	7.45	
Chloroform	4.400	4.284	0.2	-2.64	
1,1,1-Trichloroethane	0.669	0.702	0.1	4.93	
Benzene	1.731	1.805	0.5	4.28	
1,2-Dichloroethane	0.592	0.648	0.1	9.46	
Trichloroethene	0.405	0.420	0.3	3.7	
1,2-Dichloropropane	0.430	0.446		3.72	
Bromodichloromethane	0.614	0.656	0.2	6.84	
Toluene	1.987	2.055	0.4	3.42	
t-1,3-Dichloropropene	0.591	0.568	0.1	-3.89	
cis-1,3-Dichloropropene	0.670	0.675	0.2	0.75	
1,1,2-Trichloroethane	0.403	0.436	0.1	8.19	
2-Chloroethyl vinyl ether	0.325	0.331		1.85	
Dibromochloromethane	0.445	0.474	0.1	6.52	
Tetrachloroethene	0.369	0.393	0.2	6.5	
Chlorobenzene	1.231	1.270	0.5	3.17	
Ethyl Benzene	2.176	2.230	0.1	2.48	
m/p-Xylenes	0.811	0.845	0.3	4.19	
o-Xylene	0.795	0.829	0.3	4.28	
Bromoform	0.279	0.295	0.1	5.74	
1,1,2,2-Tetrachloroethane	0.675	0.729	0.3	8	
1,3-Dichlorobenzene	0.879	0.934	0.2	6.26	
1,4-Dichlorobenzene	0.867	0.909	0.2	4.84	
1,2-Dichlorobenzene	0.863	0.934	0.2	8.23	
1,2-Dichloroethane-d4	2.914	2.808	0.01	-3.64	
Toluene-d8	1.660	1.641	0.01	-1.14	
4-Bromofluorobenzene	0.561	0.561	0.2	0	

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_X\Data\VX030425\
 Data File : VX045119.D
 Acq On : 04 Mar 2025 08:46
 Operator : JC/MD
 Sample : VSTDCCC020
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VSTDCCC020

Manual Integrations
 APPROVED

Reviewed By :John
 Carlone

Quant Time: Mar 05 00:42:59 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\624X022125W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Sat Feb 22 01:06:36 2025
 Response via : Initial Calibration

03/05/2025
 Supervised By :Mahesh
 Dadoda

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

Internal Standards						
1) Bromochloromethane	4.891	128	17184	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	6.751	114	86920	30.000	ug/l	0.00
57) Chlorobenzene-d5	10.049	117	82480	30.000	ug/l	0.00

System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	5.946	65	48247	28.908	ug/l	0.00
Spiked Amount	30.000	Range	91 - 110	Recovery	=	96.367%
60) 4-Bromofluorobenzene	11.079	95	46258	30.005	ug/l	0.00
Spiked Amount	30.000	Range	63 - 112	Recovery	=	100.033%
63) Toluene-d8	8.641	98	135329	29.658	ug/l	0.00
Spiked Amount	30.000	Range	91 - 112	Recovery	=	98.867%

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.166	85	28199	19.466	ug/l	93
3) Chloromethane	1.294	50	34345	19.795	ug/l	95
4) Vinyl Chloride	1.374	62	30032	17.938	ug/l	99
5) Bromomethane	1.593	94	12689	21.774	ug/l	98
6) Chloroethane	1.672	64	17395	19.184	ug/l	95
7) Trichlorofluoromethane	1.874	101	43207	19.202	ug/l	98
8) Diethyl Ether	2.130	74	15862	18.631	ug/l	99
9) 1,1,2-Trichlorotrifluo...	2.325	101	26451	19.792	ug/l	98
10) 1,1-Dichloroethene	2.312	96	25685	19.676	ug/l	95
11) Methyl Iodide	2.447	142	27359	18.518	ug/l	99
12) Methyl Acetate	2.697	43	34564	22.802	ug/l	99
13) Acrolein	2.233	56	32043	105.460	ug/l	99
14) Acrylonitrile	3.056	53	73351	99.066	ug/l	99
15) Acetone	2.373	58	21685	106.787	ug/l	96
16) Carbon Disulfide	2.501	76	64760	17.490	ug/l	98
17) Allyl chloride	2.654	41	46009	18.844	ug/l	97
18) Methylene Chloride	2.782	84	29095	19.816	ug/l	98
19) trans-1,2-Dichloroethene	3.081	96	24945	18.888	ug/l	97
20) Diisopropyl ether	3.751	45	89171	19.006	ug/l	99
21) 1,1-Dichloroethane	3.599	63	49611	19.013	ug/l	97
22) cis-1,2-Dichloroethene	4.477	96	29863	18.869	ug/l	99
23) tert-Butyl Alcohol	2.965	59	23999	92.844	ug/l #	100
24) Methyl tert-Butyl Ether	3.105	73	79696	18.706	ug/l	100
25) Chloroform	5.080	83	49083	19.475	ug/l	96
26) Cyclohexane	5.458	56	44905	18.644	ug/l #	98
29) 1,1-Dichloropropene	5.684	75	33410	20.895	ug/l	99
30) 2-Butanone	4.550	43	103164	111.707	ug/l #	94
31) 2,2-Dichloropropane	4.465	77	35917	19.866	ug/l	100
32) 1,1,1-Trichloroethane	5.373	97	40686	21.001	ug/l	98
33) Carbon Tetrachloride	5.672	117	35113	21.476	ug/l	97
34) Benzene	6.025	78	104579	20.857	ug/l	96
35) Methacrylonitrile	4.910	41	21387	21.641	ug/l	97
36) 1,2-Dichloroethane	6.074	62	37568	21.884	ug/l	98
37) Trichloroethene	7.116	130	24363	20.769	ug/l	97
38) Methylcyclohexane	7.373	83	44290	20.630	ug/l	98
39) 1,2-Dichloropropane	7.421	63	25872	20.754	ug/l	99
40) Dibromomethane	7.574	93	19169	21.429	ug/l	100
41) Bromodichloromethane	7.818	83	37991	21.368	ug/l	99
42) Vinyl Acetate	3.715	43	358394	100.005	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX030425\
 Data File : VX045119.D
 Acq On : 04 Mar 2025 08:46
 Operator : JC/MD
 Sample : VSTDCCC020
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VSTDCCC020

Manual Integrations
 APPROVED

Reviewed By :John
 Carlone

03/05/2025
 Supervised By :Mahesh
 Dadoda

Quant Time: Mar 05 00:42:59 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\624X022125W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Sat Feb 22 01:06:36 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	4.702	43	35995	20.783	ug/l	99
44) Isopropyl Acetate	6.330	43	58408	20.491	ug/l	100
45) 1,4-Dioxane	7.653	88	12252	413.470	ug/l	97
46) Methyl methacrylate	7.690	41	29891	21.385	ug/l	99
47) n-amyl Acetate	10.841	43	50529	20.428	ug/l	100
48) t-1,3-Dichloropropene	8.976	75	32903	19.200	ug/l	100
49) cis-1,3-Dichloropropene	8.360	75	39108	20.159	ug/l	98
50) 1,1,2-Trichloroethane	9.147	97	25245	21.636	ug/l	97
51) Ethyl methacrylate	9.110	69	37249	20.298	ug/l	97
52) 1,3-Dichloropropane	9.305	76	44187	21.613	ug/l	100
53) Dibromochloromethane	9.518	129	27438	21.262	ug/l	93
54) 1,2-Dibromoethane	9.604	107	25490	21.513	ug/l	99
55) 2-Chloroethyl vinyl ether	8.238	63	96037	101.910	ug/l	99
56) Bromoform	10.799	173	17120	21.171	ug/l	98
58) 4-Methyl-2-Pentanone	8.567	43	204690	109.095	ug/l	99
59) 2-Hexanone	9.427	43	148213	109.288	ug/l	99
61) Tetrachloroethene	9.269	164	21615	21.282	ug/l	89
62) Toluene	8.714	91	112982	20.678	ug/l	97
64) Chlorobenzene	10.073	112	69807	20.618	ug/l	99
65) 1,1,1,2-Tetrachloroethane	10.159	131	22959	20.551	ug/l	99
66) Ethyl Benzene	10.189	91	122645	20.503	ug/l	97
67) m/p-Xylenes	10.299	106	92972	41.715	ug/l	99
68) o-Xylene	10.640	106	45602	20.854	ug/l	99
69) Styrene	10.652	104	76837	21.039	ug/l	100
70) Isopropylbenzene	10.957	105	117548	20.830	ug/l	100
71) 1,1,2,2-Tetrachloroethane	11.207	83	40059	21.588	ug/l	99
72) 1,2,3-Trichloropropane	11.238	75	32023m	20.981	ug/l	
73) Bromobenzene	11.195	156	27867	21.451	ug/l	96
74) n-propylbenzene	11.299	91	138877	20.680	ug/l	99
75) 2-Chlorotoluene	11.360	91	85432	21.043	ug/l	100
76) 1,3,5-Trimethylbenzene	11.451	105	97729	20.992	ug/l	97
77) t-1,4-Dichloro-2-butene	11.018	75	9691	18.872	ug/l	88
78) 4-Chlorotoluene	11.451	91	93706	20.706	ug/l	99
79) tert-butylbenzene	11.713	119	99721	21.259	ug/l	99
80) 1,2,4-Trimethylbenzene	11.750	105	98635	21.151	ug/l	99
81) sec-Butylbenzene	11.890	105	124020	21.067	ug/l	99
82) p-Isopropyltoluene	12.006	119	101826	21.348	ug/l	99
83) 1,3-Dichlorobenzene	11.969	146	51379	21.257	ug/l	98
84) 1,4-Dichlorobenzene	12.036	146	49963	20.965	ug/l	99
85) n-Butylbenzene	12.329	91	89487	20.544	ug/l	100
86) Hexachloroethane	12.536	117	17370	20.648	ug/l	98
87) 1,2-Dichlorobenzene	12.335	146	51344	21.650	ug/l	100
88) 1,2-Dibromo-3-Chloropr...	12.939	75	7303	20.327	ug/l	96
89) 1,2,4-Trichlorobenzene	13.585	180	29075	20.228	ug/l	99
90) Hexachlorobutadiene	13.725	225	12566	21.437	ug/l	96
91) Naphthalene	13.774	128	103981	20.516	ug/l	99
92) 1,2,3-Trichlorobenzene	13.957	180	29671	20.051	ug/l	98

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX030425\
 Data File : VX045119.D
 Acq On : 04 Mar 2025 08:46
 Operator : JC/MD
 Sample : VSTDCCC020
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_X
 LabSampleId :
 VSTDCCC020

Quant Time: Mar 05 00:42:59 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\624X022125W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Sat Feb 22 01:06:36 2025
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	Bromochloromethane	1.000	1.000	0.0	93	0.00
2 M	Dichlorodifluoromethane	2.529	2.462	2.6	92	0.00
3 M	Chloromethane	3.029	2.998	1.0	93	0.00
4 M	Vinyl Chloride	2.923	2.622	10.3	86	0.00
5 M	Bromomethane	1.017	1.108	-8.9	106	0.00
6 M	Chloroethane	1.583	1.518	4.1	85	0.00
7 M	Trichlorofluoromethane	3.928	3.772	4.0	95	0.00
8 T	Diethyl Ether	1.486	1.385	6.8	90	0.00
9	1,1,2-Trichlorotrifluoroeth	2.333	2.309	1.0	98	0.00
10 M	1,1-Dichloroethene	2.279	2.242	1.6	97	0.00
11	Methyl Iodide	2.579	2.388	7.4	102	0.00
12	Methyl Acetate	2.646	3.017	-14.0	114	0.00
13 M	Acrolein	0.530	0.559	-5.5	110	0.00
14 M	Acrylonitrile	1.293	1.281	0.9	96	0.00
15 M	Acetone	0.355	0.379	-6.8	100	0.00
16 M	Carbon Disulfide	6.464	5.653	12.5	88	0.00
17	Allyl chloride	4.262	4.016	5.8	95	0.00
18 M	Methylene Chloride	2.563	2.540	0.9	95	0.00
19 M	trans-1,2-Dichloroethene	2.306	2.177	5.6	93	0.00
20 T	Diisopropyl ether	8.191	7.784	5.0	93	0.00
21 M	1,1-Dichloroethane	4.555	4.331	4.9	93	0.00
22 M	cis-1,2-Dichloroethene	2.763	2.607	5.6	92	0.00
23 M	tert-Butyl Alcohol	0.451	0.419	7.1	92	-0.02
24 M	Methyl tert-Butyl Ether	7.438	6.957	6.5	92	0.00
25 M	Chloroform	4.400	4.284	2.6	94	0.00
26	Cyclohexane	4.205	3.920	6.8	90	0.00
27 s	1,2-Dichloroethane-d4	2.914	2.808	3.6	91	0.00
28 I	1,4-Difluorobenzene	1.000	1.000	0.0	86	0.00
29	1,1-Dichloropropene	0.552	0.577	-4.5	93	0.00
30 M	2-Butanone	0.319	0.356	-11.6	99	0.00
31	2,2-Dichloropropane	0.624	0.620	0.6	91	0.00
32 M	1,1,1-Trichloroethane	0.669	0.702	-4.9	94	0.00
33 M	Carbon Tetrachloride	0.564	0.606	-7.4	95	0.00
34 M	Benzene	1.731	1.805	-4.3	92	0.00
35	Methacrylonitrile	0.341	0.369	-8.2	96	0.00
36 M	1,2-Dichloroethane	0.592	0.648	-9.5	96	0.00
37 M	Trichloroethene	0.405	0.420	-3.7	91	0.00
38	Methylcyclohexane	0.741	0.764	-3.1	94	0.00
39 M	1,2-Dichloropropane	0.430	0.446	-3.7	91	0.00
40	Dibromomethane	0.309	0.331	-7.1	95	0.00
41 M	Bromodichloromethane	0.614	0.656	-6.8	95	0.00
42 M	Vinyl Acetate	1.237	1.237	0.0	90	0.00
43	Ethyl Acetate	0.598	0.621	-3.8	93	0.00
44	Isopropyl Acetate	0.984	1.008	-2.4	95	0.00
45 T	1,4-Dioxane	0.010	0.011	-10.0	87	0.00
46	Methyl methacrylate	0.482	0.516	-7.1	97	0.00
47	n-amyl Acetate	0.854	0.872	-2.1	94	0.00
48 M	t-1,3-Dichloropropene	0.591	0.568	3.9	92	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX030425\
 Data File : VX045119.D
 Acq On : 04 Mar 2025 08:46
 Operator : JC/MD
 Sample : VSTDCCC020
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_X
 LabSampleId :
 VSTDCCC020

Quant Time: Mar 05 00:42:59 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\624X022125W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Sat Feb 22 01:06:36 2025
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
49 T	cis-1,3-Dichloropropene	0.670	0.675	-0.7	92	0.00
50 M	1,1,2-Trichloroethane	0.403	0.436	-8.2	93	0.00
51	Ethyl methacrylate	0.633	0.643	-1.6	95	0.00
52	1,3-Dichloropropane	0.706	0.763	-8.1	93	0.00
53 M	Dibromochloromethane	0.445	0.474	-6.5	94	0.00
54 M	1,2-Dibromoethane	0.409	0.440	-7.6	95	0.00
55 M	2-Chloroethyl vinyl ether	0.325	0.331	-1.8	91	0.00
56 M	Bromoform	0.279	0.295	-5.7	99	0.00
57 I	Chlorobenzene-d5	1.000	1.000	0.0	90	0.00
58 M	4-Methyl-2-Pentanone	0.682	0.745	-9.2	98	0.00
59 M	2-Hexanone	0.493	0.539	-9.3	99	0.00
60 S	4-Bromofluorobenzene	0.561	0.561	0.0	90	0.00
61 M	Tetrachloroethene	0.369	0.393	-6.5	96	0.00
62 M	Toluene	1.987	2.055	-3.4	95	0.00
63 S	Toluene-d8	1.660	1.641	1.1	88	0.00
64 M	Chlorobenzene	1.231	1.270	-3.2	94	0.00
65	1,1,1,2-Tetrachloroethane	0.406	0.418	-3.0	95	0.00
66 M	Ethyl Benzene	2.176	2.230	-2.5	95	0.00
67 M	m/p-Xylenes	0.811	0.845	-4.2	93	0.00
68 M	o-Xylene	0.795	0.829	-4.3	93	0.00
69 M	Styrene	1.328	1.397	-5.2	95	0.00
70	Isopropylbenzene	2.053	2.138	-4.1	94	0.00
71 M	1,1,2,2-Tetrachloroethane	0.675	0.729	-8.0	99	0.00
72	1,2,3-Trichloropropane	0.555	0.582	-4.9	97	0.00
73	Bromobenzene	0.473	0.507	-7.2	97	0.00
74	n-propylbenzene	2.443	2.526	-3.4	95	0.00
75	2-Chlorotoluene	1.477	1.554	-5.2	95	0.00
76	1,3,5-Trimethylbenzene	1.693	1.777	-5.0	94	0.00
77	t-1,4-Dichloro-2-butene	0.187	0.176	5.9	99	0.00
78	4-Chlorotoluene	1.646	1.704	-3.5	95	0.00
79	tert-butylbenzene	1.706	1.814	-6.3	96	0.00
80	1,2,4-Trimethylbenzene	1.696	1.794	-5.8	94	0.00
81	sec-Butylbenzene	2.141	2.255	-5.3	96	0.00
82	p-Isopropyltoluene	1.735	1.852	-6.7	97	0.00
83 M	1,3-Dichlorobenzene	0.879	0.934	-6.3	96	0.00
84 M	1,4-Dichlorobenzene	0.867	0.909	-4.8	96	0.00
85	n-Butylbenzene	1.584	1.627	-2.7	97	0.00
86 T	Hexachloroethane	0.306	0.316	-3.3	101	0.00
87 M	1,2-Dichlorobenzene	0.863	0.934	-8.2	97	0.00
88	1,2-Dibromo-3-Chloropropane	0.131	0.133	-1.5	99	0.00
89	1,2,4-Trichlorobenzene	0.523	0.529	-1.1	97	0.00
90	Hexachlorobutadiene	0.213	0.229	-7.5	98	0.00
91 M	Naphthalene	1.843	1.891	-2.6	96	0.00
92	1,2,3-Trichlorobenzene	0.538	0.540	-0.4	93	0.00

(#) = Out of Range

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

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX030425\
 Data File : VX045119.D
 Acq On : 04 Mar 2025 08:46
 Operator : JC/MD
 Sample : VSTDCCC020
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_X
 LabSampleId :
 VSTDCCC020

Quant Time: Mar 05 00:42:59 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\624X022125W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Sat Feb 22 01:06:36 2025
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Bromochloromethane	30.000	30.000	0.0	93	0.00
2 M	Dichlorodifluoromethane	20.000	19.466	2.7	92	0.00
3 M	Chloromethane	20.000	19.795	1.0	93	0.00
4 M	Vinyl Chloride	20.000	17.938	10.3	86	0.00
5 M	Bromomethane	20.000	21.774	-8.9	106	0.00
6 M	Chloroethane	20.000	19.184	4.1	85	0.00
7 M	Trichlorofluoromethane	20.000	19.202	4.0	95	0.00
8 T	Diethyl Ether	20.000	18.631	6.8	90	0.00
9	1,1,2-Trichlorotrifluoroeth	20.000	19.792	1.0	98	0.00
10 M	1,1-Dichloroethene	20.000	19.676	1.6	97	0.00
11	Methyl Iodide	20.000	18.518	7.4	102	0.00
12	Methyl Acetate	20.000	22.802	-14.0	114	0.00
13 M	Acrolein	100.000	105.460	-5.5	110	0.00
14 M	Acrylonitrile	100.000	99.066	0.9	96	0.00
15 M	Acetone	100.000	106.787	-6.8	100	0.00
16 M	Carbon Disulfide	20.000	17.490	12.6	88	0.00
17	Allyl chloride	20.000	18.844	5.8	95	0.00
18 M	Methylene Chloride	20.000	19.816	0.9	95	0.00
19 M	trans-1,2-Dichloroethene	20.000	18.888	5.6	93	0.00
20 T	Diisopropyl ether	20.000	19.006	5.0	93	0.00
21 M	1,1-Dichloroethane	20.000	19.013	4.9	93	0.00
22 M	cis-1,2-Dichloroethene	20.000	18.869	5.7	92	0.00
23 M	tert-Butyl Alcohol	100.000	92.844	7.2	92	-0.02
24 M	Methyl tert-Butyl Ether	20.000	18.706	6.5	92	0.00
25 M	Chloroform	20.000	19.475	2.6	94	0.00
26	Cyclohexane	20.000	18.644	6.8	90	0.00
27 s	1,2-Dichloroethane-d4	30.000	28.908	3.6	91	0.00
28 I	1,4-Difluorobenzene	30.000	30.000	0.0	86	0.00
29	1,1-Dichloropropene	20.000	20.895	-4.5	93	0.00
30 M	2-Butanone	100.000	111.707	-11.7	99	0.00
31	2,2-Dichloropropane	20.000	19.866	0.7	91	0.00
32 M	1,1,1-Trichloroethane	20.000	21.001	-5.0	94	0.00
33 M	Carbon Tetrachloride	20.000	21.476	-7.4	95	0.00
34 M	Benzene	20.000	20.857	-4.3	92	0.00
35	Methacrylonitrile	20.000	21.641	-8.2	96	0.00
36 M	1,2-Dichloroethane	20.000	21.884	-9.4	96	0.00
37 M	Trichloroethene	20.000	20.769	-3.8	91	0.00
38	Methylcyclohexane	20.000	20.630	-3.1	94	0.00
39 M	1,2-Dichloropropane	20.000	20.754	-3.8	91	0.00
40	Dibromomethane	20.000	21.429	-7.1	95	0.00
41 M	Bromodichloromethane	20.000	21.368	-6.8	95	0.00
42 M	Vinyl Acetate	100.000	100.005	-0.0	90	0.00
43	Ethyl Acetate	20.000	20.783	-3.9	93	0.00
44	Isopropyl Acetate	20.000	20.491	-2.5	95	0.00
45 T	1,4-Dioxane	400.000	413.470	-3.4	87	0.00
46	Methyl methacrylate	20.000	21.385	-6.9	97	0.00
47	n-amyl Acetate	20.000	20.428	-2.1	94	0.00
48 M	t-1,3-Dichloropropene	20.000	19.200	4.0	92	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX030425\
 Data File : VX045119.D
 Acq On : 04 Mar 2025 08:46
 Operator : JC/MD
 Sample : VSTDCCC020
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 MSVOA_X
 LabSampleId :
 VSTDCCC020

Quant Time: Mar 05 00:42:59 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\624X022125W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Sat Feb 22 01:06:36 2025
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
49 T	cis-1,3-Dichloropropene	20.000	20.159	-0.8	92	0.00
50 M	1,1,2-Trichloroethane	20.000	21.636	-8.2	93	0.00
51	Ethyl methacrylate	20.000	20.298	-1.5	95	0.00
52	1,3-Dichloropropane	20.000	21.613	-8.1	93	0.00
53 M	Dibromochloromethane	20.000	21.262	-6.3	94	0.00
54 M	1,2-Dibromoethane	20.000	21.513	-7.6	95	0.00
55 M	2-Chloroethyl vinyl ether	100.000	101.910	-1.9	91	0.00
56 M	Bromoform	20.000	21.171	-5.9	99	0.00
57 I	Chlorobenzene-d5	30.000	30.000	0.0	90	0.00
58 M	4-Methyl-2-Pentanone	100.000	109.095	-9.1	98	0.00
59 M	2-Hexanone	100.000	109.288	-9.3	99	0.00
60 S	4-Bromofluorobenzene	30.000	30.005	-0.0	90	0.00
61 M	Tetrachloroethene	20.000	21.282	-6.4	96	0.00
62 M	Toluene	20.000	20.678	-3.4	95	0.00
63 S	Toluene-d8	30.000	29.658	1.1	88	0.00
64 M	Chlorobenzene	20.000	20.618	-3.1	94	0.00
65	1,1,1,2-Tetrachloroethane	20.000	20.551	-2.8	95	0.00
66 M	Ethyl Benzene	20.000	20.503	-2.5	95	0.00
67 M	m/p-Xylenes	40.000	41.715	-4.3	93	0.00
68 M	o-Xylene	20.000	20.854	-4.3	93	0.00
69 M	Styrene	20.000	21.039	-5.2	95	0.00
70	Isopropylbenzene	20.000	20.830	-4.1	94	0.00
71 M	1,1,2,2-Tetrachloroethane	20.000	21.588	-7.9	99	0.00
72	1,2,3-Trichloropropane	20.000	20.981	-4.9	97	0.00
73	Bromobenzene	20.000	21.451	-7.3	97	0.00
74	n-propylbenzene	20.000	20.680	-3.4	95	0.00
75	2-Chlorotoluene	20.000	21.043	-5.2	95	0.00
76	1,3,5-Trimethylbenzene	20.000	20.992	-5.0	94	0.00
77	t-1,4-Dichloro-2-butene	20.000	18.872	5.6	99	0.00
78	4-Chlorotoluene	20.000	20.706	-3.5	95	0.00
79	tert-butylbenzene	20.000	21.259	-6.3	96	0.00
80	1,2,4-Trimethylbenzene	20.000	21.151	-5.8	94	0.00
81	sec-Butylbenzene	20.000	21.067	-5.3	96	0.00
82	p-Isopropyltoluene	20.000	21.348	-6.7	97	0.00
83 M	1,3-Dichlorobenzene	20.000	21.257	-6.3	96	0.00
84 M	1,4-Dichlorobenzene	20.000	20.965	-4.8	96	0.00
85	n-Butylbenzene	20.000	20.544	-2.7	97	0.00
86 T	Hexachloroethane	20.000	20.648	-3.2	101	0.00
87 M	1,2-Dichlorobenzene	20.000	21.650	-8.2	97	0.00
88	1,2-Dibromo-3-Chloropropane	20.000	20.327	-1.6	99	0.00
89	1,2,4-Trichlorobenzene	20.000	20.228	-1.1	97	0.00
90	Hexachlorobutadiene	20.000	21.437	-7.2	98	0.00
91 M	Naphthalene	20.000	20.516	-2.6	96	0.00
92	1,2,3-Trichlorobenzene	20.000	20.051	-0.3	93	0.00

(#) = Out of Range

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



QC SAMPLE DATA

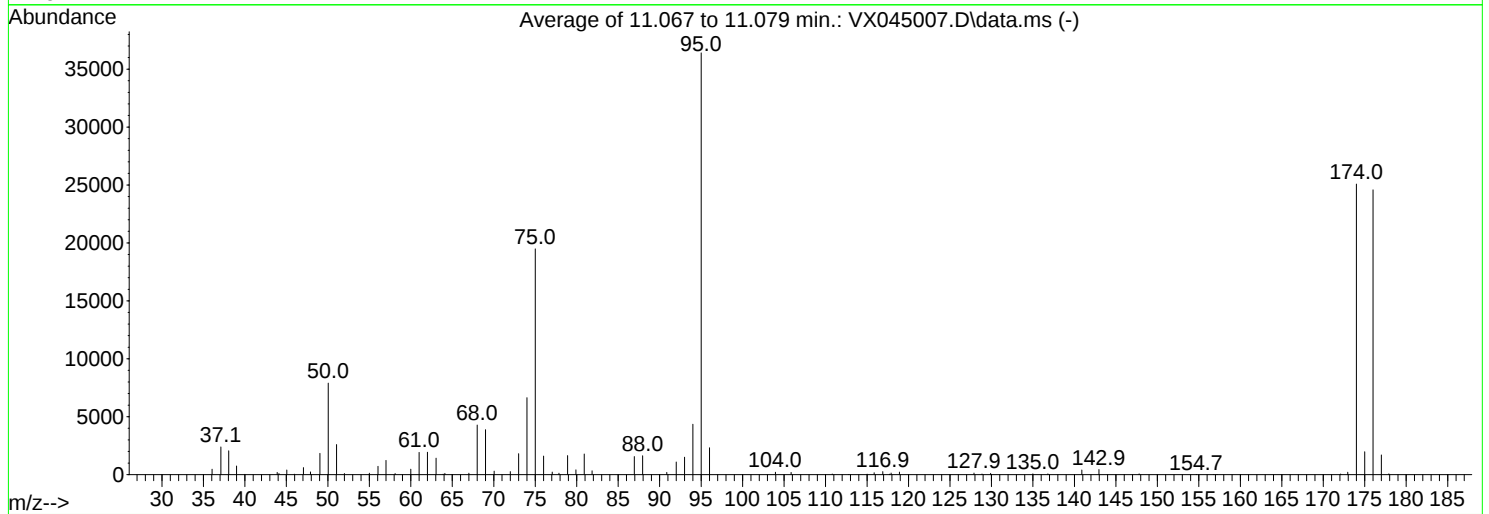
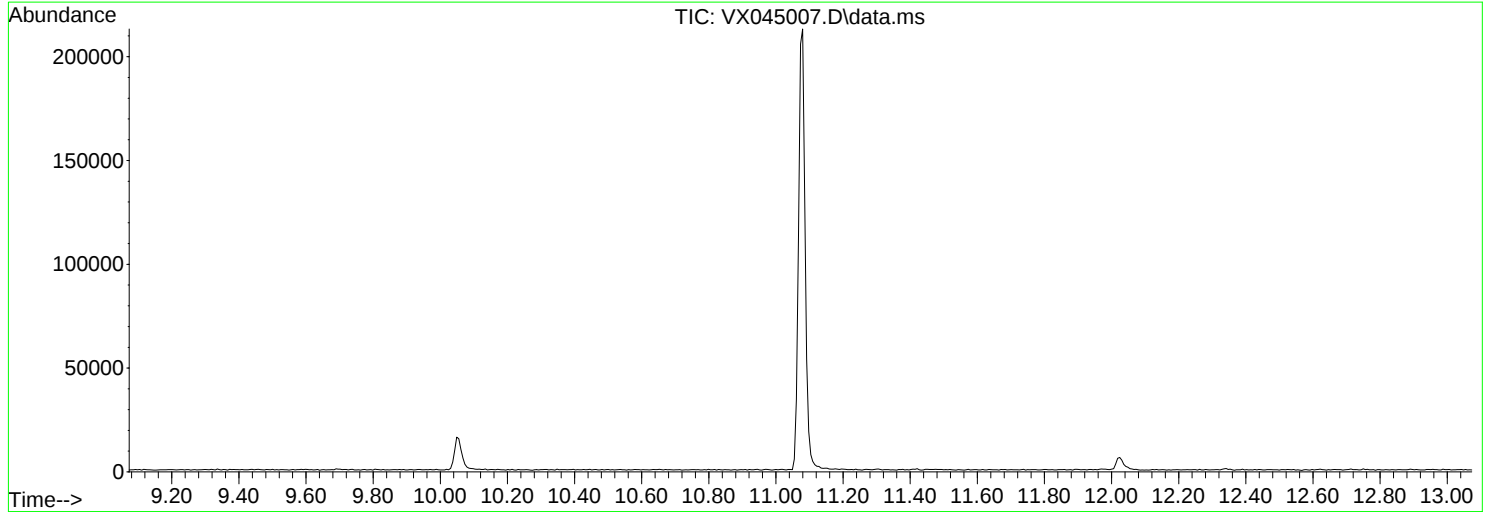
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Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX022125\
Data File : VX045007.D
Acq On : 21 Feb 2025 09:31
Operator : JC/MD
Sample : BFB
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
BFB

Integration File: RTEINT3.P

Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\624X022125W.M
Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
Last Update : Sat Feb 22 01:06:36 2025



AutoFind: Scans 1637, 1638, 1639; Background Corrected with Scan 1632

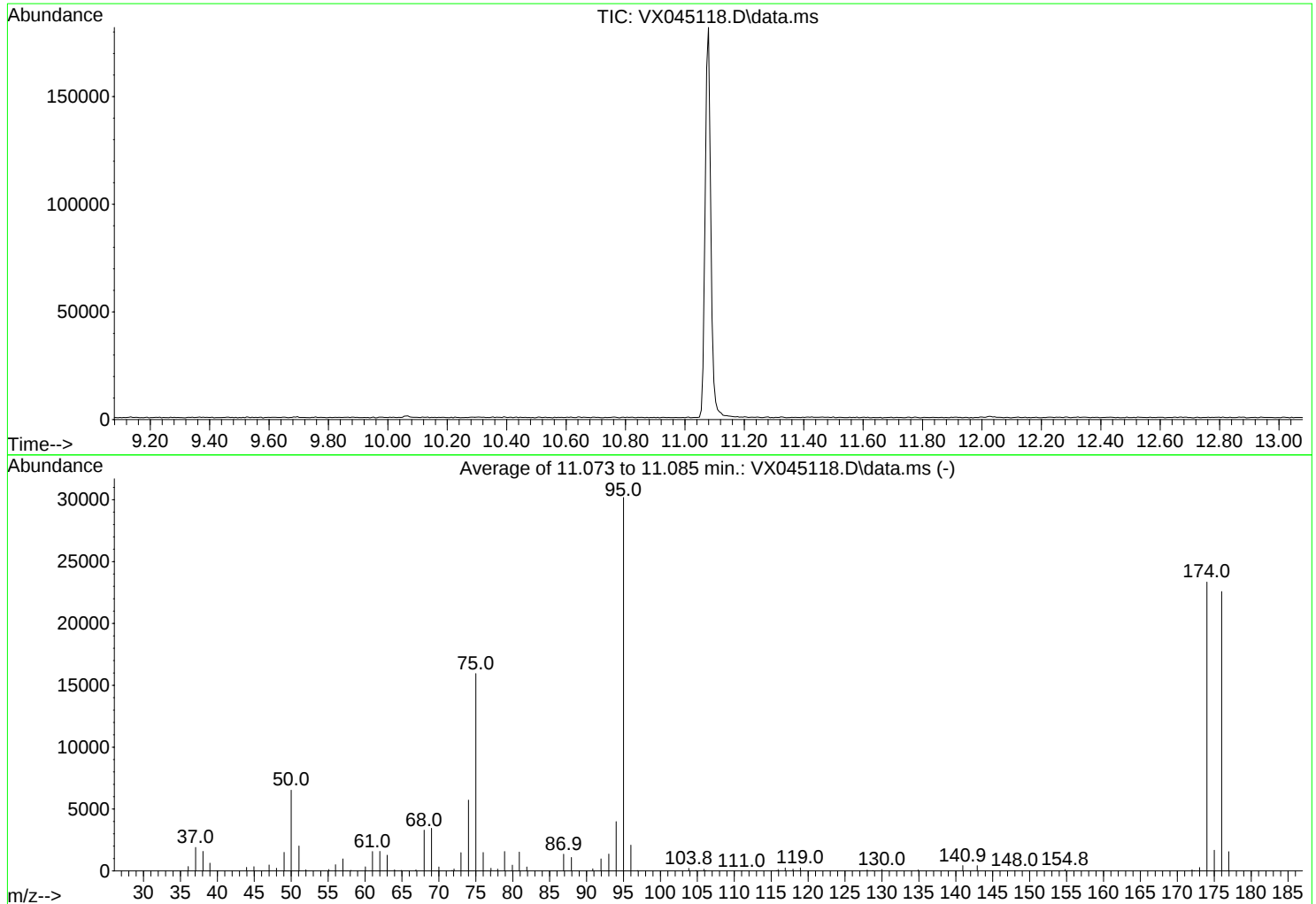
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.7	7903	PASS
75	95	30	60	53.5	19493	PASS
95	95	100	100	100.0	36408	PASS
96	95	5	9	6.4	2318	PASS
173	174	0.00	2	0.8	213	PASS
174	95	50	100	68.9	25081	PASS
175	174	5	9	7.9	1979	PASS
176	174	95	101	98.0	24589	PASS
177	176	5	9	6.9	1695	PASS

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX030425\
Data File : VX045118.D
Acq On : 04 Mar 2025 08:18
Operator : JC/MD
Sample : BFB
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
BFB

Integration File: RTEINT3.P

Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\624X022125W.M
Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
Last Update : Sat Feb 22 01:06:36 2025



AutoFind: Scans 1638, 1639, 1640; Background Corrected with Scan 1632

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.6	6528	PASS
75	95	30	60	52.8	15952	PASS
95	95	100	100	100.0	30184	PASS
96	95	5	9	6.9	2081	PASS
173	174	0.00	2	1.2	279	PASS
174	95	50	100	77.4	23352	PASS
175	174	5	9	7.1	1667	PASS
176	174	95	101	96.7	22581	PASS
177	176	5	9	6.9	1554	PASS

Report of Analysis

Client:	Ardmore Chemical		Date Collected:		
Project:	PVSC Monthly 2025		Date Received:		
Client Sample ID:	VX0304WBL01		SDG No.:	Q1456	
Lab Sample ID:	VX0304WBL01		Matrix:	Water	
Analytical Method:	E624.1		% Solid:	0	
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOC-PP	
GC Column:	DB-624UI	ID : 0.18	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045122.D	1		03/04/25 10:04	VX030425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
74-87-3	Chloromethane	1.20	U	1.20	5.00	ug/L
75-01-4	Vinyl Chloride	1.20	U	1.20	5.00	ug/L
74-83-9	Bromomethane	1.40	U	1.40	5.00	ug/L
75-00-3	Chloroethane	2.90	U	2.90	5.00	ug/L
75-69-4	Trichlorofluoromethane	1.00	U	1.00	5.00	ug/L
75-35-4	1,1-Dichloroethene	1.10	U	1.10	5.00	ug/L
107-02-8	Acrolein	9.30	U	9.30	25.0	ug/L
107-13-1	Acrylonitrile	3.70	U	3.70	25.0	ug/L
75-09-2	Methylene Chloride	1.20	U	1.20	5.00	ug/L
156-60-5	trans-1,2-Dichloroethene	0.95	U	0.95	5.00	ug/L
75-34-3	1,1-Dichloroethane	0.81	U	0.81	5.00	ug/L
56-23-5	Carbon Tetrachloride	0.91	U	0.91	5.00	ug/L
67-66-3	Chloroform	0.72	U	0.72	5.00	ug/L
71-55-6	1,1,1-Trichloroethane	0.79	U	0.79	5.00	ug/L
71-43-2	Benzene	0.69	U	0.69	5.00	ug/L
107-06-2	1,2-Dichloroethane	0.75	U	0.75	5.00	ug/L
79-01-6	Trichloroethene	0.77	U	0.77	5.00	ug/L
78-87-5	1,2-Dichloropropane	0.65	U	0.65	5.00	ug/L
75-27-4	Bromodichloromethane	0.81	U	0.81	5.00	ug/L
108-88-3	Toluene	0.72	U	0.72	5.00	ug/L
10061-02-6	t-1,3-Dichloropropene	0.79	U	0.79	5.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	0.83	U	0.83	5.00	ug/L
79-00-5	1,1,2-Trichloroethane	0.68	U	0.68	5.00	ug/L
110-75-8	2-Chloroethyl vinyl ether	5.60	U	5.60	25.0	ug/L
124-48-1	Dibromochloromethane	0.72	U	0.72	5.00	ug/L
127-18-4	Tetrachloroethene	0.94	U	0.94	5.00	ug/L
108-90-7	Chlorobenzene	0.67	U	0.67	5.00	ug/L
100-41-4	Ethyl Benzene	0.73	U	0.73	5.00	ug/L
179601-23-1	m/p-Xylenes	1.70	U	1.70	10.0	ug/L
95-47-6	o-Xylene	0.82	U	0.82	5.00	ug/L

Report of Analysis

Client:	Ardmore Chemical		Date Collected:		
Project:	PVSC Monthly 2025		Date Received:		
Client Sample ID:	VX0304WBL01		SDG No.:	Q1456	
Lab Sample ID:	VX0304WBL01		Matrix:	Water	
Analytical Method:	E624.1		% Solid:	0	
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOC-PP	
GC Column:	DB-624UI	ID : 0.18	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045122.D	1		03/04/25 10:04	VX030425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
75-25-2	Bromoform	1.00	U	1.00	5.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	0.60	U	0.60	5.00	ug/L
541-73-1	1,3-Dichlorobenzene	0.88	U	0.88	5.00	ug/L
106-46-7	1,4-Dichlorobenzene	0.95	U	0.95	5.00	ug/L
95-50-1	1,2-Dichlorobenzene	0.88	U	0.88	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	29.9		91 - 110	100%	SPK: 30
2037-26-5	Toluene-d8	30.2		91 - 112	101%	SPK: 30
460-00-4	4-Bromofluorobenzene	27.5		63 - 112	92%	SPK: 30
INTERNAL STANDARDS						
74-97-5	Bromochloromethane	14900	4.897			
540-36-3	1,4-Difluorobenzene	78600	6.757			
3114-55-4	Chlorobenzene-d5	69100	10.049			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX030425\
 Data File : VX045122.D
 Acq On : 04 Mar 2025 10:04
 Operator : JC/MD
 Sample : VX0304WBL01
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 5 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VX0304WBL01

Quant Time: Mar 05 00:46:24 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\624X022125W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Sat Feb 22 01:06:36 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	4.897	128	14872	30.000	ug/l	0.01
28) 1,4-Difluorobenzene	6.757	114	78579	30.000	ug/l	0.00
57) Chlorobenzene-d5	10.049	117	69103	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	5.946	65	43219	29.921	ug/l	0.00
Spiked Amount	30.000	Range	91 - 110	Recovery	=	99.733%
60) 4-Bromofluorobenzene	11.079	95	35500	27.485	ug/l	0.00
Spiked Amount	30.000	Range	63 - 112	Recovery	=	91.600%
63) Toluene-d8	8.647	98	115602	30.239	ug/l	0.00
Spiked Amount	30.000	Range	91 - 112	Recovery	=	100.800%

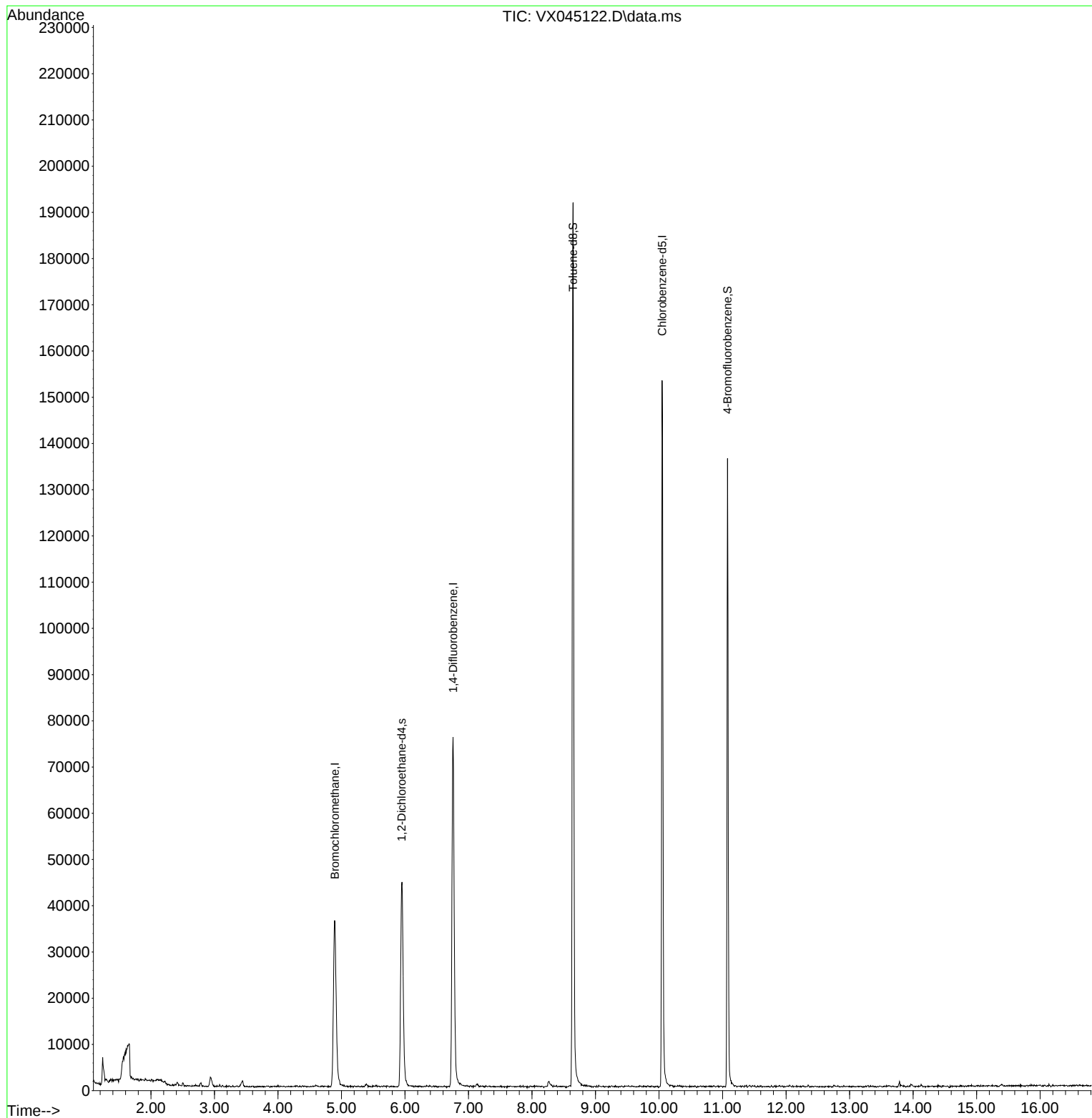
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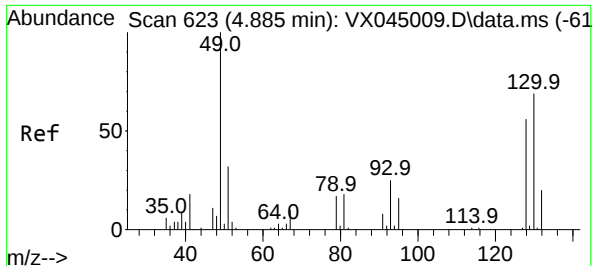
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX030425\
Data File : VX045122.D
Acq On : 04 Mar 2025 10:04
Operator : JC/MD
Sample : VX0304WBL01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX0304WBL01

Quant Time: Mar 05 00:46:24 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\624X022125W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Sat Feb 22 01:06:36 2025
Response via : Initial Calibration

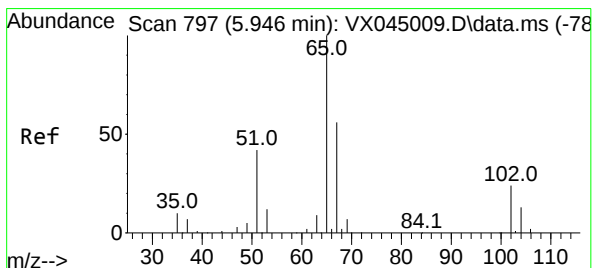
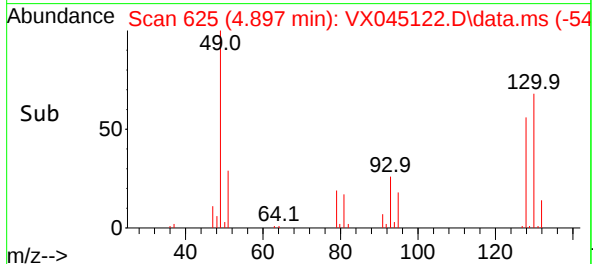
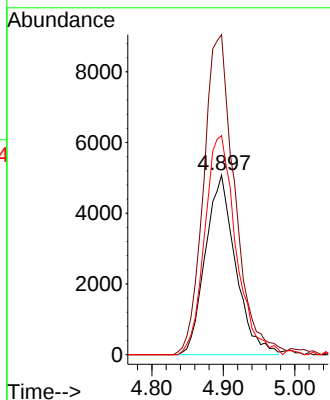
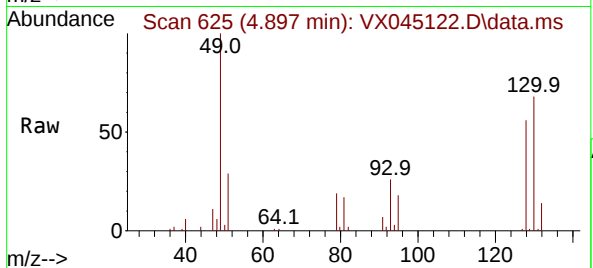




#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 4.897 min Scan# 61
Delta R.T. 0.012 min
Lab File: VX045122.D
Acq: 04 Mar 2025 10:04

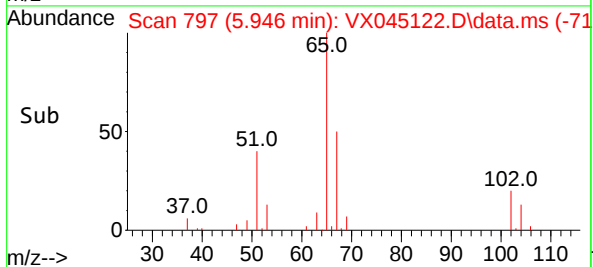
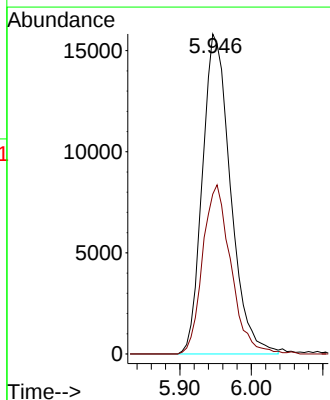
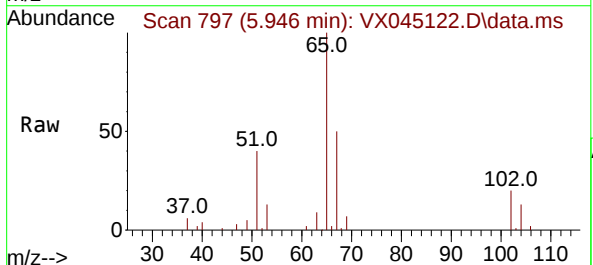
Instrument :
MSVOA_X
ClientSampleId :
VX0304WBL01

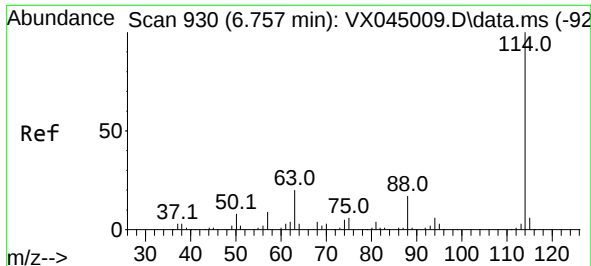
Tgt Ion:128 Resp: 14872
Ion Ratio Lower Upper
128 100
49 183.8 0.0 449.7
130 125.6 0.0 312.7



#27
1,2-Dichloroethane-d4
Concen: 29.921 ug/l
RT: 5.946 min Scan# 797
Delta R.T. -0.000 min
Lab File: VX045122.D
Acq: 04 Mar 2025 10:04

Tgt Ion: 65 Resp: 43219
Ion Ratio Lower Upper
65 100
67 53.1 42.6 64.0

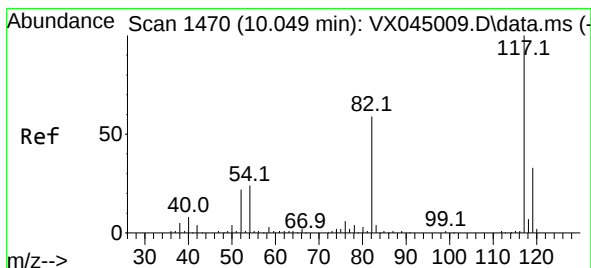
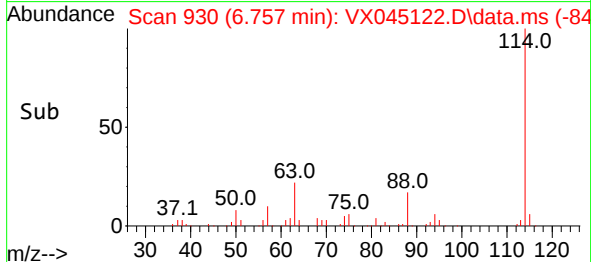
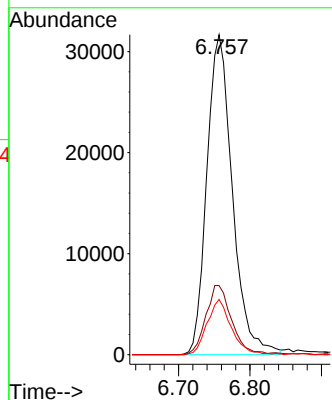
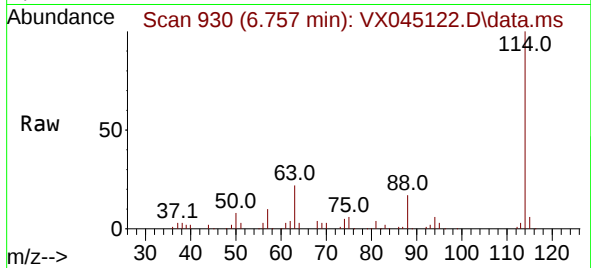




#28
1,4-Difluorobenzene
Concen: 30.000 ug/l
RT: 6.757 min Scan# 91
Delta R.T. -0.000 min
Lab File: VX045122.D
Acq: 04 Mar 2025 10:04

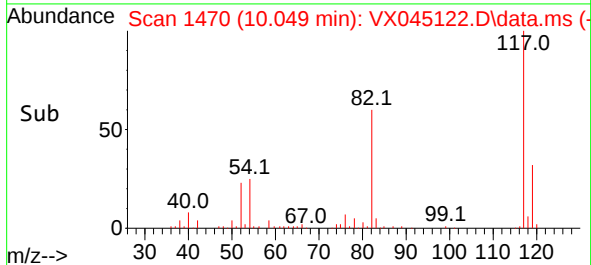
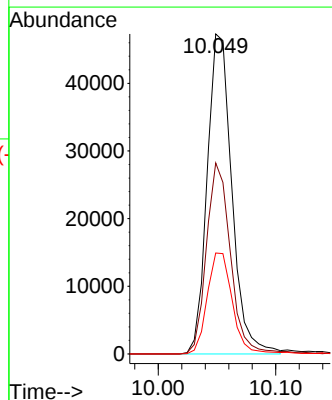
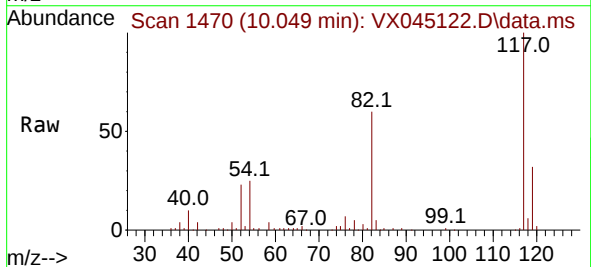
Instrument :
MSVOA_X
ClientSampleId :
VX0304WBL01

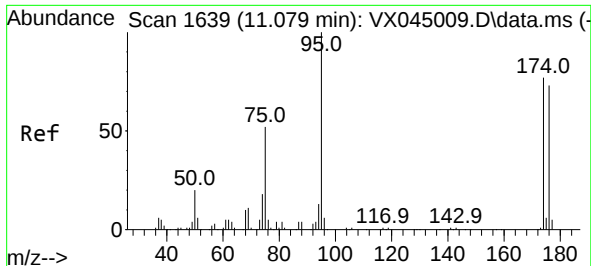
Tgt Ion:114 Resp: 78579
Ion Ratio Lower Upper
114 100
63 21.4 16.8 25.2
88 16.3 12.7 19.1



#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 10.049 min Scan# 1470
Delta R.T. -0.000 min
Lab File: VX045122.D
Acq: 04 Mar 2025 10:04

Tgt Ion:117 Resp: 69103
Ion Ratio Lower Upper
117 100
82 58.3 45.8 68.8
119 32.2 25.5 38.3

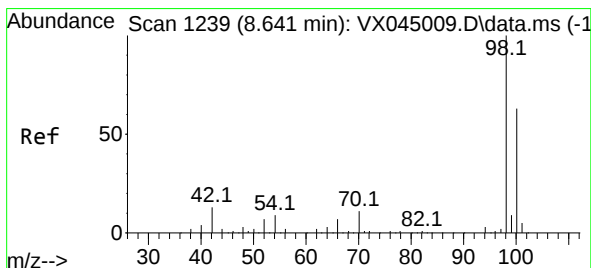
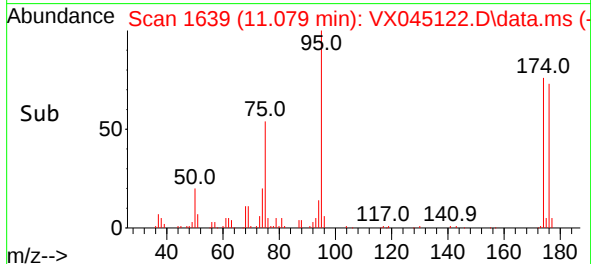
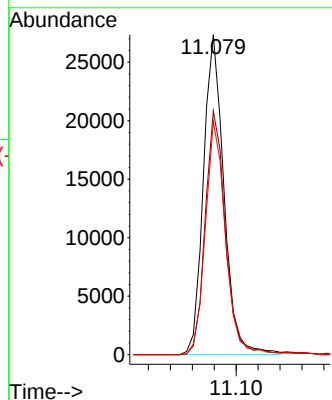
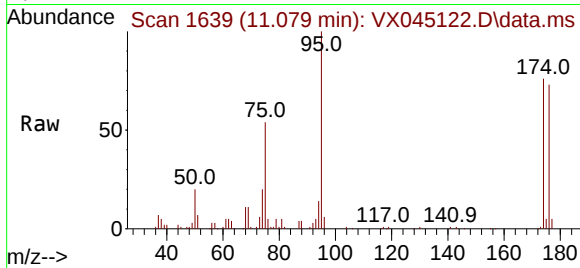




#60
4-Bromofluorobenzene
Concen: 27.485 ug/l
RT: 11.079 min Scan# 111
Delta R.T. -0.000 min
Lab File: VX045122.D
Acq: 04 Mar 2025 10:04

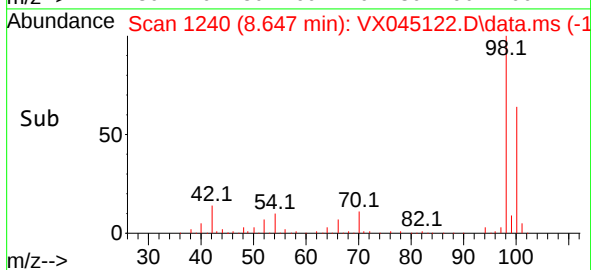
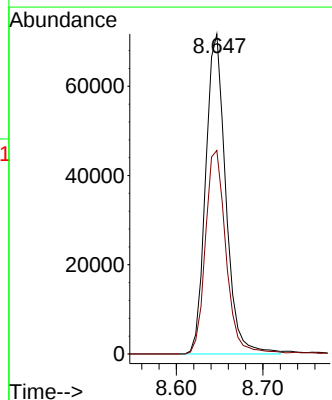
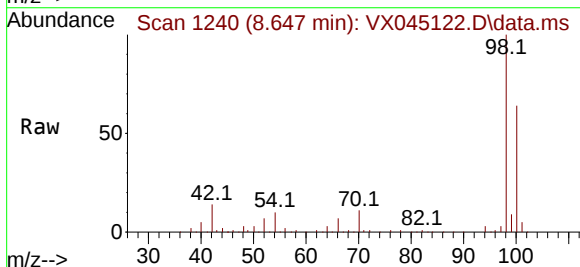
Instrument :
MSVOA_X
ClientSampleId :
VX0304WBL01

Tgt Ion: 95 Resp: 35500
Ion Ratio Lower Upper
95 100
174 74.2 59.5 89.3
176 71.5 55.5 83.3



#63
Toluene-d8
Concen: 30.239 ug/l
RT: 8.647 min Scan# 1240
Delta R.T. 0.006 min
Lab File: VX045122.D
Acq: 04 Mar 2025 10:04

Tgt Ion: 98 Resp: 115602
Ion Ratio Lower Upper
98 100
100 65.2 51.7 77.5



Report of Analysis

Client:	Ardmore Chemical		Date Collected:		
Project:	PVSC Monthly 2025		Date Received:		
Client Sample ID:	VX0304WBS01		SDG No.:	Q1456	
Lab Sample ID:	VX0304WBS01		Matrix:	Water	
Analytical Method:	E624.1		% Solid:	0	
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOC-PP	
GC Column:	DB-624UI	ID : 0.18	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045120.D	1		03/04/25 09:15	VX030425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
74-87-3	Chloromethane	19.3		1.20	5.00	ug/L
75-01-4	Vinyl Chloride	19.1		1.20	5.00	ug/L
74-83-9	Bromomethane	22.2		1.40	5.00	ug/L
75-00-3	Chloroethane	18.2		2.90	5.00	ug/L
75-69-4	Trichlorofluoromethane	19.9		1.00	5.00	ug/L
75-35-4	1,1-Dichloroethene	19.9		1.10	5.00	ug/L
107-02-8	Acrolein	96.2		9.30	25.0	ug/L
107-13-1	Acrylonitrile	98.7		3.70	25.0	ug/L
75-09-2	Methylene Chloride	20.0		1.20	5.00	ug/L
156-60-5	trans-1,2-Dichloroethene	19.6		0.95	5.00	ug/L
75-34-3	1,1-Dichloroethane	19.5		0.81	5.00	ug/L
56-23-5	Carbon Tetrachloride	21.1		0.91	5.00	ug/L
67-66-3	Chloroform	20.4		0.72	5.00	ug/L
71-55-6	1,1,1-Trichloroethane	21.3		0.79	5.00	ug/L
71-43-2	Benzene	21.7		0.69	5.00	ug/L
107-06-2	1,2-Dichloroethane	22.1		0.75	5.00	ug/L
79-01-6	Trichloroethene	21.9		0.77	5.00	ug/L
78-87-5	1,2-Dichloropropane	20.5		0.65	5.00	ug/L
75-27-4	Bromodichloromethane	21.9		0.81	5.00	ug/L
108-88-3	Toluene	21.2		0.72	5.00	ug/L
10061-02-6	t-1,3-Dichloropropene	19.9		0.79	5.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	20.4		0.83	5.00	ug/L
79-00-5	1,1,2-Trichloroethane	22.1		0.68	5.00	ug/L
110-75-8	2-Chloroethyl vinyl ether	100		5.60	25.0	ug/L
124-48-1	Dibromochloromethane	21.7		0.72	5.00	ug/L
127-18-4	Tetrachloroethene	22.1		0.94	5.00	ug/L
108-90-7	Chlorobenzene	21.2		0.67	5.00	ug/L
100-41-4	Ethyl Benzene	21.4		0.73	5.00	ug/L
179601-23-1	m/p-Xylenes	43.0		1.70	10.0	ug/L
95-47-6	o-Xylene	21.6		0.82	5.00	ug/L

Report of Analysis

Client:	Ardmore Chemical		Date Collected:		
Project:	PVSC Monthly 2025		Date Received:		
Client Sample ID:	VX0304WBS01		SDG No.:	Q1456	
Lab Sample ID:	VX0304WBS01		Matrix:	Water	
Analytical Method:	E624.1		% Solid:	0	
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOC-PP	
GC Column:	DB-624UI	ID : 0.18	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045120.D	1		03/04/25 09:15	VX030425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
75-25-2	Bromoform	21.8		1.00	5.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	22.3		0.60	5.00	ug/L
541-73-1	1,3-Dichlorobenzene	21.9		0.88	5.00	ug/L
106-46-7	1,4-Dichlorobenzene	22.2		0.95	5.00	ug/L
95-50-1	1,2-Dichlorobenzene	22.6		0.88	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	28.7		91 - 110	96%	SPK: 30
2037-26-5	Toluene-d8	29.6		91 - 112	99%	SPK: 30
460-00-4	4-Bromofluorobenzene	30.1		63 - 112	100%	SPK: 30
INTERNAL STANDARDS						
74-97-5	Bromochloromethane	16800	4.891			
540-36-3	1,4-Difluorobenzene	87000	6.757			
3114-55-4	Chlorobenzene-d5	81700	10.049			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX030425\
 Data File : VX045120.D
 Acq On : 04 Mar 2025 09:15
 Operator : JC/MD
 Sample : VX0304WBS01
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VX0304WBS01

Manual Integrations
 APPROVED

Reviewed By :John
 Carlone

03/05/2025
 Supervised By :Mahesh
 Dadoda

Quant Time: Mar 05 00:44:14 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\624X022125W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Sat Feb 22 01:06:36 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	4.891	128	16840	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	6.757	114	87021	30.000	ug/l	0.00
57) Chlorobenzene-d5	10.049	117	81719	30.000	ug/l	0.00

System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	5.946	65	46987	28.728	ug/l	0.00
Spiked Amount	30.000	Range	91 - 110	Recovery	=	95.767%
60) 4-Bromofluorobenzene	11.079	95	45963	30.091	ug/l	0.00
Spiked Amount	30.000	Range	63 - 112	Recovery	=	100.300%
63) Toluene-d8	8.641	98	133785	29.593	ug/l	0.00
Spiked Amount	30.000	Range	91 - 112	Recovery	=	98.633%

Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.166	85	28194	19.861	ug/l	93
3) Chloromethane	1.301	50	32818	19.301	ug/l	100
4) Vinyl Chloride	1.374	62	31259	19.052	ug/l	100
5) Bromomethane	1.593	94	12697	22.232	ug/l	99
6) Chloroethane	1.660	64	16152	18.177	ug/l	96
7) Trichlorofluoromethane	1.874	101	43849	19.885	ug/l	95
8) Diethyl Ether	2.130	74	15671	18.783	ug/l	96
9) 1,1,2-Trichlorotrifluo...	2.319	101	27080	20.677	ug/l	97
10) 1,1-Dichloroethene	2.306	96	25437	19.885	ug/l	92
11) Methyl Iodide	2.447	142	29489	20.367	ug/l	93
12) Methyl Acetate	2.703	43	35526	23.915	ug/l	94
13) Acrolein	2.233	56	28645	96.202	ug/l	99
14) Acrylonitrile	3.062	53	71617	98.700	ug/l	97
15) Acetone	2.380	58	25061	125.933	ug/l	95
16) Carbon Disulfide	2.502	76	62027	17.094	ug/l	100
17) Allyl chloride	2.654	41	46642	19.494	ug/l	98
18) Methylene Chloride	2.782	84	28840	20.044	ug/l	99
19) trans-1,2-Dichloroethene	3.081	96	25378	19.608	ug/l	94
20) Diisopropyl ether	3.751	45	90342	19.649	ug/l	98
21) 1,1-Dichloroethane	3.599	63	49922	19.523	ug/l	97
22) cis-1,2-Dichloroethene	4.477	96	30939	19.949	ug/l	98
23) tert-Butyl Alcohol	2.983	59	23444	92.550	ug/l #	100
24) Methyl tert-Butyl Ether	3.111	73	82095	19.662	ug/l	100
25) Chloroform	5.080	83	50269	20.353	ug/l	97
26) Cyclohexane	5.458	56	46641	19.761	ug/l #	97
29) 1,1-Dichloropropene	5.684	75	34149	21.333	ug/l	98
30) 2-Butanone	4.550	43	109233	118.141	ug/l	99
31) 2,2-Dichloropropane	4.465	77	36153	19.973	ug/l	98
32) 1,1,1-Trichloroethane	5.367	97	41355	21.322	ug/l	99
33) Carbon Tetrachloride	5.666	117	34535	21.098	ug/l	97
34) Benzene	6.025	78	108700	21.654	ug/l	97
35) Methacrylonitrile	4.910	41	21038	21.263	ug/l	96
36) 1,2-Dichloroethane	6.080	62	38024	22.124	ug/l	97
37) Trichloroethene	7.123	130	25703	21.886	ug/l	97
38) Methylcyclohexane	7.373	83	45903	21.357	ug/l	98
39) 1,2-Dichloropropane	7.421	63	25558	20.479	ug/l	96
40) Dibromomethane	7.574	93	19581	21.864	ug/l	99
41) Bromodichloromethane	7.818	83	39055	21.941	ug/l #	99
42) Vinyl Acetate	3.715	43	369758	103.056	ug/l	99

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX030425\
 Data File : VX045120.D
 Acq On : 04 Mar 2025 09:15
 Operator : JC/MD
 Sample : VX0304WBS01
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VX0304WBS01

Manual Integrations
 APPROVED

Reviewed By :John
 Carlone

03/05/2025
 Supervised By :Mahesh
 Dadoda

Quant Time: Mar 05 00:44:14 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\624X022125W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Sat Feb 22 01:06:36 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	4.708	43	33329	19.222	ug/l	97
44) Isopropyl Acetate	6.336	43	60971	21.365	ug/l	97
45) 1,4-Dioxane	7.665	88	12221	411.945	ug/l	99
46) Methyl methacrylate	7.690	41	30607	21.872	ug/l	97
47) n-amyl Acetate	10.841	43	52067	21.025	ug/l	100
48) t-1,3-Dichloropropene	8.976	75	34150	19.904	ug/l	100
49) cis-1,3-Dichloropropene	8.360	75	39562	20.370	ug/l	99
50) 1,1,2-Trichloroethane	9.147	97	25837	22.117	ug/l	95
51) Ethyl methacrylate	9.116	69	39076	21.269	ug/l	99
52) 1,3-Dichloropropane	9.305	76	44987	21.978	ug/l	100
53) Dibromochloromethane	9.519	129	28007	21.677	ug/l	98
54) 1,2-Dibromoethane	9.604	107	25443	21.449	ug/l	98
55) 2-Chloroethyl vinyl ether	8.238	63	98646	104.557	ug/l	100
56) Bromoform	10.799	173	17639	21.787	ug/l	98
58) 4-Methyl-2-Pentanone	8.568	43	204535	110.028	ug/l	100
59) 2-Hexanone	9.427	43	155319	115.594	ug/l	99
61) Tetrachloroethene	9.269	164	22284	22.145	ug/l	93
62) Toluene	8.714	91	114968	21.238	ug/l	99
64) Chlorobenzene	10.073	112	71268	21.246	ug/l	97
65) 1,1,1,2-Tetrachloroethane	10.159	131	22951	20.735	ug/l	95
66) Ethyl Benzene	10.189	91	127119	21.449	ug/l	97
67) m/p-Xylenes	10.299	106	95054	43.047	ug/l	98
68) o-Xylene	10.640	106	46866	21.632	ug/l	100
69) Styrene	10.652	104	77716	21.477	ug/l	99
70) Isopropylbenzene	10.957	105	123530	22.094	ug/l	99
71) 1,1,2,2-Tetrachloroethane	11.207	83	40941	22.268	ug/l	99
72) 1,2,3-Trichloropropane	11.238	75	32713m	21.633	ug/l	
73) Bromobenzene	11.195	156	28585	22.209	ug/l	97
74) n-propylbenzene	11.299	91	145394	21.853	ug/l	99
75) 2-Chlorotoluene	11.360	91	88262	21.943	ug/l	100
76) 1,3,5-Trimethylbenzene	11.451	105	101205	21.942	ug/l	99
77) t-1,4-Dichloro-2-butene	11.018	75	9177	18.038	ug/l	83
78) 4-Chlorotoluene	11.451	91	98045	21.866	ug/l	99
79) tert-butylbenzene	11.713	119	101809	21.907	ug/l	98
80) 1,2,4-Trimethylbenzene	11.750	105	101544	21.978	ug/l	99
81) sec-Butylbenzene	11.890	105	128963	22.110	ug/l	100
82) p-Isopropyltoluene	12.006	119	106838	22.607	ug/l	98
83) 1,3-Dichlorobenzene	11.963	146	52343	21.857	ug/l	98
84) 1,4-Dichlorobenzene	12.036	146	52499	22.234	ug/l	99
85) n-Butylbenzene	12.329	91	95337	22.091	ug/l	98
86) Hexachloroethane	12.536	117	17625	21.147	ug/l	99
87) 1,2-Dichlorobenzene	12.335	146	53198	22.640	ug/l	99
88) 1,2-Dibromo-3-Chloropr...	12.939	75	7246	20.356	ug/l	99
89) 1,2,4-Trichlorobenzene	13.585	180	31240	21.937	ug/l	97
90) Hexachlorobutadiene	13.725	225	13588	23.397	ug/l	99
91) Naphthalene	13.774	128	107375	21.383	ug/l	100
92) 1,2,3-Trichlorobenzene	13.963	180	32328	22.050	ug/l	99

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

Report of Analysis

Client:	Ardmore Chemical		Date Collected:		
Project:	PVSC Monthly 2025		Date Received:		
Client Sample ID:	VX0304WBSD01		SDG No.:	Q1456	
Lab Sample ID:	VX0304WBSD01		Matrix:	Water	
Analytical Method:	E624.1		% Solid:	0	
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOC-PP	
GC Column:	DB-624UI	ID : 0.18	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045121.D	1		03/04/25 09:41	VX030425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
74-87-3	Chloromethane	18.3		1.20	5.00	ug/L
75-01-4	Vinyl Chloride	18.1		1.20	5.00	ug/L
74-83-9	Bromomethane	20.3		1.40	5.00	ug/L
75-00-3	Chloroethane	14.9		2.90	5.00	ug/L
75-69-4	Trichlorofluoromethane	19.1		1.00	5.00	ug/L
75-35-4	1,1-Dichloroethene	18.6		1.10	5.00	ug/L
107-02-8	Acrolein	110		9.30	25.0	ug/L
107-13-1	Acrylonitrile	100		3.70	25.0	ug/L
75-09-2	Methylene Chloride	19.2		1.20	5.00	ug/L
156-60-5	trans-1,2-Dichloroethene	19.3		0.95	5.00	ug/L
75-34-3	1,1-Dichloroethane	19.2		0.81	5.00	ug/L
56-23-5	Carbon Tetrachloride	19.4		0.91	5.00	ug/L
67-66-3	Chloroform	20.2		0.72	5.00	ug/L
71-55-6	1,1,1-Trichloroethane	19.3		0.79	5.00	ug/L
71-43-2	Benzene	19.6		0.69	5.00	ug/L
107-06-2	1,2-Dichloroethane	20.3		0.75	5.00	ug/L
79-01-6	Trichloroethene	19.2		0.77	5.00	ug/L
78-87-5	1,2-Dichloropropane	19.6		0.65	5.00	ug/L
75-27-4	Bromodichloromethane	19.9		0.81	5.00	ug/L
108-88-3	Toluene	19.6		0.72	5.00	ug/L
10061-02-6	t-1,3-Dichloropropene	17.4		0.79	5.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	18.9		0.83	5.00	ug/L
79-00-5	1,1,2-Trichloroethane	20.9		0.68	5.00	ug/L
110-75-8	2-Chloroethyl vinyl ether	99.1		5.60	25.0	ug/L
124-48-1	Dibromochloromethane	20.0		0.72	5.00	ug/L
127-18-4	Tetrachloroethene	20.4		0.94	5.00	ug/L
108-90-7	Chlorobenzene	20.1		0.67	5.00	ug/L
100-41-4	Ethyl Benzene	20.0		0.73	5.00	ug/L
179601-23-1	m/p-Xylenes	40.2		1.70	10.0	ug/L
95-47-6	o-Xylene	19.7		0.82	5.00	ug/L

Report of Analysis

Client:	Ardmore Chemical		Date Collected:		
Project:	PVSC Monthly 2025		Date Received:		
Client Sample ID:	VX0304WBSD01		SDG No.:	Q1456	
Lab Sample ID:	VX0304WBSD01		Matrix:	Water	
Analytical Method:	E624.1		% Solid:	0	
Sample Wt/Vol:	5	Units: mL	Final Vol:	5000	uL
Soil Aliquot Vol:		uL	Test:	VOC-PP	
GC Column:	DB-624UI	ID : 0.18	Level :	LOW	
Prep Method :					

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX045121.D	1		03/04/25 09:41	VX030425

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
75-25-2	Bromoform	19.7		1.00	5.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	20.7		0.60	5.00	ug/L
541-73-1	1,3-Dichlorobenzene	20.0		0.88	5.00	ug/L
106-46-7	1,4-Dichlorobenzene	19.9		0.95	5.00	ug/L
95-50-1	1,2-Dichlorobenzene	20.4		0.88	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	31.5		91 - 110	105%	SPK: 30
2037-26-5	Toluene-d8	30.3		91 - 112	101%	SPK: 30
460-00-4	4-Bromofluorobenzene	30.3		63 - 112	101%	SPK: 30
INTERNAL STANDARDS						
74-97-5	Bromochloromethane	14800	4.885			
540-36-3	1,4-Difluorobenzene	81300	6.75			
3114-55-4	Chlorobenzene-d5	75400	10.049			

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

() = Laboratory InHouse Limit

A = Aldol-Condensation Reaction Products

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX030425\
 Data File : VX045121.D
 Acq On : 04 Mar 2025 09:41
 Operator : JC/MD
 Sample : VX0304WBSD01
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 4 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VX0304WBSD01

Manual Integrations
 APPROVED

Reviewed By : John Carlone 03/05/2025
 Supervised By : Mahesh Dadoda 03/05/2025

Quant Time: Mar 05 00:45:20 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\624X022125W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Sat Feb 22 01:06:36 2025
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	4.885	128	14793	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	6.750	114	81282	30.000	ug/l	0.00
57) Chlorobenzene-d5	10.049	117	75372	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	5.946	65	45282	31.516	ug/l	0.00
Spiked Amount 30.000	Range 91 - 110		Recovery = 105.067%			
60) 4-Bromofluorobenzene	11.079	95	42756	30.349	ug/l	0.00
Spiked Amount 30.000	Range 63 - 112		Recovery = 101.167%			
63) Toluene-d8	8.646	98	126508	30.340	ug/l	0.00
Spiked Amount 30.000	Range 91 - 112		Recovery = 101.133%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.166	85	23135	18.552	ug/l	99
3) Chloromethane	1.300	50	27375	18.328	ug/l	96
4) Vinyl Chloride	1.373	62	26022	18.055	ug/l	97
5) Bromomethane	1.593	94	10203	20.338	ug/l	93
6) Chloroethane	1.660	64	11600	14.860	ug/l	99
7) Trichlorofluoromethane	1.867	101	36943	19.072	ug/l	97
8) Diethyl Ether	2.129	74	13792	18.818	ug/l	98
9) 1,1,2-Trichlorotrifluo...	2.318	101	22143	19.247	ug/l	99
10) 1,1-Dichloroethene	2.306	96	20916	18.613	ug/l	90
11) Methyl Iodide	2.446	142	24115	18.960	ug/l	99
12) Methyl Acetate	2.702	43	31397	24.060	ug/l	99
13) Acrolein	2.233	56	29726	113.647	ug/l	100
14) Acrylonitrile	3.062	53	66711	104.660	ug/l	100
15) Acetone	2.385	58	18353	104.986	ug/l	93
16) Carbon Disulfide	2.501	76	52749	16.549	ug/l	99
17) Allyl chloride	2.654	41	38967	18.540	ug/l	97
18) Methylene Chloride	2.782	84	24261	19.194	ug/l	96
19) trans-1,2-Dichloroethene	3.080	96	21909	19.270	ug/l	97
20) Diisopropyl ether	3.757	45	78443	19.421	ug/l	88
21) 1,1-Dichloroethane	3.599	63	43232	19.246	ug/l	98
22) cis-1,2-Dichloroethene	4.476	96	26340	19.334	ug/l	98
23) tert-Butyl Alcohol	2.989	59	21294	95.695	ug/l #	100
24) Methyl tert-Butyl Ether	3.111	73	71829	19.584	ug/l	99
25) Chloroform	5.086	83	43931	20.248	ug/l	98
26) Cyclohexane	5.458	56	39361	18.984	ug/l #	97
29) 1,1-Dichloropropene	5.684	75	28809	19.268	ug/l	98
30) 2-Butanone	4.556	43	91465	105.909	ug/l #	96
31) 2,2-Dichloropropane	4.464	77	30717	18.168	ug/l	98
32) 1,1,1-Trichloroethane	5.373	97	34958	19.296	ug/l	100
33) Carbon Tetrachloride	5.665	117	29590	19.354	ug/l	98
34) Benzene	6.031	78	91887	19.597	ug/l	99
35) Methacrylonitrile	4.915	41	19577	21.184	ug/l	95
36) 1,2-Dichloroethane	6.080	62	32643	20.334	ug/l	96
37) Trichloroethene	7.116	130	21105	19.240	ug/l	98
38) Methylcyclohexane	7.372	83	39303	19.577	ug/l	96
39) 1,2-Dichloropropane	7.421	63	22893	19.638	ug/l	95
40) Dibromomethane	7.580	93	17017	20.343	ug/l	99
41) Bromodichloromethane	7.817	83	33097	19.907	ug/l	98
42) Vinyl Acetate	3.714	43	321395	95.901	ug/l	100

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX030425\
 Data File : VX045121.D
 Acq On : 04 Mar 2025 09:41
 Operator : JC/MD
 Sample : VX0304WBSD01
 Misc : 5.0mL/MSVOA_X/WATER
 ALS Vial : 4 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 VX0304WBSD01

Manual Integrations
 APPROVED

Reviewed By : John Carlone 03/05/2025
 Supervised By : Mahesh Dadoda 03/05/2025

Quant Time: Mar 05 00:45:20 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_X\Method\624X022125W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Sat Feb 22 01:06:36 2025
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Ethyl Acetate	4.708	43	33662	20.784	ug/l	96
44) Isopropyl Acetate	6.336	43	53144	19.937	ug/l	99
45) 1,4-Dioxane	7.665	88	10607	382.785	ug/l	99
46) Methyl methacrylate	7.689	41	26248	20.082	ug/l	96
47) n-amyl Acetate	10.841	43	44640	19.299	ug/l	99
48) t-1,3-Dichloropropene	8.976	75	27918	17.421	ug/l	97
49) cis-1,3-Dichloropropene	8.360	75	34372	18.947	ug/l	98
50) 1,1,2-Trichloroethane	9.146	97	22822	20.916	ug/l	93
51) Ethyl methacrylate	9.116	69	34226	19.944	ug/l	97
52) 1,3-Dichloropropane	9.305	76	40040	20.943	ug/l	99
53) Dibromochloromethane	9.518	129	24103	19.973	ug/l	97
54) 1,2-Dibromoethane	9.604	107	22588	20.386	ug/l	100
55) 2-Chloroethyl vinyl ether	8.238	63	87367	99.140	ug/l	99
56) Bromoform	10.798	173	14863	19.655	ug/l	98
58) 4-Methyl-2-Pentanone	8.567	43	180161	105.077	ug/l	99
59) 2-Hexanone	9.427	43	128928	104.033	ug/l	100
61) Tetrachloroethene	9.268	164	18962	20.430	ug/l	91
62) Toluene	8.713	91	97931	19.614	ug/l	99
64) Chlorobenzene	10.079	112	62259	20.123	ug/l	98
65) 1,1,1,2-Tetrachloroethane	10.158	131	20125	19.713	ug/l	100
66) Ethyl Benzene	10.189	91	109202	19.977	ug/l	98
67) m/p-Xylenes	10.299	106	81797	40.163	ug/l	98
68) o-Xylene	10.640	106	39373	19.703	ug/l	97
69) Styrene	10.652	104	65299	19.565	ug/l	99
70) Isopropylbenzene	10.957	105	103917	20.152	ug/l	99
71) 1,1,2,2-Tetrachloroethane	11.207	83	35084	20.690	ug/l	99
72) 1,2,3-Trichloropropane	11.237	75	28396m	20.360	ug/l	
73) Bromobenzene	11.195	156	23357	19.675	ug/l	98
74) n-propylbenzene	11.298	91	121450	19.791	ug/l	99
75) 2-Chlorotoluene	11.359	91	74341	20.038	ug/l	99
76) 1,3,5-Trimethylbenzene	11.451	105	86900	20.427	ug/l	100
77) t-1,4-Dichloro-2-butene	11.018	75	8258	17.598	ug/l	86
78) 4-Chlorotoluene	11.451	91	81904	19.805	ug/l	100
79) tert-butylbenzene	11.713	119	85314	19.903	ug/l	99
80) 1,2,4-Trimethylbenzene	11.750	105	85632	20.094	ug/l	99
81) sec-Butylbenzene	11.890	105	108219	20.116	ug/l	100
82) p-Isopropyltoluene	12.006	119	86823	19.919	ug/l	99
83) 1,3-Dichlorobenzene	11.969	146	44125	19.977	ug/l	99
84) 1,4-Dichlorobenzene	12.042	146	43416	19.936	ug/l	99
85) n-Butylbenzene	12.329	91	76316	19.173	ug/l	99
86) Hexachloroethane	12.536	117	13823	17.982	ug/l	97
87) 1,2-Dichlorobenzene	12.335	146	44295	20.439	ug/l	99
88) 1,2-Dibromo-3-Chloropr...	12.938	75	6742	20.535	ug/l	95
89) 1,2,4-Trichlorobenzene	13.585	180	26174	19.927	ug/l	98
90) Hexachlorobutadiene	13.725	225	10685	19.947	ug/l	95
91) Naphthalene	13.774	128	93464	20.180	ug/l	99
92) 1,2,3-Trichlorobenzene	13.956	180	26390	19.515	ug/l	98

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

Manual Integration Report

Sequence:	VX022125	Instrument	MSVOA_x
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Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICC005	VX045008.D	1,2,3-Trichloropropane	JOHN	2/24/2025 9:45:07 AM	MMDadoda	2/24/2025 1:32:23 PM	Peak Integrated by Software
VSTDICC005	VX045008.D	Methacrylonitrile	JOHN	2/24/2025 9:45:07 AM	MMDadoda	2/24/2025 1:32:23 PM	Peak Integrated by Software
VSTDICC005	VX045008.D	tert-Butyl Alcohol	JOHN	2/24/2025 9:45:07 AM	MMDadoda	2/24/2025 1:32:23 PM	Peak Integrated by Software
VSTDICCC020	VX045009.D	1,2,3-Trichloropropane	JOHN	2/24/2025 9:45:15 AM	MMDadoda	2/24/2025 1:32:25 PM	Peak Integrated by Software
VSTDICC050	VX045010.D	1,2,3-Trichloropropane	JOHN	2/24/2025 9:45:26 AM	MMDadoda	2/24/2025 1:32:38 PM	Peak Integrated by Software
VSTDICC100	VX045011.D	1,2,3-Trichloropropane	JOHN	2/24/2025 9:45:31 AM	MMDadoda	2/24/2025 1:32:41 PM	Peak Integrated by Software
VSTDICC150	VX045012.D	1,2,3-Trichloropropane	JOHN	2/24/2025 9:45:36 AM	MMDadoda	2/24/2025 1:32:41 PM	Peak Integrated by Software
VSTDICC150	VX045012.D	tert-Butyl Alcohol	JOHN	2/24/2025 9:45:36 AM	MMDadoda	2/24/2025 1:32:41 PM	Peak Integrated by Software
VSTDICV020	VX045014.D	1,2,3-Trichloropropane	JOHN	2/24/2025 9:45:41 AM	MMDadoda	2/24/2025 1:32:43 PM	Peak Integrated by Software
VSTDCCC020	VX045020.D	1,2,3-Trichloropropane	JOHN	2/24/2025 9:46:10 AM	MMDadoda	2/24/2025 1:32:55 PM	Peak Integrated by Software

Manual Integration Report

Sequence:

VX030425

Instrument

MSVOA_x

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDCCC020	VX045119.D	1,2,3-Trichloropropane	JOHN	3/5/2025 8:22:49 AM	MMDadoda	3/5/2025 9:28:52 AM	Peak Integrated by Software
VX0304WBS01	VX045120.D	1,2,3-Trichloropropane	JOHN	3/5/2025 8:22:54 AM	MMDadoda	3/5/2025 9:28:56 AM	Peak Integrated by Software
VX0304WBSD01	VX045121.D	1,2,3-Trichloropropane	JOHN	3/5/2025 8:22:58 AM	MMDadoda	3/5/2025 9:29:06 AM	Peak Integrated by Software
Q1456-01	VX045123.D	Diisopropyl ether	JOHN	3/5/2025 8:23:03 AM	MMDadoda	3/5/2025 9:29:10 AM	Peak Integrated by Software
VSTDCCC020	VX045125.D	1,2,3-Trichloropropane	JOHN	3/5/2025 8:23:07 AM	MMDadoda	3/5/2025 9:29:13 AM	Peak Integrated by Software

Instrument ID: **MSVOA_X**

Daily Analysis Runlog For Sequence/QC Batch ID # VX022125

Review By	John Carlone	Review On	2/24/2025 9:46:31 AM
Supervise By	Maresh Dadoda	Supervise On	2/24/2025 1:33:06 PM
SubDirectory	VX022125	HP Acquire Method	HP Processing Method 624X022125W.M
STD. NAME	STD REF.#		
Tune/Reschk	VP133095		
Initial Calibration Stds	VP133103,VP133104,VP133105,VP133106,VP133107		
CCC	VP133096,VP133109,VP133110		
Internal Standard/PEM			
ICV/I.BLK	VP133108		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VX045007.D	21 Feb 2025 09:31	JC/MD	Ok
2	VSTDIC005	VX045008.D	21 Feb 2025 09:58	JC/MD	Ok,M
3	VSTDICCC020	VX045009.D	21 Feb 2025 10:21	JC/MD	Ok,M
4	VSTDIC050	VX045010.D	21 Feb 2025 10:44	JC/MD	Ok,M
5	VSTDIC100	VX045011.D	21 Feb 2025 11:07	JC/MD	Ok,M
6	VSTDIC150	VX045012.D	21 Feb 2025 11:29	JC/MD	Ok,M
7	IBLK	VX045013.D	21 Feb 2025 11:52	JC/MD	Ok
8	VSTDICV020	VX045014.D	21 Feb 2025 13:09	JC/MD	Ok,M
9	VX0221WBS01	VX045015.D	21 Feb 2025 13:41	JC/MD	Ok,M
10	VX0221WBSD01	VX045016.D	21 Feb 2025 14:03	JC/MD	Ok,M
11	VX0221WBL01	VX045017.D	21 Feb 2025 14:39	JC/MD	Ok
12	Q1168-07 2.5PPB	VX045018.D	21 Feb 2025 15:12	JC/MD	Ok,M
13	Q1168-08 5.0PPB	VX045019.D	21 Feb 2025 15:38	JC/MD	Ok,M
14	VSTDCCC020	VX045020.D	21 Feb 2025 16:05	JC/MD	Ok,M

M : Manual Integration

Instrument ID: **MSVOA_X**

Daily Analysis Runlog For Sequence/QC Batch ID # VX030425

Review By	John Carlone	Review On	3/5/2025 8:23:36 AM
Supervise By	Maresh Dadoda	Supervise On	3/5/2025 12:17:07 PM
SubDirectory	VX030425	HP Acquire Method	HP Processing Method 624X022125W.M
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	VP133204		
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	VP133205,VP133206		

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VX045118.D	04 Mar 2025 08:18	JC/MD	Ok
2	VSTDCCC020	VX045119.D	04 Mar 2025 08:46	JC/MD	Ok,M
3	VX0304WBS01	VX045120.D	04 Mar 2025 09:15	JC/MD	Ok,M
4	VX0304WBSD01	VX045121.D	04 Mar 2025 09:41	JC/MD	Ok,M
5	VX0304WBL01	VX045122.D	04 Mar 2025 10:04	JC/MD	Ok
6	Q1456-01	VX045123.D	04 Mar 2025 10:31	JC/MD	Ok,M
7	IBLK	VX045124.D	04 Mar 2025 10:53	JC/MD	Ok
8	VSTDCCC020	VX045125.D	04 Mar 2025 15:31	JC/MD	Ok,M

M : Manual Integration

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QC Batch ID # VX022125

Review By	John Carlone	Review On	2/24/2025 9:46:31 AM
Supervise By	Maresh Dadoda	Supervise On	2/24/2025 1:33:06 PM
SubDirectory	VX022125	HP Acquire Method	HP Processing Method 624X022125W.M
STD. NAME	STD REF.#		
Tune/Reschk	VP133095		
Initial Calibration Stds	VP133103,VP133104,VP133105,VP133106,VP133107		
CCC	VP133096,VP133109,VP133110		
Internal Standard/PEM			
ICV/I.BLK	VP133108		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

Sr#	Sampled	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VX045007.D	21 Feb 2025 09:31		JC/MD	Ok
2	VSTDIC005	VSTDIC005	VX045008.D	21 Feb 2025 09:58		JC/MD	Ok,M
3	VSTDICCC020	VSTDICCC020	VX045009.D	21 Feb 2025 10:21		JC/MD	Ok,M
4	VSTDIC050	VSTDIC050	VX045010.D	21 Feb 2025 10:44		JC/MD	Ok,M
5	VSTDIC100	VSTDIC100	VX045011.D	21 Feb 2025 11:07		JC/MD	Ok,M
6	VSTDIC150	VSTDIC150	VX045012.D	21 Feb 2025 11:29		JC/MD	Ok,M
7	IBLK	IBLK	VX045013.D	21 Feb 2025 11:52		JC/MD	Ok
8	VSTDICV020	ICVVX022125	VX045014.D	21 Feb 2025 13:09		JC/MD	Ok,M
9	VX0221WBS01	VX0221WBS01	VX045015.D	21 Feb 2025 13:41		JC/MD	Ok,M
10	VX0221WBSD01	VX0221WBSD01	VX045016.D	21 Feb 2025 14:03		JC/MD	Ok,M
11	VX0221WBL01	VX0221WBL01	VX045017.D	21 Feb 2025 14:39		JC/MD	Ok
12	Q1168-07 2.5PPB	LOD-MDL-WATER-01-0	VX045018.D	21 Feb 2025 15:12		JC/MD	Ok,M
13	Q1168-08 5.0PPB	LOQ-WATER-02-QT1-2	VX045019.D	21 Feb 2025 15:38		JC/MD	Ok,M
14	VSTDCCC020	VSTDCCC020EC	VX045020.D	21 Feb 2025 16:05		JC/MD	Ok,M

M : Manual Integration

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QC Batch ID # VX030425

Review By	John Carlone	Review On	3/5/2025 8:23:36 AM
Supervise By	Maresh Dadoda	Supervise On	3/5/2025 12:17:07 PM
SubDirectory	VX030425	HP Acquire Method	HP Processing Method 624X022125W.M
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	VP133204		
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	VP133205,VP133206		

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VX045118.D	04 Mar 2025 08:18		JC/MD	Ok
2	VSTDCCC020	VSTDCCC020	VX045119.D	04 Mar 2025 08:46	pH#Lot#V12668	JC/MD	Ok,M
3	VX0304WBS01	VX0304WBS01	VX045120.D	04 Mar 2025 09:15		JC/MD	Ok,M
4	VX0304WBSD01	VX0304WBSD01	VX045121.D	04 Mar 2025 09:41		JC/MD	Ok,M
5	VX0304WBL01	VX0304WBL01	VX045122.D	04 Mar 2025 10:04		JC/MD	Ok
6	Q1456-01	EFF-WASTE WATER	VX045123.D	04 Mar 2025 10:31	vial A pH<2	JC/MD	Ok,M
7	IBLK	IBLK	VX045124.D	04 Mar 2025 10:53		JC/MD	Ok
8	VSTDCCC020	VSTDCCC020EC	VX045125.D	04 Mar 2025 15:31		JC/MD	Ok,M

M : Manual Integration



SHIPPING DOCUMENTS

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: Ardmore

ADDRESS: 29 Riverside Ave Bldg #19

CITY Newark STATE: NJ ZIP: 07104

ATTENTION: Michael Sharpshaw

PHONE: 973 481-2400 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: PVSC Monthly 2025

PROJECT NO.: LOCATION:

PROJECT MANAGER:

e-mail:

PHONE:

FAX:

CLIENT BILLING INFORMATION

BILL TO:

PO#:

ADDRESS:

CITY

STATE:

ZIP:

ATTENTION:

PHONE:

ANALYSIS

DATA TURNAROUND INFORMATION

FAX (RUSH) 3-DAY DAYS*

HARDCOPY (DATA PACKAGE): STANDARD DAYS*

EDD: DAYS*

*TO BE APPROVED BY CHEMTECH

STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

- ☐ Level 1 (Results Only) ☐ Level 4 (QC + Full Raw Data)
☐ Level 2 (Results + QC) ☐ NJ Reduced ☐ US EPA CLP
☐ Level 3 (Results + QC) ☐ NYS ASP A ☐ NYS ASP B
 + Raw Data ☐ Other _____
☐ EDD FORMAT _____

 VOA
 CN
 SVOA
 BOD/TS
 METAL

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS	
			COMP	GRAB	DATE	TIME		1	2	3	4	5	6	7	8	9		
1.	EFF Waste Water		X		2/21/12	9:15		X	X									
2.	EFF Waste Water		X		2/21/12	9:00				X	X	X						
3.																		
4.																		
5.																		
6.																		
7.																		
8.																		
9.																		
10.																		

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER: 1. <i>MSK</i>	DATE/TIME: 12:15 PM	RECEIVED BY: 1. <i>Albert Sharpshaw</i>	Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP: 2.1 °C
RELINQUISHED BY SAMPLER: 2. <i>Albert Sharpshaw</i>	DATE/TIME: 12:31 12:35	RECEIVED BY: 2. <i>OR</i>	Comments: METALS LEAD ZINC
RELINQUISHED BY SAMPLER: 3.	DATE/TIME:	RECEIVED BY: 3.	Page ____ of ____ CLIENT: ☐ Hand Delivered ☐ Other _____ CHEMTECH: ☐ Picked Up ☐ Field Sampling Shipment Complete ☐ YES ☐ NO



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

Laboratory Certification

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q1456 ARDM01

Order Date : 2/27/2025 12:51:00 PM

Project Mgr :

Client Name : Ardmore Chemical

Project Name : PVSC Monthly 2025

Report Type : Level 1

Client Contact : Michael Sharpouse

Receive DateTime : 2/27/2025 12:00:00 AM

EDD Type : NONE

Invoice Name : Ardmore Chemical

Purchase Order :

Hard Copy Date :

Invoice Contact : Michael Sharpouse

Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q1456-01	EFF-WASTE WATER	Water	02/27/2025	00:00 09:15	VOC-PP		624.1		3 Bus. Days

Relinquished By :

Date / Time : 2-27-25 1340

Received By :

Date / Time :

Storage Area : VOA Refridgerator Room